



Full wwPDB EM Validation Report ⓘ

Dec 18, 2022 – 05:38 pm GMT

PDB ID : 6YP7
EMDB ID : EMD-10865
Title : PSII-LHCII C2S2 supercomplex from *Pisum sativum* grown in high light conditions
Authors : Grinzato, A.; Albanese, P.; Zanotti, G.; Pagliano, C.
Deposited on : 2020-04-15
Resolution : 3.80 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

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>.

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

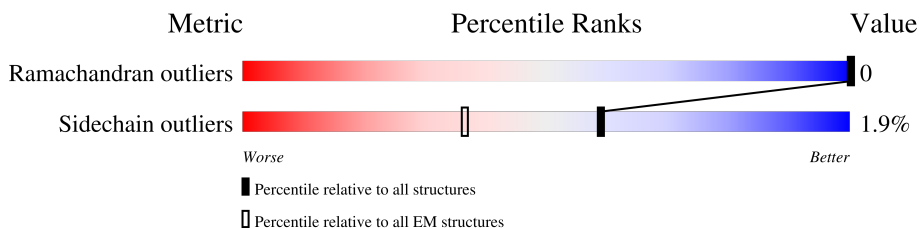
EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.80 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 (#Entries) | EM structures (#Entries) |
|-----------------------|--------------------------|--------------------------|
| Ramachandran outliers | 154571 | 4023 |
| Sidechain outliers | 154315 | 3826 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 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 | G | 219 | 33% 98% . |
| 1 | N | 219 | 25% 98% . |
| 1 | Y | 219 | 13% 98% . |
| 1 | g | 219 | 34% 98% . |
| 1 | n | 219 | 22% 98% . |
| 1 | y | 219 | 11% 98% . |
| 2 | A | 334 | 5% 99% . |
| 2 | a | 334 | . 99% . |
| 3 | B | 503 | 7% 99% . |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 3 | b | 503 | 7% 99% |
| 4 | C | 450 | 6% 98% |
| 4 | c | 450 | 5% 98% |
| 5 | D | 341 | 8% 99% |
| 5 | d | 341 | 8% 99% |
| 6 | E | 75 | 17% 100% |
| 6 | e | 75 | 8% 100% |
| 7 | F | 30 | 10% 97% |
| 7 | f | 30 | 10% 97% |
| 8 | H | 60 | 18% 100% |
| 8 | h | 60 | 20% 100% |
| 9 | I | 34 | 6% 100% |
| 9 | i | 34 | 6% 100% |
| 10 | J | 35 | 74% 100% |
| 10 | j | 35 | 69% 100% |
| 11 | K | 37 | 16% 100% |
| 11 | k | 37 | 16% 100% |
| 12 | L | 37 | 14% 100% |
| 12 | l | 37 | 16% 100% |
| 13 | M | 33 | 36% 100% |
| 13 | m | 33 | 39% 100% |
| 14 | O | 248 | 23% 99% |
| 14 | o | 248 | 27% 99% |
| 15 | T | 32 | 25% 100% |
| 15 | t | 32 | 25% 100% |

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| Mol | Chain | Length | Quality of chain | |
|-----|-------|--------|------------------|------|
| 16 | W | 54 | 44% | 94% |
| 16 | w | 54 | 31% | 94% |
| 17 | X | 39 | 23% | 100% |
| 17 | x | 39 | 23% | 100% |
| 18 | Z | 62 | 21% | 98% |
| 18 | z | 62 | 18% | 98% |
| 19 | R | 222 | 34% | 98% |
| 19 | r | 222 | 32% | 98% |
| 20 | S | 218 | 24% | 97% |
| 20 | s | 218 | 24% | 97% |

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

| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 21 | CHL | G | 601 | X | - | - | - |
| 21 | CHL | G | 605 | X | - | - | - |
| 21 | CHL | G | 606 | X | - | - | - |
| 21 | CHL | G | 607 | X | - | - | - |
| 21 | CHL | G | 608 | X | - | - | - |
| 21 | CHL | G | 609 | X | - | - | - |
| 21 | CHL | N | 601 | X | - | - | - |
| 21 | CHL | N | 605 | X | - | - | - |
| 21 | CHL | N | 606 | X | - | - | - |
| 21 | CHL | N | 607 | X | - | - | - |
| 21 | CHL | N | 608 | X | - | - | - |
| 21 | CHL | R | 305 | X | - | - | - |
| 21 | CHL | R | 306 | X | - | - | - |
| 21 | CHL | R | 307 | X | - | - | - |
| 21 | CHL | S | 301 | X | - | - | - |
| 21 | CHL | S | 302 | X | - | - | - |
| 21 | CHL | S | 306 | X | - | - | - |
| 21 | CHL | S | 307 | X | - | - | - |
| 21 | CHL | Y | 601 | X | - | - | - |
| 21 | CHL | Y | 605 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 21 | CHL | Y | 606 | X | - | - | - |
| 21 | CHL | Y | 607 | X | - | - | - |
| 21 | CHL | Y | 608 | X | - | - | - |
| 21 | CHL | g | 601 | X | - | - | - |
| 21 | CHL | g | 605 | X | - | - | - |
| 21 | CHL | g | 606 | X | - | - | - |
| 21 | CHL | g | 607 | X | - | - | - |
| 21 | CHL | g | 608 | X | - | - | - |
| 21 | CHL | g | 609 | X | - | - | - |
| 21 | CHL | n | 601 | X | - | - | - |
| 21 | CHL | n | 605 | X | - | - | - |
| 21 | CHL | n | 606 | X | - | - | - |
| 21 | CHL | n | 607 | X | - | - | - |
| 21 | CHL | n | 608 | X | - | - | - |
| 21 | CHL | r | 301 | X | - | - | - |
| 21 | CHL | r | 306 | X | - | - | - |
| 21 | CHL | r | 307 | X | - | - | - |
| 21 | CHL | r | 308 | X | - | - | - |
| 21 | CHL | s | 301 | X | - | - | - |
| 21 | CHL | s | 302 | X | - | - | - |
| 21 | CHL | s | 306 | X | - | - | - |
| 21 | CHL | s | 307 | X | - | - | - |
| 21 | CHL | y | 601 | X | - | - | - |
| 21 | CHL | y | 605 | X | - | - | - |
| 21 | CHL | y | 606 | X | - | - | - |
| 21 | CHL | y | 607 | X | - | - | - |
| 21 | CHL | y | 608 | X | - | - | - |
| 21 | CHL | y | 609 | X | - | - | - |
| 22 | CLA | A | 405 | X | - | - | - |
| 22 | CLA | A | 406 | X | - | - | - |
| 22 | CLA | A | 407 | X | - | - | - |
| 22 | CLA | A | 409 | X | - | - | - |
| 22 | CLA | B | 603 | X | - | - | - |
| 22 | CLA | B | 604 | X | - | - | - |
| 22 | CLA | B | 605 | X | - | - | - |
| 22 | CLA | B | 606 | X | - | - | - |
| 22 | CLA | B | 607 | X | - | - | - |
| 22 | CLA | B | 608 | X | - | - | - |
| 22 | CLA | B | 609 | X | - | - | - |
| 22 | CLA | B | 610 | X | - | - | - |
| 22 | CLA | B | 611 | X | - | - | - |
| 22 | CLA | B | 612 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 22 | CLA | B | 613 | X | - | - | - |
| 22 | CLA | B | 614 | X | - | - | - |
| 22 | CLA | B | 615 | X | - | - | - |
| 22 | CLA | B | 616 | X | - | - | - |
| 22 | CLA | B | 617 | X | - | - | - |
| 22 | CLA | B | 618 | X | - | - | - |
| 22 | CLA | C | 503 | X | - | - | - |
| 22 | CLA | C | 504 | X | - | - | - |
| 22 | CLA | C | 505 | X | - | - | - |
| 22 | CLA | C | 506 | X | - | - | - |
| 22 | CLA | C | 507 | X | - | - | - |
| 22 | CLA | C | 508 | X | - | - | - |
| 22 | CLA | C | 509 | X | - | - | - |
| 22 | CLA | C | 510 | X | - | - | - |
| 22 | CLA | C | 511 | X | - | - | - |
| 22 | CLA | C | 512 | X | - | - | - |
| 22 | CLA | C | 513 | X | - | - | - |
| 22 | CLA | C | 514 | X | - | - | - |
| 22 | CLA | C | 515 | X | - | - | - |
| 22 | CLA | D | 404 | X | - | - | - |
| 22 | CLA | D | 405 | X | - | - | - |
| 22 | CLA | G | 602 | X | - | - | - |
| 22 | CLA | G | 603 | X | - | - | - |
| 22 | CLA | G | 604 | X | - | - | - |
| 22 | CLA | G | 610 | X | - | - | - |
| 22 | CLA | G | 611 | X | - | - | - |
| 22 | CLA | G | 612 | X | - | - | - |
| 22 | CLA | G | 613 | X | - | - | - |
| 22 | CLA | G | 614 | X | - | - | - |
| 22 | CLA | N | 602 | X | - | - | - |
| 22 | CLA | N | 603 | X | - | - | - |
| 22 | CLA | N | 604 | X | - | - | - |
| 22 | CLA | N | 609 | X | - | - | - |
| 22 | CLA | N | 610 | X | - | - | - |
| 22 | CLA | N | 611 | X | - | - | - |
| 22 | CLA | N | 612 | X | - | - | - |
| 22 | CLA | N | 613 | X | - | - | - |
| 22 | CLA | R | 302 | X | - | - | - |
| 22 | CLA | R | 303 | X | - | - | - |
| 22 | CLA | R | 304 | X | - | - | - |
| 22 | CLA | R | 308 | X | - | - | - |
| 22 | CLA | R | 309 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 22 | CLA | R | 310 | X | - | - | - |
| 22 | CLA | R | 311 | X | - | - | - |
| 22 | CLA | S | 303 | X | - | - | - |
| 22 | CLA | S | 304 | X | - | - | - |
| 22 | CLA | S | 305 | X | - | - | - |
| 22 | CLA | S | 309 | X | - | - | - |
| 22 | CLA | S | 310 | X | - | - | - |
| 22 | CLA | S | 311 | X | - | - | - |
| 22 | CLA | S | 312 | X | - | - | - |
| 22 | CLA | S | 313 | X | - | - | - |
| 22 | CLA | W | 101 | X | - | - | - |
| 22 | CLA | Y | 602 | X | - | - | - |
| 22 | CLA | Y | 603 | X | - | - | - |
| 22 | CLA | Y | 604 | X | - | - | - |
| 22 | CLA | Y | 609 | X | - | - | - |
| 22 | CLA | Y | 610 | X | - | - | - |
| 22 | CLA | Y | 611 | X | - | - | - |
| 22 | CLA | Y | 612 | X | - | - | - |
| 22 | CLA | a | 404 | X | - | - | - |
| 22 | CLA | a | 405 | X | - | - | - |
| 22 | CLA | a | 406 | X | - | - | - |
| 22 | CLA | a | 408 | X | - | - | - |
| 22 | CLA | b | 601 | X | - | - | - |
| 22 | CLA | b | 602 | X | - | - | - |
| 22 | CLA | b | 603 | X | - | - | - |
| 22 | CLA | b | 604 | X | - | - | - |
| 22 | CLA | b | 605 | X | - | - | - |
| 22 | CLA | b | 606 | X | - | - | - |
| 22 | CLA | b | 607 | X | - | - | - |
| 22 | CLA | b | 608 | X | - | - | - |
| 22 | CLA | b | 609 | X | - | - | - |
| 22 | CLA | b | 610 | X | - | - | - |
| 22 | CLA | b | 611 | X | - | - | - |
| 22 | CLA | b | 612 | X | - | - | - |
| 22 | CLA | b | 613 | X | - | - | - |
| 22 | CLA | b | 614 | X | - | - | - |
| 22 | CLA | b | 615 | X | - | - | - |
| 22 | CLA | c | 502 | X | - | - | - |
| 22 | CLA | c | 503 | X | - | - | - |
| 22 | CLA | c | 504 | X | - | - | - |
| 22 | CLA | c | 505 | X | - | - | - |
| 22 | CLA | c | 506 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 22 | CLA | c | 507 | X | - | - | - |
| 22 | CLA | c | 508 | X | - | - | - |
| 22 | CLA | c | 509 | X | - | - | - |
| 22 | CLA | c | 510 | X | - | - | - |
| 22 | CLA | c | 511 | X | - | - | - |
| 22 | CLA | c | 512 | X | - | - | - |
| 22 | CLA | c | 513 | X | - | - | - |
| 22 | CLA | c | 514 | X | - | - | - |
| 22 | CLA | d | 403 | X | - | - | - |
| 22 | CLA | d | 404 | X | - | - | - |
| 22 | CLA | g | 602 | X | - | - | - |
| 22 | CLA | g | 603 | X | - | - | - |
| 22 | CLA | g | 604 | X | - | - | - |
| 22 | CLA | g | 610 | X | - | - | - |
| 22 | CLA | g | 611 | X | - | - | - |
| 22 | CLA | g | 612 | X | - | - | - |
| 22 | CLA | g | 613 | X | - | - | - |
| 22 | CLA | g | 614 | X | - | - | - |
| 22 | CLA | n | 602 | X | - | - | - |
| 22 | CLA | n | 603 | X | - | - | - |
| 22 | CLA | n | 604 | X | - | - | - |
| 22 | CLA | n | 609 | X | - | - | - |
| 22 | CLA | n | 610 | X | - | - | - |
| 22 | CLA | n | 611 | X | - | - | - |
| 22 | CLA | n | 612 | X | - | - | - |
| 22 | CLA | n | 613 | X | - | - | - |
| 22 | CLA | r | 303 | X | - | - | - |
| 22 | CLA | r | 304 | X | - | - | - |
| 22 | CLA | r | 305 | X | - | - | - |
| 22 | CLA | r | 309 | X | - | - | - |
| 22 | CLA | r | 310 | X | - | - | - |
| 22 | CLA | r | 311 | X | - | - | - |
| 22 | CLA | r | 312 | X | - | - | - |
| 22 | CLA | s | 303 | X | - | - | - |
| 22 | CLA | s | 304 | X | - | - | - |
| 22 | CLA | s | 305 | X | - | - | - |
| 22 | CLA | s | 309 | X | - | - | - |
| 22 | CLA | s | 310 | X | - | - | - |
| 22 | CLA | s | 311 | X | - | - | - |
| 22 | CLA | s | 312 | X | - | - | - |
| 22 | CLA | s | 313 | X | - | - | - |
| 22 | CLA | w | 101 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 22 | CLA | x | 101 | X | - | - | - |
| 22 | CLA | y | 602 | X | - | - | - |
| 22 | CLA | y | 603 | X | - | - | - |
| 22 | CLA | y | 604 | X | - | - | - |
| 22 | CLA | y | 610 | X | - | - | - |
| 22 | CLA | y | 611 | X | - | - | - |
| 22 | CLA | y | 612 | X | - | - | - |
| 22 | CLA | y | 613 | X | - | - | - |
| 24 | XAT | G | 617 | X | - | - | - |
| 24 | XAT | N | 616 | X | - | - | - |
| 24 | XAT | R | 313 | X | - | - | - |
| 24 | XAT | Y | 615 | X | - | - | - |
| 24 | XAT | g | 617 | X | - | - | - |
| 24 | XAT | n | 615 | X | - | - | - |
| 24 | XAT | r | 314 | X | - | - | - |
| 24 | XAT | y | 615 | X | - | - | - |
| 25 | NEX | N | 617 | X | - | - | - |
| 25 | NEX | Y | 616 | X | - | - | - |
| 25 | NEX | g | 618 | X | - | - | - |
| 25 | NEX | n | 616 | X | - | - | - |
| 25 | NEX | r | 315 | X | - | - | - |
| 25 | NEX | y | 616 | X | - | - | - |
| 25 | NEX | y | 618 | X | - | - | - |
| 33 | SQD | D | 402 | X | - | - | - |
| 33 | SQD | d | 402 | X | - | - | - |

2 Entry composition [i](#)

There are 37 unique types of molecules in this entry. The entry contains 71784 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Chlorophyll a-b binding protein 8, chloroplastic.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 1 | g | 219 | 1668 | 1081 | 270 | 312 | 5 | 0 | 0 |
| 1 | n | 219 | 1668 | 1081 | 270 | 312 | 5 | 0 | 0 |
| 1 | y | 219 | 1668 | 1081 | 270 | 312 | 5 | 0 | 0 |
| 1 | G | 219 | 1668 | 1081 | 270 | 312 | 5 | 0 | 0 |
| 1 | N | 219 | 1668 | 1081 | 270 | 312 | 5 | 0 | 0 |
| 1 | Y | 219 | 1668 | 1081 | 270 | 312 | 5 | 0 | 0 |

- Molecule 2 is a protein called Photosystem II protein D1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 2 | a | 334 | 2616 | 1708 | 431 | 464 | 13 | 0 | 0 |
| 2 | A | 334 | 2616 | 1708 | 431 | 464 | 13 | 0 | 0 |

- Molecule 3 is a protein called Photosystem II CP47 reaction center protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 3 | b | 503 | 3948 | 2581 | 669 | 686 | 12 | 0 | 0 |
| 3 | B | 503 | 3948 | 2581 | 669 | 686 | 12 | 0 | 0 |

- Molecule 4 is a protein called Photosystem II CP43 reaction center protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 4 | c | 450 | 3497 | 2300 | 583 | 604 | 10 | 0 | 0 |
| 4 | C | 450 | 3497 | 2300 | 583 | 604 | 10 | 0 | 0 |

- Molecule 5 is a protein called Photosystem II D2 protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 5 | d | 341 | 2712 | 1790 | 444 | 466 | 12 | 0 | 0 |
| 5 | D | 341 | 2712 | 1790 | 444 | 466 | 12 | 0 | 0 |

- Molecule 6 is a protein called Cytochrome b559 subunit alpha.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|-------|
| | | | Total | C | N | O | | |
| 6 | e | 75 | 612 | 400 | 100 | 112 | 0 | 0 |
| 6 | E | 75 | 612 | 400 | 100 | 112 | 0 | 0 |

- Molecule 7 is a protein called Cytochrome b559 subunit beta.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 7 | f | 30 | 241 | 162 | 41 | 37 | 1 | 0 | 0 |
| 7 | F | 30 | 241 | 162 | 41 | 37 | 1 | 0 | 0 |

There are 2 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------|------------|
| f | 26 | PHE | SER | conflict | UNP P62096 |
| F | 26 | PHE | SER | conflict | UNP P62096 |

- Molecule 8 is a protein called Photosystem II reaction center protein H.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 8 | h | 60 | 452 | 296 | 72 | 81 | 3 | 0 | 0 |
| 8 | H | 60 | 452 | 296 | 72 | 81 | 3 | 0 | 0 |

- Molecule 9 is a protein called Photosystem II reaction center protein I.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 9 | i | 34 | Total | C | N | O | S | 0 | 0 |
| | | | 278 | 191 | 43 | 43 | 1 | | |
| 9 | I | 34 | Total | C | N | O | S | 0 | 0 |
| | | | 278 | 191 | 43 | 43 | 1 | | |

- Molecule 10 is a protein called Photosystem II reaction center protein J.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|-------|
| 10 | j | 35 | Total | C | N | O | 0 | 0 |
| | | | 256 | 174 | 39 | 43 | | |
| 10 | J | 35 | Total | C | N | O | 0 | 0 |
| | | | 256 | 174 | 39 | 43 | | |

- Molecule 11 is a protein called Photosystem II reaction center protein K.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 11 | k | 37 | Total | C | N | O | S | 0 | 0 |
| | | | 306 | 215 | 44 | 46 | 1 | | |
| 11 | K | 37 | Total | C | N | O | S | 0 | 0 |
| | | | 306 | 215 | 44 | 46 | 1 | | |

- Molecule 12 is a protein called Photosystem II reaction center protein L.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|-------|
| 12 | l | 37 | Total | C | N | O | 0 | 0 |
| | | | 311 | 205 | 49 | 57 | | |
| 12 | L | 37 | Total | C | N | O | 0 | 0 |
| | | | 311 | 205 | 49 | 57 | | |

- Molecule 13 is a protein called Photosystem II reaction center protein M.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 13 | m | 33 | Total | C | N | O | S | 0 | 0 |
| | | | 256 | 176 | 36 | 43 | 1 | | |
| 13 | M | 33 | Total | C | N | O | S | 0 | 0 |
| | | | 256 | 176 | 36 | 43 | 1 | | |

- Molecule 14 is a protein called Oxygen-evolving enhancer protein 1, chloroplastic.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 14 | o | 248 | Total | C | N | O | S | 0 | 0 |
| | | | 1870 | 1179 | 306 | 382 | 3 | | |
| 14 | O | 248 | Total | C | N | O | S | 0 | 0 |
| | | | 1870 | 1179 | 306 | 382 | 3 | | |

- Molecule 15 is a protein called Photosystem II reaction center protein T.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 15 | t | 32 | Total | C | N | O | S | 0 | 0 |
| | | | 261 | 182 | 37 | 41 | 1 | | |
| 15 | T | 32 | Total | C | N | O | S | 0 | 0 |
| | | | 261 | 182 | 37 | 41 | 1 | | |

- Molecule 16 is a protein called Photosystem II reaction center protein W.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 16 | w | 54 | Total | C | N | O | S | 0 | 0 |
| | | | 419 | 275 | 61 | 82 | 1 | | |
| 16 | W | 54 | Total | C | N | O | S | 0 | 0 |
| | | | 419 | 275 | 61 | 82 | 1 | | |

- Molecule 17 is a protein called Ultraviolet-B-repressible protein.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|-------|
| 17 | x | 39 | Total | C | N | O | 0 | 0 |
| | | | 276 | 180 | 46 | 50 | | |
| 17 | X | 39 | Total | C | N | O | 0 | 0 |
| | | | 276 | 180 | 46 | 50 | | |

- Molecule 18 is a protein called Photosystem II reaction center protein Z.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 18 | z | 62 | Total | C | N | O | S | 0 | 0 |
| | | | 464 | 312 | 69 | 82 | 1 | | |
| 18 | Z | 62 | Total | C | N | O | S | 0 | 0 |
| | | | 464 | 312 | 69 | 82 | 1 | | |

- Molecule 19 is a protein called Light harvesting chlorophyll a/b-binding protein Lhcb4.3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 19 | r | 222 | Total | C | N | O | S | 0 | 0 |
| | | | 1732 | 1133 | 281 | 314 | 4 | | |

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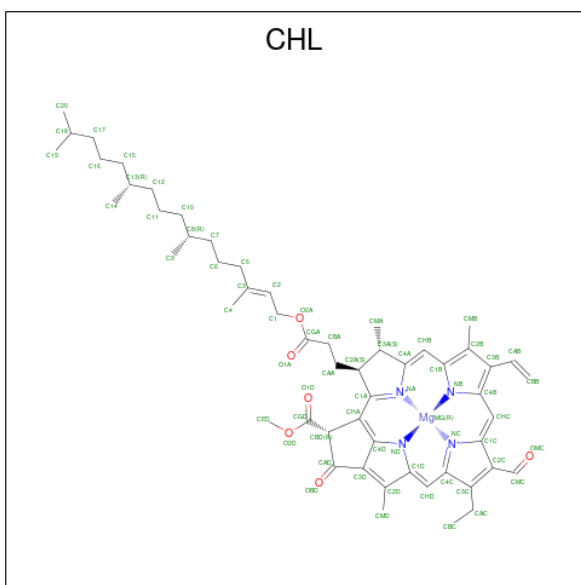
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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 19 | R | 222 | Total | C | N | O | S | 0 | 0 |
| | | | 1732 | 1133 | 281 | 314 | 4 | | |

- Molecule 20 is a protein called Light harvesting chlorophyll a/b-binding protein Lhcb5, CP26.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 20 | s | 218 | Total | C | N | O | S | 0 | 0 |
| | | | 1688 | 1105 | 271 | 308 | 4 | | |
| 20 | S | 218 | Total | C | N | O | S | 0 | 0 |
| | | | 1688 | 1105 | 271 | 308 | 4 | | |

- Molecule 21 is CHLOROPHYLL B (three-letter code: CHL) (formula: $C_{55}H_{70}MgN_4O_6$).



| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------|-----|----|----|----|---------|
| | | | Total | C | Mg | N | O | |
| 21 | g | 1 | Total | C | Mg | N | O | 0 |
| | | | 355 | 289 | 6 | 24 | 36 | |
| 21 | g | 1 | Total | C | Mg | N | O | 0 |
| | | | 355 | 289 | 6 | 24 | 36 | |
| 21 | g | 1 | Total | C | Mg | N | O | 0 |
| | | | 355 | 289 | 6 | 24 | 36 | |
| 21 | g | 1 | Total | C | Mg | N | O | 0 |
| | | | 355 | 289 | 6 | 24 | 36 | |
| 21 | g | 1 | Total | C | Mg | N | O | 0 |
| | | | 355 | 289 | 6 | 24 | 36 | |

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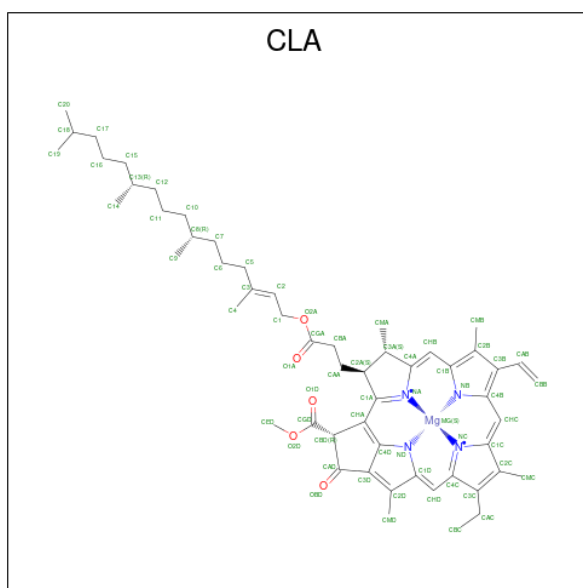
| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 21 | n | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | n | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | n | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | n | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | n | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | y | 1 | Total 362 | C 296 | Mg 6 | N 24 | O 36 | 0 |
| 21 | y | 1 | Total 362 | C 296 | Mg 6 | N 24 | O 36 | 0 |
| 21 | y | 1 | Total 362 | C 296 | Mg 6 | N 24 | O 36 | 0 |
| 21 | y | 1 | Total 362 | C 296 | Mg 6 | N 24 | O 36 | 0 |
| 21 | y | 1 | Total 362 | C 296 | Mg 6 | N 24 | O 36 | 0 |
| 21 | y | 1 | Total 362 | C 296 | Mg 6 | N 24 | O 36 | 0 |
| 21 | G | 1 | Total 355 | C 289 | Mg 6 | N 24 | O 36 | 0 |
| 21 | G | 1 | Total 355 | C 289 | Mg 6 | N 24 | O 36 | 0 |
| 21 | G | 1 | Total 355 | C 289 | Mg 6 | N 24 | O 36 | 0 |
| 21 | G | 1 | Total 355 | C 289 | Mg 6 | N 24 | O 36 | 0 |
| 21 | G | 1 | Total 355 | C 289 | Mg 6 | N 24 | O 36 | 0 |
| 21 | G | 1 | Total 355 | C 289 | Mg 6 | N 24 | O 36 | 0 |
| 21 | N | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | N | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | N | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | N | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 21 | N | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | Y | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | Y | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | Y | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | Y | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | Y | 1 | Total 314 | C 259 | Mg 5 | N 20 | O 30 | 0 |
| 21 | r | 1 | Total 231 | C 187 | Mg 4 | N 16 | O 24 | 0 |
| 21 | r | 1 | Total 231 | C 187 | Mg 4 | N 16 | O 24 | 0 |
| 21 | r | 1 | Total 231 | C 187 | Mg 4 | N 16 | O 24 | 0 |
| 21 | r | 1 | Total 231 | C 187 | Mg 4 | N 16 | O 24 | 0 |
| 21 | s | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | s | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | s | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | s | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | S | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | S | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | S | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | S | 1 | Total 186 | C 142 | Mg 4 | N 16 | O 24 | 0 |
| 21 | R | 1 | Total 183 | C 150 | Mg 3 | N 12 | O 18 | 0 |
| 21 | R | 1 | Total 183 | C 150 | Mg 3 | N 12 | O 18 | 0 |
| 21 | R | 1 | Total 183 | C 150 | Mg 3 | N 12 | O 18 | 0 |

- Molecule 22 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 22 | n | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | n | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | n | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | G | 1 | Total 477 | C 397 | Mg 8 | N 32 | O 40 | 0 |
| 22 | G | 1 | Total 477 | C 397 | Mg 8 | N 32 | O 40 | 0 |
| 22 | G | 1 | Total 477 | C 397 | Mg 8 | N 32 | O 40 | 0 |
| 22 | G | 1 | Total 477 | C 397 | Mg 8 | N 32 | O 40 | 0 |
| 22 | G | 1 | Total 477 | C 397 | Mg 8 | N 32 | O 40 | 0 |
| 22 | G | 1 | Total 477 | C 397 | Mg 8 | N 32 | O 40 | 0 |
| 22 | G | 1 | Total 477 | C 397 | Mg 8 | N 32 | O 40 | 0 |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|--------------|----------|----------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | N | 1 | Total 473 | C 393 | Mg 8 | N 32 | O 40 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | Y | 1 | Total 413 | C 343 | Mg 7 | N 28 | O 35 | 0 |
| 22 | a | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | a | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | a | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | a | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|--------------|----------|----------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | b | 1 | Total 975 | C 825 | Mg 15 | N 60 | O 75 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|---------------|----------|----------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | c | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | d | 1 | Total 130 | C 110 | Mg 2 | N 8 | O 10 | 0 |
| 22 | d | 1 | Total 130 | C 110 | Mg 2 | N 8 | O 10 | 0 |
| 22 | w | 1 | Total 60 | C 50 | Mg 1 | N 4 | O 5 | 0 |
| 22 | x | 1 | Total 65 | C 55 | Mg 1 | N 4 | O 5 | 0 |
| 22 | A | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | A | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | A | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | A | 1 | Total 240 | C 200 | Mg 4 | N 16 | O 20 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|---------------|----------|----------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | B | 1 | Total 1040 | C 880 | Mg 16 | N 64 | O 80 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | C | 1 | Total 845 | C 715 | Mg 13 | N 52 | O 65 | 0 |
| 22 | D | 1 | Total 130 | C 110 | Mg 2 | N 8 | O 10 | 0 |
| 22 | D | 1 | Total 130 | C 110 | Mg 2 | N 8 | O 10 | 0 |
| 22 | W | 1 | Total 60 | C 50 | Mg 1 | N 4 | O 5 | 0 |

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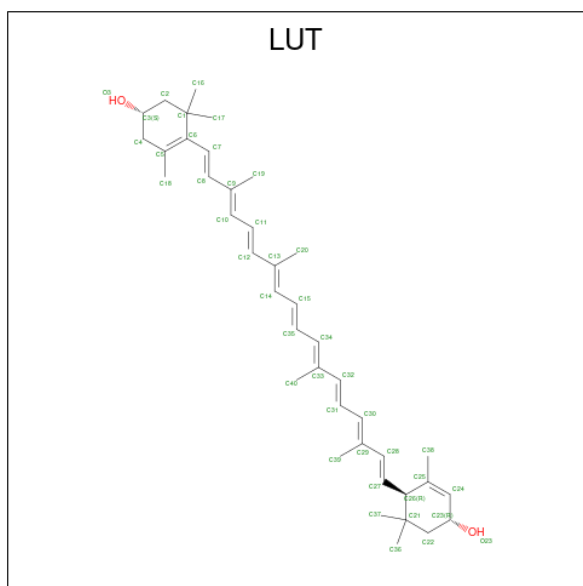
| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 22 | r | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | r | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | r | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | r | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | r | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | r | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | r | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | s | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |

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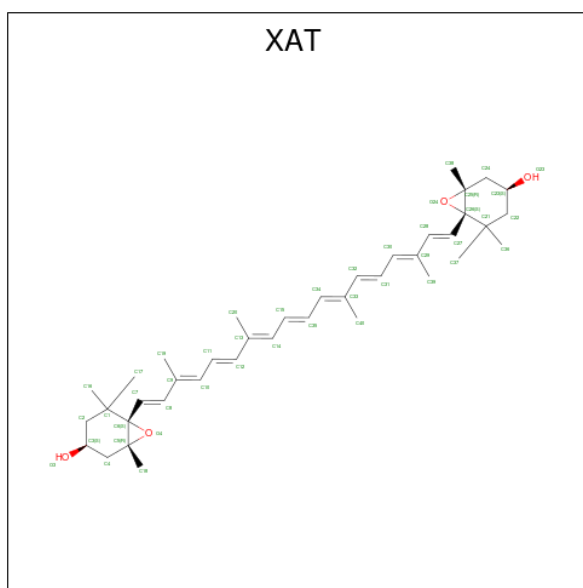
| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|---------|---------|
| | | | Total | C | Mg | N | O | |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | S | 1 | Total 471 | C 381 | Mg 9 | N 36 | O 45 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |
| 22 | R | 1 | Total 400 | C 330 | Mg 7 | N 28 | O 35 | 0 |

- Molecule 23 is (3R,3'R,6S)-4,5-DIDEHYDRO-5,6-DIHYDRO-BETA,BETA-CAROTENE-3,3'-DIOL (three-letter code: LUT) (formula: C₄₀H₅₆O₂).



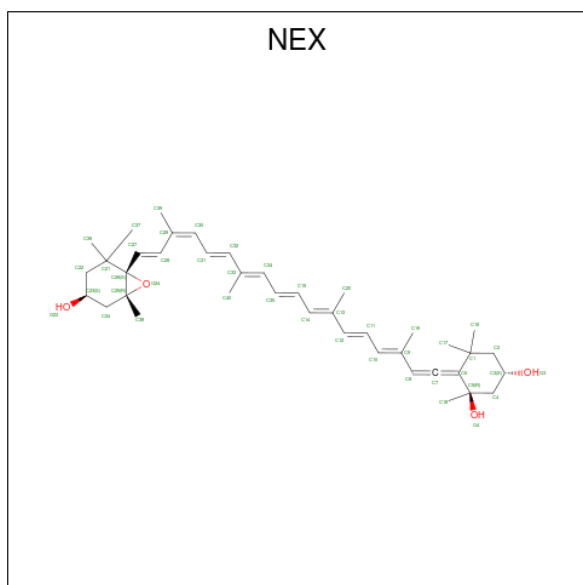
| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 23 | g | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | g | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | n | 1 | Total | C | O | 0 |
| | | | 42 | 40 | 2 | |
| 23 | y | 1 | Total | C | O | 0 |
| | | | 42 | 40 | 2 | |
| 23 | G | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | G | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | N | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | N | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | Y | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | Y | 1 | Total | C | O | 0 |
| | | | 84 | 80 | 4 | |
| 23 | r | 1 | Total | C | O | 0 |
| | | | 42 | 40 | 2 | |
| 23 | R | 1 | Total | C | O | 0 |
| | | | 42 | 40 | 2 | |

- Molecule 24 is (3S,5R,6S,3'S,5'R,6'S)-5,6,5',6'-DIEPOXY-5,6,5',6'-TETRAHYDRO-BETA, BETA-CAROTENE-3,3'-DIOL (three-letter code: XAT) (formula: C₄₀H₅₆O₄).



| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 24 | g | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 24 | n | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 24 | y | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 24 | G | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 24 | N | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 24 | Y | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 24 | r | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 24 | R | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |

- Molecule 25 is (1R,3R)-6-[(3E,5E,7E,9E,11E,13E,15E,17E)-18-[(1S,4R,6R)-4-HYDROXY-2,6-TRIMETHYL-7-OXABICYCLO[4.1.0]HEPT-1-YL]-3,7,12,16-TETRAMETHYLOCTA DECA-1,3,5,7,9,11,13,15,17-NONAENYLIDENE]-1,5,5-TRIMETHYLCYCLOHEXANE-1,3-DIOL (three-letter code: NEX) (formula: C₄₀H₅₆O₄).



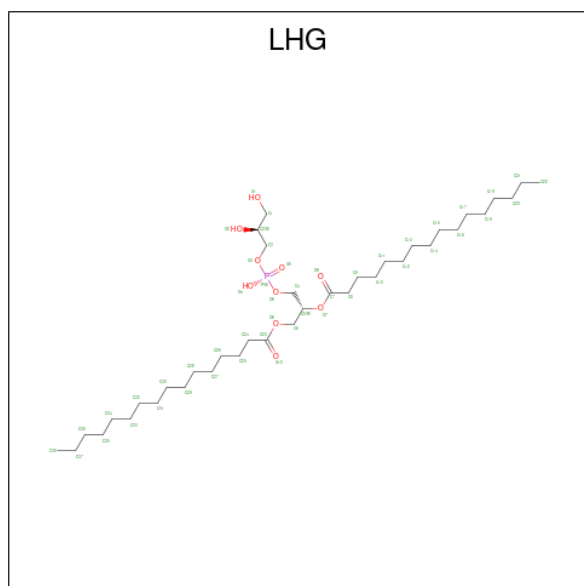
| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 25 | g | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 25 | n | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |

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| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 25 | y | 1 | Total | C | O | 0 |
| | | | 88 | 80 | 8 | |
| 25 | y | 1 | Total | C | O | 0 |
| | | | 88 | 80 | 8 | |
| 25 | N | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 25 | Y | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |
| 25 | r | 1 | Total | C | O | 0 |
| | | | 44 | 40 | 4 | |

- Molecule 26 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



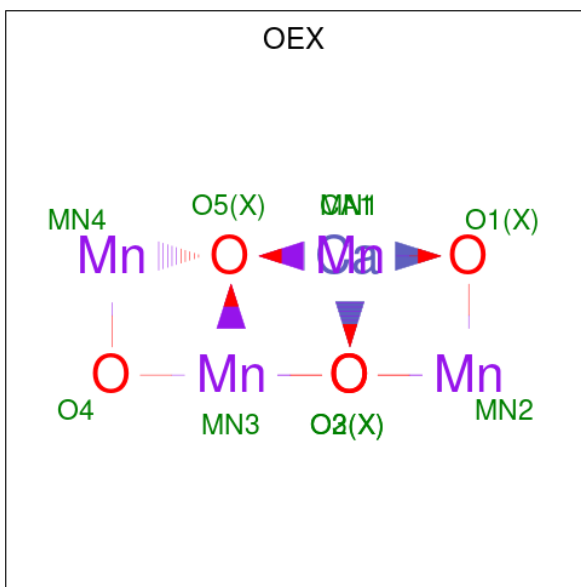
| Mol | Chain | Residues | Atoms | | | | AltConf |
|-----|-------|----------|-------|----|----|---|---------|
| 26 | g | 1 | Total | C | O | P | 0 |
| | | | 49 | 38 | 10 | 1 | |
| 26 | n | 1 | Total | C | O | P | 0 |
| | | | 49 | 38 | 10 | 1 | |
| 26 | y | 1 | Total | C | O | P | 0 |
| | | | 49 | 38 | 10 | 1 | |
| 26 | G | 1 | Total | C | O | P | 0 |
| | | | 49 | 38 | 10 | 1 | |
| 26 | N | 1 | Total | C | O | P | 0 |
| | | | 49 | 38 | 10 | 1 | |
| 26 | Y | 1 | Total | C | O | P | 0 |
| | | | 49 | 38 | 10 | 1 | |

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| Mol | Chain | Residues | Atoms | | | | AltConf |
|-----|-------|----------|-------|-----|----|---|---------|
| | | | Total | C | O | P | |
| 26 | b | 1 | 49 | 38 | 10 | 1 | 0 |
| 26 | c | 1 | 147 | 114 | 30 | 3 | 0 |
| 26 | c | 1 | 147 | 114 | 30 | 3 | 0 |
| 26 | c | 1 | 147 | 114 | 30 | 3 | 0 |
| 26 | d | 1 | 138 | 105 | 30 | 3 | 0 |
| 26 | d | 1 | 138 | 105 | 30 | 3 | 0 |
| 26 | d | 1 | 138 | 105 | 30 | 3 | 0 |
| 26 | l | 1 | 49 | 38 | 10 | 1 | 0 |
| 26 | B | 1 | 49 | 38 | 10 | 1 | 0 |
| 26 | C | 1 | 147 | 114 | 30 | 3 | 0 |
| 26 | C | 1 | 147 | 114 | 30 | 3 | 0 |
| 26 | C | 1 | 147 | 114 | 30 | 3 | 0 |
| 26 | D | 1 | 138 | 105 | 30 | 3 | 0 |
| 26 | D | 1 | 138 | 105 | 30 | 3 | 0 |
| 26 | D | 1 | 138 | 105 | 30 | 3 | 0 |
| 26 | L | 1 | 49 | 38 | 10 | 1 | 0 |
| 26 | r | 1 | 47 | 36 | 10 | 1 | 0 |
| 26 | s | 1 | 49 | 38 | 10 | 1 | 0 |
| 26 | S | 1 | 49 | 38 | 10 | 1 | 0 |
| 26 | R | 1 | 47 | 36 | 10 | 1 | 0 |

- Molecule 27 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: CaMn_4O_5).



| Mol | Chain | Residues | Atoms | | | | AltConf |
|-----|-------|----------|-------|----|----|---|---------|
| | | | Total | Ca | Mn | O | |
| 27 | a | 1 | 10 | 1 | 4 | 5 | 0 |
| 27 | A | 1 | 10 | 1 | 4 | 5 | 0 |

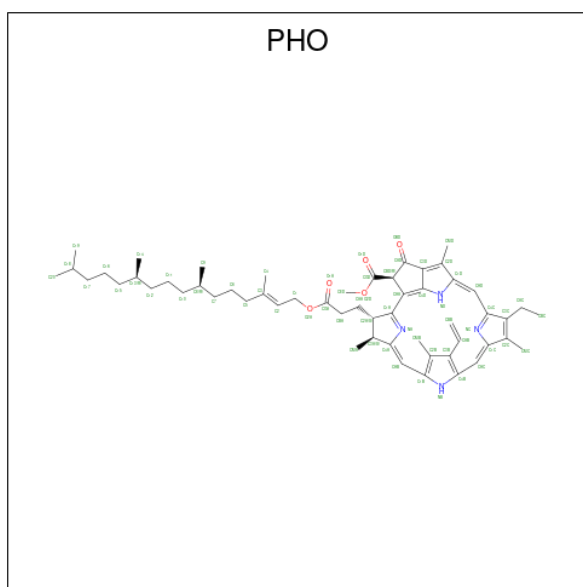
- Molecule 28 is FE (II) ION (three-letter code: FE2) (formula: Fe).

| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Fe | |
| 28 | a | 1 | 1 | 1 | 0 |
| 28 | A | 1 | 1 | 1 | 0 |

- Molecule 29 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

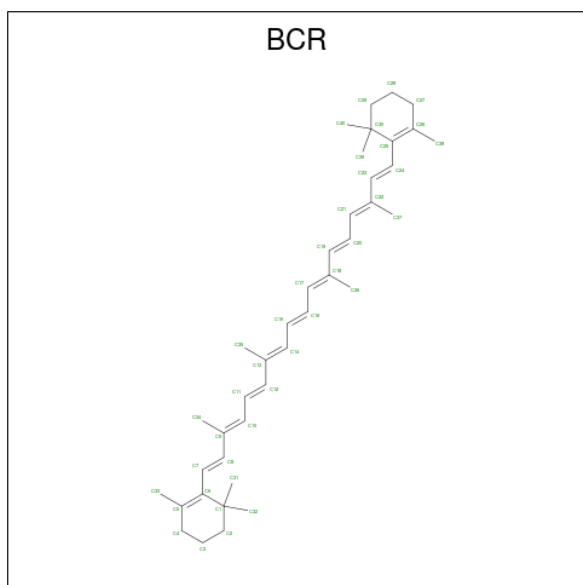
| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Cl | |
| 29 | a | 1 | 1 | 1 | 0 |
| 29 | c | 1 | 1 | 1 | 0 |
| 29 | A | 1 | 1 | 1 | 0 |
| 29 | C | 1 | 1 | 1 | 0 |

- Molecule 30 is PHEOPHYTIN A (three-letter code: PHO) (formula: C₅₅H₇₄N₄O₅).



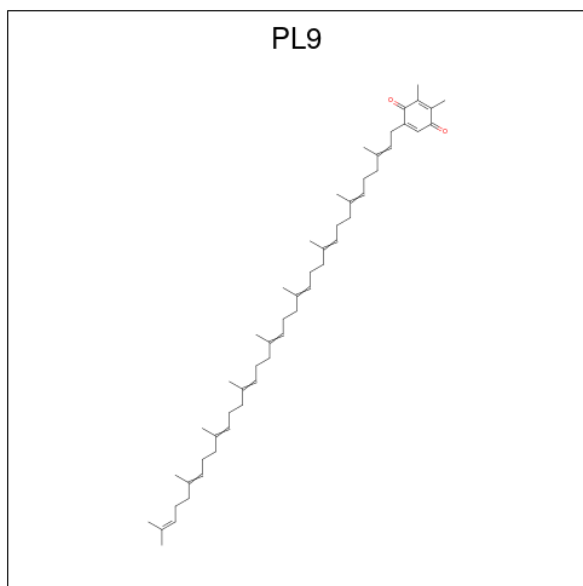
| Mol | Chain | Residues | Atoms | | | | AltConf |
|-----|-------|----------|-------|----|---|---|---------|
| | | | Total | C | N | O | |
| 30 | a | 1 | Total | C | N | O | 0 |
| | | | 64 | 55 | 4 | 5 | |
| 30 | d | 1 | Total | C | N | O | 0 |
| | | | 64 | 55 | 4 | 5 | |
| 30 | A | 1 | Total | C | N | O | 0 |
| | | | 64 | 55 | 4 | 5 | |
| 30 | D | 1 | Total | C | N | O | 0 |
| | | | 64 | 55 | 4 | 5 | |

- Molecule 31 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



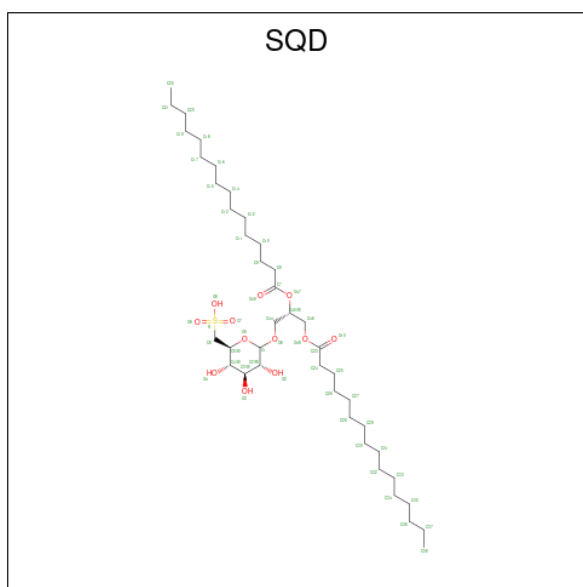
| Mol | Chain | Residues | Atoms | AltConf |
|-----|-------|----------|--------------------|---------|
| 31 | a | 1 | Total C 40 40 | 0 |
| 31 | b | 1 | Total C 120 120 | 0 |
| 31 | b | 1 | Total C 120 120 | 0 |
| 31 | b | 1 | Total C 120 120 | 0 |
| 31 | c | 1 | Total C 80 80 | 0 |
| 31 | c | 1 | Total C 80 80 | 0 |
| 31 | d | 1 | Total C 40 40 | 0 |
| 31 | h | 1 | Total C 40 40 | 0 |
| 31 | k | 1 | Total C 80 80 | 0 |
| 31 | k | 1 | Total C 80 80 | 0 |
| 31 | A | 1 | Total C 40 40 | 0 |
| 31 | B | 1 | Total C 160 160 | 0 |
| 31 | B | 1 | Total C 160 160 | 0 |
| 31 | B | 1 | Total C 160 160 | 0 |
| 31 | B | 1 | Total C 160 160 | 0 |
| 31 | C | 1 | Total C 80 80 | 0 |
| 31 | C | 1 | Total C 80 80 | 0 |
| 31 | D | 1 | Total C 40 40 | 0 |
| 31 | H | 1 | Total C 40 40 | 0 |
| 31 | K | 1 | Total C 80 80 | 0 |
| 31 | K | 1 | Total C 80 80 | 0 |
| 31 | T | 1 | Total C 40 40 | 0 |

- Molecule 32 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula: $C_{53}H_{80}O_2$).



| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|----|---|---------|
| 32 | a | 1 | Total | C | O | 0 |
| | | | 13 | 11 | 2 | |
| 32 | d | 1 | Total | C | O | 0 |
| | | | 55 | 53 | 2 | |
| 32 | A | 1 | Total | C | O | 0 |
| | | | 13 | 11 | 2 | |
| 32 | D | 1 | Total | C | O | 0 |
| | | | 55 | 53 | 2 | |

- Molecule 33 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: $C_{41}H_{78}O_{12}S$).



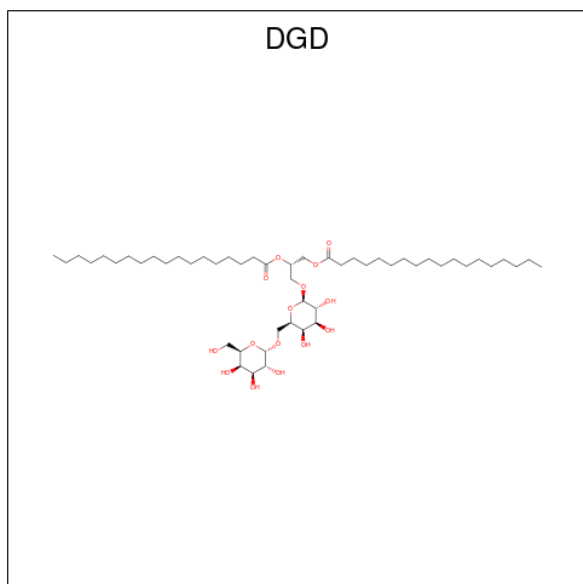
| Mol | Chain | Residues | Atoms | | | | AltConf |
|-----|-------|----------|-------|----|----|---|---------|
| | | | Total | C | O | S | |
| 33 | a | 1 | 54 | 41 | 12 | 1 | 0 |
| 33 | d | 1 | 50 | 37 | 12 | 1 | 0 |
| 33 | l | 1 | 96 | 70 | 24 | 2 | 0 |
| 33 | l | 1 | 96 | 70 | 24 | 2 | 0 |
| 33 | A | 1 | 54 | 41 | 12 | 1 | 0 |
| 33 | D | 1 | 50 | 37 | 12 | 1 | 0 |
| 33 | L | 1 | 96 | 70 | 24 | 2 | 0 |
| 33 | L | 1 | 96 | 70 | 24 | 2 | 0 |

- Molecule 34 is BICARBONATE ION (three-letter code: BCT) (formula: CHO₃).



| Mol | Chain | Residues | Atoms | AltConf |
|-----|-------|----------|--------------------|---------|
| 34 | a | 1 | Total C O 4 1 3 | 0 |
| 34 | D | 1 | Total C O 4 1 3 | 0 |

- Molecule 35 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



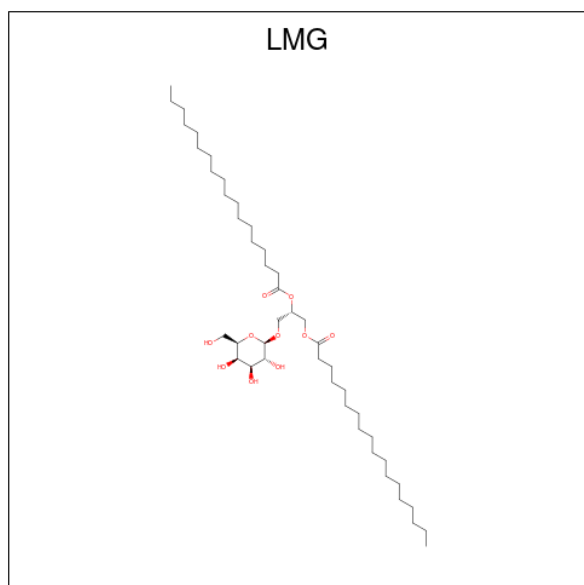
| Mol | Chain | Residues | Atoms | AltConf |
|-----|-------|----------|-----------------------|---------|
| 35 | a | 1 | Total C O 59 44 15 | 0 |

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| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|-----|----|---------|
| | | | Total | C | O | |
| 35 | c | 1 | 177 | 132 | 45 | 0 |
| 35 | c | 1 | 177 | 132 | 45 | 0 |
| 35 | c | 1 | 177 | 132 | 45 | 0 |
| 35 | h | 1 | 62 | 47 | 15 | 0 |
| 35 | A | 1 | 59 | 44 | 15 | 0 |
| 35 | C | 1 | 117 | 87 | 30 | 0 |
| 35 | C | 1 | 117 | 87 | 30 | 0 |
| 35 | H | 1 | 62 | 47 | 15 | 0 |
| 35 | J | 1 | 60 | 45 | 15 | 0 |

- Molecule 36 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



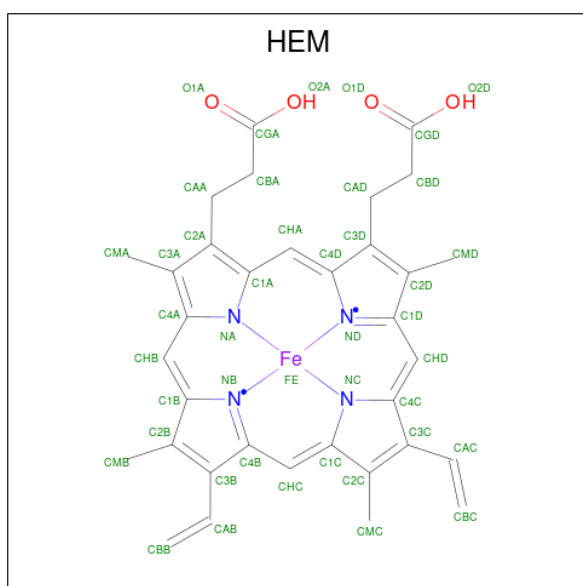
| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|----|----|---------|
| | | | Total | C | O | |
| 36 | b | 1 | 55 | 45 | 10 | 0 |
| 36 | c | 1 | 51 | 41 | 10 | 0 |

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| Mol | Chain | Residues | Atoms | | | AltConf |
|-----|-------|----------|-------|----|----|---------|
| | | | Total | C | O | |
| 36 | d | 1 | 46 | 36 | 10 | 0 |
| 36 | k | 1 | 51 | 41 | 10 | 0 |
| 36 | w | 1 | 48 | 38 | 10 | 0 |
| 36 | B | 1 | 95 | 75 | 20 | 0 |
| 36 | B | 1 | 95 | 75 | 20 | 0 |
| 36 | C | 1 | 99 | 79 | 20 | 0 |
| 36 | C | 1 | 99 | 79 | 20 | 0 |
| 36 | D | 1 | 46 | 36 | 10 | 0 |
| 36 | I | 1 | 40 | 30 | 10 | 0 |
| 36 | K | 1 | 51 | 41 | 10 | 0 |
| 36 | M | 1 | 51 | 41 | 10 | 0 |
| 36 | T | 1 | 51 | 41 | 10 | 0 |

- Molecule 37 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).

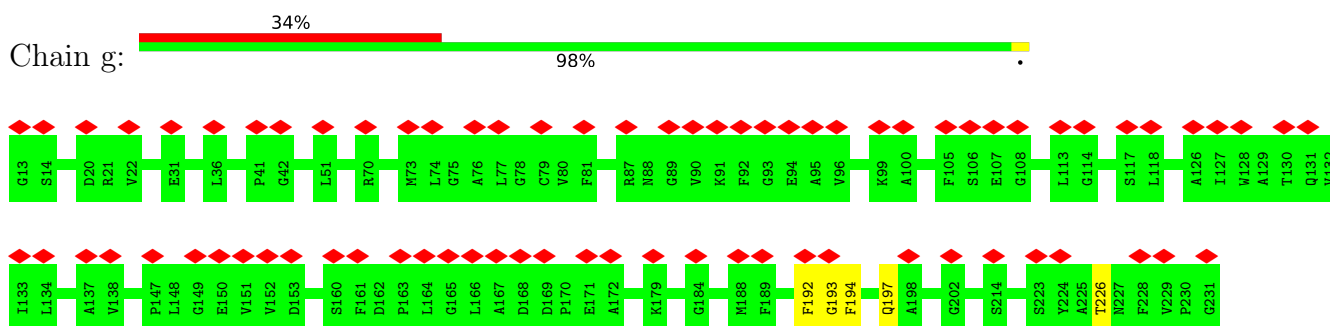


| Mol | Chain | Residues | Atoms | | | | | AltConf |
|------------|--------------|-----------------|--------------|---------|---------|--------|--------|----------------|
| 37 | f | 1 | Total 43 | C 34 | Fe 1 | N 4 | O 4 | 0 |
| 37 | F | 1 | Total 43 | C 34 | Fe 1 | N 4 | O 4 | 0 |

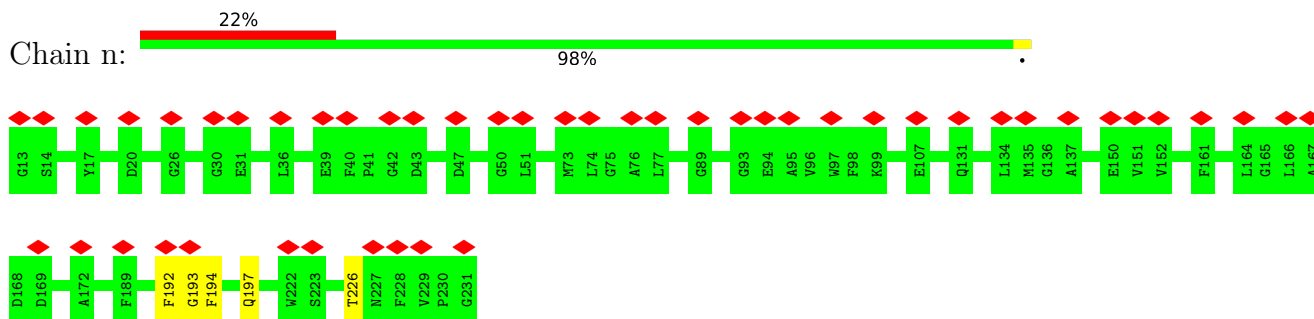
3 Residue-property plots

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.

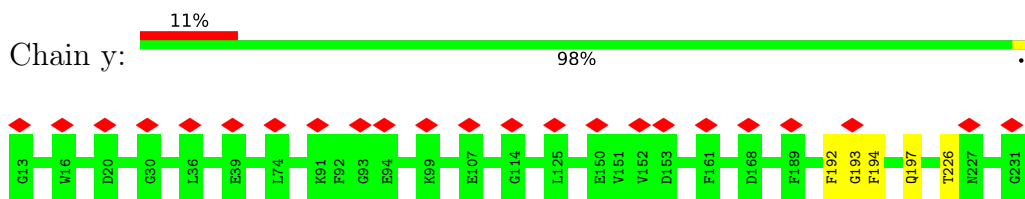
- Molecule 1: Chlorophyll a-b binding protein 8, chloroplastic



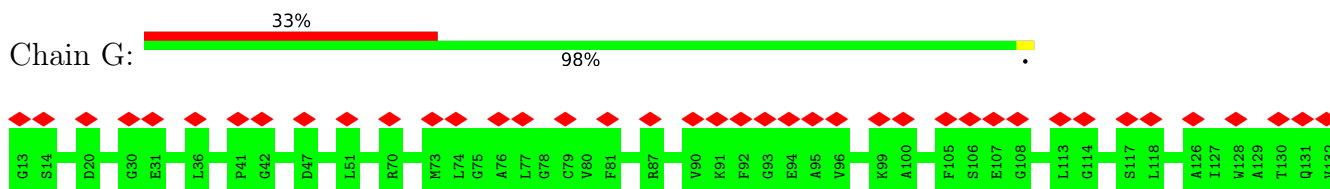
- Molecule 1: Chlorophyll a-b binding protein 8, chloroplastic

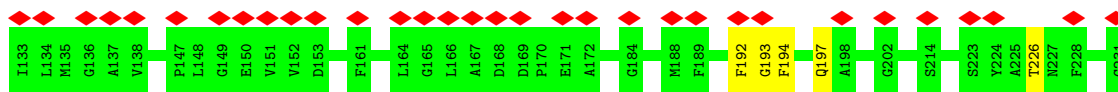


- Molecule 1: Chlorophyll a-b binding protein 8, chloroplastic

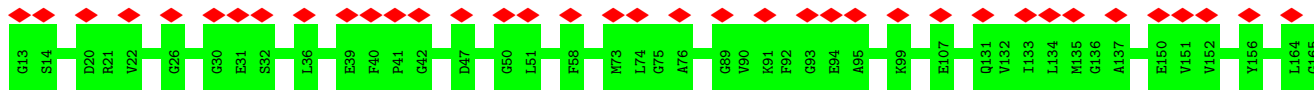


- Molecule 1: Chlorophyll a-b binding protein 8, chloroplastic

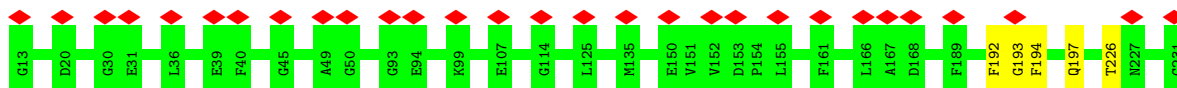




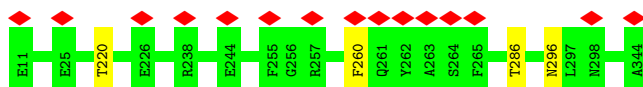
- Molecule 1: Chlorophyll a-b binding protein 8, chloroplastic



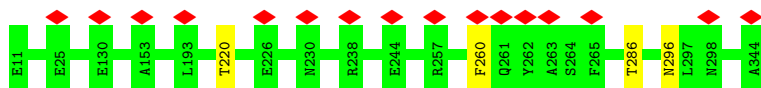
- Molecule 1: Chlorophyll a-b binding protein 8, chloroplastic



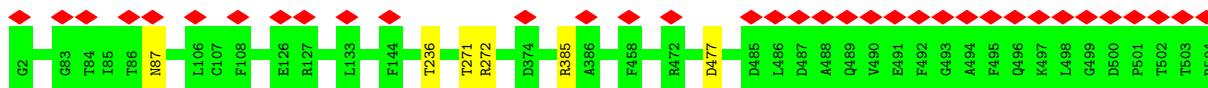
- Molecule 2: Photosystem II protein D1



- Molecule 2: Photosystem II protein D1

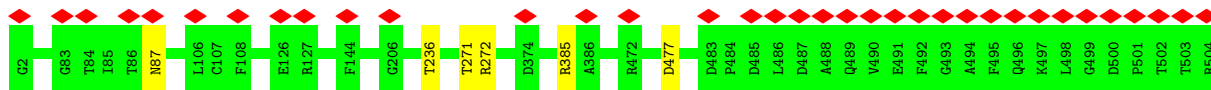


- Molecule 3: Photosystem II CP47 reaction center protein



- Molecule 3: Photosystem II CP47 reaction center protein

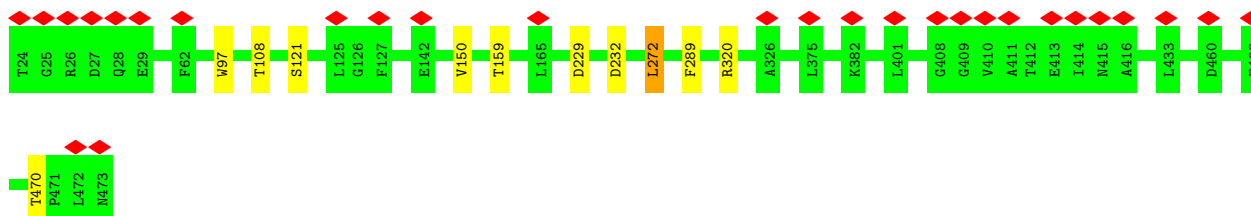




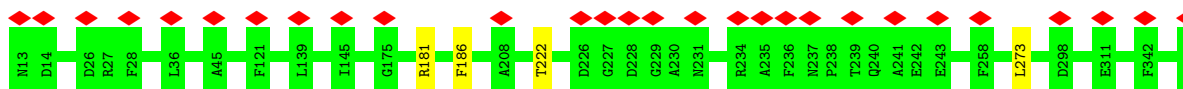
• Molecule 4: Photosystem II CP43 reaction center protein



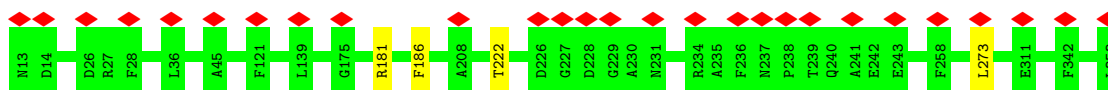
• Molecule 4: Photosystem II CP43 reaction center protein



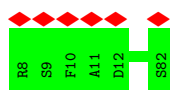
• Molecule 5: Photosystem II D2 protein



• Molecule 5: Photosystem II D2 protein

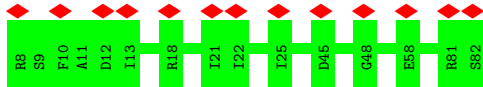


• Molecule 6: Cytochrome b559 subunit alpha



• Molecule 6: Cytochrome b559 subunit alpha

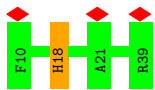




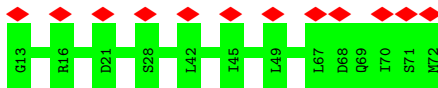
- Molecule 7: Cytochrome b559 subunit beta



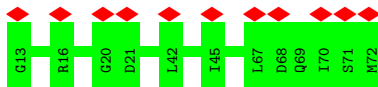
- Molecule 7: Cytochrome b559 subunit beta



- Molecule 8: Photosystem II reaction center protein H



- Molecule 8: Photosystem II reaction center protein H



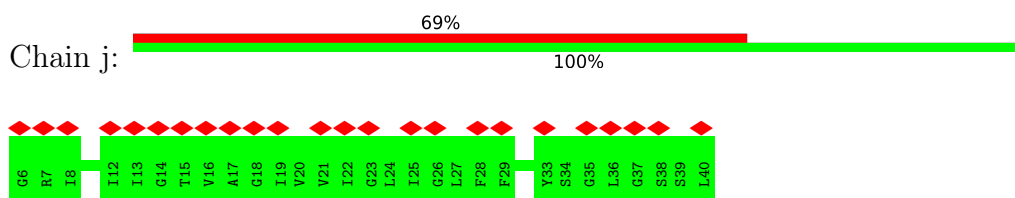
- Molecule 9: Photosystem II reaction center protein I



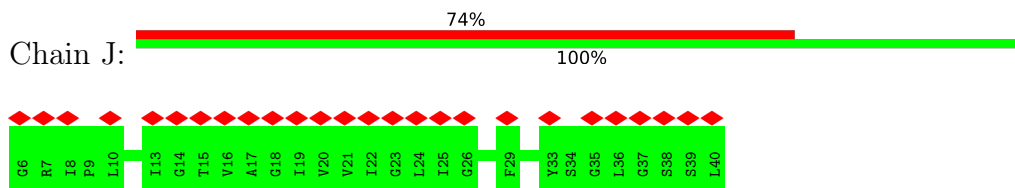
- Molecule 9: Photosystem II reaction center protein I



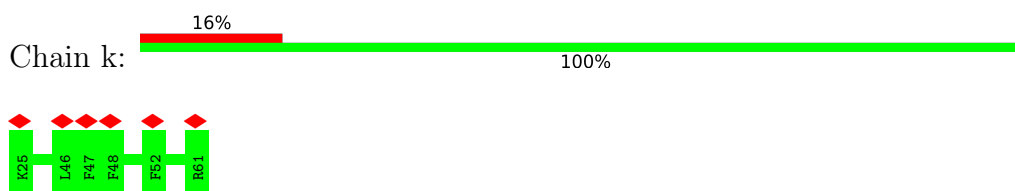
- Molecule 10: Photosystem II reaction center protein J



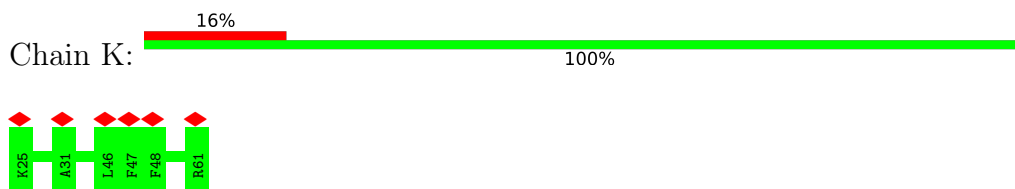
- Molecule 10: Photosystem II reaction center protein J



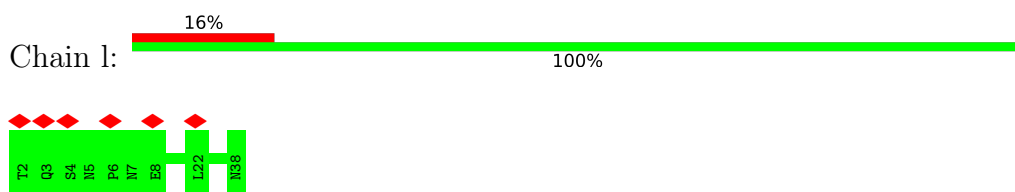
- Molecule 11: Photosystem II reaction center protein K



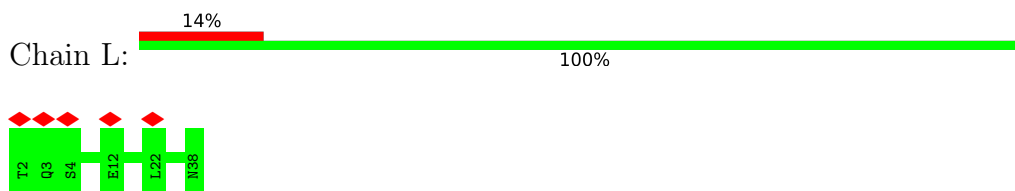
- Molecule 11: Photosystem II reaction center protein K



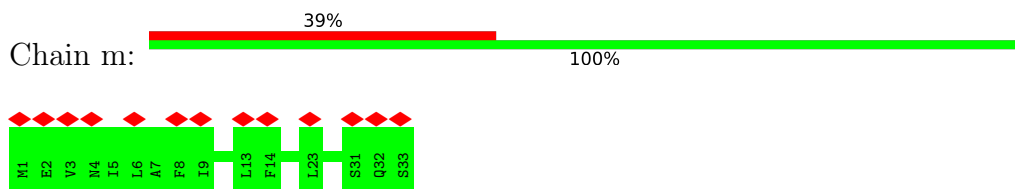
- Molecule 12: Photosystem II reaction center protein L



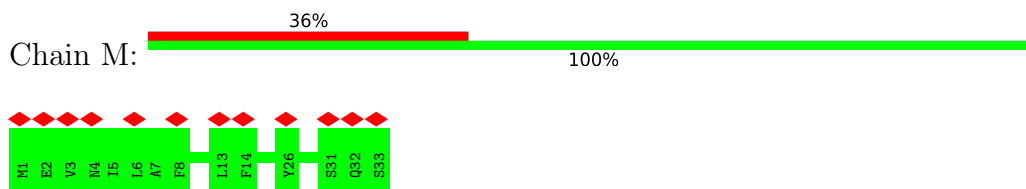
- Molecule 12: Photosystem II reaction center protein L



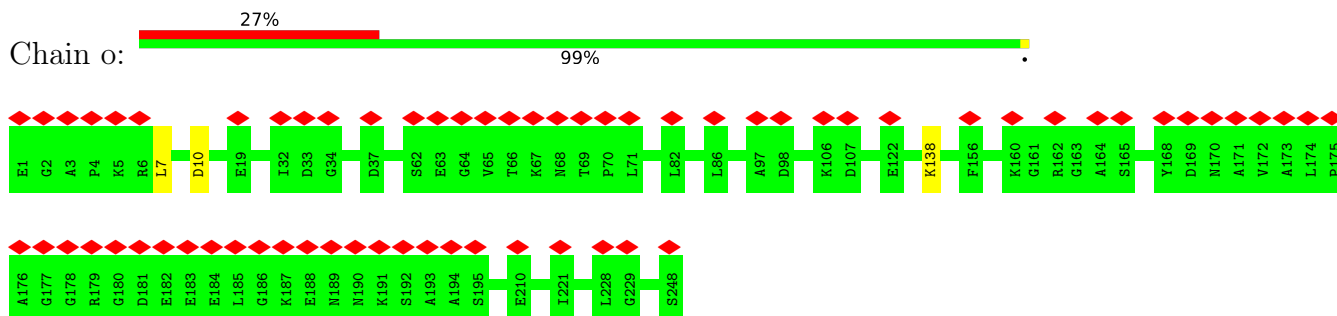
- Molecule 13: Photosystem II reaction center protein M



