



## Full wwPDB EM Validation Report ⓘ

Jan 18, 2026 – 10:08 PM EST

PDB ID : 9Z9X / pdb\_00009z9x  
EMDB ID : EMD-73962  
Title : Gated state sheep connexin-46 in DMPC nanodiscs at low pH  
Authors : Jarodsky, J.M.; Myers, J.B.; Reichow, S.L.  
Deposited on : 2025-11-18  
Resolution : 2.30 Å(reported)  
Based on initial model : 7jkc

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.dev129  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4-5-2 with Phenix2.0  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.47

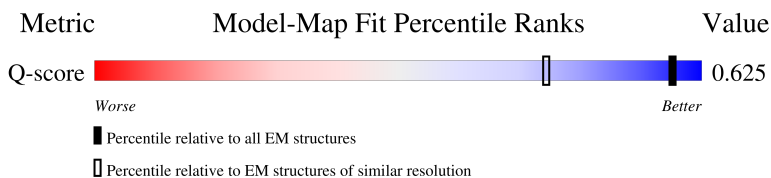
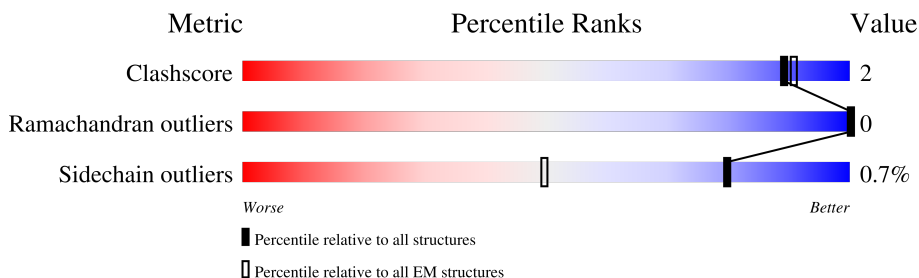
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 2.30 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) | Similar EM resolution<br>(#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|-----------------------------|----------------------------------------------------------|
| Clashscore            | 210492                      | 15764                       | -                                                        |
| Ramachandran outliers | 207382                      | 16835                       | -                                                        |
| Sidechain outliers    | 206894                      | 16415                       | -                                                        |
| Q-score               | -                           | 25397                       | 4254 ( 1.80 - 2.80 )                                     |

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     | 413    |  |
| 1   | B     | 413    |  |
| 1   | C     | 413    |  |
| 1   | D     | 413    |  |

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| Mol | Chain | Length | Quality of chain                                                                             |
|-----|-------|--------|----------------------------------------------------------------------------------------------|
| 1   | E     | 413    |  43% . 55% |
| 1   | F     | 413    |  44% . 55% |
| 1   | G     | 413    |  44% . 55% |
| 1   | H     | 413    |  43% . 55% |
| 1   | I     | 413    |  43% . 55% |
| 1   | J     | 413    |  43% . 55% |
| 1   | K     | 413    |  43% . 55% |
| 1   | L     | 413    |  44% . 55% |

## 2 Entry composition

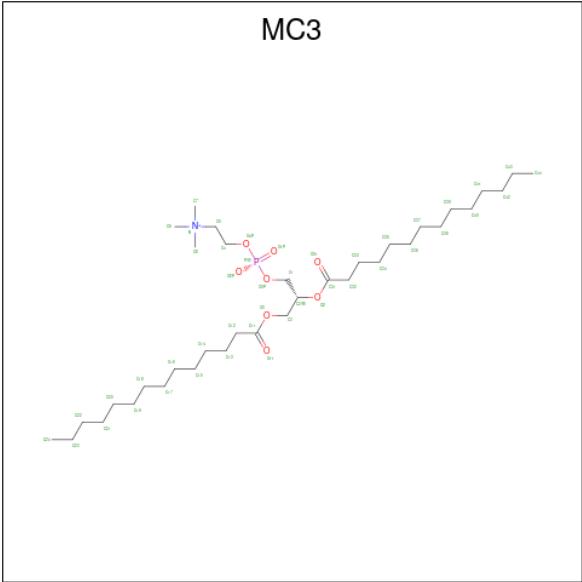
There are 3 unique types of molecules in this entry. The entry contains 47508 atoms, of which 24852 are hydrogens and 0 are deuteriums.

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 Gap junction alpha-3 protein.

| Mol | Chain | Residues | Atoms |     |      |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|------|-----|-----|---|---------|-------|
| 1   | A     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | B     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | C     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | D     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | E     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | F     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | G     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | H     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | I     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | J     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | K     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |
| 1   | L     | 185      | Total | C   | H    | N   | O   | S | 0       | 0     |
|     |       |          | 2842  | 959 | 1399 | 232 | 244 | 8 |         |       |

- Molecule 2 is 1,2-DIMYRISTOYL-RAC-GLYCERO-3-PHOSPHOCHOLINE (CCD ID: MC3) (formula: C<sub>36</sub>H<sub>72</sub>NO<sub>8</sub>P).



| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | A     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |         |
| 2   | A     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |   |         |
| 2   | A     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | B     | 1        | Total | C  | H  | O | P |   | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | B     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | B     | 1        | Total | C  | H  | N | O | P       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1       |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |         |
| 2   | B     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | C     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |         |
| 2   | C     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | C     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  | O | P |   | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |   |         |
| 2   | D     | 1        | Total | C  | H  | O | P |   | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | D     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |         |
| 2   | D     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | E     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |         |
| 2   | E     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | E     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |   |         |
| 2   | E     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | F     | 1        | Total | C  | H  | O | P |   | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |   |         |
| 2   | F     | 1        | Total | C  | H  | O | P |   | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   | AltConf |   |
|-----|-------|----------|-------|----|----|---|---------|---|
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 39    | 13 | 26 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 39    | 13 | 26 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 36    | 12 | 24 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 36    | 12 | 24 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 36    | 12 | 24 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 27    | 9  | 18 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 21    | 7  | 14 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 24    | 8  | 16 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 27    | 9  | 18 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 18    | 6  | 12 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 12    | 4  | 8  |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 18    | 6  | 12 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 24    | 8  | 16 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 36    | 12 | 24 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 18    | 6  | 12 |   |         |   |
| 2   | F     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 21    | 7  | 14 |   |         |   |
| 2   | G     | 1        | Total | C  | H  |   | 0       |   |
|     |       |          | 27    | 9  | 18 |   |         |   |
| 2   | G     | 1        | Total | C  | H  | O | P       | 0 |
|     |       |          | 67    | 21 | 37 | 8 | 1       |   |
| 2   | G     | 1        | Total | C  | H  | O | P       | 0 |
|     |       |          | 76    | 24 | 43 | 8 | 1       |   |
| 2   | G     | 1        | Total | C  | H  |   |         | 0 |
|     |       |          | 39    | 13 | 26 |   |         |   |
| 2   | G     | 1        | Total | C  | H  |   |         | 0 |
|     |       |          | 39    | 13 | 26 |   |         |   |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | G     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |         |
| 2   | G     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | H     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |         |
| 2   | H     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |   |         |
| 2   | H     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | I     | 1        | Total | C  | H  | O | P |   | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | I     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | I     | 1        | Total | C  | H  | N | O | P       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1       |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |         |
| 2   | I     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | J     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |         |
| 2   | J     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | J     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | J     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | K     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |         |
| 2   | K     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | K     | 1        | Total | C  | H  | N | O | P       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1       |

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| Mol | Chain | Residues | Atoms |    |    |   |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---|---------|
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |   |         |
| 2   | K     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |   |         |
| 2   | L     | 1        | Total | C  | H  | N | O | P | 0       |
|     |       |          | 62    | 18 | 34 | 1 | 8 | 1 |         |
| 2   | L     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   |   | 0       |
|     |       |          | 30    | 10 | 20 |   |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    |   |   | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 33    | 11 | 22 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 15    | 5  | 10 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | L     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 67    | 21 | 37 | 8 | 1 |         |
| 2   | L     | 1        | Total | C  | H  | O | P | 0       |
|     |       |          | 76    | 24 | 43 | 8 | 1 |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 39    | 13 | 26 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 36    | 12 | 24 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 21    | 7  | 14 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 24    | 8  | 16 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 27    | 9  | 18 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 12    | 4  | 8  |   |   |         |
| 2   | L     | 1        | Total | C  | H  |   |   | 0       |
|     |       |          | 18    | 6  | 12 |   |   |         |

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| Mol | Chain | Residues | Atoms |    |    | AltConf |
|-----|-------|----------|-------|----|----|---------|
| 2   | L     | 1        | Total | C  | H  | 0       |
|     |       |          | 24    | 8  | 16 |         |
| 2   | L     | 1        | Total | C  | H  | 0       |
|     |       |          | 36    | 12 | 24 |         |
| 2   | L     | 1        | Total | C  | H  | 0       |
|     |       |          | 18    | 6  | 12 |         |
| 2   | L     | 1        | Total | C  | H  | 0       |
|     |       |          | 21    | 7  | 14 |         |

- Molecule 3 is water.

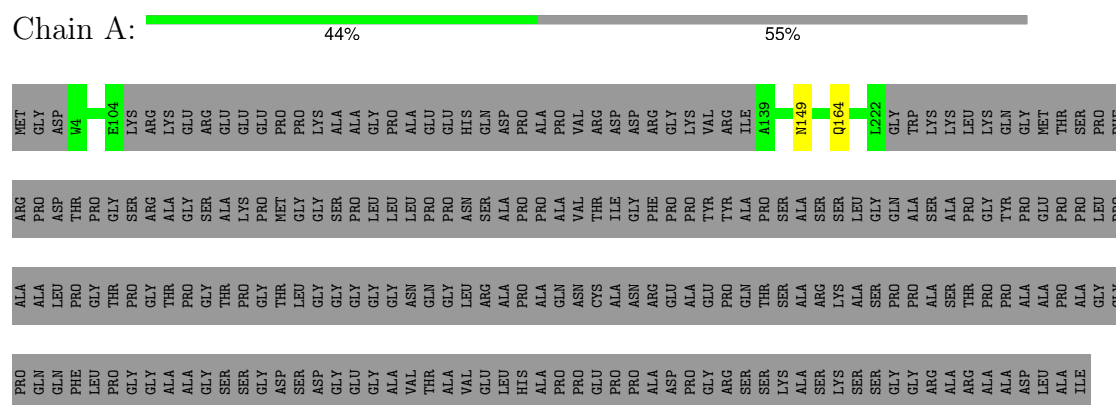
| Mol | Chain | Residues | Atoms |    | AltConf |
|-----|-------|----------|-------|----|---------|
| 3   | A     | 76       | Total | O  | 0       |
|     |       |          | 76    | 76 |         |
| 3   | B     | 75       | Total | O  | 0       |
|     |       |          | 75    | 75 |         |
| 3   | C     | 75       | Total | O  | 0       |
|     |       |          | 75    | 75 |         |
| 3   | D     | 76       | Total | O  | 0       |
|     |       |          | 76    | 76 |         |
| 3   | E     | 74       | Total | O  | 0       |
|     |       |          | 74    | 74 |         |
| 3   | F     | 75       | Total | O  | 0       |
|     |       |          | 75    | 75 |         |
| 3   | G     | 74       | Total | O  | 0       |
|     |       |          | 74    | 74 |         |
| 3   | H     | 76       | Total | O  | 0       |
|     |       |          | 76    | 76 |         |
| 3   | I     | 73       | Total | O  | 0       |
|     |       |          | 73    | 73 |         |
| 3   | J     | 75       | Total | O  | 0       |
|     |       |          | 75    | 75 |         |
| 3   | K     | 75       | Total | O  | 0       |
|     |       |          | 75    | 75 |         |
| 3   | L     | 76       | Total | O  | 0       |
|     |       |          | 76    | 76 |         |



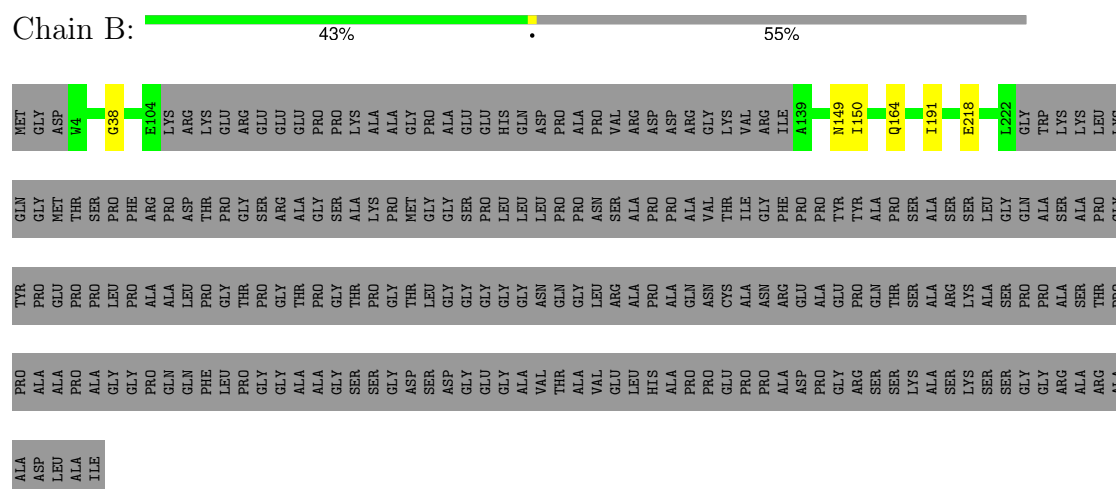
### 3 Residue-property plots

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.

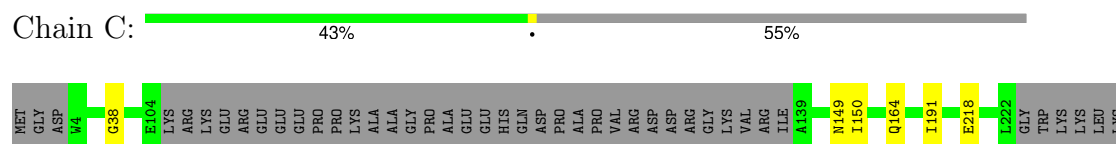
#### • Molecule 1: Gap junction alpha-3 protein



#### • Molecule 1: Gap junction alpha-3 protein

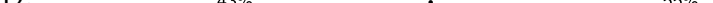


#### • Molecule 1: Gap junction alpha-3 protein



[illegible]

- Molecule 1: Gap junction alpha-3 protein

Chain D:  43% . 55%

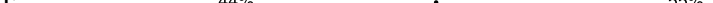
[illegible]

- Molecule 1: Gap junction alpha-3 protein

Chain E:  43% . 55%

[illegible]

- Molecule 1: Gap junction alpha-3 protein

Chain F:  44% . 55%

|     |     |     |    |     |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |     |     |     |     |     |
|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| NET | GLY | ASP | W4 | G38 | E104 | LYS | ARG | LYS | GLU | GLU | GLU | GLU | PRO | PRO | LYS | ALA | ALA | GLY | GLN | ASP | PRO | ALA | VAL | ARG | ASP | ASP | ARG | GLY | LYS | VAL | ARG | ILE | A139 | N149 | I150 | Q164 | E218 | L272 | TRP | LYS | LEU | LYS | GLN |
|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|-----|-----|-----|-----|-----|

|                   |                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LEU<br>ALA<br>ILE | ALA<br>PRO<br>ALA<br>GLY<br>GLY<br>PRO<br>GLN<br>GLN<br>PHE<br>LEU<br>GLY<br>GLY<br>GLY<br>ALA<br>SER<br>GLY<br>ALA<br>GLY<br>SER<br>SER<br>GLY<br>GLY<br>ASP<br>VAL<br>THR<br>THR<br>VAL<br>GLU<br>LEU<br>HIS<br>ALA<br>PRO<br>PRO<br>GLU<br>PRO<br>ALA<br>ASP<br>PRO<br>GLY<br>ARG<br>SER<br>SER<br>LYS<br>ALA<br>SER<br>SER<br>SER<br>GLY<br>GLY<br>ARG<br>ALA<br>ALA<br>ASP | GLU<br>PRO<br>LEU<br>PRO<br>ALA<br>ALA<br>LEU<br>PRO<br>PRO<br>THR<br>PRO<br>GLY<br>THR<br>GLY<br>PRO<br>GLY<br>THR<br>GLY<br>ASP<br>ASP<br>GLY<br>GLU<br>ALA<br>VAL<br>THR<br>THR<br>VAL<br>GLU<br>LEU<br>HIS<br>ALA<br>PRO<br>PRO<br>GLU<br>PRO<br>ALA<br>ASP<br>PRO<br>GLY<br>ARG<br>SER<br>SER<br>LYS<br>ALA<br>SER<br>SER<br>SER<br>GLY<br>GLY<br>ARG<br>ALA<br>ALA<br>ASP | MET<br>THR<br>SER<br>PRO<br>PHE<br>ARG<br>PRO<br>ASP<br>THR<br>PRO<br>GLY<br>SER<br>ARG<br>GLY<br>ALA<br>LYS<br>PRO<br>MET<br>GLY<br>GLY<br>SER<br>PRO<br>LEU<br>LEU<br>LEU<br>PRO<br>PRO<br>ASN<br>SER<br>ALA<br>PRO<br>PRO<br>ALA<br>VAL<br>THR<br>ILE<br>GLY<br>PHE<br>PRO<br>PRO<br>TYR<br>ALA<br>PRO<br>SER<br>ALA<br>SER<br>SER<br>LEU<br>GLY<br>GLN<br>ALA<br>SER<br>SER<br>PRO<br>GLY<br>TYR<br>ALA |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- Molecule 1: Gap junction alpha-3 protein



|     |     |     |     |      |
|-----|-----|-----|-----|------|
| ILE | ALA | PRO | SER | MET  |
|     | GLY | LEU | PRO | GLY  |
| ILE | GLY | PRO | PHE | ASP  |
|     | PRO | ALA | ARG | W4   |
| ILE | GLN | ALA | PRO | E104 |
|     | GLN | LEU | ASP | E104 |
| ILE | PHE | PRO | THR | LYS  |
|     | LEU | GLY | PRO | ARG  |
| ILE | PRO | THR | SER | LYS  |
|     | GLY | PRO | GLY | GLU  |
| ILE | ALA | THR | ARG | GLU  |
|     | ALA | THR | ALA | GLU  |
| ILE | GLY | PRO | GLY | GLU  |
|     | GLY | THR | SER | GLU  |
| ILE | SER | PRO | ALA | PRO  |
|     | SER | PRO | LYS | PRO  |
| ILE | GLY | GLY | PRO | LYS  |
|     | GLY | THR | MET | ALA  |
| ILE | SER | LEU | GLY | ALA  |
|     | ASP | GLY | GLY | ALA  |
| ILE | GLY | GLY | SER | PRO  |
|     | GLY | GLY | PRO | ALA  |
| ILE | ALA | GLY | LEU | GLU  |
|     | VAL | GLY | LEU | GLU  |
| ILE | THR | ASN | LEU | HIS  |
|     | THR | GLN | LEU | GLY  |
| ILE | ALA | GLY | PRO | ASN  |
|     | VAL | LEU | ASN | PRO  |
| ILE | GLY | LEU | SER | ALA  |
|     | LEU | ALA | ALA | PRO  |
| ILE | HIS | PRO | PRO | VAL  |
|     | ALA | ALA | PRO | ARG  |
| ILE | PRO | GLN | ALA | ASP  |
|     | PRO | ASN | VAL | ASP  |
| ILE | GLY | CYS | THR | ARG  |
|     | PRO | ALA | ILE | GLY  |
| ILE | PRO | ASN | GLY | LYS  |
|     | ALA | ARG | PHE | VAL  |
| ILE | ASP | GLU | PRO | ARG  |
|     | PRO | ALA | PRO | ILE  |
| ILE | GLY | GLU | TYR | A139 |
|     | ARG | PRO | TYR | A139 |
| ILE | ARG | GLN | ALA | N149 |
|     | SER | THR | PRO | N150 |
| ILE | SER | SER | SER | Q164 |
|     | ALA | ALA | ALA | Q164 |
| ILE | SER | ARG | SER | E218 |
|     | LYS | LYS | SER | E218 |
| ILE | SER | ALA | LEU | L222 |
|     | SER | SER | GLY | L222 |
| ILE | GLY | PRO | GLN | GLY  |
|     | GLY | PRO | ALA | TRP  |
| ILE | ARG | ALA | SER | LYS  |
|     | ALA | SER | ALA | LYS  |
| ILE | ARG | THR | PRO | LEU  |
|     | ALA | PRO | GLY | LEU  |
| ILE | ALA | PRO | TYR | GLN  |
|     | ASP | ALA | PRO | GLY  |
| ILE | LEU | ALA | GLU | MET  |
|     | ALA | PRO | PRO | THR  |

- Molecule 1: Gap junction alpha-3 protein

[illegible]

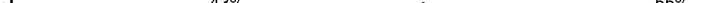
- Molecule 1: Gap junction alpha-3 protein



|     |     |     |    |     |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |     |     |     |     |     |     |
|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| NET | GLY | ASP | W4 | G38 | E104 | LYS | ARG | LYS | GLU | GLU | GLU | GLU | PRO | PRO | LYS | ALA | ALA | GLY | GLN | ASP | PRO | ALA | VAL | ARG | ASP | ASP | ARG | GLY | LYS | VAL | ARG | ILE | A139 | N149 | I150 | Q164 | I191 | E218 | L222 | GLY | TRP | LYS | LYS | LEU | LEU |
|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|

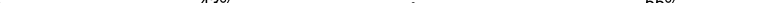
[illegible]

- Molecule 1: Gap junction alpha-3 protein

Chain J:  43% 55%

[illegible]

- Molecule 1: Gap junction alpha-3 protein

Chain K:  43% . 55%

[illegible]

- Molecule 1: Gap junction alpha-3 protein

Chain L:  44% 55%

|     |     |     |    |     |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |     |     |     |     |     |     |     |     |
|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| MET | GLY | ASP | W4 | G38 | E104 | LYS | ARG | LYS | GLU | ARG | GLU | GLU | GLU | PRO | PRO | LYS | ALA | ALA | GLY | GLN | ASP | PRO | ALA | GLU | HIS | GLN | ASP | PRO | ALA | VAL | ARG | ASP | ASP | ARG | GLY | LYS | VAL | ARG | VAL | ILE | A139 | N140 | I149 | Q164 | E218 | L222 | GLY | TRP | LYS | LYS | LEU | LEU | GLN | GLY |
|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|

|     |     |
|-----|-----|
| GLU | MET |
| PRO | THR |
| PRO | SER |
| LEU | PRO |
| PRO | PHE |
| ALA | ARG |
| ALA | PRO |
| LEU | ASP |
| PRO | THR |
| GLY | PRO |
| THR | GLY |
| PRO | SER |
| GLY | ARG |
| THR | ALA |
| PRO | GLY |
| GLY | SER |
| THR | ALA |
| SER | LYS |
| PRO | GLY |
| GLY | PRO |
| THR | MET |
| LEU | GLY |
| GLY | GLY |
| GLY | SER |
| PRO | PRO |
| GLY | GLY |
| GLY | LEU |
| LEU | LEU |
| LEU | LEU |
| GLN | PRO |
| GLY | PRO |
| LEU | ASN |
| ARG | SER |
| ALA | ALA |
| PRO | PRO |
| ALA | PRO |
| GLN | ALA |
| ASN | VAL |
| CYS | THR |
| ALA | ILE |
| ASN | GLY |
| PHE | GLY |
| GLU | PRO |
| ALA | PRO |
| PRO | ALA |
| GLY | TYR |
| PRO | TYR |
| GLN | ALA |
| THR | PRO |
| SER | SER |
| ALA | ALA |
| SER | SER |
| LYS | SER |
| ALA | LEU |
| SER | GLY |
| PRO | GLN |
| PRO | ALA |
| ALA | SER |
| SER | ALA |
| THR | PRO |
| PRO | GLY |
| PRO | TYR |
| ALA | PRO |

|     |
|-----|
| ALA |
| PRO |
| ALA |
| GLY |
| PRO |
| GLN |
| GLN |
| PHE |
| LEU |
| PRO |
| GLY |
| GLY |
| ALA |
| ALA |
| GLY |
| SER |
| SER |
| GLY |
| ASP |
| SER |
| ASP |
| GLY |
| GLU |
| GLY |
| ALA |
| VAL |
| THR |
| ALA |
| VAL |
| GLU |
| LEU |
| HIS |
| ALA |
| PRO |
| PRO |
| GLU |
| PRO |
| PRO |
| ALA |
| ASP |
| PRO |
| GLY |
| ARG |
| SER |
| SER |
| LYS |
| ALA |
| SER |
| LYS |
| SER |
| SER |
| GLY |
| GLY |
| ARG |
| ALA |
| ARG |
| ALA |
| ALA |
| ASP |

|     |
|-----|
| LEU |
| ALA |
| ILE |

## 4 Experimental information

| Property                             | Value                        | Source    |
|--------------------------------------|------------------------------|-----------|
| EM reconstruction method             | SINGLE PARTICLE              | Depositor |
| Imposed symmetry                     | POINT, D6                    | Depositor |
| Number of particles used             | 106741                       | Depositor |
| Resolution determination method      | FSC 0.143 CUT-OFF            | Depositor |
| CTF correction method                | NONE                         | Depositor |
| Microscope                           | TFS KRIOS                    | Depositor |
| Voltage (kV)                         | 300                          | Depositor |
| Electron dose ( $e^-/\text{\AA}^2$ ) | 50.00                        | Depositor |
| Minimum defocus (nm)                 | 800                          | Depositor |
| Maximum defocus (nm)                 | 2200                         | Depositor |
| Magnification                        | 29000                        | Depositor |
| Image detector                       | GATAN K3 (6k x 4k)           | Depositor |
| Maximum map value                    | 1.226                        | Depositor |
| Minimum map value                    | -0.684                       | Depositor |
| Average map value                    | 0.002                        | Depositor |
| Map value standard deviation         | 0.025                        | Depositor |
| Recommended contour level            | 0.06                         | Depositor |
| Map size ( $\text{\AA}$ )            | 307.8144, 307.8144, 307.8144 | wwPDB     |
| Map dimensions                       | 384, 384, 384                | wwPDB     |
| Map angles ( $^\circ$ )              | 90.0, 90.0, 90.0             | wwPDB     |
| Pixel spacing ( $\text{\AA}$ )       | 0.8016, 0.8016, 0.8016       | 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: MC3

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     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | B     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | C     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | D     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | E     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | F     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | G     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | H     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | I     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | J     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | K     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| 1   | L     | 0.21         | 0/1483  | 0.40        | 0/2027  |
| All | All   | 0.21         | 0/17796 | 0.40        | 0/24324 |

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 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     | 1443  | 1399     | 1396     | 1       | 0            |

*Continued on next page...*

*Continued from previous page...*

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | B     | 1443  | 1399     | 1396     | 5       | 0            |
| 1   | C     | 1443  | 1399     | 1396     | 4       | 0            |
| 1   | D     | 1443  | 1399     | 1396     | 4       | 0            |
| 1   | E     | 1443  | 1399     | 1396     | 4       | 0            |
| 1   | F     | 1443  | 1399     | 1396     | 4       | 0            |
| 1   | G     | 1443  | 1399     | 1396     | 2       | 0            |
| 1   | H     | 1443  | 1399     | 1396     | 5       | 0            |
| 1   | I     | 1443  | 1399     | 1396     | 5       | 0            |
| 1   | J     | 1443  | 1399     | 1396     | 4       | 0            |
| 1   | K     | 1443  | 1399     | 1396     | 4       | 0            |
| 1   | L     | 1443  | 1399     | 1396     | 3       | 0            |
| 2   | A     | 370   | 672      | 567      | 6       | 0            |
| 2   | B     | 370   | 672      | 567      | 8       | 0            |
| 2   | C     | 370   | 672      | 567      | 7       | 0            |
| 2   | D     | 370   | 672      | 567      | 7       | 0            |
| 2   | E     | 370   | 672      | 567      | 6       | 0            |
| 2   | F     | 370   | 672      | 567      | 7       | 0            |
| 2   | G     | 370   | 672      | 567      | 6       | 0            |
| 2   | H     | 370   | 672      | 567      | 7       | 0            |
| 2   | I     | 370   | 672      | 567      | 7       | 0            |
| 2   | J     | 370   | 672      | 567      | 7       | 0            |
| 2   | K     | 370   | 672      | 567      | 7       | 0            |
| 2   | L     | 370   | 672      | 567      | 7       | 0            |
| 3   | A     | 76    | 0        | 0        | 1       | 0            |
| 3   | B     | 75    | 0        | 0        | 1       | 0            |
| 3   | C     | 75    | 0        | 0        | 1       | 0            |
| 3   | D     | 76    | 0        | 0        | 1       | 0            |
| 3   | E     | 74    | 0        | 0        | 1       | 0            |
| 3   | F     | 75    | 0        | 0        | 1       | 0            |
| 3   | G     | 74    | 0        | 0        | 1       | 0            |
| 3   | H     | 76    | 0        | 0        | 1       | 0            |
| 3   | I     | 73    | 0        | 0        | 1       | 0            |
| 3   | J     | 75    | 0        | 0        | 1       | 0            |
| 3   | K     | 75    | 0        | 0        | 1       | 0            |
| 3   | L     | 76    | 0        | 0        | 1       | 0            |
| All | All   | 22656 | 24852    | 23556    | 79      | 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 2.

All (79) 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) |
|-----------------|-----------------|--------------------------|-------------------|
| 2:G:520:MC3:P   | 2:H:520:MC3:H61 | 2.36                     | 0.66              |
| 2:A:520:MC3:H61 | 2:F:501:MC3:P   | 2.40                     | 0.61              |
| 2:C:520:MC3:P   | 2:D:520:MC3:H61 | 2.41                     | 0.60              |
| 2:K:520:MC3:P   | 2:L:501:MC3:H61 | 2.41                     | 0.60              |
| 2:A:520:MC3:P   | 2:B:520:MC3:H61 | 2.43                     | 0.58              |
| 2:D:520:MC3:P   | 2:E:520:MC3:H61 | 2.44                     | 0.58              |
| 2:J:520:MC3:P   | 2:K:520:MC3:H61 | 2.44                     | 0.58              |
| 2:I:520:MC3:P   | 2:J:520:MC3:H61 | 2.45                     | 0.56              |
| 2:B:520:MC3:P   | 2:C:520:MC3:H61 | 2.45                     | 0.56              |
| 2:G:520:MC3:O2P | 2:H:520:MC3:H61 | 2.05                     | 0.56              |
| 2:G:520:MC3:H61 | 2:L:501:MC3:P   | 2.46                     | 0.55              |
| 1:E:164:GLN:HG2 | 3:E:622:HOH:O   | 2.07                     | 0.55              |
| 1:K:164:GLN:HG2 | 3:K:622:HOH:O   | 2.07                     | 0.55              |
| 1:D:164:GLN:HG2 | 3:D:622:HOH:O   | 2.07                     | 0.55              |
| 1:L:164:GLN:HG2 | 3:L:622:HOH:O   | 2.07                     | 0.55              |
| 1:F:164:GLN:HG2 | 3:F:622:HOH:O   | 2.07                     | 0.55              |
| 1:J:164:GLN:HG2 | 3:J:622:HOH:O   | 2.07                     | 0.55              |
| 1:C:164:GLN:HG2 | 3:C:622:HOH:O   | 2.07                     | 0.54              |
| 1:I:164:GLN:HG2 | 3:I:621:HOH:O   | 2.07                     | 0.54              |
| 1:G:164:GLN:HG2 | 3:G:622:HOH:O   | 2.07                     | 0.54              |
| 1:A:164:GLN:HG2 | 3:A:622:HOH:O   | 2.07                     | 0.54              |
| 2:H:520:MC3:P   | 2:I:520:MC3:H61 | 2.49                     | 0.53              |
| 1:B:164:GLN:HG2 | 3:B:621:HOH:O   | 2.07                     | 0.52              |
| 1:H:164:GLN:HG2 | 3:H:622:HOH:O   | 2.07                     | 0.52              |
| 2:E:520:MC3:P   | 2:F:501:MC3:H61 | 2.49                     | 0.52              |
| 2:K:520:MC3:O2P | 2:L:501:MC3:H61 | 2.10                     | 0.51              |
| 2:C:520:MC3:O2P | 2:D:520:MC3:H61 | 2.11                     | 0.50              |
| 2:A:520:MC3:O2P | 2:B:520:MC3:H61 | 2.12                     | 0.50              |
| 2:A:520:MC3:H61 | 2:F:501:MC3:O2P | 2.11                     | 0.49              |
| 2:D:520:MC3:O2P | 2:E:520:MC3:H61 | 2.13                     | 0.49              |
| 1:I:38:GLY:HA2  | 2:I:520:MC3:H83 | 1.95                     | 0.48              |
| 2:J:520:MC3:O2P | 2:K:520:MC3:H61 | 2.15                     | 0.47              |
| 2:I:520:MC3:O2P | 2:J:520:MC3:H61 | 2.15                     | 0.47              |
| 2:B:520:MC3:O2P | 2:C:520:MC3:H61 | 2.16                     | 0.46              |
| 2:A:520:MC3:H61 | 2:F:501:MC3:O1P | 2.15                     | 0.46              |
| 2:H:520:MC3:O2P | 2:I:520:MC3:H61 | 2.16                     | 0.45              |
| 1:I:38:GLY:CA   | 2:I:520:MC3:H83 | 2.46                     | 0.45              |
| 1:H:38:GLY:HA2  | 2:H:520:MC3:H83 | 1.97                     | 0.45              |
| 2:G:520:MC3:H61 | 2:L:501:MC3:O2P | 2.16                     | 0.45              |
| 1:B:38:GLY:HA2  | 2:B:520:MC3:H83 | 1.98                     | 0.44              |
| 1:L:38:GLY:HA2  | 2:L:501:MC3:H83 | 2.00                     | 0.44              |
| 2:G:520:MC3:O1P | 2:H:520:MC3:H61 | 2.18                     | 0.43              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:38:GLY:HA2   | 2:D:520:MC3:H83  | 2.00                     | 0.43              |
| 1:E:38:GLY:HA2   | 2:E:520:MC3:H83  | 2.00                     | 0.43              |
| 1:J:38:GLY:HA2   | 2:J:520:MC3:H83  | 2.00                     | 0.43              |
| 2:C:520:MC3:O1P  | 2:D:520:MC3:H61  | 2.19                     | 0.43              |
| 2:J:520:MC3:O1P  | 2:K:520:MC3:H61  | 2.19                     | 0.43              |
| 2:K:520:MC3:O1P  | 2:L:501:MC3:H61  | 2.19                     | 0.43              |
| 1:F:38:GLY:HA2   | 2:F:501:MC3:H83  | 2.02                     | 0.42              |
| 1:H:38:GLY:CA    | 2:H:520:MC3:H83  | 2.50                     | 0.42              |
| 1:J:191:ILE:HD12 | 1:J:191:ILE:N    | 2.36                     | 0.41              |
| 1:C:191:ILE:N    | 1:C:191:ILE:HD12 | 2.35                     | 0.41              |
| 2:G:520:MC3:H61  | 2:L:501:MC3:O1P  | 2.20                     | 0.41              |
| 1:B:38:GLY:CA    | 2:B:520:MC3:H83  | 2.50                     | 0.41              |
| 2:D:520:MC3:O1P  | 2:E:520:MC3:H61  | 2.21                     | 0.41              |
| 1:D:191:ILE:HD12 | 1:D:191:ILE:N    | 2.36                     | 0.41              |
| 1:I:191:ILE:HD12 | 1:I:191:ILE:N    | 2.36                     | 0.41              |
| 2:B:520:MC3:O1P  | 2:C:520:MC3:H61  | 2.20                     | 0.41              |
| 1:E:191:ILE:HD12 | 1:E:191:ILE:N    | 2.36                     | 0.41              |
| 1:K:38:GLY:HA2   | 2:K:520:MC3:H83  | 2.02                     | 0.41              |
| 1:K:191:ILE:N    | 1:K:191:ILE:HD12 | 2.36                     | 0.41              |
| 2:A:520:MC3:O1P  | 2:B:520:MC3:H61  | 2.21                     | 0.41              |
| 1:B:150:ILE:HD11 | 1:B:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:C:150:ILE:HD11 | 1:C:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:E:150:ILE:HD11 | 1:E:218:GLU:OE1  | 2.21                     | 0.41              |
| 2:E:520:MC3:O1P  | 2:F:501:MC3:H61  | 2.21                     | 0.41              |
| 1:F:150:ILE:HD11 | 1:F:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:H:150:ILE:HD11 | 1:H:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:I:150:ILE:HD11 | 1:I:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:K:150:ILE:HD11 | 1:K:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:C:38:GLY:HA2   | 2:C:520:MC3:H83  | 2.02                     | 0.41              |
| 1:D:150:ILE:HD11 | 1:D:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:J:150:ILE:HD11 | 1:J:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:L:150:ILE:HD11 | 1:L:218:GLU:OE1  | 2.21                     | 0.41              |
| 1:H:191:ILE:HD12 | 1:H:191:ILE:N    | 2.36                     | 0.40              |
| 1:B:191:ILE:HD12 | 1:B:191:ILE:N    | 2.36                     | 0.40              |
| 2:I:520:MC3:O1P  | 2:J:520:MC3:H61  | 2.21                     | 0.40              |
| 1:G:150:ILE:HD11 | 1:G:218:GLU:OE1  | 2.21                     | 0.40              |
| 1:F:38:GLY:CA    | 2:F:501:MC3:H83  | 2.51                     | 0.40              |

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | B     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | C     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | D     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | E     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | F     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | G     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | H     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | I     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | J     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | K     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | L     | 181/413 (44%)   | 180 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| All | All   | 2172/4956 (44%) | 2160 (99%) | 12 (1%) | 0        | 100         | 100 |

There are no Ramachandran outliers to report.

