



## Full wwPDB EM Validation Report ⓘ

May 12, 2024 – 02:12 am BST

PDB ID : 6SL5  
EMDB ID : EMD-10236  
Title : Dunaliella Photosystem I Supercomplex  
Authors : Nelson, N.; Caspy, I.; Malavath, T.; Klaiman, D.; Shkolinsky, Y.  
Deposited on : 2019-08-18  
Resolution : 2.84 Å (reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev92  
Mogul : 1.8.4, CSD as541be (2020)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36.2

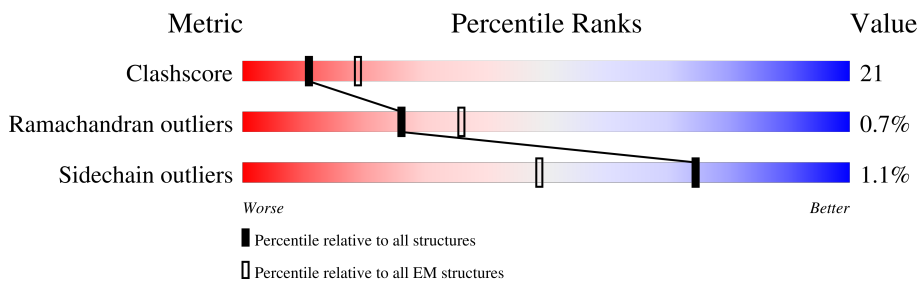
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 2.84 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



| Metric                | Whole archive<br>(#Entries) | EM structures<br>(#Entries) |
|-----------------------|-----------------------------|-----------------------------|
| Clashscore            | 158937                      | 4297                        |
| Ramachandran outliers | 154571                      | 4023                        |
| Sidechain outliers    | 154315                      | 3826                        |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | A     | 740    |                  |
| 2   | B     | 733    |                  |
| 3   | C     | 80     |                  |
| 4   | D     | 144    |                  |
| 5   | E     | 64     |                  |
| 6   | F     | 162    |                  |
| 7   | J     | 41     |                  |
| 8   | G     | 101    |                  |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9   | H     | 92     |                  |
| 10  | I     | 39     |                  |
| 11  | K     | 84     |                  |
| 12  | L     | 155    |                  |
| 13  | O     | 86     |                  |
| 14  | 1     | 197    |                  |
| 15  | 2     | 208    |                  |
| 16  | 3     | 228    |                  |
| 17  | 4     | 211    |                  |
| 18  | 5     | 202    |                  |
| 19  | 6     | 178    |                  |

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 20  | CL0  | A     | 1011 | X         | -        | -       | -                |
| 21  | CLA  | 1     | 601  | X         | -        | X       | -                |
| 21  | CLA  | 1     | 602  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 603  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 604  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 605  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 606  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 607  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 608  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 611  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 612  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 613  | X         | -        | -       | -                |
| 21  | CLA  | 1     | 615  | X         | -        | -       | -                |
| 21  | CLA  | 2     | 601  | X         | -        | -       | -                |
| 21  | CLA  | 2     | 602  | X         | -        | -       | -                |
| 21  | CLA  | 2     | 603  | X         | -        | -       | -                |
| 21  | CLA  | 2     | 604  | X         | -        | -       | -                |
| 21  | CLA  | 2     | 605  | X         | -        | -       | -                |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 21  | CLA  | 2     | 606 | X         | -        | -       | -                |
| 21  | CLA  | 2     | 607 | X         | -        | -       | -                |
| 21  | CLA  | 2     | 608 | X         | -        | -       | -                |
| 21  | CLA  | 2     | 612 | X         | -        | -       | -                |
| 21  | CLA  | 2     | 615 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 601 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 602 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 603 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 605 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 606 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 607 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 608 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 610 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 611 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 612 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 613 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 614 | X         | -        | -       | -                |
| 21  | CLA  | 3     | 615 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 601 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 602 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 603 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 604 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 605 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 606 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 607 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 608 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 609 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 612 | X         | -        | -       | -                |
| 21  | CLA  | 4     | 615 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 601 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 602 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 603 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 604 | X         | -        | X       | -                |
| 21  | CLA  | 5     | 605 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 606 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 607 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 608 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 612 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 613 | X         | -        | -       | -                |
| 21  | CLA  | 5     | 614 | X         | -        | -       | -                |
| 21  | CLA  | 6     | 601 | X         | -        | X       | -                |
| 21  | CLA  | 6     | 602 | X         | -        | -       | -                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 21  | CLA  | 6     | 603  | X         | -        | X       | -                |
| 21  | CLA  | 6     | 604  | X         | -        | -       | -                |
| 21  | CLA  | 6     | 605  | X         | -        | -       | -                |
| 21  | CLA  | 6     | 606  | X         | -        | -       | -                |
| 21  | CLA  | 6     | 607  | X         | -        | -       | -                |
| 21  | CLA  | 6     | 608  | X         | -        | -       | -                |
| 21  | CLA  | 6     | 609  | X         | -        | -       | -                |
| 21  | CLA  | 6     | 612  | X         | -        | -       | -                |
| 21  | CLA  | 6     | 613  | X         | -        | -       | -                |
| 21  | CLA  | A     | 1012 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1013 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1101 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1102 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1103 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1104 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1105 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1106 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1107 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1108 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1109 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1110 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1111 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1112 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1113 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1114 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1115 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1116 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1117 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1118 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1119 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1120 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1121 | X         | -        | X       | -                |
| 21  | CLA  | A     | 1122 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1123 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1124 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1125 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1126 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1127 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1128 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1129 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1130 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1131 | X         | -        | -       | -                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 21  | CLA  | A     | 1132 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1133 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1134 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1135 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1136 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1137 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1138 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1139 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1140 | X         | -        | -       | -                |
| 21  | CLA  | A     | 1141 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1021 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1022 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1023 | X         | -        | X       | -                |
| 21  | CLA  | B     | 1201 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1202 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1203 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1204 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1205 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1206 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1207 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1208 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1209 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1210 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1211 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1212 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1213 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1214 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1215 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1216 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1217 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1218 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1219 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1220 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1221 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1222 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1223 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1224 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1225 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1226 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1227 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1228 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1229 | X         | -        | -       | -                |

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| Mol | Type | Chain | Res  | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 21  | CLA  | B     | 1230 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1231 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1232 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1234 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1235 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1236 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1237 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1238 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1239 | X         | -        | -       | -                |
| 21  | CLA  | B     | 1240 | X         | -        | -       | -                |
| 21  | CLA  | F     | 1301 | X         | -        | -       | -                |
| 21  | CLA  | F     | 1302 | X         | -        | -       | -                |
| 21  | CLA  | G     | 1601 | X         | -        | -       | -                |
| 21  | CLA  | G     | 1602 | X         | -        | -       | -                |
| 21  | CLA  | G     | 1603 | X         | -        | -       | -                |
| 21  | CLA  | H     | 1701 | X         | -        | -       | -                |
| 21  | CLA  | H     | 1702 | X         | -        | -       | -                |
| 21  | CLA  | J     | 1901 | X         | -        | -       | -                |
| 21  | CLA  | K     | 1401 | X         | -        | -       | -                |
| 21  | CLA  | K     | 1402 | X         | -        | -       | -                |
| 21  | CLA  | K     | 1403 | X         | -        | -       | -                |
| 21  | CLA  | K     | 1404 | X         | -        | -       | -                |
| 21  | CLA  | L     | 1501 | X         | -        | -       | -                |
| 21  | CLA  | L     | 1502 | X         | -        | -       | -                |
| 21  | CLA  | L     | 1503 | X         | -        | -       | -                |
| 21  | CLA  | L     | 1504 | X         | -        | -       | -                |
| 21  | CLA  | O     | 1801 | X         | -        | -       | -                |
| 21  | CLA  | O     | 1802 | X         | -        | -       | -                |
| 21  | CLA  | O     | 1803 | X         | -        | -       | -                |
| 24  | BCR  | G     | 4001 | -         | -        | X       | -                |
| 34  | LUT  | 4     | 501  | X         | -        | -       | -                |
| 34  | LUT  | 5     | 501  | X         | -        | -       | -                |
| 34  | LUT  | 5     | 504  | X         | -        | -       | -                |
| 34  | LUT  | 6     | 501  | X         | -        | X       | -                |
| 35  | XAT  | 1     | 502  | X         | -        | -       | -                |
| 35  | XAT  | 2     | 502  | X         | -        | -       | -                |
| 35  | XAT  | 3     | 502  | X         | -        | -       | -                |
| 35  | XAT  | 4     | 502  | X         | -        | -       | -                |
| 35  | XAT  | 6     | 502  | X         | -        | -       | -                |
| 35  | XAT  | 6     | 504  | X         | -        | -       | -                |
| 36  | CHL  | 1     | 609  | X         | -        | -       | -                |
| 36  | CHL  | 1     | 610  | X         | -        | -       | -                |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 36  | CHL  | 2     | 609 | X         | -        | -       | -                |
| 36  | CHL  | 2     | 610 | X         | -        | -       | -                |
| 36  | CHL  | 2     | 611 | X         | -        | -       | -                |
| 36  | CHL  | 2     | 613 | X         | -        | -       | -                |
| 36  | CHL  | 3     | 604 | X         | -        | -       | -                |
| 36  | CHL  | 4     | 610 | X         | -        | -       | -                |
| 36  | CHL  | 4     | 611 | X         | -        | -       | -                |
| 36  | CHL  | 4     | 613 | X         | -        | -       | -                |
| 36  | CHL  | 5     | 609 | X         | -        | X       | -                |
| 36  | CHL  | 5     | 610 | X         | -        | -       | -                |
| 36  | CHL  | 6     | 610 | X         | -        | -       | -                |

## 2 Entry composition [i](#)

There are 39 unique types of molecules in this entry. The entry contains 43789 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Photosystem I P700 chlorophyll a apoprotein A1.

| Mol | Chain | Residues | Atoms |      |     |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|-----|------|----|---------|-------|
|     |       |          | Total | C    | N   | O    | S  |         |       |
| 1   | A     | 740      | 5808  | 3795 | 993 | 1002 | 18 | 0       | 0     |

- Molecule 2 is a protein called Photosystem I P700 chlorophyll a apoprotein A2.

| Mol | Chain | Residues | Atoms |      |     |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|-----|------|----|---------|-------|
|     |       |          | Total | C    | N   | O    | S  |         |       |
| 2   | B     | 733      | 5808  | 3815 | 974 | 1006 | 13 | 0       | 0     |

- Molecule 3 is a protein called Photosystem I iron-sulfur center.

| Mol | Chain | Residues | Atoms |     |     |     |    | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
|     |       |          | Total | C   | N   | O   | S  |         |       |
| 3   | C     | 80       | 600   | 370 | 104 | 115 | 11 | 0       | 0     |

- Molecule 4 is a protein called PsaD.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 4   | D     | 143      | 1134  | 727 | 197 | 204 | 6 | 0       | 0     |

- Molecule 5 is a protein called PsaE.

| Mol | Chain | Residues | Atoms |     |    |    | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|-------|
|     |       |          | Total | C   | N  | O  |         |       |
| 5   | E     | 64       | 515   | 327 | 89 | 99 | 0       | 0     |

- Molecule 6 is a protein called PsaF.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 6   | F     | 162      | 1278  | 823 | 217 | 236 | 2 | 0       | 0     |

- Molecule 7 is a protein called Photosystem I reaction center subunit IX.

| Mol | Chain | Residues | Atoms |     |    |    |   | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
|     |       |          | Total | C   | N  | O  | S |         |       |
| 7   | J     | 41       | 327   | 223 | 47 | 56 | 1 | 0       | 0     |

- Molecule 8 is a protein called PsaG.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 8   | G     | 101      | 773   | 500 | 135 | 136 | 2 | 0       | 0     |

- Molecule 9 is a protein called PsaH.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 9   | H     | 92       | 704   | 445 | 120 | 137 | 2 | 0       | 0     |

- Molecule 10 is a protein called PsaI.

| Mol | Chain | Residues | Atoms |     |    |    |   | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
|     |       |          | Total | C   | N  | O  | S |         |       |
| 10  | I     | 39       | 301   | 208 | 43 | 49 | 1 | 0       | 0     |

- Molecule 11 is a protein called PsaK.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 11  | K     | 84       | 573   | 354 | 106 | 110 | 3 | 0       | 0     |

- Molecule 12 is a protein called PsaL.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 12  | L     | 155      | 1137  | 736 | 191 | 203 | 7 | 0       | 0     |

- Molecule 13 is a protein called PsaO.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 13  | O     | 86       | 684   | 456 | 108 | 118 | 2 | 0       | 0     |

- Molecule 14 is a protein called Chlorophyll a-b binding protein, chloroplastic.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 14  | 1     | 197      | 1501  | 963 | 255 | 276 | 7 | 0       | 0     |

There is a discrepancy between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment  | Reference  |
|-------|---------|----------|--------|----------|------------|
| 1     | 204     | ALA      | GLU    | conflict | UNP C1K003 |

- Molecule 15 is a protein called Lhca2.

| Mol | Chain | Residues | Atoms |      |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
|     |       |          | Total | C    | N   | O   | S |         |       |
| 15  | 2     | 208      | 1609  | 1033 | 272 | 297 | 7 | 0       | 0     |

- Molecule 16 is a protein called Chlorophyll a-b binding protein, chloroplastic.

| Mol | Chain | Residues | Atoms |      |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
|     |       |          | Total | C    | N   | O   | S |         |       |
| 16  | 3     | 228      | 1740  | 1134 | 284 | 317 | 5 | 0       | 0     |

- Molecule 17 is a protein called Lhca4.

| Mol | Chain | Residues | Atoms |      |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
|     |       |          | Total | C    | N   | O   | S |         |       |
| 17  | 4     | 211      | 1637  | 1058 | 272 | 303 | 4 | 0       | 0     |

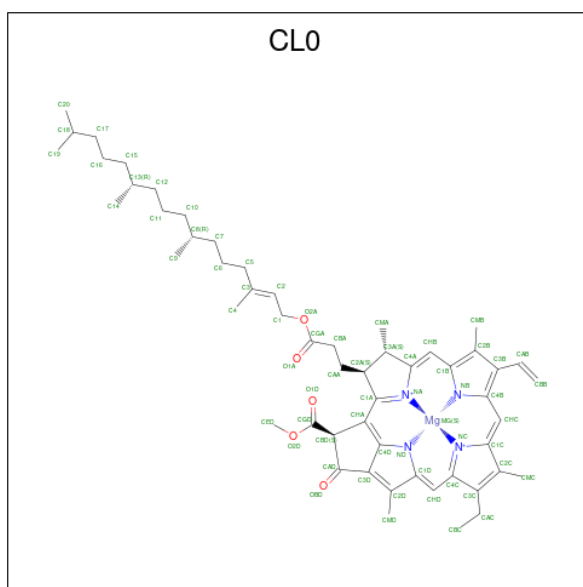
- Molecule 18 is a protein called Lhca5.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 18  | 5     | 202      | 1525  | 977 | 257 | 284 | 7 | 0       | 0     |

- Molecule 19 is a protein called Lhca6.

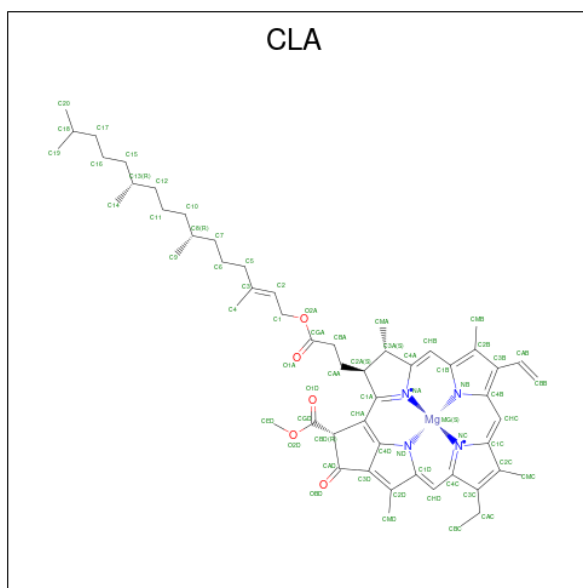
| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 19  | 6     | 178      | 1378  | 896 | 230 | 245 | 7 | 0       | 0     |

- Molecule 20 is CHLOROPHYLL A ISOMER (three-letter code: CL0) (formula: C<sub>55</sub>H<sub>72</sub>MgN<sub>4</sub>O<sub>5</sub>).



| Mol | Chain | Residues | Atoms |    |    |   | AltConf |   |
|-----|-------|----------|-------|----|----|---|---------|---|
|     |       |          | Total | C  | Mg | N |         | O |
| 20  | A     | 1        | 65    | 55 | 1  | 4 | 5       | 0 |

- Molecule 21 is CHLOROPHYLL A (three-letter code: CLA) (formula:  $C_{55}H_{72}MgN_4O_5$ ).



| Mol | Chain | Residues | Atoms |    |    |   | AltConf |   |
|-----|-------|----------|-------|----|----|---|---------|---|
|     |       |          | Total | C  | Mg | N |         | O |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5       | 0 |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5       | 0 |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5       | 0 |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 56    | 46 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 51    | 41 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 61    | 51 | 1  | 4 | 5 | 0       |
| 21  | A     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 48    | 38 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | B     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | F     | 1        | 47    | 37 | 1  | 4 | 5 | 0       |
| 21  | F     | 1        | 49    | 39 | 1  | 4 | 5 | 0       |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | J     | 1        | 49    | 39 | 1  | 4 | 5 | 0       |
| 21  | G     | 1        | 47    | 37 | 1  | 4 | 5 | 0       |
| 21  | G     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | G     | 1        | 45    | 35 | 1  | 4 | 5 | 0       |
| 21  | H     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | H     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | K     | 1        | 45    | 35 | 1  | 4 | 5 | 0       |
| 21  | K     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | K     | 1        | 48    | 38 | 1  | 4 | 5 | 0       |
| 21  | K     | 1        | 45    | 35 | 1  | 4 | 5 | 0       |
| 21  | L     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | L     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | L     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | L     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | O     | 1        | 38    | 30 | 1  | 4 | 3 | 0       |
| 21  | O     | 1        | 38    | 30 | 1  | 4 | 3 | 0       |
| 21  | O     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | 1     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 45    | 35 | 1  | 4 | 5 | 0       |
| 21  | 1     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 52    | 42 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 2     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 52    | 42 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | 3     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 3     | 1        | 42    | 34 | 1  | 4 | 3 | 0       |
| 21  | 3     | 1        | 56    | 46 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 4     | 1        | 51    | 41 | 1  | 4 | 5 | 0       |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | 5     | 1        | 45    | 35 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 45    | 35 | 1  | 4 | 5 | 0       |
| 21  | 5     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 55    | 45 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 50    | 40 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 60    | 50 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 46    | 36 | 1  | 4 | 5 | 0       |
| 21  | 6     | 1        | 65    | 55 | 1  | 4 | 5 | 0       |

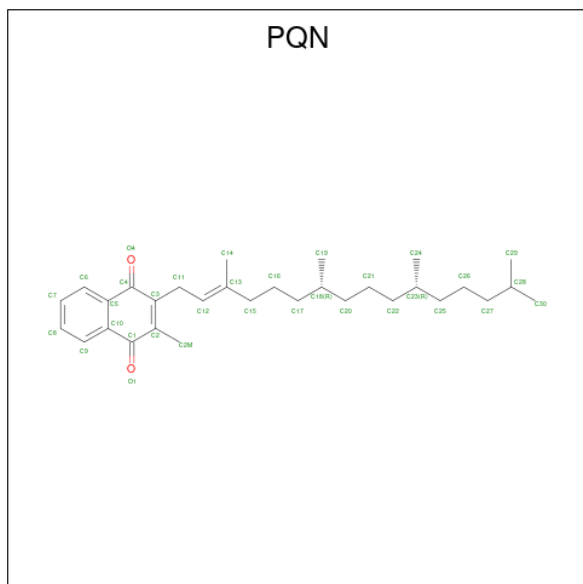
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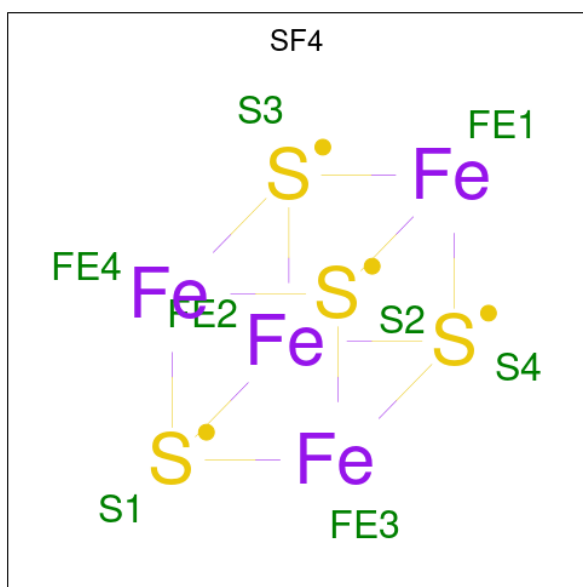
| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
|     |       |          | Total | C  | Mg | N | O |         |
| 21  | 6     | 1        | 45    | 35 | 1  | 4 | 5 | 0       |

- Molecule 22 is PHYLLOQUINONE (three-letter code: PQN) (formula:  $C_{31}H_{46}O_2$ ).



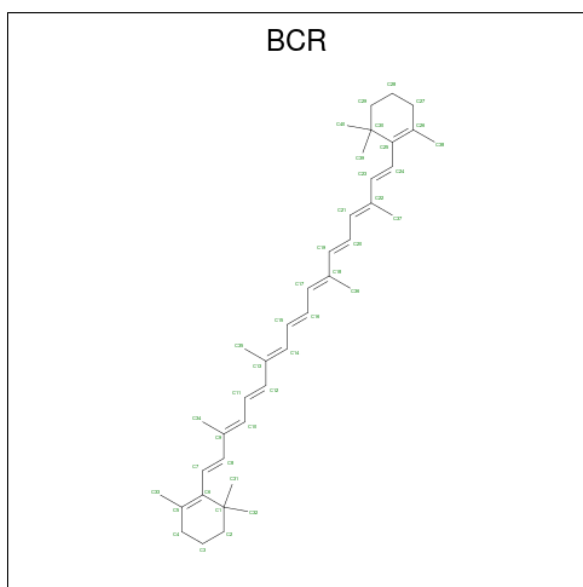
| Mol | Chain | Residues | Atoms |    |   | AltConf |
|-----|-------|----------|-------|----|---|---------|
|     |       |          | Total | C  | O |         |
| 22  | A     | 1        | 33    | 31 | 2 | 0       |
| 22  | B     | 1        | 33    | 31 | 2 | 0       |

- Molecule 23 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula:  $Fe_4S_4$ ).



| Mol | Chain | Residues | Atoms |      | AltConf |
|-----|-------|----------|-------|------|---------|
| 23  | A     | 1        | Total | Fe S | 0       |
|     |       |          | 8     | 4 4  |         |
| 23  | C     | 1        | Total | Fe S | 0       |
|     |       |          | 8     | 4 4  |         |
| 23  | C     | 1        | Total | Fe S | 0       |
|     |       |          | 8     | 4 4  |         |

- Molecule 24 is BETA-CAROTENE (three-letter code: BCR) (formula: C<sub>40</sub>H<sub>56</sub>).



| Mol | Chain | Residues | Atoms |    | AltConf |
|-----|-------|----------|-------|----|---------|
| 24  | A     | 1        | Total | C  | 0       |
|     |       |          | 40    | 40 |         |

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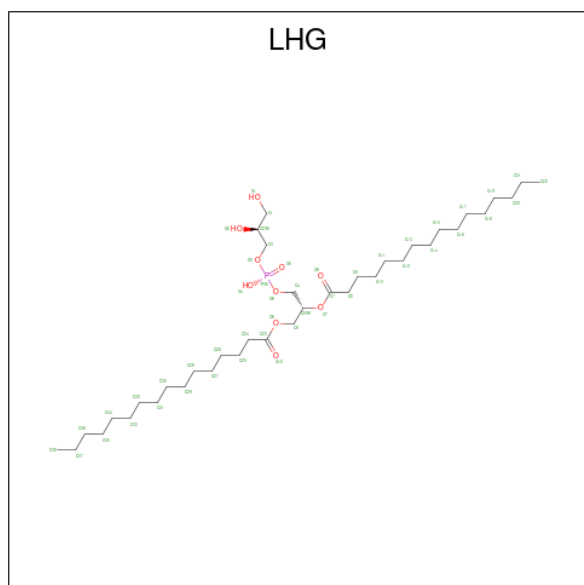
| Mol | Chain | Residues | Atoms            | AltConf |
|-----|-------|----------|------------------|---------|
| 24  | A     | 1        | Total C<br>40 40 | 0       |
| 24  | A     | 1        | Total C<br>40 40 | 0       |
| 24  | A     | 1        | Total C<br>40 40 | 0       |
| 24  | A     | 1        | Total C<br>40 40 | 0       |
| 24  | A     | 1        | Total C<br>40 40 | 0       |
| 24  | A     | 1        | Total C<br>40 40 | 0       |
| 24  | B     | 1        | Total C<br>40 40 | 0       |
| 24  | B     | 1        | Total C<br>40 40 | 0       |
| 24  | B     | 1        | Total C<br>40 40 | 0       |
| 24  | B     | 1        | Total C<br>40 40 | 0       |
| 24  | B     | 1        | Total C<br>40 40 | 0       |
| 24  | B     | 1        | Total C<br>40 40 | 0       |
| 24  | B     | 1        | Total C<br>40 40 | 0       |
| 24  | F     | 1        | Total C<br>40 40 | 0       |
| 24  | F     | 1        | Total C<br>40 40 | 0       |
| 24  | J     | 1        | Total C<br>40 40 | 0       |
| 24  | J     | 1        | Total C<br>40 40 | 0       |
| 24  | G     | 1        | Total C<br>40 40 | 0       |
| 24  | H     | 1        | Total C<br>40 40 | 0       |
| 24  | I     | 1        | Total C<br>40 40 | 0       |
| 24  | I     | 1        | Total C<br>40 40 | 0       |
| 24  | K     | 1        | Total C<br>40 40 | 0       |

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| Mol | Chain | Residues | Atoms            | AltConf |
|-----|-------|----------|------------------|---------|
| 24  | L     | 1        | Total C<br>40 40 | 0       |
| 24  | L     | 1        | Total C<br>40 40 | 0       |
| 24  | O     | 1        | Total C<br>40 40 | 0       |
| 24  | 1     | 1        | Total C<br>40 40 | 0       |
| 24  | 2     | 1        | Total C<br>40 40 | 0       |
| 24  | 3     | 1        | Total C<br>40 40 | 0       |
| 24  | 3     | 1        | Total C<br>40 40 | 0       |
| 24  | 3     | 1        | Total C<br>40 40 | 0       |
| 24  | 4     | 1        | Total C<br>40 40 | 0       |

- Molecule 25 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula:  $C_{38}H_{75}O_{10}P$ ).



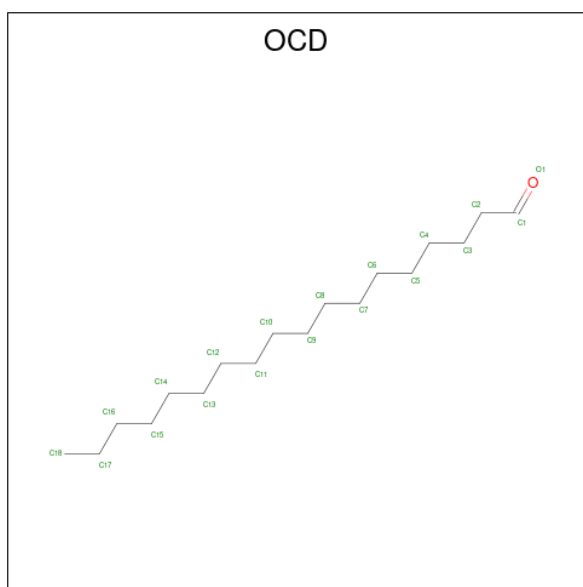
| Mol | Chain | Residues | Atoms                     | AltConf |
|-----|-------|----------|---------------------------|---------|
| 25  | A     | 1        | Total C O P<br>49 38 10 1 | 0       |
| 25  | A     | 1        | Total C O P<br>49 38 10 1 | 0       |

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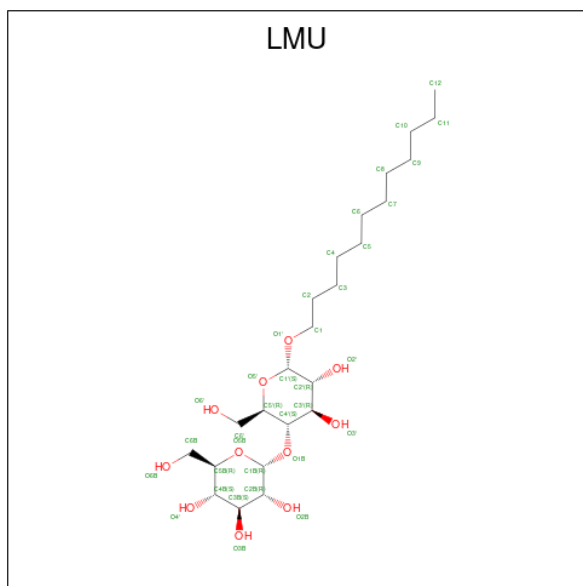
| Mol | Chain | Residues | Atoms |    |    |   | AltConf |
|-----|-------|----------|-------|----|----|---|---------|
|     |       |          | Total | C  | O  | P |         |
| 25  | B     | 1        | 42    | 31 | 10 | 1 | 0       |
| 25  | F     | 1        | 49    | 38 | 10 | 1 | 0       |
| 25  | 1     | 1        | 49    | 38 | 10 | 1 | 0       |
| 25  | 1     | 1        | 26    | 15 | 10 | 1 | 0       |
| 25  | 1     | 1        | 31    | 20 | 10 | 1 | 0       |
| 25  | 2     | 1        | 35    | 24 | 10 | 1 | 0       |
| 25  | 2     | 1        | 43    | 32 | 10 | 1 | 0       |
| 25  | 2     | 1        | 36    | 25 | 10 | 1 | 0       |
| 25  | 3     | 1        | 17    | 8  | 8  | 1 | 0       |
| 25  | 4     | 1        | 29    | 18 | 10 | 1 | 0       |
| 25  | 5     | 1        | 43    | 32 | 10 | 1 | 0       |
| 25  | 5     | 1        | 24    | 13 | 10 | 1 | 0       |
| 25  | 6     | 1        | 25    | 14 | 10 | 1 | 0       |

- Molecule 26 is octadecanal (three-letter code: OCD) (formula: C<sub>18</sub>H<sub>36</sub>O).



| Mol | Chain | Residues | Atoms |    |   | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 26  | A     | 1        | Total | C  | O | 0       |
|     |       |          | 19    | 18 | 1 |         |

- Molecule 27 is DODECYL-ALPHA-D-MALTOSE (three-letter code: LMU) (formula:  $C_{24}H_{46}O_{11}$ ).



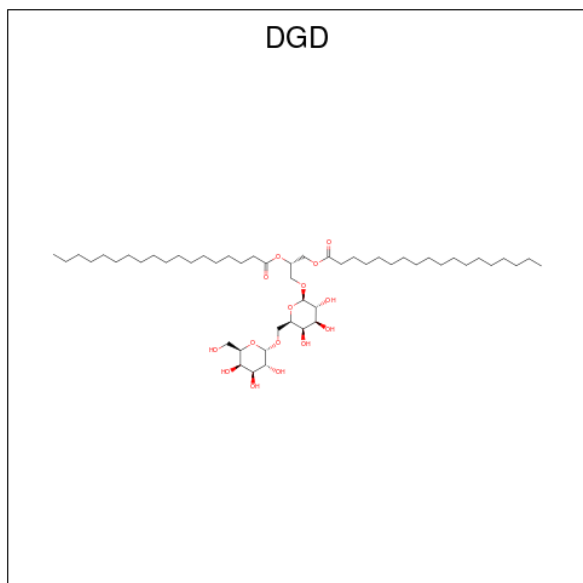
| Mol | Chain | Residues | Atoms |    |    | AltConf |
|-----|-------|----------|-------|----|----|---------|
| 27  | A     | 1        | Total | C  | O  | 0       |
|     |       |          | 35    | 24 | 11 |         |
| 27  | A     | 1        | Total | C  | O  | 0       |
|     |       |          | 35    | 24 | 11 |         |

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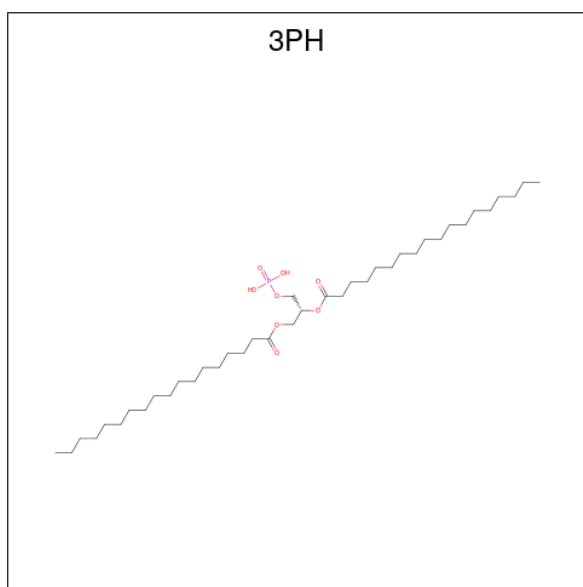
| Mol | Chain | Residues | Atoms |    |    | AltConf |
|-----|-------|----------|-------|----|----|---------|
|     |       |          | Total | C  | O  |         |
| 27  | B     | 1        | 35    | 24 | 11 | 0       |
| 27  | 6     | 1        | 35    | 24 | 11 | 0       |

- Molecule 28 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula:  $C_{51}H_{96}O_{15}$ ).



| Mol | Chain | Residues | Atoms |    |    | AltConf |
|-----|-------|----------|-------|----|----|---------|
|     |       |          | Total | C  | O  |         |
| 28  | B     | 1        | 61    | 46 | 15 | 0       |
| 28  | 2     | 1        | 39    | 24 | 15 | 0       |
| 28  | 3     | 1        | 39    | 24 | 15 | 0       |
| 28  | 3     | 1        | 45    | 30 | 15 | 0       |

- Molecule 29 is 1,2-DIACYL-GLYCEROL-3-SN-PHOSPHATE (three-letter code: 3PH) (formula:  $C_{39}H_{77}O_8P$ ).



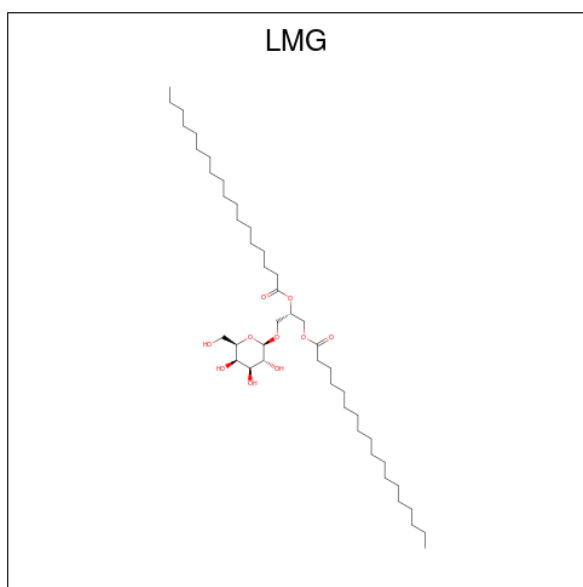
| Mol | Chain | Residues | Atoms |    |   |   | AltConf |
|-----|-------|----------|-------|----|---|---|---------|
|     |       |          | Total | C  | O | P |         |
| 29  | B     | 1        | 31    | 22 | 8 | 1 | 0       |
| 29  | F     | 1        | 34    | 25 | 8 | 1 | 0       |
| 29  | 5     | 1        | 28    | 19 | 8 | 1 | 0       |
| 29  | 5     | 1        | 29    | 20 | 8 | 1 | 0       |

- Molecule 30 is CALCIUM ION (three-letter code: CA) (formula: Ca).

| Mol | Chain | Residues | Atoms |    | AltConf |
|-----|-------|----------|-------|----|---------|
|     |       |          | Total | Ca |         |
| 30  | B     | 1        | 1     | 1  | 0       |

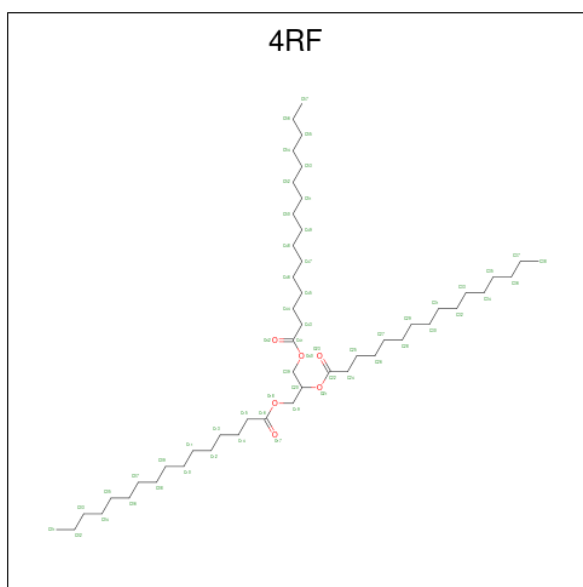
- Molecule 31 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: C<sub>45</sub>H<sub>86</sub>O<sub>10</sub>).





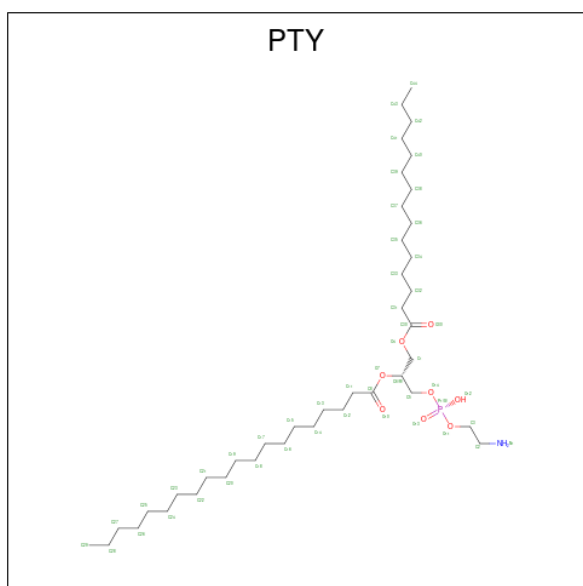
| Mol | Chain | Residues | Atoms |    |    | AltConf |
|-----|-------|----------|-------|----|----|---------|
|     |       |          | Total | C  | O  |         |
| 31  | F     | 1        | 50    | 40 | 10 | 0       |
| 31  | 1     | 1        | 32    | 22 | 10 | 0       |
| 31  | 2     | 1        | 50    | 40 | 10 | 0       |
| 31  | 3     | 1        | 32    | 22 | 10 | 0       |
| 31  | 3     | 1        | 50    | 40 | 10 | 0       |
| 31  | 4     | 1        | 46    | 36 | 10 | 0       |
| 31  | 4     | 1        | 39    | 29 | 10 | 0       |
| 31  | 6     | 1        | 37    | 27 | 10 | 0       |

- Molecule 32 is Tripalmitoylglycerol (three-letter code: 4RF) (formula: C<sub>51</sub>H<sub>98</sub>O<sub>6</sub>).



| Mol | Chain | Residues | Atoms |    |   | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 32  | L     | 1        | Total | C  | O | 0       |
|     |       |          | 39    | 33 | 6 |         |
| 32  | 5     | 1        | Total | C  | O | 0       |
|     |       |          | 32    | 26 | 6 |         |

- Molecule 33 is PHOSPHATIDYLETHANOLAMINE (three-letter code: PTY) (formula:  $C_{40}H_{80}NO_8P$ ).



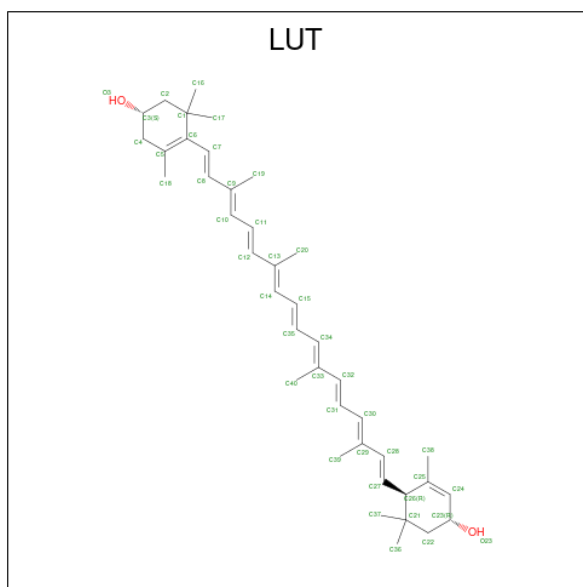
| Mol | Chain | Residues | Atoms |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|---|---|---|---------|
| 33  | L     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 20    | 10 | 1 | 8 | 1 |         |

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| Mol | Chain | Residues | Atoms |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|---|---|---|---------|
|     |       |          | Total | C  | N | O | P |         |
| 33  | O     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 22    | 12 | 1 | 8 | 1 |         |
| 33  | 1     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 40    | 30 | 1 | 8 | 1 |         |
| 33  | 1     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 18    | 8  | 1 | 8 | 1 |         |
| 33  | 3     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 26    | 16 | 1 | 8 | 1 |         |
| 33  | 3     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 20    | 10 | 1 | 8 | 1 |         |
| 33  | 4     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 35    | 25 | 1 | 8 | 1 |         |
| 33  | 5     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 36    | 26 | 1 | 8 | 1 |         |
| 33  | 6     | 1        | Total | C  | N | O | P | 0       |
|     |       |          | 24    | 14 | 1 | 8 | 1 |         |

- Molecule 34 is (3R,3'R,6S)-4,5-DIDEHYDRO-5,6-DIHYDRO-BETA,BETA-CAROTENE-3,3'-DIOL (three-letter code: LUT) (formula: C<sub>40</sub>H<sub>56</sub>O<sub>2</sub>).



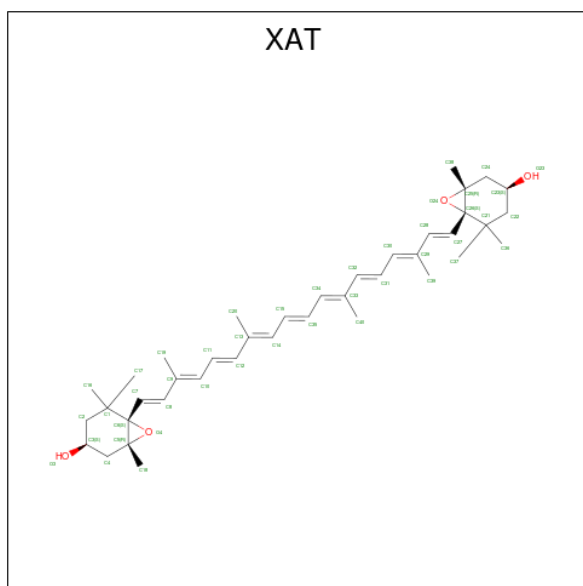
| Mol | Chain | Residues | Atoms |    | AltConf |   |
|-----|-------|----------|-------|----|---------|---|
|     |       |          | Total | O  |         |   |
| 34  | 1     | 1        | Total | C  | O       | 0 |
|     |       |          | 42    | 40 | 2       |   |
| 34  | 2     | 1        | Total | C  | O       | 0 |
|     |       |          | 42    | 40 | 2       |   |
| 34  | 3     | 1        | Total | C  | O       | 0 |
|     |       |          | 42    | 40 | 2       |   |

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| Mol | Chain | Residues | Atoms |    |   | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 34  | 4     | 1        | Total | C  | O | 0       |
|     |       |          | 42    | 40 | 2 |         |
| 34  | 5     | 1        | Total | C  | O | 0       |
|     |       |          | 42    | 40 | 2 |         |
| 34  | 5     | 1        | Total | C  | O | 0       |
|     |       |          | 42    | 40 | 2 |         |
| 34  | 5     | 1        | Total | C  | O | 0       |
|     |       |          | 42    | 40 | 2 |         |
| 34  | 5     | 1        | Total | C  | O | 0       |
|     |       |          | 42    | 40 | 2 |         |
| 34  | 6     | 1        | Total | C  | O | 0       |
|     |       |          | 42    | 40 | 2 |         |

- Molecule 35 is (3S,5R,6S,3'S,5'R,6'S)-5,6,5',6'-DIEPOXY-5,6,5',6'-TETRAHYDRO-BETA ,BETA-CAROTENE-3,3'-DIOL (three-letter code: XAT) (formula: C<sub>40</sub>H<sub>56</sub>O<sub>4</sub>).



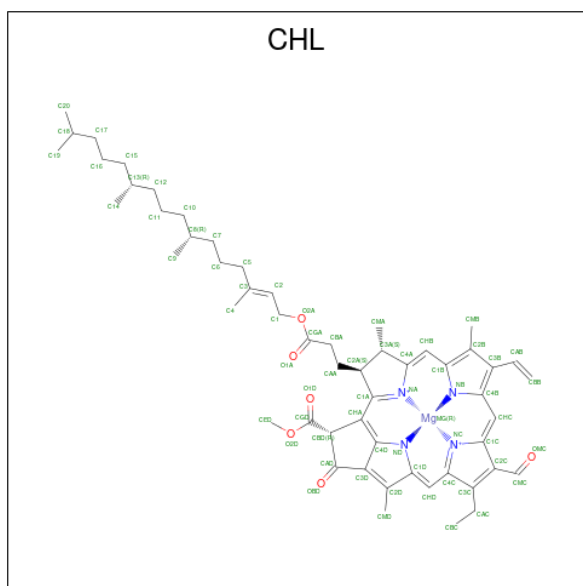
| Mol | Chain | Residues | Atoms |    |   | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 35  | 1     | 1        | Total | C  | O | 0       |
|     |       |          | 44    | 40 | 4 |         |
| 35  | 2     | 1        | Total | C  | O | 0       |
|     |       |          | 44    | 40 | 4 |         |
| 35  | 3     | 1        | Total | C  | O | 0       |
|     |       |          | 44    | 40 | 4 |         |
| 35  | 4     | 1        | Total | C  | O | 0       |
|     |       |          | 44    | 40 | 4 |         |
| 35  | 6     | 1        | Total | C  | O | 0       |
|     |       |          | 44    | 40 | 4 |         |

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| Mol | Chain | Residues | Atoms |    |   | AltConf |
|-----|-------|----------|-------|----|---|---------|
|     |       |          | Total | C  | O |         |
| 35  | 6     | 1        | 44    | 40 | 4 | 0       |

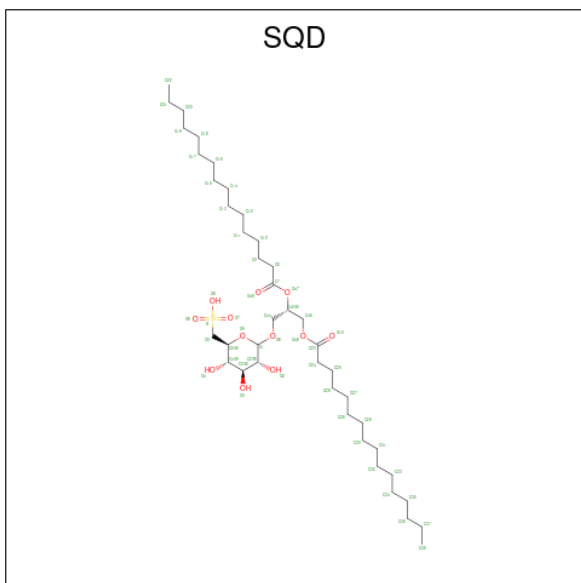
- Molecule 36 is CHLOROPHYLL B (three-letter code: CHL) (formula: C<sub>55</sub>H<sub>70</sub>MgN<sub>4</sub>O<sub>6</sub>).



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| Mol | Chain | Residues | Atoms |    |    |   | AltConf |   |
|-----|-------|----------|-------|----|----|---|---------|---|
|     |       |          | Total | C  | Mg | N |         | O |
| 36  | 5     | 1        | 66    | 55 | 1  | 4 | 6       | 0 |
| 36  | 5     | 1        | 47    | 36 | 1  | 4 | 6       | 0 |
| 36  | 6     | 1        | 47    | 36 | 1  | 4 | 6       | 0 |

- Molecule 37 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: C<sub>41</sub>H<sub>78</sub>O<sub>12</sub>S).



| Mol | Chain | Residues | Atoms |    |    |   | AltConf |
|-----|-------|----------|-------|----|----|---|---------|
|     |       |          | Total | C  | O  | S |         |
| 37  | 2     | 1        | 40    | 27 | 12 | 1 | 0       |
| 37  | 3     | 1        | 35    | 22 | 12 | 1 | 0       |
| 37  | 6     | 1        | 32    | 19 | 12 | 1 | 0       |

- Molecule 38 is trimethyl-[(2 {R})-1-oxidanyl-1-oxidanylidene-4-[(2 {S})-2-[(1 {S})-1-oxidanonyloctadecoxy]-3-[(1 {R})-1-oxidanyloctadecoxy]propoxy]butan-2-yl]azanium (three-letter code: LMK) (formula: C<sub>46</sub>H<sub>94</sub>NO<sub>7</sub>).



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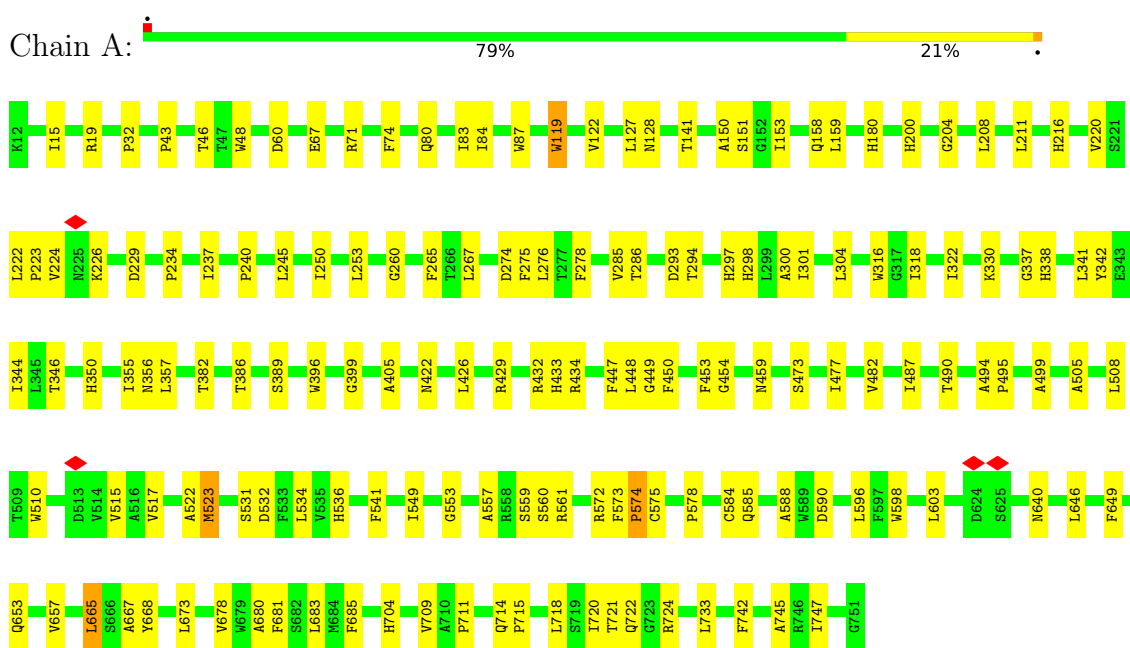
| Mol | Chain | Residues | Atoms |    |    |   | AltConf |
|-----|-------|----------|-------|----|----|---|---------|
|     |       |          | Total | C  | O  | P |         |
| 39  | 5     | 1        | 32    | 18 | 13 | 1 | 0       |



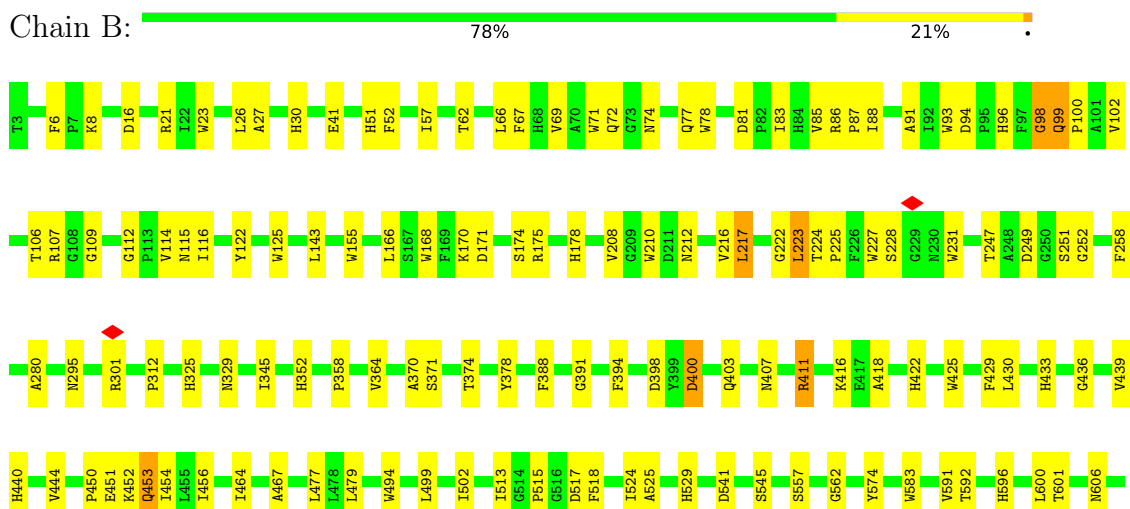
### 3 Residue-property plots [i](#)

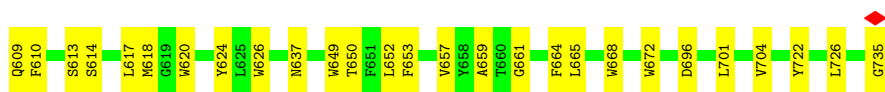
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Photosystem I P700 chlorophyll a apoprotein A1



- Molecule 2: Photosystem I P700 chlorophyll a apoprotein A2

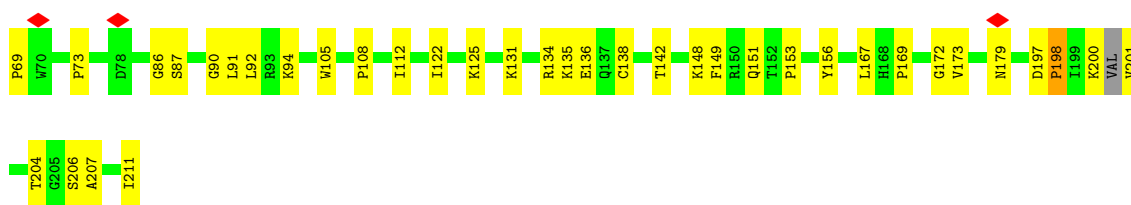




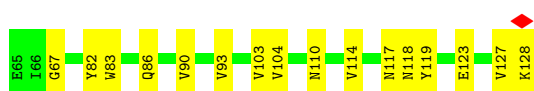
- Molecule 3: Photosystem I iron-sulfur center



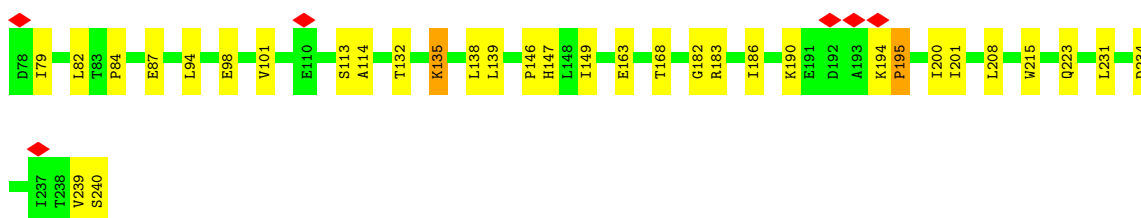
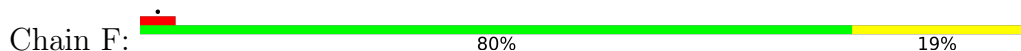
- Molecule 4: PsaD



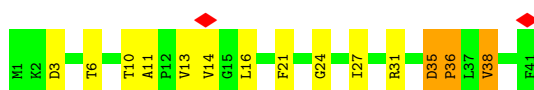
- Molecule 5: PsaE



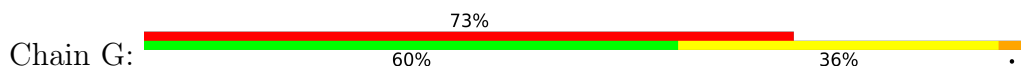
- Molecule 6: PsaF

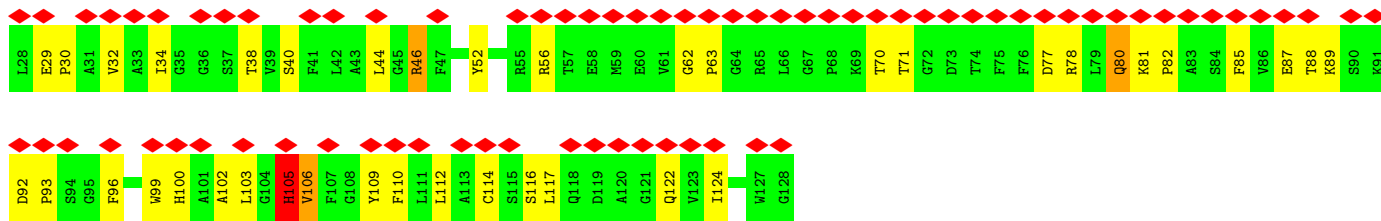


- Molecule 7: Photosystem I reaction center subunit IX

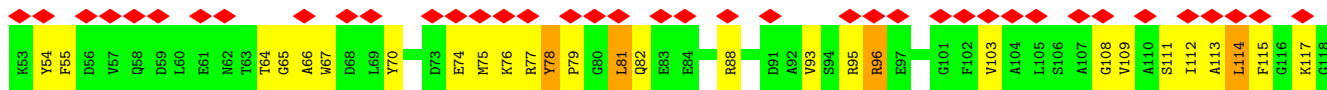


- Molecule 8: PsaG





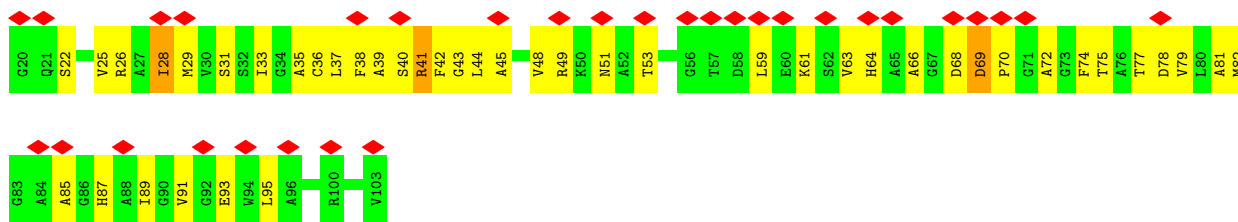
• Molecule 9: PsaH



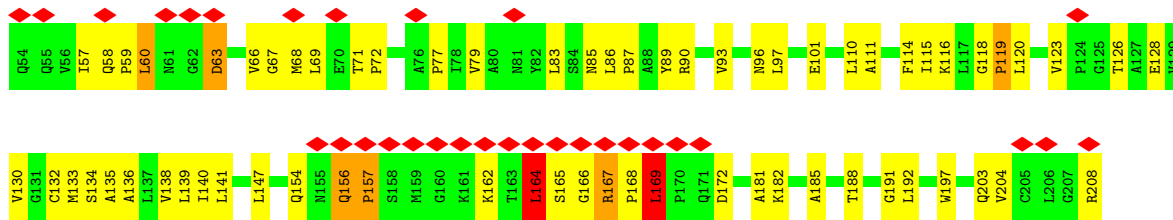
• Molecule 10: PsaI



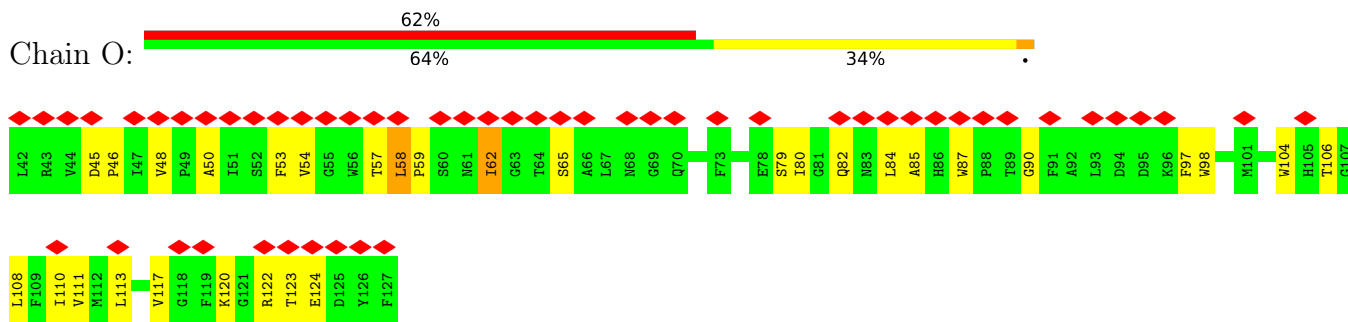
• Molecule 11: PsaK



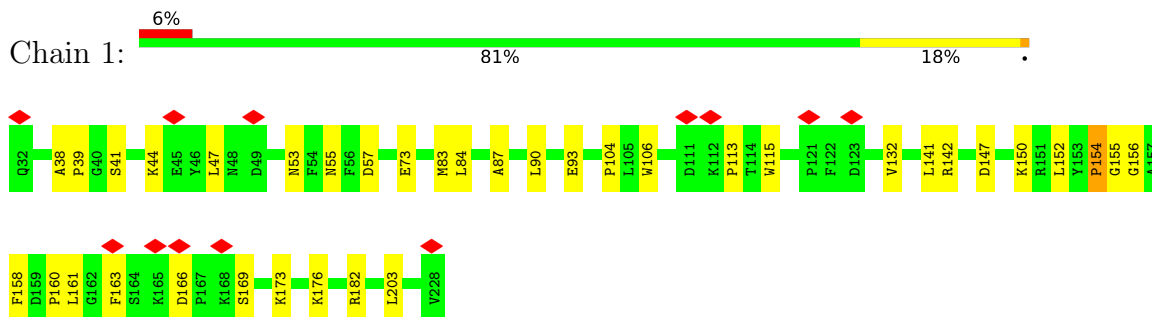
• Molecule 12: PsaL



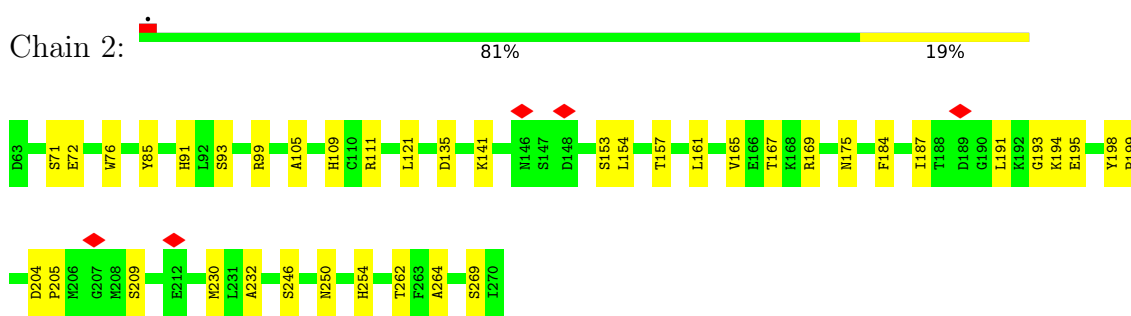
• Molecule 13: PsaO



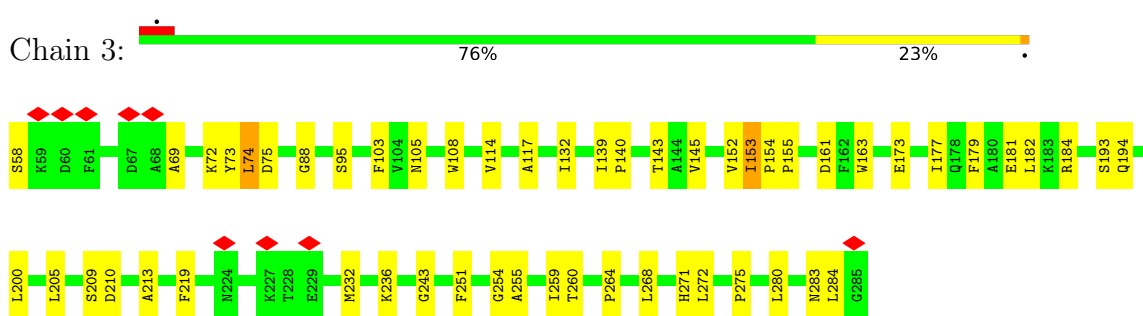
• Molecule 14: Chlorophyll a-b binding protein, chloroplastic



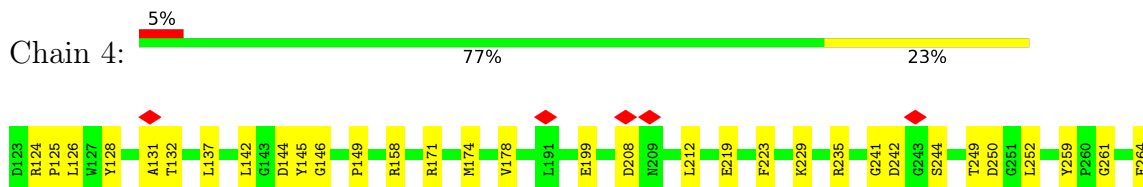
• Molecule 15: Lhca2

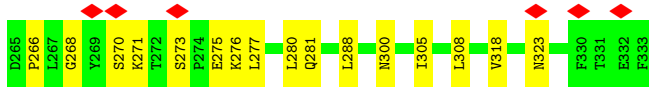


• Molecule 16: Chlorophyll a-b binding protein, chloroplastic

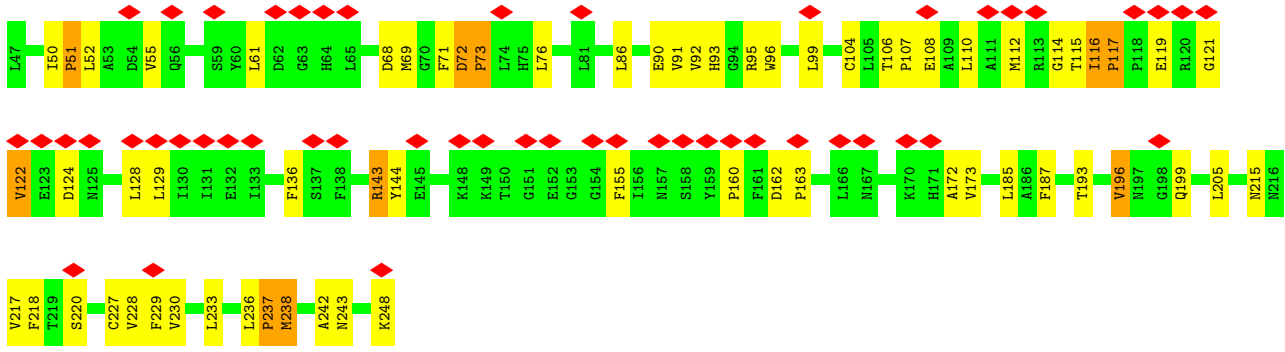


• Molecule 17: Lhca4

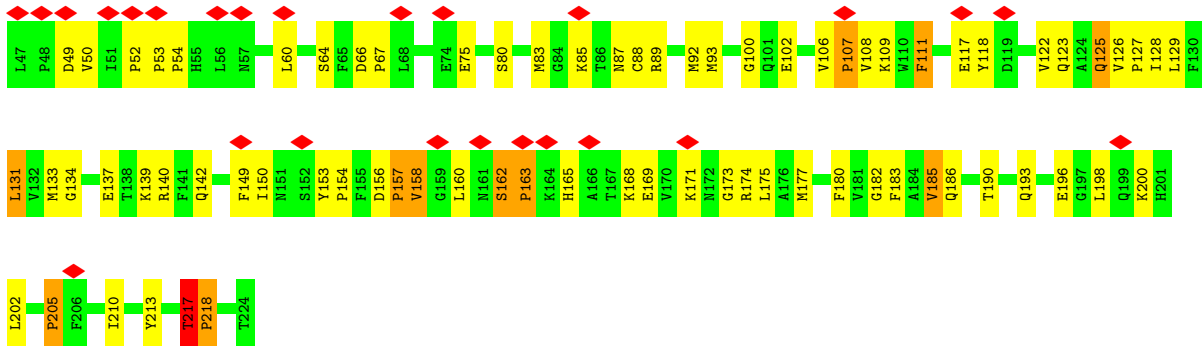




• Molecule 18: Lhca5



• Molecule 19: Lhca6



## 4 Experimental information

| Property                             | Value                           | Source    |
|--------------------------------------|---------------------------------|-----------|
| EM reconstruction method             | SINGLE PARTICLE                 | Depositor |
| Imposed symmetry                     | POINT, C1                       | Depositor |
| Number of particles used             | 189006                          | Depositor |
| Resolution determination method      | FSC 0.143 CUT-OFF               | Depositor |
| CTF correction method                | NONE                            | Depositor |
| Microscope                           | FEI TITAN KRIOS                 | Depositor |
| Voltage (kV)                         | 300                             | Depositor |
| Electron dose ( $e^-/\text{\AA}^2$ ) | 42.68                           | Depositor |
| Minimum defocus (nm)                 | 900                             | Depositor |
| Maximum defocus (nm)                 | 3000                            | Depositor |
| Magnification                        | Not provided                    |           |
| Image detector                       | GATAN K2 SUMMIT (4k x 4k)       | Depositor |
| Maximum map value                    | 0.155                           | Depositor |
| Minimum map value                    | -0.071                          | Depositor |
| Average map value                    | 0.000                           | Depositor |
| Map value standard deviation         | 0.005                           | Depositor |
| Recommended contour level            | 0.0247                          | Depositor |
| Map size ( $\text{\AA}$ )            | 384.12003, 384.12003, 384.12003 | wwPDB     |
| Map dimensions                       | 360, 360, 360                   | wwPDB     |
| Map angles ( $^\circ$ )              | 90.0, 90.0, 90.0                | wwPDB     |
| Pixel spacing ( $\text{\AA}$ )       | 1.067, 1.067, 1.067             | Depositor |

## 5 Model quality i

### 5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: CLA, LHG, CHL, LMG, LMU, LMK, BCR, LUT, SQD, OCD, PQN, 4RF, DGD, XAT, CL0, 3PH, P3H, PTY, SF4, CA

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Chain | Bond lengths |                 | Bond angles |                 |
|-----|-------|--------------|-----------------|-------------|-----------------|
|     |       | RMSZ         | # Z  >5         | RMSZ        | # Z  >5         |
| 1   | A     | 0.52         | 4/6004 (0.1%)   | 0.59        | 3/8190 (0.0%)   |
| 2   | B     | 0.49         | 2/6021 (0.0%)   | 0.59        | 2/8230 (0.0%)   |
| 3   | C     | 0.55         | 1/610 (0.2%)    | 0.63        | 1/828 (0.1%)    |
| 4   | D     | 0.66         | 2/1164 (0.2%)   | 0.66        | 1/1570 (0.1%)   |
| 5   | E     | 0.53         | 0/525           | 0.55        | 0/712           |
| 6   | F     | 0.62         | 2/1305 (0.2%)   | 0.69        | 1/1764 (0.1%)   |
| 7   | J     | 0.96         | 2/338 (0.6%)    | 0.83        | 1/461 (0.2%)    |
| 8   | G     | 0.70         | 1/796 (0.1%)    | 0.90        | 3/1077 (0.3%)   |
| 9   | H     | 0.62         | 1/716 (0.1%)    | 0.88        | 2/963 (0.2%)    |
| 10  | I     | 1.09         | 3/315 (1.0%)    | 0.87        | 1/437 (0.2%)    |
| 11  | K     | 0.74         | 1/581 (0.2%)    | 0.90        | 2/785 (0.3%)    |
| 12  | L     | 0.96         | 7/1164 (0.6%)   | 0.88        | 4/1589 (0.3%)   |
| 13  | O     | 0.69         | 1/708 (0.1%)    | 0.86        | 2/966 (0.2%)    |
| 14  | 1     | 0.44         | 0/1540          | 0.60        | 0/2088          |
| 15  | 2     | 0.44         | 0/1656          | 0.56        | 0/2243          |
| 16  | 3     | 0.48         | 0/1790          | 0.63        | 3/2432 (0.1%)   |
| 17  | 4     | 0.48         | 0/1687          | 0.65        | 1/2300 (0.0%)   |
| 18  | 5     | 0.80         | 3/1561 (0.2%)   | 0.92        | 8/2123 (0.4%)   |
| 19  | 6     | 0.72         | 3/1417 (0.2%)   | 0.85        | 5/1929 (0.3%)   |
| All | All   | 0.60         | 33/29898 (0.1%) | 0.69        | 40/40687 (0.1%) |

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 11  | K     | 0                   | 2                   |
| 16  | 3     | 0                   | 1                   |
| All | All   | 0                   | 3                   |

All (33) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms   | Z      | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|--------|-------------|----------|
| 19  | 6     | 218 | PRO  | N-CA    | 13.72  | 1.70        | 1.47     |
| 4   | D     | 198 | PRO  | N-CA    | 13.63  | 1.70        | 1.47     |
| 7   | J     | 36  | PRO  | N-CA    | 13.63  | 1.70        | 1.47     |
| 6   | F     | 195 | PRO  | N-CA    | 13.60  | 1.70        | 1.47     |
| 18  | 5     | 73  | PRO  | N-CA    | 13.58  | 1.70        | 1.47     |
| 12  | L     | 119 | PRO  | N-CA    | 13.55  | 1.70        | 1.47     |
| 1   | A     | 574 | PRO  | N-CA    | 13.36  | 1.70        | 1.47     |
| 10  | I     | 27  | PRO  | N-CA    | 13.35  | 1.70        | 1.47     |
| 12  | L     | 157 | PRO  | N-CA    | 13.34  | 1.70        | 1.47     |
| 18  | 5     | 237 | PRO  | N-CD    | -11.24 | 1.32        | 1.47     |
| 8   | G     | 106 | VAL  | CB-CG1  | -9.29  | 1.33        | 1.52     |
| 2   | B     | 99  | GLN  | C-N     | 9.04   | 1.51        | 1.34     |
| 2   | B     | 400 | ASP  | C-N     | 8.92   | 1.51        | 1.34     |
| 11  | K     | 69  | ASP  | C-N     | 8.54   | 1.50        | 1.34     |
| 1   | A     | 714 | GLN  | C-N     | 8.54   | 1.50        | 1.34     |
| 12  | L     | 63  | ASP  | C-N     | 8.53   | 1.50        | 1.34     |
| 12  | L     | 169 | LEU  | C-N     | 8.46   | 1.50        | 1.34     |
| 12  | L     | 86  | LEU  | C-N     | 8.43   | 1.50        | 1.34     |
| 10  | I     | 16  | VAL  | C-N     | 8.42   | 1.50        | 1.34     |
| 1   | A     | 119 | TRP  | C-N     | 8.33   | 1.50        | 1.34     |
| 18  | 5     | 72  | ASP  | C-N     | 6.09   | 1.45        | 1.34     |
| 9   | H     | 78  | TYR  | CD2-CE2 | -6.08  | 1.30        | 1.39     |
| 7   | J     | 35  | ASP  | C-N     | 6.08   | 1.45        | 1.34     |
| 12  | L     | 156 | GLN  | C-N     | 6.06   | 1.45        | 1.34     |
| 1   | A     | 573 | PHE  | C-N     | 6.05   | 1.45        | 1.34     |
| 19  | 6     | 217 | THR  | C-N     | 6.05   | 1.45        | 1.34     |
| 6   | F     | 194 | LYS  | C-N     | 6.04   | 1.45        | 1.34     |
| 4   | D     | 197 | ASP  | C-N     | 6.01   | 1.45        | 1.34     |
| 12  | L     | 118 | GLY  | C-N     | 5.96   | 1.45        | 1.34     |
| 10  | I     | 26  | VAL  | C-N     | 5.95   | 1.45        | 1.34     |
| 19  | 6     | 185 | VAL  | CB-CG1  | -5.51  | 1.41        | 1.52     |
| 13  | O     | 54  | VAL  | CB-CG2  | -5.48  | 1.41        | 1.52     |
| 3   | C     | 11  | CYS  | CB-SG   | -5.01  | 1.73        | 1.81     |

All (40) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms      | Z      | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|--------|-------------|----------|
| 19  | 6     | 131 | LEU  | CB-CG-CD1  | -10.46 | 93.22       | 111.00   |
| 7   | J     | 36  | PRO  | CA-N-CD    | -9.81  | 97.76       | 111.50   |
| 8   | G     | 106 | VAL  | CG1-CB-CG2 | -8.88  | 96.68       | 110.90   |
| 1   | A     | 574 | PRO  | CA-N-CD    | -8.56  | 99.52       | 111.50   |
| 18  | 5     | 73  | PRO  | CA-N-CD    | -8.29  | 99.90       | 111.50   |

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| Mol | Chain | Res | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 12  | L     | 164 | LEU  | CA-CB-CG   | 8.06  | 133.84      | 115.30   |
| 19  | 6     | 218 | PRO  | CA-N-CD    | -7.96 | 100.36      | 111.50   |
| 12  | L     | 119 | PRO  | CA-N-CD    | -7.89 | 100.45      | 111.50   |
| 4   | D     | 198 | PRO  | CA-N-CD    | -7.86 | 100.50      | 111.50   |
| 6   | F     | 195 | PRO  | CA-N-CD    | -7.86 | 100.50      | 111.50   |
| 12  | L     | 157 | PRO  | CA-N-CD    | -7.80 | 100.58      | 111.50   |
| 10  | I     | 27  | PRO  | CA-N-CD    | -7.79 | 100.60      | 111.50   |
| 11  | K     | 44  | LEU  | CA-CB-CG   | 7.71  | 133.03      | 115.30   |
| 11  | K     | 36  | CYS  | CA-CB-SG   | -7.23 | 100.98      | 114.00   |
| 18  | 5     | 143 | ARG  | NE-CZ-NH1  | -7.17 | 116.72      | 120.30   |
| 18  | 5     | 196 | VAL  | CB-CA-C    | 6.44  | 123.64      | 111.40   |
| 9   | H     | 78  | TYR  | CB-CG-CD2  | -6.36 | 117.18      | 121.00   |
| 18  | 5     | 236 | LEU  | CA-CB-CG   | 6.34  | 129.88      | 115.30   |
| 13  | O     | 58  | LEU  | CA-CB-CG   | -6.27 | 100.88      | 115.30   |
| 18  | 5     | 129 | LEU  | CB-CG-CD1  | 6.21  | 121.55      | 111.00   |
| 18  | 5     | 196 | VAL  | N-CA-CB    | -6.14 | 97.98       | 111.50   |
| 9   | H     | 81  | LEU  | CA-CB-CG   | 6.12  | 129.37      | 115.30   |
| 2   | B     | 98  | GLY  | O-C-N      | 6.04  | 132.37      | 122.70   |
| 1   | A     | 523 | MET  | C-N-CA     | 6.04  | 136.80      | 121.70   |
| 19  | 6     | 174 | ARG  | NE-CZ-NH1  | -5.95 | 117.33      | 120.30   |
| 16  | 3     | 74  | LEU  | CA-CB-CG   | 5.75  | 128.52      | 115.30   |
| 8   | G     | 109 | TYR  | CA-CB-CG   | 5.71  | 124.24      | 113.40   |
| 19  | 6     | 60  | LEU  | CA-CB-CG   | 5.69  | 128.39      | 115.30   |
| 18  | 5     | 119 | GLU  | CA-CB-CG   | 5.62  | 125.78      | 113.40   |
| 18  | 5     | 236 | LEU  | CB-CG-CD2  | 5.49  | 120.33      | 111.00   |
| 1   | A     | 665 | LEU  | CA-CB-CG   | 5.37  | 127.64      | 115.30   |
| 16  | 3     | 284 | LEU  | CA-CB-CG   | 5.29  | 127.47      | 115.30   |
| 17  | 4     | 212 | LEU  | CA-CB-CG   | 5.26  | 127.40      | 115.30   |
| 13  | O     | 62  | ILE  | CG1-CB-CG2 | -5.25 | 99.84       | 111.40   |
| 8   | G     | 105 | HIS  | CA-CB-CG   | 5.24  | 122.51      | 113.60   |
| 3   | C     | 51  | CYS  | CA-CB-SG   | -5.22 | 104.61      | 114.00   |
| 19  | 6     | 117 | GLU  | C-N-CA     | 5.14  | 134.55      | 121.70   |
| 12  | L     | 172 | ASP  | CB-CG-OD1  | 5.13  | 122.92      | 118.30   |
| 16  | 3     | 139 | ILE  | CG1-CB-CG2 | -5.10 | 100.17      | 111.40   |
| 2   | B     | 98  | GLY  | CA-C-N     | -5.01 | 106.19      | 117.20   |

There are no chirality outliers.

All (3) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group     |
|-----|-------|-----|------|-----------|
| 16  | 3     | 153 | ILE  | Mainchain |
| 11  | K     | 66  | ALA  | Mainchain |

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| Mol | Chain | Res | Type | Group     |
|-----|-------|-----|------|-----------|
| 11  | K     | 68  | ASP  | Mainchain |

## 5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | A     | 5808  | 0        | 5641     | 151     | 0            |
| 2   | B     | 5808  | 0        | 5560     | 195     | 0            |
| 3   | C     | 600   | 0        | 582      | 13      | 0            |
| 4   | D     | 1134  | 0        | 1142     | 26      | 0            |
| 5   | E     | 515   | 0        | 508      | 10      | 0            |
| 6   | F     | 1278  | 0        | 1299     | 40      | 0            |
| 7   | J     | 327   | 0        | 328      | 18      | 0            |
| 8   | G     | 773   | 0        | 756      | 45      | 0            |
| 9   | H     | 704   | 0        | 693      | 90      | 0            |
| 10  | I     | 301   | 0        | 297      | 40      | 0            |
| 11  | K     | 573   | 0        | 567      | 58      | 0            |
| 12  | L     | 1137  | 0        | 1165     | 80      | 0            |
| 13  | O     | 684   | 0        | 661      | 33      | 0            |
| 14  | 1     | 1501  | 0        | 1469     | 39      | 0            |
| 15  | 2     | 1609  | 0        | 1556     | 31      | 0            |
| 16  | 3     | 1740  | 0        | 1698     | 53      | 0            |
| 17  | 4     | 1637  | 0        | 1579     | 45      | 0            |
| 18  | 5     | 1525  | 0        | 1517     | 94      | 0            |
| 19  | 6     | 1378  | 0        | 1382     | 102     | 0            |
| 20  | A     | 65    | 0        | 72       | 10      | 0            |
| 21  | 1     | 682   | 0        | 648      | 53      | 0            |
| 21  | 2     | 602   | 0        | 609      | 14      | 0            |
| 21  | 3     | 746   | 0        | 722      | 50      | 0            |
| 21  | 4     | 632   | 0        | 600      | 28      | 0            |
| 21  | 5     | 602   | 0        | 549      | 99      | 0            |
| 21  | 6     | 602   | 0        | 542      | 105     | 0            |
| 21  | A     | 2658  | 0        | 2762     | 243     | 0            |
| 21  | B     | 2619  | 0        | 2762     | 225     | 0            |
| 21  | F     | 96    | 0        | 74       | 2       | 0            |
| 21  | G     | 138   | 0        | 99       | 18      | 0            |
| 21  | H     | 106   | 0        | 92       | 7       | 0            |
| 21  | J     | 49    | 0        | 38       | 4       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 21  | K     | 193   | 0        | 148      | 36      | 0            |
| 21  | L     | 230   | 0        | 219      | 25      | 0            |
| 21  | O     | 136   | 0        | 95       | 3       | 0            |
| 22  | A     | 33    | 0        | 46       | 3       | 0            |
| 22  | B     | 33    | 0        | 46       | 6       | 0            |
| 23  | A     | 8     | 0        | 0        | 0       | 0            |
| 23  | C     | 16    | 0        | 0        | 0       | 0            |
| 24  | 1     | 40    | 0        | 53       | 5       | 0            |
| 24  | 2     | 40    | 0        | 53       | 1       | 0            |
| 24  | 3     | 120   | 0        | 159      | 16      | 0            |
| 24  | 4     | 40    | 0        | 53       | 1       | 0            |
| 24  | A     | 280   | 0        | 367      | 44      | 0            |
| 24  | B     | 240   | 0        | 317      | 37      | 0            |
| 24  | F     | 80    | 0        | 106      | 24      | 0            |
| 24  | G     | 40    | 0        | 53       | 22      | 0            |
| 24  | H     | 40    | 0        | 53       | 5       | 0            |
| 24  | I     | 80    | 0        | 106      | 16      | 0            |
| 24  | J     | 80    | 0        | 105      | 6       | 0            |
| 24  | K     | 40    | 0        | 53       | 8       | 0            |
| 24  | L     | 80    | 0        | 106      | 5       | 0            |
| 24  | O     | 40    | 0        | 52       | 7       | 0            |
| 25  | 1     | 106   | 0        | 128      | 5       | 0            |
| 25  | 2     | 114   | 0        | 141      | 8       | 0            |
| 25  | 3     | 17    | 0        | 12       | 0       | 0            |
| 25  | 4     | 29    | 0        | 28       | 0       | 0            |
| 25  | 5     | 67    | 0        | 77       | 11      | 0            |
| 25  | 6     | 25    | 0        | 20       | 0       | 0            |
| 25  | A     | 98    | 0        | 148      | 6       | 0            |
| 25  | B     | 42    | 0        | 57       | 3       | 0            |
| 25  | F     | 49    | 0        | 74       | 2       | 0            |
| 26  | A     | 19    | 0        | 0        | 0       | 0            |
| 27  | 6     | 35    | 0        | 46       | 2       | 0            |
| 27  | A     | 70    | 0        | 92       | 2       | 0            |
| 27  | B     | 35    | 0        | 46       | 2       | 0            |
| 28  | 2     | 39    | 0        | 36       | 2       | 0            |
| 28  | 3     | 84    | 0        | 84       | 5       | 0            |
| 28  | B     | 61    | 0        | 83       | 5       | 0            |
| 29  | 5     | 57    | 0        | 60       | 5       | 0            |
| 29  | B     | 31    | 0        | 35       | 2       | 0            |
| 29  | F     | 34    | 0        | 41       | 0       | 0            |
| 30  | B     | 1     | 0        | 0        | 0       | 0            |
| 31  | 1     | 32    | 0        | 34       | 1       | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 31  | 2     | 50    | 0        | 73       | 0       | 0            |
| 31  | 3     | 82    | 0        | 107      | 20      | 0            |
| 31  | 4     | 85    | 0        | 113      | 2       | 0            |
| 31  | 6     | 37    | 0        | 44       | 12      | 0            |
| 31  | F     | 50    | 0        | 73       | 3       | 0            |
| 32  | 5     | 32    | 0        | 39       | 1       | 0            |
| 32  | L     | 39    | 0        | 53       | 2       | 0            |
| 33  | 1     | 58    | 0        | 64       | 0       | 0            |
| 33  | 3     | 46    | 0        | 38       | 0       | 0            |
| 33  | 4     | 35    | 0        | 43       | 0       | 0            |
| 33  | 5     | 36    | 0        | 48       | 10      | 0            |
| 33  | 6     | 24    | 0        | 21       | 1       | 0            |
| 33  | L     | 20    | 0        | 13       | 0       | 0            |
| 33  | O     | 22    | 0        | 17       | 6       | 0            |
| 34  | 1     | 42    | 0        | 55       | 7       | 0            |
| 34  | 2     | 42    | 0        | 55       | 6       | 0            |
| 34  | 3     | 42    | 0        | 55       | 9       | 0            |
| 34  | 4     | 42    | 0        | 55       | 4       | 0            |
| 34  | 5     | 168   | 0        | 220      | 40      | 0            |
| 34  | 6     | 42    | 0        | 55       | 22      | 0            |
| 35  | 1     | 44    | 0        | 56       | 2       | 0            |
| 35  | 2     | 44    | 0        | 56       | 4       | 0            |
| 35  | 3     | 44    | 0        | 56       | 6       | 0            |
| 35  | 4     | 44    | 0        | 56       | 3       | 0            |
| 35  | 6     | 88    | 0        | 112      | 14      | 0            |
| 36  | 1     | 113   | 0        | 100      | 7       | 0            |
| 36  | 2     | 216   | 0        | 180      | 10      | 0            |
| 36  | 3     | 66    | 0        | 69       | 3       | 0            |
| 36  | 4     | 159   | 0        | 124      | 3       | 0            |
| 36  | 5     | 113   | 0        | 100      | 39      | 0            |
| 36  | 6     | 47    | 0        | 30       | 8       | 0            |
| 37  | 2     | 40    | 0        | 46       | 2       | 0            |
| 37  | 3     | 35    | 0        | 33       | 2       | 0            |
| 37  | 6     | 32    | 0        | 27       | 1       | 0            |
| 38  | 2     | 31    | 0        | 0        | 0       | 0            |
| 38  | 4     | 35    | 0        | 0        | 0       | 0            |
| 39  | 2     | 49    | 0        | 0        | 0       | 0            |
| 39  | 5     | 32    | 0        | 0        | 1       | 0            |
| All | All   | 43789 | 0        | 43687    | 1802    | 0            |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 21.

All (1802) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 10:I:27:PRO:N      | 10:I:27:PRO:CA     | 1.69                     | 1.49              |
| 12:L:157:PRO:N     | 12:L:157:PRO:CA    | 1.69                     | 1.47              |
| 1:A:574:PRO:N      | 1:A:574:PRO:CA     | 1.70                     | 1.45              |
| 6:F:195:PRO:N      | 6:F:195:PRO:CA     | 1.70                     | 1.42              |
| 18:5:73:PRO:N      | 18:5:73:PRO:CA     | 1.70                     | 1.42              |
| 19:6:218:PRO:N     | 19:6:218:PRO:CA    | 1.70                     | 1.40              |
| 7:J:36:PRO:N       | 7:J:36:PRO:CA      | 1.70                     | 1.38              |
| 12:L:119:PRO:N     | 12:L:119:PRO:CA    | 1.70                     | 1.37              |
| 4:D:198:PRO:N      | 4:D:198:PRO:CA     | 1.70                     | 1.36              |
| 11:K:40:SER:CB     | 11:K:82:MET:HG3    | 1.70                     | 1.21              |
| 21:6:608:CLA:HHC   | 21:6:608:CLA:HBB1  | 1.25                     | 1.15              |
| 34:5:502:LUT:H28   | 34:5:502:LUT:H361  | 1.26                     | 1.15              |
| 21:A:1012:CLA:H43  | 2:B:439:VAL:HG22   | 1.26                     | 1.14              |
| 34:6:501:LUT:H363  | 21:6:601:CLA:O1A   | 1.47                     | 1.14              |
| 2:B:106:THR:HG21   | 9:H:128:THR:HB     | 1.31                     | 1.12              |
| 21:5:604:CLA:HMB1  | 21:5:604:CLA:HBB1  | 1.30                     | 1.12              |
| 21:B:1206:CLA:HBB1 | 21:B:1206:CLA:HMB1 | 1.30                     | 1.12              |
| 21:K:1404:CLA:HBB1 | 21:K:1404:CLA:HMB1 | 1.29                     | 1.11              |
| 2:B:112:GLY:HA2    | 9:H:128:THR:HG21   | 1.32                     | 1.11              |
| 21:6:602:CLA:HHC   | 21:6:602:CLA:HBB1  | 1.29                     | 1.11              |
| 21:5:606:CLA:HBB1  | 21:5:606:CLA:HMB1  | 1.33                     | 1.11              |
| 21:A:1114:CLA:HBB1 | 21:A:1114:CLA:HMB1 | 1.32                     | 1.10              |
| 21:6:601:CLA:HBB1  | 21:6:601:CLA:HMB1  | 1.29                     | 1.10              |
| 1:A:211:LEU:HD21   | 24:A:4001:BCR:H10C | 1.33                     | 1.10              |
| 21:6:603:CLA:HHC   | 21:6:603:CLA:HBB1  | 1.28                     | 1.09              |
| 21:A:1112:CLA:HBB1 | 21:A:1112:CLA:HMB1 | 1.30                     | 1.09              |
| 21:B:1212:CLA:H93  | 24:B:4001:BCR:H311 | 1.23                     | 1.09              |
| 21:5:605:CLA:HMB1  | 21:5:605:CLA:HBB1  | 1.35                     | 1.09              |
| 21:A:1121:CLA:H92  | 21:K:1403:CLA:HBC2 | 1.08                     | 1.08              |
| 21:A:1121:CLA:HHC  | 21:A:1121:CLA:HBB1 | 1.29                     | 1.08              |
| 10:I:38:MET:HG2    | 24:L:4001:BCR:H10C | 1.35                     | 1.08              |
| 21:1:601:CLA:HBB1  | 21:1:601:CLA:HMB1  | 1.31                     | 1.07              |
| 21:6:601:CLA:HED2  | 21:6:601:CLA:H2A   | 1.08                     | 1.07              |
| 21:A:1132:CLA:H143 | 21:L:1502:CLA:HBB1 | 1.36                     | 1.07              |
| 21:6:606:CLA:HMB1  | 21:6:606:CLA:HBB1  | 1.35                     | 1.06              |
| 21:B:1239:CLA:HHC  | 21:B:1239:CLA:HBB1 | 1.32                     | 1.06              |
| 21:G:1601:CLA:HMB1 | 21:G:1601:CLA:HBB1 | 1.37                     | 1.05              |
| 21:5:606:CLA:HMA2  | 21:5:613:CLA:HBC3  | 1.37                     | 1.05              |
| 21:B:1208:CLA:HBB1 | 21:B:1208:CLA:HHC  | 1.35                     | 1.05              |
| 9:H:70:TYR:CE1     | 12:L:83:LEU:HD12   | 1.91                     | 1.04              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:3:610:CLA:HBB1  | 21:3:610:CLA:HMB1  | 1.30                     | 1.04              |
| 8:G:81:LYS:HA      | 8:G:81:LYS:HE2     | 1.40                     | 1.04              |
| 21:G:1602:CLA:HMB1 | 21:G:1602:CLA:HBB1 | 1.37                     | 1.04              |
| 21:B:1207:CLA:HBB1 | 21:B:1207:CLA:HHC  | 1.34                     | 1.04              |
| 16:3:153:ILE:HG22  | 16:3:155:PRO:HD2   | 1.40                     | 1.03              |
| 21:A:1121:CLA:C9   | 21:K:1403:CLA:HBC2 | 1.89                     | 1.02              |
| 34:6:501:LUT:H28   | 34:6:501:LUT:H361  | 1.39                     | 1.02              |
| 2:B:99:GLN:HB3     | 2:B:100:PRO:HD3    | 1.41                     | 1.01              |
| 11:K:40:SER:HB2    | 11:K:82:MET:HG3    | 1.03                     | 1.01              |
| 34:5:503:LUT:H28   | 34:5:503:LUT:H371  | 1.41                     | 1.00              |
| 21:A:1121:CLA:H92  | 21:K:1403:CLA:CBC  | 1.89                     | 1.00              |
| 21:A:1132:CLA:C14  | 21:L:1502:CLA:HBB1 | 1.93                     | 0.99              |
| 11:K:40:SER:HB2    | 11:K:82:MET:CG     | 1.91                     | 0.99              |
| 21:K:1402:CLA:HBB1 | 21:K:1402:CLA:HMB1 | 1.41                     | 0.99              |
| 21:B:1021:CLA:HMB3 | 21:B:1022:CLA:OBD  | 1.60                     | 0.99              |
| 36:5:610:CHL:HMA1  | 33:5:803:PTY:H431  | 1.43                     | 0.98              |
| 2:B:168:TRP:CZ2    | 21:B:1208:CLA:HMA1 | 1.99                     | 0.98              |
| 21:6:603:CLA:C4D   | 21:6:603:CLA:H12   | 1.93                     | 0.97              |
| 21:B:1212:CLA:H93  | 24:B:4001:BCR:C31  | 1.94                     | 0.97              |
| 11:K:69:ASP:OD1    | 11:K:70:PRO:HD2    | 1.65                     | 0.96              |
| 21:B:1212:CLA:HMB1 | 21:B:1212:CLA:HBB1 | 1.45                     | 0.96              |
| 21:6:601:CLA:HED2  | 21:6:601:CLA:C2A   | 1.95                     | 0.96              |
| 24:I:4002:BCR:H23C | 24:I:4002:BCR:H403 | 1.48                     | 0.96              |
| 21:6:601:CLA:H41   | 21:6:601:CLA:H71   | 1.47                     | 0.95              |
| 19:6:153:TYR:HB3   | 19:6:154:PRO:HD2   | 1.47                     | 0.95              |
| 18:5:52:LEU:HD22   | 18:5:237:PRO:HG3   | 1.47                     | 0.95              |
| 18:5:99:LEU:HD11   | 34:5:504:LUT:H403  | 1.48                     | 0.94              |
| 14:1:83:MET:HE1    | 21:1:601:CLA:HAB   | 1.49                     | 0.94              |
| 21:4:604:CLA:HBB1  | 21:4:604:CLA:HMB1  | 1.48                     | 0.94              |
| 1:A:487:ILE:HD11   | 21:A:1135:CLA:H2   | 1.47                     | 0.94              |
| 35:6:504:XAT:H10   | 21:6:606:CLA:HBA2  | 1.46                     | 0.94              |
| 2:B:168:TRP:CE2    | 21:B:1208:CLA:HMA1 | 2.02                     | 0.93              |
| 20:A:1011:CL0:H15  | 20:A:1011:CL0:H11  | 1.48                     | 0.93              |
| 6:F:186:ILE:O      | 6:F:190:LYS:HG3    | 1.71                     | 0.91              |
| 21:A:1132:CLA:H91  | 21:L:1502:CLA:CBB  | 2.00                     | 0.91              |
| 2:B:93:TRP:HH2     | 9:H:114:LEU:HD13   | 1.31                     | 0.91              |
| 21:A:1012:CLA:HAB  | 2:B:583:TRP:CH2    | 2.04                     | 0.91              |
| 24:3:504:BCR:H341  | 21:3:610:CLA:HBC2  | 1.53                     | 0.91              |
| 18:5:99:LEU:CD2    | 34:5:504:LUT:H391  | 2.01                     | 0.91              |
| 34:6:501:LUT:C16   | 21:6:603:CLA:HMB3  | 2.00                     | 0.90              |
| 34:5:502:LUT:H373  | 21:5:606:CLA:C2B   | 2.00                     | 0.90              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1119:CLA:CMD  | 21:A:1121:CLA:CBB  | 2.50                     | 0.89              |
| 2:B:659:ALA:HB3    | 21:B:1023:CLA:HBB2 | 1.53                     | 0.89              |
| 21:A:1120:CLA:H121 | 21:A:1121:CLA:H122 | 1.55                     | 0.88              |
| 21:A:1132:CLA:HMB1 | 21:A:1132:CLA:HBB1 | 1.55                     | 0.88              |
| 10:I:20:TRP:CH2    | 33:5:803:PTY:H122  | 2.09                     | 0.88              |
| 19:6:125:GLN:HE21  | 19:6:125:GLN:HA    | 1.38                     | 0.88              |
| 12:L:188:THR:O     | 12:L:192:LEU:HD23  | 1.73                     | 0.87              |
| 21:5:604:CLA:HMD2  | 36:5:609:CHL:CBB   | 2.05                     | 0.87              |
| 21:3:610:CLA:HBB1  | 31:3:803:LMG:H292  | 1.57                     | 0.86              |
| 21:A:1115:CLA:HBB1 | 21:A:1115:CLA:HMB1 | 1.57                     | 0.86              |
| 24:1:504:BCR:H353  | 21:1:611:CLA:CBB   | 2.05                     | 0.86              |
| 35:6:504:XAT:H10   | 21:6:606:CLA:CBA   | 2.05                     | 0.85              |
| 34:5:503:LUT:H371  | 34:5:503:LUT:C28   | 2.05                     | 0.85              |
| 21:A:1132:CLA:C14  | 21:L:1502:CLA:CBB  | 2.54                     | 0.84              |
| 17:4:137:LEU:HD13  | 17:4:146:GLY:HA2   | 1.59                     | 0.84              |
| 18:5:196:VAL:HG12  | 18:5:199:GLN:HB2   | 1.57                     | 0.84              |
| 9:H:122:LEU:O      | 9:H:125:PRO:HD2    | 1.77                     | 0.84              |
| 14:1:173:LYS:HB3   | 21:1:601:CLA:HMA1  | 1.59                     | 0.84              |
| 8:G:29:GLU:HB2     | 8:G:32:VAL:HG22    | 1.59                     | 0.84              |
| 2:B:86:ARG:HG2     | 9:H:144:LEU:HB2    | 1.58                     | 0.84              |
| 21:B:1205:CLA:HAB  | 21:B:1206:CLA:O1A  | 1.77                     | 0.83              |
| 9:H:70:TYR:CE1     | 12:L:83:LEU:CD1    | 2.60                     | 0.83              |
| 14:1:83:MET:CE     | 21:1:601:CLA:HAB   | 2.07                     | 0.83              |
| 18:5:99:LEU:HD11   | 21:5:606:CLA:HMC2  | 1.60                     | 0.83              |
| 28:3:805:DGD:O5E   | 28:3:805:DGD:O3E   | 1.94                     | 0.83              |
| 19:6:162:SER:H     | 19:6:163:PRO:HD2   | 1.43                     | 0.83              |
| 6:F:139:LEU:HD12   | 6:F:139:LEU:O      | 1.78                     | 0.83              |
| 21:A:1132:CLA:H91  | 21:L:1502:CLA:HBB2 | 1.58                     | 0.82              |
| 2:B:99:GLN:N       | 9:H:123:GLU:HG2    | 1.93                     | 0.82              |
| 18:5:99:LEU:HG     | 21:5:606:CLA:HAB   | 1.60                     | 0.82              |
| 18:5:71:PHE:CZ     | 18:5:73:PRO:HG3    | 2.14                     | 0.82              |
| 21:A:1120:CLA:H121 | 21:A:1121:CLA:C12  | 2.09                     | 0.82              |
| 19:6:75:GLU:HG3    | 31:6:802:LMG:O2    | 1.80                     | 0.82              |
| 19:6:198:LEU:O     | 19:6:202:LEU:HG    | 1.79                     | 0.82              |
| 19:6:85:LYS:HD2    | 19:6:149:PHE:CZ    | 2.14                     | 0.82              |
| 1:A:454:GLY:HA3    | 21:A:1132:CLA:HAB  | 1.61                     | 0.82              |
| 2:B:659:ALA:CB     | 21:B:1023:CLA:HBB2 | 2.11                     | 0.81              |
| 35:6:504:XAT:H393  | 21:6:601:CLA:HBC1  | 1.60                     | 0.81              |
| 8:G:30:PRO:O       | 8:G:34:ILE:HG22    | 1.81                     | 0.81              |
| 21:6:602:CLA:HED2  | 21:6:602:CLA:H2A   | 1.60                     | 0.81              |
| 21:A:1119:CLA:HMD2 | 21:A:1121:CLA:CBB  | 2.11                     | 0.81              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 18:5:69:MET:HB2    | 21:5:604:CLA:HMD1  | 1.62                     | 0.81              |
| 12:L:154:GLN:HB2   | 12:L:157:PRO:HG3   | 1.63                     | 0.81              |
| 21:A:1119:CLA:CMD  | 21:A:1121:CLA:HBB1 | 2.11                     | 0.80              |
| 21:1:611:CLA:HBB1  | 21:1:611:CLA:HMB1  | 1.62                     | 0.80              |
| 16:3:152:VAL:HG21  | 35:3:502:XAT:H172  | 1.63                     | 0.80              |
| 21:6:608:CLA:HHC   | 21:6:608:CLA:CBB   | 2.10                     | 0.80              |
| 8:G:34:ILE:HD12    | 8:G:110:PHE:HD1    | 1.44                     | 0.80              |
| 34:6:501:LUT:H162  | 21:6:603:CLA:HMB3  | 1.61                     | 0.80              |
| 20:A:1011:CL0:CGD  | 20:A:1011:CL0:H8   | 2.11                     | 0.80              |
| 2:B:93:TRP:CH2     | 9:H:114:LEU:HD13   | 2.16                     | 0.80              |
| 21:A:1120:CLA:H143 | 21:A:1121:CLA:H143 | 1.62                     | 0.80              |
| 36:5:610:CHL:CMA   | 33:5:803:PTY:H431  | 2.11                     | 0.79              |
| 1:A:598:TRP:CH2    | 21:B:1022:CLA:HAB  | 2.16                     | 0.79              |
| 21:3:610:CLA:CBB   | 31:3:803:LMG:H312  | 2.12                     | 0.79              |
| 16:3:153:ILE:CG2   | 16:3:155:PRO:HD2   | 2.12                     | 0.79              |
| 18:5:99:LEU:HD22   | 34:5:504:LUT:H391  | 1.62                     | 0.79              |
| 19:6:169:GLU:HB2   | 21:6:601:CLA:HMB3  | 1.64                     | 0.79              |
| 24:A:4002:BCR:H281 | 21:K:1401:CLA:HAB  | 1.64                     | 0.79              |
| 21:B:1212:CLA:C6   | 24:B:4001:BCR:H312 | 2.12                     | 0.79              |
| 6:F:132:THR:HG21   | 24:F:4001:BCR:HC41 | 1.63                     | 0.79              |
| 18:5:99:LEU:CD1    | 34:5:504:LUT:H403  | 2.12                     | 0.79              |
| 2:B:112:GLY:HA2    | 9:H:128:THR:CG2    | 2.10                     | 0.79              |
| 36:5:609:CHL:C3C   | 25:5:801:LHG:HC81  | 2.12                     | 0.79              |
| 21:A:1134:CLA:HED2 | 21:A:1134:CLA:H2A  | 1.65                     | 0.79              |
| 24:A:4001:BCR:C24  | 11:K:85:ALA:HB2    | 2.13                     | 0.79              |
| 12:L:154:GLN:HB2   | 12:L:157:PRO:CG    | 2.13                     | 0.79              |
| 8:G:34:ILE:HD12    | 8:G:110:PHE:CD1    | 2.18                     | 0.79              |
| 24:I:4002:BCR:H403 | 24:I:4002:BCR:C23  | 2.13                     | 0.78              |
| 21:B:1212:CLA:H62  | 24:B:4001:BCR:H312 | 1.65                     | 0.78              |
| 2:B:659:ALA:O      | 21:B:1023:CLA:HAB  | 1.83                     | 0.78              |
| 21:A:1114:CLA:HED2 | 21:A:1114:CLA:H2A  | 1.65                     | 0.78              |
| 14:1:163:PHE:HB2   | 21:1:601:CLA:O2A   | 1.83                     | 0.78              |
| 21:A:1115:CLA:C4D  | 21:A:1115:CLA:H12  | 2.14                     | 0.78              |
| 21:B:1220:CLA:HAB  | 21:B:1227:CLA:HMD2 | 1.66                     | 0.78              |
| 21:A:1112:CLA:HMB1 | 21:A:1112:CLA:CBB  | 2.13                     | 0.77              |
| 21:6:602:CLA:HHC   | 21:6:602:CLA:CBB   | 2.13                     | 0.77              |
| 1:A:396:TRP:CD1    | 21:A:1126:CLA:HAB  | 2.19                     | 0.77              |
| 21:A:1121:CLA:HHC  | 21:A:1121:CLA:CBB  | 2.14                     | 0.77              |
| 21:6:601:CLA:H41   | 21:6:601:CLA:C7    | 2.05                     | 0.77              |
| 21:A:1132:CLA:H143 | 21:L:1502:CLA:CBB  | 2.14                     | 0.77              |
| 21:6:601:CLA:H2A   | 21:6:601:CLA:CED   | 2.03                     | 0.77              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1116:CLA:H12  | 21:A:1125:CLA:HBB2 | 1.66                     | 0.77              |
| 19:6:171:LYS:HD2   | 21:6:607:CLA:CGD   | 2.14                     | 0.77              |
| 21:6:603:CLA:H12   | 21:6:603:CLA:ND    | 1.98                     | 0.77              |
| 2:B:99:GLN:HA      | 2:B:99:GLN:NE2     | 1.98                     | 0.77              |
| 18:5:106:THR:HB    | 18:5:107:PRO:HD3   | 1.67                     | 0.77              |
| 24:A:4007:BCR:H363 | 21:B:1023:CLA:H101 | 1.66                     | 0.77              |
| 2:B:112:GLY:CA     | 9:H:128:THR:HG21   | 2.13                     | 0.77              |
| 36:5:609:CHL:HHC   | 36:5:609:CHL:HBB1  | 1.67                     | 0.76              |
| 9:H:93:VAL:HG23    | 12:L:185:ALA:HB1   | 1.67                     | 0.76              |
| 19:6:168:LYS:HE2   | 19:6:168:LYS:H     | 1.50                     | 0.76              |
| 21:5:606:CLA:HMA2  | 21:5:613:CLA:CBC   | 2.15                     | 0.76              |
| 19:6:165:HIS:HE1   | 21:6:602:CLA:HBA2  | 1.50                     | 0.76              |
| 8:G:81:LYS:HE2     | 8:G:81:LYS:CA      | 2.14                     | 0.76              |
| 21:K:1401:CLA:HMC2 | 24:K:4001:BCR:H332 | 1.67                     | 0.76              |
| 9:H:108:GLY:O      | 9:H:112:ILE:HG22   | 1.86                     | 0.76              |
| 21:A:1119:CLA:HMD3 | 21:A:1121:CLA:HMC3 | 1.67                     | 0.76              |
| 34:6:501:LUT:H161  | 21:6:603:CLA:HMB3  | 1.68                     | 0.76              |
| 2:B:433:HIS:HB3    | 24:F:4001:BCR:H292 | 1.67                     | 0.76              |
| 4:D:207:ALA:O      | 4:D:211:ILE:HG12   | 1.85                     | 0.76              |
| 18:5:52:LEU:HD22   | 18:5:237:PRO:CG    | 2.15                     | 0.76              |
| 21:A:1132:CLA:H142 | 21:L:1502:CLA:CBB  | 2.17                     | 0.75              |
| 13:O:65:SER:HB3    | 24:O:4001:BCR:HC32 | 1.69                     | 0.75              |
| 24:3:504:BCR:H341  | 21:3:610:CLA:CBC   | 2.15                     | 0.75              |
| 17:4:142:LEU:HD21  | 17:4:276:LYS:HD3   | 1.68                     | 0.75              |
| 36:6:610:CHL:HHC   | 36:6:610:CHL:HBB1  | 1.68                     | 0.75              |
| 21:5:604:CLA:HMB1  | 21:5:604:CLA:CBB   | 2.13                     | 0.75              |
| 10:I:31:LEU:CD2    | 24:I:4001:BCR:H351 | 2.16                     | 0.75              |
| 21:3:610:CLA:HMB1  | 21:3:610:CLA:CBB   | 2.14                     | 0.75              |
| 21:B:1208:CLA:HHC  | 21:B:1208:CLA:CBB  | 2.17                     | 0.75              |
| 36:5:609:CHL:HED1  | 19:6:134:GLY:C     | 2.06                     | 0.75              |
| 21:A:1012:CLA:H43  | 2:B:439:VAL:CG2    | 2.14                     | 0.75              |
| 2:B:407:ASN:O      | 2:B:411:ARG:HB2    | 1.87                     | 0.75              |
| 21:B:1213:CLA:HBD  | 8:G:117:LEU:HD11   | 1.69                     | 0.75              |
| 19:6:183:PHE:CE1   | 34:6:501:LUT:H41   | 2.22                     | 0.75              |
| 19:6:185:VAL:HG11  | 21:6:603:CLA:HAC2  | 1.69                     | 0.75              |
| 2:B:429:PHE:CE2    | 21:B:1235:CLA:HAB  | 2.22                     | 0.75              |
| 10:I:20:TRP:CZ2    | 33:5:803:PTY:H122  | 2.22                     | 0.75              |
| 11:K:49:ARG:HD2    | 11:K:72:ALA:O      | 1.87                     | 0.75              |
| 21:6:601:CLA:HMB1  | 21:6:601:CLA:CBB   | 2.13                     | 0.75              |
| 8:G:46:ARG:O       | 8:G:46:ARG:HD3     | 1.85                     | 0.74              |
| 11:K:48:VAL:HG23   | 11:K:78:ASP:OD1    | 1.87                     | 0.74              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1114:CLA:C3D  | 31:3:803:LMG:H291  | 2.17                     | 0.74              |
| 21:6:603:CLA:HHC   | 21:6:603:CLA:CBB   | 2.12                     | 0.74              |
| 6:F:84:PRO:HG2     | 6:F:87:GLU:HG2     | 1.69                     | 0.74              |
| 24:H:4001:BCR:H19C | 24:L:4002:BCR:H341 | 1.68                     | 0.74              |
| 21:5:605:CLA:HMB1  | 21:5:605:CLA:CBB   | 2.15                     | 0.74              |
| 2:B:175:ARG:HG3    | 21:B:1210:CLA:HBC2 | 1.68                     | 0.74              |
| 34:6:501:LUT:H361  | 34:6:501:LUT:C28   | 2.16                     | 0.74              |
| 21:B:1207:CLA:H112 | 12:L:136:ALA:HB2   | 1.69                     | 0.74              |
| 21:B:1239:CLA:H11  | 22:B:2002:PQN:H302 | 1.69                     | 0.74              |
| 21:A:1114:CLA:HMB1 | 21:A:1114:CLA:CBB  | 2.16                     | 0.74              |
| 1:A:680:ALA:O      | 21:A:1013:CLA:HAB  | 1.87                     | 0.74              |
| 21:G:1602:CLA:HMB1 | 21:G:1602:CLA:CBB  | 2.16                     | 0.73              |
| 24:A:4007:BCR:C36  | 21:B:1023:CLA:H122 | 2.18                     | 0.73              |
| 21:B:1206:CLA:H43  | 24:I:4001:BCR:C22  | 2.18                     | 0.73              |
| 21:B:1225:CLA:H51  | 24:B:4002:BCR:H23C | 1.70                     | 0.73              |
| 21:5:608:CLA:O2D   | 19:6:128:ILE:HD11  | 1.87                     | 0.73              |
| 21:B:1207:CLA:HHC  | 21:B:1207:CLA:CBB  | 2.15                     | 0.73              |
| 8:G:63:PRO:O       | 8:G:78:ARG:NH2     | 2.22                     | 0.73              |
| 36:5:609:CHL:C2C   | 25:5:801:LHG:HC81  | 2.18                     | 0.73              |
| 2:B:51:HIS:HB3     | 21:B:1210:CLA:HED3 | 1.70                     | 0.73              |
| 21:G:1601:CLA:HMB1 | 21:G:1601:CLA:CBB  | 2.18                     | 0.73              |
| 18:5:114:GLY:HA2   | 18:5:117:PRO:O     | 1.89                     | 0.73              |
| 24:A:4001:BCR:H24C | 11:K:85:ALA:HB2    | 1.69                     | 0.73              |
| 21:B:1205:CLA:CAB  | 21:B:1206:CLA:O1A  | 2.37                     | 0.73              |
| 24:A:4007:BCR:H362 | 21:B:1023:CLA:H122 | 1.71                     | 0.72              |
| 7:J:31:ARG:NH2     | 21:J:1901:CLA:O1D  | 2.21                     | 0.72              |
| 12:L:169:LEU:HD23  | 12:L:169:LEU:O     | 1.88                     | 0.72              |
| 2:B:109:GLY:HA2    | 9:H:135:LYS:HE2    | 1.71                     | 0.72              |
| 21:5:604:CLA:HMD2  | 36:5:609:CHL:HBB2  | 1.71                     | 0.72              |
| 34:5:502:LUT:H28   | 34:5:502:LUT:C36   | 2.12                     | 0.72              |
| 19:6:183:PHE:HE1   | 34:6:501:LUT:H41   | 1.55                     | 0.72              |
| 21:A:1115:CLA:H2A  | 21:A:1115:CLA:CED  | 2.20                     | 0.72              |
| 28:3:805:DGD:HO3E  | 28:3:805:DGD:HO5E  | 1.17                     | 0.72              |
| 18:5:52:LEU:HD13   | 18:5:237:PRO:HB3   | 1.70                     | 0.72              |
| 16:3:154:PRO:HG2   | 21:3:610:CLA:HMB3  | 1.72                     | 0.72              |
| 35:3:502:XAT:H362  | 36:3:604:CHL:H2    | 1.72                     | 0.72              |
| 2:B:440:HIS:NE2    | 2:B:454:ILE:HG13   | 2.04                     | 0.72              |
| 10:I:38:MET:HG2    | 24:L:4001:BCR:C10  | 2.18                     | 0.72              |
| 2:B:659:ALA:C      | 21:B:1023:CLA:HAB  | 2.10                     | 0.71              |
| 6:F:163:GLU:HA     | 7:J:38:VAL:HG12    | 1.72                     | 0.71              |
| 21:K:1402:CLA:HBD  | 21:K:1402:CLA:HBA1 | 1.72                     | 0.71              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 33:O:5002:PTY:C11  | 33:O:5002:PTY:HC11 | 2.20                     | 0.71              |
| 10:I:31:LEU:HD21   | 24:I:4001:BCR:H351 | 1.70                     | 0.71              |
| 16:3:259:ILE:HG23  | 16:3:260:THR:HG23  | 1.72                     | 0.71              |
| 21:B:1021:CLA:HMB3 | 21:B:1022:CLA:CAD  | 2.21                     | 0.71              |
| 21:B:1208:CLA:HBC3 | 21:6:605:CLA:H92   | 1.73                     | 0.71              |
| 21:K:1402:CLA:HMB1 | 21:K:1402:CLA:CBB  | 2.18                     | 0.71              |
| 21:6:606:CLA:HMB1  | 21:6:606:CLA:CBB   | 2.18                     | 0.71              |
| 24:F:4001:BCR:H331 | 24:F:4001:BCR:C8   | 2.19                     | 0.71              |
| 18:5:108:GLU:OE1   | 18:5:115:THR:HA    | 1.91                     | 0.71              |
| 21:B:1206:CLA:HMB1 | 21:B:1206:CLA:CBB  | 2.13                     | 0.70              |
| 19:6:93:MET:HG2    | 21:6:601:CLA:HMC1  | 1.73                     | 0.70              |
| 21:K:1404:CLA:HMB1 | 21:K:1404:CLA:CBB  | 2.13                     | 0.70              |
| 1:A:158:GLN:HG2    | 21:A:1112:CLA:HED1 | 1.73                     | 0.70              |
| 10:I:26:VAL:N      | 10:I:27:PRO:HD2    | 2.05                     | 0.70              |
| 1:A:678:VAL:HG11   | 1:A:733:LEU:HD23   | 1.72                     | 0.70              |
| 2:B:168:TRP:CE2    | 21:B:1208:CLA:CMA  | 2.75                     | 0.70              |
| 21:B:1023:CLA:H2   | 21:B:1023:CLA:HMA2 | 1.72                     | 0.70              |
| 19:6:165:HIS:CE1   | 21:6:602:CLA:HBA2  | 2.26                     | 0.70              |
| 8:G:103:LEU:HD11   | 24:G:4001:BCR:H372 | 1.72                     | 0.70              |
| 21:4:604:CLA:H12   | 21:4:604:CLA:CHB   | 2.21                     | 0.70              |
| 21:A:1115:CLA:H12  | 21:A:1115:CLA:ND   | 2.06                     | 0.70              |
| 21:B:1212:CLA:HMB1 | 21:B:1212:CLA:CBB  | 2.21                     | 0.70              |
| 16:3:272:LEU:HD21  | 21:3:608:CLA:HMC3  | 1.73                     | 0.70              |
| 19:6:217:THR:H     | 19:6:218:PRO:CD    | 2.05                     | 0.70              |
| 21:A:1115:CLA:H2A  | 21:A:1115:CLA:HED2 | 1.72                     | 0.69              |
| 16:3:259:ILE:HG21  | 21:3:603:CLA:HMD1  | 1.72                     | 0.69              |
| 2:B:295:ASN:ND2    | 8:G:77:ASP:O       | 2.25                     | 0.69              |
| 21:4:604:CLA:HMB1  | 21:4:604:CLA:CBB   | 2.21                     | 0.69              |
| 18:5:72:ASP:OD2    | 21:5:604:CLA:HAA1  | 1.92                     | 0.69              |
| 2:B:67:PHE:HE1     | 10:I:15:PHE:HB3    | 1.57                     | 0.69              |
| 2:B:596:HIS:O      | 2:B:600:LEU:HB2    | 1.92                     | 0.69              |
| 21:A:1012:CLA:H13  | 21:A:1126:CLA:H192 | 1.74                     | 0.69              |
| 2:B:67:PHE:CE1     | 10:I:15:PHE:HB3    | 2.27                     | 0.69              |
| 20:A:1011:CL0:H8   | 20:A:1011:CL0:H30  | 1.74                     | 0.69              |
| 2:B:71:TRP:CE2     | 10:I:17:PRO:HG2    | 2.28                     | 0.69              |
| 2:B:515:PRO:HG3    | 6:F:147:HIS:CE1    | 2.28                     | 0.69              |
| 18:5:233:LEU:O     | 36:5:609:CHL:HMA2  | 1.93                     | 0.69              |
| 19:6:210:ILE:HD13  | 21:6:603:CLA:H42   | 1.74                     | 0.69              |
| 21:B:1239:CLA:HHC  | 21:B:1239:CLA:CBB  | 2.16                     | 0.69              |
| 21:K:1402:CLA:HAA1 | 33:O:5002:PTY:HC12 | 1.75                     | 0.69              |
| 9:H:77:ARG:HG3     | 12:L:93:VAL:HG21   | 1.74                     | 0.69              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 12:L:156:GLN:HB3   | 12:L:157:PRO:HD3   | 1.75                     | 0.69              |
| 21:6:601:CLA:H71   | 21:6:601:CLA:C4    | 2.22                     | 0.69              |
| 2:B:106:THR:HG21   | 9:H:128:THR:CB     | 2.18                     | 0.68              |
| 24:A:4006:BCR:H292 | 24:J:4001:BCR:H313 | 1.75                     | 0.68              |
| 9:H:122:LEU:HD12   | 9:H:123:GLU:OE1    | 1.93                     | 0.68              |
| 2:B:81:ASP:O       | 2:B:85:VAL:HG22    | 1.94                     | 0.68              |
| 21:B:1206:CLA:H43  | 24:I:4001:BCR:C21  | 2.22                     | 0.68              |
| 21:5:612:CLA:HED2  | 21:5:612:CLA:H2A   | 1.75                     | 0.68              |
| 2:B:295:ASN:HB2    | 8:G:80:GLN:HA      | 1.74                     | 0.68              |
| 18:5:50:ILE:HG22   | 18:5:51:PRO:HD2    | 1.76                     | 0.68              |
| 6:F:223:GLN:HB2    | 17:4:158:ARG:HG3   | 1.74                     | 0.68              |
| 21:G:1601:CLA:CBB  | 24:G:4001:BCR:H363 | 2.24                     | 0.68              |
| 9:H:121:THR:HA     | 9:H:126:ILE:HD11   | 1.76                     | 0.68              |
| 11:K:93:GLU:HG3    | 21:K:1402:CLA:HMC3 | 1.75                     | 0.68              |
| 1:A:709:VAL:HG12   | 6:F:183:ARG:HG3    | 1.74                     | 0.68              |
| 24:1:504:BCR:H353  | 21:1:611:CLA:HBB2  | 1.74                     | 0.68              |
| 21:5:605:CLA:H92   | 21:5:605:CLA:H51   | 1.74                     | 0.68              |
| 21:B:1207:CLA:H62  | 12:L:133:MET:SD    | 2.33                     | 0.68              |
| 1:A:318:ILE:CD1    | 11:K:81:ALA:HB2    | 2.24                     | 0.68              |
| 2:B:494:TRP:HE1    | 21:B:1231:CLA:HED1 | 1.57                     | 0.68              |
| 19:6:85:LYS:O      | 19:6:89:ARG:HG3    | 1.93                     | 0.68              |
| 1:A:127:LEU:HD21   | 1:A:667:ALA:HB2    | 1.74                     | 0.67              |
| 1:A:267:LEU:HD11   | 11:K:29:MET:CE     | 2.24                     | 0.67              |
| 21:A:1131:CLA:HAB  | 21:A:1132:CLA:HBB  | 1.77                     | 0.67              |
| 24:B:4001:BCR:C13  | 24:G:4001:BCR:H392 | 2.24                     | 0.67              |
| 17:4:142:LEU:CD2   | 17:4:276:LYS:HD3   | 2.24                     | 0.67              |
| 34:6:501:LUT:H28   | 34:6:501:LUT:C36   | 2.20                     | 0.67              |
| 21:B:1212:CLA:C9   | 24:B:4001:BCR:C31  | 2.70                     | 0.67              |
| 12:L:58:GLN:HB2    | 12:L:59:PRO:HD2    | 1.75                     | 0.67              |
| 18:5:242:ALA:CB    | 31:6:802:LMG:H152  | 2.24                     | 0.67              |
| 19:6:196:GLU:O     | 19:6:200:LYS:HG3   | 1.93                     | 0.67              |
| 21:A:1012:CLA:HAB  | 2:B:583:TRP:HH2    | 1.58                     | 0.67              |
| 24:F:4001:BCR:H392 | 24:F:4001:BCR:H23C | 1.77                     | 0.67              |
| 21:B:1235:CLA:HBC3 | 24:F:4001:BCR:H382 | 1.75                     | 0.67              |
| 18:5:50:ILE:HG21   | 18:5:55:VAL:H      | 1.60                     | 0.67              |
| 19:6:80:SER:HA     | 19:6:83:MET:HG2    | 1.77                     | 0.67              |
| 21:A:1132:CLA:HMB1 | 21:A:1132:CLA:CBB  | 2.24                     | 0.67              |
| 21:B:1022:CLA:O1A  | 21:B:1022:CLA:H3A  | 1.95                     | 0.67              |
| 21:B:1023:CLA:H2   | 21:B:1023:CLA:CMA  | 2.25                     | 0.67              |
| 9:H:111:SER:HB2    | 10:I:24:LEU:CD1    | 2.24                     | 0.67              |
| 13:O:65:SER:CB     | 24:O:4001:BCR:HC32 | 2.24                     | 0.67              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 18:5:136:PHE:HE2   | 21:5:613:CLA:HMA1  | 1.60                     | 0.67              |
| 21:A:1116:CLA:H12  | 21:A:1125:CLA:CBB  | 2.24                     | 0.66              |
| 21:B:1212:CLA:C9   | 24:B:4001:BCR:H311 | 2.14                     | 0.66              |
| 34:6:501:LUT:H32   | 21:6:601:CLA:HAB   | 1.78                     | 0.66              |
| 1:A:204:GLY:O      | 1:A:208:LEU:HB2    | 1.95                     | 0.66              |
| 19:6:75:GLU:CG     | 31:6:802:LMG:O2    | 2.44                     | 0.66              |
| 2:B:518:PHE:CZ     | 24:F:4001:BCR:H381 | 2.30                     | 0.66              |
| 16:3:268:LEU:HB2   | 34:3:501:LUT:H22   | 1.77                     | 0.66              |
| 16:3:152:VAL:CG2   | 35:3:502:XAT:H21   | 2.26                     | 0.66              |
| 18:5:52:LEU:HD12   | 18:5:52:LEU:O      | 1.95                     | 0.66              |
| 21:B:1235:CLA:HMB1 | 21:B:1235:CLA:HBB1 | 1.78                     | 0.66              |
| 7:J:27:ILE:HD13    | 24:J:4002:BCR:H10C | 1.77                     | 0.66              |
| 21:H:1702:CLA:HMB1 | 18:5:144:TYR:CG    | 2.31                     | 0.66              |
| 11:K:22:SER:CB     | 11:K:26:ARG:HG2    | 2.26                     | 0.66              |
| 21:L:1504:CLA:HBB1 | 21:L:1504:CLA:HHC  | 1.78                     | 0.66              |
| 15:2:204:ASP:OD1   | 34:2:501:LUT:O3    | 2.13                     | 0.66              |
| 1:A:204:GLY:HA3    | 21:A:1111:CLA:HBB1 | 1.76                     | 0.65              |
| 18:5:104:CYS:O     | 18:5:108:GLU:HG2   | 1.96                     | 0.65              |
| 9:H:78:TYR:CE2     | 12:L:97:LEU:HB3    | 2.31                     | 0.65              |
| 34:5:502:LUT:H361  | 34:5:502:LUT:C28   | 2.14                     | 0.65              |
| 13:O:84:LEU:HD22   | 21:O:1803:CLA:H52  | 1.78                     | 0.65              |
| 24:1:504:BCR:H362  | 21:1:611:CLA:HMB3  | 1.77                     | 0.65              |
| 18:5:242:ALA:HB1   | 31:6:802:LMG:H152  | 1.78                     | 0.65              |
| 21:5:604:CLA:CMD   | 36:5:609:CHL:HBB2  | 2.27                     | 0.65              |
| 19:6:171:LYS:HD2   | 21:6:607:CLA:CAD   | 2.26                     | 0.65              |
| 21:A:1132:CLA:H121 | 21:L:1502:CLA:HBB1 | 1.78                     | 0.65              |
| 21:1:601:CLA:HMB1  | 21:1:601:CLA:CBB   | 2.14                     | 0.65              |
| 21:A:1132:CLA:H121 | 21:L:1502:CLA:CBB  | 2.27                     | 0.65              |
| 9:H:124:LEU:CB     | 9:H:125:PRO:HD3    | 2.27                     | 0.65              |
| 21:1:611:CLA:CBB   | 21:1:611:CLA:HMB1  | 2.27                     | 0.65              |
| 21:4:604:CLA:H43   | 21:4:604:CLA:HMB2  | 1.77                     | 0.65              |
| 21:5:606:CLA:H43   | 21:5:613:CLA:CAD   | 2.25                     | 0.65              |
| 21:1:601:CLA:H41   | 21:1:602:CLA:O1A   | 1.97                     | 0.65              |
| 16:3:173:GLU:OE1   | 21:3:610:CLA:HED2  | 1.96                     | 0.65              |
| 19:6:171:LYS:HG2   | 21:6:607:CLA:CMD   | 2.27                     | 0.65              |
| 21:A:1115:CLA:HMB1 | 21:A:1115:CLA:CBB  | 2.26                     | 0.65              |
| 21:A:1116:CLA:C1   | 21:A:1125:CLA:HBB2 | 2.26                     | 0.65              |
| 11:K:33:ILE:O      | 11:K:37:LEU:HG     | 1.97                     | 0.65              |
| 17:4:288:LEU:HD21  | 21:4:603:CLA:H91   | 1.78                     | 0.65              |
| 1:A:487:ILE:HD12   | 21:A:1135:CLA:CGA  | 2.28                     | 0.64              |
| 1:A:515:VAL:HG13   | 1:A:522:ALA:HB3    | 1.78                     | 0.64              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 16:3:177:ILE:HG23  | 21:3:612:CLA:HAB   | 1.77                     | 0.64              |
| 21:5:608:CLA:C4B   | 36:5:609:CHL:H18   | 2.27                     | 0.64              |
| 1:A:487:ILE:HD11   | 21:A:1135:CLA:C2   | 2.23                     | 0.64              |
| 34:5:503:LUT:H28   | 34:5:503:LUT:C37   | 2.22                     | 0.64              |
| 21:B:1204:CLA:O1D  | 10:I:22:PRO:HB3    | 1.97                     | 0.64              |
| 12:L:60:LEU:HD11   | 12:L:66:VAL:HG21   | 1.79                     | 0.64              |
| 1:A:80:GLN:HB2     | 21:A:1103:CLA:HMB2 | 1.79                     | 0.64              |
| 21:B:1212:CLA:C6   | 24:B:4001:BCR:C31  | 2.75                     | 0.64              |
| 21:A:1113:CLA:HBB1 | 24:A:4001:BCR:H323 | 1.79                     | 0.64              |
| 21:A:1119:CLA:H111 | 24:A:4004:BCR:H10C | 1.79                     | 0.64              |
| 19:6:125:GLN:OE1   | 21:6:613:CLA:C2D   | 2.46                     | 0.64              |
| 24:B:4001:BCR:H353 | 24:G:4001:BCR:C39  | 2.26                     | 0.64              |
| 2:B:94:ASP:H       | 9:H:124:LEU:HD21   | 1.63                     | 0.64              |
| 8:G:106:VAL:HG12   | 24:G:4001:BCR:H292 | 1.80                     | 0.64              |
| 18:5:229:PHE:HB2   | 21:5:614:CLA:HAC1  | 1.80                     | 0.64              |
| 2:B:171:ASP:OD2    | 2:B:174:SER:OG     | 2.16                     | 0.64              |
| 2:B:388:PHE:HZ     | 21:B:1222:CLA:HAB  | 1.63                     | 0.64              |
| 9:H:122:LEU:HD12   | 9:H:123:GLU:H      | 1.63                     | 0.64              |
| 14:1:166:ASP:HB3   | 14:1:169:SER:HB3   | 1.79                     | 0.64              |
| 8:G:87:GLU:HA      | 8:G:93:PRO:HG2     | 1.79                     | 0.64              |
| 7:J:16:LEU:HD11    | 24:J:4002:BCR:H21C | 1.80                     | 0.63              |
| 9:H:122:LEU:HD12   | 9:H:123:GLU:N      | 2.13                     | 0.63              |
| 2:B:479:LEU:HD21   | 21:B:1231:CLA:HED2 | 1.80                     | 0.63              |
| 17:4:144:ASP:HA    | 21:4:604:CLA:HED2  | 1.79                     | 0.63              |
| 1:A:158:GLN:HG2    | 21:A:1112:CLA:CED  | 2.29                     | 0.63              |
| 9:H:114:LEU:O      | 9:H:117:LYS:HD2    | 1.99                     | 0.63              |
| 36:5:609:CHL:C1D   | 25:5:801:LHG:H122  | 2.29                     | 0.63              |
| 36:6:610:CHL:HAA2  | 36:6:610:CHL:HBD   | 1.79                     | 0.63              |
| 12:L:154:GLN:O     | 12:L:157:PRO:HG2   | 1.99                     | 0.63              |
| 15:2:205:PRO:HD2   | 34:2:501:LUT:H3    | 1.81                     | 0.63              |
| 18:5:185:LEU:HG    | 21:5:604:CLA:HMC1  | 1.79                     | 0.63              |
| 21:5:603:CLA:H43   | 36:5:609:CHL:H51   | 1.81                     | 0.63              |
| 21:B:1235:CLA:CBC  | 24:F:4001:BCR:H382 | 2.28                     | 0.63              |
| 21:5:605:CLA:HBC1  | 36:5:610:CHL:HAB   | 1.80                     | 0.63              |
| 1:A:119:TRP:NE1    | 27:A:5004:LMU:O2'  | 2.30                     | 0.63              |
| 21:A:1012:CLA:H41  | 2:B:439:VAL:HG13   | 1.79                     | 0.63              |
| 19:6:125:GLN:HE21  | 19:6:125:GLN:CA    | 2.05                     | 0.63              |
| 9:H:124:LEU:HB2    | 9:H:125:PRO:HD3    | 1.79                     | 0.63              |
| 18:5:230:VAL:HG11  | 19:6:127:PRO:HB3   | 1.81                     | 0.63              |
| 15:2:93:SER:HB2    | 15:2:99:ARG:HA     | 1.80                     | 0.63              |
| 18:5:52:LEU:HD22   | 18:5:237:PRO:CB    | 2.29                     | 0.63              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1121:CLA:H91  | 11:K:89:ILE:HD11   | 1.80                     | 0.62              |
| 24:A:4006:BCR:H24C | 21:B:1230:CLA:HMC2 | 1.81                     | 0.62              |
| 2:B:400:ASP:OD2    | 2:B:403:GLN:HG2    | 1.99                     | 0.62              |
| 15:2:194:LYS:NZ    | 15:2:209:SER:O     | 2.32                     | 0.62              |
| 10:I:21:ALA:H      | 10:I:22:PRO:HD2    | 1.63                     | 0.62              |
| 21:6:606:CLA:HMA2  | 21:6:613:CLA:CAC   | 2.29                     | 0.62              |
| 19:6:165:HIS:HE1   | 21:6:602:CLA:CBA   | 2.12                     | 0.62              |
| 12:L:156:GLN:N     | 12:L:157:PRO:HD2   | 2.15                     | 0.62              |
| 18:5:242:ALA:CB    | 31:6:802:LMG:H121  | 2.30                     | 0.62              |
| 2:B:107:ARG:NH2    | 2:B:115:ASN:HA     | 2.15                     | 0.62              |
| 2:B:217:LEU:HD12   | 2:B:217:LEU:O      | 1.98                     | 0.62              |
| 21:B:1208:CLA:C12  | 21:6:612:CLA:H143  | 2.29                     | 0.62              |
| 18:5:99:LEU:CD1    | 21:5:606:CLA:HMC2  | 2.30                     | 0.62              |
| 18:5:110:LEU:C     | 18:5:110:LEU:HD12  | 2.20                     | 0.62              |
| 9:H:138:ASN:HD21   | 9:H:144:LEU:HA     | 1.64                     | 0.62              |
| 11:K:51:ASN:HB3    | 11:K:61:LYS:HD3    | 1.80                     | 0.62              |
| 29:5:804:3PH:H232  | 29:5:804:3PH:H331  | 1.82                     | 0.62              |
| 21:6:606:CLA:HMA2  | 21:6:613:CLA:HAC2  | 1.81                     | 0.62              |
| 21:A:1116:CLA:HAC1 | 21:A:1133:CLA:H42  | 1.82                     | 0.62              |
| 2:B:524:ILE:HG12   | 2:B:591:VAL:HG12   | 1.81                     | 0.62              |
| 8:G:34:ILE:HD11    | 8:G:106:VAL:HG22   | 1.80                     | 0.62              |
| 18:5:71:PHE:CE2    | 18:5:73:PRO:HG3    | 2.35                     | 0.62              |
| 19:6:125:GLN:HA    | 19:6:125:GLN:NE2   | 2.12                     | 0.62              |
| 19:6:153:TYR:CB    | 19:6:154:PRO:HD2   | 2.25                     | 0.62              |
| 1:A:541:PHE:HZ     | 21:B:1022:CLA:CBB  | 2.13                     | 0.62              |
| 6:F:84:PRO:HG2     | 6:F:87:GLU:CG      | 2.30                     | 0.62              |
| 24:A:4007:BCR:H343 | 21:B:1022:CLA:H202 | 1.82                     | 0.61              |
| 21:A:1106:CLA:HAB  | 21:A:1126:CLA:H152 | 1.82                     | 0.61              |
| 2:B:99:GLN:CB      | 2:B:100:PRO:HD3    | 2.26                     | 0.61              |
| 16:3:268:LEU:HD22  | 34:3:501:LUT:H172  | 1.81                     | 0.61              |
| 1:A:119:TRP:CH2    | 21:A:1105:CLA:HBA2 | 2.36                     | 0.61              |
| 1:A:240:PRO:HG3    | 21:A:1112:CLA:HED2 | 1.82                     | 0.61              |
| 9:H:114:LEU:O      | 9:H:117:LYS:CG     | 2.49                     | 0.61              |
| 21:L:1504:CLA:HHC  | 21:L:1504:CLA:CBB  | 2.29                     | 0.61              |
| 17:4:178:VAL:HG12  | 21:4:602:CLA:HAB   | 1.82                     | 0.61              |
| 19:6:153:TYR:HB3   | 19:6:154:PRO:CD    | 2.28                     | 0.61              |
| 19:6:122:VAL:HA    | 19:6:125:GLN:HB2   | 1.81                     | 0.61              |
| 19:6:156:ASP:N     | 19:6:157:PRO:HD3   | 2.16                     | 0.61              |
| 34:6:501:LUT:C36   | 21:6:601:CLA:O1A   | 2.38                     | 0.61              |
| 21:6:606:CLA:HBA1  | 21:6:606:CLA:CHA   | 2.26                     | 0.61              |
| 21:A:1113:CLA:H62  | 24:3:504:BCR:H21C  | 1.83                     | 0.61              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:B:1229:CLA:HAC2 | 6:F:168:THR:HB     | 1.83                     | 0.60              |
| 21:G:1603:CLA:HBC1 | 36:1:610:CHL:C2D   | 2.32                     | 0.60              |
| 17:4:241:GLY:O     | 17:4:249:THR:OG1   | 2.19                     | 0.60              |
| 11:K:53:THR:HG21   | 11:K:59:LEU:HD11   | 1.83                     | 0.60              |
| 12:L:85:ASN:HB3    | 21:L:1501:CLA:HAC1 | 1.83                     | 0.60              |
| 15:2:169:ARG:NH2   | 21:2:612:CLA:O1D   | 2.35                     | 0.60              |
| 19:6:92:MET:HE3    | 21:6:601:CLA:HMC3  | 1.83                     | 0.60              |
| 2:B:601:THR:HG21   | 2:B:610:PHE:HB3    | 1.83                     | 0.60              |
| 1:A:450:PHE:O      | 21:A:1132:CLA:HBB2 | 2.01                     | 0.60              |
| 21:A:1131:CLA:HMC2 | 21:L:1503:CLA:HBB2 | 1.83                     | 0.60              |
| 2:B:52:PHE:HE1     | 21:B:1208:CLA:CBB  | 2.14                     | 0.60              |
| 21:B:1208:CLA:H122 | 21:6:612:CLA:H143  | 1.83                     | 0.60              |
| 21:B:1208:CLA:H2   | 21:B:1209:CLA:C1   | 2.31                     | 0.60              |
| 19:6:133:MET:HG3   | 21:6:612:CLA:HMC3  | 1.84                     | 0.60              |
| 1:A:316:TRP:CD1    | 11:K:77:THR:HG21   | 2.37                     | 0.60              |
| 21:5:605:CLA:HED1  | 21:5:612:CLA:C1    | 2.31                     | 0.60              |
| 19:6:210:ILE:HG13  | 21:6:603:CLA:OBD   | 2.01                     | 0.60              |
| 21:B:1208:CLA:H111 | 21:6:605:CLA:H171  | 1.83                     | 0.60              |
| 6:F:201:ILE:HG12   | 7:J:10:THR:HG22    | 1.82                     | 0.60              |
| 16:3:271:HIS:CG    | 21:3:603:CLA:HAA2  | 2.36                     | 0.60              |
| 19:6:158:VAL:O     | 19:6:158:VAL:HG12  | 2.02                     | 0.60              |
| 1:A:276:LEU:HD11   | 21:A:1113:CLA:HBC1 | 1.84                     | 0.60              |
| 2:B:16:ASP:HB3     | 2:B:21:ARG:HB2     | 1.84                     | 0.60              |
| 6:F:82:LEU:HD13    | 6:F:139:LEU:CD1    | 2.32                     | 0.60              |
| 10:I:24:LEU:HG     | 10:I:24:LEU:O      | 2.00                     | 0.60              |
| 28:3:805:DGD:O5E   | 28:3:805:DGD:HE1   | 2.01                     | 0.60              |
| 21:6:605:CLA:C4    | 31:6:802:LMG:H312  | 2.32                     | 0.60              |
| 1:A:399:GLY:HA3    | 1:A:603:LEU:HD11   | 1.84                     | 0.60              |
| 21:A:1012:CLA:C4   | 2:B:439:VAL:HG13   | 2.32                     | 0.60              |
| 9:H:114:LEU:O      | 9:H:117:LYS:HG2    | 2.02                     | 0.60              |
| 24:H:4001:BCR:C40  | 12:L:197:TRP:HE1   | 2.15                     | 0.60              |
| 11:K:40:SER:OG     | 11:K:82:MET:HG3    | 1.99                     | 0.60              |
| 2:B:325:HIS:O      | 2:B:329:ASN:HB2    | 2.02                     | 0.60              |
| 21:K:1404:CLA:H2A  | 21:K:1404:CLA:O1D  | 2.02                     | 0.60              |
| 21:3:610:CLA:CBB   | 31:3:803:LMG:H292  | 2.32                     | 0.59              |
| 36:5:609:CHL:C2D   | 25:5:801:LHG:H122  | 2.32                     | 0.59              |
| 19:6:123:GLN:OE1   | 19:6:123:GLN:HA    | 2.02                     | 0.59              |
| 1:A:490:THR:O      | 1:A:494:ALA:HB2    | 2.01                     | 0.59              |
| 21:A:1133:CLA:HBB1 | 21:A:1135:CLA:HED2 | 1.83                     | 0.59              |
| 36:5:609:CHL:HED1  | 19:6:134:GLY:O     | 2.01                     | 0.59              |
| 21:A:1116:CLA:H71  | 21:A:1134:CLA:HMA2 | 1.82                     | 0.59              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1134:CLA:HMD2 | 33:O:5002:PTY:HC6  | 1.84                     | 0.59              |
| 24:1:504:BCR:H353  | 21:1:611:CLA:HBB1  | 1.82                     | 0.59              |
| 21:A:1120:CLA:C12  | 21:A:1121:CLA:H122 | 2.31                     | 0.59              |
| 24:H:4001:BCR:H402 | 12:L:197:TRP:HE1   | 1.67                     | 0.59              |
| 11:K:22:SER:HB3    | 11:K:26:ARG:HG2    | 1.84                     | 0.59              |
| 2:B:99:GLN:CA      | 9:H:123:GLU:HG2    | 2.31                     | 0.59              |
| 21:B:1207:CLA:HBA2 | 21:B:1207:CLA:HBD  | 1.83                     | 0.59              |
| 24:F:4001:BCR:C23  | 24:F:4001:BCR:H403 | 2.32                     | 0.59              |
| 17:4:128:TYR:HD2   | 17:4:132:THR:HG21  | 1.67                     | 0.59              |
| 18:5:50:ILE:CG2    | 18:5:51:PRO:HD2    | 2.31                     | 0.59              |
| 21:A:1113:CLA:H11  | 24:3:504:BCR:H393  | 1.84                     | 0.59              |
| 4:D:112:ILE:HG12   | 4:D:122:ILE:HG22   | 1.84                     | 0.59              |
| 9:H:96:ARG:HD3     | 12:L:181:ALA:HB2   | 1.83                     | 0.59              |
| 9:H:109:VAL:HA     | 9:H:112:ILE:CG2    | 2.32                     | 0.59              |
| 21:5:605:CLA:O1D   | 21:5:605:CLA:H2A   | 2.03                     | 0.59              |
| 1:A:245:LEU:HD22   | 28:3:805:DGD:HG32  | 1.85                     | 0.59              |
| 21:A:1114:CLA:C1C  | 31:3:803:LMG:H352  | 2.32                     | 0.59              |
| 24:A:4004:BCR:H291 | 13:O:110:ILE:HB    | 1.84                     | 0.59              |
| 36:2:609:CHL:HMD2  | 24:3:503:BCR:HC42  | 1.85                     | 0.59              |
| 24:3:506:BCR:H21C  | 21:3:606:CLA:HAC1  | 1.84                     | 0.59              |
| 17:4:219:GLU:O     | 17:4:223:PHE:HB2   | 2.02                     | 0.59              |
| 21:5:608:CLA:HAA1  | 19:6:128:ILE:HD13  | 1.84                     | 0.59              |
| 7:J:21:PHE:HA      | 21:J:1901:CLA:HBB2 | 1.84                     | 0.59              |
| 9:H:93:VAL:HG23    | 12:L:185:ALA:CB    | 2.32                     | 0.59              |
| 13:O:80:ILE:HG21   | 21:O:1801:CLA:HMD2 | 1.83                     | 0.59              |
| 1:A:598:TRP:HH2    | 21:B:1022:CLA:HAB  | 1.65                     | 0.59              |
| 21:B:1207:CLA:H121 | 9:H:109:VAL:CG1    | 2.33                     | 0.59              |
| 12:L:57:ILE:HG12   | 12:L:72:PRO:HD3    | 1.84                     | 0.59              |
| 13:O:108:LEU:HD21  | 21:O:1801:CLA:C2B  | 2.33                     | 0.59              |
| 2:B:93:TRP:CZ2     | 9:H:117:LYS:NZ     | 2.71                     | 0.59              |
| 19:6:100:GLY:HA3   | 21:6:606:CLA:HBC3  | 1.84                     | 0.59              |
| 21:6:602:CLA:HED2  | 21:6:602:CLA:CGA   | 2.32                     | 0.59              |
| 1:A:396:TRP:HB3    | 21:A:1126:CLA:HMC3 | 1.84                     | 0.58              |
| 21:B:1238:CLA:HAB  | 22:B:2002:PQN:H141 | 1.84                     | 0.58              |
| 14:1:38:ALA:HB3    | 14:1:41:SER:HB3    | 1.85                     | 0.58              |
| 20:A:1011:CL0:H66  | 21:B:1022:CLA:HMB3 | 1.85                     | 0.58              |
| 21:A:1139:CLA:H111 | 31:F:5002:LMG:H431 | 1.84                     | 0.58              |
| 36:6:610:CHL:HMA1  | 27:6:805:LMU:H62   | 1.84                     | 0.58              |
| 2:B:657:VAL:HG22   | 21:B:1239:CLA:HMB3 | 1.84                     | 0.58              |
| 12:L:139:LEU:C     | 12:L:139:LEU:HD23  | 2.24                     | 0.58              |
| 3:C:8:TYR:HH       | 3:C:68:TYR:HH      | 1.49                     | 0.58              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 6:F:139:LEU:HD12   | 6:F:139:LEU:C      | 2.22                     | 0.58              |
| 20:A:1011:CL0:H8   | 20:A:1011:CL0:CED  | 2.34                     | 0.58              |
| 8:G:34:ILE:HG12    | 8:G:105:HIS:HD2    | 1.69                     | 0.58              |
| 24:K:4001:BCR:H331 | 24:K:4001:BCR:C8   | 2.33                     | 0.58              |
| 16:3:268:LEU:HD13  | 34:3:501:LUT:H163  | 1.84                     | 0.58              |
| 2:B:102:VAL:HG21   | 9:H:123:GLU:HB3    | 1.84                     | 0.58              |
| 12:L:111:ALA:O     | 12:L:115:ILE:HG23  | 2.03                     | 0.58              |
| 14:1:163:PHE:HB2   | 21:1:601:CLA:CGA   | 2.32                     | 0.58              |
| 18:5:71:PHE:CZ     | 18:5:73:PRO:CG     | 2.85                     | 0.58              |
| 19:6:129:LEU:HD13  | 21:6:613:CLA:CHB   | 2.33                     | 0.58              |
| 2:B:78:TRP:HA      | 2:B:85:VAL:HG21    | 1.85                     | 0.58              |
| 24:F:4001:BCR:H14C | 7:J:36:PRO:HB2     | 1.85                     | 0.58              |
| 24:I:4001:BCR:H341 | 24:I:4002:BCR:H403 | 1.86                     | 0.58              |
| 1:A:657:VAL:HG22   | 1:A:745:ALA:HB3    | 1.86                     | 0.58              |
| 21:A:1119:CLA:HMD2 | 21:A:1121:CLA:HBB2 | 1.86                     | 0.58              |
| 21:A:1138:CLA:H162 | 21:A:1139:CLA:H11  | 1.84                     | 0.58              |
| 28:B:5002:DGD:O2E  | 3:C:71:ASN:OD1     | 2.16                     | 0.58              |
| 11:K:39:ALA:HB1    | 11:K:45:ALA:HB2    | 1.85                     | 0.58              |
| 14:1:87:ALA:HB2    | 34:1:501:LUT:H15   | 1.86                     | 0.58              |
| 18:5:52:LEU:HD22   | 18:5:237:PRO:HB3   | 1.85                     | 0.58              |
| 21:A:1101:CLA:HBB2 | 21:A:1109:CLA:H13  | 1.86                     | 0.58              |
| 11:K:69:ASP:CG     | 11:K:70:PRO:HD2    | 2.24                     | 0.58              |
| 12:L:154:GLN:O     | 12:L:157:PRO:O     | 2.22                     | 0.57              |
| 14:1:141:LEU:HD12  | 21:1:611:CLA:HAB   | 1.85                     | 0.57              |
| 21:A:1118:CLA:O1A  | 11:K:77:THR:HG22   | 2.05                     | 0.57              |
| 2:B:86:ARG:HG3     | 9:H:143:ILE:HG22   | 1.86                     | 0.57              |
| 2:B:98:GLY:O       | 2:B:102:VAL:HG23   | 2.04                     | 0.57              |
| 14:1:154:PRO:HG3   | 21:1:611:CLA:HMD2  | 1.85                     | 0.57              |
| 21:5:604:CLA:CMD   | 36:5:609:CHL:CBB   | 2.79                     | 0.57              |
| 21:A:1132:CLA:H142 | 21:L:1502:CLA:HBB2 | 1.86                     | 0.57              |
| 4:D:108:PRO:O      | 4:D:125:LYS:NZ     | 2.37                     | 0.57              |
| 14:1:115:TRP:HD1   | 21:1:606:CLA:HBA2  | 1.69                     | 0.57              |
| 15:2:85:TYR:HB2    | 21:2:604:CLA:HMD1  | 1.87                     | 0.57              |
| 1:A:665:LEU:HB2    | 1:A:668:TYR:HD2    | 1.69                     | 0.57              |
| 24:A:4001:BCR:H321 | 24:A:4001:BCR:C8   | 2.32                     | 0.57              |
| 2:B:143:LEU:HD11   | 24:B:4003:BCR:H292 | 1.85                     | 0.57              |
| 18:5:50:ILE:CG2    | 18:5:51:PRO:CD     | 2.83                     | 0.57              |
| 29:5:804:3PH:O22   | 29:5:804:3PH:H31   | 2.04                     | 0.57              |
| 1:A:304:LEU:HG     | 21:A:1119:CLA:HMC1 | 1.86                     | 0.57              |
| 21:A:1119:CLA:H101 | 24:A:4005:BCR:H21C | 1.86                     | 0.57              |
| 24:A:4007:BCR:HC41 | 2:B:649:TRP:CZ3    | 2.39                     | 0.57              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:B:1207:CLA:HBB1 | 21:B:1207:CLA:CHC  | 2.22                     | 0.57              |
| 21:B:1208:CLA:HBC2 | 21:6:605:CLA:H72   | 1.85                     | 0.57              |
| 4:D:86:GLY:HA3     | 12:L:69:LEU:HD13   | 1.87                     | 0.57              |
| 9:H:77:ARG:CG      | 12:L:93:VAL:HG21   | 2.34                     | 0.57              |
| 2:B:96:HIS:CE1     | 21:B:1206:CLA:HMB3 | 2.39                     | 0.57              |
| 21:B:1212:CLA:O1A  | 24:B:4003:BCR:H333 | 2.04                     | 0.57              |
| 6:F:79:ILE:HD11    | 6:F:149:ILE:HG13   | 1.87                     | 0.57              |
| 1:A:211:LEU:CD2    | 24:A:4001:BCR:H10C | 2.22                     | 0.57              |
| 21:A:1012:CLA:HBB1 | 21:A:1012:CLA:HMB1 | 1.86                     | 0.57              |
| 21:A:1114:CLA:O1A  | 27:A:5005:LMU:H82  | 2.05                     | 0.57              |
| 2:B:93:TRP:HH2     | 9:H:114:LEU:CD1    | 2.12                     | 0.57              |
| 2:B:93:TRP:CE2     | 9:H:124:LEU:HD13   | 2.40                     | 0.57              |
| 4:D:69:PRO:HA      | 4:D:172:GLY:HA3    | 1.87                     | 0.57              |
| 10:I:20:TRP:CH2    | 33:5:803:PTY:C12   | 2.86                     | 0.57              |
| 21:5:606:CLA:HBA1  | 21:5:606:CLA:CHA   | 2.35                     | 0.57              |
| 1:A:158:GLN:CG     | 21:A:1112:CLA:HED1 | 2.35                     | 0.57              |
| 1:A:337:GLY:HA2    | 1:A:426:LEU:HG     | 1.86                     | 0.57              |
| 2:B:518:PHE:HZ     | 24:F:4001:BCR:H381 | 1.68                     | 0.57              |
| 1:A:389:SER:HB3    | 21:A:1126:CLA:HMA1 | 1.86                     | 0.56              |
| 4:D:135:LYS:HE3    | 4:D:167:LEU:HD13   | 1.87                     | 0.56              |
| 13:O:59:PRO:HA     | 13:O:62:ILE:HD12   | 1.87                     | 0.56              |
| 34:1:501:LUT:H30   | 21:1:601:CLA:H72   | 1.88                     | 0.56              |
| 1:A:267:LEU:HD11   | 11:K:29:MET:HE1    | 1.87                     | 0.56              |
| 2:B:227:TRP:CZ2    | 21:B:1212:CLA:H42  | 2.40                     | 0.56              |
| 21:A:1120:CLA:H121 | 21:A:1121:CLA:H121 | 1.87                     | 0.56              |
| 21:A:1139:CLA:H142 | 6:F:208:LEU:HD21   | 1.87                     | 0.56              |
| 2:B:109:GLY:CA     | 9:H:135:LYS:HE2    | 2.35                     | 0.56              |
| 2:B:301:ARG:NH1    | 8:G:62:GLY:O       | 2.37                     | 0.56              |
| 12:L:123:VAL:HB    | 12:L:126:THR:HB    | 1.86                     | 0.56              |
| 12:L:139:LEU:HD23  | 12:L:139:LEU:O     | 2.05                     | 0.56              |
| 15:2:175:ASN:HB2   | 17:4:131:ALA:HB2   | 1.87                     | 0.56              |
| 16:3:280:LEU:N     | 21:3:603:CLA:O1A   | 2.38                     | 0.56              |
| 21:5:604:CLA:HHD   | 36:5:609:CHL:HBB2  | 1.87                     | 0.56              |
| 19:6:168:LYS:H     | 19:6:168:LYS:CE    | 2.18                     | 0.56              |
| 18:5:121:GLY:O     | 18:5:122:VAL:HG22  | 2.06                     | 0.56              |
| 2:B:345:ILE:HG21   | 21:B:1221:CLA:H42  | 1.88                     | 0.56              |
| 17:4:242:ASP:N     | 17:4:242:ASP:OD1   | 2.38                     | 0.56              |
| 17:4:300:ASN:ND2   | 17:4:323:ASN:OD1   | 2.38                     | 0.56              |
| 34:5:502:LUT:H373  | 21:5:606:CLA:CMB   | 2.34                     | 0.56              |
| 19:6:169:GLU:CB    | 21:6:601:CLA:HMB3  | 2.33                     | 0.56              |
| 1:A:673:LEU:HD11   | 2:B:618:MET:HB2    | 1.86                     | 0.56              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:B:1226:CLA:H102 | 21:B:1239:CLA:HED1 | 1.88                     | 0.56              |
| 11:K:39:ALA:O      | 11:K:45:ALA:HB3    | 2.05                     | 0.56              |
| 16:3:181:GLU:OE2   | 16:3:184:ARG:NH1   | 2.39                     | 0.56              |
| 1:A:60:ASP:OD2     | 1:A:350:HIS:NE2    | 2.36                     | 0.56              |
| 21:A:1102:CLA:H43  | 21:A:1109:CLA:HMC2 | 1.88                     | 0.56              |
| 2:B:312:PRO:HG2    | 25:B:5001:LHG:HC32 | 1.88                     | 0.56              |
| 2:B:515:PRO:HD3    | 6:F:147:HIS:CE1    | 2.40                     | 0.56              |
| 21:B:1203:CLA:H91  | 28:B:5002:DGD:HBN1 | 1.88                     | 0.56              |
| 9:H:67:TRP:HD1     | 12:L:166:GLY:N     | 2.03                     | 0.56              |
| 21:L:1503:CLA:C1D  | 21:L:1504:CLA:HAB  | 2.35                     | 0.56              |
| 18:5:61:LEU:HD11   | 18:5:72:ASP:HB2    | 1.88                     | 0.56              |
| 18:5:99:LEU:HD23   | 34:5:504:LUT:H391  | 1.84                     | 0.56              |
| 21:A:1112:CLA:HMB2 | 24:A:4002:BCR:H343 | 1.88                     | 0.56              |
| 21:B:1023:CLA:HMA2 | 21:B:1023:CLA:HBA2 | 1.88                     | 0.56              |
| 9:H:70:TYR:HE1     | 12:L:83:LEU:HD12   | 1.61                     | 0.56              |
| 17:4:235:ARG:NH1   | 31:4:802:LMG:O9    | 2.38                     | 0.56              |
| 2:B:30:HIS:ND1     | 21:B:1203:CLA:O1A  | 2.35                     | 0.56              |
| 21:B:1235:CLA:HMB1 | 21:B:1235:CLA:CBB  | 2.36                     | 0.56              |
| 3:C:79:LEU:O       | 4:D:94:LYS:NZ      | 2.39                     | 0.56              |
| 21:3:610:CLA:HMB1  | 31:3:803:LMG:H292  | 1.87                     | 0.56              |
| 34:6:501:LUT:H183  | 21:6:603:CLA:C3B   | 2.36                     | 0.56              |
| 21:A:1129:CLA:HMA2 | 12:L:71:THR:HG21   | 1.88                     | 0.56              |
| 24:B:4001:BCR:H353 | 24:G:4001:BCR:H392 | 1.88                     | 0.56              |
| 12:L:203:GLN:HG3   | 12:L:204:VAL:HG13  | 1.88                     | 0.56              |
| 1:A:508:LEU:HB2    | 1:A:523:MET:HG3    | 1.89                     | 0.55              |
| 2:B:212:ASN:O      | 2:B:216:VAL:HG12   | 2.06                     | 0.55              |
| 8:G:88:THR:H       | 8:G:93:PRO:HG2     | 1.71                     | 0.55              |
| 19:6:49:ASP:HB3    | 21:6:609:CLA:HBC3  | 1.88                     | 0.55              |
| 24:I:4001:BCR:H353 | 24:I:4002:BCR:H401 | 1.87                     | 0.55              |
| 1:A:265:PHE:HA     | 21:K:1401:CLA:HAC2 | 1.88                     | 0.55              |
| 21:B:1217:CLA:HBB1 | 24:B:4001:BCR:H14C | 1.86                     | 0.55              |
| 21:B:1225:CLA:H112 | 24:B:4002:BCR:H19C | 1.88                     | 0.55              |
| 18:5:238:MET:HG2   | 21:6:612:CLA:HHB   | 1.87                     | 0.55              |
| 21:A:1104:CLA:HED3 | 21:A:1128:CLA:H61  | 1.87                     | 0.55              |
| 21:G:1602:CLA:CHB  | 24:G:4001:BCR:H323 | 2.36                     | 0.55              |
| 21:5:605:CLA:HMD2  | 21:5:612:CLA:CHD   | 2.37                     | 0.55              |
| 1:A:584:CYS:HB2    | 2:B:668:TRP:HB3    | 1.88                     | 0.55              |
| 21:A:1131:CLA:HAA1 | 24:I:4002:BCR:C14  | 2.37                     | 0.55              |
| 2:B:430:LEU:HD11   | 21:B:1235:CLA:HMB3 | 1.89                     | 0.55              |
| 21:B:1228:CLA:HAA2 | 6:F:231:LEU:HD21   | 1.89                     | 0.55              |
| 12:L:154:GLN:HB2   | 12:L:157:PRO:CD    | 2.37                     | 0.55              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 14:1:142:ARG:NH1   | 21:1:612:CLA:O2D   | 2.39                     | 0.55              |
| 21:A:1119:CLA:HMD1 | 21:A:1121:CLA:CBB  | 2.37                     | 0.55              |
| 2:B:374:THR:HG23   | 2:B:592:THR:HG21   | 1.87                     | 0.55              |
| 5:E:67:GLY:HA3     | 5:E:93:VAL:HG11    | 1.88                     | 0.55              |
| 18:5:52:LEU:CD1    | 18:5:237:PRO:HB3   | 2.36                     | 0.55              |
| 14:1:173:LYS:HB3   | 21:1:601:CLA:CMA   | 2.33                     | 0.55              |
| 1:A:19:ARG:HE      | 16:3:95:SER:HB2    | 1.72                     | 0.55              |
| 1:A:356:ASN:ND2    | 21:A:1103:CLA:OBD  | 2.38                     | 0.55              |
| 21:A:1141:CLA:O1A  | 13:O:113:LEU:HA    | 2.07                     | 0.55              |
| 2:B:433:HIS:CB     | 24:F:4001:BCR:H292 | 2.36                     | 0.55              |
| 2:B:444:VAL:HG13   | 2:B:452:LYS:HB2    | 1.87                     | 0.55              |
| 8:G:38:THR:HA      | 8:G:105:HIS:HB2    | 1.88                     | 0.55              |
| 21:4:604:CLA:HBB1  | 21:4:604:CLA:CMB   | 2.32                     | 0.55              |
| 1:A:541:PHE:HZ     | 21:B:1022:CLA:HBB2 | 1.72                     | 0.55              |
| 21:A:1012:CLA:H61  | 24:A:4006:BCR:H362 | 1.87                     | 0.55              |
| 2:B:71:TRP:CD2     | 10:I:17:PRO:HG2    | 2.41                     | 0.55              |
| 2:B:545:SER:HA     | 6:F:239:VAL:HG11   | 1.88                     | 0.55              |
| 24:I:4001:BCR:C32  | 24:I:4001:BCR:C8   | 2.85                     | 0.55              |
| 16:3:259:ILE:HG21  | 21:3:603:CLA:CMD   | 2.37                     | 0.55              |
| 34:5:503:LUT:C24   | 34:5:503:LUT:H363  | 2.37                     | 0.55              |
| 24:B:4001:BCR:C35  | 24:G:4001:BCR:H392 | 2.38                     | 0.54              |
| 24:3:506:BCR:H21C  | 21:3:606:CLA:HMC1  | 1.89                     | 0.54              |
| 21:A:1121:CLA:H62  | 21:K:1403:CLA:CBC  | 2.37                     | 0.54              |
| 11:K:91:VAL:HG21   | 24:K:4001:BCR:H323 | 1.89                     | 0.54              |
| 1:A:721:THR:OG1    | 25:A:5002:LHG:O5   | 2.24                     | 0.54              |
| 34:1:501:LUT:H28   | 21:1:601:CLA:H52   | 1.90                     | 0.54              |
| 24:3:504:BCR:C34   | 21:3:610:CLA:HBC2  | 2.31                     | 0.54              |
| 21:A:1102:CLA:HMA2 | 21:A:1109:CLA:HMD2 | 1.89                     | 0.54              |
| 16:3:193:SER:OG    | 16:3:194:GLN:NE2   | 2.40                     | 0.54              |
| 16:3:264:PRO:O     | 34:3:501:LUT:O3    | 2.25                     | 0.54              |
| 18:5:242:ALA:HA    | 31:6:802:LMG:H121  | 1.90                     | 0.54              |
| 21:A:1113:CLA:H122 | 16:3:254:GLY:HA3   | 1.89                     | 0.54              |
| 2:B:174:SER:O      | 2:B:178:HIS:ND1    | 2.29                     | 0.54              |
| 9:H:130:GLY:N      | 9:H:131:PRO:CD     | 2.71                     | 0.54              |
| 11:K:91:VAL:HG11   | 24:K:4001:BCR:HC21 | 1.89                     | 0.54              |
| 13:O:90:GLY:O      | 13:O:98:TRP:NE1    | 2.33                     | 0.54              |
| 17:4:142:LEU:HD22  | 17:4:276:LYS:HB2   | 1.88                     | 0.54              |
| 18:5:187:PHE:CZ    | 34:5:502:LUT:H30   | 2.42                     | 0.54              |
| 21:A:1012:CLA:HAC2 | 21:A:1013:CLA:HMC2 | 1.89                     | 0.54              |
| 24:F:4001:BCR:C8   | 24:F:4001:BCR:C33  | 2.85                     | 0.54              |
| 11:K:35:ALA:HB1    | 21:K:1403:CLA:HAB  | 1.90                     | 0.54              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 14:1:141:LEU:HB3   | 21:1:611:CLA:HMC3  | 1.90                     | 0.54              |
| 14:1:158:PHE:HB3   | 21:1:601:CLA:HMD1  | 1.90                     | 0.54              |
| 21:A:1012:CLA:HMB1 | 21:A:1012:CLA:CBB  | 2.37                     | 0.54              |
| 24:A:4007:BCR:H363 | 21:B:1023:CLA:H122 | 1.90                     | 0.54              |
| 24:B:4001:BCR:H353 | 24:G:4001:BCR:H391 | 1.90                     | 0.54              |
| 36:5:609:CHL:NC    | 25:5:801:LHG:H101  | 2.23                     | 0.54              |
| 34:6:501:LUT:C30   | 21:6:601:CLA:H102  | 2.38                     | 0.54              |
| 21:A:1115:CLA:C1A  | 21:A:1115:CLA:CGA  | 2.86                     | 0.54              |
| 1:A:83:ILE:HD12    | 24:J:4001:BCR:H282 | 1.89                     | 0.54              |
| 1:A:220:VAL:HG13   | 1:A:240:PRO:HB3    | 1.90                     | 0.54              |
| 1:A:585:GLN:HB3    | 1:A:590:ASP:HB3    | 1.89                     | 0.54              |
| 2:B:464:ILE:HD11   | 21:B:1234:CLA:H2   | 1.90                     | 0.54              |
| 3:C:5:VAL:HG12     | 3:C:67:VAL:HG22    | 1.90                     | 0.54              |
| 8:G:96:PHE:HA      | 8:G:99:TRP:HD1     | 1.72                     | 0.54              |
| 21:K:1402:CLA:HBA1 | 21:K:1402:CLA:CBD  | 2.38                     | 0.54              |
| 17:4:125:PRO:HB2   | 21:4:609:CLA:HBC1  | 1.90                     | 0.54              |
| 17:4:250:ASP:OD2   | 17:4:250:ASP:N     | 2.41                     | 0.54              |
| 18:5:185:LEU:HD11  | 21:5:604:CLA:CBC   | 2.38                     | 0.54              |
| 21:6:603:CLA:C1A   | 21:6:603:CLA:CGA   | 2.85                     | 0.54              |
| 1:A:495:PRO:HA     | 1:A:499:ALA:HB3    | 1.89                     | 0.53              |
| 2:B:672:TRP:HZ3    | 21:B:1023:CLA:O1D  | 1.90                     | 0.53              |
| 9:H:78:TYR:HB3     | 9:H:82:GLN:OE1     | 2.07                     | 0.53              |
| 11:K:41:ARG:C      | 11:K:43:GLY:H      | 2.12                     | 0.53              |
| 17:4:124:ARG:HE    | 17:4:277:LEU:HD22  | 1.72                     | 0.53              |
| 1:A:67:GLU:OE2     | 1:A:71:ARG:NH2     | 2.40                     | 0.53              |
| 1:A:459:ASN:HD22   | 1:A:640:ASN:HB2    | 1.73                     | 0.53              |
| 2:B:69:VAL:HG11    | 2:B:125:TRP:CZ3    | 2.44                     | 0.53              |
| 21:B:1208:CLA:H111 | 21:6:605:CLA:C17   | 2.38                     | 0.53              |
| 9:H:79:PRO:HG3     | 21:H:1701:CLA:C4D  | 2.37                     | 0.53              |
| 9:H:122:LEU:CD1    | 9:H:123:GLU:OE1    | 2.56                     | 0.53              |
| 21:1:604:CLA:HBC1  | 25:1:801:LHG:H162  | 1.90                     | 0.53              |
| 34:5:501:LUT:H34   | 21:5:601:CLA:HAB   | 1.90                     | 0.53              |
| 2:B:664:PHE:CZ     | 21:B:1239:CLA:HBC3 | 2.43                     | 0.53              |
| 12:L:208:ARG:HG3   | 12:L:208:ARG:O     | 2.08                     | 0.53              |
| 19:6:129:LEU:HD11  | 21:6:613:CLA:HMB3  | 1.89                     | 0.53              |
| 21:B:1217:CLA:HMB1 | 24:G:4001:BCR:H373 | 1.90                     | 0.53              |
| 21:G:1602:CLA:HBB1 | 21:G:1602:CLA:CMB  | 2.25                     | 0.53              |
| 14:1:176:LYS:HG3   | 21:1:607:CLA:HED2  | 1.89                     | 0.53              |
| 16:3:117:ALA:HB1   | 16:3:243:GLY:HA3   | 1.91                     | 0.53              |
| 2:B:99:GLN:HB3     | 2:B:100:PRO:CD     | 2.28                     | 0.53              |
| 14:1:161:LEU:HD23  | 34:1:501:LUT:H222  | 1.91                     | 0.53              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 1:A:584:CYS:HB3    | 2:B:668:TRP:HE3    | 1.74                     | 0.53              |
| 21:A:1114:CLA:C4D  | 31:3:803:LMG:H311  | 2.39                     | 0.53              |
| 4:D:201:VAL:O      | 4:D:201:VAL:HG23   | 2.08                     | 0.53              |
| 10:I:16:VAL:HG13   | 10:I:16:VAL:O      | 2.08                     | 0.53              |
| 16:3:152:VAL:HG21  | 35:3:502:XAT:H21   | 1.91                     | 0.53              |
| 34:5:502:LUT:H193  | 21:5:604:CLA:H151  | 1.90                     | 0.53              |
| 29:5:804:3PH:H342  | 29:5:804:3PH:O32   | 2.09                     | 0.53              |
| 21:B:1207:CLA:H121 | 9:H:109:VAL:HG11   | 1.89                     | 0.53              |
| 36:1:610:CHL:HBB2  | 21:1:612:CLA:HBC1  | 1.91                     | 0.53              |
| 18:5:50:ILE:HG22   | 18:5:51:PRO:CD     | 2.39                     | 0.53              |
| 21:B:1219:CLA:O1A  | 8:G:56:ARG:NH1     | 2.41                     | 0.53              |
| 9:H:77:ARG:NH2     | 12:L:101:GLU:OE1   | 2.42                     | 0.53              |
| 24:3:506:BCR:HC7   | 21:3:611:CLA:HMB2  | 1.91                     | 0.53              |
| 36:6:610:CHL:HMA2  | 27:6:805:LMU:H42   | 1.91                     | 0.53              |
| 21:A:1121:CLA:H62  | 21:K:1403:CLA:HBC3 | 1.90                     | 0.53              |
| 21:B:1227:CLA:H71  | 25:B:5001:LHG:HC91 | 1.91                     | 0.53              |
| 19:6:217:THR:N     | 19:6:218:PRO:CD    | 2.72                     | 0.53              |
| 1:A:318:ILE:HD13   | 11:K:81:ALA:HB2    | 1.91                     | 0.52              |
| 21:A:1119:CLA:HMD3 | 21:A:1121:CLA:HBB1 | 1.90                     | 0.52              |
| 21:A:1121:CLA:HBA1 | 21:A:1121:CLA:CHA  | 2.35                     | 0.52              |
| 21:B:1227:CLA:HBC1 | 24:B:4004:BCR:H21C | 1.90                     | 0.52              |
| 8:G:34:ILE:HG12    | 8:G:105:HIS:CD2    | 2.45                     | 0.52              |
| 21:A:1120:CLA:H142 | 21:A:1121:CLA:C15  | 2.38                     | 0.52              |
| 21:A:1129:CLA:HED1 | 12:L:57:ILE:HG21   | 1.91                     | 0.52              |
| 21:A:1134:CLA:H12  | 21:K:1402:CLA:H72  | 1.91                     | 0.52              |
| 21:B:1217:CLA:HMB3 | 8:G:103:LEU:HD21   | 1.90                     | 0.52              |
| 10:I:27:PRO:N      | 10:I:27:PRO:C      | 2.56                     | 0.52              |
| 21:5:606:CLA:HMB1  | 21:5:606:CLA:CBB   | 2.16                     | 0.52              |
| 1:A:477:ILE:HD11   | 32:L:5002:4RF:H5   | 1.90                     | 0.52              |
| 21:A:1128:CLA:H18  | 21:A:1140:CLA:H3A  | 1.91                     | 0.52              |
| 4:D:149:PHE:O      | 4:D:151:GLN:NE2    | 2.42                     | 0.52              |
| 21:2:604:CLA:HHD   | 36:2:609:CHL:HBB2  | 1.89                     | 0.52              |
| 21:3:608:CLA:H2    | 21:3:608:CLA:HAA1  | 1.90                     | 0.52              |
| 21:5:605:CLA:HBC1  | 36:5:610:CHL:CAB   | 2.40                     | 0.52              |
| 19:6:106:VAL:HG22  | 19:6:106:VAL:O     | 2.09                     | 0.52              |
| 2:B:735:GLY:O      | 9:H:144:LEU:HD11   | 2.09                     | 0.52              |
| 21:B:1230:CLA:HMA2 | 24:F:4001:BCR:H363 | 1.91                     | 0.52              |
| 7:J:13:VAL:HG13    | 7:J:14:VAL:HG13    | 1.90                     | 0.52              |
| 21:A:1110:CLA:H8   | 21:A:1110:CLA:HBB1 | 1.90                     | 0.52              |
| 16:3:154:PRO:HD2   | 21:3:610:CLA:C2B   | 2.39                     | 0.52              |
| 1:A:338:HIS:NE2    | 25:A:5001:LHG:O1   | 2.35                     | 0.52              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:B:1231:CLA:H61  | 21:B:1232:CLA:H12  | 1.91                     | 0.52              |
| 9:H:77:ARG:HD2     | 12:L:90:ARG:HG3    | 1.91                     | 0.52              |
| 11:K:40:SER:CB     | 11:K:82:MET:CG     | 2.65                     | 0.52              |
| 2:B:358:PRO:HG3    | 21:B:1215:CLA:HBA1 | 1.91                     | 0.52              |
| 21:B:1023:CLA:H2   | 21:B:1023:CLA:HBA2 | 1.91                     | 0.52              |
| 11:K:48:VAL:HG21   | 11:K:77:THR:OG1    | 2.08                     | 0.52              |
| 21:1:601:CLA:H41   | 21:1:602:CLA:CGA   | 2.40                     | 0.52              |
| 21:5:604:CLA:H8    | 21:5:605:CLA:HMA1  | 1.92                     | 0.52              |
| 19:6:217:THR:H     | 19:6:218:PRO:HD3   | 1.73                     | 0.52              |
| 2:B:444:VAL:HG11   | 2:B:453:GLN:N      | 2.25                     | 0.52              |
| 10:I:18:PRO:O      | 10:I:21:ALA:HB2    | 2.10                     | 0.52              |
| 21:L:1503:CLA:HBA2 | 21:L:1504:CLA:HMB3 | 1.90                     | 0.52              |
| 36:2:611:CHL:HHC   | 36:2:611:CHL:HBB1  | 1.91                     | 0.52              |
| 18:5:99:LEU:HD21   | 34:5:504:LUT:H31   | 1.90                     | 0.52              |
| 21:5:605:CLA:HMD2  | 21:5:612:CLA:C1D   | 2.40                     | 0.52              |
| 2:B:102:VAL:O      | 2:B:106:THR:HG23   | 2.10                     | 0.52              |
| 9:H:124:LEU:CB     | 9:H:125:PRO:CD     | 2.88                     | 0.52              |
| 11:K:63:VAL:HG13   | 11:K:75:THR:HG21   | 1.91                     | 0.52              |
| 1:A:396:TRP:HD1    | 21:A:1126:CLA:HAB  | 1.73                     | 0.52              |
| 21:A:1108:CLA:H61  | 21:3:605:CLA:H51   | 1.91                     | 0.52              |
| 21:K:1402:CLA:HBB1 | 21:K:1402:CLA:CMB  | 2.28                     | 0.52              |
| 12:L:128:GLU:OE1   | 12:L:128:GLU:HA    | 2.10                     | 0.51              |
| 20:A:1011:CL0:H66  | 21:B:1022:CLA:CMB  | 2.40                     | 0.51              |
| 21:B:1207:CLA:H151 | 9:H:109:VAL:HG11   | 1.91                     | 0.51              |
| 24:I:4002:BCR:C23  | 24:I:4002:BCR:C40  | 2.85                     | 0.51              |
| 16:3:153:ILE:O     | 16:3:154:PRO:C     | 2.49                     | 0.51              |
| 17:4:145:TYR:OH    | 17:4:281:GLN:NE2   | 2.44                     | 0.51              |
| 24:A:4001:BCR:H311 | 24:A:4002:BCR:H383 | 1.93                     | 0.51              |
| 2:B:394:PHE:HD1    | 2:B:398:ASP:OD1    | 1.92                     | 0.51              |
| 21:B:1207:CLA:HAB  | 10:I:30:GLY:HA3    | 1.92                     | 0.51              |
| 14:1:141:LEU:CD1   | 21:1:611:CLA:HAB   | 2.40                     | 0.51              |
| 21:5:608:CLA:CED   | 19:6:128:ILE:HD11  | 2.39                     | 0.51              |
| 1:A:505:ALA:HB1    | 1:A:510:TRP:HE1    | 1.74                     | 0.51              |
| 2:B:436:GLY:HA3    | 21:B:1230:CLA:HAB  | 1.92                     | 0.51              |
| 8:G:117:LEU:HD22   | 8:G:122:GLN:HB2    | 1.91                     | 0.51              |
| 9:H:67:TRP:HD1     | 12:L:166:GLY:CA    | 2.23                     | 0.51              |
| 2:B:155:TRP:CZ2    | 18:5:243:ASN:ND2   | 2.77                     | 0.51              |
| 7:J:10:THR:OG1     | 7:J:11:ALA:N       | 2.42                     | 0.51              |
| 9:H:122:LEU:O      | 9:H:126:ILE:HG12   | 2.11                     | 0.51              |
| 13:O:65:SER:H      | 24:O:4001:BCR:HC42 | 1.75                     | 0.51              |
| 19:6:129:LEU:CD1   | 21:6:613:CLA:CHB   | 2.88                     | 0.51              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1138:CLA:H72  | 24:B:4006:BCR:H14C | 1.92                     | 0.51              |
| 2:B:66:LEU:HD11    | 24:B:4003:BCR:H291 | 1.93                     | 0.51              |
| 8:G:102:ALA:O      | 8:G:105:HIS:HB3    | 2.10                     | 0.51              |
| 21:G:1601:CLA:CBB  | 24:G:4001:BCR:C36  | 2.88                     | 0.51              |
| 21:K:1402:CLA:HAA1 | 33:O:5002:PTY:C1   | 2.38                     | 0.51              |
| 21:5:603:CLA:H43   | 36:5:609:CHL:C5    | 2.41                     | 0.51              |
| 21:5:608:CLA:C3B   | 36:5:609:CHL:H18   | 2.41                     | 0.51              |
| 19:6:180:PHE:CE1   | 35:6:502:XAT:H12   | 2.46                     | 0.51              |
| 21:B:1208:CLA:H121 | 21:6:612:CLA:H143  | 1.93                     | 0.51              |
| 21:G:1601:CLA:HBB1 | 21:G:1601:CLA:CMB  | 2.27                     | 0.51              |
| 21:L:1501:CLA:H42  | 21:L:1504:CLA:HBC2 | 1.92                     | 0.51              |
| 1:A:487:ILE:CD1    | 21:A:1135:CLA:CGA  | 2.88                     | 0.51              |
| 2:B:83:ILE:HG23    | 2:B:364:VAL:HG11   | 1.93                     | 0.51              |
| 9:H:66:ALA:HB1     | 12:L:164:LEU:HA    | 1.92                     | 0.51              |
| 18:5:99:LEU:HD11   | 34:5:504:LUT:C40   | 2.31                     | 0.51              |
| 36:5:609:CHL:C4C   | 25:5:801:LHG:HC81  | 2.41                     | 0.51              |
| 19:6:102:GLU:OE1   | 19:6:193:GLN:NE2   | 2.44                     | 0.51              |
| 21:6:612:CLA:HED2  | 21:6:612:CLA:H2A   | 1.92                     | 0.51              |
| 1:A:15:ILE:HD13    | 21:A:1108:CLA:HBA1 | 1.93                     | 0.51              |
| 21:A:1121:CLA:CED  | 11:K:51:ASN:OD1    | 2.59                     | 0.51              |
| 2:B:601:THR:OG1    | 2:B:606:ASN:O      | 2.29                     | 0.51              |
| 11:K:63:VAL:HG12   | 11:K:64:HIS:N      | 2.26                     | 0.51              |
| 16:3:161:ASP:N     | 16:3:161:ASP:OD1   | 2.42                     | 0.51              |
| 16:3:280:LEU:HB2   | 21:3:603:CLA:H2    | 1.93                     | 0.51              |
| 17:4:137:LEU:HD13  | 17:4:146:GLY:CA    | 2.37                     | 0.51              |
| 21:B:1208:CLA:HBB1 | 21:B:1208:CLA:CHC  | 2.23                     | 0.51              |
| 9:H:114:LEU:CD1    | 10:I:27:PRO:HB3    | 2.41                     | 0.51              |
| 15:2:141:LYS:NZ    | 28:2:806:DGD:O3D   | 2.41                     | 0.51              |
| 18:5:155:PHE:HA    | 18:5:162:ASP:HB2   | 1.93                     | 0.51              |
| 1:A:285:VAL:HG13   | 1:A:286:THR:HG23   | 1.92                     | 0.50              |
| 12:L:138:VAL:HG21  | 12:L:191:GLY:HA3   | 1.93                     | 0.50              |
| 12:L:156:GLN:HB3   | 12:L:157:PRO:CD    | 2.40                     | 0.50              |
| 18:5:73:PRO:HG2    | 34:5:502:LUT:H162  | 1.93                     | 0.50              |
| 19:6:169:GLU:CA    | 21:6:601:CLA:HMB3  | 2.40                     | 0.50              |
| 1:A:531:SER:HA     | 1:A:534:LEU:HD12   | 1.93                     | 0.50              |
| 21:A:1114:CLA:HBC2 | 16:3:155:PRO:HG2   | 1.92                     | 0.50              |
| 2:B:722:TYR:HB2    | 21:B:1021:CLA:HED3 | 1.93                     | 0.50              |
| 18:5:185:LEU:HD11  | 21:5:604:CLA:HBC1  | 1.92                     | 0.50              |
| 1:A:32:PRO:HG2     | 1:A:48:TRP:HH2     | 1.76                     | 0.50              |
| 21:A:1120:CLA:H61  | 21:A:1121:CLA:C2   | 2.42                     | 0.50              |
| 2:B:52:PHE:CE1     | 21:B:1208:CLA:CBB  | 2.93                     | 0.50              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 6:F:138:LEU:HG     | 6:F:146:PRO:HB3    | 1.93                     | 0.50              |
| 24:F:4001:BCR:H14C | 7:J:36:PRO:CB      | 2.41                     | 0.50              |
| 8:G:112:LEU:HD11   | 31:1:804:LMG:H292  | 1.94                     | 0.50              |
| 14:1:147:ASP:HB3   | 14:1:150:LYS:HB2   | 1.92                     | 0.50              |
| 19:6:210:ILE:HD12  | 21:6:603:CLA:C3D   | 2.41                     | 0.50              |
| 2:B:168:TRP:NE1    | 21:B:1208:CLA:CMA  | 2.75                     | 0.50              |
| 2:B:701:LEU:N      | 2:B:701:LEU:CD1    | 2.74                     | 0.50              |
| 21:B:1022:CLA:H193 | 21:B:1207:CLA:HMC2 | 1.92                     | 0.50              |
| 3:C:72:GLU:HB3     | 3:C:77:LEU:HG      | 1.93                     | 0.50              |
| 2:B:227:TRP:HZ2    | 21:B:1212:CLA:H42  | 1.77                     | 0.50              |
| 24:I:4001:BCR:H323 | 24:I:4001:BCR:HC8  | 1.94                     | 0.50              |
| 25:2:802:LHG:H281  | 21:4:609:CLA:HMA1  | 1.94                     | 0.50              |
| 21:6:602:CLA:HED2  | 21:6:602:CLA:O1A   | 2.12                     | 0.50              |
| 1:A:229:ASP:OD1    | 1:A:229:ASP:N      | 2.41                     | 0.50              |
| 1:A:482:VAL:HG11   | 32:L:5002:4RF:H75  | 1.91                     | 0.50              |
| 21:A:1013:CLA:H203 | 21:A:1140:CLA:H52  | 1.94                     | 0.50              |
| 2:B:672:TRP:CZ3    | 21:B:1023:CLA:O1D  | 2.64                     | 0.50              |
| 21:B:1229:CLA:H201 | 24:F:4002:BCR:H14C | 1.92                     | 0.50              |
| 21:5:603:CLA:HBC1  | 21:5:614:CLA:H13   | 1.92                     | 0.50              |
| 21:A:1013:CLA:H172 | 21:A:1140:CLA:H61  | 1.94                     | 0.50              |
| 12:L:132:CYS:O     | 12:L:135:ALA:HB3   | 2.11                     | 0.50              |
| 34:5:504:LUT:H11   | 21:5:606:CLA:H12   | 1.94                     | 0.50              |
| 34:5:504:LUT:C11   | 21:5:606:CLA:H12   | 2.42                     | 0.50              |
| 1:A:293:ASP:HB3    | 21:A:1116:CLA:HMA1 | 1.93                     | 0.50              |
| 21:A:1104:CLA:H151 | 21:A:1127:CLA:HBB2 | 1.92                     | 0.50              |
| 21:A:1114:CLA:HBA2 | 31:3:803:LMG:H302  | 1.93                     | 0.50              |
| 2:B:27:ALA:HB1     | 28:B:5002:DGD:HB21 | 1.93                     | 0.50              |
| 4:D:134:ARG:NH2    | 4:D:136:GLU:OE1    | 2.40                     | 0.50              |
| 10:I:21:ALA:HB3    | 10:I:22:PRO:HD3    | 1.94                     | 0.50              |
| 11:K:25:VAL:HG23   | 11:K:26:ARG:HD2    | 1.92                     | 0.50              |
| 15:2:135:ASP:N     | 15:2:135:ASP:OD1   | 2.41                     | 0.50              |
| 21:3:601:CLA:H41   | 21:3:602:CLA:HMA2  | 1.94                     | 0.50              |
| 19:6:180:PHE:CZ    | 35:6:502:XAT:H10   | 2.47                     | 0.50              |
| 1:A:267:LEU:CD1    | 11:K:29:MET:CE     | 2.90                     | 0.50              |
| 24:A:4007:BCR:H363 | 21:B:1023:CLA:H72  | 1.94                     | 0.50              |
| 36:5:609:CHL:C3D   | 25:5:801:LHG:H131  | 2.42                     | 0.50              |
| 1:A:222:LEU:HG     | 1:A:250:ILE:HD11   | 1.94                     | 0.49              |
| 1:A:449:GLY:HA3    | 21:B:1023:CLA:C1   | 2.41                     | 0.49              |
| 2:B:525:ALA:O      | 2:B:529:HIS:ND1    | 2.41                     | 0.49              |
| 7:J:35:ASP:OD1     | 7:J:35:ASP:N       | 2.45                     | 0.49              |
| 9:H:114:LEU:HD12   | 10:I:27:PRO:HB3    | 1.94                     | 0.49              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 16:3:209:SER:OG    | 16:3:210:ASP:N     | 2.43                     | 0.49              |
| 21:6:606:CLA:H12   | 21:6:613:CLA:C3D   | 2.42                     | 0.49              |
| 1:A:453:PHE:CZ     | 21:B:1022:CLA:HMA1 | 2.47                     | 0.49              |
| 24:F:4002:BCR:H351 | 25:F:5001:LHG:H282 | 1.93                     | 0.49              |
| 11:K:74:PHE:CE2    | 11:K:79:VAL:HG22   | 2.47                     | 0.49              |
| 21:1:606:CLA:HMA2  | 21:1:613:CLA:HBC3  | 1.95                     | 0.49              |
| 2:B:416:LYS:NZ     | 2:B:541:ASP:OD1    | 2.41                     | 0.49              |
| 16:3:163:TRP:HE1   | 21:3:613:CLA:CAD   | 2.24                     | 0.49              |
| 21:A:1137:CLA:HBD  | 21:A:1137:CLA:HBA1 | 1.92                     | 0.49              |
| 2:B:391:GLY:HA3    | 24:B:4005:BCR:H382 | 1.95                     | 0.49              |
| 21:B:1208:CLA:HMD2 | 21:6:605:CLA:H42   | 1.95                     | 0.49              |
| 21:B:1225:CLA:H172 | 24:B:4003:BCR:H362 | 1.94                     | 0.49              |
| 21:B:1238:CLA:H171 | 12:L:140:ILE:HD13  | 1.94                     | 0.49              |
| 24:I:4002:BCR:H381 | 12:L:136:ALA:HB3   | 1.94                     | 0.49              |
| 35:4:502:XAT:O24   | 21:4:604:CLA:H52   | 2.12                     | 0.49              |
| 1:A:598:TRP:HE1    | 21:B:1023:CLA:C1D  | 2.26                     | 0.49              |
| 2:B:394:PHE:CD1    | 2:B:398:ASP:OD1    | 2.65                     | 0.49              |
| 11:K:53:THR:CG2    | 11:K:59:LEU:CD1    | 2.91                     | 0.49              |
| 1:A:234:PRO:HA     | 1:A:237:ILE:HD12   | 1.94                     | 0.49              |
| 1:A:267:LEU:HD11   | 11:K:29:MET:HE3    | 1.95                     | 0.49              |
| 21:A:1121:CLA:HBB1 | 21:A:1121:CLA:CHC  | 2.19                     | 0.49              |
| 2:B:99:GLN:HA      | 2:B:99:GLN:HE21    | 1.74                     | 0.49              |
| 15:2:195:GLU:HB2   | 15:2:198:TYR:HB2   | 1.95                     | 0.49              |
| 21:2:604:CLA:HBC1  | 25:2:801:LHG:H292  | 1.94                     | 0.49              |
| 18:5:136:PHE:CE2   | 21:5:613:CLA:HMA1  | 2.43                     | 0.49              |
| 19:6:162:SER:H     | 19:6:163:PRO:CD    | 2.18                     | 0.49              |
| 1:A:316:TRP:HD1    | 11:K:77:THR:HG21   | 1.76                     | 0.49              |
| 1:A:718:LEU:HB3    | 1:A:722:GLN:HG2    | 1.95                     | 0.49              |
| 21:A:1114:CLA:CAD  | 31:3:803:LMG:H291  | 2.42                     | 0.49              |
| 5:E:110:ASN:HD21   | 5:E:114:VAL:HG22   | 1.77                     | 0.49              |
| 5:E:119:TYR:HB3    | 5:E:123:GLU:HG3    | 1.94                     | 0.49              |
| 12:L:154:GLN:C     | 12:L:157:PRO:HD2   | 2.33                     | 0.49              |
| 14:1:73:GLU:HB3    | 14:1:152:LEU:CD2   | 2.42                     | 0.49              |
| 2:B:388:PHE:CZ     | 21:B:1222:CLA:HAB  | 2.46                     | 0.49              |
| 18:5:69:MET:HB2    | 21:5:604:CLA:CMD   | 2.39                     | 0.49              |
| 21:5:608:CLA:C1B   | 36:5:609:CHL:H18   | 2.43                     | 0.49              |
| 19:6:150:ILE:CG2   | 19:6:154:PRO:HA    | 2.43                     | 0.49              |
| 21:B:1212:CLA:HBB1 | 21:B:1212:CLA:CMB  | 2.31                     | 0.49              |
| 21:B:1216:CLA:HBB1 | 21:B:1221:CLA:H51  | 1.95                     | 0.49              |
| 21:B:1229:CLA:CAB  | 21:B:1230:CLA:HMB2 | 2.43                     | 0.49              |
| 12:L:157:PRO:N     | 12:L:157:PRO:C     | 2.59                     | 0.49              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 35:2:502:XAT:H371  | 21:2:606:CLA:HMB3  | 1.95                     | 0.49              |
| 21:B:1206:CLA:HBB1 | 21:B:1206:CLA:CMB  | 2.21                     | 0.49              |
| 21:G:1602:CLA:C1A  | 24:G:4001:BCR:HC21 | 2.43                     | 0.49              |
| 15:2:262:THR:HG23  | 15:2:264:ALA:H     | 1.77                     | 0.49              |
| 19:6:137:GLU:OE1   | 19:6:140:ARG:NH1   | 2.46                     | 0.49              |
| 1:A:300:ALA:HA     | 21:A:1115:CLA:HMC3 | 1.94                     | 0.48              |
| 21:A:1112:CLA:H13  | 24:A:4002:BCR:H353 | 1.95                     | 0.48              |
| 2:B:610:PHE:O      | 2:B:614:SER:HB3    | 2.12                     | 0.48              |
| 21:B:1218:CLA:H18  | 14:1:132:VAL:HG22  | 1.94                     | 0.48              |
| 21:B:1223:CLA:HBB1 | 21:B:1231:CLA:HAA2 | 1.95                     | 0.48              |
| 12:L:60:LEU:H      | 12:L:60:LEU:HD12   | 1.78                     | 0.48              |
| 12:L:60:LEU:HD12   | 12:L:60:LEU:O      | 2.12                     | 0.48              |
| 34:5:503:LUT:H183  | 37:6:803:SQD:H242  | 1.95                     | 0.48              |
| 19:6:109:LYS:HD3   | 19:6:111:PHE:CZ    | 2.48                     | 0.48              |
| 21:6:606:CLA:HED2  | 21:6:606:CLA:H2A   | 1.95                     | 0.48              |
| 1:A:267:LEU:HD21   | 21:K:1401:CLA:HBC2 | 1.95                     | 0.48              |
| 1:A:596:LEU:HD21   | 21:A:1128:CLA:HBC1 | 1.94                     | 0.48              |
| 21:B:1223:CLA:H2   | 24:B:4005:BCR:H14C | 1.95                     | 0.48              |
| 21:B:1237:CLA:H161 | 12:L:141:LEU:HD21  | 1.94                     | 0.48              |
| 10:I:21:ALA:N      | 10:I:22:PRO:HD2    | 2.28                     | 0.48              |
| 14:1:83:MET:CE     | 21:1:601:CLA:CAB   | 2.85                     | 0.48              |
| 17:4:318:VAL:HB    | 21:4:603:CLA:HED1  | 1.94                     | 0.48              |
| 18:5:86:LEU:HD13   | 21:5:604:CLA:C1    | 2.43                     | 0.48              |
| 19:6:85:LYS:HB3    | 19:6:89:ARG:NH1    | 2.28                     | 0.48              |
| 21:B:1209:CLA:HAA1 | 8:G:77:ASP:HB3     | 1.94                     | 0.48              |
| 21:1:601:CLA:H92   | 21:1:601:CLA:H61   | 1.59                     | 0.48              |
| 19:6:118:TYR:HA    | 35:6:504:XAT:H3    | 1.93                     | 0.48              |
| 1:A:382:THR:HG21   | 1:A:517:VAL:HB     | 1.96                     | 0.48              |
| 1:A:553:GLY:O      | 1:A:557:ALA:HB2    | 2.12                     | 0.48              |
| 21:A:1121:CLA:H142 | 21:K:1402:CLA:HBC1 | 1.94                     | 0.48              |
| 21:B:1234:CLA:HMB2 | 21:B:1236:CLA:HED1 | 1.95                     | 0.48              |
| 13:O:53:PHE:O      | 13:O:57:THR:OG1    | 2.18                     | 0.48              |
| 21:4:604:CLA:H12   | 21:4:604:CLA:HBB   | 1.93                     | 0.48              |
| 19:6:169:GLU:HB2   | 21:6:601:CLA:CMB   | 2.37                     | 0.48              |
| 21:A:1012:CLA:HMA2 | 2:B:617:LEU:HD13   | 1.95                     | 0.48              |
| 2:B:378:TYR:CD2    | 21:B:1224:CLA:HAB  | 2.49                     | 0.48              |
| 5:E:110:ASN:ND2    | 5:E:114:VAL:HG22   | 2.27                     | 0.48              |
| 13:O:122:ARG:HH12  | 24:O:4001:BCR:H281 | 1.78                     | 0.48              |
| 15:2:111:ARG:NH1   | 36:2:611:CHL:OBD   | 2.46                     | 0.48              |
| 17:4:229:LYS:HZ1   | 17:4:252:LEU:HD13  | 1.78                     | 0.48              |
| 18:5:92:VAL:HG11   | 18:5:143:ARG:HH12  | 1.77                     | 0.48              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 36:5:609:CHL:HAC2  | 25:5:801:LHG:HC41  | 1.95                     | 0.48              |
| 1:A:572:ARG:NH1    | 25:A:5002:LHG:O10  | 2.46                     | 0.48              |
| 2:B:166:LEU:HG     | 2:B:170:LYS:HD2    | 1.94                     | 0.48              |
| 24:B:4001:BCR:H392 | 8:G:100:HIS:CD2    | 2.48                     | 0.48              |
| 15:2:193:GLY:HA2   | 15:2:199:PRO:HA    | 1.95                     | 0.48              |
| 1:A:355:ILE:HD11   | 24:A:4004:BCR:H311 | 1.95                     | 0.48              |
| 21:A:1138:CLA:HMC2 | 21:A:1138:CLA:H102 | 1.94                     | 0.48              |
| 8:G:81:LYS:CA      | 8:G:81:LYS:CE      | 2.86                     | 0.48              |
| 13:O:80:ILE:HG22   | 13:O:97:PHE:CD1    | 2.48                     | 0.48              |
| 36:5:609:CHL:HED1  | 19:6:134:GLY:CA    | 2.43                     | 0.48              |
| 36:5:610:CHL:HBB1  | 36:5:610:CHL:HHC   | 1.96                     | 0.48              |
| 21:6:612:CLA:HAA2  | 31:6:802:LMG:H142  | 1.96                     | 0.48              |
| 20:A:1011:CL0:CGD  | 20:A:1011:CL0:CAA  | 2.89                     | 0.48              |
| 21:A:1116:CLA:O2A  | 21:A:1125:CLA:HBB2 | 2.14                     | 0.48              |
| 2:B:86:ARG:HH12    | 2:B:107:ARG:HD2    | 1.79                     | 0.48              |
| 2:B:93:TRP:CH2     | 9:H:114:LEU:CD1    | 2.91                     | 0.48              |
| 15:2:232:ALA:HA    | 21:2:603:CLA:HBB1  | 1.96                     | 0.48              |
| 21:4:604:CLA:CGA   | 21:4:604:CLA:C3A   | 2.92                     | 0.48              |
| 1:A:680:ALA:HB3    | 21:A:1013:CLA:HBB2 | 1.96                     | 0.48              |
| 21:A:1139:CLA:H43  | 21:F:1301:CLA:HBC3 | 1.95                     | 0.48              |
| 5:E:83:TRP:HA      | 5:E:86:GLN:HG3     | 1.96                     | 0.48              |
| 9:H:114:LEU:O      | 9:H:117:LYS:CD     | 2.61                     | 0.48              |
| 11:K:53:THR:CG2    | 11:K:59:LEU:HD11   | 2.43                     | 0.48              |
| 17:4:124:ARG:HB3   | 17:4:125:PRO:HD2   | 1.95                     | 0.48              |
| 18:5:108:GLU:HA    | 18:5:108:GLU:OE2   | 2.13                     | 0.48              |
| 1:A:294:THR:O      | 1:A:298:HIS:ND1    | 2.46                     | 0.48              |
| 1:A:322:ILE:HB     | 1:A:342:TYR:HE1    | 1.78                     | 0.48              |
| 1:A:87:TRP:HA      | 21:A:1105:CLA:HBB2 | 1.95                     | 0.47              |
| 21:A:1102:CLA:HAA1 | 21:A:1109:CLA:H11  | 1.96                     | 0.47              |
| 21:A:1112:CLA:HBA2 | 21:A:1114:CLA:HMB3 | 1.96                     | 0.47              |
| 21:B:1212:CLA:H61  | 24:B:4001:BCR:C31  | 2.44                     | 0.47              |
| 21:1:601:CLA:H41   | 21:1:601:CLA:H62   | 1.57                     | 0.47              |
| 18:5:110:LEU:HD11  | 18:5:112:MET:CE    | 2.43                     | 0.47              |
| 19:6:180:PHE:CD1   | 35:6:502:XAT:H12   | 2.48                     | 0.47              |
| 2:B:515:PRO:HD3    | 6:F:147:HIS:HE1    | 1.77                     | 0.47              |
| 4:D:112:ILE:HA     | 4:D:122:ILE:HA     | 1.96                     | 0.47              |
| 21:A:1107:CLA:HAB  | 21:B:1230:CLA:HMD2 | 1.95                     | 0.47              |
| 21:B:1210:CLA:H51  | 21:B:1215:CLA:HBC3 | 1.96                     | 0.47              |
| 21:B:1215:CLA:H3A  | 21:B:1215:CLA:HBA2 | 1.47                     | 0.47              |
| 8:G:40:SER:O       | 8:G:44:LEU:HB2     | 2.15                     | 0.47              |
| 8:G:81:LYS:HD3     | 19:6:67:PRO:O      | 2.14                     | 0.47              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 8:G:103:LEU:HD11   | 24:G:4001:BCR:C37  | 2.41                     | 0.47              |
| 14:1:93:GLU:OE2    | 14:1:203:LEU:N     | 2.40                     | 0.47              |
| 21:1:608:CLA:H52   | 21:1:608:CLA:H11   | 1.69                     | 0.47              |
| 1:A:585:GLN:HG2    | 1:A:724:ARG:CZ     | 2.45                     | 0.47              |
| 24:A:4003:BCR:H311 | 21:3:612:CLA:H192  | 1.95                     | 0.47              |
| 2:B:225:PRO:O      | 2:B:228:SER:O      | 2.33                     | 0.47              |
| 12:L:111:ALA:HA    | 12:L:134:SER:OG    | 2.14                     | 0.47              |
| 21:2:612:CLA:H41   | 21:2:612:CLA:H62   | 1.72                     | 0.47              |
| 1:A:449:GLY:HA3    | 21:B:1023:CLA:O2A  | 2.14                     | 0.47              |
| 1:A:532:ASP:O      | 1:A:536:HIS:ND1    | 2.37                     | 0.47              |
| 21:A:1134:CLA:H8   | 21:K:1402:CLA:H71  | 1.97                     | 0.47              |
| 2:B:91:ALA:HA      | 2:B:114:VAL:HG12   | 1.96                     | 0.47              |
| 2:B:208:VAL:HG22   | 2:B:216:VAL:HG11   | 1.97                     | 0.47              |
| 2:B:280:ALA:CB     | 21:B:1214:CLA:HAB  | 2.45                     | 0.47              |
| 8:G:106:VAL:HA     | 8:G:110:PHE:HB2    | 1.97                     | 0.47              |
| 10:I:39:ALA:HA     | 12:L:147:LEU:HD21  | 1.95                     | 0.47              |
| 18:5:116:ILE:HG23  | 33:5:803:PTY:H391  | 1.95                     | 0.47              |
| 21:B:1231:CLA:H142 | 21:G:1603:CLA:HMB1 | 1.96                     | 0.47              |
| 3:C:81:TYR:HB3     | 4:D:92:LEU:HD12    | 1.96                     | 0.47              |
| 8:G:89:LYS:HB3     | 8:G:89:LYS:HE2     | 1.72                     | 0.47              |
| 15:2:184:PHE:CE2   | 36:2:611:CHL:HBB2  | 2.49                     | 0.47              |
| 31:4:802:LMG:H291  | 31:4:802:LMG:H321  | 1.72                     | 0.47              |
| 18:5:242:ALA:HB2   | 31:6:802:LMG:H152  | 1.94                     | 0.47              |
| 19:6:177:MET:SD    | 21:6:604:CLA:HAB   | 2.55                     | 0.47              |
| 20:A:1011:CL0:H30  | 20:A:1011:CL0:CAA  | 2.41                     | 0.47              |
| 2:B:513:ILE:HG22   | 2:B:517:ASP:OD2    | 2.15                     | 0.47              |
| 4:D:198:PRO:N      | 4:D:198:PRO:C      | 2.61                     | 0.47              |
| 8:G:46:ARG:HD3     | 8:G:46:ARG:C       | 2.34                     | 0.47              |
| 9:H:54:TYR:CD2     | 12:L:63:ASP:OD1    | 2.68                     | 0.47              |
| 9:H:103:VAL:HB     | 12:L:139:LEU:HD21  | 1.96                     | 0.47              |
| 21:1:601:CLA:H71   | 21:1:602:CLA:CMA   | 2.44                     | 0.47              |
| 21:5:608:CLA:NB    | 36:5:609:CHL:H18   | 2.30                     | 0.47              |
| 35:6:504:XAT:H27   | 21:6:601:CLA:HBC1  | 1.97                     | 0.47              |
| 1:A:434:ARG:NH1    | 1:A:559:SER:O      | 2.43                     | 0.47              |
| 20:A:1011:CL0:H13  | 21:A:1012:CLA:HMD1 | 1.96                     | 0.47              |
| 20:A:1011:CL0:H21  | 2:B:626:TRP:HD1    | 1.78                     | 0.47              |
| 2:B:251:SER:OG     | 2:B:252:GLY:N      | 2.46                     | 0.47              |
| 13:O:62:ILE:HD13   | 13:O:104:TRP:NE1   | 2.29                     | 0.47              |
| 36:5:609:CHL:C4C   | 25:5:801:LHG:H101  | 2.44                     | 0.47              |
| 1:A:267:LEU:HG     | 21:K:1401:CLA:HMD2 | 1.96                     | 0.47              |
| 2:B:440:HIS:CD2    | 2:B:454:ILE:HG13   | 2.49                     | 0.47              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 2:B:456:ILE:HG13   | 24:F:4001:BCR:H383 | 1.97                     | 0.47              |
| 2:B:557:SER:O      | 2:B:557:SER:OG     | 2.30                     | 0.47              |
| 4:D:90:GLY:O       | 12:L:67:GLY:N      | 2.48                     | 0.47              |
| 21:5:605:CLA:HBB1  | 21:5:605:CLA:CMB   | 2.24                     | 0.47              |
| 21:6:601:CLA:HBA2  | 21:6:601:CLA:H3A   | 1.40                     | 0.47              |
| 21:6:605:CLA:H42   | 31:6:802:LMG:H312  | 1.96                     | 0.47              |
| 21:B:1228:CLA:H52  | 24:F:4002:BCR:H372 | 1.97                     | 0.47              |
| 21:B:1237:CLA:H152 | 24:I:4002:BCR:C35  | 2.45                     | 0.47              |
| 9:H:109:VAL:O      | 9:H:113:ALA:HB2    | 2.15                     | 0.47              |
| 14:1:104:PRO:HB2   | 36:1:610:CHL:C2D   | 2.45                     | 0.47              |
| 14:1:154:PRO:HB2   | 14:1:155:GLY:H     | 1.55                     | 0.47              |
| 24:1:504:BCR:C35   | 21:1:611:CLA:HBB1  | 2.45                     | 0.47              |
| 15:2:76:TRP:HB2    | 15:2:99:ARG:NH1    | 2.30                     | 0.47              |
| 18:5:90:GLU:HB2    | 21:5:604:CLA:CHB   | 2.44                     | 0.47              |
| 19:6:217:THR:H     | 19:6:218:PRO:HD2   | 1.80                     | 0.47              |
| 21:B:1230:CLA:H41  | 21:B:1230:CLA:H62  | 1.56                     | 0.46              |
| 4:D:173:VAL:HG11   | 4:D:179:ASN:HB2    | 1.97                     | 0.46              |
| 6:F:113:SER:OG     | 6:F:114:ALA:N      | 2.48                     | 0.46              |
| 9:H:70:TYR:CE1     | 12:L:83:LEU:HD13   | 2.49                     | 0.46              |
| 11:K:70:PRO:HD3    | 21:K:1404:CLA:C1D  | 2.45                     | 0.46              |
| 16:3:105:ASN:ND2   | 16:3:108:TRP:H     | 2.13                     | 0.46              |
| 18:5:99:LEU:CD1    | 21:5:606:CLA:CMC   | 2.93                     | 0.46              |
| 21:A:1134:CLA:HHC  | 21:A:1134:CLA:CBB  | 2.45                     | 0.46              |
| 2:B:515:PRO:CG     | 6:F:147:HIS:CE1    | 2.98                     | 0.46              |
| 21:B:1206:CLA:H192 | 21:B:1206:CLA:H162 | 1.58                     | 0.46              |
| 3:C:55:GLU:OE1     | 3:C:66:ARG:NH1     | 2.49                     | 0.46              |
| 10:I:27:PRO:N      | 10:I:28:LEU:N      | 2.63                     | 0.46              |
| 14:1:57:ASP:HB2    | 21:1:604:CLA:HBA2  | 1.96                     | 0.46              |
| 25:2:802:LHG:H201  | 37:2:805:SQD:H302  | 1.96                     | 0.46              |
| 18:5:96:TRP:CD2    | 21:5:612:CLA:HAC2  | 2.49                     | 0.46              |
| 19:6:50:VAL:HG13   | 19:6:52:PRO:HD2    | 1.97                     | 0.46              |
| 19:6:85:LYS:HD2    | 19:6:149:PHE:HZ    | 1.73                     | 0.46              |
| 21:A:1112:CLA:HBB1 | 24:A:4003:BCR:H362 | 1.97                     | 0.46              |
| 21:A:1138:CLA:HED2 | 2:B:425:TRP:HB2    | 1.98                     | 0.46              |
| 3:C:58:CYS:HB3     | 3:C:63:LEU:HD22    | 1.97                     | 0.46              |
| 4:D:204:THR:C      | 4:D:206:SER:H      | 2.18                     | 0.46              |
| 9:H:115:PHE:CE2    | 10:I:24:LEU:HD13   | 2.50                     | 0.46              |
| 16:3:114:VAL:HG21  | 16:3:213:ALA:HB1   | 1.97                     | 0.46              |
| 18:5:242:ALA:CA    | 31:6:802:LMG:H121  | 2.45                     | 0.46              |
| 19:6:92:MET:HG3    | 19:6:173:GLY:HA2   | 1.98                     | 0.46              |
| 36:6:610:CHL:HAA2  | 36:6:610:CHL:CBD   | 2.44                     | 0.46              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1139:CLA:H61  | 21:A:1139:CLA:H41  | 1.55                     | 0.46              |
| 21:B:1203:CLA:HED1 | 21:B:1226:CLA:H43  | 1.98                     | 0.46              |
| 21:K:1402:CLA:HBA1 | 21:K:1402:CLA:O2D  | 2.16                     | 0.46              |
| 21:K:1402:CLA:H2   | 21:K:1402:CLA:H61  | 1.72                     | 0.46              |
| 18:5:68:ASP:HA     | 21:5:604:CLA:HED2  | 1.98                     | 0.46              |
| 18:5:99:LEU:CG     | 21:5:606:CLA:HAB   | 2.37                     | 0.46              |
| 21:5:605:CLA:H51   | 21:5:605:CLA:C9    | 2.44                     | 0.46              |
| 19:6:210:ILE:HD12  | 21:6:603:CLA:C2D   | 2.46                     | 0.46              |
| 21:6:602:CLA:HBB1  | 21:6:602:CLA:CHC   | 2.18                     | 0.46              |
| 21:B:1222:CLA:H92  | 21:B:1240:CLA:H193 | 1.98                     | 0.46              |
| 29:B:5003:3PH:H222 | 29:B:5003:3PH:H2   | 1.83                     | 0.46              |
| 10:I:9:ALA:HB3     | 10:I:16:VAL:HG11   | 1.97                     | 0.46              |
| 36:1:609:CHL:HHC   | 36:1:609:CHL:HBB1  | 1.97                     | 0.46              |
| 21:5:605:CLA:HMD2  | 21:5:612:CLA:C4C   | 2.44                     | 0.46              |
| 1:A:122:VAL:O      | 1:A:122:VAL:HG23   | 2.15                     | 0.46              |
| 1:A:153:ILE:HG21   | 1:A:159:LEU:HD21   | 1.97                     | 0.46              |
| 2:B:352:HIS:ND1    | 21:B:1214:CLA:OBD  | 2.43                     | 0.46              |
| 21:B:1022:CLA:CBB  | 21:B:1022:CLA:HMB1 | 2.46                     | 0.46              |
| 21:B:1212:CLA:H61  | 21:B:1212:CLA:H92  | 1.63                     | 0.46              |
| 14:1:39:PRO:HB3    | 17:4:244:SER:HB2   | 1.97                     | 0.46              |
| 21:1:601:CLA:C2    | 21:1:601:CLA:HBA1  | 2.44                     | 0.46              |
| 35:2:502:XAT:H8    | 21:2:604:CLA:H52   | 1.98                     | 0.46              |
| 18:5:205:LEU:HD12  | 34:5:501:LUT:H22   | 1.96                     | 0.46              |
| 34:5:501:LUT:H32   | 21:5:601:CLA:CAB   | 2.45                     | 0.46              |
| 34:5:503:LUT:H15   | 34:5:503:LUT:H201  | 1.72                     | 0.46              |
| 1:A:473:SER:HB2    | 1:A:640:ASN:HD22   | 1.80                     | 0.46              |
| 2:B:23:TRP:HZ3     | 22:B:2002:PQN:H293 | 1.81                     | 0.46              |
| 2:B:107:ARG:HH21   | 2:B:116:ILE:H      | 1.64                     | 0.46              |
| 2:B:222:GLY:C      | 2:B:224:THR:H      | 2.18                     | 0.46              |
| 2:B:223:LEU:HD13   | 2:B:227:TRP:CH2    | 2.51                     | 0.46              |
| 21:B:1214:CLA:HBC2 | 21:B:1215:CLA:H203 | 1.98                     | 0.46              |
| 8:G:38:THR:OG1     | 8:G:105:HIS:HB2    | 2.15                     | 0.46              |
| 8:G:70:THR:OG1     | 8:G:71:THR:N       | 2.48                     | 0.46              |
| 18:5:93:HIS:CG     | 21:5:604:CLA:CBB   | 2.99                     | 0.46              |
| 18:5:242:ALA:HA    | 31:6:802:LMG:C12   | 2.45                     | 0.46              |
| 34:5:503:LUT:H11   | 34:5:503:LUT:H191  | 1.73                     | 0.46              |
| 1:A:680:ALA:CB     | 21:A:1013:CLA:HBB2 | 2.46                     | 0.46              |
| 21:A:1013:CLA:H143 | 22:A:2001:PQN:H261 | 1.98                     | 0.46              |
| 2:B:231:TRP:CH2    | 21:B:1213:CLA:HBB1 | 2.51                     | 0.46              |
| 9:H:78:TYR:HE2     | 12:L:97:LEU:HB3    | 1.75                     | 0.46              |
| 12:L:60:LEU:HD21   | 12:L:68:MET:HB3    | 1.97                     | 0.46              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 12:L:120:LEU:HB2   | 12:L:130:VAL:CG2   | 2.46                     | 0.46              |
| 21:3:603:CLA:H11   | 21:3:603:CLA:H51   | 1.70                     | 0.46              |
| 18:5:193:THR:OG1   | 18:5:199:GLN:O     | 2.34                     | 0.46              |
| 2:B:99:GLN:HA      | 9:H:123:GLU:HG2    | 1.97                     | 0.46              |
| 9:H:70:TYR:HB2     | 12:L:89:TYR:CE1    | 2.51                     | 0.46              |
| 10:I:29:THR:HA     | 10:I:33:LEU:HB3    | 1.97                     | 0.46              |
| 13:O:58:LEU:HD13   | 13:O:111:VAL:HG21  | 1.97                     | 0.46              |
| 15:2:121:LEU:HD21  | 34:2:501:LUT:H373  | 1.97                     | 0.46              |
| 16:3:283:ASN:HD21  | 21:3:603:CLA:HED2  | 1.80                     | 0.46              |
| 1:A:200:HIS:CG     | 21:A:1111:CLA:HMC2 | 2.50                     | 0.46              |
| 21:A:1130:CLA:H52  | 21:L:1502:CLA:H102 | 1.98                     | 0.46              |
| 21:A:1136:CLA:H142 | 21:A:1136:CLA:H112 | 1.83                     | 0.46              |
| 24:A:4001:BCR:H392 | 24:A:4001:BCR:H282 | 1.33                     | 0.46              |
| 24:A:4007:BCR:H312 | 21:B:1205:CLA:HMC2 | 1.98                     | 0.46              |
| 22:B:2002:PQN:H242 | 22:B:2002:PQN:H211 | 1.83                     | 0.46              |
| 17:4:281:GLN:NE2   | 21:4:607:CLA:O1D   | 2.49                     | 0.46              |
| 21:A:1102:CLA:H191 | 21:A:1107:CLA:H93  | 1.97                     | 0.45              |
| 24:A:4004:BCR:H373 | 25:A:5001:LHG:H172 | 1.98                     | 0.45              |
| 2:B:6:PHE:CG       | 10:I:45:ILE:HD13   | 2.52                     | 0.45              |
| 2:B:574:TYR:CE1    | 2:B:704:VAL:HG13   | 2.51                     | 0.45              |
| 5:E:103:VAL:HG22   | 5:E:118:ASN:HB3    | 1.98                     | 0.45              |
| 34:1:501:LUT:H31   | 34:1:501:LUT:H391  | 1.61                     | 0.45              |
| 18:5:51:PRO:HG3    | 18:5:71:PHE:HB2    | 1.98                     | 0.45              |
| 18:5:218:PHE:CZ    | 21:5:603:CLA:H42   | 2.50                     | 0.45              |
| 21:A:1113:CLA:H42  | 24:3:504:BCR:H23C  | 1.97                     | 0.45              |
| 21:A:1128:CLA:H201 | 21:A:1140:CLA:H2   | 1.98                     | 0.45              |
| 2:B:411:ARG:NH1    | 21:B:1227:CLA:O1D  | 2.49                     | 0.45              |
| 25:B:5001:LHG:H292 | 25:B:5001:LHG:H262 | 1.74                     | 0.45              |
| 15:2:269:SER:O     | 15:2:269:SER:OG    | 2.29                     | 0.45              |
| 18:5:52:LEU:CD2    | 18:5:237:PRO:HB3   | 2.47                     | 0.45              |
| 19:6:171:LYS:HG2   | 21:6:607:CLA:HMD1  | 1.97                     | 0.45              |
| 1:A:43:PRO:HG3     | 6:F:200:ILE:HD13   | 1.97                     | 0.45              |
| 2:B:72:GLN:HG2     | 2:B:91:ALA:HB2     | 1.99                     | 0.45              |
| 2:B:518:PHE:CE1    | 24:F:4001:BCR:H381 | 2.51                     | 0.45              |
| 21:B:1217:CLA:H8   | 21:B:1217:CLA:H52  | 1.79                     | 0.45              |
| 21:B:1225:CLA:HBA2 | 21:B:1225:CLA:H3A  | 1.58                     | 0.45              |
| 21:B:1239:CLA:HBB1 | 21:B:1239:CLA:CHC  | 2.22                     | 0.45              |
| 14:1:73:GLU:HB3    | 14:1:152:LEU:HD23  | 1.98                     | 0.45              |
| 17:4:142:LEU:HD22  | 17:4:276:LYS:CB    | 2.47                     | 0.45              |
| 21:6:603:CLA:H12   | 21:6:603:CLA:CHA   | 2.41                     | 0.45              |
| 1:A:80:GLN:HG2     | 21:A:1103:CLA:HMA1 | 1.98                     | 0.45              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 1:A:318:ILE:HD12   | 11:K:81:ALA:HB2    | 1.98                     | 0.45              |
| 1:A:557:ALA:CB     | 1:A:588:ALA:HB2    | 2.47                     | 0.45              |
| 2:B:701:LEU:N      | 2:B:701:LEU:HD12   | 2.30                     | 0.45              |
| 21:B:1239:CLA:H111 | 21:B:1239:CLA:H152 | 1.71                     | 0.45              |
| 24:B:4002:BCR:H15C | 24:B:4002:BCR:H351 | 1.76                     | 0.45              |
| 4:D:91:LEU:HB2     | 12:L:66:VAL:HA     | 1.98                     | 0.45              |
| 34:2:501:LUT:H11   | 34:2:501:LUT:H191  | 1.83                     | 0.45              |
| 18:5:99:LEU:CD2    | 34:5:504:LUT:H31   | 2.46                     | 0.45              |
| 36:5:609:CHL:CBB   | 36:5:609:CHL:HHC   | 2.43                     | 0.45              |
| 21:A:1116:CLA:H61  | 21:A:1116:CLA:H92  | 1.67                     | 0.45              |
| 21:A:1126:CLA:H41  | 21:A:1126:CLA:H92  | 1.97                     | 0.45              |
| 21:A:1138:CLA:HBB2 | 6:F:182:GLY:HA3    | 1.98                     | 0.45              |
| 6:F:200:ILE:HG13   | 6:F:201:ILE:HG13   | 1.99                     | 0.45              |
| 24:F:4002:BCR:H351 | 24:F:4002:BCR:H15C | 1.81                     | 0.45              |
| 9:H:65:GLY:HA2     | 9:H:67:TRP:CZ3     | 2.51                     | 0.45              |
| 24:I:4002:BCR:H351 | 24:I:4002:BCR:H15C | 1.58                     | 0.45              |
| 12:L:96:ASN:H      | 12:L:182:LYS:HZ2   | 1.64                     | 0.45              |
| 13:O:58:LEU:CD2    | 13:O:62:ILE:HD11   | 2.47                     | 0.45              |
| 13:O:123:THR:OG1   | 13:O:124:GLU:OE1   | 2.32                     | 0.45              |
| 34:4:501:LUT:H35   | 34:4:501:LUT:H401  | 1.82                     | 0.45              |
| 18:5:228:VAL:HG12  | 29:5:807:3PH:H351  | 1.98                     | 0.45              |
| 19:6:190:THR:HG22  | 19:6:213:TYR:CD1   | 2.51                     | 0.45              |
| 36:6:610:CHL:HBC3  | 36:6:610:CHL:HHD   | 1.98                     | 0.45              |
| 21:A:1101:CLA:C4B  | 24:J:4002:BCR:H393 | 2.46                     | 0.45              |
| 2:B:109:GLY:HA2    | 9:H:135:LYS:CE     | 2.43                     | 0.45              |
| 21:B:1229:CLA:HMC3 | 24:F:4001:BCR:H21C | 1.99                     | 0.45              |
| 8:G:38:THR:HG21    | 24:G:4001:BCR:H14C | 1.98                     | 0.45              |
| 13:O:58:LEU:HD22   | 13:O:108:LEU:HA    | 1.98                     | 0.45              |
| 36:1:610:CHL:HHC   | 36:1:610:CHL:HBB1  | 1.99                     | 0.45              |
| 15:2:167:THR:HG22  | 21:4:609:CLA:HED3  | 1.98                     | 0.45              |
| 24:3:504:BCR:H342  | 31:3:803:LMG:H222  | 1.98                     | 0.45              |
| 21:4:607:CLA:H62   | 21:4:607:CLA:H102  | 1.58                     | 0.45              |
| 21:A:1109:CLA:HAB  | 31:3:802:LMG:H142  | 1.98                     | 0.45              |
| 21:A:1114:CLA:C1D  | 21:3:610:CLA:HBB2  | 2.46                     | 0.45              |
| 2:B:659:ALA:HB1    | 21:B:1023:CLA:HBB2 | 1.95                     | 0.45              |
| 21:B:1207:CLA:H61  | 21:B:1207:CLA:H41  | 1.72                     | 0.45              |
| 21:B:1216:CLA:HMB2 | 21:B:1221:CLA:HMA3 | 1.99                     | 0.45              |
| 9:H:79:PRO:HG3     | 21:H:1701:CLA:C3D  | 2.47                     | 0.45              |
| 21:1:603:CLA:H62   | 21:1:603:CLA:H41   | 1.63                     | 0.45              |
| 16:3:58:SER:N      | 16:3:75:ASP:OD2    | 2.49                     | 0.45              |
| 21:6:604:CLA:H62   | 21:6:604:CLA:H2    | 1.68                     | 0.45              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:B:1217:CLA:H41  | 21:B:1217:CLA:H61  | 1.81                     | 0.45              |
| 4:D:73:PRO:O       | 4:D:156:TYR:OH     | 2.18                     | 0.45              |
| 10:I:20:TRP:CZ3    | 33:5:803:PTY:H141  | 2.51                     | 0.45              |
| 17:4:171:ARG:NH1   | 36:4:611:CHL:OBD   | 2.50                     | 0.45              |
| 21:4:602:CLA:HBC3  | 21:4:607:CLA:H101  | 1.98                     | 0.45              |
| 18:5:96:TRP:CE2    | 21:5:612:CLA:HAC2  | 2.52                     | 0.45              |
| 18:5:172:ALA:HB1   | 21:5:601:CLA:H3A   | 1.98                     | 0.45              |
| 19:6:182:GLY:O     | 19:6:186:GLN:HB2   | 2.16                     | 0.45              |
| 1:A:429:ARG:O      | 1:A:433:HIS:ND1    | 2.48                     | 0.45              |
| 1:A:685:PHE:HZ     | 21:A:1140:CLA:HBC3 | 1.81                     | 0.45              |
| 11:K:89:ILE:HG23   | 21:K:1402:CLA:HMC1 | 1.99                     | 0.45              |
| 18:5:99:LEU:HD11   | 21:5:606:CLA:CMC   | 2.41                     | 0.45              |
| 21:5:607:CLA:HBB1  | 21:5:607:CLA:HHC   | 1.98                     | 0.45              |
| 1:A:267:LEU:CD1    | 21:K:1401:CLA:HMD2 | 2.47                     | 0.45              |
| 1:A:453:PHE:CE1    | 21:B:1022:CLA:HMA1 | 2.52                     | 0.45              |
| 21:A:1124:CLA:H62  | 21:A:1124:CLA:H41  | 1.78                     | 0.45              |
| 2:B:370:ALA:HB1    | 2:B:726:LEU:HD11   | 1.99                     | 0.45              |
| 21:B:1226:CLA:H18  | 21:B:1239:CLA:HMA2 | 1.99                     | 0.45              |
| 24:B:4006:BCR:H351 | 24:B:4006:BCR:H15C | 1.74                     | 0.45              |
| 8:G:38:THR:CA      | 8:G:105:HIS:HB2    | 2.46                     | 0.45              |
| 11:K:38:PHE:CD1    | 21:K:1404:CLA:HBB2 | 2.52                     | 0.45              |
| 21:L:1504:CLA:HBB1 | 21:L:1504:CLA:CHC  | 2.47                     | 0.45              |
| 13:O:62:ILE:HG21   | 13:O:104:TRP:CD1   | 2.52                     | 0.45              |
| 33:O:5002:PTY:C11  | 33:O:5002:PTY:C1   | 2.86                     | 0.45              |
| 17:4:280:LEU:HD12  | 17:4:280:LEU:HA    | 1.86                     | 0.45              |
| 21:A:1121:CLA:HBC2 | 21:A:1121:CLA:HHD  | 1.98                     | 0.44              |
| 21:A:1126:CLA:H72  | 21:A:1126:CLA:H111 | 1.75                     | 0.44              |
| 2:B:62:THR:HG23    | 2:B:143:LEU:HD13   | 1.98                     | 0.44              |
| 21:B:1219:CLA:H41  | 21:B:1219:CLA:H62  | 1.53                     | 0.44              |
| 8:G:103:LEU:CD1    | 24:G:4001:BCR:H372 | 2.44                     | 0.44              |
| 9:H:67:TRP:CD1     | 12:L:166:GLY:CA    | 3.00                     | 0.44              |
| 10:I:20:TRP:O      | 10:I:20:TRP:CE3    | 2.70                     | 0.44              |
| 12:L:208:ARG:HA    | 21:L:1504:CLA:HMA2 | 1.98                     | 0.44              |
| 13:O:58:LEU:HD13   | 13:O:111:VAL:HG11  | 1.99                     | 0.44              |
| 21:1:601:CLA:H141  | 21:1:601:CLA:H162  | 1.81                     | 0.44              |
| 21:3:602:CLA:H11   | 21:3:602:CLA:H52   | 1.75                     | 0.44              |
| 34:5:502:LUT:H31   | 34:5:502:LUT:H391  | 1.87                     | 0.44              |
| 34:6:501:LUT:H15   | 34:6:501:LUT:H201  | 1.83                     | 0.44              |
| 21:6:602:CLA:H2A   | 21:6:602:CLA:CED   | 2.39                     | 0.44              |
| 1:A:151:SER:HB2    | 1:A:216:HIS:NE2    | 2.32                     | 0.44              |
| 1:A:574:PRO:N      | 1:A:574:PRO:C      | 2.60                     | 0.44              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 2:B:223:LEU:HB3    | 2:B:227:TRP:CZ3    | 2.52                     | 0.44              |
| 5:E:82:TYR:O       | 5:E:82:TYR:CD1     | 2.70                     | 0.44              |
| 9:H:81:LEU:HD13    | 24:H:4001:BCR:H313 | 1.99                     | 0.44              |
| 12:L:87:PRO:HG3    | 21:L:1502:CLA:HED2 | 1.99                     | 0.44              |
| 12:L:157:PRO:HG2   | 12:L:157:PRO:O     | 2.17                     | 0.44              |
| 24:L:4002:BCR:H351 | 24:L:4002:BCR:H15C | 1.83                     | 0.44              |
| 13:O:85:ALA:HB3    | 13:O:87:TRP:HE1    | 1.81                     | 0.44              |
| 21:1:612:CLA:HAA2  | 25:1:803:LHG:H101  | 1.99                     | 0.44              |
| 15:2:187:ILE:HG21  | 15:2:191:LEU:HD13  | 1.99                     | 0.44              |
| 21:6:606:CLA:HMA2  | 21:6:613:CLA:C3C   | 2.48                     | 0.44              |
| 36:6:610:CHL:HHC   | 36:6:610:CHL:CBB   | 2.44                     | 0.44              |
| 21:A:1103:CLA:H8   | 24:A:4003:BCR:H402 | 1.99                     | 0.44              |
| 21:A:1105:CLA:HMA1 | 21:A:1106:CLA:HMB3 | 1.98                     | 0.44              |
| 21:A:1137:CLA:H92  | 21:A:1137:CLA:H62  | 1.88                     | 0.44              |
| 31:3:803:LMG:H322  | 31:3:803:LMG:H351  | 1.87                     | 0.44              |
| 17:4:149:PRO:HD2   | 35:4:502:XAT:H222  | 1.98                     | 0.44              |
| 21:5:614:CLA:H162  | 21:5:614:CLA:H141  | 1.74                     | 0.44              |
| 19:6:162:SER:N     | 19:6:163:PRO:HD2   | 2.22                     | 0.44              |
| 1:A:683:LEU:HB2    | 21:A:1013:CLA:HMC3 | 1.99                     | 0.44              |
| 21:A:1113:CLA:H143 | 16:3:251:PHE:HA    | 1.99                     | 0.44              |
| 21:A:1116:CLA:O1D  | 21:A:1117:CLA:HMA1 | 2.18                     | 0.44              |
| 2:B:67:PHE:CE1     | 10:I:15:PHE:O      | 2.71                     | 0.44              |
| 15:2:165:VAL:HG21  | 24:2:503:BCR:H362  | 2.00                     | 0.44              |
| 21:5:614:CLA:HHC   | 21:5:614:CLA:HBB1  | 1.99                     | 0.44              |
| 21:A:1105:CLA:H141 | 21:J:1901:CLA:HMD2 | 1.98                     | 0.44              |
| 21:A:1112:CLA:HBB1 | 21:A:1112:CLA:CMB  | 2.21                     | 0.44              |
| 2:B:27:ALA:HB2     | 28:B:5002:DGD:HA32 | 2.00                     | 0.44              |
| 2:B:41:GLU:HA      | 2:B:166:LEU:HD13   | 2.00                     | 0.44              |
| 2:B:451:GLU:OE1    | 2:B:451:GLU:N      | 2.36                     | 0.44              |
| 2:B:499:LEU:HA     | 2:B:502:ILE:HG22   | 1.99                     | 0.44              |
| 21:5:605:CLA:H111  | 21:5:605:CLA:H72   | 1.72                     | 0.44              |
| 4:D:105:TRP:HB3    | 4:D:153:PRO:HB3    | 2.00                     | 0.44              |
| 4:D:131:LYS:HE3    | 9:H:55:PHE:HB2     | 1.99                     | 0.44              |
| 12:L:119:PRO:N     | 12:L:119:PRO:C     | 2.62                     | 0.44              |
| 18:5:91:VAL:O      | 18:5:95:ARG:HG3    | 2.17                     | 0.44              |
| 19:6:210:ILE:HD12  | 21:6:603:CLA:C2    | 2.47                     | 0.44              |
| 21:A:1013:CLA:H62  | 21:A:1013:CLA:H41  | 1.71                     | 0.44              |
| 21:A:1120:CLA:H8   | 21:A:1121:CLA:H61  | 2.00                     | 0.44              |
| 24:A:4001:BCR:H15C | 24:A:4001:BCR:H351 | 1.69                     | 0.44              |
| 2:B:210:TRP:CZ2    | 21:B:1211:CLA:H2   | 2.53                     | 0.44              |
| 21:B:1205:CLA:HAB  | 21:B:1206:CLA:HAA2 | 2.00                     | 0.44              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:B:1207:CLA:C11  | 12:L:136:ALA:HB2   | 2.45                     | 0.44              |
| 21:G:1601:CLA:HBB1 | 24:G:4001:BCR:H363 | 1.99                     | 0.44              |
| 17:4:208:ASP:N     | 17:4:208:ASP:OD1   | 2.49                     | 0.44              |
| 21:4:601:CLA:H41   | 21:4:601:CLA:H62   | 1.78                     | 0.44              |
| 1:A:448:LEU:HB3    | 1:A:541:PHE:HB2    | 1.99                     | 0.44              |
| 21:A:1106:CLA:H143 | 21:A:1106:CLA:H111 | 1.80                     | 0.44              |
| 25:A:5001:LHG:H211 | 25:A:5001:LHG:H182 | 1.76                     | 0.44              |
| 2:B:71:TRP:HH2     | 10:I:21:ALA:HB3    | 1.83                     | 0.44              |
| 2:B:609:GLN:O      | 2:B:613:SER:HB3    | 2.17                     | 0.44              |
| 2:B:696:ASP:OD1    | 2:B:696:ASP:N      | 2.47                     | 0.44              |
| 21:B:1235:CLA:CGA  | 21:B:1235:CLA:C1A  | 2.96                     | 0.44              |
| 3:C:26:LEU:HD23    | 3:C:42:SER:HB3     | 2.00                     | 0.44              |
| 3:C:61:ASP:O       | 5:E:117:ASN:ND2    | 2.49                     | 0.44              |
| 14:1:44:LYS:H      | 14:1:55:ASN:HD21   | 1.66                     | 0.44              |
| 14:1:173:LYS:HD3   | 21:1:601:CLA:C1    | 2.48                     | 0.44              |
| 16:3:259:ILE:HG23  | 16:3:260:THR:N     | 2.33                     | 0.44              |
| 34:3:501:LUT:H35   | 34:3:501:LUT:H401  | 1.84                     | 0.44              |
| 21:3:610:CLA:CAB   | 31:3:803:LMG:H341  | 2.48                     | 0.44              |
| 19:6:126:VAL:N     | 19:6:127:PRO:HD2   | 2.33                     | 0.44              |
| 19:6:165:HIS:CD2   | 19:6:165:HIS:O     | 2.70                     | 0.44              |
| 21:A:1112:CLA:HBB2 | 24:A:4003:BCR:H16C | 2.00                     | 0.44              |
| 21:A:1130:CLA:HMB1 | 21:A:1130:CLA:HBB1 | 2.00                     | 0.44              |
| 2:B:69:VAL:HG11    | 2:B:125:TRP:HZ3    | 1.82                     | 0.44              |
| 2:B:71:TRP:CH2     | 10:I:21:ALA:HB3    | 2.53                     | 0.44              |
| 21:B:1202:CLA:HBA1 | 21:B:1202:CLA:H3A  | 1.63                     | 0.44              |
| 21:B:1207:CLA:HBA2 | 21:B:1207:CLA:CB D | 2.48                     | 0.44              |
| 21:B:1235:CLA:H3A  | 21:B:1235:CLA:HBA2 | 1.77                     | 0.44              |
| 21:B:1240:CLA:H162 | 21:B:1240:CLA:H202 | 1.85                     | 0.44              |
| 21:1:604:CLA:H122  | 21:1:605:CLA:H172  | 2.00                     | 0.44              |
| 17:4:264:PHE:CE1   | 17:4:268:GLY:HA3   | 2.53                     | 0.44              |
| 17:4:318:VAL:HA    | 17:4:323:ASN:HB2   | 2.00                     | 0.44              |
| 18:5:217:VAL:HB    | 21:5:603:CLA:C3D   | 2.47                     | 0.44              |
| 34:5:502:LUT:H373  | 21:5:606:CLA:HMB3  | 1.99                     | 0.44              |
| 34:5:504:LUT:H201  | 34:5:504:LUT:H15   | 1.62                     | 0.44              |
| 21:5:601:CLA:HBB1  | 21:5:602:CLA:HAA1  | 1.99                     | 0.44              |
| 19:6:213:TYR:CE2   | 21:6:603:CLA:HED2  | 2.53                     | 0.44              |
| 1:A:250:ILE:HA     | 1:A:250:ILE:HD12   | 1.73                     | 0.43              |
| 1:A:711:PRO:HG2    | 1:A:715:PRO:HD3    | 1.99                     | 0.43              |
| 21:A:1112:CLA:HBA1 | 24:A:4002:BCR:HC7  | 2.00                     | 0.43              |
| 21:A:1114:CLA:H51  | 31:3:803:LMG:H181  | 1.99                     | 0.43              |
| 24:B:4001:BCR:H24C | 24:B:4001:BCR:H371 | 1.91                     | 0.43              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 6:F:183:ARG:HD2    | 24:F:4002:BCR:H282 | 2.00                     | 0.43              |
| 21:K:1404:CLA:NB   | 24:K:4001:BCR:H271 | 2.33                     | 0.43              |
| 21:L:1501:CLA:H203 | 21:L:1501:CLA:H161 | 1.83                     | 0.43              |
| 21:1:611:CLA:HBB1  | 21:1:611:CLA:CMB   | 2.41                     | 0.43              |
| 17:4:261:GLY:HA2   | 17:4:264:PHE:CE2   | 2.53                     | 0.43              |
| 21:5:614:CLA:H142  | 21:5:614:CLA:H112  | 1.79                     | 0.43              |
| 36:6:610:CHL:CBB   | 21:6:613:CLA:HBB2  | 2.48                     | 0.43              |
| 1:A:447:PHE:HE2    | 21:A:1136:CLA:HAB  | 1.83                     | 0.43              |
| 1:A:657:VAL:HG21   | 1:A:742:PHE:HA     | 2.00                     | 0.43              |
| 21:A:1107:CLA:H202 | 21:A:1107:CLA:H162 | 1.80                     | 0.43              |
| 21:A:1116:CLA:H41  | 21:A:1116:CLA:H62  | 1.70                     | 0.43              |
| 21:A:1121:CLA:HED1 | 11:K:51:ASN:HA     | 2.00                     | 0.43              |
| 21:A:1134:CLA:HHC  | 21:A:1134:CLA:HBB1 | 1.99                     | 0.43              |
| 21:A:1136:CLA:H202 | 21:A:1136:CLA:H162 | 1.73                     | 0.43              |
| 21:B:1023:CLA:HMB1 | 21:B:1023:CLA:CBB  | 2.49                     | 0.43              |
| 4:D:138:CYS:O      | 4:D:142:THR:OG1    | 2.29                     | 0.43              |
| 6:F:215:TRP:NE1    | 25:2:802:LHG:H191  | 2.33                     | 0.43              |
| 7:J:24:GLY:HA2     | 24:J:4002:BCR:H341 | 2.00                     | 0.43              |
| 8:G:114:CYS:O      | 8:G:116:SER:N      | 2.51                     | 0.43              |
| 25:2:801:LHG:H131  | 16:3:179:PHE:HZ    | 1.83                     | 0.43              |
| 34:3:501:LUT:H11   | 34:3:501:LUT:H191  | 1.87                     | 0.43              |
| 28:3:804:DGD:O5D   | 28:3:804:DGD:O4D   | 2.34                     | 0.43              |
| 17:4:266:PRO:O     | 34:4:501:LUT:O23   | 2.34                     | 0.43              |
| 34:5:502:LUT:H15   | 34:5:502:LUT:H201  | 1.75                     | 0.43              |
| 1:A:649:PHE:O      | 1:A:653:GLN:HB2    | 2.18                     | 0.43              |
| 21:A:1133:CLA:H71  | 21:A:1133:CLA:H112 | 1.85                     | 0.43              |
| 24:A:4003:BCR:H351 | 24:A:4003:BCR:H15C | 1.81                     | 0.43              |
| 2:B:168:TRP:NE1    | 21:B:1208:CLA:HMA1 | 2.31                     | 0.43              |
| 21:B:1209:CLA:HBC2 | 24:B:4002:BCR:H10C | 2.00                     | 0.43              |
| 21:B:1215:CLA:H91  | 21:B:1215:CLA:HAB  | 2.00                     | 0.43              |
| 21:G:1601:CLA:CMC  | 24:G:4001:BCR:H383 | 2.48                     | 0.43              |
| 9:H:109:VAL:O      | 9:H:113:ALA:CB     | 2.66                     | 0.43              |
| 21:1:601:CLA:H142  | 21:1:601:CLA:H112  | 1.77                     | 0.43              |
| 15:2:154:LEU:HG    | 36:2:610:CHL:HBC1  | 2.00                     | 0.43              |
| 15:2:246:SER:O     | 15:2:250:ASN:ND2   | 2.50                     | 0.43              |
| 15:2:254:HIS:CG    | 21:2:603:CLA:HAA2  | 2.54                     | 0.43              |
| 17:4:273:SER:O     | 17:4:275:GLU:N     | 2.49                     | 0.43              |
| 18:5:110:LEU:HD11  | 18:5:112:MET:HE2   | 2.00                     | 0.43              |
| 19:6:139:LYS:O     | 19:6:142:GLN:HB3   | 2.18                     | 0.43              |
| 35:6:504:XAT:H12   | 21:6:606:CLA:HBA1  | 1.99                     | 0.43              |
| 1:A:150:ALA:O      | 1:A:224:VAL:HG11   | 2.19                     | 0.43              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1115:CLA:H91  | 21:A:1115:CLA:H111 | 1.69                     | 0.43              |
| 21:A:1121:CLA:H112 | 11:K:89:ILE:CG1    | 2.49                     | 0.43              |
| 10:I:20:TRP:CZ2    | 33:5:803:PTY:C12   | 2.99                     | 0.43              |
| 14:1:57:ASP:OD1    | 35:1:502:XAT:O3    | 2.28                     | 0.43              |
| 15:2:91:HIS:CG     | 25:2:803:LHG:HC62  | 2.53                     | 0.43              |
| 16:3:74:LEU:HD13   | 36:3:604:CHL:HED1  | 2.00                     | 0.43              |
| 16:3:232:MET:HG3   | 16:3:236:LYS:HE2   | 2.00                     | 0.43              |
| 34:5:504:LUT:C40   | 21:5:606:CLA:HMC2  | 2.48                     | 0.43              |
| 19:6:83:MET:HG3    | 21:6:605:CLA:HBA1  | 2.00                     | 0.43              |
| 1:A:43:PRO:HB3     | 1:A:48:TRP:CE3     | 2.54                     | 0.43              |
| 1:A:83:ILE:HG13    | 21:A:1102:CLA:HBB1 | 2.00                     | 0.43              |
| 1:A:681:PHE:HZ     | 21:A:1140:CLA:HBC2 | 1.83                     | 0.43              |
| 21:A:1120:CLA:H11  | 21:A:1121:CLA:HMB2 | 2.00                     | 0.43              |
| 2:B:444:VAL:CG1    | 2:B:452:LYS:HB2    | 2.47                     | 0.43              |
| 21:B:1210:CLA:H151 | 21:B:1225:CLA:HMD2 | 1.99                     | 0.43              |
| 21:B:1212:CLA:C7   | 24:B:4001:BCR:H312 | 2.47                     | 0.43              |
| 21:B:1213:CLA:H141 | 21:B:1219:CLA:H202 | 2.00                     | 0.43              |
| 21:B:1223:CLA:H61  | 21:B:1223:CLA:H102 | 1.84                     | 0.43              |
| 16:3:182:LEU:HA    | 16:3:182:LEU:HD23  | 1.86                     | 0.43              |
| 24:3:503:BCR:H351  | 24:3:503:BCR:H15C  | 1.63                     | 0.43              |
| 36:5:609:CHL:NB    | 25:5:801:LHG:H301  | 2.33                     | 0.43              |
| 33:5:803:PTY:H381  | 33:5:803:PTY:H352  | 1.38                     | 0.43              |
| 19:6:160:LEU:HD12  | 34:6:501:LUT:H23   | 2.00                     | 0.43              |
| 34:6:501:LUT:H183  | 21:6:603:CLA:C4B   | 2.48                     | 0.43              |
| 35:6:502:XAT:H201  | 35:6:502:XAT:H15   | 1.77                     | 0.43              |
| 1:A:301:ILE:HD13   | 1:A:301:ILE:HA     | 1.85                     | 0.43              |
| 21:A:1124:CLA:H51  | 21:A:1135:CLA:H11  | 2.01                     | 0.43              |
| 24:O:4001:BCR:H24C | 24:O:4001:BCR:H371 | 1.90                     | 0.43              |
| 16:3:69:ALA:HA     | 16:3:72:LYS:HD3    | 2.00                     | 0.43              |
| 18:5:99:LEU:HD22   | 34:5:504:LUT:C39   | 2.43                     | 0.43              |
| 34:5:501:LUT:H31   | 34:5:501:LUT:H391  | 1.73                     | 0.43              |
| 19:6:205:PRO:CG    | 21:6:608:CLA:HMB3  | 2.49                     | 0.43              |
| 34:6:501:LUT:H32   | 21:6:601:CLA:CAB   | 2.46                     | 0.43              |
| 35:6:504:XAT:H393  | 21:6:601:CLA:CBC   | 2.41                     | 0.43              |
| 35:6:504:XAT:H31   | 35:6:504:XAT:H391  | 1.61                     | 0.43              |
| 21:A:1111:CLA:H191 | 21:3:605:CLA:H52   | 2.01                     | 0.43              |
| 21:A:1124:CLA:HED2 | 21:A:1124:CLA:H2A  | 2.01                     | 0.43              |
| 21:B:1023:CLA:HBA2 | 21:B:1023:CLA:C2   | 2.48                     | 0.43              |
| 6:F:82:LEU:HB3     | 6:F:139:LEU:HD13   | 2.00                     | 0.43              |
| 7:J:3:ASP:HA       | 7:J:6:THR:HG22     | 2.01                     | 0.43              |
| 21:H:1702:CLA:HMB3 | 21:5:612:CLA:HMA1  | 2.00                     | 0.43              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 12:L:110:LEU:O     | 12:L:134:SER:OG    | 2.27                     | 0.43              |
| 35:2:502:XAT:H12   | 21:2:604:CLA:CBB   | 2.48                     | 0.43              |
| 16:3:132:ILE:HG21  | 24:3:506:BCR:H282  | 2.01                     | 0.43              |
| 21:5:604:CLA:H3A   | 21:5:604:CLA:HBA1  | 1.54                     | 0.43              |
| 1:A:274:ASP:N      | 1:A:274:ASP:OD2    | 2.34                     | 0.43              |
| 21:A:1102:CLA:H11  | 21:A:1102:CLA:H52  | 1.69                     | 0.43              |
| 21:A:1114:CLA:ND   | 31:3:803:LMG:H311  | 2.34                     | 0.43              |
| 21:A:1121:CLA:HED1 | 11:K:51:ASN:OD1    | 2.19                     | 0.43              |
| 24:A:4003:BCR:H321 | 21:3:612:CLA:H203  | 2.01                     | 0.43              |
| 2:B:88:ILE:O       | 2:B:122:TYR:OH     | 2.27                     | 0.43              |
| 21:B:1210:CLA:H143 | 21:B:1210:CLA:H111 | 1.88                     | 0.43              |
| 9:H:130:GLY:N      | 9:H:131:PRO:HD2    | 2.34                     | 0.43              |
| 11:K:53:THR:HG21   | 11:K:59:LEU:CD1    | 2.48                     | 0.43              |
| 21:L:1503:CLA:C1D  | 21:L:1504:CLA:CAB  | 2.97                     | 0.43              |
| 14:1:173:LYS:HD3   | 21:1:601:CLA:H12   | 1.99                     | 0.43              |
| 25:1:801:LHG:H252  | 24:4:503:BCR:HC31  | 2.00                     | 0.43              |
| 35:3:502:XAT:H31   | 35:3:502:XAT:H391  | 1.85                     | 0.43              |
| 18:5:124:ASP:HB3   | 18:5:128:LEU:HB2   | 2.01                     | 0.43              |
| 21:5:608:CLA:HBB1  | 21:5:608:CLA:HHC   | 2.01                     | 0.43              |
| 34:6:501:LUT:H363  | 21:6:601:CLA:CGA   | 2.37                     | 0.43              |
| 21:6:604:CLA:H142  | 21:6:604:CLA:H111  | 1.85                     | 0.43              |
| 21:A:1105:CLA:H62  | 21:A:1105:CLA:H2   | 1.68                     | 0.43              |
| 21:A:1115:CLA:H62  | 21:A:1115:CLA:H41  | 1.39                     | 0.43              |
| 2:B:479:LEU:HD12   | 2:B:479:LEU:HA     | 1.87                     | 0.43              |
| 21:B:1216:CLA:H111 | 21:B:1216:CLA:H142 | 1.82                     | 0.43              |
| 24:B:4001:BCR:H15C | 24:B:4001:BCR:H351 | 1.89                     | 0.43              |
| 27:B:5004:LMU:H31  | 39:5:806:P3H:O18   | 2.19                     | 0.43              |
| 21:F:1301:CLA:H3A  | 21:F:1301:CLA:HBA1 | 1.68                     | 0.43              |
| 11:K:22:SER:HA     | 11:K:26:ARG:HD3    | 2.01                     | 0.43              |
| 13:O:48:VAL:HG22   | 13:O:50:ALA:H      | 1.84                     | 0.43              |
| 25:1:801:LHG:HC5   | 25:1:801:LHG:HC81  | 1.77                     | 0.43              |
| 34:2:501:LUT:H35   | 34:2:501:LUT:H401  | 1.92                     | 0.43              |
| 32:5:805:4RF:H36   | 32:5:805:4RF:H6    | 1.71                     | 0.43              |
| 19:6:210:ILE:HB    | 21:6:603:CLA:O1A   | 2.19                     | 0.43              |
| 1:A:297:HIS:HB2    | 21:A:1116:CLA:CHB  | 2.49                     | 0.43              |
| 21:A:1141:CLA:H3A  | 21:A:1141:CLA:HBA2 | 1.75                     | 0.43              |
| 24:A:4002:BCR:H402 | 24:3:504:BCR:H24C  | 2.01                     | 0.43              |
| 21:B:1203:CLA:H2   | 21:B:1203:CLA:H62  | 1.72                     | 0.43              |
| 7:J:35:ASP:HA      | 7:J:36:PRO:HD3     | 1.76                     | 0.43              |
| 12:L:116:LYS:HD2   | 12:L:116:LYS:HA    | 1.81                     | 0.43              |
| 13:O:79:SER:O      | 13:O:82:GLN:NE2    | 2.49                     | 0.43              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 17:4:261:GLY:HA2   | 17:4:264:PHE:HE2   | 1.83                     | 0.43              |
| 21:4:604:CLA:HBC2  | 21:4:609:CLA:HBB2  | 2.00                     | 0.43              |
| 34:5:501:LUT:H401  | 34:5:501:LUT:H35   | 1.75                     | 0.43              |
| 34:5:502:LUT:H8    | 21:5:604:CLA:H61   | 2.01                     | 0.43              |
| 21:5:608:CLA:C4D   | 36:5:609:CHL:H122  | 2.49                     | 0.43              |
| 19:6:202:LEU:HD21  | 21:6:608:CLA:HMC3  | 1.99                     | 0.43              |
| 21:A:1104:CLA:H72  | 21:A:1104:CLA:H111 | 1.88                     | 0.42              |
| 21:A:1132:CLA:H171 | 21:L:1502:CLA:HMB2 | 2.00                     | 0.42              |
| 2:B:107:ARG:HH22   | 2:B:115:ASN:HA     | 1.81                     | 0.42              |
| 2:B:371:SER:HB2    | 21:B:1224:CLA:HMA1 | 2.01                     | 0.42              |
| 21:B:1205:CLA:HMB1 | 21:B:1206:CLA:O1A  | 2.19                     | 0.42              |
| 8:G:52:TYR:OH      | 8:G:56:ARG:NH1     | 2.52                     | 0.42              |
| 9:H:88:ARG:NH1     | 24:H:4001:BCR:HC41 | 2.33                     | 0.42              |
| 21:K:1404:CLA:O1A  | 21:K:1404:CLA:HMA2 | 2.19                     | 0.42              |
| 14:1:106:TRP:CD2   | 14:1:113:PRO:HB3   | 2.54                     | 0.42              |
| 14:1:154:PRO:CG    | 21:1:611:CLA:HMD2  | 2.48                     | 0.42              |
| 16:3:154:PRO:HD2   | 21:3:610:CLA:C1B   | 2.49                     | 0.42              |
| 21:3:605:CLA:H193  | 21:3:605:CLA:H162  | 1.84                     | 0.42              |
| 19:6:165:HIS:CE1   | 21:6:601:CLA:HMB2  | 2.53                     | 0.42              |
| 34:6:501:LUT:H35   | 34:6:501:LUT:H401  | 1.71                     | 0.42              |
| 35:6:502:XAT:H31   | 35:6:502:XAT:H391  | 1.75                     | 0.42              |
| 21:A:1108:CLA:H41  | 21:A:1108:CLA:H62  | 1.74                     | 0.42              |
| 21:A:1115:CLA:HBB1 | 21:A:1115:CLA:CMB  | 2.39                     | 0.42              |
| 21:A:1141:CLA:C4D  | 13:O:117:VAL:HG22  | 2.49                     | 0.42              |
| 2:B:26:LEU:HD21    | 24:L:4001:BCR:HC41 | 2.01                     | 0.42              |
| 2:B:650:THR:HA     | 2:B:653:PHE:HB3    | 2.01                     | 0.42              |
| 2:B:661:GLY:O      | 2:B:665:LEU:HG     | 2.19                     | 0.42              |
| 2:B:701:LEU:HD13   | 22:B:2002:PQN:O4   | 2.19                     | 0.42              |
| 17:4:142:LEU:HD13  | 17:4:259:TYR:OH    | 2.19                     | 0.42              |
| 17:4:145:TYR:HB2   | 21:4:604:CLA:HMD1  | 2.02                     | 0.42              |
| 35:4:502:XAT:H15   | 35:4:502:XAT:H201  | 1.77                     | 0.42              |
| 18:5:218:PHE:O     | 19:6:123:GLN:HG3   | 2.19                     | 0.42              |
| 1:A:267:LEU:CD1    | 11:K:29:MET:HE1    | 2.49                     | 0.42              |
| 1:A:709:VAL:CG1    | 6:F:183:ARG:HG3    | 2.46                     | 0.42              |
| 21:A:1130:CLA:HMB1 | 21:B:1237:CLA:HAA2 | 2.00                     | 0.42              |
| 24:A:4007:BCR:H401 | 21:B:1023:CLA:O2D  | 2.19                     | 0.42              |
| 2:B:620:TRP:O      | 2:B:624:TYR:HB3    | 2.19                     | 0.42              |
| 5:E:127:VAL:HG12   | 5:E:128:LYS:HG2    | 2.01                     | 0.42              |
| 6:F:82:LEU:HD13    | 6:F:139:LEU:HD13   | 2.00                     | 0.42              |
| 6:F:163:GLU:HG2    | 7:J:38:VAL:CG1     | 2.49                     | 0.42              |
| 21:1:611:CLA:H111  | 21:1:611:CLA:H93   | 1.67                     | 0.42              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 36:2:610:CHL:HED1  | 28:2:806:DGD:HE62  | 2.01                     | 0.42              |
| 21:5:614:CLA:C1    | 33:5:803:PTY:H142  | 2.50                     | 0.42              |
| 34:6:501:LUT:H362  | 21:6:601:CLA:C2    | 2.49                     | 0.42              |
| 1:A:46:THR:CG2     | 1:A:715:PRO:HA     | 2.49                     | 0.42              |
| 1:A:344:ILE:HD11   | 1:A:422:ASN:HD21   | 1.84                     | 0.42              |
| 1:A:578:PRO:HD3    | 2:B:562:GLY:HA2    | 2.00                     | 0.42              |
| 21:A:1101:CLA:H112 | 21:A:1101:CLA:H142 | 1.76                     | 0.42              |
| 2:B:515:PRO:HG3    | 6:F:147:HIS:NE2    | 2.33                     | 0.42              |
| 8:G:38:THR:OG1     | 8:G:105:HIS:CD2    | 2.73                     | 0.42              |
| 9:H:70:TYR:CZ      | 12:L:83:LEU:CD1    | 3.01                     | 0.42              |
| 9:H:124:LEU:HB2    | 9:H:125:PRO:CD     | 2.49                     | 0.42              |
| 13:O:45:ASP:HA     | 13:O:46:PRO:HD3    | 1.92                     | 0.42              |
| 13:O:120:LYS:HD3   | 13:O:120:LYS:HA    | 1.84                     | 0.42              |
| 21:1:604:CLA:HHD   | 36:1:609:CHL:HBB2  | 2.01                     | 0.42              |
| 21:4:604:CLA:H62   | 21:4:604:CLA:H41   | 1.51                     | 0.42              |
| 18:5:173:VAL:N     | 21:5:601:CLA:HMA1  | 2.34                     | 0.42              |
| 36:5:609:CHL:H62   | 19:6:131:LEU:HD11  | 2.01                     | 0.42              |
| 21:6:604:CLA:H112  | 21:6:605:CLA:HMA1  | 2.01                     | 0.42              |
| 21:A:1106:CLA:H3A  | 21:A:1106:CLA:HBA2 | 1.43                     | 0.42              |
| 21:A:1113:CLA:H202 | 21:3:610:CLA:HAC2  | 2.01                     | 0.42              |
| 21:A:1128:CLA:H122 | 21:A:1128:CLA:H161 | 1.86                     | 0.42              |
| 2:B:515:PRO:CD     | 6:F:147:HIS:CE1    | 3.02                     | 0.42              |
| 21:B:1217:CLA:H41  | 21:B:1217:CLA:H92  | 2.01                     | 0.42              |
| 21:B:1218:CLA:H62  | 21:B:1218:CLA:H41  | 1.51                     | 0.42              |
| 21:B:1219:CLA:H192 | 21:B:1219:CLA:H162 | 1.89                     | 0.42              |
| 21:B:1236:CLA:H62  | 21:B:1236:CLA:H41  | 1.57                     | 0.42              |
| 24:B:4004:BCR:H15C | 24:B:4004:BCR:H351 | 1.80                     | 0.42              |
| 9:H:137:GLU:O      | 9:H:138:ASN:CG     | 2.57                     | 0.42              |
| 11:K:91:VAL:HG12   | 11:K:95:LEU:HD11   | 2.01                     | 0.42              |
| 16:3:280:LEU:HD22  | 21:3:603:CLA:H43   | 2.02                     | 0.42              |
| 21:3:608:CLA:H2    | 21:3:608:CLA:H62   | 1.65                     | 0.42              |
| 21:3:612:CLA:H162  | 21:3:612:CLA:H141  | 1.83                     | 0.42              |
| 19:6:85:LYS:CD     | 19:6:149:PHE:CZ    | 2.96                     | 0.42              |
| 1:A:80:GLN:HE21    | 1:A:84:ILE:HG13    | 1.84                     | 0.42              |
| 1:A:220:VAL:O      | 1:A:223:PRO:HD2    | 2.20                     | 0.42              |
| 1:A:341:LEU:HA     | 1:A:341:LEU:HD23   | 1.81                     | 0.42              |
| 1:A:560:SER:OG     | 1:A:561:ARG:N      | 2.53                     | 0.42              |
| 21:A:1106:CLA:CHC  | 21:A:1107:CLA:HMD2 | 2.50                     | 0.42              |
| 2:B:450:PRO:HG2    | 6:F:94:LEU:HD21    | 2.02                     | 0.42              |
| 21:B:1223:CLA:H141 | 21:B:1223:CLA:H161 | 1.77                     | 0.42              |
| 28:B:5002:DGD:HA42 | 28:B:5002:DGD:HA71 | 1.88                     | 0.42              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 24:F:4001:BCR:C14  | 7:J:36:PRO:HB2     | 2.48                     | 0.42              |
| 31:F:5002:LMG:H332 | 31:F:5002:LMG:H361 | 1.98                     | 0.42              |
| 9:H:75:MET:N       | 9:H:75:MET:SD      | 2.93                     | 0.42              |
| 15:2:153:SER:O     | 15:2:157:THR:OG1   | 2.27                     | 0.42              |
| 16:3:140:PRO:HG2   | 16:3:143:THR:HG22  | 2.02                     | 0.42              |
| 19:6:53:PRO:HA     | 19:6:54:PRO:HD3    | 1.91                     | 0.42              |
| 1:A:330:LYS:HB3    | 1:A:330:LYS:HE2    | 1.74                     | 0.42              |
| 1:A:432:ARG:HG2    | 4:D:87:SER:HA      | 2.02                     | 0.42              |
| 21:A:1132:CLA:H62  | 21:A:1132:CLA:H41  | 1.80                     | 0.42              |
| 21:A:1135:CLA:HBB1 | 21:A:1135:CLA:HMB1 | 2.01                     | 0.42              |
| 2:B:247:THR:HG23   | 2:B:249:ASP:H      | 1.85                     | 0.42              |
| 21:B:1022:CLA:HMB1 | 21:B:1022:CLA:HBB1 | 2.02                     | 0.42              |
| 21:B:1220:CLA:O1A  | 24:B:4004:BCR:H14C | 2.19                     | 0.42              |
| 14:1:90:LEU:HD21   | 34:1:501:LUT:H173  | 2.01                     | 0.42              |
| 34:3:501:LUT:H15   | 34:3:501:LUT:H201  | 1.84                     | 0.42              |
| 36:3:604:CHL:H61   | 36:3:604:CHL:H41   | 1.68                     | 0.42              |
| 21:5:604:CLA:H13   | 21:5:604:CLA:H101  | 1.66                     | 0.42              |
| 21:A:1113:CLA:H112 | 24:3:504:BCR:H15C  | 2.01                     | 0.42              |
| 21:A:1126:CLA:H3A  | 21:A:1126:CLA:HBA2 | 1.69                     | 0.42              |
| 2:B:416:LYS:HE3    | 6:F:240:SER:HA     | 2.02                     | 0.42              |
| 21:B:1238:CLA:HAB  | 22:B:2002:PQN:H161 | 2.01                     | 0.42              |
| 24:B:4003:BCR:H24C | 24:B:4003:BCR:H21C | 1.89                     | 0.42              |
| 4:D:169:PRO:HG2    | 4:D:172:GLY:HA2    | 2.01                     | 0.42              |
| 6:F:139:LEU:CD1    | 6:F:139:LEU:C      | 2.87                     | 0.42              |
| 21:G:1602:CLA:C1B  | 24:G:4001:BCR:H323 | 2.50                     | 0.42              |
| 9:H:82:GLN:HG3     | 21:H:1701:CLA:C1C  | 2.50                     | 0.42              |
| 12:L:58:GLN:HB2    | 12:L:59:PRO:CD     | 2.47                     | 0.42              |
| 21:2:601:CLA:HBA2  | 21:2:601:CLA:H3A   | 1.70                     | 0.42              |
| 37:3:806:SQD:H282  | 37:3:806:SQD:H92   | 2.00                     | 0.42              |
| 21:4:604:CLA:H12   | 21:4:604:CLA:C4A   | 2.50                     | 0.42              |
| 34:5:504:LUT:H11   | 34:5:504:LUT:H191  | 1.78                     | 0.42              |
| 21:5:607:CLA:H72   | 21:5:607:CLA:H112  | 1.56                     | 0.42              |
| 19:6:156:ASP:N     | 19:6:157:PRO:CD    | 2.83                     | 0.42              |
| 1:A:574:PRO:HB3    | 1:A:720:ILE:HB     | 2.01                     | 0.42              |
| 21:B:1207:CLA:H121 | 9:H:109:VAL:HG12   | 2.01                     | 0.42              |
| 21:B:1229:CLA:HMB2 | 24:B:4006:BCR:H21C | 2.01                     | 0.42              |
| 4:D:69:PRO:HD2     | 4:D:73:PRO:HD3     | 2.01                     | 0.42              |
| 6:F:234:ASP:N      | 6:F:234:ASP:OD1    | 2.53                     | 0.42              |
| 21:H:1702:CLA:HMB1 | 18:5:144:TYR:CD2   | 2.54                     | 0.42              |
| 24:K:4001:BCR:H351 | 24:K:4001:BCR:H15C | 1.84                     | 0.42              |
| 12:L:79:VAL:O      | 12:L:83:LEU:HG     | 2.20                     | 0.42              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:1:604:CLA:H151  | 21:1:605:CLA:H203  | 2.01                     | 0.42              |
| 16:3:153:ILE:HG22  | 16:3:155:PRO:CD    | 2.30                     | 0.42              |
| 16:3:205:LEU:HD22  | 16:3:219:PHE:HB2   | 2.01                     | 0.42              |
| 19:6:165:HIS:O     | 19:6:165:HIS:CG    | 2.71                     | 0.42              |
| 1:A:747:ILE:HD12   | 1:A:747:ILE:HA     | 1.96                     | 0.42              |
| 21:A:1012:CLA:HMB3 | 21:B:1021:CLA:H191 | 2.02                     | 0.42              |
| 21:A:1138:CLA:H93  | 21:A:1138:CLA:H62  | 1.95                     | 0.42              |
| 21:B:1229:CLA:HBB1 | 21:B:1229:CLA:HMB1 | 2.01                     | 0.42              |
| 4:D:148:LYS:HE3    | 4:D:148:LYS:HB2    | 1.83                     | 0.42              |
| 31:F:5002:LMG:H162 | 31:F:5002:LMG:H131 | 1.81                     | 0.42              |
| 9:H:74:GLU:HG2     | 9:H:76:LYS:H       | 1.85                     | 0.42              |
| 9:H:111:SER:HB2    | 10:I:24:LEU:HD11   | 2.00                     | 0.42              |
| 10:I:16:VAL:HA     | 10:I:17:PRO:HD3    | 1.74                     | 0.42              |
| 11:K:63:VAL:CG1    | 11:K:75:THR:HG21   | 2.49                     | 0.42              |
| 21:K:1401:CLA:CMC  | 24:K:4001:BCR:H332 | 2.45                     | 0.42              |
| 35:3:502:XAT:H28   | 35:3:502:XAT:H371  | 2.02                     | 0.42              |
| 21:3:610:CLA:C1B   | 31:3:803:LMG:H152  | 2.50                     | 0.42              |
| 21:3:610:CLA:CHC   | 31:3:803:LMG:H192  | 2.50                     | 0.42              |
| 17:4:199:GLU:OE1   | 17:4:199:GLU:N     | 2.52                     | 0.42              |
| 19:6:66:ASP:OD1    | 19:6:66:ASP:N      | 2.53                     | 0.42              |
| 1:A:226:LYS:HB3    | 1:A:253:LEU:HD22   | 2.02                     | 0.41              |
| 21:A:1101:CLA:H93  | 22:A:2001:PQN:H271 | 2.02                     | 0.41              |
| 21:A:1112:CLA:H142 | 21:A:1112:CLA:H111 | 1.70                     | 0.41              |
| 24:A:4002:BCR:H282 | 24:3:504:BCR:H402  | 2.01                     | 0.41              |
| 6:F:82:LEU:HD13    | 6:F:139:LEU:HD11   | 2.01                     | 0.41              |
| 21:G:1602:CLA:C4A  | 24:G:4001:BCR:H323 | 2.50                     | 0.41              |
| 13:O:58:LEU:HD22   | 13:O:111:VAL:HG11  | 2.01                     | 0.41              |
| 14:1:160:PRO:HB3   | 21:1:611:CLA:H93   | 2.02                     | 0.41              |
| 36:4:611:CHL:HAB   | 36:4:611:CHL:HMB1  | 1.86                     | 0.41              |
| 36:5:609:CHL:C1C   | 25:5:801:LHG:HC81  | 2.49                     | 0.41              |
| 1:A:275:PHE:HE2    | 21:A:1113:CLA:HBC3 | 1.85                     | 0.41              |
| 21:A:1123:CLA:H143 | 21:A:1123:CLA:HMD2 | 2.02                     | 0.41              |
| 2:B:67:PHE:HE1     | 10:I:15:PHE:O      | 2.03                     | 0.41              |
| 2:B:87:PRO:HB3     | 2:B:122:TYR:CD1    | 2.56                     | 0.41              |
| 2:B:467:ALA:HB2    | 2:B:477:LEU:HD23   | 2.00                     | 0.41              |
| 2:B:735:GLY:HA2    | 9:H:144:LEU:HD12   | 2.00                     | 0.41              |
| 21:B:1226:CLA:H143 | 21:B:1226:CLA:H111 | 1.86                     | 0.41              |
| 35:1:502:XAT:H35   | 35:1:502:XAT:H401  | 1.95                     | 0.41              |
| 36:2:609:CHL:HBB1  | 36:2:609:CHL:HHC   | 2.02                     | 0.41              |
| 31:3:803:LMG:H342  | 31:3:803:LMG:H372  | 1.80                     | 0.41              |
| 34:4:501:LUT:H15   | 34:4:501:LUT:H201  | 1.91                     | 0.41              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 18:5:215:ASN:HA    | 18:5:220:SER:HB3   | 2.02                     | 0.41              |
| 21:5:603:CLA:HMB1  | 21:5:603:CLA:HBB1  | 2.02                     | 0.41              |
| 21:5:605:CLA:CBC   | 36:5:610:CHL:HAB   | 2.49                     | 0.41              |
| 21:5:608:CLA:C2B   | 36:5:609:CHL:H18   | 2.51                     | 0.41              |
| 1:A:316:TRP:HZ3    | 21:A:1110:CLA:HMA1 | 1.85                     | 0.41              |
| 1:A:450:PHE:C      | 21:A:1132:CLA:HBB2 | 2.41                     | 0.41              |
| 21:A:1105:CLA:H92  | 21:A:1105:CLA:H61  | 1.89                     | 0.41              |
| 21:A:1107:CLA:HBC2 | 21:A:1126:CLA:H141 | 2.01                     | 0.41              |
| 21:A:1132:CLA:HBB1 | 21:A:1132:CLA:CMB  | 2.37                     | 0.41              |
| 2:B:659:ALA:CB     | 21:B:1023:CLA:CBB  | 2.92                     | 0.41              |
| 21:B:1223:CLA:H152 | 21:B:1223:CLA:H112 | 1.89                     | 0.41              |
| 21:B:1226:CLA:H61  | 21:B:1226:CLA:H41  | 1.84                     | 0.41              |
| 9:H:137:GLU:HA     | 9:H:137:GLU:OE2    | 2.20                     | 0.41              |
| 21:L:1503:CLA:C2D  | 21:L:1504:CLA:CAB  | 2.98                     | 0.41              |
| 13:O:65:SER:HB2    | 24:O:4001:BCR:HC32 | 2.00                     | 0.41              |
| 33:O:5002:PTY:O30  | 33:O:5002:PTY:H331 | 2.19                     | 0.41              |
| 25:2:802:LHG:H161  | 37:2:805:SQD:H331  | 2.02                     | 0.41              |
| 16:3:145:VAL:HG22  | 21:3:606:CLA:HED3  | 2.02                     | 0.41              |
| 21:3:612:CLA:H161  | 21:3:612:CLA:H202  | 1.81                     | 0.41              |
| 21:5:603:CLA:H43   | 36:5:609:CHL:C3    | 2.50                     | 0.41              |
| 19:6:210:ILE:CD1   | 21:6:603:CLA:C2    | 2.99                     | 0.41              |
| 19:6:210:ILE:HD11  | 21:6:603:CLA:HMD2  | 2.01                     | 0.41              |
| 22:A:2001:PQN:H142 | 24:B:4006:BCR:H312 | 2.01                     | 0.41              |
| 2:B:637:ASN:OD1    | 2:B:637:ASN:N      | 2.52                     | 0.41              |
| 7:J:21:PHE:CD2     | 21:J:1901:CLA:HBB2 | 2.55                     | 0.41              |
| 9:H:77:ARG:HD3     | 12:L:93:VAL:HG11   | 2.01                     | 0.41              |
| 16:3:275:PRO:HG3   | 21:3:608:CLA:HMB3  | 2.03                     | 0.41              |
| 34:4:501:LUT:H391  | 34:4:501:LUT:H31   | 1.81                     | 0.41              |
| 21:A:1012:CLA:CAC  | 21:A:1013:CLA:HMC2 | 2.50                     | 0.41              |
| 21:A:1103:CLA:H72  | 24:A:4003:BCR:H373 | 2.01                     | 0.41              |
| 2:B:168:TRP:NE1    | 21:B:1208:CLA:HMA2 | 2.35                     | 0.41              |
| 21:B:1204:CLA:HBA2 | 21:B:1204:CLA:H3A  | 1.84                     | 0.41              |
| 21:B:1224:CLA:HBA2 | 21:B:1224:CLA:H3A  | 1.84                     | 0.41              |
| 24:G:4001:BCR:H383 | 24:G:4001:BCR:H23C | 2.01                     | 0.41              |
| 13:O:53:PHE:O      | 13:O:57:THR:CB     | 2.68                     | 0.41              |
| 25:1:801:LHG:H122  | 25:1:801:LHG:HC91  | 1.91                     | 0.41              |
| 17:4:305:ILE:HA    | 17:4:308:LEU:HB3   | 2.01                     | 0.41              |
| 36:4:613:CHL:HAB   | 36:4:613:CHL:HMB1  | 1.90                     | 0.41              |
| 18:5:61:LEU:HB3    | 18:5:68:ASP:OD2    | 2.20                     | 0.41              |
| 21:5:604:CLA:H61   | 21:5:604:CLA:H93   | 1.68                     | 0.41              |
| 21:5:608:CLA:HAA1  | 19:6:128:ILE:CD1   | 2.48                     | 0.41              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1130:CLA:H41  | 21:A:1130:CLA:H61  | 1.73                     | 0.41              |
| 21:A:1140:CLA:H41  | 21:A:1140:CLA:H62  | 1.80                     | 0.41              |
| 21:B:1023:CLA:H62  | 21:B:1023:CLA:H41  | 1.34                     | 0.41              |
| 21:B:1203:CLA:H193 | 21:B:1203:CLA:H161 | 1.88                     | 0.41              |
| 21:B:1240:CLA:H162 | 21:B:1240:CLA:H141 | 1.83                     | 0.41              |
| 27:B:5004:LMU:O6'  | 33:6:804:PTY:N1    | 2.53                     | 0.41              |
| 21:H:1701:CLA:H52  | 21:H:1701:CLA:H8   | 1.87                     | 0.41              |
| 13:O:65:SER:N      | 24:O:4001:BCR:HC42 | 2.35                     | 0.41              |
| 15:2:161:LEU:HD12  | 36:2:613:CHL:HMA2  | 2.01                     | 0.41              |
| 21:2:604:CLA:HBA2  | 21:2:604:CLA:H3A   | 1.64                     | 0.41              |
| 21:3:608:CLA:H122  | 21:3:608:CLA:H161  | 1.89                     | 0.41              |
| 21:3:612:CLA:H93   | 21:3:612:CLA:H61   | 1.86                     | 0.41              |
| 17:4:126:LEU:HG    | 17:4:128:TYR:H     | 1.84                     | 0.41              |
| 19:6:64:SER:HB3    | 21:6:604:CLA:HMD1  | 2.03                     | 0.41              |
| 21:A:1012:CLA:CAB  | 2:B:583:TRP:HH2    | 2.27                     | 0.41              |
| 24:A:4004:BCR:H16C | 24:A:4004:BCR:H19C | 1.88                     | 0.41              |
| 24:A:4004:BCR:H282 | 13:O:106:THR:HA    | 2.02                     | 0.41              |
| 21:B:1207:CLA:C12  | 9:H:109:VAL:HG11   | 2.51                     | 0.41              |
| 21:B:1217:CLA:CBB  | 24:B:4001:BCR:H14C | 2.51                     | 0.41              |
| 21:B:1223:CLA:H191 | 21:B:1240:CLA:H143 | 2.02                     | 0.41              |
| 21:B:1225:CLA:H142 | 21:B:1225:CLA:H111 | 1.84                     | 0.41              |
| 3:C:66:ARG:HA      | 3:C:66:ARG:HD2     | 1.89                     | 0.41              |
| 8:G:117:LEU:HD13   | 8:G:124:ILE:HD11   | 2.03                     | 0.41              |
| 21:G:1601:CLA:HMC1 | 24:G:4001:BCR:H383 | 2.03                     | 0.41              |
| 12:L:120:LEU:HD13  | 12:L:126:THR:CG2   | 2.50                     | 0.41              |
| 13:O:80:ILE:HG22   | 13:O:97:PHE:HD1    | 1.85                     | 0.41              |
| 21:4:603:CLA:H11   | 21:4:603:CLA:H51   | 1.85                     | 0.41              |
| 21:4:615:CLA:H3A   | 21:4:615:CLA:HBA1  | 1.65                     | 0.41              |
| 21:5:612:CLA:HAC1  | 21:5:612:CLA:HMC1  | 1.93                     | 0.41              |
| 19:6:175:LEU:HD21  | 34:6:501:LUT:H191  | 2.03                     | 0.41              |
| 24:A:4004:BCR:H372 | 24:A:4004:BCR:H361 | 2.02                     | 0.41              |
| 21:B:1023:CLA:CMA  | 21:B:1023:CLA:HBA2 | 2.39                     | 0.41              |
| 21:G:1601:CLA:HAC2 | 24:G:4001:BCR:H381 | 2.01                     | 0.41              |
| 11:K:33:ILE:HD11   | 11:K:87:HIS:ND1    | 2.36                     | 0.41              |
| 11:K:41:ARG:O      | 11:K:43:GLY:N      | 2.52                     | 0.41              |
| 36:2:609:CHL:HAB   | 36:2:609:CHL:HMB1  | 1.95                     | 0.41              |
| 16:3:73:TYR:OH     | 16:3:88:GLY:HA2    | 2.21                     | 0.41              |
| 18:5:51:PRO:CG     | 18:5:71:PHE:HB2    | 2.50                     | 0.41              |
| 34:5:504:LUT:H35   | 34:5:504:LUT:H401  | 1.87                     | 0.41              |
| 21:5:608:CLA:H61   | 21:5:608:CLA:H41   | 1.81                     | 0.41              |
| 34:6:501:LUT:H362  | 21:6:601:CLA:C3    | 2.50                     | 0.41              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:6:605:CLA:H43   | 21:6:605:CLA:HED3  | 2.03                     | 0.41              |
| 1:A:74:PHE:HE2     | 1:A:180:HIS:CD2    | 2.39                     | 0.41              |
| 1:A:357:LEU:HD23   | 1:A:357:LEU:HA     | 1.90                     | 0.41              |
| 21:B:1209:CLA:HBB2 | 21:B:1217:CLA:H8   | 2.03                     | 0.41              |
| 21:B:1215:CLA:H111 | 21:B:1215:CLA:H72  | 1.85                     | 0.41              |
| 3:C:63:LEU:HD12    | 3:C:66:ARG:HH11    | 1.86                     | 0.41              |
| 5:E:90:VAL:HG22    | 5:E:104:VAL:HG12   | 2.03                     | 0.41              |
| 8:G:34:ILE:CD1     | 8:G:110:PHE:HD1    | 2.23                     | 0.41              |
| 11:K:28:ILE:HB     | 11:K:31:SER:OG     | 2.20                     | 0.41              |
| 21:K:1401:CLA:HBB1 | 24:K:4001:BCR:C11  | 2.51                     | 0.41              |
| 14:1:182:ARG:NH2   | 21:1:604:CLA:O2D   | 2.54                     | 0.41              |
| 21:1:601:CLA:H162  | 21:1:601:CLA:H202  | 1.89                     | 0.41              |
| 36:1:609:CHL:H61   | 36:1:609:CHL:H41   | 1.84                     | 0.41              |
| 15:2:105:ALA:O     | 15:2:109:HIS:ND1   | 2.34                     | 0.41              |
| 15:2:175:ASN:HD22  | 17:4:131:ALA:H     | 1.68                     | 0.41              |
| 16:3:103:PHE:CE2   | 37:3:806:SQD:H241  | 2.56                     | 0.41              |
| 16:3:200:LEU:HD23  | 16:3:200:LEU:HA    | 1.93                     | 0.41              |
| 18:5:86:LEU:HD13   | 21:5:604:CLA:H11   | 2.03                     | 0.41              |
| 21:5:606:CLA:HMA1  | 21:5:613:CLA:C2C   | 2.50                     | 0.41              |
| 1:A:141:THR:HA     | 1:A:386:THR:HG22   | 2.02                     | 0.41              |
| 2:B:8:LYS:NZ       | 29:B:5003:3PH:O21  | 2.54                     | 0.41              |
| 2:B:57:ILE:HD13    | 21:B:1203:CLA:HMD2 | 2.02                     | 0.41              |
| 2:B:166:LEU:HA     | 2:B:166:LEU:HD12   | 1.86                     | 0.41              |
| 21:B:1231:CLA:CHD  | 21:B:1232:CLA:HAB  | 2.51                     | 0.41              |
| 11:K:53:THR:HG23   | 11:K:59:LEU:CD1    | 2.51                     | 0.41              |
| 15:2:230:MET:HB2   | 35:2:502:XAT:C15   | 2.51                     | 0.41              |
| 34:2:501:LUT:H21   | 21:2:601:CLA:H12   | 2.03                     | 0.41              |
| 21:3:605:CLA:H112  | 21:3:605:CLA:H91   | 1.88                     | 0.41              |
| 17:4:270:SER:OG    | 17:4:271:LYS:N     | 2.54                     | 0.41              |
| 1:A:278:PHE:CE1    | 21:A:1116:CLA:HBB1 | 2.56                     | 0.40              |
| 1:A:355:ILE:HD11   | 24:A:4004:BCR:HC7  | 2.04                     | 0.40              |
| 2:B:418:ALA:O      | 2:B:422:HIS:ND1    | 2.48                     | 0.40              |
| 21:B:1230:CLA:CMA  | 24:F:4001:BCR:H363 | 2.51                     | 0.40              |
| 6:F:98:GLU:HA      | 6:F:101:VAL:HG12   | 2.03                     | 0.40              |
| 9:H:64:THR:OG1     | 12:L:162:LYS:NZ    | 2.54                     | 0.40              |
| 15:2:71:SER:OG     | 15:2:72:GLU:N      | 2.54                     | 0.40              |
| 21:4:605:CLA:H51   | 21:4:605:CLA:H11   | 1.84                     | 0.40              |
| 18:5:76:LEU:HD23   | 21:5:604:CLA:H62   | 2.03                     | 0.40              |
| 21:5:614:CLA:H93   | 21:5:614:CLA:H61   | 1.80                     | 0.40              |
| 1:A:342:TYR:O      | 1:A:346:THR:OG1    | 2.29                     | 0.40              |
| 21:A:1114:CLA:NC   | 31:3:803:LMG:H352  | 2.36                     | 0.40              |

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| Atom-1             | Atom-2             | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 21:A:1132:CLA:H143 | 21:A:1132:CLA:H162 | 1.60                     | 0.40              |
| 2:B:86:ARG:NH1     | 2:B:107:ARG:HD2    | 2.35                     | 0.40              |
| 21:B:1207:CLA:HED3 | 12:L:133:MET:HG2   | 2.03                     | 0.40              |
| 21:B:1226:CLA:H141 | 21:B:1226:CLA:H161 | 1.74                     | 0.40              |
| 13:O:58:LEU:O      | 13:O:62:ILE:HG13   | 2.21                     | 0.40              |
| 21:2:605:CLA:H192  | 21:2:605:CLA:H162  | 1.92                     | 0.40              |
| 17:4:174:MET:SD    | 21:4:601:CLA:HAB   | 2.62                     | 0.40              |
| 18:5:110:LEU:C     | 18:5:110:LEU:CD1   | 2.89                     | 0.40              |
| 18:5:187:PHE:CE2   | 34:5:502:LUT:H30   | 2.56                     | 0.40              |
| 21:5:614:CLA:HAB   | 29:5:807:3PH:H221  | 2.03                     | 0.40              |
| 1:A:260:GLY:HA2    | 21:A:1113:CLA:OBD  | 2.22                     | 0.40              |
| 1:A:646:LEU:HD22   | 2:B:652:LEU:HD21   | 2.03                     | 0.40              |
| 21:A:1102:CLA:H202 | 21:A:1102:CLA:H162 | 1.89                     | 0.40              |
| 21:A:1113:CLA:H72  | 16:3:255:ALA:HA    | 2.04                     | 0.40              |
| 21:A:1120:CLA:H61  | 21:A:1120:CLA:H41  | 1.82                     | 0.40              |
| 25:A:5002:LHG:H311 | 25:A:5002:LHG:H282 | 1.77                     | 0.40              |
| 2:B:8:LYS:HE2      | 2:B:8:LYS:HB3      | 1.81                     | 0.40              |
| 2:B:78:TRP:CD1     | 2:B:85:VAL:HG23    | 2.57                     | 0.40              |
| 3:C:6:LYS:O        | 3:C:65:VAL:HA      | 2.21                     | 0.40              |
| 14:1:47:LEU:O      | 14:1:53:ASN:ND2    | 2.54                     | 0.40              |
| 14:1:84:LEU:HD13   | 21:1:606:CLA:HBB2  | 2.04                     | 0.40              |
| 34:3:501:LUT:H373  | 21:3:601:CLA:H12   | 2.03                     | 0.40              |
| 21:5:605:CLA:C6    | 21:5:605:CLA:C1    | 2.99                     | 0.40              |
| 19:6:89:ARG:HD3    | 35:6:504:XAT:H363  | 2.03                     | 0.40              |
| 1:A:253:LEU:HD23   | 1:A:253:LEU:HA     | 1.88                     | 0.40              |
| 1:A:405:ALA:HB1    | 24:A:4005:BCR:H383 | 2.01                     | 0.40              |
| 2:B:74:ASN:HB2     | 2:B:77:GLN:HB2     | 2.04                     | 0.40              |
| 21:B:1022:CLA:H201 | 21:B:1206:CLA:H2   | 2.03                     | 0.40              |
| 21:B:1219:CLA:H112 | 21:B:1219:CLA:H91  | 1.86                     | 0.40              |
| 25:2:803:LHG:H111  | 31:3:802:LMG:H132  | 2.04                     | 0.40              |
| 34:3:501:LUT:H30   | 21:3:601:CLA:H72   | 2.04                     | 0.40              |
| 17:4:277:LEU:HD11  | 17:4:281:GLN:HE21  | 1.86                     | 0.40              |
| 21:4:601:CLA:H93   | 21:4:601:CLA:H111  | 1.86                     | 0.40              |
| 1:A:549:ILE:HD13   | 21:B:1023:CLA:HMD2 | 2.03                     | 0.40              |
| 21:A:1120:CLA:H143 | 21:A:1121:CLA:C14  | 2.44                     | 0.40              |
| 25:F:5001:LHG:H112 | 25:F:5001:LHG:HC81 | 1.93                     | 0.40              |
| 24:I:4001:BCR:C35  | 24:I:4002:BCR:H401 | 2.50                     | 0.40              |
| 11:K:29:MET:HG2    | 21:K:1401:CLA:CAD  | 2.51                     | 0.40              |
| 34:1:501:LUT:H31   | 34:1:501:LUT:H403  | 1.90                     | 0.40              |
| 36:5:609:CHL:HAA1  | 36:5:609:CHL:HBD   | 2.04                     | 0.40              |

There are no symmetry-related clashes.



## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed        | Favoured   | Allowed  | Outliers | Percentiles |     |
|-----|-------|-----------------|------------|----------|----------|-------------|-----|
| 1   | A     | 738/740 (100%)  | 693 (94%)  | 43 (6%)  | 2 (0%)   | 41          | 61  |
| 2   | B     | 731/733 (100%)  | 693 (95%)  | 37 (5%)  | 1 (0%)   | 51          | 75  |
| 3   | C     | 78/80 (98%)     | 71 (91%)   | 7 (9%)   | 0        | 100         | 100 |
| 4   | D     | 141/144 (98%)   | 125 (89%)  | 16 (11%) | 0        | 100         | 100 |
| 5   | E     | 62/64 (97%)     | 60 (97%)   | 2 (3%)   | 0        | 100         | 100 |
| 6   | F     | 160/162 (99%)   | 143 (89%)  | 16 (10%) | 1 (1%)   | 25          | 46  |
| 7   | J     | 39/41 (95%)     | 33 (85%)   | 6 (15%)  | 0        | 100         | 100 |
| 8   | G     | 99/101 (98%)    | 86 (87%)   | 11 (11%) | 2 (2%)   | 7           | 16  |
| 9   | H     | 90/92 (98%)     | 81 (90%)   | 9 (10%)  | 0        | 100         | 100 |
| 10  | I     | 37/39 (95%)     | 32 (86%)   | 4 (11%)  | 1 (3%)   | 5           | 11  |
| 11  | K     | 82/84 (98%)     | 75 (92%)   | 6 (7%)   | 1 (1%)   | 13          | 28  |
| 12  | L     | 153/155 (99%)   | 143 (94%)  | 6 (4%)   | 4 (3%)   | 5           | 12  |
| 13  | O     | 84/86 (98%)     | 74 (88%)   | 10 (12%) | 0        | 100         | 100 |
| 14  | 1     | 195/197 (99%)   | 177 (91%)  | 16 (8%)  | 2 (1%)   | 15          | 31  |
| 15  | 2     | 206/208 (99%)   | 193 (94%)  | 13 (6%)  | 0        | 100         | 100 |
| 16  | 3     | 226/228 (99%)   | 213 (94%)  | 13 (6%)  | 0        | 100         | 100 |
| 17  | 4     | 209/211 (99%)   | 188 (90%)  | 21 (10%) | 0        | 100         | 100 |
| 18  | 5     | 200/202 (99%)   | 177 (88%)  | 17 (8%)  | 6 (3%)   | 4           | 9   |
| 19  | 6     | 176/178 (99%)   | 152 (86%)  | 17 (10%) | 7 (4%)   | 3           | 5   |
| All | All   | 3706/3745 (99%) | 3409 (92%) | 270 (7%) | 27 (1%)  | 26          | 42  |

All (27) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 18  | 5     | 122 | VAL  |
| 18  | 5     | 160 | PRO  |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 19  | 6     | 107 | PRO  |
| 6   | F     | 135 | LYS  |
| 8   | G     | 82  | PRO  |
| 10  | I     | 14  | PRO  |
| 14  | 1     | 154 | PRO  |
| 14  | 1     | 156 | GLY  |
| 19  | 6     | 163 | PRO  |
| 2   | B     | 223 | LEU  |
| 12  | L     | 168 | PRO  |
| 18  | 5     | 51  | PRO  |
| 18  | 5     | 163 | PRO  |
| 19  | 6     | 162 | SER  |
| 19  | 6     | 205 | PRO  |
| 11  | K     | 42  | PHE  |
| 19  | 6     | 158 | VAL  |
| 1   | A     | 575 | CYS  |
| 8   | G     | 92  | ASP  |
| 12  | L     | 164 | LEU  |
| 12  | L     | 165 | SER  |
| 12  | L     | 167 | ARG  |
| 18  | 5     | 117 | PRO  |
| 19  | 6     | 157 | PRO  |
| 19  | 6     | 217 | THR  |
| 1   | A     | 128 | ASN  |
| 18  | 5     | 116 | ILE  |

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed       | Rotameric  | Outliers | Percentiles |     |
|-----|-------|----------------|------------|----------|-------------|-----|
| 1   | A     | 599/599 (100%) | 598 (100%) | 1 (0%)   | 93          | 97  |
| 2   | B     | 593/593 (100%) | 589 (99%)  | 4 (1%)   | 84          | 91  |
| 3   | C     | 68/68 (100%)   | 67 (98%)   | 1 (2%)   | 65          | 82  |
| 4   | D     | 122/123 (99%)  | 121 (99%)  | 1 (1%)   | 81          | 90  |
| 5   | E     | 57/57 (100%)   | 57 (100%)  | 0        | 100         | 100 |

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| Mol | Chain | Analysed         | Rotameric  | Outliers | Percentiles |     |
|-----|-------|------------------|------------|----------|-------------|-----|
| 6   | F     | 135/135 (100%)   | 134 (99%)  | 1 (1%)   | 84          | 91  |
| 7   | J     | 36/36 (100%)     | 35 (97%)   | 1 (3%)   | 43          | 68  |
| 8   | G     | 78/78 (100%)     | 74 (95%)   | 4 (5%)   | 24          | 45  |
| 9   | H     | 71/71 (100%)     | 66 (93%)   | 5 (7%)   | 15          | 30  |
| 10  | I     | 30/30 (100%)     | 30 (100%)  | 0        | 100         | 100 |
| 11  | K     | 53/53 (100%)     | 51 (96%)   | 2 (4%)   | 33          | 59  |
| 12  | L     | 119/119 (100%)   | 114 (96%)  | 5 (4%)   | 30          | 54  |
| 13  | O     | 71/71 (100%)     | 71 (100%)  | 0        | 100         | 100 |
| 14  | 1     | 152/152 (100%)   | 152 (100%) | 0        | 100         | 100 |
| 15  | 2     | 167/167 (100%)   | 167 (100%) | 0        | 100         | 100 |
| 16  | 3     | 173/173 (100%)   | 173 (100%) | 0        | 100         | 100 |
| 17  | 4     | 169/169 (100%)   | 169 (100%) | 0        | 100         | 100 |
| 18  | 5     | 163/163 (100%)   | 160 (98%)  | 3 (2%)   | 59          | 78  |
| 19  | 6     | 147/147 (100%)   | 141 (96%)  | 6 (4%)   | 30          | 56  |
| All | All   | 3003/3004 (100%) | 2969 (99%) | 34 (1%)  | 74          | 86  |

All (34) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 704 | HIS  |
| 2   | B     | 217 | LEU  |
| 2   | B     | 258 | PHE  |
| 2   | B     | 411 | ARG  |
| 2   | B     | 453 | GLN  |
| 3   | C     | 44  | ARG  |
| 4   | D     | 200 | LYS  |
| 6   | F     | 135 | LYS  |
| 7   | J     | 38  | VAL  |
| 8   | G     | 46  | ARG  |
| 8   | G     | 80  | GLN  |
| 8   | G     | 85  | PHE  |
| 8   | G     | 105 | HIS  |
| 9   | H     | 95  | ARG  |
| 9   | H     | 96  | ARG  |
| 9   | H     | 114 | LEU  |
| 9   | H     | 122 | LEU  |
| 9   | H     | 133 | MET  |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 11  | K     | 28  | ILE  |
| 11  | K     | 41  | ARG  |
| 12  | L     | 60  | LEU  |
| 12  | L     | 77  | PRO  |
| 12  | L     | 114 | PHE  |
| 12  | L     | 167 | ARG  |
| 12  | L     | 169 | LEU  |
| 18  | 5     | 227 | CYS  |
| 18  | 5     | 238 | MET  |
| 18  | 5     | 248 | LYS  |
| 19  | 6     | 87  | ASN  |
| 19  | 6     | 88  | CYS  |
| 19  | 6     | 107 | PRO  |
| 19  | 6     | 108 | VAL  |
| 19  | 6     | 111 | PHE  |
| 19  | 6     | 125 | GLN  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (4) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2   | B     | 99  | GLN  |
| 8   | G     | 105 | HIS  |
| 17  | 4     | 281 | GLN  |
| 19  | 6     | 165 | HIS  |

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

## 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry

Of 292 ligands modelled in this entry, 1 is monoatomic - leaving 291 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 24  | BCR  | I     | 4001 | -    | 41,41,41     | 1.86 | 4 (9%)   | 56,56,56    | 4.17 | 17 (30%) |
| 21  | CLA  | A     | 1120 | -    | 60,68,73     | 1.43 | 8 (13%)  | 70,107,113  | 2.14 | 20 (28%) |
| 28  | DGD  | 3     | 805  | -    | 46,46,67     | 0.87 | 2 (4%)   | 60,60,81    | 1.02 | 3 (5%)   |
| 21  | CLA  | 5     | 613  | -    | 45,53,73     | 1.68 | 8 (17%)  | 52,89,113   | 2.48 | 15 (28%) |
| 36  | CHL  | 3     | 604  | -    | 66,74,74     | 1.27 | 9 (13%)  | 73,114,114  | 1.34 | 10 (13%) |
| 24  | BCR  | A     | 4001 | -    | 41,41,41     | 1.87 | 4 (9%)   | 56,56,56    | 5.02 | 22 (39%) |
| 24  | BCR  | 2     | 503  | -    | 41,41,41     | 1.78 | 4 (9%)   | 56,56,56    | 4.27 | 15 (26%) |
| 29  | 3PH  | F     | 5003 | -    | 33,33,47     | 1.00 | 4 (12%)  | 37,38,52    | 1.17 | 2 (5%)   |
| 21  | CLA  | 6     | 601  | -    | 60,68,73     | 1.40 | 8 (13%)  | 70,107,113  | 2.02 | 17 (24%) |
| 24  | BCR  | O     | 4001 | -    | 41,41,41     | 1.92 | 6 (14%)  | 56,56,56    | 5.09 | 21 (37%) |
| 25  | LHG  | F     | 5001 | -    | 48,48,48     | 0.40 | 0        | 51,54,54    | 0.95 | 3 (5%)   |
| 21  | CLA  | B     | 1022 | -    | 65,73,73     | 1.34 | 8 (12%)  | 76,113,113  | 2.00 | 17 (22%) |
| 21  | CLA  | B     | 1205 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 2.07 | 16 (21%) |
| 21  | CLA  | K     | 1402 | -    | 55,63,73     | 1.47 | 7 (12%)  | 64,101,113  | 2.13 | 18 (28%) |
| 25  | LHG  | 4     | 801  | -    | 28,28,48     | 0.54 | 0        | 31,34,54    | 1.28 | 4 (12%)  |
| 21  | CLA  | 4     | 612  | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 1.95 | 17 (22%) |
| 36  | CHL  | 5     | 610  | -    | 47,55,74     | 1.03 | 3 (6%)   | 50,91,114   | 1.42 | 9 (18%)  |
| 39  | P3H  | 5     | 806  | -    | 32,32,49     | 1.44 | 6 (18%)  | 42,44,61    | 1.03 | 2 (4%)   |
| 21  | CLA  | B     | 1234 | -    | 55,63,73     | 1.47 | 7 (12%)  | 64,101,113  | 2.26 | 21 (32%) |
| 21  | CLA  | B     | 1223 | -    | 65,73,73     | 1.37 | 8 (12%)  | 76,113,113  | 2.07 | 18 (23%) |
| 33  | PTY  | 5     | 803  | -    | 35,35,49     | 1.02 | 4 (11%)  | 38,40,54    | 1.13 | 2 (5%)   |
| 21  | CLA  | 6     | 607  | -    | 60,68,73     | 1.43 | 8 (13%)  | 70,107,113  | 2.07 | 16 (22%) |
| 21  | CLA  | B     | 1235 | -    | 60,68,73     | 1.39 | 8 (13%)  | 70,107,113  | 2.08 | 17 (24%) |
| 24  | BCR  | G     | 4001 | -    | 41,41,41     | 1.93 | 4 (9%)   | 56,56,56    | 4.15 | 22 (39%) |
| 24  | BCR  | K     | 4001 | -    | 41,41,41     | 1.85 | 4 (9%)   | 56,56,56    | 4.33 | 17 (30%) |
| 21  | CLA  | 2     | 612  | -    | 65,73,73     | 1.37 | 8 (12%)  | 76,113,113  | 2.06 | 18 (23%) |

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 36  | CHL  | 6     | 610  | -    | 47,55,74     | 0.98 | 3 (6%)   | 50,91,114   | 1.49 | 10 (20%) |
| 21  | CLA  | 6     | 609  | -    | 46,54,73     | 1.61 | 8 (17%)  | 53,90,113   | 2.12 | 15 (28%) |
| 21  | CLA  | A     | 1102 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 2.08 | 18 (23%) |
| 25  | LHG  | 5     | 801  | -    | 42,42,48     | 0.44 | 0        | 45,48,54    | 1.17 | 5 (11%)  |
| 21  | CLA  | 4     | 609  | 17   | 60,68,73     | 1.39 | 7 (11%)  | 70,107,113  | 2.31 | 20 (28%) |
| 21  | CLA  | 2     | 607  | 25   | 60,68,73     | 1.43 | 8 (13%)  | 70,107,113  | 2.21 | 19 (27%) |
| 28  | DGD  | B     | 5002 | -    | 62,62,67     | 1.11 | 6 (9%)   | 76,76,81    | 1.06 | 4 (5%)   |
| 35  | XAT  | 6     | 504  | -    | 39,47,47     | 0.90 | 1 (2%)   | 54,74,74    | 6.81 | 18 (33%) |
| 24  | BCR  | 3     | 506  | -    | 41,41,41     | 1.96 | 4 (9%)   | 56,56,56    | 3.96 | 23 (41%) |
| 21  | CLA  | B     | 1226 | -    | 65,73,73     | 1.40 | 8 (12%)  | 76,113,113  | 2.12 | 21 (27%) |
| 26  | OCD  | A     | 5003 | -    | 18,18,18     | 0.30 | 0        | 17,17,17    | 0.97 | 0        |
| 21  | CLA  | B     | 1224 | -    | 65,73,73     | 1.37 | 8 (12%)  | 76,113,113  | 1.98 | 17 (22%) |
| 21  | CLA  | A     | 1134 | 1    | 55,63,73     | 1.45 | 7 (12%)  | 64,101,113  | 2.11 | 16 (25%) |
| 33  | PTY  | 1     | 806  | -    | 17,17,49     | 1.26 | 2 (11%)  | 18,21,54    | 1.21 | 2 (11%)  |
| 21  | CLA  | 2     | 602  | -    | 52,60,73     | 1.53 | 9 (17%)  | 60,97,113   | 2.14 | 18 (30%) |
| 21  | CLA  | A     | 1101 | -    | 65,73,73     | 1.37 | 8 (12%)  | 76,113,113  | 2.00 | 20 (26%) |
| 21  | CLA  | B     | 1219 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 1.94 | 15 (19%) |
| 21  | CLA  | A     | 1141 | 25   | 60,68,73     | 1.43 | 8 (13%)  | 70,107,113  | 2.15 | 18 (25%) |
| 21  | CLA  | K     | 1403 | -    | 48,56,73     | 1.54 | 9 (18%)  | 55,92,113   | 2.55 | 17 (30%) |
| 32  | 4RF  | L     | 5002 | -    | 38,38,56     | 1.05 | 6 (15%)  | 41,41,59    | 0.97 | 3 (7%)   |
| 21  | CLA  | A     | 1135 | -    | 51,59,73     | 1.58 | 7 (13%)  | 59,96,113   | 2.35 | 18 (30%) |
| 21  | CLA  | B     | 1239 | -    | 65,73,73     | 1.34 | 8 (12%)  | 76,113,113  | 1.97 | 17 (22%) |
| 21  | CLA  | B     | 1214 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 2.05 | 19 (25%) |
| 21  | CLA  | 4     | 608  | -    | 46,54,73     | 1.61 | 8 (17%)  | 53,90,113   | 2.20 | 14 (26%) |
| 34  | LUT  | 1     | 501  | -    | 42,43,43     | 2.41 | 2 (4%)   | 51,60,60    | 4.98 | 23 (45%) |
| 25  | LHG  | 5     | 802  | -    | 23,23,48     | 0.54 | 0        | 26,29,54    | 1.49 | 3 (11%)  |
| 21  | CLA  | A     | 1012 | -    | 65,73,73     | 1.34 | 8 (12%)  | 76,113,113  | 1.94 | 17 (22%) |
| 31  | LMG  | 1     | 804  | -    | 32,32,55     | 0.60 | 0        | 40,40,63    | 1.50 | 7 (17%)  |
| 36  | CHL  | 2     | 611  | -    | 48,56,74     | 1.15 | 4 (8%)   | 51,92,114   | 1.55 | 10 (19%) |
| 24  | BCR  | 1     | 504  | -    | 41,41,41     | 1.86 | 4 (9%)   | 56,56,56    | 4.11 | 20 (35%) |
| 21  | CLA  | A     | 1132 | -    | 65,73,73     | 1.34 | 8 (12%)  | 76,113,113  | 2.00 | 17 (22%) |
| 21  | CLA  | A     | 1112 | -    | 65,73,73     | 1.34 | 7 (10%)  | 76,113,113  | 2.01 | 18 (23%) |
| 21  | CLA  | A     | 1133 | -    | 65,73,73     | 1.45 | 9 (13%)  | 76,113,113  | 1.86 | 15 (19%) |
| 21  | CLA  | B     | 1208 | -    | 60,68,73     | 1.39 | 8 (13%)  | 70,107,113  | 2.03 | 15 (21%) |
| 21  | CLA  | B     | 1210 | -    | 65,73,73     | 1.39 | 9 (13%)  | 76,113,113  | 2.06 | 17 (22%) |

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 21  | CLA  | 3     | 602  | -    | 52,60,73     | 1.55 | 7 (13%)  | 60,97,113   | 2.22 | 18 (30%) |
| 21  | CLA  | 5     | 603  | -    | 60,68,73     | 1.43 | 7 (11%)  | 70,107,113  | 2.31 | 23 (32%) |
| 21  | CLA  | A     | 1104 | -    | 65,73,73     | 1.41 | 8 (12%)  | 76,113,113  | 2.17 | 17 (22%) |
| 25  | LHG  | 1     | 803  | -    | 30,30,48     | 0.44 | 0        | 33,36,54    | 1.19 | 4 (12%)  |
| 36  | CHL  | 2     | 610  | -    | 56,64,74     | 1.06 | 4 (7%)   | 61,102,114  | 1.48 | 14 (22%) |
| 21  | CLA  | A     | 1126 | -    | 65,73,73     | 1.43 | 8 (12%)  | 76,113,113  | 2.00 | 19 (25%) |
| 21  | CLA  | B     | 1227 | -    | 65,73,73     | 1.34 | 8 (12%)  | 76,113,113  | 2.07 | 21 (27%) |
| 36  | CHL  | 4     | 613  | -    | 61,69,74     | 1.03 | 4 (6%)   | 67,108,114  | 1.10 | 9 (13%)  |
| 24  | BCR  | 3     | 503  | -    | 41,41,41     | 1.83 | 4 (9%)   | 56,56,56    | 4.19 | 15 (26%) |
| 21  | CLA  | K     | 1401 | -    | 45,53,73     | 1.74 | 9 (20%)  | 52,89,113   | 2.76 | 17 (32%) |
| 21  | CLA  | B     | 1240 | -    | 65,73,73     | 1.39 | 8 (12%)  | 76,113,113  | 1.94 | 15 (19%) |
| 21  | CLA  | 2     | 604  | 15   | 65,73,73     | 1.39 | 9 (13%)  | 76,113,113  | 2.03 | 17 (22%) |
| 21  | CLA  | A     | 1113 | -    | 65,73,73     | 1.40 | 7 (10%)  | 76,113,113  | 1.88 | 16 (21%) |
| 21  | CLA  | 4     | 604  | -    | 60,68,73     | 1.39 | 8 (13%)  | 70,107,113  | 2.03 | 16 (22%) |
| 21  | CLA  | 2     | 615  | -    | 65,73,73     | 1.39 | 8 (12%)  | 76,113,113  | 1.93 | 16 (21%) |
| 21  | CLA  | A     | 1124 | -    | 60,68,73     | 1.44 | 8 (13%)  | 70,107,113  | 2.08 | 20 (28%) |
| 21  | CLA  | 1     | 612  | -    | 60,68,73     | 1.40 | 8 (13%)  | 70,107,113  | 2.15 | 16 (22%) |
| 21  | CLA  | B     | 1231 | -    | 60,68,73     | 1.45 | 8 (13%)  | 70,107,113  | 2.09 | 16 (22%) |
| 21  | CLA  | H     | 1701 | -    | 60,68,73     | 1.44 | 7 (11%)  | 70,107,113  | 2.31 | 20 (28%) |
| 21  | CLA  | 3     | 614  | -    | 42,50,73     | 1.62 | 7 (16%)  | 48,85,113   | 2.26 | 14 (29%) |
| 21  | CLA  | B     | 1236 | -    | 55,63,73     | 1.49 | 8 (14%)  | 64,101,113  | 2.20 | 16 (25%) |
| 33  | PTY  | 3     | 808  | -    | 19,19,49     | 1.35 | 3 (15%)  | 22,24,54    | 1.51 | 2 (9%)   |
| 21  | CLA  | A     | 1108 | -    | 55,63,73     | 1.48 | 8 (14%)  | 64,101,113  | 2.17 | 17 (26%) |
| 25  | LHG  | 3     | 801  | -    | 16,16,48     | 0.82 | 1 (6%)   | 17,20,54    | 0.72 | 0        |
| 27  | LMU  | A     | 5005 | -    | 36,36,36     | 0.40 | 0        | 47,47,47    | 0.84 | 1 (2%)   |
| 21  | CLA  | B     | 1212 | -    | 55,63,73     | 1.45 | 7 (12%)  | 64,101,113  | 2.13 | 16 (25%) |
| 21  | CLA  | 1     | 607  | -    | 46,54,73     | 1.64 | 8 (17%)  | 53,90,113   | 2.10 | 13 (24%) |
| 21  | CLA  | B     | 1207 | -    | 65,73,73     | 1.34 | 7 (10%)  | 76,113,113  | 1.99 | 16 (21%) |
| 21  | CLA  | 2     | 603  | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 1.96 | 16 (21%) |
| 35  | XAT  | 4     | 502  | -    | 39,47,47     | 0.74 | 1 (2%)   | 54,74,74    | 1.70 | 13 (24%) |
| 24  | BCR  | L     | 4001 | -    | 41,41,41     | 1.84 | 6 (14%)  | 56,56,56    | 4.29 | 16 (28%) |
| 21  | CLA  | B     | 1206 | 2    | 65,73,73     | 1.33 | 6 (9%)   | 76,113,113  | 1.97 | 17 (22%) |
| 24  | BCR  | A     | 4003 | -    | 41,41,41     | 1.87 | 4 (9%)   | 56,56,56    | 4.23 | 19 (33%) |
| 24  | BCR  | B     | 4004 | -    | 41,41,41     | 1.84 | 4 (9%)   | 56,56,56    | 4.23 | 15 (26%) |
| 24  | BCR  | B     | 4003 | -    | 41,41,41     | 1.86 | 5 (12%)  | 56,56,56    | 4.37 | 23 (41%) |

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 34  | LUT  | 6     | 501  | -    | 42,43,43     | 2.39 | 1 (2%)   | 51,60,60    | 2.24 | 16 (31%) |
| 24  | BCR  | A     | 4005 | -    | 41,41,41     | 1.79 | 5 (12%)  | 56,56,56    | 4.20 | 8 (14%)  |
| 37  | SQD  | 3     | 806  | -    | 34,35,54     | 0.92 | 0        | 43,46,65    | 1.18 | 4 (9%)   |
| 21  | CLA  | G     | 1603 | -    | 45,53,73     | 1.50 | 7 (15%)  | 52,89,113   | 2.96 | 22 (42%) |
| 31  | LMG  | 4     | 802  | -    | 46,46,55     | 0.95 | 3 (6%)   | 54,54,63    | 1.44 | 4 (7%)   |
| 21  | CLA  | 6     | 605  | -    | 65,73,73     | 1.34 | 8 (12%)  | 76,113,113  | 2.27 | 22 (28%) |
| 21  | CLA  | B     | 1021 | -    | 65,73,73     | 1.36 | 7 (10%)  | 76,113,113  | 2.20 | 23 (30%) |
| 24  | BCR  | B     | 4001 | -    | 41,41,41     | 1.95 | 4 (9%)   | 56,56,56    | 4.44 | 16 (28%) |
| 29  | 3PH  | 5     | 804  | -    | 27,27,47     | 1.11 | 4 (14%)  | 31,32,52    | 1.19 | 2 (6%)   |
| 21  | CLA  | 5     | 604  | 18   | 65,73,73     | 1.36 | 7 (10%)  | 76,113,113  | 2.03 | 17 (22%) |
| 21  | CLA  | 5     | 614  | -    | 65,73,73     | 1.27 | 7 (10%)  | 76,113,113  | 2.87 | 20 (26%) |
| 34  | LUT  | 2     | 501  | -    | 42,43,43     | 2.31 | 1 (2%)   | 51,60,60    | 2.20 | 17 (33%) |
| 36  | CHL  | 2     | 609  | 15   | 66,74,74     | 1.01 | 4 (6%)   | 73,114,114  | 1.29 | 11 (15%) |
| 21  | CLA  | A     | 1137 | -    | 60,68,73     | 1.42 | 6 (10%)  | 70,107,113  | 2.19 | 23 (32%) |
| 21  | CLA  | 1     | 606  | -    | 50,58,73     | 1.54 | 7 (14%)  | 58,95,113   | 2.16 | 17 (29%) |
| 21  | CLA  | B     | 1217 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 1.98 | 18 (23%) |
| 24  | BCR  | J     | 4002 | -    | 41,41,41     | 1.98 | 6 (14%)  | 56,56,56    | 4.44 | 18 (32%) |
| 33  | PTY  | L     | 5003 | -    | 19,19,49     | 1.37 | 4 (21%)  | 22,24,54    | 1.46 | 2 (9%)   |
| 21  | CLA  | 4     | 601  | -    | 60,68,73     | 1.45 | 9 (15%)  | 70,107,113  | 2.35 | 23 (32%) |
| 37  | SQD  | 2     | 805  | -    | 39,40,54     | 0.89 | 0        | 48,51,65    | 0.99 | 2 (4%)   |
| 21  | CLA  | L     | 1504 | -    | 50,58,73     | 1.52 | 9 (18%)  | 58,95,113   | 2.21 | 17 (29%) |
| 21  | CLA  | A     | 1121 | -    | 60,68,73     | 1.39 | 7 (11%)  | 70,107,113  | 2.02 | 17 (24%) |
| 21  | CLA  | 1     | 611  | -    | 65,73,73     | 1.35 | 8 (12%)  | 76,113,113  | 1.95 | 16 (21%) |
| 24  | BCR  | A     | 4002 | -    | 41,41,41     | 1.84 | 4 (9%)   | 56,56,56    | 4.40 | 21 (37%) |
| 21  | CLA  | A     | 1114 | -    | 55,63,73     | 1.45 | 8 (14%)  | 64,101,113  | 2.14 | 16 (25%) |
| 21  | CLA  | 3     | 613  | -    | 46,54,73     | 1.55 | 7 (15%)  | 53,90,113   | 2.45 | 16 (30%) |
| 21  | CLA  | A     | 1128 | -    | 65,73,73     | 1.40 | 8 (12%)  | 76,113,113  | 2.01 | 17 (22%) |
| 21  | CLA  | A     | 1130 | -    | 55,63,73     | 1.53 | 7 (12%)  | 64,101,113  | 2.34 | 21 (32%) |
| 21  | CLA  | 3     | 615  | -    | 56,64,73     | 1.47 | 9 (16%)  | 65,102,113  | 2.19 | 19 (29%) |
| 24  | BCR  | F     | 4002 | -    | 41,41,41     | 1.82 | 4 (9%)   | 56,56,56    | 4.38 | 19 (33%) |
| 34  | LUT  | 3     | 501  | -    | 42,43,43     | 2.30 | 2 (4%)   | 51,60,60    | 1.96 | 12 (23%) |
| 35  | XAT  | 3     | 502  | -    | 39,47,47     | 0.84 | 1 (2%)   | 54,74,74    | 2.10 | 16 (29%) |
| 25  | LHG  | A     | 5002 | -    | 48,48,48     | 0.39 | 0        | 51,54,54    | 1.01 | 2 (3%)   |
| 21  | CLA  | 1     | 608  | -    | 55,63,73     | 1.52 | 9 (16%)  | 64,101,113  | 2.15 | 18 (28%) |
| 21  | CLA  | 3     | 606  | -    | 55,63,73     | 1.49 | 8 (14%)  | 64,101,113  | 2.23 | 22 (34%) |



| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 38  | LMK  | 4     | 805  | -    | 33,34,53     | 1.66 | 3 (9%)   | 36,41,60    | 1.45 | 2 (5%)   |
| 21  | CLA  | A     | 1129 | -    | 55,63,73     | 1.47 | 9 (16%)  | 64,101,113  | 2.41 | 18 (28%) |
| 25  | LHG  | 1     | 802  | -    | 25,25,48     | 0.49 | 0        | 28,31,54    | 1.29 | 3 (10%)  |
| 21  | CLA  | A     | 1125 | -    | 65,73,73     | 1.39 | 9 (13%)  | 76,113,113  | 2.04 | 18 (23%) |
| 34  | LUT  | 5     | 503  | -    | 42,43,43     | 2.41 | 1 (2%)   | 51,60,60    | 4.39 | 21 (41%) |
| 21  | CLA  | O     | 1802 | -    | 37,46,73     | 1.64 | 5 (13%)  | 46,81,113   | 2.26 | 16 (34%) |
| 21  | CLA  | A     | 1138 | -    | 65,73,73     | 1.36 | 9 (13%)  | 76,113,113  | 2.12 | 17 (22%) |
| 24  | BCR  | A     | 4006 | -    | 41,41,41     | 1.84 | 4 (9%)   | 56,56,56    | 4.15 | 15 (26%) |
| 24  | BCR  | B     | 4006 | -    | 41,41,41     | 1.89 | 5 (12%)  | 56,56,56    | 4.24 | 14 (25%) |
| 21  | CLA  | B     | 1238 | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 2.07 | 17 (22%) |
| 21  | CLA  | B     | 1220 | -    | 55,63,73     | 1.54 | 8 (14%)  | 64,101,113  | 2.17 | 21 (32%) |
| 21  | CLA  | O     | 1803 | -    | 60,68,73     | 1.49 | 9 (15%)  | 70,107,113  | 2.08 | 18 (25%) |
| 25  | LHG  | A     | 5001 | 21   | 48,48,48     | 0.45 | 0        | 51,54,54    | 1.10 | 3 (5%)   |
| 21  | CLA  | B     | 1202 | -    | 65,73,73     | 1.37 | 8 (12%)  | 76,113,113  | 1.93 | 19 (25%) |
| 21  | CLA  | 3     | 612  | -    | 65,73,73     | 1.39 | 8 (12%)  | 76,113,113  | 1.99 | 17 (22%) |
| 21  | CLA  | 1     | 615  | -    | 60,68,73     | 1.44 | 9 (15%)  | 70,107,113  | 2.05 | 18 (25%) |
| 21  | CLA  | 6     | 604  | -    | 60,68,73     | 1.42 | 8 (13%)  | 70,107,113  | 2.10 | 19 (27%) |
| 36  | CHL  | 4     | 610  | -    | 47,55,74     | 1.02 | 3 (6%)   | 50,91,114   | 1.33 | 9 (18%)  |
| 21  | CLA  | A     | 1136 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 2.02 | 22 (28%) |
| 31  | LMG  | 4     | 803  | -    | 39,39,55     | 0.74 | 2 (5%)   | 47,47,63    | 0.99 | 2 (4%)   |
| 36  | CHL  | 2     | 613  | -    | 46,54,74     | 1.39 | 3 (6%)   | 49,90,114   | 1.34 | 8 (16%)  |
| 21  | CLA  | A     | 1122 | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 2.03 | 19 (25%) |
| 21  | CLA  | B     | 1203 | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 1.96 | 17 (22%) |
| 21  | CLA  | B     | 1222 | -    | 65,73,73     | 1.36 | 7 (10%)  | 76,113,113  | 2.10 | 21 (27%) |
| 21  | CLA  | 1     | 603  | -    | 60,68,73     | 1.41 | 9 (15%)  | 70,107,113  | 2.24 | 19 (27%) |
| 21  | CLA  | 5     | 612  | 18   | 46,54,73     | 1.83 | 11 (23%) | 53,90,113   | 2.44 | 19 (35%) |
| 21  | CLA  | B     | 1228 | -    | 60,68,73     | 1.41 | 8 (13%)  | 70,107,113  | 2.08 | 17 (24%) |
| 21  | CLA  | B     | 1218 | -    | 65,73,73     | 1.44 | 9 (13%)  | 76,113,113  | 2.10 | 18 (23%) |
| 21  | CLA  | 3     | 610  | 16   | 50,58,73     | 1.53 | 8 (16%)  | 58,95,113   | 2.25 | 15 (25%) |
| 28  | DGD  | 2     | 806  | -    | 40,40,67     | 0.89 | 2 (5%)   | 54,54,81    | 1.10 | 2 (3%)   |
| 25  | LHG  | 6     | 801  | -    | 24,24,48     | 0.54 | 0        | 27,30,54    | 1.28 | 3 (11%)  |
| 33  | PTY  | 1     | 805  | -    | 39,39,49     | 0.97 | 3 (7%)   | 42,44,54    | 1.14 | 2 (4%)   |
| 21  | CLA  | 5     | 607  | -    | 60,68,73     | 1.45 | 7 (11%)  | 70,107,113  | 2.22 | 16 (22%) |
| 21  | CLA  | A     | 1103 | -    | 65,73,73     | 1.32 | 8 (12%)  | 76,113,113  | 2.18 | 18 (23%) |
| 37  | SQD  | 6     | 803  | -    | 31,32,54     | 0.99 | 0        | 40,43,65    | 1.07 | 2 (5%)   |

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 23  | SF4  | C     | 3003 | 3    | 0,12,12      | -    | -        | -           |      |          |
| 21  | CLA  | B     | 1209 | -    | 46,54,73     | 1.63 | 8 (17%)  | 53,90,113   | 2.20 | 16 (30%) |
| 22  | PQN  | A     | 2001 | -    | 34,34,34     | 0.34 | 0        | 42,45,45    | 1.13 | 2 (4%)   |
| 33  | PTY  | O     | 5002 | -    | 21,21,49     | 1.30 | 4 (19%)  | 24,26,54    | 1.43 | 2 (8%)   |
| 24  | BCR  | J     | 4001 | -    | 41,41,41     | 1.89 | 5 (12%)  | 56,56,56    | 4.49 | 23 (41%) |
| 21  | CLA  | 1     | 604  | -    | 65,73,73     | 1.37 | 9 (13%)  | 76,113,113  | 2.18 | 22 (28%) |
| 21  | CLA  | A     | 1115 | -    | 60,68,73     | 1.40 | 8 (13%)  | 70,107,113  | 2.02 | 18 (25%) |
| 34  | LUT  | 5     | 504  | -    | 42,43,43     | 2.48 | 1 (2%)   | 51,60,60    | 4.74 | 22 (43%) |
| 21  | CLA  | A     | 1111 | -    | 65,73,73     | 1.39 | 9 (13%)  | 76,113,113  | 2.07 | 19 (25%) |
| 21  | CLA  | A     | 1109 | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 2.10 | 18 (23%) |
| 21  | CLA  | A     | 1123 | -    | 65,73,73     | 1.39 | 8 (12%)  | 76,113,113  | 1.99 | 17 (22%) |
| 21  | CLA  | 1     | 601  | -    | 65,73,73     | 1.34 | 7 (10%)  | 76,113,113  | 2.00 | 18 (23%) |
| 34  | LUT  | 4     | 501  | -    | 42,43,43     | 2.31 | 2 (4%)   | 51,60,60    | 2.23 | 15 (29%) |
| 25  | LHG  | B     | 5001 | -    | 41,41,48     | 0.44 | 0        | 44,47,54    | 1.12 | 3 (6%)   |
| 21  | CLA  | 3     | 603  | -    | 65,73,73     | 1.44 | 8 (12%)  | 76,113,113  | 2.09 | 20 (26%) |
| 24  | BCR  | H     | 4001 | -    | 41,41,41     | 1.96 | 4 (9%)   | 56,56,56    | 4.45 | 20 (35%) |
| 25  | LHG  | 1     | 801  | -    | 48,48,48     | 0.39 | 0        | 51,54,54    | 1.21 | 3 (5%)   |
| 21  | CLA  | 4     | 607  | -    | 60,68,73     | 1.43 | 8 (13%)  | 70,107,113  | 2.07 | 16 (22%) |
| 38  | LMK  | 2     | 807  | -    | 29,30,53     | 1.74 | 2 (6%)   | 32,37,60    | 1.68 | 5 (15%)  |
| 21  | CLA  | B     | 1237 | -    | 65,73,73     | 1.35 | 6 (9%)   | 76,113,113  | 2.15 | 20 (26%) |
| 21  | CLA  | A     | 1117 | -    | 65,73,73     | 1.32 | 6 (9%)   | 76,113,113  | 2.09 | 16 (21%) |
| 21  | CLA  | 6     | 608  | -    | 46,54,73     | 1.57 | 7 (15%)  | 53,90,113   | 2.17 | 14 (26%) |
| 28  | DGD  | 3     | 804  | -    | 40,40,67     | 0.89 | 1 (2%)   | 54,54,81    | 1.21 | 4 (7%)   |
| 21  | CLA  | A     | 1131 | -    | 65,73,73     | 1.36 | 7 (10%)  | 76,113,113  | 2.14 | 15 (19%) |
| 27  | LMU  | 6     | 805  | -    | 36,36,36     | 0.47 | 0        | 47,47,47    | 0.93 | 4 (8%)   |
| 36  | CHL  | 5     | 609  | -    | 66,74,74     | 0.83 | 3 (4%)   | 73,114,114  | 1.30 | 11 (15%) |
| 21  | CLA  | 3     | 608  | -    | 65,73,73     | 1.37 | 9 (13%)  | 76,113,113  | 1.89 | 19 (25%) |
| 21  | CLA  | 6     | 612  | -    | 65,73,73     | 1.35 | 7 (10%)  | 76,113,113  | 2.14 | 19 (25%) |
| 21  | CLA  | 6     | 613  | -    | 45,53,73     | 1.56 | 6 (13%)  | 52,89,113   | 2.37 | 14 (26%) |
| 23  | SF4  | C     | 3002 | 3    | 0,12,12      | -    | -        | -           |      |          |
| 24  | BCR  | B     | 4005 | -    | 41,41,41     | 1.81 | 5 (12%)  | 56,56,56    | 4.27 | 11 (19%) |
| 24  | BCR  | I     | 4002 | -    | 41,41,41     | 1.85 | 4 (9%)   | 56,56,56    | 4.39 | 19 (33%) |
| 21  | CLA  | F     | 1301 | -    | 47,55,73     | 1.61 | 8 (17%)  | 54,91,113   | 2.16 | 15 (27%) |
| 21  | CLA  | 5     | 608  | -    | 55,63,73     | 1.51 | 8 (14%)  | 64,101,113  | 2.20 | 17 (26%) |
| 33  | PTY  | 3     | 807  | -    | 25,25,49     | 1.20 | 3 (12%)  | 28,30,54    | 1.28 | 2 (7%)   |

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 24  | BCR  | L     | 4002 | -    | 41,41,41     | 1.98 | 7 (17%)  | 56,56,56    | 4.33 | 16 (28%) |
| 21  | CLA  | J     | 1901 | -    | 49,57,73     | 1.67 | 8 (16%)  | 55,93,113   | 2.55 | 17 (30%) |
| 35  | XAT  | 2     | 502  | -    | 39,47,47     | 0.76 | 1 (2%)   | 54,74,74    | 1.66 | 12 (22%) |
| 36  | CHL  | 1     | 610  | -    | 47,55,74     | 1.20 | 4 (8%)   | 50,91,114   | 1.54 | 13 (26%) |
| 21  | CLA  | B     | 1204 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 2.10 | 16 (21%) |
| 21  | CLA  | 4     | 603  | -    | 65,73,73     | 1.36 | 9 (13%)  | 76,113,113  | 1.98 | 18 (23%) |
| 24  | BCR  | A     | 4004 | -    | 41,41,41     | 1.86 | 5 (12%)  | 56,56,56    | 4.53 | 18 (32%) |
| 34  | LUT  | 5     | 502  | -    | 42,43,43     | 2.41 | 1 (2%)   | 51,60,60    | 2.20 | 14 (27%) |
| 33  | PTY  | 4     | 804  | -    | 34,34,49     | 1.02 | 3 (8%)   | 37,39,54    | 1.13 | 2 (5%)   |
| 35  | XAT  | 1     | 502  | -    | 39,47,47     | 0.77 | 1 (2%)   | 54,74,74    | 2.05 | 13 (24%) |
| 36  | CHL  | 1     | 609  | 14   | 66,74,74     | 0.91 | 3 (4%)   | 73,114,114  | 1.25 | 10 (13%) |
| 21  | CLA  | A     | 1127 | -    | 65,73,73     | 1.37 | 7 (10%)  | 76,113,113  | 2.03 | 20 (26%) |
| 32  | 4RF  | 5     | 805  | -    | 31,31,56     | 1.20 | 5 (16%)  | 34,34,59    | 1.27 | 4 (11%)  |
| 21  | CLA  | A     | 1106 | -    | 65,73,73     | 1.37 | 7 (10%)  | 76,113,113  | 2.06 | 19 (25%) |
| 33  | PTY  | 6     | 804  | -    | 23,23,49     | 1.12 | 2 (8%)   | 26,28,54    | 1.24 | 2 (7%)   |
| 23  | SF4  | A     | 3001 | 1,2  | 0,12,12      | -    | -        | -           | -    | -        |
| 21  | CLA  | 4     | 605  | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 2.07 | 19 (25%) |
| 21  | CLA  | F     | 1302 | -    | 49,57,73     | 1.57 | 8 (16%)  | 55,93,113   | 2.34 | 16 (29%) |
| 39  | P3H  | 2     | 808  | -    | 49,49,49     | 1.42 | 8 (16%)  | 59,61,61    | 1.01 | 3 (5%)   |
| 21  | CLA  | O     | 1801 | -    | 36,46,73     | 1.70 | 7 (19%)  | 41,80,113   | 3.16 | 13 (31%) |
| 21  | CLA  | L     | 1502 | -    | 65,73,73     | 1.40 | 9 (13%)  | 76,113,113  | 2.42 | 24 (31%) |
| 21  | CLA  | B     | 1023 | -    | 65,73,73     | 1.34 | 7 (10%)  | 76,113,113  | 2.00 | 17 (22%) |
| 21  | CLA  | 3     | 601  | -    | 60,68,73     | 1.44 | 8 (13%)  | 70,107,113  | 2.19 | 15 (21%) |
| 21  | CLA  | 5     | 606  | -    | 50,58,73     | 1.54 | 9 (18%)  | 58,95,113   | 2.18 | 17 (29%) |
| 24  | BCR  | A     | 4007 | -    | 41,41,41     | 1.88 | 4 (9%)   | 56,56,56    | 4.63 | 16 (28%) |
| 21  | CLA  | 2     | 605  | -    | 65,73,73     | 1.37 | 7 (10%)  | 76,113,113  | 1.99 | 20 (26%) |
| 21  | CLA  | A     | 1110 | -    | 55,63,73     | 1.50 | 8 (14%)  | 64,101,113  | 2.25 | 20 (31%) |
| 25  | LHG  | 2     | 802  | -    | 42,42,48     | 0.44 | 0        | 45,48,54    | 1.18 | 4 (8%)   |
| 29  | 3PH  | 5     | 807  | -    | 28,28,47     | 1.09 | 3 (10%)  | 32,33,52    | 1.39 | 3 (9%)   |
| 24  | BCR  | B     | 4002 | -    | 41,41,41     | 1.81 | 4 (9%)   | 56,56,56    | 4.22 | 11 (19%) |
| 21  | CLA  | 1     | 602  | -    | 46,54,73     | 1.60 | 8 (17%)  | 53,90,113   | 2.13 | 14 (26%) |
| 21  | CLA  | B     | 1216 | -    | 65,73,73     | 1.38 | 8 (12%)  | 76,113,113  | 1.91 | 16 (21%) |
| 21  | CLA  | 3     | 611  | -    | 65,73,73     | 1.39 | 8 (12%)  | 76,113,113  | 2.03 | 20 (26%) |
| 21  | CLA  | G     | 1601 | -    | 47,55,73     | 1.57 | 8 (17%)  | 54,91,113   | 2.16 | 15 (27%) |
| 22  | PQN  | B     | 2002 | -    | 34,34,34     | 0.35 | 0        | 42,45,45    | 1.24 | 2 (4%)   |

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 31  | LMG  | 2     | 804  | -    | 50,50,55     | 1.04 | 5 (10%)  | 58,58,63    | 1.19 | 2 (3%)   |
| 21  | CLA  | 6     | 603  | -    | 55,63,73     | 1.45 | 8 (14%)  | 64,101,113  | 2.10 | 15 (23%) |
| 25  | LHG  | 2     | 801  | 21   | 34,34,48     | 0.47 | 0        | 37,40,54    | 1.18 | 4 (10%)  |
| 24  | BCR  | 3     | 504  | -    | 41,41,41     | 1.85 | 5 (12%)  | 56,56,56    | 4.33 | 19 (33%) |
| 21  | CLA  | A     | 1140 | -    | 61,69,73     | 1.42 | 8 (13%)  | 71,108,113  | 2.06 | 18 (25%) |
| 21  | CLA  | 6     | 602  | -    | 50,58,73     | 1.53 | 7 (14%)  | 58,95,113   | 2.23 | 17 (29%) |
| 31  | LMG  | 3     | 803  | -    | 50,50,55     | 1.05 | 4 (8%)   | 58,58,63    | 1.10 | 3 (5%)   |
| 27  | LMU  | A     | 5004 | -    | 36,36,36     | 0.44 | 0        | 47,47,47    | 1.08 | 2 (4%)   |
| 21  | CLA  | 2     | 601  | -    | 65,73,73     | 1.44 | 8 (12%)  | 76,113,113  | 2.03 | 15 (19%) |
| 21  | CLA  | A     | 1013 | -    | 65,73,73     | 1.37 | 9 (13%)  | 76,113,113  | 2.03 | 20 (26%) |
| 21  | CLA  | H     | 1702 | -    | 46,54,73     | 1.63 | 6 (13%)  | 53,90,113   | 2.43 | 18 (33%) |
| 31  | LMG  | 6     | 802  | -    | 37,37,55     | 0.59 | 1 (2%)   | 45,45,63    | 1.06 | 3 (6%)   |
| 20  | CL0  | A     | 1011 | -    | 65,73,73     | 2.37 | 19 (29%) | 76,113,113  | 2.54 | 20 (26%) |
| 21  | CLA  | 5     | 601  | -    | 45,53,73     | 1.84 | 13 (28%) | 52,89,113   | 3.13 | 20 (38%) |
| 21  | CLA  | B     | 1229 | -    | 65,73,73     | 1.36 | 8 (12%)  | 76,113,113  | 2.19 | 24 (31%) |
| 21  | CLA  | B     | 1201 | -    | 48,56,73     | 1.54 | 8 (16%)  | 55,92,113   | 2.43 | 18 (32%) |
| 31  | LMG  | 3     | 802  | -    | 32,32,55     | 0.69 | 1 (3%)   | 40,40,63    | 0.98 | 1 (2%)   |
| 36  | CHL  | 4     | 611  | -    | 51,59,74     | 1.20 | 4 (7%)   | 55,96,114   | 1.46 | 10 (18%) |
| 21  | CLA  | 1     | 613  | -    | 45,53,73     | 1.65 | 8 (17%)  | 52,89,113   | 2.11 | 16 (30%) |
| 31  | LMG  | F     | 5002 | -    | 50,50,55     | 1.02 | 5 (10%)  | 58,58,63    | 1.08 | 2 (3%)   |
| 21  | CLA  | 5     | 602  | -    | 46,54,73     | 1.65 | 9 (19%)  | 53,90,113   | 2.23 | 15 (28%) |
| 24  | BCR  | 4     | 503  | -    | 41,41,41     | 1.85 | 4 (9%)   | 56,56,56    | 4.36 | 16 (28%) |
| 21  | CLA  | A     | 1107 | -    | 65,73,73     | 1.33 | 6 (9%)   | 76,113,113  | 2.02 | 17 (22%) |
| 21  | CLA  | A     | 1116 | -    | 56,64,73     | 1.44 | 8 (14%)  | 65,102,113  | 2.17 | 17 (26%) |
| 21  | CLA  | L     | 1501 | -    | 65,73,73     | 1.29 | 9 (13%)  | 76,113,113  | 2.29 | 19 (25%) |
| 21  | CLA  | L     | 1503 | -    | 50,58,73     | 1.54 | 7 (14%)  | 58,95,113   | 2.30 | 19 (32%) |
| 21  | CLA  | B     | 1230 | -    | 65,73,73     | 1.39 | 8 (12%)  | 76,113,113  | 2.12 | 20 (26%) |
| 21  | CLA  | B     | 1211 | -    | 65,73,73     | 1.38 | 6 (9%)   | 76,113,113  | 2.11 | 18 (23%) |
| 35  | XAT  | 6     | 502  | -    | 39,47,47     | 0.84 | 1 (2%)   | 54,74,74    | 1.71 | 12 (22%) |
| 27  | LMU  | B     | 5004 | -    | 36,36,36     | 0.44 | 0        | 47,47,47    | 0.90 | 2 (4%)   |
| 21  | CLA  | B     | 1232 | -    | 55,63,73     | 1.53 | 8 (14%)  | 64,101,113  | 2.15 | 17 (26%) |
| 21  | CLA  | A     | 1119 | -    | 65,73,73     | 1.40 | 8 (12%)  | 76,113,113  | 1.95 | 19 (25%) |
| 21  | CLA  | 3     | 605  | -    | 65,73,73     | 1.37 | 8 (12%)  | 76,113,113  | 1.98 | 15 (19%) |
| 21  | CLA  | 6     | 606  | -    | 50,58,73     | 1.52 | 7 (14%)  | 58,95,113   | 2.20 | 17 (29%) |
| 25  | LHG  | 2     | 803  | -    | 35,35,48     | 0.46 | 0        | 38,41,54    | 1.19 | 4 (10%)  |

| Mol | Type | Chain | Res  | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
|     |      |       |      |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 29  | 3PH  | B     | 5003 | -    | 30,30,47     | 1.07 | 4 (13%)  | 34,35,52    | 1.28 | 2 (5%)   |
| 24  | BCR  | F     | 4001 | -    | 41,41,41     | 1.85 | 4 (9%)   | 56,56,56    | 4.38 | 17 (30%) |
| 21  | CLA  | A     | 1139 | -    | 65,73,73     | 1.41 | 10 (15%) | 76,113,113  | 2.12 | 21 (27%) |
| 21  | CLA  | B     | 1221 | -    | 65,73,73     | 1.33 | 8 (12%)  | 76,113,113  | 2.15 | 21 (27%) |
| 21  | CLA  | K     | 1404 | -    | 45,53,73     | 1.59 | 8 (17%)  | 52,89,113   | 2.14 | 13 (25%) |
| 21  | CLA  | 3     | 607  | -    | 60,68,73     | 1.44 | 9 (15%)  | 70,107,113  | 2.05 | 18 (25%) |
| 21  | CLA  | 4     | 615  | 17   | 51,59,73     | 1.58 | 8 (15%)  | 59,96,113   | 2.15 | 16 (27%) |
| 34  | LUT  | 5     | 501  | -    | 42,43,43     | 2.53 | 1 (2%)   | 51,60,60    | 4.53 | 20 (39%) |
| 21  | CLA  | B     | 1215 | -    | 65,73,73     | 1.35 | 9 (13%)  | 76,113,113  | 2.07 | 18 (23%) |
| 21  | CLA  | 4     | 606  | -    | 50,58,73     | 1.54 | 8 (16%)  | 58,95,113   | 2.19 | 16 (27%) |
| 21  | CLA  | A     | 1105 | -    | 60,68,73     | 1.46 | 9 (15%)  | 70,107,113  | 2.24 | 23 (32%) |
| 21  | CLA  | B     | 1225 | -    | 65,73,73     | 1.37 | 7 (10%)  | 76,113,113  | 2.00 | 17 (22%) |
| 21  | CLA  | G     | 1602 | -    | 46,54,73     | 1.59 | 7 (15%)  | 53,90,113   | 2.15 | 14 (26%) |
| 21  | CLA  | 2     | 606  | -    | 50,58,73     | 1.57 | 8 (16%)  | 58,95,113   | 2.27 | 18 (31%) |
| 21  | CLA  | A     | 1118 | -    | 50,58,73     | 1.65 | 10 (20%) | 58,95,113   | 2.35 | 20 (34%) |
| 21  | CLA  | 2     | 608  | -    | 50,58,73     | 1.57 | 8 (16%)  | 58,95,113   | 2.32 | 18 (31%) |
| 21  | CLA  | 4     | 602  | -    | 50,58,73     | 1.57 | 8 (16%)  | 58,95,113   | 2.26 | 15 (25%) |
| 21  | CLA  | 5     | 605  | -    | 65,73,73     | 1.33 | 7 (10%)  | 76,113,113  | 1.99 | 16 (21%) |
| 21  | CLA  | B     | 1213 | -    | 60,68,73     | 1.43 | 8 (13%)  | 70,107,113  | 2.11 | 20 (28%) |
| 21  | CLA  | 1     | 605  | -    | 65,73,73     | 1.34 | 8 (12%)  | 76,113,113  | 2.03 | 20 (26%) |

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 24  | BCR  | I     | 4001 | -    | -         | 13/29/63/63   | 0/2/2/2 |
| 21  | CLA  | A     | 1120 | -    | 1/1/14/20 | 16/31/109/115 | -       |
| 28  | DGD  | 3     | 805  | -    | -         | 12/34/74/95   | 0/2/2/2 |
| 21  | CLA  | 5     | 613  | -    | 1/1/11/20 | 8/13/91/115   | -       |
| 36  | CHL  | 3     | 604  | -    | 4/4/20/26 | 9/39/137/137  | -       |
| 24  | BCR  | A     | 4001 | -    | -         | 14/29/63/63   | 0/2/2/2 |
| 24  | BCR  | 2     | 503  | -    | -         | 15/29/63/63   | 0/2/2/2 |
| 29  | 3PH  | F     | 5003 | -    | -         | 22/35/35/49   | -       |
| 21  | CLA  | 6     | 601  | -    | 1/1/14/20 | 18/31/109/115 | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 24  | BCR  | O     | 4001 | -    | -         | 13/29/63/63   | 0/2/2/2 |
| 25  | LHG  | F     | 5001 | -    | -         | 32/53/53/53   | -       |
| 21  | CLA  | B     | 1022 | -    | 1/1/15/20 | 11/37/115/115 | -       |
| 21  | CLA  | B     | 1205 | -    | 1/1/15/20 | 11/37/115/115 | -       |
| 21  | CLA  | K     | 1402 | -    | 1/1/13/20 | 15/25/103/115 | -       |
| 36  | CHL  | 5     | 610  | -    | 4/4/16/26 | 4/17/115/137  | -       |
| 21  | CLA  | 4     | 612  | -    | 1/1/15/20 | 12/37/115/115 | -       |
| 25  | LHG  | 4     | 801  | -    | -         | 20/33/33/53   | -       |
| 39  | P3H  | 5     | 806  | -    | -         | 9/27/51/68    | 0/1/1/1 |
| 21  | CLA  | B     | 1234 | -    | 1/1/13/20 | 10/25/103/115 | -       |
| 21  | CLA  | B     | 1223 | -    | 1/1/15/20 | 13/37/115/115 | -       |
| 33  | PTY  | 5     | 803  | -    | -         | 25/39/39/53   | -       |
| 21  | CLA  | 6     | 607  | -    | 1/1/14/20 | 16/31/109/115 | -       |
| 21  | CLA  | B     | 1235 | -    | 1/1/14/20 | 10/31/109/115 | -       |
| 24  | BCR  | G     | 4001 | -    | -         | 12/29/63/63   | 0/2/2/2 |
| 36  | CHL  | 6     | 610  | -    | 3/3/16/26 | 4/17/115/137  | -       |
| 21  | CLA  | 2     | 612  | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 24  | BCR  | K     | 4001 | -    | -         | 13/29/63/63   | 0/2/2/2 |
| 21  | CLA  | 6     | 609  | -    | 1/1/11/20 | 8/15/93/115   | -       |
| 21  | CLA  | A     | 1102 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 25  | LHG  | 5     | 801  | -    | -         | 23/47/47/53   | -       |
| 21  | CLA  | 4     | 609  | 17   | 1/1/14/20 | 20/31/109/115 | -       |
| 21  | CLA  | 2     | 607  | 25   | 1/1/14/20 | 10/31/109/115 | -       |
| 28  | DGD  | B     | 5002 | -    | -         | 17/50/90/95   | 0/2/2/2 |
| 35  | XAT  | 6     | 504  | -    | 1/1/12/26 | 6/31/93/93    | 0/4/4/4 |
| 24  | BCR  | 3     | 506  | -    | -         | 9/29/63/63    | 0/2/2/2 |
| 21  | CLA  | B     | 1226 | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 26  | OCD  | A     | 5003 | -    | -         | 2/15/16/16    | -       |
| 21  | CLA  | B     | 1224 | -    | 1/1/15/20 | 17/37/115/115 | -       |
| 29  | 3PH  | B     | 5003 | -    | -         | 24/32/32/49   | -       |
| 21  | CLA  | A     | 1134 | 1    | 1/1/13/20 | 13/25/103/115 | -       |
| 33  | PTY  | 1     | 806  | -    | -         | 7/19/19/53    | -       |
| 21  | CLA  | 2     | 602  | -    | 1/1/12/20 | 7/22/100/115  | -       |
| 21  | CLA  | A     | 1101 | -    | 1/1/15/20 | 22/37/115/115 | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 21  | CLA  | B     | 1219 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | A     | 1141 | 25   | 1/1/14/20 | 13/31/109/115 | -       |
| 21  | CLA  | K     | 1403 | -    | 1/1/11/20 | 7/17/95/115   | -       |
| 32  | 4RF  | L     | 5002 | -    | -         | 17/41/41/59   | -       |
| 21  | CLA  | A     | 1135 | -    | 1/1/12/20 | 9/21/99/115   | -       |
| 21  | CLA  | B     | 1239 | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 21  | CLA  | B     | 1214 | -    | 1/1/15/20 | 18/37/115/115 | -       |
| 21  | CLA  | 4     | 608  | -    | 1/1/11/20 | 10/15/93/115  | -       |
| 34  | LUT  | 1     | 501  | -    | -         | 5/29/67/67    | 0/2/2/2 |
| 23  | SF4  | C     | 3002 | 3    | -         | -             | 0/6/5/5 |
| 25  | LHG  | 5     | 802  | -    | -         | 17/27/27/53   | -       |
| 21  | CLA  | A     | 1012 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 31  | LMG  | 1     | 804  | -    | -         | 9/27/47/70    | 0/1/1/1 |
| 24  | BCR  | 1     | 504  | -    | -         | 12/29/63/63   | 0/2/2/2 |
| 21  | CLA  | A     | 1132 | -    | 1/1/15/20 | 18/37/115/115 | -       |
| 21  | CLA  | A     | 1112 | -    | 1/1/15/20 | 17/37/115/115 | -       |
| 21  | CLA  | A     | 1133 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | B     | 1208 | -    | 1/1/14/20 | 12/31/109/115 | -       |
| 21  | CLA  | B     | 1210 | -    | 1/1/15/20 | 22/37/115/115 | -       |
| 21  | CLA  | 3     | 602  | -    | 1/1/12/20 | 8/22/100/115  | -       |
| 21  | CLA  | 5     | 603  | -    | 1/1/14/20 | 15/31/109/115 | -       |
| 21  | CLA  | A     | 1104 | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 36  | CHL  | 2     | 610  | -    | 4/4/18/26 | 2/27/125/137  | -       |
| 25  | LHG  | 1     | 803  | -    | -         | 15/35/35/53   | -       |
| 21  | CLA  | A     | 1126 | -    | 1/1/15/20 | 18/37/115/115 | -       |
| 21  | CLA  | B     | 1227 | -    | 1/1/15/20 | 18/37/115/115 | -       |
| 36  | CHL  | 4     | 613  | -    | 4/4/19/26 | 7/33/131/137  | -       |
| 24  | BCR  | 3     | 503  | -    | -         | 13/29/63/63   | 0/2/2/2 |
| 21  | CLA  | K     | 1401 | -    | 1/1/11/20 | 10/13/91/115  | -       |
| 21  | CLA  | B     | 1240 | -    | 1/1/15/20 | 13/37/115/115 | -       |
| 21  | CLA  | 2     | 604  | 15   | 1/1/15/20 | 17/37/115/115 | -       |
| 21  | CLA  | A     | 1113 | -    | 1/1/15/20 | 18/37/115/115 | -       |
| 21  | CLA  | 4     | 604  | -    | 1/1/14/20 | 12/31/109/115 | -       |
| 21  | CLA  | 2     | 615  | -    | 1/1/15/20 | 19/37/115/115 | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 21  | CLA  | A     | 1124 | -    | 1/1/14/20 | 13/31/109/115 | -       |
| 21  | CLA  | 1     | 612  | -    | 1/1/14/20 | 11/31/109/115 | -       |
| 21  | CLA  | B     | 1231 | -    | 1/1/14/20 | 13/31/109/115 | -       |
| 21  | CLA  | H     | 1701 | -    | 1/1/14/20 | 15/31/109/115 | -       |
| 21  | CLA  | 3     | 614  | -    | 1/1/10/20 | 4/10/88/115   | -       |
| 21  | CLA  | B     | 1236 | -    | 1/1/13/20 | 10/25/103/115 | -       |
| 33  | PTY  | 3     | 808  | -    | -         | 13/22/22/53   | -       |
| 21  | CLA  | A     | 1108 | -    | 1/1/13/20 | 16/25/103/115 | -       |
| 25  | LHG  | 3     | 801  | -    | -         | 14/19/19/53   | -       |
| 27  | LMU  | A     | 5005 | -    | -         | 11/21/61/61   | 0/2/2/2 |
| 21  | CLA  | B     | 1212 | -    | 1/1/13/20 | 13/25/103/115 | -       |
| 21  | CLA  | 1     | 607  | -    | 1/1/11/20 | 8/15/93/115   | -       |
| 21  | CLA  | B     | 1207 | -    | 1/1/15/20 | 18/37/115/115 | -       |
| 21  | CLA  | 2     | 603  | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 35  | XAT  | 4     | 502  | -    | 2/2/12/26 | 0/31/93/93    | 0/4/4/4 |
| 24  | BCR  | L     | 4001 | -    | -         | 11/29/63/63   | 0/2/2/2 |
| 21  | CLA  | B     | 1206 | 2    | 1/1/15/20 | 17/37/115/115 | -       |
| 24  | BCR  | A     | 4003 | -    | -         | 6/29/63/63    | 0/2/2/2 |
| 24  | BCR  | B     | 4004 | -    | -         | 9/29/63/63    | 0/2/2/2 |
| 34  | LUT  | 6     | 501  | -    | 1/1/12/27 | 4/29/67/67    | 0/2/2/2 |
| 24  | BCR  | B     | 4003 | -    | -         | 15/29/63/63   | 0/2/2/2 |
| 24  | BCR  | A     | 4005 | -    | -         | 7/29/63/63    | 0/2/2/2 |
| 37  | SQD  | 3     | 806  | -    | -         | 12/30/50/69   | 0/1/1/1 |
| 21  | CLA  | G     | 1603 | -    | 1/1/11/20 | 6/13/91/115   | -       |
| 31  | LMG  | 4     | 802  | -    | -         | 16/41/61/70   | 0/1/1/1 |
| 21  | CLA  | 6     | 605  | -    | 1/1/15/20 | 20/37/115/115 | -       |
| 21  | CLA  | B     | 1021 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 24  | BCR  | B     | 4001 | -    | -         | 9/29/63/63    | 0/2/2/2 |
| 29  | 3PH  | 5     | 804  | -    | -         | 12/29/29/49   | -       |
| 21  | CLA  | 5     | 604  | 18   | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | 5     | 614  | -    | 1/1/15/20 | 21/37/115/115 | -       |
| 34  | LUT  | 2     | 501  | -    | -         | 2/29/67/67    | 0/2/2/2 |
| 21  | CLA  | A     | 1137 | -    | 1/1/14/20 | 12/31/109/115 | -       |
| 21  | CLA  | 1     | 606  | -    | 1/1/12/20 | 8/19/97/115   | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 21  | CLA  | B     | 1217 | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 24  | BCR  | J     | 4002 | -    | -         | 14/29/63/63   | 0/2/2/2 |
| 33  | PTY  | L     | 5003 | -    | -         | 7/22/22/53    | -       |
| 21  | CLA  | 4     | 601  | -    | 1/1/14/20 | 17/31/109/115 | -       |
| 37  | SQD  | 2     | 805  | -    | -         | 17/34/54/69   | 0/1/1/1 |
| 21  | CLA  | L     | 1504 | -    | 1/1/12/20 | 10/19/97/115  | -       |
| 21  | CLA  | A     | 1121 | -    | 1/1/14/20 | 17/31/109/115 | -       |
| 21  | CLA  | 1     | 611  | -    | 1/1/15/20 | 19/37/115/115 | -       |
| 36  | CHL  | 2     | 609  | 15   | 4/4/20/26 | 3/39/137/137  | -       |
| 21  | CLA  | A     | 1114 | -    | 1/1/13/20 | 8/25/103/115  | -       |
| 21  | CLA  | 3     | 613  | -    | 1/1/11/20 | 11/15/93/115  | -       |
| 21  | CLA  | A     | 1128 | -    | 1/1/15/20 | 12/37/115/115 | -       |
| 21  | CLA  | A     | 1130 | -    | 1/1/13/20 | 5/25/103/115  | -       |
| 21  | CLA  | 3     | 615  | -    | 1/1/13/20 | 8/27/105/115  | -       |
| 24  | BCR  | A     | 4002 | -    | -         | 16/29/63/63   | 0/2/2/2 |
| 35  | XAT  | 3     | 502  | -    | 2/2/12/26 | 4/31/93/93    | 0/4/4/4 |
| 24  | BCR  | F     | 4002 | -    | -         | 14/29/63/63   | 0/2/2/2 |
| 25  | LHG  | A     | 5002 | -    | -         | 37/53/53/53   | -       |
| 21  | CLA  | 1     | 608  | -    | 1/1/13/20 | 11/25/103/115 | -       |
| 34  | LUT  | 3     | 501  | -    | -         | 4/29/67/67    | 0/2/2/2 |
| 21  | CLA  | 3     | 606  | -    | 1/1/13/20 | 10/25/103/115 | -       |
| 38  | LMK  | 4     | 805  | -    | -         | 6/41/41/60    | -       |
| 21  | CLA  | A     | 1129 | -    | 1/1/13/20 | 12/25/103/115 | -       |
| 25  | LHG  | 1     | 802  | -    | -         | 18/30/30/53   | -       |
| 21  | CLA  | A     | 1125 | -    | 1/1/15/20 | 19/37/115/115 | -       |
| 34  | LUT  | 5     | 503  | -    | -         | 8/29/67/67    | 0/2/2/2 |
| 21  | CLA  | O     | 1802 | -    | 1/1/10/20 | 1/4/80/115    | -       |
| 21  | CLA  | A     | 1138 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 24  | BCR  | A     | 4006 | -    | -         | 20/29/63/63   | 0/2/2/2 |
| 24  | BCR  | B     | 4006 | -    | -         | 8/29/63/63    | 0/2/2/2 |
| 21  | CLA  | B     | 1238 | -    | 1/1/15/20 | 12/37/115/115 | -       |
| 21  | CLA  | B     | 1220 | -    | 1/1/13/20 | 15/25/103/115 | -       |
| 21  | CLA  | O     | 1803 | -    | 1/1/14/20 | 13/31/109/115 | -       |
| 25  | LHG  | A     | 5001 | 21   | -         | 24/53/53/53   | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 21  | CLA  | B     | 1202 | -    | 1/1/15/20 | 19/37/115/115 | -       |
| 21  | CLA  | 3     | 612  | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 21  | CLA  | 1     | 615  | -    | 1/1/14/20 | 16/31/109/115 | -       |
| 21  | CLA  | 6     | 604  | -    | 1/1/14/20 | 17/31/109/115 | -       |
| 36  | CHL  | 4     | 610  | -    | 3/3/16/26 | 3/17/115/137  | -       |
| 21  | CLA  | A     | 1136 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 36  | CHL  | 2     | 613  | -    | 3/3/16/26 | 3/15/113/137  | -       |
| 31  | LMG  | 4     | 803  | -    | -         | 12/34/54/70   | 0/1/1/1 |
| 21  | CLA  | A     | 1122 | -    | 1/1/15/20 | 13/37/115/115 | -       |
| 21  | CLA  | B     | 1203 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | B     | 1222 | -    | 1/1/15/20 | 11/37/115/115 | -       |
| 21  | CLA  | 1     | 603  | -    | 1/1/14/20 | 18/31/109/115 | -       |
| 21  | CLA  | 5     | 612  | 18   | 1/1/11/20 | 11/15/93/115  | -       |
| 21  | CLA  | B     | 1228 | -    | 1/1/14/20 | 13/31/109/115 | -       |
| 21  | CLA  | B     | 1218 | -    | 1/1/15/20 | 22/37/115/115 | -       |
| 21  | CLA  | 3     | 610  | 16   | 1/1/12/20 | 10/19/97/115  | -       |
| 28  | DGD  | 2     | 806  | -    | -         | 14/28/68/95   | 0/2/2/2 |
| 25  | LHG  | 6     | 801  | -    | -         | 17/29/29/53   | -       |
| 33  | PTY  | 1     | 805  | -    | -         | 18/43/43/53   | -       |
| 21  | CLA  | 5     | 607  | -    | 1/1/14/20 | 16/31/109/115 | -       |
| 21  | CLA  | A     | 1103 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 37  | SQD  | 6     | 803  | -    | -         | 3/27/47/69    | 0/1/1/1 |
| 23  | SF4  | C     | 3003 | 3    | -         | -             | 0/6/5/5 |
| 21  | CLA  | B     | 1209 | -    | 1/1/11/20 | 4/15/93/115   | -       |
| 22  | PQN  | A     | 2001 | -    | -         | 6/23/43/43    | 0/2/2/2 |
| 33  | PTY  | O     | 5002 | -    | -         | 10/24/24/53   | -       |
| 24  | BCR  | J     | 4001 | -    | -         | 11/29/63/63   | 0/2/2/2 |
| 21  | CLA  | 1     | 604  | -    | 1/1/15/20 | 18/37/115/115 | -       |
| 21  | CLA  | A     | 1115 | -    | 1/1/14/20 | 14/31/109/115 | -       |
| 34  | LUT  | 5     | 504  | -    | 1/1/12/27 | 7/29/67/67    | 0/2/2/2 |
| 21  | CLA  | A     | 1111 | -    | 1/1/15/20 | 11/37/115/115 | -       |
| 21  | CLA  | A     | 1109 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | A     | 1123 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 21  | CLA  | 1     | 601  | -    | 1/1/15/20 | 14/37/115/115 | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 34  | LUT  | 4     | 501  | -    | 1/1/12/27 | 5/29/67/67    | 0/2/2/2 |
| 25  | LHG  | B     | 5001 | -    | -         | 34/46/46/53   | -       |
| 21  | CLA  | 3     | 603  | -    | 1/1/15/20 | 17/37/115/115 | -       |
| 24  | BCR  | H     | 4001 | -    | -         | 19/29/63/63   | 0/2/2/2 |
| 25  | LHG  | 1     | 801  | -    | -         | 32/53/53/53   | -       |
| 21  | CLA  | 4     | 607  | -    | 1/1/14/20 | 16/31/109/115 | -       |
| 38  | LMK  | 2     | 807  | -    | -         | 5/37/37/60    | -       |
| 21  | CLA  | B     | 1237 | -    | 1/1/15/20 | 20/37/115/115 | -       |
| 21  | CLA  | A     | 1117 | -    | 1/1/15/20 | 21/37/115/115 | -       |
| 21  | CLA  | 6     | 608  | -    | 1/1/11/20 | 10/15/93/115  | -       |
| 28  | DGD  | 3     | 804  | -    | -         | 11/28/68/95   | 0/2/2/2 |
| 21  | CLA  | A     | 1131 | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 27  | LMU  | 6     | 805  | -    | -         | 12/21/61/61   | 0/2/2/2 |
| 36  | CHL  | 5     | 609  | -    | 4/4/20/26 | 6/39/137/137  | -       |
| 21  | CLA  | 3     | 608  | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 21  | CLA  | 6     | 612  | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 21  | CLA  | 6     | 613  | -    | 1/1/11/20 | 9/13/91/115   | -       |
| 35  | XAT  | 2     | 502  | -    | 2/2/12/26 | 2/31/93/93    | 0/4/4/4 |
| 24  | BCR  | B     | 4005 | -    | -         | 13/29/63/63   | 0/2/2/2 |
| 24  | BCR  | I     | 4002 | -    | -         | 12/29/63/63   | 0/2/2/2 |
| 21  | CLA  | F     | 1301 | -    | 1/1/11/20 | 9/16/94/115   | -       |
| 21  | CLA  | 5     | 608  | -    | 1/1/13/20 | 12/25/103/115 | -       |
| 33  | PTY  | 3     | 807  | -    | -         | 8/29/29/53    | -       |
| 24  | BCR  | L     | 4002 | -    | -         | 8/29/63/63    | 0/2/2/2 |
| 21  | CLA  | J     | 1901 | -    | 1/1/11/20 | 8/18/96/115   | -       |
| 36  | CHL  | 1     | 610  | -    | 3/3/16/26 | 1/17/115/137  | -       |
| 21  | CLA  | B     | 1204 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 21  | CLA  | 4     | 603  | -    | 1/1/15/20 | 11/37/115/115 | -       |
| 36  | CHL  | 1     | 609  | 14   | 4/4/20/26 | 6/39/137/137  | -       |
| 35  | XAT  | 1     | 502  | -    | 2/2/12/26 | 6/31/93/93    | 0/4/4/4 |
| 24  | BCR  | A     | 4004 | -    | -         | 12/29/63/63   | 0/2/2/2 |
| 33  | PTY  | 4     | 804  | -    | -         | 23/38/38/53   | -       |
| 34  | LUT  | 5     | 502  | -    | -         | 5/29/67/67    | 0/2/2/2 |
| 21  | CLA  | A     | 1127 | -    | 1/1/15/20 | 16/37/115/115 | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 32  | 4RF  | 5     | 805  | -    | -         | 16/34/34/59   | -       |
| 21  | CLA  | A     | 1106 | -    | 1/1/15/20 | 13/37/115/115 | -       |
| 33  | PTY  | 6     | 804  | -    | -         | 8/26/26/53    | -       |
| 23  | SF4  | A     | 3001 | 1,2  | -         | -             | 0/6/5/5 |
| 21  | CLA  | 4     | 605  | -    | 1/1/15/20 | 13/37/115/115 | -       |
| 21  | CLA  | F     | 1302 | -    | 1/1/11/20 | 6/18/96/115   | -       |
| 39  | P3H  | 2     | 808  | -    | -         | 20/44/68/68   | 0/1/1/1 |
| 21  | CLA  | O     | 1801 | -    | 1/1/9/20  | 2/4/78/115    | -       |
| 21  | CLA  | L     | 1502 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | B     | 1023 | -    | 1/1/15/20 | 22/37/115/115 | -       |
| 21  | CLA  | 3     | 601  | -    | 1/1/14/20 | 16/31/109/115 | -       |
| 21  | CLA  | 5     | 606  | -    | 1/1/12/20 | 8/19/97/115   | -       |
| 24  | BCR  | A     | 4007 | -    | -         | 11/29/63/63   | 0/2/2/2 |
| 21  | CLA  | 2     | 605  | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | A     | 1110 | -    | 1/1/13/20 | 7/25/103/115  | -       |
| 25  | LHG  | 2     | 802  | -    | -         | 26/47/47/53   | -       |
| 29  | 3PH  | 5     | 807  | -    | -         | 11/30/30/49   | -       |
| 24  | BCR  | B     | 4002 | -    | -         | 13/29/63/63   | 0/2/2/2 |
| 21  | CLA  | 1     | 602  | -    | 1/1/11/20 | 7/15/93/115   | -       |
| 21  | CLA  | B     | 1216 | -    | 1/1/15/20 | 11/37/115/115 | -       |
| 21  | CLA  | 3     | 611  | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 21  | CLA  | G     | 1601 | -    | 1/1/11/20 | 11/16/94/115  | -       |
| 22  | PQN  | B     | 2002 | -    | -         | 11/23/43/43   | 0/2/2/2 |
| 31  | LMG  | 2     | 804  | -    | -         | 16/45/65/70   | 0/1/1/1 |
| 21  | CLA  | 6     | 603  | -    | 1/1/13/20 | 10/25/103/115 | -       |
| 25  | LHG  | 2     | 801  | 21   | -         | 25/39/39/53   | -       |
| 24  | BCR  | 3     | 504  | -    | -         | 12/29/63/63   | 0/2/2/2 |
| 21  | CLA  | A     | 1140 | -    | 1/1/14/20 | 14/33/111/115 | -       |
| 21  | CLA  | 6     | 602  | -    | 1/1/12/20 | 8/19/97/115   | -       |
| 31  | LMG  | 3     | 803  | -    | -         | 20/45/65/70   | 0/1/1/1 |
| 27  | LMU  | A     | 5004 | -    | -         | 10/21/61/61   | 0/2/2/2 |
| 21  | CLA  | 2     | 601  | -    | 1/1/15/20 | 20/37/115/115 | -       |
| 21  | CLA  | A     | 1013 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 21  | CLA  | H     | 1702 | -    | 1/1/11/20 | 11/15/93/115  | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings   |
|-----|------|-------|------|------|-----------|---------------|---------|
| 31  | LMG  | 6     | 802  | -    | -         | 11/32/52/70   | 0/1/1/1 |
| 20  | CL0  | A     | 1011 | -    | 3/3/20/25 | 12/37/135/135 | -       |
| 21  | CLA  | 5     | 601  | -    | 1/1/11/20 | 7/13/91/115   | -       |
| 21  | CLA  | B     | 1229 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 21  | CLA  | B     | 1201 | -    | 1/1/11/20 | 11/17/95/115  | -       |
| 31  | LMG  | 3     | 802  | -    | -         | 7/26/46/70    | 0/1/1/1 |
| 36  | CHL  | 4     | 611  | -    | 3/3/17/26 | 1/21/119/137  | -       |
| 21  | CLA  | 1     | 613  | -    | 1/1/11/20 | 6/13/91/115   | -       |
| 31  | LMG  | F     | 5002 | -    | -         | 17/45/65/70   | 0/1/1/1 |
| 21  | CLA  | 5     | 602  | -    | 1/1/11/20 | 10/15/93/115  | -       |
| 24  | BCR  | 4     | 503  | -    | -         | 11/29/63/63   | 0/2/2/2 |
| 21  | CLA  | A     | 1107 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | A     | 1116 | -    | 1/1/13/20 | 15/27/105/115 | -       |
| 21  | CLA  | L     | 1501 | -    | 1/1/15/20 | 21/37/115/115 | -       |
| 21  | CLA  | L     | 1503 | -    | 1/1/12/20 | 4/19/97/115   | -       |
| 21  | CLA  | B     | 1230 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 21  | CLA  | B     | 1211 | -    | 1/1/15/20 | 15/37/115/115 | -       |
| 35  | XAT  | 6     | 502  | -    | 2/2/12/26 | 0/31/93/93    | 0/4/4/4 |
| 36  | CHL  | 2     | 611  | -    | 3/3/16/26 | 0/18/116/137  | -       |
| 21  | CLA  | B     | 1232 | -    | 1/1/13/20 | 12/25/103/115 | -       |
| 21  | CLA  | A     | 1119 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | 3     | 605  | -    | 1/1/15/20 | 17/37/115/115 | -       |
| 21  | CLA  | 6     | 606  | -    | 1/1/12/20 | 9/19/97/115   | -       |
| 25  | LHG  | 2     | 803  | -    | -         | 24/40/40/53   | -       |
| 27  | LMU  | B     | 5004 | -    | -         | 16/21/61/61   | 0/2/2/2 |
| 34  | LUT  | 5     | 501  | -    | 1/1/12/27 | 4/29/67/67    | 0/2/2/2 |
| 21  | CLA  | A     | 1139 | -    | 1/1/15/20 | 16/37/115/115 | -       |
| 21  | CLA  | B     | 1221 | -    | 1/1/15/20 | 12/37/115/115 | -       |
| 21  | CLA  | K     | 1404 | -    | 1/1/11/20 | 6/13/91/115   | -       |
| 21  | CLA  | 3     | 607  | -    | 1/1/14/20 | 11/31/109/115 | -       |
| 21  | CLA  | 4     | 615  | 17   | 1/1/12/20 | 11/21/99/115  | -       |
| 24  | BCR  | F     | 4001 | -    | -         | 9/29/63/63    | 0/2/2/2 |
| 21  | CLA  | B     | 1215 | -    | 1/1/15/20 | 14/37/115/115 | -       |
| 21  | CLA  | 4     | 606  | -    | 1/1/12/20 | 10/19/97/115  | -       |

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| Mol | Type | Chain | Res  | Link | Chirals   | Torsions      | Rings |
|-----|------|-------|------|------|-----------|---------------|-------|
| 21  | CLA  | A     | 1105 | -    | 1/1/14/20 | 13/31/109/115 | -     |
| 21  | CLA  | B     | 1225 | -    | 1/1/15/20 | 19/37/115/115 | -     |
| 21  | CLA  | G     | 1602 | -    | 1/1/11/20 | 10/15/93/115  | -     |
| 21  | CLA  | 2     | 606  | -    | 1/1/12/20 | 5/19/97/115   | -     |
| 21  | CLA  | A     | 1118 | -    | 1/1/12/20 | 7/19/97/115   | -     |
| 21  | CLA  | 2     | 608  | -    | 1/1/12/20 | 11/19/97/115  | -     |
| 21  | CLA  | 4     | 602  | -    | 1/1/12/20 | 8/19/97/115   | -     |
| 21  | CLA  | 5     | 605  | -    | 1/1/15/20 | 18/37/115/115 | -     |
| 21  | CLA  | B     | 1213 | -    | 1/1/14/20 | 15/31/109/115 | -     |
| 21  | CLA  | 1     | 605  | -    | 1/1/15/20 | 13/37/115/115 | -     |

All (1694) bond length outliers are listed below:

| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 34  | 5     | 501  | LUT  | C24-C25 | 15.69 | 1.52        | 1.33     |
| 34  | 5     | 504  | LUT  | C24-C25 | 15.24 | 1.52        | 1.33     |
| 34  | 5     | 503  | LUT  | C24-C25 | 14.74 | 1.51        | 1.33     |
| 34  | 5     | 502  | LUT  | C24-C25 | 14.67 | 1.51        | 1.33     |
| 34  | 6     | 501  | LUT  | C24-C25 | 14.53 | 1.51        | 1.33     |
| 34  | 1     | 501  | LUT  | C24-C25 | 14.46 | 1.51        | 1.33     |
| 34  | 4     | 501  | LUT  | C24-C25 | 14.11 | 1.50        | 1.33     |
| 34  | 2     | 501  | LUT  | C24-C25 | 13.94 | 1.50        | 1.33     |
| 34  | 3     | 501  | LUT  | C24-C25 | 13.94 | 1.50        | 1.33     |
| 20  | A     | 1011 | CL0  | MG-NA   | 9.09  | 2.27        | 2.06     |
| 24  | G     | 4001 | BCR  | C10-C9  | 7.95  | 1.46        | 1.35     |
| 24  | 3     | 506  | BCR  | C10-C9  | 7.92  | 1.46        | 1.35     |
| 24  | H     | 4001 | BCR  | C10-C9  | 7.83  | 1.46        | 1.35     |
| 24  | 1     | 504  | BCR  | C10-C9  | 7.52  | 1.45        | 1.35     |
| 24  | B     | 4001 | BCR  | C10-C9  | 7.46  | 1.45        | 1.35     |
| 24  | A     | 4001 | BCR  | C10-C9  | 7.41  | 1.45        | 1.35     |
| 24  | I     | 4001 | BCR  | C10-C9  | 7.23  | 1.45        | 1.35     |
| 24  | L     | 4002 | BCR  | C10-C9  | 7.21  | 1.45        | 1.35     |
| 38  | 2     | 807  | LMK  | O3-C4   | 7.21  | 1.44        | 1.22     |
| 24  | F     | 4001 | BCR  | C10-C9  | 7.20  | 1.45        | 1.35     |
| 38  | 4     | 805  | LMK  | O3-C4   | 7.20  | 1.44        | 1.22     |
| 24  | K     | 4001 | BCR  | C10-C9  | 7.16  | 1.45        | 1.35     |
| 24  | I     | 4002 | BCR  | C10-C9  | 7.15  | 1.45        | 1.35     |
| 24  | A     | 4007 | BCR  | C10-C9  | 7.13  | 1.45        | 1.35     |
| 24  | A     | 4002 | BCR  | C10-C9  | 7.00  | 1.45        | 1.35     |
| 24  | B     | 4006 | BCR  | C10-C9  | 6.82  | 1.44        | 1.35     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 24  | 3     | 503  | BCR  | C10-C9  | 6.82  | 1.44        | 1.35     |
| 24  | J     | 4001 | BCR  | C10-C9  | 6.75  | 1.44        | 1.35     |
| 24  | B     | 4004 | BCR  | C10-C9  | 6.72  | 1.44        | 1.35     |
| 24  | 3     | 504  | BCR  | C10-C9  | 6.70  | 1.44        | 1.35     |
| 24  | O     | 4001 | BCR  | C10-C9  | 6.69  | 1.44        | 1.35     |
| 24  | 4     | 503  | BCR  | C10-C9  | 6.61  | 1.44        | 1.35     |
| 24  | F     | 4002 | BCR  | C10-C9  | 6.59  | 1.44        | 1.35     |
| 24  | J     | 4002 | BCR  | C10-C9  | 6.58  | 1.44        | 1.35     |
| 24  | B     | 4002 | BCR  | C10-C9  | 6.57  | 1.44        | 1.35     |
| 21  | A     | 1101 | CLA  | MG-NA   | 6.54  | 2.21        | 2.06     |
| 21  | O     | 1803 | CLA  | MG-NA   | 6.53  | 2.21        | 2.06     |
| 21  | 5     | 613  | CLA  | MG-NA   | 6.53  | 2.21        | 2.06     |
| 36  | 2     | 613  | CHL  | C3B-C2B | -6.49 | 1.31        | 1.40     |
| 21  | 3     | 602  | CLA  | MG-NA   | 6.42  | 2.21        | 2.06     |
| 24  | A     | 4004 | BCR  | C10-C9  | 6.41  | 1.44        | 1.35     |
| 21  | 5     | 607  | CLA  | MG-NA   | 6.41  | 2.21        | 2.06     |
| 21  | G     | 1602 | CLA  | MG-NA   | 6.40  | 2.21        | 2.06     |
| 21  | 4     | 615  | CLA  | MG-NA   | 6.40  | 2.21        | 2.06     |
| 21  | A     | 1116 | CLA  | MG-NA   | 6.40  | 2.21        | 2.06     |
| 21  | K     | 1402 | CLA  | MG-NA   | 6.40  | 2.21        | 2.06     |
| 21  | 5     | 606  | CLA  | MG-NA   | 6.39  | 2.21        | 2.06     |
| 21  | 4     | 602  | CLA  | MG-NA   | 6.38  | 2.21        | 2.06     |
| 21  | A     | 1123 | CLA  | MG-NA   | 6.38  | 2.21        | 2.06     |
| 24  | B     | 4005 | BCR  | C10-C9  | 6.37  | 1.44        | 1.35     |
| 21  | 5     | 603  | CLA  | MG-NA   | 6.37  | 2.21        | 2.06     |
| 21  | 1     | 613  | CLA  | MG-NA   | 6.37  | 2.21        | 2.06     |
| 21  | 1     | 611  | CLA  | MG-NA   | 6.37  | 2.21        | 2.06     |
| 21  | 3     | 615  | CLA  | MG-NA   | 6.37  | 2.21        | 2.06     |
| 21  | 1     | 615  | CLA  | MG-NA   | 6.37  | 2.21        | 2.06     |
| 24  | A     | 4003 | BCR  | C10-C9  | 6.36  | 1.44        | 1.35     |
| 21  | B     | 1232 | CLA  | MG-NA   | 6.36  | 2.21        | 2.06     |
| 21  | G     | 1601 | CLA  | MG-NA   | 6.35  | 2.21        | 2.06     |
| 21  | 2     | 602  | CLA  | MG-NA   | 6.35  | 2.21        | 2.06     |
| 21  | 6     | 602  | CLA  | MG-NA   | 6.35  | 2.21        | 2.06     |
| 21  | 1     | 608  | CLA  | MG-NA   | 6.34  | 2.21        | 2.06     |
| 21  | A     | 1121 | CLA  | MG-NA   | 6.33  | 2.21        | 2.06     |
| 21  | A     | 1012 | CLA  | MG-NA   | 6.33  | 2.21        | 2.06     |
| 21  | B     | 1217 | CLA  | MG-NA   | 6.33  | 2.21        | 2.06     |
| 21  | 6     | 603  | CLA  | MG-NA   | 6.33  | 2.21        | 2.06     |
| 21  | 3     | 611  | CLA  | MG-NA   | 6.33  | 2.21        | 2.06     |
| 21  | 3     | 608  | CLA  | MG-NA   | 6.32  | 2.21        | 2.06     |
| 21  | B     | 1207 | CLA  | MG-NA   | 6.32  | 2.21        | 2.06     |

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| Mol | Chain | Res  | Type | Atoms  | Z    | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|--------|------|-------------|----------|
| 21  | A     | 1136 | CLA  | MG-NA  | 6.32 | 2.21        | 2.06     |
| 21  | A     | 1114 | CLA  | MG-NA  | 6.32 | 2.21        | 2.06     |
| 21  | 1     | 601  | CLA  | MG-NA  | 6.32 | 2.21        | 2.06     |
| 21  | A     | 1115 | CLA  | MG-NA  | 6.32 | 2.21        | 2.06     |
| 21  | B     | 1229 | CLA  | MG-NA  | 6.32 | 2.21        | 2.06     |
| 21  | A     | 1130 | CLA  | MG-NA  | 6.31 | 2.21        | 2.06     |
| 21  | 6     | 601  | CLA  | MG-NA  | 6.31 | 2.21        | 2.06     |
| 21  | 6     | 609  | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | A     | 1107 | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | 6     | 607  | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 24  | A     | 4006 | BCR  | C10-C9 | 6.30 | 1.44        | 1.35     |
| 21  | A     | 1110 | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | 2     | 605  | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | 2     | 615  | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | K     | 1404 | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | 5     | 605  | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | A     | 1112 | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | 6     | 608  | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | A     | 1132 | CLA  | MG-NA  | 6.30 | 2.21        | 2.06     |
| 21  | B     | 1208 | CLA  | MG-NA  | 6.29 | 2.21        | 2.06     |
| 21  | L     | 1503 | CLA  | MG-NA  | 6.28 | 2.21        | 2.06     |
| 21  | 3     | 610  | CLA  | MG-NA  | 6.28 | 2.21        | 2.06     |
| 21  | 1     | 607  | CLA  | MG-NA  | 6.28 | 2.21        | 2.06     |
| 21  | B     | 1206 | CLA  | MG-NA  | 6.28 | 2.21        | 2.06     |
| 21  | A     | 1135 | CLA  | MG-NA  | 6.27 | 2.21        | 2.06     |
| 21  | 3     | 614  | CLA  | MG-NA  | 6.27 | 2.21        | 2.06     |
| 21  | B     | 1022 | CLA  | MG-NA  | 6.27 | 2.21        | 2.06     |
| 21  | A     | 1134 | CLA  | MG-NA  | 6.26 | 2.21        | 2.06     |
| 21  | 1     | 602  | CLA  | MG-NA  | 6.26 | 2.21        | 2.06     |
| 21  | 3     | 607  | CLA  | MG-NA  | 6.26 | 2.21        | 2.06     |
| 24  | A     | 4005 | BCR  | C10-C9 | 6.26 | 1.44        | 1.35     |
| 21  | 5     | 604  | CLA  | MG-NA  | 6.26 | 2.21        | 2.06     |
| 21  | B     | 1239 | CLA  | MG-NA  | 6.26 | 2.21        | 2.06     |
| 21  | B     | 1023 | CLA  | MG-NA  | 6.26 | 2.21        | 2.06     |
| 21  | 4     | 603  | CLA  | MG-NA  | 6.26 | 2.21        | 2.06     |
| 21  | B     | 1212 | CLA  | MG-NA  | 6.25 | 2.21        | 2.06     |
| 21  | 4     | 604  | CLA  | MG-NA  | 6.25 | 2.21        | 2.06     |
| 21  | 5     | 608  | CLA  | MG-NA  | 6.24 | 2.21        | 2.06     |
| 21  | A     | 1113 | CLA  | MG-NA  | 6.23 | 2.21        | 2.06     |
| 21  | B     | 1235 | CLA  | MG-NA  | 6.23 | 2.21        | 2.06     |
| 21  | B     | 1223 | CLA  | MG-NA  | 6.23 | 2.21        | 2.06     |
| 21  | B     | 1204 | CLA  | MG-NA  | 6.22 | 2.21        | 2.06     |

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| Mol | Chain | Res  | Type | Atoms   | Z    | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|------|-------------|----------|
| 21  | A     | 1141 | CLA  | MG-NA   | 6.22 | 2.21        | 2.06     |
| 24  | A     | 4003 | BCR  | C24-C23 | 6.21 | 1.51        | 1.33     |
| 21  | 6     | 606  | CLA  | MG-NA   | 6.21 | 2.21        | 2.06     |
| 21  | A     | 1140 | CLA  | MG-NA   | 6.20 | 2.21        | 2.06     |
| 21  | B     | 1214 | CLA  | MG-NA   | 6.19 | 2.21        | 2.06     |
| 21  | B     | 1240 | CLA  | MG-NA   | 6.19 | 2.21        | 2.06     |
| 21  | 2     | 606  | CLA  | MG-NA   | 6.19 | 2.21        | 2.06     |
| 21  | 4     | 605  | CLA  | MG-NA   | 6.18 | 2.21        | 2.06     |
| 21  | L     | 1504 | CLA  | MG-NA   | 6.18 | 2.21        | 2.06     |
| 21  | 4     | 607  | CLA  | MG-NA   | 6.18 | 2.20        | 2.06     |
| 21  | F     | 1301 | CLA  | MG-NA   | 6.16 | 2.20        | 2.06     |
| 21  | 2     | 608  | CLA  | MG-NA   | 6.15 | 2.20        | 2.06     |
| 21  | A     | 1109 | CLA  | MG-NA   | 6.15 | 2.20        | 2.06     |
| 24  | 2     | 503  | BCR  | C10-C9  | 6.15 | 1.43        | 1.35     |
| 21  | B     | 1225 | CLA  | MG-NA   | 6.15 | 2.20        | 2.06     |
| 21  | O     | 1802 | CLA  | MG-NA   | 6.14 | 2.20        | 2.06     |
| 21  | 3     | 612  | CLA  | MG-NA   | 6.14 | 2.20        | 2.06     |
| 21  | 2     | 607  | CLA  | MG-NA   | 6.13 | 2.20        | 2.06     |
| 21  | 4     | 609  | CLA  | MG-NA   | 6.13 | 2.20        | 2.06     |
| 21  | 1     | 606  | CLA  | MG-NA   | 6.13 | 2.20        | 2.06     |
| 21  | 1     | 603  | CLA  | MG-NA   | 6.13 | 2.20        | 2.06     |
| 21  | 1     | 605  | CLA  | MG-NA   | 6.12 | 2.20        | 2.06     |
| 21  | A     | 1122 | CLA  | MG-NA   | 6.11 | 2.20        | 2.06     |
| 21  | A     | 1137 | CLA  | MG-NA   | 6.11 | 2.20        | 2.06     |
| 21  | B     | 1227 | CLA  | MG-NA   | 6.11 | 2.20        | 2.06     |
| 21  | 4     | 608  | CLA  | MG-NA   | 6.11 | 2.20        | 2.06     |
| 21  | 3     | 606  | CLA  | MG-NA   | 6.11 | 2.20        | 2.06     |
| 21  | A     | 1104 | CLA  | MG-NA   | 6.10 | 2.20        | 2.06     |
| 21  | B     | 1201 | CLA  | MG-NA   | 6.10 | 2.20        | 2.06     |
| 21  | B     | 1234 | CLA  | MG-NA   | 6.09 | 2.20        | 2.06     |
| 21  | B     | 1236 | CLA  | MG-NA   | 6.09 | 2.20        | 2.06     |
| 21  | 4     | 606  | CLA  | MG-NA   | 6.09 | 2.20        | 2.06     |
| 21  | H     | 1702 | CLA  | MG-NA   | 6.09 | 2.20        | 2.06     |
| 21  | 2     | 601  | CLA  | MG-NA   | 6.09 | 2.20        | 2.06     |
| 21  | 5     | 602  | CLA  | MG-NA   | 6.08 | 2.20        | 2.06     |
| 21  | A     | 1105 | CLA  | MG-NA   | 6.08 | 2.20        | 2.06     |
| 21  | A     | 1120 | CLA  | MG-NA   | 6.08 | 2.20        | 2.06     |
| 21  | A     | 1117 | CLA  | MG-NA   | 6.08 | 2.20        | 2.06     |
| 21  | B     | 1213 | CLA  | MG-NA   | 6.08 | 2.20        | 2.06     |
| 21  | 2     | 603  | CLA  | MG-NA   | 6.08 | 2.20        | 2.06     |
| 21  | B     | 1218 | CLA  | MG-NA   | 6.06 | 2.20        | 2.06     |
| 21  | B     | 1203 | CLA  | MG-NA   | 6.06 | 2.20        | 2.06     |

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| Mol | Chain | Res  | Type | Atoms   | Z    | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|------|-------------|----------|
| 21  | K     | 1403 | CLA  | MG-NA   | 6.05 | 2.20        | 2.06     |
| 21  | B     | 1211 | CLA  | MG-NA   | 6.05 | 2.20        | 2.06     |
| 24  | B     | 4001 | BCR  | C24-C23 | 6.05 | 1.51        | 1.33     |
| 21  | B     | 1224 | CLA  | MG-NA   | 6.05 | 2.20        | 2.06     |
| 21  | A     | 1139 | CLA  | MG-NA   | 6.04 | 2.20        | 2.06     |
| 21  | 6     | 604  | CLA  | MG-NA   | 6.04 | 2.20        | 2.06     |
| 21  | 3     | 605  | CLA  | MG-NA   | 6.04 | 2.20        | 2.06     |
| 21  | F     | 1302 | CLA  | MG-NA   | 6.04 | 2.20        | 2.06     |
| 21  | 4     | 601  | CLA  | MG-NA   | 6.02 | 2.20        | 2.06     |
| 21  | A     | 1127 | CLA  | MG-NA   | 6.02 | 2.20        | 2.06     |
| 21  | A     | 1108 | CLA  | MG-NA   | 6.02 | 2.20        | 2.06     |
| 21  | B     | 1210 | CLA  | MG-NA   | 6.01 | 2.20        | 2.06     |
| 21  | A     | 1106 | CLA  | MG-NA   | 6.01 | 2.20        | 2.06     |
| 21  | A     | 1111 | CLA  | MG-NA   | 6.00 | 2.20        | 2.06     |
| 21  | K     | 1401 | CLA  | MG-NA   | 5.99 | 2.20        | 2.06     |
| 21  | B     | 1202 | CLA  | MG-NA   | 5.99 | 2.20        | 2.06     |
| 21  | A     | 1124 | CLA  | MG-NA   | 5.98 | 2.20        | 2.06     |
| 21  | A     | 1128 | CLA  | MG-NA   | 5.98 | 2.20        | 2.06     |
| 21  | 4     | 612  | CLA  | MG-NA   | 5.98 | 2.20        | 2.06     |
| 21  | B     | 1238 | CLA  | MG-NA   | 5.98 | 2.20        | 2.06     |
| 21  | L     | 1502 | CLA  | MG-NA   | 5.97 | 2.20        | 2.06     |
| 21  | 3     | 603  | CLA  | MG-NA   | 5.95 | 2.20        | 2.06     |
| 21  | B     | 1226 | CLA  | MG-NA   | 5.95 | 2.20        | 2.06     |
| 21  | A     | 1013 | CLA  | MG-NA   | 5.95 | 2.20        | 2.06     |
| 21  | A     | 1138 | CLA  | MG-NA   | 5.95 | 2.20        | 2.06     |
| 21  | B     | 1215 | CLA  | MG-NA   | 5.94 | 2.20        | 2.06     |
| 21  | B     | 1216 | CLA  | MG-NA   | 5.94 | 2.20        | 2.06     |
| 21  | A     | 1133 | CLA  | MG-NA   | 5.94 | 2.20        | 2.06     |
| 21  | 6     | 612  | CLA  | MG-NA   | 5.94 | 2.20        | 2.06     |
| 21  | B     | 1228 | CLA  | MG-NA   | 5.92 | 2.20        | 2.06     |
| 21  | B     | 1219 | CLA  | MG-NA   | 5.92 | 2.20        | 2.06     |
| 21  | J     | 1901 | CLA  | MG-NA   | 5.92 | 2.20        | 2.06     |
| 21  | B     | 1209 | CLA  | MG-NA   | 5.92 | 2.20        | 2.06     |
| 21  | 6     | 613  | CLA  | MG-NA   | 5.91 | 2.20        | 2.06     |
| 21  | B     | 1231 | CLA  | MG-NA   | 5.91 | 2.20        | 2.06     |
| 21  | 6     | 605  | CLA  | MG-NA   | 5.91 | 2.20        | 2.06     |
| 21  | H     | 1701 | CLA  | MG-NA   | 5.90 | 2.20        | 2.06     |
| 21  | 1     | 612  | CLA  | MG-NA   | 5.89 | 2.20        | 2.06     |
| 21  | B     | 1222 | CLA  | MG-NA   | 5.88 | 2.20        | 2.06     |
| 21  | B     | 1220 | CLA  | MG-NA   | 5.88 | 2.20        | 2.06     |
| 21  | A     | 1119 | CLA  | MG-NA   | 5.87 | 2.20        | 2.06     |
| 21  | A     | 1102 | CLA  | MG-NA   | 5.86 | 2.20        | 2.06     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 24  | J     | 4002 | BCR  | C11-C12 | -5.86 | 1.19        | 1.34     |
| 24  | 1     | 504  | BCR  | C24-C23 | 5.86  | 1.50        | 1.33     |
| 21  | 5     | 612  | CLA  | MG-ND   | -5.85 | 1.94        | 2.05     |
| 24  | G     | 4001 | BCR  | C24-C23 | 5.85  | 1.50        | 1.33     |
| 24  | L     | 4001 | BCR  | C10-C9  | 5.84  | 1.43        | 1.35     |
| 24  | 3     | 506  | BCR  | C24-C23 | 5.83  | 1.50        | 1.33     |
| 21  | B     | 1230 | CLA  | MG-NA   | 5.81  | 2.20        | 2.06     |
| 21  | B     | 1221 | CLA  | MG-NA   | 5.80  | 2.20        | 2.06     |
| 24  | A     | 4001 | BCR  | C24-C23 | 5.78  | 1.50        | 1.33     |
| 21  | A     | 1118 | CLA  | MG-NA   | 5.78  | 2.20        | 2.06     |
| 24  | H     | 4001 | BCR  | C24-C23 | 5.78  | 1.50        | 1.33     |
| 21  | A     | 1125 | CLA  | MG-NA   | 5.78  | 2.20        | 2.06     |
| 24  | B     | 4003 | BCR  | C11-C12 | -5.77 | 1.19        | 1.34     |
| 21  | A     | 1126 | CLA  | MG-NA   | 5.76  | 2.19        | 2.06     |
| 21  | 2     | 604  | CLA  | MG-NA   | 5.75  | 2.19        | 2.06     |
| 21  | B     | 1205 | CLA  | MG-NA   | 5.75  | 2.19        | 2.06     |
| 24  | K     | 4001 | BCR  | C24-C23 | 5.75  | 1.50        | 1.33     |
| 24  | 4     | 503  | BCR  | C24-C23 | 5.73  | 1.50        | 1.33     |
| 24  | O     | 4001 | BCR  | C24-C23 | 5.71  | 1.50        | 1.33     |
| 24  | J     | 4001 | BCR  | C24-C23 | 5.71  | 1.50        | 1.33     |
| 24  | B     | 4006 | BCR  | C24-C23 | 5.71  | 1.50        | 1.33     |
| 24  | I     | 4001 | BCR  | C24-C23 | 5.69  | 1.50        | 1.33     |
| 21  | 1     | 604  | CLA  | MG-NA   | 5.69  | 2.19        | 2.06     |
| 24  | B     | 4003 | BCR  | C10-C9  | 5.69  | 1.43        | 1.35     |
| 21  | B     | 1237 | CLA  | MG-NA   | 5.69  | 2.19        | 2.06     |
| 24  | A     | 4004 | BCR  | C24-C23 | 5.68  | 1.50        | 1.33     |
| 21  | 5     | 612  | CLA  | MG-NA   | 5.68  | 2.19        | 2.06     |
| 24  | F     | 4001 | BCR  | C24-C23 | 5.68  | 1.50        | 1.33     |
| 21  | O     | 1801 | CLA  | MG-NA   | 5.67  | 2.19        | 2.06     |
| 24  | B     | 4003 | BCR  | C24-C23 | 5.66  | 1.50        | 1.33     |
| 24  | L     | 4002 | BCR  | C24-C23 | 5.66  | 1.50        | 1.33     |
| 21  | 3     | 601  | CLA  | MG-NA   | 5.65  | 2.19        | 2.06     |
| 21  | B     | 1021 | CLA  | MG-NA   | 5.64  | 2.19        | 2.06     |
| 21  | A     | 1103 | CLA  | MG-NA   | 5.62  | 2.19        | 2.06     |
| 21  | 2     | 612  | CLA  | MG-NA   | 5.62  | 2.19        | 2.06     |
| 24  | I     | 4002 | BCR  | C24-C23 | 5.61  | 1.50        | 1.33     |
| 21  | A     | 1129 | CLA  | MG-NA   | 5.59  | 2.19        | 2.06     |
| 24  | A     | 4007 | BCR  | C24-C23 | 5.58  | 1.49        | 1.33     |
| 21  | L     | 1501 | CLA  | MG-NA   | 5.57  | 2.19        | 2.06     |
| 24  | 2     | 503  | BCR  | C24-C23 | 5.57  | 1.49        | 1.33     |
| 24  | F     | 4002 | BCR  | C24-C23 | 5.57  | 1.49        | 1.33     |
| 24  | J     | 4002 | BCR  | C24-C23 | 5.53  | 1.49        | 1.33     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 24  | 3     | 504  | BCR  | C24-C23 | 5.51  | 1.49        | 1.33     |
| 24  | A     | 4005 | BCR  | C24-C23 | 5.49  | 1.49        | 1.33     |
| 24  | A     | 4006 | BCR  | C24-C23 | 5.49  | 1.49        | 1.33     |
| 36  | 3     | 604  | CHL  | C1D-ND  | -5.49 | 1.31        | 1.37     |
| 24  | B     | 4005 | BCR  | C11-C12 | -5.47 | 1.20        | 1.34     |
| 24  | B     | 4002 | BCR  | C24-C23 | 5.46  | 1.49        | 1.33     |
| 24  | A     | 4006 | BCR  | C11-C12 | -5.46 | 1.20        | 1.34     |
| 24  | L     | 4001 | BCR  | C11-C12 | -5.44 | 1.20        | 1.34     |
| 24  | 3     | 503  | BCR  | C24-C23 | 5.43  | 1.49        | 1.33     |
| 24  | O     | 4001 | BCR  | C11-C12 | -5.42 | 1.20        | 1.34     |
| 24  | A     | 4004 | BCR  | C11-C12 | -5.42 | 1.20        | 1.34     |
| 24  | B     | 4005 | BCR  | C24-C23 | 5.41  | 1.49        | 1.33     |
| 21  | A     | 1131 | CLA  | MG-NA   | 5.40  | 2.19        | 2.06     |
| 24  | A     | 4005 | BCR  | C11-C12 | -5.39 | 1.20        | 1.34     |
| 24  | A     | 4002 | BCR  | C24-C23 | 5.39  | 1.49        | 1.33     |
| 21  | G     | 1603 | CLA  | MG-NA   | 5.39  | 2.19        | 2.06     |
| 24  | A     | 4003 | BCR  | C11-C12 | -5.38 | 1.20        | 1.34     |
| 21  | 3     | 613  | CLA  | MG-NA   | 5.37  | 2.19        | 2.06     |
| 24  | B     | 4002 | BCR  | C11-C12 | -5.36 | 1.20        | 1.34     |
| 24  | B     | 4004 | BCR  | C11-C12 | -5.35 | 1.20        | 1.34     |
| 24  | B     | 4004 | BCR  | C24-C23 | 5.35  | 1.49        | 1.33     |
| 24  | 2     | 503  | BCR  | C11-C12 | -5.34 | 1.20        | 1.34     |
| 24  | J     | 4001 | BCR  | C11-C12 | -5.34 | 1.20        | 1.34     |
| 24  | 4     | 503  | BCR  | C11-C12 | -5.31 | 1.20        | 1.34     |
| 24  | 3     | 504  | BCR  | C11-C12 | -5.31 | 1.20        | 1.34     |
| 24  | 3     | 503  | BCR  | C11-C12 | -5.30 | 1.20        | 1.34     |
| 24  | L     | 4002 | BCR  | C11-C12 | -5.29 | 1.20        | 1.34     |
| 24  | F     | 4002 | BCR  | C11-C12 | -5.29 | 1.20        | 1.34     |
| 24  | A     | 4002 | BCR  | C11-C12 | -5.27 | 1.21        | 1.34     |
| 24  | L     | 4001 | BCR  | C24-C23 | 5.20  | 1.48        | 1.33     |
| 20  | A     | 1011 | CL0  | CHC-C1C | 5.20  | 1.48        | 1.35     |
| 24  | B     | 4006 | BCR  | C11-C12 | -5.16 | 1.21        | 1.34     |
| 21  | 5     | 614  | CLA  | MG-NA   | 5.15  | 2.18        | 2.06     |
| 24  | F     | 4001 | BCR  | C11-C12 | -5.13 | 1.21        | 1.34     |
| 24  | I     | 4002 | BCR  | C11-C12 | -5.11 | 1.21        | 1.34     |
| 20  | A     | 1011 | CL0  | O2A-C1  | 5.11  | 1.60        | 1.46     |
| 21  | 5     | 601  | CLA  | MG-NA   | 5.10  | 2.18        | 2.06     |
| 24  | I     | 4001 | BCR  | C11-C12 | -5.09 | 1.21        | 1.34     |
| 24  | K     | 4001 | BCR  | C11-C12 | -5.08 | 1.21        | 1.34     |
| 20  | A     | 1011 | CL0  | O2D-CGD | 5.07  | 1.45        | 1.33     |
| 24  | A     | 4007 | BCR  | C11-C12 | -5.07 | 1.21        | 1.34     |
| 24  | 3     | 506  | BCR  | C11-C12 | -5.05 | 1.21        | 1.34     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 24  | A     | 4001 | BCR  | C11-C12 | -5.03 | 1.21        | 1.34     |
| 21  | J     | 1901 | CLA  | C1C-NC  | -5.02 | 1.30        | 1.37     |
| 24  | H     | 4001 | BCR  | C11-C12 | -4.96 | 1.21        | 1.34     |
| 24  | B     | 4001 | BCR  | C11-C12 | -4.96 | 1.21        | 1.34     |
| 24  | 1     | 504  | BCR  | C11-C12 | -4.88 | 1.22        | 1.34     |
| 21  | 5     | 601  | CLA  | MG-ND   | -4.86 | 1.96        | 2.05     |
| 24  | G     | 4001 | BCR  | C11-C12 | -4.83 | 1.22        | 1.34     |
| 21  | A     | 1133 | CLA  | MG-ND   | -4.80 | 1.96        | 2.05     |
| 20  | A     | 1011 | CL0  | CHD-C1D | 4.77  | 1.47        | 1.38     |
| 36  | 4     | 611  | CHL  | C3B-C2B | -4.75 | 1.33        | 1.40     |
| 20  | A     | 1011 | CL0  | C3C-C2C | 4.70  | 1.46        | 1.36     |
| 21  | A     | 1125 | CLA  | C1C-NC  | -4.68 | 1.30        | 1.37     |
| 21  | 5     | 601  | CLA  | C1C-NC  | -4.67 | 1.30        | 1.37     |
| 21  | B     | 1218 | CLA  | MG-ND   | -4.65 | 1.96        | 2.05     |
| 21  | A     | 1130 | CLA  | MG-ND   | -4.63 | 1.96        | 2.05     |
| 20  | A     | 1011 | CL0  | C3B-C2B | 4.63  | 1.46        | 1.40     |
| 21  | 3     | 603  | CLA  | MG-ND   | -4.59 | 1.96        | 2.05     |
| 24  | 3     | 506  | BCR  | C16-C17 | -4.57 | 1.29        | 1.43     |
| 24  | A     | 4004 | BCR  | C16-C17 | -4.57 | 1.29        | 1.43     |
| 24  | B     | 4004 | BCR  | C16-C17 | -4.57 | 1.29        | 1.43     |
| 21  | A     | 1126 | CLA  | MG-ND   | -4.54 | 1.96        | 2.05     |
| 21  | 2     | 601  | CLA  | MG-ND   | -4.54 | 1.96        | 2.05     |
| 21  | A     | 1135 | CLA  | MG-ND   | -4.53 | 1.96        | 2.05     |
| 24  | B     | 4005 | BCR  | C16-C17 | -4.53 | 1.29        | 1.43     |
| 24  | F     | 4002 | BCR  | C16-C17 | -4.53 | 1.29        | 1.43     |
| 24  | 4     | 503  | BCR  | C16-C17 | -4.52 | 1.29        | 1.43     |
| 21  | A     | 1118 | CLA  | MG-ND   | -4.51 | 1.96        | 2.05     |
| 24  | J     | 4002 | BCR  | C16-C17 | -4.50 | 1.29        | 1.43     |
| 24  | 3     | 503  | BCR  | C16-C17 | -4.49 | 1.29        | 1.43     |
| 21  | H     | 1702 | CLA  | MG-ND   | -4.48 | 1.96        | 2.05     |
| 24  | B     | 4006 | BCR  | C16-C17 | -4.48 | 1.29        | 1.43     |
| 24  | A     | 4006 | BCR  | C16-C17 | -4.48 | 1.29        | 1.43     |
| 21  | B     | 1226 | CLA  | MG-ND   | -4.48 | 1.96        | 2.05     |
| 21  | A     | 1123 | CLA  | MG-ND   | -4.47 | 1.96        | 2.05     |
| 24  | 2     | 503  | BCR  | C16-C17 | -4.47 | 1.29        | 1.43     |
| 21  | A     | 1128 | CLA  | MG-ND   | -4.47 | 1.96        | 2.05     |
| 24  | L     | 4001 | BCR  | C16-C17 | -4.46 | 1.29        | 1.43     |
| 24  | A     | 4005 | BCR  | C16-C17 | -4.43 | 1.29        | 1.43     |
| 24  | B     | 4003 | BCR  | C16-C17 | -4.41 | 1.29        | 1.43     |
| 24  | 3     | 504  | BCR  | C16-C17 | -4.41 | 1.29        | 1.43     |
| 24  | A     | 4003 | BCR  | C16-C17 | -4.40 | 1.29        | 1.43     |
| 21  | G     | 1603 | CLA  | MG-ND   | -4.40 | 1.97        | 2.05     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1013 | CLA  | MG-ND   | -4.40 | 1.97        | 2.05     |
| 21  | 3     | 611  | CLA  | MG-ND   | -4.38 | 1.97        | 2.05     |
| 24  | A     | 4007 | BCR  | C16-C17 | -4.38 | 1.29        | 1.43     |
| 21  | O     | 1803 | CLA  | MG-ND   | -4.38 | 1.97        | 2.05     |
| 28  | 2     | 806  | DGD  | O1G-C1A | 4.36  | 1.46        | 1.33     |
| 21  | A     | 1127 | CLA  | MG-ND   | -4.36 | 1.97        | 2.05     |
| 21  | 3     | 601  | CLA  | C1C-NC  | -4.36 | 1.31        | 1.37     |
| 24  | B     | 4002 | BCR  | C16-C17 | -4.36 | 1.29        | 1.43     |
| 20  | A     | 1011 | CL0  | C3D-C4D | -4.36 | 1.34        | 1.44     |
| 21  | A     | 1131 | CLA  | C1C-NC  | -4.33 | 1.31        | 1.37     |
| 21  | H     | 1701 | CLA  | C1C-NC  | -4.33 | 1.31        | 1.37     |
| 21  | 5     | 613  | CLA  | MG-ND   | -4.33 | 1.97        | 2.05     |
| 24  | H     | 4001 | BCR  | C16-C17 | -4.32 | 1.30        | 1.43     |
| 21  | 4     | 607  | CLA  | MG-ND   | -4.31 | 1.97        | 2.05     |
| 21  | J     | 1901 | CLA  | MG-ND   | -4.31 | 1.97        | 2.05     |
| 21  | A     | 1105 | CLA  | MG-ND   | -4.31 | 1.97        | 2.05     |
| 21  | B     | 1230 | CLA  | C1C-NC  | -4.31 | 1.31        | 1.37     |
| 21  | L     | 1502 | CLA  | MG-ND   | -4.30 | 1.97        | 2.05     |
| 24  | L     | 4002 | BCR  | C16-C17 | -4.30 | 1.30        | 1.43     |
| 24  | F     | 4001 | BCR  | C16-C17 | -4.30 | 1.30        | 1.43     |
| 21  | A     | 1113 | CLA  | MG-ND   | -4.30 | 1.97        | 2.05     |
| 21  | B     | 1223 | CLA  | MG-ND   | -4.28 | 1.97        | 2.05     |
| 28  | 3     | 805  | DGD  | O1G-C1A | 4.28  | 1.45        | 1.33     |
| 21  | A     | 1119 | CLA  | C1C-NC  | -4.28 | 1.31        | 1.37     |
| 24  | B     | 4001 | BCR  | C16-C17 | -4.28 | 1.30        | 1.43     |
| 21  | B     | 1217 | CLA  | MG-ND   | -4.27 | 1.97        | 2.05     |
| 21  | A     | 1119 | CLA  | MG-ND   | -4.26 | 1.97        | 2.05     |
| 21  | 5     | 602  | CLA  | MG-ND   | -4.26 | 1.97        | 2.05     |
| 21  | B     | 1219 | CLA  | MG-ND   | -4.26 | 1.97        | 2.05     |
| 21  | 3     | 603  | CLA  | C1C-NC  | -4.25 | 1.31        | 1.37     |
| 21  | B     | 1021 | CLA  | MG-ND   | -4.25 | 1.97        | 2.05     |
| 21  | B     | 1214 | CLA  | MG-ND   | -4.25 | 1.97        | 2.05     |
| 21  | A     | 1106 | CLA  | MG-ND   | -4.24 | 1.97        | 2.05     |
| 24  | J     | 4001 | BCR  | C16-C17 | -4.24 | 1.30        | 1.43     |
| 21  | B     | 1225 | CLA  | MG-ND   | -4.23 | 1.97        | 2.05     |
| 28  | B     | 5002 | DGD  | O1G-C1A | 4.23  | 1.45        | 1.33     |
| 21  | A     | 1104 | CLA  | MG-ND   | -4.23 | 1.97        | 2.05     |
| 21  | B     | 1205 | CLA  | MG-ND   | -4.23 | 1.97        | 2.05     |
| 21  | A     | 1128 | CLA  | C1C-NC  | -4.23 | 1.31        | 1.37     |
| 21  | B     | 1232 | CLA  | MG-ND   | -4.23 | 1.97        | 2.05     |
| 24  | I     | 4001 | BCR  | C16-C17 | -4.23 | 1.30        | 1.43     |
| 21  | A     | 1120 | CLA  | MG-ND   | -4.22 | 1.97        | 2.05     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 28  | 3     | 804  | DGD  | O1G-C1A | 4.22  | 1.45        | 1.33     |
| 24  | G     | 4001 | BCR  | C16-C17 | -4.22 | 1.30        | 1.43     |
| 24  | I     | 4002 | BCR  | C16-C17 | -4.22 | 1.30        | 1.43     |
| 21  | A     | 1124 | CLA  | MG-ND   | -4.22 | 1.97        | 2.05     |
| 21  | A     | 1125 | CLA  | MG-ND   | -4.22 | 1.97        | 2.05     |
| 21  | 2     | 604  | CLA  | MG-ND   | -4.21 | 1.97        | 2.05     |
| 24  | A     | 4002 | BCR  | C16-C17 | -4.21 | 1.30        | 1.43     |
| 21  | B     | 1221 | CLA  | MG-ND   | -4.21 | 1.97        | 2.05     |
| 21  | 5     | 608  | CLA  | C1C-NC  | -4.21 | 1.31        | 1.37     |
| 21  | B     | 1211 | CLA  | MG-ND   | -4.21 | 1.97        | 2.05     |
| 21  | B     | 1228 | CLA  | MG-ND   | -4.20 | 1.97        | 2.05     |
| 24  | K     | 4001 | BCR  | C16-C17 | -4.20 | 1.30        | 1.43     |
| 21  | 4     | 602  | CLA  | MG-ND   | -4.20 | 1.97        | 2.05     |
| 21  | 1     | 607  | CLA  | MG-ND   | -4.19 | 1.97        | 2.05     |
| 21  | 6     | 612  | CLA  | MG-ND   | -4.19 | 1.97        | 2.05     |
| 38  | 4     | 805  | LMK  | O2-C4   | 4.18  | 1.44        | 1.30     |
| 21  | A     | 1138 | CLA  | MG-ND   | -4.17 | 1.97        | 2.05     |
| 21  | 1     | 612  | CLA  | MG-ND   | -4.17 | 1.97        | 2.05     |
| 21  | B     | 1237 | CLA  | MG-ND   | -4.17 | 1.97        | 2.05     |
| 21  | A     | 1102 | CLA  | MG-ND   | -4.17 | 1.97        | 2.05     |
| 21  | 2     | 602  | CLA  | MG-ND   | -4.17 | 1.97        | 2.05     |
| 21  | A     | 1111 | CLA  | C1C-NC  | -4.16 | 1.31        | 1.37     |
| 21  | B     | 1220 | CLA  | MG-ND   | -4.16 | 1.97        | 2.05     |
| 21  | H     | 1702 | CLA  | C1C-NC  | -4.14 | 1.31        | 1.37     |
| 21  | B     | 1222 | CLA  | MG-ND   | -4.13 | 1.97        | 2.05     |
| 21  | A     | 1108 | CLA  | MG-ND   | -4.12 | 1.97        | 2.05     |
| 38  | 2     | 807  | LMK  | O2-C4   | 4.12  | 1.44        | 1.30     |
| 20  | A     | 1011 | CLO  | CHD-C4C | 4.12  | 1.48        | 1.39     |
| 21  | F     | 1302 | CLA  | MG-ND   | -4.12 | 1.97        | 2.05     |
| 21  | 4     | 615  | CLA  | MG-ND   | -4.12 | 1.97        | 2.05     |
| 21  | 5     | 607  | CLA  | C1C-NC  | -4.11 | 1.31        | 1.37     |
| 21  | 2     | 607  | CLA  | MG-ND   | -4.11 | 1.97        | 2.05     |
| 21  | 3     | 612  | CLA  | MG-ND   | -4.11 | 1.97        | 2.05     |
| 21  | 1     | 606  | CLA  | MG-ND   | -4.11 | 1.97        | 2.05     |
| 21  | 2     | 615  | CLA  | MG-ND   | -4.11 | 1.97        | 2.05     |
| 21  | K     | 1401 | CLA  | C3B-C2B | -4.10 | 1.34        | 1.40     |
| 24  | A     | 4001 | BCR  | C16-C17 | -4.10 | 1.30        | 1.43     |
| 21  | 2     | 612  | CLA  | MG-ND   | -4.10 | 1.97        | 2.05     |
| 21  | A     | 1139 | CLA  | MG-ND   | -4.09 | 1.97        | 2.05     |
| 21  | 5     | 614  | CLA  | C1C-NC  | -4.09 | 1.31        | 1.37     |
| 21  | A     | 1140 | CLA  | MG-ND   | -4.08 | 1.97        | 2.05     |
| 21  | B     | 1213 | CLA  | MG-ND   | -4.08 | 1.97        | 2.05     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 24  | O     | 4001 | BCR  | C16-C17 | -4.07 | 1.30        | 1.43     |
| 21  | B     | 1209 | CLA  | MG-ND   | -4.07 | 1.97        | 2.05     |
| 21  | 3     | 605  | CLA  | C1C-NC  | -4.07 | 1.31        | 1.37     |
| 21  | B     | 1231 | CLA  | MG-ND   | -4.07 | 1.97        | 2.05     |
| 24  | 1     | 504  | BCR  | C16-C17 | -4.06 | 1.30        | 1.43     |
| 21  | 3     | 608  | CLA  | MG-ND   | -4.06 | 1.97        | 2.05     |
| 21  | 6     | 607  | CLA  | MG-ND   | -4.05 | 1.97        | 2.05     |
| 21  | B     | 1238 | CLA  | MG-ND   | -4.05 | 1.97        | 2.05     |
| 21  | F     | 1301 | CLA  | MG-ND   | -4.05 | 1.97        | 2.05     |
| 21  | B     | 1215 | CLA  | MG-ND   | -4.05 | 1.97        | 2.05     |
| 21  | B     | 1224 | CLA  | MG-ND   | -4.04 | 1.97        | 2.05     |
| 21  | 1     | 604  | CLA  | MG-ND   | -4.04 | 1.97        | 2.05     |
| 21  | B     | 1236 | CLA  | MG-ND   | -4.04 | 1.97        | 2.05     |
| 21  | 1     | 613  | CLA  | MG-ND   | -4.03 | 1.97        | 2.05     |
| 21  | B     | 1210 | CLA  | MG-ND   | -4.03 | 1.97        | 2.05     |
| 21  | 1     | 602  | CLA  | MG-ND   | -4.03 | 1.97        | 2.05     |
| 21  | 6     | 609  | CLA  | MG-ND   | -4.02 | 1.97        | 2.05     |
| 21  | 4     | 605  | CLA  | MG-ND   | -4.02 | 1.97        | 2.05     |
| 21  | B     | 1204 | CLA  | MG-ND   | -4.02 | 1.97        | 2.05     |
| 21  | B     | 1203 | CLA  | MG-ND   | -4.01 | 1.97        | 2.05     |
| 21  | 4     | 608  | CLA  | MG-ND   | -4.01 | 1.97        | 2.05     |
| 21  | A     | 1141 | CLA  | MG-ND   | -4.01 | 1.97        | 2.05     |
| 21  | 5     | 607  | CLA  | MG-ND   | -4.01 | 1.97        | 2.05     |
| 21  | B     | 1230 | CLA  | MG-ND   | -4.01 | 1.97        | 2.05     |
| 21  | B     | 1202 | CLA  | MG-ND   | -4.00 | 1.97        | 2.05     |
| 21  | A     | 1109 | CLA  | MG-ND   | -4.00 | 1.97        | 2.05     |
| 21  | 1     | 608  | CLA  | MG-ND   | -4.00 | 1.97        | 2.05     |
| 21  | 3     | 606  | CLA  | MG-ND   | -4.00 | 1.97        | 2.05     |
| 21  | K     | 1401 | CLA  | MG-ND   | -3.99 | 1.97        | 2.05     |
| 21  | A     | 1137 | CLA  | MG-ND   | -3.99 | 1.97        | 2.05     |
| 21  | 4     | 612  | CLA  | MG-ND   | -3.99 | 1.97        | 2.05     |
| 36  | 4     | 613  | CHL  | C3B-C2B | -3.98 | 1.34        | 1.40     |
| 21  | 4     | 601  | CLA  | MG-ND   | -3.97 | 1.97        | 2.05     |
| 21  | 5     | 603  | CLA  | MG-ND   | -3.97 | 1.97        | 2.05     |
| 21  | A     | 1136 | CLA  | MG-ND   | -3.97 | 1.97        | 2.05     |
| 21  | O     | 1802 | CLA  | MG-ND   | -3.97 | 1.97        | 2.05     |
| 21  | 4     | 603  | CLA  | MG-ND   | -3.97 | 1.97        | 2.05     |
| 21  | B     | 1216 | CLA  | MG-ND   | -3.96 | 1.97        | 2.05     |
| 21  | A     | 1129 | CLA  | MG-ND   | -3.95 | 1.98        | 2.05     |
| 21  | B     | 1210 | CLA  | C1C-NC  | -3.95 | 1.31        | 1.37     |
| 21  | 2     | 606  | CLA  | MG-ND   | -3.95 | 1.98        | 2.05     |
| 21  | B     | 1240 | CLA  | MG-ND   | -3.95 | 1.98        | 2.05     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | 2     | 603  | CLA  | MG-ND   | -3.94 | 1.98        | 2.05     |
| 21  | 6     | 605  | CLA  | MG-ND   | -3.93 | 1.98        | 2.05     |
| 21  | 6     | 604  | CLA  | MG-ND   | -3.93 | 1.98        | 2.05     |
| 21  | 3     | 613  | CLA  | MG-ND   | -3.93 | 1.98        | 2.05     |
| 21  | 3     | 601  | CLA  | MG-ND   | -3.92 | 1.98        | 2.05     |
| 21  | B     | 1021 | CLA  | C1C-NC  | -3.92 | 1.31        | 1.37     |
| 21  | B     | 1227 | CLA  | MG-ND   | -3.92 | 1.98        | 2.05     |
| 21  | A     | 1105 | CLA  | C1C-NC  | -3.92 | 1.32        | 1.37     |
| 21  | B     | 1201 | CLA  | MG-ND   | -3.92 | 1.98        | 2.05     |
| 21  | A     | 1101 | CLA  | MG-ND   | -3.92 | 1.98        | 2.05     |
| 21  | 1     | 615  | CLA  | MG-ND   | -3.92 | 1.98        | 2.05     |
| 21  | B     | 1234 | CLA  | MG-ND   | -3.91 | 1.98        | 2.05     |
| 21  | 3     | 615  | CLA  | MG-ND   | -3.91 | 1.98        | 2.05     |
| 21  | B     | 1215 | CLA  | C1C-NC  | -3.91 | 1.32        | 1.37     |
| 21  | 3     | 613  | CLA  | C1C-NC  | -3.89 | 1.32        | 1.37     |
| 21  | B     | 1229 | CLA  | MG-ND   | -3.89 | 1.98        | 2.05     |
| 21  | 4     | 601  | CLA  | C1C-NC  | -3.89 | 1.32        | 1.37     |
| 21  | A     | 1122 | CLA  | MG-ND   | -3.89 | 1.98        | 2.05     |
| 21  | 2     | 608  | CLA  | MG-ND   | -3.88 | 1.98        | 2.05     |
| 21  | B     | 1220 | CLA  | C1C-NC  | -3.88 | 1.32        | 1.37     |
| 21  | 3     | 605  | CLA  | MG-ND   | -3.88 | 1.98        | 2.05     |
| 21  | A     | 1111 | CLA  | MG-ND   | -3.88 | 1.98        | 2.05     |
| 21  | 1     | 603  | CLA  | MG-ND   | -3.87 | 1.98        | 2.05     |
| 21  | A     | 1131 | CLA  | MG-ND   | -3.87 | 1.98        | 2.05     |
| 21  | 2     | 605  | CLA  | MG-ND   | -3.87 | 1.98        | 2.05     |
| 21  | 4     | 606  | CLA  | MG-ND   | -3.87 | 1.98        | 2.05     |
| 21  | A     | 1110 | CLA  | MG-ND   | -3.86 | 1.98        | 2.05     |
| 21  | 3     | 602  | CLA  | MG-ND   | -3.86 | 1.98        | 2.05     |
| 21  | 3     | 607  | CLA  | MG-ND   | -3.86 | 1.98        | 2.05     |
| 21  | 5     | 608  | CLA  | MG-ND   | -3.86 | 1.98        | 2.05     |
| 21  | 3     | 614  | CLA  | MG-ND   | -3.84 | 1.98        | 2.05     |
| 21  | B     | 1211 | CLA  | C1C-NC  | -3.84 | 1.32        | 1.37     |
| 21  | B     | 1205 | CLA  | C1C-NC  | -3.83 | 1.32        | 1.37     |
| 21  | 5     | 612  | CLA  | C1C-NC  | -3.83 | 1.32        | 1.37     |
| 21  | A     | 1139 | CLA  | C1C-NC  | -3.82 | 1.32        | 1.37     |
| 21  | L     | 1503 | CLA  | MG-ND   | -3.81 | 1.98        | 2.05     |
| 21  | B     | 1234 | CLA  | C1C-NC  | -3.80 | 1.32        | 1.37     |
| 21  | A     | 1133 | CLA  | C1C-NC  | -3.80 | 1.32        | 1.37     |
| 21  | B     | 1216 | CLA  | C1C-NC  | -3.79 | 1.32        | 1.37     |
| 39  | 2     | 808  | P3H  | O39-C40 | 3.79  | 1.45        | 1.34     |
| 21  | A     | 1130 | CLA  | C1C-NC  | -3.78 | 1.32        | 1.37     |
| 21  | 1     | 605  | CLA  | MG-ND   | -3.77 | 1.98        | 2.05     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1117 | CLA  | MG-ND   | -3.76 | 1.98        | 2.05     |
| 21  | O     | 1802 | CLA  | C1C-NC  | -3.75 | 1.32        | 1.37     |
| 21  | 6     | 613  | CLA  | MG-ND   | -3.75 | 1.98        | 2.05     |
| 21  | 1     | 615  | CLA  | C1C-NC  | -3.75 | 1.32        | 1.37     |
| 21  | F     | 1301 | CLA  | C1C-NC  | -3.75 | 1.32        | 1.37     |
| 21  | 4     | 609  | CLA  | C1C-NC  | -3.75 | 1.32        | 1.37     |
| 21  | 2     | 601  | CLA  | C1C-NC  | -3.74 | 1.32        | 1.37     |
| 21  | B     | 1238 | CLA  | C1C-NC  | -3.74 | 1.32        | 1.37     |
| 21  | 5     | 601  | CLA  | C4B-NB  | -3.73 | 1.31        | 1.35     |
| 21  | O     | 1801 | CLA  | MG-ND   | -3.73 | 1.98        | 2.05     |
| 21  | A     | 1106 | CLA  | C1C-NC  | -3.70 | 1.32        | 1.37     |
| 21  | A     | 1103 | CLA  | MG-ND   | -3.70 | 1.98        | 2.05     |
| 39  | 5     | 806  | P3H  | O39-C40 | 3.70  | 1.44        | 1.34     |
| 21  | 2     | 612  | CLA  | C1C-NC  | -3.70 | 1.32        | 1.37     |
| 21  | A     | 1109 | CLA  | C1C-NC  | -3.69 | 1.32        | 1.37     |
| 36  | 2     | 609  | CHL  | C3B-C2B | -3.69 | 1.35        | 1.40     |
| 20  | A     | 1011 | CL0  | OBD-CAD | 3.69  | 1.28        | 1.22     |
| 21  | B     | 1228 | CLA  | C1C-NC  | -3.69 | 1.32        | 1.37     |
| 21  | K     | 1401 | CLA  | C1C-NC  | -3.69 | 1.32        | 1.37     |
| 21  | B     | 1237 | CLA  | C1C-NC  | -3.67 | 1.32        | 1.37     |
| 21  | B     | 1229 | CLA  | C1C-NC  | -3.67 | 1.32        | 1.37     |
| 21  | A     | 1129 | CLA  | C1C-NC  | -3.66 | 1.32        | 1.37     |
| 21  | 4     | 609  | CLA  | MG-ND   | -3.66 | 1.98        | 2.05     |
| 21  | H     | 1702 | CLA  | CBB-CAB | 3.66  | 1.53        | 1.29     |
| 21  | 2     | 608  | CLA  | C1C-NC  | -3.65 | 1.32        | 1.37     |
| 21  | 2     | 605  | CLA  | C1C-NC  | -3.65 | 1.32        | 1.37     |
| 21  | B     | 1209 | CLA  | C1C-NC  | -3.65 | 1.32        | 1.37     |
| 21  | 3     | 612  | CLA  | C1C-NC  | -3.65 | 1.32        | 1.37     |
| 21  | A     | 1110 | CLA  | C1C-NC  | -3.64 | 1.32        | 1.37     |
| 21  | L     | 1502 | CLA  | C1C-NC  | -3.64 | 1.32        | 1.37     |
| 21  | B     | 1223 | CLA  | C1C-NC  | -3.63 | 1.32        | 1.37     |
| 21  | B     | 1226 | CLA  | C1C-NC  | -3.63 | 1.32        | 1.37     |
| 21  | 6     | 612  | CLA  | C1C-NC  | -3.63 | 1.32        | 1.37     |
| 21  | B     | 1204 | CLA  | C1C-NC  | -3.62 | 1.32        | 1.37     |
| 21  | B     | 1218 | CLA  | C1C-NC  | -3.62 | 1.32        | 1.37     |
| 21  | A     | 1126 | CLA  | C1C-NC  | -3.61 | 1.32        | 1.37     |
| 21  | 1     | 612  | CLA  | C1C-NC  | -3.61 | 1.32        | 1.37     |
| 21  | 5     | 602  | CLA  | C1C-NC  | -3.61 | 1.32        | 1.37     |
| 21  | B     | 1225 | CLA  | C1C-NC  | -3.60 | 1.32        | 1.37     |
| 21  | 2     | 606  | CLA  | C1C-NC  | -3.60 | 1.32        | 1.37     |
| 21  | A     | 1013 | CLA  | C1C-NC  | -3.60 | 1.32        | 1.37     |
| 21  | A     | 1122 | CLA  | C1C-NC  | -3.60 | 1.32        | 1.37     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | 4     | 608  | CLA  | C1C-NC  | -3.59 | 1.32        | 1.37     |
| 21  | B     | 1219 | CLA  | C1C-NC  | -3.59 | 1.32        | 1.37     |
| 21  | B     | 1222 | CLA  | C1C-NC  | -3.58 | 1.32        | 1.37     |
| 21  | A     | 1115 | CLA  | MG-ND   | -3.58 | 1.98        | 2.05     |
| 21  | 1     | 604  | CLA  | C1C-NC  | -3.58 | 1.32        | 1.37     |
| 21  | B     | 1231 | CLA  | C1C-NC  | -3.58 | 1.32        | 1.37     |
| 21  | 4     | 606  | CLA  | C1C-NC  | -3.58 | 1.32        | 1.37     |
| 21  | A     | 1140 | CLA  | C1C-NC  | -3.57 | 1.32        | 1.37     |
| 21  | B     | 1236 | CLA  | C1C-NC  | -3.57 | 1.32        | 1.37     |
| 36  | 1     | 610  | CHL  | C3B-C2B | -3.57 | 1.35        | 1.40     |
| 21  | A     | 1124 | CLA  | C1C-NC  | -3.57 | 1.32        | 1.37     |
| 21  | A     | 1120 | CLA  | C1C-NC  | -3.56 | 1.32        | 1.37     |
| 21  | A     | 1127 | CLA  | C1C-NC  | -3.56 | 1.32        | 1.37     |
| 21  | A     | 1103 | CLA  | C1C-NC  | -3.56 | 1.32        | 1.37     |
| 21  | B     | 1240 | CLA  | C1C-NC  | -3.56 | 1.32        | 1.37     |
| 21  | K     | 1403 | CLA  | MG-ND   | -3.55 | 1.98        | 2.05     |
| 21  | 4     | 607  | CLA  | C1C-NC  | -3.55 | 1.32        | 1.37     |
| 21  | A     | 1137 | CLA  | C1C-NC  | -3.55 | 1.32        | 1.37     |
| 21  | B     | 1224 | CLA  | C1C-NC  | -3.55 | 1.32        | 1.37     |
| 21  | A     | 1101 | CLA  | C1C-NC  | -3.53 | 1.32        | 1.37     |
| 21  | B     | 1202 | CLA  | C3B-C2B | -3.53 | 1.35        | 1.40     |
| 21  | A     | 1108 | CLA  | C1C-NC  | -3.53 | 1.32        | 1.37     |
| 21  | 4     | 612  | CLA  | C1C-NC  | -3.53 | 1.32        | 1.37     |
| 21  | F     | 1302 | CLA  | C1C-NC  | -3.53 | 1.32        | 1.37     |
| 21  | B     | 1022 | CLA  | MG-ND   | -3.52 | 1.98        | 2.05     |
| 21  | L     | 1501 | CLA  | C1C-NC  | -3.52 | 1.32        | 1.37     |
| 21  | 5     | 604  | CLA  | MG-ND   | -3.51 | 1.98        | 2.05     |
| 21  | 6     | 606  | CLA  | MG-ND   | -3.51 | 1.98        | 2.05     |
| 21  | 1     | 607  | CLA  | C1C-NC  | -3.51 | 1.32        | 1.37     |
| 21  | A     | 1116 | CLA  | MG-ND   | -3.51 | 1.98        | 2.05     |
| 21  | B     | 1213 | CLA  | C1C-NC  | -3.51 | 1.32        | 1.37     |
| 21  | A     | 1138 | CLA  | C1C-NC  | -3.50 | 1.32        | 1.37     |
| 21  | B     | 1227 | CLA  | C1C-NC  | -3.50 | 1.32        | 1.37     |
| 21  | A     | 1012 | CLA  | MG-ND   | -3.50 | 1.98        | 2.05     |
| 21  | A     | 1102 | CLA  | C1C-NC  | -3.50 | 1.32        | 1.37     |
| 21  | B     | 1023 | CLA  | MG-ND   | -3.50 | 1.98        | 2.05     |
| 21  | A     | 1113 | CLA  | C1C-NC  | -3.50 | 1.32        | 1.37     |
| 21  | B     | 1221 | CLA  | C1C-NC  | -3.50 | 1.32        | 1.37     |
| 21  | A     | 1112 | CLA  | MG-ND   | -3.50 | 1.98        | 2.05     |
| 21  | 2     | 603  | CLA  | C1C-NC  | -3.49 | 1.32        | 1.37     |
| 21  | B     | 1217 | CLA  | C1C-NC  | -3.49 | 1.32        | 1.37     |
| 21  | A     | 1114 | CLA  | MG-ND   | -3.49 | 1.98        | 2.05     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1123 | CLA  | C1C-NC  | -3.49 | 1.32        | 1.37     |
| 21  | 1     | 608  | CLA  | C1C-NC  | -3.49 | 1.32        | 1.37     |
| 21  | 3     | 607  | CLA  | C1C-NC  | -3.49 | 1.32        | 1.37     |
| 21  | 5     | 613  | CLA  | CBB-CAB | 3.49  | 1.52        | 1.29     |
| 21  | 5     | 614  | CLA  | CBB-CAB | 3.48  | 1.52        | 1.29     |
| 21  | 5     | 608  | CLA  | CBB-CAB | 3.48  | 1.52        | 1.29     |
| 21  | 6     | 608  | CLA  | MG-ND   | -3.48 | 1.98        | 2.05     |
| 21  | 4     | 602  | CLA  | C1C-NC  | -3.48 | 1.32        | 1.37     |
| 21  | A     | 1107 | CLA  | MG-ND   | -3.48 | 1.98        | 2.05     |
| 21  | B     | 1232 | CLA  | C1C-NC  | -3.48 | 1.32        | 1.37     |
| 21  | 2     | 604  | CLA  | C1C-NC  | -3.47 | 1.32        | 1.37     |
| 21  | 6     | 602  | CLA  | MG-ND   | -3.47 | 1.98        | 2.05     |
| 21  | 6     | 609  | CLA  | CBB-CAB | 3.47  | 1.52        | 1.29     |
| 21  | 4     | 604  | CLA  | MG-ND   | -3.46 | 1.98        | 2.05     |
| 21  | 5     | 607  | CLA  | CBB-CAB | 3.46  | 1.52        | 1.29     |
| 21  | B     | 1208 | CLA  | MG-ND   | -3.46 | 1.98        | 2.05     |
| 21  | 1     | 605  | CLA  | C1C-NC  | -3.46 | 1.32        | 1.37     |
| 21  | B     | 1235 | CLA  | MG-ND   | -3.46 | 1.98        | 2.05     |
| 21  | 4     | 605  | CLA  | C1C-NC  | -3.46 | 1.32        | 1.37     |
| 21  | A     | 1132 | CLA  | MG-ND   | -3.46 | 1.98        | 2.05     |
| 21  | A     | 1118 | CLA  | C3B-C2B | -3.45 | 1.35        | 1.40     |
| 21  | H     | 1701 | CLA  | CBB-CAB | 3.45  | 1.52        | 1.29     |
| 21  | B     | 1202 | CLA  | C1C-NC  | -3.45 | 1.32        | 1.37     |
| 21  | B     | 1214 | CLA  | C1C-NC  | -3.45 | 1.32        | 1.37     |
| 21  | O     | 1803 | CLA  | C1C-NC  | -3.45 | 1.32        | 1.37     |
| 21  | 5     | 605  | CLA  | MG-ND   | -3.45 | 1.99        | 2.05     |
| 21  | A     | 1118 | CLA  | C1C-NC  | -3.45 | 1.32        | 1.37     |
| 21  | L     | 1504 | CLA  | CBB-CAB | 3.44  | 1.52        | 1.29     |
| 21  | 5     | 603  | CLA  | C1C-NC  | -3.44 | 1.32        | 1.37     |
| 21  | 5     | 606  | CLA  | MG-ND   | -3.44 | 1.99        | 2.05     |
| 21  | A     | 1134 | CLA  | MG-ND   | -3.44 | 1.99        | 2.05     |
| 21  | 1     | 601  | CLA  | MG-ND   | -3.43 | 1.99        | 2.05     |
| 21  | L     | 1501 | CLA  | CBB-CAB | 3.43  | 1.52        | 1.29     |
| 21  | 6     | 603  | CLA  | MG-ND   | -3.43 | 1.99        | 2.05     |
| 21  | B     | 1239 | CLA  | MG-ND   | -3.43 | 1.99        | 2.05     |
| 21  | 6     | 601  | CLA  | MG-ND   | -3.43 | 1.99        | 2.05     |
| 21  | A     | 1121 | CLA  | MG-ND   | -3.43 | 1.99        | 2.05     |
| 21  | 1     | 611  | CLA  | MG-ND   | -3.43 | 1.99        | 2.05     |
| 21  | 6     | 605  | CLA  | C1C-NC  | -3.43 | 1.32        | 1.37     |
| 21  | 3     | 610  | CLA  | MG-ND   | -3.43 | 1.99        | 2.05     |
| 20  | A     | 1011 | CL0  | MG-NC   | 3.42  | 2.14        | 2.06     |
| 21  | 3     | 602  | CLA  | C1C-NC  | -3.42 | 1.32        | 1.37     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | 1     | 615  | CLA  | CBB-CAB | 3.41  | 1.51        | 1.29     |
| 21  | G     | 1601 | CLA  | MG-ND   | -3.41 | 1.99        | 2.05     |
| 21  | A     | 1135 | CLA  | C1C-NC  | -3.41 | 1.32        | 1.37     |
| 21  | B     | 1212 | CLA  | MG-ND   | -3.41 | 1.99        | 2.05     |
| 21  | B     | 1203 | CLA  | C1C-NC  | -3.41 | 1.32        | 1.37     |
| 21  | B     | 1207 | CLA  | MG-ND   | -3.40 | 1.99        | 2.05     |
| 21  | A     | 1141 | CLA  | C1C-NC  | -3.40 | 1.32        | 1.37     |
| 21  | A     | 1104 | CLA  | C1C-NC  | -3.40 | 1.32        | 1.37     |
| 21  | 2     | 608  | CLA  | CBB-CAB | 3.40  | 1.51        | 1.29     |
| 36  | 3     | 604  | CHL  | C1B-NB  | -3.40 | 1.32        | 1.35     |
| 21  | 2     | 615  | CLA  | C1C-NC  | -3.39 | 1.32        | 1.37     |
| 21  | K     | 1403 | CLA  | CBB-CAB | 3.39  | 1.51        | 1.29     |
| 21  | L     | 1503 | CLA  | C1C-NC  | -3.39 | 1.32        | 1.37     |
| 21  | 6     | 605  | CLA  | CBB-CAB | 3.39  | 1.51        | 1.29     |
| 21  | 1     | 602  | CLA  | C1C-NC  | -3.39 | 1.32        | 1.37     |
| 21  | 6     | 613  | CLA  | CBB-CAB | 3.39  | 1.51        | 1.29     |
| 21  | 5     | 603  | CLA  | CBB-CAB | 3.39  | 1.51        | 1.29     |
| 21  | K     | 1402 | CLA  | MG-ND   | -3.39 | 1.99        | 2.05     |
| 36  | 3     | 604  | CHL  | CBB-CAB | 3.39  | 1.51        | 1.29     |
| 21  | B     | 1219 | CLA  | C3B-C2B | -3.38 | 1.35        | 1.40     |
| 21  | G     | 1602 | CLA  | MG-ND   | -3.38 | 1.99        | 2.05     |
| 21  | A     | 1126 | CLA  | C3B-C2B | -3.38 | 1.35        | 1.40     |
| 21  | 6     | 604  | CLA  | C1C-NC  | -3.38 | 1.32        | 1.37     |
| 21  | 3     | 606  | CLA  | C1C-NC  | -3.37 | 1.32        | 1.37     |
| 21  | O     | 1803 | CLA  | CBB-CAB | 3.37  | 1.51        | 1.29     |
| 21  | A     | 1136 | CLA  | C1C-NC  | -3.37 | 1.32        | 1.37     |
| 21  | A     | 1117 | CLA  | CBB-CAB | 3.37  | 1.51        | 1.29     |
| 21  | 3     | 603  | CLA  | CBB-CAB | 3.37  | 1.51        | 1.29     |
| 21  | 1     | 606  | CLA  | CBB-CAB | 3.37  | 1.51        | 1.29     |
| 21  | K     | 1404 | CLA  | MG-ND   | -3.37 | 1.99        | 2.05     |
| 21  | 3     | 613  | CLA  | CBB-CAB | 3.37  | 1.51        | 1.29     |
| 21  | B     | 1206 | CLA  | MG-ND   | -3.37 | 1.99        | 2.05     |
| 21  | A     | 1136 | CLA  | CBB-CAB | 3.36  | 1.51        | 1.29     |
| 21  | B     | 1229 | CLA  | CBB-CAB | 3.36  | 1.51        | 1.29     |
| 21  | 5     | 612  | CLA  | CBB-CAB | 3.36  | 1.51        | 1.29     |
| 21  | L     | 1503 | CLA  | CBB-CAB | 3.36  | 1.51        | 1.29     |
| 21  | 4     | 615  | CLA  | C1C-NC  | -3.36 | 1.32        | 1.37     |
| 21  | G     | 1603 | CLA  | CBB-CAB | 3.36  | 1.51        | 1.29     |
| 21  | 3     | 611  | CLA  | C1C-NC  | -3.36 | 1.32        | 1.37     |
| 21  | A     | 1117 | CLA  | C1C-NC  | -3.35 | 1.32        | 1.37     |
| 21  | B     | 1211 | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | 3     | 607  | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | 1     | 613  | CLA  | C1C-NC  | -3.35 | 1.32        | 1.37     |
| 21  | K     | 1402 | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | B     | 1206 | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | B     | 1221 | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | 1     | 602  | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | 6     | 609  | CLA  | C1C-NC  | -3.35 | 1.32        | 1.37     |
| 21  | F     | 1302 | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | B     | 1212 | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | O     | 1801 | CLA  | CBB-CAB | 3.35  | 1.51        | 1.29     |
| 21  | B     | 1226 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | 4     | 612  | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | A     | 1120 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | B     | 1232 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | 1     | 611  | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | 2     | 607  | CLA  | C1C-NC  | -3.34 | 1.32        | 1.37     |
| 21  | 2     | 606  | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | A     | 1106 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | B     | 1201 | CLA  | C1C-NC  | -3.34 | 1.32        | 1.37     |
| 21  | 1     | 603  | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | 1     | 601  | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | B     | 1239 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | K     | 1404 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | A     | 1103 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | G     | 1602 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | A     | 1115 | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | 6     | 602  | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | 3     | 615  | CLA  | CBB-CAB | 3.34  | 1.51        | 1.29     |
| 21  | B     | 1222 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 6     | 603  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | B     | 1231 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 3     | 610  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | A     | 1129 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 5     | 604  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 6     | 608  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 6     | 601  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | B     | 1240 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 5     | 606  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 3     | 615  | CLA  | C1C-NC  | -3.33 | 1.32        | 1.37     |
| 21  | 3     | 602  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | A     | 1135 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 4     | 615  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 1     | 607  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | B     | 1225 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | B     | 1023 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | A     | 1012 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 2     | 601  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | A     | 1137 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | B     | 1228 | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 3     | 611  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 6     | 604  | CLA  | CBB-CAB | 3.33  | 1.51        | 1.29     |
| 21  | 6     | 607  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1114 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 4     | 603  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 5     | 602  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 36  | 6     | 610  | CHL  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | B     | 1208 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 31  | 3     | 803  | LMG  | C37-C36 | -3.32 | 1.32        | 1.51     |
| 21  | A     | 1141 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | G     | 1601 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 1     | 613  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1134 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | B     | 1203 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 3     | 606  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1105 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1132 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | B     | 1207 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | B     | 1235 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | B     | 1217 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1112 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | J     | 1901 | CLA  | C4B-NB  | -3.32 | 1.32        | 1.35     |
| 21  | A     | 1109 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1107 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 4     | 604  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 5     | 605  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 6     | 607  | CLA  | C1C-NC  | -3.32 | 1.32        | 1.37     |
| 21  | 4     | 606  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1127 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | B     | 1022 | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 2     | 615  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | 6     | 606  | CLA  | CBB-CAB | 3.32  | 1.51        | 1.29     |
| 21  | A     | 1124 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | B     | 1223 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | A     | 1130 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 36  | 5     | 609  | CHL  | CBB-CAB | 3.31  | 1.51        | 1.29     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 28  | B     | 5002 | DGD  | CDB-CCB | -3.31 | 1.33        | 1.51     |
| 21  | A     | 1128 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | B     | 1021 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | B     | 1209 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 2     | 607  | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | B     | 1204 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 2     | 612  | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 3     | 612  | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 2     | 602  | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 4     | 602  | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 1     | 608  | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | A     | 1138 | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 4     | 607  | CLA  | CBB-CAB | 3.31  | 1.51        | 1.29     |
| 21  | 4     | 608  | CLA  | CBB-CAB | 3.30  | 1.51        | 1.29     |
| 21  | A     | 1121 | CLA  | CBB-CAB | 3.30  | 1.51        | 1.29     |
| 21  | B     | 1224 | CLA  | CBB-CAB | 3.30  | 1.51        | 1.29     |
| 21  | A     | 1116 | CLA  | CBB-CAB | 3.30  | 1.51        | 1.29     |
| 21  | 3     | 608  | CLA  | CBB-CAB | 3.30  | 1.51        | 1.29     |
| 21  | A     | 1126 | CLA  | CBB-CAB | 3.29  | 1.51        | 1.29     |
| 36  | 2     | 611  | CHL  | C3B-C2B | -3.29 | 1.35        | 1.40     |
| 21  | B     | 1237 | CLA  | CBB-CAB | 3.29  | 1.51        | 1.29     |
| 28  | B     | 5002 | DGD  | CAB-C9B | -3.29 | 1.33        | 1.51     |
| 21  | B     | 1234 | CLA  | CBB-CAB | 3.29  | 1.51        | 1.29     |
| 21  | A     | 1122 | CLA  | CBB-CAB | 3.29  | 1.51        | 1.29     |
| 21  | A     | 1123 | CLA  | CBB-CAB | 3.29  | 1.51        | 1.29     |
| 28  | B     | 5002 | DGD  | CGB-CFB | -3.28 | 1.33        | 1.51     |
| 31  | F     | 5002 | LMG  | C19-C18 | -3.28 | 1.33        | 1.51     |
| 21  | A     | 1133 | CLA  | CBB-CAB | 3.28  | 1.51        | 1.29     |
| 21  | K     | 1403 | CLA  | C1C-NC  | -3.28 | 1.32        | 1.37     |
| 21  | 3     | 601  | CLA  | CBB-CAB | 3.27  | 1.51        | 1.29     |
| 21  | A     | 1101 | CLA  | CBB-CAB | 3.27  | 1.51        | 1.29     |
| 31  | 2     | 804  | LMG  | C19-C18 | -3.27 | 1.33        | 1.51     |
| 21  | B     | 1238 | CLA  | CBB-CAB | 3.27  | 1.51        | 1.29     |
| 21  | 1     | 605  | CLA  | CBB-CAB | 3.27  | 1.51        | 1.29     |
| 36  | 1     | 609  | CHL  | CBB-CAB | 3.27  | 1.51        | 1.29     |
| 21  | B     | 1219 | CLA  | CBB-CAB | 3.27  | 1.51        | 1.29     |
| 21  | 4     | 601  | CLA  | CBB-CAB | 3.27  | 1.51        | 1.29     |
| 21  | 1     | 606  | CLA  | C1C-NC  | -3.27 | 1.32        | 1.37     |
| 21  | B     | 1220 | CLA  | CBB-CAB | 3.27  | 1.50        | 1.29     |
| 21  | 4     | 609  | CLA  | CBB-CAB | 3.27  | 1.50        | 1.29     |
| 21  | B     | 1227 | CLA  | CBB-CAB | 3.26  | 1.50        | 1.29     |
| 21  | B     | 1210 | CLA  | CBB-CAB | 3.26  | 1.50        | 1.29     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 31  | 4     | 803  | LMG  | C37-C36 | -3.26 | 1.33        | 1.51     |
| 21  | A     | 1110 | CLA  | CBB-CAB | 3.26  | 1.50        | 1.29     |
| 21  | A     | 1131 | CLA  | CBB-CAB | 3.26  | 1.50        | 1.29     |
| 21  | B     | 1218 | CLA  | CBB-CAB | 3.26  | 1.50        | 1.29     |
| 21  | A     | 1118 | CLA  | CBB-CAB | 3.26  | 1.50        | 1.29     |
| 21  | 4     | 605  | CLA  | CBB-CAB | 3.26  | 1.50        | 1.29     |
| 21  | 1     | 612  | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | B     | 1205 | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | L     | 1504 | CLA  | MG-ND   | -3.25 | 1.99        | 2.05     |
| 21  | 2     | 604  | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | A     | 1140 | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | A     | 1119 | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | B     | 1230 | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | B     | 1216 | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | A     | 1013 | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 36  | 6     | 610  | CHL  | C4B-NB  | 3.25  | 1.38        | 1.35     |
| 28  | B     | 5002 | DGD  | CAA-C9A | -3.25 | 1.33        | 1.51     |
| 36  | 4     | 610  | CHL  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | 2     | 602  | CLA  | C1C-NC  | -3.25 | 1.33        | 1.37     |
| 21  | 3     | 605  | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | K     | 1401 | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | 3     | 614  | CLA  | CBB-CAB | 3.25  | 1.50        | 1.29     |
| 21  | J     | 1901 | CLA  | CBB-CAB | 3.24  | 1.50        | 1.29     |
| 21  | 5     | 614  | CLA  | MG-ND   | -3.24 | 1.99        | 2.05     |
| 21  | B     | 1230 | CLA  | C3B-C2B | -3.24 | 1.35        | 1.40     |
| 21  | B     | 1213 | CLA  | CBB-CAB | 3.24  | 1.50        | 1.29     |
| 21  | A     | 1119 | CLA  | C3B-C2B | -3.24 | 1.35        | 1.40     |
| 21  | 4     | 603  | CLA  | C1C-NC  | -3.24 | 1.33        | 1.37     |
| 21  | B     | 1201 | CLA  | CBB-CAB | 3.24  | 1.50        | 1.29     |
| 21  | A     | 1113 | CLA  | CBB-CAB | 3.24  | 1.50        | 1.29     |
| 21  | F     | 1301 | CLA  | CBB-CAB | 3.23  | 1.50        | 1.29     |
| 36  | 5     | 609  | CHL  | C4B-NB  | 3.23  | 1.38        | 1.35     |
| 21  | 1     | 603  | CLA  | C1C-NC  | -3.23 | 1.33        | 1.37     |
| 21  | A     | 1108 | CLA  | CBB-CAB | 3.22  | 1.50        | 1.29     |
| 21  | A     | 1125 | CLA  | CBB-CAB | 3.22  | 1.50        | 1.29     |
| 31  | 2     | 804  | LMG  | C37-C36 | -3.22 | 1.33        | 1.51     |
| 21  | A     | 1104 | CLA  | CBB-CAB | 3.21  | 1.50        | 1.29     |
| 21  | 2     | 605  | CLA  | CBB-CAB | 3.21  | 1.50        | 1.29     |
| 36  | 2     | 611  | CHL  | CBB-CAB | 3.21  | 1.50        | 1.29     |
| 20  | A     | 1011 | CL0  | C1D-ND  | -3.21 | 1.33        | 1.37     |
| 21  | B     | 1215 | CLA  | CBB-CAB | 3.21  | 1.50        | 1.29     |
| 31  | 4     | 802  | LMG  | C25-C24 | -3.21 | 1.33        | 1.51     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | 6     | 606  | CLA  | C1C-NC  | -3.20 | 1.33        | 1.37     |
| 21  | B     | 1236 | CLA  | CBB-CAB | 3.20  | 1.50        | 1.29     |
| 36  | 2     | 610  | CHL  | CBB-CAB | 3.20  | 1.50        | 1.29     |
| 31  | 3     | 803  | LMG  | C19-C18 | -3.20 | 1.33        | 1.51     |
| 31  | 3     | 803  | LMG  | C25-C24 | -3.20 | 1.33        | 1.51     |
| 21  | A     | 1139 | CLA  | CBB-CAB | 3.19  | 1.50        | 1.29     |
| 31  | 3     | 803  | LMG  | C22-C21 | -3.19 | 1.33        | 1.51     |
| 21  | A     | 1112 | CLA  | C1C-NC  | -3.19 | 1.33        | 1.37     |
| 31  | 4     | 802  | LMG  | C22-C21 | -3.18 | 1.33        | 1.51     |
| 21  | 1     | 604  | CLA  | CBB-CAB | 3.18  | 1.50        | 1.29     |
| 36  | 1     | 610  | CHL  | CBB-CAB | 3.18  | 1.50        | 1.29     |
| 31  | F     | 5002 | LMG  | C40-C39 | -3.18 | 1.33        | 1.51     |
| 21  | L     | 1504 | CLA  | C1C-NC  | -3.18 | 1.33        | 1.37     |
| 31  | 4     | 802  | LMG  | C19-C18 | -3.18 | 1.33        | 1.51     |
| 21  | B     | 1214 | CLA  | CBB-CAB | 3.17  | 1.50        | 1.29     |
| 21  | A     | 1102 | CLA  | CBB-CAB | 3.17  | 1.50        | 1.29     |
| 21  | B     | 1239 | CLA  | C1C-NC  | -3.17 | 1.33        | 1.37     |
| 31  | 2     | 804  | LMG  | C43-C42 | -3.17 | 1.33        | 1.51     |
| 21  | B     | 1023 | CLA  | C1C-NC  | -3.17 | 1.33        | 1.37     |
| 21  | L     | 1501 | CLA  | MG-ND   | -3.16 | 1.99        | 2.05     |
| 21  | A     | 1115 | CLA  | C1C-NC  | -3.16 | 1.33        | 1.37     |
| 21  | A     | 1111 | CLA  | CBB-CAB | 3.16  | 1.50        | 1.29     |
| 36  | 5     | 610  | CHL  | CBB-CAB | 3.16  | 1.50        | 1.29     |
| 31  | 2     | 804  | LMG  | C40-C39 | -3.16 | 1.33        | 1.51     |
| 21  | 6     | 612  | CLA  | CBB-CAB | 3.16  | 1.50        | 1.29     |
| 35  | 6     | 502  | XAT  | O24-C25 | -3.15 | 1.41        | 1.46     |
| 21  | 5     | 601  | CLA  | CBB-CAB | 3.15  | 1.50        | 1.29     |
| 21  | 5     | 606  | CLA  | C1C-NC  | -3.14 | 1.33        | 1.37     |
| 21  | A     | 1107 | CLA  | C1C-NC  | -3.14 | 1.33        | 1.37     |
| 21  | B     | 1208 | CLA  | C1C-NC  | -3.14 | 1.33        | 1.37     |
| 21  | 2     | 603  | CLA  | CBB-CAB | 3.14  | 1.50        | 1.29     |
| 21  | 3     | 608  | CLA  | C1C-NC  | -3.12 | 1.33        | 1.37     |
| 21  | B     | 1235 | CLA  | C1C-NC  | -3.12 | 1.33        | 1.37     |
| 36  | 2     | 613  | CHL  | CBB-CAB | 3.12  | 1.50        | 1.29     |
| 21  | B     | 1209 | CLA  | C3B-C2B | -3.12 | 1.36        | 1.40     |
| 21  | 1     | 601  | CLA  | C1C-NC  | -3.12 | 1.33        | 1.37     |
| 31  | F     | 5002 | LMG  | C43-C42 | -3.12 | 1.34        | 1.51     |
| 21  | 4     | 604  | CLA  | C1C-NC  | -3.12 | 1.33        | 1.37     |
| 21  | A     | 1132 | CLA  | C1C-NC  | -3.11 | 1.33        | 1.37     |
| 21  | 3     | 612  | CLA  | C3B-C2B | -3.11 | 1.36        | 1.40     |
| 21  | 6     | 613  | CLA  | C1C-NC  | -3.11 | 1.33        | 1.37     |
| 21  | 1     | 611  | CLA  | C1C-NC  | -3.10 | 1.33        | 1.37     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 31  | F     | 5002 | LMG  | C37-C36 | -3.10 | 1.34        | 1.51     |
| 21  | B     | 1240 | CLA  | C3B-C2B | -3.10 | 1.36        | 1.40     |
| 21  | 5     | 604  | CLA  | C1C-NC  | -3.09 | 1.33        | 1.37     |
| 21  | A     | 1114 | CLA  | C1C-NC  | -3.08 | 1.33        | 1.37     |
| 21  | A     | 1116 | CLA  | C1C-NC  | -3.08 | 1.33        | 1.37     |
| 36  | 2     | 613  | CHL  | C4B-NB  | 3.08  | 1.38        | 1.35     |
| 21  | J     | 1901 | CLA  | C3B-C2B | -3.08 | 1.36        | 1.40     |
| 21  | K     | 1402 | CLA  | C1C-NC  | -3.08 | 1.33        | 1.37     |
| 21  | L     | 1502 | CLA  | CBB-CAB | 3.08  | 1.49        | 1.29     |
| 21  | B     | 1212 | CLA  | C1C-NC  | -3.08 | 1.33        | 1.37     |
| 39  | 5     | 806  | P3H  | O19-C17 | 3.07  | 1.42        | 1.33     |
| 36  | 4     | 613  | CHL  | C4B-NB  | 3.07  | 1.37        | 1.35     |
| 21  | B     | 1202 | CLA  | CBB-CAB | 3.07  | 1.49        | 1.29     |
| 21  | 3     | 610  | CLA  | C1C-NC  | -3.07 | 1.33        | 1.37     |
| 21  | 6     | 608  | CLA  | C1C-NC  | -3.06 | 1.33        | 1.37     |
| 21  | A     | 1134 | CLA  | C1C-NC  | -3.06 | 1.33        | 1.37     |
| 21  | 6     | 603  | CLA  | C1C-NC  | -3.06 | 1.33        | 1.37     |
| 32  | 5     | 805  | 4RF  | O40-C41 | 3.06  | 1.42        | 1.33     |
| 21  | B     | 1207 | CLA  | C1C-NC  | -3.06 | 1.33        | 1.37     |
| 21  | A     | 1012 | CLA  | C1C-NC  | -3.05 | 1.33        | 1.37     |
| 21  | B     | 1022 | CLA  | C1C-NC  | -3.05 | 1.33        | 1.37     |
| 21  | 6     | 602  | CLA  | C1C-NC  | -3.05 | 1.33        | 1.37     |
| 20  | A     | 1011 | CL0  | C3D-C2D | 3.04  | 1.47        | 1.39     |
| 21  | 6     | 601  | CLA  | C1C-NC  | -3.04 | 1.33        | 1.37     |
| 21  | 2     | 603  | CLA  | C3B-C2B | -3.04 | 1.36        | 1.40     |
| 36  | 4     | 613  | CHL  | CBB-CAB | 3.03  | 1.49        | 1.29     |
| 21  | G     | 1601 | CLA  | C1C-NC  | -3.03 | 1.33        | 1.37     |
| 21  | G     | 1602 | CLA  | C1C-NC  | -3.03 | 1.33        | 1.37     |
| 21  | O     | 1801 | CLA  | C1C-NC  | -3.03 | 1.33        | 1.37     |
| 36  | 2     | 609  | CHL  | CBB-CAB | 3.03  | 1.49        | 1.29     |
| 21  | 5     | 605  | CLA  | C1C-NC  | -3.02 | 1.33        | 1.37     |
| 36  | 1     | 610  | CHL  | C3A-C2A | -3.02 | 1.46        | 1.54     |
| 39  | 2     | 808  | P3H  | O19-C17 | 3.02  | 1.42        | 1.33     |
| 21  | B     | 1206 | CLA  | C1C-NC  | -3.02 | 1.33        | 1.37     |
| 36  | 4     | 610  | CHL  | C4B-NB  | 3.01  | 1.37        | 1.35     |
| 21  | 5     | 613  | CLA  | C1C-NC  | -3.01 | 1.33        | 1.37     |
| 21  | A     | 1121 | CLA  | C1C-NC  | -3.00 | 1.33        | 1.37     |
| 34  | 1     | 501  | LUT  | C22-C21 | -2.99 | 1.51        | 1.54     |
| 21  | 1     | 608  | CLA  | C3B-C2B | -2.98 | 1.36        | 1.40     |
| 21  | K     | 1404 | CLA  | C1C-NC  | -2.98 | 1.33        | 1.37     |
| 36  | 5     | 610  | CHL  | C3B-C2B | -2.98 | 1.36        | 1.40     |
| 21  | A     | 1104 | CLA  | C3B-C2B | -2.95 | 1.36        | 1.40     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1102 | CLA  | C3B-C2B | -2.95 | 1.36        | 1.40     |
| 21  | A     | 1113 | CLA  | C3B-C2B | -2.94 | 1.36        | 1.40     |
| 36  | 4     | 611  | CHL  | C4B-NB  | 2.94  | 1.37        | 1.35     |
| 35  | 2     | 502  | XAT  | O24-C25 | -2.93 | 1.42        | 1.46     |
| 21  | 5     | 601  | CLA  | C3D-C4D | -2.93 | 1.37        | 1.44     |
| 21  | 3     | 603  | CLA  | C3B-C2B | -2.92 | 1.36        | 1.40     |
| 21  | H     | 1701 | CLA  | C4-C3   | -2.90 | 1.43        | 1.50     |
| 21  | 6     | 604  | CLA  | CHC-C1C | 2.90  | 1.42        | 1.35     |
| 21  | B     | 1205 | CLA  | C3B-C2B | -2.89 | 1.36        | 1.40     |
| 21  | 3     | 607  | CLA  | C3B-C2B | -2.89 | 1.36        | 1.40     |
| 21  | G     | 1603 | CLA  | C1C-NC  | -2.89 | 1.33        | 1.37     |
| 21  | A     | 1136 | CLA  | CHC-C1C | 2.89  | 1.42        | 1.35     |
| 21  | 4     | 605  | CLA  | C3B-C2B | -2.88 | 1.36        | 1.40     |
| 39  | 2     | 808  | P3H  | C55-C54 | -2.88 | 1.35        | 1.51     |
| 21  | F     | 1301 | CLA  | C3B-C2B | -2.87 | 1.36        | 1.40     |
| 36  | 2     | 609  | CHL  | C4B-NB  | 2.87  | 1.37        | 1.35     |
| 21  | 3     | 602  | CLA  | C3B-C2B | -2.87 | 1.36        | 1.40     |
| 21  | 2     | 605  | CLA  | C3B-C2B | -2.87 | 1.36        | 1.40     |
| 21  | H     | 1701 | CLA  | C3B-C2B | -2.86 | 1.36        | 1.40     |
| 21  | A     | 1130 | CLA  | CHC-C1C | 2.86  | 1.42        | 1.35     |
| 21  | A     | 1133 | CLA  | C1D-ND  | -2.85 | 1.34        | 1.37     |
| 21  | 2     | 607  | CLA  | C3B-C2B | -2.85 | 1.36        | 1.40     |
| 21  | 2     | 615  | CLA  | C3B-C2B | -2.85 | 1.36        | 1.40     |
| 21  | 2     | 606  | CLA  | C3B-C2B | -2.85 | 1.36        | 1.40     |
| 21  | H     | 1701 | CLA  | MG-ND   | -2.85 | 2.00        | 2.05     |
| 21  | A     | 1110 | CLA  | C3B-C2B | -2.85 | 1.36        | 1.40     |
| 21  | B     | 1217 | CLA  | C3B-C2B | -2.85 | 1.36        | 1.40     |
| 21  | B     | 1232 | CLA  | C3B-C2B | -2.84 | 1.36        | 1.40     |
| 21  | A     | 1121 | CLA  | CHC-C1C | 2.84  | 1.42        | 1.35     |
| 21  | B     | 1229 | CLA  | CHC-C1C | 2.82  | 1.42        | 1.35     |
| 21  | 6     | 601  | CLA  | CHC-C1C | 2.82  | 1.42        | 1.35     |
| 21  | B     | 1214 | CLA  | C3B-C2B | -2.82 | 1.36        | 1.40     |
| 21  | L     | 1501 | CLA  | CHC-C1C | 2.82  | 1.42        | 1.35     |
| 21  | O     | 1801 | CLA  | CAC-C3C | -2.82 | 1.44        | 1.50     |
| 21  | 3     | 614  | CLA  | C1C-NC  | -2.82 | 1.33        | 1.37     |
| 21  | A     | 1101 | CLA  | CHC-C1C | 2.81  | 1.42        | 1.35     |
| 21  | 4     | 607  | CLA  | C3B-C2B | -2.81 | 1.36        | 1.40     |
| 21  | K     | 1404 | CLA  | CHC-C1C | 2.81  | 1.42        | 1.35     |
| 36  | 5     | 610  | CHL  | C4B-NB  | 2.81  | 1.37        | 1.35     |
| 21  | 6     | 603  | CLA  | CHC-C1C | 2.81  | 1.42        | 1.35     |
| 21  | L     | 1504 | CLA  | CHC-C1C | 2.81  | 1.42        | 1.35     |
| 21  | B     | 1239 | CLA  | CHC-C1C | 2.80  | 1.42        | 1.35     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | B     | 1208 | CLA  | CHC-C1C | 2.80  | 1.42        | 1.35     |
| 21  | 1     | 601  | CLA  | CHC-C1C | 2.80  | 1.42        | 1.35     |
| 21  | 5     | 604  | CLA  | CHC-C1C | 2.80  | 1.42        | 1.35     |
| 21  | 2     | 608  | CLA  | C3B-C2B | -2.80 | 1.36        | 1.40     |
| 21  | 1     | 611  | CLA  | CHC-C1C | 2.80  | 1.42        | 1.35     |
| 21  | A     | 1134 | CLA  | CHC-C1C | 2.79  | 1.42        | 1.35     |
| 21  | K     | 1402 | CLA  | CHC-C1C | 2.79  | 1.42        | 1.35     |
| 21  | 4     | 615  | CLA  | C3B-C2B | -2.79 | 1.36        | 1.40     |
| 21  | B     | 1202 | CLA  | CHC-C1C | 2.79  | 1.42        | 1.35     |
| 21  | A     | 1140 | CLA  | C3B-C2B | -2.78 | 1.36        | 1.40     |
| 21  | B     | 1206 | CLA  | CHC-C1C | 2.78  | 1.42        | 1.35     |
| 21  | G     | 1601 | CLA  | CHC-C1C | 2.78  | 1.42        | 1.35     |
| 21  | 3     | 610  | CLA  | CHC-C1C | 2.78  | 1.42        | 1.35     |
| 21  | 6     | 602  | CLA  | CHC-C1C | 2.77  | 1.42        | 1.35     |
| 21  | A     | 1012 | CLA  | CHC-C1C | 2.77  | 1.42        | 1.35     |
| 21  | 4     | 604  | CLA  | CHC-C1C | 2.77  | 1.42        | 1.35     |
| 21  | 5     | 612  | CLA  | C3D-C4D | -2.77 | 1.37        | 1.44     |
| 21  | B     | 1204 | CLA  | C3B-C2B | -2.76 | 1.36        | 1.40     |
| 21  | 1     | 604  | CLA  | CHC-C1C | 2.76  | 1.42        | 1.35     |
| 21  | G     | 1602 | CLA  | CHC-C1C | 2.76  | 1.42        | 1.35     |
| 21  | B     | 1222 | CLA  | CHC-C1C | 2.76  | 1.42        | 1.35     |
| 21  | B     | 1023 | CLA  | CHC-C1C | 2.76  | 1.42        | 1.35     |
| 21  | B     | 1213 | CLA  | CHC-C1C | 2.76  | 1.42        | 1.35     |
| 21  | 5     | 601  | CLA  | CMA-C3A | -2.76 | 1.47        | 1.53     |
| 21  | B     | 1212 | CLA  | CHC-C1C | 2.75  | 1.42        | 1.35     |
| 36  | 1     | 609  | CHL  | C4B-NB  | 2.75  | 1.37        | 1.35     |
| 21  | B     | 1218 | CLA  | C3B-C2B | -2.75 | 1.36        | 1.40     |
| 21  | 1     | 607  | CLA  | C3B-C2B | -2.75 | 1.36        | 1.40     |
| 21  | B     | 1207 | CLA  | CHC-C1C | 2.75  | 1.42        | 1.35     |
| 21  | B     | 1216 | CLA  | C3B-C2B | -2.75 | 1.36        | 1.40     |
| 21  | 5     | 605  | CLA  | CHC-C1C | 2.75  | 1.42        | 1.35     |
| 21  | A     | 1115 | CLA  | CHC-C1C | 2.74  | 1.42        | 1.35     |
| 21  | A     | 1112 | CLA  | CHC-C1C | 2.74  | 1.42        | 1.35     |
| 39  | 2     | 808  | P3H  | P24-O27 | 2.74  | 1.67        | 1.60     |
| 21  | 5     | 606  | CLA  | CHC-C1C | 2.74  | 1.42        | 1.35     |
| 20  | A     | 1011 | CL0  | C4D-CHA | 2.73  | 1.48        | 1.38     |
| 21  | A     | 1137 | CLA  | CHC-C1C | 2.73  | 1.42        | 1.35     |
| 21  | B     | 1022 | CLA  | CHC-C1C | 2.73  | 1.42        | 1.35     |
| 36  | 4     | 610  | CHL  | C3B-C2B | -2.73 | 1.36        | 1.40     |
| 21  | 4     | 609  | CLA  | C3B-C2B | -2.73 | 1.36        | 1.40     |
| 36  | 1     | 609  | CHL  | C3B-C2B | -2.72 | 1.36        | 1.40     |
| 21  | B     | 1220 | CLA  | C3B-C2B | -2.72 | 1.36        | 1.40     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1116 | CLA  | CHC-C1C | 2.72  | 1.41        | 1.35     |
| 36  | 4     | 611  | CHL  | CBB-CAB | 2.72  | 1.47        | 1.29     |
| 21  | 6     | 606  | CLA  | CHC-C1C | 2.72  | 1.41        | 1.35     |
| 21  | O     | 1801 | CLA  | C3B-C2B | -2.72 | 1.36        | 1.40     |
| 21  | B     | 1211 | CLA  | CHC-C1C | 2.72  | 1.41        | 1.35     |
| 21  | A     | 1111 | CLA  | C3B-C2B | -2.71 | 1.36        | 1.40     |
| 21  | B     | 1235 | CLA  | CHC-C1C | 2.71  | 1.41        | 1.35     |
| 21  | A     | 1107 | CLA  | CHC-C1C | 2.71  | 1.41        | 1.35     |
| 35  | 1     | 502  | XAT  | O24-C25 | -2.71 | 1.42        | 1.46     |
| 21  | L     | 1502 | CLA  | C4B-NB  | -2.70 | 1.32        | 1.35     |
| 21  | A     | 1118 | CLA  | C3D-C4D | -2.70 | 1.38        | 1.44     |
| 21  | A     | 1102 | CLA  | CHC-C1C | 2.69  | 1.41        | 1.35     |
| 21  | 3     | 608  | CLA  | CHC-C1C | 2.69  | 1.41        | 1.35     |
| 21  | O     | 1802 | CLA  | CHC-C1C | 2.69  | 1.41        | 1.35     |
| 20  | A     | 1011 | CL0  | C1B-CHB | 2.69  | 1.48        | 1.41     |
| 21  | B     | 1237 | CLA  | CHC-C1C | 2.69  | 1.41        | 1.35     |
| 21  | 6     | 608  | CLA  | CHC-C1C | 2.69  | 1.41        | 1.35     |
| 21  | A     | 1114 | CLA  | CHC-C1C | 2.68  | 1.41        | 1.35     |
| 24  | L     | 4002 | BCR  | C35-C13 | -2.68 | 1.45        | 1.50     |
| 21  | 4     | 603  | CLA  | CHC-C1C | 2.68  | 1.41        | 1.35     |
| 24  | J     | 4002 | BCR  | C12-C13 | -2.67 | 1.40        | 1.45     |
| 21  | 3     | 601  | CLA  | C3B-C2B | -2.67 | 1.36        | 1.40     |
| 21  | A     | 1132 | CLA  | CHC-C1C | 2.67  | 1.41        | 1.35     |
| 21  | 6     | 605  | CLA  | CHC-C1C | 2.67  | 1.41        | 1.35     |
| 21  | B     | 1210 | CLA  | C3B-C2B | -2.67 | 1.36        | 1.40     |
| 36  | 2     | 610  | CHL  | C1B-NB  | -2.67 | 1.32        | 1.35     |
| 21  | 5     | 613  | CLA  | CHC-C1C | 2.66  | 1.41        | 1.35     |
| 21  | 2     | 601  | CLA  | C3B-C2B | -2.66 | 1.36        | 1.40     |
| 21  | A     | 1104 | CLA  | C3D-C4D | -2.66 | 1.38        | 1.44     |
| 21  | A     | 1135 | CLA  | C3D-C4D | -2.66 | 1.38        | 1.44     |
| 21  | A     | 1122 | CLA  | C3B-C2B | -2.66 | 1.36        | 1.40     |
| 20  | A     | 1011 | CL0  | C4B-CHC | 2.66  | 1.48        | 1.41     |
| 21  | 5     | 603  | CLA  | CHC-C1C | 2.66  | 1.41        | 1.35     |
| 33  | 1     | 806  | PTY  | O7-C6   | -2.66 | 1.39        | 1.46     |
| 21  | 2     | 602  | CLA  | C3B-C2B | -2.65 | 1.36        | 1.40     |
| 21  | 5     | 612  | CLA  | C1D-ND  | -2.65 | 1.34        | 1.37     |
| 21  | 5     | 612  | CLA  | OBD-CAD | -2.65 | 1.17        | 1.22     |
| 21  | 1     | 606  | CLA  | CHC-C1C | 2.64  | 1.41        | 1.35     |
| 21  | 4     | 602  | CLA  | C3B-C2B | -2.64 | 1.36        | 1.40     |
| 21  | 2     | 604  | CLA  | CHC-C1C | 2.64  | 1.41        | 1.35     |
| 21  | 3     | 607  | CLA  | CHC-C1C | 2.63  | 1.41        | 1.35     |
| 21  | K     | 1403 | CLA  | C3B-C2B | -2.63 | 1.36        | 1.40     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1111 | CLA  | C4B-NB  | -2.63 | 1.32        | 1.35     |
| 21  | F     | 1302 | CLA  | C3B-C2B | -2.62 | 1.36        | 1.40     |
| 21  | 6     | 607  | CLA  | CHC-C1C | 2.62  | 1.41        | 1.35     |
| 21  | A     | 1126 | CLA  | CHC-C1C | 2.62  | 1.41        | 1.35     |
| 21  | 1     | 613  | CLA  | CHC-C1C | 2.62  | 1.41        | 1.35     |
| 21  | 1     | 603  | CLA  | CHC-C1C | 2.62  | 1.41        | 1.35     |
| 21  | 4     | 608  | CLA  | C3B-C2B | -2.62 | 1.36        | 1.40     |
| 21  | 3     | 612  | CLA  | CHC-C1C | 2.62  | 1.41        | 1.35     |
| 21  | A     | 1119 | CLA  | CHC-C1C | 2.61  | 1.41        | 1.35     |
| 21  | 4     | 601  | CLA  | CHC-C1C | 2.61  | 1.41        | 1.35     |
| 21  | L     | 1503 | CLA  | CHC-C1C | 2.61  | 1.41        | 1.35     |
| 21  | 1     | 602  | CLA  | CHC-C1C | 2.61  | 1.41        | 1.35     |
| 21  | 2     | 601  | CLA  | CHC-C1C | 2.60  | 1.41        | 1.35     |
| 21  | A     | 1128 | CLA  | C3B-C2B | -2.60 | 1.36        | 1.40     |
| 35  | 6     | 504  | XAT  | C24-C23 | -2.60 | 1.48        | 1.52     |
| 21  | B     | 1240 | CLA  | CHC-C1C | 2.59  | 1.41        | 1.35     |
| 36  | 3     | 604  | CHL  | C3A-C2A | -2.59 | 1.47        | 1.54     |
| 21  | B     | 1224 | CLA  | CHC-C1C | 2.59  | 1.41        | 1.35     |
| 21  | B     | 1209 | CLA  | CHC-C1C | 2.59  | 1.41        | 1.35     |
| 21  | 1     | 605  | CLA  | C3B-C2B | -2.59 | 1.36        | 1.40     |
| 21  | A     | 1110 | CLA  | CHC-C1C | 2.59  | 1.41        | 1.35     |
| 21  | 4     | 612  | CLA  | CHC-C1C | 2.59  | 1.41        | 1.35     |
| 24  | B     | 4003 | BCR  | C12-C13 | -2.59 | 1.40        | 1.45     |
| 36  | 2     | 610  | CHL  | C1C-NC  | -2.58 | 1.33        | 1.37     |
| 21  | B     | 1231 | CLA  | C3B-C2B | -2.58 | 1.36        | 1.40     |
| 21  | A     | 1124 | CLA  | CHC-C1C | 2.58  | 1.41        | 1.35     |
| 21  | B     | 1226 | CLA  | C3D-C4D | -2.58 | 1.38        | 1.44     |
| 33  | 3     | 807  | PTY  | O7-C6   | -2.58 | 1.40        | 1.46     |
| 39  | 5     | 806  | P3H  | P24-O27 | 2.58  | 1.67        | 1.60     |
| 39  | 2     | 808  | P3H  | C52-C51 | -2.57 | 1.37        | 1.51     |
| 21  | 5     | 602  | CLA  | CHC-C1C | 2.57  | 1.41        | 1.35     |
| 36  | 2     | 611  | CHL  | C1C-NC  | -2.57 | 1.34        | 1.37     |
| 21  | B     | 1231 | CLA  | CHC-C1C | 2.57  | 1.41        | 1.35     |
| 21  | 3     | 605  | CLA  | CHC-C1C | 2.57  | 1.41        | 1.35     |
| 21  | A     | 1108 | CLA  | CHC-C1C | 2.57  | 1.41        | 1.35     |
| 20  | A     | 1011 | CL0  | C1C-NC  | -2.57 | 1.34        | 1.37     |
| 31  | 3     | 802  | LMG  | C19-C18 | -2.57 | 1.33        | 1.51     |
| 21  | 1     | 615  | CLA  | C3B-C2B | -2.57 | 1.36        | 1.40     |
| 21  | 3     | 608  | CLA  | C3B-C2B | -2.57 | 1.36        | 1.40     |
| 21  | 4     | 612  | CLA  | C3B-C2B | -2.57 | 1.36        | 1.40     |
| 21  | A     | 1141 | CLA  | CHC-C1C | 2.57  | 1.41        | 1.35     |
| 21  | B     | 1203 | CLA  | C3B-C2B | -2.56 | 1.36        | 1.40     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 32  | L     | 5002 | 4RF  | O18-C16 | 2.56  | 1.40        | 1.33     |
| 29  | 5     | 807  | 3PH  | O21-C21 | 2.56  | 1.41        | 1.34     |
| 21  | B     | 1224 | CLA  | C3B-C2B | -2.56 | 1.36        | 1.40     |
| 36  | 1     | 610  | CHL  | C4B-NB  | 2.56  | 1.37        | 1.35     |
| 21  | A     | 1118 | CLA  | C3A-C2A | -2.56 | 1.47        | 1.54     |
| 21  | 2     | 615  | CLA  | CHC-C1C | 2.55  | 1.41        | 1.35     |
| 21  | 3     | 615  | CLA  | C3B-C2B | -2.55 | 1.36        | 1.40     |
| 21  | B     | 1201 | CLA  | C3B-C2B | -2.55 | 1.36        | 1.40     |
| 29  | 5     | 807  | 3PH  | O31-C31 | 2.55  | 1.40        | 1.33     |
| 24  | B     | 4006 | BCR  | C40-C30 | -2.55 | 1.48        | 1.53     |
| 21  | K     | 1401 | CLA  | C4B-NB  | -2.54 | 1.32        | 1.35     |
| 21  | 2     | 603  | CLA  | CHC-C1C | 2.54  | 1.41        | 1.35     |
| 21  | 3     | 602  | CLA  | CHC-C1C | 2.54  | 1.41        | 1.35     |
| 21  | 3     | 606  | CLA  | CHC-C1C | 2.54  | 1.41        | 1.35     |
| 21  | 6     | 613  | CLA  | CHC-C1C | 2.53  | 1.41        | 1.35     |
| 21  | 4     | 605  | CLA  | CHC-C1C | 2.53  | 1.41        | 1.35     |
| 21  | B     | 1227 | CLA  | C3B-C2B | -2.53 | 1.36        | 1.40     |
| 21  | 3     | 608  | CLA  | C1C-C2C | 2.53  | 1.49        | 1.44     |
| 21  | 1     | 608  | CLA  | CHC-C1C | 2.53  | 1.41        | 1.35     |
| 21  | A     | 1124 | CLA  | C3B-C2B | -2.52 | 1.36        | 1.40     |
| 21  | A     | 1131 | CLA  | C3B-C2B | -2.52 | 1.36        | 1.40     |
| 21  | A     | 1103 | CLA  | CHC-C1C | 2.52  | 1.41        | 1.35     |
| 21  | 3     | 615  | CLA  | CHC-C1C | 2.52  | 1.41        | 1.35     |
| 21  | 4     | 615  | CLA  | CHC-C1C | 2.52  | 1.41        | 1.35     |
| 21  | 2     | 612  | CLA  | CHC-C1C | 2.52  | 1.41        | 1.35     |
| 21  | B     | 1204 | CLA  | CHC-C1C | 2.51  | 1.41        | 1.35     |
| 21  | B     | 1206 | CLA  | C3B-C2B | -2.51 | 1.36        | 1.40     |
| 21  | 4     | 606  | CLA  | CHC-C1C | 2.51  | 1.41        | 1.35     |
| 21  | 6     | 612  | CLA  | CHC-C1C | 2.51  | 1.41        | 1.35     |
| 21  | 1     | 605  | CLA  | CHC-C1C | 2.51  | 1.41        | 1.35     |
| 21  | 1     | 604  | CLA  | CMA-C3A | -2.51 | 1.47        | 1.53     |
| 21  | B     | 1234 | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 21  | 3     | 603  | CLA  | C3D-C4D | -2.50 | 1.38        | 1.44     |
| 21  | 6     | 609  | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 21  | A     | 1113 | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 21  | A     | 1134 | CLA  | C3B-C2B | -2.50 | 1.36        | 1.40     |
| 21  | B     | 1236 | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 21  | B     | 1216 | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 21  | 2     | 602  | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 21  | O     | 1803 | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 21  | 2     | 605  | CLA  | CHC-C1C | 2.50  | 1.41        | 1.35     |
| 33  | O     | 5002 | PTY  | O7-C6   | -2.49 | 1.40        | 1.46     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 20  | A     | 1011 | CL0  | C1D-C2D | 2.49  | 1.50        | 1.45     |
| 21  | B     | 1207 | CLA  | C3B-C2B | -2.49 | 1.36        | 1.40     |
| 33  | 3     | 807  | PTY  | O4-C30  | 2.49  | 1.40        | 1.33     |
| 33  | 5     | 803  | PTY  | O7-C6   | -2.49 | 1.40        | 1.46     |
| 21  | B     | 1218 | CLA  | CHC-C1C | 2.49  | 1.41        | 1.35     |
| 21  | 6     | 607  | CLA  | C3B-C2B | -2.49 | 1.36        | 1.40     |
| 21  | 4     | 601  | CLA  | C3B-C2B | -2.49 | 1.36        | 1.40     |
| 21  | O     | 1803 | CLA  | OBD-CAD | -2.49 | 1.18        | 1.22     |
| 21  | L     | 1502 | CLA  | CHC-C1C | 2.49  | 1.41        | 1.35     |
| 21  | 3     | 611  | CLA  | C3B-C2B | -2.49 | 1.36        | 1.40     |
| 21  | 3     | 611  | CLA  | C3D-C4D | -2.49 | 1.38        | 1.44     |
| 21  | B     | 1201 | CLA  | CHC-C1C | 2.48  | 1.41        | 1.35     |
| 21  | 1     | 613  | CLA  | C3B-C2B | -2.48 | 1.36        | 1.40     |
| 21  | 2     | 607  | CLA  | CHC-C1C | 2.48  | 1.41        | 1.35     |
| 21  | 4     | 609  | CLA  | CHC-C1C | 2.48  | 1.41        | 1.35     |
| 21  | B     | 1228 | CLA  | C3B-C2B | -2.48 | 1.36        | 1.40     |
| 21  | A     | 1138 | CLA  | CHC-C1C | 2.47  | 1.41        | 1.35     |
| 33  | L     | 5003 | PTY  | O4-C30  | 2.47  | 1.40        | 1.33     |
| 21  | 3     | 601  | CLA  | CHC-C1C | 2.47  | 1.41        | 1.35     |
| 21  | A     | 1125 | CLA  | CHC-C1C | 2.47  | 1.41        | 1.35     |
| 32  | 5     | 805  | 4RF  | O18-C19 | -2.47 | 1.39        | 1.45     |
| 33  | L     | 5003 | PTY  | O7-C6   | -2.47 | 1.40        | 1.46     |
| 21  | B     | 1225 | CLA  | CHC-C1C | 2.47  | 1.41        | 1.35     |
| 21  | F     | 1302 | CLA  | CHC-C1C | 2.47  | 1.41        | 1.35     |
| 21  | 5     | 612  | CLA  | CHC-C1C | 2.47  | 1.41        | 1.35     |
| 33  | 3     | 808  | PTY  | O4-C30  | 2.47  | 1.40        | 1.33     |
| 21  | A     | 1140 | CLA  | CHC-C1C | 2.47  | 1.41        | 1.35     |
| 21  | A     | 1135 | CLA  | CHC-C1C | 2.46  | 1.41        | 1.35     |
| 21  | A     | 1013 | CLA  | CHC-C1C | 2.46  | 1.41        | 1.35     |
| 21  | A     | 1106 | CLA  | CHC-C1C | 2.46  | 1.41        | 1.35     |
| 21  | A     | 1111 | CLA  | CHC-C1C | 2.46  | 1.41        | 1.35     |
| 21  | A     | 1133 | CLA  | CHC-C1C | 2.46  | 1.41        | 1.35     |
| 33  | 3     | 808  | PTY  | O7-C6   | -2.46 | 1.40        | 1.46     |
| 21  | A     | 1108 | CLA  | C3B-C2B | -2.45 | 1.37        | 1.40     |
| 33  | 1     | 805  | PTY  | O7-C6   | -2.45 | 1.40        | 1.46     |
| 39  | 2     | 808  | P3H  | C16-C17 | 2.45  | 1.57        | 1.50     |
| 21  | 1     | 607  | CLA  | CHC-C1C | 2.45  | 1.41        | 1.35     |
| 21  | A     | 1120 | CLA  | CHC-C1C | 2.45  | 1.41        | 1.35     |
| 21  | A     | 1133 | CLA  | C3B-C2B | -2.45 | 1.37        | 1.40     |
| 21  | B     | 1217 | CLA  | CHC-C1C | 2.45  | 1.41        | 1.35     |
| 21  | B     | 1226 | CLA  | C3B-C2B | -2.45 | 1.37        | 1.40     |
| 21  | A     | 1104 | CLA  | CHC-C1C | 2.45  | 1.41        | 1.35     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | 4     | 608  | CLA  | CHC-C1C | 2.45  | 1.41        | 1.35     |
| 21  | B     | 1208 | CLA  | C3B-C2B | -2.45 | 1.37        | 1.40     |
| 21  | B     | 1215 | CLA  | C3B-C2B | -2.45 | 1.37        | 1.40     |
| 21  | O     | 1803 | CLA  | C3B-C2B | -2.45 | 1.37        | 1.40     |
| 21  | A     | 1127 | CLA  | CHC-C1C | 2.44  | 1.41        | 1.35     |
| 35  | 4     | 502  | XAT  | O24-C25 | -2.44 | 1.42        | 1.46     |
| 33  | 1     | 805  | PTY  | O4-C30  | 2.44  | 1.40        | 1.33     |
| 32  | L     | 5002 | 4RF  | O40-C41 | 2.43  | 1.40        | 1.33     |
| 21  | 3     | 605  | CLA  | C3B-C2B | -2.43 | 1.37        | 1.40     |
| 29  | B     | 5003 | 3PH  | O21-C2  | -2.43 | 1.40        | 1.46     |
| 21  | 3     | 611  | CLA  | CHC-C1C | 2.43  | 1.41        | 1.35     |
| 21  | F     | 1301 | CLA  | CHC-C1C | 2.43  | 1.41        | 1.35     |
| 21  | B     | 1221 | CLA  | CHC-C1C | 2.43  | 1.41        | 1.35     |
| 21  | B     | 1238 | CLA  | CHC-C1C | 2.43  | 1.41        | 1.35     |
| 29  | F     | 5003 | 3PH  | O21-C2  | -2.43 | 1.40        | 1.46     |
| 21  | 2     | 608  | CLA  | CHC-C1C | 2.43  | 1.41        | 1.35     |
| 21  | B     | 1203 | CLA  | CHC-C1C | 2.43  | 1.41        | 1.35     |
| 21  | B     | 1210 | CLA  | C4B-NB  | -2.42 | 1.33        | 1.35     |
| 21  | A     | 1139 | CLA  | CHC-C1C | 2.42  | 1.41        | 1.35     |
| 21  | 4     | 607  | CLA  | CHC-C1C | 2.42  | 1.41        | 1.35     |
| 21  | G     | 1603 | CLA  | CHC-C1C | 2.42  | 1.41        | 1.35     |
| 29  | 5     | 804  | 3PH  | O31-C31 | 2.42  | 1.40        | 1.33     |
| 21  | B     | 1238 | CLA  | C3B-C2B | -2.42 | 1.37        | 1.40     |
| 29  | 5     | 804  | 3PH  | O21-C2  | -2.42 | 1.40        | 1.46     |
| 21  | A     | 1105 | CLA  | CHC-C1C | 2.42  | 1.41        | 1.35     |
| 33  | 5     | 803  | PTY  | O4-C30  | 2.42  | 1.40        | 1.33     |
| 21  | A     | 1112 | CLA  | C3B-C2B | -2.41 | 1.37        | 1.40     |
| 21  | A     | 1109 | CLA  | C3B-C2B | -2.41 | 1.37        | 1.40     |
| 33  | O     | 5002 | PTY  | O4-C30  | 2.41  | 1.40        | 1.33     |
| 21  | B     | 1235 | CLA  | C3B-C2B | -2.41 | 1.37        | 1.40     |
| 33  | 4     | 804  | PTY  | O7-C6   | -2.41 | 1.40        | 1.46     |
| 21  | B     | 1228 | CLA  | CHC-C1C | 2.41  | 1.41        | 1.35     |
| 21  | K     | 1402 | CLA  | C3B-C2B | -2.41 | 1.37        | 1.40     |
| 21  | 2     | 604  | CLA  | C3B-C2B | -2.41 | 1.37        | 1.40     |
| 21  | B     | 1232 | CLA  | C1A-CHA | 2.40  | 1.53        | 1.43     |
| 21  | A     | 1129 | CLA  | C3D-C4D | -2.40 | 1.38        | 1.44     |
| 21  | B     | 1223 | CLA  | C3B-C2B | -2.40 | 1.37        | 1.40     |
| 21  | 5     | 605  | CLA  | C3B-C2B | -2.40 | 1.37        | 1.40     |
| 32  | L     | 5002 | 4RF  | O21-C20 | -2.40 | 1.40        | 1.46     |
| 21  | A     | 1121 | CLA  | C3B-C2B | -2.40 | 1.37        | 1.40     |
| 21  | A     | 1109 | CLA  | CHC-C1C | 2.40  | 1.41        | 1.35     |
| 21  | B     | 1211 | CLA  | C3D-C4D | -2.40 | 1.38        | 1.44     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | B     | 1231 | CLA  | C3D-C4D | -2.40 | 1.38        | 1.44     |
| 21  | B     | 1230 | CLA  | CHC-C1C | 2.39  | 1.41        | 1.35     |
| 33  | 4     | 804  | PTY  | O4-C30  | 2.39  | 1.40        | 1.33     |
| 21  | 5     | 604  | CLA  | C3B-C2B | -2.39 | 1.37        | 1.40     |
| 21  | A     | 1109 | CLA  | C3D-C4D | -2.39 | 1.38        | 1.44     |
| 33  | 6     | 804  | PTY  | O7-C8   | 2.39  | 1.41        | 1.34     |
| 21  | 4     | 602  | CLA  | CHC-C1C | 2.39  | 1.41        | 1.35     |
| 21  | B     | 1220 | CLA  | CHC-C1C | 2.39  | 1.41        | 1.35     |
| 21  | K     | 1401 | CLA  | C3D-C4D | -2.39 | 1.38        | 1.44     |
| 21  | 4     | 609  | CLA  | C1A-CHA | 2.39  | 1.53        | 1.43     |
| 36  | 2     | 610  | CHL  | C3A-C2A | -2.39 | 1.47        | 1.54     |
| 36  | 2     | 611  | CHL  | C4B-NB  | 2.39  | 1.37        | 1.35     |
| 21  | 4     | 604  | CLA  | C3B-C2B | -2.38 | 1.37        | 1.40     |
| 29  | F     | 5003 | 3PH  | O31-C31 | 2.38  | 1.40        | 1.33     |
| 21  | A     | 1129 | CLA  | CHC-C1C | 2.38  | 1.41        | 1.35     |
| 21  | A     | 1131 | CLA  | C3D-C4D | -2.38 | 1.38        | 1.44     |
| 21  | B     | 1221 | CLA  | C3B-C2B | -2.38 | 1.37        | 1.40     |
| 21  | B     | 1236 | CLA  | C3B-C2B | -2.38 | 1.37        | 1.40     |
| 21  | 1     | 603  | CLA  | C1C-C2C | 2.38  | 1.49        | 1.44     |
| 21  | B     | 1232 | CLA  | CHC-C1C | 2.38  | 1.41        | 1.35     |
| 33  | L     | 5003 | PTY  | O7-C8   | 2.37  | 1.40        | 1.35     |
| 21  | A     | 1141 | CLA  | C3B-C2B | -2.37 | 1.37        | 1.40     |
| 21  | B     | 1023 | CLA  | C3B-C2B | -2.37 | 1.37        | 1.40     |
| 21  | 2     | 601  | CLA  | C3D-C4D | -2.37 | 1.38        | 1.44     |
| 21  | 1     | 612  | CLA  | CHC-C1C | 2.37  | 1.41        | 1.35     |
| 21  | A     | 1012 | CLA  | C3B-C2B | -2.37 | 1.37        | 1.40     |
| 21  | B     | 1022 | CLA  | C3B-C2B | -2.37 | 1.37        | 1.40     |
| 21  | A     | 1113 | CLA  | C3D-C4D | -2.37 | 1.38        | 1.44     |
| 21  | 3     | 606  | CLA  | C1A-CHA | 2.37  | 1.52        | 1.43     |
| 21  | 3     | 607  | CLA  | C1A-CHA | 2.36  | 1.52        | 1.43     |
| 21  | 5     | 614  | CLA  | C1A-CHA | 2.36  | 1.52        | 1.43     |
| 21  | 1     | 601  | CLA  | C3B-C2B | -2.36 | 1.37        | 1.40     |
| 21  | B     | 1214 | CLA  | CHC-C1C | 2.36  | 1.41        | 1.35     |
| 39  | 5     | 806  | P3H  | C16-C17 | 2.36  | 1.57        | 1.50     |
| 21  | B     | 1222 | CLA  | C3D-C4D | -2.36 | 1.38        | 1.44     |
| 21  | 4     | 603  | CLA  | C3B-C2B | -2.35 | 1.37        | 1.40     |
| 21  | 3     | 610  | CLA  | C3B-C2B | -2.35 | 1.37        | 1.40     |
| 21  | B     | 1237 | CLA  | C3D-C4D | -2.35 | 1.38        | 1.44     |
| 21  | B     | 1205 | CLA  | CHC-C1C | 2.35  | 1.41        | 1.35     |
| 29  | B     | 5003 | 3PH  | O31-C31 | 2.35  | 1.40        | 1.33     |
| 21  | 1     | 604  | CLA  | C3D-C4D | -2.35 | 1.38        | 1.44     |
| 21  | A     | 1107 | CLA  | C3B-C2B | -2.35 | 1.37        | 1.40     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | B     | 1227 | CLA  | CHC-C1C | 2.35  | 1.41        | 1.35     |
| 21  | B     | 1219 | CLA  | CHC-C1C | 2.35  | 1.41        | 1.35     |
| 21  | 1     | 615  | CLA  | CHC-C1C | 2.35  | 1.41        | 1.35     |
| 39  | 2     | 808  | P3H  | P24-O23 | 2.34  | 1.68        | 1.59     |
| 21  | 3     | 614  | CLA  | C3B-C2B | -2.34 | 1.37        | 1.40     |
| 21  | B     | 1021 | CLA  | CHC-C1C | 2.34  | 1.41        | 1.35     |
| 21  | A     | 1103 | CLA  | C3B-C2B | -2.34 | 1.37        | 1.40     |
| 21  | 6     | 603  | CLA  | C3B-C2B | -2.34 | 1.37        | 1.40     |
| 21  | 2     | 606  | CLA  | CHC-C1C | 2.34  | 1.41        | 1.35     |
| 21  | 1     | 612  | CLA  | C3B-C2B | -2.33 | 1.37        | 1.40     |
| 21  | A     | 1101 | CLA  | C1C-C2C | 2.33  | 1.49        | 1.44     |
| 32  | 5     | 805  | 4RF  | O21-C22 | 2.33  | 1.40        | 1.34     |
| 21  | 5     | 601  | CLA  | C3B-C2B | -2.33 | 1.37        | 1.40     |
| 21  | B     | 1239 | CLA  | C3B-C2B | -2.33 | 1.37        | 1.40     |
| 21  | 6     | 601  | CLA  | C3B-C2B | -2.33 | 1.37        | 1.40     |
| 21  | A     | 1132 | CLA  | C3B-C2B | -2.33 | 1.37        | 1.40     |
| 21  | B     | 1223 | CLA  | CHC-C1C | 2.33  | 1.40        | 1.35     |
| 21  | K     | 1404 | CLA  | C3B-C2B | -2.32 | 1.37        | 1.40     |
| 21  | 5     | 608  | CLA  | C3B-C2B | -2.32 | 1.37        | 1.40     |
| 39  | 5     | 806  | P3H  | P24-O23 | 2.32  | 1.68        | 1.59     |
| 21  | A     | 1129 | CLA  | C3B-C2B | -2.32 | 1.37        | 1.40     |
| 21  | 6     | 608  | CLA  | C3B-C2B | -2.32 | 1.37        | 1.40     |
| 39  | 2     | 808  | P3H  | C42-C40 | 2.32  | 1.57        | 1.50     |
| 21  | A     | 1122 | CLA  | C1A-CHA | 2.32  | 1.52        | 1.43     |
| 21  | 6     | 606  | CLA  | C3B-C2B | -2.32 | 1.37        | 1.40     |
| 21  | A     | 1139 | CLA  | C3B-C2B | -2.31 | 1.37        | 1.40     |
| 21  | 1     | 603  | CLA  | C3B-C2B | -2.31 | 1.37        | 1.40     |
| 21  | A     | 1139 | CLA  | C4B-NB  | -2.31 | 1.33        | 1.35     |
| 36  | 3     | 604  | CHL  | C1C-NC  | -2.31 | 1.34        | 1.37     |
| 21  | 4     | 606  | CLA  | C3B-C2B | -2.31 | 1.37        | 1.40     |
| 21  | 6     | 609  | CLA  | C1A-CHA | 2.31  | 1.52        | 1.43     |
| 21  | A     | 1120 | CLA  | C3B-C2B | -2.31 | 1.37        | 1.40     |
| 21  | A     | 1122 | CLA  | CHC-C1C | 2.31  | 1.40        | 1.35     |
| 21  | 4     | 605  | CLA  | C3D-C4D | -2.31 | 1.39        | 1.44     |
| 39  | 5     | 806  | P3H  | C42-C40 | 2.31  | 1.57        | 1.50     |
| 21  | 1     | 602  | CLA  | C3B-C2B | -2.31 | 1.37        | 1.40     |
| 21  | 6     | 602  | CLA  | C3B-C2B | -2.31 | 1.37        | 1.40     |
| 21  | B     | 1212 | CLA  | C3B-C2B | -2.30 | 1.37        | 1.40     |
| 36  | 3     | 604  | CHL  | C3D-C2D | -2.30 | 1.32        | 1.39     |
| 21  | G     | 1602 | CLA  | C3B-C2B | -2.30 | 1.37        | 1.40     |
| 21  | A     | 1139 | CLA  | C1A-CHA | 2.30  | 1.52        | 1.43     |
| 21  | 3     | 614  | CLA  | CHC-C1C | 2.30  | 1.40        | 1.35     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | K     | 1403 | CLA  | CHC-C1C | 2.30  | 1.40        | 1.35     |
| 33  | O     | 5002 | PTY  | O7-C8   | 2.30  | 1.40        | 1.35     |
| 21  | 5     | 607  | CLA  | C3B-C2B | -2.30 | 1.37        | 1.40     |
| 32  | 5     | 805  | 4RF  | O21-C20 | -2.30 | 1.40        | 1.46     |
| 21  | A     | 1114 | CLA  | C3B-C2B | -2.30 | 1.37        | 1.40     |
| 21  | A     | 1124 | CLA  | C1A-CHA | 2.30  | 1.52        | 1.43     |
| 21  | L     | 1502 | CLA  | C1C-C2C | 2.30  | 1.49        | 1.44     |
| 21  | B     | 1214 | CLA  | C3D-C4D | -2.29 | 1.39        | 1.44     |
| 33  | 3     | 808  | PTY  | O7-C8   | 2.29  | 1.40        | 1.35     |
| 21  | 1     | 611  | CLA  | C3B-C2B | -2.29 | 1.37        | 1.40     |
| 21  | A     | 1117 | CLA  | CHC-C1C | 2.29  | 1.40        | 1.35     |
| 21  | 6     | 612  | CLA  | C4B-NB  | -2.29 | 1.33        | 1.35     |
| 24  | J     | 4002 | BCR  | C33-C5  | -2.29 | 1.47        | 1.50     |
| 21  | A     | 1127 | CLA  | C1A-CHA | 2.29  | 1.52        | 1.43     |
| 21  | 2     | 604  | CLA  | C3D-C4D | -2.29 | 1.39        | 1.44     |
| 21  | 4     | 615  | CLA  | C1A-CHA | 2.29  | 1.52        | 1.43     |
| 21  | A     | 1119 | CLA  | C3D-C4D | -2.28 | 1.39        | 1.44     |
| 21  | A     | 1138 | CLA  | C1A-CHA | 2.28  | 1.52        | 1.43     |
| 35  | 3     | 502  | XAT  | O24-C25 | -2.28 | 1.42        | 1.46     |
| 21  | B     | 1213 | CLA  | C3B-C2B | -2.28 | 1.37        | 1.40     |
| 21  | 1     | 603  | CLA  | C1A-CHA | 2.28  | 1.52        | 1.43     |
| 32  | L     | 5002 | 4RF  | O21-C22 | 2.28  | 1.40        | 1.34     |
| 21  | 2     | 603  | CLA  | C1A-CHA | 2.28  | 1.52        | 1.43     |
| 24  | A     | 4004 | BCR  | C12-C13 | -2.28 | 1.41        | 1.45     |
| 21  | 3     | 614  | CLA  | C1A-CHA | 2.28  | 1.52        | 1.43     |
| 21  | A     | 1013 | CLA  | C1A-CHA | 2.28  | 1.52        | 1.43     |
| 21  | 1     | 604  | CLA  | C1C-C2C | 2.27  | 1.49        | 1.44     |
| 21  | 6     | 604  | CLA  | C1C-C2C | 2.27  | 1.49        | 1.44     |
| 29  | B     | 5003 | 3PH  | O21-C21 | 2.27  | 1.40        | 1.34     |
| 33  | 4     | 804  | PTY  | O7-C8   | 2.27  | 1.40        | 1.34     |
| 21  | B     | 1021 | CLA  | C3D-C4D | -2.27 | 1.39        | 1.44     |
| 21  | B     | 1213 | CLA  | C1C-C2C | 2.27  | 1.49        | 1.44     |
| 21  | 3     | 615  | CLA  | C1A-CHA | 2.26  | 1.52        | 1.43     |
| 21  | A     | 1123 | CLA  | CHC-C1C | 2.26  | 1.40        | 1.35     |
| 21  | 1     | 607  | CLA  | C1A-CHA | 2.26  | 1.52        | 1.43     |
| 21  | A     | 1123 | CLA  | C1A-CHA | 2.26  | 1.52        | 1.43     |
| 21  | B     | 1215 | CLA  | C1A-CHA | 2.26  | 1.52        | 1.43     |
| 21  | A     | 1127 | CLA  | C3D-C4D | -2.26 | 1.39        | 1.44     |
| 21  | 5     | 606  | CLA  | C3B-C2B | -2.26 | 1.37        | 1.40     |
| 21  | A     | 1128 | CLA  | C3D-C4D | -2.26 | 1.39        | 1.44     |
| 21  | A     | 1111 | CLA  | C3D-C4D | -2.26 | 1.39        | 1.44     |
| 21  | L     | 1501 | CLA  | C1A-CHA | 2.26  | 1.52        | 1.43     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1137 | CLA  | C1A-CHA | 2.26  | 1.52        | 1.43     |
| 21  | 5     | 601  | CLA  | C2A-C1A | -2.26 | 1.47        | 1.52     |
| 21  | L     | 1502 | CLA  | C1A-CHA | 2.25  | 1.52        | 1.43     |
| 21  | A     | 1105 | CLA  | C3D-C4D | -2.25 | 1.39        | 1.44     |
| 21  | B     | 1238 | CLA  | C3D-C4D | -2.25 | 1.39        | 1.44     |
| 21  | B     | 1226 | CLA  | CHC-C1C | 2.25  | 1.40        | 1.35     |
| 21  | B     | 1225 | CLA  | C1A-CHA | 2.25  | 1.52        | 1.43     |
| 21  | 3     | 605  | CLA  | C1A-CHA | 2.25  | 1.52        | 1.43     |
| 21  | B     | 1240 | CLA  | C1A-CHA | 2.25  | 1.52        | 1.43     |
| 21  | 4     | 603  | CLA  | C1A-CHA | 2.25  | 1.52        | 1.43     |
| 21  | B     | 1201 | CLA  | C1A-CHA | 2.25  | 1.52        | 1.43     |
| 21  | A     | 1138 | CLA  | C3B-C2B | -2.25 | 1.37        | 1.40     |
| 21  | A     | 1140 | CLA  | C3D-C4D | -2.24 | 1.39        | 1.44     |
| 21  | 3     | 602  | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | 1     | 613  | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | 5     | 608  | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | B     | 1219 | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | B     | 1224 | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | 5     | 603  | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | B     | 1218 | CLA  | C1D-ND  | -2.24 | 1.35        | 1.37     |
| 32  | 5     | 805  | 4RF  | O18-C16 | 2.24  | 1.39        | 1.33     |
| 36  | 3     | 604  | CHL  | C3D-C4D | -2.24 | 1.39        | 1.44     |
| 21  | 2     | 602  | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | A     | 1115 | CLA  | C3B-C2B | -2.24 | 1.37        | 1.40     |
| 21  | A     | 1105 | CLA  | C1A-CHA | 2.24  | 1.52        | 1.43     |
| 21  | O     | 1803 | CLA  | C1C-C2C | 2.24  | 1.48        | 1.44     |
| 21  | A     | 1125 | CLA  | C3B-C2B | -2.24 | 1.37        | 1.40     |
| 21  | 1     | 604  | CLA  | C4B-NB  | -2.24 | 1.33        | 1.35     |
| 21  | A     | 1123 | CLA  | C3D-C4D | -2.23 | 1.39        | 1.44     |
| 21  | 5     | 614  | CLA  | C1D-ND  | -2.23 | 1.35        | 1.37     |
| 21  | 1     | 615  | CLA  | C1A-CHA | 2.23  | 1.52        | 1.43     |
| 21  | A     | 1120 | CLA  | C3D-C4D | -2.23 | 1.39        | 1.44     |
| 21  | 4     | 602  | CLA  | C1A-CHA | 2.23  | 1.52        | 1.43     |
| 21  | B     | 1230 | CLA  | C1A-CHA | 2.23  | 1.52        | 1.43     |
| 21  | A     | 1103 | CLA  | C3D-C4D | -2.23 | 1.39        | 1.44     |
| 21  | B     | 1221 | CLA  | C3D-C4D | -2.22 | 1.39        | 1.44     |
| 21  | 2     | 612  | CLA  | C3B-C2B | -2.22 | 1.37        | 1.40     |
| 21  | B     | 1217 | CLA  | C3D-C4D | -2.22 | 1.39        | 1.44     |
| 21  | G     | 1602 | CLA  | C1C-C2C | 2.22  | 1.48        | 1.44     |
| 21  | 1     | 602  | CLA  | C1A-CHA | 2.22  | 1.52        | 1.43     |
| 21  | G     | 1601 | CLA  | C3B-C2B | -2.22 | 1.37        | 1.40     |
| 21  | 5     | 612  | CLA  | C4B-NB  | -2.22 | 1.33        | 1.35     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | B     | 1218 | CLA  | C3D-C4D | -2.22 | 1.39        | 1.44     |
| 21  | A     | 1128 | CLA  | C1A-CHA | 2.22  | 1.52        | 1.43     |
| 21  | K     | 1404 | CLA  | C1C-C2C | 2.21  | 1.48        | 1.44     |
| 21  | B     | 1209 | CLA  | C3D-C4D | -2.21 | 1.39        | 1.44     |
| 21  | A     | 1108 | CLA  | C3D-C4D | -2.21 | 1.39        | 1.44     |
| 21  | 4     | 601  | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | B     | 1229 | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | J     | 1901 | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | 6     | 605  | CLA  | C3D-C4D | -2.21 | 1.39        | 1.44     |
| 21  | A     | 1125 | CLA  | C3D-C4D | -2.21 | 1.39        | 1.44     |
| 21  | H     | 1701 | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | 4     | 612  | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | A     | 1125 | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | A     | 1102 | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | B     | 1214 | CLA  | C1A-CHA | 2.21  | 1.52        | 1.43     |
| 21  | A     | 1141 | CLA  | C3D-C4D | -2.20 | 1.39        | 1.44     |
| 21  | A     | 1118 | CLA  | CMB-C2B | -2.20 | 1.47        | 1.51     |
| 21  | A     | 1133 | CLA  | C1A-CHA | 2.20  | 1.52        | 1.43     |
| 21  | 4     | 608  | CLA  | C1A-CHA | 2.20  | 1.52        | 1.43     |
| 21  | 6     | 601  | CLA  | C1C-C2C | 2.20  | 1.48        | 1.44     |
| 21  | A     | 1102 | CLA  | C3D-C4D | -2.20 | 1.39        | 1.44     |
| 21  | 5     | 607  | CLA  | C1A-CHA | 2.20  | 1.52        | 1.43     |
| 36  | 4     | 611  | CHL  | C1D-ND  | -2.20 | 1.35        | 1.37     |
| 21  | 5     | 606  | CLA  | C1C-C2C | 2.20  | 1.48        | 1.44     |
| 21  | 2     | 607  | CLA  | C1A-CHA | 2.20  | 1.52        | 1.43     |
| 21  | A     | 1125 | CLA  | C4B-NB  | -2.20 | 1.33        | 1.35     |
| 21  | A     | 1126 | CLA  | C1A-CHA | 2.20  | 1.52        | 1.43     |
| 21  | 3     | 606  | CLA  | C3B-C2B | -2.20 | 1.37        | 1.40     |
| 21  | B     | 1234 | CLA  | C3D-C4D | -2.20 | 1.39        | 1.44     |
| 21  | A     | 1116 | CLA  | C3B-C2B | -2.20 | 1.37        | 1.40     |
| 21  | 3     | 612  | CLA  | C1A-CHA | 2.19  | 1.52        | 1.43     |
| 21  | B     | 1228 | CLA  | C1A-CHA | 2.19  | 1.52        | 1.43     |
| 29  | 5     | 804  | 3PH  | O21-C21 | 2.19  | 1.40        | 1.34     |
| 21  | 5     | 613  | CLA  | C3D-C4D | -2.19 | 1.39        | 1.44     |
| 29  | F     | 5003 | 3PH  | O21-C21 | 2.19  | 1.40        | 1.34     |
| 21  | A     | 1121 | CLA  | C1C-C2C | 2.19  | 1.48        | 1.44     |
| 21  | L     | 1501 | CLA  | C1C-C2C | 2.19  | 1.48        | 1.44     |
| 21  | 3     | 605  | CLA  | C3D-C4D | -2.19 | 1.39        | 1.44     |
| 21  | 2     | 604  | CLA  | CMA-C3A | -2.19 | 1.48        | 1.53     |
| 21  | B     | 1227 | CLA  | C3D-C4D | -2.19 | 1.39        | 1.44     |
| 21  | B     | 1216 | CLA  | C3D-C4D | -2.19 | 1.39        | 1.44     |
| 21  | B     | 1205 | CLA  | C3D-C4D | -2.19 | 1.39        | 1.44     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | L     | 1504 | CLA  | C3B-C2B | -2.19 | 1.37        | 1.40     |
| 21  | B     | 1204 | CLA  | C1A-CHA | 2.19  | 1.52        | 1.43     |
| 21  | 4     | 601  | CLA  | C3D-C4D | -2.19 | 1.39        | 1.44     |
| 21  | 4     | 603  | CLA  | C1C-C2C | 2.19  | 1.48        | 1.44     |
| 21  | A     | 1118 | CLA  | CHC-C1C | 2.18  | 1.40        | 1.35     |
| 33  | 1     | 805  | PTY  | O7-C8   | 2.18  | 1.40        | 1.34     |
| 21  | 4     | 605  | CLA  | C1A-CHA | 2.18  | 1.52        | 1.43     |
| 21  | A     | 1136 | CLA  | C1A-CHA | 2.18  | 1.52        | 1.43     |
| 21  | 6     | 607  | CLA  | C1A-CHA | 2.18  | 1.52        | 1.43     |
| 21  | A     | 1117 | CLA  | C1A-CHA | 2.18  | 1.52        | 1.43     |
| 21  | B     | 1234 | CLA  | C1A-CHA | 2.18  | 1.52        | 1.43     |
| 21  | A     | 1131 | CLA  | CHC-C1C | 2.18  | 1.40        | 1.35     |
| 21  | A     | 1109 | CLA  | C1A-CHA | 2.18  | 1.52        | 1.43     |
| 21  | 1     | 615  | CLA  | C1C-C2C | 2.18  | 1.48        | 1.44     |
| 21  | A     | 1138 | CLA  | C3D-C4D | -2.18 | 1.39        | 1.44     |
| 21  | 6     | 602  | CLA  | C1C-C2C | 2.18  | 1.48        | 1.44     |
| 21  | A     | 1130 | CLA  | C3D-C4D | -2.17 | 1.39        | 1.44     |
| 21  | 5     | 602  | CLA  | C1A-CHA | 2.17  | 1.52        | 1.43     |
| 21  | 6     | 609  | CLA  | C3B-C2B | -2.17 | 1.37        | 1.40     |
| 21  | 5     | 614  | CLA  | C3B-C2B | -2.17 | 1.37        | 1.40     |
| 21  | 4     | 607  | CLA  | C1A-CHA | 2.17  | 1.52        | 1.43     |
| 21  | B     | 1229 | CLA  | C1C-C2C | 2.17  | 1.48        | 1.44     |
| 33  | 3     | 807  | PTY  | O7-C8   | 2.17  | 1.40        | 1.34     |
| 21  | F     | 1302 | CLA  | C1A-CHA | 2.17  | 1.52        | 1.43     |
| 21  | A     | 1106 | CLA  | C3D-C4D | -2.17 | 1.39        | 1.44     |
| 21  | B     | 1221 | CLA  | C1A-CHA | 2.17  | 1.52        | 1.43     |
| 21  | K     | 1402 | CLA  | C1C-C2C | 2.17  | 1.48        | 1.44     |
| 21  | B     | 1220 | CLA  | C1A-CHA | 2.17  | 1.52        | 1.43     |
| 21  | B     | 1210 | CLA  | C3D-C4D | -2.17 | 1.39        | 1.44     |
| 21  | 3     | 612  | CLA  | C3D-C4D | -2.17 | 1.39        | 1.44     |
| 21  | A     | 1105 | CLA  | C4B-NB  | -2.17 | 1.33        | 1.35     |
| 21  | 2     | 615  | CLA  | C1A-CHA | 2.17  | 1.52        | 1.43     |
| 21  | O     | 1801 | CLA  | C3D-C4D | -2.17 | 1.39        | 1.44     |
| 21  | B     | 1236 | CLA  | C3D-C4D | -2.17 | 1.39        | 1.44     |
| 21  | 5     | 612  | CLA  | C1D-C2D | -2.17 | 1.41        | 1.45     |
| 21  | 6     | 605  | CLA  | C1A-CHA | 2.17  | 1.52        | 1.43     |
| 21  | A     | 1118 | CLA  | C1D-ND  | -2.17 | 1.35        | 1.37     |
| 21  | 2     | 605  | CLA  | C3D-C4D | -2.17 | 1.39        | 1.44     |
| 21  | 6     | 608  | CLA  | C1C-C2C | 2.16  | 1.48        | 1.44     |
| 21  | B     | 1202 | CLA  | C1A-CHA | 2.16  | 1.52        | 1.43     |
| 21  | A     | 1116 | CLA  | C1C-C2C | 2.16  | 1.48        | 1.44     |
| 21  | B     | 1215 | CLA  | C4B-NB  | -2.16 | 1.33        | 1.35     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | 5     | 613  | CLA  | C3B-C2B | -2.16 | 1.37        | 1.40     |
| 33  | L     | 5003 | PTY  | O4-C1   | -2.16 | 1.40        | 1.45     |
| 21  | A     | 1126 | CLA  | C3D-C4D | -2.16 | 1.39        | 1.44     |
| 21  | B     | 1203 | CLA  | C3D-C4D | -2.16 | 1.39        | 1.44     |
| 21  | A     | 1111 | CLA  | C1A-CHA | 2.16  | 1.52        | 1.43     |
| 21  | G     | 1601 | CLA  | C1C-C2C | 2.16  | 1.48        | 1.44     |
| 21  | A     | 1013 | CLA  | C3B-C2B | -2.16 | 1.37        | 1.40     |
| 21  | 1     | 605  | CLA  | C3D-C4D | -2.16 | 1.39        | 1.44     |
| 21  | 6     | 603  | CLA  | C1C-C2C | 2.16  | 1.48        | 1.44     |
| 21  | A     | 1115 | CLA  | C1C-C2C | 2.15  | 1.48        | 1.44     |
| 21  | 2     | 604  | CLA  | C1C-C2C | 2.15  | 1.48        | 1.44     |
| 21  | B     | 1224 | CLA  | C3D-C4D | -2.15 | 1.39        | 1.44     |
| 21  | B     | 1205 | CLA  | C1A-CHA | 2.15  | 1.52        | 1.43     |
| 21  | 1     | 612  | CLA  | C1A-CHA | 2.15  | 1.52        | 1.43     |
| 21  | B     | 1216 | CLA  | C1A-CHA | 2.15  | 1.52        | 1.43     |
| 21  | 6     | 613  | CLA  | C3D-C4D | -2.15 | 1.39        | 1.44     |
| 25  | 3     | 801  | LHG  | O7-C7   | -2.15 | 1.34        | 1.42     |
| 21  | B     | 1203 | CLA  | C1A-CHA | 2.15  | 1.52        | 1.43     |
| 21  | 3     | 603  | CLA  | C1A-CHA | 2.15  | 1.52        | 1.43     |
| 21  | B     | 1215 | CLA  | C3D-C4D | -2.15 | 1.39        | 1.44     |
| 21  | 3     | 608  | CLA  | C1A-CHA | 2.15  | 1.52        | 1.43     |
| 21  | A     | 1012 | CLA  | C1C-C2C | 2.15  | 1.48        | 1.44     |
| 21  | 2     | 601  | CLA  | C1A-CHA | 2.15  | 1.52        | 1.43     |
| 21  | B     | 1239 | CLA  | C1C-C2C | 2.14  | 1.48        | 1.44     |
| 21  | B     | 1238 | CLA  | C1A-CHA | 2.14  | 1.52        | 1.43     |
| 21  | 3     | 613  | CLA  | CHC-C1C | 2.14  | 1.40        | 1.35     |
| 33  | 1     | 806  | PTY  | O7-C8   | 2.14  | 1.40        | 1.35     |
| 21  | B     | 1223 | CLA  | C3D-C4D | -2.14 | 1.39        | 1.44     |
| 21  | A     | 1141 | CLA  | C1A-CHA | 2.14  | 1.52        | 1.43     |
| 21  | A     | 1128 | CLA  | CHC-C1C | 2.14  | 1.40        | 1.35     |
| 21  | 2     | 615  | CLA  | C3D-C4D | -2.14 | 1.39        | 1.44     |
| 21  | A     | 1106 | CLA  | C1A-CHA | 2.14  | 1.52        | 1.43     |
| 21  | A     | 1140 | CLA  | C1A-CHA | 2.14  | 1.52        | 1.43     |
| 21  | B     | 1202 | CLA  | C3D-C4D | -2.14 | 1.39        | 1.44     |
| 21  | 5     | 608  | CLA  | CHC-C1C | 2.14  | 1.40        | 1.35     |
| 21  | B     | 1021 | CLA  | C1A-CHA | 2.14  | 1.52        | 1.43     |
| 21  | B     | 1218 | CLA  | C1A-CHA | 2.14  | 1.52        | 1.43     |
| 32  | L     | 5002 | 4RF  | O40-C39 | -2.13 | 1.40        | 1.45     |
| 21  | A     | 1122 | CLA  | C3D-C4D | -2.13 | 1.39        | 1.44     |
| 21  | 1     | 607  | CLA  | C3D-C4D | -2.13 | 1.39        | 1.44     |
| 21  | B     | 1210 | CLA  | C1A-CHA | 2.13  | 1.52        | 1.43     |
| 21  | B     | 1232 | CLA  | C3D-C4D | -2.13 | 1.39        | 1.44     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | G     | 1601 | CLA  | C1B-NB  | 2.13  | 1.37        | 1.35     |
| 21  | B     | 1209 | CLA  | C1A-CHA | 2.13  | 1.51        | 1.43     |
| 21  | B     | 1223 | CLA  | C1A-CHA | 2.13  | 1.51        | 1.43     |
| 21  | B     | 1217 | CLA  | C1A-CHA | 2.13  | 1.51        | 1.43     |
| 21  | 4     | 606  | CLA  | C3D-C4D | -2.13 | 1.39        | 1.44     |
| 21  | 3     | 603  | CLA  | CHC-C1C | 2.13  | 1.40        | 1.35     |
| 21  | B     | 1208 | CLA  | C1C-C2C | 2.13  | 1.48        | 1.44     |
| 21  | 5     | 604  | CLA  | C1C-C2C | 2.13  | 1.48        | 1.44     |
| 21  | B     | 1210 | CLA  | CHC-C1C | 2.13  | 1.40        | 1.35     |
| 21  | 1     | 611  | CLA  | C1C-C2C | 2.13  | 1.48        | 1.44     |
| 21  | A     | 1108 | CLA  | C1A-CHA | 2.13  | 1.51        | 1.43     |
| 24  | L     | 4001 | BCR  | C12-C13 | -2.13 | 1.41        | 1.45     |
| 21  | O     | 1802 | CLA  | C1A-CHA | 2.13  | 1.51        | 1.43     |
| 21  | B     | 1235 | CLA  | C1C-C2C | 2.12  | 1.48        | 1.44     |
| 21  | F     | 1301 | CLA  | C1A-CHA | 2.12  | 1.51        | 1.43     |
| 21  | 2     | 608  | CLA  | C3D-C4D | -2.12 | 1.39        | 1.44     |
| 21  | F     | 1302 | CLA  | C3D-C4D | -2.12 | 1.39        | 1.44     |
| 21  | H     | 1702 | CLA  | C3B-CAB | 2.12  | 1.52        | 1.47     |
| 21  | B     | 1207 | CLA  | C1C-C2C | 2.12  | 1.48        | 1.44     |
| 29  | 5     | 807  | 3PH  | O21-C2  | -2.12 | 1.41        | 1.46     |
| 21  | 5     | 605  | CLA  | C1C-C2C | 2.12  | 1.48        | 1.44     |
| 21  | 1     | 608  | CLA  | C1A-CHA | 2.12  | 1.51        | 1.43     |
| 21  | 1     | 601  | CLA  | C1C-C2C | 2.12  | 1.48        | 1.44     |
| 21  | 1     | 606  | CLA  | C3B-C2B | -2.12 | 1.37        | 1.40     |
| 21  | A     | 1133 | CLA  | C3D-C4D | -2.12 | 1.39        | 1.44     |
| 21  | 4     | 606  | CLA  | C1A-CHA | 2.12  | 1.51        | 1.43     |
| 21  | 3     | 606  | CLA  | C3D-C4D | -2.12 | 1.39        | 1.44     |
| 21  | B     | 1220 | CLA  | C3D-C4D | -2.12 | 1.39        | 1.44     |
| 21  | L     | 1504 | CLA  | C1B-NB  | 2.12  | 1.37        | 1.35     |
| 36  | 5     | 609  | CHL  | C3B-C2B | -2.11 | 1.37        | 1.40     |
| 21  | 2     | 607  | CLA  | C3D-C4D | -2.11 | 1.39        | 1.44     |
| 21  | 6     | 607  | CLA  | C1C-C2C | 2.11  | 1.48        | 1.44     |
| 21  | A     | 1105 | CLA  | C1D-ND  | -2.11 | 1.35        | 1.37     |
| 29  | 5     | 804  | 3PH  | O31-C3  | -2.11 | 1.40        | 1.45     |
| 21  | B     | 1228 | CLA  | C3D-C4D | -2.11 | 1.39        | 1.44     |
| 21  | A     | 1112 | CLA  | C1C-C2C | 2.11  | 1.48        | 1.44     |
| 21  | B     | 1240 | CLA  | C3D-C4D | -2.11 | 1.39        | 1.44     |
| 21  | A     | 1135 | CLA  | C1A-CHA | 2.11  | 1.51        | 1.43     |
| 21  | A     | 1136 | CLA  | C1C-C2C | 2.11  | 1.48        | 1.44     |
| 21  | B     | 1225 | CLA  | C3D-C4D | -2.11 | 1.39        | 1.44     |
| 21  | O     | 1803 | CLA  | C3D-C4D | -2.11 | 1.39        | 1.44     |
| 21  | L     | 1501 | CLA  | MG-NC   | 2.11  | 2.11        | 2.06     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 24  | O     | 4001 | BCR  | C4-C5   | -2.11 | 1.46        | 1.51     |
| 21  | 1     | 603  | CLA  | C3D-C4D | -2.10 | 1.39        | 1.44     |
| 21  | 2     | 612  | CLA  | C1A-CHA | 2.10  | 1.51        | 1.43     |
| 21  | 1     | 605  | CLA  | C1A-CHA | 2.10  | 1.51        | 1.43     |
| 21  | 1     | 608  | CLA  | C3D-C4D | -2.10 | 1.39        | 1.44     |
| 21  | B     | 1215 | CLA  | CHC-C1C | 2.10  | 1.40        | 1.35     |
| 21  | A     | 1110 | CLA  | C1A-CHA | 2.10  | 1.51        | 1.43     |
| 21  | 3     | 611  | CLA  | C1A-CHA | 2.10  | 1.51        | 1.43     |
| 21  | 2     | 608  | CLA  | C1A-CHA | 2.10  | 1.51        | 1.43     |
| 21  | 3     | 615  | CLA  | C1C-C2C | 2.10  | 1.48        | 1.44     |
| 21  | 5     | 603  | CLA  | C3D-C4D | -2.10 | 1.39        | 1.44     |
| 21  | 4     | 602  | CLA  | C3D-C4D | -2.10 | 1.39        | 1.44     |
| 21  | 4     | 607  | CLA  | C3D-C4D | -2.10 | 1.39        | 1.44     |
| 20  | A     | 1011 | CL0  | C4C-C3C | 2.10  | 1.48        | 1.45     |
| 21  | A     | 1110 | CLA  | C3D-C4D | -2.10 | 1.39        | 1.44     |
| 33  | O     | 5002 | PTY  | O4-C1   | -2.10 | 1.40        | 1.45     |
| 21  | A     | 1130 | CLA  | C1A-CHA | 2.10  | 1.51        | 1.43     |
| 36  | 3     | 604  | CHL  | MG-ND   | -2.10 | 2.01        | 2.05     |
| 21  | B     | 1213 | CLA  | C3D-C4D | -2.10 | 1.39        | 1.44     |
| 21  | 1     | 606  | CLA  | C1A-CHA | 2.09  | 1.51        | 1.43     |
| 24  | L     | 4002 | BCR  | C12-C13 | -2.09 | 1.41        | 1.45     |
| 21  | B     | 1236 | CLA  | C1A-CHA | 2.09  | 1.51        | 1.43     |
| 33  | 6     | 804  | PTY  | O4-C1   | -2.09 | 1.40        | 1.45     |
| 21  | A     | 1124 | CLA  | C3D-C4D | -2.09 | 1.39        | 1.44     |
| 21  | 4     | 615  | CLA  | C3D-C4D | -2.09 | 1.39        | 1.44     |
| 21  | 3     | 601  | CLA  | C1A-CHA | 2.09  | 1.51        | 1.43     |
| 21  | B     | 1222 | CLA  | C1A-CHA | 2.09  | 1.51        | 1.43     |
| 21  | B     | 1212 | CLA  | C1C-C2C | 2.09  | 1.48        | 1.44     |
| 21  | A     | 1115 | CLA  | C3D-C4D | -2.08 | 1.39        | 1.44     |
| 21  | 2     | 606  | CLA  | C1A-CHA | 2.08  | 1.51        | 1.43     |
| 21  | B     | 1023 | CLA  | C1C-C2C | 2.08  | 1.48        | 1.44     |
| 21  | 5     | 613  | CLA  | C1C-C2C | 2.08  | 1.48        | 1.44     |
| 21  | 4     | 601  | CLA  | C4B-NB  | -2.08 | 1.33        | 1.35     |
| 21  | A     | 1139 | CLA  | C3D-C4D | -2.08 | 1.39        | 1.44     |
| 21  | A     | 1119 | CLA  | C1A-CHA | 2.08  | 1.51        | 1.43     |
| 21  | K     | 1401 | CLA  | CHC-C1C | 2.08  | 1.40        | 1.35     |
| 21  | A     | 1104 | CLA  | CHD-C1D | 2.08  | 1.42        | 1.38     |
| 21  | A     | 1134 | CLA  | C1C-C2C | 2.08  | 1.48        | 1.44     |
| 21  | B     | 1022 | CLA  | C1C-C2C | 2.08  | 1.48        | 1.44     |
| 21  | L     | 1502 | CLA  | C3D-C4D | -2.08 | 1.39        | 1.44     |
| 21  | 6     | 604  | CLA  | C3D-C4D | -2.08 | 1.39        | 1.44     |
| 21  | A     | 1129 | CLA  | C1A-CHA | 2.08  | 1.51        | 1.43     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 24  | L     | 4001 | BCR  | C29-C30 | -2.07 | 1.49        | 1.54     |
| 21  | 2     | 606  | CLA  | C3D-C4D | -2.07 | 1.39        | 1.44     |
| 21  | 5     | 606  | CLA  | C1B-NB  | 2.07  | 1.37        | 1.35     |
| 29  | F     | 5003 | 3PH  | O31-C3  | -2.07 | 1.40        | 1.45     |
| 21  | A     | 1136 | CLA  | C3D-C4D | -2.07 | 1.39        | 1.44     |
| 21  | 5     | 601  | CLA  | C1D-ND  | -2.07 | 1.35        | 1.37     |
| 21  | B     | 1227 | CLA  | C1A-CHA | 2.07  | 1.51        | 1.43     |
| 21  | 3     | 607  | CLA  | C1C-C2C | 2.07  | 1.48        | 1.44     |
| 33  | 5     | 803  | PTY  | O7-C8   | 2.07  | 1.40        | 1.34     |
| 21  | B     | 1204 | CLA  | C3D-C4D | -2.07 | 1.39        | 1.44     |
| 24  | A     | 4005 | BCR  | C12-C13 | -2.07 | 1.41        | 1.45     |
| 21  | 3     | 601  | CLA  | C3D-C4D | -2.07 | 1.39        | 1.44     |
| 21  | 5     | 602  | CLA  | CAA-C2A | -2.06 | 1.50        | 1.54     |
| 38  | 4     | 805  | LMK  | O8-C28  | 2.06  | 1.43        | 1.40     |
| 21  | G     | 1603 | CLA  | C3D-C4D | -2.06 | 1.39        | 1.44     |
| 24  | 3     | 504  | BCR  | C12-C13 | -2.06 | 1.41        | 1.45     |
| 21  | 6     | 612  | CLA  | C3D-C4D | -2.06 | 1.39        | 1.44     |
| 21  | 4     | 612  | CLA  | C3D-C4D | -2.06 | 1.39        | 1.44     |
| 21  | A     | 1129 | CLA  | C4B-NB  | -2.06 | 1.33        | 1.35     |
| 21  | A     | 1132 | CLA  | C1C-C2C | 2.06  | 1.48        | 1.44     |
| 34  | 4     | 501  | LUT  | C22-C21 | -2.05 | 1.52        | 1.54     |
| 21  | 1     | 608  | CLA  | C1C-C2C | 2.05  | 1.48        | 1.44     |
| 21  | B     | 1201 | CLA  | C3D-C4D | -2.05 | 1.39        | 1.44     |
| 32  | L     | 5002 | 4RF  | O18-C19 | -2.05 | 1.40        | 1.45     |
| 21  | K     | 1401 | CLA  | C1A-CHA | 2.05  | 1.51        | 1.43     |
| 21  | 1     | 612  | CLA  | C3D-C4D | -2.05 | 1.39        | 1.44     |
| 21  | 3     | 610  | CLA  | C1C-C2C | 2.05  | 1.48        | 1.44     |
| 21  | 1     | 615  | CLA  | MG-NC   | 2.05  | 2.11        | 2.06     |
| 31  | 4     | 803  | LMG  | O1-C1   | 2.05  | 1.43        | 1.40     |
| 36  | 3     | 604  | CHL  | C1A-CHA | -2.05 | 1.34        | 1.43     |
| 21  | 3     | 615  | CLA  | C3D-C4D | -2.05 | 1.39        | 1.44     |
| 21  | A     | 1101 | CLA  | C3D-C4D | -2.05 | 1.39        | 1.44     |
| 21  | B     | 1226 | CLA  | C1A-CHA | 2.05  | 1.51        | 1.43     |
| 21  | 1     | 611  | CLA  | C1B-NB  | 2.05  | 1.37        | 1.35     |
| 21  | 3     | 613  | CLA  | C1A-CHA | 2.05  | 1.51        | 1.43     |
| 21  | B     | 1239 | CLA  | C3D-C4D | -2.05 | 1.39        | 1.44     |
| 36  | 6     | 610  | CHL  | C3B-C2B | -2.05 | 1.37        | 1.40     |
| 21  | B     | 1235 | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 24  | O     | 4001 | BCR  | C12-C13 | -2.04 | 1.41        | 1.45     |
| 21  | 6     | 601  | CLA  | C1B-NB  | 2.04  | 1.37        | 1.35     |
| 21  | L     | 1504 | CLA  | C1C-C2C | 2.04  | 1.48        | 1.44     |
| 21  | 1     | 602  | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | B     | 1230 | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 21  | 6     | 604  | CLA  | C1A-CHA | 2.04  | 1.51        | 1.43     |
| 21  | A     | 1114 | CLA  | C1C-C2C | 2.04  | 1.48        | 1.44     |
| 36  | 2     | 609  | CHL  | C1D-ND  | -2.04 | 1.35        | 1.37     |
| 24  | B     | 4005 | BCR  | C12-C13 | -2.04 | 1.41        | 1.45     |
| 21  | 2     | 602  | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 21  | 5     | 607  | CLA  | C1B-NB  | 2.04  | 1.37        | 1.35     |
| 21  | 3     | 613  | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 21  | 4     | 603  | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 21  | A     | 1116 | CLA  | MG-NC   | 2.04  | 2.11        | 2.06     |
| 21  | A     | 1120 | CLA  | C1A-CHA | 2.04  | 1.51        | 1.43     |
| 21  | L     | 1503 | CLA  | C1C-C2C | 2.04  | 1.48        | 1.44     |
| 21  | A     | 1012 | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 21  | A     | 1103 | CLA  | C1A-CHA | 2.04  | 1.51        | 1.43     |
| 21  | 2     | 603  | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 21  | K     | 1403 | CLA  | C3D-C4D | -2.04 | 1.39        | 1.44     |
| 24  | J     | 4001 | BCR  | C12-C13 | -2.04 | 1.41        | 1.45     |
| 33  | 5     | 803  | PTY  | O4-C1   | -2.03 | 1.40        | 1.45     |
| 21  | A     | 1123 | CLA  | MG-NC   | 2.03  | 2.11        | 2.06     |
| 21  | A     | 1101 | CLA  | C1A-CHA | 2.03  | 1.51        | 1.43     |
| 21  | 5     | 601  | CLA  | C3A-C2A | -2.03 | 1.48        | 1.54     |
| 21  | A     | 1114 | CLA  | C3D-C4D | -2.03 | 1.39        | 1.44     |
| 21  | 3     | 607  | CLA  | MG-NC   | 2.03  | 2.11        | 2.06     |
| 21  | 2     | 602  | CLA  | C1C-C2C | 2.03  | 1.48        | 1.44     |
| 21  | 5     | 612  | CLA  | C1A-CHA | 2.03  | 1.51        | 1.43     |
| 21  | B     | 1231 | CLA  | C1A-CHA | 2.03  | 1.51        | 1.43     |
| 21  | B     | 1229 | CLA  | C3D-C4D | -2.03 | 1.39        | 1.44     |
| 21  | B     | 1219 | CLA  | C3D-C4D | -2.03 | 1.39        | 1.44     |
| 21  | 5     | 602  | CLA  | C1D-ND  | -2.02 | 1.35        | 1.37     |
| 21  | 4     | 604  | CLA  | C1C-C2C | 2.02  | 1.48        | 1.44     |
| 21  | K     | 1403 | CLA  | C1A-CHA | 2.02  | 1.51        | 1.43     |
| 21  | 4     | 604  | CLA  | C3D-C4D | -2.02 | 1.39        | 1.44     |
| 21  | 6     | 606  | CLA  | C1C-C2C | 2.02  | 1.48        | 1.44     |
| 21  | 5     | 602  | CLA  | C3D-C4D | -2.02 | 1.39        | 1.44     |
| 21  | 1     | 613  | CLA  | MG-NC   | 2.02  | 2.11        | 2.06     |
| 21  | 5     | 601  | CLA  | CMB-C2B | -2.02 | 1.47        | 1.51     |
| 31  | F     | 5002 | LMG  | C22-C21 | -2.02 | 1.33        | 1.49     |
| 21  | L     | 1504 | CLA  | MG-NC   | 2.02  | 2.11        | 2.06     |
| 28  | B     | 5002 | DGD  | CDA-CCA | -2.02 | 1.33        | 1.49     |
| 21  | 4     | 608  | CLA  | C3D-C4D | -2.02 | 1.39        | 1.44     |
| 21  | K     | 1403 | CLA  | CHD-C1D | 2.02  | 1.42        | 1.38     |
| 21  | H     | 1702 | CLA  | C3D-C4D | -2.02 | 1.39        | 1.44     |