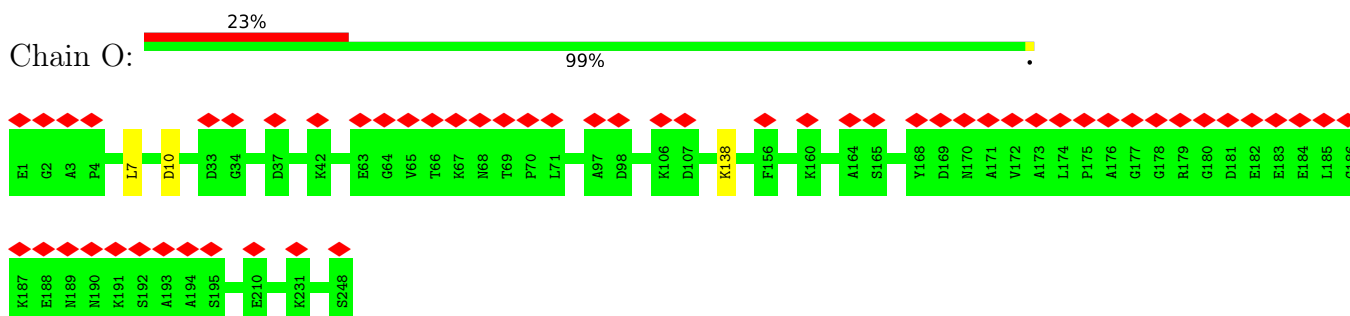
- Molecule 13: Photosystem II reaction center protein M



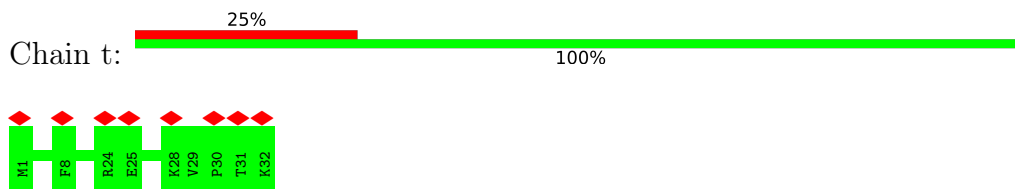
- Molecule 14: Oxygen-evolving enhancer protein 1, chloroplastic



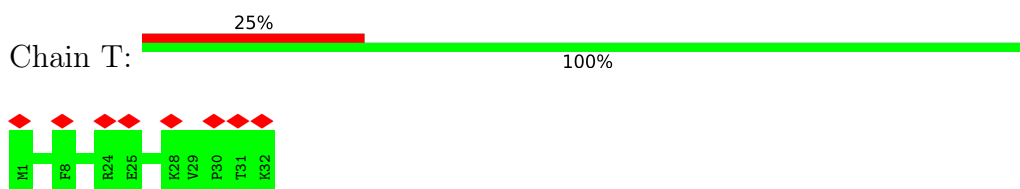
- Molecule 14: Oxygen-evolving enhancer protein 1, chloroplastic



- Molecule 15: Photosystem II reaction center protein T

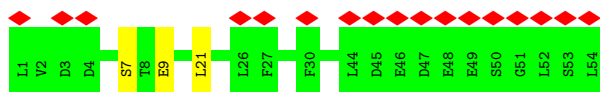


- Molecule 15: Photosystem II reaction center protein T

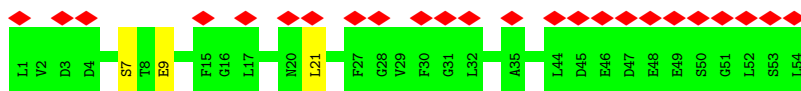
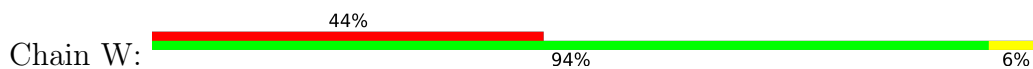


- Molecule 16: Photosystem II reaction center protein W

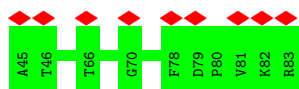




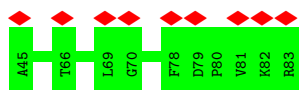
- Molecule 16: Photosystem II reaction center protein W



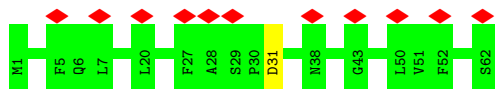
- Molecule 17: Ultraviolet-B-repressible protein



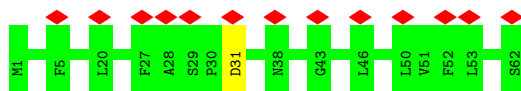
- Molecule 17: Ultraviolet-B-repressible protein



- Molecule 18: Photosystem II reaction center protein Z

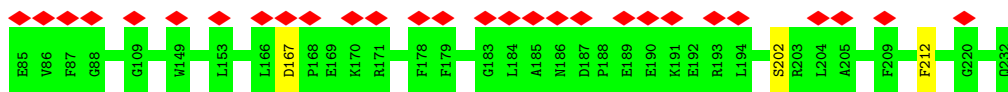


- Molecule 18: Photosystem II reaction center protein Z

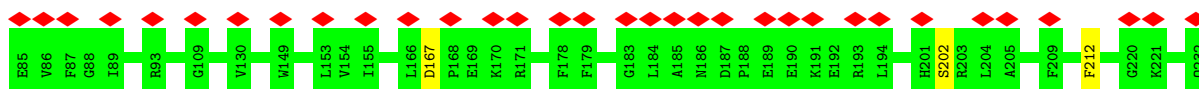
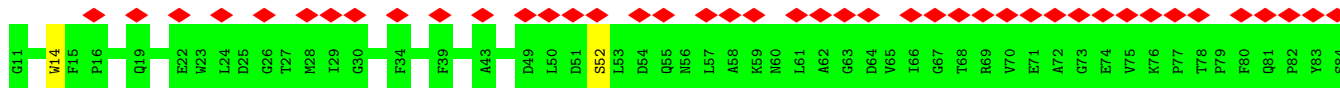


- Molecule 19: Light harvesting chlorophyll a/b-binding protein Lhcb4.3

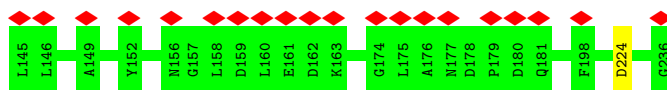
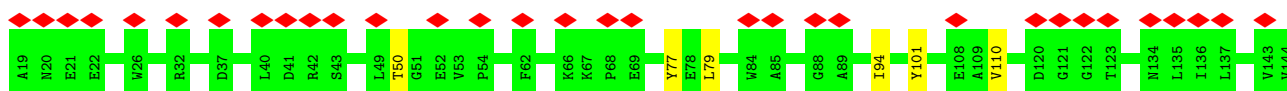




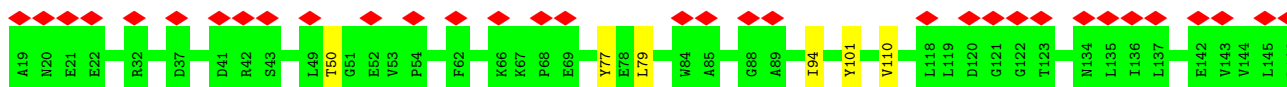
- Molecule 19: Light harvesting chlorophyll a/b-binding protein Lhcb4.3



- Molecule 20: Light harvesting chlorophyll a/b-binding protein Lhcb5, CP26



- Molecule 20: Light harvesting chlorophyll a/b-binding protein Lhcb5, CP26



4 Experimental information

| Property | Value | Source |
|--------------------------------------|--------------------------------------------------|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, C2 | Depositor |
| Number of particles used | 27942 | Depositor |
| Resolution determination method | FSC 0.143 CUT-OFF | Depositor |
| CTF correction method | NONE | Depositor |
| Microscope | FEI TITAN KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 40, 40 | Depositor |
| Minimum defocus (nm) | Not provided | |
| Maximum defocus (nm) | Not provided | |
| Magnification | Not provided | |
| Image detector | GATAN K2 BASE (4k x 4k), GATAN K2 BASE (4k x 4k) | Depositor |
| Maximum map value | 1.923 | Depositor |
| Minimum map value | -0.630 | Depositor |
| Average map value | 0.055 | Depositor |
| Map value standard deviation | 0.166 | Depositor |
| Recommended contour level | 0.85 | Depositor |
| Map size (\AA) | 374.0, 374.0, 374.0 | wwPDB |
| Map dimensions | 340, 340, 340 | wwPDB |
| Map angles ($^\circ$) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (\AA) | 1.1, 1.1, 1.1 | 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: BCT, LMG, LUT, CL, HEM, CHL, BCR, FE2, SQD, CLA, XAT, OEX, DGD, LHG, PHO, PL9, NEX

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 | G | 0.30 | 0/1720 | 0.43 | 0/2342 |
| 1 | N | 0.30 | 0/1720 | 0.43 | 0/2342 |
| 1 | Y | 0.30 | 0/1720 | 0.43 | 0/2342 |
| 1 | g | 0.30 | 0/1720 | 0.43 | 0/2342 |
| 1 | n | 0.30 | 0/1720 | 0.43 | 0/2342 |
| 1 | y | 0.30 | 0/1720 | 0.43 | 0/2342 |
| 2 | A | 0.31 | 0/2697 | 0.43 | 0/3677 |
| 2 | a | 0.31 | 0/2697 | 0.43 | 0/3677 |
| 3 | B | 0.31 | 0/4081 | 0.41 | 0/5556 |
| 3 | b | 0.31 | 0/4081 | 0.41 | 0/5556 |
| 4 | C | 0.82 | 1/3614 (0.0%) | 0.48 | 3/4922 (0.1%) |
| 4 | c | 0.82 | 1/3614 (0.0%) | 0.48 | 3/4922 (0.1%) |
| 5 | D | 0.31 | 0/2804 | 0.42 | 0/3823 |
| 5 | d | 0.31 | 0/2804 | 0.42 | 0/3823 |
| 6 | E | 0.28 | 0/630 | 0.39 | 0/857 |
| 6 | e | 0.28 | 0/630 | 0.39 | 0/857 |
| 7 | F | 0.56 | 1/248 (0.4%) | 0.47 | 0/335 |
| 7 | f | 0.56 | 1/248 (0.4%) | 0.47 | 0/335 |
| 8 | H | 0.29 | 0/461 | 0.43 | 0/626 |
| 8 | h | 0.29 | 0/461 | 0.43 | 0/626 |
| 9 | I | 0.33 | 0/286 | 0.40 | 0/386 |
| 9 | i | 0.33 | 0/286 | 0.41 | 0/386 |
| 10 | J | 0.27 | 0/262 | 0.40 | 0/354 |
| 10 | j | 0.27 | 0/262 | 0.40 | 0/354 |
| 11 | K | 0.32 | 0/318 | 0.43 | 0/434 |
| 11 | k | 0.32 | 0/318 | 0.43 | 0/434 |
| 12 | L | 0.31 | 0/319 | 0.40 | 0/434 |
| 12 | l | 0.31 | 0/319 | 0.40 | 0/434 |
| 13 | M | 0.30 | 0/260 | 0.39 | 0/355 |
| 13 | m | 0.30 | 0/260 | 0.39 | 0/355 |
| 14 | O | 0.28 | 0/1906 | 0.45 | 0/2575 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|----------------|-------------|----------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 14 | o | 0.28 | 0/1906 | 0.45 | 0/2575 |
| 15 | T | 0.35 | 0/269 | 0.39 | 0/365 |
| 15 | t | 0.35 | 0/269 | 0.39 | 0/365 |
| 16 | W | 0.36 | 0/429 | 0.43 | 0/581 |
| 16 | w | 0.36 | 0/429 | 0.42 | 0/581 |
| 17 | X | 0.28 | 0/279 | 0.40 | 0/380 |
| 17 | x | 0.28 | 0/279 | 0.39 | 0/380 |
| 18 | Z | 0.27 | 0/474 | 0.35 | 0/648 |
| 18 | z | 0.27 | 0/474 | 0.35 | 0/648 |
| 19 | R | 0.28 | 0/1780 | 0.40 | 0/2417 |
| 19 | r | 0.29 | 0/1780 | 0.40 | 0/2417 |
| 20 | S | 0.31 | 0/1737 | 0.42 | 0/2361 |
| 20 | s | 0.31 | 0/1737 | 0.42 | 0/2361 |
| All | All | 0.41 | 4/56028 (0.0%) | 0.43 | 6/76224 (0.0%) |

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

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1 | G | 0 | 2 |
| 1 | N | 0 | 2 |
| 1 | Y | 0 | 2 |
| 1 | g | 0 | 2 |
| 1 | n | 0 | 2 |
| 1 | y | 0 | 2 |
| All | All | 0 | 12 |

All (4) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|--------|-------|-------------|----------|
| 4 | c | 272 | LEU | CG-CD1 | 45.67 | 3.20 | 1.51 |
| 4 | C | 272 | LEU | CG-CD1 | 45.67 | 3.20 | 1.51 |
| 7 | F | 18 | HIS | CB-CG | 7.21 | 1.63 | 1.50 |
| 7 | f | 18 | HIS | CB-CG | 7.19 | 1.62 | 1.50 |

All (6) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 4 | c | 272 | LEU | CB-CG-CD1 | 12.88 | 132.89 | 111.00 |
| 4 | C | 272 | LEU | CB-CG-CD1 | 12.87 | 132.87 | 111.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 4 | c | 272 | LEU | CA-CB-CG | 7.25 | 131.97 | 115.30 |
| 4 | C | 272 | LEU | CA-CB-CG | 7.24 | 131.96 | 115.30 |
| 4 | C | 272 | LEU | CB-CG-CD2 | -6.80 | 99.44 | 111.00 |
| 4 | c | 272 | LEU | CB-CG-CD2 | -6.78 | 99.47 | 111.00 |

There are no chirality outliers.

All (12) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | G | 193 | GLY | Mainchain |
| 1 | G | 197 | GLN | Sidechain |
| 1 | N | 193 | GLY | Mainchain |
| 1 | N | 197 | GLN | Sidechain |
| 1 | Y | 193 | GLY | Mainchain |
| 1 | Y | 197 | GLN | Sidechain |
| 1 | g | 193 | GLY | Mainchain |
| 1 | g | 197 | GLN | Sidechain |
| 1 | n | 193 | GLY | Mainchain |
| 1 | n | 197 | GLN | Sidechain |
| 1 | y | 193 | GLY | Mainchain |
| 1 | y | 197 | GLN | Sidechain |

5.2 Too-close contacts [i](#)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|---------------|-----------|---------|----------|-------------|-----|
| 1 | G | 217/219 (99%) | 202 (93%) | 15 (7%) | 0 | 100 | 100 |
| 1 | N | 217/219 (99%) | 202 (93%) | 15 (7%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|----------------|-----------|---------|----------|-------------|-----|
| 1 | Y | 217/219 (99%) | 202 (93%) | 15 (7%) | 0 | 100 | 100 |
| 1 | g | 217/219 (99%) | 202 (93%) | 15 (7%) | 0 | 100 | 100 |
| 1 | n | 217/219 (99%) | 202 (93%) | 15 (7%) | 0 | 100 | 100 |
| 1 | y | 217/219 (99%) | 202 (93%) | 15 (7%) | 0 | 100 | 100 |
| 2 | A | 332/334 (99%) | 320 (96%) | 12 (4%) | 0 | 100 | 100 |
| 2 | a | 332/334 (99%) | 320 (96%) | 12 (4%) | 0 | 100 | 100 |
| 3 | B | 501/503 (100%) | 485 (97%) | 16 (3%) | 0 | 100 | 100 |
| 3 | b | 501/503 (100%) | 485 (97%) | 16 (3%) | 0 | 100 | 100 |
| 4 | C | 448/450 (100%) | 428 (96%) | 20 (4%) | 0 | 100 | 100 |
| 4 | c | 448/450 (100%) | 428 (96%) | 20 (4%) | 0 | 100 | 100 |
| 5 | D | 339/341 (99%) | 326 (96%) | 13 (4%) | 0 | 100 | 100 |
| 5 | d | 339/341 (99%) | 327 (96%) | 12 (4%) | 0 | 100 | 100 |
| 6 | E | 73/75 (97%) | 73 (100%) | 0 | 0 | 100 | 100 |
| 6 | e | 73/75 (97%) | 73 (100%) | 0 | 0 | 100 | 100 |
| 7 | F | 28/30 (93%) | 25 (89%) | 3 (11%) | 0 | 100 | 100 |
| 7 | f | 28/30 (93%) | 25 (89%) | 3 (11%) | 0 | 100 | 100 |
| 8 | H | 58/60 (97%) | 57 (98%) | 1 (2%) | 0 | 100 | 100 |
| 8 | h | 58/60 (97%) | 57 (98%) | 1 (2%) | 0 | 100 | 100 |
| 9 | I | 32/34 (94%) | 32 (100%) | 0 | 0 | 100 | 100 |
| 9 | i | 32/34 (94%) | 32 (100%) | 0 | 0 | 100 | 100 |
| 10 | J | 33/35 (94%) | 33 (100%) | 0 | 0 | 100 | 100 |
| 10 | j | 33/35 (94%) | 33 (100%) | 0 | 0 | 100 | 100 |
| 11 | K | 35/37 (95%) | 32 (91%) | 3 (9%) | 0 | 100 | 100 |
| 11 | k | 35/37 (95%) | 32 (91%) | 3 (9%) | 0 | 100 | 100 |
| 12 | L | 35/37 (95%) | 34 (97%) | 1 (3%) | 0 | 100 | 100 |
| 12 | l | 35/37 (95%) | 34 (97%) | 1 (3%) | 0 | 100 | 100 |
| 13 | M | 31/33 (94%) | 31 (100%) | 0 | 0 | 100 | 100 |
| 13 | m | 31/33 (94%) | 31 (100%) | 0 | 0 | 100 | 100 |
| 14 | O | 246/248 (99%) | 230 (94%) | 16 (6%) | 0 | 100 | 100 |
| 14 | o | 246/248 (99%) | 230 (94%) | 16 (6%) | 0 | 100 | 100 |
| 15 | T | 30/32 (94%) | 29 (97%) | 1 (3%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-----------------|------------|----------|----------|-------------|-----|
| 15 | t | 30/32 (94%) | 29 (97%) | 1 (3%) | 0 | 100 | 100 |
| 16 | W | 52/54 (96%) | 48 (92%) | 4 (8%) | 0 | 100 | 100 |
| 16 | w | 52/54 (96%) | 48 (92%) | 4 (8%) | 0 | 100 | 100 |
| 17 | X | 37/39 (95%) | 37 (100%) | 0 | 0 | 100 | 100 |
| 17 | x | 37/39 (95%) | 37 (100%) | 0 | 0 | 100 | 100 |
| 18 | Z | 60/62 (97%) | 60 (100%) | 0 | 0 | 100 | 100 |
| 18 | z | 60/62 (97%) | 60 (100%) | 0 | 0 | 100 | 100 |
| 19 | R | 220/222 (99%) | 207 (94%) | 13 (6%) | 0 | 100 | 100 |
| 19 | r | 220/222 (99%) | 207 (94%) | 13 (6%) | 0 | 100 | 100 |
| 20 | S | 216/218 (99%) | 198 (92%) | 18 (8%) | 0 | 100 | 100 |
| 20 | s | 216/218 (99%) | 198 (92%) | 18 (8%) | 0 | 100 | 100 |
| All | All | 6914/7002 (99%) | 6583 (95%) | 331 (5%) | 0 | 100 | 100 |

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains [i](#)

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

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

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|-----------|----------|-------------|----|
| 1 | G | 171/171 (100%) | 168 (98%) | 3 (2%) | 59 | 77 |
| 1 | N | 171/171 (100%) | 168 (98%) | 3 (2%) | 59 | 77 |
| 1 | Y | 171/171 (100%) | 168 (98%) | 3 (2%) | 59 | 77 |
| 1 | g | 171/171 (100%) | 168 (98%) | 3 (2%) | 59 | 77 |
| 1 | n | 171/171 (100%) | 168 (98%) | 3 (2%) | 59 | 77 |
| 1 | y | 171/171 (100%) | 168 (98%) | 3 (2%) | 59 | 77 |
| 2 | A | 270/270 (100%) | 266 (98%) | 4 (2%) | 65 | 81 |
| 2 | a | 270/270 (100%) | 266 (98%) | 4 (2%) | 65 | 81 |
| 3 | B | 400/400 (100%) | 394 (98%) | 6 (2%) | 65 | 81 |
| 3 | b | 400/400 (100%) | 394 (98%) | 6 (2%) | 65 | 81 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|-----------|----------|-------------|-----|
| 4 | C | 352/352 (100%) | 341 (97%) | 11 (3%) | 40 | 65 |
| 4 | c | 352/352 (100%) | 342 (97%) | 10 (3%) | 43 | 68 |
| 5 | D | 275/275 (100%) | 271 (98%) | 4 (2%) | 65 | 81 |
| 5 | d | 275/275 (100%) | 271 (98%) | 4 (2%) | 65 | 81 |
| 6 | E | 67/67 (100%) | 67 (100%) | 0 | 100 | 100 |
| 6 | e | 67/67 (100%) | 67 (100%) | 0 | 100 | 100 |
| 7 | F | 25/25 (100%) | 24 (96%) | 1 (4%) | 31 | 59 |
| 7 | f | 25/25 (100%) | 24 (96%) | 1 (4%) | 31 | 59 |
| 8 | H | 49/49 (100%) | 49 (100%) | 0 | 100 | 100 |
| 8 | h | 49/49 (100%) | 49 (100%) | 0 | 100 | 100 |
| 9 | I | 31/31 (100%) | 31 (100%) | 0 | 100 | 100 |
| 9 | i | 31/31 (100%) | 31 (100%) | 0 | 100 | 100 |
| 10 | J | 26/26 (100%) | 26 (100%) | 0 | 100 | 100 |
| 10 | j | 26/26 (100%) | 26 (100%) | 0 | 100 | 100 |
| 11 | K | 32/32 (100%) | 32 (100%) | 0 | 100 | 100 |
| 11 | k | 32/32 (100%) | 32 (100%) | 0 | 100 | 100 |
| 12 | L | 35/35 (100%) | 35 (100%) | 0 | 100 | 100 |
| 12 | l | 35/35 (100%) | 35 (100%) | 0 | 100 | 100 |
| 13 | M | 29/29 (100%) | 29 (100%) | 0 | 100 | 100 |
| 13 | m | 29/29 (100%) | 29 (100%) | 0 | 100 | 100 |
| 14 | O | 204/204 (100%) | 201 (98%) | 3 (2%) | 65 | 81 |
| 14 | o | 204/204 (100%) | 201 (98%) | 3 (2%) | 65 | 81 |
| 15 | T | 29/29 (100%) | 29 (100%) | 0 | 100 | 100 |
| 15 | t | 29/29 (100%) | 29 (100%) | 0 | 100 | 100 |
| 16 | W | 44/44 (100%) | 41 (93%) | 3 (7%) | 16 | 47 |
| 16 | w | 44/44 (100%) | 41 (93%) | 3 (7%) | 16 | 47 |
| 17 | X | 32/32 (100%) | 32 (100%) | 0 | 100 | 100 |
| 17 | x | 32/32 (100%) | 32 (100%) | 0 | 100 | 100 |
| 18 | Z | 54/54 (100%) | 53 (98%) | 1 (2%) | 57 | 76 |
| 18 | z | 54/54 (100%) | 53 (98%) | 1 (2%) | 57 | 76 |
| 19 | R | 175/175 (100%) | 170 (97%) | 5 (3%) | 42 | 67 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|------------------|------------|----------|-------------|----|
| 19 | r | 175/175 (100%) | 170 (97%) | 5 (3%) | 42 | 67 |
| 20 | S | 169/169 (100%) | 162 (96%) | 7 (4%) | 30 | 59 |
| 20 | s | 169/169 (100%) | 162 (96%) | 7 (4%) | 30 | 59 |
| All | All | 5622/5622 (100%) | 5515 (98%) | 107 (2%) | 59 | 76 |

All (107) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | g | 192 | PHE |
| 1 | g | 194 | PHE |
| 1 | g | 226 | THR |
| 1 | n | 192 | PHE |
| 1 | n | 194 | PHE |
| 1 | n | 226 | THR |
| 1 | y | 192 | PHE |
| 1 | y | 194 | PHE |
| 1 | y | 226 | THR |
| 1 | G | 192 | PHE |
| 1 | G | 194 | PHE |
| 1 | G | 226 | THR |
| 1 | N | 192 | PHE |
| 1 | N | 194 | PHE |
| 1 | N | 226 | THR |
| 1 | Y | 192 | PHE |
| 1 | Y | 194 | PHE |
| 1 | Y | 226 | THR |
| 2 | a | 220 | THR |
| 2 | a | 260 | PHE |
| 2 | a | 286 | THR |
| 2 | a | 296 | ASN |
| 3 | b | 87 | ASN |
| 3 | b | 236 | THR |
| 3 | b | 271 | THR |
| 3 | b | 272 | ARG |
| 3 | b | 385 | ARG |
| 3 | b | 477 | ASP |
| 4 | c | 97 | TRP |
| 4 | c | 108 | THR |
| 4 | c | 121 | SER |
| 4 | c | 159 | THR |
| 4 | c | 229 | ASP |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 4 | c | 232 | ASP |
| 4 | c | 272 | LEU |
| 4 | c | 289 | PHE |
| 4 | c | 320 | ARG |
| 4 | c | 470 | THR |
| 5 | d | 181 | ARG |
| 5 | d | 186 | PHE |
| 5 | d | 222 | THR |
| 5 | d | 273 | LEU |
| 7 | f | 18 | HIS |
| 14 | o | 7 | LEU |
| 14 | o | 10 | ASP |
| 14 | o | 138 | LYS |
| 16 | w | 7 | SER |
| 16 | w | 9 | GLU |
| 16 | w | 21 | LEU |
| 18 | z | 31 | ASP |
| 2 | A | 220 | THR |
| 2 | A | 260 | PHE |
| 2 | A | 286 | THR |
| 2 | A | 296 | ASN |
| 3 | B | 87 | ASN |
| 3 | B | 236 | THR |
| 3 | B | 271 | THR |
| 3 | B | 272 | ARG |
| 3 | B | 385 | ARG |
| 3 | B | 477 | ASP |
| 4 | C | 97 | TRP |
| 4 | C | 108 | THR |
| 4 | C | 121 | SER |
| 4 | C | 150 | VAL |
| 4 | C | 159 | THR |
| 4 | C | 229 | ASP |
| 4 | C | 232 | ASP |
| 4 | C | 272 | LEU |
| 4 | C | 289 | PHE |
| 4 | C | 320 | ARG |
| 4 | C | 470 | THR |
| 5 | D | 181 | ARG |
| 5 | D | 186 | PHE |
| 5 | D | 222 | THR |
| 5 | D | 273 | LEU |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 7 | F | 18 | HIS |
| 14 | O | 7 | LEU |
| 14 | O | 10 | ASP |
| 14 | O | 138 | LYS |
| 16 | W | 7 | SER |
| 16 | W | 9 | GLU |
| 16 | W | 21 | LEU |
| 18 | Z | 31 | ASP |
| 19 | r | 14 | TRP |
| 19 | r | 52 | SER |
| 19 | r | 167 | ASP |
| 19 | r | 202 | SER |
| 19 | r | 212 | PHE |
| 20 | s | 50 | THR |
| 20 | s | 77 | TYR |
| 20 | s | 79 | LEU |
| 20 | s | 94 | ILE |
| 20 | s | 101 | TYR |
| 20 | s | 110 | VAL |
| 20 | s | 224 | ASP |
| 20 | S | 50 | THR |
| 20 | S | 77 | TYR |
| 20 | S | 79 | LEU |
| 20 | S | 94 | ILE |
| 20 | S | 101 | TYR |
| 20 | S | 110 | VAL |
| 20 | S | 224 | ASP |
| 19 | R | 14 | TRP |
| 19 | R | 52 | SER |
| 19 | R | 167 | ASP |
| 19 | R | 202 | SER |
| 19 | R | 212 | PHE |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (69) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | g | 122 | GLN |
| 1 | g | 131 | GLN |
| 1 | g | 197 | GLN |
| 1 | g | 208 | ASN |
| 1 | g | 219 | ASN |
| 1 | n | 122 | GLN |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | n | 131 | GLN |
| 1 | n | 208 | ASN |
| 1 | n | 219 | ASN |
| 1 | y | 122 | GLN |
| 1 | y | 131 | GLN |
| 1 | y | 208 | ASN |
| 1 | y | 219 | ASN |
| 1 | G | 122 | GLN |
| 1 | G | 131 | GLN |
| 1 | G | 197 | GLN |
| 1 | G | 208 | ASN |
| 1 | G | 219 | ASN |
| 1 | N | 122 | GLN |
| 1 | N | 131 | GLN |
| 1 | N | 197 | GLN |
| 1 | N | 208 | ASN |
| 1 | N | 219 | ASN |
| 1 | Y | 122 | GLN |
| 1 | Y | 131 | GLN |
| 1 | Y | 197 | GLN |
| 1 | Y | 208 | ASN |
| 1 | Y | 219 | ASN |
| 2 | a | 187 | GLN |
| 2 | a | 325 | ASN |
| 3 | b | 9 | HIS |
| 3 | b | 216 | HIS |
| 4 | c | 322 | GLN |
| 4 | c | 415 | ASN |
| 4 | c | 418 | ASN |
| 5 | d | 62 | HIS |
| 5 | d | 143 | ASN |
| 5 | d | 221 | ASN |
| 5 | d | 351 | ASN |
| 6 | e | 75 | GLN |
| 12 | l | 34 | ASN |
| 14 | o | 74 | GLN |
| 14 | o | 222 | GLN |
| 18 | z | 58 | ASN |
| 2 | A | 187 | GLN |
| 2 | A | 325 | ASN |
| 3 | B | 9 | HIS |
| 3 | B | 216 | HIS |

Continued on next page...

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | C | 322 | GLN |
| 4 | C | 418 | ASN |
| 5 | D | 62 | HIS |
| 5 | D | 143 | ASN |
| 5 | D | 221 | ASN |
| 5 | D | 351 | ASN |
| 6 | E | 75 | GLN |
| 12 | L | 34 | ASN |
| 13 | M | 32 | GLN |
| 14 | O | 74 | GLN |
| 14 | O | 222 | GLN |
| 18 | Z | 58 | ASN |
| 19 | r | 47 | GLN |
| 19 | r | 56 | ASN |
| 19 | r | 231 | ASN |
| 20 | s | 81 | HIS |
| 20 | s | 125 | ASN |
| 20 | S | 81 | HIS |
| 20 | S | 125 | ASN |
| 19 | R | 47 | GLN |
| 19 | R | 231 | ASN |

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 325 ligands modelled in this entry, 6 are monoatomic - leaving 319 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The

Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|-------|--------------|------|----------|-------------|-------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 31 | BCR | h | 101 | - | 41,41,41 | 1.17 | 2 (4%) | 56,56,56 | 1.31 | 6 (10%) |
| 22 | CLA | N | 602 | - | 65,73,73 | 1.47 | 6 (9%) | 76,113,113 | 1.38 | 8 (10%) |
| 21 | CHL | N | 601 | 1 | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 24 | XAT | N | 616 | - | 39,47,47 | 5.20 | 20 (51%) | 54,74,74 | 13.62 | 31 (57%) |
| 36 | LMG | D | 411 | - | 46,46,55 | 0.81 | 3 (6%) | 54,54,63 | 1.39 | 7 (12%) |
| 21 | CHL | n | 606 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | c | 512 | 4 | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.42 | 8 (10%) |
| 36 | LMG | w | 102 | - | 48,48,55 | 0.78 | 2 (4%) | 56,56,63 | 1.41 | 8 (14%) |
| 21 | CHL | y | 605 | - | 48,56,74 | 2.49 | 17 (35%) | 51,92,114 | 2.83 | 17 (33%) |
| 22 | CLA | b | 612 | - | 65,73,73 | 1.45 | 6 (9%) | 76,113,113 | 1.35 | 6 (7%) |
| 21 | CHL | g | 608 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 21 | CHL | g | 601 | 1 | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | B | 605 | - | 65,73,73 | 1.43 | 8 (12%) | 76,113,113 | 1.40 | 8 (10%) |
| 31 | BCR | K | 101 | - | 41,41,41 | 1.17 | 2 (4%) | 56,56,56 | 1.23 | 7 (12%) |
| 22 | CLA | a | 404 | - | 65,73,73 | 1.47 | 8 (12%) | 76,113,113 | 1.40 | 8 (10%) |
| 22 | CLA | S | 311 | 22,20 | 56,64,73 | 1.59 | 6 (10%) | 65,102,113 | 1.42 | 7 (10%) |
| 21 | CHL | g | 605 | - | 46,54,74 | 2.55 | 16 (34%) | 49,90,114 | 2.88 | 16 (32%) |
| 21 | CHL | y | 606 | - | 50,58,74 | 2.45 | 16 (32%) | 52,94,114 | 2.82 | 17 (32%) |
| 21 | CHL | N | 608 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | c | 513 | 22 | 65,73,73 | 1.45 | 9 (13%) | 76,113,113 | 1.32 | 6 (7%) |
| 22 | CLA | Y | 603 | - | 65,73,73 | 1.46 | 7 (10%) | 76,113,113 | 1.35 | 7 (9%) |
| 21 | CHL | g | 606 | - | 50,58,74 | 2.45 | 17 (34%) | 52,94,114 | 2.82 | 17 (32%) |
| 22 | CLA | y | 610 | - | 60,68,73 | 1.54 | 7 (11%) | 70,107,113 | 1.43 | 6 (8%) |
| 26 | LHG | G | 618 | - | 48,48,48 | 0.64 | 1 (2%) | 51,54,54 | 1.28 | 7 (13%) |
| 22 | CLA | R | 309 | 19 | 65,73,73 | 1.48 | 6 (9%) | 76,113,113 | 1.40 | 6 (7%) |
| 21 | CHL | y | 608 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | s | 305 | 20 | 50,58,73 | 1.66 | 6 (12%) | 58,95,113 | 1.59 | 8 (13%) |
| 22 | CLA | R | 310 | 23,19 | 49,57,73 | 1.75 | 7 (14%) | 55,93,113 | 1.44 | 4 (7%) |
| 26 | LHG | c | 521 | - | 48,48,48 | 0.61 | 1 (2%) | 51,54,54 | 1.23 | 7 (13%) |
| 26 | LHG | C | 522 | - | 48,48,48 | 0.60 | 1 (2%) | 51,54,54 | 1.29 | 8 (15%) |
| 22 | CLA | s | 311 | 22,20 | 56,64,73 | 1.58 | 6 (10%) | 65,102,113 | 1.40 | 7 (10%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|-------|--------------|------|----------|-------------|-------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 22 | CLA | s | 309 | 22,20 | 55,63,73 | 1.58 | 5 (9%) | 64,101,113 | 1.49 | 9 (14%) |
| 24 | XAT | r | 314 | - | 39,47,47 | 5.21 | 19 (48%) | 54,74,74 | 13.48 | 28 (51%) |
| 21 | CHL | y | 607 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 23 | LUT | R | 312 | 22 | 42,43,43 | 5.91 | 19 (45%) | 51,60,60 | 5.17 | 28 (54%) |
| 36 | LMG | C | 502 | - | 48,48,55 | 0.78 | 2 (4%) | 56,56,63 | 1.42 | 8 (14%) |
| 31 | BCR | D | 406 | - | 41,41,41 | 1.20 | 2 (4%) | 56,56,56 | 1.24 | 7 (12%) |
| 31 | BCR | C | 516 | - | 41,41,41 | 1.23 | 2 (4%) | 56,56,56 | 1.26 | 6 (10%) |
| 22 | CLA | c | 511 | - | 65,73,73 | 1.47 | 7 (10%) | 76,113,113 | 1.36 | 8 (10%) |
| 22 | CLA | S | 309 | 22,20 | 55,63,73 | 1.59 | 5 (9%) | 64,101,113 | 1.49 | 9 (14%) |
| 22 | CLA | d | 404 | - | 65,73,73 | 1.47 | 7 (10%) | 76,113,113 | 1.39 | 8 (10%) |
| 22 | CLA | n | 611 | - | 60,68,73 | 1.57 | 6 (10%) | 70,107,113 | 1.39 | 7 (10%) |
| 22 | CLA | d | 403 | - | 65,73,73 | 1.46 | 8 (12%) | 76,113,113 | 1.36 | 7 (9%) |
| 31 | BCR | c | 516 | - | 41,41,41 | 1.23 | 2 (4%) | 56,56,56 | 1.28 | 7 (12%) |
| 33 | SQD | a | 411 | - | 53,54,54 | 0.97 | 5 (9%) | 62,65,65 | 1.60 | 12 (19%) |
| 22 | CLA | C | 509 | - | 65,73,73 | 1.45 | 9 (13%) | 76,113,113 | 1.38 | 7 (9%) |
| 31 | BCR | C | 517 | - | 41,41,41 | 1.21 | 2 (4%) | 56,56,56 | 1.29 | 7 (12%) |
| 22 | CLA | C | 511 | - | 65,73,73 | 3.57 | 12 (18%) | 76,113,113 | 2.58 | 17 (22%) |
| 22 | CLA | g | 612 | - | 60,68,73 | 1.56 | 6 (10%) | 70,107,113 | 1.39 | 7 (10%) |
| 22 | CLA | a | 405 | - | 65,73,73 | 1.44 | 10 (15%) | 76,113,113 | 1.37 | 6 (7%) |
| 21 | CHL | N | 606 | - | 66,74,74 | 2.14 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 26 | LHG | s | 314 | 22 | 48,48,48 | 0.62 | 1 (2%) | 51,54,54 | 1.26 | 6 (11%) |
| 22 | CLA | A | 409 | - | 60,68,73 | 1.50 | 7 (11%) | 70,107,113 | 1.46 | 8 (11%) |
| 22 | CLA | y | 603 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.34 | 7 (9%) |
| 22 | CLA | N | 604 | 25 | 50,58,73 | 1.64 | 8 (16%) | 58,95,113 | 1.59 | 7 (12%) |
| 22 | CLA | C | 505 | - | 65,73,73 | 1.42 | 6 (9%) | 76,113,113 | 1.44 | 6 (7%) |
| 25 | NEX | n | 616 | 22 | 38,46,46 | 5.17 | 15 (39%) | 50,70,70 | 8.46 | 26 (52%) |
| 22 | CLA | A | 406 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.37 | 6 (7%) |
| 35 | DGD | A | 401 | - | 60,60,67 | 0.88 | 2 (3%) | 74,74,81 | 1.44 | 12 (16%) |
| 36 | LMG | d | 410 | - | 46,46,55 | 0.81 | 3 (6%) | 54,54,63 | 1.38 | 7 (12%) |
| 22 | CLA | Y | 609 | - | 60,68,73 | 1.54 | 6 (10%) | 70,107,113 | 1.43 | 7 (10%) |
| 26 | LHG | y | 617 | - | 48,48,48 | 0.64 | 1 (2%) | 51,54,54 | 1.29 | 7 (13%) |
| 36 | LMG | b | 620 | - | 55,55,55 | 0.85 | 3 (5%) | 63,63,63 | 1.36 | 9 (14%) |
| 22 | CLA | S | 313 | 22 | 55,63,73 | 1.59 | 6 (10%) | 64,101,113 | 1.49 | 6 (9%) |
| 36 | LMG | B | 601 | - | 40,40,55 | 0.84 | 0 | 48,48,63 | 1.30 | 5 (10%) |
| 22 | CLA | n | 609 | - | 65,73,73 | 1.47 | 6 (9%) | 76,113,113 | 1.39 | 6 (7%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|-------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 21 | CHL | n | 607 | - | 66,74,74 | 2.14 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 23 | LUT | y | 614 | - | 42,43,43 | 5.89 | 19 (45%) | 51,60,60 | 5.45 | 25 (49%) |
| 25 | NEX | g | 618 | 22 | 38,46,46 | 5.10 | 15 (39%) | 50,70,70 | 8.41 | 27 (54%) |
| 26 | LHG | B | 622 | - | 48,48,48 | 0.61 | 1 (2%) | 51,54,54 | 1.26 | 6 (11%) |
| 33 | SQD | D | 402 | - | 49,50,54 | 1.01 | 5 (10%) | 58,61,65 | 1.56 | 10 (17%) |
| 22 | CLA | y | 611 | - | 60,68,73 | 1.53 | 7 (11%) | 70,107,113 | 1.40 | 7 (10%) |
| 22 | CLA | B | 612 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.39 | 7 (9%) |
| 26 | LHG | C | 520 | 22 | 48,48,48 | 0.81 | 4 (8%) | 51,54,54 | 1.30 | 7 (13%) |
| 21 | CHL | G | 606 | - | 50,58,74 | 2.45 | 16 (32%) | 52,94,114 | 2.81 | 17 (32%) |
| 22 | CLA | b | 614 | - | 65,73,73 | 1.46 | 7 (10%) | 76,113,113 | 1.39 | 6 (7%) |
| 22 | CLA | D | 405 | - | 65,73,73 | 1.47 | 7 (10%) | 76,113,113 | 1.39 | 8 (10%) |
| 22 | CLA | y | 602 | - | 65,73,73 | 1.47 | 6 (9%) | 76,113,113 | 1.38 | 8 (10%) |
| 21 | CHL | r | 306 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | G | 604 | - | 50,58,73 | 1.64 | 8 (16%) | 58,95,113 | 1.57 | 7 (12%) |
| 21 | CHL | G | 605 | - | 46,54,74 | 2.55 | 16 (34%) | 49,90,114 | 2.87 | 16 (32%) |
| 32 | PL9 | a | 410 | - | 13,13,55 | 1.57 | 2 (15%) | 17,17,69 | 1.66 | 4 (23%) |
| 35 | DGD | C | 519 | - | 63,63,67 | 0.93 | 3 (4%) | 77,77,81 | 1.47 | 10 (12%) |
| 22 | CLA | G | 613 | 1 | 65,73,73 | 1.80 | 12 (18%) | 76,113,113 | 1.88 | 15 (19%) |
| 22 | CLA | y | 612 | 1 | 65,73,73 | 1.80 | 12 (18%) | 76,113,113 | 1.88 | 15 (19%) |
| 36 | LMG | M | 101 | - | 51,51,55 | 0.75 | 1 (1%) | 59,59,63 | 1.35 | 7 (11%) |
| 21 | CHL | y | 609 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 23 | LUT | g | 615 | - | 42,43,43 | 5.88 | 19 (45%) | 51,60,60 | 5.45 | 25 (49%) |
| 25 | NEX | Y | 616 | 22 | 38,46,46 | 5.13 | 15 (39%) | 50,70,70 | 8.19 | 27 (54%) |
| 22 | CLA | N | 613 | - | 48,56,73 | 1.71 | 5 (10%) | 55,92,113 | 1.50 | 8 (14%) |
| 30 | PHO | d | 401 | - | 51,69,69 | 1.03 | 4 (7%) | 47,99,99 | 1.17 | 6 (12%) |
| 21 | CHL | N | 605 | - | 50,58,74 | 2.44 | 16 (32%) | 52,94,114 | 2.81 | 17 (32%) |
| 22 | CLA | W | 101 | - | 60,68,73 | 1.56 | 6 (10%) | 70,107,113 | 1.39 | 7 (10%) |
| 22 | CLA | b | 601 | - | 65,73,73 | 1.45 | 8 (12%) | 76,113,113 | 1.37 | 7 (9%) |
| 31 | BCR | k | 101 | - | 41,41,41 | 1.17 | 2 (4%) | 56,56,56 | 1.23 | 7 (12%) |
| 21 | CHL | S | 307 | 20 | 46,54,74 | 2.55 | 16 (34%) | 49,90,114 | 2.87 | 16 (32%) |
| 31 | BCR | d | 405 | - | 41,41,41 | 1.21 | 2 (4%) | 56,56,56 | 1.24 | 7 (12%) |
| 24 | XAT | g | 617 | - | 39,47,47 | 5.24 | 20 (51%) | 54,74,74 | 13.43 | 29 (53%) |
| 21 | CHL | Y | 607 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 21 | CHL | R | 305 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | C | 512 | - | 65,73,73 | 1.47 | 9 (13%) | 76,113,113 | 1.37 | 8 (10%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 22 | CLA | R | 302 | - | 60,68,73 | 1.53 | 5 (8%) | 70,107,113 | 1.42 | 8 (11%) |
| 22 | CLA | g | 610 | - | 64,72,73 | 1.50 | 6 (9%) | 74,111,113 | 1.42 | 6 (8%) |
| 22 | CLA | b | 611 | - | 65,73,73 | 1.46 | 7 (10%) | 76,113,113 | 1.41 | 6 (7%) |
| 22 | CLA | s | 313 | 22 | 55,63,73 | 1.58 | 6 (10%) | 64,101,113 | 1.50 | 7 (10%) |
| 26 | LHG | D | 409 | - | 48,48,48 | 0.63 | 1 (2%) | 51,54,54 | 1.28 | 6 (11%) |
| 22 | CLA | b | 610 | - | 65,73,73 | 1.47 | 8 (12%) | 76,113,113 | 1.38 | 7 (9%) |
| 35 | DGD | c | 518 | - | 63,63,67 | 0.93 | 3 (4%) | 77,77,81 | 1.47 | 10 (12%) |
| 36 | LMG | T | 101 | - | 51,51,55 | 0.74 | 1 (1%) | 59,59,63 | 1.35 | 7 (11%) |
| 22 | CLA | c | 506 | - | 65,73,73 | 1.46 | 8 (12%) | 76,113,113 | 1.37 | 7 (9%) |
| 32 | PL9 | A | 411 | - | 13,13,55 | 1.59 | 2 (15%) | 17,17,69 | 1.64 | 4 (23%) |
| 22 | CLA | x | 101 | - | 65,73,73 | 1.49 | 7 (10%) | 76,113,113 | 1.36 | 8 (10%) |
| 22 | CLA | B | 606 | - | 65,73,73 | 1.44 | 6 (9%) | 76,113,113 | 1.39 | 7 (9%) |
| 22 | CLA | c | 502 | - | 65,73,73 | 1.45 | 9 (13%) | 76,113,113 | 1.35 | 6 (7%) |
| 22 | CLA | g | 604 | 25 | 50,58,73 | 1.64 | 8 (16%) | 58,95,113 | 1.57 | 8 (13%) |
| 22 | CLA | c | 514 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.42 | 7 (9%) |
| 22 | CLA | C | 507 | - | 65,73,73 | 1.47 | 7 (10%) | 76,113,113 | 1.37 | 7 (9%) |
| 22 | CLA | g | 602 | - | 65,73,73 | 1.46 | 6 (9%) | 76,113,113 | 1.38 | 7 (9%) |
| 21 | CHL | S | 302 | - | 46,54,74 | 2.55 | 17 (36%) | 49,90,114 | 2.88 | 16 (32%) |
| 26 | LHG | C | 521 | - | 48,48,48 | 0.61 | 1 (2%) | 51,54,54 | 1.23 | 7 (13%) |
| 31 | BCR | B | 620 | - | 41,41,41 | 1.19 | 2 (4%) | 56,56,56 | 1.25 | 6 (10%) |
| 37 | HEM | f | 101 | 7 | 41,50,50 | 4.46 | 10 (24%) | 45,82,82 | 3.70 | 22 (48%) |
| 35 | DGD | a | 413 | - | 60,60,67 | 0.88 | 2 (3%) | 74,74,81 | 1.44 | 12 (16%) |
| 22 | CLA | n | 603 | - | 65,73,73 | 1.46 | 7 (10%) | 76,113,113 | 1.36 | 7 (9%) |
| 22 | CLA | r | 310 | 19 | 65,73,73 | 1.47 | 6 (9%) | 76,113,113 | 1.40 | 6 (7%) |
| 22 | CLA | a | 408 | - | 60,68,73 | 1.50 | 7 (11%) | 70,107,113 | 1.45 | 8 (11%) |
| 22 | CLA | B | 608 | - | 65,73,73 | 1.45 | 6 (9%) | 76,113,113 | 1.38 | 7 (9%) |
| 22 | CLA | c | 508 | - | 65,73,73 | 1.45 | 9 (13%) | 76,113,113 | 1.38 | 7 (9%) |
| 22 | CLA | b | 608 | - | 65,73,73 | 1.46 | 6 (9%) | 76,113,113 | 1.38 | 6 (7%) |
| 22 | CLA | s | 312 | 20 | 49,57,73 | 1.71 | 7 (14%) | 55,93,113 | 1.51 | 6 (10%) |
| 22 | CLA | b | 615 | - | 65,73,73 | 1.45 | 6 (9%) | 76,113,113 | 1.35 | 7 (9%) |
| 22 | CLA | G | 603 | - | 65,73,73 | 1.45 | 6 (9%) | 76,113,113 | 1.35 | 7 (9%) |
| 22 | CLA | r | 303 | - | 60,68,73 | 1.53 | 5 (8%) | 70,107,113 | 1.41 | 8 (11%) |
| 22 | CLA | s | 308 | 20 | 45,53,73 | 1.82 | 6 (13%) | 52,89,113 | 1.55 | 7 (13%) |
| 26 | LHG | R | 301 | 19 | 46,46,48 | 0.64 | 1 (2%) | 49,52,54 | 1.28 | 7 (14%) |
| 22 | CLA | B | 609 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.41 | 7 (9%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 22 | CLA | S | 304 | 20 | 45,53,73 | 1.80 | 6 (13%) | 52,89,113 | 1.55 | 7 (13%) |
| 22 | CLA | G | 602 | - | 65,73,73 | 1.46 | 6 (9%) | 76,113,113 | 1.38 | 8 (10%) |
| 22 | CLA | N | 603 | - | 65,73,73 | 1.46 | 7 (10%) | 76,113,113 | 1.35 | 7 (9%) |
| 21 | CHL | n | 605 | - | 50,58,74 | 2.45 | 16 (32%) | 52,94,114 | 2.81 | 17 (32%) |
| 31 | BCR | b | 616 | - | 41,41,41 | 1.22 | 2 (4%) | 56,56,56 | 1.23 | 7 (12%) |
| 22 | CLA | a | 406 | - | 50,58,73 | 1.67 | 8 (16%) | 58,95,113 | 1.51 | 8 (13%) |
| 21 | CHL | n | 608 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | B | 604 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.37 | 7 (9%) |
| 33 | SQD | d | 402 | - | 49,50,54 | 1.01 | 5 (10%) | 58,61,65 | 1.56 | 10 (17%) |
| 22 | CLA | c | 507 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.41 | 7 (9%) |
| 22 | CLA | c | 503 | - | 65,73,73 | 1.43 | 8 (12%) | 76,113,113 | 1.39 | 8 (10%) |
| 22 | CLA | b | 602 | - | 65,73,73 | 1.43 | 8 (12%) | 76,113,113 | 1.40 | 8 (10%) |
| 22 | CLA | b | 609 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.39 | 7 (9%) |
| 22 | CLA | B | 615 | - | 65,73,73 | 1.46 | 6 (9%) | 76,113,113 | 1.36 | 6 (7%) |
| 22 | CLA | g | 613 | 1 | 65,73,73 | 1.80 | 11 (16%) | 76,113,113 | 1.89 | 15 (19%) |
| 26 | LHG | l | 102 | - | 48,48,48 | 0.63 | 1 (2%) | 51,54,54 | 1.28 | 7 (13%) |
| 21 | CHL | R | 306 | - | 56,64,74 | 2.31 | 17 (30%) | 61,102,114 | 2.67 | 19 (31%) |
| 26 | LHG | d | 408 | - | 48,48,48 | 0.63 | 1 (2%) | 51,54,54 | 1.29 | 6 (11%) |
| 22 | CLA | g | 614 | - | 48,56,73 | 1.71 | 6 (12%) | 55,92,113 | 1.51 | 8 (14%) |
| 21 | CHL | G | 609 | - | 61,69,74 | 2.21 | 16 (26%) | 67,108,114 | 2.57 | 19 (28%) |
| 33 | SQD | l | 101 | - | 41,42,54 | 1.08 | 5 (12%) | 50,53,65 | 1.61 | 9 (18%) |
| 22 | CLA | A | 407 | - | 50,58,73 | 1.67 | 8 (16%) | 58,95,113 | 1.50 | 8 (13%) |
| 22 | CLA | D | 404 | - | 65,73,73 | 1.46 | 8 (12%) | 76,113,113 | 1.36 | 7 (9%) |
| 22 | CLA | b | 613 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.39 | 7 (9%) |
| 22 | CLA | y | 613 | - | 48,56,73 | 1.71 | 5 (10%) | 55,92,113 | 1.50 | 8 (14%) |
| 26 | LHG | N | 618 | - | 48,48,48 | 0.63 | 1 (2%) | 51,54,54 | 1.23 | 7 (13%) |
| 21 | CHL | r | 307 | - | 56,64,74 | 2.32 | 17 (30%) | 61,102,114 | 2.68 | 19 (31%) |
| 21 | CHL | y | 601 | 1 | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 31 | BCR | B | 602 | - | 41,41,41 | 1.14 | 2 (4%) | 56,56,56 | 1.24 | 6 (10%) |
| 23 | LUT | G | 616 | - | 42,43,43 | 6.08 | 19 (45%) | 51,60,60 | 4.93 | 22 (43%) |
| 22 | CLA | C | 510 | - | 65,73,73 | 1.47 | 8 (12%) | 76,113,113 | 1.37 | 8 (10%) |
| 22 | CLA | R | 308 | - | 58,66,73 | 1.57 | 7 (12%) | 67,104,113 | 1.42 | 7 (10%) |
| 22 | CLA | N | 611 | - | 60,68,73 | 1.58 | 6 (10%) | 70,107,113 | 1.40 | 7 (10%) |
| 21 | CHL | Y | 601 | 1 | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | c | 505 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.46 | 7 (9%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|-------|--------------|------|----------|-------------|-------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 22 | CLA | B | 617 | - | 65,73,73 | 1.46 | 7 (10%) | 76,113,113 | 1.38 | 6 (7%) |
| 21 | CHL | s | 301 | - | 48,56,74 | 2.50 | 16 (33%) | 51,92,114 | 2.83 | 17 (33%) |
| 22 | CLA | c | 504 | - | 65,73,73 | 1.43 | 7 (10%) | 76,113,113 | 1.44 | 6 (7%) |
| 32 | PL9 | d | 406 | - | 55,55,55 | 1.33 | 4 (7%) | 68,69,69 | 1.54 | 13 (19%) |
| 22 | CLA | n | 610 | 26 | 60,68,73 | 1.53 | 6 (10%) | 70,107,113 | 1.40 | 7 (10%) |
| 22 | CLA | y | 604 | 25 | 50,58,73 | 1.64 | 8 (16%) | 58,95,113 | 1.57 | 7 (12%) |
| 26 | LHG | n | 617 | 22 | 48,48,48 | 0.64 | 1 (2%) | 51,54,54 | 1.29 | 7 (13%) |
| 37 | HEM | F | 101 | 7 | 41,50,50 | 4.46 | 10 (24%) | 45,82,82 | 3.69 | 22 (48%) |
| 22 | CLA | b | 606 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.42 | 7 (9%) |
| 31 | BCR | c | 515 | - | 41,41,41 | 1.23 | 2 (4%) | 56,56,56 | 1.24 | 5 (8%) |
| 22 | CLA | Y | 611 | 1 | 65,73,73 | 1.80 | 12 (18%) | 76,113,113 | 1.89 | 15 (19%) |
| 26 | LHG | c | 520 | 22 | 48,48,48 | 0.81 | 4 (8%) | 51,54,54 | 1.30 | 7 (13%) |
| 21 | CHL | r | 308 | 19 | 61,69,74 | 2.22 | 16 (26%) | 67,108,114 | 2.57 | 19 (28%) |
| 24 | XAT | Y | 615 | - | 39,47,47 | 5.30 | 20 (51%) | 54,74,74 | 13.38 | 30 (55%) |
| 23 | LUT | Y | 613 | - | 42,43,43 | 5.87 | 19 (45%) | 51,60,60 | 5.44 | 25 (49%) |
| 22 | CLA | Y | 610 | 26 | 60,68,73 | 1.53 | 7 (11%) | 70,107,113 | 1.40 | 7 (10%) |
| 21 | CHL | G | 608 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | C | 514 | 22 | 65,73,73 | 1.44 | 8 (12%) | 76,113,113 | 1.31 | 6 (7%) |
| 26 | LHG | D | 410 | - | 42,42,48 | 0.67 | 1 (2%) | 45,48,54 | 1.26 | 5 (11%) |
| 22 | CLA | S | 312 | 20 | 49,57,73 | 1.70 | 7 (14%) | 55,93,113 | 1.50 | 6 (10%) |
| 22 | CLA | r | 311 | 23,19 | 49,57,73 | 1.74 | 7 (14%) | 55,93,113 | 1.43 | 4 (7%) |
| 22 | CLA | b | 605 | - | 65,73,73 | 1.44 | 6 (9%) | 76,113,113 | 1.38 | 7 (9%) |
| 26 | LHG | Y | 617 | 22 | 48,48,48 | 0.66 | 1 (2%) | 51,54,54 | 1.26 | 7 (13%) |
| 33 | SQD | L | 102 | - | 41,42,54 | 1.08 | 5 (12%) | 50,53,65 | 1.61 | 9 (18%) |
| 22 | CLA | r | 305 | - | 48,56,73 | 1.71 | 7 (14%) | 55,92,113 | 1.52 | 8 (14%) |
| 21 | CHL | s | 302 | - | 46,54,74 | 2.56 | 16 (34%) | 49,90,114 | 2.87 | 16 (32%) |
| 35 | DGD | c | 519 | - | 61,61,67 | 0.98 | 5 (8%) | 75,75,81 | 1.53 | 10 (13%) |
| 22 | CLA | n | 602 | - | 65,73,73 | 1.45 | 6 (9%) | 76,113,113 | 1.38 | 7 (9%) |
| 26 | LHG | d | 409 | - | 42,42,48 | 0.67 | 1 (2%) | 45,48,54 | 1.26 | 5 (11%) |
| 22 | CLA | r | 309 | - | 58,66,73 | 1.56 | 8 (13%) | 67,104,113 | 1.42 | 7 (10%) |
| 23 | LUT | N | 615 | - | 42,43,43 | 6.10 | 20 (47%) | 51,60,60 | 4.66 | 27 (52%) |
| 35 | DGD | C | 518 | - | 56,56,67 | 0.99 | 3 (5%) | 70,70,81 | 1.56 | 13 (18%) |
| 36 | LMG | B | 623 | - | 55,55,55 | 0.85 | 3 (5%) | 63,63,63 | 1.36 | 9 (14%) |
| 22 | CLA | g | 611 | - | 60,68,73 | 1.53 | 7 (11%) | 70,107,113 | 1.40 | 8 (11%) |
| 31 | BCR | b | 618 | - | 41,41,41 | 1.15 | 2 (4%) | 56,56,56 | 1.23 | 3 (5%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 22 | CLA | B | 607 | - | 65,73,73 | 1.45 | 9 (13%) | 76,113,113 | 1.37 | 6 (7%) |
| 21 | CHL | s | 306 | 20 | 46,54,74 | 2.55 | 16 (34%) | 49,90,114 | 2.88 | 16 (32%) |
| 35 | DGD | c | 517 | - | 56,56,67 | 1.00 | 4 (7%) | 70,70,81 | 1.56 | 12 (17%) |
| 25 | NEX | r | 315 | - | 38,46,46 | 5.12 | 16 (42%) | 50,70,70 | 7.87 | 27 (54%) |
| 23 | LUT | n | 614 | - | 42,43,43 | 5.88 | 19 (45%) | 51,60,60 | 5.44 | 25 (49%) |
| 22 | CLA | R | 311 | 19 | 60,68,73 | 1.52 | 6 (10%) | 70,107,113 | 1.40 | 6 (8%) |
| 34 | BCT | a | 412 | - | 2,3,3 | 1.33 | 0 | 2,3,3 | 2.75 | 2 (100%) |
| 22 | CLA | R | 303 | - | 60,68,73 | 1.53 | 6 (10%) | 70,107,113 | 1.42 | 7 (10%) |
| 30 | PHO | a | 407 | - | 51,69,69 | 1.06 | 5 (9%) | 47,99,99 | 1.11 | 4 (8%) |
| 31 | BCR | k | 102 | - | 41,41,41 | 1.18 | 2 (4%) | 56,56,56 | 1.25 | 8 (14%) |
| 22 | CLA | B | 603 | - | 65,73,73 | 1.48 | 8 (12%) | 76,113,113 | 1.35 | 8 (10%) |
| 21 | CHL | S | 306 | 20 | 46,54,74 | 2.55 | 16 (34%) | 49,90,114 | 2.87 | 16 (32%) |
| 26 | LHG | r | 302 | 19 | 46,46,48 | 0.64 | 1 (2%) | 49,52,54 | 1.28 | 7 (14%) |
| 26 | LHG | S | 314 | 22 | 48,48,48 | 0.62 | 1 (2%) | 51,54,54 | 1.27 | 6 (11%) |
| 26 | LHG | b | 619 | - | 48,48,48 | 0.61 | 1 (2%) | 51,54,54 | 1.26 | 6 (11%) |
| 22 | CLA | B | 613 | - | 65,73,73 | 1.47 | 9 (13%) | 76,113,113 | 1.38 | 7 (9%) |
| 23 | LUT | Y | 614 | - | 42,43,43 | 6.05 | 20 (47%) | 51,60,60 | 4.89 | 22 (43%) |
| 22 | CLA | Y | 604 | 25 | 50,58,73 | 1.63 | 8 (16%) | 58,95,113 | 1.58 | 8 (13%) |
| 22 | CLA | G | 614 | - | 48,56,73 | 1.70 | 5 (10%) | 55,92,113 | 1.51 | 8 (14%) |
| 23 | LUT | N | 614 | - | 42,43,43 | 5.88 | 19 (45%) | 51,60,60 | 5.44 | 25 (49%) |
| 22 | CLA | r | 304 | - | 60,68,73 | 1.53 | 6 (10%) | 70,107,113 | 1.42 | 7 (10%) |
| 31 | BCR | B | 619 | - | 41,41,41 | 1.21 | 2 (4%) | 56,56,56 | 1.23 | 7 (12%) |
| 36 | LMG | C | 523 | - | 51,51,55 | 0.72 | 1 (1%) | 59,59,63 | 1.38 | 7 (11%) |
| 22 | CLA | r | 312 | 19 | 60,68,73 | 1.53 | 6 (10%) | 70,107,113 | 1.42 | 6 (8%) |
| 22 | CLA | A | 405 | - | 65,73,73 | 1.46 | 8 (12%) | 76,113,113 | 1.41 | 7 (9%) |
| 22 | CLA | Y | 602 | - | 65,73,73 | 1.47 | 6 (9%) | 76,113,113 | 1.38 | 9 (11%) |
| 36 | LMG | I | 101 | - | 40,40,55 | 0.85 | 0 | 48,48,63 | 1.30 | 5 (10%) |
| 31 | BCR | A | 410 | - | 41,41,41 | 1.22 | 2 (4%) | 56,56,56 | 1.26 | 7 (12%) |
| 25 | NEX | y | 618 | - | 38,46,46 | 5.13 | 16 (42%) | 50,70,70 | 7.86 | 27 (54%) |
| 22 | CLA | B | 618 | - | 65,73,73 | 1.46 | 6 (9%) | 76,113,113 | 1.34 | 7 (9%) |
| 22 | CLA | C | 503 | - | 65,73,73 | 1.46 | 9 (13%) | 76,113,113 | 1.35 | 6 (7%) |
| 22 | CLA | s | 304 | 20 | 45,53,73 | 1.80 | 6 (13%) | 52,89,113 | 1.54 | 7 (13%) |
| 31 | BCR | B | 621 | - | 41,41,41 | 1.14 | 2 (4%) | 56,56,56 | 1.23 | 3 (5%) |
| 25 | NEX | y | 616 | 22 | 38,46,46 | 5.17 | 14 (36%) | 50,70,70 | 8.58 | 27 (54%) |
| 23 | LUT | g | 616 | - | 42,43,43 | 6.10 | 19 (45%) | 51,60,60 | 4.92 | 22 (43%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|-------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 26 | LHG | d | 407 | - | 45,45,48 | 0.64 | 1 (2%) | 48,51,54 | 1.23 | 4 (8%) |
| 31 | BCR | H | 101 | - | 41,41,41 | 1.19 | 3 (7%) | 56,56,56 | 1.30 | 6 (10%) |
| 22 | CLA | C | 504 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.39 | 8 (10%) |
| 22 | CLA | b | 607 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.42 | 8 (10%) |
| 22 | CLA | S | 305 | 20 | 50,58,73 | 1.66 | 6 (12%) | 58,95,113 | 1.60 | 8 (13%) |
| 30 | PHO | A | 408 | - | 51,69,69 | 1.07 | 5 (9%) | 47,99,99 | 1.12 | 4 (8%) |
| 22 | CLA | n | 612 | 1 | 60,68,73 | 1.87 | 12 (20%) | 70,107,113 | 1.95 | 14 (20%) |
| 22 | CLA | n | 613 | - | 48,56,73 | 1.71 | 6 (12%) | 55,92,113 | 1.51 | 8 (14%) |
| 21 | CHL | s | 307 | 20 | 46,54,74 | 2.55 | 16 (34%) | 49,90,114 | 2.88 | 16 (32%) |
| 31 | BCR | a | 409 | - | 41,41,41 | 1.22 | 2 (4%) | 56,56,56 | 1.26 | 7 (12%) |
| 22 | CLA | g | 603 | - | 65,73,73 | 1.46 | 6 (9%) | 76,113,113 | 1.35 | 7 (9%) |
| 22 | CLA | s | 310 | 26 | 55,63,73 | 1.57 | 7 (12%) | 64,101,113 | 1.47 | 7 (10%) |
| 22 | CLA | C | 508 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.40 | 6 (7%) |
| 32 | PL9 | D | 407 | - | 55,55,55 | 1.34 | 5 (9%) | 68,69,69 | 1.54 | 13 (19%) |
| 31 | BCR | b | 617 | - | 41,41,41 | 1.19 | 2 (4%) | 56,56,56 | 1.25 | 6 (10%) |
| 31 | BCR | T | 102 | - | 41,41,41 | 1.14 | 2 (4%) | 56,56,56 | 1.23 | 6 (10%) |
| 22 | CLA | G | 612 | - | 60,68,73 | 1.58 | 6 (10%) | 70,107,113 | 1.39 | 7 (10%) |
| 24 | XAT | n | 615 | - | 39,47,47 | 5.22 | 20 (51%) | 54,74,74 | 13.59 | 30 (55%) |
| 26 | LHG | c | 522 | - | 48,48,48 | 0.60 | 1 (2%) | 51,54,54 | 1.29 | 8 (15%) |
| 22 | CLA | B | 616 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.39 | 7 (9%) |
| 22 | CLA | S | 310 | 26 | 55,63,73 | 1.58 | 7 (12%) | 64,101,113 | 1.47 | 7 (10%) |
| 22 | CLA | Y | 612 | - | 48,56,73 | 1.70 | 6 (12%) | 55,92,113 | 1.51 | 8 (14%) |
| 22 | CLA | G | 611 | - | 60,68,73 | 1.53 | 7 (11%) | 70,107,113 | 1.41 | 7 (10%) |
| 21 | CHL | R | 307 | 19 | 61,69,74 | 2.22 | 17 (27%) | 67,108,114 | 2.57 | 19 (28%) |
| 22 | CLA | N | 612 | 1 | 60,68,73 | 1.88 | 12 (20%) | 70,107,113 | 1.95 | 15 (21%) |
| 22 | CLA | B | 614 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.41 | 6 (7%) |
| 24 | XAT | G | 617 | - | 39,47,47 | 5.24 | 20 (51%) | 54,74,74 | 13.43 | 30 (55%) |
| 22 | CLA | G | 610 | - | 64,72,73 | 1.50 | 6 (9%) | 74,111,113 | 1.44 | 8 (10%) |
| 22 | CLA | n | 604 | 25 | 50,58,73 | 1.64 | 8 (16%) | 58,95,113 | 1.57 | 8 (13%) |
| 22 | CLA | R | 304 | - | 48,56,73 | 1.70 | 7 (14%) | 55,92,113 | 1.52 | 8 (14%) |
| 21 | CHL | Y | 605 | - | 50,58,74 | 2.45 | 16 (32%) | 52,94,114 | 2.81 | 17 (32%) |
| 21 | CHL | Y | 608 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 35 | DGD | H | 102 | - | 63,63,67 | 0.94 | 3 (4%) | 77,77,81 | 1.48 | 14 (18%) |
| 31 | BCR | K | 102 | - | 41,41,41 | 1.19 | 2 (4%) | 56,56,56 | 1.26 | 8 (14%) |
| 22 | CLA | N | 609 | - | 65,73,73 | 1.49 | 6 (9%) | 76,113,113 | 1.40 | 6 (7%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|-------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 33 | SQD | L | 101 | 12 | 53,54,54 | 0.97 | 5 (9%) | 62,65,65 | 1.61 | 11 (17%) |
| 22 | CLA | c | 509 | - | 65,73,73 | 1.47 | 9 (13%) | 76,113,113 | 1.36 | 8 (10%) |
| 35 | DGD | h | 102 | - | 63,63,67 | 0.94 | 3 (4%) | 77,77,81 | 1.48 | 14 (18%) |
| 21 | CHL | G | 607 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 21 | CHL | r | 301 | 19 | 48,56,74 | 2.49 | 16 (33%) | 51,92,114 | 2.83 | 17 (33%) |
| 27 | OEX | a | 401 | 2,4 | 0,15,15 | - | - | - | - | - |
| 24 | XAT | y | 615 | - | 39,47,47 | 5.28 | 20 (51%) | 54,74,74 | 13.37 | 29 (53%) |
| 27 | OEX | A | 402 | 2,4 | 0,15,15 | - | - | - | - | - |
| 33 | SQD | A | 412 | - | 53,54,54 | 0.97 | 5 (9%) | 62,65,65 | 1.60 | 12 (19%) |
| 22 | CLA | S | 308 | 20 | 45,53,73 | 1.82 | 6 (13%) | 52,89,113 | 1.54 | 7 (13%) |
| 36 | LMG | c | 523 | - | 51,51,55 | 0.72 | 1 (1%) | 59,59,63 | 1.38 | 7 (11%) |
| 22 | CLA | w | 101 | 16 | 60,68,73 | 1.57 | 6 (10%) | 70,107,113 | 1.39 | 7 (10%) |
| 22 | CLA | b | 603 | - | 65,73,73 | 1.44 | 7 (10%) | 76,113,113 | 1.38 | 7 (9%) |
| 33 | SQD | l | 103 | 12 | 53,54,54 | 0.97 | 5 (9%) | 62,65,65 | 1.61 | 11 (17%) |
| 21 | CHL | g | 609 | - | 61,69,74 | 2.22 | 16 (26%) | 67,108,114 | 2.57 | 19 (28%) |
| 36 | LMG | K | 103 | - | 51,51,55 | 0.72 | 0 | 59,59,63 | 1.34 | 6 (10%) |
| 22 | CLA | c | 510 | - | 65,73,73 | 3.57 | 12 (18%) | 76,113,113 | 2.58 | 18 (23%) |
| 22 | CLA | b | 604 | - | 65,73,73 | 1.45 | 9 (13%) | 76,113,113 | 1.36 | 6 (7%) |
| 23 | LUT | G | 615 | - | 42,43,43 | 5.88 | 19 (45%) | 51,60,60 | 5.45 | 25 (49%) |
| 21 | CHL | g | 607 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 26 | LHG | L | 103 | - | 48,48,48 | 0.63 | 1 (2%) | 51,54,54 | 1.29 | 7 (13%) |
| 21 | CHL | n | 601 | 1 | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | N | 610 | - | 60,68,73 | 1.52 | 6 (10%) | 70,107,113 | 1.40 | 8 (11%) |
| 22 | CLA | B | 611 | - | 65,73,73 | 1.47 | 7 (10%) | 76,113,113 | 1.38 | 6 (7%) |
| 24 | XAT | R | 313 | - | 39,47,47 | 5.20 | 17 (43%) | 54,74,74 | 13.47 | 28 (51%) |
| 22 | CLA | C | 513 | 4 | 65,73,73 | 1.46 | 7 (10%) | 76,113,113 | 1.42 | 8 (10%) |
| 26 | LHG | g | 619 | - | 48,48,48 | 0.61 | 1 (2%) | 51,54,54 | 1.30 | 8 (15%) |
| 21 | CHL | N | 607 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | s | 303 | 20 | 61,69,73 | 1.54 | 7 (11%) | 71,108,113 | 1.43 | 8 (11%) |
| 21 | CHL | Y | 606 | - | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 21 | CHL | S | 301 | - | 48,56,74 | 2.50 | 16 (33%) | 51,92,114 | 2.84 | 17 (33%) |
| 22 | CLA | B | 610 | - | 65,73,73 | 1.43 | 7 (10%) | 76,113,113 | 1.42 | 8 (10%) |
| 25 | NEX | N | 617 | 22 | 38,46,46 | 5.17 | 15 (39%) | 50,70,70 | 8.67 | 26 (52%) |
| 21 | CHL | G | 601 | 1 | 66,74,74 | 2.13 | 16 (24%) | 73,114,114 | 2.47 | 19 (26%) |
| 22 | CLA | C | 506 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.45 | 7 (9%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 35 | DGD | J | 101 | - | 61,61,67 | 0.98 | 5 (8%) | 75,75,81 | 1.53 | 10 (13%) |
| 23 | LUT | r | 313 | 22 | 42,43,43 | 5.90 | 19 (45%) | 51,60,60 | 5.16 | 28 (54%) |
| 22 | CLA | C | 515 | - | 65,73,73 | 1.45 | 7 (10%) | 76,113,113 | 1.42 | 7 (9%) |
| 26 | LHG | D | 408 | - | 45,45,48 | 0.65 | 1 (2%) | 48,51,54 | 1.23 | 4 (8%) |
| 30 | PHO | D | 401 | - | 51,69,69 | 1.02 | 4 (7%) | 47,99,99 | 1.17 | 5 (10%) |
| 22 | CLA | S | 303 | 20 | 61,69,73 | 1.54 | 6 (9%) | 71,108,113 | 1.43 | 8 (11%) |
| 34 | BCT | D | 403 | - | 2,3,3 | 1.33 | 0 | 2,3,3 | 2.74 | 2 (100%) |
| 36 | LMG | k | 103 | - | 51,51,55 | 0.73 | 0 | 59,59,63 | 1.34 | 6 (10%) |