### 5.3.2 Protein sidechains

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     | 149/325 (46%) | 148 (99%) | 1 (1%)   | 81          | 90 |
| 1   | B     | 149/325 (46%) | 148 (99%) | 1 (1%)   | 81          | 90 |

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| Mol | Chain | Analysed        | Rotameric  | Outliers | Percentiles |    |
|-----|-------|-----------------|------------|----------|-------------|----|
| 1   | C     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | D     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | E     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | F     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | G     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | H     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | I     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | J     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | K     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| 1   | L     | 149/325 (46%)   | 148 (99%)  | 1 (1%)   | 81          | 90 |
| All | All   | 1788/3900 (46%) | 1776 (99%) | 12 (1%)  | 80          | 90 |

All (12) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 149 | ASN  |
| 1   | B     | 149 | ASN  |
| 1   | C     | 149 | ASN  |
| 1   | D     | 149 | ASN  |
| 1   | E     | 149 | ASN  |
| 1   | F     | 149 | ASN  |
| 1   | G     | 149 | ASN  |
| 1   | H     | 149 | ASN  |
| 1   | I     | 149 | ASN  |
| 1   | J     | 149 | ASN  |
| 1   | K     | 149 | ASN  |
| 1   | L     | 149 | ASN  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (30) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 49  | GLN  |
| 1   | A     | 58  | GLN  |
| 1   | B     | 49  | GLN  |
| 1   | B     | 57  | GLN  |
| 1   | B     | 58  | GLN  |
| 1   | C     | 49  | GLN  |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | C     | 58  | GLN  |
| 1   | D     | 49  | GLN  |
| 1   | D     | 58  | GLN  |
| 1   | E     | 49  | GLN  |
| 1   | E     | 58  | GLN  |
| 1   | F     | 49  | GLN  |
| 1   | F     | 57  | GLN  |
| 1   | F     | 58  | GLN  |
| 1   | G     | 49  | GLN  |
| 1   | G     | 58  | GLN  |
| 1   | H     | 49  | GLN  |
| 1   | H     | 57  | GLN  |
| 1   | H     | 58  | GLN  |
| 1   | I     | 49  | GLN  |
| 1   | I     | 57  | GLN  |
| 1   | I     | 58  | GLN  |
| 1   | J     | 49  | GLN  |
| 1   | J     | 58  | GLN  |
| 1   | K     | 49  | GLN  |
| 1   | K     | 57  | GLN  |
| 1   | K     | 58  | GLN  |
| 1   | L     | 49  | GLN  |
| 1   | L     | 57  | GLN  |
| 1   | L     | 58  | GLN  |

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

### 5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

### 5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

### 5.6 Ligand geometry ⓘ

396 ligands are modelled in this entry.

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 | $\# Z  > 2$ |
| 2   | MC3  | C     | 513 | -    | 5,5,45       | 0.26 | 0           | 4,4,53      | 0.16 | 0           |
| 2   | MC3  | K     | 522 | -    | 11,11,45     | 0.22 | 0           | 10,10,53    | 0.25 | 0           |
| 2   | MC3  | D     | 517 | -    | 11,11,45     | 0.23 | 0           | 10,10,53    | 0.22 | 0           |
| 2   | MC3  | I     | 523 | -    | 11,11,45     | 0.23 | 0           | 10,10,53    | 0.19 | 0           |
| 2   | MC3  | G     | 501 | -    | 8,8,45       | 0.24 | 0           | 7,7,53      | 0.19 | 0           |
| 2   | MC3  | L     | 503 | -    | 11,11,45     | 0.23 | 0           | 10,10,53    | 0.26 | 0           |
| 2   | MC3  | D     | 522 | -    | 11,11,45     | 0.23 | 0           | 10,10,53    | 0.26 | 0           |
| 2   | MC3  | H     | 522 | -    | 11,11,45     | 0.23 | 0           | 10,10,53    | 0.25 | 0           |
| 2   | MC3  | L     | 525 | -    | 7,7,45       | 0.24 | 0           | 6,6,53      | 0.18 | 0           |
| 2   | MC3  | H     | 518 | -    | 5,5,45       | 0.26 | 0           | 4,4,53      | 0.16 | 0           |
| 2   | MC3  | D     | 527 | -    | 9,9,45       | 0.24 | 0           | 8,8,53      | 0.20 | 0           |
| 2   | MC3  | A     | 526 | -    | 12,12,45     | 0.22 | 0           | 11,11,53    | 0.22 | 0           |
| 2   | MC3  | K     | 520 | -    | 27,27,45     | 0.49 | 0           | 33,35,53    | 0.69 | 0           |
| 2   | MC3  | A     | 515 | -    | 5,5,45       | 0.27 | 0           | 4,4,53      | 0.17 | 0           |
| 2   | MC3  | L     | 519 | -    | 12,12,45     | 0.22 | 0           | 11,11,53    | 0.23 | 0           |
| 2   | MC3  | E     | 508 | -    | 11,11,45     | 0.24 | 0           | 10,10,53    | 0.20 | 0           |
| 2   | MC3  | L     | 533 | -    | 6,6,45       | 0.25 | 0           | 5,5,53      | 0.17 | 0           |
| 2   | MC3  | G     | 516 | -    | 7,7,45       | 0.23 | 0           | 6,6,53      | 0.23 | 0           |
| 2   | MC3  | A     | 531 | -    | 6,6,45       | 0.24 | 0           | 5,5,53      | 0.23 | 0           |
| 2   | MC3  | H     | 520 | -    | 27,27,45     | 0.49 | 0           | 33,35,53    | 0.69 | 0           |
| 2   | MC3  | B     | 520 | -    | 27,27,45     | 0.49 | 0           | 33,35,53    | 0.70 | 0           |
| 2   | MC3  | F     | 502 | -    | 12,12,45     | 0.21 | 0           | 11,11,53    | 0.23 | 0           |
| 2   | MC3  | H     | 525 | -    | 11,11,45     | 0.24 | 0           | 10,10,53    | 0.21 | 0           |
| 2   | MC3  | H     | 526 | -    | 12,12,45     | 0.22 | 0           | 11,11,53    | 0.23 | 0           |
| 2   | MC3  | E     | 516 | -    | 7,7,45       | 0.23 | 0           | 6,6,53      | 0.23 | 0           |
| 2   | MC3  | L     | 512 | -    | 6,6,45       | 0.25 | 0           | 5,5,53      | 0.24 | 0           |
| 2   | MC3  | G     | 508 | -    | 11,11,45     | 0.24 | 0           | 10,10,53    | 0.20 | 0           |
| 2   | MC3  | J     | 532 | -    | 4,4,45       | 0.29 | 0           | 3,3,53      | 0.23 | 0           |
| 2   | MC3  | B     | 529 | -    | 5,5,45       | 0.27 | 0           | 4,4,53      | 0.16 | 0           |
| 2   | MC3  | C     | 511 | -    | 7,7,45       | 0.25 | 0           | 6,6,53      | 0.18 | 0           |
| 2   | MC3  | H     | 513 | -    | 5,5,45       | 0.26 | 0           | 4,4,53      | 0.17 | 0           |
| 2   | MC3  | G     | 519 | -    | 6,6,45       | 0.25 | 0           | 5,5,53      | 0.17 | 0           |
| 2   | MC3  | J     | 501 | -    | 8,8,45       | 0.24 | 0           | 7,7,53      | 0.19 | 0           |
| 2   | MC3  | H     | 530 | -    | 7,7,45       | 0.25 | 0           | 6,6,53      | 0.19 | 0           |
| 2   | MC3  | A     | 528 | -    | 10,10,45     | 0.24 | 0           | 9,9,53      | 0.21 | 0           |
| 2   | MC3  | J     | 522 | -    | 11,11,45     | 0.23 | 0           | 10,10,53    | 0.26 | 0           |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | I     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | B     | 503 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | E     | 512 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | F     | 519 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | F     | 524 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.18 | 0        |
| 2   | MC3  | F     | 531 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | L     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | E     | 525 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | L     | 531 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | K     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.21 | 0        |
| 2   | MC3  | K     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | A     | 512 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | L     | 532 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | L     | 508 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | L     | 504 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | D     | 503 | -    | 32,32,45     | 0.72 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | B     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | A     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | I     | 512 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | H     | 507 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | L     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | K     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | H     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | J     | 512 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | F     | 528 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | I     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | B     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | C     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | C     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | J     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | G     | 503 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | F     | 530 | -    | 7,7,45       | 0.24 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | C     | 503 | -    | 32,32,45     | 0.72 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | I     | 518 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | E     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | C     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.21 | 0        |
| 2   | MC3  | I     | 524 | -    | 9,9,45       | 0.25 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | L     | 502 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | A     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | K     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | F     | 504 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | C     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | K     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | D     | 520 | -    | 27,27,45     | 0.49 | 0        | 33,35,53    | 0.70 | 0        |
| 2   | MC3  | F     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | E     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | H     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | B     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | F     | 505 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | I     | 525 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | E     | 507 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | A     | 503 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | E     | 521 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | F     | 503 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.25 | 0        |
| 2   | MC3  | K     | 507 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | J     | 503 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | G     | 524 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | H     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | L     | 526 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | J     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.21 | 0        |
| 2   | MC3  | I     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | H     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | I     | 522 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.26 | 0        |
| 2   | MC3  | K     | 518 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | G     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | E     | 503 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | G     | 521 | -    | 12,12,45     | 0.21 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | C     | 506 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | J     | 521 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | A     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | H     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | H     | 516 | -    | 7,7,45       | 0.23 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | K     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | E     | 506 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | D     | 532 | -    | 4,4,45       | 0.29 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | L     | 518 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | L     | 513 | -    | 4,4,45       | 0.29 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | D     | 512 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | C     | 508 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | H     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |



| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | J     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | D     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | H     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | A     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | L     | 530 | -    | 7,7,45       | 0.24 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | B     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | H     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | J     | 506 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | J     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | A     | 521 | -    | 12,12,45     | 0.21 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | I     | 520 | -    | 27,27,45     | 0.49 | 0        | 33,35,53    | 0.70 | 0        |
| 2   | MC3  | J     | 510 | -    | 6,6,45       | 0.26 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | L     | 523 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | A     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | D     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | J     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | A     | 508 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | B     | 512 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | L     | 517 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | G     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | E     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | E     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.16 | 2 (6%)   |
| 2   | MC3  | A     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | K     | 512 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | I     | 509 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | C     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | E     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | F     | 513 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | C     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | D     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | G     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | I     | 533 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | C     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 525 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | C     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | H     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.21 | 0        |
| 2   | MC3  | B     | 518 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | K     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | J     | 508 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | K     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | A     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | C     | 522 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.26 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | D     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | D     | 518 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | F     | 517 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | F     | 533 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.18 | 0        |
| 2   | MC3  | A     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | B     | 525 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | G     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | C     | 525 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | L     | 522 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | B     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | K     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | E     | 520 | -    | 27,27,45     | 0.49 | 0        | 33,35,53    | 0.69 | 0        |
| 2   | MC3  | I     | 516 | -    | 7,7,45       | 0.23 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | B     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | L     | 514 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | B     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | G     | 522 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.26 | 0        |
| 2   | MC3  | K     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | F     | 512 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | I     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | D     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | I     | 507 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | I     | 521 | -    | 12,12,45     | 0.21 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | D     | 524 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | G     | 525 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | A     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | B     | 524 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | B     | 507 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | B     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | G     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | H     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | F     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | J     | 525 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | B     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | L     | 516 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | H     | 506 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | F     | 518 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | F     | 532 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | K     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | J     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | C     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | H     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | G     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | F     | 514 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | E     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | B     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | J     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | A     | 520 | -    | 27,27,45     | 0.49 | 0        | 33,35,53    | 0.69 | 0        |
| 2   | MC3  | K     | 531 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | E     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | H     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | D     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | F     | 523 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | L     | 509 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | B     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | L     | 501 | -    | 27,27,45     | 0.50 | 0        | 33,35,53    | 0.69 | 0        |
| 2   | MC3  | A     | 525 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | D     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | A     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | H     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.18 | 0        |
| 2   | MC3  | I     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | B     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | B     | 532 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | J     | 520 | -    | 27,27,45     | 0.50 | 0        | 33,35,53    | 0.69 | 0        |
| 2   | MC3  | K     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | I     | 532 | -    | 4,4,45       | 0.29 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | E     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | K     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | H     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | C     | 524 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | C     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | J     | 507 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | I     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | I     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | E     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | H     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | F     | 526 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 516 | -    | 7,7,45       | 0.23 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | I     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | L     | 528 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | E     | 532 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | L     | 520 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | E     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | B     | 516 | -    | 7,7,45       | 0.23 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | D     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | I     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | G     | 518 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | G     | 532 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | G     | 520 | -    | 27,27,45     | 0.49 | 0        | 33,35,53    | 0.69 | 0        |
| 2   | MC3  | B     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | A     | 524 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | B     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | A     | 506 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | L     | 507 | -    | 12,12,45     | 0.23 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | C     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | K     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | K     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | C     | 512 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | A     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.21 | 0        |
| 2   | MC3  | H     | 524 | -    | 9,9,45       | 0.25 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | D     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | I     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | J     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 507 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | E     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | I     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | B     | 522 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.25 | 0        |
| 2   | MC3  | B     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | A     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | K     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | H     | 521 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | K     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | H     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | C     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | L     | 521 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | E     | 522 | -    | 11,11,45     | 0.22 | 0        | 10,10,53    | 0.25 | 0        |
| 2   | MC3  | D     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | H     | 503 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | K     | 506 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | J     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | G     | 523 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | B     | 504 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | C     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | D     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | G     | 507 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | C     | 520 | -    | 27,27,45     | 0.50 | 0        | 33,35,53    | 0.69 | 0        |
| 2   | MC3  | L     | 524 | -    | 6,6,45       | 0.26 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | E     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | J     | 516 | -    | 7,7,45       | 0.24 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | L     | 515 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.18 | 0        |
| 2   | MC3  | J     | 511 | -    | 7,7,45       | 0.24 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | A     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | F     | 527 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | A     | 516 | -    | 7,7,45       | 0.23 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | J     | 519 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.17 | 0        |
| 2   | MC3  | J     | 518 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | G     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | I     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | L     | 506 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | J     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | B     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | C     | 518 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | I     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | I     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | J     | 502 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | F     | 508 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | E     | 504 | -    | 12,12,45     | 0.21 | 0        | 11,11,53    | 0.21 | 0        |
| 2   | MC3  | A     | 507 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | F     | 507 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | J     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | E     | 518 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | E     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | C     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | E     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.20 | 0        |
| 2   | MC3  | H     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | G     | 512 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | E     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | B     | 508 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | D     | 521 | -    | 12,12,45     | 0.21 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | G     | 528 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | A     | 522 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.25 | 0        |
| 2   | MC3  | A     | 518 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | F     | 522 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | G     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | E     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | C     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | F     | 515 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | L     | 505 | -    | 9,9,45       | 0.25 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | I     | 506 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | K     | 508 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | L     | 510 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | G     | 513 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | K     | 517 | -    | 11,11,45     | 0.22 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | A     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | G     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | F     | 506 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | H     | 508 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | I     | 531 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.23 | 0        |
| 2   | MC3  | K     | 524 | -    | 9,9,45       | 0.25 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | G     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | A     | 532 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | F     | 510 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | B     | 521 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | J     | 505 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.22 | 0        |
| 2   | MC3  | B     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | C     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | I     | 508 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | A     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | D     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | F     | 509 | -    | 10,10,45     | 0.24 | 0        | 9,9,53      | 0.21 | 0        |
| 2   | MC3  | K     | 521 | -    | 12,12,45     | 0.21 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | I     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | E     | 524 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | J     | 529 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | F     | 516 | -    | 29,29,45     | 0.77 | 1 (3%)   | 32,34,53    | 1.15 | 2 (6%)   |
| 2   | MC3  | A     | 530 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.19 | 0        |
| 2   | MC3  | H     | 532 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | G     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | I     | 503 | -    | 32,32,45     | 0.73 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | C     | 507 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | C     | 521 | -    | 12,12,45     | 0.21 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | D     | 506 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | G     | 509 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.20 | 0        |
| 2   | MC3  | G     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | E     | 517 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.22 | 0        |
| 2   | MC3  | G     | 506 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | L     | 527 | -    | 5,5,45       | 0.26 | 0        | 4,4,53      | 0.16 | 0        |
| 2   | MC3  | B     | 506 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | I     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | C     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | F     | 525 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |

| Mol | Type | Chain | Res | Link | Bond lengths |      |          | Bond angles |      |          |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
|     |      |       |     |      | Counts       | RMSZ | # Z  > 2 | Counts      | RMSZ | # Z  > 2 |
| 2   | MC3  | K     | 516 | -    | 7,7,45       | 0.23 | 0        | 6,6,53      | 0.23 | 0        |
| 2   | MC3  | F     | 501 | -    | 27,27,45     | 0.49 | 0        | 33,35,53    | 0.69 | 0        |
| 2   | MC3  | K     | 532 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | B     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | C     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | E     | 515 | -    | 5,5,45       | 0.27 | 0        | 4,4,53      | 0.17 | 0        |
| 2   | MC3  | F     | 521 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | K     | 510 | -    | 6,6,45       | 0.25 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | C     | 532 | -    | 4,4,45       | 0.28 | 0        | 3,3,53      | 0.23 | 0        |
| 2   | MC3  | D     | 514 | -    | 3,3,45       | 0.34 | 0        | 2,2,53      | 0.56 | 0        |
| 2   | MC3  | D     | 510 | -    | 6,6,45       | 0.26 | 0        | 5,5,53      | 0.19 | 0        |
| 2   | MC3  | K     | 503 | -    | 32,32,45     | 0.72 | 1 (3%)   | 35,37,53    | 1.14 | 2 (5%)   |
| 2   | MC3  | H     | 512 | -    | 8,8,45       | 0.25 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | D     | 508 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | G     | 511 | -    | 7,7,45       | 0.25 | 0        | 6,6,53      | 0.18 | 0        |
| 2   | MC3  | J     | 526 | -    | 12,12,45     | 0.22 | 0        | 11,11,53    | 0.23 | 0        |
| 2   | MC3  | J     | 527 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.20 | 0        |
| 2   | MC3  | K     | 525 | -    | 11,11,45     | 0.23 | 0        | 10,10,53    | 0.20 | 0        |
| 2   | MC3  | J     | 524 | -    | 9,9,45       | 0.24 | 0        | 8,8,53      | 0.19 | 0        |
| 2   | MC3  | F     | 520 | -    | 11,11,45     | 0.24 | 0        | 10,10,53    | 0.21 | 0        |
| 2   | MC3  | G     | 533 | -    | 6,6,45       | 0.24 | 0        | 5,5,53      | 0.24 | 0        |
| 2   | MC3  | E     | 501 | -    | 8,8,45       | 0.24 | 0        | 7,7,53      | 0.19 | 0        |
| 2   | MC3  | C     | 516 | -    | 7,7,45       | 0.24 | 0        | 6,6,53      | 0.23 | 0        |

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 |
|-----|------|-------|-----|------|---------|------------|-------|
| 2   | MC3  | C     | 513 | -    | -       | 0/3/3/49   | -     |
| 2   | MC3  | K     | 522 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | D     | 517 | -    | -       | 2/9/9/49   | -     |
| 2   | MC3  | I     | 523 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | G     | 501 | -    | -       | 1/6/6/49   | -     |
| 2   | MC3  | L     | 503 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | D     | 522 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | H     | 522 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | L     | 525 | -    | -       | 0/5/5/49   | -     |
| 2   | MC3  | H     | 518 | -    | -       | 0/3/3/49   | -     |
| 2   | MC3  | D     | 527 | -    | -       | 0/7/7/49   | -     |
| 2   | MC3  | A     | 526 | -    | -       | 0/10/10/49 | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | K     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | A     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | L     | 519 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | E     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | L     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | G     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | A     | 531 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | H     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | B     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | F     | 502 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | H     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | H     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | E     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | L     | 512 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | G     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | J     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | B     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | C     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | H     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | G     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | J     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | H     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | A     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | J     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | I     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | B     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | E     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | F     | 519 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | F     | 524 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | F     | 531 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | L     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | E     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | L     | 531 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | K     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | K     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | A     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | D     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | L     | 532 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | L     | 508 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | L     | 504 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | D     | 503 | -    | -       | 7/34/34/49  | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | B     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | A     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | I     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | D     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | H     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | L     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | K     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | H     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | J     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | D     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | F     | 528 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | I     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | B     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | C     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | C     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | J     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | G     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | F     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | C     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | I     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | C     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | I     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | L     | 502 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | A     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | K     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | F     | 504 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | C     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | K     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | D     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | F     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | H     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | B     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | F     | 505 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | I     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | E     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | A     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | E     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | F     | 503 | -    | -       | 0/9/9/49    | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | K     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | J     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | G     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | H     | 531 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | L     | 526 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | J     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | I     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | H     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | I     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | K     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | G     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | E     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | G     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | C     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | J     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | A     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | H     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | H     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | K     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | E     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | D     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | L     | 518 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | L     | 513 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | D     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | C     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | H     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | J     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | D     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | H     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | A     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | L     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | B     | 527 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | H     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | J     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | J     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | A     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | I     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | J     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | L     | 523 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | A     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | D     | 531 | -    | -       | 0/4/4/49    | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | J     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | A     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | B     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | L     | 517 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | G     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | E     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | E     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | A     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | K     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | I     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | C     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | E     | 527 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | F     | 513 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | C     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | D     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | G     | 527 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | I     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | C     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | D     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | C     | 527 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | H     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | B     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | K     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | J     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | K     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | A     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | C     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | D     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | D     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | F     | 517 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | F     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | A     | 527 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | B     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | G     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | C     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | L     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | B     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | K     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | I     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | B     | 505 | -    | -       | 0/10/10/49  | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | L     | 514 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | B     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | G     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | K     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | F     | 512 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | I     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | D     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | I     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | I     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | D     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | G     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | A     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | B     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | B     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | B     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | G     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | H     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | F     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | J     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | B     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | L     | 516 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | H     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | F     | 518 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | F     | 532 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | K     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | J     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | C     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | H     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | G     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | F     | 514 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | E     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | B     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | J     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | A     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | K     | 531 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | E     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | H     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | D     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | F     | 523 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | L     | 509 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | B     | 517 | -    | -       | 2/9/9/49    | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | L     | 501 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | A     | 525 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | D     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | A     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | H     | 510 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | I     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | B     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | B     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | J     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | K     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | I     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | E     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | K     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | H     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | C     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | C     | 531 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | J     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | I     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | I     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | H     | 527 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | F     | 526 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | D     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | I     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | L     | 528 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | E     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | L     | 520 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | E     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | B     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | D     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | I     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | G     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | G     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | G     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | B     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | A     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | B     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | A     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | L     | 507 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | C     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | K     | 527 | -    | -       | 0/7/7/49    | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | K     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | C     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | A     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | H     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | D     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | I     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | J     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | D     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | E     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | I     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | B     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | B     | 531 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | A     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | K     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | H     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | K     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | H     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | C     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | L     | 521 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | E     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | D     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | H     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | K     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | J     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | G     | 523 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | B     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | C     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | D     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | G     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | C     | 520 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | L     | 524 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | E     | 531 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | J     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | L     | 515 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | J     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | A     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | F     | 527 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | A     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | J     | 519 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | J     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | G     | 531 | -    | -       | 0/4/4/49    | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | I     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | L     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | J     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | B     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | C     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | I     | 527 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | I     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | J     | 502 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | F     | 508 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | E     | 504 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | A     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | F     | 507 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | J     | 531 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | E     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | C     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | E     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | H     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | G     | 512 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | D     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | B     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | D     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | G     | 528 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | A     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | A     | 518 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | F     | 522 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | G     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | C     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | F     | 515 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | L     | 505 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | I     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | K     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | L     | 510 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | G     | 513 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | K     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | A     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | G     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | F     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | H     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | I     | 531 | -    | -       | 0/4/4/49    | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions    | Rings |
|-----|------|-------|-----|------|---------|-------------|-------|
| 2   | MC3  | K     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | G     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | A     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | F     | 510 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | B     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | J     | 505 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | B     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | C     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | I     | 508 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | A     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | D     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | F     | 509 | -    | -       | 0/8/8/49    | -     |
| 2   | MC3  | K     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | I     | 514 | -    | -       | 1/1/1/49    | -     |
| 2   | MC3  | E     | 524 | -    | -       | 0/7/7/49    | -     |
| 2   | MC3  | J     | 529 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | F     | 516 | -    | -       | 13/31/31/49 | -     |
| 2   | MC3  | A     | 530 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | H     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | G     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | I     | 503 | -    | -       | 7/34/34/49  | -     |
| 2   | MC3  | C     | 507 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | C     | 521 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | D     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | G     | 509 | -    | -       | 0/6/6/49    | -     |
| 2   | MC3  | G     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | E     | 517 | -    | -       | 2/9/9/49    | -     |
| 2   | MC3  | G     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | L     | 527 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | B     | 506 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | I     | 511 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | C     | 526 | -    | -       | 0/10/10/49  | -     |
| 2   | MC3  | F     | 525 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | K     | 516 | -    | -       | 0/5/5/49    | -     |
| 2   | MC3  | F     | 501 | -    | -       | 20/31/31/49 | -     |
| 2   | MC3  | K     | 532 | -    | -       | 0/2/2/49    | -     |
| 2   | MC3  | B     | 501 | -    | -       | 1/6/6/49    | -     |
| 2   | MC3  | C     | 533 | -    | -       | 0/4/4/49    | -     |
| 2   | MC3  | E     | 515 | -    | -       | 0/3/3/49    | -     |
| 2   | MC3  | F     | 521 | -    | -       | 0/9/9/49    | -     |
| 2   | MC3  | K     | 510 | -    | -       | 0/4/4/49    | -     |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions   | Rings |
|-----|------|-------|-----|------|---------|------------|-------|
| 2   | MC3  | C     | 532 | -    | -       | 0/2/2/49   | -     |
| 2   | MC3  | D     | 514 | -    | -       | 1/1/1/49   | -     |
| 2   | MC3  | D     | 510 | -    | -       | 0/4/4/49   | -     |
| 2   | MC3  | K     | 503 | -    | -       | 7/34/34/49 | -     |
| 2   | MC3  | H     | 512 | -    | -       | 0/6/6/49   | -     |
| 2   | MC3  | D     | 508 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | G     | 511 | -    | -       | 0/5/5/49   | -     |
| 2   | MC3  | J     | 526 | -    | -       | 0/10/10/49 | -     |
| 2   | MC3  | J     | 527 | -    | -       | 0/7/7/49   | -     |
| 2   | MC3  | K     | 525 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | J     | 524 | -    | -       | 0/7/7/49   | -     |
| 2   | MC3  | F     | 520 | -    | -       | 0/9/9/49   | -     |
| 2   | MC3  | G     | 533 | -    | -       | 0/4/4/49   | -     |
| 2   | MC3  | E     | 501 | -    | -       | 1/6/6/49   | -     |
| 2   | MC3  | C     | 516 | -    | -       | 0/5/5/49   | -     |

All (24) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z    | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|------|-------------|----------|
| 2   | I     | 502 | MC3  | P-O4P | 2.88 | 1.65        | 1.54     |
| 2   | E     | 502 | MC3  | P-O4P | 2.88 | 1.65        | 1.54     |
| 2   | G     | 502 | MC3  | P-O4P | 2.87 | 1.65        | 1.54     |
| 2   | F     | 516 | MC3  | P-O4P | 2.87 | 1.65        | 1.54     |
| 2   | A     | 502 | MC3  | P-O4P | 2.86 | 1.65        | 1.54     |
| 2   | B     | 502 | MC3  | P-O4P | 2.86 | 1.65        | 1.54     |
| 2   | K     | 502 | MC3  | P-O4P | 2.86 | 1.65        | 1.54     |
| 2   | H     | 502 | MC3  | P-O4P | 2.86 | 1.65        | 1.54     |
| 2   | J     | 502 | MC3  | P-O4P | 2.85 | 1.65        | 1.54     |
| 2   | B     | 503 | MC3  | P-O4P | 2.85 | 1.65        | 1.54     |
| 2   | L     | 516 | MC3  | P-O4P | 2.85 | 1.65        | 1.54     |
| 2   | C     | 502 | MC3  | P-O4P | 2.85 | 1.65        | 1.54     |
| 2   | D     | 502 | MC3  | P-O4P | 2.85 | 1.65        | 1.54     |
| 2   | H     | 503 | MC3  | P-O4P | 2.84 | 1.65        | 1.54     |
| 2   | G     | 503 | MC3  | P-O4P | 2.84 | 1.65        | 1.54     |
| 2   | E     | 503 | MC3  | P-O4P | 2.83 | 1.65        | 1.54     |
| 2   | A     | 503 | MC3  | P-O4P | 2.83 | 1.65        | 1.54     |
| 2   | C     | 503 | MC3  | P-O4P | 2.83 | 1.65        | 1.54     |
| 2   | K     | 503 | MC3  | P-O4P | 2.82 | 1.65        | 1.54     |
| 2   | F     | 517 | MC3  | P-O4P | 2.82 | 1.65        | 1.54     |
| 2   | L     | 517 | MC3  | P-O4P | 2.82 | 1.65        | 1.54     |
| 2   | I     | 503 | MC3  | P-O4P | 2.82 | 1.65        | 1.54     |
| 2   | D     | 503 | MC3  | P-O4P | 2.81 | 1.65        | 1.54     |

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| Mol | Chain | Res | Type | Atoms | Z    | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|------|-------------|----------|
| 2   | J     | 503 | MC3  | P-O4P | 2.81 | 1.65        | 1.54     |

All (48) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 2   | G     | 503 | MC3  | O4P-P-O3P | -5.34 | 92.76       | 106.67   |
| 2   | K     | 503 | MC3  | O4P-P-O3P | -5.33 | 92.77       | 106.67   |
| 2   | B     | 503 | MC3  | O4P-P-O3P | -5.33 | 92.78       | 106.67   |
| 2   | I     | 503 | MC3  | O4P-P-O3P | -5.33 | 92.78       | 106.67   |
| 2   | A     | 503 | MC3  | O4P-P-O3P | -5.33 | 92.78       | 106.67   |
| 2   | L     | 517 | MC3  | O4P-P-O3P | -5.33 | 92.78       | 106.67   |
| 2   | E     | 503 | MC3  | O4P-P-O3P | -5.33 | 92.78       | 106.67   |
| 2   | H     | 503 | MC3  | O4P-P-O3P | -5.32 | 92.79       | 106.67   |
| 2   | J     | 503 | MC3  | O4P-P-O3P | -5.32 | 92.80       | 106.67   |
| 2   | D     | 503 | MC3  | O4P-P-O3P | -5.32 | 92.80       | 106.67   |
| 2   | F     | 517 | MC3  | O4P-P-O3P | -5.32 | 92.81       | 106.67   |
| 2   | C     | 503 | MC3  | O4P-P-O3P | -5.31 | 92.81       | 106.67   |
| 2   | E     | 502 | MC3  | O4P-P-O3P | -5.18 | 93.16       | 106.67   |
| 2   | B     | 502 | MC3  | O4P-P-O3P | -5.17 | 93.18       | 106.67   |
| 2   | D     | 502 | MC3  | O4P-P-O3P | -5.17 | 93.18       | 106.67   |
| 2   | F     | 516 | MC3  | O4P-P-O3P | -5.17 | 93.19       | 106.67   |
| 2   | A     | 502 | MC3  | O4P-P-O3P | -5.17 | 93.19       | 106.67   |
| 2   | K     | 502 | MC3  | O4P-P-O3P | -5.17 | 93.20       | 106.67   |
| 2   | H     | 502 | MC3  | O4P-P-O3P | -5.17 | 93.20       | 106.67   |
| 2   | I     | 502 | MC3  | O4P-P-O3P | -5.17 | 93.20       | 106.67   |
| 2   | G     | 502 | MC3  | O4P-P-O3P | -5.16 | 93.20       | 106.67   |
| 2   | L     | 516 | MC3  | O4P-P-O3P | -5.16 | 93.21       | 106.67   |
| 2   | C     | 502 | MC3  | O4P-P-O3P | -5.16 | 93.22       | 106.67   |
| 2   | J     | 502 | MC3  | O4P-P-O3P | -5.15 | 93.23       | 106.67   |
| 2   | E     | 503 | MC3  | O2P-P-O1P | 2.30  | 119.80      | 110.83   |
| 2   | H     | 503 | MC3  | O2P-P-O1P | 2.30  | 119.79      | 110.83   |
| 2   | B     | 503 | MC3  | O2P-P-O1P | 2.30  | 119.78      | 110.83   |
| 2   | G     | 503 | MC3  | O2P-P-O1P | 2.30  | 119.78      | 110.83   |
| 2   | J     | 503 | MC3  | O2P-P-O1P | 2.30  | 119.78      | 110.83   |
| 2   | A     | 503 | MC3  | O2P-P-O1P | 2.29  | 119.76      | 110.83   |
| 2   | F     | 517 | MC3  | O2P-P-O1P | 2.29  | 119.75      | 110.83   |
| 2   | L     | 517 | MC3  | O2P-P-O1P | 2.29  | 119.75      | 110.83   |
| 2   | I     | 503 | MC3  | O2P-P-O1P | 2.29  | 119.75      | 110.83   |
| 2   | K     | 503 | MC3  | O2P-P-O1P | 2.29  | 119.74      | 110.83   |
| 2   | C     | 503 | MC3  | O2P-P-O1P | 2.28  | 119.72      | 110.83   |
| 2   | D     | 503 | MC3  | O2P-P-O1P | 2.27  | 119.70      | 110.83   |
| 2   | H     | 502 | MC3  | O2P-P-O1P | 2.26  | 119.65      | 110.83   |

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| Mol | Chain | Res | Type | Atoms     | Z    | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|------|-------------|----------|
| 2   | I     | 502 | MC3  | O2P-P-O1P | 2.26 | 119.65      | 110.83   |
| 2   | D     | 502 | MC3  | O2P-P-O1P | 2.26 | 119.65      | 110.83   |
| 2   | F     | 516 | MC3  | O2P-P-O1P | 2.26 | 119.64      | 110.83   |
| 2   | E     | 502 | MC3  | O2P-P-O1P | 2.26 | 119.64      | 110.83   |
| 2   | A     | 502 | MC3  | O2P-P-O1P | 2.26 | 119.64      | 110.83   |
| 2   | L     | 516 | MC3  | O2P-P-O1P | 2.26 | 119.64      | 110.83   |
| 2   | B     | 502 | MC3  | O2P-P-O1P | 2.26 | 119.64      | 110.83   |
| 2   | G     | 502 | MC3  | O2P-P-O1P | 2.26 | 119.63      | 110.83   |
| 2   | K     | 502 | MC3  | O2P-P-O1P | 2.25 | 119.62      | 110.83   |
| 2   | C     | 502 | MC3  | O2P-P-O1P | 2.25 | 119.60      | 110.83   |
| 2   | J     | 502 | MC3  | O2P-P-O1P | 2.24 | 119.58      | 110.83   |

There are no chirality outliers.