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| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 21  | A     | 1013 | CLA  | C1D-ND  | -2.01 | 1.35        | 1.37     |
| 21  | 5     | 601  | CLA  | CHC-C1C | 2.01  | 1.40        | 1.35     |
| 34  | 3     | 501  | LUT  | C1-C6   | -2.01 | 1.51        | 1.53     |
| 21  | B     | 1022 | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | K     | 1404 | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | 3     | 610  | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | 3     | 608  | CLA  | MG-NC   | 2.01  | 2.11        | 2.06     |
| 28  | 2     | 806  | DGD  | O5D-C1E | 2.01  | 1.43        | 1.40     |
| 21  | 6     | 605  | CLA  | C3B-C2B | -2.01 | 1.37        | 1.40     |
| 21  | G     | 1603 | CLA  | C1A-CHA | 2.01  | 1.51        | 1.43     |
| 21  | L     | 1501 | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | 5     | 608  | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | J     | 1901 | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | 2     | 612  | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | A     | 1139 | CLA  | C1C-C2C | 2.01  | 1.48        | 1.44     |
| 21  | A     | 1132 | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 29  | B     | 5003 | 3PH  | O31-C3  | -2.01 | 1.40        | 1.45     |
| 21  | A     | 1138 | CLA  | C1C-C2C | 2.01  | 1.48        | 1.44     |
| 21  | 6     | 609  | CLA  | C1C-C2C | 2.01  | 1.48        | 1.44     |
| 21  | 5     | 606  | CLA  | MG-NC   | 2.01  | 2.11        | 2.06     |
| 21  | 6     | 603  | CLA  | C3D-C4D | -2.01 | 1.39        | 1.44     |
| 21  | B     | 1208 | CLA  | MG-NC   | 2.01  | 2.11        | 2.06     |
| 31  | 2     | 804  | LMG  | C22-C21 | -2.01 | 1.33        | 1.49     |
| 21  | A     | 1013 | CLA  | C3D-C4D | -2.00 | 1.39        | 1.44     |
| 28  | 3     | 805  | DGD  | CAB-C9B | -2.00 | 1.33        | 1.49     |
| 36  | 4     | 613  | CHL  | CHC-C1C | 2.00  | 1.40        | 1.35     |
| 21  | L     | 1503 | CLA  | C1A-CHA | 2.00  | 1.51        | 1.43     |
| 31  | 6     | 802  | LMG  | C19-C18 | -2.00 | 1.33        | 1.49     |
| 21  | F     | 1301 | CLA  | C1C-C2C | 2.00  | 1.48        | 1.44     |
| 24  | L     | 4002 | BCR  | C32-C1  | -2.00 | 1.49        | 1.53     |

All (4145) bond angle outliers are listed below:

| Mol | Chain | Res  | Type | Atoms       | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|--------|-------------|----------|
| 35  | 6     | 504  | XAT  | C20-C13-C14 | -31.64 | 78.60       | 122.92   |
| 35  | 6     | 504  | XAT  | C12-C13-C14 | 25.27  | 157.72      | 118.94   |
| 35  | 6     | 504  | XAT  | C20-C13-C12 | -24.73 | 79.12       | 118.08   |
| 34  | 5     | 501  | LUT  | C37-C21-C36 | -19.58 | 79.03       | 107.89   |
| 34  | 5     | 504  | LUT  | C37-C21-C36 | -19.44 | 79.24       | 107.89   |
| 24  | O     | 4001 | BCR  | C16-C15-C14 | 19.36  | 163.14      | 123.47   |
| 24  | F     | 4001 | BCR  | C10-C11-C12 | 18.05  | 179.55      | 123.22   |
| 24  | L     | 4002 | BCR  | C10-C11-C12 | 17.99  | 179.36      | 123.22   |

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| Mol | Chain | Res  | Type | Atoms       | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|--------|-------------|----------|
| 24  | I     | 4002 | BCR  | C10-C11-C12 | 17.90  | 179.07      | 123.22   |
| 24  | K     | 4001 | BCR  | C10-C11-C12 | 17.66  | 178.31      | 123.22   |
| 24  | A     | 4001 | BCR  | C10-C11-C12 | 17.65  | 178.31      | 123.22   |
| 24  | L     | 4001 | BCR  | C10-C11-C12 | 17.61  | 178.17      | 123.22   |
| 24  | 4     | 503  | BCR  | C10-C11-C12 | 17.46  | 177.70      | 123.22   |
| 24  | B     | 4003 | BCR  | C10-C11-C12 | 17.34  | 177.34      | 123.22   |
| 24  | A     | 4002 | BCR  | C10-C11-C12 | 17.31  | 177.24      | 123.22   |
| 24  | B     | 4001 | BCR  | C10-C11-C12 | 17.26  | 177.08      | 123.22   |
| 24  | B     | 4006 | BCR  | C10-C11-C12 | 17.23  | 176.99      | 123.22   |
| 34  | 1     | 501  | LUT  | C37-C21-C36 | -17.22 | 82.50       | 107.89   |
| 24  | 3     | 503  | BCR  | C10-C11-C12 | 17.17  | 176.80      | 123.22   |
| 24  | F     | 4002 | BCR  | C10-C11-C12 | 17.15  | 176.75      | 123.22   |
| 24  | B     | 4005 | BCR  | C10-C11-C12 | 17.11  | 176.60      | 123.22   |
| 24  | J     | 4001 | BCR  | C10-C11-C12 | 17.09  | 176.56      | 123.22   |
| 24  | A     | 4007 | BCR  | C10-C11-C12 | 16.99  | 176.23      | 123.22   |
| 24  | B     | 4002 | BCR  | C10-C11-C12 | 16.95  | 176.10      | 123.22   |
| 24  | 2     | 503  | BCR  | C10-C11-C12 | 16.95  | 176.10      | 123.22   |
| 24  | B     | 4004 | BCR  | C10-C11-C12 | 16.90  | 175.96      | 123.22   |
| 34  | 5     | 503  | LUT  | C36-C21-C26 | -16.83 | 84.05       | 109.55   |
| 24  | A     | 4005 | BCR  | C10-C11-C12 | 16.76  | 175.53      | 123.22   |
| 24  | 3     | 504  | BCR  | C10-C11-C12 | 16.75  | 175.48      | 123.22   |
| 24  | O     | 4001 | BCR  | C10-C11-C12 | 16.70  | 175.34      | 123.22   |
| 24  | J     | 4002 | BCR  | C10-C11-C12 | 16.64  | 175.14      | 123.22   |
| 24  | I     | 4001 | BCR  | C10-C11-C12 | 16.63  | 175.12      | 123.22   |
| 24  | A     | 4004 | BCR  | C10-C11-C12 | 16.58  | 174.95      | 123.22   |
| 24  | A     | 4003 | BCR  | C10-C11-C12 | 16.53  | 174.81      | 123.22   |
| 24  | H     | 4001 | BCR  | C10-C11-C12 | 16.43  | 174.48      | 123.22   |
| 24  | G     | 4001 | BCR  | C10-C11-C12 | 16.39  | 174.36      | 123.22   |
| 24  | A     | 4007 | BCR  | C16-C15-C14 | 16.21  | 156.68      | 123.47   |
| 24  | J     | 4002 | BCR  | C11-C10-C9  | 16.17  | 150.39      | 127.31   |
| 24  | 1     | 504  | BCR  | C10-C11-C12 | 16.09  | 173.44      | 123.22   |
| 24  | A     | 4006 | BCR  | C10-C11-C12 | 15.87  | 172.74      | 123.22   |
| 24  | A     | 4004 | BCR  | C16-C15-C14 | 15.64  | 155.51      | 123.47   |
| 34  | 5     | 504  | LUT  | C36-C21-C26 | -15.60 | 85.92       | 109.55   |
| 24  | 3     | 506  | BCR  | C10-C11-C12 | 15.57  | 171.80      | 123.22   |
| 24  | L     | 4002 | BCR  | C11-C10-C9  | 15.29  | 149.14      | 127.31   |
| 24  | H     | 4001 | BCR  | C16-C15-C14 | 14.95  | 154.09      | 123.47   |
| 24  | A     | 4005 | BCR  | C16-C15-C14 | 14.91  | 154.01      | 123.47   |
| 34  | 5     | 503  | LUT  | C37-C21-C36 | -14.81 | 86.07       | 107.89   |
| 24  | H     | 4001 | BCR  | C11-C10-C9  | 14.69  | 148.28      | 127.31   |
| 34  | 1     | 501  | LUT  | C36-C21-C22 | -14.69 | 81.62       | 109.44   |
| 24  | 4     | 503  | BCR  | C16-C15-C14 | 14.63  | 153.45      | 123.47   |

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| Mol | Chain | Res  | Type | Atoms       | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|--------|-------------|----------|
| 24  | O     | 4001 | BCR  | C11-C10-C9  | 14.50  | 148.00      | 127.31   |
| 24  | B     | 4002 | BCR  | C11-C10-C9  | 14.39  | 147.85      | 127.31   |
| 24  | A     | 4007 | BCR  | C11-C10-C9  | 14.35  | 147.79      | 127.31   |
| 24  | J     | 4001 | BCR  | C21-C20-C19 | 14.31  | 167.87      | 123.22   |
| 24  | A     | 4006 | BCR  | C11-C10-C9  | 14.22  | 147.60      | 127.31   |
| 24  | I     | 4002 | BCR  | C16-C15-C14 | 13.96  | 152.08      | 123.47   |
| 24  | B     | 4004 | BCR  | C11-C10-C9  | 13.60  | 146.73      | 127.31   |
| 24  | B     | 4001 | BCR  | C21-C20-C19 | 13.52  | 165.42      | 123.22   |
| 24  | A     | 4001 | BCR  | C29-C30-C25 | -13.49 | 89.71       | 110.48   |
| 24  | A     | 4002 | BCR  | C21-C20-C19 | 13.46  | 165.22      | 123.22   |
| 24  | 3     | 504  | BCR  | C11-C10-C9  | 13.45  | 146.51      | 127.31   |
| 24  | I     | 4001 | BCR  | C16-C15-C14 | 13.37  | 150.86      | 123.47   |
| 24  | B     | 4005 | BCR  | C16-C15-C14 | 13.34  | 150.81      | 123.47   |
| 21  | 5     | 614  | CLA  | C4A-NA-C1A  | 13.31  | 112.69      | 106.71   |
| 24  | A     | 4004 | BCR  | C11-C10-C9  | 13.26  | 146.24      | 127.31   |
| 24  | F     | 4001 | BCR  | C16-C15-C14 | 13.22  | 150.55      | 123.47   |
| 24  | A     | 4001 | BCR  | C16-C15-C14 | 13.15  | 150.40      | 123.47   |
| 24  | 2     | 503  | BCR  | C11-C10-C9  | 13.08  | 145.98      | 127.31   |
| 24  | B     | 4001 | BCR  | C11-C10-C9  | 13.03  | 145.91      | 127.31   |
| 24  | 2     | 503  | BCR  | C16-C15-C14 | 12.98  | 150.06      | 123.47   |
| 24  | F     | 4002 | BCR  | C11-C10-C9  | 12.97  | 145.83      | 127.31   |
| 24  | F     | 4001 | BCR  | C21-C20-C19 | 12.94  | 163.61      | 123.22   |
| 24  | F     | 4002 | BCR  | C21-C20-C19 | 12.93  | 163.57      | 123.22   |
| 24  | B     | 4003 | BCR  | C21-C20-C19 | 12.86  | 163.34      | 123.22   |
| 24  | B     | 4006 | BCR  | C11-C10-C9  | 12.85  | 145.65      | 127.31   |
| 24  | 1     | 504  | BCR  | C21-C20-C19 | 12.78  | 163.11      | 123.22   |
| 24  | B     | 4003 | BCR  | C11-C10-C9  | 12.77  | 145.54      | 127.31   |
| 24  | 1     | 504  | BCR  | C16-C15-C14 | 12.75  | 149.60      | 123.47   |
| 24  | A     | 4001 | BCR  | C21-C20-C19 | 12.75  | 162.99      | 123.22   |
| 24  | K     | 4001 | BCR  | C21-C20-C19 | 12.64  | 162.67      | 123.22   |
| 24  | B     | 4005 | BCR  | C11-C10-C9  | 12.63  | 145.33      | 127.31   |
| 34  | 5     | 501  | LUT  | C36-C21-C26 | -12.62 | 90.43       | 109.55   |
| 24  | A     | 4003 | BCR  | C11-C10-C9  | 12.58  | 145.26      | 127.31   |
| 24  | A     | 4004 | BCR  | C21-C20-C19 | 12.57  | 162.43      | 123.22   |
| 24  | A     | 4002 | BCR  | C16-C15-C14 | 12.50  | 149.08      | 123.47   |
| 24  | 3     | 506  | BCR  | C21-C20-C19 | 12.31  | 161.63      | 123.22   |
| 34  | 5     | 503  | LUT  | C36-C21-C22 | -12.31 | 86.13       | 109.44   |
| 24  | A     | 4001 | BCR  | C11-C10-C9  | 12.29  | 144.85      | 127.31   |
| 24  | L     | 4001 | BCR  | C11-C10-C9  | 12.29  | 144.85      | 127.31   |
| 34  | 5     | 501  | LUT  | C36-C21-C22 | -12.11 | 86.49       | 109.44   |
| 24  | L     | 4001 | BCR  | C16-C15-C14 | 12.05  | 148.16      | 123.47   |
| 24  | I     | 4002 | BCR  | C21-C20-C19 | 12.04  | 160.78      | 123.22   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | 3     | 504  | BCR  | C16-C15-C14 | 12.03 | 148.12      | 123.47   |
| 24  | 3     | 503  | BCR  | C11-C10-C9  | 12.00 | 144.43      | 127.31   |
| 24  | K     | 4001 | BCR  | C16-C15-C14 | 11.98 | 148.01      | 123.47   |
| 24  | J     | 4001 | BCR  | C16-C15-C14 | 11.95 | 147.96      | 123.47   |
| 24  | K     | 4001 | BCR  | C11-C10-C9  | 11.94 | 144.36      | 127.31   |
| 24  | 3     | 503  | BCR  | C16-C15-C14 | 11.94 | 147.93      | 123.47   |
| 24  | F     | 4002 | BCR  | C16-C15-C14 | 11.86 | 147.77      | 123.47   |
| 24  | L     | 4002 | BCR  | C21-C20-C19 | 11.86 | 160.23      | 123.22   |
| 24  | G     | 4001 | BCR  | C21-C20-C19 | 11.83 | 160.15      | 123.22   |
| 24  | J     | 4001 | BCR  | C11-C12-C13 | 11.82 | 159.62      | 126.42   |
| 24  | A     | 4007 | BCR  | C21-C20-C19 | 11.81 | 160.07      | 123.22   |
| 24  | B     | 4003 | BCR  | C16-C15-C14 | 11.78 | 147.60      | 123.47   |
| 24  | B     | 4002 | BCR  | C16-C15-C14 | 11.72 | 147.47      | 123.47   |
| 24  | B     | 4006 | BCR  | C16-C15-C14 | 11.65 | 147.34      | 123.47   |
| 24  | G     | 4001 | BCR  | C16-C15-C14 | 11.59 | 147.21      | 123.47   |
| 24  | A     | 4003 | BCR  | C11-C12-C13 | 11.56 | 158.89      | 126.42   |
| 24  | B     | 4005 | BCR  | C21-C20-C19 | 11.54 | 159.23      | 123.22   |
| 24  | O     | 4001 | BCR  | C21-C20-C19 | 11.46 | 158.98      | 123.22   |
| 24  | B     | 4004 | BCR  | C16-C15-C14 | 11.43 | 146.89      | 123.47   |
| 24  | B     | 4006 | BCR  | C21-C20-C19 | 11.43 | 158.89      | 123.22   |
| 24  | J     | 4002 | BCR  | C16-C15-C14 | 11.39 | 146.81      | 123.47   |
| 24  | 4     | 503  | BCR  | C11-C10-C9  | 11.26 | 143.38      | 127.31   |
| 24  | A     | 4006 | BCR  | C11-C12-C13 | 11.26 | 158.05      | 126.42   |
| 21  | O     | 1801 | CLA  | C4A-NA-C1A  | 11.24 | 111.76      | 106.71   |
| 24  | B     | 4001 | BCR  | C16-C15-C14 | 11.22 | 146.46      | 123.47   |
| 24  | 3     | 506  | BCR  | C16-C15-C14 | 11.16 | 146.34      | 123.47   |
| 24  | 3     | 504  | BCR  | C21-C20-C19 | 11.16 | 158.05      | 123.22   |
| 24  | A     | 4005 | BCR  | C11-C10-C9  | 11.16 | 143.24      | 127.31   |
| 24  | L     | 4001 | BCR  | C21-C20-C19 | 11.16 | 158.03      | 123.22   |
| 24  | I     | 4001 | BCR  | C21-C20-C19 | 11.12 | 157.91      | 123.22   |
| 24  | J     | 4001 | BCR  | C11-C10-C9  | 11.11 | 143.16      | 127.31   |
| 24  | 4     | 503  | BCR  | C21-C20-C19 | 11.09 | 157.84      | 123.22   |
| 24  | F     | 4001 | BCR  | C11-C10-C9  | 11.09 | 143.13      | 127.31   |
| 24  | B     | 4001 | BCR  | C11-C12-C13 | 11.08 | 157.53      | 126.42   |
| 24  | A     | 4003 | BCR  | C21-C20-C19 | 11.08 | 157.78      | 123.22   |
| 24  | A     | 4006 | BCR  | C21-C20-C19 | 11.02 | 157.61      | 123.22   |
| 24  | A     | 4002 | BCR  | C11-C12-C13 | 11.00 | 157.31      | 126.42   |
| 24  | B     | 4004 | BCR  | C11-C12-C13 | 10.98 | 157.25      | 126.42   |
| 21  | B     | 1205 | CLA  | C4A-NA-C1A  | 10.96 | 111.63      | 106.71   |
| 24  | F     | 4002 | BCR  | C11-C12-C13 | 10.91 | 157.07      | 126.42   |
| 24  | 3     | 504  | BCR  | C11-C12-C13 | 10.84 | 156.88      | 126.42   |
| 24  | B     | 4006 | BCR  | C11-C12-C13 | 10.82 | 156.82      | 126.42   |

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| Mol | Chain | Res  | Type | Atoms       | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|--------|-------------|----------|
| 21  | B     | 1021 | CLA  | C4A-NA-C1A  | 10.77  | 111.55      | 106.71   |
| 21  | 3     | 613  | CLA  | C4A-NA-C1A  | 10.71  | 111.52      | 106.71   |
| 24  | B     | 4002 | BCR  | C21-C20-C19 | 10.65  | 156.46      | 123.22   |
| 24  | 3     | 503  | BCR  | C21-C20-C19 | 10.55  | 156.14      | 123.22   |
| 24  | 4     | 503  | BCR  | C11-C12-C13 | 10.54  | 156.02      | 126.42   |
| 21  | L     | 1501 | CLA  | C4A-NA-C1A  | 10.52  | 111.44      | 106.71   |
| 24  | A     | 4003 | BCR  | C16-C15-C14 | 10.45  | 144.87      | 123.47   |
| 21  | 4     | 609  | CLA  | C4A-NA-C1A  | 10.44  | 111.40      | 106.71   |
| 24  | A     | 4006 | BCR  | C16-C15-C14 | 10.43  | 144.84      | 123.47   |
| 24  | L     | 4002 | BCR  | C16-C15-C14 | 10.41  | 144.79      | 123.47   |
| 21  | A     | 1103 | CLA  | C4A-NA-C1A  | 10.40  | 111.38      | 106.71   |
| 24  | L     | 4001 | BCR  | C11-C12-C13 | 10.39  | 155.59      | 126.42   |
| 24  | B     | 4005 | BCR  | C11-C12-C13 | 10.38  | 155.57      | 126.42   |
| 21  | A     | 1125 | CLA  | C4A-NA-C1A  | 10.37  | 111.37      | 106.71   |
| 21  | 2     | 612  | CLA  | C4A-NA-C1A  | 10.37  | 111.37      | 106.71   |
| 34  | 5     | 504  | LUT  | C36-C21-C22 | -10.34 | 89.85       | 109.44   |
| 24  | I     | 4002 | BCR  | C11-C10-C9  | 10.34  | 142.07      | 127.31   |
| 24  | B     | 4004 | BCR  | C21-C20-C19 | 10.32  | 155.44      | 123.22   |
| 21  | B     | 1219 | CLA  | C4A-NA-C1A  | 10.30  | 111.33      | 106.71   |
| 24  | I     | 4001 | BCR  | C11-C10-C9  | 10.28  | 141.98      | 127.31   |
| 24  | 2     | 503  | BCR  | C11-C12-C13 | 10.24  | 155.18      | 126.42   |
| 21  | 1     | 603  | CLA  | C4A-NA-C1A  | 10.22  | 111.30      | 106.71   |
| 24  | A     | 4005 | BCR  | C21-C20-C19 | 10.21  | 155.07      | 123.22   |
| 24  | J     | 4002 | BCR  | C21-C20-C19 | 10.21  | 155.07      | 123.22   |
| 21  | G     | 1603 | CLA  | C4A-NA-C1A  | 10.19  | 111.29      | 106.71   |
| 24  | 2     | 503  | BCR  | C21-C20-C19 | 10.18  | 155.00      | 123.22   |
| 24  | K     | 4001 | BCR  | C11-C12-C13 | 10.16  | 154.96      | 126.42   |
| 21  | 1     | 612  | CLA  | C4A-NA-C1A  | 10.14  | 111.26      | 106.71   |
| 21  | H     | 1701 | CLA  | C4A-NA-C1A  | 10.12  | 111.26      | 106.71   |
| 21  | 3     | 601  | CLA  | C4A-NA-C1A  | 10.10  | 111.25      | 106.71   |
| 24  | A     | 4002 | BCR  | C11-C10-C9  | 10.08  | 141.70      | 127.31   |
| 24  | I     | 4002 | BCR  | C11-C12-C13 | 10.07  | 154.70      | 126.42   |
| 21  | J     | 1901 | CLA  | C4A-NA-C1A  | 10.06  | 111.23      | 106.71   |
| 24  | A     | 4005 | BCR  | C11-C12-C13 | 10.03  | 154.59      | 126.42   |
| 24  | J     | 4002 | BCR  | C11-C12-C13 | 10.01  | 154.55      | 126.42   |
| 21  | B     | 1215 | CLA  | C4A-NA-C1A  | 9.98   | 111.19      | 106.71   |
| 21  | L     | 1502 | CLA  | C4A-NA-C1A  | 9.97   | 111.19      | 106.71   |
| 21  | 3     | 605  | CLA  | C4A-NA-C1A  | 9.97   | 111.19      | 106.71   |
| 24  | G     | 4001 | BCR  | C11-C10-C9  | 9.92   | 141.47      | 127.31   |
| 21  | 4     | 612  | CLA  | C4A-NA-C1A  | 9.91   | 111.16      | 106.71   |
| 24  | A     | 4001 | BCR  | C11-C12-C13 | 9.90   | 154.22      | 126.42   |
| 21  | 5     | 608  | CLA  | C4A-NA-C1A  | 9.89   | 111.15      | 106.71   |

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| Mol | Chain | Res  | Type | Atoms       | Z    | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|------|-------------|----------|
| 24  | F     | 4001 | BCR  | C11-C12-C13 | 9.89 | 154.19      | 126.42   |
| 21  | F     | 1302 | CLA  | C4A-NA-C1A  | 9.88 | 111.15      | 106.71   |
| 24  | 3     | 503  | BCR  | C11-C12-C13 | 9.88 | 154.18      | 126.42   |
| 24  | 1     | 504  | BCR  | C11-C10-C9  | 9.88 | 141.41      | 127.31   |
| 21  | A     | 1131 | CLA  | C4A-NA-C1A  | 9.86 | 111.14      | 106.71   |
| 21  | B     | 1204 | CLA  | C4A-NA-C1A  | 9.80 | 111.11      | 106.71   |
| 21  | A     | 1013 | CLA  | C4A-NA-C1A  | 9.79 | 111.11      | 106.71   |
| 21  | A     | 1122 | CLA  | C4A-NA-C1A  | 9.76 | 111.09      | 106.71   |
| 21  | A     | 1139 | CLA  | C4A-NA-C1A  | 9.73 | 111.08      | 106.71   |
| 21  | 6     | 605  | CLA  | C4A-NA-C1A  | 9.72 | 111.08      | 106.71   |
| 21  | B     | 1232 | CLA  | C4A-NA-C1A  | 9.70 | 111.07      | 106.71   |
| 24  | J     | 4002 | BCR  | C20-C19-C18 | 9.69 | 153.65      | 126.42   |
| 24  | B     | 4002 | BCR  | C11-C12-C13 | 9.69 | 153.64      | 126.42   |
| 21  | B     | 1230 | CLA  | C4A-NA-C1A  | 9.68 | 111.06      | 106.71   |
| 21  | B     | 1238 | CLA  | C4A-NA-C1A  | 9.63 | 111.03      | 106.71   |
| 21  | B     | 1228 | CLA  | C4A-NA-C1A  | 9.62 | 111.03      | 106.71   |
| 21  | B     | 1234 | CLA  | C4A-NA-C1A  | 9.62 | 111.03      | 106.71   |
| 21  | B     | 1201 | CLA  | C4A-NA-C1A  | 9.61 | 111.03      | 106.71   |
| 21  | A     | 1111 | CLA  | C4A-NA-C1A  | 9.58 | 111.01      | 106.71   |
| 24  | H     | 4001 | BCR  | C21-C20-C19 | 9.57 | 153.08      | 123.22   |
| 21  | 2     | 607  | CLA  | C4A-NA-C1A  | 9.56 | 111.00      | 106.71   |
| 21  | A     | 1106 | CLA  | C4A-NA-C1A  | 9.56 | 111.00      | 106.71   |
| 21  | B     | 1237 | CLA  | C4A-NA-C1A  | 9.54 | 111.00      | 106.71   |
| 21  | B     | 1223 | CLA  | C4A-NA-C1A  | 9.52 | 110.99      | 106.71   |
| 24  | A     | 4007 | BCR  | C11-C12-C13 | 9.51 | 153.13      | 126.42   |
| 21  | 4     | 602  | CLA  | C4A-NA-C1A  | 9.51 | 110.98      | 106.71   |
| 21  | A     | 1138 | CLA  | C4A-NA-C1A  | 9.50 | 110.97      | 106.71   |
| 24  | A     | 4005 | BCR  | C20-C19-C18 | 9.49 | 153.09      | 126.42   |
| 21  | 5     | 602  | CLA  | C4A-NA-C1A  | 9.49 | 110.97      | 106.71   |
| 21  | B     | 1209 | CLA  | C4A-NA-C1A  | 9.48 | 110.97      | 106.71   |
| 21  | 3     | 603  | CLA  | C4A-NA-C1A  | 9.48 | 110.97      | 106.71   |
| 21  | 3     | 615  | CLA  | C4A-NA-C1A  | 9.48 | 110.97      | 106.71   |
| 21  | 3     | 612  | CLA  | C4A-NA-C1A  | 9.43 | 110.94      | 106.71   |
| 21  | B     | 1210 | CLA  | C4A-NA-C1A  | 9.42 | 110.94      | 106.71   |
| 21  | B     | 1225 | CLA  | C4A-NA-C1A  | 9.40 | 110.93      | 106.71   |
| 21  | B     | 1227 | CLA  | C4A-NA-C1A  | 9.40 | 110.93      | 106.71   |
| 21  | 2     | 606  | CLA  | C4A-NA-C1A  | 9.39 | 110.93      | 106.71   |
| 21  | A     | 1102 | CLA  | C4A-NA-C1A  | 9.37 | 110.92      | 106.71   |
| 21  | B     | 1221 | CLA  | C4A-NA-C1A  | 9.36 | 110.91      | 106.71   |
| 21  | A     | 1109 | CLA  | C4A-NA-C1A  | 9.34 | 110.90      | 106.71   |
| 21  | A     | 1127 | CLA  | C4A-NA-C1A  | 9.31 | 110.89      | 106.71   |
| 21  | 4     | 606  | CLA  | C4A-NA-C1A  | 9.30 | 110.89      | 106.71   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 607  | CLA  | C4A-NA-C1A  | 9.29  | 110.88      | 106.71   |
| 21  | 5     | 607  | CLA  | C4A-NA-C1A  | 9.25  | 110.86      | 106.71   |
| 21  | A     | 1126 | CLA  | C4A-NA-C1A  | 9.24  | 110.86      | 106.71   |
| 21  | A     | 1140 | CLA  | C4A-NA-C1A  | 9.22  | 110.85      | 106.71   |
| 21  | B     | 1231 | CLA  | C4A-NA-C1A  | 9.21  | 110.85      | 106.71   |
| 21  | 2     | 602  | CLA  | C4A-NA-C1A  | 9.20  | 110.84      | 106.71   |
| 21  | 4     | 608  | CLA  | C4A-NA-C1A  | 9.18  | 110.83      | 106.71   |
| 21  | B     | 1236 | CLA  | C4A-NA-C1A  | 9.18  | 110.83      | 106.71   |
| 21  | B     | 1224 | CLA  | C4A-NA-C1A  | 9.17  | 110.83      | 106.71   |
| 21  | 2     | 603  | CLA  | C4A-NA-C1A  | 9.16  | 110.83      | 106.71   |
| 21  | A     | 1129 | CLA  | C4A-NA-C1A  | 9.14  | 110.81      | 106.71   |
| 21  | B     | 1226 | CLA  | C4A-NA-C1A  | 9.13  | 110.81      | 106.71   |
| 21  | 1     | 602  | CLA  | C4A-NA-C1A  | 9.13  | 110.81      | 106.71   |
| 21  | 3     | 607  | CLA  | C4A-NA-C1A  | 9.13  | 110.81      | 106.71   |
| 34  | 1     | 501  | LUT  | C15-C35-C34 | -9.13 | 104.78      | 123.47   |
| 24  | I     | 4001 | BCR  | C20-C19-C18 | 9.12  | 152.04      | 126.42   |
| 21  | A     | 1108 | CLA  | C4A-NA-C1A  | 9.12  | 110.81      | 106.71   |
| 21  | A     | 1133 | CLA  | C4A-NA-C1A  | 9.10  | 110.80      | 106.71   |
| 21  | 3     | 606  | CLA  | C4A-NA-C1A  | 9.09  | 110.79      | 106.71   |
| 21  | A     | 1105 | CLA  | C4A-NA-C1A  | 9.08  | 110.79      | 106.71   |
| 21  | K     | 1403 | CLA  | C4A-NA-C1A  | 9.08  | 110.79      | 106.71   |
| 21  | 1     | 607  | CLA  | C4A-NA-C1A  | 9.07  | 110.78      | 106.71   |
| 21  | 2     | 608  | CLA  | C4A-NA-C1A  | 9.06  | 110.78      | 106.71   |
| 21  | A     | 1123 | CLA  | C4A-NA-C1A  | 9.06  | 110.78      | 106.71   |
| 34  | 1     | 501  | LUT  | C36-C21-C26 | -9.04 | 95.85       | 109.55   |
| 21  | 2     | 604  | CLA  | C4A-NA-C1A  | 9.03  | 110.77      | 106.71   |
| 24  | O     | 4001 | BCR  | C20-C19-C18 | 9.03  | 151.78      | 126.42   |
| 21  | 5     | 601  | CLA  | CMA-C3A-C2A | -9.01 | 77.48       | 113.83   |
| 21  | O     | 1802 | CLA  | C4A-NA-C1A  | 9.01  | 110.76      | 106.71   |
| 24  | B     | 4004 | BCR  | C20-C19-C18 | 9.01  | 151.71      | 126.42   |
| 21  | B     | 1240 | CLA  | C4A-NA-C1A  | 8.98  | 110.75      | 106.71   |
| 21  | 4     | 615  | CLA  | C4A-NA-C1A  | 8.98  | 110.74      | 106.71   |
| 21  | A     | 1116 | CLA  | C4A-NA-C1A  | 8.97  | 110.74      | 106.71   |
| 21  | 6     | 608  | CLA  | C4A-NA-C1A  | 8.95  | 110.73      | 106.71   |
| 21  | B     | 1206 | CLA  | C4A-NA-C1A  | 8.95  | 110.73      | 106.71   |
| 21  | 4     | 601  | CLA  | C4A-NA-C1A  | 8.95  | 110.73      | 106.71   |
| 21  | B     | 1218 | CLA  | C4A-NA-C1A  | 8.94  | 110.72      | 106.71   |
| 21  | 2     | 601  | CLA  | C4A-NA-C1A  | 8.94  | 110.72      | 106.71   |
| 21  | 2     | 615  | CLA  | C4A-NA-C1A  | 8.85  | 110.69      | 106.71   |
| 21  | 5     | 603  | CLA  | C4A-NA-C1A  | 8.85  | 110.68      | 106.71   |
| 24  | 1     | 504  | BCR  | C11-C12-C13 | 8.84  | 151.26      | 126.42   |
| 21  | B     | 1023 | CLA  | C4A-NA-C1A  | 8.84  | 110.68      | 106.71   |

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| Mol | Chain | Res  | Type | Atoms       | Z    | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|------|-------------|----------|
| 21  | B     | 1220 | CLA  | C4A-NA-C1A  | 8.84 | 110.68      | 106.71   |
| 21  | L     | 1504 | CLA  | C4A-NA-C1A  | 8.82 | 110.67      | 106.71   |
| 21  | A     | 1141 | CLA  | C4A-NA-C1A  | 8.82 | 110.67      | 106.71   |
| 21  | A     | 1110 | CLA  | C4A-NA-C1A  | 8.82 | 110.67      | 106.71   |
| 21  | 3     | 602  | CLA  | C4A-NA-C1A  | 8.82 | 110.67      | 106.71   |
| 24  | A     | 4004 | BCR  | C11-C12-C13 | 8.82 | 151.18      | 126.42   |
| 21  | 1     | 615  | CLA  | C4A-NA-C1A  | 8.80 | 110.66      | 106.71   |
| 21  | A     | 1107 | CLA  | C4A-NA-C1A  | 8.79 | 110.66      | 106.71   |
| 21  | A     | 1114 | CLA  | C4A-NA-C1A  | 8.78 | 110.65      | 106.71   |
| 21  | B     | 1214 | CLA  | C4A-NA-C1A  | 8.78 | 110.65      | 106.71   |
| 21  | G     | 1602 | CLA  | C4A-NA-C1A  | 8.77 | 110.65      | 106.71   |
| 21  | 5     | 601  | CLA  | CMA-C3A-C4A | 8.74 | 135.27      | 111.77   |
| 21  | A     | 1124 | CLA  | C4A-NA-C1A  | 8.74 | 110.64      | 106.71   |
| 21  | L     | 1503 | CLA  | C4A-NA-C1A  | 8.73 | 110.63      | 106.71   |
| 21  | A     | 1128 | CLA  | C4A-NA-C1A  | 8.72 | 110.62      | 106.71   |
| 21  | B     | 1235 | CLA  | C4A-NA-C1A  | 8.72 | 110.62      | 106.71   |
| 21  | 6     | 613  | CLA  | C4A-NA-C1A  | 8.72 | 110.62      | 106.71   |
| 21  | 6     | 602  | CLA  | C4A-NA-C1A  | 8.70 | 110.62      | 106.71   |
| 21  | 4     | 603  | CLA  | C4A-NA-C1A  | 8.69 | 110.61      | 106.71   |
| 34  | 5     | 504  | LUT  | C37-C21-C26 | 8.69 | 122.70      | 109.55   |
| 21  | B     | 1211 | CLA  | C4A-NA-C1A  | 8.68 | 110.61      | 106.71   |
| 21  | A     | 1137 | CLA  | C4A-NA-C1A  | 8.68 | 110.61      | 106.71   |
| 21  | B     | 1022 | CLA  | C4A-NA-C1A  | 8.67 | 110.61      | 106.71   |
| 21  | 1     | 605  | CLA  | C4A-NA-C1A  | 8.67 | 110.60      | 106.71   |
| 21  | A     | 1112 | CLA  | C4A-NA-C1A  | 8.67 | 110.60      | 106.71   |
| 21  | B     | 1222 | CLA  | C4A-NA-C1A  | 8.67 | 110.60      | 106.71   |
| 21  | B     | 1216 | CLA  | C4A-NA-C1A  | 8.66 | 110.60      | 106.71   |
| 21  | A     | 1132 | CLA  | C4A-NA-C1A  | 8.64 | 110.59      | 106.71   |
| 21  | 4     | 605  | CLA  | C4A-NA-C1A  | 8.63 | 110.58      | 106.71   |
| 21  | K     | 1402 | CLA  | C4A-NA-C1A  | 8.62 | 110.58      | 106.71   |
| 21  | 3     | 614  | CLA  | C4A-NA-C1A  | 8.61 | 110.58      | 106.71   |
| 21  | A     | 1119 | CLA  | C4A-NA-C1A  | 8.61 | 110.58      | 106.71   |
| 21  | 3     | 610  | CLA  | C4A-NA-C1A  | 8.60 | 110.57      | 106.71   |
| 21  | A     | 1121 | CLA  | C4A-NA-C1A  | 8.59 | 110.57      | 106.71   |
| 21  | A     | 1120 | CLA  | C4A-NA-C1A  | 8.58 | 110.56      | 106.71   |
| 21  | 6     | 607  | CLA  | C4A-NA-C1A  | 8.58 | 110.56      | 106.71   |
| 21  | 1     | 613  | CLA  | C4A-NA-C1A  | 8.57 | 110.56      | 106.71   |
| 21  | 5     | 605  | CLA  | C4A-NA-C1A  | 8.57 | 110.56      | 106.71   |
| 21  | B     | 1213 | CLA  | C4A-NA-C1A  | 8.56 | 110.56      | 106.71   |
| 21  | 1     | 601  | CLA  | C4A-NA-C1A  | 8.56 | 110.55      | 106.71   |
| 21  | B     | 1239 | CLA  | C4A-NA-C1A  | 8.55 | 110.55      | 106.71   |
| 34  | 1     | 501  | LUT  | C37-C21-C22 | 8.54 | 125.61      | 109.44   |

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| Mol | Chain | Res  | Type | Atoms       | Z    | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|------|-------------|----------|
| 21  | 6     | 601  | CLA  | C4A-NA-C1A  | 8.53 | 110.54      | 106.71   |
| 24  | B     | 4001 | BCR  | C20-C19-C18 | 8.53 | 150.37      | 126.42   |
| 21  | 6     | 606  | CLA  | C4A-NA-C1A  | 8.53 | 110.54      | 106.71   |
| 21  | 1     | 604  | CLA  | C4A-NA-C1A  | 8.52 | 110.54      | 106.71   |
| 21  | B     | 1202 | CLA  | C4A-NA-C1A  | 8.51 | 110.53      | 106.71   |
| 21  | B     | 1203 | CLA  | C4A-NA-C1A  | 8.50 | 110.53      | 106.71   |
| 21  | A     | 1136 | CLA  | C4A-NA-C1A  | 8.50 | 110.53      | 106.71   |
| 21  | 5     | 606  | CLA  | C4A-NA-C1A  | 8.50 | 110.53      | 106.71   |
| 21  | 6     | 609  | CLA  | C4A-NA-C1A  | 8.49 | 110.52      | 106.71   |
| 21  | G     | 1601 | CLA  | C4A-NA-C1A  | 8.48 | 110.52      | 106.71   |
| 21  | L     | 1502 | CLA  | O2A-C1-C2   | 8.48 | 130.92      | 108.64   |
| 21  | 3     | 611  | CLA  | C4A-NA-C1A  | 8.47 | 110.51      | 106.71   |
| 21  | F     | 1301 | CLA  | C4A-NA-C1A  | 8.45 | 110.50      | 106.71   |
| 24  | G     | 4001 | BCR  | C20-C19-C18 | 8.44 | 150.12      | 126.42   |
| 21  | 1     | 611  | CLA  | C4A-NA-C1A  | 8.43 | 110.50      | 106.71   |
| 21  | B     | 1208 | CLA  | C4A-NA-C1A  | 8.43 | 110.49      | 106.71   |
| 21  | 1     | 606  | CLA  | C4A-NA-C1A  | 8.42 | 110.49      | 106.71   |
| 24  | 4     | 503  | BCR  | C20-C19-C18 | 8.42 | 150.06      | 126.42   |
| 24  | 3     | 503  | BCR  | C20-C19-C18 | 8.41 | 150.06      | 126.42   |
| 24  | 2     | 503  | BCR  | C20-C19-C18 | 8.41 | 150.04      | 126.42   |
| 24  | A     | 4004 | BCR  | C20-C19-C18 | 8.40 | 150.03      | 126.42   |
| 24  | O     | 4001 | BCR  | C11-C12-C13 | 8.40 | 150.03      | 126.42   |
| 24  | 3     | 504  | BCR  | C20-C19-C18 | 8.40 | 150.02      | 126.42   |
| 21  | B     | 1207 | CLA  | C4A-NA-C1A  | 8.40 | 110.48      | 106.71   |
| 21  | B     | 1212 | CLA  | C4A-NA-C1A  | 8.37 | 110.47      | 106.71   |
| 24  | H     | 4001 | BCR  | C11-C12-C13 | 8.37 | 149.94      | 126.42   |
| 21  | A     | 1134 | CLA  | C4A-NA-C1A  | 8.34 | 110.46      | 106.71   |
| 21  | A     | 1115 | CLA  | C4A-NA-C1A  | 8.33 | 110.45      | 106.71   |
| 21  | A     | 1135 | CLA  | C4A-NA-C1A  | 8.32 | 110.45      | 106.71   |
| 21  | K     | 1404 | CLA  | C4A-NA-C1A  | 8.31 | 110.44      | 106.71   |
| 24  | B     | 4002 | BCR  | C20-C19-C18 | 8.30 | 149.72      | 126.42   |
| 21  | A     | 1012 | CLA  | C4A-NA-C1A  | 8.29 | 110.43      | 106.71   |
| 21  | 5     | 614  | CLA  | C2D-C1D-ND  | 8.27 | 116.20      | 110.10   |
| 21  | 1     | 608  | CLA  | C4A-NA-C1A  | 8.27 | 110.42      | 106.71   |
| 21  | 6     | 612  | CLA  | C4A-NA-C1A  | 8.27 | 110.42      | 106.71   |
| 21  | 4     | 604  | CLA  | C4A-NA-C1A  | 8.26 | 110.42      | 106.71   |
| 21  | 6     | 603  | CLA  | C4A-NA-C1A  | 8.26 | 110.42      | 106.71   |
| 21  | 5     | 604  | CLA  | C4A-NA-C1A  | 8.25 | 110.41      | 106.71   |
| 21  | A     | 1117 | CLA  | C4A-NA-C1A  | 8.23 | 110.41      | 106.71   |
| 21  | B     | 1229 | CLA  | C4A-NA-C1A  | 8.23 | 110.41      | 106.71   |
| 34  | 5     | 501  | LUT  | C37-C21-C26 | 8.20 | 121.97      | 109.55   |
| 21  | K     | 1403 | CLA  | CMD-C2D-C1D | 8.20 | 139.16      | 124.71   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 2     | 605  | CLA  | C4A-NA-C1A  | 8.19  | 110.39      | 106.71   |
| 24  | A     | 4006 | BCR  | C20-C19-C18 | 8.19  | 149.41      | 126.42   |
| 21  | 3     | 608  | CLA  | C4A-NA-C1A  | 8.16  | 110.38      | 106.71   |
| 21  | K     | 1401 | CLA  | C4A-NA-C1A  | 8.15  | 110.37      | 106.71   |
| 21  | A     | 1104 | CLA  | CMD-C2D-C1D | 8.12  | 139.02      | 124.71   |
| 24  | B     | 4003 | BCR  | C11-C12-C13 | 8.10  | 149.18      | 126.42   |
| 24  | B     | 4005 | BCR  | C20-C19-C18 | 8.09  | 149.13      | 126.42   |
| 24  | I     | 4001 | BCR  | C11-C12-C13 | 8.08  | 149.11      | 126.42   |
| 21  | B     | 1217 | CLA  | C4A-NA-C1A  | 8.07  | 110.34      | 106.71   |
| 24  | B     | 4006 | BCR  | C20-C19-C18 | 8.05  | 149.04      | 126.42   |
| 21  | 5     | 613  | CLA  | O2D-CGD-CBD | 8.02  | 125.51      | 111.27   |
| 21  | 4     | 601  | CLA  | O2D-CGD-CBD | 7.98  | 125.45      | 111.27   |
| 21  | 5     | 612  | CLA  | C4A-NA-C1A  | 7.96  | 110.28      | 106.71   |
| 20  | A     | 1011 | CL0  | CMD-C2D-C1D | 7.95  | 138.72      | 124.71   |
| 24  | I     | 4002 | BCR  | C20-C19-C18 | 7.89  | 148.57      | 126.42   |
| 24  | H     | 4001 | BCR  | C20-C19-C18 | 7.88  | 148.56      | 126.42   |
| 21  | O     | 1801 | CLA  | CMD-C2D-C1D | 7.74  | 138.36      | 124.71   |
| 24  | L     | 4002 | BCR  | C20-C19-C18 | 7.74  | 148.16      | 126.42   |
| 24  | F     | 4002 | BCR  | C20-C19-C18 | 7.66  | 147.93      | 126.42   |
| 24  | O     | 4001 | BCR  | C4-C5-C6    | -7.63 | 111.66      | 122.73   |
| 21  | 6     | 604  | CLA  | C4A-NA-C1A  | 7.56  | 110.10      | 106.71   |
| 21  | 6     | 612  | CLA  | O2D-CGD-CBD | 7.54  | 124.67      | 111.27   |
| 21  | 5     | 601  | CLA  | C4A-NA-C1A  | 7.51  | 110.08      | 106.71   |
| 21  | K     | 1401 | CLA  | CMD-C2D-C1D | 7.47  | 137.87      | 124.71   |
| 21  | A     | 1117 | CLA  | O2D-CGD-CBD | 7.46  | 124.52      | 111.27   |
| 21  | A     | 1113 | CLA  | C4A-NA-C1A  | 7.46  | 110.06      | 106.71   |
| 34  | 1     | 501  | LUT  | C37-C21-C26 | 7.46  | 120.84      | 109.55   |
| 21  | 4     | 609  | CLA  | O2D-CGD-CBD | 7.42  | 124.45      | 111.27   |
| 24  | A     | 4001 | BCR  | C40-C30-C29 | -7.35 | 79.50       | 108.91   |
| 21  | G     | 1603 | CLA  | CMD-C2D-C1D | 7.35  | 137.66      | 124.71   |
| 34  | 1     | 501  | LUT  | C40-C33-C34 | -7.34 | 112.64      | 122.92   |
| 24  | G     | 4001 | BCR  | C11-C12-C13 | 7.32  | 146.97      | 126.42   |
| 24  | J     | 4001 | BCR  | C20-C19-C18 | 7.31  | 146.95      | 126.42   |
| 34  | 1     | 501  | LUT  | C31-C30-C29 | -7.31 | 116.88      | 127.31   |
| 24  | L     | 4001 | BCR  | C28-C27-C26 | -7.29 | 101.07      | 114.08   |
| 34  | 4     | 501  | LUT  | C21-C26-C27 | 7.28  | 121.90      | 112.70   |
| 21  | O     | 1803 | CLA  | C4A-NA-C1A  | 7.23  | 109.95      | 106.71   |
| 21  | A     | 1101 | CLA  | C4A-NA-C1A  | 7.21  | 109.95      | 106.71   |
| 24  | A     | 4001 | BCR  | C20-C19-C18 | 7.21  | 146.67      | 126.42   |
| 21  | O     | 1801 | CLA  | C1C-C2C-C3C | -7.21 | 100.46      | 107.07   |
| 21  | B     | 1201 | CLA  | O2D-CGD-CBD | 7.19  | 124.05      | 111.27   |
| 24  | 1     | 504  | BCR  | C20-C19-C18 | 7.07  | 146.29      | 126.42   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | 3     | 506  | BCR  | C11-C10-C9  | 7.07  | 137.40      | 127.31   |
| 24  | A     | 4003 | BCR  | C20-C19-C18 | 7.06  | 146.25      | 126.42   |
| 24  | K     | 4001 | BCR  | C20-C19-C18 | 7.04  | 146.20      | 126.42   |
| 21  | A     | 1130 | CLA  | C4A-NA-C1A  | 7.03  | 109.86      | 106.71   |
| 34  | 1     | 501  | LUT  | C35-C15-C14 | 7.01  | 137.84      | 123.47   |
| 21  | 5     | 601  | CLA  | CMD-C2D-C1D | 6.96  | 136.97      | 124.71   |
| 35  | 6     | 504  | XAT  | C31-C30-C29 | -6.93 | 117.42      | 127.31   |
| 21  | B     | 1204 | CLA  | O2D-CGD-CBD | 6.89  | 123.51      | 111.27   |
| 34  | 5     | 501  | LUT  | C37-C21-C22 | 6.89  | 122.48      | 109.44   |
| 21  | H     | 1702 | CLA  | CMB-C2B-C1B | -6.83 | 117.97      | 128.46   |
| 34  | 5     | 503  | LUT  | C37-C21-C26 | 6.82  | 119.88      | 109.55   |
| 21  | A     | 1118 | CLA  | C4A-NA-C1A  | 6.79  | 109.76      | 106.71   |
| 24  | F     | 4001 | BCR  | C20-C19-C18 | 6.76  | 145.41      | 126.42   |
| 21  | A     | 1104 | CLA  | C4A-NA-C1A  | 6.73  | 109.73      | 106.71   |
| 21  | B     | 1211 | CLA  | O2A-C1-C2   | 6.73  | 126.33      | 108.64   |
| 21  | 2     | 601  | CLA  | O2D-CGD-CBD | 6.72  | 123.21      | 111.27   |
| 24  | 3     | 506  | BCR  | C20-C19-C18 | 6.70  | 145.24      | 126.42   |
| 21  | J     | 1901 | CLA  | O2D-CGD-CBD | 6.69  | 123.16      | 111.27   |
| 21  | 2     | 604  | CLA  | O2D-CGD-CBD | 6.65  | 123.08      | 111.27   |
| 24  | L     | 4001 | BCR  | C20-C19-C18 | 6.64  | 145.07      | 126.42   |
| 21  | A     | 1109 | CLA  | CMD-C2D-C1D | 6.63  | 136.40      | 124.71   |
| 21  | A     | 1130 | CLA  | CMB-C2B-C1B | -6.62 | 118.29      | 128.46   |
| 24  | O     | 4001 | BCR  | C15-C14-C13 | -6.59 | 117.91      | 127.31   |
| 21  | A     | 1108 | CLA  | O2D-CGD-CBD | 6.57  | 122.94      | 111.27   |
| 21  | 5     | 613  | CLA  | CMB-C2B-C1B | -6.56 | 118.38      | 128.46   |
| 21  | 5     | 601  | CLA  | O2D-CGD-CBD | 6.52  | 122.85      | 111.27   |
| 38  | 2     | 807  | LMK  | O2-C4-O3    | -6.51 | 109.31      | 124.09   |
| 21  | 1     | 603  | CLA  | CMD-C2D-C1D | 6.49  | 136.15      | 124.71   |
| 34  | 5     | 504  | LUT  | C37-C21-C22 | 6.46  | 121.68      | 109.44   |
| 21  | B     | 1218 | CLA  | O2A-C1-C2   | 6.44  | 125.57      | 108.64   |
| 21  | A     | 1138 | CLA  | O2D-CGD-CBD | 6.42  | 122.67      | 111.27   |
| 21  | 5     | 614  | CLA  | CHD-C1D-ND  | -6.40 | 118.57      | 124.45   |
| 21  | B     | 1221 | CLA  | O2D-CGD-CBD | 6.38  | 122.60      | 111.27   |
| 20  | A     | 1011 | CL0  | C4A-NA-C1A  | 6.37  | 109.57      | 106.71   |
| 21  | 3     | 601  | CLA  | O2A-C1-C2   | 6.36  | 125.34      | 108.64   |
| 21  | A     | 1129 | CLA  | O2A-C1-C2   | 6.32  | 125.24      | 108.64   |
| 21  | 5     | 601  | CLA  | CMB-C2B-C1B | -6.31 | 118.76      | 128.46   |
| 34  | 5     | 504  | LUT  | C15-C14-C13 | -6.31 | 118.31      | 127.31   |
| 21  | 2     | 608  | CLA  | CMD-C2D-C1D | 6.30  | 135.82      | 124.71   |
| 38  | 4     | 805  | LMK  | O2-C4-O3    | -6.30 | 109.78      | 124.09   |
| 34  | 1     | 501  | LUT  | C21-C26-C27 | 6.27  | 120.63      | 112.70   |
| 21  | B     | 1221 | CLA  | CMD-C2D-C1D | 6.27  | 135.76      | 124.71   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | G     | 1603 | CLA  | C2D-C1D-ND  | 6.26  | 114.71      | 110.10   |
| 21  | H     | 1702 | CLA  | O2D-CGD-CBD | 6.25  | 122.38      | 111.27   |
| 21  | G     | 1603 | CLA  | CHD-C1D-ND  | -6.25 | 118.71      | 124.45   |
| 21  | 6     | 613  | CLA  | CMD-C2D-C1D | 6.24  | 135.72      | 124.71   |
| 34  | 5     | 504  | LUT  | C21-C26-C25 | 6.22  | 122.56      | 111.42   |
| 21  | 5     | 614  | CLA  | C1D-ND-C4D  | -6.19 | 101.94      | 106.33   |
| 21  | 1     | 604  | CLA  | O2D-CGD-CBD | 6.18  | 122.25      | 111.27   |
| 21  | 6     | 607  | CLA  | O2D-CGD-CBD | 6.18  | 122.25      | 111.27   |
| 34  | 1     | 501  | LUT  | C32-C33-C34 | 6.16  | 128.40      | 118.94   |
| 21  | A     | 1130 | CLA  | CMB-C2B-C3B | 6.16  | 136.19      | 124.68   |
| 21  | F     | 1302 | CLA  | O2A-C1-C2   | 6.13  | 123.30      | 108.97   |
| 21  | 2     | 607  | CLA  | O2D-CGD-CBD | 6.12  | 122.15      | 111.27   |
| 20  | A     | 1011 | CL0  | C2D-C1D-ND  | 6.12  | 114.62      | 110.10   |
| 21  | 5     | 614  | CLA  | O2A-C1-C2   | 6.10  | 124.68      | 108.64   |
| 21  | B     | 1213 | CLA  | CMD-C2D-C1D | 6.08  | 135.42      | 124.71   |
| 21  | B     | 1227 | CLA  | O2D-CGD-CBD | 6.06  | 122.04      | 111.27   |
| 21  | A     | 1110 | CLA  | O2A-C1-C2   | 6.04  | 124.52      | 108.64   |
| 21  | A     | 1118 | CLA  | O2D-CGD-CBD | 6.03  | 121.98      | 111.27   |
| 24  | A     | 4007 | BCR  | C15-C14-C13 | -6.03 | 118.71      | 127.31   |
| 24  | A     | 4002 | BCR  | C20-C19-C18 | 6.02  | 143.34      | 126.42   |
| 21  | A     | 1131 | CLA  | O2D-CGD-CBD | 6.02  | 121.97      | 111.27   |
| 21  | B     | 1238 | CLA  | O2D-CGD-CBD | 6.02  | 121.97      | 111.27   |
| 21  | 1     | 612  | CLA  | O2D-CGD-CBD | 6.02  | 121.97      | 111.27   |
| 21  | A     | 1102 | CLA  | O2D-CGD-CBD | 6.01  | 121.96      | 111.27   |
| 21  | 5     | 613  | CLA  | C4A-NA-C1A  | 6.00  | 109.40      | 106.71   |
| 20  | A     | 1011 | CL0  | C2C-C1C-NC  | 6.00  | 115.59      | 109.97   |
| 21  | 4     | 605  | CLA  | CMD-C2D-C1D | 6.00  | 135.28      | 124.71   |
| 24  | A     | 4004 | BCR  | C15-C14-C13 | -6.00 | 118.75      | 127.31   |
| 24  | O     | 4001 | BCR  | C36-C18-C17 | -5.98 | 114.55      | 122.92   |
| 24  | 3     | 506  | BCR  | C12-C13-C14 | 5.96  | 128.09      | 118.94   |
| 21  | B     | 1222 | CLA  | O2D-CGD-CBD | 5.96  | 121.85      | 111.27   |
| 21  | A     | 1106 | CLA  | O2D-CGD-CBD | 5.95  | 121.85      | 111.27   |
| 24  | L     | 4002 | BCR  | C12-C13-C14 | 5.94  | 128.06      | 118.94   |
| 21  | G     | 1603 | CLA  | C1D-ND-C4D  | -5.93 | 102.12      | 106.33   |
| 31  | 4     | 802  | LMG  | O7-C10-C11  | 5.93  | 124.28      | 111.50   |
| 34  | 6     | 501  | LUT  | C21-C26-C25 | 5.93  | 122.03      | 111.42   |
| 34  | 5     | 502  | LUT  | C21-C26-C25 | 5.92  | 122.03      | 111.42   |
| 21  | 5     | 612  | CLA  | O2D-CGD-CBD | 5.92  | 121.79      | 111.27   |
| 24  | L     | 4002 | BCR  | C11-C12-C13 | 5.91  | 143.01      | 126.42   |
| 21  | B     | 1231 | CLA  | CMD-C2D-C1D | 5.90  | 135.12      | 124.71   |
| 21  | B     | 1234 | CLA  | O2A-C1-C2   | 5.90  | 124.14      | 108.64   |
| 21  | A     | 1105 | CLA  | O2A-C1-C2   | 5.89  | 124.13      | 108.64   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | A     | 4001 | BCR  | C40-C30-C25 | 5.89  | 119.85      | 110.30   |
| 21  | B     | 1229 | CLA  | O2D-CGD-CBD | 5.88  | 121.72      | 111.27   |
| 21  | B     | 1203 | CLA  | CMD-C2D-C1D | 5.88  | 135.08      | 124.71   |
| 21  | A     | 1138 | CLA  | O2A-C1-C2   | 5.85  | 124.02      | 108.64   |
| 21  | 3     | 603  | CLA  | O2A-C1-C2   | 5.84  | 123.99      | 108.64   |
| 21  | B     | 1214 | CLA  | CMD-C2D-C1D | 5.84  | 135.01      | 124.71   |
| 21  | L     | 1501 | CLA  | CMD-C2D-C1D | 5.83  | 135.00      | 124.71   |
| 21  | B     | 1230 | CLA  | O2D-CGD-CBD | 5.83  | 121.62      | 111.27   |
| 21  | 1     | 604  | CLA  | CMD-C2D-C1D | 5.82  | 134.97      | 124.71   |
| 21  | A     | 1131 | CLA  | CMD-C2D-C1D | 5.82  | 134.97      | 124.71   |
| 21  | 1     | 608  | CLA  | CMD-C2D-C1D | 5.82  | 134.96      | 124.71   |
| 21  | 6     | 605  | CLA  | CMD-C2D-C1D | 5.80  | 134.94      | 124.71   |
| 21  | A     | 1110 | CLA  | CMD-C2D-C1D | 5.79  | 134.92      | 124.71   |
| 34  | 1     | 501  | LUT  | C15-C14-C13 | 5.79  | 135.57      | 127.31   |
| 21  | 5     | 614  | CLA  | CMD-C2D-C1D | 5.78  | 134.91      | 124.71   |
| 21  | A     | 1135 | CLA  | O2A-C1-C2   | 5.78  | 123.83      | 108.64   |
| 21  | A     | 1135 | CLA  | O2D-CGD-CBD | 5.77  | 121.52      | 111.27   |
| 21  | O     | 1803 | CLA  | CMD-C2D-C1D | 5.76  | 134.87      | 124.71   |
| 21  | A     | 1133 | CLA  | O2D-CGD-CBD | 5.76  | 121.50      | 111.27   |
| 21  | J     | 1901 | CLA  | CMD-C2D-C1D | 5.75  | 134.85      | 124.71   |
| 21  | 5     | 603  | CLA  | O2D-CGD-CBD | 5.74  | 121.47      | 111.27   |
| 21  | A     | 1129 | CLA  | CMD-C2D-C1D | 5.74  | 134.83      | 124.71   |
| 21  | A     | 1128 | CLA  | O2D-CGD-CBD | 5.74  | 121.47      | 111.27   |
| 21  | A     | 1111 | CLA  | O2D-CGD-CBD | 5.74  | 121.46      | 111.27   |
| 21  | A     | 1112 | CLA  | O2D-CGD-CBD | 5.73  | 121.45      | 111.27   |
| 21  | A     | 1119 | CLA  | CMD-C2D-C1D | 5.73  | 134.81      | 124.71   |
| 21  | 5     | 603  | CLA  | CMD-C2D-C1D | 5.73  | 134.81      | 124.71   |
| 21  | L     | 1501 | CLA  | O2D-CGD-CBD | 5.72  | 121.44      | 111.27   |
| 25  | 1     | 801  | LHG  | O7-C7-C8    | 5.72  | 123.84      | 111.50   |
| 21  | 3     | 605  | CLA  | CMD-C2D-C1D | 5.71  | 134.78      | 124.71   |
| 21  | B     | 1202 | CLA  | CMD-C2D-C1D | 5.71  | 134.78      | 124.71   |
| 21  | 2     | 607  | CLA  | O2A-C1-C2   | 5.70  | 123.61      | 108.64   |
| 21  | B     | 1236 | CLA  | O2A-C1-C2   | 5.70  | 123.60      | 108.64   |
| 21  | 4     | 607  | CLA  | O2D-CGD-CBD | 5.69  | 121.38      | 111.27   |
| 21  | 2     | 601  | CLA  | O2A-C1-C2   | 5.68  | 123.57      | 108.64   |
| 21  | B     | 1211 | CLA  | CMD-C2D-C1D | 5.68  | 134.73      | 124.71   |
| 21  | A     | 1101 | CLA  | CMD-C2D-C1D | 5.68  | 134.72      | 124.71   |
| 34  | 4     | 501  | LUT  | C22-C23-C24 | -5.67 | 105.29      | 111.74   |
| 21  | 4     | 602  | CLA  | O2D-CGD-CBD | 5.66  | 121.33      | 111.27   |
| 21  | 4     | 606  | CLA  | CMD-C2D-C1D | 5.66  | 134.69      | 124.71   |
| 21  | A     | 1127 | CLA  | O2A-C1-C2   | 5.66  | 123.52      | 108.64   |
| 21  | 2     | 612  | CLA  | O2A-C1-C2   | 5.66  | 123.50      | 108.64   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1101 | CLA  | O2D-CGD-CBD | 5.65  | 121.30      | 111.27   |
| 21  | L     | 1504 | CLA  | CMD-C2D-C1D | 5.65  | 134.66      | 124.71   |
| 35  | 1     | 502  | XAT  | O4-C5-C18   | -5.64 | 108.30      | 115.06   |
| 21  | A     | 1103 | CLA  | O2D-CGD-CBD | 5.63  | 121.28      | 111.27   |
| 21  | B     | 1210 | CLA  | O2D-CGD-CBD | 5.63  | 121.27      | 111.27   |
| 21  | 4     | 609  | CLA  | CMD-C2D-C1D | 5.62  | 134.63      | 124.71   |
| 21  | A     | 1119 | CLA  | O2A-C1-C2   | 5.62  | 123.42      | 108.64   |
| 24  | 3     | 506  | BCR  | C11-C12-C13 | 5.62  | 142.21      | 126.42   |
| 21  | 3     | 614  | CLA  | CMD-C2D-C1D | 5.62  | 134.62      | 124.71   |
| 21  | A     | 1114 | CLA  | CMD-C2D-C1D | 5.62  | 134.62      | 124.71   |
| 21  | 4     | 603  | CLA  | CMD-C2D-C1D | 5.62  | 134.61      | 124.71   |
| 21  | 1     | 604  | CLA  | O2A-C1-C2   | 5.61  | 123.39      | 108.64   |
| 21  | A     | 1104 | CLA  | O2A-C1-C2   | 5.61  | 123.39      | 108.64   |
| 21  | 2     | 606  | CLA  | CMD-C2D-C1D | 5.61  | 134.60      | 124.71   |
| 21  | 4     | 605  | CLA  | O2D-CGD-CBD | 5.61  | 121.23      | 111.27   |
| 21  | A     | 1102 | CLA  | CMD-C2D-C1D | 5.60  | 134.59      | 124.71   |
| 21  | 3     | 615  | CLA  | O2A-C1-C2   | 5.60  | 123.36      | 108.64   |
| 21  | B     | 1238 | CLA  | CMD-C2D-C1D | 5.60  | 134.58      | 124.71   |
| 21  | 5     | 613  | CLA  | CMD-C2D-C1D | 5.59  | 134.56      | 124.71   |
| 21  | B     | 1214 | CLA  | O2D-CGD-CBD | 5.59  | 121.19      | 111.27   |
| 21  | K     | 1401 | CLA  | O2D-CGD-CBD | 5.59  | 121.19      | 111.27   |
| 21  | A     | 1136 | CLA  | O2D-CGD-CBD | 5.59  | 121.19      | 111.27   |
| 21  | 3     | 610  | CLA  | CMD-C2D-C1D | 5.58  | 134.55      | 124.71   |
| 21  | B     | 1202 | CLA  | O2D-CGD-CBD | 5.58  | 121.19      | 111.27   |
| 21  | 5     | 607  | CLA  | O2D-CGD-CBD | 5.58  | 121.18      | 111.27   |
| 21  | B     | 1021 | CLA  | O2A-C1-C2   | 5.58  | 123.30      | 108.64   |
| 21  | A     | 1130 | CLA  | O2A-C1-C2   | 5.57  | 123.29      | 108.64   |
| 21  | 2     | 603  | CLA  | CMD-C2D-C1D | 5.57  | 134.53      | 124.71   |
| 21  | A     | 1137 | CLA  | CAA-C2A-C3A | -5.57 | 97.53       | 112.78   |
| 21  | F     | 1301 | CLA  | CMD-C2D-C1D | 5.57  | 134.52      | 124.71   |
| 21  | 6     | 601  | CLA  | CMD-C2D-C1D | 5.57  | 134.52      | 124.71   |
| 21  | A     | 1141 | CLA  | CMD-C2D-C1D | 5.57  | 134.52      | 124.71   |
| 21  | 4     | 608  | CLA  | O2D-CGD-CBD | 5.56  | 121.16      | 111.27   |
| 21  | A     | 1130 | CLA  | CMD-C2D-C1D | 5.56  | 134.51      | 124.71   |
| 21  | A     | 1132 | CLA  | CMD-C2D-C1D | 5.56  | 134.51      | 124.71   |
| 21  | 3     | 615  | CLA  | CMD-C2D-C1D | 5.55  | 134.50      | 124.71   |
| 21  | A     | 1102 | CLA  | O2A-C1-C2   | 5.55  | 123.22      | 108.64   |
| 21  | A     | 1129 | CLA  | O2D-CGD-CBD | 5.55  | 121.13      | 111.27   |
| 21  | 3     | 612  | CLA  | O2D-CGD-CBD | 5.55  | 121.12      | 111.27   |
| 21  | B     | 1230 | CLA  | O2A-C1-C2   | 5.55  | 123.21      | 108.64   |
| 21  | 3     | 601  | CLA  | CMD-C2D-C1D | 5.55  | 134.49      | 124.71   |
| 21  | A     | 1113 | CLA  | O2A-C1-C2   | 5.54  | 123.21      | 108.64   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1111 | CLA  | CMD-C2D-C1D | 5.54  | 134.48      | 124.71   |
| 21  | 1     | 608  | CLA  | O2D-CGD-CBD | 5.54  | 121.11      | 111.27   |
| 21  | A     | 1112 | CLA  | CMD-C2D-C1D | 5.53  | 134.46      | 124.71   |
| 21  | 3     | 611  | CLA  | O2A-C1-C2   | 5.53  | 123.17      | 108.64   |
| 21  | 1     | 606  | CLA  | CMD-C2D-C1D | 5.53  | 134.45      | 124.71   |
| 21  | H     | 1702 | CLA  | CMB-C2B-C3B | 5.52  | 135.01      | 124.68   |
| 21  | 5     | 602  | CLA  | O2D-CGD-CBD | 5.52  | 121.07      | 111.27   |
| 21  | A     | 1120 | CLA  | CAA-C2A-C3A | -5.51 | 97.69       | 112.78   |
| 21  | B     | 1222 | CLA  | CMD-C2D-C1D | 5.51  | 134.42      | 124.71   |
| 21  | 1     | 615  | CLA  | CMD-C2D-C1D | 5.50  | 134.41      | 124.71   |
| 21  | K     | 1404 | CLA  | CMD-C2D-C1D | 5.50  | 134.41      | 124.71   |
| 21  | O     | 1801 | CLA  | C4C-C3C-C2C | 5.50  | 112.11      | 107.07   |
| 21  | 5     | 614  | CLA  | C1C-C2C-C3C | -5.50 | 101.18      | 106.96   |
| 21  | 6     | 602  | CLA  | CMD-C2D-C1D | 5.49  | 134.40      | 124.71   |
| 34  | 2     | 501  | LUT  | C7-C8-C9    | -5.49 | 117.93      | 126.23   |
| 21  | B     | 1236 | CLA  | CMD-C2D-C1D | 5.49  | 134.39      | 124.71   |
| 21  | K     | 1402 | CLA  | CMD-C2D-C1D | 5.49  | 134.39      | 124.71   |
| 21  | 1     | 601  | CLA  | CMD-C2D-C1D | 5.49  | 134.39      | 124.71   |
| 24  | A     | 4007 | BCR  | C20-C19-C18 | 5.49  | 141.84      | 126.42   |
| 24  | G     | 4001 | BCR  | C12-C13-C14 | 5.49  | 127.36      | 118.94   |
| 24  | B     | 4001 | BCR  | C23-C22-C21 | 5.49  | 127.36      | 118.94   |
| 21  | 1     | 611  | CLA  | CMD-C2D-C1D | 5.48  | 134.38      | 124.71   |
| 21  | A     | 1121 | CLA  | CMD-C2D-C1D | 5.48  | 134.38      | 124.71   |
| 21  | 6     | 604  | CLA  | CMD-C2D-C1D | 5.48  | 134.37      | 124.71   |
| 21  | 6     | 609  | CLA  | CMD-C2D-C1D | 5.48  | 134.37      | 124.71   |
| 21  | B     | 1201 | CLA  | CMD-C2D-C1D | 5.48  | 134.36      | 124.71   |
| 21  | A     | 1115 | CLA  | O2D-CGD-CBD | 5.48  | 121.00      | 111.27   |
| 24  | L     | 4002 | BCR  | C35-C13-C12 | -5.47 | 109.45      | 118.08   |
| 21  | B     | 1206 | CLA  | CMD-C2D-C1D | 5.47  | 134.36      | 124.71   |
| 21  | A     | 1140 | CLA  | O2D-CGD-CBD | 5.47  | 120.99      | 111.27   |
| 21  | B     | 1226 | CLA  | CMD-C2D-C1D | 5.47  | 134.35      | 124.71   |
| 34  | 3     | 501  | LUT  | C21-C26-C27 | 5.47  | 119.62      | 112.70   |
| 21  | B     | 1207 | CLA  | CMD-C2D-C1D | 5.47  | 134.35      | 124.71   |
| 20  | A     | 1011 | CL0  | O2D-CGD-CBD | 5.46  | 120.97      | 111.27   |
| 21  | A     | 1134 | CLA  | O2D-CGD-CBD | 5.46  | 120.97      | 111.27   |
| 21  | G     | 1602 | CLA  | CMD-C2D-C1D | 5.46  | 134.34      | 124.71   |
| 21  | A     | 1139 | CLA  | CMD-C2D-C1D | 5.46  | 134.33      | 124.71   |
| 21  | 1     | 613  | CLA  | CMD-C2D-C1D | 5.46  | 134.33      | 124.71   |
| 21  | 6     | 608  | CLA  | CMD-C2D-C1D | 5.46  | 134.33      | 124.71   |
| 21  | B     | 1208 | CLA  | CMD-C2D-C1D | 5.46  | 134.33      | 124.71   |
| 21  | 5     | 606  | CLA  | CMD-C2D-C1D | 5.46  | 134.33      | 124.71   |
| 21  | A     | 1122 | CLA  | CMD-C2D-C1D | 5.46  | 134.33      | 124.71   |