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 |
|-----|------|-------|-----|-------|-----------|---------------|---------|
| 31 | BCR | h | 101 | - | - | 7/29/63/63 | 0/2/2/2 |
| 22 | CLA | N | 602 | - | 1/1/15/20 | 13/37/115/115 | - |
| 21 | CHL | N | 601 | 1 | 4/4/20/26 | 24/39/137/137 | - |
| 24 | XAT | N | 616 | - | 2/2/12/26 | 17/31/93/93 | 0/4/4/4 |
| 36 | LMG | D | 411 | - | - | 12/41/61/70 | 0/1/1/1 |
| 21 | CHL | n | 606 | - | 4/4/20/26 | 18/39/137/137 | - |
| 22 | CLA | c | 512 | 4 | 1/1/15/20 | 14/37/115/115 | - |
| 36 | LMG | w | 102 | - | - | 16/43/63/70 | 0/1/1/1 |
| 21 | CHL | y | 605 | - | 3/3/16/26 | 11/18/116/137 | - |
| 22 | CLA | b | 612 | - | 1/1/15/20 | 8/37/115/115 | - |
| 21 | CHL | g | 608 | - | 4/4/20/26 | 23/39/137/137 | - |
| 21 | CHL | g | 601 | 1 | 4/4/20/26 | 24/39/137/137 | - |
| 22 | CLA | B | 605 | - | 1/1/15/20 | 13/37/115/115 | - |
| 31 | BCR | K | 101 | - | - | 16/29/63/63 | 0/2/2/2 |
| 22 | CLA | a | 404 | - | 1/1/15/20 | 4/37/115/115 | - |
| 22 | CLA | S | 311 | 22,20 | 1/1/13/20 | 13/27/105/115 | - |
| 21 | CHL | g | 605 | - | 3/3/16/26 | 9/15/113/137 | - |
| 21 | CHL | y | 606 | - | 3/3/16/26 | 13/20/118/137 | - |
| 21 | CHL | N | 608 | - | 4/4/20/26 | 15/39/137/137 | - |
| 22 | CLA | c | 513 | 22 | 1/1/15/20 | 21/37/115/115 | - |
| 22 | CLA | Y | 603 | - | 1/1/15/20 | 17/37/115/115 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|-------|-----------|---------------|---------|
| 21 | CHL | g | 606 | - | 3/3/16/26 | 13/20/118/137 | - |
| 22 | CLA | y | 610 | - | 1/1/14/20 | 15/31/109/115 | - |
| 26 | LHG | G | 618 | - | - | 28/53/53/53 | - |
| 22 | CLA | R | 309 | 19 | 1/1/15/20 | 18/37/115/115 | - |
| 21 | CHL | y | 608 | - | 4/4/20/26 | 23/39/137/137 | - |
| 22 | CLA | s | 305 | 20 | 1/1/12/20 | 9/19/97/115 | - |
| 22 | CLA | R | 310 | 23,19 | 1/1/11/20 | 11/18/96/115 | - |
| 26 | LHG | c | 521 | - | - | 21/53/53/53 | - |
| 26 | LHG | C | 522 | - | - | 24/53/53/53 | - |
| 22 | CLA | s | 311 | 22,20 | 1/1/13/20 | 13/27/105/115 | - |
| 22 | CLA | s | 309 | 22,20 | 1/1/13/20 | 7/25/103/115 | - |
| 24 | XAT | r | 314 | - | 1/1/12/26 | 14/31/93/93 | 0/4/4/4 |
| 21 | CHL | y | 607 | - | 4/4/20/26 | 18/39/137/137 | - |
| 23 | LUT | R | 312 | 22 | - | 18/29/67/67 | 0/2/2/2 |
| 36 | LMG | C | 502 | - | - | 16/43/63/70 | 0/1/1/1 |
| 31 | BCR | D | 406 | - | - | 8/29/63/63 | 0/2/2/2 |
| 31 | BCR | C | 516 | - | - | 5/29/63/63 | 0/2/2/2 |
| 22 | CLA | c | 511 | - | 1/1/15/20 | 14/37/115/115 | - |
| 22 | CLA | S | 309 | 22,20 | 1/1/13/20 | 7/25/103/115 | - |
| 22 | CLA | d | 404 | - | 1/1/15/20 | 12/37/115/115 | - |
| 22 | CLA | n | 611 | - | 1/1/14/20 | 12/31/109/115 | - |
| 22 | CLA | d | 403 | - | 1/1/15/20 | 13/37/115/115 | - |
| 31 | BCR | c | 516 | - | - | 6/29/63/63 | 0/2/2/2 |
| 33 | SQD | a | 411 | - | - | 23/49/69/69 | 0/1/1/1 |
| 22 | CLA | C | 509 | - | 1/1/15/20 | 12/37/115/115 | - |
| 31 | BCR | C | 517 | - | - | 6/29/63/63 | 0/2/2/2 |
| 22 | CLA | C | 511 | - | 1/1/15/20 | 11/37/115/115 | - |
| 22 | CLA | g | 612 | - | 1/1/14/20 | 12/31/109/115 | - |
| 22 | CLA | a | 405 | - | 1/1/15/20 | 15/37/115/115 | - |
| 21 | CHL | N | 606 | - | 4/4/20/26 | 18/39/137/137 | - |
| 26 | LHG | s | 314 | 22 | - | 29/53/53/53 | - |
| 22 | CLA | A | 409 | - | 1/1/14/20 | 3/31/109/115 | - |
| 22 | CLA | y | 603 | - | 1/1/15/20 | 17/37/115/115 | - |
| 22 | CLA | N | 604 | 25 | 1/1/12/20 | 6/19/97/115 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|-----------|---------------|---------|
| 22 | CLA | C | 505 | - | 1/1/15/20 | 14/37/115/115 | - |
| 25 | NEX | n | 616 | 22 | 2/2/12/25 | 16/27/83/83 | 0/3/3/3 |
| 22 | CLA | A | 406 | - | 1/1/15/20 | 15/37/115/115 | - |
| 35 | DGD | A | 401 | - | - | 21/48/88/95 | 0/2/2/2 |
| 36 | LMG | d | 410 | - | - | 11/41/61/70 | 0/1/1/1 |
| 22 | CLA | Y | 609 | - | 1/1/14/20 | 15/31/109/115 | - |
| 26 | LHG | y | 617 | - | - | 22/53/53/53 | - |
| 36 | LMG | b | 620 | - | - | 22/50/70/70 | 0/1/1/1 |
| 22 | CLA | S | 313 | 22 | 1/1/13/20 | 12/25/103/115 | - |
| 36 | LMG | B | 601 | - | - | 18/35/55/70 | 0/1/1/1 |
| 22 | CLA | n | 609 | - | 1/1/15/20 | 18/37/115/115 | - |
| 21 | CHL | n | 607 | - | 4/4/20/26 | 23/39/137/137 | - |
| 25 | NEX | g | 618 | 22 | 2/2/12/25 | 15/27/83/83 | 0/3/3/3 |
| 23 | LUT | y | 614 | - | - | 17/29/67/67 | 0/2/2/2 |
| 26 | LHG | B | 622 | - | - | 28/53/53/53 | - |
| 33 | SQD | D | 402 | - | 1/1/9/9 | 18/45/65/69 | 0/1/1/1 |
| 22 | CLA | y | 611 | - | 1/1/14/20 | 8/31/109/115 | - |
| 22 | CLA | B | 612 | - | 1/1/15/20 | 11/37/115/115 | - |
| 26 | LHG | C | 520 | 22 | - | 31/53/53/53 | - |
| 21 | CHL | G | 606 | - | 3/3/16/26 | 13/20/118/137 | - |
| 22 | CLA | b | 614 | - | 1/1/15/20 | 20/37/115/115 | - |
| 22 | CLA | D | 405 | - | 1/1/15/20 | 12/37/115/115 | - |
| 22 | CLA | y | 602 | - | 1/1/15/20 | 13/37/115/115 | - |
| 21 | CHL | r | 306 | - | 4/4/20/26 | 20/39/137/137 | - |
| 22 | CLA | G | 604 | - | 1/1/12/20 | 6/19/97/115 | - |
| 21 | CHL | G | 605 | - | 3/3/16/26 | 9/15/113/137 | - |
| 32 | PL9 | a | 410 | - | - | 3/5/18/73 | 0/1/1/1 |
| 35 | DGD | C | 519 | - | - | 26/51/91/95 | 0/2/2/2 |
| 22 | CLA | G | 613 | 1 | 1/1/15/20 | 20/37/115/115 | - |
| 22 | CLA | y | 612 | 1 | 1/1/15/20 | 20/37/115/115 | - |
| 36 | LMG | M | 101 | - | - | 23/46/66/70 | 0/1/1/1 |
| 21 | CHL | y | 609 | - | 4/4/20/26 | 14/39/137/137 | - |
| 23 | LUT | g | 615 | - | - | 17/29/67/67 | 0/2/2/2 |
| 25 | NEX | Y | 616 | 22 | 2/2/12/25 | 14/27/83/83 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|-----------|---------------|---------|
| 22 | CLA | N | 613 | - | 1/1/11/20 | 9/17/95/115 | - |
| 30 | PHO | d | 401 | - | - | 15/37/103/103 | 0/5/6/6 |
| 21 | CHL | N | 605 | - | 3/3/16/26 | 13/20/118/137 | - |
| 22 | CLA | W | 101 | - | 1/1/14/20 | 12/31/109/115 | - |
| 22 | CLA | b | 601 | - | 1/1/15/20 | 18/37/115/115 | - |
| 31 | BCR | k | 101 | - | - | 16/29/63/63 | 0/2/2/2 |
| 21 | CHL | S | 307 | 20 | 3/3/16/26 | 12/15/113/137 | - |
| 31 | BCR | d | 405 | - | - | 8/29/63/63 | 0/2/2/2 |
| 24 | XAT | g | 617 | - | 2/2/12/26 | 17/31/93/93 | 0/4/4/4 |
| 21 | CHL | Y | 607 | - | 4/4/20/26 | 23/39/137/137 | - |
| 21 | CHL | R | 305 | - | 4/4/20/26 | 20/39/137/137 | - |
| 22 | CLA | C | 512 | - | 1/1/15/20 | 14/37/115/115 | - |
| 22 | CLA | R | 302 | - | 1/1/14/20 | 8/31/109/115 | - |
| 22 | CLA | g | 610 | - | 1/1/14/20 | 16/36/114/115 | - |
| 22 | CLA | b | 611 | - | 1/1/15/20 | 17/37/115/115 | - |
| 22 | CLA | s | 313 | 22 | 1/1/13/20 | 12/25/103/115 | - |
| 26 | LHG | D | 409 | - | - | 21/53/53/53 | - |
| 22 | CLA | b | 610 | - | 1/1/15/20 | 13/37/115/115 | - |
| 35 | DGD | c | 518 | - | - | 26/51/91/95 | 0/2/2/2 |
| 36 | LMG | T | 101 | - | - | 23/46/66/70 | 0/1/1/1 |
| 22 | CLA | c | 506 | - | 1/1/15/20 | 14/37/115/115 | - |
| 32 | PL9 | A | 411 | - | - | 3/5/18/73 | 0/1/1/1 |
| 22 | CLA | x | 101 | - | 1/1/15/20 | 16/37/115/115 | - |
| 22 | CLA | B | 606 | - | 1/1/15/20 | 12/37/115/115 | - |
| 22 | CLA | c | 502 | - | 1/1/15/20 | 18/37/115/115 | - |
| 22 | CLA | g | 604 | 25 | 1/1/12/20 | 6/19/97/115 | - |
| 22 | CLA | c | 514 | - | 1/1/15/20 | 16/37/115/115 | - |
| 22 | CLA | C | 507 | - | 1/1/15/20 | 14/37/115/115 | - |
| 22 | CLA | g | 602 | - | 1/1/15/20 | 13/37/115/115 | - |
| 21 | CHL | S | 302 | - | 3/3/16/26 | 9/15/113/137 | - |
| 26 | LHG | C | 521 | - | - | 21/53/53/53 | - |
| 31 | BCR | B | 620 | - | - | 7/29/63/63 | 0/2/2/2 |
| 37 | HEM | f | 101 | 7 | - | 4/12/54/54 | - |
| 35 | DGD | a | 413 | - | - | 21/48/88/95 | 0/2/2/2 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|-----------|---------------|---------|
| 22 | CLA | n | 603 | - | 1/1/15/20 | 17/37/115/115 | - |
| 22 | CLA | r | 310 | 19 | 1/1/15/20 | 18/37/115/115 | - |
| 22 | CLA | a | 408 | - | 1/1/14/20 | 3/31/109/115 | - |
| 22 | CLA | B | 608 | - | 1/1/15/20 | 10/37/115/115 | - |
| 22 | CLA | c | 508 | - | 1/1/15/20 | 12/37/115/115 | - |
| 22 | CLA | b | 608 | - | 1/1/15/20 | 7/37/115/115 | - |
| 22 | CLA | s | 312 | 20 | 1/1/11/20 | 7/18/96/115 | - |
| 22 | CLA | b | 615 | - | 1/1/15/20 | 12/37/115/115 | - |
| 22 | CLA | G | 603 | - | 1/1/15/20 | 17/37/115/115 | - |
| 22 | CLA | r | 303 | - | 1/1/14/20 | 8/31/109/115 | - |
| 22 | CLA | s | 308 | 20 | - | 8/13/91/115 | - |
| 26 | LHG | R | 301 | 19 | - | 27/51/51/53 | - |
| 22 | CLA | B | 609 | - | 1/1/15/20 | 6/37/115/115 | - |
| 22 | CLA | S | 304 | 20 | 1/1/11/20 | 7/13/91/115 | - |
| 22 | CLA | G | 602 | - | 1/1/15/20 | 13/37/115/115 | - |
| 22 | CLA | N | 603 | - | 1/1/15/20 | 17/37/115/115 | - |
| 21 | CHL | n | 605 | - | 3/3/16/26 | 13/20/118/137 | - |
| 31 | BCR | b | 616 | - | - | 7/29/63/63 | 0/2/2/2 |
| 22 | CLA | a | 406 | - | 1/1/12/20 | 8/19/97/115 | - |
| 21 | CHL | n | 608 | - | 4/4/20/26 | 15/39/137/137 | - |
| 22 | CLA | B | 604 | - | 1/1/15/20 | 18/37/115/115 | - |
| 33 | SQD | d | 402 | - | 1/1/9/9 | 18/45/65/69 | 0/1/1/1 |
| 22 | CLA | c | 507 | - | 1/1/15/20 | 10/37/115/115 | - |
| 22 | CLA | c | 503 | - | 1/1/15/20 | 17/37/115/115 | - |
| 22 | CLA | b | 602 | - | 1/1/15/20 | 13/37/115/115 | - |
| 22 | CLA | b | 609 | - | 1/1/15/20 | 11/37/115/115 | - |
| 22 | CLA | B | 615 | - | 1/1/15/20 | 8/37/115/115 | - |
| 22 | CLA | g | 613 | 1 | 1/1/15/20 | 18/37/115/115 | - |
| 26 | LHG | l | 102 | - | - | 19/53/53/53 | - |
| 21 | CHL | R | 306 | - | 4/4/18/26 | 16/27/125/137 | - |
| 26 | LHG | d | 408 | - | - | 21/53/53/53 | - |
| 22 | CLA | g | 614 | - | 1/1/11/20 | 9/17/95/115 | - |
| 21 | CHL | G | 609 | - | 4/4/19/26 | 10/33/131/137 | - |
| 33 | SQD | l | 101 | - | - | 13/37/57/69 | 0/1/1/1 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|-----------|---------------|---------|
| 22 | CLA | A | 407 | - | 1/1/12/20 | 8/19/97/115 | - |
| 22 | CLA | D | 404 | - | 1/1/15/20 | 13/37/115/115 | - |
| 22 | CLA | b | 613 | - | 1/1/15/20 | 14/37/115/115 | - |
| 22 | CLA | y | 613 | - | 1/1/11/20 | 9/17/95/115 | - |
| 26 | LHG | N | 618 | - | - | 29/53/53/53 | - |
| 21 | CHL | r | 307 | - | 4/4/18/26 | 16/27/125/137 | - |
| 21 | CHL | y | 601 | 1 | 4/4/20/26 | 24/39/137/137 | - |
| 31 | BCR | B | 602 | - | - | 20/29/63/63 | 0/2/2/2 |
| 23 | LUT | G | 616 | - | - | 16/29/67/67 | 0/2/2/2 |
| 22 | CLA | C | 510 | - | 1/1/15/20 | 13/37/115/115 | - |
| 22 | CLA | R | 308 | - | 1/1/13/20 | 9/29/107/115 | - |
| 22 | CLA | N | 611 | - | 1/1/14/20 | 12/31/109/115 | - |
| 21 | CHL | Y | 601 | 1 | 4/4/20/26 | 24/39/137/137 | - |
| 22 | CLA | c | 505 | - | 1/1/15/20 | 8/37/115/115 | - |
| 22 | CLA | B | 617 | - | 1/1/15/20 | 20/37/115/115 | - |
| 21 | CHL | s | 301 | - | 3/3/16/26 | 10/18/116/137 | - |
| 22 | CLA | c | 504 | - | 1/1/15/20 | 14/37/115/115 | - |
| 32 | PL9 | d | 406 | - | - | 17/53/73/73 | 0/1/1/1 |
| 22 | CLA | n | 610 | 26 | 1/1/14/20 | 8/31/109/115 | - |
| 22 | CLA | y | 604 | 25 | 1/1/12/20 | 6/19/97/115 | - |
| 26 | LHG | n | 617 | 22 | - | 25/53/53/53 | - |
| 37 | HEM | F | 101 | 7 | - | 4/12/54/54 | - |
| 22 | CLA | b | 606 | - | 1/1/15/20 | 6/37/115/115 | - |
| 31 | BCR | c | 515 | - | - | 5/29/63/63 | 0/2/2/2 |
| 22 | CLA | Y | 611 | 1 | 1/1/15/20 | 18/37/115/115 | - |
| 26 | LHG | c | 520 | 22 | - | 31/53/53/53 | - |
| 21 | CHL | r | 308 | 19 | 4/4/19/26 | 17/33/131/137 | - |
| 24 | XAT | Y | 615 | - | 2/2/12/26 | 18/31/93/93 | 0/4/4/4 |
| 23 | LUT | Y | 613 | - | - | 17/29/67/67 | 0/2/2/2 |
| 22 | CLA | Y | 610 | 26 | 1/1/14/20 | 8/31/109/115 | - |
| 21 | CHL | G | 608 | - | 4/4/20/26 | 23/39/137/137 | - |
| 22 | CLA | C | 514 | 22 | 1/1/15/20 | 21/37/115/115 | - |
| 26 | LHG | D | 410 | - | - | 19/47/47/53 | - |
| 22 | CLA | S | 312 | 20 | 1/1/11/20 | 7/18/96/115 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|-------|-----------|---------------|---------|
| 22 | CLA | r | 311 | 23,19 | 1/1/11/20 | 11/18/96/115 | - |
| 22 | CLA | b | 605 | - | 1/1/15/20 | 10/37/115/115 | - |
| 26 | LHG | Y | 617 | 22 | - | 29/53/53/53 | - |
| 33 | SQD | L | 102 | - | - | 13/37/57/69 | 0/1/1/1 |
| 22 | CLA | r | 305 | - | 1/1/11/20 | 7/17/95/115 | - |
| 21 | CHL | s | 302 | - | 3/3/16/26 | 9/15/113/137 | - |
| 35 | DGD | c | 519 | - | - | 16/49/89/95 | 0/2/2/2 |
| 22 | CLA | n | 602 | - | 1/1/15/20 | 13/37/115/115 | - |
| 26 | LHG | d | 409 | - | - | 19/47/47/53 | - |
| 22 | CLA | r | 309 | - | 1/1/13/20 | 9/29/107/115 | - |
| 23 | LUT | N | 615 | - | - | 15/29/67/67 | 0/2/2/2 |
| 35 | DGD | C | 518 | - | - | 18/44/84/95 | 0/2/2/2 |
| 36 | LMG | B | 623 | - | - | 22/50/70/70 | 0/1/1/1 |
| 22 | CLA | g | 611 | - | 1/1/14/20 | 8/31/109/115 | - |
| 31 | BCR | b | 618 | - | - | 5/29/63/63 | 0/2/2/2 |
| 22 | CLA | B | 607 | - | 1/1/15/20 | 15/37/115/115 | - |
| 21 | CHL | s | 306 | 20 | 3/3/16/26 | 10/15/113/137 | - |
| 35 | DGD | c | 517 | - | - | 18/44/84/95 | 0/2/2/2 |
| 25 | NEX | r | 315 | - | 2/2/12/25 | 14/27/83/83 | 0/3/3/3 |
| 23 | LUT | n | 614 | - | - | 17/29/67/67 | 0/2/2/2 |
| 22 | CLA | R | 311 | 19 | 1/1/14/20 | 12/31/109/115 | - |
| 22 | CLA | R | 303 | - | 1/1/14/20 | 9/31/109/115 | - |
| 30 | PHO | a | 407 | - | - | 13/37/103/103 | 0/5/6/6 |
| 31 | BCR | k | 102 | - | - | 5/29/63/63 | 0/2/2/2 |
| 22 | CLA | B | 603 | - | 1/1/15/20 | 16/37/115/115 | - |
| 21 | CHL | S | 306 | 20 | 3/3/16/26 | 10/15/113/137 | - |
| 26 | LHG | r | 302 | 19 | - | 27/51/51/53 | - |
| 26 | LHG | S | 314 | 22 | - | 29/53/53/53 | - |
| 26 | LHG | b | 619 | - | - | 28/53/53/53 | - |
| 22 | CLA | B | 613 | - | 1/1/15/20 | 13/37/115/115 | - |
| 23 | LUT | Y | 614 | - | - | 14/29/67/67 | 0/2/2/2 |
| 22 | CLA | Y | 604 | 25 | 1/1/12/20 | 6/19/97/115 | - |
| 22 | CLA | G | 614 | - | 1/1/11/20 | 9/17/95/115 | - |
| 23 | LUT | N | 614 | - | - | 17/29/67/67 | 0/2/2/2 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|-----------|---------------|---------|
| 22 | CLA | r | 304 | - | 1/1/14/20 | 9/31/109/115 | - |
| 31 | BCR | B | 619 | - | - | 7/29/63/63 | 0/2/2/2 |
| 36 | LMG | C | 523 | - | - | 20/46/66/70 | 0/1/1/1 |
| 22 | CLA | r | 312 | 19 | 1/1/14/20 | 12/31/109/115 | - |
| 22 | CLA | A | 405 | - | 1/1/15/20 | 4/37/115/115 | - |
| 22 | CLA | Y | 602 | - | 1/1/15/20 | 13/37/115/115 | - |
| 36 | LMG | I | 101 | - | - | 18/35/55/70 | 0/1/1/1 |
| 31 | BCR | A | 410 | - | - | 5/29/63/63 | 0/2/2/2 |
| 25 | NEX | y | 618 | - | 2/2/12/25 | 14/27/83/83 | 0/3/3/3 |
| 22 | CLA | B | 618 | - | 1/1/15/20 | 12/37/115/115 | - |
| 22 | CLA | C | 503 | - | 1/1/15/20 | 18/37/115/115 | - |
| 22 | CLA | s | 304 | 20 | 1/1/11/20 | 7/13/91/115 | - |
| 31 | BCR | B | 621 | - | - | 5/29/63/63 | 0/2/2/2 |
| 25 | NEX | y | 616 | 22 | 2/2/12/25 | 15/27/83/83 | 0/3/3/3 |
| 23 | LUT | g | 616 | - | - | 15/29/67/67 | 0/2/2/2 |
| 26 | LHG | d | 407 | - | - | 25/50/50/53 | - |
| 31 | BCR | H | 101 | - | - | 7/29/63/63 | 0/2/2/2 |
| 22 | CLA | C | 504 | - | 1/1/15/20 | 17/37/115/115 | - |
| 22 | CLA | b | 607 | - | 1/1/15/20 | 13/37/115/115 | - |
| 22 | CLA | S | 305 | 20 | 1/1/12/20 | 9/19/97/115 | - |
| 30 | PHO | A | 408 | - | - | 13/37/103/103 | 0/5/6/6 |
| 22 | CLA | n | 612 | 1 | 1/1/14/20 | 16/31/109/115 | - |
| 22 | CLA | n | 613 | - | 1/1/11/20 | 9/17/95/115 | - |
| 21 | CHL | s | 307 | 20 | 3/3/16/26 | 12/15/113/137 | - |
| 31 | BCR | a | 409 | - | - | 5/29/63/63 | 0/2/2/2 |
| 22 | CLA | g | 603 | - | 1/1/15/20 | 17/37/115/115 | - |
| 22 | CLA | s | 310 | 26 | 1/1/13/20 | 16/25/103/115 | - |
| 22 | CLA | C | 508 | - | 1/1/15/20 | 10/37/115/115 | - |
| 32 | PL9 | D | 407 | - | - | 17/53/73/73 | 0/1/1/1 |
| 31 | BCR | b | 617 | - | - | 7/29/63/63 | 0/2/2/2 |
| 31 | BCR | T | 102 | - | - | 21/29/63/63 | 0/2/2/2 |
| 22 | CLA | G | 612 | - | 1/1/14/20 | 12/31/109/115 | - |
| 24 | XAT | n | 615 | - | 2/2/12/26 | 16/31/93/93 | 0/4/4/4 |
| 26 | LHG | c | 522 | - | - | 23/53/53/53 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|-----------|---------------|---------|
| 22 | CLA | B | 616 | - | 1/1/15/20 | 14/37/115/115 | - |
| 22 | CLA | S | 310 | 26 | 1/1/13/20 | 16/25/103/115 | - |
| 22 | CLA | Y | 612 | - | 1/1/11/20 | 9/17/95/115 | - |
| 22 | CLA | G | 611 | - | 1/1/14/20 | 8/31/109/115 | - |
| 21 | CHL | R | 307 | 19 | 4/4/19/26 | 17/33/131/137 | - |
| 22 | CLA | N | 612 | 1 | 1/1/14/20 | 16/31/109/115 | - |
| 22 | CLA | B | 614 | - | 1/1/15/20 | 17/37/115/115 | - |
| 24 | XAT | G | 617 | - | 3/3/12/26 | 17/31/93/93 | 0/4/4/4 |
| 22 | CLA | G | 610 | - | 1/1/14/20 | 19/36/114/115 | - |
| 22 | CLA | n | 604 | 25 | 1/1/12/20 | 6/19/97/115 | - |
| 22 | CLA | R | 304 | - | 1/1/11/20 | 7/17/95/115 | - |
| 21 | CHL | Y | 605 | - | 3/3/16/26 | 13/20/118/137 | - |
| 21 | CHL | Y | 608 | - | 4/4/20/26 | 12/39/137/137 | - |
| 35 | DGD | H | 102 | - | - | 19/51/91/95 | 0/2/2/2 |
| 31 | BCR | K | 102 | - | - | 6/29/63/63 | 0/2/2/2 |
| 22 | CLA | N | 609 | - | 1/1/15/20 | 16/37/115/115 | - |
| 33 | SQD | L | 101 | 12 | - | 18/49/69/69 | 0/1/1/1 |
| 22 | CLA | c | 509 | - | 1/1/15/20 | 13/37/115/115 | - |
| 35 | DGD | h | 102 | - | - | 19/51/91/95 | 0/2/2/2 |
| 21 | CHL | G | 607 | - | 4/4/20/26 | 18/39/137/137 | - |
| 21 | CHL | r | 301 | 19 | 3/3/16/26 | 8/18/116/137 | - |
| 24 | XAT | y | 615 | - | 2/2/12/26 | 18/31/93/93 | 0/4/4/4 |
| 33 | SQD | A | 412 | - | - | 23/49/69/69 | 0/1/1/1 |
| 22 | CLA | S | 308 | 20 | - | 8/13/91/115 | - |
| 36 | LMG | c | 523 | - | - | 20/46/66/70 | 0/1/1/1 |
| 22 | CLA | w | 101 | 16 | 1/1/14/20 | 12/31/109/115 | - |
| 22 | CLA | b | 603 | - | 1/1/15/20 | 12/37/115/115 | - |
| 33 | SQD | l | 103 | 12 | - | 18/49/69/69 | 0/1/1/1 |
| 21 | CHL | g | 609 | - | 4/4/19/26 | 10/33/131/137 | - |
| 36 | LMG | K | 103 | - | - | 26/46/66/70 | 0/1/1/1 |
| 22 | CLA | c | 510 | - | 1/1/15/20 | 11/37/115/115 | - |
| 22 | CLA | b | 604 | - | 1/1/15/20 | 15/37/115/115 | - |
| 23 | LUT | G | 615 | - | - | 17/29/67/67 | 0/2/2/2 |
| 21 | CHL | g | 607 | - | 4/4/20/26 | 18/39/137/137 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|-----------|---------------|---------|
| 26 | LHG | L | 103 | - | - | 19/53/53/53 | - |
| 21 | CHL | n | 601 | 1 | 4/4/20/26 | 24/39/137/137 | - |
| 22 | CLA | N | 610 | - | 1/1/14/20 | 8/31/109/115 | - |
| 22 | CLA | B | 611 | - | 1/1/15/20 | 7/37/115/115 | - |
| 24 | XAT | R | 313 | - | 1/1/12/26 | 14/31/93/93 | 0/4/4/4 |
| 22 | CLA | C | 513 | 4 | 1/1/15/20 | 14/37/115/115 | - |
| 26 | LHG | g | 619 | - | - | 22/53/53/53 | - |
| 21 | CHL | N | 607 | - | 4/4/20/26 | 23/39/137/137 | - |
| 22 | CLA | s | 303 | 20 | 1/1/14/20 | 12/33/111/115 | - |
| 21 | CHL | Y | 606 | - | 4/4/20/26 | 18/39/137/137 | - |
| 21 | CHL | S | 301 | - | 3/3/16/26 | 10/18/116/137 | - |
| 22 | CLA | B | 610 | - | 1/1/15/20 | 13/37/115/115 | - |
| 25 | NEX | N | 617 | 22 | 2/2/12/25 | 15/27/83/83 | 0/3/3/3 |
| 21 | CHL | G | 601 | 1 | 4/4/20/26 | 24/39/137/137 | - |
| 22 | CLA | C | 506 | - | 1/1/15/20 | 8/37/115/115 | - |
| 35 | DGD | J | 101 | - | - | 16/49/89/95 | 0/2/2/2 |
| 23 | LUT | r | 313 | 22 | - | 18/29/67/67 | 0/2/2/2 |
| 22 | CLA | C | 515 | - | 1/1/15/20 | 16/37/115/115 | - |
| 26 | LHG | D | 408 | - | - | 25/50/50/53 | - |
| 30 | PHO | D | 401 | - | - | 15/37/103/103 | 0/5/6/6 |
| 22 | CLA | S | 303 | 20 | 1/1/14/20 | 12/33/111/115 | - |
| 36 | LMG | k | 103 | - | - | 26/46/66/70 | 0/1/1/1 |