All (528) torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms         |
|-----|-------|-----|------|---------------|
| 2   | A     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | A     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | A     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | A     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | A     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | A     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | A     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | A     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | A     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | A     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | A     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | A     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | B     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | B     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | B     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | B     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | B     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | B     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | B     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | B     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | B     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | B     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | B     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | B     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | C     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | C     | 502 | MC3  | C1-O3P-P-O1P  |

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| Mol | Chain | Res | Type | Atoms         |
|-----|-------|-----|------|---------------|
| 2   | C     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | C     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | C     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | C     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | C     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | C     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | C     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | C     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | C     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | C     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | D     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | D     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | D     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | D     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | D     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | D     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | D     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | D     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | D     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | D     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | D     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | D     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | E     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | E     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | E     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | E     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | E     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | E     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | E     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | E     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | E     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | E     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | E     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | E     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | F     | 501 | MC3  | O4P-C4-C5-N   |
| 2   | F     | 501 | MC3  | C1-O3P-P-O1P  |
| 2   | F     | 501 | MC3  | C1-O3P-P-O4P  |
| 2   | F     | 501 | MC3  | C4-O4P-P-O1P  |
| 2   | F     | 501 | MC3  | C4-O4P-P-O2P  |
| 2   | F     | 501 | MC3  | C4-O4P-P-O3P  |
| 2   | F     | 516 | MC3  | C32-C31-O2-C2 |
| 2   | F     | 516 | MC3  | C1-O3P-P-O1P  |

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| Mol | Chain | Res | Type | Atoms         |
|-----|-------|-----|------|---------------|
| 2   | F     | 516 | MC3  | C1-O3P-P-O2P  |
| 2   | F     | 516 | MC3  | C1-O3P-P-O4P  |
| 2   | F     | 517 | MC3  | C1-O3P-P-O2P  |
| 2   | F     | 517 | MC3  | C1-O3P-P-O4P  |
| 2   | G     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | G     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | G     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | G     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | G     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | G     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | G     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | G     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | G     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | G     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | G     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | G     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | H     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | H     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | H     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | H     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | H     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | H     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | H     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | H     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | H     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | H     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | H     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | H     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | I     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | I     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | I     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | I     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | I     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | I     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | I     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | I     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | I     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | I     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | I     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | I     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | J     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | J     | 502 | MC3  | C1-O3P-P-O1P  |

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| Mol | Chain | Res | Type | Atoms         |
|-----|-------|-----|------|---------------|
| 2   | J     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | J     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | J     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | J     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | J     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | J     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | J     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | J     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | J     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | J     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | K     | 502 | MC3  | C32-C31-O2-C2 |
| 2   | K     | 502 | MC3  | C1-O3P-P-O1P  |
| 2   | K     | 502 | MC3  | C1-O3P-P-O2P  |
| 2   | K     | 502 | MC3  | C1-O3P-P-O4P  |
| 2   | K     | 503 | MC3  | C1-O3P-P-O2P  |
| 2   | K     | 503 | MC3  | C1-O3P-P-O4P  |
| 2   | K     | 520 | MC3  | O4P-C4-C5-N   |
| 2   | K     | 520 | MC3  | C1-O3P-P-O1P  |
| 2   | K     | 520 | MC3  | C1-O3P-P-O4P  |
| 2   | K     | 520 | MC3  | C4-O4P-P-O1P  |
| 2   | K     | 520 | MC3  | C4-O4P-P-O2P  |
| 2   | K     | 520 | MC3  | C4-O4P-P-O3P  |
| 2   | L     | 501 | MC3  | O4P-C4-C5-N   |
| 2   | L     | 501 | MC3  | C1-O3P-P-O1P  |
| 2   | L     | 501 | MC3  | C1-O3P-P-O4P  |
| 2   | L     | 501 | MC3  | C4-O4P-P-O1P  |
| 2   | L     | 501 | MC3  | C4-O4P-P-O2P  |
| 2   | L     | 501 | MC3  | C4-O4P-P-O3P  |
| 2   | L     | 516 | MC3  | C32-C31-O2-C2 |
| 2   | L     | 516 | MC3  | C1-O3P-P-O1P  |
| 2   | L     | 516 | MC3  | C1-O3P-P-O2P  |
| 2   | L     | 516 | MC3  | C1-O3P-P-O4P  |
| 2   | L     | 517 | MC3  | C1-O3P-P-O2P  |
| 2   | L     | 517 | MC3  | C1-O3P-P-O4P  |
| 2   | A     | 520 | MC3  | O11-C11-O3-C3 |
| 2   | B     | 520 | MC3  | O11-C11-O3-C3 |
| 2   | C     | 520 | MC3  | O11-C11-O3-C3 |
| 2   | D     | 520 | MC3  | O11-C11-O3-C3 |
| 2   | E     | 520 | MC3  | O11-C11-O3-C3 |
| 2   | F     | 501 | MC3  | O11-C11-O3-C3 |
| 2   | G     | 520 | MC3  | O11-C11-O3-C3 |
| 2   | H     | 520 | MC3  | O11-C11-O3-C3 |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | I     | 520 | MC3  | O11-C11-O3-C3   |
| 2   | J     | 520 | MC3  | O11-C11-O3-C3   |
| 2   | K     | 520 | MC3  | O11-C11-O3-C3   |
| 2   | L     | 501 | MC3  | O11-C11-O3-C3   |
| 2   | A     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | B     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | C     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | D     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | E     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | F     | 501 | MC3  | C12-C11-O3-C3   |
| 2   | G     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | H     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | I     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | J     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | K     | 520 | MC3  | C12-C11-O3-C3   |
| 2   | L     | 501 | MC3  | C12-C11-O3-C3   |
| 2   | A     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | B     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | C     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | D     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | E     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | F     | 516 | MC3  | O31-C31-O2-C2   |
| 2   | G     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | H     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | I     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | J     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | K     | 502 | MC3  | O31-C31-O2-C2   |
| 2   | L     | 516 | MC3  | O31-C31-O2-C2   |
| 2   | A     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | B     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | C     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | D     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | E     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | F     | 517 | MC3  | C12-C11-O3-C3   |
| 2   | G     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | H     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | I     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | J     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | K     | 503 | MC3  | C12-C11-O3-C3   |
| 2   | L     | 517 | MC3  | C12-C11-O3-C3   |
| 2   | A     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | B     | 503 | MC3  | C31-C32-C33-C34 |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | C     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | D     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | E     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | F     | 517 | MC3  | C31-C32-C33-C34 |
| 2   | G     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | H     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | I     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | J     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | K     | 503 | MC3  | C31-C32-C33-C34 |
| 2   | L     | 517 | MC3  | C31-C32-C33-C34 |
| 2   | A     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | B     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | C     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | D     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | E     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | F     | 517 | MC3  | O11-C11-O3-C3   |
| 2   | G     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | H     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | I     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | J     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | K     | 503 | MC3  | O11-C11-O3-C3   |
| 2   | L     | 517 | MC3  | O11-C11-O3-C3   |
| 2   | A     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | B     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | C     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | D     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | E     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | F     | 516 | MC3  | C12-C11-O3-C3   |
| 2   | G     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | H     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | I     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | J     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | K     | 502 | MC3  | C12-C11-O3-C3   |
| 2   | L     | 516 | MC3  | C12-C11-O3-C3   |
| 2   | A     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | B     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | C     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | D     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | E     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | F     | 501 | MC3  | C31-C32-C33-C34 |
| 2   | G     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | H     | 520 | MC3  | C31-C32-C33-C34 |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | I     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | J     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | K     | 520 | MC3  | C31-C32-C33-C34 |
| 2   | L     | 501 | MC3  | C31-C32-C33-C34 |
| 2   | A     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | B     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | C     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | D     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | E     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | F     | 516 | MC3  | O11-C11-O3-C3   |
| 2   | G     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | H     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | I     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | J     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | K     | 502 | MC3  | O11-C11-O3-C3   |
| 2   | L     | 516 | MC3  | O11-C11-O3-C3   |
| 2   | A     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | B     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | C     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | D     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | E     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | F     | 531 | MC3  | C37-C38-C39-C40 |
| 2   | G     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | H     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | I     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | J     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | K     | 517 | MC3  | C37-C38-C39-C40 |
| 2   | L     | 531 | MC3  | C37-C38-C39-C40 |
| 2   | A     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | D     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | G     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | H     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | K     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | L     | 515 | MC3  | C15-C16-C17-C18 |
| 2   | C     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | F     | 515 | MC3  | C15-C16-C17-C18 |
| 2   | I     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | J     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | B     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | E     | 501 | MC3  | C15-C16-C17-C18 |
| 2   | A     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | B     | 520 | MC3  | C32-C31-O2-C2   |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | C     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | D     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | E     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | F     | 501 | MC3  | C32-C31-O2-C2   |
| 2   | G     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | H     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | I     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | J     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | K     | 520 | MC3  | C32-C31-O2-C2   |
| 2   | L     | 501 | MC3  | C32-C31-O2-C2   |
| 2   | B     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | E     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | J     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | L     | 516 | MC3  | C31-C32-C33-C34 |
| 2   | A     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | C     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | D     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | F     | 516 | MC3  | C31-C32-C33-C34 |
| 2   | G     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | H     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | I     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | K     | 502 | MC3  | C31-C32-C33-C34 |
| 2   | J     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | A     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | D     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | E     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | F     | 516 | MC3  | C35-C36-C37-C38 |
| 2   | G     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | H     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | L     | 516 | MC3  | C35-C36-C37-C38 |
| 2   | B     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | C     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | I     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | K     | 502 | MC3  | C35-C36-C37-C38 |
| 2   | A     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | B     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | C     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | D     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | F     | 501 | MC3  | O31-C31-O2-C2   |
| 2   | G     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | H     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | I     | 520 | MC3  | O31-C31-O2-C2   |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | J     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | K     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | L     | 501 | MC3  | O31-C31-O2-C2   |
| 2   | E     | 520 | MC3  | O31-C31-O2-C2   |
| 2   | A     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | B     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | C     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | D     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | E     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | F     | 516 | MC3  | O3P-C1-C2-C3    |
| 2   | G     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | H     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | I     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | J     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | K     | 502 | MC3  | O3P-C1-C2-C3    |
| 2   | L     | 516 | MC3  | O3P-C1-C2-C3    |
| 2   | I     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | D     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | E     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | F     | 501 | MC3  | C12-C13-C14-C15 |
| 2   | G     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | H     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | J     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | K     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | L     | 501 | MC3  | C12-C13-C14-C15 |
| 2   | A     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | B     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | C     | 520 | MC3  | C12-C13-C14-C15 |
| 2   | A     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | B     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | C     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | D     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | E     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | F     | 501 | MC3  | C1-C2-C3-O3     |
| 2   | G     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | H     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | I     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | J     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | K     | 520 | MC3  | C1-C2-C3-O3     |
| 2   | L     | 501 | MC3  | C1-C2-C3-O3     |
| 2   | A     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | B     | 502 | MC3  | O3P-C1-C2-O2    |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | C     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | D     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | E     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | F     | 516 | MC3  | O3P-C1-C2-O2    |
| 2   | G     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | H     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | I     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | J     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | K     | 502 | MC3  | O3P-C1-C2-O2    |
| 2   | L     | 516 | MC3  | O3P-C1-C2-O2    |
| 2   | D     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | H     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | J     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | B     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | C     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | F     | 531 | MC3  | C33-C34-C35-C36 |
| 2   | G     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | I     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | K     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | L     | 531 | MC3  | C33-C34-C35-C36 |
| 2   | A     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | E     | 517 | MC3  | C33-C34-C35-C36 |
| 2   | A     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | B     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | C     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | D     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | E     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | F     | 501 | MC3  | O3P-C1-C2-O2    |
| 2   | G     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | H     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | I     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | J     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | K     | 520 | MC3  | O3P-C1-C2-O2    |
| 2   | L     | 501 | MC3  | O3P-C1-C2-O2    |
| 2   | A     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | B     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | C     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | D     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | E     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | F     | 501 | MC3  | O2-C2-C3-O3     |
| 2   | G     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | H     | 520 | MC3  | O2-C2-C3-O3     |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | I     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | J     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | K     | 520 | MC3  | O2-C2-C3-O3     |
| 2   | L     | 501 | MC3  | O2-C2-C3-O3     |
| 2   | C     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | D     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | G     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | A     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | B     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | E     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | F     | 516 | MC3  | C32-C33-C34-C35 |
| 2   | J     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | K     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | L     | 516 | MC3  | C32-C33-C34-C35 |
| 2   | H     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | I     | 502 | MC3  | C32-C33-C34-C35 |
| 2   | A     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | B     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | C     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | D     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | E     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | F     | 501 | MC3  | O3P-C1-C2-C3    |
| 2   | G     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | H     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | I     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | J     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | K     | 520 | MC3  | O3P-C1-C2-C3    |
| 2   | L     | 501 | MC3  | O3P-C1-C2-C3    |
| 2   | A     | 520 | MC3  | C4-C5-N-C7      |
| 2   | A     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | B     | 520 | MC3  | C4-C5-N-C7      |
| 2   | B     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | C     | 520 | MC3  | C4-C5-N-C7      |
| 2   | C     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | D     | 520 | MC3  | C4-C5-N-C7      |
| 2   | D     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | E     | 520 | MC3  | C4-C5-N-C7      |
| 2   | E     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | F     | 501 | MC3  | C4-C5-N-C7      |
| 2   | F     | 501 | MC3  | C1-O3P-P-O2P    |
| 2   | G     | 520 | MC3  | C4-C5-N-C7      |
| 2   | G     | 520 | MC3  | C1-O3P-P-O2P    |

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| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | H     | 520 | MC3  | C4-C5-N-C7      |
| 2   | H     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | I     | 520 | MC3  | C4-C5-N-C7      |
| 2   | I     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | J     | 520 | MC3  | C4-C5-N-C7      |
| 2   | J     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | K     | 520 | MC3  | C4-C5-N-C7      |
| 2   | K     | 520 | MC3  | C1-O3P-P-O2P    |
| 2   | L     | 501 | MC3  | C4-C5-N-C7      |
| 2   | L     | 501 | MC3  | C1-O3P-P-O2P    |
| 2   | A     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | B     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | C     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | D     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | E     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | F     | 517 | MC3  | C1-O3P-P-O1P    |
| 2   | G     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | H     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | I     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | J     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | K     | 503 | MC3  | C1-O3P-P-O1P    |
| 2   | L     | 517 | MC3  | C1-O3P-P-O1P    |
| 2   | C     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | G     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | B     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | D     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | E     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | F     | 501 | MC3  | C32-C33-C34-C35 |
| 2   | H     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | I     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | K     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | L     | 501 | MC3  | C32-C33-C34-C35 |
| 2   | A     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | J     | 520 | MC3  | C32-C33-C34-C35 |
| 2   | A     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | B     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | C     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | D     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | E     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | F     | 517 | MC3  | C1-C2-C3-O3     |
| 2   | G     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | H     | 503 | MC3  | C1-C2-C3-O3     |

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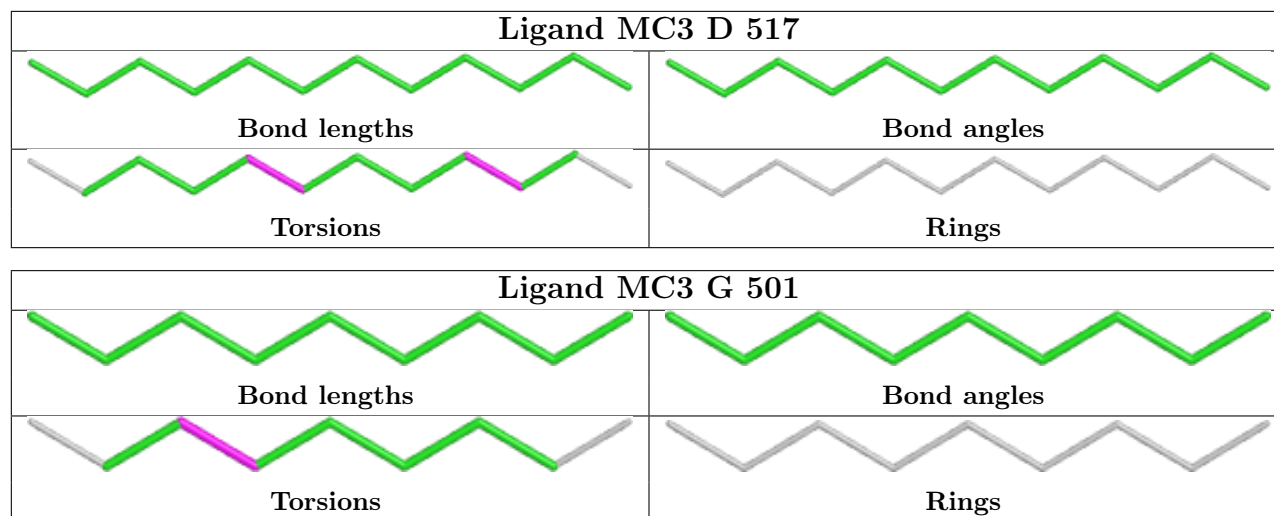
| Mol | Chain | Res | Type | Atoms           |
|-----|-------|-----|------|-----------------|
| 2   | I     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | J     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | K     | 503 | MC3  | C1-C2-C3-O3     |
| 2   | L     | 517 | MC3  | C1-C2-C3-O3     |
| 2   | C     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | J     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | D     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | E     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | G     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | H     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | A     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | L     | 516 | MC3  | C13-C14-C15-C16 |
| 2   | B     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | F     | 516 | MC3  | C13-C14-C15-C16 |
| 2   | I     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | K     | 502 | MC3  | C13-C14-C15-C16 |
| 2   | A     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | B     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | C     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | D     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | E     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | F     | 528 | MC3  | C32-C33-C34-C35 |
| 2   | G     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | H     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | I     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | J     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | K     | 514 | MC3  | C32-C33-C34-C35 |
| 2   | L     | 528 | MC3  | C32-C33-C34-C35 |
| 2   | A     | 520 | MC3  | C4-C5-N-C6      |
| 2   | B     | 520 | MC3  | C4-C5-N-C6      |
| 2   | C     | 520 | MC3  | C4-C5-N-C6      |
| 2   | D     | 520 | MC3  | C4-C5-N-C6      |
| 2   | E     | 520 | MC3  | C4-C5-N-C6      |
| 2   | F     | 501 | MC3  | C4-C5-N-C6      |
| 2   | G     | 520 | MC3  | C4-C5-N-C6      |
| 2   | H     | 520 | MC3  | C4-C5-N-C6      |
| 2   | I     | 520 | MC3  | C4-C5-N-C6      |
| 2   | J     | 520 | MC3  | C4-C5-N-C6      |
| 2   | K     | 520 | MC3  | C4-C5-N-C6      |
| 2   | L     | 501 | MC3  | C4-C5-N-C6      |

There are no ring outliers.

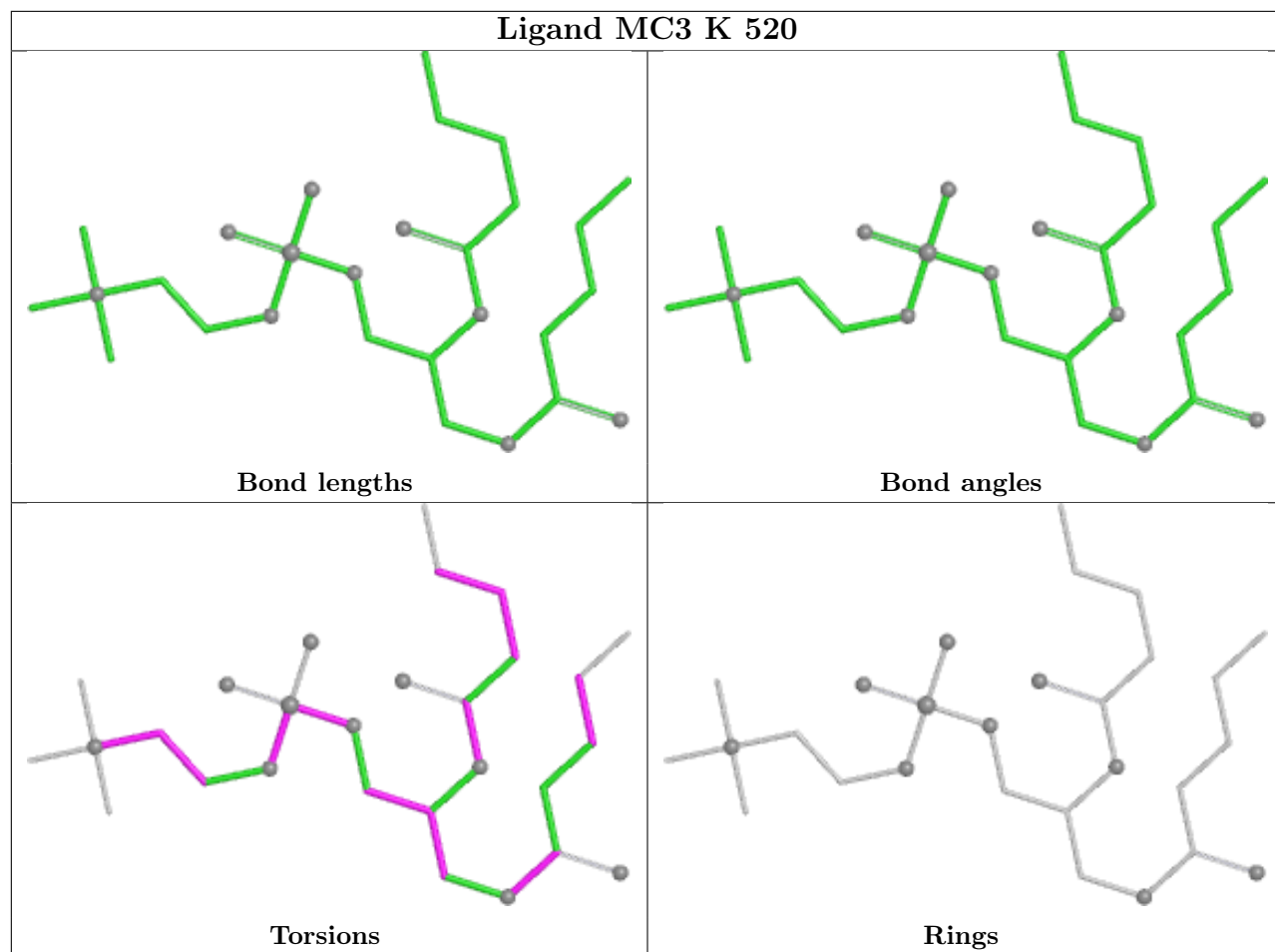
12 monomers are involved in 48 short contacts:

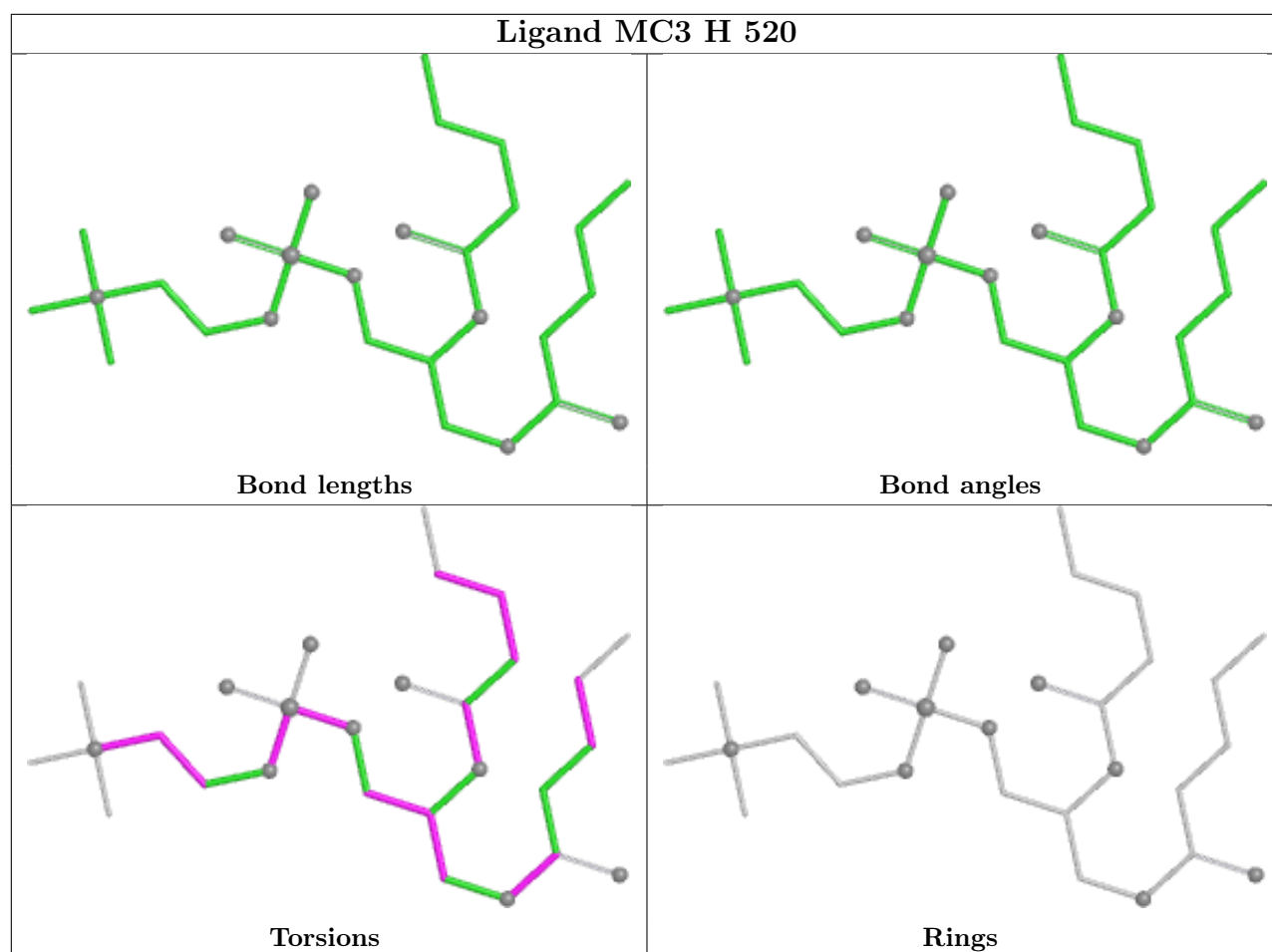
| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|-----|------|---------|--------------|
| 2   | K     | 520 | MC3  | 7       | 0            |
| 2   | H     | 520 | MC3  | 7       | 0            |
| 2   | B     | 520 | MC3  | 8       | 0            |
| 2   | D     | 520 | MC3  | 7       | 0            |
| 2   | I     | 520 | MC3  | 7       | 0            |
| 2   | E     | 520 | MC3  | 6       | 0            |
| 2   | A     | 520 | MC3  | 6       | 0            |
| 2   | L     | 501 | MC3  | 7       | 0            |
| 2   | J     | 520 | MC3  | 7       | 0            |
| 2   | G     | 520 | MC3  | 6       | 0            |
| 2   | C     | 520 | MC3  | 7       | 0            |
| 2   | F     | 501 | MC3  | 7       | 0            |

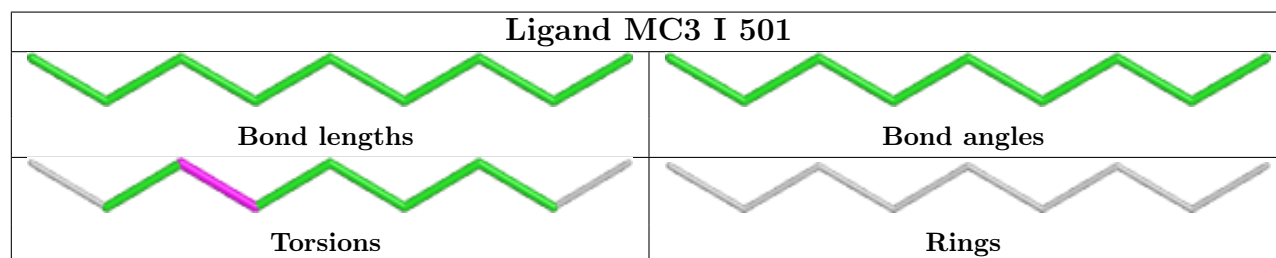
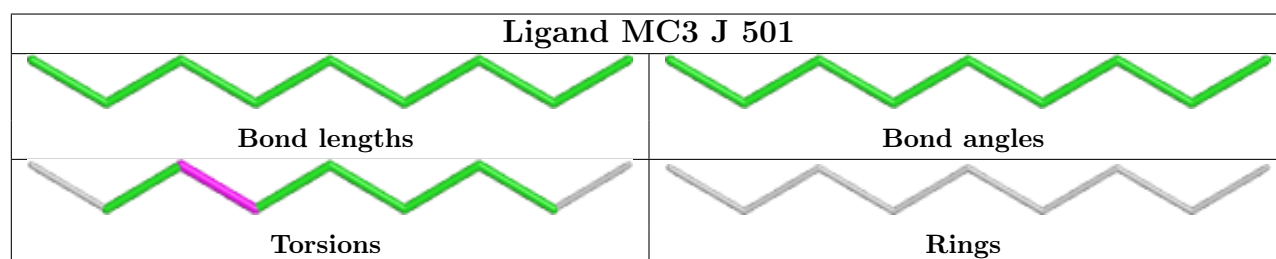
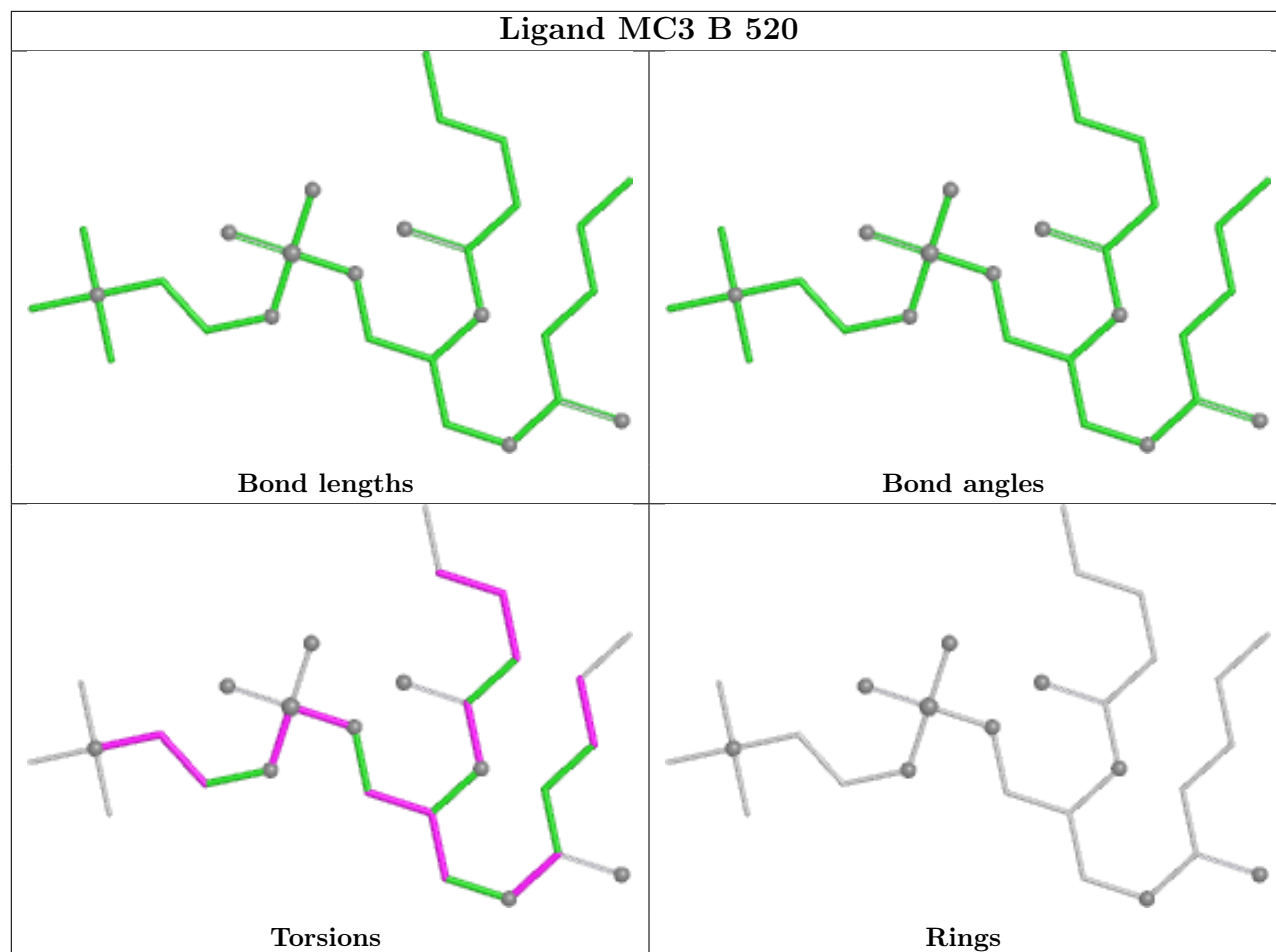
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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.