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| Mol | Chain | Res  | Type | Atoms       | Z    | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|------|-------------|----------|
| 21  | B     | 1212 | CLA  | O2D-CGD-CBD | 5.45 | 120.96      | 111.27   |
| 21  | A     | 1137 | CLA  | CMD-C2D-C1D | 5.45 | 134.32      | 124.71   |
| 21  | 2     | 615  | CLA  | CMD-C2D-C1D | 5.45 | 134.31      | 124.71   |
| 21  | G     | 1601 | CLA  | CMD-C2D-C1D | 5.44 | 134.31      | 124.71   |
| 21  | 2     | 605  | CLA  | CMD-C2D-C1D | 5.44 | 134.30      | 124.71   |
| 21  | 5     | 605  | CLA  | CMD-C2D-C1D | 5.44 | 134.30      | 124.71   |
| 21  | 3     | 603  | CLA  | O2D-CGD-CBD | 5.44 | 120.94      | 111.27   |
| 21  | B     | 1236 | CLA  | O2D-CGD-CBD | 5.44 | 120.94      | 111.27   |
| 21  | F     | 1302 | CLA  | O2D-CGD-CBD | 5.44 | 120.94      | 111.27   |
| 21  | 5     | 614  | CLA  | O2D-CGD-CBD | 5.44 | 120.93      | 111.27   |
| 34  | 1     | 501  | LUT  | C35-C34-C33 | 5.44 | 135.07      | 127.31   |
| 21  | A     | 1103 | CLA  | CMD-C2D-C1D | 5.43 | 134.29      | 124.71   |
| 21  | B     | 1212 | CLA  | CMD-C2D-C1D | 5.43 | 134.29      | 124.71   |
| 21  | 3     | 607  | CLA  | O2D-CGD-CBD | 5.43 | 120.92      | 111.27   |
| 21  | 3     | 602  | CLA  | CMD-C2D-C1D | 5.43 | 134.28      | 124.71   |
| 21  | A     | 1105 | CLA  | CMD-C2D-C1D | 5.43 | 134.28      | 124.71   |
| 21  | O     | 1803 | CLA  | O2A-C1-C2   | 5.43 | 122.89      | 108.64   |
| 21  | B     | 1209 | CLA  | CMD-C2D-C1D | 5.42 | 134.26      | 124.71   |
| 21  | 6     | 603  | CLA  | CMD-C2D-C1D | 5.42 | 134.26      | 124.71   |
| 21  | H     | 1701 | CLA  | O2D-CGD-CBD | 5.42 | 120.89      | 111.27   |
| 21  | 1     | 605  | CLA  | CMD-C2D-C1D | 5.42 | 134.26      | 124.71   |
| 21  | A     | 1140 | CLA  | O2A-C1-C2   | 5.41 | 122.87      | 108.64   |
| 21  | 5     | 604  | CLA  | CMD-C2D-C1D | 5.41 | 134.25      | 124.71   |
| 21  | 4     | 615  | CLA  | CMD-C2D-C1D | 5.41 | 134.25      | 124.71   |
| 21  | 3     | 611  | CLA  | CMD-C2D-C1D | 5.41 | 134.25      | 124.71   |
| 21  | A     | 1132 | CLA  | O2D-CGD-CBD | 5.41 | 120.88      | 111.27   |
| 21  | 6     | 606  | CLA  | O2D-CGD-CBD | 5.41 | 120.87      | 111.27   |
| 21  | 2     | 605  | CLA  | O2A-C1-C2   | 5.40 | 122.83      | 108.64   |
| 21  | 3     | 607  | CLA  | CMD-C2D-C1D | 5.40 | 134.23      | 124.71   |
| 21  | B     | 1228 | CLA  | CMD-C2D-C1D | 5.40 | 134.22      | 124.71   |
| 21  | B     | 1225 | CLA  | O2A-C1-C2   | 5.40 | 122.81      | 108.64   |
| 21  | B     | 1234 | CLA  | CMD-C2D-C1D | 5.39 | 134.22      | 124.71   |
| 21  | B     | 1210 | CLA  | CMD-C2D-C1D | 5.39 | 134.21      | 124.71   |
| 21  | A     | 1118 | CLA  | O2A-C1-C2   | 5.39 | 122.80      | 108.64   |
| 21  | A     | 1126 | CLA  | CMD-C2D-C1D | 5.39 | 134.21      | 124.71   |
| 21  | A     | 1134 | CLA  | CMD-C2D-C1D | 5.39 | 134.21      | 124.71   |
| 21  | A     | 1104 | CLA  | O2D-CGD-CBD | 5.39 | 120.84      | 111.27   |
| 21  | B     | 1021 | CLA  | O2D-CGD-CBD | 5.39 | 120.84      | 111.27   |
| 21  | 4     | 604  | CLA  | CMD-C2D-C1D | 5.39 | 134.20      | 124.71   |
| 21  | 1     | 605  | CLA  | O2A-C1-C2   | 5.39 | 122.79      | 108.64   |
| 21  | A     | 1128 | CLA  | CMD-C2D-C1D | 5.38 | 134.20      | 124.71   |
| 21  | 6     | 607  | CLA  | CMD-C2D-C1D | 5.38 | 134.20      | 124.71   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1239 | CLA  | CMD-C2D-C1D | 5.38  | 134.20      | 124.71   |
| 21  | A     | 1107 | CLA  | CMD-C2D-C1D | 5.38  | 134.20      | 124.71   |
| 21  | J     | 1901 | CLA  | O2A-C1-C2   | 5.38  | 121.55      | 108.97   |
| 21  | L     | 1502 | CLA  | CMD-C2D-C1D | 5.38  | 134.19      | 124.71   |
| 21  | B     | 1022 | CLA  | CMD-C2D-C1D | 5.38  | 134.19      | 124.71   |
| 20  | A     | 1011 | CL0  | C1C-C2C-C3C | -5.38 | 101.30      | 106.96   |
| 21  | B     | 1235 | CLA  | CMD-C2D-C1D | 5.38  | 134.19      | 124.71   |
| 21  | A     | 1116 | CLA  | CMD-C2D-C1D | 5.37  | 134.18      | 124.71   |
| 34  | 5     | 501  | LUT  | C15-C14-C13 | -5.37 | 119.65      | 127.31   |
| 21  | A     | 1110 | CLA  | O2D-CGD-CBD | 5.37  | 120.81      | 111.27   |
| 21  | A     | 1116 | CLA  | O2A-C1-C2   | 5.37  | 122.74      | 108.64   |
| 21  | 6     | 606  | CLA  | CMD-C2D-C1D | 5.37  | 134.17      | 124.71   |
| 34  | 5     | 503  | LUT  | C21-C26-C27 | 5.36  | 119.48      | 112.70   |
| 20  | A     | 1011 | CL0  | CHD-C1D-ND  | -5.36 | 119.53      | 124.45   |
| 21  | A     | 1115 | CLA  | CMD-C2D-C1D | 5.36  | 134.16      | 124.71   |
| 21  | B     | 1230 | CLA  | CMD-C2D-C1D | 5.36  | 134.16      | 124.71   |
| 21  | B     | 1209 | CLA  | O2D-CGD-CBD | 5.36  | 120.79      | 111.27   |
| 21  | 1     | 608  | CLA  | O2A-C1-C2   | 5.36  | 122.71      | 108.64   |
| 35  | 3     | 502  | XAT  | O24-C25-C24 | 5.36  | 117.41      | 113.38   |
| 21  | 2     | 607  | CLA  | CMD-C2D-C1D | 5.35  | 134.14      | 124.71   |
| 21  | O     | 1802 | CLA  | CMD-C2D-C1D | 5.34  | 134.12      | 124.71   |
| 21  | L     | 1503 | CLA  | O2D-CGD-CBD | 5.33  | 120.75      | 111.27   |
| 21  | B     | 1217 | CLA  | CMD-C2D-C1D | 5.33  | 134.11      | 124.71   |
| 35  | 6     | 502  | XAT  | C31-C30-C29 | -5.33 | 119.70      | 127.31   |
| 21  | L     | 1503 | CLA  | CMD-C2D-C1D | 5.33  | 134.10      | 124.71   |
| 21  | 2     | 605  | CLA  | O2D-CGD-CBD | 5.33  | 120.73      | 111.27   |
| 21  | B     | 1239 | CLA  | O2D-CGD-CBD | 5.32  | 120.73      | 111.27   |
| 21  | K     | 1403 | CLA  | CHD-C1D-ND  | -5.32 | 119.56      | 124.45   |
| 21  | O     | 1801 | CLA  | CHD-C1D-ND  | -5.32 | 119.56      | 124.45   |
| 21  | K     | 1401 | CLA  | CAC-C3C-C4C | 5.32  | 131.71      | 124.81   |
| 21  | A     | 1107 | CLA  | O2A-C1-C2   | 5.32  | 122.61      | 108.64   |
| 21  | B     | 1224 | CLA  | CMD-C2D-C1D | 5.31  | 134.08      | 124.71   |
| 24  | B     | 4003 | BCR  | C20-C19-C18 | 5.31  | 141.34      | 126.42   |
| 21  | A     | 1125 | CLA  | CMD-C2D-C1D | 5.31  | 134.06      | 124.71   |
| 21  | B     | 1220 | CLA  | O2A-C1-C2   | 5.30  | 122.57      | 108.64   |
| 21  | B     | 1216 | CLA  | O2A-C1-C2   | 5.30  | 122.56      | 108.64   |
| 21  | B     | 1023 | CLA  | CMD-C2D-C1D | 5.30  | 134.05      | 124.71   |
| 31  | 2     | 804  | LMG  | O7-C10-C11  | 5.30  | 122.91      | 111.50   |
| 24  | A     | 4007 | BCR  | C19-C18-C17 | 5.29  | 127.06      | 118.94   |
| 34  | 5     | 504  | LUT  | C7-C8-C9    | -5.29 | 118.24      | 126.23   |
| 21  | B     | 1215 | CLA  | CMD-C2D-C1D | 5.29  | 134.03      | 124.71   |
| 21  | B     | 1217 | CLA  | O2A-C1-C2   | 5.29  | 122.53      | 108.64   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | K     | 1403 | CLA  | O2D-CGD-CBD | 5.29  | 120.66      | 111.27   |
| 21  | A     | 1113 | CLA  | CMD-C2D-C1D | 5.28  | 134.02      | 124.71   |
| 21  | 4     | 607  | CLA  | O2A-C1-C2   | 5.27  | 122.49      | 108.64   |
| 34  | 6     | 501  | LUT  | C31-C30-C29 | -5.27 | 119.79      | 127.31   |
| 21  | B     | 1223 | CLA  | O2D-CGD-CBD | 5.27  | 120.63      | 111.27   |
| 21  | A     | 1131 | CLA  | O2A-C1-C2   | 5.25  | 122.44      | 108.64   |
| 21  | 6     | 602  | CLA  | O2D-CGD-CBD | 5.25  | 120.60      | 111.27   |
| 21  | 4     | 609  | CLA  | O2A-C1-C2   | 5.25  | 122.44      | 108.64   |
| 21  | B     | 1224 | CLA  | O2D-CGD-CBD | 5.25  | 120.60      | 111.27   |
| 21  | A     | 1120 | CLA  | O2D-CGD-CBD | 5.25  | 120.59      | 111.27   |
| 21  | H     | 1702 | CLA  | CMD-C2D-C1D | 5.24  | 133.95      | 124.71   |
| 21  | L     | 1503 | CLA  | O2A-C1-C2   | 5.24  | 122.41      | 108.64   |
| 34  | 5     | 501  | LUT  | C21-C26-C25 | 5.24  | 120.81      | 111.42   |
| 21  | B     | 1227 | CLA  | O2A-C1-C2   | 5.24  | 122.41      | 108.64   |
| 34  | 6     | 501  | LUT  | C35-C34-C33 | -5.24 | 119.83      | 127.31   |
| 21  | 3     | 606  | CLA  | CMD-C2D-C1D | 5.24  | 133.94      | 124.71   |
| 21  | B     | 1235 | CLA  | O2D-CGD-CBD | 5.24  | 120.57      | 111.27   |
| 21  | B     | 1229 | CLA  | O2A-C1-C2   | 5.23  | 122.39      | 108.64   |
| 21  | 2     | 612  | CLA  | O2D-CGD-CBD | 5.23  | 120.56      | 111.27   |
| 21  | K     | 1404 | CLA  | O2D-CGD-CBD | 5.22  | 120.55      | 111.27   |
| 21  | A     | 1012 | CLA  | CMD-C2D-C1D | 5.21  | 133.90      | 124.71   |
| 21  | B     | 1213 | CLA  | O2D-CGD-CBD | 5.21  | 120.53      | 111.27   |
| 21  | 5     | 605  | CLA  | O2D-CGD-CBD | 5.21  | 120.53      | 111.27   |
| 21  | 1     | 605  | CLA  | O2D-CGD-CBD | 5.21  | 120.52      | 111.27   |
| 21  | 2     | 608  | CLA  | O2D-CGD-CBD | 5.21  | 120.52      | 111.27   |
| 21  | A     | 1118 | CLA  | C2A-C3A-C4A | 5.20  | 110.28      | 101.87   |
| 21  | B     | 1208 | CLA  | O2D-CGD-CBD | 5.20  | 120.51      | 111.27   |
| 21  | 3     | 610  | CLA  | O2D-CGD-CBD | 5.20  | 120.51      | 111.27   |
| 21  | 4     | 612  | CLA  | CMD-C2D-C1D | 5.20  | 133.87      | 124.71   |
| 21  | B     | 1217 | CLA  | O2D-CGD-CBD | 5.19  | 120.50      | 111.27   |
| 21  | A     | 1101 | CLA  | O2A-C1-C2   | 5.19  | 122.28      | 108.64   |
| 21  | B     | 1223 | CLA  | O2A-C1-C2   | 5.18  | 122.26      | 108.64   |
| 21  | B     | 1218 | CLA  | O2D-CGD-CBD | 5.18  | 120.47      | 111.27   |
| 21  | B     | 1227 | CLA  | CMD-C2D-C1D | 5.17  | 133.83      | 124.71   |
| 21  | F     | 1302 | CLA  | CMD-C2D-C1D | 5.17  | 133.83      | 124.71   |
| 21  | B     | 1237 | CLA  | CMD-C2D-C1D | 5.17  | 133.83      | 124.71   |
| 21  | 4     | 602  | CLA  | O2A-C1-C2   | 5.16  | 122.20      | 108.64   |
| 21  | 2     | 602  | CLA  | CMD-C2D-C1D | 5.16  | 133.81      | 124.71   |
| 21  | A     | 1130 | CLA  | O2D-CGD-CBD | 5.16  | 120.44      | 111.27   |
| 21  | A     | 1107 | CLA  | O2D-CGD-CBD | 5.16  | 120.44      | 111.27   |
| 21  | 4     | 608  | CLA  | CMD-C2D-C1D | 5.16  | 133.81      | 124.71   |
| 21  | 6     | 603  | CLA  | O2D-CGD-CBD | 5.15  | 120.42      | 111.27   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 6     | 608  | CLA  | O2D-CGD-CBD | 5.15  | 120.42      | 111.27   |
| 21  | 1     | 603  | CLA  | O2A-C1-C2   | 5.15  | 122.16      | 108.64   |
| 21  | 1     | 602  | CLA  | CMD-C2D-C1D | 5.15  | 133.78      | 124.71   |
| 21  | B     | 1231 | CLA  | O2A-C1-C2   | 5.14  | 122.16      | 108.64   |
| 21  | B     | 1226 | CLA  | O2A-C1-C2   | 5.14  | 122.15      | 108.64   |
| 35  | 6     | 504  | XAT  | O23-C23-C24 | -5.14 | 99.58       | 109.80   |
| 21  | B     | 1231 | CLA  | O2D-CGD-CBD | 5.14  | 120.40      | 111.27   |
| 35  | 1     | 502  | XAT  | C7-C8-C9    | -5.14 | 117.56      | 125.53   |
| 21  | 1     | 612  | CLA  | CMD-C2D-C1D | 5.13  | 133.75      | 124.71   |
| 21  | B     | 1229 | CLA  | CMD-C2D-C1D | 5.13  | 133.75      | 124.71   |
| 21  | 6     | 613  | CLA  | O2D-CGD-CBD | 5.12  | 120.37      | 111.27   |
| 34  | 5     | 503  | LUT  | C37-C21-C22 | 5.12  | 119.14      | 109.44   |
| 21  | A     | 1118 | CLA  | CMD-C2D-C1D | 5.12  | 133.74      | 124.71   |
| 21  | B     | 1240 | CLA  | CMD-C2D-C1D | 5.12  | 133.74      | 124.71   |
| 21  | B     | 1023 | CLA  | O2A-C1-C2   | 5.12  | 122.09      | 108.64   |
| 21  | 4     | 604  | CLA  | O2A-C1-C2   | 5.12  | 122.08      | 108.64   |
| 21  | 5     | 601  | CLA  | CMB-C2B-C3B | 5.11  | 134.25      | 124.68   |
| 21  | B     | 1232 | CLA  | O2A-C1-C2   | 5.11  | 122.08      | 108.64   |
| 21  | A     | 1135 | CLA  | CMD-C2D-C1D | 5.11  | 133.72      | 124.71   |
| 21  | A     | 1114 | CLA  | O2D-CGD-CBD | 5.11  | 120.35      | 111.27   |
| 21  | B     | 1022 | CLA  | O2D-CGD-CBD | 5.11  | 120.35      | 111.27   |
| 21  | 5     | 604  | CLA  | O2A-C1-C2   | 5.10  | 122.05      | 108.64   |
| 34  | 2     | 501  | LUT  | C21-C26-C27 | 5.10  | 119.15      | 112.70   |
| 21  | 1     | 601  | CLA  | O2A-C1-C2   | 5.09  | 122.02      | 108.64   |
| 21  | 5     | 604  | CLA  | O2D-CGD-CBD | 5.09  | 120.32      | 111.27   |
| 21  | B     | 1223 | CLA  | CMD-C2D-C1D | 5.09  | 133.68      | 124.71   |
| 21  | 5     | 607  | CLA  | CMD-C2D-C1D | 5.09  | 133.68      | 124.71   |
| 21  | 1     | 611  | CLA  | O2D-CGD-CBD | 5.09  | 120.31      | 111.27   |
| 21  | 1     | 601  | CLA  | O2D-CGD-CBD | 5.08  | 120.29      | 111.27   |
| 21  | B     | 1234 | CLA  | O2D-CGD-CBD | 5.08  | 120.29      | 111.27   |
| 34  | 4     | 501  | LUT  | C21-C26-C25 | 5.08  | 120.51      | 111.42   |
| 21  | B     | 1232 | CLA  | CMD-C2D-C1D | 5.08  | 133.66      | 124.71   |
| 21  | K     | 1402 | CLA  | O2D-CGD-CBD | 5.08  | 120.29      | 111.27   |
| 21  | 5     | 607  | CLA  | C2C-C1C-NC  | 5.07  | 114.73      | 109.97   |
| 21  | 4     | 601  | CLA  | O2A-C1-C2   | 5.07  | 121.96      | 108.64   |
| 20  | A     | 1011 | CL0  | O2A-C1-C2   | 5.07  | 121.96      | 108.64   |
| 34  | 5     | 501  | LUT  | C35-C34-C33 | -5.07 | 120.08      | 127.31   |
| 34  | 5     | 503  | LUT  | C15-C14-C13 | -5.06 | 120.08      | 127.31   |
| 21  | 4     | 612  | CLA  | O2A-C1-C2   | 5.06  | 121.93      | 108.64   |
| 21  | 3     | 610  | CLA  | O2A-C1-C2   | 5.05  | 121.90      | 108.64   |
| 21  | 2     | 604  | CLA  | O2A-C1-C2   | 5.04  | 121.87      | 108.64   |
| 21  | B     | 1207 | CLA  | O2D-CGD-CBD | 5.04  | 120.22      | 111.27   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 34  | 1     | 501  | LUT  | C12-C13-C14 | -5.03 | 111.22      | 118.94   |
| 21  | B     | 1218 | CLA  | CAA-C2A-C3A | -5.03 | 98.99       | 112.78   |
| 21  | 6     | 601  | CLA  | O2D-CGD-CBD | 5.03  | 120.21      | 111.27   |
| 21  | A     | 1124 | CLA  | O2A-C1-C2   | 5.03  | 121.86      | 108.64   |
| 21  | A     | 1104 | CLA  | CMD-C2D-C3D | -5.03 | 116.05      | 127.61   |
| 21  | 1     | 612  | CLA  | O2A-C1-C2   | 5.03  | 121.85      | 108.64   |
| 21  | B     | 1205 | CLA  | O2D-CGD-CBD | 5.03  | 120.20      | 111.27   |
| 21  | 4     | 601  | CLA  | CMD-C2D-C1D | 5.02  | 133.57      | 124.71   |
| 21  | A     | 1116 | CLA  | O2D-CGD-CBD | 5.02  | 120.19      | 111.27   |
| 21  | A     | 1140 | CLA  | CMD-C2D-C1D | 5.02  | 133.56      | 124.71   |
| 21  | B     | 1211 | CLA  | O2D-CGD-CBD | 5.02  | 120.19      | 111.27   |
| 20  | A     | 1011 | CL0  | O2A-CGA-O1A | -5.02 | 110.93      | 123.59   |
| 21  | 4     | 615  | CLA  | O2D-CGD-CBD | 5.02  | 120.18      | 111.27   |
| 21  | 3     | 608  | CLA  | O2A-C1-C2   | 5.01  | 121.81      | 108.64   |
| 21  | B     | 1204 | CLA  | CMD-C2D-C1D | 5.01  | 133.55      | 124.71   |
| 21  | A     | 1124 | CLA  | O2D-CGD-CBD | 5.00  | 120.16      | 111.27   |
| 21  | A     | 1106 | CLA  | O2A-C1-C2   | 5.00  | 121.77      | 108.64   |
| 21  | G     | 1601 | CLA  | O2D-CGD-CBD | 5.00  | 120.15      | 111.27   |
| 21  | B     | 1208 | CLA  | O2A-C1-C2   | 5.00  | 121.77      | 108.64   |
| 34  | 5     | 503  | LUT  | C31-C30-C29 | -5.00 | 120.18      | 127.31   |
| 21  | 2     | 615  | CLA  | O2D-CGD-CBD | 4.99  | 120.14      | 111.27   |
| 21  | B     | 1022 | CLA  | O2A-C1-C2   | 4.99  | 121.75      | 108.64   |
| 21  | L     | 1501 | CLA  | CMB-C2B-C1B | -4.99 | 120.80      | 128.46   |
| 21  | A     | 1120 | CLA  | CMD-C2D-C1D | 4.98  | 133.49      | 124.71   |
| 21  | 6     | 609  | CLA  | O2D-CGD-CBD | 4.98  | 120.12      | 111.27   |
| 21  | B     | 1220 | CLA  | CMD-C2D-C1D | 4.98  | 133.49      | 124.71   |
| 21  | A     | 1132 | CLA  | O2A-C1-C2   | 4.97  | 121.70      | 108.64   |
| 21  | 3     | 613  | CLA  | O2D-CGD-CBD | 4.97  | 120.10      | 111.27   |
| 25  | 5     | 802  | LHG  | O7-C7-C8    | 4.97  | 120.23      | 111.09   |
| 21  | A     | 1133 | CLA  | O2A-C1-C2   | 4.97  | 121.69      | 108.64   |
| 21  | 6     | 603  | CLA  | O2A-C1-C2   | 4.97  | 121.69      | 108.64   |
| 21  | A     | 1111 | CLA  | O2A-C1-C2   | 4.97  | 121.69      | 108.64   |
| 33  | O     | 5002 | PTY  | O7-C8-C11   | 4.97  | 120.23      | 111.09   |
| 21  | 3     | 602  | CLA  | O2D-CGD-CBD | 4.97  | 120.09      | 111.27   |
| 21  | B     | 1212 | CLA  | O2A-C1-C2   | 4.96  | 121.68      | 108.64   |
| 21  | B     | 1216 | CLA  | CMD-C2D-C1D | 4.96  | 133.45      | 124.71   |
| 21  | B     | 1235 | CLA  | O2A-C1-C2   | 4.95  | 121.64      | 108.64   |
| 21  | 4     | 601  | CLA  | O1D-CGD-CBD | -4.94 | 114.37      | 124.48   |
| 21  | H     | 1701 | CLA  | CMD-C2D-C1D | 4.94  | 133.42      | 124.71   |
| 34  | 5     | 503  | LUT  | C11-C10-C9  | -4.94 | 120.27      | 127.31   |
| 21  | A     | 1012 | CLA  | O2D-CGD-CBD | 4.93  | 120.03      | 111.27   |
| 21  | 1     | 602  | CLA  | O2D-CGD-CBD | 4.93  | 120.03      | 111.27   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 3     | 612  | CLA  | CMD-C2D-C1D | 4.93  | 133.40      | 124.71   |
| 24  | A     | 4001 | BCR  | C39-C30-C25 | 4.93  | 118.29      | 110.30   |
| 21  | A     | 1125 | CLA  | O2D-CGD-CBD | 4.93  | 120.02      | 111.27   |
| 21  | B     | 1205 | CLA  | CMD-C2D-C1D | 4.92  | 133.39      | 124.71   |
| 21  | A     | 1124 | CLA  | CMD-C2D-C1D | 4.92  | 133.38      | 124.71   |
| 21  | 3     | 602  | CLA  | O2A-C1-C2   | 4.92  | 121.56      | 108.64   |
| 21  | B     | 1021 | CLA  | CMD-C2D-C1D | 4.92  | 133.38      | 124.71   |
| 24  | B     | 4003 | BCR  | C15-C14-C13 | -4.92 | 120.29      | 127.31   |
| 24  | 3     | 506  | BCR  | C35-C13-C14 | -4.92 | 116.04      | 122.92   |
| 21  | B     | 1207 | CLA  | O2A-C1-C2   | 4.91  | 121.55      | 108.64   |
| 21  | 2     | 606  | CLA  | O2A-C1-C2   | 4.91  | 121.55      | 108.64   |
| 21  | G     | 1602 | CLA  | O2D-CGD-CBD | 4.91  | 120.00      | 111.27   |
| 21  | 2     | 606  | CLA  | O2D-CGD-CBD | 4.91  | 119.99      | 111.27   |
| 20  | A     | 1011 | CL0  | C3D-C2D-C1D | -4.90 | 99.14       | 105.83   |
| 21  | 3     | 606  | CLA  | O2A-C1-C2   | 4.90  | 121.51      | 108.64   |
| 21  | 6     | 606  | CLA  | O2A-C1-C2   | 4.90  | 121.51      | 108.64   |
| 21  | 1     | 615  | CLA  | O2A-C1-C2   | 4.89  | 121.49      | 108.64   |
| 34  | 5     | 501  | LUT  | C31-C30-C29 | -4.89 | 120.33      | 127.31   |
| 21  | 3     | 615  | CLA  | O2D-CGD-CBD | 4.89  | 119.96      | 111.27   |
| 21  | A     | 1109 | CLA  | O2D-CGD-CBD | 4.89  | 119.95      | 111.27   |
| 35  | 2     | 502  | XAT  | C18-C5-C4   | 4.88  | 119.77      | 114.28   |
| 21  | 4     | 603  | CLA  | O2A-C1-C2   | 4.88  | 121.46      | 108.64   |
| 21  | 5     | 612  | CLA  | CAC-C3C-C4C | 4.88  | 131.14      | 124.81   |
| 21  | 5     | 605  | CLA  | O2A-C1-C2   | 4.88  | 121.45      | 108.64   |
| 21  | B     | 1216 | CLA  | O2D-CGD-CBD | 4.87  | 119.92      | 111.27   |
| 21  | L     | 1504 | CLA  | O2D-CGD-CBD | 4.87  | 119.92      | 111.27   |
| 21  | 2     | 608  | CLA  | O2A-C1-C2   | 4.87  | 121.42      | 108.64   |
| 21  | B     | 1215 | CLA  | O2D-CGD-CBD | 4.86  | 119.91      | 111.27   |
| 21  | A     | 1121 | CLA  | O2A-C1-C2   | 4.86  | 121.42      | 108.64   |
| 21  | F     | 1301 | CLA  | O2D-CGD-CBD | 4.85  | 119.89      | 111.27   |
| 21  | 4     | 602  | CLA  | CMD-C2D-C1D | 4.85  | 133.25      | 124.71   |
| 24  | I     | 4002 | BCR  | C33-C5-C6   | -4.84 | 119.09      | 124.53   |
| 33  | L     | 5003 | PTY  | O7-C8-C11   | 4.84  | 120.00      | 111.09   |
| 35  | 3     | 502  | XAT  | O3-C3-C4    | -4.84 | 100.19      | 109.80   |
| 21  | 5     | 606  | CLA  | O2D-CGD-CBD | 4.84  | 119.86      | 111.27   |
| 21  | A     | 1108 | CLA  | O2A-C1-C2   | 4.84  | 121.34      | 108.64   |
| 35  | 1     | 502  | XAT  | C38-C25-C24 | 4.83  | 119.72      | 114.28   |
| 21  | A     | 1115 | CLA  | O2A-C1-C2   | 4.83  | 121.33      | 108.64   |
| 21  | B     | 1225 | CLA  | CMD-C2D-C1D | 4.83  | 133.22      | 124.71   |
| 21  | 3     | 605  | CLA  | O2A-C1-C2   | 4.82  | 121.31      | 108.64   |
| 21  | 3     | 601  | CLA  | O2D-CGD-CBD | 4.82  | 119.83      | 111.27   |
| 21  | A     | 1105 | CLA  | O2D-CGD-CBD | 4.82  | 119.83      | 111.27   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1206 | CLA  | O2D-CGD-CBD | 4.82  | 119.83      | 111.27   |
| 21  | 3     | 612  | CLA  | O2A-C1-C2   | 4.82  | 121.30      | 108.64   |
| 21  | 6     | 604  | CLA  | O2A-C1-C2   | 4.81  | 121.28      | 108.64   |
| 21  | 4     | 604  | CLA  | O2D-CGD-CBD | 4.81  | 119.82      | 111.27   |
| 21  | A     | 1120 | CLA  | O2A-C1-C2   | 4.81  | 121.26      | 108.64   |
| 21  | B     | 1239 | CLA  | O2A-C1-C2   | 4.80  | 121.26      | 108.64   |
| 21  | B     | 1228 | CLA  | O2A-C1-C2   | 4.80  | 121.25      | 108.64   |
| 33  | 3     | 808  | PTY  | O7-C8-C11   | 4.80  | 119.92      | 111.09   |
| 21  | L     | 1504 | CLA  | O2A-C1-C2   | 4.80  | 121.24      | 108.64   |
| 21  | A     | 1126 | CLA  | O2D-CGD-CBD | 4.80  | 119.79      | 111.27   |
| 21  | 6     | 607  | CLA  | O2A-C1-C2   | 4.80  | 121.24      | 108.64   |
| 21  | 6     | 602  | CLA  | O2A-C1-C2   | 4.79  | 121.23      | 108.64   |
| 21  | A     | 1123 | CLA  | CMD-C2D-C1D | 4.79  | 133.16      | 124.71   |
| 21  | 1     | 606  | CLA  | O2A-C1-C2   | 4.79  | 121.23      | 108.64   |
| 21  | G     | 1603 | CLA  | CBC-CAC-C3C | -4.79 | 99.22       | 112.43   |
| 21  | 5     | 612  | CLA  | CMB-C2B-C3B | 4.79  | 133.64      | 124.68   |
| 21  | B     | 1237 | CLA  | O2D-CGD-CBD | 4.79  | 119.77      | 111.27   |
| 24  | A     | 4003 | BCR  | C37-C22-C23 | 4.78  | 125.62      | 118.08   |
| 21  | 1     | 607  | CLA  | O2D-CGD-CBD | 4.78  | 119.76      | 111.27   |
| 21  | 5     | 608  | CLA  | O2A-C1-C2   | 4.78  | 121.19      | 108.64   |
| 21  | 5     | 608  | CLA  | CMD-C2D-C1D | 4.78  | 133.13      | 124.71   |
| 21  | 4     | 603  | CLA  | O2D-CGD-CBD | 4.78  | 119.76      | 111.27   |
| 21  | B     | 1225 | CLA  | O2D-CGD-CBD | 4.77  | 119.75      | 111.27   |
| 21  | 3     | 613  | CLA  | CMD-C2D-C1D | 4.77  | 133.12      | 124.71   |
| 21  | 1     | 611  | CLA  | O2A-C1-C2   | 4.77  | 121.17      | 108.64   |
| 21  | 6     | 612  | CLA  | O2D-CGD-O1D | -4.77 | 114.51      | 123.84   |
| 21  | 5     | 613  | CLA  | CMB-C2B-C3B | 4.77  | 133.60      | 124.68   |
| 21  | A     | 1138 | CLA  | CMD-C2D-C1D | 4.77  | 133.12      | 124.71   |
| 21  | B     | 1228 | CLA  | O2D-CGD-CBD | 4.76  | 119.73      | 111.27   |
| 21  | 3     | 611  | CLA  | O2D-CGD-CBD | 4.76  | 119.72      | 111.27   |
| 21  | A     | 1114 | CLA  | O2A-C1-C2   | 4.74  | 121.10      | 108.64   |
| 21  | B     | 1237 | CLA  | O2A-C1-C2   | 4.73  | 121.07      | 108.64   |
| 21  | A     | 1106 | CLA  | CMD-C2D-C1D | 4.73  | 133.05      | 124.71   |
| 21  | 3     | 608  | CLA  | O2D-CGD-CBD | 4.73  | 119.67      | 111.27   |
| 21  | 4     | 615  | CLA  | O2A-C1-C2   | 4.72  | 121.05      | 108.64   |
| 21  | B     | 1237 | CLA  | CMB-C2B-C1B | -4.72 | 121.21      | 128.46   |
| 21  | A     | 1122 | CLA  | O2D-CGD-CBD | 4.72  | 119.65      | 111.27   |
| 21  | 3     | 606  | CLA  | CAC-C3C-C4C | 4.72  | 130.93      | 124.81   |
| 21  | A     | 1121 | CLA  | O2D-CGD-CBD | 4.72  | 119.65      | 111.27   |
| 21  | B     | 1206 | CLA  | O2A-C1-C2   | 4.71  | 121.02      | 108.64   |
| 34  | 6     | 501  | LUT  | C18-C5-C6   | -4.71 | 119.24      | 124.53   |
| 21  | A     | 1139 | CLA  | CAA-CBA-CGA | -4.71 | 99.49       | 113.25   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 2     | 603  | CLA  | O2D-CGD-CBD | 4.71  | 119.64      | 111.27   |
| 21  | A     | 1141 | CLA  | O2D-CGD-CBD | 4.71  | 119.63      | 111.27   |
| 21  | 6     | 605  | CLA  | O2A-C1-C2   | 4.70  | 120.99      | 108.64   |
| 21  | 5     | 613  | CLA  | O2D-CGD-O1D | -4.70 | 114.65      | 123.84   |
| 21  | A     | 1137 | CLA  | O2D-CGD-CBD | 4.70  | 119.61      | 111.27   |
| 21  | L     | 1502 | CLA  | C1-C2-C3    | -4.69 | 117.92      | 126.04   |
| 34  | 5     | 503  | LUT  | C18-C5-C6   | -4.69 | 119.26      | 124.53   |
| 21  | B     | 1219 | CLA  | O2D-CGD-CBD | 4.69  | 119.61      | 111.27   |
| 21  | 2     | 612  | CLA  | CMD-C2D-C1D | 4.69  | 132.97      | 124.71   |
| 21  | A     | 1116 | CLA  | C1-C2-C3    | -4.69 | 117.94      | 126.04   |
| 21  | 6     | 601  | CLA  | O2A-C1-C2   | 4.68  | 120.94      | 108.64   |
| 21  | O     | 1803 | CLA  | O2D-CGD-CBD | 4.68  | 119.58      | 111.27   |
| 21  | 1     | 607  | CLA  | CMD-C2D-C1D | 4.68  | 132.96      | 124.71   |
| 21  | A     | 1112 | CLA  | O2A-C1-C2   | 4.68  | 120.93      | 108.64   |
| 21  | B     | 1222 | CLA  | O2A-C1-C2   | 4.68  | 120.92      | 108.64   |
| 34  | 5     | 502  | LUT  | C18-C5-C6   | -4.67 | 119.28      | 124.53   |
| 24  | A     | 4002 | BCR  | C34-C9-C10  | -4.67 | 116.38      | 122.92   |
| 21  | B     | 1205 | CLA  | O2A-C1-C2   | 4.67  | 120.91      | 108.64   |
| 21  | 6     | 604  | CLA  | CMB-C2B-C3B | 4.66  | 133.40      | 124.68   |
| 34  | 5     | 502  | LUT  | C15-C14-C13 | -4.66 | 120.66      | 127.31   |
| 21  | 5     | 608  | CLA  | O2D-CGD-CBD | 4.66  | 119.54      | 111.27   |
| 21  | A     | 1103 | CLA  | O2A-C1-C2   | 4.66  | 120.87      | 108.64   |
| 21  | A     | 1134 | CLA  | O2A-C1-C2   | 4.66  | 120.87      | 108.64   |
| 21  | 5     | 614  | CLA  | CAC-C3C-C4C | -4.65 | 118.77      | 124.81   |
| 21  | B     | 1240 | CLA  | O2D-CGD-CBD | 4.65  | 119.53      | 111.27   |
| 34  | 1     | 501  | LUT  | C31-C32-C33 | -4.65 | 113.35      | 126.42   |
| 21  | B     | 1203 | CLA  | O2A-C1-C2   | 4.65  | 120.85      | 108.64   |
| 21  | B     | 1203 | CLA  | O2D-CGD-CBD | 4.64  | 119.52      | 111.27   |
| 21  | 3     | 613  | CLA  | C2D-C1D-ND  | 4.64  | 113.52      | 110.10   |
| 21  | A     | 1123 | CLA  | O2A-C1-C2   | 4.63  | 120.80      | 108.64   |
| 21  | 2     | 603  | CLA  | O2A-C1-C2   | 4.62  | 120.79      | 108.64   |
| 21  | A     | 1137 | CLA  | O2A-C1-C2   | 4.62  | 120.79      | 108.64   |
| 21  | 3     | 607  | CLA  | O2A-C1-C2   | 4.62  | 120.79      | 108.64   |
| 21  | 5     | 607  | CLA  | O2A-C1-C2   | 4.61  | 120.76      | 108.64   |
| 36  | 3     | 604  | CHL  | CMA-C3A-C4A | 4.61  | 124.17      | 111.77   |
| 34  | 3     | 501  | LUT  | C7-C8-C9    | -4.61 | 119.28      | 126.23   |
| 21  | A     | 1113 | CLA  | O2D-CGD-CBD | 4.60  | 119.45      | 111.27   |
| 24  | I     | 4002 | BCR  | C15-C14-C13 | -4.60 | 120.74      | 127.31   |
| 34  | 5     | 504  | LUT  | C11-C10-C9  | -4.60 | 120.75      | 127.31   |
| 21  | A     | 1122 | CLA  | O2A-C1-C2   | 4.60  | 120.72      | 108.64   |
| 21  | 4     | 606  | CLA  | O2A-C1-C2   | 4.59  | 120.70      | 108.64   |
| 21  | 2     | 602  | CLA  | O2D-CGD-CBD | 4.59  | 119.43      | 111.27   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | K     | 1402 | CLA  | O2A-C1-C2   | 4.58  | 120.67      | 108.64   |
| 21  | A     | 1013 | CLA  | CMB-C2B-C3B | 4.58  | 133.25      | 124.68   |
| 21  | A     | 1125 | CLA  | O2A-C1-C2   | 4.58  | 120.67      | 108.64   |
| 21  | 5     | 606  | CLA  | O2A-C1-C2   | 4.58  | 120.66      | 108.64   |
| 29  | 5     | 807  | 3PH  | O21-C21-C22 | 4.58  | 121.36      | 111.50   |
| 21  | 6     | 612  | CLA  | O2A-C1-C2   | 4.57  | 120.65      | 108.64   |
| 34  | 5     | 501  | LUT  | C7-C8-C9    | -4.57 | 119.33      | 126.23   |
| 21  | 4     | 606  | CLA  | O2D-CGD-CBD | 4.55  | 119.36      | 111.27   |
| 21  | B     | 1023 | CLA  | O2D-CGD-CBD | 4.55  | 119.35      | 111.27   |
| 21  | 1     | 615  | CLA  | O2D-CGD-CBD | 4.55  | 119.35      | 111.27   |
| 21  | 1     | 606  | CLA  | O2D-CGD-CBD | 4.55  | 119.35      | 111.27   |
| 21  | 2     | 604  | CLA  | CMD-C2D-C1D | 4.54  | 132.72      | 124.71   |
| 21  | A     | 1136 | CLA  | CMD-C2D-C1D | 4.54  | 132.71      | 124.71   |
| 24  | G     | 4001 | BCR  | C35-C13-C14 | -4.54 | 116.57      | 122.92   |
| 21  | 6     | 604  | CLA  | O2D-CGD-CBD | 4.54  | 119.33      | 111.27   |
| 24  | K     | 4001 | BCR  | C33-C5-C6   | -4.53 | 119.44      | 124.53   |
| 21  | A     | 1119 | CLA  | O2D-CGD-CBD | 4.52  | 119.30      | 111.27   |
| 21  | B     | 1204 | CLA  | O2A-C1-C2   | 4.52  | 120.52      | 108.64   |
| 21  | K     | 1401 | CLA  | CHD-C1D-ND  | -4.52 | 120.30      | 124.45   |
| 21  | A     | 1108 | CLA  | CMD-C2D-C1D | 4.52  | 132.68      | 124.71   |
| 34  | 5     | 504  | LUT  | C22-C23-C24 | 4.52  | 116.89      | 111.74   |
| 21  | 6     | 612  | CLA  | CMD-C2D-C1D | 4.50  | 132.65      | 124.71   |
| 21  | K     | 1401 | CLA  | CAC-C3C-C2C | -4.50 | 119.84      | 127.53   |
| 21  | B     | 1237 | CLA  | CMB-C2B-C3B | 4.50  | 133.09      | 124.68   |
| 21  | H     | 1702 | CLA  | C2C-C1C-NC  | 4.49  | 114.18      | 109.97   |
| 24  | H     | 4001 | BCR  | C23-C22-C21 | 4.48  | 125.81      | 118.94   |
| 21  | 3     | 605  | CLA  | O2D-CGD-CBD | 4.47  | 119.22      | 111.27   |
| 22  | B     | 2002 | PQN  | C14-C13-C15 | 4.47  | 122.78      | 115.27   |
| 35  | 6     | 504  | XAT  | C15-C14-C13 | -4.46 | 120.94      | 127.31   |
| 24  | I     | 4001 | BCR  | C33-C5-C6   | -4.46 | 119.52      | 124.53   |
| 21  | 5     | 603  | CLA  | O2A-C1-C2   | 4.46  | 120.35      | 108.64   |
| 21  | 4     | 607  | CLA  | CMD-C2D-C1D | 4.46  | 132.57      | 124.71   |
| 21  | A     | 1139 | CLA  | O2D-CGD-CBD | 4.45  | 119.18      | 111.27   |
| 34  | 2     | 501  | LUT  | C22-C23-C24 | -4.45 | 106.67      | 111.74   |
| 21  | 3     | 608  | CLA  | CMD-C2D-C1D | 4.45  | 132.55      | 124.71   |
| 34  | 5     | 502  | LUT  | C21-C26-C27 | 4.44  | 118.32      | 112.70   |
| 21  | A     | 1123 | CLA  | O2D-CGD-CBD | 4.44  | 119.16      | 111.27   |
| 36  | 2     | 611  | CHL  | C4A-NA-C1A  | 4.44  | 108.70      | 106.71   |
| 21  | 1     | 603  | CLA  | O2D-CGD-CBD | 4.44  | 119.16      | 111.27   |
| 21  | 5     | 602  | CLA  | CMB-C2B-C3B | 4.44  | 132.98      | 124.68   |
| 35  | 1     | 502  | XAT  | C15-C14-C13 | -4.43 | 120.98      | 127.31   |
| 21  | A     | 1141 | CLA  | O2A-CGA-CBA | 4.43  | 125.81      | 111.91   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | F     | 4001 | BCR  | C33-C5-C6   | -4.43 | 119.55      | 124.53   |
| 21  | 3     | 603  | CLA  | CMD-C2D-C1D | 4.43  | 132.52      | 124.71   |
| 21  | A     | 1141 | CLA  | O2A-C1-C2   | 4.43  | 120.27      | 108.64   |
| 21  | K     | 1403 | CLA  | CMD-C2D-C3D | -4.42 | 117.44      | 127.61   |
| 36  | 3     | 604  | CHL  | C1-O2A-CGA  | 4.42  | 128.03      | 116.44   |
| 21  | 4     | 605  | CLA  | O2A-C1-C2   | 4.41  | 120.22      | 108.64   |
| 21  | 3     | 614  | CLA  | O2D-CGD-CBD | 4.40  | 119.09      | 111.27   |
| 21  | 2     | 602  | CLA  | O2A-C1-C2   | 4.40  | 120.20      | 108.64   |
| 34  | 5     | 503  | LUT  | C21-C26-C25 | 4.39  | 119.29      | 111.42   |
| 24  | B     | 4003 | BCR  | C27-C26-C25 | -4.38 | 116.37      | 122.73   |
| 36  | 6     | 610  | CHL  | CHD-C1D-ND  | -4.38 | 120.43      | 124.45   |
| 25  | B     | 5001 | LHG  | O7-C7-C8    | 4.38  | 120.94      | 111.50   |
| 35  | 3     | 502  | XAT  | O4-C5-C4    | -4.37 | 110.10      | 113.38   |
| 21  | A     | 1013 | CLA  | CMB-C2B-C1B | -4.37 | 121.75      | 128.46   |
| 21  | B     | 1214 | CLA  | O2A-C1-C2   | 4.37  | 120.12      | 108.64   |
| 34  | 2     | 501  | LUT  | C21-C26-C25 | 4.36  | 119.23      | 111.42   |
| 21  | H     | 1701 | CLA  | O2A-C1-C2   | 4.36  | 120.09      | 108.64   |
| 35  | 6     | 504  | XAT  | O24-C25-C38 | -4.36 | 109.84      | 115.06   |
| 24  | J     | 4001 | BCR  | C33-C5-C6   | -4.35 | 119.64      | 124.53   |
| 21  | B     | 1219 | CLA  | O2A-C1-C2   | 4.35  | 120.07      | 108.64   |
| 35  | 6     | 502  | XAT  | C15-C14-C13 | -4.35 | 121.10      | 127.31   |
| 24  | A     | 4001 | BCR  | C33-C5-C6   | -4.35 | 119.64      | 124.53   |
| 21  | 5     | 612  | CLA  | CMB-C2B-C1B | -4.35 | 121.78      | 128.46   |
| 21  | B     | 1215 | CLA  | O2A-C1-C2   | 4.34  | 120.05      | 108.64   |
| 21  | B     | 1229 | CLA  | CMB-C2B-C3B | 4.34  | 132.80      | 124.68   |
| 24  | A     | 4001 | BCR  | C39-C30-C29 | -4.34 | 91.55       | 108.91   |
| 21  | G     | 1603 | CLA  | O2D-CGD-CBD | 4.34  | 118.97      | 111.27   |
| 21  | A     | 1012 | CLA  | O2A-C1-C2   | 4.33  | 120.02      | 108.64   |
| 24  | A     | 4002 | BCR  | C34-C9-C8   | 4.33  | 124.90      | 118.08   |
| 36  | 4     | 611  | CHL  | CHD-C1D-ND  | -4.33 | 120.48      | 124.45   |
| 21  | A     | 1127 | CLA  | O2D-CGD-CBD | 4.32  | 118.95      | 111.27   |
| 35  | 1     | 502  | XAT  | O4-C5-C4    | -4.32 | 110.14      | 113.38   |
| 25  | 2     | 801  | LHG  | O7-C7-C8    | 4.32  | 120.81      | 111.50   |
| 21  | B     | 1221 | CLA  | O2A-C1-C2   | 4.32  | 119.98      | 108.64   |
| 34  | 5     | 504  | LUT  | C35-C34-C33 | -4.32 | 121.15      | 127.31   |
| 34  | 5     | 503  | LUT  | C7-C8-C9    | -4.31 | 119.72      | 126.23   |
| 21  | 6     | 605  | CLA  | O2D-CGD-CBD | 4.31  | 118.92      | 111.27   |
| 21  | 1     | 613  | CLA  | O2D-CGD-CBD | 4.30  | 118.91      | 111.27   |
| 35  | 6     | 504  | XAT  | C38-C25-C26 | 4.30  | 129.46      | 122.26   |
| 34  | 5     | 501  | LUT  | C38-C25-C24 | -4.29 | 114.38      | 123.56   |
| 21  | B     | 1210 | CLA  | O2A-C1-C2   | 4.29  | 119.90      | 108.64   |
| 20  | A     | 1011 | CL0  | C1D-ND-C4D  | -4.28 | 103.29      | 106.33   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | H     | 1701 | CLA  | C2C-C1C-NC  | 4.28  | 113.99      | 109.97   |
| 21  | H     | 1702 | CLA  | C4A-NA-C1A  | 4.28  | 108.63      | 106.71   |
| 28  | 3     | 805  | DGD  | O2G-C1B-C2B | 4.28  | 120.72      | 111.50   |
| 29  | B     | 5003 | 3PH  | O21-C21-C22 | 4.27  | 120.70      | 111.50   |
| 33  | 1     | 805  | PTY  | O7-C8-C11   | 4.27  | 120.70      | 111.50   |
| 24  | A     | 4002 | BCR  | C19-C18-C17 | 4.27  | 125.49      | 118.94   |
| 21  | 1     | 604  | CLA  | CMA-C3A-C4A | 4.26  | 123.23      | 111.77   |
| 33  | 3     | 807  | PTY  | O7-C8-C11   | 4.26  | 120.68      | 111.50   |
| 21  | 6     | 605  | CLA  | C1-C2-C3    | -4.25 | 118.68      | 126.04   |
| 21  | A     | 1103 | CLA  | CAA-C2A-C3A | -4.25 | 101.14      | 112.78   |
| 21  | O     | 1801 | CLA  | C2C-C1C-NC  | 4.25  | 113.95      | 109.97   |
| 21  | 5     | 601  | CLA  | CHD-C1D-ND  | -4.24 | 120.55      | 124.45   |
| 21  | 6     | 613  | CLA  | CMB-C2B-C3B | 4.24  | 132.62      | 124.68   |
| 34  | 6     | 501  | LUT  | C21-C26-C27 | 4.24  | 118.06      | 112.70   |
| 21  | L     | 1501 | CLA  | CMB-C2B-C3B | 4.24  | 132.61      | 124.68   |
| 21  | L     | 1502 | CLA  | C2D-C1D-ND  | 4.19  | 113.19      | 110.10   |
| 21  | A     | 1117 | CLA  | CMB-C2B-C3B | 4.19  | 132.51      | 124.68   |
| 21  | B     | 1226 | CLA  | O2D-CGD-CBD | 4.18  | 118.70      | 111.27   |
| 21  | J     | 1901 | CLA  | C2C-C1C-NC  | 4.18  | 113.88      | 109.97   |
| 34  | 3     | 501  | LUT  | C21-C26-C25 | 4.17  | 118.89      | 111.42   |
| 21  | 6     | 605  | CLA  | C4-C3-C2    | -4.17 | 112.97      | 123.68   |
| 21  | O     | 1801 | CLA  | CMD-C2D-C3D | -4.17 | 118.02      | 127.61   |
| 34  | 5     | 501  | LUT  | C21-C26-C27 | 4.17  | 117.97      | 112.70   |
| 24  | A     | 4002 | BCR  | C28-C27-C26 | -4.17 | 106.63      | 114.08   |
| 28  | 2     | 806  | DGD  | O2G-C1B-C2B | 4.17  | 120.49      | 111.50   |
| 34  | 5     | 502  | LUT  | C11-C10-C9  | -4.17 | 121.36      | 127.31   |
| 21  | B     | 1207 | CLA  | C1-C2-C3    | -4.16 | 118.85      | 126.04   |
| 34  | 5     | 502  | LUT  | C35-C34-C33 | -4.16 | 121.37      | 127.31   |
| 25  | 2     | 802  | LHG  | O7-C7-C8    | 4.16  | 120.46      | 111.50   |
| 21  | L     | 1502 | CLA  | CMB-C2B-C3B | 4.16  | 132.46      | 124.68   |
| 21  | A     | 1117 | CLA  | CMB-C2B-C1B | -4.16 | 122.07      | 128.46   |
| 21  | 6     | 613  | CLA  | CHD-C1D-ND  | -4.16 | 120.63      | 124.45   |
| 25  | A     | 5001 | LHG  | O7-C7-C8    | 4.16  | 120.46      | 111.50   |
| 35  | 3     | 502  | XAT  | C7-C8-C9    | -4.15 | 119.09      | 125.53   |
| 21  | B     | 1204 | CLA  | O2D-CGD-O1D | -4.14 | 115.74      | 123.84   |
| 34  | 5     | 504  | LUT  | C38-C25-C24 | -4.13 | 114.72      | 123.56   |
| 24  | 3     | 506  | BCR  | C19-C18-C17 | 4.13  | 125.27      | 118.94   |
| 34  | 4     | 501  | LUT  | C31-C30-C29 | -4.12 | 121.43      | 127.31   |
| 31  | 3     | 803  | LMG  | O7-C10-C11  | 4.12  | 120.38      | 111.50   |
| 39  | 5     | 806  | P3H  | O39-C40-C42 | 4.11  | 120.37      | 111.50   |
| 24  | H     | 4001 | BCR  | C37-C22-C21 | -4.11 | 117.17      | 122.92   |
| 21  | A     | 1013 | CLA  | O2D-CGD-CBD | 4.11  | 118.57      | 111.27   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | K     | 1403 | CLA  | C1C-C2C-C3C | -4.11 | 102.64      | 106.96   |
| 21  | 6     | 604  | CLA  | CMB-C2B-C1B | -4.11 | 122.15      | 128.46   |
| 21  | G     | 1603 | CLA  | C1C-C2C-C3C | -4.11 | 102.64      | 106.96   |
| 24  | B     | 4003 | BCR  | C30-C25-C26 | -4.10 | 116.84      | 122.61   |
| 36  | 5     | 609  | CHL  | CHD-C1D-ND  | -4.10 | 120.69      | 124.45   |
| 21  | 5     | 604  | CLA  | CAA-C2A-C3A | -4.10 | 101.55      | 112.78   |
| 24  | O     | 4001 | BCR  | C8-C9-C10   | 4.09  | 125.22      | 118.94   |
| 25  | 1     | 802  | LHG  | O7-C7-C8    | 4.08  | 120.30      | 111.50   |
| 35  | 4     | 502  | XAT  | C38-C25-C24 | 4.08  | 118.87      | 114.28   |
| 21  | 2     | 615  | CLA  | O2A-C1-C2   | 4.08  | 119.36      | 108.64   |
| 21  | 4     | 612  | CLA  | O2D-CGD-CBD | 4.07  | 118.51      | 111.27   |
| 21  | A     | 1127 | CLA  | C1-C2-C3    | -4.07 | 119.00      | 126.04   |
| 28  | 3     | 804  | DGD  | O2G-C1B-C2B | 4.07  | 120.28      | 111.50   |
| 21  | B     | 1210 | CLA  | C2C-C1C-NC  | 4.07  | 113.78      | 109.97   |
| 21  | 5     | 603  | CLA  | CMB-C2B-C3B | 4.06  | 132.28      | 124.68   |
| 33  | 1     | 806  | PTY  | O7-C8-C11   | 4.05  | 118.55      | 111.09   |
| 24  | A     | 4001 | BCR  | C40-C30-C39 | 4.05  | 120.97      | 108.53   |
| 21  | A     | 1128 | CLA  | O2A-C1-C2   | 4.05  | 119.28      | 108.64   |
| 35  | 4     | 502  | XAT  | C15-C14-C13 | -4.04 | 121.54      | 127.31   |
| 21  | A     | 1126 | CLA  | O2A-C1-C2   | 4.04  | 119.26      | 108.64   |
| 33  | 6     | 804  | PTY  | O7-C8-C11   | 4.04  | 120.21      | 111.50   |
| 24  | J     | 4002 | BCR  | C36-C18-C17 | -4.04 | 117.27      | 122.92   |
| 35  | 3     | 502  | XAT  | C37-C21-C36 | -4.04 | 101.41      | 107.37   |
| 21  | L     | 1501 | CLA  | CMA-C3A-C4A | 4.04  | 122.62      | 111.77   |
| 21  | B     | 1201 | CLA  | O2A-C1-C2   | 4.03  | 123.12      | 109.49   |
| 21  | B     | 1218 | CLA  | C1-C2-C3    | -4.03 | 119.07      | 126.04   |
| 35  | 6     | 504  | XAT  | C38-C25-C24 | -4.02 | 109.75      | 114.28   |
| 21  | H     | 1701 | CLA  | CAC-C3C-C4C | 4.02  | 130.02      | 124.81   |
| 21  | A     | 1109 | CLA  | CHD-C1D-ND  | -4.01 | 120.77      | 124.45   |
| 21  | B     | 1213 | CLA  | O2A-C1-C2   | 4.01  | 119.18      | 108.64   |
| 21  | A     | 1135 | CLA  | OBD-CAD-C3D | -4.01 | 118.87      | 128.52   |
| 33  | 4     | 804  | PTY  | O7-C8-C11   | 4.00  | 120.13      | 111.50   |
| 21  | A     | 1118 | CLA  | CMB-C2B-C1B | -4.00 | 122.31      | 128.46   |
| 21  | 6     | 605  | CLA  | C4-C3-C5    | 4.00  | 122.00      | 115.27   |
| 21  | K     | 1401 | CLA  | C2C-C1C-NC  | 4.00  | 113.72      | 109.97   |
| 21  | 5     | 614  | CLA  | C2C-C1C-NC  | 4.00  | 113.72      | 109.97   |
| 21  | 6     | 612  | CLA  | CMB-C2B-C3B | 4.00  | 132.16      | 124.68   |
| 35  | 3     | 502  | XAT  | C15-C14-C13 | -3.99 | 121.61      | 127.31   |
| 24  | 3     | 506  | BCR  | C27-C26-C25 | -3.99 | 116.94      | 122.73   |
| 21  | B     | 1210 | CLA  | O2D-CGD-O1D | -3.99 | 116.05      | 123.84   |
| 20  | A     | 1011 | CL0  | O2A-CGA-CBA | 3.98  | 124.39      | 111.91   |
| 24  | H     | 4001 | BCR  | C30-C25-C26 | -3.98 | 117.01      | 122.61   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 5     | 607  | CLA  | C1-O2A-CGA  | 3.97  | 126.87      | 116.44   |
| 24  | A     | 4003 | BCR  | C37-C22-C21 | -3.97 | 117.36      | 122.92   |
| 34  | 6     | 501  | LUT  | C11-C10-C9  | -3.96 | 121.65      | 127.31   |
| 21  | 3     | 610  | CLA  | C1-C2-C3    | -3.96 | 120.35      | 126.75   |
| 24  | O     | 4001 | BCR  | C2-C1-C6    | 3.96  | 116.57      | 110.48   |
| 25  | A     | 5002 | LHG  | O7-C7-C8    | 3.95  | 120.02      | 111.50   |
| 21  | 5     | 602  | CLA  | CMB-C2B-C1B | -3.95 | 122.39      | 128.46   |
| 21  | 5     | 614  | CLA  | C1-C2-C3    | -3.95 | 119.21      | 126.04   |
| 21  | B     | 1229 | CLA  | CMB-C2B-C1B | -3.95 | 122.39      | 128.46   |
| 24  | J     | 4001 | BCR  | C29-C28-C27 | -3.95 | 102.56      | 111.38   |
| 21  | 5     | 608  | CLA  | C2C-C1C-NC  | 3.95  | 113.67      | 109.97   |
| 21  | A     | 1105 | CLA  | CAA-C2A-C3A | -3.95 | 101.97      | 112.78   |
| 21  | L     | 1501 | CLA  | O2A-C1-C2   | 3.94  | 118.99      | 108.64   |
| 21  | 5     | 614  | CLA  | C3D-C2D-C1D | -3.94 | 100.45      | 105.83   |
| 34  | 5     | 502  | LUT  | C7-C8-C9    | -3.94 | 120.28      | 126.23   |
| 33  | 5     | 803  | PTY  | O7-C8-C11   | 3.94  | 119.99      | 111.50   |
| 35  | 4     | 502  | XAT  | C31-C30-C29 | -3.93 | 121.70      | 127.31   |
| 21  | O     | 1803 | CLA  | O2A-CGA-CBA | 3.92  | 124.22      | 111.91   |
| 29  | F     | 5003 | 3PH  | O21-C21-C22 | 3.92  | 119.94      | 111.50   |
| 21  | B     | 1220 | CLA  | CAA-C2A-C3A | -3.92 | 102.06      | 112.78   |
| 21  | A     | 1127 | CLA  | CMD-C2D-C1D | 3.91  | 131.61      | 124.71   |
| 34  | 1     | 501  | LUT  | C10-C11-C12 | -3.91 | 111.03      | 123.22   |
| 21  | B     | 1240 | CLA  | O2A-C1-C2   | 3.91  | 118.90      | 108.64   |
| 21  | 3     | 603  | CLA  | C2D-C1D-ND  | 3.91  | 112.98      | 110.10   |
| 24  | J     | 4001 | BCR  | C32-C1-C6   | -3.91 | 103.97      | 110.30   |
| 24  | F     | 4002 | BCR  | C23-C22-C21 | 3.90  | 124.93      | 118.94   |
| 21  | A     | 1117 | CLA  | CMD-C2D-C1D | 3.90  | 131.58      | 124.71   |
| 29  | 5     | 804  | 3PH  | O21-C21-C22 | 3.90  | 119.90      | 111.50   |
| 21  | A     | 1135 | CLA  | CMB-C2B-C1B | -3.89 | 122.48      | 128.46   |
| 21  | K     | 1401 | CLA  | CAA-C2A-C3A | -3.89 | 102.12      | 112.78   |
| 24  | B     | 4003 | BCR  | C38-C26-C27 | 3.89  | 121.09      | 113.62   |
| 21  | 6     | 613  | CLA  | CMB-C2B-C1B | -3.89 | 122.48      | 128.46   |
| 24  | H     | 4001 | BCR  | C3-C4-C5    | -3.89 | 107.13      | 114.08   |
| 25  | 4     | 801  | LHG  | O7-C7-C8    | 3.89  | 119.89      | 111.50   |
| 21  | A     | 1013 | CLA  | CMD-C2D-C1D | 3.89  | 131.57      | 124.71   |
| 35  | 6     | 504  | XAT  | O24-C25-C24 | 3.89  | 116.30      | 113.38   |
| 21  | A     | 1117 | CLA  | O2D-CGD-O1D | -3.88 | 116.25      | 123.84   |
| 21  | H     | 1701 | CLA  | CMA-C3A-C4A | 3.88  | 122.20      | 111.77   |
| 21  | 3     | 608  | CLA  | CMC-C2C-C1C | 3.88  | 130.94      | 125.04   |
| 21  | L     | 1502 | CLA  | CHD-C1D-ND  | -3.88 | 120.89      | 124.45   |
| 21  | 2     | 601  | CLA  | O1D-CGD-CBD | -3.87 | 116.56      | 124.48   |
| 34  | 4     | 501  | LUT  | C35-C34-C33 | -3.87 | 121.78      | 127.31   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 6     | 602  | CLA  | C1-C2-C3    | -3.87 | 120.48      | 126.75   |
| 31  | 6     | 802  | LMG  | O7-C10-C11  | 3.87  | 119.85      | 111.50   |
| 21  | A     | 1123 | CLA  | C2C-C1C-NC  | 3.87  | 113.60      | 109.97   |
| 35  | 1     | 502  | XAT  | C31-C30-C29 | -3.86 | 121.79      | 127.31   |
| 34  | 2     | 501  | LUT  | C38-C25-C24 | -3.86 | 115.29      | 123.56   |
| 36  | 1     | 609  | CHL  | CHD-C1D-ND  | -3.86 | 120.91      | 124.45   |
| 24  | H     | 4001 | BCR  | C27-C26-C25 | -3.85 | 117.14      | 122.73   |
| 24  | A     | 4007 | BCR  | C34-C9-C10  | -3.85 | 117.53      | 122.92   |
| 39  | 2     | 808  | P3H  | O39-C40-C42 | 3.84  | 119.78      | 111.50   |
| 21  | B     | 1222 | CLA  | CMB-C2B-C3B | 3.84  | 131.87      | 124.68   |
| 35  | 6     | 504  | XAT  | C7-C8-C9    | -3.84 | 119.58      | 125.53   |
| 35  | 3     | 502  | XAT  | C31-C30-C29 | -3.84 | 121.83      | 127.31   |
| 21  | A     | 1117 | CLA  | O2A-C1-C2   | 3.83  | 118.70      | 108.64   |
| 34  | 5     | 503  | LUT  | C35-C34-C33 | -3.82 | 121.85      | 127.31   |
| 21  | B     | 1229 | CLA  | C2D-C1D-ND  | 3.82  | 112.92      | 110.10   |
| 34  | 6     | 501  | LUT  | C15-C14-C13 | -3.82 | 121.86      | 127.31   |
| 24  | L     | 4001 | BCR  | C29-C28-C27 | 3.82  | 119.91      | 111.38   |
| 21  | 5     | 607  | CLA  | O2A-CGA-CBA | 3.81  | 123.88      | 111.91   |
| 21  | K     | 1401 | CLA  | CMD-C2D-C3D | -3.81 | 118.84      | 127.61   |
| 21  | B     | 1226 | CLA  | C2C-C1C-NC  | 3.81  | 113.54      | 109.97   |
| 36  | 5     | 610  | CHL  | C4D-CHA-C1A | 3.80  | 125.88      | 121.25   |
| 21  | A     | 1125 | CLA  | C2D-C1D-ND  | 3.80  | 112.91      | 110.10   |
| 36  | 2     | 609  | CHL  | C3C-C4C-NC  | -3.80 | 106.31      | 110.57   |
| 21  | B     | 1023 | CLA  | C1-C2-C3    | -3.80 | 119.47      | 126.04   |
| 21  | B     | 1202 | CLA  | O2A-C1-C2   | 3.80  | 118.62      | 108.64   |
| 34  | 6     | 501  | LUT  | C7-C8-C9    | -3.80 | 120.50      | 126.23   |
| 21  | A     | 1139 | CLA  | O2A-C1-C2   | 3.80  | 118.62      | 108.64   |
| 21  | 5     | 601  | CLA  | CAA-C2A-C3A | -3.80 | 102.38      | 112.78   |
| 21  | 5     | 612  | CLA  | O2D-CGD-O1D | -3.80 | 116.42      | 123.84   |
| 21  | 5     | 606  | CLA  | C1-C2-C3    | -3.80 | 120.61      | 126.75   |
| 21  | B     | 1211 | CLA  | CMB-C2B-C3B | 3.79  | 131.78      | 124.68   |
| 35  | 6     | 504  | XAT  | C39-C29-C30 | -3.79 | 117.61      | 122.92   |
| 34  | 5     | 502  | LUT  | C31-C30-C29 | -3.79 | 121.90      | 127.31   |
| 34  | 1     | 501  | LUT  | C7-C8-C9    | -3.79 | 120.51      | 126.23   |
| 24  | B     | 4003 | BCR  | C34-C9-C10  | -3.79 | 117.61      | 122.92   |
| 21  | F     | 1301 | CLA  | O2A-C1-C2   | 3.79  | 122.33      | 108.42   |
| 34  | 2     | 501  | LUT  | C18-C5-C4   | 3.78  | 121.36      | 114.36   |
| 21  | 5     | 603  | CLA  | CMB-C2B-C1B | -3.77 | 122.67      | 128.46   |
| 21  | B     | 1232 | CLA  | O2D-CGD-CBD | 3.77  | 117.97      | 111.27   |
| 21  | B     | 1219 | CLA  | CMD-C2D-C1D | 3.77  | 131.36      | 124.71   |
| 21  | A     | 1135 | CLA  | CMB-C2B-C3B | 3.76  | 131.72      | 124.68   |
| 31  | F     | 5002 | LMG  | O7-C10-C11  | 3.76  | 119.61      | 111.50   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 31  | 4     | 803  | LMG  | O7-C10-C11  | 3.75  | 119.58      | 111.50   |
| 24  | B     | 4005 | BCR  | C23-C24-C25 | -3.74 | 116.69      | 127.20   |
| 35  | 2     | 502  | XAT  | C31-C30-C29 | -3.74 | 121.97      | 127.31   |
| 25  | 2     | 803  | LHG  | O7-C7-C8    | 3.74  | 119.56      | 111.50   |
| 34  | 1     | 501  | LUT  | C20-C13-C12 | 3.74  | 123.96      | 118.08   |
| 21  | A     | 1129 | CLA  | CBC-CAC-C3C | -3.74 | 102.13      | 112.43   |
| 21  | B     | 1226 | CLA  | CMB-C2B-C1B | -3.73 | 122.73      | 128.46   |
| 21  | B     | 1238 | CLA  | O2A-C1-C2   | 3.73  | 118.44      | 108.64   |
| 24  | O     | 4001 | BCR  | C37-C22-C23 | -3.73 | 112.20      | 118.08   |
| 24  | 3     | 506  | BCR  | C15-C14-C13 | 3.73  | 132.63      | 127.31   |
| 21  | A     | 1104 | CLA  | C1-C2-C3    | -3.73 | 119.60      | 126.04   |
| 24  | G     | 4001 | BCR  | C27-C26-C25 | -3.72 | 117.33      | 122.73   |
| 35  | 3     | 502  | XAT  | C38-C25-C24 | 3.72  | 118.46      | 114.28   |
| 21  | A     | 1103 | CLA  | C2D-C1D-ND  | 3.70  | 112.83      | 110.10   |
| 31  | 1     | 804  | LMG  | C7-O1-C1    | 3.70  | 120.97      | 113.74   |
| 32  | 5     | 805  | 4RF  | O21-C22-C24 | 3.70  | 119.47      | 111.50   |
| 21  | A     | 1137 | CLA  | CMB-C2B-C3B | 3.70  | 131.60      | 124.68   |
| 34  | 5     | 504  | LUT  | C11-C12-C13 | -3.70 | 116.03      | 126.42   |
| 21  | B     | 1223 | CLA  | C2C-C1C-NC  | 3.70  | 113.44      | 109.97   |
| 31  | 3     | 802  | LMG  | O7-C10-C11  | 3.69  | 119.45      | 111.50   |
| 21  | H     | 1702 | CLA  | C1C-C2C-C3C | -3.69 | 103.08      | 106.96   |
| 21  | B     | 1222 | CLA  | CAA-C2A-C3A | -3.69 | 102.68      | 112.78   |
| 21  | B     | 1238 | CLA  | O2D-CGD-O1D | -3.68 | 116.64      | 123.84   |
| 21  | 1     | 603  | CLA  | CHD-C1D-ND  | -3.68 | 121.07      | 124.45   |
| 21  | K     | 1403 | CLA  | O2A-C1-C2   | 3.68  | 121.92      | 109.49   |
| 21  | O     | 1803 | CLA  | C1-O2A-CGA  | 3.67  | 126.07      | 116.44   |
| 34  | 5     | 504  | LUT  | C21-C26-C27 | 3.67  | 117.34      | 112.70   |
| 21  | A     | 1136 | CLA  | CMB-C2B-C3B | 3.67  | 131.54      | 124.68   |
| 36  | 2     | 610  | CHL  | C3C-C4C-NC  | -3.67 | 106.46      | 110.57   |
| 24  | A     | 4007 | BCR  | C8-C9-C10   | 3.66  | 124.56      | 118.94   |
| 21  | 6     | 603  | CLA  | C1-C2-C3    | -3.66 | 119.71      | 126.04   |
| 21  | A     | 1105 | CLA  | CHD-C1D-ND  | -3.66 | 121.09      | 124.45   |
| 21  | H     | 1701 | CLA  | C4-C3-C5    | -3.66 | 109.11      | 115.27   |
| 21  | A     | 1138 | CLA  | O2D-CGD-O1D | -3.66 | 116.68      | 123.84   |
| 24  | 3     | 503  | BCR  | C15-C14-C13 | -3.66 | 122.09      | 127.31   |
| 21  | A     | 1013 | CLA  | C2D-C1D-ND  | 3.66  | 112.80      | 110.10   |
| 21  | B     | 1213 | CLA  | C2D-C1D-ND  | 3.66  | 112.80      | 110.10   |
| 21  | 3     | 601  | CLA  | C2D-C1D-ND  | 3.66  | 112.80      | 110.10   |
| 21  | L     | 1503 | CLA  | C1-C2-C3    | -3.66 | 120.83      | 126.75   |
| 34  | 5     | 502  | LUT  | C22-C23-C24 | -3.66 | 107.58      | 111.74   |
| 21  | K     | 1403 | CLA  | C2C-C1C-NC  | 3.65  | 113.39      | 109.97   |
| 21  | A     | 1141 | CLA  | CHD-C1D-ND  | -3.65 | 121.10      | 124.45   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1208 | CLA  | C1-C2-C3    | -3.65 | 119.74      | 126.04   |
| 21  | B     | 1211 | CLA  | C1-C2-C3    | -3.65 | 119.74      | 126.04   |
| 36  | 2     | 611  | CHL  | CHD-C1D-ND  | -3.65 | 121.10      | 124.45   |
| 21  | 3     | 601  | CLA  | C1-O2A-CGA  | 3.64  | 126.00      | 116.44   |
| 21  | A     | 1104 | CLA  | CHD-C1D-ND  | -3.64 | 121.11      | 124.45   |
| 24  | B     | 4003 | BCR  | C33-C5-C6   | -3.64 | 120.44      | 124.53   |
| 21  | A     | 1013 | CLA  | O2A-C1-C2   | 3.64  | 118.20      | 108.64   |
| 21  | A     | 1113 | CLA  | CHD-C1D-ND  | -3.63 | 121.11      | 124.45   |
| 21  | 1     | 601  | CLA  | C1-C2-C3    | -3.63 | 119.76      | 126.04   |
| 21  | 4     | 601  | CLA  | CAA-C2A-C3A | -3.63 | 102.83      | 112.78   |
| 24  | F     | 4001 | BCR  | C15-C14-C13 | -3.63 | 122.13      | 127.31   |
| 35  | 1     | 502  | XAT  | C18-C5-C4   | 3.63  | 118.36      | 114.28   |
| 34  | 4     | 501  | LUT  | C7-C8-C9    | -3.63 | 120.75      | 126.23   |
| 21  | 6     | 605  | CLA  | CMB-C2B-C3B | 3.62  | 131.46      | 124.68   |
| 24  | 2     | 503  | BCR  | C34-C9-C10  | -3.62 | 117.86      | 122.92   |
| 21  | 1     | 607  | CLA  | C2C-C1C-NC  | 3.62  | 113.36      | 109.97   |
| 24  | 3     | 504  | BCR  | C37-C22-C23 | 3.61  | 123.77      | 118.08   |
| 21  | 3     | 614  | CLA  | C1C-C2C-C3C | -3.61 | 103.16      | 106.96   |
| 21  | 3     | 613  | CLA  | CHD-C1D-ND  | -3.61 | 121.14      | 124.45   |
| 24  | G     | 4001 | BCR  | C33-C5-C6   | -3.61 | 120.48      | 124.53   |
| 21  | 6     | 606  | CLA  | C1-C2-C3    | -3.61 | 120.92      | 126.75   |
| 21  | 5     | 604  | CLA  | CMA-C3A-C4A | 3.60  | 121.46      | 111.77   |
| 37  | 6     | 803  | SQD  | O7-S-C6     | -3.60 | 102.66      | 106.94   |
| 21  | 5     | 607  | CLA  | C1C-C2C-C3C | -3.59 | 103.18      | 106.96   |
| 34  | 4     | 501  | LUT  | C38-C25-C24 | -3.59 | 115.88      | 123.56   |
| 36  | 2     | 609  | CHL  | CHD-C1D-ND  | -3.58 | 121.17      | 124.45   |
| 21  | A     | 1129 | CLA  | CAA-C2A-C3A | -3.58 | 102.98      | 112.78   |
| 21  | B     | 1219 | CLA  | C2C-C1C-NC  | 3.58  | 113.32      | 109.97   |
| 21  | G     | 1603 | CLA  | C3D-C2D-C1D | -3.58 | 100.95      | 105.83   |
| 34  | 2     | 501  | LUT  | C11-C10-C9  | -3.58 | 122.21      | 127.31   |
| 21  | 2     | 601  | CLA  | CMD-C2D-C1D | 3.57  | 131.01      | 124.71   |
| 21  | 4     | 602  | CLA  | C2C-C1C-NC  | 3.57  | 113.31      | 109.97   |
| 37  | 2     | 805  | SQD  | O7-S-C6     | -3.57 | 102.70      | 106.94   |
| 21  | B     | 1236 | CLA  | C2D-C1D-ND  | 3.57  | 112.73      | 110.10   |
| 25  | 6     | 801  | LHG  | O7-C7-C8    | 3.57  | 120.75      | 110.80   |
| 25  | 1     | 803  | LHG  | O7-C7-C8    | 3.57  | 119.19      | 111.50   |
| 21  | 6     | 612  | CLA  | C2D-C1D-ND  | 3.56  | 112.73      | 110.10   |
| 21  | A     | 1136 | CLA  | O2A-C1-C2   | 3.56  | 118.00      | 108.64   |
| 21  | L     | 1501 | CLA  | CHD-C1D-ND  | -3.56 | 121.18      | 124.45   |
| 21  | L     | 1502 | CLA  | C1-O2A-CGA  | 3.56  | 125.79      | 116.44   |
| 21  | B     | 1226 | CLA  | CBA-CAA-C2A | 3.56  | 124.37      | 113.86   |
| 27  | A     | 5004 | LMU  | C1B-O1B-C4' | -3.56 | 109.16      | 117.96   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 28  | B     | 5002 | DGD  | O2G-C1B-C2B | 3.56  | 119.17      | 111.50   |
| 21  | A     | 1103 | CLA  | CHD-C1D-ND  | -3.56 | 121.19      | 124.45   |
| 21  | B     | 1203 | CLA  | C1-C2-C3    | -3.55 | 119.90      | 126.04   |
| 21  | B     | 1224 | CLA  | O2A-C1-C2   | 3.55  | 117.97      | 108.64   |
| 24  | 4     | 503  | BCR  | C37-C22-C21 | -3.55 | 117.96      | 122.92   |
| 24  | 3     | 504  | BCR  | C23-C24-C25 | -3.54 | 117.25      | 127.20   |
| 21  | 4     | 604  | CLA  | C1-C2-C3    | -3.54 | 119.92      | 126.04   |
| 34  | 3     | 501  | LUT  | C15-C14-C13 | -3.54 | 122.26      | 127.31   |
| 33  | 3     | 808  | PTY  | O4-C30-C31  | 3.54  | 120.66      | 111.38   |
| 24  | 3     | 506  | BCR  | C33-C5-C4   | 3.54  | 120.42      | 113.62   |
| 21  | B     | 1021 | CLA  | C2D-C1D-ND  | 3.54  | 112.71      | 110.10   |
| 21  | 5     | 605  | CLA  | C1-C2-C3    | -3.53 | 119.93      | 126.04   |
| 34  | 5     | 504  | LUT  | C18-C5-C6   | -3.53 | 120.56      | 124.53   |
| 21  | A     | 1129 | CLA  | CHD-C1D-ND  | -3.53 | 121.21      | 124.45   |
| 24  | B     | 4001 | BCR  | C37-C22-C21 | -3.53 | 117.98      | 122.92   |
| 21  | 3     | 603  | CLA  | C2C-C1C-NC  | 3.53  | 113.28      | 109.97   |
| 25  | F     | 5001 | LHG  | O7-C7-C8    | 3.53  | 119.10      | 111.50   |
| 24  | A     | 4002 | BCR  | C8-C7-C6    | 3.52  | 137.10      | 127.20   |
| 21  | K     | 1401 | CLA  | CAA-CBA-CGA | -3.52 | 103.16      | 112.51   |
| 21  | 5     | 608  | CLA  | C2D-C1D-ND  | 3.52  | 112.70      | 110.10   |
| 21  | A     | 1122 | CLA  | C2C-C1C-NC  | 3.52  | 113.27      | 109.97   |
| 31  | 1     | 804  | LMG  | O7-C10-C11  | 3.51  | 119.08      | 111.50   |
| 21  | A     | 1132 | CLA  | C1-C2-C3    | -3.51 | 119.97      | 126.04   |
| 21  | 3     | 602  | CLA  | C2C-C1C-NC  | 3.51  | 113.26      | 109.97   |
| 21  | L     | 1502 | CLA  | O2D-CGD-CBD | 3.51  | 117.50      | 111.27   |
| 37  | 3     | 806  | SQD  | O7-S-C6     | -3.51 | 102.77      | 106.94   |
| 24  | J     | 4002 | BCR  | C23-C24-C25 | -3.50 | 117.38      | 127.20   |
| 32  | L     | 5002 | 4RF  | O21-C22-C24 | 3.50  | 119.03      | 111.50   |
| 21  | 4     | 603  | CLA  | C1-C2-C3    | -3.49 | 120.00      | 126.04   |
| 21  | A     | 1129 | CLA  | CMB-C2B-C3B | 3.49  | 131.21      | 124.68   |
| 21  | 5     | 613  | CLA  | CMA-C3A-C4A | 3.49  | 121.16      | 111.77   |
| 21  | B     | 1235 | CLA  | C1-C2-C3    | -3.49 | 120.01      | 126.04   |
| 21  | 1     | 604  | CLA  | CMB-C2B-C3B | 3.49  | 131.21      | 124.68   |
| 21  | L     | 1503 | CLA  | C2C-C1C-NC  | 3.49  | 113.24      | 109.97   |
| 34  | 3     | 501  | LUT  | C35-C34-C33 | -3.49 | 122.33      | 127.31   |
| 24  | O     | 4001 | BCR  | C33-C5-C4   | 3.48  | 120.31      | 113.62   |
| 21  | 5     | 603  | CLA  | C5-C3-C2    | 3.48  | 128.17      | 121.12   |
| 21  | A     | 1120 | CLA  | CAA-CBA-CGA | -3.48 | 103.08      | 113.25   |
| 21  | B     | 1220 | CLA  | O2D-CGD-CBD | 3.48  | 117.45      | 111.27   |
| 21  | 6     | 605  | CLA  | CMB-C2B-C1B | -3.48 | 123.11      | 128.46   |
| 21  | 4     | 607  | CLA  | C2C-C1C-NC  | 3.48  | 113.23      | 109.97   |
| 24  | G     | 4001 | BCR  | C33-C5-C4   | 3.47  | 120.28      | 113.62   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1220 | CLA  | CAA-CBA-CGA | -3.47 | 103.12      | 113.25   |
| 21  | B     | 1232 | CLA  | C2C-C1C-NC  | 3.47  | 113.22      | 109.97   |
| 35  | 2     | 502  | XAT  | C7-C8-C9    | -3.46 | 120.16      | 125.53   |
| 36  | 5     | 609  | CHL  | C4D-CHA-C1A | 3.46  | 125.46      | 121.25   |
| 24  | A     | 4001 | BCR  | C28-C27-C26 | -3.46 | 107.90      | 114.08   |
| 21  | 3     | 614  | CLA  | C2C-C1C-NC  | 3.46  | 113.21      | 109.97   |
| 21  | B     | 1221 | CLA  | CHD-C1D-ND  | -3.46 | 121.28      | 124.45   |
| 21  | B     | 1022 | CLA  | C1-C2-C3    | -3.46 | 120.06      | 126.04   |
| 21  | 1     | 604  | CLA  | CHD-C1D-ND  | -3.46 | 121.28      | 124.45   |
| 21  | B     | 1214 | CLA  | C2C-C1C-NC  | 3.46  | 113.21      | 109.97   |
| 21  | A     | 1126 | CLA  | C6-C5-C3    | -3.46 | 104.39      | 113.45   |
| 21  | 4     | 609  | CLA  | C2C-C1C-NC  | 3.45  | 113.21      | 109.97   |
| 34  | 3     | 501  | LUT  | C22-C23-C24 | -3.45 | 107.81      | 111.74   |
| 24  | 3     | 503  | BCR  | C32-C1-C6   | -3.45 | 104.71      | 110.30   |
| 21  | A     | 1135 | CLA  | C2C-C1C-NC  | 3.45  | 113.20      | 109.97   |
| 21  | B     | 1231 | CLA  | C1-C2-C3    | -3.45 | 120.08      | 126.04   |
| 21  | A     | 1107 | CLA  | C1-C2-C3    | -3.44 | 120.09      | 126.04   |
| 21  | A     | 1129 | CLA  | C1-C2-C3    | -3.44 | 120.09      | 126.04   |
| 24  | A     | 4004 | BCR  | C28-C27-C26 | -3.44 | 107.93      | 114.08   |
| 21  | 2     | 608  | CLA  | C1-C2-C3    | -3.44 | 121.19      | 126.75   |
| 21  | A     | 1120 | CLA  | C2C-C1C-NC  | 3.44  | 113.19      | 109.97   |
| 21  | A     | 1131 | CLA  | C2C-C1C-NC  | 3.44  | 113.19      | 109.97   |
| 21  | 5     | 603  | CLA  | C2C-C1C-NC  | 3.44  | 113.19      | 109.97   |
| 21  | 2     | 601  | CLA  | C2D-C1D-ND  | 3.44  | 112.64      | 110.10   |
| 21  | A     | 1108 | CLA  | O2D-CGD-O1D | -3.44 | 117.12      | 123.84   |
| 21  | H     | 1701 | CLA  | C1-C2-C3    | -3.44 | 120.10      | 126.04   |
| 21  | B     | 1222 | CLA  | CMB-C2B-C1B | -3.43 | 123.19      | 128.46   |
| 21  | 5     | 601  | CLA  | CMD-C2D-C3D | -3.43 | 119.71      | 127.61   |
| 24  | A     | 4003 | BCR  | C23-C24-C25 | 3.43  | 136.84      | 127.20   |
| 21  | O     | 1802 | CLA  | CAA-C2A-C3A | -3.43 | 108.10      | 116.10   |
| 36  | 2     | 611  | CHL  | CHC-C1C-NC  | 3.43  | 129.40      | 124.20   |
| 21  | B     | 1215 | CLA  | C2C-C1C-NC  | 3.42  | 113.18      | 109.97   |
| 36  | 2     | 613  | CHL  | C4A-NA-C1A  | 3.42  | 108.24      | 106.71   |
| 21  | A     | 1109 | CLA  | CAA-C2A-C3A | -3.42 | 103.42      | 112.78   |
| 34  | 5     | 504  | LUT  | C40-C33-C34 | -3.42 | 118.14      | 122.92   |
| 21  | A     | 1137 | CLA  | C2D-C1D-ND  | 3.42  | 112.62      | 110.10   |
| 21  | 6     | 605  | CLA  | C2D-C1D-ND  | 3.41  | 112.62      | 110.10   |
| 35  | 2     | 502  | XAT  | C15-C14-C13 | -3.40 | 122.45      | 127.31   |
| 24  | 3     | 506  | BCR  | C36-C18-C17 | -3.40 | 118.16      | 122.92   |
| 21  | K     | 1401 | CLA  | C1C-C2C-C3C | -3.40 | 103.38      | 106.96   |
| 21  | A     | 1136 | CLA  | C1-O2A-CGA  | 3.40  | 125.37      | 116.44   |
| 21  | A     | 1131 | CLA  | O2D-CGD-O1D | -3.40 | 117.19      | 123.84   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 6     | 609  | CLA  | C2C-C1C-NC  | 3.40  | 113.16      | 109.97   |
| 21  | A     | 1101 | CLA  | CMB-C2B-C3B | 3.40  | 131.04      | 124.68   |
| 21  | A     | 1103 | CLA  | C1-C2-C3    | -3.40 | 120.17      | 126.04   |
| 24  | F     | 4001 | BCR  | C28-C27-C26 | -3.39 | 108.03      | 114.08   |
| 24  | 3     | 506  | BCR  | C33-C5-C6   | -3.39 | 120.72      | 124.53   |
| 21  | B     | 1211 | CLA  | CMB-C2B-C1B | -3.39 | 123.26      | 128.46   |
| 36  | 2     | 613  | CHL  | CHB-C4A-NA  | 3.39  | 129.20      | 124.51   |
| 24  | A     | 4007 | BCR  | C36-C18-C19 | -3.39 | 112.74      | 118.08   |
| 21  | B     | 1213 | CLA  | O2A-CGA-CBA | 3.38  | 122.52      | 111.91   |
| 21  | 2     | 606  | CLA  | C1-C2-C3    | -3.38 | 121.28      | 126.75   |
| 21  | O     | 1803 | CLA  | C2C-C1C-NC  | 3.38  | 113.14      | 109.97   |
| 21  | 6     | 607  | CLA  | C2C-C1C-NC  | 3.38  | 113.14      | 109.97   |
| 21  | A     | 1124 | CLA  | C2D-C1D-ND  | 3.38  | 112.59      | 110.10   |
| 21  | 5     | 604  | CLA  | C1-C2-C3    | -3.38 | 120.20      | 126.04   |
| 21  | B     | 1236 | CLA  | CHD-C1D-ND  | -3.37 | 121.35      | 124.45   |
| 21  | 6     | 612  | CLA  | CHD-C1D-ND  | -3.37 | 121.35      | 124.45   |
| 21  | 4     | 609  | CLA  | C2D-C1D-ND  | 3.37  | 112.59      | 110.10   |
| 21  | 5     | 602  | CLA  | CMA-C3A-C4A | 3.37  | 120.84      | 111.77   |
| 35  | 6     | 502  | XAT  | C18-C5-C4   | 3.37  | 118.07      | 114.28   |
| 21  | 3     | 606  | CLA  | CED-O2D-CGD | 3.37  | 123.56      | 115.94   |
| 21  | G     | 1601 | CLA  | O2A-C1-C2   | 3.37  | 120.80      | 108.42   |
| 21  | B     | 1218 | CLA  | C1-O2A-CGA  | 3.37  | 125.28      | 116.44   |
| 21  | B     | 1021 | CLA  | CMB-C2B-C3B | 3.37  | 130.98      | 124.68   |
| 21  | 6     | 604  | CLA  | CHD-C1D-ND  | -3.37 | 121.36      | 124.45   |
| 21  | L     | 1504 | CLA  | C1-C2-C3    | -3.36 | 121.31      | 126.75   |
| 21  | B     | 1224 | CLA  | CHD-C1D-ND  | -3.36 | 121.36      | 124.45   |
| 21  | A     | 1105 | CLA  | C2D-C1D-ND  | 3.36  | 112.58      | 110.10   |
| 21  | B     | 1201 | CLA  | C2D-C1D-ND  | 3.36  | 112.58      | 110.10   |
| 21  | 2     | 601  | CLA  | C1-C2-C3    | -3.36 | 120.23      | 126.04   |
| 21  | A     | 1102 | CLA  | C1-C2-C3    | -3.36 | 120.23      | 126.04   |
| 21  | A     | 1139 | CLA  | C1-C2-C3    | -3.36 | 120.23      | 126.04   |
| 35  | 3     | 502  | XAT  | O4-C5-C18   | -3.36 | 111.03      | 115.06   |
| 21  | B     | 1225 | CLA  | CMB-C2B-C3B | 3.35  | 130.95      | 124.68   |
| 21  | B     | 1212 | CLA  | C1-C2-C3    | -3.35 | 120.24      | 126.04   |
| 21  | 4     | 607  | CLA  | O2D-CGD-O1D | -3.35 | 117.28      | 123.84   |
| 21  | A     | 1118 | CLA  | C2C-C1C-NC  | 3.35  | 113.11      | 109.97   |
| 24  | O     | 4001 | BCR  | C37-C22-C21 | 3.35  | 127.61      | 122.92   |
| 21  | A     | 1138 | CLA  | CMB-C2B-C3B | 3.34  | 130.94      | 124.68   |
| 21  | 2     | 608  | CLA  | CHD-C1D-ND  | -3.34 | 121.38      | 124.45   |
| 21  | A     | 1109 | CLA  | O2A-C1-C2   | 3.34  | 117.42      | 108.64   |
| 21  | B     | 1214 | CLA  | CHD-C1D-ND  | -3.34 | 121.38      | 124.45   |
| 24  | K     | 4001 | BCR  | C36-C18-C17 | -3.34 | 118.24      | 122.92   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 34  | 1     | 501  | LUT  | C18-C5-C6   | -3.34 | 120.78      | 124.53   |
| 36  | 6     | 610  | CHL  | C4D-CHA-C1A | 3.34  | 125.31      | 121.25   |
| 21  | A     | 1138 | CLA  | C1-C2-C3    | -3.34 | 120.27      | 126.04   |
| 21  | B     | 1223 | CLA  | OBD-CAD-C3D | -3.34 | 120.49      | 128.52   |
| 21  | B     | 1229 | CLA  | CAA-CBA-CGA | -3.34 | 103.51      | 113.25   |
| 34  | 2     | 501  | LUT  | C15-C14-C13 | -3.34 | 122.55      | 127.31   |
| 24  | J     | 4001 | BCR  | C2-C1-C6    | 3.33  | 115.61      | 110.48   |
| 34  | 1     | 501  | LUT  | C21-C26-C25 | 3.33  | 117.38      | 111.42   |
| 36  | 5     | 610  | CHL  | CHD-C1D-ND  | -3.33 | 121.39      | 124.45   |
| 21  | 2     | 608  | CLA  | C2C-C1C-NC  | 3.33  | 113.09      | 109.97   |
| 21  | B     | 1230 | CLA  | CAA-CBA-CGA | -3.33 | 103.52      | 113.25   |
| 35  | 6     | 502  | XAT  | C7-C8-C9    | -3.33 | 120.37      | 125.53   |
| 21  | 2     | 604  | CLA  | CMC-C2C-C1C | 3.33  | 130.10      | 125.04   |
| 21  | B     | 1202 | CLA  | C2D-C1D-ND  | 3.32  | 112.55      | 110.10   |
| 21  | A     | 1137 | CLA  | CMB-C2B-C1B | -3.32 | 123.36      | 128.46   |
| 24  | G     | 4001 | BCR  | C28-C27-C26 | -3.32 | 108.14      | 114.08   |
| 21  | O     | 1801 | CLA  | CMC-C2C-C1C | 3.32  | 130.10      | 125.04   |
| 21  | 6     | 606  | CLA  | C2C-C1C-NC  | 3.32  | 113.08      | 109.97   |
| 21  | 4     | 609  | CLA  | O1D-CGD-CBD | -3.32 | 117.69      | 124.48   |
| 21  | 3     | 606  | CLA  | O2D-CGD-CBD | 3.32  | 117.17      | 111.27   |
| 27  | A     | 5005 | LMU  | C1B-O1B-C4' | -3.32 | 109.75      | 117.96   |
| 21  | A     | 1126 | CLA  | C1-C2-C3    | -3.32 | 120.30      | 126.04   |
| 24  | B     | 4003 | BCR  | C19-C18-C17 | 3.32  | 124.03      | 118.94   |
| 24  | A     | 4006 | BCR  | C23-C24-C25 | -3.31 | 117.89      | 127.20   |
| 21  | A     | 1104 | CLA  | C2C-C1C-NC  | 3.31  | 113.08      | 109.97   |
| 21  | A     | 1116 | CLA  | C2D-C1D-ND  | 3.31  | 112.55      | 110.10   |
| 21  | L     | 1504 | CLA  | C2D-C1D-ND  | 3.31  | 112.55      | 110.10   |
| 21  | B     | 1228 | CLA  | C1-C2-C3    | -3.31 | 120.32      | 126.04   |
| 21  | 4     | 602  | CLA  | C1-C2-C3    | -3.31 | 121.39      | 126.75   |
| 21  | A     | 1136 | CLA  | CMA-C3A-C4A | 3.31  | 120.67      | 111.77   |
| 21  | 3     | 614  | CLA  | CHD-C1D-ND  | -3.31 | 121.41      | 124.45   |
| 21  | B     | 1238 | CLA  | C2C-C1C-NC  | 3.31  | 113.07      | 109.97   |
| 21  | B     | 1204 | CLA  | C2D-C1D-ND  | 3.31  | 112.54      | 110.10   |
| 38  | 4     | 805  | LMK  | O3-C4-C3    | -3.31 | 111.63      | 122.98   |
| 20  | A     | 1011 | CL0  | C1-C2-C3    | -3.30 | 120.33      | 126.04   |
| 21  | 1     | 605  | CLA  | C2C-C1C-NC  | 3.30  | 113.06      | 109.97   |
| 36  | 5     | 609  | CHL  | C3C-C4C-NC  | -3.30 | 106.87      | 110.57   |
| 21  | H     | 1702 | CLA  | CHD-C1D-ND  | -3.30 | 121.42      | 124.45   |
| 21  | H     | 1702 | CLA  | CAA-C2A-C3A | -3.30 | 103.75      | 112.78   |
| 21  | A     | 1106 | CLA  | C2C-C1C-NC  | 3.29  | 113.06      | 109.97   |
| 21  | 3     | 608  | CLA  | C2D-C1D-ND  | 3.29  | 112.53      | 110.10   |
| 21  | A     | 1128 | CLA  | C2C-C1C-NC  | 3.29  | 113.06      | 109.97   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1128 | CLA  | CMB-C2B-C1B | -3.29 | 123.40      | 128.46   |
| 21  | A     | 1109 | CLA  | O2D-CGD-O1D | -3.29 | 117.40      | 123.84   |
| 21  | B     | 1206 | CLA  | C2D-C1D-ND  | 3.29  | 112.53      | 110.10   |
| 21  | 5     | 603  | CLA  | C1-O2A-CGA  | 3.29  | 125.07      | 116.44   |
| 21  | B     | 1222 | CLA  | CHD-C1D-ND  | -3.28 | 121.44      | 124.45   |
| 36  | 1     | 610  | CHL  | C4D-CHA-C1A | 3.28  | 125.24      | 121.25   |
| 21  | A     | 1131 | CLA  | C1D-ND-C4D  | -3.28 | 104.00      | 106.33   |
| 24  | J     | 4002 | BCR  | C2-C1-C6    | 3.28  | 115.53      | 110.48   |
| 21  | L     | 1501 | CLA  | C2D-C1D-ND  | 3.28  | 112.52      | 110.10   |
| 21  | A     | 1124 | CLA  | O2D-CGD-O1D | -3.28 | 117.43      | 123.84   |
| 24  | K     | 4001 | BCR  | C27-C26-C25 | -3.28 | 117.97      | 122.73   |
| 21  | A     | 1121 | CLA  | C2D-C1D-ND  | 3.28  | 112.52      | 110.10   |
| 21  | B     | 1239 | CLA  | C1-C2-C3    | -3.27 | 120.38      | 126.04   |
| 21  | 1     | 606  | CLA  | C1-C2-C3    | -3.27 | 121.46      | 126.75   |
| 21  | 1     | 615  | CLA  | C2D-C1D-ND  | 3.27  | 112.52      | 110.10   |
| 24  | A     | 4001 | BCR  | C33-C5-C4   | 3.27  | 119.90      | 113.62   |
| 21  | 6     | 604  | CLA  | C2D-C1D-ND  | 3.27  | 112.51      | 110.10   |
| 21  | B     | 1228 | CLA  | CHD-C1D-ND  | -3.27 | 121.45      | 124.45   |
| 21  | A     | 1113 | CLA  | C2C-C1C-NC  | 3.27  | 113.03      | 109.97   |
| 21  | A     | 1129 | CLA  | C1C-C2C-C3C | -3.27 | 103.52      | 106.96   |
| 21  | A     | 1136 | CLA  | C2D-C1D-ND  | 3.26  | 112.51      | 110.10   |
| 21  | 2     | 607  | CLA  | C2C-C1C-NC  | 3.26  | 113.03      | 109.97   |
| 21  | 3     | 602  | CLA  | C1-C2-C3    | -3.26 | 120.40      | 126.04   |
| 24  | F     | 4002 | BCR  | C23-C24-C25 | -3.26 | 118.04      | 127.20   |
| 21  | 1     | 608  | CLA  | CHD-C1D-ND  | -3.26 | 121.45      | 124.45   |
| 24  | I     | 4001 | BCR  | C35-C13-C14 | -3.26 | 118.35      | 122.92   |
| 21  | A     | 1127 | CLA  | C2C-C1C-NC  | 3.26  | 113.03      | 109.97   |
| 21  | 1     | 615  | CLA  | C2C-C1C-NC  | 3.26  | 113.03      | 109.97   |
| 34  | 6     | 501  | LUT  | C22-C23-C24 | -3.26 | 108.03      | 111.74   |
| 21  | B     | 1215 | CLA  | CHD-C1D-ND  | -3.26 | 121.46      | 124.45   |
| 21  | A     | 1136 | CLA  | CMB-C2B-C1B | -3.26 | 123.45      | 128.46   |
| 21  | 3     | 601  | CLA  | CAA-C2A-C3A | -3.26 | 103.85      | 112.78   |
| 21  | 3     | 611  | CLA  | OBD-CAD-C3D | -3.26 | 120.68      | 128.52   |
| 21  | B     | 1234 | CLA  | C2D-C1D-ND  | 3.26  | 112.50      | 110.10   |
| 21  | 1     | 604  | CLA  | CMC-C2C-C1C | 3.25  | 129.99      | 125.04   |
| 21  | B     | 1229 | CLA  | CMA-C3A-C4A | 3.25  | 120.51      | 111.77   |
| 24  | 1     | 504  | BCR  | C1-C6-C5    | -3.25 | 118.04      | 122.61   |
| 24  | 1     | 504  | BCR  | C4-C5-C6    | -3.25 | 118.02      | 122.73   |
| 21  | L     | 1504 | CLA  | C1D-ND-C4D  | -3.25 | 104.03      | 106.33   |
| 31  | 1     | 804  | LMG  | O1-C1-C2    | 3.25  | 113.37      | 108.30   |
| 21  | A     | 1105 | CLA  | C1-C2-C3    | -3.25 | 120.43      | 126.04   |
| 21  | 6     | 608  | CLA  | C2D-C1D-ND  | 3.25  | 112.50      | 110.10   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1129 | CLA  | CAA-CBA-CGA | -3.25 | 103.77      | 113.25   |
| 21  | A     | 1106 | CLA  | CMB-C2B-C3B | 3.24  | 130.75      | 124.68   |
| 21  | 5     | 603  | CLA  | C1-C2-C3    | -3.24 | 120.43      | 126.04   |
| 21  | 6     | 601  | CLA  | C2D-C1D-ND  | 3.24  | 112.49      | 110.10   |
| 21  | 6     | 612  | CLA  | CMB-C2B-C1B | -3.24 | 123.48      | 128.46   |
| 21  | 2     | 606  | CLA  | CHD-C1D-ND  | -3.24 | 121.47      | 124.45   |
| 21  | A     | 1115 | CLA  | C1-C2-C3    | -3.24 | 120.44      | 126.04   |
| 21  | A     | 1111 | CLA  | C1-O2A-CGA  | 3.24  | 124.95      | 116.44   |
| 21  | B     | 1235 | CLA  | C2D-C1D-ND  | 3.24  | 112.49      | 110.10   |
| 21  | B     | 1211 | CLA  | C2C-C1C-NC  | 3.24  | 113.01      | 109.97   |
| 21  | A     | 1112 | CLA  | C1-C2-C3    | -3.24 | 120.44      | 126.04   |
| 21  | A     | 1101 | CLA  | C2D-C1D-ND  | 3.24  | 112.49      | 110.10   |
| 34  | 1     | 501  | LUT  | C38-C25-C24 | -3.24 | 116.63      | 123.56   |
| 21  | A     | 1104 | CLA  | C1C-C2C-C3C | -3.24 | 103.55      | 106.96   |
| 21  | 2     | 605  | CLA  | C2D-C1D-ND  | 3.24  | 112.49      | 110.10   |
| 21  | B     | 1236 | CLA  | C2C-C1C-NC  | 3.24  | 113.00      | 109.97   |
| 21  | F     | 1301 | CLA  | C2C-C1C-NC  | 3.24  | 113.00      | 109.97   |
| 21  | B     | 1022 | CLA  | C2D-C1D-ND  | 3.23  | 112.49      | 110.10   |
| 21  | 2     | 606  | CLA  | C2C-C1C-NC  | 3.23  | 113.00      | 109.97   |
| 21  | A     | 1110 | CLA  | CAA-C2A-C3A | -3.23 | 103.93      | 112.78   |
| 25  | 5     | 801  | LHG  | C6-C5-C4    | -3.23 | 104.15      | 111.79   |
| 34  | 3     | 501  | LUT  | C11-C10-C9  | -3.23 | 122.70      | 127.31   |
| 24  | G     | 4001 | BCR  | C34-C9-C10  | -3.23 | 118.41      | 122.92   |
| 22  | A     | 2001 | PQN  | C14-C13-C15 | 3.22  | 120.69      | 115.27   |
| 21  | A     | 1104 | CLA  | CHA-C4D-ND  | 3.22  | 139.24      | 132.50   |
| 21  | B     | 1204 | CLA  | C2C-C1C-NC  | 3.22  | 112.99      | 109.97   |
| 21  | A     | 1112 | CLA  | C2D-C1D-ND  | 3.22  | 112.47      | 110.10   |
| 36  | 3     | 604  | CHL  | CHD-C4C-C3C | 3.22  | 129.57      | 124.84   |
| 21  | B     | 1213 | CLA  | CHD-C1D-ND  | -3.22 | 121.50      | 124.45   |
| 24  | 3     | 506  | BCR  | C30-C25-C26 | -3.21 | 118.09      | 122.61   |
| 21  | A     | 1129 | CLA  | O2D-CGD-O1D | -3.21 | 117.55      | 123.84   |
| 28  | B     | 5002 | DGD  | O1G-C1A-C2A | 3.21  | 121.99      | 111.91   |
| 21  | A     | 1139 | CLA  | CAA-C2A-C3A | -3.21 | 103.98      | 112.78   |
| 21  | O     | 1803 | CLA  | CMA-C3A-C4A | 3.21  | 120.40      | 111.77   |
| 33  | L     | 5003 | PTY  | O4-C30-C31  | 3.21  | 119.79      | 111.38   |
| 21  | A     | 1110 | CLA  | CBA-CAA-C2A | 3.21  | 123.33      | 113.86   |
| 21  | 4     | 606  | CLA  | C1-C2-C3    | -3.21 | 121.56      | 126.75   |
| 24  | 1     | 504  | BCR  | C37-C22-C21 | -3.21 | 118.43      | 122.92   |
| 21  | A     | 1118 | CLA  | C1C-C2C-C3C | -3.21 | 103.59      | 106.96   |
| 36  | 6     | 610  | CHL  | C3C-C4C-NC  | -3.21 | 106.98      | 110.57   |
| 21  | B     | 1234 | CLA  | C2C-C1C-NC  | 3.21  | 112.97      | 109.97   |
| 21  | 6     | 602  | CLA  | C2D-C1D-ND  | 3.21  | 112.47      | 110.10   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | A     | 4002 | BCR  | C36-C18-C17 | -3.20 | 118.44      | 122.92   |
| 21  | 4     | 601  | CLA  | CHD-C1D-ND  | -3.20 | 121.51      | 124.45   |
| 21  | A     | 1121 | CLA  | C1-C2-C3    | -3.20 | 120.50      | 126.04   |
| 36  | 4     | 611  | CHL  | C4A-NA-C1A  | 3.20  | 108.14      | 106.71   |
| 36  | 4     | 613  | CHL  | CHB-C4A-NA  | 3.20  | 128.94      | 124.51   |
| 21  | O     | 1802 | CLA  | C2D-C1D-ND  | 3.20  | 112.46      | 110.10   |
| 21  | A     | 1118 | CLA  | CAA-C2A-C3A | -3.20 | 104.02      | 112.78   |
| 36  | 1     | 610  | CHL  | C1-O2A-CGA  | 3.20  | 126.64      | 116.11   |
| 36  | 2     | 610  | CHL  | CHC-C1C-NC  | 3.20  | 129.05      | 124.20   |
| 24  | J     | 4001 | BCR  | C32-C1-C31  | 3.20  | 118.34      | 108.53   |
| 25  | 1     | 803  | LHG  | O8-C23-C24  | 3.20  | 121.94      | 111.91   |
| 21  | B     | 1231 | CLA  | CHD-C1D-ND  | -3.20 | 121.52      | 124.45   |
| 21  | 5     | 603  | CLA  | CMA-C3A-C4A | 3.20  | 120.36      | 111.77   |
| 21  | A     | 1127 | CLA  | CMB-C2B-C3B | 3.20  | 130.66      | 124.68   |
| 21  | 3     | 611  | CLA  | C2C-C1C-NC  | 3.19  | 112.97      | 109.97   |
| 21  | A     | 1128 | CLA  | CHD-C1D-ND  | -3.19 | 121.52      | 124.45   |
| 24  | O     | 4001 | BCR  | C19-C18-C17 | 3.19  | 123.84      | 118.94   |
| 21  | 4     | 601  | CLA  | OBD-CAD-C3D | -3.19 | 120.84      | 128.52   |
| 21  | A     | 1107 | CLA  | C2C-C1C-NC  | 3.19  | 112.96      | 109.97   |
| 21  | F     | 1302 | CLA  | C2C-C1C-NC  | 3.19  | 112.96      | 109.97   |
| 21  | 1     | 613  | CLA  | C2C-C1C-NC  | 3.19  | 112.96      | 109.97   |
| 21  | B     | 1224 | CLA  | C2D-C1D-ND  | 3.19  | 112.45      | 110.10   |
| 25  | 2     | 802  | LHG  | C5-O7-C7    | -3.19 | 109.95      | 117.79   |
| 24  | B     | 4002 | BCR  | C23-C24-C25 | -3.18 | 118.26      | 127.20   |
| 21  | 5     | 612  | CLA  | CGD-CBD-CAD | 3.18  | 121.04      | 110.73   |
| 21  | B     | 1220 | CLA  | CHD-C1D-ND  | -3.18 | 121.53      | 124.45   |
| 21  | 3     | 615  | CLA  | C1-C2-C3    | -3.18 | 120.54      | 126.04   |
| 21  | A     | 1133 | CLA  | O2D-CGD-O1D | -3.18 | 117.62      | 123.84   |
| 21  | B     | 1209 | CLA  | C2C-C1C-NC  | 3.18  | 112.95      | 109.97   |
| 21  | 5     | 602  | CLA  | C2D-C1D-ND  | 3.18  | 112.44      | 110.10   |
| 21  | A     | 1130 | CLA  | C2D-C1D-ND  | 3.18  | 112.44      | 110.10   |
| 21  | 5     | 605  | CLA  | C2D-C1D-ND  | 3.18  | 112.44      | 110.10   |
| 21  | 2     | 604  | CLA  | O1D-CGD-CBD | -3.18 | 117.99      | 124.48   |
| 24  | F     | 4002 | BCR  | C34-C9-C10  | -3.17 | 118.48      | 122.92   |
| 24  | A     | 4002 | BCR  | C23-C22-C21 | 3.17  | 123.81      | 118.94   |
| 21  | K     | 1402 | CLA  | C1-C2-C3    | -3.17 | 120.56      | 126.04   |
| 21  | B     | 1239 | CLA  | C2D-C1D-ND  | 3.17  | 112.44      | 110.10   |
| 24  | 2     | 503  | BCR  | C28-C27-C26 | -3.17 | 108.42      | 114.08   |
| 35  | 6     | 502  | XAT  | C11-C10-C9  | 3.17  | 131.83      | 127.31   |
| 21  | L     | 1502 | CLA  | CMB-C2B-C1B | -3.17 | 123.59      | 128.46   |
| 21  | J     | 1901 | CLA  | C2D-C1D-ND  | 3.17  | 112.44      | 110.10   |
| 21  | A     | 1134 | CLA  | C1-C2-C3    | -3.17 | 120.57      | 126.04   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 3     | 603  | CLA  | C1-C2-C3    | -3.16 | 120.57      | 126.04   |
| 21  | 1     | 605  | CLA  | C1-C2-C3    | -3.16 | 120.58      | 126.04   |
| 21  | 6     | 605  | CLA  | CHD-C1D-ND  | -3.16 | 121.55      | 124.45   |
| 34  | 5     | 504  | LUT  | C39-C29-C30 | 3.16  | 127.35      | 122.92   |
| 21  | 5     | 608  | CLA  | CMA-C3A-C4A | 3.16  | 120.27      | 111.77   |
| 21  | 4     | 604  | CLA  | CHD-C1D-ND  | -3.16 | 121.55      | 124.45   |
| 21  | B     | 1223 | CLA  | C2D-C1D-ND  | 3.16  | 112.43      | 110.10   |
| 21  | 2     | 607  | CLA  | O2D-CGD-O1D | -3.16 | 117.66      | 123.84   |
| 21  | A     | 1134 | CLA  | C2D-C1D-ND  | 3.16  | 112.43      | 110.10   |
| 21  | 5     | 603  | CLA  | C7-C6-C5    | 3.16  | 121.93      | 113.36   |
| 21  | K     | 1401 | CLA  | CMA-C3A-C4A | 3.16  | 120.26      | 111.77   |
| 25  | 5     | 802  | LHG  | C5-O7-C7    | -3.16 | 112.01      | 117.90   |
| 31  | 4     | 802  | LMG  | C1-O6-C5    | 3.16  | 119.88      | 113.69   |
| 21  | B     | 1225 | CLA  | CMB-C2B-C1B | -3.16 | 123.61      | 128.46   |
| 21  | 6     | 601  | CLA  | C1-C2-C3    | -3.15 | 120.59      | 126.04   |
| 21  | A     | 1109 | CLA  | C4-C3-C2    | -3.15 | 115.59      | 123.68   |
| 36  | 4     | 610  | CHL  | C2C-C3C-C4C | 3.15  | 108.74      | 106.49   |
| 21  | B     | 1224 | CLA  | C2C-C1C-NC  | 3.15  | 112.93      | 109.97   |
| 38  | 2     | 807  | LMK  | O3-C4-C3    | -3.15 | 112.16      | 122.98   |
| 21  | A     | 1140 | CLA  | CMA-C3A-C4A | 3.15  | 120.25      | 111.77   |
| 21  | B     | 1022 | CLA  | C2C-C1C-NC  | 3.15  | 112.92      | 109.97   |
| 21  | 1     | 608  | CLA  | C2C-C1C-NC  | 3.15  | 112.92      | 109.97   |
| 36  | 1     | 610  | CHL  | CHB-C4A-NA  | 3.15  | 128.87      | 124.51   |
| 21  | 4     | 608  | CLA  | C2C-C1C-NC  | 3.15  | 112.92      | 109.97   |
| 21  | B     | 1237 | CLA  | CMA-C3A-C4A | 3.15  | 120.23      | 111.77   |
| 24  | B     | 4003 | BCR  | C30-C25-C24 | 3.15  | 124.68      | 115.78   |
| 35  | 1     | 502  | XAT  | C26-C27-C28 | -3.15 | 119.34      | 125.99   |
| 21  | A     | 1109 | CLA  | CMD-C2D-C3D | -3.14 | 120.38      | 127.61   |
| 21  | A     | 1101 | CLA  | O2D-CGD-O1D | -3.14 | 117.69      | 123.84   |
| 21  | G     | 1602 | CLA  | CMA-C3A-C4A | 3.14  | 120.22      | 111.77   |
| 21  | A     | 1114 | CLA  | C2C-C1C-NC  | 3.14  | 112.92      | 109.97   |
| 21  | A     | 1118 | CLA  | CHD-C1D-ND  | -3.14 | 121.57      | 124.45   |
| 24  | J     | 4001 | BCR  | C23-C22-C21 | -3.14 | 114.12      | 118.94   |
| 21  | K     | 1401 | CLA  | CHD-C4C-C3C | 3.13  | 129.45      | 124.84   |
| 24  | K     | 4001 | BCR  | C34-C9-C10  | -3.13 | 118.53      | 122.92   |
| 21  | A     | 1131 | CLA  | C2D-C1D-ND  | 3.13  | 112.41      | 110.10   |
| 24  | B     | 4003 | BCR  | C23-C22-C21 | -3.13 | 114.13      | 118.94   |
| 21  | 3     | 606  | CLA  | CHD-C1D-ND  | -3.13 | 121.57      | 124.45   |
| 21  | B     | 1240 | CLA  | C1-C2-C3    | -3.13 | 120.63      | 126.04   |
| 24  | A     | 4001 | BCR  | C34-C9-C10  | -3.13 | 118.54      | 122.92   |
| 21  | 6     | 601  | CLA  | CHD-C1D-ND  | -3.13 | 121.58      | 124.45   |
| 21  | 2     | 602  | CLA  | C2D-C1D-ND  | 3.13  | 112.41      | 110.10   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 6     | 607  | CLA  | CMA-C3A-C4A | 3.13  | 120.18      | 111.77   |
| 21  | B     | 1212 | CLA  | C2D-C1D-ND  | 3.13  | 112.41      | 110.10   |
| 21  | A     | 1137 | CLA  | CHD-C1D-ND  | -3.13 | 121.58      | 124.45   |
| 21  | 1     | 611  | CLA  | C2D-C1D-ND  | 3.13  | 112.41      | 110.10   |
| 21  | A     | 1118 | CLA  | C3A-C2A-C1A | -3.12 | 96.66       | 101.34   |
| 24  | G     | 4001 | BCR  | C30-C25-C26 | -3.12 | 118.21      | 122.61   |
| 24  | A     | 4007 | BCR  | C12-C13-C14 | 3.12  | 123.73      | 118.94   |
| 29  | B     | 5003 | 3PH  | O31-C31-C32 | 3.12  | 121.71      | 111.91   |
| 21  | 1     | 604  | CLA  | O2D-CGD-O1D | -3.12 | 117.73      | 123.84   |
| 24  | I     | 4001 | BCR  | C23-C24-C25 | -3.12 | 118.43      | 127.20   |
| 36  | 4     | 610  | CHL  | C3C-C4C-NC  | -3.12 | 107.07      | 110.57   |
| 21  | B     | 1201 | CLA  | O1D-CGD-CBD | -3.12 | 118.10      | 124.48   |
| 21  | A     | 1122 | CLA  | CHD-C1D-ND  | -3.12 | 121.59      | 124.45   |
| 21  | B     | 1225 | CLA  | C2C-C1C-NC  | 3.12  | 112.89      | 109.97   |
| 21  | 1     | 602  | CLA  | C2C-C1C-NC  | 3.12  | 112.89      | 109.97   |
| 24  | I     | 4001 | BCR  | C27-C26-C25 | -3.12 | 118.20      | 122.73   |
| 21  | A     | 1139 | CLA  | C4-C3-C2    | -3.12 | 115.68      | 123.68   |
| 24  | A     | 4006 | BCR  | C12-C13-C14 | -3.12 | 114.16      | 118.94   |
| 21  | 2     | 603  | CLA  | CMA-C3A-C4A | 3.12  | 120.15      | 111.77   |
| 21  | A     | 1116 | CLA  | C2C-C1C-NC  | 3.11  | 112.89      | 109.97   |
| 24  | F     | 4002 | BCR  | C37-C22-C21 | -3.11 | 118.56      | 122.92   |
| 21  | 3     | 607  | CLA  | C2C-C1C-NC  | 3.11  | 112.89      | 109.97   |
| 34  | 5     | 503  | LUT  | C31-C32-C33 | -3.11 | 117.68      | 126.42   |
| 21  | 6     | 613  | CLA  | C1C-C2C-C3C | -3.11 | 103.69      | 106.96   |
| 21  | A     | 1114 | CLA  | C1-C2-C3    | -3.11 | 120.67      | 126.04   |
| 21  | B     | 1230 | CLA  | C2D-C1D-ND  | 3.11  | 112.39      | 110.10   |
| 24  | J     | 4002 | BCR  | C27-C26-C25 | -3.10 | 118.22      | 122.73   |
| 21  | A     | 1139 | CLA  | CMA-C3A-C4A | 3.10  | 120.11      | 111.77   |
| 21  | A     | 1012 | CLA  | C1-C2-C3    | -3.10 | 120.68      | 126.04   |
| 21  | 2     | 602  | CLA  | C2C-C1C-NC  | 3.10  | 112.88      | 109.97   |
| 21  | 5     | 606  | CLA  | C2D-C1D-ND  | 3.10  | 112.39      | 110.10   |
| 21  | B     | 1217 | CLA  | C2C-C1C-NC  | 3.10  | 112.88      | 109.97   |
| 21  | B     | 1226 | CLA  | CAC-C3C-C4C | 3.10  | 128.83      | 124.81   |
| 21  | 5     | 612  | CLA  | CHA-C4D-ND  | 3.10  | 138.98      | 132.50   |
| 24  | O     | 4001 | BCR  | C33-C5-C6   | 3.10  | 128.01      | 124.53   |
| 21  | A     | 1136 | CLA  | CHD-C1D-ND  | -3.09 | 121.61      | 124.45   |
| 21  | 3     | 615  | CLA  | CHD-C1D-ND  | -3.09 | 121.61      | 124.45   |
| 24  | 3     | 503  | BCR  | C36-C18-C17 | -3.09 | 118.59      | 122.92   |
| 21  | B     | 1235 | CLA  | C1D-ND-C4D  | -3.09 | 104.14      | 106.33   |
| 21  | 6     | 601  | CLA  | C1D-ND-C4D  | -3.09 | 104.14      | 106.33   |
| 34  | 5     | 501  | LUT  | C35-C15-C14 | -3.09 | 117.14      | 123.47   |
| 21  | G     | 1603 | CLA  | CMA-C3A-C4A | 3.09  | 120.08      | 111.77   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 6     | 603  | CLA  | CHD-C1D-ND  | -3.09 | 121.61      | 124.45   |
| 21  | B     | 1021 | CLA  | CMB-C2B-C1B | -3.09 | 123.72      | 128.46   |
| 24  | I     | 4001 | BCR  | C34-C9-C10  | -3.09 | 118.60      | 122.92   |
| 21  | B     | 1023 | CLA  | C2D-C1D-ND  | 3.09  | 112.38      | 110.10   |
| 21  | A     | 1123 | CLA  | C1-C2-C3    | -3.09 | 120.70      | 126.04   |
| 21  | A     | 1128 | CLA  | O2D-CGD-O1D | -3.09 | 117.80      | 123.84   |
| 24  | 3     | 504  | BCR  | C27-C26-C25 | -3.09 | 118.25      | 122.73   |
| 36  | 5     | 610  | CHL  | C4A-NA-C1A  | 3.09  | 108.09      | 106.71   |
| 21  | 1     | 601  | CLA  | C2D-C1D-ND  | 3.08  | 112.38      | 110.10   |
| 21  | B     | 1222 | CLA  | C2D-C1D-ND  | 3.08  | 112.38      | 110.10   |
| 21  | 5     | 606  | CLA  | C2C-C1C-NC  | 3.08  | 112.86      | 109.97   |
| 35  | 6     | 502  | XAT  | O4-C5-C18   | -3.08 | 111.36      | 115.06   |
| 21  | 2     | 615  | CLA  | C2C-C1C-NC  | 3.08  | 112.86      | 109.97   |
| 24  | A     | 4007 | BCR  | C23-C24-C25 | -3.08 | 118.55      | 127.20   |
| 21  | B     | 1221 | CLA  | CMB-C2B-C3B | 3.08  | 130.44      | 124.68   |
| 21  | B     | 1021 | CLA  | C1-C2-C3    | -3.08 | 120.72      | 126.04   |
| 24  | I     | 4001 | BCR  | C33-C5-C4   | 3.08  | 119.53      | 113.62   |
| 36  | 6     | 610  | CHL  | CMA-C3A-C4A | 3.08  | 120.05      | 111.77   |
| 21  | 2     | 612  | CLA  | C2D-C1D-ND  | 3.08  | 112.37      | 110.10   |
| 21  | 3     | 610  | CLA  | CHD-C1D-ND  | -3.08 | 121.63      | 124.45   |
| 21  | A     | 1108 | CLA  | C2C-C1C-NC  | 3.08  | 112.85      | 109.97   |
| 36  | 2     | 610  | CHL  | C4A-NA-C1A  | 3.08  | 108.09      | 106.71   |
| 24  | 1     | 504  | BCR  | C19-C18-C17 | 3.08  | 123.66      | 118.94   |
| 21  | 4     | 601  | CLA  | C2D-C1D-ND  | 3.07  | 112.37      | 110.10   |
| 21  | 5     | 606  | CLA  | CMA-C3A-C4A | 3.07  | 120.04      | 111.77   |
| 21  | A     | 1117 | CLA  | C2C-C1C-NC  | 3.07  | 112.85      | 109.97   |
| 21  | A     | 1132 | CLA  | C2C-C1C-NC  | 3.07  | 112.85      | 109.97   |
| 21  | 4     | 606  | CLA  | CHD-C1D-ND  | -3.07 | 121.63      | 124.45   |
| 35  | 3     | 502  | XAT  | C32-C33-C34 | 3.07  | 123.66      | 118.94   |
| 24  | B     | 4001 | BCR  | C33-C5-C6   | -3.07 | 121.08      | 124.53   |
| 21  | B     | 1230 | CLA  | O2D-CGD-O1D | -3.07 | 117.83      | 123.84   |
| 21  | A     | 1104 | CLA  | CAA-C2A-C3A | -3.07 | 104.37      | 112.78   |
| 24  | J     | 4002 | BCR  | C39-C30-C25 | -3.07 | 105.32      | 110.30   |
| 21  | B     | 1201 | CLA  | O2D-CGD-O1D | -3.07 | 117.84      | 123.84   |
| 24  | B     | 4003 | BCR  | C28-C27-C26 | -3.07 | 108.60      | 114.08   |
| 24  | I     | 4002 | BCR  | C38-C26-C27 | 3.07  | 119.50      | 113.62   |
| 21  | G     | 1602 | CLA  | C2D-C1D-ND  | 3.07  | 112.36      | 110.10   |
| 21  | B     | 1234 | CLA  | CMB-C2B-C3B | 3.06  | 130.41      | 124.68   |
| 21  | 4     | 609  | CLA  | O2D-CGD-O1D | -3.06 | 117.85      | 123.84   |
| 21  | L     | 1502 | CLA  | CMA-C3A-C4A | 3.06  | 120.01      | 111.77   |
| 24  | A     | 4001 | BCR  | C36-C18-C17 | -3.06 | 118.63      | 122.92   |
| 21  | 2     | 608  | CLA  | CMA-C3A-C4A | 3.06  | 120.01      | 111.77   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1210 | CLA  | CHD-C1D-ND  | -3.06 | 121.64      | 124.45   |
| 21  | 2     | 607  | CLA  | C1-C2-C3    | -3.06 | 120.75      | 126.04   |
| 21  | A     | 1117 | CLA  | CMA-C3A-C4A | 3.06  | 120.00      | 111.77   |
| 21  | B     | 1208 | CLA  | C2D-C1D-ND  | 3.06  | 112.36      | 110.10   |
| 21  | G     | 1602 | CLA  | C2C-C1C-NC  | 3.06  | 112.84      | 109.97   |
| 21  | 6     | 603  | CLA  | C2D-C1D-ND  | 3.06  | 112.36      | 110.10   |
| 21  | B     | 1202 | CLA  | CHD-C1D-ND  | -3.06 | 121.64      | 124.45   |
| 21  | 5     | 604  | CLA  | C2D-C1D-ND  | 3.06  | 112.36      | 110.10   |
| 36  | 2     | 609  | CHL  | C4A-NA-C1A  | 3.06  | 108.08      | 106.71   |
| 21  | 6     | 613  | CLA  | C2C-C1C-NC  | 3.06  | 112.84      | 109.97   |
| 21  | 4     | 606  | CLA  | C2C-C1C-NC  | 3.06  | 112.84      | 109.97   |
| 36  | 5     | 609  | CHL  | CMA-C3A-C4A | 3.06  | 119.99      | 111.77   |
| 21  | B     | 1227 | CLA  | C2D-C1D-ND  | 3.06  | 112.36      | 110.10   |
| 27  | B     | 5004 | LMU  | C1-O1'-C1'  | -3.06 | 108.77      | 113.84   |
| 36  | 2     | 609  | CHL  | CHB-C4A-NA  | 3.05  | 128.74      | 124.51   |
| 21  | A     | 1134 | CLA  | CHD-C1D-ND  | -3.05 | 121.65      | 124.45   |
| 24  | G     | 4001 | BCR  | C15-C14-C13 | 3.05  | 131.66      | 127.31   |
| 21  | 3     | 613  | CLA  | CMB-C2B-C3B | 3.05  | 130.39      | 124.68   |
| 21  | 4     | 615  | CLA  | C2C-C1C-NC  | 3.05  | 112.83      | 109.97   |
| 21  | O     | 1803 | CLA  | CHA-C4D-ND  | 3.05  | 138.88      | 132.50   |
| 36  | 4     | 613  | CHL  | C1-O2A-CGA  | 3.05  | 124.44      | 116.44   |
| 21  | 4     | 605  | CLA  | C2C-C1C-NC  | 3.05  | 112.83      | 109.97   |
| 21  | B     | 1206 | CLA  | C1D-ND-C4D  | -3.04 | 104.17      | 106.33   |
| 21  | A     | 1109 | CLA  | CMA-C3A-C4A | 3.04  | 119.95      | 111.77   |
| 21  | A     | 1132 | CLA  | C2D-C1D-ND  | 3.04  | 112.35      | 110.10   |
| 21  | 3     | 601  | CLA  | CHD-C1D-ND  | -3.04 | 121.66      | 124.45   |
| 21  | A     | 1141 | CLA  | C2C-C1C-NC  | 3.04  | 112.82      | 109.97   |
| 21  | 3     | 606  | CLA  | C1-C2-C3    | -3.04 | 120.78      | 126.04   |
| 24  | 3     | 503  | BCR  | C2-C1-C6    | 3.04  | 115.16      | 110.48   |
| 21  | L     | 1503 | CLA  | CHD-C1D-ND  | -3.04 | 121.66      | 124.45   |
| 36  | 2     | 610  | CHL  | C1C-C2C-C3C | 3.04  | 109.53      | 107.11   |
| 21  | A     | 1115 | CLA  | C2D-C1D-ND  | 3.04  | 112.34      | 110.10   |
| 21  | G     | 1601 | CLA  | C2C-C1C-NC  | 3.04  | 112.82      | 109.97   |
| 24  | 3     | 504  | BCR  | C35-C13-C12 | 3.04  | 122.86      | 118.08   |
| 21  | A     | 1110 | CLA  | CHD-C1D-ND  | -3.03 | 121.67      | 124.45   |
| 21  | A     | 1101 | CLA  | C1-C2-C3    | -3.03 | 120.80      | 126.04   |
| 21  | A     | 1111 | CLA  | O2A-CGA-CBA | 3.03  | 121.43      | 111.91   |
| 21  | K     | 1401 | CLA  | O2D-CGD-O1D | -3.03 | 117.91      | 123.84   |
| 21  | 4     | 604  | CLA  | C2D-C1D-ND  | 3.03  | 112.34      | 110.10   |
| 21  | 1     | 611  | CLA  | CHD-C1D-ND  | -3.03 | 121.67      | 124.45   |
| 21  | 5     | 613  | CLA  | CHD-C1D-ND  | -3.03 | 121.67      | 124.45   |
| 21  | 6     | 604  | CLA  | CMA-C3A-C4A | 3.02  | 119.90      | 111.77   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 2     | 603  | CLA  | C2D-C1D-ND  | 3.02  | 112.33      | 110.10   |
| 21  | A     | 1118 | CLA  | CHA-C4D-ND  | 3.02  | 138.83      | 132.50   |
| 21  | B     | 1207 | CLA  | CHD-C1D-ND  | -3.02 | 121.67      | 124.45   |
| 21  | 5     | 601  | CLA  | O2D-CGD-O1D | -3.02 | 117.93      | 123.84   |
| 21  | B     | 1203 | CLA  | C2D-C1D-ND  | 3.02  | 112.33      | 110.10   |
| 36  | 1     | 609  | CHL  | CMA-C3A-C4A | 3.02  | 119.89      | 111.77   |
| 21  | 2     | 612  | CLA  | C2C-C1C-NC  | 3.02  | 112.80      | 109.97   |
| 21  | 6     | 608  | CLA  | C2C-C1C-NC  | 3.02  | 112.80      | 109.97   |
| 21  | A     | 1112 | CLA  | CHD-C1D-ND  | -3.02 | 121.68      | 124.45   |
| 21  | 6     | 603  | CLA  | C1D-ND-C4D  | -3.02 | 104.19      | 106.33   |
| 35  | 2     | 502  | XAT  | C38-C25-C24 | 3.02  | 117.67      | 114.28   |
| 21  | 5     | 608  | CLA  | CAA-C2A-C3A | -3.01 | 104.52      | 112.78   |
| 21  | G     | 1601 | CLA  | C2D-C1D-ND  | 3.01  | 112.33      | 110.10   |
| 21  | A     | 1012 | CLA  | CHD-C1D-ND  | -3.01 | 121.69      | 124.45   |
| 36  | 1     | 609  | CHL  | C3C-C4C-NC  | -3.01 | 107.19      | 110.57   |
| 21  | 5     | 603  | CLA  | C1C-C2C-C3C | -3.01 | 103.79      | 106.96   |
| 21  | B     | 1213 | CLA  | C4D-CHA-C1A | 3.01  | 124.91      | 121.25   |
| 21  | A     | 1121 | CLA  | C1D-ND-C4D  | -3.01 | 104.20      | 106.33   |
| 21  | 1     | 603  | CLA  | CMD-C2D-C3D | -3.01 | 120.69      | 127.61   |
| 36  | 4     | 611  | CHL  | CHB-C4A-NA  | 3.01  | 128.67      | 124.51   |
| 35  | 4     | 502  | XAT  | C18-C5-C4   | 3.01  | 117.67      | 114.28   |
| 21  | L     | 1502 | CLA  | C1D-ND-C4D  | -3.01 | 104.20      | 106.33   |
| 21  | A     | 1129 | CLA  | C2C-C1C-NC  | 3.01  | 112.79      | 109.97   |
| 21  | K     | 1402 | CLA  | C2C-C1C-NC  | 3.01  | 112.79      | 109.97   |
| 21  | A     | 1127 | CLA  | C2D-C1D-ND  | 3.01  | 112.32      | 110.10   |
| 21  | 3     | 602  | CLA  | C6-C5-C3    | -3.01 | 109.70      | 114.62   |
| 21  | 6     | 605  | CLA  | C1-O2A-CGA  | 3.01  | 124.33      | 116.44   |
| 21  | B     | 1223 | CLA  | C1-C2-C3    | -3.01 | 120.84      | 126.04   |
| 24  | G     | 4001 | BCR  | C8-C9-C10   | 3.01  | 123.55      | 118.94   |
| 21  | B     | 1203 | CLA  | CHD-C1D-ND  | -3.01 | 121.69      | 124.45   |
| 21  | 3     | 614  | CLA  | CAA-C2A-C3A | -3.01 | 106.75      | 114.26   |
| 21  | A     | 1109 | CLA  | C2C-C1C-NC  | 3.00  | 112.79      | 109.97   |
| 21  | A     | 1133 | CLA  | C2C-C1C-NC  | 3.00  | 112.79      | 109.97   |
| 21  | A     | 1114 | CLA  | CHD-C1D-ND  | -3.00 | 121.69      | 124.45   |
| 21  | 2     | 603  | CLA  | CHD-C1D-ND  | -3.00 | 121.69      | 124.45   |
| 21  | A     | 1103 | CLA  | C1D-ND-C4D  | -3.00 | 104.20      | 106.33   |
| 21  | 3     | 611  | CLA  | CMB-C2B-C1B | -3.00 | 123.85      | 128.46   |
| 21  | B     | 1235 | CLA  | C2C-C1C-NC  | 3.00  | 112.79      | 109.97   |
| 21  | L     | 1502 | CLA  | CAA-C2A-C3A | -3.00 | 104.56      | 112.78   |
| 32  | 5     | 805  | 4RF  | O40-C41-C43 | 3.00  | 121.33      | 111.91   |
| 21  | K     | 1402 | CLA  | C2D-C1D-ND  | 3.00  | 112.31      | 110.10   |
| 21  | B     | 1216 | CLA  | CHD-C1D-ND  | -3.00 | 121.70      | 124.45   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1141 | CLA  | C2D-C1D-ND  | 3.00  | 112.31      | 110.10   |
| 21  | 4     | 604  | CLA  | C1D-ND-C4D  | -3.00 | 104.20      | 106.33   |
| 24  | B     | 4004 | BCR  | C23-C24-C25 | -3.00 | 118.78      | 127.20   |
| 21  | 3     | 606  | CLA  | CAC-C3C-C2C | -3.00 | 122.40      | 127.53   |
| 21  | K     | 1404 | CLA  | CHD-C1D-ND  | -3.00 | 121.70      | 124.45   |
| 21  | A     | 1115 | CLA  | C2C-C1C-NC  | 3.00  | 112.78      | 109.97   |
| 37  | 3     | 806  | SQD  | O3-C3-C2    | -3.00 | 103.42      | 110.35   |
| 24  | K     | 4001 | BCR  | C19-C18-C17 | 3.00  | 123.54      | 118.94   |
| 21  | 3     | 603  | CLA  | C3D-C2D-C1D | -3.00 | 101.74      | 105.83   |
| 21  | A     | 1113 | CLA  | C1-C2-C3    | -2.99 | 120.86      | 126.04   |
| 21  | A     | 1112 | CLA  | C2C-C1C-NC  | 2.99  | 112.78      | 109.97   |
| 21  | 6     | 602  | CLA  | C2C-C1C-NC  | 2.99  | 112.78      | 109.97   |
| 21  | K     | 1404 | CLA  | CMA-C3A-C4A | 2.99  | 119.82      | 111.77   |
| 21  | 1     | 601  | CLA  | C2C-C1C-NC  | 2.99  | 112.78      | 109.97   |
| 24  | B     | 4003 | BCR  | C37-C22-C23 | 2.99  | 122.79      | 118.08   |
| 21  | A     | 1123 | CLA  | O2D-CGD-O1D | -2.99 | 117.99      | 123.84   |
| 21  | 3     | 613  | CLA  | C1D-ND-C4D  | -2.99 | 104.21      | 106.33   |
| 21  | L     | 1501 | CLA  | CAA-CBA-CGA | 2.99  | 121.99      | 113.25   |
| 21  | 6     | 607  | CLA  | O2D-CGD-O1D | -2.99 | 117.99      | 123.84   |
| 34  | 3     | 501  | LUT  | C2-C3-C4    | -2.99 | 106.21      | 110.30   |
| 21  | B     | 1228 | CLA  | C2C-C1C-NC  | 2.99  | 112.77      | 109.97   |
| 21  | A     | 1128 | CLA  | C1-C2-C3    | -2.99 | 120.87      | 126.04   |
| 21  | 5     | 605  | CLA  | CHD-C1D-ND  | -2.99 | 121.71      | 124.45   |
| 21  | 6     | 602  | CLA  | CMA-C3A-C4A | 2.99  | 119.80      | 111.77   |
| 21  | A     | 1140 | CLA  | C2D-C1D-ND  | 2.99  | 112.31      | 110.10   |
| 21  | A     | 1101 | CLA  | CAA-C2A-C3A | -2.99 | 104.60      | 112.78   |
| 25  | A     | 5001 | LHG  | O8-C23-C24  | 2.99  | 121.28      | 111.91   |
| 21  | A     | 1102 | CLA  | CHD-C1D-ND  | -2.99 | 121.71      | 124.45   |
| 21  | 4     | 602  | CLA  | C2D-C1D-ND  | 2.99  | 112.31      | 110.10   |
| 21  | A     | 1101 | CLA  | CHD-C1D-ND  | -2.98 | 121.71      | 124.45   |
| 21  | 4     | 604  | CLA  | C2C-C1C-NC  | 2.98  | 112.77      | 109.97   |
| 21  | B     | 1232 | CLA  | OBD-CAD-C3D | -2.98 | 121.34      | 128.52   |
| 21  | 3     | 610  | CLA  | C2D-C1D-ND  | 2.98  | 112.30      | 110.10   |
| 21  | A     | 1139 | CLA  | C2C-C1C-NC  | 2.98  | 112.77      | 109.97   |
| 21  | 3     | 610  | CLA  | C2C-C1C-NC  | 2.98  | 112.77      | 109.97   |
| 21  | A     | 1123 | CLA  | C2D-C1D-ND  | 2.98  | 112.30      | 110.10   |
| 21  | 1     | 606  | CLA  | C2D-C1D-ND  | 2.98  | 112.30      | 110.10   |
| 21  | 4     | 603  | CLA  | CHD-C1D-ND  | -2.98 | 121.71      | 124.45   |
| 25  | 2     | 802  | LHG  | O8-C23-C24  | 2.98  | 121.26      | 111.91   |
| 21  | A     | 1120 | CLA  | CMA-C3A-C4A | 2.98  | 119.78      | 111.77   |
| 21  | B     | 1238 | CLA  | CMA-C3A-C4A | 2.98  | 119.78      | 111.77   |
| 21  | 3     | 603  | CLA  | CAC-C3C-C4C | 2.98  | 128.68      | 124.81   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | 2     | 503  | BCR  | C34-C9-C8   | 2.98  | 122.77      | 118.08   |
| 21  | 3     | 611  | CLA  | C2D-C1D-ND  | 2.98  | 112.30      | 110.10   |
| 21  | A     | 1110 | CLA  | O2A-CGA-CBA | 2.98  | 121.25      | 111.91   |
| 21  | B     | 1220 | CLA  | C2D-C1D-ND  | 2.98  | 112.30      | 110.10   |
| 21  | 4     | 605  | CLA  | C1-C2-C3    | -2.98 | 120.89      | 126.04   |
| 21  | O     | 1801 | CLA  | C3C-C4C-NC  | -2.98 | 107.32      | 110.57   |
| 21  | 5     | 612  | CLA  | OBD-CAD-C3D | -2.98 | 121.36      | 128.52   |
| 21  | A     | 1012 | CLA  | C2D-C1D-ND  | 2.98  | 112.30      | 110.10   |
| 21  | B     | 1226 | CLA  | CMB-C2B-C3B | 2.97  | 130.24      | 124.68   |
| 21  | A     | 1101 | CLA  | CMB-C2B-C1B | -2.97 | 123.89      | 128.46   |
| 21  | A     | 1134 | CLA  | C1D-ND-C4D  | -2.97 | 104.22      | 106.33   |
| 21  | B     | 1213 | CLA  | CMC-C2C-C1C | 2.97  | 129.57      | 125.04   |
| 21  | B     | 1023 | CLA  | CHD-C1D-ND  | -2.97 | 121.72      | 124.45   |
| 21  | B     | 1229 | CLA  | CHD-C1D-ND  | -2.97 | 121.72      | 124.45   |
| 21  | 6     | 604  | CLA  | C1-C2-C3    | -2.97 | 120.90      | 126.04   |
| 36  | 5     | 609  | CHL  | C1B-CHB-C4A | -2.97 | 124.23      | 130.12   |
| 21  | 6     | 608  | CLA  | CMA-C3A-C4A | 2.97  | 119.76      | 111.77   |
| 21  | B     | 1201 | CLA  | CHD-C1D-ND  | -2.97 | 121.72      | 124.45   |
| 21  | A     | 1108 | CLA  | C2D-C1D-ND  | 2.97  | 112.29      | 110.10   |
| 21  | 1     | 611  | CLA  | CMA-C3A-C4A | 2.97  | 119.76      | 111.77   |
| 21  | 6     | 608  | CLA  | C1D-ND-C4D  | -2.97 | 104.22      | 106.33   |
| 21  | 5     | 604  | CLA  | CHD-C1D-ND  | -2.97 | 121.72      | 124.45   |
| 21  | A     | 1107 | CLA  | C2D-C1D-ND  | 2.97  | 112.29      | 110.10   |
| 21  | 5     | 605  | CLA  | C1D-ND-C4D  | -2.97 | 104.23      | 106.33   |
| 24  | A     | 4003 | BCR  | C33-C5-C6   | -2.97 | 121.19      | 124.53   |
| 21  | A     | 1118 | CLA  | O2D-CGD-O1D | -2.97 | 118.03      | 123.84   |
| 21  | 1     | 608  | CLA  | CMA-C3A-C4A | 2.97  | 119.75      | 111.77   |
| 36  | 1     | 610  | CHL  | CMA-C3A-C4A | 2.97  | 119.75      | 111.77   |
| 21  | 2     | 603  | CLA  | C1-O2A-CGA  | 2.97  | 124.23      | 116.44   |
| 24  | B     | 4006 | BCR  | C29-C30-C25 | 2.97  | 115.05      | 110.48   |
| 21  | L     | 1504 | CLA  | C2C-C1C-NC  | 2.97  | 112.75      | 109.97   |
| 24  | 1     | 504  | BCR  | C23-C22-C21 | 2.97  | 123.49      | 118.94   |
| 21  | 1     | 605  | CLA  | C1C-C2C-C3C | -2.97 | 103.84      | 106.96   |
| 21  | A     | 1114 | CLA  | C2D-C1D-ND  | 2.96  | 112.29      | 110.10   |
| 36  | 2     | 610  | CHL  | CHB-C4A-NA  | 2.96  | 128.61      | 124.51   |
| 21  | B     | 1218 | CLA  | CAA-CBA-CGA | -2.96 | 104.59      | 113.25   |
| 24  | B     | 4006 | BCR  | C30-C25-C26 | -2.96 | 118.44      | 122.61   |
| 21  | B     | 1240 | CLA  | C2C-C1C-NC  | 2.96  | 112.75      | 109.97   |
| 21  | 1     | 603  | CLA  | O2D-CGD-O1D | -2.96 | 118.05      | 123.84   |
| 24  | L     | 4002 | BCR  | C8-C9-C10   | 2.96  | 123.48      | 118.94   |
| 21  | L     | 1503 | CLA  | CMB-C2B-C3B | 2.96  | 130.22      | 124.68   |
| 21  | B     | 1239 | CLA  | C1D-ND-C4D  | -2.96 | 104.23      | 106.33   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1216 | CLA  | C2C-C1C-NC  | 2.96  | 112.75      | 109.97   |
| 21  | 3     | 611  | CLA  | CHA-C4D-ND  | 2.96  | 138.69      | 132.50   |
| 21  | B     | 1226 | CLA  | CMD-C2D-C3D | -2.96 | 120.81      | 127.61   |
| 21  | 3     | 615  | CLA  | C2C-C1C-NC  | 2.96  | 112.74      | 109.97   |
| 21  | 1     | 611  | CLA  | C1D-ND-C4D  | -2.96 | 104.23      | 106.33   |
| 21  | A     | 1107 | CLA  | CMA-C3A-C4A | 2.96  | 119.72      | 111.77   |
| 21  | O     | 1803 | CLA  | C3D-C2D-C1D | -2.96 | 101.80      | 105.83   |
| 21  | L     | 1501 | CLA  | O1D-CGD-CBD | -2.95 | 118.44      | 124.48   |
| 21  | B     | 1239 | CLA  | C2C-C1C-NC  | 2.95  | 112.74      | 109.97   |
| 21  | K     | 1402 | CLA  | CMA-C3A-C4A | 2.95  | 119.71      | 111.77   |
| 21  | J     | 1901 | CLA  | O1D-CGD-CBD | -2.95 | 118.44      | 124.48   |
| 21  | F     | 1301 | CLA  | CHD-C1D-ND  | -2.95 | 121.74      | 124.45   |
| 21  | 6     | 603  | CLA  | CMA-C3A-C4A | 2.95  | 119.71      | 111.77   |
| 21  | B     | 1207 | CLA  | C2D-C1D-ND  | 2.95  | 112.28      | 110.10   |
| 24  | B     | 4001 | BCR  | C36-C18-C17 | -2.95 | 118.79      | 122.92   |
| 27  | A     | 5004 | LMU  | C2'-C3'-C4' | 2.95  | 116.42      | 109.68   |
| 24  | J     | 4002 | BCR  | C3-C4-C5    | -2.95 | 108.81      | 114.08   |
| 21  | B     | 1236 | CLA  | O2D-CGD-O1D | -2.95 | 118.07      | 123.84   |
| 21  | 4     | 608  | CLA  | C2D-C1D-ND  | 2.95  | 112.28      | 110.10   |
| 21  | B     | 1208 | CLA  | C2C-C1C-NC  | 2.95  | 112.73      | 109.97   |
| 21  | 4     | 605  | CLA  | O2D-CGD-O1D | -2.95 | 118.08      | 123.84   |
| 24  | G     | 4001 | BCR  | C38-C26-C27 | 2.95  | 119.28      | 113.62   |
| 21  | B     | 1227 | CLA  | OBD-CAD-C3D | -2.94 | 121.44      | 128.52   |
| 21  | 5     | 607  | CLA  | O2D-CGD-O1D | -2.94 | 118.08      | 123.84   |
| 21  | A     | 1128 | CLA  | CAA-C2A-C3A | -2.94 | 104.72      | 112.78   |
| 21  | 4     | 605  | CLA  | C2D-C1D-ND  | 2.94  | 112.27      | 110.10   |
| 21  | B     | 1235 | CLA  | CHD-C1D-ND  | -2.94 | 121.75      | 124.45   |
| 21  | 5     | 605  | CLA  | CMA-C3A-C4A | 2.94  | 119.68      | 111.77   |
| 21  | 2     | 612  | CLA  | O2D-CGD-O1D | -2.94 | 118.09      | 123.84   |
| 21  | 1     | 605  | CLA  | CHD-C1D-ND  | -2.94 | 121.75      | 124.45   |
| 21  | 1     | 612  | CLA  | C2C-C1C-NC  | 2.94  | 112.73      | 109.97   |
| 24  | A     | 4007 | BCR  | C35-C13-C14 | -2.94 | 118.81      | 122.92   |
| 21  | 3     | 610  | CLA  | C1D-ND-C4D  | -2.94 | 104.25      | 106.33   |
| 24  | I     | 4002 | BCR  | C8-C7-C6    | -2.94 | 118.95      | 127.20   |
| 21  | 4     | 605  | CLA  | O2A-CGA-CBA | 2.94  | 121.13      | 111.91   |
| 21  | A     | 1127 | CLA  | C1-O2A-CGA  | 2.94  | 124.15      | 116.44   |
| 21  | G     | 1601 | CLA  | CMA-C3A-C4A | 2.94  | 119.67      | 111.77   |
| 21  | A     | 1113 | CLA  | C1C-C2C-C3C | -2.94 | 103.87      | 106.96   |
| 24  | J     | 4001 | BCR  | C37-C22-C23 | 2.94  | 122.70      | 118.08   |
| 21  | A     | 1123 | CLA  | C1C-C2C-C3C | -2.94 | 103.87      | 106.96   |
| 21  | A     | 1133 | CLA  | C2D-C1D-ND  | 2.94  | 112.27      | 110.10   |
| 21  | 3     | 613  | CLA  | CAA-C2A-C3A | -2.94 | 104.74      | 112.78   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 6     | 602  | CLA  | C1D-ND-C4D  | -2.94 | 104.25      | 106.33   |
| 21  | H     | 1702 | CLA  | CHA-C1A-NA  | -2.94 | 119.67      | 126.40   |
| 24  | A     | 4005 | BCR  | C23-C24-C25 | -2.94 | 118.96      | 127.20   |
| 21  | 4     | 605  | CLA  | C1-O2A-CGA  | 2.94  | 124.15      | 116.44   |
| 21  | 2     | 605  | CLA  | C2C-C1C-NC  | 2.94  | 112.72      | 109.97   |
| 21  | 3     | 606  | CLA  | C2C-C1C-NC  | 2.94  | 112.72      | 109.97   |
| 21  | A     | 1115 | CLA  | CMA-C3A-C4A | 2.93  | 119.66      | 111.77   |
| 21  | 5     | 603  | CLA  | CHD-C1D-ND  | -2.93 | 121.76      | 124.45   |
| 21  | B     | 1212 | CLA  | CHD-C1D-ND  | -2.93 | 121.76      | 124.45   |
| 21  | A     | 1122 | CLA  | C1-C2-C3    | -2.93 | 120.97      | 126.04   |
| 21  | B     | 1215 | CLA  | CMB-C2B-C3B | 2.93  | 130.16      | 124.68   |
| 34  | 3     | 501  | LUT  | C38-C25-C24 | -2.93 | 117.29      | 123.56   |
| 22  | A     | 2001 | PQN  | C12-C11-C3  | -2.93 | 104.14      | 112.05   |
| 21  | A     | 1126 | CLA  | CHD-C1D-ND  | -2.93 | 121.76      | 124.45   |
| 21  | 2     | 612  | CLA  | C1C-C2C-C3C | -2.93 | 103.88      | 106.96   |
| 21  | B     | 1239 | CLA  | CHD-C1D-ND  | -2.93 | 121.76      | 124.45   |
| 24  | 3     | 506  | BCR  | C1-C6-C5    | -2.93 | 118.49      | 122.61   |
| 24  | O     | 4001 | BCR  | C39-C30-C25 | 2.93  | 115.05      | 110.30   |
| 24  | A     | 4006 | BCR  | C35-C13-C12 | 2.93  | 122.69      | 118.08   |
| 21  | 2     | 605  | CLA  | C1C-C2C-C3C | -2.93 | 103.88      | 106.96   |
| 21  | B     | 1205 | CLA  | O2A-CGA-CBA | 2.93  | 121.09      | 111.91   |
| 21  | 3     | 610  | CLA  | CMA-C3A-C4A | 2.93  | 119.64      | 111.77   |
| 21  | 2     | 612  | CLA  | CAA-C2A-C3A | -2.93 | 104.77      | 112.78   |
| 21  | O     | 1803 | CLA  | CHA-C1A-NA  | -2.93 | 119.70      | 126.40   |
| 21  | 1     | 611  | CLA  | C2C-C1C-NC  | 2.92  | 112.71      | 109.97   |
| 21  | A     | 1112 | CLA  | C1D-ND-C4D  | -2.92 | 104.26      | 106.33   |
| 21  | B     | 1206 | CLA  | C2C-C1C-NC  | 2.92  | 112.71      | 109.97   |
| 36  | 2     | 611  | CHL  | CHB-C4A-NA  | 2.92  | 128.56      | 124.51   |
| 21  | 1     | 607  | CLA  | CMA-C3A-C4A | 2.92  | 119.63      | 111.77   |
| 21  | A     | 1122 | CLA  | C1C-C2C-C3C | -2.92 | 103.89      | 106.96   |
| 36  | 2     | 610  | CHL  | CHD-C4C-C3C | 2.92  | 129.13      | 124.84   |
| 21  | A     | 1117 | CLA  | CAA-C2A-C3A | -2.92 | 104.78      | 112.78   |
| 21  | A     | 1132 | CLA  | CMA-C3A-C4A | 2.92  | 119.62      | 111.77   |
| 21  | B     | 1216 | CLA  | O2D-CGD-O1D | -2.92 | 118.13      | 123.84   |
| 24  | A     | 4007 | BCR  | C31-C1-C6   | -2.92 | 105.56      | 110.30   |
| 21  | B     | 1214 | CLA  | C1C-C2C-C3C | -2.92 | 103.89      | 106.96   |
| 24  | A     | 4002 | BCR  | C29-C28-C27 | 2.92  | 117.90      | 111.38   |
| 21  | L     | 1503 | CLA  | CMA-C3A-C4A | 2.92  | 119.62      | 111.77   |
| 21  | A     | 1129 | CLA  | CMB-C2B-C1B | -2.92 | 123.98      | 128.46   |
| 24  | 1     | 504  | BCR  | C15-C14-C13 | -2.92 | 123.14      | 127.31   |
| 21  | 2     | 606  | CLA  | C2D-C1D-ND  | 2.92  | 112.25      | 110.10   |
| 24  | I     | 4002 | BCR  | C33-C5-C4   | 2.92  | 119.22      | 113.62   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 1     | 608  | CLA  | C1-C2-C3    | -2.92 | 121.00      | 126.04   |
| 21  | L     | 1501 | CLA  | C1D-ND-C4D  | -2.92 | 104.26      | 106.33   |
| 21  | B     | 1212 | CLA  | C2C-C1C-NC  | 2.92  | 112.70      | 109.97   |
| 24  | 4     | 503  | BCR  | C33-C5-C4   | 2.92  | 119.22      | 113.62   |
| 21  | 4     | 607  | CLA  | C2D-C1D-ND  | 2.91  | 112.25      | 110.10   |
| 21  | A     | 1121 | CLA  | CMA-C3A-C4A | 2.91  | 119.61      | 111.77   |
| 35  | 6     | 502  | XAT  | O4-C5-C4    | -2.91 | 111.19      | 113.38   |
| 21  | A     | 1012 | CLA  | C1D-ND-C4D  | -2.91 | 104.27      | 106.33   |
| 21  | 4     | 604  | CLA  | CMA-C3A-C4A | 2.91  | 119.60      | 111.77   |
| 21  | 4     | 601  | CLA  | CMA-C3A-C4A | 2.91  | 119.60      | 111.77   |
| 21  | 5     | 605  | CLA  | C2C-C1C-NC  | 2.91  | 112.70      | 109.97   |
| 21  | 6     | 607  | CLA  | CHD-C1D-ND  | -2.91 | 121.78      | 124.45   |
| 21  | A     | 1107 | CLA  | CHD-C1D-ND  | -2.91 | 121.78      | 124.45   |
| 21  | B     | 1213 | CLA  | O1D-CGD-CBD | -2.91 | 118.53      | 124.48   |
| 21  | A     | 1012 | CLA  | C2C-C1C-NC  | 2.91  | 112.70      | 109.97   |
| 21  | B     | 1215 | CLA  | O2A-CGA-CBA | 2.91  | 121.04      | 111.91   |
| 21  | 4     | 607  | CLA  | C1-C2-C3    | -2.91 | 121.01      | 126.04   |
| 21  | 6     | 603  | CLA  | C2C-C1C-NC  | 2.91  | 112.70      | 109.97   |
| 21  | B     | 1221 | CLA  | O2A-CGA-CBA | 2.91  | 121.03      | 111.91   |
| 21  | A     | 1117 | CLA  | C1C-C2C-C3C | -2.91 | 103.90      | 106.96   |
| 21  | B     | 1232 | CLA  | C2D-C1D-ND  | 2.91  | 112.25      | 110.10   |
| 21  | B     | 1217 | CLA  | O2D-CGD-O1D | -2.91 | 118.16      | 123.84   |
| 24  | I     | 4001 | BCR  | C30-C25-C26 | -2.91 | 118.52      | 122.61   |
| 21  | A     | 1131 | CLA  | C1-C2-C3    | -2.91 | 121.02      | 126.04   |
| 21  | A     | 1121 | CLA  | CHD-C1D-ND  | -2.90 | 121.78      | 124.45   |
| 21  | 6     | 613  | CLA  | CMD-C2D-C3D | -2.90 | 120.93      | 127.61   |
| 21  | 1     | 613  | CLA  | C2D-C1D-ND  | 2.90  | 112.24      | 110.10   |
| 21  | A     | 1119 | CLA  | CHD-C1D-ND  | -2.90 | 121.79      | 124.45   |
| 34  | 2     | 501  | LUT  | C18-C5-C6   | -2.90 | 121.27      | 124.53   |
| 36  | 1     | 610  | CHL  | C1B-CHB-C4A | -2.90 | 124.37      | 130.12   |
| 21  | K     | 1404 | CLA  | C1D-ND-C4D  | -2.90 | 104.27      | 106.33   |
| 21  | H     | 1702 | CLA  | O2D-CGD-O1D | -2.90 | 118.16      | 123.84   |
| 21  | B     | 1212 | CLA  | CMA-C3A-C4A | 2.90  | 119.57      | 111.77   |
| 21  | K     | 1404 | CLA  | C2D-C1D-ND  | 2.90  | 112.24      | 110.10   |
| 21  | B     | 1023 | CLA  | C2C-C1C-NC  | 2.90  | 112.69      | 109.97   |
| 21  | 5     | 604  | CLA  | C2C-C1C-NC  | 2.90  | 112.69      | 109.97   |
| 21  | 6     | 609  | CLA  | C1C-C2C-C3C | -2.90 | 103.91      | 106.96   |
| 21  | A     | 1141 | CLA  | CHA-C1A-NA  | -2.90 | 119.76      | 126.40   |
| 21  | 1     | 603  | CLA  | C2D-C1D-ND  | 2.90  | 112.24      | 110.10   |
| 21  | G     | 1602 | CLA  | CHD-C1D-ND  | -2.90 | 121.79      | 124.45   |
| 24  | F     | 4001 | BCR  | C37-C22-C21 | -2.90 | 118.87      | 122.92   |
| 21  | B     | 1226 | CLA  | C1C-C2C-C3C | -2.89 | 103.91      | 106.96   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1116 | CLA  | CMA-C3A-C4A | 2.89  | 119.55      | 111.77   |
| 21  | A     | 1111 | CLA  | C2D-C1D-ND  | 2.89  | 112.24      | 110.10   |
| 21  | 6     | 606  | CLA  | C2D-C1D-ND  | 2.89  | 112.24      | 110.10   |
| 24  | F     | 4001 | BCR  | C8-C7-C6    | -2.89 | 119.08      | 127.20   |
| 21  | F     | 1302 | CLA  | C2D-C1D-ND  | 2.89  | 112.24      | 110.10   |
| 21  | A     | 1114 | CLA  | CMA-C3A-C4A | 2.89  | 119.55      | 111.77   |
| 21  | 1     | 604  | CLA  | C2D-C1D-ND  | 2.89  | 112.23      | 110.10   |
| 21  | B     | 1237 | CLA  | C11-C10-C8  | -2.89 | 106.58      | 115.92   |
| 25  | 5     | 801  | LHG  | O8-C23-C24  | 2.89  | 120.98      | 111.91   |
| 21  | 6     | 607  | CLA  | C1C-C2C-C3C | -2.89 | 103.92      | 106.96   |
| 36  | 4     | 610  | CHL  | CHB-C4A-NA  | 2.89  | 128.51      | 124.51   |
| 21  | B     | 1221 | CLA  | CMD-C2D-C3D | -2.89 | 120.97      | 127.61   |
| 24  | 3     | 504  | BCR  | C38-C26-C27 | 2.89  | 119.16      | 113.62   |
| 21  | A     | 1132 | CLA  | CHD-C1D-ND  | -2.89 | 121.80      | 124.45   |
| 21  | G     | 1603 | CLA  | CMB-C2B-C1B | -2.89 | 124.03      | 128.46   |
| 21  | 2     | 607  | CLA  | C2D-C1D-ND  | 2.89  | 112.23      | 110.10   |
| 21  | 2     | 601  | CLA  | C2C-C1C-NC  | 2.88  | 112.67      | 109.97   |
| 21  | 3     | 612  | CLA  | C2C-C1C-NC  | 2.88  | 112.67      | 109.97   |
| 21  | B     | 1230 | CLA  | CMA-C3A-C4A | 2.88  | 119.52      | 111.77   |
| 21  | 6     | 602  | CLA  | CHD-C1D-ND  | -2.88 | 121.80      | 124.45   |
| 21  | B     | 1206 | CLA  | CHD-C1D-ND  | -2.88 | 121.81      | 124.45   |
| 21  | O     | 1803 | CLA  | C2D-C1D-ND  | 2.88  | 112.23      | 110.10   |
| 21  | A     | 1134 | CLA  | C2C-C1C-NC  | 2.88  | 112.67      | 109.97   |
| 21  | B     | 1022 | CLA  | CHD-C1D-ND  | -2.88 | 121.81      | 124.45   |
| 21  | B     | 1226 | CLA  | C1-C2-C3    | -2.88 | 121.06      | 126.04   |
| 21  | B     | 1215 | CLA  | O2D-CGD-O1D | -2.88 | 118.21      | 123.84   |
| 21  | 1     | 601  | CLA  | CMA-C3A-C4A | 2.88  | 119.51      | 111.77   |
| 24  | A     | 4004 | BCR  | C8-C9-C10   | 2.88  | 123.36      | 118.94   |
| 21  | B     | 1206 | CLA  | CMA-C3A-C4A | 2.88  | 119.51      | 111.77   |
| 21  | B     | 1207 | CLA  | CMA-C3A-C4A | 2.88  | 119.51      | 111.77   |
| 21  | A     | 1131 | CLA  | C1C-C2C-C3C | -2.88 | 103.93      | 106.96   |
| 21  | 6     | 601  | CLA  | C2C-C1C-NC  | 2.88  | 112.67      | 109.97   |
| 21  | A     | 1116 | CLA  | C1D-ND-C4D  | -2.88 | 104.29      | 106.33   |
| 33  | 3     | 807  | PTY  | O4-C30-C31  | 2.88  | 120.94      | 111.91   |
| 21  | 4     | 601  | CLA  | CMB-C2B-C3B | 2.88  | 130.06      | 124.68   |
| 21  | B     | 1212 | CLA  | C1D-ND-C4D  | -2.88 | 104.29      | 106.33   |
| 21  | 6     | 604  | CLA  | O1D-CGD-CBD | -2.88 | 118.60      | 124.48   |
| 21  | B     | 1216 | CLA  | CAA-C2A-C3A | -2.87 | 104.91      | 112.78   |
| 24  | B     | 4005 | BCR  | C33-C5-C6   | -2.87 | 121.30      | 124.53   |
| 21  | 1     | 612  | CLA  | CHD-C1D-ND  | -2.87 | 121.81      | 124.45   |
| 36  | 6     | 610  | CHL  | C2C-C3C-C4C | 2.87  | 108.54      | 106.49   |
| 21  | B     | 1210 | CLA  | CAA-C2A-C3A | -2.87 | 104.92      | 112.78   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1208 | CLA  | CHD-C1D-ND  | -2.87 | 121.82      | 124.45   |
| 21  | 1     | 611  | CLA  | C1-C2-C3    | -2.87 | 121.08      | 126.04   |
| 21  | B     | 1227 | CLA  | CHD-C1D-ND  | -2.87 | 121.82      | 124.45   |
| 21  | A     | 1139 | CLA  | C4-C3-C5    | 2.87  | 120.09      | 115.27   |
| 21  | B     | 1222 | CLA  | O2D-CGD-O1D | -2.87 | 118.23      | 123.84   |
| 24  | I     | 4001 | BCR  | C12-C13-C14 | 2.87  | 123.34      | 118.94   |
| 21  | 5     | 604  | CLA  | C1D-ND-C4D  | -2.86 | 104.30      | 106.33   |
| 21  | 2     | 601  | CLA  | CHA-C4D-ND  | 2.86  | 138.49      | 132.50   |
| 21  | 2     | 612  | CLA  | CHD-C1D-ND  | -2.86 | 121.82      | 124.45   |
| 21  | G     | 1601 | CLA  | C1D-ND-C4D  | -2.86 | 104.30      | 106.33   |
| 21  | 5     | 612  | CLA  | CAC-C3C-C2C | -2.86 | 122.63      | 127.53   |
| 21  | L     | 1504 | CLA  | CHD-C1D-ND  | -2.86 | 121.83      | 124.45   |
| 21  | B     | 1218 | CLA  | C2C-C1C-NC  | 2.86  | 112.65      | 109.97   |
| 21  | A     | 1121 | CLA  | C2C-C1C-NC  | 2.86  | 112.65      | 109.97   |
| 21  | B     | 1207 | CLA  | C2C-C1C-NC  | 2.86  | 112.65      | 109.97   |
| 21  | 5     | 612  | CLA  | C2C-C1C-NC  | 2.86  | 112.65      | 109.97   |
| 21  | 1     | 602  | CLA  | CMA-C3A-C4A | 2.86  | 119.45      | 111.77   |
| 21  | O     | 1801 | CLA  | C1D-ND-C4D  | -2.86 | 104.31      | 106.33   |
| 21  | A     | 1140 | CLA  | C2C-C1C-NC  | 2.86  | 112.65      | 109.97   |
| 21  | G     | 1601 | CLA  | CHD-C1D-ND  | -2.86 | 121.83      | 124.45   |
| 21  | 1     | 606  | CLA  | CHD-C1D-ND  | -2.86 | 121.83      | 124.45   |
| 24  | A     | 4002 | BCR  | C37-C22-C21 | -2.86 | 118.92      | 122.92   |
| 24  | B     | 4004 | BCR  | C37-C22-C23 | 2.86  | 122.58      | 118.08   |
| 21  | A     | 1127 | CLA  | CMB-C2B-C1B | -2.86 | 124.08      | 128.46   |
| 21  | K     | 1404 | CLA  | C2C-C1C-NC  | 2.86  | 112.65      | 109.97   |
| 21  | 1     | 605  | CLA  | C2D-C1D-ND  | 2.86  | 112.21      | 110.10   |
| 21  | B     | 1235 | CLA  | CMA-C3A-C4A | 2.85  | 119.44      | 111.77   |
| 21  | B     | 1218 | CLA  | CMD-C2D-C1D | 2.85  | 129.74      | 124.71   |
| 21  | 3     | 611  | CLA  | O2A-CGA-CBA | 2.85  | 120.86      | 111.91   |
| 21  | A     | 1105 | CLA  | C2C-C1C-NC  | 2.85  | 112.64      | 109.97   |
| 21  | A     | 1110 | CLA  | C2C-C1C-NC  | 2.85  | 112.64      | 109.97   |
| 21  | 4     | 607  | CLA  | CMA-C3A-C4A | 2.85  | 119.44      | 111.77   |
| 21  | 6     | 601  | CLA  | CMA-C3A-C4A | 2.85  | 119.44      | 111.77   |
| 21  | 1     | 602  | CLA  | C2D-C1D-ND  | 2.85  | 112.20      | 110.10   |
| 21  | A     | 1141 | CLA  | C1-C2-C3    | -2.85 | 121.11      | 126.04   |
| 21  | H     | 1702 | CLA  | C2A-C1A-CHA | 2.85  | 128.84      | 123.86   |
| 21  | K     | 1402 | CLA  | CHD-C1D-ND  | -2.85 | 121.84      | 124.45   |
| 21  | J     | 1901 | CLA  | CMA-C3A-C4A | 2.85  | 119.42      | 111.77   |
| 25  | 1     | 801  | LHG  | O7-C7-O9    | -2.85 | 116.83      | 123.70   |
| 21  | B     | 1023 | CLA  | C1D-ND-C4D  | -2.84 | 104.31      | 106.33   |
| 24  | A     | 4003 | BCR  | C31-C1-C6   | -2.84 | 105.69      | 110.30   |
| 21  | B     | 1236 | CLA  | C1-C2-C3    | -2.84 | 121.12      | 126.04   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1215 | CLA  | C2D-C1D-ND  | 2.84  | 112.20      | 110.10   |
| 21  | 3     | 605  | CLA  | C1-C2-C3    | -2.84 | 121.13      | 126.04   |
| 21  | B     | 1202 | CLA  | O2A-CGA-CBA | 2.84  | 120.82      | 111.91   |
| 34  | 5     | 504  | LUT  | C32-C33-C34 | 2.84  | 123.30      | 118.94   |
| 21  | B     | 1203 | CLA  | C2C-C1C-NC  | 2.84  | 112.63      | 109.97   |
| 21  | 1     | 615  | CLA  | C1C-C2C-C3C | -2.84 | 103.97      | 106.96   |
| 21  | A     | 1127 | CLA  | CMA-C3A-C4A | 2.84  | 119.40      | 111.77   |
| 21  | B     | 1238 | CLA  | CHD-C1D-ND  | -2.84 | 121.85      | 124.45   |
| 21  | 1     | 606  | CLA  | C2C-C1C-NC  | 2.83  | 112.63      | 109.97   |
| 24  | H     | 4001 | BCR  | C38-C26-C27 | 2.83  | 119.06      | 113.62   |
| 21  | 3     | 613  | CLA  | C1C-C2C-C3C | -2.83 | 103.98      | 106.96   |
| 21  | 1     | 601  | CLA  | CHD-C1D-ND  | -2.83 | 121.85      | 124.45   |
| 21  | B     | 1224 | CLA  | CMB-C2B-C3B | 2.83  | 129.98      | 124.68   |
| 24  | H     | 4001 | BCR  | C40-C30-C29 | -2.83 | 97.57       | 108.91   |
| 21  | 1     | 612  | CLA  | C1-C2-C3    | -2.83 | 121.15      | 126.04   |
| 21  | B     | 1208 | CLA  | CMA-C3A-C4A | 2.83  | 119.38      | 111.77   |
| 21  | B     | 1229 | CLA  | O2A-CGA-CBA | 2.83  | 120.79      | 111.91   |
| 21  | 5     | 607  | CLA  | C2D-C1D-ND  | 2.83  | 112.19      | 110.10   |
| 24  | I     | 4002 | BCR  | C30-C25-C26 | -2.83 | 118.63      | 122.61   |
| 21  | A     | 1110 | CLA  | C2D-C1D-ND  | 2.83  | 112.19      | 110.10   |
| 24  | L     | 4002 | BCR  | C33-C5-C6   | -2.83 | 121.36      | 124.53   |
| 21  | B     | 1215 | CLA  | C1C-C2C-C3C | -2.83 | 103.99      | 106.96   |
| 21  | G     | 1603 | CLA  | CMB-C2B-C3B | 2.83  | 129.96      | 124.68   |
| 21  | B     | 1228 | CLA  | C2D-C1D-ND  | 2.83  | 112.19      | 110.10   |
| 21  | A     | 1119 | CLA  | CMA-C3A-C4A | 2.82  | 119.36      | 111.77   |
| 36  | 2     | 610  | CHL  | C1B-CHB-C4A | -2.82 | 124.53      | 130.12   |
| 36  | 3     | 604  | CHL  | C1B-CHB-C4A | -2.82 | 124.53      | 130.12   |
| 21  | A     | 1112 | CLA  | CMA-C3A-C4A | 2.82  | 119.36      | 111.77   |
| 21  | G     | 1602 | CLA  | C1D-ND-C4D  | -2.82 | 104.33      | 106.33   |
| 21  | B     | 1021 | CLA  | CAA-C2A-C3A | -2.82 | 105.05      | 112.78   |
| 21  | 6     | 608  | CLA  | CHD-C1D-ND  | -2.82 | 121.86      | 124.45   |
| 21  | 4     | 608  | CLA  | CHD-C1D-ND  | -2.82 | 121.86      | 124.45   |
| 24  | 1     | 504  | BCR  | C33-C5-C4   | 2.82  | 119.03      | 113.62   |
| 21  | B     | 1231 | CLA  | C2C-C1C-NC  | 2.82  | 112.61      | 109.97   |
| 21  | 3     | 611  | CLA  | CMA-C3A-C4A | 2.82  | 119.35      | 111.77   |
| 21  | 5     | 613  | CLA  | CHA-C4D-ND  | 2.82  | 138.39      | 132.50   |
| 21  | A     | 1135 | CLA  | CMA-C3A-C4A | 2.82  | 119.34      | 111.77   |
| 21  | A     | 1102 | CLA  | C2D-C1D-ND  | 2.82  | 112.18      | 110.10   |
| 31  | 4     | 802  | LMG  | O7-C10-O9   | -2.82 | 116.89      | 123.70   |
| 24  | F     | 4001 | BCR  | C36-C18-C17 | -2.82 | 118.98      | 122.92   |
| 21  | 4     | 605  | CLA  | CHD-C1D-ND  | -2.82 | 121.87      | 124.45   |
| 36  | 5     | 609  | CHL  | C2C-C3C-C4C | 2.82  | 108.50      | 106.49   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 36  | 2     | 611  | CHL  | C4D-CHA-C1A | 2.82  | 124.67      | 121.25   |
| 36  | 4     | 611  | CHL  | C3C-C4C-NC  | -2.82 | 107.41      | 110.57   |
| 21  | F     | 1302 | CLA  | O2A-CGA-CBA | 2.81  | 120.74      | 111.91   |
| 21  | 5     | 612  | CLA  | CMA-C3A-C4A | 2.81  | 119.34      | 111.77   |
| 35  | 3     | 502  | XAT  | C38-C25-C26 | -2.81 | 117.55      | 122.26   |
| 31  | 4     | 802  | LMG  | O8-C28-C29  | 2.81  | 120.73      | 111.91   |
| 25  | 5     | 801  | LHG  | O7-C7-C8    | 2.81  | 117.56      | 111.50   |
| 36  | 2     | 609  | CHL  | CMA-C3A-C4A | 2.81  | 119.33      | 111.77   |
| 21  | 5     | 612  | CLA  | CHD-C4C-NC  | -2.81 | 119.78      | 124.20   |
| 21  | B     | 1210 | CLA  | C1C-C2C-C3C | -2.81 | 104.00      | 106.96   |
| 21  | 3     | 607  | CLA  | CMA-C3A-C4A | 2.81  | 119.33      | 111.77   |
| 21  | A     | 1102 | CLA  | O2D-CGD-O1D | -2.81 | 118.34      | 123.84   |
| 21  | 3     | 615  | CLA  | CMA-C3A-C4A | 2.81  | 119.32      | 111.77   |
| 21  | 2     | 607  | CLA  | CMA-C3A-C4A | 2.81  | 119.32      | 111.77   |
| 36  | 3     | 604  | CHL  | C3C-C4C-NC  | -2.81 | 107.42      | 110.57   |
| 21  | L     | 1503 | CLA  | C1C-C2C-C3C | -2.81 | 104.00      | 106.96   |
| 21  | 1     | 612  | CLA  | C1C-C2C-C3C | -2.81 | 104.00      | 106.96   |
| 21  | 5     | 606  | CLA  | CHD-C1D-ND  | -2.81 | 121.88      | 124.45   |
| 21  | A     | 1128 | CLA  | CMB-C2B-C3B | 2.81  | 129.93      | 124.68   |
| 21  | O     | 1802 | CLA  | CHD-C1D-ND  | -2.81 | 121.88      | 124.45   |
| 21  | A     | 1130 | CLA  | CHA-C4D-ND  | 2.81  | 138.37      | 132.50   |
| 21  | A     | 1105 | CLA  | CMB-C2B-C3B | 2.80  | 129.93      | 124.68   |
| 21  | B     | 1201 | CLA  | C2C-C1C-NC  | 2.80  | 112.60      | 109.97   |
| 24  | B     | 4003 | BCR  | C34-C9-C8   | 2.80  | 122.50      | 118.08   |
| 21  | 5     | 603  | CLA  | O1D-CGD-CBD | -2.80 | 118.75      | 124.48   |
| 21  | B     | 1209 | CLA  | C1C-C2C-C3C | -2.80 | 104.01      | 106.96   |
| 21  | 4     | 601  | CLA  | C2A-C1A-CHA | 2.80  | 128.76      | 123.86   |
| 21  | 2     | 604  | CLA  | C2D-C1D-ND  | 2.80  | 112.17      | 110.10   |
| 21  | 2     | 608  | CLA  | CMD-C2D-C3D | -2.80 | 121.17      | 127.61   |
| 21  | 1     | 603  | CLA  | CAA-C2A-C3A | -2.80 | 105.11      | 112.78   |
| 21  | 5     | 606  | CLA  | C1D-ND-C4D  | -2.80 | 104.35      | 106.33   |
| 20  | A     | 1011 | CL0  | O2D-CGD-O1D | -2.80 | 118.37      | 123.84   |
| 21  | J     | 1901 | CLA  | O2D-CGD-O1D | -2.80 | 118.37      | 123.84   |
| 21  | A     | 1106 | CLA  | C2D-C1D-ND  | 2.80  | 112.17      | 110.10   |
| 21  | 2     | 615  | CLA  | C2D-C1D-ND  | 2.80  | 112.17      | 110.10   |
| 21  | 6     | 606  | CLA  | CHD-C1D-ND  | -2.80 | 121.88      | 124.45   |
| 21  | A     | 1131 | CLA  | CHA-C4D-ND  | 2.80  | 138.35      | 132.50   |
| 21  | 4     | 612  | CLA  | C2D-C1D-ND  | 2.80  | 112.16      | 110.10   |
| 21  | B     | 1236 | CLA  | C1C-C2C-C3C | -2.79 | 104.02      | 106.96   |
| 36  | 2     | 610  | CHL  | CHD-C1D-ND  | -2.79 | 121.89      | 124.45   |
| 21  | 3     | 602  | CLA  | C1C-C2C-C3C | -2.79 | 104.02      | 106.96   |
| 24  | K     | 4001 | BCR  | C38-C26-C27 | 2.79  | 118.98      | 113.62   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | 1     | 504  | BCR  | C36-C18-C17 | -2.79 | 119.01      | 122.92   |
| 21  | B     | 1023 | CLA  | CMA-C3A-C4A | 2.79  | 119.28      | 111.77   |
| 21  | 4     | 609  | CLA  | CMA-C3A-C4A | 2.79  | 119.28      | 111.77   |
| 21  | A     | 1124 | CLA  | CHD-C1D-ND  | -2.79 | 121.89      | 124.45   |
| 36  | 1     | 610  | CHL  | C3C-C4C-NC  | -2.79 | 107.44      | 110.57   |
| 34  | 4     | 501  | LUT  | C15-C14-C13 | -2.79 | 123.33      | 127.31   |
| 36  | 1     | 609  | CHL  | C1B-CHB-C4A | -2.79 | 124.59      | 130.12   |
| 21  | 1     | 604  | CLA  | C6-C7-C8    | -2.79 | 106.90      | 115.92   |
| 21  | B     | 1022 | CLA  | C1C-C2C-C3C | -2.79 | 104.02      | 106.96   |
| 21  | A     | 1117 | CLA  | C1-O2A-CGA  | 2.79  | 123.76      | 116.44   |
| 21  | 3     | 608  | CLA  | CMA-C3A-C4A | 2.79  | 119.27      | 111.77   |
| 24  | 4     | 503  | BCR  | C15-C14-C13 | -2.79 | 123.33      | 127.31   |
| 21  | B     | 1204 | CLA  | C1C-C2C-C3C | -2.79 | 104.03      | 106.96   |
| 21  | B     | 1217 | CLA  | C2D-C1D-ND  | 2.79  | 112.16      | 110.10   |
| 21  | 6     | 612  | CLA  | C2C-C1C-NC  | 2.79  | 112.58      | 109.97   |
| 21  | B     | 1022 | CLA  | C1D-ND-C4D  | -2.79 | 104.36      | 106.33   |
| 21  | B     | 1211 | CLA  | CHA-C4D-ND  | 2.79  | 138.33      | 132.50   |
| 21  | 3     | 612  | CLA  | CAA-C2A-C3A | -2.79 | 105.15      | 112.78   |
| 24  | B     | 4006 | BCR  | C35-C13-C12 | 2.78  | 122.47      | 118.08   |
| 21  | 5     | 613  | CLA  | C2C-C1C-NC  | 2.78  | 112.58      | 109.97   |
| 25  | 1     | 801  | LHG  | O8-C23-C24  | 2.78  | 120.65      | 111.91   |
| 21  | 4     | 612  | CLA  | CHD-C1D-ND  | -2.78 | 121.89      | 124.45   |
| 34  | 5     | 504  | LUT  | C12-C13-C14 | 2.78  | 123.21      | 118.94   |
| 36  | 1     | 610  | CHL  | CHC-C1C-NC  | 2.78  | 128.43      | 124.20   |
| 24  | K     | 4001 | BCR  | C30-C25-C26 | -2.78 | 118.69      | 122.61   |
| 21  | B     | 1237 | CLA  | C2D-C1D-ND  | 2.78  | 112.16      | 110.10   |
| 21  | 1     | 601  | CLA  | C1D-ND-C4D  | -2.78 | 104.36      | 106.33   |
| 21  | A     | 1133 | CLA  | C1-C2-C3    | -2.78 | 121.23      | 126.04   |
| 21  | 6     | 606  | CLA  | CMA-C3A-C4A | 2.78  | 119.25      | 111.77   |
| 21  | 4     | 605  | CLA  | CHA-C4D-ND  | 2.78  | 138.32      | 132.50   |
| 21  | A     | 1134 | CLA  | CMA-C3A-C4A | 2.78  | 119.25      | 111.77   |
| 21  | 3     | 613  | CLA  | C3D-C2D-C1D | -2.78 | 102.04      | 105.83   |
| 21  | A     | 1135 | CLA  | CHA-C4D-ND  | 2.78  | 138.31      | 132.50   |
| 21  | B     | 1221 | CLA  | C1-C2-C3    | -2.78 | 121.24      | 126.04   |
| 21  | B     | 1221 | CLA  | O2D-CGD-O1D | -2.78 | 118.40      | 123.84   |
| 21  | A     | 1122 | CLA  | C2D-C1D-ND  | 2.78  | 112.15      | 110.10   |
| 21  | A     | 1135 | CLA  | C1C-C2C-C3C | -2.78 | 104.04      | 106.96   |
| 21  | K     | 1402 | CLA  | C1D-ND-C4D  | -2.78 | 104.36      | 106.33   |
| 21  | B     | 1220 | CLA  | CAA-C2A-C1A | -2.78 | 102.88      | 111.97   |
| 25  | 5     | 801  | LHG  | C25-C24-C23 | -2.78 | 103.53      | 113.62   |
| 21  | B     | 1203 | CLA  | O2D-CGD-O1D | -2.78 | 118.41      | 123.84   |
| 21  | 4     | 602  | CLA  | CMA-C3A-C4A | 2.77  | 119.23      | 111.77   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1214 | CLA  | C1-C2-C3    | -2.77 | 121.25      | 126.04   |
| 24  | L     | 4001 | BCR  | C24-C25-C26 | -2.77 | 114.75      | 121.46   |
| 21  | A     | 1123 | CLA  | CHA-C4D-ND  | 2.77  | 138.29      | 132.50   |
| 21  | A     | 1106 | CLA  | O2D-CGD-O1D | -2.77 | 118.42      | 123.84   |
| 24  | J     | 4002 | BCR  | C37-C22-C23 | 2.77  | 122.44      | 118.08   |
| 21  | 1     | 606  | CLA  | CMB-C2B-C3B | 2.77  | 129.86      | 124.68   |
| 21  | 2     | 605  | CLA  | CHA-C4D-ND  | 2.77  | 138.29      | 132.50   |
| 20  | A     | 1011 | CL0  | C4-C3-C5    | 2.77  | 119.93      | 115.27   |
| 21  | 3     | 602  | CLA  | O2D-CGD-O1D | -2.77 | 118.42      | 123.84   |
| 21  | 1     | 603  | CLA  | CMA-C3A-C4A | 2.77  | 119.21      | 111.77   |
| 21  | A     | 1106 | CLA  | C1C-C2C-C3C | -2.77 | 104.05      | 106.96   |
| 21  | B     | 1229 | CLA  | C1D-ND-C4D  | -2.77 | 104.37      | 106.33   |
| 21  | A     | 1111 | CLA  | CHD-C1D-ND  | -2.77 | 121.91      | 124.45   |
| 21  | B     | 1205 | CLA  | C2D-C1D-ND  | 2.77  | 112.14      | 110.10   |
| 21  | F     | 1302 | CLA  | CHD-C1D-ND  | -2.77 | 121.91      | 124.45   |
| 21  | 6     | 604  | CLA  | C1D-ND-C4D  | -2.77 | 104.37      | 106.33   |
| 21  | B     | 1232 | CLA  | C2A-C1A-CHA | 2.77  | 128.69      | 123.86   |
| 21  | A     | 1130 | CLA  | CHD-C1D-ND  | -2.77 | 121.91      | 124.45   |
| 21  | B     | 1229 | CLA  | O2D-CGD-O1D | -2.77 | 118.43      | 123.84   |
| 21  | 2     | 605  | CLA  | CHD-C1D-ND  | -2.76 | 121.91      | 124.45   |
| 24  | 1     | 504  | BCR  | C34-C9-C10  | -2.76 | 119.06      | 122.92   |
| 21  | 5     | 608  | CLA  | C1D-ND-C4D  | -2.76 | 104.37      | 106.33   |
| 21  | A     | 1132 | CLA  | C1D-ND-C4D  | -2.76 | 104.38      | 106.33   |
| 21  | B     | 1240 | CLA  | CHD-C1D-ND  | -2.76 | 121.92      | 124.45   |
| 21  | L     | 1501 | CLA  | C11-C12-C13 | -2.76 | 107.00      | 115.92   |
| 21  | A     | 1105 | CLA  | CMA-C3A-C4A | 2.76  | 119.18      | 111.77   |
| 24  | A     | 4004 | BCR  | C38-C26-C27 | 2.76  | 118.91      | 113.62   |
| 21  | B     | 1226 | CLA  | CHA-C4D-ND  | 2.76  | 138.26      | 132.50   |
| 21  | B     | 1214 | CLA  | CMA-C3A-C4A | 2.76  | 119.18      | 111.77   |
| 21  | B     | 1208 | CLA  | C1D-ND-C4D  | -2.76 | 104.38      | 106.33   |
| 21  | 3     | 606  | CLA  | C2D-C1D-ND  | 2.76  | 112.14      | 110.10   |
| 21  | L     | 1504 | CLA  | CMA-C3A-C4A | 2.76  | 119.18      | 111.77   |
| 21  | F     | 1301 | CLA  | C1C-C2C-C3C | -2.75 | 104.06      | 106.96   |
| 21  | 3     | 607  | CLA  | C2D-C1D-ND  | 2.75  | 112.13      | 110.10   |
| 21  | 4     | 603  | CLA  | O2D-CGD-O1D | -2.75 | 118.45      | 123.84   |
| 21  | 4     | 608  | CLA  | CMA-C3A-C4A | 2.75  | 119.17      | 111.77   |
| 24  | B     | 4002 | BCR  | C19-C18-C17 | 2.75  | 123.17      | 118.94   |
| 21  | 3     | 611  | CLA  | C1-C2-C3    | -2.75 | 121.28      | 126.04   |
| 24  | O     | 4001 | BCR  | C32-C1-C2   | -2.75 | 97.90       | 108.91   |
| 21  | 5     | 614  | CLA  | CAC-C3C-C2C | 2.75  | 132.23      | 127.53   |
| 21  | F     | 1301 | CLA  | C2D-C1D-ND  | 2.75  | 112.13      | 110.10   |
| 36  | 6     | 610  | CHL  | C1B-CHB-C4A | -2.75 | 124.67      | 130.12   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 1     | 604  | CLA  | C1D-ND-C4D  | -2.75 | 104.38      | 106.33   |
| 25  | 4     | 801  | LHG  | O8-C23-C24  | 2.75  | 120.53      | 111.91   |
| 21  | B     | 1239 | CLA  | CMA-C3A-C4A | 2.75  | 119.15      | 111.77   |
| 24  | A     | 4001 | BCR  | C19-C18-C17 | 2.75  | 123.16      | 118.94   |
| 21  | B     | 1230 | CLA  | O2A-CGA-CBA | 2.74  | 120.52      | 111.91   |
| 21  | K     | 1403 | CLA  | CMA-C3A-C4A | 2.74  | 119.15      | 111.77   |
| 24  | B     | 4001 | BCR  | C34-C9-C10  | -2.74 | 119.08      | 122.92   |
| 21  | 3     | 611  | CLA  | C3D-C2D-C1D | -2.74 | 102.09      | 105.83   |
| 21  | B     | 1021 | CLA  | O2A-CGA-CBA | 2.74  | 120.52      | 111.91   |
| 34  | 5     | 503  | LUT  | C40-C33-C34 | -2.74 | 119.08      | 122.92   |
| 21  | A     | 1131 | CLA  | C2A-C3A-C4A | 2.74  | 106.30      | 101.87   |
| 21  | 5     | 614  | CLA  | CMA-C3A-C4A | 2.74  | 119.14      | 111.77   |
| 21  | A     | 1138 | CLA  | C2D-C1D-ND  | 2.74  | 112.12      | 110.10   |
| 21  | A     | 1012 | CLA  | CMA-C3A-C4A | 2.74  | 119.14      | 111.77   |
| 21  | 5     | 612  | CLA  | C2A-C1A-CHA | 2.74  | 128.65      | 123.86   |
| 21  | 3     | 605  | CLA  | CHA-C4D-ND  | 2.74  | 138.23      | 132.50   |
| 21  | B     | 1231 | CLA  | CMD-C2D-C3D | -2.74 | 121.32      | 127.61   |
| 21  | 1     | 608  | CLA  | C2D-C1D-ND  | 2.74  | 112.12      | 110.10   |
| 21  | B     | 1021 | CLA  | CHD-C1D-ND  | -2.74 | 121.94      | 124.45   |
| 21  | B     | 1212 | CLA  | O2D-CGD-O1D | -2.74 | 118.49      | 123.84   |
| 21  | B     | 1205 | CLA  | C2C-C1C-NC  | 2.73  | 112.53      | 109.97   |
| 21  | B     | 1216 | CLA  | C2D-C1D-ND  | 2.73  | 112.12      | 110.10   |
| 21  | 3     | 612  | CLA  | C1-C2-C3    | -2.73 | 121.31      | 126.04   |
| 28  | 3     | 804  | DGD  | C1D-O6D-C5D | 2.73  | 119.05      | 113.69   |
| 21  | 3     | 615  | CLA  | C2D-C1D-ND  | 2.73  | 112.12      | 110.10   |
| 24  | A     | 4001 | BCR  | C15-C14-C13 | -2.73 | 123.41      | 127.31   |
| 21  | B     | 1240 | CLA  | CMA-C3A-C4A | 2.73  | 119.11      | 111.77   |
| 21  | 5     | 602  | CLA  | C2C-C1C-NC  | 2.73  | 112.53      | 109.97   |
| 21  | A     | 1126 | CLA  | C2D-C1D-ND  | 2.73  | 112.12      | 110.10   |
| 21  | 3     | 612  | CLA  | O2D-CGD-O1D | -2.73 | 118.50      | 123.84   |
| 24  | 3     | 504  | BCR  | C12-C13-C14 | -2.73 | 114.76      | 118.94   |
| 36  | 4     | 610  | CHL  | CMA-C3A-C4A | 2.73  | 119.10      | 111.77   |
| 21  | A     | 1130 | CLA  | C4-C3-C5    | -2.73 | 110.69      | 115.27   |
| 21  | A     | 1141 | CLA  | C2A-C1A-CHA | 2.73  | 128.62      | 123.86   |
| 21  | 1     | 612  | CLA  | O2D-CGD-O1D | -2.73 | 118.51      | 123.84   |
| 21  | B     | 1201 | CLA  | CMA-C3A-C4A | 2.72  | 119.10      | 111.77   |
| 21  | 3     | 606  | CLA  | CMB-C2B-C3B | 2.72  | 129.77      | 124.68   |
| 21  | A     | 1139 | CLA  | CHD-C1D-ND  | -2.72 | 121.95      | 124.45   |
| 21  | O     | 1803 | CLA  | CHD-C1D-ND  | -2.72 | 121.95      | 124.45   |
| 21  | B     | 1225 | CLA  | C1C-C2C-C3C | -2.72 | 104.09      | 106.96   |
| 21  | 5     | 601  | CLA  | OBD-CAD-C3D | -2.72 | 121.97      | 128.52   |
| 20  | A     | 1011 | CL0  | C3D-C4D-ND  | 2.72  | 114.64      | 110.24   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 601  | CLA  | C2C-C1C-NC  | 2.72  | 112.52      | 109.97   |
| 25  | 2     | 803  | LHG  | O8-C23-C24  | 2.72  | 120.44      | 111.91   |
| 21  | B     | 1217 | CLA  | CHA-C4D-ND  | 2.72  | 138.19      | 132.50   |
| 21  | 2     | 608  | CLA  | C1C-C2C-C3C | -2.72 | 104.10      | 106.96   |
| 31  | F     | 5002 | LMG  | O8-C28-C29  | 2.72  | 120.44      | 111.91   |
| 31  | 1     | 804  | LMG  | C4-C3-C2    | 2.72  | 115.57      | 110.82   |
| 21  | A     | 1114 | CLA  | C1D-ND-C4D  | -2.72 | 104.41      | 106.33   |
| 21  | A     | 1123 | CLA  | CMB-C2B-C3B | 2.72  | 129.76      | 124.68   |
| 21  | 6     | 612  | CLA  | CMA-C3A-C4A | 2.72  | 119.07      | 111.77   |
| 21  | B     | 1220 | CLA  | C2C-C1C-NC  | 2.72  | 112.52      | 109.97   |
| 21  | B     | 1206 | CLA  | C1-C2-C3    | -2.71 | 121.35      | 126.04   |
| 21  | H     | 1701 | CLA  | O1D-CGD-CBD | -2.71 | 118.93      | 124.48   |
| 21  | 1     | 605  | CLA  | CAA-C2A-C3A | -2.71 | 105.35      | 112.78   |
| 24  | K     | 4001 | BCR  | C33-C5-C4   | 2.71  | 118.83      | 113.62   |
| 21  | 3     | 606  | CLA  | C2A-C1A-CHA | 2.71  | 128.60      | 123.86   |
| 21  | A     | 1139 | CLA  | CMB-C2B-C3B | 2.71  | 129.75      | 124.68   |
| 21  | B     | 1203 | CLA  | CHA-C4D-ND  | 2.71  | 138.17      | 132.50   |
| 21  | A     | 1109 | CLA  | C1C-C2C-C3C | -2.71 | 104.11      | 106.96   |
| 21  | B     | 1203 | CLA  | C1C-C2C-C3C | -2.71 | 104.11      | 106.96   |
| 21  | B     | 1202 | CLA  | C11-C12-C13 | -2.71 | 107.16      | 115.92   |
| 24  | G     | 4001 | BCR  | C36-C18-C17 | -2.71 | 119.12      | 122.92   |
| 36  | 5     | 609  | CHL  | C1-C2-C3    | -2.71 | 121.35      | 126.04   |
| 21  | 6     | 606  | CLA  | C1C-C2C-C3C | -2.71 | 104.11      | 106.96   |
| 21  | B     | 1213 | CLA  | CHA-C1A-NA  | -2.71 | 120.19      | 126.40   |
| 21  | B     | 1207 | CLA  | O2D-CGD-O1D | -2.71 | 118.54      | 123.84   |
| 21  | 6     | 609  | CLA  | CHD-C1D-ND  | -2.71 | 121.96      | 124.45   |
| 24  | O     | 4001 | BCR  | C34-C9-C10  | -2.71 | 119.13      | 122.92   |
| 21  | 1     | 607  | CLA  | CHA-C4D-ND  | 2.71  | 138.17      | 132.50   |
| 21  | 1     | 604  | CLA  | CAA-C2A-C3A | -2.71 | 105.36      | 112.78   |
| 21  | G     | 1603 | CLA  | CMD-C2D-C3D | -2.71 | 121.39      | 127.61   |
| 24  | H     | 4001 | BCR  | C29-C30-C25 | 2.71  | 114.65      | 110.48   |
| 24  | L     | 4001 | BCR  | C33-C5-C6   | -2.71 | 121.49      | 124.53   |
| 21  | 1     | 603  | CLA  | O2A-CGA-CBA | 2.71  | 120.40      | 111.91   |
| 21  | 3     | 605  | CLA  | O2D-CGD-O1D | -2.71 | 118.55      | 123.84   |
| 21  | 1     | 613  | CLA  | CHA-C4D-ND  | 2.71  | 138.16      | 132.50   |
| 24  | I     | 4002 | BCR  | C38-C26-C25 | -2.70 | 121.49      | 124.53   |
| 31  | 3     | 803  | LMG  | O8-C28-C29  | 2.70  | 120.39      | 111.91   |
| 21  | 6     | 606  | CLA  | C1D-ND-C4D  | -2.70 | 104.41      | 106.33   |
| 25  | 6     | 801  | LHG  | O8-C23-C24  | 2.70  | 120.39      | 111.91   |
| 36  | 3     | 604  | CHL  | C1-C2-C3    | -2.70 | 121.37      | 126.04   |
| 21  | 1     | 615  | CLA  | C1-C2-C3    | -2.70 | 121.37      | 126.04   |
| 35  | 4     | 502  | XAT  | O24-C25-C38 | -2.70 | 111.82      | 115.06   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 601  | CLA  | C4D-CHA-C1A | 2.70  | 124.53      | 121.25   |
| 24  | 1     | 504  | BCR  | C28-C27-C26 | -2.70 | 109.26      | 114.08   |
| 21  | A     | 1102 | CLA  | C2C-C1C-NC  | 2.70  | 112.50      | 109.97   |
| 21  | 2     | 602  | CLA  | CHA-C4D-ND  | 2.70  | 138.15      | 132.50   |
| 21  | A     | 1104 | CLA  | C4D-C3D-CAD | 2.70  | 111.28      | 108.10   |
| 21  | L     | 1503 | CLA  | CMB-C2B-C1B | -2.70 | 124.32      | 128.46   |
| 21  | J     | 1901 | CLA  | C1C-C2C-C3C | -2.70 | 104.12      | 106.96   |
| 21  | A     | 1107 | CLA  | C1D-ND-C4D  | -2.70 | 104.42      | 106.33   |
| 21  | 1     | 603  | CLA  | C1D-ND-C4D  | -2.70 | 104.42      | 106.33   |
| 35  | 2     | 502  | XAT  | C6-C7-C8    | -2.70 | 120.29      | 125.99   |
| 21  | B     | 1217 | CLA  | CMA-C3A-C4A | 2.70  | 119.02      | 111.77   |
| 21  | A     | 1140 | CLA  | C1-C2-C3    | -2.70 | 121.38      | 126.04   |
| 24  | 3     | 506  | BCR  | C34-C9-C10  | -2.69 | 119.15      | 122.92   |
| 21  | A     | 1107 | CLA  | C1C-C2C-C3C | -2.69 | 104.12      | 106.96   |
| 21  | A     | 1134 | CLA  | O2D-CGD-O1D | -2.69 | 118.57      | 123.84   |
| 28  | 3     | 805  | DGD  | O1G-C1A-C2A | 2.69  | 120.36      | 111.91   |
| 21  | 3     | 613  | CLA  | CMB-C2B-C1B | -2.69 | 124.33      | 128.46   |
| 21  | B     | 1232 | CLA  | C1C-C2C-C3C | -2.69 | 104.13      | 106.96   |
| 24  | A     | 4003 | BCR  | C35-C13-C12 | 2.69  | 122.32      | 118.08   |
| 34  | 2     | 501  | LUT  | C3-C4-C5    | -2.69 | 106.50      | 111.85   |
| 21  | 3     | 602  | CLA  | CHD-C1D-ND  | -2.69 | 121.98      | 124.45   |
| 36  | 2     | 613  | CHL  | CHD-C1D-ND  | -2.69 | 121.98      | 124.45   |
| 21  | 2     | 607  | CLA  | CHD-C1D-ND  | -2.69 | 121.98      | 124.45   |
| 21  | B     | 1232 | CLA  | CHA-C4D-ND  | 2.69  | 138.12      | 132.50   |
| 21  | B     | 1218 | CLA  | CAA-C2A-C1A | -2.69 | 103.17      | 111.97   |
| 21  | A     | 1013 | CLA  | C4-C3-C5    | 2.69  | 119.79      | 115.27   |
| 21  | B     | 1206 | CLA  | C1C-C2C-C3C | -2.69 | 104.13      | 106.96   |
| 21  | A     | 1138 | CLA  | O2A-CGA-CBA | 2.69  | 120.34      | 111.91   |
| 21  | B     | 1217 | CLA  | CHD-C1D-ND  | -2.69 | 121.99      | 124.45   |
| 21  | 1     | 615  | CLA  | CMA-C3A-C4A | 2.69  | 118.99      | 111.77   |
| 21  | B     | 1240 | CLA  | C2D-C1D-ND  | 2.69  | 112.08      | 110.10   |
| 21  | L     | 1503 | CLA  | C2D-C1D-ND  | 2.69  | 112.08      | 110.10   |
| 21  | 2     | 606  | CLA  | O2A-CGA-CBA | 2.69  | 120.33      | 111.91   |
| 21  | B     | 1218 | CLA  | O2D-CGD-O1D | -2.69 | 118.59      | 123.84   |
| 21  | B     | 1223 | CLA  | O2D-CGD-O1D | -2.69 | 118.59      | 123.84   |
| 21  | A     | 1106 | CLA  | CMB-C2B-C1B | -2.69 | 124.34      | 128.46   |
| 21  | A     | 1122 | CLA  | CMA-C3A-C4A | 2.68  | 118.99      | 111.77   |
| 28  | 3     | 804  | DGD  | O1G-C1A-C2A | 2.68  | 120.33      | 111.91   |
| 21  | B     | 1209 | CLA  | CHA-C4D-ND  | 2.68  | 138.11      | 132.50   |
| 21  | B     | 1221 | CLA  | O1D-CGD-CBD | -2.68 | 118.99      | 124.48   |
| 21  | 5     | 602  | CLA  | O2D-CGD-O1D | -2.68 | 118.59      | 123.84   |
| 25  | 4     | 801  | LHG  | C5-O7-C7    | -2.68 | 111.19      | 117.79   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1114 | CLA  | C1C-C2C-C3C | -2.68 | 104.14      | 106.96   |
| 21  | 2     | 615  | CLA  | CHD-C1D-ND  | -2.68 | 121.99      | 124.45   |
| 21  | 4     | 615  | CLA  | CHA-C4D-ND  | 2.68  | 138.11      | 132.50   |
| 21  | 1     | 604  | CLA  | CMB-C2B-C1B | -2.68 | 124.34      | 128.46   |
| 21  | B     | 1022 | CLA  | CMA-C3A-C4A | 2.68  | 118.98      | 111.77   |
| 35  | 6     | 502  | XAT  | C26-C27-C28 | -2.68 | 120.33      | 125.99   |
| 21  | B     | 1235 | CLA  | C1C-C2C-C3C | -2.68 | 104.14      | 106.96   |
| 21  | B     | 1227 | CLA  | C2C-C1C-NC  | 2.68  | 112.48      | 109.97   |
| 21  | 3     | 603  | CLA  | CHA-C4D-ND  | 2.68  | 138.10      | 132.50   |
| 21  | 2     | 605  | CLA  | CMA-C3A-C4A | 2.68  | 118.97      | 111.77   |
| 36  | 5     | 609  | CHL  | C1-O2A-CGA  | 2.68  | 123.47      | 116.44   |
| 21  | A     | 1125 | CLA  | CMB-C2B-C3B | 2.68  | 129.69      | 124.68   |
| 21  | A     | 1115 | CLA  | C1D-ND-C4D  | -2.68 | 104.43      | 106.33   |
| 21  | 6     | 612  | CLA  | C1C-C2C-C3C | -2.68 | 104.14      | 106.96   |
| 21  | B     | 1220 | CLA  | O2A-CGA-CBA | 2.68  | 120.31      | 111.91   |
| 36  | 1     | 610  | CHL  | CHD-C4C-C3C | 2.68  | 128.78      | 124.84   |
| 21  | 3     | 607  | CLA  | C1-C2-C3    | -2.68 | 121.41      | 126.04   |
| 21  | A     | 1138 | CLA  | CHD-C1D-ND  | -2.68 | 121.99      | 124.45   |
| 21  | 3     | 608  | CLA  | O2A-CGA-CBA | 2.68  | 120.31      | 111.91   |
| 21  | A     | 1136 | CLA  | O2D-CGD-O1D | -2.68 | 118.61      | 123.84   |
| 21  | 2     | 607  | CLA  | C1C-C2C-C3C | -2.68 | 104.14      | 106.96   |
| 21  | B     | 1221 | CLA  | CHA-C4D-ND  | 2.68  | 138.10      | 132.50   |
| 21  | 3     | 603  | CLA  | CMA-C3A-C4A | 2.67  | 118.96      | 111.77   |
| 25  | 2     | 801  | LHG  | O8-C23-C24  | 2.67  | 120.30      | 111.91   |
| 21  | A     | 1119 | CLA  | C2D-C1D-ND  | 2.67  | 112.07      | 110.10   |
| 27  | 6     | 805  | LMU  | O5'-C5'-C6' | 2.67  | 113.08      | 106.44   |
| 21  | A     | 1105 | CLA  | O2D-CGD-O1D | -2.67 | 118.61      | 123.84   |
| 21  | B     | 1215 | CLA  | CMA-C3A-C4A | 2.67  | 118.95      | 111.77   |
| 21  | B     | 1223 | CLA  | CMA-C3A-C4A | 2.67  | 118.95      | 111.77   |
| 21  | B     | 1214 | CLA  | O2D-CGD-O1D | -2.67 | 118.62      | 123.84   |
| 21  | B     | 1230 | CLA  | C2C-C1C-NC  | 2.67  | 112.47      | 109.97   |
| 21  | 3     | 608  | CLA  | O2D-CGD-O1D | -2.67 | 118.62      | 123.84   |
| 21  | 1     | 615  | CLA  | CMC-C2C-C1C | 2.67  | 129.10      | 125.04   |
| 21  | 6     | 608  | CLA  | C1C-C2C-C3C | -2.67 | 104.15      | 106.96   |
| 24  | H     | 4001 | BCR  | C1-C6-C5    | -2.67 | 118.85      | 122.61   |
| 21  | A     | 1127 | CLA  | C6-C5-C3    | -2.67 | 106.46      | 113.45   |
| 21  | 5     | 612  | CLA  | CAA-CBA-CGA | -2.67 | 105.46      | 113.25   |
| 21  | A     | 1117 | CLA  | C2D-C1D-ND  | 2.67  | 112.07      | 110.10   |
| 21  | 5     | 606  | CLA  | C1C-C2C-C3C | -2.67 | 104.15      | 106.96   |
| 21  | A     | 1116 | CLA  | CHD-C1D-ND  | -2.67 | 122.00      | 124.45   |
| 21  | B     | 1204 | CLA  | CHD-C1D-ND  | -2.67 | 122.00      | 124.45   |
| 24  | 3     | 506  | BCR  | C4-C5-C6    | -2.67 | 118.86      | 122.73   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1234 | CLA  | O2D-CGD-O1D | -2.67 | 118.62      | 123.84   |
| 34  | 5     | 501  | LUT  | C22-C23-C24 | 2.67  | 114.78      | 111.74   |
| 21  | 6     | 605  | CLA  | C10-C8-C7   | -2.67 | 98.11       | 112.13   |
| 21  | 1     | 606  | CLA  | CHA-C1A-NA  | -2.66 | 120.30      | 126.40   |
| 24  | L     | 4002 | BCR  | C36-C18-C17 | -2.66 | 119.19      | 122.92   |
| 21  | A     | 1108 | CLA  | C1C-C2C-C3C | -2.66 | 104.16      | 106.96   |
| 21  | B     | 1223 | CLA  | C1C-C2C-C3C | -2.66 | 104.16      | 106.96   |
| 21  | B     | 1231 | CLA  | CHA-C4D-ND  | 2.66  | 138.07      | 132.50   |
| 21  | B     | 1202 | CLA  | O2D-CGD-O1D | -2.66 | 118.63      | 123.84   |
| 21  | A     | 1012 | CLA  | C1C-C2C-C3C | -2.66 | 104.16      | 106.96   |
| 21  | A     | 1013 | CLA  | CAA-C2A-C3A | -2.66 | 105.49      | 112.78   |
| 21  | 4     | 608  | CLA  | C1C-C2C-C3C | -2.66 | 104.16      | 106.96   |
| 35  | 4     | 502  | XAT  | C24-C23-C22 | -2.66 | 105.63      | 110.77   |
| 21  | K     | 1404 | CLA  | O2D-CGD-O1D | -2.66 | 118.64      | 123.84   |
| 24  | I     | 4001 | BCR  | C38-C26-C27 | 2.66  | 118.73      | 113.62   |
| 21  | B     | 1223 | CLA  | CHA-C4D-ND  | 2.66  | 138.06      | 132.50   |
| 31  | 4     | 803  | LMG  | O8-C28-C29  | 2.66  | 120.25      | 111.91   |
| 25  | 5     | 802  | LHG  | O8-C23-C24  | 2.66  | 120.25      | 111.91   |
| 36  | 2     | 611  | CHL  | CMA-C3A-C4A | 2.66  | 118.92      | 111.77   |
| 34  | 4     | 501  | LUT  | C10-C11-C12 | -2.66 | 114.92      | 123.22   |
| 33  | O     | 5002 | PTY  | O4-C30-C31  | 2.66  | 120.24      | 111.91   |
| 21  | B     | 1225 | CLA  | C2D-C1D-ND  | 2.66  | 112.06      | 110.10   |
| 21  | 3     | 607  | CLA  | CHD-C1D-ND  | -2.66 | 122.01      | 124.45   |
| 21  | A     | 1130 | CLA  | CMA-C3A-C4A | 2.66  | 118.91      | 111.77   |
| 21  | A     | 1112 | CLA  | C1C-C2C-C3C | -2.65 | 104.17      | 106.96   |
| 21  | H     | 1701 | CLA  | CHD-C1D-ND  | -2.65 | 122.02      | 124.45   |
| 21  | B     | 1211 | CLA  | CMD-C2D-C3D | -2.65 | 121.51      | 127.61   |
| 21  | B     | 1205 | CLA  | O2D-CGD-O1D | -2.65 | 118.65      | 123.84   |
| 21  | 2     | 607  | CLA  | O2A-CGA-CBA | 2.65  | 120.23      | 111.91   |
| 24  | A     | 4001 | BCR  | C38-C26-C25 | -2.65 | 121.55      | 124.53   |
| 21  | B     | 1237 | CLA  | O2A-CGA-CBA | 2.65  | 120.22      | 111.91   |
| 21  | 5     | 603  | CLA  | CHA-C4D-ND  | 2.65  | 138.04      | 132.50   |
| 21  | A     | 1132 | CLA  | O2D-CGD-O1D | -2.65 | 118.66      | 123.84   |
| 21  | 5     | 608  | CLA  | C1C-C2C-C3C | -2.65 | 104.17      | 106.96   |
| 21  | B     | 1224 | CLA  | O2A-CGA-CBA | 2.65  | 120.22      | 111.91   |
| 21  | 2     | 607  | CLA  | CHA-C4D-ND  | 2.65  | 138.04      | 132.50   |
| 21  | B     | 1207 | CLA  | C1C-C2C-C3C | -2.65 | 104.17      | 106.96   |
| 21  | 4     | 603  | CLA  | CMB-C2B-C3B | 2.65  | 129.63      | 124.68   |
| 24  | A     | 4004 | BCR  | C36-C18-C17 | -2.65 | 119.22      | 122.92   |
| 36  | 1     | 609  | CHL  | C2C-C3C-C4C | 2.65  | 108.38      | 106.49   |
| 21  | A     | 1127 | CLA  | CAA-C2A-C3A | -2.65 | 105.53      | 112.78   |
| 36  | 2     | 609  | CHL  | C1-O2A-CGA  | 2.65  | 123.39      | 116.44   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1225 | CLA  | CHD-C1D-ND  | -2.65 | 122.02      | 124.45   |
| 24  | A     | 4003 | BCR  | C33-C5-C4   | 2.64  | 118.70      | 113.62   |
| 24  | J     | 4001 | BCR  | C36-C18-C17 | -2.64 | 119.22      | 122.92   |
| 21  | A     | 1103 | CLA  | O2D-CGD-O1D | -2.64 | 118.67      | 123.84   |
| 35  | 4     | 502  | XAT  | C11-C10-C9  | 2.64  | 131.08      | 127.31   |
| 24  | J     | 4002 | BCR  | C32-C1-C6   | -2.64 | 106.01      | 110.30   |
| 21  | 3     | 614  | CLA  | C2D-C1D-ND  | 2.64  | 112.05      | 110.10   |
| 39  | 2     | 808  | P3H  | O19-C17-C16 | 2.64  | 120.20      | 111.91   |
| 21  | 4     | 612  | CLA  | CHA-C4D-ND  | 2.64  | 138.03      | 132.50   |
| 21  | A     | 1110 | CLA  | CMA-C3A-C4A | 2.64  | 118.88      | 111.77   |
| 21  | B     | 1226 | CLA  | O2A-CGA-CBA | 2.64  | 120.20      | 111.91   |
| 21  | A     | 1109 | CLA  | C4-C3-C5    | 2.64  | 119.71      | 115.27   |
| 35  | 4     | 502  | XAT  | C6-C7-C8    | -2.64 | 120.41      | 125.99   |
| 21  | G     | 1601 | CLA  | C1C-C2C-C3C | -2.64 | 104.18      | 106.96   |
| 21  | 3     | 610  | CLA  | C1C-C2C-C3C | -2.64 | 104.18      | 106.96   |
| 36  | 4     | 611  | CHL  | CMA-C3A-C4A | 2.64  | 118.87      | 111.77   |
| 24  | B     | 4005 | BCR  | C27-C26-C25 | -2.64 | 118.90      | 122.73   |
| 21  | 1     | 608  | CLA  | C1C-C2C-C3C | -2.64 | 104.18      | 106.96   |
| 24  | A     | 4004 | BCR  | C27-C26-C25 | -2.64 | 118.90      | 122.73   |
| 34  | 5     | 503  | LUT  | C18-C5-C4   | 2.64  | 119.24      | 114.36   |
| 21  | B     | 1215 | CLA  | CMB-C2B-C1B | -2.64 | 124.41      | 128.46   |
| 21  | 4     | 605  | CLA  | CMA-C3A-C4A | 2.64  | 118.86      | 111.77   |
| 21  | A     | 1102 | CLA  | CHA-C4D-ND  | 2.64  | 138.02      | 132.50   |
| 21  | B     | 1234 | CLA  | CHD-C1D-ND  | -2.64 | 122.03      | 124.45   |
| 24  | 2     | 503  | BCR  | C35-C13-C12 | 2.64  | 122.23      | 118.08   |
| 21  | 2     | 606  | CLA  | C1C-C2C-C3C | -2.64 | 104.19      | 106.96   |
| 21  | 3     | 615  | CLA  | C1C-C2C-C3C | -2.64 | 104.19      | 106.96   |
| 21  | 2     | 603  | CLA  | C2C-C1C-NC  | 2.63  | 112.44      | 109.97   |
| 21  | K     | 1402 | CLA  | C1C-C2C-C3C | -2.63 | 104.19      | 106.96   |
| 21  | A     | 1141 | CLA  | C3D-C2D-C1D | -2.63 | 102.24      | 105.83   |
| 21  | A     | 1132 | CLA  | C1C-C2C-C3C | -2.63 | 104.19      | 106.96   |
| 21  | 4     | 607  | CLA  | C1C-C2C-C3C | -2.63 | 104.19      | 106.96   |
| 21  | 6     | 601  | CLA  | C1C-C2C-C3C | -2.63 | 104.19      | 106.96   |
| 21  | A     | 1013 | CLA  | C2A-C1A-CHA | 2.63  | 128.46      | 123.86   |
| 21  | B     | 1227 | CLA  | O2D-CGD-O1D | -2.63 | 118.70      | 123.84   |
| 24  | B     | 4004 | BCR  | C31-C1-C6   | -2.63 | 106.04      | 110.30   |
| 21  | 4     | 603  | CLA  | C2D-C1D-ND  | 2.63  | 112.04      | 110.10   |
| 24  | A     | 4003 | BCR  | C36-C18-C17 | -2.63 | 119.24      | 122.92   |
| 24  | 3     | 503  | BCR  | C23-C24-C25 | -2.63 | 119.82      | 127.20   |
| 21  | 4     | 603  | CLA  | C2C-C1C-NC  | 2.63  | 112.43      | 109.97   |
| 21  | A     | 1141 | CLA  | C1C-C2C-C3C | -2.63 | 104.20      | 106.96   |
| 21  | B     | 1205 | CLA  | C1C-C2C-C3C | -2.63 | 104.20      | 106.96   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | J     | 1901 | CLA  | CHA-C4D-ND  | 2.63  | 137.99      | 132.50   |
| 21  | B     | 1239 | CLA  | C1C-C2C-C3C | -2.62 | 104.20      | 106.96   |
| 34  | 2     | 501  | LUT  | C30-C31-C32 | -2.62 | 115.03      | 123.22   |
| 21  | A     | 1119 | CLA  | CMB-C2B-C3B | 2.62  | 129.59      | 124.68   |
| 21  | 1     | 606  | CLA  | CHA-C4D-ND  | 2.62  | 137.99      | 132.50   |
| 21  | 6     | 605  | CLA  | C1C-C2C-C3C | -2.62 | 104.20      | 106.96   |
| 21  | B     | 1217 | CLA  | CHA-C1A-NA  | -2.62 | 120.39      | 126.40   |
| 21  | 4     | 605  | CLA  | OBD-CAD-C3D | -2.62 | 122.21      | 128.52   |
| 21  | K     | 1404 | CLA  | C1C-C2C-C3C | -2.62 | 104.20      | 106.96   |
| 34  | 5     | 501  | LUT  | C10-C11-C12 | -2.62 | 115.04      | 123.22   |
| 21  | B     | 1234 | CLA  | CMB-C2B-C1B | -2.62 | 124.44      | 128.46   |
| 21  | B     | 1213 | CLA  | CMB-C2B-C3B | 2.62  | 129.58      | 124.68   |
| 21  | B     | 1227 | CLA  | CMA-C3A-C4A | 2.62  | 118.81      | 111.77   |
| 21  | 1     | 607  | CLA  | C2D-C1D-ND  | 2.62  | 112.03      | 110.10   |
| 24  | 4     | 503  | BCR  | C3-C4-C5    | -2.62 | 109.40      | 114.08   |
| 21  | G     | 1602 | CLA  | C1C-C2C-C3C | -2.62 | 104.20      | 106.96   |
| 31  | 6     | 802  | LMG  | O8-C28-C29  | 2.62  | 120.12      | 111.91   |
| 21  | B     | 1237 | CLA  | O2D-CGD-O1D | -2.62 | 118.72      | 123.84   |
| 35  | 3     | 502  | XAT  | C19-C9-C10  | -2.62 | 119.26      | 122.92   |
| 21  | 1     | 602  | CLA  | C1C-C2C-C3C | -2.62 | 104.20      | 106.96   |
| 21  | A     | 1138 | CLA  | CMB-C2B-C1B | -2.62 | 124.44      | 128.46   |
| 21  | 4     | 605  | CLA  | C1C-C2C-C3C | -2.62 | 104.21      | 106.96   |
| 21  | 3     | 612  | CLA  | C1C-C2C-C3C | -2.62 | 104.21      | 106.96   |
| 21  | O     | 1802 | CLA  | CAB-C3B-C4B | -2.61 | 124.44      | 128.46   |
| 21  | 2     | 605  | CLA  | CAA-C2A-C3A | -2.61 | 105.62      | 112.78   |
| 21  | 4     | 606  | CLA  | C1C-C2C-C3C | -2.61 | 104.21      | 106.96   |
| 34  | 4     | 501  | LUT  | C36-C21-C26 | 2.61  | 113.50      | 109.55   |
| 21  | B     | 1226 | CLA  | CAA-C2A-C3A | -2.61 | 105.62      | 112.78   |
| 21  | A     | 1102 | CLA  | C1C-C2C-C3C | -2.61 | 104.21      | 106.96   |
| 21  | 6     | 602  | CLA  | C1C-C2C-C3C | -2.61 | 104.21      | 106.96   |
| 21  | A     | 1125 | CLA  | C3D-C2D-C1D | -2.61 | 102.27      | 105.83   |
| 36  | 1     | 609  | CHL  | C1-O2A-CGA  | 2.61  | 123.30      | 116.44   |
| 21  | 1     | 615  | CLA  | CHA-C4D-ND  | 2.61  | 137.96      | 132.50   |
| 21  | 6     | 609  | CLA  | C2D-C1D-ND  | 2.61  | 112.03      | 110.10   |
| 21  | K     | 1402 | CLA  | O2D-CGD-O1D | -2.61 | 118.73      | 123.84   |
| 24  | F     | 4002 | BCR  | C27-C26-C25 | -2.61 | 118.94      | 122.73   |
| 38  | 2     | 807  | LMK  | C12-C11-C10 | -2.61 | 107.34      | 113.38   |
| 21  | A     | 1121 | CLA  | C1C-C2C-C3C | -2.61 | 104.21      | 106.96   |
| 21  | 2     | 605  | CLA  | O2A-CGA-CBA | 2.61  | 120.10      | 111.91   |
| 21  | 6     | 605  | CLA  | CHA-C4D-ND  | 2.61  | 137.96      | 132.50   |
| 21  | 3     | 611  | CLA  | CMB-C2B-C3B | 2.61  | 129.56      | 124.68   |
| 21  | B     | 1228 | CLA  | O2D-CGD-O1D | -2.61 | 118.74      | 123.84   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1232 | CLA  | CMA-C3A-C4A | 2.61  | 118.78      | 111.77   |
| 28  | B     | 5002 | DGD  | C2G-O2G-C1B | -2.61 | 111.37      | 117.79   |
| 21  | 1     | 607  | CLA  | C1C-C2C-C3C | -2.61 | 104.21      | 106.96   |
| 33  | 4     | 804  | PTY  | O4-C30-C31  | 2.61  | 120.09      | 111.91   |
| 21  | 2     | 605  | CLA  | C1-C2-C3    | -2.61 | 121.53      | 126.04   |
| 21  | 1     | 612  | CLA  | CHA-C4D-ND  | 2.61  | 137.96      | 132.50   |
| 21  | A     | 1116 | CLA  | C1C-C2C-C3C | -2.61 | 104.22      | 106.96   |
| 21  | 5     | 601  | CLA  | C1D-ND-C4D  | -2.61 | 104.48      | 106.33   |
| 21  | A     | 1124 | CLA  | C2C-C1C-NC  | 2.61  | 112.41      | 109.97   |
| 21  | B     | 1239 | CLA  | O2D-CGD-O1D | -2.61 | 118.74      | 123.84   |
| 25  | A     | 5002 | LHG  | O8-C23-C24  | 2.61  | 120.08      | 111.91   |
| 21  | F     | 1302 | CLA  | C1C-C2C-C3C | -2.61 | 104.22      | 106.96   |
| 21  | A     | 1120 | CLA  | O2D-CGD-O1D | -2.61 | 118.74      | 123.84   |
| 21  | B     | 1237 | CLA  | CHA-C4D-ND  | 2.61  | 137.95      | 132.50   |
| 21  | B     | 1213 | CLA  | C1D-ND-C4D  | -2.60 | 104.48      | 106.33   |
| 21  | B     | 1208 | CLA  | C1C-C2C-C3C | -2.60 | 104.22      | 106.96   |
| 21  | B     | 1221 | CLA  | CBC-CAC-C3C | -2.60 | 105.25      | 112.43   |
| 21  | 3     | 602  | CLA  | CHA-C4D-ND  | 2.60  | 137.94      | 132.50   |
| 21  | 5     | 601  | CLA  | CHA-C4D-ND  | 2.60  | 137.94      | 132.50   |
| 21  | A     | 1013 | CLA  | C1-C2-C3    | -2.60 | 121.54      | 126.04   |
| 21  | 1     | 606  | CLA  | C1-O2A-CGA  | 2.60  | 123.27      | 116.44   |
| 21  | B     | 1214 | CLA  | CHA-C4D-ND  | 2.60  | 137.94      | 132.50   |
| 21  | 3     | 601  | CLA  | C1-C2-C3    | -2.60 | 121.55      | 126.04   |
| 21  | O     | 1803 | CLA  | C1C-C2C-C3C | -2.60 | 104.22      | 106.96   |
| 21  | B     | 1231 | CLA  | CAA-C2A-C3A | -2.60 | 105.66      | 112.78   |
| 24  | 3     | 506  | BCR  | C3-C4-C5    | -2.60 | 109.44      | 114.08   |
| 21  | 1     | 613  | CLA  | CHD-C1D-ND  | -2.60 | 122.07      | 124.45   |
| 21  | A     | 1131 | CLA  | CMD-C2D-C3D | -2.60 | 121.64      | 127.61   |
| 34  | 5     | 502  | LUT  | C18-C5-C4   | 2.60  | 119.17      | 114.36   |
| 21  | 3     | 615  | CLA  | O2D-CGD-O1D | -2.60 | 118.76      | 123.84   |
| 21  | L     | 1504 | CLA  | C1C-C2C-C3C | -2.60 | 104.23      | 106.96   |
| 24  | J     | 4001 | BCR  | C12-C13-C14 | -2.60 | 114.96      | 118.94   |
| 21  | 5     | 601  | CLA  | CAC-C3C-C4C | 2.60  | 128.18      | 124.81   |
| 24  | F     | 4001 | BCR  | C19-C18-C17 | 2.60  | 122.92      | 118.94   |
| 21  | B     | 1226 | CLA  | O2D-CGD-O1D | -2.60 | 118.76      | 123.84   |
| 21  | 4     | 602  | CLA  | C1C-C2C-C3C | -2.60 | 104.23      | 106.96   |
| 21  | B     | 1202 | CLA  | CHA-C1A-NA  | -2.60 | 120.45      | 126.40   |
| 24  | B     | 4004 | BCR  | C35-C13-C12 | 2.60  | 122.17      | 118.08   |
| 21  | 4     | 612  | CLA  | C2C-C1C-NC  | 2.59  | 112.40      | 109.97   |
| 21  | B     | 1021 | CLA  | CAA-CBA-CGA | -2.59 | 105.67      | 113.25   |
| 21  | A     | 1114 | CLA  | O2A-CGA-CBA | 2.59  | 120.05      | 111.91   |
| 21  | 1     | 601  | CLA  | C1C-C2C-C3C | -2.59 | 104.23      | 106.96   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 36  | 2     | 611  | CHL  | C1-O2A-CGA  | 2.59  | 124.27      | 116.73   |
| 21  | B     | 1222 | CLA  | C1-C2-C3    | -2.59 | 121.56      | 126.04   |
| 21  | A     | 1140 | CLA  | C1-O2A-CGA  | 2.59  | 123.25      | 116.44   |
| 21  | B     | 1235 | CLA  | O2D-CGD-O1D | -2.59 | 118.77      | 123.84   |
| 21  | A     | 1122 | CLA  | O2D-CGD-O1D | -2.59 | 118.77      | 123.84   |
| 21  | A     | 1115 | CLA  | CHD-C1D-ND  | -2.59 | 122.07      | 124.45   |
| 21  | A     | 1101 | CLA  | CHA-C4D-ND  | 2.59  | 137.92      | 132.50   |
| 21  | B     | 1238 | CLA  | C1-C2-C3    | -2.59 | 121.56      | 126.04   |
| 21  | A     | 1117 | CLA  | CHD-C1D-ND  | -2.59 | 122.07      | 124.45   |
| 21  | A     | 1125 | CLA  | O2D-CGD-O1D | -2.59 | 118.77      | 123.84   |
| 21  | A     | 1136 | CLA  | C1-C2-C3    | -2.59 | 121.56      | 126.04   |
| 24  | 4     | 503  | BCR  | C33-C5-C6   | -2.59 | 121.62      | 124.53   |
| 21  | 6     | 605  | CLA  | C1D-ND-C4D  | -2.59 | 104.50      | 106.33   |
| 21  | A     | 1138 | CLA  | C2C-C1C-NC  | 2.59  | 112.40      | 109.97   |
| 21  | A     | 1111 | CLA  | O1D-CGD-CBD | -2.59 | 119.19      | 124.48   |
| 21  | B     | 1237 | CLA  | C4-C3-C5    | 2.59  | 119.62      | 115.27   |
| 21  | 6     | 603  | CLA  | C1C-C2C-C3C | -2.59 | 104.24      | 106.96   |
| 32  | L     | 5002 | 4RF  | O18-C16-C15 | 2.59  | 120.03      | 111.91   |
| 35  | 6     | 504  | XAT  | C6-C7-C8    | -2.59 | 120.52      | 125.99   |
| 21  | A     | 1135 | CLA  | O2D-CGD-O1D | -2.59 | 118.78      | 123.84   |
| 21  | B     | 1217 | CLA  | CMB-C2B-C1B | -2.59 | 124.49      | 128.46   |
| 21  | 3     | 612  | CLA  | CHA-C4D-ND  | 2.59  | 137.91      | 132.50   |
| 34  | 6     | 501  | LUT  | C18-C5-C4   | 2.59  | 119.15      | 114.36   |
| 21  | A     | 1012 | CLA  | OBD-CAD-C3D | -2.59 | 122.30      | 128.52   |
| 21  | B     | 1202 | CLA  | CHA-C4D-ND  | 2.59  | 137.91      | 132.50   |
| 24  | B     | 4006 | BCR  | C37-C22-C23 | 2.59  | 122.15      | 118.08   |
| 21  | 1     | 611  | CLA  | C1C-C2C-C3C | -2.59 | 104.24      | 106.96   |
| 21  | A     | 1103 | CLA  | CAA-C2A-C1A | -2.59 | 103.50      | 111.97   |
| 21  | O     | 1802 | CLA  | CMB-C2B-C3B | 2.59  | 129.75      | 124.69   |
| 24  | A     | 4006 | BCR  | C37-C22-C23 | 2.59  | 122.15      | 118.08   |
| 21  | B     | 1023 | CLA  | C1C-C2C-C3C | -2.58 | 104.24      | 106.96   |
| 29  | 5     | 804  | 3PH  | O31-C31-C32 | 2.58  | 120.02      | 111.91   |
| 21  | B     | 1209 | CLA  | CHD-C1D-ND  | -2.58 | 122.08      | 124.45   |
| 21  | 6     | 613  | CLA  | CHA-C4D-ND  | 2.58  | 137.91      | 132.50   |
| 21  | A     | 1117 | CLA  | O1D-CGD-CBD | -2.58 | 119.20      | 124.48   |
| 21  | A     | 1140 | CLA  | CHD-C1D-ND  | -2.58 | 122.08      | 124.45   |
| 21  | 4     | 609  | CLA  | O2A-CGA-CBA | 2.58  | 120.01      | 111.91   |
| 21  | 5     | 601  | CLA  | O1D-CGD-CBD | -2.58 | 119.20      | 124.48   |
| 21  | A     | 1134 | CLA  | C1C-C2C-C3C | -2.58 | 104.24      | 106.96   |
| 39  | 5     | 806  | P3H  | O19-C17-C16 | 2.58  | 120.00      | 111.91   |
| 21  | A     | 1012 | CLA  | O2A-CGA-CBA | 2.58  | 120.00      | 111.91   |
| 35  | 6     | 504  | XAT  | C39-C29-C28 | 2.58  | 122.14      | 118.08   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1224 | CLA  | O1D-CGD-CBD | -2.58 | 119.21      | 124.48   |
| 21  | B     | 1213 | CLA  | C3D-C2D-C1D | -2.58 | 102.31      | 105.83   |
| 36  | 2     | 611  | CHL  | C3C-C4C-NC  | -2.58 | 107.68      | 110.57   |
| 24  | I     | 4002 | BCR  | C36-C18-C17 | -2.58 | 119.31      | 122.92   |
| 21  | 1     | 603  | CLA  | CHA-C4D-ND  | 2.58  | 137.89      | 132.50   |
| 21  | G     | 1603 | CLA  | CAC-C3C-C2C | -2.58 | 123.12      | 127.53   |
| 21  | K     | 1402 | CLA  | O2A-CGA-CBA | 2.57  | 119.99      | 111.91   |
| 21  | 4     | 606  | CLA  | C2D-C1D-ND  | 2.57  | 112.00      | 110.10   |
| 21  | 1     | 603  | CLA  | CMC-C2C-C1C | 2.57  | 128.96      | 125.04   |
| 21  | B     | 1225 | CLA  | CHA-C4D-ND  | 2.57  | 137.88      | 132.50   |
| 24  | B     | 4002 | BCR  | C15-C14-C13 | -2.57 | 123.64      | 127.31   |
| 21  | A     | 1101 | CLA  | CMA-C3A-C4A | 2.57  | 118.69      | 111.77   |
| 34  | 5     | 502  | LUT  | C8-C7-C6    | -2.57 | 119.98      | 127.20   |
| 21  | B     | 1022 | CLA  | O2D-CGD-O1D | -2.57 | 118.81      | 123.84   |
| 21  | 5     | 605  | CLA  | C1C-C2C-C3C | -2.57 | 104.25      | 106.96   |
| 34  | 1     | 501  | LUT  | C22-C23-C24 | -2.57 | 108.82      | 111.74   |
| 21  | 5     | 604  | CLA  | C1C-C2C-C3C | -2.57 | 104.25      | 106.96   |
| 21  | A     | 1140 | CLA  | O2D-CGD-O1D | -2.57 | 118.81      | 123.84   |
| 21  | 2     | 601  | CLA  | C3D-C2D-C1D | -2.57 | 102.33      | 105.83   |
| 24  | I     | 4002 | BCR  | C27-C26-C25 | -2.57 | 119.00      | 122.73   |
| 35  | 3     | 502  | XAT  | C18-C5-C4   | 2.57  | 117.17      | 114.28   |
| 21  | 4     | 615  | CLA  | C1-C2-C3    | -2.57 | 121.60      | 126.04   |
| 36  | 4     | 611  | CHL  | C1-O2A-CGA  | 2.57  | 123.18      | 116.44   |
| 21  | B     | 1217 | CLA  | C1C-C2C-C3C | -2.57 | 104.26      | 106.96   |
| 21  | 3     | 602  | CLA  | O2A-CGA-CBA | 2.57  | 119.97      | 111.91   |
| 21  | 4     | 615  | CLA  | CHD-C1D-ND  | -2.57 | 122.09      | 124.45   |
| 21  | B     | 1207 | CLA  | C1D-ND-C4D  | -2.57 | 104.51      | 106.33   |
| 21  | A     | 1115 | CLA  | CHA-C4D-ND  | 2.57  | 137.87      | 132.50   |
| 21  | A     | 1120 | CLA  | C1C-C2C-C3C | -2.57 | 104.26      | 106.96   |
| 21  | B     | 1205 | CLA  | CMA-C3A-C4A | 2.57  | 118.67      | 111.77   |
| 21  | 6     | 605  | CLA  | C2C-C1C-NC  | 2.57  | 112.38      | 109.97   |
| 21  | A     | 1115 | CLA  | O2D-CGD-O1D | -2.57 | 118.82      | 123.84   |
| 21  | A     | 1131 | CLA  | CHD-C1D-ND  | -2.57 | 122.09      | 124.45   |
| 21  | B     | 1234 | CLA  | CHA-C4D-ND  | 2.57  | 137.87      | 132.50   |
| 21  | B     | 1208 | CLA  | O2D-CGD-O1D | -2.57 | 118.82      | 123.84   |
| 21  | 5     | 608  | CLA  | C1-C2-C3    | -2.56 | 121.61      | 126.04   |
| 21  | B     | 1222 | CLA  | CHA-C4D-ND  | 2.56  | 137.86      | 132.50   |
| 21  | 3     | 608  | CLA  | CHA-C4D-ND  | 2.56  | 137.86      | 132.50   |
| 21  | 6     | 607  | CLA  | CHA-C4D-ND  | 2.56  | 137.86      | 132.50   |
| 24  | F     | 4002 | BCR  | C35-C13-C12 | 2.56  | 122.11      | 118.08   |
| 36  | 5     | 610  | CHL  | CMA-C3A-C4A | 2.56  | 118.66      | 111.77   |
| 21  | B     | 1219 | CLA  | C2D-C1D-ND  | 2.56  | 111.99      | 110.10   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1103 | CLA  | C2C-C1C-NC  | 2.56  | 112.37      | 109.97   |
| 33  | 5     | 803  | PTY  | O4-C30-C31  | 2.56  | 119.94      | 111.91   |
| 21  | A     | 1140 | CLA  | CHA-C4D-ND  | 2.56  | 137.85      | 132.50   |
| 28  | 2     | 806  | DGD  | O1G-C1A-C2A | 2.56  | 119.94      | 111.91   |
| 21  | K     | 1401 | CLA  | CHA-C4D-ND  | 2.56  | 137.85      | 132.50   |
| 21  | 3     | 611  | CLA  | C1C-C2C-C3C | -2.56 | 104.27      | 106.96   |
| 20  | A     | 1011 | CL0  | CMC-C2C-C1C | 2.56  | 128.93      | 125.04   |
| 21  | B     | 1211 | CLA  | C1C-C2C-C3C | -2.56 | 104.27      | 106.96   |
| 21  | B     | 1021 | CLA  | C2C-C1C-NC  | 2.56  | 112.37      | 109.97   |
| 21  | L     | 1501 | CLA  | C2C-C1C-NC  | 2.56  | 112.37      | 109.97   |
| 21  | 4     | 604  | CLA  | C1C-C2C-C3C | -2.56 | 104.27      | 106.96   |
| 21  | H     | 1701 | CLA  | C2D-C1D-ND  | 2.55  | 111.99      | 110.10   |
| 21  | A     | 1139 | CLA  | C1C-C2C-C3C | -2.55 | 104.27      | 106.96   |
| 36  | 2     | 609  | CHL  | C2C-C3C-C4C | 2.55  | 108.31      | 106.49   |
| 21  | 1     | 605  | CLA  | CHA-C4D-ND  | 2.55  | 137.84      | 132.50   |
| 24  | A     | 4004 | BCR  | C34-C9-C10  | -2.55 | 119.35      | 122.92   |
| 21  | 3     | 612  | CLA  | CHD-C1D-ND  | -2.55 | 122.11      | 124.45   |
| 21  | A     | 1119 | CLA  | CHA-C4D-ND  | 2.55  | 137.84      | 132.50   |
| 21  | B     | 1022 | CLA  | CHA-C4D-ND  | 2.55  | 137.84      | 132.50   |
| 21  | B     | 1210 | CLA  | C6-C5-C3    | -2.55 | 106.77      | 113.45   |
| 29  | F     | 5003 | 3PH  | O31-C31-C32 | 2.55  | 119.91      | 111.91   |
| 21  | A     | 1115 | CLA  | C1C-C2C-C3C | -2.55 | 104.28      | 106.96   |
| 21  | 4     | 602  | CLA  | CHA-C4D-ND  | 2.55  | 137.83      | 132.50   |
| 21  | B     | 1227 | CLA  | O1D-CGD-CBD | -2.55 | 119.27      | 124.48   |
| 21  | A     | 1105 | CLA  | CMC-C2C-C1C | 2.55  | 128.92      | 125.04   |
| 21  | 3     | 605  | CLA  | C2C-C1C-NC  | 2.55  | 112.36      | 109.97   |
| 21  | G     | 1603 | CLA  | C4D-C3D-CAD | 2.55  | 111.10      | 108.10   |
| 21  | B     | 1229 | CLA  | C1C-C2C-C3C | -2.55 | 104.28      | 106.96   |
| 24  | J     | 4002 | BCR  | C1-C6-C5    | -2.55 | 119.02      | 122.61   |
| 21  | A     | 1138 | CLA  | CHA-C4D-ND  | 2.55  | 137.83      | 132.50   |
| 21  | H     | 1702 | CLA  | CHA-C4D-ND  | 2.55  | 137.83      | 132.50   |
| 21  | 3     | 601  | CLA  | C1D-ND-C4D  | -2.55 | 104.53      | 106.33   |
| 21  | 2     | 608  | CLA  | CHA-C4D-ND  | 2.55  | 137.83      | 132.50   |
| 21  | 6     | 609  | CLA  | CHA-C4D-ND  | 2.55  | 137.83      | 132.50   |
| 36  | 2     | 610  | CHL  | CMA-C3A-C4A | 2.55  | 118.61      | 111.77   |
| 21  | 2     | 615  | CLA  | C1C-C2C-C3C | -2.55 | 104.28      | 106.96   |
| 21  | 6     | 602  | CLA  | O2D-CGD-O1D | -2.55 | 118.86      | 123.84   |
| 34  | 5     | 501  | LUT  | C39-C29-C30 | -2.54 | 119.36      | 122.92   |
| 24  | L     | 4001 | BCR  | C19-C18-C17 | 2.54  | 122.85      | 118.94   |
| 36  | 4     | 610  | CHL  | CHD-C1D-ND  | -2.54 | 122.12      | 124.45   |
| 21  | B     | 1238 | CLA  | C1C-C2C-C3C | -2.54 | 104.28      | 106.96   |
| 21  | B     | 1218 | CLA  | CHA-C4D-ND  | 2.54  | 137.82      | 132.50   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1107 | CLA  | O2D-CGD-O1D | -2.54 | 118.87      | 123.84   |
| 21  | B     | 1021 | CLA  | O2D-CGD-O1D | -2.54 | 118.87      | 123.84   |
| 36  | 2     | 610  | CHL  | C4D-CHA-C1A | 2.54  | 124.34      | 121.25   |
| 21  | 6     | 603  | CLA  | O2D-CGD-O1D | -2.54 | 118.87      | 123.84   |
| 21  | B     | 1216 | CLA  | C1C-C2C-C3C | -2.54 | 104.28      | 106.96   |
| 21  | A     | 1126 | CLA  | CHA-C4D-ND  | 2.54  | 137.81      | 132.50   |
| 21  | 2     | 604  | CLA  | CAC-C3C-C4C | 2.54  | 128.11      | 124.81   |
| 21  | K     | 1403 | CLA  | CHA-C4D-ND  | 2.54  | 137.81      | 132.50   |
| 21  | 3     | 607  | CLA  | CHA-C4D-ND  | 2.54  | 137.81      | 132.50   |
| 21  | 2     | 615  | CLA  | CHA-C4D-ND  | 2.54  | 137.81      | 132.50   |
| 21  | 5     | 607  | CLA  | CMA-C3A-C4A | 2.54  | 118.60      | 111.77   |
| 21  | A     | 1109 | CLA  | CHA-C4D-ND  | 2.54  | 137.81      | 132.50   |
| 21  | A     | 1112 | CLA  | O1D-CGD-CBD | -2.54 | 119.29      | 124.48   |
| 21  | A     | 1126 | CLA  | CMC-C2C-C1C | 2.54  | 128.90      | 125.04   |
| 21  | 3     | 603  | CLA  | OBD-CAD-C3D | -2.54 | 122.41      | 128.52   |
| 21  | 2     | 602  | CLA  | C6-C5-C3    | -2.54 | 110.47      | 114.62   |
| 21  | B     | 1212 | CLA  | C1C-C2C-C3C | -2.54 | 104.29      | 106.96   |
| 21  | A     | 1108 | CLA  | CHD-C1D-ND  | -2.54 | 122.12      | 124.45   |
| 21  | A     | 1130 | CLA  | C2C-C1C-NC  | 2.54  | 112.35      | 109.97   |
| 21  | B     | 1221 | CLA  | CMB-C2B-C1B | -2.53 | 124.57      | 128.46   |
| 35  | 1     | 502  | XAT  | C38-C25-C26 | -2.53 | 118.01      | 122.26   |
| 21  | O     | 1802 | CLA  | CHA-C1A-NA  | -2.53 | 120.60      | 126.40   |
| 21  | 2     | 602  | CLA  | C1C-C2C-C3C | -2.53 | 104.29      | 106.96   |
| 24  | J     | 4002 | BCR  | C29-C30-C25 | 2.53  | 114.38      | 110.48   |
| 21  | A     | 1101 | CLA  | CHA-C1A-NA  | -2.53 | 120.60      | 126.40   |
| 21  | 2     | 603  | CLA  | CHA-C4D-ND  | 2.53  | 137.79      | 132.50   |
| 21  | L     | 1503 | CLA  | O1D-CGD-CBD | -2.53 | 119.31      | 124.48   |
| 21  | A     | 1101 | CLA  | C1D-ND-C4D  | -2.53 | 104.54      | 106.33   |
| 21  | 3     | 612  | CLA  | CMA-C3A-C4A | 2.53  | 118.57      | 111.77   |
| 21  | 4     | 603  | CLA  | CHA-C4D-ND  | 2.53  | 137.79      | 132.50   |
| 21  | F     | 1302 | CLA  | O2D-CGD-O1D | -2.53 | 118.89      | 123.84   |
| 24  | K     | 4001 | BCR  | C8-C9-C10   | 2.53  | 122.82      | 118.94   |
| 21  | 3     | 602  | CLA  | CMA-C3A-C4A | 2.53  | 118.57      | 111.77   |
| 21  | 4     | 607  | CLA  | CHA-C4D-ND  | 2.53  | 137.78      | 132.50   |
| 21  | 2     | 612  | CLA  | CMB-C2B-C3B | 2.53  | 129.41      | 124.68   |
| 21  | 1     | 604  | CLA  | O2A-CGA-CBA | 2.52  | 119.83      | 111.91   |
| 21  | A     | 1106 | CLA  | CHA-C4D-ND  | 2.52  | 137.78      | 132.50   |
| 31  | 2     | 804  | LMG  | O8-C28-C29  | 2.52  | 119.83      | 111.91   |
| 36  | 3     | 604  | CHL  | C1D-CHD-C4C | -2.52 | 120.61      | 126.06   |
| 21  | B     | 1219 | CLA  | C1C-C2C-C3C | -2.52 | 104.30      | 106.96   |
| 21  | 6     | 606  | CLA  | O2D-CGD-O1D | -2.52 | 118.91      | 123.84   |
| 21  | B     | 1240 | CLA  | C1C-C2C-C3C | -2.52 | 104.30      | 106.96   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1110 | CLA  | CMD-C2D-C3D | -2.52 | 121.81      | 127.61   |
| 21  | A     | 1104 | CLA  | O2A-CGA-CBA | 2.52  | 119.82      | 111.91   |
| 21  | G     | 1603 | CLA  | CHA-C4D-ND  | 2.52  | 137.77      | 132.50   |
| 21  | A     | 1127 | CLA  | C1C-C2C-C3C | -2.52 | 104.31      | 106.96   |
| 21  | 6     | 605  | CLA  | CBA-CAA-C2A | -2.52 | 106.42      | 113.86   |
| 21  | A     | 1128 | CLA  | CHA-C4D-ND  | 2.52  | 137.77      | 132.50   |
| 21  | 3     | 607  | CLA  | C1C-C2C-C3C | -2.52 | 104.31      | 106.96   |
| 21  | 1     | 602  | CLA  | CHA-C4D-ND  | 2.52  | 137.77      | 132.50   |
| 21  | O     | 1802 | CLA  | CMA-C3A-C4A | 2.52  | 118.54      | 111.77   |
| 36  | 4     | 611  | CHL  | C1-C2-C3    | -2.52 | 122.68      | 126.75   |
| 21  | A     | 1114 | CLA  | CHA-C4D-ND  | 2.52  | 137.76      | 132.50   |
| 24  | I     | 4001 | BCR  | C8-C9-C10   | 2.52  | 122.80      | 118.94   |
| 21  | A     | 1116 | CLA  | C1-O2A-CGA  | 2.52  | 123.04      | 116.44   |
| 21  | 4     | 615  | CLA  | C1C-C2C-C3C | -2.51 | 104.31      | 106.96   |
| 21  | 2     | 604  | CLA  | O2D-CGD-O1D | -2.51 | 118.92      | 123.84   |
| 21  | H     | 1702 | CLA  | C2D-C1D-ND  | 2.51  | 111.96      | 110.10   |
| 21  | A     | 1137 | CLA  | O2D-CGD-O1D | -2.51 | 118.93      | 123.84   |
| 21  | B     | 1231 | CLA  | C1C-C2C-C3C | -2.51 | 104.32      | 106.96   |
| 24  | F     | 4001 | BCR  | C33-C5-C4   | 2.51  | 118.44      | 113.62   |
| 21  | B     | 1219 | CLA  | CMA-C3A-C4A | 2.51  | 118.52      | 111.77   |
| 21  | B     | 1228 | CLA  | CMB-C2B-C3B | 2.51  | 129.38      | 124.68   |
| 24  | H     | 4001 | BCR  | C30-C25-C24 | 2.51  | 122.88      | 115.78   |
| 24  | 3     | 506  | BCR  | C8-C9-C10   | 2.51  | 122.79      | 118.94   |
| 24  | A     | 4003 | BCR  | C28-C27-C26 | -2.51 | 109.59      | 114.08   |
| 21  | B     | 1227 | CLA  | C1-C2-C3    | -2.51 | 121.70      | 126.04   |
| 21  | B     | 1232 | CLA  | CHA-C1A-NA  | -2.51 | 120.65      | 126.40   |
| 21  | A     | 1113 | CLA  | CHA-C4D-ND  | 2.51  | 137.75      | 132.50   |
| 21  | 1     | 607  | CLA  | O2D-CGD-O1D | -2.51 | 118.94      | 123.84   |
| 21  | B     | 1227 | CLA  | CHA-C4D-ND  | 2.51  | 137.74      | 132.50   |
| 21  | 1     | 608  | CLA  | CHA-C4D-ND  | 2.50  | 137.74      | 132.50   |
| 21  | 5     | 612  | CLA  | C2D-C1D-ND  | 2.50  | 111.95      | 110.10   |
| 21  | A     | 1119 | CLA  | C1-C2-C3    | -2.50 | 121.72      | 126.04   |
| 24  | A     | 4001 | BCR  | C8-C9-C10   | 2.50  | 122.78      | 118.94   |
| 21  | B     | 1219 | CLA  | CAA-C2A-C3A | -2.50 | 105.93      | 112.78   |
| 21  | 3     | 612  | CLA  | C2D-C1D-ND  | 2.50  | 111.95      | 110.10   |
| 21  | A     | 1114 | CLA  | O2D-CGD-O1D | -2.50 | 118.95      | 123.84   |
| 21  | B     | 1221 | CLA  | C2A-C1A-CHA | 2.50  | 128.23      | 123.86   |
| 21  | 3     | 610  | CLA  | O2D-CGD-O1D | -2.50 | 118.95      | 123.84   |
| 24  | 4     | 503  | BCR  | C34-C9-C10  | -2.50 | 119.42      | 122.92   |
| 21  | 2     | 608  | CLA  | C2D-C1D-ND  | 2.50  | 111.94      | 110.10   |
| 21  | K     | 1404 | CLA  | CHA-C4D-ND  | 2.50  | 137.72      | 132.50   |
| 21  | B     | 1216 | CLA  | C1-C2-C3    | -2.50 | 121.72      | 126.04   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | G     | 1602 | CLA  | CHA-C4D-ND  | 2.50  | 137.72      | 132.50   |
| 21  | 3     | 611  | CLA  | CHA-C1A-NA  | -2.50 | 120.68      | 126.40   |
| 21  | 4     | 608  | CLA  | CHA-C4D-ND  | 2.50  | 137.72      | 132.50   |
| 21  | B     | 1220 | CLA  | C1-C2-C3    | -2.50 | 121.73      | 126.04   |
| 21  | A     | 1105 | CLA  | C1C-C2C-C3C | -2.50 | 104.33      | 106.96   |
| 21  | 5     | 608  | CLA  | CHD-C1D-ND  | -2.50 | 122.16      | 124.45   |
| 21  | B     | 1221 | CLA  | C1-O2A-CGA  | 2.49  | 122.98      | 116.44   |
| 21  | A     | 1113 | CLA  | CAA-C2A-C3A | -2.49 | 105.95      | 112.78   |
| 21  | F     | 1301 | CLA  | CHA-C1A-NA  | -2.49 | 120.69      | 126.40   |
| 21  | 3     | 605  | CLA  | CHD-C1D-ND  | -2.49 | 122.16      | 124.45   |
| 21  | 3     | 613  | CLA  | O2D-CGD-O1D | -2.49 | 118.97      | 123.84   |
| 25  | 4     | 801  | LHG  | C9-C8-C7    | -2.49 | 104.56      | 113.62   |
| 21  | 6     | 613  | CLA  | O2D-CGD-O1D | -2.49 | 118.97      | 123.84   |
| 21  | F     | 1302 | CLA  | CHA-C4D-ND  | 2.49  | 137.71      | 132.50   |
| 21  | 1     | 604  | CLA  | CHA-C4D-ND  | 2.49  | 137.71      | 132.50   |
| 21  | 3     | 603  | CLA  | O1D-CGD-CBD | -2.49 | 119.39      | 124.48   |
| 21  | B     | 1223 | CLA  | CHA-C1A-NA  | -2.49 | 120.70      | 126.40   |
| 24  | 3     | 503  | BCR  | C19-C18-C17 | 2.49  | 122.76      | 118.94   |
| 21  | A     | 1116 | CLA  | CHA-C4D-ND  | 2.49  | 137.70      | 132.50   |
| 24  | A     | 4005 | BCR  | C15-C14-C13 | -2.49 | 123.76      | 127.31   |
| 21  | B     | 1224 | CLA  | C1C-C2C-C3C | -2.49 | 104.34      | 106.96   |
| 24  | F     | 4002 | BCR  | C30-C25-C26 | -2.49 | 119.11      | 122.61   |
| 21  | A     | 1139 | CLA  | CHA-C4D-ND  | 2.49  | 137.70      | 132.50   |
| 21  | 4     | 606  | CLA  | CHA-C4D-ND  | 2.49  | 137.70      | 132.50   |
| 21  | G     | 1603 | CLA  | O2D-CGD-O1D | -2.49 | 118.98      | 123.84   |
| 21  | B     | 1218 | CLA  | C1C-C2C-C3C | -2.49 | 104.34      | 106.96   |
| 21  | 1     | 615  | CLA  | CHD-C1D-ND  | -2.49 | 122.17      | 124.45   |
| 21  | 3     | 608  | CLA  | CHA-C1A-NA  | -2.49 | 120.71      | 126.40   |
| 21  | B     | 1238 | CLA  | CHA-C4D-ND  | 2.48  | 137.70      | 132.50   |
| 21  | B     | 1207 | CLA  | CHA-C4D-ND  | 2.48  | 137.69      | 132.50   |
| 21  | B     | 1221 | CLA  | CHA-C1A-NA  | -2.48 | 120.71      | 126.40   |
| 21  | A     | 1111 | CLA  | C1D-ND-C4D  | -2.48 | 104.57      | 106.33   |
| 21  | B     | 1204 | CLA  | C1-C2-C3    | -2.48 | 121.75      | 126.04   |
| 36  | 1     | 609  | CHL  | C4D-CHA-C1A | 2.48  | 124.27      | 121.25   |
| 25  | 1     | 802  | LHG  | O8-C23-C24  | 2.48  | 119.70      | 111.91   |
| 21  | B     | 1021 | CLA  | C1C-C2C-C3C | -2.48 | 104.35      | 106.96   |
| 21  | A     | 1113 | CLA  | CMA-C3A-C4A | 2.48  | 118.44      | 111.77   |
| 21  | A     | 1108 | CLA  | CHA-C4D-ND  | 2.48  | 137.69      | 132.50   |
| 21  | A     | 1125 | CLA  | CHA-C4D-ND  | 2.48  | 137.69      | 132.50   |
| 34  | 2     | 501  | LUT  | C35-C34-C33 | -2.48 | 123.77      | 127.31   |
| 21  | 5     | 605  | CLA  | O2D-CGD-O1D | -2.48 | 118.99      | 123.84   |
| 21  | 2     | 604  | CLA  | CHA-C4D-ND  | 2.48  | 137.69      | 132.50   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1237 | CLA  | CHD-C1D-ND  | -2.48 | 122.18      | 124.45   |
| 21  | 4     | 608  | CLA  | CAA-C2A-C3A | -2.48 | 105.99      | 112.78   |
| 21  | B     | 1208 | CLA  | CHA-C4D-ND  | 2.48  | 137.68      | 132.50   |
| 21  | O     | 1801 | CLA  | CHA-C4D-ND  | 2.48  | 137.68      | 132.50   |
| 25  | 2     | 801  | LHG  | C5-O7-C7    | -2.48 | 111.69      | 117.79   |
| 21  | 6     | 604  | CLA  | CHA-C1A-NA  | -2.48 | 120.72      | 126.40   |
| 24  | I     | 4002 | BCR  | C30-C25-C24 | 2.48  | 122.78      | 115.78   |
| 36  | 5     | 609  | CHL  | CHC-C1C-NC  | 2.48  | 127.96      | 124.20   |
| 21  | A     | 1129 | CLA  | CHA-C4D-ND  | 2.48  | 137.68      | 132.50   |
| 21  | B     | 1210 | CLA  | CHA-C4D-ND  | 2.48  | 137.68      | 132.50   |
| 21  | 5     | 606  | CLA  | CHA-C4D-ND  | 2.48  | 137.68      | 132.50   |
| 25  | F     | 5001 | LHG  | O8-C23-C24  | 2.48  | 119.67      | 111.91   |
| 21  | B     | 1219 | CLA  | O2D-CGD-O1D | -2.48 | 119.00      | 123.84   |
| 21  | 3     | 601  | CLA  | O2D-CGD-O1D | -2.48 | 119.00      | 123.84   |
| 36  | 2     | 609  | CHL  | C1B-CHB-C4A | -2.47 | 125.22      | 130.12   |
| 21  | A     | 1124 | CLA  | CMB-C2B-C3B | 2.47  | 129.31      | 124.68   |
| 21  | H     | 1701 | CLA  | C7-C6-C5    | -2.47 | 106.64      | 113.36   |
| 24  | K     | 4001 | BCR  | C37-C22-C21 | -2.47 | 119.46      | 122.92   |
| 21  | 1     | 601  | CLA  | CHA-C4D-ND  | 2.47  | 137.67      | 132.50   |
| 21  | A     | 1137 | CLA  | C1D-ND-C4D  | -2.47 | 104.58      | 106.33   |
| 32  | L     | 5002 | 4RF  | O40-C41-C43 | 2.47  | 119.67      | 111.91   |
| 21  | A     | 1107 | CLA  | CHA-C4D-ND  | 2.47  | 137.67      | 132.50   |
| 21  | B     | 1201 | CLA  | O2A-CGA-CBA | 2.47  | 119.67      | 111.91   |
| 21  | 1     | 604  | CLA  | CMD-C2D-C3D | -2.47 | 121.93      | 127.61   |
| 21  | 4     | 609  | CLA  | CHA-C1A-NA  | -2.47 | 120.74      | 126.40   |
| 21  | A     | 1139 | CLA  | C2D-C1D-ND  | 2.47  | 111.92      | 110.10   |
| 35  | 2     | 502  | XAT  | C24-C23-C22 | -2.47 | 106.00      | 110.77   |
| 21  | A     | 1126 | CLA  | CMB-C2B-C3B | 2.47  | 129.30      | 124.68   |
| 24  | F     | 4002 | BCR  | C36-C18-C17 | -2.47 | 119.46      | 122.92   |
| 21  | 1     | 603  | CLA  | C1-O2A-CGA  | 2.47  | 122.93      | 116.44   |
| 21  | 4     | 609  | CLA  | C1C-C2C-C3C | -2.47 | 104.36      | 106.96   |
| 24  | 3     | 504  | BCR  | C36-C18-C17 | -2.47 | 119.47      | 122.92   |
| 24  | B     | 4006 | BCR  | C31-C1-C6   | -2.47 | 106.30      | 110.30   |
| 21  | 4     | 603  | CLA  | C1C-C2C-C3C | -2.47 | 104.36      | 106.96   |
| 21  | 2     | 606  | CLA  | CAA-C2A-C3A | -2.47 | 106.03      | 112.78   |
| 24  | 4     | 503  | BCR  | C4-C5-C6    | -2.47 | 119.15      | 122.73   |
| 24  | H     | 4001 | BCR  | C15-C14-C13 | -2.47 | 123.79      | 127.31   |
| 21  | 2     | 602  | CLA  | C1-C2-C3    | -2.46 | 121.78      | 126.04   |
| 21  | A     | 1132 | CLA  | CHA-C4D-ND  | 2.46  | 137.65      | 132.50   |
| 21  | 2     | 604  | CLA  | CMA-C3A-C4A | 2.46  | 118.40      | 111.77   |
| 21  | B     | 1201 | CLA  | C1C-C2C-C3C | -2.46 | 104.37      | 106.96   |
| 21  | A     | 1137 | CLA  | CBA-CAA-C2A | 2.46  | 121.13      | 113.86   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 612  | CLA  | CHA-C1A-NA  | -2.46 | 120.76      | 126.40   |
| 21  | A     | 1116 | CLA  | O2D-CGD-O1D | -2.46 | 119.03      | 123.84   |
| 24  | F     | 4001 | BCR  | C38-C26-C27 | 2.46  | 118.34      | 113.62   |
| 21  | 3     | 614  | CLA  | CHA-C4D-ND  | 2.46  | 137.65      | 132.50   |
| 21  | 3     | 602  | CLA  | C2D-C1D-ND  | 2.46  | 111.92      | 110.10   |
| 21  | 6     | 602  | CLA  | CHA-C4D-ND  | 2.46  | 137.65      | 132.50   |
| 21  | B     | 1222 | CLA  | CAA-C2A-C1A | -2.46 | 103.91      | 111.97   |
| 21  | A     | 1107 | CLA  | O2A-CGA-CBA | 2.46  | 119.63      | 111.91   |
| 21  | L     | 1504 | CLA  | O1D-CGD-CBD | -2.46 | 119.45      | 124.48   |
| 21  | H     | 1702 | CLA  | O1D-CGD-CBD | -2.46 | 119.45      | 124.48   |
| 21  | B     | 1201 | CLA  | CHA-C4D-ND  | 2.46  | 137.64      | 132.50   |
| 21  | 2     | 612  | CLA  | CHA-C4D-ND  | 2.46  | 137.64      | 132.50   |
| 34  | 4     | 501  | LUT  | C18-C5-C6   | -2.46 | 121.77      | 124.53   |
| 24  | 2     | 503  | BCR  | C23-C24-C25 | -2.46 | 120.31      | 127.20   |
| 21  | A     | 1125 | CLA  | O2A-CGA-CBA | 2.46  | 119.61      | 111.91   |
| 21  | A     | 1110 | CLA  | O2D-CGD-O1D | -2.46 | 119.04      | 123.84   |
| 21  | 3     | 615  | CLA  | CHA-C4D-ND  | 2.45  | 137.63      | 132.50   |
| 24  | B     | 4006 | BCR  | C23-C24-C25 | -2.45 | 120.31      | 127.20   |
| 21  | 3     | 601  | CLA  | CHA-C4D-ND  | 2.45  | 137.63      | 132.50   |
| 21  | 3     | 611  | CLA  | CHD-C1D-ND  | -2.45 | 122.20      | 124.45   |
| 21  | B     | 1214 | CLA  | O2A-CGA-CBA | 2.45  | 119.61      | 111.91   |
| 21  | A     | 1106 | CLA  | C12-C11-C10 | 2.45  | 124.51      | 113.24   |
| 21  | 5     | 604  | CLA  | CHA-C4D-ND  | 2.45  | 137.63      | 132.50   |
| 21  | 5     | 607  | CLA  | CHA-C4D-ND  | 2.45  | 137.63      | 132.50   |
| 21  | 4     | 601  | CLA  | C3D-C2D-C1D | -2.45 | 102.48      | 105.83   |
| 21  | B     | 1225 | CLA  | O2A-CGA-CBA | 2.45  | 119.60      | 111.91   |
| 21  | A     | 1135 | CLA  | O2A-CGA-CBA | 2.45  | 119.60      | 111.91   |
| 21  | 1     | 611  | CLA  | CHA-C4D-ND  | 2.45  | 137.63      | 132.50   |
| 21  | B     | 1223 | CLA  | O2A-CGA-CBA | 2.45  | 119.60      | 111.91   |
| 21  | G     | 1603 | CLA  | C2C-C1C-NC  | 2.45  | 112.27      | 109.97   |
| 21  | A     | 1125 | CLA  | CMA-C3A-C4A | 2.45  | 118.36      | 111.77   |
| 24  | L     | 4002 | BCR  | C34-C9-C10  | -2.45 | 119.49      | 122.92   |
| 35  | 6     | 502  | XAT  | C6-C7-C8    | -2.45 | 120.81      | 125.99   |
| 34  | 6     | 501  | LUT  | C8-C7-C6    | -2.45 | 120.32      | 127.20   |
| 21  | B     | 1238 | CLA  | C2D-C1D-ND  | 2.45  | 111.91      | 110.10   |
| 21  | 2     | 608  | CLA  | O2A-CGA-CBA | 2.45  | 119.59      | 111.91   |
| 21  | B     | 1232 | CLA  | C3D-C2D-C1D | -2.45 | 102.49      | 105.83   |
| 21  | 1     | 611  | CLA  | O2D-CGD-O1D | -2.45 | 119.05      | 123.84   |
| 21  | 5     | 604  | CLA  | O2D-CGD-O1D | -2.45 | 119.05      | 123.84   |
| 21  | 2     | 602  | CLA  | CHA-C1A-NA  | -2.45 | 120.79      | 126.40   |
| 21  | K     | 1402 | CLA  | CHA-C4D-ND  | 2.45  | 137.62      | 132.50   |
| 21  | B     | 1230 | CLA  | C1-O2A-CGA  | 2.45  | 122.87      | 116.44   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 6     | 608  | CLA  | CHA-C4D-ND  | 2.45  | 137.62      | 132.50   |
| 36  | 5     | 610  | CHL  | C1B-CHB-C4A | -2.45 | 125.27      | 130.12   |
| 21  | 4     | 602  | CLA  | O2D-CGD-O1D | -2.45 | 119.05      | 123.84   |
| 21  | 5     | 603  | CLA  | CMD-C2D-C3D | -2.45 | 121.98      | 127.61   |
| 21  | B     | 1230 | CLA  | CHD-C1D-ND  | -2.45 | 122.20      | 124.45   |
| 21  | A     | 1110 | CLA  | CHA-C4D-ND  | 2.45  | 137.62      | 132.50   |
| 21  | B     | 1209 | CLA  | CAA-C2A-C3A | -2.45 | 106.08      | 112.78   |
| 21  | A     | 1124 | CLA  | CHA-C4D-ND  | 2.45  | 137.62      | 132.50   |
| 21  | O     | 1802 | CLA  | CHA-C4D-ND  | 2.45  | 137.62      | 132.50   |
| 21  | 4     | 601  | CLA  | CHA-C1A-NA  | -2.44 | 120.80      | 126.40   |
| 21  | B     | 1205 | CLA  | C1-C2-C3    | -2.44 | 121.81      | 126.04   |
| 21  | A     | 1129 | CLA  | CMD-C2D-C3D | -2.44 | 121.99      | 127.61   |
| 21  | 4     | 609  | CLA  | C1-O2A-CGA  | 2.44  | 122.86      | 116.44   |
| 21  | 2     | 606  | CLA  | CHA-C4D-ND  | 2.44  | 137.61      | 132.50   |
| 21  | A     | 1104 | CLA  | O2D-CGD-O1D | -2.44 | 119.07      | 123.84   |
| 36  | 1     | 609  | CHL  | C1-C2-C3    | -2.44 | 121.82      | 126.04   |
| 21  | B     | 1223 | CLA  | CMB-C2B-C3B | 2.44  | 129.24      | 124.68   |
| 21  | K     | 1403 | CLA  | O2D-CGD-O1D | -2.44 | 119.07      | 123.84   |
| 21  | 3     | 605  | CLA  | CMD-C2D-C3D | -2.44 | 122.00      | 127.61   |
| 21  | A     | 1013 | CLA  | CHD-C1D-ND  | -2.44 | 122.21      | 124.45   |
| 21  | B     | 1232 | CLA  | O2A-CGA-CBA | 2.44  | 119.56      | 111.91   |
| 21  | G     | 1601 | CLA  | CHA-C4D-ND  | 2.44  | 137.60      | 132.50   |
| 21  | 6     | 604  | CLA  | CHA-C4D-ND  | 2.44  | 137.60      | 132.50   |
| 21  | B     | 1230 | CLA  | CAA-C2A-C1A | -2.44 | 103.99      | 111.97   |
| 21  | 4     | 601  | CLA  | C1-C2-C3    | -2.44 | 121.83      | 126.04   |
| 21  | 4     | 609  | CLA  | CHD-C1D-ND  | -2.44 | 122.22      | 124.45   |
| 24  | A     | 4002 | BCR  | C23-C24-C25 | -2.44 | 120.36      | 127.20   |
| 34  | 3     | 501  | LUT  | C35-C15-C14 | -2.44 | 118.48      | 123.47   |
| 21  | B     | 1203 | CLA  | CMD-C2D-C3D | -2.44 | 122.01      | 127.61   |
| 21  | H     | 1701 | CLA  | CHA-C4D-ND  | 2.43  | 137.59      | 132.50   |
| 21  | 2     | 615  | CLA  | O2D-CGD-O1D | -2.43 | 119.08      | 123.84   |
| 21  | 2     | 601  | CLA  | C2A-C1A-CHA | 2.43  | 128.12      | 123.86   |
| 21  | A     | 1130 | CLA  | C1C-C2C-C3C | -2.43 | 104.40      | 106.96   |
| 21  | 3     | 610  | CLA  | CHA-C4D-ND  | 2.43  | 137.59      | 132.50   |
| 21  | A     | 1128 | CLA  | CMA-C3A-C4A | 2.43  | 118.31      | 111.77   |
| 21  | A     | 1102 | CLA  | CHA-C1A-NA  | -2.43 | 120.83      | 126.40   |
| 21  | B     | 1238 | CLA  | CMD-C2D-C3D | -2.43 | 122.02      | 127.61   |
| 21  | B     | 1220 | CLA  | CMA-C3A-C4A | 2.43  | 118.31      | 111.77   |
| 21  | A     | 1121 | CLA  | O2D-CGD-O1D | -2.43 | 119.09      | 123.84   |
| 21  | B     | 1236 | CLA  | C3D-C2D-C1D | -2.43 | 102.52      | 105.83   |
| 21  | L     | 1501 | CLA  | CMD-C2D-C3D | -2.43 | 122.03      | 127.61   |
| 21  | L     | 1504 | CLA  | CHA-C4D-ND  | 2.43  | 137.58      | 132.50   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1133 | CLA  | C1C-C2C-C3C | -2.43 | 104.40      | 106.96   |
| 21  | A     | 1117 | CLA  | CHA-C4D-ND  | 2.43  | 137.58      | 132.50   |
| 25  | B     | 5001 | LHG  | O8-C23-C24  | 2.43  | 119.53      | 111.91   |
| 21  | A     | 1012 | CLA  | CHA-C4D-ND  | 2.43  | 137.58      | 132.50   |
| 21  | B     | 1021 | CLA  | CHA-C4D-ND  | 2.43  | 137.58      | 132.50   |
| 21  | A     | 1123 | CLA  | CHA-C1A-NA  | -2.43 | 120.84      | 126.40   |
| 21  | A     | 1138 | CLA  | C1C-C2C-C3C | -2.43 | 104.41      | 106.96   |
| 21  | 1     | 602  | CLA  | O2D-CGD-O1D | -2.43 | 119.10      | 123.84   |
| 21  | B     | 1209 | CLA  | O2D-CGD-O1D | -2.42 | 119.10      | 123.84   |
| 21  | 6     | 609  | CLA  | CHA-C1A-NA  | -2.42 | 120.84      | 126.40   |
| 21  | 1     | 612  | CLA  | O1D-CGD-CBD | -2.42 | 119.52      | 124.48   |
| 21  | B     | 1206 | CLA  | O2A-CGA-CBA | 2.42  | 119.52      | 111.91   |
| 21  | A     | 1124 | CLA  | CAA-C2A-C3A | -2.42 | 106.14      | 112.78   |
| 21  | 2     | 602  | CLA  | O2D-CGD-O1D | -2.42 | 119.10      | 123.84   |
| 21  | B     | 1236 | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 24  | J     | 4002 | BCR  | C23-C22-C21 | -2.42 | 115.22      | 118.94   |
| 21  | B     | 1238 | CLA  | C1-O2A-CGA  | 2.42  | 122.80      | 116.44   |
| 21  | B     | 1216 | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 21  | 1     | 608  | CLA  | O2D-CGD-O1D | -2.42 | 119.11      | 123.84   |
| 21  | 6     | 601  | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 21  | B     | 1204 | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 24  | B     | 4006 | BCR  | C27-C26-C25 | -2.42 | 119.22      | 122.73   |
| 21  | 1     | 612  | CLA  | C2D-C1D-ND  | 2.42  | 111.89      | 110.10   |
| 21  | B     | 1230 | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 21  | 2     | 608  | CLA  | CAA-C2A-C3A | -2.42 | 106.16      | 112.78   |
| 21  | 4     | 603  | CLA  | CMA-C3A-C4A | 2.42  | 118.27      | 111.77   |
| 24  | F     | 4001 | BCR  | C27-C26-C25 | -2.42 | 119.22      | 122.73   |
| 21  | 5     | 605  | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 21  | B     | 1235 | CLA  | O2A-CGA-CBA | 2.42  | 119.49      | 111.91   |
| 21  | G     | 1601 | CLA  | O2D-CGD-O1D | -2.42 | 119.11      | 123.84   |
| 21  | B     | 1023 | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 21  | B     | 1229 | CLA  | CHA-C4D-ND  | 2.42  | 137.56      | 132.50   |
| 21  | 2     | 603  | CLA  | O2D-CGD-O1D | -2.41 | 119.12      | 123.84   |
| 21  | A     | 1112 | CLA  | CHA-C4D-ND  | 2.41  | 137.55      | 132.50   |
| 24  | G     | 4001 | BCR  | C1-C6-C5    | -2.41 | 119.21      | 122.61   |
| 21  | 5     | 613  | CLA  | C1C-C2C-C3C | -2.41 | 104.42      | 106.96   |
| 21  | B     | 1239 | CLA  | CHA-C4D-ND  | 2.41  | 137.55      | 132.50   |
| 21  | B     | 1234 | CLA  | C1-C2-C3    | -2.41 | 121.87      | 126.04   |
| 21  | A     | 1110 | CLA  | C1D-ND-C4D  | -2.41 | 104.62      | 106.33   |
| 25  | 6     | 801  | LHG  | C5-O7-C7    | -2.41 | 111.85      | 117.79   |
| 21  | B     | 1212 | CLA  | CHA-C4D-ND  | 2.41  | 137.54      | 132.50   |
| 21  | B     | 1239 | CLA  | O2A-CGA-CBA | 2.41  | 119.47      | 111.91   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1219 | CLA  | C1-C2-C3    | -2.41 | 121.87      | 126.04   |
| 21  | A     | 1134 | CLA  | O2A-CGA-CBA | 2.41  | 119.47      | 111.91   |
| 21  | A     | 1130 | CLA  | O2D-CGD-O1D | -2.41 | 119.13      | 123.84   |
| 21  | B     | 1211 | CLA  | O2D-CGD-O1D | -2.41 | 119.13      | 123.84   |
| 21  | 5     | 603  | CLA  | CMC-C2C-C3C | 2.41  | 132.66      | 126.12   |
| 21  | A     | 1125 | CLA  | C1-C2-C3    | -2.41 | 121.88      | 126.04   |
| 21  | 1     | 605  | CLA  | O2D-CGD-O1D | -2.41 | 119.13      | 123.84   |
| 21  | 1     | 611  | CLA  | O2A-CGA-CBA | 2.41  | 119.46      | 111.91   |
| 21  | 1     | 615  | CLA  | O2D-CGD-O1D | -2.41 | 119.13      | 123.84   |
| 21  | L     | 1502 | CLA  | C2C-C1C-NC  | 2.41  | 112.23      | 109.97   |
| 35  | 2     | 502  | XAT  | O4-C5-C18   | -2.41 | 112.17      | 115.06   |
| 21  | B     | 1237 | CLA  | C6-C7-C8    | -2.41 | 108.14      | 115.92   |
| 35  | 1     | 502  | XAT  | C19-C9-C10  | -2.41 | 119.55      | 122.92   |
| 21  | B     | 1224 | CLA  | CHA-C1A-NA  | -2.41 | 120.89      | 126.40   |
| 21  | 6     | 606  | CLA  | CHA-C4D-ND  | 2.41  | 137.53      | 132.50   |
| 21  | O     | 1803 | CLA  | O1A-CGA-CBA | -2.41 | 114.35      | 123.73   |
| 21  | A     | 1118 | CLA  | C1-O2A-CGA  | 2.41  | 122.75      | 116.44   |
| 21  | A     | 1121 | CLA  | CHA-C4D-ND  | 2.40  | 137.53      | 132.50   |
| 24  | G     | 4001 | BCR  | C4-C5-C6    | -2.40 | 119.24      | 122.73   |
| 36  | 5     | 609  | CHL  | CHD-C4C-C3C | 2.40  | 128.37      | 124.84   |
| 21  | L     | 1502 | CLA  | C6-C5-C3    | -2.40 | 107.15      | 113.45   |
| 21  | A     | 1106 | CLA  | C1-C2-C3    | -2.40 | 121.89      | 126.04   |
| 24  | A     | 4002 | BCR  | C39-C30-C25 | 2.40  | 114.19      | 110.30   |
| 21  | 2     | 606  | CLA  | O2D-CGD-O1D | -2.40 | 119.14      | 123.84   |
| 21  | L     | 1502 | CLA  | C9-C8-C7    | -2.40 | 102.60      | 111.29   |
| 21  | 3     | 607  | CLA  | CHA-C1A-NA  | -2.40 | 120.90      | 126.40   |
| 21  | 1     | 613  | CLA  | CMA-C3A-C4A | 2.40  | 118.23      | 111.77   |
| 21  | 5     | 603  | CLA  | C2D-C1D-ND  | 2.40  | 111.87      | 110.10   |
| 21  | 6     | 608  | CLA  | O2D-CGD-O1D | -2.40 | 119.14      | 123.84   |
| 21  | B     | 1237 | CLA  | C1D-ND-C4D  | -2.40 | 104.63      | 106.33   |
| 21  | A     | 1013 | CLA  | O2A-CGA-CBA | 2.40  | 119.44      | 111.91   |
| 21  | A     | 1137 | CLA  | CHA-C1A-NA  | -2.40 | 120.90      | 126.40   |
| 21  | A     | 1137 | CLA  | C2C-C1C-NC  | 2.40  | 112.22      | 109.97   |
| 21  | A     | 1102 | CLA  | C1-O2A-CGA  | 2.40  | 122.73      | 116.44   |
| 21  | 4     | 605  | CLA  | CMD-C2D-C3D | -2.40 | 122.10      | 127.61   |
| 21  | 2     | 603  | CLA  | C1-C2-C3    | -2.40 | 121.90      | 126.04   |
| 21  | A     | 1130 | CLA  | C1D-ND-C4D  | -2.40 | 104.63      | 106.33   |
| 21  | J     | 1901 | CLA  | O2A-CGA-CBA | 2.40  | 119.43      | 111.91   |
| 21  | A     | 1012 | CLA  | O2D-CGD-O1D | -2.40 | 119.15      | 123.84   |
| 21  | B     | 1217 | CLA  | C3D-C2D-C1D | -2.40 | 102.56      | 105.83   |
| 21  | A     | 1124 | CLA  | CED-O2D-CGD | -2.39 | 110.52      | 115.94   |
| 21  | 2     | 601  | CLA  | C1C-C2C-C3C | -2.39 | 104.44      | 106.96   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | A     | 4001 | BCR  | C37-C22-C21 | -2.39 | 119.57      | 122.92   |
| 21  | B     | 1235 | CLA  | CHA-C4D-ND  | 2.39  | 137.51      | 132.50   |
| 21  | B     | 1211 | CLA  | CHD-C1D-ND  | -2.39 | 122.25      | 124.45   |
| 31  | 3     | 803  | LMG  | C8-O7-C10   | -2.39 | 111.90      | 117.79   |
| 21  | A     | 1120 | CLA  | C2D-C1D-ND  | 2.39  | 111.87      | 110.10   |
| 29  | 5     | 807  | 3PH  | O31-C31-C32 | 2.39  | 119.41      | 111.91   |
| 21  | B     | 1206 | CLA  | O2D-CGD-O1D | -2.39 | 119.16      | 123.84   |
| 21  | G     | 1602 | CLA  | O2D-CGD-O1D | -2.39 | 119.16      | 123.84   |
| 21  | L     | 1502 | CLA  | C2A-C1A-CHA | 2.39  | 128.04      | 123.86   |
| 21  | B     | 1205 | CLA  | CAA-C2A-C3A | -2.39 | 106.23      | 112.78   |
| 21  | 2     | 606  | CLA  | CMA-C3A-C4A | 2.39  | 118.20      | 111.77   |
| 21  | 2     | 608  | CLA  | O2D-CGD-O1D | -2.39 | 119.17      | 123.84   |
| 21  | 5     | 602  | CLA  | CMD-C2D-C1D | 2.39  | 128.93      | 124.71   |
| 31  | 1     | 804  | LMG  | C14-C13-C12 | -2.39 | 102.29      | 114.42   |
| 24  | B     | 4001 | BCR  | C30-C25-C26 | -2.39 | 119.25      | 122.61   |
| 34  | 5     | 504  | LUT  | C20-C13-C14 | -2.39 | 119.58      | 122.92   |
| 21  | B     | 1217 | CLA  | CMB-C2B-C3B | 2.39  | 129.15      | 124.68   |
| 21  | 4     | 615  | CLA  | O2D-CGD-O1D | -2.39 | 119.17      | 123.84   |
| 21  | B     | 1236 | CLA  | C1D-ND-C4D  | -2.39 | 104.64      | 106.33   |
| 36  | 3     | 604  | CHL  | CMB-C2B-C1B | -2.39 | 124.80      | 128.46   |
| 21  | A     | 1013 | CLA  | CHA-C4D-ND  | 2.39  | 137.49      | 132.50   |
| 35  | 6     | 504  | XAT  | C40-C33-C34 | -2.39 | 119.58      | 122.92   |
| 35  | 2     | 502  | XAT  | C37-C21-C36 | 2.39  | 110.89      | 107.37   |
| 21  | A     | 1111 | CLA  | CHA-C4D-ND  | 2.39  | 137.49      | 132.50   |
| 21  | 4     | 615  | CLA  | O2A-CGA-CBA | 2.39  | 119.39      | 111.91   |
| 24  | A     | 4003 | BCR  | C34-C9-C10  | -2.39 | 119.58      | 122.92   |
| 21  | F     | 1301 | CLA  | O2A-CGA-CBA | 2.38  | 119.39      | 111.91   |
| 21  | A     | 1119 | CLA  | C1-O2A-CGA  | 2.38  | 122.70      | 116.44   |
| 21  | A     | 1124 | CLA  | C1C-C2C-C3C | -2.38 | 104.45      | 106.96   |
| 21  | B     | 1203 | CLA  | O2A-CGA-CBA | 2.38  | 119.39      | 111.91   |
| 21  | B     | 1222 | CLA  | C1D-ND-C4D  | -2.38 | 104.64      | 106.33   |
| 21  | B     | 1240 | CLA  | C2A-C1A-CHA | 2.38  | 128.03      | 123.86   |
| 21  | J     | 1901 | CLA  | CHA-C1A-NA  | -2.38 | 120.94      | 126.40   |
| 21  | B     | 1214 | CLA  | CMD-C2D-C3D | -2.38 | 122.14      | 127.61   |
| 21  | 4     | 602  | CLA  | O1D-CGD-CBD | -2.38 | 119.61      | 124.48   |
| 20  | A     | 1011 | CL0  | CMD-C2D-C3D | -2.38 | 122.14      | 127.61   |
| 21  | 3     | 614  | CLA  | CMA-C3A-C4A | 2.38  | 118.17      | 111.77   |
| 21  | L     | 1503 | CLA  | CHA-C4D-ND  | 2.38  | 137.48      | 132.50   |
| 21  | 4     | 608  | CLA  | O1D-CGD-CBD | -2.38 | 119.61      | 124.48   |
| 24  | B     | 4005 | BCR  | C35-C13-C12 | 2.38  | 121.83      | 118.08   |
| 21  | 3     | 601  | CLA  | C3D-C2D-C1D | -2.38 | 102.58      | 105.83   |
| 24  | 3     | 504  | BCR  | C29-C28-C27 | 2.38  | 116.69      | 111.38   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1137 | CLA  | CHA-C4D-ND  | 2.38  | 137.48      | 132.50   |
| 21  | 6     | 603  | CLA  | CHA-C4D-ND  | 2.38  | 137.48      | 132.50   |
| 21  | B     | 1215 | CLA  | CHA-C4D-ND  | 2.38  | 137.47      | 132.50   |
| 21  | A     | 1013 | CLA  | O2D-CGD-O1D | -2.38 | 119.19      | 123.84   |
| 21  | A     | 1134 | CLA  | CHA-C4D-ND  | 2.38  | 137.47      | 132.50   |
| 21  | 6     | 607  | CLA  | C2D-C1D-ND  | 2.38  | 111.86      | 110.10   |
| 21  | 1     | 608  | CLA  | CMD-C2D-C3D | -2.38 | 122.14      | 127.61   |
| 21  | B     | 1219 | CLA  | CHA-C4D-ND  | 2.38  | 137.47      | 132.50   |
| 24  | I     | 4001 | BCR  | C15-C14-C13 | -2.38 | 123.92      | 127.31   |
| 21  | A     | 1111 | CLA  | CAC-C3C-C4C | 2.38  | 127.89      | 124.81   |
| 21  | 3     | 611  | CLA  | O2D-CGD-O1D | -2.38 | 119.19      | 123.84   |
| 25  | 1     | 802  | LHG  | C5-O7-C7    | -2.38 | 111.94      | 117.79   |
| 21  | 6     | 612  | CLA  | CAA-C2A-C3A | -2.38 | 106.27      | 112.78   |
| 21  | B     | 1221 | CLA  | C2C-C1C-NC  | 2.38  | 112.20      | 109.97   |
| 21  | 2     | 603  | CLA  | C1C-C2C-C3C | -2.37 | 104.46      | 106.96   |
| 21  | F     | 1301 | CLA  | CHA-C4D-ND  | 2.37  | 137.47      | 132.50   |
| 21  | 6     | 609  | CLA  | CMA-C3A-C4A | 2.37  | 118.15      | 111.77   |
| 34  | 5     | 501  | LUT  | O23-C23-C24 | 2.37  | 115.89      | 110.53   |
| 21  | B     | 1224 | CLA  | CHA-C4D-ND  | 2.37  | 137.46      | 132.50   |
| 21  | J     | 1901 | CLA  | C3D-C2D-C1D | -2.37 | 102.59      | 105.83   |
| 21  | A     | 1112 | CLA  | O2A-CGA-CBA | 2.37  | 119.35      | 111.91   |
| 37  | 3     | 806  | SQD  | O8-S-C6     | -2.37 | 101.96      | 105.74   |
| 21  | 4     | 615  | CLA  | C2D-C1D-ND  | 2.37  | 111.85      | 110.10   |
| 21  | 4     | 615  | CLA  | CHA-C1A-NA  | -2.37 | 120.97      | 126.40   |
| 21  | B     | 1240 | CLA  | CHA-C4D-ND  | 2.37  | 137.45      | 132.50   |
| 36  | 2     | 610  | CHL  | C1-O2A-CGA  | 2.37  | 122.66      | 116.44   |
| 21  | L     | 1502 | CLA  | C3D-C2D-C1D | -2.37 | 102.60      | 105.83   |
| 21  | A     | 1110 | CLA  | C1C-C2C-C3C | -2.37 | 104.47      | 106.96   |
| 24  | L     | 4001 | BCR  | C28-C29-C30 | -2.37 | 106.14      | 114.60   |
| 21  | 2     | 615  | CLA  | CMA-C3A-C4A | 2.37  | 118.13      | 111.77   |
| 21  | 2     | 601  | CLA  | CHA-C1A-NA  | -2.36 | 120.98      | 126.40   |
| 21  | B     | 1216 | CLA  | O2A-CGA-CBA | 2.36  | 119.32      | 111.91   |
| 21  | B     | 1206 | CLA  | CHA-C4D-ND  | 2.36  | 137.44      | 132.50   |
| 21  | 2     | 602  | CLA  | C2A-C1A-CHA | 2.36  | 127.99      | 123.86   |
| 21  | B     | 1228 | CLA  | CMA-C3A-C4A | 2.36  | 118.12      | 111.77   |
| 21  | 1     | 615  | CLA  | C3D-C2D-C1D | -2.36 | 102.61      | 105.83   |
| 25  | 1     | 803  | LHG  | O8-C23-O10  | -2.36 | 117.63      | 123.59   |
| 24  | J     | 4002 | BCR  | C19-C18-C17 | 2.36  | 122.56      | 118.94   |
| 33  | 1     | 805  | PTY  | O4-C30-C31  | 2.36  | 119.31      | 111.91   |
| 21  | A     | 1105 | CLA  | CHA-C4D-ND  | 2.36  | 137.43      | 132.50   |
| 21  | B     | 1210 | CLA  | C1-C2-C3    | -2.36 | 121.97      | 126.04   |
| 21  | 4     | 608  | CLA  | O2D-CGD-O1D | -2.36 | 119.23      | 123.84   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 36  | 2     | 613  | CHL  | C1B-CHB-C4A | -2.36 | 125.45      | 130.12   |
| 21  | O     | 1802 | CLA  | CMB-C2B-C1B | -2.36 | 124.84      | 128.46   |
| 21  | 4     | 609  | CLA  | CHA-C4D-ND  | 2.36  | 137.43      | 132.50   |
| 21  | A     | 1135 | CLA  | CHA-C1A-NA  | -2.36 | 121.00      | 126.40   |
| 24  | A     | 4002 | BCR  | C31-C1-C6   | -2.36 | 106.48      | 110.30   |
| 21  | 3     | 606  | CLA  | CHA-C4D-ND  | 2.35  | 137.43      | 132.50   |
| 21  | B     | 1213 | CLA  | O2A-CGA-O1A | -2.35 | 117.65      | 123.59   |
| 21  | A     | 1136 | CLA  | C2C-C1C-NC  | 2.35  | 112.18      | 109.97   |
| 21  | 4     | 605  | CLA  | C3D-C2D-C1D | -2.35 | 102.62      | 105.83   |
| 21  | A     | 1123 | CLA  | C3D-C2D-C1D | -2.35 | 102.62      | 105.83   |
| 21  | 4     | 606  | CLA  | CMD-C2D-C3D | -2.35 | 122.20      | 127.61   |
| 21  | 1     | 613  | CLA  | CHA-C1A-NA  | -2.35 | 121.01      | 126.40   |
| 21  | A     | 1120 | CLA  | CHD-C1D-ND  | -2.35 | 122.29      | 124.45   |
| 21  | A     | 1130 | CLA  | O2A-CGA-CBA | 2.35  | 119.29      | 111.91   |
| 24  | J     | 4001 | BCR  | C28-C29-C30 | -2.35 | 106.19      | 114.60   |
| 21  | A     | 1120 | CLA  | CHA-C4D-ND  | 2.35  | 137.41      | 132.50   |
| 21  | B     | 1225 | CLA  | CMA-C3A-C4A | 2.35  | 118.09      | 111.77   |
| 24  | J     | 4001 | BCR  | C33-C5-C4   | 2.35  | 118.13      | 113.62   |
| 24  | A     | 4002 | BCR  | C33-C5-C6   | -2.35 | 121.89      | 124.53   |
| 21  | 1     | 602  | CLA  | CHD-C1D-ND  | -2.35 | 122.30      | 124.45   |
| 21  | B     | 1205 | CLA  | CHA-C4D-ND  | 2.35  | 137.41      | 132.50   |
| 36  | 2     | 609  | CHL  | CHD-C4C-C3C | 2.35  | 128.29      | 124.84   |
| 21  | B     | 1234 | CLA  | C3D-C2D-C1D | -2.35 | 102.63      | 105.83   |
| 21  | A     | 1112 | CLA  | O2D-CGD-O1D | -2.35 | 119.25      | 123.84   |
| 21  | A     | 1103 | CLA  | C3D-C2D-C1D | -2.34 | 102.63      | 105.83   |
| 36  | 4     | 613  | CHL  | CMA-C3A-C4A | 2.34  | 118.08      | 111.77   |
| 34  | 3     | 501  | LUT  | C18-C5-C6   | -2.34 | 121.90      | 124.53   |
| 21  | B     | 1203 | CLA  | CHA-C1A-NA  | -2.34 | 121.03      | 126.40   |
| 21  | 4     | 604  | CLA  | CHA-C4D-ND  | 2.34  | 137.40      | 132.50   |
| 21  | 1     | 613  | CLA  | C1C-C2C-C3C | -2.34 | 104.49      | 106.96   |
| 21  | B     | 1211 | CLA  | O2A-CGA-CBA | 2.34  | 119.26      | 111.91   |
| 21  | A     | 1135 | CLA  | O1D-CGD-CBD | -2.34 | 119.69      | 124.48   |
| 24  | 1     | 504  | BCR  | C8-C9-C10   | 2.34  | 122.53      | 118.94   |
| 21  | A     | 1122 | CLA  | CHA-C4D-ND  | 2.34  | 137.40      | 132.50   |
| 21  | A     | 1140 | CLA  | CAA-C2A-C3A | -2.34 | 106.37      | 112.78   |
| 21  | 3     | 615  | CLA  | CHA-C1A-NA  | -2.34 | 121.04      | 126.40   |
| 24  | F     | 4002 | BCR  | C3-C4-C5    | -2.34 | 109.90      | 114.08   |
| 21  | B     | 1229 | CLA  | C1-O2A-CGA  | 2.34  | 122.58      | 116.44   |
| 21  | 5     | 614  | CLA  | O2D-CGD-O1D | -2.34 | 119.26      | 123.84   |
| 21  | A     | 1102 | CLA  | O1D-CGD-CBD | -2.34 | 119.70      | 124.48   |
| 21  | 2     | 604  | CLA  | C1-C2-C3    | -2.34 | 122.00      | 126.04   |
| 21  | A     | 1130 | CLA  | CAA-C2A-C3A | -2.34 | 106.38      | 112.78   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 612  | CLA  | CMB-C2B-C3B | 2.34  | 129.05      | 124.68   |
| 24  | A     | 4003 | BCR  | C19-C18-C17 | 2.34  | 122.53      | 118.94   |
| 21  | B     | 1220 | CLA  | C1C-C2C-C3C | -2.34 | 104.50      | 106.96   |
| 21  | A     | 1141 | CLA  | CHA-C4D-ND  | 2.33  | 137.38      | 132.50   |
| 21  | B     | 1237 | CLA  | C1-C2-C3    | -2.33 | 122.01      | 126.04   |
| 34  | 4     | 501  | LUT  | C35-C15-C14 | -2.33 | 118.69      | 123.47   |
| 35  | 4     | 502  | XAT  | C40-C33-C34 | -2.33 | 119.65      | 122.92   |
| 21  | O     | 1802 | CLA  | C3D-C2D-C1D | -2.33 | 102.65      | 105.83   |
| 21  | A     | 1140 | CLA  | O2A-CGA-CBA | 2.33  | 119.23      | 111.91   |
| 21  | B     | 1224 | CLA  | C2A-C1A-CHA | 2.33  | 127.94      | 123.86   |
| 24  | B     | 4003 | BCR  | C23-C24-C25 | -2.33 | 120.65      | 127.20   |
| 21  | 1     | 606  | CLA  | C1C-C2C-C3C | -2.33 | 104.50      | 106.96   |
| 21  | B     | 1226 | CLA  | CMA-C3A-C4A | 2.33  | 118.04      | 111.77   |
| 21  | 3     | 607  | CLA  | O2D-CGD-O1D | -2.33 | 119.28      | 123.84   |
| 21  | B     | 1201 | CLA  | C3D-C2D-C1D | -2.33 | 102.65      | 105.83   |
| 21  | B     | 1202 | CLA  | C3D-C2D-C1D | -2.33 | 102.65      | 105.83   |
| 21  | 4     | 603  | CLA  | CMD-C2D-C3D | -2.33 | 122.25      | 127.61   |
| 24  | B     | 4003 | BCR  | C36-C18-C17 | -2.33 | 119.66      | 122.92   |
| 21  | B     | 1217 | CLA  | C2A-C1A-CHA | 2.33  | 127.93      | 123.86   |
| 21  | B     | 1228 | CLA  | CHA-C4D-ND  | 2.33  | 137.37      | 132.50   |
| 21  | 2     | 605  | CLA  | O2D-CGD-O1D | -2.33 | 119.28      | 123.84   |
| 32  | 5     | 805  | 4RF  | O18-C16-C15 | 2.33  | 119.22      | 111.91   |
| 21  | 3     | 614  | CLA  | CMD-C2D-C3D | -2.33 | 122.26      | 127.61   |
| 24  | B     | 4001 | BCR  | C27-C26-C25 | -2.33 | 119.35      | 122.73   |
| 21  | A     | 1013 | CLA  | C3D-C2D-C1D | -2.33 | 102.66      | 105.83   |
| 21  | H     | 1701 | CLA  | CAA-C2A-C3A | -2.33 | 106.41      | 112.78   |
| 34  | 5     | 503  | LUT  | C8-C7-C6    | -2.33 | 120.67      | 127.20   |
| 21  | 6     | 601  | CLA  | O2D-CGD-O1D | -2.33 | 119.29      | 123.84   |
| 21  | 3     | 610  | CLA  | CMD-C2D-C3D | -2.33 | 122.26      | 127.61   |
| 21  | 6     | 612  | CLA  | C1-C2-C3    | -2.33 | 122.02      | 126.04   |
| 21  | A     | 1128 | CLA  | C1C-C2C-C3C | -2.33 | 104.51      | 106.96   |
| 21  | B     | 1213 | CLA  | CMD-C2D-C3D | -2.33 | 122.26      | 127.61   |
| 21  | B     | 1217 | CLA  | O2A-CGA-CBA | 2.32  | 119.20      | 111.91   |
| 21  | A     | 1106 | CLA  | O1D-CGD-CBD | -2.32 | 119.73      | 124.48   |
| 21  | A     | 1104 | CLA  | CHA-C1A-NA  | -2.32 | 121.08      | 126.40   |
| 21  | A     | 1113 | CLA  | CHA-C1A-NA  | -2.32 | 121.08      | 126.40   |
| 21  | 2     | 615  | CLA  | CHA-C1A-NA  | -2.32 | 121.08      | 126.40   |
| 21  | 3     | 615  | CLA  | C1-O2A-CGA  | 2.32  | 122.54      | 116.44   |
| 21  | B     | 1205 | CLA  | CHD-C1D-ND  | -2.32 | 122.32      | 124.45   |
| 21  | 5     | 613  | CLA  | CMD-C2D-C3D | -2.32 | 122.27      | 127.61   |
| 35  | 6     | 504  | XAT  | C40-C33-C32 | 2.32  | 121.74      | 118.08   |
| 21  | B     | 1220 | CLA  | C3A-C2A-C1A | 2.32  | 104.82      | 101.34   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 5     | 614  | CLA  | CBA-CAA-C2A | 2.32  | 120.72      | 113.86   |
| 21  | A     | 1114 | CLA  | CMD-C2D-C3D | -2.32 | 122.27      | 127.61   |
| 21  | 3     | 605  | CLA  | O2A-CGA-CBA | 2.32  | 119.19      | 111.91   |
| 21  | 4     | 606  | CLA  | O2A-CGA-CBA | 2.32  | 119.19      | 111.91   |
| 21  | 4     | 604  | CLA  | O2D-CGD-O1D | -2.32 | 119.30      | 123.84   |
| 21  | 4     | 601  | CLA  | C1-O2A-CGA  | 2.32  | 122.53      | 116.44   |
| 21  | A     | 1129 | CLA  | C2D-C1D-ND  | 2.32  | 111.81      | 110.10   |
| 21  | 3     | 610  | CLA  | O2A-CGA-CBA | 2.32  | 119.19      | 111.91   |
| 21  | A     | 1102 | CLA  | C2A-C1A-CHA | 2.32  | 127.91      | 123.86   |
| 21  | A     | 1133 | CLA  | CHA-C4D-ND  | 2.32  | 137.35      | 132.50   |
| 24  | A     | 4006 | BCR  | C2-C3-C4    | -2.32 | 106.20      | 111.38   |
| 21  | 3     | 607  | CLA  | O2A-CGA-CBA | 2.32  | 119.18      | 111.91   |
| 21  | 5     | 605  | CLA  | O2A-CGA-CBA | 2.32  | 119.18      | 111.91   |
| 21  | A     | 1103 | CLA  | CAA-CBA-CGA | -2.32 | 106.49      | 113.25   |
| 21  | A     | 1125 | CLA  | C1D-ND-C4D  | -2.32 | 104.69      | 106.33   |
| 21  | 1     | 608  | CLA  | CHA-C1A-NA  | -2.32 | 121.09      | 126.40   |
| 21  | B     | 1225 | CLA  | C2A-C1A-CHA | 2.31  | 127.91      | 123.86   |
| 35  | 1     | 502  | XAT  | C40-C33-C34 | -2.31 | 119.68      | 122.92   |
| 21  | 1     | 615  | CLA  | O2A-CGA-CBA | 2.31  | 119.17      | 111.91   |
| 21  | A     | 1124 | CLA  | CMA-C3A-C4A | 2.31  | 117.99      | 111.77   |
| 21  | A     | 1101 | CLA  | C1C-C2C-C3C | -2.31 | 104.52      | 106.96   |
| 21  | A     | 1126 | CLA  | O2A-CGA-CBA | 2.31  | 119.16      | 111.91   |
| 21  | 6     | 607  | CLA  | CHA-C1A-NA  | -2.31 | 121.10      | 126.40   |
| 21  | B     | 1023 | CLA  | O2A-CGA-CBA | 2.31  | 119.16      | 111.91   |
| 21  | A     | 1113 | CLA  | O2D-CGD-O1D | -2.31 | 119.32      | 123.84   |
| 21  | A     | 1136 | CLA  | CHA-C1A-NA  | -2.31 | 121.11      | 126.40   |
| 21  | B     | 1210 | CLA  | CMB-C2B-C3B | 2.31  | 129.00      | 124.68   |
| 21  | 1     | 601  | CLA  | O2A-CGA-CBA | 2.31  | 119.16      | 111.91   |
| 21  | A     | 1133 | CLA  | CAA-C2A-C3A | -2.31 | 106.45      | 112.78   |
| 21  | 6     | 607  | CLA  | O1D-CGD-CBD | -2.31 | 119.76      | 124.48   |
| 21  | B     | 1220 | CLA  | CHA-C4D-ND  | 2.31  | 137.33      | 132.50   |
| 21  | 4     | 602  | CLA  | CHA-C1A-NA  | -2.31 | 121.11      | 126.40   |
| 35  | 6     | 502  | XAT  | C38-C25-C24 | 2.31  | 116.88      | 114.28   |
| 21  | O     | 1803 | CLA  | O2D-CGD-O1D | -2.31 | 119.32      | 123.84   |
| 21  | 1     | 608  | CLA  | O1D-CGD-CBD | -2.31 | 119.76      | 124.48   |
| 21  | A     | 1105 | CLA  | C2A-C1A-CHA | 2.31  | 127.89      | 123.86   |
| 21  | B     | 1212 | CLA  | O2A-CGA-CBA | 2.31  | 119.15      | 111.91   |
| 24  | A     | 4006 | BCR  | C34-C9-C10  | -2.31 | 119.69      | 122.92   |
| 35  | 4     | 502  | XAT  | C26-C27-C28 | -2.31 | 121.11      | 125.99   |
| 21  | 1     | 615  | CLA  | CHA-C1A-NA  | -2.31 | 121.11      | 126.40   |
| 21  | 1     | 606  | CLA  | C3D-C2D-C1D | -2.31 | 102.68      | 105.83   |
| 21  | L     | 1504 | CLA  | CMD-C2D-C3D | -2.31 | 122.31      | 127.61   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 5     | 601  | CLA  | CAA-CBA-CGA | 2.31  | 118.63      | 112.51   |
| 21  | 4     | 609  | CLA  | C3D-C2D-C1D | -2.31 | 102.69      | 105.83   |
| 24  | 3     | 503  | BCR  | C38-C26-C25 | -2.30 | 121.94      | 124.53   |
| 21  | K     | 1403 | CLA  | C1D-ND-C4D  | -2.30 | 104.70      | 106.33   |
| 24  | B     | 4001 | BCR  | C19-C18-C17 | 2.30  | 122.48      | 118.94   |
| 21  | 5     | 606  | CLA  | O2A-CGA-CBA | 2.30  | 119.13      | 111.91   |
| 36  | 2     | 610  | CHL  | C1-C2-C3    | -2.30 | 122.06      | 126.04   |
| 21  | 2     | 605  | CLA  | CHA-C1A-NA  | -2.30 | 121.13      | 126.40   |
| 21  | B     | 1230 | CLA  | C1D-ND-C4D  | -2.30 | 104.70      | 106.33   |
| 21  | 3     | 605  | CLA  | CMB-C2B-C3B | 2.30  | 128.98      | 124.68   |
| 21  | B     | 1218 | CLA  | C6-C7-C8    | -2.30 | 108.48      | 115.92   |
| 21  | 5     | 613  | CLA  | O1D-CGD-CBD | -2.30 | 119.78      | 124.48   |
| 21  | 3     | 615  | CLA  | CAA-C2A-C3A | -2.30 | 106.48      | 112.78   |
| 21  | B     | 1231 | CLA  | O2A-CGA-CBA | 2.30  | 119.12      | 111.91   |
| 21  | A     | 1124 | CLA  | O2A-CGA-CBA | 2.30  | 119.12      | 111.91   |
| 21  | 6     | 607  | CLA  | O2A-CGA-CBA | 2.30  | 119.12      | 111.91   |
| 21  | 2     | 615  | CLA  | C2A-C1A-CHA | 2.30  | 127.88      | 123.86   |
| 21  | A     | 1107 | CLA  | CAA-CBA-CGA | -2.30 | 106.54      | 113.25   |
| 21  | 5     | 606  | CLA  | O2D-CGD-O1D | -2.30 | 119.35      | 123.84   |
| 21  | 2     | 601  | CLA  | OBD-CAD-C3D | -2.30 | 122.99      | 128.52   |
| 21  | A     | 1124 | CLA  | C1-C2-C3    | -2.30 | 122.07      | 126.04   |
| 21  | 5     | 602  | CLA  | CAA-C2A-C3A | -2.30 | 106.49      | 112.78   |
| 21  | B     | 1227 | CLA  | CMB-C2B-C3B | 2.30  | 128.97      | 124.68   |
| 21  | 3     | 611  | CLA  | C1-O2A-CGA  | 2.30  | 122.47      | 116.44   |
| 36  | 5     | 610  | CHL  | CHB-C4A-NA  | 2.30  | 127.69      | 124.51   |
| 21  | 2     | 605  | CLA  | C1D-ND-C4D  | -2.30 | 104.70      | 106.33   |
| 21  | L     | 1501 | CLA  | CAA-C2A-C1A | -2.30 | 104.45      | 111.97   |
| 21  | 3     | 614  | CLA  | CHA-C1A-NA  | -2.30 | 121.14      | 126.40   |
| 21  | B     | 1223 | CLA  | C3D-C2D-C1D | -2.30 | 102.70      | 105.83   |
| 21  | L     | 1502 | CLA  | CMC-C2C-C1C | 2.29  | 128.53      | 125.04   |
| 21  | B     | 1222 | CLA  | C1C-C2C-C3C | -2.29 | 104.54      | 106.96   |
| 21  | A     | 1111 | CLA  | O2D-CGD-O1D | -2.29 | 119.35      | 123.84   |
| 21  | 1     | 612  | CLA  | CMB-C2B-C3B | 2.29  | 128.97      | 124.68   |
| 21  | 4     | 601  | CLA  | C1C-C2C-C3C | -2.29 | 104.55      | 106.96   |
| 21  | 6     | 605  | CLA  | CMD-C2D-C3D | -2.29 | 122.34      | 127.61   |
| 21  | A     | 1137 | CLA  | C1-C2-C3    | -2.29 | 122.08      | 126.04   |
| 21  | A     | 1118 | CLA  | C1-C2-C3    | -2.29 | 123.04      | 126.75   |
| 21  | B     | 1222 | CLA  | O2A-CGA-CBA | 2.29  | 119.10      | 111.91   |
| 36  | 2     | 610  | CHL  | CMB-C2B-C1B | -2.29 | 124.94      | 128.46   |
| 21  | 5     | 612  | CLA  | C3A-C2A-C1A | 2.29  | 104.77      | 101.34   |
| 21  | B     | 1229 | CLA  | C6-C5-C3    | -2.29 | 107.44      | 113.45   |
| 21  | 1     | 601  | CLA  | O2D-CGD-O1D | -2.29 | 119.36      | 123.84   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 3     | 607  | CLA  | O1D-CGD-CBD | -2.29 | 119.80      | 124.48   |
| 21  | 6     | 605  | CLA  | C3D-C2D-C1D | -2.29 | 102.71      | 105.83   |
| 21  | A     | 1105 | CLA  | CHA-C1A-NA  | -2.29 | 121.16      | 126.40   |
| 36  | 2     | 609  | CHL  | CHC-C1C-NC  | 2.29  | 127.67      | 124.20   |
| 21  | A     | 1141 | CLA  | O2D-CGD-O1D | -2.29 | 119.36      | 123.84   |
| 21  | 5     | 614  | CLA  | O1D-CGD-CBD | -2.29 | 119.80      | 124.48   |
| 21  | A     | 1128 | CLA  | CMD-C2D-C3D | -2.29 | 122.35      | 127.61   |
| 21  | A     | 1123 | CLA  | CMA-C3A-C4A | 2.29  | 117.92      | 111.77   |
| 34  | 5     | 501  | LUT  | C11-C10-C9  | -2.29 | 124.05      | 127.31   |
| 21  | A     | 1132 | CLA  | O2A-CGA-CBA | 2.29  | 119.08      | 111.91   |
| 21  | B     | 1211 | CLA  | CHA-C1A-NA  | -2.29 | 121.16      | 126.40   |
| 21  | 1     | 604  | CLA  | C2A-C3A-C4A | 2.29  | 105.56      | 101.87   |
| 21  | 5     | 608  | CLA  | CAC-C3C-C4C | 2.29  | 127.78      | 124.81   |
| 21  | 3     | 602  | CLA  | CHA-C1A-NA  | -2.29 | 121.16      | 126.40   |
| 21  | 5     | 604  | CLA  | CHA-C1A-NA  | -2.29 | 121.16      | 126.40   |
| 21  | B     | 1229 | CLA  | C2C-C1C-NC  | 2.29  | 112.11      | 109.97   |
| 21  | 3     | 601  | CLA  | CMA-C3A-C2A | -2.29 | 104.61      | 113.83   |
| 21  | 5     | 608  | CLA  | CHA-C4D-ND  | 2.29  | 137.28      | 132.50   |
| 24  | G     | 4001 | BCR  | C23-C24-C25 | -2.28 | 120.78      | 127.20   |
| 21  | B     | 1220 | CLA  | O2D-CGD-O1D | -2.28 | 119.37      | 123.84   |
| 21  | 6     | 612  | CLA  | C1D-ND-C4D  | -2.28 | 104.71      | 106.33   |
| 35  | 2     | 502  | XAT  | O4-C5-C4    | -2.28 | 111.67      | 113.38   |
| 21  | 6     | 607  | CLA  | C1-C2-C3    | -2.28 | 122.09      | 126.04   |
| 21  | K     | 1404 | CLA  | CMD-C2D-C3D | -2.28 | 122.36      | 127.61   |
| 21  | 2     | 606  | CLA  | CMD-C2D-C3D | -2.28 | 122.36      | 127.61   |
| 24  | L     | 4002 | BCR  | C23-C24-C25 | -2.28 | 120.79      | 127.20   |
| 34  | 5     | 504  | LUT  | C31-C32-C33 | -2.28 | 120.00      | 126.42   |
| 24  | K     | 4001 | BCR  | C23-C24-C25 | -2.28 | 120.79      | 127.20   |
| 21  | 1     | 606  | CLA  | C2A-C1A-CHA | 2.28  | 127.85      | 123.86   |
| 21  | A     | 1123 | CLA  | CMB-C2B-C1B | -2.28 | 124.96      | 128.46   |
| 21  | L     | 1503 | CLA  | CHA-C1A-NA  | -2.28 | 121.17      | 126.40   |
| 21  | 6     | 604  | CLA  | C1C-C2C-C3C | -2.28 | 104.56      | 106.96   |
| 27  | 6     | 805  | LMU  | C1B-O1B-C4' | -2.28 | 112.32      | 117.96   |
| 21  | A     | 1013 | CLA  | C1C-C2C-C3C | -2.28 | 104.56      | 106.96   |
| 34  | 6     | 501  | LUT  | C31-C32-C33 | -2.28 | 120.02      | 126.42   |
| 21  | A     | 1137 | CLA  | C2A-C1A-CHA | 2.28  | 127.84      | 123.86   |
| 21  | B     | 1231 | CLA  | O2D-CGD-O1D | -2.28 | 119.39      | 123.84   |
| 21  | 4     | 606  | CLA  | O2D-CGD-O1D | -2.28 | 119.39      | 123.84   |
| 21  | A     | 1136 | CLA  | CHA-C4D-ND  | 2.28  | 137.26      | 132.50   |
| 21  | K     | 1402 | CLA  | CAA-C2A-C3A | -2.28 | 106.54      | 112.78   |
| 24  | A     | 4007 | BCR  | C33-C5-C6   | -2.28 | 121.97      | 124.53   |
| 21  | 4     | 607  | CLA  | CHA-C1A-NA  | -2.27 | 121.19      | 126.40   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 612  | CLA  | CAA-C2A-C3A | -2.27 | 106.55      | 112.78   |
| 21  | 1     | 602  | CLA  | CHA-C1A-NA  | -2.27 | 121.19      | 126.40   |
| 21  | B     | 1218 | CLA  | CAC-C3C-C4C | 2.27  | 127.76      | 124.81   |
| 21  | A     | 1120 | CLA  | CAA-C2A-C1A | -2.27 | 104.53      | 111.97   |
| 21  | G     | 1601 | CLA  | O2A-CGA-CBA | 2.27  | 119.03      | 111.91   |
| 21  | B     | 1207 | CLA  | CAA-C2A-C3A | -2.27 | 106.56      | 112.78   |
| 21  | B     | 1225 | CLA  | CHA-C1A-NA  | -2.27 | 121.20      | 126.40   |
| 21  | L     | 1502 | CLA  | CHA-C1A-NA  | -2.27 | 121.20      | 126.40   |
| 24  | H     | 4001 | BCR  | C36-C18-C17 | -2.27 | 119.74      | 122.92   |
| 24  | F     | 4002 | BCR  | C31-C1-C6   | -2.27 | 106.62      | 110.30   |
| 21  | A     | 1119 | CLA  | CMD-C2D-C3D | -2.27 | 122.39      | 127.61   |
| 24  | H     | 4001 | BCR  | C34-C9-C10  | -2.27 | 119.75      | 122.92   |
| 21  | K     | 1401 | CLA  | CHA-C1A-NA  | -2.27 | 121.20      | 126.40   |
| 21  | B     | 1229 | CLA  | O1D-CGD-CBD | -2.27 | 119.84      | 124.48   |
| 21  | B     | 1211 | CLA  | CAA-C2A-C3A | -2.27 | 106.57      | 112.78   |
| 21  | 6     | 612  | CLA  | C3D-C2D-C1D | -2.27 | 102.74      | 105.83   |
| 21  | 3     | 605  | CLA  | CHA-C1A-NA  | -2.27 | 121.21      | 126.40   |
| 21  | 6     | 613  | CLA  | C1D-ND-C4D  | -2.27 | 104.72      | 106.33   |
| 36  | 2     | 611  | CHL  | C1B-CHB-C4A | -2.27 | 125.63      | 130.12   |
| 21  | 3     | 606  | CLA  | CHD-C4C-C3C | 2.26  | 128.17      | 124.84   |
| 21  | G     | 1603 | CLA  | CGD-CBD-CAD | -2.26 | 103.40      | 110.73   |
| 21  | 5     | 604  | CLA  | O2A-CGA-CBA | 2.26  | 119.01      | 111.91   |
| 21  | 6     | 601  | CLA  | O2A-CGA-CBA | 2.26  | 119.01      | 111.91   |
| 21  | 1     | 612  | CLA  | CHA-C1A-NA  | -2.26 | 121.22      | 126.40   |
| 21  | A     | 1102 | CLA  | CMB-C2B-C3B | 2.26  | 128.91      | 124.68   |
| 21  | 4     | 608  | CLA  | CHA-C1A-NA  | -2.26 | 121.22      | 126.40   |
| 21  | B     | 1202 | CLA  | C1D-ND-C4D  | -2.26 | 104.73      | 106.33   |
| 21  | 4     | 612  | CLA  | C1C-C2C-C3C | -2.26 | 104.58      | 106.96   |
| 21  | 6     | 613  | CLA  | C2D-C1D-ND  | 2.26  | 111.77      | 110.10   |
| 21  | A     | 1101 | CLA  | CMD-C2D-C3D | -2.26 | 122.41      | 127.61   |
| 21  | A     | 1132 | CLA  | CMD-C2D-C3D | -2.26 | 122.41      | 127.61   |
| 36  | 4     | 613  | CHL  | CHD-C1D-ND  | -2.26 | 122.38      | 124.45   |
| 24  | L     | 4001 | BCR  | C36-C18-C17 | -2.26 | 119.76      | 122.92   |
| 37  | 6     | 803  | SQD  | O3-C3-C2    | -2.26 | 105.12      | 110.35   |
| 36  | 4     | 611  | CHL  | C2C-C3C-C4C | 2.26  | 108.10      | 106.49   |
| 21  | A     | 1130 | CLA  | CMD-C2D-C3D | -2.26 | 122.42      | 127.61   |
| 21  | 4     | 612  | CLA  | O2A-CGA-CBA | 2.26  | 119.00      | 111.91   |
| 21  | 4     | 607  | CLA  | O2A-CGA-CBA | 2.26  | 118.99      | 111.91   |
| 21  | B     | 1214 | CLA  | CMB-C2B-C3B | 2.26  | 128.90      | 124.68   |
| 24  | F     | 4002 | BCR  | C2-C1-C6    | 2.26  | 113.95      | 110.48   |
| 21  | A     | 1109 | CLA  | C2D-C1D-ND  | 2.26  | 111.77      | 110.10   |
| 21  | 4     | 615  | CLA  | CMD-C2D-C3D | -2.25 | 122.43      | 127.61   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 3     | 612  | CLA  | CHA-C1A-NA  | -2.25 | 121.24      | 126.40   |
| 34  | 4     | 501  | LUT  | C31-C32-C33 | -2.25 | 120.08      | 126.42   |
| 21  | 5     | 602  | CLA  | CHA-C4D-ND  | 2.25  | 137.21      | 132.50   |
| 21  | A     | 1108 | CLA  | CHA-C1A-NA  | -2.25 | 121.24      | 126.40   |
| 24  | H     | 4001 | BCR  | C1-C6-C7    | 2.25  | 122.15      | 115.78   |
| 34  | 6     | 501  | LUT  | C39-C29-C30 | -2.25 | 119.77      | 122.92   |
| 21  | B     | 1205 | CLA  | CBA-CAA-C2A | 2.25  | 120.51      | 113.86   |
| 21  | A     | 1119 | CLA  | O2D-CGD-O1D | -2.25 | 119.44      | 123.84   |
| 21  | 4     | 605  | CLA  | CHA-C1A-NA  | -2.25 | 121.24      | 126.40   |
| 21  | B     | 1222 | CLA  | C2C-C1C-NC  | 2.25  | 112.08      | 109.97   |
| 21  | 6     | 613  | CLA  | CHA-C1A-NA  | -2.25 | 121.25      | 126.40   |
| 21  | 3     | 614  | CLA  | O2D-CGD-O1D | -2.25 | 119.44      | 123.84   |
| 27  | B     | 5004 | LMU  | C1B-O1B-C4' | -2.25 | 112.40      | 117.96   |
| 21  | B     | 1237 | CLA  | CAC-C3C-C4C | 2.25  | 127.73      | 124.81   |
| 21  | A     | 1139 | CLA  | CMD-C2D-C3D | -2.25 | 122.44      | 127.61   |
| 21  | A     | 1127 | CLA  | CHA-C4D-ND  | 2.25  | 137.20      | 132.50   |
| 33  | 1     | 806  | PTY  | C6-O7-C8    | -2.25 | 113.71      | 117.90   |
| 21  | H     | 1701 | CLA  | C6-C7-C8    | -2.25 | 108.66      | 115.92   |
| 21  | B     | 1201 | CLA  | C2A-C1A-CHA | 2.25  | 127.79      | 123.86   |
| 21  | B     | 1214 | CLA  | C2D-C1D-ND  | 2.25  | 111.76      | 110.10   |
| 21  | 1     | 607  | CLA  | CHA-C1A-NA  | -2.25 | 121.25      | 126.40   |
| 35  | 1     | 502  | XAT  | C16-C1-C6   | -2.25 | 103.98      | 110.05   |
| 21  | B     | 1224 | CLA  | CMB-C2B-C1B | -2.25 | 125.01      | 128.46   |
| 21  | B     | 1224 | CLA  | C6-C5-C3    | -2.24 | 107.57      | 113.45   |
| 21  | 6     | 601  | CLA  | CMD-C2D-C3D | -2.24 | 122.45      | 127.61   |
| 21  | 2     | 607  | CLA  | CHA-C1A-NA  | -2.24 | 121.26      | 126.40   |
| 34  | 5     | 503  | LUT  | C11-C12-C13 | -2.24 | 120.11      | 126.42   |
| 21  | 2     | 602  | CLA  | O2A-CGA-CBA | 2.24  | 118.95      | 111.91   |
| 21  | B     | 1214 | CLA  | CHA-C1A-NA  | -2.24 | 121.26      | 126.40   |
| 21  | 5     | 607  | CLA  | CHD-C1D-ND  | -2.24 | 122.39      | 124.45   |
| 21  | 4     | 605  | CLA  | CAA-CBA-CGA | -2.24 | 106.70      | 113.25   |
| 21  | B     | 1022 | CLA  | O2A-CGA-CBA | 2.24  | 118.94      | 111.91   |
| 21  | B     | 1234 | CLA  | C2A-C1A-CHA | 2.24  | 127.78      | 123.86   |
| 21  | K     | 1402 | CLA  | CMD-C2D-C3D | -2.24 | 122.46      | 127.61   |
| 21  | B     | 1205 | CLA  | C1D-ND-C4D  | -2.24 | 104.74      | 106.33   |
| 36  | 1     | 610  | CHL  | C2A-C1A-CHA | 2.24  | 127.78      | 123.86   |
| 21  | 3     | 608  | CLA  | C2C-C1C-NC  | 2.24  | 112.07      | 109.97   |
| 21  | B     | 1201 | CLA  | CHA-C1A-NA  | -2.24 | 121.27      | 126.40   |
| 21  | A     | 1105 | CLA  | O2A-CGA-CBA | 2.24  | 118.93      | 111.91   |
| 21  | 6     | 605  | CLA  | C2A-C1A-CHA | 2.24  | 127.77      | 123.86   |
| 21  | K     | 1403 | CLA  | C1-O2A-CGA  | 2.24  | 122.32      | 116.44   |
| 21  | 5     | 614  | CLA  | O2A-CGA-CBA | 2.24  | 118.93      | 111.91   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 5     | 603  | CLA  | C4-C3-C2    | -2.24 | 117.94      | 123.68   |
| 21  | A     | 1126 | CLA  | C2C-C1C-NC  | 2.24  | 112.07      | 109.97   |
| 21  | 1     | 603  | CLA  | C1C-C2C-C3C | -2.24 | 104.60      | 106.96   |
| 34  | 2     | 501  | LUT  | C35-C15-C14 | -2.24 | 118.89      | 123.47   |
| 21  | A     | 1111 | CLA  | C1-C2-C3    | -2.24 | 122.17      | 126.04   |
| 21  | 3     | 612  | CLA  | O2A-CGA-CBA | 2.24  | 118.93      | 111.91   |
| 21  | B     | 1204 | CLA  | C1D-ND-C4D  | -2.24 | 104.75      | 106.33   |
| 24  | A     | 4004 | BCR  | C30-C25-C24 | 2.24  | 122.11      | 115.78   |
| 21  | B     | 1229 | CLA  | CHA-C1A-NA  | -2.24 | 121.28      | 126.40   |
| 21  | A     | 1140 | CLA  | C1C-C2C-C3C | -2.24 | 104.61      | 106.96   |
| 21  | 3     | 615  | CLA  | CMD-C2D-C3D | -2.24 | 122.47      | 127.61   |
| 21  | B     | 1202 | CLA  | C2A-C1A-CHA | 2.24  | 127.77      | 123.86   |
| 21  | A     | 1110 | CLA  | C5-C3-C2    | 2.24  | 125.64      | 121.12   |
| 21  | A     | 1137 | CLA  | CAC-C3C-C4C | 2.24  | 127.71      | 124.81   |
| 24  | 3     | 506  | BCR  | C1-C6-C7    | 2.24  | 122.10      | 115.78   |
| 21  | 2     | 602  | CLA  | C3D-C2D-C1D | -2.24 | 102.78      | 105.83   |
| 25  | 2     | 803  | LHG  | C6-C5-C4    | -2.24 | 106.50      | 111.79   |
| 21  | A     | 1118 | CLA  | CMD-C2D-C3D | -2.24 | 122.47      | 127.61   |
| 24  | 4     | 503  | BCR  | C23-C22-C21 | 2.24  | 122.37      | 118.94   |
| 21  | 6     | 604  | CLA  | C2C-C1C-NC  | 2.24  | 112.07      | 109.97   |
| 21  | O     | 1801 | CLA  | C2D-C1D-ND  | 2.23  | 111.75      | 110.10   |
| 21  | B     | 1234 | CLA  | CHA-C1A-NA  | -2.23 | 121.28      | 126.40   |
| 21  | B     | 1222 | CLA  | O1D-CGD-CBD | -2.23 | 119.91      | 124.48   |
| 24  | B     | 4003 | BCR  | C33-C5-C4   | 2.23  | 117.91      | 113.62   |
| 21  | 6     | 609  | CLA  | O2D-CGD-O1D | -2.23 | 119.47      | 123.84   |
| 21  | F     | 1301 | CLA  | CMD-C2D-C3D | -2.23 | 122.48      | 127.61   |
| 21  | A     | 1111 | CLA  | CMD-C2D-C3D | -2.23 | 122.48      | 127.61   |
| 21  | A     | 1119 | CLA  | CHA-C1A-NA  | -2.23 | 121.28      | 126.40   |
| 21  | B     | 1209 | CLA  | CHA-C1A-NA  | -2.23 | 121.28      | 126.40   |
| 34  | 2     | 501  | LUT  | C1-C6-C7    | 2.23  | 122.09      | 115.78   |
| 21  | B     | 1023 | CLA  | O2D-CGD-O1D | -2.23 | 119.47      | 123.84   |
| 21  | B     | 1202 | CLA  | O2A-CGA-O1A | -2.23 | 117.96      | 123.59   |
| 21  | B     | 1211 | CLA  | C6-C5-C3    | -2.23 | 107.60      | 113.45   |
| 21  | B     | 1238 | CLA  | CMB-C2B-C3B | 2.23  | 128.85      | 124.68   |
| 21  | A     | 1125 | CLA  | CHA-C1A-NA  | -2.23 | 121.29      | 126.40   |
| 21  | A     | 1108 | CLA  | C1-C2-C3    | -2.23 | 122.18      | 126.04   |
| 21  | B     | 1228 | CLA  | C1C-C2C-C3C | -2.23 | 104.61      | 106.96   |
| 21  | A     | 1118 | CLA  | O1D-CGD-CBD | -2.23 | 119.92      | 124.48   |
| 21  | 3     | 602  | CLA  | CMD-C2D-C3D | -2.23 | 122.48      | 127.61   |
| 21  | B     | 1021 | CLA  | C2A-C1A-CHA | 2.23  | 127.76      | 123.86   |
| 31  | 1     | 804  | LMG  | O8-C28-C29  | 2.23  | 118.90      | 111.91   |
| 21  | B     | 1229 | CLA  | C3D-C2D-C1D | -2.23 | 102.79      | 105.83   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1133 | CLA  | CMB-C2B-C3B | 2.23  | 128.85      | 124.68   |
| 21  | A     | 1103 | CLA  | C1C-C2C-C3C | -2.23 | 104.61      | 106.96   |
| 21  | B     | 1240 | CLA  | CHA-C1A-NA  | -2.23 | 121.30      | 126.40   |
| 21  | 2     | 612  | CLA  | O2A-CGA-CBA | 2.23  | 118.90      | 111.91   |
| 24  | O     | 4001 | BCR  | C36-C18-C19 | 2.23  | 121.59      | 118.08   |
| 21  | 2     | 603  | CLA  | CMD-C2D-C3D | -2.23 | 122.49      | 127.61   |
| 21  | 4     | 609  | CLA  | C2A-C1A-CHA | 2.23  | 127.75      | 123.86   |
| 21  | L     | 1501 | CLA  | C1C-C2C-C3C | -2.23 | 104.61      | 106.96   |
| 21  | B     | 1234 | CLA  | O2A-CGA-CBA | 2.23  | 118.90      | 111.91   |
| 21  | B     | 1204 | CLA  | C3D-C2D-C1D | -2.23 | 102.79      | 105.83   |
| 21  | B     | 1234 | CLA  | OBD-CAD-C3D | -2.23 | 123.16      | 128.52   |
| 24  | B     | 4002 | BCR  | C34-C9-C10  | -2.23 | 119.81      | 122.92   |
| 24  | 2     | 503  | BCR  | C37-C22-C23 | 2.23  | 121.58      | 118.08   |
| 34  | 4     | 501  | LUT  | C17-C1-C6   | 2.23  | 113.91      | 110.30   |
| 21  | B     | 1206 | CLA  | CHA-C1A-NA  | -2.22 | 121.30      | 126.40   |
| 21  | F     | 1302 | CLA  | CHA-C1A-NA  | -2.22 | 121.30      | 126.40   |
| 21  | 1     | 613  | CLA  | C3D-C2D-C1D | -2.22 | 102.80      | 105.83   |
| 37  | 2     | 805  | SQD  | O3-C3-C2    | -2.22 | 105.21      | 110.35   |
| 21  | 1     | 605  | CLA  | CBC-CAC-C3C | -2.22 | 106.30      | 112.43   |
| 25  | B     | 5001 | LHG  | C5-O7-C7    | -2.22 | 112.32      | 117.79   |
| 21  | A     | 1119 | CLA  | C3D-C2D-C1D | -2.22 | 102.80      | 105.83   |
| 21  | A     | 1119 | CLA  | C2C-C1C-NC  | 2.22  | 112.05      | 109.97   |
| 21  | A     | 1108 | CLA  | O1D-CGD-CBD | -2.22 | 119.94      | 124.48   |
| 36  | 2     | 610  | CHL  | C1D-CHD-C4C | -2.22 | 121.27      | 126.06   |
| 36  | 1     | 609  | CHL  | CHB-C4A-NA  | 2.22  | 127.58      | 124.51   |
| 21  | 1     | 611  | CLA  | CMD-C2D-C3D | -2.22 | 122.50      | 127.61   |
| 21  | B     | 1220 | CLA  | CAC-C3C-C4C | 2.22  | 127.69      | 124.81   |
| 21  | B     | 1213 | CLA  | CMA-C3A-C4A | 2.22  | 117.74      | 111.77   |
| 21  | 1     | 608  | CLA  | O2A-CGA-CBA | 2.22  | 118.88      | 111.91   |
| 21  | 4     | 604  | CLA  | O2A-CGA-CBA | 2.22  | 118.88      | 111.91   |
| 21  | 5     | 607  | CLA  | C6-C5-C3    | -2.22 | 107.63      | 113.45   |
| 21  | 5     | 613  | CLA  | CAA-C2A-C3A | -2.22 | 106.70      | 112.78   |
| 21  | 5     | 602  | CLA  | CBA-CAA-C2A | -2.22 | 107.31      | 113.86   |
| 21  | A     | 1105 | CLA  | CAC-C3C-C4C | 2.22  | 127.69      | 124.81   |
| 21  | A     | 1105 | CLA  | C3D-C2D-C1D | -2.22 | 102.80      | 105.83   |
| 21  | B     | 1207 | CLA  | CMD-C2D-C3D | -2.22 | 122.51      | 127.61   |
| 21  | B     | 1234 | CLA  | CMA-C3A-C4A | 2.22  | 117.73      | 111.77   |
| 21  | 1     | 606  | CLA  | CMB-C2B-C1B | -2.22 | 125.06      | 128.46   |
| 21  | B     | 1203 | CLA  | C2A-C1A-CHA | 2.22  | 127.74      | 123.86   |
| 21  | 4     | 609  | CLA  | C1D-ND-C4D  | -2.22 | 104.76      | 106.33   |
| 21  | B     | 1210 | CLA  | O2A-CGA-CBA | 2.22  | 118.86      | 111.91   |
| 21  | 3     | 603  | CLA  | O2A-CGA-CBA | 2.22  | 118.86      | 111.91   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 2     | 608  | CLA  | CHA-C1A-NA  | -2.22 | 121.32      | 126.40   |
| 36  | 6     | 610  | CHL  | CHD-C4C-C3C | 2.22  | 128.10      | 124.84   |
| 21  | A     | 1112 | CLA  | CMD-C2D-C3D | -2.22 | 122.52      | 127.61   |
| 21  | A     | 1106 | CLA  | CMA-C3A-C4A | 2.21  | 117.73      | 111.77   |
| 21  | A     | 1108 | CLA  | CMA-C3A-C4A | 2.21  | 117.73      | 111.77   |
| 36  | 2     | 613  | CHL  | CHC-C1C-NC  | 2.21  | 127.56      | 124.20   |
| 21  | B     | 1236 | CLA  | O2A-CGA-CBA | 2.21  | 118.86      | 111.91   |
| 21  | 3     | 606  | CLA  | O2A-CGA-CBA | 2.21  | 118.86      | 111.91   |
| 21  | L     | 1502 | CLA  | CHA-C4D-ND  | 2.21  | 137.13      | 132.50   |
| 21  | 3     | 606  | CLA  | O1D-CGD-CBD | -2.21 | 119.95      | 124.48   |
| 21  | 1     | 608  | CLA  | C1-O2A-CGA  | 2.21  | 122.25      | 116.44   |
| 21  | 4     | 601  | CLA  | CMB-C2B-C1B | -2.21 | 125.06      | 128.46   |
| 21  | B     | 1232 | CLA  | CHD-C1D-ND  | -2.21 | 122.42      | 124.45   |
| 21  | A     | 1013 | CLA  | C2C-C1C-NC  | 2.21  | 112.05      | 109.97   |
| 21  | B     | 1234 | CLA  | C1C-C2C-C3C | -2.21 | 104.63      | 106.96   |
| 35  | 4     | 502  | XAT  | O24-C25-C24 | 2.21  | 115.04      | 113.38   |
| 21  | 6     | 604  | CLA  | CMD-C2D-C3D | -2.21 | 122.53      | 127.61   |
| 21  | 5     | 601  | CLA  | C2C-C1C-NC  | 2.21  | 112.04      | 109.97   |
| 21  | 5     | 603  | CLA  | CHA-C1A-NA  | -2.21 | 121.34      | 126.40   |
| 24  | 3     | 504  | BCR  | C33-C5-C6   | -2.21 | 122.05      | 124.53   |
| 34  | 2     | 501  | LUT  | C1-C6-C5    | -2.21 | 119.50      | 122.61   |
| 21  | G     | 1601 | CLA  | CMD-C2D-C3D | -2.21 | 122.53      | 127.61   |
| 21  | 3     | 605  | CLA  | C2D-C1D-ND  | 2.21  | 111.73      | 110.10   |
| 21  | A     | 1118 | CLA  | O2A-CGA-CBA | 2.21  | 118.84      | 111.91   |
| 21  | B     | 1209 | CLA  | CMD-C2D-C3D | -2.21 | 122.54      | 127.61   |
| 21  | 6     | 609  | CLA  | CMD-C2D-C3D | -2.21 | 122.54      | 127.61   |
| 21  | B     | 1224 | CLA  | C3D-C2D-C1D | -2.21 | 102.82      | 105.83   |
| 21  | A     | 1111 | CLA  | CHA-C1A-NA  | -2.21 | 121.35      | 126.40   |
| 21  | B     | 1237 | CLA  | CAA-C2A-C3A | -2.21 | 106.74      | 112.78   |
| 24  | B     | 4004 | BCR  | C34-C9-C10  | -2.21 | 119.83      | 122.92   |
| 21  | 1     | 604  | CLA  | C1-C2-C3    | -2.21 | 122.23      | 126.04   |
| 21  | A     | 1110 | CLA  | C1-C2-C3    | -2.21 | 122.23      | 126.04   |
| 21  | B     | 1234 | CLA  | CBA-CAA-C2A | -2.21 | 107.35      | 113.86   |
| 21  | B     | 1206 | CLA  | CMD-C2D-C3D | -2.20 | 122.54      | 127.61   |
| 21  | B     | 1208 | CLA  | CMD-C2D-C3D | -2.20 | 122.54      | 127.61   |
| 21  | 6     | 607  | CLA  | CMD-C2D-C3D | -2.20 | 122.54      | 127.61   |
| 20  | A     | 1011 | CL0  | CMB-C2B-C3B | 2.20  | 128.80      | 124.68   |
| 21  | 2     | 605  | CLA  | O1D-CGD-CBD | -2.20 | 119.97      | 124.48   |
| 21  | J     | 1901 | CLA  | CHD-C1D-ND  | -2.20 | 122.43      | 124.45   |
| 21  | 3     | 613  | CLA  | CMC-C2C-C1C | 2.20  | 128.40      | 125.04   |
| 21  | 3     | 603  | CLA  | C1C-C2C-C3C | -2.20 | 104.64      | 106.96   |
| 21  | A     | 1126 | CLA  | C2A-C1A-CHA | 2.20  | 127.71      | 123.86   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 1     | 604  | CLA  | C1C-C2C-C3C | -2.20 | 104.64      | 106.96   |
| 21  | 5     | 601  | CLA  | CMC-C2C-C1C | 2.20  | 128.39      | 125.04   |
| 21  | 5     | 607  | CLA  | CHA-C1A-NA  | -2.20 | 121.35      | 126.40   |
| 21  | A     | 1135 | CLA  | CHD-C1D-ND  | -2.20 | 122.43      | 124.45   |
| 21  | 3     | 602  | CLA  | C2A-C1A-CHA | 2.20  | 127.71      | 123.86   |
| 24  | B     | 4001 | BCR  | C35-C13-C12 | 2.20  | 121.55      | 118.08   |
| 21  | 2     | 612  | CLA  | CHB-C4A-NA  | 2.20  | 127.56      | 124.51   |
| 21  | B     | 1021 | CLA  | C3D-C2D-C1D | -2.20 | 102.83      | 105.83   |
| 21  | J     | 1901 | CLA  | CMD-C2D-C3D | -2.20 | 122.56      | 127.61   |
| 21  | 4     | 603  | CLA  | CHA-C1A-NA  | -2.20 | 121.36      | 126.40   |
| 21  | B     | 1222 | CLA  | CMA-C3A-C4A | 2.20  | 117.68      | 111.77   |
| 21  | A     | 1139 | CLA  | O2D-CGD-O1D | -2.20 | 119.54      | 123.84   |
| 21  | A     | 1141 | CLA  | O1A-CGA-CBA | -2.20 | 115.16      | 123.73   |
| 21  | 6     | 602  | CLA  | CMD-C2D-C3D | -2.20 | 122.56      | 127.61   |
| 21  | 5     | 608  | CLA  | O2D-CGD-O1D | -2.20 | 119.54      | 123.84   |
| 21  | 1     | 613  | CLA  | C2A-C1A-CHA | 2.20  | 127.70      | 123.86   |
| 21  | B     | 1215 | CLA  | CHA-C1A-NA  | -2.20 | 121.36      | 126.40   |
| 21  | A     | 1102 | CLA  | C3D-C2D-C1D | -2.20 | 102.83      | 105.83   |
| 21  | A     | 1137 | CLA  | O2A-CGA-CBA | 2.20  | 118.80      | 111.91   |
| 21  | B     | 1227 | CLA  | C1C-C2C-C3C | -2.20 | 104.65      | 106.96   |
| 21  | 6     | 612  | CLA  | CHA-C1A-NA  | -2.20 | 121.37      | 126.40   |
| 21  | G     | 1602 | CLA  | CMD-C2D-C3D | -2.20 | 122.56      | 127.61   |
| 21  | A     | 1124 | CLA  | C3D-C2D-C1D | -2.20 | 102.83      | 105.83   |
| 21  | 1     | 607  | CLA  | CAA-C2A-C3A | -2.20 | 106.77      | 112.78   |
| 21  | B     | 1212 | CLA  | CMD-C2D-C3D | -2.20 | 122.56      | 127.61   |
| 21  | 1     | 601  | CLA  | CMD-C2D-C3D | -2.19 | 122.57      | 127.61   |
| 21  | 1     | 605  | CLA  | C1-O2A-CGA  | 2.19  | 122.20      | 116.44   |
| 21  | 1     | 613  | CLA  | CAC-C3C-C4C | 2.19  | 127.66      | 124.81   |
| 36  | 1     | 609  | CHL  | CMB-C2B-C1B | -2.19 | 125.09      | 128.46   |
| 21  | 3     | 603  | CLA  | C2A-C1A-CHA | 2.19  | 127.69      | 123.86   |
| 21  | 1     | 604  | CLA  | O1D-CGD-CBD | -2.19 | 120.00      | 124.48   |
| 21  | A     | 1120 | CLA  | C1-O2A-CGA  | 2.19  | 122.20      | 116.44   |
| 21  | B     | 1202 | CLA  | CMD-C2D-C3D | -2.19 | 122.57      | 127.61   |
| 21  | 4     | 604  | CLA  | CMD-C2D-C3D | -2.19 | 122.57      | 127.61   |
| 34  | 5     | 504  | LUT  | C18-C5-C4   | 2.19  | 118.42      | 114.36   |
| 21  | 2     | 612  | CLA  | C1-O2A-CGA  | 2.19  | 122.20      | 116.44   |
| 21  | A     | 1127 | CLA  | O2A-CGA-CBA | 2.19  | 118.79      | 111.91   |
| 24  | 3     | 506  | BCR  | C38-C26-C27 | 2.19  | 117.83      | 113.62   |
| 21  | A     | 1102 | CLA  | CMD-C2D-C3D | -2.19 | 122.57      | 127.61   |
| 21  | 5     | 605  | CLA  | CMD-C2D-C3D | -2.19 | 122.57      | 127.61   |
| 21  | B     | 1221 | CLA  | C2D-C1D-ND  | 2.19  | 111.72      | 110.10   |
| 21  | A     | 1140 | CLA  | CHA-C1A-NA  | -2.19 | 121.38      | 126.40   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 5     | 612  | CLA  | CHA-C1A-NA  | -2.19 | 121.38      | 126.40   |
| 36  | 6     | 610  | CHL  | CHC-C1C-NC  | 2.19  | 127.53      | 124.20   |
| 21  | B     | 1219 | CLA  | C4-C3-C5    | 2.19  | 118.95      | 115.27   |
| 21  | B     | 1022 | CLA  | CHA-C1A-NA  | -2.19 | 121.38      | 126.40   |
| 21  | B     | 1209 | CLA  | CAA-CBA-CGA | -2.19 | 106.86      | 113.25   |
| 24  | L     | 4001 | BCR  | C8-C9-C10   | 2.19  | 122.30      | 118.94   |
| 21  | H     | 1702 | CLA  | C3D-C2D-C1D | -2.19 | 102.84      | 105.83   |
| 21  | 5     | 606  | CLA  | CMD-C2D-C3D | -2.19 | 122.58      | 127.61   |
| 21  | A     | 1130 | CLA  | CHA-C1A-NA  | -2.19 | 121.39      | 126.40   |
| 21  | B     | 1209 | CLA  | C2D-C1D-ND  | 2.19  | 111.72      | 110.10   |
| 21  | 2     | 605  | CLA  | C3D-C2D-C1D | -2.19 | 102.85      | 105.83   |
| 21  | A     | 1013 | CLA  | CHA-C1A-NA  | -2.19 | 121.39      | 126.40   |
| 21  | O     | 1801 | CLA  | C2A-C1A-CHA | 2.19  | 126.10      | 122.71   |
| 21  | 6     | 603  | CLA  | CMD-C2D-C3D | -2.19 | 122.58      | 127.61   |
| 21  | 2     | 601  | CLA  | O2A-CGA-CBA | 2.19  | 118.77      | 111.91   |
| 21  | 5     | 602  | CLA  | C3A-C2A-C1A | 2.19  | 104.61      | 101.34   |
| 21  | 3     | 606  | CLA  | CHA-C1A-NA  | -2.18 | 121.39      | 126.40   |
| 21  | 1     | 613  | CLA  | O2D-CGD-O1D | -2.18 | 119.57      | 123.84   |
| 21  | F     | 1301 | CLA  | O2D-CGD-O1D | -2.18 | 119.57      | 123.84   |
| 24  | A     | 4002 | BCR  | C2-C3-C4    | -2.18 | 106.50      | 111.38   |
| 21  | A     | 1105 | CLA  | C1D-ND-C4D  | -2.18 | 104.78      | 106.33   |
| 21  | 1     | 605  | CLA  | CHA-C1A-NA  | -2.18 | 121.40      | 126.40   |
| 35  | 6     | 504  | XAT  | C10-C11-C12 | -2.18 | 116.41      | 123.22   |
| 21  | G     | 1603 | CLA  | CAC-C3C-C4C | 2.18  | 127.64      | 124.81   |
| 21  | B     | 1214 | CLA  | C3D-C2D-C1D | -2.18 | 102.85      | 105.83   |
| 21  | A     | 1115 | CLA  | O2A-CGA-CBA | 2.18  | 118.75      | 111.91   |
| 21  | A     | 1136 | CLA  | C3D-C2D-C1D | -2.18 | 102.86      | 105.83   |
| 21  | A     | 1101 | CLA  | CMC-C2C-C1C | 2.18  | 128.36      | 125.04   |
| 21  | A     | 1106 | CLA  | CHD-C1D-ND  | -2.18 | 122.45      | 124.45   |
| 21  | B     | 1231 | CLA  | C2D-C1D-ND  | 2.18  | 111.71      | 110.10   |
| 21  | 5     | 602  | CLA  | C1D-ND-C4D  | -2.18 | 104.79      | 106.33   |
| 34  | 5     | 502  | LUT  | C38-C25-C24 | -2.18 | 118.90      | 123.56   |
| 21  | B     | 1021 | CLA  | C1D-ND-C4D  | -2.18 | 104.79      | 106.33   |
| 21  | B     | 1227 | CLA  | C1D-ND-C4D  | -2.18 | 104.79      | 106.33   |
| 21  | 4     | 603  | CLA  | CMB-C2B-C1B | -2.18 | 125.12      | 128.46   |
| 21  | 2     | 607  | CLA  | C3D-C2D-C1D | -2.18 | 102.86      | 105.83   |
| 21  | A     | 1101 | CLA  | C2C-C1C-NC  | 2.18  | 112.01      | 109.97   |
| 21  | A     | 1108 | CLA  | C1-O2A-CGA  | 2.18  | 122.16      | 116.44   |
| 21  | 4     | 606  | CLA  | CMB-C2B-C3B | 2.18  | 128.75      | 124.68   |
| 21  | A     | 1125 | CLA  | CHD-C1D-ND  | -2.18 | 122.45      | 124.45   |
| 21  | A     | 1133 | CLA  | C2A-C1A-CHA | 2.18  | 127.67      | 123.86   |
| 21  | B     | 1223 | CLA  | C2A-C1A-CHA | 2.18  | 127.67      | 123.86   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | O     | 1803 | CLA  | C2A-C1A-CHA | 2.18  | 127.67      | 123.86   |
| 21  | 3     | 613  | CLA  | CHA-C4D-ND  | 2.18  | 137.05      | 132.50   |
| 21  | 4     | 603  | CLA  | O2A-CGA-CBA | 2.18  | 118.74      | 111.91   |
| 21  | B     | 1219 | CLA  | CAC-C3C-C4C | 2.18  | 127.63      | 124.81   |
| 21  | 2     | 612  | CLA  | CHA-C1A-NA  | -2.18 | 121.41      | 126.40   |
| 21  | B     | 1222 | CLA  | CMD-C2D-C3D | -2.18 | 122.61      | 127.61   |
| 21  | 5     | 604  | CLA  | CMD-C2D-C3D | -2.18 | 122.61      | 127.61   |
| 34  | 6     | 501  | LUT  | C35-C15-C14 | -2.18 | 119.02      | 123.47   |
| 21  | B     | 1210 | CLA  | CMD-C2D-C3D | -2.18 | 122.61      | 127.61   |
| 21  | F     | 1301 | CLA  | CMA-C3A-C4A | 2.17  | 117.62      | 111.77   |
| 21  | 5     | 603  | CLA  | C2A-C1A-CHA | 2.17  | 127.66      | 123.86   |
| 24  | 3     | 504  | BCR  | C30-C25-C26 | -2.17 | 119.55      | 122.61   |
| 21  | A     | 1101 | CLA  | C3D-C2D-C1D | -2.17 | 102.87      | 105.83   |
| 21  | A     | 1107 | CLA  | CMD-C2D-C3D | -2.17 | 122.62      | 127.61   |
| 21  | 3     | 615  | CLA  | C2A-C1A-CHA | 2.17  | 127.66      | 123.86   |
| 24  | B     | 4001 | BCR  | C37-C22-C23 | -2.17 | 114.66      | 118.08   |
| 21  | 5     | 601  | CLA  | C2D-C1D-ND  | 2.17  | 111.70      | 110.10   |
| 24  | L     | 4001 | BCR  | C34-C9-C10  | -2.17 | 119.88      | 122.92   |
| 21  | A     | 1131 | CLA  | CMA-C3A-C2A | -2.17 | 105.07      | 113.83   |
| 24  | 3     | 506  | BCR  | C32-C1-C6   | -2.17 | 106.78      | 110.30   |
| 21  | A     | 1121 | CLA  | CMD-C2D-C3D | -2.17 | 122.62      | 127.61   |
| 36  | 5     | 610  | CHL  | CHA-C1A-NA  | -2.17 | 121.43      | 126.40   |
| 24  | 3     | 504  | BCR  | C30-C25-C24 | 2.17  | 121.91      | 115.78   |
| 21  | A     | 1119 | CLA  | C11-C12-C13 | -2.17 | 108.91      | 115.92   |
| 34  | 3     | 501  | LUT  | C10-C11-C12 | -2.17 | 116.45      | 123.22   |
| 21  | A     | 1137 | CLA  | C3D-C2D-C1D | -2.17 | 102.87      | 105.83   |
| 34  | 6     | 501  | LUT  | C40-C33-C34 | -2.17 | 119.89      | 122.92   |
| 36  | 3     | 604  | CHL  | CHB-C4A-NA  | 2.17  | 127.51      | 124.51   |
| 24  | B     | 4003 | BCR  | C1-C6-C7    | 2.17  | 121.91      | 115.78   |
| 24  | B     | 4005 | BCR  | C34-C9-C10  | -2.17 | 119.89      | 122.92   |
| 21  | 6     | 608  | CLA  | CMD-C2D-C3D | -2.17 | 122.63      | 127.61   |
| 21  | A     | 1137 | CLA  | C1C-C2C-C3C | -2.17 | 104.68      | 106.96   |
| 36  | 1     | 610  | CHL  | C3A-C2A-C1A | 2.17  | 104.58      | 101.34   |
| 21  | 3     | 608  | CLA  | C2A-C1A-CHA | 2.17  | 127.65      | 123.86   |
| 21  | A     | 1111 | CLA  | CMB-C2B-C3B | 2.17  | 128.73      | 124.68   |
| 21  | B     | 1211 | CLA  | C6-C7-C8    | -2.17 | 108.92      | 115.92   |
| 21  | G     | 1603 | CLA  | C3C-C4C-NC  | -2.17 | 108.14      | 110.57   |
| 21  | 4     | 606  | CLA  | CHA-C1A-NA  | -2.17 | 121.44      | 126.40   |
| 21  | B     | 1209 | CLA  | O1D-CGD-CBD | -2.17 | 120.05      | 124.48   |
| 21  | B     | 1217 | CLA  | C1-C2-C3    | -2.16 | 122.30      | 126.04   |
| 21  | A     | 1116 | CLA  | CHA-C1A-NA  | -2.16 | 121.44      | 126.40   |
| 21  | A     | 1103 | CLA  | O1D-CGD-CBD | -2.16 | 120.06      | 124.48   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 3     | 607  | CLA  | C2A-C1A-CHA | 2.16  | 127.64      | 123.86   |
| 21  | 6     | 604  | CLA  | OBD-CAD-C3D | -2.16 | 123.31      | 128.52   |
| 21  | 1     | 601  | CLA  | CHA-C1A-NA  | -2.16 | 121.44      | 126.40   |
| 21  | A     | 1112 | CLA  | CHA-C1A-NA  | -2.16 | 121.44      | 126.40   |
| 22  | B     | 2002 | PQN  | C15-C13-C12 | -2.16 | 116.74      | 121.12   |
| 21  | L     | 1502 | CLA  | C6-C7-C8    | -2.16 | 108.93      | 115.92   |
| 21  | 1     | 603  | CLA  | C2C-C1C-NC  | 2.16  | 112.00      | 109.97   |
| 21  | L     | 1503 | CLA  | C1D-ND-C4D  | -2.16 | 104.80      | 106.33   |
| 21  | 2     | 606  | CLA  | C1D-ND-C4D  | -2.16 | 104.80      | 106.33   |
| 24  | 1     | 504  | BCR  | C1-C6-C7    | 2.16  | 121.89      | 115.78   |
| 21  | 1     | 602  | CLA  | CAA-C2A-C3A | -2.16 | 106.87      | 112.78   |
| 38  | 2     | 807  | LMK  | C9-O8-C28   | -2.16 | 109.64      | 113.80   |
| 21  | 5     | 605  | CLA  | CHA-C1A-NA  | -2.16 | 121.46      | 126.40   |
| 21  | 4     | 601  | CLA  | CHA-C4D-ND  | 2.16  | 137.01      | 132.50   |
| 21  | B     | 1226 | CLA  | CHD-C1D-ND  | -2.16 | 122.47      | 124.45   |
| 21  | L     | 1502 | CLA  | C1C-C2C-C3C | -2.16 | 104.69      | 106.96   |
| 21  | 3     | 613  | CLA  | C2A-C1A-CHA | 2.16  | 127.63      | 123.86   |
| 27  | 6     | 805  | LMU  | C2'-C3'-C4' | 2.16  | 114.61      | 109.68   |
| 21  | A     | 1122 | CLA  | CMD-C2D-C3D | -2.16 | 122.65      | 127.61   |
| 21  | 5     | 613  | CLA  | CHA-C1A-NA  | -2.16 | 121.46      | 126.40   |
| 21  | K     | 1402 | CLA  | CHA-C1A-NA  | -2.16 | 121.46      | 126.40   |
| 21  | A     | 1109 | CLA  | CMB-C2B-C3B | 2.16  | 128.71      | 124.68   |
| 21  | B     | 1220 | CLA  | C2A-C1A-CHA | 2.16  | 127.63      | 123.86   |
| 34  | 1     | 501  | LUT  | C1-C6-C5    | -2.15 | 119.58      | 122.61   |
| 21  | 3     | 603  | CLA  | O2D-CGD-O1D | -2.15 | 119.63      | 123.84   |
| 24  | 1     | 504  | BCR  | C30-C25-C24 | 2.15  | 121.87      | 115.78   |
| 21  | 1     | 608  | CLA  | C3D-C2D-C1D | -2.15 | 102.89      | 105.83   |
| 21  | B     | 1207 | CLA  | CHA-C1A-NA  | -2.15 | 121.47      | 126.40   |
| 21  | 2     | 604  | CLA  | CHD-C1D-ND  | -2.15 | 122.48      | 124.45   |
| 21  | 4     | 612  | CLA  | C2A-C1A-CHA | 2.15  | 127.62      | 123.86   |
| 21  | A     | 1141 | CLA  | C4D-CHA-C1A | 2.15  | 123.87      | 121.25   |
| 21  | 4     | 615  | CLA  | CMA-C3A-C4A | 2.15  | 117.56      | 111.77   |
| 36  | 3     | 604  | CHL  | CHC-C1C-NC  | 2.15  | 127.47      | 124.20   |
| 21  | 1     | 603  | CLA  | C2A-C1A-CHA | 2.15  | 127.62      | 123.86   |
| 24  | 4     | 503  | BCR  | C35-C13-C12 | 2.15  | 121.47      | 118.08   |
| 21  | A     | 1124 | CLA  | CAA-C2A-C1A | -2.15 | 104.93      | 111.97   |
| 21  | 3     | 606  | CLA  | CMB-C2B-C1B | -2.15 | 125.16      | 128.46   |
| 35  | 3     | 502  | XAT  | O23-C23-C24 | -2.15 | 105.53      | 109.80   |
| 35  | 6     | 502  | XAT  | C17-C1-C16  | 2.15  | 110.54      | 107.37   |
| 21  | A     | 1134 | CLA  | CMD-C2D-C3D | -2.15 | 122.67      | 127.61   |
| 21  | 6     | 606  | CLA  | CMD-C2D-C3D | -2.15 | 122.67      | 127.61   |
| 21  | L     | 1504 | CLA  | O2A-CGA-CBA | 2.15  | 118.65      | 111.91   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 2     | 605  | CLA  | C1-O2A-CGA  | 2.15  | 122.08      | 116.44   |
| 21  | A     | 1121 | CLA  | O2A-CGA-CBA | 2.15  | 118.65      | 111.91   |
| 21  | 2     | 615  | CLA  | CMD-C2D-C3D | -2.15 | 122.67      | 127.61   |
| 21  | B     | 1225 | CLA  | O1D-CGD-CBD | -2.15 | 120.09      | 124.48   |
| 34  | 5     | 503  | LUT  | C39-C29-C30 | -2.15 | 119.92      | 122.92   |
| 21  | B     | 1226 | CLA  | CHD-C4C-C3C | 2.15  | 128.00      | 124.84   |
| 21  | A     | 1106 | CLA  | CAA-C2A-C1A | -2.15 | 104.94      | 111.97   |
| 21  | A     | 1104 | CLA  | O1D-CGD-CBD | -2.15 | 120.09      | 124.48   |
| 21  | 6     | 602  | CLA  | O2A-CGA-CBA | 2.15  | 118.64      | 111.91   |
| 21  | A     | 1012 | CLA  | CHA-C1A-NA  | -2.15 | 121.48      | 126.40   |
| 21  | B     | 1210 | CLA  | C2D-C1D-ND  | 2.15  | 111.69      | 110.10   |
| 21  | A     | 1126 | CLA  | CHA-C1A-NA  | -2.15 | 121.48      | 126.40   |
| 21  | 2     | 607  | CLA  | C2A-C1A-CHA | 2.15  | 127.61      | 123.86   |
| 21  | L     | 1502 | CLA  | CAC-C3C-C4C | 2.14  | 127.59      | 124.81   |
| 21  | B     | 1023 | CLA  | CMD-C2D-C3D | -2.14 | 122.68      | 127.61   |
| 21  | 2     | 612  | CLA  | C2A-C3A-C4A | 2.14  | 105.33      | 101.87   |
| 21  | B     | 1228 | CLA  | CMB-C2B-C1B | -2.14 | 125.17      | 128.46   |
| 21  | B     | 1203 | CLA  | C3D-C2D-C1D | -2.14 | 102.91      | 105.83   |
| 34  | 5     | 501  | LUT  | C2-C3-C4    | -2.14 | 107.37      | 110.30   |
| 21  | 2     | 604  | CLA  | O2A-CGA-CBA | 2.14  | 118.63      | 111.91   |
| 34  | 5     | 501  | LUT  | C17-C1-C6   | 2.14  | 113.78      | 110.30   |
| 31  | 6     | 802  | LMG  | C8-O7-C10   | -2.14 | 112.52      | 117.79   |
| 27  | 6     | 805  | LMU  | O5'-C1'-C2' | 2.14  | 114.89      | 110.35   |
| 21  | B     | 1227 | CLA  | CAA-C2A-C3A | -2.14 | 106.91      | 112.78   |
| 36  | 4     | 613  | CHL  | CHA-C1A-NA  | -2.14 | 121.49      | 126.40   |
| 21  | A     | 1126 | CLA  | O1D-CGD-CBD | -2.14 | 120.10      | 124.48   |
| 21  | B     | 1208 | CLA  | CHA-C1A-NA  | -2.14 | 121.49      | 126.40   |
| 24  | B     | 4004 | BCR  | C33-C5-C6   | -2.14 | 122.12      | 124.53   |
| 21  | B     | 1216 | CLA  | CMB-C2B-C3B | 2.14  | 128.69      | 124.68   |
| 21  | 4     | 609  | CLA  | CMD-C2D-C3D | -2.14 | 122.69      | 127.61   |
| 24  | J     | 4001 | BCR  | C1-C6-C7    | 2.14  | 121.84      | 115.78   |
| 21  | B     | 1236 | CLA  | CHA-C1A-NA  | -2.14 | 121.50      | 126.40   |
| 21  | A     | 1109 | CLA  | CHA-C1A-NA  | -2.14 | 121.50      | 126.40   |
| 21  | B     | 1204 | CLA  | CHA-C1A-NA  | -2.14 | 121.50      | 126.40   |
| 21  | B     | 1023 | CLA  | CBA-CAA-C2A | -2.14 | 107.55      | 113.86   |
| 21  | B     | 1237 | CLA  | CMD-C2D-C3D | -2.14 | 122.69      | 127.61   |
| 21  | B     | 1228 | CLA  | O2A-CGA-CBA | 2.14  | 118.62      | 111.91   |
| 21  | H     | 1701 | CLA  | C9-C8-C10   | 2.14  | 119.04      | 111.29   |
| 21  | A     | 1107 | CLA  | CHA-C1A-NA  | -2.14 | 121.50      | 126.40   |
| 21  | 3     | 613  | CLA  | CHA-C1A-NA  | -2.14 | 121.50      | 126.40   |
| 21  | 2     | 603  | CLA  | C1D-ND-C4D  | -2.14 | 104.82      | 106.33   |
| 21  | 2     | 602  | CLA  | CHD-C1D-ND  | -2.14 | 122.49      | 124.45   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 602  | CLA  | C3D-C2D-C1D | -2.14 | 102.91      | 105.83   |
| 24  | I     | 4002 | BCR  | C37-C22-C21 | -2.14 | 119.93      | 122.92   |
| 25  | 5     | 801  | LHG  | C28-C27-C26 | -2.14 | 103.57      | 114.42   |
| 35  | 2     | 502  | XAT  | C4-C3-C2    | -2.14 | 106.64      | 110.77   |
| 21  | L     | 1503 | CLA  | O2A-CGA-CBA | 2.14  | 118.61      | 111.91   |
| 28  | B     | 5002 | DGD  | O6D-C5D-C6D | 2.14  | 110.98      | 106.67   |
| 21  | A     | 1103 | CLA  | CHA-C4D-ND  | 2.14  | 136.97      | 132.50   |
| 21  | B     | 1210 | CLA  | CHA-C1A-NA  | -2.14 | 121.51      | 126.40   |
| 21  | 3     | 608  | CLA  | CHD-C1D-ND  | -2.14 | 122.49      | 124.45   |
| 21  | 6     | 602  | CLA  | CHA-C1A-NA  | -2.14 | 121.51      | 126.40   |
| 21  | B     | 1023 | CLA  | CHA-C1A-NA  | -2.13 | 121.51      | 126.40   |
| 21  | A     | 1127 | CLA  | C1D-ND-C4D  | -2.13 | 104.82      | 106.33   |
| 24  | G     | 4001 | BCR  | C37-C22-C21 | -2.13 | 119.93      | 122.92   |
| 21  | G     | 1602 | CLA  | CHA-C1A-NA  | -2.13 | 121.51      | 126.40   |
| 21  | B     | 1228 | CLA  | CMD-C2D-C3D | -2.13 | 122.71      | 127.61   |
| 21  | A     | 1139 | CLA  | C2A-C1A-CHA | 2.13  | 127.59      | 123.86   |
| 21  | H     | 1702 | CLA  | CMA-C3A-C4A | 2.13  | 117.50      | 111.77   |
| 21  | B     | 1209 | CLA  | C2A-C1A-CHA | 2.13  | 127.59      | 123.86   |
| 21  | H     | 1701 | CLA  | C1D-ND-C4D  | -2.13 | 104.82      | 106.33   |
| 21  | 2     | 604  | CLA  | C1C-C2C-C3C | -2.13 | 104.72      | 106.96   |
| 21  | 2     | 606  | CLA  | CHA-C1A-NA  | -2.13 | 121.52      | 126.40   |
| 21  | B     | 1221 | CLA  | CMA-C3A-C2A | 2.13  | 122.42      | 113.83   |
| 21  | 3     | 608  | CLA  | C1C-C2C-C3C | -2.13 | 104.72      | 106.96   |
| 21  | A     | 1110 | CLA  | O1D-CGD-CBD | -2.13 | 120.13      | 124.48   |
| 24  | 2     | 503  | BCR  | C33-C5-C6   | -2.13 | 122.14      | 124.53   |
| 21  | B     | 1213 | CLA  | CHA-C4D-ND  | 2.13  | 136.94      | 132.50   |
| 21  | A     | 1118 | CLA  | C2D-C1D-ND  | 2.13  | 111.67      | 110.10   |
| 21  | B     | 1225 | CLA  | CBA-CAA-C2A | 2.12  | 120.14      | 113.86   |
| 21  | A     | 1105 | CLA  | CMB-C2B-C1B | -2.12 | 125.20      | 128.46   |
| 21  | A     | 1108 | CLA  | CMB-C2B-C3B | 2.12  | 128.65      | 124.68   |
| 21  | A     | 1104 | CLA  | CBC-CAC-C3C | -2.12 | 106.58      | 112.43   |
| 36  | 4     | 610  | CHL  | CMB-C2B-C1B | -2.12 | 125.20      | 128.46   |
| 21  | 3     | 608  | CLA  | C3D-C2D-C1D | -2.12 | 102.93      | 105.83   |
| 21  | 5     | 608  | CLA  | C3D-C2D-C1D | -2.12 | 102.94      | 105.83   |
| 24  | A     | 4004 | BCR  | C33-C5-C6   | -2.12 | 122.14      | 124.53   |
| 21  | B     | 1238 | CLA  | O2A-CGA-CBA | 2.12  | 118.57      | 111.91   |
| 21  | A     | 1135 | CLA  | C2A-C1A-CHA | 2.12  | 127.57      | 123.86   |
| 21  | A     | 1140 | CLA  | C3D-C2D-C1D | -2.12 | 102.94      | 105.83   |
| 21  | 3     | 607  | CLA  | C3D-C2D-C1D | -2.12 | 102.94      | 105.83   |
| 21  | A     | 1124 | CLA  | C2A-C1A-CHA | 2.12  | 127.57      | 123.86   |
| 21  | A     | 1136 | CLA  | CAA-C2A-C3A | -2.12 | 106.97      | 112.78   |
| 21  | B     | 1021 | CLA  | CHA-C1A-NA  | -2.12 | 121.54      | 126.40   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 4     | 604  | CLA  | CHA-C1A-NA  | -2.12 | 121.54      | 126.40   |
| 21  | O     | 1802 | CLA  | C1D-ND-C4D  | -2.12 | 104.83      | 106.33   |
| 21  | B     | 1215 | CLA  | C3D-C2D-C1D | -2.12 | 102.94      | 105.83   |
| 21  | B     | 1239 | CLA  | CMD-C2D-C3D | -2.12 | 122.74      | 127.61   |
| 21  | L     | 1503 | CLA  | CMD-C2D-C3D | -2.12 | 122.74      | 127.61   |
| 21  | B     | 1240 | CLA  | CAA-C2A-C3A | -2.12 | 106.98      | 112.78   |
| 21  | A     | 1113 | CLA  | C2D-C1D-ND  | 2.12  | 111.67      | 110.10   |
| 21  | O     | 1802 | CLA  | CMA-C3A-C2A | 2.12  | 121.04      | 116.10   |
| 36  | 1     | 610  | CHL  | CHD-C1D-ND  | -2.12 | 122.51      | 124.45   |
| 21  | A     | 1115 | CLA  | CMD-C2D-C3D | -2.12 | 122.74      | 127.61   |
| 21  | A     | 1122 | CLA  | CAA-C2A-C3A | -2.12 | 106.98      | 112.78   |
| 21  | B     | 1235 | CLA  | CMD-C2D-C3D | -2.12 | 122.74      | 127.61   |
| 21  | 6     | 606  | CLA  | CHA-C1A-NA  | -2.12 | 121.55      | 126.40   |
| 21  | F     | 1302 | CLA  | C1-O2A-CGA  | 2.12  | 122.00      | 116.44   |
| 36  | 4     | 610  | CHL  | C1-O2A-CGA  | 2.12  | 123.08      | 116.11   |
| 21  | 2     | 602  | CLA  | OBD-CAD-C3D | -2.12 | 123.43      | 128.52   |
| 21  | A     | 1122 | CLA  | C2A-C1A-CHA | 2.11  | 127.56      | 123.86   |
| 31  | 1     | 804  | LMG  | C3-C4-C5    | 2.11  | 114.01      | 110.24   |
| 21  | 3     | 608  | CLA  | CAC-C3C-C4C | 2.11  | 127.55      | 124.81   |
| 36  | 2     | 613  | CHL  | C3C-C4C-NC  | -2.11 | 108.20      | 110.57   |
| 21  | 1     | 605  | CLA  | CMD-C2D-C3D | -2.11 | 122.75      | 127.61   |
| 36  | 4     | 610  | CHL  | CHA-C1A-NA  | -2.11 | 121.56      | 126.40   |
| 21  | 2     | 607  | CLA  | C1-O2A-CGA  | 2.11  | 121.99      | 116.44   |
| 21  | 6     | 612  | CLA  | C4D-CHA-C1A | 2.11  | 123.82      | 121.25   |
| 34  | 2     | 501  | LUT  | C39-C29-C28 | 2.11  | 121.40      | 118.08   |
| 21  | A     | 1114 | CLA  | CHA-C1A-NA  | -2.11 | 121.56      | 126.40   |
| 21  | F     | 1302 | CLA  | O1D-CGD-CBD | -2.11 | 120.17      | 124.48   |
| 21  | A     | 1122 | CLA  | CHA-C1A-NA  | -2.11 | 121.56      | 126.40   |
| 21  | B     | 1229 | CLA  | C11-C10-C8  | -2.11 | 109.10      | 115.92   |
| 21  | A     | 1132 | CLA  | CHA-C1A-NA  | -2.11 | 121.57      | 126.40   |
| 21  | 5     | 606  | CLA  | CHA-C1A-NA  | -2.11 | 121.57      | 126.40   |
| 24  | 4     | 503  | BCR  | C1-C6-C5    | -2.11 | 119.64      | 122.61   |
| 21  | A     | 1127 | CLA  | CHD-C1D-ND  | -2.11 | 122.52      | 124.45   |
| 38  | 2     | 807  | LMK  | C9-C8-C7    | -2.11 | 106.81      | 111.79   |
| 21  | B     | 1214 | CLA  | OBD-CAD-C3D | -2.11 | 123.45      | 128.52   |
| 36  | 5     | 609  | CHL  | CMB-C2B-C1B | -2.11 | 125.23      | 128.46   |
| 21  | B     | 1202 | CLA  | O1D-CGD-CBD | -2.11 | 120.17      | 124.48   |
| 21  | B     | 1201 | CLA  | C1D-ND-C4D  | -2.11 | 104.84      | 106.33   |
| 21  | A     | 1119 | CLA  | C2A-C1A-CHA | 2.11  | 127.54      | 123.86   |
| 21  | A     | 1126 | CLA  | CMD-C2D-C3D | -2.11 | 122.77      | 127.61   |
| 24  | B     | 4004 | BCR  | C23-C22-C21 | -2.11 | 115.71      | 118.94   |
| 21  | 3     | 602  | CLA  | C1-O2A-CGA  | 2.11  | 121.97      | 116.44   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 24  | 3     | 504  | BCR  | C37-C22-C21 | -2.11 | 119.97      | 122.92   |
| 21  | 3     | 603  | CLA  | CHA-C1A-NA  | -2.10 | 121.58      | 126.40   |
| 21  | 5     | 608  | CLA  | CHA-C1A-NA  | -2.10 | 121.58      | 126.40   |
| 21  | A     | 1123 | CLA  | C2A-C1A-CHA | 2.10  | 127.54      | 123.86   |
| 24  | B     | 4003 | BCR  | C29-C30-C25 | -2.10 | 107.24      | 110.48   |
| 21  | A     | 1115 | CLA  | O1D-CGD-CBD | -2.10 | 120.18      | 124.48   |
| 21  | B     | 1236 | CLA  | CAA-C2A-C3A | -2.10 | 107.02      | 112.78   |
| 21  | B     | 1214 | CLA  | O1D-CGD-CBD | -2.10 | 120.19      | 124.48   |
| 21  | 2     | 607  | CLA  | O1D-CGD-CBD | -2.10 | 120.19      | 124.48   |
| 24  | A     | 4002 | BCR  | C27-C26-C25 | -2.10 | 119.68      | 122.73   |
| 21  | 1     | 607  | CLA  | C2A-C1A-CHA | 2.10  | 127.53      | 123.86   |
| 21  | 3     | 605  | CLA  | CAA-C2A-C3A | -2.10 | 107.03      | 112.78   |
| 21  | A     | 1110 | CLA  | CHA-C1A-NA  | -2.10 | 121.59      | 126.40   |
| 24  | A     | 4004 | BCR  | C38-C26-C25 | -2.10 | 122.17      | 124.53   |
| 21  | B     | 1022 | CLA  | CMD-C2D-C3D | -2.10 | 122.79      | 127.61   |
| 21  | A     | 1127 | CLA  | CHA-C1A-NA  | -2.10 | 121.59      | 126.40   |
| 24  | J     | 4001 | BCR  | C34-C9-C10  | -2.10 | 119.98      | 122.92   |
| 21  | 3     | 603  | CLA  | CAA-CBA-CGA | -2.10 | 107.12      | 113.25   |
| 21  | 4     | 602  | CLA  | CHD-C1D-ND  | -2.10 | 122.53      | 124.45   |
| 21  | 3     | 606  | CLA  | C1D-ND-C4D  | -2.10 | 104.84      | 106.33   |
| 36  | 6     | 610  | CHL  | CMB-C2B-C1B | -2.10 | 125.24      | 128.46   |
| 21  | H     | 1701 | CLA  | CHA-C1A-NA  | -2.10 | 121.60      | 126.40   |
| 21  | A     | 1140 | CLA  | O1D-CGD-CBD | -2.10 | 120.19      | 124.48   |
| 21  | A     | 1118 | CLA  | CMB-C2B-C3B | 2.10  | 128.60      | 124.68   |
| 21  | A     | 1136 | CLA  | C1D-ND-C4D  | -2.10 | 104.85      | 106.33   |
| 21  | A     | 1121 | CLA  | CHA-C1A-NA  | -2.10 | 121.60      | 126.40   |
| 21  | A     | 1133 | CLA  | CHA-C1A-NA  | -2.10 | 121.60      | 126.40   |
| 21  | A     | 1116 | CLA  | C3D-C2D-C1D | -2.09 | 102.97      | 105.83   |
| 21  | J     | 1901 | CLA  | C2A-C1A-CHA | 2.09  | 127.52      | 123.86   |
| 21  | A     | 1136 | CLA  | O1D-CGD-CBD | -2.09 | 120.20      | 124.48   |
| 21  | B     | 1222 | CLA  | C3D-C2D-C1D | -2.09 | 102.97      | 105.83   |
| 21  | L     | 1501 | CLA  | C3D-C2D-C1D | -2.09 | 102.97      | 105.83   |
| 21  | 2     | 603  | CLA  | C3D-C2D-C1D | -2.09 | 102.97      | 105.83   |
| 21  | 4     | 612  | CLA  | C1-C2-C3    | -2.09 | 122.42      | 126.04   |
| 36  | 4     | 613  | CHL  | C4A-NA-C1A  | 2.09  | 107.65      | 106.71   |
| 21  | A     | 1136 | CLA  | C6-C5-C3    | -2.09 | 107.97      | 113.45   |
| 21  | A     | 1012 | CLA  | CMD-C2D-C3D | -2.09 | 122.80      | 127.61   |
| 21  | A     | 1137 | CLA  | CMD-C2D-C3D | -2.09 | 122.80      | 127.61   |
| 21  | 4     | 608  | CLA  | C3D-C2D-C1D | -2.09 | 102.98      | 105.83   |
| 21  | A     | 1123 | CLA  | CAA-CBA-CGA | -2.09 | 107.14      | 113.25   |
| 36  | 6     | 610  | CHL  | C1-O2A-CGA  | 2.09  | 123.00      | 116.11   |
| 24  | A     | 4003 | BCR  | C1-C6-C5    | -2.09 | 119.67      | 122.61   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 3     | 611  | CLA  | C2A-C1A-CHA | 2.09  | 127.51      | 123.86   |
| 21  | A     | 1120 | CLA  | C1-C2-C3    | -2.09 | 122.43      | 126.04   |
| 36  | 1     | 610  | CHL  | CMB-C2B-C1B | -2.09 | 125.25      | 128.46   |
| 25  | 2     | 801  | LHG  | O7-C7-O9    | -2.09 | 118.66      | 123.70   |
| 21  | 6     | 603  | CLA  | CHA-C1A-NA  | -2.09 | 121.62      | 126.40   |
| 36  | 2     | 611  | CHL  | CMB-C2B-C1B | -2.09 | 125.25      | 128.46   |
| 36  | 5     | 610  | CHL  | CMB-C2B-C1B | -2.09 | 125.25      | 128.46   |
| 21  | B     | 1203 | CLA  | C1D-ND-C4D  | -2.09 | 104.85      | 106.33   |
| 21  | B     | 1231 | CLA  | O1D-CGD-CBD | -2.09 | 120.21      | 124.48   |
| 21  | B     | 1215 | CLA  | C2A-C1A-CHA | 2.09  | 127.51      | 123.86   |
| 21  | 3     | 606  | CLA  | CMD-C2D-C3D | -2.09 | 122.81      | 127.61   |
| 21  | A     | 1126 | CLA  | C11-C12-C13 | -2.09 | 109.18      | 115.92   |
| 36  | 1     | 610  | CHL  | CHA-C1A-NA  | -2.09 | 121.62      | 126.40   |
| 24  | J     | 4001 | BCR  | C39-C30-C25 | 2.08  | 113.68      | 110.30   |
| 21  | 1     | 613  | CLA  | CAA-C2A-C3A | -2.08 | 107.07      | 112.78   |
| 21  | 5     | 614  | CLA  | CMC-C2C-C3C | 2.08  | 131.78      | 126.12   |
| 21  | 6     | 606  | CLA  | O1D-CGD-CBD | -2.08 | 120.22      | 124.48   |
| 21  | 5     | 603  | CLA  | O2D-CGD-O1D | -2.08 | 119.76      | 123.84   |
| 21  | L     | 1501 | CLA  | CHA-C4D-ND  | 2.08  | 136.86      | 132.50   |
| 24  | J     | 4001 | BCR  | C23-C24-C25 | -2.08 | 121.35      | 127.20   |
| 21  | 1     | 605  | CLA  | C3D-C2D-C1D | -2.08 | 102.99      | 105.83   |
| 21  | 1     | 607  | CLA  | C3D-C2D-C1D | -2.08 | 102.99      | 105.83   |
| 21  | B     | 1231 | CLA  | CHA-C1A-NA  | -2.08 | 121.63      | 126.40   |
| 21  | B     | 1230 | CLA  | CMD-C2D-C3D | -2.08 | 122.83      | 127.61   |
| 21  | B     | 1232 | CLA  | O2D-CGD-O1D | -2.08 | 119.77      | 123.84   |
| 21  | 4     | 615  | CLA  | C2A-C1A-CHA | 2.08  | 127.50      | 123.86   |
| 32  | 5     | 805  | 4RF  | C19-O18-C16 | -2.08 | 109.42      | 117.12   |
| 21  | 4     | 606  | CLA  | CAA-C2A-C3A | -2.08 | 107.08      | 112.78   |
| 28  | 3     | 805  | DGD  | O2G-C1B-O1B | -2.08 | 118.68      | 123.70   |
| 21  | A     | 1141 | CLA  | C1-O2A-CGA  | 2.08  | 121.90      | 116.44   |
| 34  | 5     | 503  | LUT  | C19-C9-C10  | -2.08 | 120.01      | 122.92   |
| 21  | B     | 1213 | CLA  | C2A-C1A-CHA | 2.08  | 127.50      | 123.86   |
| 24  | F     | 4002 | BCR  | C33-C5-C6   | -2.08 | 122.19      | 124.53   |
| 21  | 3     | 603  | CLA  | C3A-C2A-C1A | 2.08  | 104.45      | 101.34   |
| 21  | A     | 1134 | CLA  | CHA-C1A-NA  | -2.08 | 121.64      | 126.40   |
| 24  | A     | 4003 | BCR  | C3-C4-C5    | -2.08 | 110.36      | 114.08   |
| 21  | A     | 1138 | CLA  | C2A-C1A-CHA | 2.08  | 127.49      | 123.86   |
| 21  | B     | 1230 | CLA  | C4-C3-C5    | 2.08  | 118.77      | 115.27   |
| 36  | 2     | 609  | CHL  | CMB-C2B-C1B | -2.08 | 125.27      | 128.46   |
| 21  | 6     | 608  | CLA  | CHA-C1A-NA  | -2.08 | 121.64      | 126.40   |
| 21  | K     | 1403 | CLA  | O2A-CGA-CBA | 2.08  | 118.43      | 111.91   |
| 21  | B     | 1221 | CLA  | C1C-C2C-C3C | -2.08 | 104.77      | 106.96   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | K     | 1403 | CLA  | CHA-C1A-NA  | -2.08 | 121.64      | 126.40   |
| 21  | 3     | 607  | CLA  | CMD-C2D-C3D | -2.08 | 122.84      | 127.61   |
| 21  | A     | 1115 | CLA  | CHA-C1A-NA  | -2.08 | 121.64      | 126.40   |
| 24  | A     | 4006 | BCR  | C29-C28-C27 | 2.08  | 116.02      | 111.38   |
| 21  | A     | 1103 | CLA  | CMA-C3A-C4A | 2.08  | 117.35      | 111.77   |
| 21  | F     | 1302 | CLA  | C1D-ND-C4D  | -2.07 | 104.86      | 106.33   |
| 21  | A     | 1139 | CLA  | CMB-C2B-C1B | -2.07 | 125.28      | 128.46   |
| 21  | F     | 1301 | CLA  | C3D-C2D-C1D | -2.07 | 103.00      | 105.83   |
| 21  | 3     | 614  | CLA  | C2A-C1A-CHA | 2.07  | 127.49      | 123.86   |
| 21  | G     | 1601 | CLA  | CHA-C1A-NA  | -2.07 | 121.65      | 126.40   |
| 24  | 1     | 504  | BCR  | C3-C4-C5    | -2.07 | 110.37      | 114.08   |
| 21  | B     | 1229 | CLA  | CAA-C2A-C3A | -2.07 | 107.10      | 112.78   |
| 21  | 1     | 602  | CLA  | C2A-C1A-CHA | 2.07  | 127.48      | 123.86   |
| 24  | L     | 4002 | BCR  | C37-C22-C21 | -2.07 | 120.02      | 122.92   |
| 21  | A     | 1121 | CLA  | C3D-C2D-C1D | -2.07 | 103.00      | 105.83   |
| 21  | 2     | 605  | CLA  | CMD-C2D-C3D | -2.07 | 122.85      | 127.61   |
| 35  | 4     | 502  | XAT  | C20-C13-C14 | -2.07 | 120.02      | 122.92   |
| 21  | A     | 1122 | CLA  | C1D-ND-C4D  | -2.07 | 104.86      | 106.33   |
| 21  | A     | 1116 | CLA  | CMD-C2D-C3D | -2.07 | 122.85      | 127.61   |
| 35  | 4     | 502  | XAT  | C7-C8-C9    | -2.07 | 122.32      | 125.53   |
| 21  | B     | 1218 | CLA  | CMB-C2B-C3B | 2.07  | 128.55      | 124.68   |
| 21  | A     | 1133 | CLA  | O2A-CGA-CBA | 2.07  | 118.41      | 111.91   |
| 36  | 4     | 613  | CHL  | C2A-C1A-CHA | 2.07  | 127.48      | 123.86   |
| 21  | B     | 1239 | CLA  | CHA-C1A-NA  | -2.07 | 121.66      | 126.40   |
| 21  | 1     | 611  | CLA  | CHA-C1A-NA  | -2.07 | 121.66      | 126.40   |
| 21  | B     | 1238 | CLA  | C11-C12-C13 | -2.07 | 109.23      | 115.92   |
| 35  | 2     | 502  | XAT  | O24-C25-C38 | -2.07 | 112.58      | 115.06   |
| 21  | A     | 1120 | CLA  | CHA-C1A-NA  | -2.07 | 121.66      | 126.40   |
| 21  | B     | 1021 | CLA  | C11-C10-C8  | -2.07 | 109.23      | 115.92   |
| 25  | 2     | 802  | LHG  | O7-C7-O9    | -2.07 | 118.70      | 123.70   |
| 21  | 2     | 615  | CLA  | CBA-CAA-C2A | -2.07 | 107.76      | 113.86   |
| 21  | B     | 1227 | CLA  | CHA-C1A-NA  | -2.07 | 121.66      | 126.40   |
| 24  | 3     | 504  | BCR  | C34-C9-C8   | 2.07  | 121.33      | 118.08   |
| 21  | A     | 1124 | CLA  | C1D-ND-C4D  | -2.07 | 104.87      | 106.33   |
| 24  | L     | 4002 | BCR  | C19-C18-C17 | 2.07  | 122.11      | 118.94   |
| 21  | 2     | 608  | CLA  | C3D-C2D-C1D | -2.07 | 103.01      | 105.83   |
| 21  | B     | 1226 | CLA  | CAC-C3C-C2C | -2.07 | 124.00      | 127.53   |
| 21  | A     | 1120 | CLA  | C4-C3-C5    | 2.07  | 118.75      | 115.27   |
| 21  | A     | 1135 | CLA  | C2D-C1D-ND  | 2.07  | 111.63      | 110.10   |
| 21  | 1     | 606  | CLA  | CMD-C2D-C3D | -2.07 | 122.86      | 127.61   |
| 24  | A     | 4006 | BCR  | C8-C9-C10   | 2.07  | 122.11      | 118.94   |
| 20  | A     | 1011 | CL0  | C4D-C3D-CAD | 2.06  | 110.53      | 108.10   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 2     | 615  | CLA  | C3D-C2D-C1D | -2.06 | 103.01      | 105.83   |
| 21  | 1     | 612  | CLA  | CAA-C2A-C3A | -2.06 | 107.13      | 112.78   |
| 21  | A     | 1136 | CLA  | O2A-CGA-CBA | 2.06  | 118.38      | 111.91   |
| 21  | 6     | 612  | CLA  | CHA-C4D-ND  | 2.06  | 136.81      | 132.50   |
| 21  | B     | 1230 | CLA  | C3D-C2D-C1D | -2.06 | 103.02      | 105.83   |
| 21  | B     | 1235 | CLA  | CHA-C1A-NA  | -2.06 | 121.67      | 126.40   |
| 21  | B     | 1218 | CLA  | C2D-C1D-ND  | 2.06  | 111.62      | 110.10   |
| 21  | A     | 1120 | CLA  | C4-C3-C2    | -2.06 | 118.39      | 123.68   |
| 21  | 1     | 613  | CLA  | CMD-C2D-C3D | -2.06 | 122.87      | 127.61   |
| 25  | A     | 5001 | LHG  | O8-C23-O10  | -2.06 | 118.39      | 123.59   |
| 21  | 6     | 605  | CLA  | O2A-CGA-CBA | 2.06  | 118.38      | 111.91   |
| 36  | 2     | 613  | CHL  | C4D-CHA-C1A | 2.06  | 123.76      | 121.25   |
| 21  | A     | 1122 | CLA  | C3D-C2D-C1D | -2.06 | 103.02      | 105.83   |
| 21  | K     | 1403 | CLA  | O1D-CGD-CBD | -2.06 | 120.27      | 124.48   |
| 21  | B     | 1204 | CLA  | C2A-C1A-CHA | 2.06  | 127.46      | 123.86   |
| 21  | 1     | 605  | CLA  | CMA-C3A-C4A | 2.06  | 117.31      | 111.77   |
| 24  | F     | 4002 | BCR  | C8-C9-C10   | 2.06  | 122.10      | 118.94   |
| 21  | A     | 1129 | CLA  | C2A-C1A-CHA | 2.06  | 127.46      | 123.86   |
| 21  | B     | 1213 | CLA  | CAC-C3C-C4C | 2.06  | 127.48      | 124.81   |
| 21  | A     | 1126 | CLA  | C3D-C2D-C1D | -2.06 | 103.02      | 105.83   |
| 21  | B     | 1022 | CLA  | C3D-C2D-C1D | -2.06 | 103.02      | 105.83   |
| 21  | A     | 1133 | CLA  | C6-C5-C3    | -2.06 | 108.06      | 113.45   |
| 21  | A     | 1112 | CLA  | C3D-C2D-C1D | -2.06 | 103.02      | 105.83   |
| 21  | 2     | 612  | CLA  | C3D-C2D-C1D | -2.06 | 103.02      | 105.83   |
| 36  | 4     | 613  | CHL  | CMB-C2B-C1B | -2.06 | 125.30      | 128.46   |
| 21  | 4     | 601  | CLA  | O2A-CGA-CBA | 2.06  | 118.36      | 111.91   |
| 21  | O     | 1802 | CLA  | C2A-C1A-CHA | 2.06  | 127.44      | 123.85   |
| 21  | B     | 1220 | CLA  | C3D-C2D-C1D | -2.06 | 103.03      | 105.83   |
| 21  | K     | 1402 | CLA  | CAA-CBA-CGA | -2.06 | 107.25      | 113.25   |
| 21  | 2     | 604  | CLA  | C1D-ND-C4D  | -2.06 | 104.88      | 106.33   |
| 24  | J     | 4001 | BCR  | C35-C13-C12 | 2.06  | 121.31      | 118.08   |
| 37  | 3     | 806  | SQD  | O5-C1-O6    | -2.05 | 105.11      | 109.97   |
| 21  | 6     | 601  | CLA  | C3D-C2D-C1D | -2.05 | 103.03      | 105.83   |
| 21  | B     | 1223 | CLA  | CHD-C1D-ND  | -2.05 | 122.57      | 124.45   |
| 21  | A     | 1108 | CLA  | C2A-C1A-CHA | 2.05  | 127.45      | 123.86   |
| 21  | B     | 1227 | CLA  | C3D-C2D-C1D | -2.05 | 103.03      | 105.83   |
| 21  | L     | 1504 | CLA  | C3D-C2D-C1D | -2.05 | 103.03      | 105.83   |
| 39  | 2     | 808  | P3H  | C35-C37-C28 | 2.05  | 114.37      | 109.68   |
| 21  | B     | 1230 | CLA  | C1-C2-C3    | -2.05 | 122.49      | 126.04   |
| 21  | 3     | 615  | CLA  | C3D-C2D-C1D | -2.05 | 103.03      | 105.83   |
| 24  | B     | 4006 | BCR  | C35-C13-C14 | -2.05 | 120.05      | 122.92   |
| 21  | B     | 1204 | CLA  | O2A-CGA-CBA | 2.05  | 118.35      | 111.91   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 5     | 614  | CLA  | C2A-C1A-CHA | 2.05  | 127.45      | 123.86   |
| 24  | A     | 4004 | BCR  | C30-C25-C26 | -2.05 | 119.72      | 122.61   |
| 24  | L     | 4002 | BCR  | C27-C26-C25 | -2.05 | 119.75      | 122.73   |
| 21  | B     | 1234 | CLA  | CAA-C2A-C3A | -2.05 | 107.16      | 112.78   |
| 24  | O     | 4001 | BCR  | C29-C28-C27 | 2.05  | 115.96      | 111.38   |
| 24  | 3     | 503  | BCR  | C33-C5-C6   | -2.05 | 122.23      | 124.53   |
| 21  | B     | 1021 | CLA  | O1D-CGD-CBD | -2.05 | 120.29      | 124.48   |
| 36  | 4     | 611  | CHL  | CHA-C1A-NA  | -2.05 | 121.71      | 126.40   |
| 21  | B     | 1218 | CLA  | CHA-C1A-NA  | -2.05 | 121.71      | 126.40   |
| 28  | 3     | 804  | DGD  | O6E-C5E-C6E | 2.05  | 111.53      | 106.44   |
| 34  | 5     | 502  | LUT  | C15-C35-C34 | -2.05 | 119.28      | 123.47   |
| 21  | 6     | 608  | CLA  | C3D-C2D-C1D | -2.05 | 103.04      | 105.83   |
| 34  | 6     | 501  | LUT  | C38-C25-C24 | -2.05 | 119.18      | 123.56   |
| 21  | B     | 1240 | CLA  | O1D-CGD-CBD | -2.05 | 120.30      | 124.48   |
| 21  | 2     | 606  | CLA  | C3D-C2D-C1D | -2.05 | 103.04      | 105.83   |
| 24  | I     | 4002 | BCR  | C23-C24-C25 | -2.05 | 121.46      | 127.20   |
| 36  | 5     | 610  | CHL  | C1-O2A-CGA  | 2.05  | 122.85      | 116.11   |
| 21  | A     | 1106 | CLA  | CHA-C1A-NA  | -2.05 | 121.71      | 126.40   |
| 21  | B     | 1229 | CLA  | C2A-C1A-CHA | 2.05  | 127.44      | 123.86   |
| 36  | 4     | 611  | CHL  | CMB-C2B-C1B | -2.04 | 125.32      | 128.46   |
| 21  | 4     | 612  | CLA  | O2D-CGD-O1D | -2.04 | 119.84      | 123.84   |
| 21  | A     | 1136 | CLA  | OBD-CAD-C3D | -2.04 | 123.60      | 128.52   |
| 21  | B     | 1212 | CLA  | CHA-C1A-NA  | -2.04 | 121.72      | 126.40   |
| 24  | 3     | 503  | BCR  | C34-C9-C10  | -2.04 | 120.06      | 122.92   |
| 21  | 1     | 601  | CLA  | C3D-C2D-C1D | -2.04 | 103.04      | 105.83   |
| 21  | 5     | 607  | CLA  | C3D-C2D-C1D | -2.04 | 103.04      | 105.83   |
| 21  | A     | 1122 | CLA  | CAC-C3C-C4C | 2.04  | 127.46      | 124.81   |
| 35  | 3     | 502  | XAT  | C40-C33-C34 | -2.04 | 120.06      | 122.92   |
| 34  | 5     | 503  | LUT  | C20-C13-C14 | -2.04 | 120.06      | 122.92   |
| 21  | H     | 1701 | CLA  | CBA-CAA-C2A | -2.04 | 107.83      | 113.86   |
| 33  | 6     | 804  | PTY  | O7-C6-C5    | 2.04  | 115.80      | 108.40   |
| 21  | A     | 1113 | CLA  | CMD-C2D-C3D | -2.04 | 122.92      | 127.61   |
| 21  | A     | 1111 | CLA  | C3D-C2D-C1D | -2.04 | 103.05      | 105.83   |
| 21  | 6     | 602  | CLA  | C3D-C2D-C1D | -2.04 | 103.05      | 105.83   |
| 21  | A     | 1105 | CLA  | CMD-C2D-C3D | -2.04 | 122.92      | 127.61   |
| 21  | K     | 1403 | CLA  | CAA-C2A-C3A | -2.04 | 107.19      | 112.78   |
| 21  | A     | 1013 | CLA  | CMC-C2C-C1C | 2.04  | 128.15      | 125.04   |
| 21  | K     | 1404 | CLA  | CHA-C1A-NA  | -2.04 | 121.73      | 126.40   |
| 21  | A     | 1130 | CLA  | C1-O2A-CGA  | 2.04  | 121.79      | 116.44   |
| 25  | 1     | 803  | LHG  | C9-C8-C7    | -2.04 | 106.20      | 113.62   |
| 21  | 1     | 603  | CLA  | CHA-C1A-NA  | -2.04 | 121.73      | 126.40   |
| 21  | 2     | 604  | CLA  | CMB-C2B-C3B | 2.04  | 128.49      | 124.68   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | 3     | 612  | CLA  | C11-C10-C8  | -2.04 | 109.33      | 115.92   |
| 21  | B     | 1219 | CLA  | CHA-C1A-NA  | -2.04 | 121.73      | 126.40   |
| 24  | F     | 4001 | BCR  | C23-C24-C25 | -2.04 | 121.48      | 127.20   |
| 21  | 3     | 608  | CLA  | C1-O2A-CGA  | 2.04  | 121.79      | 116.44   |
| 21  | 2     | 608  | CLA  | O1D-CGD-CBD | -2.04 | 120.32      | 124.48   |
| 21  | 1     | 612  | CLA  | CMC-C2C-C1C | 2.04  | 128.14      | 125.04   |
| 21  | 5     | 612  | CLA  | CMC-C2C-C1C | 2.04  | 128.14      | 125.04   |
| 24  | I     | 4002 | BCR  | C35-C13-C14 | -2.04 | 120.07      | 122.92   |
| 21  | 3     | 601  | CLA  | CMD-C2D-C3D | -2.04 | 122.93      | 127.61   |
| 34  | 5     | 502  | LUT  | C31-C32-C33 | -2.04 | 120.70      | 126.42   |
| 21  | A     | 1138 | CLA  | CMC-C2C-C1C | 2.03  | 128.14      | 125.04   |
| 21  | A     | 1138 | CLA  | C3D-C2D-C1D | -2.03 | 103.06      | 105.83   |
| 21  | A     | 1109 | CLA  | C1D-ND-C4D  | -2.03 | 104.89      | 106.33   |
| 21  | 1     | 615  | CLA  | C2A-C1A-CHA | 2.03  | 127.42      | 123.86   |
| 35  | 1     | 502  | XAT  | C8-C9-C10   | 2.03  | 122.06      | 118.94   |
| 24  | B     | 4004 | BCR  | C33-C5-C4   | 2.03  | 117.52      | 113.62   |
| 21  | 4     | 607  | CLA  | CHD-C1D-ND  | -2.03 | 122.59      | 124.45   |
| 21  | L     | 1504 | CLA  | CHA-C1A-NA  | -2.03 | 121.75      | 126.40   |
| 21  | A     | 1125 | CLA  | C2A-C1A-CHA | 2.03  | 127.41      | 123.86   |
| 24  | A     | 4004 | BCR  | C33-C5-C4   | 2.03  | 117.52      | 113.62   |
| 24  | B     | 4004 | BCR  | C3-C4-C5    | -2.03 | 110.45      | 114.08   |
| 21  | B     | 1202 | CLA  | C2C-C1C-NC  | 2.03  | 111.87      | 109.97   |
| 21  | B     | 1239 | CLA  | C3D-C2D-C1D | -2.03 | 103.06      | 105.83   |
| 21  | A     | 1128 | CLA  | O2A-CGA-CBA | 2.03  | 118.27      | 111.91   |
| 21  | B     | 1216 | CLA  | CHA-C1A-NA  | -2.03 | 121.75      | 126.40   |
| 21  | A     | 1113 | CLA  | C3D-C2D-C1D | -2.03 | 103.06      | 105.83   |
| 21  | 4     | 601  | CLA  | C3A-C2A-C1A | 2.03  | 104.37      | 101.34   |
| 21  | 5     | 602  | CLA  | O1D-CGD-CBD | -2.03 | 120.34      | 124.48   |
| 21  | A     | 1106 | CLA  | C2A-C1A-CHA | 2.03  | 127.40      | 123.86   |
| 24  | 2     | 503  | BCR  | C3-C4-C5    | -2.03 | 110.46      | 114.08   |
| 21  | 3     | 606  | CLA  | CMA-C3A-C4A | 2.03  | 117.22      | 111.77   |
| 35  | 6     | 502  | XAT  | C40-C33-C34 | -2.03 | 120.09      | 122.92   |
| 21  | B     | 1220 | CLA  | CMB-C2B-C3B | 2.03  | 128.47      | 124.68   |
| 25  | 2     | 803  | LHG  | O8-C23-O10  | -2.02 | 118.48      | 123.59   |
| 21  | 4     | 603  | CLA  | C2A-C1A-CHA | 2.02  | 127.40      | 123.86   |
| 21  | 2     | 602  | CLA  | CMA-C3A-C4A | 2.02  | 117.21      | 111.77   |
| 36  | 4     | 610  | CHL  | C4A-NA-C1A  | 2.02  | 107.62      | 106.71   |
| 21  | B     | 1228 | CLA  | C3D-C2D-C1D | -2.02 | 103.07      | 105.83   |
| 21  | B     | 1235 | CLA  | C3D-C2D-C1D | -2.02 | 103.07      | 105.83   |
| 21  | 3     | 615  | CLA  | CBA-CAA-C2A | 2.02  | 119.84      | 113.86   |
| 21  | A     | 1111 | CLA  | CAA-C2A-C3A | -2.02 | 107.24      | 112.78   |
| 35  | 6     | 504  | XAT  | C24-C23-C22 | -2.02 | 106.86      | 110.77   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | A     | 1120 | CLA  | CMD-C2D-C3D | -2.02 | 122.96      | 127.61   |
| 21  | G     | 1603 | CLA  | CAA-C2A-C3A | -2.02 | 107.24      | 112.78   |
| 21  | B     | 1227 | CLA  | CMB-C2B-C1B | -2.02 | 125.36      | 128.46   |
| 25  | F     | 5001 | LHG  | C5-O7-C7    | -2.02 | 112.81      | 117.79   |
| 21  | 1     | 601  | CLA  | O1D-CGD-CBD | -2.02 | 120.35      | 124.48   |
| 24  | 2     | 503  | BCR  | C33-C5-C4   | 2.02  | 117.50      | 113.62   |
| 21  | F     | 1302 | CLA  | CMD-C2D-C3D | -2.02 | 122.96      | 127.61   |
| 21  | A     | 1130 | CLA  | C3D-C2D-C1D | -2.02 | 103.07      | 105.83   |
| 24  | L     | 4001 | BCR  | C35-C13-C12 | 2.02  | 121.26      | 118.08   |
| 21  | A     | 1125 | CLA  | C4C-C3C-C2C | -2.02 | 103.95      | 106.90   |
| 24  | A     | 4006 | BCR  | C37-C22-C21 | -2.02 | 120.09      | 122.92   |
| 21  | 1     | 605  | CLA  | O1D-CGD-CBD | -2.02 | 120.35      | 124.48   |
| 21  | B     | 1216 | CLA  | C3D-C2D-C1D | -2.02 | 103.07      | 105.83   |
| 21  | 6     | 609  | CLA  | C2A-C1A-CHA | 2.02  | 127.39      | 123.86   |
| 21  | A     | 1128 | CLA  | CHA-C1A-NA  | -2.02 | 121.78      | 126.40   |
| 29  | 5     | 807  | 3PH  | C3-C2-C1    | -2.02 | 107.01      | 111.79   |
| 36  | 4     | 613  | CHL  | C3C-C4C-NC  | -2.02 | 108.31      | 110.57   |
| 21  | A     | 1127 | CLA  | O2D-CGD-O1D | -2.02 | 119.89      | 123.84   |
| 36  | 2     | 613  | CHL  | CMA-C3A-C2A | 2.02  | 121.97      | 113.83   |
| 21  | 4     | 607  | CLA  | C2A-C1A-CHA | 2.02  | 127.39      | 123.86   |
| 21  | L     | 1503 | CLA  | CAA-C2A-C3A | -2.02 | 107.25      | 112.78   |
| 21  | O     | 1803 | CLA  | CAA-C2A-C3A | -2.02 | 107.25      | 112.78   |
| 21  | 1     | 615  | CLA  | CMD-C2D-C3D | -2.02 | 122.98      | 127.61   |
| 21  | A     | 1137 | CLA  | CAA-CBA-CGA | -2.02 | 107.36      | 113.25   |
| 21  | A     | 1132 | CLA  | C3D-C2D-C1D | -2.02 | 103.08      | 105.83   |
| 24  | J     | 4001 | BCR  | C1-C6-C5    | -2.01 | 119.78      | 122.61   |
| 35  | 3     | 502  | XAT  | C20-C13-C14 | -2.01 | 120.10      | 122.92   |
| 21  | 4     | 607  | CLA  | C3D-C2D-C1D | -2.01 | 103.08      | 105.83   |
| 21  | 4     | 612  | CLA  | C3D-C2D-C1D | -2.01 | 103.08      | 105.83   |
| 34  | 2     | 501  | LUT  | C8-C7-C6    | -2.01 | 121.55      | 127.20   |
| 21  | B     | 1201 | CLA  | CMD-C2D-C3D | -2.01 | 122.99      | 127.61   |
| 21  | 6     | 601  | CLA  | CHA-C1A-NA  | -2.01 | 121.79      | 126.40   |
| 21  | A     | 1125 | CLA  | CMB-C2B-C1B | -2.01 | 125.37      | 128.46   |
| 21  | 3     | 612  | CLA  | O1D-CGD-CBD | -2.01 | 120.37      | 124.48   |
| 21  | O     | 1802 | CLA  | O2D-CGD-O1D | -2.01 | 119.53      | 124.09   |
| 21  | B     | 1202 | CLA  | C6-C5-C3    | -2.01 | 108.19      | 113.45   |
| 21  | B     | 1021 | CLA  | C1-O2A-CGA  | 2.01  | 121.71      | 116.44   |
| 21  | 6     | 606  | CLA  | O2A-CGA-CBA | 2.01  | 118.21      | 111.91   |
| 21  | 1     | 602  | CLA  | CMB-C2B-C3B | 2.01  | 128.43      | 124.68   |
| 21  | 1     | 605  | CLA  | C1D-ND-C4D  | -2.01 | 104.91      | 106.33   |
| 21  | 5     | 606  | CLA  | C3D-C2D-C1D | -2.01 | 103.09      | 105.83   |
| 21  | 6     | 609  | CLA  | C3D-C2D-C1D | -2.01 | 103.09      | 105.83   |

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| Mol | Chain | Res  | Type | Atoms       | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 21  | B     | 1209 | CLA  | O2A-CGA-CBA | 2.01  | 120.16      | 112.23   |
| 21  | A     | 1139 | CLA  | CHA-C1A-NA  | -2.01 | 121.81      | 126.40   |
| 21  | K     | 1401 | CLA  | C2A-C1A-CHA | 2.01  | 127.36      | 123.86   |
| 21  | B     | 1230 | CLA  | CAA-C2A-C3A | -2.00 | 107.29      | 112.78   |
| 21  | A     | 1119 | CLA  | CMC-C2C-C3C | 2.00  | 131.56      | 126.12   |
| 21  | B     | 1232 | CLA  | C1-C2-C3    | -2.00 | 122.58      | 126.04   |
| 21  | 4     | 609  | CLA  | C1-C2-C3    | -2.00 | 122.58      | 126.04   |
| 21  | 2     | 607  | CLA  | CMD-C2D-C3D | -2.00 | 123.00      | 127.61   |
| 21  | B     | 1226 | CLA  | C1-O2A-CGA  | 2.00  | 121.70      | 116.44   |
| 24  | B     | 4002 | BCR  | C33-C5-C6   | -2.00 | 122.28      | 124.53   |
| 21  | A     | 1115 | CLA  | C3D-C2D-C1D | -2.00 | 103.10      | 105.83   |
| 21  | 1     | 604  | CLA  | C3D-C2D-C1D | -2.00 | 103.10      | 105.83   |
| 21  | H     | 1702 | CLA  | O2A-CGA-CBA | 2.00  | 120.14      | 112.23   |
| 21  | 6     | 609  | CLA  | CMB-C2B-C3B | 2.00  | 128.42      | 124.68   |
| 21  | 6     | 604  | CLA  | C3D-C2D-C1D | -2.00 | 103.10      | 105.83   |
| 21  | 3     | 608  | CLA  | CAA-C2A-C3A | -2.00 | 107.30      | 112.78   |
| 21  | B     | 1215 | CLA  | C1-C2-C3    | -2.00 | 122.58      | 126.04   |
| 21  | B     | 1206 | CLA  | C3D-C2D-C1D | -2.00 | 103.10      | 105.83   |
| 21  | G     | 1602 | CLA  | C3D-C2D-C1D | -2.00 | 103.10      | 105.83   |
| 34  | 4     | 501  | LUT  | C1-C6-C5    | -2.00 | 119.80      | 122.61   |
| 21  | B     | 1227 | CLA  | CAC-C3C-C4C | 2.00  | 127.41      | 124.81   |

All (236) chirality outliers are listed below:

| Mol | Chain | Res  | Type | Atom |
|-----|-------|------|------|------|
| 20  | A     | 1011 | CL0  | NC   |
| 20  | A     | 1011 | CL0  | ND   |
| 20  | A     | 1011 | CL0  | NA   |
| 21  | A     | 1012 | CLA  | ND   |
| 21  | A     | 1013 | CLA  | ND   |
| 21  | A     | 1101 | CLA  | ND   |
| 21  | A     | 1102 | CLA  | ND   |
| 21  | A     | 1103 | CLA  | ND   |
| 21  | A     | 1104 | CLA  | ND   |
| 21  | A     | 1105 | CLA  | ND   |
| 21  | A     | 1106 | CLA  | ND   |
| 21  | A     | 1107 | CLA  | ND   |
| 21  | A     | 1108 | CLA  | ND   |
| 21  | A     | 1109 | CLA  | ND   |
| 21  | A     | 1110 | CLA  | ND   |
| 21  | A     | 1111 | CLA  | ND   |
| 21  | A     | 1112 | CLA  | ND   |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atom</b> |
|------------|--------------|------------|-------------|-------------|
| 21         | A            | 1113       | CLA         | ND          |
| 21         | A            | 1114       | CLA         | ND          |
| 21         | A            | 1115       | CLA         | ND          |
| 21         | A            | 1116       | CLA         | ND          |
| 21         | A            | 1117       | CLA         | ND          |
| 21         | A            | 1118       | CLA         | ND          |
| 21         | A            | 1119       | CLA         | ND          |
| 21         | A            | 1120       | CLA         | ND          |
| 21         | A            | 1121       | CLA         | ND          |
| 21         | A            | 1122       | CLA         | ND          |
| 21         | A            | 1123       | CLA         | ND          |
| 21         | A            | 1124       | CLA         | ND          |
| 21         | A            | 1125       | CLA         | ND          |
| 21         | A            | 1126       | CLA         | ND          |
| 21         | A            | 1127       | CLA         | ND          |
| 21         | A            | 1128       | CLA         | ND          |
| 21         | A            | 1129       | CLA         | ND          |
| 21         | A            | 1130       | CLA         | ND          |
| 21         | A            | 1131       | CLA         | ND          |
| 21         | A            | 1132       | CLA         | ND          |
| 21         | A            | 1133       | CLA         | ND          |
| 21         | A            | 1134       | CLA         | ND          |
| 21         | A            | 1135       | CLA         | ND          |
| 21         | A            | 1136       | CLA         | ND          |
| 21         | A            | 1137       | CLA         | ND          |
| 21         | A            | 1138       | CLA         | ND          |
| 21         | A            | 1139       | CLA         | ND          |
| 21         | A            | 1140       | CLA         | ND          |
| 21         | A            | 1141       | CLA         | ND          |
| 21         | B            | 1021       | CLA         | ND          |
| 21         | B            | 1022       | CLA         | ND          |
| 21         | B            | 1023       | CLA         | ND          |
| 21         | B            | 1201       | CLA         | ND          |
| 21         | B            | 1202       | CLA         | ND          |
| 21         | B            | 1203       | CLA         | ND          |
| 21         | B            | 1204       | CLA         | ND          |
| 21         | B            | 1205       | CLA         | ND          |
| 21         | B            | 1206       | CLA         | ND          |
| 21         | B            | 1207       | CLA         | ND          |
| 21         | B            | 1208       | CLA         | ND          |
| 21         | B            | 1209       | CLA         | ND          |
| 21         | B            | 1210       | CLA         | ND          |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atom</b> |
|------------|--------------|------------|-------------|-------------|
| 21         | B            | 1211       | CLA         | ND          |
| 21         | B            | 1212       | CLA         | ND          |
| 21         | B            | 1213       | CLA         | ND          |
| 21         | B            | 1214       | CLA         | ND          |
| 21         | B            | 1215       | CLA         | ND          |
| 21         | B            | 1216       | CLA         | ND          |
| 21         | B            | 1217       | CLA         | ND          |
| 21         | B            | 1218       | CLA         | ND          |
| 21         | B            | 1219       | CLA         | ND          |
| 21         | B            | 1220       | CLA         | ND          |
| 21         | B            | 1221       | CLA         | ND          |
| 21         | B            | 1222       | CLA         | ND          |
| 21         | B            | 1223       | CLA         | ND          |
| 21         | B            | 1224       | CLA         | ND          |
| 21         | B            | 1225       | CLA         | ND          |
| 21         | B            | 1226       | CLA         | ND          |
| 21         | B            | 1227       | CLA         | ND          |
| 21         | B            | 1228       | CLA         | ND          |
| 21         | B            | 1229       | CLA         | ND          |
| 21         | B            | 1230       | CLA         | ND          |
| 21         | B            | 1231       | CLA         | ND          |
| 21         | B            | 1232       | CLA         | ND          |
| 21         | B            | 1234       | CLA         | ND          |
| 21         | B            | 1235       | CLA         | ND          |
| 21         | B            | 1236       | CLA         | ND          |
| 21         | B            | 1237       | CLA         | ND          |
| 21         | B            | 1238       | CLA         | ND          |
| 21         | B            | 1239       | CLA         | ND          |
| 21         | B            | 1240       | CLA         | ND          |
| 21         | F            | 1301       | CLA         | ND          |
| 21         | F            | 1302       | CLA         | ND          |
| 21         | J            | 1901       | CLA         | ND          |
| 21         | G            | 1601       | CLA         | ND          |
| 21         | G            | 1602       | CLA         | ND          |
| 21         | G            | 1603       | CLA         | ND          |
| 21         | H            | 1701       | CLA         | ND          |
| 21         | H            | 1702       | CLA         | ND          |
| 21         | K            | 1401       | CLA         | ND          |
| 21         | K            | 1402       | CLA         | ND          |
| 21         | K            | 1403       | CLA         | ND          |
| 21         | K            | 1404       | CLA         | ND          |
| 21         | L            | 1501       | CLA         | ND          |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atom</b> |
|------------|--------------|------------|-------------|-------------|
| 21         | L            | 1502       | CLA         | ND          |
| 21         | L            | 1503       | CLA         | ND          |
| 21         | L            | 1504       | CLA         | ND          |
| 21         | O            | 1801       | CLA         | ND          |
| 21         | O            | 1802       | CLA         | ND          |
| 21         | O            | 1803       | CLA         | ND          |
| 21         | 1            | 601        | CLA         | ND          |
| 21         | 1            | 602        | CLA         | ND          |
| 21         | 1            | 603        | CLA         | ND          |
| 21         | 1            | 604        | CLA         | ND          |
| 21         | 1            | 605        | CLA         | ND          |
| 21         | 1            | 606        | CLA         | ND          |
| 21         | 1            | 607        | CLA         | ND          |
| 21         | 1            | 608        | CLA         | ND          |
| 21         | 1            | 611        | CLA         | ND          |
| 21         | 1            | 612        | CLA         | ND          |
| 21         | 1            | 613        | CLA         | ND          |
| 21         | 1            | 615        | CLA         | ND          |
| 21         | 2            | 601        | CLA         | ND          |
| 21         | 2            | 602        | CLA         | ND          |
| 21         | 2            | 603        | CLA         | ND          |
| 21         | 2            | 604        | CLA         | ND          |
| 21         | 2            | 605        | CLA         | ND          |
| 21         | 2            | 606        | CLA         | ND          |
| 21         | 2            | 607        | CLA         | ND          |
| 21         | 2            | 608        | CLA         | ND          |
| 21         | 2            | 612        | CLA         | ND          |
| 21         | 2            | 615        | CLA         | ND          |
| 21         | 3            | 601        | CLA         | ND          |
| 21         | 3            | 602        | CLA         | ND          |
| 21         | 3            | 603        | CLA         | ND          |
| 21         | 3            | 605        | CLA         | ND          |
| 21         | 3            | 606        | CLA         | ND          |
| 21         | 3            | 607        | CLA         | ND          |
| 21         | 3            | 608        | CLA         | ND          |
| 21         | 3            | 610        | CLA         | ND          |
| 21         | 3            | 611        | CLA         | ND          |
| 21         | 3            | 612        | CLA         | ND          |
| 21         | 3            | 613        | CLA         | ND          |
| 21         | 3            | 614        | CLA         | ND          |
| 21         | 3            | 615        | CLA         | ND          |
| 21         | 4            | 601        | CLA         | ND          |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atom</b> |
|------------|--------------|------------|-------------|-------------|
| 21         | 4            | 602        | CLA         | ND          |
| 21         | 4            | 603        | CLA         | ND          |
| 21         | 4            | 604        | CLA         | ND          |
| 21         | 4            | 605        | CLA         | ND          |
| 21         | 4            | 606        | CLA         | ND          |
| 21         | 4            | 607        | CLA         | ND          |
| 21         | 4            | 608        | CLA         | ND          |
| 21         | 4            | 609        | CLA         | ND          |
| 21         | 4            | 612        | CLA         | ND          |
| 21         | 4            | 615        | CLA         | ND          |
| 21         | 5            | 601        | CLA         | ND          |
| 21         | 5            | 602        | CLA         | ND          |
| 21         | 5            | 603        | CLA         | ND          |
| 21         | 5            | 604        | CLA         | ND          |
| 21         | 5            | 605        | CLA         | ND          |
| 21         | 5            | 606        | CLA         | ND          |
| 21         | 5            | 607        | CLA         | ND          |
| 21         | 5            | 608        | CLA         | ND          |
| 21         | 5            | 612        | CLA         | ND          |
| 21         | 5            | 613        | CLA         | ND          |
| 21         | 5            | 614        | CLA         | ND          |
| 21         | 6            | 601        | CLA         | ND          |
| 21         | 6            | 602        | CLA         | ND          |
| 21         | 6            | 603        | CLA         | ND          |
| 21         | 6            | 604        | CLA         | ND          |
| 21         | 6            | 605        | CLA         | ND          |
| 21         | 6            | 606        | CLA         | ND          |
| 21         | 6            | 607        | CLA         | ND          |
| 21         | 6            | 608        | CLA         | ND          |
| 21         | 6            | 609        | CLA         | ND          |
| 21         | 6            | 612        | CLA         | ND          |
| 21         | 6            | 613        | CLA         | ND          |
| 34         | 4            | 501        | LUT         | C26         |
| 34         | 5            | 501        | LUT         | C26         |
| 34         | 5            | 504        | LUT         | C26         |
| 34         | 6            | 501        | LUT         | C26         |
| 35         | 1            | 502        | XAT         | C5          |
| 35         | 1            | 502        | XAT         | C26         |
| 35         | 2            | 502        | XAT         | C6          |
| 35         | 2            | 502        | XAT         | C26         |
| 35         | 3            | 502        | XAT         | C6          |
| 35         | 3            | 502        | XAT         | C5          |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atom</b> |
|------------|--------------|------------|-------------|-------------|
| 35         | 4            | 502        | XAT         | C6          |
| 35         | 4            | 502        | XAT         | C26         |
| 35         | 6            | 502        | XAT         | C6          |
| 35         | 6            | 502        | XAT         | C26         |
| 35         | 6            | 504        | XAT         | C25         |
| 36         | 1            | 609        | CHL         | NC          |
| 36         | 1            | 609        | CHL         | ND          |
| 36         | 1            | 609        | CHL         | NA          |
| 36         | 1            | 609        | CHL         | C8          |
| 36         | 1            | 610        | CHL         | NC          |
| 36         | 1            | 610        | CHL         | ND          |
| 36         | 1            | 610        | CHL         | NA          |
| 36         | 2            | 609        | CHL         | NC          |
| 36         | 2            | 609        | CHL         | ND          |
| 36         | 2            | 609        | CHL         | NA          |
| 36         | 2            | 609        | CHL         | C8          |
| 36         | 2            | 610        | CHL         | NC          |
| 36         | 2            | 610        | CHL         | ND          |
| 36         | 2            | 610        | CHL         | NA          |
| 36         | 2            | 610        | CHL         | C8          |
| 36         | 2            | 611        | CHL         | NC          |
| 36         | 2            | 611        | CHL         | ND          |
| 36         | 2            | 611        | CHL         | NA          |
| 36         | 2            | 613        | CHL         | NC          |
| 36         | 2            | 613        | CHL         | ND          |
| 36         | 2            | 613        | CHL         | NA          |
| 36         | 3            | 604        | CHL         | NC          |
| 36         | 3            | 604        | CHL         | ND          |
| 36         | 3            | 604        | CHL         | NA          |
| 36         | 3            | 604        | CHL         | C8          |
| 36         | 4            | 610        | CHL         | NC          |
| 36         | 4            | 610        | CHL         | ND          |
| 36         | 4            | 610        | CHL         | NA          |
| 36         | 4            | 611        | CHL         | NC          |
| 36         | 4            | 611        | CHL         | ND          |
| 36         | 4            | 611        | CHL         | NA          |
| 36         | 4            | 613        | CHL         | NC          |
| 36         | 4            | 613        | CHL         | ND          |
| 36         | 4            | 613        | CHL         | NA          |
| 36         | 4            | 613        | CHL         | C8          |
| 36         | 5            | 609        | CHL         | NC          |
| 36         | 5            | 609        | CHL         | ND          |

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| Mol | Chain | Res | Type | Atom |
|-----|-------|-----|------|------|
| 36  | 5     | 609 | CHL  | NA   |
| 36  | 5     | 609 | CHL  | C8   |
| 36  | 5     | 610 | CHL  | NC   |
| 36  | 5     | 610 | CHL  | C3A  |
| 36  | 5     | 610 | CHL  | NA   |
| 36  | 5     | 610 | CHL  | ND   |
| 36  | 6     | 610 | CHL  | NC   |
| 36  | 6     | 610 | CHL  | ND   |
| 36  | 6     | 610 | CHL  | NA   |