All (2557) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 37 | f | 101 | HEM | FE-NB | 25.25 | 3.21 | 1.96 |
| 37 | F | 101 | HEM | FE-NB | 25.23 | 3.21 | 1.96 |
| 23 | N | 615 | LUT | C24-C25 | 17.30 | 1.54 | 1.33 |
| 23 | N | 614 | LUT | C24-C25 | 17.28 | 1.54 | 1.33 |
| 23 | n | 614 | LUT | C24-C25 | 17.28 | 1.54 | 1.33 |
| 23 | G | 615 | LUT | C24-C25 | 17.27 | 1.54 | 1.33 |
| 23 | Y | 613 | LUT | C24-C25 | 17.27 | 1.54 | 1.33 |
| 23 | g | 615 | LUT | C24-C25 | 17.25 | 1.54 | 1.33 |
| 23 | y | 614 | LUT | C24-C25 | 17.25 | 1.54 | 1.33 |
| 23 | g | 616 | LUT | C24-C25 | 17.20 | 1.54 | 1.33 |
| 23 | r | 313 | LUT | C24-C25 | 17.08 | 1.54 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23 | R | 312 | LUT | C24-C25 | 17.08 | 1.54 | 1.33 |
| 23 | G | 616 | LUT | C24-C25 | 17.06 | 1.54 | 1.33 |
| 23 | Y | 614 | LUT | C24-C25 | 16.83 | 1.54 | 1.33 |
| 22 | c | 510 | CLA | C1D-ND | 16.62 | 1.58 | 1.37 |
| 22 | C | 511 | CLA | C1D-ND | 16.60 | 1.58 | 1.37 |
| 23 | g | 616 | LUT | C14-C13 | 15.83 | 1.56 | 1.35 |
| 23 | N | 615 | LUT | C14-C13 | 15.77 | 1.56 | 1.35 |
| 23 | G | 616 | LUT | C14-C13 | 15.74 | 1.56 | 1.35 |
| 23 | Y | 614 | LUT | C14-C13 | 15.45 | 1.56 | 1.35 |
| 23 | R | 312 | LUT | C14-C13 | 15.40 | 1.56 | 1.35 |
| 23 | Y | 614 | LUT | C10-C9 | 15.36 | 1.56 | 1.35 |
| 23 | r | 313 | LUT | C14-C13 | 15.34 | 1.56 | 1.35 |
| 23 | G | 616 | LUT | C10-C9 | 15.21 | 1.55 | 1.35 |
| 23 | G | 616 | LUT | C34-C33 | 15.19 | 1.55 | 1.35 |
| 23 | g | 616 | LUT | C10-C9 | 15.19 | 1.55 | 1.35 |
| 23 | g | 616 | LUT | C34-C33 | 15.17 | 1.55 | 1.35 |
| 23 | N | 615 | LUT | C10-C9 | 15.12 | 1.55 | 1.35 |
| 23 | y | 614 | LUT | C10-C9 | 15.12 | 1.55 | 1.35 |
| 23 | g | 615 | LUT | C10-C9 | 15.08 | 1.55 | 1.35 |
| 23 | N | 615 | LUT | C34-C33 | 15.07 | 1.55 | 1.35 |
| 23 | G | 615 | LUT | C10-C9 | 15.06 | 1.55 | 1.35 |
| 23 | Y | 613 | LUT | C10-C9 | 15.05 | 1.55 | 1.35 |
| 23 | Y | 614 | LUT | C34-C33 | 15.05 | 1.55 | 1.35 |
| 23 | y | 614 | LUT | C14-C13 | 15.05 | 1.55 | 1.35 |
| 23 | Y | 613 | LUT | C14-C13 | 15.04 | 1.55 | 1.35 |
| 23 | N | 614 | LUT | C10-C9 | 15.04 | 1.55 | 1.35 |
| 23 | g | 615 | LUT | C14-C13 | 15.03 | 1.55 | 1.35 |
| 23 | n | 614 | LUT | C10-C9 | 15.03 | 1.55 | 1.35 |
| 23 | n | 614 | LUT | C14-C13 | 15.01 | 1.55 | 1.35 |
| 23 | N | 614 | LUT | C14-C13 | 15.01 | 1.55 | 1.35 |
| 23 | G | 615 | LUT | C14-C13 | 15.01 | 1.55 | 1.35 |
| 23 | N | 615 | LUT | C30-C29 | 14.96 | 1.55 | 1.35 |
| 24 | Y | 615 | XAT | C30-C29 | 14.82 | 1.55 | 1.35 |
| 24 | Y | 615 | XAT | C34-C33 | 14.78 | 1.55 | 1.35 |
| 24 | y | 615 | XAT | C30-C29 | 14.77 | 1.55 | 1.35 |
| 24 | y | 615 | XAT | C34-C33 | 14.69 | 1.55 | 1.35 |
| 24 | Y | 615 | XAT | C14-C13 | 14.69 | 1.55 | 1.35 |
| 24 | y | 615 | XAT | C14-C13 | 14.68 | 1.55 | 1.35 |
| 24 | r | 314 | XAT | C30-C29 | 14.66 | 1.55 | 1.35 |
| 24 | N | 616 | XAT | C30-C29 | 14.66 | 1.55 | 1.35 |
| 23 | R | 312 | LUT | C34-C33 | 14.62 | 1.55 | 1.35 |
| 24 | r | 314 | XAT | C10-C9 | 14.59 | 1.55 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23 | R | 312 | LUT | C10-C9 | 14.59 | 1.55 | 1.35 |
| 23 | r | 313 | LUT | C34-C33 | 14.59 | 1.55 | 1.35 |
| 24 | G | 617 | XAT | C30-C29 | 14.58 | 1.55 | 1.35 |
| 24 | g | 617 | XAT | C30-C29 | 14.58 | 1.55 | 1.35 |
| 24 | Y | 615 | XAT | C10-C9 | 14.58 | 1.55 | 1.35 |
| 24 | R | 313 | XAT | C30-C29 | 14.57 | 1.55 | 1.35 |
| 25 | y | 616 | NEX | C10-C9 | 14.56 | 1.55 | 1.35 |
| 23 | g | 616 | LUT | C30-C29 | 14.56 | 1.55 | 1.35 |
| 23 | Y | 614 | LUT | C30-C29 | 14.56 | 1.55 | 1.35 |
| 24 | n | 615 | XAT | C30-C29 | 14.55 | 1.55 | 1.35 |
| 23 | r | 313 | LUT | C10-C9 | 14.55 | 1.55 | 1.35 |
| 24 | r | 314 | XAT | C34-C33 | 14.54 | 1.55 | 1.35 |
| 24 | g | 617 | XAT | C34-C33 | 14.54 | 1.55 | 1.35 |
| 24 | R | 313 | XAT | C10-C9 | 14.54 | 1.55 | 1.35 |
| 24 | G | 617 | XAT | C34-C33 | 14.53 | 1.55 | 1.35 |
| 24 | G | 617 | XAT | C10-C9 | 14.53 | 1.55 | 1.35 |
| 24 | R | 313 | XAT | C34-C33 | 14.53 | 1.55 | 1.35 |
| 24 | g | 617 | XAT | C10-C9 | 14.52 | 1.55 | 1.35 |
| 24 | G | 617 | XAT | C14-C13 | 14.52 | 1.55 | 1.35 |
| 23 | g | 615 | LUT | C34-C33 | 14.51 | 1.55 | 1.35 |
| 24 | n | 615 | XAT | C34-C33 | 14.50 | 1.55 | 1.35 |
| 23 | G | 616 | LUT | C30-C29 | 14.50 | 1.55 | 1.35 |
| 23 | n | 614 | LUT | C34-C33 | 14.50 | 1.55 | 1.35 |
| 23 | G | 615 | LUT | C34-C33 | 14.50 | 1.55 | 1.35 |
| 23 | N | 614 | LUT | C34-C33 | 14.48 | 1.55 | 1.35 |
| 23 | y | 614 | LUT | C34-C33 | 14.47 | 1.55 | 1.35 |
| 25 | y | 616 | NEX | C14-C13 | 14.46 | 1.54 | 1.35 |
| 24 | R | 313 | XAT | C14-C13 | 14.44 | 1.54 | 1.35 |
| 25 | N | 617 | NEX | C10-C9 | 14.44 | 1.54 | 1.35 |
| 24 | y | 615 | XAT | C10-C9 | 14.44 | 1.54 | 1.35 |
| 24 | n | 615 | XAT | C10-C9 | 14.43 | 1.54 | 1.35 |
| 25 | n | 616 | NEX | C14-C13 | 14.43 | 1.54 | 1.35 |
| 23 | Y | 613 | LUT | C34-C33 | 14.42 | 1.54 | 1.35 |
| 25 | Y | 616 | NEX | C10-C9 | 14.42 | 1.54 | 1.35 |
| 24 | N | 616 | XAT | C34-C33 | 14.42 | 1.54 | 1.35 |
| 24 | n | 615 | XAT | C14-C13 | 14.40 | 1.54 | 1.35 |
| 24 | g | 617 | XAT | C14-C13 | 14.40 | 1.54 | 1.35 |
| 24 | N | 616 | XAT | C10-C9 | 14.39 | 1.54 | 1.35 |
| 24 | r | 314 | XAT | C14-C13 | 14.39 | 1.54 | 1.35 |
| 25 | n | 616 | NEX | C10-C9 | 14.37 | 1.54 | 1.35 |
| 25 | N | 617 | NEX | C34-C33 | 14.36 | 1.54 | 1.35 |
| 25 | Y | 616 | NEX | C34-C33 | 14.36 | 1.54 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23 | y | 614 | LUT | C30-C29 | 14.33 | 1.54 | 1.35 |
| 25 | N | 617 | NEX | C14-C13 | 14.32 | 1.54 | 1.35 |
| 25 | g | 618 | NEX | C10-C9 | 14.31 | 1.54 | 1.35 |
| 25 | y | 616 | NEX | C34-C33 | 14.31 | 1.54 | 1.35 |
| 23 | n | 614 | LUT | C30-C29 | 14.30 | 1.54 | 1.35 |
| 23 | G | 615 | LUT | C30-C29 | 14.30 | 1.54 | 1.35 |
| 25 | Y | 616 | NEX | C14-C13 | 14.29 | 1.54 | 1.35 |
| 25 | y | 618 | NEX | C10-C9 | 14.28 | 1.54 | 1.35 |
| 23 | g | 615 | LUT | C30-C29 | 14.27 | 1.54 | 1.35 |
| 25 | n | 616 | NEX | C30-C29 | 14.26 | 1.54 | 1.35 |
| 25 | n | 616 | NEX | C34-C33 | 14.25 | 1.54 | 1.35 |
| 24 | N | 616 | XAT | C14-C13 | 14.24 | 1.54 | 1.35 |
| 23 | N | 614 | LUT | C30-C29 | 14.23 | 1.54 | 1.35 |
| 23 | Y | 613 | LUT | C30-C29 | 14.23 | 1.54 | 1.35 |
| 25 | N | 617 | NEX | C30-C29 | 14.22 | 1.54 | 1.35 |
| 25 | r | 315 | NEX | C10-C9 | 14.21 | 1.54 | 1.35 |
| 25 | y | 618 | NEX | C14-C13 | 14.19 | 1.54 | 1.35 |
| 25 | r | 315 | NEX | C14-C13 | 14.19 | 1.54 | 1.35 |
| 25 | g | 618 | NEX | C14-C13 | 14.18 | 1.54 | 1.35 |
| 25 | r | 315 | NEX | C34-C33 | 14.17 | 1.54 | 1.35 |
| 25 | y | 616 | NEX | C30-C29 | 14.15 | 1.54 | 1.35 |
| 25 | y | 618 | NEX | C34-C33 | 14.12 | 1.54 | 1.35 |
| 25 | g | 618 | NEX | C34-C33 | 14.04 | 1.54 | 1.35 |
| 25 | g | 618 | NEX | C30-C29 | 14.02 | 1.54 | 1.35 |
| 25 | y | 618 | NEX | C30-C29 | 13.98 | 1.54 | 1.35 |
| 23 | R | 312 | LUT | C30-C29 | 13.93 | 1.54 | 1.35 |
| 25 | r | 315 | NEX | C30-C29 | 13.93 | 1.54 | 1.35 |
| 23 | r | 313 | LUT | C30-C29 | 13.92 | 1.54 | 1.35 |
| 25 | Y | 616 | NEX | C30-C29 | 13.89 | 1.54 | 1.35 |
| 23 | G | 616 | LUT | C5-C6 | 11.87 | 1.55 | 1.34 |
| 23 | R | 312 | LUT | C5-C6 | 11.84 | 1.55 | 1.34 |
| 23 | g | 616 | LUT | C5-C6 | 11.84 | 1.54 | 1.34 |
| 23 | r | 313 | LUT | C5-C6 | 11.78 | 1.54 | 1.34 |
| 23 | Y | 614 | LUT | C5-C6 | 11.71 | 1.54 | 1.34 |
| 23 | N | 615 | LUT | C5-C6 | 11.33 | 1.54 | 1.34 |
| 22 | c | 510 | CLA | MG-NC | 11.29 | 2.33 | 2.06 |
| 22 | C | 511 | CLA | MG-NC | 11.27 | 2.33 | 2.06 |
| 23 | y | 614 | LUT | C5-C6 | 10.85 | 1.53 | 1.34 |
| 23 | N | 614 | LUT | C5-C6 | 10.82 | 1.53 | 1.34 |
| 23 | G | 615 | LUT | C5-C6 | 10.79 | 1.53 | 1.34 |
| 23 | n | 614 | LUT | C5-C6 | 10.78 | 1.53 | 1.34 |
| 23 | g | 615 | LUT | C5-C6 | 10.78 | 1.53 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23 | Y | 613 | LUT | C5-C6 | 10.76 | 1.53 | 1.34 |
| 22 | C | 511 | CLA | CHD-C1D | 9.51 | 1.56 | 1.38 |
| 22 | c | 510 | CLA | CHD-C1D | 9.50 | 1.56 | 1.38 |
| 22 | C | 511 | CLA | MG-ND | 9.19 | 2.24 | 2.05 |
| 22 | c | 510 | CLA | MG-ND | 9.17 | 2.24 | 2.05 |
| 22 | c | 510 | CLA | CHD-C4C | 8.80 | 1.59 | 1.39 |
| 22 | C | 511 | CLA | CHD-C4C | 8.76 | 1.59 | 1.39 |
| 22 | C | 511 | CLA | C4B-NB | 8.40 | 1.42 | 1.35 |
| 22 | c | 510 | CLA | C4B-NB | 8.36 | 1.42 | 1.35 |
| 22 | s | 308 | CLA | C4B-NB | 7.65 | 1.42 | 1.35 |
| 22 | N | 611 | CLA | C4B-NB | 7.59 | 1.42 | 1.35 |
| 22 | w | 101 | CLA | C4B-NB | 7.58 | 1.42 | 1.35 |
| 22 | S | 308 | CLA | C4B-NB | 7.58 | 1.42 | 1.35 |
| 22 | G | 612 | CLA | C4B-NB | 7.58 | 1.42 | 1.35 |
| 22 | S | 304 | CLA | C4B-NB | 7.57 | 1.42 | 1.35 |
| 22 | s | 304 | CLA | C4B-NB | 7.57 | 1.42 | 1.35 |
| 22 | n | 611 | CLA | C4B-NB | 7.55 | 1.41 | 1.35 |
| 22 | R | 310 | CLA | C4B-NB | 7.54 | 1.41 | 1.35 |
| 22 | s | 303 | CLA | C4B-NB | 7.52 | 1.41 | 1.35 |
| 22 | W | 101 | CLA | C4B-NB | 7.50 | 1.41 | 1.35 |
| 22 | g | 610 | CLA | C4B-NB | 7.48 | 1.41 | 1.35 |
| 22 | G | 610 | CLA | C4B-NB | 7.46 | 1.41 | 1.35 |
| 22 | N | 609 | CLA | C4B-NB | 7.46 | 1.41 | 1.35 |
| 22 | r | 311 | CLA | C4B-NB | 7.46 | 1.41 | 1.35 |
| 22 | g | 612 | CLA | C4B-NB | 7.45 | 1.41 | 1.35 |
| 22 | S | 303 | CLA | C4B-NB | 7.45 | 1.41 | 1.35 |
| 22 | R | 309 | CLA | C4B-NB | 7.41 | 1.41 | 1.35 |
| 22 | x | 101 | CLA | C4B-NB | 7.40 | 1.41 | 1.35 |
| 22 | y | 610 | CLA | C4B-NB | 7.39 | 1.41 | 1.35 |
| 22 | s | 312 | CLA | C4B-NB | 7.36 | 1.41 | 1.35 |
| 22 | Y | 609 | CLA | C4B-NB | 7.36 | 1.41 | 1.35 |
| 22 | B | 603 | CLA | C4B-NB | 7.36 | 1.41 | 1.35 |
| 22 | r | 310 | CLA | C4B-NB | 7.32 | 1.41 | 1.35 |
| 22 | S | 312 | CLA | C4B-NB | 7.32 | 1.41 | 1.35 |
| 22 | n | 609 | CLA | C4B-NB | 7.32 | 1.41 | 1.35 |
| 22 | r | 312 | CLA | C4B-NB | 7.31 | 1.41 | 1.35 |
| 22 | R | 311 | CLA | C4B-NB | 7.27 | 1.41 | 1.35 |
| 22 | B | 611 | CLA | C4B-NB | 7.26 | 1.41 | 1.35 |
| 22 | S | 311 | CLA | C4B-NB | 7.25 | 1.41 | 1.35 |
| 22 | s | 305 | CLA | C4B-NB | 7.23 | 1.41 | 1.35 |
| 22 | g | 614 | CLA | C4B-NB | 7.22 | 1.41 | 1.35 |
| 22 | r | 304 | CLA | C4B-NB | 7.21 | 1.41 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|--------|------|-------------|----------|
| 22 | d | 404 | CLA | C4B-NB | 7.19 | 1.41 | 1.35 |
| 22 | y | 613 | CLA | C4B-NB | 7.19 | 1.41 | 1.35 |
| 22 | G | 611 | CLA | C4B-NB | 7.18 | 1.41 | 1.35 |
| 22 | a | 406 | CLA | C4B-NB | 7.17 | 1.41 | 1.35 |
| 22 | R | 308 | CLA | C4B-NB | 7.17 | 1.41 | 1.35 |
| 22 | n | 613 | CLA | C4B-NB | 7.17 | 1.41 | 1.35 |
| 22 | D | 405 | CLA | C4B-NB | 7.17 | 1.41 | 1.35 |
| 22 | b | 608 | CLA | C4B-NB | 7.16 | 1.41 | 1.35 |
| 22 | N | 613 | CLA | C4B-NB | 7.16 | 1.41 | 1.35 |
| 22 | s | 311 | CLA | C4B-NB | 7.16 | 1.41 | 1.35 |
| 22 | Y | 610 | CLA | C4B-NB | 7.15 | 1.41 | 1.35 |
| 22 | R | 302 | CLA | C4B-NB | 7.15 | 1.41 | 1.35 |
| 22 | R | 303 | CLA | C4B-NB | 7.15 | 1.41 | 1.35 |
| 22 | N | 603 | CLA | C4B-NB | 7.15 | 1.41 | 1.35 |
| 22 | r | 303 | CLA | C4B-NB | 7.14 | 1.41 | 1.35 |
| 22 | g | 611 | CLA | C4B-NB | 7.14 | 1.41 | 1.35 |
| 22 | c | 511 | CLA | C4B-NB | 7.14 | 1.41 | 1.35 |
| 22 | n | 610 | CLA | C4B-NB | 7.13 | 1.41 | 1.35 |
| 22 | Y | 612 | CLA | C4B-NB | 7.12 | 1.41 | 1.35 |
| 22 | A | 407 | CLA | C4B-NB | 7.12 | 1.41 | 1.35 |
| 22 | g | 603 | CLA | C4B-NB | 7.11 | 1.41 | 1.35 |
| 22 | y | 602 | CLA | C4B-NB | 7.11 | 1.41 | 1.35 |
| 22 | S | 305 | CLA | C4B-NB | 7.11 | 1.41 | 1.35 |
| 22 | y | 611 | CLA | C4B-NB | 7.10 | 1.41 | 1.35 |
| 22 | N | 612 | CLA | C4B-NB | 7.10 | 1.41 | 1.35 |
| 22 | Y | 602 | CLA | C4B-NB | 7.10 | 1.41 | 1.35 |
| 22 | G | 602 | CLA | C4B-NB | 7.09 | 1.41 | 1.35 |
| 22 | C | 512 | CLA | C4B-NB | 7.09 | 1.41 | 1.35 |
| 22 | r | 309 | CLA | C4B-NB | 7.09 | 1.41 | 1.35 |
| 22 | G | 603 | CLA | C4B-NB | 7.09 | 1.41 | 1.35 |
| 22 | S | 309 | CLA | C4B-NB | 7.09 | 1.41 | 1.35 |
| 22 | N | 602 | CLA | C4B-NB | 7.09 | 1.41 | 1.35 |
| 22 | d | 403 | CLA | C4B-NB | 7.08 | 1.41 | 1.35 |
| 22 | n | 603 | CLA | C4B-NB | 7.08 | 1.41 | 1.35 |
| 22 | y | 603 | CLA | C4B-NB | 7.08 | 1.41 | 1.35 |
| 22 | n | 612 | CLA | C4B-NB | 7.08 | 1.41 | 1.35 |
| 22 | G | 614 | CLA | C4B-NB | 7.07 | 1.41 | 1.35 |
| 22 | C | 506 | CLA | C4B-NB | 7.07 | 1.41 | 1.35 |
| 22 | Y | 603 | CLA | C4B-NB | 7.06 | 1.41 | 1.35 |
| 22 | s | 309 | CLA | C4B-NB | 7.06 | 1.41 | 1.35 |
| 22 | c | 506 | CLA | C4B-NB | 7.06 | 1.41 | 1.35 |
| 22 | N | 610 | CLA | C4B-NB | 7.05 | 1.41 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 22 | r | 305 | CLA | C4B-NB | 7.05 | 1.41 | 1.35 |
| 22 | y | 612 | CLA | C4B-NB | 7.05 | 1.41 | 1.35 |
| 22 | C | 507 | CLA | C4B-NB | 7.05 | 1.41 | 1.35 |
| 22 | B | 618 | CLA | C4B-NB | 7.05 | 1.41 | 1.35 |
| 22 | g | 613 | CLA | C4B-NB | 7.04 | 1.41 | 1.35 |
| 22 | B | 615 | CLA | C4B-NB | 7.04 | 1.41 | 1.35 |
| 22 | b | 612 | CLA | C4B-NB | 7.04 | 1.41 | 1.35 |
| 22 | S | 313 | CLA | C4B-NB | 7.04 | 1.41 | 1.35 |
| 22 | Y | 611 | CLA | C4B-NB | 7.04 | 1.41 | 1.35 |
| 22 | G | 613 | CLA | C4B-NB | 7.03 | 1.41 | 1.35 |
| 22 | b | 610 | CLA | C4B-NB | 7.02 | 1.41 | 1.35 |
| 22 | C | 515 | CLA | C4B-NB | 7.02 | 1.41 | 1.35 |
| 22 | a | 404 | CLA | C4B-NB | 7.01 | 1.41 | 1.35 |
| 22 | B | 613 | CLA | C4B-NB | 7.01 | 1.41 | 1.35 |
| 22 | D | 404 | CLA | C4B-NB | 7.01 | 1.41 | 1.35 |
| 22 | n | 602 | CLA | C4B-NB | 7.01 | 1.41 | 1.35 |
| 22 | c | 509 | CLA | C4B-NB | 7.01 | 1.41 | 1.35 |
| 22 | g | 602 | CLA | C4B-NB | 6.99 | 1.41 | 1.35 |
| 22 | B | 617 | CLA | C4B-NB | 6.99 | 1.41 | 1.35 |
| 22 | s | 313 | CLA | C4B-NB | 6.99 | 1.41 | 1.35 |
| 22 | B | 608 | CLA | C4B-NB | 6.98 | 1.41 | 1.35 |
| 22 | c | 505 | CLA | C4B-NB | 6.98 | 1.41 | 1.35 |
| 22 | c | 514 | CLA | C4B-NB | 6.98 | 1.41 | 1.35 |
| 22 | R | 304 | CLA | C4B-NB | 6.97 | 1.41 | 1.35 |
| 22 | B | 607 | CLA | C4B-NB | 6.97 | 1.41 | 1.35 |
| 22 | C | 510 | CLA | C4B-NB | 6.97 | 1.41 | 1.35 |
| 22 | b | 605 | CLA | C4B-NB | 6.96 | 1.41 | 1.35 |
| 22 | b | 614 | CLA | C4B-NB | 6.96 | 1.41 | 1.35 |
| 22 | y | 612 | CLA | CHC-C1C | 6.96 | 1.52 | 1.35 |
| 22 | c | 507 | CLA | C4B-NB | 6.95 | 1.41 | 1.35 |
| 22 | b | 606 | CLA | C4B-NB | 6.95 | 1.41 | 1.35 |
| 22 | g | 613 | CLA | CHC-C1C | 6.95 | 1.52 | 1.35 |
| 22 | b | 611 | CLA | C4B-NB | 6.94 | 1.41 | 1.35 |
| 22 | A | 405 | CLA | C4B-NB | 6.94 | 1.41 | 1.35 |
| 22 | B | 609 | CLA | C4B-NB | 6.94 | 1.41 | 1.35 |
| 22 | n | 612 | CLA | CHC-C1C | 6.94 | 1.52 | 1.35 |
| 22 | N | 612 | CLA | CHC-C1C | 6.94 | 1.52 | 1.35 |
| 22 | C | 513 | CLA | C4B-NB | 6.94 | 1.41 | 1.35 |
| 22 | C | 503 | CLA | C4B-NB | 6.93 | 1.41 | 1.35 |
| 22 | G | 613 | CLA | CHC-C1C | 6.93 | 1.52 | 1.35 |
| 22 | Y | 611 | CLA | CHC-C1C | 6.93 | 1.52 | 1.35 |
| 22 | B | 616 | CLA | C4B-NB | 6.92 | 1.41 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 22 | B | 614 | CLA | C4B-NB | 6.92 | 1.41 | 1.35 |
| 22 | b | 603 | CLA | C4B-NB | 6.92 | 1.41 | 1.35 |
| 22 | B | 606 | CLA | C4B-NB | 6.92 | 1.41 | 1.35 |
| 22 | b | 613 | CLA | C4B-NB | 6.92 | 1.41 | 1.35 |
| 22 | S | 310 | CLA | C4B-NB | 6.90 | 1.41 | 1.35 |
| 22 | a | 408 | CLA | C4B-NB | 6.89 | 1.41 | 1.35 |
| 22 | b | 615 | CLA | C4B-NB | 6.88 | 1.41 | 1.35 |
| 22 | b | 607 | CLA | C4B-NB | 6.88 | 1.41 | 1.35 |
| 22 | c | 513 | CLA | C4B-NB | 6.86 | 1.41 | 1.35 |
| 22 | C | 508 | CLA | C4B-NB | 6.86 | 1.41 | 1.35 |
| 22 | b | 604 | CLA | C4B-NB | 6.85 | 1.41 | 1.35 |
| 22 | c | 508 | CLA | C4B-NB | 6.84 | 1.41 | 1.35 |
| 22 | c | 512 | CLA | C4B-NB | 6.82 | 1.41 | 1.35 |
| 22 | b | 609 | CLA | C4B-NB | 6.81 | 1.41 | 1.35 |
| 22 | b | 601 | CLA | C4B-NB | 6.81 | 1.41 | 1.35 |
| 22 | B | 612 | CLA | C4B-NB | 6.81 | 1.41 | 1.35 |
| 22 | C | 504 | CLA | C4B-NB | 6.80 | 1.41 | 1.35 |
| 22 | A | 406 | CLA | C4B-NB | 6.79 | 1.41 | 1.35 |
| 22 | B | 604 | CLA | C4B-NB | 6.78 | 1.41 | 1.35 |
| 22 | A | 409 | CLA | C4B-NB | 6.78 | 1.41 | 1.35 |
| 22 | C | 509 | CLA | C4B-NB | 6.78 | 1.41 | 1.35 |
| 22 | s | 310 | CLA | C4B-NB | 6.78 | 1.41 | 1.35 |
| 22 | B | 610 | CLA | C4B-NB | 6.77 | 1.41 | 1.35 |
| 22 | c | 502 | CLA | C4B-NB | 6.76 | 1.41 | 1.35 |
| 22 | C | 514 | CLA | C4B-NB | 6.76 | 1.41 | 1.35 |
| 22 | a | 405 | CLA | C4B-NB | 6.75 | 1.41 | 1.35 |
| 22 | c | 504 | CLA | C4B-NB | 6.72 | 1.41 | 1.35 |
| 22 | c | 503 | CLA | C4B-NB | 6.71 | 1.41 | 1.35 |
| 22 | B | 605 | CLA | C4B-NB | 6.68 | 1.41 | 1.35 |
| 22 | C | 505 | CLA | C4B-NB | 6.67 | 1.41 | 1.35 |
| 22 | b | 602 | CLA | C4B-NB | 6.66 | 1.41 | 1.35 |
| 22 | y | 604 | CLA | C4B-NB | 6.58 | 1.41 | 1.35 |
| 22 | N | 604 | CLA | C4B-NB | 6.57 | 1.41 | 1.35 |
| 22 | Y | 604 | CLA | C4B-NB | 6.55 | 1.41 | 1.35 |
| 22 | n | 604 | CLA | C4B-NB | 6.55 | 1.41 | 1.35 |
| 22 | G | 604 | CLA | C4B-NB | 6.54 | 1.41 | 1.35 |
| 22 | g | 604 | CLA | C4B-NB | 6.54 | 1.41 | 1.35 |
| 25 | n | 616 | NEX | C24-C25 | 6.24 | 1.60 | 1.52 |
| 25 | g | 618 | NEX | C24-C25 | 6.21 | 1.60 | 1.52 |
| 25 | y | 618 | NEX | C24-C25 | 6.11 | 1.60 | 1.52 |
| 25 | r | 315 | NEX | C24-C25 | 6.07 | 1.60 | 1.52 |
| 25 | Y | 616 | NEX | C24-C25 | 6.03 | 1.60 | 1.52 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 25 | N | 617 | NEX | C24-C25 | 6.02 | 1.60 | 1.52 |
| 25 | y | 616 | NEX | C24-C25 | 5.83 | 1.60 | 1.52 |
| 37 | F | 101 | HEM | FE-ND | -5.82 | 1.68 | 1.96 |
| 37 | f | 101 | HEM | FE-ND | -5.82 | 1.68 | 1.96 |
| 24 | g | 617 | XAT | C24-C25 | 5.71 | 1.60 | 1.52 |
| 21 | N | 606 | CHL | C3B-C2B | 5.69 | 1.48 | 1.40 |
| 21 | y | 606 | CHL | C3B-C2B | 5.69 | 1.48 | 1.40 |
| 21 | g | 605 | CHL | C3B-C2B | 5.68 | 1.48 | 1.40 |
| 21 | S | 307 | CHL | C3B-C2B | 5.68 | 1.48 | 1.40 |
| 21 | Y | 608 | CHL | C3B-C2B | 5.67 | 1.48 | 1.40 |
| 21 | Y | 607 | CHL | C3B-C2B | 5.67 | 1.48 | 1.40 |
| 21 | s | 301 | CHL | C3B-C2B | 5.67 | 1.48 | 1.40 |
| 21 | G | 601 | CHL | C3B-C2B | 5.67 | 1.48 | 1.40 |
| 21 | Y | 601 | CHL | C3B-C2B | 5.67 | 1.48 | 1.40 |
| 21 | N | 601 | CHL | C3B-C2B | 5.67 | 1.48 | 1.40 |
| 21 | g | 609 | CHL | C3B-C2B | 5.66 | 1.48 | 1.40 |
| 21 | s | 302 | CHL | C3B-C2B | 5.66 | 1.48 | 1.40 |
| 21 | Y | 605 | CHL | C3B-C2B | 5.66 | 1.48 | 1.40 |
| 21 | S | 301 | CHL | C3B-C2B | 5.66 | 1.48 | 1.40 |
| 21 | g | 601 | CHL | C3B-C2B | 5.66 | 1.48 | 1.40 |
| 21 | N | 607 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | y | 609 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | G | 608 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | s | 307 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | G | 605 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | Y | 606 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | n | 608 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | R | 307 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | R | 306 | CHL | C3B-C2B | 5.65 | 1.48 | 1.40 |
| 21 | y | 608 | CHL | C3B-C2B | 5.64 | 1.48 | 1.40 |
| 21 | n | 605 | CHL | C3B-C2B | 5.64 | 1.48 | 1.40 |
| 21 | n | 607 | CHL | C3B-C2B | 5.64 | 1.48 | 1.40 |
| 21 | y | 601 | CHL | C3B-C2B | 5.63 | 1.48 | 1.40 |
| 21 | N | 605 | CHL | C3B-C2B | 5.63 | 1.48 | 1.40 |
| 21 | r | 307 | CHL | C3B-C2B | 5.63 | 1.48 | 1.40 |
| 21 | s | 306 | CHL | C3B-C2B | 5.63 | 1.48 | 1.40 |
| 21 | g | 608 | CHL | C3B-C2B | 5.63 | 1.48 | 1.40 |
| 21 | n | 606 | CHL | C3B-C2B | 5.63 | 1.48 | 1.40 |
| 21 | r | 301 | CHL | C3B-C2B | 5.62 | 1.48 | 1.40 |
| 21 | y | 607 | CHL | C3B-C2B | 5.62 | 1.48 | 1.40 |
| 21 | S | 302 | CHL | C3B-C2B | 5.62 | 1.48 | 1.40 |
| 21 | g | 606 | CHL | C3B-C2B | 5.62 | 1.48 | 1.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | g | 607 | CHL | C3B-C2B | 5.62 | 1.48 | 1.40 |
| 21 | G | 606 | CHL | C3B-C2B | 5.62 | 1.48 | 1.40 |
| 21 | N | 608 | CHL | C3B-C2B | 5.61 | 1.48 | 1.40 |
| 21 | r | 308 | CHL | C3B-C2B | 5.61 | 1.48 | 1.40 |
| 21 | y | 605 | CHL | C3B-C2B | 5.61 | 1.48 | 1.40 |
| 21 | n | 601 | CHL | C3B-C2B | 5.61 | 1.48 | 1.40 |
| 21 | G | 607 | CHL | C3B-C2B | 5.61 | 1.48 | 1.40 |
| 21 | R | 305 | CHL | C3B-C2B | 5.60 | 1.48 | 1.40 |
| 21 | G | 609 | CHL | C3B-C2B | 5.60 | 1.48 | 1.40 |
| 24 | R | 313 | XAT | C24-C25 | 5.59 | 1.60 | 1.52 |
| 21 | r | 306 | CHL | C3B-C2B | 5.58 | 1.48 | 1.40 |
| 21 | S | 306 | CHL | C3B-C2B | 5.56 | 1.48 | 1.40 |
| 24 | Y | 615 | XAT | C24-C25 | 5.50 | 1.59 | 1.52 |
| 24 | r | 314 | XAT | C24-C25 | 5.50 | 1.59 | 1.52 |
| 24 | y | 615 | XAT | C24-C25 | 5.49 | 1.59 | 1.52 |
| 21 | R | 306 | CHL | CHC-C1C | 5.47 | 1.49 | 1.35 |
| 21 | Y | 601 | CHL | CHC-C1C | 5.46 | 1.49 | 1.35 |
| 21 | S | 306 | CHL | CHC-C1C | 5.46 | 1.49 | 1.35 |
| 21 | n | 601 | CHL | CHC-C1C | 5.46 | 1.49 | 1.35 |
| 21 | r | 306 | CHL | CHC-C1C | 5.46 | 1.49 | 1.35 |
| 21 | S | 307 | CHL | CHC-C1C | 5.45 | 1.49 | 1.35 |
| 21 | Y | 605 | CHL | CHC-C1C | 5.45 | 1.48 | 1.35 |
| 21 | r | 308 | CHL | CHC-C1C | 5.45 | 1.48 | 1.35 |
| 21 | n | 608 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | n | 607 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | G | 608 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | y | 609 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | G | 605 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | R | 307 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | N | 601 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | g | 601 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | S | 301 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | r | 301 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 21 | R | 305 | CHL | CHC-C1C | 5.44 | 1.48 | 1.35 |
| 22 | C | 511 | CLA | C4D-ND | -5.43 | 1.30 | 1.37 |
| 21 | N | 607 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | g | 606 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | g | 608 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | N | 606 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | s | 307 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | g | 607 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | r | 307 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | G | 606 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | G | 609 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | y | 608 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | y | 601 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | Y | 607 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | N | 608 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | y | 605 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | y | 606 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | Y | 606 | CHL | CHC-C1C | 5.43 | 1.48 | 1.35 |
| 21 | G | 607 | CHL | CHC-C1C | 5.42 | 1.48 | 1.35 |
| 21 | Y | 608 | CHL | CHC-C1C | 5.42 | 1.48 | 1.35 |
| 21 | s | 306 | CHL | CHC-C1C | 5.42 | 1.48 | 1.35 |
| 21 | s | 302 | CHL | CHC-C1C | 5.42 | 1.48 | 1.35 |
| 21 | g | 609 | CHL | CHC-C1C | 5.42 | 1.48 | 1.35 |
| 21 | S | 302 | CHL | CHC-C1C | 5.42 | 1.48 | 1.35 |
| 21 | n | 605 | CHL | CHC-C1C | 5.41 | 1.48 | 1.35 |
| 21 | n | 606 | CHL | CHC-C1C | 5.41 | 1.48 | 1.35 |
| 21 | g | 605 | CHL | CHC-C1C | 5.41 | 1.48 | 1.35 |
| 21 | s | 301 | CHL | CHC-C1C | 5.41 | 1.48 | 1.35 |
| 21 | y | 607 | CHL | CHC-C1C | 5.41 | 1.48 | 1.35 |
| 22 | N | 612 | CLA | C1C-C2C | 5.41 | 1.55 | 1.44 |
| 22 | g | 613 | CLA | C1C-C2C | 5.40 | 1.55 | 1.44 |
| 21 | G | 601 | CHL | CHC-C1C | 5.40 | 1.48 | 1.35 |
| 21 | N | 605 | CHL | CHC-C1C | 5.39 | 1.48 | 1.35 |
| 22 | y | 612 | CLA | C1C-C2C | 5.38 | 1.55 | 1.44 |
| 22 | G | 613 | CLA | C1C-C2C | 5.37 | 1.55 | 1.44 |
| 22 | c | 510 | CLA | C4D-ND | -5.36 | 1.30 | 1.37 |
| 22 | n | 612 | CLA | C1C-C2C | 5.36 | 1.54 | 1.44 |
| 22 | Y | 611 | CLA | C1C-C2C | 5.35 | 1.54 | 1.44 |
| 37 | f | 101 | HEM | C4B-NB | 5.34 | 1.49 | 1.38 |
| 37 | F | 101 | HEM | C4B-NB | 5.31 | 1.49 | 1.38 |
| 21 | G | 601 | CHL | O2D-CGD | 5.22 | 1.45 | 1.33 |
| 21 | G | 607 | CHL | O2D-CGD | 5.22 | 1.45 | 1.33 |
| 21 | N | 606 | CHL | O2D-CGD | 5.22 | 1.45 | 1.33 |
| 21 | g | 605 | CHL | O2D-CGD | 5.22 | 1.45 | 1.33 |
| 21 | g | 607 | CHL | CHD-C1D | 5.22 | 1.48 | 1.38 |
| 21 | g | 609 | CHL | O2D-CGD | 5.22 | 1.45 | 1.33 |
| 21 | n | 607 | CHL | O2D-CGD | 5.21 | 1.45 | 1.33 |
| 21 | g | 608 | CHL | O2D-CGD | 5.21 | 1.45 | 1.33 |
| 21 | G | 605 | CHL | O2D-CGD | 5.21 | 1.45 | 1.33 |
| 21 | y | 609 | CHL | O2D-CGD | 5.21 | 1.45 | 1.33 |
| 21 | Y | 607 | CHL | O2D-CGD | 5.21 | 1.45 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 21 | R | 307 | CHL | O2D-CGD | 5.21 | 1.45 | 1.33 |
| 21 | S | 301 | CHL | O2D-CGD | 5.20 | 1.45 | 1.33 |
| 21 | G | 608 | CHL | O2D-CGD | 5.20 | 1.45 | 1.33 |
| 21 | S | 307 | CHL | O2D-CGD | 5.20 | 1.45 | 1.33 |
| 21 | Y | 605 | CHL | O2D-CGD | 5.20 | 1.45 | 1.33 |
| 21 | g | 601 | CHL | CHD-C1D | 5.20 | 1.48 | 1.38 |
| 21 | s | 302 | CHL | O2D-CGD | 5.20 | 1.45 | 1.33 |
| 21 | y | 605 | CHL | O2D-CGD | 5.20 | 1.45 | 1.33 |
| 21 | N | 605 | CHL | O2D-CGD | 5.20 | 1.45 | 1.33 |
| 21 | s | 301 | CHL | CHD-C1D | 5.20 | 1.48 | 1.38 |
| 21 | n | 607 | CHL | CHD-C1D | 5.20 | 1.48 | 1.38 |
| 21 | y | 607 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | Y | 606 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | s | 301 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | N | 601 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | r | 307 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | g | 606 | CHL | CHD-C1D | 5.19 | 1.48 | 1.38 |
| 21 | r | 301 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | N | 608 | CHL | CHD-C1D | 5.19 | 1.48 | 1.38 |
| 21 | s | 302 | CHL | CHD-C1D | 5.19 | 1.48 | 1.38 |
| 21 | R | 305 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | r | 307 | CHL | CHD-C1D | 5.19 | 1.48 | 1.38 |
| 21 | s | 307 | CHL | O2D-CGD | 5.19 | 1.45 | 1.33 |
| 21 | s | 306 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | Y | 601 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | r | 308 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | s | 306 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | S | 302 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | y | 606 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | R | 307 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | g | 607 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 24 | n | 615 | XAT | C24-C25 | 5.18 | 1.59 | 1.52 |
| 21 | y | 608 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | G | 601 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | n | 608 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | r | 306 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | Y | 605 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | n | 606 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | G | 609 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | R | 306 | CHL | O2D-CGD | 5.18 | 1.45 | 1.33 |
| 21 | G | 608 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | G | 605 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 21 | s | 307 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | y | 606 | CHL | CHD-C1D | 5.18 | 1.48 | 1.38 |
| 21 | g | 609 | CHL | CHD-C1D | 5.17 | 1.48 | 1.38 |
| 21 | n | 601 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | y | 608 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | Y | 608 | CHL | CHD-C1D | 5.17 | 1.48 | 1.38 |
| 21 | g | 605 | CHL | CHD-C1D | 5.17 | 1.48 | 1.38 |
| 21 | S | 306 | CHL | CHD-C1D | 5.17 | 1.48 | 1.38 |
| 21 | S | 306 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | y | 601 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | g | 606 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | g | 601 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | n | 605 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | Y | 606 | CHL | CHD-C1D | 5.17 | 1.48 | 1.38 |
| 21 | Y | 608 | CHL | O2D-CGD | 5.17 | 1.45 | 1.33 |
| 21 | G | 606 | CHL | O2D-CGD | 5.16 | 1.45 | 1.33 |
| 21 | S | 302 | CHL | O2D-CGD | 5.16 | 1.45 | 1.33 |
| 21 | n | 608 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | n | 605 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | S | 301 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | N | 605 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | N | 608 | CHL | O2D-CGD | 5.16 | 1.45 | 1.33 |
| 21 | R | 306 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | y | 601 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | r | 308 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | N | 607 | CHL | O2D-CGD | 5.16 | 1.45 | 1.33 |
| 21 | y | 607 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | G | 606 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | n | 601 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | G | 609 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | R | 305 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 21 | r | 306 | CHL | CHD-C1D | 5.16 | 1.48 | 1.38 |
| 24 | G | 617 | XAT | C24-C25 | 5.15 | 1.59 | 1.52 |
| 21 | S | 307 | CHL | CHD-C1D | 5.15 | 1.48 | 1.38 |
| 21 | G | 607 | CHL | CHD-C1D | 5.15 | 1.48 | 1.38 |
| 21 | g | 608 | CHL | CHD-C1D | 5.14 | 1.48 | 1.38 |
| 21 | N | 606 | CHL | CHD-C1D | 5.14 | 1.48 | 1.38 |
| 21 | N | 601 | CHL | CHD-C1D | 5.14 | 1.48 | 1.38 |
| 21 | n | 606 | CHL | CHD-C1D | 5.14 | 1.48 | 1.38 |
| 21 | y | 606 | CHL | C2C-C3C | 5.13 | 1.47 | 1.36 |
| 21 | Y | 601 | CHL | CHD-C1D | 5.13 | 1.48 | 1.38 |
| 21 | N | 601 | CHL | C2C-C3C | 5.13 | 1.47 | 1.36 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 21 | y | 609 | CHL | CHD-C1D | 5.13 | 1.48 | 1.38 |
| 21 | g | 607 | CHL | C2C-C3C | 5.13 | 1.47 | 1.36 |
| 21 | g | 608 | CHL | C2C-C3C | 5.12 | 1.47 | 1.36 |
| 21 | N | 607 | CHL | CHD-C1D | 5.12 | 1.48 | 1.38 |
| 21 | r | 301 | CHL | CHD-C1D | 5.12 | 1.48 | 1.38 |
| 21 | y | 605 | CHL | CHD-C1D | 5.12 | 1.48 | 1.38 |
| 21 | N | 606 | CHL | C2C-C3C | 5.12 | 1.47 | 1.36 |
| 21 | s | 302 | CHL | C2C-C3C | 5.12 | 1.47 | 1.36 |
| 21 | N | 607 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | y | 607 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | G | 608 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | S | 307 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 24 | N | 616 | XAT | C24-C25 | 5.11 | 1.59 | 1.52 |
| 21 | Y | 607 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | S | 301 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | N | 605 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | n | 606 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | S | 302 | CHL | C2C-C3C | 5.11 | 1.47 | 1.36 |
| 21 | r | 307 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | Y | 607 | CHL | CHD-C1D | 5.10 | 1.48 | 1.38 |
| 21 | Y | 606 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | y | 605 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | g | 601 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | r | 301 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | y | 608 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | g | 605 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | S | 306 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | R | 307 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | R | 305 | CHL | C2C-C3C | 5.10 | 1.47 | 1.36 |
| 21 | n | 607 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | g | 606 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | G | 606 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | Y | 608 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | s | 306 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | y | 601 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | r | 306 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | G | 607 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | y | 609 | CHL | C2C-C3C | 5.09 | 1.47 | 1.36 |
| 21 | n | 601 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |
| 21 | G | 605 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |
| 21 | s | 307 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |
| 21 | N | 608 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | n | 608 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |
| 21 | G | 601 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |
| 21 | g | 609 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |
| 21 | s | 301 | CHL | C2C-C3C | 5.08 | 1.47 | 1.36 |
| 21 | n | 605 | CHL | C2C-C3C | 5.07 | 1.47 | 1.36 |
| 21 | Y | 601 | CHL | C2C-C3C | 5.07 | 1.47 | 1.36 |
| 21 | R | 306 | CHL | C2C-C3C | 5.07 | 1.47 | 1.36 |
| 21 | G | 609 | CHL | C2C-C3C | 5.06 | 1.47 | 1.36 |
| 21 | r | 308 | CHL | C2C-C3C | 5.06 | 1.47 | 1.36 |
| 21 | Y | 605 | CHL | C2C-C3C | 5.06 | 1.47 | 1.36 |
| 23 | N | 615 | LUT | C26-C27 | 4.93 | 1.57 | 1.50 |
| 21 | s | 302 | CHL | C3D-C4D | -4.76 | 1.33 | 1.44 |
| 23 | N | 615 | LUT | C28-C29 | 4.76 | 1.56 | 1.45 |
| 21 | R | 307 | CHL | C3D-C4D | -4.76 | 1.33 | 1.44 |
| 21 | N | 607 | CHL | C3D-C4D | -4.75 | 1.33 | 1.44 |
| 21 | G | 606 | CHL | C3D-C4D | -4.75 | 1.33 | 1.44 |
| 21 | N | 606 | CHL | C3D-C4D | -4.75 | 1.33 | 1.44 |
| 21 | r | 307 | CHL | C3D-C4D | -4.75 | 1.33 | 1.44 |
| 21 | G | 609 | CHL | C3D-C4D | -4.74 | 1.33 | 1.44 |
| 21 | Y | 608 | CHL | C3D-C4D | -4.74 | 1.33 | 1.44 |
| 21 | n | 607 | CHL | C3D-C4D | -4.74 | 1.33 | 1.44 |
| 21 | g | 605 | CHL | C3D-C4D | -4.74 | 1.33 | 1.44 |
| 21 | s | 306 | CHL | C3D-C4D | -4.74 | 1.33 | 1.44 |
| 21 | y | 609 | CHL | C3D-C4D | -4.73 | 1.33 | 1.44 |
| 21 | Y | 606 | CHL | C3D-C4D | -4.73 | 1.33 | 1.44 |
| 21 | s | 307 | CHL | C3D-C4D | -4.73 | 1.33 | 1.44 |
| 23 | Y | 614 | LUT | C26-C27 | 4.73 | 1.57 | 1.50 |
| 21 | N | 605 | CHL | C3D-C4D | -4.73 | 1.33 | 1.44 |
| 21 | R | 306 | CHL | C3D-C4D | -4.73 | 1.33 | 1.44 |
| 21 | y | 606 | CHL | C3D-C4D | -4.73 | 1.33 | 1.44 |
| 21 | Y | 601 | CHL | C3D-C4D | -4.73 | 1.33 | 1.44 |
| 21 | y | 605 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | S | 306 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | G | 607 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | G | 605 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | S | 307 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | N | 601 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | s | 301 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | S | 301 | CHL | C3D-C4D | -4.72 | 1.33 | 1.44 |
| 21 | N | 608 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |
| 21 | y | 608 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |
| 21 | S | 302 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | G | 608 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |
| 21 | Y | 607 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |
| 21 | g | 609 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |
| 21 | G | 601 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |
| 21 | g | 608 | CHL | C3D-C4D | -4.71 | 1.33 | 1.44 |
| 21 | r | 306 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | g | 606 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | r | 301 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | y | 607 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | Y | 605 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | n | 605 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | n | 606 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | y | 601 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | r | 308 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | g | 601 | CHL | C3D-C4D | -4.70 | 1.33 | 1.44 |
| 21 | n | 608 | CHL | C3D-C4D | -4.69 | 1.33 | 1.44 |
| 21 | n | 601 | CHL | C3D-C4D | -4.69 | 1.33 | 1.44 |
| 21 | R | 305 | CHL | C3D-C4D | -4.68 | 1.33 | 1.44 |
| 32 | D | 407 | PL9 | C7-C3 | -4.68 | 1.46 | 1.51 |
| 21 | g | 607 | CHL | C3D-C4D | -4.67 | 1.33 | 1.44 |
| 23 | Y | 614 | LUT | C28-C29 | 4.61 | 1.55 | 1.45 |
| 23 | R | 312 | LUT | C12-C13 | 4.57 | 1.55 | 1.45 |
| 21 | n | 606 | CHL | CHD-C4C | 4.56 | 1.49 | 1.39 |
| 21 | n | 605 | CHL | CHD-C4C | 4.55 | 1.49 | 1.39 |
| 21 | G | 605 | CHL | CHD-C4C | 4.55 | 1.49 | 1.39 |
| 21 | S | 307 | CHL | CHD-C4C | 4.55 | 1.49 | 1.39 |
| 21 | r | 306 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | y | 606 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | N | 607 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | r | 301 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | Y | 607 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | R | 305 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | s | 307 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | G | 601 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 23 | G | 616 | LUT | C28-C29 | 4.54 | 1.55 | 1.45 |
| 21 | g | 608 | CHL | CHD-C4C | 4.54 | 1.49 | 1.39 |
| 21 | r | 308 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | R | 306 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | G | 609 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | n | 601 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | Y | 601 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | n | 607 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | y | 607 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 23 | r | 313 | LUT | C12-C13 | 4.53 | 1.55 | 1.45 |
| 21 | g | 605 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | y | 605 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | N | 601 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | n | 608 | CHL | CHD-C4C | 4.53 | 1.49 | 1.39 |
| 21 | N | 608 | CHL | CHD-C4C | 4.52 | 1.49 | 1.39 |
| 21 | G | 605 | CHL | O2A-CGA | 4.52 | 1.45 | 1.30 |
| 21 | r | 307 | CHL | CHD-C4C | 4.52 | 1.49 | 1.39 |
| 21 | g | 606 | CHL | CHD-C4C | 4.52 | 1.49 | 1.39 |
| 21 | Y | 608 | CHL | CHD-C4C | 4.52 | 1.49 | 1.39 |
| 21 | s | 306 | CHL | CHD-C4C | 4.52 | 1.49 | 1.39 |
| 21 | y | 609 | CHL | CHD-C4C | 4.52 | 1.49 | 1.39 |
| 21 | g | 609 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | g | 605 | CHL | O2A-CGA | 4.51 | 1.45 | 1.30 |
| 32 | d | 406 | PL9 | C7-C3 | -4.51 | 1.46 | 1.51 |
| 21 | s | 302 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | G | 606 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | N | 606 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | N | 605 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | S | 302 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | R | 307 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | y | 601 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | G | 607 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | g | 601 | CHL | CHD-C4C | 4.51 | 1.49 | 1.39 |
| 21 | S | 306 | CHL | CHD-C4C | 4.50 | 1.49 | 1.39 |
| 21 | G | 608 | CHL | CHD-C4C | 4.50 | 1.49 | 1.39 |
| 21 | s | 302 | CHL | O2A-CGA | 4.50 | 1.45 | 1.30 |
| 21 | y | 608 | CHL | CHD-C4C | 4.50 | 1.49 | 1.39 |
| 24 | N | 616 | XAT | C4-C5 | 4.50 | 1.58 | 1.52 |
| 21 | g | 607 | CHL | CHD-C4C | 4.50 | 1.49 | 1.39 |
| 21 | S | 306 | CHL | O2A-CGA | 4.50 | 1.45 | 1.30 |
| 21 | Y | 606 | CHL | CHD-C4C | 4.49 | 1.49 | 1.39 |
| 21 | s | 301 | CHL | CHD-C4C | 4.49 | 1.49 | 1.39 |
| 24 | n | 615 | XAT | C4-C5 | 4.49 | 1.58 | 1.52 |
| 21 | Y | 605 | CHL | CHD-C4C | 4.49 | 1.49 | 1.39 |
| 21 | S | 307 | CHL | O2A-CGA | 4.49 | 1.45 | 1.30 |
| 21 | S | 301 | CHL | CHD-C4C | 4.49 | 1.49 | 1.39 |
| 21 | s | 307 | CHL | O2A-CGA | 4.48 | 1.45 | 1.30 |
| 21 | s | 306 | CHL | O2A-CGA | 4.47 | 1.45 | 1.30 |
| 21 | S | 302 | CHL | O2A-CGA | 4.46 | 1.45 | 1.30 |
| 23 | g | 616 | LUT | C28-C29 | 4.46 | 1.55 | 1.45 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 23 | g | 616 | LUT | C26-C27 | 4.44 | 1.56 | 1.50 |
| 23 | g | 616 | LUT | C12-C13 | 4.39 | 1.55 | 1.45 |
| 25 | Y | 616 | NEX | C28-C29 | 4.37 | 1.55 | 1.45 |
| 23 | G | 616 | LUT | C26-C27 | 4.36 | 1.56 | 1.50 |
| 23 | Y | 614 | LUT | C12-C13 | 4.35 | 1.55 | 1.45 |
| 23 | G | 616 | LUT | C12-C13 | 4.34 | 1.55 | 1.45 |
| 21 | N | 605 | CHL | O2A-CGA | 4.31 | 1.45 | 1.33 |
| 24 | y | 615 | XAT | C15-C14 | 4.30 | 1.56 | 1.43 |
| 21 | R | 306 | CHL | O2A-CGA | 4.30 | 1.45 | 1.33 |
| 21 | n | 605 | CHL | O2A-CGA | 4.30 | 1.45 | 1.33 |
| 21 | Y | 606 | CHL | O2A-CGA | 4.30 | 1.45 | 1.33 |
| 21 | g | 601 | CHL | O2A-CGA | 4.30 | 1.45 | 1.33 |
| 21 | r | 308 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | y | 609 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | R | 307 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | N | 608 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | Y | 607 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | g | 607 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | y | 605 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 24 | Y | 615 | XAT | C15-C14 | 4.29 | 1.56 | 1.43 |
| 21 | Y | 601 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | G | 606 | CHL | O2A-CGA | 4.29 | 1.45 | 1.33 |
| 21 | g | 606 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | n | 606 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | G | 601 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 23 | N | 615 | LUT | C12-C13 | 4.28 | 1.55 | 1.45 |
| 21 | n | 608 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | r | 307 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | r | 306 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | r | 301 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | S | 301 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | y | 606 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | N | 607 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | Y | 605 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | g | 608 | CHL | O2A-CGA | 4.28 | 1.45 | 1.33 |
| 21 | n | 607 | CHL | O2A-CGA | 4.27 | 1.45 | 1.33 |
| 24 | Y | 615 | XAT | C31-C30 | 4.27 | 1.56 | 1.43 |
| 21 | g | 609 | CHL | O2A-CGA | 4.27 | 1.45 | 1.33 |
| 21 | y | 607 | CHL | O2A-CGA | 4.27 | 1.45 | 1.33 |
| 21 | G | 609 | CHL | O2A-CGA | 4.27 | 1.45 | 1.33 |
| 21 | Y | 608 | CHL | O2A-CGA | 4.27 | 1.45 | 1.33 |
| 21 | y | 601 | CHL | O2A-CGA | 4.27 | 1.45 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 21 | s | 301 | CHL | O2A-CGA | 4.27 | 1.45 | 1.33 |
| 21 | N | 606 | CHL | O2A-CGA | 4.26 | 1.45 | 1.33 |
| 21 | G | 608 | CHL | O2A-CGA | 4.26 | 1.45 | 1.33 |
| 21 | G | 607 | CHL | O2A-CGA | 4.26 | 1.45 | 1.33 |
| 21 | y | 608 | CHL | O2A-CGA | 4.26 | 1.45 | 1.33 |
| 24 | y | 615 | XAT | C31-C30 | 4.26 | 1.56 | 1.43 |
| 23 | N | 614 | LUT | C28-C29 | 4.26 | 1.55 | 1.45 |
| 21 | n | 601 | CHL | O2A-CGA | 4.26 | 1.45 | 1.33 |
| 21 | R | 305 | CHL | O2A-CGA | 4.26 | 1.45 | 1.33 |
| 23 | Y | 613 | LUT | C28-C29 | 4.25 | 1.55 | 1.45 |
| 24 | Y | 615 | XAT | C35-C34 | 4.25 | 1.56 | 1.43 |
| 23 | r | 313 | LUT | C28-C29 | 4.25 | 1.55 | 1.45 |
| 21 | N | 601 | CHL | O2A-CGA | 4.25 | 1.45 | 1.33 |
| 24 | G | 617 | XAT | C15-C14 | 4.25 | 1.56 | 1.43 |
| 25 | r | 315 | NEX | C28-C29 | 4.24 | 1.55 | 1.45 |
| 23 | G | 615 | LUT | C28-C29 | 4.24 | 1.55 | 1.45 |
| 25 | N | 617 | NEX | C28-C29 | 4.23 | 1.55 | 1.45 |
| 23 | n | 614 | LUT | C28-C29 | 4.22 | 1.55 | 1.45 |
| 25 | y | 618 | NEX | C28-C29 | 4.22 | 1.55 | 1.45 |
| 24 | g | 617 | XAT | C15-C14 | 4.22 | 1.56 | 1.43 |
| 23 | g | 615 | LUT | C28-C29 | 4.22 | 1.55 | 1.45 |
| 23 | y | 614 | LUT | C28-C29 | 4.22 | 1.55 | 1.45 |
| 23 | R | 312 | LUT | C28-C29 | 4.22 | 1.55 | 1.45 |
| 24 | G | 617 | XAT | C35-C34 | 4.21 | 1.56 | 1.43 |
| 24 | Y | 615 | XAT | C11-C10 | 4.20 | 1.56 | 1.43 |
| 23 | n | 614 | LUT | C12-C13 | 4.19 | 1.55 | 1.45 |
| 23 | N | 615 | LUT | C8-C9 | 4.19 | 1.55 | 1.45 |
| 24 | y | 615 | XAT | C35-C34 | 4.19 | 1.56 | 1.43 |
| 25 | y | 616 | NEX | C11-C10 | 4.19 | 1.56 | 1.43 |
| 24 | y | 615 | XAT | C11-C10 | 4.19 | 1.56 | 1.43 |
| 24 | g | 617 | XAT | C4-C5 | 4.19 | 1.58 | 1.52 |
| 24 | G | 617 | XAT | C11-C10 | 4.19 | 1.56 | 1.43 |
| 25 | N | 617 | NEX | C11-C10 | 4.18 | 1.56 | 1.43 |
| 24 | G | 617 | XAT | C31-C30 | 4.18 | 1.56 | 1.43 |
| 25 | n | 616 | NEX | C28-C29 | 4.18 | 1.54 | 1.45 |
| 23 | Y | 613 | LUT | C12-C13 | 4.18 | 1.54 | 1.45 |
| 23 | G | 615 | LUT | C12-C13 | 4.18 | 1.54 | 1.45 |
| 24 | R | 313 | XAT | C11-C10 | 4.18 | 1.56 | 1.43 |
| 23 | N | 614 | LUT | C12-C13 | 4.18 | 1.54 | 1.45 |
| 24 | g | 617 | XAT | C11-C10 | 4.18 | 1.56 | 1.43 |
| 25 | Y | 616 | NEX | C11-C10 | 4.17 | 1.56 | 1.43 |
| 24 | n | 615 | XAT | C15-C14 | 4.17 | 1.56 | 1.43 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|------|-------------|----------|
| 23 | Y | 614 | LUT | C8-C9 | 4.17 | 1.54 | 1.45 |
| 23 | g | 616 | LUT | C15-C14 | 4.17 | 1.56 | 1.43 |
| 24 | g | 617 | XAT | C31-C30 | 4.16 | 1.56 | 1.43 |
| 24 | r | 314 | XAT | C11-C10 | 4.16 | 1.56 | 1.43 |
| 25 | g | 618 | NEX | C28-C29 | 4.16 | 1.54 | 1.45 |
| 25 | n | 616 | NEX | C11-C10 | 4.16 | 1.56 | 1.43 |
| 24 | g | 617 | XAT | C35-C34 | 4.16 | 1.56 | 1.43 |
| 23 | g | 615 | LUT | C12-C13 | 4.16 | 1.54 | 1.45 |
| 23 | y | 614 | LUT | C12-C13 | 4.16 | 1.54 | 1.45 |
| 24 | n | 615 | XAT | C31-C30 | 4.15 | 1.56 | 1.43 |
| 23 | G | 616 | LUT | C15-C14 | 4.15 | 1.56 | 1.43 |
| 24 | G | 617 | XAT | C4-C5 | 4.15 | 1.58 | 1.52 |
| 24 | R | 313 | XAT | C31-C30 | 4.14 | 1.56 | 1.43 |
| 24 | N | 616 | XAT | C15-C14 | 4.14 | 1.56 | 1.43 |
| 24 | r | 314 | XAT | C31-C30 | 4.14 | 1.56 | 1.43 |
| 24 | n | 615 | XAT | C11-C10 | 4.13 | 1.56 | 1.43 |
| 25 | y | 618 | NEX | C11-C10 | 4.13 | 1.56 | 1.43 |
| 24 | N | 616 | XAT | C31-C30 | 4.13 | 1.56 | 1.43 |
| 23 | g | 616 | LUT | C8-C9 | 4.12 | 1.54 | 1.45 |
| 25 | r | 315 | NEX | C11-C10 | 4.12 | 1.56 | 1.43 |
| 24 | N | 616 | XAT | C11-C10 | 4.12 | 1.56 | 1.43 |
| 25 | N | 617 | NEX | C15-C14 | 4.12 | 1.56 | 1.43 |
| 24 | n | 615 | XAT | C35-C34 | 4.11 | 1.56 | 1.43 |
| 25 | n | 616 | NEX | C15-C14 | 4.11 | 1.56 | 1.43 |
| 25 | N | 617 | NEX | C35-C34 | 4.11 | 1.56 | 1.43 |
| 25 | g | 618 | NEX | C11-C10 | 4.10 | 1.56 | 1.43 |
| 25 | y | 616 | NEX | C35-C34 | 4.10 | 1.56 | 1.43 |
| 25 | y | 616 | NEX | C15-C14 | 4.09 | 1.56 | 1.43 |
| 25 | Y | 616 | NEX | C35-C34 | 4.09 | 1.56 | 1.43 |
| 23 | N | 615 | LUT | C15-C14 | 4.08 | 1.56 | 1.43 |
| 24 | r | 314 | XAT | C15-C14 | 4.08 | 1.56 | 1.43 |
| 25 | n | 616 | NEX | C35-C34 | 4.07 | 1.56 | 1.43 |
| 25 | y | 616 | NEX | C28-C29 | 4.07 | 1.54 | 1.45 |
| 24 | R | 313 | XAT | C15-C14 | 4.07 | 1.56 | 1.43 |
| 23 | G | 616 | LUT | C8-C9 | 4.06 | 1.54 | 1.45 |
| 23 | Y | 614 | LUT | C15-C14 | 4.06 | 1.56 | 1.43 |
| 25 | y | 618 | NEX | C35-C34 | 4.05 | 1.56 | 1.43 |
| 25 | Y | 616 | NEX | C15-C14 | 4.05 | 1.56 | 1.43 |
| 25 | g | 618 | NEX | C35-C34 | 4.04 | 1.56 | 1.43 |
| 25 | r | 315 | NEX | C35-C34 | 4.04 | 1.56 | 1.43 |
| 25 | g | 618 | NEX | C15-C14 | 4.03 | 1.55 | 1.43 |
| 24 | R | 313 | XAT | C35-C34 | 4.02 | 1.55 | 1.43 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 24 | N | 616 | XAT | C35-C34 | 4.02 | 1.55 | 1.43 |
| 25 | r | 315 | NEX | C15-C14 | 4.02 | 1.55 | 1.43 |
| 24 | r | 314 | XAT | C35-C34 | 4.01 | 1.55 | 1.43 |
| 25 | y | 618 | NEX | C15-C14 | 4.00 | 1.55 | 1.43 |
| 24 | y | 615 | XAT | C4-C5 | 3.99 | 1.57 | 1.52 |
| 24 | y | 615 | XAT | C32-C33 | 3.98 | 1.54 | 1.45 |
| 25 | N | 617 | NEX | C31-C30 | 3.98 | 1.55 | 1.43 |
| 32 | A | 411 | PL9 | C7-C3 | -3.98 | 1.47 | 1.51 |
| 25 | r | 315 | NEX | C31-C30 | 3.97 | 1.55 | 1.43 |
| 25 | y | 618 | NEX | C31-C30 | 3.97 | 1.55 | 1.43 |
| 25 | n | 616 | NEX | C31-C30 | 3.97 | 1.55 | 1.43 |
| 24 | Y | 615 | XAT | C32-C33 | 3.96 | 1.54 | 1.45 |
| 23 | r | 313 | LUT | C26-C27 | 3.96 | 1.56 | 1.50 |
| 24 | N | 616 | XAT | C28-C29 | 3.94 | 1.54 | 1.45 |
| 22 | r | 311 | CLA | C1D-ND | 3.94 | 1.42 | 1.37 |
| 24 | Y | 615 | XAT | C4-C5 | 3.94 | 1.57 | 1.52 |
| 23 | R | 312 | LUT | C26-C27 | 3.94 | 1.56 | 1.50 |
| 25 | g | 618 | NEX | C31-C30 | 3.93 | 1.55 | 1.43 |
| 24 | r | 314 | XAT | C4-C5 | 3.93 | 1.57 | 1.52 |
| 23 | Y | 613 | LUT | C26-C27 | 3.92 | 1.56 | 1.50 |
| 23 | G | 616 | LUT | C35-C34 | 3.92 | 1.55 | 1.43 |
| 24 | R | 313 | XAT | C4-C5 | 3.92 | 1.57 | 1.52 |
| 25 | y | 616 | NEX | C31-C30 | 3.92 | 1.55 | 1.43 |
| 37 | f | 101 | HEM | CHB-C1B | 3.92 | 1.45 | 1.35 |
| 32 | a | 410 | PL9 | C7-C3 | -3.91 | 1.47 | 1.51 |
| 24 | Y | 615 | XAT | C8-C9 | 3.91 | 1.54 | 1.45 |
| 24 | Y | 615 | XAT | C12-C13 | 3.91 | 1.54 | 1.45 |
| 37 | F | 101 | HEM | CHB-C1B | 3.91 | 1.45 | 1.35 |
| 24 | G | 617 | XAT | C32-C33 | 3.91 | 1.54 | 1.45 |
| 24 | n | 615 | XAT | C32-C33 | 3.90 | 1.54 | 1.45 |
| 24 | Y | 615 | XAT | C28-C29 | 3.89 | 1.54 | 1.45 |
| 23 | g | 616 | LUT | C35-C34 | 3.89 | 1.55 | 1.43 |
| 23 | G | 615 | LUT | C26-C27 | 3.89 | 1.56 | 1.50 |
| 23 | n | 614 | LUT | C26-C27 | 3.89 | 1.56 | 1.50 |
| 24 | G | 617 | XAT | C28-C29 | 3.89 | 1.54 | 1.45 |
| 24 | y | 615 | XAT | C28-C29 | 3.89 | 1.54 | 1.45 |
| 25 | n | 616 | NEX | C32-C33 | 3.88 | 1.54 | 1.45 |
| 31 | c | 515 | BCR | C1-C6 | -3.88 | 1.48 | 1.53 |
| 24 | y | 615 | XAT | C12-C13 | 3.88 | 1.54 | 1.45 |
| 23 | y | 614 | LUT | C15-C14 | 3.88 | 1.55 | 1.43 |
| 32 | d | 406 | PL9 | C3-C4 | -3.88 | 1.43 | 1.49 |
| 31 | C | 516 | BCR | C1-C6 | -3.88 | 1.48 | 1.53 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23 | g | 615 | LUT | C26-C27 | 3.87 | 1.56 | 1.50 |
| 23 | n | 614 | LUT | C15-C14 | 3.87 | 1.55 | 1.43 |
| 23 | N | 614 | LUT | C15-C14 | 3.87 | 1.55 | 1.43 |
| 24 | G | 617 | XAT | C8-C9 | 3.87 | 1.54 | 1.45 |
| 24 | R | 313 | XAT | C28-C29 | 3.86 | 1.54 | 1.45 |
| 24 | g | 617 | XAT | C32-C33 | 3.86 | 1.54 | 1.45 |
| 23 | r | 313 | LUT | C15-C14 | 3.86 | 1.55 | 1.43 |
| 25 | y | 616 | NEX | C32-C33 | 3.86 | 1.54 | 1.45 |