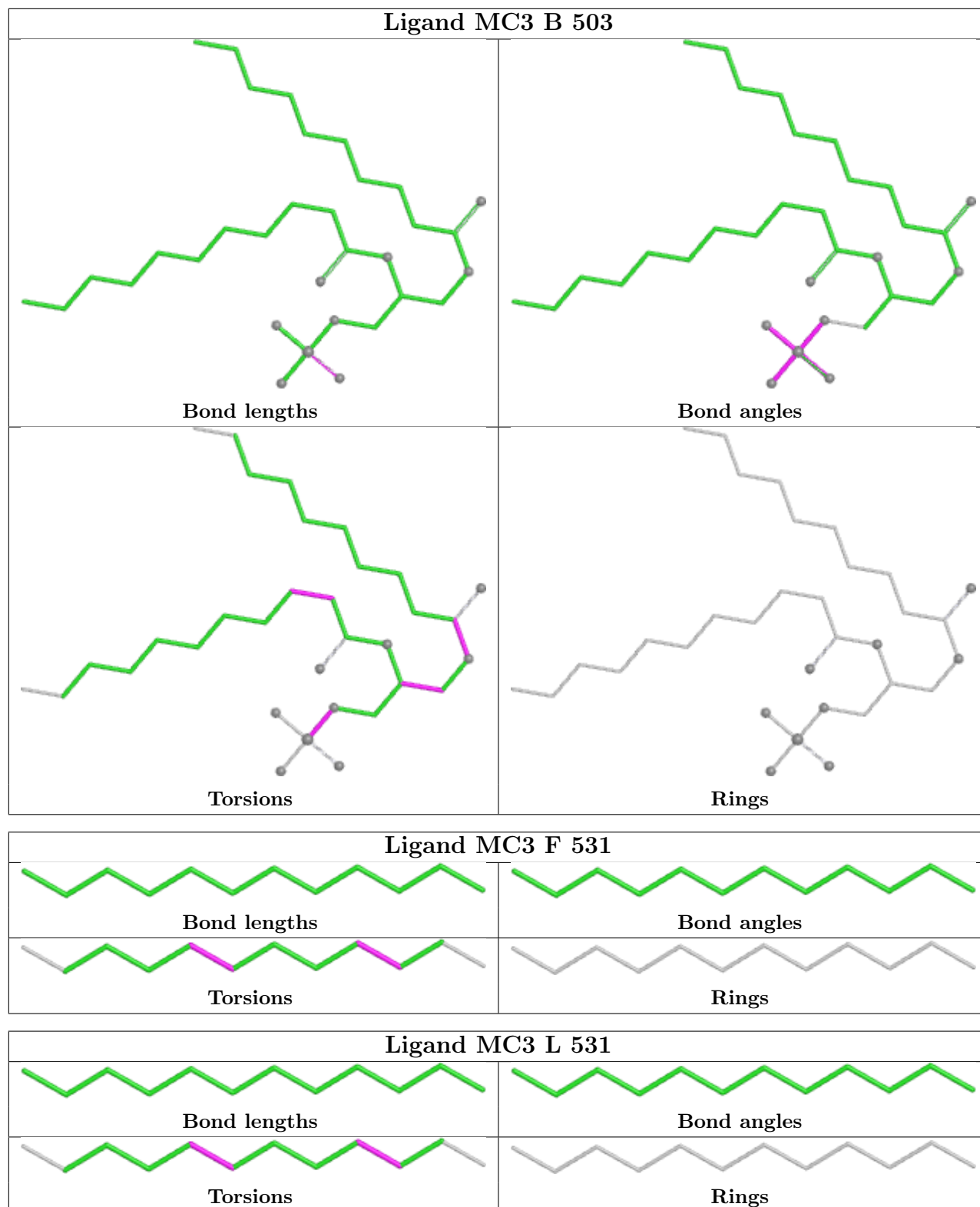


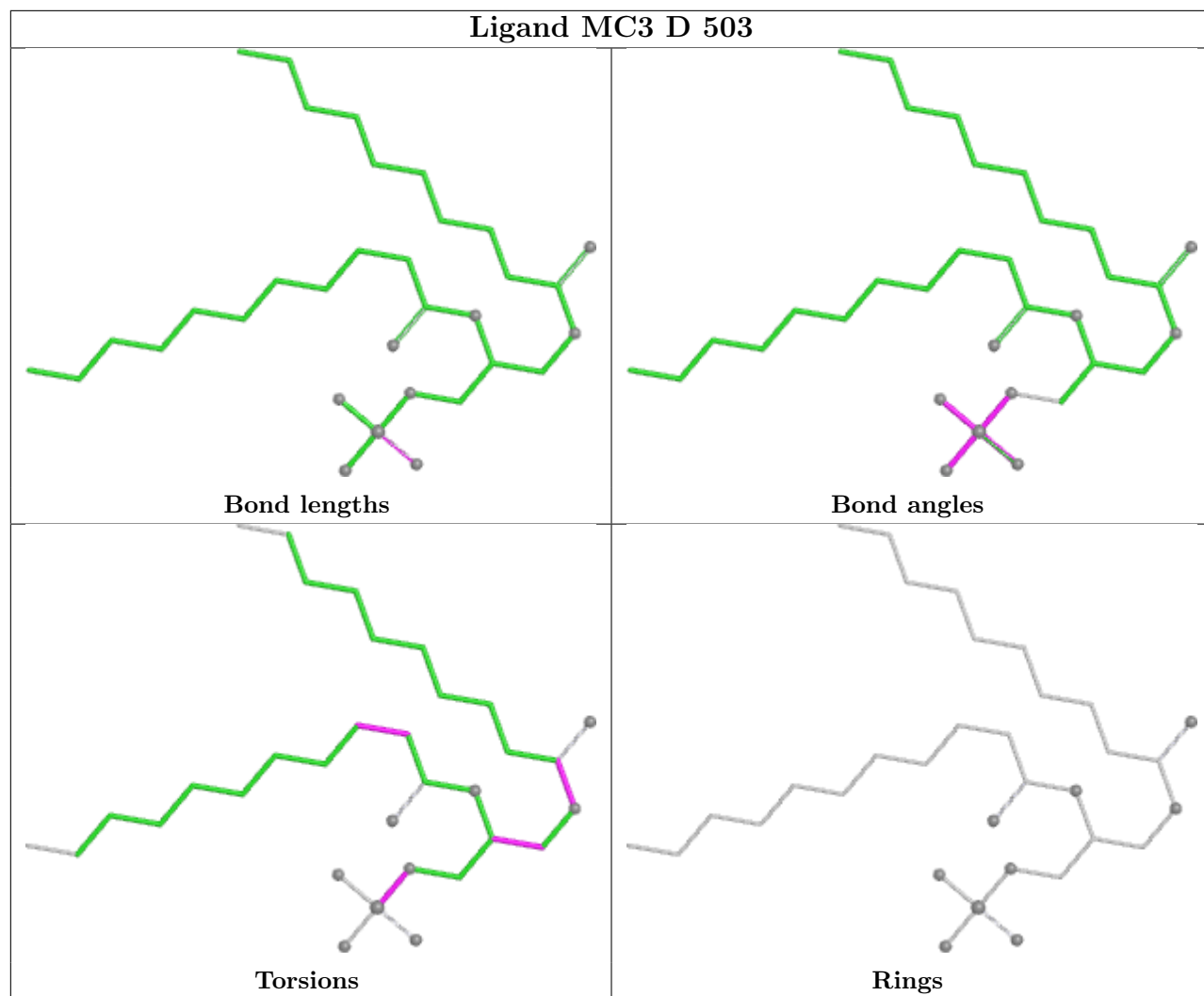


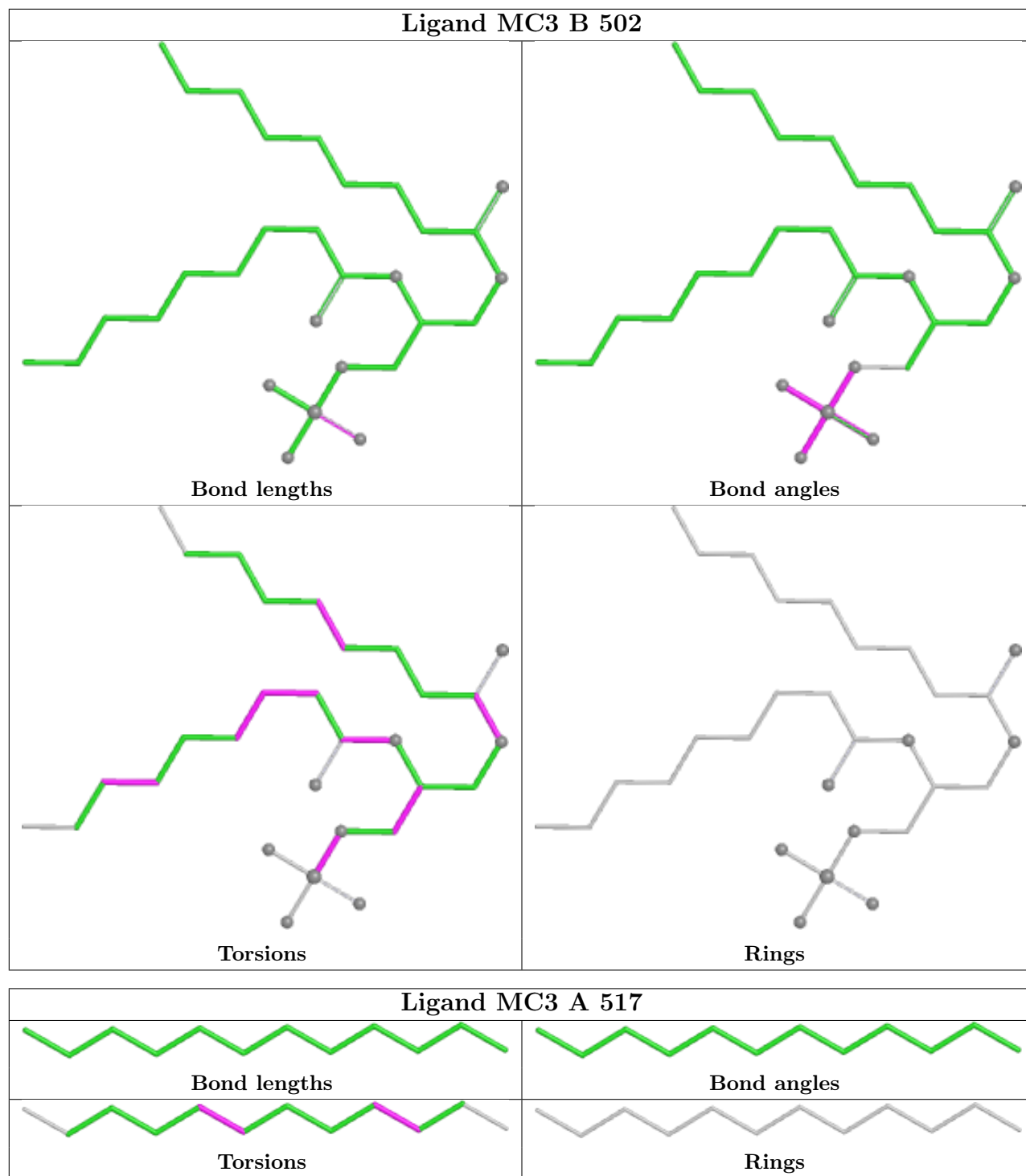


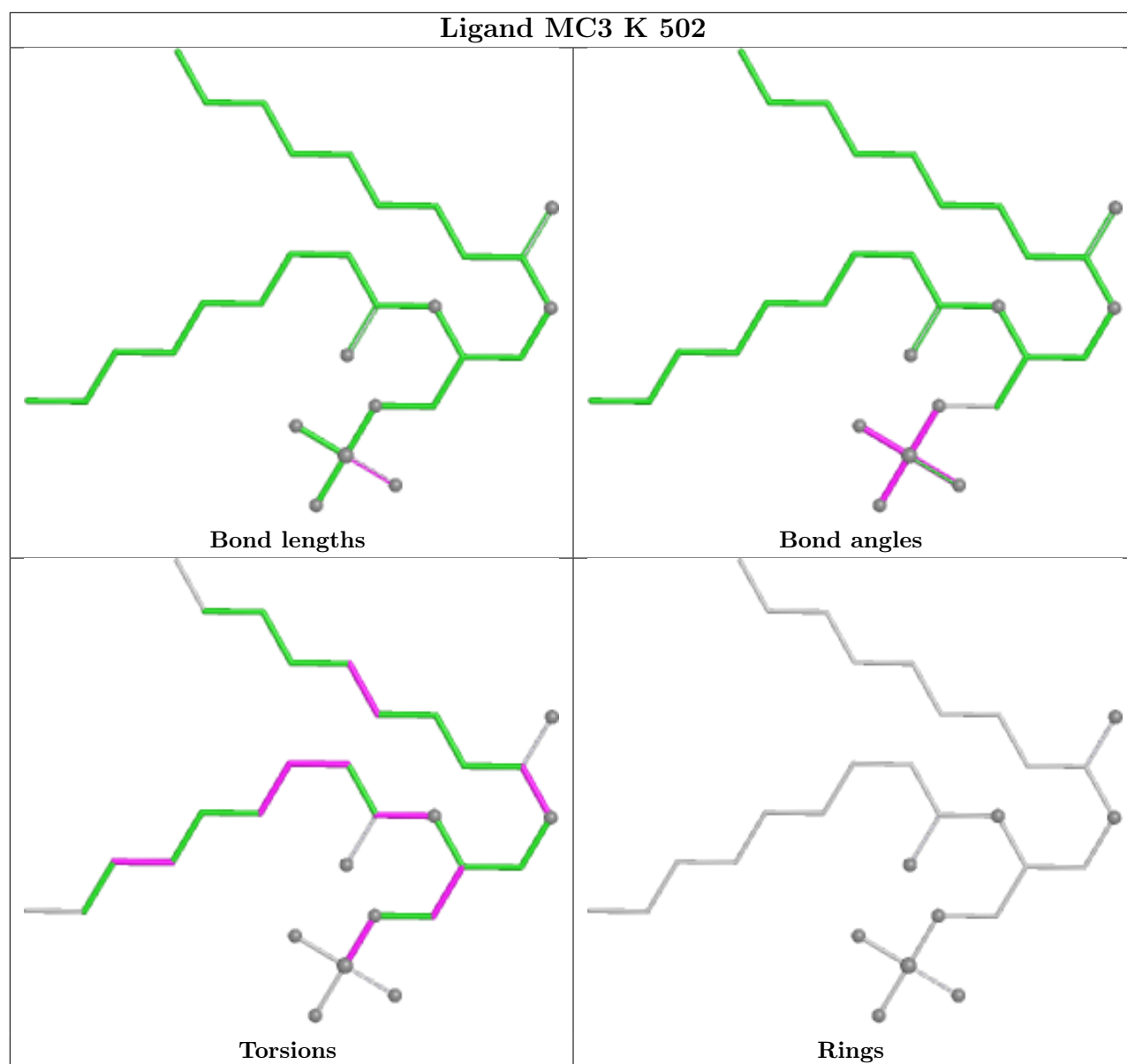


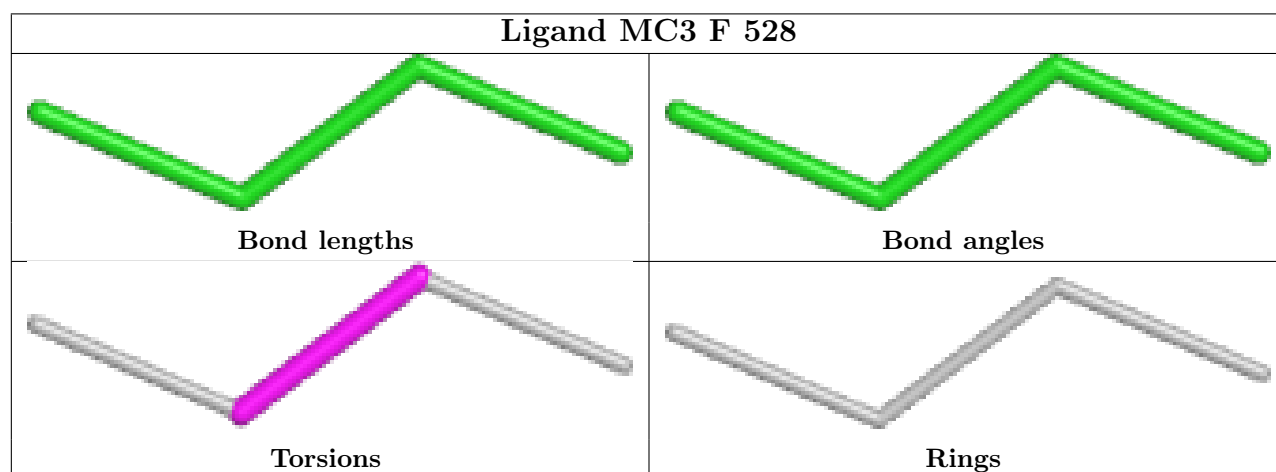
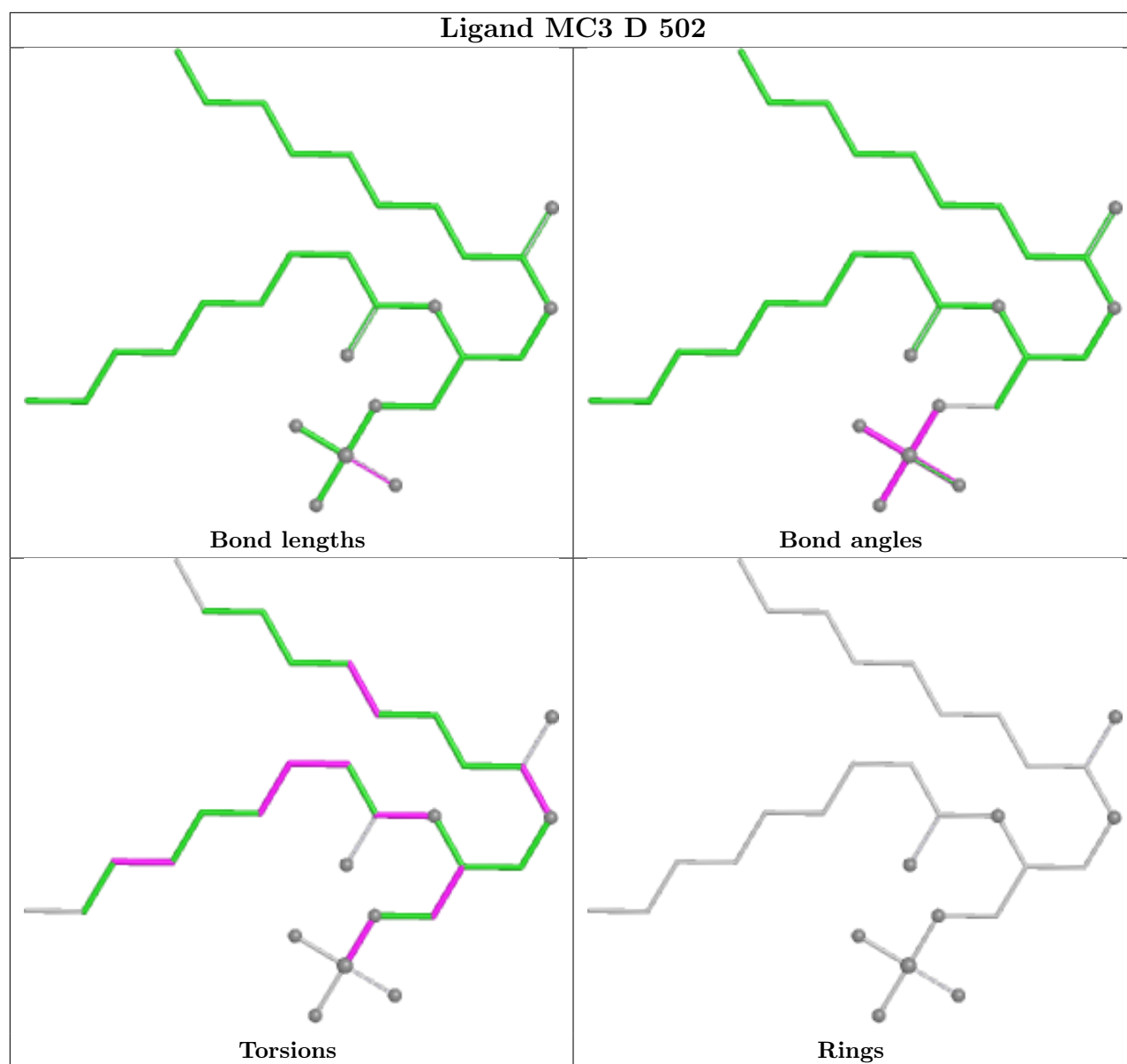




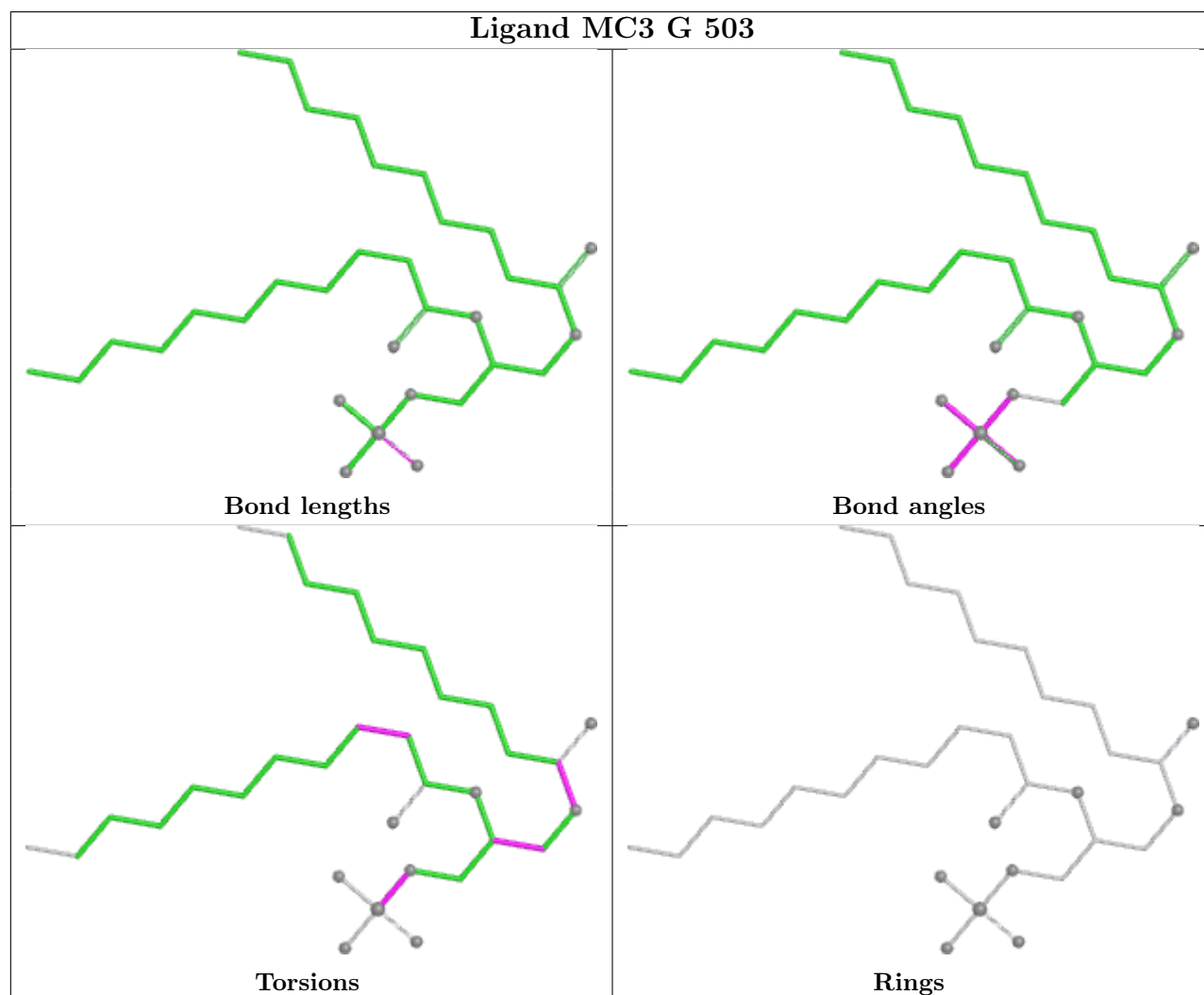
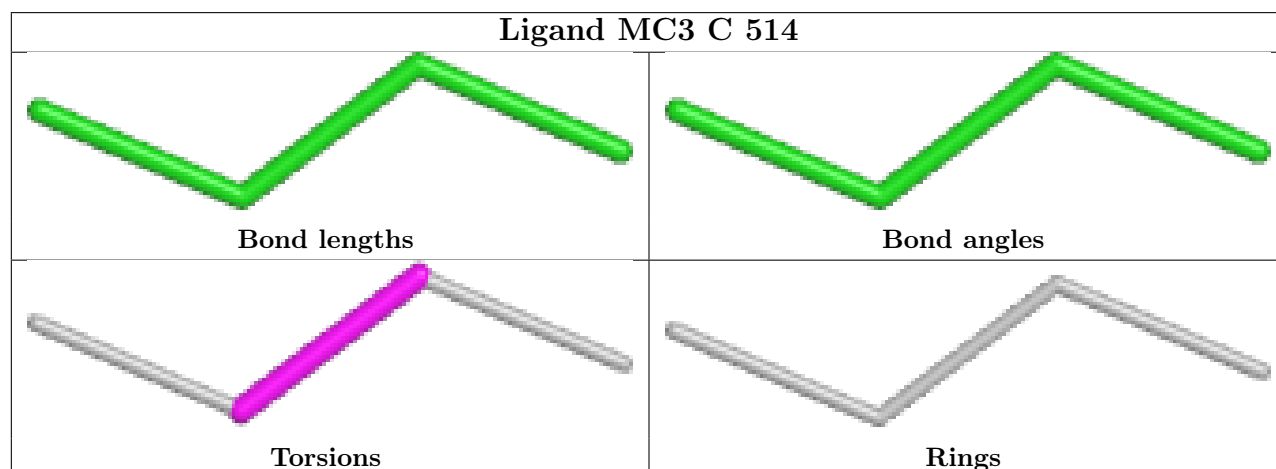
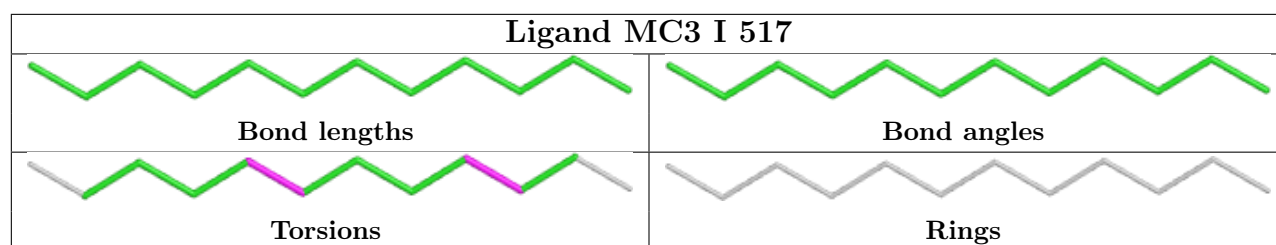


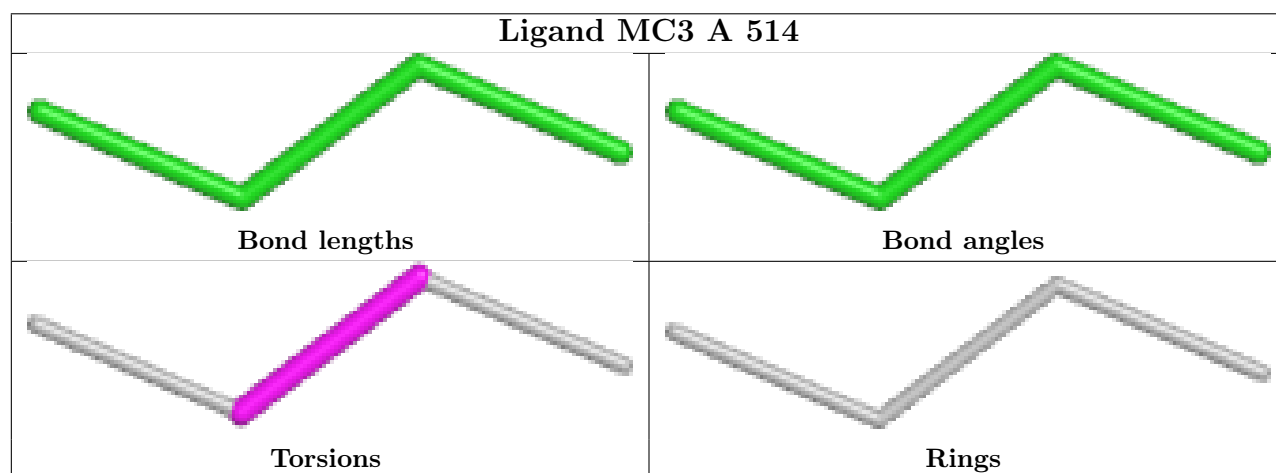
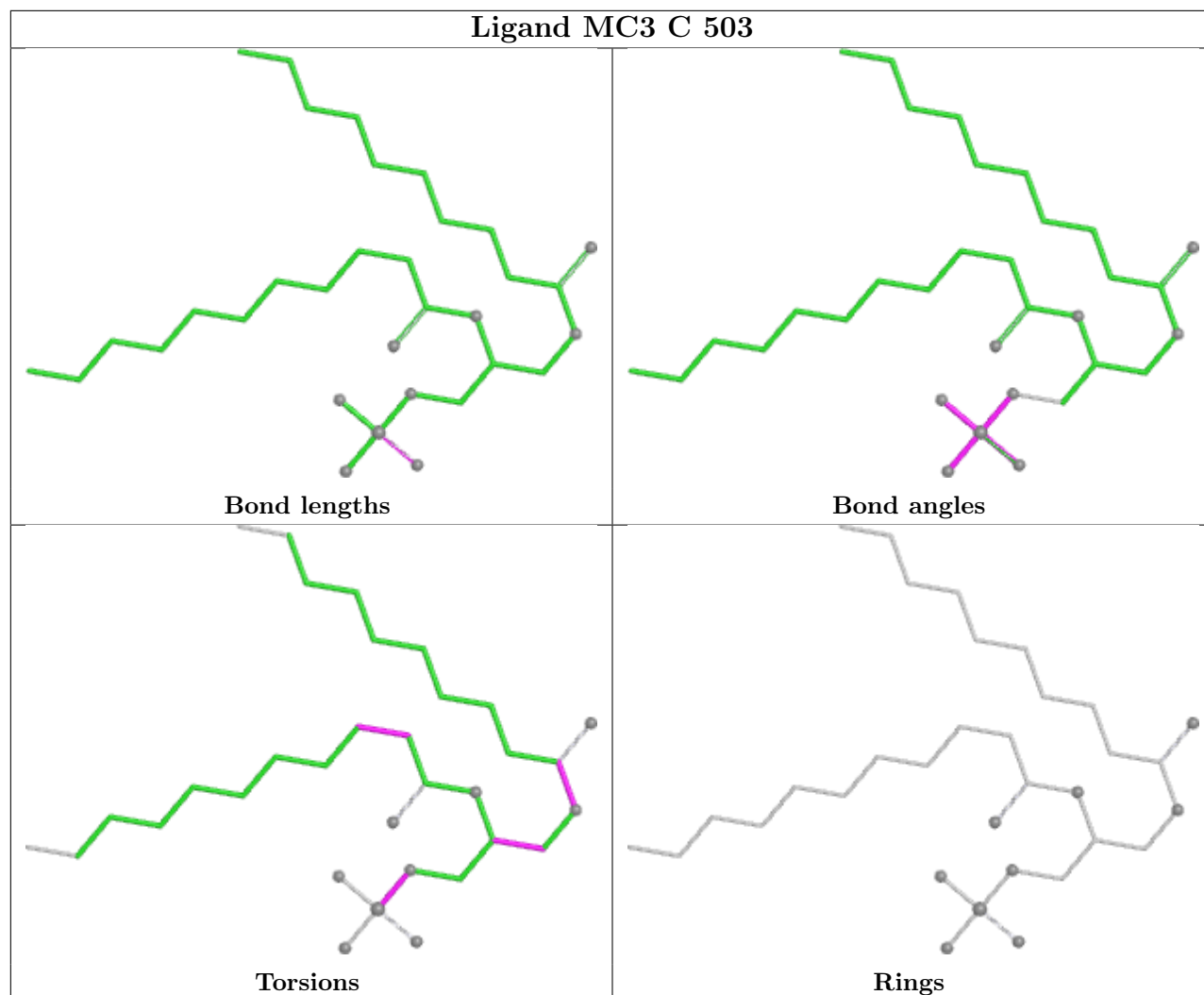


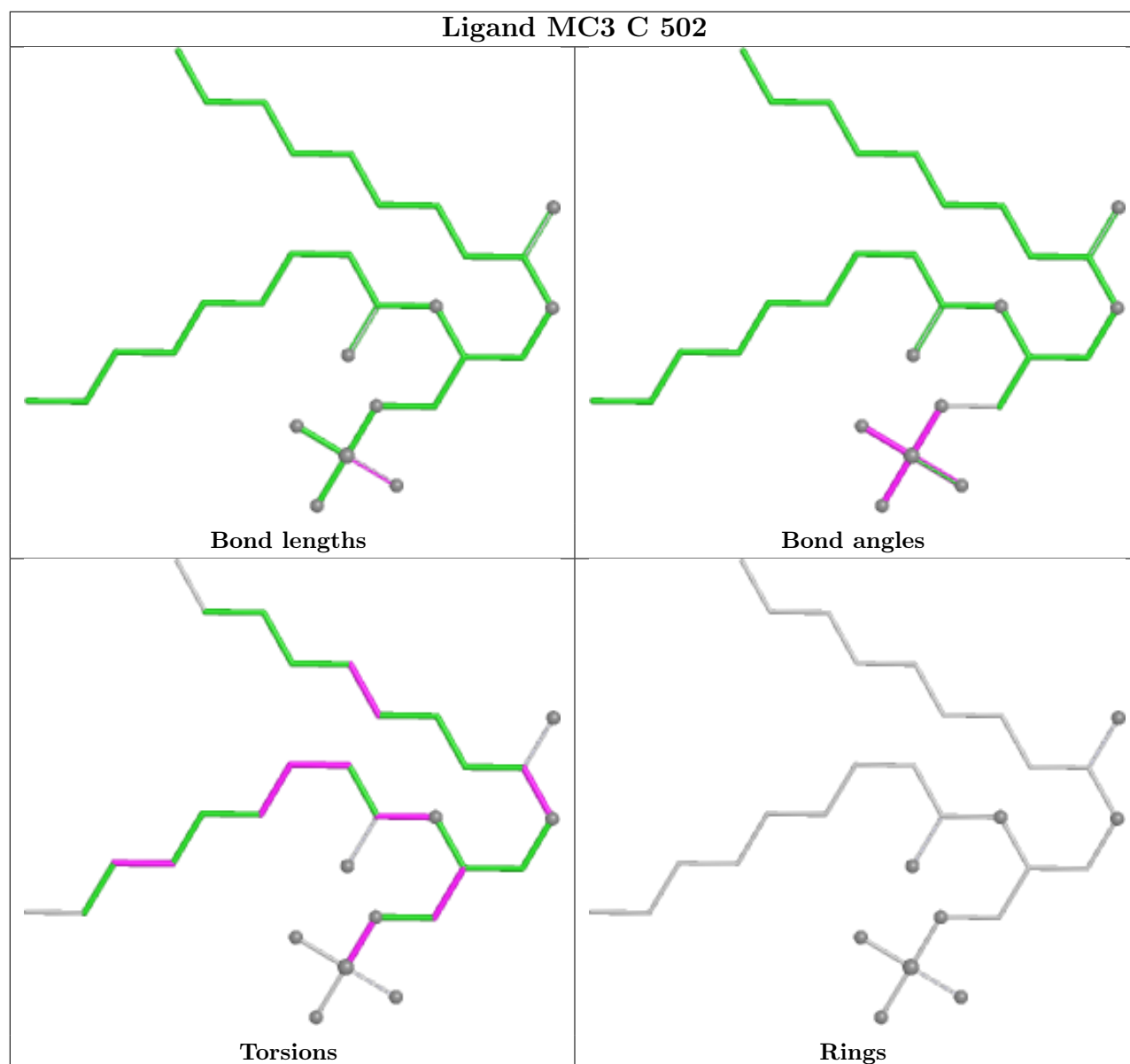
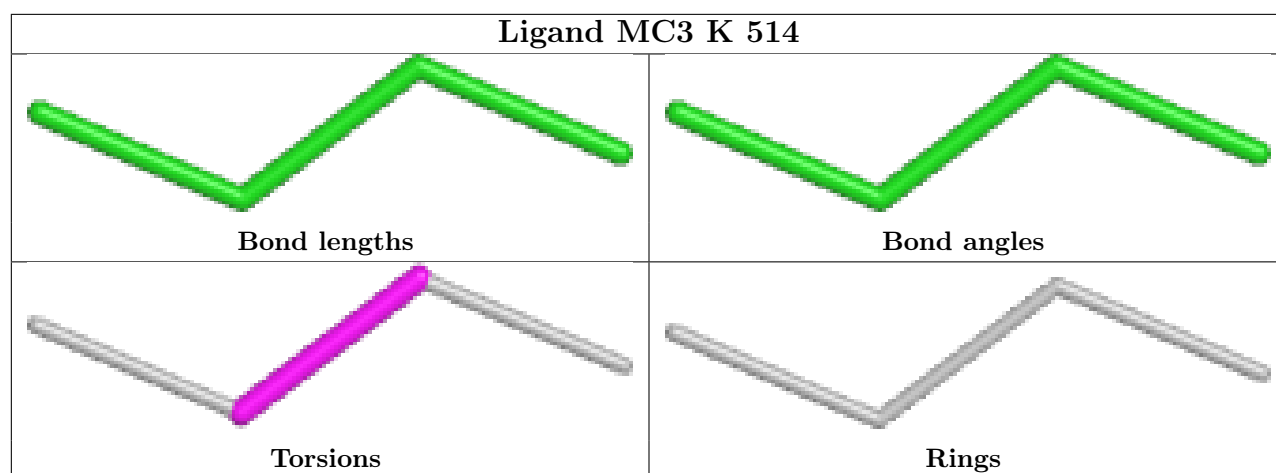