All (3645) torsion outliers are listed below:

| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 20  | A     | 1011 | CL0  | C2-C1-O2A-CGA   |
| 21  | A     | 1013 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1013 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1013 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1101 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1101 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1101 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1102 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1102 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1105 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1106 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1106 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1108 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1108 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1108 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1108 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1109 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1109 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1109 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1110 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1111 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1111 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1112 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1113 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1113 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1114 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1114 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1115 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1115 | CLA  | CHA-CBD-CGD-O2D |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1115 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1116 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1116 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1116 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1116 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1117 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1118 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1118 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1119 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1119 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1119 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1119 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1120 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1120 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1120 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1120 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1121 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1122 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1122 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1122 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1123 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1123 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1123 | CLA  | CAD-CBD-CGD-O1D |
| 21  | A     | 1123 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1124 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1125 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1125 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1125 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1126 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1126 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1126 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1126 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1126 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1127 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1127 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1128 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1128 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1129 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1129 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1131 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1132 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1134 | CLA  | C1A-C2A-CAA-CBA |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1134 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1135 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1137 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1138 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1138 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1138 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1139 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1139 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1141 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1141 | CLA  | CAD-CBD-CGD-O1D |
| 21  | A     | 1141 | CLA  | CAD-CBD-CGD-O2D |
| 21  | B     | 1021 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1021 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1021 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1021 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1022 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1023 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1023 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1023 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1023 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1023 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1201 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1201 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1201 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1201 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1202 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1202 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1206 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1207 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1207 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1208 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1208 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1210 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1210 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1212 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1213 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1213 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1213 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1213 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1214 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1214 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1215 | CLA  | C3A-C2A-CAA-CBA |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1215 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1216 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1216 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1216 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1217 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1217 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1217 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1218 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1218 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1219 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1219 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1219 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1220 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1220 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1220 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1220 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1222 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1224 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1224 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1224 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1224 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1225 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1225 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1225 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1225 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1226 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1226 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1226 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1229 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1229 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1230 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1232 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1232 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1232 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1232 | CLA  | CAD-CBD-CGD-O1D |
| 21  | B     | 1232 | CLA  | CAD-CBD-CGD-O2D |
| 21  | B     | 1234 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1234 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1236 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1236 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1236 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1236 | CLA  | C2-C3-C5-C6     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1236 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1237 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1237 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1237 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1239 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1239 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1239 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1239 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1240 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1240 | CLA  | CHA-CBD-CGD-O2D |
| 21  | F     | 1301 | CLA  | C1A-C2A-CAA-CBA |
| 21  | F     | 1301 | CLA  | C3A-C2A-CAA-CBA |
| 21  | F     | 1302 | CLA  | C2-C1-O2A-CGA   |
| 21  | F     | 1302 | CLA  | CBD-CGD-O2D-CED |
| 21  | J     | 1901 | CLA  | CHA-CBD-CGD-O1D |
| 21  | J     | 1901 | CLA  | CHA-CBD-CGD-O2D |
| 21  | J     | 1901 | CLA  | CBD-CGD-O2D-CED |
| 21  | G     | 1601 | CLA  | C1A-C2A-CAA-CBA |
| 21  | G     | 1602 | CLA  | CBA-CGA-O2A-C1  |
| 21  | G     | 1602 | CLA  | CHA-CBD-CGD-O1D |
| 21  | G     | 1602 | CLA  | CHA-CBD-CGD-O2D |
| 21  | G     | 1602 | CLA  | CBD-CGD-O2D-CED |
| 21  | G     | 1603 | CLA  | CBD-CGD-O2D-CED |
| 21  | H     | 1701 | CLA  | CHA-CBD-CGD-O1D |
| 21  | H     | 1701 | CLA  | CHA-CBD-CGD-O2D |
| 21  | H     | 1702 | CLA  | C1A-C2A-CAA-CBA |
| 21  | H     | 1702 | CLA  | CHA-CBD-CGD-O1D |
| 21  | H     | 1702 | CLA  | CHA-CBD-CGD-O2D |
| 21  | K     | 1401 | CLA  | C1A-C2A-CAA-CBA |
| 21  | K     | 1401 | CLA  | C3A-C2A-CAA-CBA |
| 21  | K     | 1402 | CLA  | C1A-C2A-CAA-CBA |
| 21  | K     | 1402 | CLA  | CHA-CBD-CGD-O1D |
| 21  | K     | 1402 | CLA  | CHA-CBD-CGD-O2D |
| 21  | K     | 1403 | CLA  | C1A-C2A-CAA-CBA |
| 21  | K     | 1403 | CLA  | C3A-C2A-CAA-CBA |
| 21  | K     | 1403 | CLA  | CBD-CGD-O2D-CED |
| 21  | K     | 1404 | CLA  | CBD-CGD-O2D-CED |
| 21  | L     | 1501 | CLA  | C1A-C2A-CAA-CBA |
| 21  | L     | 1501 | CLA  | C3A-C2A-CAA-CBA |
| 21  | L     | 1501 | CLA  | C2-C1-O2A-CGA   |
| 21  | L     | 1502 | CLA  | C1A-C2A-CAA-CBA |
| 21  | L     | 1502 | CLA  | C3A-C2A-CAA-CBA |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | L     | 1502 | CLA  | C2-C1-O2A-CGA   |
| 21  | L     | 1502 | CLA  | CHA-CBD-CGD-O1D |
| 21  | L     | 1502 | CLA  | CHA-CBD-CGD-O2D |
| 21  | L     | 1504 | CLA  | C1A-C2A-CAA-CBA |
| 21  | L     | 1504 | CLA  | C3A-C2A-CAA-CBA |
| 21  | O     | 1803 | CLA  | C2-C1-O2A-CGA   |
| 21  | 1     | 601  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 601  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 601  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 1     | 601  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 601  | CLA  | C2-C3-C5-C6     |
| 21  | 1     | 601  | CLA  | C4-C3-C5-C6     |
| 21  | 1     | 602  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 1     | 602  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 1     | 602  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 602  | CLA  | CBD-CGD-O2D-CED |
| 21  | 1     | 603  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 1     | 603  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 1     | 603  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 603  | CLA  | C6-C7-C8-C9     |
| 21  | 1     | 606  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 1     | 606  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 606  | CLA  | CAD-CBD-CGD-O1D |
| 21  | 1     | 607  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 1     | 607  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 607  | CLA  | CBD-CGD-O2D-CED |
| 21  | 1     | 608  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 1     | 611  | CLA  | CBD-CGD-O2D-CED |
| 21  | 1     | 612  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 613  | CLA  | CBD-CGD-O2D-CED |
| 21  | 1     | 615  | CLA  | CBD-CGD-O2D-CED |
| 21  | 2     | 601  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 2     | 601  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 2     | 601  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 2     | 602  | CLA  | CBD-CGD-O2D-CED |
| 21  | 2     | 602  | CLA  | C3-C5-C6-C7     |
| 21  | 2     | 603  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 2     | 603  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 2     | 603  | CLA  | CBD-CGD-O2D-CED |
| 21  | 2     | 604  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 2     | 604  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 2     | 604  | CLA  | CHA-CBD-CGD-O1D |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 21  | 2     | 604 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 2     | 605 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 608 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 2     | 608 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 2     | 608 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 2     | 615 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 2     | 615 | CLA  | C2-C1-O2A-CGA   |
| 21  | 2     | 615 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 2     | 615 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 2     | 615 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 601 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 3     | 601 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 601 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 602 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 603 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 603 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 606 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 608 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 610 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 3     | 610 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 3     | 610 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 3     | 610 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 610 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 610 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 611 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 611 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 611 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 613 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 3     | 613 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 613 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 614 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 614 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 614 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 615 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 4     | 601 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 4     | 601 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 4     | 601 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 4     | 602 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 4     | 604 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 4     | 607 | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 608 | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 609 | CLA  | C1A-C2A-CAA-CBA |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 21  | 4     | 609 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 4     | 615 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 4     | 615 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 4     | 615 | CLA  | C2-C3-C5-C6     |
| 21  | 4     | 615 | CLA  | C4-C3-C5-C6     |
| 21  | 5     | 601 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 5     | 601 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 603 | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 604 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 5     | 604 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 5     | 604 | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 605 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 5     | 605 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 5     | 605 | CLA  | CAD-CBD-CGD-O1D |
| 21  | 5     | 605 | CLA  | CAD-CBD-CGD-O2D |
| 21  | 5     | 605 | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 606 | CLA  | C2-C1-O2A-CGA   |
| 21  | 5     | 607 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 5     | 607 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 5     | 608 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 5     | 608 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 608 | CLA  | C2-C3-C5-C6     |
| 21  | 5     | 608 | CLA  | C4-C3-C5-C6     |
| 21  | 5     | 613 | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 614 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 6     | 601 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 6     | 601 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 6     | 601 | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 601 | CLA  | C2-C3-C5-C6     |
| 21  | 6     | 601 | CLA  | C4-C3-C5-C6     |
| 21  | 6     | 602 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 602 | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 603 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 603 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 604 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 604 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 604 | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 605 | CLA  | C2-C3-C5-C6     |
| 21  | 6     | 605 | CLA  | C4-C3-C5-C6     |
| 21  | 6     | 606 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 6     | 606 | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 608 | CLA  | CBD-CGD-O2D-CED |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 6     | 609  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 6     | 609  | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 613  | CLA  | CBD-CGD-O2D-CED |
| 22  | B     | 2002 | PQN  | C12-C13-C15-C16 |
| 22  | B     | 2002 | PQN  | C14-C13-C15-C16 |
| 24  | A     | 4001 | BCR  | C1-C6-C7-C8     |
| 24  | A     | 4001 | BCR  | C5-C6-C7-C8     |
| 24  | A     | 4001 | BCR  | C11-C10-C9-C8   |
| 24  | A     | 4001 | BCR  | C11-C10-C9-C34  |
| 24  | A     | 4001 | BCR  | C9-C10-C11-C12  |
| 24  | A     | 4001 | BCR  | C17-C18-C19-C20 |
| 24  | A     | 4001 | BCR  | C36-C18-C19-C20 |
| 24  | A     | 4002 | BCR  | C1-C6-C7-C8     |
| 24  | A     | 4002 | BCR  | C7-C8-C9-C10    |
| 24  | A     | 4002 | BCR  | C7-C8-C9-C34    |
| 24  | A     | 4002 | BCR  | C11-C10-C9-C8   |
| 24  | A     | 4002 | BCR  | C11-C10-C9-C34  |
| 24  | A     | 4002 | BCR  | C10-C11-C12-C13 |
| 24  | A     | 4002 | BCR  | C23-C24-C25-C26 |
| 24  | A     | 4003 | BCR  | C7-C8-C9-C10    |
| 24  | A     | 4003 | BCR  | C7-C8-C9-C34    |
| 24  | A     | 4003 | BCR  | C11-C10-C9-C8   |
| 24  | A     | 4003 | BCR  | C11-C10-C9-C34  |
| 24  | A     | 4004 | BCR  | C11-C10-C9-C8   |
| 24  | A     | 4004 | BCR  | C11-C10-C9-C34  |
| 24  | A     | 4004 | BCR  | C9-C10-C11-C12  |
| 24  | A     | 4004 | BCR  | C10-C11-C12-C13 |
| 24  | A     | 4004 | BCR  | C21-C22-C23-C24 |
| 24  | A     | 4004 | BCR  | C37-C22-C23-C24 |
| 24  | A     | 4004 | BCR  | C23-C24-C25-C26 |
| 24  | A     | 4004 | BCR  | C23-C24-C25-C30 |
| 24  | A     | 4005 | BCR  | C11-C10-C9-C8   |
| 24  | A     | 4005 | BCR  | C11-C10-C9-C34  |
| 24  | A     | 4005 | BCR  | C10-C11-C12-C13 |
| 24  | A     | 4006 | BCR  | C7-C8-C9-C34    |
| 24  | A     | 4006 | BCR  | C10-C11-C12-C13 |
| 24  | A     | 4006 | BCR  | C11-C12-C13-C14 |
| 24  | A     | 4006 | BCR  | C11-C12-C13-C35 |
| 24  | A     | 4006 | BCR  | C17-C18-C19-C20 |
| 24  | A     | 4006 | BCR  | C36-C18-C19-C20 |
| 24  | A     | 4006 | BCR  | C23-C24-C25-C30 |
| 24  | A     | 4007 | BCR  | C11-C10-C9-C8   |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atoms</b>    |
|------------|--------------|------------|-------------|-----------------|
| 24         | A            | 4007       | BCR         | C11-C10-C9-C34  |
| 24         | A            | 4007       | BCR         | C10-C11-C12-C13 |
| 24         | B            | 4001       | BCR         | C5-C6-C7-C8     |
| 24         | B            | 4001       | BCR         | C7-C8-C9-C34    |
| 24         | B            | 4001       | BCR         | C11-C10-C9-C8   |
| 24         | B            | 4001       | BCR         | C11-C10-C9-C34  |
| 24         | B            | 4001       | BCR         | C17-C18-C19-C20 |
| 24         | B            | 4001       | BCR         | C36-C18-C19-C20 |
| 24         | B            | 4002       | BCR         | C7-C8-C9-C10    |
| 24         | B            | 4002       | BCR         | C7-C8-C9-C34    |
| 24         | B            | 4002       | BCR         | C11-C10-C9-C8   |
| 24         | B            | 4002       | BCR         | C11-C10-C9-C34  |
| 24         | B            | 4002       | BCR         | C10-C11-C12-C13 |
| 24         | B            | 4002       | BCR         | C17-C18-C19-C20 |
| 24         | B            | 4002       | BCR         | C36-C18-C19-C20 |
| 24         | B            | 4002       | BCR         | C21-C22-C23-C24 |
| 24         | B            | 4002       | BCR         | C37-C22-C23-C24 |
| 24         | B            | 4003       | BCR         | C11-C10-C9-C8   |
| 24         | B            | 4003       | BCR         | C11-C10-C9-C34  |
| 24         | B            | 4003       | BCR         | C9-C10-C11-C12  |
| 24         | B            | 4003       | BCR         | C10-C11-C12-C13 |
| 24         | B            | 4003       | BCR         | C17-C18-C19-C20 |
| 24         | B            | 4003       | BCR         | C36-C18-C19-C20 |
| 24         | B            | 4004       | BCR         | C7-C8-C9-C10    |
| 24         | B            | 4004       | BCR         | C7-C8-C9-C34    |
| 24         | B            | 4004       | BCR         | C11-C10-C9-C8   |
| 24         | B            | 4004       | BCR         | C11-C10-C9-C34  |
| 24         | B            | 4004       | BCR         | C10-C11-C12-C13 |
| 24         | B            | 4005       | BCR         | C11-C10-C9-C8   |
| 24         | B            | 4005       | BCR         | C11-C10-C9-C34  |
| 24         | B            | 4005       | BCR         | C10-C11-C12-C13 |
| 24         | B            | 4005       | BCR         | C36-C18-C19-C20 |
| 24         | B            | 4005       | BCR         | C21-C22-C23-C24 |
| 24         | B            | 4005       | BCR         | C37-C22-C23-C24 |
| 24         | B            | 4006       | BCR         | C11-C10-C9-C8   |
| 24         | B            | 4006       | BCR         | C11-C10-C9-C34  |
| 24         | B            | 4006       | BCR         | C17-C18-C19-C20 |
| 24         | B            | 4006       | BCR         | C36-C18-C19-C20 |
| 24         | F            | 4001       | BCR         | C10-C11-C12-C13 |
| 24         | F            | 4002       | BCR         | C11-C10-C9-C8   |
| 24         | F            | 4002       | BCR         | C11-C10-C9-C34  |
| 24         | F            | 4002       | BCR         | C11-C12-C13-C14 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | F     | 4002 | BCR  | C11-C12-C13-C35 |
| 24  | F     | 4002 | BCR  | C17-C18-C19-C20 |
| 24  | F     | 4002 | BCR  | C36-C18-C19-C20 |
| 24  | F     | 4002 | BCR  | C21-C22-C23-C24 |
| 24  | F     | 4002 | BCR  | C37-C22-C23-C24 |
| 24  | J     | 4001 | BCR  | C5-C6-C7-C8     |
| 24  | J     | 4001 | BCR  | C7-C8-C9-C10    |
| 24  | J     | 4001 | BCR  | C7-C8-C9-C34    |
| 24  | J     | 4001 | BCR  | C17-C18-C19-C20 |
| 24  | J     | 4001 | BCR  | C36-C18-C19-C20 |
| 24  | J     | 4001 | BCR  | C23-C24-C25-C26 |
| 24  | J     | 4001 | BCR  | C23-C24-C25-C30 |
| 24  | J     | 4002 | BCR  | C7-C8-C9-C10    |
| 24  | J     | 4002 | BCR  | C7-C8-C9-C34    |
| 24  | J     | 4002 | BCR  | C11-C10-C9-C8   |
| 24  | J     | 4002 | BCR  | C11-C10-C9-C34  |
| 24  | J     | 4002 | BCR  | C11-C12-C13-C14 |
| 24  | J     | 4002 | BCR  | C11-C12-C13-C35 |
| 24  | J     | 4002 | BCR  | C36-C18-C19-C20 |
| 24  | G     | 4001 | BCR  | C11-C10-C9-C8   |
| 24  | G     | 4001 | BCR  | C11-C10-C9-C34  |
| 24  | G     | 4001 | BCR  | C10-C11-C12-C13 |
| 24  | H     | 4001 | BCR  | C1-C6-C7-C8     |
| 24  | H     | 4001 | BCR  | C5-C6-C7-C8     |
| 24  | H     | 4001 | BCR  | C11-C10-C9-C8   |
| 24  | H     | 4001 | BCR  | C11-C10-C9-C34  |
| 24  | H     | 4001 | BCR  | C10-C11-C12-C13 |
| 24  | H     | 4001 | BCR  | C21-C22-C23-C24 |
| 24  | H     | 4001 | BCR  | C23-C24-C25-C26 |
| 24  | I     | 4001 | BCR  | C1-C6-C7-C8     |
| 24  | I     | 4001 | BCR  | C5-C6-C7-C8     |
| 24  | I     | 4001 | BCR  | C11-C10-C9-C8   |
| 24  | I     | 4001 | BCR  | C11-C10-C9-C34  |
| 24  | I     | 4001 | BCR  | C9-C10-C11-C12  |
| 24  | I     | 4001 | BCR  | C19-C20-C21-C22 |
| 24  | I     | 4002 | BCR  | C11-C12-C13-C14 |
| 24  | I     | 4002 | BCR  | C11-C12-C13-C35 |
| 24  | I     | 4002 | BCR  | C17-C18-C19-C20 |
| 24  | I     | 4002 | BCR  | C36-C18-C19-C20 |
| 24  | I     | 4002 | BCR  | C21-C22-C23-C24 |
| 24  | I     | 4002 | BCR  | C37-C22-C23-C24 |
| 24  | K     | 4001 | BCR  | C11-C10-C9-C8   |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | K     | 4001 | BCR  | C11-C10-C9-C34  |
| 24  | K     | 4001 | BCR  | C9-C10-C11-C12  |
| 24  | K     | 4001 | BCR  | C10-C11-C12-C13 |
| 24  | K     | 4001 | BCR  | C23-C24-C25-C26 |
| 24  | L     | 4001 | BCR  | C1-C6-C7-C8     |
| 24  | L     | 4001 | BCR  | C11-C10-C9-C8   |
| 24  | L     | 4001 | BCR  | C11-C10-C9-C34  |
| 24  | L     | 4001 | BCR  | C9-C10-C11-C12  |
| 24  | L     | 4001 | BCR  | C10-C11-C12-C13 |
| 24  | L     | 4001 | BCR  | C21-C22-C23-C24 |
| 24  | L     | 4001 | BCR  | C37-C22-C23-C24 |
| 24  | L     | 4001 | BCR  | C23-C24-C25-C26 |
| 24  | L     | 4001 | BCR  | C23-C24-C25-C30 |
| 24  | L     | 4002 | BCR  | C11-C10-C9-C8   |
| 24  | L     | 4002 | BCR  | C11-C10-C9-C34  |
| 24  | L     | 4002 | BCR  | C10-C11-C12-C13 |
| 24  | O     | 4001 | BCR  | C11-C10-C9-C8   |
| 24  | O     | 4001 | BCR  | C11-C10-C9-C34  |
| 24  | O     | 4001 | BCR  | C10-C11-C12-C13 |
| 24  | O     | 4001 | BCR  | C17-C18-C19-C20 |
| 24  | O     | 4001 | BCR  | C36-C18-C19-C20 |
| 24  | O     | 4001 | BCR  | C23-C24-C25-C26 |
| 24  | O     | 4001 | BCR  | C23-C24-C25-C30 |
| 24  | 1     | 504  | BCR  | C11-C10-C9-C8   |
| 24  | 1     | 504  | BCR  | C11-C10-C9-C34  |
| 24  | 1     | 504  | BCR  | C23-C24-C25-C26 |
| 24  | 1     | 504  | BCR  | C23-C24-C25-C30 |
| 24  | 2     | 503  | BCR  | C11-C10-C9-C8   |
| 24  | 2     | 503  | BCR  | C11-C10-C9-C34  |
| 24  | 2     | 503  | BCR  | C10-C11-C12-C13 |
| 24  | 2     | 503  | BCR  | C11-C12-C13-C14 |
| 24  | 2     | 503  | BCR  | C11-C12-C13-C35 |
| 24  | 2     | 503  | BCR  | C36-C18-C19-C20 |
| 24  | 2     | 503  | BCR  | C21-C22-C23-C24 |
| 24  | 2     | 503  | BCR  | C37-C22-C23-C24 |
| 24  | 2     | 503  | BCR  | C23-C24-C25-C26 |
| 24  | 3     | 503  | BCR  | C7-C8-C9-C10    |
| 24  | 3     | 503  | BCR  | C7-C8-C9-C34    |
| 24  | 3     | 503  | BCR  | C11-C10-C9-C8   |
| 24  | 3     | 503  | BCR  | C11-C10-C9-C34  |
| 24  | 3     | 503  | BCR  | C9-C10-C11-C12  |
| 24  | 3     | 503  | BCR  | C10-C11-C12-C13 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | 3     | 504  | BCR  | C11-C12-C13-C14 |
| 24  | 3     | 504  | BCR  | C11-C12-C13-C35 |
| 24  | 3     | 504  | BCR  | C17-C18-C19-C20 |
| 24  | 3     | 504  | BCR  | C36-C18-C19-C20 |
| 24  | 4     | 503  | BCR  | C11-C10-C9-C8   |
| 24  | 4     | 503  | BCR  | C11-C10-C9-C34  |
| 24  | 4     | 503  | BCR  | C10-C11-C12-C13 |
| 24  | 4     | 503  | BCR  | C21-C22-C23-C24 |
| 24  | 4     | 503  | BCR  | C37-C22-C23-C24 |
| 24  | 4     | 503  | BCR  | C23-C24-C25-C26 |
| 24  | 4     | 503  | BCR  | C23-C24-C25-C30 |
| 25  | A     | 5001 | LHG  | O1-C1-C2-C3     |
| 25  | A     | 5001 | LHG  | C4-O6-P-O4      |
| 25  | A     | 5001 | LHG  | C4-O6-P-O5      |
| 25  | A     | 5002 | LHG  | O1-C1-C2-C3     |
| 25  | A     | 5002 | LHG  | C1-C2-C3-O3     |
| 25  | A     | 5002 | LHG  | C4-O6-P-O3      |
| 25  | A     | 5002 | LHG  | C4-O6-P-O4      |
| 25  | A     | 5002 | LHG  | C4-O6-P-O5      |
| 25  | B     | 5001 | LHG  | O1-C1-C2-O2     |
| 25  | B     | 5001 | LHG  | O1-C1-C2-C3     |
| 25  | B     | 5001 | LHG  | C1-C2-C3-O3     |
| 25  | B     | 5001 | LHG  | O2-C2-C3-O3     |
| 25  | B     | 5001 | LHG  | C3-O3-P-O4      |
| 25  | B     | 5001 | LHG  | C3-O3-P-O5      |
| 25  | B     | 5001 | LHG  | C3-O3-P-O6      |
| 25  | B     | 5001 | LHG  | C4-O6-P-O4      |
| 25  | F     | 5001 | LHG  | O2-C2-C3-O3     |
| 25  | F     | 5001 | LHG  | C3-O3-P-O6      |
| 25  | F     | 5001 | LHG  | C4-O6-P-O4      |
| 25  | 1     | 801  | LHG  | O1-C1-C2-C3     |
| 25  | 1     | 801  | LHG  | O2-C2-C3-O3     |
| 25  | 1     | 801  | LHG  | C3-O3-P-O5      |
| 25  | 1     | 801  | LHG  | C4-O6-P-O4      |
| 25  | 1     | 801  | LHG  | O9-C7-O7-C5     |
| 25  | 1     | 801  | LHG  | C8-C7-O7-C5     |
| 25  | 1     | 802  | LHG  | C1-C2-C3-O3     |
| 25  | 1     | 802  | LHG  | O6-C4-C5-O7     |
| 25  | 1     | 802  | LHG  | C8-C7-O7-C5     |
| 25  | 2     | 801  | LHG  | O1-C1-C2-C3     |
| 25  | 2     | 801  | LHG  | C3-O3-P-O5      |
| 25  | 2     | 802  | LHG  | C4-O6-P-O4      |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | 2     | 802  | LHG  | C8-C7-O7-C5     |
| 25  | 2     | 803  | LHG  | O1-C1-C2-C3     |
| 25  | 2     | 803  | LHG  | C3-O3-P-O6      |
| 25  | 3     | 801  | LHG  | O1-C1-C2-C3     |
| 25  | 3     | 801  | LHG  | C4-O6-P-O5      |
| 25  | 3     | 801  | LHG  | O7-C5-C6-O8     |
| 25  | 4     | 801  | LHG  | O1-C1-C2-O2     |
| 25  | 4     | 801  | LHG  | O2-C2-C3-O3     |
| 25  | 4     | 801  | LHG  | C3-O3-P-O5      |
| 25  | 4     | 801  | LHG  | C4-O6-P-O4      |
| 25  | 5     | 801  | LHG  | C4-O6-P-O3      |
| 25  | 5     | 801  | LHG  | C4-O6-P-O4      |
| 25  | 5     | 801  | LHG  | C4-O6-P-O5      |
| 25  | 5     | 802  | LHG  | O1-C1-C2-C3     |
| 25  | 5     | 802  | LHG  | O2-C2-C3-O3     |
| 25  | 5     | 802  | LHG  | C4-O6-P-O3      |
| 25  | 5     | 802  | LHG  | C4-O6-P-O5      |
| 25  | 5     | 802  | LHG  | C8-C7-O7-C5     |
| 25  | 6     | 801  | LHG  | O1-C1-C2-C3     |
| 25  | 6     | 801  | LHG  | O2-C2-C3-O3     |
| 25  | 6     | 801  | LHG  | O6-C4-C5-O7     |
| 25  | 6     | 801  | LHG  | C8-C7-O7-C5     |
| 27  | 6     | 805  | LMU  | C2'-C1'-O1'-C1  |
| 28  | B     | 5002 | DGD  | C2B-C1B-O2G-C2G |
| 28  | 2     | 806  | DGD  | C2B-C1B-O2G-C2G |
| 28  | 2     | 806  | DGD  | O6E-C1E-O5D-C6D |
| 28  | 3     | 804  | DGD  | O6E-C1E-O5D-C6D |
| 28  | 3     | 805  | DGD  | C2A-C1A-O1G-C1G |
| 28  | 3     | 805  | DGD  | O1A-C1A-O1G-C1G |
| 28  | 3     | 805  | DGD  | C2B-C1B-O2G-C2G |
| 28  | 3     | 805  | DGD  | O6D-C1D-O3G-C3G |
| 29  | B     | 5003 | 3PH  | C1-O11-P-O13    |
| 29  | B     | 5003 | 3PH  | C1-O11-P-O14    |
| 29  | B     | 5003 | 3PH  | C1-O11-P-O12    |
| 29  | B     | 5003 | 3PH  | O22-C21-O21-C2  |
| 29  | B     | 5003 | 3PH  | C22-C21-O21-C2  |
| 29  | F     | 5003 | 3PH  | C1-O11-P-O13    |
| 29  | F     | 5003 | 3PH  | C1-O11-P-O14    |
| 29  | F     | 5003 | 3PH  | C1-O11-P-O12    |
| 29  | 5     | 807  | 3PH  | C22-C21-O21-C2  |
| 31  | 1     | 804  | LMG  | O6-C1-O1-C7     |
| 31  | 2     | 804  | LMG  | O6-C1-O1-C7     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 31  | 2     | 804  | LMG  | O9-C10-O7-C8    |
| 31  | 2     | 804  | LMG  | C11-C10-O7-C8   |
| 31  | 3     | 802  | LMG  | C11-C10-O7-C8   |
| 31  | 3     | 803  | LMG  | O9-C10-O7-C8    |
| 31  | 3     | 803  | LMG  | C11-C10-O7-C8   |
| 31  | 4     | 802  | LMG  | C2-C1-O1-C7     |
| 31  | 4     | 802  | LMG  | O6-C1-O1-C7     |
| 31  | 4     | 802  | LMG  | O9-C10-O7-C8    |
| 31  | 4     | 802  | LMG  | C11-C10-O7-C8   |
| 31  | 4     | 803  | LMG  | O6-C1-O1-C7     |
| 31  | 4     | 803  | LMG  | C11-C10-O7-C8   |
| 31  | 6     | 802  | LMG  | O6-C1-O1-C7     |
| 31  | 6     | 802  | LMG  | O9-C10-O7-C8    |
| 31  | 6     | 802  | LMG  | C11-C10-O7-C8   |
| 32  | 5     | 805  | 4RF  | O42-C41-O40-C39 |
| 32  | 5     | 805  | 4RF  | C43-C41-O40-C39 |
| 33  | O     | 5002 | PTY  | C5-O14-P1-O13   |
| 33  | 1     | 805  | PTY  | N1-C2-C3-O11    |
| 33  | 1     | 805  | PTY  | O10-C8-O7-C6    |
| 33  | 1     | 805  | PTY  | C3-O11-P1-O13   |
| 33  | 1     | 805  | PTY  | C3-O11-P1-O14   |
| 33  | 1     | 805  | PTY  | C5-O14-P1-O11   |
| 33  | 1     | 805  | PTY  | C5-O14-P1-O12   |
| 33  | 1     | 805  | PTY  | C5-O14-P1-O13   |
| 33  | 1     | 806  | PTY  | O10-C8-O7-C6    |
| 33  | 1     | 806  | PTY  | C11-C8-O7-C6    |
| 33  | 3     | 807  | PTY  | C5-O14-P1-O11   |
| 33  | 3     | 807  | PTY  | C5-O14-P1-O13   |
| 33  | 3     | 808  | PTY  | N1-C2-C3-O11    |
| 33  | 3     | 808  | PTY  | C3-O11-P1-O13   |
| 33  | 3     | 808  | PTY  | C5-O14-P1-O11   |
| 33  | 3     | 808  | PTY  | C5-O14-P1-O12   |
| 33  | 3     | 808  | PTY  | C5-O14-P1-O13   |
| 33  | 4     | 804  | PTY  | C3-O11-P1-O12   |
| 33  | 4     | 804  | PTY  | C3-O11-P1-O13   |
| 33  | 4     | 804  | PTY  | C5-O14-P1-O11   |
| 33  | 4     | 804  | PTY  | C5-O14-P1-O12   |
| 33  | 4     | 804  | PTY  | C5-O14-P1-O13   |
| 33  | 5     | 803  | PTY  | N1-C2-C3-O11    |
| 33  | 5     | 803  | PTY  | C11-C8-O7-C6    |
| 33  | 5     | 803  | PTY  | C3-O11-P1-O12   |
| 33  | 5     | 803  | PTY  | C3-O11-P1-O13   |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 33  | 6     | 804 | PTY  | C11-C8-O7-C6    |
| 34  | 2     | 501 | LUT  | C7-C8-C9-C10    |
| 34  | 2     | 501 | LUT  | C7-C8-C9-C19    |
| 34  | 3     | 501 | LUT  | C25-C26-C27-C28 |
| 34  | 3     | 501 | LUT  | C27-C28-C29-C30 |
| 34  | 3     | 501 | LUT  | C27-C28-C29-C39 |
| 34  | 4     | 501 | LUT  | C27-C28-C29-C30 |
| 34  | 4     | 501 | LUT  | C27-C28-C29-C39 |
| 34  | 5     | 501 | LUT  | C21-C26-C27-C28 |
| 34  | 5     | 501 | LUT  | C25-C26-C27-C28 |
| 34  | 5     | 502 | LUT  | C21-C26-C27-C28 |
| 34  | 5     | 502 | LUT  | C31-C32-C33-C34 |
| 34  | 5     | 502 | LUT  | C31-C32-C33-C40 |
| 34  | 5     | 503 | LUT  | C21-C26-C27-C28 |
| 34  | 5     | 503 | LUT  | C25-C26-C27-C28 |
| 34  | 5     | 503 | LUT  | C27-C28-C29-C30 |
| 34  | 5     | 503 | LUT  | C27-C28-C29-C39 |
| 34  | 5     | 503 | LUT  | C29-C30-C31-C32 |
| 34  | 5     | 504 | LUT  | C11-C12-C13-C14 |
| 34  | 5     | 504 | LUT  | C11-C12-C13-C20 |
| 34  | 5     | 504 | LUT  | C21-C26-C27-C28 |
| 34  | 5     | 504 | LUT  | C31-C32-C33-C34 |
| 34  | 5     | 504 | LUT  | C31-C32-C33-C40 |
| 34  | 6     | 501 | LUT  | C21-C26-C27-C28 |
| 35  | 1     | 502 | XAT  | O4-C6-C7-C8     |
| 35  | 2     | 502 | XAT  | C27-C28-C29-C30 |
| 35  | 2     | 502 | XAT  | C27-C28-C29-C39 |
| 35  | 3     | 502 | XAT  | O24-C26-C27-C28 |
| 35  | 3     | 502 | XAT  | C27-C28-C29-C30 |
| 35  | 3     | 502 | XAT  | C27-C28-C29-C39 |
| 35  | 6     | 504 | XAT  | C11-C12-C13-C14 |
| 35  | 6     | 504 | XAT  | C11-C12-C13-C20 |
| 35  | 6     | 504 | XAT  | C12-C13-C14-C15 |
| 35  | 6     | 504 | XAT  | C20-C13-C14-C15 |
| 35  | 6     | 504 | XAT  | C26-C27-C28-C29 |
| 36  | 1     | 609 | CHL  | CHA-CBD-CGD-O1D |
| 36  | 1     | 609 | CHL  | CHA-CBD-CGD-O2D |
| 36  | 2     | 613 | CHL  | CHA-CBD-CGD-O1D |
| 36  | 2     | 613 | CHL  | CHA-CBD-CGD-O2D |
| 36  | 3     | 604 | CHL  | C1A-C2A-CAA-CBA |
| 36  | 3     | 604 | CHL  | C3A-C2A-CAA-CBA |
| 36  | 3     | 604 | CHL  | C2-C3-C5-C6     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 36  | 3     | 604  | CHL  | C4-C3-C5-C6     |
| 36  | 5     | 610  | CHL  | C1A-C2A-CAA-CBA |
| 36  | 5     | 610  | CHL  | C2A-CAA-CBA-CGA |
| 37  | 2     | 805  | SQD  | C2-C1-O6-C44    |
| 37  | 2     | 805  | SQD  | O5-C1-O6-C44    |
| 37  | 2     | 805  | SQD  | C8-C7-O47-C45   |
| 37  | 2     | 805  | SQD  | O5-C5-C6-S      |
| 37  | 2     | 805  | SQD  | C5-C6-S-O7      |
| 37  | 2     | 805  | SQD  | C5-C6-S-O9      |
| 37  | 3     | 806  | SQD  | O49-C7-O47-C45  |
| 37  | 3     | 806  | SQD  | O5-C5-C6-S      |
| 37  | 6     | 803  | SQD  | O5-C5-C6-S      |
| 38  | 2     | 807  | LMK  | C1-C2-C3-N4     |
| 38  | 4     | 805  | LMK  | O10-C28-C29-C30 |
| 39  | 2     | 808  | P3H  | C22-O23-P24-O25 |
| 39  | 2     | 808  | P3H  | C22-O23-P24-O26 |
| 39  | 2     | 808  | P3H  | C22-O23-P24-O27 |
| 39  | 5     | 806  | P3H  | C28-O27-P24-O25 |
| 33  | L     | 5003 | PTY  | C11-C8-O7-C6    |
| 21  | A     | 1121 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1226 | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 603  | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 608  | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 606  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 614  | CLA  | O1D-CGD-O2D-CED |
| 25  | 5     | 802  | LHG  | O9-C7-O7-C5     |
| 37  | 2     | 805  | SQD  | O49-C7-O47-C45  |
| 21  | A     | 1126 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1138 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1021 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1023 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1219 | CLA  | O1D-CGD-O2D-CED |
| 21  | L     | 1504 | CLA  | O1D-CGD-O2D-CED |
| 21  | O     | 1803 | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 613  | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 615  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 605  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 615  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 602  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1101 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1103 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1105 | CLA  | CBD-CGD-O2D-CED |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atoms</b>    |
|------------|--------------|------------|-------------|-----------------|
| 21         | A            | 1107       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1108       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1119       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1121       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1132       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1134       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1139       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1140       | CLA         | CBD-CGD-O2D-CED |
| 21         | A            | 1141       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1201       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1203       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1206       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1213       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1217       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1218       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1221       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1224       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1230       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1235       | CLA         | CBD-CGD-O2D-CED |
| 21         | B            | 1237       | CLA         | CBD-CGD-O2D-CED |
| 21         | F            | 1301       | CLA         | CBD-CGD-O2D-CED |
| 21         | G            | 1601       | CLA         | CBD-CGD-O2D-CED |
| 21         | H            | 1701       | CLA         | CBD-CGD-O2D-CED |
| 21         | K            | 1401       | CLA         | CBD-CGD-O2D-CED |
| 21         | L            | 1501       | CLA         | CBD-CGD-O2D-CED |
| 21         | L            | 1504       | CLA         | CBD-CGD-O2D-CED |
| 21         | O            | 1803       | CLA         | CBD-CGD-O2D-CED |
| 21         | 1            | 601        | CLA         | CBD-CGD-O2D-CED |
| 21         | 1            | 603        | CLA         | CBD-CGD-O2D-CED |
| 21         | 1            | 604        | CLA         | CBD-CGD-O2D-CED |
| 21         | 1            | 605        | CLA         | CBD-CGD-O2D-CED |
| 21         | 1            | 608        | CLA         | CBD-CGD-O2D-CED |
| 21         | 2            | 601        | CLA         | CBD-CGD-O2D-CED |
| 21         | 2            | 605        | CLA         | CBD-CGD-O2D-CED |
| 21         | 2            | 606        | CLA         | CBD-CGD-O2D-CED |
| 21         | 2            | 607        | CLA         | CBD-CGD-O2D-CED |
| 21         | 2            | 608        | CLA         | CBD-CGD-O2D-CED |
| 21         | 2            | 612        | CLA         | CBD-CGD-O2D-CED |
| 21         | 3            | 601        | CLA         | CBD-CGD-O2D-CED |
| 21         | 3            | 603        | CLA         | CBD-CGD-O2D-CED |
| 21         | 3            | 605        | CLA         | CBD-CGD-O2D-CED |
| 21         | 3            | 615        | CLA         | CBD-CGD-O2D-CED |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 4     | 601  | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 603  | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 605  | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 606  | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 609  | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 615  | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 601  | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 602  | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 606  | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 607  | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 612  | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 601  | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 606  | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 607  | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 612  | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1111 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1127 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1141 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1219 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1221 | CLA  | O1A-CGA-O2A-C1  |
| 21  | O     | 1803 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 607  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 3     | 602  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 3     | 611  | CLA  | O1A-CGA-O2A-C1  |
| 31  | 4     | 802  | LMG  | O10-C28-O8-C9   |
| 33  | O     | 5002 | PTY  | O30-C30-O4-C1   |
| 33  | 3     | 808  | PTY  | O30-C30-O4-C1   |
| 21  | B     | 1209 | CLA  | O1A-CGA-O2A-C1  |
| 21  | G     | 1602 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 602  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 3     | 613  | CLA  | O1A-CGA-O2A-C1  |
| 33  | L     | 5003 | PTY  | O10-C8-O7-C6    |
| 21  | A     | 1101 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1139 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1203 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1224 | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 601  | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 602  | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 602  | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 605  | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 607  | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 608  | CLA  | O1D-CGD-O2D-CED |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 3     | 611  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 606  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 607  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 606  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 607  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 601  | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1209 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1109 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1112 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1114 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1115 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1116 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1122 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1131 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1022 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1206 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1207 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1208 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1215 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1229 | CLA  | O1D-CGD-O2D-CED |
| 21  | F     | 1302 | CLA  | O1D-CGD-O2D-CED |
| 21  | G     | 1601 | CLA  | O1D-CGD-O2D-CED |
| 21  | H     | 1701 | CLA  | O1D-CGD-O2D-CED |
| 21  | K     | 1404 | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 615  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 602  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 608  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 610  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 608  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 603  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 613  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 602  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 604  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 608  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 609  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1111 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1219 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 607  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 602  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 611  | CLA  | CBA-CGA-O2A-C1  |
| 31  | 4     | 802  | LMG  | C29-C28-O8-C9   |
| 33  | O     | 5002 | PTY  | C31-C30-O4-C1   |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 33  | 3     | 808  | PTY  | C31-C30-O4-C1   |
| 33  | 6     | 804  | PTY  | O30-C30-O4-C1   |
| 21  | A     | 1012 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1102 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1104 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1106 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1113 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1133 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1136 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1137 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1204 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1205 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1211 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1222 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1223 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1227 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1228 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1238 | CLA  | CBD-CGD-O2D-CED |
| 21  | H     | 1702 | CLA  | CBD-CGD-O2D-CED |
| 21  | K     | 1402 | CLA  | CBD-CGD-O2D-CED |
| 21  | L     | 1502 | CLA  | CBD-CGD-O2D-CED |
| 21  | 1     | 612  | CLA  | CBD-CGD-O2D-CED |
| 21  | 2     | 604  | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 612  | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 602  | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 614  | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 603  | CLA  | CBD-CGD-O2D-CED |
| 21  | 6     | 605  | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1101 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1112 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1122 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1023 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1201 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1211 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1227 | CLA  | O1A-CGA-O2A-C1  |
| 21  | F     | 1301 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 603  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 606  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 608  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 612  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 3     | 603  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 603  | CLA  | O1A-CGA-O2A-C1  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 4     | 607  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 612  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 5     | 606  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 5     | 608  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 5     | 614  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 6     | 607  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 6     | 612  | CLA  | O1A-CGA-O2A-C1  |
| 29  | 5     | 804  | 3PH  | O32-C31-O31-C3  |
| 31  | 1     | 804  | LMG  | O10-C28-O8-C9   |
| 31  | 4     | 803  | LMG  | O10-C28-O8-C9   |
| 31  | 6     | 802  | LMG  | O10-C28-O8-C9   |
| 32  | 5     | 805  | 4RF  | O17-C16-O18-C19 |
| 37  | 3     | 806  | SQD  | O10-C23-O48-C46 |
| 21  | B     | 1214 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1216 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1236 | CLA  | O1D-CGD-O2D-CED |
| 21  | G     | 1602 | CLA  | O1D-CGD-O2D-CED |
| 21  | G     | 1603 | CLA  | O1D-CGD-O2D-CED |
| 21  | K     | 1403 | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 607  | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 611  | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 603  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 613  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 604  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 613  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1120 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1123 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1124 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1212 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1234 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1239 | CLA  | O1D-CGD-O2D-CED |
| 21  | J     | 1901 | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 601  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 605  | CLA  | O1D-CGD-O2D-CED |
| 33  | 6     | 804  | PTY  | C31-C30-O4-C1   |
| 21  | A     | 1013 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1135 | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 607  | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1117 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1237 | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 605  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 601  | CLA  | O1D-CGD-O2D-CED |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 4     | 603  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 605  | CLA  | O1D-CGD-O2D-CED |
| 25  | 1     | 802  | LHG  | O9-C7-O7-C5     |
| 25  | 2     | 801  | LHG  | O9-C7-O7-C5     |
| 25  | 2     | 802  | LHG  | O9-C7-O7-C5     |
| 25  | 2     | 803  | LHG  | O9-C7-O7-C5     |
| 25  | 6     | 801  | LHG  | O9-C7-O7-C5     |
| 28  | B     | 5002 | DGD  | O1B-C1B-O2G-C2G |
| 28  | 2     | 806  | DGD  | O1B-C1B-O2G-C2G |
| 28  | 3     | 805  | DGD  | O1B-C1B-O2G-C2G |
| 29  | 5     | 807  | 3PH  | O22-C21-O21-C2  |
| 31  | 4     | 803  | LMG  | O9-C10-O7-C8    |
| 33  | 5     | 803  | PTY  | O10-C8-O7-C6    |
| 21  | 3     | 612  | CLA  | O1A-CGA-O2A-C1  |
| 21  | H     | 1702 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 607  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 608  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 607  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1119 | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 607  | CLA  | O1D-CGD-O2D-CED |
| 20  | A     | 1011 | CL0  | C3-C5-C6-C7     |
| 21  | A     | 1012 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1101 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1103 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1111 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1112 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1116 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1129 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1133 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1137 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1140 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1205 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1206 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1214 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1220 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1221 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1229 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1232 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1236 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1237 | CLA  | C3-C5-C6-C7     |
| 21  | 1     | 605  | CLA  | C3-C5-C6-C7     |
| 21  | 1     | 611  | CLA  | C3-C5-C6-C7     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 1     | 615  | CLA  | C3-C5-C6-C7     |
| 21  | 2     | 601  | CLA  | C3-C5-C6-C7     |
| 21  | 3     | 603  | CLA  | C3-C5-C6-C7     |
| 21  | 3     | 615  | CLA  | C3-C5-C6-C7     |
| 21  | 4     | 603  | CLA  | C3-C5-C6-C7     |
| 21  | 4     | 605  | CLA  | C3-C5-C6-C7     |
| 21  | 4     | 609  | CLA  | C3-C5-C6-C7     |
| 21  | 4     | 612  | CLA  | C3-C5-C6-C7     |
| 21  | 5     | 607  | CLA  | C3-C5-C6-C7     |
| 21  | 5     | 608  | CLA  | C3-C5-C6-C7     |
| 21  | 6     | 603  | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1104 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1127 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1201 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1214 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1221 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1222 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1227 | CLA  | CBA-CGA-O2A-C1  |
| 21  | O     | 1803 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 603  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 608  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 604  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 605  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 612  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 602  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 603  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 607  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 612  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 5     | 606  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 6     | 607  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 6     | 612  | CLA  | CBA-CGA-O2A-C1  |
| 29  | 5     | 804  | 3PH  | C32-C31-O31-C3  |
| 31  | 1     | 804  | LMG  | C29-C28-O8-C9   |
| 31  | 6     | 802  | LMG  | C29-C28-O8-C9   |
| 21  | G     | 1601 | CLA  | C2-C1-O2A-CGA   |
| 25  | 2     | 801  | LHG  | C8-C7-O7-C5     |
| 25  | 2     | 803  | LHG  | C8-C7-O7-C5     |
| 33  | 1     | 805  | PTY  | C11-C8-O7-C6    |
| 37  | 3     | 806  | SQD  | C8-C7-O47-C45   |
| 21  | A     | 1118 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1217 | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 615  | CLA  | O1D-CGD-O2D-CED |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1125 | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 608  | CLA  | CBD-CGD-O2D-CED |
| 21  | H     | 1702 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 608  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 603  | CLA  | C4-C3-C5-C6     |
| 21  | 1     | 605  | CLA  | C4-C3-C5-C6     |
| 21  | 4     | 604  | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1013 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1109 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1132 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1023 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1218 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1230 | CLA  | C2-C3-C5-C6     |
| 21  | 1     | 603  | CLA  | C2-C3-C5-C6     |
| 21  | 1     | 605  | CLA  | C2-C3-C5-C6     |
| 21  | 4     | 604  | CLA  | C2-C3-C5-C6     |
| 20  | A     | 1011 | CL0  | CBD-CGD-O2D-CED |
| 21  | A     | 1128 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1202 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1105 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1106 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1123 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1133 | CLA  | C2A-CAA-CBA-CGA |
| 21  | F     | 1301 | CLA  | C2A-CAA-CBA-CGA |
| 21  | J     | 1901 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 3     | 606  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 5     | 614  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 6     | 606  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 6     | 607  | CLA  | C2A-CAA-CBA-CGA |
| 36  | 4     | 610  | CHL  | C2A-CAA-CBA-CGA |
| 21  | A     | 1126 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 605  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1107 | CLA  | O1D-CGD-O2D-CED |
| 21  | 2     | 612  | CLA  | O1D-CGD-O2D-CED |
| 28  | B     | 5002 | DGD  | C8A-C9A-CAA-CBA |
| 31  | F     | 5002 | LMG  | C35-C36-C37-C38 |
| 31  | F     | 5002 | LMG  | C38-C39-C40-C41 |
| 31  | F     | 5002 | LMG  | C41-C42-C43-C44 |
| 31  | 2     | 804  | LMG  | C35-C36-C37-C38 |
| 31  | 2     | 804  | LMG  | C38-C39-C40-C41 |
| 31  | 2     | 804  | LMG  | C41-C42-C43-C44 |
| 31  | 3     | 803  | LMG  | C17-C18-C19-C20 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 31  | 3     | 803  | LMG  | C20-C21-C22-C23 |
| 31  | 3     | 803  | LMG  | C23-C24-C25-C26 |
| 31  | 4     | 802  | LMG  | C17-C18-C19-C20 |
| 31  | 4     | 802  | LMG  | C20-C21-C22-C23 |
| 21  | 6     | 609  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1105 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1106 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1113 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1128 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1136 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1139 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1219 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1224 | CLA  | C3-C5-C6-C7     |
| 21  | 1     | 612  | CLA  | C3-C5-C6-C7     |
| 21  | 3     | 608  | CLA  | C3-C5-C6-C7     |
| 21  | 6     | 604  | CLA  | C3-C5-C6-C7     |
| 21  | 6     | 612  | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1101 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1112 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1122 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1126 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1023 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1208 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1211 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1217 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1231 | CLA  | CBA-CGA-O2A-C1  |
| 21  | F     | 1301 | CLA  | CBA-CGA-O2A-C1  |
| 21  | F     | 1302 | CLA  | CBA-CGA-O2A-C1  |
| 21  | L     | 1501 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 606  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 612  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 603  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 606  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 607  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 612  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 615  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 5     | 608  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 5     | 614  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 6     | 601  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 6     | 605  | CLA  | CBA-CGA-O2A-C1  |
| 31  | 4     | 803  | LMG  | C29-C28-O8-C9   |
| 32  | 5     | 805  | 4RF  | C15-C16-O18-C19 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 37  | 3     | 806  | SQD  | C24-C23-O48-C46 |
| 21  | B     | 1218 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1235 | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 609  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 604  | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1132 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1134 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1141 | CLA  | O1D-CGD-O2D-CED |
| 21  | F     | 1301 | CLA  | O1D-CGD-O2D-CED |
| 21  | K     | 1401 | CLA  | O1D-CGD-O2D-CED |
| 21  | L     | 1501 | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 604  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 603  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 601  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 612  | CLA  | O1D-CGD-O2D-CED |
| 31  | 3     | 802  | LMG  | O9-C10-O7-C8    |
| 33  | 6     | 804  | PTY  | O10-C8-O7-C6    |
| 27  | A     | 5004 | LMU  | C4B-C5B-C6B-O6B |
| 27  | A     | 5005 | LMU  | C4B-C5B-C6B-O6B |
| 27  | B     | 5004 | LMU  | C4B-C5B-C6B-O6B |
| 21  | A     | 1013 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1118 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1021 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1208 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1222 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1231 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 612  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 602  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 606  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 615  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1105 | CLA  | O1D-CGD-O2D-CED |
| 24  | A     | 4005 | BCR  | C13-C14-C15-C16 |
| 24  | H     | 4001 | BCR  | C9-C10-C11-C12  |
| 24  | I     | 4002 | BCR  | C19-C20-C21-C22 |
| 24  | L     | 4002 | BCR  | C9-C10-C11-C12  |
| 24  | O     | 4001 | BCR  | C9-C10-C11-C12  |
| 24  | 2     | 503  | BCR  | C13-C14-C15-C16 |
| 24  | 4     | 503  | BCR  | C13-C14-C15-C16 |
| 33  | O     | 5002 | PTY  | C11-C8-O7-C6    |
| 21  | A     | 1130 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1240 | CLA  | CBD-CGD-O2D-CED |
| 21  | 4     | 612  | CLA  | CBD-CGD-O2D-CED |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 5     | 612  | CLA  | O1D-CGD-O2D-CED |
| 25  | A     | 5001 | LHG  | O2-C2-C3-O3     |
| 25  | A     | 5002 | LHG  | O2-C2-C3-O3     |
| 25  | 1     | 802  | LHG  | O2-C2-C3-O3     |
| 25  | 2     | 803  | LHG  | O2-C2-C3-O3     |
| 21  | A     | 1115 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1204 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1228 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1230 | CLA  | C3-C5-C6-C7     |
| 21  | L     | 1501 | CLA  | C3-C5-C6-C7     |
| 21  | 1     | 604  | CLA  | C3-C5-C6-C7     |
| 21  | 3     | 605  | CLA  | C3-C5-C6-C7     |
| 21  | 3     | 607  | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1013 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1021 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1229 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1237 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 605  | CLA  | CBA-CGA-O2A-C1  |
| 28  | 3     | 804  | DGD  | C2A-C1A-O1G-C1G |
| 32  | 5     | 805  | 4RF  | C12-C13-C14-C15 |
| 33  | O     | 5002 | PTY  | O10-C8-O7-C6    |
| 21  | A     | 1104 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1215 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1217 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1237 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 604  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1103 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1140 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1201 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1221 | CLA  | O1D-CGD-O2D-CED |
| 25  | B     | 5001 | LHG  | C8-C7-O7-C5     |
| 21  | 6     | 608  | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1220 | CLA  | CBD-CGD-O2D-CED |
| 21  | B     | 1231 | CLA  | CBD-CGD-O2D-CED |
| 21  | 1     | 606  | CLA  | CBD-CGD-O2D-CED |
| 21  | 3     | 606  | CLA  | CBD-CGD-O2D-CED |
| 21  | 5     | 601  | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1225 | CLA  | C3-C5-C6-C7     |
| 21  | L     | 1502 | CLA  | C3-C5-C6-C7     |
| 21  | 2     | 615  | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1118 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1215 | CLA  | CBA-CGA-O2A-C1  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 4     | 606  | CLA  | CBA-CGA-O2A-C1  |
| 25  | B     | 5001 | LHG  | O9-C7-O7-C5     |
| 21  | F     | 1302 | CLA  | O1A-CGA-O2A-C1  |
| 21  | L     | 1501 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 3     | 607  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 6     | 601  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 6     | 605  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1115 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1139 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1219 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1115 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1139 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1219 | CLA  | C2-C3-C5-C6     |
| 25  | B     | 5001 | LHG  | C7-C8-C9-C10    |
| 21  | A     | 1013 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1109 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1201 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1215 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1237 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 3     | 603  | CLA  | C2A-CAA-CBA-CGA |
| 36  | 5     | 609  | CHL  | C2A-CAA-CBA-CGA |
| 21  | A     | 1108 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1137 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1230 | CLA  | O1D-CGD-O2D-CED |
| 27  | A     | 5004 | LMU  | O5B-C5B-C6B-O6B |
| 27  | A     | 5005 | LMU  | O5B-C5B-C6B-O6B |
| 27  | B     | 5004 | LMU  | O5B-C5B-C6B-O6B |
| 21  | B     | 1229 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 3     | 606  | CLA  | O1A-CGA-O2A-C1  |
| 28  | 3     | 804  | DGD  | O1A-C1A-O1G-C1G |
| 21  | B     | 1211 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1213 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1124 | CLA  | CBA-CGA-O2A-C1  |
| 33  | 4     | 804  | PTY  | C31-C30-O4-C1   |
| 21  | F     | 1301 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1129 | CLA  | CBD-CGD-O2D-CED |
| 21  | A     | 1104 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1133 | CLA  | O1D-CGD-O2D-CED |
| 21  | 1     | 612  | CLA  | O1D-CGD-O2D-CED |
| 21  | 4     | 602  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 605  | CLA  | O1D-CGD-O2D-CED |
| 21  | 6     | 606  | CLA  | O1D-CGD-O2D-CED |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 28  | 3     | 804  | DGD  | C2B-C1B-O2G-C2G |
| 33  | 5     | 803  | PTY  | C35-C36-C37-C38 |
| 21  | A     | 1102 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1205 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1228 | CLA  | O1D-CGD-O2D-CED |
| 21  | H     | 1702 | CLA  | O1D-CGD-O2D-CED |
| 25  | F     | 5001 | LHG  | C1-C2-C3-O3     |
| 25  | 2     | 803  | LHG  | C1-C2-C3-O3     |
| 25  | 5     | 802  | LHG  | C1-C2-C3-O3     |
| 21  | A     | 1124 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1130 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1230 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1204 | CLA  | O1D-CGD-O2D-CED |
| 21  | K     | 1402 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1109 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1114 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1120 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1130 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1132 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1139 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1140 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1206 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1213 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1226 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1228 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1230 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1232 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1240 | CLA  | CBA-CGA-O2A-C1  |
| 21  | L     | 1503 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 604  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 606  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 608  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 615  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 608  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 604  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 609  | CLA  | CBA-CGA-O2A-C1  |
| 21  | 6     | 604  | CLA  | CBA-CGA-O2A-C1  |
| 28  | 2     | 806  | DGD  | C2A-C1A-O1G-C1G |
| 29  | B     | 5003 | 3PH  | C32-C31-O31-C3  |
| 33  | L     | 5003 | PTY  | C31-C30-O4-C1   |
| 25  | A     | 5002 | LHG  | C26-C27-C28-C29 |
| 24  | A     | 4002 | BCR  | C9-C10-C11-C12  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | 1     | 504  | BCR  | C13-C14-C15-C16 |
| 21  | 2     | 612  | CLA  | C5-C6-C7-C8     |
| 27  | A     | 5005 | LMU  | O5'-C5'-C6'-O6' |
| 21  | B     | 1232 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 6     | 608  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1012 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1102 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1103 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1113 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1121 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1133 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1202 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1211 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1218 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1225 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1237 | CLA  | C13-C15-C16-C17 |
| 21  | L     | 1501 | CLA  | C13-C15-C16-C17 |
| 21  | 3     | 603  | CLA  | C13-C15-C16-C17 |
| 21  | 5     | 614  | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1125 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1141 | CLA  | C3-C5-C6-C7     |
| 25  | 5     | 802  | LHG  | C23-C24-C25-C26 |
| 32  | 5     | 805  | 4RF  | C13-C14-C15-C16 |
| 28  | 3     | 804  | DGD  | C2D-C1D-O3G-C3G |
| 28  | 3     | 805  | DGD  | C2D-C1D-O3G-C3G |
| 31  | 1     | 804  | LMG  | C2-C1-O1-C7     |
| 31  | 3     | 802  | LMG  | C2-C1-O1-C7     |
| 31  | 6     | 802  | LMG  | C2-C1-O1-C7     |
| 25  | 1     | 802  | LHG  | O7-C5-C6-O8     |
| 21  | A     | 1132 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1206 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 3     | 608  | CLA  | O1A-CGA-O2A-C1  |
| 28  | 2     | 806  | DGD  | O1A-C1A-O1G-C1G |
| 29  | B     | 5003 | 3PH  | O32-C31-O31-C3  |
| 21  | 2     | 612  | CLA  | C4-C3-C5-C6     |
| 27  | B     | 5004 | LMU  | C4'-C5'-C6'-O6' |
| 21  | A     | 1112 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1126 | CLA  | C14-C13-C15-C16 |
| 21  | A     | 1132 | CLA  | C14-C13-C15-C16 |
| 21  | A     | 1137 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1138 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1202 | CLA  | C6-C7-C8-C9     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1207 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1225 | CLA  | C11-C12-C13-C14 |
| 21  | H     | 1701 | CLA  | C11-C10-C8-C9   |
| 21  | L     | 1501 | CLA  | C11-C10-C8-C9   |
| 21  | L     | 1501 | CLA  | C14-C13-C15-C16 |
| 21  | 1     | 601  | CLA  | C6-C7-C8-C9     |
| 21  | 2     | 604  | CLA  | C14-C13-C15-C16 |
| 21  | 2     | 612  | CLA  | C11-C12-C13-C14 |
| 21  | 2     | 615  | CLA  | C14-C13-C15-C16 |
| 21  | 3     | 612  | CLA  | C6-C7-C8-C9     |
| 22  | A     | 2001 | PQN  | C21-C22-C23-C24 |
| 22  | B     | 2002 | PQN  | C21-C22-C23-C24 |
| 36  | 3     | 604  | CHL  | C11-C12-C13-C14 |
| 36  | 5     | 609  | CHL  | C11-C12-C13-C14 |
| 21  | A     | 1012 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1113 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1222 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1227 | CLA  | O1D-CGD-O2D-CED |
| 21  | L     | 1502 | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 614  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1109 | CLA  | C10-C11-C12-C13 |
| 21  | L     | 1502 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1108 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1119 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1232 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 1     | 604  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 1     | 613  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 5     | 612  | CLA  | C2A-CAA-CBA-CGA |
| 24  | A     | 4001 | BCR  | C11-C12-C13-C35 |
| 24  | A     | 4001 | BCR  | C37-C22-C23-C24 |
| 24  | A     | 4006 | BCR  | C37-C22-C23-C24 |
| 24  | B     | 4003 | BCR  | C7-C8-C9-C34    |
| 24  | B     | 4003 | BCR  | C37-C22-C23-C24 |
| 24  | B     | 4006 | BCR  | C7-C8-C9-C34    |
| 24  | F     | 4001 | BCR  | C11-C12-C13-C35 |
| 24  | G     | 4001 | BCR  | C37-C22-C23-C24 |
| 24  | H     | 4001 | BCR  | C36-C18-C19-C20 |
| 24  | H     | 4001 | BCR  | C37-C22-C23-C24 |
| 24  | I     | 4001 | BCR  | C36-C18-C19-C20 |
| 24  | 1     | 504  | BCR  | C11-C12-C13-C35 |
| 35  | 1     | 502  | XAT  | C7-C8-C9-C19    |
| 24  | A     | 4001 | BCR  | C21-C22-C23-C24 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | A     | 4006 | BCR  | C7-C8-C9-C10    |
| 24  | A     | 4006 | BCR  | C21-C22-C23-C24 |
| 24  | B     | 4001 | BCR  | C7-C8-C9-C10    |
| 24  | B     | 4003 | BCR  | C21-C22-C23-C24 |
| 24  | B     | 4005 | BCR  | C17-C18-C19-C20 |
| 24  | B     | 4006 | BCR  | C7-C8-C9-C10    |
| 24  | F     | 4001 | BCR  | C11-C12-C13-C14 |
| 24  | G     | 4001 | BCR  | C21-C22-C23-C24 |
| 24  | H     | 4001 | BCR  | C17-C18-C19-C20 |
| 24  | I     | 4001 | BCR  | C17-C18-C19-C20 |
| 35  | 1     | 502  | XAT  | C7-C8-C9-C10    |
| 27  | B     | 5004 | LMU  | O5'-C5'-C6'-O6' |
| 25  | 6     | 801  | LHG  | C23-C24-C25-C26 |
| 29  | B     | 5003 | 3PH  | C21-C22-C23-C24 |
| 21  | A     | 1109 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1114 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 604  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 608  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 615  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 6     | 604  | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1228 | CLA  | C10-C11-C12-C13 |
| 21  | 1     | 601  | CLA  | C10-C11-C12-C13 |
| 21  | 2     | 612  | CLA  | C10-C11-C12-C13 |
| 21  | 5     | 614  | CLA  | C13-C15-C16-C17 |
| 21  | 2     | 604  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 602  | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1238 | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 612  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1128 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1134 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1106 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1112 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1114 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1119 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1125 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1131 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1138 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1210 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1222 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1225 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1226 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1230 | CLA  | C8-C10-C11-C12  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1238 | CLA  | C8-C10-C11-C12  |
| 21  | 1     | 601  | CLA  | C8-C10-C11-C12  |
| 21  | 1     | 605  | CLA  | C13-C15-C16-C17 |
| 21  | 1     | 615  | CLA  | C8-C10-C11-C12  |
| 21  | 3     | 608  | CLA  | C15-C16-C17-C18 |
| 21  | 3     | 615  | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 603  | CLA  | C8-C10-C11-C12  |
| 21  | 5     | 614  | CLA  | C5-C6-C7-C8     |
| 25  | A     | 5002 | LHG  | C7-C8-C9-C10    |
| 25  | F     | 5001 | LHG  | C7-C8-C9-C10    |
| 25  | F     | 5001 | LHG  | C23-C24-C25-C26 |
| 32  | 5     | 805  | 4RF  | C41-C43-C44-C45 |
| 21  | A     | 1012 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1013 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1107 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1112 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1117 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1119 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1120 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1122 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1125 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1141 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1021 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1207 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1208 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1214 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1221 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1222 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1227 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1234 | CLA  | C5-C6-C7-C8     |
| 21  | H     | 1701 | CLA  | C8-C10-C11-C12  |
| 21  | H     | 1701 | CLA  | C10-C11-C12-C13 |
| 21  | L     | 1501 | CLA  | C15-C16-C17-C18 |
| 21  | 1     | 605  | CLA  | C10-C11-C12-C13 |
| 21  | 1     | 615  | CLA  | C10-C11-C12-C13 |
| 21  | 2     | 604  | CLA  | C13-C15-C16-C17 |
| 21  | 2     | 604  | CLA  | C15-C16-C17-C18 |
| 21  | 3     | 611  | CLA  | C10-C11-C12-C13 |
| 21  | 3     | 612  | CLA  | C5-C6-C7-C8     |
| 21  | 4     | 603  | CLA  | C8-C10-C11-C12  |
| 21  | 4     | 609  | CLA  | C5-C6-C7-C8     |
| 21  | 6     | 601  | CLA  | C8-C10-C11-C12  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 6     | 603  | CLA  | C5-C6-C7-C8     |
| 21  | 6     | 605  | CLA  | C15-C16-C17-C18 |
| 21  | 6     | 607  | CLA  | C10-C11-C12-C13 |
| 22  | B     | 2002 | PQN  | C25-C26-C27-C28 |
| 21  | 6     | 603  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1140 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1228 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1240 | CLA  | O1A-CGA-O2A-C1  |
| 25  | A     | 5001 | LHG  | C23-C24-C25-C26 |
| 25  | 1     | 802  | LHG  | C7-C8-C9-C10    |
| 25  | 2     | 801  | LHG  | C23-C24-C25-C26 |
| 25  | 2     | 802  | LHG  | C23-C24-C25-C26 |
| 25  | 5     | 801  | LHG  | C23-C24-C25-C26 |
| 33  | 3     | 807  | PTY  | C8-C11-C12-C13  |
| 33  | 5     | 803  | PTY  | C30-C31-C32-C33 |
| 21  | A     | 1013 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1106 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1136 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1109 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1111 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1116 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1132 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1138 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1139 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1204 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1213 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1226 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1239 | CLA  | C5-C6-C7-C8     |
| 21  | 1     | 604  | CLA  | C15-C16-C17-C18 |
| 21  | 2     | 615  | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1223 | CLA  | O1D-CGD-O2D-CED |
| 28  | 3     | 804  | DGD  | O1B-C1B-O2G-C2G |
| 21  | A     | 1012 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1013 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1112 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1118 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1119 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1129 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1021 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1202 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1211 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1214 | CLA  | C2-C1-O2A-CGA   |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1230 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1232 | CLA  | C2-C1-O2A-CGA   |
| 21  | J     | 1901 | CLA  | C2-C1-O2A-CGA   |
| 21  | K     | 1402 | CLA  | C2-C1-O2A-CGA   |
| 21  | L     | 1503 | CLA  | C2-C1-O2A-CGA   |
| 21  | 1     | 611  | CLA  | C2-C1-O2A-CGA   |
| 21  | 2     | 602  | CLA  | C2-C1-O2A-CGA   |
| 21  | 3     | 610  | CLA  | C2-C1-O2A-CGA   |
| 21  | 3     | 612  | CLA  | C2-C1-O2A-CGA   |
| 21  | 4     | 606  | CLA  | C2-C1-O2A-CGA   |
| 21  | 5     | 608  | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 602  | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 605  | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 607  | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1140 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1204 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1210 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1218 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1222 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1231 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1238 | CLA  | C15-C16-C17-C18 |
| 21  | 3     | 607  | CLA  | C8-C10-C11-C12  |
| 21  | 4     | 601  | CLA  | C8-C10-C11-C12  |
| 22  | A     | 2001 | PQN  | C23-C25-C26-C27 |
| 37  | 6     | 803  | SQD  | C8-C7-O47-C45   |
| 21  | A     | 1125 | CLA  | C15-C16-C17-C18 |
| 21  | 2     | 603  | CLA  | C10-C11-C12-C13 |
| 21  | 3     | 608  | CLA  | C8-C10-C11-C12  |
| 21  | 3     | 611  | CLA  | C8-C10-C11-C12  |
| 22  | B     | 2002 | PQN  | C18-C20-C21-C22 |
| 22  | B     | 2002 | PQN  | C20-C21-C22-C23 |
| 21  | A     | 1012 | CLA  | C11-C12-C13-C15 |
| 21  | 1     | 611  | CLA  | C11-C12-C13-C15 |
| 21  | 2     | 604  | CLA  | C12-C13-C15-C16 |
| 21  | 3     | 601  | CLA  | C6-C7-C8-C10    |
| 21  | 5     | 607  | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1202 | CLA  | C3-C5-C6-C7     |
| 33  | 4     | 804  | PTY  | O30-C30-O4-C1   |
| 24  | H     | 4001 | BCR  | C13-C14-C15-C16 |
| 24  | 1     | 504  | BCR  | C9-C10-C11-C12  |
| 24  | 4     | 503  | BCR  | C9-C10-C11-C12  |
| 21  | B     | 1224 | CLA  | C2A-CAA-CBA-CGA |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | H     | 1702 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 3     | 611  | CLA  | C2A-CAA-CBA-CGA |
| 36  | 2     | 613  | CHL  | C2A-CAA-CBA-CGA |
| 21  | A     | 1135 | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 606  | CLA  | O1D-CGD-O2D-CED |
| 21  | 3     | 607  | CLA  | O1D-CGD-O2D-CED |
| 21  | 5     | 608  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1101 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1102 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1105 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1117 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1123 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1021 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1203 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1219 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1219 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1227 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1235 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1240 | CLA  | C15-C16-C17-C18 |
| 21  | 2     | 603  | CLA  | C15-C16-C17-C18 |
| 21  | 3     | 605  | CLA  | C8-C10-C11-C12  |
| 21  | 6     | 612  | CLA  | C8-C10-C11-C12  |
| 22  | B     | 2002 | PQN  | C15-C16-C17-C18 |
| 21  | A     | 1120 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1139 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1226 | CLA  | O1A-CGA-O2A-C1  |
| 21  | L     | 1503 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 606  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 604  | CLA  | O1A-CGA-O2A-C1  |
| 33  | L     | 5003 | PTY  | O30-C30-O4-C1   |
| 21  | B     | 1205 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1223 | CLA  | C5-C6-C7-C8     |
| 21  | O     | 1803 | CLA  | C5-C6-C7-C8     |
| 21  | 1     | 601  | CLA  | C5-C6-C7-C8     |
| 21  | 4     | 605  | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1202 | CLA  | O1D-CGD-O2D-CED |
| 24  | A     | 4003 | BCR  | C10-C11-C12-C13 |
| 24  | B     | 4001 | BCR  | C10-C11-C12-C13 |
| 24  | F     | 4002 | BCR  | C10-C11-C12-C13 |
| 24  | 3     | 504  | BCR  | C10-C11-C12-C13 |
| 35  | 1     | 502  | XAT  | C10-C11-C12-C13 |
| 35  | 3     | 502  | XAT  | C30-C31-C32-C33 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 27  | 6     | 805  | LMU  | O5B-C5B-C6B-O6B |
| 25  | 2     | 801  | LHG  | O2-C2-C3-O3     |
| 25  | 3     | 801  | LHG  | O2-C2-C3-O3     |
| 21  | B     | 1208 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1107 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1113 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1121 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1124 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1124 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1136 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1206 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1208 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1227 | CLA  | C10-C11-C12-C13 |
| 21  | L     | 1502 | CLA  | C8-C10-C11-C12  |
| 21  | O     | 1803 | CLA  | C10-C11-C12-C13 |
| 21  | 1     | 605  | CLA  | C5-C6-C7-C8     |
| 21  | 2     | 605  | CLA  | C8-C10-C11-C12  |
| 21  | 3     | 601  | CLA  | C8-C10-C11-C12  |
| 21  | 5     | 605  | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1224 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1125 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1213 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 4     | 609  | CLA  | O1A-CGA-O2A-C1  |
| 27  | A     | 5005 | LMU  | O1'-C1-C2-C3    |
| 21  | A     | 1109 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1125 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1140 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1212 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1215 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1220 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1231 | CLA  | C10-C11-C12-C13 |
| 21  | 2     | 601  | CLA  | C10-C11-C12-C13 |
| 21  | 3     | 607  | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 607  | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 607  | CLA  | C8-C10-C11-C12  |
| 21  | 6     | 604  | CLA  | C8-C10-C11-C12  |
| 21  | 6     | 605  | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1134 | CLA  | O1A-CGA-O2A-C1  |
| 32  | L     | 5002 | 4RF  | C44-C45-C46-C47 |
| 32  | 5     | 805  | 4RF  | C24-C25-C26-C27 |
| 21  | A     | 1013 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1113 | CLA  | C13-C15-C16-C17 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1127 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1128 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1131 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1139 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1021 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1204 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1207 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1223 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1227 | CLA  | C8-C10-C11-C12  |
| 21  | 1     | 604  | CLA  | C10-C11-C12-C13 |
| 21  | 3     | 603  | CLA  | C10-C11-C12-C13 |
| 21  | 4     | 612  | CLA  | C15-C16-C17-C18 |
| 21  | 5     | 604  | CLA  | C5-C6-C7-C8     |
| 36  | 1     | 609  | CHL  | C5-C6-C7-C8     |
| 25  | A     | 5001 | LHG  | C4-O6-P-O3      |
| 25  | B     | 5001 | LHG  | C4-O6-P-O3      |
| 25  | F     | 5001 | LHG  | C4-O6-P-O3      |
| 25  | 1     | 801  | LHG  | C4-O6-P-O3      |
| 25  | 2     | 801  | LHG  | C4-O6-P-O3      |
| 25  | 2     | 802  | LHG  | C3-O3-P-O6      |
| 25  | 2     | 802  | LHG  | C4-O6-P-O3      |
| 25  | 2     | 803  | LHG  | C4-O6-P-O3      |
| 25  | 4     | 801  | LHG  | C4-O6-P-O3      |
| 25  | 6     | 801  | LHG  | C3-O3-P-O6      |
| 25  | 6     | 801  | LHG  | C4-O6-P-O3      |
| 33  | L     | 5003 | PTY  | C3-O11-P1-O14   |
| 33  | 1     | 806  | PTY  | C5-O14-P1-O11   |
| 33  | 4     | 804  | PTY  | C3-O11-P1-O14   |
| 33  | 5     | 803  | PTY  | C3-O11-P1-O14   |
| 33  | 5     | 803  | PTY  | C5-O14-P1-O11   |
| 21  | A     | 1120 | CLA  | C3-C5-C6-C7     |
| 21  | 2     | 605  | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1106 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1204 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 602  | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1231 | CLA  | C8-C10-C11-C12  |
| 21  | 1     | 612  | CLA  | C8-C10-C11-C12  |
| 27  | 6     | 805  | LMU  | C4B-C5B-C6B-O6B |
| 39  | 2     | 808  | P3H  | C14-C15-C16-C17 |
| 25  | A     | 5001 | LHG  | C1-C2-C3-O3     |
| 25  | 1     | 801  | LHG  | C1-C2-C3-O3     |
| 25  | 2     | 801  | LHG  | C1-C2-C3-O3     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | 3     | 801  | LHG  | C1-C2-C3-O3     |
| 25  | 4     | 801  | LHG  | C1-C2-C3-O3     |
| 25  | 6     | 801  | LHG  | C1-C2-C3-O3     |
| 37  | 6     | 803  | SQD  | O49-C7-O47-C45  |
| 21  | 5     | 604  | CLA  | C15-C16-C17-C18 |
| 20  | A     | 1011 | CL0  | O1D-CGD-O2D-CED |
| 21  | B     | 1213 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1225 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1238 | CLA  | C2A-CAA-CBA-CGA |
| 21  | K     | 1403 | CLA  | C2A-CAA-CBA-CGA |
| 36  | 3     | 604  | CHL  | C2A-CAA-CBA-CGA |
| 22  | A     | 2001 | PQN  | C26-C27-C28-C29 |
| 21  | B     | 1202 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1218 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1102 | CLA  | C15-C16-C17-C18 |
| 21  | 4     | 604  | CLA  | O1D-CGD-O2D-CED |
| 39  | 5     | 806  | P3H  | C28-O27-P24-O23 |
| 24  | O     | 4001 | BCR  | C13-C14-C15-C16 |
| 24  | 4     | 503  | BCR  | C19-C20-C21-C22 |
| 31  | 3     | 803  | LMG  | C11-C12-C13-C14 |
| 25  | F     | 5001 | LHG  | C8-C7-O7-C5     |
| 25  | 4     | 801  | LHG  | C8-C7-O7-C5     |
| 21  | A     | 1119 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1237 | CLA  | C15-C16-C17-C18 |
| 21  | 3     | 611  | CLA  | C5-C6-C7-C8     |
| 21  | 4     | 604  | CLA  | C5-C6-C7-C8     |
| 24  | A     | 4006 | BCR  | C11-C10-C9-C34  |
| 24  | F     | 4001 | BCR  | C11-C10-C9-C34  |
| 25  | A     | 5001 | LHG  | C25-C26-C27-C28 |
| 25  | 2     | 803  | LHG  | C24-C25-C26-C27 |
| 27  | A     | 5004 | LMU  | C5-C6-C7-C8     |
| 21  | A     | 1128 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1111 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1208 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1235 | CLA  | C11-C12-C13-C15 |
| 21  | K     | 1402 | CLA  | C6-C7-C8-C10    |
| 21  | 2     | 604  | CLA  | C16-C17-C18-C19 |
| 21  | 5     | 603  | CLA  | C11-C12-C13-C15 |
| 21  | 5     | 607  | CLA  | C11-C12-C13-C15 |
| 36  | 4     | 613  | CHL  | C11-C12-C13-C14 |
| 21  | B     | 1203 | CLA  | CBA-CGA-O2A-C1  |
| 21  | G     | 1601 | CLA  | CBA-CGA-O2A-C1  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | A     | 5001 | LHG  | C11-C12-C13-C14 |
| 25  | A     | 5001 | LHG  | C31-C32-C33-C34 |
| 25  | F     | 5001 | LHG  | C28-C29-C30-C31 |
| 25  | 2     | 802  | LHG  | C28-C29-C30-C31 |
| 25  | 2     | 803  | LHG  | C11-C12-C13-C14 |
| 29  | 5     | 807  | 3PH  | C22-C23-C24-C25 |
| 29  | 5     | 807  | 3PH  | C25-C26-C27-C28 |
| 31  | 3     | 803  | LMG  | C30-C31-C32-C33 |
| 33  | 6     | 804  | PTY  | C5-C6-O7-C8     |
| 25  | F     | 5001 | LHG  | O9-C7-O7-C5     |
| 25  | 4     | 801  | LHG  | O9-C7-O7-C5     |
| 21  | B     | 1221 | CLA  | C13-C15-C16-C17 |
| 25  | F     | 5001 | LHG  | C34-C35-C36-C37 |
| 25  | 2     | 801  | LHG  | C26-C27-C28-C29 |
| 25  | 4     | 801  | LHG  | C11-C10-C9-C8   |
| 27  | B     | 5004 | LMU  | C6-C7-C8-C9     |
| 29  | F     | 5003 | 3PH  | C22-C23-C24-C25 |
| 31  | F     | 5002 | LMG  | C39-C40-C41-C42 |
| 31  | 2     | 804  | LMG  | C36-C37-C38-C39 |
| 32  | L     | 5002 | 4RF  | C09-C10-C11-C12 |
| 25  | 5     | 801  | LHG  | C13-C14-C15-C16 |
| 25  | 5     | 801  | LHG  | C26-C27-C28-C29 |
| 21  | A     | 1136 | CLA  | C15-C16-C17-C18 |
| 21  | 5     | 608  | CLA  | C5-C6-C7-C8     |
| 25  | 2     | 801  | LHG  | C25-C26-C27-C28 |
| 21  | B     | 1218 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1227 | CLA  | C3-C5-C6-C7     |
| 24  | A     | 4006 | BCR  | C11-C10-C9-C8   |
| 24  | F     | 4001 | BCR  | C11-C10-C9-C8   |
| 25  | A     | 5002 | LHG  | O7-C5-C6-O8     |
| 21  | B     | 1207 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 2     | 601  | CLA  | CBA-CGA-O2A-C1  |
| 25  | A     | 5001 | LHG  | C9-C10-C11-C12  |
| 25  | 2     | 802  | LHG  | C13-C14-C15-C16 |
| 33  | 4     | 804  | PTY  | C11-C12-C13-C14 |
| 21  | A     | 1115 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1216 | CLA  | C10-C11-C12-C13 |
| 21  | K     | 1402 | CLA  | C5-C6-C7-C8     |
| 21  | 3     | 601  | CLA  | C10-C11-C12-C13 |
| 21  | 4     | 612  | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1128 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1202 | CLA  | O1A-CGA-O2A-C1  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 20  | A     | 1011 | CL0  | C16-C17-C18-C19 |
| 21  | A     | 1112 | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1117 | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1134 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1225 | CLA  | C16-C17-C18-C20 |
| 21  | B     | 1230 | CLA  | C16-C17-C18-C20 |
| 21  | 5     | 614  | CLA  | C16-C17-C18-C19 |
| 21  | 6     | 612  | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1130 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1240 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1117 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1203 | CLA  | C4-C3-C5-C6     |
| 32  | L     | 5002 | 4RF  | C07-C08-C09-C10 |
| 21  | A     | 1117 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1117 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1206 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1214 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1237 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1238 | CLA  | C11-C12-C13-C14 |
| 21  | 1     | 603  | CLA  | C11-C10-C8-C9   |
| 36  | 2     | 609  | CHL  | C11-C10-C8-C9   |
| 36  | 5     | 609  | CHL  | C11-C10-C8-C9   |
| 32  | L     | 5002 | 4RF  | C41-C43-C44-C45 |
| 39  | 5     | 806  | P3H  | C40-C42-C43-C44 |
| 25  | A     | 5001 | LHG  | C13-C14-C15-C16 |
| 25  | A     | 5002 | LHG  | C30-C31-C32-C33 |
| 25  | A     | 5002 | LHG  | C34-C35-C36-C37 |
| 27  | A     | 5005 | LMU  | C2-C3-C4-C5     |
| 21  | B     | 1225 | CLA  | C15-C16-C17-C18 |
| 21  | 1     | 611  | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1214 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1226 | CLA  | C2A-CAA-CBA-CGA |
| 21  | G     | 1602 | CLA  | C2A-CAA-CBA-CGA |
| 24  | A     | 4002 | BCR  | C11-C12-C13-C35 |
| 25  | F     | 5001 | LHG  | O1-C1-C2-C3     |
| 25  | 1     | 802  | LHG  | O1-C1-C2-C3     |
| 25  | 1     | 803  | LHG  | O1-C1-C2-C3     |
| 25  | 4     | 801  | LHG  | O1-C1-C2-C3     |
| 25  | 5     | 801  | LHG  | O1-C1-C2-C3     |
| 24  | A     | 4002 | BCR  | C11-C12-C13-C14 |
| 24  | B     | 4003 | BCR  | C7-C8-C9-C10    |
| 24  | 1     | 504  | BCR  | C11-C12-C13-C14 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | 2     | 503  | BCR  | C17-C18-C19-C20 |
| 27  | A     | 5005 | LMU  | C1-C2-C3-C4     |
| 21  | 2     | 612  | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1115 | CLA  | C10-C11-C12-C13 |
| 21  | 1     | 612  | CLA  | C5-C6-C7-C8     |
| 25  | A     | 5001 | LHG  | C30-C31-C32-C33 |
| 25  | B     | 5001 | LHG  | C25-C26-C27-C28 |
| 25  | F     | 5001 | LHG  | C25-C26-C27-C28 |
| 25  | F     | 5001 | LHG  | C26-C27-C28-C29 |
| 25  | 1     | 801  | LHG  | C11-C12-C13-C14 |
| 29  | F     | 5003 | 3PH  | C36-C37-C38-C39 |
| 25  | 4     | 801  | LHG  | C23-C24-C25-C26 |
| 25  | A     | 5002 | LHG  | C17-C18-C19-C20 |
| 25  | F     | 5001 | LHG  | C31-C32-C33-C34 |
| 25  | 1     | 801  | LHG  | C32-C33-C34-C35 |
| 25  | 2     | 802  | LHG  | C10-C11-C12-C13 |
| 29  | F     | 5003 | 3PH  | C38-C39-C3A-C3B |
| 31  | 4     | 803  | LMG  | C29-C30-C31-C32 |
| 21  | A     | 1139 | CLA  | C16-C17-C18-C20 |
| 21  | B     | 1205 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1205 | CLA  | C16-C17-C18-C20 |
| 21  | B     | 1218 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1239 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1239 | CLA  | C16-C17-C18-C20 |
| 21  | 3     | 603  | CLA  | C16-C17-C18-C19 |
| 21  | 3     | 603  | CLA  | C16-C17-C18-C20 |
| 21  | 5     | 603  | CLA  | C11-C12-C13-C14 |
| 21  | 6     | 612  | CLA  | C16-C17-C18-C19 |
| 27  | 6     | 805  | LMU  | O5'-C1'-O1'-C1  |
| 21  | A     | 1123 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1132 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1138 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1226 | CLA  | C13-C15-C16-C17 |
| 21  | 4     | 603  | CLA  | C10-C11-C12-C13 |
| 21  | 6     | 607  | CLA  | C5-C6-C7-C8     |
| 25  | A     | 5002 | LHG  | C13-C14-C15-C16 |
| 25  | 1     | 801  | LHG  | C28-C29-C30-C31 |
| 25  | 1     | 801  | LHG  | C29-C30-C31-C32 |
| 29  | F     | 5003 | 3PH  | C37-C38-C39-C3A |
| 32  | L     | 5002 | 4RF  | C10-C11-C12-C13 |
| 33  | 4     | 804  | PTY  | C32-C33-C34-C35 |
| 33  | L     | 5003 | PTY  | N1-C2-C3-O11    |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 1     | 606  | CLA  | O1D-CGD-O2D-CED |
| 25  | A     | 5002 | LHG  | C11-C12-C13-C14 |
| 31  | 2     | 804  | LMG  | C31-C32-C33-C34 |
| 39  | 2     | 808  | P3H  | C11-C12-C13-C14 |
| 21  | A     | 1111 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1126 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1134 | CLA  | C5-C6-C7-C8     |
| 21  | L     | 1501 | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 604  | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1218 | CLA  | O1A-CGA-O2A-C1  |
| 25  | 5     | 801  | LHG  | C25-C26-C27-C28 |
| 33  | 3     | 807  | PTY  | C11-C12-C13-C14 |
| 21  | 4     | 612  | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1101 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1103 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1104 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1105 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1109 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1110 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1135 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1206 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1210 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1223 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1234 | CLA  | C3A-C2A-CAA-CBA |
| 21  | G     | 1602 | CLA  | C3A-C2A-CAA-CBA |
| 21  | H     | 1701 | CLA  | C3A-C2A-CAA-CBA |
| 21  | H     | 1702 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 1     | 603  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 1     | 615  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 2     | 615  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 3     | 615  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 4     | 605  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 5     | 602  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 5     | 605  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 5     | 607  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 5     | 613  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 6     | 605  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 6     | 606  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 6     | 608  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 6     | 613  | CLA  | C3A-C2A-CAA-CBA |
| 36  | 5     | 610  | CHL  | C3A-C2A-CAA-CBA |
| 21  | A     | 1136 | CLA  | C13-C15-C16-C17 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1210 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1223 | CLA  | C10-C11-C12-C13 |
| 24  | A     | 4004 | BCR  | C19-C20-C21-C22 |
| 24  | I     | 4002 | BCR  | C9-C10-C11-C12  |
| 25  | 2     | 802  | LHG  | C11-C12-C13-C14 |
| 27  | A     | 5005 | LMU  | C7-C8-C9-C10    |
| 21  | 5     | 612  | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1204 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 602  | CLA  | O1A-CGA-O2A-C1  |
| 20  | A     | 1011 | CL0  | C16-C17-C18-C20 |
| 21  | A     | 1111 | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1121 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1208 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1217 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1218 | CLA  | C16-C17-C18-C20 |
| 21  | 2     | 604  | CLA  | C16-C17-C18-C20 |
| 21  | 5     | 607  | CLA  | C11-C12-C13-C14 |
| 25  | A     | 5002 | LHG  | C31-C32-C33-C34 |
| 29  | 5     | 807  | 3PH  | C24-C25-C26-C27 |
| 39  | 2     | 808  | P3H  | C13-C14-C15-C16 |
| 25  | F     | 5001 | LHG  | C4-C5-C6-O8     |
| 25  | 2     | 803  | LHG  | C4-C5-C6-O8     |
| 25  | B     | 5001 | LHG  | C16-C17-C18-C19 |
| 25  | 5     | 801  | LHG  | C11-C12-C13-C14 |
| 27  | 6     | 805  | LMU  | C5-C6-C7-C8     |
| 27  | 6     | 805  | LMU  | C6-C7-C8-C9     |
| 31  | 3     | 803  | LMG  | C18-C19-C20-C21 |
| 21  | 6     | 605  | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1205 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1107 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1205 | CLA  | C2-C3-C5-C6     |
| 21  | 2     | 612  | CLA  | C2-C3-C5-C6     |
| 25  | A     | 5001 | LHG  | C8-C7-O7-C5     |
| 33  | 3     | 807  | PTY  | C11-C8-O7-C6    |
| 36  | 1     | 610  | CHL  | C2A-CAA-CBA-CGA |
| 25  | F     | 5001 | LHG  | O1-C1-C2-O2     |
| 25  | 1     | 801  | LHG  | O1-C1-C2-O2     |
| 25  | 1     | 803  | LHG  | O1-C1-C2-O2     |
| 25  | 2     | 801  | LHG  | O1-C1-C2-O2     |
| 25  | 5     | 802  | LHG  | O1-C1-C2-O2     |
| 38  | 4     | 805  | LMK  | O9-C10-C11-C12  |
| 29  | B     | 5003 | 3PH  | C22-C23-C24-C25 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | 1     | 802  | LHG  | C23-C24-C25-C26 |
| 21  | A     | 1106 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1203 | CLA  | O1A-CGA-O2A-C1  |
| 21  | G     | 1601 | CLA  | O1A-CGA-O2A-C1  |
| 25  | B     | 5001 | LHG  | C23-C24-C25-C26 |
| 21  | B     | 1230 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1235 | CLA  | C11-C12-C13-C14 |
| 22  | A     | 2001 | PQN  | C26-C27-C28-C30 |
| 29  | F     | 5003 | 3PH  | C25-C26-C27-C28 |
| 33  | 3     | 808  | PTY  | C11-C8-O7-C6    |
| 21  | 2     | 605  | CLA  | C5-C6-C7-C8     |
| 29  | 5     | 807  | 3PH  | C32-C33-C34-C35 |
| 21  | 5     | 604  | CLA  | C3-C5-C6-C7     |
| 25  | F     | 5001 | LHG  | C13-C14-C15-C16 |
| 21  | B     | 1224 | CLA  | O1A-CGA-O2A-C1  |
| 28  | 2     | 806  | DGD  | C1A-C2A-C3A-C4A |
| 21  | 1     | 608  | CLA  | C5-C6-C7-C8     |
| 25  | 1     | 803  | LHG  | C1-C2-C3-O3     |
| 27  | A     | 5004 | LMU  | C6-C7-C8-C9     |
| 25  | A     | 5001 | LHG  | O9-C7-O7-C5     |
| 33  | 3     | 807  | PTY  | O10-C8-O7-C6    |
| 21  | A     | 1105 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1113 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1115 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1116 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1123 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1126 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1134 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1022 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1212 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1216 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1218 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1219 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1228 | CLA  | C2-C1-O2A-CGA   |
| 21  | H     | 1701 | CLA  | C2-C1-O2A-CGA   |
| 21  | L     | 1504 | CLA  | C2-C1-O2A-CGA   |
| 21  | 1     | 608  | CLA  | C2-C1-O2A-CGA   |
| 21  | 3     | 601  | CLA  | C2-C1-O2A-CGA   |
| 21  | 3     | 611  | CLA  | C2-C1-O2A-CGA   |
| 21  | 4     | 604  | CLA  | C2-C1-O2A-CGA   |
| 21  | 4     | 607  | CLA  | C2-C1-O2A-CGA   |
| 21  | 4     | 609  | CLA  | C2-C1-O2A-CGA   |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 4     | 612  | CLA  | C2-C1-O2A-CGA   |
| 21  | 4     | 615  | CLA  | C2-C1-O2A-CGA   |
| 21  | 5     | 614  | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 603  | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 604  | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 612  | CLA  | C2-C1-O2A-CGA   |
| 25  | B     | 5001 | LHG  | C17-C18-C19-C20 |
| 36  | 6     | 610  | CHL  | C2C-C3C-CAC-CBC |
| 38  | 4     | 805  | LMK  | C11-C12-C13-C14 |
| 21  | A     | 1113 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1123 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1127 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1208 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1216 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1223 | CLA  | C8-C10-C11-C12  |
| 21  | 2     | 615  | CLA  | C10-C11-C12-C13 |
| 25  | 1     | 801  | LHG  | C34-C35-C36-C37 |
| 25  | 2     | 802  | LHG  | C16-C17-C18-C19 |
| 29  | 5     | 807  | 3PH  | C34-C35-C36-C37 |
| 21  | A     | 1122 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1234 | CLA  | C3-C5-C6-C7     |
| 24  | A     | 4002 | BCR  | C5-C6-C7-C8     |
| 24  | A     | 4002 | BCR  | C23-C24-C25-C30 |
| 24  | A     | 4005 | BCR  | C1-C6-C7-C8     |
| 24  | A     | 4005 | BCR  | C5-C6-C7-C8     |
| 24  | A     | 4006 | BCR  | C1-C6-C7-C8     |
| 24  | A     | 4006 | BCR  | C5-C6-C7-C8     |
| 24  | B     | 4001 | BCR  | C1-C6-C7-C8     |
| 24  | B     | 4002 | BCR  | C1-C6-C7-C8     |
| 24  | B     | 4002 | BCR  | C5-C6-C7-C8     |
| 24  | B     | 4003 | BCR  | C1-C6-C7-C8     |
| 24  | B     | 4003 | BCR  | C5-C6-C7-C8     |
| 24  | B     | 4004 | BCR  | C23-C24-C25-C26 |
| 24  | B     | 4004 | BCR  | C23-C24-C25-C30 |
| 24  | B     | 4005 | BCR  | C5-C6-C7-C8     |
| 24  | F     | 4001 | BCR  | C23-C24-C25-C26 |
| 24  | F     | 4001 | BCR  | C23-C24-C25-C30 |
| 24  | J     | 4001 | BCR  | C1-C6-C7-C8     |
| 24  | J     | 4002 | BCR  | C1-C6-C7-C8     |
| 24  | J     | 4002 | BCR  | C5-C6-C7-C8     |
| 24  | G     | 4001 | BCR  | C23-C24-C25-C26 |
| 24  | G     | 4001 | BCR  | C23-C24-C25-C30 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | H     | 4001 | BCR  | C23-C24-C25-C30 |
| 24  | I     | 4002 | BCR  | C1-C6-C7-C8     |
| 24  | I     | 4002 | BCR  | C5-C6-C7-C8     |
| 24  | K     | 4001 | BCR  | C23-C24-C25-C30 |
| 24  | L     | 4001 | BCR  | C5-C6-C7-C8     |
| 24  | L     | 4002 | BCR  | C1-C6-C7-C8     |
| 24  | L     | 4002 | BCR  | C5-C6-C7-C8     |
| 24  | 1     | 504  | BCR  | C1-C6-C7-C8     |
| 24  | 1     | 504  | BCR  | C5-C6-C7-C8     |
| 24  | 2     | 503  | BCR  | C1-C6-C7-C8     |
| 24  | 2     | 503  | BCR  | C5-C6-C7-C8     |
| 24  | 2     | 503  | BCR  | C23-C24-C25-C30 |
| 24  | 3     | 503  | BCR  | C1-C6-C7-C8     |
| 24  | 3     | 503  | BCR  | C5-C6-C7-C8     |
| 24  | 3     | 504  | BCR  | C1-C6-C7-C8     |
| 24  | 3     | 504  | BCR  | C5-C6-C7-C8     |
| 24  | 3     | 506  | BCR  | C23-C24-C25-C26 |
| 24  | 3     | 506  | BCR  | C23-C24-C25-C30 |
| 34  | 4     | 501  | LUT  | C5-C6-C7-C8     |
| 28  | B     | 5002 | DGD  | C5A-C6A-C7A-C8A |
| 21  | A     | 1012 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1212 | CLA  | CBA-CGA-O2A-C1  |
| 21  | J     | 1901 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 610  | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1119 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1127 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1213 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1215 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1228 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1229 | CLA  | C15-C16-C17-C18 |
| 21  | 4     | 612  | CLA  | C5-C6-C7-C8     |
| 31  | 4     | 803  | LMG  | C31-C32-C33-C34 |
| 21  | B     | 1207 | CLA  | O1A-CGA-O2A-C1  |
| 21  | O     | 1803 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1129 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1124 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1229 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1237 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1117 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1125 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1127 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1132 | CLA  | C12-C13-C15-C16 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1138 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1023 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1203 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1214 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1229 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1237 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1238 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1240 | CLA  | C11-C12-C13-C15 |
| 21  | K     | 1402 | CLA  | C2-C3-C5-C6     |
| 21  | 1     | 603  | CLA  | C11-C10-C8-C7   |
| 21  | 2     | 612  | CLA  | C11-C12-C13-C15 |
| 21  | 2     | 615  | CLA  | C6-C7-C8-C10    |
| 21  | 2     | 615  | CLA  | C12-C13-C15-C16 |
| 21  | 3     | 612  | CLA  | C6-C7-C8-C10    |
| 21  | 6     | 605  | CLA  | C11-C10-C8-C7   |
| 22  | A     | 2001 | PQN  | C21-C22-C23-C25 |
| 36  | 3     | 604  | CHL  | C11-C12-C13-C15 |
| 36  | 5     | 609  | CHL  | C11-C12-C13-C15 |
| 21  | A     | 1107 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 601  | CLA  | O1A-CGA-O2A-C1  |
| 24  | B     | 4002 | BCR  | C9-C10-C11-C12  |
| 21  | A     | 1112 | CLA  | C16-C17-C18-C19 |
| 21  | A     | 1117 | CLA  | C16-C17-C18-C19 |
| 21  | A     | 1120 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1134 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1225 | CLA  | C16-C17-C18-C19 |
| 21  | 4     | 601  | CLA  | C11-C12-C13-C15 |
| 21  | 5     | 604  | CLA  | C16-C17-C18-C19 |
| 21  | 5     | 602  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1108 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1220 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1235 | CLA  | CBA-CGA-O2A-C1  |
| 33  | 5     | 803  | PTY  | C31-C30-O4-C1   |
| 25  | B     | 5001 | LHG  | C26-C27-C28-C29 |
| 25  | 1     | 801  | LHG  | C16-C17-C18-C19 |
| 25  | 5     | 801  | LHG  | C19-C20-C21-C22 |
| 27  | B     | 5004 | LMU  | C3-C4-C5-C6     |
| 21  | A     | 1121 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 2     | 601  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 4     | 603  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 6     | 604  | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1107 | CLA  | C8-C10-C11-C12  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1207 | CLA  | C8-C10-C11-C12  |
| 21  | 1     | 604  | CLA  | C8-C10-C11-C12  |
| 33  | 1     | 805  | PTY  | C15-C16-C17-C18 |
| 21  | 5     | 612  | CLA  | C2C-C3C-CAC-CBC |
| 33  | 5     | 803  | PTY  | C31-C32-C33-C34 |
| 37  | 2     | 805  | SQD  | C30-C31-C32-C33 |
| 21  | B     | 1231 | CLA  | O1D-CGD-O2D-CED |
| 21  | A     | 1101 | CLA  | C10-C11-C12-C13 |
| 25  | A     | 5002 | LHG  | C29-C30-C31-C32 |
| 25  | B     | 5001 | LHG  | C15-C16-C17-C18 |
| 21  | B     | 1217 | CLA  | C3-C5-C6-C7     |
| 31  | 3     | 802  | LMG  | O6-C1-O1-C7     |
| 37  | 3     | 806  | SQD  | O5-C1-O6-C44    |
| 21  | A     | 1139 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1210 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1224 | CLA  | C15-C16-C17-C18 |
| 25  | 2     | 802  | LHG  | C11-C10-C9-C8   |
| 28  | B     | 5002 | DGD  | C1B-C2B-C3B-C4B |
| 31  | 3     | 802  | LMG  | C10-C11-C12-C13 |
| 32  | L     | 5002 | 4RF  | C22-C24-C25-C26 |
| 29  | F     | 5003 | 3PH  | C22-C21-O21-C2  |
| 33  | 4     | 804  | PTY  | C11-C8-O7-C6    |
| 24  | J     | 4001 | BCR  | C18-C19-C20-C21 |
| 24  | I     | 4001 | BCR  | C10-C11-C12-C13 |
| 29  | B     | 5003 | 3PH  | C27-C28-C29-C2A |
| 31  | 2     | 804  | LMG  | C40-C41-C42-C43 |
| 21  | 3     | 610  | CLA  | O1A-CGA-O2A-C1  |
| 39  | 2     | 808  | P3H  | C12-C13-C14-C15 |
| 29  | F     | 5003 | 3PH  | O22-C21-O21-C2  |
| 33  | 4     | 804  | PTY  | O10-C8-O7-C6    |
| 25  | A     | 5001 | LHG  | C29-C30-C31-C32 |
| 25  | B     | 5001 | LHG  | C10-C11-C12-C13 |
| 33  | 5     | 803  | PTY  | C38-C39-C40-C41 |
| 28  | 2     | 806  | DGD  | C2E-C1E-O5D-C6D |
| 28  | 3     | 804  | DGD  | C2E-C1E-O5D-C6D |
| 31  | 4     | 803  | LMG  | C2-C1-O1-C7     |
| 25  | B     | 5001 | LHG  | O7-C5-C6-O8     |
| 25  | F     | 5001 | LHG  | O7-C5-C6-O8     |
| 25  | 1     | 803  | LHG  | O7-C5-C6-O8     |
| 25  | F     | 5001 | LHG  | C11-C12-C13-C14 |
| 27  | B     | 5004 | LMU  | C2-C3-C4-C5     |
| 31  | 4     | 802  | LMG  | C19-C20-C21-C22 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1104 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1219 | CLA  | C10-C11-C12-C13 |
| 39  | 2     | 808  | P3H  | C42-C43-C44-C45 |
| 21  | A     | 1125 | CLA  | C4-C3-C5-C6     |
| 21  | K     | 1402 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1124 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1237 | CLA  | C2-C3-C5-C6     |
| 21  | 2     | 607  | CLA  | C2-C3-C5-C6     |
| 25  | A     | 5001 | LHG  | C33-C34-C35-C36 |
| 21  | A     | 1012 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1127 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1205 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1224 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1238 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1240 | CLA  | C11-C12-C13-C14 |
| 21  | O     | 1803 | CLA  | C11-C10-C8-C9   |
| 21  | 1     | 604  | CLA  | C11-C12-C13-C14 |
| 21  | 1     | 611  | CLA  | C11-C12-C13-C14 |
| 21  | 2     | 603  | CLA  | C14-C13-C15-C16 |
| 21  | 2     | 615  | CLA  | C6-C7-C8-C9     |
| 21  | 3     | 601  | CLA  | C6-C7-C8-C9     |
| 21  | 3     | 605  | CLA  | C11-C12-C13-C14 |
| 21  | 4     | 604  | CLA  | C11-C10-C8-C9   |
| 21  | 5     | 604  | CLA  | C6-C7-C8-C9     |
| 21  | 6     | 605  | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1131 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1212 | CLA  | C3-C5-C6-C7     |
| 22  | B     | 2002 | PQN  | C13-C15-C16-C17 |
| 21  | B     | 1220 | CLA  | C2A-CAA-CBA-CGA |
| 21  | L     | 1502 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 3     | 608  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 3     | 613  | CLA  | C2A-CAA-CBA-CGA |
| 31  | 3     | 803  | LMG  | C22-C23-C24-C25 |
| 24  | 3     | 506  | BCR  | C36-C18-C19-C20 |
| 21  | B     | 1220 | CLA  | O1D-CGD-O2D-CED |
| 21  | B     | 1230 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1012 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1108 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1212 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1235 | CLA  | O1A-CGA-O2A-C1  |
| 21  | J     | 1901 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1102 | CLA  | C1A-C2A-CAA-CBA |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Atoms</b>    |
|------------|--------------|------------|-------------|-----------------|
| 21         | A            | 1103       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1104       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1106       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1113       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1116       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1117       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1122       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1127       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1128       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1132       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1133       | CLA         | C1A-C2A-CAA-CBA |
| 21         | A            | 1135       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1210       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1215       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1216       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1219       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1223       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1229       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1231       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1236       | CLA         | C1A-C2A-CAA-CBA |
| 21         | B            | 1239       | CLA         | C1A-C2A-CAA-CBA |
| 21         | G            | 1602       | CLA         | C1A-C2A-CAA-CBA |
| 21         | H            | 1701       | CLA         | C1A-C2A-CAA-CBA |
| 21         | O            | 1803       | CLA         | C1A-C2A-CAA-CBA |
| 21         | 1            | 615        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 2            | 601        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 2            | 607        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 3            | 606        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 3            | 613        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 4            | 604        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 4            | 605        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 4            | 607        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 4            | 608        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 601        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 602        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 603        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 605        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 606        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 608        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 612        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 613        | CLA         | C1A-C2A-CAA-CBA |
| 21         | 5            | 614        | CLA         | C1A-C2A-CAA-CBA |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 6     | 604  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 6     | 605  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 6     | 608  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 6     | 612  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 6     | 613  | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1120 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1121 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1139 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1217 | CLA  | C16-C17-C18-C20 |
| 21  | 4     | 601  | CLA  | C11-C12-C13-C14 |
| 36  | 4     | 613  | CHL  | C11-C12-C13-C15 |
| 31  | 3     | 803  | LMG  | C12-C13-C14-C15 |
| 24  | B     | 4005 | BCR  | C19-C20-C21-C22 |
| 24  | G     | 4001 | BCR  | C9-C10-C11-C12  |
| 21  | A     | 1013 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1101 | CLA  | C15-C16-C17-C18 |
| 21  | A     | 1113 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1225 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1228 | CLA  | C5-C6-C7-C8     |
| 25  | 3     | 801  | LHG  | C4-O6-P-O3      |
| 29  | B     | 5003 | 3PH  | C24-C25-C26-C27 |
| 21  | B     | 1203 | CLA  | C3-C5-C6-C7     |
| 21  | 5     | 603  | CLA  | C3-C5-C6-C7     |
| 31  | F     | 5002 | LMG  | C37-C38-C39-C40 |
| 21  | A     | 1126 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1141 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1141 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1022 | CLA  | C8-C10-C11-C12  |
| 21  | 2     | 612  | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1103 | CLA  | CBA-CGA-O2A-C1  |
| 25  | 1     | 802  | LHG  | O6-C4-C5-C6     |
| 25  | 6     | 801  | LHG  | O6-C4-C5-C6     |
| 29  | B     | 5003 | 3PH  | O11-C1-C2-C3    |
| 25  | F     | 5001 | LHG  | C11-C10-C9-C8   |
| 31  | F     | 5002 | LMG  | C28-C29-C30-C31 |
| 33  | 4     | 804  | PTY  | C8-C11-C12-C13  |
| 25  | A     | 5002 | LHG  | C11-C10-C9-C8   |
| 21  | B     | 1206 | CLA  | C16-C17-C18-C20 |
| 27  | B     | 5004 | LMU  | C5-C6-C7-C8     |
| 31  | 2     | 804  | LMG  | C37-C38-C39-C40 |
| 33  | 1     | 805  | PTY  | C16-C17-C18-C19 |
| 27  | 6     | 805  | LMU  | C1-C2-C3-C4     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 2     | 607  | CLA  | C4-C3-C5-C6     |
| 31  | 3     | 803  | LMG  | C33-C34-C35-C36 |
| 31  | 4     | 802  | LMG  | C30-C31-C32-C33 |
| 21  | A     | 1126 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1023 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1215 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1239 | CLA  | C15-C16-C17-C18 |
| 21  | 6     | 605  | CLA  | C5-C6-C7-C8     |
| 21  | 6     | 607  | CLA  | C8-C10-C11-C12  |
| 25  | 2     | 803  | LHG  | C28-C29-C30-C31 |
| 21  | B     | 1220 | CLA  | O1A-CGA-O2A-C1  |
| 33  | 5     | 803  | PTY  | O30-C30-O4-C1   |
| 25  | 2     | 803  | LHG  | C25-C26-C27-C28 |
| 21  | H     | 1701 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 4     | 608  | CLA  | C2A-CAA-CBA-CGA |
| 21  | K     | 1402 | CLA  | C6-C7-C8-C9     |
| 21  | 6     | 601  | CLA  | C11-C12-C13-C15 |
| 31  | 3     | 803  | LMG  | O6-C5-C6-O5     |
| 25  | A     | 5002 | LHG  | C4-C5-C6-O8     |
| 25  | B     | 5001 | LHG  | C4-C5-C6-O8     |
| 25  | 1     | 803  | LHG  | C4-C5-C6-O8     |
| 25  | 3     | 801  | LHG  | C4-C5-C6-O8     |
| 25  | 5     | 801  | LHG  | C4-C5-C6-O8     |
| 25  | 5     | 802  | LHG  | C4-C5-C6-O8     |
| 31  | F     | 5002 | LMG  | C7-C8-C9-O8     |
| 32  | L     | 5002 | 4RF  | O18-C19-C20-C39 |
| 32  | 5     | 805  | 4RF  | O18-C19-C20-C39 |
| 38  | 2     | 807  | LMK  | C7-C8-C9-O8     |
| 21  | B     | 1217 | CLA  | C13-C15-C16-C17 |
| 28  | 3     | 804  | DGD  | C5D-C6D-O5D-C1E |
| 28  | 3     | 805  | DGD  | C5D-C6D-O5D-C1E |
| 31  | F     | 5002 | LMG  | C12-C13-C14-C15 |
| 31  | 3     | 803  | LMG  | C21-C22-C23-C24 |
| 33  | 1     | 805  | PTY  | C17-C18-C19-C20 |
| 21  | H     | 1702 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 2     | 603  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 2     | 603  | CLA  | CBA-CGA-O2A-C1  |
| 25  | 2     | 803  | LHG  | O1-C1-C2-O2     |
| 25  | 3     | 801  | LHG  | O1-C1-C2-O2     |
| 25  | 6     | 801  | LHG  | O1-C1-C2-O2     |
| 27  | 6     | 805  | LMU  | C7-C8-C9-C10    |
| 37  | 2     | 805  | SQD  | C29-C30-C31-C32 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 39  | 5     | 806  | P3H  | C14-C15-C16-C17 |
| 39  | 2     | 808  | P3H  | C49-C50-C51-C52 |
| 25  | B     | 5001 | LHG  | C13-C14-C15-C16 |
| 25  | 1     | 801  | LHG  | C11-C10-C9-C8   |
| 31  | 6     | 802  | LMG  | C11-C12-C13-C14 |
| 37  | 3     | 806  | SQD  | C11-C10-C9-C8   |
| 21  | 6     | 612  | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1121 | CLA  | C4-C3-C5-C6     |
| 21  | L     | 1502 | CLA  | C4-C3-C5-C6     |
| 25  | B     | 5001 | LHG  | C28-C29-C30-C31 |
| 27  | B     | 5004 | LMU  | C9-C10-C11-C12  |
| 33  | 1     | 805  | PTY  | C30-C31-C32-C33 |
| 21  | A     | 1116 | CLA  | CBA-CGA-O2A-C1  |
| 29  | F     | 5003 | 3PH  | C32-C31-O31-C3  |
| 31  | F     | 5002 | LMG  | C29-C28-O8-C9   |
| 21  | A     | 1124 | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1207 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1214 | CLA  | C13-C15-C16-C17 |
| 28  | 2     | 806  | DGD  | C1G-C2G-O2G-C1B |
| 28  | 3     | 805  | DGD  | C1G-C2G-O2G-C1B |
| 29  | 5     | 804  | 3PH  | C3-C2-O21-C21   |
| 36  | 6     | 610  | CHL  | C2A-CAA-CBA-CGA |
| 21  | A     | 1129 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1107 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1121 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1132 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1137 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1213 | CLA  | C2-C1-O2A-CGA   |
| 28  | 2     | 806  | DGD  | O6E-C5E-C6E-O5E |
| 21  | B     | 1223 | CLA  | C3-C5-C6-C7     |
| 25  | 4     | 801  | LHG  | C9-C10-C11-C12  |
| 29  | B     | 5003 | 3PH  | C2C-C2D-C2E-C2F |
| 32  | L     | 5002 | 4RF  | C24-C25-C26-C27 |
| 32  | L     | 5002 | 4RF  | C47-C48-C49-C50 |
| 21  | A     | 1129 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 605  | CLA  | CBA-CGA-O2A-C1  |
| 37  | 2     | 805  | SQD  | C24-C23-O48-C46 |
| 25  | 3     | 801  | LHG  | O6-C4-C5-O7     |
| 25  | 4     | 801  | LHG  | O6-C4-C5-O7     |
| 33  | 4     | 804  | PTY  | O14-C5-C6-O7    |
| 21  | 5     | 604  | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1103 | CLA  | O1A-CGA-O2A-C1  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 27  | 6     | 805  | LMU  | C2-C3-C4-C5     |
| 33  | 5     | 803  | PTY  | C33-C34-C35-C36 |
| 21  | 5     | 605  | CLA  | C10-C11-C12-C13 |
| 25  | 2     | 803  | LHG  | O7-C5-C6-O8     |
| 31  | 3     | 803  | LMG  | O7-C8-C9-O8     |
| 32  | L     | 5002 | 4RF  | O18-C19-C20-O21 |
| 38  | 2     | 807  | LMK  | O7-C8-C9-O8     |
| 21  | 5     | 612  | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1101 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1203 | CLA  | C8-C10-C11-C12  |
| 21  | 3     | 603  | CLA  | C5-C6-C7-C8     |
| 25  | 1     | 801  | LHG  | C25-C26-C27-C28 |
| 28  | B     | 5002 | DGD  | C4B-C5B-C6B-C7B |
| 21  | A     | 1012 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1101 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1103 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1106 | CLA  | C6-C7-C8-C10    |
| 21  | A     | 1115 | CLA  | C6-C7-C8-C10    |
| 21  | A     | 1123 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1125 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1126 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1127 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1128 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1131 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1132 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1021 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1203 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1204 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1205 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1210 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1224 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1225 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1238 | CLA  | C6-C7-C8-C10    |
| 21  | L     | 1501 | CLA  | C12-C13-C15-C16 |
| 21  | O     | 1803 | CLA  | C11-C10-C8-C7   |
| 21  | 1     | 604  | CLA  | C11-C12-C13-C15 |
| 21  | 1     | 615  | CLA  | C11-C10-C8-C7   |
| 21  | 2     | 603  | CLA  | C12-C13-C15-C16 |
| 21  | 2     | 612  | CLA  | C12-C13-C15-C16 |
| 21  | 3     | 605  | CLA  | C12-C13-C15-C16 |
| 21  | 4     | 601  | CLA  | C6-C7-C8-C10    |
| 21  | 4     | 603  | CLA  | C6-C7-C8-C10    |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 4     | 604  | CLA  | C11-C10-C8-C7   |
| 21  | 4     | 609  | CLA  | C6-C7-C8-C10    |
| 36  | 4     | 613  | CHL  | C11-C10-C8-C7   |
| 21  | 6     | 609  | CLA  | CAA-CBA-CGA-O2A |
| 25  | 6     | 801  | LHG  | O8-C23-C24-C25  |
| 21  | A     | 1110 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1101 | CLA  | C14-C13-C15-C16 |
| 21  | A     | 1113 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1115 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1126 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1127 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1131 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1204 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1210 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1214 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1219 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1224 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1225 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1226 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1226 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1227 | CLA  | C14-C13-C15-C16 |
| 21  | 1     | 611  | CLA  | C14-C13-C15-C16 |
| 21  | 2     | 603  | CLA  | C6-C7-C8-C9     |
| 21  | 2     | 612  | CLA  | C14-C13-C15-C16 |
| 21  | 3     | 603  | CLA  | C6-C7-C8-C9     |
| 21  | 3     | 605  | CLA  | C14-C13-C15-C16 |
| 21  | 4     | 601  | CLA  | C6-C7-C8-C9     |
| 21  | 4     | 603  | CLA  | C6-C7-C8-C9     |
| 21  | 5     | 614  | CLA  | C6-C7-C8-C9     |
| 21  | 5     | 614  | CLA  | C11-C10-C8-C9   |
| 21  | 6     | 604  | CLA  | C6-C7-C8-C9     |
| 21  | 6     | 612  | CLA  | C6-C7-C8-C9     |
| 36  | 4     | 613  | CHL  | C11-C10-C8-C9   |
| 27  | 6     | 805  | LMU  | C3'-C4'-O1B-C1B |
| 21  | 2     | 607  | CLA  | C5-C6-C7-C8     |
| 25  | A     | 5002 | LHG  | C9-C10-C11-C12  |
| 25  | 1     | 801  | LHG  | C13-C14-C15-C16 |
| 24  | 1     | 504  | BCR  | C37-C22-C23-C24 |
| 21  | 2     | 601  | CLA  | C16-C17-C18-C20 |
| 21  | 6     | 601  | CLA  | C11-C12-C13-C14 |
| 25  | 1     | 801  | LHG  | C14-C15-C16-C17 |
| 31  | 2     | 804  | LMG  | C39-C40-C41-C42 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | 4     | 801  | LHG  | C7-C8-C9-C10    |
| 24  | 1     | 504  | BCR  | C21-C22-C23-C24 |
| 29  | F     | 5003 | 3PH  | C26-C27-C28-C29 |
| 29  | 5     | 807  | 3PH  | C26-C27-C28-C29 |
| 21  | B     | 1023 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1211 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1023 | CLA  | C15-C16-C17-C18 |
| 21  | 5     | 604  | CLA  | C13-C15-C16-C17 |
| 25  | A     | 5002 | LHG  | C8-C7-O7-C5     |
| 21  | A     | 1119 | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1105 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1112 | CLA  | C10-C11-C12-C13 |
| 21  | 3     | 602  | CLA  | C3-C5-C6-C7     |
| 29  | F     | 5003 | 3PH  | O11-C1-C2-C3    |
| 29  | 5     | 804  | 3PH  | O11-C1-C2-C3    |
| 33  | 4     | 804  | PTY  | O14-C5-C6-C1    |
| 33  | 5     | 803  | PTY  | C36-C37-C38-C39 |
| 33  | O     | 5002 | PTY  | N1-C2-C3-O11    |
| 33  | 6     | 804  | PTY  | N1-C2-C3-O11    |
| 21  | B     | 1238 | CLA  | CBA-CGA-O2A-C1  |
| 32  | L     | 5002 | 4RF  | C15-C16-O18-C19 |
| 21  | A     | 1140 | CLA  | C4-C3-C5-C6     |
| 21  | 5     | 614  | CLA  | C4-C3-C5-C6     |
| 25  | 1     | 803  | LHG  | C7-C8-C9-C10    |
| 21  | A     | 1116 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1129 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1216 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 6     | 602  | CLA  | CBA-CGA-O2A-C1  |
| 39  | 2     | 808  | P3H  | C16-C17-O19-C20 |
| 29  | 5     | 807  | 3PH  | C21-C22-C23-C24 |
| 31  | 4     | 802  | LMG  | C28-C29-C30-C31 |
| 25  | A     | 5001 | LHG  | C35-C36-C37-C38 |
| 25  | 5     | 802  | LHG  | C2-C3-O3-P      |
| 33  | 3     | 808  | PTY  | C6-C5-O14-P1    |
| 21  | A     | 1120 | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1207 | CLA  | C3A-C2A-CAA-CBA |
| 21  | G     | 1601 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 5     | 603  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 5     | 612  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 6     | 604  | CLA  | C3A-C2A-CAA-CBA |
| 24  | A     | 4006 | BCR  | C19-C20-C21-C22 |
| 24  | 3     | 503  | BCR  | C19-C20-C21-C22 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 34  | 1     | 501  | LUT  | C13-C14-C15-C35 |
| 21  | 3     | 612  | CLA  | C15-C16-C17-C18 |
| 21  | L     | 1502 | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1133 | CLA  | CBA-CGA-O2A-C1  |
| 25  | B     | 5001 | LHG  | C24-C23-O8-C6   |
| 21  | A     | 1121 | CLA  | C2C-C3C-CAC-CBC |
| 29  | F     | 5003 | 3PH  | C3A-C3B-C3C-C3D |
| 31  | F     | 5002 | LMG  | C36-C37-C38-C39 |
| 33  | 3     | 808  | PTY  | O10-C8-O7-C6    |
| 21  | A     | 1102 | CLA  | C13-C15-C16-C17 |
| 25  | 1     | 802  | LHG  | C4-C5-C6-O8     |
| 25  | 2     | 802  | LHG  | C4-C5-C6-O8     |
| 31  | 2     | 804  | LMG  | C7-C8-C9-O8     |
| 33  | 4     | 804  | PTY  | O4-C1-C6-C5     |
| 33  | 5     | 803  | PTY  | O4-C1-C6-C5     |
| 38  | 2     | 807  | LMK  | O1-C7-C8-C9     |
| 33  | 1     | 805  | PTY  | C13-C14-C15-C16 |
| 21  | 5     | 605  | CLA  | C3-C5-C6-C7     |
| 39  | 2     | 808  | P3H  | C28-O27-P24-O26 |
| 39  | 5     | 806  | P3H  | C28-O27-P24-O26 |
| 31  | F     | 5002 | LMG  | O10-C28-O8-C9   |
| 21  | A     | 1107 | CLA  | C4-C3-C5-C6     |
| 21  | 1     | 604  | CLA  | C4-C3-C5-C6     |
| 21  | 5     | 614  | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1112 | CLA  | C5-C6-C7-C8     |
| 21  | 4     | 609  | CLA  | C8-C10-C11-C12  |
| 21  | 3     | 605  | CLA  | O1A-CGA-O2A-C1  |
| 25  | A     | 5001 | LHG  | O1-C1-C2-O2     |
| 25  | A     | 5002 | LHG  | O1-C1-C2-O2     |
| 25  | 1     | 801  | LHG  | O6-C4-C5-O7     |
| 25  | 1     | 803  | LHG  | O6-C4-C5-O7     |
| 25  | 5     | 802  | LHG  | O6-C4-C5-O7     |
| 21  | A     | 1113 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 1     | 611  | CLA  | CBA-CGA-O2A-C1  |
| 29  | F     | 5003 | 3PH  | O32-C31-O31-C3  |
| 32  | L     | 5002 | 4RF  | C45-C46-C47-C48 |
| 25  | F     | 5001 | LHG  | O7-C7-C8-C9     |
| 25  | 2     | 803  | LHG  | O8-C23-C24-C25  |
| 37  | 2     | 805  | SQD  | O10-C23-O48-C46 |
| 21  | A     | 1108 | CLA  | C3-C5-C6-C7     |
| 31  | 4     | 802  | LMG  | C31-C32-C33-C34 |
| 25  | 5     | 801  | LHG  | O7-C5-C6-O8     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 29  | B     | 5003 | 3PH  | O21-C2-C3-O31   |
| 31  | 1     | 804  | LMG  | O1-C7-C8-O7     |
| 31  | 2     | 804  | LMG  | O7-C8-C9-O8     |
| 32  | 5     | 805  | 4RF  | O18-C19-C20-O21 |
| 33  | 3     | 807  | PTY  | O4-C1-C6-O7     |
| 21  | L     | 1504 | CLA  | CBA-CGA-O2A-C1  |
| 25  | 2     | 801  | LHG  | C28-C29-C30-C31 |
| 27  | B     | 5004 | LMU  | C1-C2-C3-C4     |
| 25  | 5     | 801  | LHG  | C1-C2-C3-O3     |
| 25  | A     | 5002 | LHG  | O9-C7-O7-C5     |
| 21  | 4     | 607  | CLA  | C3-C5-C6-C7     |
| 21  | L     | 1502 | CLA  | C2-C3-C5-C6     |
| 20  | A     | 1011 | CL0  | C11-C10-C8-C9   |
| 21  | A     | 1101 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1103 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1104 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1113 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1120 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1132 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1021 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1203 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1207 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1213 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1227 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1229 | CLA  | C14-C13-C15-C16 |
| 21  | 2     | 605  | CLA  | C6-C7-C8-C9     |
| 21  | 3     | 607  | CLA  | C11-C10-C8-C9   |
| 21  | 4     | 605  | CLA  | C11-C10-C8-C9   |
| 21  | 4     | 609  | CLA  | C11-C10-C8-C9   |
| 21  | 5     | 607  | CLA  | C11-C10-C8-C9   |
| 25  | F     | 5001 | LHG  | C24-C25-C26-C27 |
| 21  | B     | 1205 | CLA  | C15-C16-C17-C18 |
| 25  | 1     | 803  | LHG  | C5-C4-O6-P      |
| 33  | 4     | 804  | PTY  | C6-C5-O14-P1    |
| 39  | 2     | 808  | P3H  | C21-C22-O23-P24 |
| 21  | B     | 1238 | CLA  | O1A-CGA-O2A-C1  |
| 33  | 5     | 803  | PTY  | C37-C38-C39-C40 |
| 21  | A     | 1117 | CLA  | C2A-CAA-CBA-CGA |
| 21  | L     | 1504 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1206 | CLA  | C16-C17-C18-C19 |
| 21  | 2     | 601  | CLA  | C16-C17-C18-C19 |
| 21  | 5     | 614  | CLA  | C16-C17-C18-C20 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | A     | 4007 | BCR  | C5-C6-C7-C8     |
| 24  | B     | 4005 | BCR  | C1-C6-C7-C8     |
| 24  | F     | 4002 | BCR  | C5-C6-C7-C8     |
| 24  | J     | 4002 | BCR  | C23-C24-C25-C26 |
| 24  | L     | 4002 | BCR  | C23-C24-C25-C26 |
| 24  | L     | 4002 | BCR  | C23-C24-C25-C30 |
| 24  | 3     | 503  | BCR  | C23-C24-C25-C26 |
| 24  | 3     | 503  | BCR  | C23-C24-C25-C30 |
| 24  | 3     | 504  | BCR  | C23-C24-C25-C26 |
| 34  | 1     | 501  | LUT  | C5-C6-C7-C8     |
| 34  | 4     | 501  | LUT  | C1-C6-C7-C8     |
| 34  | 6     | 501  | LUT  | C1-C6-C7-C8     |
| 34  | 6     | 501  | LUT  | C5-C6-C7-C8     |
| 21  | A     | 1127 | CLA  | C10-C11-C12-C13 |
| 21  | 1     | 611  | CLA  | C8-C10-C11-C12  |
| 25  | 5     | 801  | LHG  | C9-C10-C11-C12  |
| 24  | J     | 4002 | BCR  | C37-C22-C23-C24 |
| 24  | K     | 4001 | BCR  | C36-C18-C19-C20 |
| 24  | A     | 4001 | BCR  | C11-C12-C13-C14 |
| 24  | J     | 4002 | BCR  | C17-C18-C19-C20 |
| 24  | 3     | 506  | BCR  | C17-C18-C19-C20 |
| 21  | B     | 1216 | CLA  | C13-C15-C16-C17 |
| 21  | 2     | 615  | CLA  | C15-C16-C17-C18 |
| 21  | 4     | 605  | CLA  | C8-C10-C11-C12  |
| 31  | F     | 5002 | LMG  | C34-C35-C36-C37 |
| 31  | F     | 5002 | LMG  | C40-C41-C42-C43 |
| 25  | A     | 5001 | LHG  | C34-C35-C36-C37 |
| 25  | 1     | 801  | LHG  | C33-C34-C35-C36 |
| 25  | 4     | 801  | LHG  | C24-C25-C26-C27 |
| 31  | 2     | 804  | LMG  | C30-C31-C32-C33 |
| 20  | A     | 1011 | CL0  | C8-C10-C11-C12  |
| 21  | A     | 1102 | CLA  | C10-C11-C12-C13 |
| 25  | 1     | 803  | LHG  | O6-C4-C5-C6     |
| 25  | 2     | 802  | LHG  | O6-C4-C5-C6     |
| 25  | 3     | 801  | LHG  | O6-C4-C5-C6     |
| 25  | 4     | 801  | LHG  | O6-C4-C5-C6     |
| 25  | 5     | 802  | LHG  | O6-C4-C5-C6     |
| 33  | O     | 5002 | PTY  | O14-C5-C6-C1    |
| 25  | 5     | 801  | LHG  | O2-C2-C3-O3     |
| 20  | A     | 1011 | CL0  | C11-C10-C8-C7   |
| 21  | A     | 1012 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1013 | CLA  | C6-C7-C8-C10    |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1103 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1104 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1107 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1113 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1119 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1120 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1126 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1133 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1140 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1023 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1202 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1206 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1207 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1210 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1213 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1214 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1219 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1225 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1226 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1226 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1227 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1227 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1229 | CLA  | C12-C13-C15-C16 |
| 21  | 1     | 603  | CLA  | C6-C7-C8-C10    |
| 21  | 1     | 611  | CLA  | C12-C13-C15-C16 |
| 21  | 1     | 612  | CLA  | C11-C10-C8-C7   |
| 21  | 2     | 603  | CLA  | C6-C7-C8-C10    |
| 21  | 2     | 604  | CLA  | C11-C10-C8-C7   |
| 21  | 2     | 605  | CLA  | C6-C7-C8-C10    |
| 21  | 2     | 605  | CLA  | C11-C12-C13-C15 |
| 21  | 3     | 601  | CLA  | C11-C10-C8-C7   |
| 21  | 3     | 603  | CLA  | C6-C7-C8-C10    |
| 21  | 3     | 605  | CLA  | C11-C12-C13-C15 |
| 21  | 3     | 607  | CLA  | C11-C10-C8-C7   |
| 21  | 3     | 608  | CLA  | C11-C12-C13-C15 |
| 21  | 4     | 605  | CLA  | C11-C10-C8-C7   |
| 21  | 4     | 612  | CLA  | C11-C10-C8-C7   |
| 21  | 5     | 603  | CLA  | C11-C10-C8-C7   |
| 21  | 6     | 612  | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1203 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1217 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1224 | CLA  | C13-C15-C16-C17 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | A     | 4002 | BCR  | C13-C14-C15-C16 |
| 24  | A     | 4005 | BCR  | C19-C20-C21-C22 |
| 24  | A     | 4007 | BCR  | C19-C20-C21-C22 |
| 24  | B     | 4003 | BCR  | C19-C20-C21-C22 |
| 24  | B     | 4004 | BCR  | C9-C10-C11-C12  |
| 24  | B     | 4004 | BCR  | C19-C20-C21-C22 |
| 24  | B     | 4005 | BCR  | C9-C10-C11-C12  |
| 24  | B     | 4005 | BCR  | C13-C14-C15-C16 |
| 24  | J     | 4001 | BCR  | C13-C14-C15-C16 |
| 24  | 2     | 503  | BCR  | C9-C10-C11-C12  |
| 24  | 3     | 504  | BCR  | C13-C14-C15-C16 |
| 24  | 3     | 504  | BCR  | C19-C20-C21-C22 |
| 34  | 3     | 501  | LUT  | C29-C30-C31-C32 |
| 34  | 5     | 504  | LUT  | C33-C34-C35-C15 |
| 33  | 5     | 803  | PTY  | C8-C11-C12-C13  |
| 21  | 3     | 605  | CLA  | C10-C11-C12-C13 |
| 21  | F     | 1302 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1102 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1134 | CLA  | C2A-CAA-CBA-CGA |
| 27  | 6     | 805  | LMU  | C5'-C4'-O1B-C1B |
| 29  | B     | 5003 | 3PH  | C26-C27-C28-C29 |
| 37  | 3     | 806  | SQD  | C23-C24-C25-C26 |
| 21  | A     | 1108 | CLA  | C5-C6-C7-C8     |
| 21  | 1     | 615  | CLA  | CBA-CGA-O2A-C1  |
| 25  | 1     | 802  | LHG  | O8-C23-C24-C25  |
| 33  | 4     | 804  | PTY  | C34-C35-C36-C37 |
| 21  | B     | 1202 | CLA  | C5-C6-C7-C8     |
| 21  | 1     | 601  | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1119 | CLA  | O1A-CGA-O2A-C1  |
| 28  | 2     | 806  | DGD  | O6D-C5D-C6D-O5D |
| 31  | 3     | 802  | LMG  | C15-C16-C17-C18 |
| 21  | A     | 1138 | CLA  | CAD-CBD-CGD-O2D |
| 21  | B     | 1204 | CLA  | CAD-CBD-CGD-O2D |
| 21  | B     | 1209 | CLA  | CAD-CBD-CGD-O2D |
| 21  | B     | 1230 | CLA  | CAD-CBD-CGD-O2D |
| 21  | B     | 1234 | CLA  | CAD-CBD-CGD-O2D |
| 21  | 1     | 606  | CLA  | CAD-CBD-CGD-O2D |
| 21  | 2     | 607  | CLA  | CAD-CBD-CGD-O2D |
| 36  | 4     | 611  | CHL  | CAD-CBD-CGD-O2D |
| 36  | 5     | 609  | CHL  | CAD-CBD-CGD-O2D |
| 21  | 5     | 614  | CLA  | C3-C5-C6-C7     |
| 25  | 2     | 803  | LHG  | C11-C10-C9-C8   |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 1     | 611  | CLA  | C15-C16-C17-C18 |
| 21  | 1     | 615  | CLA  | C5-C6-C7-C8     |
| 21  | 6     | 604  | CLA  | C10-C11-C12-C13 |
| 25  | F     | 5001 | LHG  | C33-C34-C35-C36 |
| 32  | L     | 5002 | 4RF  | C12-C13-C14-C15 |
| 25  | 2     | 802  | LHG  | C24-C23-O8-C6   |
| 27  | B     | 5004 | LMU  | C4-C5-C6-C7     |
| 28  | 3     | 804  | DGD  | O6D-C1D-O3G-C3G |
| 21  | A     | 1121 | CLA  | C2-C3-C5-C6     |
| 25  | 1     | 801  | LHG  | C4-C5-C6-O8     |
| 25  | 1     | 803  | LHG  | C2-C3-O3-P      |
| 25  | 2     | 803  | LHG  | C2-C3-O3-P      |
| 29  | 5     | 807  | 3PH  | C1-C2-C3-O31    |
| 31  | 3     | 803  | LMG  | C7-C8-C9-O8     |
| 32  | 5     | 805  | 4RF  | C19-C20-C39-O40 |
| 33  | 3     | 808  | PTY  | O4-C1-C6-C5     |
| 21  | L     | 1504 | CLA  | O1A-CGA-O2A-C1  |
| 25  | 5     | 801  | LHG  | O6-C4-C5-O7     |
| 21  | B     | 1206 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1240 | CLA  | CAA-CBA-CGA-O2A |
| 25  | A     | 5001 | LHG  | C28-C29-C30-C31 |
| 21  | B     | 1208 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 2     | 603  | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1012 | CLA  | C10-C11-C12-C13 |
| 28  | B     | 5002 | DGD  | C1A-C2A-C3A-C4A |
| 21  | A     | 1105 | CLA  | C11-C12-C13-C14 |
| 21  | L     | 1502 | CLA  | C16-C17-C18-C19 |
| 21  | 2     | 605  | CLA  | C16-C17-C18-C19 |
| 21  | 2     | 605  | CLA  | C16-C17-C18-C20 |
| 22  | B     | 2002 | PQN  | C26-C27-C28-C29 |
| 27  | B     | 5004 | LMU  | C11-C10-C9-C8   |
| 21  | A     | 1102 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1103 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1106 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1114 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1117 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1117 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1124 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1124 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1132 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1132 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1135 | CLA  | CHA-CBD-CGD-O1D |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1135 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1137 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1137 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1202 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1202 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1210 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1210 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1211 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1211 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1212 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1218 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1218 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1222 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1223 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1223 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1227 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1227 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1232 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 608  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 611  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 1     | 611  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 612  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 612  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 612  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 613  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 4     | 602  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 4     | 606  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 4     | 606  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 4     | 607  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 4     | 609  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 4     | 609  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 606  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 5     | 613  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 5     | 614  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 5     | 614  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 601  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 602  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 607  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 607  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 612  | CLA  | CHA-CBD-CGD-O2D |
| 24  | A     | 4006 | BCR  | C9-C10-C11-C12  |
| 21  | A     | 1133 | CLA  | O1A-CGA-O2A-C1  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 3     | 601  | CLA  | O1A-CGA-O2A-C1  |
| 21  | 6     | 602  | CLA  | O1A-CGA-O2A-C1  |
| 32  | L     | 5002 | 4RF  | O17-C16-O18-C19 |
| 25  | 2     | 802  | LHG  | O7-C5-C6-O8     |
| 28  | 3     | 804  | DGD  | O1G-C1G-C2G-O2G |
| 32  | 5     | 805  | 4RF  | O21-C20-C39-O40 |
| 33  | 3     | 808  | PTY  | O4-C1-C6-O7     |
| 38  | 2     | 807  | LMK  | O1-C7-C8-O7     |
| 25  | 2     | 801  | LHG  | C9-C10-C11-C12  |
| 21  | A     | 1113 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1216 | CLA  | O1A-CGA-O2A-C1  |
| 21  | 1     | 615  | CLA  | O1A-CGA-O2A-C1  |
| 39  | 2     | 808  | P3H  | O18-C17-O19-C20 |
| 21  | B     | 1224 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1110 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1220 | CLA  | C6-C7-C8-C10    |
| 27  | A     | 5004 | LMU  | O1'-C1-C2-C3    |
| 21  | A     | 1012 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1013 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1101 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1104 | CLA  | C14-C13-C15-C16 |
| 21  | A     | 1107 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1140 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1203 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1210 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1225 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1227 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1228 | CLA  | C11-C10-C8-C9   |
| 21  | 3     | 608  | CLA  | C11-C12-C13-C14 |
| 21  | 5     | 603  | CLA  | C11-C10-C8-C9   |
| 28  | B     | 5002 | DGD  | C7B-C8B-C9B-CAB |
| 31  | 3     | 803  | LMG  | C36-C37-C38-C39 |
| 21  | 1     | 611  | CLA  | O1A-CGA-O2A-C1  |
| 25  | 2     | 802  | LHG  | O10-C23-O8-C6   |
| 25  | A     | 5001 | LHG  | C7-C8-C9-C10    |
| 25  | B     | 5001 | LHG  | C14-C15-C16-C17 |
| 21  | B     | 1224 | CLA  | C8-C10-C11-C12  |
| 37  | 2     | 805  | SQD  | C5-C6-S-O8      |
| 37  | 3     | 806  | SQD  | C4-C5-C6-S      |
| 22  | B     | 2002 | PQN  | C26-C27-C28-C30 |
| 24  | A     | 4002 | BCR  | C37-C22-C23-C24 |
| 24  | A     | 4007 | BCR  | C7-C8-C9-C34    |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | K     | 4001 | BCR  | C7-C8-C9-C34    |
| 34  | 5     | 502  | LUT  | C27-C28-C29-C39 |
| 25  | 2     | 801  | LHG  | C12-C13-C14-C15 |
| 24  | A     | 4002 | BCR  | C21-C22-C23-C24 |
| 24  | A     | 4007 | BCR  | C7-C8-C9-C10    |
| 24  | J     | 4002 | BCR  | C21-C22-C23-C24 |
| 21  | B     | 1206 | CLA  | C1A-C2A-CAA-CBA |
| 21  | G     | 1603 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 1     | 607  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 1     | 608  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 1     | 611  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 2     | 606  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 2     | 608  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 5     | 607  | CLA  | C1A-C2A-CAA-CBA |
| 31  | F     | 5002 | LMG  | C10-C11-C12-C13 |
| 21  | A     | 1138 | CLA  | C15-C16-C17-C18 |
| 39  | 2     | 808  | P3H  | C28-O27-P24-O23 |
| 21  | A     | 1108 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1131 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1140 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1239 | CLA  | C2-C1-O2A-CGA   |
| 21  | 3     | 607  | CLA  | C2-C1-O2A-CGA   |
| 21  | 4     | 601  | CLA  | C2-C1-O2A-CGA   |
| 24  | A     | 4007 | BCR  | C9-C10-C11-C12  |
| 24  | B     | 4003 | BCR  | C13-C14-C15-C16 |
| 24  | J     | 4001 | BCR  | C19-C20-C21-C22 |
| 24  | H     | 4001 | BCR  | C19-C20-C21-C22 |
| 25  | A     | 5001 | LHG  | C3-O3-P-O6      |
| 25  | 1     | 802  | LHG  | C4-O6-P-O3      |
| 25  | 2     | 801  | LHG  | C3-O3-P-O6      |
| 33  | 3     | 808  | PTY  | C3-O11-P1-O14   |
| 21  | 3     | 605  | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1231 | CLA  | C3-C5-C6-C7     |
| 21  | 4     | 601  | CLA  | C3-C5-C6-C7     |
| 25  | A     | 5002 | LHG  | C2-C3-O3-P      |
| 25  | B     | 5001 | LHG  | C2-C3-O3-P      |
| 25  | F     | 5001 | LHG  | C2-C3-O3-P      |
| 25  | 1     | 802  | LHG  | C2-C3-O3-P      |
| 39  | 5     | 806  | P3H  | C21-C22-O23-P24 |
| 21  | G     | 1601 | CLA  | C2C-C3C-CAC-CBC |
| 25  | F     | 5001 | LHG  | C3-O3-P-O4      |
| 25  | F     | 5001 | LHG  | C4-O6-P-O5      |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | 2     | 801  | LHG  | C4-O6-P-O5      |
| 25  | 2     | 802  | LHG  | C3-O3-P-O5      |
| 25  | 2     | 803  | LHG  | C3-O3-P-O4      |
| 25  | 2     | 803  | LHG  | C4-O6-P-O4      |
| 25  | 6     | 801  | LHG  | C3-O3-P-O5      |
| 25  | 6     | 801  | LHG  | C4-O6-P-O5      |
| 33  | L     | 5003 | PTY  | C3-O11-P1-O12   |
| 33  | 1     | 806  | PTY  | C5-O14-P1-O12   |
| 33  | 1     | 806  | PTY  | C5-O14-P1-O13   |
| 33  | 5     | 803  | PTY  | C5-O14-P1-O12   |
| 39  | 5     | 806  | P3H  | C22-O23-P24-O25 |
| 21  | 3     | 608  | CLA  | C16-C17-C18-C20 |
| 21  | 6     | 603  | CLA  | C2C-C3C-CAC-CBC |
| 25  | 2     | 803  | LHG  | C9-C10-C11-C12  |
| 21  | B     | 1023 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1214 | CLA  | C8-C10-C11-C12  |
| 21  | A     | 1117 | CLA  | CBA-CGA-O2A-C1  |
| 25  | B     | 5001 | LHG  | O6-C4-C5-C6     |
| 25  | 1     | 801  | LHG  | O6-C4-C5-C6     |
| 25  | 2     | 801  | LHG  | O6-C4-C5-C6     |
| 25  | 5     | 801  | LHG  | O6-C4-C5-C6     |
| 27  | A     | 5005 | LMU  | C6-C7-C8-C9     |
| 25  | B     | 5001 | LHG  | O10-C23-O8-C6   |
| 21  | B     | 1209 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1211 | CLA  | C2A-CAA-CBA-CGA |
| 25  | F     | 5001 | LHG  | C35-C36-C37-C38 |
| 25  | 2     | 802  | LHG  | C18-C19-C20-C21 |
| 29  | 5     | 804  | 3PH  | C22-C23-C24-C25 |
| 21  | 6     | 601  | CLA  | C2C-C3C-CAC-CBC |
| 21  | A     | 1012 | CLA  | CAD-CBD-CGD-O1D |
| 21  | B     | 1212 | CLA  | CAD-CBD-CGD-O1D |
| 21  | B     | 1218 | CLA  | CAD-CBD-CGD-O1D |
| 21  | B     | 1223 | CLA  | CAD-CBD-CGD-O1D |
| 21  | K     | 1404 | CLA  | CAD-CBD-CGD-O1D |
| 21  | 4     | 606  | CLA  | CAD-CBD-CGD-O1D |
| 21  | 4     | 609  | CLA  | CAD-CBD-CGD-O1D |
| 25  | 2     | 803  | LHG  | C7-C8-C9-C10    |
| 32  | L     | 5002 | 4RF  | O21-C22-C24-C25 |
| 21  | A     | 1133 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1221 | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 607  | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1117 | CLA  | C13-C15-C16-C17 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 2     | 601  | CLA  | C5-C6-C7-C8     |
| 25  | 2     | 801  | LHG  | C11-C12-C13-C14 |
| 21  | B     | 1234 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1221 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1231 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1108 | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1101 | CLA  | C6-C7-C8-C10    |
| 21  | A     | 1104 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1107 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1109 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1112 | CLA  | C6-C7-C8-C10    |
| 21  | A     | 1112 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1125 | CLA  | C6-C7-C8-C10    |
| 21  | A     | 1138 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1139 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1023 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1202 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1203 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1225 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1227 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1228 | CLA  | C11-C10-C8-C7   |
| 21  | L     | 1501 | CLA  | C11-C10-C8-C7   |
| 21  | O     | 1801 | CLA  | CAD-CBD-CGD-O2D |
| 21  | 1     | 604  | CLA  | C6-C7-C8-C10    |
| 21  | 2     | 612  | CLA  | C11-C10-C8-C7   |
| 21  | 2     | 615  | CLA  | C11-C12-C13-C15 |
| 21  | 4     | 607  | CLA  | C11-C10-C8-C7   |
| 21  | 5     | 605  | CLA  | C12-C13-C15-C16 |
| 25  | B     | 5001 | LHG  | O6-C4-C5-O7     |
| 25  | 2     | 801  | LHG  | O6-C4-C5-O7     |
| 25  | 2     | 802  | LHG  | O6-C4-C5-O7     |
| 29  | B     | 5003 | 3PH  | O11-C1-C2-O21   |
| 29  | F     | 5003 | 3PH  | O11-C1-C2-O21   |
| 29  | 5     | 804  | 3PH  | O11-C1-C2-O21   |
| 34  | 4     | 501  | LUT  | C25-C26-C27-C28 |
| 36  | 1     | 609  | CHL  | C11-C10-C8-C7   |
| 39  | 5     | 806  | P3H  | C42-C43-C44-C45 |
| 24  | A     | 4002 | BCR  | C15-C16-C17-C18 |
| 32  | 5     | 805  | 4RF  | C24-C22-O21-C20 |
| 25  | 1     | 803  | LHG  | O2-C2-C3-O3     |
| 21  | 3     | 612  | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1111 | CLA  | C2A-CAA-CBA-CGA |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 6     | 605  | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1105 | CLA  | C11-C12-C13-C15 |
| 21  | L     | 1501 | CLA  | C16-C17-C18-C20 |
| 25  | B     | 5001 | LHG  | C11-C12-C13-C14 |
| 33  | O     | 5002 | PTY  | C31-C32-C33-C34 |
| 21  | 6     | 607  | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1136 | CLA  | C8-C10-C11-C12  |
| 29  | B     | 5003 | 3PH  | C1-C2-C3-O31    |
| 31  | 1     | 804  | LMG  | O1-C7-C8-C9     |
| 32  | 5     | 805  | 4RF  | O23-C22-O21-C20 |
| 28  | 3     | 805  | DGD  | O2G-C2G-C3G-O3G |
| 31  | F     | 5002 | LMG  | O7-C8-C9-O8     |
| 33  | 4     | 804  | PTY  | O4-C1-C6-O7     |
| 29  | F     | 5003 | 3PH  | C23-C24-C25-C26 |
| 21  | A     | 1107 | CLA  | C13-C15-C16-C17 |
| 25  | 2     | 802  | LHG  | C15-C16-C17-C18 |
| 37  | 3     | 806  | SQD  | C7-C8-C9-C10    |
| 29  | F     | 5003 | 3PH  | C39-C3A-C3B-C3C |
| 28  | 2     | 806  | DGD  | C2G-C3G-O3G-C1D |
| 31  | 4     | 803  | LMG  | C8-C7-O1-C1     |
| 21  | A     | 1114 | CLA  | C3-C5-C6-C7     |
| 20  | A     | 1011 | CL0  | CBA-CGA-O2A-C1  |
| 31  | 4     | 802  | LMG  | C14-C15-C16-C17 |
| 33  | 4     | 804  | PTY  | C16-C17-C18-C19 |
| 21  | A     | 1012 | CLA  | C14-C13-C15-C16 |
| 21  | A     | 1103 | CLA  | C14-C13-C15-C16 |
| 21  | A     | 1119 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1123 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1124 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1133 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1023 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1204 | CLA  | C11-C10-C8-C9   |
| 21  | L     | 1501 | CLA  | C11-C12-C13-C14 |
| 21  | 1     | 612  | CLA  | C11-C10-C8-C9   |
| 21  | 2     | 604  | CLA  | C11-C10-C8-C9   |
| 21  | 2     | 605  | CLA  | C11-C12-C13-C14 |
| 21  | 3     | 601  | CLA  | C11-C10-C8-C9   |
| 21  | 4     | 612  | CLA  | C11-C10-C8-C9   |
| 28  | B     | 5002 | DGD  | O1A-C1A-O1G-C1G |
| 38  | 4     | 805  | LMK  | O8-C28-C29-C30  |
| 21  | B     | 1213 | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1239 | CLA  | C3-C5-C6-C7     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | 1     | 603  | CLA  | C3-C5-C6-C7     |
| 21  | B     | 1231 | CLA  | C11-C12-C13-C15 |
| 36  | 6     | 610  | CHL  | C4C-C3C-CAC-CBC |
| 21  | B     | 1023 | CLA  | C2A-CAA-CBA-CGA |
| 21  | O     | 1803 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1116 | CLA  | CAA-CBA-CGA-O2A |
| 24  | A     | 4001 | BCR  | C10-C11-C12-C13 |
| 24  | A     | 4003 | BCR  | C18-C19-C20-C21 |
| 24  | A     | 4004 | BCR  | C18-C19-C20-C21 |
| 24  | H     | 4001 | BCR  | C18-C19-C20-C21 |
| 27  | A     | 5004 | LMU  | C4'-C5'-C6'-O6' |
| 21  | B     | 1220 | CLA  | C6-C7-C8-C9     |
| 21  | 4     | 609  | CLA  | C11-C12-C13-C15 |
| 29  | B     | 5003 | 3PH  | C29-C2A-C2B-C2C |
| 27  | A     | 5004 | LMU  | C2-C3-C4-C5     |
| 28  | B     | 5002 | DGD  | C6A-C7A-C8A-C9A |
| 27  | B     | 5004 | LMU  | C7-C8-C9-C10    |
| 21  | A     | 1120 | CLA  | C8-C10-C11-C12  |
| 21  | B     | 1210 | CLA  | C4-C3-C5-C6     |
| 21  | 6     | 607  | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1138 | CLA  | CAA-CBA-CGA-O2A |
| 25  | 2     | 801  | LHG  | O8-C23-C24-C25  |
| 21  | A     | 1123 | CLA  | C8-C10-C11-C12  |
| 21  | 4     | 607  | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1110 | CLA  | C6-C7-C8-C10    |
| 21  | 6     | 607  | CLA  | C11-C12-C13-C15 |
| 27  | 6     | 805  | LMU  | C9-C10-C11-C12  |
| 21  | B     | 1218 | CLA  | C10-C11-C12-C13 |
| 31  | 1     | 804  | LMG  | C11-C12-C13-C14 |
| 31  | 2     | 804  | LMG  | C9-C8-O7-C10    |
| 25  | A     | 5002 | LHG  | O6-C4-C5-C6     |
| 20  | A     | 1011 | CL0  | O1A-CGA-O2A-C1  |
| 25  | F     | 5001 | LHG  | C24-C23-O8-C6   |
| 21  | A     | 1102 | CLA  | C2-C1-O2A-CGA   |
| 21  | A     | 1135 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1210 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1234 | CLA  | C2-C1-O2A-CGA   |
| 21  | 2     | 601  | CLA  | C2-C1-O2A-CGA   |
| 21  | 2     | 608  | CLA  | C2-C1-O2A-CGA   |
| 21  | 5     | 603  | CLA  | C2-C1-O2A-CGA   |
| 21  | 1     | 608  | CLA  | C6-C7-C8-C9     |
| 33  | 1     | 805  | PTY  | C34-C35-C36-C37 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | O     | 1803 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1234 | CLA  | O1A-CGA-O2A-C1  |
| 25  | A     | 5001 | LHG  | C26-C27-C28-C29 |
| 29  | 5     | 804  | 3PH  | C25-C26-C27-C28 |
| 25  | 2     | 801  | LHG  | C2-C3-O3-P      |
| 25  | 6     | 801  | LHG  | C2-C3-O3-P      |
| 25  | A     | 5002 | LHG  | C32-C33-C34-C35 |
| 25  | A     | 5002 | LHG  | O6-C4-C5-O7     |
| 25  | 2     | 803  | LHG  | O6-C4-C5-O7     |
| 21  | B     | 1212 | CLA  | C6-C7-C8-C9     |
| 21  | 3     | 612  | CLA  | C4-C3-C5-C6     |
| 24  | A     | 4006 | BCR  | C23-C24-C25-C26 |
| 24  | J     | 4002 | BCR  | C23-C24-C25-C30 |
| 24  | I     | 4001 | BCR  | C23-C24-C25-C30 |
| 24  | 3     | 504  | BCR  | C23-C24-C25-C30 |
| 34  | 5     | 501  | LUT  | C1-C6-C7-C8     |
| 21  | 2     | 604  | CLA  | C10-C11-C12-C13 |
| 25  | F     | 5001 | LHG  | C30-C31-C32-C33 |
| 21  | A     | 1141 | CLA  | C2A-CAA-CBA-CGA |
| 27  | B     | 5004 | LMU  | C2'-C1'-O1'-C1  |
| 37  | 3     | 806  | SQD  | C2-C1-O6-C44    |
| 25  | 5     | 802  | LHG  | O7-C5-C6-O8     |
| 31  | 6     | 802  | LMG  | O7-C8-C9-O8     |
| 25  | B     | 5001 | LHG  | C12-C13-C14-C15 |
| 33  | 1     | 805  | PTY  | C31-C32-C33-C34 |
| 28  | B     | 5002 | DGD  | C2A-C1A-O1G-C1G |
| 25  | A     | 5002 | LHG  | C3-O3-P-O6      |
| 25  | 1     | 801  | LHG  | C3-O3-P-O6      |
| 25  | 1     | 802  | LHG  | C3-O3-P-O6      |
| 25  | 1     | 803  | LHG  | C3-O3-P-O6      |
| 25  | 1     | 803  | LHG  | C4-O6-P-O3      |
| 25  | 3     | 801  | LHG  | C3-O3-P-O6      |
| 25  | 4     | 801  | LHG  | C3-O3-P-O6      |
| 25  | 5     | 801  | LHG  | C3-O3-P-O6      |
| 25  | 5     | 802  | LHG  | C3-O3-P-O6      |
| 33  | 1     | 806  | PTY  | C3-O11-P1-O14   |
| 25  | 2     | 802  | LHG  | C7-C8-C9-C10    |
| 21  | A     | 1127 | CLA  | C13-C15-C16-C17 |
| 28  | 3     | 804  | DGD  | O1G-C1G-C2G-C3G |
| 21  | 6     | 608  | CLA  | C2C-C3C-CAC-CBC |
| 25  | A     | 5002 | LHG  | C28-C29-C30-C31 |
| 21  | 3     | 605  | CLA  | C15-C16-C17-C18 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1206 | CLA  | C12-C13-C15-C16 |
| 29  | B     | 5003 | 3PH  | C2A-C2B-C2C-C2D |
| 21  | A     | 1125 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1128 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1139 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1023 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1202 | CLA  | C11-C12-C13-C14 |
| 21  | 1     | 615  | CLA  | C11-C10-C8-C9   |
| 21  | 4     | 609  | CLA  | C6-C7-C8-C9     |
| 21  | 5     | 605  | CLA  | C14-C13-C15-C16 |
| 36  | 1     | 609  | CHL  | C11-C10-C8-C9   |
| 24  | B     | 4006 | BCR  | C19-C20-C21-C22 |
| 21  | A     | 1131 | CLA  | C16-C17-C18-C19 |
| 21  | B     | 1221 | CLA  | C16-C17-C18-C20 |
| 21  | L     | 1501 | CLA  | C16-C17-C18-C19 |
| 21  | 1     | 615  | CLA  | C11-C12-C13-C15 |
| 21  | 5     | 612  | CLA  | C4C-C3C-CAC-CBC |
| 29  | B     | 5003 | 3PH  | C2B-C2C-C2D-C2E |
| 21  | G     | 1601 | CLA  | C2A-CAA-CBA-CGA |
| 24  | K     | 4001 | BCR  | C11-C12-C13-C35 |
| 21  | A     | 1133 | CLA  | C16-C17-C18-C20 |
| 21  | 6     | 605  | CLA  | C16-C17-C18-C19 |
| 25  | 1     | 801  | LHG  | C2-C3-O3-P      |
| 25  | 5     | 801  | LHG  | C2-C3-O3-P      |
| 21  | L     | 1502 | CLA  | C15-C16-C17-C18 |
| 21  | 5     | 605  | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1116 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1204 | CLA  | C5-C6-C7-C8     |
| 31  | 4     | 802  | LMG  | C22-C23-C24-C25 |
| 21  | B     | 1207 | CLA  | C4-C3-C5-C6     |
| 25  | 1     | 801  | LHG  | C7-C8-C9-C10    |
| 25  | 1     | 802  | LHG  | O1-C1-C2-O2     |
| 21  | A     | 1140 | CLA  | C2-C3-C5-C6     |
| 21  | 4     | 609  | CLA  | C11-C12-C13-C14 |
| 21  | H     | 1701 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 3     | 601  | CLA  | CBA-CGA-O2A-C1  |
| 21  | A     | 1117 | CLA  | O1A-CGA-O2A-C1  |
| 21  | H     | 1701 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1132 | CLA  | C5-C6-C7-C8     |
| 21  | K     | 1401 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 1     | 602  | CLA  | C2A-CAA-CBA-CGA |
| 24  | F     | 4001 | BCR  | C13-C14-C15-C16 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | O     | 4001 | BCR  | C19-C20-C21-C22 |
| 24  | 3     | 506  | BCR  | C19-C20-C21-C22 |
| 34  | 6     | 501  | LUT  | C29-C30-C31-C32 |
| 25  | B     | 5001 | LHG  | C9-C10-C11-C12  |
| 33  | O     | 5002 | PTY  | O14-C5-C6-O7    |
| 29  | F     | 5003 | 3PH  | C21-C22-C23-C24 |
| 21  | A     | 1137 | CLA  | C4-C3-C5-C6     |
| 25  | A     | 5002 | LHG  | C33-C34-C35-C36 |
| 21  | H     | 1701 | CLA  | O1A-CGA-O2A-C1  |
| 38  | 4     | 805  | LMK  | C2-C3-C4-O2     |
| 21  | 5     | 602  | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1220 | CLA  | C2-C1-O2A-CGA   |
| 21  | B     | 1231 | CLA  | C2-C1-O2A-CGA   |
| 21  | 1     | 604  | CLA  | C2-C1-O2A-CGA   |
| 21  | 5     | 604  | CLA  | C2-C1-O2A-CGA   |
| 21  | 6     | 601  | CLA  | C10-C11-C12-C13 |
| 21  | 3     | 608  | CLA  | C16-C17-C18-C19 |
| 25  | 1     | 801  | LHG  | C31-C32-C33-C34 |
| 29  | 5     | 804  | 3PH  | C33-C34-C35-C36 |
| 21  | B     | 1210 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 5     | 602  | CLA  | C2A-CAA-CBA-CGA |
| 38  | 4     | 805  | LMK  | C8-C7-O1-C1     |
| 25  | 1     | 803  | LHG  | C25-C26-C27-C28 |
| 25  | A     | 5002 | LHG  | C25-C26-C27-C28 |
| 21  | H     | 1702 | CLA  | CAA-CBA-CGA-O1A |
| 21  | B     | 1218 | CLA  | C3A-C2A-CAA-CBA |
| 21  | K     | 1402 | CLA  | C3A-C2A-CAA-CBA |
| 21  | 2     | 605  | CLA  | C3A-C2A-CAA-CBA |
| 21  | 1     | 608  | CLA  | C6-C7-C8-C10    |
| 21  | 1     | 607  | CLA  | CAA-CBA-CGA-O2A |
| 24  | F     | 4002 | BCR  | C9-C10-C11-C12  |
| 32  | 5     | 805  | 4RF  | C11-C12-C13-C14 |
| 21  | 3     | 605  | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1112 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1116 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1136 | CLA  | C11-C12-C13-C14 |
| 21  | 1     | 611  | CLA  | C11-C10-C8-C9   |
| 21  | 4     | 601  | CLA  | C11-C10-C8-C9   |
| 21  | 6     | 601  | CLA  | C11-C10-C8-C9   |
| 24  | A     | 4004 | BCR  | C16-C17-C18-C36 |
| 24  | A     | 4006 | BCR  | C16-C17-C18-C36 |
| 24  | A     | 4007 | BCR  | C16-C17-C18-C36 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 24  | F     | 4002 | BCR  | C16-C17-C18-C36 |
| 24  | G     | 4001 | BCR  | C35-C13-C14-C15 |
| 24  | G     | 4001 | BCR  | C16-C17-C18-C36 |
| 24  | H     | 4001 | BCR  | C20-C21-C22-C37 |
| 24  | I     | 4001 | BCR  | C35-C13-C14-C15 |
| 24  | I     | 4002 | BCR  | C11-C10-C9-C34  |
| 24  | 3     | 506  | BCR  | C35-C13-C14-C15 |
| 24  | 3     | 506  | BCR  | C16-C17-C18-C36 |
| 25  | 6     | 801  | LHG  | C4-C5-C6-O8     |
| 28  | B     | 5002 | DGD  | O1G-C1G-C2G-C3G |
| 29  | F     | 5003 | 3PH  | C1-C2-C3-O31    |
| 33  | 3     | 807  | PTY  | O4-C1-C6-C5     |
| 34  | 1     | 501  | LUT  | C40-C33-C34-C35 |
| 34  | 5     | 503  | LUT  | C40-C33-C34-C35 |
| 21  | 1     | 601  | CLA  | C2A-CAA-CBA-CGA |
| 33  | 1     | 805  | PTY  | C12-C13-C14-C15 |
| 37  | 2     | 805  | SQD  | C32-C33-C34-C35 |
| 21  | 1     | 615  | CLA  | C11-C12-C13-C14 |
| 21  | 6     | 607  | CLA  | C11-C12-C13-C14 |
| 24  | O     | 4001 | BCR  | C11-C12-C13-C35 |
| 24  | O     | 4001 | BCR  | C37-C22-C23-C24 |
| 24  | 3     | 503  | BCR  | C11-C12-C13-C35 |
| 26  | A     | 5003 | OCD  | C10-C11-C12-C13 |
| 28  | B     | 5002 | DGD  | CCB-CDB-CEB-CFB |
| 39  | 2     | 808  | P3H  | C28-O27-P24-O25 |
| 37  | 3     | 806  | SQD  | C46-C45-O47-C7  |
| 21  | 5     | 605  | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1107 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1129 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1130 | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1140 | CLA  | C1A-C2A-CAA-CBA |
| 21  | 1     | 604  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 4     | 606  | CLA  | C1A-C2A-CAA-CBA |
| 21  | A     | 1117 | CLA  | C11-C12-C13-C15 |
| 21  | A     | 1133 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1207 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1211 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1218 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1237 | CLA  | C6-C7-C8-C10    |
| 21  | 1     | 605  | CLA  | C11-C12-C13-C15 |
| 21  | 2     | 601  | CLA  | C12-C13-C15-C16 |
| 21  | 5     | 604  | CLA  | C6-C7-C8-C10    |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 36  | 5     | 609  | CHL  | C11-C10-C8-C7   |
| 39  | 2     | 808  | P3H  | C43-C44-C45-C46 |
| 21  | B     | 1023 | CLA  | C10-C11-C12-C13 |
| 21  | 2     | 601  | CLA  | C8-C10-C11-C12  |
| 24  | A     | 4006 | BCR  | C13-C14-C15-C16 |
| 24  | B     | 4002 | BCR  | C15-C16-C17-C18 |
| 24  | L     | 4001 | BCR  | C13-C14-C15-C16 |
| 24  | 4     | 503  | BCR  | C15-C16-C17-C18 |
| 34  | 5     | 504  | LUT  | C29-C30-C31-C32 |
| 27  | A     | 5004 | LMU  | C9-C10-C11-C12  |
| 32  | L     | 5002 | 4RF  | C46-C47-C48-C49 |
| 21  | B     | 1239 | CLA  | CAA-CBA-CGA-O2A |
| 25  | F     | 5001 | LHG  | O10-C23-O8-C6   |
| 33  | 1     | 805  | PTY  | C6-C5-O14-P1    |
| 21  | 3     | 605  | CLA  | C5-C6-C7-C8     |
| 21  | K     | 1404 | CLA  | CAA-CBA-CGA-O1A |
| 21  | A     | 1122 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1136 | CLA  | C4-C3-C5-C6     |
| 21  | G     | 1601 | CLA  | C4C-C3C-CAC-CBC |
| 21  | K     | 1401 | CLA  | C2C-C3C-CAC-CBC |
| 21  | K     | 1404 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1110 | CLA  | C5-C6-C7-C8     |
| 21  | B     | 1232 | CLA  | C5-C6-C7-C8     |
| 29  | B     | 5003 | 3PH  | C23-C24-C25-C26 |
| 25  | 5     | 801  | LHG  | C29-C30-C31-C32 |
| 24  | A     | 4004 | BCR  | C16-C17-C18-C19 |
| 24  | A     | 4006 | BCR  | C16-C17-C18-C19 |
| 24  | A     | 4007 | BCR  | C16-C17-C18-C19 |
| 24  | F     | 4002 | BCR  | C16-C17-C18-C19 |
| 24  | G     | 4001 | BCR  | C12-C13-C14-C15 |
| 24  | G     | 4001 | BCR  | C16-C17-C18-C19 |
| 24  | H     | 4001 | BCR  | C20-C21-C22-C23 |
| 24  | I     | 4001 | BCR  | C12-C13-C14-C15 |
| 24  | I     | 4002 | BCR  | C11-C10-C9-C8   |
| 24  | 3     | 506  | BCR  | C12-C13-C14-C15 |
| 24  | 3     | 506  | BCR  | C16-C17-C18-C19 |
| 34  | 1     | 501  | LUT  | C32-C33-C34-C35 |
| 34  | 5     | 503  | LUT  | C32-C33-C34-C35 |
| 25  | 1     | 801  | LHG  | O7-C5-C6-O8     |
| 28  | 3     | 805  | DGD  | O1G-C1G-C2G-O2G |
| 33  | 5     | 803  | PTY  | O4-C1-C6-O7     |
| 21  | 6     | 613  | CLA  | C2A-CAA-CBA-CGA |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | 2     | 803  | LHG  | C26-C27-C28-C29 |
| 24  | A     | 4001 | BCR  | C19-C20-C21-C22 |
| 24  | H     | 4001 | BCR  | C15-C16-C17-C18 |
| 28  | B     | 5002 | DGD  | C3A-C4A-C5A-C6A |
| 33  | 4     | 804  | PTY  | C14-C15-C16-C17 |
| 21  | 3     | 603  | CLA  | C4-C3-C5-C6     |
| 25  | 5     | 801  | LHG  | C18-C19-C20-C21 |
| 21  | B     | 1238 | CLA  | C2-C1-O2A-CGA   |
| 36  | 1     | 609  | CHL  | C2-C1-O2A-CGA   |
| 21  | 5     | 605  | CLA  | C2-C3-C5-C6     |
| 21  | 6     | 607  | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1123 | CLA  | O1A-CGA-O2A-C1  |
| 21  | B     | 1210 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1117 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1117 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1218 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1240 | CLA  | C14-C13-C15-C16 |
| 25  | A     | 5002 | LHG  | C24-C23-O8-C6   |
| 25  | A     | 5002 | LHG  | O10-C23-O8-C6   |
| 21  | 4     | 612  | CLA  | C10-C11-C12-C13 |
| 21  | 5     | 605  | CLA  | C2A-CAA-CBA-CGA |
| 25  | 6     | 801  | LHG  | O10-C23-C24-C25 |
| 24  | A     | 4007 | BCR  | C1-C6-C7-C8     |
| 24  | B     | 4003 | BCR  | C23-C24-C25-C30 |
| 24  | F     | 4002 | BCR  | C1-C6-C7-C8     |
| 24  | I     | 4001 | BCR  | C23-C24-C25-C26 |
| 34  | 1     | 501  | LUT  | C1-C6-C7-C8     |
| 34  | 5     | 501  | LUT  | C5-C6-C7-C8     |
| 25  | B     | 5001 | LHG  | C27-C28-C29-C30 |
| 21  | 5     | 601  | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1202 | CLA  | C4-C3-C5-C6     |
| 21  | 1     | 611  | CLA  | C4-C3-C5-C6     |
| 21  | 4     | 607  | CLA  | C4-C3-C5-C6     |
| 24  | K     | 4001 | BCR  | C17-C18-C19-C20 |
| 34  | 5     | 502  | LUT  | C27-C28-C29-C30 |
| 21  | B     | 1210 | CLA  | C2-C3-C5-C6     |
| 21  | 3     | 612  | CLA  | C2-C3-C5-C6     |
| 21  | 6     | 604  | CLA  | C2-C3-C5-C6     |
| 21  | 6     | 609  | CLA  | CAA-CBA-CGA-O1A |
| 31  | 3     | 803  | LMG  | O10-C28-O8-C9   |
| 28  | 2     | 806  | DGD  | C5D-C6D-O5D-C1E |
| 31  | F     | 5002 | LMG  | C8-C7-O1-C1     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 31  | 3     | 802  | LMG  | C8-C7-O1-C1     |
| 21  | B     | 1229 | CLA  | C13-C15-C16-C17 |
| 27  | A     | 5005 | LMU  | C4'-C5'-C6'-O6' |
| 21  | A     | 1126 | CLA  | C3-C5-C6-C7     |
| 25  | 1     | 803  | LHG  | C26-C27-C28-C29 |
| 21  | 2     | 603  | CLA  | C8-C10-C11-C12  |
| 39  | 5     | 806  | P3H  | O39-C21-C22-O23 |
| 21  | A     | 1122 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1239 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 6     | 608  | CLA  | C2A-CAA-CBA-CGA |
| 25  | 3     | 801  | LHG  | C4-C5-O7-C7     |
| 25  | 3     | 801  | LHG  | C6-C5-O7-C7     |
| 25  | B     | 5001 | LHG  | C24-C25-C26-C27 |
| 21  | A     | 1108 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1117 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1124 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1125 | CLA  | C12-C13-C15-C16 |
| 21  | B     | 1204 | CLA  | C11-C10-C8-C7   |
| 21  | 3     | 612  | CLA  | C11-C10-C8-C7   |
| 21  | 4     | 607  | CLA  | C6-C7-C8-C10    |
| 21  | 5     | 614  | CLA  | C6-C7-C8-C10    |
| 21  | 6     | 601  | CLA  | C11-C10-C8-C7   |
| 21  | 6     | 613  | CLA  | CAA-CBA-CGA-O1A |
| 25  | 2     | 802  | LHG  | C26-C27-C28-C29 |
| 25  | 5     | 801  | LHG  | O1-C1-C2-O2     |
| 33  | 5     | 803  | PTY  | C34-C35-C36-C37 |
| 24  | F     | 4001 | BCR  | C19-C20-C21-C22 |
| 24  | K     | 4001 | BCR  | C13-C14-C15-C16 |
| 21  | 6     | 613  | CLA  | CAA-CBA-CGA-O2A |
| 25  | 4     | 801  | LHG  | C5-C4-O6-P      |
| 29  | 5     | 804  | 3PH  | C24-C25-C26-C27 |
| 27  | A     | 5004 | LMU  | C7-C8-C9-C10    |
| 31  | 3     | 803  | LMG  | C15-C16-C17-C18 |
| 21  | K     | 1402 | CLA  | C3-C5-C6-C7     |
| 21  | A     | 1125 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 5     | 603  | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1230 | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1128 | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1133 | CLA  | C16-C17-C18-C19 |
| 21  | 6     | 605  | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1123 | CLA  | CBA-CGA-O2A-C1  |
| 29  | 5     | 807  | 3PH  | C1-O11-P-O14    |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 35  | 1     | 502  | XAT  | C20-C13-C14-C15 |
| 21  | A     | 1126 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 1     | 615  | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1212 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1215 | CLA  | C4-C3-C5-C6     |
| 27  | A     | 5005 | LMU  | C5-C6-C7-C8     |
| 33  | 6     | 804  | PTY  | C3-O11-P1-O14   |
| 21  | 1     | 604  | CLA  | C2-C3-C5-C6     |
| 25  | A     | 5002 | LHG  | O7-C7-C8-C9     |
| 21  | A     | 1106 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1109 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1138 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1206 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1211 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1218 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1237 | CLA  | C6-C7-C8-C9     |
| 21  | 2     | 612  | CLA  | C11-C10-C8-C9   |
| 21  | 2     | 615  | CLA  | C11-C12-C13-C14 |
| 21  | 4     | 601  | CLA  | C3A-C2A-CAA-CBA |
| 21  | B     | 1022 | CLA  | O1A-CGA-O2A-C1  |
| 21  | A     | 1127 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1136 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 4     | 601  | CLA  | CAA-CBA-CGA-O2A |
| 37  | 2     | 805  | SQD  | O48-C23-C24-C25 |
| 21  | A     | 1140 | CLA  | CAD-CBD-CGD-O2D |
| 21  | G     | 1603 | CLA  | CAD-CBD-CGD-O2D |
| 21  | 4     | 607  | CLA  | CAD-CBD-CGD-O2D |
| 21  | 6     | 605  | CLA  | CAD-CBD-CGD-O2D |
| 21  | 6     | 609  | CLA  | CAD-CBD-CGD-O2D |
| 36  | 5     | 610  | CHL  | CAD-CBD-CGD-O2D |
| 25  | 1     | 801  | LHG  | C30-C31-C32-C33 |
| 27  | A     | 5005 | LMU  | C9-C10-C11-C12  |
| 21  | A     | 1121 | CLA  | C10-C11-C12-C13 |
| 29  | 5     | 804  | 3PH  | O22-C21-O21-C2  |
| 21  | K     | 1401 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1121 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 3     | 602  | CLA  | CAA-CBA-CGA-O2A |
| 21  | 3     | 611  | CLA  | CAA-CBA-CGA-O2A |
| 31  | 3     | 803  | LMG  | C34-C35-C36-C37 |
| 36  | 2     | 609  | CHL  | C4-C3-C5-C6     |
| 21  | A     | 1136 | CLA  | C2-C3-C5-C6     |
| 21  | 4     | 607  | CLA  | C2-C3-C5-C6     |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1210 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1235 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 1     | 603  | CLA  | CAA-CBA-CGA-O2A |
| 24  | H     | 4001 | BCR  | C11-C12-C13-C14 |
| 24  | K     | 4001 | BCR  | C7-C8-C9-C10    |
| 24  | K     | 4001 | BCR  | C11-C12-C13-C14 |
| 24  | O     | 4001 | BCR  | C11-C12-C13-C14 |
| 39  | 2     | 808  | P3H  | C48-C49-C50-C51 |
| 33  | 1     | 805  | PTY  | C33-C34-C35-C36 |
| 28  | 3     | 805  | DGD  | C1G-C2G-C3G-O3G |
| 31  | 6     | 802  | LMG  | C7-C8-C9-O8     |
| 37  | 2     | 805  | SQD  | O6-C44-C45-C46  |
| 21  | B     | 1210 | CLA  | CBA-CGA-O2A-C1  |
| 21  | 4     | 603  | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 604  | CLA  | C10-C11-C12-C13 |
| 21  | B     | 1207 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 3     | 613  | CLA  | CAA-CBA-CGA-O2A |
| 29  | B     | 5003 | 3PH  | O21-C21-C22-C23 |
| 36  | 3     | 604  | CHL  | CAA-CBA-CGA-O2A |
| 21  | B     | 1023 | CLA  | C16-C17-C18-C20 |
| 21  | B     | 1221 | CLA  | O2A-C1-C2-C3    |
| 36  | 4     | 613  | CHL  | O2A-C1-C2-C3    |
| 21  | A     | 1136 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1222 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1120 | CLA  | C10-C11-C12-C13 |
| 31  | 4     | 802  | LMG  | C32-C33-C34-C35 |
| 21  | 2     | 603  | CLA  | CAA-CBA-CGA-O2A |
| 21  | 4     | 609  | CLA  | CAA-CBA-CGA-O2A |
| 25  | 2     | 803  | LHG  | O10-C23-C24-C25 |
| 25  | 1     | 801  | LHG  | C35-C36-C37-C38 |
| 25  | F     | 5001 | LHG  | O9-C7-C8-C9     |
| 21  | A     | 1103 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1104 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1104 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1131 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1133 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1134 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1134 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1136 | CLA  | CHA-CBD-CGD-O1D |
| 21  | A     | 1136 | CLA  | CHA-CBD-CGD-O2D |
| 21  | A     | 1141 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1203 | CLA  | CHA-CBD-CGD-O2D |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1212 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1214 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1214 | CLA  | CHA-CBD-CGD-O2D |
| 21  | B     | 1228 | CLA  | CHA-CBD-CGD-O1D |
| 21  | B     | 1228 | CLA  | CHA-CBD-CGD-O2D |
| 21  | K     | 1401 | CLA  | CHA-CBD-CGD-O1D |
| 21  | K     | 1401 | CLA  | CHA-CBD-CGD-O2D |
| 21  | K     | 1403 | CLA  | CHA-CBD-CGD-O1D |
| 21  | K     | 1403 | CLA  | CHA-CBD-CGD-O2D |
| 21  | L     | 1501 | CLA  | CHA-CBD-CGD-O1D |
| 21  | L     | 1501 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 604  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 613  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 1     | 613  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 605  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 605  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 606  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 608  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 3     | 613  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 615  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 615  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 4     | 607  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 4     | 608  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 4     | 608  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 4     | 615  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 4     | 615  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 602  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 5     | 602  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 606  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 607  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 5     | 607  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 612  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 5     | 613  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 601  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 605  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 606  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 608  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 608  | CLA  | CHA-CBD-CGD-O2D |
| 21  | 6     | 612  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 613  | CLA  | CHA-CBD-CGD-O1D |
| 21  | 6     | 613  | CLA  | CHA-CBD-CGD-O2D |
| 24  | 3     | 504  | BCR  | C15-C16-C17-C18 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 36  | 2     | 610  | CHL  | CHA-CBD-CGD-O1D |
| 36  | 2     | 610  | CHL  | CHA-CBD-CGD-O2D |
| 36  | 4     | 610  | CHL  | CHA-CBD-CGD-O1D |
| 36  | 4     | 610  | CHL  | CHA-CBD-CGD-O2D |
| 36  | 4     | 613  | CHL  | CHA-CBD-CGD-O1D |
| 36  | 4     | 613  | CHL  | CHA-CBD-CGD-O2D |
| 21  | 5     | 601  | CLA  | CAA-CBA-CGA-O1A |
| 21  | B     | 1236 | CLA  | CAA-CBA-CGA-O2A |
| 25  | 2     | 801  | LHG  | C11-C10-C9-C8   |
| 21  | A     | 1105 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1115 | CLA  | CAA-CBA-CGA-O2A |
| 21  | K     | 1402 | CLA  | CAA-CBA-CGA-O2A |
| 21  | L     | 1504 | CLA  | CAA-CBA-CGA-O2A |
| 25  | 1     | 801  | LHG  | O7-C7-C8-C9     |
| 28  | B     | 5002 | DGD  | O2G-C2G-C3G-O3G |
| 37  | 2     | 805  | SQD  | O47-C45-C46-O48 |
| 21  | A     | 1102 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1122 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1237 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 2     | 601  | CLA  | CAA-CBA-CGA-O2A |
| 33  | 5     | 803  | PTY  | C12-C11-C8-O7   |
| 21  | 4     | 605  | CLA  | CAA-CBA-CGA-O2A |
| 33  | 4     | 804  | PTY  | C12-C11-C8-O7   |
| 39  | 2     | 808  | P3H  | C15-C16-C17-O19 |
| 28  | B     | 5002 | DGD  | C3B-C4B-C5B-C6B |
| 21  | A     | 1101 | CLA  | C11-C10-C8-C7   |
| 21  | A     | 1109 | CLA  | C6-C7-C8-C10    |
| 21  | B     | 1207 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1212 | CLA  | C2-C3-C5-C6     |
| 21  | B     | 1215 | CLA  | C6-C7-C8-C10    |
| 21  | H     | 1701 | CLA  | C11-C10-C8-C7   |
| 36  | 2     | 609  | CHL  | C2-C3-C5-C6     |
| 21  | A     | 1129 | CLA  | C6-C7-C8-C10    |
| 21  | A     | 1131 | CLA  | C16-C17-C18-C20 |
| 21  | 3     | 606  | CLA  | C6-C7-C8-C10    |
| 25  | 2     | 802  | LHG  | C5-C4-O6-P      |
| 21  | K     | 1401 | CLA  | CAA-CBA-CGA-O1A |
| 27  | A     | 5004 | LMU  | C4-C5-C6-C7     |
| 21  | A     | 1101 | CLA  | C11-C10-C8-C9   |
| 21  | A     | 1125 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1022 | CLA  | C11-C12-C13-C14 |
| 21  | B     | 1022 | CLA  | C14-C13-C15-C16 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | B     | 1211 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1225 | CLA  | C14-C13-C15-C16 |
| 21  | 1     | 604  | CLA  | C6-C7-C8-C9     |
| 21  | 1     | 605  | CLA  | C11-C12-C13-C14 |
| 21  | 2     | 601  | CLA  | C14-C13-C15-C16 |
| 21  | 4     | 607  | CLA  | C11-C10-C8-C9   |
| 21  | 5     | 603  | CLA  | CAA-CBA-CGA-O1A |
| 25  | A     | 5002 | LHG  | C24-C25-C26-C27 |
| 21  | G     | 1603 | CLA  | CAA-CBA-CGA-O2A |
| 33  | 5     | 803  | PTY  | C11-C12-C13-C14 |
| 29  | F     | 5003 | 3PH  | O21-C21-C22-C23 |
| 31  | 1     | 804  | LMG  | O8-C28-C29-C30  |
| 31  | 6     | 802  | LMG  | O7-C10-C11-C12  |
| 36  | 6     | 610  | CHL  | CAA-CBA-CGA-O2A |
| 21  | A     | 1132 | CLA  | C2A-CAA-CBA-CGA |
| 21  | L     | 1501 | CLA  | C2A-CAA-CBA-CGA |
| 29  | B     | 5003 | 3PH  | C28-C29-C2A-C2B |
| 31  | 2     | 804  | LMG  | C33-C34-C35-C36 |
| 33  | 5     | 803  | PTY  | C39-C40-C41-C42 |
| 21  | B     | 1207 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 4     | 601  | CLA  | CAA-CBA-CGA-O1A |
| 21  | B     | 1240 | CLA  | C8-C10-C11-C12  |
| 25  | 2     | 802  | LHG  | O8-C23-C24-C25  |
| 21  | B     | 1236 | CLA  | CAA-CBA-CGA-O1A |
| 25  | A     | 5002 | LHG  | O9-C7-C8-C9     |
| 21  | B     | 1022 | CLA  | CBA-CGA-O2A-C1  |
| 21  | B     | 1240 | CLA  | C13-C15-C16-C17 |
| 21  | A     | 1141 | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1022 | CLA  | C1A-C2A-CAA-CBA |
| 21  | K     | 1404 | CLA  | C1A-C2A-CAA-CBA |
| 21  | O     | 1802 | CLA  | CHA-CBD-CGD-O2D |
| 21  | 1     | 613  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 2     | 605  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 3     | 602  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 3     | 607  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 3     | 608  | CLA  | C1A-C2A-CAA-CBA |
| 21  | 6     | 609  | CLA  | C1A-C2A-CAA-CBA |
| 21  | B     | 1210 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 3     | 613  | CLA  | CAA-CBA-CGA-O1A |
| 21  | 1     | 611  | CLA  | C5-C6-C7-C8     |
| 25  | 2     | 801  | LHG  | C24-C25-C26-C27 |
| 21  | A     | 1105 | CLA  | CAA-CBA-CGA-O1A |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1121 | CLA  | CAA-CBA-CGA-O1A |
| 21  | A     | 1125 | CLA  | CAA-CBA-CGA-O1A |
| 21  | A     | 1136 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 1     | 615  | CLA  | CAA-CBA-CGA-O1A |
| 21  | 3     | 601  | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1204 | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1217 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 6     | 602  | CLA  | C2A-CAA-CBA-CGA |
| 25  | 2     | 801  | LHG  | C10-C11-C12-C13 |
| 21  | B     | 1237 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 3     | 611  | CLA  | CAA-CBA-CGA-O1A |
| 21  | 4     | 609  | CLA  | CAA-CBA-CGA-O1A |
| 29  | B     | 5003 | 3PH  | O22-C21-C22-C23 |
| 21  | B     | 1235 | CLA  | C8-C10-C11-C12  |
| 31  | 4     | 803  | LMG  | C11-C12-C13-C14 |
| 21  | 5     | 613  | CLA  | CAA-CBA-CGA-O1A |
| 31  | 4     | 803  | LMG  | O8-C28-C29-C30  |
| 21  | A     | 1137 | CLA  | C5-C6-C7-C8     |
| 21  | A     | 1115 | CLA  | CAA-CBA-CGA-O1A |
| 21  | A     | 1122 | CLA  | CAA-CBA-CGA-O1A |
| 21  | A     | 1127 | CLA  | CAA-CBA-CGA-O1A |
| 21  | B     | 1215 | CLA  | C2-C3-C5-C6     |
| 25  | A     | 5002 | LHG  | C14-C15-C16-C17 |
| 21  | A     | 1121 | CLA  | C4C-C3C-CAC-CBC |
| 22  | A     | 2001 | PQN  | C3-C11-C12-C13  |
| 25  | 3     | 801  | LHG  | C3-O3-P-O5      |
| 25  | 5     | 802  | LHG  | C3-O3-P-O5      |
| 33  | O     | 5002 | PTY  | C3-O11-P1-O13   |
| 21  | 2     | 603  | CLA  | CAA-CBA-CGA-O1A |
| 25  | 1     | 801  | LHG  | O9-C7-C8-C9     |
| 36  | 3     | 604  | CHL  | CAA-CBA-CGA-O1A |
| 37  | 2     | 805  | SQD  | O10-C23-C24-C25 |
| 33  | 1     | 806  | PTY  | N1-C2-C3-O11    |
| 21  | K     | 1402 | CLA  | CAA-CBA-CGA-O1A |
| 21  | L     | 1504 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 1     | 603  | CLA  | CAA-CBA-CGA-O1A |
| 29  | F     | 5003 | 3PH  | O22-C21-C22-C23 |
| 31  | 6     | 802  | LMG  | O9-C10-C11-C12  |
| 39  | 2     | 808  | P3H  | C15-C16-C17-O18 |
| 21  | 5     | 613  | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1021 | CLA  | C16-C17-C18-C19 |
| 21  | 1     | 603  | CLA  | C11-C12-C13-C15 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 21  | A     | 1112 | CLA  | C2C-C3C-CAC-CBC |
| 35  | 1     | 502  | XAT  | C30-C31-C32-C33 |
| 25  | 2     | 801  | LHG  | C7-C8-C9-C10    |
| 21  | A     | 1101 | CLA  | C2A-CAA-CBA-CGA |
| 21  | 2     | 605  | CLA  | C2A-CAA-CBA-CGA |
| 21  | 4     | 606  | CLA  | C2A-CAA-CBA-CGA |
| 21  | B     | 1237 | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 603  | CLA  | C4C-C3C-CAC-CBC |
| 21  | G     | 1602 | CLA  | CAA-CBA-CGA-O2A |
| 25  | A     | 5002 | LHG  | O8-C23-C24-C25  |
| 21  | A     | 1102 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 3     | 602  | CLA  | CAA-CBA-CGA-O1A |
| 33  | 5     | 803  | PTY  | C12-C11-C8-O10  |
| 21  | A     | 1101 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1211 | CLA  | C4-C3-C5-C6     |
| 25  | 5     | 801  | LHG  | C14-C15-C16-C17 |
| 21  | A     | 1118 | CLA  | CAD-CBD-CGD-O1D |
| 21  | A     | 1131 | CLA  | CAD-CBD-CGD-O1D |
| 21  | A     | 1138 | CLA  | CAD-CBD-CGD-O1D |
| 21  | B     | 1022 | CLA  | CAD-CBD-CGD-O1D |
| 21  | B     | 1203 | CLA  | CAD-CBD-CGD-O1D |
| 21  | B     | 1214 | CLA  | CAD-CBD-CGD-O1D |
| 21  | G     | 1601 | CLA  | CAD-CBD-CGD-O1D |
| 21  | 1     | 605  | CLA  | CAD-CBD-CGD-O1D |
| 21  | 2     | 607  | CLA  | CAD-CBD-CGD-O1D |
| 33  | 6     | 804  | PTY  | C2-C3-O11-P1    |
| 31  | 4     | 802  | LMG  | C10-C11-C12-C13 |
| 21  | B     | 1235 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 2     | 601  | CLA  | CAA-CBA-CGA-O1A |
| 21  | 6     | 606  | CLA  | CAA-CBA-CGA-O2A |
| 21  | 4     | 601  | CLA  | C10-C11-C12-C13 |
| 21  | A     | 1109 | CLA  | C6-C7-C8-C9     |
| 21  | A     | 1111 | CLA  | C11-C12-C13-C14 |
| 21  | A     | 1133 | CLA  | C14-C13-C15-C16 |
| 21  | B     | 1215 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1229 | CLA  | C6-C7-C8-C9     |
| 21  | B     | 1230 | CLA  | C11-C10-C8-C9   |
| 21  | B     | 1231 | CLA  | C6-C7-C8-C9     |
| 21  | 6     | 604  | CLA  | C11-C10-C8-C9   |
| 32  | L     | 5002 | 4RF  | C48-C49-C50-C51 |
| 26  | A     | 5003 | OCD  | C15-C16-C17-C18 |
| 21  | B     | 1206 | CLA  | C8-C10-C11-C12  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 25  | 1     | 802  | LHG  | O10-C23-C24-C25 |
| 25  | 2     | 802  | LHG  | O10-C23-C24-C25 |
| 21  | B     | 1202 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1220 | CLA  | CAA-CBA-CGA-O2A |
| 21  | L     | 1503 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 1     | 605  | CLA  | CAA-CBA-CGA-O2A |
| 21  | 4     | 602  | CLA  | CAA-CBA-CGA-O2A |
| 25  | 4     | 801  | LHG  | O8-C23-C24-C25  |
| 28  | 2     | 806  | DGD  | O1G-C1A-C2A-C3A |
| 39  | 2     | 808  | P3H  | O39-C40-C42-C43 |
| 21  | G     | 1603 | CLA  | CAA-CBA-CGA-O1A |
| 32  | 5     | 805  | 4RF  | C09-C10-C11-C12 |
| 21  | A     | 1116 | CLA  | C2A-CAA-CBA-CGA |
| 21  | A     | 1131 | CLA  | CAA-CBA-CGA-O2A |
| 21  | F     | 1301 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 2     | 608  | CLA  | CAA-CBA-CGA-O2A |
| 21  | 3     | 606  | CLA  | CAA-CBA-CGA-O2A |
| 28  | 3     | 805  | DGD  | O1G-C1A-C2A-C3A |
| 28  | B     | 5002 | DGD  | CAA-CBA-CCA-CDA |
| 21  | A     | 1131 | CLA  | CAA-CBA-CGA-O1A |
| 21  | B     | 1217 | CLA  | C4-C3-C5-C6     |
| 21  | B     | 1227 | CLA  | C4-C3-C5-C6     |
| 21  | 6     | 604  | CLA  | C4-C3-C5-C6     |
| 21  | A     | 1107 | CLA  | C12-C13-C15-C16 |
| 21  | A     | 1121 | CLA  | C3A-C2A-CAA-CBA |
| 21  | A     | 1137 | CLA  | C2-C3-C5-C6     |
| 21  | A     | 1137 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1022 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1211 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1218 | CLA  | C11-C12-C13-C15 |
| 21  | B     | 1222 | CLA  | C11-C10-C8-C7   |
| 21  | B     | 1229 | CLA  | C6-C7-C8-C10    |
| 21  | O     | 1801 | CLA  | CHA-CBD-CGD-O1D |
| 21  | 3     | 603  | CLA  | C2-C3-C5-C6     |
| 21  | 3     | 611  | CLA  | C6-C7-C8-C10    |
| 21  | 5     | 604  | CLA  | C12-C13-C15-C16 |
| 21  | 5     | 605  | CLA  | C11-C12-C13-C15 |
| 22  | B     | 2002 | PQN  | C21-C22-C23-C25 |
| 21  | 4     | 605  | CLA  | CAA-CBA-CGA-O1A |
| 21  | 6     | 603  | CLA  | CAA-CBA-CGA-O1A |
| 31  | 4     | 803  | LMG  | O10-C28-C29-C30 |
| 33  | 4     | 804  | PTY  | C12-C11-C8-O10  |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 20  | A     | 1011 | CL0  | CAA-CBA-CGA-O2A |
| 21  | A     | 1135 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1023 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 4     | 608  | CLA  | CAA-CBA-CGA-O2A |
| 24  | A     | 4001 | BCR  | C7-C8-C9-C10    |
| 24  | B     | 4005 | BCR  | C11-C12-C13-C14 |
| 24  | B     | 4006 | BCR  | C21-C22-C23-C24 |
| 24  | 3     | 503  | BCR  | C11-C12-C13-C14 |
| 35  | 6     | 504  | XAT  | C31-C32-C33-C34 |
| 21  | 4     | 602  | CLA  | CAA-CBA-CGA-O1A |
| 34  | 5     | 503  | LUT  | C33-C34-C35-C15 |
| 29  | 5     | 804  | 3PH  | C34-C35-C36-C37 |
| 27  | B     | 5004 | LMU  | C2-C1-O1'-C1'   |
| 21  | A     | 1108 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1201 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1221 | CLA  | CAA-CBA-CGA-O2A |
| 27  | B     | 5004 | LMU  | O5'-C1'-O1'-C1  |
| 21  | A     | 1103 | CLA  | C13-C15-C16-C17 |
| 21  | B     | 1202 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 1     | 605  | CLA  | CAA-CBA-CGA-O1A |
| 21  | 3     | 601  | CLA  | CAA-CBA-CGA-O1A |
| 21  | 6     | 606  | CLA  | CAA-CBA-CGA-O1A |
| 31  | 1     | 804  | LMG  | O10-C28-C29-C30 |
| 21  | A     | 1110 | CLA  | CBA-CGA-O2A-C1  |
| 31  | 3     | 803  | LMG  | C29-C28-O8-C9   |
| 29  | 5     | 804  | 3PH  | C22-C21-O21-C2  |
| 21  | A     | 1107 | CLA  | C5-C6-C7-C8     |
| 21  | 5     | 603  | CLA  | C2C-C3C-CAC-CBC |
| 21  | A     | 1104 | CLA  | CAA-CBA-CGA-O2A |
| 21  | A     | 1129 | CLA  | CAA-CBA-CGA-O2A |
| 21  | B     | 1223 | CLA  | CAA-CBA-CGA-O2A |
| 21  | 6     | 603  | CLA  | CAA-CBA-CGA-O2A |
| 25  | 5     | 802  | LHG  | O8-C23-C24-C25  |
| 25  | 1     | 802  | LHG  | C11-C10-C9-C8   |
| 21  | B     | 1214 | CLA  | C15-C16-C17-C18 |
| 21  | B     | 1201 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 4     | 608  | CLA  | CAA-CBA-CGA-O1A |
| 21  | A     | 1113 | CLA  | C16-C17-C18-C20 |
| 21  | B     | 1021 | CLA  | C16-C17-C18-C20 |
| 21  | A     | 1108 | CLA  | CAA-CBA-CGA-O1A |
| 21  | 2     | 608  | CLA  | CAA-CBA-CGA-O1A |
| 25  | 4     | 801  | LHG  | O10-C23-C24-C25 |

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| Mol | Chain | Res  | Type | Atoms           |
|-----|-------|------|------|-----------------|
| 28  | 2     | 806  | DGD  | O1A-C1A-C2A-C3A |
| 21  | 2     | 602  | CLA  | CAA-CBA-CGA-O2A |
| 21  | 5     | 612  | CLA  | CAA-CBA-CGA-O2A |
| 31  | F     | 5002 | LMG  | C4-C5-C6-O5     |

There are no ring outliers.

254 monomers are involved in 1175 short contacts:

| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 24  | I     | 4001 | BCR  | 9       | 0            |
| 21  | A     | 1120 | CLA  | 11      | 0            |
| 28  | 3     | 805  | DGD  | 4       | 0            |
| 21  | 5     | 613  | CLA  | 6       | 0            |
| 36  | 3     | 604  | CHL  | 3       | 0            |
| 24  | A     | 4001 | BCR  | 9       | 0            |
| 24  | 2     | 503  | BCR  | 1       | 0            |
| 21  | 6     | 601  | CLA  | 27      | 0            |
| 24  | O     | 4001 | BCR  | 7       | 0            |
| 25  | F     | 5001 | LHG  | 2       | 0            |
| 21  | B     | 1022 | CLA  | 16      | 0            |
| 21  | B     | 1205 | CLA  | 5       | 0            |
| 21  | K     | 1402 | CLA  | 14      | 0            |
| 36  | 5     | 610  | CHL  | 6       | 0            |
| 39  | 5     | 806  | P3H  | 1       | 0            |
| 21  | B     | 1234 | CLA  | 2       | 0            |
| 21  | B     | 1223 | CLA  | 6       | 0            |
| 33  | 5     | 803  | PTY  | 10      | 0            |
| 21  | 6     | 607  | CLA  | 4       | 0            |
| 21  | B     | 1235 | CLA  | 8       | 0            |
| 24  | G     | 4001 | BCR  | 22      | 0            |
| 24  | K     | 4001 | BCR  | 8       | 0            |
| 21  | 2     | 612  | CLA  | 2       | 0            |
| 36  | 6     | 610  | CHL  | 8       | 0            |
| 21  | 6     | 609  | CLA  | 1       | 0            |
| 21  | A     | 1102 | CLA  | 7       | 0            |
| 25  | 5     | 801  | LHG  | 11      | 0            |
| 21  | 4     | 609  | CLA  | 4       | 0            |
| 28  | B     | 5002 | DGD  | 5       | 0            |
| 35  | 6     | 504  | XAT  | 9       | 0            |
| 24  | 3     | 506  | BCR  | 4       | 0            |
| 21  | B     | 1226 | CLA  | 6       | 0            |
| 21  | B     | 1224 | CLA  | 3       | 0            |

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| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 21  | A     | 1134 | CLA  | 7       | 0            |
| 21  | A     | 1101 | CLA  | 4       | 0            |
| 21  | B     | 1219 | CLA  | 5       | 0            |
| 21  | A     | 1141 | CLA  | 3       | 0            |
| 21  | K     | 1403 | CLA  | 6       | 0            |
| 32  | L     | 5002 | 4RF  | 2       | 0            |
| 21  | A     | 1135 | CLA  | 7       | 0            |
| 21  | B     | 1239 | CLA  | 9       | 0            |
| 21  | B     | 1214 | CLA  | 3       | 0            |
| 34  | 1     | 501  | LUT  | 7       | 0            |
| 21  | A     | 1012 | CLA  | 16      | 0            |
| 31  | 1     | 804  | LMG  | 1       | 0            |
| 36  | 2     | 611  | CHL  | 3       | 0            |
| 24  | 1     | 504  | BCR  | 5       | 0            |
| 21  | A     | 1132 | CLA  | 20      | 0            |
| 21  | A     | 1112 | CLA  | 14      | 0            |
| 21  | A     | 1133 | CLA  | 3       | 0            |
| 21  | B     | 1208 | CLA  | 20      | 0            |
| 21  | B     | 1210 | CLA  | 5       | 0            |
| 21  | 3     | 602  | CLA  | 2       | 0            |
| 21  | 5     | 603  | CLA  | 7       | 0            |
| 21  | A     | 1104 | CLA  | 3       | 0            |
| 25  | 1     | 803  | LHG  | 1       | 0            |
| 36  | 2     | 610  | CHL  | 2       | 0            |
| 21  | A     | 1126 | CLA  | 10      | 0            |
| 21  | B     | 1227 | CLA  | 4       | 0            |
| 36  | 4     | 613  | CHL  | 1       | 0            |
| 24  | 3     | 503  | BCR  | 2       | 0            |
| 21  | K     | 1401 | CLA  | 9       | 0            |
| 21  | B     | 1240 | CLA  | 4       | 0            |
| 21  | 2     | 604  | CLA  | 6       | 0            |
| 21  | A     | 1113 | CLA  | 12      | 0            |
| 21  | 4     | 604  | CLA  | 13      | 0            |
| 21  | A     | 1124 | CLA  | 3       | 0            |
| 21  | 1     | 612  | CLA  | 3       | 0            |
| 21  | B     | 1231 | CLA  | 6       | 0            |
| 21  | H     | 1701 | CLA  | 4       | 0            |
| 21  | B     | 1236 | CLA  | 2       | 0            |
| 21  | A     | 1108 | CLA  | 3       | 0            |
| 27  | A     | 5005 | LMU  | 1       | 0            |
| 21  | B     | 1212 | CLA  | 16      | 0            |
| 21  | 1     | 607  | CLA  | 1       | 0            |

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| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 21  | B     | 1207 | CLA  | 17      | 0            |
| 21  | 2     | 603  | CLA  | 2       | 0            |
| 35  | 4     | 502  | XAT  | 3       | 0            |
| 24  | L     | 4001 | BCR  | 3       | 0            |
| 21  | B     | 1206 | CLA  | 12      | 0            |
| 24  | A     | 4003 | BCR  | 7       | 0            |
| 24  | B     | 4004 | BCR  | 3       | 0            |
| 24  | B     | 4003 | BCR  | 5       | 0            |
| 34  | 6     | 501  | LUT  | 22      | 0            |
| 24  | A     | 4005 | BCR  | 2       | 0            |
| 37  | 3     | 806  | SQD  | 2       | 0            |
| 21  | G     | 1603 | CLA  | 2       | 0            |
| 31  | 4     | 802  | LMG  | 2       | 0            |
| 21  | 6     | 605  | CLA  | 10      | 0            |
| 21  | B     | 1021 | CLA  | 4       | 0            |
| 24  | B     | 4001 | BCR  | 19      | 0            |
| 29  | 5     | 804  | 3PH  | 3       | 0            |
| 21  | 5     | 604  | CLA  | 25      | 0            |
| 21  | 5     | 614  | CLA  | 8       | 0            |
| 34  | 2     | 501  | LUT  | 6       | 0            |
| 36  | 2     | 609  | CHL  | 4       | 0            |
| 21  | A     | 1137 | CLA  | 2       | 0            |
| 21  | 1     | 606  | CLA  | 3       | 0            |
| 21  | B     | 1217 | CLA  | 8       | 0            |
| 24  | J     | 4002 | BCR  | 4       | 0            |
| 21  | 4     | 601  | CLA  | 3       | 0            |
| 37  | 2     | 805  | SQD  | 2       | 0            |
| 21  | L     | 1504 | CLA  | 9       | 0            |
| 21  | A     | 1121 | CLA  | 33      | 0            |
| 21  | 1     | 611  | CLA  | 15      | 0            |
| 24  | A     | 4002 | BCR  | 7       | 0            |
| 21  | A     | 1114 | CLA  | 15      | 0            |
| 21  | 3     | 613  | CLA  | 1       | 0            |
| 21  | A     | 1128 | CLA  | 5       | 0            |
| 21  | A     | 1130 | CLA  | 4       | 0            |
| 24  | F     | 4002 | BCR  | 5       | 0            |
| 34  | 3     | 501  | LUT  | 9       | 0            |
| 35  | 3     | 502  | XAT  | 6       | 0            |
| 25  | A     | 5002 | LHG  | 3       | 0            |
| 21  | 1     | 608  | CLA  | 1       | 0            |
| 21  | 3     | 606  | CLA  | 3       | 0            |
| 21  | A     | 1129 | CLA  | 2       | 0            |

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| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 21  | A     | 1125 | CLA  | 4       | 0            |
| 34  | 5     | 503  | LUT  | 7       | 0            |
| 21  | A     | 1138 | CLA  | 6       | 0            |
| 24  | A     | 4006 | BCR  | 3       | 0            |
| 24  | B     | 4006 | BCR  | 4       | 0            |
| 21  | B     | 1238 | CLA  | 3       | 0            |
| 21  | B     | 1220 | CLA  | 2       | 0            |
| 21  | O     | 1803 | CLA  | 1       | 0            |
| 25  | A     | 5001 | LHG  | 3       | 0            |
| 21  | B     | 1202 | CLA  | 1       | 0            |
| 21  | 3     | 612  | CLA  | 6       | 0            |
| 21  | 6     | 604  | CLA  | 5       | 0            |
| 21  | A     | 1136 | CLA  | 3       | 0            |
| 36  | 2     | 613  | CHL  | 1       | 0            |
| 21  | B     | 1203 | CLA  | 6       | 0            |
| 21  | B     | 1222 | CLA  | 3       | 0            |
| 21  | 1     | 603  | CLA  | 1       | 0            |
| 21  | 5     | 612  | CLA  | 9       | 0            |
| 21  | B     | 1228 | CLA  | 2       | 0            |
| 21  | B     | 1218 | CLA  | 2       | 0            |
| 21  | 3     | 610  | CLA  | 18      | 0            |
| 28  | 2     | 806  | DGD  | 2       | 0            |
| 21  | 5     | 607  | CLA  | 2       | 0            |
| 21  | A     | 1103 | CLA  | 5       | 0            |
| 37  | 6     | 803  | SQD  | 1       | 0            |
| 21  | B     | 1209 | CLA  | 4       | 0            |
| 22  | A     | 2001 | PQN  | 3       | 0            |
| 33  | O     | 5002 | PTY  | 6       | 0            |
| 24  | J     | 4001 | BCR  | 2       | 0            |
| 21  | 1     | 604  | CLA  | 6       | 0            |
| 21  | A     | 1115 | CLA  | 11      | 0            |
| 34  | 5     | 504  | LUT  | 15      | 0            |
| 21  | A     | 1111 | CLA  | 3       | 0            |
| 21  | A     | 1109 | CLA  | 5       | 0            |
| 21  | A     | 1123 | CLA  | 1       | 0            |
| 21  | 1     | 601  | CLA  | 23      | 0            |
| 34  | 4     | 501  | LUT  | 4       | 0            |
| 25  | B     | 5001 | LHG  | 3       | 0            |
| 21  | 3     | 603  | CLA  | 8       | 0            |
| 24  | H     | 4001 | BCR  | 5       | 0            |
| 25  | 1     | 801  | LHG  | 4       | 0            |
| 21  | 4     | 607  | CLA  | 3       | 0            |

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| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 21  | B     | 1237 | CLA  | 3       | 0            |
| 21  | A     | 1117 | CLA  | 1       | 0            |
| 21  | 6     | 608  | CLA  | 4       | 0            |
| 28  | 3     | 804  | DGD  | 1       | 0            |
| 21  | A     | 1131 | CLA  | 3       | 0            |
| 27  | 6     | 805  | LMU  | 2       | 0            |
| 36  | 5     | 609  | CHL  | 33      | 0            |
| 21  | 3     | 608  | CLA  | 5       | 0            |
| 21  | 6     | 612  | CLA  | 7       | 0            |
| 21  | 6     | 613  | CLA  | 9       | 0            |
| 24  | B     | 4005 | BCR  | 2       | 0            |
| 24  | I     | 4002 | BCR  | 10      | 0            |
| 21  | F     | 1301 | CLA  | 2       | 0            |
| 21  | 5     | 608  | CLA  | 12      | 0            |
| 24  | L     | 4002 | BCR  | 2       | 0            |
| 21  | J     | 1901 | CLA  | 4       | 0            |
| 35  | 2     | 502  | XAT  | 4       | 0            |
| 36  | 1     | 610  | CHL  | 4       | 0            |
| 21  | B     | 1204 | CLA  | 2       | 0            |
| 21  | 4     | 603  | CLA  | 3       | 0            |
| 24  | A     | 4004 | BCR  | 8       | 0            |
| 34  | 5     | 502  | LUT  | 13      | 0            |
| 35  | 1     | 502  | XAT  | 2       | 0            |
| 36  | 1     | 609  | CHL  | 3       | 0            |
| 21  | A     | 1127 | CLA  | 1       | 0            |
| 32  | 5     | 805  | 4RF  | 1       | 0            |
| 21  | A     | 1106 | CLA  | 5       | 0            |
| 33  | 6     | 804  | PTY  | 1       | 0            |
| 21  | 4     | 605  | CLA  | 1       | 0            |
| 21  | O     | 1801 | CLA  | 2       | 0            |
| 21  | L     | 1502 | CLA  | 13      | 0            |
| 21  | B     | 1023 | CLA  | 26      | 0            |
| 21  | 3     | 601  | CLA  | 3       | 0            |
| 21  | 5     | 606  | CLA  | 19      | 0            |
| 24  | A     | 4007 | BCR  | 9       | 0            |
| 21  | 2     | 605  | CLA  | 1       | 0            |
| 21  | A     | 1110 | CLA  | 2       | 0            |
| 25  | 2     | 802  | LHG  | 4       | 0            |
| 29  | 5     | 807  | 3PH  | 2       | 0            |
| 24  | B     | 4002 | BCR  | 4       | 0            |
| 21  | 1     | 602  | CLA  | 3       | 0            |
| 21  | B     | 1216 | CLA  | 3       | 0            |

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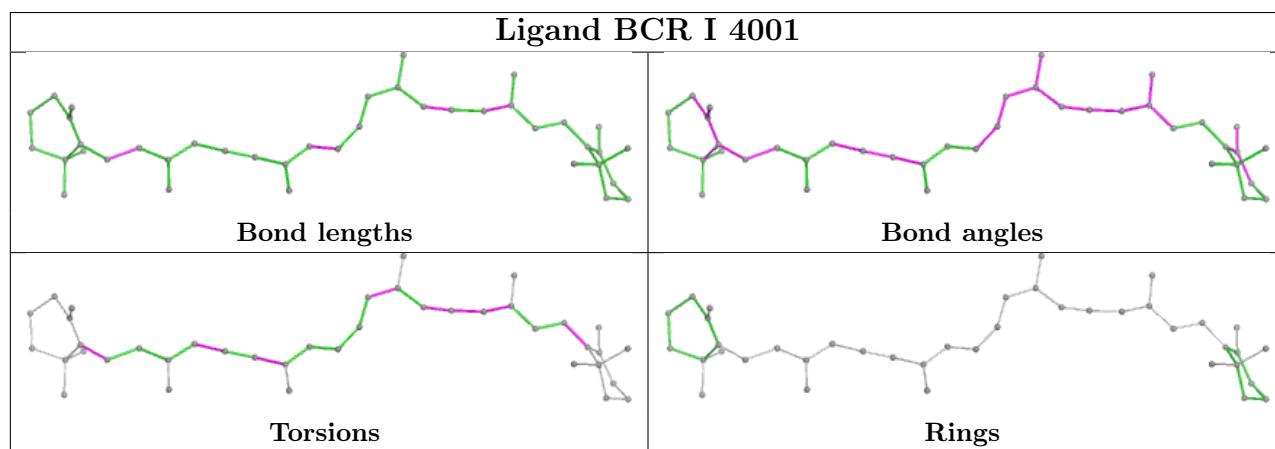
| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 21  | 3     | 611  | CLA  | 1       | 0            |
| 21  | G     | 1601 | CLA  | 9       | 0            |
| 22  | B     | 2002 | PQN  | 6       | 0            |
| 21  | 6     | 603  | CLA  | 21      | 0            |
| 25  | 2     | 801  | LHG  | 2       | 0            |
| 24  | 3     | 504  | BCR  | 10      | 0            |
| 21  | A     | 1140 | CLA  | 7       | 0            |
| 21  | 6     | 602  | CLA  | 10      | 0            |
| 31  | 3     | 803  | LMG  | 18      | 0            |
| 27  | A     | 5004 | LMU  | 1       | 0            |
| 21  | 2     | 601  | CLA  | 2       | 0            |
| 21  | A     | 1013 | CLA  | 10      | 0            |
| 21  | H     | 1702 | CLA  | 3       | 0            |
| 31  | 6     | 802  | LMG  | 12      | 0            |
| 20  | A     | 1011 | CL0  | 10      | 0            |
| 21  | 5     | 601  | CLA  | 5       | 0            |
| 21  | B     | 1229 | CLA  | 6       | 0            |
| 31  | 3     | 802  | LMG  | 2       | 0            |
| 36  | 4     | 611  | CHL  | 2       | 0            |
| 21  | 1     | 613  | CLA  | 1       | 0            |
| 31  | F     | 5002 | LMG  | 3       | 0            |
| 21  | 5     | 602  | CLA  | 1       | 0            |
| 24  | 4     | 503  | BCR  | 1       | 0            |
| 21  | A     | 1107 | CLA  | 5       | 0            |
| 21  | A     | 1116 | CLA  | 12      | 0            |
| 21  | L     | 1501 | CLA  | 3       | 0            |
| 21  | L     | 1503 | CLA  | 5       | 0            |
| 21  | B     | 1230 | CLA  | 7       | 0            |
| 21  | B     | 1211 | CLA  | 1       | 0            |
| 35  | 6     | 502  | XAT  | 5       | 0            |
| 27  | B     | 5004 | LMU  | 2       | 0            |
| 21  | B     | 1232 | CLA  | 2       | 0            |
| 21  | A     | 1119 | CLA  | 10      | 0            |
| 21  | 3     | 605  | CLA  | 4       | 0            |
| 21  | 6     | 606  | CLA  | 12      | 0            |
| 25  | 2     | 803  | LHG  | 2       | 0            |
| 29  | B     | 5003 | 3PH  | 2       | 0            |
| 24  | F     | 4001 | BCR  | 19      | 0            |
| 21  | A     | 1139 | CLA  | 5       | 0            |
| 21  | B     | 1221 | CLA  | 3       | 0            |
| 21  | K     | 1404 | CLA  | 7       | 0            |
| 21  | 4     | 615  | CLA  | 1       | 0            |

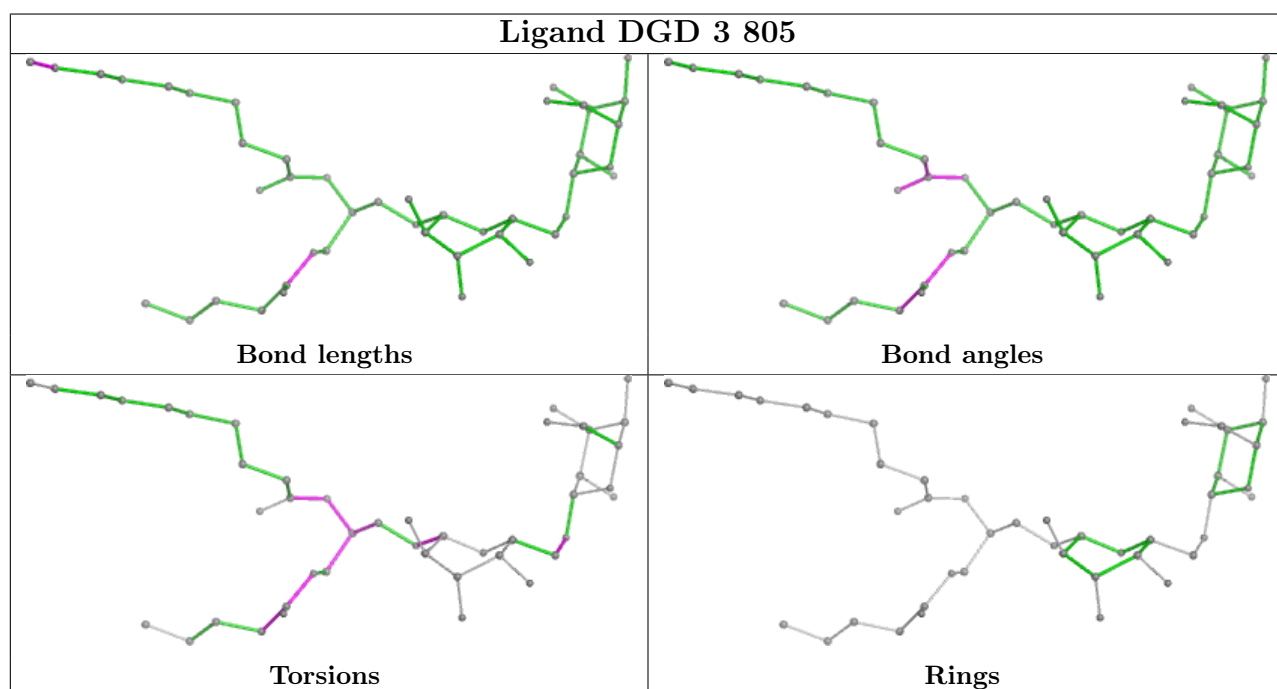
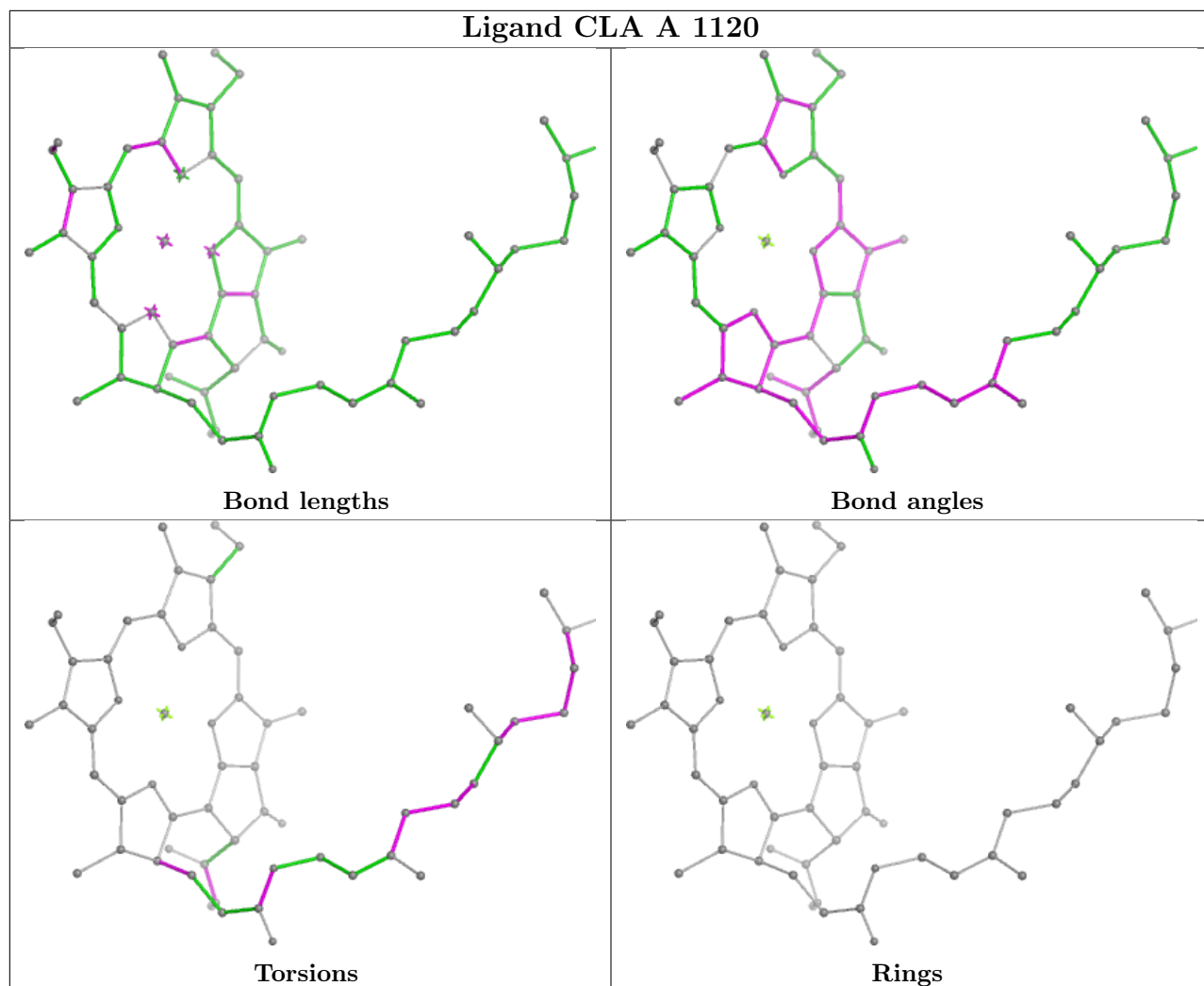
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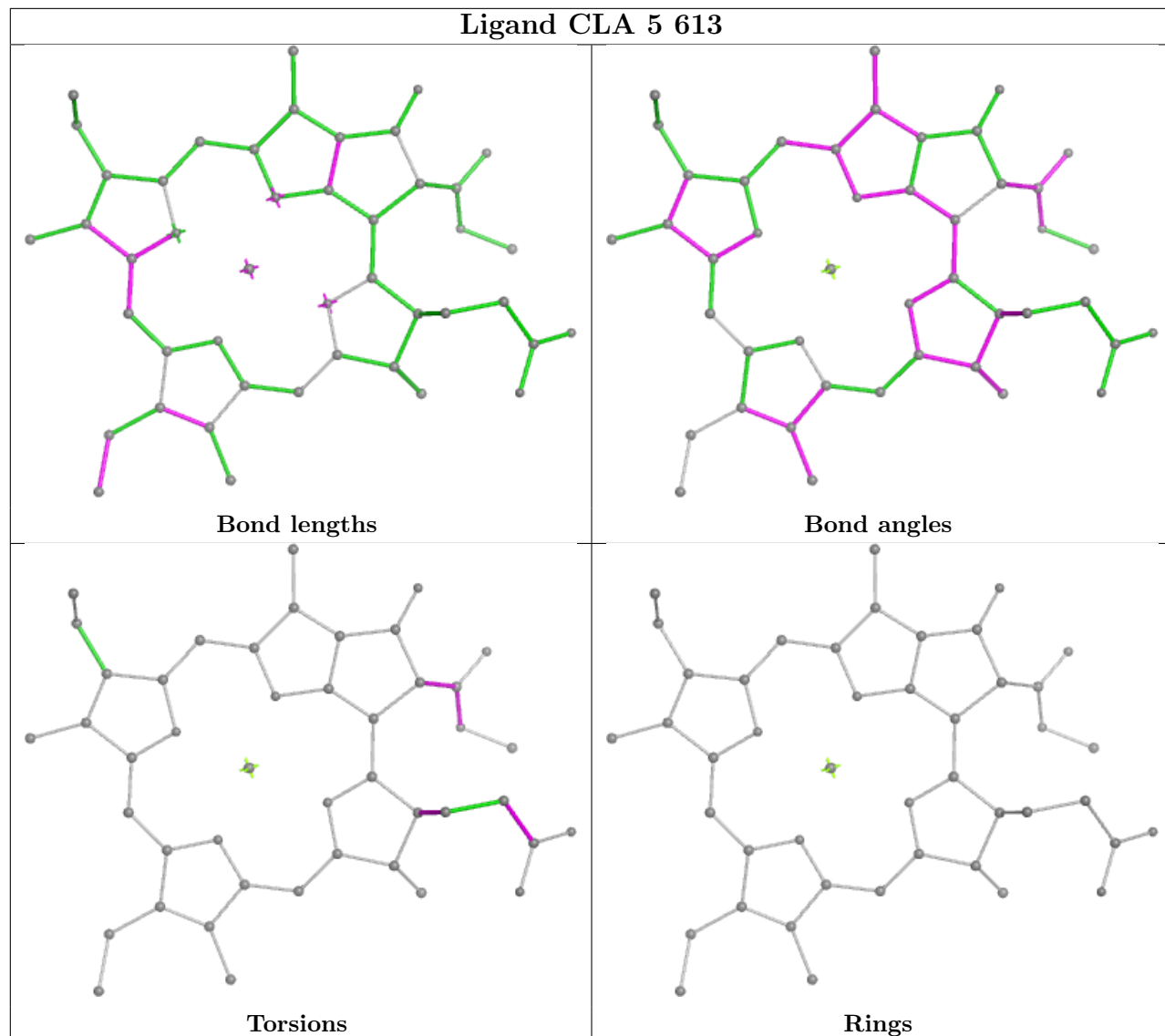
| Mol | Chain | Res  | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 34  | 5     | 501  | LUT  | 5       | 0            |
| 21  | B     | 1215 | CLA  | 6       | 0            |
| 21  | A     | 1105 | CLA  | 6       | 0            |
| 21  | B     | 1225 | CLA  | 6       | 0            |
| 21  | G     | 1602 | CLA  | 7       | 0            |
| 21  | 2     | 606  | CLA  | 1       | 0            |
| 21  | A     | 1118 | CLA  | 1       | 0            |
| 21  | 4     | 602  | CLA  | 2       | 0            |
| 21  | 5     | 605  | CLA  | 16      | 0            |
| 21  | B     | 1213 | CLA  | 3       | 0            |
| 21  | 1     | 605  | CLA  | 2       | 0            |

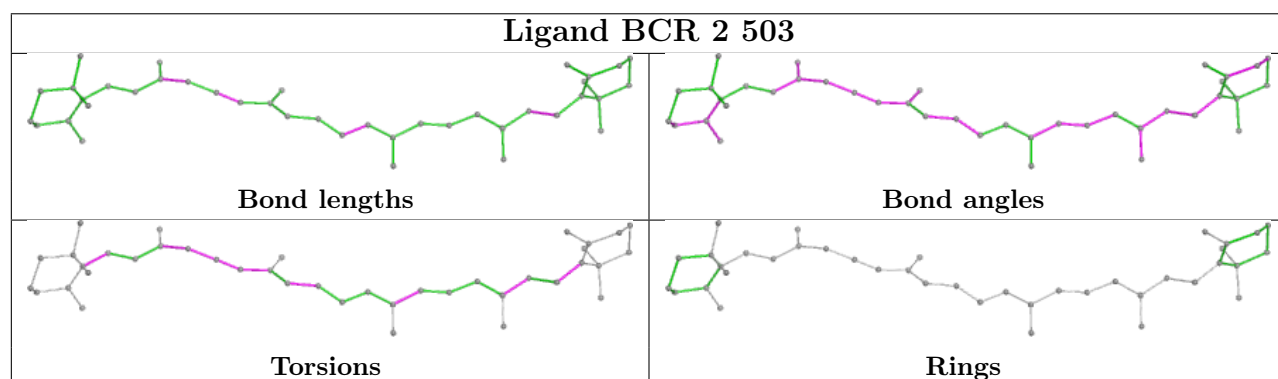
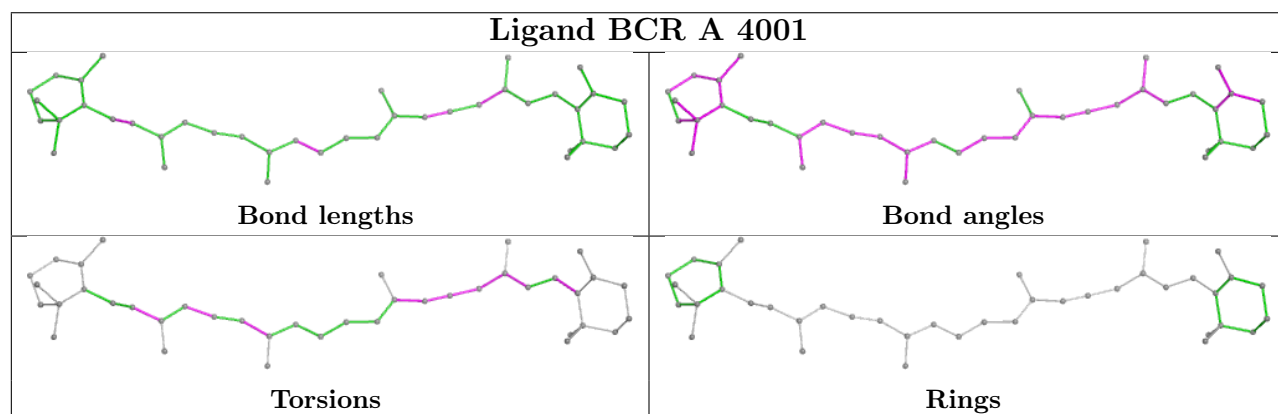
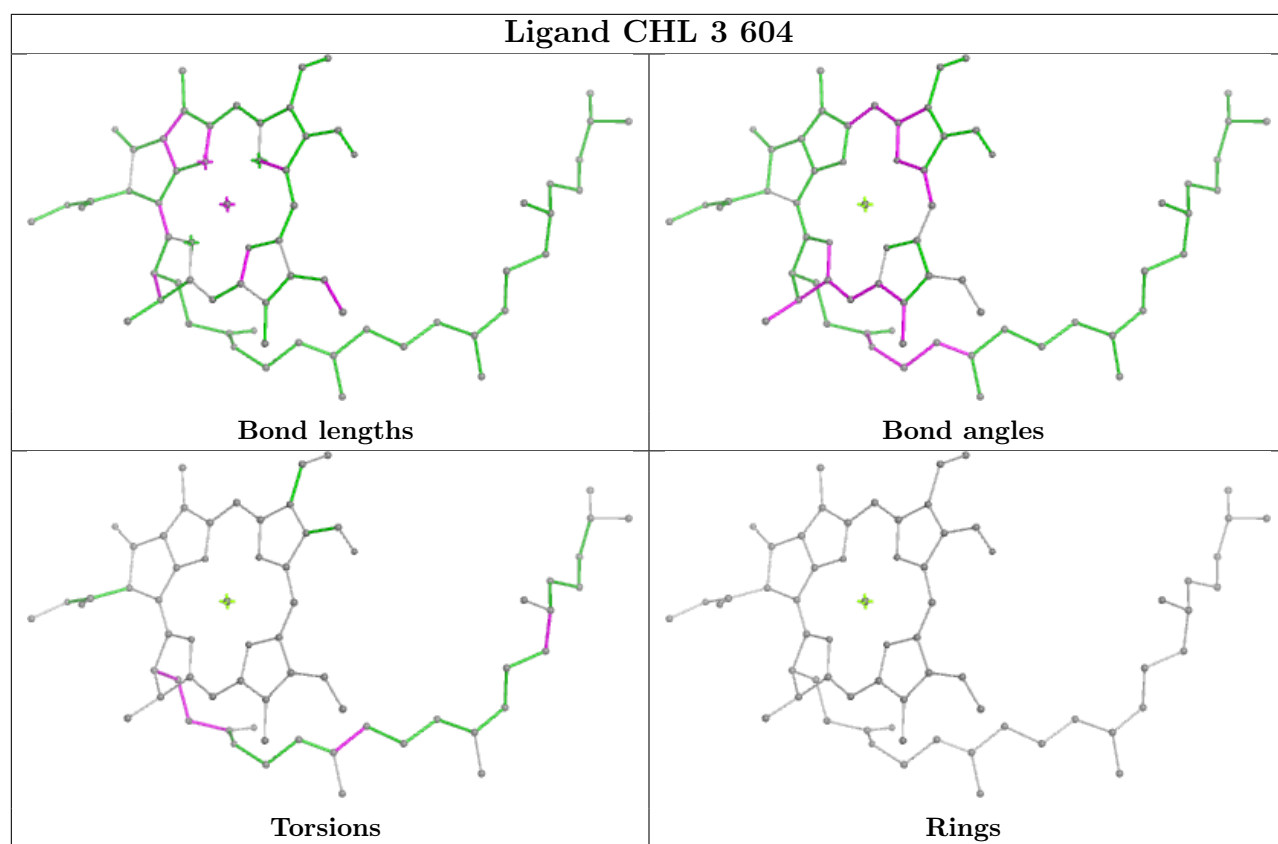
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

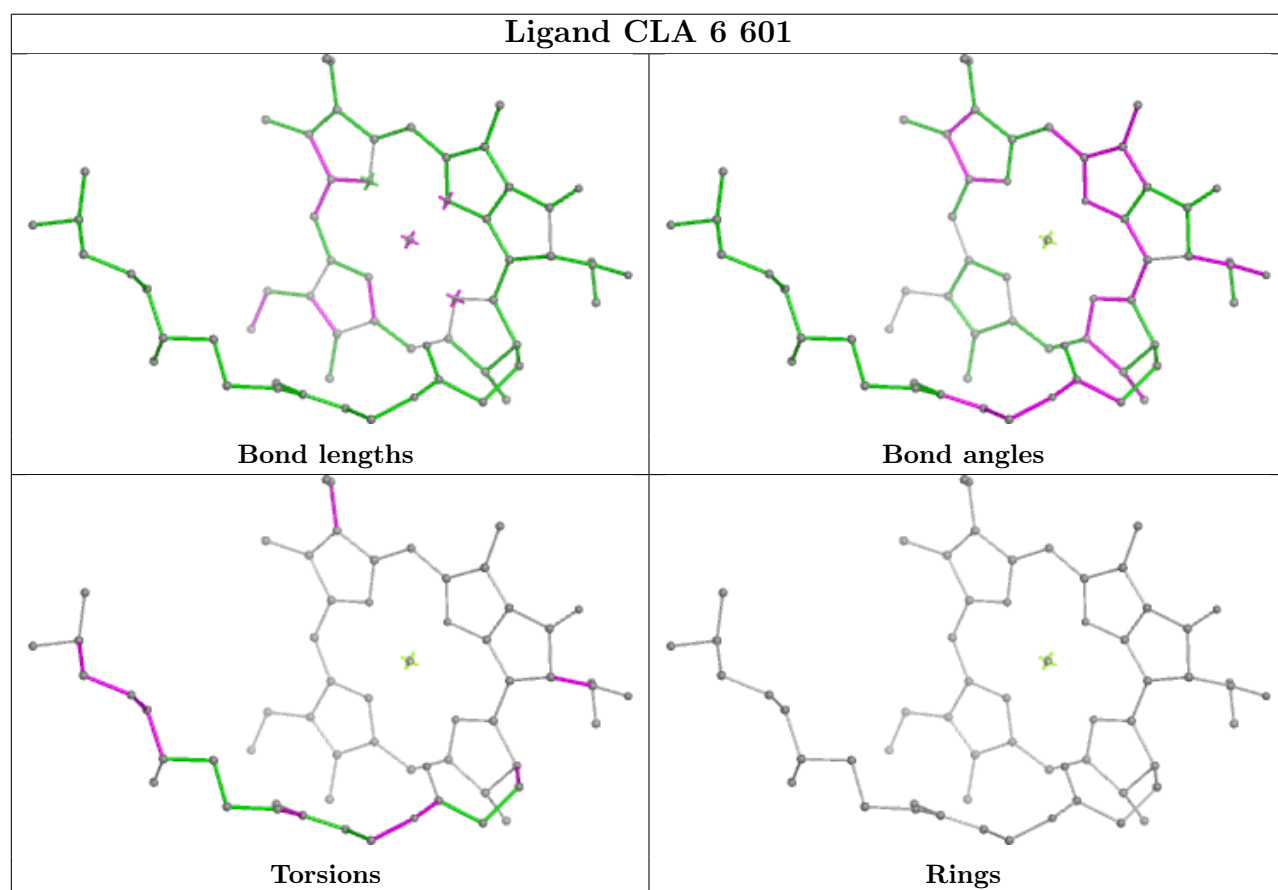
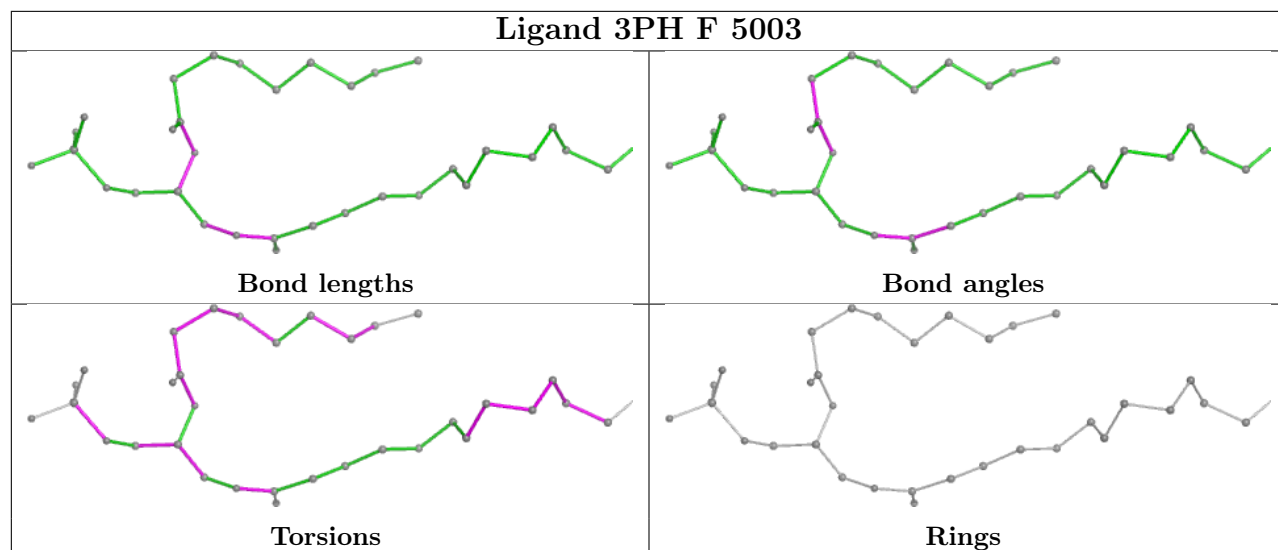




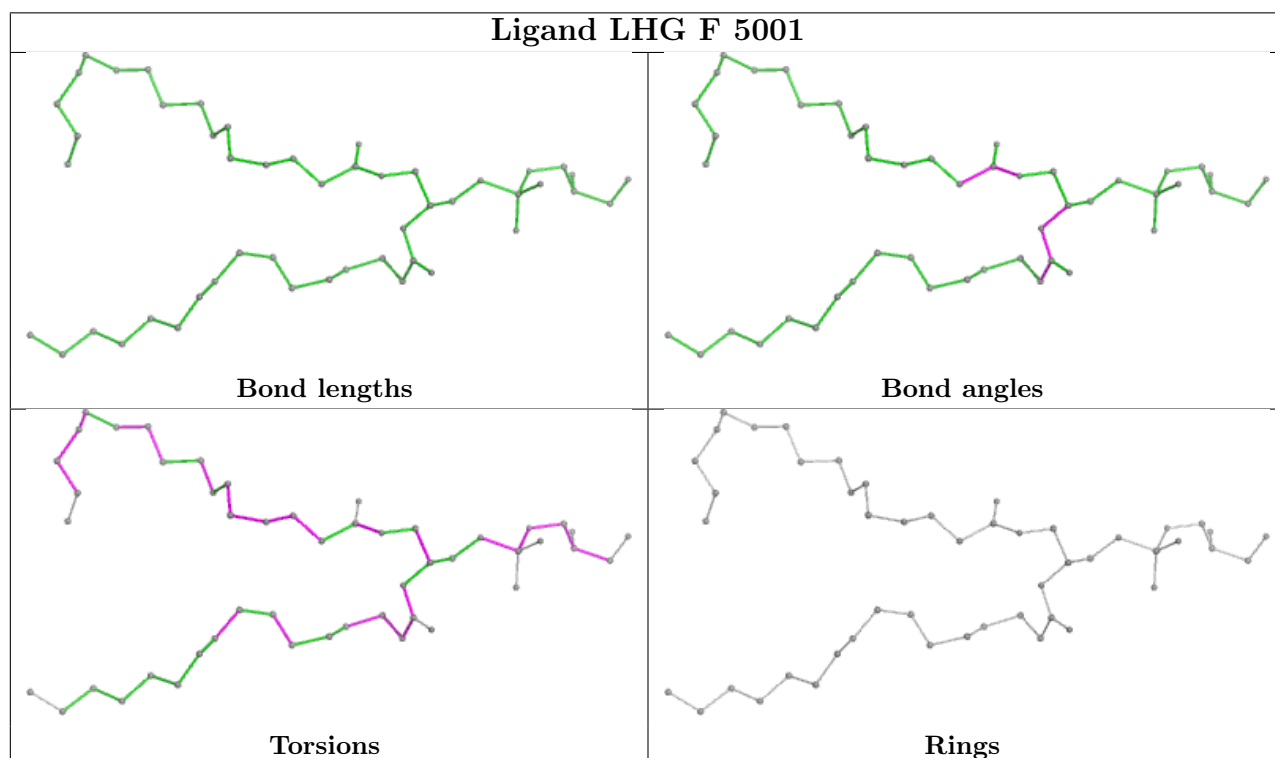
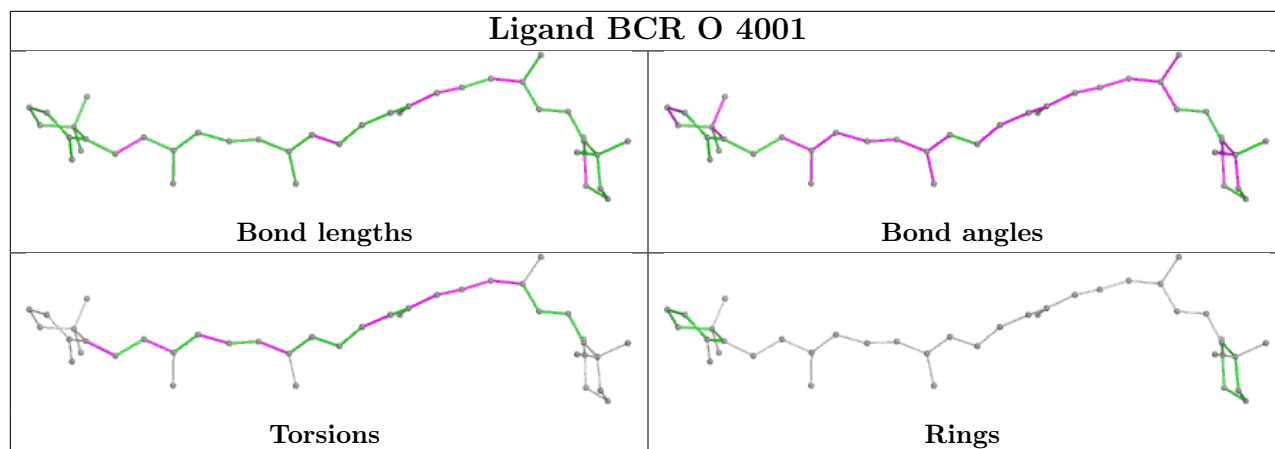
## Ligand CLA 5 613

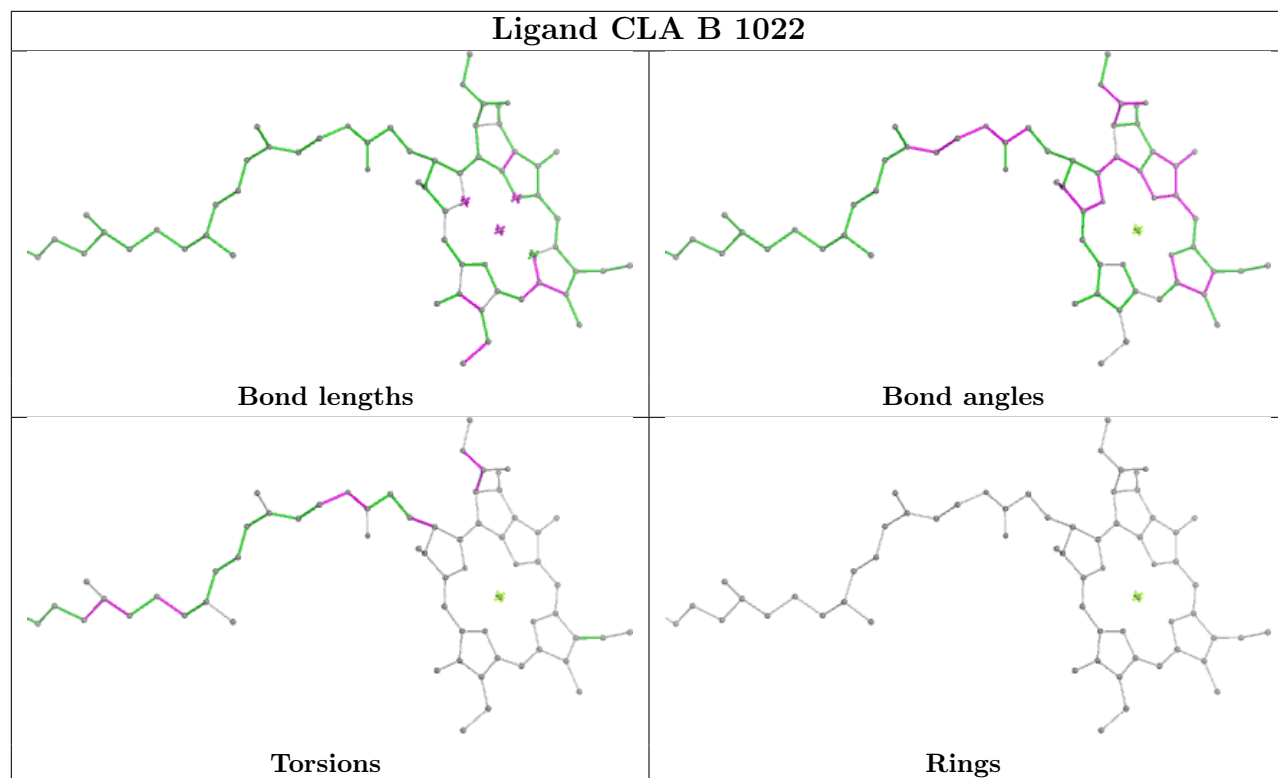


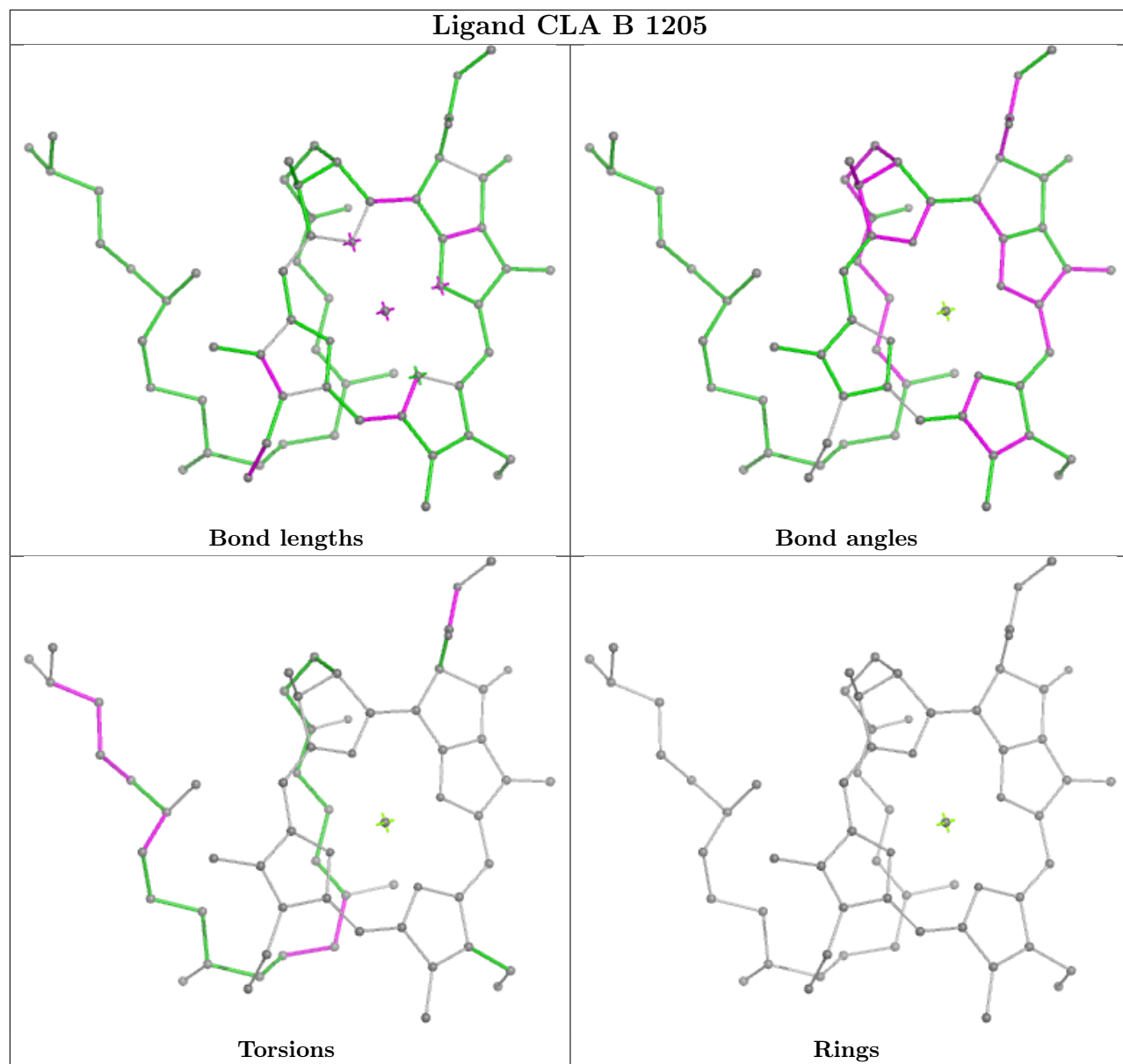


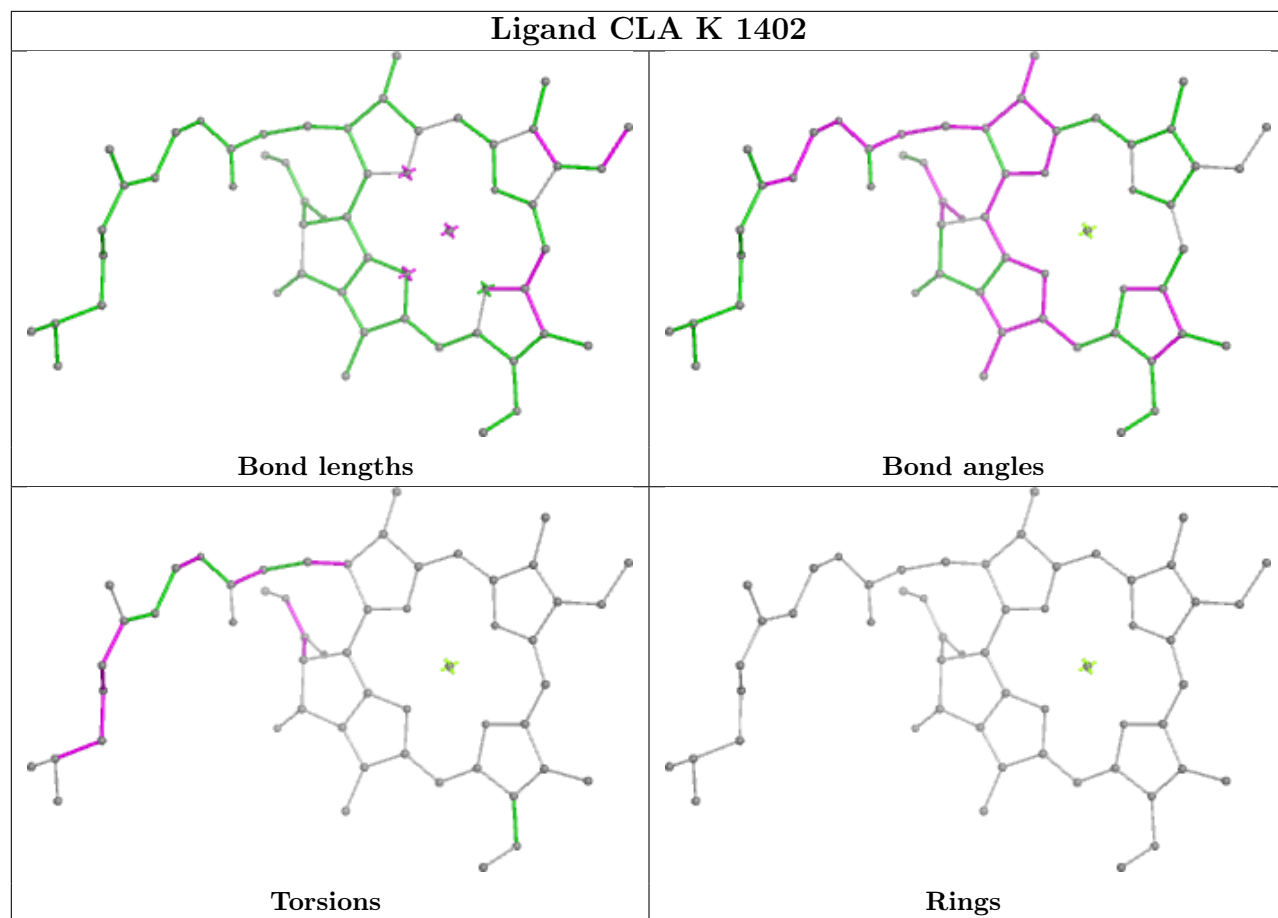


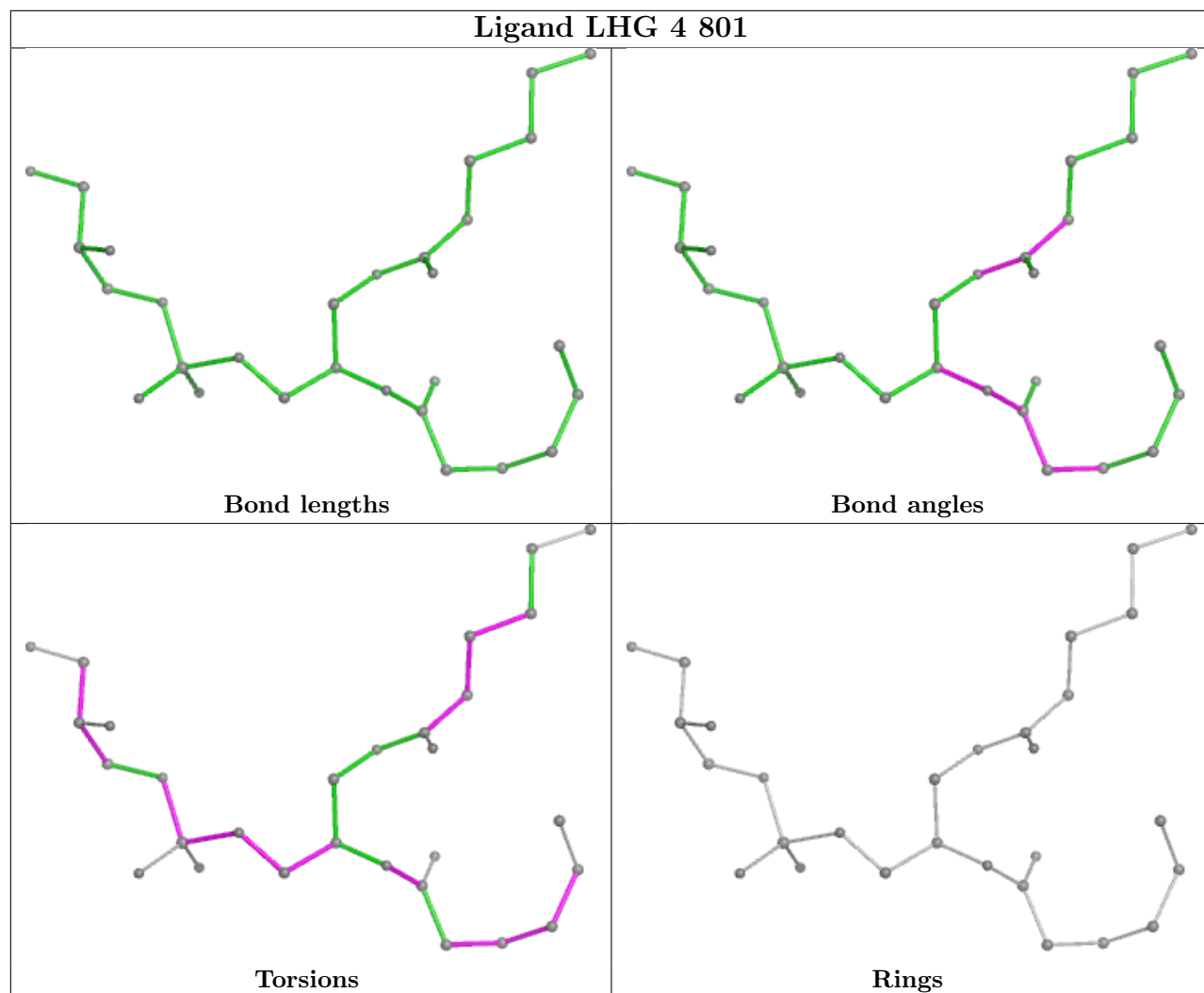


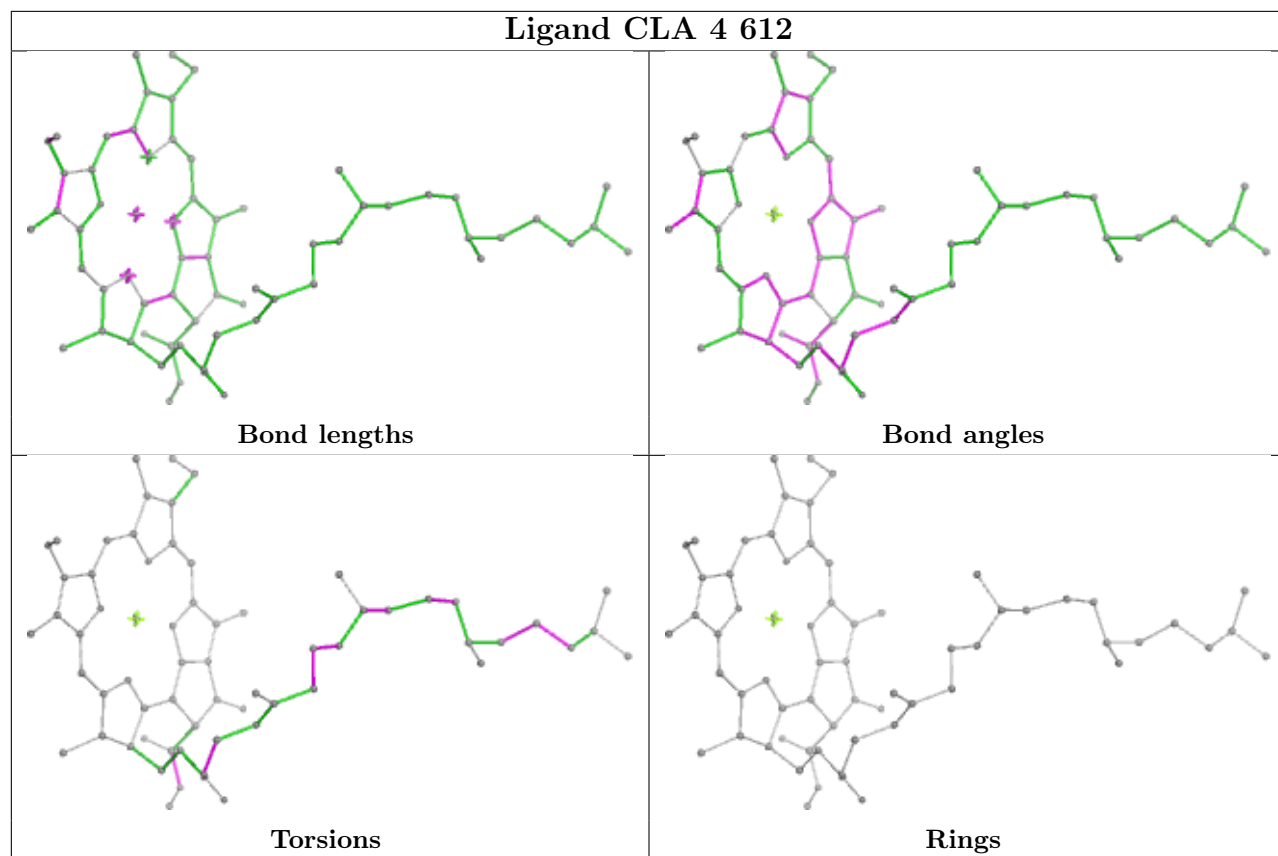


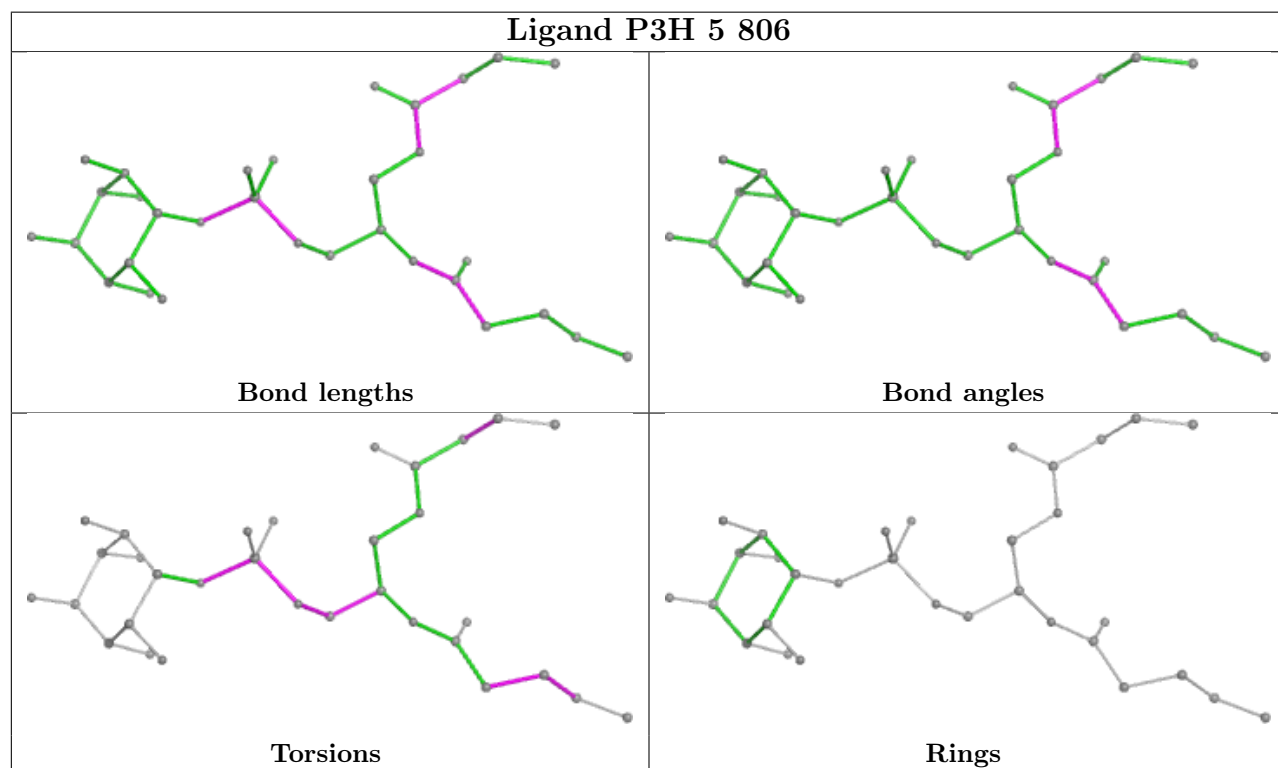
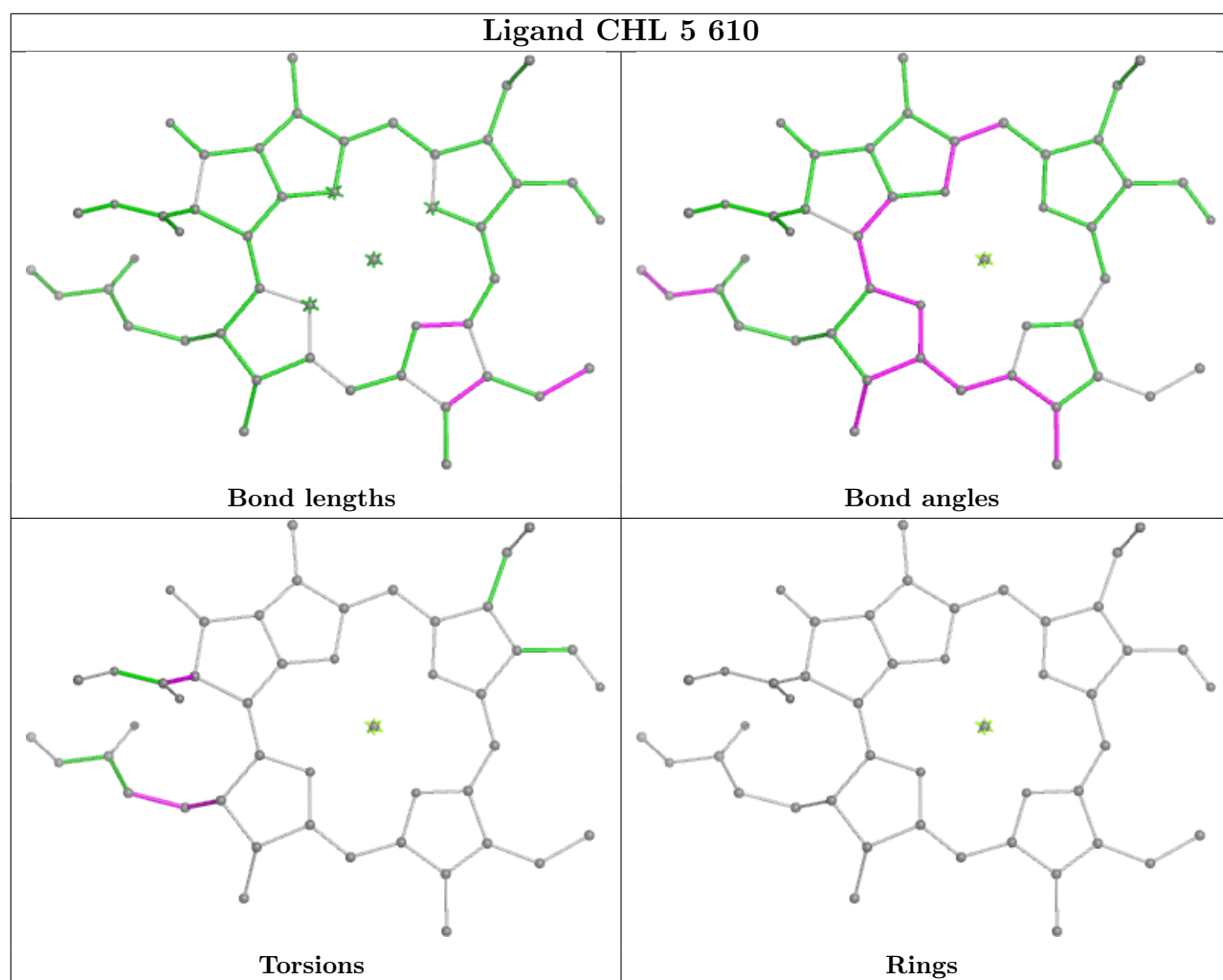


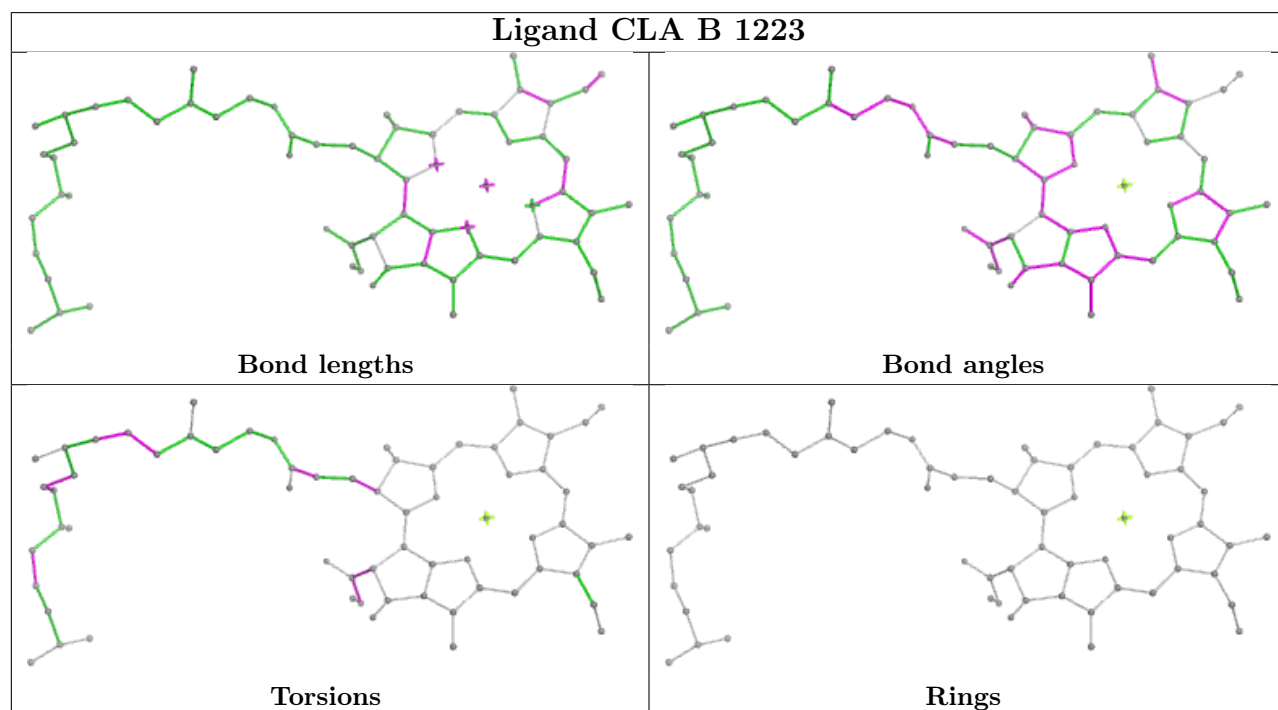
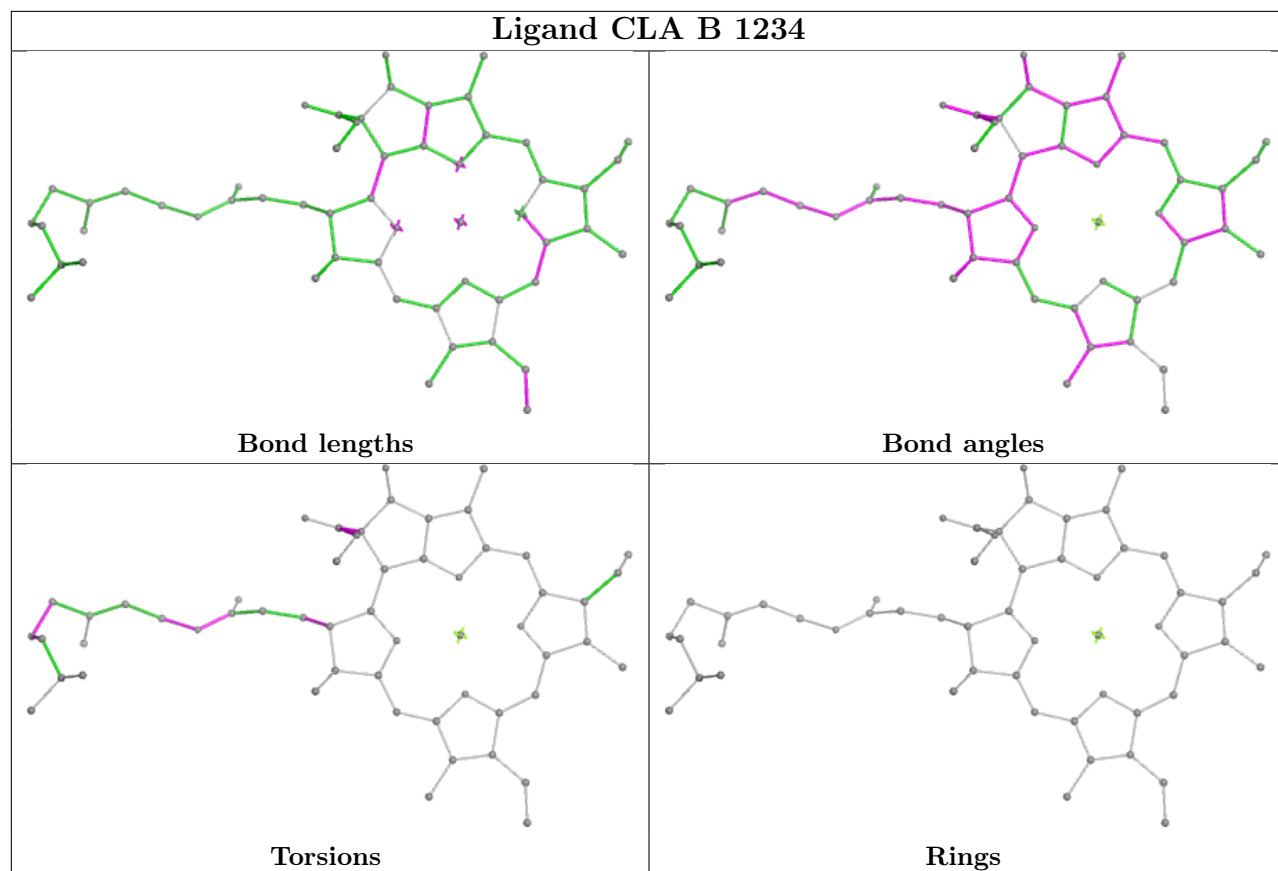




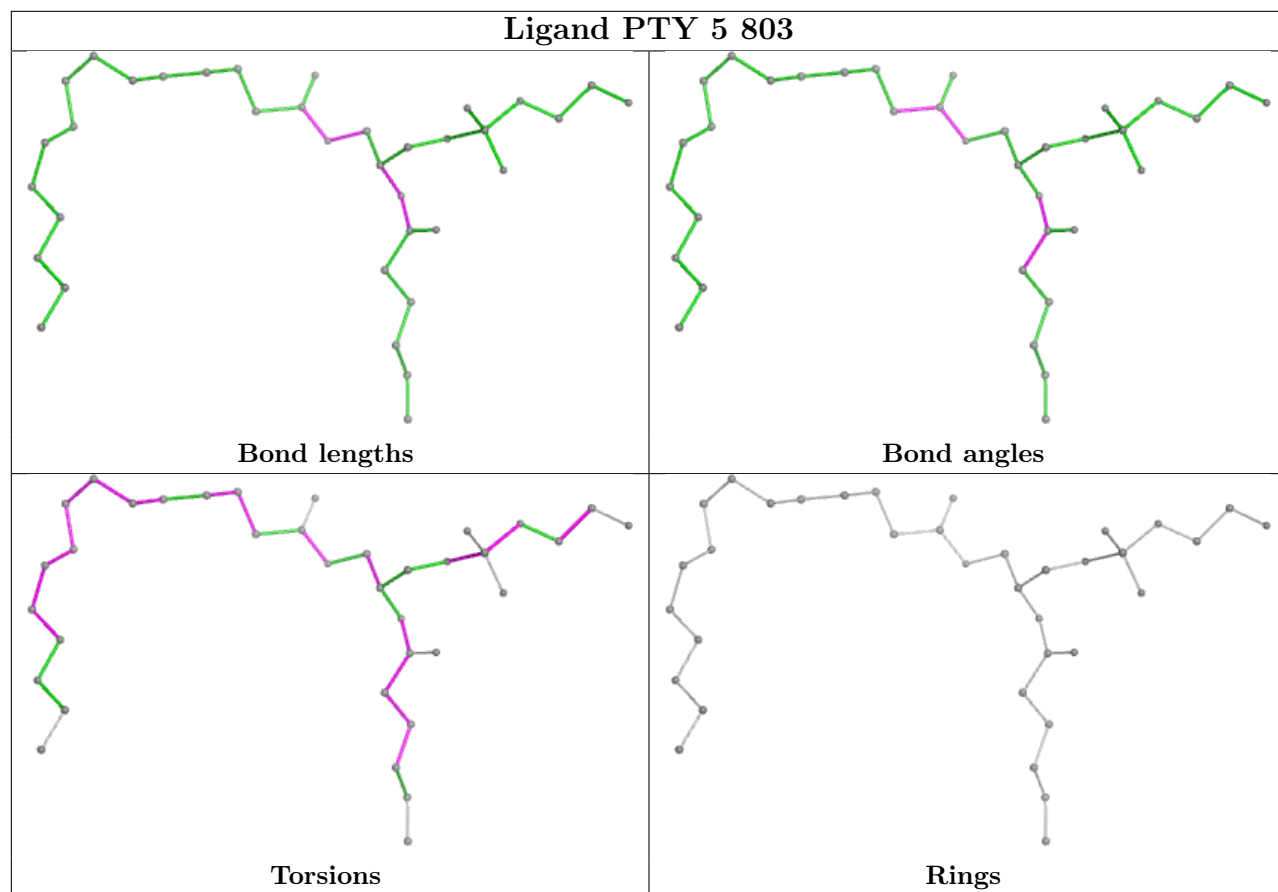


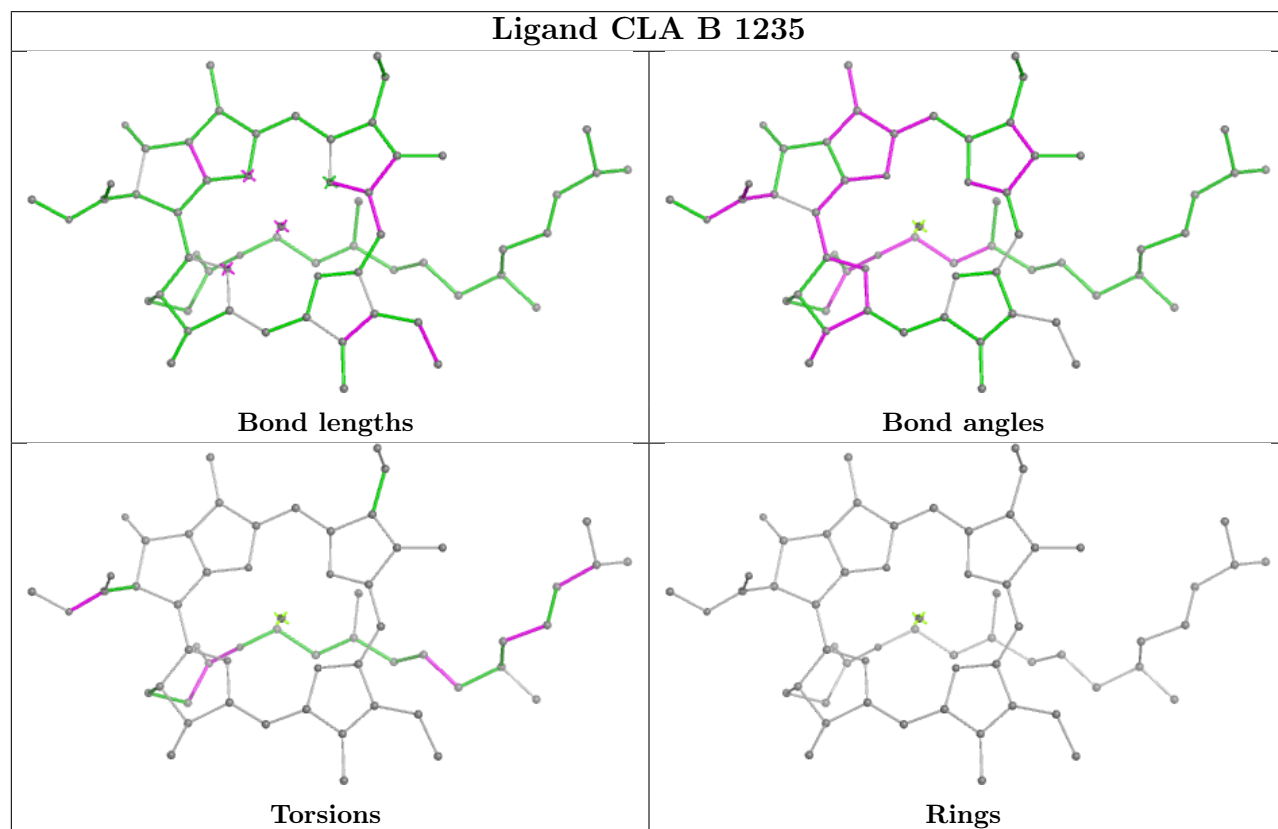
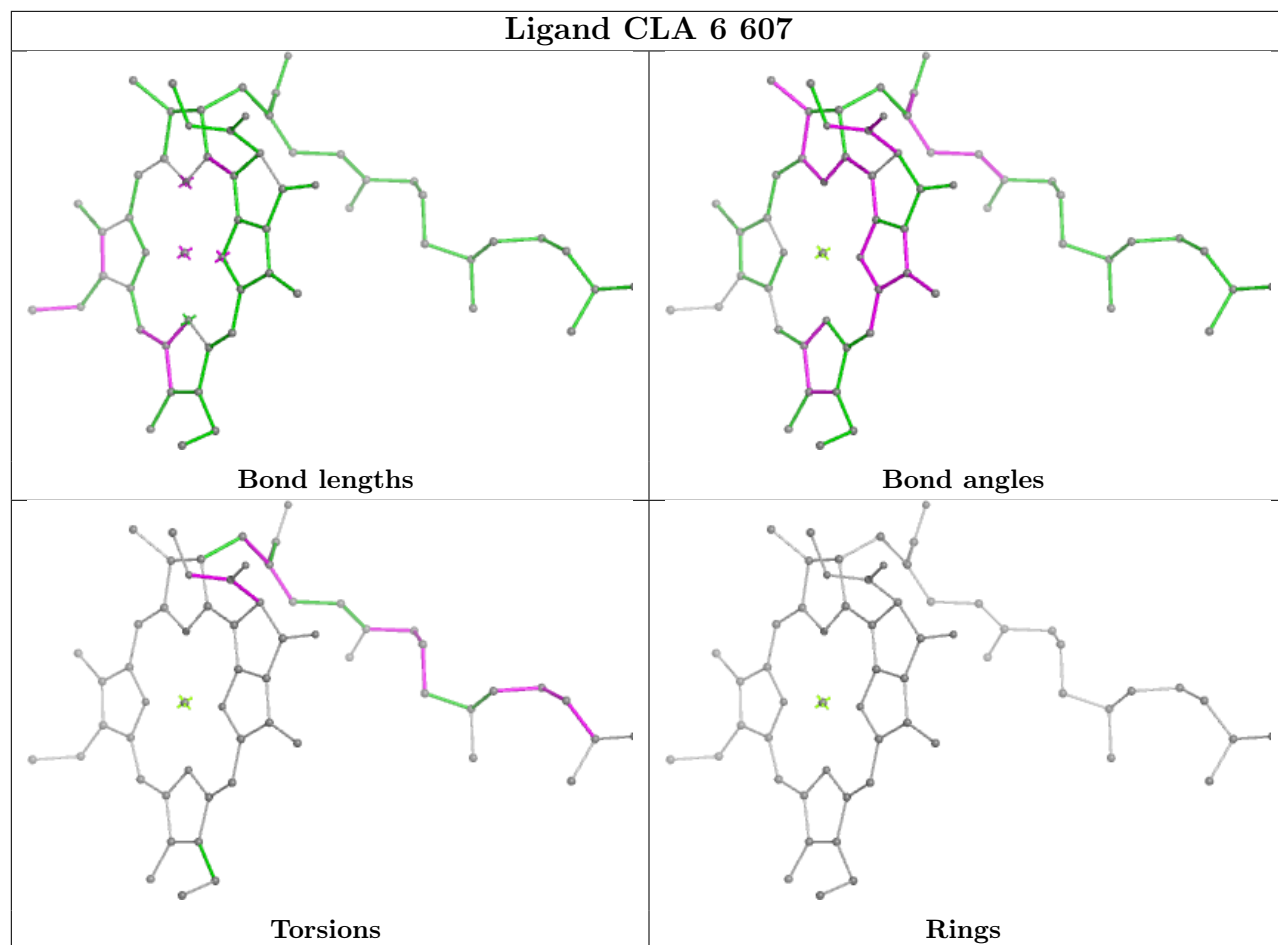


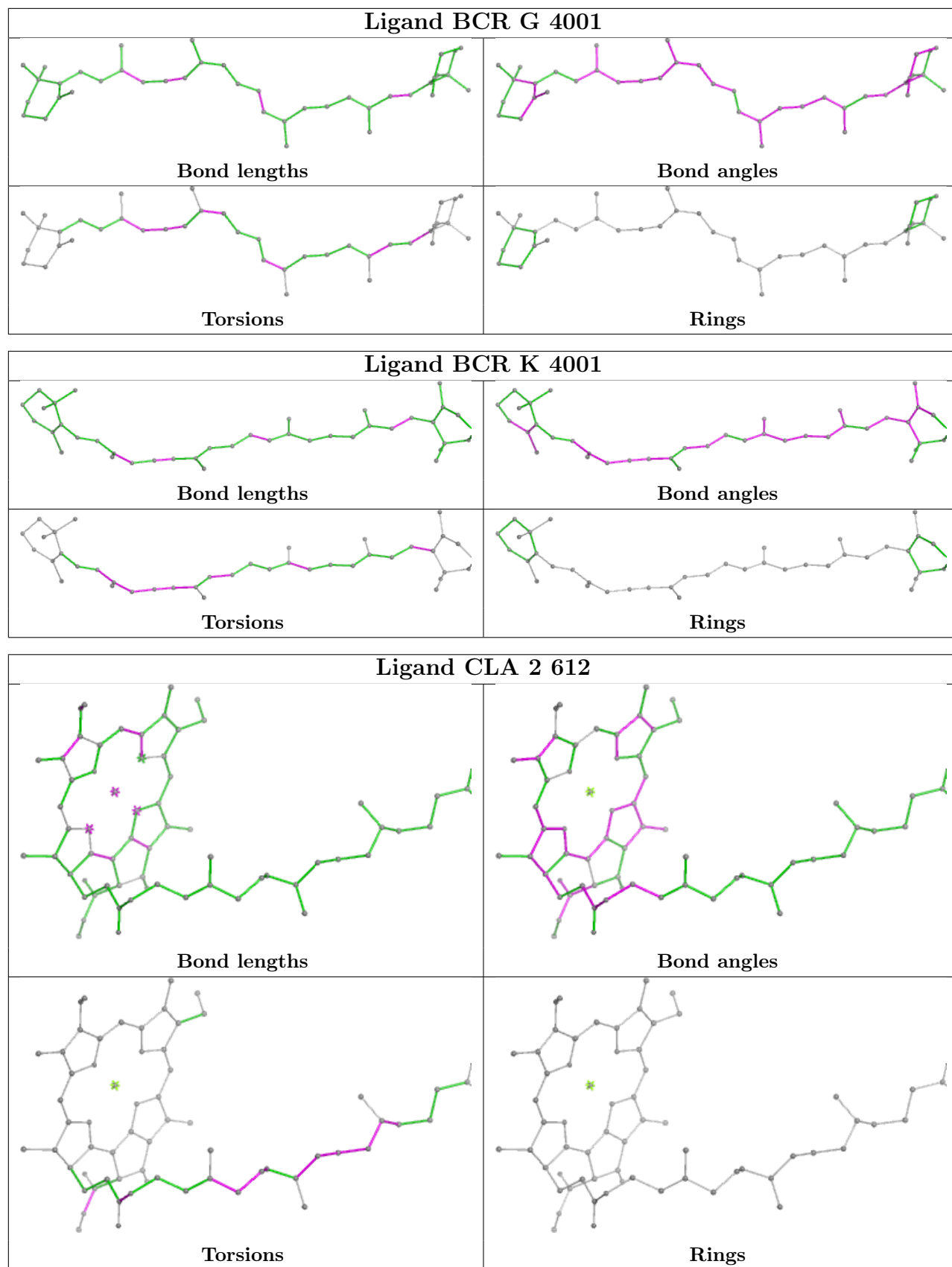


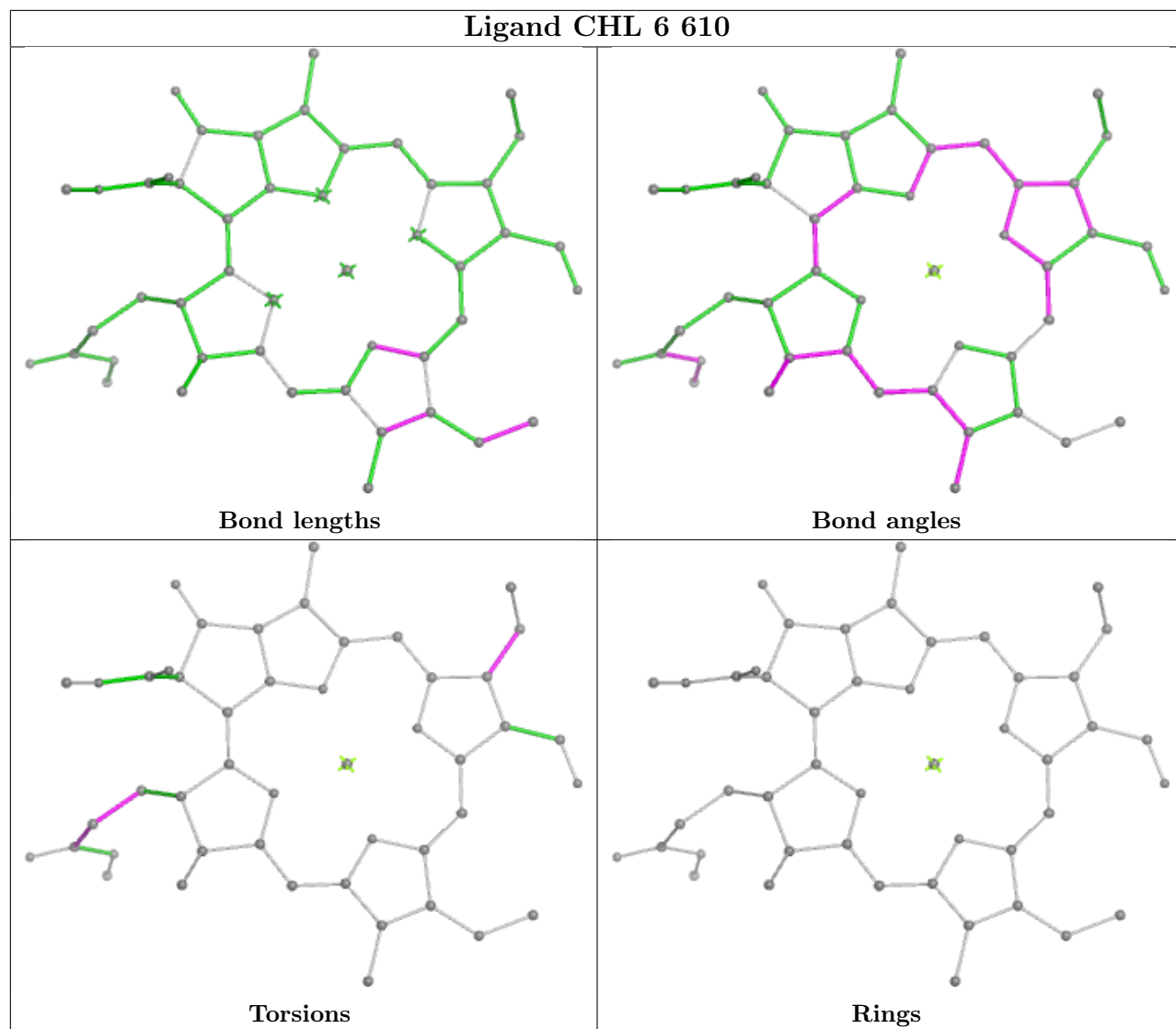


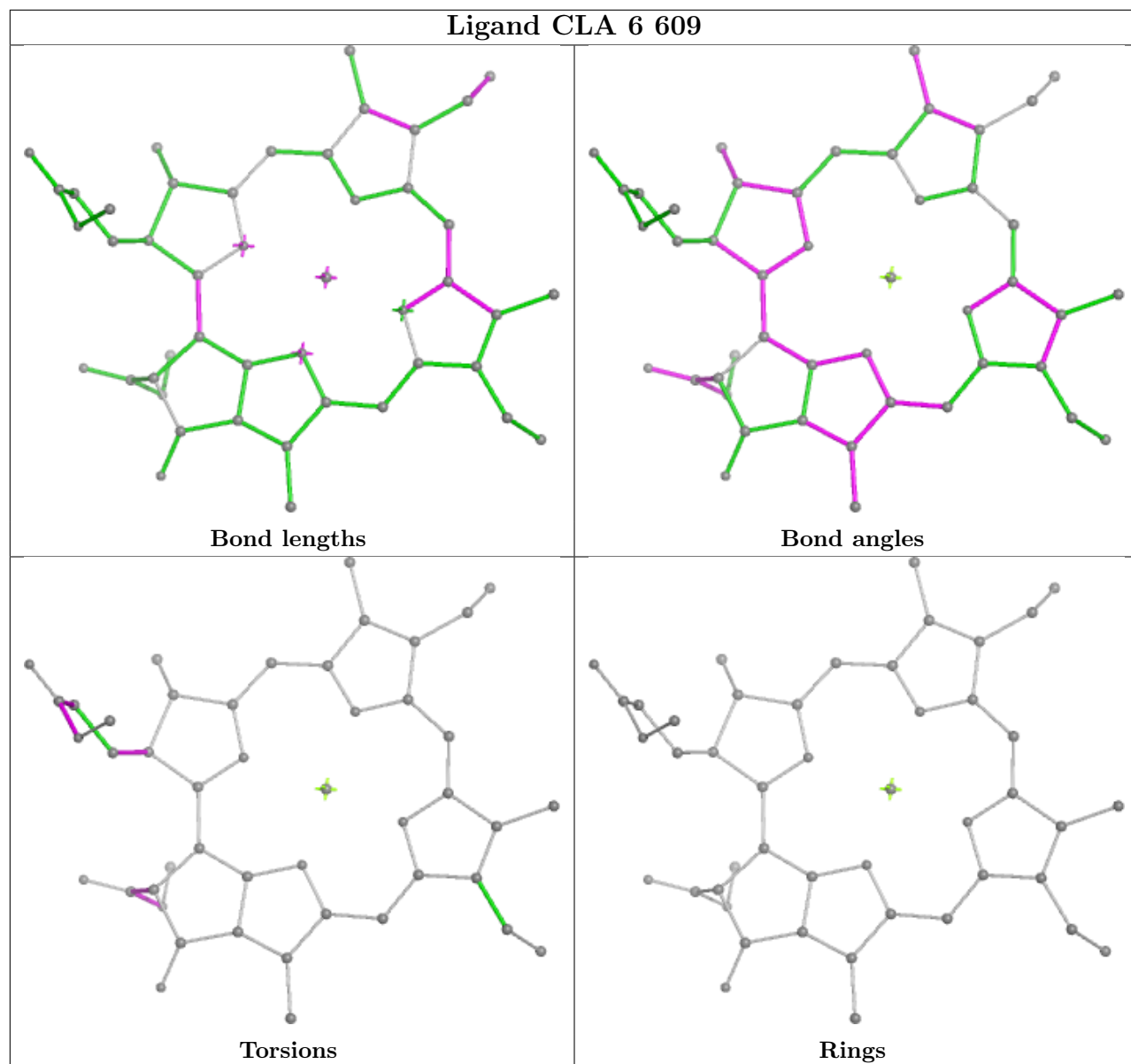


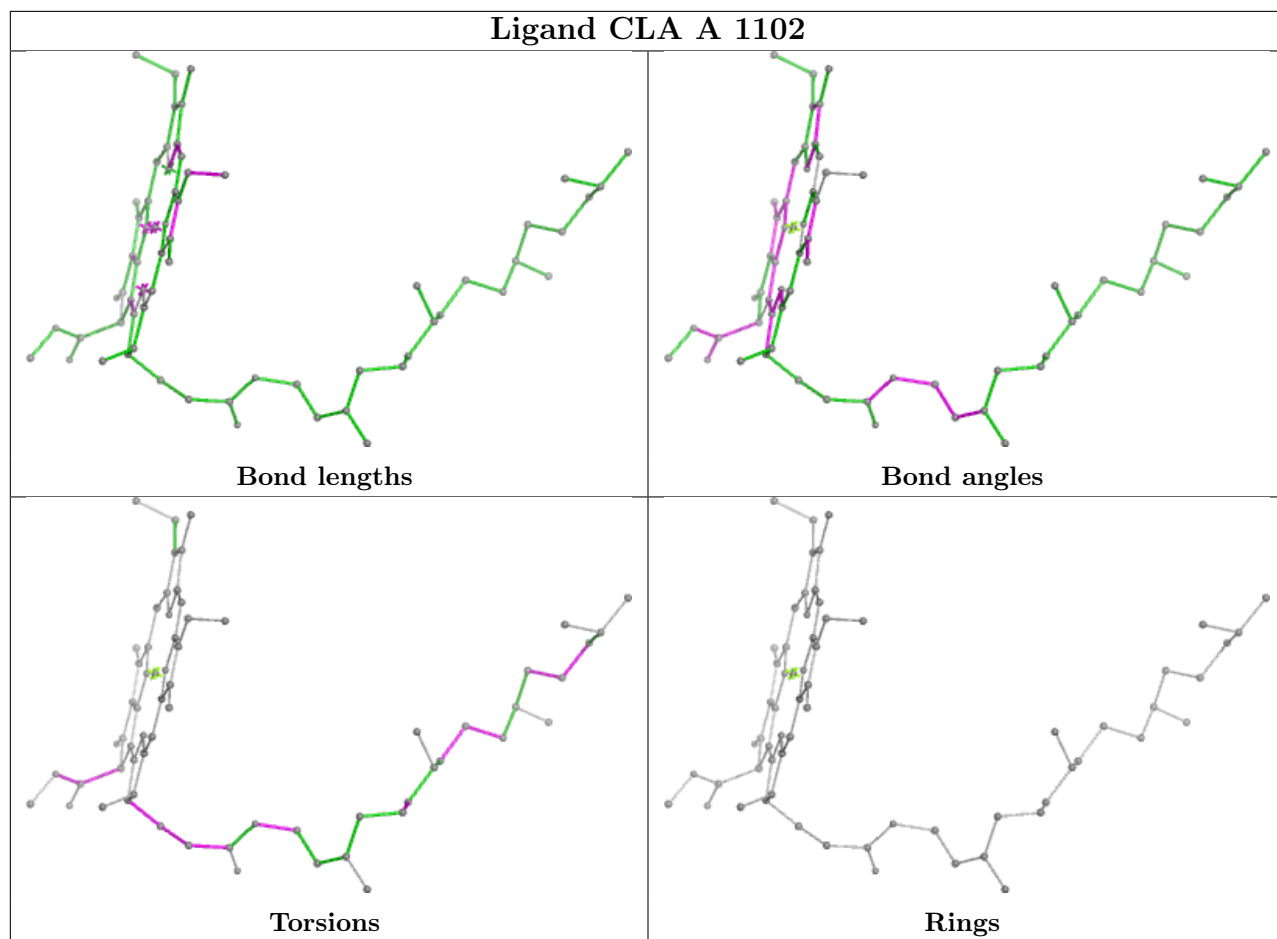


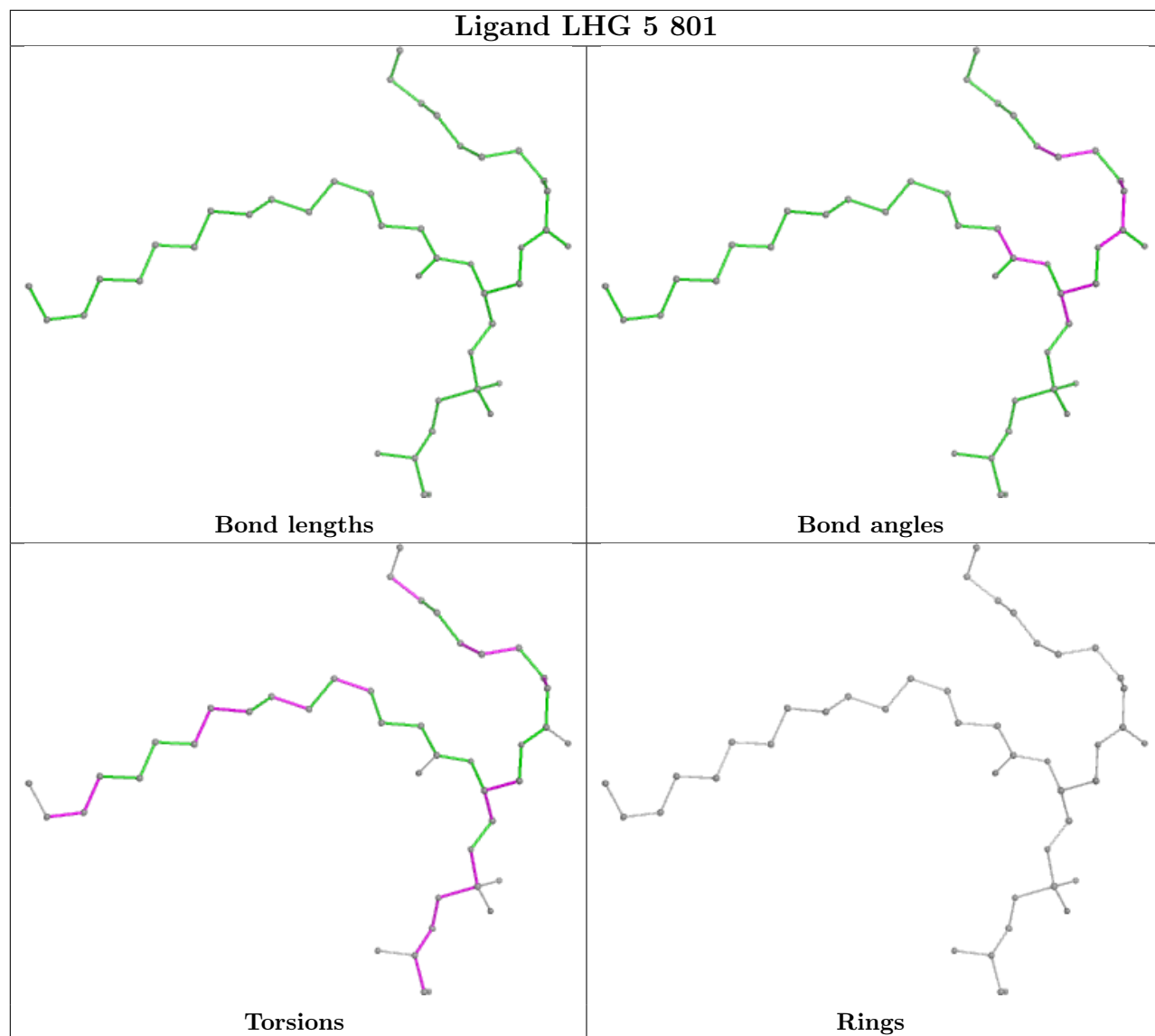


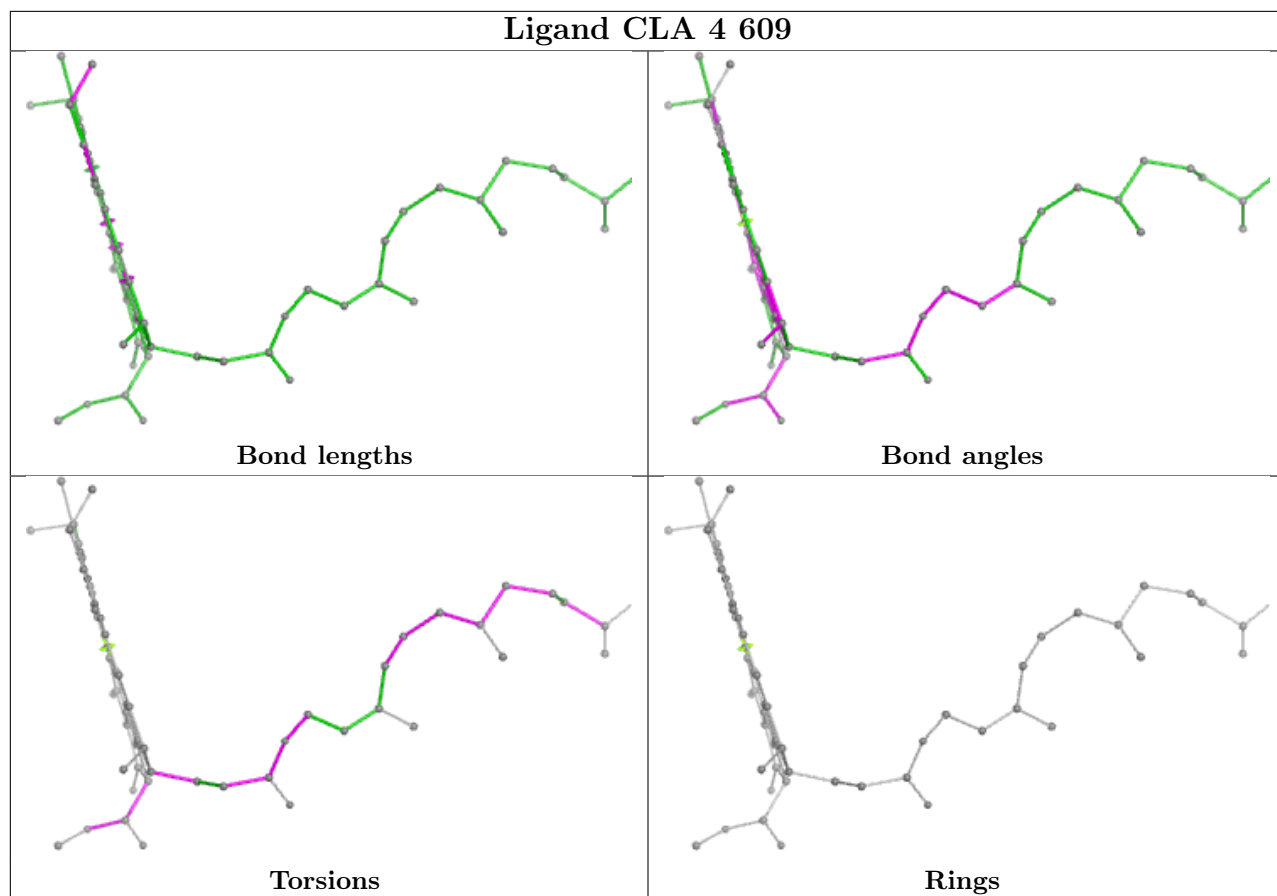




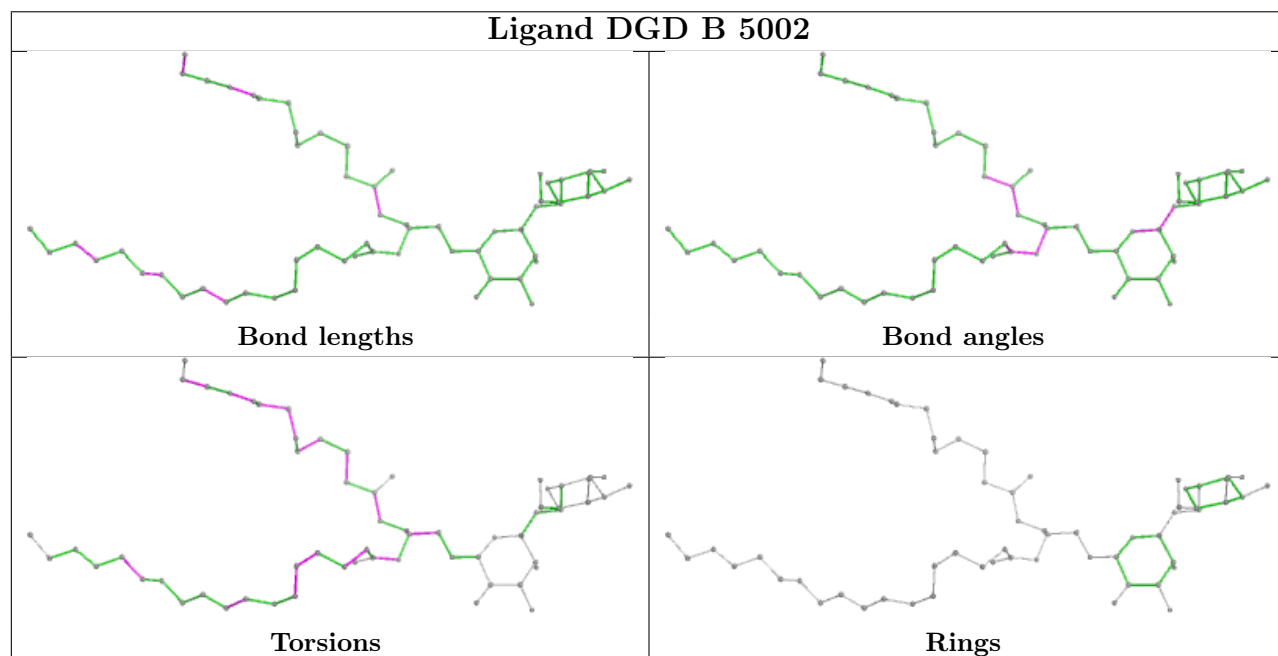
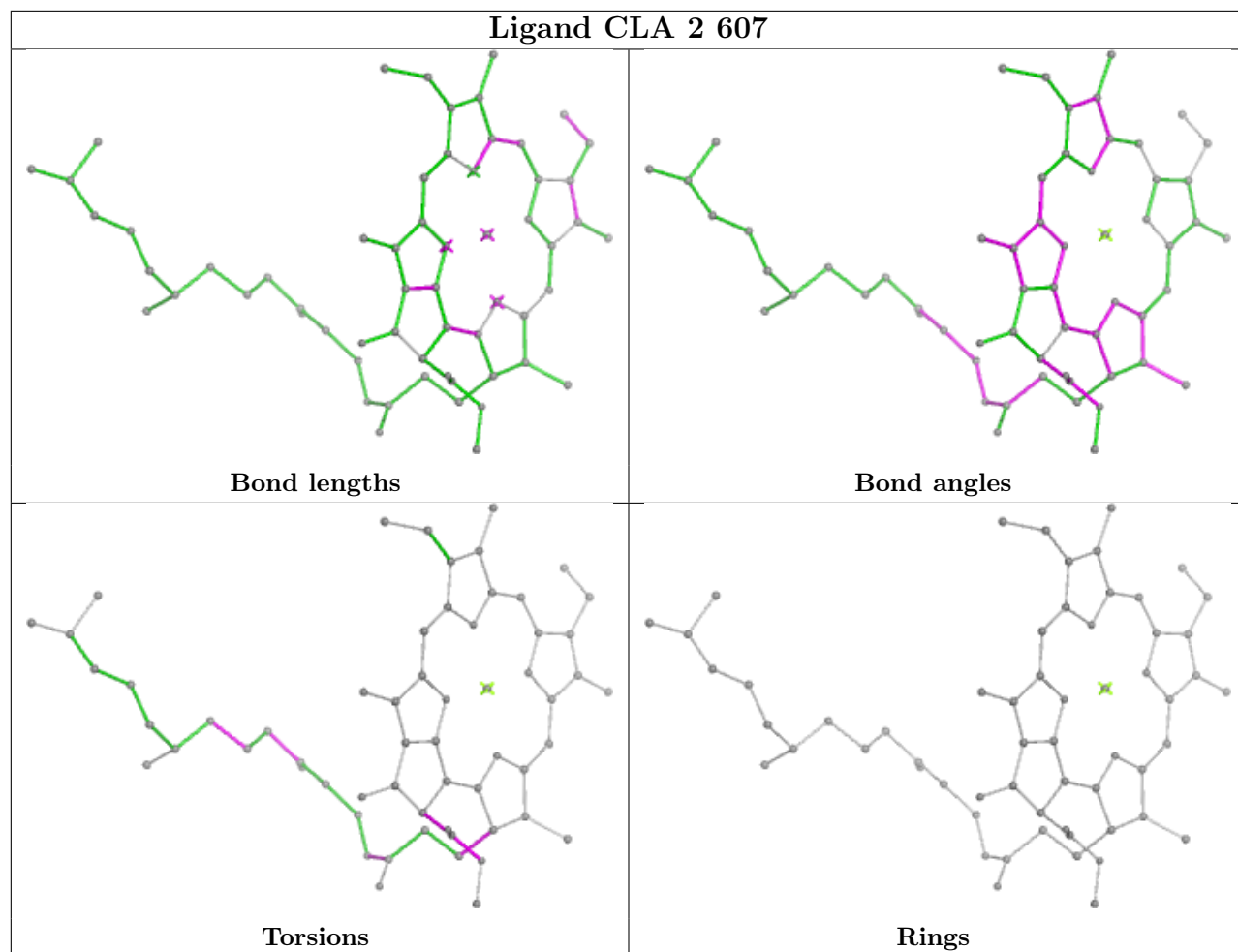