| 23 | y | 614 | LUT | C26-C27 | 3.86 | 1.56 | 1.50 |
| 24 | g | 617 | XAT | C28-C29 | 3.86 | 1.54 | 1.45 |
| 24 | r | 314 | XAT | C28-C29 | 3.85 | 1.54 | 1.45 |
| 23 | G | 615 | LUT | C15-C14 | 3.85 | 1.55 | 1.43 |
| 23 | Y | 614 | LUT | C35-C34 | 3.85 | 1.55 | 1.43 |
| 23 | g | 615 | LUT | C15-C14 | 3.85 | 1.55 | 1.43 |
| 23 | N | 614 | LUT | C26-C27 | 3.85 | 1.55 | 1.50 |
| 32 | D | 407 | PL9 | C3-C4 | -3.85 | 1.43 | 1.49 |
| 24 | g | 617 | XAT | C8-C9 | 3.85 | 1.54 | 1.45 |
| 23 | G | 616 | LUT | C7-C6 | 3.84 | 1.58 | 1.45 |
| 24 | n | 615 | XAT | C28-C29 | 3.84 | 1.54 | 1.45 |
| 23 | Y | 613 | LUT | C15-C14 | 3.84 | 1.55 | 1.43 |
| 24 | y | 615 | XAT | C8-C9 | 3.84 | 1.54 | 1.45 |
| 24 | N | 616 | XAT | C32-C33 | 3.84 | 1.54 | 1.45 |
| 23 | g | 616 | LUT | C7-C6 | 3.84 | 1.58 | 1.45 |
| 24 | G | 617 | XAT | C12-C13 | 3.83 | 1.54 | 1.45 |
| 22 | R | 310 | CLA | C1D-ND | 3.83 | 1.42 | 1.37 |
| 22 | S | 308 | CLA | C1D-ND | 3.83 | 1.42 | 1.37 |
| 23 | R | 312 | LUT | C15-C14 | 3.83 | 1.55 | 1.43 |
| 25 | Y | 616 | NEX | C31-C30 | 3.83 | 1.55 | 1.43 |
| 23 | N | 615 | LUT | C35-C34 | 3.82 | 1.55 | 1.43 |
| 24 | R | 313 | XAT | C32-C33 | 3.81 | 1.54 | 1.45 |
| 31 | c | 516 | BCR | C1-C6 | -3.81 | 1.48 | 1.53 |
| 24 | r | 314 | XAT | C32-C33 | 3.80 | 1.54 | 1.45 |
| 21 | s | 301 | CHL | OBD-CAD | 3.80 | 1.29 | 1.22 |
| 23 | Y | 614 | LUT | C7-C6 | 3.80 | 1.58 | 1.45 |
| 21 | g | 609 | CHL | OBD-CAD | 3.80 | 1.29 | 1.22 |
| 21 | G | 601 | CHL | OBD-CAD | 3.80 | 1.29 | 1.22 |
| 24 | g | 617 | XAT | C12-C13 | 3.79 | 1.54 | 1.45 |
| 21 | n | 605 | CHL | OBD-CAD | 3.79 | 1.29 | 1.22 |
| 25 | y | 618 | NEX | C32-C33 | 3.79 | 1.54 | 1.45 |
| 22 | s | 308 | CLA | C1D-ND | 3.79 | 1.42 | 1.37 |
| 21 | y | 609 | CHL | OBD-CAD | 3.79 | 1.29 | 1.22 |
| 21 | G | 609 | CHL | OBD-CAD | 3.78 | 1.29 | 1.22 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 31 | C | 517 | BCR | C1-C6 | -3.78 | 1.48 | 1.53 |
| 21 | n | 606 | CHL | OBD-CAD | 3.78 | 1.29 | 1.22 |
| 21 | G | 606 | CHL | OBD-CAD | 3.78 | 1.29 | 1.22 |
| 31 | a | 409 | BCR | C1-C6 | -3.78 | 1.48 | 1.53 |
| 21 | n | 601 | CHL | OBD-CAD | 3.78 | 1.29 | 1.22 |
| 21 | g | 607 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 21 | S | 301 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 21 | s | 307 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 25 | r | 315 | NEX | C32-C33 | 3.77 | 1.54 | 1.45 |
| 21 | n | 607 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 21 | N | 607 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 21 | y | 607 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 21 | Y | 605 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 21 | r | 308 | CHL | OBD-CAD | 3.77 | 1.29 | 1.22 |
| 24 | N | 616 | XAT | C12-C13 | 3.76 | 1.54 | 1.45 |
| 21 | g | 606 | CHL | OBD-CAD | 3.76 | 1.29 | 1.22 |
| 21 | s | 306 | CHL | OBD-CAD | 3.76 | 1.29 | 1.22 |
| 21 | y | 605 | CHL | OBD-CAD | 3.76 | 1.29 | 1.22 |
| 31 | K | 102 | BCR | C1-C6 | -3.76 | 1.48 | 1.53 |
| 25 | g | 618 | NEX | C32-C33 | 3.76 | 1.54 | 1.45 |
| 21 | G | 605 | CHL | OBD-CAD | 3.76 | 1.29 | 1.22 |
| 21 | y | 601 | CHL | OBD-CAD | 3.76 | 1.29 | 1.22 |
| 21 | N | 608 | CHL | OBD-CAD | 3.76 | 1.29 | 1.22 |
| 21 | S | 302 | CHL | OBD-CAD | 3.76 | 1.29 | 1.22 |
| 21 | R | 306 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 25 | N | 617 | NEX | C12-C13 | 3.75 | 1.54 | 1.45 |
| 21 | Y | 601 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 21 | R | 307 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 21 | R | 305 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 21 | n | 608 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 24 | n | 615 | XAT | C12-C13 | 3.75 | 1.54 | 1.45 |
| 24 | r | 314 | XAT | C12-C13 | 3.75 | 1.54 | 1.45 |
| 21 | S | 306 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 21 | G | 608 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 21 | N | 606 | CHL | OBD-CAD | 3.75 | 1.28 | 1.22 |
| 31 | k | 102 | BCR | C1-C6 | -3.75 | 1.48 | 1.53 |
| 21 | N | 601 | CHL | OBD-CAD | 3.74 | 1.28 | 1.22 |
| 21 | y | 606 | CHL | OBD-CAD | 3.74 | 1.28 | 1.22 |
| 25 | n | 616 | NEX | C12-C13 | 3.74 | 1.54 | 1.45 |
| 21 | y | 608 | CHL | OBD-CAD | 3.74 | 1.28 | 1.22 |
| 21 | S | 307 | CHL | OBD-CAD | 3.74 | 1.28 | 1.22 |
| 21 | G | 607 | CHL | OBD-CAD | 3.74 | 1.28 | 1.22 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | Y | 608 | CHL | OBD-CAD | 3.74 | 1.28 | 1.22 |
| 21 | g | 601 | CHL | OBD-CAD | 3.74 | 1.28 | 1.22 |
| 21 | s | 302 | CHL | OBD-CAD | 3.73 | 1.28 | 1.22 |
| 21 | g | 605 | CHL | OBD-CAD | 3.73 | 1.28 | 1.22 |
| 21 | Y | 606 | CHL | OBD-CAD | 3.73 | 1.28 | 1.22 |
| 25 | Y | 616 | NEX | C12-C13 | 3.73 | 1.54 | 1.45 |
| 25 | y | 616 | NEX | C12-C13 | 3.73 | 1.54 | 1.45 |
| 31 | H | 101 | BCR | C1-C6 | -3.72 | 1.48 | 1.53 |
| 22 | r | 309 | CLA | C1D-ND | 3.72 | 1.42 | 1.37 |
| 21 | r | 301 | CHL | OBD-CAD | 3.72 | 1.28 | 1.22 |
| 31 | C | 516 | BCR | C30-C25 | -3.72 | 1.48 | 1.53 |
| 24 | n | 615 | XAT | C8-C9 | 3.72 | 1.53 | 1.45 |
| 21 | r | 307 | CHL | OBD-CAD | 3.72 | 1.28 | 1.22 |
| 24 | R | 313 | XAT | C12-C13 | 3.72 | 1.53 | 1.45 |
| 31 | b | 616 | BCR | C1-C6 | -3.72 | 1.48 | 1.53 |
| 31 | b | 616 | BCR | C30-C25 | -3.72 | 1.48 | 1.53 |
| 31 | A | 410 | BCR | C1-C6 | -3.72 | 1.48 | 1.53 |
| 21 | g | 608 | CHL | OBD-CAD | 3.72 | 1.28 | 1.22 |
| 21 | N | 605 | CHL | OBD-CAD | 3.72 | 1.28 | 1.22 |
| 22 | C | 513 | CLA | C1D-ND | 3.71 | 1.42 | 1.37 |
| 24 | N | 616 | XAT | C8-C9 | 3.71 | 1.53 | 1.45 |
| 21 | r | 306 | CHL | OBD-CAD | 3.71 | 1.28 | 1.22 |
| 21 | Y | 607 | CHL | OBD-CAD | 3.70 | 1.28 | 1.22 |
| 31 | c | 515 | BCR | C30-C25 | -3.70 | 1.48 | 1.53 |
| 22 | n | 611 | CLA | C1D-ND | 3.69 | 1.42 | 1.37 |
| 31 | B | 619 | BCR | C30-C25 | -3.69 | 1.48 | 1.53 |
| 31 | B | 619 | BCR | C1-C6 | -3.69 | 1.48 | 1.53 |
| 22 | N | 609 | CLA | C1D-ND | 3.68 | 1.42 | 1.37 |
| 25 | N | 617 | NEX | C32-C33 | 3.68 | 1.53 | 1.45 |
| 22 | s | 309 | CLA | C1D-ND | 3.68 | 1.42 | 1.37 |
| 24 | r | 314 | XAT | C8-C9 | 3.68 | 1.53 | 1.45 |
| 22 | S | 309 | CLA | C1D-ND | 3.68 | 1.42 | 1.37 |
| 24 | R | 313 | XAT | C8-C9 | 3.67 | 1.53 | 1.45 |
| 37 | f | 101 | HEM | CHC-C4B | 3.67 | 1.51 | 1.41 |
| 23 | N | 614 | LUT | C35-C34 | 3.66 | 1.54 | 1.43 |
| 23 | n | 614 | LUT | C35-C34 | 3.66 | 1.54 | 1.43 |
| 22 | G | 612 | CLA | C1D-ND | 3.66 | 1.42 | 1.37 |
| 22 | r | 303 | CLA | C1D-ND | 3.66 | 1.42 | 1.37 |
| 31 | D | 406 | BCR | C1-C6 | -3.66 | 1.48 | 1.53 |
| 22 | c | 512 | CLA | C1D-ND | 3.66 | 1.42 | 1.37 |
| 23 | y | 614 | LUT | C35-C34 | 3.66 | 1.54 | 1.43 |
| 37 | F | 101 | HEM | CHC-C4B | 3.66 | 1.51 | 1.41 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | R | 302 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 23 | R | 312 | LUT | C35-C34 | 3.65 | 1.54 | 1.43 |
| 22 | g | 610 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 22 | y | 611 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 23 | g | 615 | LUT | C35-C34 | 3.65 | 1.54 | 1.43 |
| 23 | G | 615 | LUT | C35-C34 | 3.65 | 1.54 | 1.43 |
| 22 | r | 310 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 22 | N | 611 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 22 | Y | 612 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 22 | W | 101 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 25 | Y | 616 | NEX | C32-C33 | 3.65 | 1.53 | 1.45 |
| 22 | N | 613 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 22 | Y | 602 | CLA | C1D-ND | 3.65 | 1.42 | 1.37 |
| 37 | f | 101 | HEM | C4A-NA | 3.65 | 1.43 | 1.36 |
| 25 | r | 315 | NEX | C12-C13 | 3.64 | 1.53 | 1.45 |
| 22 | Y | 609 | CLA | C1D-ND | 3.64 | 1.42 | 1.37 |
| 37 | F | 101 | HEM | C4A-NA | 3.64 | 1.43 | 1.36 |
| 31 | h | 101 | BCR | C1-C6 | -3.64 | 1.48 | 1.53 |
| 22 | R | 308 | CLA | C1D-ND | 3.64 | 1.42 | 1.37 |
| 22 | R | 309 | CLA | C1D-ND | 3.64 | 1.42 | 1.37 |
| 22 | S | 303 | CLA | C1D-ND | 3.64 | 1.42 | 1.37 |
| 31 | b | 617 | BCR | C1-C6 | -3.63 | 1.48 | 1.53 |
| 23 | N | 615 | LUT | C7-C6 | 3.63 | 1.58 | 1.45 |
| 23 | Y | 613 | LUT | C35-C34 | 3.63 | 1.54 | 1.43 |
| 31 | d | 405 | BCR | C1-C6 | -3.63 | 1.48 | 1.53 |
| 22 | G | 610 | CLA | C1D-ND | 3.63 | 1.42 | 1.37 |
| 25 | y | 618 | NEX | C12-C13 | 3.63 | 1.53 | 1.45 |
| 22 | n | 609 | CLA | C1D-ND | 3.62 | 1.42 | 1.37 |
| 22 | y | 613 | CLA | C1D-ND | 3.62 | 1.42 | 1.37 |
| 22 | G | 614 | CLA | C1D-ND | 3.62 | 1.42 | 1.37 |
| 31 | c | 516 | BCR | C30-C25 | -3.62 | 1.48 | 1.53 |
| 23 | r | 313 | LUT | C35-C34 | 3.62 | 1.54 | 1.43 |
| 22 | n | 613 | CLA | C1D-ND | 3.62 | 1.42 | 1.37 |
| 23 | N | 615 | LUT | C31-C30 | 3.62 | 1.54 | 1.43 |
| 22 | w | 101 | CLA | C1D-ND | 3.62 | 1.42 | 1.37 |
| 22 | y | 610 | CLA | C1D-ND | 3.61 | 1.42 | 1.37 |
| 31 | K | 101 | BCR | C1-C6 | -3.61 | 1.48 | 1.53 |
| 22 | S | 313 | CLA | C1D-ND | 3.61 | 1.42 | 1.37 |
| 22 | r | 312 | CLA | C1D-ND | 3.61 | 1.42 | 1.37 |
| 25 | g | 618 | NEX | C12-C13 | 3.61 | 1.53 | 1.45 |
| 31 | C | 517 | BCR | C30-C25 | -3.60 | 1.48 | 1.53 |
| 22 | S | 305 | CLA | C1D-ND | 3.60 | 1.42 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | y | 602 | CLA | C1D-ND | 3.60 | 1.42 | 1.37 |
| 22 | s | 303 | CLA | C1D-ND | 3.59 | 1.42 | 1.37 |
| 22 | S | 304 | CLA | C1D-ND | 3.59 | 1.42 | 1.37 |
| 22 | Y | 610 | CLA | C1D-ND | 3.59 | 1.42 | 1.37 |
| 31 | B | 620 | BCR | C1-C6 | -3.59 | 1.48 | 1.53 |
| 22 | g | 614 | CLA | C1D-ND | 3.59 | 1.42 | 1.37 |
| 22 | n | 610 | CLA | C1D-ND | 3.59 | 1.42 | 1.37 |
| 22 | g | 611 | CLA | C1D-ND | 3.58 | 1.42 | 1.37 |
| 22 | g | 602 | CLA | C1D-ND | 3.58 | 1.42 | 1.37 |
| 22 | s | 313 | CLA | C1D-ND | 3.58 | 1.42 | 1.37 |
| 22 | N | 602 | CLA | C1D-ND | 3.58 | 1.42 | 1.37 |
| 25 | y | 618 | NEX | C7-C8 | 3.58 | 1.37 | 1.32 |
| 22 | C | 515 | CLA | C1D-ND | 3.58 | 1.42 | 1.37 |
| 22 | g | 612 | CLA | C1D-ND | 3.57 | 1.42 | 1.37 |
| 22 | G | 604 | CLA | C1D-ND | 3.57 | 1.42 | 1.37 |
| 22 | R | 303 | CLA | C1D-ND | 3.57 | 1.42 | 1.37 |
| 31 | k | 101 | BCR | C1-C6 | -3.57 | 1.48 | 1.53 |
| 22 | N | 610 | CLA | C1D-ND | 3.57 | 1.42 | 1.37 |
| 22 | s | 310 | CLA | C1D-ND | 3.57 | 1.42 | 1.37 |
| 22 | s | 304 | CLA | C1D-ND | 3.56 | 1.42 | 1.37 |
| 22 | c | 507 | CLA | C1D-ND | 3.56 | 1.42 | 1.37 |
| 22 | G | 611 | CLA | C1D-ND | 3.56 | 1.42 | 1.37 |
| 22 | c | 514 | CLA | C1D-ND | 3.56 | 1.42 | 1.37 |
| 25 | r | 315 | NEX | C7-C8 | 3.56 | 1.37 | 1.32 |
| 22 | S | 310 | CLA | C1D-ND | 3.56 | 1.42 | 1.37 |
| 22 | s | 312 | CLA | C1D-ND | 3.55 | 1.42 | 1.37 |
| 22 | R | 311 | CLA | C1D-ND | 3.55 | 1.42 | 1.37 |
| 23 | g | 616 | LUT | C11-C10 | 3.55 | 1.54 | 1.43 |
| 22 | B | 612 | CLA | C1D-ND | 3.55 | 1.42 | 1.37 |
| 22 | C | 508 | CLA | C1D-ND | 3.55 | 1.42 | 1.37 |
| 31 | A | 410 | BCR | C30-C25 | -3.54 | 1.48 | 1.53 |
| 23 | Y | 613 | LUT | C8-C9 | 3.54 | 1.53 | 1.45 |
| 22 | S | 311 | CLA | C1D-ND | 3.53 | 1.42 | 1.37 |
| 23 | G | 615 | LUT | C8-C9 | 3.53 | 1.53 | 1.45 |
| 23 | Y | 614 | LUT | C11-C10 | 3.53 | 1.54 | 1.43 |
| 23 | G | 616 | LUT | C31-C30 | 3.53 | 1.54 | 1.43 |
| 22 | N | 604 | CLA | C1D-ND | 3.53 | 1.42 | 1.37 |
| 22 | s | 305 | CLA | C1D-ND | 3.53 | 1.42 | 1.37 |
| 23 | G | 616 | LUT | C11-C10 | 3.53 | 1.54 | 1.43 |
| 22 | G | 602 | CLA | C1D-ND | 3.53 | 1.42 | 1.37 |
| 22 | n | 602 | CLA | C1D-ND | 3.52 | 1.42 | 1.37 |
| 23 | N | 614 | LUT | C8-C9 | 3.52 | 1.53 | 1.45 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23 | y | 614 | LUT | C8-C9 | 3.52 | 1.53 | 1.45 |
| 31 | a | 409 | BCR | C30-C25 | -3.51 | 1.48 | 1.53 |
| 22 | C | 512 | CLA | C1D-ND | 3.51 | 1.42 | 1.37 |
| 31 | d | 405 | BCR | C30-C25 | -3.51 | 1.48 | 1.53 |
| 23 | n | 614 | LUT | C8-C9 | 3.51 | 1.53 | 1.45 |
| 37 | F | 101 | HEM | C3C-C2C | -3.51 | 1.35 | 1.40 |
| 22 | S | 312 | CLA | C1D-ND | 3.51 | 1.42 | 1.37 |
| 23 | g | 616 | LUT | C31-C30 | 3.51 | 1.54 | 1.43 |
| 22 | C | 509 | CLA | C1D-ND | 3.50 | 1.42 | 1.37 |
| 22 | r | 304 | CLA | C1D-ND | 3.50 | 1.42 | 1.37 |
| 22 | A | 409 | CLA | C1D-ND | 3.50 | 1.42 | 1.37 |
| 22 | b | 613 | CLA | C1D-ND | 3.50 | 1.42 | 1.37 |
| 23 | g | 615 | LUT | C8-C9 | 3.50 | 1.53 | 1.45 |
| 22 | b | 606 | CLA | C1D-ND | 3.49 | 1.42 | 1.37 |
| 22 | b | 607 | CLA | C1D-ND | 3.49 | 1.42 | 1.37 |
| 22 | A | 407 | CLA | C1D-ND | 3.49 | 1.42 | 1.37 |
| 22 | C | 507 | CLA | C1D-ND | 3.49 | 1.42 | 1.37 |
| 22 | n | 604 | CLA | C1D-ND | 3.48 | 1.42 | 1.37 |
| 22 | c | 511 | CLA | C1D-ND | 3.48 | 1.42 | 1.37 |
| 22 | c | 508 | CLA | C1D-ND | 3.48 | 1.42 | 1.37 |
| 22 | s | 311 | CLA | C1D-ND | 3.48 | 1.42 | 1.37 |
| 22 | B | 609 | CLA | C1D-ND | 3.48 | 1.42 | 1.37 |
| 22 | x | 101 | CLA | C1D-ND | 3.48 | 1.42 | 1.37 |
| 22 | y | 604 | CLA | C1D-ND | 3.47 | 1.42 | 1.37 |
| 23 | Y | 614 | LUT | C31-C30 | 3.47 | 1.54 | 1.43 |
| 37 | f | 101 | HEM | C3C-C2C | -3.47 | 1.35 | 1.40 |
| 22 | a | 404 | CLA | C1D-ND | 3.47 | 1.42 | 1.37 |
| 22 | c | 506 | CLA | C1D-ND | 3.47 | 1.42 | 1.37 |
| 22 | B | 616 | CLA | C1D-ND | 3.46 | 1.42 | 1.37 |
| 22 | b | 609 | CLA | C1D-ND | 3.46 | 1.42 | 1.37 |
| 22 | D | 405 | CLA | C1D-ND | 3.46 | 1.42 | 1.37 |
| 22 | a | 406 | CLA | C1D-ND | 3.46 | 1.42 | 1.37 |
| 31 | D | 406 | BCR | C30-C25 | -3.46 | 1.49 | 1.53 |
| 22 | g | 604 | CLA | C1D-ND | 3.45 | 1.42 | 1.37 |
| 37 | F | 101 | HEM | C3C-CAC | 3.45 | 1.54 | 1.47 |
| 23 | r | 313 | LUT | C8-C9 | 3.45 | 1.53 | 1.45 |
| 23 | R | 312 | LUT | C8-C9 | 3.45 | 1.53 | 1.45 |
| 22 | B | 603 | CLA | C1D-ND | 3.45 | 1.42 | 1.37 |
| 22 | b | 601 | CLA | C1D-ND | 3.45 | 1.42 | 1.37 |
| 22 | r | 305 | CLA | C1D-ND | 3.45 | 1.42 | 1.37 |
| 22 | b | 608 | CLA | C1D-ND | 3.45 | 1.42 | 1.37 |
| 37 | f | 101 | HEM | C3C-CAC | 3.44 | 1.54 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | c | 505 | CLA | C1D-ND | 3.44 | 1.42 | 1.37 |
| 22 | D | 404 | CLA | C4D-ND | -3.44 | 1.33 | 1.37 |
| 22 | b | 611 | CLA | C1D-ND | 3.43 | 1.42 | 1.37 |
| 22 | a | 408 | CLA | C1D-ND | 3.43 | 1.42 | 1.37 |
| 22 | B | 617 | CLA | C1D-ND | 3.43 | 1.42 | 1.37 |
| 31 | T | 102 | BCR | C1-C6 | -3.43 | 1.49 | 1.53 |
| 22 | Y | 604 | CLA | C1D-ND | 3.43 | 1.42 | 1.37 |
| 22 | b | 604 | CLA | C1D-ND | 3.42 | 1.42 | 1.37 |
| 22 | B | 610 | CLA | C1D-ND | 3.42 | 1.42 | 1.37 |
| 22 | c | 502 | CLA | C1D-ND | 3.42 | 1.42 | 1.37 |
| 22 | B | 604 | CLA | C1D-ND | 3.42 | 1.42 | 1.37 |
| 21 | N | 606 | CHL | C3D-C2D | 3.41 | 1.48 | 1.39 |
| 22 | C | 505 | CLA | C1D-ND | 3.41 | 1.42 | 1.37 |
| 22 | B | 607 | CLA | C1D-ND | 3.41 | 1.42 | 1.37 |
| 22 | b | 614 | CLA | C1D-ND | 3.41 | 1.42 | 1.37 |
| 22 | c | 509 | CLA | C1D-ND | 3.41 | 1.42 | 1.37 |
| 21 | R | 306 | CHL | C3D-C2D | 3.41 | 1.48 | 1.39 |
| 22 | d | 404 | CLA | C1D-ND | 3.40 | 1.42 | 1.37 |
| 22 | b | 610 | CLA | C1D-ND | 3.40 | 1.42 | 1.37 |
| 22 | B | 614 | CLA | C1D-ND | 3.40 | 1.42 | 1.37 |
| 22 | a | 405 | CLA | C1D-ND | 3.40 | 1.42 | 1.37 |
| 22 | B | 605 | CLA | C1D-ND | 3.40 | 1.42 | 1.37 |
| 21 | g | 601 | CHL | C3D-C2D | 3.40 | 1.48 | 1.39 |
| 21 | y | 609 | CHL | C3D-C2D | 3.40 | 1.48 | 1.39 |
| 22 | B | 606 | CLA | C1D-ND | 3.40 | 1.42 | 1.37 |
| 22 | C | 514 | CLA | C1D-ND | 3.40 | 1.42 | 1.37 |
| 22 | b | 614 | CLA | C4D-ND | -3.40 | 1.33 | 1.37 |
| 21 | g | 609 | CHL | C3D-C2D | 3.40 | 1.48 | 1.39 |
| 22 | S | 308 | CLA | C4D-ND | -3.40 | 1.33 | 1.37 |
| 31 | B | 602 | BCR | C1-C6 | -3.40 | 1.49 | 1.53 |
| 21 | N | 605 | CHL | C3D-C2D | 3.40 | 1.48 | 1.39 |
| 22 | B | 615 | CLA | C1D-ND | 3.39 | 1.42 | 1.37 |
| 21 | g | 607 | CHL | C3D-C2D | 3.39 | 1.48 | 1.39 |
| 22 | B | 618 | CLA | C1D-ND | 3.39 | 1.42 | 1.37 |
| 21 | G | 601 | CHL | C3D-C2D | 3.39 | 1.48 | 1.39 |
| 21 | G | 605 | CHL | C3D-C2D | 3.39 | 1.48 | 1.39 |
| 22 | B | 613 | CLA | C1D-ND | 3.39 | 1.41 | 1.37 |
| 21 | R | 307 | CHL | C3D-C2D | 3.39 | 1.48 | 1.39 |
| 22 | b | 602 | CLA | C1D-ND | 3.39 | 1.41 | 1.37 |
| 22 | A | 405 | CLA | C1D-ND | 3.39 | 1.41 | 1.37 |
| 21 | s | 302 | CHL | C3D-C2D | 3.39 | 1.48 | 1.39 |
| 21 | G | 606 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | s | 307 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | n | 605 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | y | 601 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | G | 609 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | r | 308 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 22 | b | 615 | CLA | C1D-ND | 3.38 | 1.41 | 1.37 |
| 21 | y | 607 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | y | 608 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 31 | b | 618 | BCR | C1-C6 | -3.38 | 1.49 | 1.53 |
| 21 | n | 608 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | r | 301 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | S | 301 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 21 | N | 601 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 22 | g | 603 | CLA | C1D-ND | 3.38 | 1.41 | 1.37 |
| 22 | c | 513 | CLA | C1D-ND | 3.38 | 1.41 | 1.37 |
| 23 | N | 615 | LUT | C32-C33 | 3.38 | 1.53 | 1.45 |
| 21 | g | 608 | CHL | C3D-C2D | 3.38 | 1.48 | 1.39 |
| 22 | A | 406 | CLA | C4D-ND | -3.38 | 1.33 | 1.37 |
| 21 | g | 606 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 22 | c | 504 | CLA | C1D-ND | 3.37 | 1.41 | 1.37 |
| 23 | g | 615 | LUT | C31-C30 | 3.37 | 1.53 | 1.43 |
| 22 | c | 512 | CLA | C4D-ND | -3.37 | 1.33 | 1.37 |
| 21 | Y | 608 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 21 | y | 605 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 22 | C | 503 | CLA | C1D-ND | 3.37 | 1.41 | 1.37 |
| 21 | S | 306 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 21 | N | 607 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 21 | s | 301 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 23 | Y | 613 | LUT | C31-C30 | 3.37 | 1.53 | 1.43 |
| 31 | B | 620 | BCR | C30-C25 | -3.37 | 1.49 | 1.53 |
| 21 | n | 606 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 21 | Y | 605 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 21 | G | 608 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 21 | R | 305 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 22 | A | 406 | CLA | C1D-ND | 3.37 | 1.41 | 1.37 |
| 21 | n | 607 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 23 | N | 614 | LUT | C31-C30 | 3.37 | 1.53 | 1.43 |
| 22 | b | 607 | CLA | C4D-ND | -3.37 | 1.33 | 1.37 |
| 22 | d | 403 | CLA | C4D-ND | -3.37 | 1.33 | 1.37 |
| 21 | r | 306 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 22 | b | 612 | CLA | C1D-ND | 3.37 | 1.41 | 1.37 |
| 21 | S | 307 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | g | 605 | CHL | C3D-C2D | 3.37 | 1.48 | 1.39 |
| 22 | C | 514 | CLA | C4D-ND | -3.36 | 1.33 | 1.37 |
| 21 | n | 601 | CHL | C3D-C2D | 3.36 | 1.48 | 1.39 |
| 21 | S | 302 | CHL | C3D-C2D | 3.36 | 1.48 | 1.39 |
| 22 | c | 513 | CLA | C4D-ND | -3.36 | 1.33 | 1.37 |
| 21 | s | 306 | CHL | C3D-C2D | 3.36 | 1.48 | 1.39 |
| 22 | b | 603 | CLA | C1D-ND | 3.36 | 1.41 | 1.37 |
| 22 | C | 506 | CLA | C1D-ND | 3.36 | 1.41 | 1.37 |
| 31 | b | 617 | BCR | C30-C25 | -3.36 | 1.49 | 1.53 |
| 21 | Y | 601 | CHL | C3D-C2D | 3.36 | 1.48 | 1.39 |
| 22 | B | 608 | CLA | C1D-ND | 3.36 | 1.41 | 1.37 |
| 22 | C | 513 | CLA | C4D-ND | -3.36 | 1.33 | 1.37 |
| 21 | G | 607 | CHL | C3D-C2D | 3.36 | 1.48 | 1.39 |
| 22 | Y | 603 | CLA | C1D-ND | 3.36 | 1.41 | 1.37 |
| 21 | y | 606 | CHL | C3D-C2D | 3.36 | 1.48 | 1.39 |
| 21 | Y | 606 | CHL | C3D-C2D | 3.35 | 1.48 | 1.39 |
| 23 | R | 312 | LUT | C11-C10 | 3.35 | 1.53 | 1.43 |
| 22 | b | 604 | CLA | C4D-ND | -3.35 | 1.33 | 1.37 |
| 21 | N | 608 | CHL | C3D-C2D | 3.35 | 1.48 | 1.39 |
| 22 | B | 611 | CLA | C1D-ND | 3.35 | 1.41 | 1.37 |
| 22 | b | 605 | CLA | C1D-ND | 3.35 | 1.41 | 1.37 |
| 21 | r | 307 | CHL | C3D-C2D | 3.35 | 1.48 | 1.39 |
| 22 | C | 510 | CLA | C1D-ND | 3.34 | 1.41 | 1.37 |
| 22 | B | 604 | CLA | C4D-ND | -3.34 | 1.33 | 1.37 |
| 23 | n | 614 | LUT | C31-C30 | 3.34 | 1.53 | 1.43 |
| 21 | Y | 607 | CHL | C3D-C2D | 3.34 | 1.48 | 1.39 |
| 22 | a | 404 | CLA | C4D-ND | -3.34 | 1.33 | 1.37 |
| 22 | B | 610 | CLA | C4D-ND | -3.34 | 1.33 | 1.37 |
| 21 | r | 301 | CHL | C1D-C2D | 3.34 | 1.51 | 1.45 |
| 21 | n | 608 | CHL | C1D-C2D | 3.34 | 1.51 | 1.45 |
| 22 | a | 405 | CLA | C4D-ND | -3.34 | 1.33 | 1.37 |
| 23 | G | 616 | LUT | C32-C33 | 3.34 | 1.53 | 1.45 |
| 22 | n | 603 | CLA | C1D-ND | 3.34 | 1.41 | 1.37 |
| 23 | G | 615 | LUT | C31-C30 | 3.34 | 1.53 | 1.43 |
| 22 | C | 503 | CLA | C4D-ND | -3.33 | 1.33 | 1.37 |
| 22 | R | 304 | CLA | C1D-ND | 3.33 | 1.41 | 1.37 |
| 23 | y | 614 | LUT | C31-C30 | 3.33 | 1.53 | 1.43 |
| 22 | C | 504 | CLA | C1D-ND | 3.33 | 1.41 | 1.37 |
| 23 | g | 616 | LUT | C32-C33 | 3.33 | 1.53 | 1.45 |
| 22 | s | 308 | CLA | C4D-ND | -3.33 | 1.33 | 1.37 |
| 21 | Y | 607 | CHL | C1D-C2D | 3.33 | 1.51 | 1.45 |
| 23 | r | 313 | LUT | C11-C10 | 3.33 | 1.53 | 1.43 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | n | 606 | CHL | C1D-C2D | 3.32 | 1.51 | 1.45 |
| 21 | G | 606 | CHL | C1D-C2D | 3.32 | 1.51 | 1.45 |
| 21 | n | 605 | CHL | C1D-C2D | 3.32 | 1.51 | 1.45 |
| 22 | N | 603 | CLA | C1D-ND | 3.32 | 1.41 | 1.37 |
| 22 | c | 503 | CLA | C4D-ND | -3.32 | 1.33 | 1.37 |
| 21 | Y | 601 | CHL | C1D-C2D | 3.32 | 1.51 | 1.45 |
| 22 | C | 511 | CLA | CHC-C1C | 3.32 | 1.43 | 1.35 |
| 22 | B | 617 | CLA | C4D-ND | -3.32 | 1.33 | 1.37 |
| 21 | N | 607 | CHL | C1D-C2D | 3.31 | 1.51 | 1.45 |
| 22 | D | 404 | CLA | C1D-ND | 3.31 | 1.41 | 1.37 |
| 21 | y | 601 | CHL | C1D-C2D | 3.31 | 1.51 | 1.45 |
| 21 | S | 302 | CHL | C1D-C2D | 3.31 | 1.51 | 1.45 |
| 22 | b | 610 | CLA | C4D-ND | -3.31 | 1.33 | 1.37 |
| 22 | B | 618 | CLA | C4D-ND | -3.31 | 1.33 | 1.37 |
| 22 | B | 613 | CLA | C4D-ND | -3.31 | 1.33 | 1.37 |
| 21 | Y | 608 | CHL | C1D-C2D | 3.31 | 1.51 | 1.45 |
| 22 | C | 504 | CLA | C4D-ND | -3.31 | 1.33 | 1.37 |
| 22 | n | 613 | CLA | C4D-ND | -3.31 | 1.33 | 1.37 |
| 21 | G | 601 | CHL | C1D-C2D | 3.31 | 1.51 | 1.45 |
| 22 | B | 607 | CLA | C4D-ND | -3.30 | 1.33 | 1.37 |
| 21 | r | 306 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 21 | y | 609 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 21 | N | 606 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 22 | c | 503 | CLA | C1D-ND | 3.30 | 1.41 | 1.37 |
| 21 | n | 607 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 23 | N | 615 | LUT | C11-C10 | 3.30 | 1.53 | 1.43 |
| 21 | y | 605 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 21 | G | 609 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 22 | n | 611 | CLA | C4D-ND | -3.30 | 1.33 | 1.37 |
| 21 | s | 302 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 23 | R | 312 | LUT | C31-C30 | 3.30 | 1.53 | 1.43 |
| 22 | G | 603 | CLA | C1D-ND | 3.30 | 1.41 | 1.37 |
| 21 | N | 601 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 21 | y | 608 | CHL | C1D-C2D | 3.30 | 1.51 | 1.45 |
| 22 | b | 611 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |
| 21 | s | 301 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 21 | N | 605 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 21 | y | 607 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 22 | S | 313 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |
| 22 | g | 612 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |
| 22 | G | 612 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |
| 22 | R | 304 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | S | 306 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 21 | g | 606 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 21 | g | 609 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 21 | S | 307 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 22 | c | 502 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |
| 22 | C | 505 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |
| 22 | s | 310 | CLA | C4D-ND | -3.29 | 1.33 | 1.37 |
| 21 | s | 306 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 21 | g | 608 | CHL | C1D-C2D | 3.29 | 1.51 | 1.45 |
| 22 | c | 510 | CLA | CHC-C1C | 3.29 | 1.43 | 1.35 |
| 21 | Y | 605 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 21 | r | 307 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 22 | b | 601 | CLA | C4D-ND | -3.28 | 1.33 | 1.37 |
| 22 | A | 405 | CLA | C4D-ND | -3.28 | 1.33 | 1.37 |
| 23 | r | 313 | LUT | C7-C6 | 3.28 | 1.56 | 1.45 |
| 21 | s | 307 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 21 | g | 605 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 21 | n | 601 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 21 | S | 301 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 22 | w | 101 | CLA | C4D-ND | -3.28 | 1.33 | 1.37 |
| 21 | g | 607 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 21 | y | 606 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 23 | R | 312 | LUT | C7-C6 | 3.28 | 1.56 | 1.45 |
| 22 | d | 403 | CLA | C1D-ND | 3.28 | 1.41 | 1.37 |
| 22 | b | 609 | CLA | C4D-ND | -3.28 | 1.33 | 1.37 |
| 22 | S | 310 | CLA | C4D-ND | -3.28 | 1.33 | 1.37 |
| 21 | R | 306 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 21 | Y | 606 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 22 | r | 305 | CLA | C4D-ND | -3.28 | 1.33 | 1.37 |
| 21 | R | 307 | CHL | C1D-C2D | 3.28 | 1.51 | 1.45 |
| 22 | B | 615 | CLA | C4D-ND | -3.27 | 1.33 | 1.37 |
| 21 | G | 607 | CHL | C1D-C2D | 3.27 | 1.51 | 1.45 |
| 21 | R | 305 | CHL | C1D-C2D | 3.27 | 1.51 | 1.45 |
| 22 | N | 604 | CLA | C4D-ND | -3.27 | 1.33 | 1.37 |
| 21 | g | 601 | CHL | C1D-C2D | 3.27 | 1.51 | 1.45 |
| 21 | r | 308 | CHL | C1D-C2D | 3.27 | 1.51 | 1.45 |
| 22 | C | 512 | CLA | C4D-ND | -3.27 | 1.33 | 1.37 |
| 21 | G | 608 | CHL | C1D-C2D | 3.27 | 1.51 | 1.45 |
| 21 | N | 608 | CHL | C1D-C2D | 3.27 | 1.51 | 1.45 |
| 22 | R | 302 | CLA | C4D-ND | -3.27 | 1.33 | 1.37 |
| 22 | y | 613 | CLA | C4D-ND | -3.27 | 1.33 | 1.37 |
| 22 | B | 608 | CLA | C4D-ND | -3.26 | 1.33 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | C | 509 | CLA | C4D-ND | -3.26 | 1.33 | 1.37 |
| 23 | r | 313 | LUT | C31-C30 | 3.26 | 1.53 | 1.43 |
| 22 | c | 508 | CLA | C4D-ND | -3.26 | 1.33 | 1.37 |
| 21 | G | 605 | CHL | C1D-C2D | 3.26 | 1.51 | 1.45 |
| 22 | b | 615 | CLA | C4D-ND | -3.26 | 1.33 | 1.37 |
| 22 | y | 603 | CLA | C1D-ND | 3.26 | 1.41 | 1.37 |
| 22 | B | 614 | CLA | C4D-ND | -3.26 | 1.33 | 1.37 |
| 23 | G | 615 | LUT | C11-C10 | 3.26 | 1.53 | 1.43 |
| 22 | N | 613 | CLA | C4D-ND | -3.26 | 1.33 | 1.37 |
| 31 | B | 621 | BCR | C1-C6 | -3.26 | 1.49 | 1.53 |
| 22 | c | 514 | CLA | C4D-ND | -3.25 | 1.33 | 1.37 |
| 22 | R | 310 | CLA | C4D-ND | -3.25 | 1.33 | 1.37 |
| 23 | g | 615 | LUT | C11-C10 | 3.25 | 1.53 | 1.43 |
| 31 | K | 101 | BCR | C30-C25 | -3.25 | 1.49 | 1.53 |
| 22 | c | 504 | CLA | C4D-ND | -3.25 | 1.33 | 1.37 |
| 22 | B | 606 | CLA | C4D-ND | -3.25 | 1.33 | 1.37 |
| 22 | B | 605 | CLA | C4D-ND | -3.25 | 1.33 | 1.37 |
| 22 | W | 101 | CLA | C4D-ND | -3.25 | 1.33 | 1.37 |
| 22 | r | 311 | CLA | C4D-ND | -3.25 | 1.33 | 1.37 |
| 22 | b | 602 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 22 | s | 313 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 22 | a | 406 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 22 | B | 612 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 23 | n | 614 | LUT | C11-C10 | 3.24 | 1.53 | 1.43 |
| 22 | b | 603 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 22 | A | 409 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 23 | Y | 613 | LUT | C11-C10 | 3.24 | 1.53 | 1.43 |
| 31 | B | 602 | BCR | C30-C25 | -3.24 | 1.49 | 1.53 |
| 22 | N | 611 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 22 | n | 610 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 22 | G | 614 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 22 | A | 407 | CLA | C4D-ND | -3.24 | 1.33 | 1.37 |
| 23 | Y | 614 | LUT | C32-C33 | 3.23 | 1.52 | 1.45 |
| 22 | c | 511 | CLA | C4D-ND | -3.23 | 1.33 | 1.37 |
| 32 | A | 411 | PL9 | C3-C4 | -3.23 | 1.44 | 1.49 |
| 22 | y | 611 | CLA | C4D-ND | -3.23 | 1.33 | 1.37 |
| 23 | g | 615 | LUT | C7-C6 | 3.23 | 1.56 | 1.45 |
| 23 | N | 614 | LUT | C11-C10 | 3.23 | 1.53 | 1.43 |
| 22 | Y | 612 | CLA | C4D-ND | -3.23 | 1.33 | 1.37 |
| 22 | y | 604 | CLA | C4D-ND | -3.23 | 1.33 | 1.37 |
| 22 | b | 606 | CLA | C4D-ND | -3.23 | 1.33 | 1.37 |
| 23 | G | 615 | LUT | C7-C6 | 3.23 | 1.56 | 1.45 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | C | 507 | CLA | C4D-ND | -3.22 | 1.33 | 1.37 |
| 23 | y | 614 | LUT | C11-C10 | 3.22 | 1.53 | 1.43 |
| 22 | b | 605 | CLA | C4D-ND | -3.22 | 1.33 | 1.37 |
| 22 | B | 603 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 23 | N | 614 | LUT | C7-C6 | 3.21 | 1.56 | 1.45 |
| 22 | g | 614 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 22 | b | 612 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 22 | s | 311 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 22 | S | 311 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 32 | a | 410 | PL9 | C3-C4 | -3.21 | 1.44 | 1.49 |
| 22 | C | 515 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 22 | g | 604 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 22 | x | 101 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 22 | c | 506 | CLA | C4D-ND | -3.21 | 1.33 | 1.37 |
| 23 | Y | 613 | LUT | C7-C6 | 3.21 | 1.56 | 1.45 |
| 23 | n | 614 | LUT | C7-C6 | 3.20 | 1.56 | 1.45 |
| 22 | Y | 610 | CLA | C4D-ND | -3.20 | 1.33 | 1.37 |
| 22 | r | 303 | CLA | C4D-ND | -3.20 | 1.33 | 1.37 |
| 31 | k | 101 | BCR | C30-C25 | -3.20 | 1.49 | 1.53 |
| 23 | y | 614 | LUT | C7-C6 | 3.20 | 1.56 | 1.45 |
| 22 | N | 612 | CLA | C1D-ND | 3.20 | 1.41 | 1.37 |
| 31 | T | 102 | BCR | C30-C25 | -3.19 | 1.49 | 1.53 |
| 22 | b | 613 | CLA | C4D-ND | -3.19 | 1.33 | 1.37 |
| 22 | g | 603 | CLA | C4D-ND | -3.19 | 1.33 | 1.37 |
| 31 | H | 101 | BCR | C30-C25 | -3.19 | 1.49 | 1.53 |
| 22 | G | 604 | CLA | C4D-ND | -3.19 | 1.33 | 1.37 |
| 22 | B | 609 | CLA | C4D-ND | -3.18 | 1.33 | 1.37 |
| 22 | n | 604 | CLA | C4D-ND | -3.18 | 1.33 | 1.37 |
| 22 | Y | 604 | CLA | C4D-ND | -3.18 | 1.33 | 1.37 |
| 22 | y | 612 | CLA | C1D-ND | 3.18 | 1.41 | 1.37 |
| 22 | N | 610 | CLA | C4D-ND | -3.18 | 1.33 | 1.37 |
| 21 | y | 606 | CHL | MG-NA | -3.18 | 1.98 | 2.06 |
| 31 | k | 102 | BCR | C30-C25 | -3.17 | 1.49 | 1.53 |
| 22 | Y | 602 | CLA | C4D-ND | -3.17 | 1.33 | 1.37 |
| 21 | G | 605 | CHL | MG-NA | -3.17 | 1.98 | 2.06 |
| 22 | n | 612 | CLA | C1D-ND | 3.17 | 1.41 | 1.37 |
| 21 | n | 606 | CHL | MG-NA | -3.17 | 1.98 | 2.06 |
| 22 | c | 509 | CLA | C4D-ND | -3.17 | 1.33 | 1.37 |
| 21 | r | 308 | CHL | MG-NA | -3.17 | 1.98 | 2.06 |
| 21 | s | 301 | CHL | MG-NA | -3.17 | 1.98 | 2.06 |
| 31 | K | 102 | BCR | C30-C25 | -3.17 | 1.49 | 1.53 |
| 22 | G | 611 | CLA | C4D-ND | -3.17 | 1.33 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | R | 307 | CHL | MG-NA | -3.17 | 1.98 | 2.06 |
| 21 | r | 301 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 25 | N | 617 | NEX | C7-C8 | 3.16 | 1.37 | 1.32 |
| 33 | l | 103 | SQD | O48-C23 | 3.16 | 1.42 | 1.33 |
| 22 | Y | 611 | CLA | C1D-ND | 3.16 | 1.41 | 1.37 |
| 21 | G | 607 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 22 | g | 613 | CLA | C1D-ND | 3.16 | 1.41 | 1.37 |
| 33 | D | 402 | SQD | O48-C23 | 3.16 | 1.42 | 1.33 |
| 21 | n | 605 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 21 | g | 605 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 21 | r | 306 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 33 | L | 101 | SQD | O48-C23 | 3.16 | 1.42 | 1.33 |
| 22 | C | 510 | CLA | C4D-ND | -3.16 | 1.33 | 1.37 |
| 22 | r | 309 | CLA | C4D-ND | -3.16 | 1.33 | 1.37 |
| 21 | N | 605 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 21 | y | 608 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 21 | G | 609 | CHL | MG-NA | -3.16 | 1.98 | 2.06 |
| 21 | S | 306 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 22 | B | 611 | CLA | C4D-ND | -3.15 | 1.33 | 1.37 |
| 21 | g | 608 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 22 | c | 505 | CLA | C4D-ND | -3.15 | 1.33 | 1.37 |
| 21 | N | 608 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 21 | r | 307 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 21 | s | 302 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 21 | N | 601 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 21 | S | 302 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 22 | b | 608 | CLA | C4D-ND | -3.15 | 1.33 | 1.37 |
| 22 | n | 603 | CLA | C4D-ND | -3.15 | 1.33 | 1.37 |
| 21 | G | 606 | CHL | MG-NA | -3.15 | 1.98 | 2.06 |
| 23 | G | 615 | LUT | C32-C33 | 3.15 | 1.52 | 1.45 |
| 22 | B | 616 | CLA | C4D-ND | -3.14 | 1.33 | 1.37 |
| 22 | N | 602 | CLA | C4D-ND | -3.14 | 1.33 | 1.37 |
| 33 | d | 402 | SQD | O48-C23 | 3.14 | 1.42 | 1.33 |
| 21 | y | 607 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 21 | g | 607 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 22 | g | 611 | CLA | C4D-ND | -3.14 | 1.33 | 1.37 |
| 21 | Y | 605 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 21 | g | 601 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 21 | G | 601 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 21 | S | 301 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 21 | Y | 606 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 21 | Y | 607 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | n | 601 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 21 | n | 607 | CHL | MG-NA | -3.14 | 1.98 | 2.06 |
| 31 | B | 621 | BCR | C30-C25 | -3.13 | 1.49 | 1.53 |
| 22 | Y | 603 | CLA | C4D-ND | -3.13 | 1.33 | 1.37 |
| 22 | S | 304 | CLA | C4D-ND | -3.13 | 1.33 | 1.37 |
| 21 | n | 608 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 21 | Y | 601 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 22 | R | 309 | CLA | CHC-C1C | 3.13 | 1.43 | 1.35 |
| 21 | s | 306 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 21 | R | 306 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 21 | R | 305 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 21 | S | 307 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 21 | y | 605 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 21 | s | 307 | CHL | MG-NA | -3.13 | 1.98 | 2.06 |
| 22 | y | 603 | CLA | C4D-ND | -3.13 | 1.33 | 1.37 |
| 22 | y | 602 | CLA | C4D-ND | -3.12 | 1.33 | 1.37 |
| 22 | s | 312 | CLA | C4D-ND | -3.12 | 1.33 | 1.37 |
| 22 | R | 303 | CLA | C4D-ND | -3.12 | 1.33 | 1.37 |
| 22 | D | 405 | CLA | C4D-ND | -3.12 | 1.33 | 1.37 |
| 22 | n | 602 | CLA | C4D-ND | -3.12 | 1.33 | 1.37 |
| 22 | G | 603 | CLA | C4D-ND | -3.12 | 1.33 | 1.37 |
| 21 | y | 609 | CHL | MG-NA | -3.12 | 1.98 | 2.06 |
| 21 | G | 608 | CHL | MG-NA | -3.12 | 1.98 | 2.06 |
| 21 | g | 609 | CHL | MG-NA | -3.12 | 1.98 | 2.06 |
| 21 | Y | 608 | CHL | MG-NA | -3.12 | 1.98 | 2.06 |
| 23 | Y | 613 | LUT | C32-C33 | 3.12 | 1.52 | 1.45 |
| 22 | G | 602 | CLA | C4D-ND | -3.12 | 1.33 | 1.37 |
| 21 | g | 606 | CHL | MG-NA | -3.12 | 1.98 | 2.06 |
| 22 | R | 308 | CLA | C4D-ND | -3.11 | 1.33 | 1.37 |
| 22 | a | 408 | CLA | C4D-ND | -3.11 | 1.33 | 1.37 |
| 21 | N | 607 | CHL | MG-NA | -3.11 | 1.98 | 2.06 |
| 22 | g | 602 | CLA | C4D-ND | -3.11 | 1.33 | 1.37 |
| 21 | y | 601 | CHL | MG-NA | -3.11 | 1.98 | 2.06 |
| 22 | C | 506 | CLA | C4D-ND | -3.11 | 1.33 | 1.37 |
| 31 | h | 101 | BCR | C30-C25 | -3.11 | 1.49 | 1.53 |
| 23 | N | 614 | LUT | C32-C33 | 3.11 | 1.52 | 1.45 |
| 22 | S | 312 | CLA | C4D-ND | -3.11 | 1.33 | 1.37 |
| 22 | s | 304 | CLA | C4D-ND | -3.11 | 1.33 | 1.37 |
| 23 | y | 614 | LUT | C32-C33 | 3.11 | 1.52 | 1.45 |
| 31 | b | 618 | BCR | C30-C25 | -3.11 | 1.49 | 1.53 |
| 22 | G | 613 | CLA | C1D-ND | 3.11 | 1.41 | 1.37 |
| 21 | N | 606 | CHL | MG-NA | -3.10 | 1.98 | 2.06 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | r | 304 | CLA | C4D-ND | -3.10 | 1.33 | 1.37 |
| 23 | g | 615 | LUT | C32-C33 | 3.10 | 1.52 | 1.45 |
| 22 | S | 311 | CLA | CHC-C1C | 3.10 | 1.42 | 1.35 |
| 22 | C | 508 | CLA | C4D-ND | -3.10 | 1.33 | 1.37 |
| 22 | S | 309 | CLA | CHC-C1C | 3.10 | 1.42 | 1.35 |
| 22 | r | 303 | CLA | CHC-C1C | 3.10 | 1.42 | 1.35 |
| 22 | s | 311 | CLA | CHC-C1C | 3.09 | 1.42 | 1.35 |
| 22 | r | 310 | CLA | CHC-C1C | 3.09 | 1.42 | 1.35 |
| 23 | n | 614 | LUT | C32-C33 | 3.09 | 1.52 | 1.45 |
| 22 | G | 602 | CLA | CHC-C1C | 3.09 | 1.42 | 1.35 |
| 22 | N | 609 | CLA | C4D-ND | -3.09 | 1.33 | 1.37 |
| 22 | c | 507 | CLA | C4D-ND | -3.09 | 1.33 | 1.37 |
| 22 | g | 614 | CLA | CHC-C1C | 3.08 | 1.42 | 1.35 |
| 22 | Y | 602 | CLA | CHC-C1C | 3.08 | 1.42 | 1.35 |
| 22 | b | 601 | CLA | CHC-C1C | 3.08 | 1.42 | 1.35 |
| 22 | d | 404 | CLA | C4D-ND | -3.08 | 1.33 | 1.37 |
| 22 | s | 309 | CLA | CHC-C1C | 3.08 | 1.42 | 1.35 |
| 22 | N | 603 | CLA | C4D-ND | -3.08 | 1.33 | 1.37 |
| 22 | y | 610 | CLA | C4D-ND | -3.08 | 1.33 | 1.37 |
| 22 | S | 305 | CLA | C4D-ND | -3.07 | 1.33 | 1.37 |
| 22 | n | 602 | CLA | CHC-C1C | 3.07 | 1.42 | 1.35 |
| 22 | s | 310 | CLA | CHC-C1C | 3.07 | 1.42 | 1.35 |
| 22 | S | 303 | CLA | CHC-C1C | 3.07 | 1.42 | 1.35 |
| 22 | R | 302 | CLA | CHC-C1C | 3.07 | 1.42 | 1.35 |
| 22 | A | 407 | CLA | CHC-C1C | 3.07 | 1.42 | 1.35 |
| 22 | y | 602 | CLA | CHC-C1C | 3.07 | 1.42 | 1.35 |
| 33 | L | 102 | SQD | O48-C23 | 3.06 | 1.42 | 1.33 |
| 22 | Y | 612 | CLA | CHC-C1C | 3.06 | 1.42 | 1.35 |
| 22 | G | 610 | CLA | C4D-ND | -3.06 | 1.33 | 1.37 |
| 22 | n | 613 | CLA | CHC-C1C | 3.06 | 1.42 | 1.35 |
| 22 | S | 309 | CLA | C4D-ND | -3.06 | 1.33 | 1.37 |
| 33 | l | 101 | SQD | O48-C23 | 3.06 | 1.42 | 1.33 |
| 22 | s | 304 | CLA | CHC-C1C | 3.06 | 1.42 | 1.35 |
| 33 | a | 411 | SQD | O48-C23 | 3.06 | 1.42 | 1.33 |
| 22 | N | 602 | CLA | CHC-C1C | 3.06 | 1.42 | 1.35 |
| 33 | A | 412 | SQD | O48-C23 | 3.06 | 1.42 | 1.33 |
| 22 | y | 613 | CLA | CHC-C1C | 3.06 | 1.42 | 1.35 |
| 22 | s | 303 | CLA | CHC-C1C | 3.05 | 1.42 | 1.35 |
| 22 | g | 602 | CLA | CHC-C1C | 3.05 | 1.42 | 1.35 |
| 22 | b | 607 | CLA | CHC-C1C | 3.05 | 1.42 | 1.35 |
| 22 | B | 605 | CLA | CHC-C1C | 3.05 | 1.42 | 1.35 |
| 22 | g | 610 | CLA | C4D-ND | -3.05 | 1.33 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | N | 613 | CLA | CHC-C1C | 3.05 | 1.42 | 1.35 |
| 22 | B | 617 | CLA | CHC-C1C | 3.05 | 1.42 | 1.35 |
| 22 | B | 604 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | s | 309 | CLA | C4D-ND | -3.04 | 1.33 | 1.37 |
| 22 | R | 308 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | S | 310 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | a | 406 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | r | 309 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | S | 304 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | S | 303 | CLA | C4D-ND | -3.04 | 1.33 | 1.37 |
| 22 | y | 610 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | d | 403 | CLA | CHC-C1C | 3.04 | 1.42 | 1.35 |
| 22 | b | 609 | CLA | CHC-C1C | 3.03 | 1.42 | 1.35 |
| 22 | g | 603 | CLA | CHC-C1C | 3.03 | 1.42 | 1.35 |
| 22 | G | 614 | CLA | CHC-C1C | 3.03 | 1.42 | 1.35 |
| 22 | g | 610 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | b | 614 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | r | 312 | CLA | C4D-ND | -3.02 | 1.33 | 1.37 |
| 22 | n | 603 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | G | 610 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | N | 609 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | Y | 609 | CLA | C4D-ND | -3.02 | 1.33 | 1.37 |
| 22 | b | 602 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | c | 512 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | B | 611 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | n | 609 | CLA | C4D-ND | -3.02 | 1.33 | 1.37 |
| 22 | R | 303 | CLA | CHC-C1C | 3.02 | 1.42 | 1.35 |
| 22 | D | 404 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | B | 614 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | C | 508 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | b | 613 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | C | 513 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | Y | 609 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | c | 511 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | b | 608 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | s | 305 | CLA | C4D-ND | -3.01 | 1.33 | 1.37 |
| 22 | y | 603 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | N | 610 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | d | 404 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | c | 503 | CLA | CHC-C1C | 3.01 | 1.42 | 1.35 |
| 22 | s | 303 | CLA | C4D-ND | -3.00 | 1.33 | 1.37 |
| 22 | C | 515 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | Y | 603 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | S | 313 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | n | 609 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | B | 610 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | C | 512 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | C | 504 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | B | 607 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | Y | 610 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | b | 610 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | c | 502 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 30 | a | 407 | PHO | CAC-C3C | -3.00 | 1.46 | 1.52 |
| 22 | C | 503 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | r | 311 | CLA | CHC-C1C | 3.00 | 1.42 | 1.35 |
| 22 | R | 311 | CLA | C4D-ND | -3.00 | 1.33 | 1.37 |
| 22 | n | 610 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | N | 603 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | R | 310 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | B | 612 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | g | 611 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 30 | A | 408 | PHO | CAC-C3C | -2.99 | 1.46 | 1.52 |
| 22 | b | 604 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | G | 603 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | c | 507 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | c | 504 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | c | 513 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | w | 101 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | b | 611 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | G | 611 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | c | 514 | CLA | CHC-C1C | 2.99 | 1.42 | 1.35 |
| 22 | g | 612 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 25 | n | 616 | NEX | C7-C8 | 2.98 | 1.36 | 1.32 |
| 22 | G | 612 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | B | 618 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | r | 304 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | s | 313 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | n | 611 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | b | 615 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | N | 611 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | B | 616 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 25 | y | 616 | NEX | C7-C8 | 2.98 | 1.36 | 1.32 |
| 22 | C | 507 | CLA | CHC-C1C | 2.98 | 1.42 | 1.35 |
| 22 | s | 308 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | B | 608 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | B | 615 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | b | 603 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | c | 509 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | b | 605 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | y | 611 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | B | 603 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | W | 101 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | D | 405 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | b | 612 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | C | 514 | CLA | CHC-C1C | 2.97 | 1.42 | 1.35 |
| 22 | A | 405 | CLA | CHC-C1C | 2.96 | 1.42 | 1.35 |
| 22 | C | 510 | CLA | CHC-C1C | 2.96 | 1.42 | 1.35 |
| 22 | B | 606 | CLA | CHC-C1C | 2.96 | 1.42 | 1.35 |
| 22 | B | 613 | CLA | CHC-C1C | 2.96 | 1.42 | 1.35 |
| 22 | x | 101 | CLA | CHC-C1C | 2.96 | 1.42 | 1.35 |
| 22 | r | 310 | CLA | C4D-ND | -2.96 | 1.33 | 1.37 |
| 22 | r | 312 | CLA | CHC-C1C | 2.95 | 1.42 | 1.35 |
| 22 | a | 404 | CLA | CHC-C1C | 2.95 | 1.42 | 1.35 |
| 23 | r | 313 | LUT | C32-C33 | 2.94 | 1.52 | 1.45 |
| 22 | s | 305 | CLA | CHC-C1C | 2.94 | 1.42 | 1.35 |
| 22 | c | 506 | CLA | CHC-C1C | 2.94 | 1.42 | 1.35 |
| 22 | a | 405 | CLA | CHC-C1C | 2.94 | 1.42 | 1.35 |
| 22 | A | 409 | CLA | CHC-C1C | 2.94 | 1.42 | 1.35 |
| 22 | S | 305 | CLA | CHC-C1C | 2.94 | 1.42 | 1.35 |
| 25 | Y | 616 | NEX | C7-C8 | 2.94 | 1.36 | 1.32 |
| 22 | C | 505 | CLA | CHC-C1C | 2.93 | 1.42 | 1.35 |
| 22 | c | 508 | CLA | CHC-C1C | 2.93 | 1.42 | 1.35 |
| 22 | A | 406 | CLA | CHC-C1C | 2.93 | 1.42 | 1.35 |
| 22 | S | 308 | CLA | CHC-C1C | 2.93 | 1.42 | 1.35 |
| 22 | R | 311 | CLA | CHC-C1C | 2.93 | 1.42 | 1.35 |
| 22 | R | 309 | CLA | C4D-ND | -2.92 | 1.33 | 1.37 |
| 22 | b | 606 | CLA | CHC-C1C | 2.92 | 1.42 | 1.35 |
| 32 | d | 406 | PL9 | C6-C1 | -2.92 | 1.43 | 1.48 |
| 22 | a | 408 | CLA | CHC-C1C | 2.92 | 1.42 | 1.35 |
| 22 | C | 509 | CLA | CHC-C1C | 2.91 | 1.42 | 1.35 |
| 22 | B | 609 | CLA | CHC-C1C | 2.91 | 1.42 | 1.35 |
| 23 | R | 312 | LUT | C32-C33 | 2.90 | 1.52 | 1.45 |
| 22 | C | 506 | CLA | CHC-C1C | 2.90 | 1.42 | 1.35 |
| 32 | D | 407 | PL9 | C6-C1 | -2.89 | 1.43 | 1.48 |
| 22 | C | 510 | CLA | CMB-C2B | -2.89 | 1.45 | 1.51 |
| 22 | c | 505 | CLA | CHC-C1C | 2.89 | 1.42 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | S | 312 | CLA | CHC-C1C | 2.89 | 1.42 | 1.35 |
| 22 | s | 312 | CLA | CHC-C1C | 2.88 | 1.42 | 1.35 |
| 33 | l | 103 | SQD | O47-C7 | 2.87 | 1.42 | 1.34 |
| 22 | r | 305 | CLA | CHC-C1C | 2.87 | 1.42 | 1.35 |
| 33 | L | 101 | SQD | O47-C7 | 2.86 | 1.42 | 1.34 |
| 33 | D | 402 | SQD | O47-C7 | 2.85 | 1.42 | 1.34 |
| 30 | d | 401 | PHO | CAC-C3C | -2.85 | 1.47 | 1.52 |
| 33 | A | 412 | SQD | O47-C7 | 2.85 | 1.42 | 1.34 |
| 22 | R | 304 | CLA | CHC-C1C | 2.84 | 1.42 | 1.35 |
| 33 | d | 402 | SQD | O47-C7 | 2.84 | 1.42 | 1.34 |
| 22 | c | 509 | CLA | CMB-C2B | -2.84 | 1.45 | 1.51 |
| 24 | n | 615 | XAT | C2-C1 | -2.82 | 1.50 | 1.54 |
| 33 | a | 411 | SQD | O47-C7 | 2.82 | 1.42 | 1.34 |
| 25 | g | 618 | NEX | C7-C8 | 2.81 | 1.36 | 1.32 |
| 22 | n | 604 | CLA | CHC-C1C | 2.81 | 1.42 | 1.35 |
| 24 | G | 617 | XAT | C2-C1 | -2.81 | 1.50 | 1.54 |
| 22 | g | 604 | CLA | CHC-C1C | 2.80 | 1.42 | 1.35 |
| 22 | G | 604 | CLA | CHC-C1C | 2.80 | 1.42 | 1.35 |
| 30 | D | 401 | PHO | CAC-C3C | -2.80 | 1.47 | 1.52 |
| 37 | F | 101 | HEM | CAB-C3B | 2.80 | 1.55 | 1.47 |
| 22 | y | 604 | CLA | CHC-C1C | 2.80 | 1.42 | 1.35 |
| 24 | g | 617 | XAT | C2-C1 | -2.80 | 1.50 | 1.54 |
| 35 | J | 101 | DGD | O2G-C2G | -2.79 | 1.39 | 1.46 |
| 22 | G | 613 | CLA | C3B-C2B | -2.79 | 1.36 | 1.40 |
| 22 | N | 612 | CLA | C3B-C2B | -2.78 | 1.36 | 1.40 |
| 22 | N | 604 | CLA | CHC-C1C | 2.78 | 1.42 | 1.35 |
| 22 | Y | 604 | CLA | CHC-C1C | 2.78 | 1.42 | 1.35 |
| 22 | g | 613 | CLA | C3B-C2B | -2.78 | 1.36 | 1.40 |
| 35 | c | 519 | DGD | O2G-C2G | -2.78 | 1.39 | 1.46 |
| 22 | y | 612 | CLA | C3B-C2B | -2.78 | 1.36 | 1.40 |
| 22 | n | 612 | CLA | C3B-C2B | -2.76 | 1.36 | 1.40 |
| 22 | Y | 611 | CLA | C3B-C2B | -2.76 | 1.36 | 1.40 |
| 37 | f | 101 | HEM | CAB-C3B | 2.76 | 1.54 | 1.47 |
| 33 | l | 101 | SQD | O47-C7 | 2.75 | 1.42 | 1.34 |
| 23 | N | 615 | LUT | C8-C7 | 2.73 | 1.41 | 1.33 |
| 33 | L | 102 | SQD | O47-C7 | 2.73 | 1.42 | 1.34 |
| 22 | R | 304 | CLA | CMB-C2B | -2.73 | 1.46 | 1.51 |
| 24 | y | 615 | XAT | C2-C1 | -2.73 | 1.50 | 1.54 |
| 21 | g | 608 | CHL | C4B-CHC | 2.72 | 1.48 | 1.41 |
| 24 | r | 314 | XAT | C2-C1 | -2.72 | 1.50 | 1.54 |
| 21 | g | 606 | CHL | C4B-CHC | 2.71 | 1.48 | 1.41 |
| 21 | Y | 608 | CHL | C4B-CHC | 2.71 | 1.48 | 1.41 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | G | 607 | CHL | C4B-CHC | 2.71 | 1.48 | 1.41 |
| 21 | g | 601 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 22 | r | 305 | CLA | CMB-C2B | -2.70 | 1.46 | 1.51 |
| 35 | C | 518 | DGD | O2G-C2G | -2.70 | 1.39 | 1.46 |
| 35 | c | 517 | DGD | O2G-C2G | -2.70 | 1.39 | 1.46 |
| 21 | Y | 601 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | n | 607 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | S | 306 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 24 | Y | 615 | XAT | C2-C1 | -2.70 | 1.50 | 1.54 |
| 21 | g | 609 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | G | 605 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | s | 306 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | R | 307 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | y | 607 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | S | 302 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | r | 301 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | r | 307 | CHL | C4B-CHC | 2.70 | 1.48 | 1.41 |