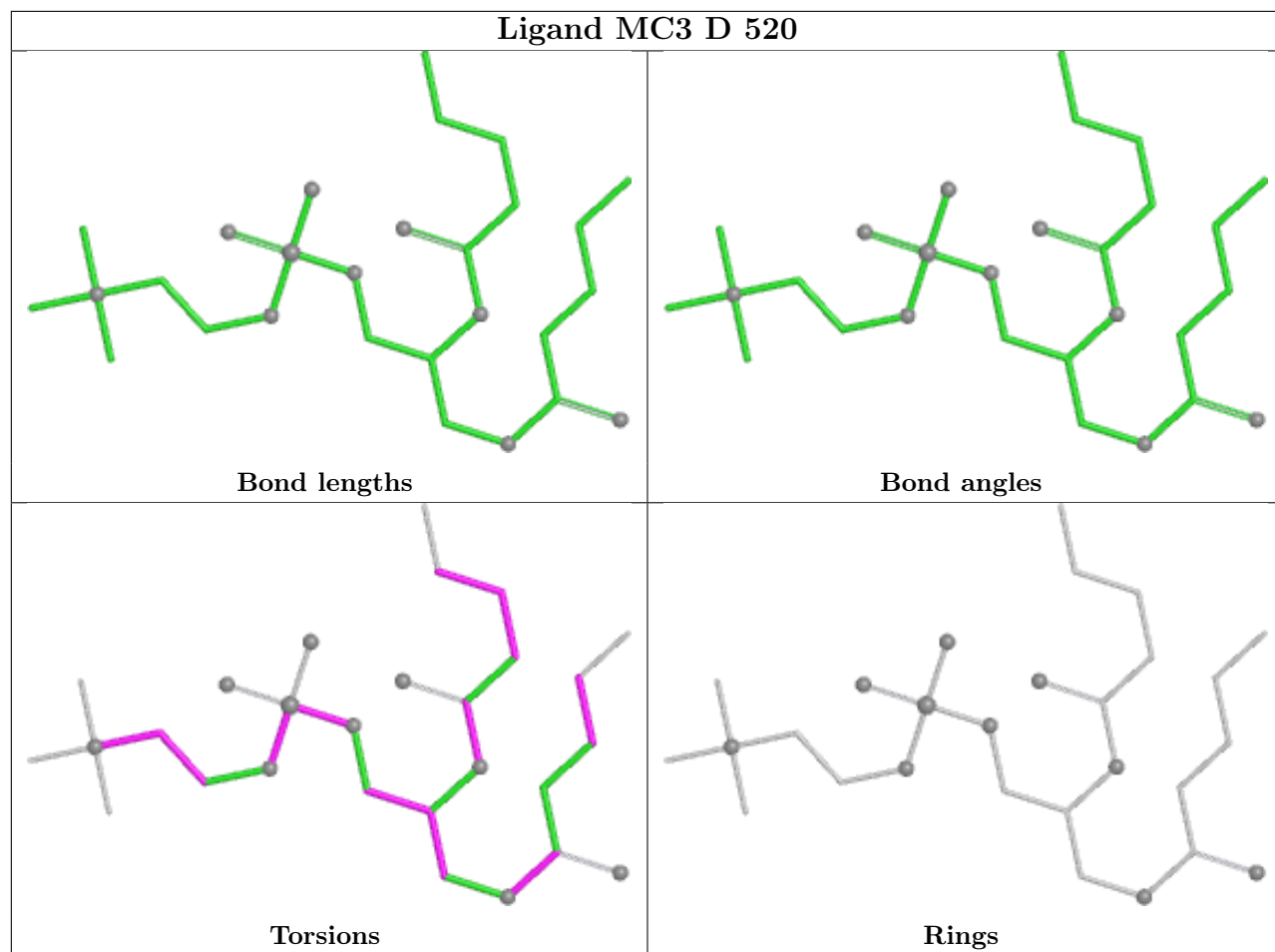


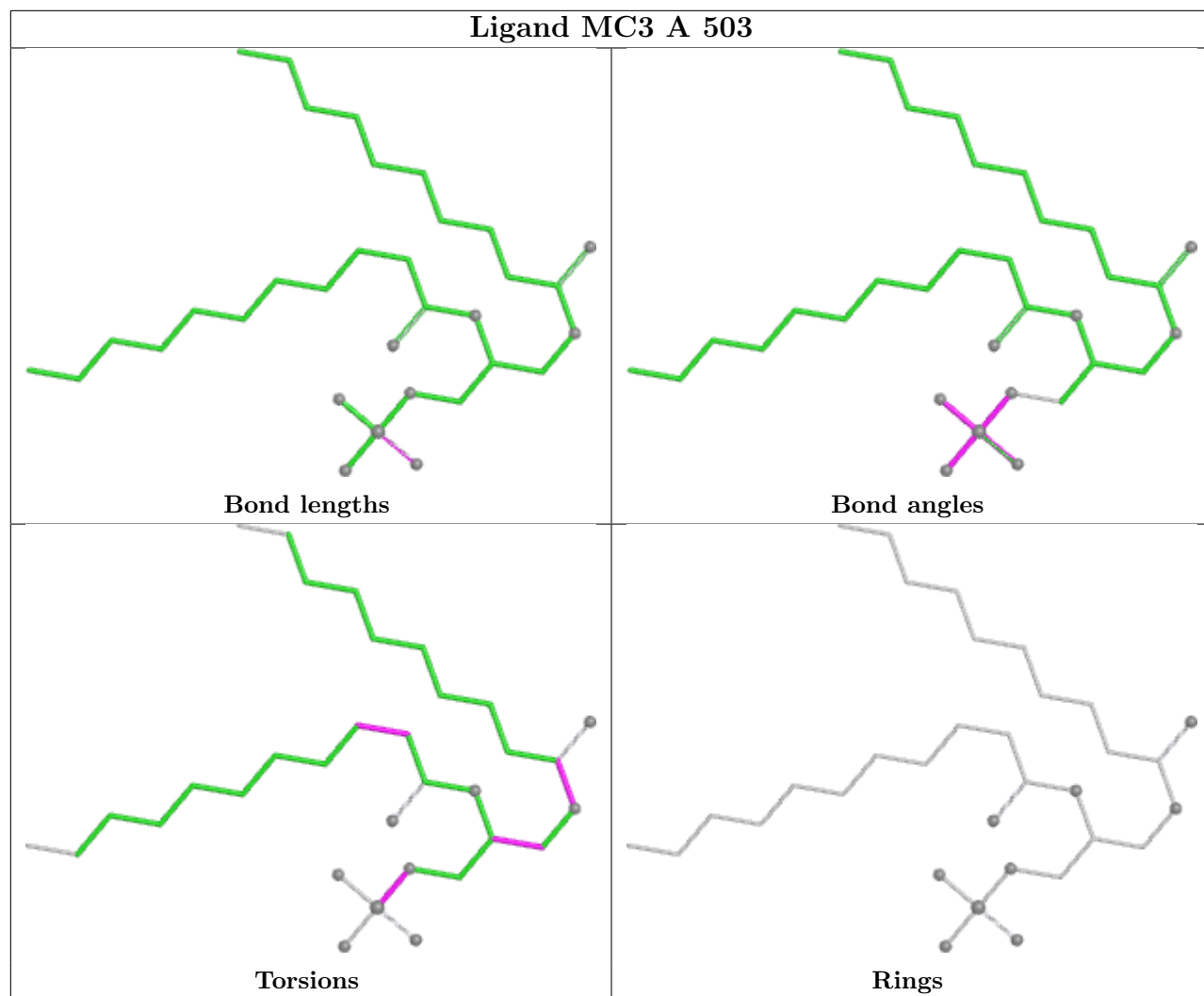




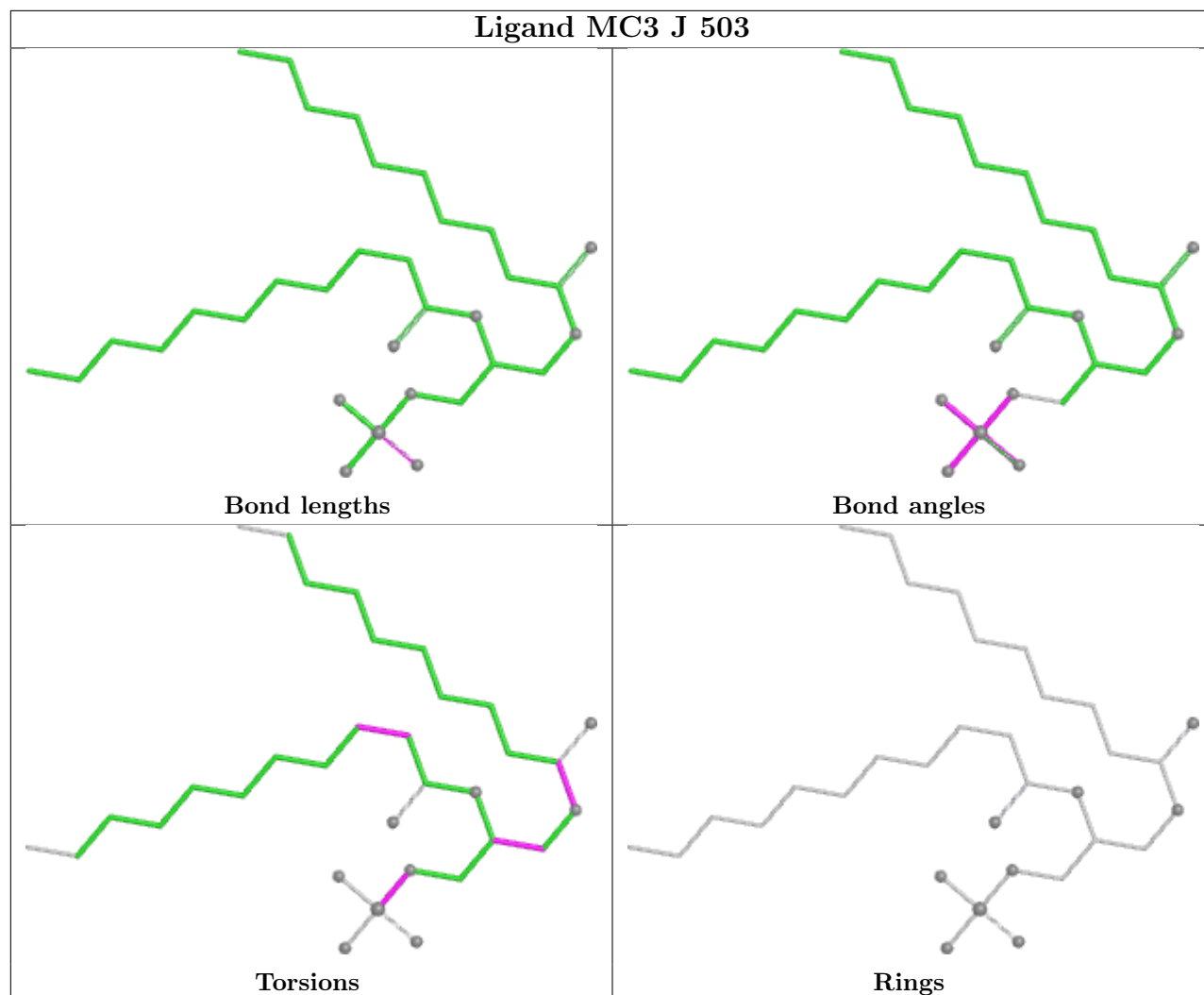




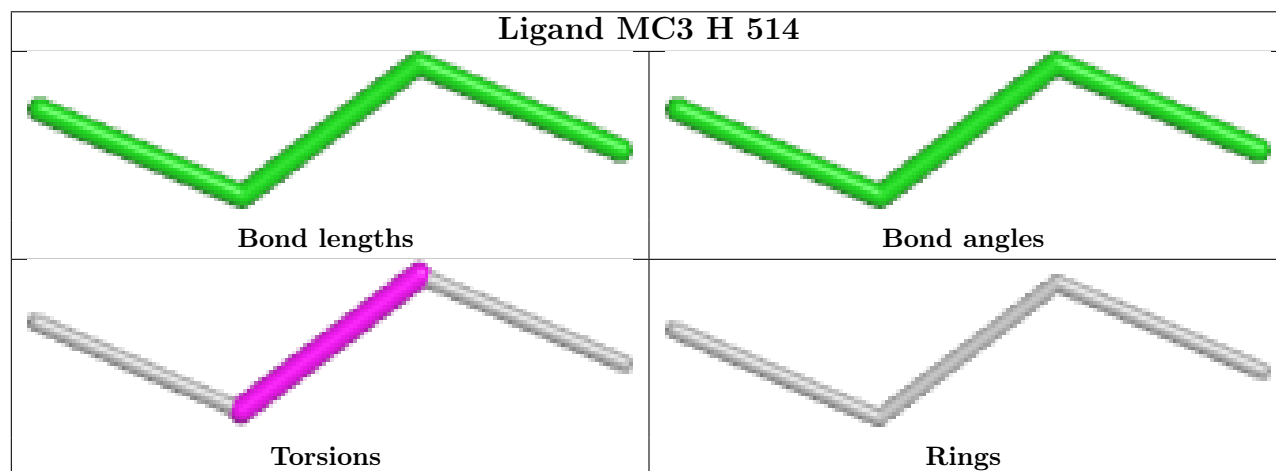


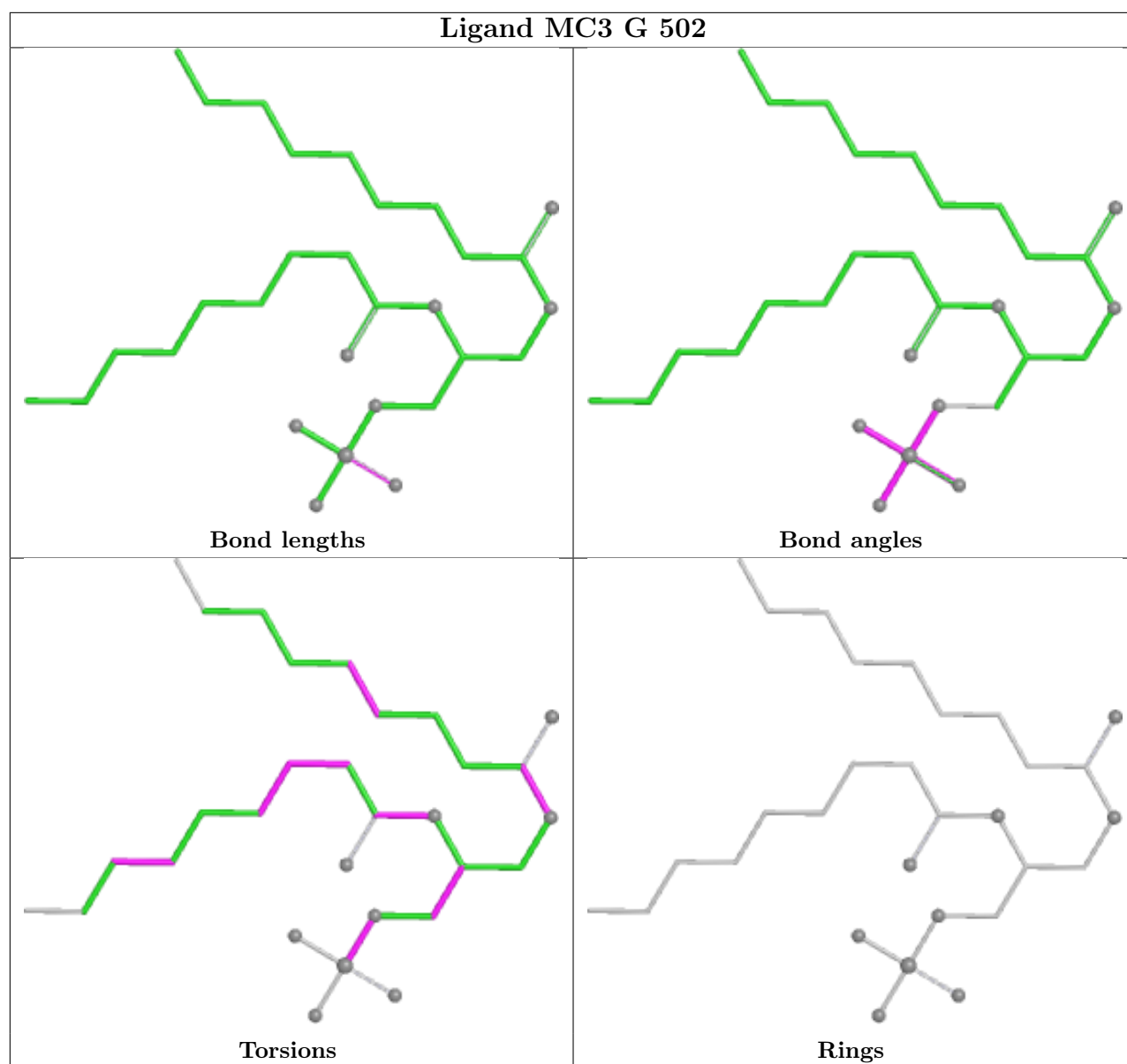


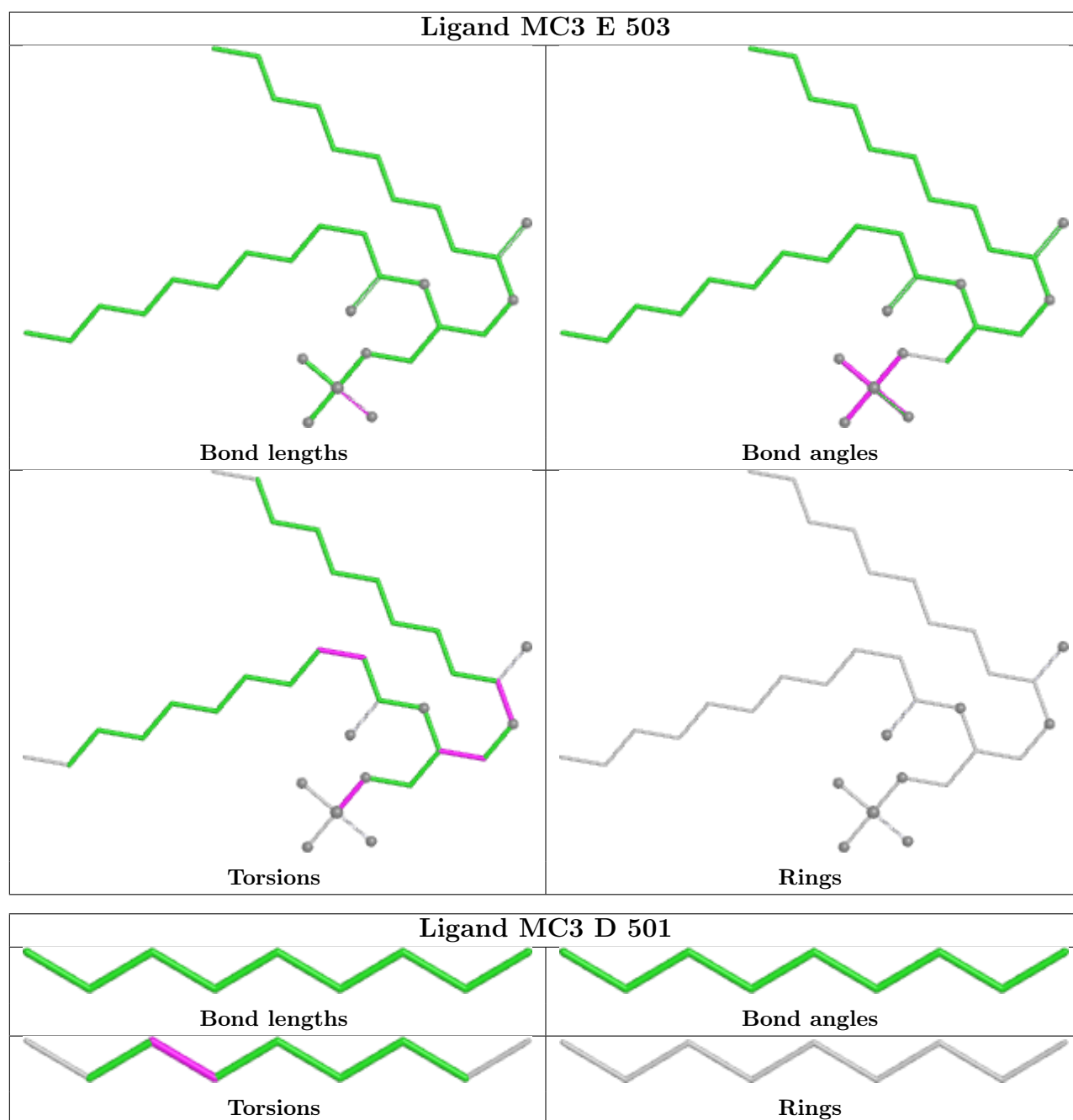
## Ligand MC3 J 503



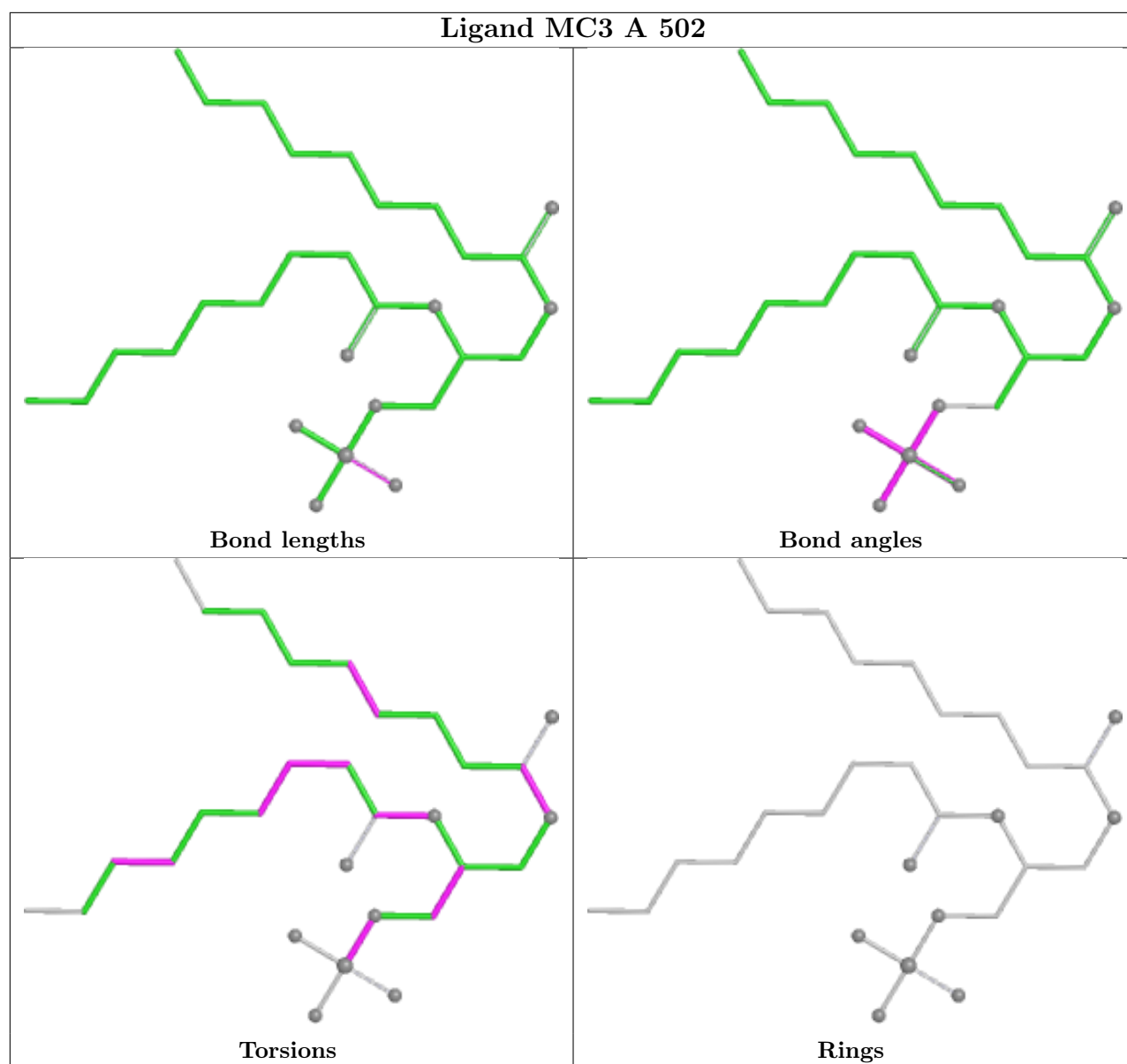
## Ligand MC3 H 514

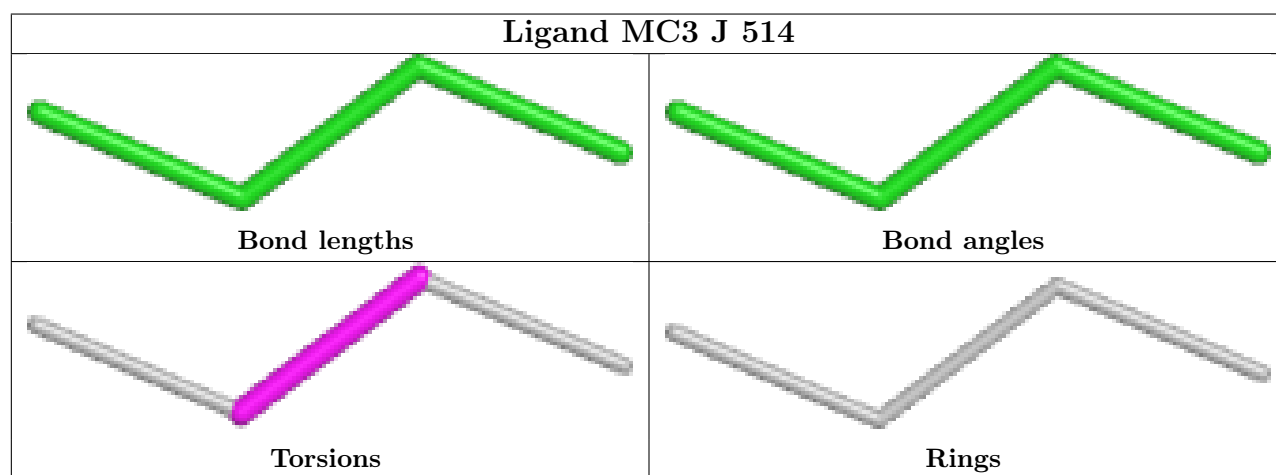
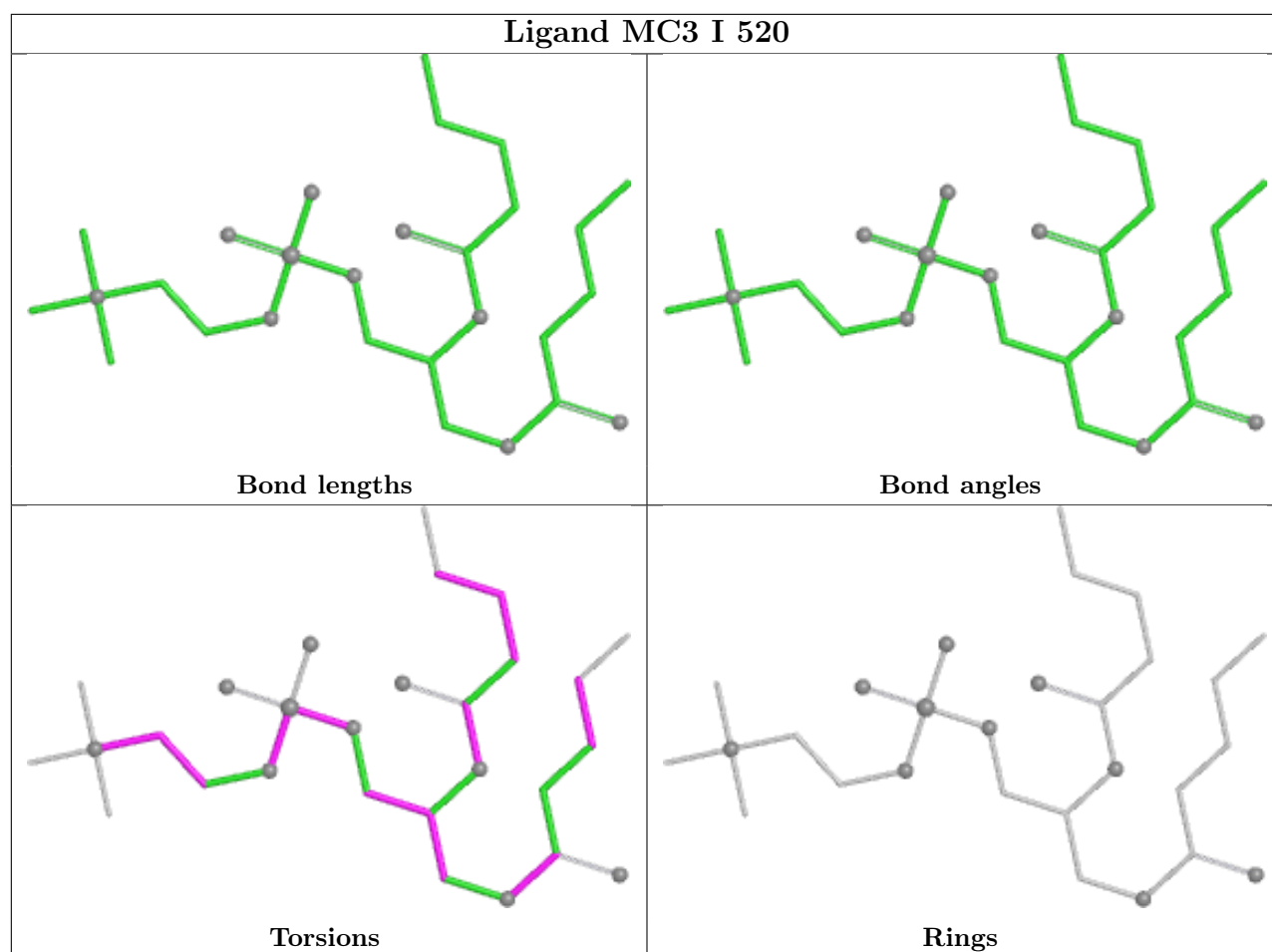




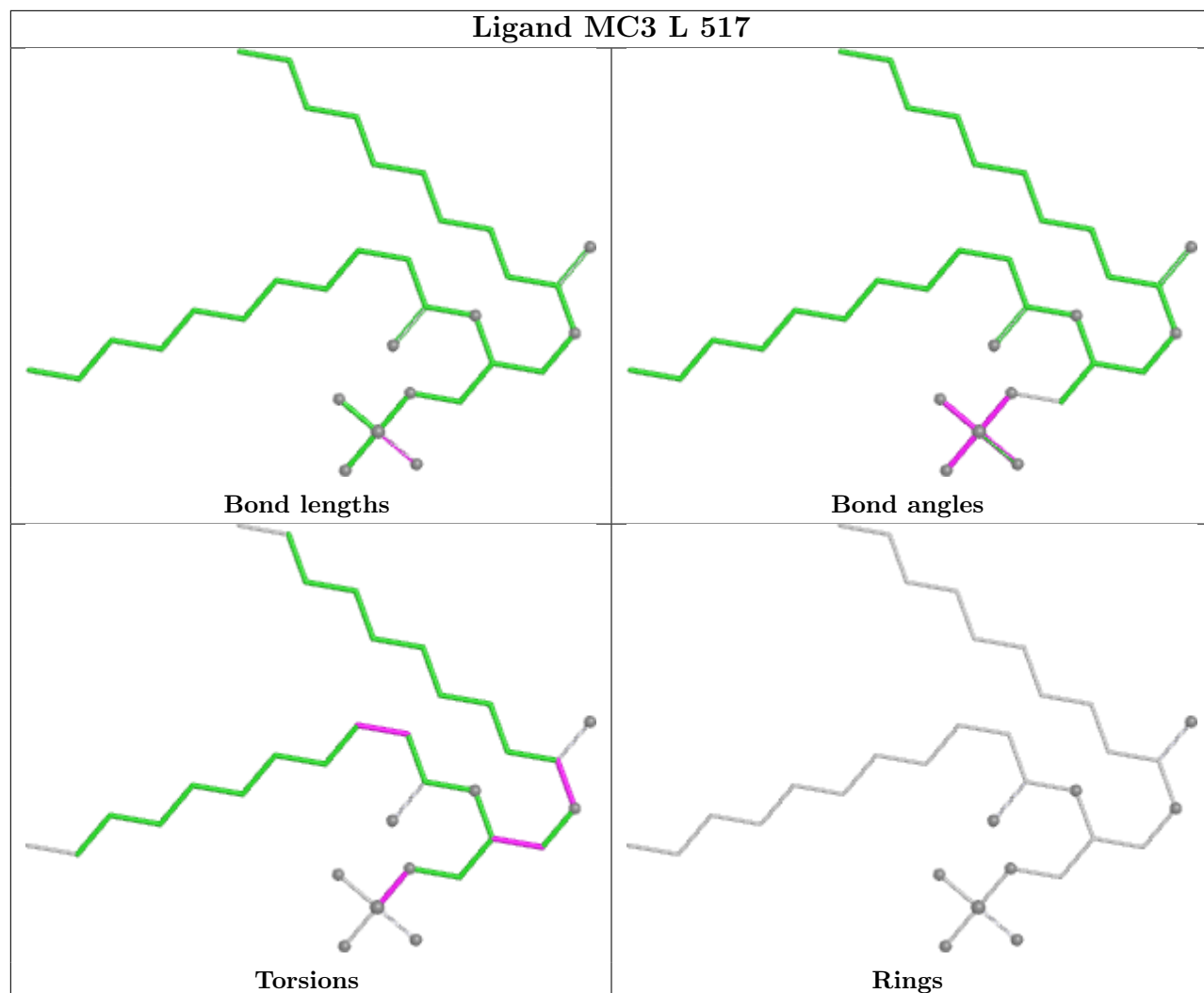




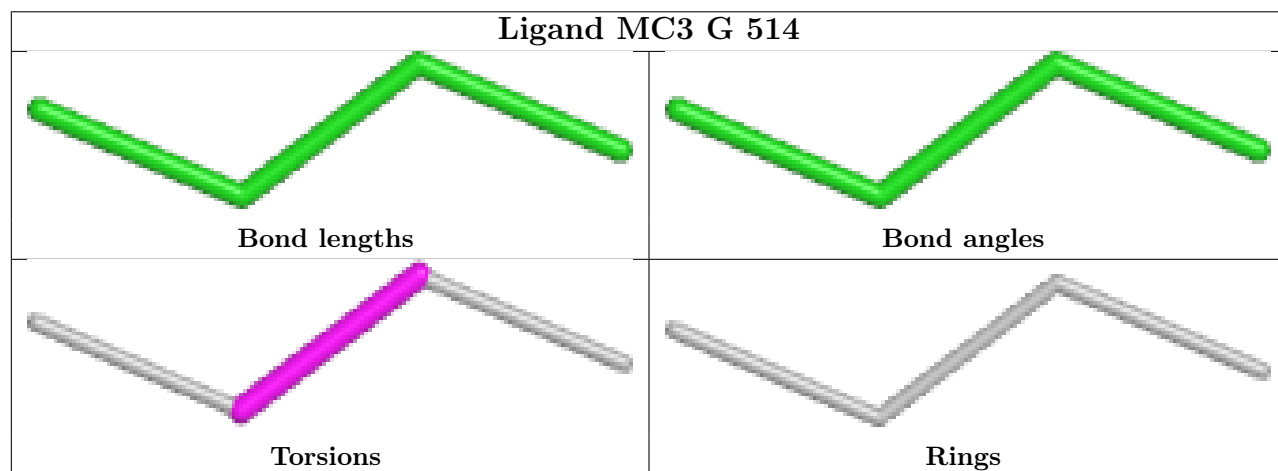


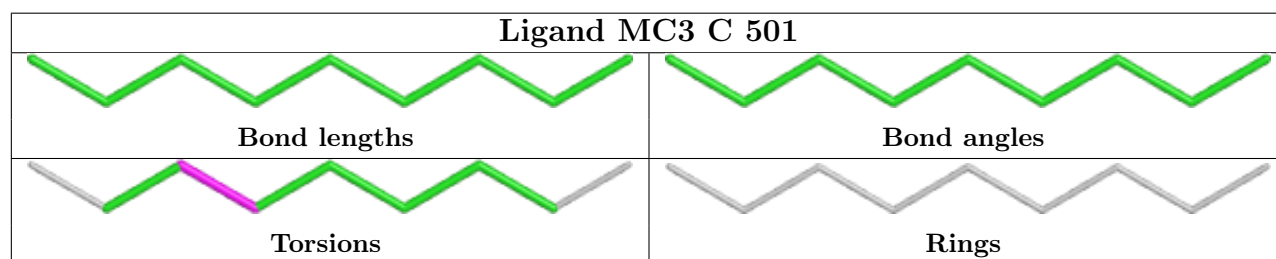
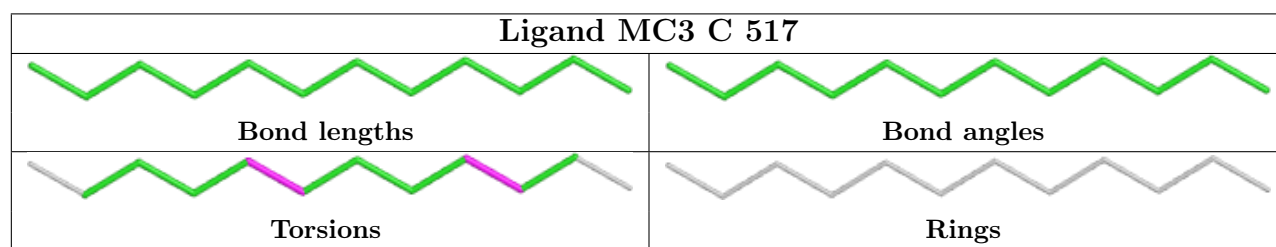
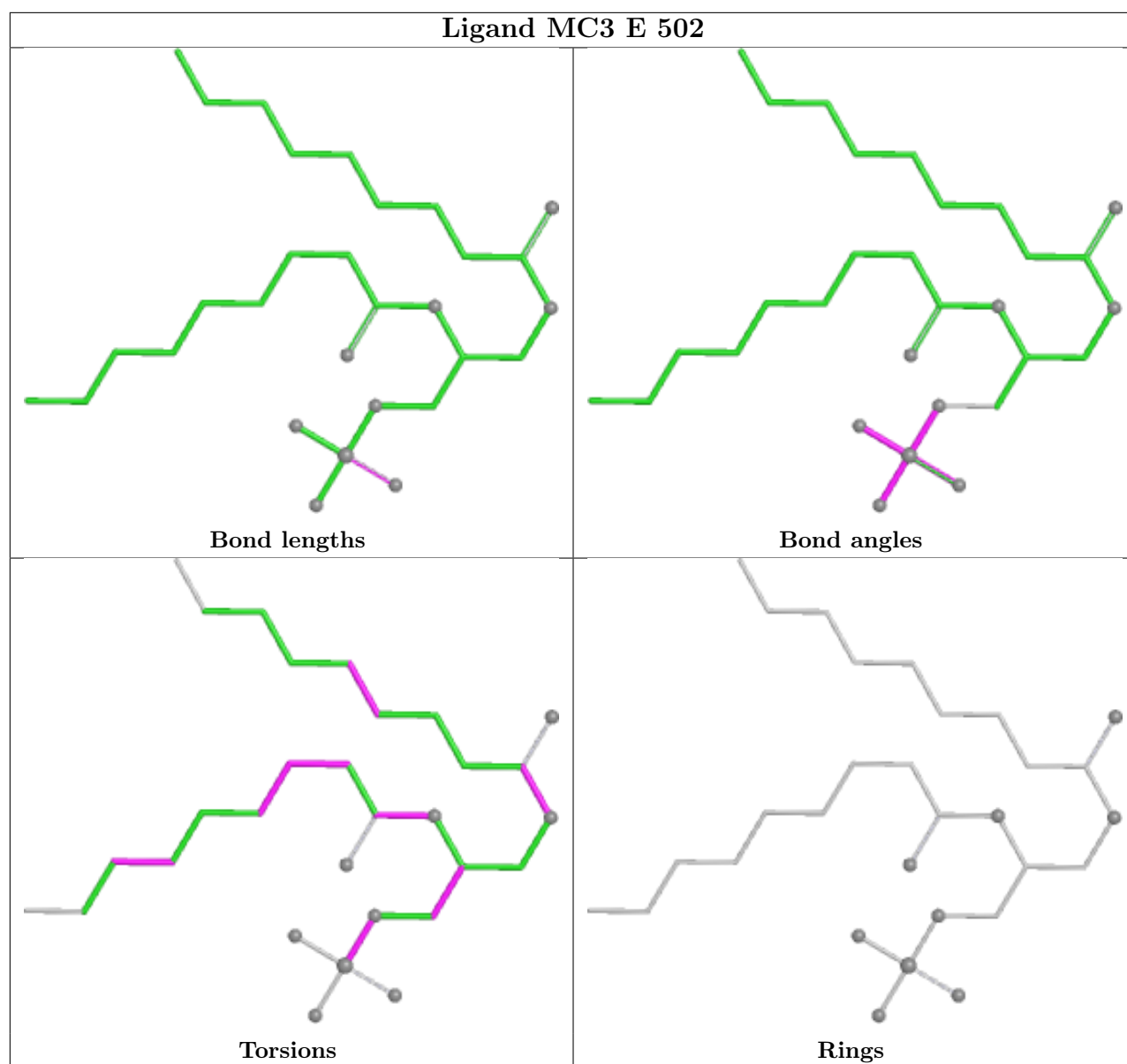