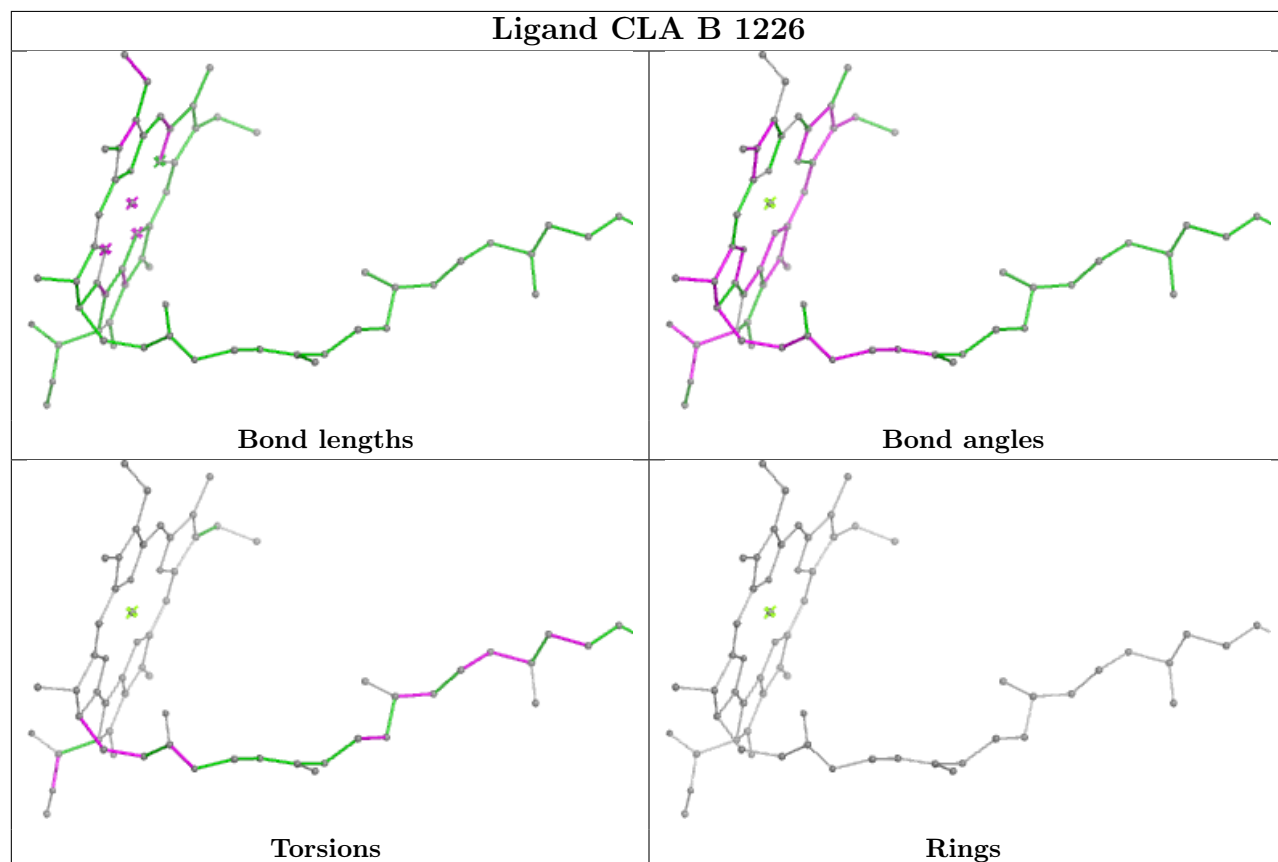
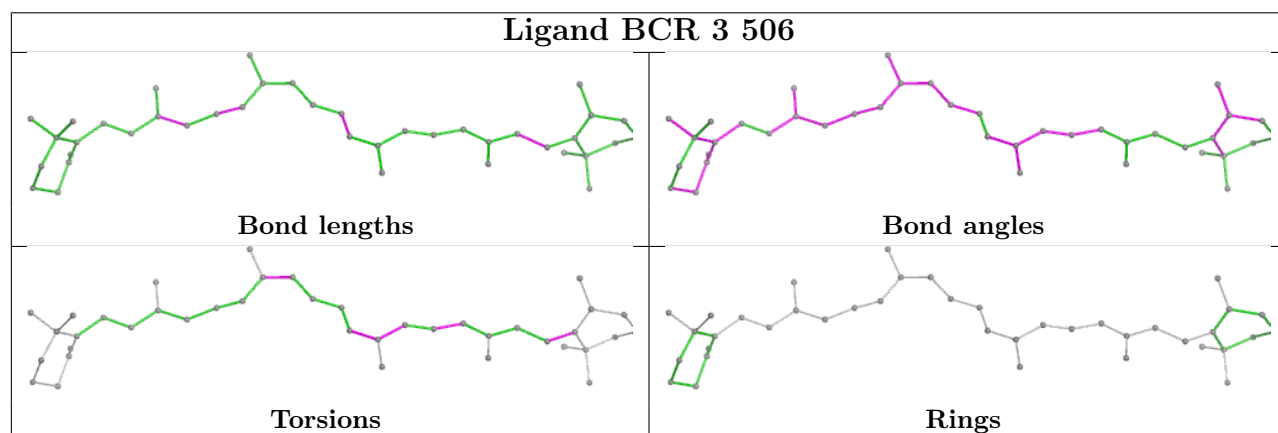
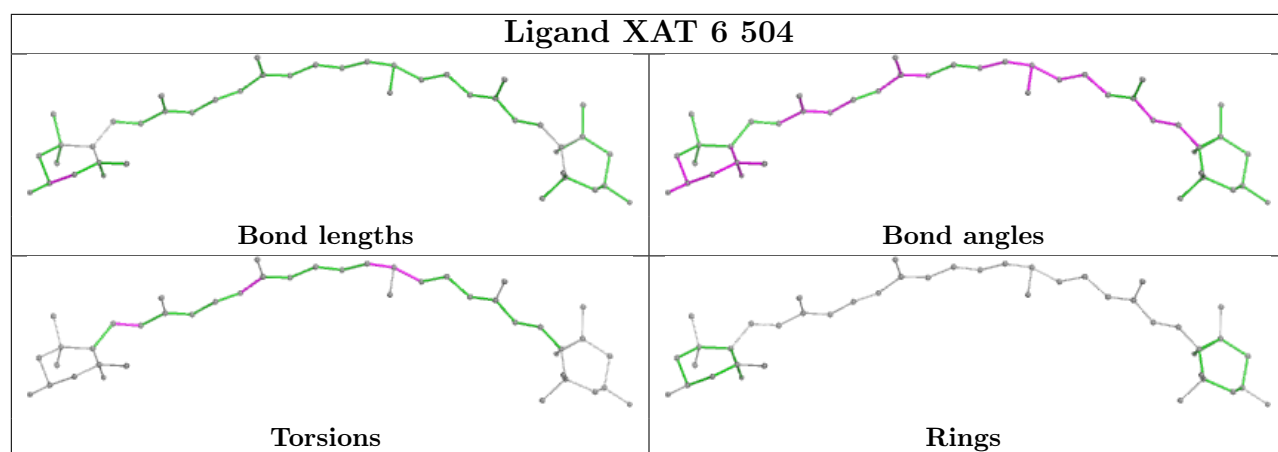


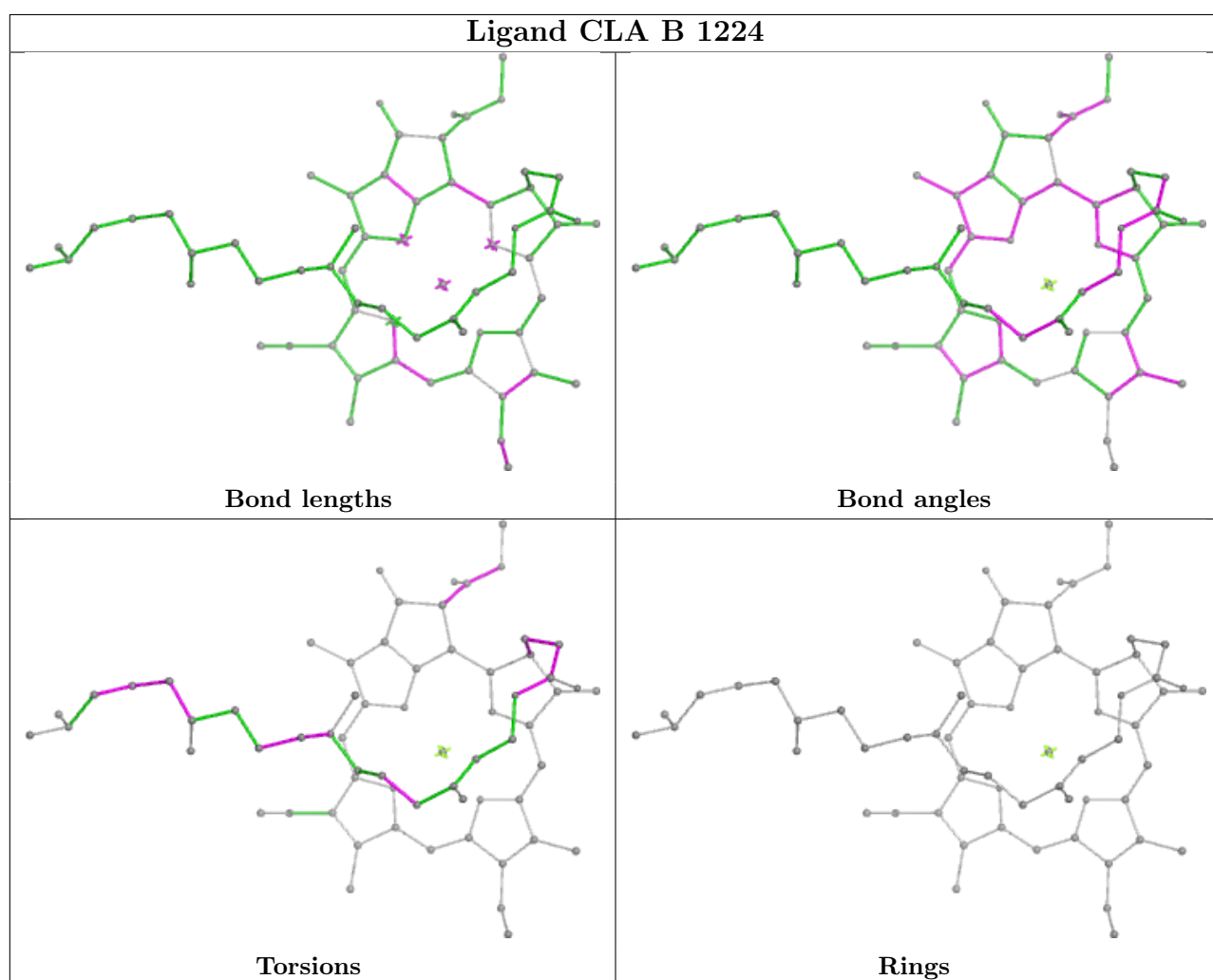
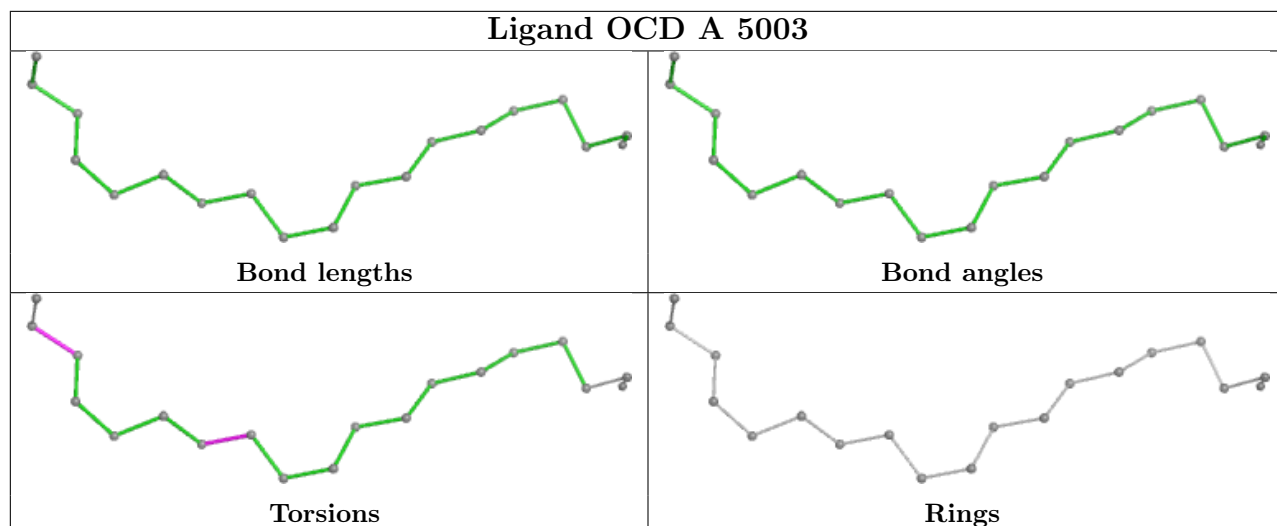


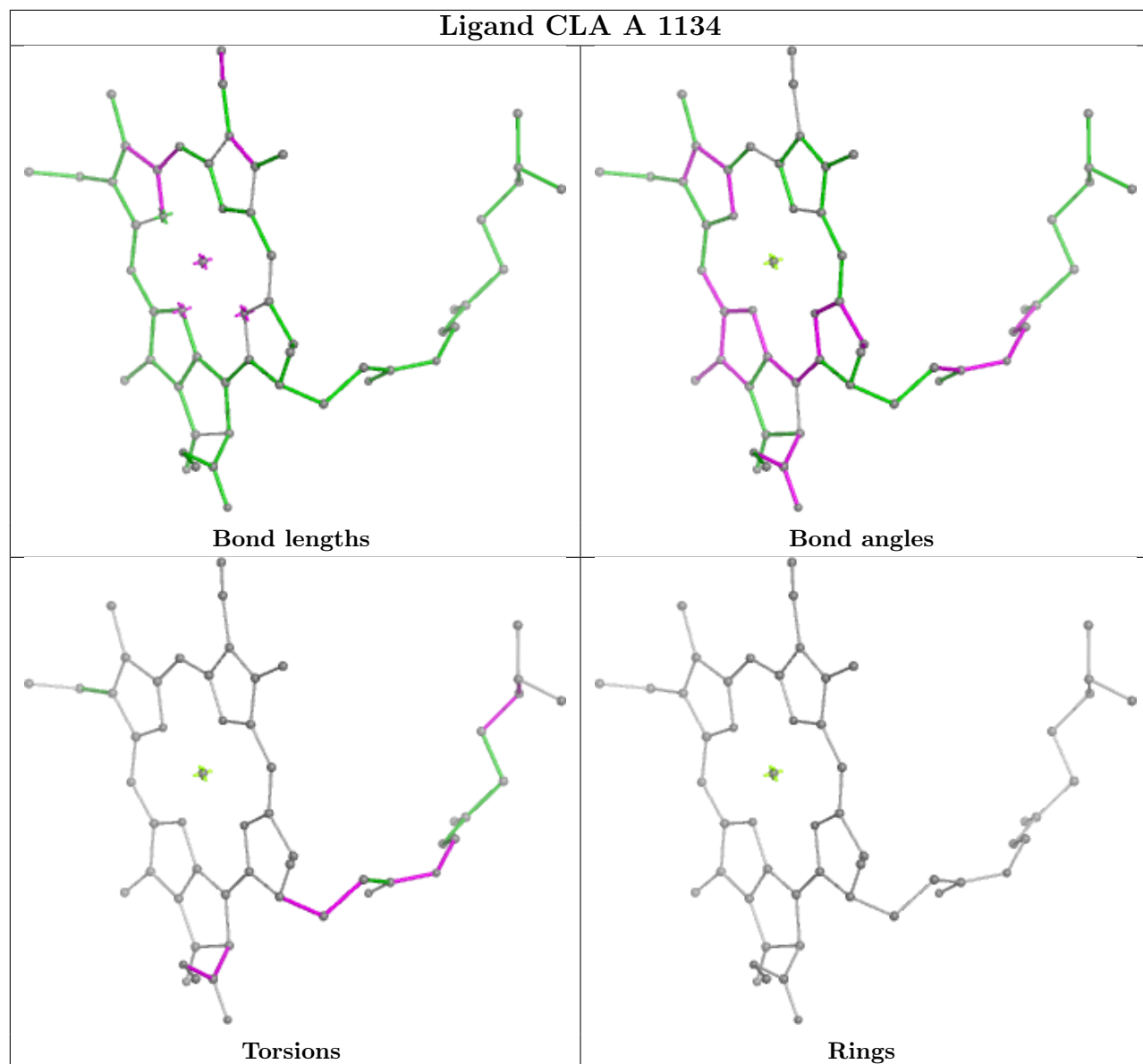


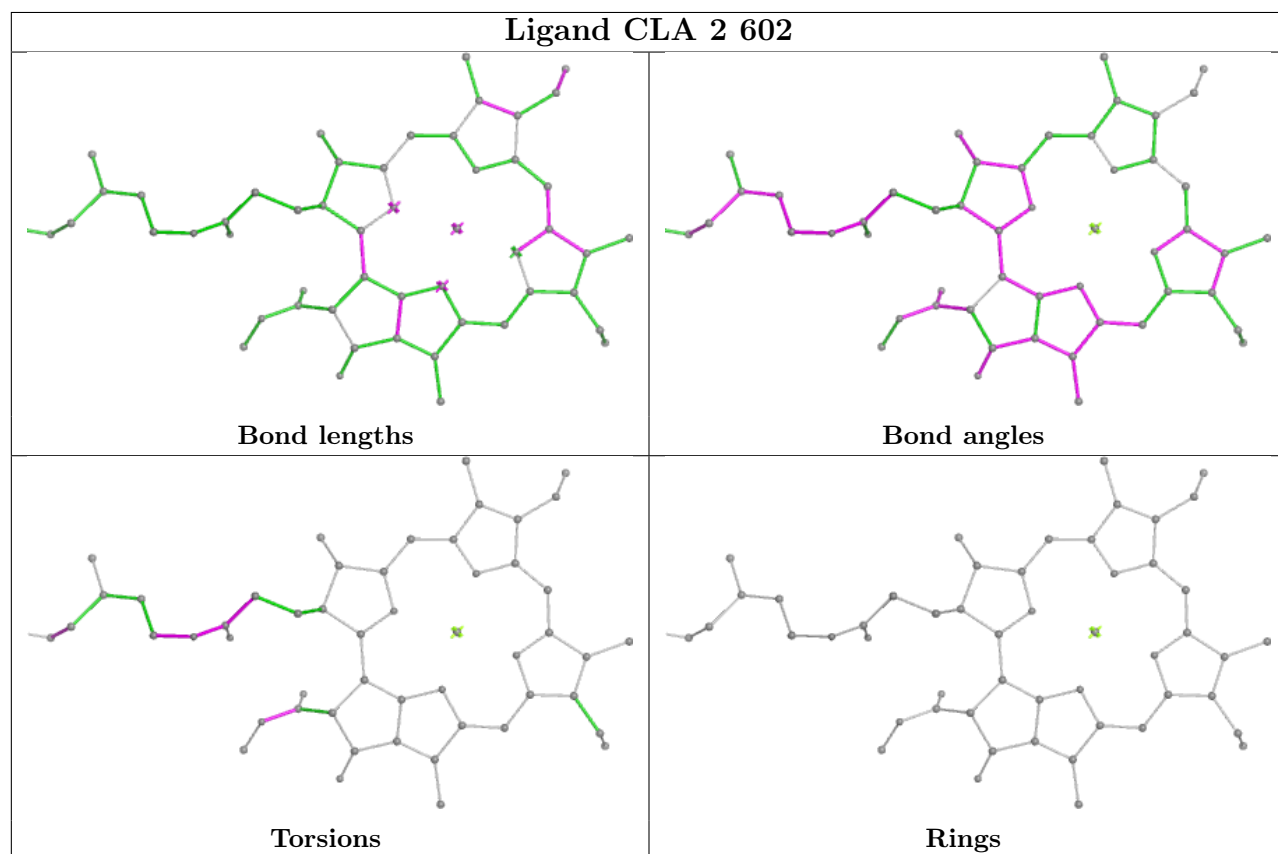
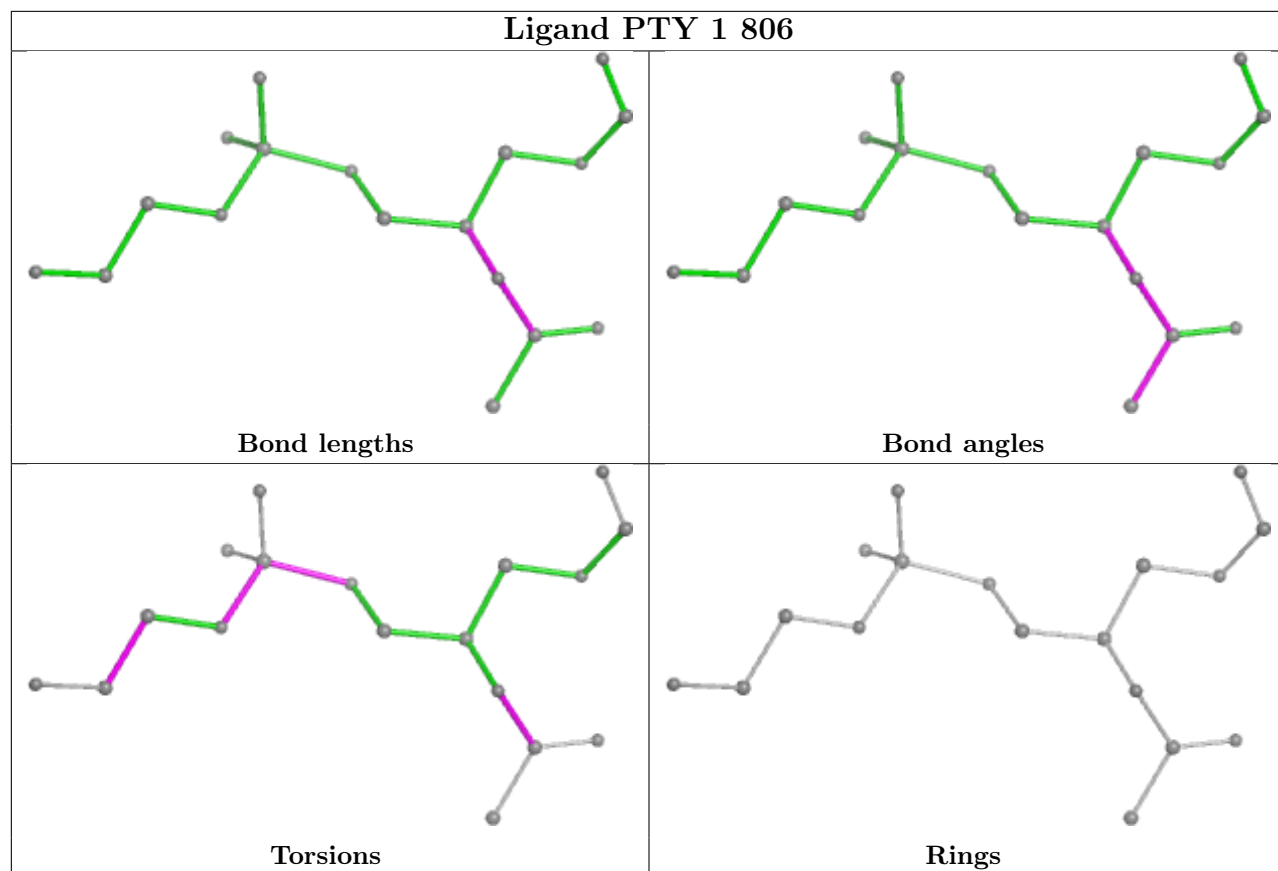


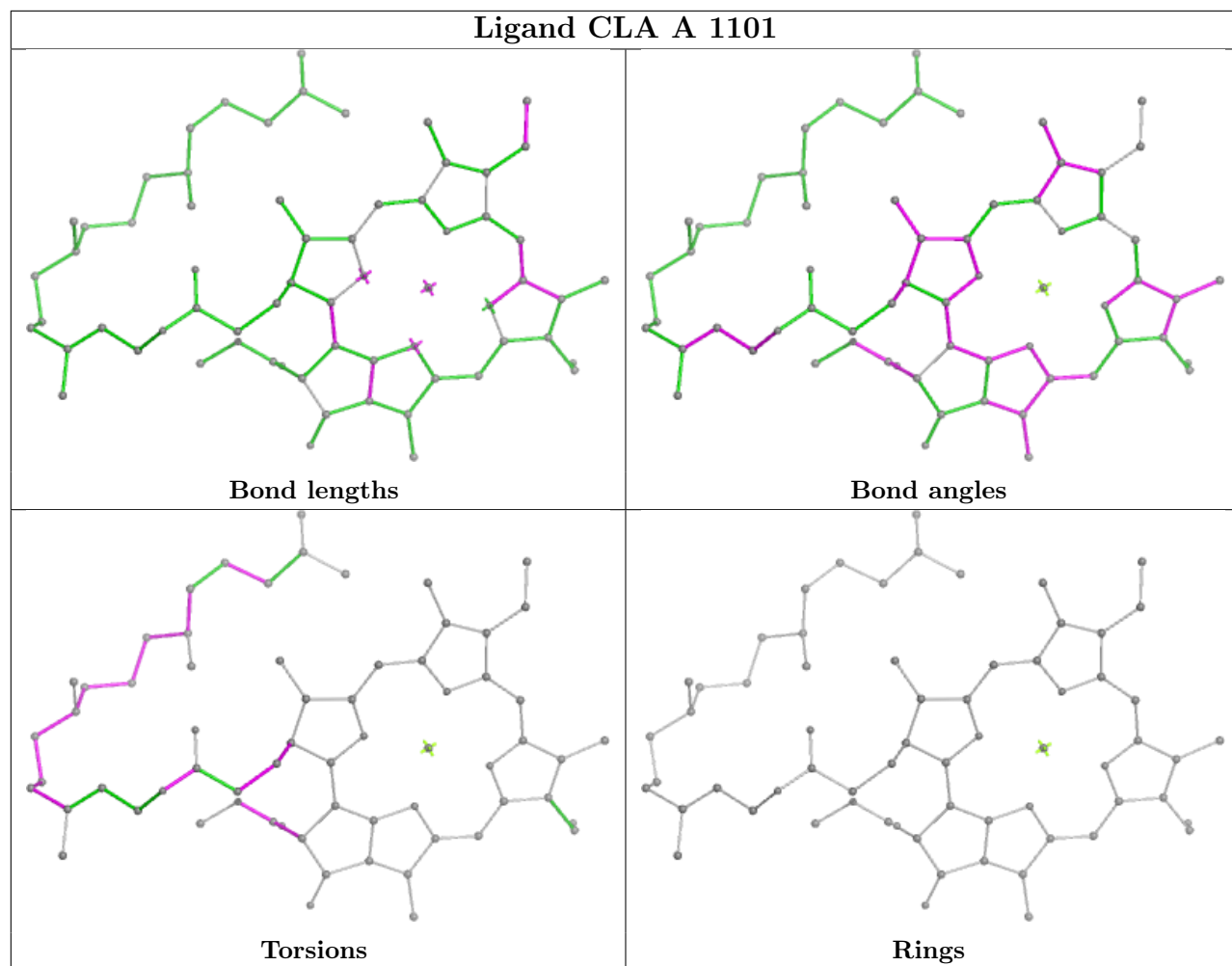


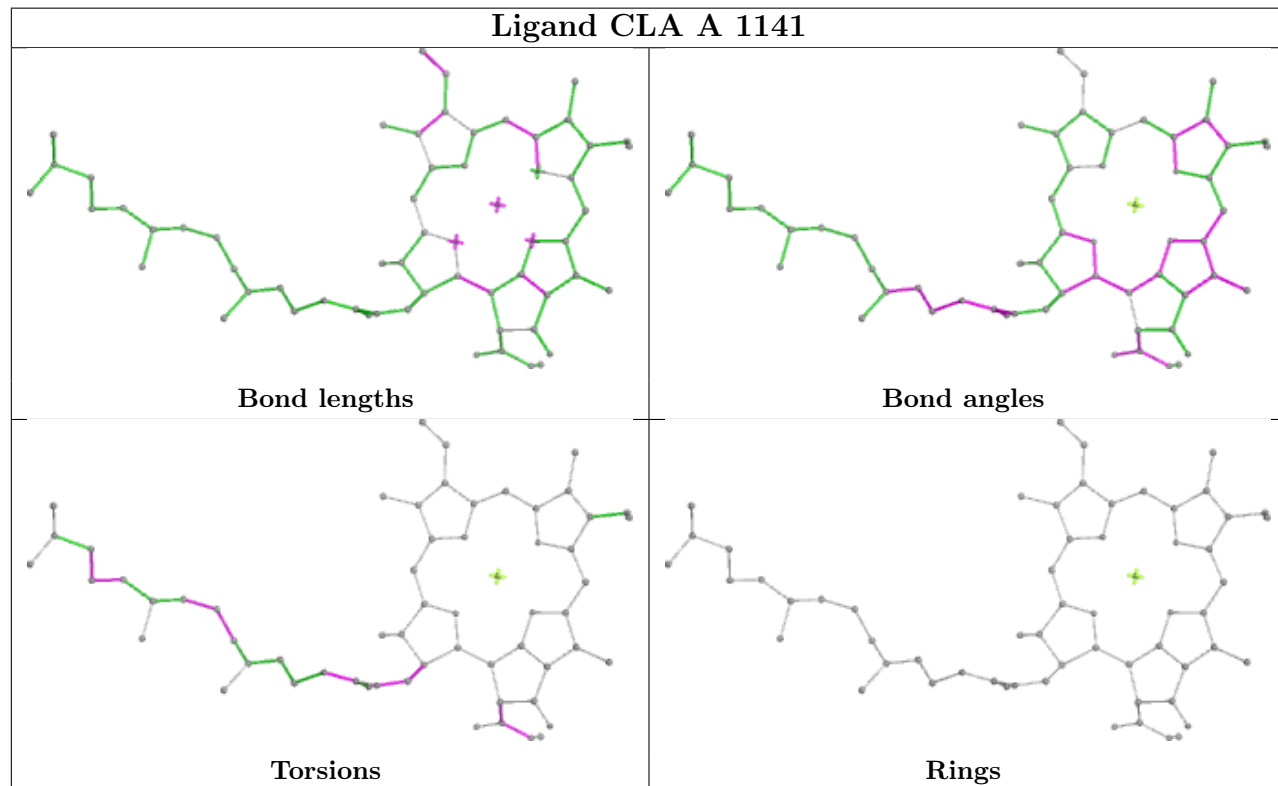
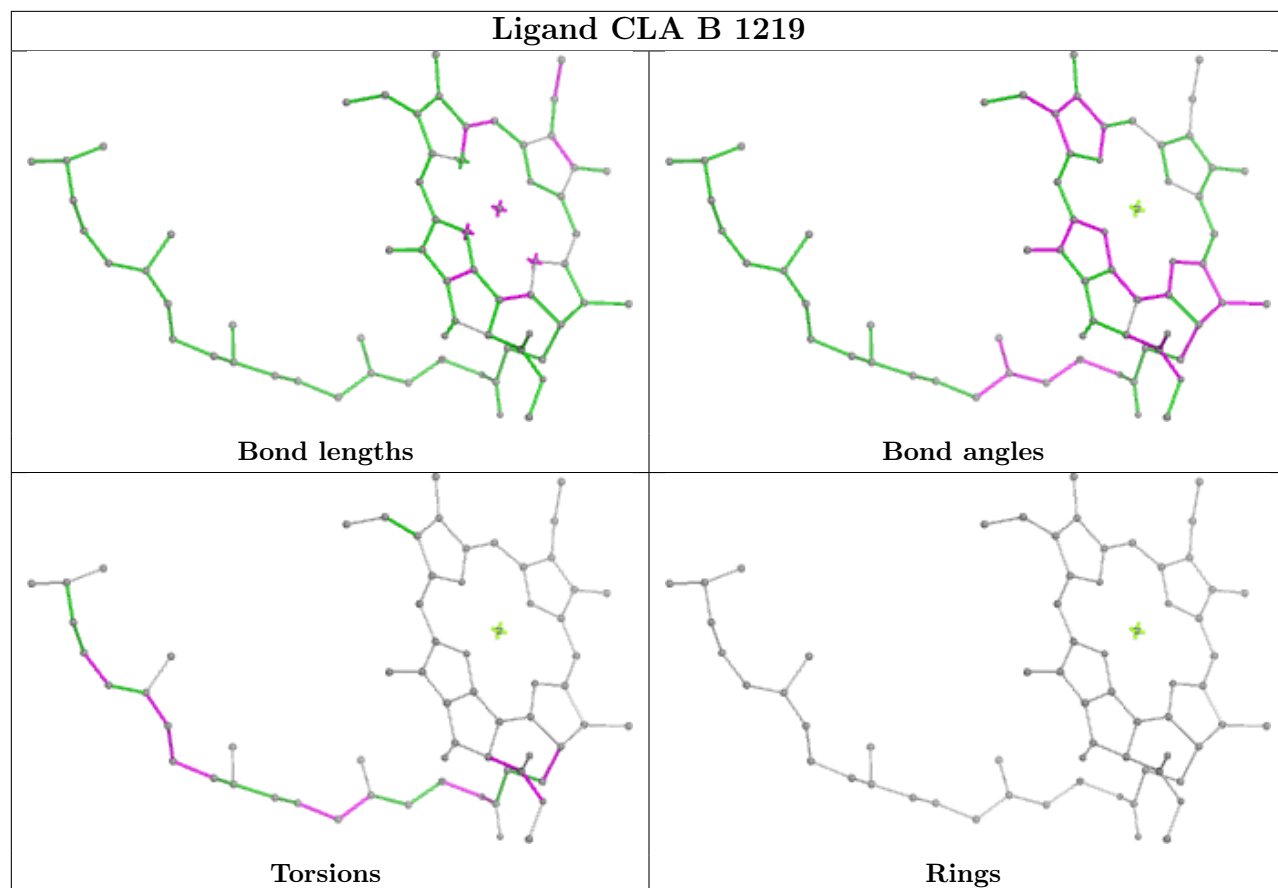


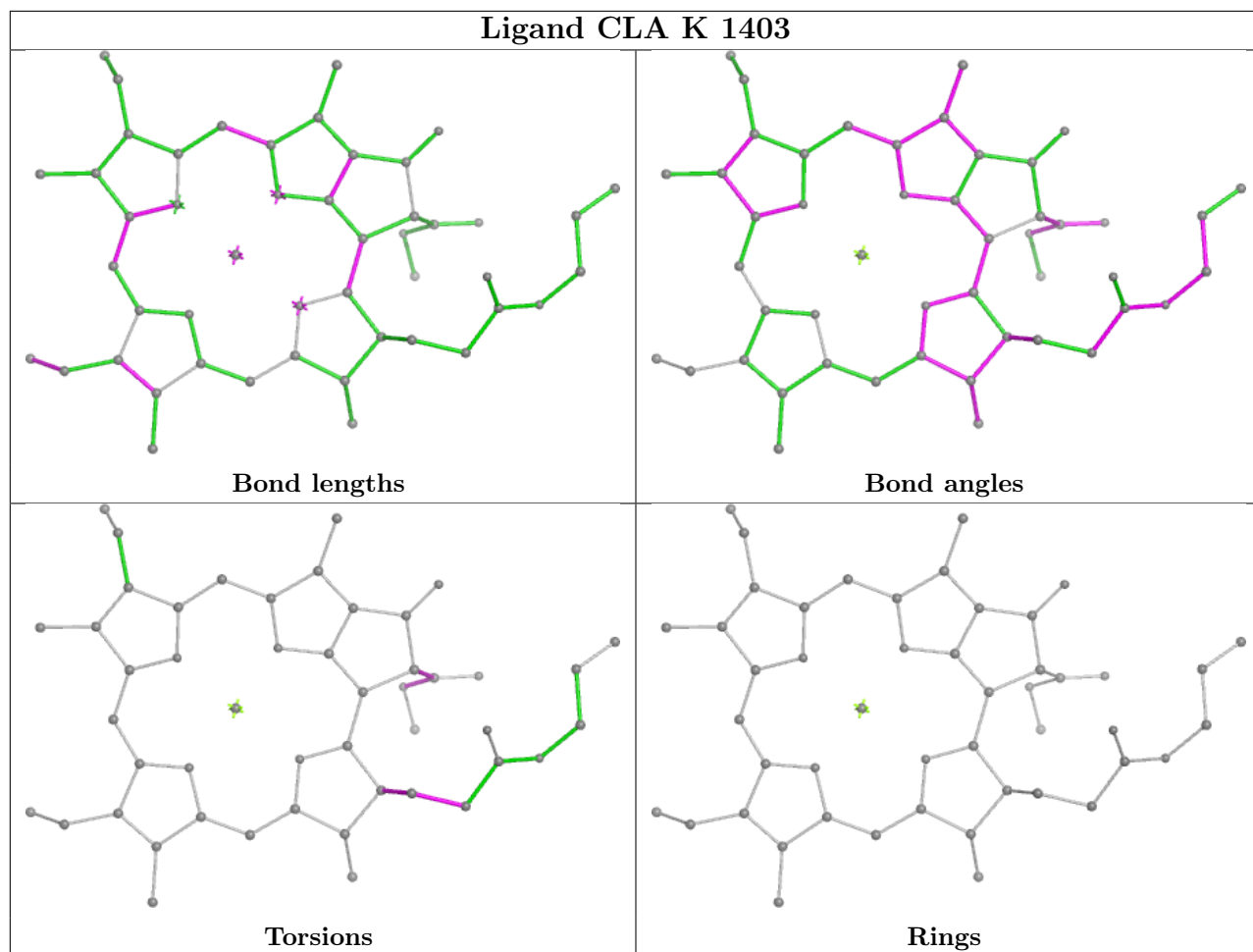




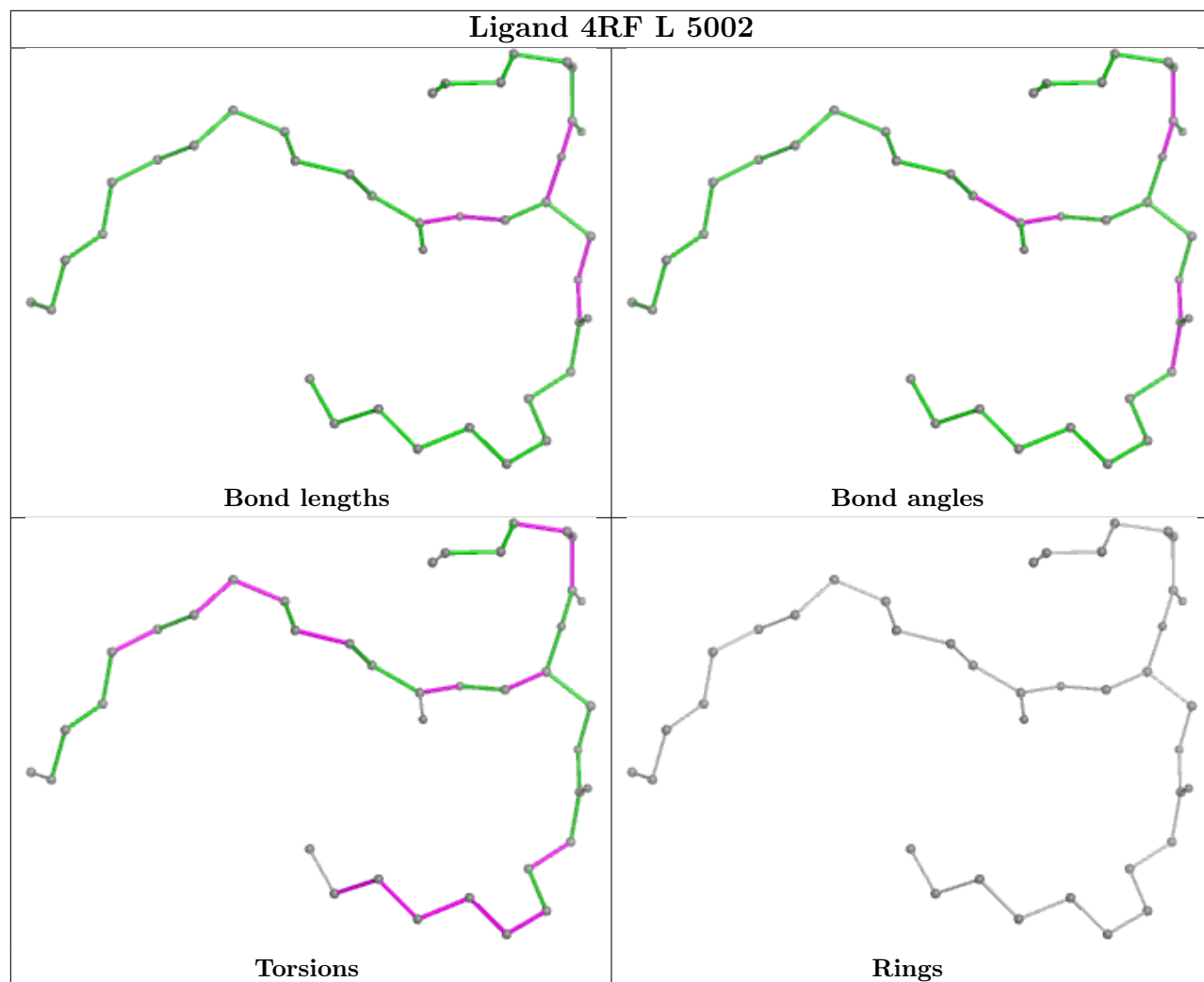


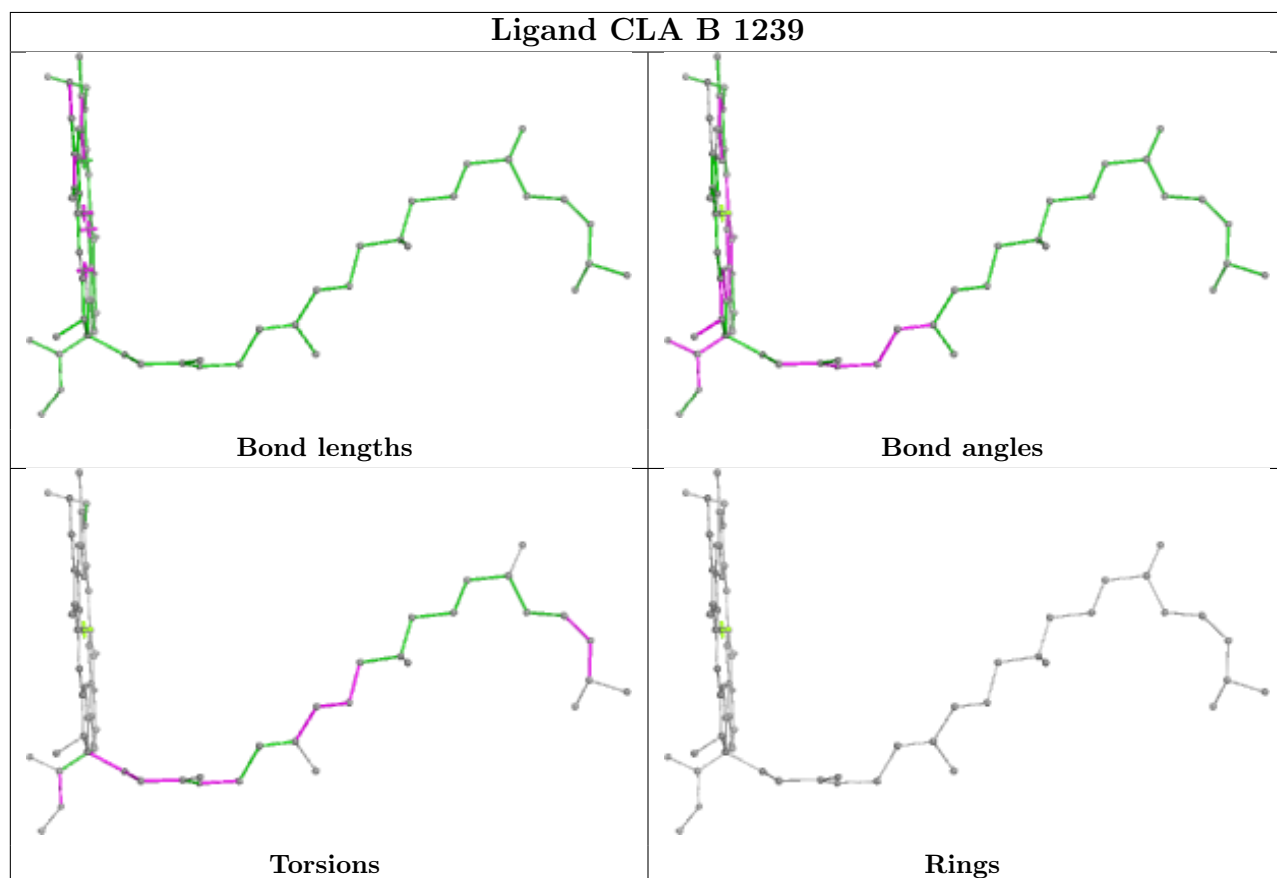
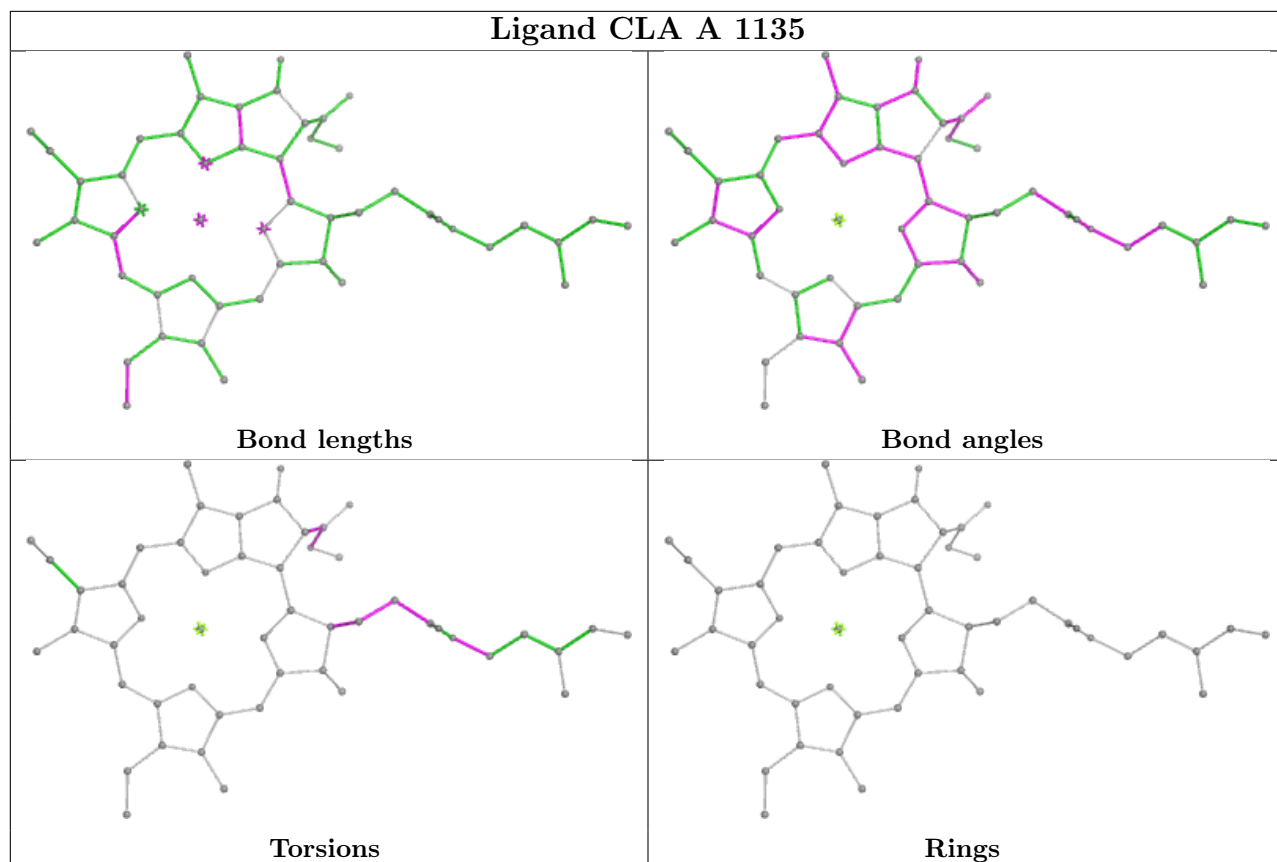


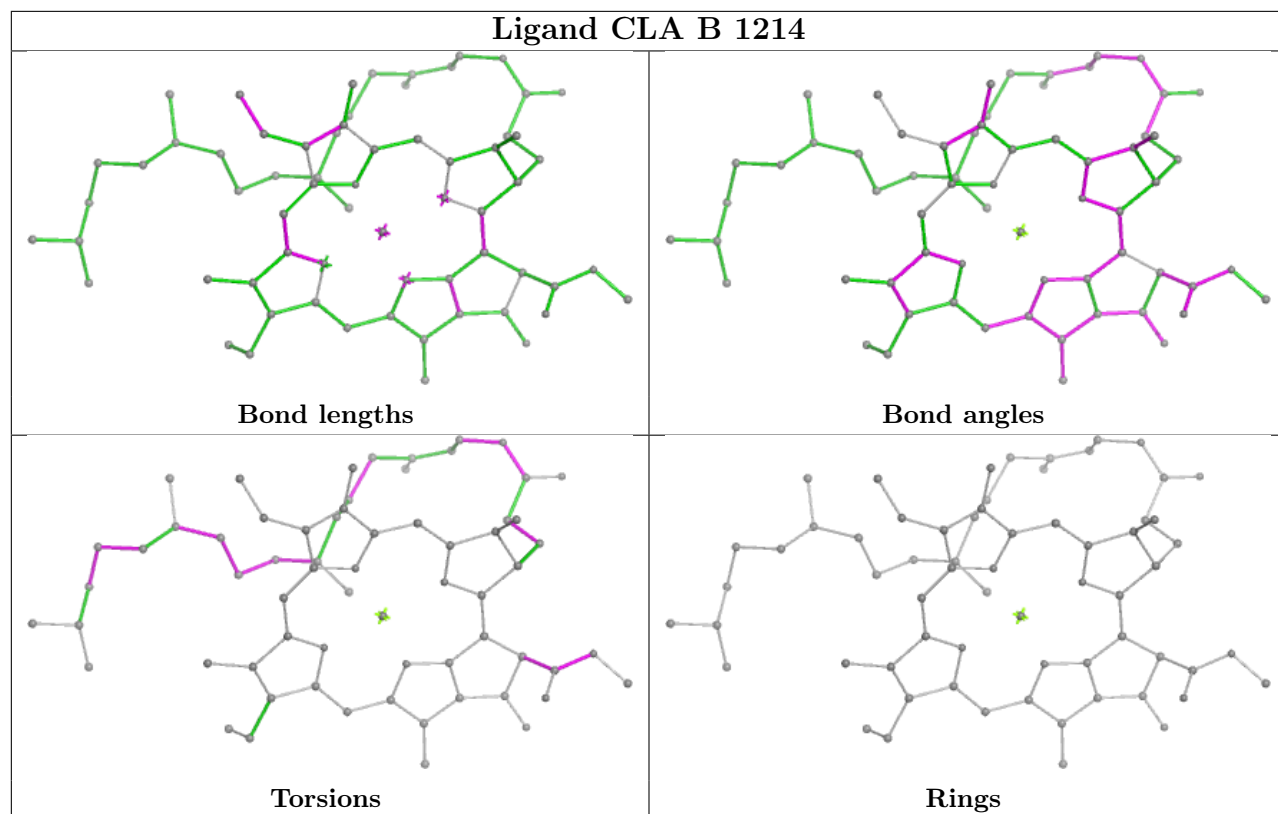


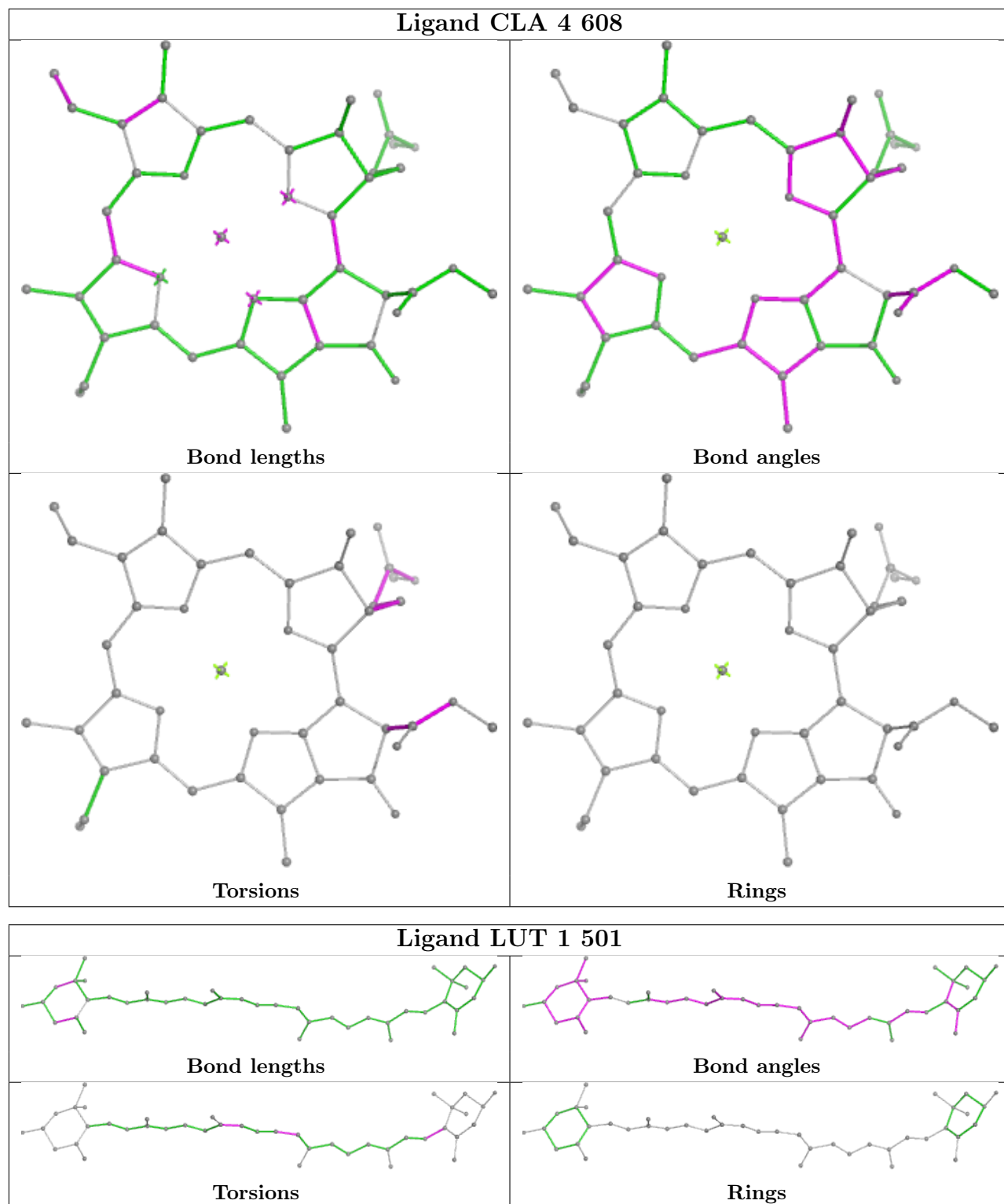


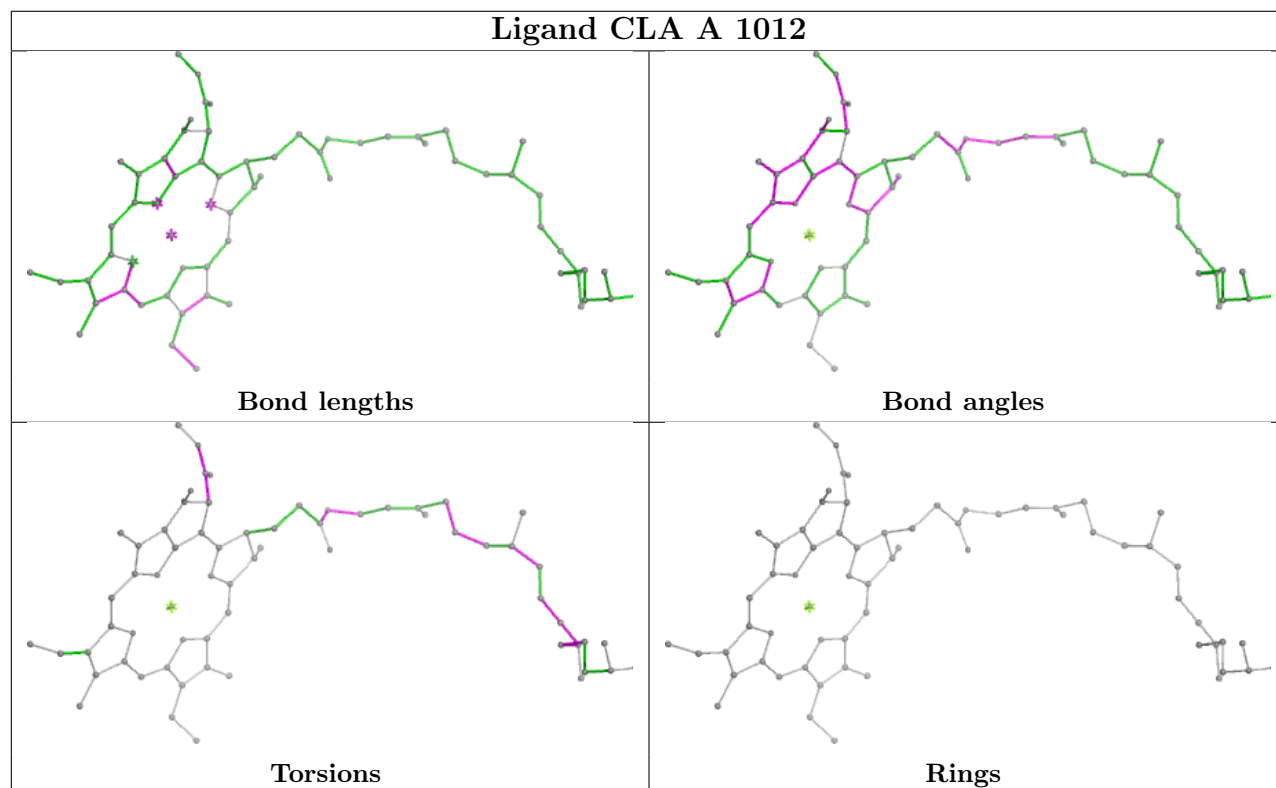
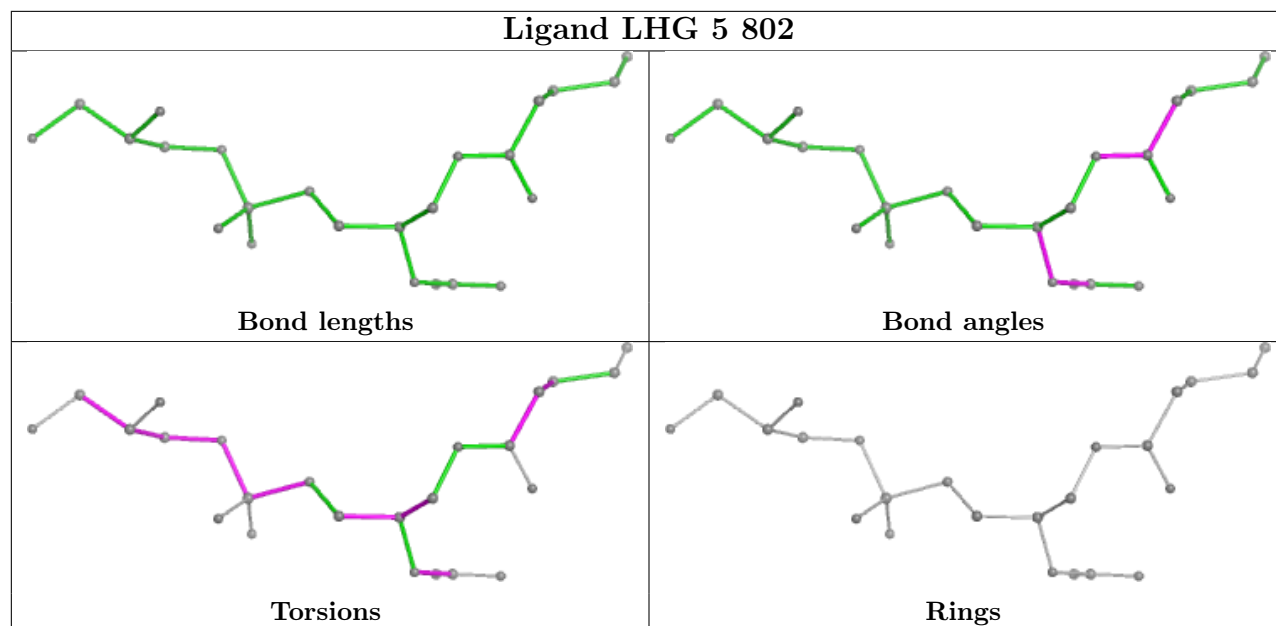


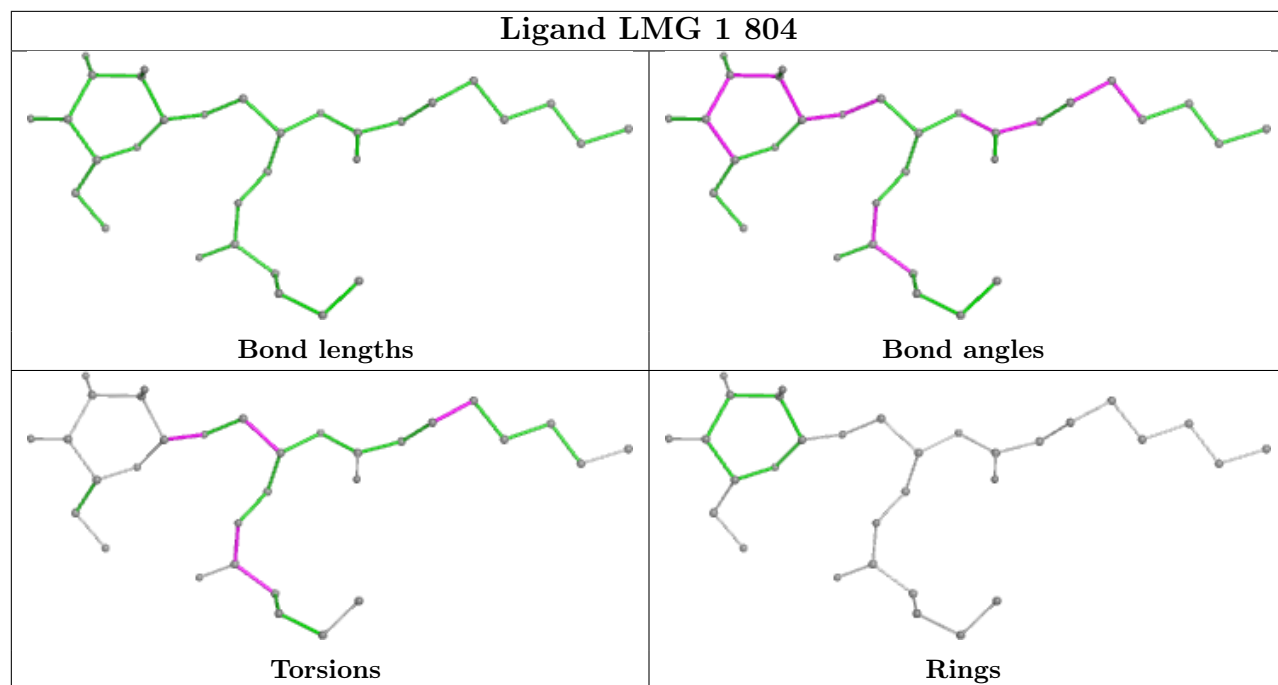


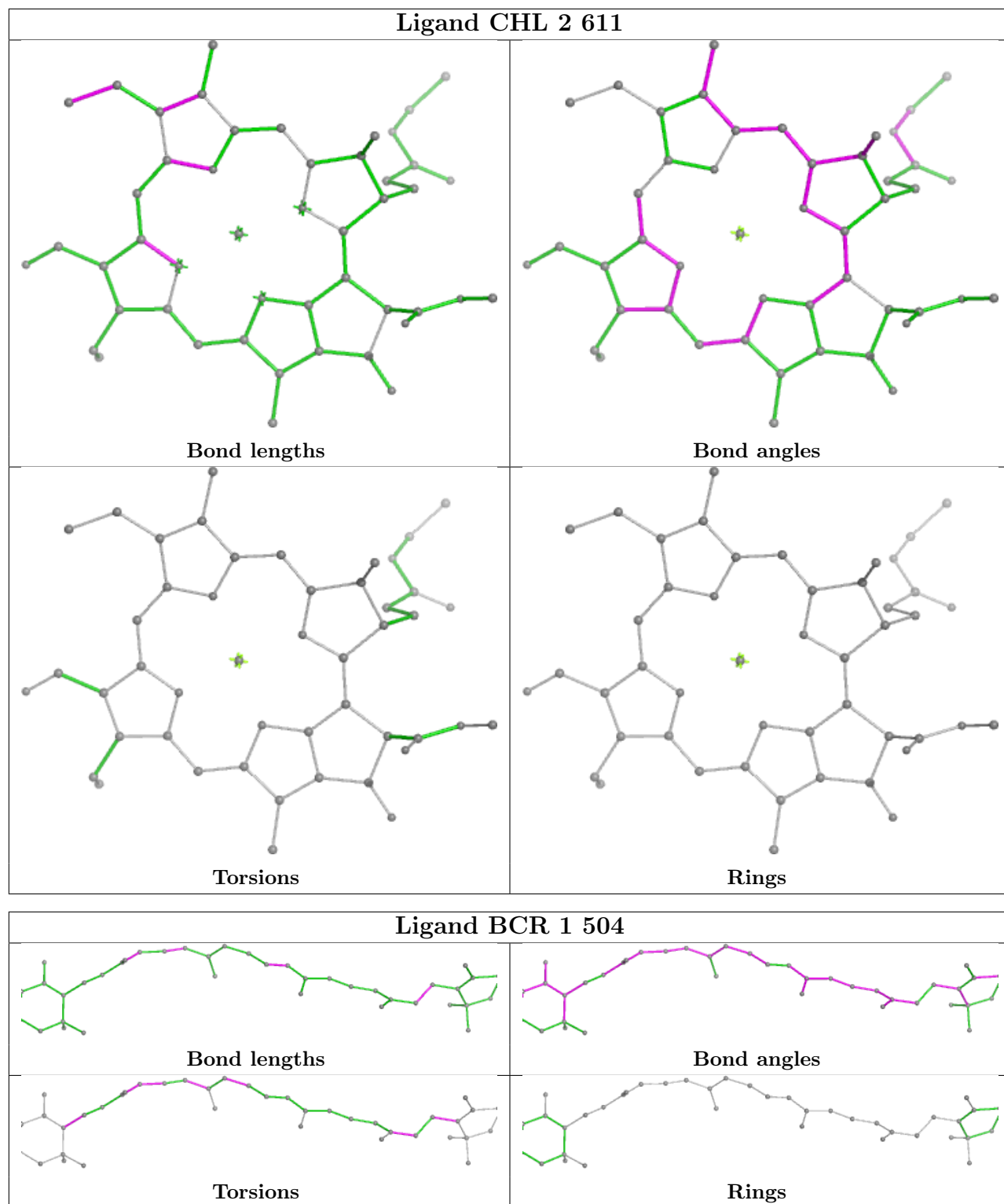


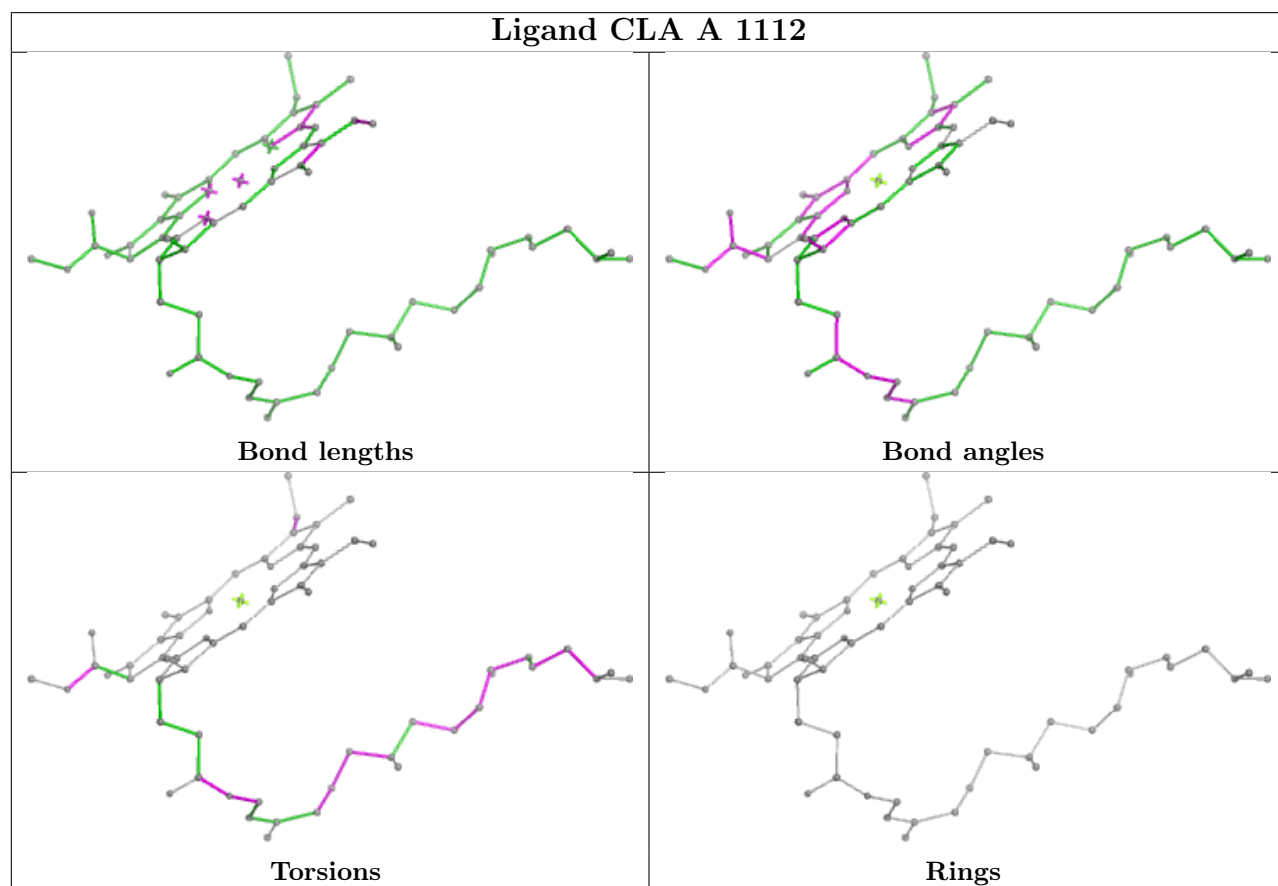
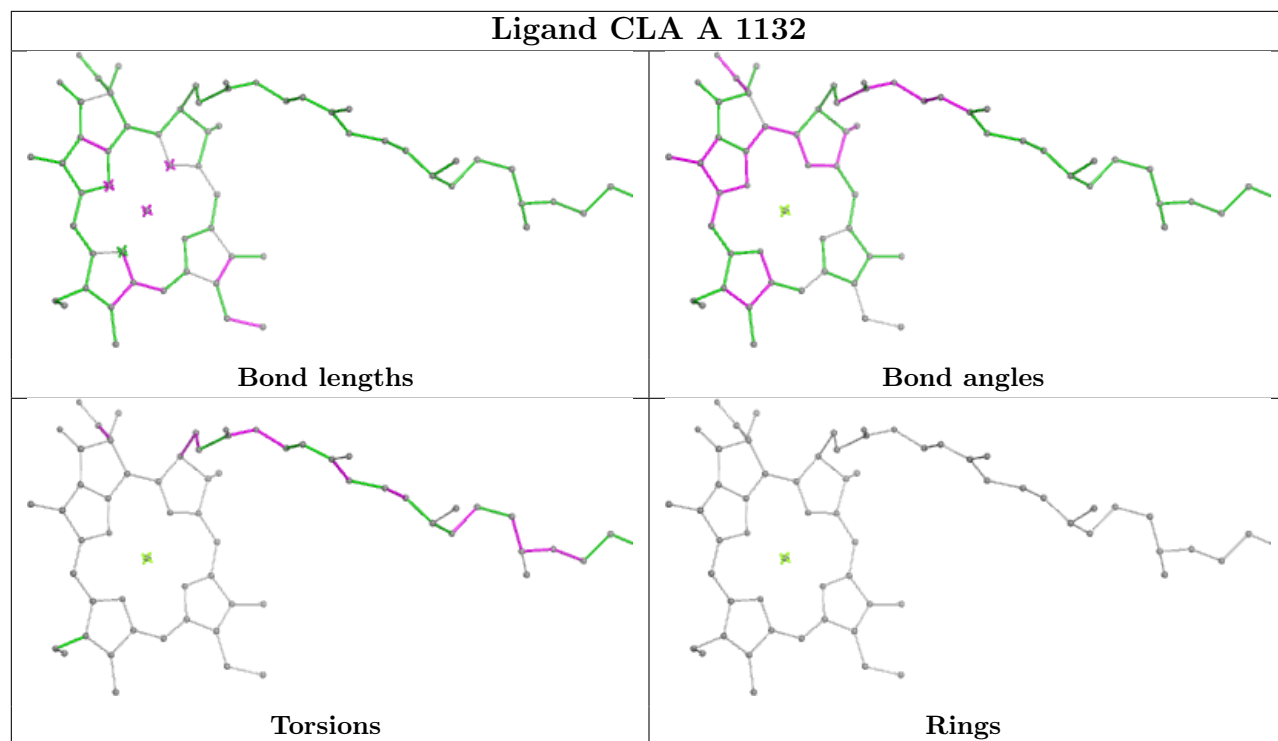




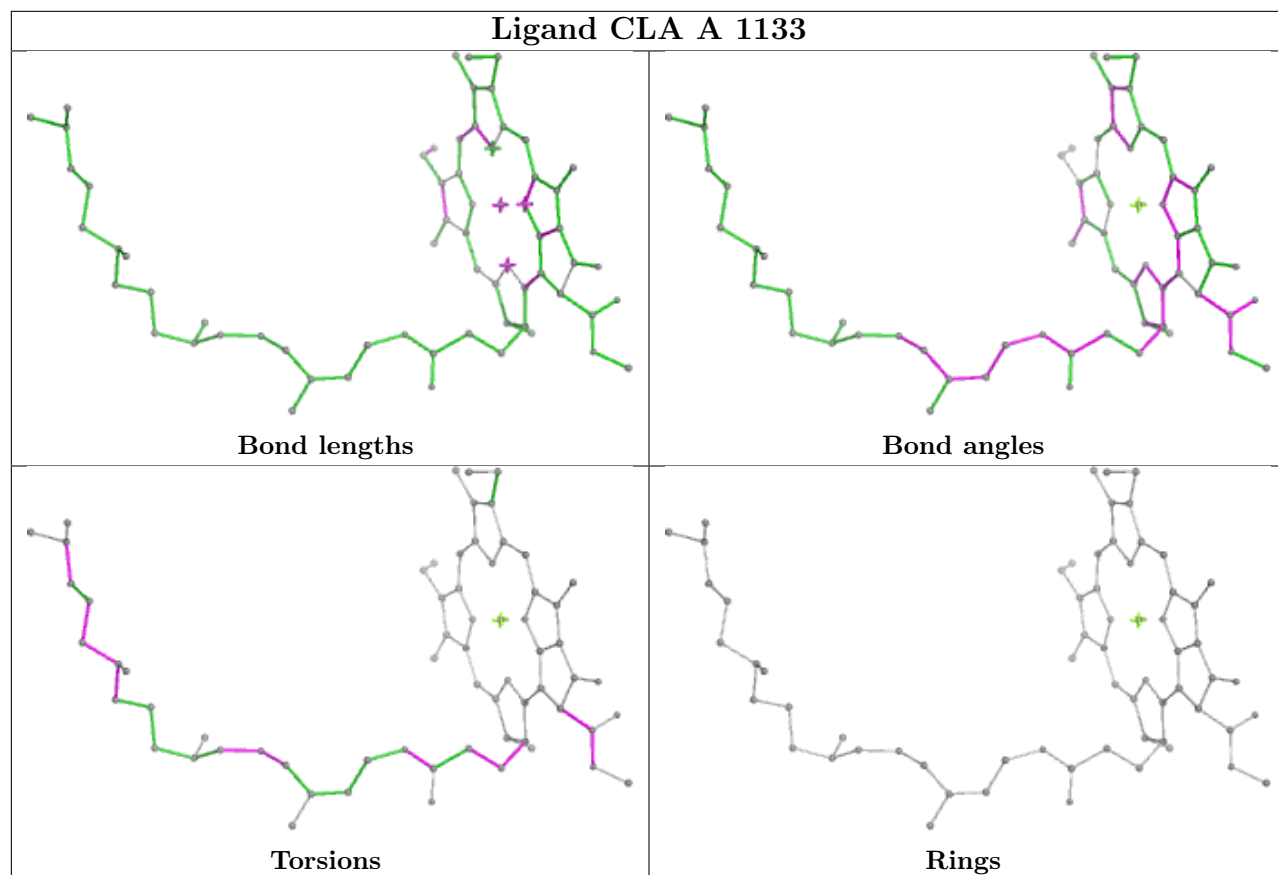


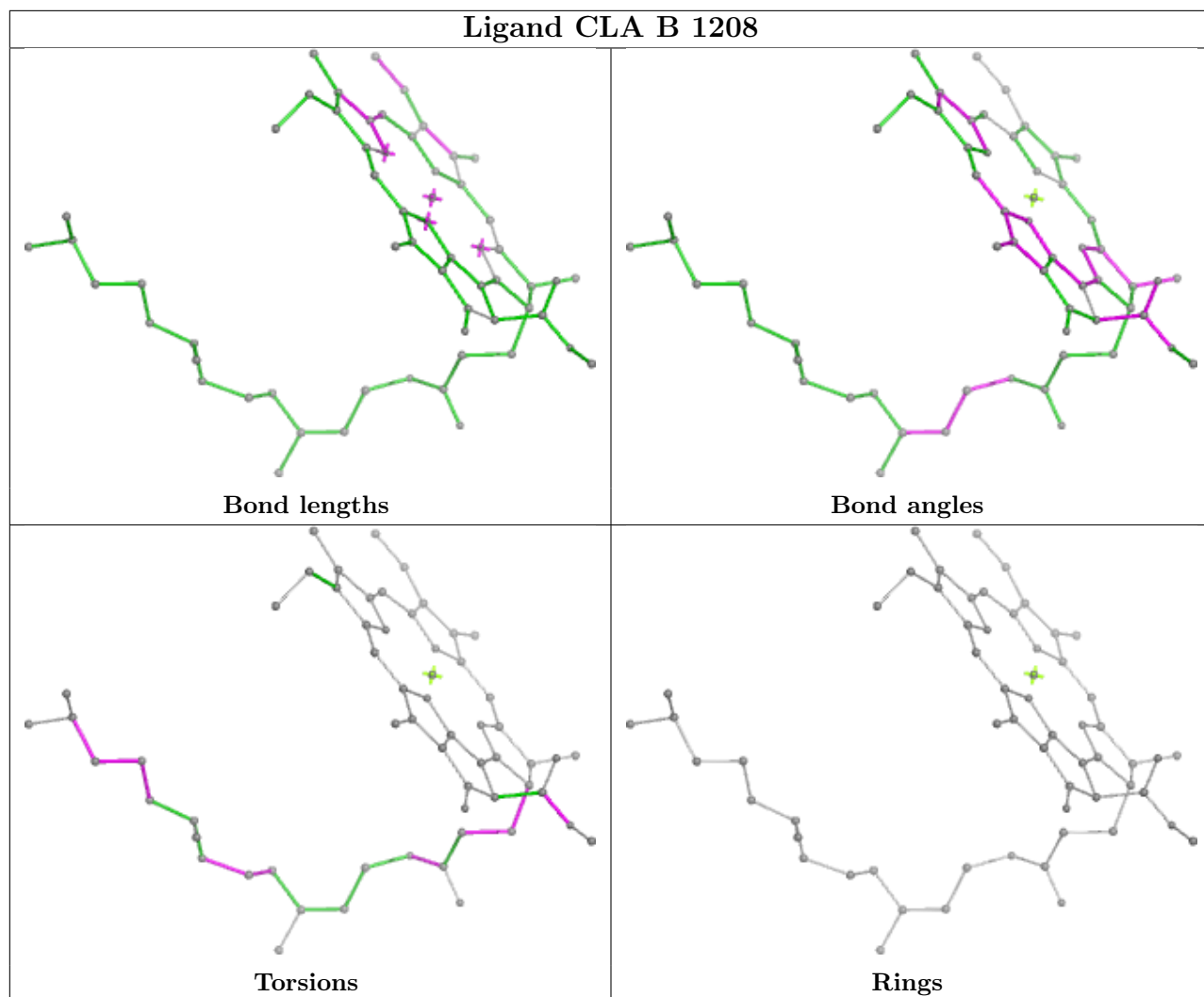


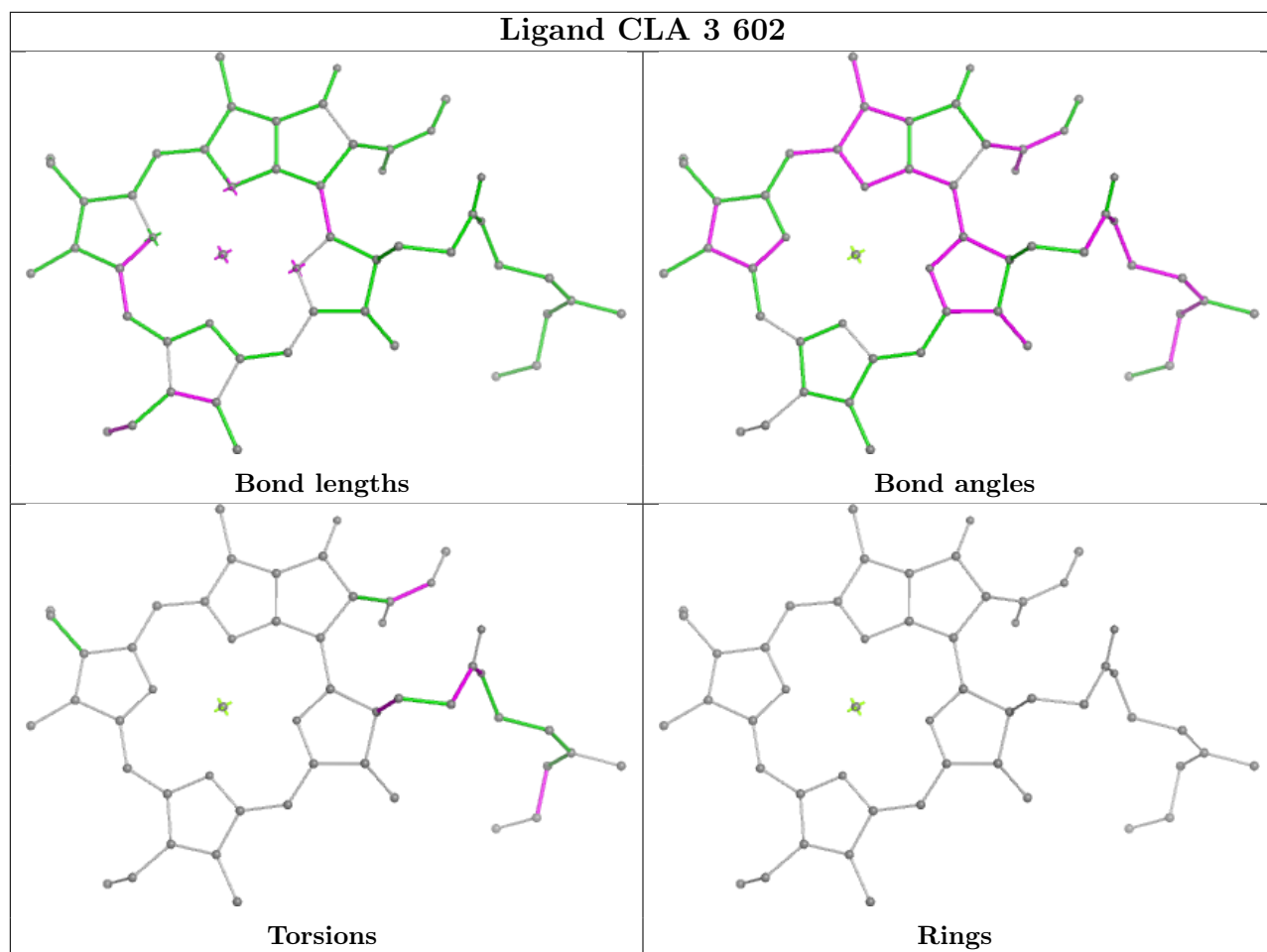
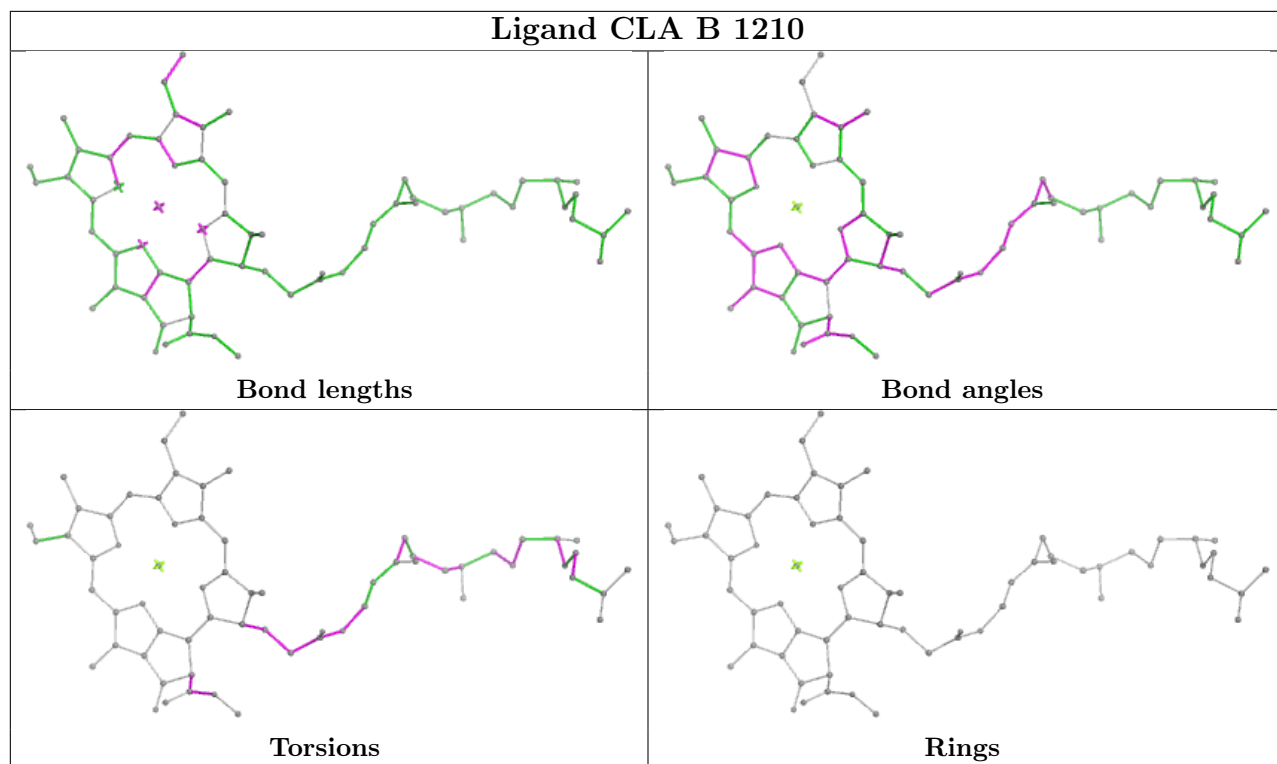


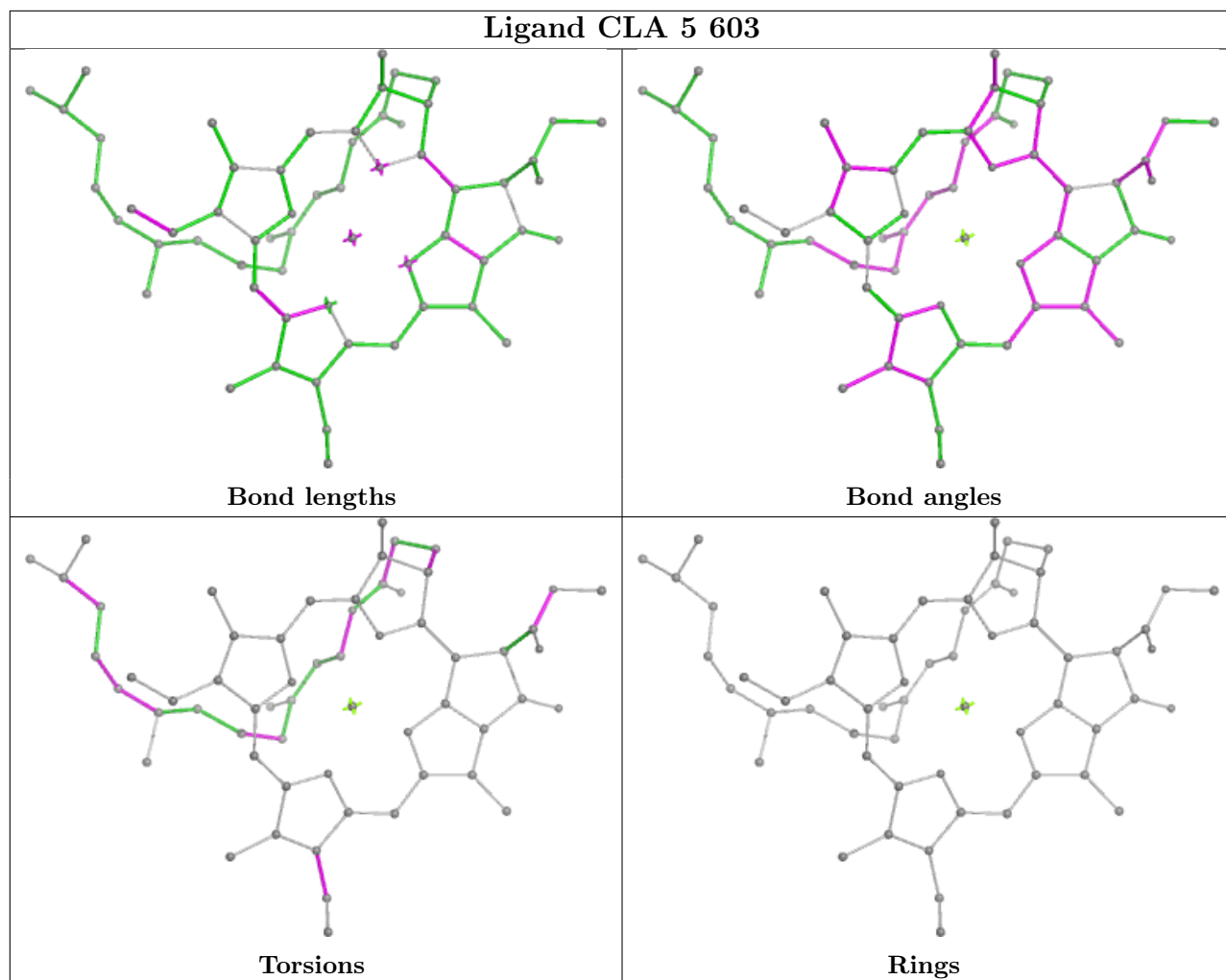


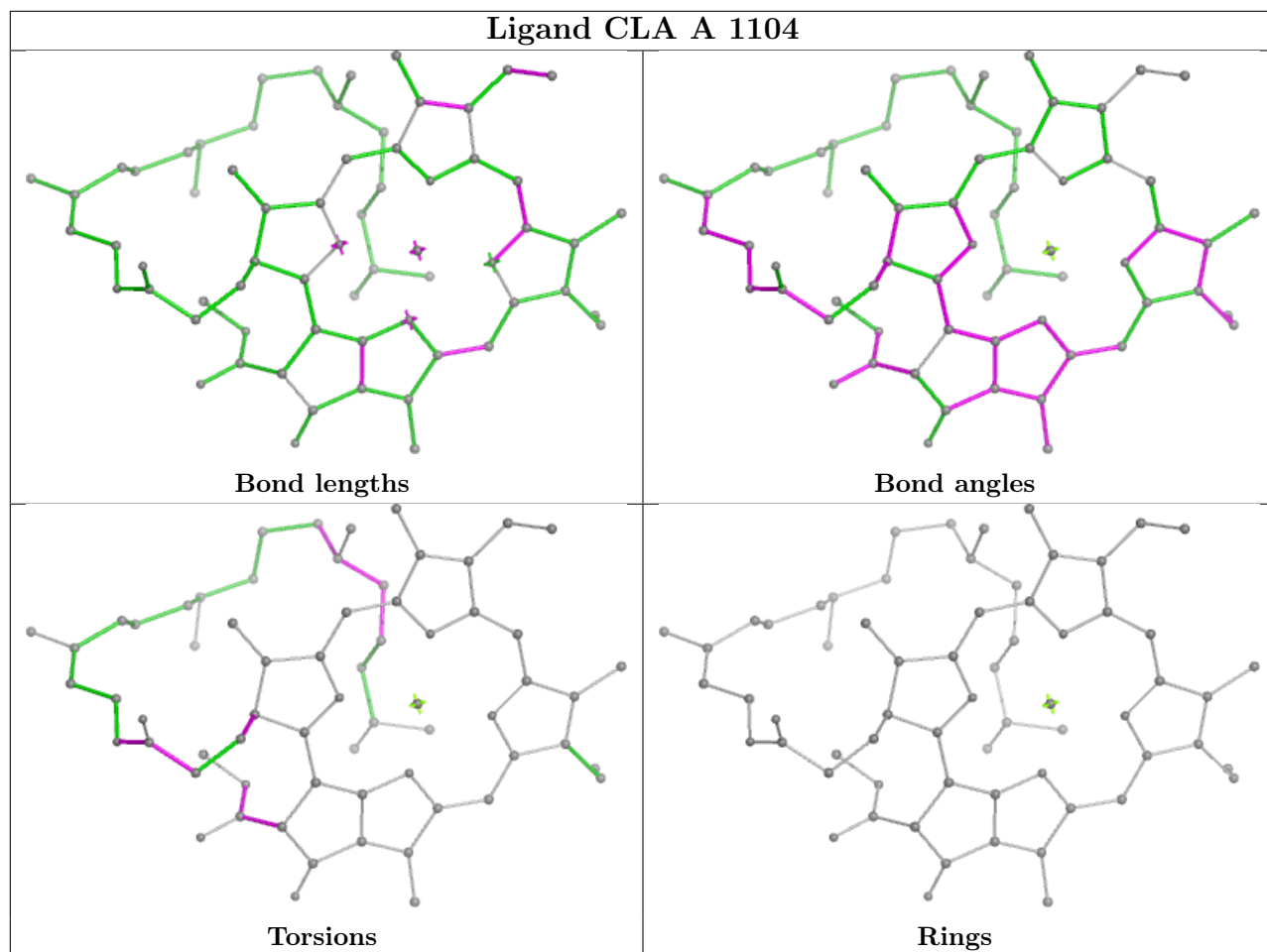


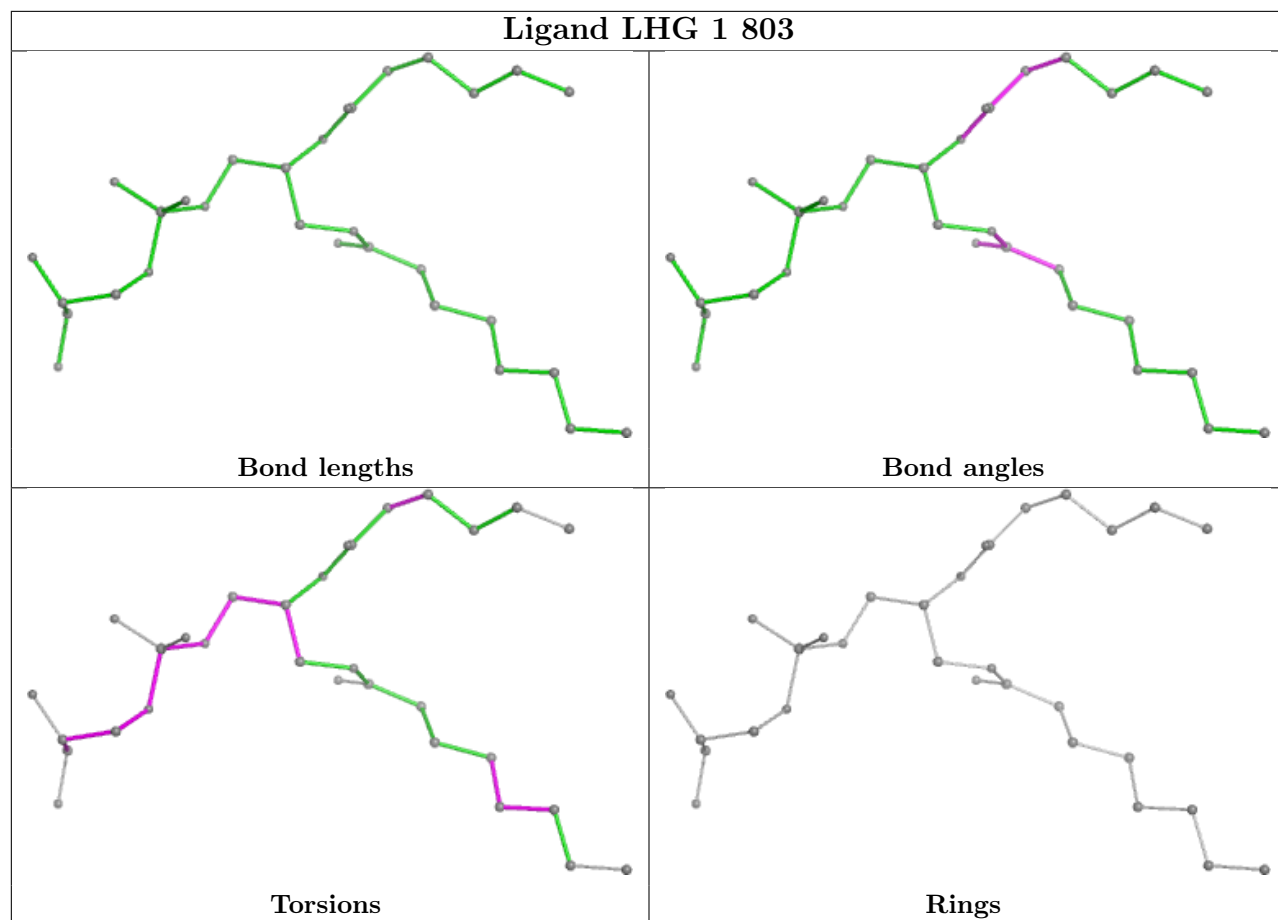


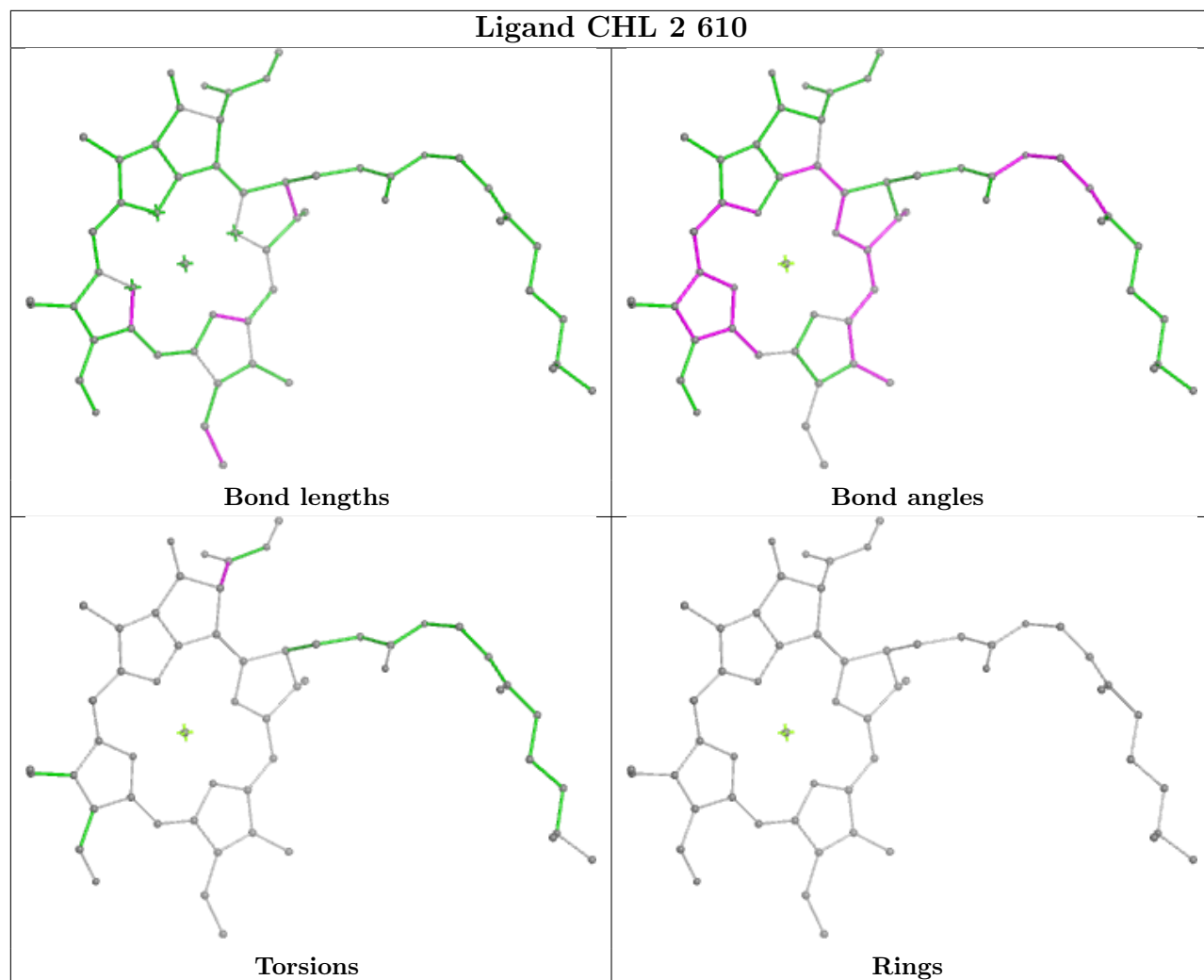


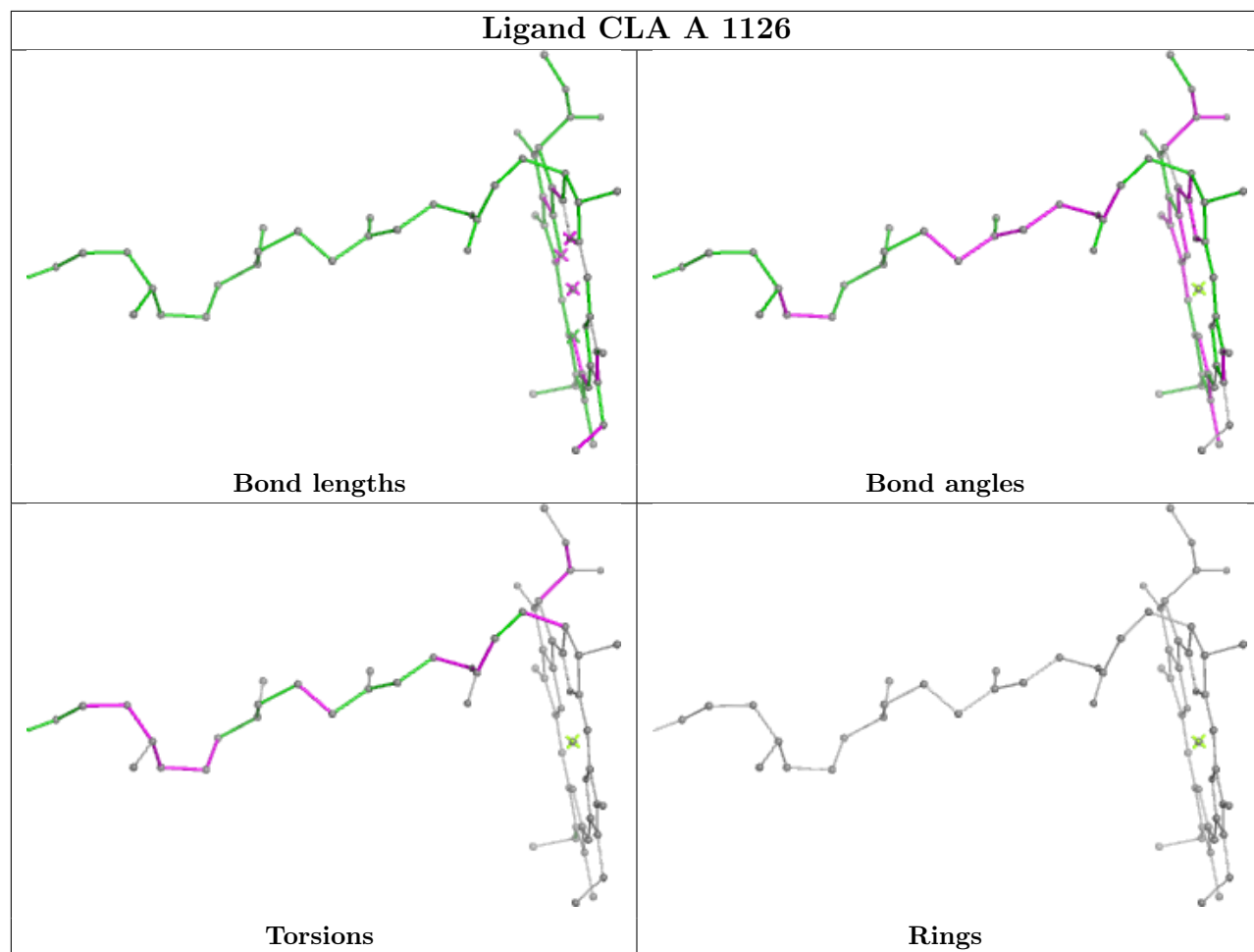




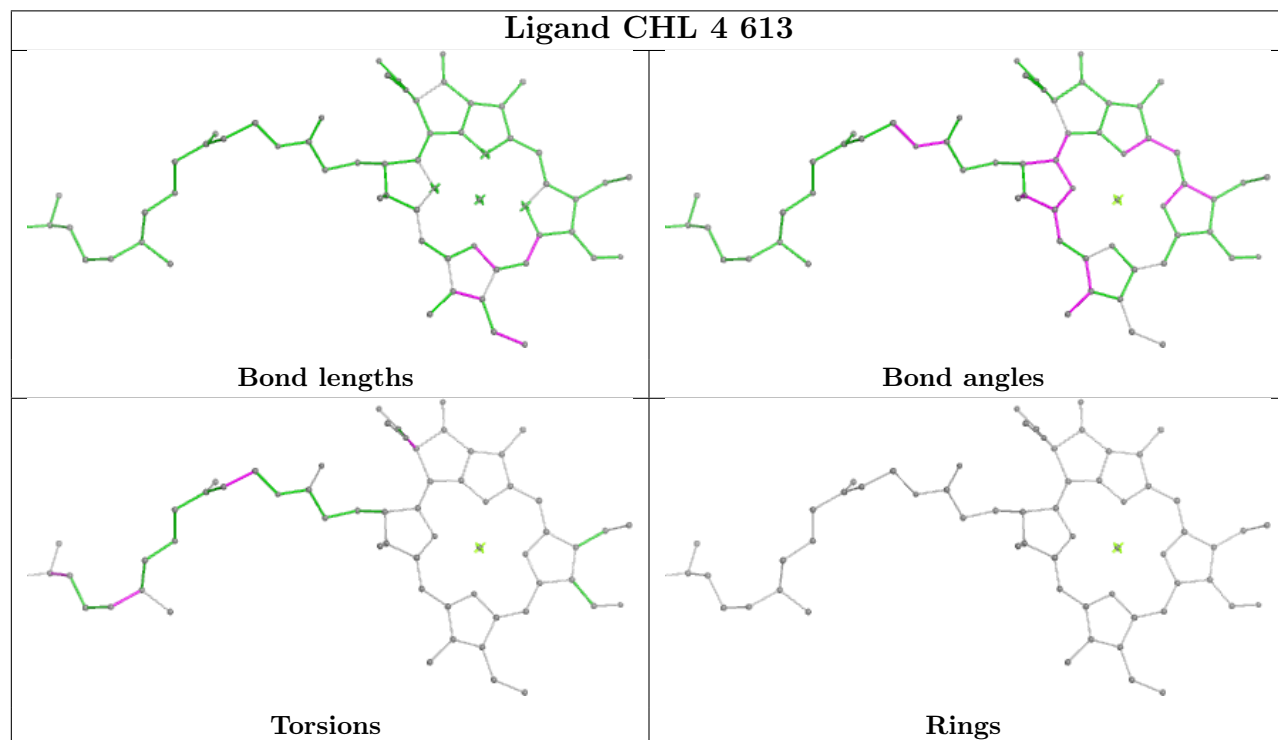
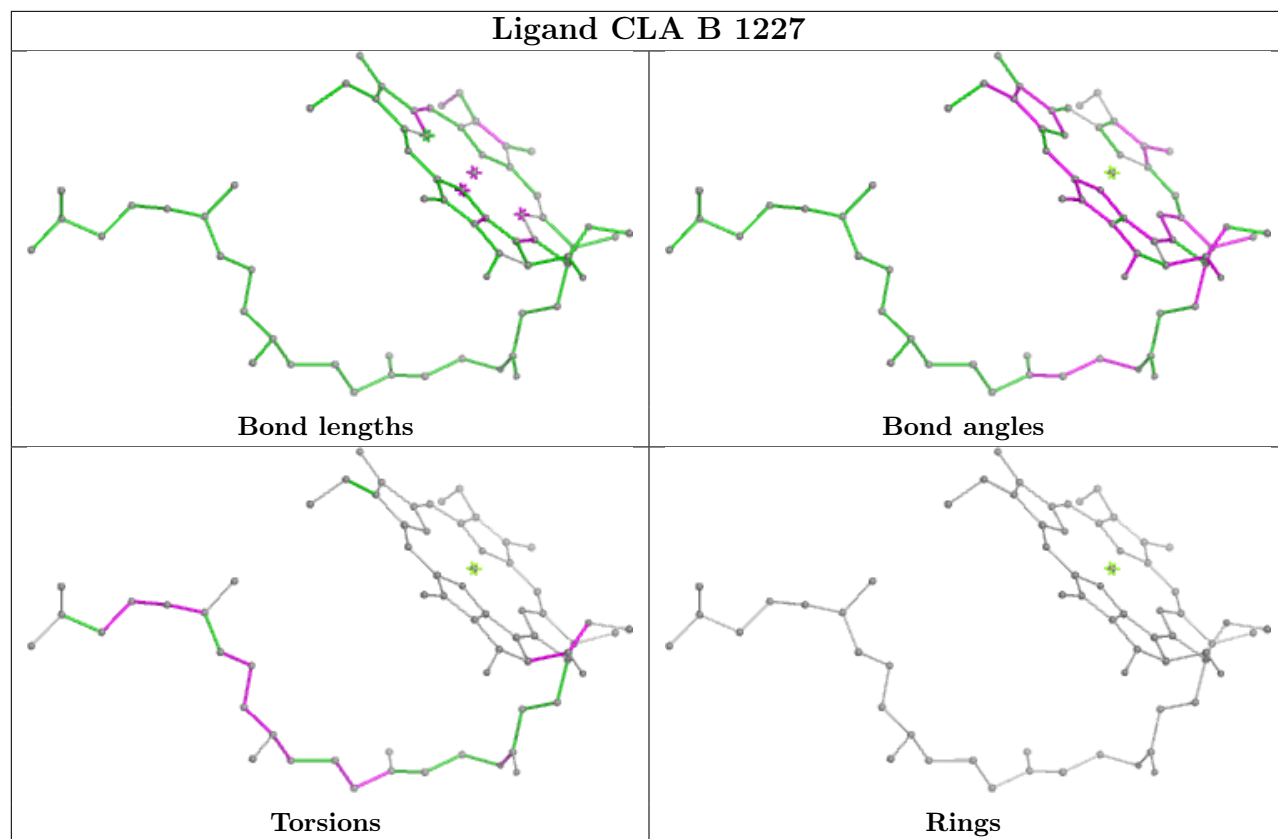


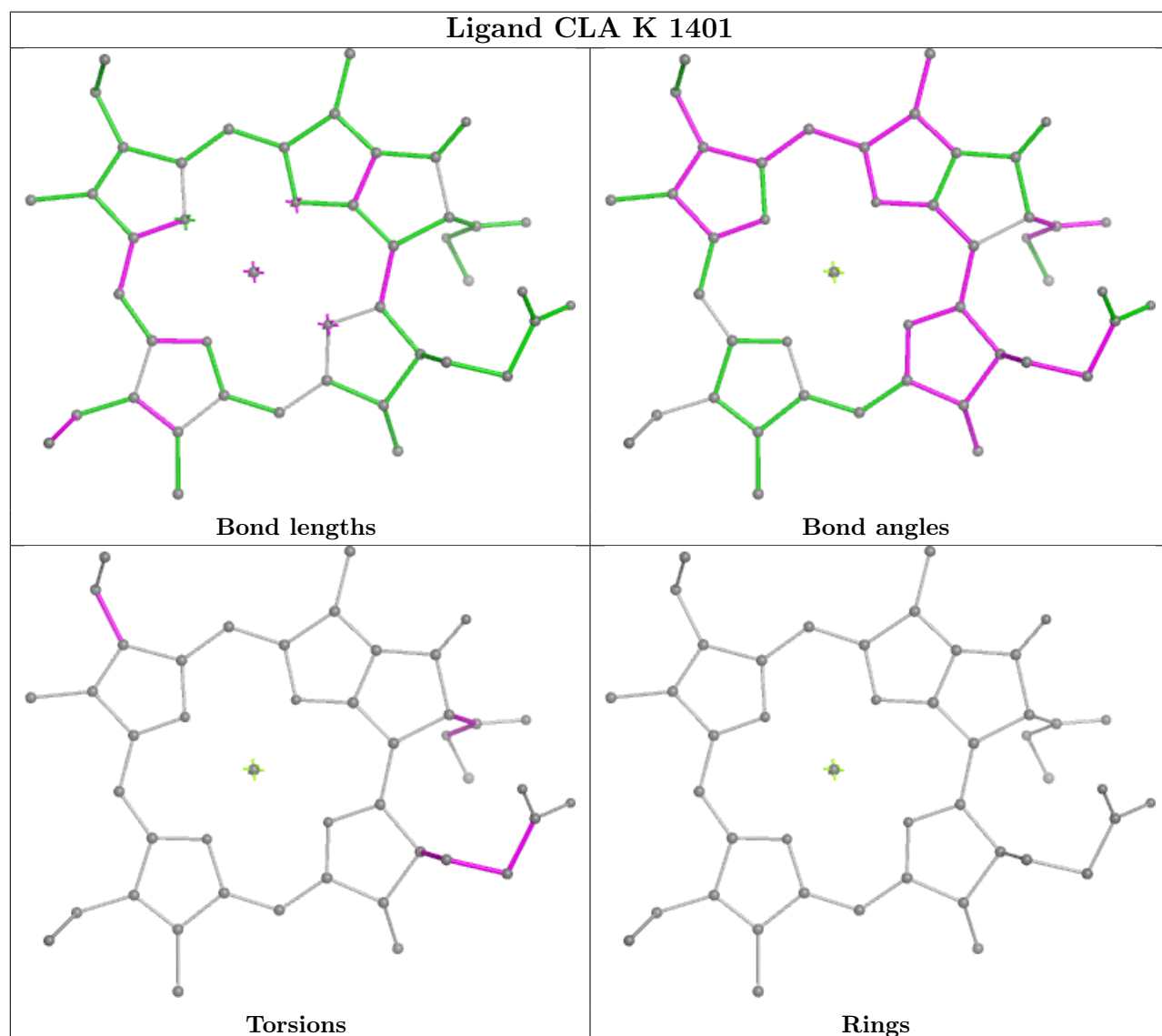
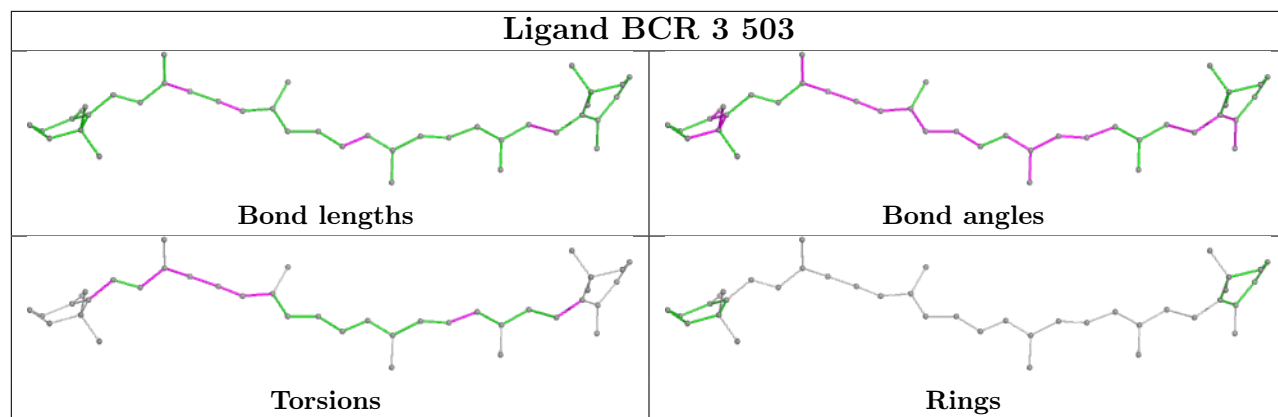


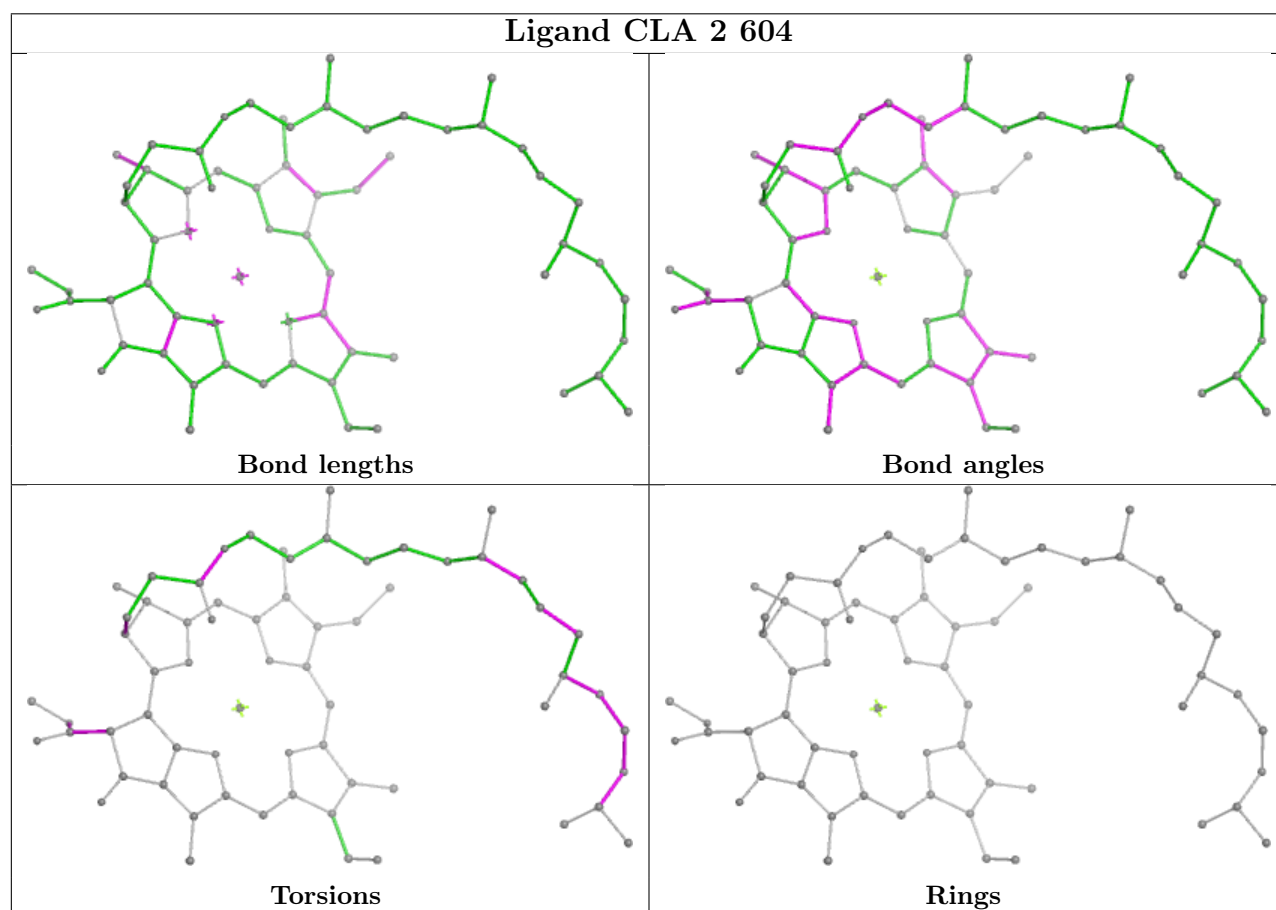
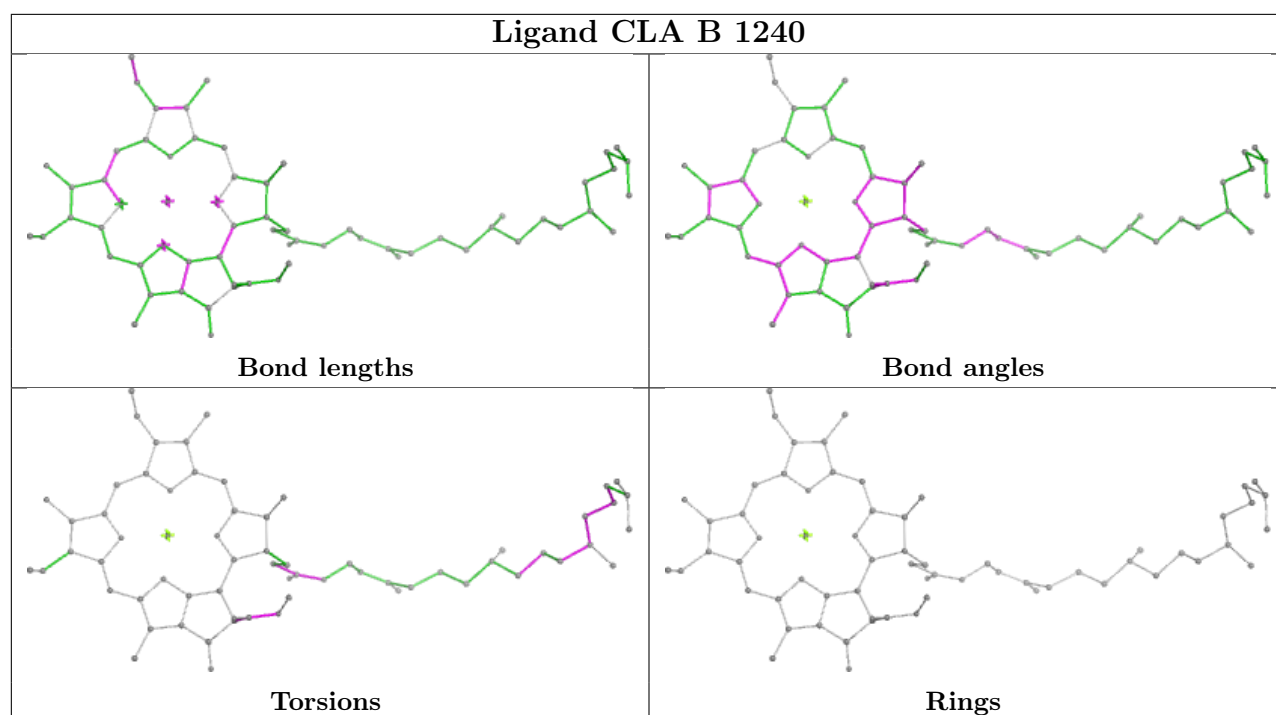


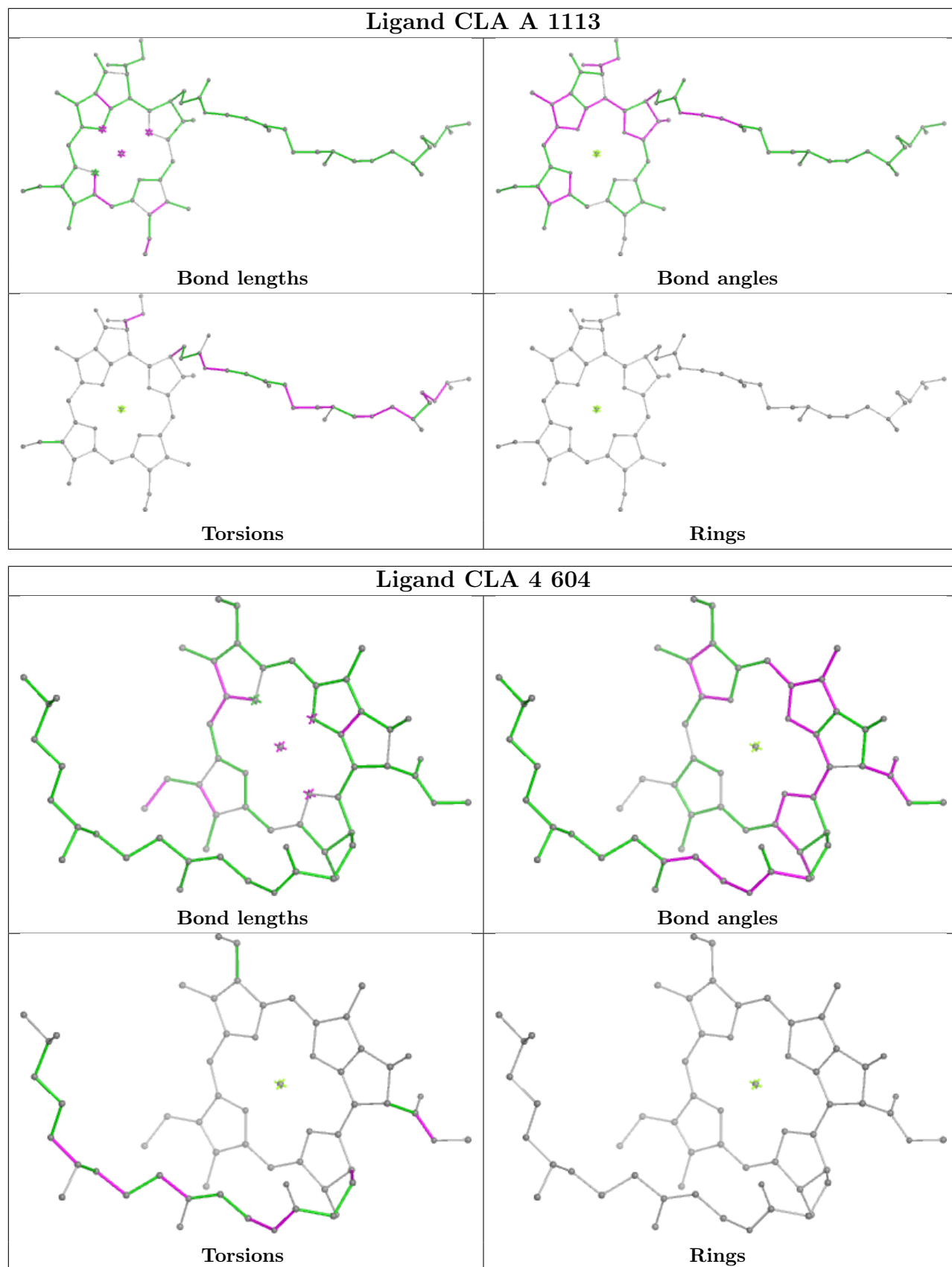


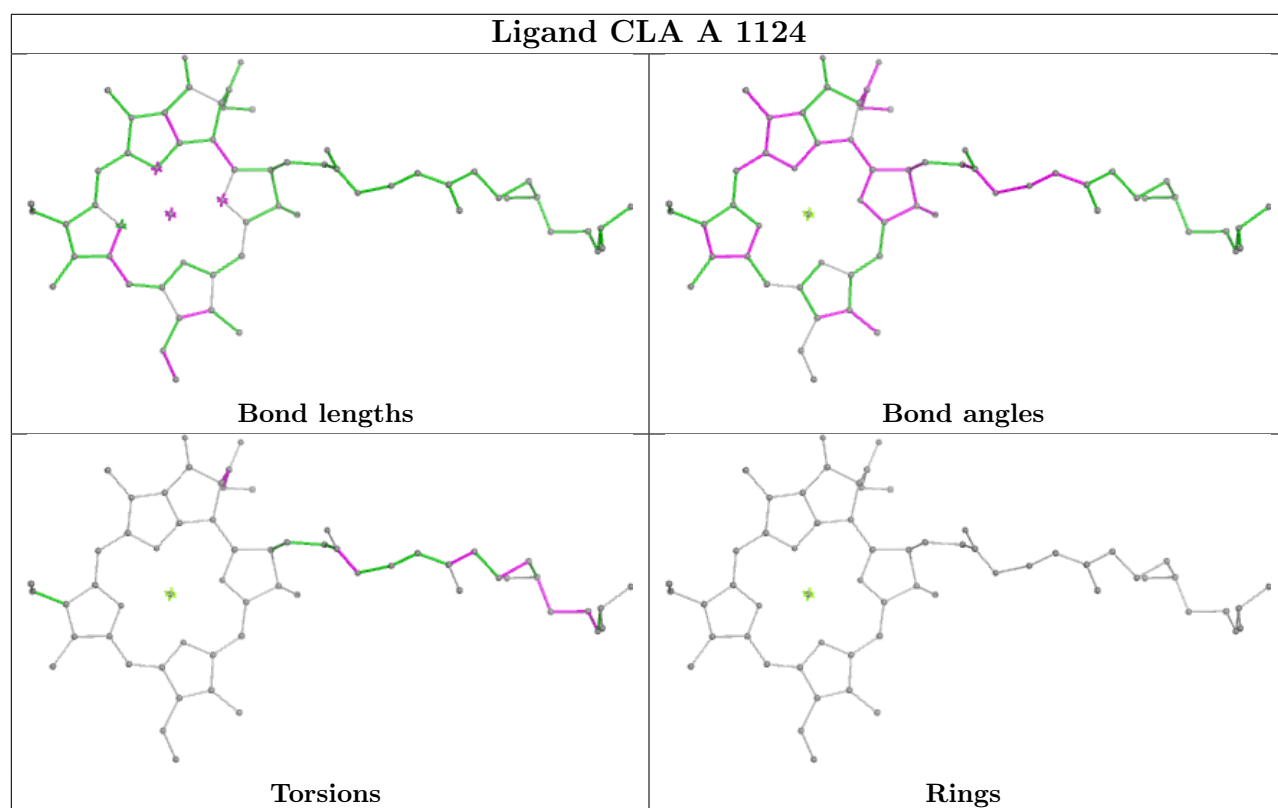
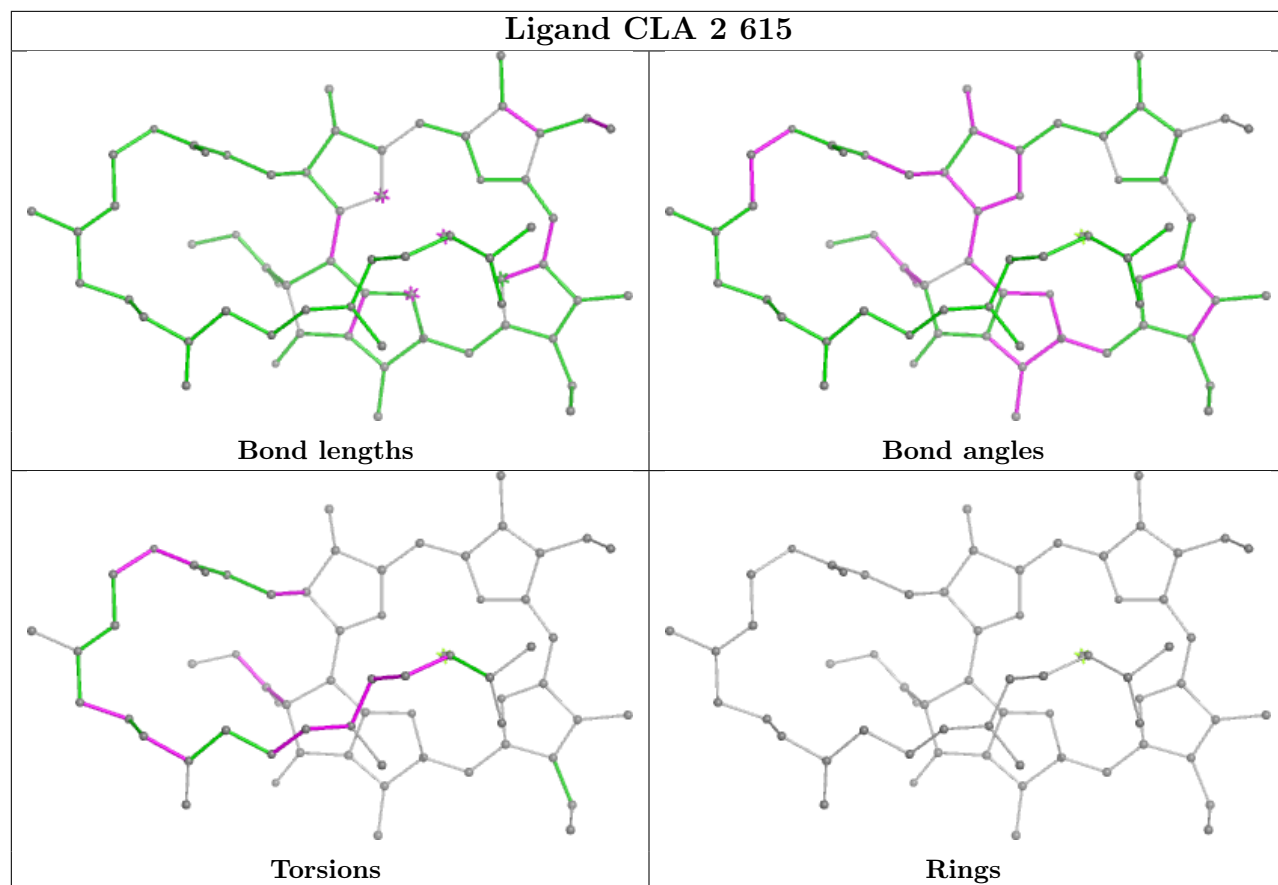


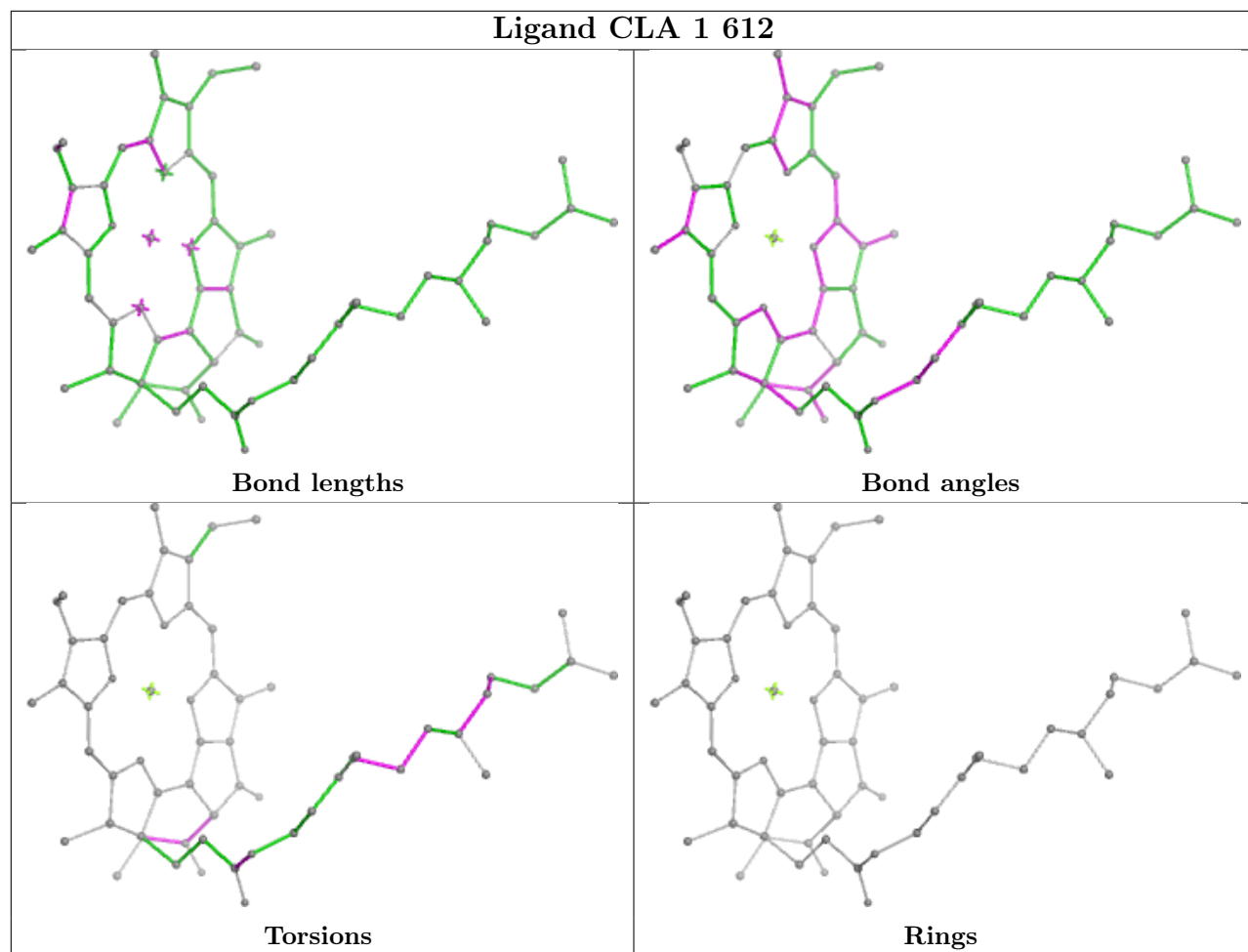


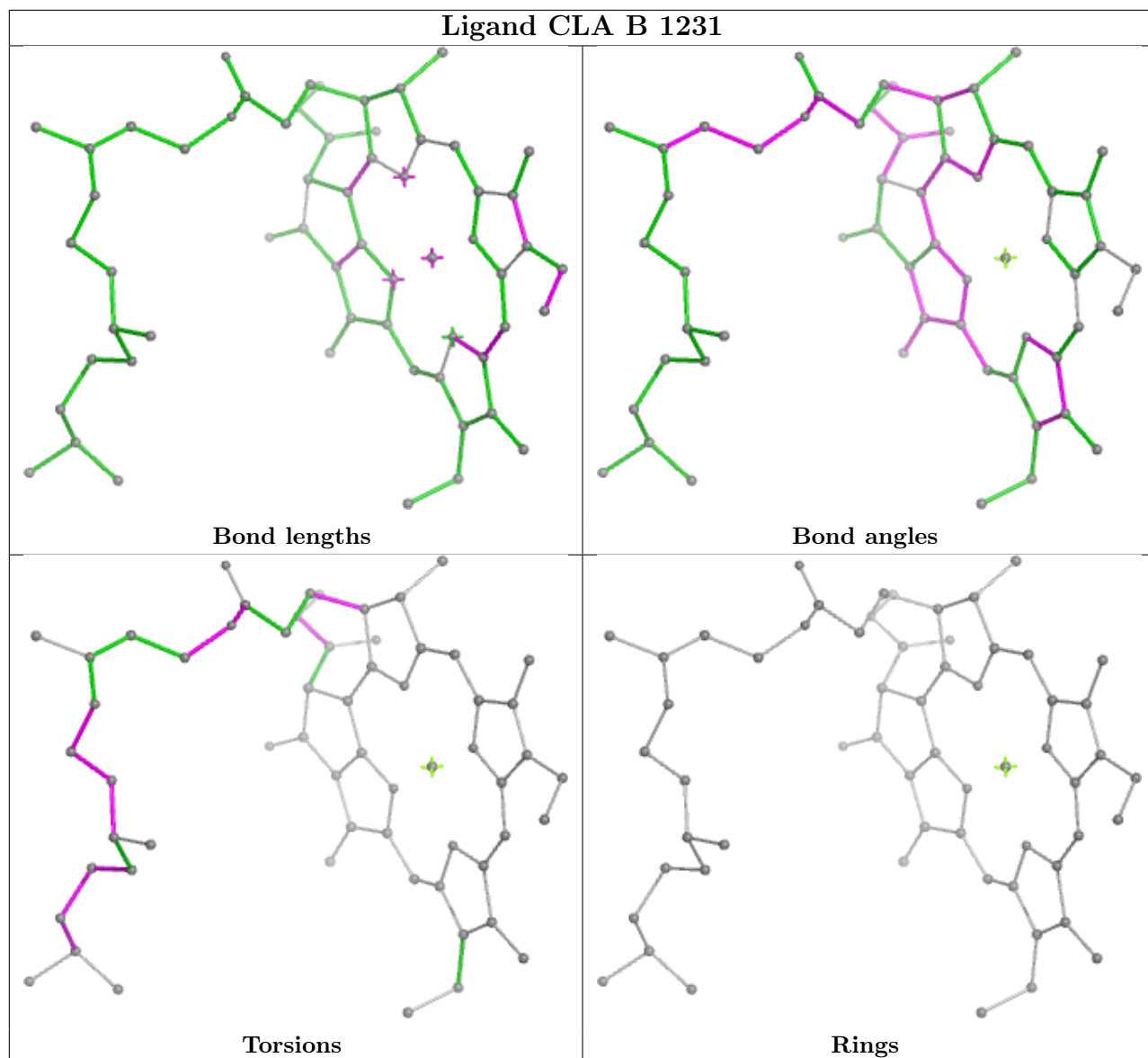


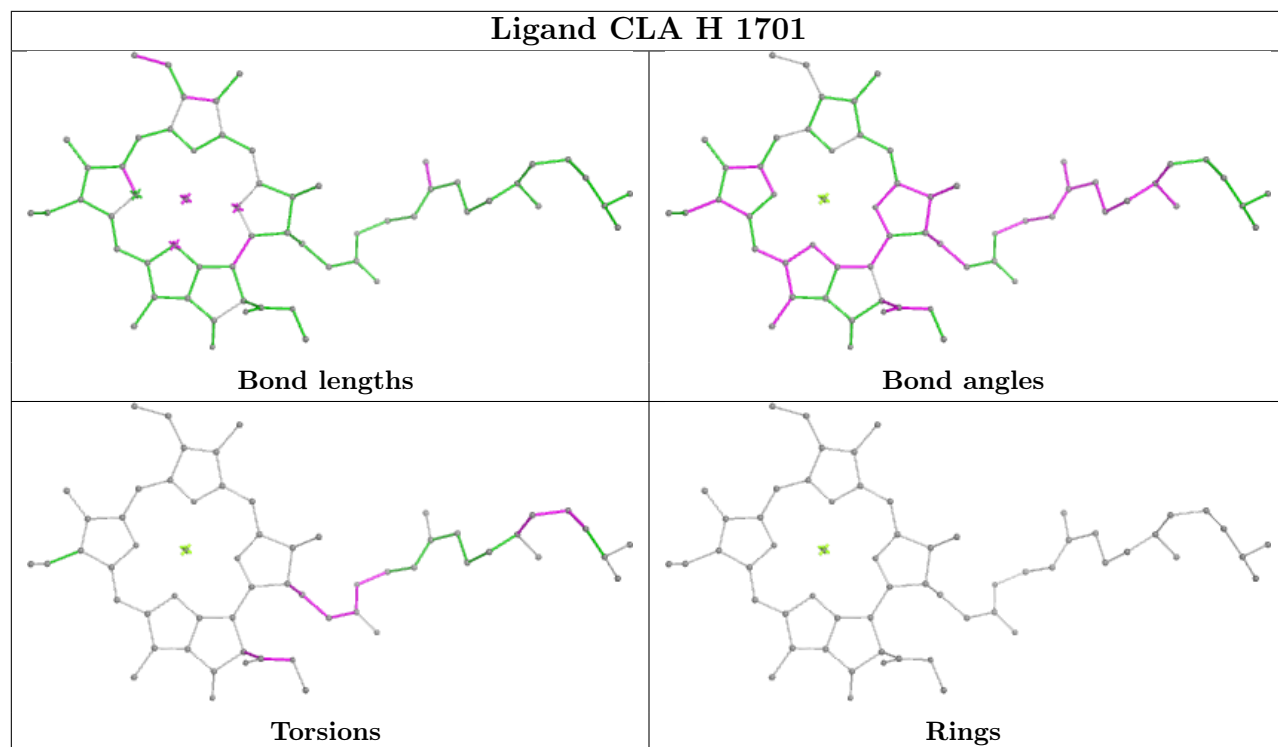




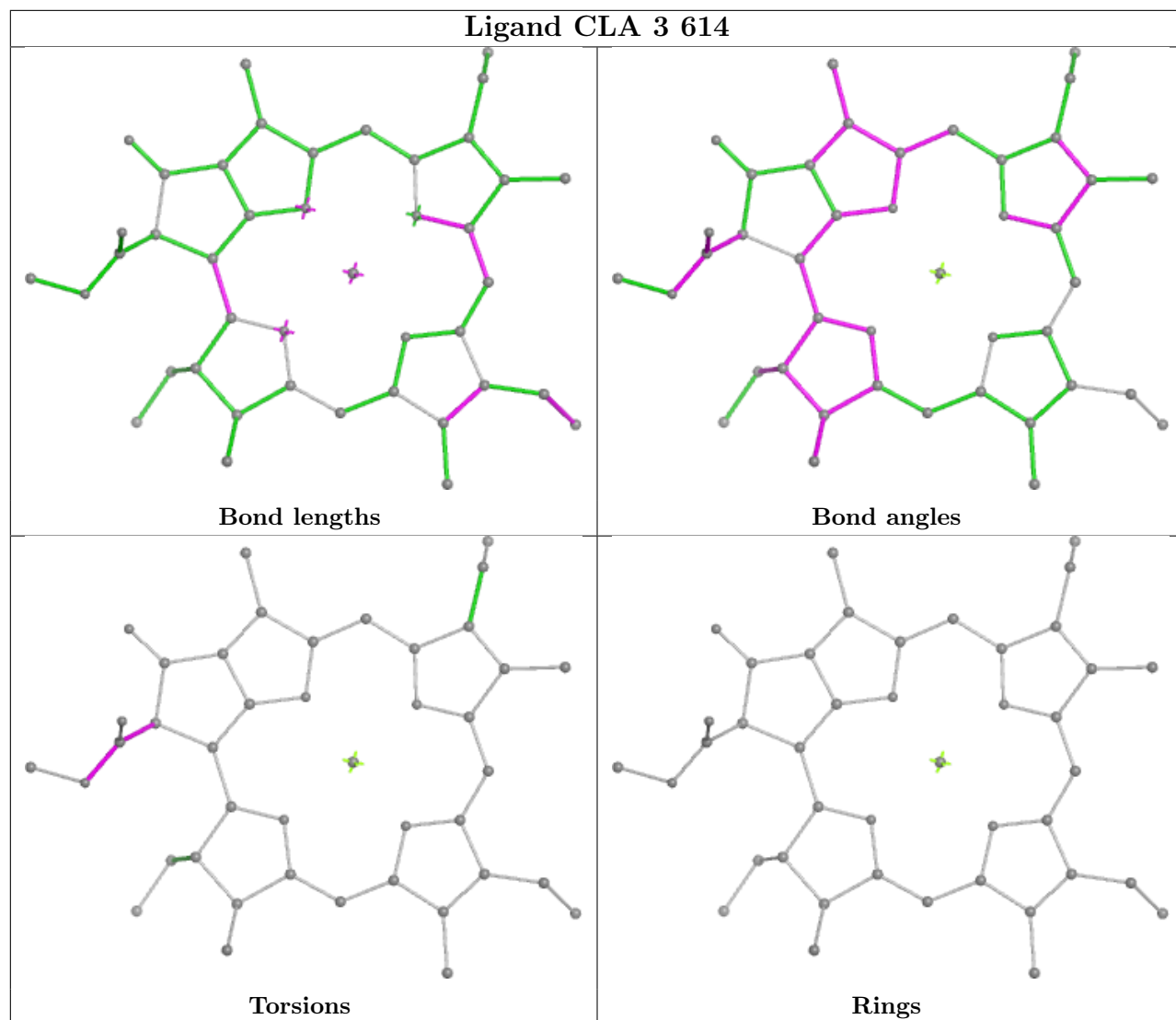


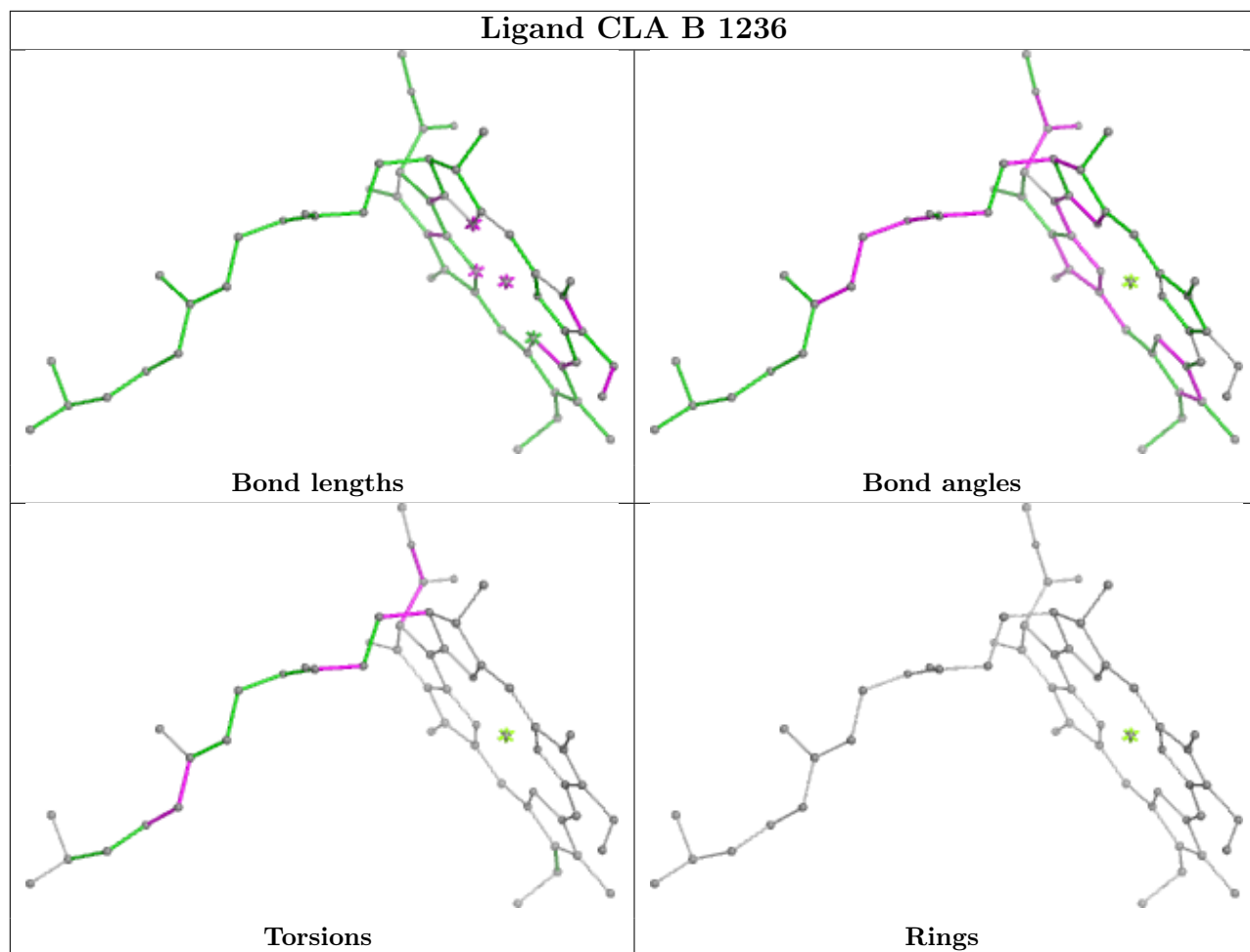


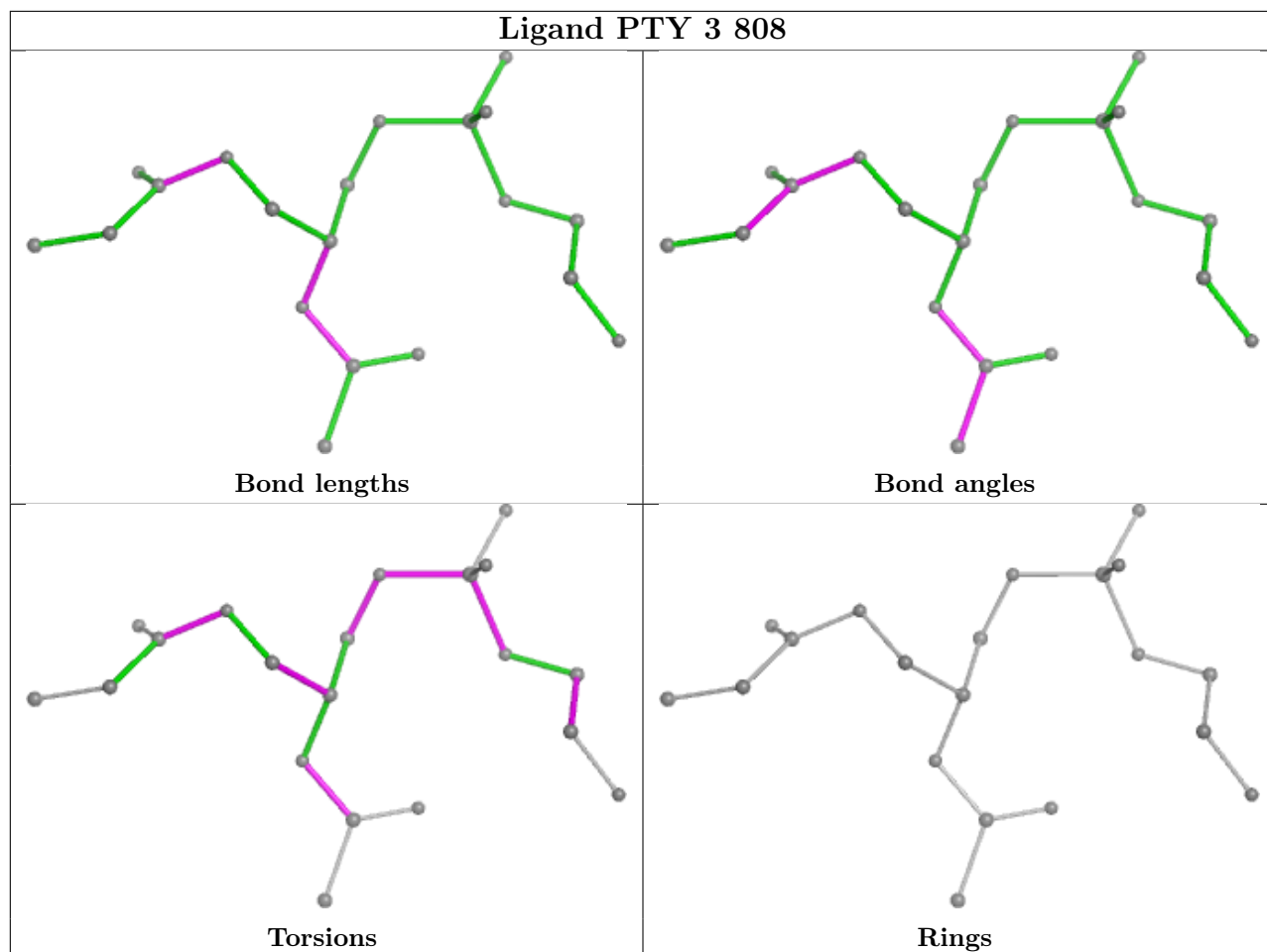


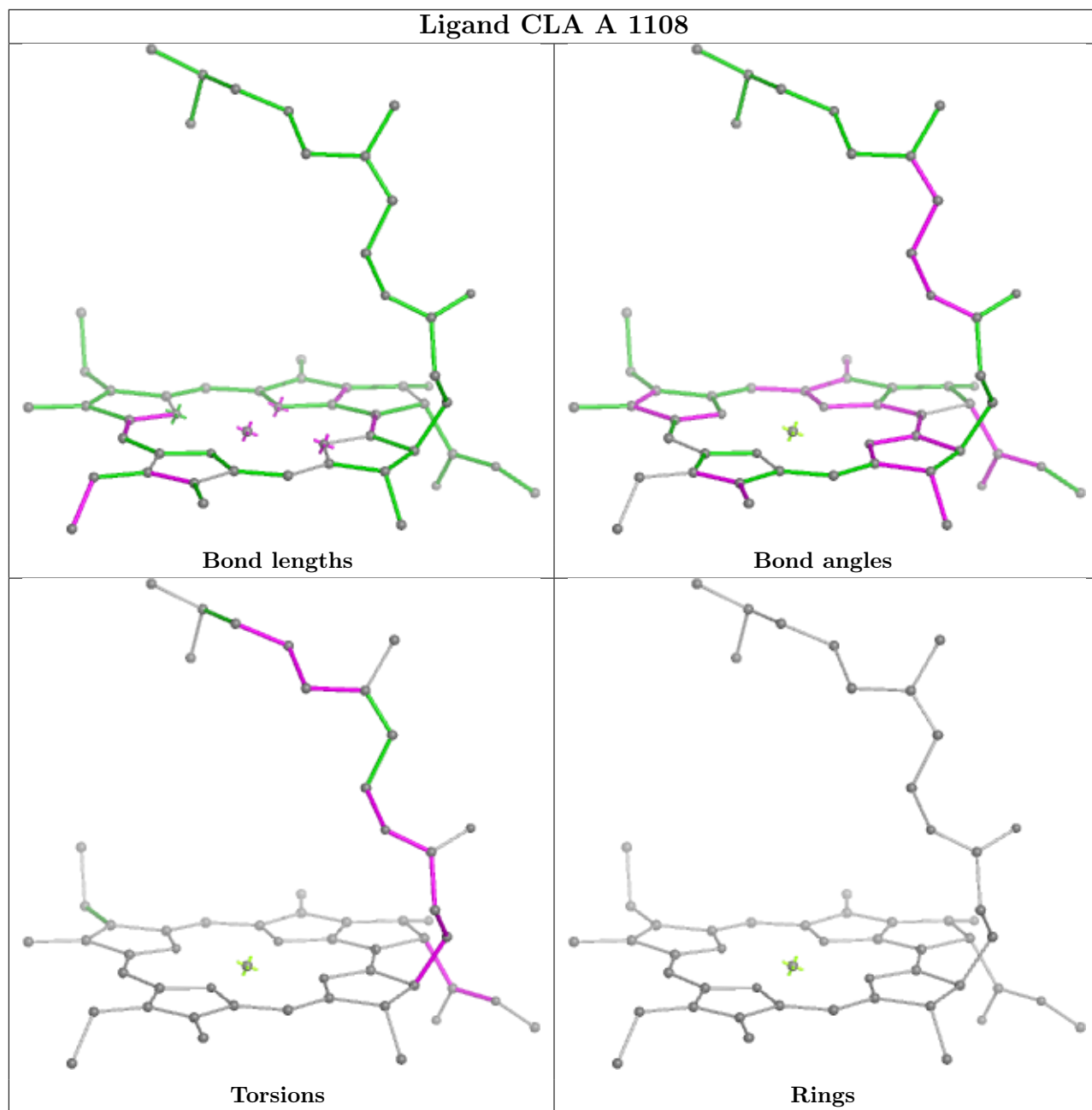


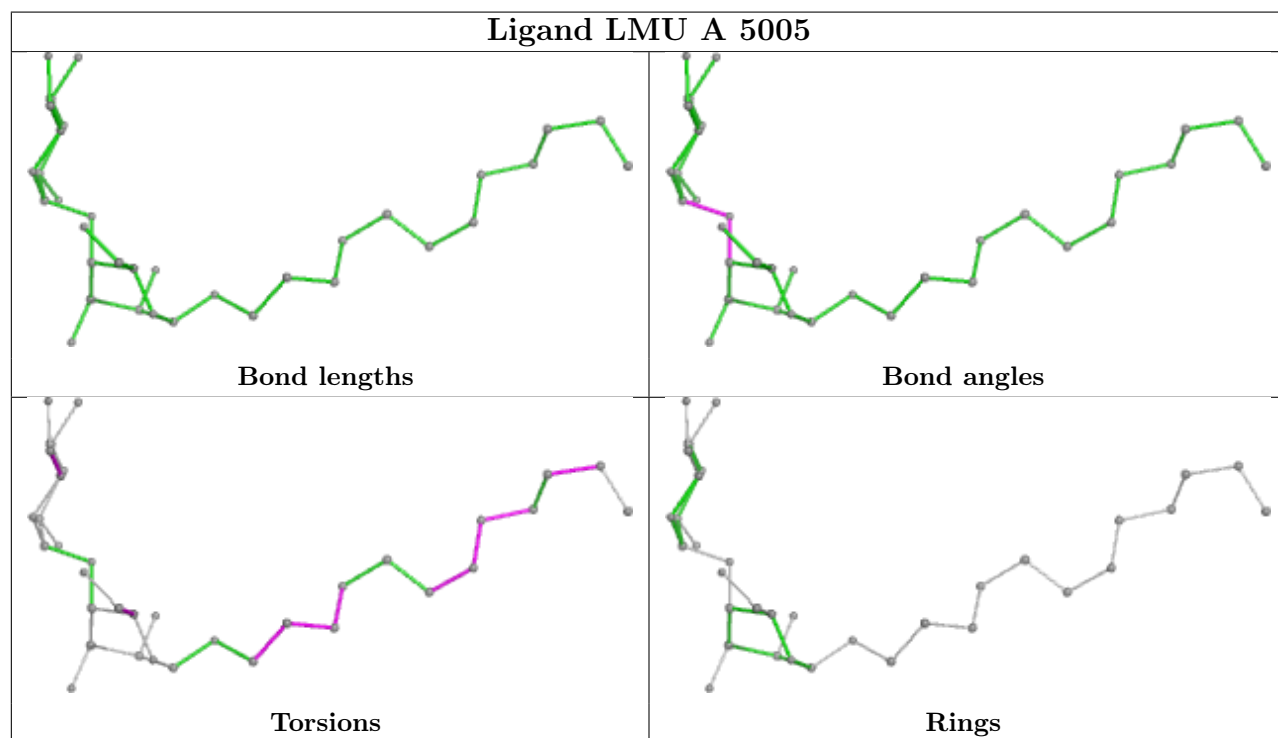
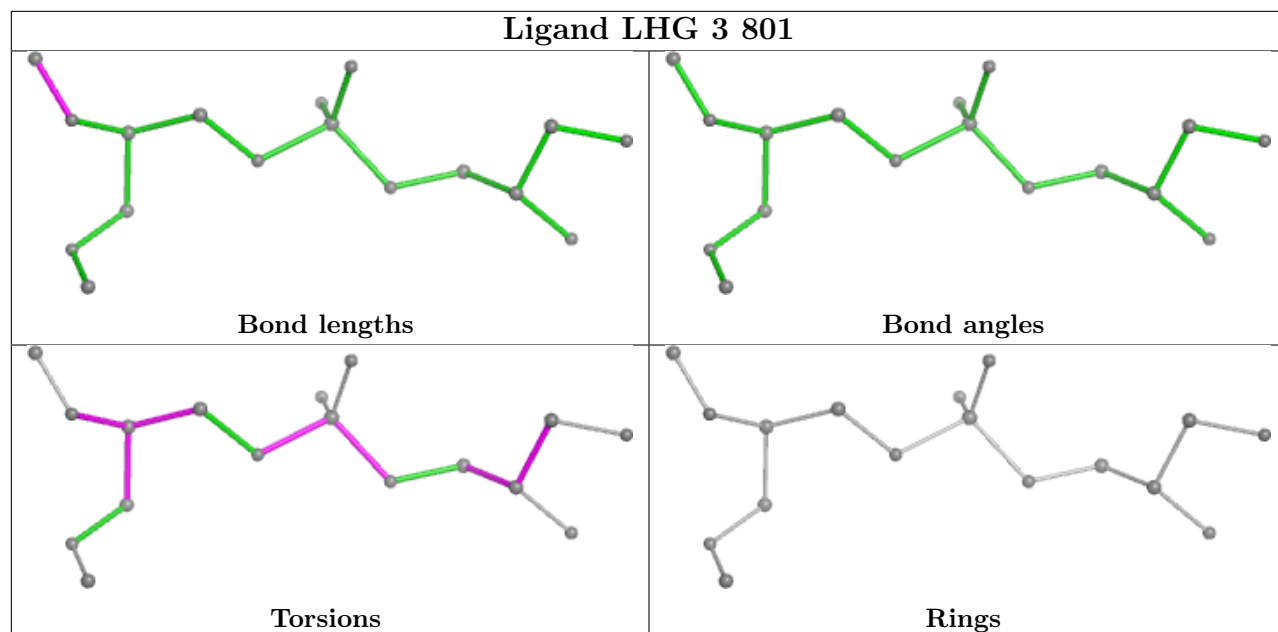


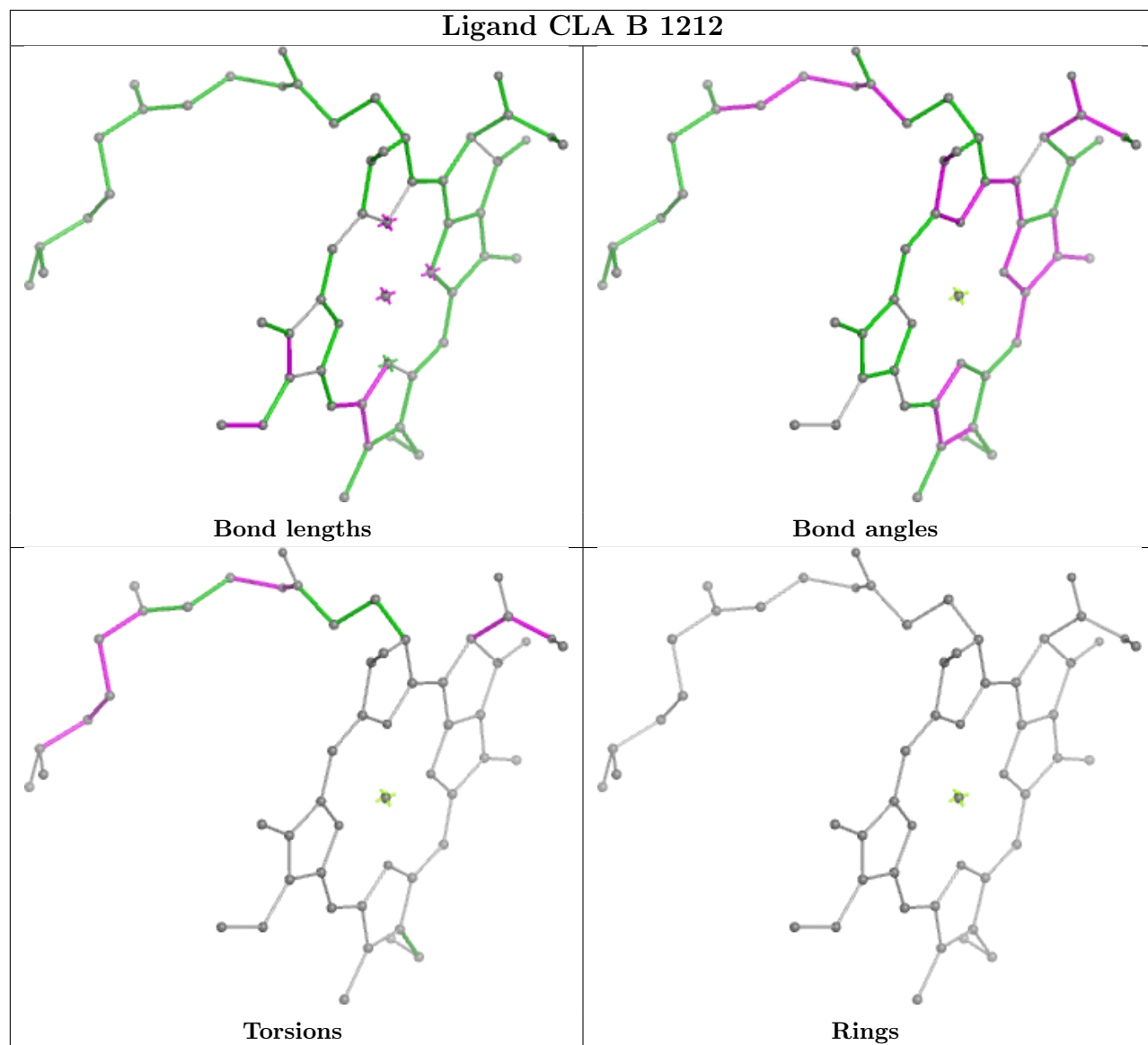


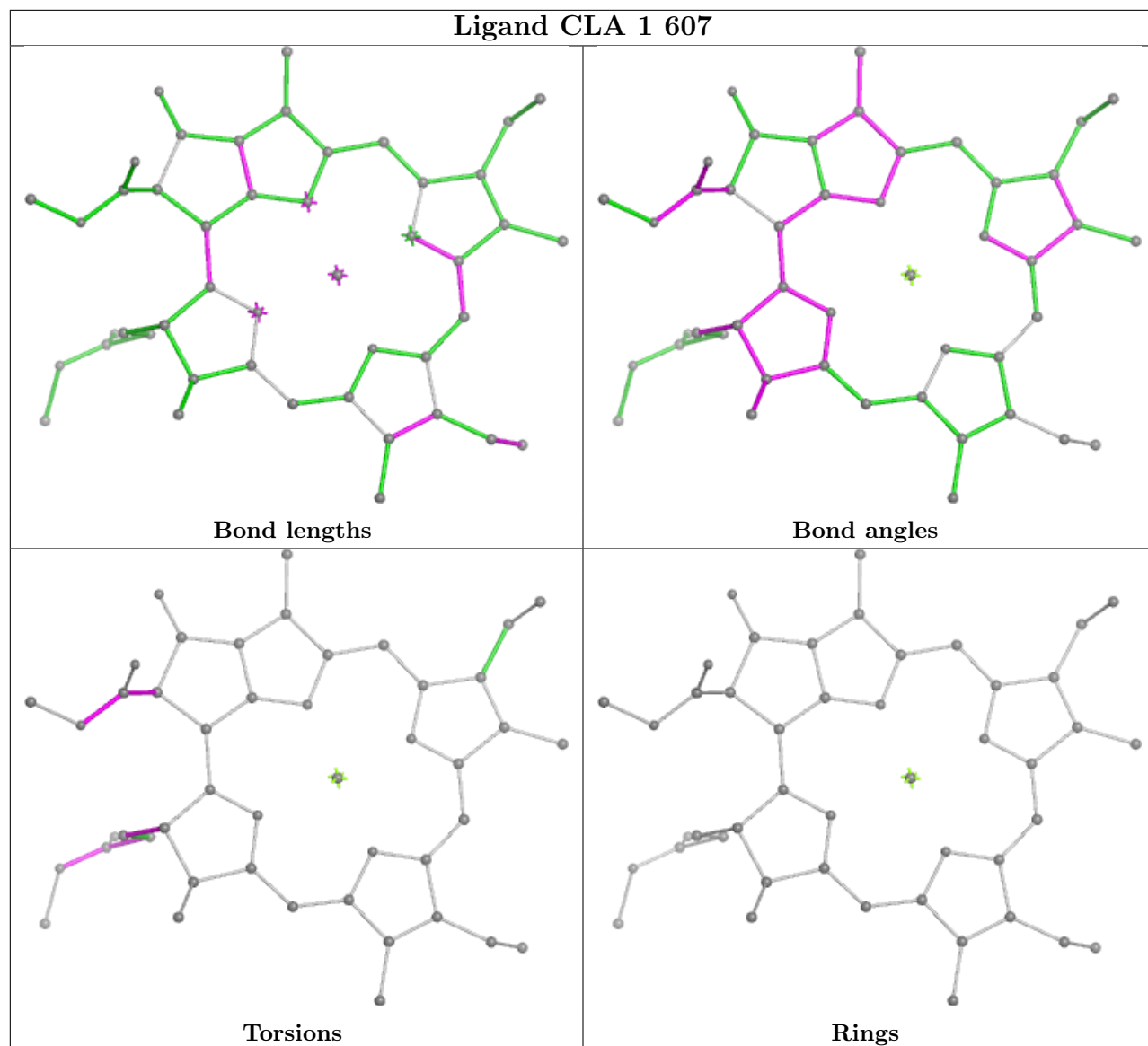


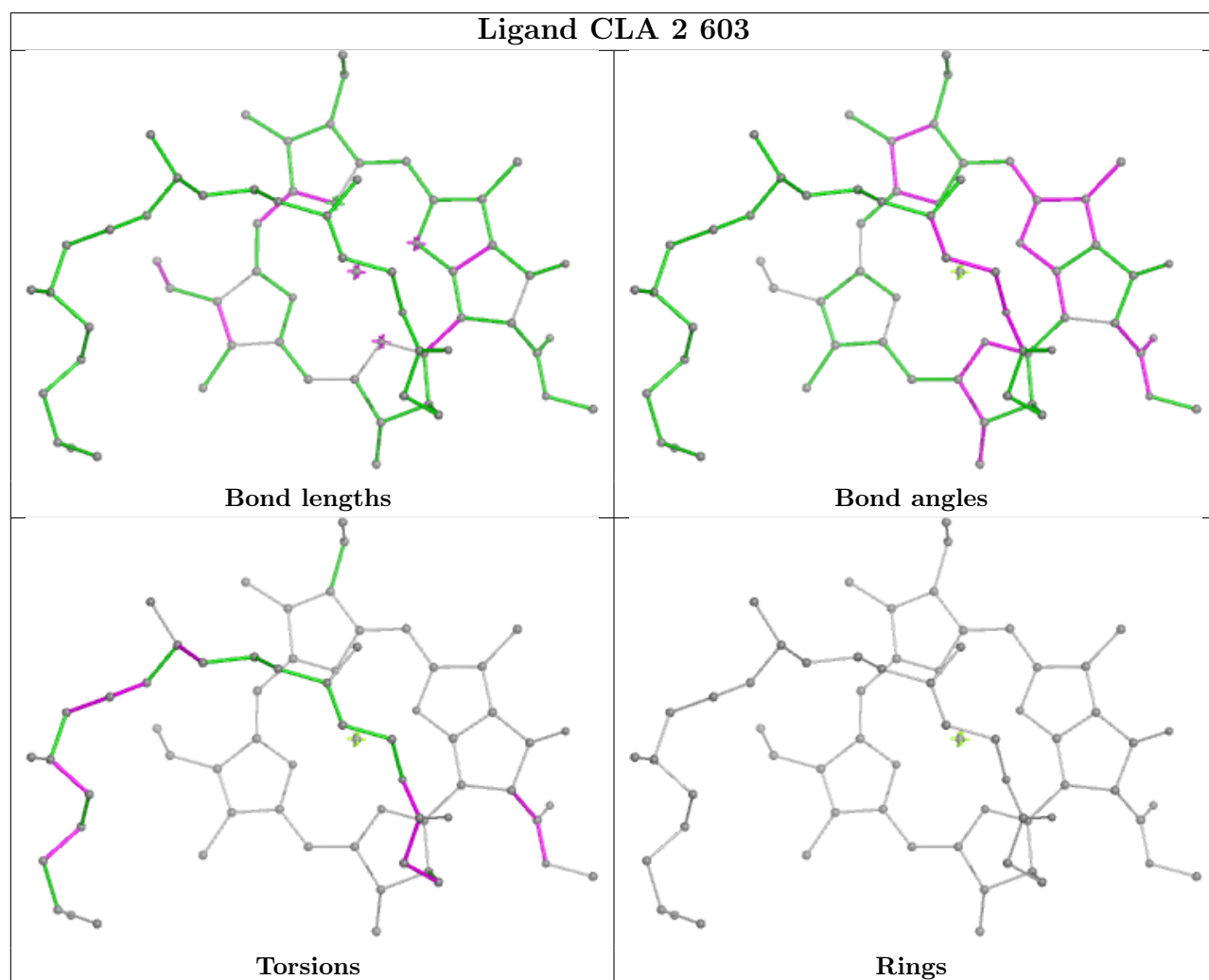
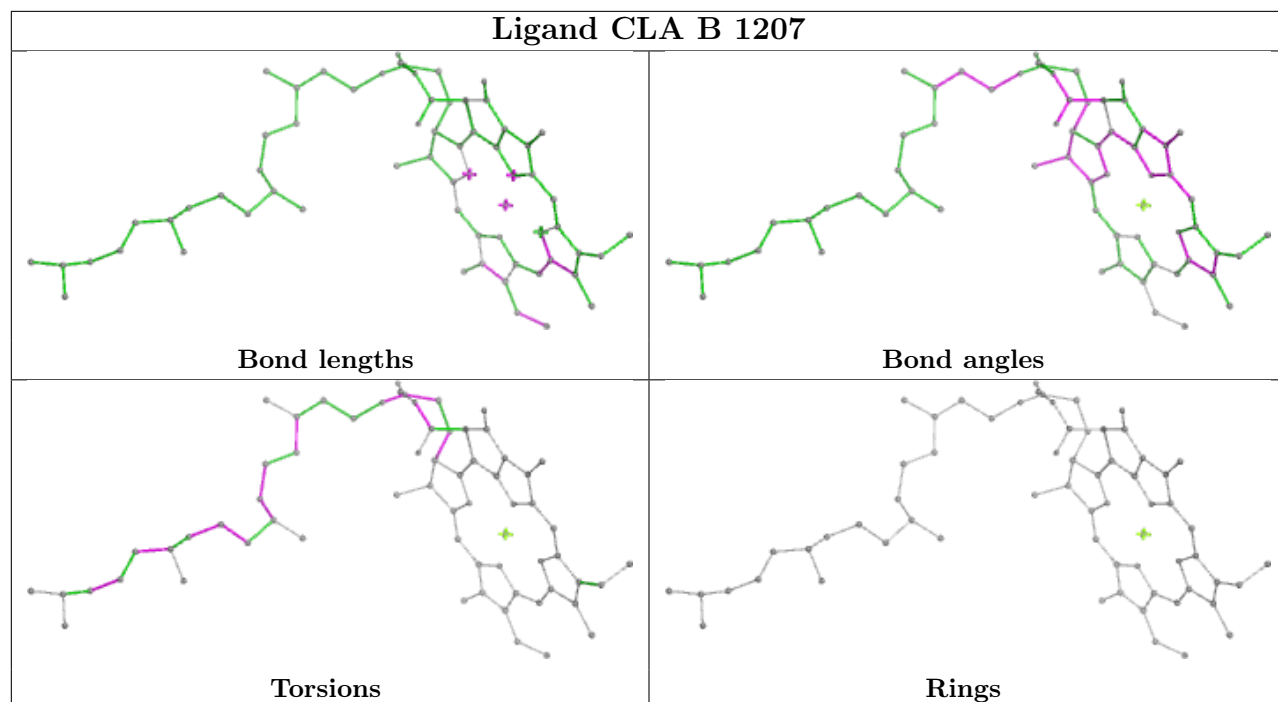




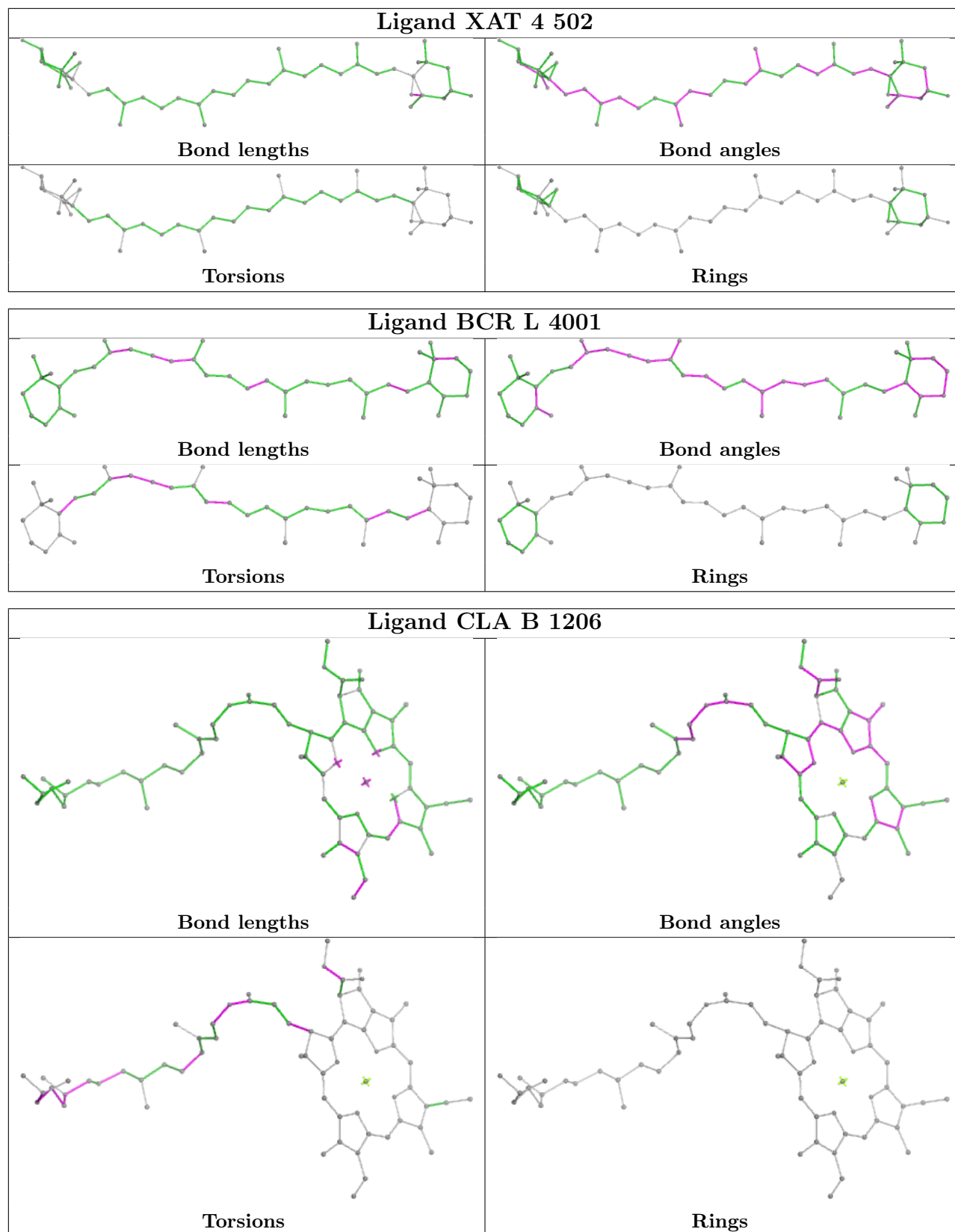


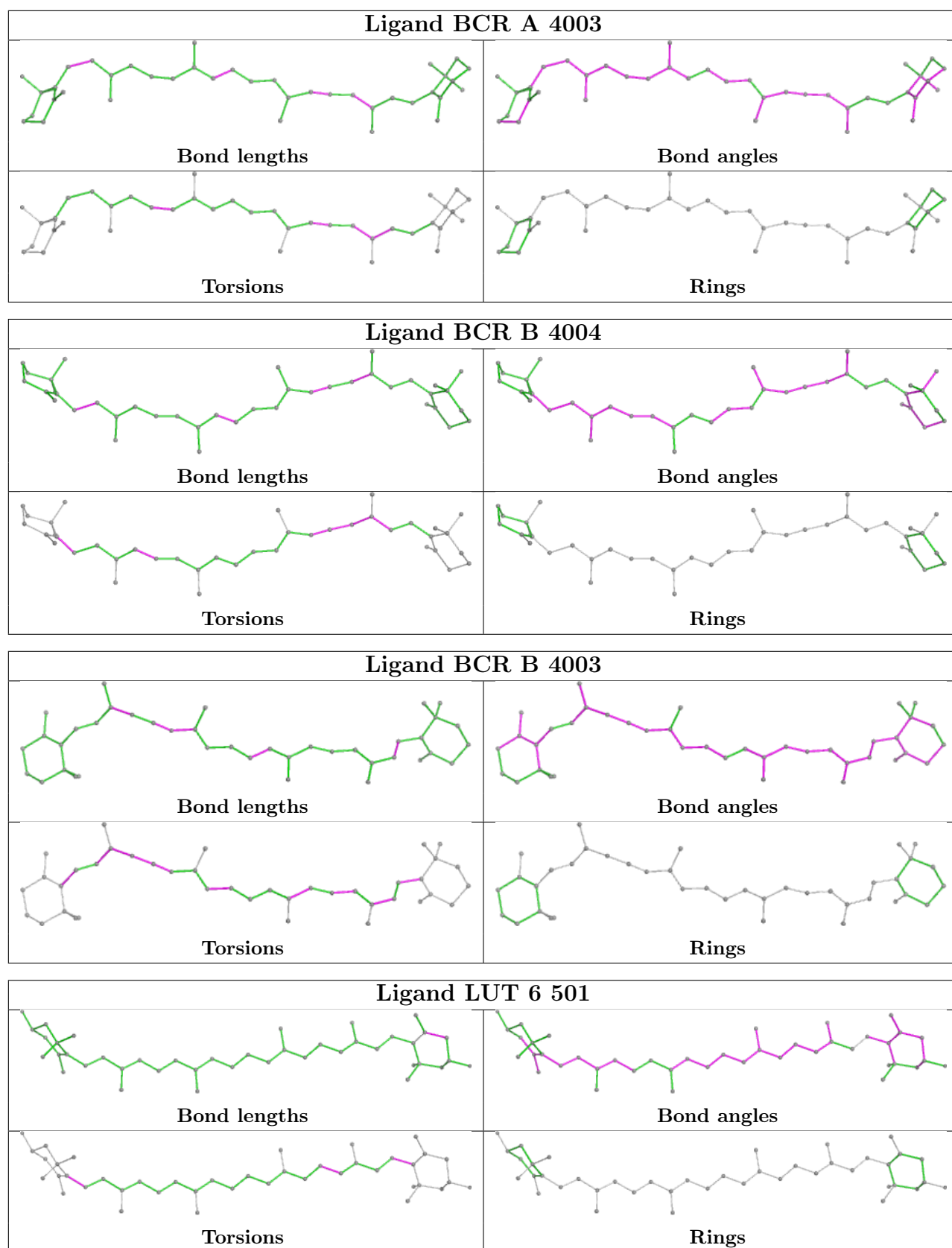


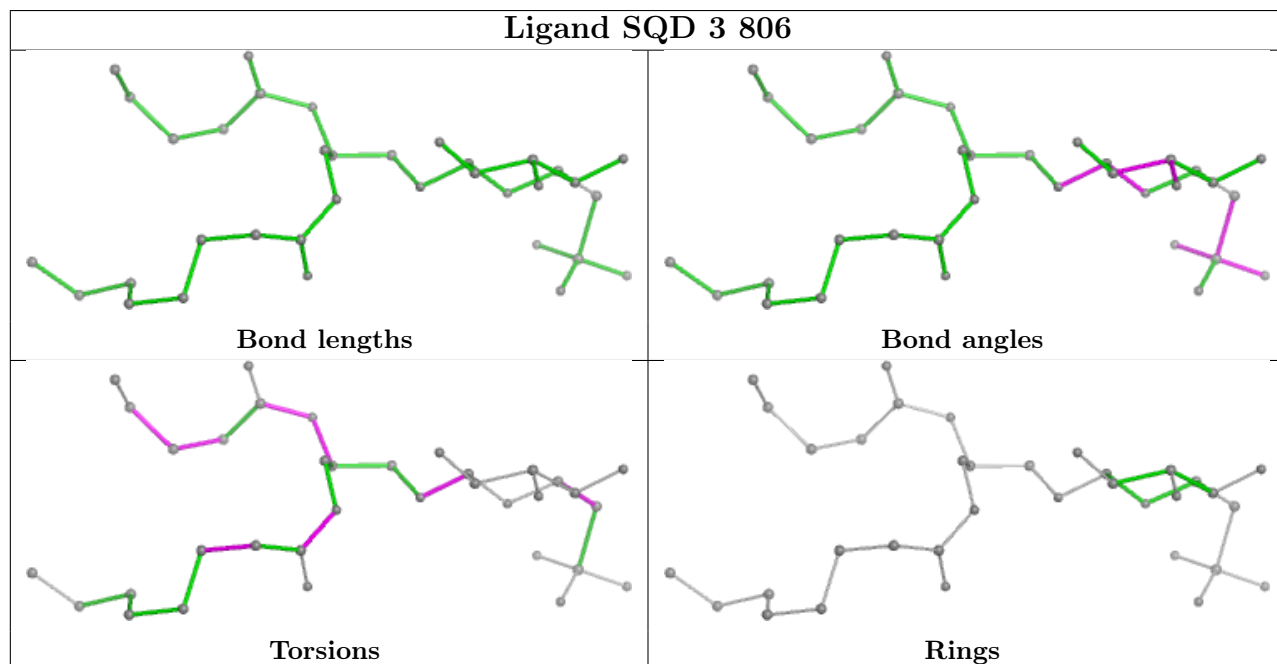
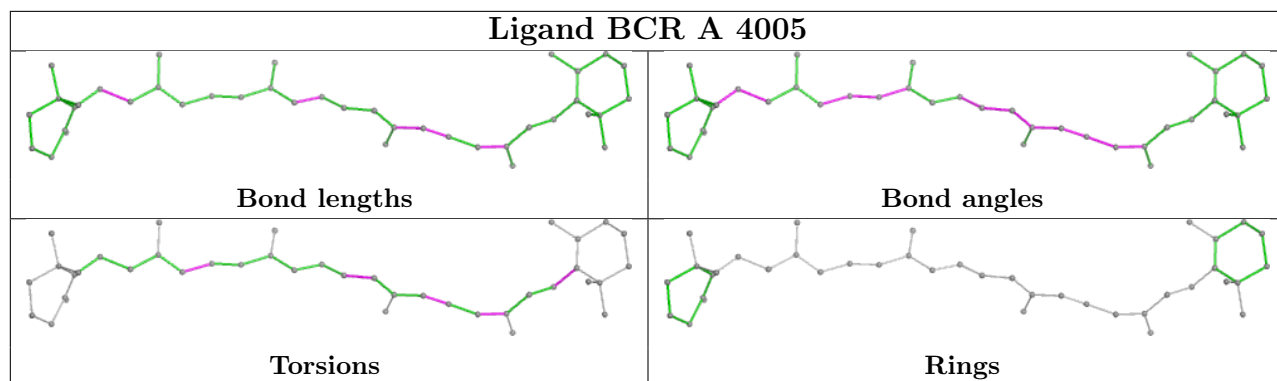


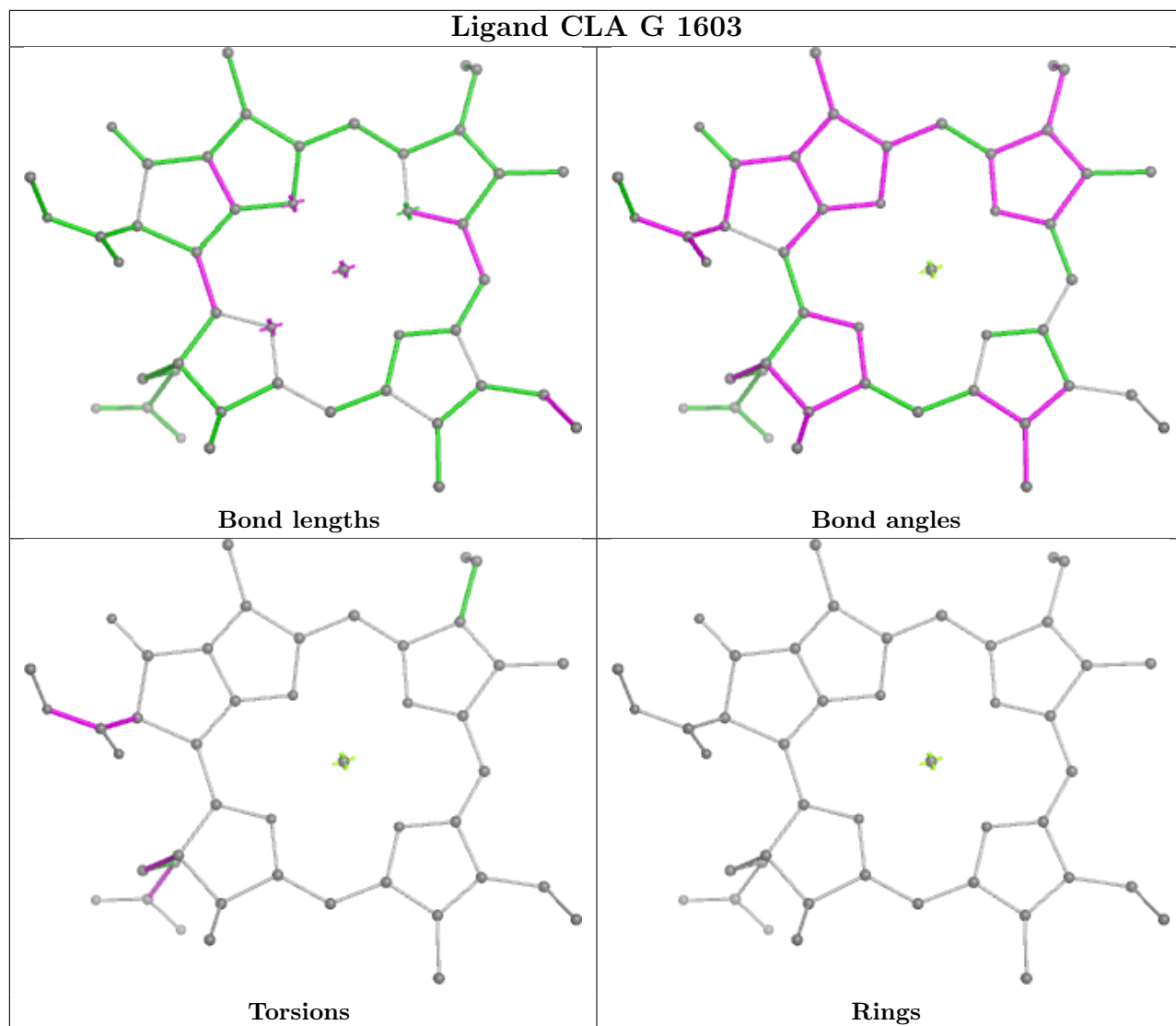


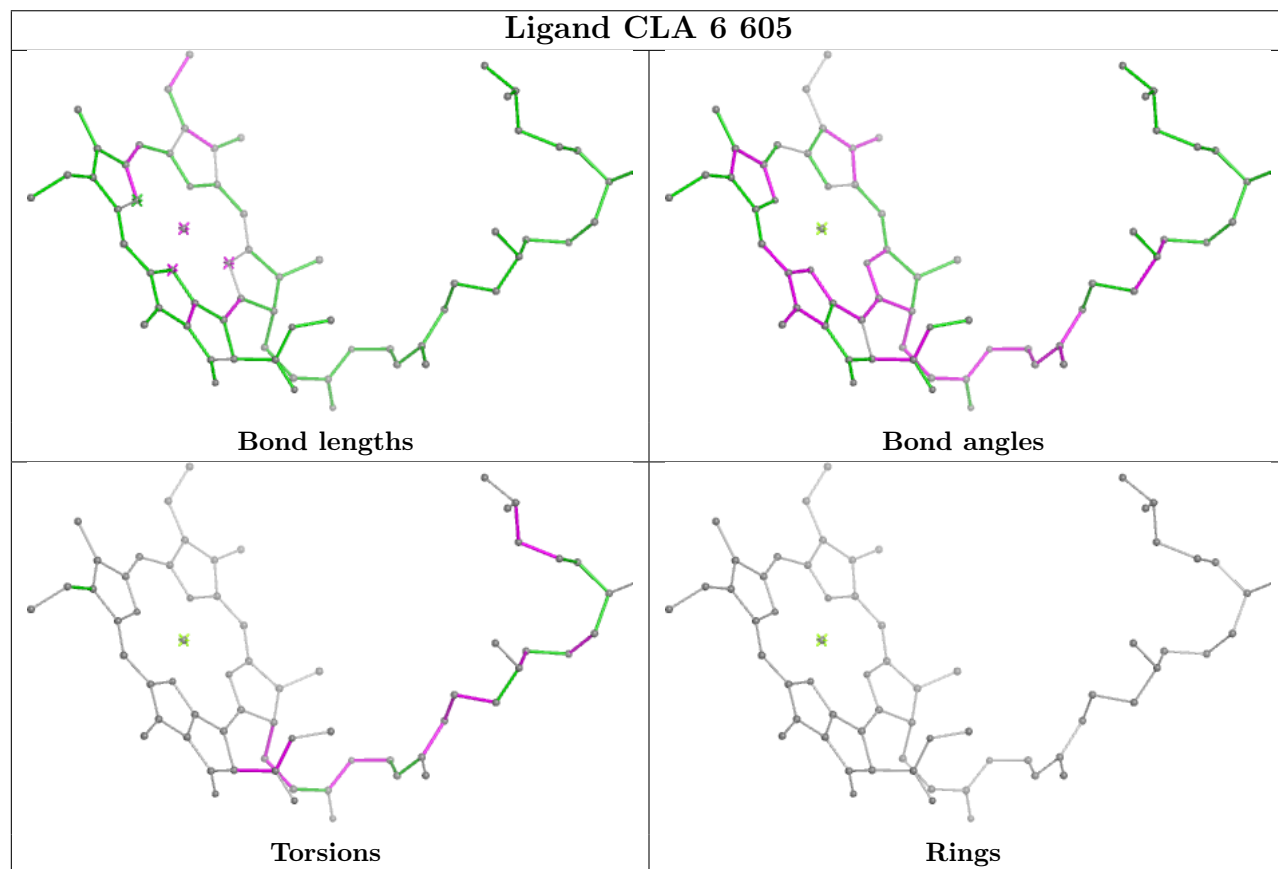
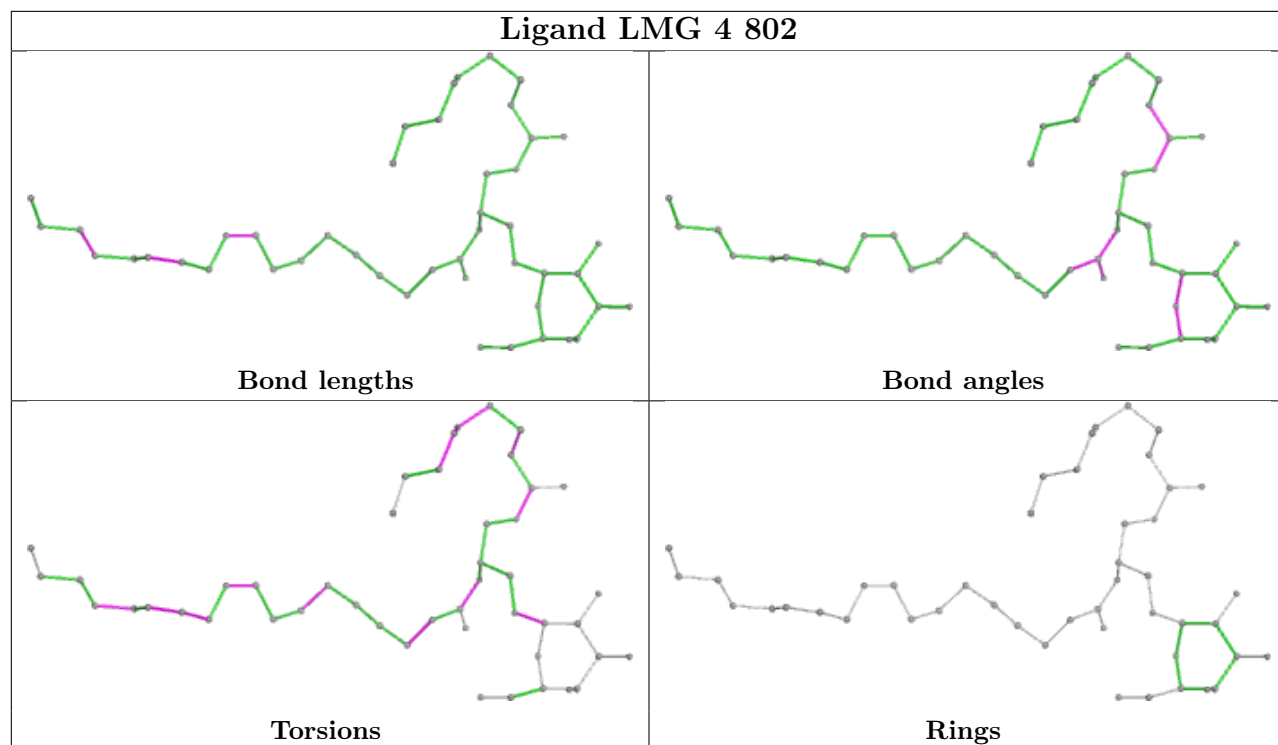


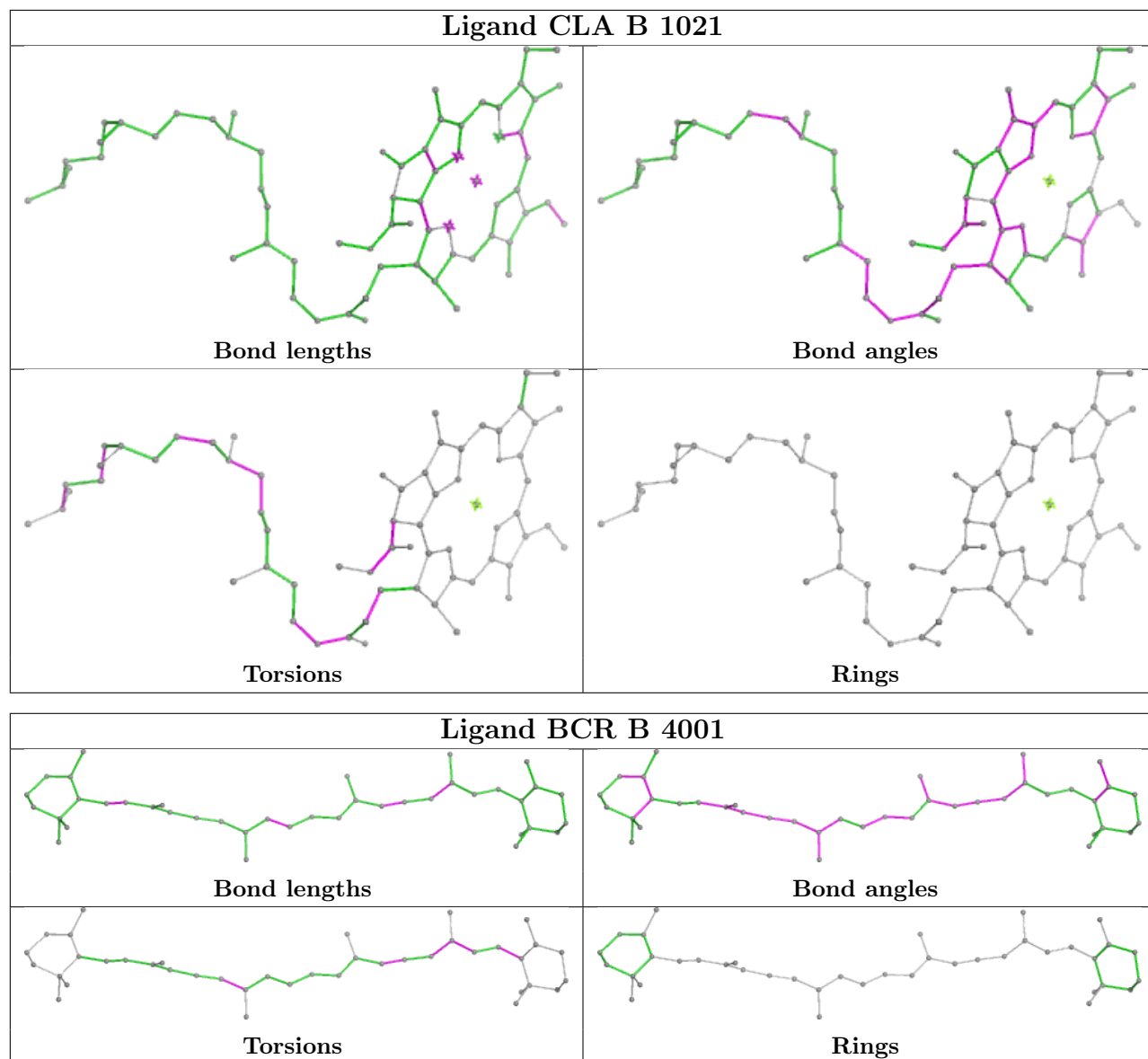


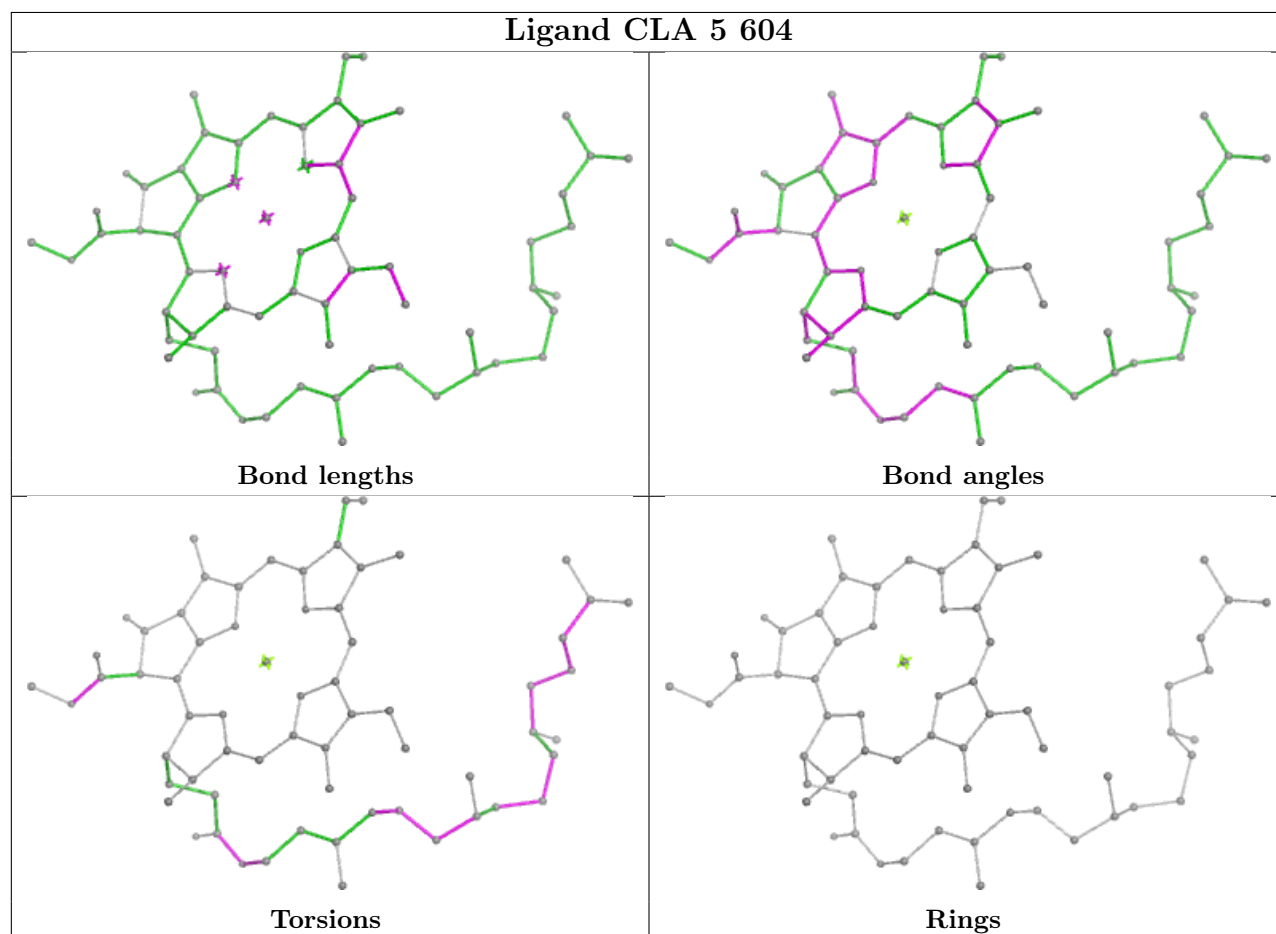
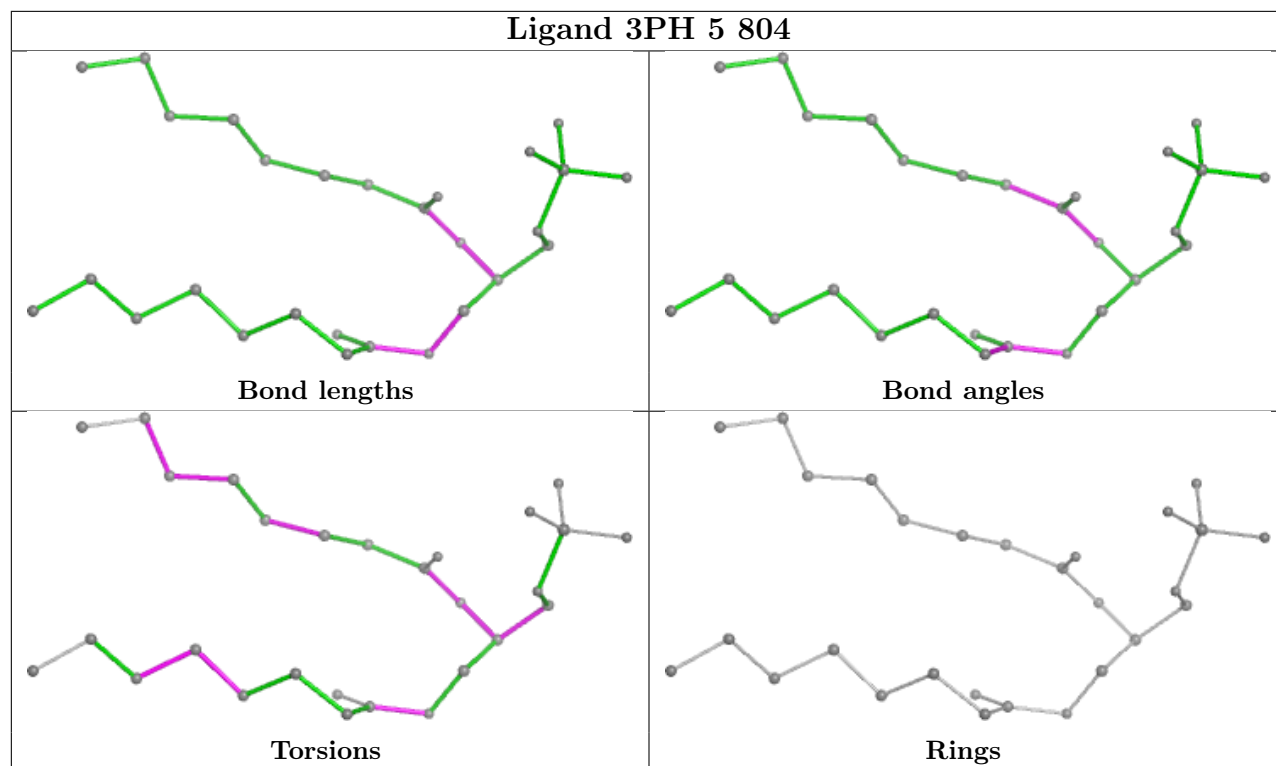


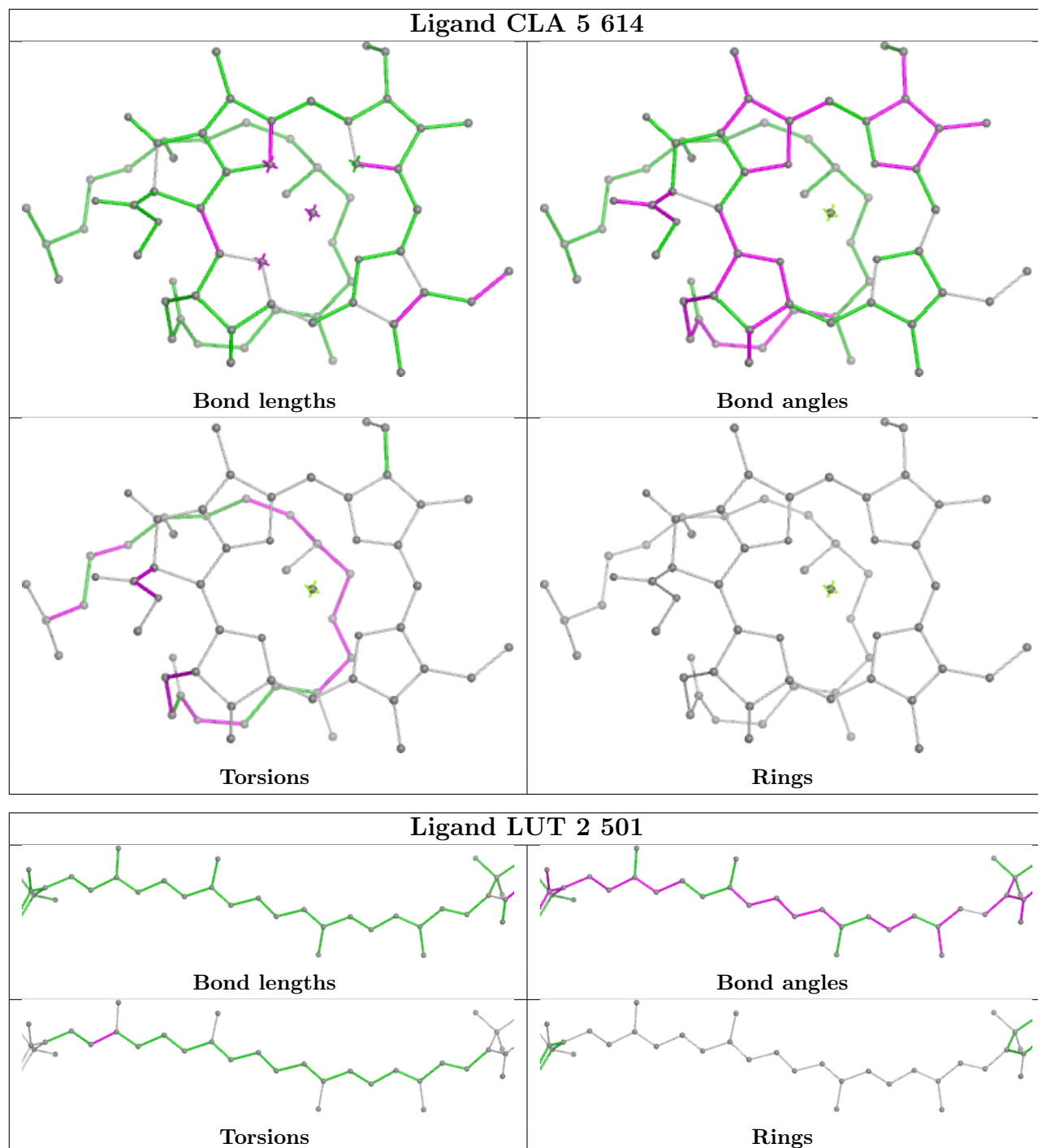




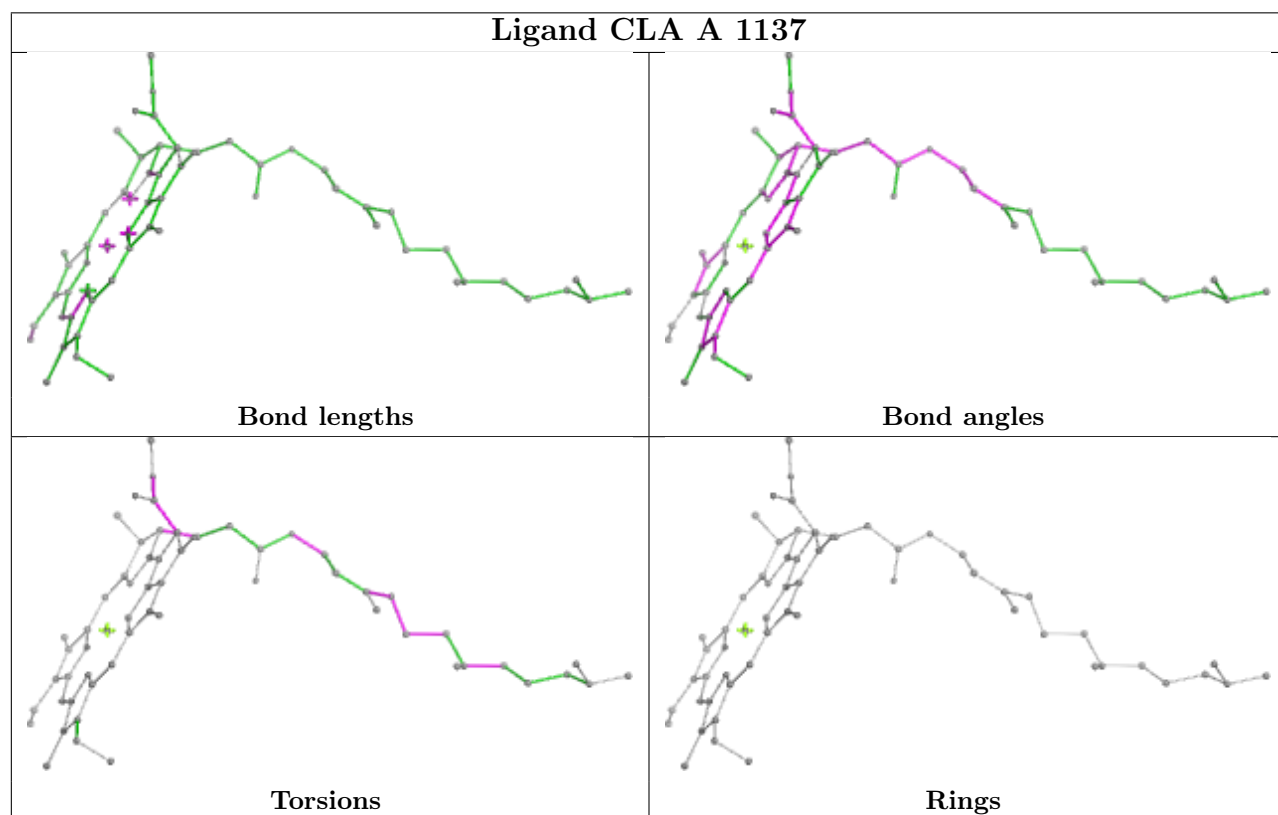
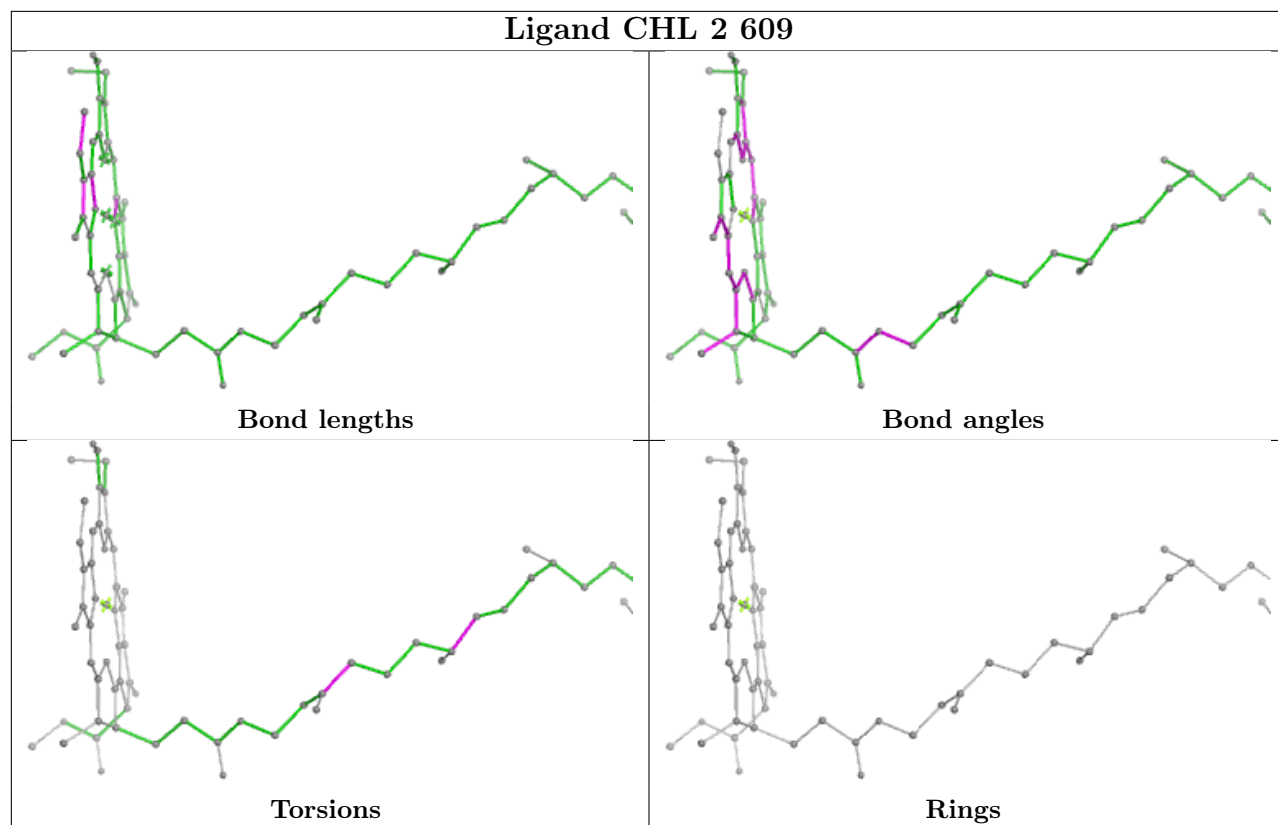


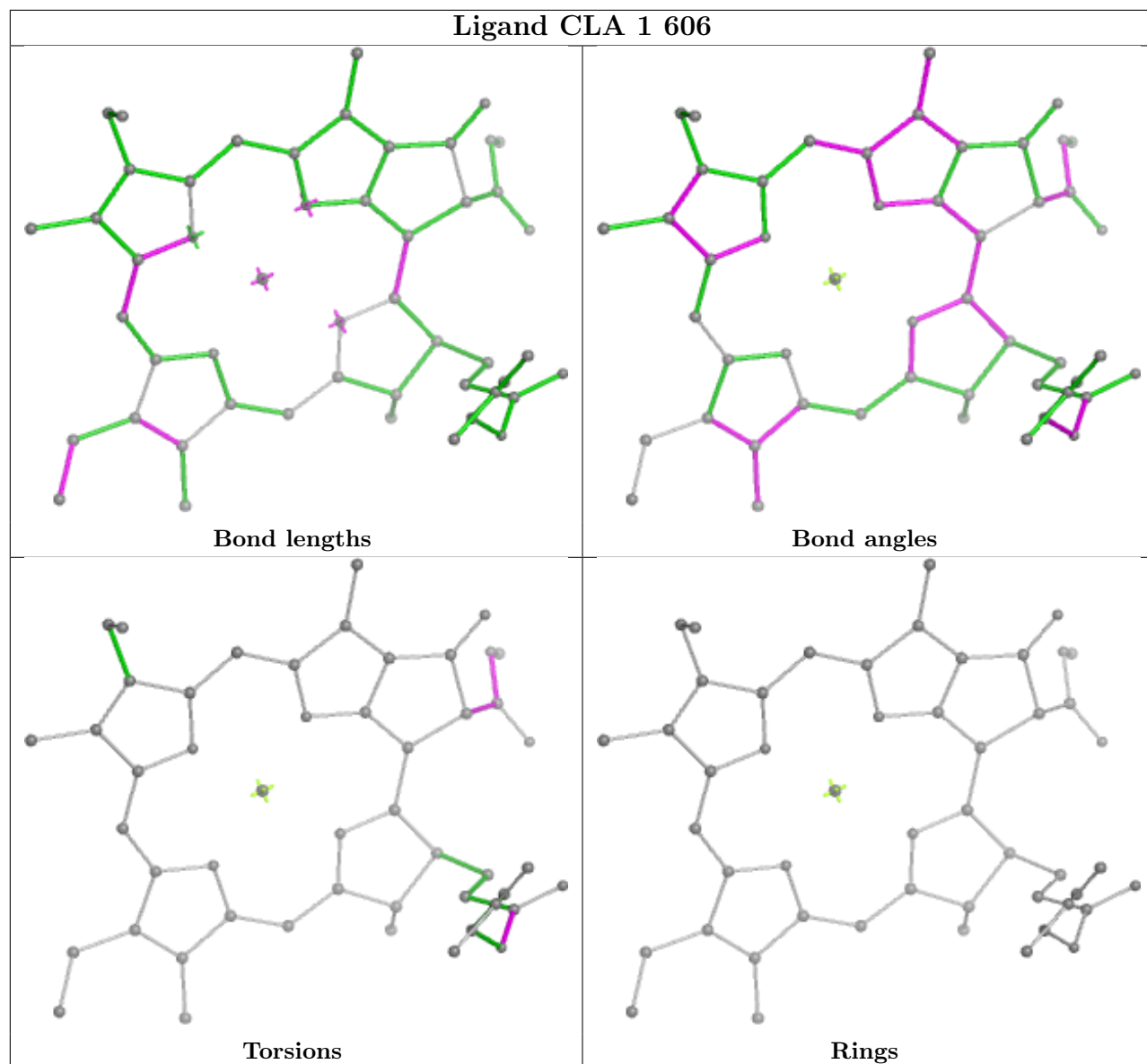


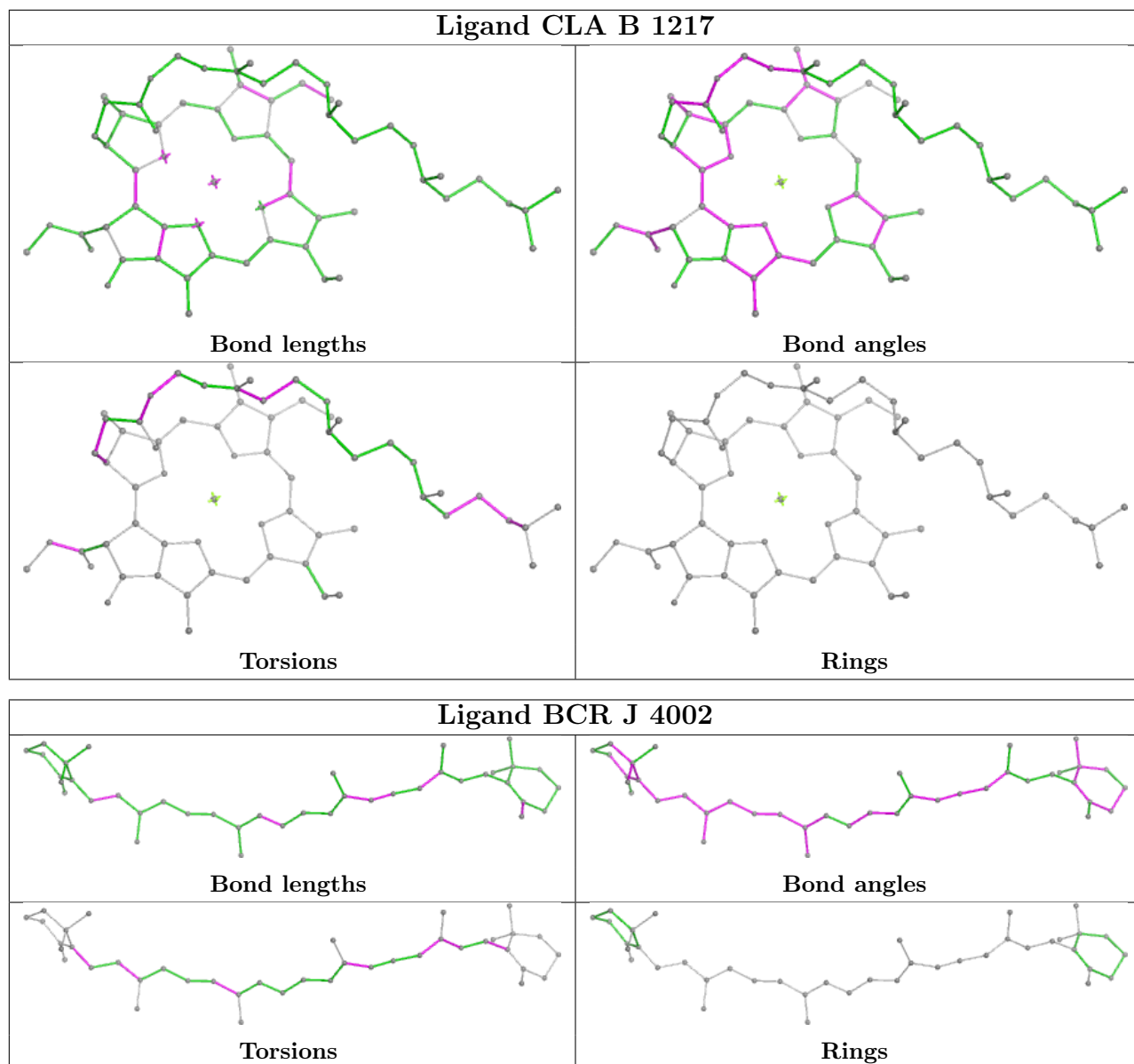


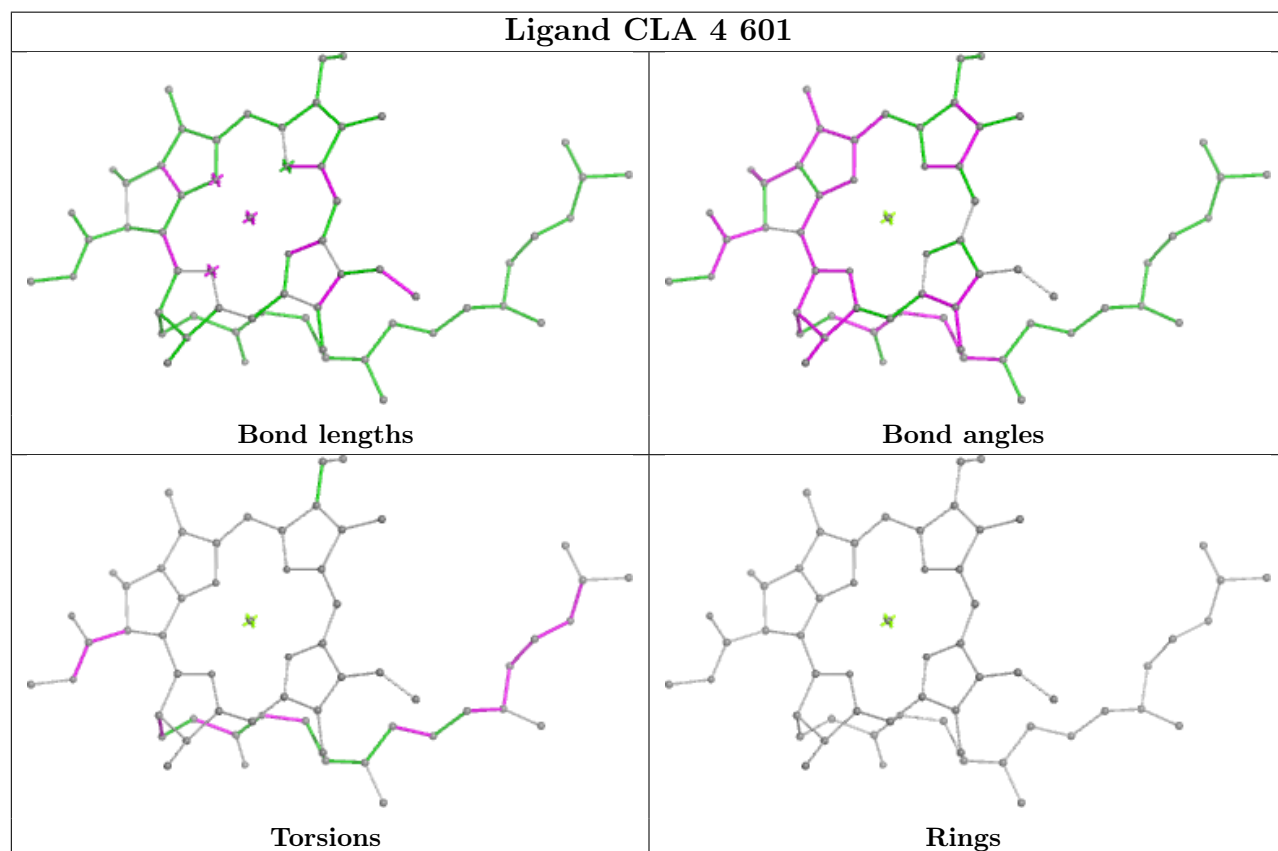
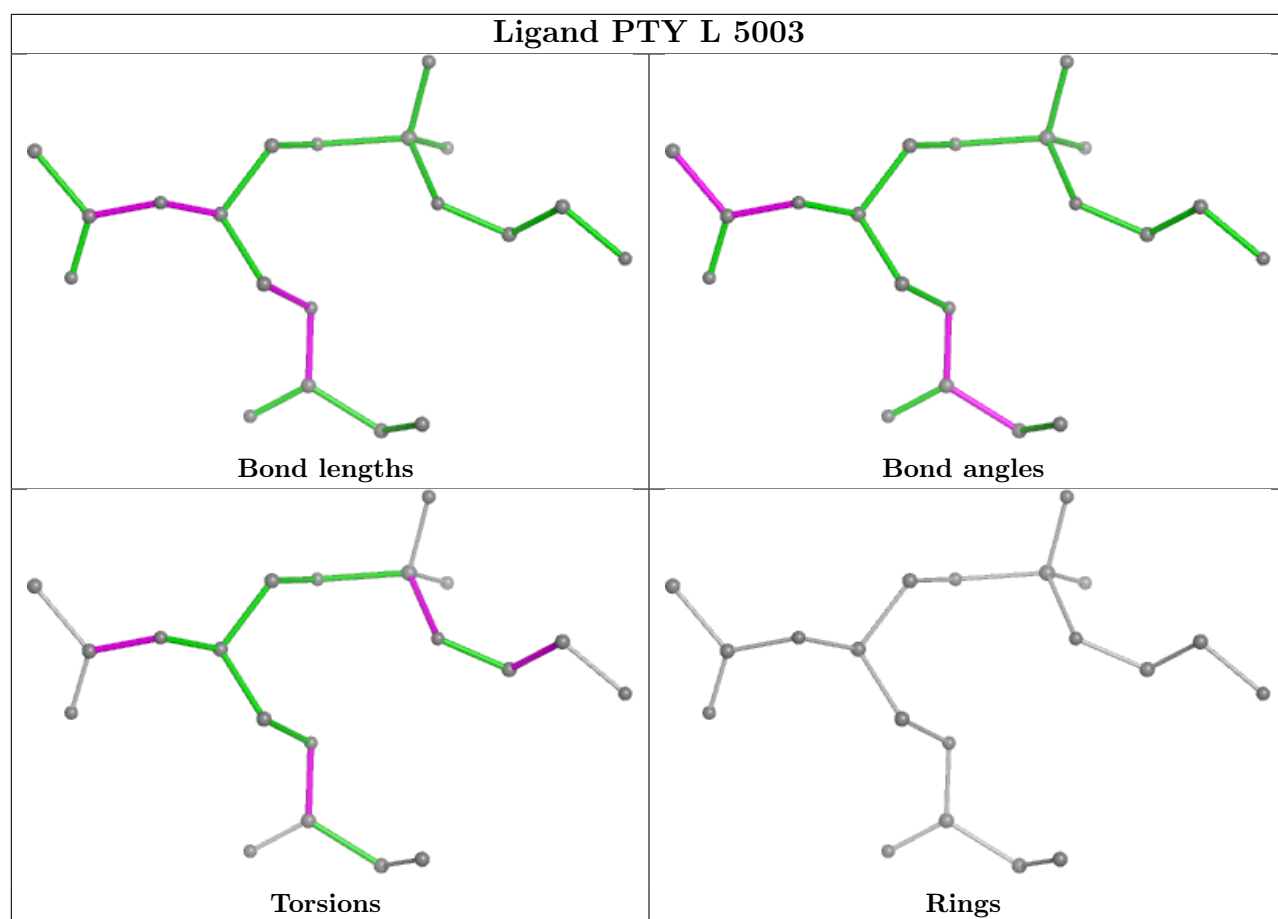


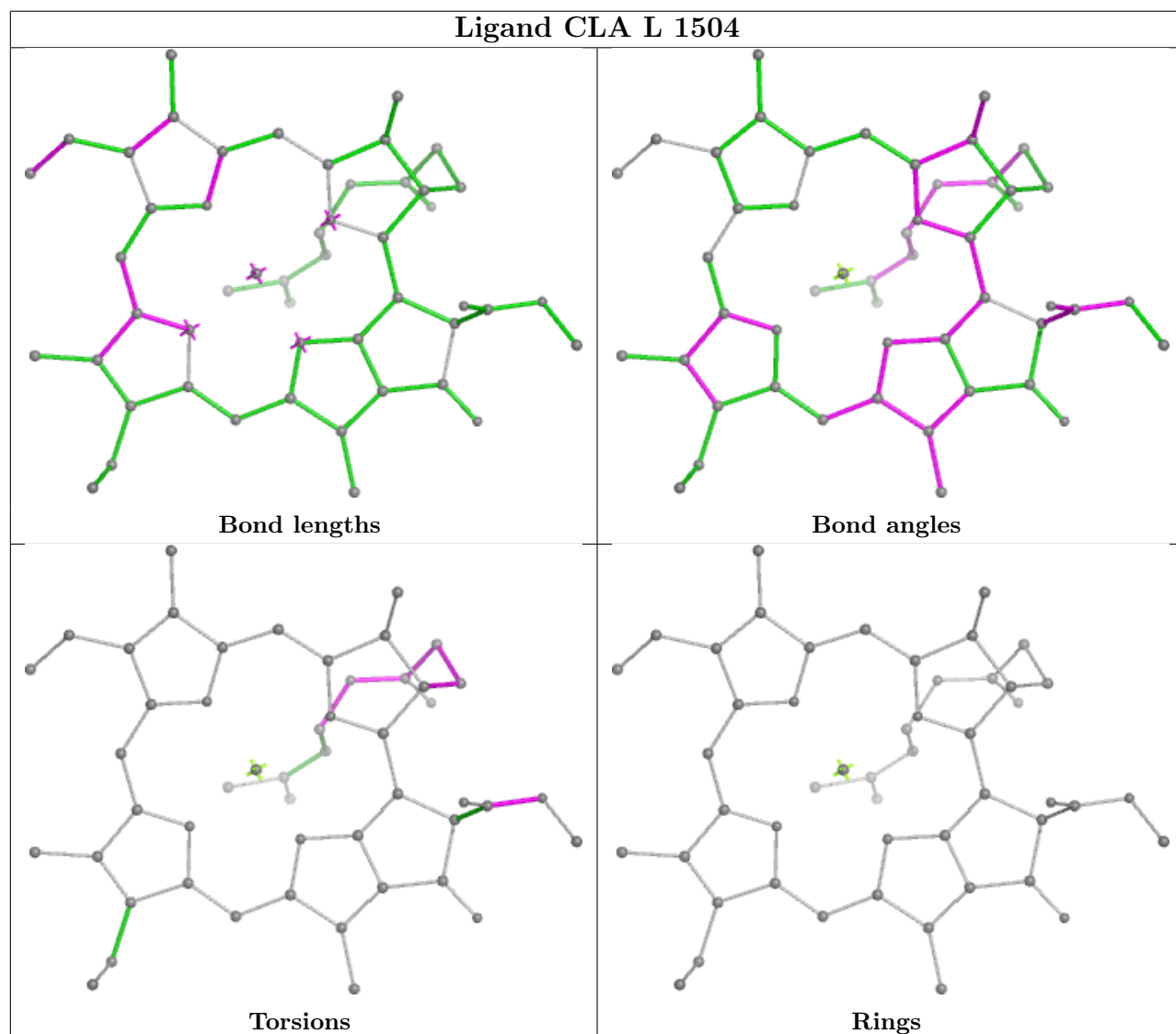
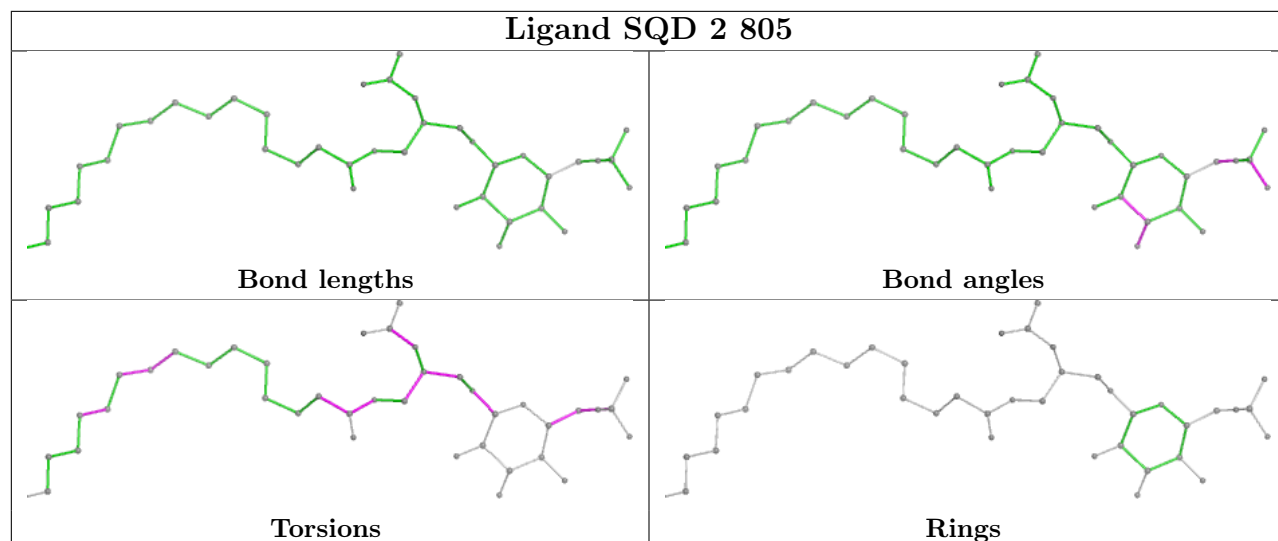