| 21 | n | 608 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | y | 601 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | G | 601 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | n | 606 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | N | 605 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | N | 606 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | s | 302 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | y | 605 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | n | 605 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | y | 606 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | S | 301 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | n | 601 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | y | 609 | CHL | C4C-C3C | 2.69 | 1.49 | 1.45 |
| 21 | N | 608 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | Y | 605 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | s | 307 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | N | 601 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | s | 301 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | g | 605 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | G | 606 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | Y | 606 | CHL | C4B-CHC | 2.69 | 1.48 | 1.41 |
| 21 | r | 307 | CHL | C4C-C3C | 2.68 | 1.49 | 1.45 |
| 21 | S | 306 | CHL | C4C-C3C | 2.68 | 1.49 | 1.45 |
| 21 | y | 605 | CHL | C4C-C3C | 2.68 | 1.49 | 1.45 |
| 21 | G | 608 | CHL | C4B-CHC | 2.68 | 1.48 | 1.41 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | R | 306 | CHL | C4B-CHC | 2.68 | 1.48 | 1.41 |
| 26 | Y | 617 | LHG | O7-C5 | -2.68 | 1.39 | 1.46 |
| 21 | R | 305 | CHL | C4B-CHC | 2.68 | 1.48 | 1.41 |
| 21 | g | 607 | CHL | C4B-CHC | 2.68 | 1.48 | 1.41 |
| 21 | r | 308 | CHL | C4C-C3C | 2.68 | 1.49 | 1.45 |
| 21 | G | 609 | CHL | C4B-CHC | 2.68 | 1.48 | 1.41 |
| 21 | R | 305 | CHL | C4C-C3C | 2.67 | 1.49 | 1.45 |
| 21 | Y | 607 | CHL | C4B-CHC | 2.67 | 1.48 | 1.41 |
| 22 | y | 604 | CLA | CMB-C2B | -2.67 | 1.46 | 1.51 |
| 21 | G | 601 | CHL | C4C-C3C | 2.67 | 1.49 | 1.45 |
| 21 | r | 308 | CHL | C4B-CHC | 2.67 | 1.48 | 1.41 |
| 21 | s | 302 | CHL | C4C-C3C | 2.67 | 1.49 | 1.45 |
| 21 | N | 607 | CHL | C4B-CHC | 2.67 | 1.48 | 1.41 |
| 22 | N | 604 | CLA | CMB-C2B | -2.67 | 1.46 | 1.51 |
| 21 | y | 608 | CHL | C4B-CHC | 2.67 | 1.48 | 1.41 |
| 21 | y | 609 | CHL | C4B-CHC | 2.67 | 1.48 | 1.41 |
| 21 | r | 306 | CHL | C4B-CHC | 2.67 | 1.48 | 1.41 |
| 21 | S | 302 | CHL | C4C-C3C | 2.67 | 1.49 | 1.45 |
| 21 | S | 301 | CHL | C4C-C3C | 2.66 | 1.49 | 1.45 |
| 21 | R | 307 | CHL | C4C-C3C | 2.66 | 1.49 | 1.45 |
| 32 | D | 407 | PL9 | C53-C6 | -2.66 | 1.45 | 1.50 |
| 22 | g | 604 | CLA | CMB-C2B | -2.66 | 1.46 | 1.51 |
| 21 | g | 609 | CHL | C4C-C3C | 2.66 | 1.49 | 1.45 |
| 21 | N | 606 | CHL | C4C-C3C | 2.66 | 1.49 | 1.45 |
| 21 | G | 608 | CHL | C4C-C3C | 2.66 | 1.49 | 1.45 |
| 22 | Y | 604 | CLA | CMB-C2B | -2.66 | 1.46 | 1.51 |
| 21 | S | 307 | CHL | C4B-CHC | 2.65 | 1.48 | 1.41 |
| 22 | n | 604 | CLA | CMB-C2B | -2.65 | 1.46 | 1.51 |
| 21 | N | 608 | CHL | C4C-C3C | 2.65 | 1.49 | 1.45 |
| 21 | n | 601 | CHL | C4C-C3C | 2.65 | 1.49 | 1.45 |
| 21 | g | 601 | CHL | C4C-C3C | 2.65 | 1.49 | 1.45 |
| 21 | y | 608 | CHL | C4C-C3C | 2.65 | 1.49 | 1.45 |
| 21 | Y | 605 | CHL | C4C-C3C | 2.65 | 1.49 | 1.45 |
| 21 | s | 307 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |
| 24 | N | 616 | XAT | C2-C1 | -2.64 | 1.50 | 1.54 |
| 21 | n | 607 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |
| 21 | Y | 601 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |
| 22 | G | 604 | CLA | CMB-C2B | -2.64 | 1.46 | 1.51 |
| 21 | g | 606 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |
| 21 | y | 606 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |
| 32 | d | 406 | PL9 | C53-C6 | -2.64 | 1.45 | 1.50 |
| 21 | Y | 607 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 24 | R | 313 | XAT | C2-C1 | -2.64 | 1.50 | 1.54 |
| 21 | s | 306 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |
| 21 | g | 605 | CHL | C4C-C3C | 2.64 | 1.49 | 1.45 |
| 22 | C | 503 | CLA | CMB-C2B | -2.63 | 1.46 | 1.51 |
| 21 | N | 601 | CHL | C4C-C3C | 2.63 | 1.49 | 1.45 |
| 21 | r | 301 | CHL | C4C-C3C | 2.63 | 1.49 | 1.45 |
| 35 | c | 518 | DGD | O2G-C2G | -2.63 | 1.40 | 1.46 |
| 21 | Y | 608 | CHL | C4C-C3C | 2.63 | 1.49 | 1.45 |
| 21 | N | 607 | CHL | C4C-C3C | 2.63 | 1.49 | 1.45 |
| 21 | n | 605 | CHL | C4C-C3C | 2.62 | 1.49 | 1.45 |
| 21 | G | 605 | CHL | C4C-C3C | 2.62 | 1.49 | 1.45 |
| 22 | A | 407 | CLA | CMB-C2B | -2.62 | 1.46 | 1.51 |
| 21 | G | 606 | CHL | C4C-C3C | 2.62 | 1.49 | 1.45 |
| 22 | b | 610 | CLA | CMB-C2B | -2.62 | 1.46 | 1.51 |
| 21 | R | 306 | CHL | C4C-C3C | 2.62 | 1.49 | 1.45 |
| 21 | s | 301 | CHL | C4C-C3C | 2.62 | 1.49 | 1.45 |
| 21 | r | 306 | CHL | C4C-C3C | 2.61 | 1.49 | 1.45 |
| 21 | n | 608 | CHL | C4C-C3C | 2.61 | 1.49 | 1.45 |
| 21 | N | 605 | CHL | C4C-C3C | 2.61 | 1.49 | 1.45 |
| 21 | y | 601 | CHL | C4C-C3C | 2.61 | 1.49 | 1.45 |
| 21 | Y | 606 | CHL | C4C-C3C | 2.61 | 1.49 | 1.45 |
| 22 | a | 406 | CLA | CMB-C2B | -2.61 | 1.46 | 1.51 |
| 22 | A | 405 | CLA | CMB-C2B | -2.61 | 1.46 | 1.51 |
| 21 | g | 608 | CHL | C4C-C3C | 2.61 | 1.49 | 1.45 |
| 22 | c | 502 | CLA | CMB-C2B | -2.61 | 1.46 | 1.51 |
| 21 | G | 609 | CHL | C4C-C3C | 2.61 | 1.49 | 1.45 |
| 21 | n | 606 | CHL | C4C-C3C | 2.60 | 1.49 | 1.45 |
| 21 | S | 301 | CHL | C1B-CHB | 2.60 | 1.48 | 1.41 |
| 21 | g | 607 | CHL | C1B-CHB | 2.60 | 1.48 | 1.41 |
| 21 | G | 607 | CHL | C4C-C3C | 2.60 | 1.49 | 1.45 |
| 21 | g | 607 | CHL | C4C-C3C | 2.60 | 1.49 | 1.45 |
| 25 | r | 315 | NEX | C38-C25 | 2.60 | 1.55 | 1.51 |
| 22 | c | 511 | CLA | CMB-C2B | -2.60 | 1.46 | 1.51 |
| 21 | g | 601 | CHL | C1B-CHB | 2.60 | 1.48 | 1.41 |
| 35 | C | 519 | DGD | O2G-C2G | -2.60 | 1.40 | 1.46 |
| 21 | G | 606 | CHL | C1B-CHB | 2.60 | 1.48 | 1.41 |
| 21 | N | 607 | CHL | C1B-CHB | 2.60 | 1.48 | 1.41 |
| 22 | c | 508 | CLA | CMB-C2B | -2.60 | 1.46 | 1.51 |
| 21 | n | 608 | CHL | C1B-CHB | 2.60 | 1.48 | 1.41 |
| 21 | n | 607 | CHL | C1B-CHB | 2.60 | 1.48 | 1.41 |
| 22 | B | 613 | CLA | CMB-C2B | -2.60 | 1.46 | 1.51 |
| 21 | r | 301 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | s | 307 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | y | 607 | CHL | C4C-C3C | 2.59 | 1.49 | 1.45 |
| 21 | s | 302 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 22 | C | 509 | CLA | CMB-C2B | -2.59 | 1.46 | 1.51 |
| 22 | a | 404 | CLA | CMB-C2B | -2.59 | 1.46 | 1.51 |
| 22 | C | 512 | CLA | CMB-C2B | -2.59 | 1.46 | 1.51 |
| 21 | G | 605 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | y | 601 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | G | 609 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | R | 307 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | y | 605 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | N | 606 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | S | 306 | CHL | C1B-CHB | 2.59 | 1.48 | 1.41 |
| 21 | g | 608 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | y | 607 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | G | 607 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 22 | B | 614 | CLA | CMB-C2B | -2.58 | 1.46 | 1.51 |
| 22 | B | 618 | CLA | CMB-C2B | -2.58 | 1.46 | 1.51 |
| 21 | Y | 605 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | n | 601 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | R | 305 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | N | 601 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | r | 306 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 22 | n | 603 | CLA | CMB-C2B | -2.58 | 1.46 | 1.51 |
| 22 | b | 611 | CLA | CMB-C2B | -2.58 | 1.46 | 1.51 |
| 22 | g | 603 | CLA | CMB-C2B | -2.58 | 1.46 | 1.51 |
| 23 | G | 616 | LUT | C8-C7 | 2.58 | 1.40 | 1.33 |
| 22 | C | 511 | CLA | C3C-C2C | 2.58 | 1.42 | 1.36 |
| 21 | y | 606 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | y | 609 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | G | 608 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 22 | D | 405 | CLA | CMB-C2B | -2.58 | 1.46 | 1.51 |
| 21 | s | 301 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | Y | 601 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | g | 606 | CHL | C1B-CHB | 2.58 | 1.48 | 1.41 |
| 21 | S | 307 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 22 | b | 613 | CLA | CMB-C2B | -2.57 | 1.46 | 1.51 |
| 21 | r | 308 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 21 | S | 302 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 22 | y | 603 | CLA | CMB-C2B | -2.57 | 1.46 | 1.51 |
| 21 | R | 306 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 21 | Y | 606 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 21 | s | 306 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 21 | G | 601 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 22 | B | 615 | CLA | CMB-C2B | -2.57 | 1.46 | 1.51 |
| 21 | y | 608 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 21 | r | 307 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 21 | g | 609 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 21 | Y | 608 | CHL | C1B-CHB | 2.57 | 1.48 | 1.41 |
| 22 | d | 404 | CLA | CMB-C2B | -2.57 | 1.46 | 1.51 |
| 22 | R | 303 | CLA | CMB-C2B | -2.57 | 1.46 | 1.51 |
| 23 | Y | 614 | LUT | C8-C7 | 2.57 | 1.40 | 1.33 |
| 35 | h | 102 | DGD | O2G-C2G | -2.57 | 1.40 | 1.46 |
| 21 | S | 307 | CHL | C4C-C3C | 2.57 | 1.49 | 1.45 |
| 22 | Y | 603 | CLA | CMB-C2B | -2.56 | 1.46 | 1.51 |
| 22 | G | 603 | CLA | CMB-C2B | -2.56 | 1.46 | 1.51 |
| 21 | N | 605 | CHL | C1B-CHB | 2.56 | 1.48 | 1.41 |
| 22 | b | 605 | CLA | CMB-C2B | -2.56 | 1.46 | 1.51 |
| 22 | d | 403 | CLA | CMB-C2B | -2.56 | 1.46 | 1.51 |
| 21 | g | 605 | CHL | C1B-CHB | 2.56 | 1.48 | 1.41 |
| 22 | c | 510 | CLA | C3C-C2C | 2.56 | 1.42 | 1.36 |
| 21 | Y | 607 | CHL | C1B-CHB | 2.56 | 1.48 | 1.41 |
| 21 | n | 605 | CHL | C1B-CHB | 2.56 | 1.48 | 1.41 |
| 22 | B | 616 | CLA | CMB-C2B | -2.56 | 1.46 | 1.51 |
| 35 | c | 517 | DGD | O1G-C1G | -2.56 | 1.39 | 1.45 |
| 22 | r | 304 | CLA | CMB-C2B | -2.55 | 1.46 | 1.51 |
| 22 | b | 612 | CLA | CMB-C2B | -2.55 | 1.46 | 1.51 |
| 22 | B | 608 | CLA | CMB-C2B | -2.55 | 1.46 | 1.51 |
| 21 | N | 608 | CHL | C1B-CHB | 2.55 | 1.48 | 1.41 |
| 26 | y | 617 | LHG | O7-C5 | -2.55 | 1.40 | 1.46 |
| 22 | b | 615 | CLA | CMB-C2B | -2.55 | 1.46 | 1.51 |
| 22 | N | 603 | CLA | CMB-C2B | -2.55 | 1.46 | 1.51 |
| 22 | a | 405 | CLA | CMB-C2B | -2.55 | 1.46 | 1.51 |
| 35 | c | 519 | DGD | O1G-C1G | -2.55 | 1.39 | 1.45 |
| 23 | g | 616 | LUT | C8-C7 | 2.55 | 1.40 | 1.33 |
| 22 | A | 406 | CLA | CMB-C2B | -2.55 | 1.46 | 1.51 |
| 21 | n | 606 | CHL | C1B-CHB | 2.55 | 1.48 | 1.41 |
| 35 | J | 101 | DGD | O1G-C1G | -2.54 | 1.39 | 1.45 |
| 35 | H | 102 | DGD | O2G-C2G | -2.54 | 1.40 | 1.46 |
| 22 | a | 408 | CLA | CMB-C2B | -2.54 | 1.46 | 1.51 |
| 22 | D | 404 | CLA | CMB-C2B | -2.54 | 1.46 | 1.51 |
| 25 | y | 618 | NEX | C38-C25 | 2.54 | 1.55 | 1.51 |
| 22 | B | 603 | CLA | CMB-C2B | -2.54 | 1.46 | 1.51 |
| 22 | b | 604 | CLA | CMB-C2B | -2.54 | 1.46 | 1.51 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | A | 409 | CLA | CMB-C2B | -2.54 | 1.46 | 1.51 |
| 22 | c | 506 | CLA | CMB-C2B | -2.54 | 1.46 | 1.51 |
| 22 | c | 513 | CLA | CMB-C2B | -2.54 | 1.46 | 1.51 |
| 22 | S | 303 | CLA | CMB-C2B | -2.53 | 1.46 | 1.51 |
| 22 | S | 312 | CLA | CMB-C2B | -2.53 | 1.46 | 1.51 |
| 36 | b | 620 | LMG | C21-C20 | 2.53 | 1.65 | 1.51 |
| 26 | d | 408 | LHG | O7-C5 | -2.53 | 1.40 | 1.46 |
| 22 | S | 313 | CLA | CMB-C2B | -2.53 | 1.46 | 1.51 |
| 26 | n | 617 | LHG | O7-C5 | -2.53 | 1.40 | 1.46 |
| 35 | C | 518 | DGD | O1G-C1G | -2.53 | 1.39 | 1.45 |
| 22 | B | 607 | CLA | CMB-C2B | -2.53 | 1.46 | 1.51 |
| 22 | C | 511 | CLA | CMD-C2D | -2.53 | 1.45 | 1.50 |
| 26 | D | 409 | LHG | O7-C5 | -2.52 | 1.40 | 1.46 |
| 36 | B | 623 | LMG | C21-C20 | 2.52 | 1.65 | 1.51 |
| 22 | B | 617 | CLA | CMB-C2B | -2.52 | 1.46 | 1.51 |
| 25 | Y | 616 | NEX | C38-C25 | 2.52 | 1.55 | 1.51 |
| 22 | s | 309 | CLA | CMB-C2B | -2.52 | 1.46 | 1.51 |
| 22 | C | 514 | CLA | CMB-C2B | -2.52 | 1.46 | 1.51 |
| 22 | B | 605 | CLA | CMB-C2B | -2.52 | 1.46 | 1.51 |
| 22 | g | 610 | CLA | CMB-C2B | -2.52 | 1.46 | 1.51 |
| 22 | n | 611 | CLA | CMB-C2B | -2.52 | 1.46 | 1.51 |
| 22 | x | 101 | CLA | CMB-C2B | -2.52 | 1.46 | 1.51 |
| 22 | r | 309 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | B | 606 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | s | 313 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | Y | 609 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | Y | 612 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | B | 604 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | Y | 602 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | R | 308 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 23 | r | 313 | LUT | C4-C5 | 2.51 | 1.55 | 1.51 |
| 22 | B | 612 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | c | 505 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | S | 305 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | b | 602 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | s | 303 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | y | 610 | CLA | CMB-C2B | -2.51 | 1.46 | 1.51 |
| 22 | G | 610 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | b | 603 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | N | 609 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | W | 101 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | c | 510 | CLA | CMD-C2D | -2.50 | 1.45 | 1.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | G | 612 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | g | 602 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | C | 507 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | n | 609 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | N | 611 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | C | 504 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | N | 613 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | G | 602 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | b | 601 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 22 | r | 310 | CLA | CMB-C2B | -2.50 | 1.46 | 1.51 |
| 26 | l | 102 | LHG | O7-C5 | -2.50 | 1.40 | 1.46 |
| 26 | G | 618 | LHG | O7-C5 | -2.49 | 1.40 | 1.46 |
| 22 | B | 611 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 22 | C | 515 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 35 | h | 102 | DGD | O5D-C6D | -2.49 | 1.39 | 1.43 |
| 22 | N | 602 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 36 | w | 102 | LMG | O7-C8 | -2.49 | 1.40 | 1.46 |
| 22 | c | 514 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 22 | b | 614 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 22 | n | 602 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 22 | b | 606 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 22 | b | 607 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 22 | S | 309 | CLA | CMB-C2B | -2.49 | 1.46 | 1.51 |
| 35 | c | 518 | DGD | O1G-C1G | -2.48 | 1.39 | 1.45 |
| 22 | r | 303 | CLA | CMB-C2B | -2.48 | 1.46 | 1.51 |
| 22 | G | 611 | CLA | CMB-C2B | -2.48 | 1.46 | 1.51 |
| 22 | s | 304 | CLA | CMB-C2B | -2.48 | 1.46 | 1.51 |
| 37 | f | 101 | HEM | CHA-C4D | 2.48 | 1.41 | 1.35 |
| 22 | w | 101 | CLA | CMB-C2B | -2.48 | 1.46 | 1.51 |
| 36 | C | 502 | LMG | O7-C8 | -2.48 | 1.40 | 1.46 |
| 23 | R | 312 | LUT | C4-C5 | 2.48 | 1.54 | 1.51 |
| 22 | n | 610 | CLA | CMB-C2B | -2.48 | 1.46 | 1.51 |
| 22 | C | 506 | CLA | CMB-C2B | -2.48 | 1.46 | 1.51 |
| 22 | b | 609 | CLA | CMB-C2B | -2.48 | 1.46 | 1.51 |
| 22 | g | 611 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 22 | y | 602 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 22 | Y | 610 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 22 | s | 305 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 22 | S | 311 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 26 | L | 103 | LHG | O7-C5 | -2.47 | 1.40 | 1.46 |
| 22 | R | 309 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 37 | F | 101 | HEM | CHA-C4D | 2.47 | 1.41 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | g | 612 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 22 | y | 613 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 35 | H | 102 | DGD | O1G-C1G | -2.47 | 1.39 | 1.45 |
| 22 | n | 613 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 22 | s | 312 | CLA | CMB-C2B | -2.47 | 1.46 | 1.51 |
| 22 | c | 507 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 22 | s | 311 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 35 | C | 519 | DGD | O1G-C1G | -2.46 | 1.39 | 1.45 |
| 22 | R | 311 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 22 | y | 611 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 35 | H | 102 | DGD | O5D-C6D | -2.46 | 1.39 | 1.43 |
| 22 | G | 614 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 22 | R | 302 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 22 | N | 610 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 22 | c | 503 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 22 | b | 608 | CLA | CMB-C2B | -2.46 | 1.46 | 1.51 |
| 22 | B | 609 | CLA | CMB-C2B | -2.45 | 1.46 | 1.51 |
| 22 | S | 304 | CLA | CMB-C2B | -2.45 | 1.46 | 1.51 |
| 26 | d | 409 | LHG | O7-C5 | -2.45 | 1.40 | 1.46 |
| 22 | g | 614 | CLA | CMB-C2B | -2.45 | 1.46 | 1.51 |
| 22 | B | 610 | CLA | CMB-C2B | -2.45 | 1.46 | 1.51 |
| 26 | C | 520 | LHG | C6-C5 | 2.45 | 1.58 | 1.50 |
| 23 | g | 616 | LUT | C23-C24 | 2.44 | 1.53 | 1.50 |
| 22 | C | 505 | CLA | CMB-C2B | -2.44 | 1.46 | 1.51 |
| 22 | C | 513 | CLA | CMB-C2B | -2.44 | 1.46 | 1.51 |
| 22 | S | 308 | CLA | CMB-C2B | -2.44 | 1.46 | 1.51 |
| 26 | D | 410 | LHG | O7-C5 | -2.44 | 1.40 | 1.46 |
| 22 | C | 508 | CLA | CMB-C2B | -2.44 | 1.46 | 1.51 |
| 22 | G | 613 | CLA | C3D-C4D | 2.44 | 1.49 | 1.44 |
| 22 | r | 312 | CLA | CMB-C2B | -2.44 | 1.46 | 1.51 |
| 22 | g | 613 | CLA | C3D-C4D | 2.44 | 1.49 | 1.44 |
| 22 | s | 308 | CLA | CMB-C2B | -2.44 | 1.46 | 1.51 |
| 22 | y | 612 | CLA | C3D-C4D | 2.43 | 1.49 | 1.44 |
| 35 | h | 102 | DGD | O1G-C1G | -2.43 | 1.39 | 1.45 |
| 22 | c | 504 | CLA | CMB-C2B | -2.43 | 1.46 | 1.51 |
| 26 | D | 408 | LHG | O7-C5 | -2.43 | 1.40 | 1.46 |
| 22 | c | 510 | CLA | CMB-C2B | -2.43 | 1.46 | 1.51 |
| 26 | c | 520 | LHG | C6-C5 | 2.43 | 1.58 | 1.50 |
| 22 | s | 310 | CLA | CMB-C2B | -2.43 | 1.46 | 1.51 |
| 26 | d | 407 | LHG | O7-C5 | -2.43 | 1.40 | 1.46 |
| 23 | n | 614 | LUT | C8-C7 | 2.42 | 1.40 | 1.33 |
| 22 | Y | 611 | CLA | C3D-C4D | 2.42 | 1.49 | 1.44 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | N | 612 | CLA | C3D-C4D | 2.42 | 1.49 | 1.44 |
| 23 | y | 614 | LUT | C8-C7 | 2.42 | 1.40 | 1.33 |
| 22 | n | 612 | CLA | C3D-C4D | 2.42 | 1.49 | 1.44 |
| 23 | N | 615 | LUT | C23-C24 | 2.41 | 1.53 | 1.50 |
| 22 | c | 512 | CLA | CMB-C2B | -2.41 | 1.46 | 1.51 |
| 22 | C | 511 | CLA | CMB-C2B | -2.41 | 1.46 | 1.51 |
| 22 | S | 310 | CLA | CMB-C2B | -2.41 | 1.46 | 1.51 |
| 22 | g | 613 | CLA | CMB-C2B | -2.40 | 1.46 | 1.51 |
| 23 | N | 614 | LUT | C8-C7 | 2.40 | 1.40 | 1.33 |
| 23 | Y | 613 | LUT | C8-C7 | 2.39 | 1.40 | 1.33 |
| 23 | g | 615 | LUT | C8-C7 | 2.39 | 1.40 | 1.33 |
| 26 | c | 521 | LHG | O7-C5 | -2.39 | 1.40 | 1.46 |
| 23 | G | 615 | LUT | C8-C7 | 2.38 | 1.40 | 1.33 |
| 23 | N | 614 | LUT | C4-C5 | 2.38 | 1.54 | 1.51 |
| 22 | Y | 611 | CLA | CMB-C2B | -2.37 | 1.46 | 1.51 |
| 22 | N | 612 | CLA | CMB-C2B | -2.37 | 1.46 | 1.51 |
| 23 | g | 615 | LUT | C4-C5 | 2.37 | 1.54 | 1.51 |
| 22 | G | 613 | CLA | CMB-C2B | -2.37 | 1.46 | 1.51 |
| 26 | C | 521 | LHG | O7-C5 | -2.36 | 1.40 | 1.46 |
| 26 | C | 520 | LHG | O8-C23 | 2.35 | 1.40 | 1.33 |
| 35 | a | 413 | DGD | O2G-C2G | -2.35 | 1.40 | 1.46 |
| 22 | n | 612 | CLA | CMB-C2B | -2.35 | 1.46 | 1.51 |
| 26 | c | 520 | LHG | O8-C23 | 2.34 | 1.40 | 1.33 |
| 22 | y | 612 | CLA | CMB-C2B | -2.34 | 1.46 | 1.51 |
| 35 | A | 401 | DGD | O2G-C2G | -2.34 | 1.40 | 1.46 |
| 22 | N | 612 | CLA | CMC-C2C | -2.34 | 1.45 | 1.50 |
| 22 | G | 613 | CLA | CMC-C2C | -2.34 | 1.45 | 1.50 |
| 26 | c | 520 | LHG | O8-C6 | 2.34 | 1.50 | 1.45 |
| 21 | n | 605 | CHL | C1D-ND | -2.33 | 1.34 | 1.37 |
| 22 | y | 612 | CLA | CMC-C2C | -2.33 | 1.45 | 1.50 |
| 25 | y | 616 | NEX | C38-C25 | 2.33 | 1.55 | 1.51 |
| 22 | g | 613 | CLA | CMC-C2C | -2.32 | 1.45 | 1.50 |
| 23 | n | 614 | LUT | C4-C5 | 2.32 | 1.54 | 1.51 |
| 21 | g | 607 | CHL | C1D-ND | -2.32 | 1.34 | 1.37 |
| 26 | C | 520 | LHG | O8-C6 | 2.32 | 1.50 | 1.45 |
| 23 | Y | 613 | LUT | C4-C5 | 2.32 | 1.54 | 1.51 |
| 21 | r | 307 | CHL | C1D-ND | -2.32 | 1.34 | 1.37 |
| 22 | n | 612 | CLA | CMC-C2C | -2.31 | 1.45 | 1.50 |
| 24 | R | 313 | XAT | C8-C7 | 2.31 | 1.37 | 1.32 |
| 24 | G | 617 | XAT | C18-C5 | 2.31 | 1.55 | 1.51 |
| 23 | Y | 614 | LUT | C23-C24 | 2.31 | 1.53 | 1.50 |
| 21 | y | 606 | CHL | C1D-ND | -2.31 | 1.34 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 23 | y | 614 | LUT | C4-C5 | 2.31 | 1.54 | 1.51 |
| 21 | s | 306 | CHL | C1D-ND | -2.31 | 1.34 | 1.37 |
| 21 | G | 606 | CHL | C1D-ND | -2.31 | 1.34 | 1.37 |
| 21 | r | 306 | CHL | C1D-ND | -2.30 | 1.35 | 1.37 |
| 23 | G | 615 | LUT | C4-C5 | 2.30 | 1.54 | 1.51 |
| 21 | s | 301 | CHL | C1D-ND | -2.30 | 1.35 | 1.37 |
| 22 | Y | 611 | CLA | CMC-C2C | -2.30 | 1.45 | 1.50 |
| 23 | G | 616 | LUT | C23-C24 | 2.29 | 1.53 | 1.50 |
| 22 | c | 509 | CLA | C3B-C2B | -2.29 | 1.37 | 1.40 |
| 21 | N | 606 | CHL | C1D-ND | -2.29 | 1.35 | 1.37 |
| 21 | Y | 601 | CHL | C1D-ND | -2.29 | 1.35 | 1.37 |
| 24 | g | 617 | XAT | C18-C5 | 2.28 | 1.55 | 1.51 |
| 22 | g | 604 | CLA | C3B-CAB | -2.28 | 1.43 | 1.47 |
| 24 | G | 617 | XAT | O24-C25 | 2.28 | 1.49 | 1.46 |
| 21 | N | 605 | CHL | C1D-ND | -2.28 | 1.35 | 1.37 |
| 22 | g | 613 | CLA | C2A-C1A | 2.28 | 1.57 | 1.52 |
| 21 | S | 307 | CHL | C1D-ND | -2.28 | 1.35 | 1.37 |
| 21 | Y | 605 | CHL | C1D-ND | -2.27 | 1.35 | 1.37 |
| 21 | S | 302 | CHL | C1D-ND | -2.27 | 1.35 | 1.37 |
| 21 | G | 605 | CHL | C1D-ND | -2.27 | 1.35 | 1.37 |
| 22 | N | 604 | CLA | C3B-CAB | -2.27 | 1.43 | 1.47 |
| 24 | n | 615 | XAT | O24-C25 | 2.27 | 1.49 | 1.46 |
| 21 | N | 601 | CHL | C1D-ND | -2.27 | 1.35 | 1.37 |
| 21 | g | 609 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 24 | r | 314 | XAT | C8-C7 | 2.26 | 1.37 | 1.32 |
| 21 | R | 307 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 30 | a | 407 | PHO | CMC-C2C | -2.26 | 1.46 | 1.51 |
| 21 | g | 606 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 21 | y | 607 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 30 | A | 408 | PHO | CMC-C2C | -2.26 | 1.46 | 1.51 |
| 21 | G | 608 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 21 | s | 307 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 21 | R | 305 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 22 | C | 510 | CLA | C3B-C2B | -2.26 | 1.37 | 1.40 |
| 24 | y | 615 | XAT | C18-C5 | 2.26 | 1.55 | 1.51 |
| 21 | s | 302 | CHL | C1D-ND | -2.26 | 1.35 | 1.37 |
| 22 | G | 604 | CLA | C3B-CAB | -2.25 | 1.43 | 1.47 |
| 22 | g | 603 | CLA | CMD-C2D | -2.25 | 1.46 | 1.50 |
| 21 | g | 601 | CHL | C1D-ND | -2.25 | 1.35 | 1.37 |
| 21 | r | 308 | CHL | C1D-ND | -2.25 | 1.35 | 1.37 |
| 21 | n | 608 | CHL | C1D-ND | -2.25 | 1.35 | 1.37 |
| 22 | D | 404 | CLA | CMD-C2D | -2.25 | 1.46 | 1.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 24 | g | 617 | XAT | O24-C25 | 2.25 | 1.49 | 1.46 |
| 21 | n | 606 | CHL | C1D-ND | -2.25 | 1.35 | 1.37 |
| 22 | y | 612 | CLA | C2A-C1A | 2.25 | 1.57 | 1.52 |
| 22 | s | 304 | CLA | CMD-C2D | -2.25 | 1.46 | 1.50 |
| 35 | A | 401 | DGD | O1G-C1G | -2.25 | 1.40 | 1.45 |
| 24 | G | 617 | XAT | C38-C25 | 2.25 | 1.55 | 1.51 |
| 21 | g | 605 | CHL | C1D-ND | -2.25 | 1.35 | 1.37 |
| 21 | R | 306 | CHL | C1D-ND | -2.25 | 1.35 | 1.37 |
| 26 | s | 314 | LHG | O7-C5 | -2.25 | 1.41 | 1.46 |
| 22 | R | 310 | CLA | CMB-C2B | -2.25 | 1.47 | 1.51 |
| 21 | g | 608 | CHL | C1D-ND | -2.24 | 1.35 | 1.37 |
| 21 | n | 607 | CHL | C1D-ND | -2.24 | 1.35 | 1.37 |
| 21 | y | 601 | CHL | C1D-ND | -2.24 | 1.35 | 1.37 |
| 21 | r | 301 | CHL | C1D-ND | -2.24 | 1.35 | 1.37 |
| 22 | n | 612 | CLA | C2A-C1A | 2.24 | 1.57 | 1.52 |
| 22 | n | 604 | CLA | C3B-CAB | -2.24 | 1.43 | 1.47 |
| 26 | R | 301 | LHG | O7-C5 | -2.24 | 1.41 | 1.46 |
| 22 | r | 311 | CLA | CMB-C2B | -2.24 | 1.47 | 1.51 |
| 30 | A | 408 | PHO | C3B-C2B | -2.24 | 1.37 | 1.40 |
| 26 | S | 314 | LHG | O7-C5 | -2.23 | 1.41 | 1.46 |
| 22 | N | 612 | CLA | C2A-C1A | 2.23 | 1.57 | 1.52 |
| 26 | r | 302 | LHG | O7-C5 | -2.23 | 1.41 | 1.46 |
| 22 | y | 604 | CLA | C3B-CAB | -2.23 | 1.43 | 1.47 |
| 21 | G | 601 | CHL | C1D-ND | -2.23 | 1.35 | 1.37 |
| 21 | Y | 606 | CHL | C1D-ND | -2.23 | 1.35 | 1.37 |
| 22 | B | 613 | CLA | CMD-C2D | -2.23 | 1.46 | 1.50 |
| 33 | d | 402 | SQD | O2-C2 | -2.23 | 1.37 | 1.43 |
| 24 | g | 617 | XAT | C38-C25 | 2.23 | 1.55 | 1.51 |
| 22 | C | 507 | CLA | CMD-C2D | -2.23 | 1.46 | 1.50 |
| 22 | R | 303 | CLA | CMD-C2D | -2.23 | 1.46 | 1.50 |
| 21 | N | 608 | CHL | C1D-ND | -2.23 | 1.35 | 1.37 |
| 22 | G | 603 | CLA | CMD-C2D | -2.23 | 1.46 | 1.50 |
| 21 | S | 301 | CHL | C1D-ND | -2.23 | 1.35 | 1.37 |
| 22 | B | 611 | CLA | CMD-C2D | -2.23 | 1.46 | 1.50 |
| 22 | C | 503 | CLA | C3B-C2B | -2.23 | 1.37 | 1.40 |
| 35 | a | 413 | DGD | O1G-C1G | -2.23 | 1.40 | 1.45 |
| 30 | a | 407 | PHO | CMD-C2D | -2.22 | 1.46 | 1.51 |
| 30 | D | 401 | PHO | CMC-C2C | -2.22 | 1.46 | 1.51 |
| 30 | d | 401 | PHO | CMC-C2C | -2.22 | 1.46 | 1.51 |
| 23 | G | 616 | LUT | C4-C5 | 2.22 | 1.54 | 1.51 |
| 22 | c | 506 | CLA | CMD-C2D | -2.22 | 1.46 | 1.50 |
| 22 | Y | 604 | CLA | C3B-CAB | -2.22 | 1.43 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | n | 603 | CLA | CMD-C2D | -2.22 | 1.46 | 1.50 |
| 21 | y | 609 | CHL | C1D-ND | -2.22 | 1.35 | 1.37 |
| 21 | n | 601 | CHL | C1D-ND | -2.21 | 1.35 | 1.37 |
| 22 | Y | 611 | CLA | C2A-C1A | 2.21 | 1.57 | 1.52 |
| 24 | n | 615 | XAT | C18-C5 | 2.21 | 1.55 | 1.51 |
| 22 | y | 603 | CLA | CMD-C2D | -2.21 | 1.46 | 1.50 |
| 22 | d | 403 | CLA | CMD-C2D | -2.21 | 1.46 | 1.50 |
| 21 | Y | 608 | CHL | C1D-ND | -2.21 | 1.35 | 1.37 |
| 24 | n | 615 | XAT | C8-C7 | 2.21 | 1.37 | 1.32 |
| 22 | B | 608 | CLA | CMD-C2D | -2.21 | 1.46 | 1.50 |
| 21 | G | 609 | CHL | C1D-ND | -2.21 | 1.35 | 1.37 |
| 21 | S | 306 | CHL | C1D-ND | -2.21 | 1.35 | 1.37 |
| 22 | N | 612 | CLA | C4D-CHA | 2.21 | 1.46 | 1.38 |
| 21 | N | 607 | CHL | C1D-ND | -2.21 | 1.35 | 1.37 |
| 22 | N | 603 | CLA | CMD-C2D | -2.21 | 1.46 | 1.50 |
| 22 | A | 409 | CLA | CMD-C2D | -2.21 | 1.46 | 1.50 |
| 24 | Y | 615 | XAT | C8-C7 | 2.21 | 1.37 | 1.32 |
| 22 | G | 613 | CLA | C2A-C1A | 2.20 | 1.57 | 1.52 |
| 24 | N | 616 | XAT | C28-C27 | 2.20 | 1.37 | 1.32 |
| 23 | R | 312 | LUT | C23-C24 | 2.20 | 1.53 | 1.50 |
| 23 | R | 312 | LUT | C8-C7 | 2.20 | 1.39 | 1.33 |
| 24 | Y | 615 | XAT | C18-C5 | 2.20 | 1.55 | 1.51 |
| 33 | L | 102 | SQD | O2-C2 | -2.20 | 1.37 | 1.43 |
| 22 | Y | 611 | CLA | C4D-CHA | 2.20 | 1.46 | 1.38 |
| 24 | y | 615 | XAT | C38-C25 | 2.20 | 1.55 | 1.51 |
| 22 | Y | 603 | CLA | CMD-C2D | -2.20 | 1.46 | 1.50 |
| 22 | S | 304 | CLA | CMD-C2D | -2.20 | 1.46 | 1.50 |
| 26 | c | 522 | LHG | O7-C5 | -2.20 | 1.41 | 1.46 |
| 33 | D | 402 | SQD | O2-C2 | -2.20 | 1.37 | 1.43 |
| 22 | c | 502 | CLA | C3B-C2B | -2.20 | 1.37 | 1.40 |
| 22 | s | 312 | CLA | C3B-C2B | -2.20 | 1.37 | 1.40 |
| 21 | y | 605 | CHL | C1D-ND | -2.20 | 1.35 | 1.37 |
| 21 | y | 608 | CHL | C1D-ND | -2.20 | 1.35 | 1.37 |
| 26 | C | 522 | LHG | O7-C5 | -2.19 | 1.41 | 1.46 |
| 24 | N | 616 | XAT | C38-C25 | 2.19 | 1.55 | 1.51 |
| 23 | N | 615 | LUT | C28-C27 | 2.19 | 1.37 | 1.32 |
| 22 | n | 604 | CLA | C3B-C2B | -2.19 | 1.37 | 1.40 |
| 30 | A | 408 | PHO | CMD-C2D | -2.19 | 1.46 | 1.51 |
| 22 | B | 604 | CLA | CMD-C2D | -2.19 | 1.46 | 1.50 |
| 22 | b | 608 | CLA | CMD-C2D | -2.19 | 1.46 | 1.50 |
| 23 | r | 313 | LUT | C8-C7 | 2.19 | 1.39 | 1.33 |
| 22 | G | 613 | CLA | C4D-CHA | 2.19 | 1.46 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 24 | n | 615 | XAT | C38-C25 | 2.19 | 1.55 | 1.51 |
| 22 | R | 304 | CLA | C3B-C2B | -2.19 | 1.37 | 1.40 |
| 22 | c | 504 | CLA | CMD-C2D | -2.19 | 1.46 | 1.50 |
| 22 | b | 605 | CLA | CMD-C2D | -2.19 | 1.46 | 1.50 |
| 22 | B | 609 | CLA | CMD-C2D | -2.18 | 1.46 | 1.50 |
| 22 | y | 612 | CLA | C4D-CHA | 2.18 | 1.46 | 1.38 |
| 22 | r | 305 | CLA | C3B-C2B | -2.18 | 1.37 | 1.40 |
| 24 | N | 616 | XAT | C18-C5 | 2.18 | 1.55 | 1.51 |
| 35 | c | 517 | DGD | O6D-C5D | -2.18 | 1.39 | 1.44 |
| 22 | c | 510 | CLA | C1D-C2D | 2.18 | 1.49 | 1.45 |
| 22 | C | 511 | CLA | C1D-C2D | 2.18 | 1.49 | 1.45 |
| 33 | l | 101 | SQD | O2-C2 | -2.18 | 1.37 | 1.43 |
| 24 | g | 617 | XAT | C8-C7 | 2.18 | 1.37 | 1.32 |
| 22 | b | 611 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 30 | a | 407 | PHO | CMB-C2B | -2.17 | 1.46 | 1.51 |
| 22 | n | 612 | CLA | C4D-CHA | 2.17 | 1.46 | 1.38 |
| 26 | g | 619 | LHG | O7-C5 | -2.17 | 1.41 | 1.46 |
| 22 | r | 304 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 22 | Y | 604 | CLA | C3B-C2B | -2.17 | 1.37 | 1.40 |
| 22 | C | 504 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 22 | A | 406 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 22 | g | 613 | CLA | C4D-CHA | 2.17 | 1.46 | 1.38 |
| 22 | a | 408 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 22 | C | 508 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 22 | B | 616 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 25 | n | 616 | NEX | C38-C25 | 2.17 | 1.55 | 1.51 |
| 22 | c | 505 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 21 | Y | 607 | CHL | C1D-ND | -2.17 | 1.35 | 1.37 |
| 24 | Y | 615 | XAT | C38-C25 | 2.17 | 1.55 | 1.51 |
| 22 | b | 604 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 24 | y | 615 | XAT | C28-C27 | 2.17 | 1.37 | 1.32 |
| 22 | x | 101 | CLA | CMD-C2D | -2.17 | 1.46 | 1.50 |
| 22 | b | 614 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 30 | a | 407 | PHO | C3B-C2B | -2.16 | 1.37 | 1.40 |
| 23 | r | 313 | LUT | C23-C24 | 2.16 | 1.53 | 1.50 |
| 24 | Y | 615 | XAT | C28-C27 | 2.16 | 1.37 | 1.32 |
| 22 | a | 405 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 22 | b | 610 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 25 | g | 618 | NEX | C38-C25 | 2.16 | 1.55 | 1.51 |
| 36 | C | 523 | LMG | O7-C8 | -2.16 | 1.41 | 1.46 |
| 22 | b | 606 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 22 | G | 604 | CLA | C3B-C2B | -2.16 | 1.37 | 1.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | b | 613 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 22 | C | 505 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 24 | y | 615 | XAT | C8-C7 | 2.16 | 1.37 | 1.32 |
| 22 | c | 503 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 22 | c | 507 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 21 | G | 607 | CHL | C1D-ND | -2.16 | 1.35 | 1.37 |
| 22 | B | 613 | CLA | CMC-C2C | -2.16 | 1.46 | 1.50 |
| 35 | C | 518 | DGD | O6D-C5D | -2.16 | 1.39 | 1.44 |
| 36 | M | 101 | LMG | O7-C8 | -2.16 | 1.41 | 1.46 |
| 22 | B | 606 | CLA | CMD-C2D | -2.16 | 1.46 | 1.50 |
| 33 | A | 412 | SQD | O2-C2 | -2.15 | 1.37 | 1.43 |
| 36 | c | 523 | LMG | O7-C8 | -2.15 | 1.41 | 1.46 |
| 30 | d | 401 | PHO | CMD-C2D | -2.15 | 1.46 | 1.51 |
| 22 | b | 610 | CLA | CMC-C2C | -2.15 | 1.46 | 1.50 |
| 22 | B | 617 | CLA | CMD-C2D | -2.15 | 1.46 | 1.50 |
| 22 | b | 612 | CLA | CMD-C2D | -2.15 | 1.46 | 1.50 |
| 33 | l | 103 | SQD | O2-C2 | -2.15 | 1.37 | 1.43 |
| 22 | B | 603 | CLA | CMD-C2D | -2.15 | 1.46 | 1.50 |
| 22 | s | 313 | CLA | CMD-C2D | -2.15 | 1.46 | 1.50 |
| 22 | S | 312 | CLA | CMD-C2D | -2.15 | 1.46 | 1.50 |
| 22 | b | 601 | CLA | CMD-C2D | -2.15 | 1.46 | 1.50 |
| 22 | c | 513 | CLA | CMD-C2D | -2.14 | 1.46 | 1.50 |
| 24 | G | 617 | XAT | C8-C7 | 2.14 | 1.37 | 1.32 |
| 25 | Y | 616 | NEX | C28-C27 | 2.14 | 1.37 | 1.32 |
| 22 | D | 405 | CLA | CMD-C2D | -2.14 | 1.46 | 1.50 |
| 22 | y | 604 | CLA | C3B-C2B | -2.14 | 1.37 | 1.40 |
| 22 | c | 511 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 22 | c | 514 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 24 | y | 615 | XAT | O24-C25 | 2.13 | 1.49 | 1.46 |
| 22 | d | 404 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 22 | B | 610 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 22 | B | 615 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 22 | B | 618 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 22 | C | 514 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 36 | D | 411 | LMG | O7-C8 | -2.13 | 1.41 | 1.46 |
| 22 | b | 607 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 22 | a | 404 | CLA | C3B-C2B | -2.13 | 1.37 | 1.40 |
| 23 | Y | 614 | LUT | C4-C5 | 2.13 | 1.54 | 1.51 |
| 22 | g | 604 | CLA | C3B-C2B | -2.13 | 1.37 | 1.40 |
| 22 | C | 503 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 22 | c | 509 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 36 | B | 623 | LMG | C22-C21 | 2.13 | 1.63 | 1.51 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | S | 312 | CLA | C3B-C2B | -2.13 | 1.37 | 1.40 |
| 36 | b | 620 | LMG | C22-C21 | 2.13 | 1.63 | 1.51 |
| 22 | c | 508 | CLA | C3B-C2B | -2.13 | 1.37 | 1.40 |
| 22 | S | 313 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 33 | L | 101 | SQD | O4-C4 | -2.13 | 1.38 | 1.43 |
| 22 | C | 507 | CLA | C3B-C2B | -2.13 | 1.37 | 1.40 |
| 23 | g | 616 | LUT | C4-C5 | 2.13 | 1.54 | 1.51 |
| 22 | a | 404 | CLA | CMD-C2D | -2.13 | 1.46 | 1.50 |
| 33 | a | 411 | SQD | O2-C2 | -2.12 | 1.38 | 1.43 |
| 24 | N | 616 | XAT | C8-C7 | 2.12 | 1.37 | 1.32 |
| 30 | D | 401 | PHO | CMD-C2D | -2.12 | 1.46 | 1.51 |
| 35 | C | 519 | DGD | O6D-C5D | -2.12 | 1.39 | 1.44 |
| 36 | B | 623 | LMG | O7-C8 | -2.12 | 1.41 | 1.46 |
| 35 | c | 518 | DGD | O6D-C5D | -2.12 | 1.39 | 1.44 |
| 22 | c | 502 | CLA | CMD-C2D | -2.12 | 1.46 | 1.50 |
| 33 | L | 101 | SQD | O3-C3 | -2.12 | 1.38 | 1.43 |
| 22 | a | 406 | CLA | CMC-C2C | -2.12 | 1.46 | 1.50 |
| 22 | N | 604 | CLA | C3B-C2B | -2.12 | 1.37 | 1.40 |
| 22 | A | 405 | CLA | CMC-C2C | -2.12 | 1.46 | 1.50 |
| 22 | C | 515 | CLA | CMD-C2D | -2.12 | 1.46 | 1.50 |
| 24 | Y | 615 | XAT | O24-C25 | 2.12 | 1.49 | 1.46 |
| 22 | C | 506 | CLA | CMD-C2D | -2.12 | 1.46 | 1.50 |
| 36 | T | 101 | LMG | O7-C8 | -2.11 | 1.41 | 1.46 |
| 22 | B | 607 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 22 | A | 407 | CLA | CMC-C2C | -2.11 | 1.46 | 1.50 |
| 22 | B | 614 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 23 | n | 614 | LUT | C23-C24 | 2.11 | 1.53 | 1.50 |
| 33 | D | 402 | SQD | O3-C3 | -2.11 | 1.38 | 1.43 |
| 22 | A | 405 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 22 | n | 604 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 22 | b | 615 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 22 | B | 607 | CLA | CMC-C2C | -2.11 | 1.46 | 1.50 |
| 33 | l | 101 | SQD | O4-C4 | -2.11 | 1.38 | 1.43 |
| 22 | c | 508 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 26 | N | 618 | LHG | P-O6 | 2.11 | 1.67 | 1.59 |
| 22 | C | 512 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 33 | D | 402 | SQD | O4-C4 | -2.11 | 1.38 | 1.43 |
| 30 | A | 408 | PHO | CMB-C2B | -2.11 | 1.46 | 1.51 |
| 22 | a | 406 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 33 | L | 101 | SQD | O2-C2 | -2.11 | 1.38 | 1.43 |
| 22 | b | 603 | CLA | CMD-C2D | -2.11 | 1.46 | 1.50 |
| 24 | R | 313 | XAT | C28-C27 | 2.11 | 1.37 | 1.32 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | Y | 604 | CLA | CMD-C2D | -2.10 | 1.46 | 1.50 |
| 22 | b | 601 | CLA | CMC-C2C | -2.10 | 1.46 | 1.50 |
| 33 | l | 103 | SQD | O4-C4 | -2.10 | 1.38 | 1.43 |
| 26 | b | 619 | LHG | O7-C5 | -2.10 | 1.41 | 1.46 |
| 22 | a | 406 | CLA | C3B-C2B | -2.10 | 1.37 | 1.40 |
| 24 | r | 314 | XAT | C28-C27 | 2.10 | 1.37 | 1.32 |
| 22 | S | 305 | CLA | CMD-C2D | -2.10 | 1.46 | 1.50 |
| 35 | c | 519 | DGD | C4E-C3E | 2.10 | 1.57 | 1.52 |
| 33 | l | 103 | SQD | O3-C3 | -2.10 | 1.38 | 1.43 |
| 33 | A | 412 | SQD | O4-C4 | -2.10 | 1.38 | 1.43 |
| 36 | d | 410 | LMG | O7-C8 | -2.10 | 1.41 | 1.46 |
| 22 | g | 613 | CLA | CMD-C2D | -2.10 | 1.46 | 1.50 |
| 25 | n | 616 | NEX | C28-C27 | 2.09 | 1.37 | 1.32 |
| 22 | A | 407 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 22 | Y | 609 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 22 | r | 309 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 22 | s | 312 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 22 | S | 310 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 23 | N | 615 | LUT | C31-C32 | 2.09 | 1.40 | 1.34 |
| 23 | y | 614 | LUT | C23-C24 | 2.09 | 1.53 | 1.50 |
| 22 | g | 604 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 22 | c | 509 | CLA | C3B-CAB | -2.09 | 1.43 | 1.47 |
| 22 | w | 101 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 33 | a | 411 | SQD | O4-C4 | -2.09 | 1.38 | 1.43 |
| 22 | W | 101 | CLA | CMD-C2D | -2.09 | 1.46 | 1.50 |
| 33 | d | 402 | SQD | O3-C3 | -2.09 | 1.38 | 1.43 |
| 22 | G | 612 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 22 | b | 604 | CLA | CMC-C2C | -2.08 | 1.46 | 1.50 |
| 22 | r | 309 | CLA | C3B-C2B | -2.08 | 1.37 | 1.40 |
| 22 | R | 311 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 22 | s | 303 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 22 | g | 611 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 22 | D | 404 | CLA | CMC-C2C | -2.08 | 1.46 | 1.50 |
| 25 | y | 618 | NEX | C4-C3 | 2.08 | 1.55 | 1.52 |
| 22 | B | 609 | CLA | CMC-C2C | -2.08 | 1.46 | 1.50 |
| 23 | G | 615 | LUT | C23-C24 | 2.08 | 1.53 | 1.50 |
| 22 | G | 604 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 22 | B | 604 | CLA | CMC-C2C | -2.08 | 1.46 | 1.50 |
| 22 | C | 510 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 22 | R | 304 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 22 | Y | 610 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 33 | l | 101 | SQD | O3-C3 | -2.08 | 1.38 | 1.43 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | a | 404 | CLA | CMC-C2C | -2.08 | 1.46 | 1.50 |
| 22 | s | 310 | CLA | CMD-C2D | -2.08 | 1.46 | 1.50 |
| 24 | g | 617 | XAT | C28-C27 | 2.08 | 1.37 | 1.32 |
| 35 | J | 101 | DGD | C4E-C5E | 2.07 | 1.57 | 1.53 |
| 22 | N | 612 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 35 | J | 101 | DGD | C4E-C3E | 2.07 | 1.57 | 1.52 |
| 33 | L | 102 | SQD | O3-C3 | -2.07 | 1.38 | 1.43 |
| 22 | r | 310 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 36 | b | 620 | LMG | O7-C8 | -2.07 | 1.41 | 1.46 |
| 33 | d | 402 | SQD | O4-C4 | -2.07 | 1.38 | 1.43 |
| 26 | B | 622 | LHG | O7-C5 | -2.07 | 1.41 | 1.46 |
| 22 | y | 612 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 36 | C | 502 | LMG | O8-C9 | -2.07 | 1.40 | 1.45 |
| 22 | r | 312 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 22 | b | 602 | CLA | C3B-CAB | -2.07 | 1.43 | 1.47 |
| 22 | R | 310 | CLA | C1B-NB | 2.07 | 1.37 | 1.35 |
| 22 | d | 404 | CLA | C3B-C2B | -2.07 | 1.37 | 1.40 |
| 22 | r | 311 | CLA | C1B-NB | 2.07 | 1.37 | 1.35 |
| 22 | b | 602 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 36 | w | 102 | LMG | O8-C9 | -2.07 | 1.40 | 1.45 |
| 30 | D | 401 | PHO | CMB-C2B | -2.07 | 1.46 | 1.51 |
| 33 | L | 102 | SQD | O4-C4 | -2.07 | 1.38 | 1.43 |
| 22 | B | 605 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 22 | R | 309 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 22 | c | 513 | CLA | MG-ND | -2.07 | 2.01 | 2.05 |
| 22 | D | 404 | CLA | MG-ND | -2.07 | 2.01 | 2.05 |
| 22 | N | 611 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 22 | Y | 602 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 22 | c | 506 | CLA | C3B-C2B | -2.07 | 1.37 | 1.40 |
| 22 | B | 616 | CLA | CMC-C2C | -2.07 | 1.46 | 1.50 |
| 22 | d | 403 | CLA | CMC-C2C | -2.07 | 1.46 | 1.50 |
| 22 | n | 612 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 22 | G | 610 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 22 | N | 602 | CLA | CMD-C2D | -2.07 | 1.46 | 1.50 |
| 25 | N | 617 | NEX | C28-C27 | 2.06 | 1.37 | 1.32 |
| 22 | d | 403 | CLA | MG-ND | -2.06 | 2.01 | 2.05 |
| 22 | g | 612 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | r | 305 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 23 | g | 615 | LUT | C23-C24 | 2.06 | 1.53 | 1.50 |
| 33 | a | 411 | SQD | O3-C3 | -2.06 | 1.38 | 1.43 |
| 24 | N | 616 | XAT | O24-C25 | 2.06 | 1.49 | 1.46 |
| 22 | C | 509 | CLA | C3B-C2B | -2.06 | 1.37 | 1.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 35 | J | 101 | DGD | O6D-C5D | -2.06 | 1.39 | 1.44 |
| 36 | d | 410 | LMG | O1-C7 | -2.06 | 1.40 | 1.43 |
| 22 | y | 611 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | N | 609 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | B | 605 | CLA | CMC-C2C | -2.06 | 1.46 | 1.50 |
| 22 | b | 610 | CLA | C3B-CAB | -2.06 | 1.43 | 1.47 |
| 24 | G | 617 | XAT | C28-C27 | 2.06 | 1.37 | 1.32 |
| 33 | A | 412 | SQD | O3-C3 | -2.06 | 1.38 | 1.43 |
| 22 | B | 613 | CLA | C3B-C2B | -2.06 | 1.37 | 1.40 |
| 22 | n | 609 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | n | 610 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | y | 604 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | B | 614 | CLA | CMC-C2C | -2.06 | 1.46 | 1.50 |
| 22 | S | 303 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | C | 509 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 22 | b | 611 | CLA | CMC-C2C | -2.06 | 1.46 | 1.50 |
| 22 | N | 604 | CLA | CMD-C2D | -2.06 | 1.46 | 1.50 |
| 26 | c | 520 | LHG | P-O6 | 2.05 | 1.67 | 1.59 |
| 22 | G | 602 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 24 | n | 615 | XAT | C28-C27 | 2.05 | 1.37 | 1.32 |
| 35 | c | 519 | DGD | C4E-C5E | 2.05 | 1.57 | 1.53 |
| 22 | S | 310 | CLA | CMC-C2C | -2.05 | 1.46 | 1.50 |
| 22 | C | 514 | CLA | CMC-C2C | -2.05 | 1.46 | 1.50 |
| 22 | G | 613 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | C | 510 | CLA | C3B-CAB | -2.05 | 1.43 | 1.47 |
| 22 | s | 305 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | s | 311 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | n | 613 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | C | 514 | CLA | MG-ND | -2.05 | 2.01 | 2.05 |
| 22 | g | 610 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | G | 611 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | Y | 611 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | Y | 611 | CLA | C4D-ND | -2.05 | 1.34 | 1.37 |
| 22 | R | 308 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | B | 607 | CLA | MG-ND | -2.05 | 2.01 | 2.05 |
| 22 | c | 507 | CLA | CMC-C2C | -2.05 | 1.46 | 1.50 |
| 22 | b | 607 | CLA | CMC-C2C | -2.05 | 1.46 | 1.50 |
| 30 | d | 401 | PHO | CMB-C2B | -2.05 | 1.46 | 1.51 |
| 22 | y | 602 | CLA | CMD-C2D | -2.05 | 1.46 | 1.50 |
| 22 | A | 407 | CLA | C3B-C2B | -2.05 | 1.37 | 1.40 |
| 22 | A | 405 | CLA | C3B-C2B | -2.04 | 1.37 | 1.40 |
| 26 | C | 520 | LHG | P-O6 | 2.04 | 1.67 | 1.59 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 22 | N | 610 | CLA | CMD-C2D | -2.04 | 1.46 | 1.50 |
| 36 | D | 411 | LMG | O8-C9 | -2.04 | 1.40 | 1.45 |
| 22 | n | 611 | CLA | CMD-C2D | -2.04 | 1.46 | 1.50 |
| 22 | y | 612 | CLA | C4D-ND | -2.04 | 1.34 | 1.37 |
| 22 | s | 308 | CLA | CMD-C2D | -2.04 | 1.46 | 1.50 |
| 22 | R | 308 | CLA | C3B-C2B | -2.04 | 1.37 | 1.40 |
| 22 | b | 606 | CLA | CMC-C2C | -2.04 | 1.46 | 1.50 |
| 22 | n | 602 | CLA | CMD-C2D | -2.04 | 1.46 | 1.50 |
| 22 | B | 612 | CLA | CMC-C2C | -2.04 | 1.46 | 1.50 |
| 22 | C | 503 | CLA | C3B-CAB | -2.04 | 1.43 | 1.47 |
| 22 | c | 504 | CLA | CMC-C2C | -2.04 | 1.46 | 1.50 |
| 22 | a | 408 | CLA | CMC-C2C | -2.04 | 1.46 | 1.50 |
| 22 | c | 508 | CLA | C3B-CAB | -2.04 | 1.43 | 1.47 |
| 22 | A | 406 | CLA | C3B-CAB | -2.04 | 1.43 | 1.47 |
| 22 | b | 609 | CLA | CMD-C2D | -2.04 | 1.46 | 1.50 |
| 22 | c | 506 | CLA | CMC-C2C | -2.04 | 1.46 | 1.50 |
| 22 | C | 508 | CLA | CMC-C2C | -2.04 | 1.46 | 1.50 |
| 22 | c | 505 | CLA | CMC-C2C | -2.03 | 1.46 | 1.50 |
| 25 | g | 618 | NEX | C28-C27 | 2.03 | 1.37 | 1.32 |
| 36 | d | 410 | LMG | O8-C9 | -2.03 | 1.40 | 1.45 |
| 22 | s | 310 | CLA | CMC-C2C | -2.03 | 1.46 | 1.50 |
| 22 | c | 503 | CLA | CMC-C2C | -2.03 | 1.46 | 1.50 |
| 22 | S | 311 | CLA | CMD-C2D | -2.03 | 1.46 | 1.50 |
| 22 | a | 405 | CLA | C3B-C2B | -2.03 | 1.37 | 1.40 |
| 25 | r | 315 | NEX | C4-C3 | 2.03 | 1.55 | 1.52 |
| 22 | C | 503 | CLA | CMC-C2C | -2.03 | 1.46 | 1.50 |
| 22 | b | 602 | CLA | CMC-C2C | -2.03 | 1.46 | 1.50 |
| 22 | C | 504 | CLA | MG-ND | -2.03 | 2.01 | 2.05 |
| 22 | R | 310 | CLA | CMD-C2D | -2.03 | 1.46 | 1.50 |
| 35 | c | 519 | DGD | O6D-C5D | -2.03 | 1.39 | 1.44 |
| 22 | B | 612 | CLA | CMD-C2D | -2.03 | 1.46 | 1.50 |
| 22 | B | 603 | CLA | CMC-C2C | -2.03 | 1.46 | 1.50 |
| 22 | N | 612 | CLA | C4D-ND | -2.03 | 1.34 | 1.37 |
| 22 | b | 604 | CLA | MG-ND | -2.03 | 2.01 | 2.05 |
| 22 | y | 610 | CLA | CMD-C2D | -2.03 | 1.46 | 1.50 |
| 22 | B | 610 | CLA | CMC-C2C | -2.03 | 1.46 | 1.50 |
| 23 | N | 614 | LUT | C23-C24 | 2.03 | 1.53 | 1.50 |
| 32 | D | 407 | PL9 | C31-C29 | -2.03 | 1.47 | 1.51 |
| 23 | Y | 613 | LUT | C23-C24 | 2.03 | 1.53 | 1.50 |
| 22 | c | 502 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | C | 515 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | c | 514 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 25 | N | 617 | NEX | C38-C25 | 2.02 | 1.55 | 1.51 |
| 22 | a | 405 | CLA | C3B-CAB | -2.02 | 1.43 | 1.47 |
| 22 | C | 509 | CLA | C3B-CAB | -2.02 | 1.43 | 1.47 |
| 36 | D | 411 | LMG | O1-C7 | -2.02 | 1.40 | 1.43 |
| 22 | Y | 610 | CLA | C3B-C2B | -2.02 | 1.37 | 1.40 |
| 24 | r | 314 | XAT | O24-C25 | 2.02 | 1.49 | 1.46 |
| 22 | r | 309 | CLA | C3B-CAB | -2.02 | 1.43 | 1.47 |
| 22 | b | 614 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | G | 613 | CLA | C4D-ND | -2.02 | 1.34 | 1.37 |
| 22 | n | 603 | CLA | MG-ND | -2.02 | 2.01 | 2.05 |
| 22 | B | 603 | CLA | C3B-C2B | -2.02 | 1.37 | 1.40 |
| 22 | B | 617 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | C | 506 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | b | 609 | CLA | C3B-CAB | -2.02 | 1.43 | 1.47 |
| 22 | B | 607 | CLA | C3B-CAB | -2.02 | 1.43 | 1.47 |
| 22 | y | 603 | CLA | MG-ND | -2.02 | 2.01 | 2.05 |
| 22 | B | 611 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | C | 512 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | C | 513 | CLA | CMC-C2C | -2.02 | 1.46 | 1.50 |
| 22 | C | 512 | CLA | MG-ND | -2.02 | 2.01 | 2.05 |
| 22 | a | 405 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 24 | r | 314 | XAT | C18-C5 | 2.01 | 1.55 | 1.51 |
| 22 | g | 611 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 22 | r | 311 | CLA | CMD-C2D | -2.01 | 1.46 | 1.50 |
| 22 | c | 512 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 22 | c | 513 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 25 | y | 618 | NEX | C28-C27 | 2.01 | 1.37 | 1.32 |
| 22 | b | 601 | CLA | C3B-C2B | -2.01 | 1.37 | 1.40 |
| 22 | a | 405 | CLA | MG-ND | -2.01 | 2.01 | 2.05 |
| 22 | g | 602 | CLA | CMD-C2D | -2.01 | 1.46 | 1.50 |
| 22 | S | 308 | CLA | CMD-C2D | -2.01 | 1.46 | 1.50 |
| 22 | x | 101 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 22 | G | 611 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 22 | c | 503 | CLA | MG-ND | -2.01 | 2.01 | 2.05 |
| 22 | C | 513 | CLA | CMD-C2D | -2.01 | 1.46 | 1.50 |
| 22 | c | 502 | CLA | C3B-CAB | -2.01 | 1.43 | 1.47 |
| 21 | g | 606 | CHL | C4D-CHA | 2.01 | 1.45 | 1.38 |
| 22 | s | 303 | CLA | C3B-C2B | -2.01 | 1.37 | 1.40 |
| 22 | c | 512 | CLA | CMD-C2D | -2.01 | 1.46 | 1.50 |
| 23 | Y | 614 | LUT | C28-C27 | 2.01 | 1.37 | 1.32 |
| 22 | c | 511 | CLA | MG-ND | -2.01 | 2.01 | 2.05 |
| 22 | c | 509 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 35 | c | 517 | DGD | O5D-C6D | -2.01 | 1.40 | 1.43 |
| 22 | y | 610 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 22 | c | 508 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 22 | c | 513 | CLA | C3B-CAB | -2.01 | 1.43 | 1.47 |
| 22 | Y | 603 | CLA | MG-ND | -2.01 | 2.01 | 2.05 |
| 31 | H | 101 | BCR | C33-C5 | -2.01 | 1.47 | 1.50 |
| 22 | C | 509 | CLA | CMC-C2C | -2.01 | 1.46 | 1.50 |
| 25 | r | 315 | NEX | C28-C27 | 2.01 | 1.37 | 1.32 |
| 22 | C | 512 | CLA | C3B-C2B | -2.00 | 1.37 | 1.40 |
| 22 | b | 613 | CLA | CMC-C2C | -2.00 | 1.46 | 1.50 |
| 22 | b | 604 | CLA | C3B-CAB | -2.00 | 1.43 | 1.47 |
| 22 | n | 612 | CLA | C4D-ND | -2.00 | 1.34 | 1.37 |
| 22 | B | 605 | CLA | C3B-CAB | -2.00 | 1.43 | 1.47 |
| 22 | Y | 612 | CLA | CMC-C2C | -2.00 | 1.46 | 1.50 |
| 22 | A | 409 | CLA | CMC-C2C | -2.00 | 1.46 | 1.50 |
| 21 | R | 306 | CHL | C4D-CHA | 2.00 | 1.45 | 1.38 |
| 22 | D | 405 | CLA | C3B-C2B | -2.00 | 1.37 | 1.40 |
| 22 | B | 613 | CLA | C3B-CAB | -2.00 | 1.43 | 1.47 |
| 21 | y | 605 | CHL | C4D-CHA | 2.00 | 1.45 | 1.38 |
| 21 | S | 302 | CHL | C4D-CHA | 2.00 | 1.45 | 1.38 |
| 22 | y | 611 | CLA | CMC-C2C | -2.00 | 1.46 | 1.50 |
| 22 | b | 603 | CLA | CMC-C2C | -2.00 | 1.46 | 1.50 |
| 21 | r | 307 | CHL | C4D-CHA | 2.00 | 1.45 | 1.38 |
| 22 | g | 614 | CLA | CMD-C2D | -2.00 | 1.46 | 1.50 |
| 22 | N | 603 | CLA | MG-ND | -2.00 | 2.01 | 2.05 |
| 21 | R | 307 | CHL | C4D-CHA | 2.00 | 1.45 | 1.38 |