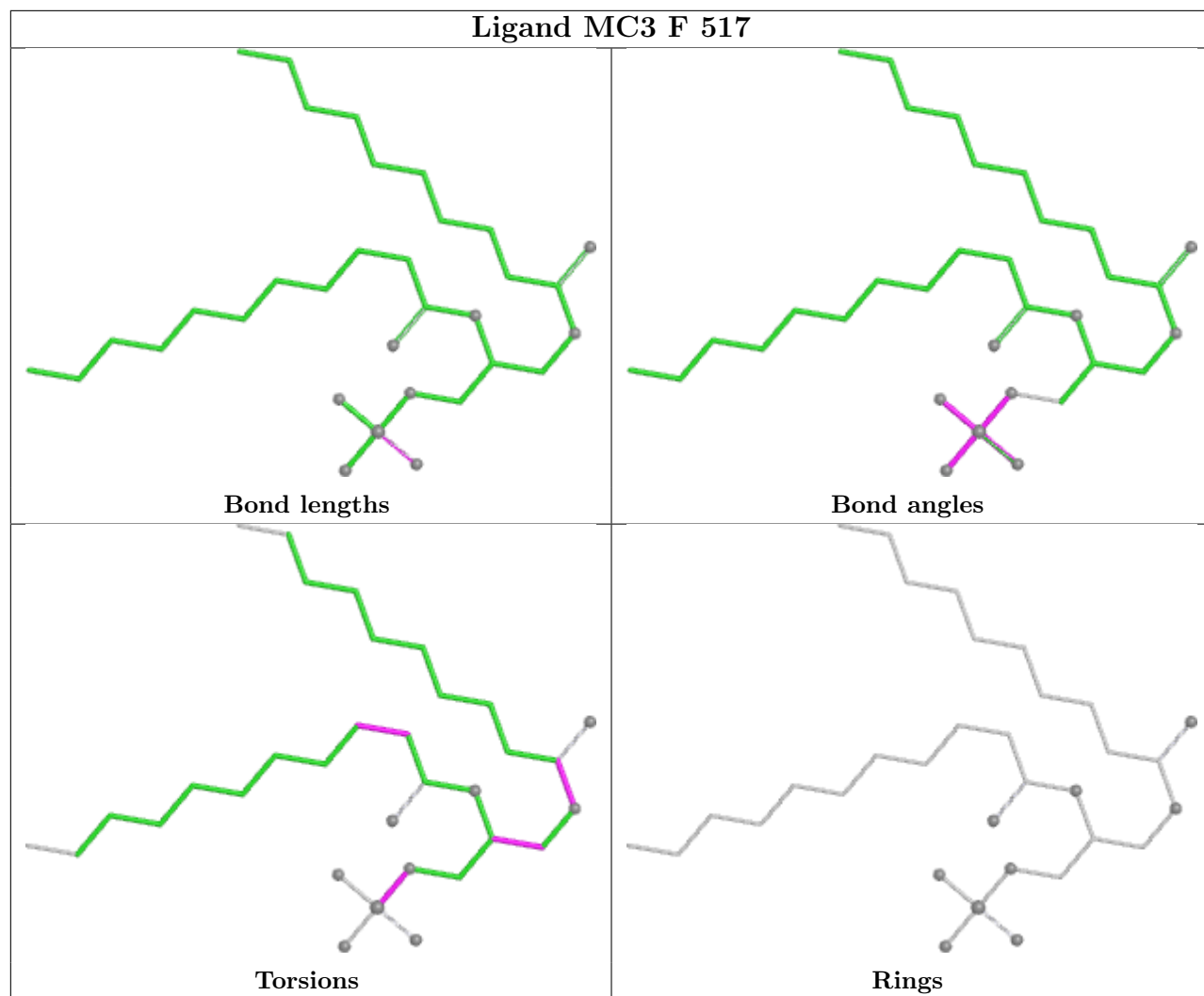
## Ligand MC3 L 517

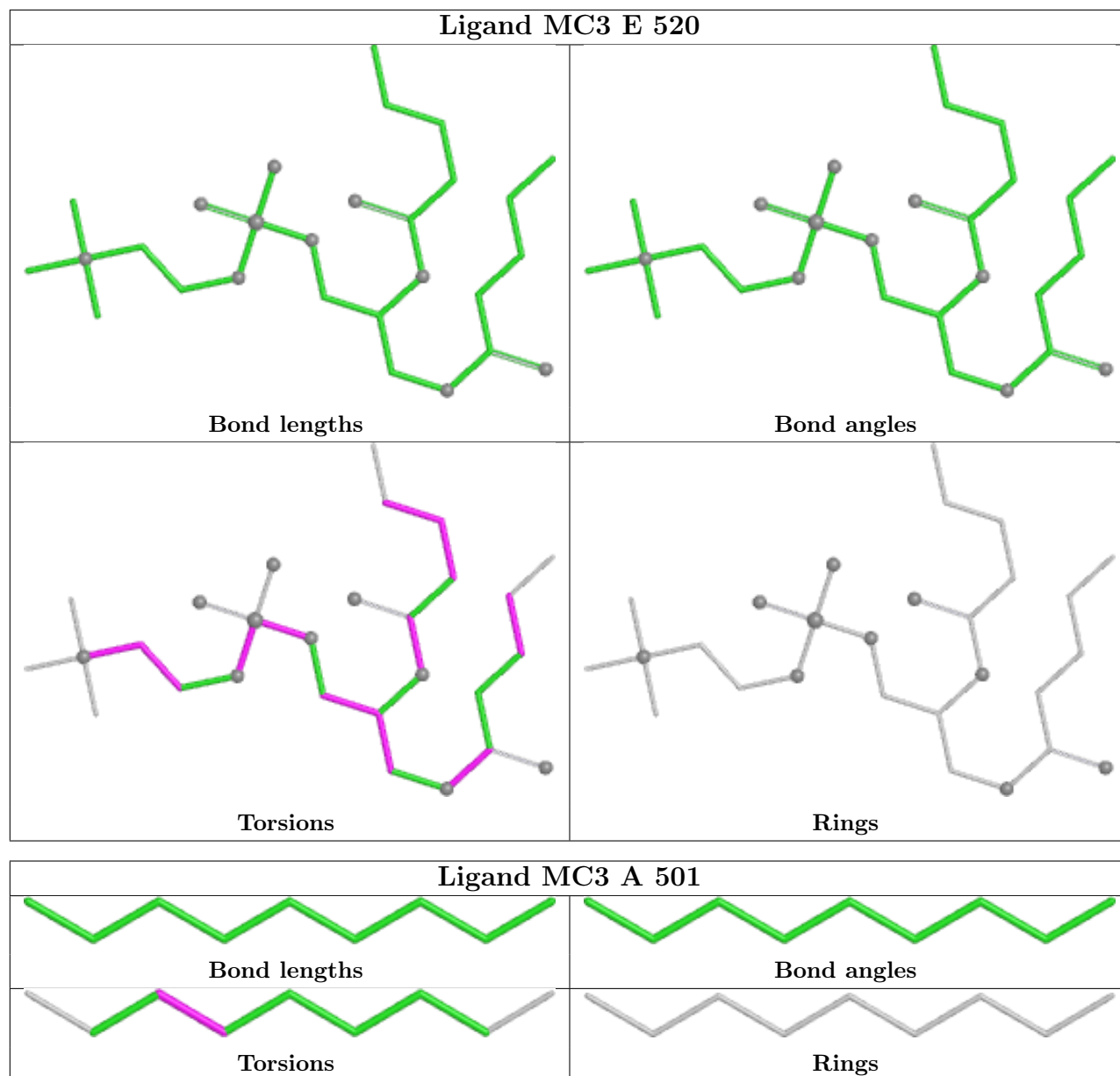


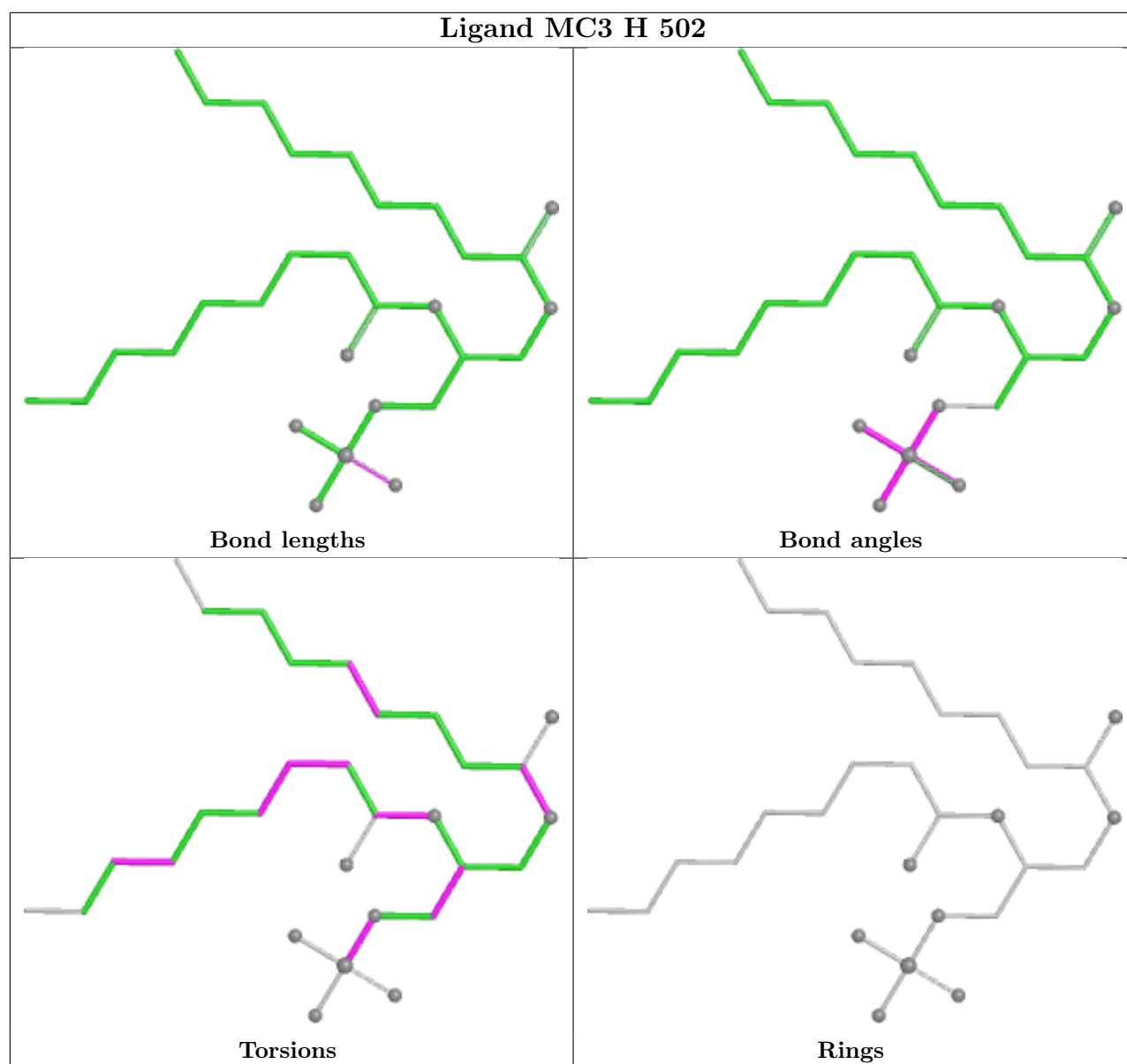
## Ligand MC3 G 514

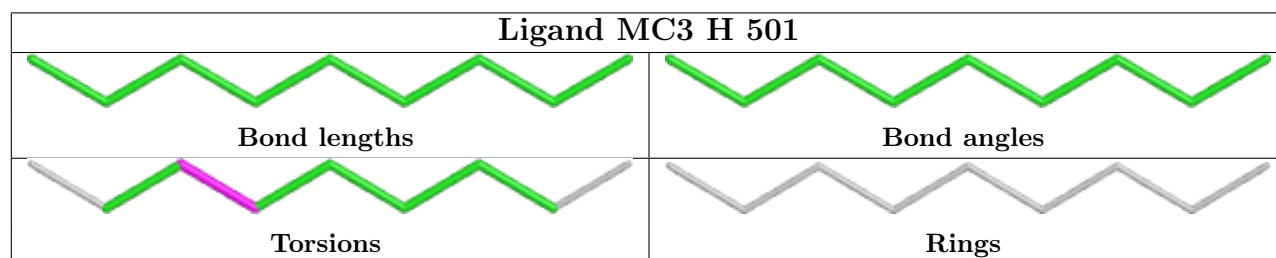
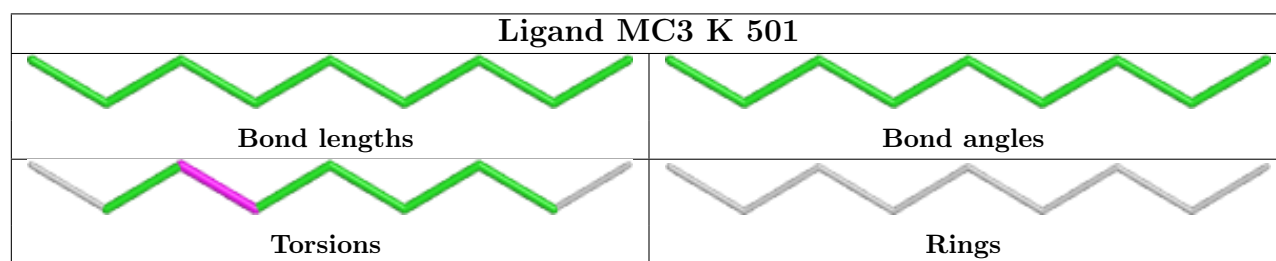
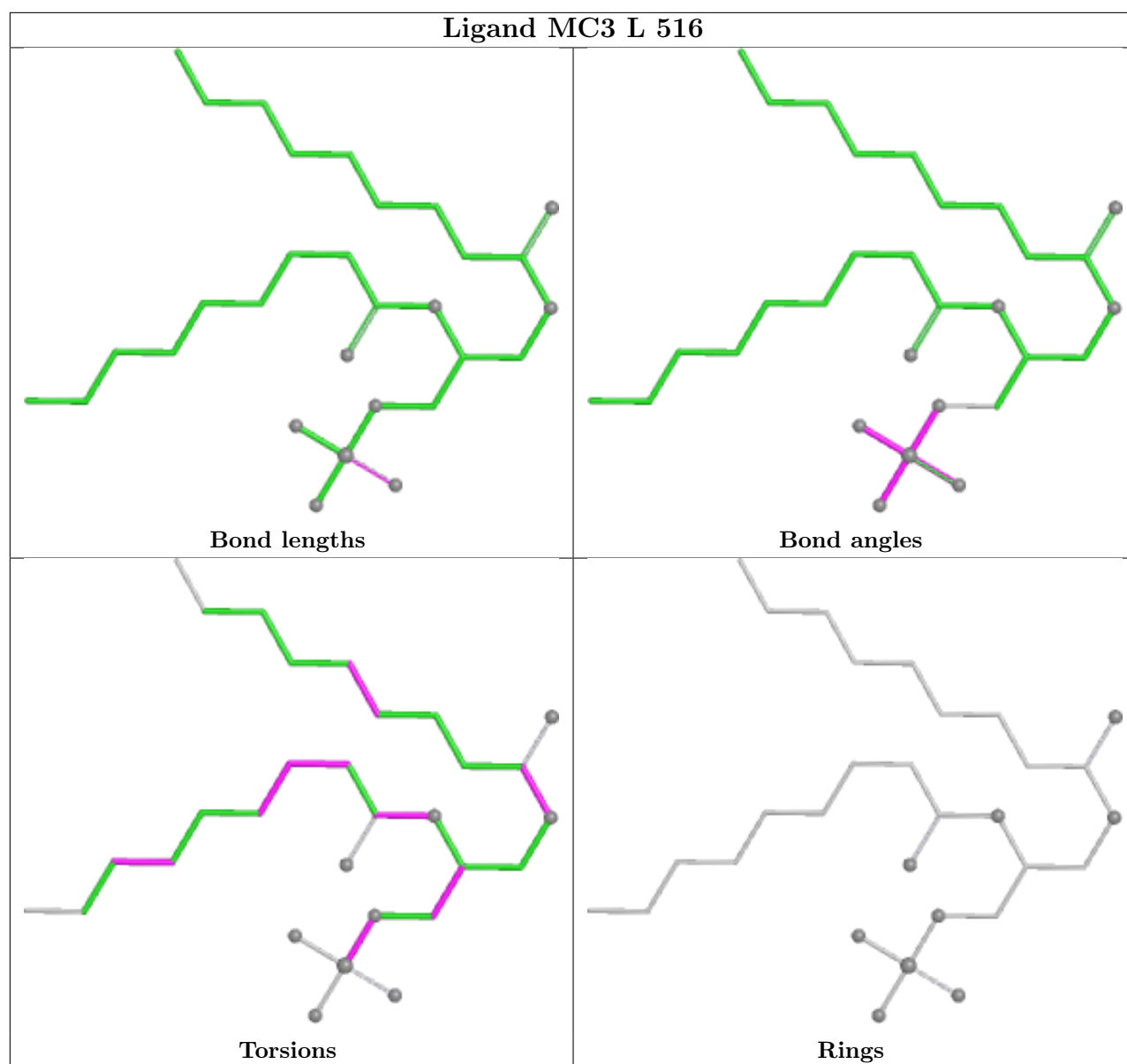




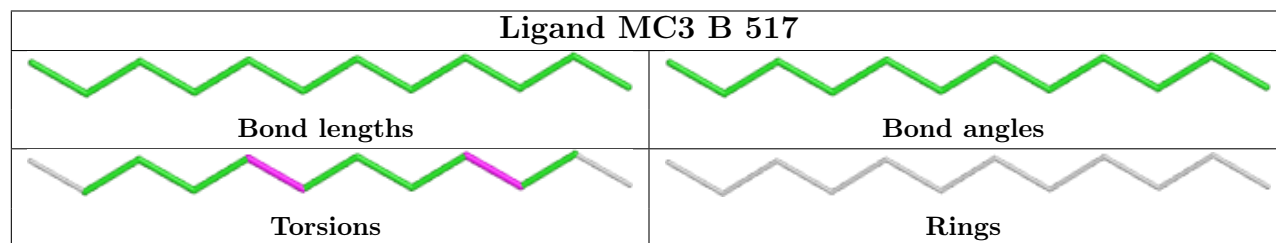
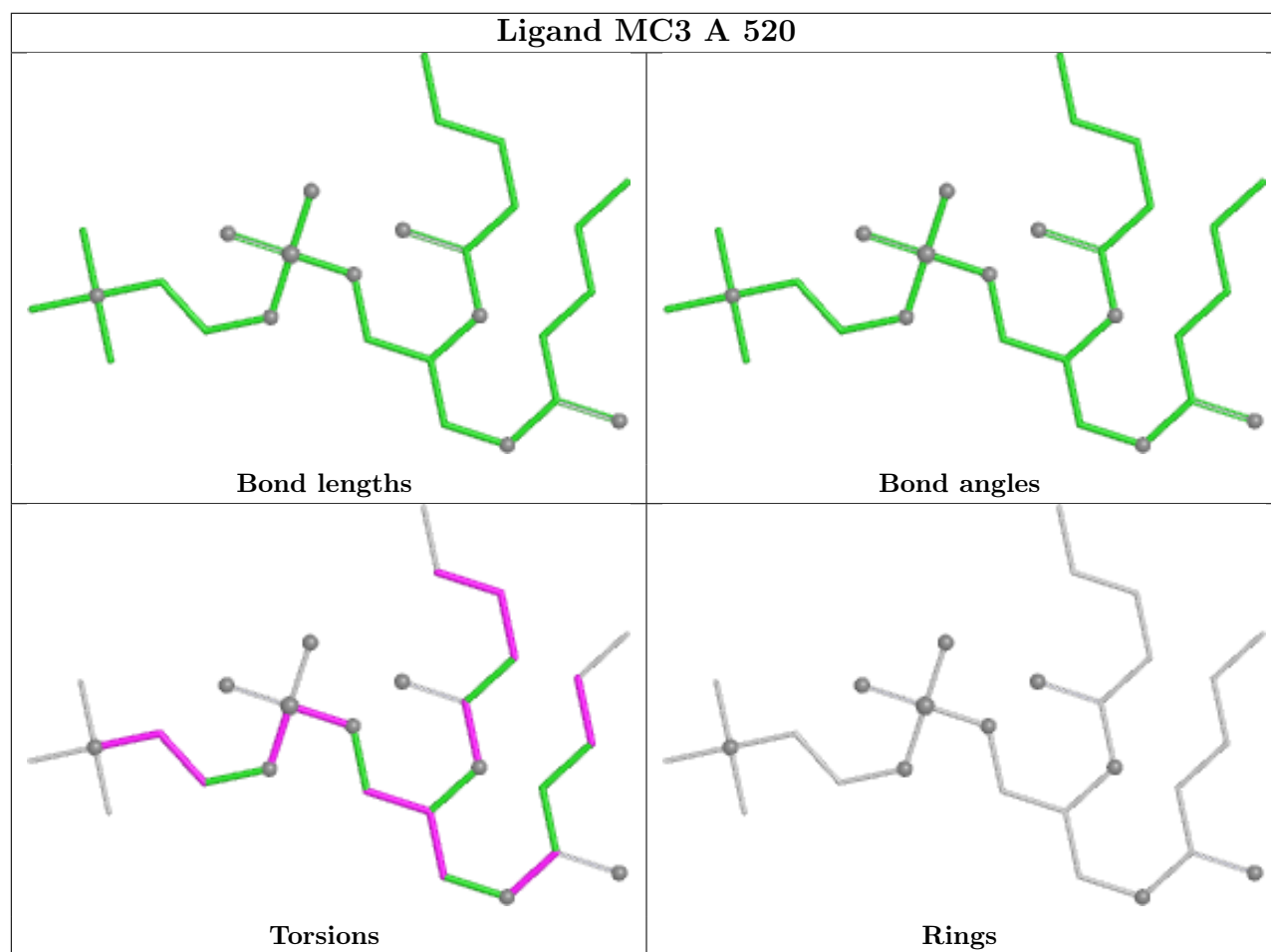
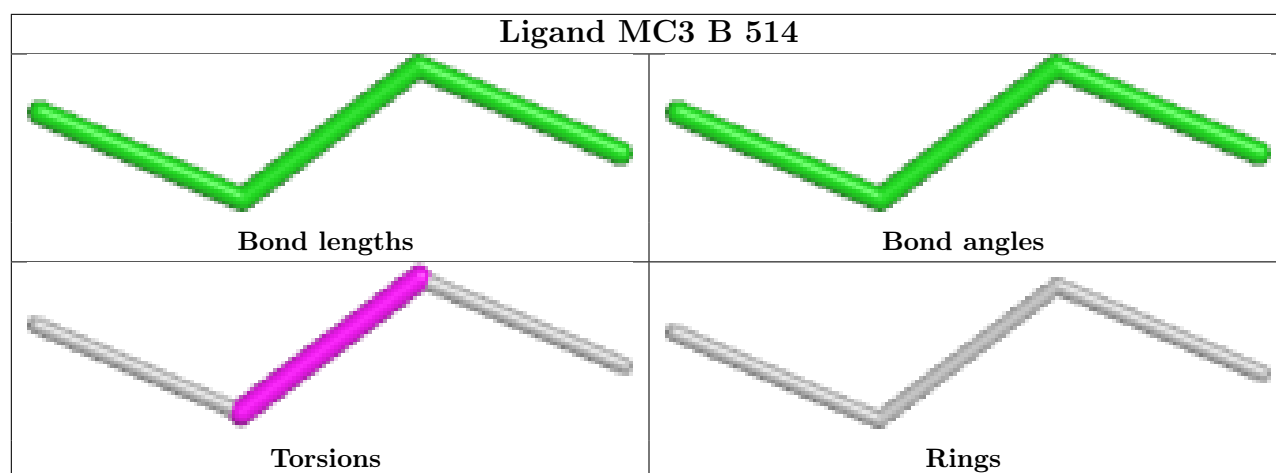


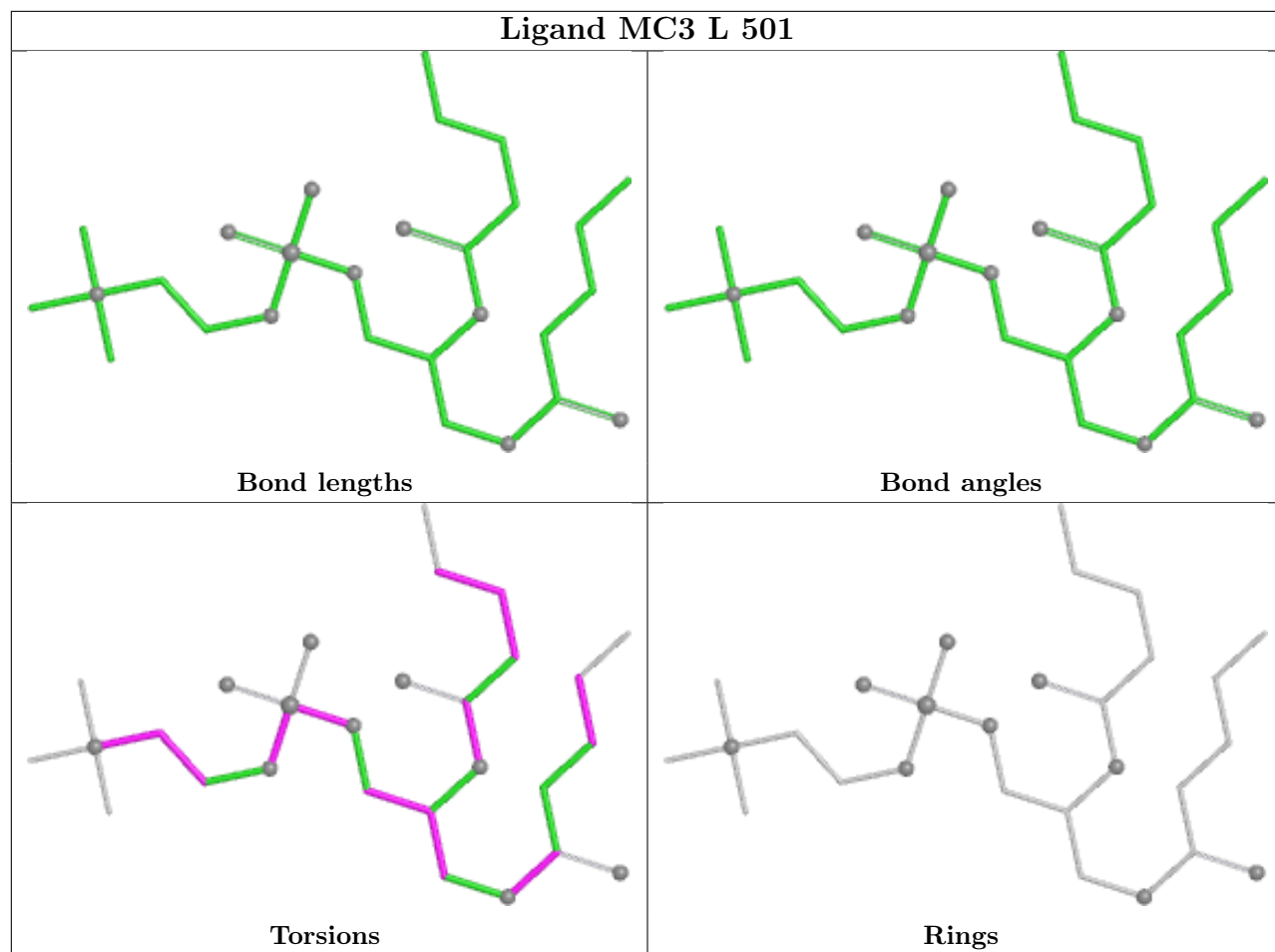


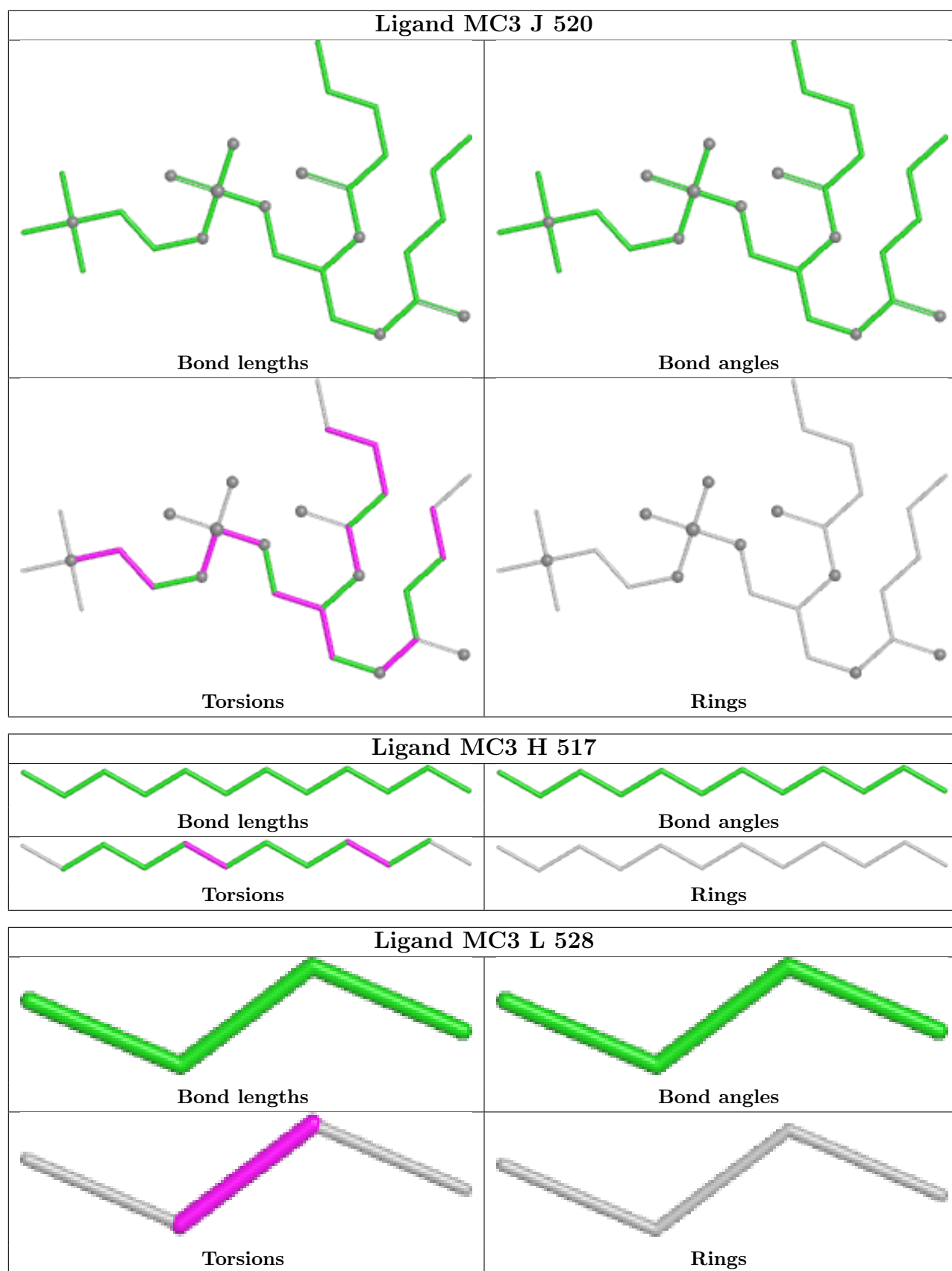


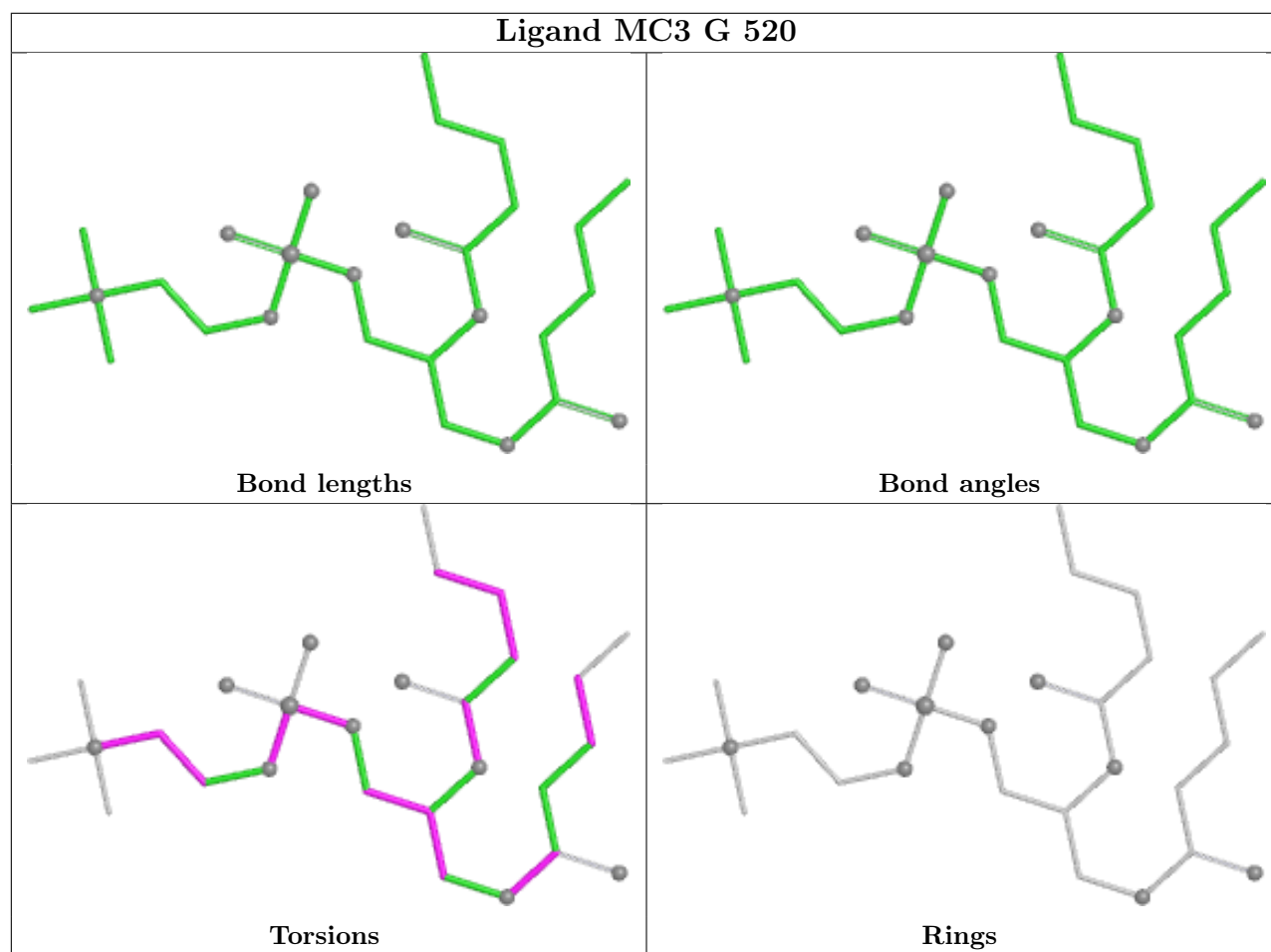
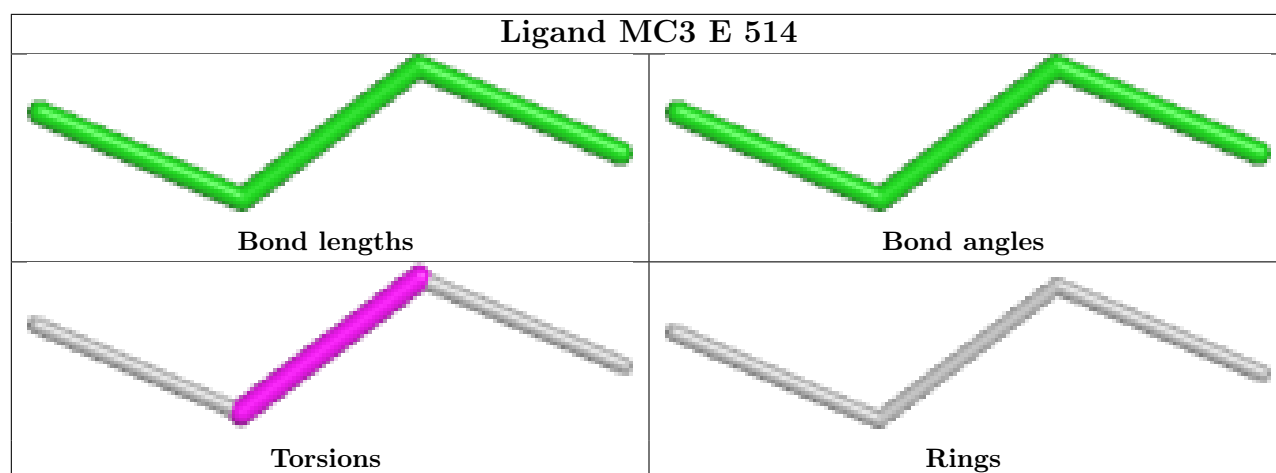