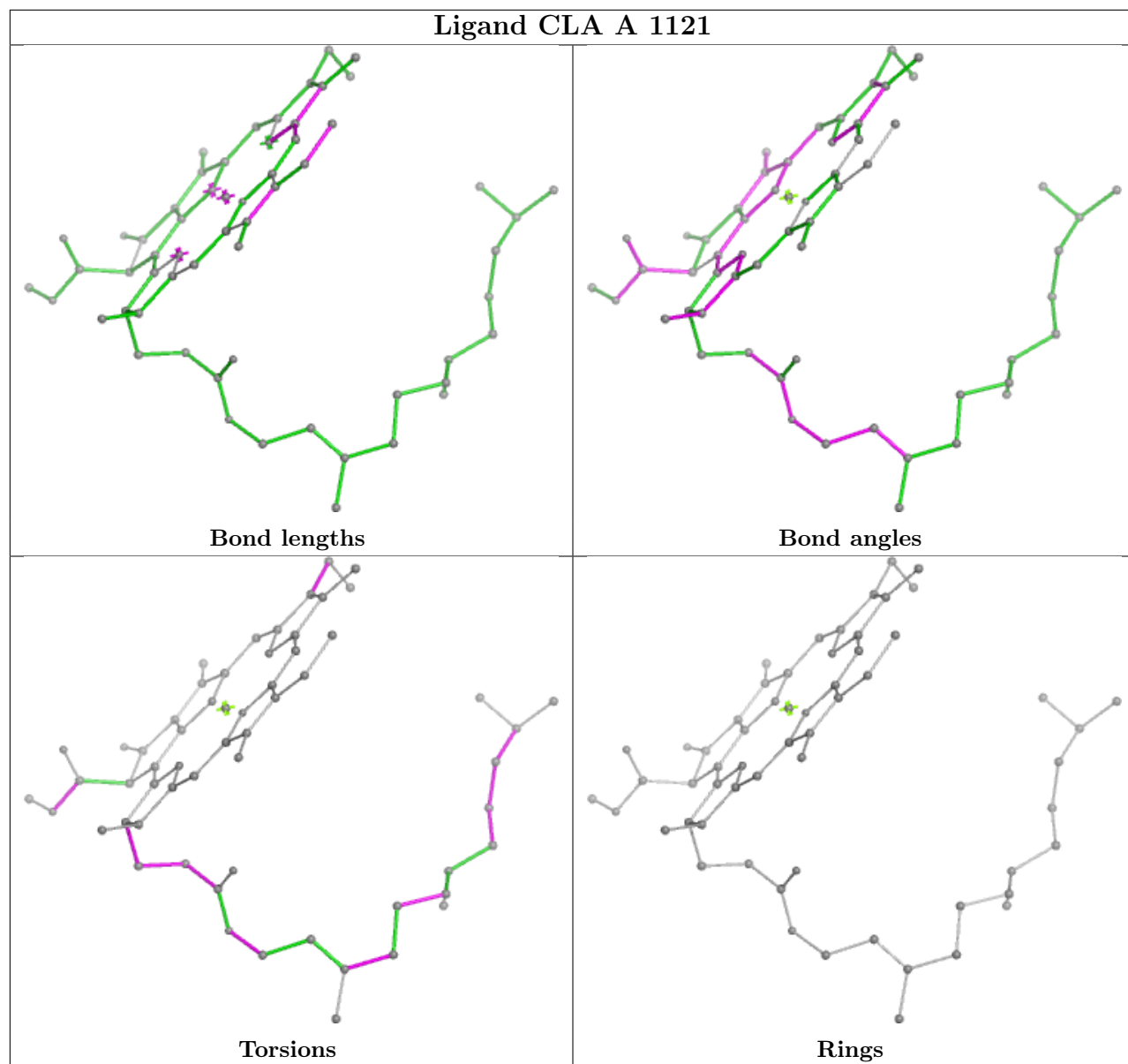


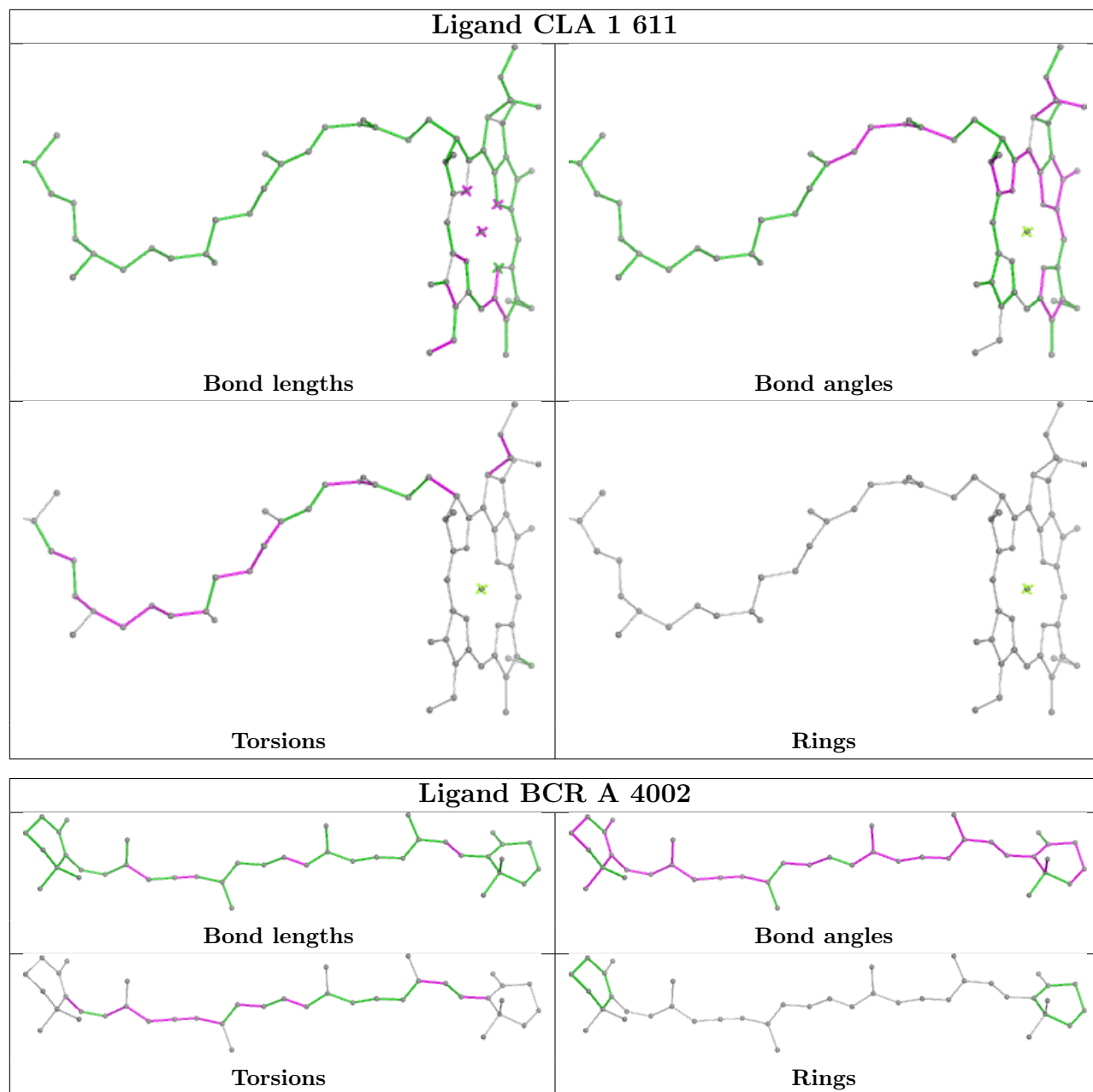


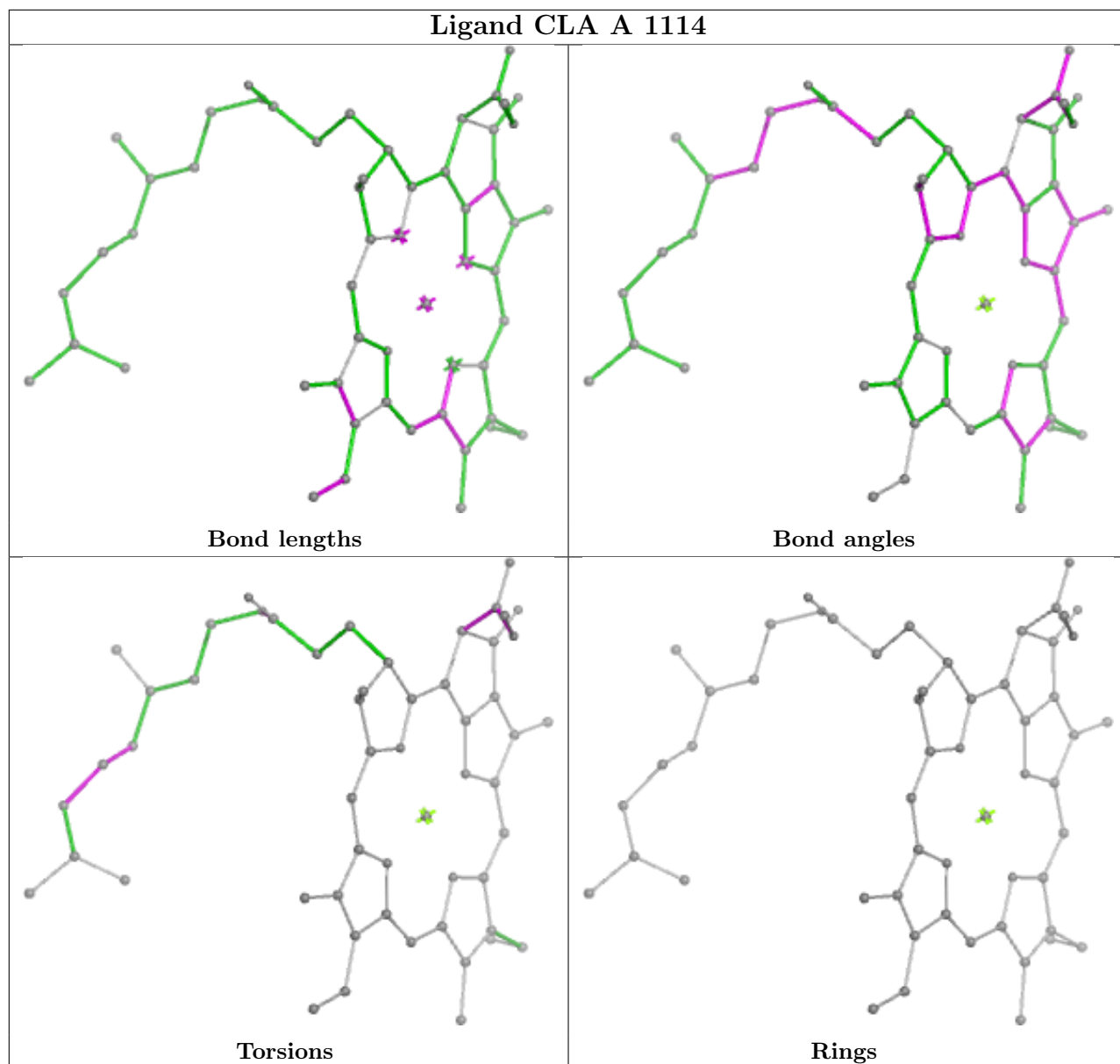




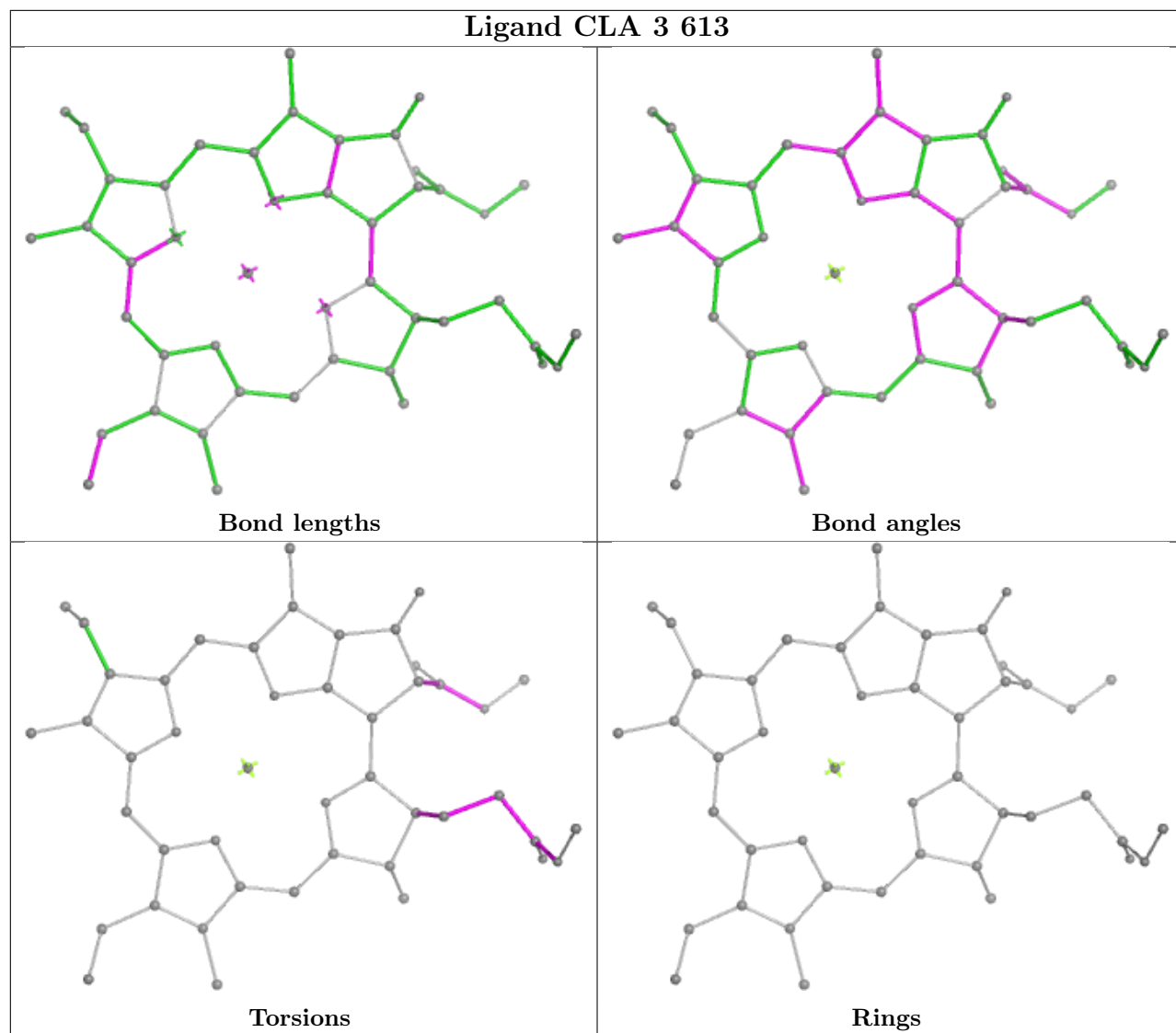


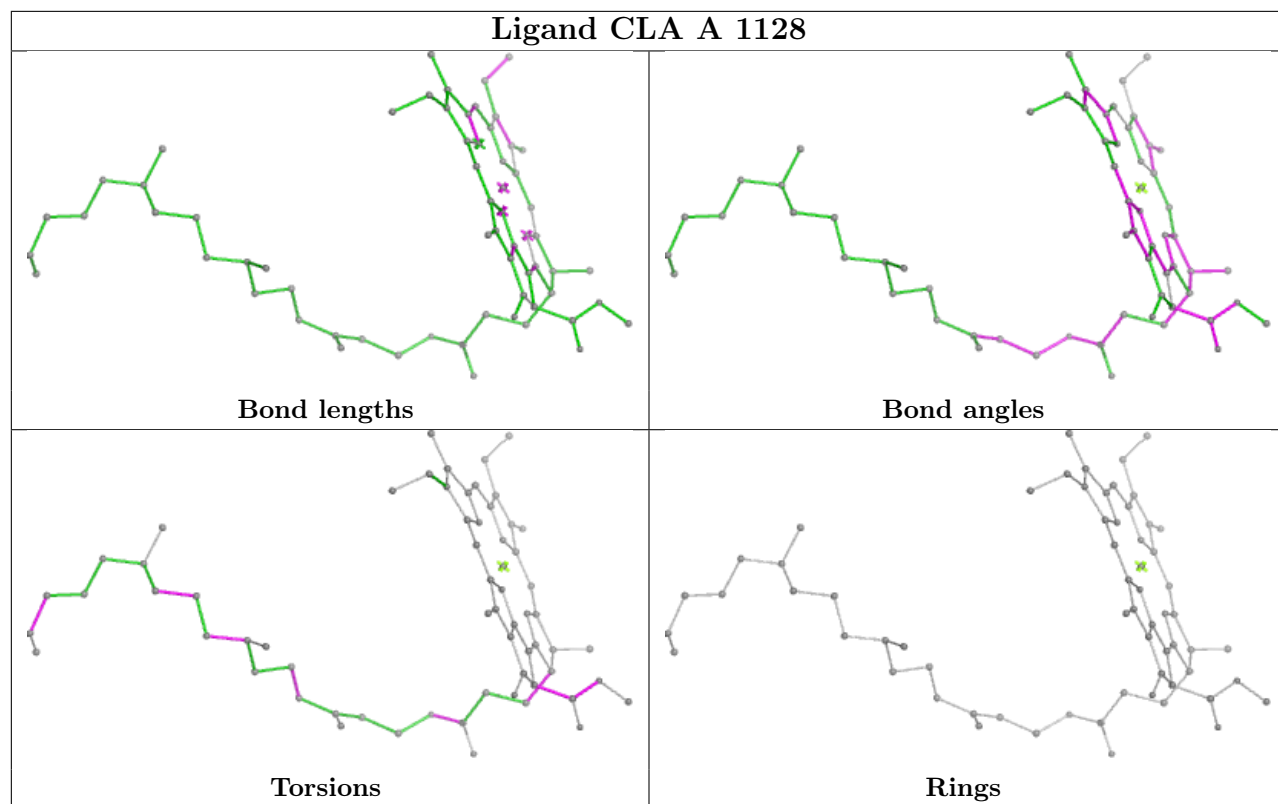


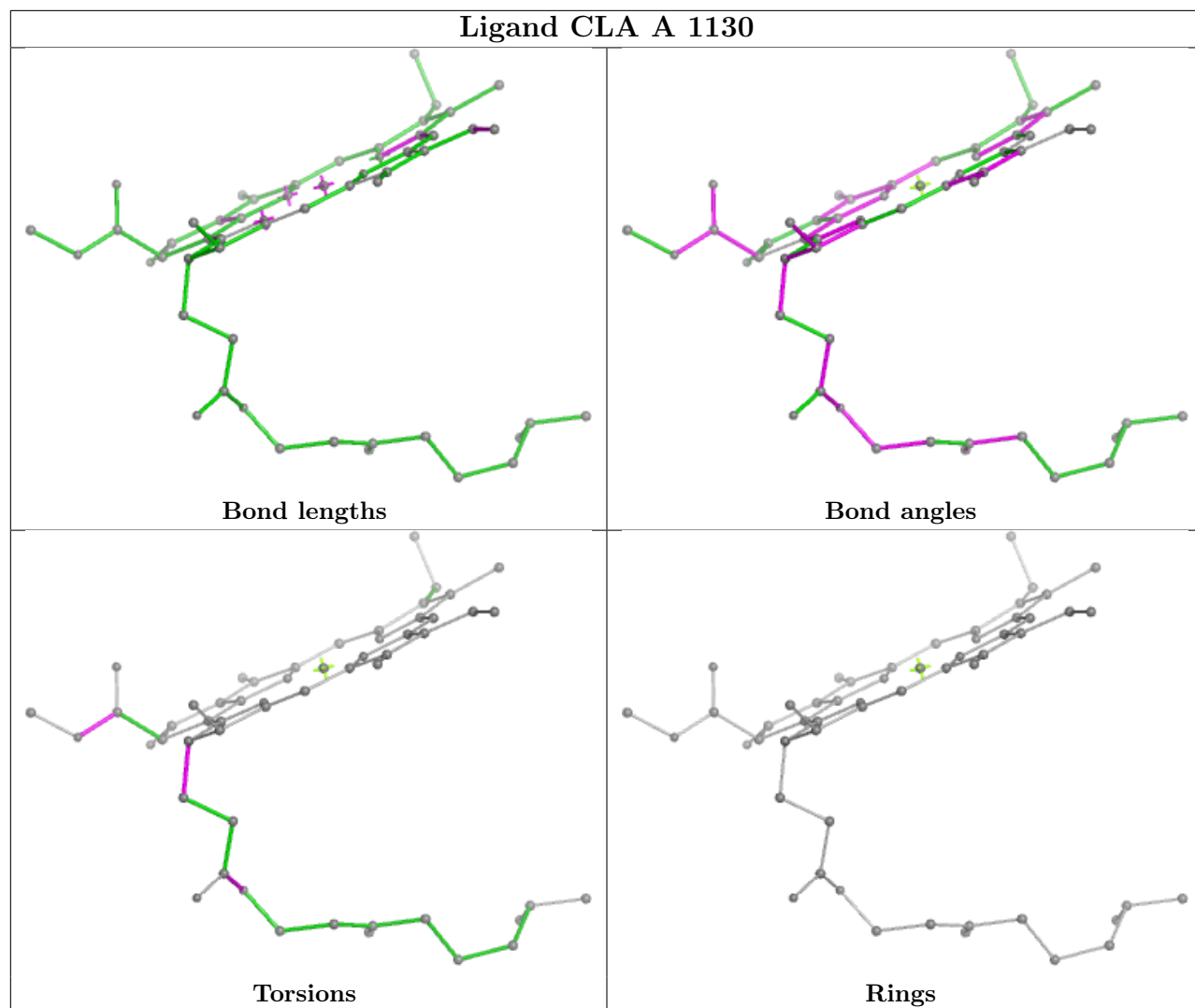


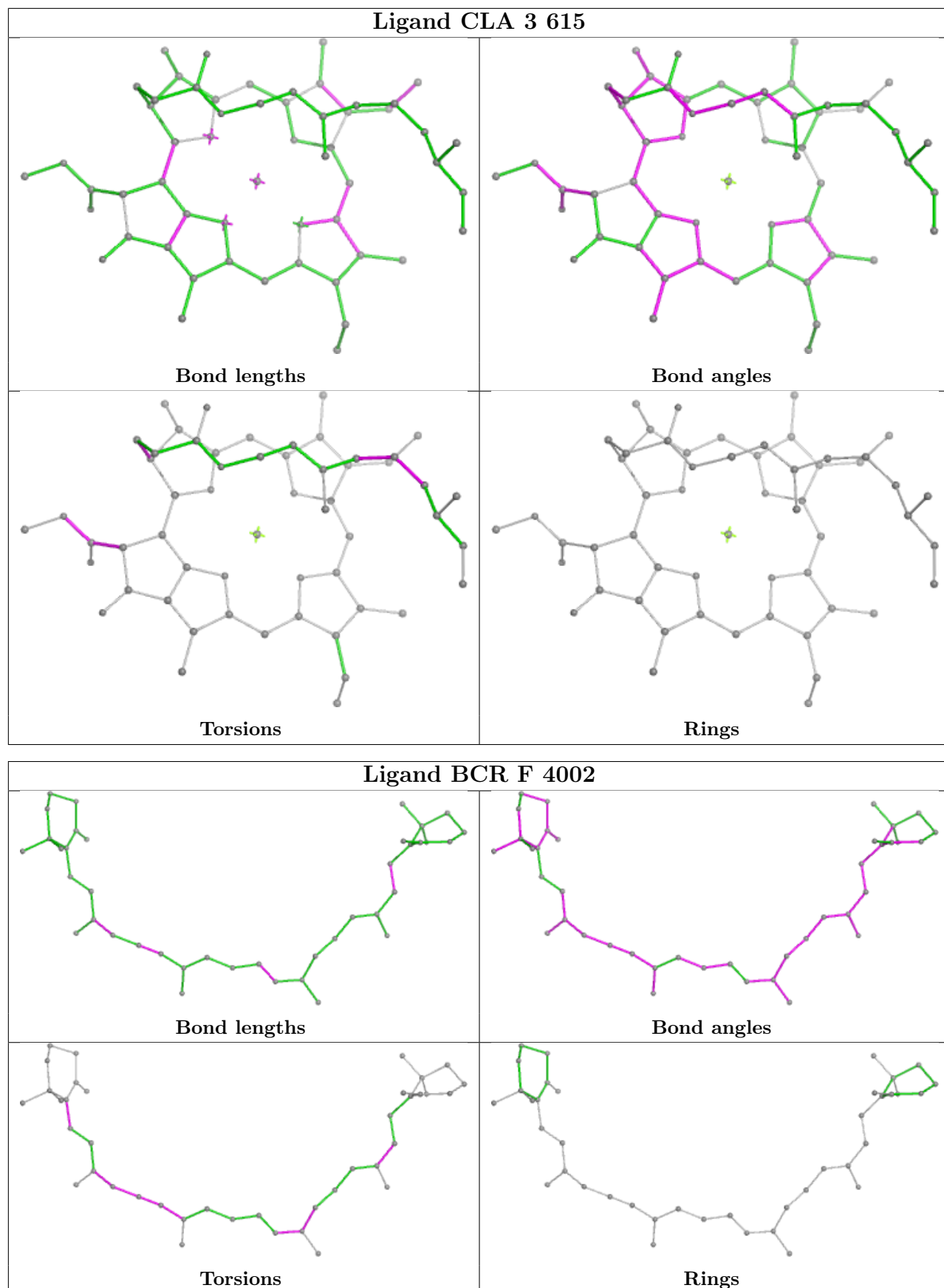


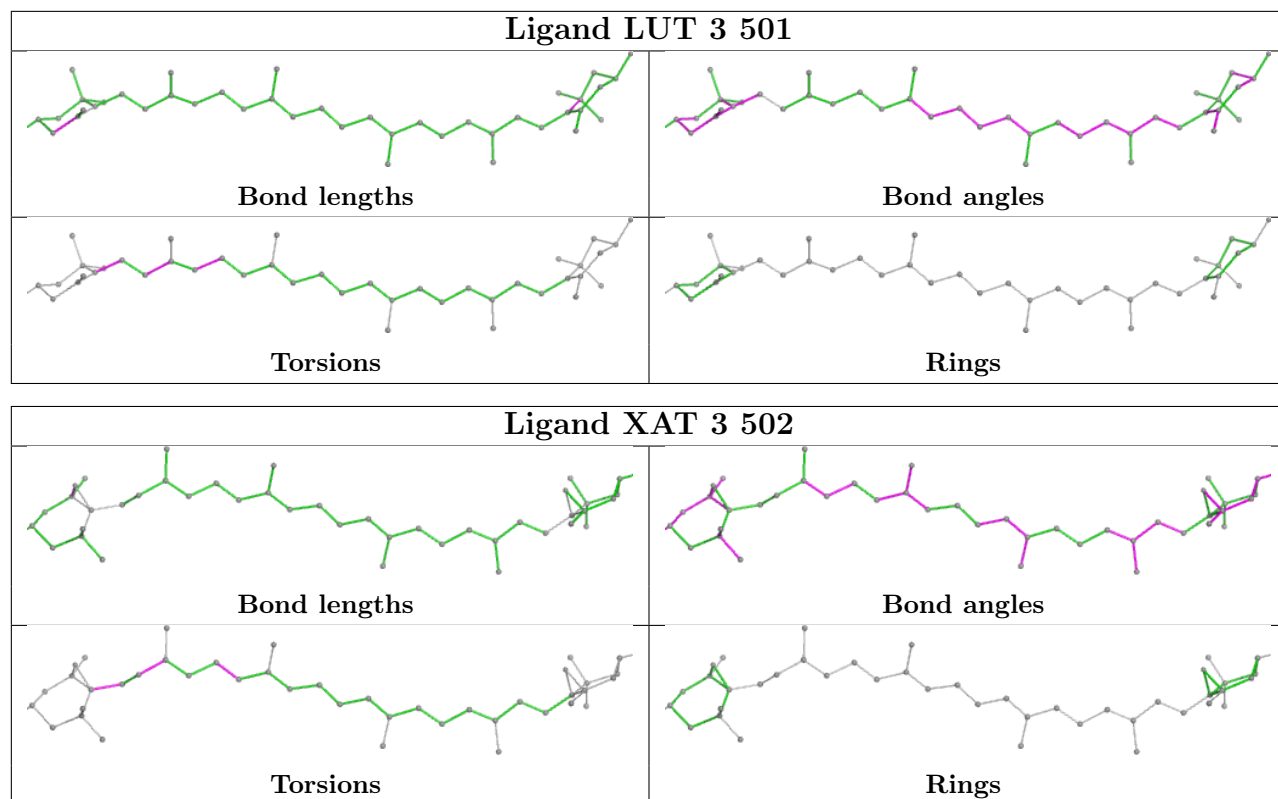


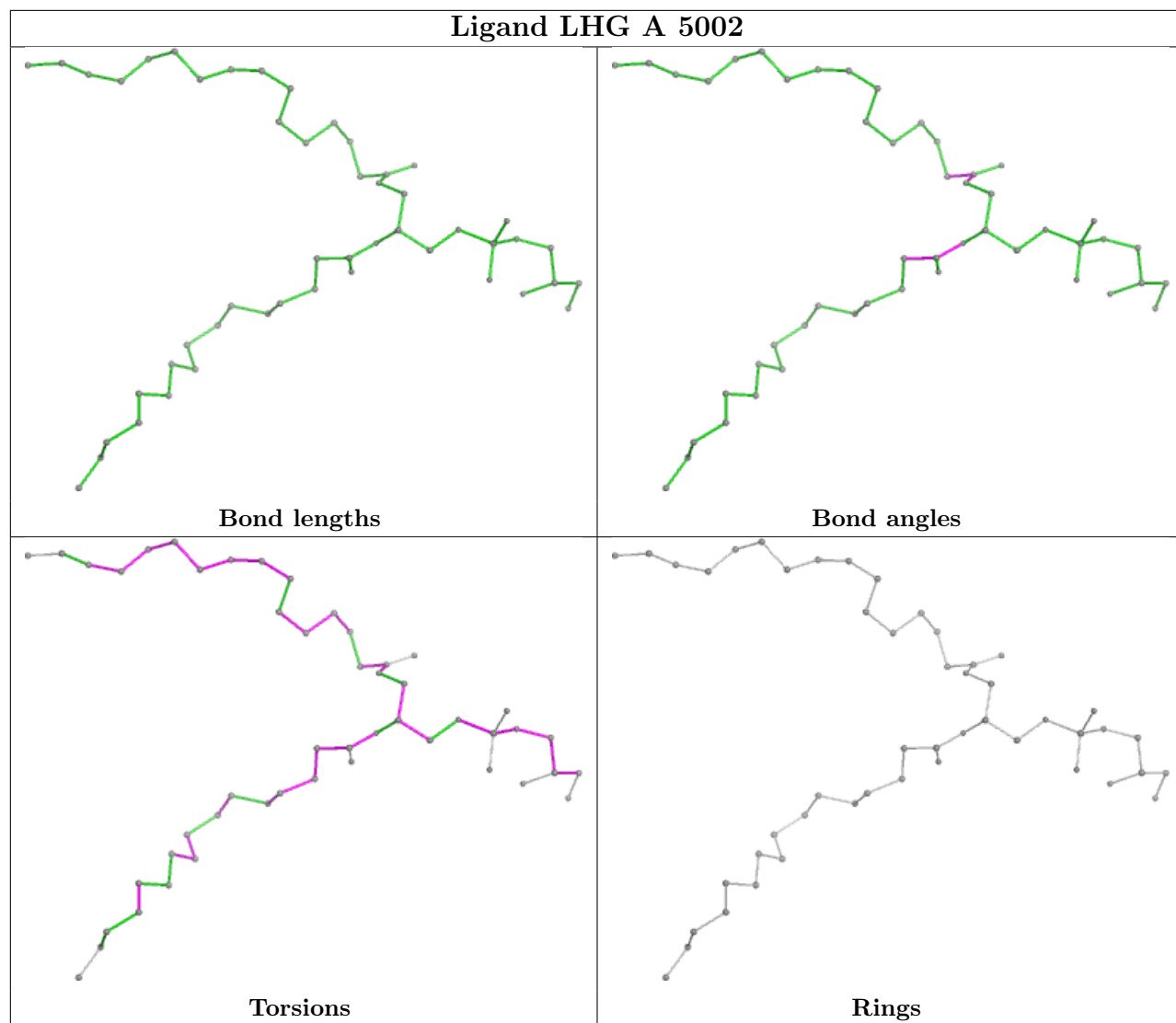


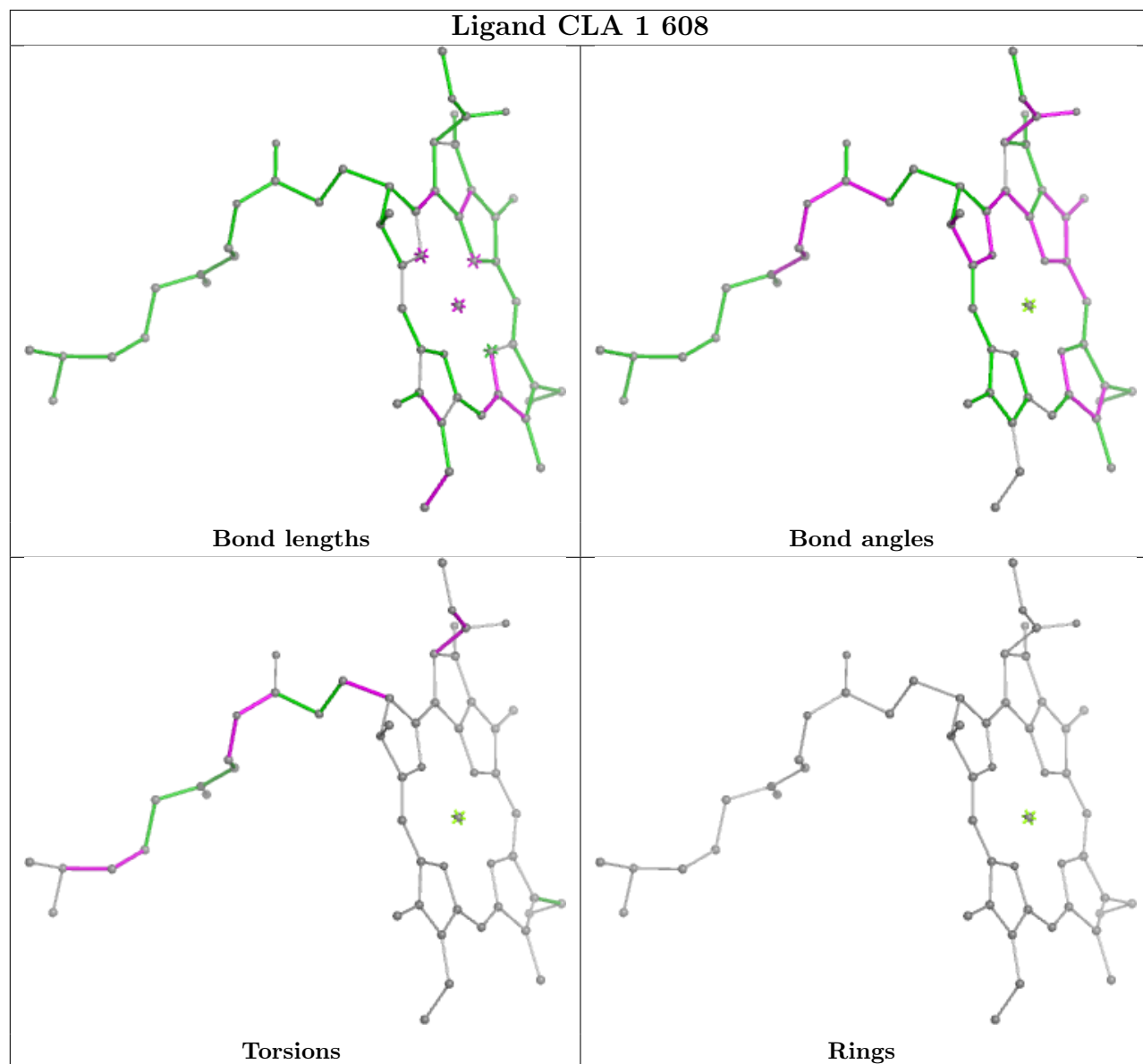


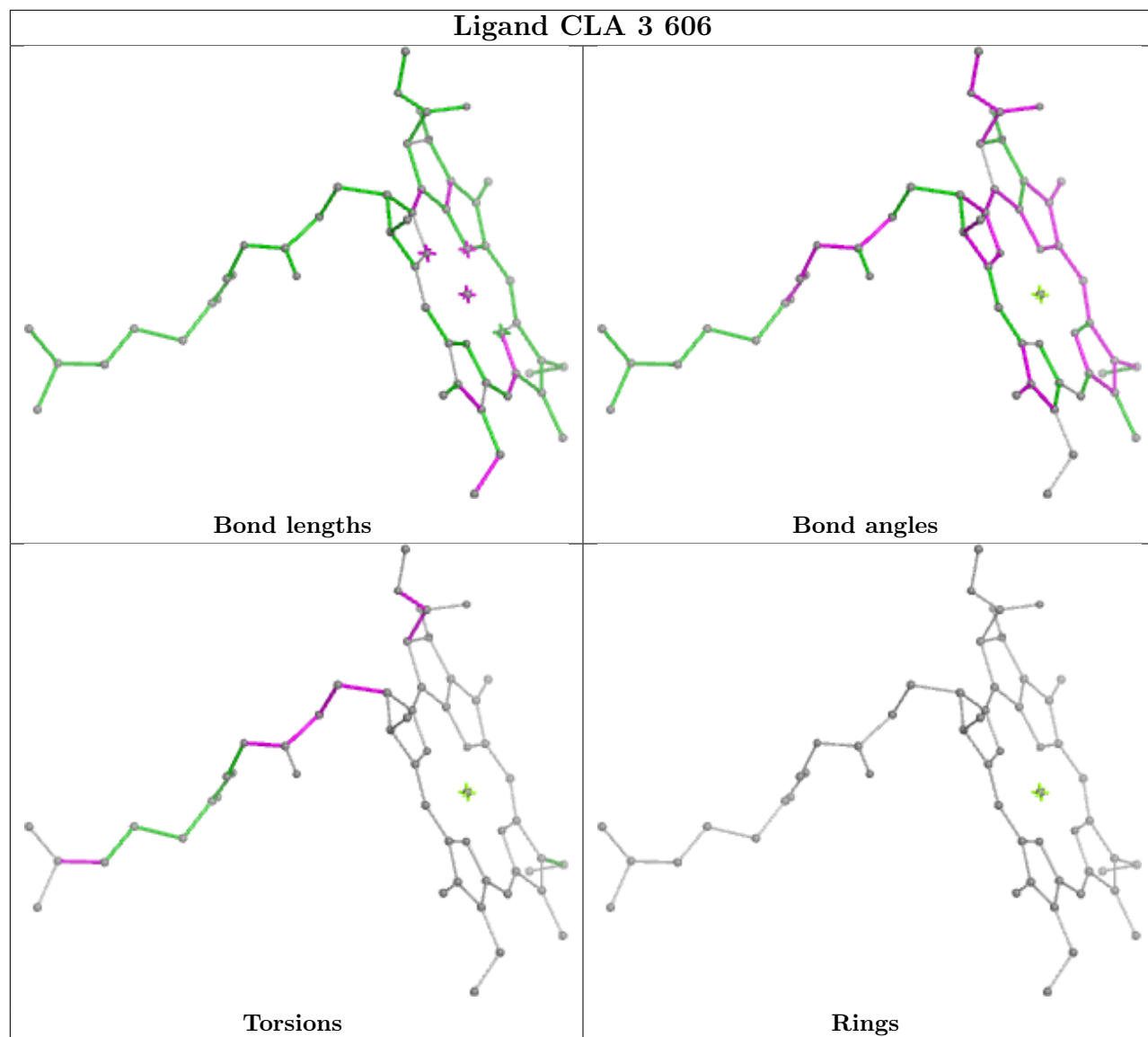




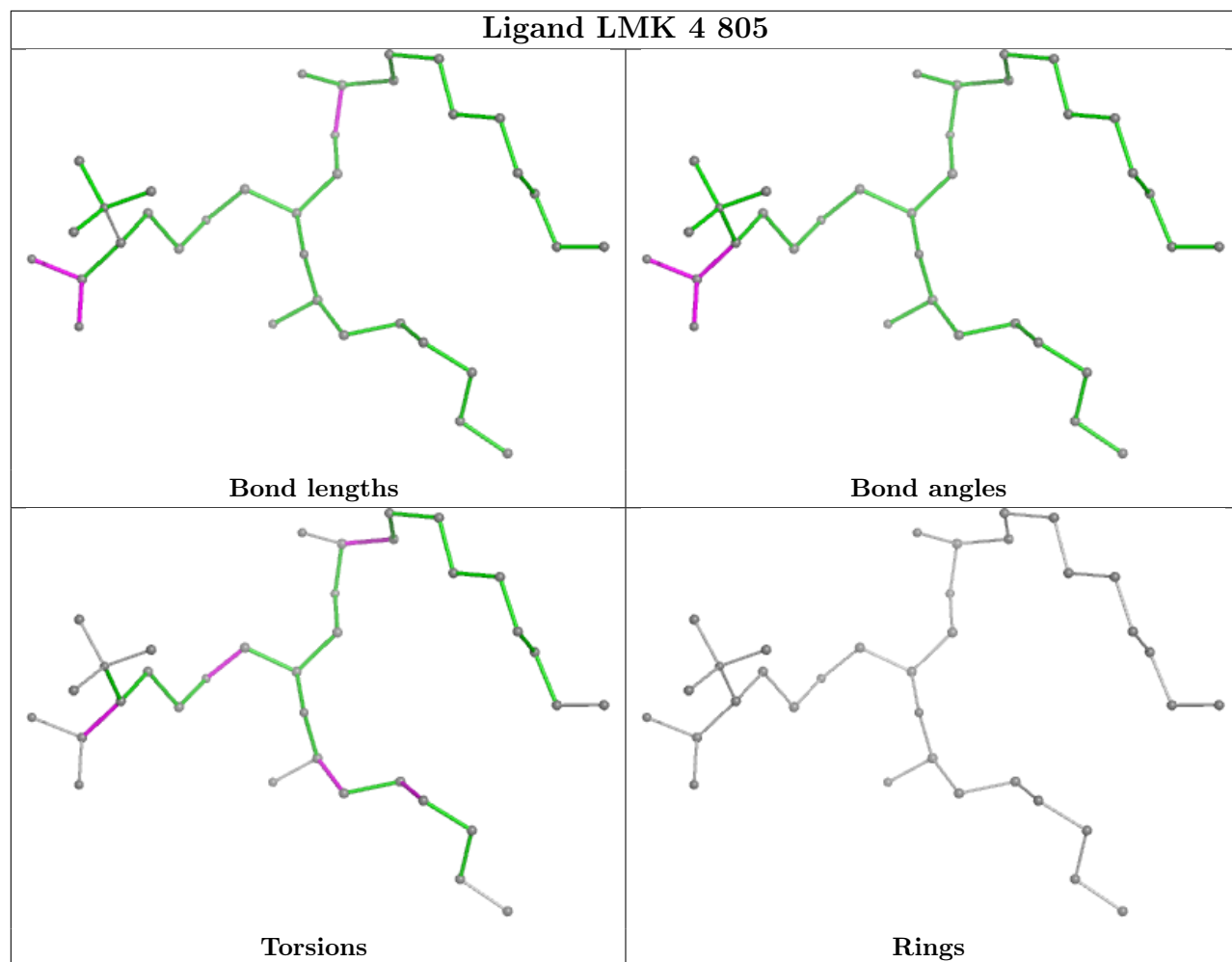


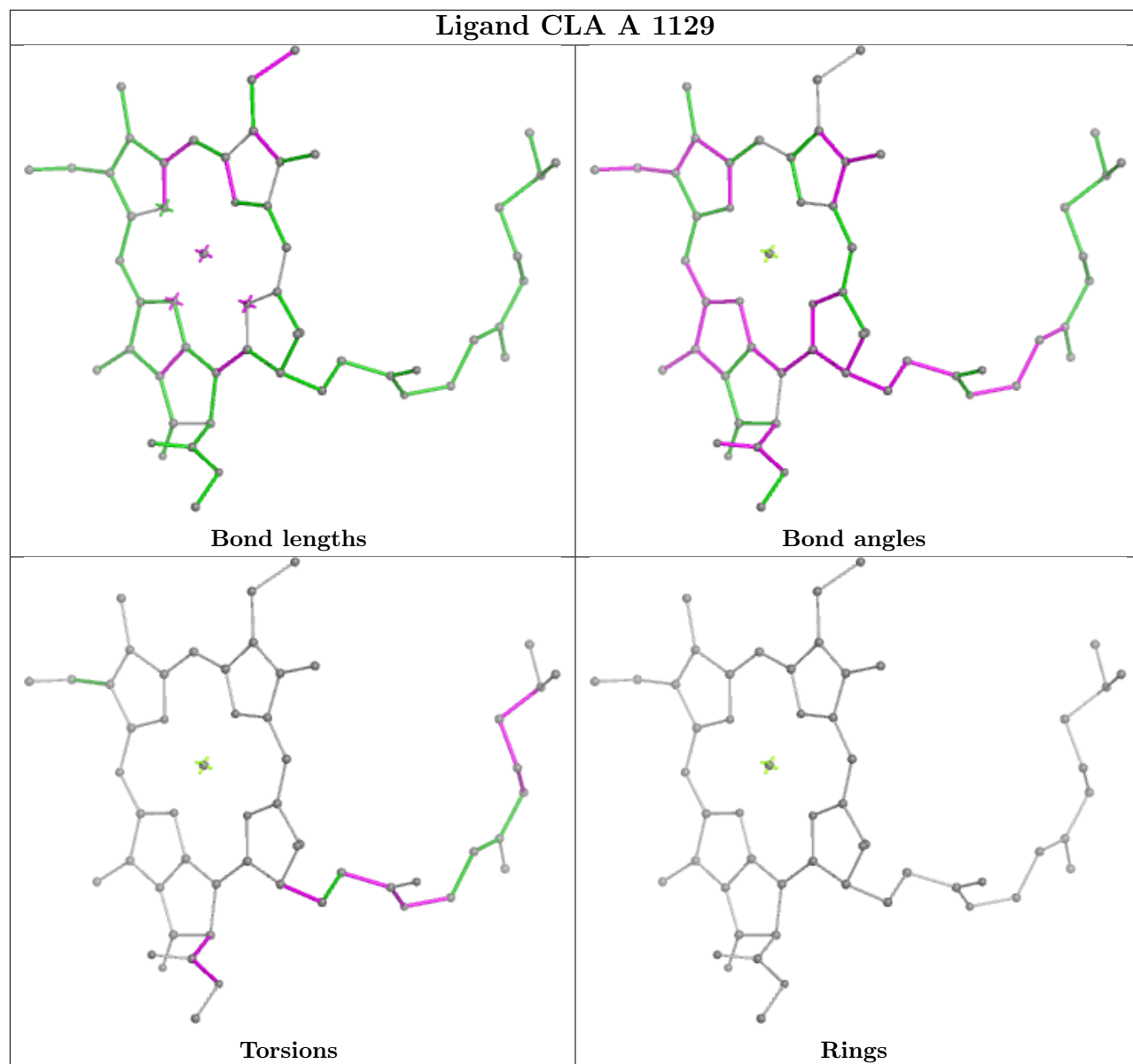


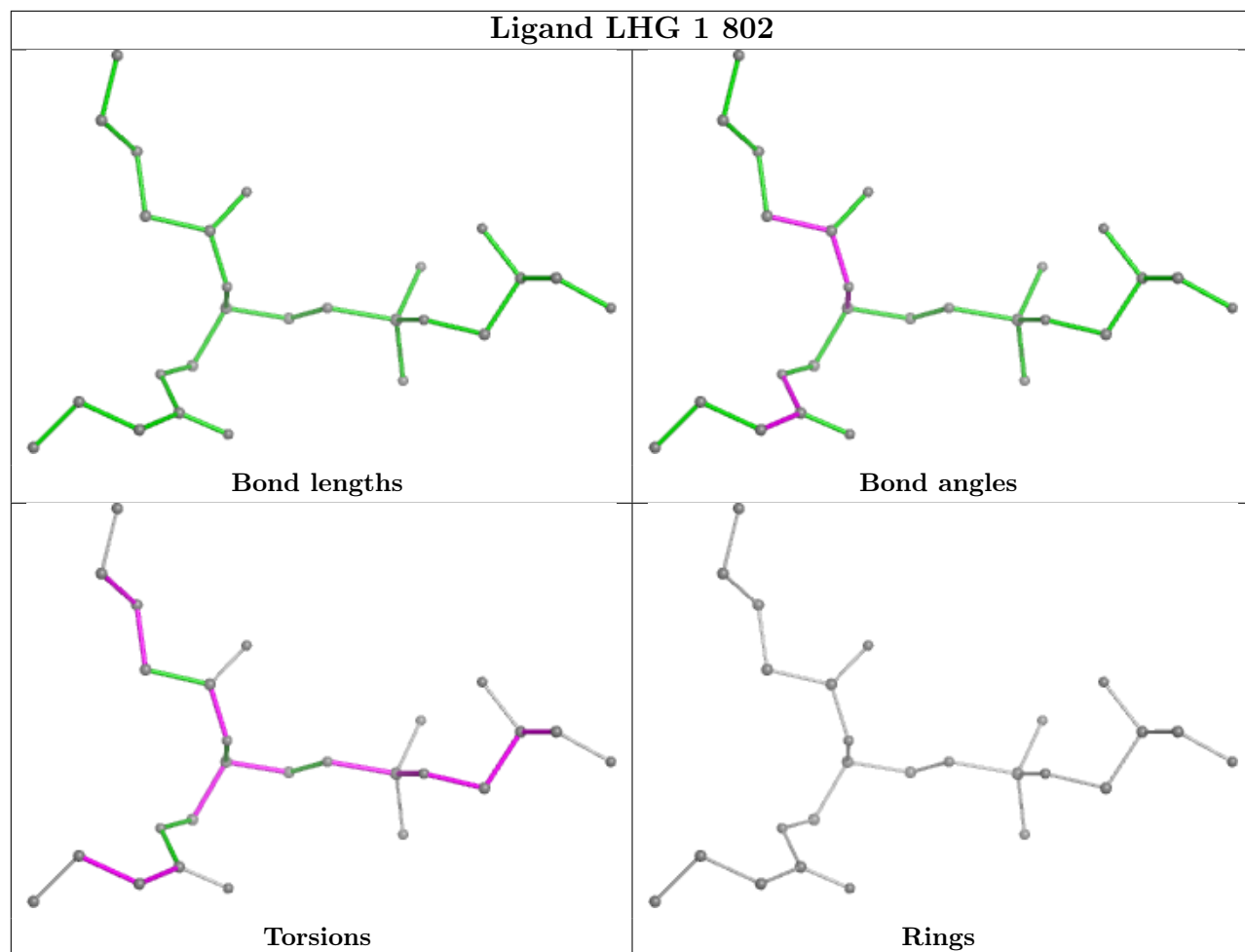


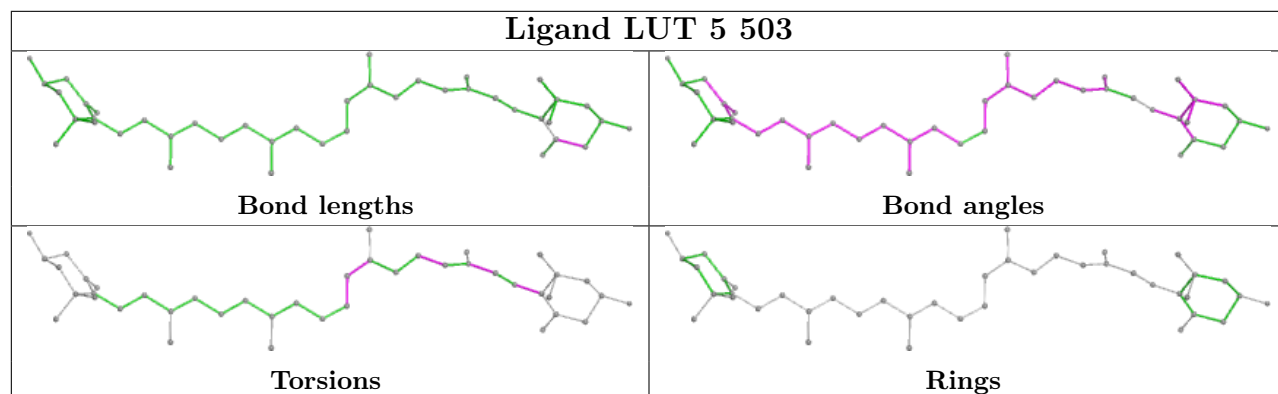
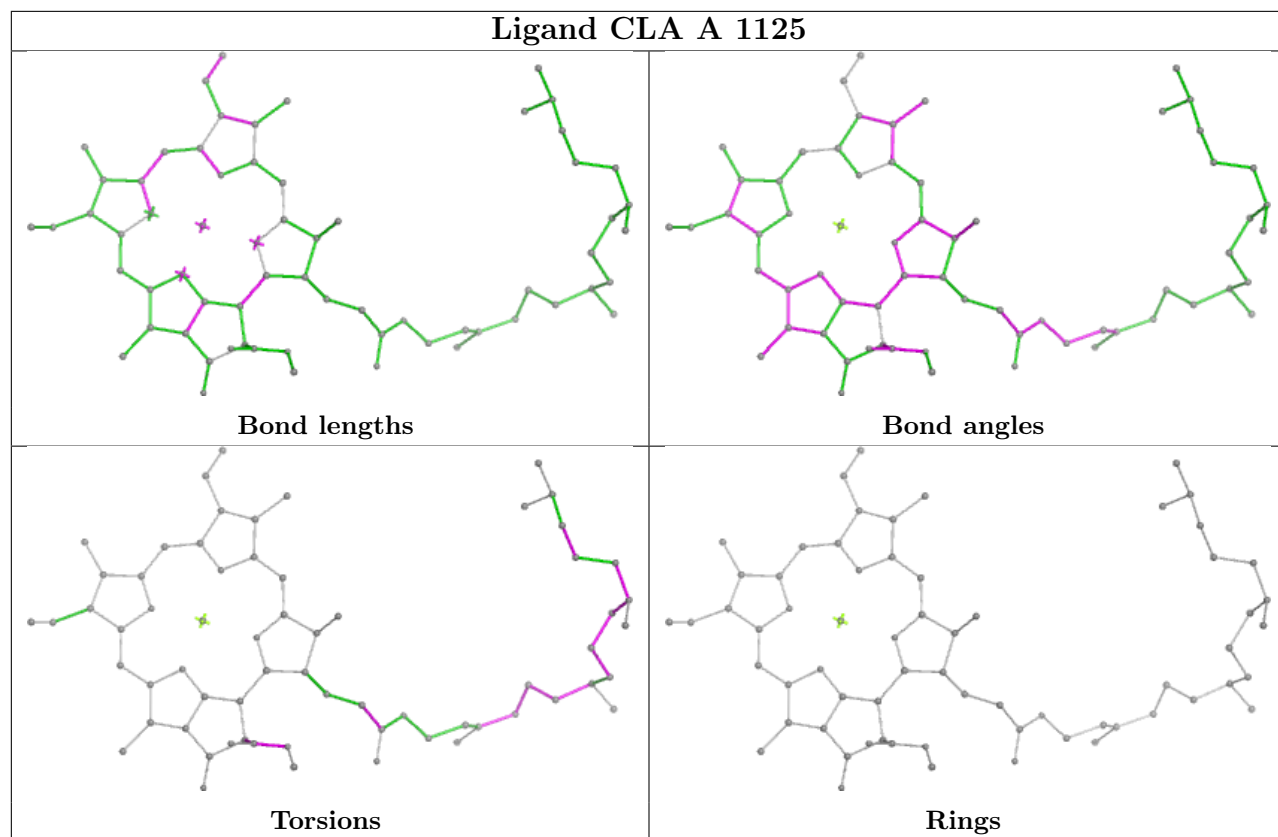


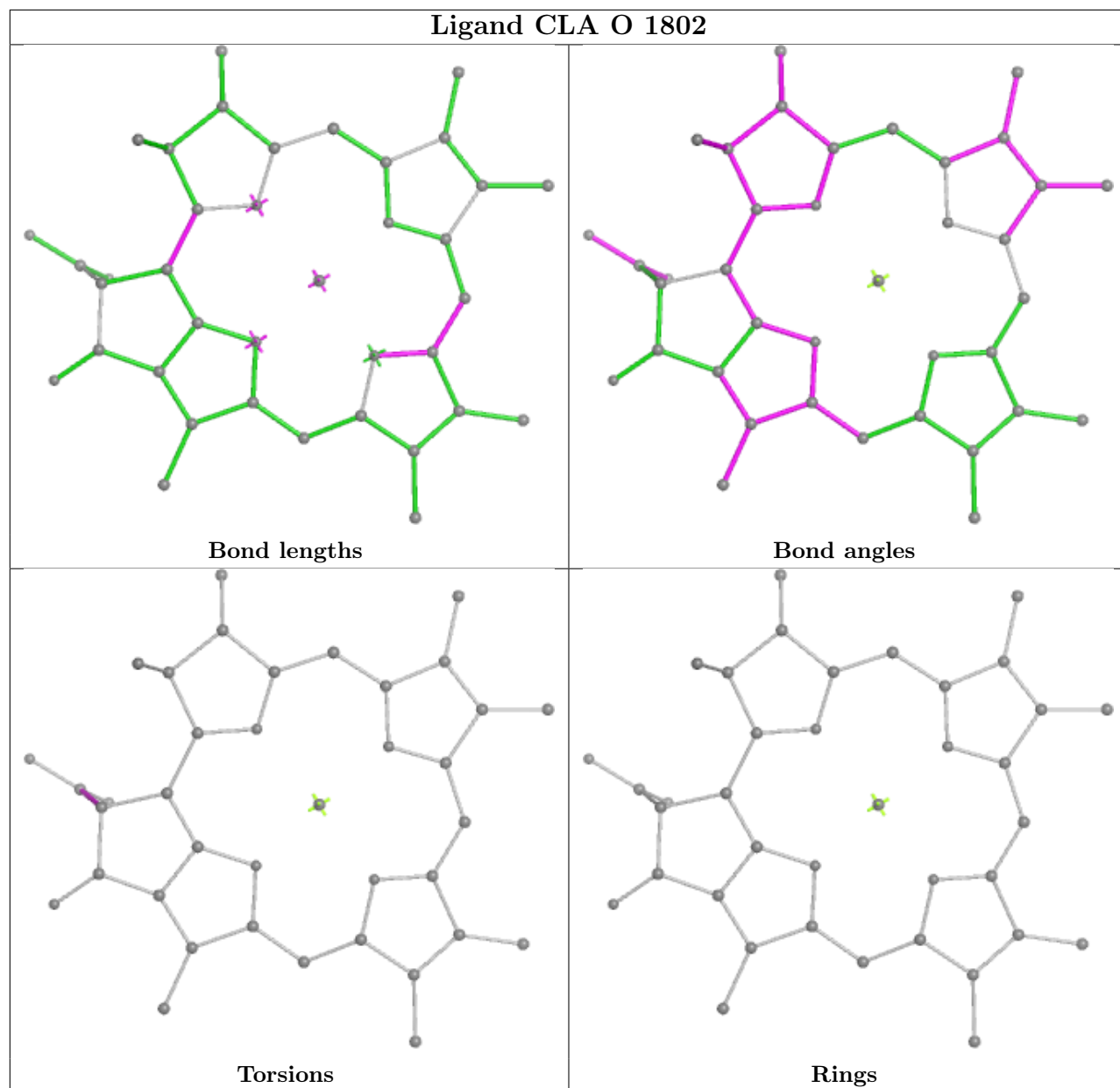


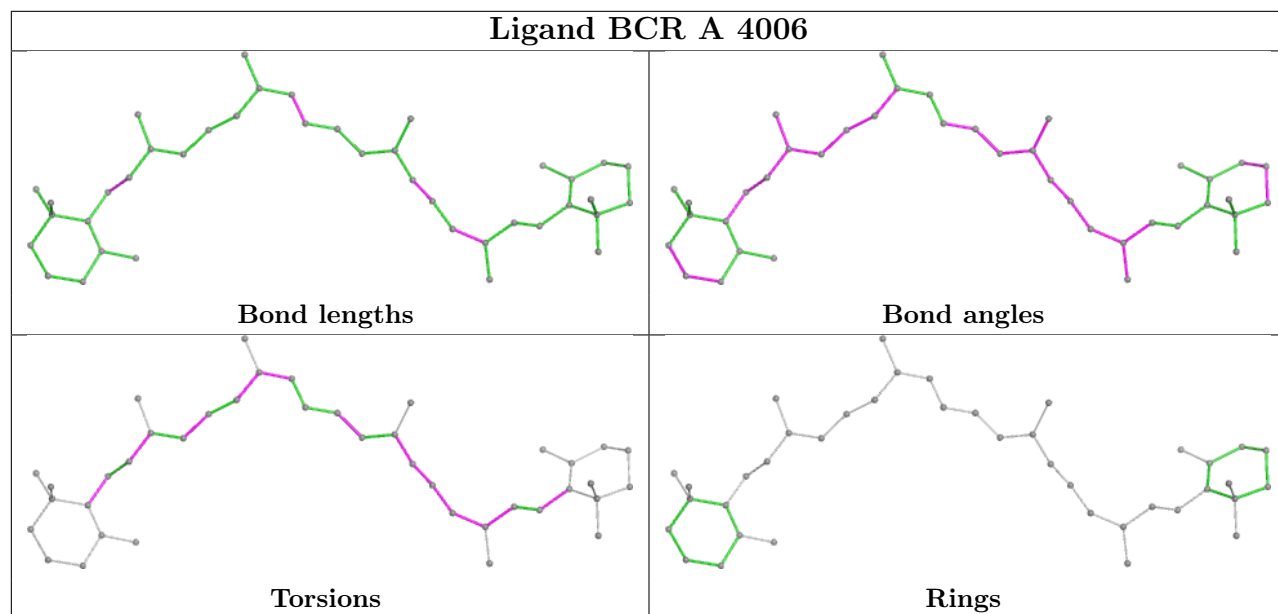
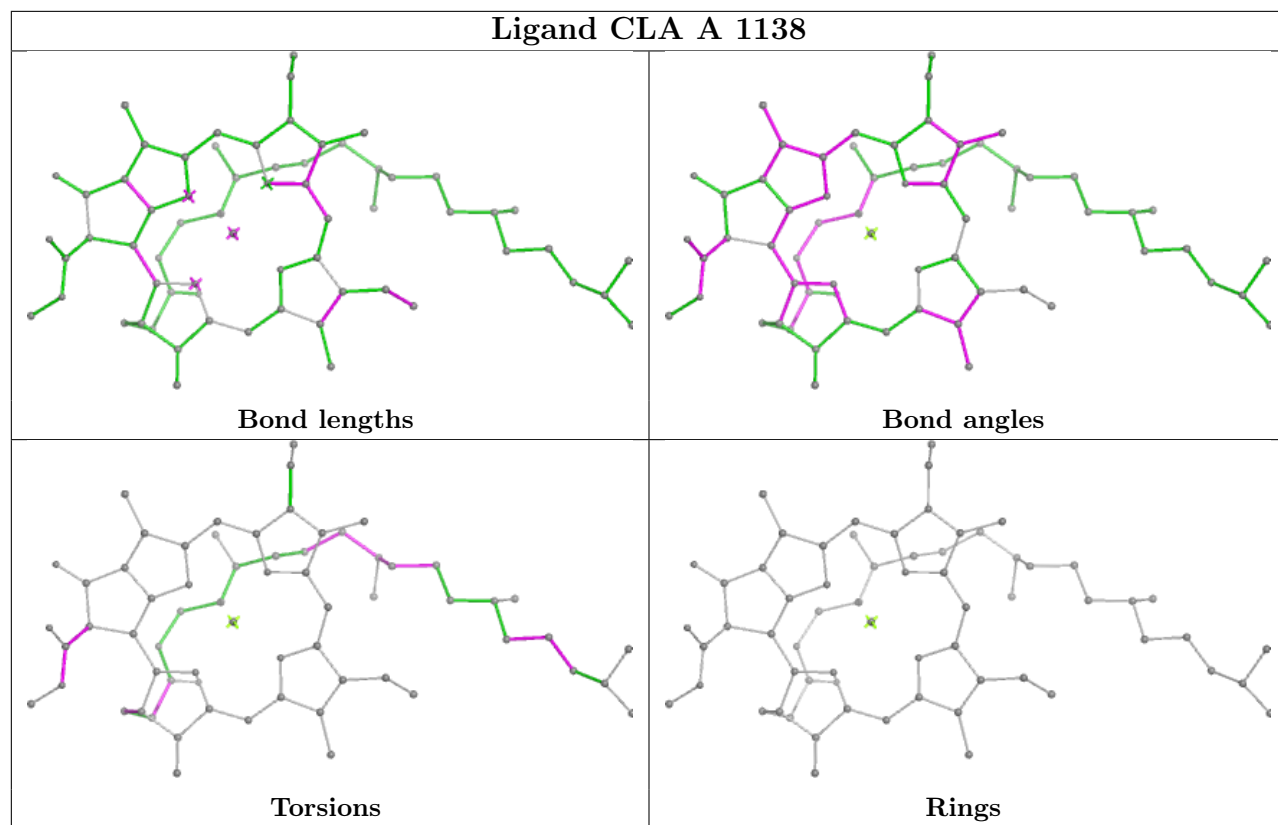


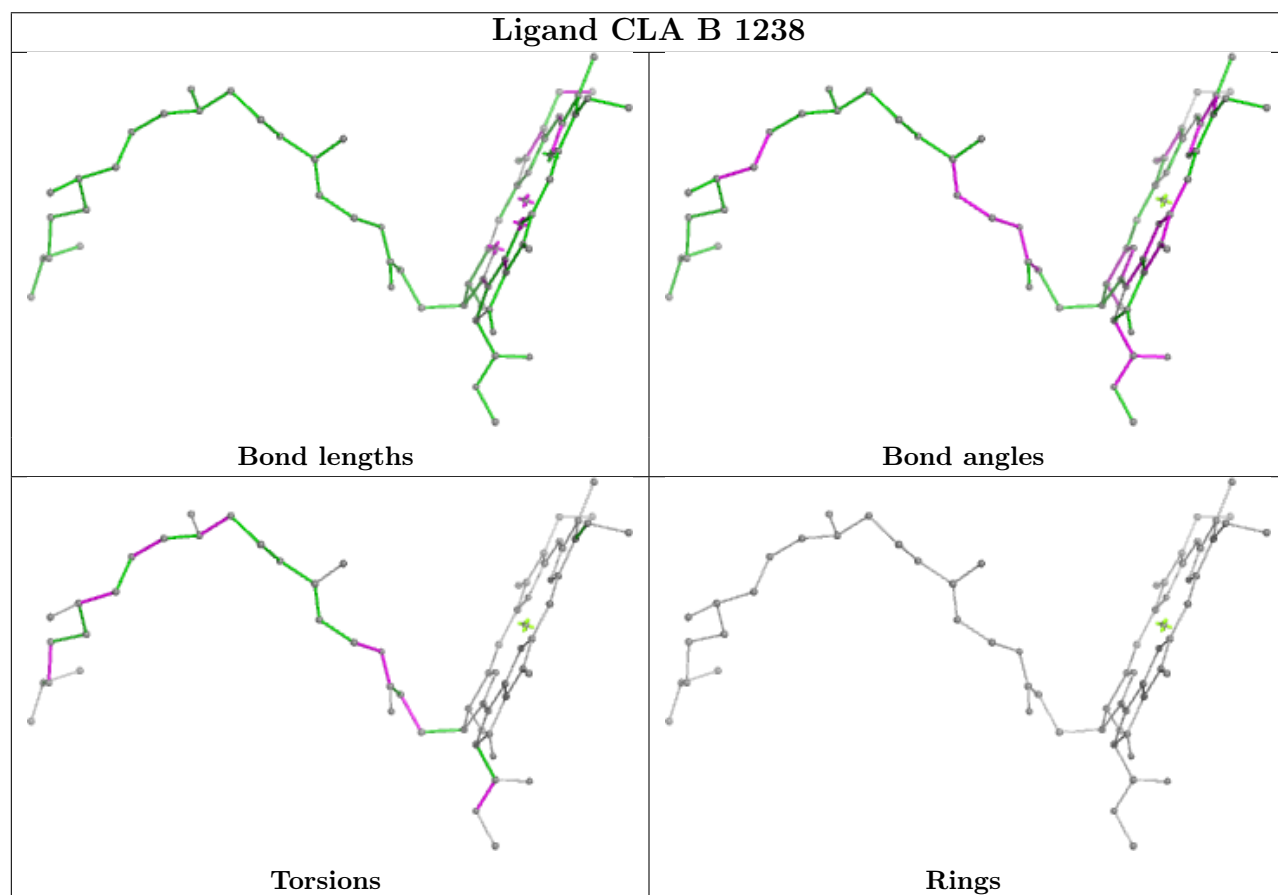
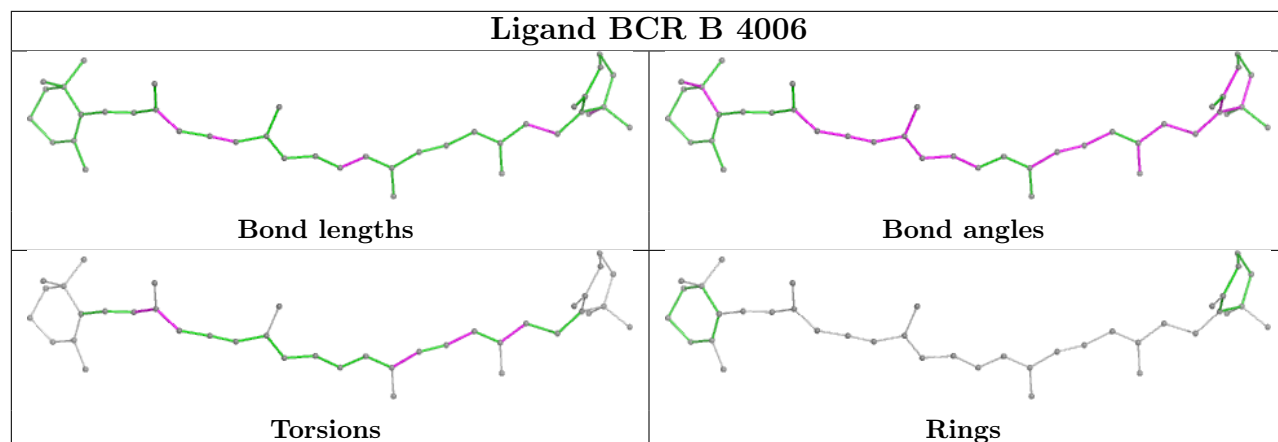


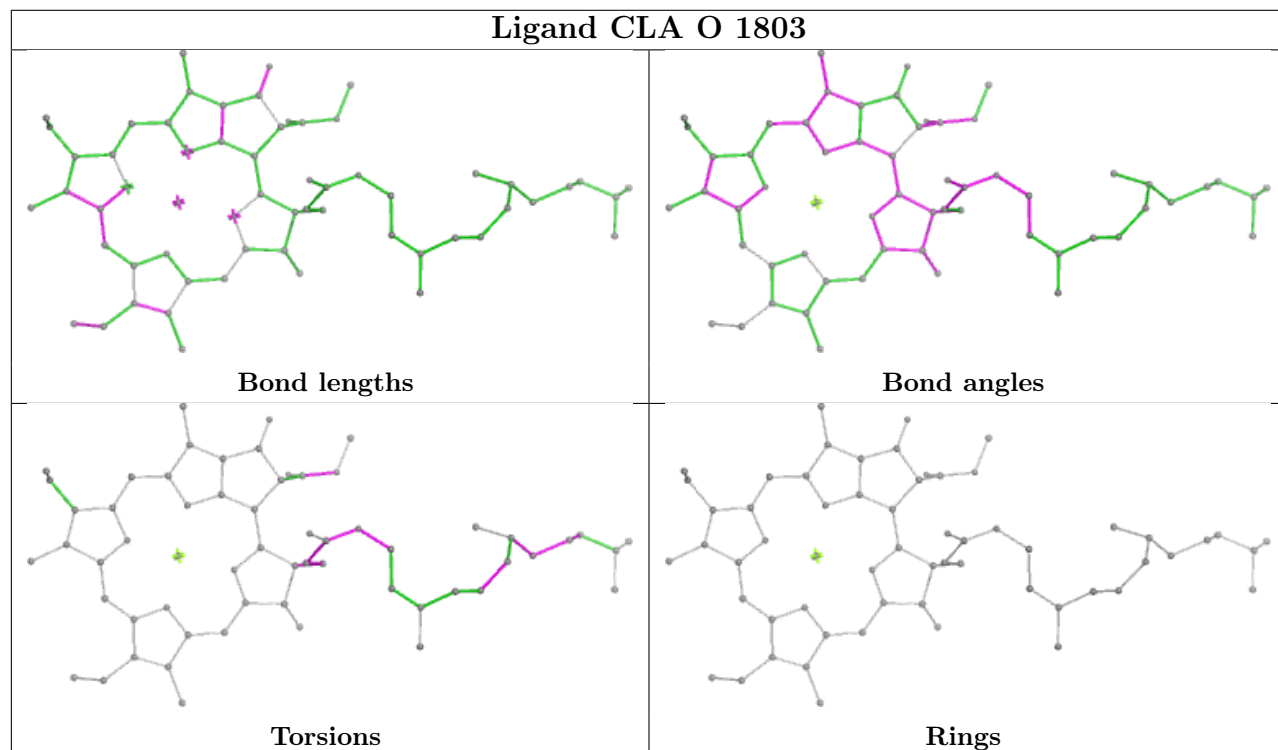
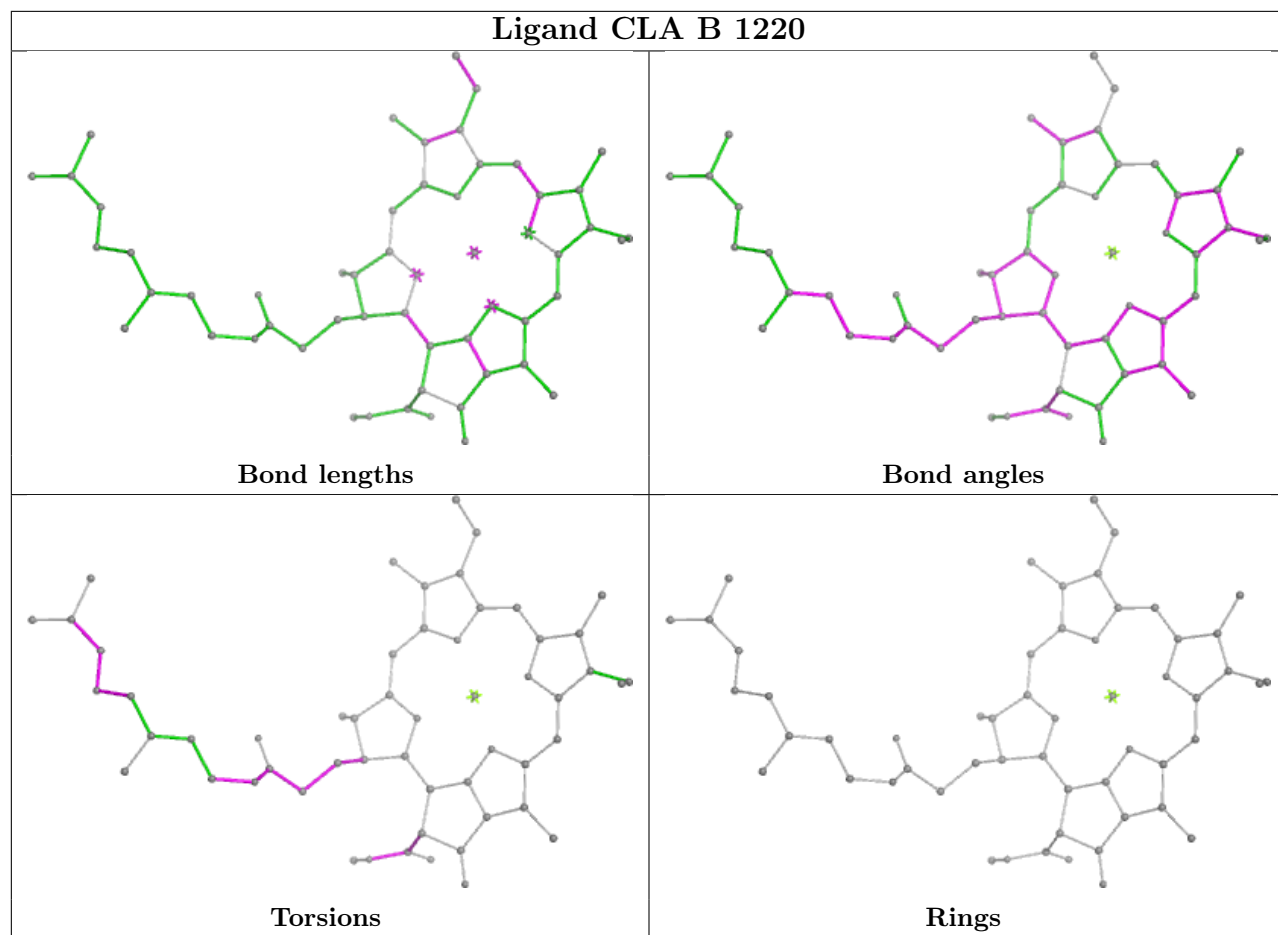




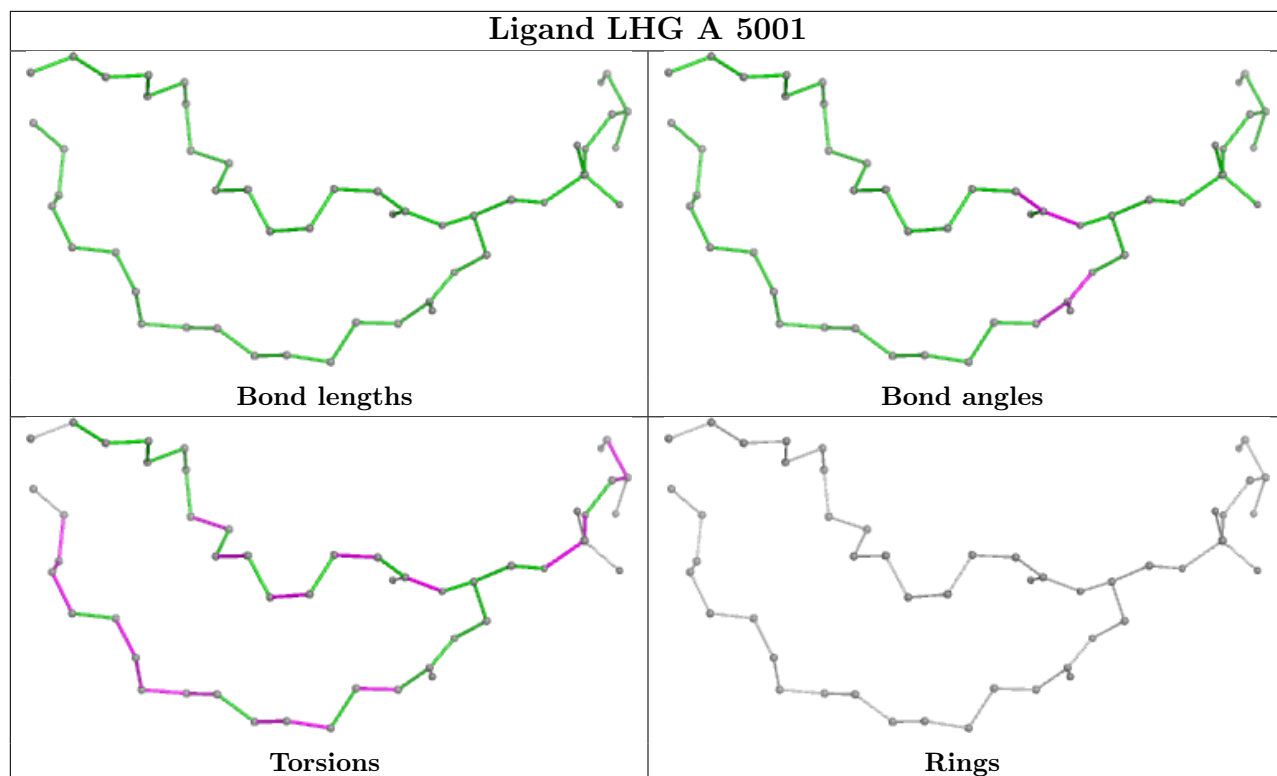


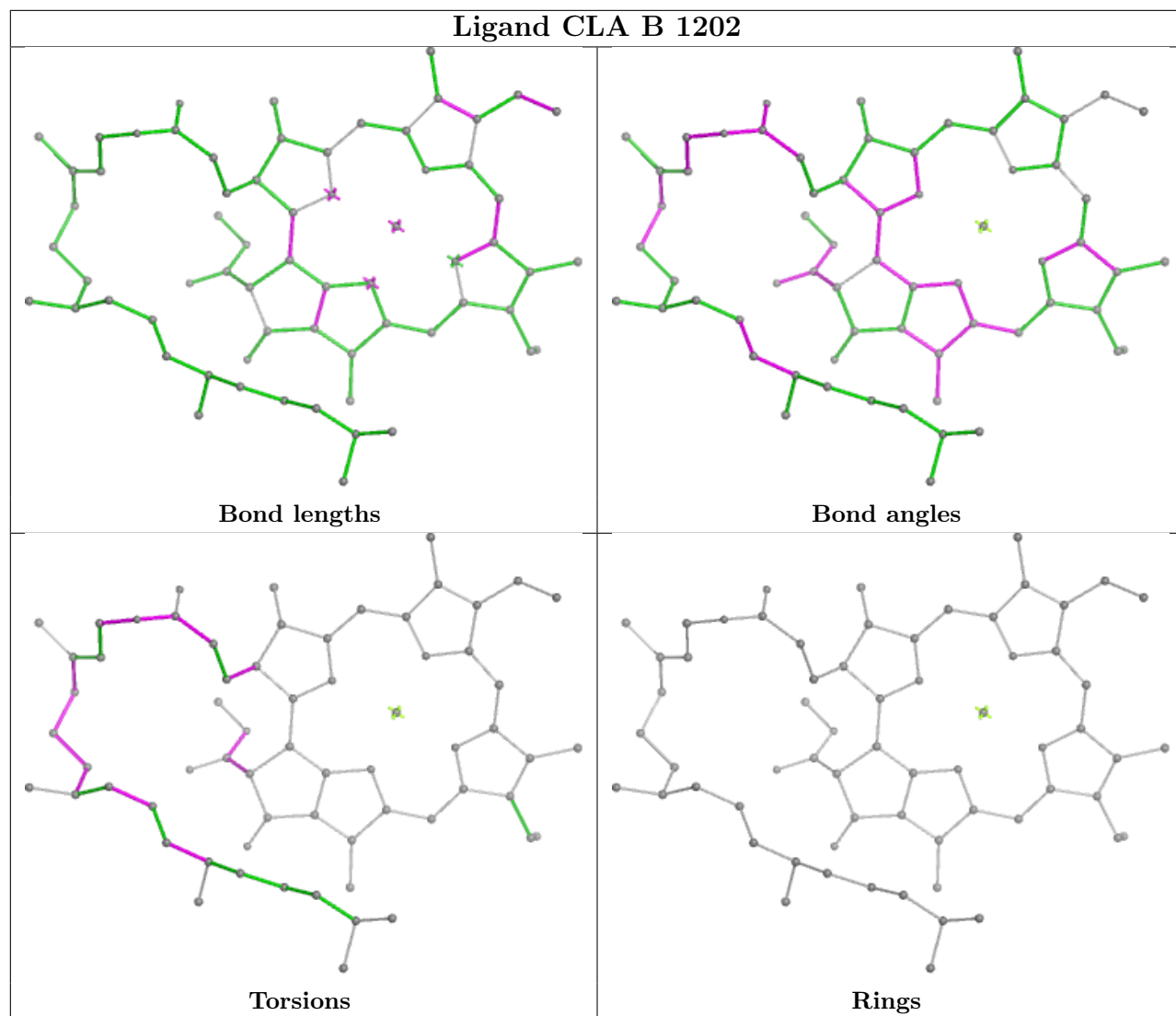


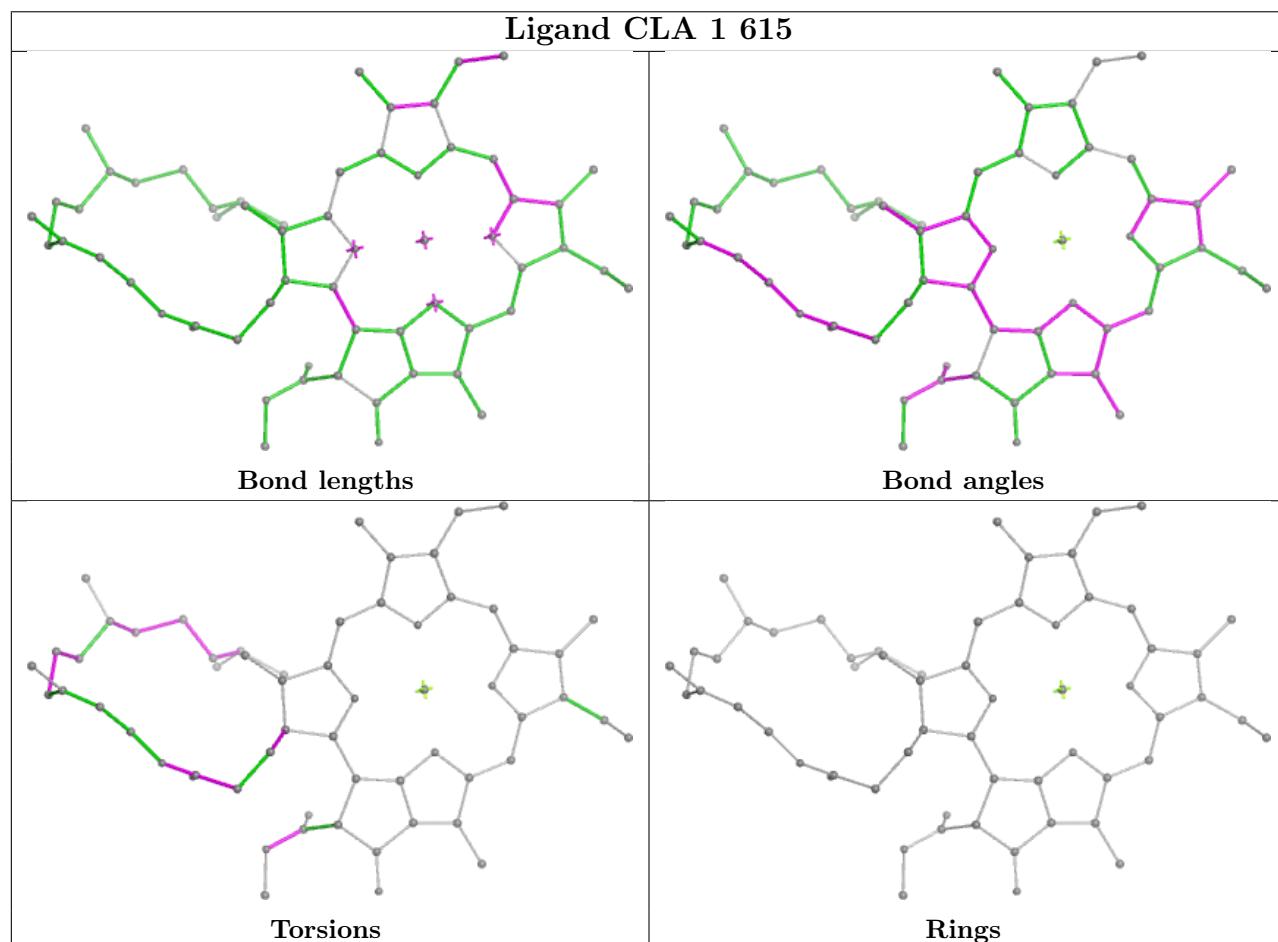
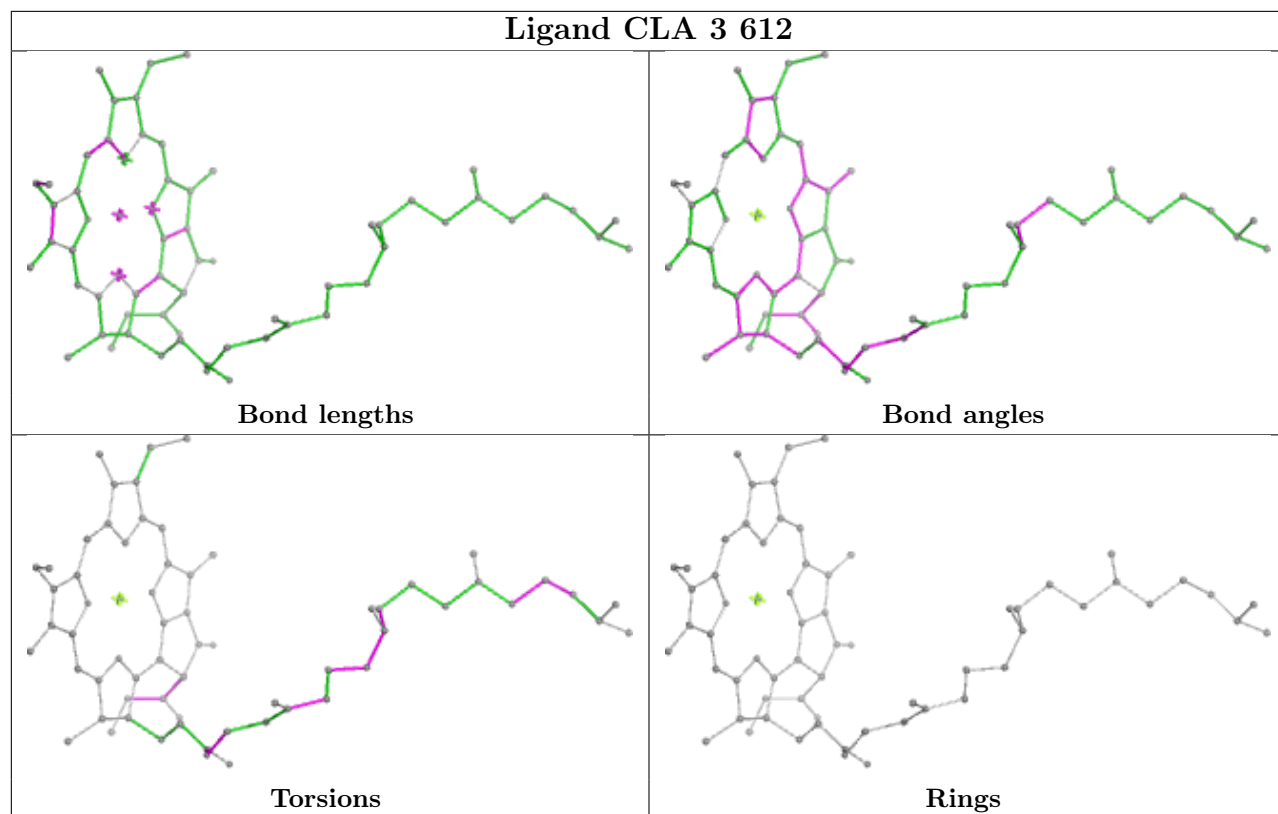


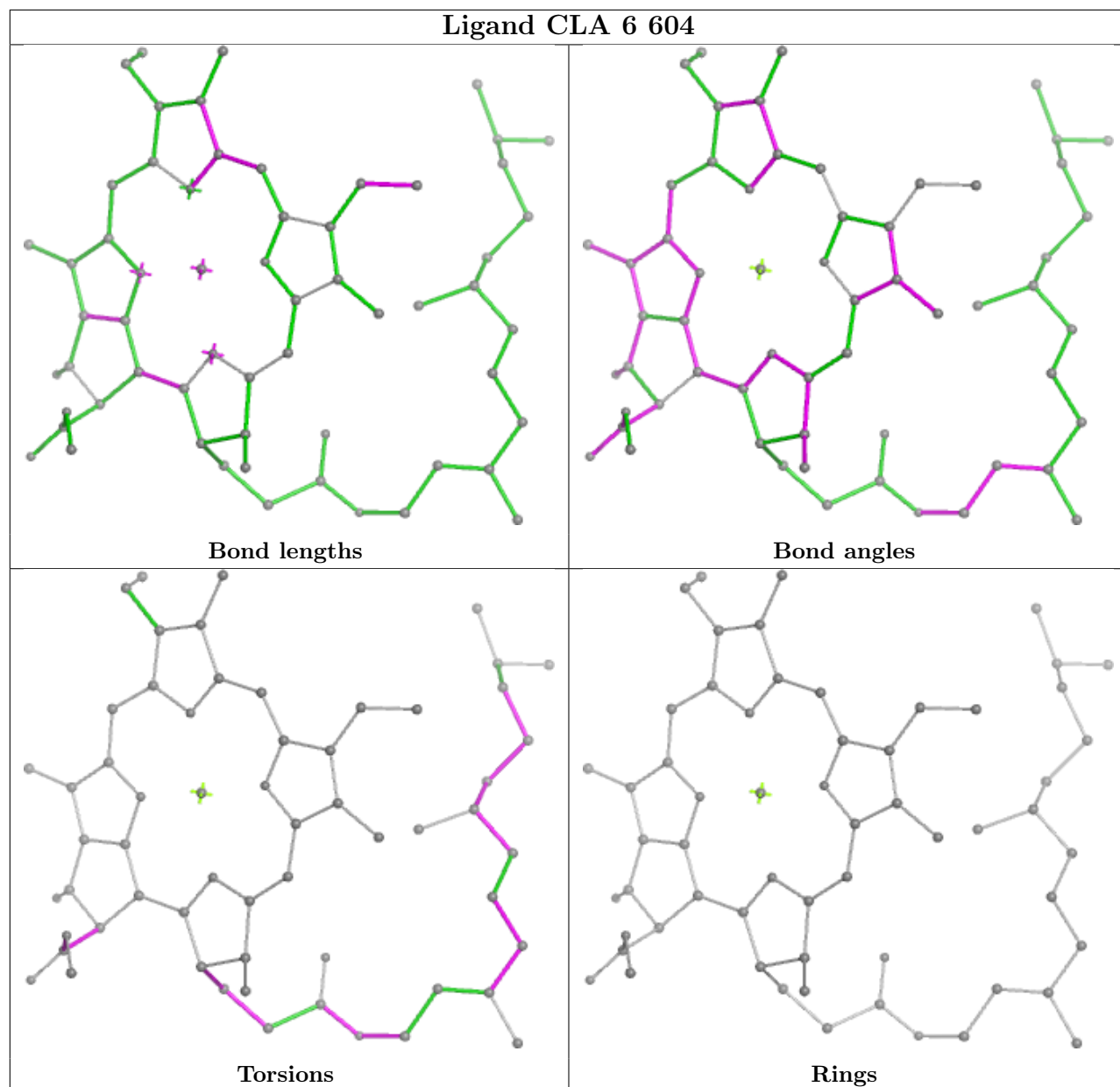


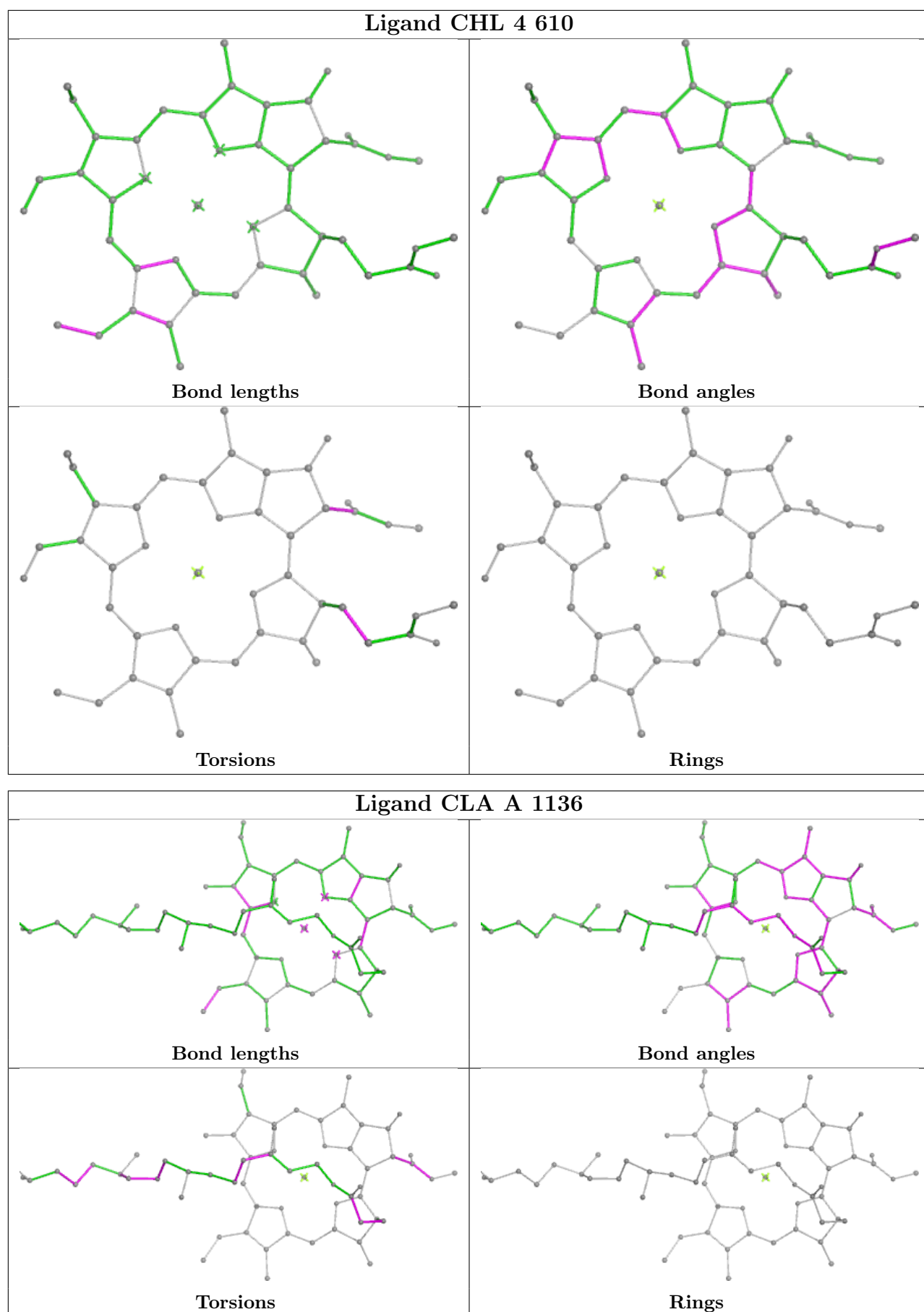


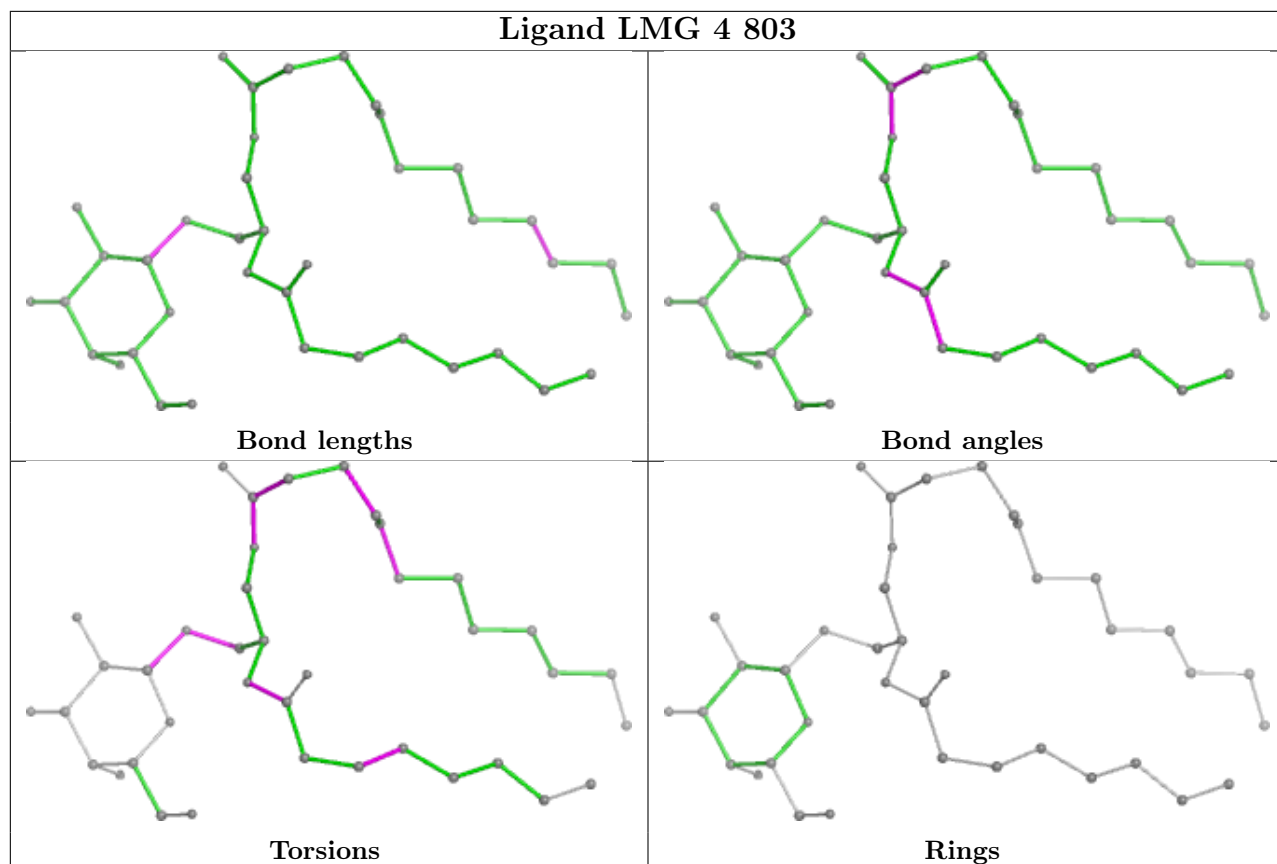


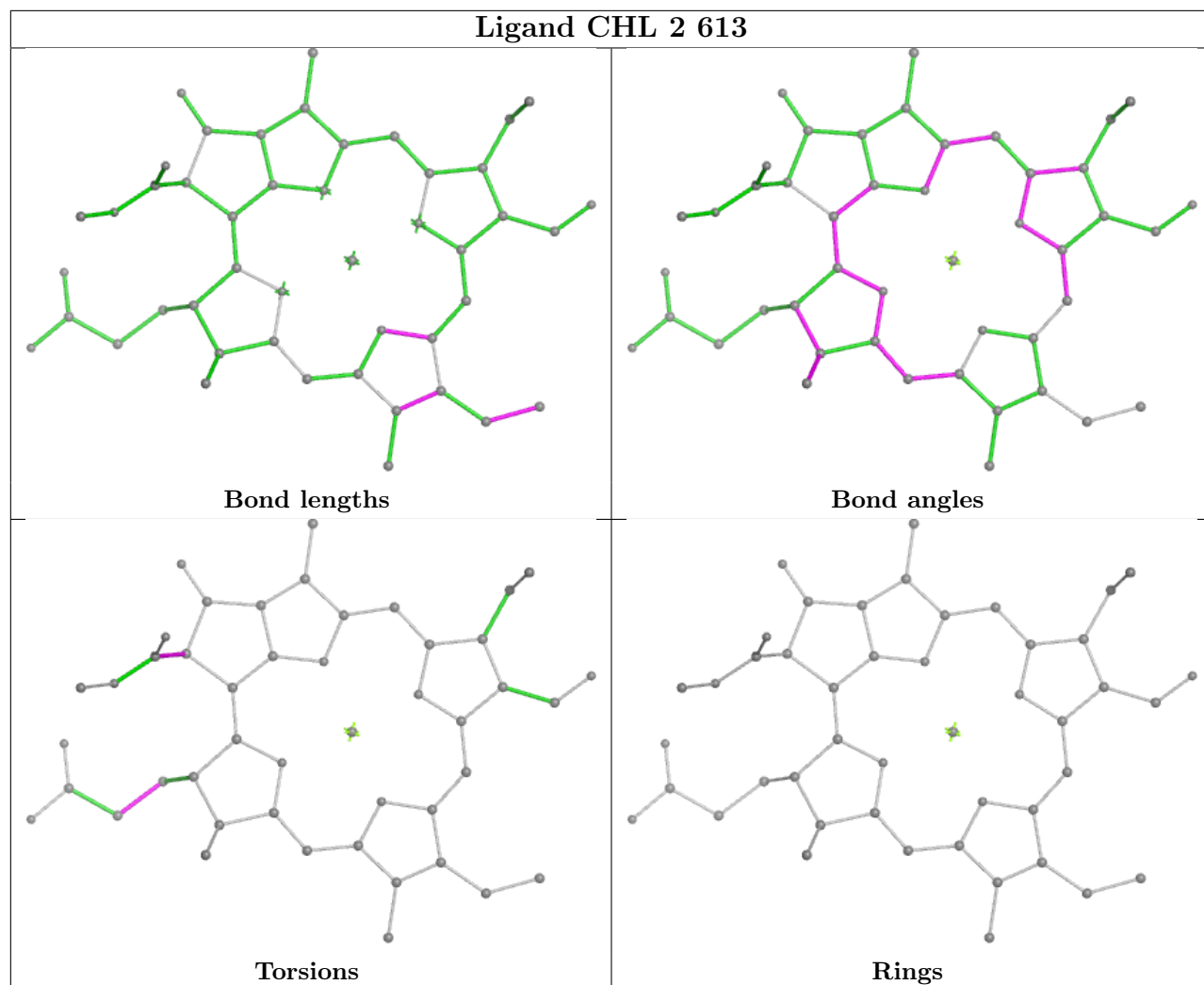


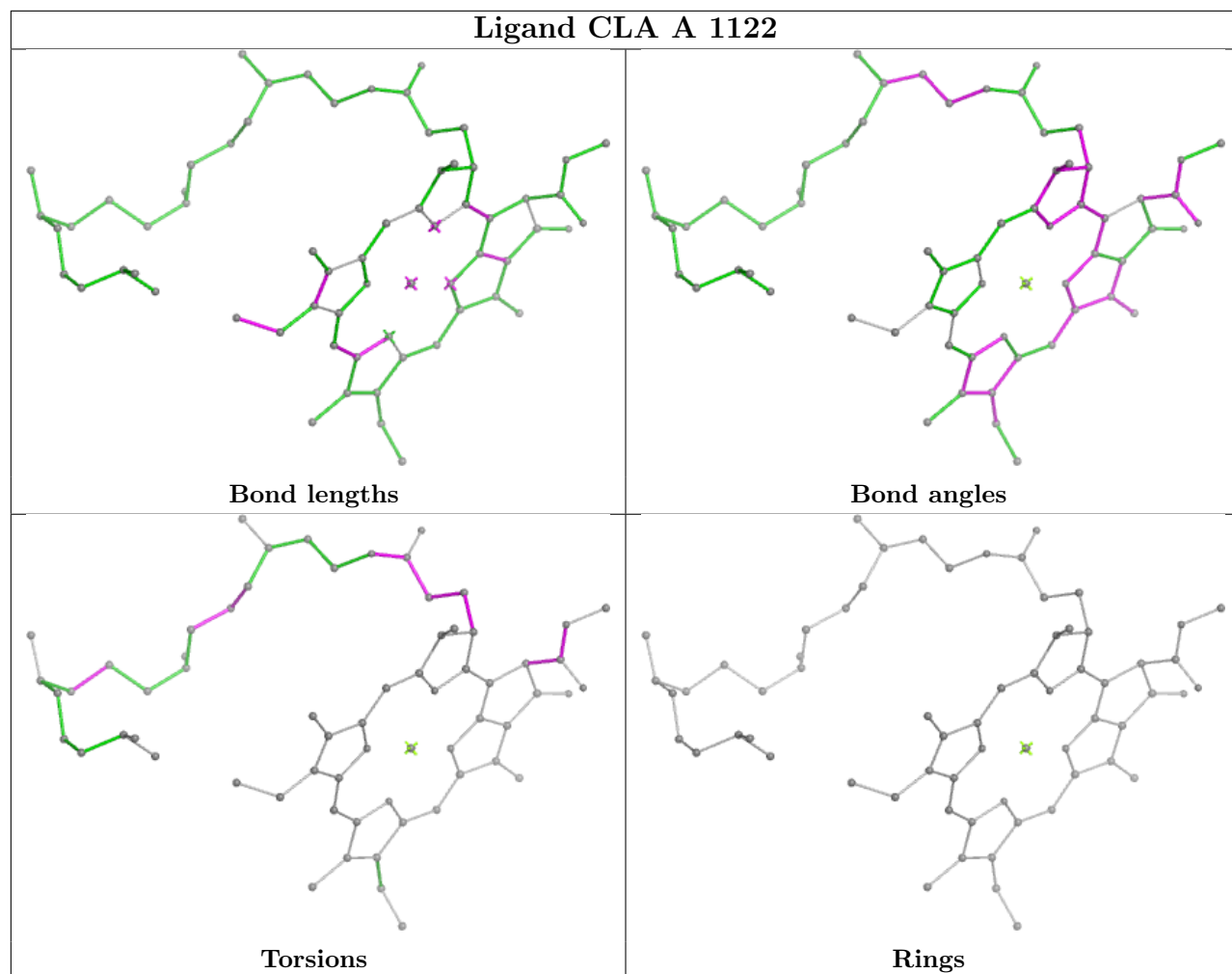




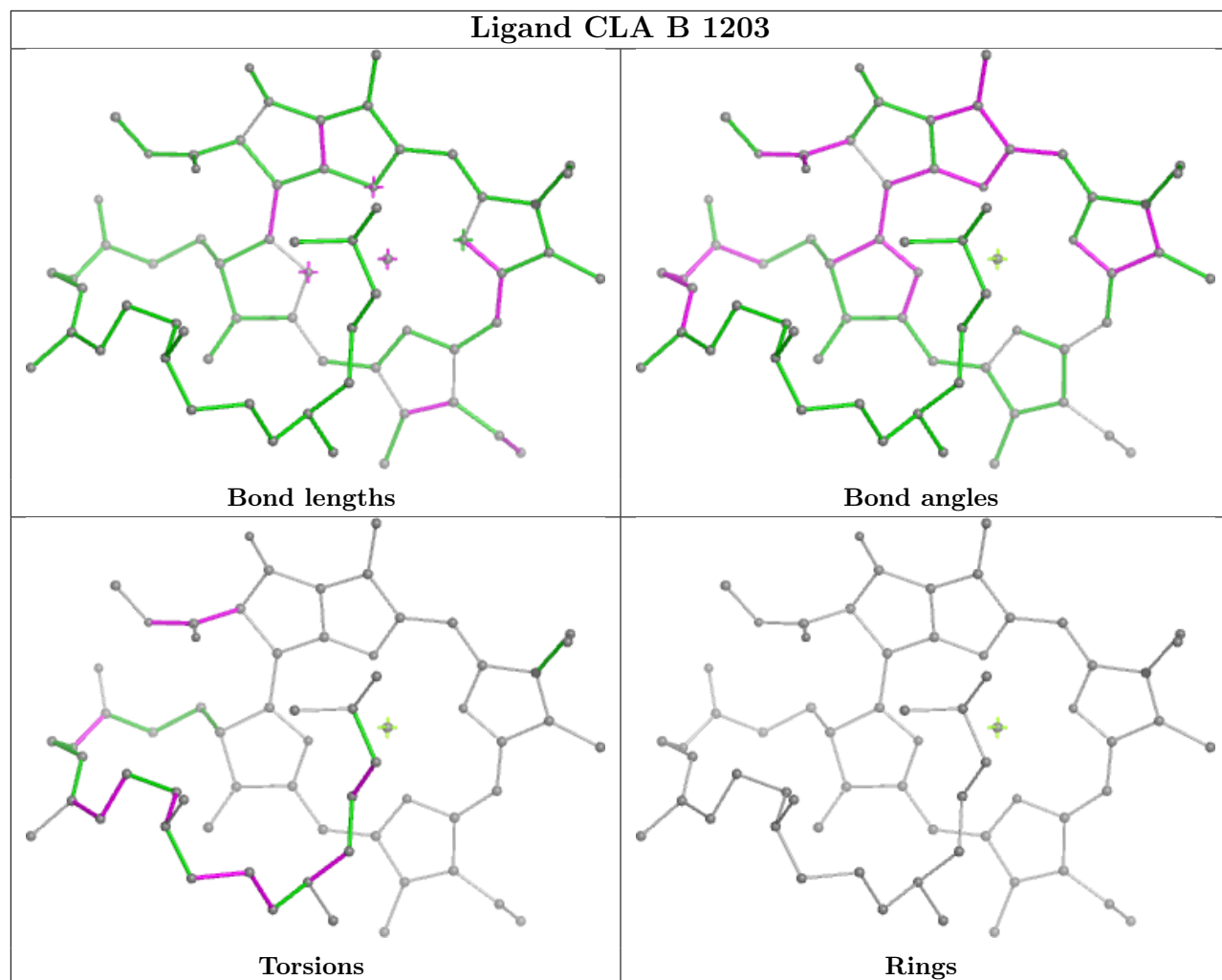


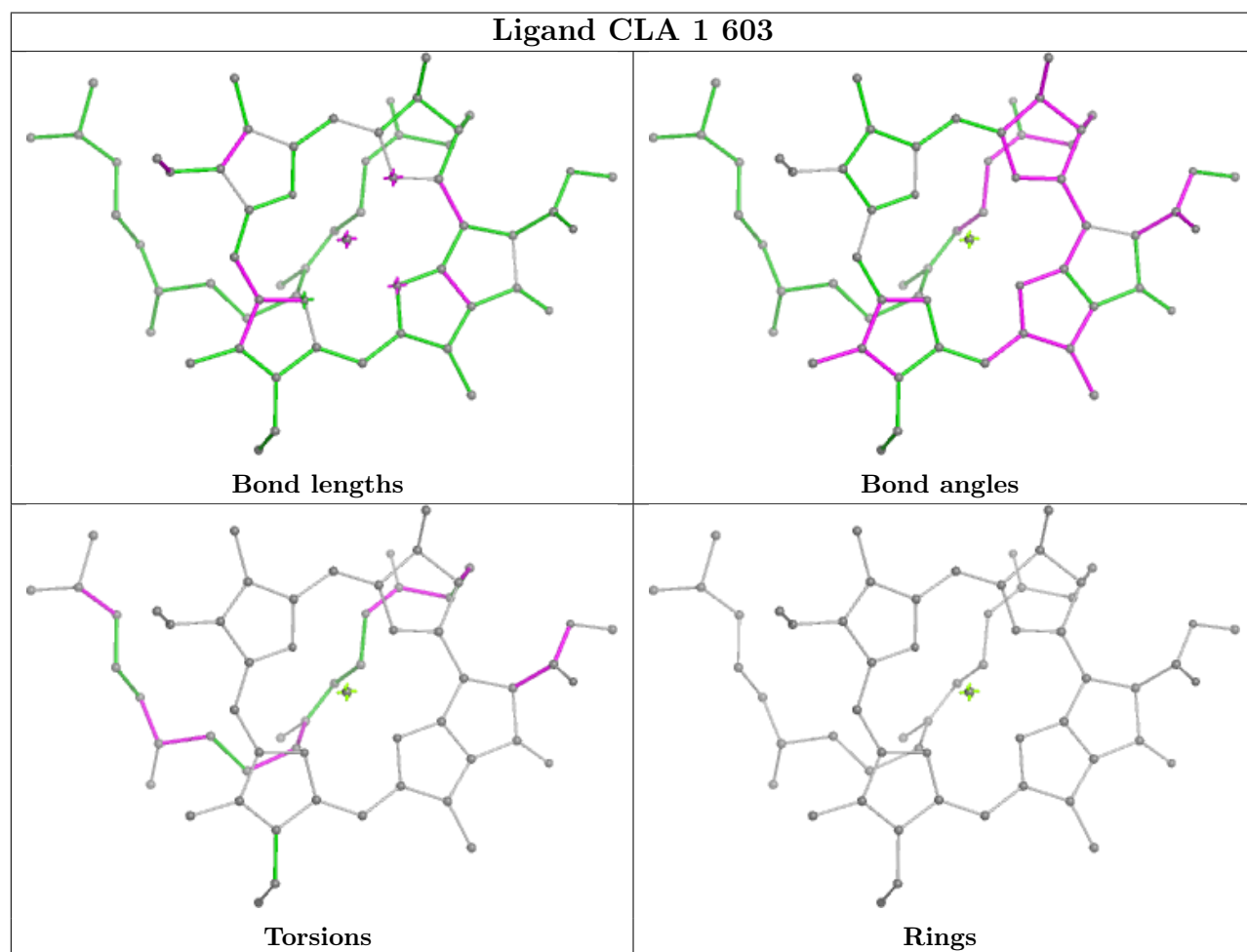
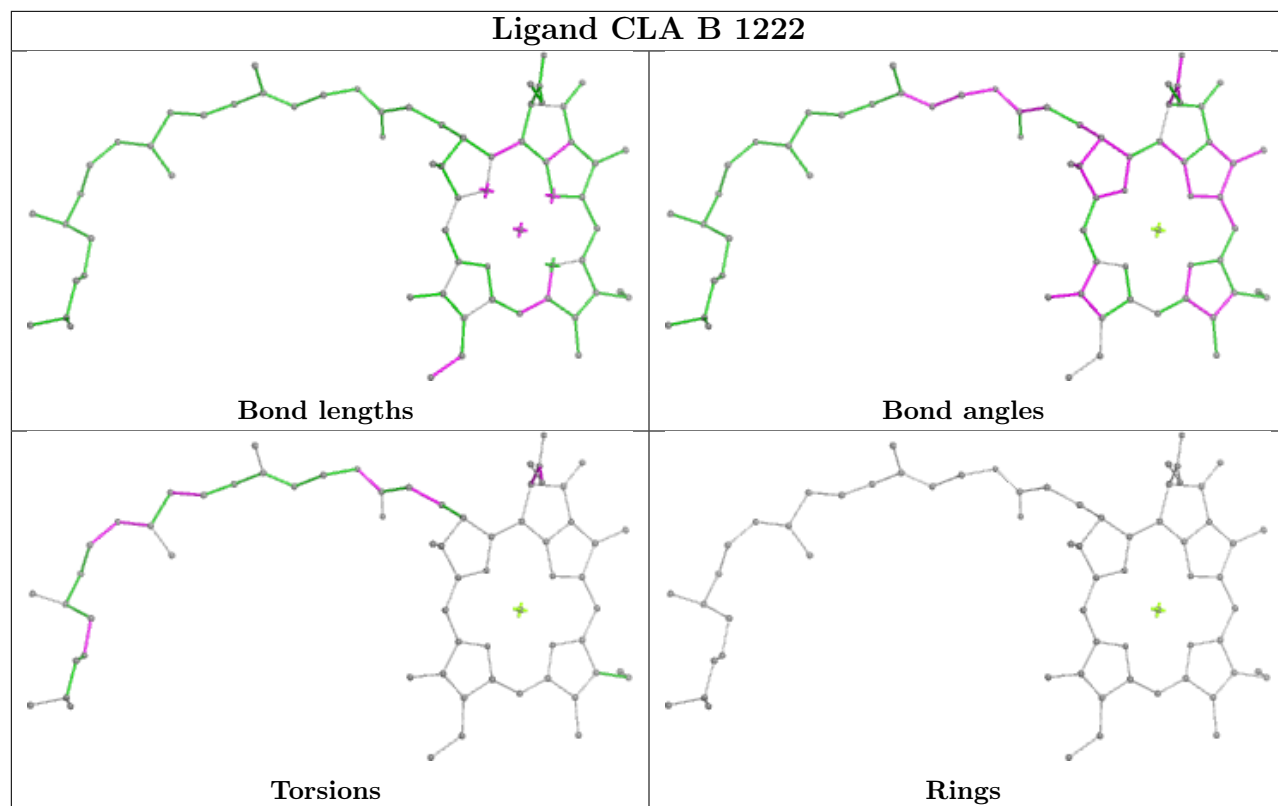


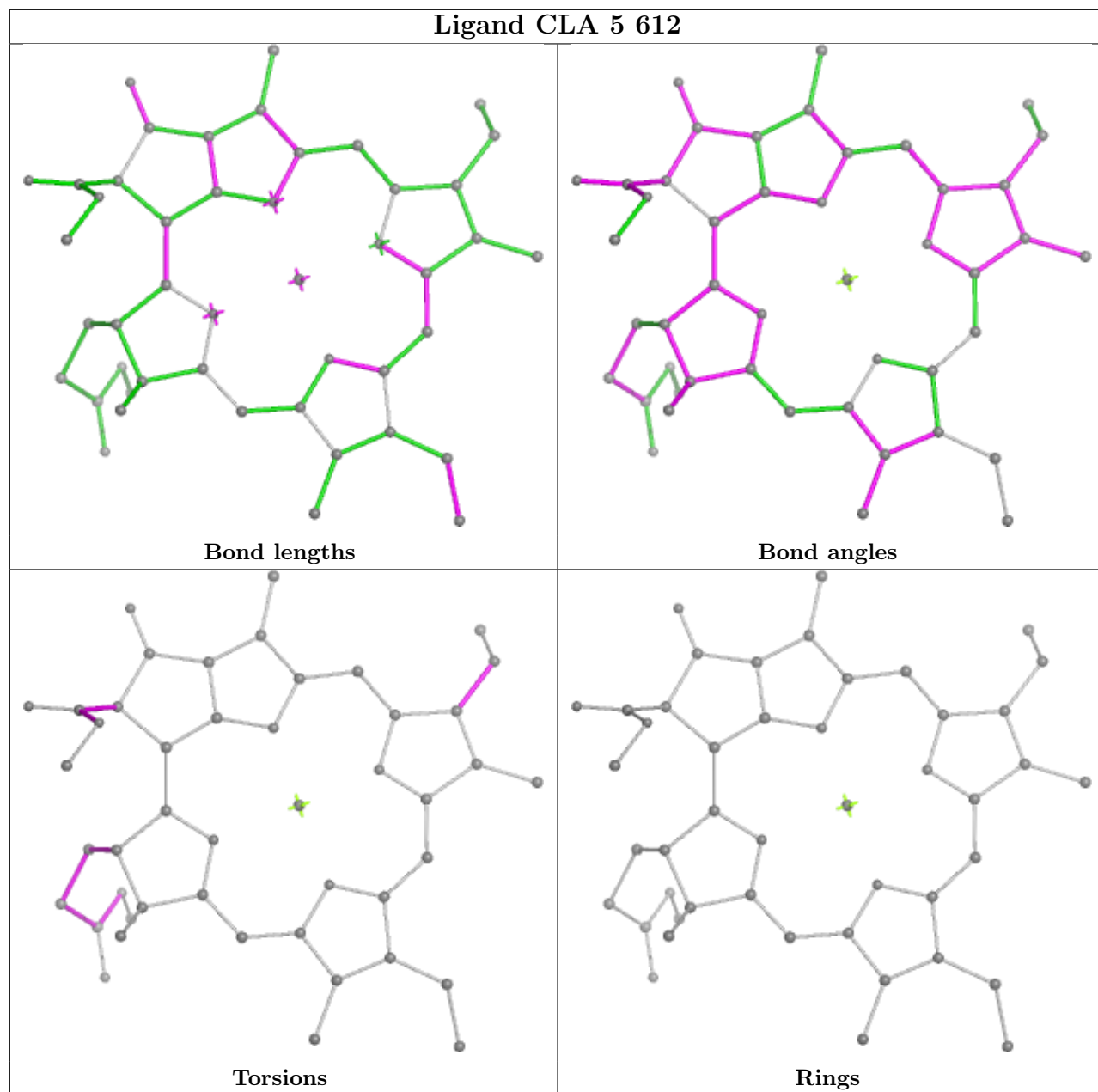


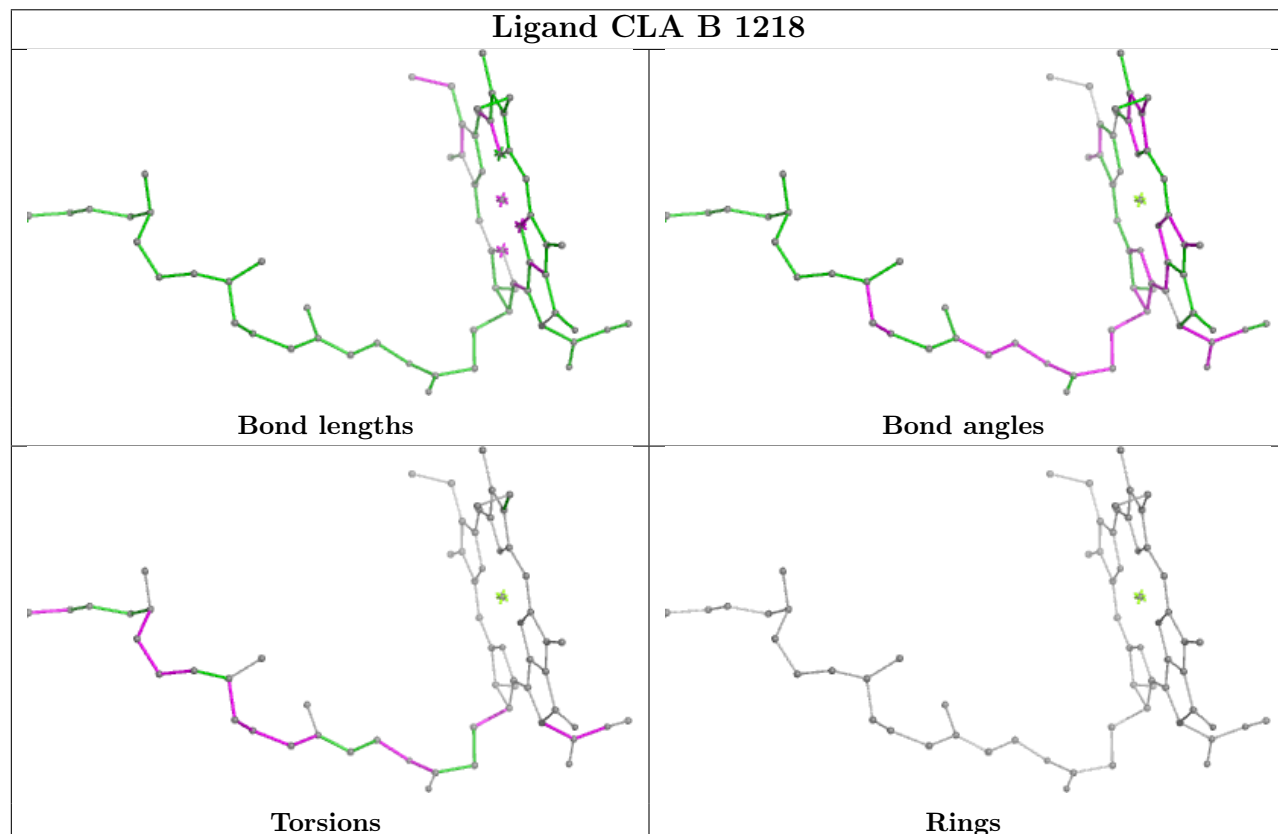
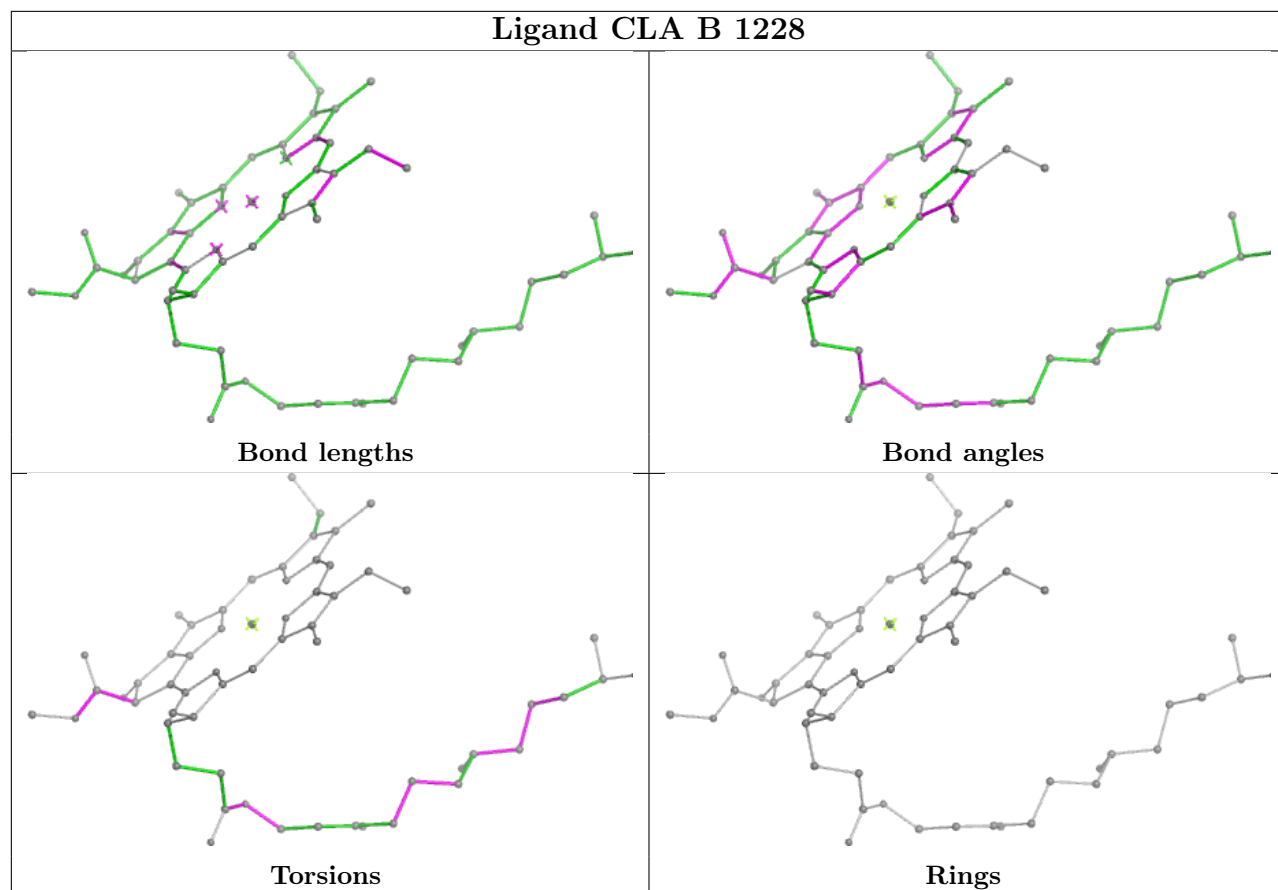


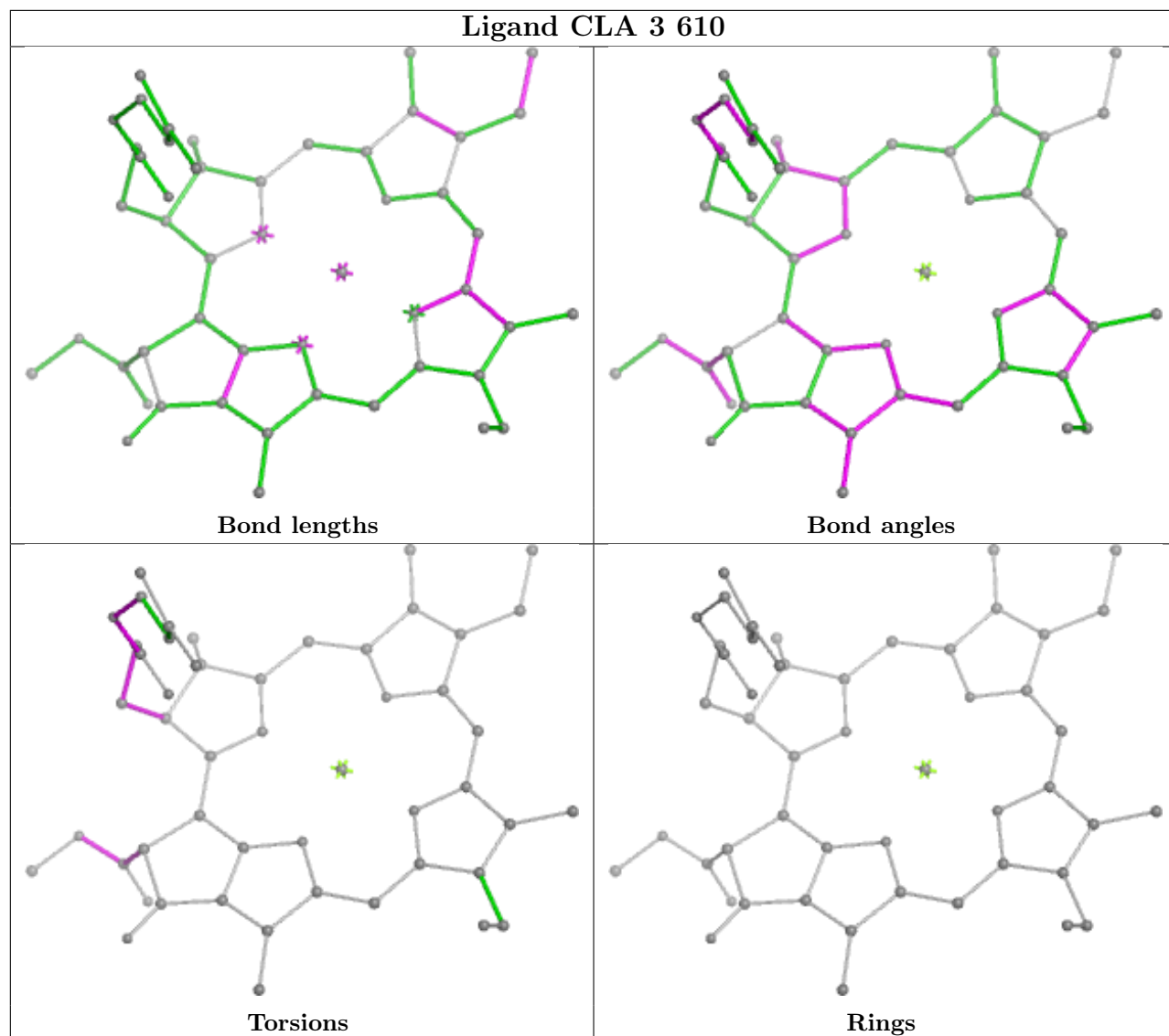


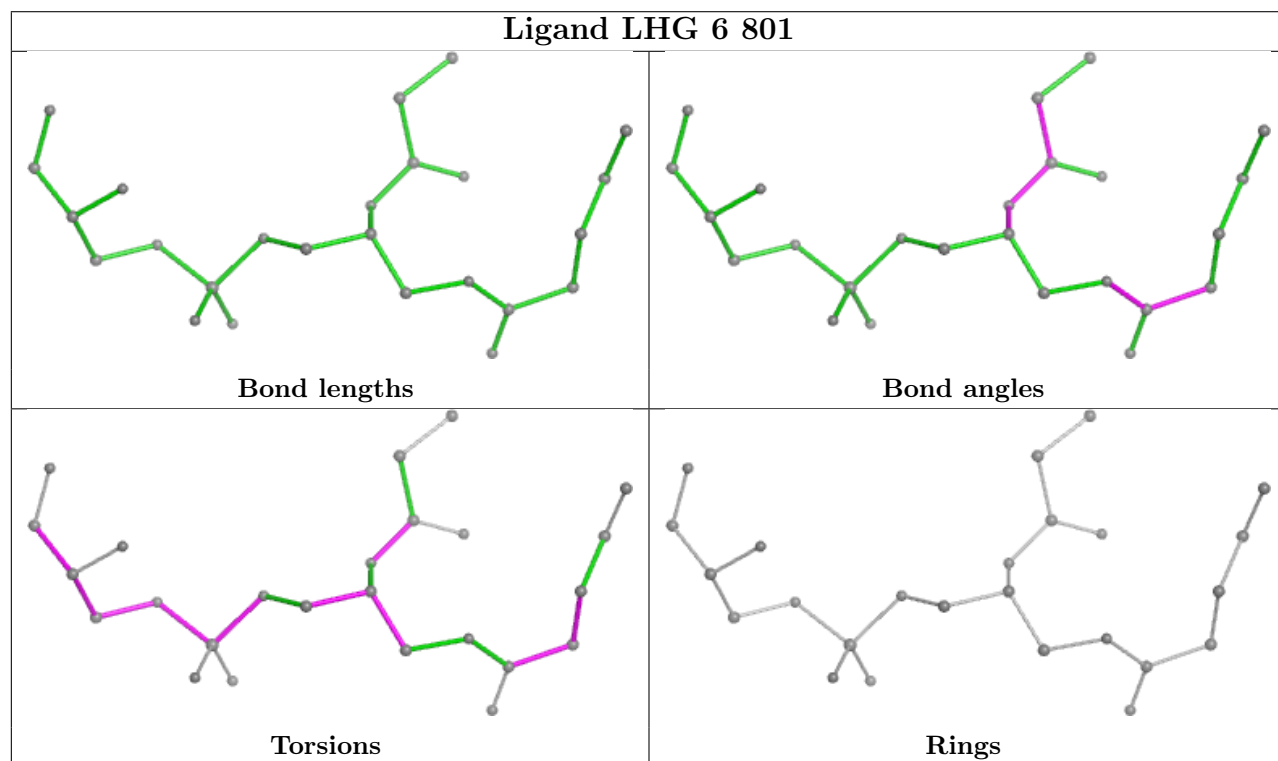
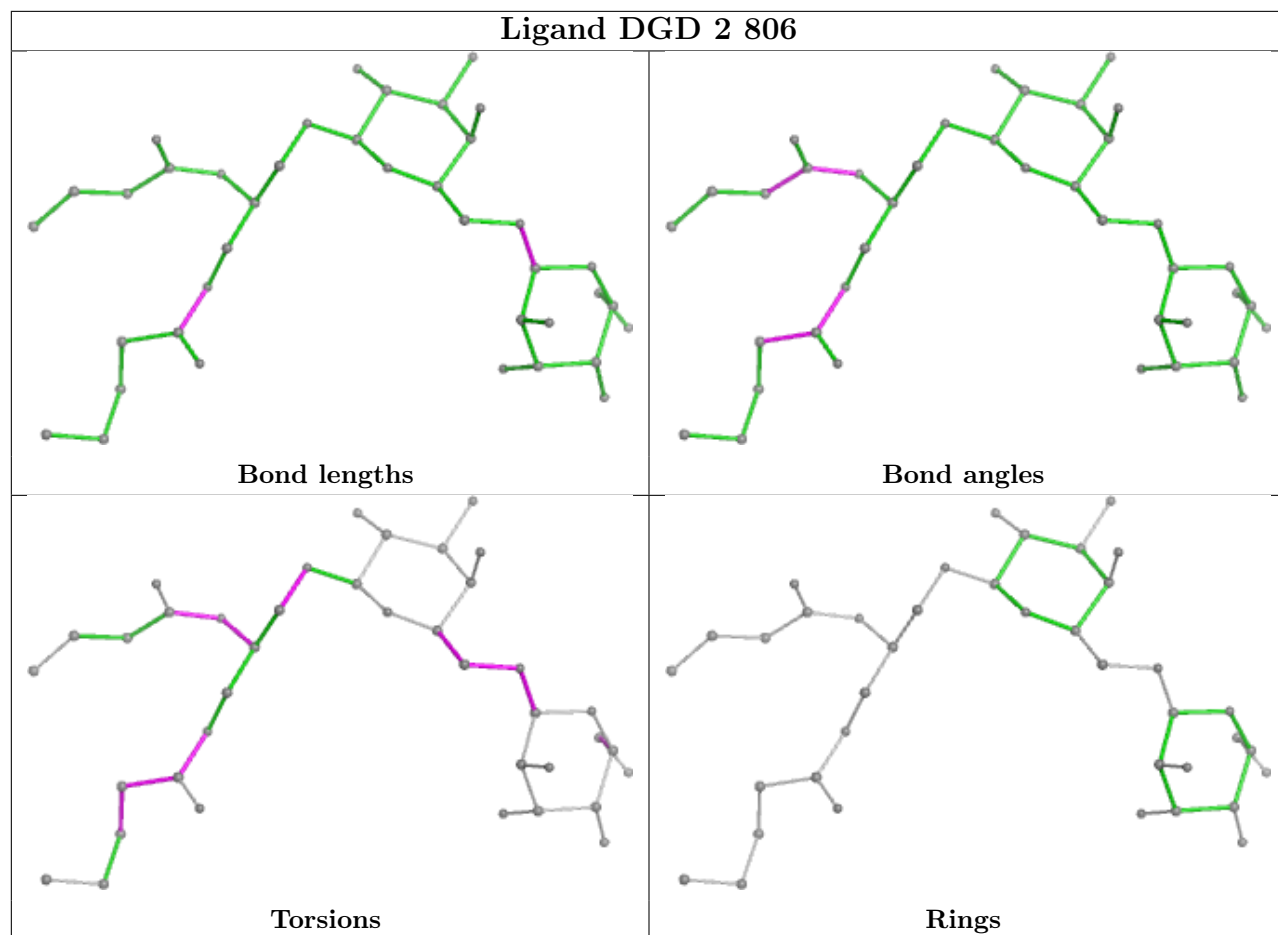


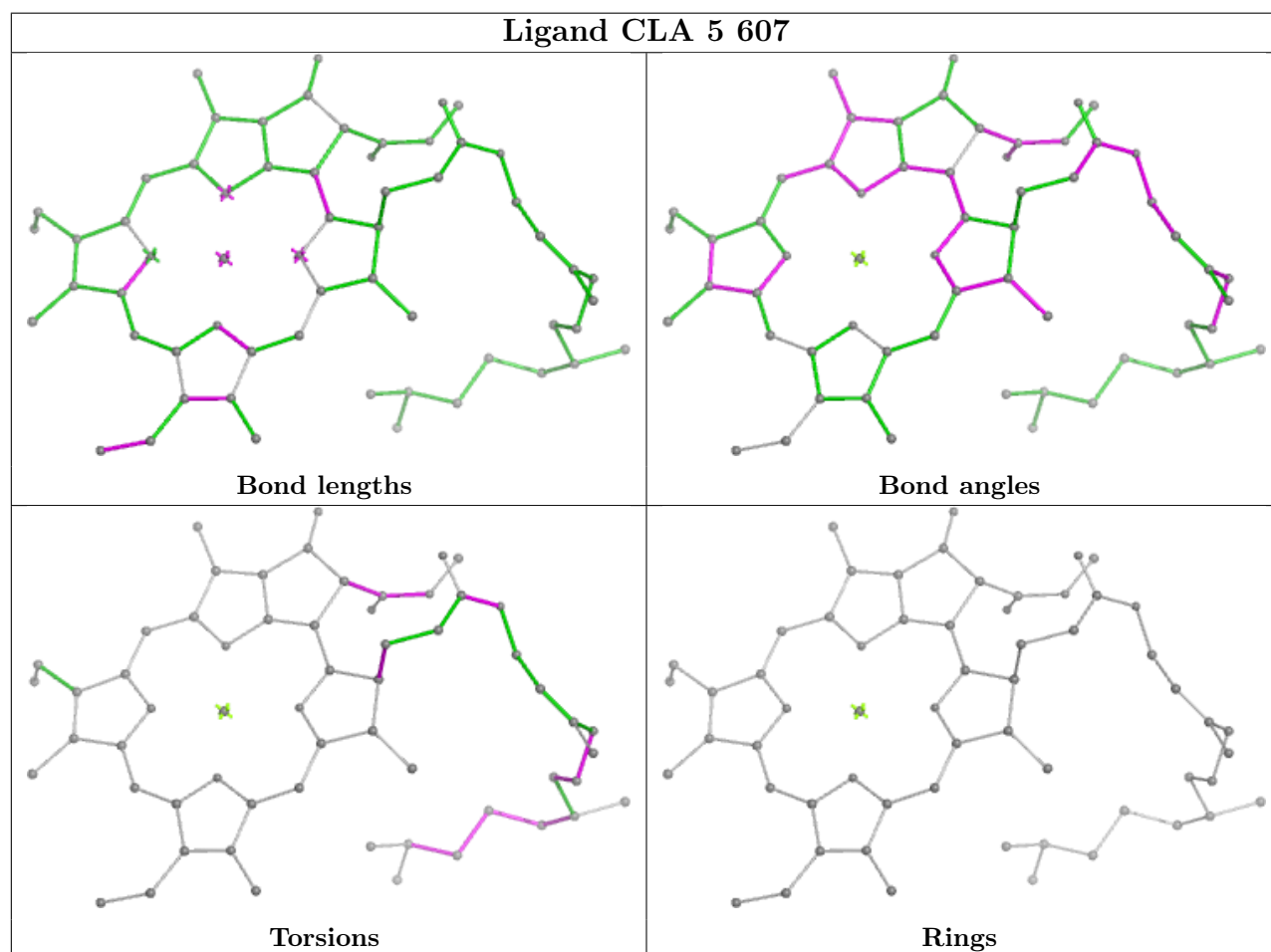
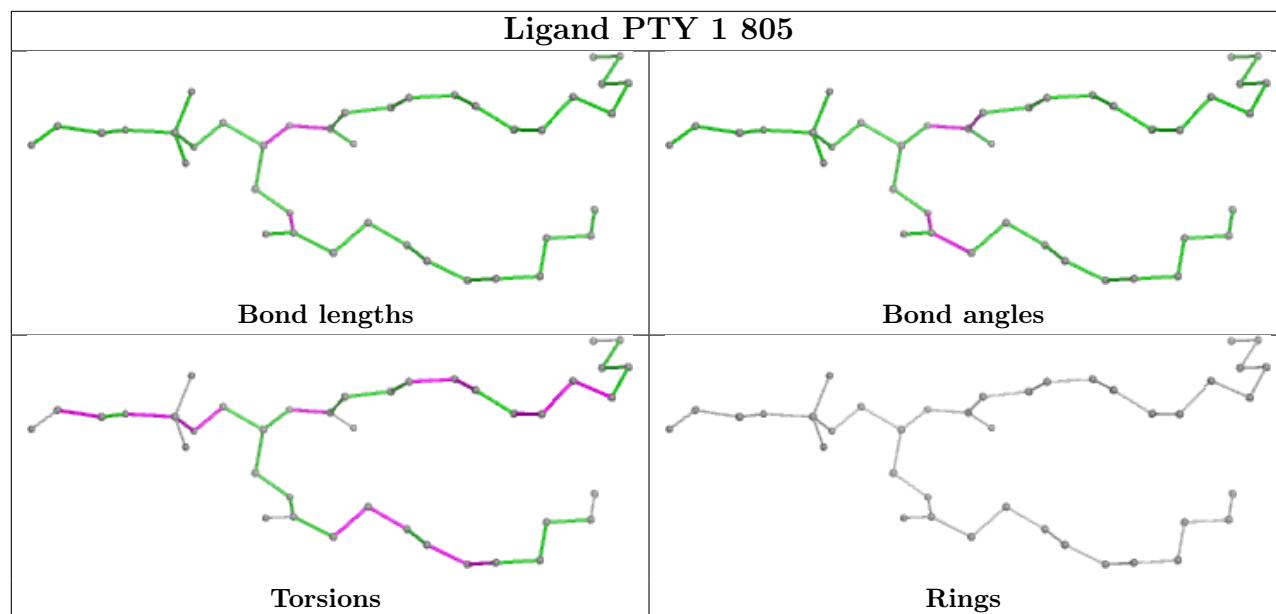


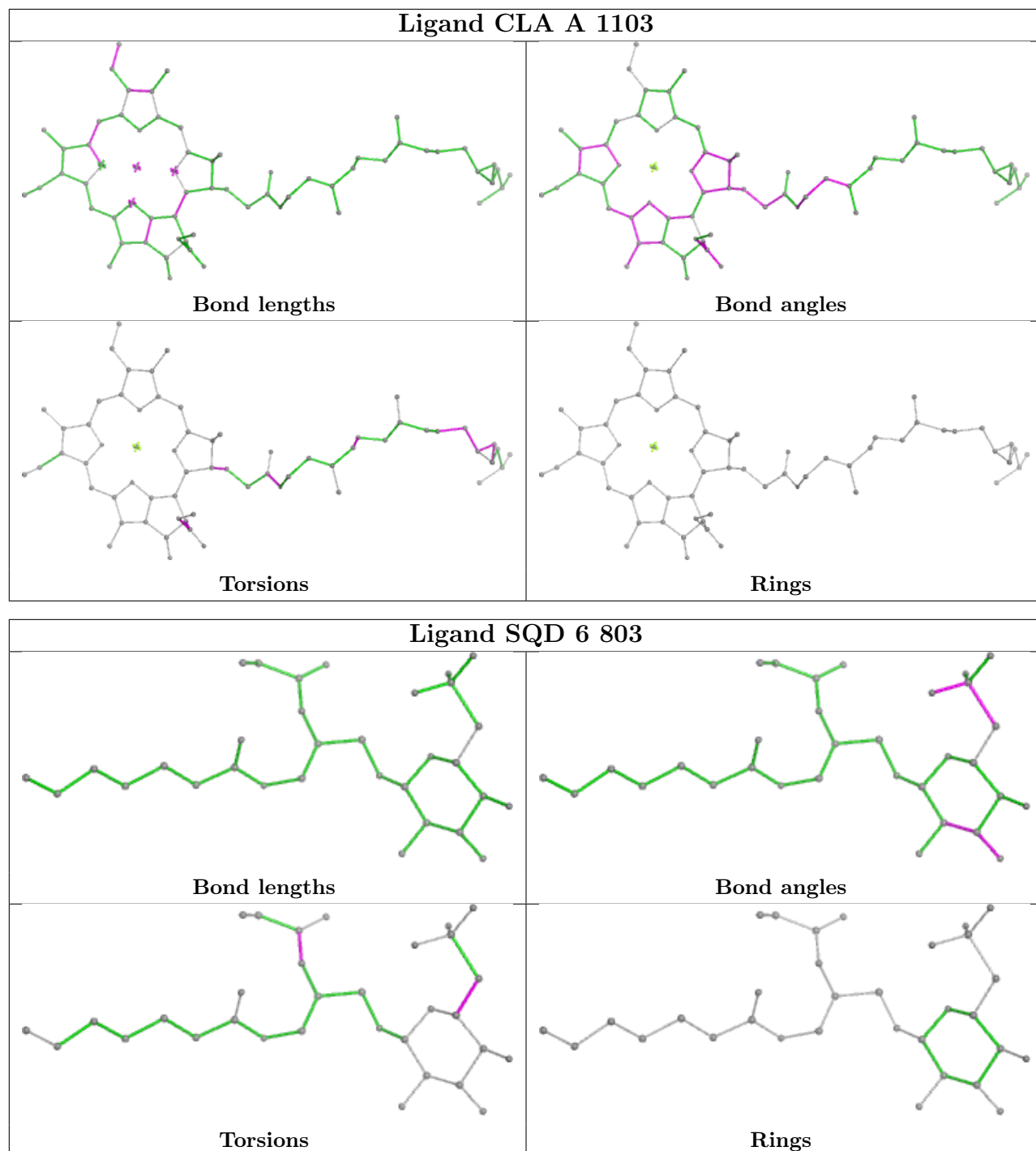




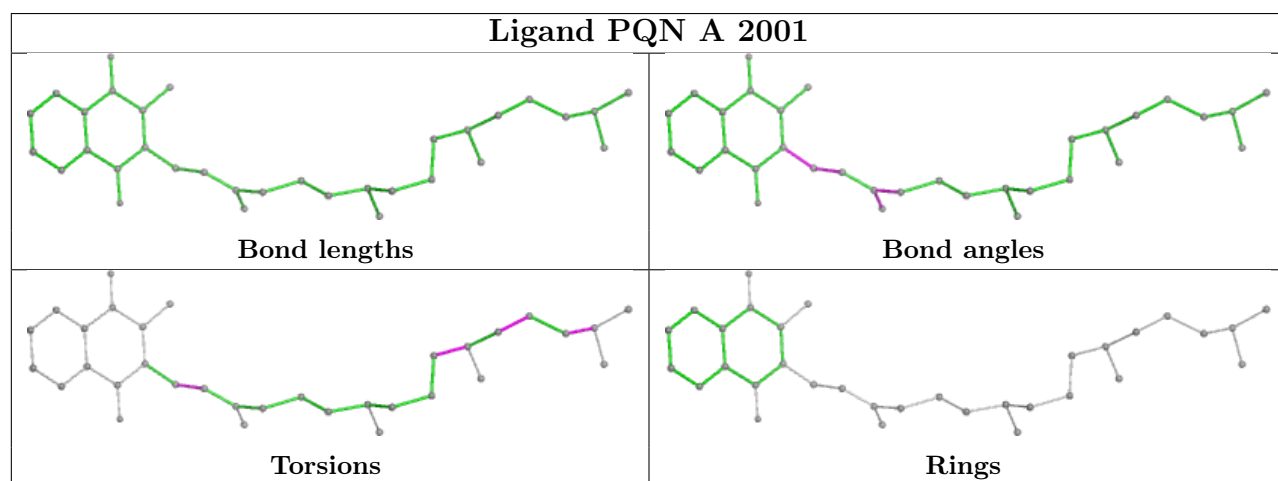
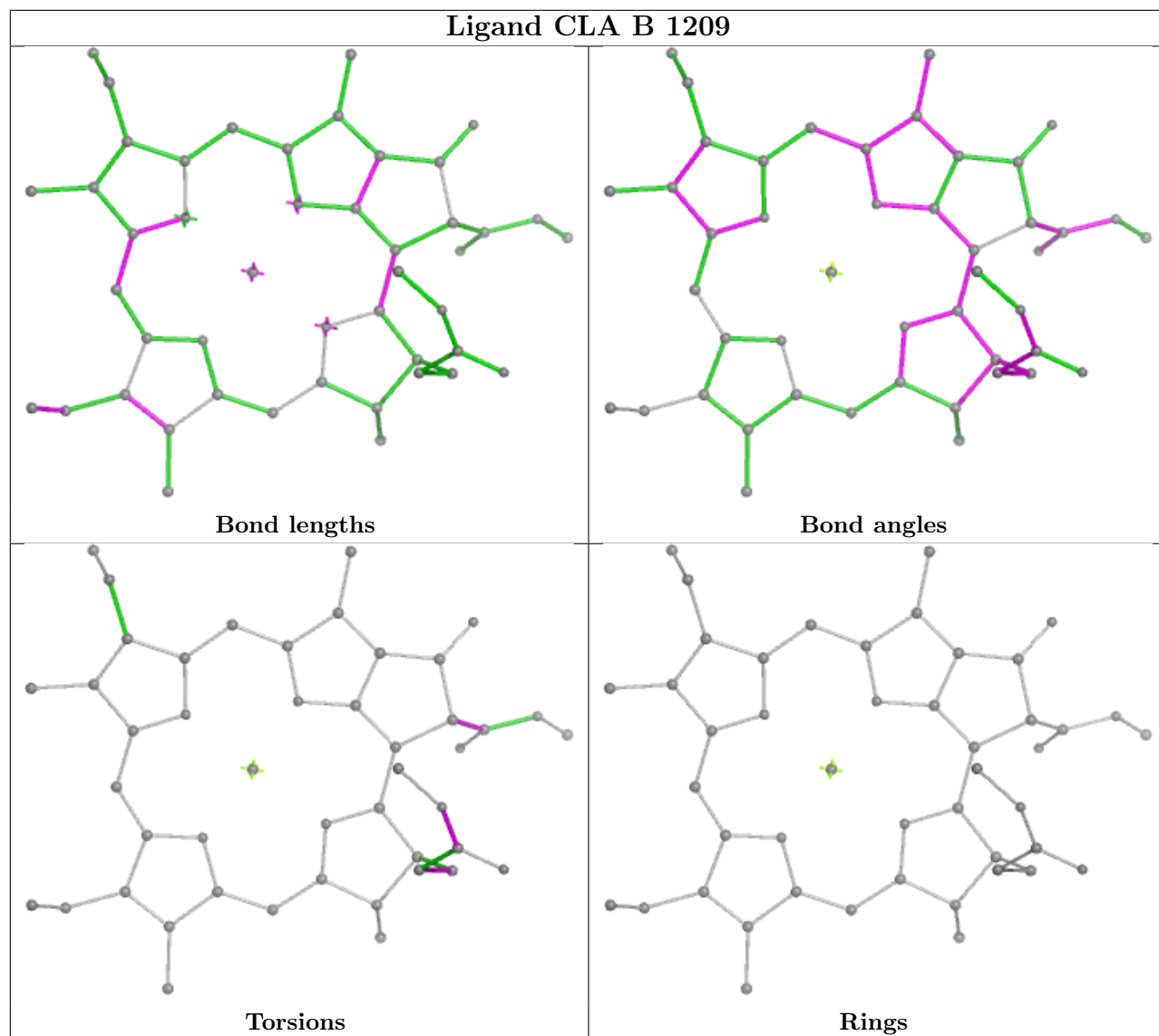


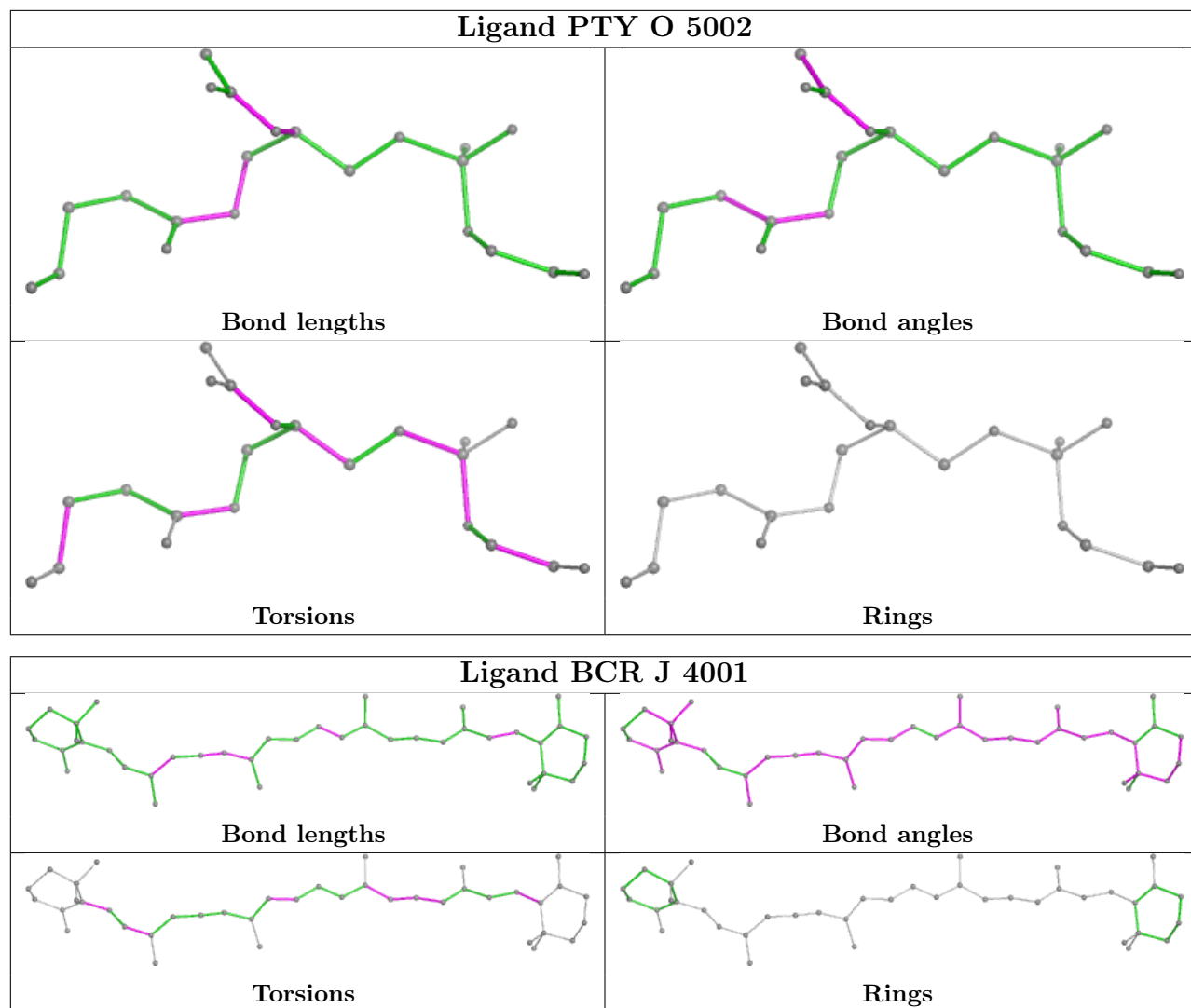


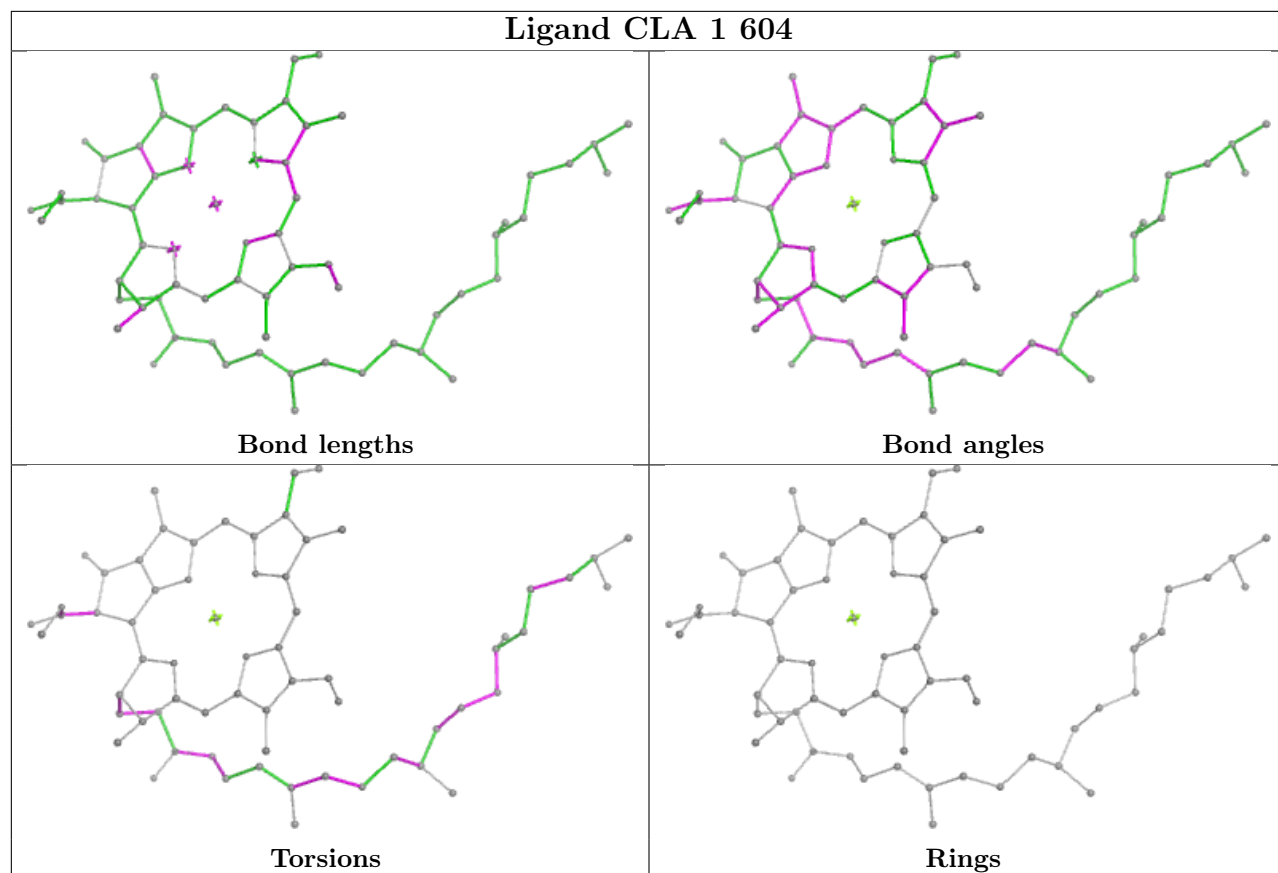


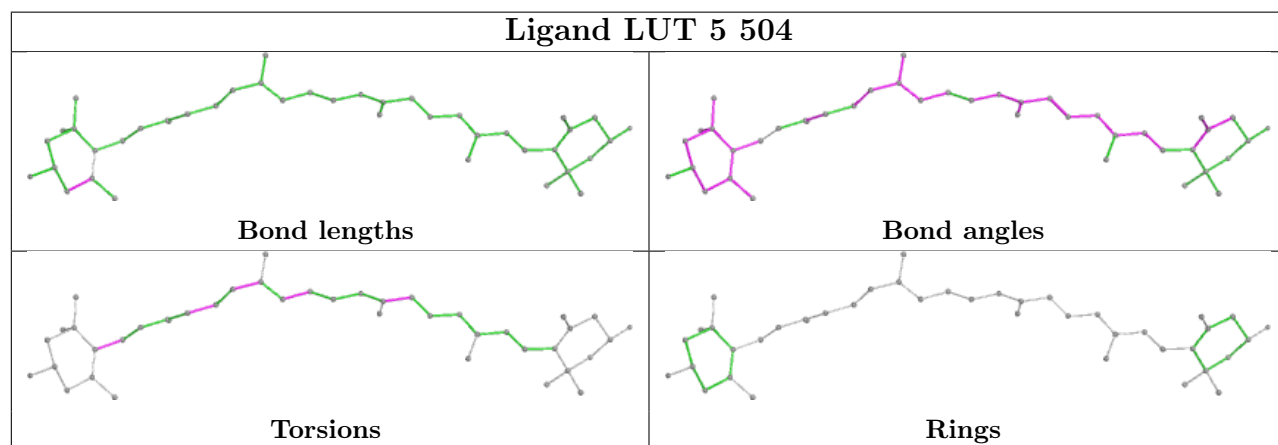
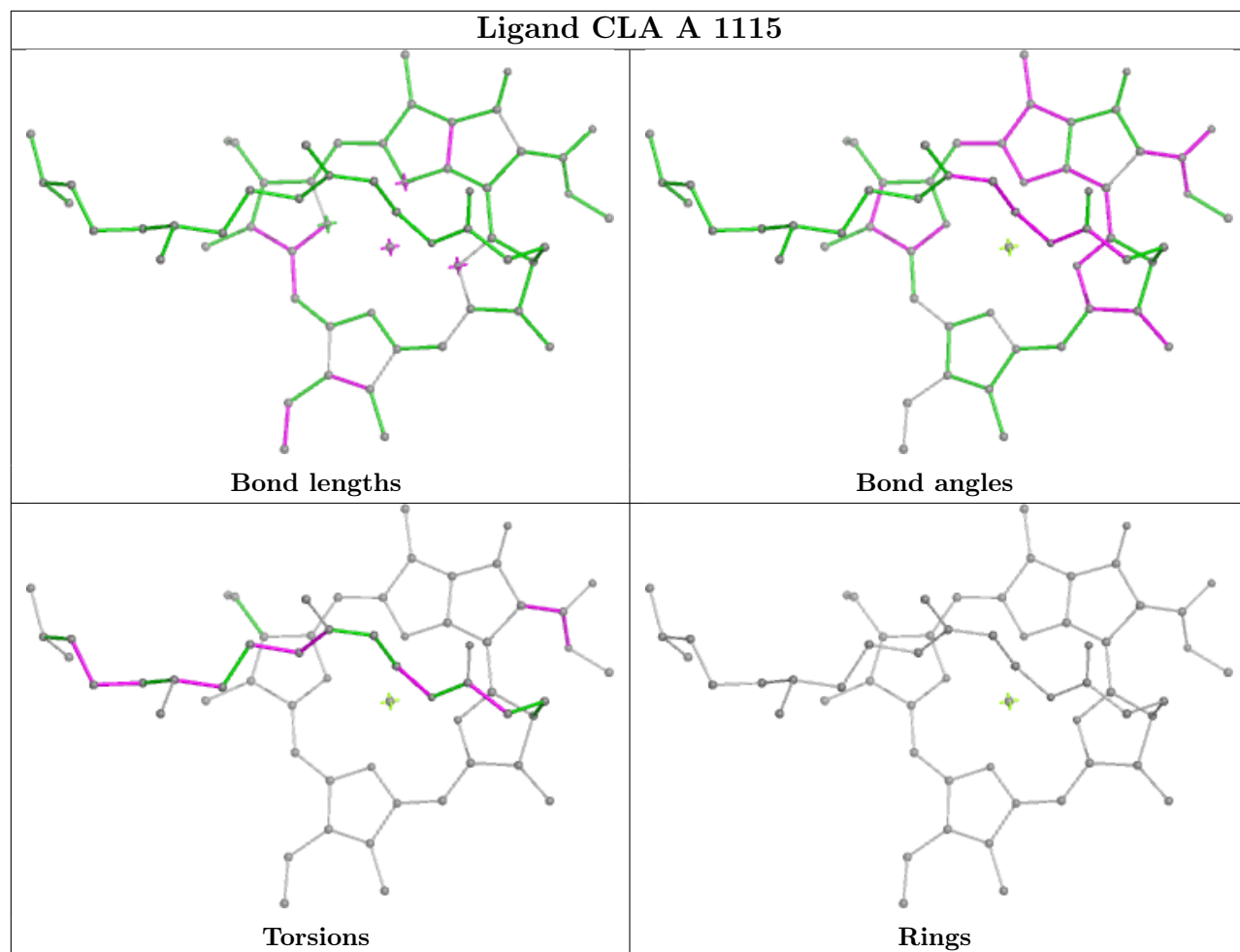


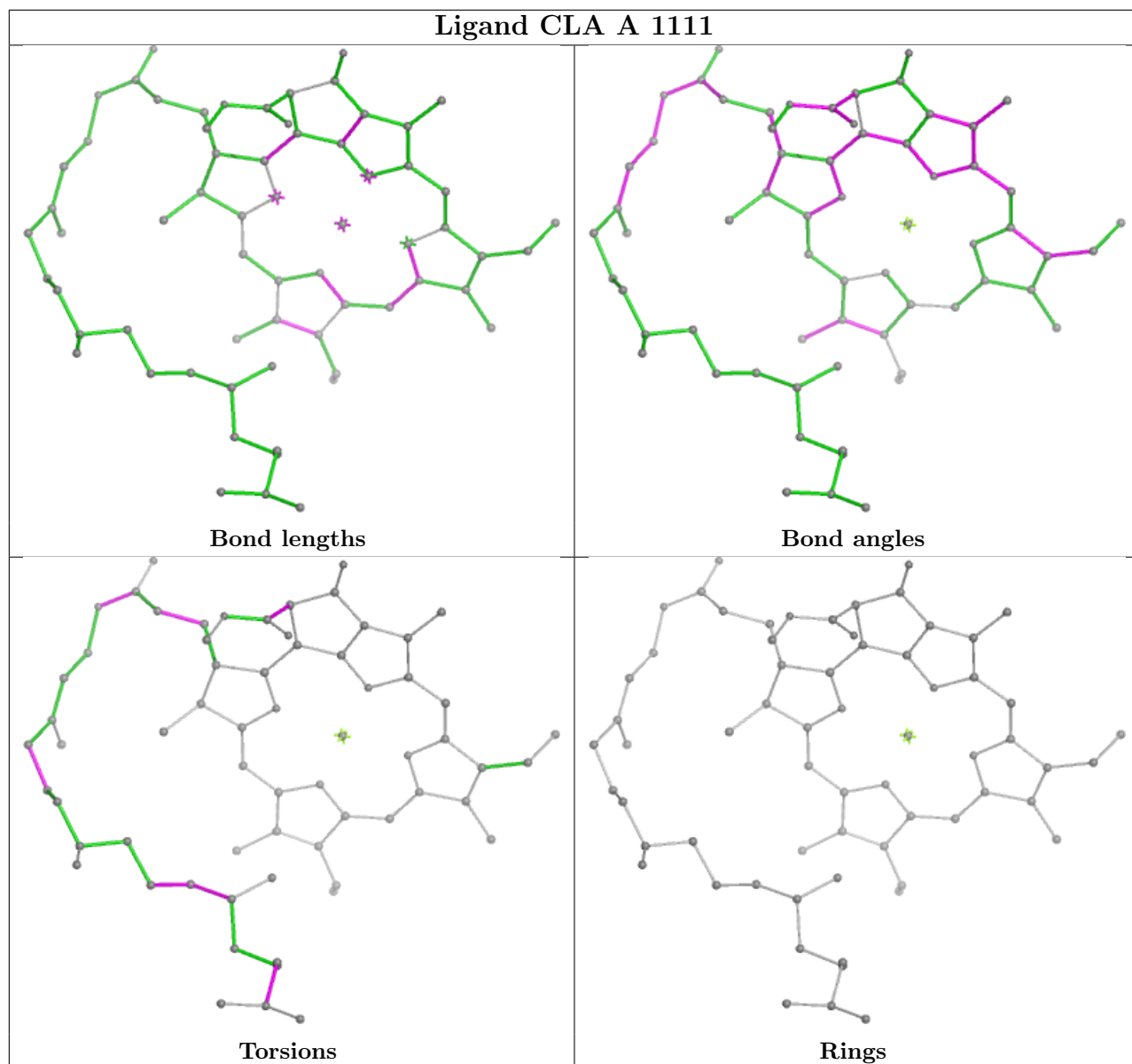


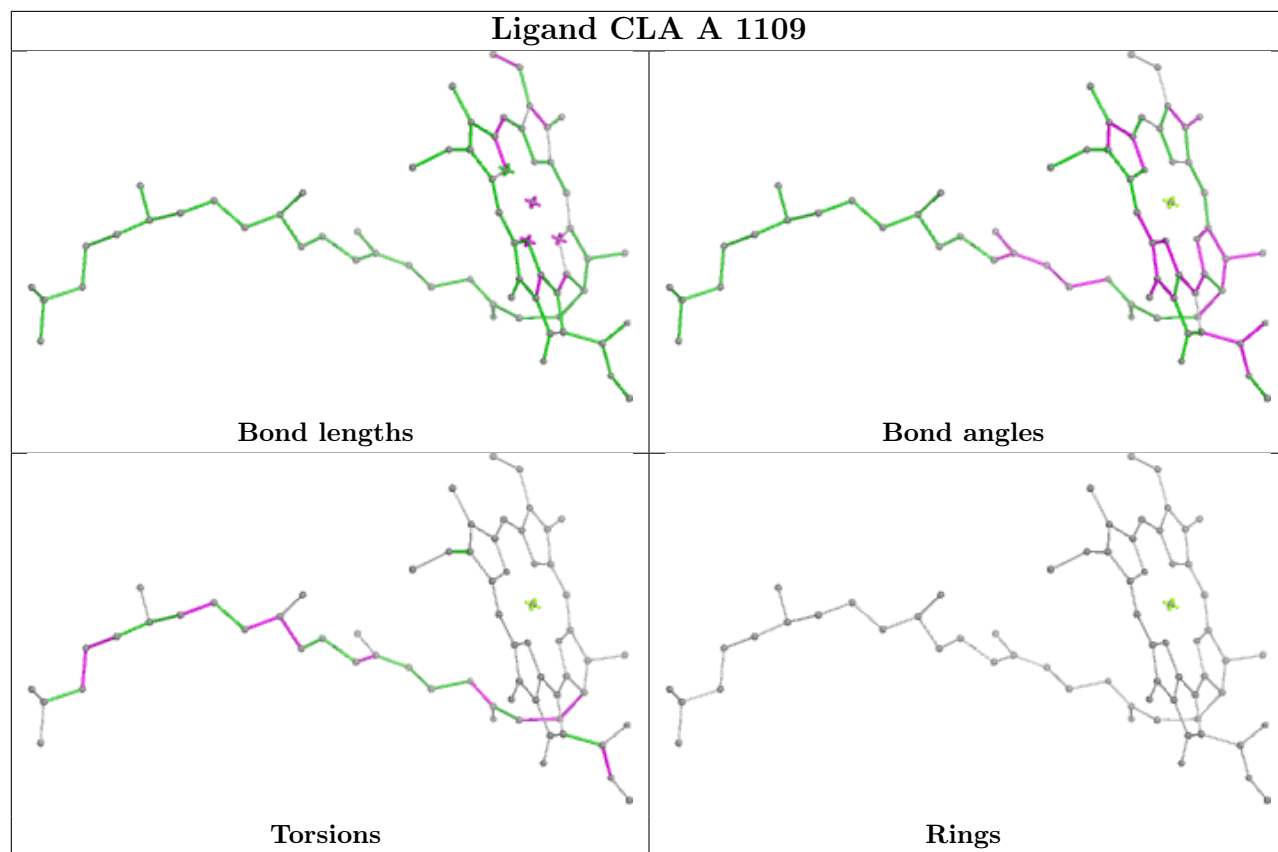


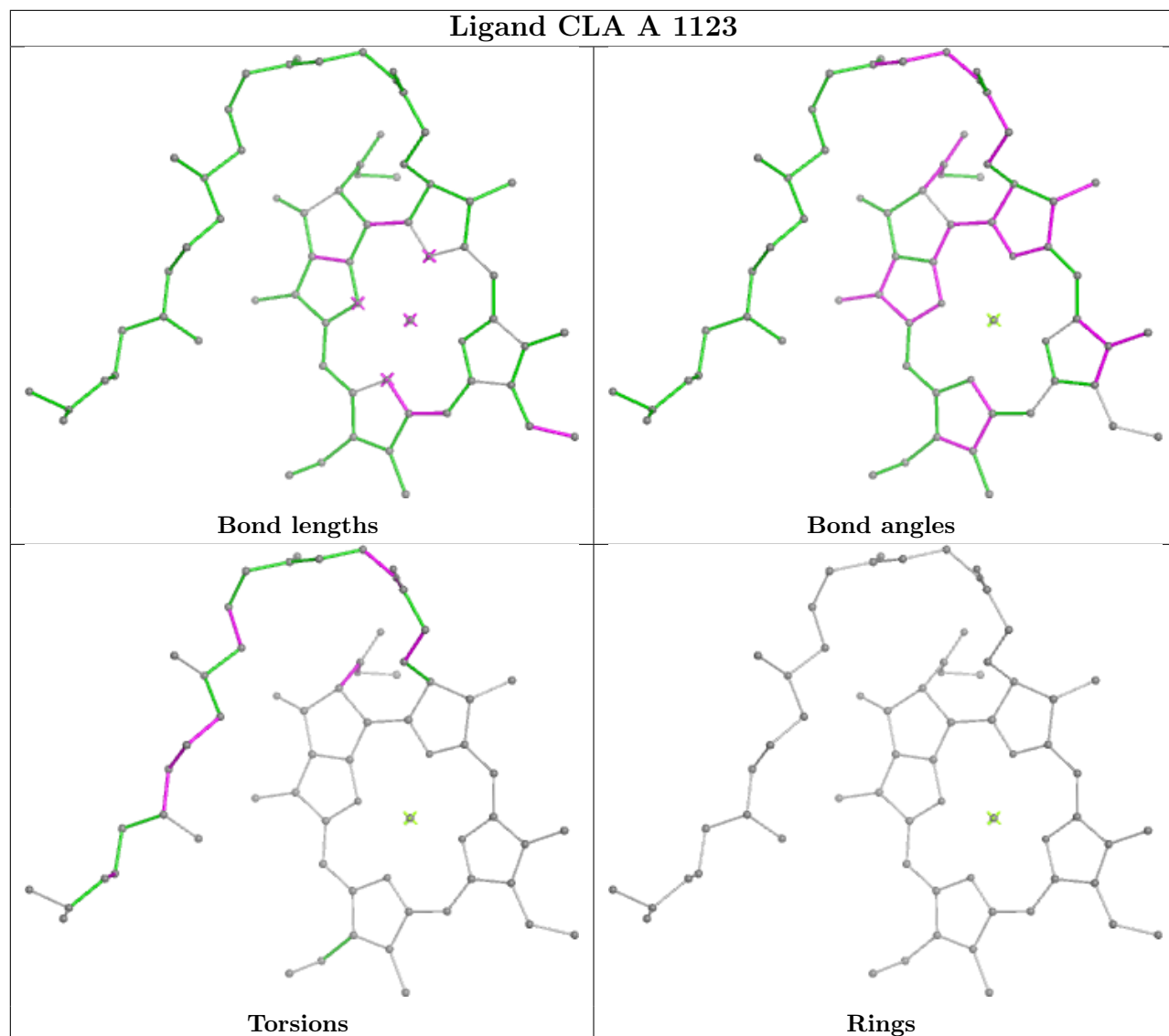


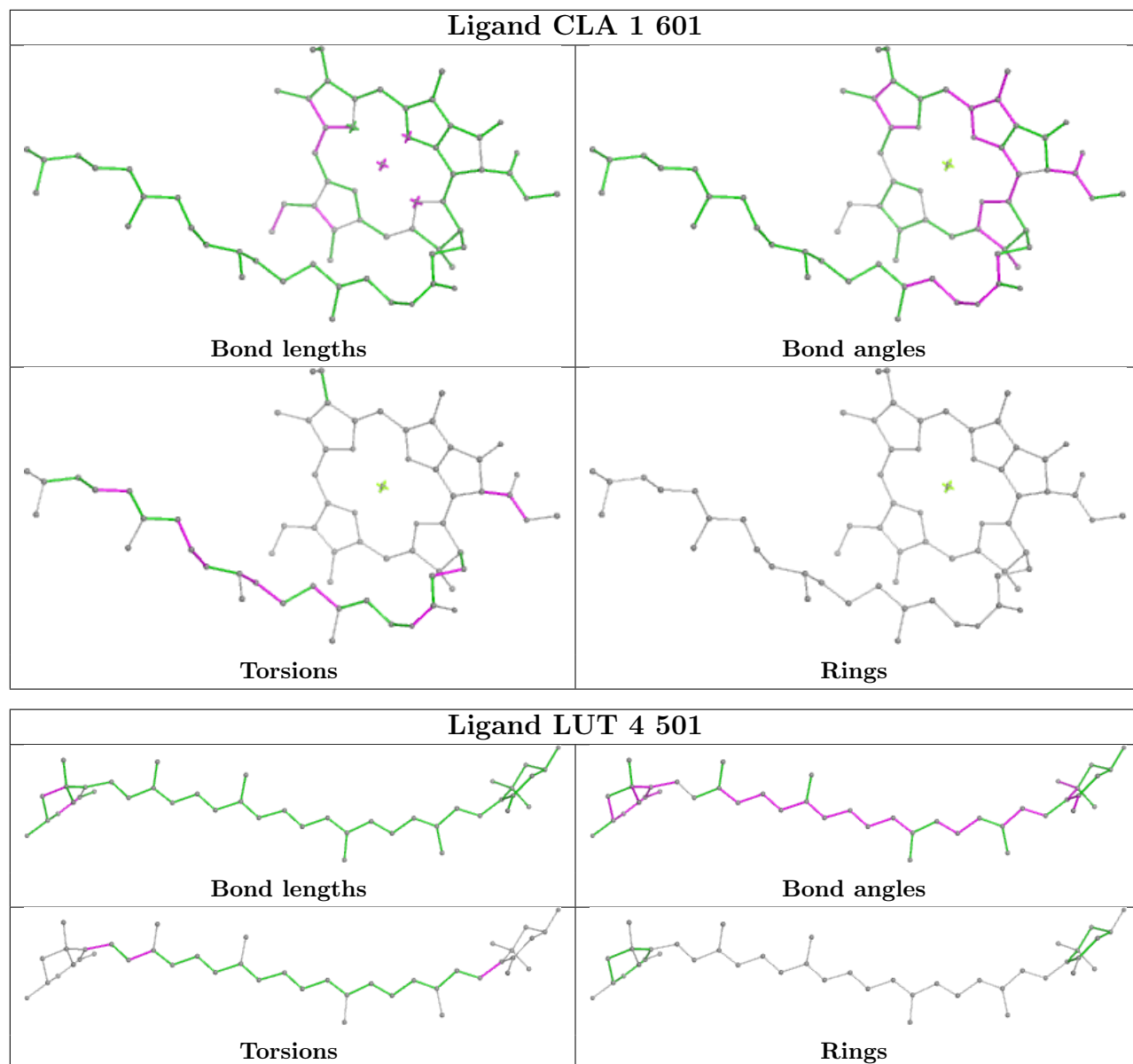




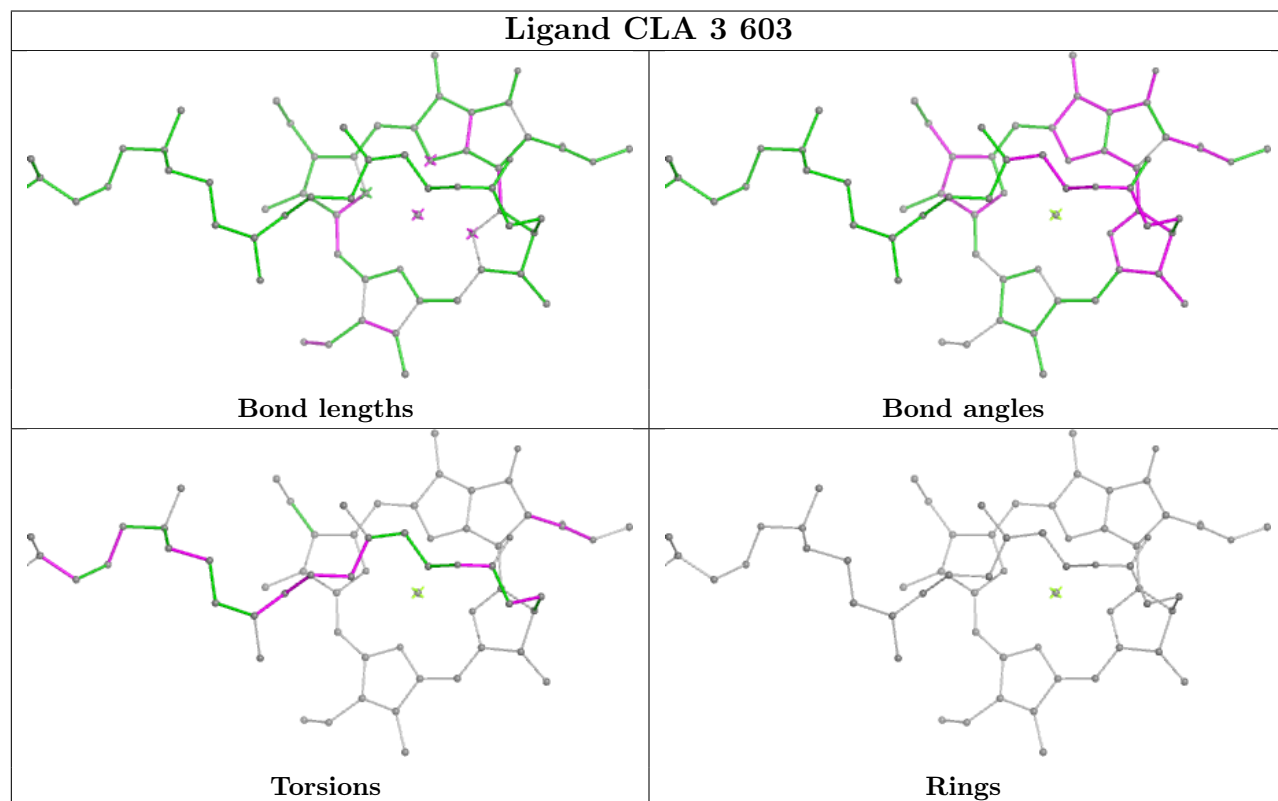
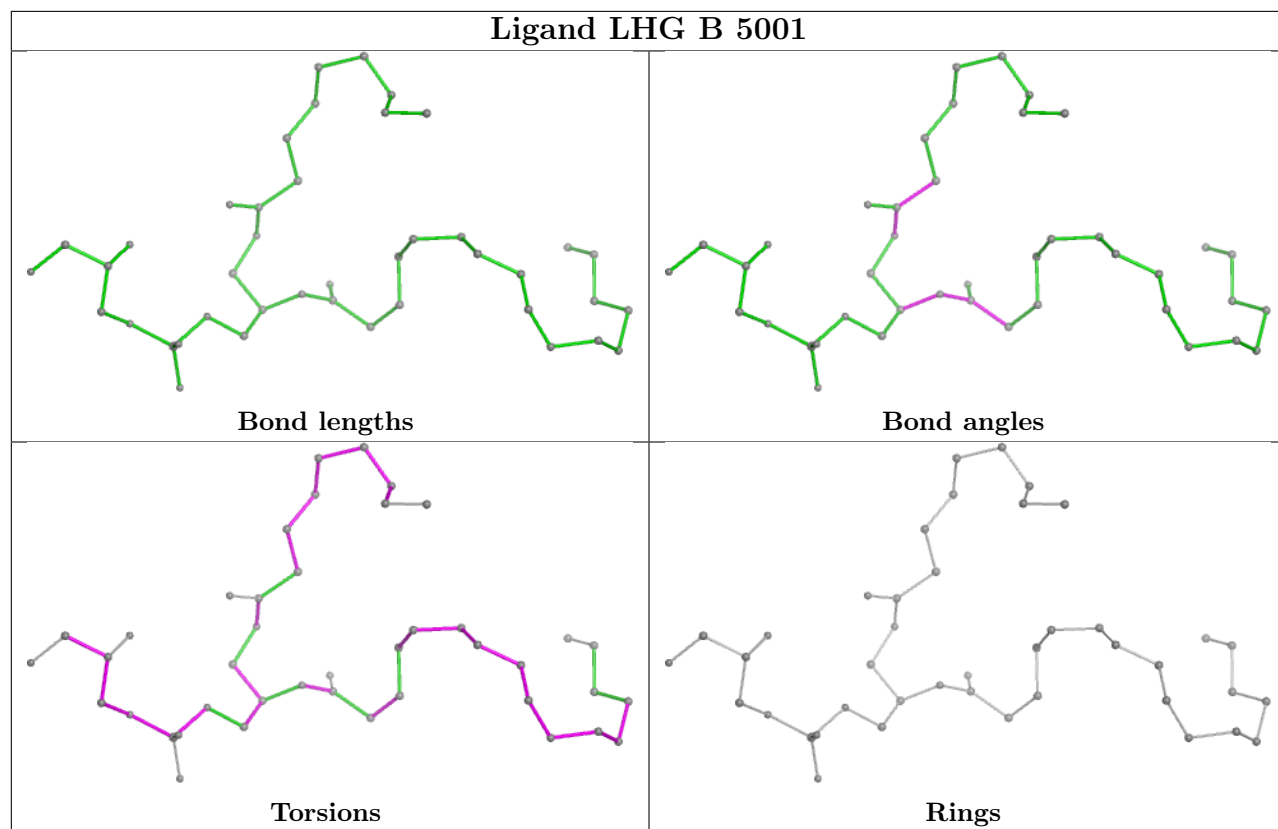


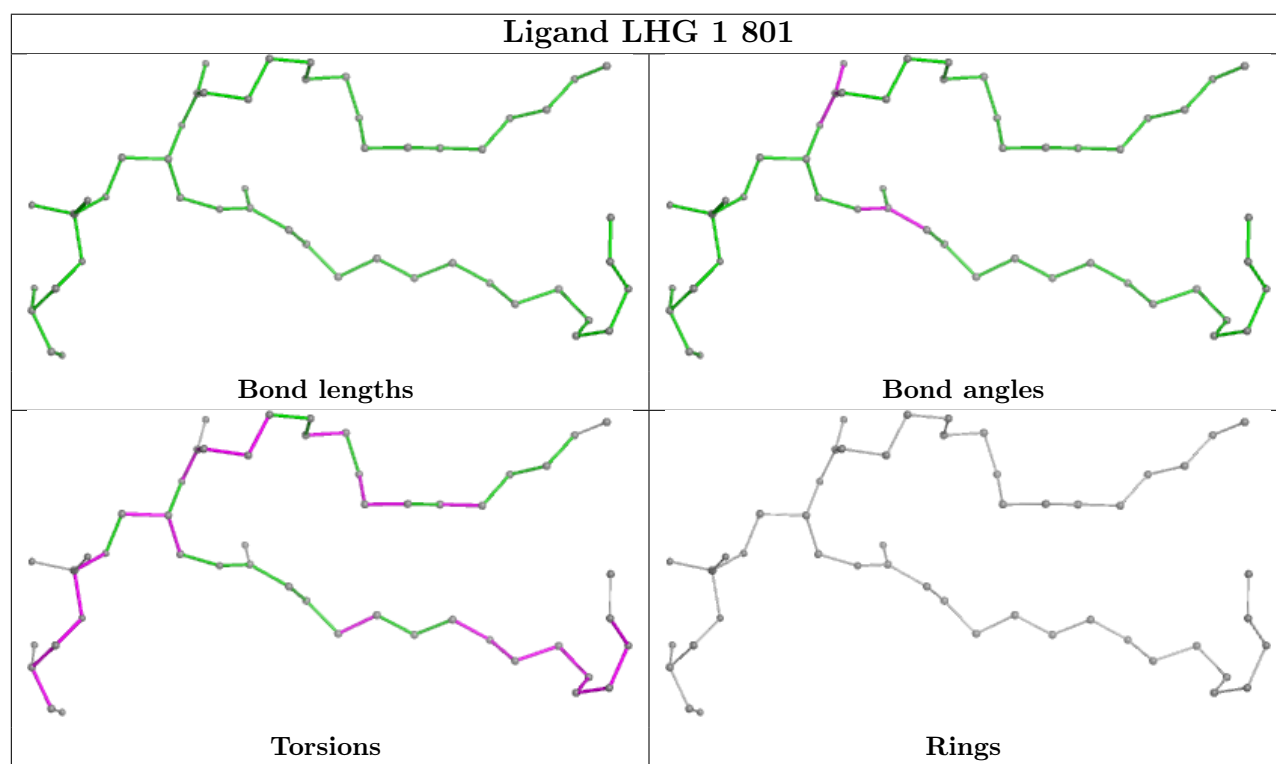
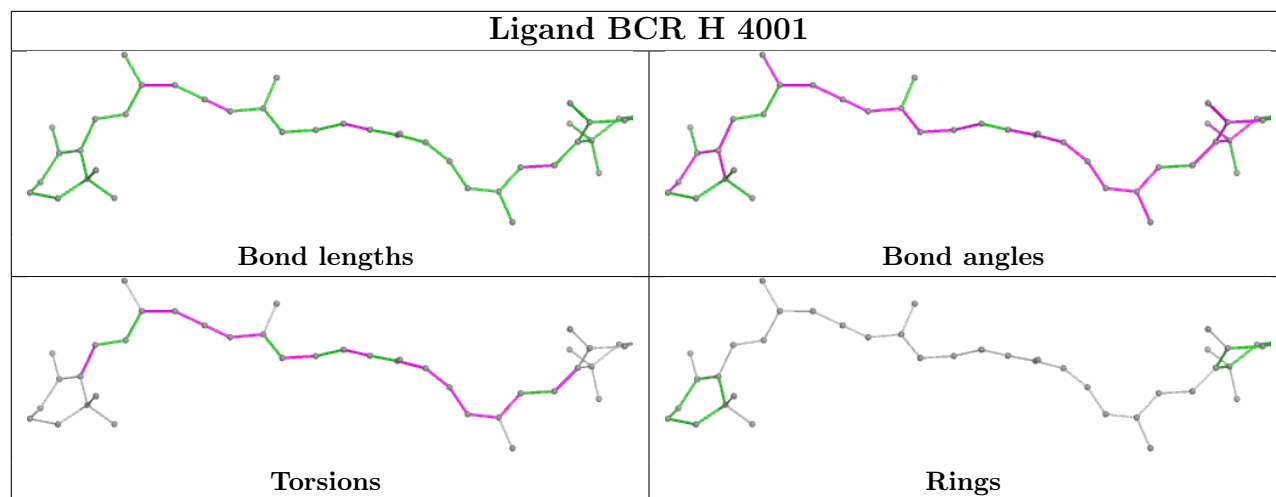


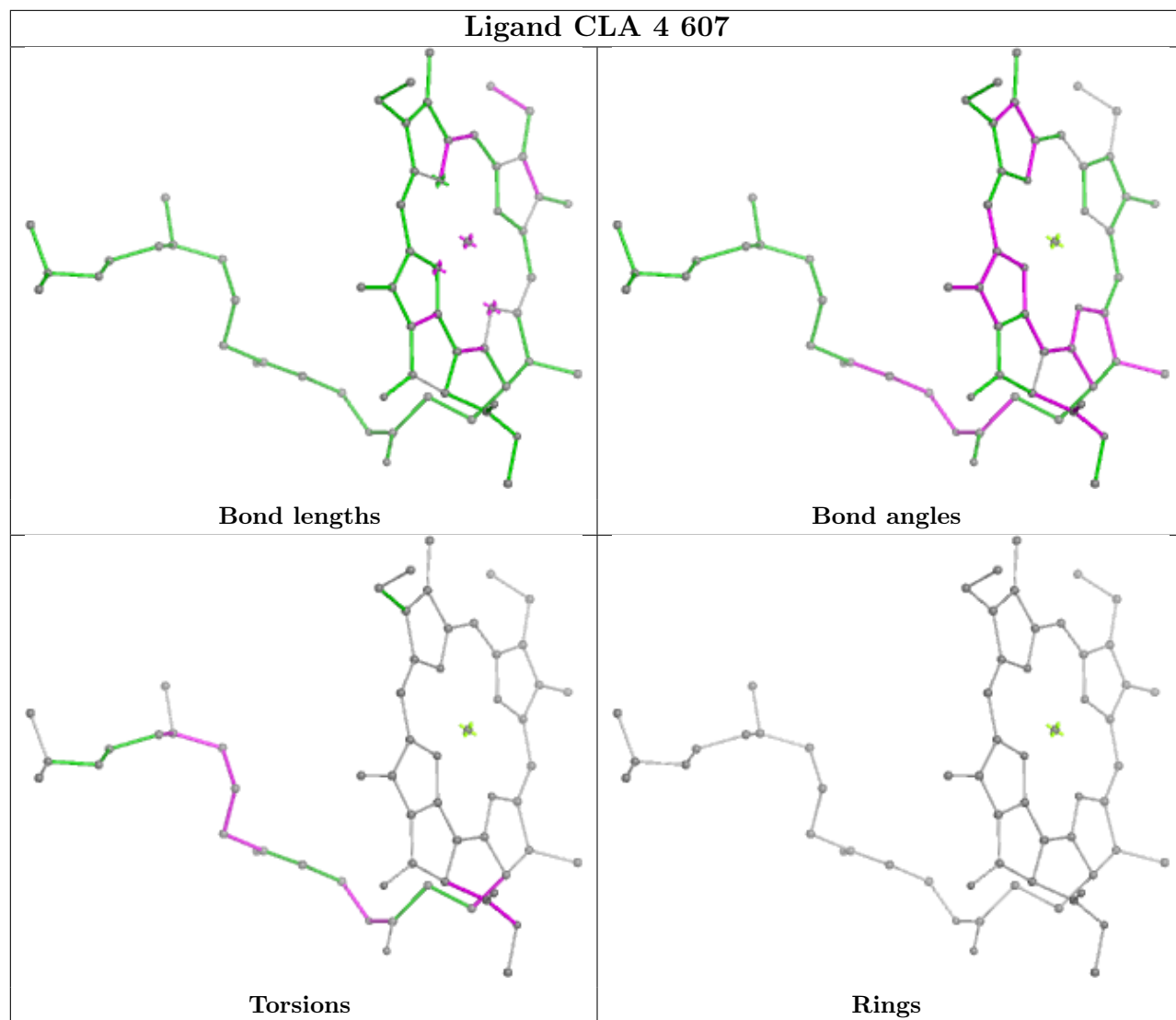


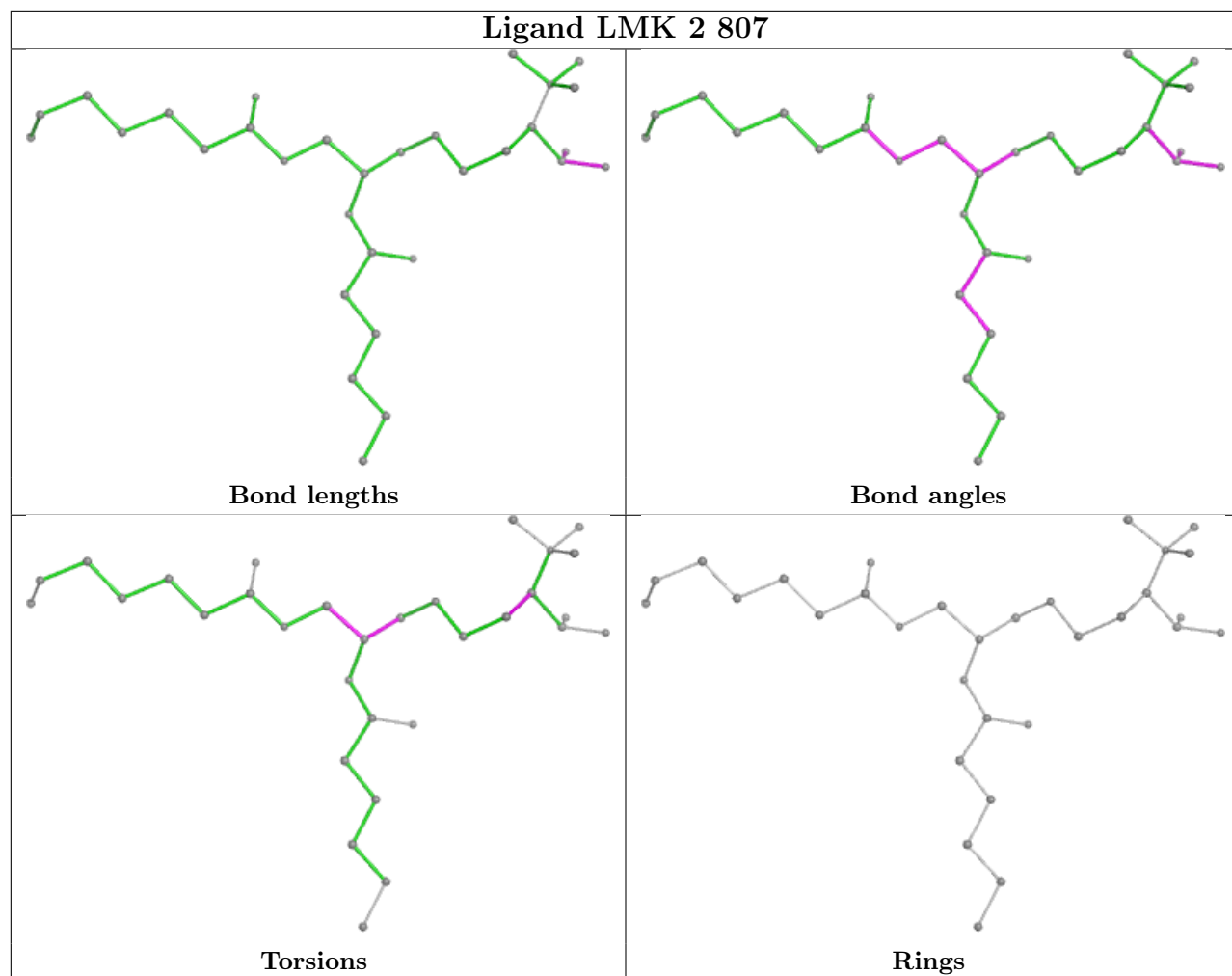


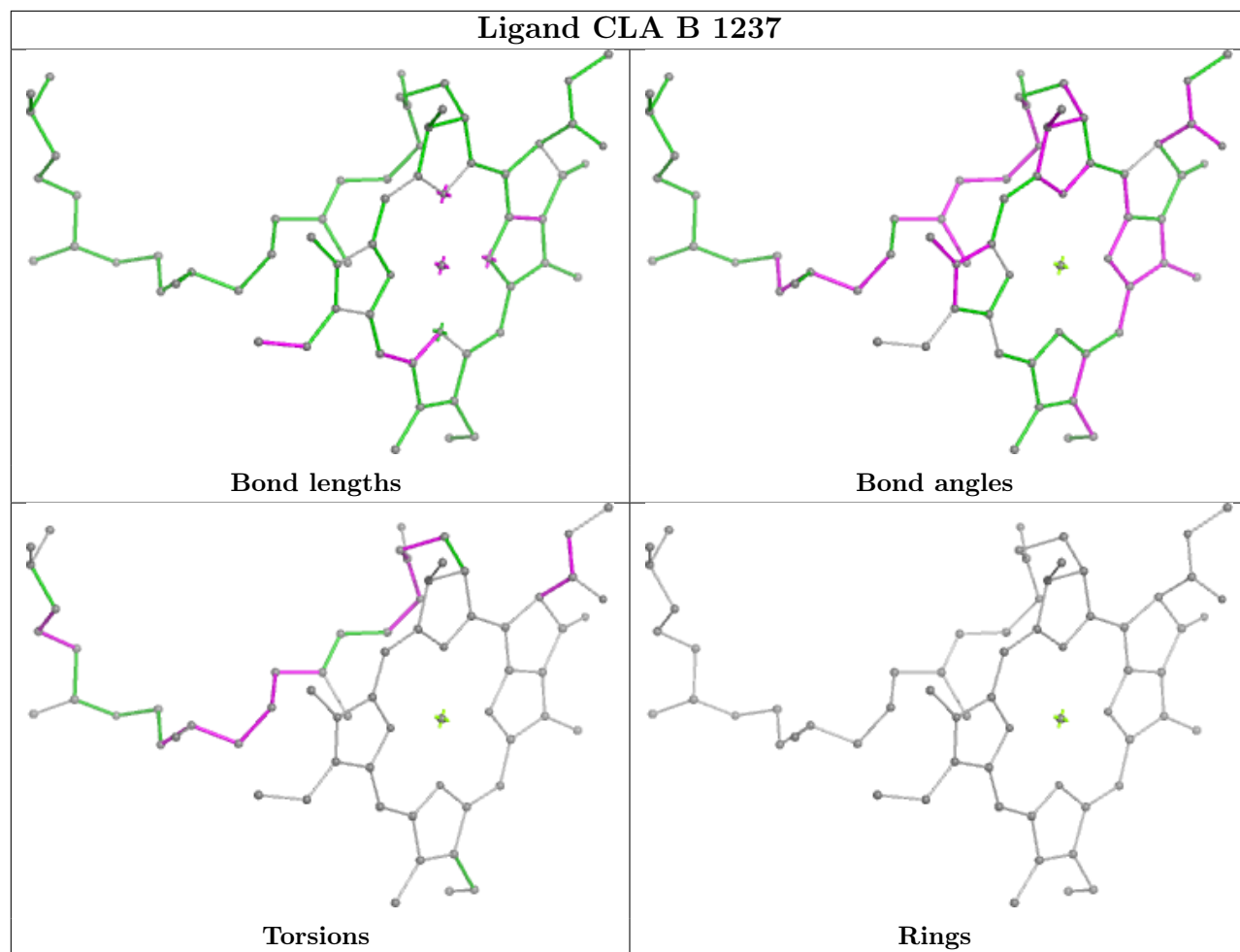


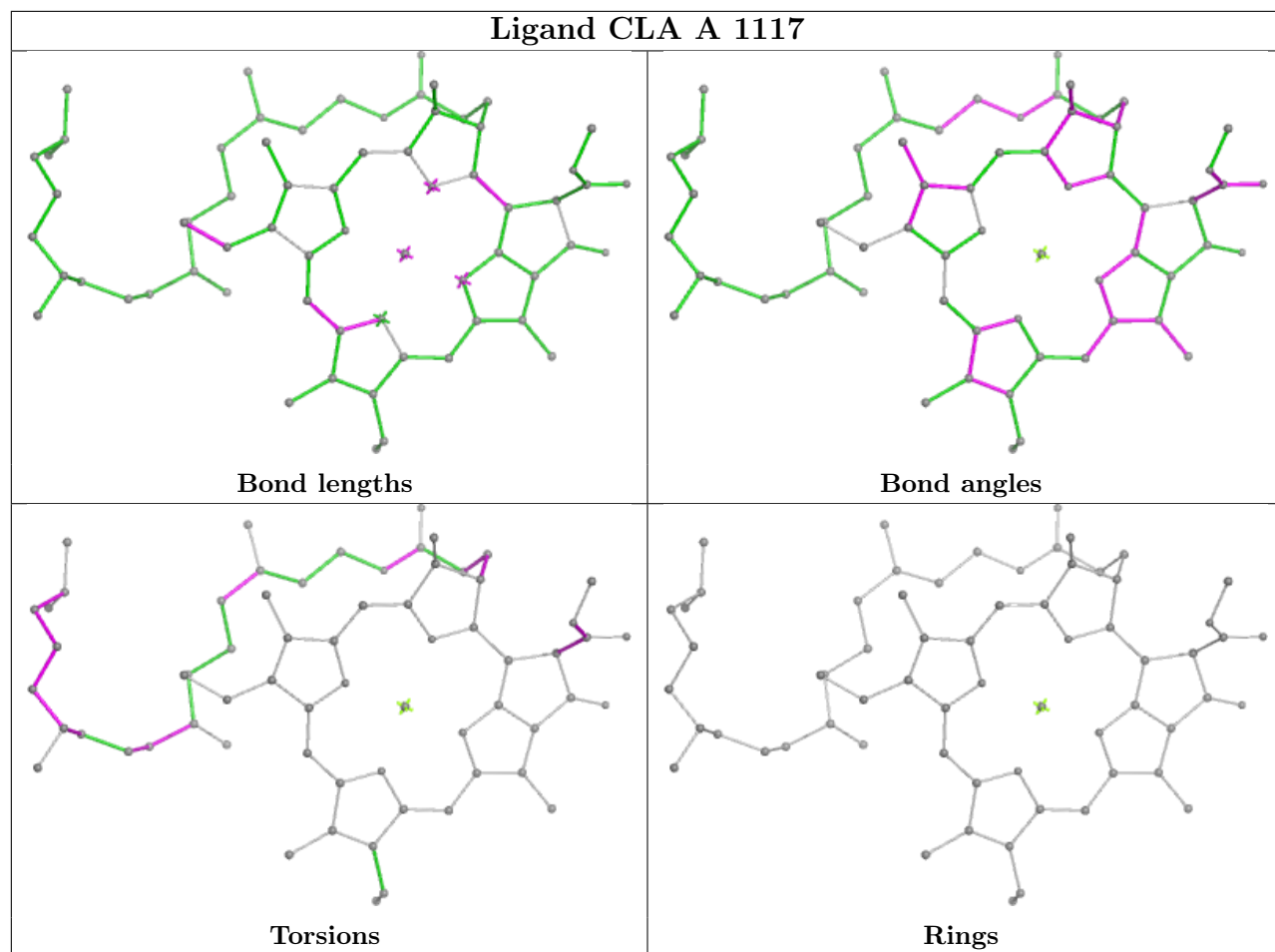


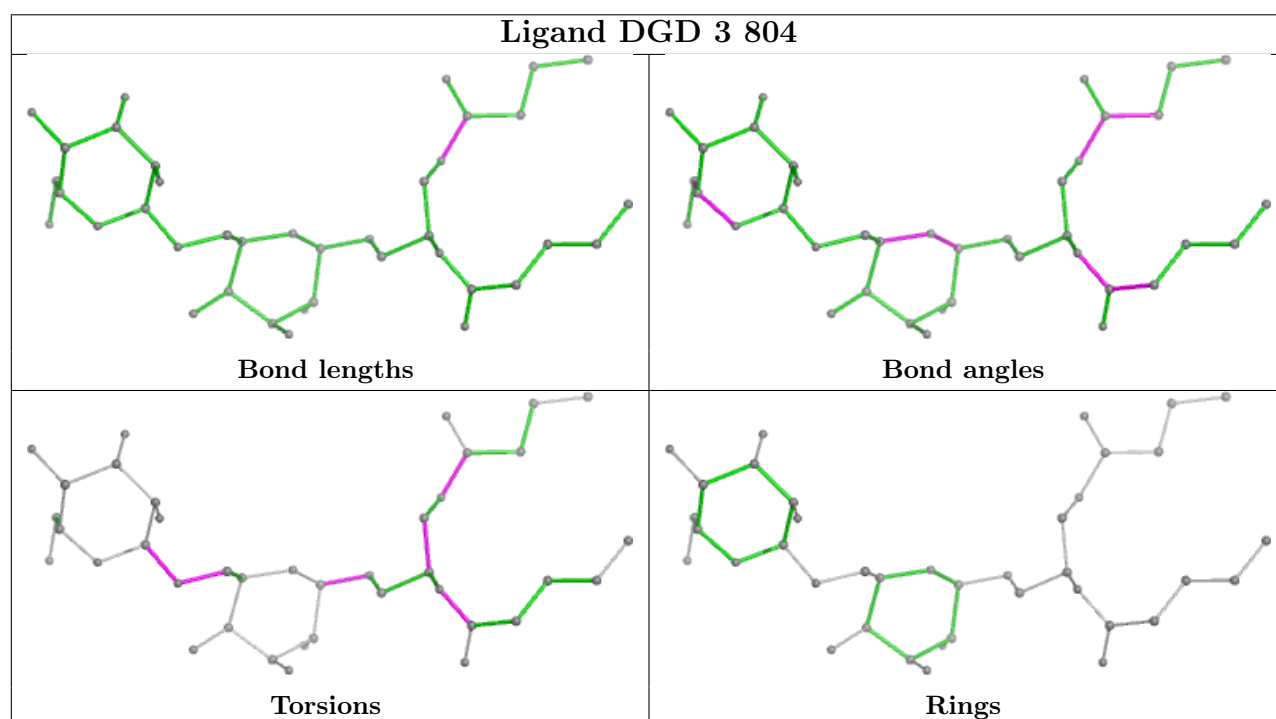
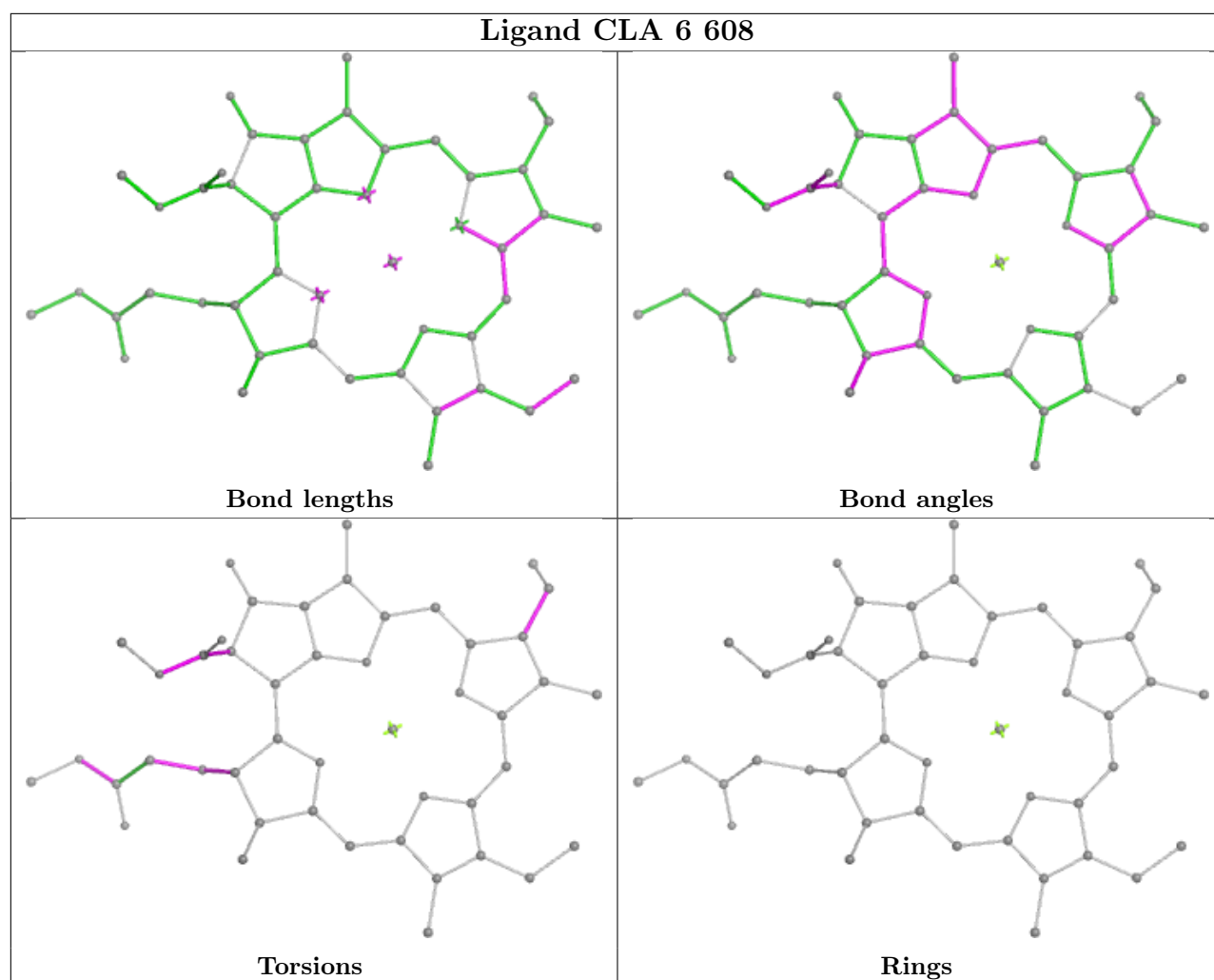


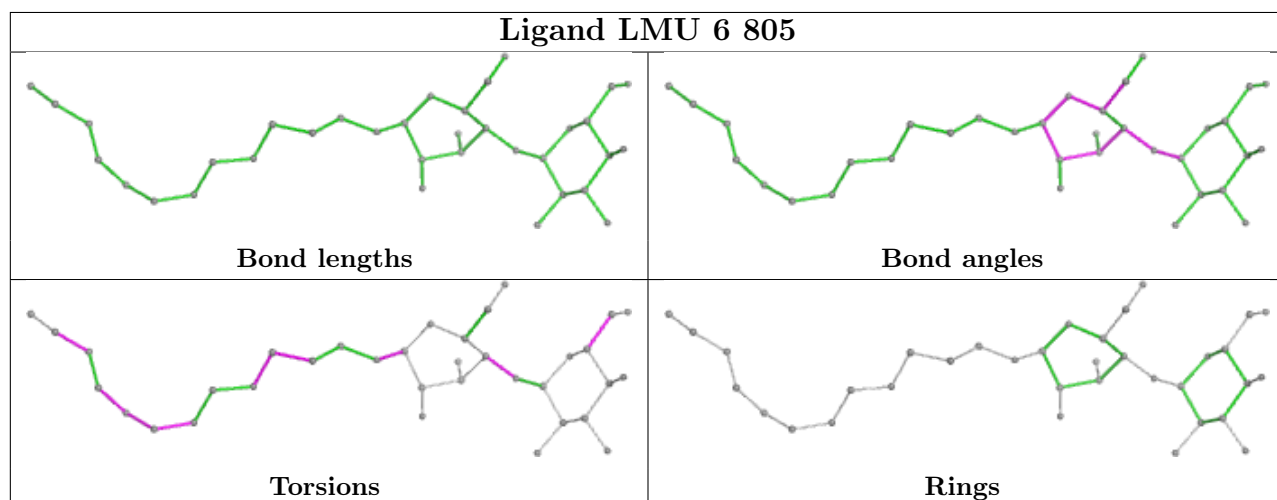
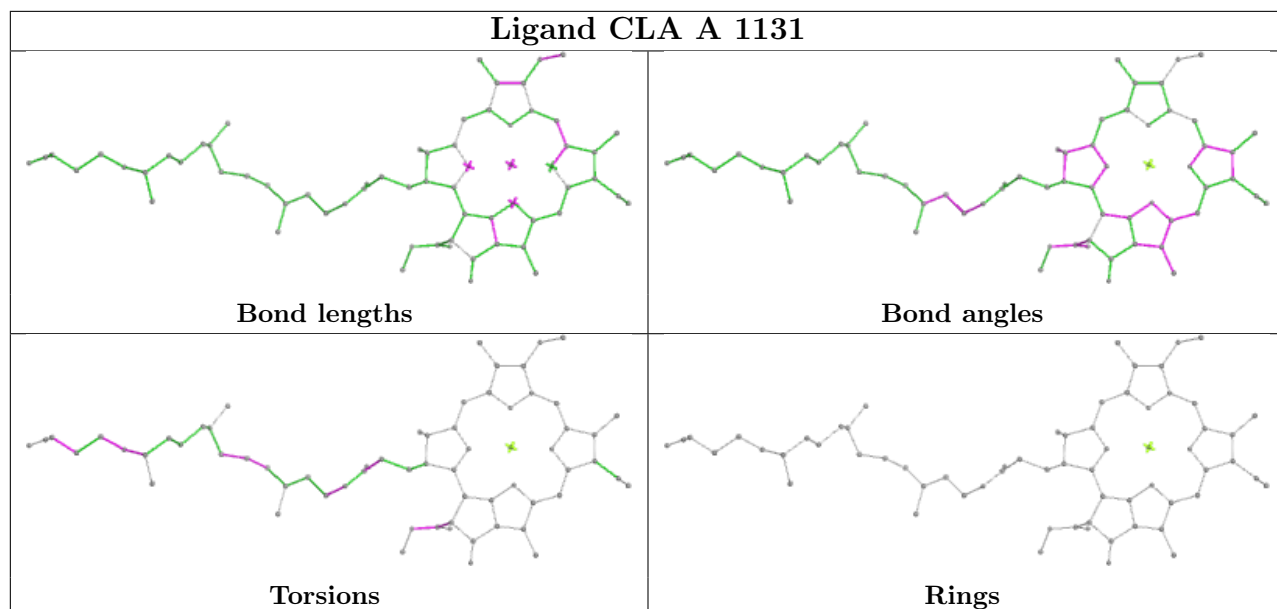




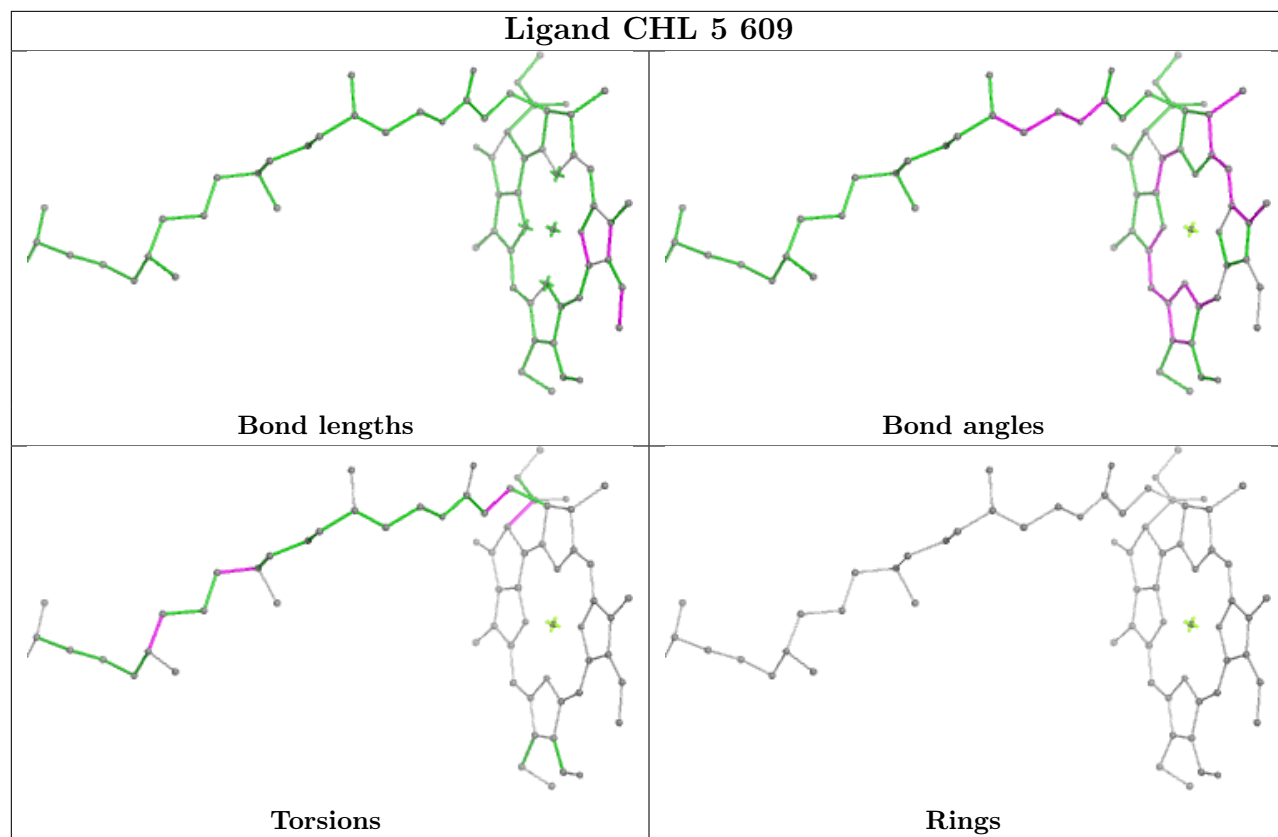


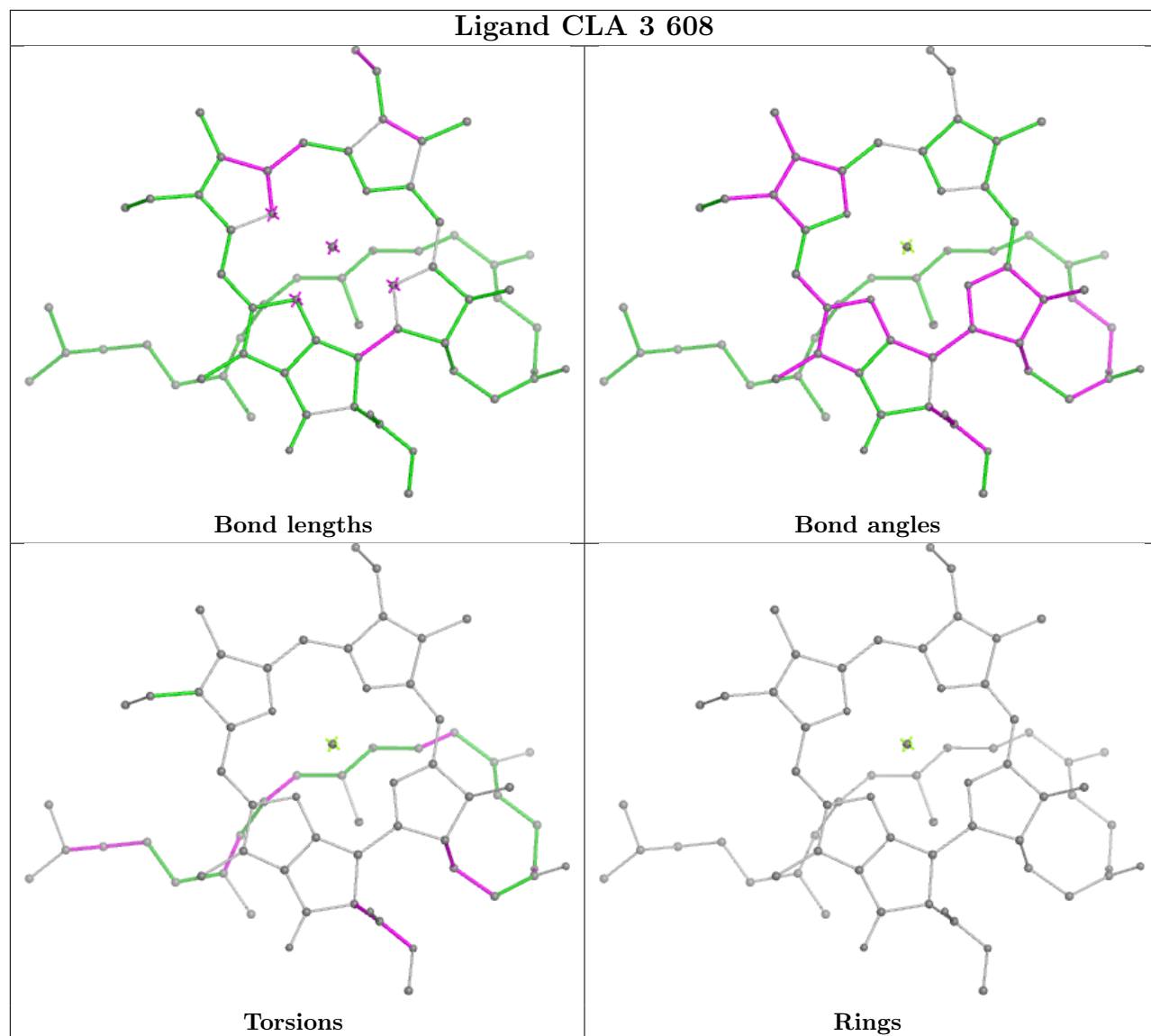


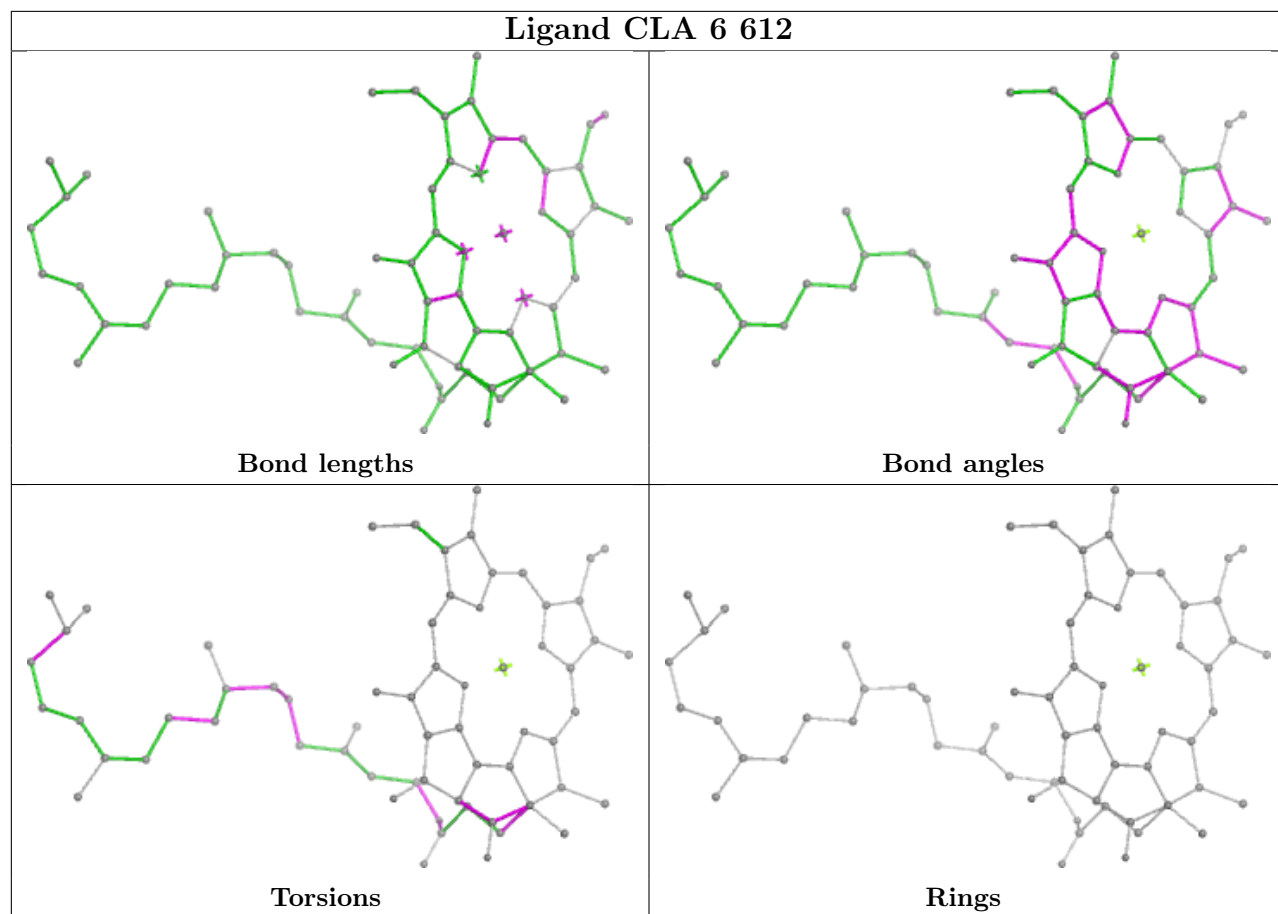


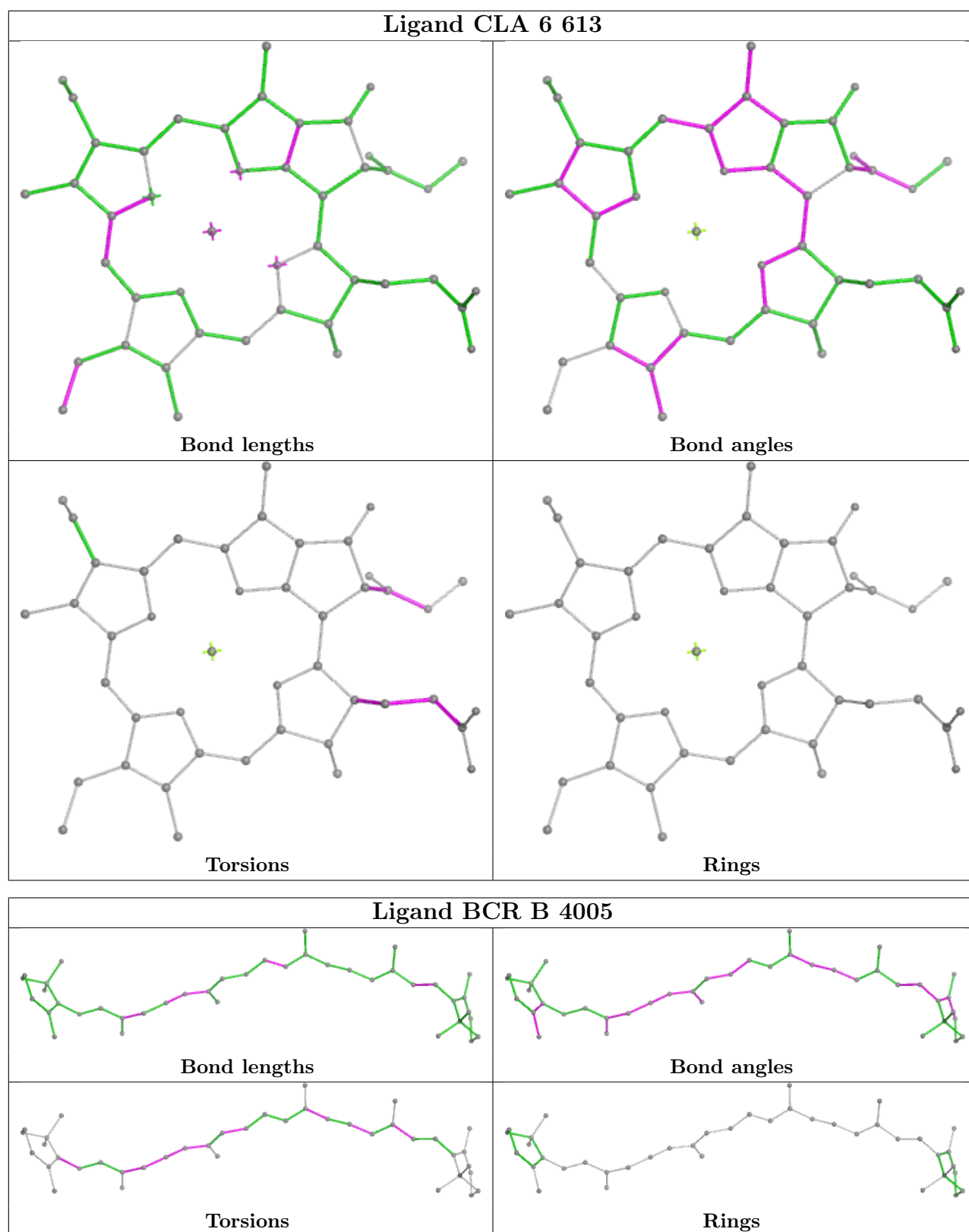


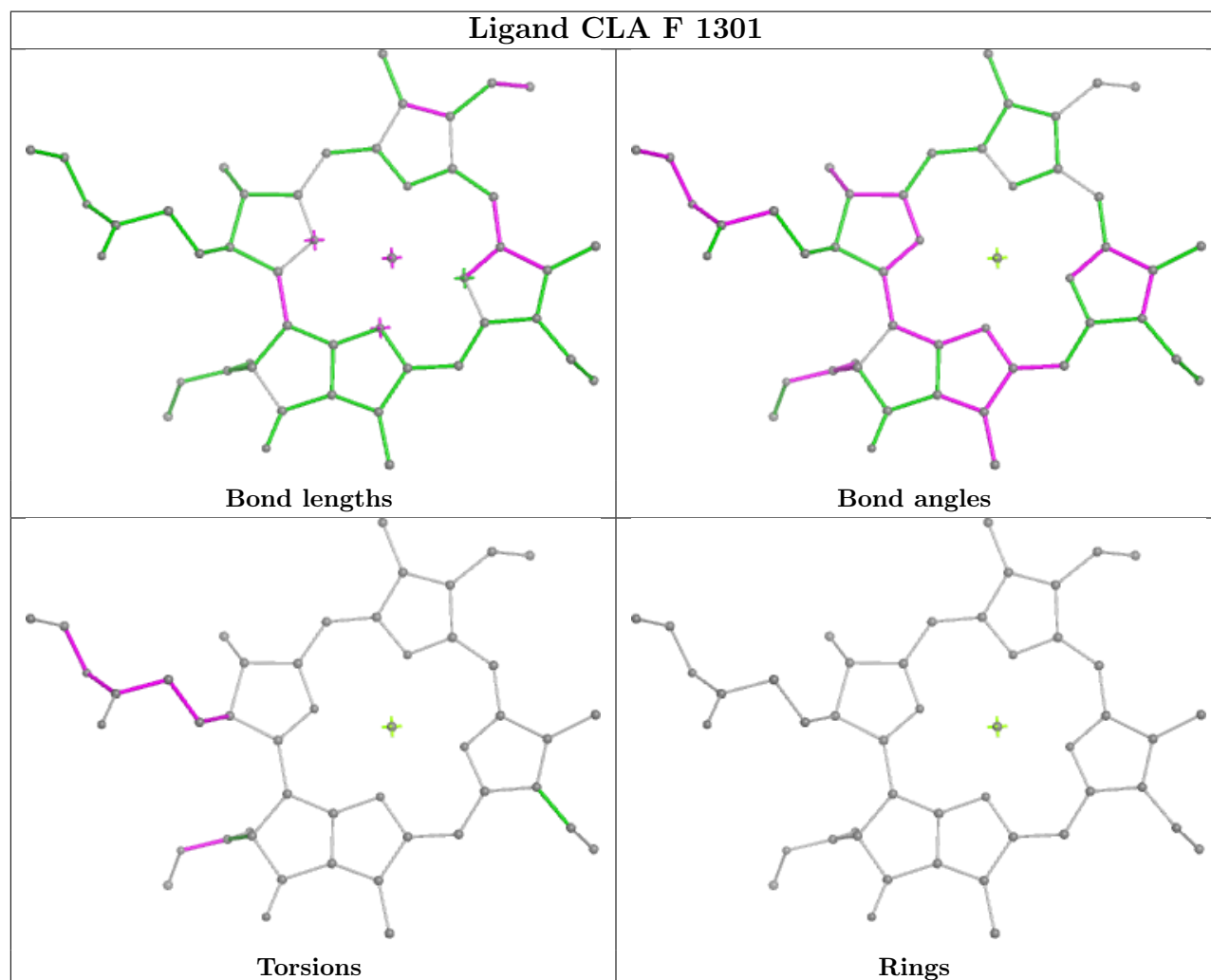
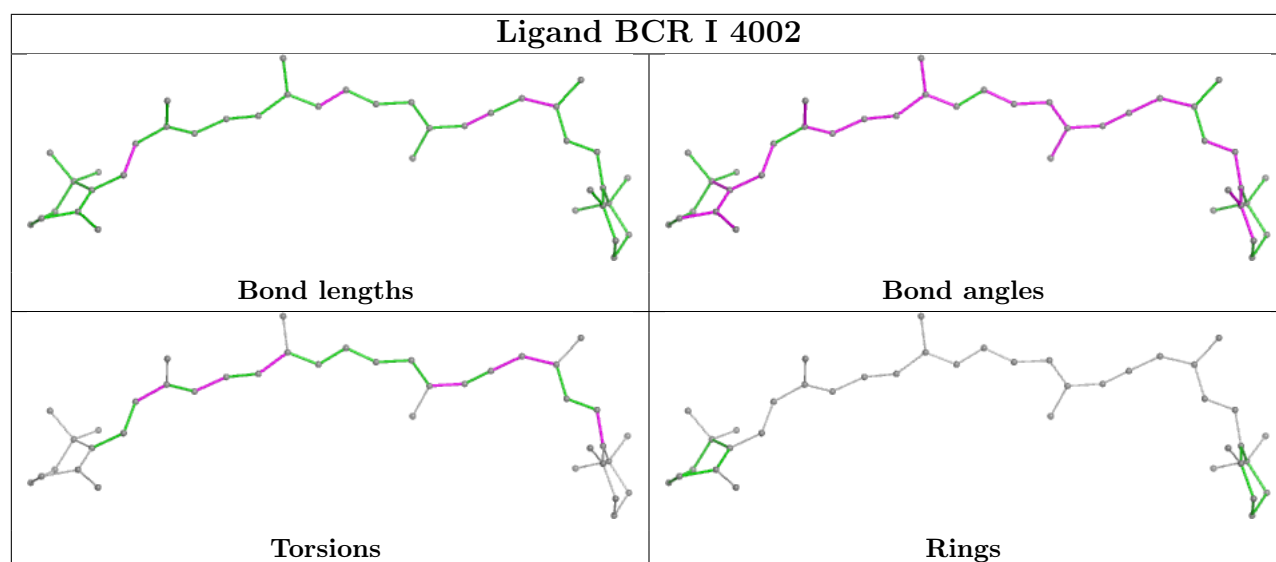


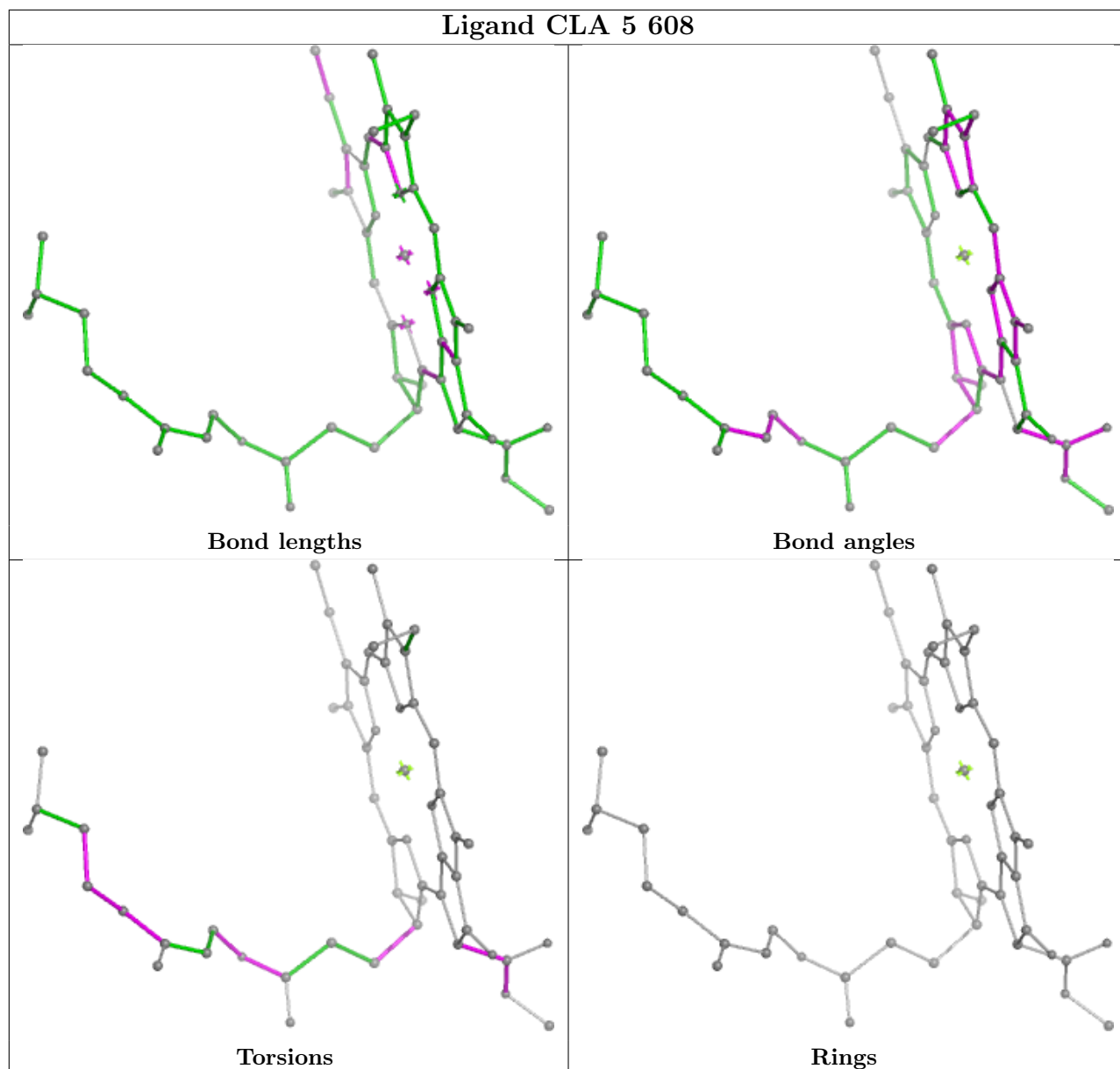


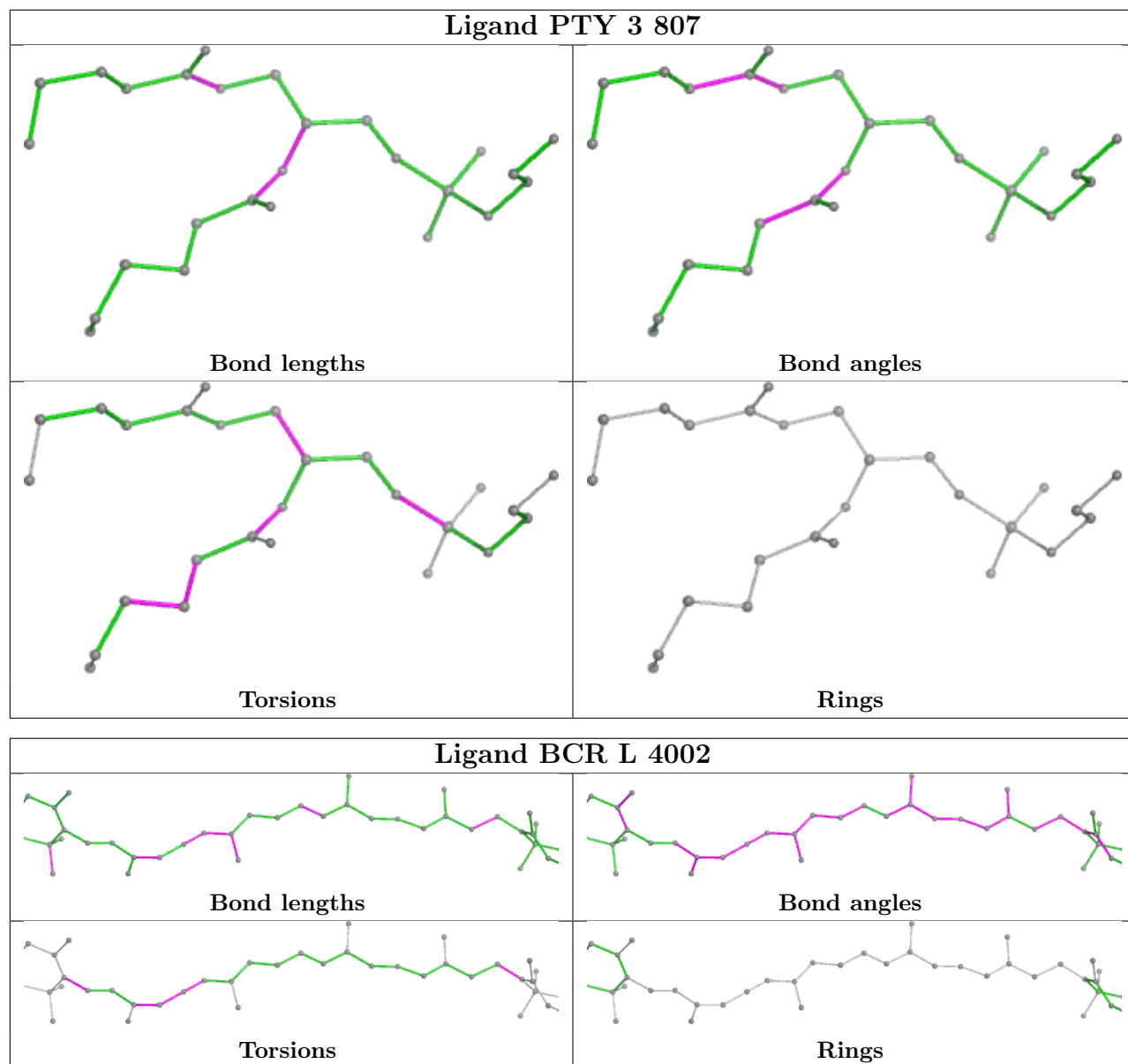


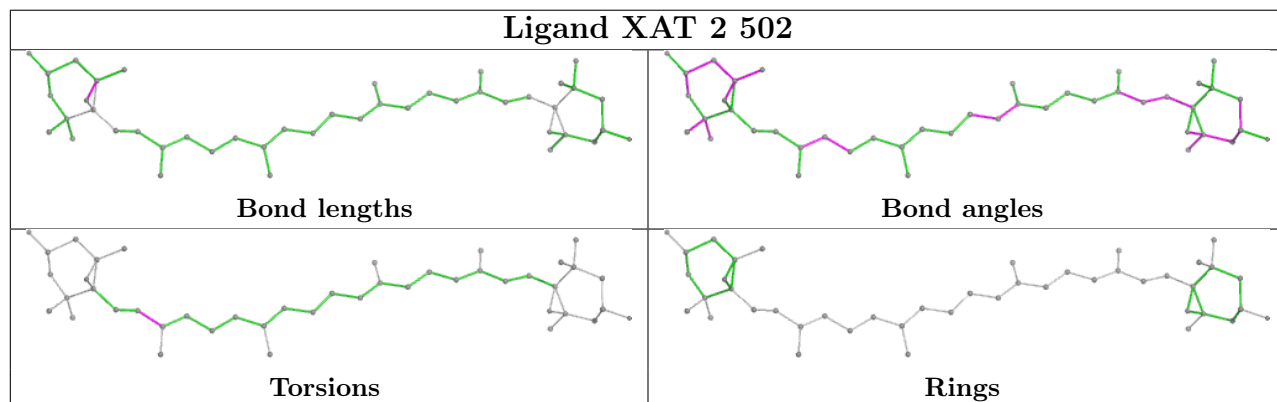
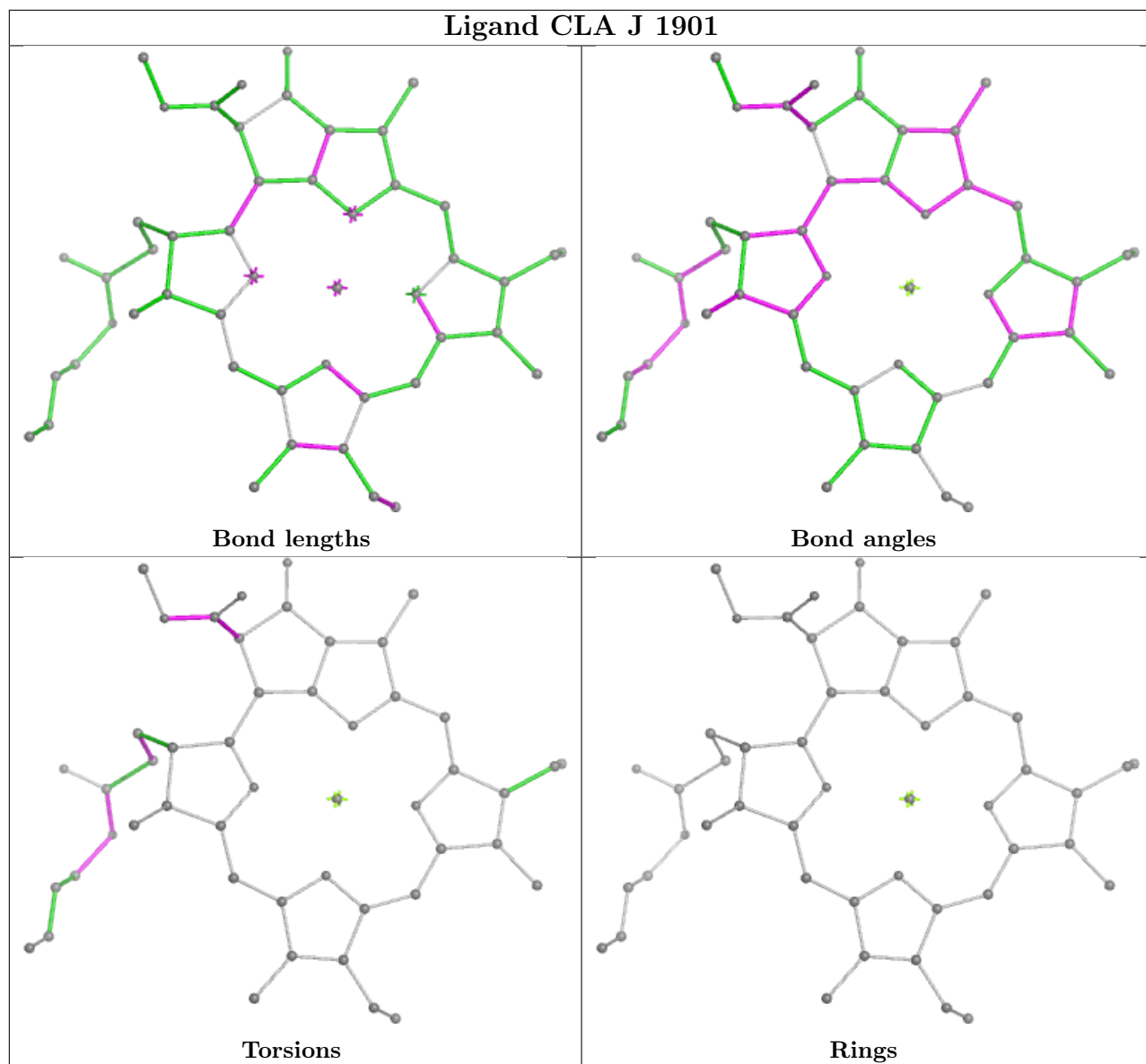




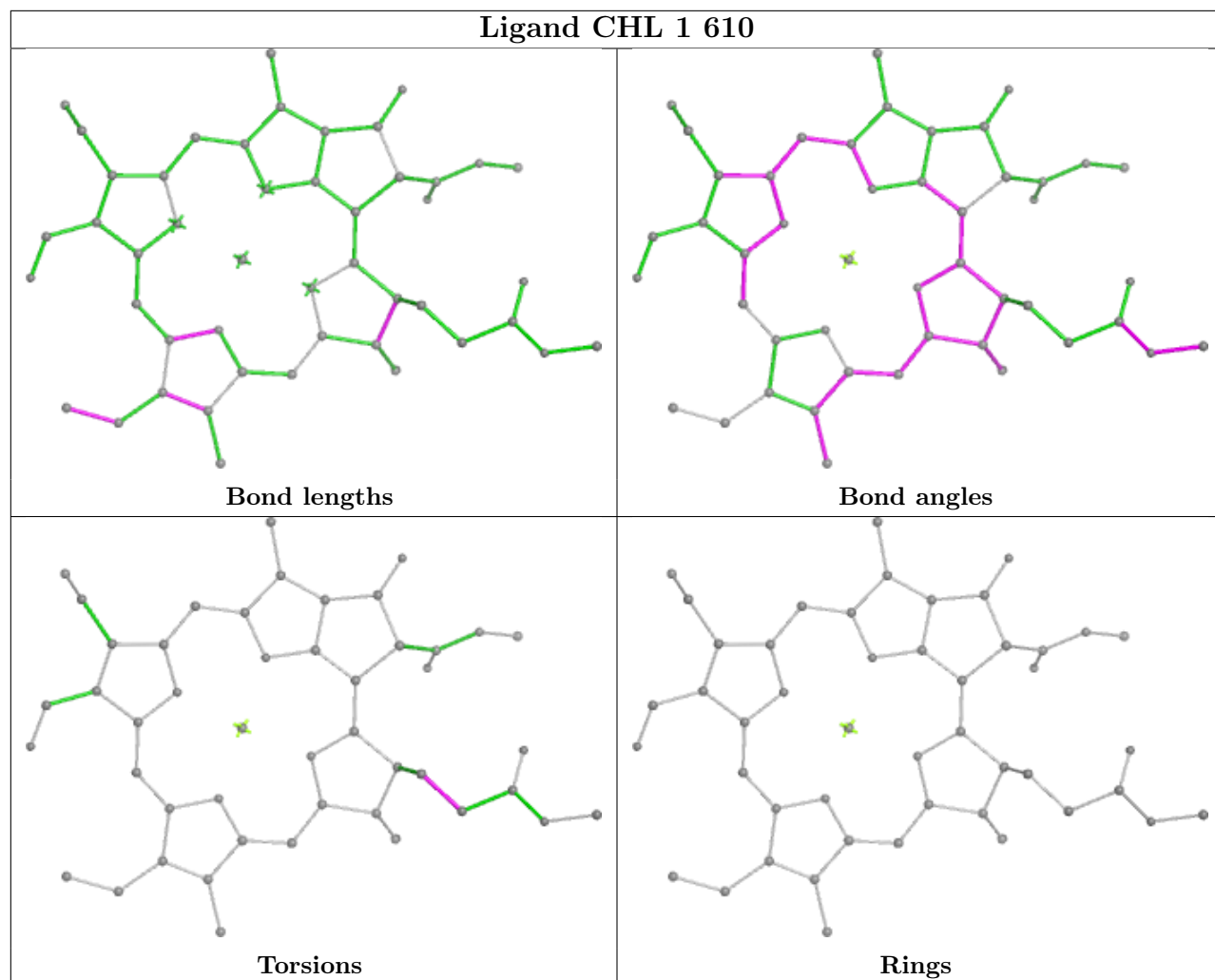


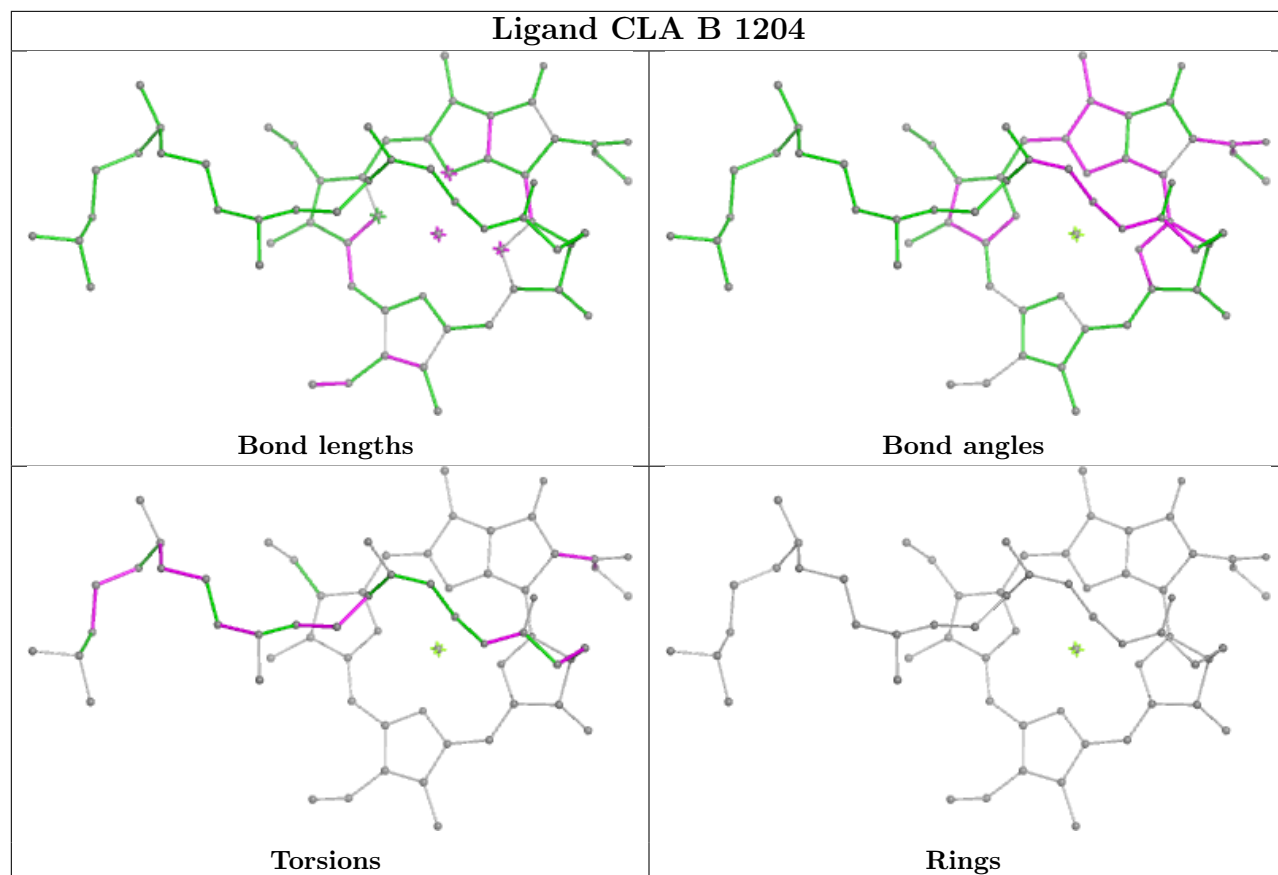


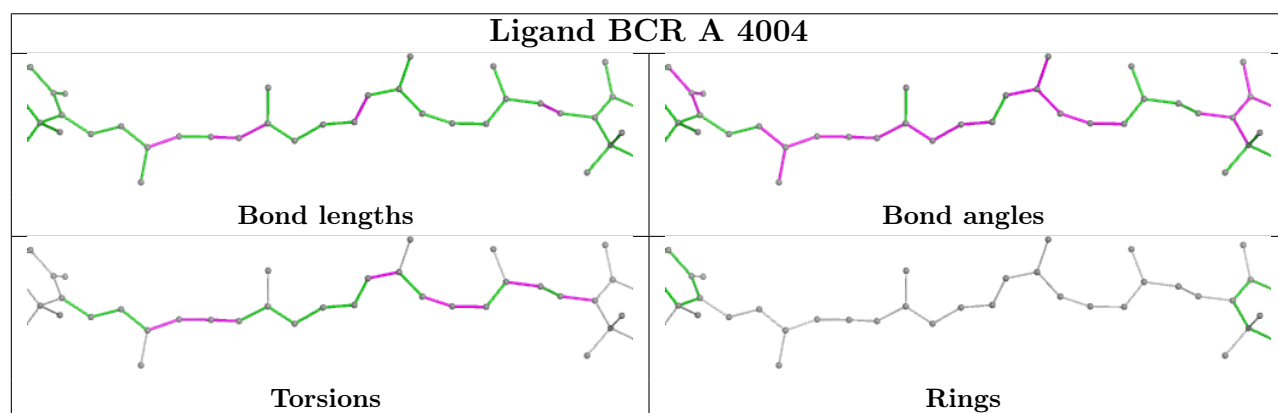
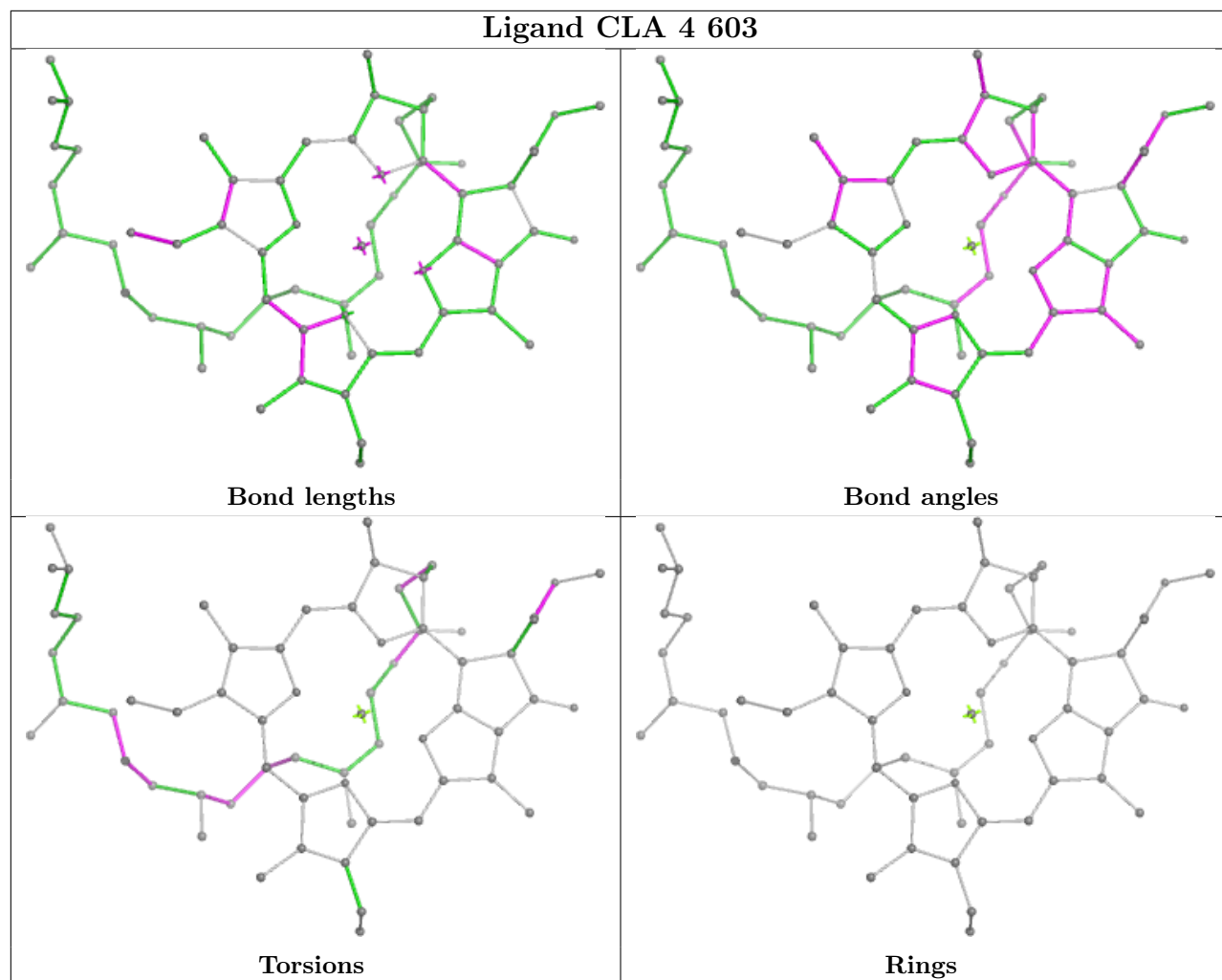