All (3429) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|--------|-------------|----------|
| 24 | G | 617 | XAT | O24-C25-C24 | -78.18 | 54.66 | 113.38 |
| 24 | N | 616 | XAT | O24-C25-C24 | -78.01 | 54.78 | 113.38 |
| 24 | R | 313 | XAT | O24-C25-C24 | -77.64 | 55.06 | 113.38 |
| 24 | r | 314 | XAT | O24-C25-C24 | -77.61 | 55.08 | 113.38 |
| 24 | g | 617 | XAT | O24-C25-C24 | -77.46 | 55.19 | 113.38 |
| 24 | n | 615 | XAT | O24-C25-C24 | -77.08 | 55.48 | 113.38 |
| 24 | y | 615 | XAT | O24-C25-C24 | -77.08 | 55.48 | 113.38 |
| 24 | Y | 615 | XAT | O24-C25-C24 | -77.05 | 55.50 | 113.38 |
| 25 | N | 617 | NEX | O24-C25-C24 | -51.71 | 74.53 | 113.38 |
| 25 | y | 616 | NEX | O24-C25-C24 | -50.97 | 75.09 | 113.38 |
| 24 | n | 615 | XAT | O4-C5-C4 | 50.84 | 151.57 | 113.38 |
| 25 | n | 616 | NEX | O24-C25-C24 | -49.94 | 75.86 | 113.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|--------|-------------|----------|
| 24 | N | 616 | XAT | O4-C5-C4 | 49.53 | 150.59 | 113.38 |
| 24 | r | 314 | XAT | O4-C5-C4 | 49.05 | 150.23 | 113.38 |
| 25 | g | 618 | NEX | O24-C25-C24 | -49.04 | 76.54 | 113.38 |
| 24 | R | 313 | XAT | O4-C5-C4 | 49.01 | 150.20 | 113.38 |
| 24 | g | 617 | XAT | O4-C5-C4 | 48.45 | 149.78 | 113.38 |
| 24 | Y | 615 | XAT | O4-C5-C4 | 47.95 | 149.41 | 113.38 |
| 24 | y | 615 | XAT | O4-C5-C4 | 47.81 | 149.30 | 113.38 |
| 24 | G | 617 | XAT | O4-C5-C4 | 47.48 | 149.05 | 113.38 |
| 25 | Y | 616 | NEX | O24-C25-C24 | -47.30 | 77.85 | 113.38 |
| 25 | y | 618 | NEX | O24-C25-C24 | -43.55 | 80.67 | 113.38 |
| 25 | r | 315 | NEX | O24-C25-C24 | -43.55 | 80.67 | 113.38 |
| 24 | N | 616 | XAT | C31-C30-C29 | -12.76 | 109.10 | 127.31 |
| 22 | c | 510 | CLA | C2D-C1D-ND | -12.71 | 100.74 | 110.10 |
| 22 | C | 511 | CLA | C2D-C1D-ND | -12.68 | 100.76 | 110.10 |
| 23 | R | 312 | LUT | C18-C5-C6 | -12.28 | 110.74 | 124.53 |
| 23 | r | 313 | LUT | C18-C5-C6 | -12.25 | 110.77 | 124.53 |
| 23 | Y | 613 | LUT | C18-C5-C6 | -12.06 | 110.98 | 124.53 |
| 23 | n | 614 | LUT | C18-C5-C6 | -12.06 | 110.99 | 124.53 |
| 23 | y | 614 | LUT | C18-C5-C6 | -12.06 | 110.99 | 124.53 |
| 23 | G | 615 | LUT | C18-C5-C6 | -12.05 | 111.00 | 124.53 |
| 23 | N | 614 | LUT | C18-C5-C6 | -12.05 | 111.00 | 124.53 |
| 23 | g | 615 | LUT | C18-C5-C6 | -12.05 | 111.00 | 124.53 |
| 24 | Y | 615 | XAT | C11-C10-C9 | -12.01 | 110.17 | 127.31 |
| 24 | G | 617 | XAT | C31-C30-C29 | -11.62 | 110.73 | 127.31 |
| 23 | Y | 613 | LUT | C20-C13-C14 | -11.58 | 106.71 | 122.92 |
| 23 | y | 614 | LUT | C20-C13-C14 | -11.56 | 106.73 | 122.92 |
| 23 | N | 614 | LUT | C20-C13-C14 | -11.56 | 106.73 | 122.92 |
| 23 | g | 615 | LUT | C20-C13-C14 | -11.55 | 106.74 | 122.92 |
| 23 | n | 614 | LUT | C20-C13-C14 | -11.53 | 106.77 | 122.92 |
| 23 | G | 615 | LUT | C20-C13-C14 | -11.53 | 106.78 | 122.92 |
| 24 | g | 617 | XAT | C31-C30-C29 | -11.49 | 110.92 | 127.31 |
| 24 | y | 615 | XAT | C11-C10-C9 | -11.42 | 111.01 | 127.31 |
| 23 | n | 614 | LUT | C35-C34-C33 | -11.41 | 111.02 | 127.31 |
| 24 | n | 615 | XAT | C31-C30-C29 | -11.41 | 111.02 | 127.31 |
| 23 | g | 615 | LUT | C35-C34-C33 | -11.41 | 111.02 | 127.31 |
| 23 | G | 615 | LUT | C35-C34-C33 | -11.41 | 111.03 | 127.31 |
| 23 | y | 614 | LUT | C35-C34-C33 | -11.40 | 111.05 | 127.31 |
| 23 | N | 614 | LUT | C35-C34-C33 | -11.39 | 111.05 | 127.31 |
| 23 | Y | 613 | LUT | C35-C34-C33 | -11.38 | 111.07 | 127.31 |
| 23 | y | 614 | LUT | C1-C6-C5 | -11.27 | 106.73 | 122.61 |
| 23 | N | 614 | LUT | C1-C6-C5 | -11.27 | 106.73 | 122.61 |
| 23 | g | 615 | LUT | C1-C6-C5 | -11.27 | 106.74 | 122.61 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|--------|-------------|----------|
| 23 | Y | 613 | LUT | C1-C6-C5 | -11.27 | 106.74 | 122.61 |
| 23 | G | 615 | LUT | C1-C6-C5 | -11.27 | 106.74 | 122.61 |
| 23 | n | 614 | LUT | C1-C6-C5 | -11.25 | 106.76 | 122.61 |
| 24 | n | 615 | XAT | C35-C34-C33 | -11.18 | 111.36 | 127.31 |
| 23 | Y | 614 | LUT | C18-C5-C6 | -11.08 | 112.09 | 124.53 |
| 24 | Y | 615 | XAT | C31-C30-C29 | -11.04 | 111.55 | 127.31 |
| 24 | y | 615 | XAT | C31-C30-C29 | -10.95 | 111.68 | 127.31 |
| 24 | N | 616 | XAT | C35-C34-C33 | -10.93 | 111.71 | 127.31 |
| 23 | R | 312 | LUT | C15-C14-C13 | -10.83 | 111.85 | 127.31 |
| 23 | G | 616 | LUT | C19-C9-C10 | -10.82 | 107.77 | 122.92 |
| 23 | r | 313 | LUT | C15-C14-C13 | -10.80 | 111.89 | 127.31 |
| 23 | G | 616 | LUT | C18-C5-C6 | -10.67 | 112.55 | 124.53 |
| 37 | f | 101 | HEM | C1B-NB-C4B | 10.66 | 116.09 | 105.07 |
| 37 | F | 101 | HEM | C1B-NB-C4B | 10.66 | 116.09 | 105.07 |
| 24 | r | 314 | XAT | C35-C34-C33 | -10.66 | 112.10 | 127.31 |
| 25 | n | 616 | NEX | C40-C33-C34 | -10.66 | 108.00 | 122.92 |
| 25 | N | 617 | NEX | C31-C30-C29 | -10.64 | 112.12 | 127.31 |
| 24 | R | 313 | XAT | C35-C34-C33 | -10.64 | 112.12 | 127.31 |
| 23 | g | 616 | LUT | C18-C5-C6 | -10.63 | 112.59 | 124.53 |
| 23 | r | 313 | LUT | C31-C30-C29 | -10.60 | 112.19 | 127.31 |
| 23 | R | 312 | LUT | C31-C30-C29 | -10.59 | 112.20 | 127.31 |
| 23 | Y | 614 | LUT | C19-C9-C10 | -10.55 | 108.14 | 122.92 |
| 25 | Y | 616 | NEX | C39-C29-C30 | -10.54 | 108.16 | 122.92 |
| 23 | g | 616 | LUT | C19-C9-C10 | -10.54 | 108.16 | 122.92 |
| 25 | g | 618 | NEX | C15-C14-C13 | -10.53 | 112.28 | 127.31 |
| 23 | G | 615 | LUT | C31-C30-C29 | -10.52 | 112.29 | 127.31 |
| 23 | N | 614 | LUT | C31-C30-C29 | -10.52 | 112.30 | 127.31 |
| 23 | y | 614 | LUT | C31-C30-C29 | -10.51 | 112.30 | 127.31 |
| 23 | n | 614 | LUT | C31-C30-C29 | -10.51 | 112.31 | 127.31 |
| 23 | g | 615 | LUT | C31-C30-C29 | -10.51 | 112.32 | 127.31 |
| 24 | N | 616 | XAT | C11-C10-C9 | -10.50 | 112.32 | 127.31 |
| 23 | Y | 613 | LUT | C31-C30-C29 | -10.50 | 112.33 | 127.31 |
| 25 | g | 618 | NEX | C40-C33-C34 | -10.43 | 108.31 | 122.92 |
| 24 | g | 617 | XAT | C35-C34-C33 | -10.42 | 112.44 | 127.31 |
| 23 | g | 615 | LUT | C11-C10-C9 | -10.38 | 112.49 | 127.31 |
| 23 | Y | 613 | LUT | C11-C10-C9 | -10.38 | 112.50 | 127.31 |
| 23 | G | 615 | LUT | C11-C10-C9 | -10.38 | 112.50 | 127.31 |
| 25 | Y | 616 | NEX | C15-C14-C13 | -10.37 | 112.50 | 127.31 |
| 23 | n | 614 | LUT | C11-C10-C9 | -10.37 | 112.51 | 127.31 |
| 23 | y | 614 | LUT | C11-C10-C9 | -10.36 | 112.52 | 127.31 |
| 25 | N | 617 | NEX | C11-C10-C9 | -10.36 | 112.52 | 127.31 |
| 24 | r | 314 | XAT | C15-C14-C13 | -10.36 | 112.53 | 127.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|--------|-------------|----------|
| 23 | N | 614 | LUT | C11-C10-C9 | -10.35 | 112.53 | 127.31 |
| 24 | R | 313 | XAT | C15-C14-C13 | -10.33 | 112.57 | 127.31 |
| 23 | R | 312 | LUT | C11-C10-C9 | -10.27 | 112.65 | 127.31 |
| 24 | r | 314 | XAT | C20-C13-C14 | -10.26 | 108.55 | 122.92 |
| 24 | R | 313 | XAT | C20-C13-C14 | -10.25 | 108.56 | 122.92 |
| 25 | g | 618 | NEX | C35-C34-C33 | -10.24 | 112.69 | 127.31 |
| 23 | R | 312 | LUT | C35-C34-C33 | -10.21 | 112.73 | 127.31 |
| 23 | r | 313 | LUT | C11-C10-C9 | -10.21 | 112.74 | 127.31 |
| 24 | n | 615 | XAT | C11-C10-C9 | -10.20 | 112.75 | 127.31 |
| 24 | Y | 615 | XAT | C19-C9-C10 | -10.19 | 108.65 | 122.92 |
| 23 | r | 313 | LUT | C35-C34-C33 | -10.19 | 112.77 | 127.31 |
| 24 | g | 617 | XAT | C11-C10-C9 | -10.12 | 112.86 | 127.31 |
| 24 | G | 617 | XAT | C35-C34-C33 | -10.08 | 112.93 | 127.31 |
| 24 | y | 615 | XAT | C19-C9-C10 | -10.07 | 108.81 | 122.92 |
| 24 | N | 616 | XAT | C39-C29-C30 | -10.06 | 108.83 | 122.92 |
| 25 | y | 616 | NEX | C40-C33-C34 | -10.06 | 108.84 | 122.92 |
| 25 | r | 315 | NEX | C15-C14-C13 | -10.03 | 113.00 | 127.31 |
| 25 | y | 618 | NEX | C39-C29-C30 | -10.02 | 108.89 | 122.92 |
| 25 | y | 618 | NEX | C15-C14-C13 | -10.01 | 113.03 | 127.31 |
| 24 | Y | 615 | XAT | C35-C34-C33 | -9.99 | 113.05 | 127.31 |
| 23 | y | 614 | LUT | C15-C14-C13 | -9.99 | 113.05 | 127.31 |
| 23 | n | 614 | LUT | C15-C14-C13 | -9.99 | 113.06 | 127.31 |
| 24 | R | 313 | XAT | C31-C30-C29 | -9.99 | 113.06 | 127.31 |
| 25 | r | 315 | NEX | C39-C29-C30 | -9.99 | 108.94 | 122.92 |
| 24 | r | 314 | XAT | C31-C30-C29 | -9.99 | 113.06 | 127.31 |
| 23 | g | 615 | LUT | C15-C14-C13 | -9.98 | 113.07 | 127.31 |
| 23 | G | 615 | LUT | C15-C14-C13 | -9.97 | 113.08 | 127.31 |
| 23 | Y | 613 | LUT | C15-C14-C13 | -9.96 | 113.09 | 127.31 |
| 23 | N | 614 | LUT | C15-C14-C13 | -9.94 | 113.12 | 127.31 |
| 24 | y | 615 | XAT | C35-C34-C33 | -9.91 | 113.16 | 127.31 |
| 24 | n | 615 | XAT | C40-C33-C34 | -9.88 | 109.09 | 122.92 |
| 25 | Y | 616 | NEX | C20-C13-C14 | -9.85 | 109.13 | 122.92 |
| 23 | R | 312 | LUT | C19-C9-C10 | -9.84 | 109.14 | 122.92 |
| 24 | G | 617 | XAT | C39-C29-C30 | -9.82 | 109.16 | 122.92 |
| 24 | n | 615 | XAT | C39-C29-C30 | -9.82 | 109.16 | 122.92 |
| 23 | r | 313 | LUT | C19-C9-C10 | -9.82 | 109.16 | 122.92 |
| 23 | R | 312 | LUT | C39-C29-C30 | -9.78 | 109.22 | 122.92 |
| 23 | r | 313 | LUT | C39-C29-C30 | -9.76 | 109.25 | 122.92 |
| 24 | g | 617 | XAT | C39-C29-C30 | -9.76 | 109.25 | 122.92 |
| 24 | Y | 615 | XAT | C40-C33-C34 | -9.75 | 109.27 | 122.92 |
| 25 | n | 616 | NEX | C20-C13-C14 | -9.74 | 109.28 | 122.92 |
| 24 | g | 617 | XAT | C40-C33-C34 | -9.73 | 109.29 | 122.92 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 24 | N | 616 | XAT | C18-C5-C4 | -9.72 | 103.35 | 114.28 |
| 24 | y | 615 | XAT | C39-C29-C30 | -9.72 | 109.31 | 122.92 |
| 23 | y | 614 | LUT | C40-C33-C34 | -9.71 | 109.33 | 122.92 |
| 24 | n | 615 | XAT | C18-C5-C4 | -9.70 | 103.36 | 114.28 |
| 23 | N | 614 | LUT | C40-C33-C34 | -9.70 | 109.33 | 122.92 |
| 25 | r | 315 | NEX | C40-C33-C34 | -9.70 | 109.34 | 122.92 |
| 23 | g | 615 | LUT | C40-C33-C34 | -9.70 | 109.34 | 122.92 |
| 24 | r | 314 | XAT | C39-C29-C30 | -9.69 | 109.34 | 122.92 |
| 23 | n | 614 | LUT | C40-C33-C34 | -9.69 | 109.35 | 122.92 |
| 24 | Y | 615 | XAT | C39-C29-C30 | -9.68 | 109.36 | 122.92 |
| 24 | R | 313 | XAT | C40-C33-C34 | -9.68 | 109.36 | 122.92 |
| 25 | g | 618 | NEX | C20-C13-C14 | -9.68 | 109.37 | 122.92 |
| 24 | R | 313 | XAT | C39-C29-C30 | -9.66 | 109.40 | 122.92 |
| 23 | G | 615 | LUT | C40-C33-C34 | -9.65 | 109.40 | 122.92 |
| 23 | Y | 613 | LUT | C40-C33-C34 | -9.65 | 109.40 | 122.92 |
| 24 | y | 615 | XAT | C40-C33-C34 | -9.65 | 109.41 | 122.92 |
| 24 | r | 314 | XAT | C40-C33-C34 | -9.65 | 109.41 | 122.92 |
| 25 | y | 616 | NEX | C15-C14-C13 | -9.64 | 113.55 | 127.31 |
| 25 | N | 617 | NEX | C20-C13-C14 | -9.64 | 109.42 | 122.92 |
| 25 | y | 618 | NEX | C40-C33-C34 | -9.64 | 109.42 | 122.92 |
| 25 | y | 618 | NEX | C11-C10-C9 | -9.64 | 113.56 | 127.31 |
| 24 | G | 617 | XAT | C11-C10-C9 | -9.62 | 113.58 | 127.31 |
| 25 | r | 315 | NEX | C11-C10-C9 | -9.61 | 113.59 | 127.31 |
| 24 | G | 617 | XAT | C40-C33-C34 | -9.61 | 109.46 | 122.92 |
| 24 | N | 616 | XAT | C15-C14-C13 | -9.59 | 113.63 | 127.31 |
| 25 | n | 616 | NEX | C15-C14-C13 | -9.57 | 113.65 | 127.31 |
| 25 | y | 618 | NEX | C19-C9-C10 | -9.56 | 109.53 | 122.92 |
| 24 | g | 617 | XAT | C19-C9-C10 | -9.56 | 109.53 | 122.92 |
| 25 | r | 315 | NEX | C19-C9-C10 | -9.56 | 109.53 | 122.92 |
| 25 | y | 616 | NEX | C20-C13-C14 | -9.56 | 109.53 | 122.92 |
| 25 | g | 618 | NEX | C31-C30-C29 | -9.55 | 113.67 | 127.31 |
| 25 | g | 618 | NEX | C39-C29-C30 | -9.55 | 109.54 | 122.92 |
| 23 | R | 312 | LUT | C40-C33-C34 | -9.54 | 109.55 | 122.92 |
| 24 | y | 615 | XAT | C20-C13-C14 | -9.54 | 109.55 | 122.92 |
| 25 | N | 617 | NEX | C19-C9-C10 | -9.54 | 109.56 | 122.92 |
| 24 | Y | 615 | XAT | C20-C13-C14 | -9.54 | 109.56 | 122.92 |
| 23 | N | 615 | LUT | C19-C9-C10 | -9.53 | 109.58 | 122.92 |
| 24 | N | 616 | XAT | C19-C9-C10 | -9.53 | 109.58 | 122.92 |
| 25 | y | 618 | NEX | C20-C13-C14 | -9.52 | 109.58 | 122.92 |
| 25 | r | 315 | NEX | C20-C13-C14 | -9.52 | 109.58 | 122.92 |
| 25 | r | 315 | NEX | C35-C34-C33 | -9.52 | 113.73 | 127.31 |
| 23 | r | 313 | LUT | C40-C33-C34 | -9.51 | 109.60 | 122.92 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 23 | N | 615 | LUT | C20-C13-C14 | -9.51 | 109.60 | 122.92 |
| 23 | Y | 614 | LUT | C20-C13-C14 | -9.50 | 109.61 | 122.92 |
| 24 | N | 616 | XAT | C40-C33-C34 | -9.50 | 109.62 | 122.92 |
| 24 | r | 314 | XAT | C18-C5-C4 | -9.49 | 103.60 | 114.28 |
| 25 | y | 618 | NEX | C35-C34-C33 | -9.49 | 113.76 | 127.31 |
| 24 | R | 313 | XAT | C18-C5-C4 | -9.48 | 103.61 | 114.28 |
| 23 | g | 616 | LUT | C15-C14-C13 | -9.48 | 113.79 | 127.31 |
| 24 | G | 617 | XAT | C18-C5-C4 | -9.47 | 103.62 | 114.28 |
| 24 | g | 617 | XAT | C20-C13-C14 | -9.47 | 109.66 | 122.92 |
| 24 | N | 616 | XAT | C20-C13-C14 | -9.47 | 109.66 | 122.92 |
| 24 | G | 617 | XAT | C15-C14-C13 | -9.46 | 113.81 | 127.31 |
| 24 | g | 617 | XAT | C18-C5-C4 | -9.46 | 103.64 | 114.28 |
| 24 | n | 615 | XAT | C19-C9-C10 | -9.44 | 109.70 | 122.92 |
| 24 | n | 615 | XAT | C20-C13-C14 | -9.43 | 109.72 | 122.92 |
| 24 | y | 615 | XAT | C18-C5-C4 | -9.42 | 103.68 | 114.28 |
| 23 | Y | 614 | LUT | C35-C34-C33 | -9.40 | 113.89 | 127.31 |
| 24 | G | 617 | XAT | C20-C13-C14 | -9.39 | 109.77 | 122.92 |
| 24 | g | 617 | XAT | C15-C14-C13 | -9.38 | 113.92 | 127.31 |
| 25 | r | 315 | NEX | C31-C30-C29 | -9.38 | 113.93 | 127.31 |
| 25 | y | 618 | NEX | C31-C30-C29 | -9.37 | 113.93 | 127.31 |
| 25 | N | 617 | NEX | C15-C14-C13 | -9.36 | 113.95 | 127.31 |
| 23 | g | 616 | LUT | C39-C29-C30 | -9.35 | 109.83 | 122.92 |
| 23 | N | 615 | LUT | C1-C6-C5 | -9.34 | 109.45 | 122.61 |
| 24 | y | 615 | XAT | C15-C14-C13 | -9.33 | 113.99 | 127.31 |
| 25 | N | 617 | NEX | C40-C33-C34 | -9.33 | 109.86 | 122.92 |
| 23 | Y | 614 | LUT | C15-C14-C13 | -9.31 | 114.03 | 127.31 |
| 23 | G | 616 | LUT | C35-C34-C33 | -9.30 | 114.04 | 127.31 |
| 24 | n | 615 | XAT | C15-C14-C13 | -9.29 | 114.05 | 127.31 |
| 25 | Y | 616 | NEX | C31-C30-C29 | -9.26 | 114.09 | 127.31 |
| 23 | g | 615 | LUT | C19-C9-C10 | -9.26 | 109.95 | 122.92 |
| 24 | G | 617 | XAT | C19-C9-C10 | -9.25 | 109.97 | 122.92 |
| 24 | Y | 615 | XAT | C18-C5-C4 | -9.23 | 103.89 | 114.28 |
| 23 | G | 615 | LUT | C19-C9-C10 | -9.23 | 109.99 | 122.92 |
| 23 | N | 614 | LUT | C19-C9-C10 | -9.23 | 110.00 | 122.92 |
| 23 | y | 614 | LUT | C19-C9-C10 | -9.23 | 110.00 | 122.92 |
| 23 | Y | 613 | LUT | C19-C9-C10 | -9.23 | 110.00 | 122.92 |
| 23 | n | 614 | LUT | C19-C9-C10 | -9.22 | 110.01 | 122.92 |
| 23 | G | 616 | LUT | C39-C29-C30 | -9.22 | 110.01 | 122.92 |
| 23 | g | 615 | LUT | C39-C29-C30 | -9.21 | 110.02 | 122.92 |
| 23 | G | 615 | LUT | C39-C29-C30 | -9.21 | 110.02 | 122.92 |
| 23 | Y | 613 | LUT | C39-C29-C30 | -9.21 | 110.02 | 122.92 |
| 23 | G | 616 | LUT | C11-C10-C9 | -9.21 | 114.17 | 127.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 24 | r | 314 | XAT | C19-C9-C10 | -9.20 | 110.03 | 122.92 |
| 23 | y | 614 | LUT | C39-C29-C30 | -9.19 | 110.05 | 122.92 |
| 23 | g | 616 | LUT | C31-C30-C29 | -9.19 | 114.20 | 127.31 |
| 23 | n | 614 | LUT | C39-C29-C30 | -9.19 | 110.06 | 122.92 |
| 24 | R | 313 | XAT | C19-C9-C10 | -9.18 | 110.07 | 122.92 |
| 25 | y | 616 | NEX | C35-C34-C33 | -9.17 | 114.22 | 127.31 |
| 25 | n | 616 | NEX | C35-C34-C33 | -9.17 | 114.22 | 127.31 |
| 23 | N | 614 | LUT | C39-C29-C30 | -9.16 | 110.09 | 122.92 |
| 25 | Y | 616 | NEX | C11-C10-C9 | -9.16 | 114.24 | 127.31 |
| 25 | N | 617 | NEX | C39-C29-C30 | -9.15 | 110.10 | 122.92 |
| 25 | n | 616 | NEX | C19-C9-C10 | -9.15 | 110.11 | 122.92 |
| 25 | Y | 616 | NEX | C40-C33-C34 | -9.14 | 110.11 | 122.92 |
| 25 | n | 616 | NEX | C31-C30-C29 | -9.14 | 114.26 | 127.31 |
| 25 | n | 616 | NEX | C39-C29-C30 | -9.14 | 110.12 | 122.92 |
| 23 | Y | 614 | LUT | C39-C29-C30 | -9.11 | 110.16 | 122.92 |
| 23 | N | 615 | LUT | C15-C14-C13 | -9.07 | 114.36 | 127.31 |
| 23 | g | 616 | LUT | C35-C34-C33 | -9.07 | 114.36 | 127.31 |
| 37 | f | 101 | HEM | C4D-ND-C1D | 9.06 | 114.43 | 105.07 |
| 23 | G | 616 | LUT | C15-C14-C13 | -9.05 | 114.40 | 127.31 |
| 23 | Y | 614 | LUT | C40-C33-C34 | -9.04 | 110.26 | 122.92 |
| 23 | G | 616 | LUT | C20-C13-C14 | -9.03 | 110.28 | 122.92 |
| 23 | g | 616 | LUT | C40-C33-C34 | -9.01 | 110.30 | 122.92 |
| 37 | F | 101 | HEM | C4D-ND-C1D | 9.01 | 114.38 | 105.07 |
| 25 | n | 616 | NEX | C11-C10-C9 | -9.00 | 114.46 | 127.31 |
| 24 | Y | 615 | XAT | C15-C14-C13 | -8.99 | 114.48 | 127.31 |
| 25 | y | 616 | NEX | C31-C30-C29 | -8.97 | 114.51 | 127.31 |
| 25 | y | 616 | NEX | C19-C9-C10 | -8.97 | 110.36 | 122.92 |
| 23 | G | 616 | LUT | C31-C30-C29 | -8.93 | 114.56 | 127.31 |
| 23 | g | 616 | LUT | C20-C13-C14 | -8.93 | 110.41 | 122.92 |
| 23 | N | 615 | LUT | C35-C34-C33 | -8.93 | 114.57 | 127.31 |
| 23 | N | 615 | LUT | C18-C5-C6 | -8.92 | 114.51 | 124.53 |
| 25 | Y | 616 | NEX | C19-C9-C10 | -8.92 | 110.43 | 122.92 |
| 25 | g | 618 | NEX | C11-C10-C9 | -8.92 | 114.58 | 127.31 |
| 23 | G | 616 | LUT | C40-C33-C34 | -8.88 | 110.48 | 122.92 |
| 25 | r | 315 | NEX | O24-C25-C38 | -8.85 | 104.46 | 115.06 |
| 25 | y | 618 | NEX | O24-C25-C38 | -8.81 | 104.50 | 115.06 |
| 25 | g | 618 | NEX | C19-C9-C10 | -8.81 | 110.58 | 122.92 |
| 23 | Y | 614 | LUT | C1-C6-C5 | -8.74 | 110.30 | 122.61 |
| 25 | y | 616 | NEX | C39-C29-C30 | -8.71 | 110.72 | 122.92 |
| 23 | g | 616 | LUT | C11-C10-C9 | -8.69 | 114.91 | 127.31 |
| 25 | y | 616 | NEX | C11-C10-C9 | -8.67 | 114.93 | 127.31 |
| 23 | Y | 614 | LUT | C11-C10-C9 | -8.66 | 114.96 | 127.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 23 | N | 615 | LUT | C40-C33-C34 | -8.65 | 110.81 | 122.92 |
| 23 | R | 312 | LUT | C20-C13-C14 | -8.60 | 110.87 | 122.92 |
| 23 | r | 313 | LUT | C20-C13-C14 | -8.60 | 110.88 | 122.92 |
| 23 | N | 615 | LUT | C39-C29-C30 | -8.53 | 110.98 | 122.92 |
| 24 | N | 616 | XAT | C18-C5-C6 | -8.50 | 108.01 | 122.26 |
| 24 | n | 615 | XAT | O4-C5-C18 | -8.47 | 104.91 | 115.06 |
| 24 | y | 615 | XAT | C18-C5-C6 | -8.41 | 108.17 | 122.26 |
| 24 | G | 617 | XAT | C18-C5-C6 | -8.35 | 108.27 | 122.26 |
| 24 | r | 314 | XAT | C11-C10-C9 | -8.32 | 115.44 | 127.31 |
| 24 | R | 313 | XAT | C11-C10-C9 | -8.31 | 115.45 | 127.31 |
| 23 | N | 615 | LUT | C38-C25-C24 | -8.31 | 105.79 | 123.56 |
| 23 | g | 616 | LUT | C1-C6-C5 | -8.30 | 110.92 | 122.61 |
| 25 | Y | 616 | NEX | C35-C34-C33 | -8.28 | 115.50 | 127.31 |
| 23 | G | 616 | LUT | C1-C6-C5 | -8.25 | 111.00 | 122.61 |
| 24 | g | 617 | XAT | C18-C5-C6 | -8.11 | 108.67 | 122.26 |
| 21 | Y | 606 | CHL | CHD-C1D-ND | -8.10 | 117.01 | 124.45 |
| 21 | r | 308 | CHL | CHD-C1D-ND | -8.10 | 117.01 | 124.45 |
| 21 | G | 605 | CHL | CHD-C1D-ND | -8.10 | 117.01 | 124.45 |
| 21 | S | 301 | CHL | CHD-C1D-ND | -8.09 | 117.02 | 124.45 |
| 21 | g | 601 | CHL | CHD-C1D-ND | -8.09 | 117.02 | 124.45 |
| 21 | y | 608 | CHL | CHD-C1D-ND | -8.09 | 117.02 | 124.45 |
| 21 | r | 307 | CHL | CHD-C1D-ND | -8.08 | 117.03 | 124.45 |
| 21 | s | 307 | CHL | CHD-C1D-ND | -8.08 | 117.03 | 124.45 |
| 21 | g | 607 | CHL | CMD-C2D-C1D | 8.07 | 138.94 | 124.71 |
| 21 | N | 608 | CHL | CHD-C1D-ND | -8.07 | 117.04 | 124.45 |
| 21 | s | 306 | CHL | CHD-C1D-ND | -8.07 | 117.04 | 124.45 |
| 21 | R | 307 | CHL | CHD-C1D-ND | -8.07 | 117.04 | 124.45 |
| 21 | N | 605 | CHL | CMD-C2D-C1D | 8.07 | 138.94 | 124.71 |
| 21 | N | 606 | CHL | CMD-C2D-C1D | 8.07 | 138.94 | 124.71 |
| 21 | y | 601 | CHL | CMD-C2D-C1D | 8.07 | 138.94 | 124.71 |
| 21 | s | 307 | CHL | CMD-C2D-C1D | 8.07 | 138.93 | 124.71 |
| 21 | y | 607 | CHL | CHD-C1D-ND | -8.07 | 117.04 | 124.45 |
| 21 | R | 306 | CHL | CMD-C2D-C1D | 8.07 | 138.93 | 124.71 |
| 21 | s | 302 | CHL | CMD-C2D-C1D | 8.06 | 138.93 | 124.71 |
| 21 | n | 607 | CHL | CMD-C2D-C1D | 8.06 | 138.93 | 124.71 |
| 21 | r | 308 | CHL | CMD-C2D-C1D | 8.06 | 138.93 | 124.71 |
| 21 | g | 606 | CHL | CMD-C2D-C1D | 8.06 | 138.92 | 124.71 |
| 21 | s | 301 | CHL | CMD-C2D-C1D | 8.06 | 138.92 | 124.71 |
| 21 | g | 609 | CHL | CHD-C1D-ND | -8.06 | 117.05 | 124.45 |
| 21 | G | 608 | CHL | CHD-C1D-ND | -8.06 | 117.05 | 124.45 |
| 23 | G | 616 | LUT | C38-C25-C24 | -8.06 | 106.31 | 123.56 |
| 21 | S | 302 | CHL | CMD-C2D-C1D | 8.06 | 138.92 | 124.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | n | 601 | CHL | CHD-C1D-ND | -8.06 | 117.05 | 124.45 |
| 21 | G | 609 | CHL | CHD-C1D-ND | -8.06 | 117.05 | 124.45 |
| 21 | Y | 605 | CHL | CHD-C1D-ND | -8.06 | 117.05 | 124.45 |
| 25 | N | 617 | NEX | C35-C34-C33 | -8.06 | 115.81 | 127.31 |
| 21 | G | 605 | CHL | CMD-C2D-C1D | 8.06 | 138.92 | 124.71 |
| 21 | n | 605 | CHL | CMD-C2D-C1D | 8.06 | 138.92 | 124.71 |
| 21 | g | 607 | CHL | CHD-C1D-ND | -8.06 | 117.05 | 124.45 |
| 21 | g | 601 | CHL | CMD-C2D-C1D | 8.06 | 138.92 | 124.71 |
| 21 | G | 607 | CHL | CHD-C1D-ND | -8.06 | 117.05 | 124.45 |
| 21 | R | 307 | CHL | CMD-C2D-C1D | 8.06 | 138.91 | 124.71 |
| 21 | g | 609 | CHL | CMD-C2D-C1D | 8.05 | 138.91 | 124.71 |
| 21 | S | 301 | CHL | CMD-C2D-C1D | 8.05 | 138.91 | 124.71 |
| 21 | s | 301 | CHL | CHD-C1D-ND | -8.05 | 117.05 | 124.45 |
| 21 | g | 605 | CHL | CHD-C1D-ND | -8.05 | 117.06 | 124.45 |
| 21 | S | 306 | CHL | CHD-C1D-ND | -8.05 | 117.06 | 124.45 |
| 21 | Y | 605 | CHL | CMD-C2D-C1D | 8.05 | 138.90 | 124.71 |
| 21 | S | 307 | CHL | CMD-C2D-C1D | 8.05 | 138.90 | 124.71 |
| 21 | R | 305 | CHL | CMD-C2D-C1D | 8.05 | 138.90 | 124.71 |
| 21 | G | 601 | CHL | CHD-C1D-ND | -8.05 | 117.06 | 124.45 |
| 21 | n | 608 | CHL | CMD-C2D-C1D | 8.05 | 138.90 | 124.71 |
| 21 | G | 606 | CHL | CMD-C2D-C1D | 8.05 | 138.89 | 124.71 |
| 21 | y | 606 | CHL | CMD-C2D-C1D | 8.05 | 138.89 | 124.71 |
| 21 | N | 605 | CHL | CHD-C1D-ND | -8.04 | 117.06 | 124.45 |
| 21 | S | 302 | CHL | CHD-C1D-ND | -8.04 | 117.06 | 124.45 |
| 21 | G | 609 | CHL | CMD-C2D-C1D | 8.04 | 138.89 | 124.71 |
| 21 | g | 608 | CHL | CHD-C1D-ND | -8.04 | 117.06 | 124.45 |
| 21 | y | 607 | CHL | CMD-C2D-C1D | 8.04 | 138.89 | 124.71 |
| 21 | y | 609 | CHL | CMD-C2D-C1D | 8.04 | 138.89 | 124.71 |
| 21 | r | 307 | CHL | CMD-C2D-C1D | 8.04 | 138.89 | 124.71 |
| 21 | y | 605 | CHL | CHD-C1D-ND | -8.04 | 117.06 | 124.45 |
| 21 | r | 301 | CHL | CMD-C2D-C1D | 8.04 | 138.89 | 124.71 |
| 21 | y | 608 | CHL | CMD-C2D-C1D | 8.04 | 138.89 | 124.71 |
| 21 | s | 306 | CHL | CMD-C2D-C1D | 8.04 | 138.89 | 124.71 |
| 21 | g | 608 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | G | 607 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | g | 605 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | N | 601 | CHL | CHD-C1D-ND | -8.04 | 117.07 | 124.45 |
| 21 | Y | 607 | CHL | CHD-C1D-ND | -8.04 | 117.07 | 124.45 |
| 21 | r | 306 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | Y | 606 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | S | 306 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | n | 606 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | N | 607 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | n | 607 | CHL | CHD-C1D-ND | -8.04 | 117.07 | 124.45 |
| 21 | G | 608 | CHL | CMD-C2D-C1D | 8.04 | 138.88 | 124.71 |
| 21 | n | 601 | CHL | CMD-C2D-C1D | 8.04 | 138.87 | 124.71 |
| 21 | N | 606 | CHL | CHD-C1D-ND | -8.03 | 117.07 | 124.45 |
| 21 | R | 306 | CHL | CHD-C1D-ND | -8.03 | 117.07 | 124.45 |
| 21 | y | 606 | CHL | CHD-C1D-ND | -8.03 | 117.07 | 124.45 |
| 21 | N | 608 | CHL | CMD-C2D-C1D | 8.03 | 138.87 | 124.71 |
| 21 | G | 601 | CHL | CMD-C2D-C1D | 8.03 | 138.86 | 124.71 |
| 21 | Y | 601 | CHL | CMD-C2D-C1D | 8.03 | 138.86 | 124.71 |
| 21 | Y | 608 | CHL | CHD-C1D-ND | -8.03 | 117.08 | 124.45 |
| 21 | S | 307 | CHL | CHD-C1D-ND | -8.03 | 117.08 | 124.45 |
| 21 | N | 601 | CHL | CMD-C2D-C1D | 8.03 | 138.86 | 124.71 |
| 21 | g | 606 | CHL | CHD-C1D-ND | -8.02 | 117.08 | 124.45 |
| 21 | r | 301 | CHL | CHD-C1D-ND | -8.02 | 117.08 | 124.45 |
| 21 | s | 302 | CHL | CHD-C1D-ND | -8.02 | 117.08 | 124.45 |
| 21 | y | 605 | CHL | CMD-C2D-C1D | 8.02 | 138.85 | 124.71 |
| 21 | G | 606 | CHL | CHD-C1D-ND | -8.02 | 117.08 | 124.45 |
| 21 | n | 606 | CHL | CHD-C1D-ND | -8.02 | 117.08 | 124.45 |
| 21 | n | 605 | CHL | CHD-C1D-ND | -8.02 | 117.08 | 124.45 |
| 21 | y | 601 | CHL | CHD-C1D-ND | -8.02 | 117.09 | 124.45 |
| 21 | Y | 607 | CHL | CMD-C2D-C1D | 8.02 | 138.84 | 124.71 |
| 21 | Y | 608 | CHL | CMD-C2D-C1D | 8.01 | 138.83 | 124.71 |
| 21 | r | 306 | CHL | CHD-C1D-ND | -8.01 | 117.09 | 124.45 |
| 21 | N | 607 | CHL | CHD-C1D-ND | -8.01 | 117.10 | 124.45 |
| 21 | y | 609 | CHL | CHD-C1D-ND | -8.00 | 117.10 | 124.45 |
| 24 | n | 615 | XAT | C18-C5-C6 | -8.00 | 108.86 | 122.26 |
| 21 | R | 305 | CHL | CHD-C1D-ND | -7.99 | 117.11 | 124.45 |
| 21 | Y | 601 | CHL | CHD-C1D-ND | -7.99 | 117.11 | 124.45 |
| 21 | n | 608 | CHL | CHD-C1D-ND | -7.98 | 117.12 | 124.45 |
| 23 | g | 616 | LUT | C38-C25-C24 | -7.94 | 106.57 | 123.56 |
| 24 | Y | 615 | XAT | C18-C5-C6 | -7.89 | 109.03 | 122.26 |
| 22 | c | 510 | CLA | C3C-C4C-NC | -7.89 | 101.72 | 110.57 |
| 22 | C | 511 | CLA | C3C-C4C-NC | -7.87 | 101.74 | 110.57 |
| 24 | r | 314 | XAT | O4-C5-C18 | -7.79 | 105.72 | 115.06 |
| 24 | R | 313 | XAT | O4-C5-C18 | -7.78 | 105.74 | 115.06 |
| 24 | r | 314 | XAT | C18-C5-C6 | -7.76 | 109.26 | 122.26 |
| 23 | Y | 614 | LUT | C38-C25-C24 | -7.73 | 107.03 | 123.56 |
| 24 | R | 313 | XAT | C18-C5-C6 | -7.72 | 109.33 | 122.26 |
| 24 | N | 616 | XAT | O4-C5-C18 | -7.66 | 105.88 | 115.06 |
| 25 | y | 618 | NEX | C16-C1-C6 | 7.66 | 117.32 | 110.47 |
| 25 | r | 315 | NEX | C16-C1-C6 | 7.66 | 117.32 | 110.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 23 | Y | 614 | LUT | C31-C30-C29 | -7.52 | 116.57 | 127.31 |
| 24 | Y | 615 | XAT | C7-C8-C9 | -7.45 | 113.96 | 125.53 |
| 22 | g | 613 | CLA | C4A-NA-C1A | 7.32 | 110.00 | 106.71 |
| 37 | f | 101 | HEM | C3B-C2B-C1B | 7.31 | 111.91 | 106.49 |
| 24 | Y | 615 | XAT | O4-C5-C18 | -7.30 | 106.31 | 115.06 |
| 37 | F | 101 | HEM | C3B-C2B-C1B | 7.29 | 111.89 | 106.49 |
| 23 | R | 312 | LUT | C38-C25-C24 | -7.28 | 107.98 | 123.56 |
| 24 | g | 617 | XAT | O4-C5-C18 | -7.28 | 106.34 | 115.06 |
| 22 | c | 510 | CLA | C4A-NA-C1A | 7.28 | 109.98 | 106.71 |
| 23 | r | 313 | LUT | C38-C25-C24 | -7.26 | 108.03 | 123.56 |
| 22 | Y | 611 | CLA | C4A-NA-C1A | 7.26 | 109.97 | 106.71 |
| 22 | y | 612 | CLA | C4A-NA-C1A | 7.25 | 109.97 | 106.71 |
| 22 | G | 613 | CLA | C4A-NA-C1A | 7.25 | 109.97 | 106.71 |
| 22 | N | 612 | CLA | C4A-NA-C1A | 7.22 | 109.95 | 106.71 |
| 22 | n | 612 | CLA | C4A-NA-C1A | 7.20 | 109.94 | 106.71 |
| 22 | c | 514 | CLA | C4A-NA-C1A | 7.14 | 109.92 | 106.71 |
| 22 | C | 511 | CLA | C4A-NA-C1A | 7.11 | 109.90 | 106.71 |
| 23 | G | 615 | LUT | C38-C25-C24 | -7.11 | 108.36 | 123.56 |
| 23 | n | 614 | LUT | C38-C25-C24 | -7.11 | 108.36 | 123.56 |
| 23 | Y | 613 | LUT | C38-C25-C24 | -7.10 | 108.37 | 123.56 |
| 22 | g | 610 | CLA | C4A-NA-C1A | 7.10 | 109.90 | 106.71 |
| 23 | y | 614 | LUT | C38-C25-C24 | -7.09 | 108.39 | 123.56 |
| 23 | g | 615 | LUT | C38-C25-C24 | -7.09 | 108.39 | 123.56 |
| 23 | N | 614 | LUT | C38-C25-C24 | -7.09 | 108.40 | 123.56 |
| 22 | C | 515 | CLA | C4A-NA-C1A | 7.08 | 109.89 | 106.71 |
| 24 | y | 615 | XAT | C7-C8-C9 | -7.06 | 114.58 | 125.53 |
| 22 | n | 609 | CLA | C4A-NA-C1A | 7.06 | 109.88 | 106.71 |
| 22 | G | 610 | CLA | C4A-NA-C1A | 7.05 | 109.88 | 106.71 |
| 21 | g | 605 | CHL | C2C-C3C-C4C | -7.05 | 101.46 | 106.49 |
| 21 | Y | 608 | CHL | C2C-C3C-C4C | -7.05 | 101.47 | 106.49 |
| 21 | y | 605 | CHL | C2C-C3C-C4C | -7.04 | 101.47 | 106.49 |
| 22 | N | 609 | CLA | C4A-NA-C1A | 7.04 | 109.87 | 106.71 |
| 21 | N | 601 | CHL | C2C-C3C-C4C | -7.03 | 101.48 | 106.49 |
| 21 | s | 302 | CHL | C2C-C3C-C4C | -7.03 | 101.48 | 106.49 |
| 21 | g | 609 | CHL | C2C-C3C-C4C | -7.02 | 101.48 | 106.49 |
| 21 | y | 606 | CHL | C2C-C3C-C4C | -7.02 | 101.48 | 106.49 |
| 21 | n | 605 | CHL | C2C-C3C-C4C | -7.02 | 101.49 | 106.49 |
| 37 | f | 101 | HEM | C2B-C1B-NB | -7.02 | 101.52 | 109.84 |
| 21 | r | 308 | CHL | C2C-C3C-C4C | -7.02 | 101.49 | 106.49 |
| 21 | R | 305 | CHL | C2C-C3C-C4C | -7.01 | 101.49 | 106.49 |
| 21 | r | 306 | CHL | C2C-C3C-C4C | -7.00 | 101.50 | 106.49 |
| 21 | r | 301 | CHL | C2C-C3C-C4C | -7.00 | 101.50 | 106.49 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 37 | F | 101 | HEM | C2B-C1B-NB | -7.00 | 101.55 | 109.84 |
| 21 | s | 306 | CHL | C2C-C3C-C4C | -7.00 | 101.50 | 106.49 |
| 21 | g | 606 | CHL | C2C-C3C-C4C | -7.00 | 101.50 | 106.49 |
| 21 | n | 606 | CHL | C2C-C3C-C4C | -7.00 | 101.50 | 106.49 |
| 24 | y | 615 | XAT | O4-C5-C18 | -6.99 | 106.67 | 115.06 |
| 21 | G | 608 | CHL | C2C-C3C-C4C | -6.99 | 101.50 | 106.49 |
| 21 | y | 609 | CHL | C2C-C3C-C4C | -6.99 | 101.51 | 106.49 |
| 21 | S | 302 | CHL | C2C-C3C-C4C | -6.99 | 101.51 | 106.49 |
| 21 | G | 601 | CHL | C2C-C3C-C4C | -6.99 | 101.51 | 106.49 |
| 21 | r | 307 | CHL | C2C-C3C-C4C | -6.99 | 101.51 | 106.49 |
| 21 | Y | 607 | CHL | C2C-C3C-C4C | -6.98 | 101.51 | 106.49 |
| 21 | R | 307 | CHL | C2C-C3C-C4C | -6.98 | 101.51 | 106.49 |
| 21 | N | 607 | CHL | C2C-C3C-C4C | -6.98 | 101.51 | 106.49 |
| 21 | n | 607 | CHL | C2C-C3C-C4C | -6.98 | 101.51 | 106.49 |
| 21 | S | 306 | CHL | C2C-C3C-C4C | -6.98 | 101.51 | 106.49 |
| 21 | S | 301 | CHL | C2C-C3C-C4C | -6.98 | 101.52 | 106.49 |
| 21 | y | 601 | CHL | C2C-C3C-C4C | -6.97 | 101.52 | 106.49 |
| 21 | y | 607 | CHL | C2C-C3C-C4C | -6.97 | 101.52 | 106.49 |
| 21 | G | 606 | CHL | C2C-C3C-C4C | -6.97 | 101.52 | 106.49 |
| 21 | N | 606 | CHL | C2C-C3C-C4C | -6.97 | 101.52 | 106.49 |
| 21 | N | 608 | CHL | C2C-C3C-C4C | -6.96 | 101.53 | 106.49 |
| 21 | N | 605 | CHL | C2C-C3C-C4C | -6.96 | 101.53 | 106.49 |
| 21 | Y | 606 | CHL | C2C-C3C-C4C | -6.96 | 101.53 | 106.49 |
| 21 | g | 601 | CHL | C2C-C3C-C4C | -6.96 | 101.53 | 106.49 |
| 21 | G | 609 | CHL | C2C-C3C-C4C | -6.95 | 101.54 | 106.49 |
| 21 | Y | 601 | CHL | C2C-C3C-C4C | -6.95 | 101.54 | 106.49 |
| 21 | n | 601 | CHL | C2C-C3C-C4C | -6.95 | 101.54 | 106.49 |
| 21 | S | 307 | CHL | C2C-C3C-C4C | -6.94 | 101.54 | 106.49 |
| 22 | y | 610 | CLA | C4A-NA-C1A | 6.94 | 109.83 | 106.71 |
| 22 | N | 604 | CLA | C4A-NA-C1A | 6.94 | 109.83 | 106.71 |
| 22 | Y | 609 | CLA | C4A-NA-C1A | 6.94 | 109.83 | 106.71 |
| 21 | s | 307 | CHL | C2C-C3C-C4C | -6.94 | 101.54 | 106.49 |
| 21 | n | 608 | CHL | C2C-C3C-C4C | -6.93 | 101.55 | 106.49 |
| 21 | y | 608 | CHL | C2C-C3C-C4C | -6.93 | 101.55 | 106.49 |
| 21 | G | 605 | CHL | C2C-C3C-C4C | -6.93 | 101.55 | 106.49 |
| 21 | G | 607 | CHL | C2C-C3C-C4C | -6.93 | 101.55 | 106.49 |
| 21 | g | 608 | CHL | C2C-C3C-C4C | -6.93 | 101.55 | 106.49 |
| 21 | s | 301 | CHL | C2C-C3C-C4C | -6.93 | 101.55 | 106.49 |
| 21 | g | 607 | CHL | C2C-C3C-C4C | -6.92 | 101.56 | 106.49 |
| 22 | c | 505 | CLA | C4A-NA-C1A | 6.92 | 109.82 | 106.71 |
| 21 | R | 306 | CHL | C2C-C3C-C4C | -6.91 | 101.56 | 106.49 |
| 21 | Y | 605 | CHL | C2C-C3C-C4C | -6.90 | 101.57 | 106.49 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | N | 611 | CLA | C4A-NA-C1A | 6.90 | 109.81 | 106.71 |
| 22 | Y | 604 | CLA | C4A-NA-C1A | 6.90 | 109.81 | 106.71 |
| 22 | S | 305 | CLA | C4A-NA-C1A | 6.90 | 109.81 | 106.71 |
| 22 | n | 604 | CLA | C4A-NA-C1A | 6.84 | 109.78 | 106.71 |
| 22 | y | 604 | CLA | C4A-NA-C1A | 6.84 | 109.78 | 106.71 |
| 22 | G | 612 | CLA | C4A-NA-C1A | 6.83 | 109.78 | 106.71 |
| 22 | s | 305 | CLA | C4A-NA-C1A | 6.83 | 109.78 | 106.71 |
| 23 | N | 615 | LUT | C31-C30-C29 | -6.82 | 117.58 | 127.31 |
| 22 | G | 604 | CLA | C4A-NA-C1A | 6.79 | 109.76 | 106.71 |
| 25 | y | 616 | NEX | O24-C25-C38 | -6.78 | 106.94 | 115.06 |
| 22 | g | 612 | CLA | C4A-NA-C1A | 6.77 | 109.75 | 106.71 |
| 22 | C | 506 | CLA | C4A-NA-C1A | 6.77 | 109.75 | 106.71 |
| 22 | g | 604 | CLA | C4A-NA-C1A | 6.76 | 109.75 | 106.71 |
| 22 | s | 313 | CLA | C4A-NA-C1A | 6.76 | 109.75 | 106.71 |
| 22 | c | 507 | CLA | C4A-NA-C1A | 6.76 | 109.74 | 106.71 |
| 24 | r | 314 | XAT | C38-C25-C26 | -6.75 | 110.94 | 122.26 |
| 22 | r | 312 | CLA | C4A-NA-C1A | 6.75 | 109.74 | 106.71 |
| 22 | w | 101 | CLA | C4A-NA-C1A | 6.74 | 109.74 | 106.71 |
| 22 | C | 508 | CLA | C4A-NA-C1A | 6.74 | 109.73 | 106.71 |
| 24 | R | 313 | XAT | C38-C25-C26 | -6.73 | 110.97 | 122.26 |
| 22 | b | 611 | CLA | C4A-NA-C1A | 6.73 | 109.73 | 106.71 |
| 22 | n | 611 | CLA | C4A-NA-C1A | 6.72 | 109.73 | 106.71 |
| 22 | b | 606 | CLA | C4A-NA-C1A | 6.72 | 109.73 | 106.71 |
| 22 | W | 101 | CLA | C4A-NA-C1A | 6.72 | 109.73 | 106.71 |
| 22 | d | 404 | CLA | C4A-NA-C1A | 6.71 | 109.72 | 106.71 |
| 22 | S | 313 | CLA | C4A-NA-C1A | 6.70 | 109.72 | 106.71 |
| 22 | D | 405 | CLA | C4A-NA-C1A | 6.70 | 109.72 | 106.71 |
| 24 | G | 617 | XAT | O4-C5-C18 | -6.69 | 107.04 | 115.06 |
| 22 | R | 303 | CLA | C4A-NA-C1A | 6.69 | 109.71 | 106.71 |
| 22 | r | 304 | CLA | C4A-NA-C1A | 6.68 | 109.71 | 106.71 |
| 22 | A | 406 | CLA | C4A-NA-C1A | 6.67 | 109.71 | 106.71 |
| 22 | B | 614 | CLA | C4A-NA-C1A | 6.67 | 109.70 | 106.71 |
| 22 | y | 602 | CLA | C4A-NA-C1A | 6.66 | 109.70 | 106.71 |
| 22 | R | 302 | CLA | C4A-NA-C1A | 6.66 | 109.70 | 106.71 |
| 22 | B | 611 | CLA | C4A-NA-C1A | 6.66 | 109.70 | 106.71 |
| 22 | G | 602 | CLA | C4A-NA-C1A | 6.64 | 109.69 | 106.71 |
| 22 | B | 609 | CLA | C4A-NA-C1A | 6.64 | 109.69 | 106.71 |
| 22 | r | 310 | CLA | C4A-NA-C1A | 6.62 | 109.68 | 106.71 |
| 23 | y | 614 | LUT | C8-C9-C10 | -6.61 | 108.79 | 118.94 |
| 22 | g | 602 | CLA | C4A-NA-C1A | 6.61 | 109.68 | 106.71 |
| 23 | N | 615 | LUT | C11-C10-C9 | -6.60 | 117.89 | 127.31 |
| 22 | r | 303 | CLA | C4A-NA-C1A | 6.59 | 109.67 | 106.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | N | 602 | CLA | C4A-NA-C1A | 6.59 | 109.67 | 106.71 |
| 22 | A | 409 | CLA | C4A-NA-C1A | 6.59 | 109.67 | 106.71 |
| 22 | b | 608 | CLA | C4A-NA-C1A | 6.58 | 109.67 | 106.71 |
| 24 | y | 615 | XAT | C19-C9-C8 | -6.58 | 107.70 | 118.08 |
| 22 | c | 506 | CLA | C4A-NA-C1A | 6.58 | 109.66 | 106.71 |
| 22 | B | 608 | CLA | C4A-NA-C1A | 6.58 | 109.66 | 106.71 |
| 22 | n | 602 | CLA | C4A-NA-C1A | 6.58 | 109.66 | 106.71 |
| 23 | N | 614 | LUT | C8-C9-C10 | -6.57 | 108.85 | 118.94 |
| 23 | g | 616 | LUT | C20-C13-C12 | -6.57 | 107.72 | 118.08 |
| 23 | G | 615 | LUT | C8-C9-C10 | -6.57 | 108.86 | 118.94 |
| 24 | Y | 615 | XAT | C19-C9-C8 | -6.57 | 107.73 | 118.08 |
| 22 | R | 311 | CLA | C4A-NA-C1A | 6.56 | 109.66 | 106.71 |
| 22 | b | 605 | CLA | C4A-NA-C1A | 6.56 | 109.66 | 106.71 |
| 23 | Y | 613 | LUT | C8-C9-C10 | -6.56 | 108.88 | 118.94 |
| 25 | Y | 616 | NEX | O24-C25-C38 | -6.56 | 107.20 | 115.06 |
| 22 | R | 304 | CLA | C4A-NA-C1A | 6.56 | 109.65 | 106.71 |
| 22 | R | 308 | CLA | C4A-NA-C1A | 6.56 | 109.65 | 106.71 |
| 23 | g | 615 | LUT | C8-C9-C10 | -6.55 | 108.89 | 118.94 |
| 23 | n | 614 | LUT | C8-C9-C10 | -6.55 | 108.89 | 118.94 |
| 24 | R | 313 | XAT | C8-C9-C10 | -6.55 | 108.89 | 118.94 |
| 22 | s | 312 | CLA | C4A-NA-C1A | 6.55 | 109.65 | 106.71 |
| 22 | a | 405 | CLA | C4A-NA-C1A | 6.55 | 109.65 | 106.71 |
| 22 | B | 604 | CLA | C4A-NA-C1A | 6.55 | 109.65 | 106.71 |
| 22 | b | 601 | CLA | C4A-NA-C1A | 6.54 | 109.64 | 106.71 |
| 22 | Y | 602 | CLA | C4A-NA-C1A | 6.53 | 109.64 | 106.71 |
| 22 | B | 606 | CLA | C4A-NA-C1A | 6.53 | 109.64 | 106.71 |
| 24 | r | 314 | XAT | C8-C9-C10 | -6.53 | 108.93 | 118.94 |
| 22 | x | 101 | CLA | C4A-NA-C1A | 6.52 | 109.64 | 106.71 |
| 22 | r | 305 | CLA | C4A-NA-C1A | 6.52 | 109.64 | 106.71 |
| 22 | r | 309 | CLA | C4A-NA-C1A | 6.51 | 109.63 | 106.71 |
| 25 | Y | 616 | NEX | C32-C33-C34 | -6.51 | 108.96 | 118.94 |
| 22 | b | 610 | CLA | C4A-NA-C1A | 6.51 | 109.63 | 106.71 |
| 22 | R | 309 | CLA | C4A-NA-C1A | 6.51 | 109.63 | 106.71 |
| 22 | B | 613 | CLA | C4A-NA-C1A | 6.50 | 109.63 | 106.71 |
| 22 | b | 613 | CLA | C4A-NA-C1A | 6.48 | 109.62 | 106.71 |
| 22 | b | 602 | CLA | C4A-NA-C1A | 6.48 | 109.62 | 106.71 |
| 22 | b | 615 | CLA | C4A-NA-C1A | 6.48 | 109.62 | 106.71 |
| 22 | a | 408 | CLA | C4A-NA-C1A | 6.48 | 109.62 | 106.71 |
| 22 | d | 403 | CLA | C4A-NA-C1A | 6.47 | 109.61 | 106.71 |
| 22 | S | 312 | CLA | C4A-NA-C1A | 6.47 | 109.61 | 106.71 |
| 22 | B | 607 | CLA | C4A-NA-C1A | 6.47 | 109.61 | 106.71 |
| 22 | C | 507 | CLA | C4A-NA-C1A | 6.47 | 109.61 | 106.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | C | 509 | CLA | C4A-NA-C1A | 6.46 | 109.61 | 106.71 |
| 22 | b | 603 | CLA | C4A-NA-C1A | 6.45 | 109.60 | 106.71 |
| 22 | B | 618 | CLA | C4A-NA-C1A | 6.44 | 109.60 | 106.71 |
| 22 | C | 505 | CLA | C4A-NA-C1A | 6.43 | 109.60 | 106.71 |
| 22 | D | 404 | CLA | C4A-NA-C1A | 6.43 | 109.60 | 106.71 |
| 22 | B | 616 | CLA | C4A-NA-C1A | 6.43 | 109.60 | 106.71 |
| 22 | B | 605 | CLA | C4A-NA-C1A | 6.42 | 109.59 | 106.71 |
| 23 | G | 616 | LUT | C20-C13-C12 | -6.42 | 107.97 | 118.08 |
| 22 | a | 406 | CLA | C4A-NA-C1A | 6.40 | 109.58 | 106.71 |
| 22 | c | 502 | CLA | C4A-NA-C1A | 6.40 | 109.58 | 106.71 |
| 22 | A | 407 | CLA | C4A-NA-C1A | 6.40 | 109.58 | 106.71 |
| 22 | b | 607 | CLA | C4A-NA-C1A | 6.38 | 109.58 | 106.71 |
| 22 | c | 508 | CLA | C4A-NA-C1A | 6.38 | 109.58 | 106.71 |
| 22 | B | 603 | CLA | C4A-NA-C1A | 6.38 | 109.57 | 106.71 |
| 22 | c | 504 | CLA | C4A-NA-C1A | 6.37 | 109.57 | 106.71 |
| 22 | G | 614 | CLA | C4A-NA-C1A | 6.36 | 109.57 | 106.71 |
| 22 | C | 504 | CLA | C4A-NA-C1A | 6.36 | 109.56 | 106.71 |
| 22 | B | 612 | CLA | C4A-NA-C1A | 6.36 | 109.56 | 106.71 |
| 22 | C | 510 | CLA | C4A-NA-C1A | 6.35 | 109.56 | 106.71 |
| 22 | c | 503 | CLA | C4A-NA-C1A | 6.33 | 109.55 | 106.71 |
| 22 | S | 309 | CLA | C4A-NA-C1A | 6.33 | 109.55 | 106.71 |
| 22 | b | 604 | CLA | C4A-NA-C1A | 6.33 | 109.55 | 106.71 |
| 22 | B | 610 | CLA | C4A-NA-C1A | 6.33 | 109.55 | 106.71 |
| 22 | c | 509 | CLA | C4A-NA-C1A | 6.33 | 109.55 | 106.71 |
| 22 | C | 503 | CLA | C4A-NA-C1A | 6.32 | 109.55 | 106.71 |
| 22 | A | 405 | CLA | C4A-NA-C1A | 6.32 | 109.55 | 106.71 |
| 23 | Y | 614 | LUT | C28-C29-C30 | -6.32 | 109.24 | 118.94 |
| 22 | s | 309 | CLA | C4A-NA-C1A | 6.32 | 109.55 | 106.71 |
| 22 | R | 310 | CLA | C4A-NA-C1A | 6.31 | 109.54 | 106.71 |
| 22 | Y | 612 | CLA | C4A-NA-C1A | 6.30 | 109.54 | 106.71 |
| 22 | B | 615 | CLA | C4A-NA-C1A | 6.30 | 109.54 | 106.71 |
| 22 | g | 614 | CLA | C4A-NA-C1A | 6.30 | 109.54 | 106.71 |
| 22 | G | 611 | CLA | C4A-NA-C1A | 6.29 | 109.54 | 106.71 |
| 23 | G | 616 | LUT | C40-C33-C32 | -6.29 | 108.16 | 118.08 |
| 22 | n | 613 | CLA | C4A-NA-C1A | 6.29 | 109.53 | 106.71 |
| 22 | b | 609 | CLA | C4A-NA-C1A | 6.29 | 109.53 | 106.71 |
| 24 | g | 617 | XAT | C38-C25-C26 | -6.28 | 111.74 | 122.26 |
| 25 | N | 617 | NEX | C32-C33-C34 | -6.27 | 109.32 | 118.94 |
| 22 | N | 613 | CLA | C4A-NA-C1A | 6.26 | 109.52 | 106.71 |
| 22 | a | 404 | CLA | C4A-NA-C1A | 6.26 | 109.52 | 106.71 |
| 22 | g | 611 | CLA | C4A-NA-C1A | 6.25 | 109.52 | 106.71 |
| 22 | y | 611 | CLA | C4A-NA-C1A | 6.24 | 109.51 | 106.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | r | 311 | CLA | C4A-NA-C1A | 6.24 | 109.51 | 106.71 |
| 23 | g | 616 | LUT | C40-C33-C32 | -6.23 | 108.27 | 118.08 |
| 22 | C | 511 | CLA | C1D-ND-C4D | 6.23 | 110.76 | 106.33 |
| 22 | n | 610 | CLA | C4A-NA-C1A | 6.23 | 109.50 | 106.71 |
| 22 | y | 613 | CLA | C4A-NA-C1A | 6.22 | 109.50 | 106.71 |
| 25 | n | 616 | NEX | C32-C33-C34 | -6.22 | 109.40 | 118.94 |
| 25 | g | 618 | NEX | O24-C25-C38 | -6.21 | 107.61 | 115.06 |
| 23 | Y | 614 | LUT | C40-C33-C32 | -6.21 | 108.30 | 118.08 |
| 24 | N | 616 | XAT | C38-C25-C26 | -6.21 | 111.86 | 122.26 |
| 22 | c | 510 | CLA | C1D-ND-C4D | 6.20 | 110.74 | 106.33 |
| 22 | b | 612 | CLA | C4A-NA-C1A | 6.19 | 109.49 | 106.71 |
| 24 | Y | 615 | XAT | C20-C13-C12 | -6.19 | 108.32 | 118.08 |
| 22 | N | 610 | CLA | C4A-NA-C1A | 6.19 | 109.49 | 106.71 |
| 22 | Y | 610 | CLA | C4A-NA-C1A | 6.18 | 109.48 | 106.71 |
| 22 | C | 513 | CLA | C4A-NA-C1A | 6.17 | 109.48 | 106.71 |
| 24 | N | 616 | XAT | C19-C9-C8 | -6.16 | 108.37 | 118.08 |
| 24 | Y | 615 | XAT | C40-C33-C32 | -6.16 | 108.38 | 118.08 |
| 25 | Y | 616 | NEX | C2-C1-C6 | 6.15 | 115.19 | 109.21 |
| 23 | R | 312 | LUT | C28-C29-C30 | -6.14 | 109.52 | 118.94 |
| 22 | g | 613 | CLA | CMC-C2C-C1C | 6.14 | 134.39 | 125.04 |
| 24 | Y | 615 | XAT | C39-C29-C28 | -6.13 | 108.41 | 118.08 |
| 24 | y | 615 | XAT | C38-C25-C26 | -6.13 | 111.98 | 122.26 |
| 22 | n | 612 | CLA | CMC-C2C-C1C | 6.13 | 134.38 | 125.04 |
| 22 | y | 612 | CLA | CMC-C2C-C1C | 6.13 | 134.37 | 125.04 |
| 22 | c | 512 | CLA | C4A-NA-C1A | 6.13 | 109.46 | 106.71 |
| 22 | N | 612 | CLA | CMC-C2C-C1C | 6.13 | 134.37 | 125.04 |
| 22 | G | 613 | CLA | CMC-C2C-C1C | 6.13 | 134.37 | 125.04 |
| 23 | Y | 614 | LUT | C20-C13-C12 | -6.13 | 108.43 | 118.08 |
| 23 | r | 313 | LUT | C28-C29-C30 | -6.12 | 109.55 | 118.94 |
| 22 | C | 512 | CLA | C4A-NA-C1A | 6.12 | 109.46 | 106.71 |
| 22 | n | 603 | CLA | C4A-NA-C1A | 6.11 | 109.45 | 106.71 |
| 22 | s | 303 | CLA | C4A-NA-C1A | 6.11 | 109.45 | 106.71 |
| 22 | c | 511 | CLA | C4A-NA-C1A | 6.10 | 109.45 | 106.71 |
| 22 | Y | 611 | CLA | CMC-C2C-C1C | 6.10 | 134.32 | 125.04 |
| 24 | y | 615 | XAT | C39-C29-C28 | -6.09 | 108.48 | 118.08 |
| 22 | b | 614 | CLA | C4A-NA-C1A | 6.09 | 109.44 | 106.71 |
| 22 | B | 617 | CLA | C4A-NA-C1A | 6.08 | 109.44 | 106.71 |
| 22 | g | 603 | CLA | C4A-NA-C1A | 6.08 | 109.44 | 106.71 |
| 22 | N | 603 | CLA | C4A-NA-C1A | 6.07 | 109.43 | 106.71 |
| 24 | N | 616 | XAT | C27-C28-C29 | -6.06 | 116.12 | 125.53 |
| 22 | c | 513 | CLA | C4A-NA-C1A | 6.06 | 109.43 | 106.71 |
| 22 | S | 304 | CLA | C4A-NA-C1A | 6.05 | 109.43 | 106.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | Y | 603 | CLA | C4A-NA-C1A | 6.05 | 109.43 | 106.71 |
| 22 | G | 603 | CLA | C4A-NA-C1A | 6.05 | 109.42 | 106.71 |
| 22 | S | 303 | CLA | C4A-NA-C1A | 6.05 | 109.42 | 106.71 |
| 24 | g | 617 | XAT | C39-C29-C28 | -6.04 | 108.57 | 118.08 |
| 21 | G | 609 | CHL | C1B-CHB-C4A | -6.02 | 118.19 | 130.12 |
| 21 | g | 605 | CHL | C1B-CHB-C4A | -6.02 | 118.19 | 130.12 |
| 24 | Y | 615 | XAT | C38-C25-C26 | -6.02 | 112.17 | 122.26 |
| 21 | R | 307 | CHL | C1B-CHB-C4A | -6.02 | 118.20 | 130.12 |
| 24 | n | 615 | XAT | C19-C9-C8 | -6.01 | 108.60 | 118.08 |
| 21 | r | 307 | CHL | C1B-CHB-C4A | -6.01 | 118.21 | 130.12 |
| 22 | s | 310 | CLA | C4A-NA-C1A | 6.01 | 109.41 | 106.71 |
| 21 | g | 606 | CHL | C1B-CHB-C4A | -6.00 | 118.23 | 130.12 |
| 21 | g | 607 | CHL | C1B-CHB-C4A | -6.00 | 118.23 | 130.12 |
| 21 | G | 607 | CHL | C1B-CHB-C4A | -6.00 | 118.23 | 130.12 |
| 21 | s | 306 | CHL | C1B-CHB-C4A | -6.00 | 118.23 | 130.12 |
| 21 | G | 601 | CHL | C1B-CHB-C4A | -6.00 | 118.24 | 130.12 |
| 21 | N | 601 | CHL | C1B-CHB-C4A | -6.00 | 118.24 | 130.12 |
| 24 | y | 615 | XAT | C40-C33-C32 | -6.00 | 108.62 | 118.08 |
| 21 | g | 608 | CHL | C1B-CHB-C4A | -6.00 | 118.24 | 130.12 |
| 21 | n | 601 | CHL | C1B-CHB-C4A | -6.00 | 118.24 | 130.12 |
| 22 | S | 310 | CLA | C4A-NA-C1A | 6.00 | 109.40 | 106.71 |
| 21 | Y | 601 | CHL | C1B-CHB-C4A | -6.00 | 118.24 | 130.12 |
| 21 | S | 301 | CHL | C1B-CHB-C4A | -6.00 | 118.24 | 130.12 |
| 21 | S | 306 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 22 | C | 514 | CLA | C4A-NA-C1A | 5.99 | 109.40 | 106.71 |
| 21 | Y | 605 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | S | 302 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | N | 608 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | r | 306 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | s | 307 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | N | 607 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | n | 608 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | r | 308 | CHL | C1B-CHB-C4A | -5.99 | 118.25 | 130.12 |
| 21 | N | 605 | CHL | C1B-CHB-C4A | -5.99 | 118.26 | 130.12 |
| 21 | n | 605 | CHL | C1B-CHB-C4A | -5.99 | 118.26 | 130.12 |
| 21 | R | 306 | CHL | C1B-CHB-C4A | -5.99 | 118.26 | 130.12 |
| 21 | n | 607 | CHL | C1B-CHB-C4A | -5.99 | 118.26 | 130.12 |
| 21 | Y | 607 | CHL | C1B-CHB-C4A | -5.99 | 118.26 | 130.12 |
| 21 | y | 607 | CHL | C1B-CHB-C4A | -5.99 | 118.26 | 130.12 |
| 21 | G | 608 | CHL | C1B-CHB-C4A | -5.99 | 118.26 | 130.12 |
| 21 | y | 605 | CHL | C1B-CHB-C4A | -5.98 | 118.27 | 130.12 |
| 21 | y | 601 | CHL | C1B-CHB-C4A | -5.98 | 118.27 | 130.12 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | s | 304 | CLA | C4A-NA-C1A | 5.98 | 109.40 | 106.71 |
| 21 | s | 302 | CHL | C1B-CHB-C4A | -5.98 | 118.27 | 130.12 |
| 21 | y | 606 | CHL | C1B-CHB-C4A | -5.98 | 118.27 | 130.12 |
| 21 | R | 305 | CHL | C1B-CHB-C4A | -5.98 | 118.27 | 130.12 |
| 21 | g | 609 | CHL | C1B-CHB-C4A | -5.98 | 118.28 | 130.12 |
| 21 | G | 606 | CHL | C1B-CHB-C4A | -5.98 | 118.28 | 130.12 |
| 21 | S | 307 | CHL | C1B-CHB-C4A | -5.98 | 118.28 | 130.12 |
| 21 | y | 608 | CHL | C1B-CHB-C4A | -5.98 | 118.28 | 130.12 |
| 21 | s | 301 | CHL | C1B-CHB-C4A | -5.98 | 118.28 | 130.12 |
| 21 | Y | 608 | CHL | C1B-CHB-C4A | -5.98 | 118.28 | 130.12 |
| 21 | g | 601 | CHL | C1B-CHB-C4A | -5.97 | 118.29 | 130.12 |
| 21 | r | 301 | CHL | C1B-CHB-C4A | -5.97 | 118.29 | 130.12 |
| 24 | G | 617 | XAT | C39-C29-C28 | -5.97 | 108.67 | 118.08 |
| 21 | y | 609 | CHL | C1B-CHB-C4A | -5.97 | 118.30 | 130.12 |
| 21 | G | 605 | CHL | C1B-CHB-C4A | -5.97 | 118.30 | 130.12 |
| 21 | n | 606 | CHL | C1B-CHB-C4A | -5.97 | 118.30 | 130.12 |
| 21 | N | 606 | CHL | C1B-CHB-C4A | -5.96 | 118.31 | 130.12 |
| 21 | Y | 606 | CHL | C1B-CHB-C4A | -5.96 | 118.31 | 130.12 |
| 37 | F | 101 | HEM | C4C-CHD-C1D | 5.95 | 130.41 | 122.56 |
| 24 | y | 615 | XAT | C20-C13-C12 | -5.94 | 108.71 | 118.08 |
| 25 | y | 616 | NEX | C2-C1-C6 | 5.94 | 114.99 | 109.21 |
| 22 | s | 308 | CLA | C4A-NA-C1A | 5.94 | 109.38 | 106.71 |
| 21 | s | 307 | CHL | C4A-NA-C1A | 5.93 | 109.37 | 106.71 |
| 22 | y | 603 | CLA | C4A-NA-C1A | 5.93 | 109.37 | 106.71 |
| 22 | S | 311 | CLA | C4A-NA-C1A | 5.93 | 109.37 | 106.71 |
| 21 | g | 606 | CHL | C4A-NA-C1A | 5.92 | 109.37 | 106.71 |
| 24 | G | 617 | XAT | C38-C25-C26 | -5.92 | 112.34 | 122.26 |
| 21 | R | 306 | CHL | C4A-NA-C1A | 5.92 | 109.37 | 106.71 |
| 37 | f | 101 | HEM | C4C-CHD-C1D | 5.91 | 130.36 | 122.56 |
| 21 | r | 307 | CHL | C4A-NA-C1A | 5.90 | 109.36 | 106.71 |
| 21 | G | 601 | CHL | C4A-NA-C1A | 5.89 | 109.35 | 106.71 |
| 21 | Y | 608 | CHL | C4A-NA-C1A | 5.89 | 109.35 | 106.71 |
| 23 | g | 615 | LUT | C12-C13-C14 | -5.88 | 109.91 | 118.94 |
| 21 | S | 307 | CHL | C4A-NA-C1A | 5.88 | 109.35 | 106.71 |
| 23 | N | 614 | LUT | C12-C13-C14 | -5.88 | 109.92 | 118.94 |
| 23 | G | 615 | LUT | C12-C13-C14 | -5.87 | 109.93 | 118.94 |
| 23 | n | 614 | LUT | C12-C13-C14 | -5.87 | 109.93 | 118.94 |
| 21 | S | 306 | CHL | C4A-NA-C1A | 5.87 | 109.35 | 106.71 |
| 23 | y | 614 | LUT | C12-C13-C14 | -5.87 | 109.93 | 118.94 |
| 21 | g | 609 | CHL | C4A-NA-C1A | 5.87 | 109.34 | 106.71 |
| 21 | y | 601 | CHL | C4A-NA-C1A | 5.87 | 109.34 | 106.71 |
| 21 | G | 609 | CHL | C4A-NA-C1A | 5.87 | 109.34 | 106.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | g | 607 | CHL | C4A-NA-C1A | 5.86 | 109.34 | 106.71 |
| 23 | r | 313 | LUT | C40-C33-C32 | -5.86 | 108.84 | 118.08 |
| 23 | Y | 613 | LUT | C12-C13-C14 | -5.86 | 109.95 | 118.94 |
| 25 | g | 618 | NEX | C32-C33-C34 | -5.86 | 109.95 | 118.94 |
| 21 | g | 601 | CHL | C4A-NA-C1A | 5.85 | 109.34 | 106.71 |
| 21 | s | 306 | CHL | C4A-NA-C1A | 5.85 | 109.34 | 106.71 |
| 25 | n | 616 | NEX | O24-C25-C38 | -5.85 | 108.05 | 115.06 |
| 21 | y | 607 | CHL | C4A-NA-C1A | 5.85 | 109.33 | 106.71 |
| 21 | N | 605 | CHL | C4A-NA-C1A | 5.85 | 109.33 | 106.71 |
| 21 | R | 307 | CHL | C4A-NA-C1A | 5.85 | 109.33 | 106.71 |
| 23 | R | 312 | LUT | C40-C33-C32 | -5.84 | 108.87 | 118.08 |
| 21 | g | 605 | CHL | C4A-NA-C1A | 5.84 | 109.33 | 106.71 |
| 21 | G | 606 | CHL | C4A-NA-C1A | 5.84 | 109.33 | 106.71 |
| 21 | N | 601 | CHL | C4A-NA-C1A | 5.84 | 109.33 | 106.71 |
| 22 | C | 511 | CLA | CHD-C4C-C3C | 5.84 | 133.42 | 124.84 |
| 21 | r | 308 | CHL | C4A-NA-C1A | 5.83 | 109.33 | 106.71 |
| 21 | y | 609 | CHL | C4A-NA-C1A | 5.83 | 109.33 | 106.71 |
| 21 | y | 606 | CHL | C4A-NA-C1A | 5.83 | 109.33 | 106.71 |
| 21 | N | 607 | CHL | C4A-NA-C1A | 5.83 | 109.33 | 106.71 |
| 21 | Y | 607 | CHL | C4A-NA-C1A | 5.83 | 109.33 | 106.71 |
| 21 | Y | 606 | CHL | C4A-NA-C1A | 5.82 | 109.32 | 106.71 |
| 21 | n | 608 | CHL | C4A-NA-C1A | 5.82 | 109.32 | 106.71 |
| 21 | G | 608 | CHL | C4A-NA-C1A | 5.82 | 109.32 | 106.71 |
| 21 | Y | 605 | CHL | C4A-NA-C1A | 5.82 | 109.32 | 106.71 |
| 22 | c | 510 | CLA | CHD-C4C-C3C | 5.81 | 133.39 | 124.84 |
| 21 | N | 606 | CHL | C4A-NA-C1A | 5.81 | 109.32 | 106.71 |
| 21 | R | 305 | CHL | C4A-NA-C1A | 5.81 | 109.32 | 106.71 |
| 23 | r | 313 | LUT | C19-C9-C8 | -5.81 | 108.92 | 118.08 |
| 21 | r | 301 | CHL | C4A-NA-C1A | 5.81 | 109.32 | 106.71 |
| 21 | y | 605 | CHL | C4A-NA-C1A | 5.81 | 109.32 | 106.71 |
| 21 | s | 301 | CHL | C4A-NA-C1A | 5.81 | 109.32 | 106.71 |
| 25 | y | 616 | NEX | C32-C33-C34 | -5.81 | 110.03 | 118.94 |
| 21 | Y | 601 | CHL | C4A-NA-C1A | 5.81 | 109.32 | 106.71 |
| 23 | R | 312 | LUT | C19-C9-C8 | -5.81 | 108.93 | 118.08 |
| 21 | N | 608 | CHL | C4A-NA-C1A | 5.80 | 109.31 | 106.71 |
| 24 | n | 615 | XAT | C39-C29-C28 | -5.80 | 108.94 | 118.08 |
| 21 | n | 601 | CHL | C4A-NA-C1A | 5.80 | 109.31 | 106.71 |
| 22 | s | 311 | CLA | C4A-NA-C1A | 5.79 | 109.31 | 106.71 |
| 37 | F | 101 | HEM | C3D-C4D-ND | -5.79 | 103.72 | 110.17 |
| 21 | n | 605 | CHL | C4A-NA-C1A | 5.79 | 109.31 | 106.71 |
| 37 | f | 101 | HEM | C3D-C4D-ND | -5.79 | 103.72 | 110.17 |
| 21 | S | 302 | CHL | C4A-NA-C1A | 5.79 | 109.31 | 106.71 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 24 | g | 617 | XAT | C19-C9-C8 | -5.78 | 108.97 | 118.08 |
| 21 | r | 306 | CHL | C4A-NA-C1A | 5.78 | 109.30 | 106.71 |
| 22 | S | 308 | CLA | C4A-NA-C1A | 5.78 | 109.30 | 106.71 |
| 21 | S | 301 | CHL | C4A-NA-C1A | 5.78 | 109.30 | 106.71 |
| 24 | n | 615 | XAT | C38-C25-C26 | -5.77 | 112.59 | 122.26 |
| 25 | r | 315 | NEX | C40-C33-C32 | -5.76 | 109.00 | 118.08 |
| 23 | N | 615 | LUT | C20-C13-C12 | -5.76 | 109.00 | 118.08 |
| 24 | r | 314 | XAT | C20-C13-C12 | -5.76 | 109.01 | 118.08 |
| 21 | n | 606 | CHL | C4A-NA-C1A | 5.75 | 109.29 | 106.71 |
| 24 | G | 617 | XAT | C40-C33-C32 | -5.75 | 109.02 | 118.08 |
| 23 | r | 313 | LUT | C32-C33-C34 | -5.75 | 110.12 | 118.94 |
| 23 | R | 312 | LUT | C32-C33-C34 | -5.74 | 110.13 | 118.94 |
| 21 | g | 608 | CHL | C4A-NA-C1A | 5.74 | 109.29 | 106.71 |
| 24 | N | 616 | XAT | C12-C13-C14 | -5.74 | 110.14 | 118.94 |
| 25 | N | 617 | NEX | C20-C13-C12 | -5.74 | 109.04 | 118.08 |
| 25 | y | 618 | NEX | C40-C33-C32 | -5.73 | 109.04 | 118.08 |
| 21 | n | 607 | CHL | C4A-NA-C1A | 5.73 | 109.28 | 106.71 |
| 21 | G | 605 | CHL | C4A-NA-C1A | 5.73 | 109.28 | 106.71 |
| 24 | n | 615 | XAT | C40-C33-C32 | -5.73 | 109.04 | 118.08 |
| 21 | y | 608 | CHL | C4A-NA-C1A | 5.73 | 109.28 | 106.71 |
| 25 | g | 618 | NEX | C2-C1-C6 | 5.72 | 114.77 | 109.21 |
| 25 | r | 315 | NEX | C12-C13-C14 | -5.72 | 110.16 | 118.94 |
| 21 | G | 607 | CHL | C4A-NA-C1A | 5.72 | 109.28 | 106.71 |
| 21 | s | 302 | CHL | C4A-NA-C1A | 5.71 | 109.27 | 106.71 |
| 24 | R | 313 | XAT | C20-C13-C12 | -5.70 | 109.10 | 118.08 |
| 24 | n | 615 | XAT | C12-C13-C14 | -5.69 | 110.20 | 118.94 |
| 25 | y | 616 | NEX | C28-C29-C30 | -5.69 | 110.21 | 118.94 |
| 23 | G | 615 | LUT | C28-C29-C30 | -5.69 | 110.22 | 118.94 |
| 23 | Y | 613 | LUT | C28-C29-C30 | -5.69 | 110.22 | 118.94 |
| 24 | R | 313 | XAT | C39-C29-C28 | -5.68 | 109.12 | 118.08 |
| 23 | y | 614 | LUT | C28-C29-C30 | -5.68 | 110.22 | 118.94 |
| 23 | N | 614 | LUT | C28-C29-C30 | -5.68 | 110.22 | 118.94 |
| 23 | n | 614 | LUT | C28-C29-C30 | -5.68 | 110.22 | 118.94 |
| 25 | y | 618 | NEX | C12-C13-C14 | -5.68 | 110.22 | 118.94 |
| 24 | g | 617 | XAT | C40-C33-C32 | -5.68 | 109.13 | 118.08 |
| 23 | g | 615 | LUT | C28-C29-C30 | -5.68 | 110.23 | 118.94 |
| 23 | N | 615 | LUT | C32-C33-C34 | -5.67 | 110.23 | 118.94 |
| 23 | g | 616 | LUT | C28-C29-C30 | -5.66 | 110.26 | 118.94 |
| 25 | Y | 616 | NEX | C40-C33-C32 | -5.65 | 109.17 | 118.08 |
| 24 | G | 617 | XAT | C19-C9-C8 | -5.64 | 109.19 | 118.08 |
| 24 | r | 314 | XAT | C39-C29-C28 | -5.64 | 109.20 | 118.08 |
| 23 | g | 616 | LUT | C7-C8-C9 | -5.63 | 117.72 | 126.23 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 24 | N | 616 | XAT | C20-C13-C12 | -5.63 | 109.21 | 118.08 |
| 23 | G | 616 | LUT | C28-C29-C30 | -5.62 | 110.31 | 118.94 |
| 24 | n | 615 | XAT | C27-C28-C29 | -5.61 | 116.83 | 125.53 |
| 37 | F | 101 | HEM | C4B-C3B-C2B | 5.61 | 111.57 | 107.11 |
| 37 | f | 101 | HEM | CHC-C4B-C3B | 5.61 | 133.16 | 124.57 |
| 37 | f | 101 | HEM | C4B-C3B-C2B | 5.61 | 111.57 | 107.11 |
| 37 | f | 101 | HEM | C2D-C1D-ND | -5.61 | 103.16 | 109.88 |
| 37 | F | 101 | HEM | C2D-C1D-ND | -5.61 | 103.17 | 109.88 |
| 24 | R | 313 | XAT | C19-C9-C8 | -5.61 | 109.24 | 118.08 |
| 37 | F | 101 | HEM | CHC-C4B-C3B | 5.60 | 133.14 | 124.57 |
| 24 | r | 314 | XAT | C19-C9-C8 | -5.59 | 109.27 | 118.08 |
| 24 | n | 615 | XAT | C20-C13-C12 | -5.58 | 109.28 | 118.08 |
| 25 | n | 616 | NEX | C2-C1-C6 | 5.58 | 114.63 | 109.21 |
| 23 | G | 615 | LUT | C39-C29-C28 | -5.57 | 109.30 | 118.08 |
| 23 | g | 615 | LUT | C39-C29-C28 | -5.57 | 109.30 | 118.08 |
| 24 | G | 617 | XAT | C27-C28-C29 | -5.57 | 116.89 | 125.53 |
| 23 | Y | 613 | LUT | C39-C29-C28 | -5.57 | 109.31 | 118.08 |
| 23 | N | 614 | LUT | C39-C29-C28 | -5.56 | 109.31 | 118.08 |
| 25 | Y | 616 | NEX | C20-C13-C12 | -5.56 | 109.32 | 118.08 |
| 24 | g | 617 | XAT | C12-C13-C14 | -5.56 | 110.42 | 118.94 |
| 23 | n | 614 | LUT | C39-C29-C28 | -5.55 | 109.33 | 118.08 |
| 23 | y | 614 | LUT | C39-C29-C28 | -5.55 | 109.34 | 118.08 |
| 24 | g | 617 | XAT | C20-C13-C12 | -5.55 | 109.34 | 118.08 |
| 25 | r | 315 | NEX | C39-C29-C28 | -5.53 | 109.36 | 118.08 |
| 25 | y | 618 | NEX | C39-C29-C28 | -5.53 | 109.37 | 118.08 |
| 25 | Y | 616 | NEX | C39-C29-C28 | -5.52 | 109.38 | 118.08 |
| 25 | n | 616 | NEX | C20-C13-C12 | -5.52 | 109.38 | 118.08 |
| 25 | g | 618 | NEX | C28-C29-C30 | -5.52 | 110.47 | 118.94 |
| 25 | y | 618 | NEX | C20-C13-C12 | -5.49 | 109.43 | 118.08 |
| 23 | G | 616 | LUT | C7-C8-C9 | -5.48 | 117.95 | 126.23 |
| 24 | R | 313 | XAT | C40-C33-C32 | -5.48 | 109.45 | 118.08 |
| 25 | N | 617 | NEX | C40-C33-C32 | -5.47 | 109.45 | 118.08 |
| 25 | g | 618 | NEX | C20-C13-C12 | -5.47 | 109.45 | 118.08 |
| 24 | r | 314 | XAT | C40-C33-C32 | -5.46 | 109.48 | 118.08 |
| 25 | r | 315 | NEX | C20-C13-C12 | -5.46 | 109.48 | 118.08 |
| 25 | y | 616 | NEX | C20-C13-C12 | -5.45 | 109.49 | 118.08 |
| 24 | G | 617 | XAT | C20-C13-C12 | -5.43 | 109.52 | 118.08 |
| 23 | N | 614 | LUT | C20-C13-C12 | -5.41 | 109.55 | 118.08 |
| 23 | N | 615 | LUT | C39-C29-C28 | -5.40 | 109.57 | 118.08 |
| 23 | y | 614 | LUT | C20-C13-C12 | -5.40 | 109.58 | 118.08 |
| 23 | Y | 613 | LUT | C20-C13-C12 | -5.39 | 109.58 | 118.08 |
| 23 | n | 614 | LUT | C20-C13-C12 | -5.39 | 109.58 | 118.08 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 23 | G | 615 | LUT | C20-C13-C12 | -5.39 | 109.59 | 118.08 |
| 23 | g | 615 | LUT | C20-C13-C12 | -5.38 | 109.60 | 118.08 |
| 23 | N | 615 | LUT | C28-C29-C30 | -5.37 | 110.70 | 118.94 |
| 24 | N | 616 | XAT | C40-C33-C32 | -5.35 | 109.64 | 118.08 |
| 23 | g | 616 | LUT | C39-C29-C28 | -5.35 | 109.64 | 118.08 |
| 25 | N | 617 | NEX | C39-C29-C28 | -5.35 | 109.64 | 118.08 |
| 25 | y | 618 | NEX | C32-C33-C34 | -5.31 | 110.79 | 118.94 |
| 25 | r | 315 | NEX | C32-C33-C34 | -5.30 | 110.81 | 118.94 |
| 25 | g | 618 | NEX | C39-C29-C28 | -5.29 | 109.74 | 118.08 |
| 23 | N | 614 | LUT | C32-C33-C34 | -5.29 | 110.82 | 118.94 |
| 23 | g | 615 | LUT | C32-C33-C34 | -5.28 | 110.84 | 118.94 |
| 23 | G | 615 | LUT | C32-C33-C34 | -5.28 | 110.84 | 118.94 |
| 25 | y | 616 | NEX | C39-C29-C28 | -5.28 | 109.76 | 118.08 |
| 25 | n | 616 | NEX | C39-C29-C28 | -5.27 | 109.78 | 118.08 |
| 23 | y | 614 | LUT | C32-C33-C34 | -5.27 | 110.86 | 118.94 |
| 23 | n | 614 | LUT | C32-C33-C34 | -5.27 | 110.86 | 118.94 |
| 23 | G | 616 | LUT | C39-C29-C28 | -5.26 | 109.79 | 118.08 |
| 23 | Y | 613 | LUT | C40-C33-C32 | -5.25 | 109.80 | 118.08 |
| 23 | R | 312 | LUT | C8-C9-C10 | -5.25 | 110.89 | 118.94 |
| 23 | Y | 613 | LUT | C32-C33-C34 | -5.25 | 110.89 | 118.94 |
| 23 | N | 615 | LUT | C40-C33-C32 | -5.24 | 109.81 | 118.08 |
| 25 | y | 616 | NEX | C12-C13-C14 | -5.24 | 110.90 | 118.94 |
| 23 | g | 615 | LUT | C40-C33-C32 | -5.24 | 109.83 | 118.08 |
| 23 | r | 313 | LUT | C8-C9-C10 | -5.24 | 110.91 | 118.94 |
| 23 | N | 614 | LUT | C40-C33-C32 | -5.23 | 109.83 | 118.08 |
| 25 | n | 616 | NEX | C12-C13-C14 | -5.23 | 110.92 | 118.94 |
| 23 | G | 615 | LUT | C40-C33-C32 | -5.22 | 109.84 | 118.08 |
| 25 | y | 616 | NEX | C40-C33-C32 | -5.22 | 109.85 | 118.08 |
| 23 | y | 614 | LUT | C40-C33-C32 | -5.22 | 109.85 | 118.08 |
| 23 | n | 614 | LUT | C40-C33-C32 | -5.20 | 109.88 | 118.08 |
| 24 | n | 615 | XAT | C8-C9-C10 | -5.20 | 110.96 | 118.94 |
| 24 | Y | 615 | XAT | C27-C28-C29 | -5.20 | 117.47 | 125.53 |
| 23 | r | 313 | LUT | C39-C29-C28 | -5.19 | 109.89 | 118.08 |
| 23 | R | 312 | LUT | C39-C29-C28 | -5.16 | 109.94 | 118.08 |
| 25 | g | 618 | NEX | C12-C13-C14 | -5.15 | 111.04 | 118.94 |
| 25 | N | 617 | NEX | C28-C29-C30 | -5.15 | 111.04 | 118.94 |
| 24 | g | 617 | XAT | C27-C28-C29 | -5.15 | 117.55 | 125.53 |
| 24 | g | 617 | XAT | C7-C8-C9 | -5.13 | 117.56 | 125.53 |
| 25 | N | 617 | NEX | C12-C13-C14 | -5.13 | 111.07 | 118.94 |
| 24 | N | 616 | XAT | C7-C8-C9 | -5.11 | 117.61 | 125.53 |
| 22 | Y | 611 | CLA | CHC-C1C-NC | -5.10 | 116.46 | 124.20 |
| 24 | G | 617 | XAT | C7-C8-C9 | -5.10 | 117.62 | 125.53 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | y | 612 | CLA | CHC-C1C-NC | -5.10 | 116.47 | 124.20 |
| 22 | G | 613 | CLA | CHC-C1C-NC | -5.10 | 116.47 | 124.20 |
| 22 | n | 612 | CLA | CHC-C1C-NC | -5.08 | 116.50 | 124.20 |
| 22 | g | 613 | CLA | CHC-C1C-NC | -5.08 | 116.50 | 124.20 |
| 24 | y | 615 | XAT | C27-C28-C29 | -5.06 | 117.68 | 125.53 |
| 24 | G | 617 | XAT | C12-C13-C14 | -5.06 | 111.18 | 118.94 |
| 22 | N | 612 | CLA | CHC-C1C-NC | -5.06 | 116.53 | 124.20 |
| 24 | G | 617 | XAT | O24-C25-C38 | -5.05 | 109.00 | 115.06 |
| 25 | g | 618 | NEX | C40-C33-C32 | -5.04 | 110.14 | 118.08 |
| 25 | Y | 616 | NEX | C12-C13-C14 | -5.04 | 111.21 | 118.94 |
| 21 | s | 307 | CHL | O2D-CGD-CBD | 5.03 | 120.21 | 111.27 |
| 21 | R | 306 | CHL | O2D-CGD-CBD | 5.03 | 120.20 | 111.27 |
| 21 | G | 608 | CHL | O2D-CGD-CBD | 5.03 | 120.20 | 111.27 |
| 21 | G | 601 | CHL | O2D-CGD-CBD | 5.03 | 120.20 | 111.27 |
| 21 | y | 606 | CHL | O2D-CGD-CBD | 5.03 | 120.20 | 111.27 |
| 21 | n | 605 | CHL | O2D-CGD-CBD | 5.02 | 120.19 | 111.27 |
| 21 | G | 606 | CHL | O2D-CGD-CBD | 5.02 | 120.19 | 111.27 |
| 21 | S | 302 | CHL | O2D-CGD-CBD | 5.02 | 120.19 | 111.27 |
| 21 | Y | 601 | CHL | O2D-CGD-CBD | 5.02 | 120.19 | 111.27 |
| 21 | g | 601 | CHL | O2D-CGD-CBD | 5.02 | 120.19 | 111.27 |
| 21 | N | 601 | CHL | O2D-CGD-CBD | 5.02 | 120.19 | 111.27 |
| 21 | y | 608 | CHL | O2D-CGD-CBD | 5.02 | 120.18 | 111.27 |
| 21 | s | 302 | CHL | O2D-CGD-CBD | 5.02 | 120.18 | 111.27 |
| 21 | n | 606 | CHL | O2D-CGD-CBD | 5.02 | 120.18 | 111.27 |
| 21 | R | 307 | CHL | O2D-CGD-CBD | 5.02 | 120.18 | 111.27 |
| 21 | s | 306 | CHL | O2D-CGD-CBD | 5.01 | 120.18 | 111.27 |
| 21 | s | 301 | CHL | O2D-CGD-CBD | 5.01 | 120.17 | 111.27 |
| 21 | Y | 607 | CHL | O2D-CGD-CBD | 5.01 | 120.17 | 111.27 |
| 23 | r | 313 | LUT | C7-C6-C5 | -5.01 | 109.33 | 121.46 |
| 21 | g | 609 | CHL | O2D-CGD-CBD | 5.01 | 120.17 | 111.27 |
| 25 | n | 616 | NEX | C28-C29-C30 | -5.01 | 111.26 | 118.94 |
| 21 | n | 607 | CHL | O2D-CGD-CBD | 5.01 | 120.16 | 111.27 |
| 23 | Y | 614 | LUT | C12-C13-C14 | -5.00 | 111.26 | 118.94 |
| 21 | N | 606 | CHL | O2D-CGD-CBD | 5.00 | 120.16 | 111.27 |
| 21 | Y | 606 | CHL | O2D-CGD-CBD | 5.00 | 120.16 | 111.27 |
| 21 | Y | 608 | CHL | O2D-CGD-CBD | 5.00 | 120.16 | 111.27 |
| 21 | S | 307 | CHL | O2D-CGD-CBD | 5.00 | 120.16 | 111.27 |
| 21 | G | 607 | CHL | O2D-CGD-CBD | 5.00 | 120.16 | 111.27 |
| 21 | y | 601 | CHL | O2D-CGD-CBD | 5.00 | 120.16 | 111.27 |
| 21 | r | 301 | CHL | O2D-CGD-CBD | 5.00 | 120.16 | 111.27 |
| 21 | n | 601 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 21 | r | 307 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | y | 609 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 21 | g | 606 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 23 | R | 312 | LUT | C7-C6-C5 | -5.00 | 109.36 | 121.46 |
| 21 | g | 605 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 21 | n | 608 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 21 | N | 608 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 21 | Y | 605 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 21 | r | 306 | CHL | O2D-CGD-CBD | 5.00 | 120.15 | 111.27 |
| 21 | g | 607 | CHL | O2D-CGD-CBD | 5.00 | 120.14 | 111.27 |
| 21 | r | 308 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | G | 609 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | S | 306 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | N | 605 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | R | 305 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | N | 607 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | S | 301 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | G | 605 | CHL | O2D-CGD-CBD | 4.99 | 120.14 | 111.27 |
| 21 | y | 607 | CHL | O2D-CGD-CBD | 4.99 | 120.13 | 111.27 |
| 21 | g | 608 | CHL | O2D-CGD-CBD | 4.98 | 120.11 | 111.27 |
| 24 | r | 314 | XAT | C32-C33-C34 | -4.97 | 111.32 | 118.94 |
| 21 | y | 605 | CHL | O2D-CGD-CBD | 4.97 | 120.09 | 111.27 |
| 24 | N | 616 | XAT | C39-C29-C28 | -4.96 | 110.26 | 118.08 |
| 25 | r | 315 | NEX | C28-C29-C30 | -4.96 | 111.33 | 118.94 |
| 32 | D | 407 | PL9 | C7-C3-C4 | 4.96 | 120.91 | 116.88 |
| 25 | y | 618 | NEX | C28-C29-C30 | -4.96 | 111.33 | 118.94 |
| 24 | R | 313 | XAT | C12-C13-C14 | -4.95 | 111.34 | 118.94 |
| 24 | R | 313 | XAT | C32-C33-C34 | -4.95 | 111.34 | 118.94 |
| 32 | d | 406 | PL9 | C7-C3-C4 | 4.95 | 120.90 | 116.88 |
| 24 | r | 314 | XAT | C12-C13-C14 | -4.95 | 111.35 | 118.94 |
| 23 | g | 616 | LUT | C19-C9-C8 | -4.94 | 110.30 | 118.08 |
| 25 | N | 617 | NEX | C5-C6-C1 | -4.93 | 114.81 | 119.70 |
| 24 | r | 314 | XAT | C28-C29-C30 | -4.91 | 111.41 | 118.94 |
| 24 | R | 313 | XAT | C28-C29-C30 | -4.91 | 111.41 | 118.94 |
| 24 | N | 616 | XAT | C8-C9-C10 | -4.90 | 111.42 | 118.94 |