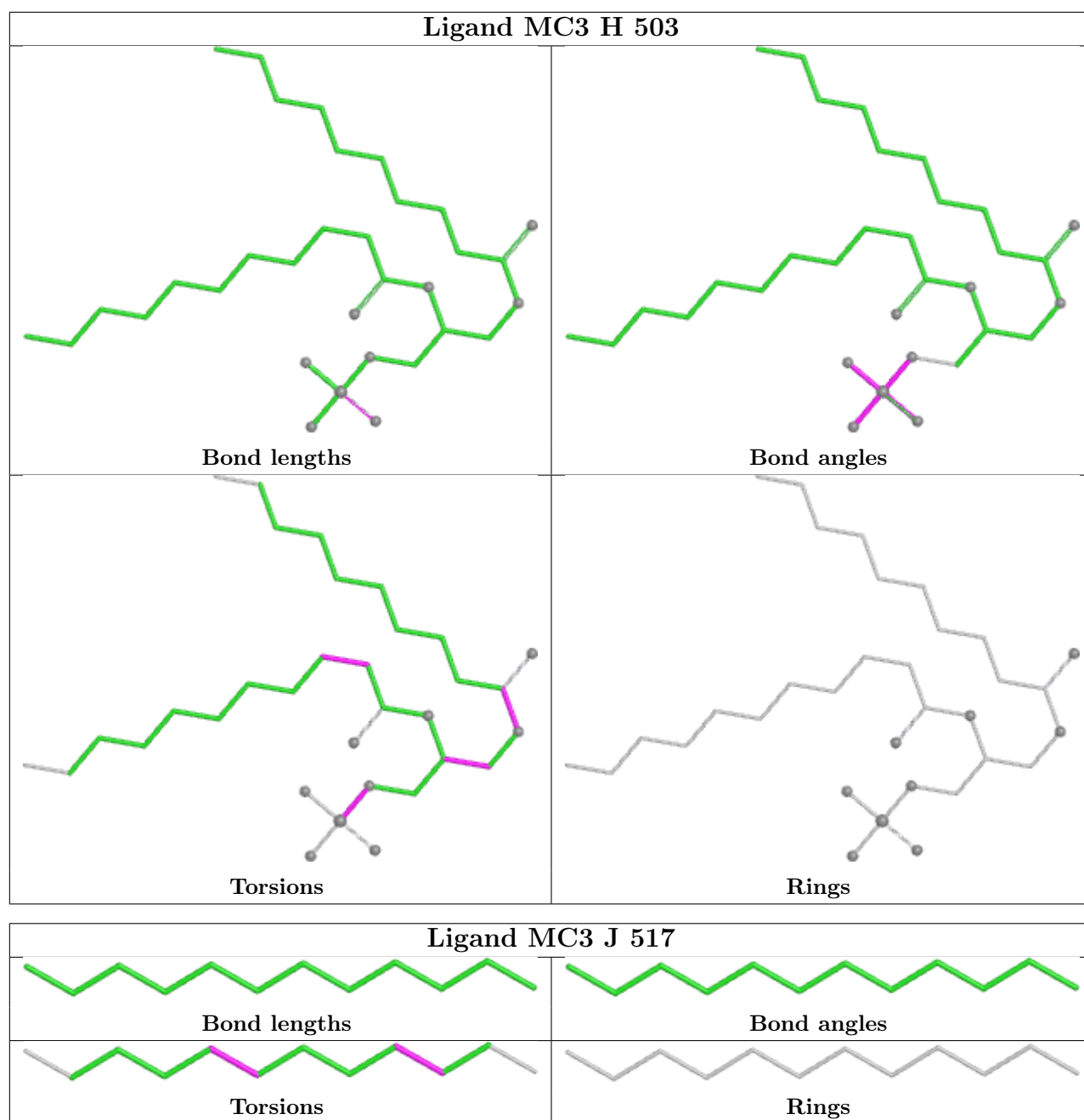


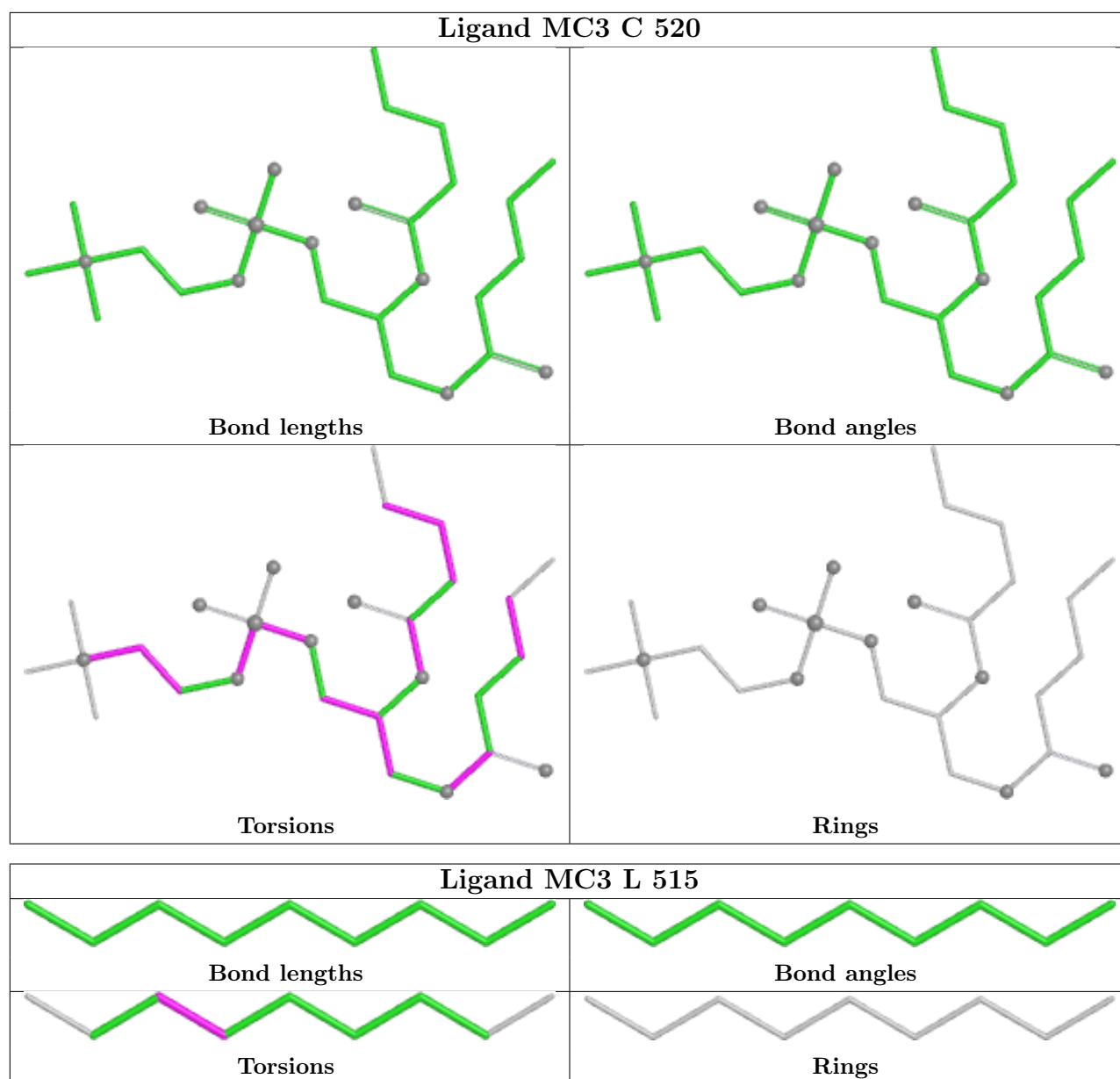


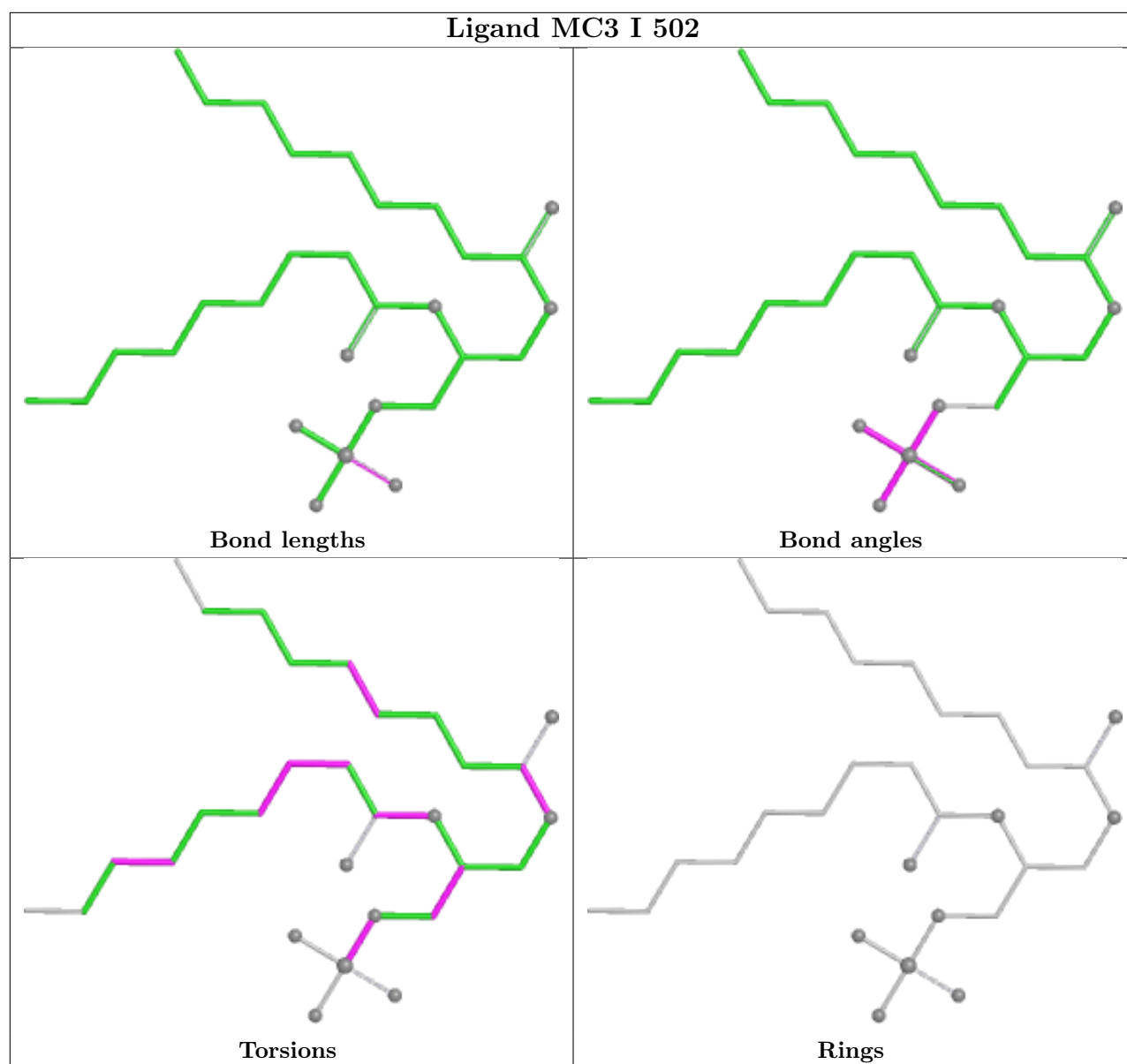


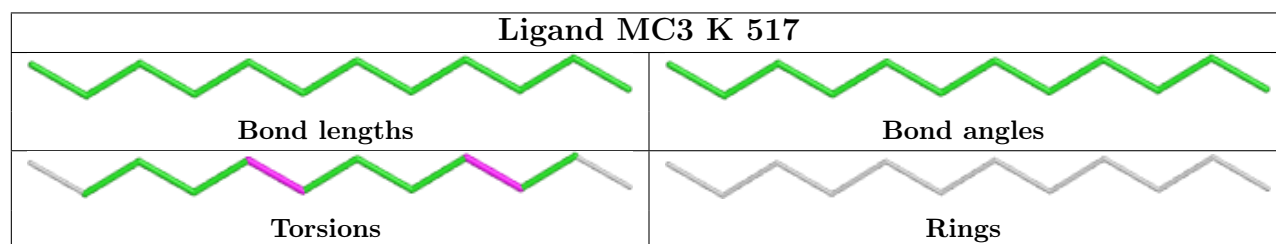
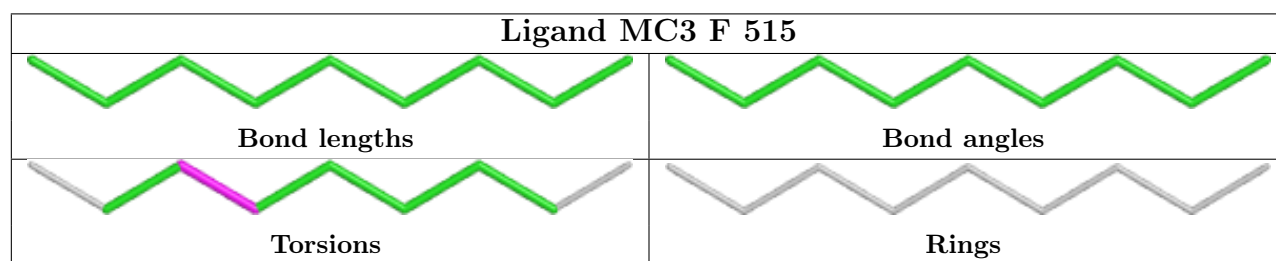
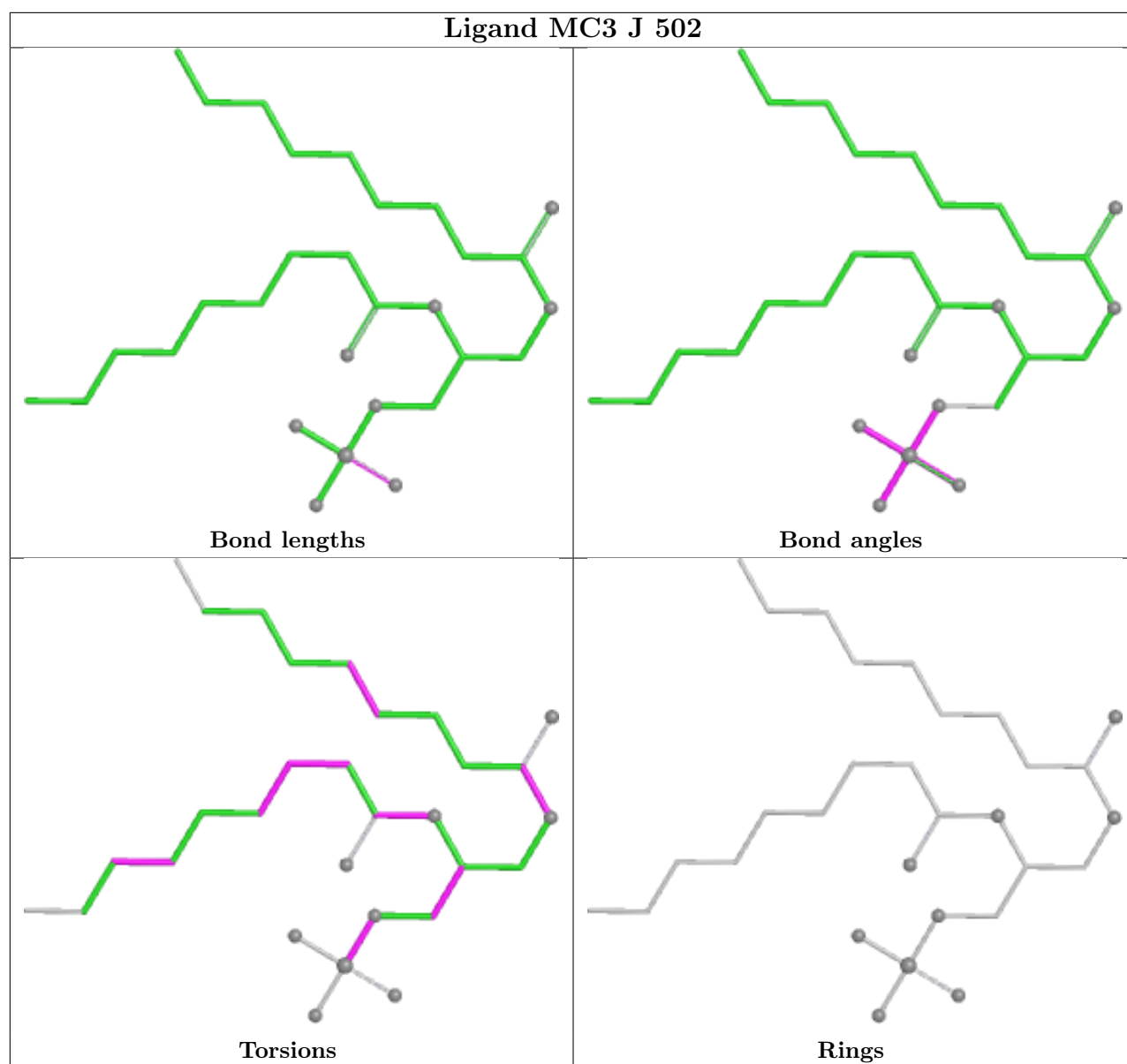




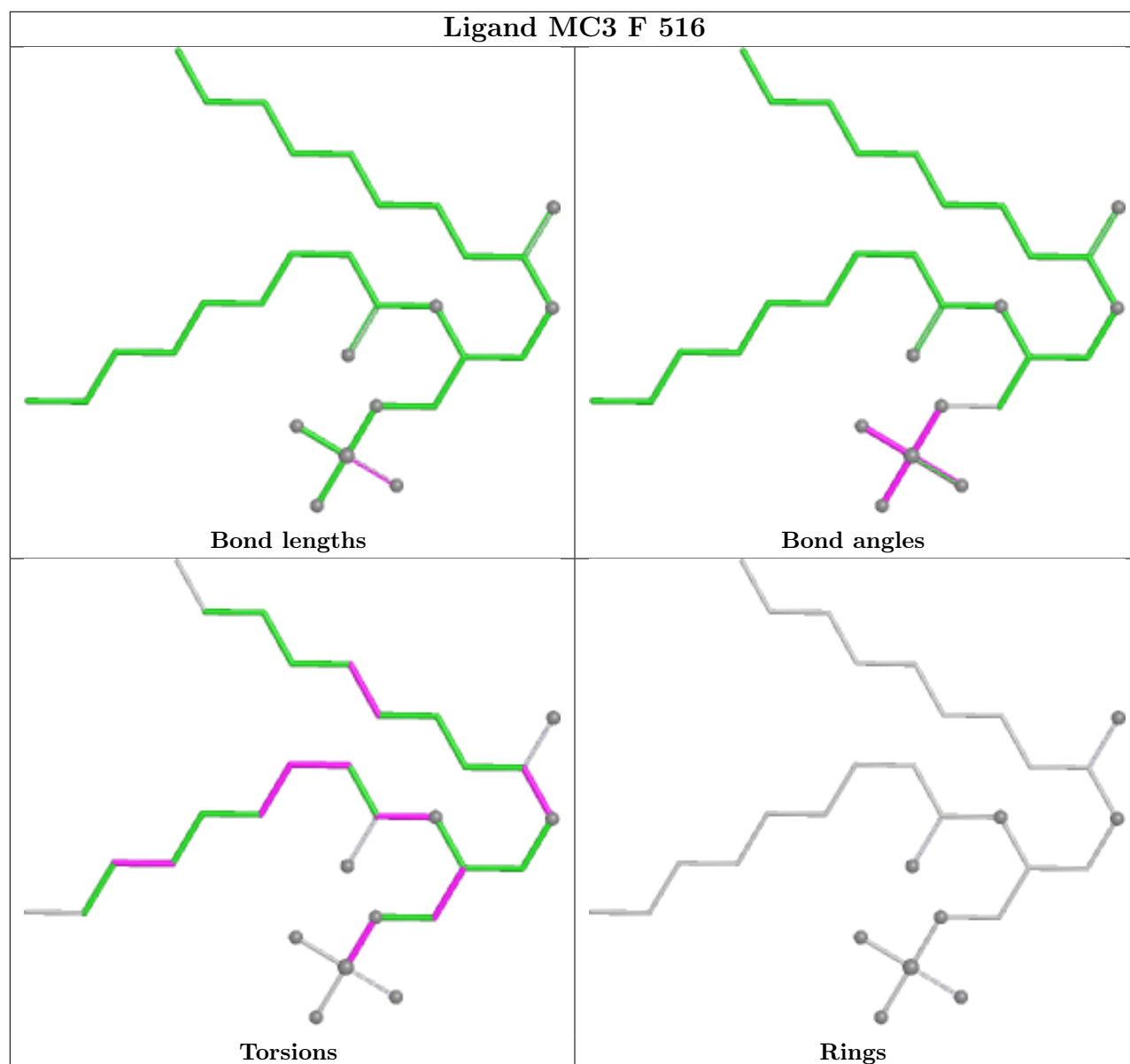
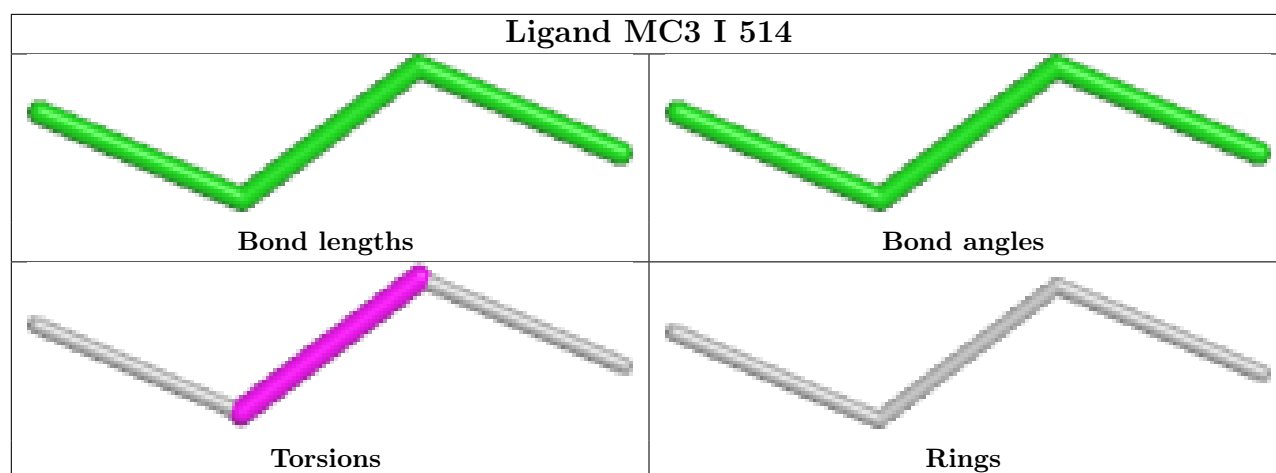


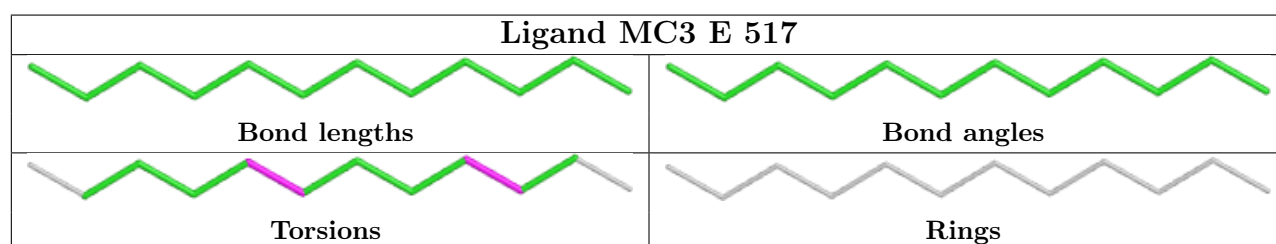
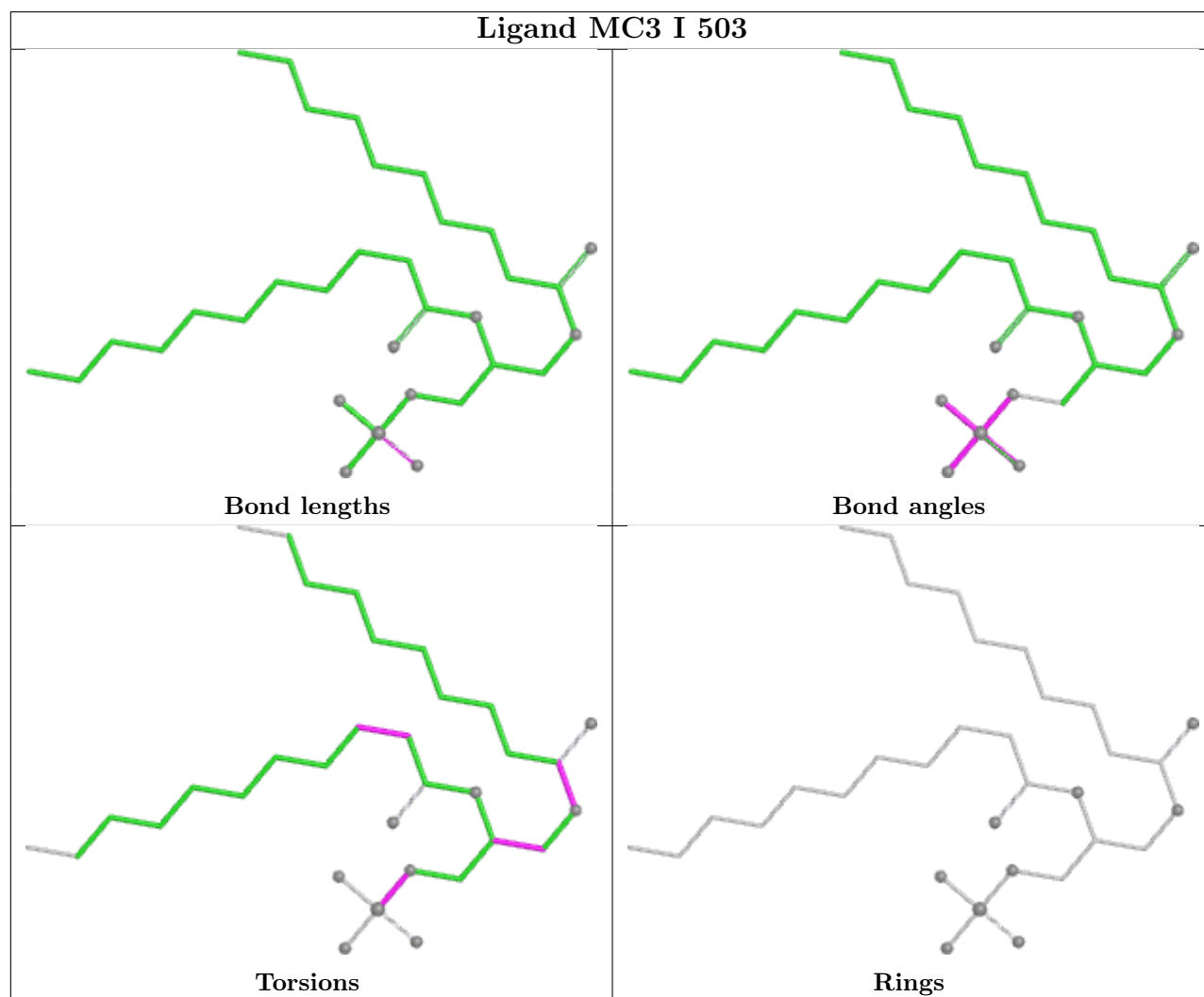
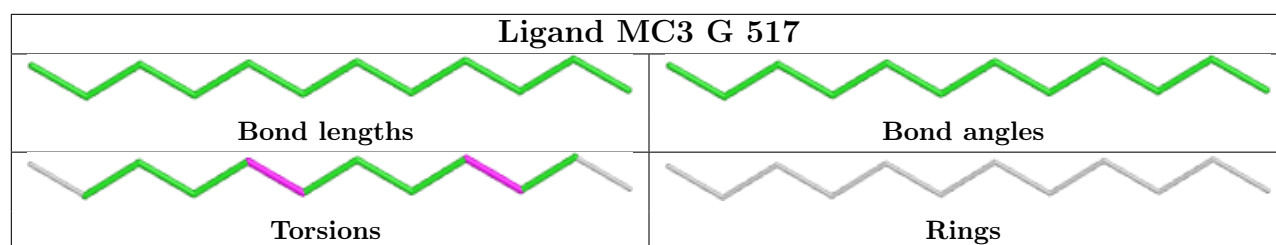


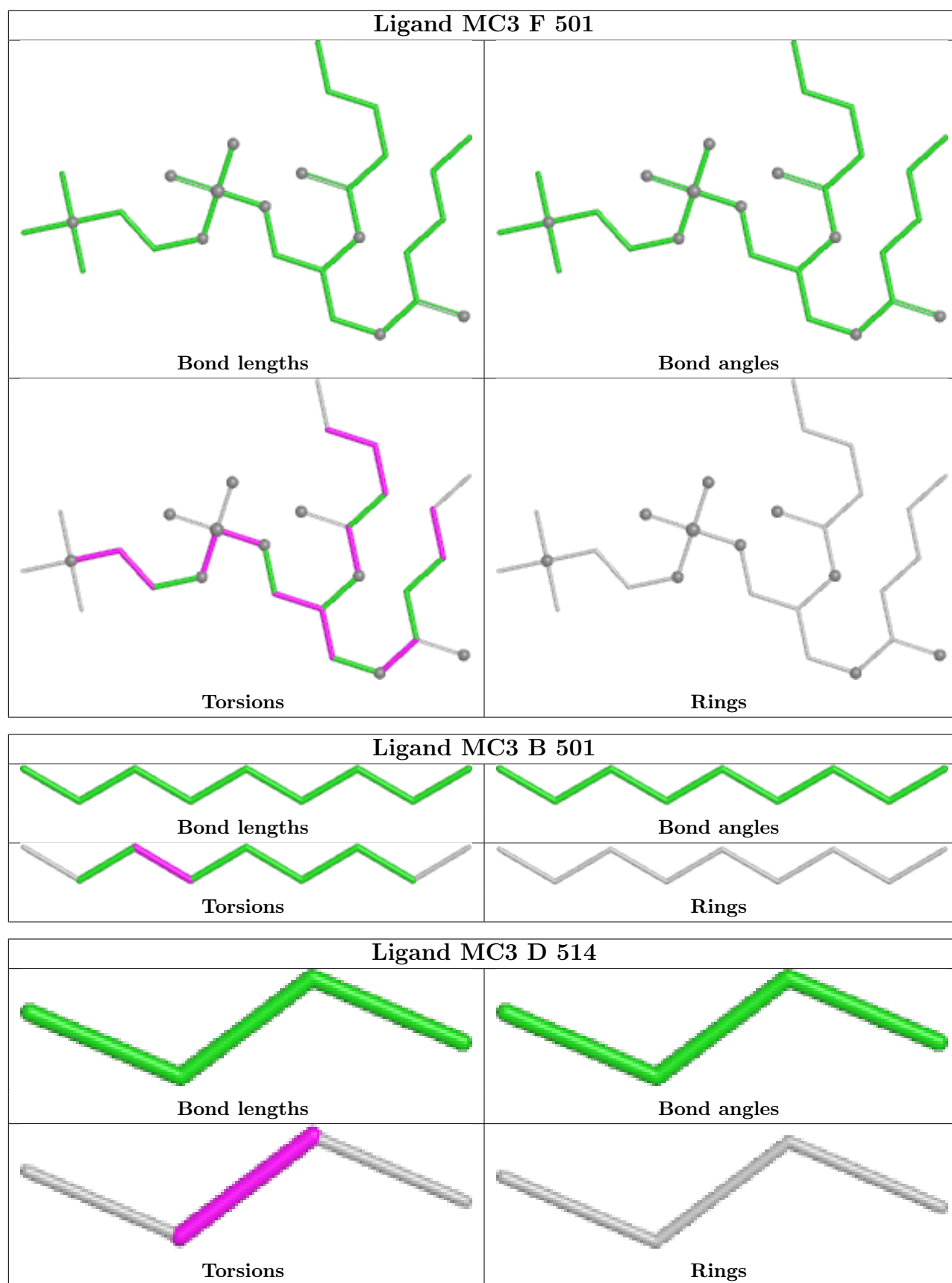


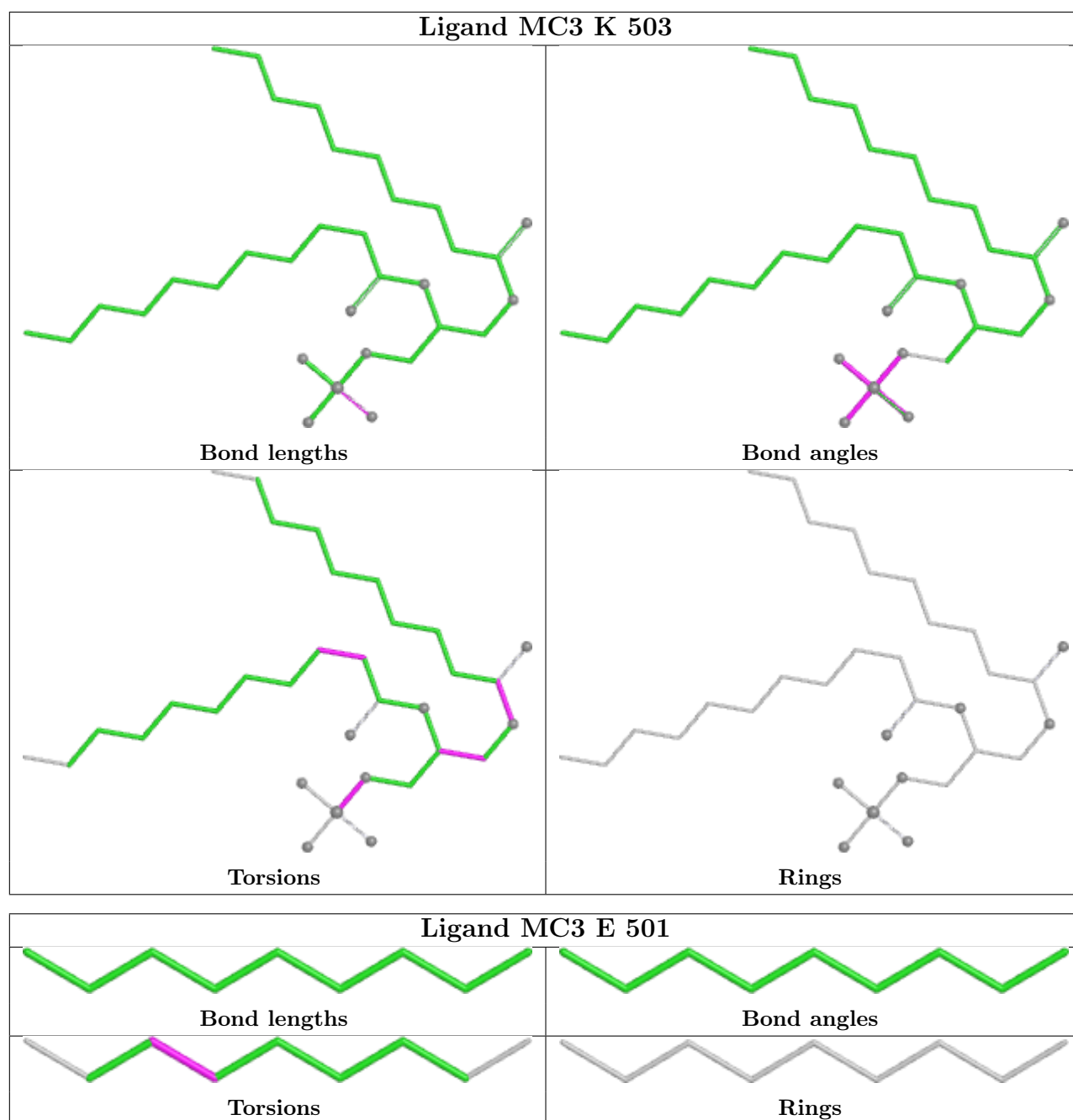












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

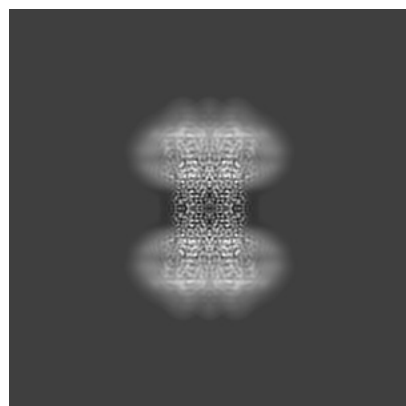
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-73962. These allow visual inspection of the internal detail of the map and identification of artifacts.

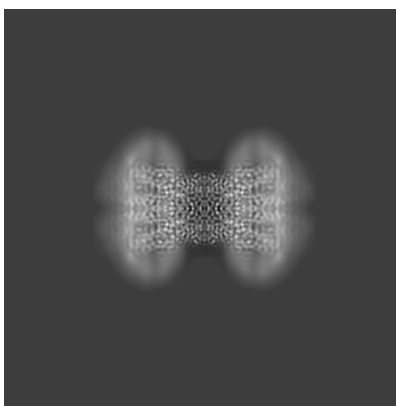
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

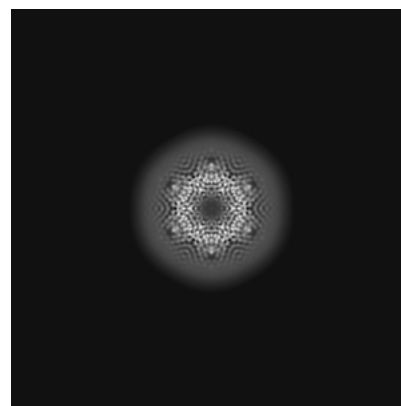
#### 6.1.1 Primary map



X

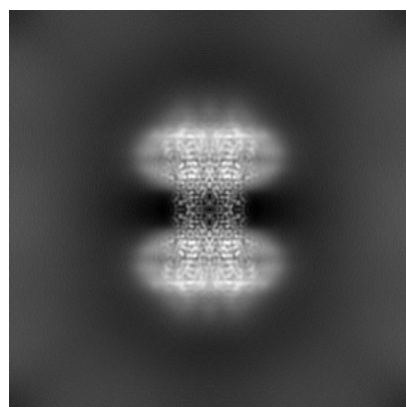


Y

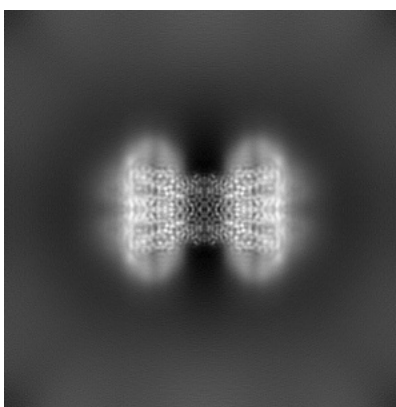


Z

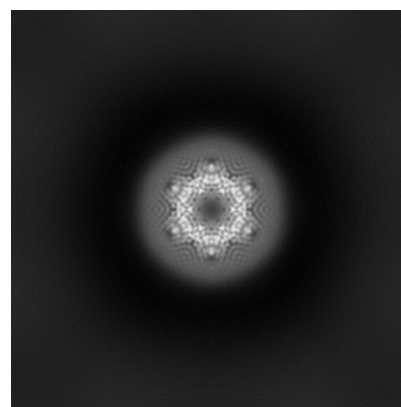
#### 6.1.2 Raw map



X



Y

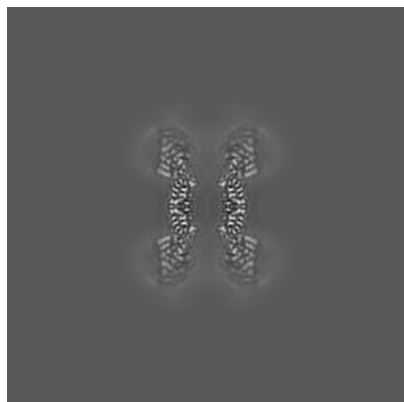


Z

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

## 6.2 Central slices [i](#)

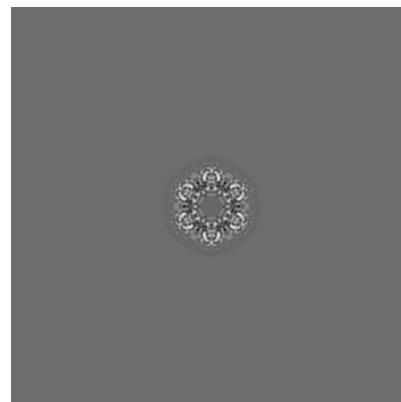
### 6.2.1 Primary map



X Index: 192

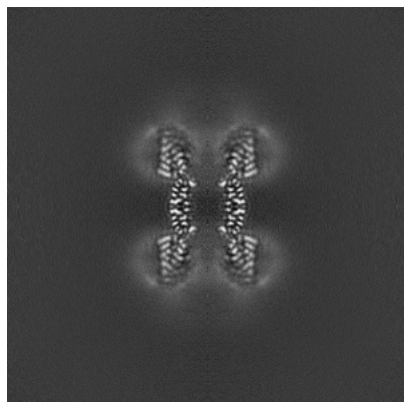


Y Index: 192

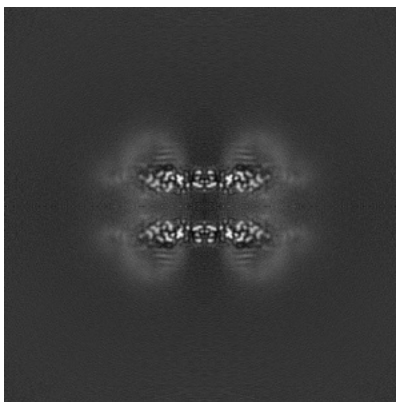


Z Index: 192

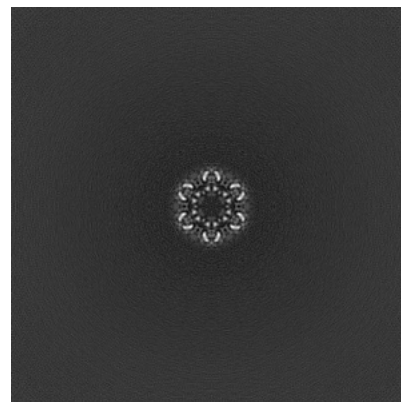
### 6.2.2 Raw map



X Index: 192



Y Index: 192



Z Index: 192

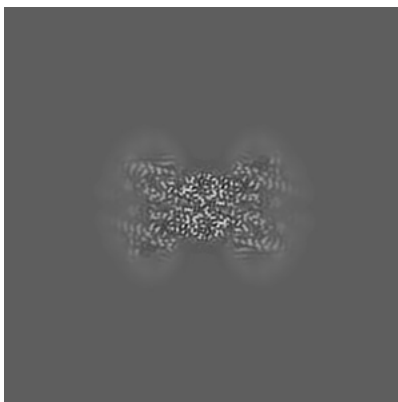
The images above show central slices of the map in three orthogonal directions.