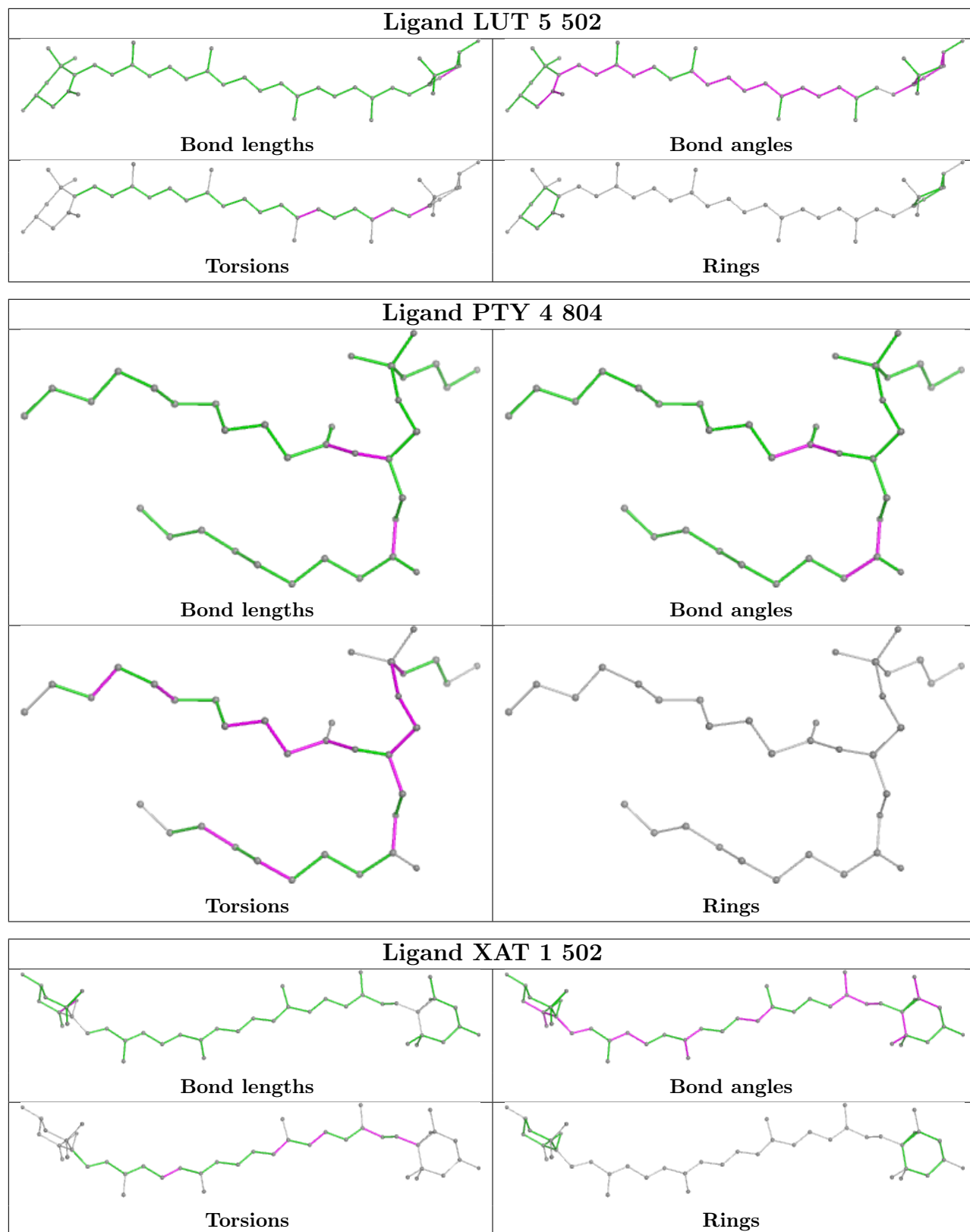


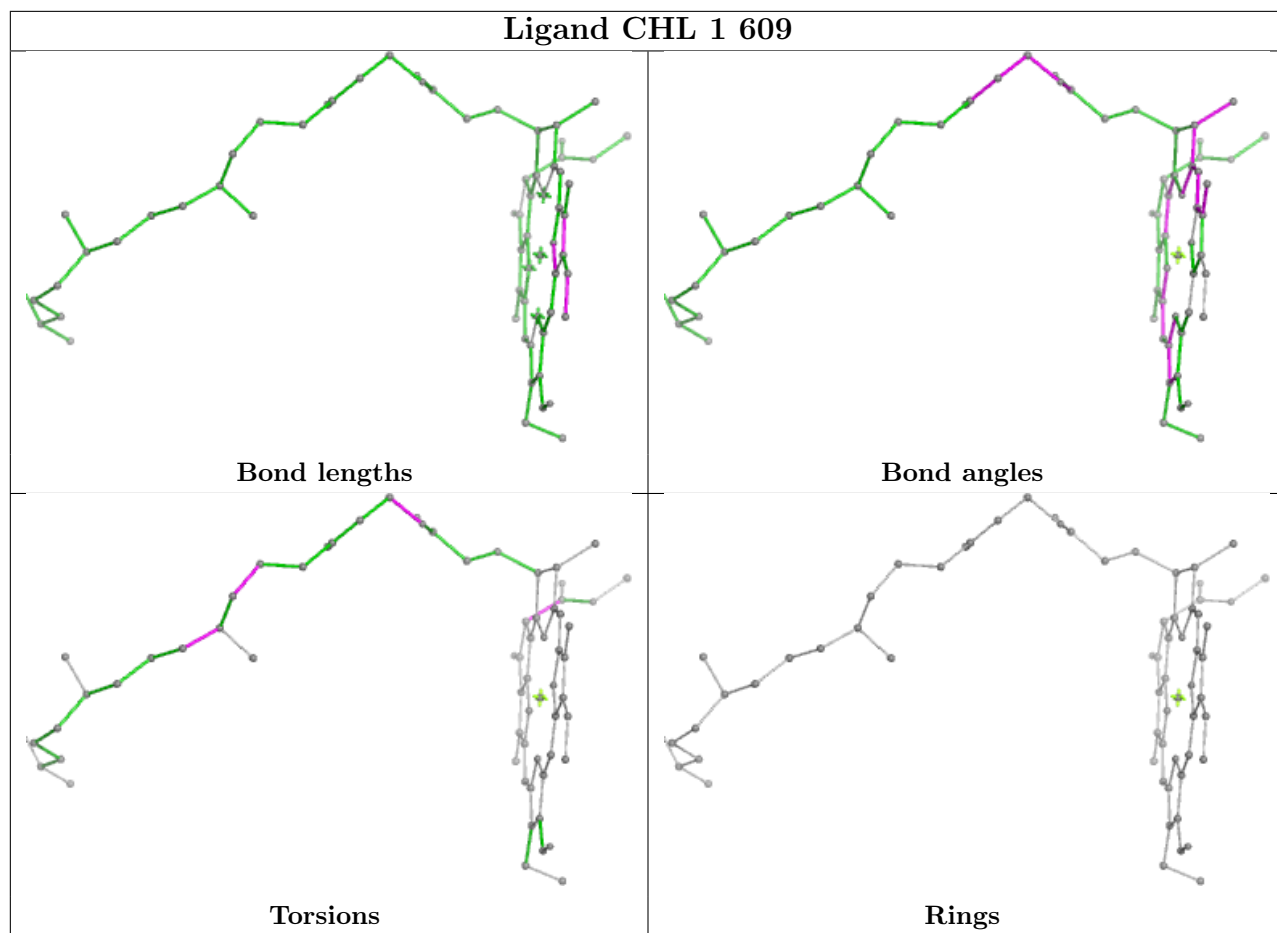


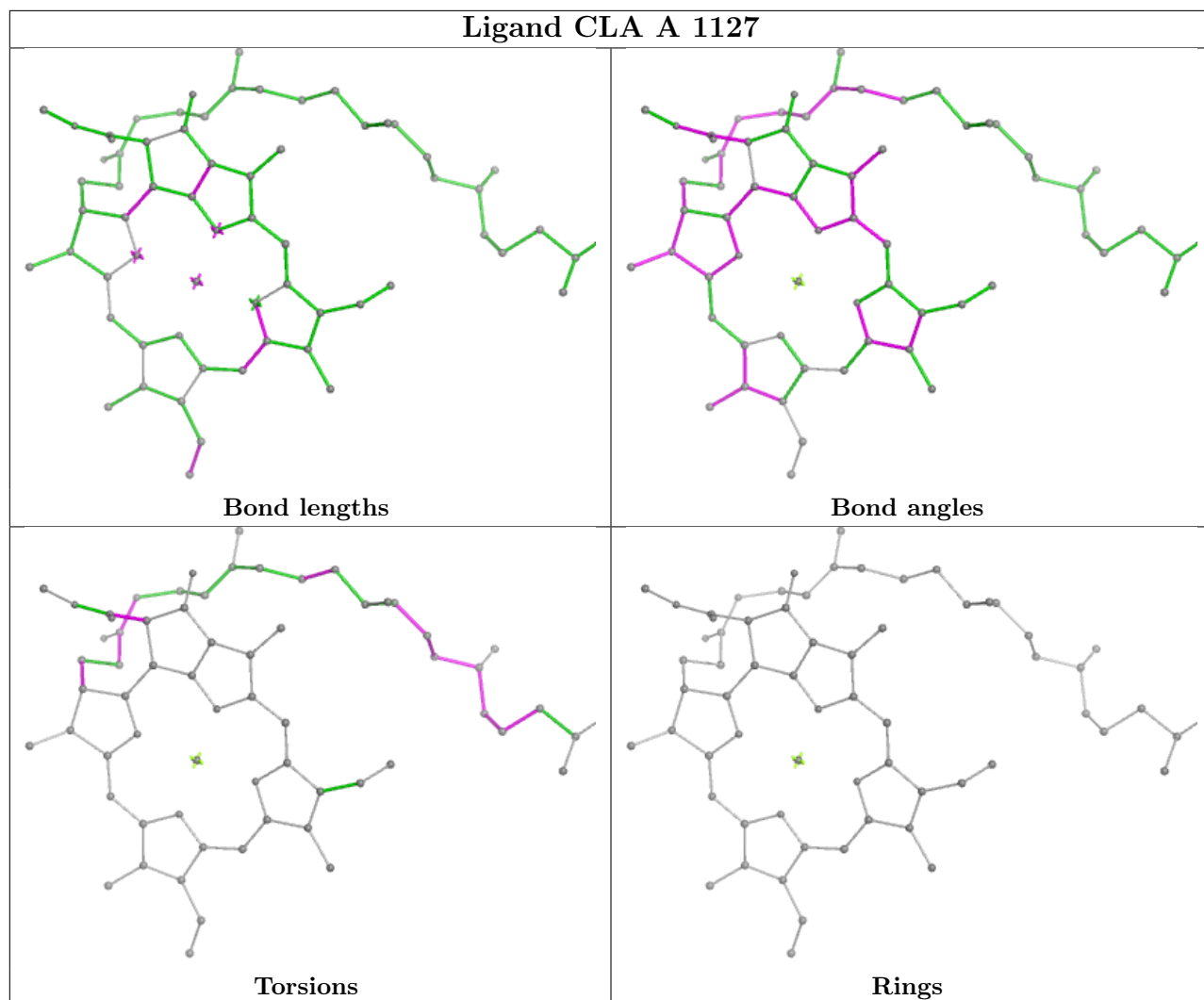


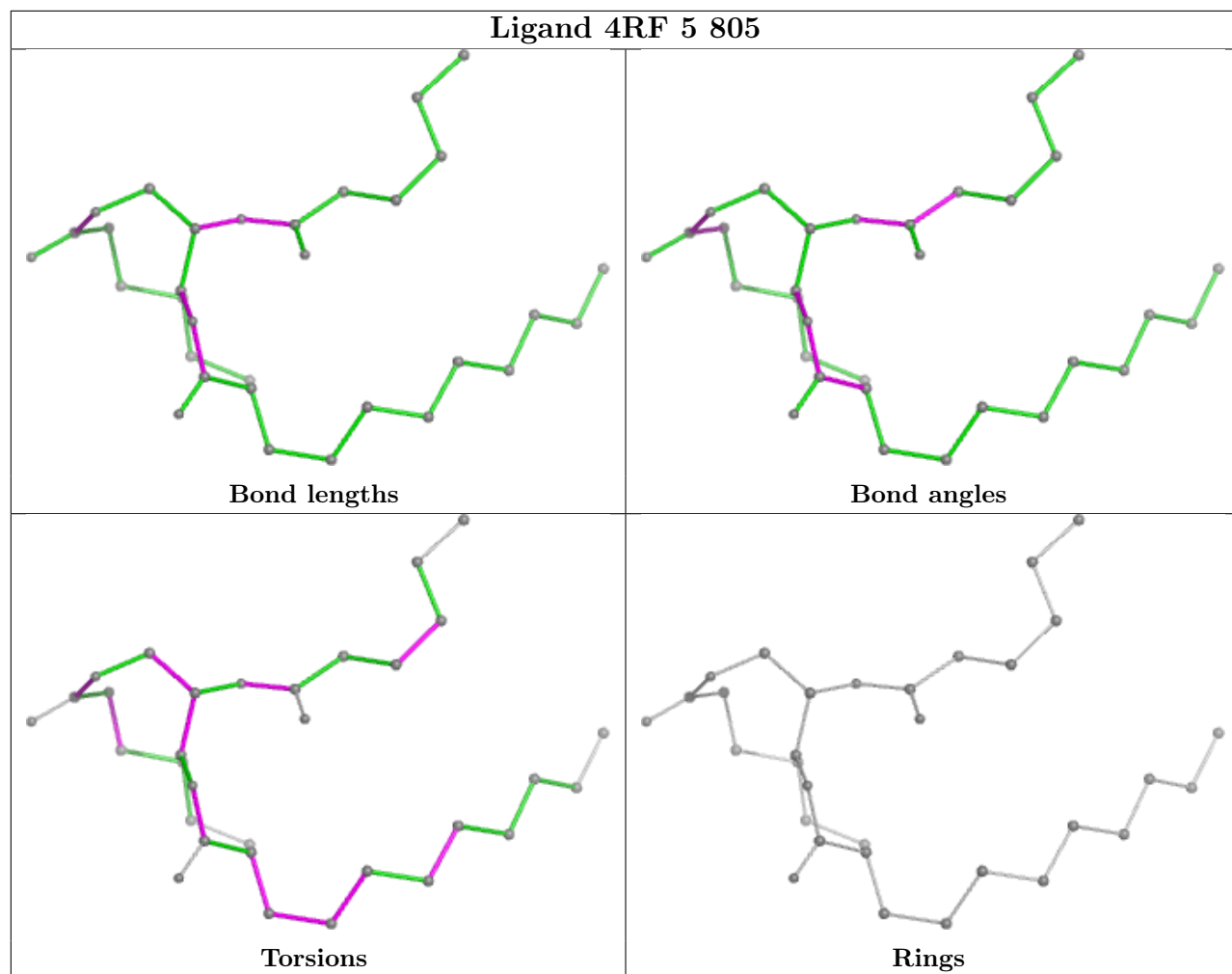


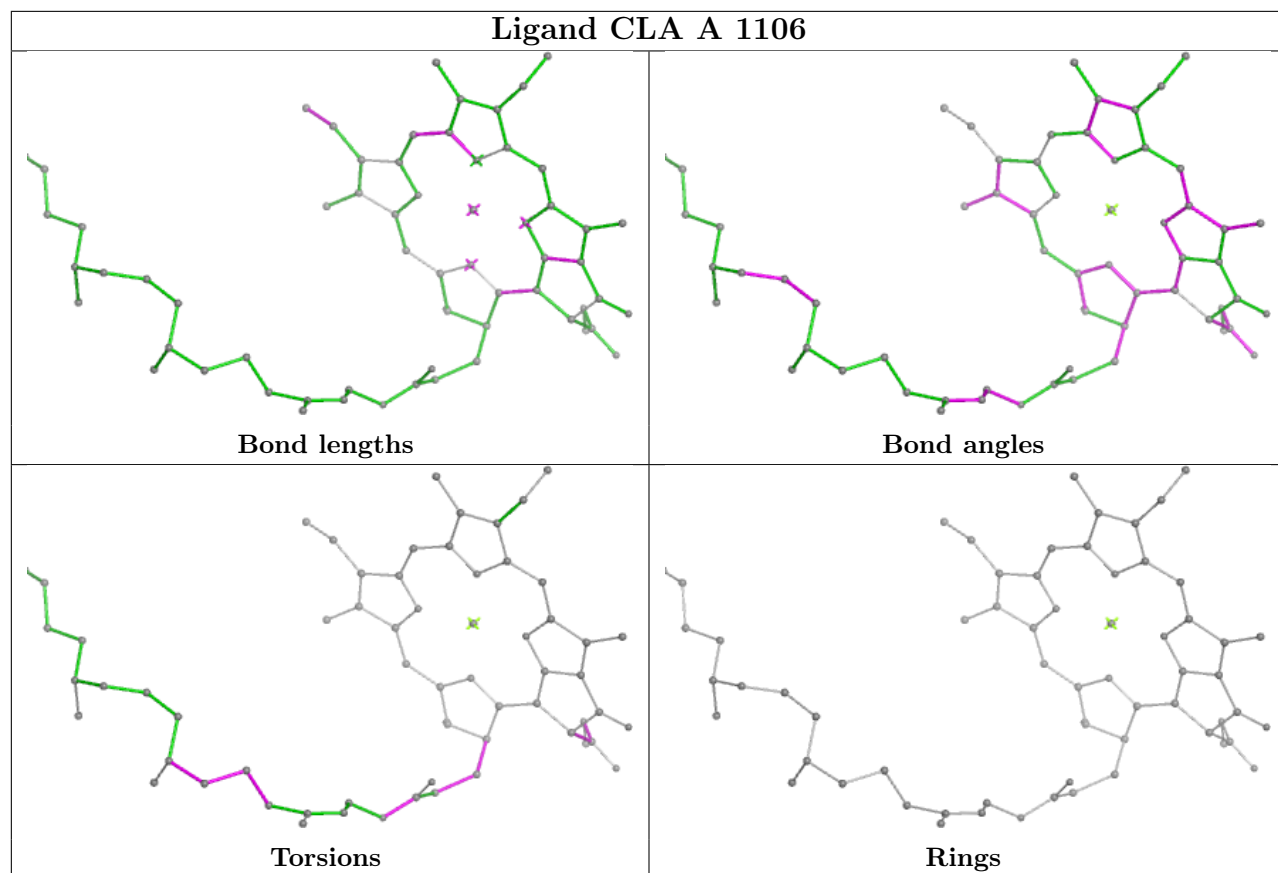




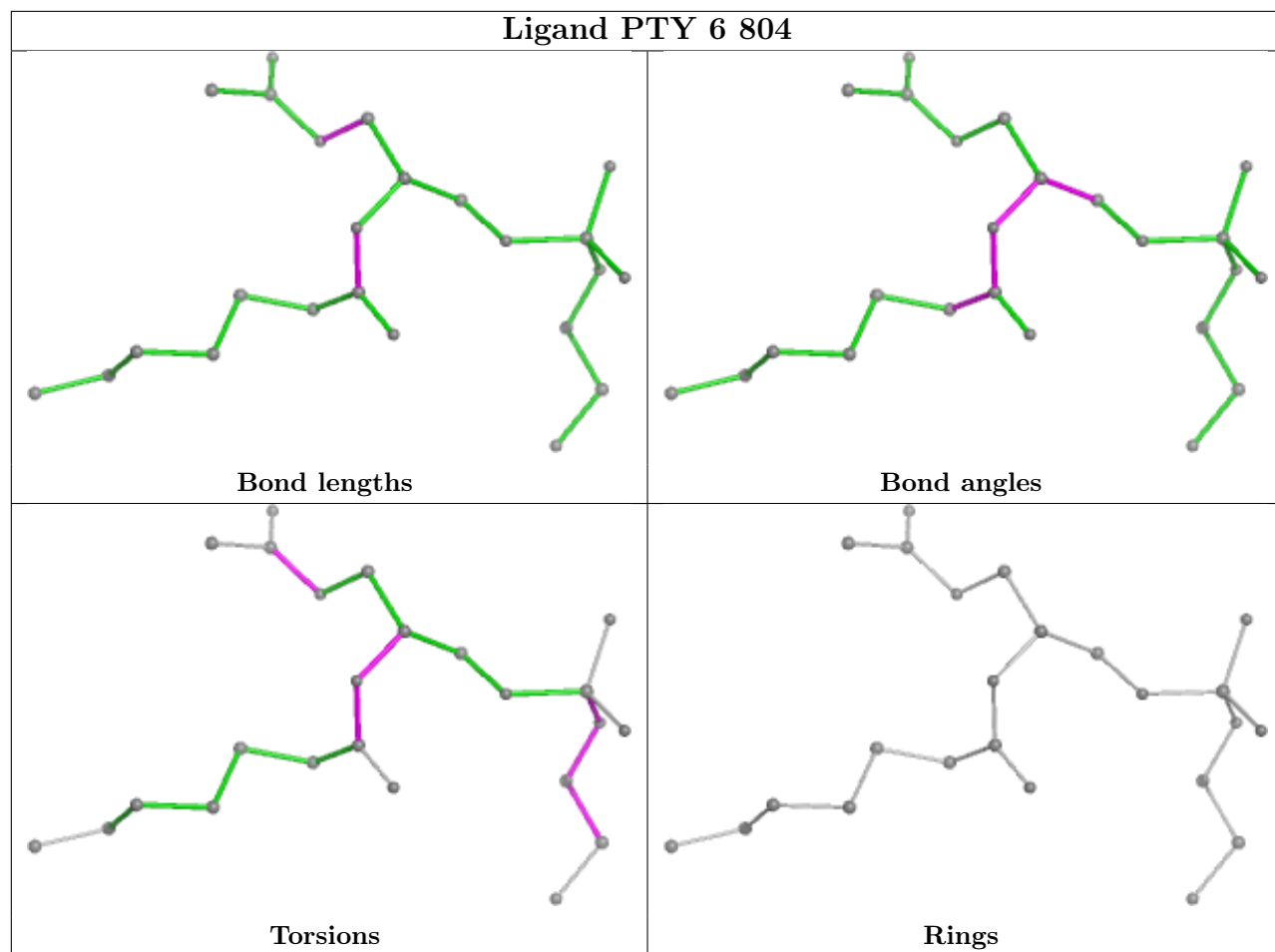


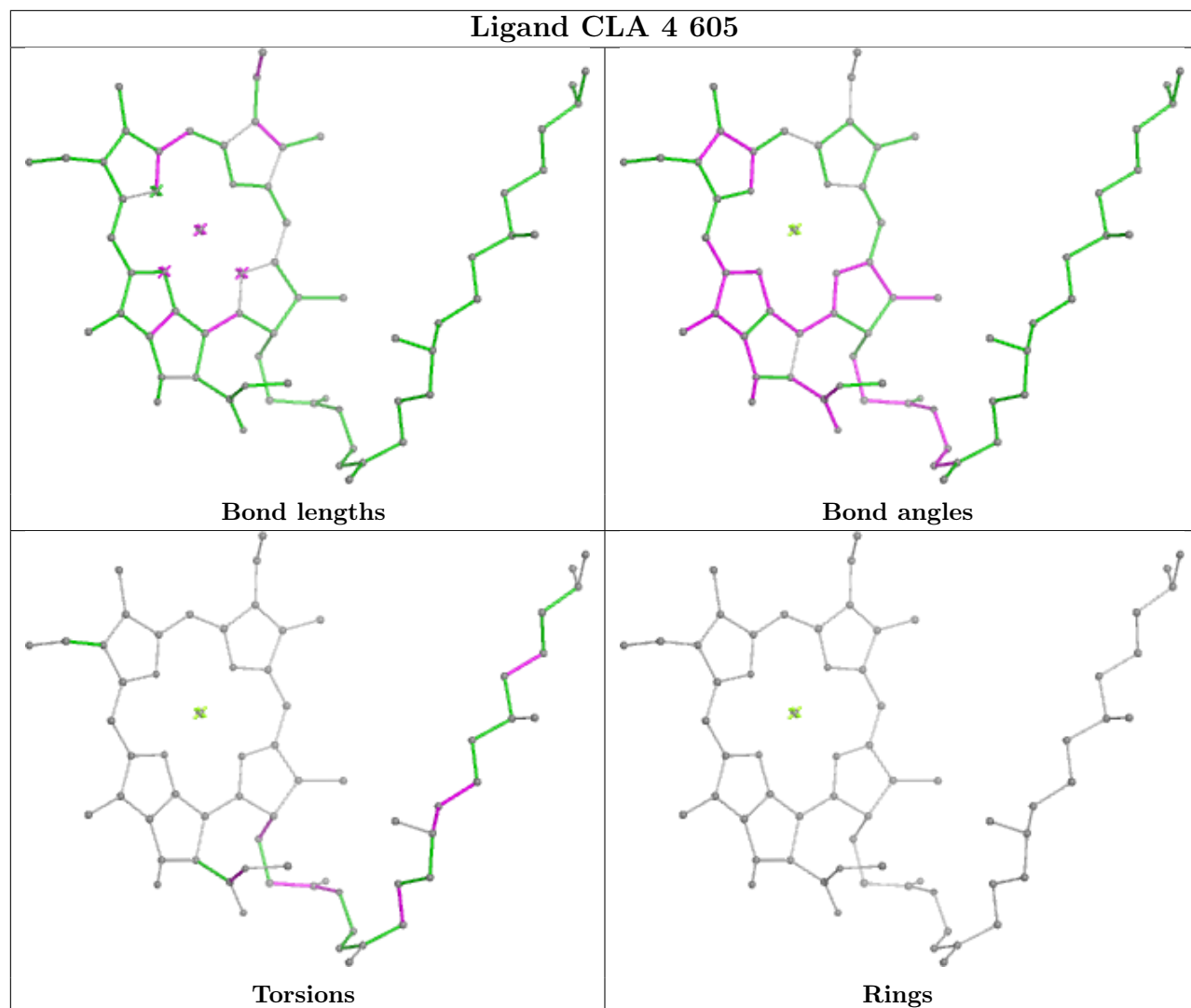


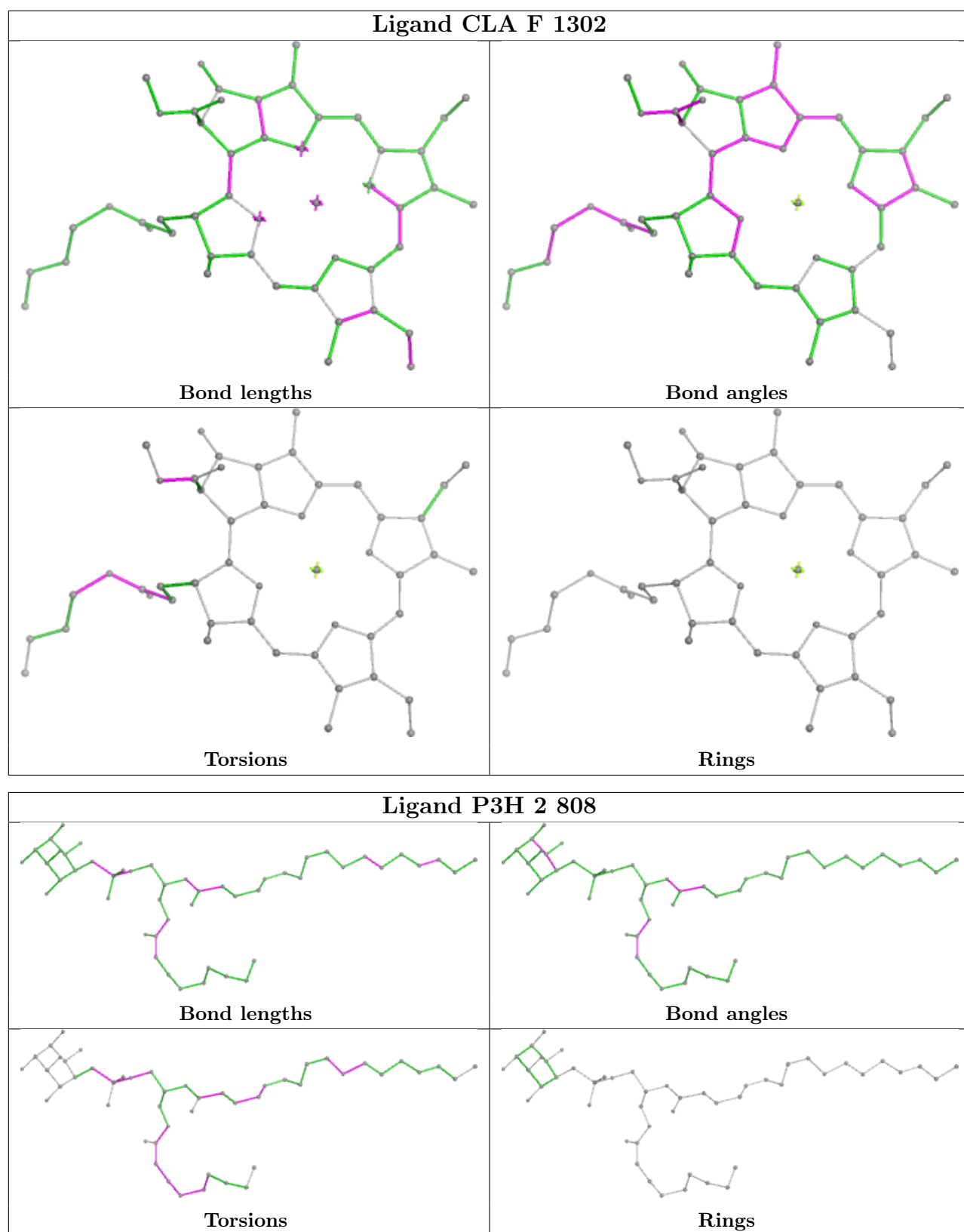


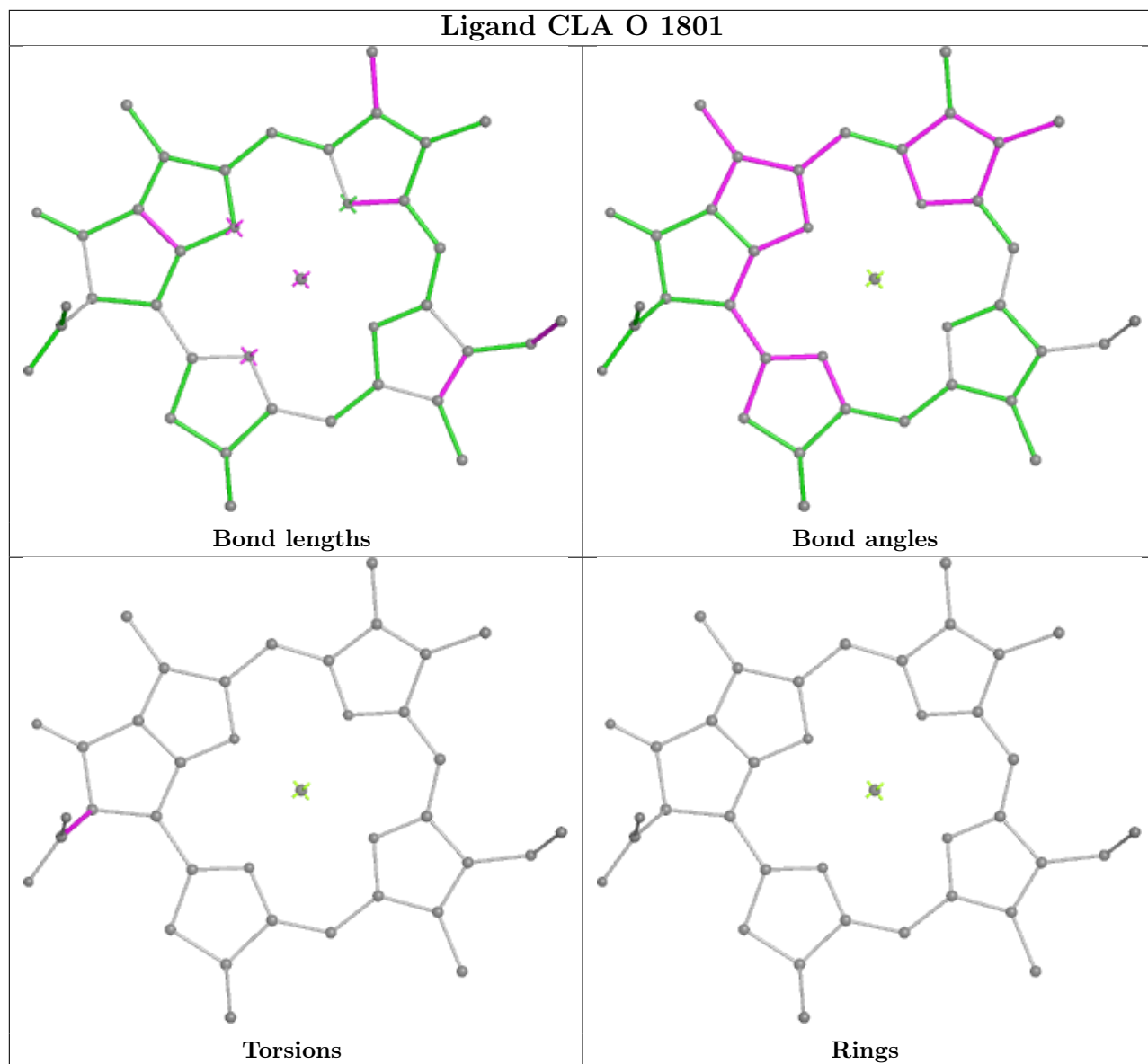


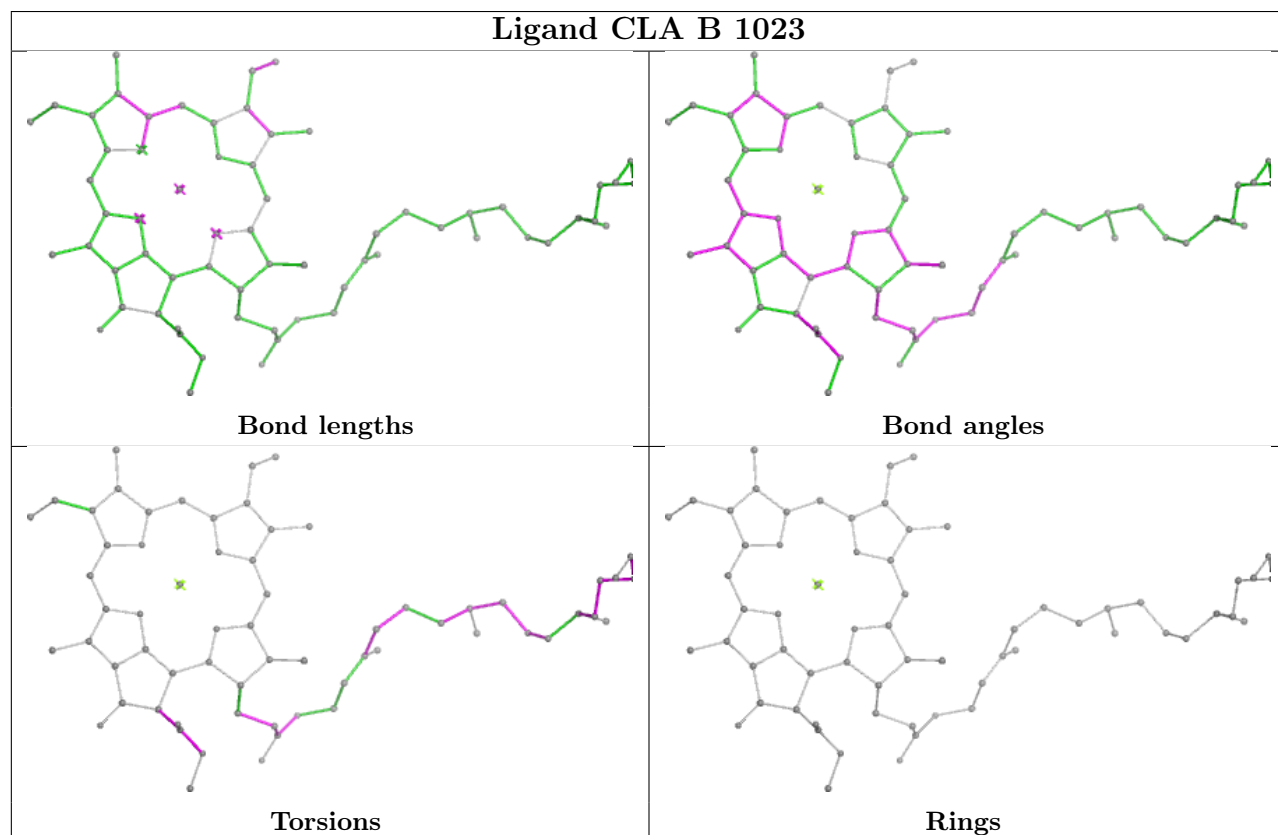
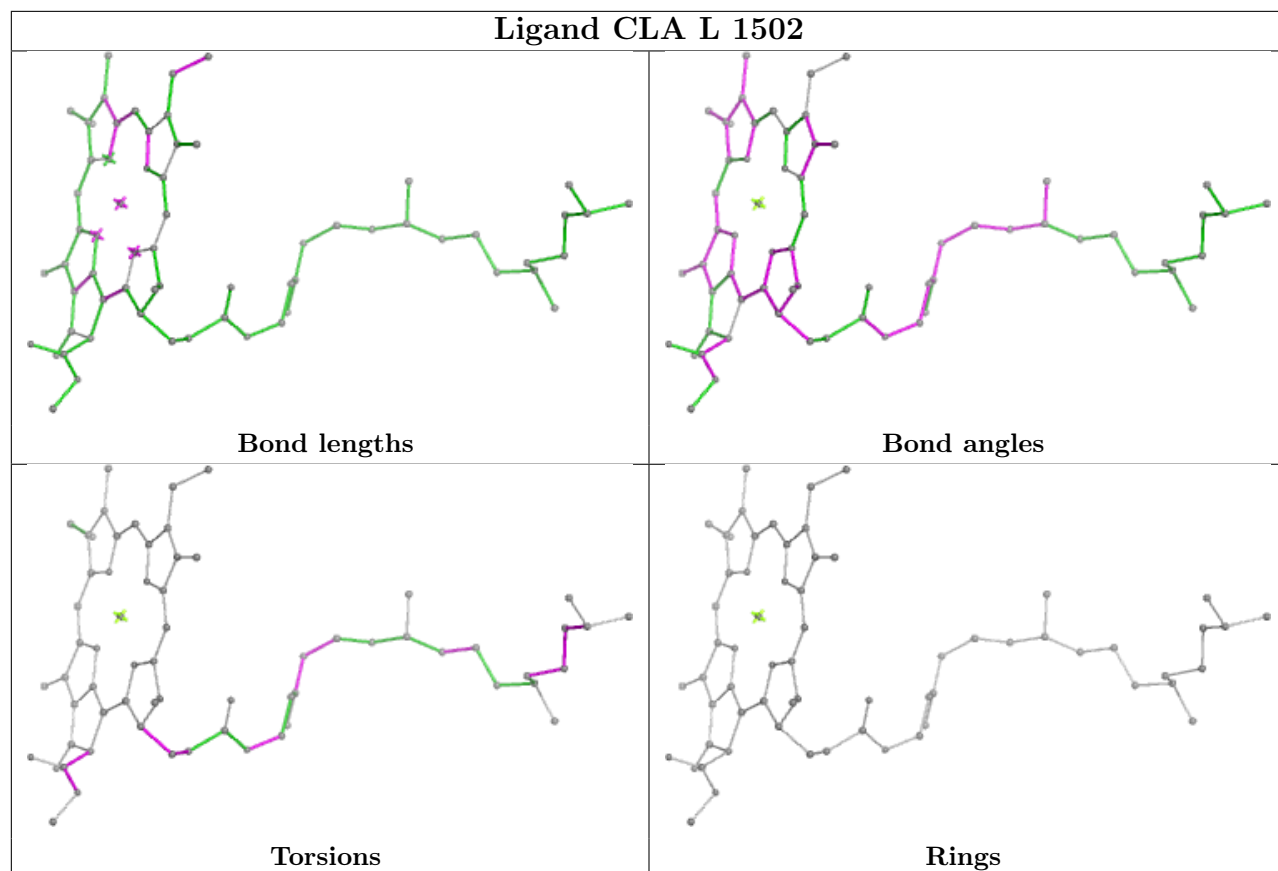


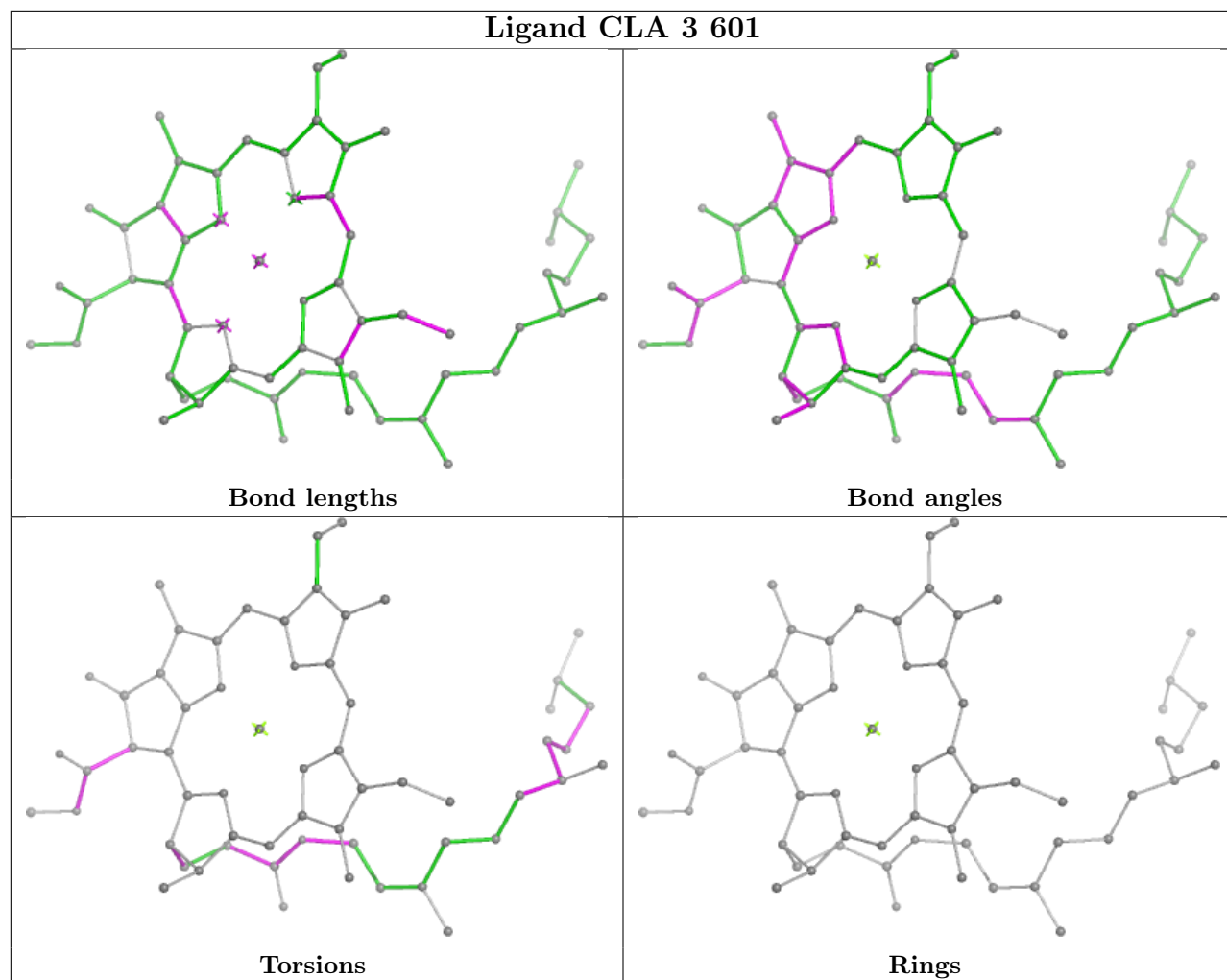


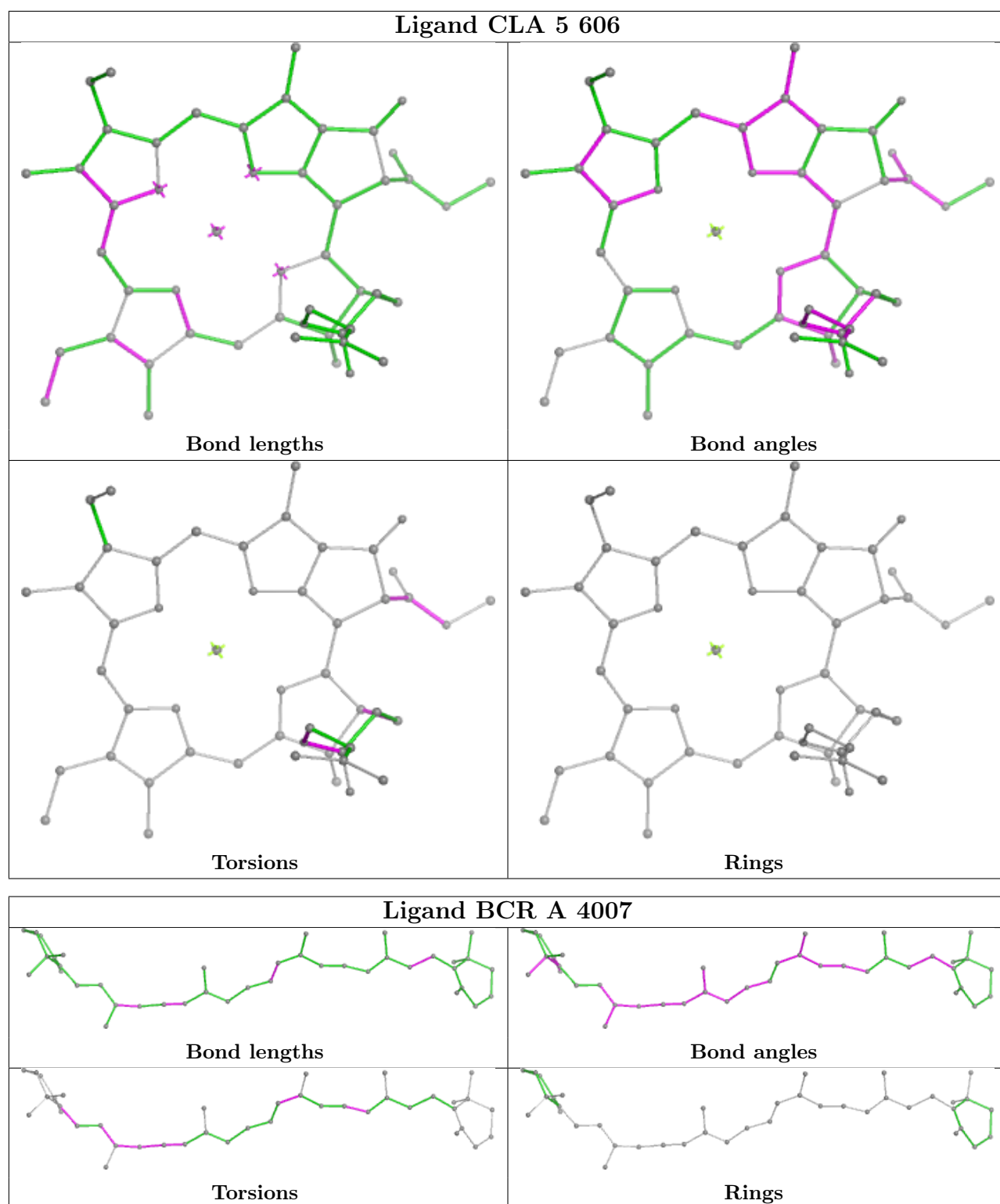


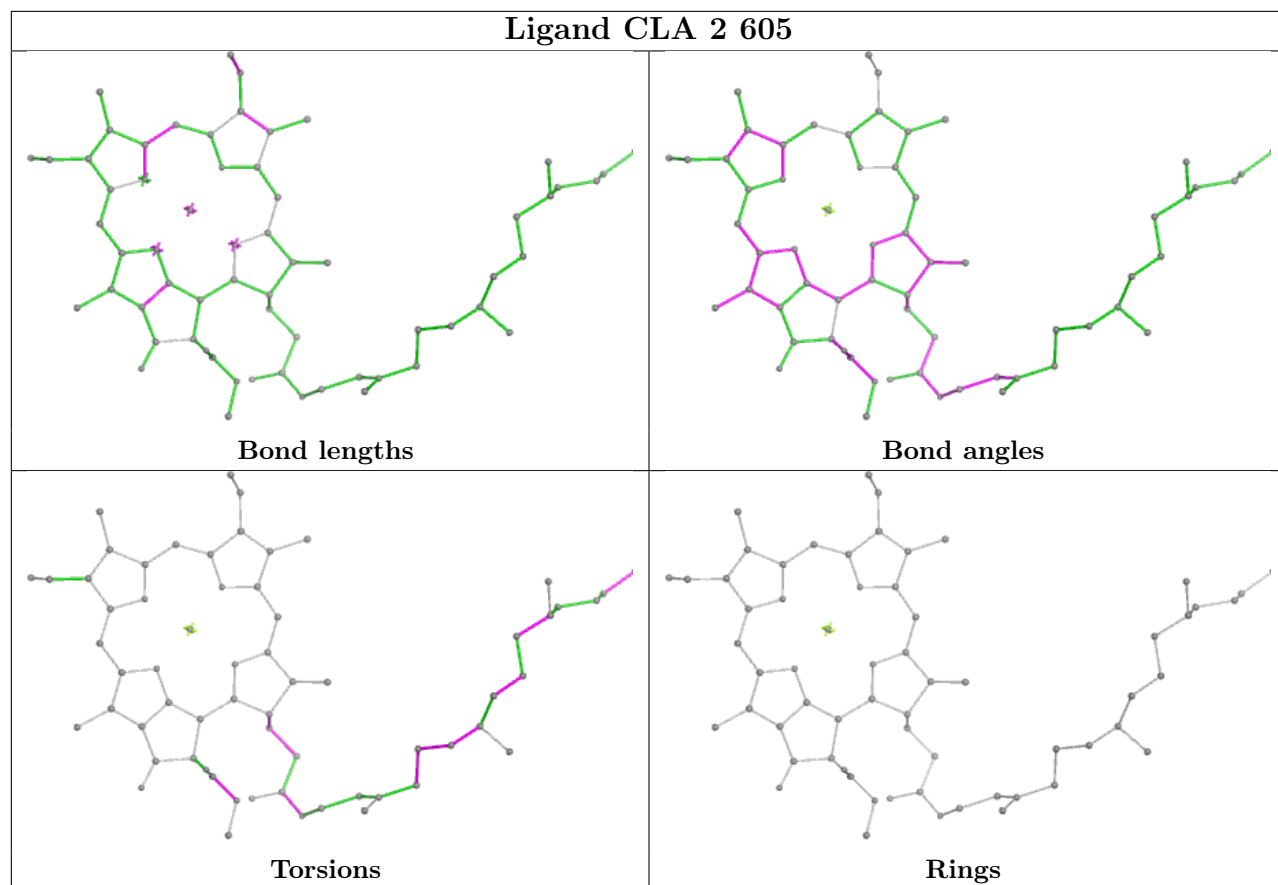




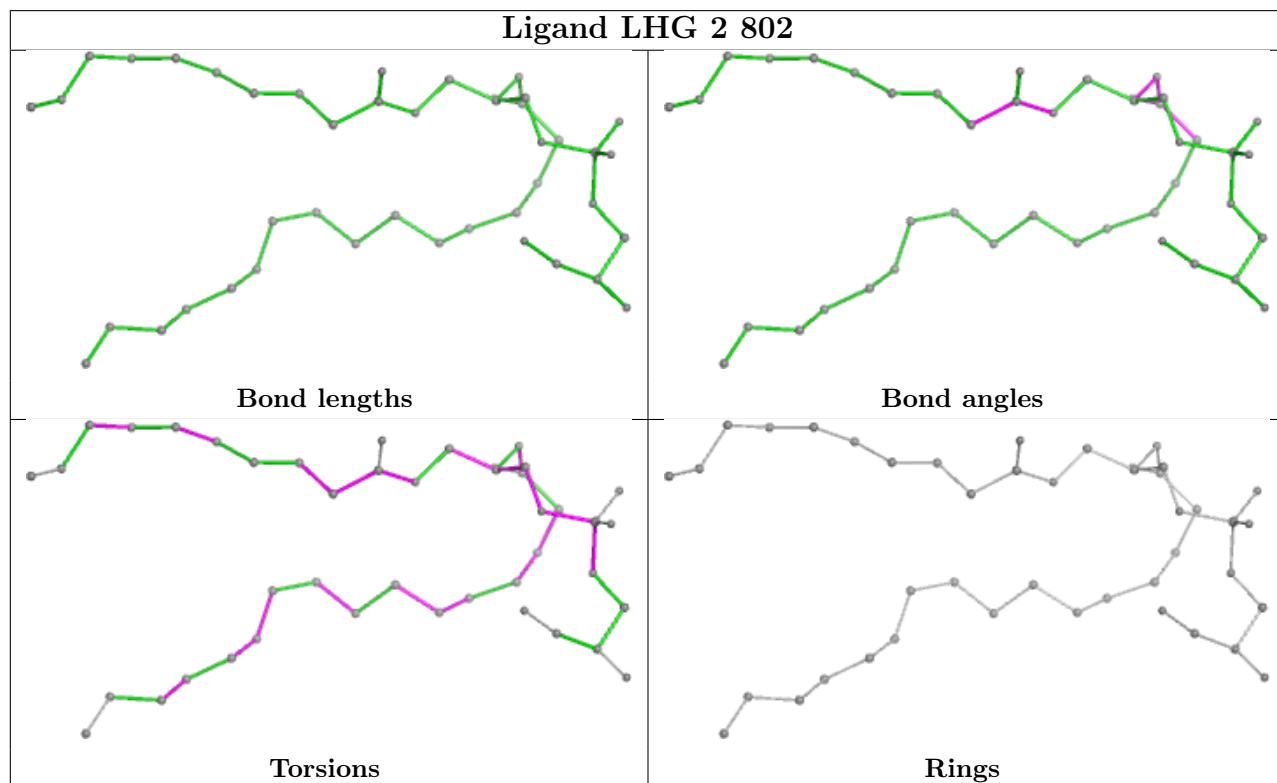
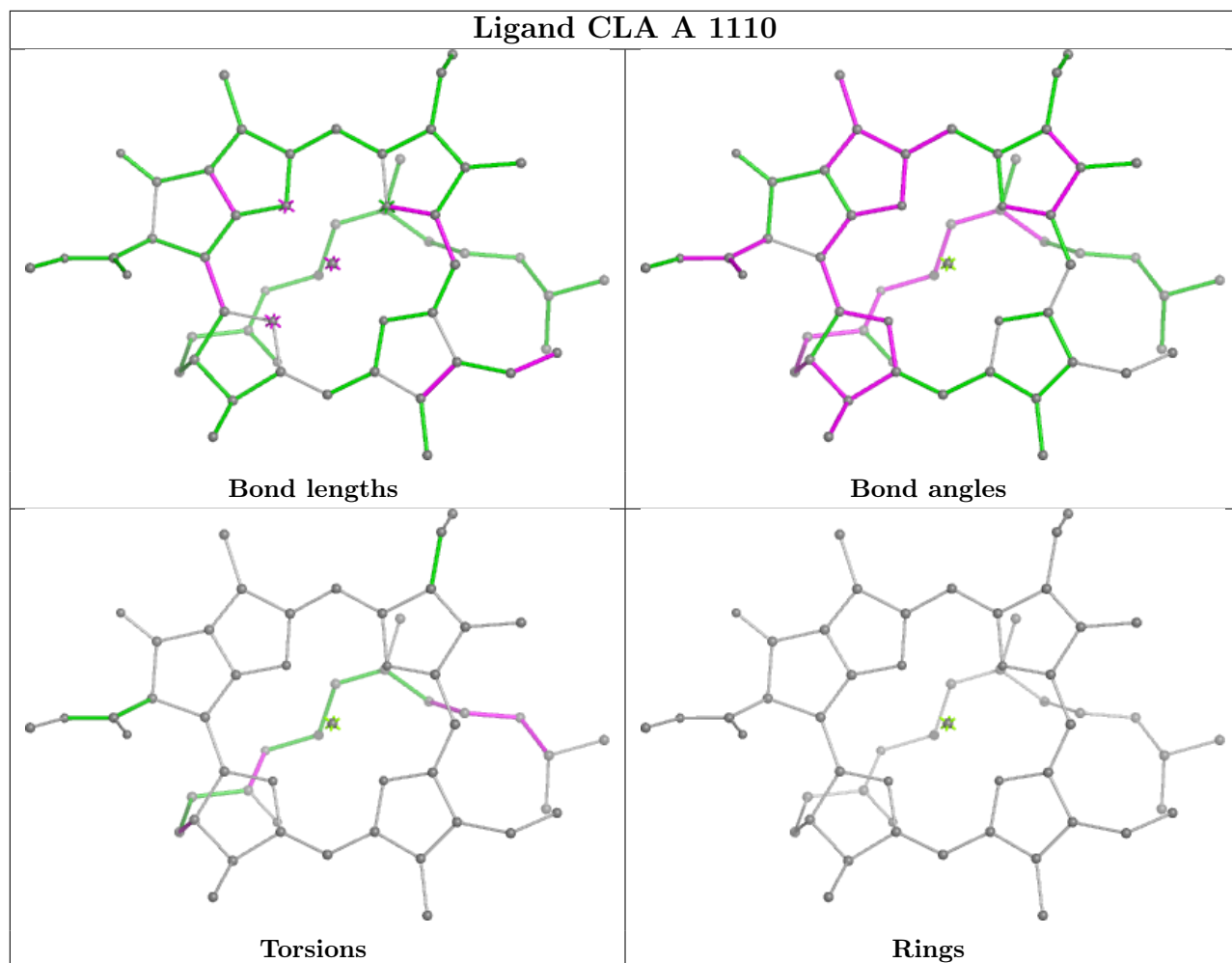


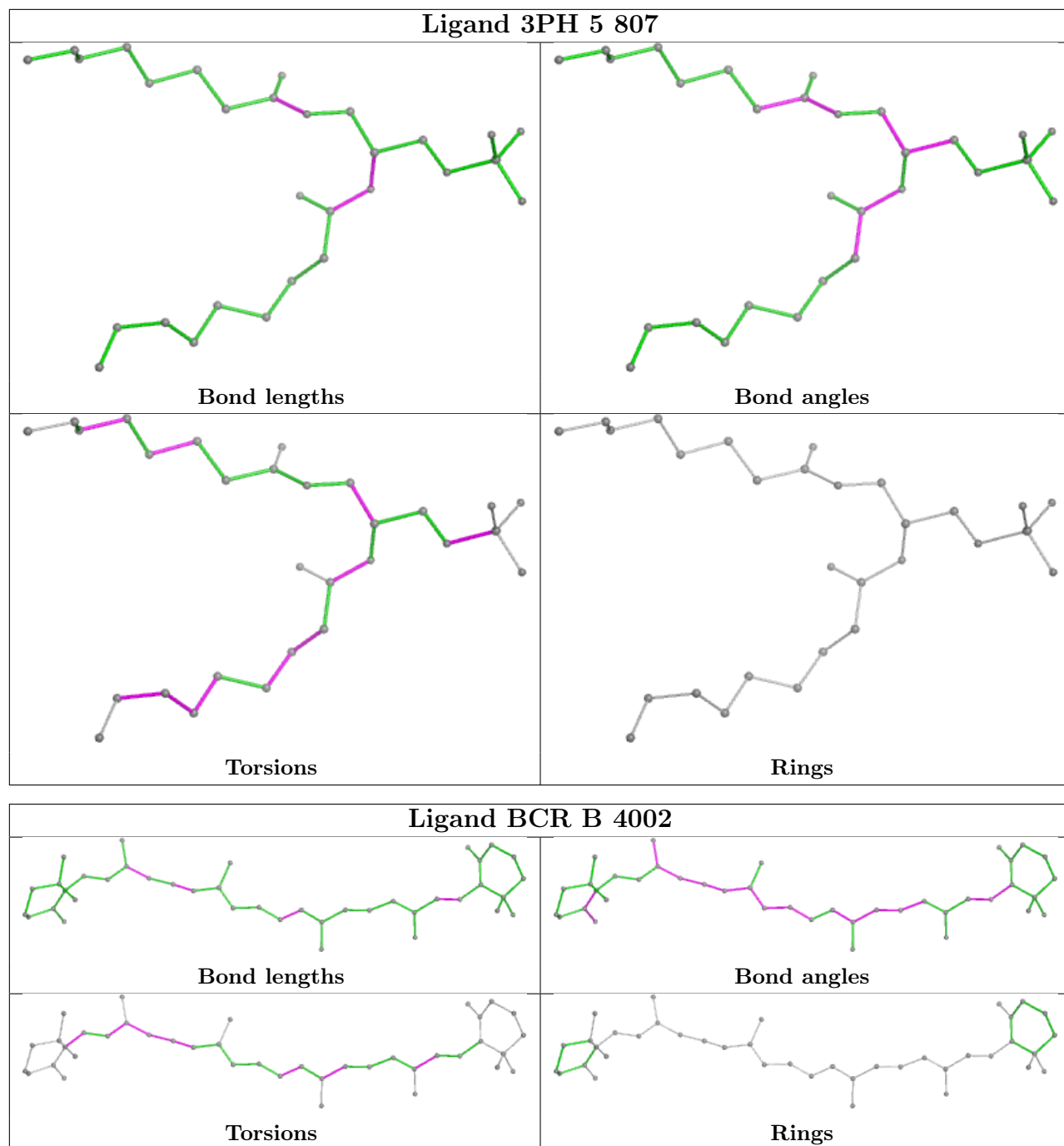


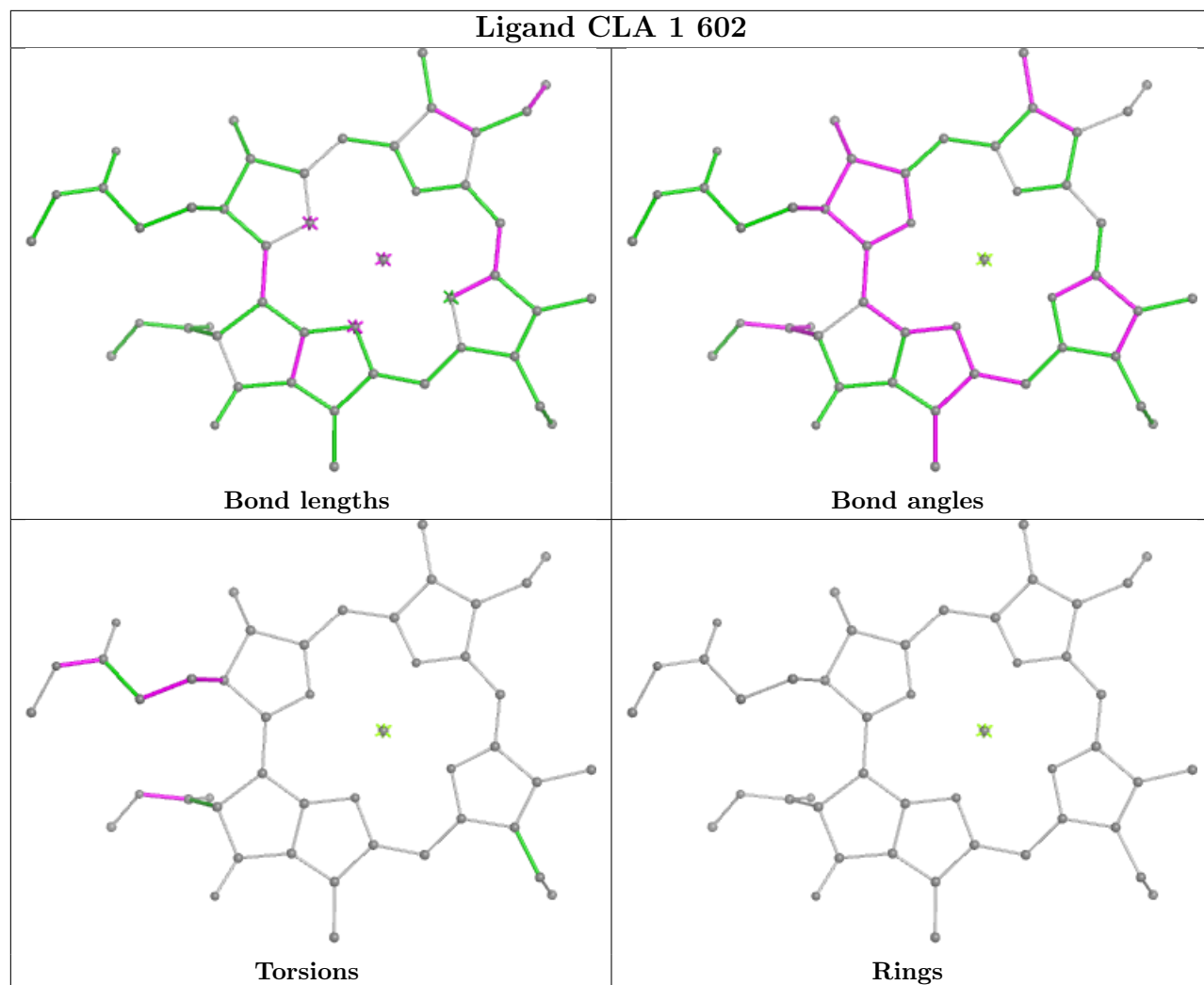


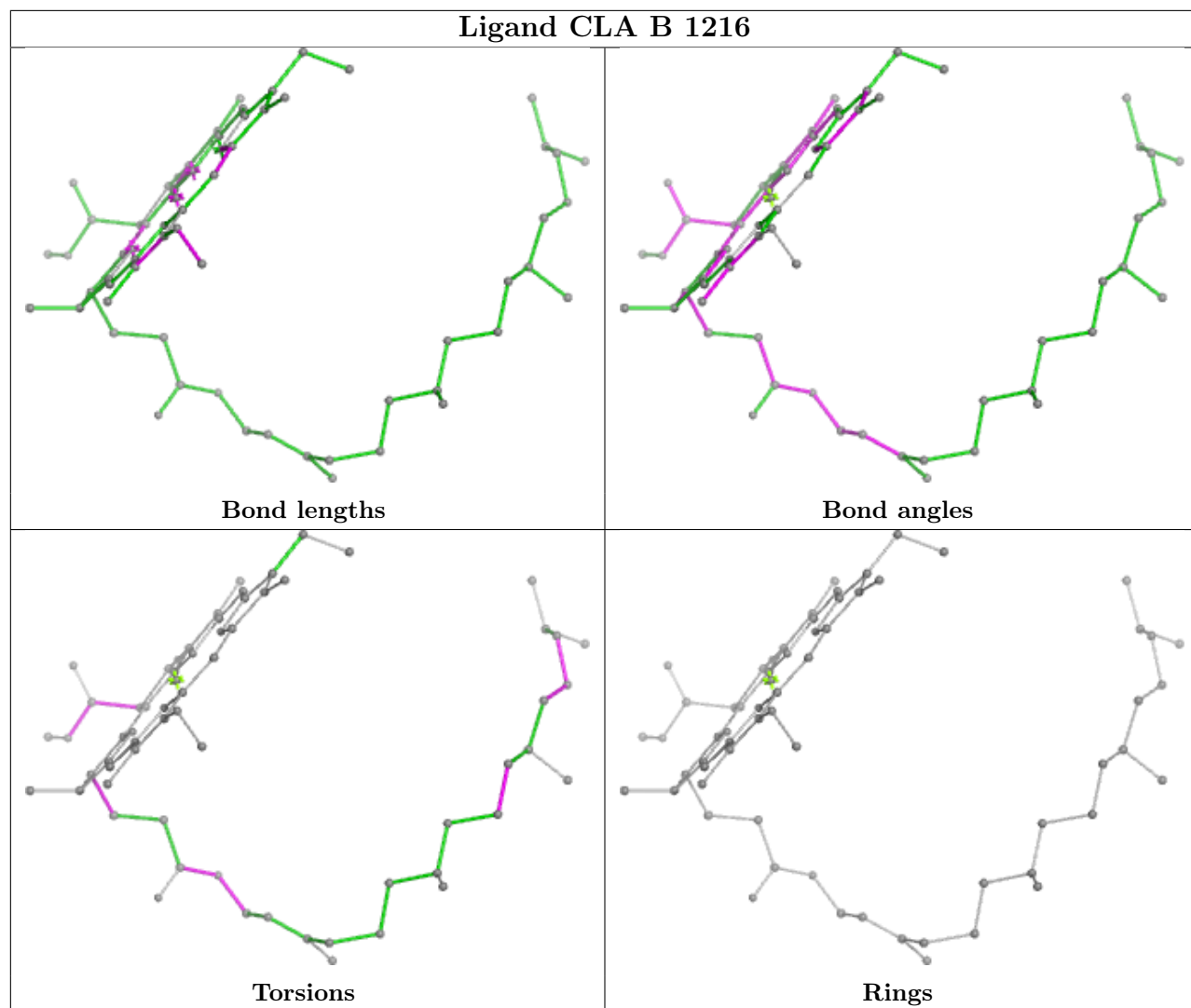


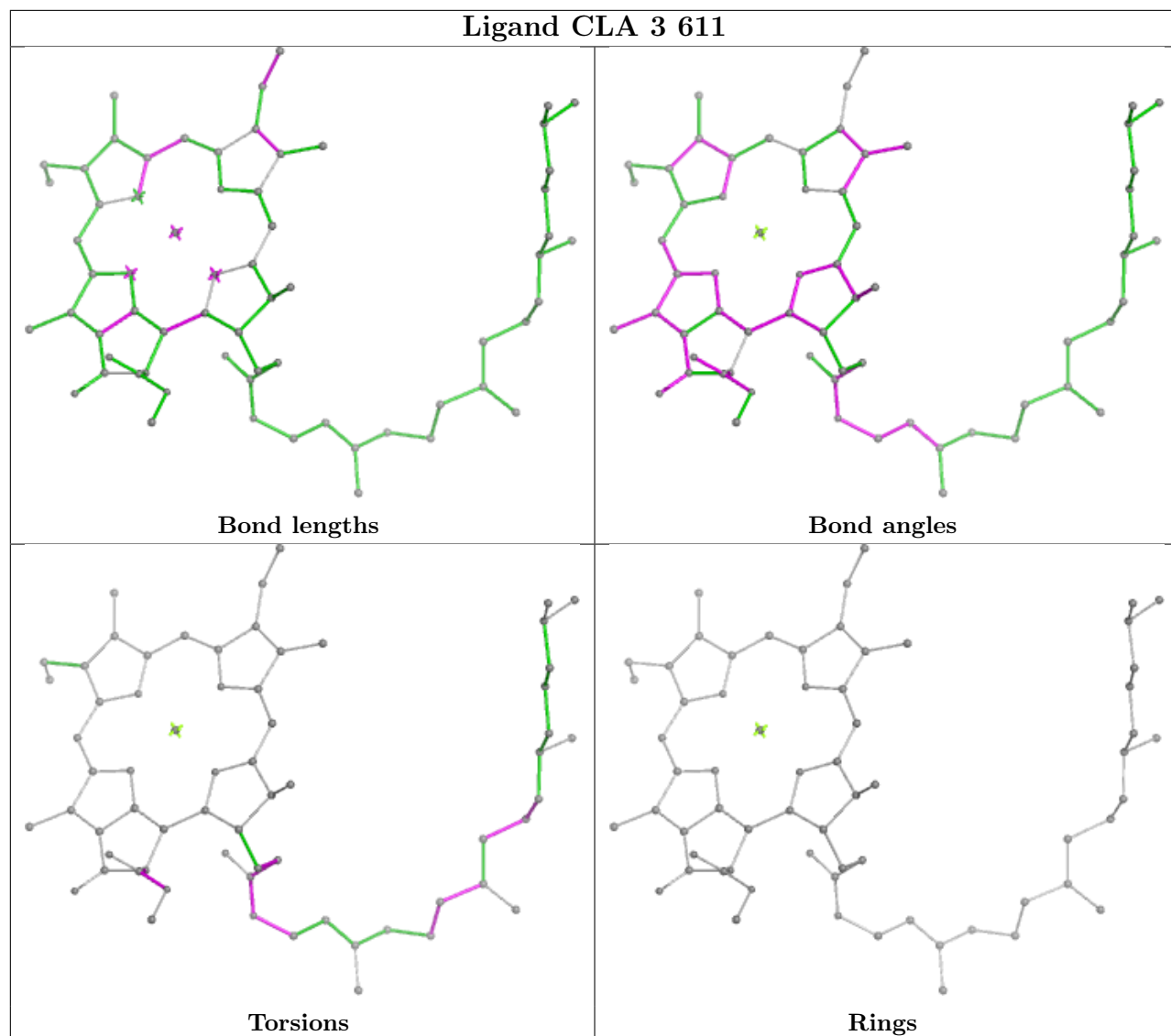


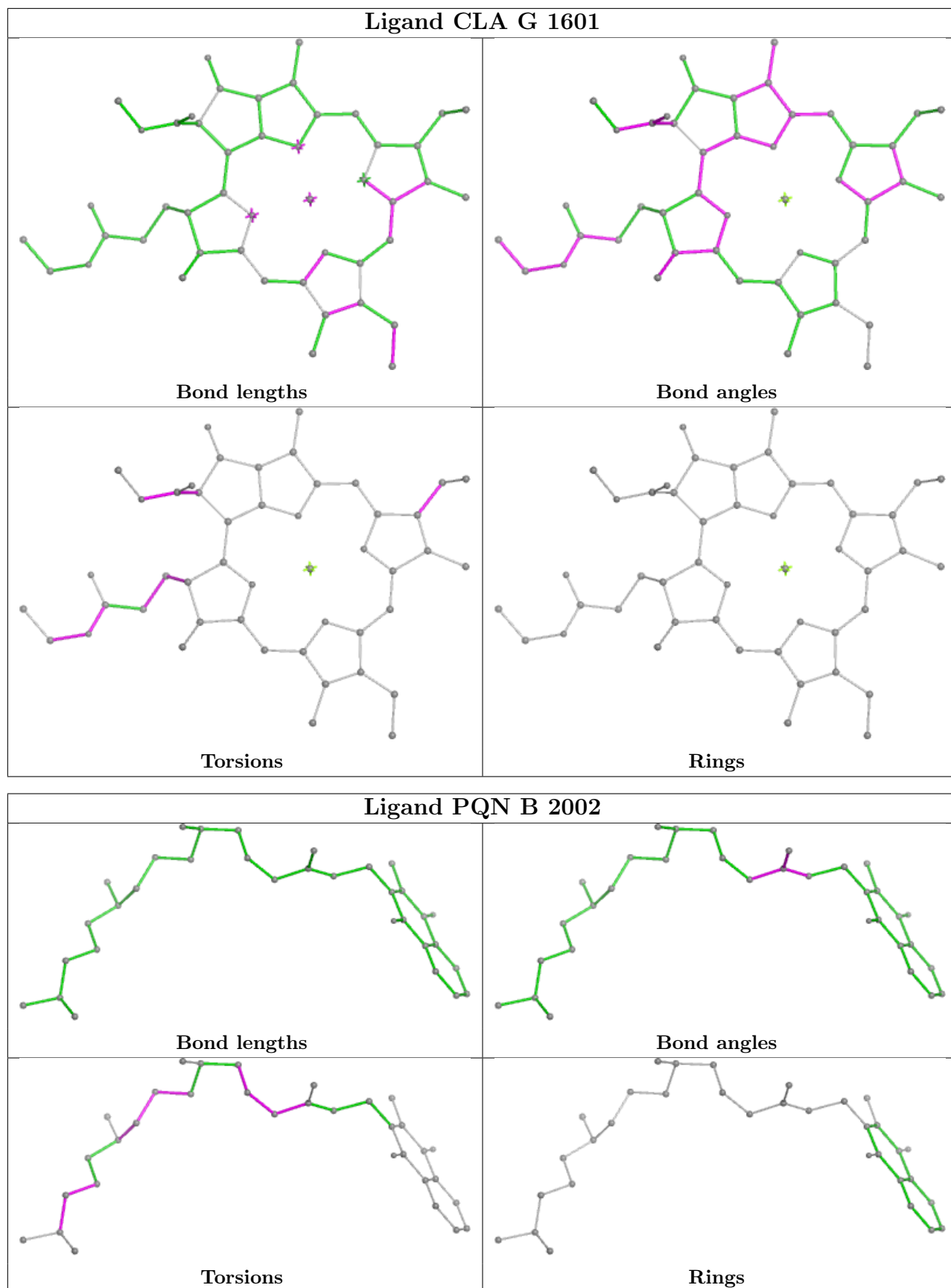


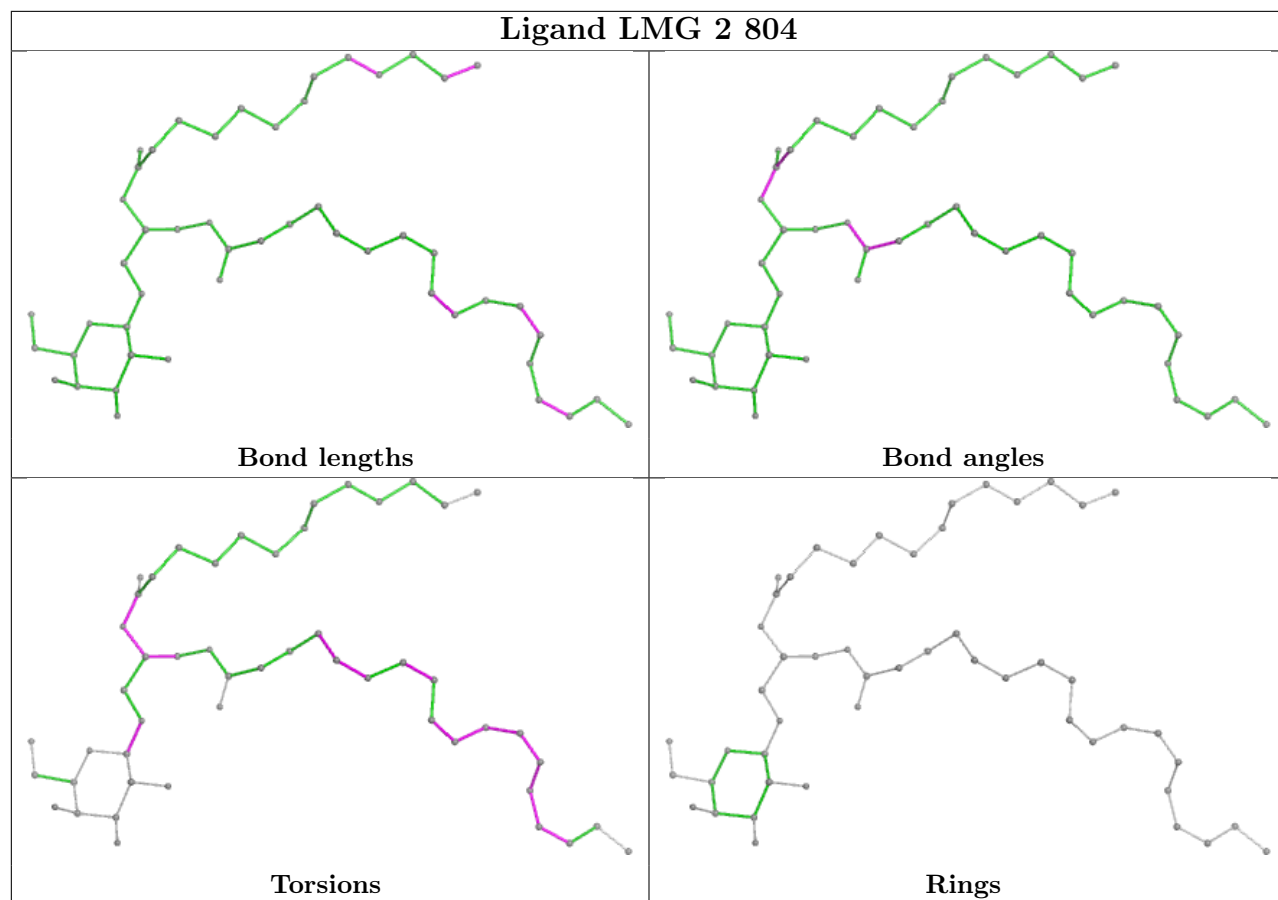


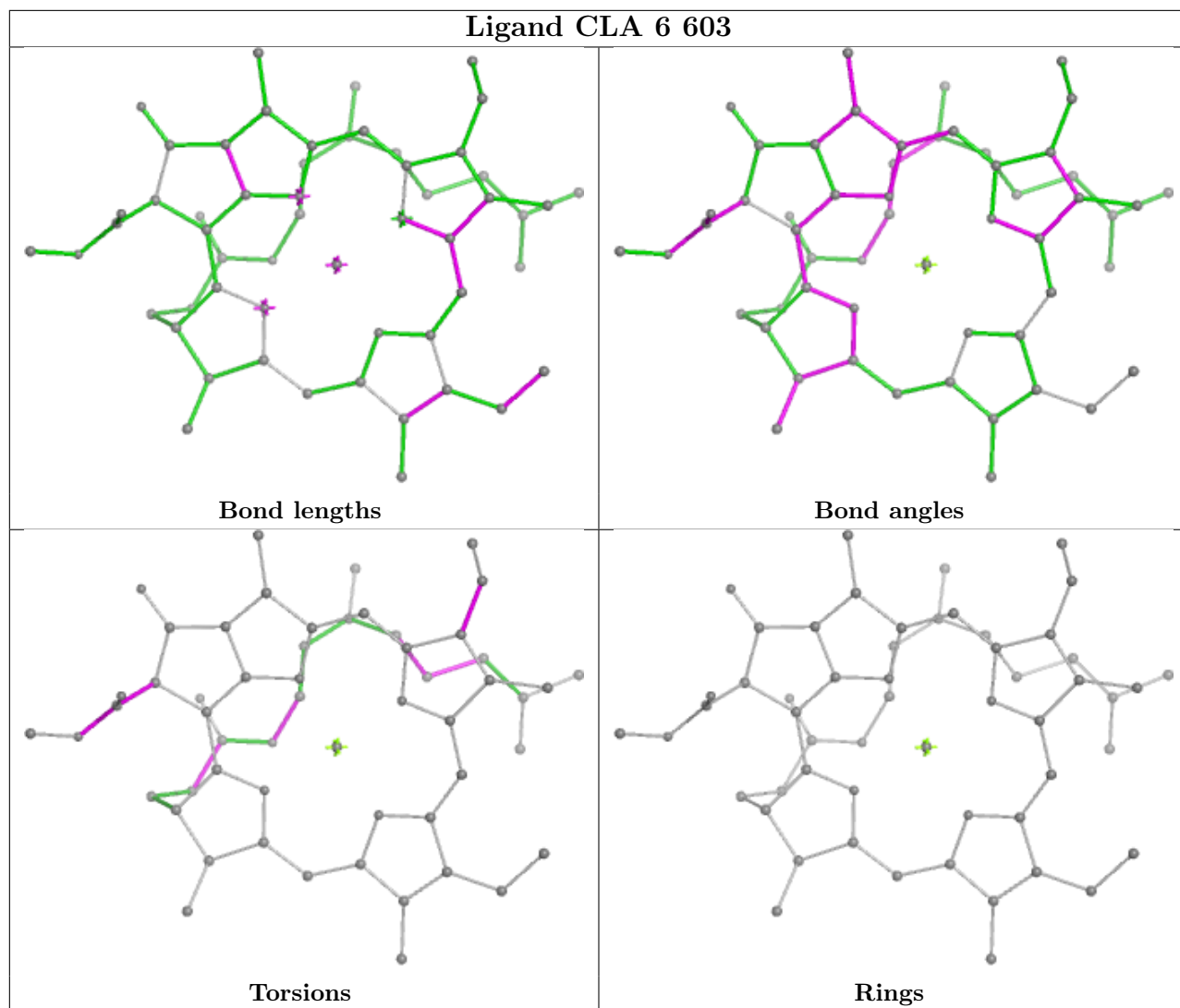




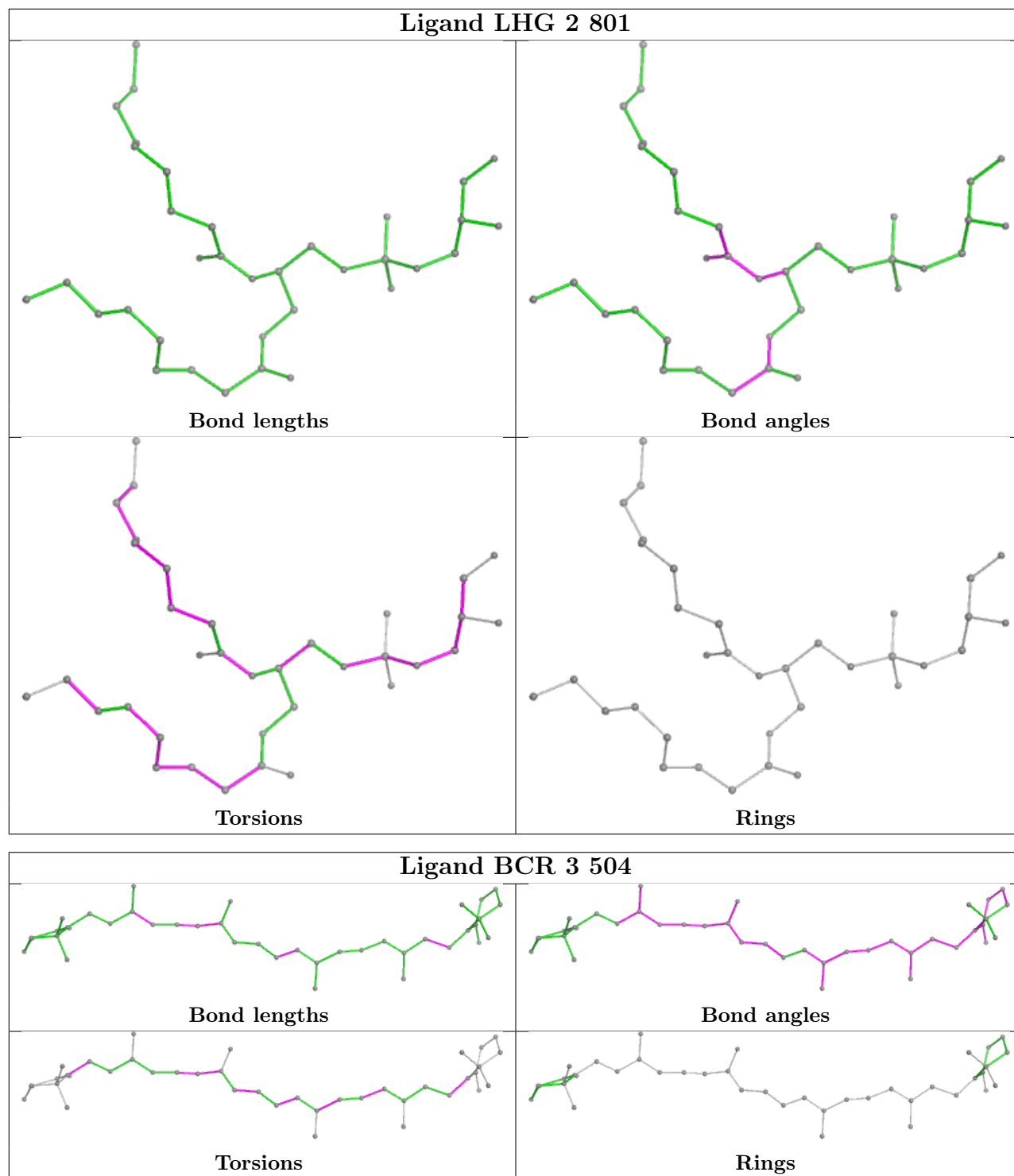


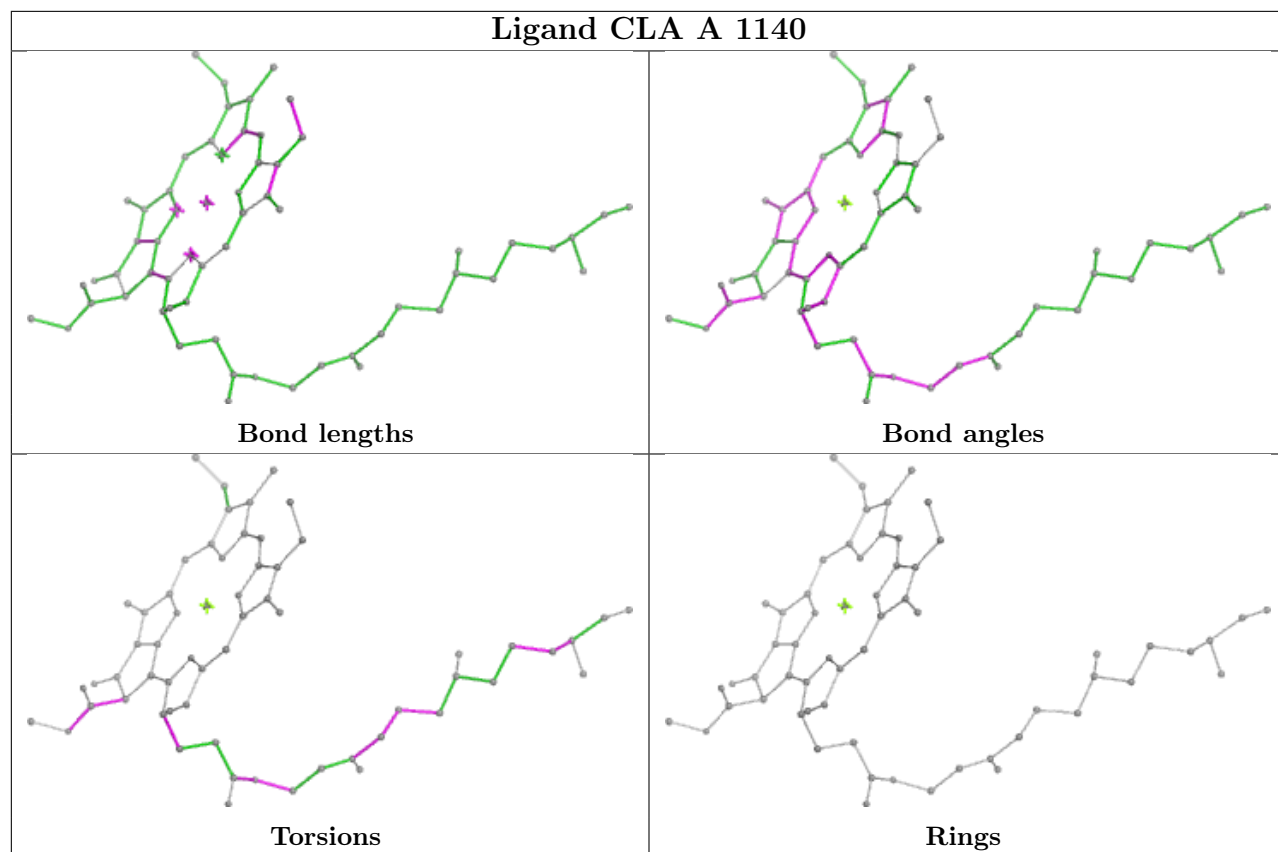


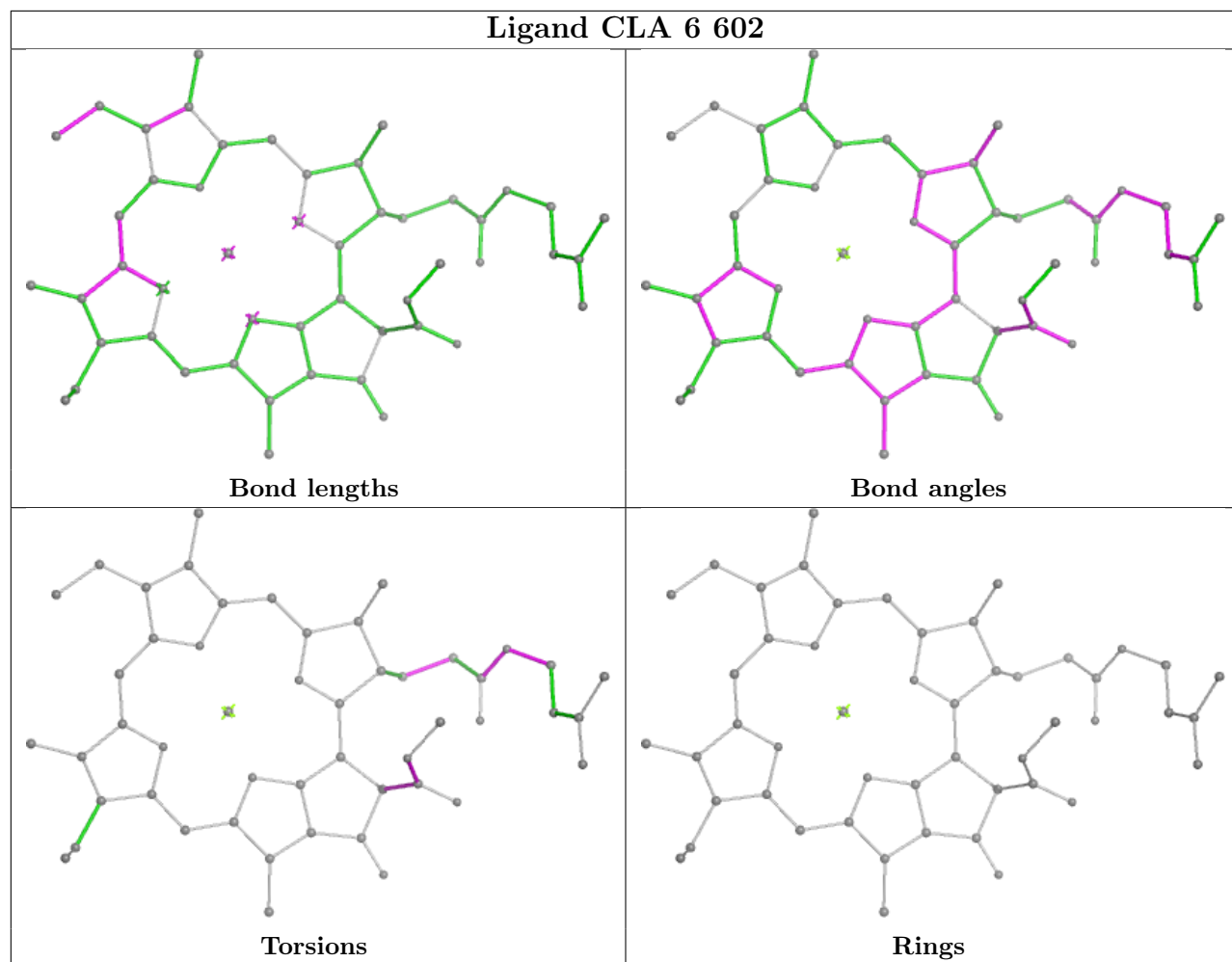


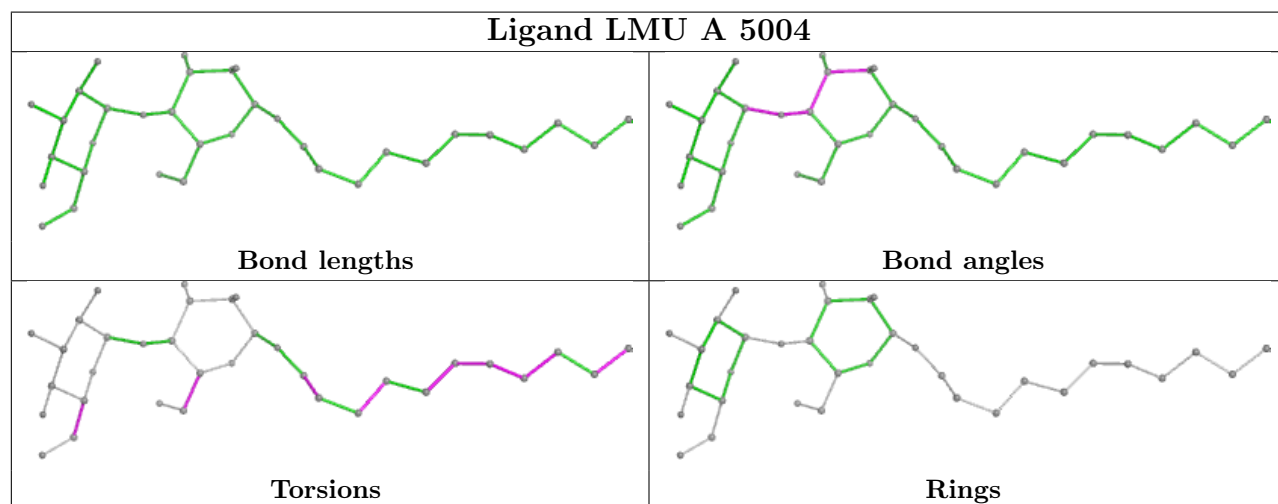
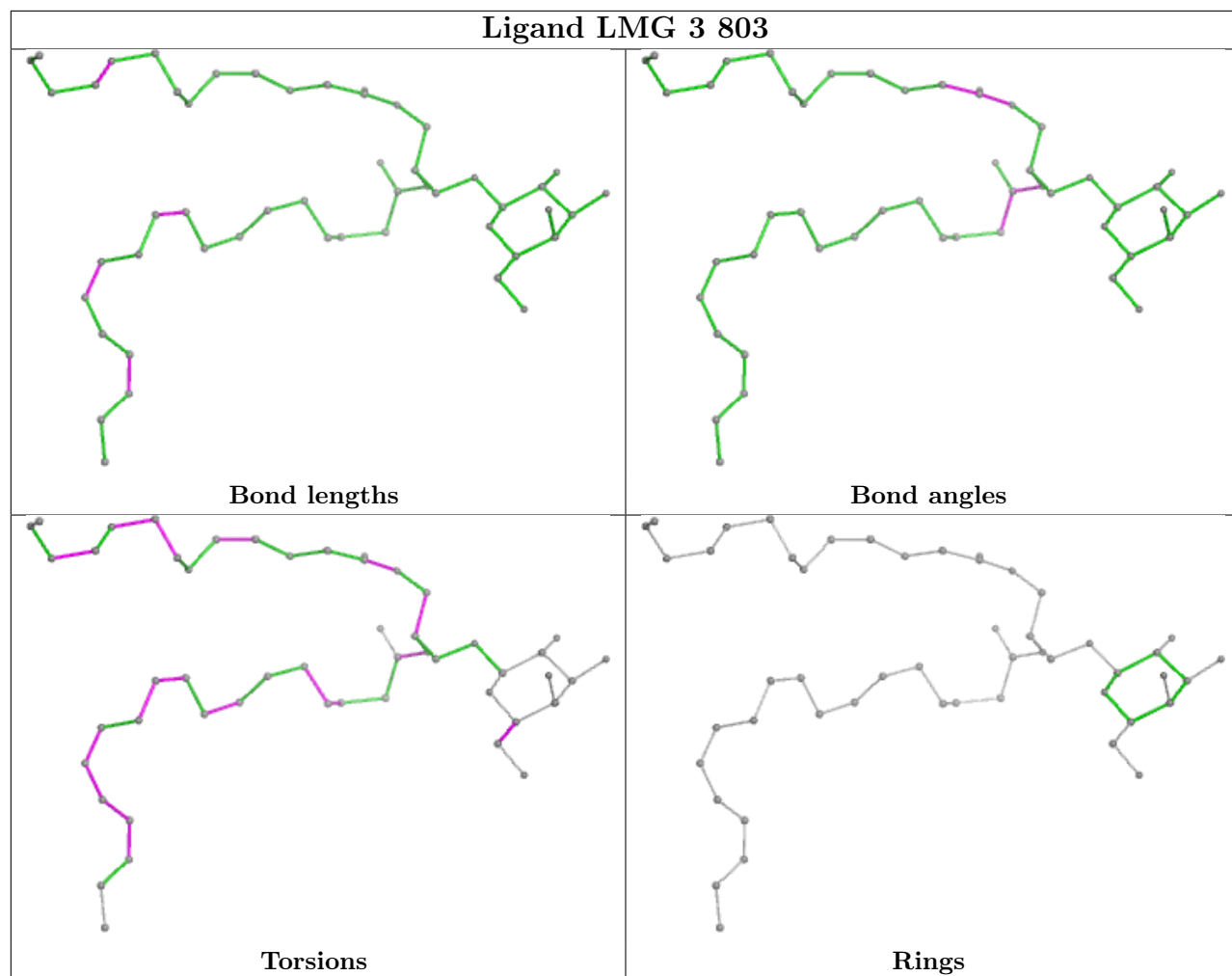


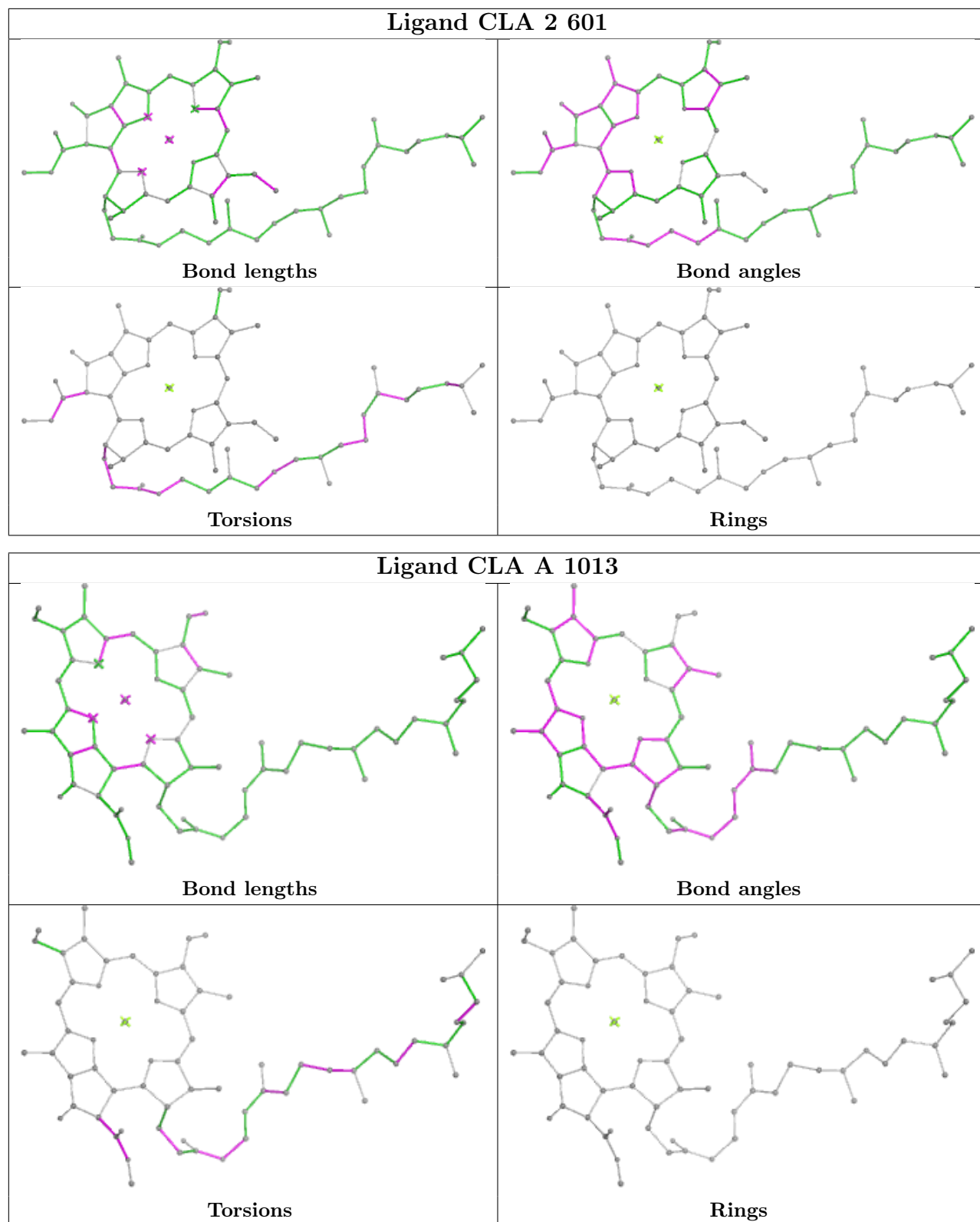


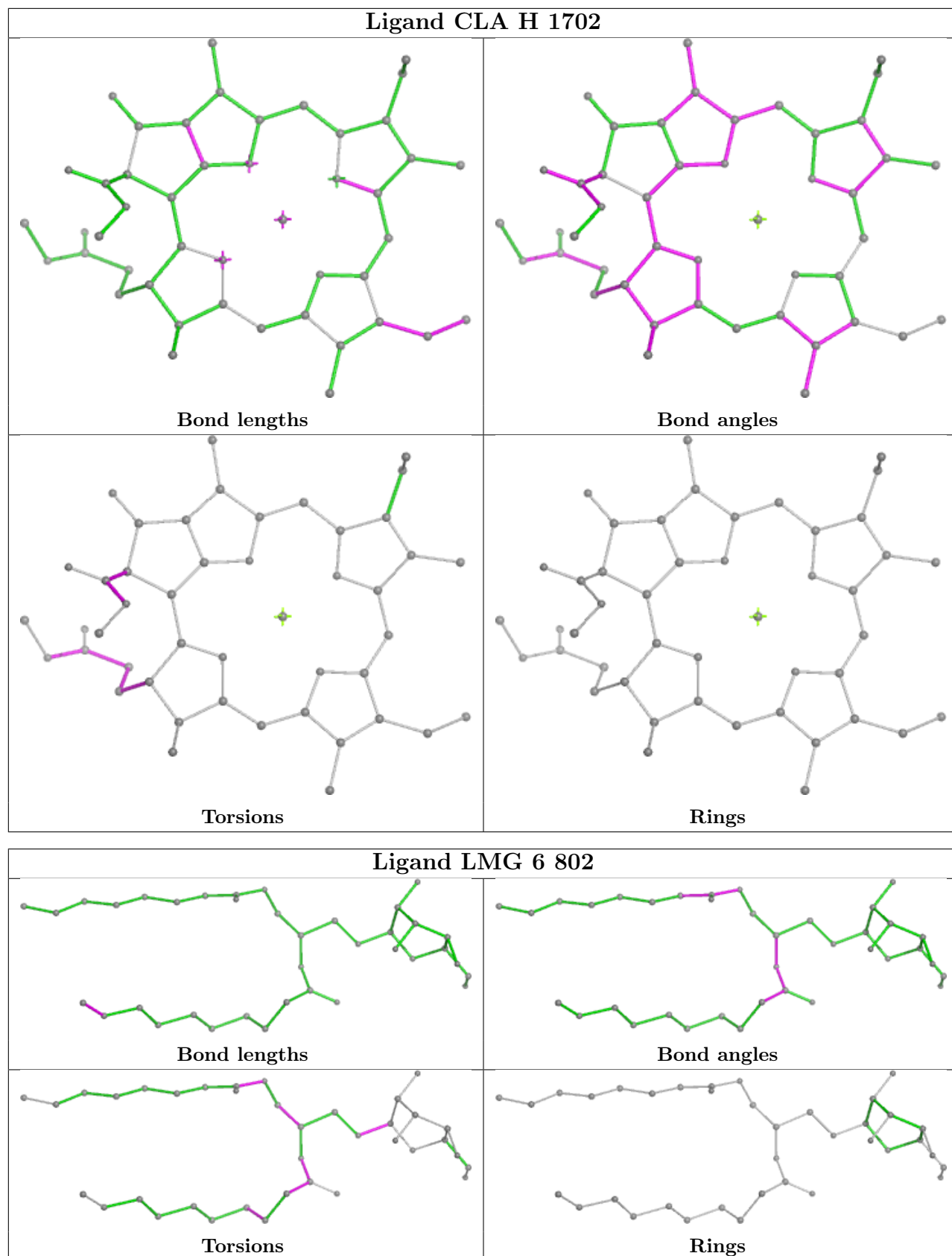


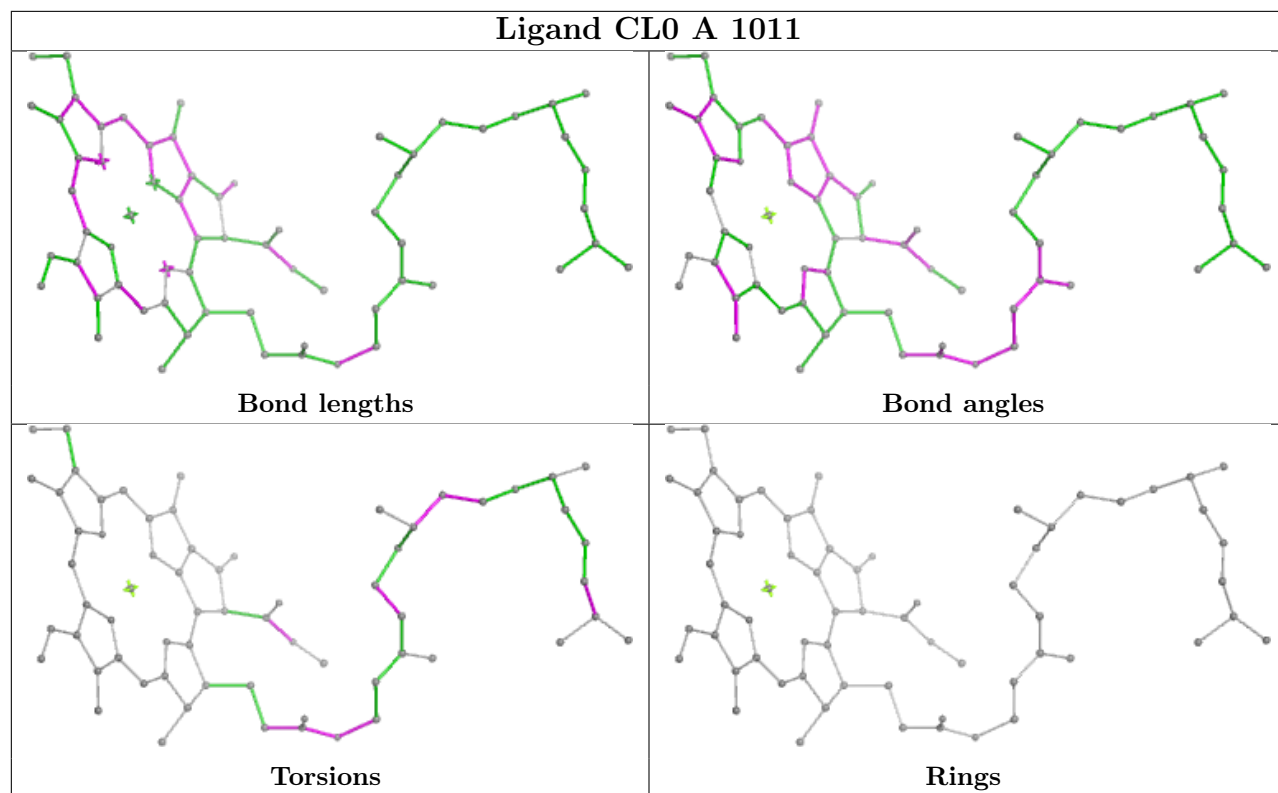


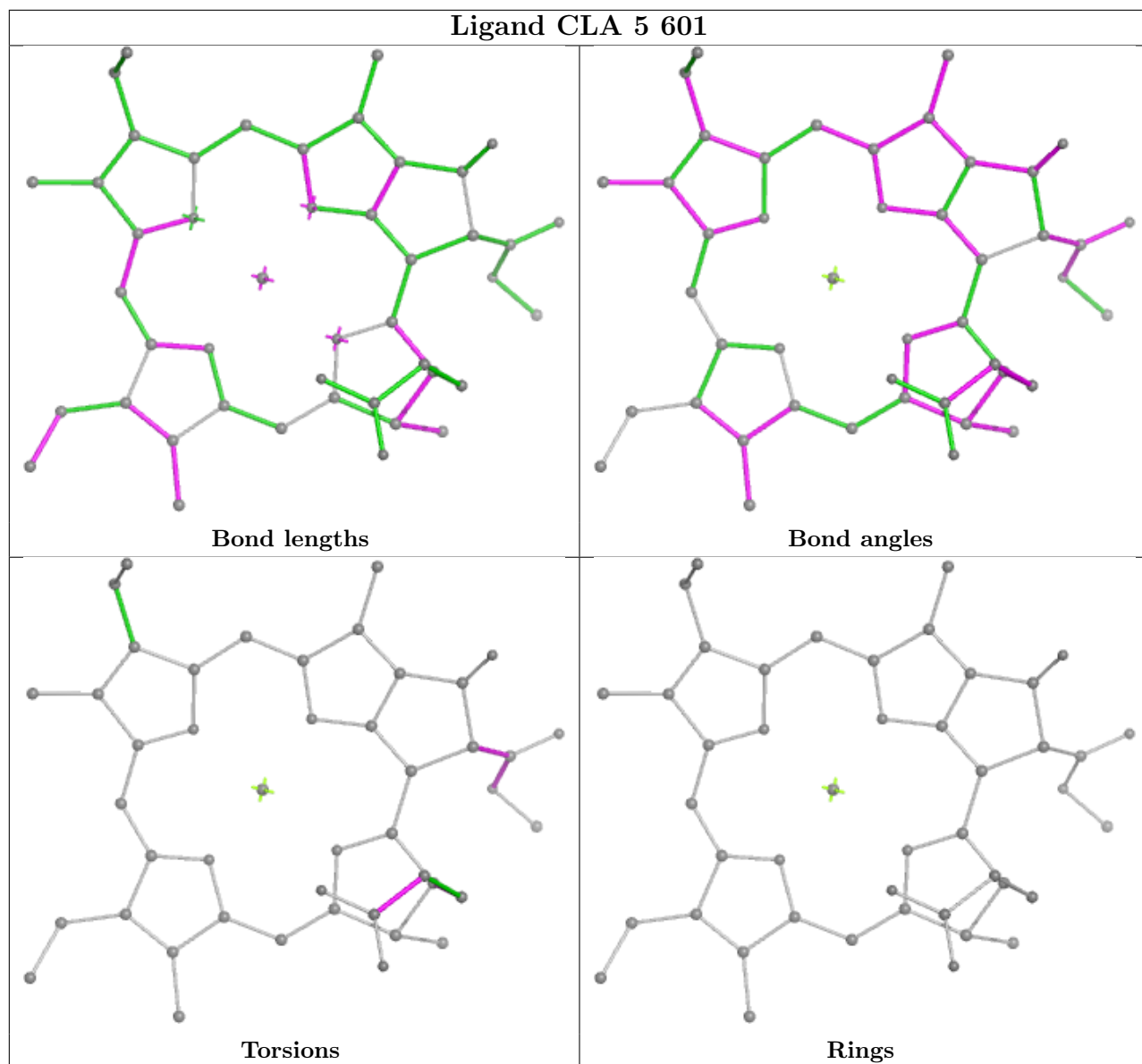




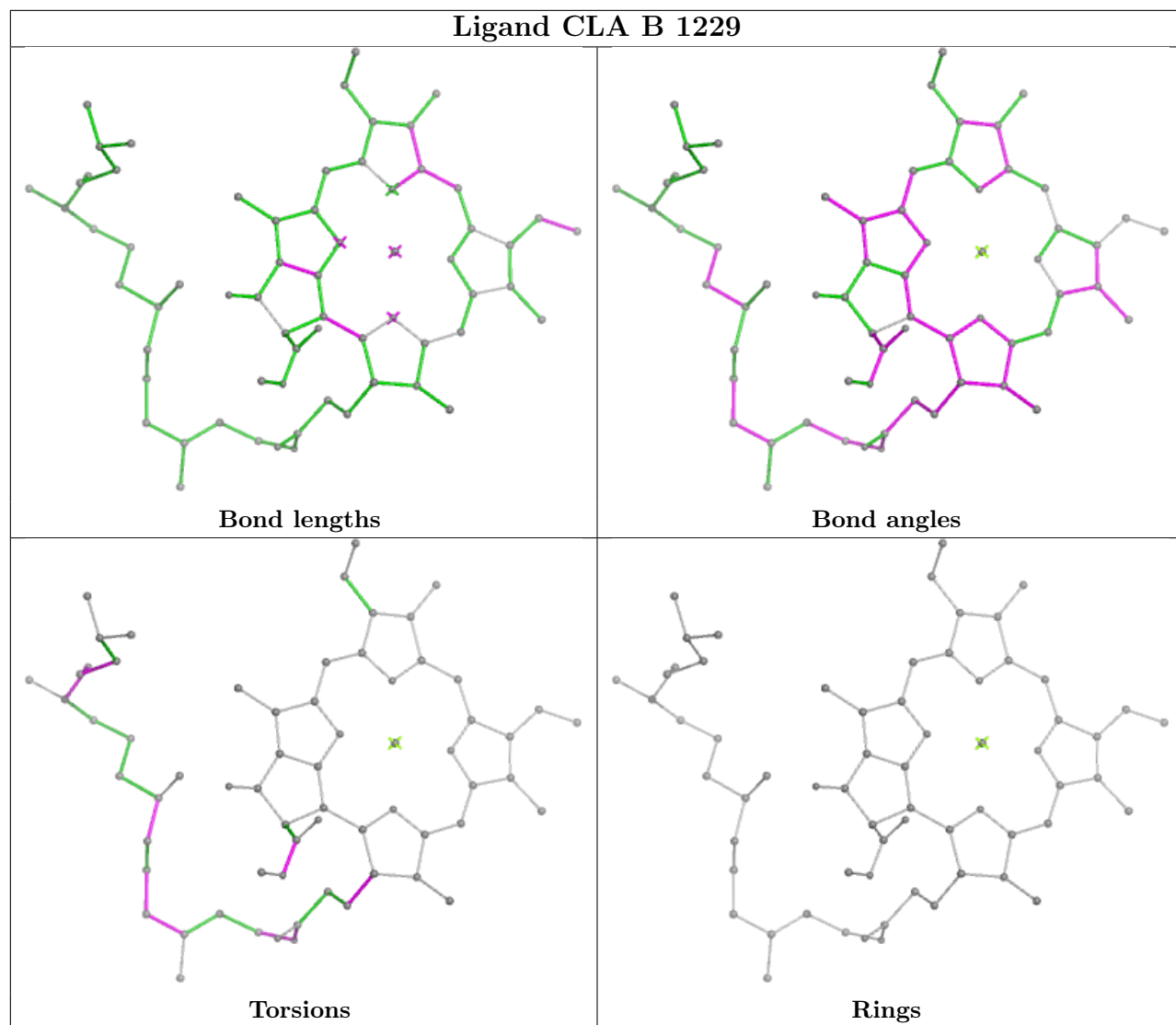


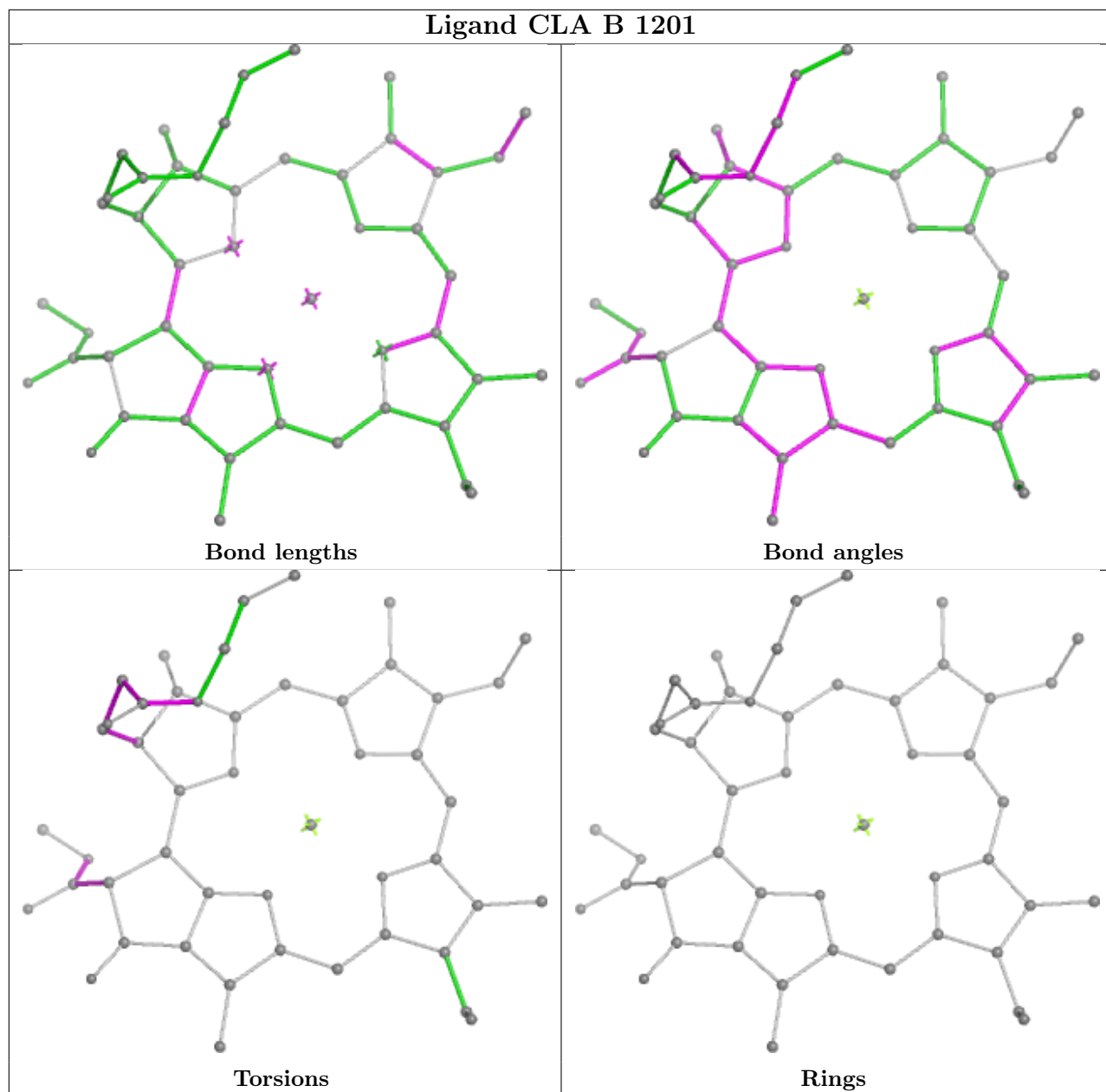


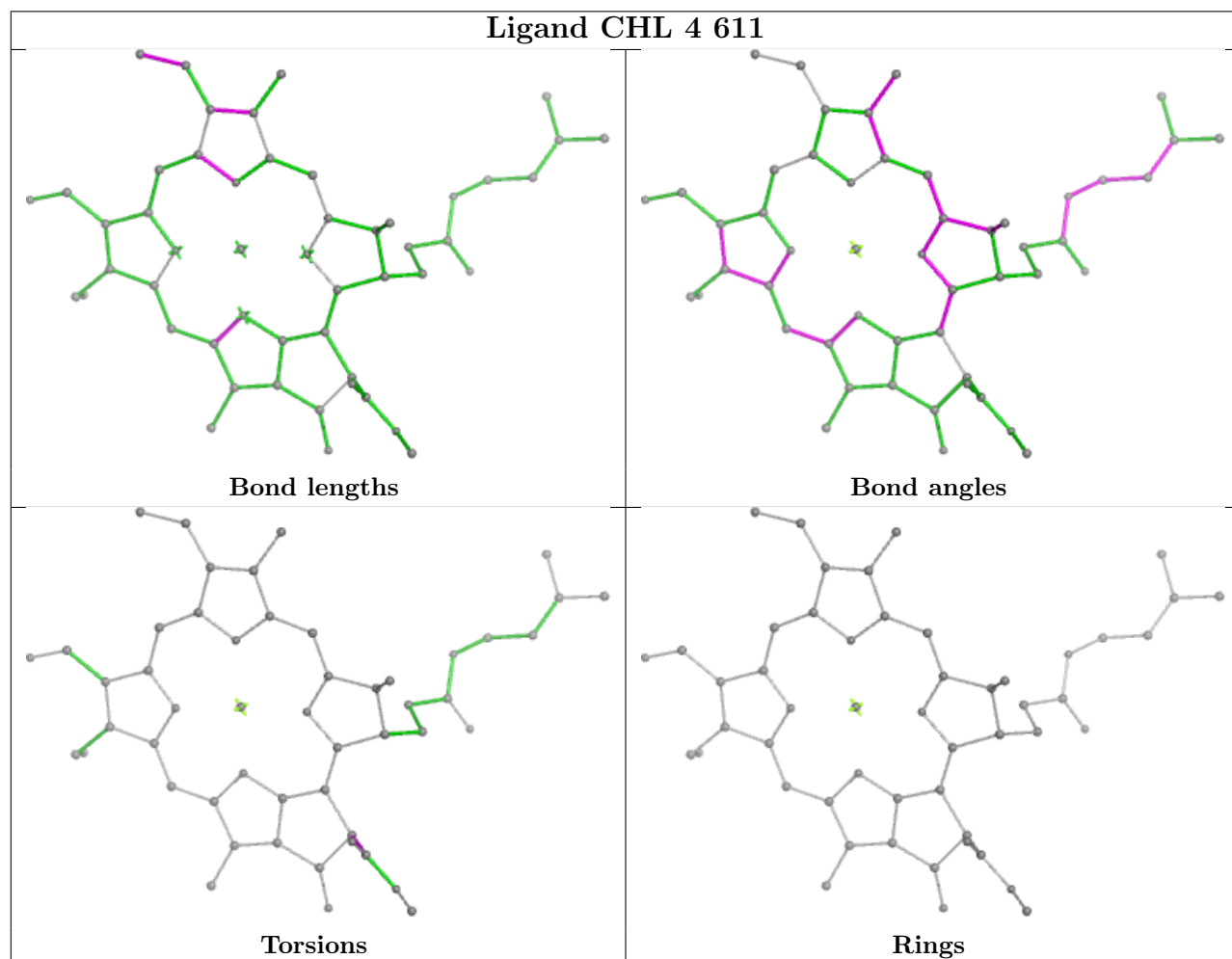
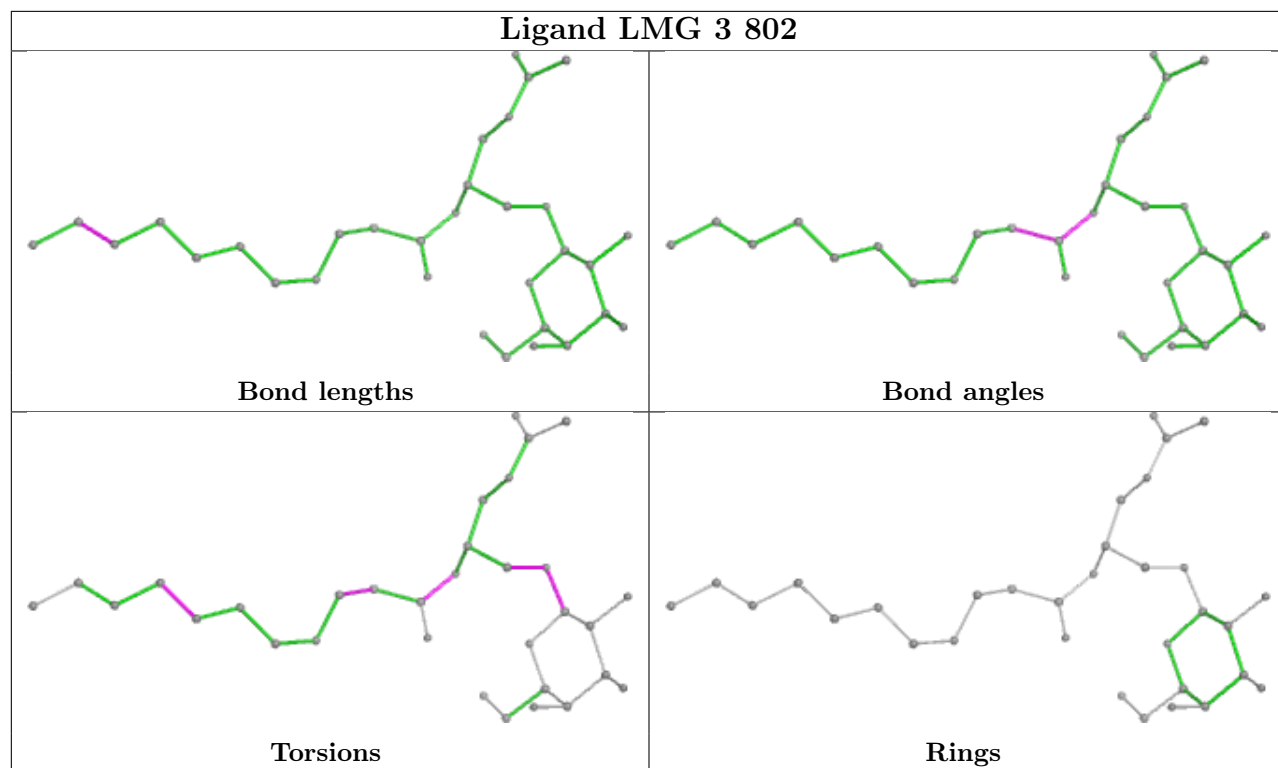


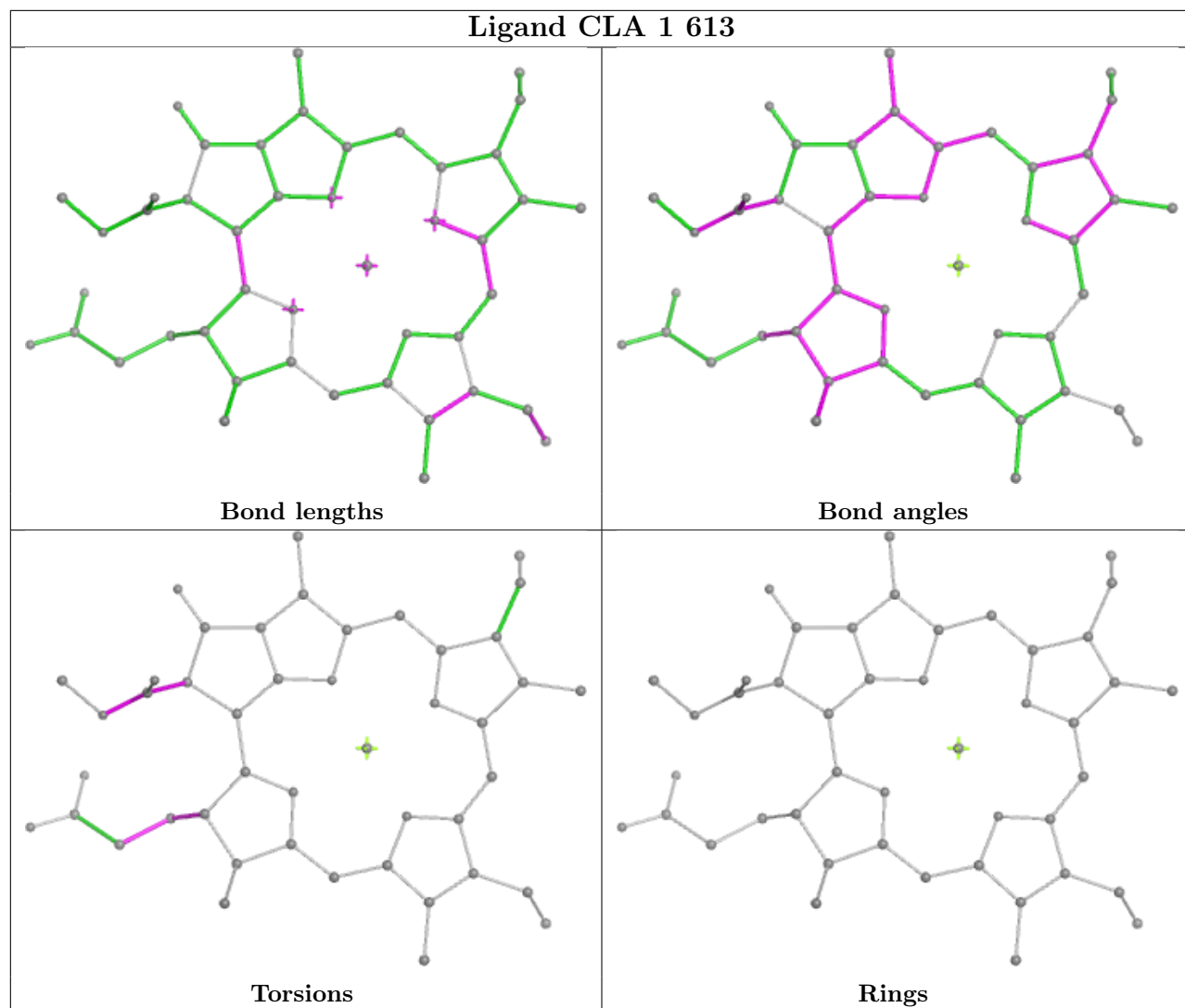


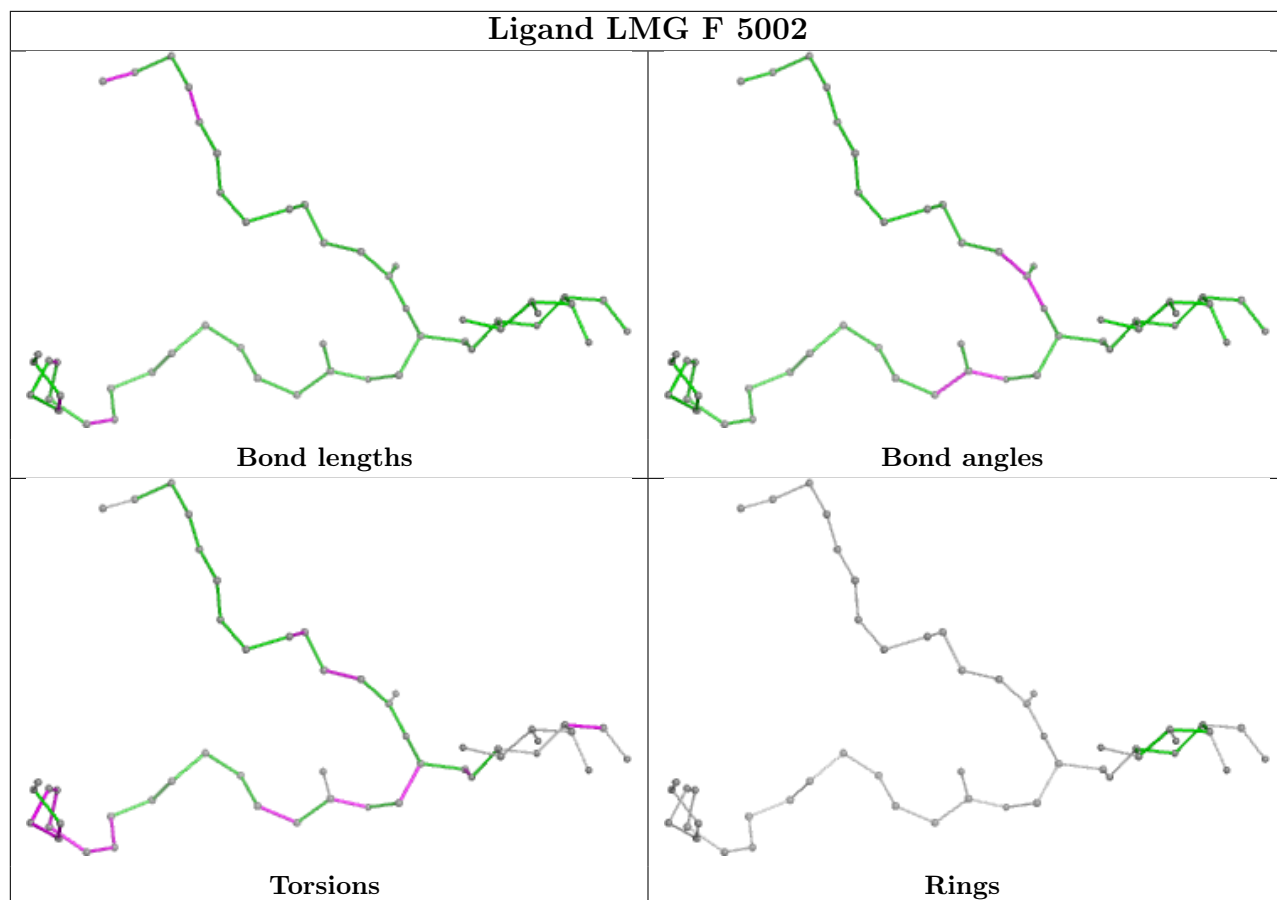


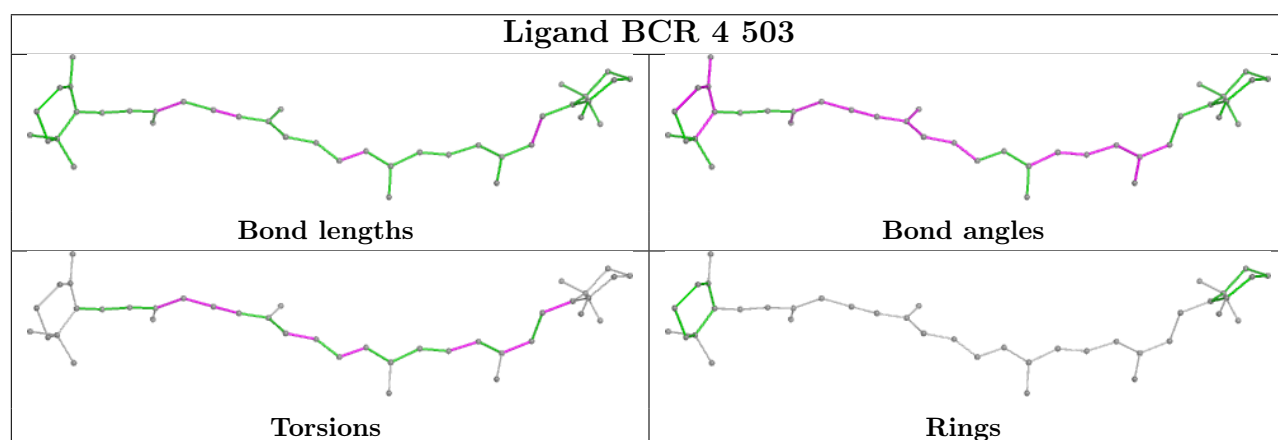
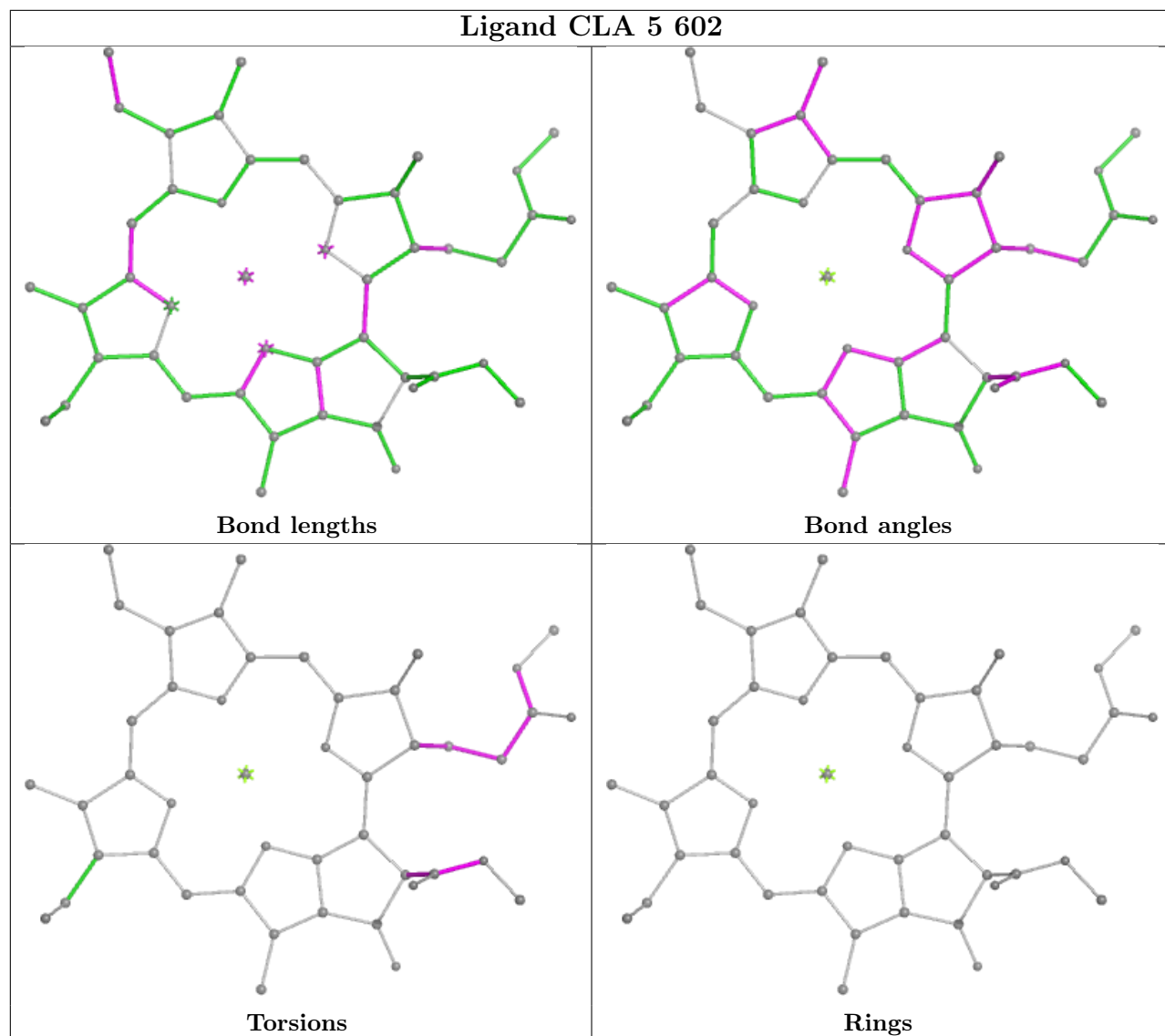


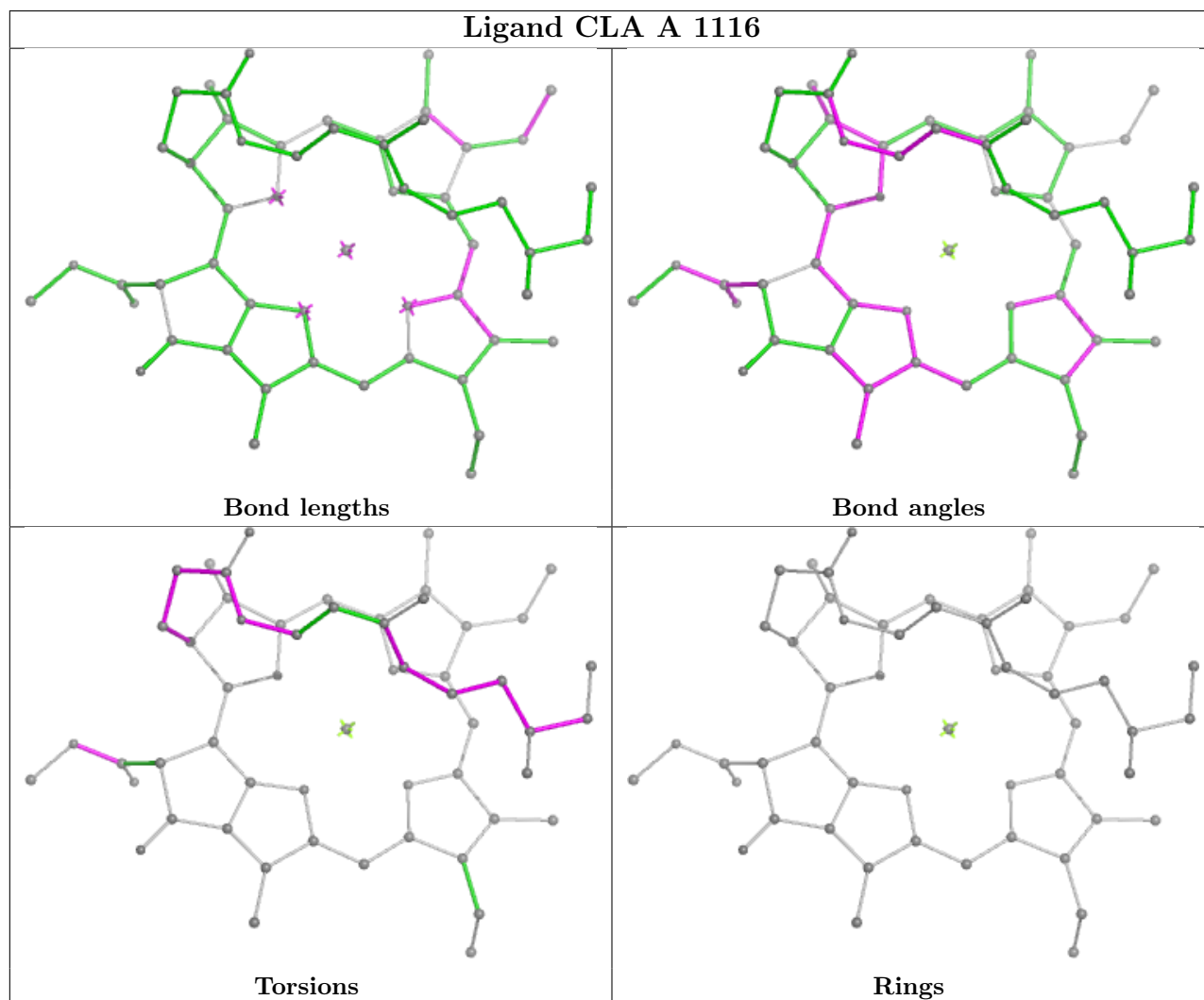
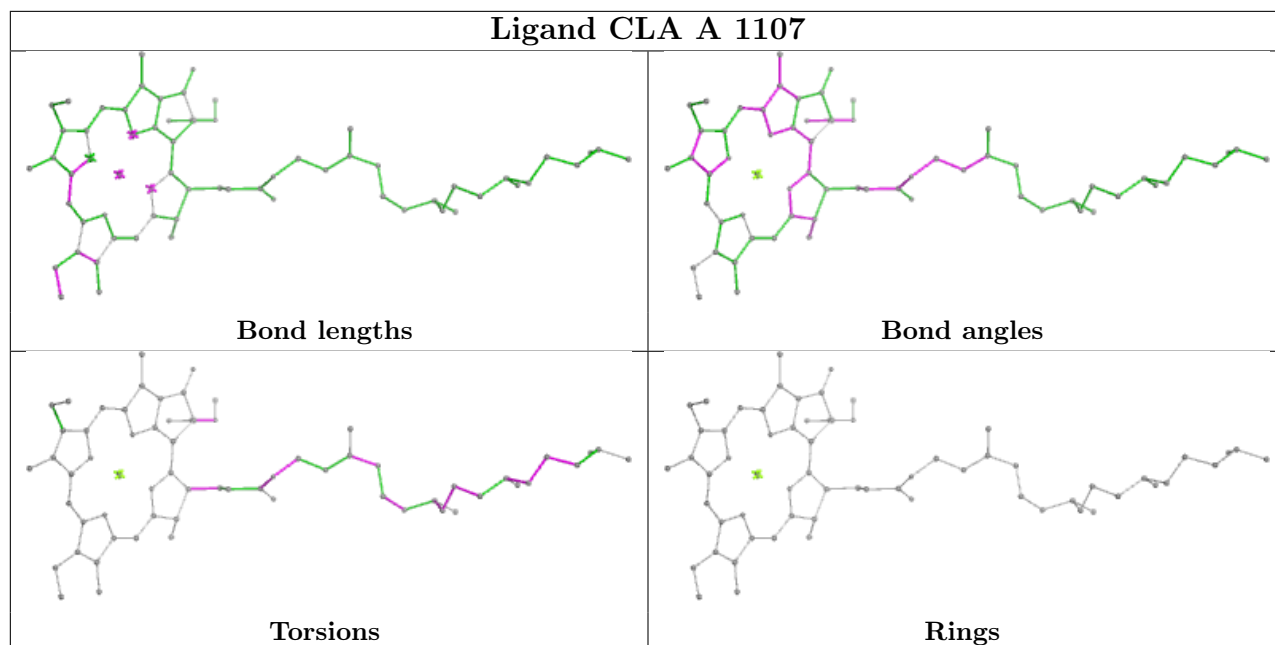


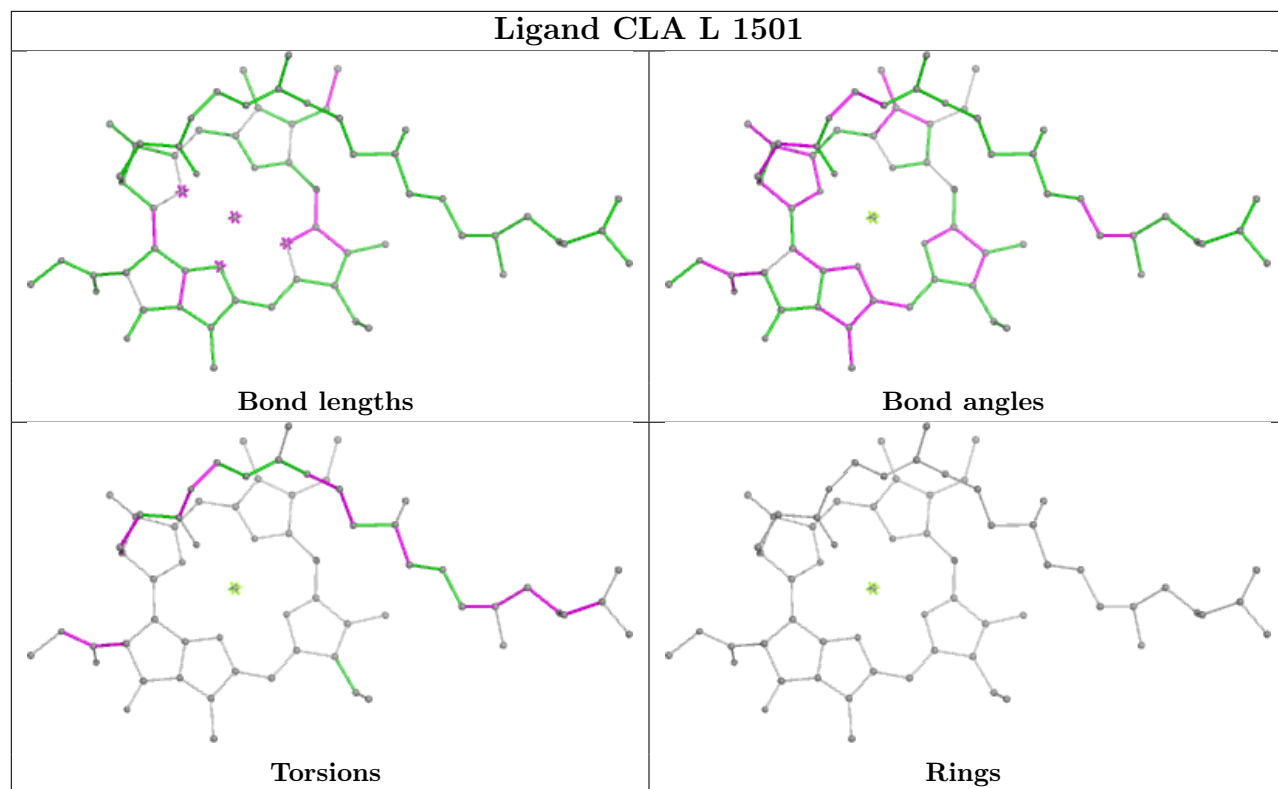




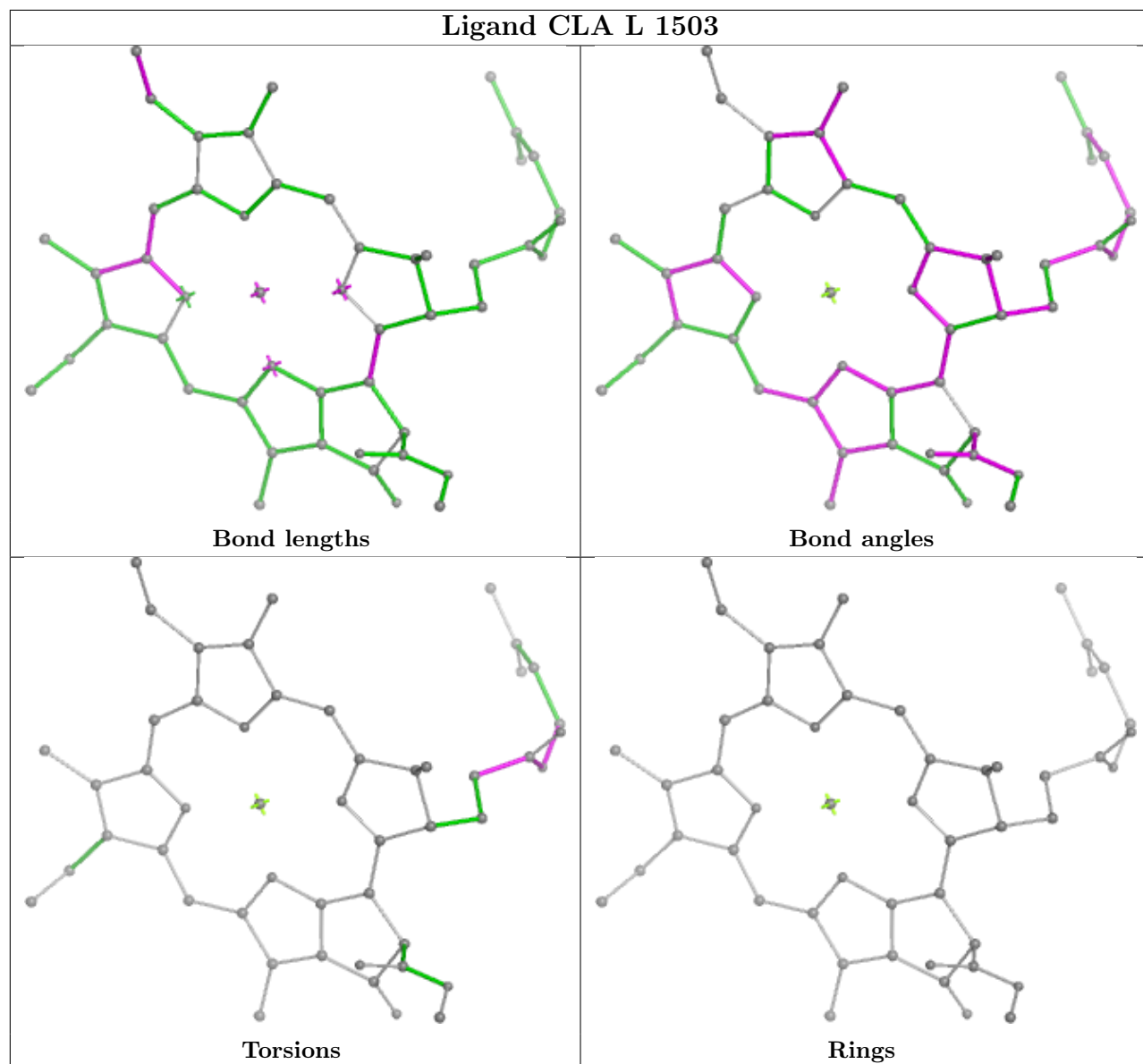


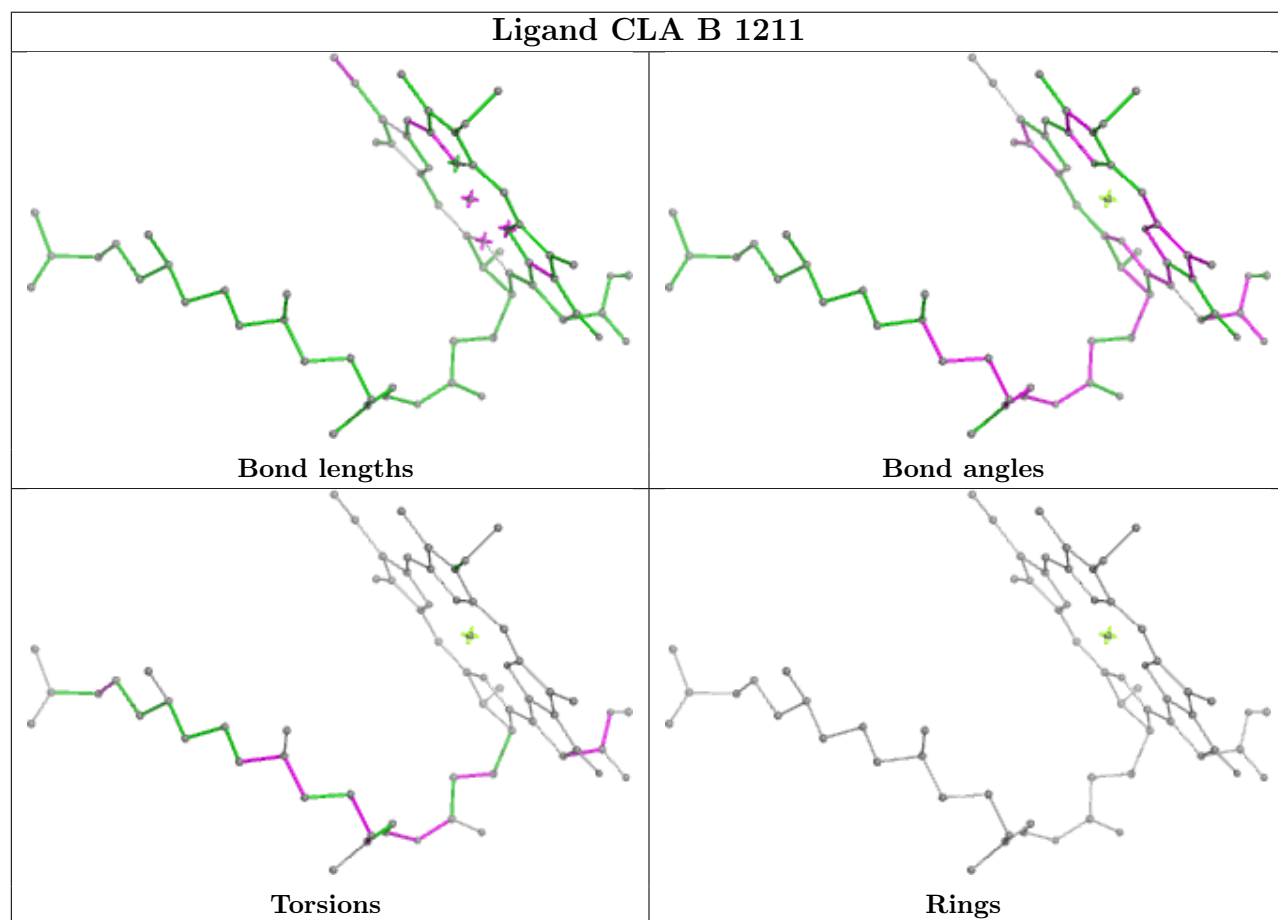
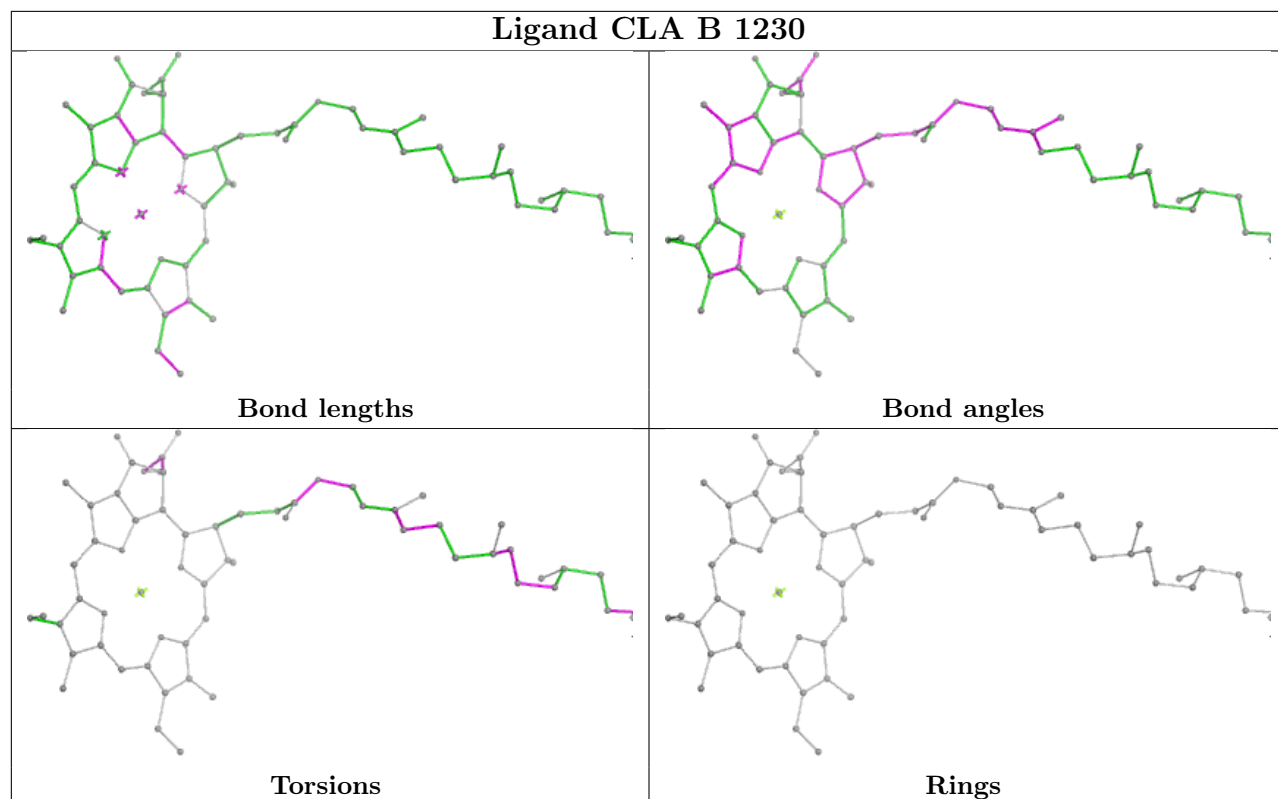


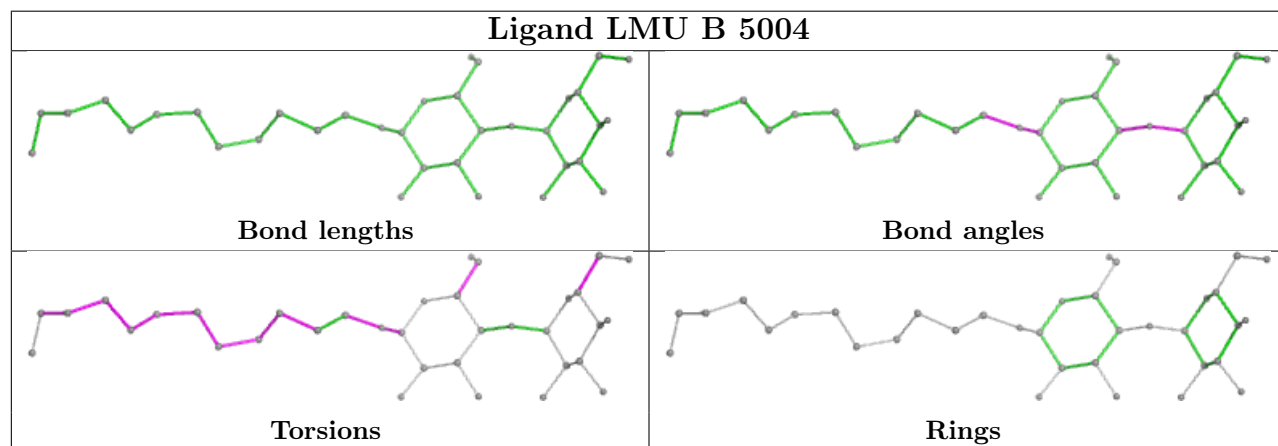
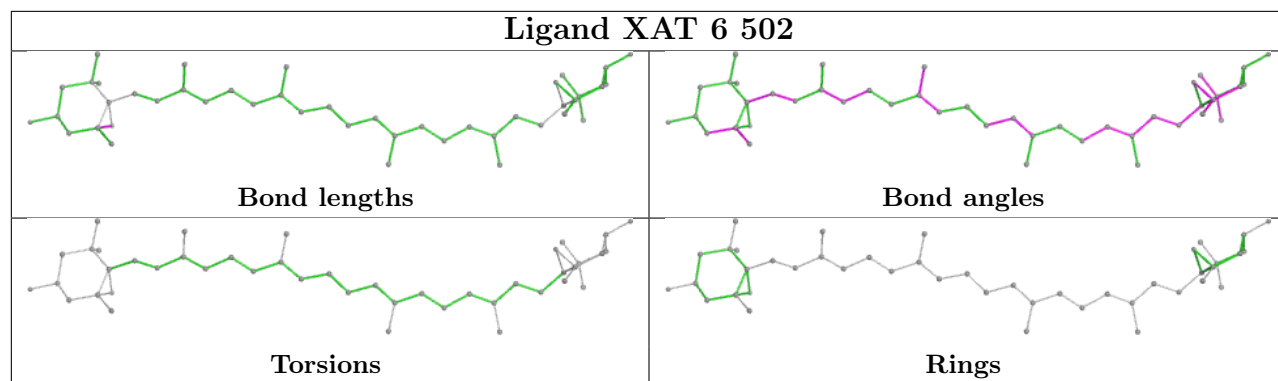


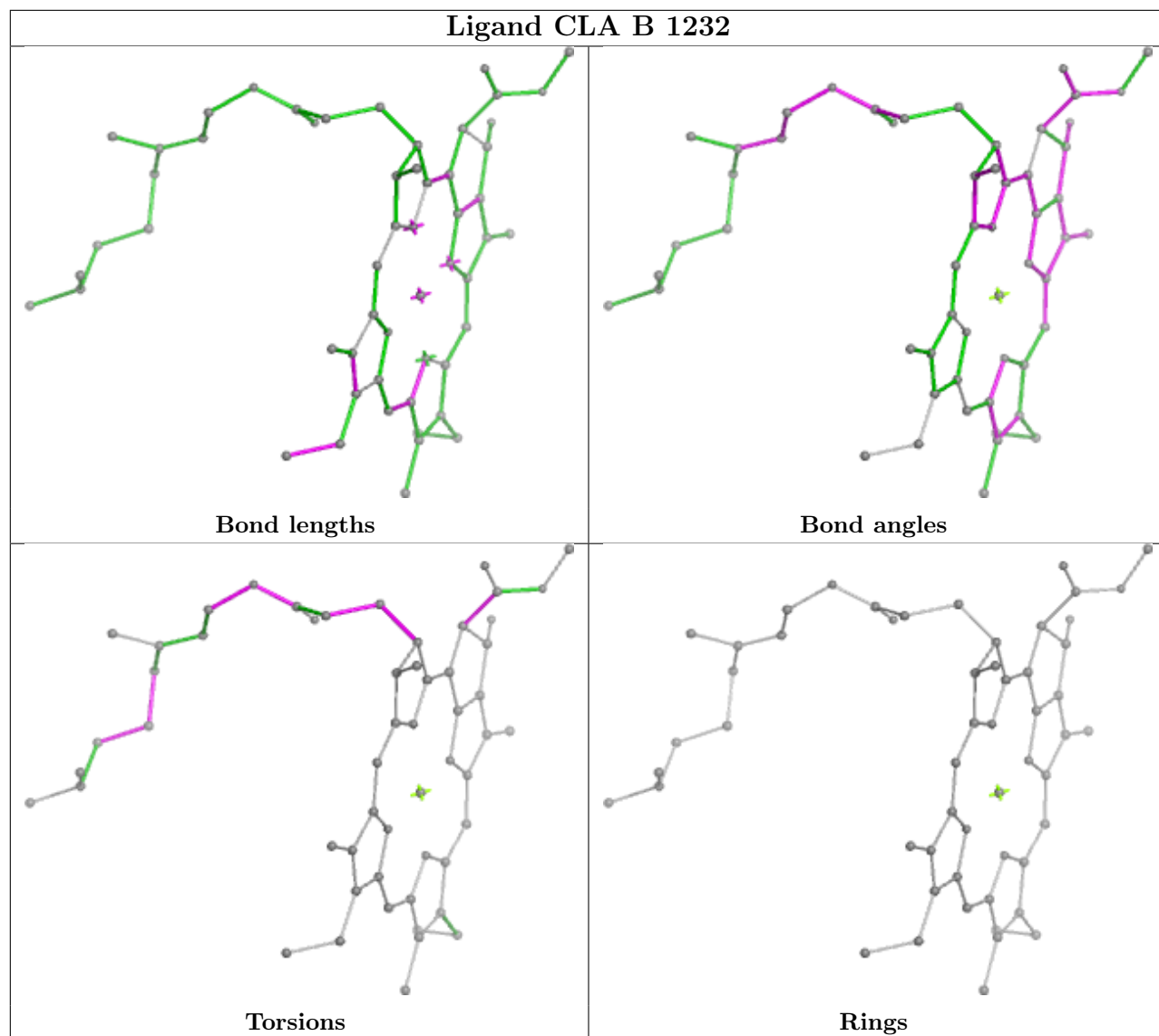


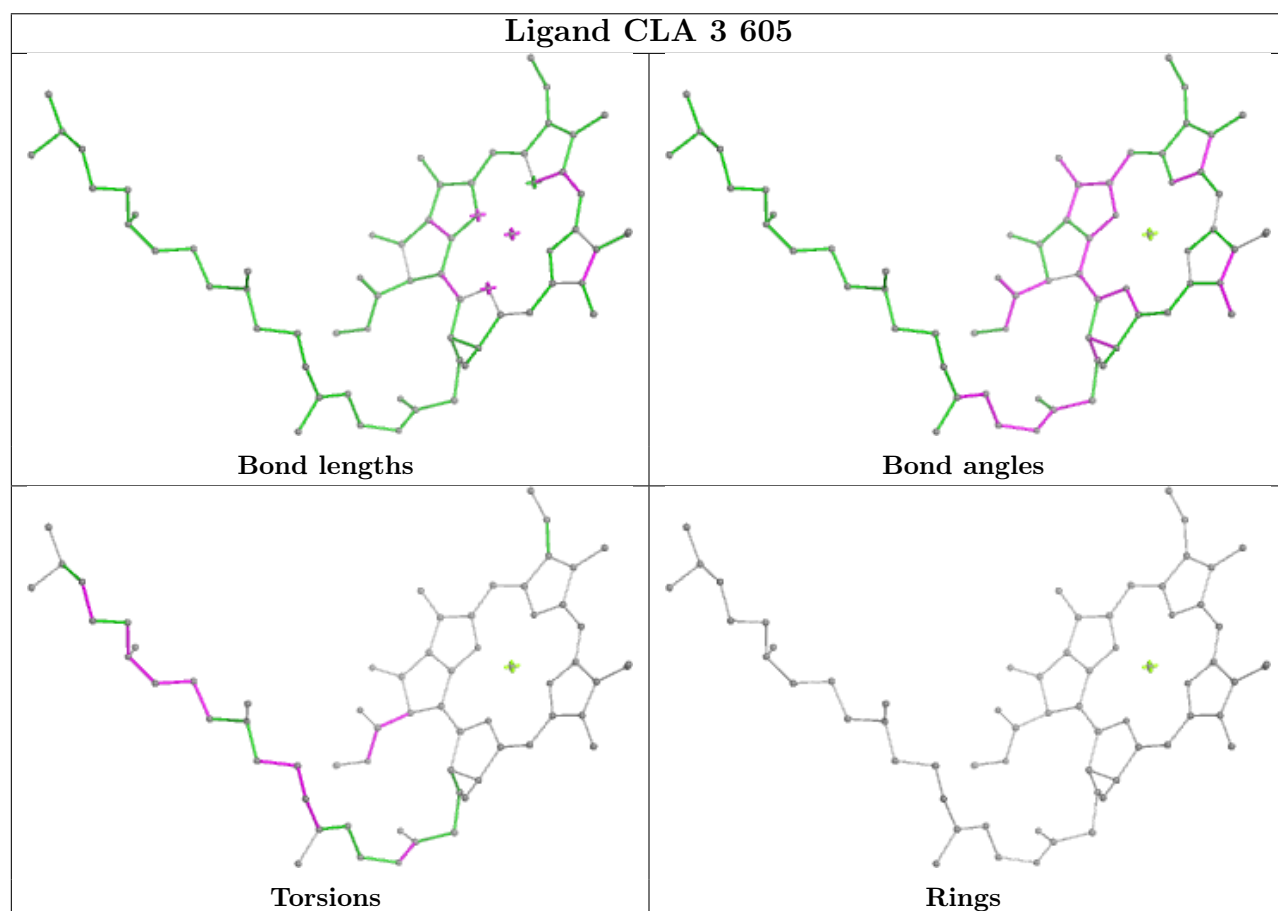
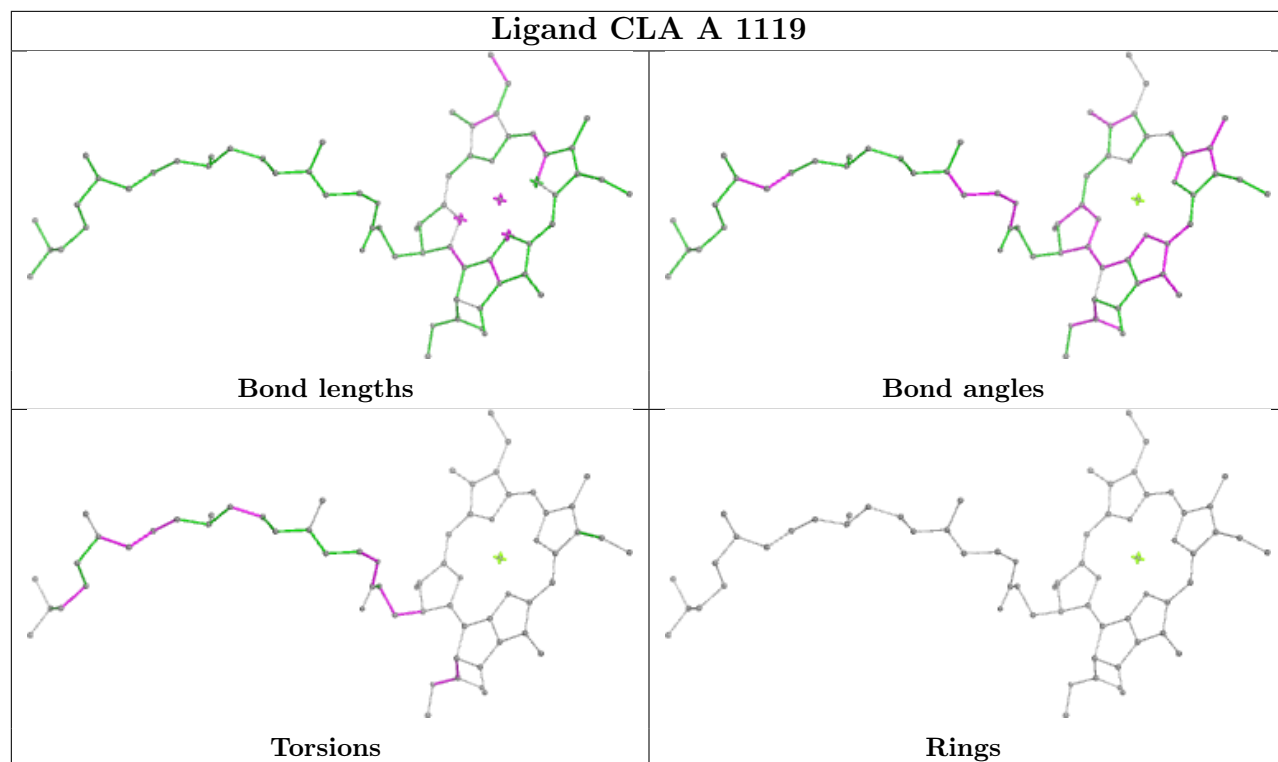


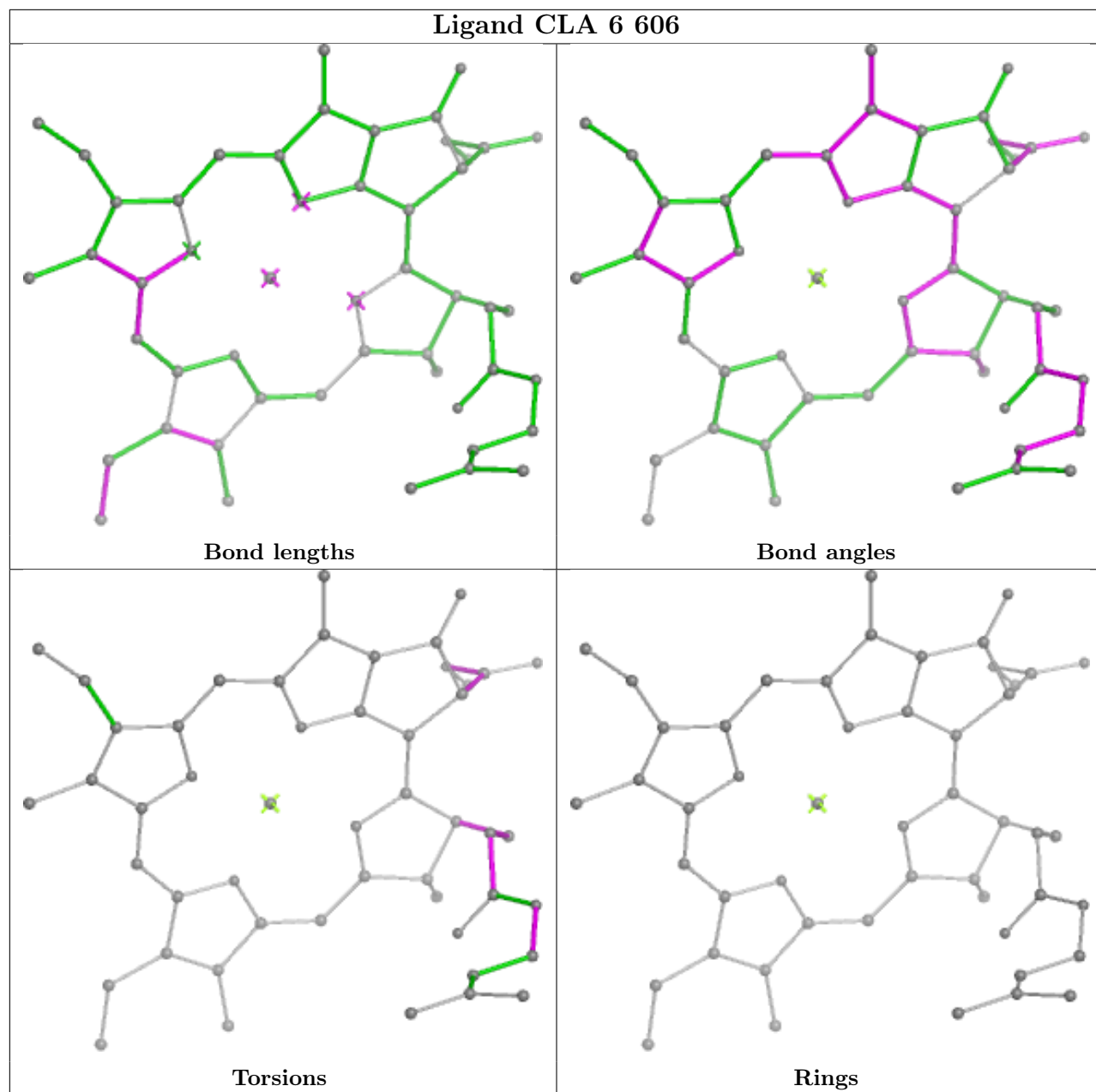


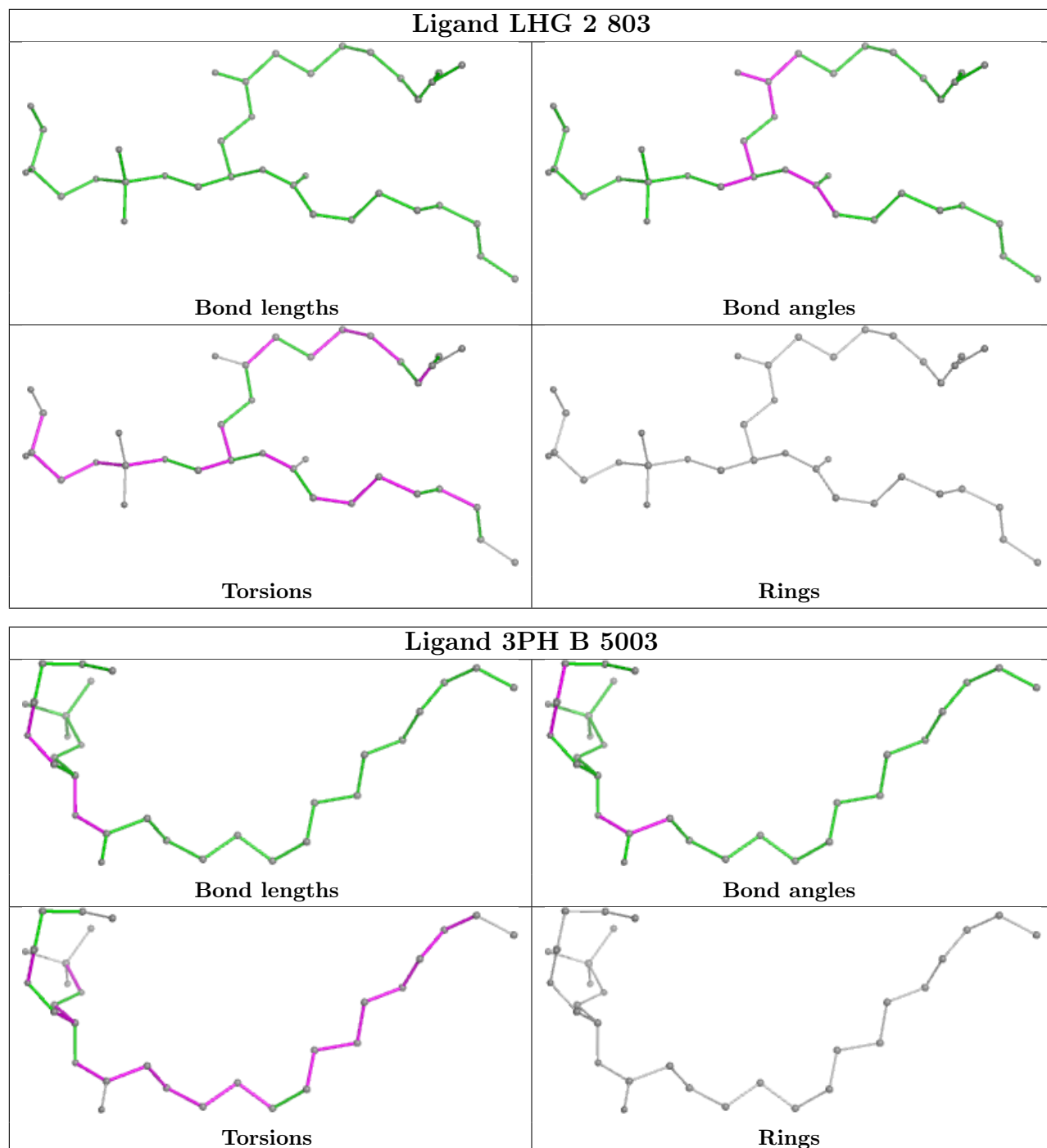


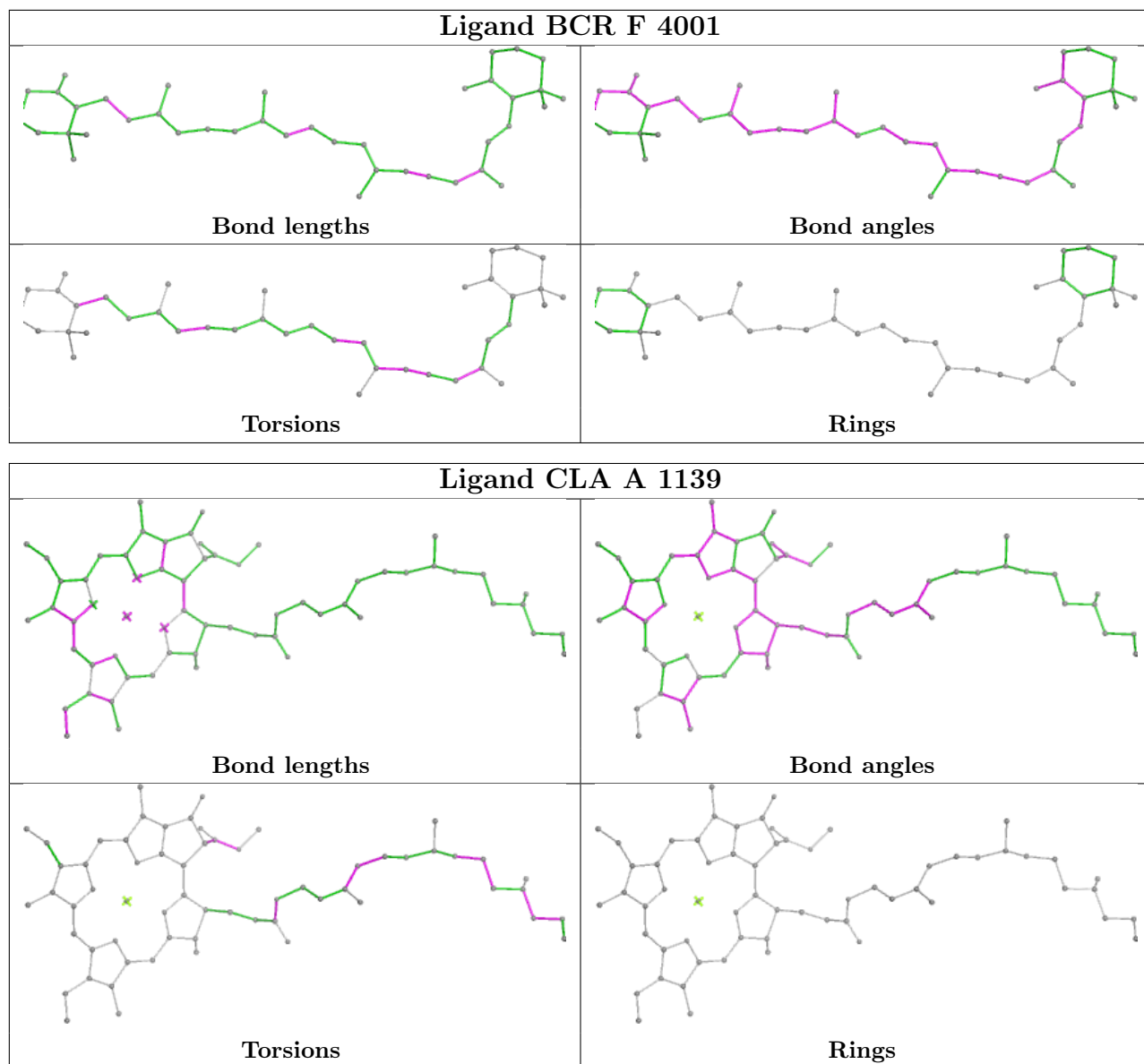




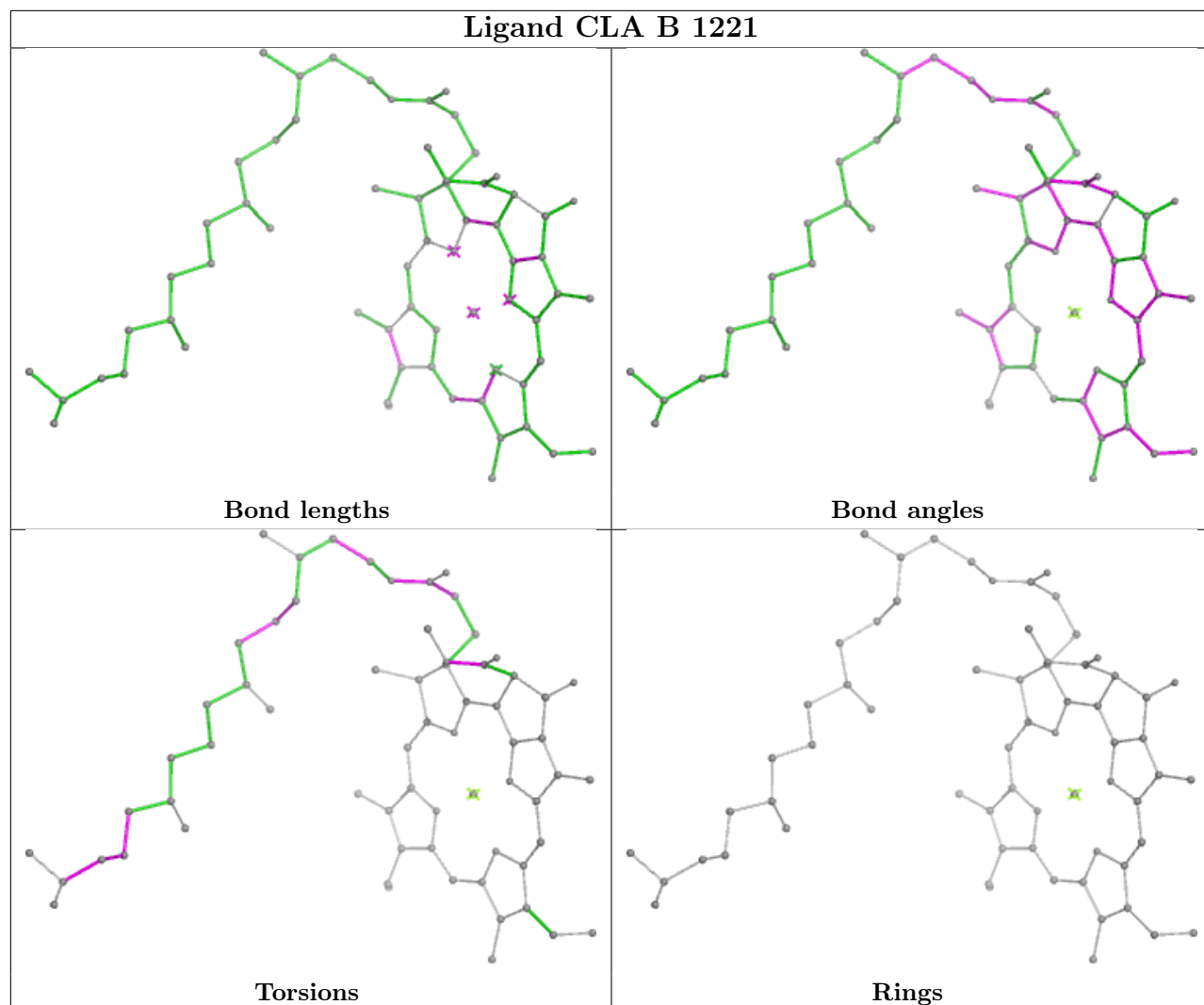


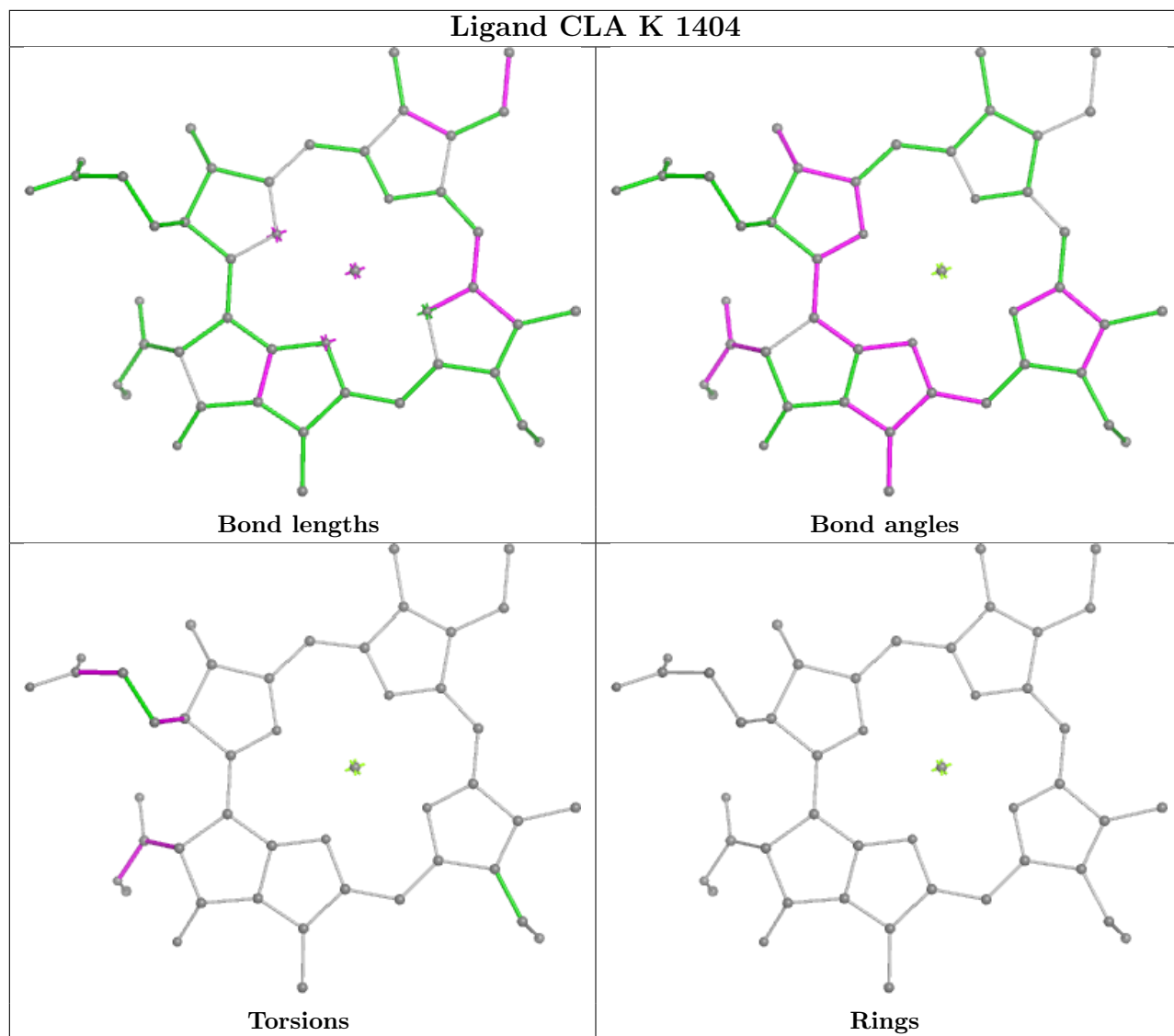


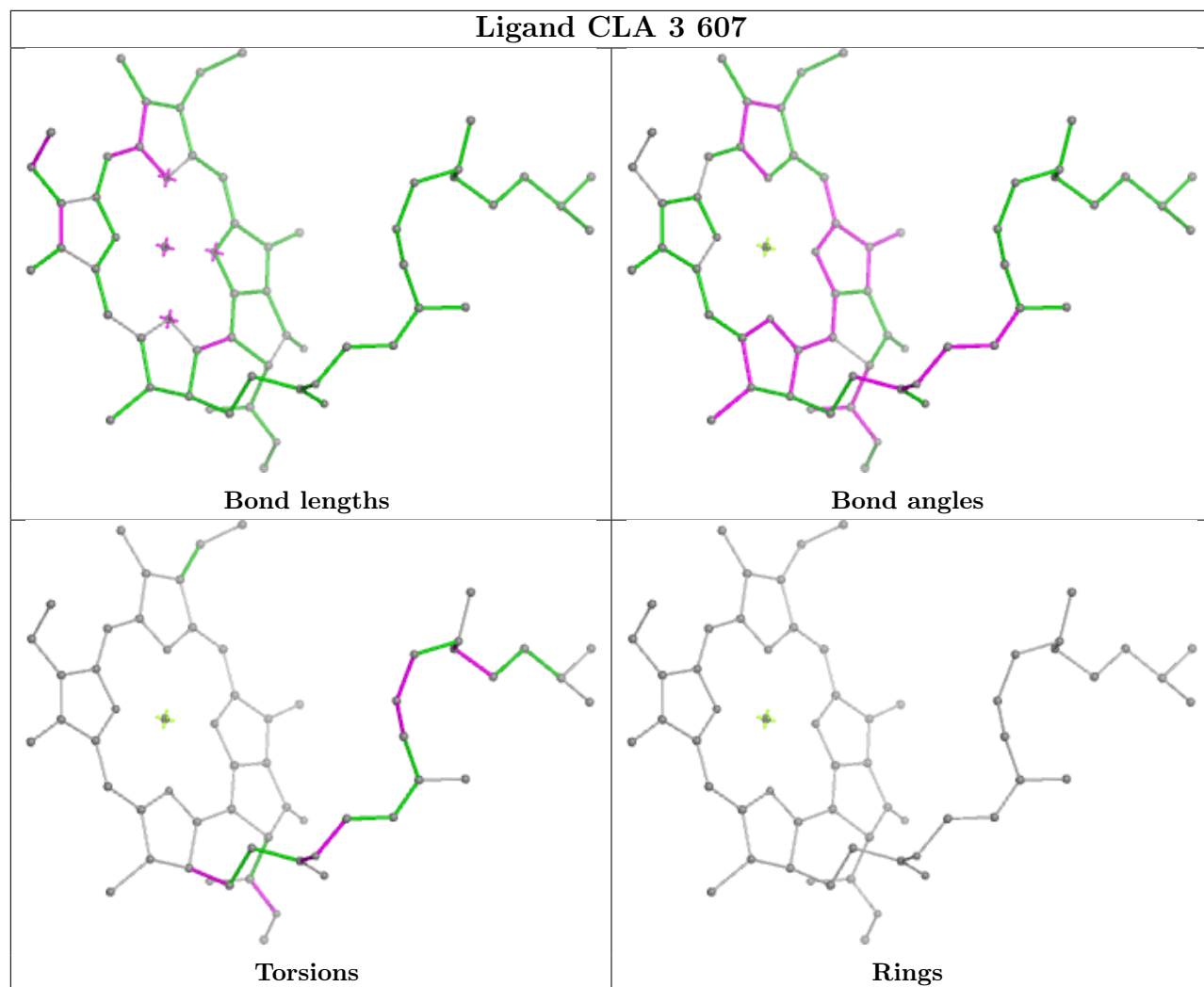


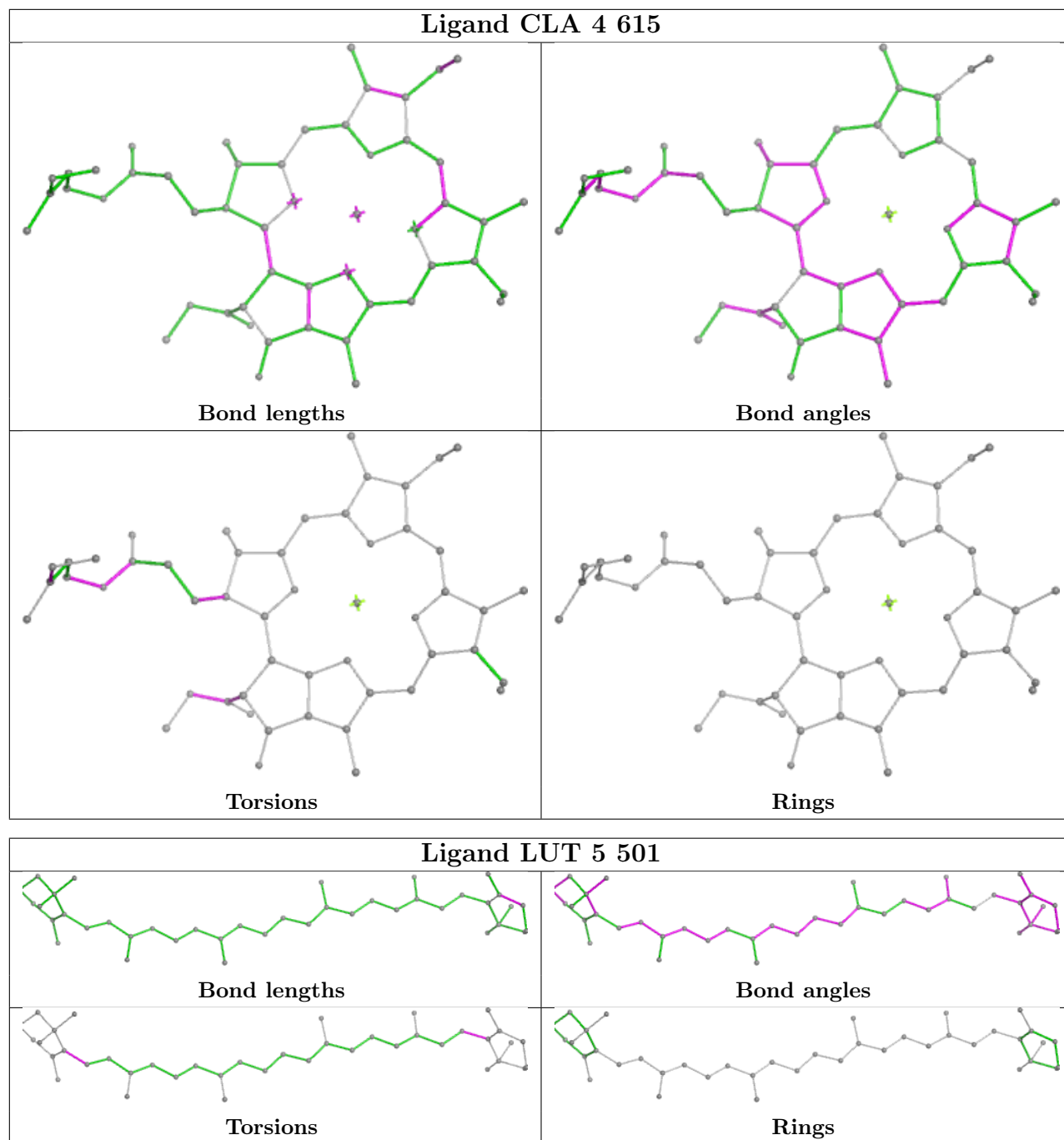


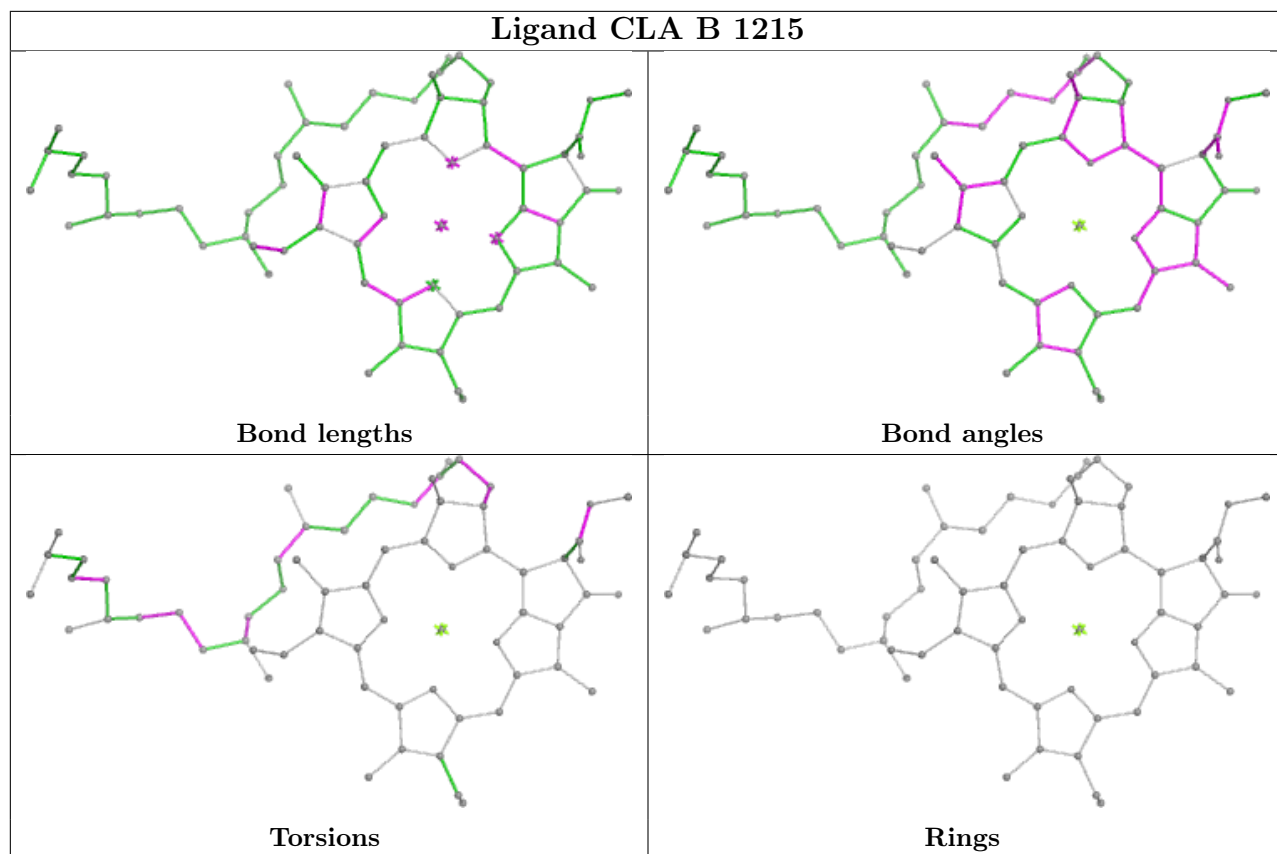


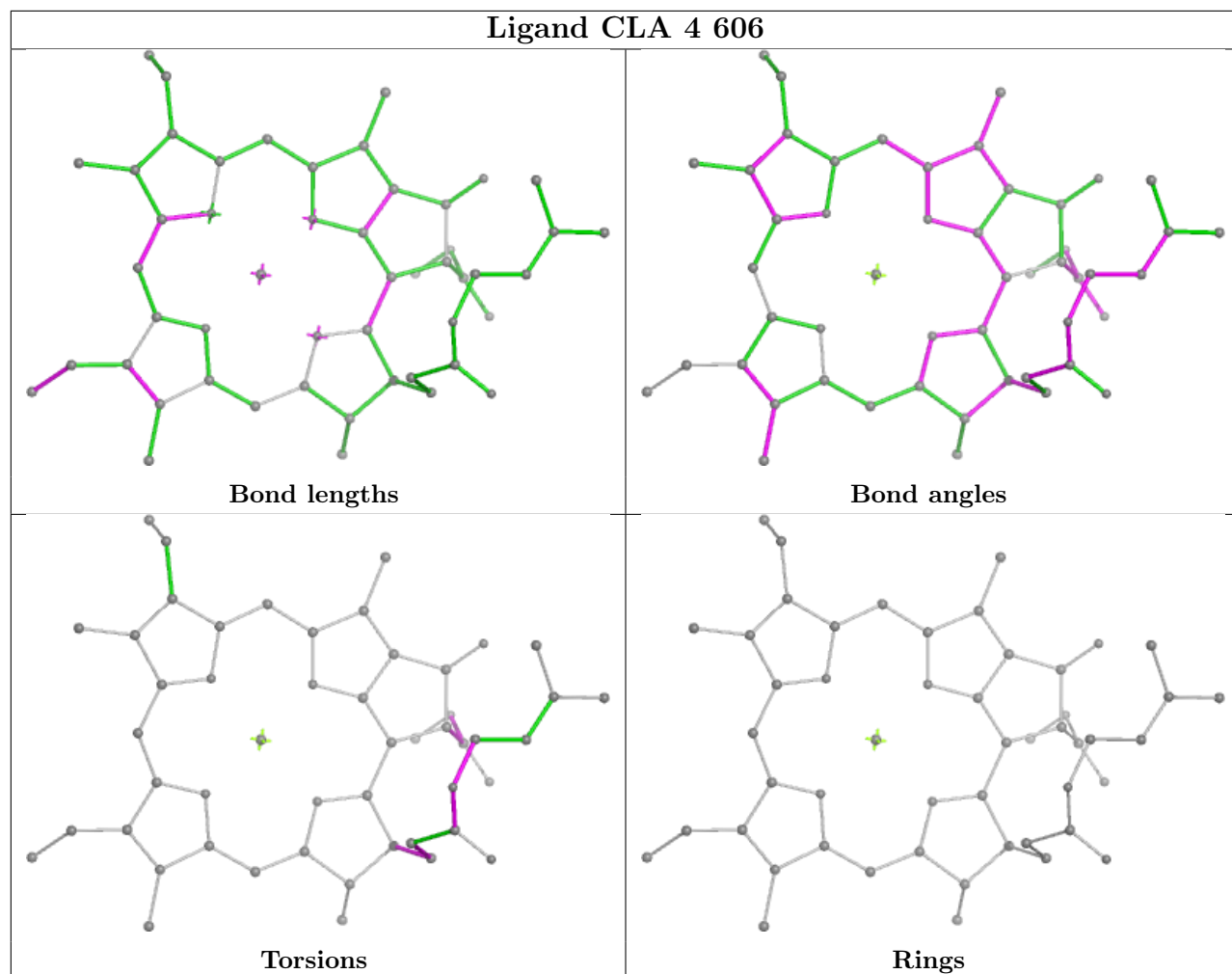


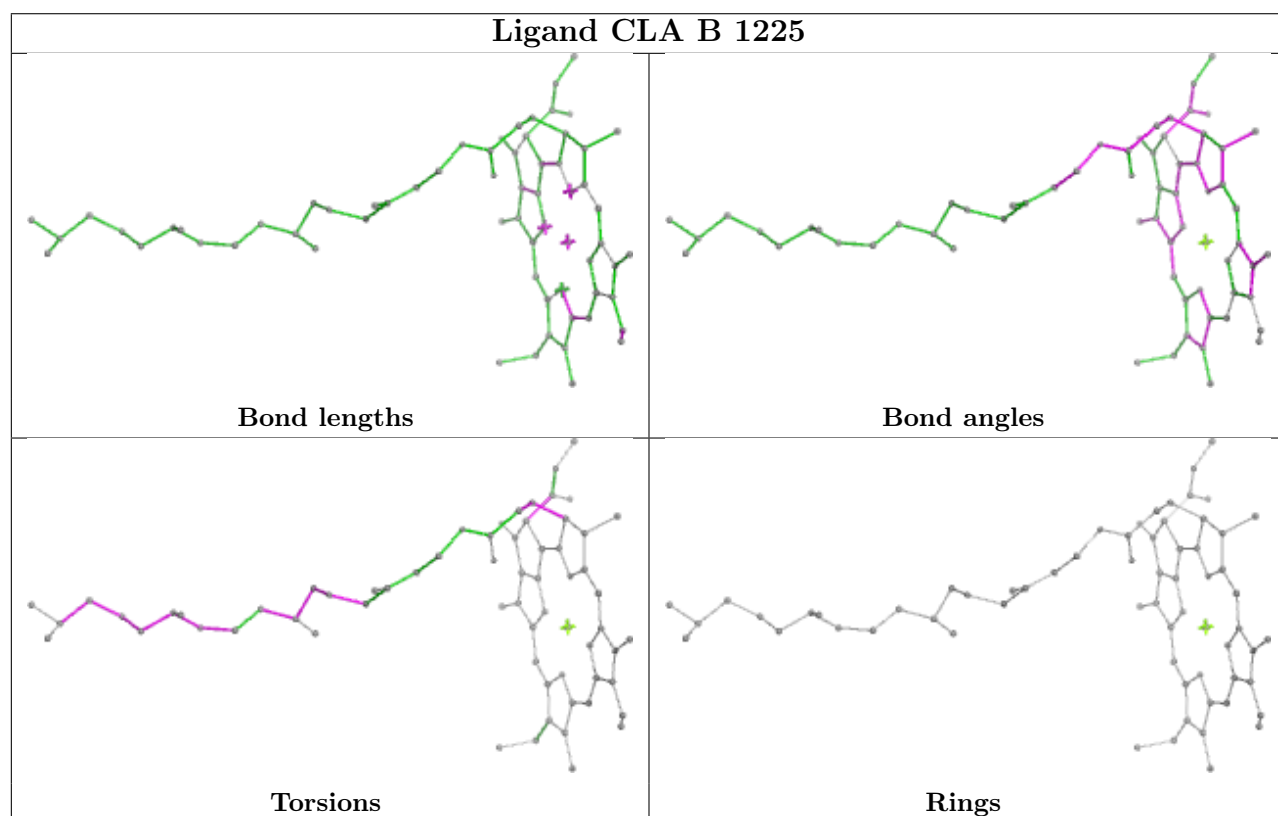
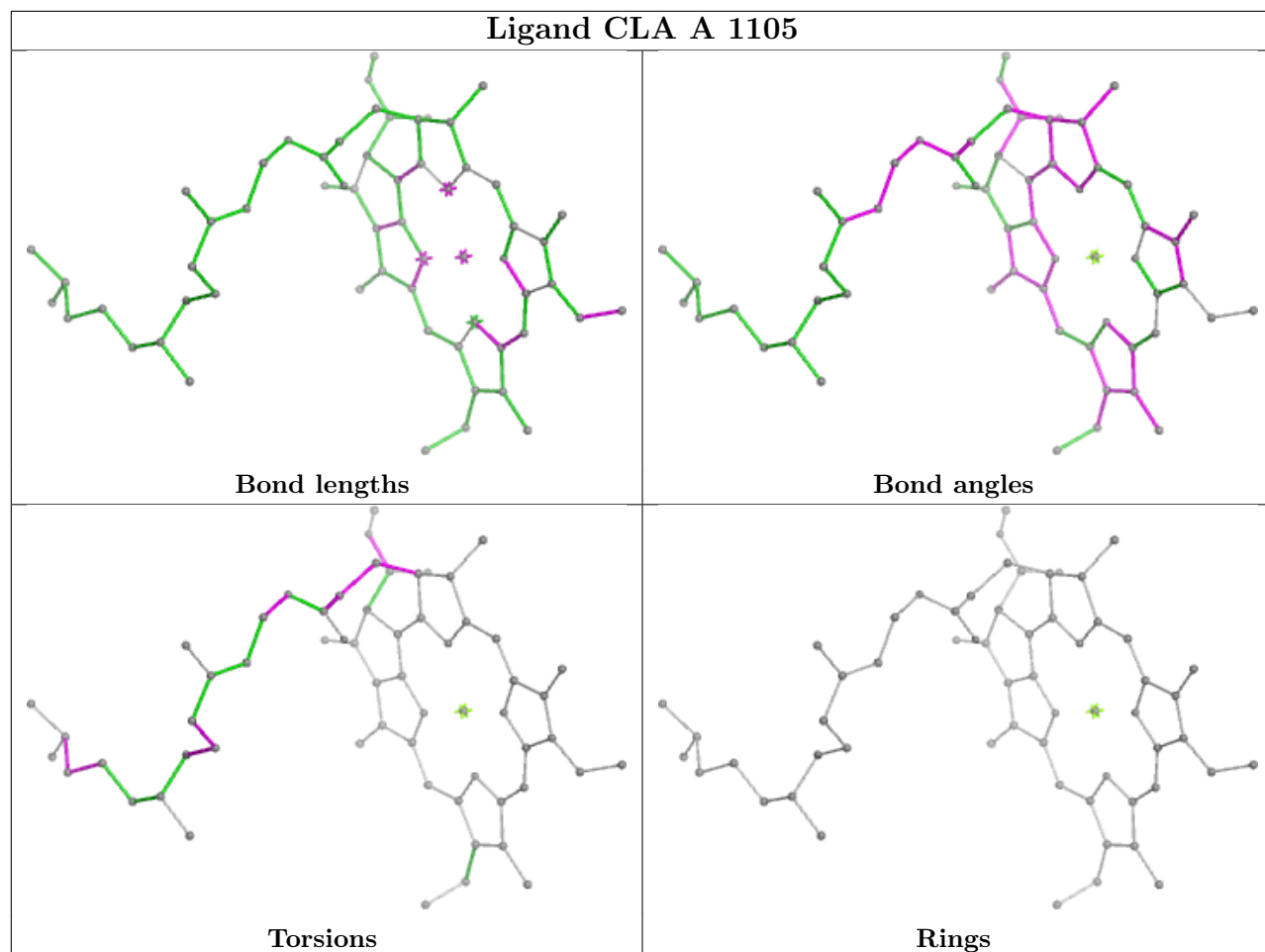


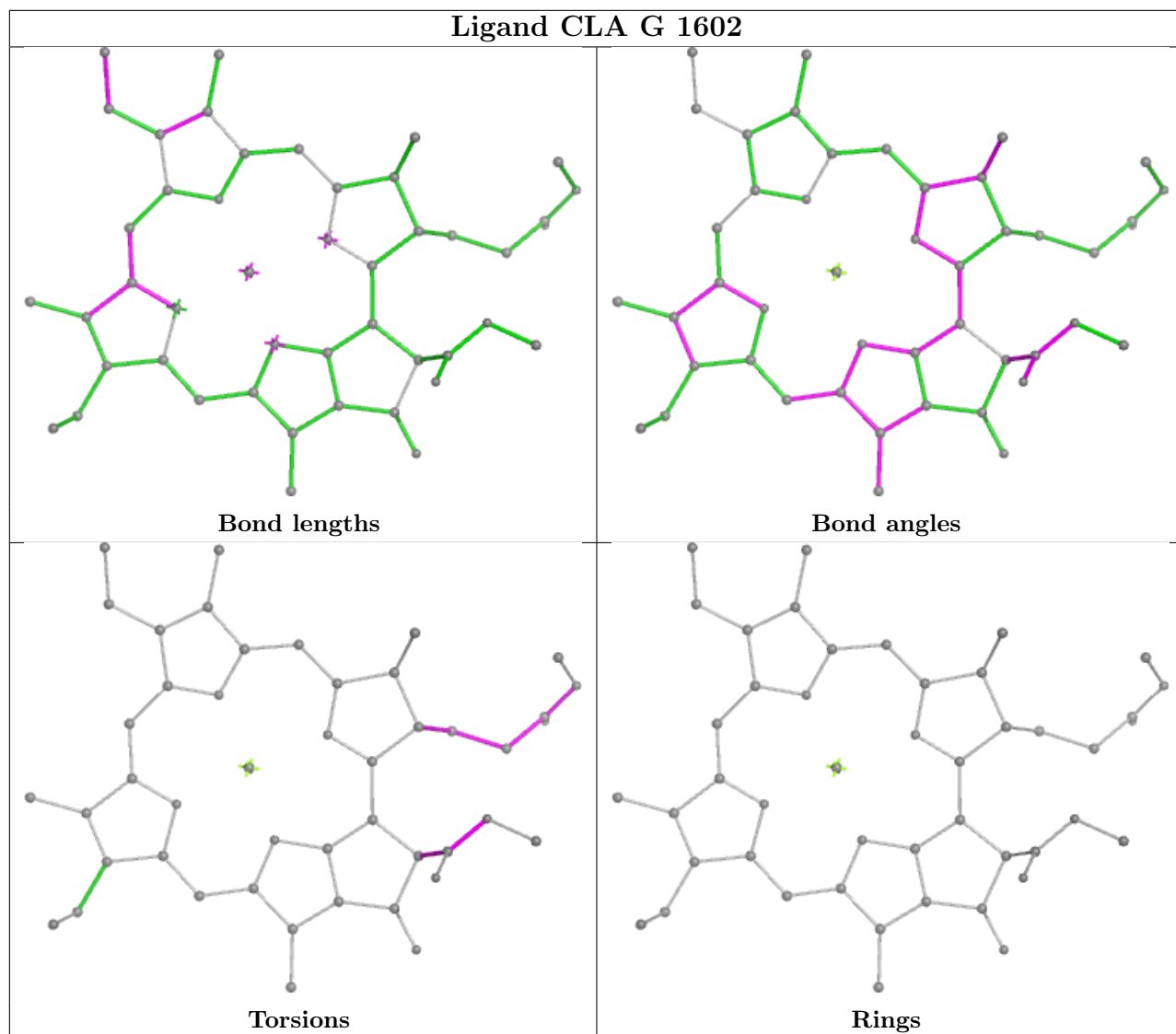




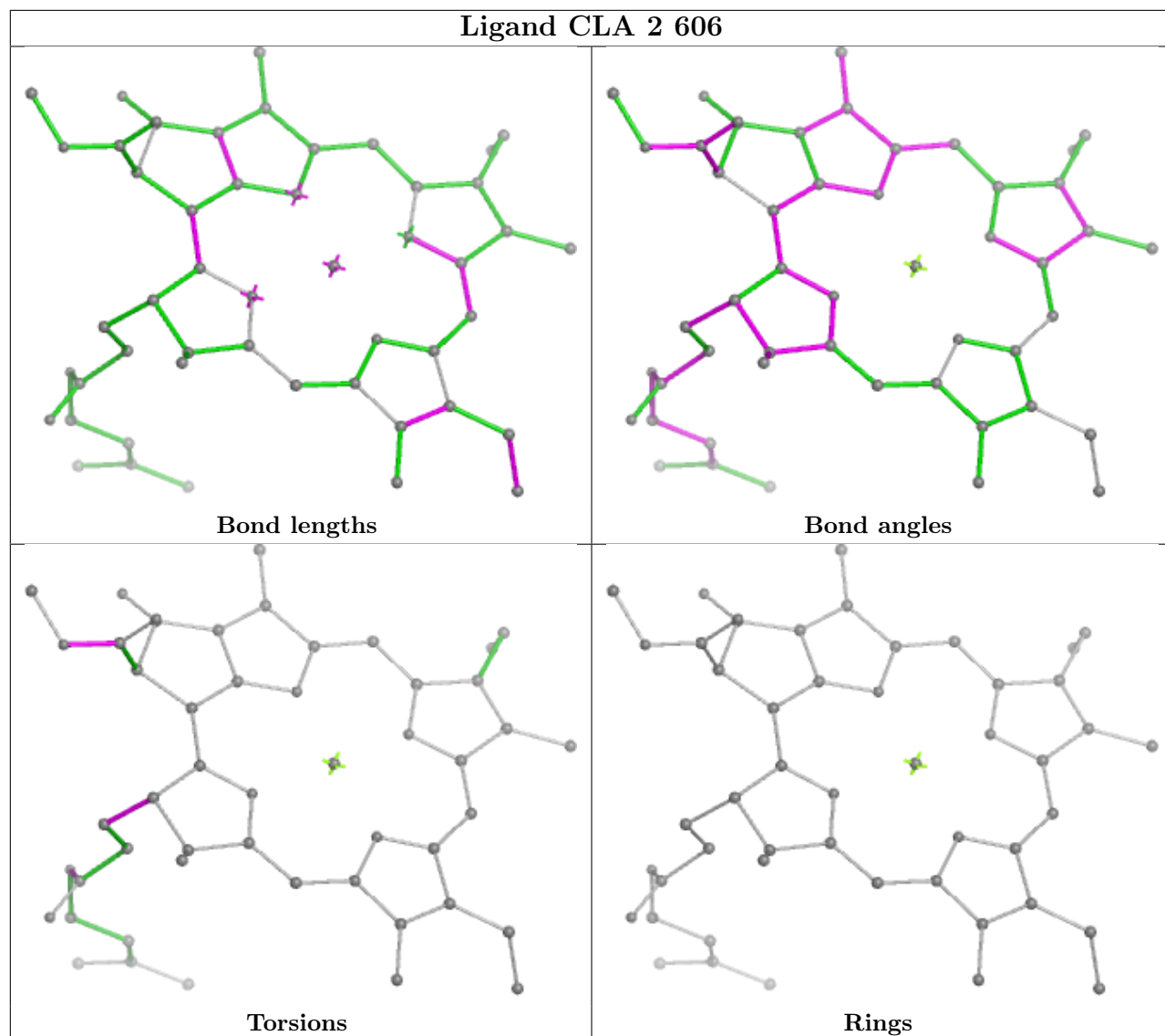


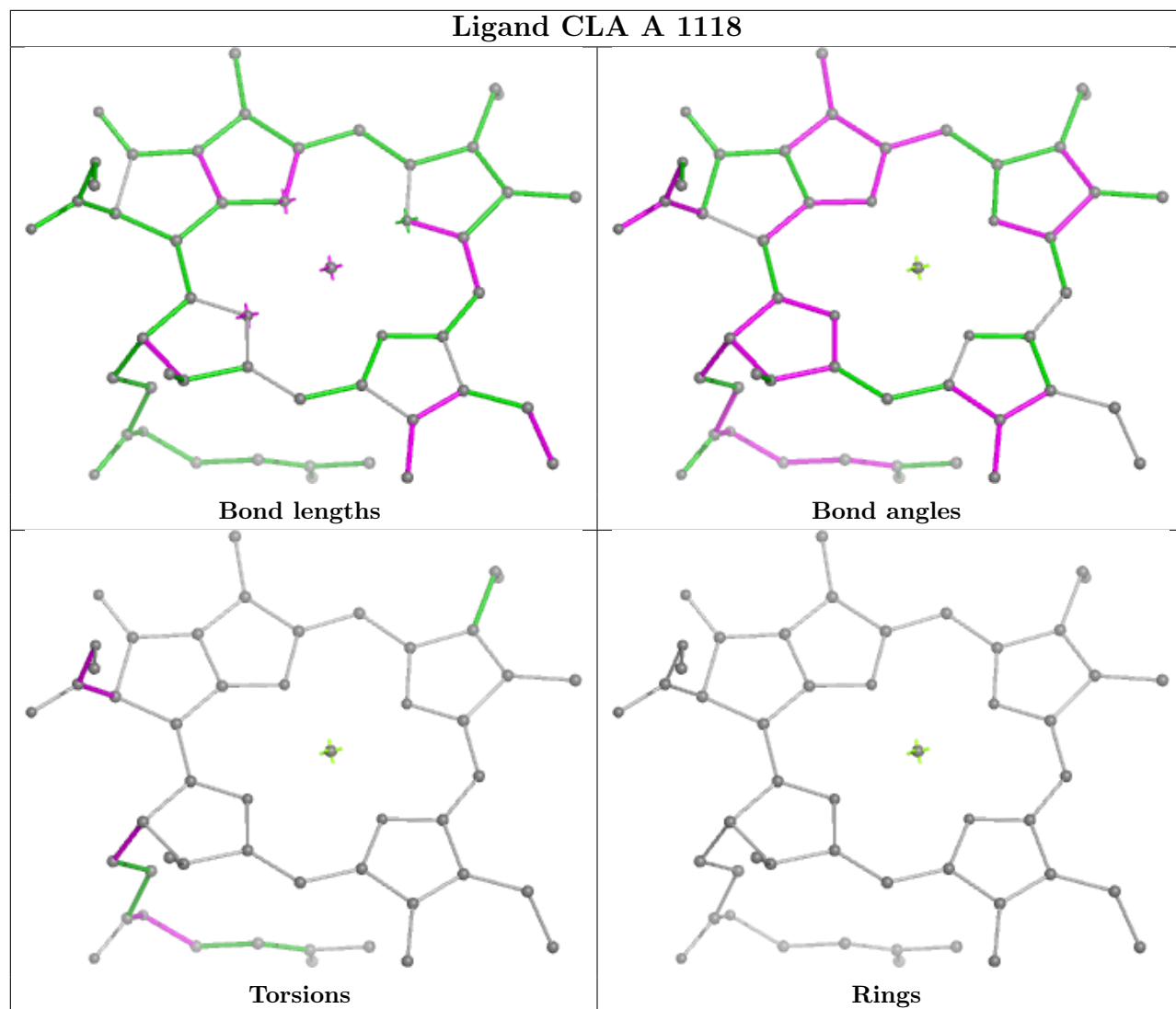


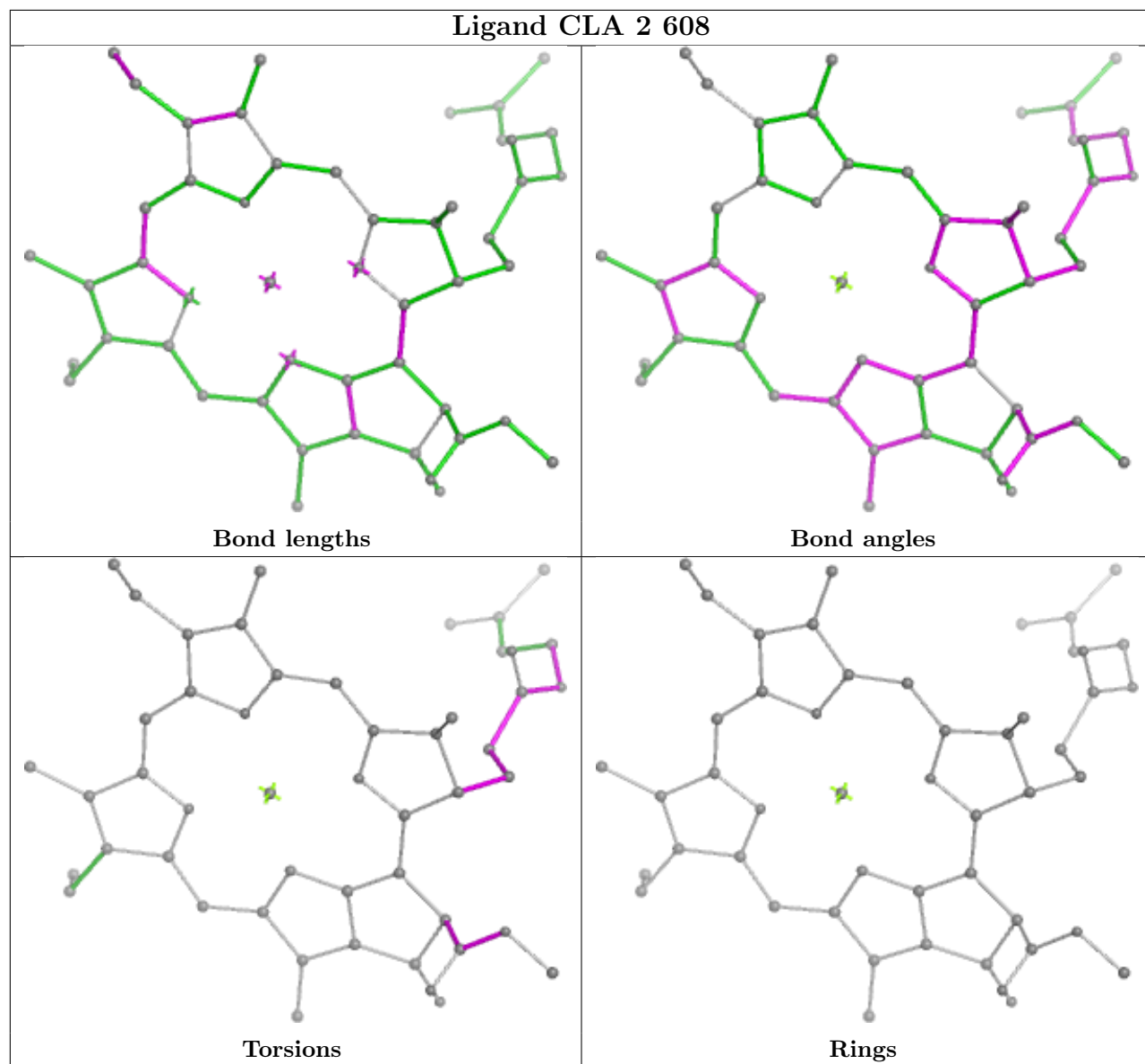


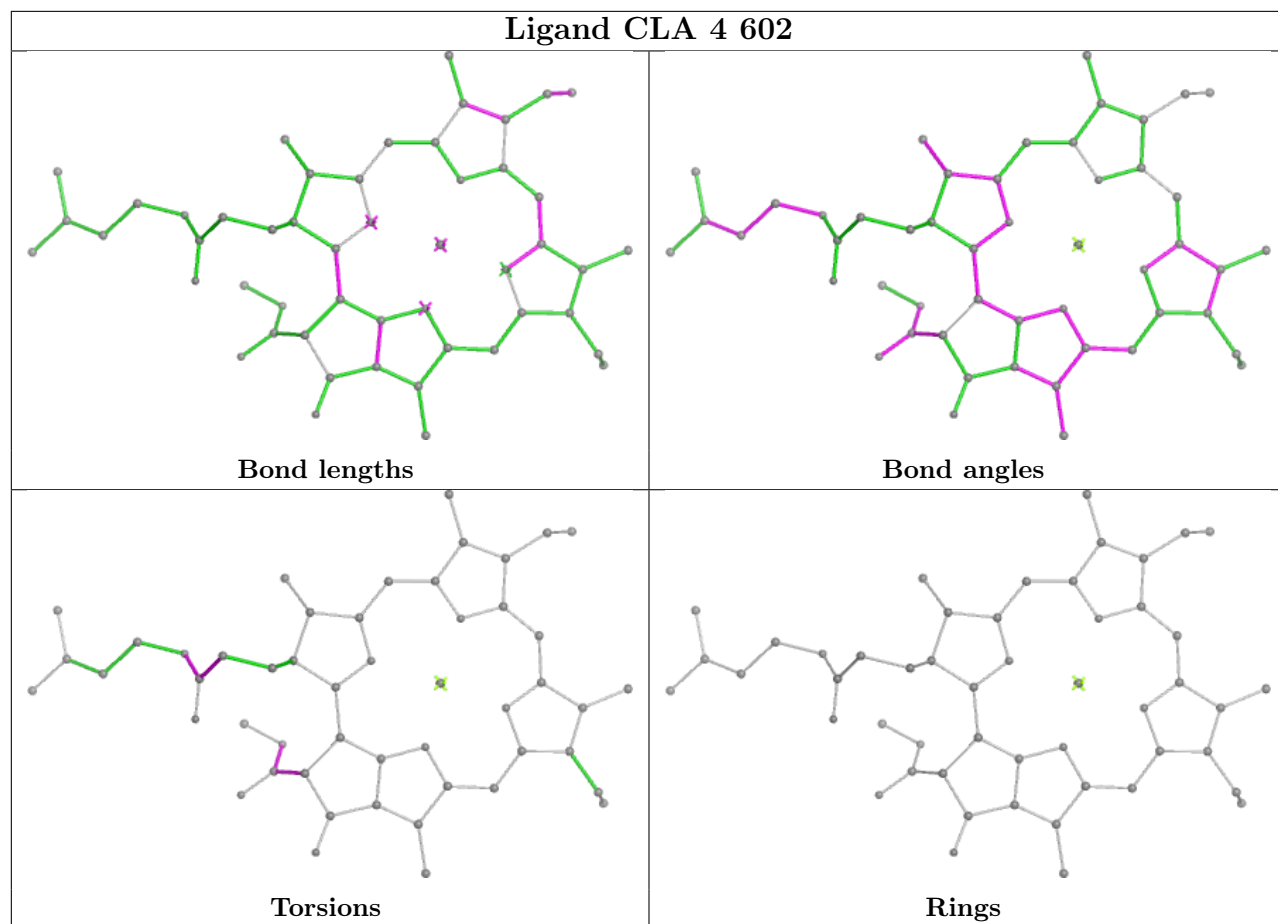


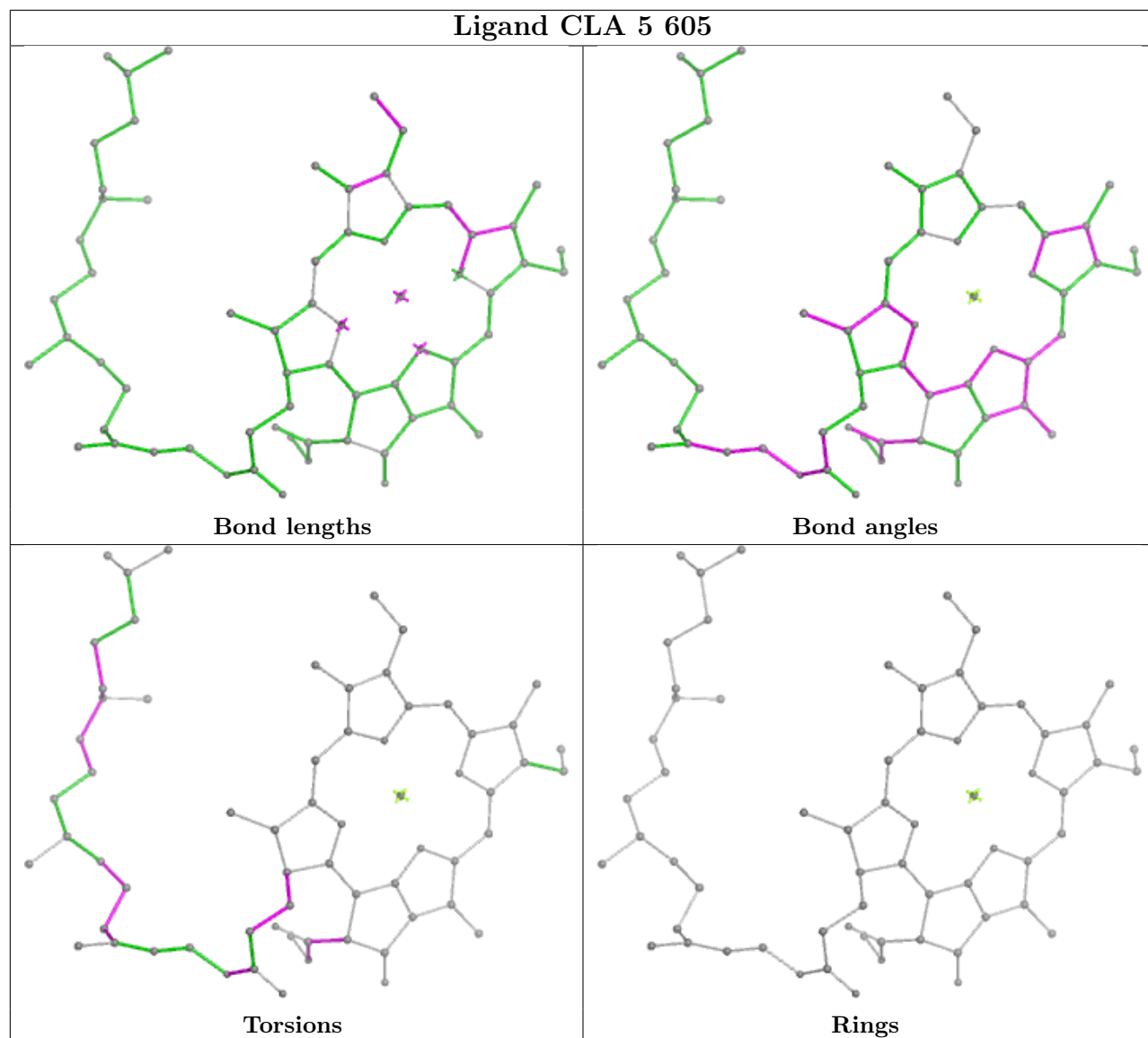


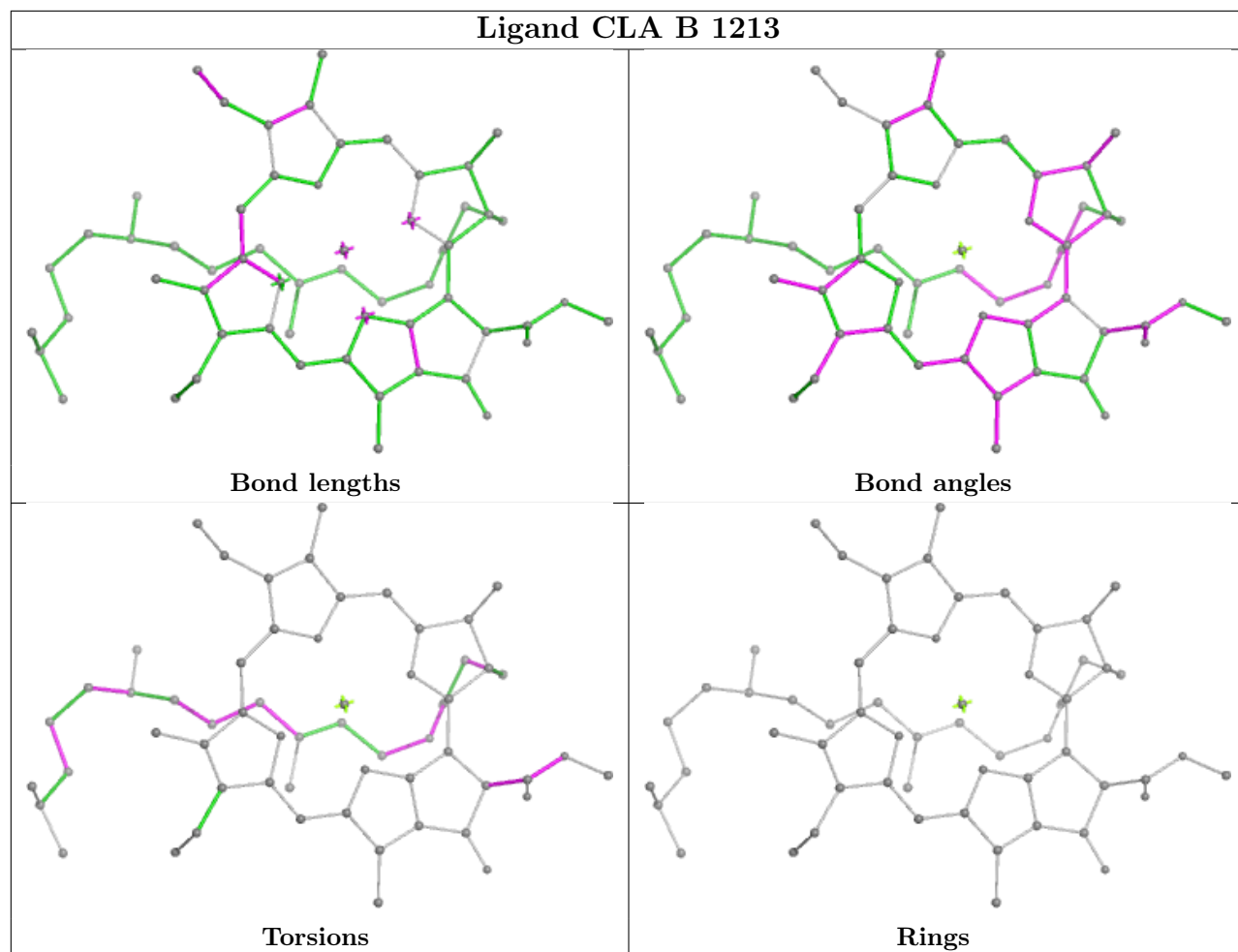


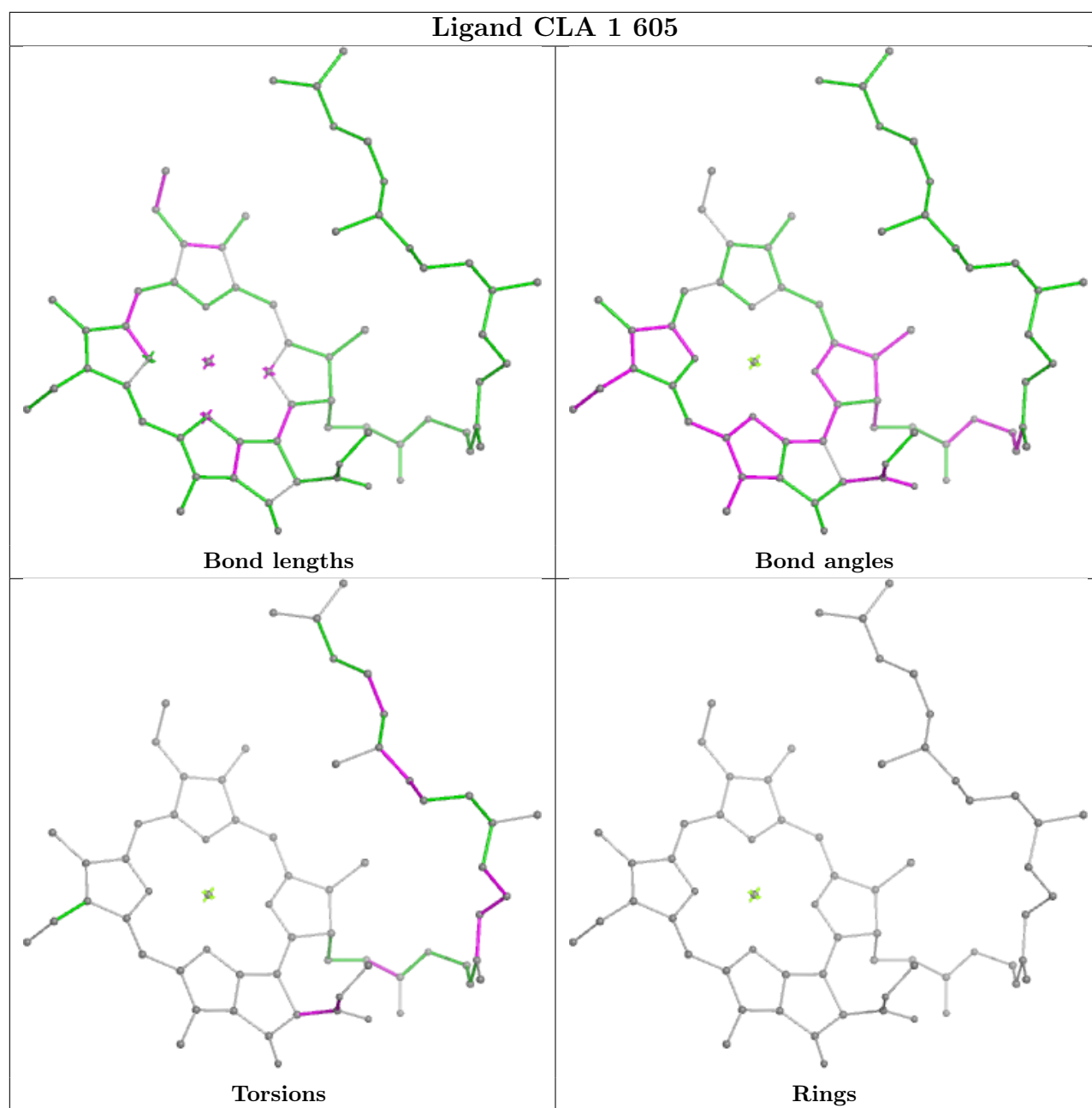












## 5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [\(i\)](#)

There are no chain breaks in this entry.

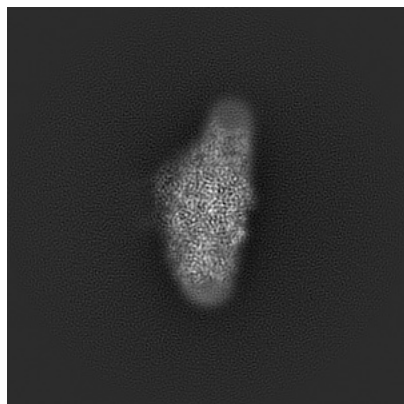
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10236. These allow visual inspection of the internal detail of the map and identification of artifacts.

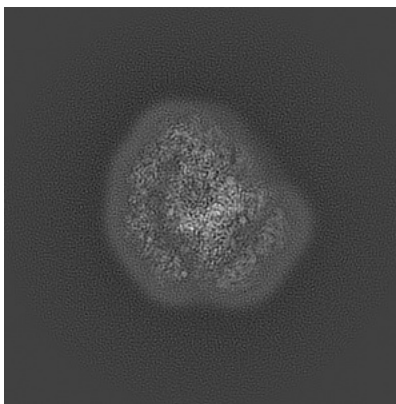
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

### 6.1 Orthogonal projections [i](#)

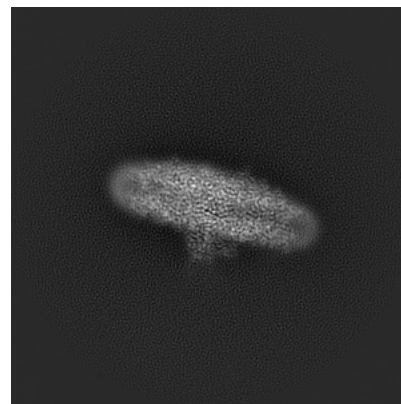
#### 6.1.1 Primary map



X

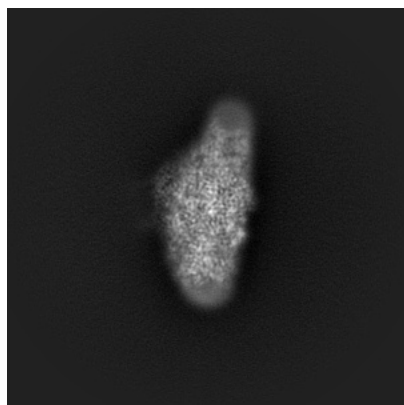


Y

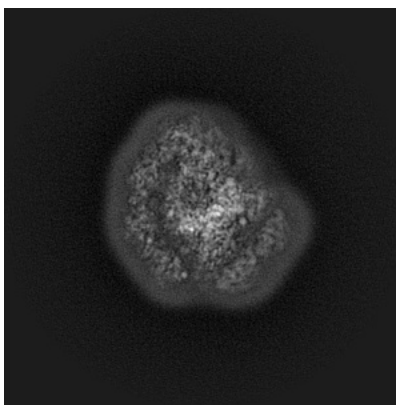


Z

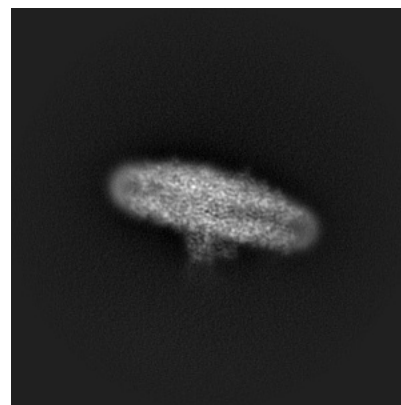
#### 6.1.2 Raw map



X



Y



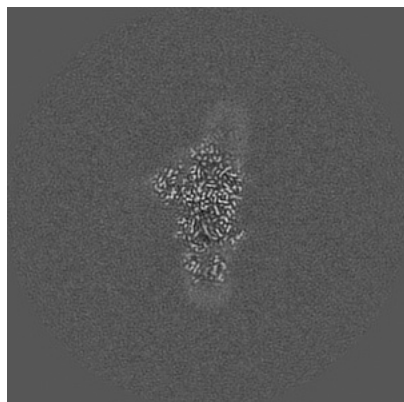
Z

The images above show the map projected in three orthogonal directions.

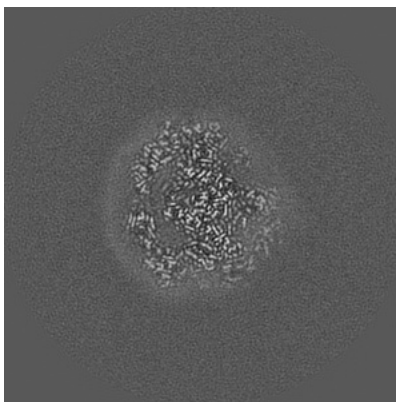


## 6.2 Central slices [i](#)

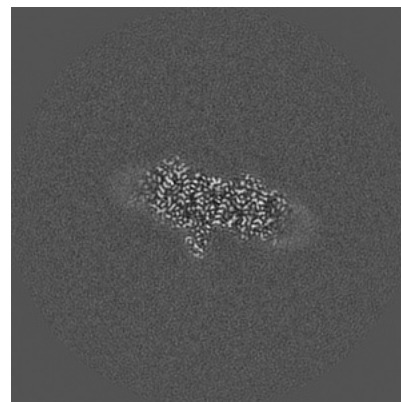
### 6.2.1 Primary map



X Index: 180

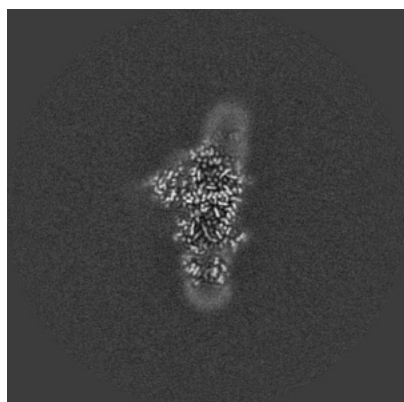


Y Index: 180

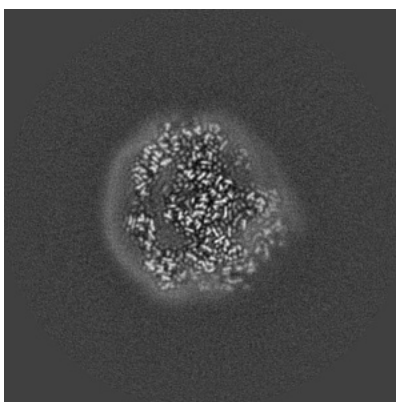


Z Index: 180

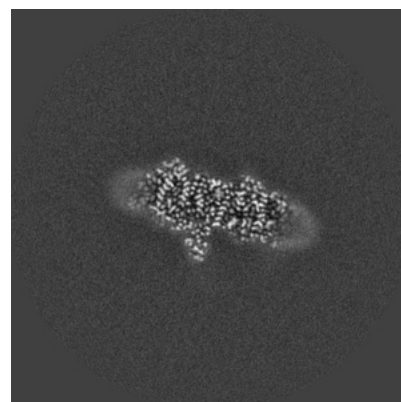
### 6.2.2 Raw map



X Index: 180



Y Index: 180

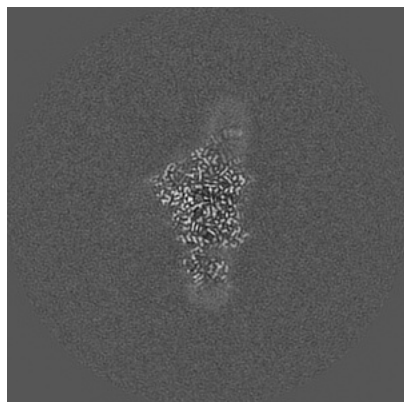


Z Index: 180

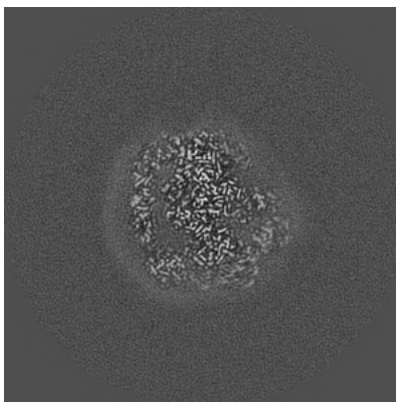
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

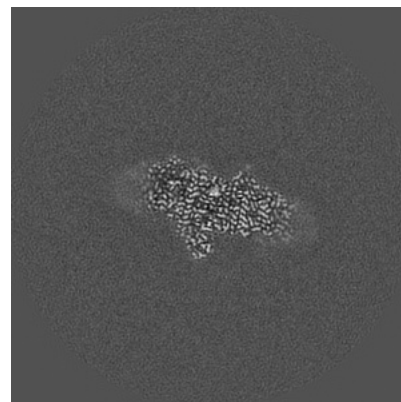
### 6.3.1 Primary map



X Index: 177

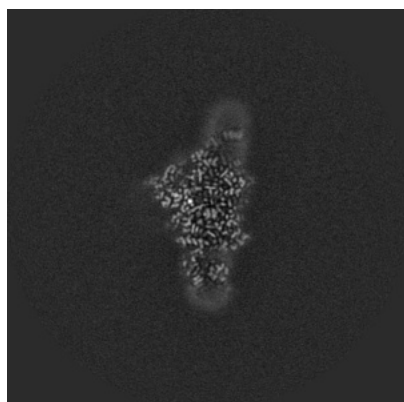


Y Index: 184

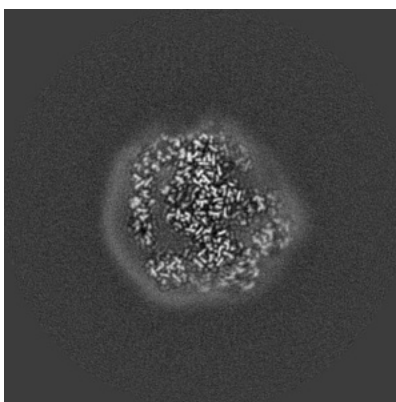


Z Index: 185

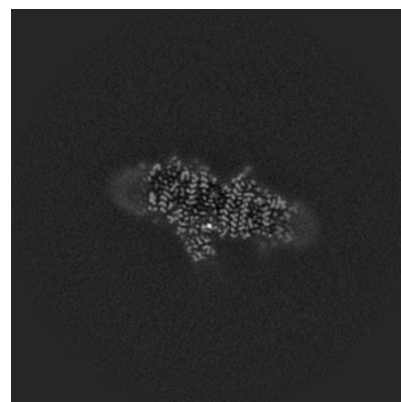
### 6.3.2 Raw map



X Index: 177



Y Index: 184

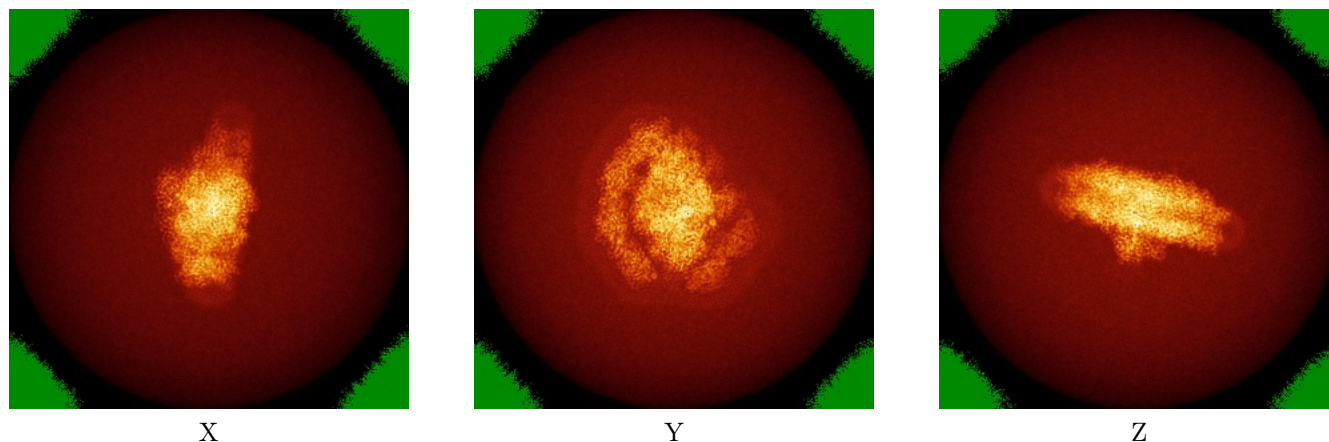


Z Index: 186

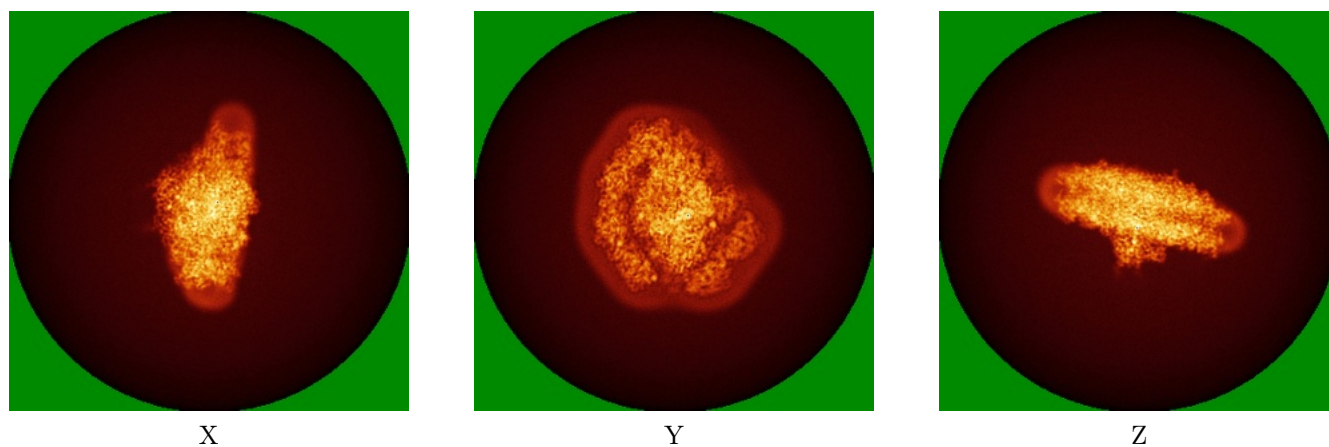
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal standard-deviation projections (False-color) [i](#)

### 6.4.1 Primary map



### 6.4.2 Raw map



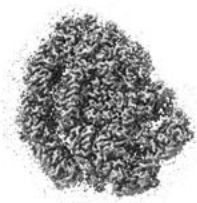
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



X



Y



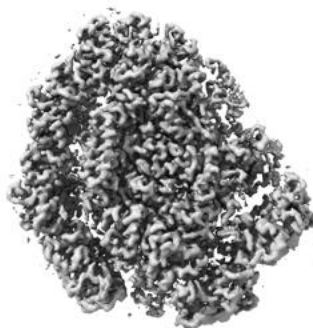
Z

The images above show the 3D surface view of the map at the recommended contour level 0.0247. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

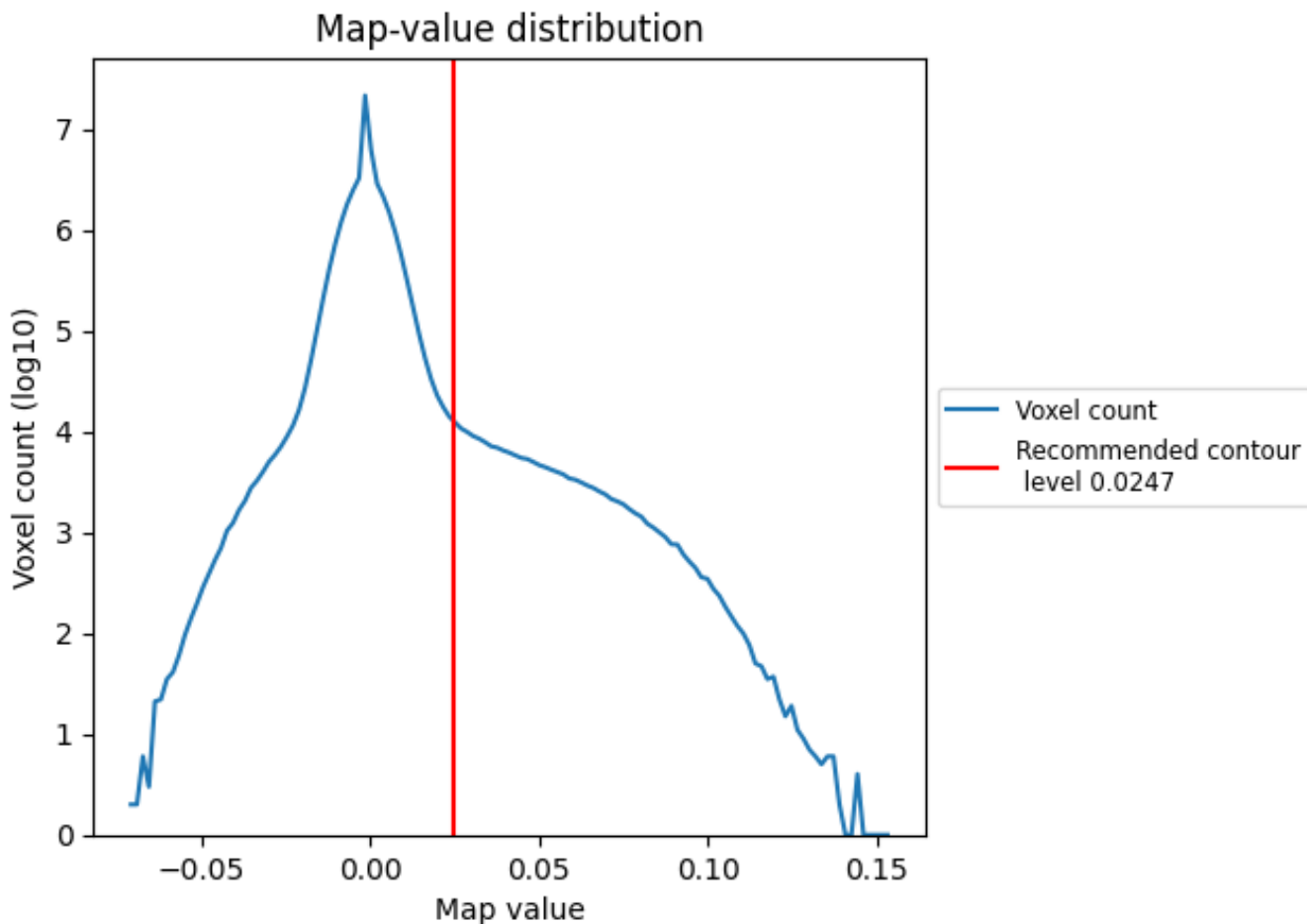
## 6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

## 7 Map analysis [i](#)

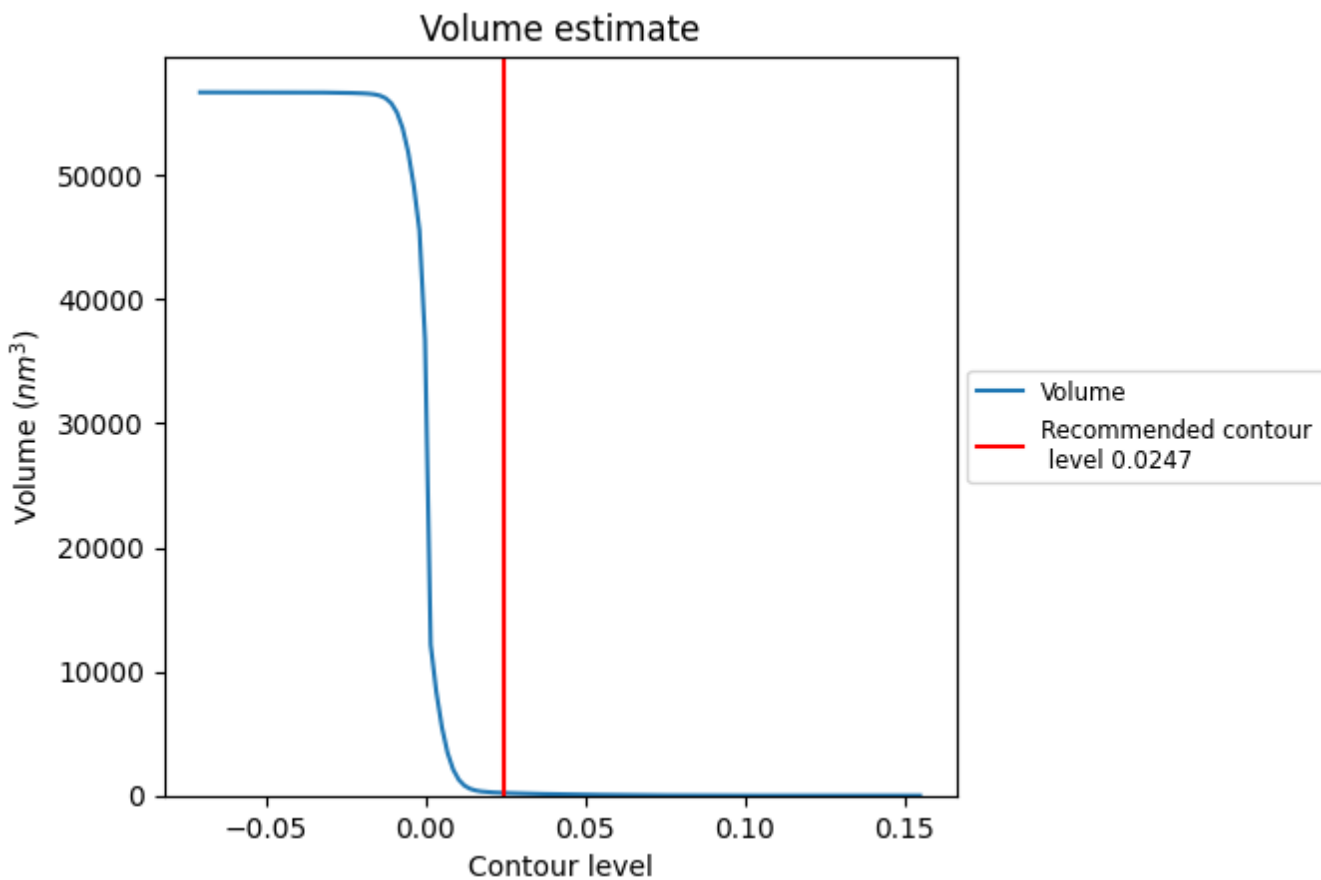
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

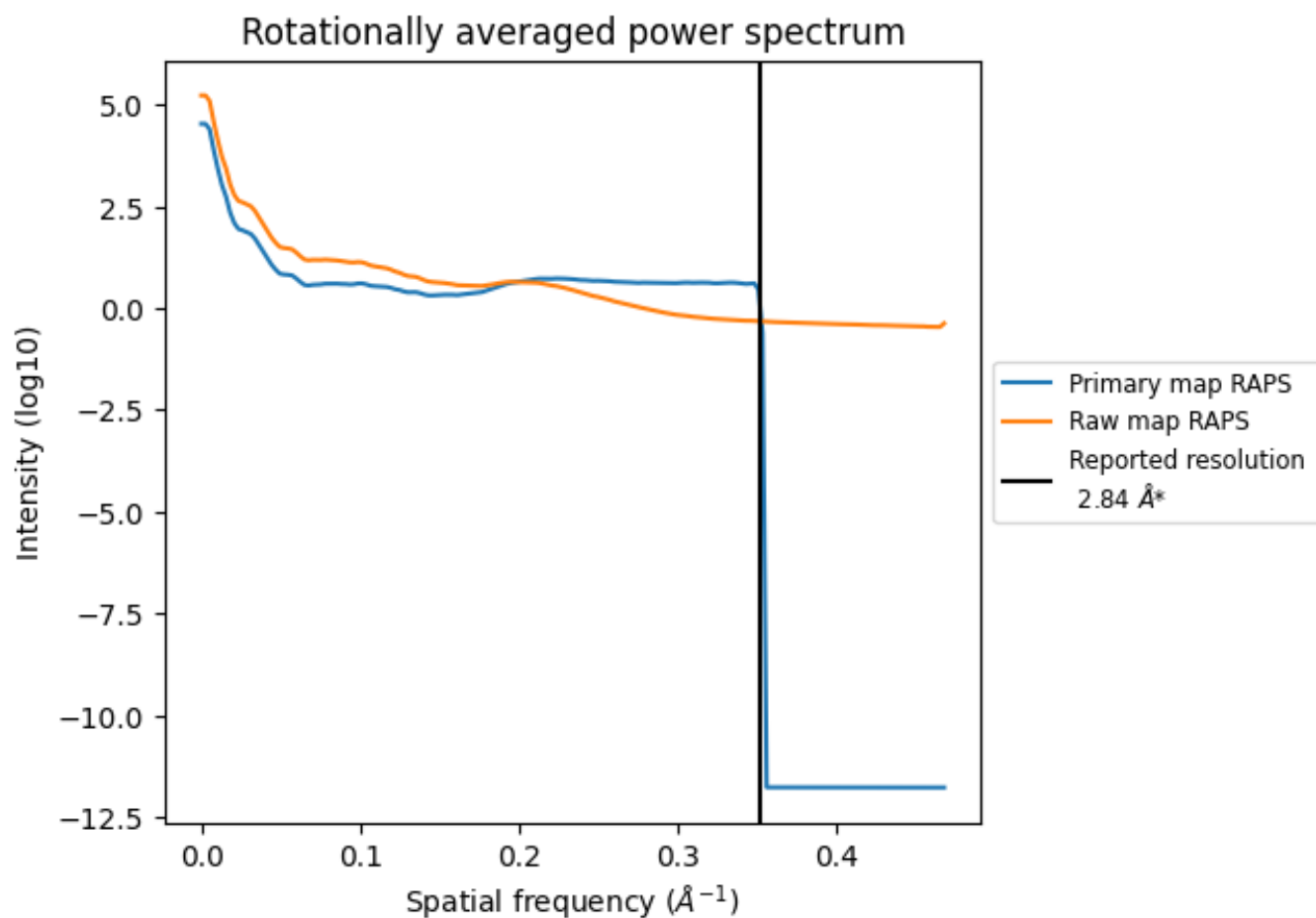
## 7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 209  $\text{nm}^3$ ; this corresponds to an approximate mass of 188 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

### 7.3 Rotationally averaged power spectrum [i](#)



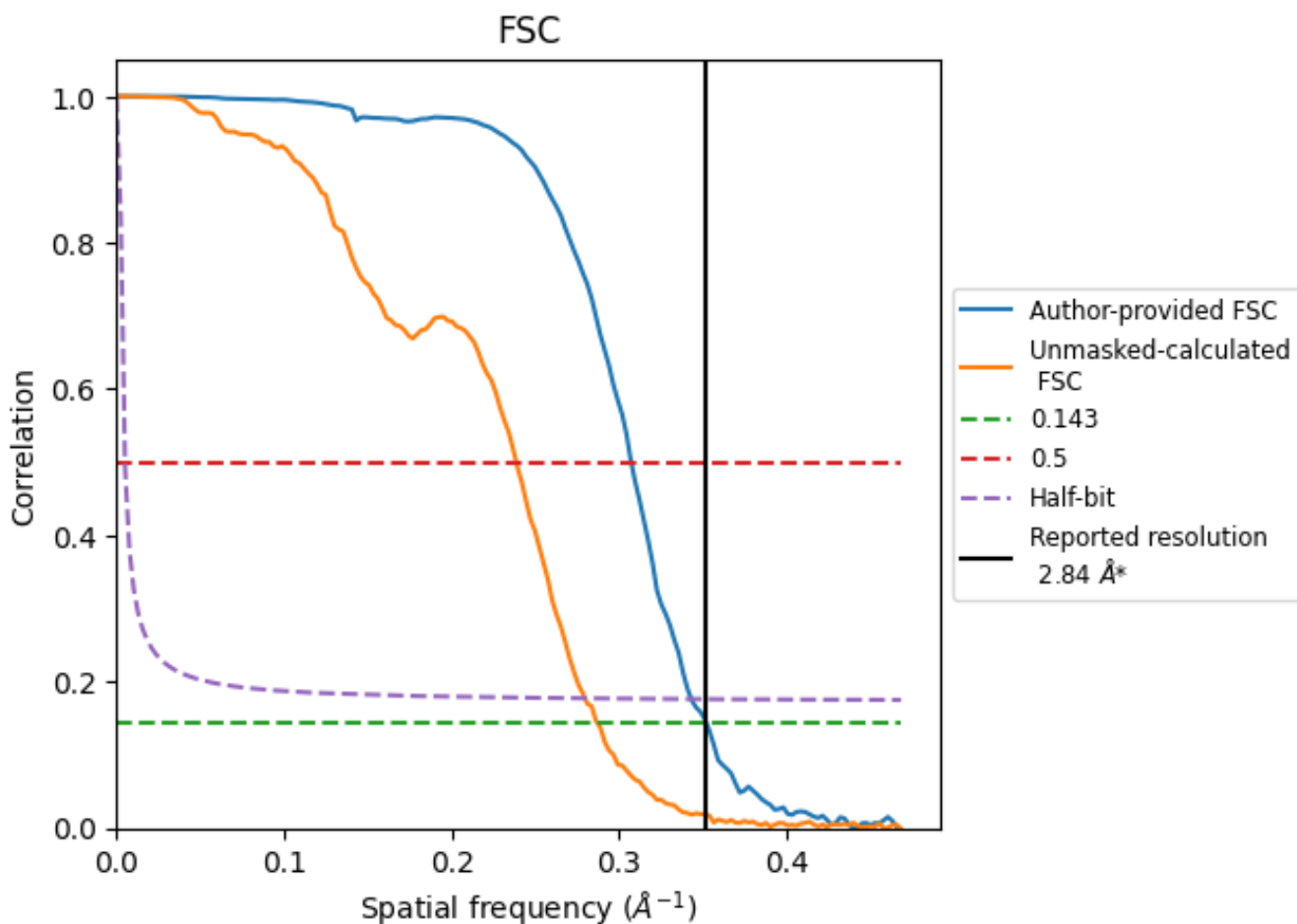
\*Reported resolution corresponds to spatial frequency of  $0.352 \text{ \AA}^{-1}$



## 8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.352 Å<sup>-1</sup>



## 8.2 Resolution estimates [i](#)

| Resolution estimate (Å)   | Estimation criterion (FSC cut-off) |      |          |
|---------------------------|------------------------------------|------|----------|
|                           | 0.143                              | 0.5  | Half-bit |
| Reported by author        | 2.84                               | -    | -        |
| Author-provided FSC curve | 2.84                               | 3.25 | 2.91     |
| Unmasked-calculated*      | 3.48                               | 4.19 | 3.57     |

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.48 differs from the reported value 2.84 by more than 10 %

## 9 Map-model fit [i](#)

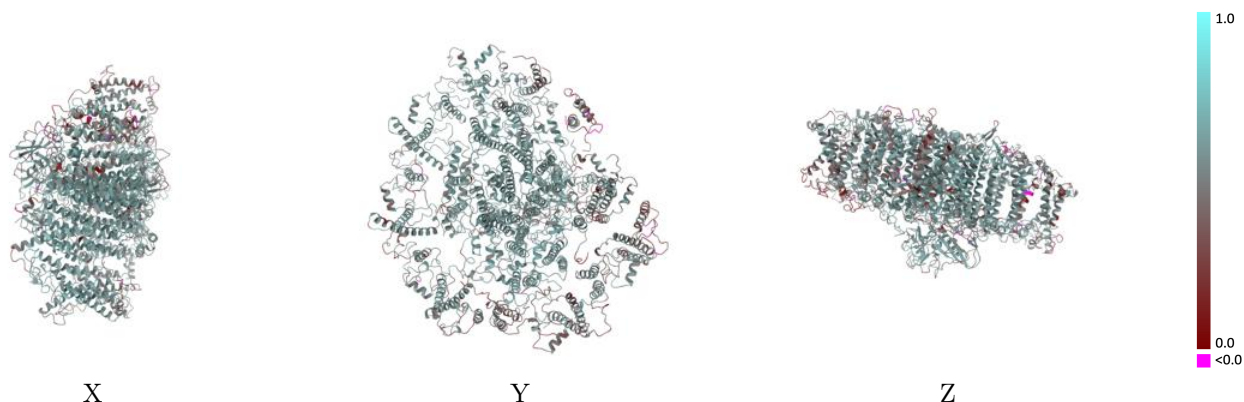
This section contains information regarding the fit between EMDB map EMD-10236 and PDB model 6SL5. Per-residue inclusion information can be found in section 3 on page 37.

### 9.1 Map-model overlay [i](#)



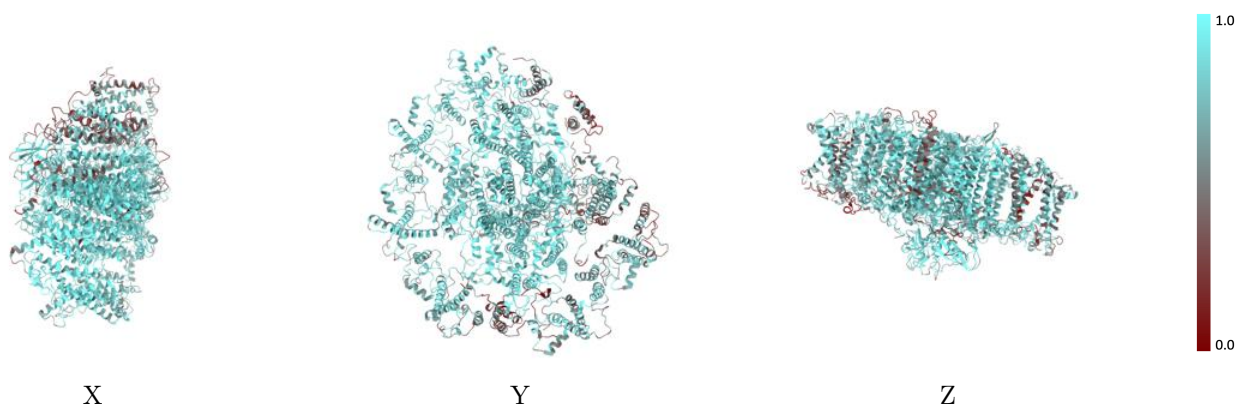
The images above show the 3D surface view of the map at the recommended contour level 0.0247 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 9.2 Q-score mapped to coordinate model [i](#)



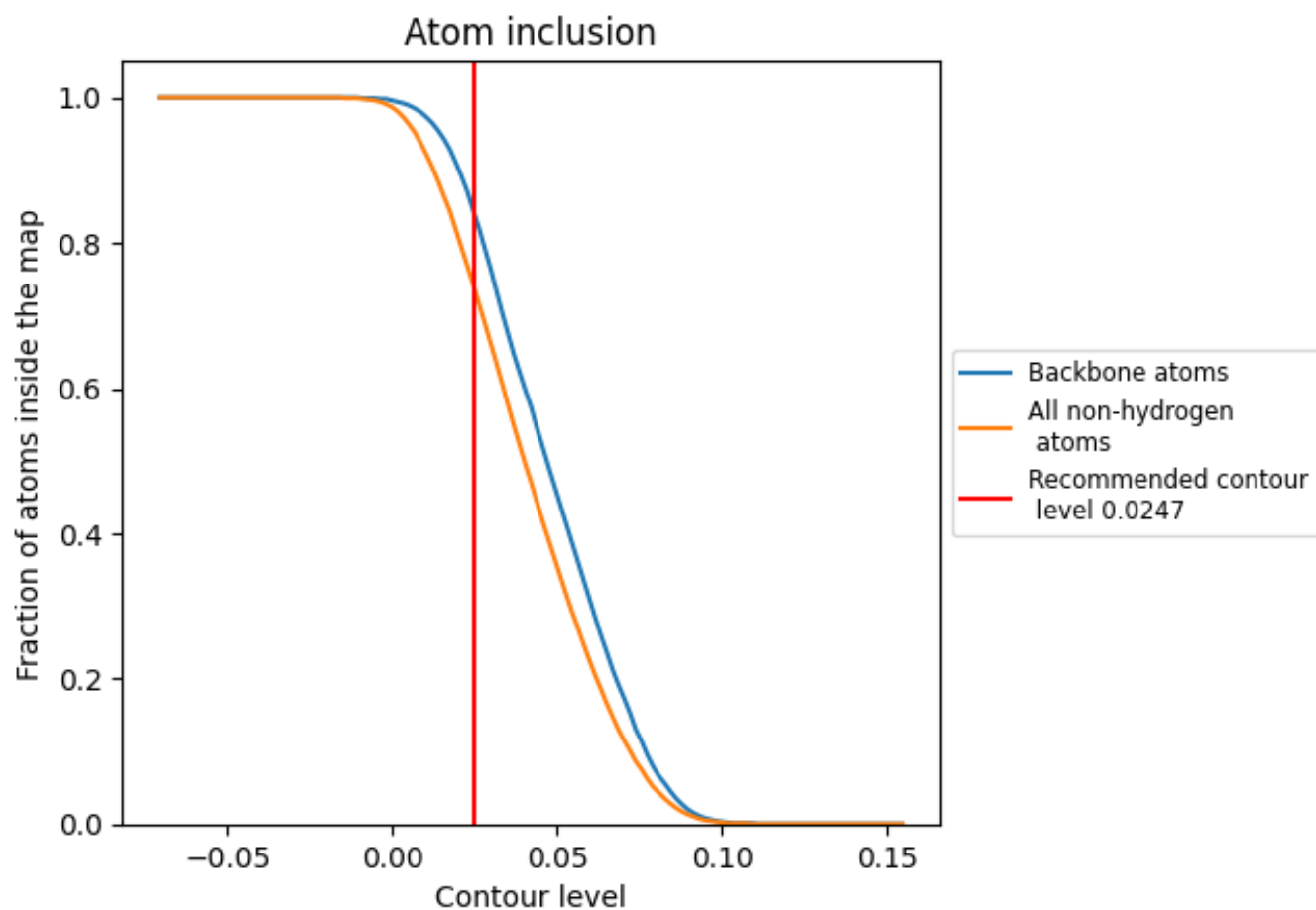
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

## 9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0247).









































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 84% of all backbone atoms, 74% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.0247) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion   | Q-score  |
|-------|--|--|
| All   |  0.7400   |  0.5300   |
| 1     |  0.6550   |  0.4930   |
| 2     |  0.7430   |  0.5330   |
| 3     |  0.7530   |  0.5240   |
| 4     |  0.7140   |  0.4980   |
| 5     |  0.5470   |  0.4550   |
| 6     |  0.6290   |  0.4660   |
| A     |  0.8750   |  0.5960   |
| B     |  0.8640   |  0.5930   |
| C     |  0.9150   |  0.6030   |
| D     |  0.8050   |  0.5410   |
| E     |  0.8020   |  0.5550   |
| F     |  0.7420   |  0.5350   |
| G     |  0.2700   |  0.3280   |
| H     |  0.3330  |  0.3910  |
| I     |  0.7370 |  0.5120 |
| J     |  0.7720 |  0.5060 |
| K     |  0.5120 |  0.4340 |
| L     |  0.5980 |  0.4500 |
| O     |  0.3310 |  0.3300 |