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

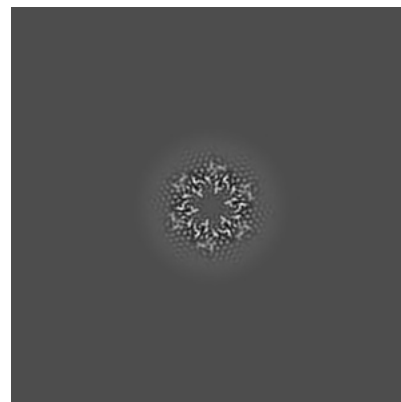
### 6.3.1 Primary map



X Index: 171

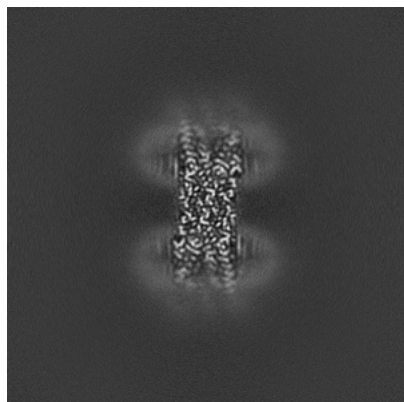


Y Index: 174

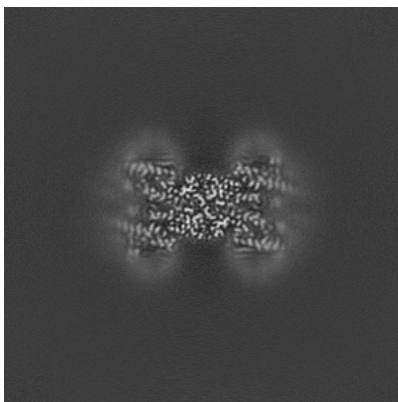


Z Index: 161

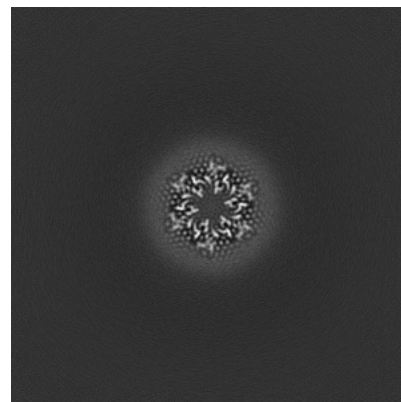
### 6.3.2 Raw map



X Index: 213



Y Index: 174

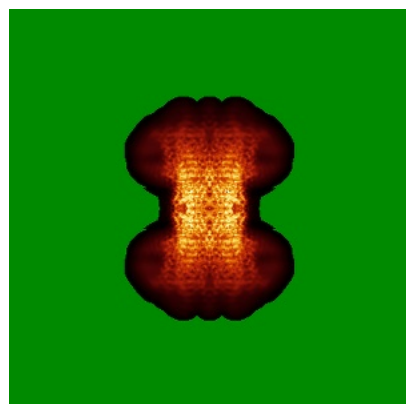


Z Index: 161

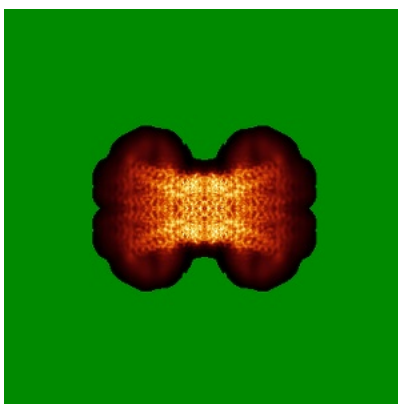
The images above show the largest variance slices of the map in three orthogonal directions.

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

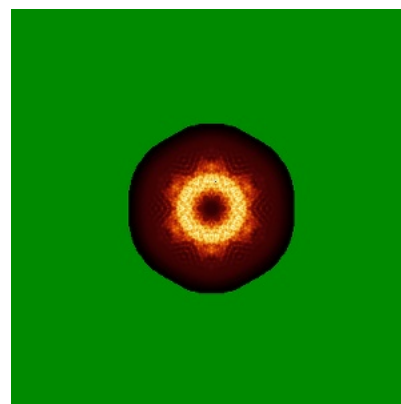
### 6.4.1 Primary map



X

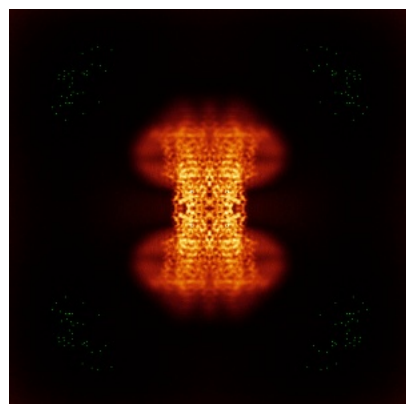


Y

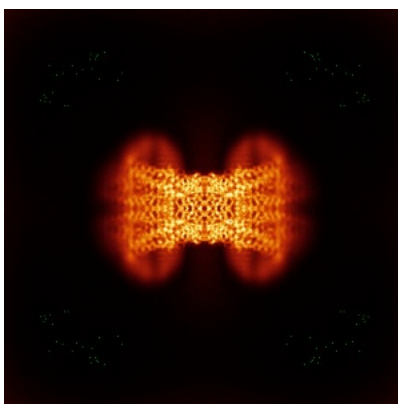


Z

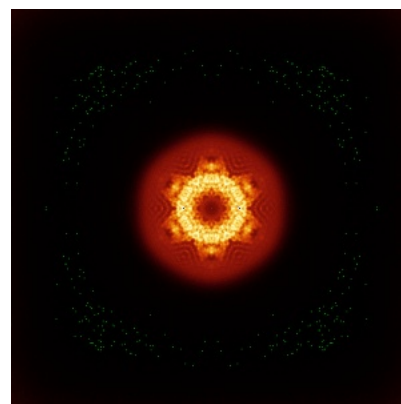
### 6.4.2 Raw map



X



Y



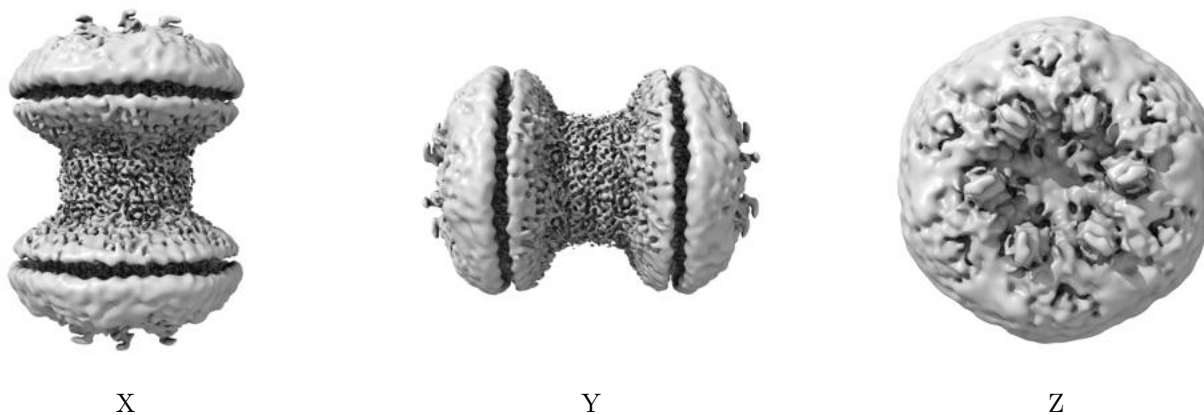
Z

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.



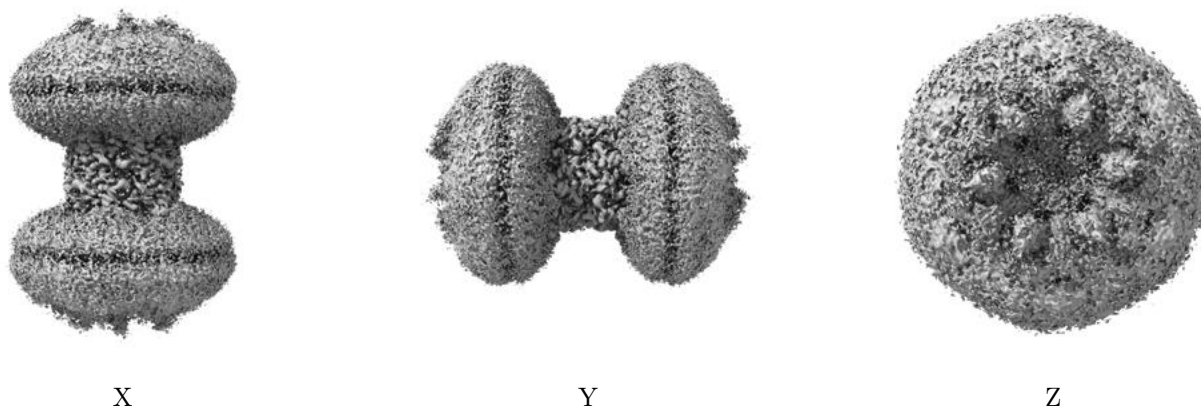
## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.06. 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



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.

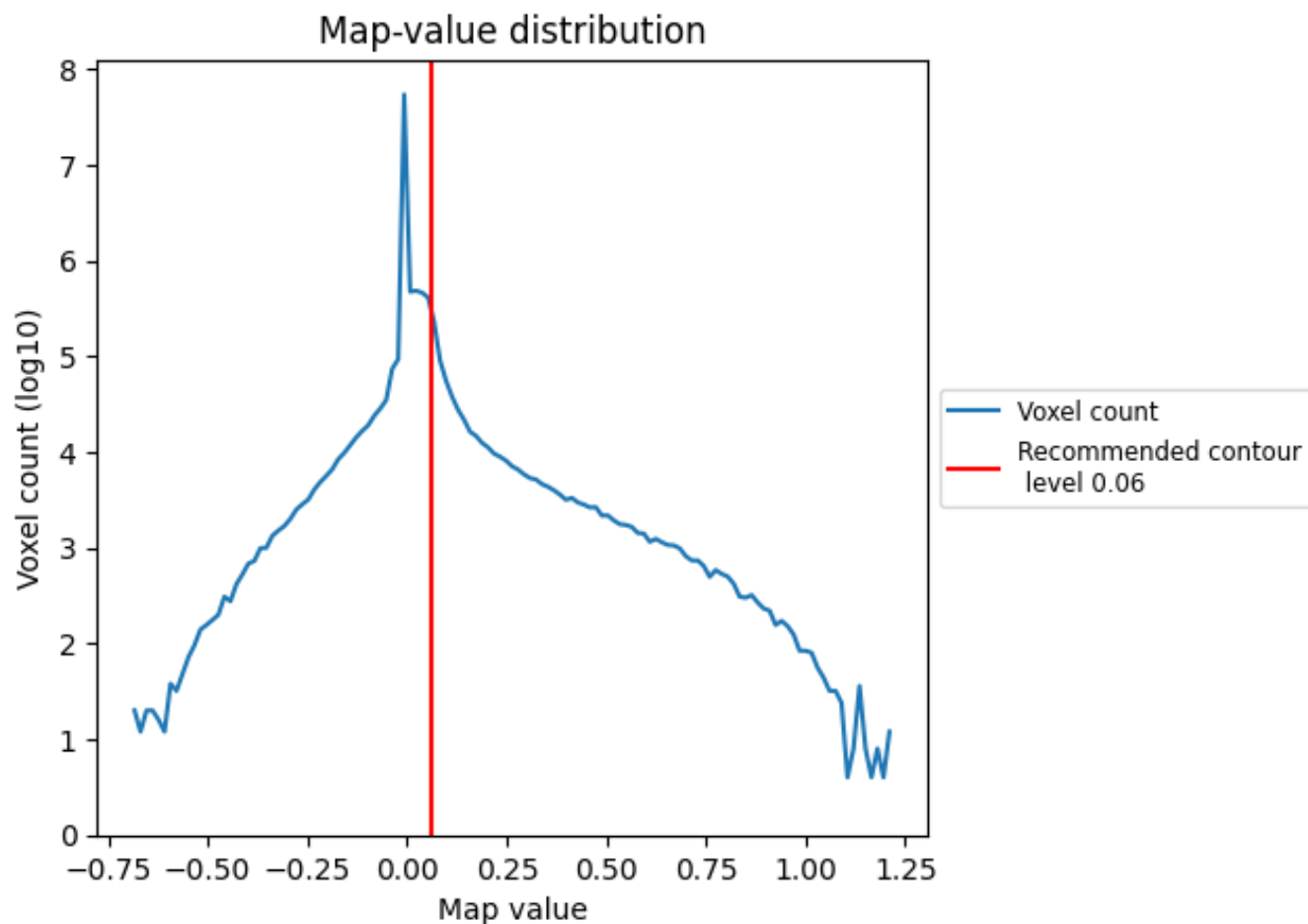
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

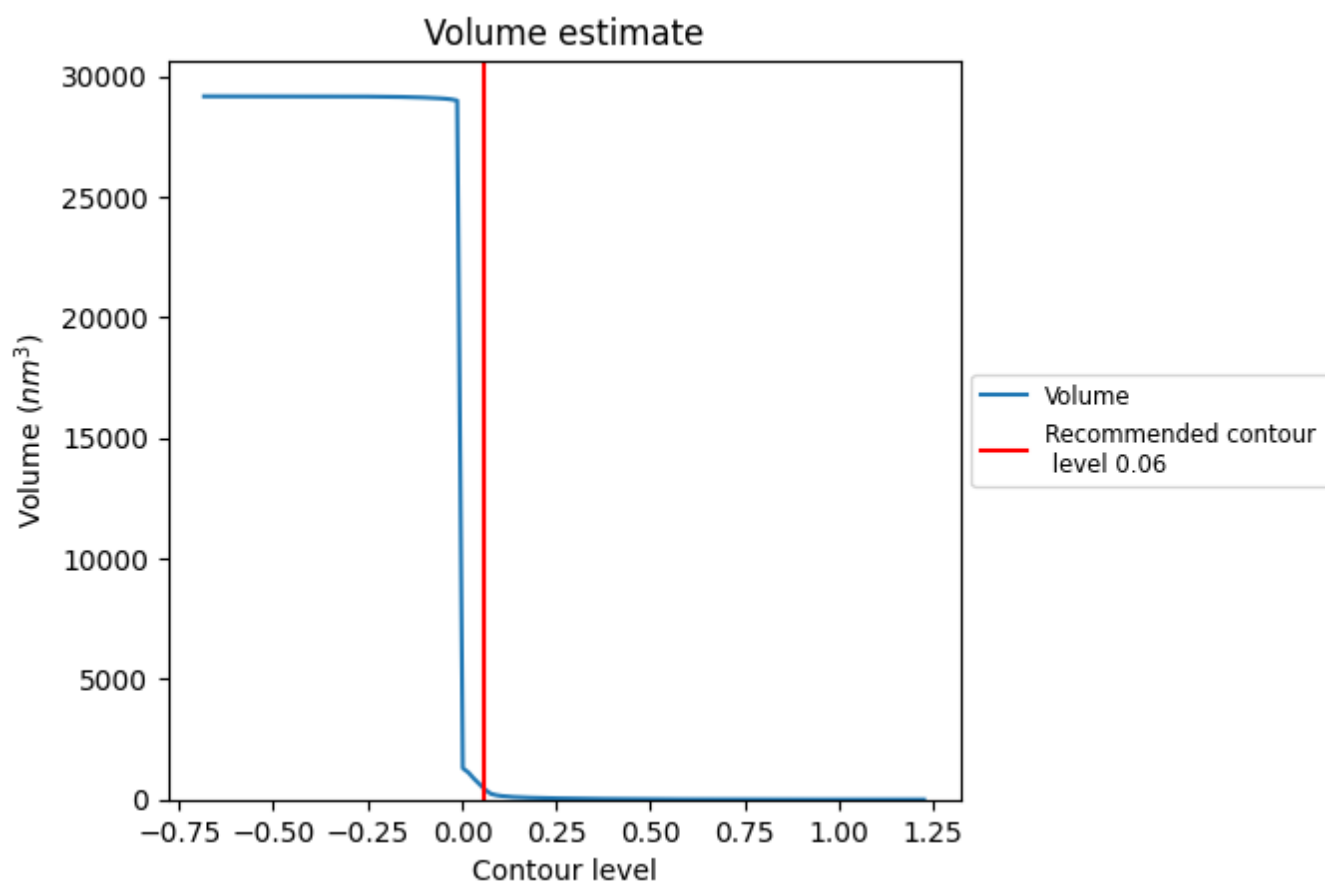
This section contains the results of statistical analysis of the map.

### 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.

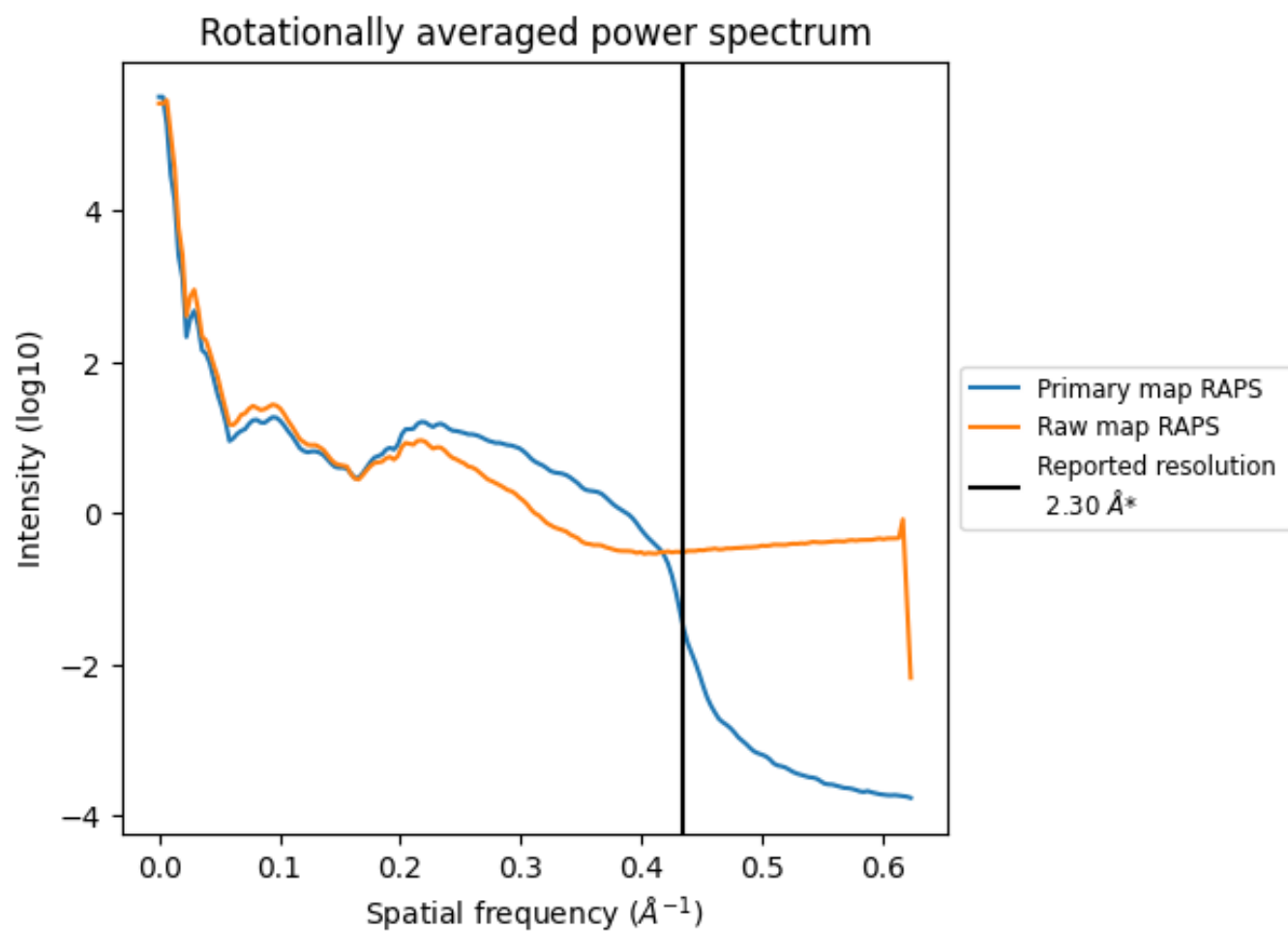
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 436  $\text{nm}^3$ ; this corresponds to an approximate mass of 393 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 ⓘ

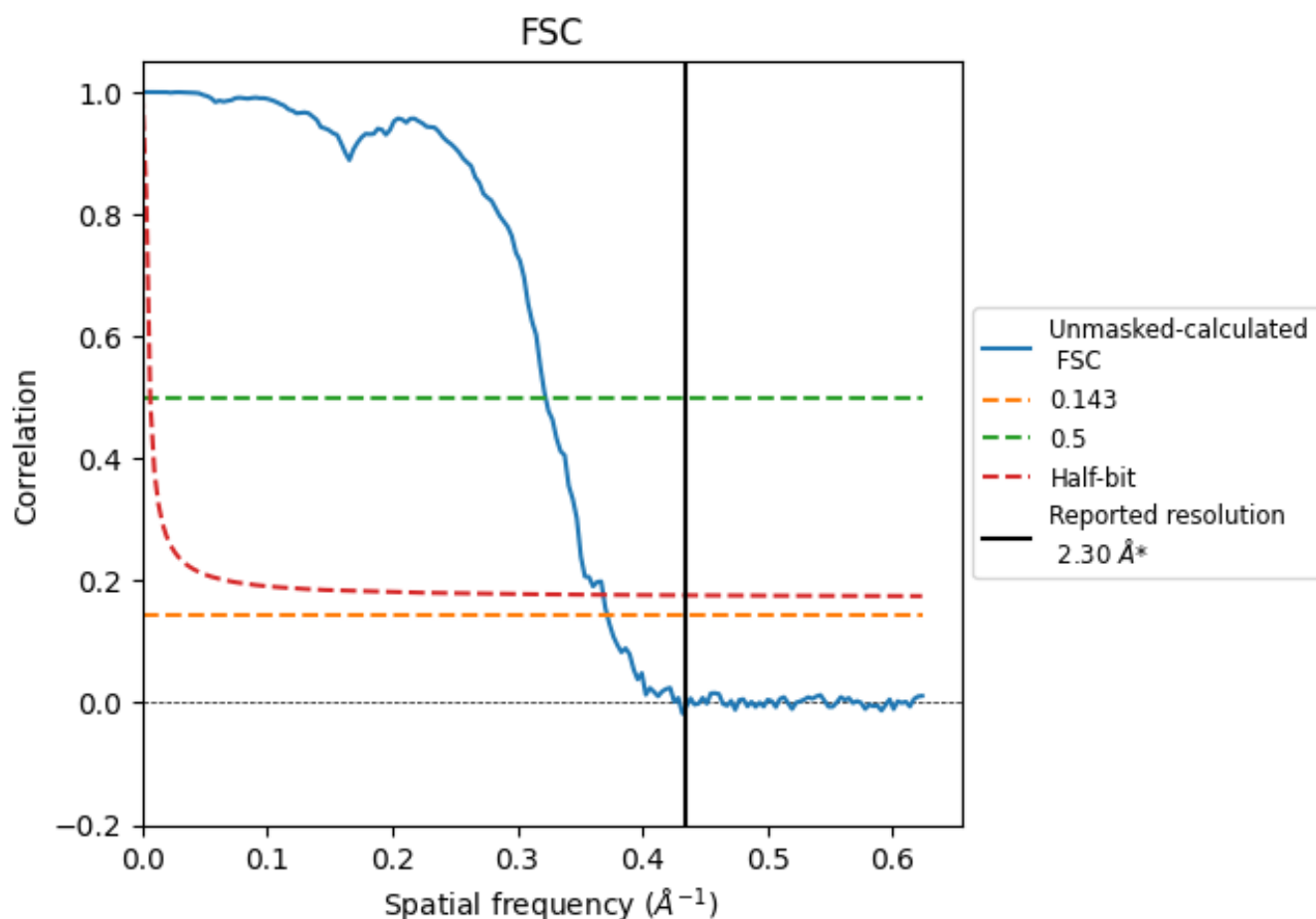


\*Reported resolution corresponds to spatial frequency of 0.435 Å<sup>-1</sup>

## 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 0.435  $\text{\AA}^{-1}$

## 8.2 Resolution estimates [i](#)

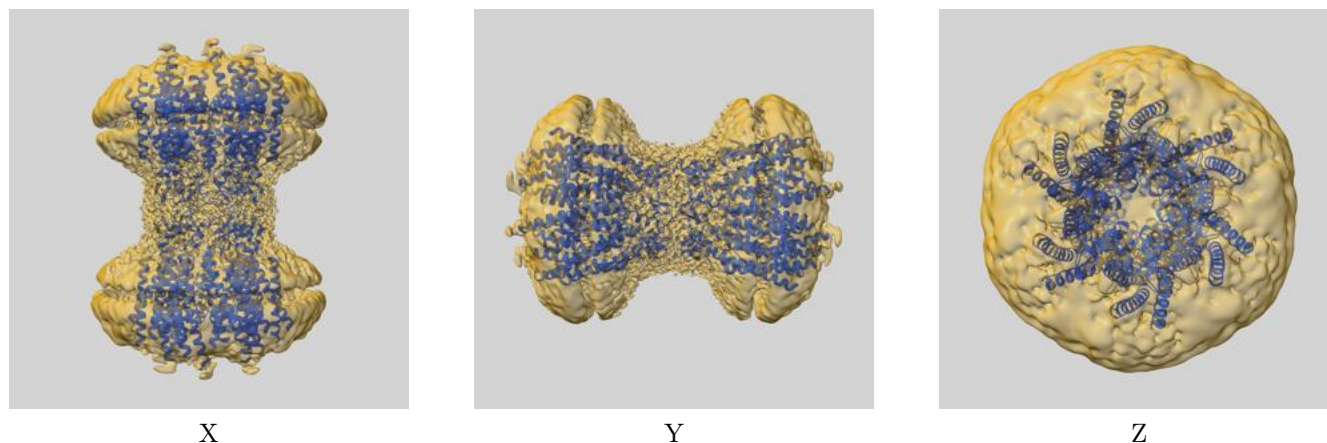
| Resolution estimate (Å)   | Estimation criterion (FSC cut-off) |      |          |
|---------------------------|------------------------------------|------|----------|
|                           | 0.143                              | 0.5  | Half-bit |
| Reported by author        | 2.30                               | -    | -        |
| Author-provided FSC curve | -                                  | -    | -        |
| Unmasked-calculated*      | 2.69                               | 3.10 | 2.71     |

\*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 2.69 differs from the reported value 2.3 by more than 10 %

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

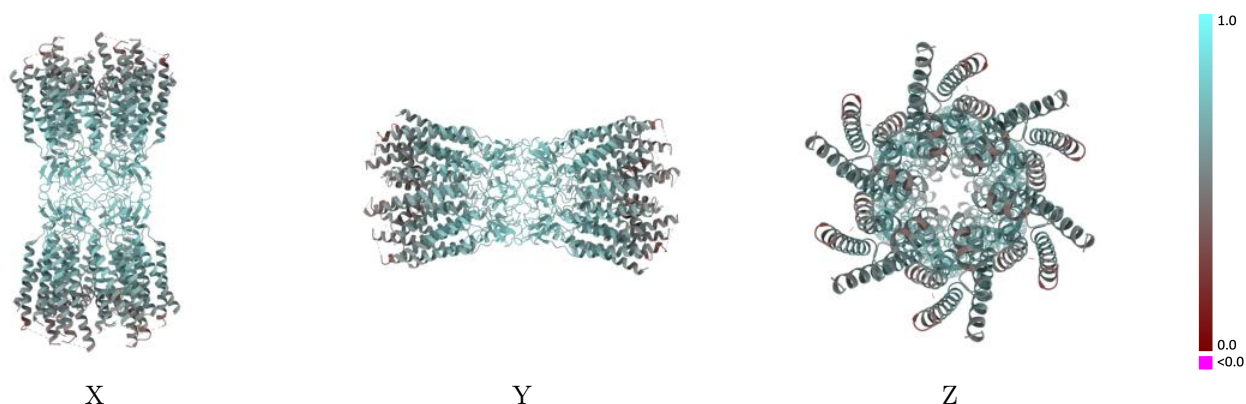
This section contains information regarding the fit between EMDB map EMD-73962 and PDB model 9Z9X. Per-residue inclusion information can be found in section [3](#) on page [25](#).

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



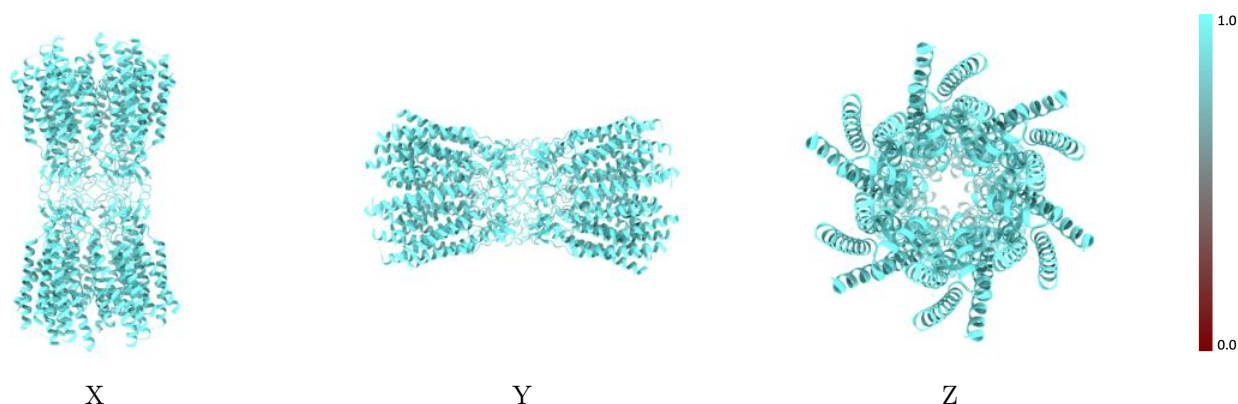
The images above show the 3D surface view of the map at the recommended contour level 0.06 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



The images above show the model with each residue coloured according 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.

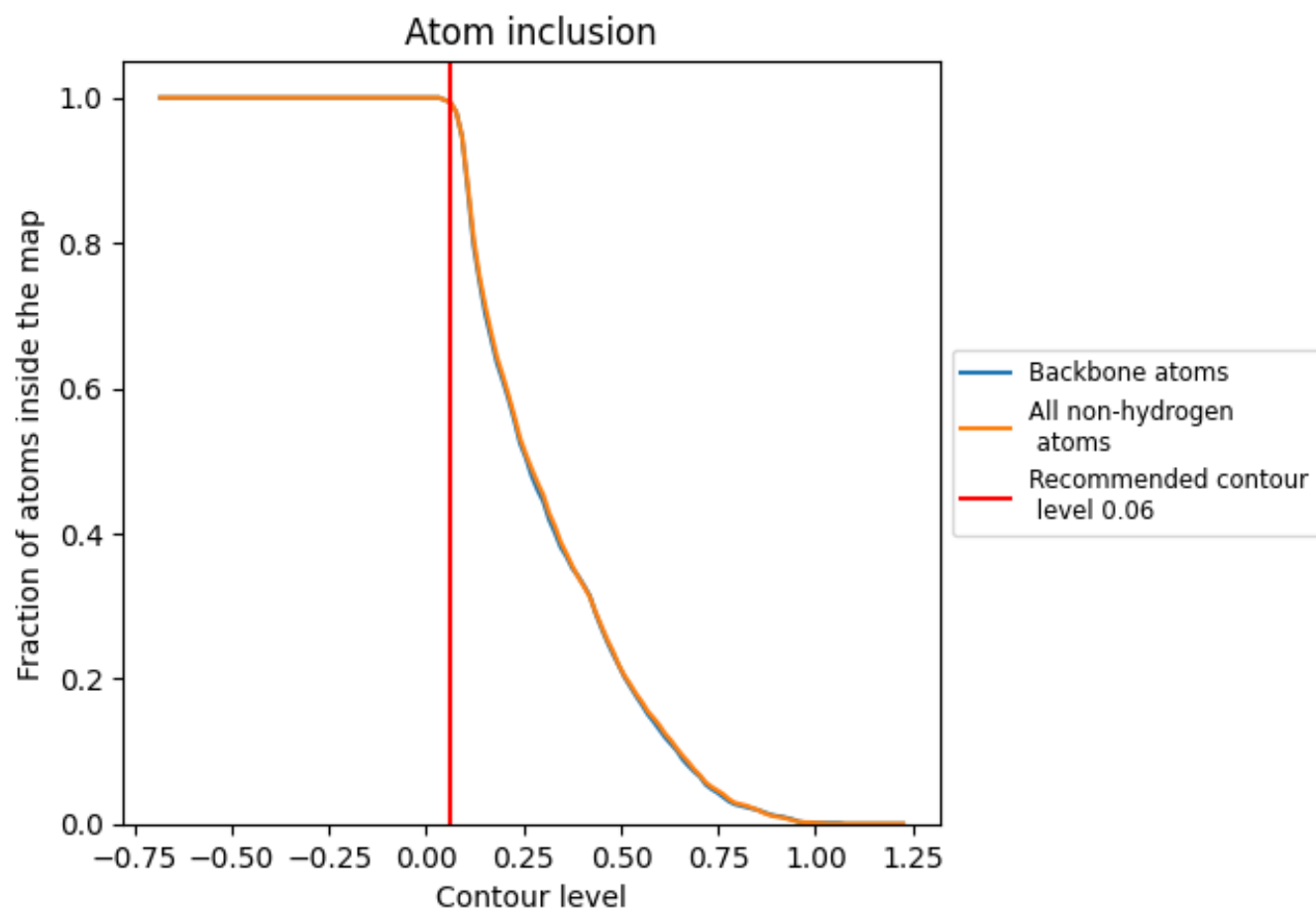
## 9.3 Atom inclusion mapped to coordinate model [i](#)



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 (0.06).



## 9.4 Atom inclusion [i](#)



At the recommended contour level, 99% of all backbone atoms, 99% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.06) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion               | Q-score                      |
|-------|------------------------------|------------------------------|
| All   | <div><div></div>0.9940</div> | <div><div></div>0.6250</div> |
| A     | <div><div></div>0.9930</div> | <div><div></div>0.6240</div> |
| B     | <div><div></div>0.9930</div> | <div><div></div>0.6260</div> |
| C     | <div><div></div>0.9940</div> | <div><div></div>0.6250</div> |
| D     | <div><div></div>0.9940</div> | <div><div></div>0.6260</div> |
| E     | <div><div></div>0.9940</div> | <div><div></div>0.6250</div> |
| F     | <div><div></div>0.9940</div> | <div><div></div>0.6230</div> |
| G     | <div><div></div>0.9940</div> | <div><div></div>0.6260</div> |
| H     | <div><div></div>0.9930</div> | <div><div></div>0.6260</div> |
| I     | <div><div></div>0.9950</div> | <div><div></div>0.6230</div> |
| J     | <div><div></div>0.9940</div> | <div><div></div>0.6230</div> |
| K     | <div><div></div>0.9930</div> | <div><div></div>0.6240</div> |
| L     | <div><div></div>0.9940</div> | <div><div></div>0.6230</div> |

1.0

0.0

<0.0