| 23 | g | 616 | LUT | C32-C33-C34 | -4.90 | 111.43 | 118.94 |
| 24 | n | 615 | XAT | O24-C25-C38 | -4.89 | 109.20 | 115.06 |
| 25 | N | 617 | NEX | C37-C21-C26 | 4.87 | 123.19 | 110.05 |
| 35 | C | 518 | DGD | O3G-C3G-C2G | -4.86 | 99.17 | 110.90 |
| 25 | y | 616 | NEX | C37-C21-C26 | 4.86 | 123.16 | 110.05 |
| 23 | R | 312 | LUT | C1-C6-C5 | -4.86 | 115.77 | 122.61 |
| 23 | Y | 614 | LUT | C39-C29-C28 | -4.85 | 110.44 | 118.08 |
| 35 | c | 517 | DGD | O3G-C3G-C2G | -4.84 | 99.22 | 110.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | c | 510 | CLA | CHD-C1D-C2D | 4.83 | 135.61 | 125.48 |
| 23 | N | 615 | LUT | C8-C9-C10 | -4.83 | 111.54 | 118.94 |
| 22 | C | 511 | CLA | CHD-C1D-C2D | 4.82 | 135.60 | 125.48 |
| 23 | r | 313 | LUT | C1-C6-C5 | -4.82 | 115.83 | 122.61 |
| 25 | n | 616 | NEX | C40-C33-C32 | -4.80 | 110.52 | 118.08 |
| 23 | Y | 614 | LUT | C32-C33-C34 | -4.80 | 111.58 | 118.94 |
| 23 | G | 616 | LUT | C19-C9-C8 | -4.77 | 110.56 | 118.08 |
| 25 | N | 617 | NEX | O24-C25-C38 | -4.77 | 109.34 | 115.06 |
| 24 | y | 615 | XAT | C12-C13-C14 | -4.76 | 111.64 | 118.94 |
| 23 | Y | 614 | LUT | C7-C8-C9 | -4.75 | 119.05 | 126.23 |
| 25 | Y | 616 | NEX | C25-C24-C23 | 4.74 | 122.13 | 112.75 |
| 23 | r | 313 | LUT | C12-C13-C14 | -4.74 | 111.67 | 118.94 |
| 23 | R | 312 | LUT | C12-C13-C14 | -4.73 | 111.69 | 118.94 |
| 23 | y | 614 | LUT | C4-C5-C6 | -4.72 | 110.34 | 120.85 |
| 24 | G | 617 | XAT | C8-C9-C10 | -4.71 | 111.71 | 118.94 |
| 23 | N | 614 | LUT | C4-C5-C6 | -4.70 | 110.38 | 120.85 |
| 23 | g | 615 | LUT | C4-C5-C6 | -4.69 | 110.39 | 120.85 |
| 23 | n | 614 | LUT | C4-C5-C6 | -4.69 | 110.39 | 120.85 |
| 25 | N | 617 | NEX | C19-C9-C8 | -4.69 | 108.06 | 118.93 |
| 23 | Y | 613 | LUT | C4-C5-C6 | -4.69 | 110.40 | 120.85 |
| 23 | G | 615 | LUT | C4-C5-C6 | -4.68 | 110.43 | 120.85 |
| 23 | Y | 614 | LUT | C19-C9-C8 | -4.65 | 110.75 | 118.08 |
| 23 | G | 616 | LUT | C32-C33-C34 | -4.65 | 111.81 | 118.94 |
| 23 | N | 615 | LUT | C12-C13-C14 | -4.64 | 111.83 | 118.94 |
| 23 | G | 616 | LUT | C12-C13-C14 | -4.62 | 111.85 | 118.94 |
| 35 | c | 519 | DGD | O3G-C3G-C2G | -4.61 | 99.79 | 110.90 |
| 35 | J | 101 | DGD | O3G-C3G-C2G | -4.59 | 99.83 | 110.90 |
| 24 | y | 615 | XAT | O24-C25-C38 | -4.59 | 109.56 | 115.06 |
| 24 | Y | 615 | XAT | O24-C25-C38 | -4.58 | 109.57 | 115.06 |
| 23 | Y | 613 | LUT | C19-C9-C8 | -4.58 | 110.86 | 118.08 |
| 24 | n | 615 | XAT | C7-C8-C9 | -4.57 | 118.44 | 125.53 |
| 23 | n | 614 | LUT | C19-C9-C8 | -4.57 | 110.88 | 118.08 |
| 23 | G | 615 | LUT | C19-C9-C8 | -4.56 | 110.89 | 118.08 |
| 37 | F | 101 | HEM | C2C-C3C-C4C | 4.54 | 110.07 | 106.90 |
| 24 | g | 617 | XAT | C8-C9-C10 | -4.53 | 111.99 | 118.94 |
| 23 | g | 615 | LUT | C19-C9-C8 | -4.53 | 110.95 | 118.08 |
| 23 | y | 614 | LUT | C19-C9-C8 | -4.52 | 110.95 | 118.08 |
| 23 | N | 614 | LUT | C19-C9-C8 | -4.52 | 110.96 | 118.08 |
| 25 | n | 616 | NEX | C37-C21-C26 | 4.51 | 122.23 | 110.05 |
| 24 | g | 617 | XAT | O24-C25-C38 | -4.51 | 109.65 | 115.06 |
| 35 | c | 518 | DGD | O3G-C3G-C2G | -4.50 | 100.04 | 110.90 |
| 24 | N | 616 | XAT | C32-C33-C34 | -4.50 | 112.04 | 118.94 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 35 | C | 519 | DGD | O3G-C3G-C2G | -4.50 | 100.05 | 110.90 |
| 37 | f | 101 | HEM | C4A-C3A-C2A | 4.48 | 110.11 | 107.00 |
| 24 | R | 313 | XAT | O24-C25-C38 | -4.47 | 109.70 | 115.06 |
| 35 | A | 401 | DGD | O3G-C3G-C2G | -4.47 | 100.11 | 110.90 |
| 37 | f | 101 | HEM | C2C-C3C-C4C | 4.46 | 110.01 | 106.90 |
| 35 | a | 413 | DGD | O3G-C3G-C2G | -4.46 | 100.15 | 110.90 |
| 24 | r | 314 | XAT | O24-C25-C38 | -4.44 | 109.74 | 115.06 |
| 37 | F | 101 | HEM | C4A-C3A-C2A | 4.42 | 110.07 | 107.00 |
| 24 | Y | 615 | XAT | C12-C13-C14 | -4.42 | 112.16 | 118.94 |
| 22 | B | 610 | CLA | CMB-C2B-C1B | -4.40 | 121.70 | 128.46 |
| 22 | b | 607 | CLA | CMB-C2B-C1B | -4.40 | 121.71 | 128.46 |
| 25 | g | 618 | NEX | C25-C24-C23 | 4.37 | 121.39 | 112.75 |
| 24 | r | 314 | XAT | C5-C4-C3 | -4.34 | 104.16 | 112.75 |
| 24 | g | 617 | XAT | C32-C33-C34 | -4.33 | 112.29 | 118.94 |
| 24 | N | 616 | XAT | O24-C25-C38 | -4.33 | 109.87 | 115.06 |
| 33 | D | 402 | SQD | O9-S-C6 | 4.31 | 112.06 | 106.94 |
| 24 | R | 313 | XAT | C5-C4-C3 | -4.31 | 104.22 | 112.75 |
| 33 | d | 402 | SQD | O9-S-C6 | 4.30 | 112.05 | 106.94 |
| 35 | h | 102 | DGD | O3G-C3G-C2G | -4.29 | 100.54 | 110.90 |
| 25 | Y | 616 | NEX | C19-C9-C8 | -4.29 | 108.98 | 118.93 |
| 35 | H | 102 | DGD | O3G-C3G-C2G | -4.28 | 100.58 | 110.90 |
| 24 | G | 617 | XAT | C32-C33-C34 | -4.27 | 112.38 | 118.94 |
| 26 | d | 407 | LHG | O4-P-O5 | 4.25 | 133.27 | 112.24 |
| 26 | D | 408 | LHG | O4-P-O5 | 4.25 | 133.25 | 112.24 |
| 26 | G | 618 | LHG | O4-P-O5 | 4.25 | 133.24 | 112.24 |
| 26 | g | 619 | LHG | O4-P-O5 | 4.25 | 133.23 | 112.24 |
| 26 | D | 409 | LHG | O4-P-O5 | 4.24 | 133.21 | 112.24 |
| 26 | S | 314 | LHG | O4-P-O5 | 4.24 | 133.19 | 112.24 |
| 25 | y | 616 | NEX | C25-C24-C23 | 4.24 | 121.13 | 112.75 |
| 26 | d | 408 | LHG | O4-P-O5 | 4.24 | 133.19 | 112.24 |
| 26 | C | 522 | LHG | O4-P-O5 | 4.23 | 133.16 | 112.24 |
| 26 | c | 522 | LHG | O4-P-O5 | 4.23 | 133.14 | 112.24 |
| 25 | y | 616 | NEX | C19-C9-C8 | -4.23 | 109.13 | 118.93 |
| 26 | s | 314 | LHG | O4-P-O5 | 4.22 | 133.12 | 112.24 |
| 26 | y | 617 | LHG | O4-P-O5 | 4.22 | 133.11 | 112.24 |
| 26 | c | 520 | LHG | O4-P-O5 | 4.22 | 133.11 | 112.24 |
| 26 | C | 520 | LHG | O4-P-O5 | 4.20 | 133.02 | 112.24 |
| 26 | n | 617 | LHG | O4-P-O5 | 4.20 | 133.02 | 112.24 |
| 26 | L | 103 | LHG | O4-P-O5 | 4.20 | 133.01 | 112.24 |
| 26 | d | 409 | LHG | O4-P-O5 | 4.20 | 133.01 | 112.24 |
| 26 | D | 410 | LHG | O4-P-O5 | 4.20 | 133.01 | 112.24 |
| 26 | l | 102 | LHG | O4-P-O5 | 4.20 | 133.00 | 112.24 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 24 | n | 615 | XAT | C32-C33-C34 | -4.20 | 112.50 | 118.94 |
| 26 | b | 619 | LHG | O4-P-O5 | 4.19 | 132.98 | 112.24 |
| 24 | R | 313 | XAT | C6-C7-C8 | -4.19 | 117.13 | 125.99 |
| 25 | g | 618 | NEX | C19-C9-C8 | -4.19 | 109.21 | 118.93 |
| 26 | B | 622 | LHG | O4-P-O5 | 4.19 | 132.96 | 112.24 |
| 23 | N | 615 | LUT | C4-C5-C6 | -4.19 | 111.51 | 120.85 |
| 26 | c | 521 | LHG | O4-P-O5 | 4.19 | 132.95 | 112.24 |
| 26 | C | 521 | LHG | O4-P-O5 | 4.18 | 132.91 | 112.24 |
| 26 | Y | 617 | LHG | O4-P-O5 | 4.18 | 132.89 | 112.24 |
| 24 | r | 314 | XAT | C6-C7-C8 | -4.17 | 117.17 | 125.99 |
| 25 | g | 618 | NEX | C37-C21-C26 | 4.17 | 121.31 | 110.05 |
| 25 | r | 315 | NEX | C19-C9-C8 | -4.16 | 109.28 | 118.93 |
| 26 | R | 301 | LHG | O4-P-O5 | 4.16 | 132.79 | 112.24 |
| 26 | r | 302 | LHG | O4-P-O5 | 4.16 | 132.79 | 112.24 |
| 25 | n | 616 | NEX | C25-C24-C23 | 4.16 | 120.97 | 112.75 |
| 21 | s | 302 | CHL | C3D-C2D-C1D | -4.15 | 100.17 | 105.83 |
| 25 | y | 618 | NEX | C19-C9-C8 | -4.15 | 109.32 | 118.93 |
| 26 | N | 618 | LHG | O4-P-O5 | 4.15 | 132.74 | 112.24 |
| 21 | S | 302 | CHL | C3D-C2D-C1D | -4.14 | 100.18 | 105.83 |
| 21 | n | 607 | CHL | C3D-C2D-C1D | -4.13 | 100.19 | 105.83 |
| 21 | s | 306 | CHL | C3D-C2D-C1D | -4.13 | 100.19 | 105.83 |
| 21 | G | 601 | CHL | C3D-C2D-C1D | -4.13 | 100.20 | 105.83 |
| 21 | N | 606 | CHL | C3D-C2D-C1D | -4.13 | 100.20 | 105.83 |
| 21 | R | 306 | CHL | C3D-C2D-C1D | -4.13 | 100.20 | 105.83 |
| 21 | s | 301 | CHL | C3D-C2D-C1D | -4.12 | 100.20 | 105.83 |
| 21 | g | 607 | CHL | C3D-C2D-C1D | -4.12 | 100.20 | 105.83 |
| 21 | R | 307 | CHL | C3D-C2D-C1D | -4.12 | 100.20 | 105.83 |
| 25 | N | 617 | NEX | C2-C1-C6 | 4.12 | 113.22 | 109.21 |
| 22 | C | 511 | CLA | CMB-C2B-C1B | -4.12 | 122.13 | 128.46 |
| 21 | g | 601 | CHL | C3D-C2D-C1D | -4.12 | 100.20 | 105.83 |
| 21 | N | 607 | CHL | C3D-C2D-C1D | -4.12 | 100.20 | 105.83 |
| 21 | s | 307 | CHL | C3D-C2D-C1D | -4.12 | 100.20 | 105.83 |
| 21 | G | 605 | CHL | C3D-C2D-C1D | -4.12 | 100.21 | 105.83 |
| 21 | n | 605 | CHL | C3D-C2D-C1D | -4.12 | 100.21 | 105.83 |
| 21 | N | 605 | CHL | C3D-C2D-C1D | -4.12 | 100.21 | 105.83 |
| 21 | G | 609 | CHL | C3D-C2D-C1D | -4.12 | 100.21 | 105.83 |
| 21 | Y | 601 | CHL | C3D-C2D-C1D | -4.12 | 100.21 | 105.83 |
| 21 | r | 307 | CHL | C3D-C2D-C1D | -4.12 | 100.21 | 105.83 |
| 21 | n | 608 | CHL | C3D-C2D-C1D | -4.12 | 100.21 | 105.83 |
| 25 | N | 617 | NEX | C25-C24-C23 | 4.12 | 120.89 | 112.75 |
| 21 | y | 601 | CHL | C3D-C2D-C1D | -4.12 | 100.22 | 105.83 |
| 21 | n | 606 | CHL | C3D-C2D-C1D | -4.11 | 100.22 | 105.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | y | 608 | CHL | C3D-C2D-C1D | -4.11 | 100.22 | 105.83 |
| 21 | G | 606 | CHL | C3D-C2D-C1D | -4.11 | 100.22 | 105.83 |
| 21 | S | 307 | CHL | C3D-C2D-C1D | -4.11 | 100.22 | 105.83 |
| 24 | G | 617 | XAT | C38-C25-C24 | -4.11 | 109.66 | 114.28 |
| 21 | N | 601 | CHL | C3D-C2D-C1D | -4.11 | 100.22 | 105.83 |
| 21 | r | 308 | CHL | C3D-C2D-C1D | -4.11 | 100.22 | 105.83 |
| 21 | r | 301 | CHL | C3D-C2D-C1D | -4.11 | 100.22 | 105.83 |
| 21 | y | 607 | CHL | C3D-C2D-C1D | -4.11 | 100.23 | 105.83 |
| 21 | g | 606 | CHL | C3D-C2D-C1D | -4.11 | 100.23 | 105.83 |
| 21 | g | 609 | CHL | C3D-C2D-C1D | -4.11 | 100.23 | 105.83 |
| 21 | y | 605 | CHL | C3D-C2D-C1D | -4.11 | 100.23 | 105.83 |
| 21 | Y | 605 | CHL | C3D-C2D-C1D | -4.11 | 100.23 | 105.83 |
| 21 | y | 606 | CHL | C3D-C2D-C1D | -4.11 | 100.23 | 105.83 |
| 21 | Y | 606 | CHL | C3D-C2D-C1D | -4.10 | 100.23 | 105.83 |
| 22 | c | 510 | CLA | CMB-C2B-C1B | -4.10 | 122.16 | 128.46 |
| 21 | y | 609 | CHL | C3D-C2D-C1D | -4.10 | 100.23 | 105.83 |
| 21 | N | 608 | CHL | C3D-C2D-C1D | -4.10 | 100.23 | 105.83 |
| 21 | Y | 608 | CHL | C3D-C2D-C1D | -4.10 | 100.24 | 105.83 |
| 21 | g | 605 | CHL | C3D-C2D-C1D | -4.10 | 100.24 | 105.83 |
| 21 | G | 608 | CHL | C3D-C2D-C1D | -4.10 | 100.24 | 105.83 |
| 21 | g | 608 | CHL | C3D-C2D-C1D | -4.10 | 100.24 | 105.83 |
| 21 | Y | 607 | CHL | C3D-C2D-C1D | -4.10 | 100.24 | 105.83 |
| 21 | S | 301 | CHL | C3D-C2D-C1D | -4.09 | 100.24 | 105.83 |
| 21 | S | 306 | CHL | C3D-C2D-C1D | -4.09 | 100.24 | 105.83 |
| 21 | r | 306 | CHL | C3D-C2D-C1D | -4.09 | 100.25 | 105.83 |
| 25 | n | 616 | NEX | C17-C1-C6 | -4.09 | 106.81 | 110.47 |
| 21 | n | 601 | CHL | C3D-C2D-C1D | -4.09 | 100.25 | 105.83 |
| 21 | G | 607 | CHL | C3D-C2D-C1D | -4.08 | 100.26 | 105.83 |
| 21 | R | 305 | CHL | C3D-C2D-C1D | -4.08 | 100.27 | 105.83 |
| 25 | y | 618 | NEX | C25-C24-C23 | 4.05 | 120.77 | 112.75 |
| 25 | r | 315 | NEX | C25-C24-C23 | 4.05 | 120.76 | 112.75 |
| 25 | r | 315 | NEX | C5-C6-C1 | -4.04 | 115.69 | 119.70 |
| 24 | y | 615 | XAT | C32-C33-C34 | -4.03 | 112.75 | 118.94 |
| 23 | N | 615 | LUT | C19-C9-C8 | -4.03 | 111.73 | 118.08 |
| 25 | n | 616 | NEX | C19-C9-C8 | -4.02 | 109.61 | 118.93 |
| 22 | S | 311 | CLA | CMB-C2B-C1B | -4.02 | 122.29 | 128.46 |
| 37 | F | 101 | HEM | C3C-C4C-NC | -4.02 | 103.36 | 110.94 |
| 37 | f | 101 | HEM | C3C-C4C-NC | -4.02 | 103.36 | 110.94 |
| 22 | c | 504 | CLA | CMB-C2B-C1B | -4.00 | 122.31 | 128.46 |
| 22 | c | 512 | CLA | CMB-C2B-C1B | -4.00 | 122.32 | 128.46 |
| 22 | C | 505 | CLA | CMB-C2B-C1B | -3.99 | 122.33 | 128.46 |
| 22 | C | 513 | CLA | CMB-C2B-C1B | -3.98 | 122.34 | 128.46 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 33 | A | 412 | SQD | O7-S-C6 | 3.97 | 111.66 | 106.94 |
| 25 | y | 618 | NEX | C5-C6-C1 | -3.97 | 115.75 | 119.70 |
| 33 | a | 411 | SQD | O7-S-C6 | 3.97 | 111.66 | 106.94 |
| 22 | s | 311 | CLA | CMB-C2B-C1B | -3.96 | 122.37 | 128.46 |
| 33 | l | 101 | SQD | O9-S-C6 | 3.95 | 111.64 | 106.94 |
| 23 | N | 614 | LUT | C7-C6-C5 | -3.95 | 111.89 | 121.46 |
| 23 | y | 614 | LUT | C7-C6-C5 | -3.94 | 111.91 | 121.46 |
| 22 | B | 616 | CLA | CMB-C2B-C1B | -3.94 | 122.41 | 128.46 |
| 24 | y | 615 | XAT | C38-C25-C24 | -3.94 | 109.85 | 114.28 |
| 23 | Y | 613 | LUT | C7-C6-C5 | -3.94 | 111.92 | 121.46 |
| 23 | G | 615 | LUT | C7-C6-C5 | -3.94 | 111.93 | 121.46 |
| 22 | g | 613 | CLA | C1B-CHB-C4A | -3.93 | 122.33 | 130.12 |
| 23 | g | 615 | LUT | C7-C6-C5 | -3.93 | 111.94 | 121.46 |
| 23 | n | 614 | LUT | C7-C6-C5 | -3.93 | 111.94 | 121.46 |
| 22 | n | 612 | CLA | C1B-CHB-C4A | -3.92 | 122.35 | 130.12 |
| 22 | a | 408 | CLA | CMB-C2B-C1B | -3.92 | 122.44 | 128.46 |
| 22 | b | 613 | CLA | CMB-C2B-C1B | -3.92 | 122.45 | 128.46 |
| 22 | b | 603 | CLA | CMB-C2B-C1B | -3.91 | 122.45 | 128.46 |
| 22 | y | 612 | CLA | C1B-CHB-C4A | -3.91 | 122.37 | 130.12 |
| 22 | R | 309 | CLA | CMB-C2B-C1B | -3.91 | 122.45 | 128.46 |
| 22 | r | 310 | CLA | CMB-C2B-C1B | -3.90 | 122.46 | 128.46 |
| 33 | L | 102 | SQD | O9-S-C6 | 3.90 | 111.58 | 106.94 |
| 22 | N | 612 | CLA | C1B-CHB-C4A | -3.90 | 122.39 | 130.12 |
| 22 | A | 409 | CLA | CMB-C2B-C1B | -3.90 | 122.48 | 128.46 |
| 22 | Y | 611 | CLA | C1B-CHB-C4A | -3.89 | 122.42 | 130.12 |
| 33 | l | 103 | SQD | O47-C7-C8 | 3.88 | 119.87 | 111.50 |
| 22 | G | 613 | CLA | C1B-CHB-C4A | -3.88 | 122.43 | 130.12 |
| 22 | B | 606 | CLA | CMB-C2B-C1B | -3.88 | 122.50 | 128.46 |
| 23 | R | 312 | LUT | C20-C13-C12 | -3.87 | 111.98 | 118.08 |
| 24 | Y | 615 | XAT | C38-C25-C24 | -3.87 | 109.93 | 114.28 |
| 33 | L | 101 | SQD | O47-C7-C8 | 3.86 | 119.82 | 111.50 |
| 23 | r | 313 | LUT | C20-C13-C12 | -3.85 | 112.01 | 118.08 |
| 22 | c | 507 | CLA | CMB-C2B-C1B | -3.85 | 122.55 | 128.46 |
| 22 | b | 614 | CLA | CMB-C2B-C1B | -3.84 | 122.57 | 128.46 |
| 22 | B | 617 | CLA | CMB-C2B-C1B | -3.84 | 122.57 | 128.46 |
| 22 | C | 508 | CLA | CMB-C2B-C1B | -3.84 | 122.57 | 128.46 |
| 24 | N | 616 | XAT | C28-C29-C30 | -3.84 | 113.06 | 118.94 |
| 25 | Y | 616 | NEX | C17-C1-C6 | -3.83 | 107.04 | 110.47 |
| 25 | Y | 616 | NEX | C37-C21-C26 | 3.83 | 120.38 | 110.05 |
| 25 | r | 315 | NEX | C37-C21-C26 | 3.82 | 120.35 | 110.05 |
| 24 | n | 615 | XAT | C28-C29-C30 | -3.82 | 113.08 | 118.94 |
| 22 | s | 303 | CLA | CMB-C2B-C1B | -3.81 | 122.60 | 128.46 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | S | 303 | CLA | CMB-C2B-C1B | -3.81 | 122.61 | 128.46 |
| 23 | g | 616 | LUT | C12-C13-C14 | -3.81 | 113.09 | 118.94 |
| 33 | L | 102 | SQD | O7-S-C6 | 3.81 | 111.47 | 106.94 |
| 33 | l | 101 | SQD | O7-S-C6 | 3.81 | 111.47 | 106.94 |
| 25 | g | 618 | NEX | C17-C1-C6 | -3.81 | 107.06 | 110.47 |
| 25 | Y | 616 | NEX | C28-C29-C30 | -3.81 | 113.10 | 118.94 |
| 22 | B | 614 | CLA | CMB-C2B-C1B | -3.80 | 122.62 | 128.46 |
| 23 | R | 312 | LUT | C21-C26-C27 | -3.80 | 107.90 | 112.70 |
| 25 | y | 618 | NEX | C37-C21-C26 | 3.80 | 120.29 | 110.05 |
| 24 | r | 314 | XAT | C27-C28-C29 | -3.80 | 119.64 | 125.53 |
| 25 | y | 616 | NEX | C17-C1-C6 | -3.79 | 107.08 | 110.47 |
| 24 | g | 617 | XAT | C38-C25-C24 | -3.78 | 110.03 | 114.28 |
| 22 | b | 611 | CLA | CMB-C2B-C1B | -3.78 | 122.66 | 128.46 |
| 24 | R | 313 | XAT | C27-C28-C29 | -3.78 | 119.67 | 125.53 |
| 33 | L | 101 | SQD | C44-O6-C1 | 3.78 | 121.12 | 113.74 |
| 23 | r | 313 | LUT | C21-C26-C27 | -3.77 | 107.93 | 112.70 |
| 33 | l | 103 | SQD | O9-S-O7 | -3.77 | 100.91 | 113.95 |
| 33 | A | 412 | SQD | C44-O6-C1 | 3.76 | 121.09 | 113.74 |
| 33 | D | 402 | SQD | O9-S-O7 | -3.76 | 100.94 | 113.95 |
| 33 | L | 101 | SQD | O9-S-O7 | -3.76 | 100.94 | 113.95 |
| 22 | G | 603 | CLA | CMB-C2B-C1B | -3.76 | 122.69 | 128.46 |
| 33 | A | 412 | SQD | O9-S-O7 | -3.76 | 100.95 | 113.95 |
| 33 | d | 402 | SQD | O9-S-O7 | -3.76 | 100.95 | 113.95 |
| 33 | a | 411 | SQD | O9-S-O7 | -3.76 | 100.95 | 113.95 |
| 25 | Y | 616 | NEX | C27-C28-C29 | -3.75 | 119.71 | 125.53 |
| 22 | s | 310 | CLA | CMB-C2B-C1B | -3.75 | 122.70 | 128.46 |
| 33 | a | 411 | SQD | C44-O6-C1 | 3.75 | 121.06 | 113.74 |
| 22 | N | 603 | CLA | CMB-C2B-C1B | -3.74 | 122.71 | 128.46 |
| 22 | n | 603 | CLA | CMB-C2B-C1B | -3.74 | 122.72 | 128.46 |
| 22 | B | 613 | CLA | CMB-C2B-C1B | -3.74 | 122.72 | 128.46 |
| 22 | c | 503 | CLA | CMB-C2B-C1B | -3.74 | 122.72 | 128.46 |
| 33 | l | 103 | SQD | C44-O6-C1 | 3.74 | 121.04 | 113.74 |
| 22 | g | 603 | CLA | CMB-C2B-C1B | -3.73 | 122.73 | 128.46 |
| 33 | l | 103 | SQD | O7-S-C6 | 3.73 | 111.37 | 106.94 |
| 22 | C | 504 | CLA | CMB-C2B-C1B | -3.73 | 122.73 | 128.46 |
| 33 | L | 101 | SQD | O7-S-C6 | 3.73 | 111.37 | 106.94 |
| 22 | y | 603 | CLA | CMB-C2B-C1B | -3.73 | 122.74 | 128.46 |
| 22 | Y | 603 | CLA | CMB-C2B-C1B | -3.73 | 122.74 | 128.46 |
| 22 | S | 310 | CLA | CMB-C2B-C1B | -3.72 | 122.75 | 128.46 |
| 22 | b | 607 | CLA | CMB-C2B-C3B | 3.72 | 131.64 | 124.68 |
| 22 | b | 610 | CLA | CMB-C2B-C1B | -3.71 | 122.76 | 128.46 |
| 22 | b | 605 | CLA | CMB-C2B-C1B | -3.70 | 122.77 | 128.46 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 24 | n | 615 | XAT | C38-C25-C24 | -3.70 | 110.12 | 114.28 |
| 22 | B | 608 | CLA | CMB-C2B-C1B | -3.70 | 122.78 | 128.46 |
| 33 | L | 102 | SQD | O9-S-O7 | -3.70 | 101.15 | 113.95 |
| 24 | N | 616 | XAT | C38-C25-C24 | -3.70 | 110.12 | 114.28 |
| 22 | B | 615 | CLA | CMB-C2B-C1B | -3.69 | 122.78 | 128.46 |
| 35 | J | 101 | DGD | O6D-C1D-O3G | -3.69 | 101.23 | 109.97 |
| 22 | B | 610 | CLA | CMB-C2B-C3B | 3.69 | 131.58 | 124.68 |
| 35 | c | 519 | DGD | O6D-C1D-O3G | -3.69 | 101.24 | 109.97 |
| 33 | l | 101 | SQD | O9-S-O7 | -3.69 | 101.19 | 113.95 |
| 22 | b | 609 | CLA | CMB-C2B-C1B | -3.68 | 122.81 | 128.46 |
| 22 | b | 612 | CLA | CMB-C2B-C1B | -3.68 | 122.81 | 128.46 |
| 22 | C | 506 | CLA | CMB-C2B-C1B | -3.68 | 122.81 | 128.46 |
| 22 | B | 612 | CLA | CMB-C2B-C1B | -3.67 | 122.82 | 128.46 |
| 25 | r | 315 | NEX | C27-C28-C29 | -3.67 | 119.84 | 125.53 |
| 22 | A | 406 | CLA | CMB-C2B-C1B | -3.67 | 122.83 | 128.46 |
| 22 | S | 313 | CLA | CMB-C2B-C1B | -3.67 | 122.83 | 128.46 |
| 22 | a | 405 | CLA | CMB-C2B-C1B | -3.67 | 122.83 | 128.46 |
| 33 | l | 103 | SQD | O9-S-C6 | 3.67 | 111.30 | 106.94 |
| 22 | c | 505 | CLA | CMB-C2B-C1B | -3.66 | 122.84 | 128.46 |
| 22 | s | 313 | CLA | CMB-C2B-C1B | -3.66 | 122.84 | 128.46 |
| 22 | b | 602 | CLA | CMB-C2B-C1B | -3.65 | 122.85 | 128.46 |
| 22 | B | 605 | CLA | CMB-C2B-C1B | -3.65 | 122.85 | 128.46 |
| 24 | y | 615 | XAT | C28-C29-C30 | -3.65 | 113.34 | 118.94 |
| 22 | d | 403 | CLA | CMB-C2B-C1B | -3.65 | 122.85 | 128.46 |
| 24 | g | 617 | XAT | C28-C29-C30 | -3.65 | 113.34 | 118.94 |
| 33 | L | 101 | SQD | O9-S-C6 | 3.65 | 111.28 | 106.94 |
| 22 | c | 509 | CLA | CMB-C2B-C1B | -3.65 | 122.85 | 128.46 |
| 22 | C | 514 | CLA | CMB-C2B-C1B | -3.65 | 122.86 | 128.46 |
| 25 | y | 618 | NEX | C27-C28-C29 | -3.65 | 119.87 | 125.53 |
| 37 | f | 101 | HEM | CHB-C1B-C2B | 3.65 | 136.81 | 126.72 |
| 33 | D | 402 | SQD | O7-S-C6 | 3.64 | 111.26 | 106.94 |
| 35 | c | 517 | DGD | O6D-C1D-O3G | -3.64 | 101.36 | 109.97 |
| 33 | L | 102 | SQD | O47-C7-C8 | 3.63 | 119.33 | 111.50 |
| 33 | d | 402 | SQD | O7-S-C6 | 3.63 | 111.25 | 106.94 |
| 22 | C | 511 | CLA | CMB-C2B-C3B | 3.63 | 131.47 | 124.68 |
| 22 | S | 305 | CLA | CMB-C2B-C1B | -3.63 | 122.89 | 128.46 |
| 37 | F | 101 | HEM | CHB-C1B-C2B | 3.63 | 136.75 | 126.72 |
| 35 | C | 518 | DGD | O6D-C1D-O3G | -3.63 | 101.39 | 109.97 |
| 24 | Y | 615 | XAT | C32-C33-C34 | -3.62 | 113.38 | 118.94 |
| 22 | D | 404 | CLA | CMB-C2B-C1B | -3.62 | 122.89 | 128.46 |
| 23 | G | 615 | LUT | C21-C26-C27 | -3.62 | 108.12 | 112.70 |
| 23 | g | 616 | LUT | C4-C5-C6 | -3.62 | 112.78 | 120.85 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 23 | Y | 613 | LUT | C21-C26-C27 | -3.62 | 108.13 | 112.70 |
| 22 | c | 513 | CLA | CMB-C2B-C1B | -3.62 | 122.90 | 128.46 |
| 33 | l | 101 | SQD | O47-C7-C8 | 3.62 | 119.29 | 111.50 |
| 23 | y | 614 | LUT | C21-C26-C27 | -3.61 | 108.13 | 112.70 |
| 23 | N | 614 | LUT | C21-C26-C27 | -3.61 | 108.14 | 112.70 |
| 22 | c | 510 | CLA | CMB-C2B-C3B | 3.61 | 131.43 | 124.68 |
| 22 | C | 510 | CLA | CMB-C2B-C1B | -3.61 | 122.92 | 128.46 |
| 24 | R | 313 | XAT | C38-C25-C24 | -3.59 | 110.24 | 114.28 |
| 22 | R | 310 | CLA | C1B-CHB-C4A | -3.59 | 123.00 | 130.12 |
| 33 | a | 411 | SQD | O47-C7-C8 | 3.59 | 119.24 | 111.50 |
| 23 | n | 614 | LUT | C21-C26-C27 | -3.59 | 108.16 | 112.70 |
| 22 | s | 308 | CLA | CMB-C2B-C1B | -3.59 | 122.95 | 128.46 |
| 22 | s | 305 | CLA | CMB-C2B-C1B | -3.59 | 122.95 | 128.46 |
| 23 | g | 615 | LUT | C21-C26-C27 | -3.59 | 108.17 | 112.70 |
| 22 | r | 312 | CLA | CMB-C2B-C1B | -3.59 | 122.95 | 128.46 |
| 22 | R | 303 | CLA | CMB-C2B-C1B | -3.59 | 122.95 | 128.46 |
| 22 | B | 607 | CLA | CMB-C2B-C1B | -3.58 | 122.96 | 128.46 |
| 22 | r | 311 | CLA | C1B-CHB-C4A | -3.58 | 123.03 | 130.12 |
| 22 | S | 308 | CLA | CMB-C2B-C1B | -3.58 | 122.96 | 128.46 |
| 33 | D | 402 | SQD | O47-C7-C8 | 3.58 | 119.21 | 111.50 |
| 33 | d | 402 | SQD | O47-C7-C8 | 3.57 | 119.20 | 111.50 |
| 22 | b | 604 | CLA | CMB-C2B-C1B | -3.57 | 122.98 | 128.46 |
| 22 | r | 304 | CLA | CMB-C2B-C1B | -3.57 | 122.98 | 128.46 |
| 22 | R | 311 | CLA | CMB-C2B-C1B | -3.57 | 122.98 | 128.46 |
| 22 | C | 515 | CLA | CMB-C2B-C1B | -3.57 | 122.98 | 128.46 |
| 33 | A | 412 | SQD | O47-C7-C8 | 3.57 | 119.19 | 111.50 |
| 23 | G | 616 | LUT | C4-C5-C6 | -3.56 | 112.91 | 120.85 |
| 22 | c | 514 | CLA | CMB-C2B-C1B | -3.55 | 123.01 | 128.46 |
| 22 | b | 615 | CLA | CMB-C2B-C1B | -3.55 | 123.01 | 128.46 |
| 22 | B | 603 | CLA | CMB-C2B-C1B | -3.54 | 123.02 | 128.46 |
| 22 | B | 618 | CLA | CMB-C2B-C1B | -3.53 | 123.04 | 128.46 |
| 23 | n | 614 | LUT | C1-C6-C7 | -3.53 | 105.79 | 115.78 |
| 24 | r | 314 | XAT | C38-C25-C24 | -3.53 | 110.31 | 114.28 |
| 22 | x | 101 | CLA | CMB-C2B-C1B | -3.53 | 123.04 | 128.46 |
| 23 | G | 615 | LUT | C1-C6-C7 | -3.52 | 105.81 | 115.78 |
| 22 | g | 602 | CLA | CMB-C2B-C1B | -3.52 | 123.05 | 128.46 |
| 22 | C | 512 | CLA | CMB-C2B-C1B | -3.52 | 123.05 | 128.46 |
| 23 | g | 615 | LUT | C1-C6-C7 | -3.52 | 105.83 | 115.78 |
| 22 | b | 606 | CLA | CMB-C2B-C1B | -3.52 | 123.06 | 128.46 |
| 24 | G | 617 | XAT | C28-C29-C30 | -3.52 | 113.55 | 118.94 |
| 23 | Y | 613 | LUT | C1-C6-C7 | -3.51 | 105.84 | 115.78 |
| 23 | N | 614 | LUT | C1-C6-C7 | -3.51 | 105.84 | 115.78 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | N | 602 | CLA | CMB-C2B-C1B | -3.51 | 123.07 | 128.46 |
| 22 | n | 602 | CLA | CMB-C2B-C1B | -3.51 | 123.07 | 128.46 |
| 23 | y | 614 | LUT | C1-C6-C7 | -3.51 | 105.86 | 115.78 |
| 33 | A | 412 | SQD | C1-O5-C5 | 3.50 | 120.57 | 113.69 |
| 21 | n | 606 | CHL | C3C-C4C-NC | 3.50 | 114.50 | 110.57 |
| 21 | g | 605 | CHL | C3C-C4C-NC | 3.50 | 114.50 | 110.57 |
| 24 | Y | 615 | XAT | C28-C29-C30 | -3.50 | 113.58 | 118.94 |
| 22 | Y | 602 | CLA | CMB-C2B-C1B | -3.50 | 123.09 | 128.46 |
| 22 | c | 511 | CLA | CMB-C2B-C1B | -3.49 | 123.09 | 128.46 |
| 22 | y | 602 | CLA | CMB-C2B-C1B | -3.49 | 123.10 | 128.46 |
| 21 | y | 607 | CHL | C3C-C4C-NC | 3.49 | 114.48 | 110.57 |
| 22 | B | 609 | CLA | CMB-C2B-C1B | -3.49 | 123.10 | 128.46 |
| 23 | Y | 614 | LUT | C4-C5-C6 | -3.49 | 113.07 | 120.85 |
| 35 | a | 413 | DGD | O6D-C1D-O3G | -3.49 | 101.72 | 109.97 |
| 33 | a | 411 | SQD | C1-O5-C5 | 3.49 | 120.53 | 113.69 |
| 21 | S | 307 | CHL | C3C-C4C-NC | 3.48 | 114.48 | 110.57 |
| 21 | n | 605 | CHL | C3C-C4C-NC | 3.48 | 114.48 | 110.57 |
| 21 | y | 606 | CHL | C3C-C4C-NC | 3.48 | 114.47 | 110.57 |
| 21 | n | 608 | CHL | C3C-C4C-NC | 3.47 | 114.47 | 110.57 |
| 21 | Y | 608 | CHL | C3C-C4C-NC | 3.47 | 114.47 | 110.57 |
| 21 | R | 305 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | N | 601 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | g | 609 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | G | 609 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | N | 607 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | r | 301 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | g | 608 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 35 | A | 401 | DGD | O6D-C1D-O3G | -3.47 | 101.76 | 109.97 |
| 22 | N | 609 | CLA | CMB-C2B-C1B | -3.47 | 123.14 | 128.46 |
| 21 | G | 607 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | Y | 607 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 21 | s | 306 | CHL | C3C-C4C-NC | 3.47 | 114.46 | 110.57 |
| 22 | G | 602 | CLA | CMB-C2B-C1B | -3.46 | 123.14 | 128.46 |
| 22 | S | 309 | CLA | CMB-C2B-C1B | -3.46 | 123.14 | 128.46 |
| 21 | r | 306 | CHL | C3C-C4C-NC | 3.46 | 114.45 | 110.57 |
| 22 | y | 610 | CLA | CMB-C2B-C1B | -3.46 | 123.15 | 128.46 |
| 22 | s | 309 | CLA | CMB-C2B-C1B | -3.46 | 123.15 | 128.46 |
| 21 | G | 606 | CHL | C3C-C4C-NC | 3.46 | 114.45 | 110.57 |
| 21 | G | 608 | CHL | C3C-C4C-NC | 3.46 | 114.45 | 110.57 |
| 21 | n | 601 | CHL | C3C-C4C-NC | 3.46 | 114.45 | 110.57 |
| 22 | c | 504 | CLA | CMB-C2B-C3B | 3.46 | 131.15 | 124.68 |
| 36 | w | 102 | LMG | O6-C1-O1 | -3.46 | 101.79 | 109.97 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | N | 608 | CHL | C3C-C4C-NC | 3.46 | 114.45 | 110.57 |
| 21 | G | 605 | CHL | C3C-C4C-NC | 3.45 | 114.44 | 110.57 |
| 21 | s | 302 | CHL | C3C-C4C-NC | 3.45 | 114.44 | 110.57 |
| 21 | n | 606 | CHL | CAC-C3C-C4C | 3.45 | 129.29 | 124.81 |
| 21 | y | 605 | CHL | C3C-C4C-NC | 3.45 | 114.44 | 110.57 |
| 22 | N | 610 | CLA | CMB-C2B-C1B | -3.45 | 123.16 | 128.46 |
| 21 | G | 601 | CHL | C3C-C4C-NC | 3.45 | 114.44 | 110.57 |
| 21 | N | 605 | CHL | C3C-C4C-NC | 3.45 | 114.44 | 110.57 |
| 22 | C | 505 | CLA | CMB-C2B-C3B | 3.45 | 131.13 | 124.68 |
| 22 | G | 610 | CLA | CMB-C2B-C1B | -3.45 | 123.17 | 128.46 |
| 21 | y | 606 | CHL | CAC-C3C-C4C | 3.44 | 129.28 | 124.81 |
| 21 | n | 607 | CHL | C3C-C4C-NC | 3.44 | 114.43 | 110.57 |
| 22 | a | 406 | CLA | CMB-C2B-C1B | -3.44 | 123.18 | 128.46 |
| 36 | C | 502 | LMG | O6-C1-O1 | -3.44 | 101.83 | 109.97 |
| 32 | d | 406 | PL9 | C7-C3-C2 | -3.44 | 118.78 | 123.30 |
| 21 | g | 606 | CHL | C3C-C4C-NC | 3.44 | 114.43 | 110.57 |
| 21 | r | 307 | CHL | C3C-C4C-NC | 3.44 | 114.43 | 110.57 |
| 21 | R | 307 | CHL | C3C-C4C-NC | 3.44 | 114.43 | 110.57 |
| 21 | y | 607 | CHL | CAC-C3C-C4C | 3.44 | 129.27 | 124.81 |
| 22 | b | 608 | CLA | CMB-C2B-C1B | -3.44 | 123.18 | 128.46 |
| 21 | N | 601 | CHL | CAC-C3C-C4C | 3.44 | 129.27 | 124.81 |
| 21 | R | 306 | CHL | C3C-C4C-NC | 3.44 | 114.42 | 110.57 |
| 21 | g | 606 | CHL | CAC-C3C-C4C | 3.44 | 129.27 | 124.81 |
| 21 | S | 307 | CHL | CAC-C3C-C4C | 3.44 | 129.27 | 124.81 |
| 21 | g | 605 | CHL | CAC-C3C-C4C | 3.44 | 129.27 | 124.81 |
| 21 | G | 608 | CHL | CAC-C3C-C4C | 3.44 | 129.27 | 124.81 |
| 21 | N | 607 | CHL | CAC-C3C-C4C | 3.43 | 129.27 | 124.81 |
| 21 | S | 302 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | Y | 606 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | g | 607 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | y | 601 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | y | 601 | CHL | CAC-C3C-C4C | 3.43 | 129.26 | 124.81 |
| 32 | D | 407 | PL9 | C7-C3-C2 | -3.43 | 118.79 | 123.30 |
| 21 | r | 308 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 22 | Y | 610 | CLA | CMB-C2B-C1B | -3.43 | 123.19 | 128.46 |
| 22 | B | 611 | CLA | CMB-C2B-C1B | -3.43 | 123.19 | 128.46 |
| 21 | s | 307 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | g | 601 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | S | 302 | CHL | CAC-C3C-C4C | 3.43 | 129.26 | 124.81 |
| 21 | y | 608 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | Y | 605 | CHL | C3C-C4C-NC | 3.43 | 114.42 | 110.57 |
| 21 | G | 607 | CHL | CAC-C3C-C4C | 3.43 | 129.26 | 124.81 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | N | 608 | CHL | CAC-C3C-C4C | 3.43 | 129.26 | 124.81 |
| 21 | Y | 607 | CHL | CAC-C3C-C4C | 3.43 | 129.26 | 124.81 |
| 21 | r | 301 | CHL | CAC-C3C-C4C | 3.43 | 129.25 | 124.81 |
| 22 | g | 610 | CLA | CMB-C2B-C1B | -3.42 | 123.20 | 128.46 |
| 21 | r | 306 | CHL | CAC-C3C-C4C | 3.42 | 129.25 | 124.81 |
| 21 | y | 609 | CHL | C3C-C4C-NC | 3.42 | 114.41 | 110.57 |
| 21 | S | 301 | CHL | C3C-C4C-NC | 3.42 | 114.41 | 110.57 |
| 22 | n | 610 | CLA | CMB-C2B-C1B | -3.42 | 123.20 | 128.46 |
| 22 | A | 407 | CLA | CMB-C2B-C1B | -3.42 | 123.20 | 128.46 |
| 22 | G | 611 | CLA | CMB-C2B-C1B | -3.42 | 123.21 | 128.46 |
| 22 | S | 304 | CLA | CMB-C2B-C1B | -3.42 | 123.21 | 128.46 |
| 21 | Y | 601 | CHL | C3C-C4C-NC | 3.42 | 114.41 | 110.57 |
| 21 | N | 606 | CHL | C3C-C4C-NC | 3.42 | 114.41 | 110.57 |
| 21 | g | 608 | CHL | CAC-C3C-C4C | 3.42 | 129.25 | 124.81 |
| 21 | Y | 606 | CHL | CAC-C3C-C4C | 3.42 | 129.25 | 124.81 |
| 21 | Y | 608 | CHL | CAC-C3C-C4C | 3.42 | 129.25 | 124.81 |
| 21 | g | 607 | CHL | CAC-C3C-C4C | 3.42 | 129.24 | 124.81 |
| 21 | G | 606 | CHL | CAC-C3C-C4C | 3.42 | 129.24 | 124.81 |
| 21 | N | 606 | CHL | CAC-C3C-C4C | 3.42 | 129.24 | 124.81 |
| 21 | S | 306 | CHL | C3C-C4C-NC | 3.42 | 114.40 | 110.57 |
| 21 | g | 609 | CHL | CAC-C3C-C4C | 3.42 | 129.24 | 124.81 |
| 21 | n | 605 | CHL | CAC-C3C-C4C | 3.42 | 129.24 | 124.81 |
| 21 | s | 306 | CHL | CAC-C3C-C4C | 3.42 | 129.24 | 124.81 |
| 21 | s | 301 | CHL | C3C-C4C-NC | 3.41 | 114.40 | 110.57 |
| 21 | n | 607 | CHL | CAC-C3C-C4C | 3.41 | 129.24 | 124.81 |
| 22 | n | 609 | CLA | CMB-C2B-C1B | -3.41 | 123.22 | 128.46 |
| 22 | g | 611 | CLA | CMB-C2B-C1B | -3.41 | 123.23 | 128.46 |
| 22 | y | 611 | CLA | CMB-C2B-C1B | -3.41 | 123.23 | 128.46 |
| 21 | y | 605 | CHL | CAC-C3C-C4C | 3.41 | 129.23 | 124.81 |
| 21 | y | 609 | CHL | CAC-C3C-C4C | 3.41 | 129.23 | 124.81 |
| 21 | N | 605 | CHL | CAC-C3C-C4C | 3.41 | 129.23 | 124.81 |
| 21 | y | 608 | CHL | CAC-C3C-C4C | 3.41 | 129.23 | 124.81 |
| 21 | s | 301 | CHL | CAC-C3C-C4C | 3.41 | 129.23 | 124.81 |
| 21 | r | 308 | CHL | CAC-C3C-C4C | 3.40 | 129.23 | 124.81 |
| 22 | Y | 609 | CLA | CMB-C2B-C1B | -3.40 | 123.23 | 128.46 |
| 25 | y | 616 | NEX | C5-C6-C1 | -3.40 | 116.32 | 119.70 |
| 21 | Y | 601 | CHL | CAC-C3C-C4C | 3.40 | 129.22 | 124.81 |
| 32 | a | 410 | PL9 | C7-C3-C2 | -3.40 | 118.83 | 123.30 |
| 21 | s | 302 | CHL | CAC-C3C-C4C | 3.40 | 129.22 | 124.81 |
| 21 | R | 305 | CHL | CAC-C3C-C4C | 3.40 | 129.22 | 124.81 |
| 21 | S | 301 | CHL | CAC-C3C-C4C | 3.40 | 129.22 | 124.81 |
| 22 | C | 509 | CLA | CMB-C2B-C1B | -3.40 | 123.24 | 128.46 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | G | 605 | CHL | CAC-C3C-C4C | 3.40 | 129.22 | 124.81 |
| 33 | A | 412 | SQD | O9-S-C6 | 3.40 | 110.98 | 106.94 |
| 21 | n | 601 | CHL | CAC-C3C-C4C | 3.40 | 129.22 | 124.81 |
| 21 | r | 307 | CHL | CAC-C3C-C4C | 3.40 | 129.22 | 124.81 |
| 33 | a | 411 | SQD | O9-S-C6 | 3.40 | 110.97 | 106.94 |
| 22 | c | 508 | CLA | CMB-C2B-C1B | -3.40 | 123.25 | 128.46 |
| 22 | b | 601 | CLA | CMB-C2B-C1B | -3.39 | 123.25 | 128.46 |
| 21 | n | 608 | CHL | CAC-C3C-C4C | 3.39 | 129.21 | 124.81 |
| 21 | G | 609 | CHL | CAC-C3C-C4C | 3.39 | 129.21 | 124.81 |
| 22 | c | 512 | CLA | CMB-C2B-C3B | 3.39 | 131.02 | 124.68 |
| 21 | S | 306 | CHL | CAC-C3C-C4C | 3.39 | 129.21 | 124.81 |
| 22 | C | 513 | CLA | CMB-C2B-C3B | 3.39 | 131.01 | 124.68 |
| 21 | G | 601 | CHL | CAC-C3C-C4C | 3.38 | 129.20 | 124.81 |
| 22 | s | 304 | CLA | CMB-C2B-C1B | -3.38 | 123.26 | 128.46 |
| 22 | g | 614 | CLA | CMB-C2B-C1B | -3.38 | 123.26 | 128.46 |
| 21 | R | 307 | CHL | CAC-C3C-C4C | 3.38 | 129.20 | 124.81 |
| 22 | n | 613 | CLA | CMB-C2B-C1B | -3.38 | 123.26 | 128.46 |
| 21 | g | 601 | CHL | CAC-C3C-C4C | 3.38 | 129.19 | 124.81 |
| 22 | d | 404 | CLA | CMB-C2B-C1B | -3.38 | 123.27 | 128.46 |
| 22 | D | 405 | CLA | CMB-C2B-C1B | -3.38 | 123.27 | 128.46 |
| 21 | R | 306 | CHL | CAC-C3C-C4C | 3.37 | 129.19 | 124.81 |
| 21 | s | 307 | CHL | CAC-C3C-C4C | 3.37 | 129.19 | 124.81 |
| 21 | Y | 605 | CHL | CAC-C3C-C4C | 3.37 | 129.18 | 124.81 |
| 35 | c | 518 | DGD | O6D-C1D-O3G | -3.37 | 102.00 | 109.97 |
| 22 | G | 614 | CLA | CMB-C2B-C1B | -3.37 | 123.29 | 128.46 |
| 32 | A | 411 | PL9 | C7-C3-C2 | -3.36 | 118.88 | 123.30 |
| 22 | B | 604 | CLA | CMB-C2B-C1B | -3.36 | 123.30 | 128.46 |
| 22 | y | 613 | CLA | CMB-C2B-C1B | -3.35 | 123.31 | 128.46 |
| 22 | Y | 612 | CLA | CMB-C2B-C1B | -3.35 | 123.31 | 128.46 |
| 35 | C | 519 | DGD | O6D-C1D-O3G | -3.35 | 102.05 | 109.97 |
| 22 | N | 613 | CLA | CMB-C2B-C1B | -3.33 | 123.34 | 128.46 |
| 33 | L | 101 | SQD | C1-O5-C5 | 3.33 | 120.23 | 113.69 |
| 35 | h | 102 | DGD | O6D-C1D-O3G | -3.32 | 102.11 | 109.97 |
| 22 | c | 507 | CLA | CMB-C2B-C3B | 3.32 | 130.89 | 124.68 |
| 22 | C | 507 | CLA | CMB-C2B-C1B | -3.31 | 123.37 | 128.46 |
| 22 | a | 404 | CLA | CMB-C2B-C1B | -3.31 | 123.37 | 128.46 |
| 33 | l | 103 | SQD | C1-O5-C5 | 3.31 | 120.18 | 113.69 |
| 35 | H | 102 | DGD | O6D-C1D-O3G | -3.31 | 102.14 | 109.97 |
| 22 | c | 506 | CLA | CMB-C2B-C1B | -3.30 | 123.39 | 128.46 |
| 22 | R | 302 | CLA | CMB-C2B-C1B | -3.30 | 123.39 | 128.46 |
| 22 | C | 503 | CLA | CMB-C2B-C1B | -3.30 | 123.39 | 128.46 |
| 22 | r | 309 | CLA | CMB-C2B-C1B | -3.30 | 123.40 | 128.46 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | C | 508 | CLA | CMB-C2B-C3B | 3.29 | 130.84 | 124.68 |
| 22 | s | 310 | CLA | CMB-C2B-C3B | 3.29 | 130.83 | 124.68 |
| 22 | S | 311 | CLA | CMB-C2B-C3B | 3.29 | 130.83 | 124.68 |
| 22 | c | 502 | CLA | CMB-C2B-C1B | -3.29 | 123.41 | 128.46 |
| 33 | D | 402 | SQD | C1-O5-C5 | 3.28 | 120.13 | 113.69 |
| 22 | r | 303 | CLA | CMB-C2B-C1B | -3.27 | 123.43 | 128.46 |
| 24 | N | 616 | XAT | C31-C32-C33 | -3.27 | 117.22 | 126.42 |
| 22 | A | 405 | CLA | CMB-C2B-C1B | -3.27 | 123.44 | 128.46 |
| 22 | B | 616 | CLA | CMB-C2B-C3B | 3.27 | 130.79 | 124.68 |
| 22 | g | 613 | CLA | C4D-CHA-C1A | -3.27 | 117.28 | 121.25 |
| 37 | F | 101 | HEM | CHC-C4B-NB | 3.26 | 127.98 | 124.43 |
| 22 | Y | 611 | CLA | C4D-CHA-C1A | -3.26 | 117.28 | 121.25 |
| 22 | r | 310 | CLA | CMB-C2B-C3B | 3.26 | 130.78 | 124.68 |
| 22 | S | 310 | CLA | CMB-C2B-C3B | 3.26 | 130.77 | 124.68 |
| 33 | d | 402 | SQD | C1-O5-C5 | 3.26 | 120.08 | 113.69 |
| 22 | b | 603 | CLA | CMB-C2B-C3B | 3.26 | 130.77 | 124.68 |
| 25 | N | 617 | NEX | C16-C1-C6 | 3.25 | 113.38 | 110.47 |
| 22 | R | 309 | CLA | CMB-C2B-C3B | 3.25 | 130.76 | 124.68 |
| 22 | s | 303 | CLA | CMB-C2B-C3B | 3.25 | 130.76 | 124.68 |
| 22 | B | 606 | CLA | CMB-C2B-C3B | 3.25 | 130.75 | 124.68 |
| 22 | G | 613 | CLA | C4D-CHA-C1A | -3.25 | 117.30 | 121.25 |
| 37 | f | 101 | HEM | CHC-C4B-NB | 3.25 | 127.96 | 124.43 |
| 22 | y | 612 | CLA | C4D-CHA-C1A | -3.25 | 117.30 | 121.25 |
| 22 | b | 613 | CLA | CMB-C2B-C3B | 3.25 | 130.75 | 124.68 |
| 23 | R | 312 | LUT | C7-C8-C9 | -3.24 | 121.33 | 126.23 |
| 22 | S | 303 | CLA | CMB-C2B-C3B | 3.24 | 130.75 | 124.68 |
| 22 | N | 612 | CLA | C4D-CHA-C1A | -3.24 | 117.31 | 121.25 |
| 21 | y | 601 | CHL | C1-C2-C3 | -3.24 | 120.44 | 126.04 |
| 22 | s | 312 | CLA | CMB-C2B-C1B | -3.24 | 123.49 | 128.46 |
| 22 | s | 311 | CLA | CMB-C2B-C3B | 3.24 | 130.74 | 124.68 |
| 22 | R | 308 | CLA | CMB-C2B-C1B | -3.24 | 123.49 | 128.46 |
| 21 | R | 305 | CHL | C1-C2-C3 | -3.23 | 120.45 | 126.04 |
| 23 | r | 313 | LUT | C7-C8-C9 | -3.23 | 121.35 | 126.23 |
| 21 | N | 607 | CHL | C1-C2-C3 | -3.23 | 120.46 | 126.04 |
| 22 | S | 312 | CLA | CMB-C2B-C1B | -3.23 | 123.50 | 128.46 |
| 21 | Y | 601 | CHL | C1-C2-C3 | -3.23 | 120.46 | 126.04 |
| 22 | b | 614 | CLA | CMB-C2B-C3B | 3.23 | 130.71 | 124.68 |
| 21 | r | 307 | CHL | C1-C2-C3 | -3.23 | 120.46 | 126.04 |
| 21 | r | 308 | CHL | C1-C2-C3 | -3.22 | 120.47 | 126.04 |
| 22 | B | 617 | CLA | CMB-C2B-C3B | 3.22 | 130.70 | 124.68 |
| 21 | G | 609 | CHL | C1-C2-C3 | -3.22 | 120.47 | 126.04 |
| 22 | n | 612 | CLA | C4D-CHA-C1A | -3.22 | 117.34 | 121.25 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | g | 609 | CHL | C1-C2-C3 | -3.21 | 120.48 | 126.04 |
| 34 | a | 412 | BCT | O2-C-O1 | -3.21 | 111.21 | 119.55 |
| 25 | y | 616 | NEX | C27-C28-C29 | -3.21 | 120.55 | 125.53 |
| 21 | n | 601 | CHL | C1-C2-C3 | -3.21 | 120.49 | 126.04 |
| 21 | G | 607 | CHL | C1-C2-C3 | -3.21 | 120.49 | 126.04 |
| 21 | g | 601 | CHL | C1-C2-C3 | -3.21 | 120.49 | 126.04 |
| 21 | r | 306 | CHL | C1-C2-C3 | -3.21 | 120.49 | 126.04 |
| 21 | n | 608 | CHL | C1-C2-C3 | -3.21 | 120.49 | 126.04 |
| 21 | y | 608 | CHL | C1-C2-C3 | -3.20 | 120.50 | 126.04 |
| 34 | D | 403 | BCT | O2-C-O1 | -3.20 | 111.23 | 119.55 |
| 21 | N | 608 | CHL | C1-C2-C3 | -3.20 | 120.50 | 126.04 |
| 21 | Y | 607 | CHL | C1-C2-C3 | -3.20 | 120.50 | 126.04 |
| 21 | Y | 606 | CHL | C1-C2-C3 | -3.20 | 120.50 | 126.04 |
| 21 | N | 601 | CHL | C1-C2-C3 | -3.20 | 120.50 | 126.04 |
| 22 | A | 409 | CLA | CMB-C2B-C3B | 3.20 | 130.67 | 124.68 |
| 22 | a | 408 | CLA | CMB-C2B-C3B | 3.20 | 130.67 | 124.68 |
| 21 | g | 607 | CHL | C1-C2-C3 | -3.20 | 120.51 | 126.04 |
| 21 | R | 307 | CHL | C1-C2-C3 | -3.20 | 120.51 | 126.04 |
| 22 | B | 614 | CLA | CMB-C2B-C3B | 3.20 | 130.66 | 124.68 |
| 22 | b | 611 | CLA | CMB-C2B-C3B | 3.20 | 130.66 | 124.68 |
| 21 | y | 609 | CHL | C1-C2-C3 | -3.19 | 120.52 | 126.04 |
| 21 | n | 607 | CHL | C1-C2-C3 | -3.19 | 120.52 | 126.04 |
| 21 | g | 608 | CHL | C1-C2-C3 | -3.19 | 120.52 | 126.04 |
| 21 | N | 606 | CHL | C1-C2-C3 | -3.19 | 120.53 | 126.04 |
| 21 | R | 306 | CHL | C1-C2-C3 | -3.19 | 120.53 | 126.04 |
| 25 | r | 315 | NEX | C17-C1-C6 | -3.19 | 107.62 | 110.47 |
| 21 | Y | 608 | CHL | C1-C2-C3 | -3.19 | 120.53 | 126.04 |
| 23 | Y | 614 | LUT | C8-C9-C10 | -3.18 | 114.06 | 118.94 |
| 37 | F | 101 | HEM | CHD-C1D-C2D | 3.18 | 129.95 | 124.98 |
| 22 | N | 611 | CLA | CMB-C2B-C1B | -3.18 | 123.57 | 128.46 |
| 22 | N | 612 | CLA | CMB-C2B-C1B | -3.18 | 123.58 | 128.46 |
| 22 | g | 613 | CLA | CMB-C2B-C1B | -3.17 | 123.59 | 128.46 |
| 22 | s | 308 | CLA | CMB-C2B-C3B | 3.17 | 130.61 | 124.68 |
| 21 | n | 606 | CHL | C1-C2-C3 | -3.17 | 120.56 | 126.04 |
| 22 | G | 613 | CLA | CMB-C2B-C1B | -3.17 | 123.59 | 128.46 |
| 22 | C | 510 | CLA | O2D-CGD-O1D | -3.17 | 117.64 | 123.84 |
| 21 | y | 607 | CHL | C1-C2-C3 | -3.17 | 120.56 | 126.04 |
| 22 | S | 309 | CLA | C1-C2-C3 | -3.17 | 120.56 | 126.04 |
| 22 | n | 612 | CLA | CMB-C2B-C1B | -3.17 | 123.59 | 128.46 |
| 21 | G | 601 | CHL | C1-C2-C3 | -3.17 | 120.56 | 126.04 |
| 21 | G | 608 | CHL | C1-C2-C3 | -3.17 | 120.56 | 126.04 |
| 22 | s | 309 | CLA | C1-C2-C3 | -3.17 | 120.56 | 126.04 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | g | 612 | CLA | CMB-C2B-C1B | -3.16 | 123.60 | 128.46 |
| 22 | C | 514 | CLA | CMB-C2B-C3B | 3.16 | 130.60 | 124.68 |
| 22 | W | 101 | CLA | CMB-C2B-C1B | -3.16 | 123.60 | 128.46 |
| 25 | y | 618 | NEX | C17-C1-C6 | -3.16 | 107.64 | 110.47 |
| 22 | Y | 611 | CLA | CMB-C2B-C1B | -3.16 | 123.60 | 128.46 |
| 22 | c | 509 | CLA | O2D-CGD-O1D | -3.16 | 117.66 | 123.84 |
| 22 | w | 101 | CLA | CMB-C2B-C1B | -3.16 | 123.61 | 128.46 |
| 25 | n | 616 | NEX | C5-C6-C1 | -3.16 | 116.56 | 119.70 |
| 22 | y | 612 | CLA | CMB-C2B-C1B | -3.16 | 123.61 | 128.46 |
| 22 | C | 504 | CLA | CMB-C2B-C3B | 3.15 | 130.58 | 124.68 |
| 22 | S | 308 | CLA | C1B-CHB-C4A | -3.15 | 123.87 | 130.12 |
| 37 | f | 101 | HEM | CHD-C1D-C2D | 3.15 | 129.90 | 124.98 |
| 22 | c | 503 | CLA | CMB-C2B-C3B | 3.15 | 130.57 | 124.68 |
| 22 | s | 308 | CLA | C1B-CHB-C4A | -3.15 | 123.88 | 130.12 |
| 22 | S | 308 | CLA | CMB-C2B-C3B | 3.15 | 130.57 | 124.68 |
| 23 | N | 615 | LUT | C3-C4-C5 | -3.15 | 105.58 | 111.85 |
| 33 | L | 101 | SQD | O8-S-C6 | 3.15 | 110.75 | 105.74 |
| 22 | G | 612 | CLA | CMB-C2B-C1B | -3.14 | 123.63 | 128.46 |
| 22 | c | 513 | CLA | CMB-C2B-C3B | 3.14 | 130.55 | 124.68 |
| 30 | D | 401 | PHO | O1D-CGD-CBD | 3.14 | 129.96 | 124.74 |
| 33 | l | 103 | SQD | O8-S-C6 | 3.14 | 110.74 | 105.74 |
| 22 | n | 611 | CLA | CMB-C2B-C1B | -3.13 | 123.65 | 128.46 |
| 22 | G | 613 | CLA | C3A-C2A-C1A | 3.13 | 106.03 | 101.34 |
| 25 | y | 616 | NEX | C5-C4-C3 | 3.11 | 115.43 | 111.75 |
| 23 | R | 312 | LUT | C18-C5-C4 | -3.11 | 108.59 | 114.36 |
| 23 | r | 313 | LUT | C18-C5-C4 | -3.11 | 108.59 | 114.36 |
| 30 | d | 401 | PHO | O1D-CGD-CBD | 3.11 | 129.91 | 124.74 |
| 22 | g | 613 | CLA | CMB-C2B-C3B | 3.10 | 130.48 | 124.68 |
| 22 | Y | 611 | CLA | C3A-C2A-C1A | 3.10 | 105.98 | 101.34 |
| 22 | n | 612 | CLA | C3A-C2A-C1A | 3.10 | 105.98 | 101.34 |
| 22 | B | 612 | CLA | CMB-C2B-C3B | 3.10 | 130.47 | 124.68 |
| 22 | B | 605 | CLA | CMB-C2B-C3B | 3.10 | 130.47 | 124.68 |
| 22 | g | 613 | CLA | C3A-C2A-C1A | 3.09 | 105.97 | 101.34 |
| 22 | b | 602 | CLA | CMB-C2B-C3B | 3.09 | 130.46 | 124.68 |
| 22 | y | 612 | CLA | C3A-C2A-C1A | 3.09 | 105.97 | 101.34 |
| 22 | b | 609 | CLA | CMB-C2B-C3B | 3.09 | 130.45 | 124.68 |
| 22 | N | 612 | CLA | CMB-C2B-C3B | 3.08 | 130.44 | 124.68 |
| 22 | S | 305 | CLA | CMB-C2B-C3B | 3.08 | 130.44 | 124.68 |
| 25 | Y | 616 | NEX | C5-C4-C3 | 3.08 | 115.39 | 111.75 |
| 22 | B | 613 | CLA | CMB-C2B-C3B | 3.08 | 130.44 | 124.68 |
| 22 | A | 406 | CLA | CMB-C2B-C3B | 3.07 | 130.43 | 124.68 |
| 22 | y | 612 | CLA | CMB-C2B-C3B | 3.07 | 130.42 | 124.68 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | n | 612 | CLA | CMB-C2B-C3B | 3.07 | 130.42 | 124.68 |
| 24 | n | 615 | XAT | C25-C24-C23 | -3.07 | 106.68 | 112.75 |
| 22 | Y | 611 | CLA | CMB-C2B-C3B | 3.07 | 130.42 | 124.68 |
| 22 | Y | 604 | CLA | CMB-C2B-C1B | -3.07 | 123.75 | 128.46 |
| 22 | s | 313 | CLA | CMB-C2B-C3B | 3.07 | 130.41 | 124.68 |
| 22 | b | 610 | CLA | CMB-C2B-C3B | 3.06 | 130.41 | 124.68 |
| 22 | y | 604 | CLA | CMB-C2B-C1B | -3.06 | 123.76 | 128.46 |
| 22 | S | 313 | CLA | CMB-C2B-C3B | 3.06 | 130.41 | 124.68 |
| 22 | G | 613 | CLA | CMB-C2B-C3B | 3.06 | 130.40 | 124.68 |
| 22 | N | 604 | CLA | CMB-C2B-C1B | -3.06 | 123.76 | 128.46 |
| 22 | N | 612 | CLA | C3A-C2A-C1A | 3.06 | 105.92 | 101.34 |
| 25 | Y | 616 | NEX | C5-C6-C1 | -3.06 | 116.66 | 119.70 |
| 22 | a | 405 | CLA | CMB-C2B-C3B | 3.06 | 130.40 | 124.68 |
| 22 | G | 604 | CLA | CMB-C2B-C1B | -3.06 | 123.76 | 128.46 |
| 22 | S | 304 | CLA | C1B-CHB-C4A | -3.05 | 124.07 | 130.12 |
| 22 | n | 604 | CLA | CMB-C2B-C1B | -3.05 | 123.77 | 128.46 |
| 33 | l | 103 | SQD | O5-C5-C4 | 3.05 | 115.23 | 109.69 |
| 22 | C | 506 | CLA | CMB-C2B-C3B | 3.05 | 130.38 | 124.68 |
| 22 | g | 613 | CLA | CHB-C4A-NA | 3.04 | 128.72 | 124.51 |
| 22 | b | 605 | CLA | CMB-C2B-C3B | 3.04 | 130.37 | 124.68 |
| 22 | B | 608 | CLA | CMB-C2B-C3B | 3.04 | 130.37 | 124.68 |
| 24 | N | 616 | XAT | C25-C24-C23 | -3.04 | 106.73 | 112.75 |
| 35 | c | 519 | DGD | O5D-C6D-C5D | -3.04 | 103.42 | 109.05 |
| 22 | y | 612 | CLA | CHB-C4A-NA | 3.04 | 128.71 | 124.51 |
| 22 | c | 505 | CLA | CMB-C2B-C3B | 3.04 | 130.36 | 124.68 |
| 22 | G | 603 | CLA | CMB-C2B-C3B | 3.04 | 130.36 | 124.68 |
| 33 | L | 101 | SQD | O5-C5-C4 | 3.03 | 115.20 | 109.69 |
| 22 | g | 604 | CLA | CMB-C2B-C1B | -3.03 | 123.80 | 128.46 |
| 22 | N | 603 | CLA | CMB-C2B-C3B | 3.03 | 130.35 | 124.68 |
| 22 | n | 612 | CLA | CHB-C4A-NA | 3.03 | 128.70 | 124.51 |
| 22 | N | 612 | CLA | CHB-C4A-NA | 3.03 | 128.70 | 124.51 |
| 22 | g | 603 | CLA | CMB-C2B-C3B | 3.02 | 130.34 | 124.68 |
| 22 | s | 304 | CLA | C1B-CHB-C4A | -3.02 | 124.13 | 130.12 |
| 35 | J | 101 | DGD | O5D-C6D-C5D | -3.02 | 103.46 | 109.05 |
| 22 | Y | 611 | CLA | CHB-C4A-NA | 3.02 | 128.69 | 124.51 |
| 22 | n | 603 | CLA | CMB-C2B-C3B | 3.02 | 130.32 | 124.68 |
| 32 | D | 407 | PL9 | C40-C39-C41 | 3.02 | 120.35 | 115.27 |
| 22 | s | 305 | CLA | CMB-C2B-C3B | 3.02 | 130.32 | 124.68 |
| 32 | a | 410 | PL9 | O2-C1-C2 | -3.02 | 117.09 | 121.41 |
| 23 | G | 616 | LUT | C8-C9-C10 | -3.01 | 114.31 | 118.94 |
| 22 | y | 603 | CLA | CMB-C2B-C3B | 3.01 | 130.32 | 124.68 |
| 22 | G | 613 | CLA | CHB-C4A-NA | 3.01 | 128.68 | 124.51 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | Y | 603 | CLA | CMB-C2B-C3B | 3.01 | 130.31 | 124.68 |
| 22 | B | 607 | CLA | CMB-C2B-C3B | 3.01 | 130.31 | 124.68 |
| 22 | b | 604 | CLA | CMB-C2B-C3B | 3.01 | 130.31 | 124.68 |
| 24 | y | 615 | XAT | C8-C9-C10 | -3.00 | 114.33 | 118.94 |
| 22 | C | 515 | CLA | CMB-C2B-C3B | 3.00 | 130.30 | 124.68 |
| 32 | d | 406 | PL9 | C40-C39-C41 | 3.00 | 120.32 | 115.27 |
| 30 | A | 408 | PHO | O1D-CGD-CBD | 3.00 | 129.74 | 124.74 |
| 25 | g | 618 | NEX | C5-C4-C3 | 3.00 | 115.29 | 111.75 |
| 23 | r | 313 | LUT | C4-C5-C6 | -2.99 | 114.17 | 120.85 |
| 25 | g | 618 | NEX | C27-C28-C29 | -2.99 | 120.89 | 125.53 |
| 22 | Y | 602 | CLA | CMB-C2B-C3B | 2.99 | 130.27 | 124.68 |
| 25 | n | 616 | NEX | C5-C4-C3 | 2.99 | 115.28 | 111.75 |
| 21 | G | 607 | CHL | CHD-C1D-C2D | 2.99 | 131.74 | 125.48 |
| 21 | Y | 607 | CHL | CHD-C1D-C2D | 2.98 | 131.74 | 125.48 |
| 21 | Y | 606 | CHL | CHD-C1D-C2D | 2.98 | 131.74 | 125.48 |
| 21 | Y | 608 | CHL | CHD-C1D-C2D | 2.98 | 131.73 | 125.48 |
| 23 | G | 615 | LUT | C21-C26-C25 | 2.98 | 116.75 | 111.42 |
| 21 | S | 301 | CHL | CHD-C1D-C2D | 2.98 | 131.73 | 125.48 |
| 22 | y | 612 | CLA | C1C-C2C-C3C | -2.98 | 103.83 | 106.96 |
| 21 | n | 601 | CHL | CHD-C1D-C2D | 2.98 | 131.72 | 125.48 |
| 22 | R | 303 | CLA | CMB-C2B-C3B | 2.97 | 130.24 | 124.68 |
| 22 | n | 602 | CLA | CMB-C2B-C3B | 2.97 | 130.24 | 124.68 |
| 22 | g | 613 | CLA | C1C-C2C-C3C | -2.97 | 103.83 | 106.96 |
| 23 | R | 312 | LUT | C4-C5-C6 | -2.97 | 114.22 | 120.85 |
| 21 | G | 609 | CHL | CHD-C1D-C2D | 2.97 | 131.72 | 125.48 |
| 22 | b | 601 | CLA | CMB-C2B-C3B | 2.97 | 130.24 | 124.68 |
| 22 | D | 404 | CLA | O2D-CGD-O1D | -2.97 | 118.03 | 123.84 |
| 21 | g | 605 | CHL | CHD-C1D-C2D | 2.97 | 131.71 | 125.48 |
| 32 | A | 411 | PL9 | O2-C1-C2 | -2.97 | 117.16 | 121.41 |
| 21 | S | 306 | CHL | CHD-C1D-C2D | 2.97 | 131.71 | 125.48 |
| 24 | Y | 615 | XAT | C31-C32-C33 | -2.97 | 118.08 | 126.42 |
| 21 | N | 608 | CHL | CHD-C1D-C2D | 2.97 | 131.71 | 125.48 |
| 21 | y | 608 | CHL | CHD-C1D-C2D | 2.97 | 131.70 | 125.48 |
| 22 | g | 602 | CLA | CMB-C2B-C3B | 2.97 | 130.23 | 124.68 |
| 22 | c | 514 | CLA | CMB-C2B-C3B | 2.97 | 130.23 | 124.68 |
| 23 | g | 615 | LUT | C21-C26-C25 | 2.97 | 116.73 | 111.42 |
| 21 | N | 601 | CHL | CHD-C1D-C2D | 2.97 | 131.70 | 125.48 |
| 22 | B | 604 | CLA | CMB-C2B-C3B | 2.96 | 130.22 | 124.68 |
| 21 | y | 605 | CHL | CHD-C1D-C2D | 2.96 | 131.70 | 125.48 |
| 22 | C | 512 | CLA | O2D-CGD-O1D | -2.96 | 118.04 | 123.84 |
| 21 | N | 605 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | s | 306 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 30 | a | 407 | PHO | O1D-CGD-CBD | 2.96 | 129.67 | 124.74 |
| 21 | R | 306 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 23 | Y | 613 | LUT | C21-C26-C25 | 2.96 | 116.72 | 111.42 |
| 35 | J | 101 | DGD | C3D-C4D-C5D | -2.96 | 104.95 | 110.24 |
| 21 | g | 608 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | y | 609 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | r | 301 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | r | 308 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | y | 607 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | Y | 605 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | g | 601 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | G | 608 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | S | 307 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 21 | r | 307 | CHL | CHD-C1D-C2D | 2.96 | 131.69 | 125.48 |
| 23 | g | 616 | LUT | C8-C9-C10 | -2.96 | 114.40 | 118.94 |
| 21 | y | 606 | CHL | CHD-C1D-C2D | 2.96 | 131.68 | 125.48 |
| 21 | N | 607 | CHL | CHD-C1D-C2D | 2.96 | 131.68 | 125.48 |
| 21 | G | 605 | CHL | CHD-C1D-C2D | 2.96 | 131.68 | 125.48 |
| 33 | A | 412 | SQD | O8-S-C6 | 2.96 | 110.45 | 105.74 |
| 21 | R | 307 | CHL | CHD-C1D-C2D | 2.96 | 131.68 | 125.48 |
| 22 | N | 612 | CLA | C1C-C2C-C3C | -2.96 | 103.85 | 106.96 |
| 22 | r | 304 | CLA | CMB-C2B-C3B | 2.95 | 130.21 | 124.68 |
| 22 | N | 602 | CLA | CMB-C2B-C3B | 2.95 | 130.20 | 124.68 |
| 21 | G | 606 | CHL | CHD-C1D-C2D | 2.95 | 131.67 | 125.48 |
| 23 | n | 614 | LUT | C21-C26-C25 | 2.95 | 116.71 | 111.42 |
| 21 | R | 305 | CHL | CHD-C1D-C2D | 2.95 | 131.67 | 125.48 |
| 23 | N | 614 | LUT | C21-C26-C25 | 2.95 | 116.70 | 111.42 |
| 21 | n | 608 | CHL | CHD-C1D-C2D | 2.95 | 131.67 | 125.48 |
| 21 | s | 301 | CHL | CHD-C1D-C2D | 2.95 | 131.67 | 125.48 |
| 22 | G | 613 | CLA | C1C-C2C-C3C | -2.95 | 103.85 | 106.96 |
| 21 | G | 601 | CHL | CHD-C1D-C2D | 2.95 | 131.67 | 125.48 |
| 21 | s | 307 | CHL | CHD-C1D-C2D | 2.95 | 131.67 | 125.48 |
| 22 | n | 610 | CLA | CMB-C2B-C3B | 2.95 | 130.20 | 124.68 |
| 21 | g | 609 | CHL | CHD-C1D-C2D | 2.95 | 131.66 | 125.48 |
| 21 | s | 302 | CHL | CHD-C1D-C2D | 2.95 | 131.66 | 125.48 |
| 22 | b | 606 | CLA | CMB-C2B-C3B | 2.95 | 130.19 | 124.68 |
| 22 | n | 612 | CLA | C1C-C2C-C3C | -2.95 | 103.86 | 106.96 |
| 31 | c | 516 | BCR | C15-C14-C13 | -2.95 | 123.10 | 127.31 |
| 21 | N | 606 | CHL | CHD-C1D-C2D | 2.95 | 131.66 | 125.48 |
| 33 | a | 411 | SQD | O8-S-C6 | 2.95 | 110.44 | 105.74 |
| 22 | G | 611 | CLA | CMB-C2B-C3B | 2.95 | 130.19 | 124.68 |
| 21 | g | 606 | CHL | CHD-C1D-C2D | 2.95 | 131.66 | 125.48 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | N | 610 | CLA | CMB-C2B-C3B | 2.95 | 130.19 | 124.68 |
| 21 | y | 601 | CHL | CHD-C1D-C2D | 2.95 | 131.66 | 125.48 |
| 21 | R | 305 | CHL | CMD-C2D-C3D | -2.95 | 120.84 | 127.61 |
| 21 | n | 606 | CHL | CHD-C1D-C2D | 2.94 | 131.66 | 125.48 |
| 21 | n | 605 | CHL | CHD-C1D-C2D | 2.94 | 131.66 | 125.48 |
| 21 | r | 306 | CHL | CHD-C1D-C2D | 2.94 | 131.66 | 125.48 |
| 22 | d | 403 | CLA | O2D-CGD-O1D | -2.94 | 118.08 | 123.84 |
| 22 | d | 403 | CLA | CMB-C2B-C3B | 2.94 | 130.19 | 124.68 |
| 21 | n | 607 | CHL | CHD-C1D-C2D | 2.94 | 131.65 | 125.48 |
| 21 | Y | 601 | CHL | CHD-C1D-C2D | 2.94 | 131.65 | 125.48 |
| 22 | Y | 611 | CLA | O2D-CGD-O1D | -2.94 | 118.09 | 123.84 |
| 22 | y | 611 | CLA | CMB-C2B-C3B | 2.94 | 130.18 | 124.68 |
| 21 | y | 601 | CHL | CMD-C2D-C3D | -2.94 | 120.85 | 127.61 |
| 21 | S | 301 | CHL | CMD-C2D-C3D | -2.94 | 120.85 | 127.61 |
| 21 | g | 606 | CHL | CMD-C2D-C3D | -2.94 | 120.85 | 127.61 |
| 23 | y | 614 | LUT | C21-C26-C25 | 2.94 | 116.68 | 111.42 |
| 21 | N | 605 | CHL | CMD-C2D-C3D | -2.94 | 120.85 | 127.61 |
| 21 | r | 308 | CHL | CMD-C2D-C3D | -2.94 | 120.85 | 127.61 |
| 21 | S | 302 | CHL | CHD-C1D-C2D | 2.94 | 131.64 | 125.48 |
| 21 | g | 607 | CHL | CMD-C2D-C3D | -2.94 | 120.85 | 127.61 |
| 21 | G | 607 | CHL | CMD-C2D-C3D | -2.94 | 120.85 | 127.61 |
| 22 | G | 602 | CLA | CMB-C2B-C3B | 2.94 | 130.17 | 124.68 |
| 22 | r | 312 | CLA | CMB-C2B-C3B | 2.94 | 130.17 | 124.68 |
| 35 | c | 519 | DGD | C3D-C4D-C5D | -2.94 | 105.00 | 110.24 |
| 31 | C | 517 | BCR | C11-C10-C9 | -2.94 | 123.12 | 127.31 |
| 21 | s | 307 | CHL | CMD-C2D-C3D | -2.94 | 120.86 | 127.61 |
| 22 | y | 602 | CLA | CMB-C2B-C3B | 2.94 | 130.17 | 124.68 |
| 21 | N | 606 | CHL | CMD-C2D-C3D | -2.94 | 120.86 | 127.61 |
| 21 | g | 609 | CHL | CMD-C2D-C3D | -2.93 | 120.86 | 127.61 |
| 21 | R | 306 | CHL | CMD-C2D-C3D | -2.93 | 120.86 | 127.61 |
| 22 | C | 515 | CLA | O2D-CGD-O1D | -2.93 | 118.10 | 123.84 |
| 22 | g | 611 | CLA | CMB-C2B-C3B | 2.93 | 130.16 | 124.68 |
| 21 | Y | 605 | CHL | CMD-C2D-C3D | -2.93 | 120.87 | 127.61 |
| 21 | r | 306 | CHL | CMD-C2D-C3D | -2.93 | 120.87 | 127.61 |
| 21 | g | 607 | CHL | CHD-C1D-C2D | 2.93 | 131.63 | 125.48 |
| 21 | n | 601 | CHL | CMD-C2D-C3D | -2.93 | 120.87 | 127.61 |
| 21 | g | 608 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | n | 605 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | G | 605 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | s | 301 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 22 | Y | 610 | CLA | CMB-C2B-C3B | 2.93 | 130.16 | 124.68 |
| 22 | B | 609 | CLA | CMB-C2B-C3B | 2.93 | 130.16 | 124.68 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | G | 613 | CLA | O2D-CGD-O1D | -2.93 | 118.11 | 123.84 |
| 21 | g | 601 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | S | 306 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | g | 605 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | y | 609 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | y | 606 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | n | 607 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 22 | c | 511 | CLA | O2D-CGD-O1D | -2.93 | 118.12 | 123.84 |
| 31 | C | 517 | BCR | C15-C14-C13 | -2.93 | 123.13 | 127.31 |
| 21 | y | 607 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | S | 307 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | G | 608 | CHL | CMD-C2D-C3D | -2.93 | 120.88 | 127.61 |
| 21 | R | 307 | CHL | CMD-C2D-C3D | -2.93 | 120.89 | 127.61 |
| 22 | N | 612 | CLA | O2D-CGD-O1D | -2.93 | 118.12 | 123.84 |
| 21 | G | 606 | CHL | CMD-C2D-C3D | -2.92 | 120.89 | 127.61 |
| 22 | B | 615 | CLA | CMB-C2B-C3B | 2.92 | 130.15 | 124.68 |
| 21 | Y | 606 | CHL | CMD-C2D-C3D | -2.92 | 120.89 | 127.61 |
| 21 | r | 301 | CHL | CMD-C2D-C3D | -2.92 | 120.89 | 127.61 |
| 21 | n | 608 | CHL | CMD-C2D-C3D | -2.92 | 120.89 | 127.61 |
| 25 | n | 616 | NEX | C27-C28-C29 | -2.92 | 121.00 | 125.53 |
| 22 | Y | 611 | CLA | C1C-C2C-C3C | -2.92 | 103.89 | 106.96 |
| 35 | C | 518 | DGD | O5D-C6D-C5D | -2.92 | 103.64 | 109.05 |
| 21 | y | 608 | CHL | CMD-C2D-C3D | -2.92 | 120.90 | 127.61 |
| 22 | R | 304 | CLA | CMB-C2B-C1B | -2.92 | 123.98 | 128.46 |
| 21 | G | 609 | CHL | CMD-C2D-C3D | -2.92 | 120.90 | 127.61 |
| 21 | N | 608 | CHL | CMD-C2D-C3D | -2.92 | 120.90 | 127.61 |
| 21 | r | 307 | CHL | CMD-C2D-C3D | -2.92 | 120.90 | 127.61 |
| 21 | S | 302 | CHL | CMD-C2D-C3D | -2.92 | 120.90 | 127.61 |
| 22 | y | 612 | CLA | O2D-CGD-O1D | -2.92 | 118.13 | 123.84 |
| 22 | c | 504 | CLA | O2D-CGD-O1D | -2.92 | 118.13 | 123.84 |
| 21 | n | 606 | CHL | CMD-C2D-C3D | -2.92 | 120.90 | 127.61 |
| 22 | c | 514 | CLA | O2D-CGD-O1D | -2.92 | 118.14 | 123.84 |
| 21 | s | 302 | CHL | CMD-C2D-C3D | -2.92 | 120.91 | 127.61 |
| 22 | s | 303 | CLA | C1B-CHB-C4A | -2.91 | 124.35 | 130.12 |
| 35 | c | 517 | DGD | O5D-C6D-C5D | -2.91 | 103.66 | 109.05 |
| 22 | S | 303 | CLA | C1B-CHB-C4A | -2.91 | 124.35 | 130.12 |
| 22 | A | 405 | CLA | O2D-CGD-O1D | -2.91 | 118.14 | 123.84 |
| 21 | Y | 607 | CHL | CMD-C2D-C3D | -2.91 | 120.92 | 127.61 |
| 21 | N | 607 | CHL | CMD-C2D-C3D | -2.91 | 120.92 | 127.61 |
| 21 | y | 605 | CHL | CMD-C2D-C3D | -2.91 | 120.92 | 127.61 |
| 21 | N | 601 | CHL | CMD-C2D-C3D | -2.91 | 120.92 | 127.61 |
| 21 | s | 306 | CHL | CMD-C2D-C3D | -2.91 | 120.92 | 127.61 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | a | 404 | CLA | O2D-CGD-O1D | -2.91 | 118.15 | 123.84 |
| 22 | b | 612 | CLA | CMB-C2B-C3B | 2.91 | 130.12 | 124.68 |
| 33 | a | 411 | SQD | O5-C1-C2 | 2.91 | 116.50 | 110.35 |
| 33 | A | 412 | SQD | O5-C1-C2 | 2.91 | 116.50 | 110.35 |
| 36 | C | 502 | LMG | O1-C1-C2 | -2.91 | 103.77 | 108.30 |
| 21 | Y | 608 | CHL | CMD-C2D-C3D | -2.91 | 120.93 | 127.61 |
| 21 | g | 609 | CHL | C3D-C4D-ND | 2.91 | 114.94 | 110.24 |
| 21 | Y | 601 | CHL | CMD-C2D-C3D | -2.90 | 120.93 | 127.61 |
| 22 | n | 612 | CLA | O2D-CGD-O1D | -2.90 | 118.16 | 123.84 |
| 31 | C | 517 | BCR | C7-C8-C9 | -2.90 | 121.85 | 126.23 |
| 22 | C | 513 | CLA | O2D-CGD-O1D | -2.90 | 118.16 | 123.84 |
| 22 | n | 613 | CLA | CMB-C2B-C3B | 2.90 | 130.11 | 124.68 |
| 22 | g | 613 | CLA | O2D-CGD-O1D | -2.90 | 118.17 | 123.84 |
| 36 | b | 620 | LMG | O6-C1-O1 | -2.90 | 103.11 | 109.97 |
| 21 | G | 601 | CHL | CMD-C2D-C3D | -2.90 | 120.94 | 127.61 |
| 22 | D | 404 | CLA | CMB-C2B-C3B | 2.90 | 130.10 | 124.68 |
| 31 | H | 101 | BCR | C24-C23-C22 | -2.90 | 121.86 | 126.23 |
| 22 | R | 311 | CLA | CMB-C2B-C3B | 2.90 | 130.10 | 124.68 |
| 22 | r | 305 | CLA | CMB-C2B-C1B | -2.90 | 124.01 | 128.46 |
| 36 | B | 623 | LMG | O6-C1-O1 | -2.90 | 103.12 | 109.97 |
| 21 | y | 608 | CHL | C3D-C4D-ND | 2.89 | 114.92 | 110.24 |
| 22 | B | 611 | CLA | CMB-C2B-C3B | 2.89 | 130.09 | 124.68 |
| 22 | C | 509 | CLA | CMB-C2B-C3B | 2.89 | 130.09 | 124.68 |
| 21 | y | 605 | CHL | C3D-C4D-ND | 2.89 | 114.91 | 110.24 |
| 22 | c | 512 | CLA | O2D-CGD-O1D | -2.89 | 118.19 | 123.84 |
| 31 | B | 620 | BCR | C15-C14-C13 | -2.89 | 123.19 | 127.31 |
| 36 | w | 102 | LMG | O1-C1-C2 | -2.89 | 103.79 | 108.30 |
| 21 | y | 601 | CHL | C3D-C4D-ND | 2.89 | 114.91 | 110.24 |
| 22 | g | 614 | CLA | CMB-C2B-C3B | 2.89 | 130.08 | 124.68 |
| 22 | N | 613 | CLA | CMB-C2B-C3B | 2.88 | 130.07 | 124.68 |
| 21 | y | 609 | CHL | C3D-C4D-ND | 2.88 | 114.90 | 110.24 |
| 21 | R | 307 | CHL | C3D-C4D-ND | 2.88 | 114.90 | 110.24 |
| 31 | b | 617 | BCR | C15-C14-C13 | -2.88 | 123.20 | 127.31 |
| 24 | n | 615 | XAT | C31-C32-C33 | -2.88 | 118.32 | 126.42 |
| 25 | y | 616 | NEX | C24-C23-C22 | 2.88 | 116.34 | 110.77 |
| 22 | y | 613 | CLA | CMB-C2B-C3B | 2.88 | 130.07 | 124.68 |
| 31 | C | 516 | BCR | C15-C16-C17 | -2.88 | 117.58 | 123.47 |
| 21 | G | 607 | CHL | C3D-C4D-ND | 2.88 | 114.90 | 110.24 |
| 21 | g | 606 | CHL | C3D-C4D-ND | 2.88 | 114.89 | 110.24 |
| 22 | Y | 612 | CLA | CMB-C2B-C3B | 2.88 | 130.06 | 124.68 |
| 22 | s | 309 | CLA | CMB-C2B-C3B | 2.88 | 130.06 | 124.68 |
| 31 | h | 101 | BCR | C24-C23-C22 | -2.88 | 121.89 | 126.23 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | s | 307 | CHL | C3D-C4D-ND | 2.88 | 114.89 | 110.24 |
| 21 | G | 601 | CHL | C3D-C4D-ND | 2.88 | 114.89 | 110.24 |
| 21 | G | 605 | CHL | C3D-C4D-ND | 2.87 | 114.89 | 110.24 |
| 22 | S | 309 | CLA | CMB-C2B-C3B | 2.87 | 130.06 | 124.68 |
| 21 | Y | 606 | CHL | C3D-C4D-ND | 2.87 | 114.89 | 110.24 |
| 21 | N | 606 | CHL | C3D-C4D-ND | 2.87 | 114.89 | 110.24 |
| 21 | G | 606 | CHL | C3D-C4D-ND | 2.87 | 114.89 | 110.24 |
| 31 | c | 516 | BCR | C7-C8-C9 | -2.87 | 121.89 | 126.23 |
| 35 | c | 519 | DGD | O6E-C5E-C4E | 2.87 | 114.91 | 109.69 |
| 31 | k | 102 | BCR | C15-C16-C17 | -2.87 | 117.59 | 123.47 |
| 22 | c | 508 | CLA | CMB-C2B-C3B | 2.87 | 130.05 | 124.68 |
| 21 | S | 302 | CHL | C3D-C4D-ND | 2.87 | 114.88 | 110.24 |
| 31 | c | 516 | BCR | C11-C10-C9 | -2.87 | 123.21 | 127.31 |
| 31 | K | 102 | BCR | C15-C16-C17 | -2.87 | 117.59 | 123.47 |
| 21 | S | 306 | CHL | C3D-C4D-ND | 2.87 | 114.88 | 110.24 |
| 22 | b | 609 | CLA | O2D-CGD-O1D | -2.87 | 118.23 | 123.84 |
| 21 | G | 608 | CHL | C3D-C4D-ND | 2.87 | 114.88 | 110.24 |
| 21 | G | 609 | CHL | C3D-C4D-ND | 2.87 | 114.88 | 110.24 |
| 22 | C | 505 | CLA | O2D-CGD-O1D | -2.87 | 118.23 | 123.84 |
| 22 | b | 608 | CLA | CMB-C2B-C3B | 2.87 | 130.04 | 124.68 |
| 24 | G | 617 | XAT | C31-C32-C33 | -2.87 | 118.36 | 126.42 |
| 21 | g | 605 | CHL | C3D-C4D-ND | 2.87 | 114.88 | 110.24 |
| 21 | n | 606 | CHL | C3D-C4D-ND | 2.87 | 114.88 | 110.24 |
| 21 | R | 305 | CHL | C3D-C4D-ND | 2.87 | 114.87 | 110.24 |
| 22 | G | 614 | CLA | CMB-C2B-C3B | 2.87 | 130.04 | 124.68 |
| 22 | b | 615 | CLA | CMB-C2B-C3B | 2.86 | 130.04 | 124.68 |
| 21 | Y | 601 | CHL | C3D-C4D-ND | 2.86 | 114.87 | 110.24 |
| 22 | B | 612 | CLA | O2D-CGD-O1D | -2.86 | 118.24 | 123.84 |
| 21 | y | 607 | CHL | C3D-C4D-ND | 2.86 | 114.87 | 110.24 |
| 21 | n | 607 | CHL | C3D-C4D-ND | 2.86 | 114.87 | 110.24 |
| 24 | g | 617 | XAT | C31-C32-C33 | -2.86 | 118.38 | 126.42 |
| 21 | n | 608 | CHL | C3D-C4D-ND | 2.86 | 114.87 | 110.24 |
| 21 | g | 601 | CHL | C3D-C4D-ND | 2.86 | 114.87 | 110.24 |
| 21 | N | 608 | CHL | C3D-C4D-ND | 2.86 | 114.86 | 110.24 |
| 22 | s | 303 | CLA | O2D-CGD-O1D | -2.86 | 118.25 | 123.84 |
| 21 | r | 301 | CHL | C3D-C4D-ND | 2.86 | 114.86 | 110.24 |
| 21 | R | 306 | CHL | C3D-C4D-ND | 2.86 | 114.86 | 110.24 |
| 21 | r | 306 | CHL | C3D-C4D-ND | 2.86 | 114.86 | 110.24 |
| 35 | J | 101 | DGD | O6E-C5E-C4E | 2.86 | 114.88 | 109.69 |
| 21 | S | 301 | CHL | C3D-C4D-ND | 2.86 | 114.86 | 110.24 |
| 21 | N | 607 | CHL | C3D-C4D-ND | 2.85 | 114.86 | 110.24 |
| 21 | r | 308 | CHL | C3D-C4D-ND | 2.85 | 114.86 | 110.24 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 35 | C | 519 | DGD | O5D-C6D-C5D | -2.85 | 103.77 | 109.05 |
| 21 | s | 302 | CHL | C3D-C4D-ND | 2.85 | 114.85 | 110.24 |
| 21 | r | 307 | CHL | C3D-C4D-ND | 2.85 | 114.85 | 110.24 |
| 36 | D | 411 | LMG | O6-C1-O1 | -2.85 | 103.22 | 109.97 |
| 21 | Y | 605 | CHL | C3D-C4D-ND | 2.85 | 114.85 | 110.24 |
| 21 | g | 608 | CHL | C3D-C4D-ND | 2.85 | 114.85 | 110.24 |
| 21 | n | 605 | CHL | C3D-C4D-ND | 2.85 | 114.85 | 110.24 |
| 21 | Y | 607 | CHL | C3D-C4D-ND | 2.85 | 114.85 | 110.24 |
| 21 | g | 607 | CHL | C3D-C4D-ND | 2.85 | 114.84 | 110.24 |
| 21 | Y | 608 | CHL | C3D-C4D-ND | 2.85 | 114.84 | 110.24 |
| 21 | n | 601 | CHL | C3D-C4D-ND | 2.85 | 114.84 | 110.24 |
| 22 | C | 509 | CLA | O2D-CGD-O1D | -2.85 | 118.27 | 123.84 |
| 21 | R | 307 | CHL | C4-C3-C5 | 2.84 | 120.06 | 115.27 |
| 22 | C | 512 | CLA | CMB-C2B-C3B | 2.84 | 130.00 | 124.68 |
| 22 | B | 618 | CLA | CMB-C2B-C3B | 2.84 | 130.00 | 124.68 |
| 22 | c | 508 | CLA | O2D-CGD-O1D | -2.84 | 118.28 | 123.84 |
| 31 | c | 515 | BCR | C15-C16-C17 | -2.84 | 117.65 | 123.47 |
| 22 | b | 615 | CLA | O2D-CGD-O1D | -2.84 | 118.28 | 123.84 |
| 22 | B | 603 | CLA | CMB-C2B-C3B | 2.84 | 129.99 | 124.68 |
| 21 | n | 608 | CHL | C4-C3-C5 | 2.84 | 120.05 | 115.27 |
| 21 | N | 605 | CHL | C3D-C4D-ND | 2.84 | 114.83 | 110.24 |
| 21 | S | 307 | CHL | C3D-C4D-ND | 2.84 | 114.83 | 110.24 |
| 22 | B | 611 | CLA | O2D-CGD-O1D | -2.84 | 118.29 | 123.84 |
| 31 | C | 516 | BCR | C24-C23-C22 | -2.84 | 121.95 | 126.23 |
| 22 | n | 613 | CLA | O2D-CGD-O1D | -2.84 | 118.29 | 123.84 |
| 22 | b | 613 | CLA | O2D-CGD-O1D | -2.84 | 118.29 | 123.84 |
| 22 | C | 510 | CLA | CMB-C2B-C3B | 2.84 | 129.99 | 124.68 |
| 22 | S | 304 | CLA | CMB-C2B-C3B | 2.84 | 129.99 | 124.68 |
| 22 | B | 615 | CLA | O2D-CGD-O1D | -2.84 | 118.29 | 123.84 |
| 22 | c | 509 | CLA | CMB-C2B-C3B | 2.84 | 129.98 | 124.68 |
| 21 | N | 601 | CHL | C3D-C4D-ND | 2.84 | 114.82 | 110.24 |
| 31 | c | 515 | BCR | C24-C23-C22 | -2.83 | 121.95 | 126.23 |
| 22 | S | 303 | CLA | O2D-CGD-O1D | -2.83 | 118.30 | 123.84 |
| 22 | B | 618 | CLA | O2D-CGD-O1D | -2.83 | 118.30 | 123.84 |
| 22 | s | 304 | CLA | CMB-C2B-C3B | 2.83 | 129.98 | 124.68 |
| 21 | Y | 601 | CHL | C4-C3-C5 | 2.83 | 120.03 | 115.27 |
| 21 | s | 301 | CHL | C3D-C4D-ND | 2.83 | 114.82 | 110.24 |
| 22 | b | 608 | CLA | O2D-CGD-O1D | -2.83 | 118.31 | 123.84 |
| 21 | s | 306 | CHL | C3D-C4D-ND | 2.83 | 114.81 | 110.24 |
| 35 | c | 518 | DGD | O5D-C6D-C5D | -2.83 | 103.81 | 109.05 |
| 25 | y | 618 | NEX | C38-C25-C24 | 2.83 | 117.46 | 114.28 |
| 22 | B | 616 | CLA | O2D-CGD-O1D | -2.83 | 118.31 | 123.84 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | y | 606 | CHL | C3D-C4D-ND | 2.83 | 114.81 | 110.24 |
| 22 | c | 510 | CLA | C4D-C3D-CAD | -2.83 | 104.76 | 108.10 |
| 21 | Y | 607 | CHL | C4-C3-C5 | 2.83 | 120.02 | 115.27 |
| 21 | R | 305 | CHL | C4-C3-C5 | 2.83 | 120.02 | 115.27 |
| 36 | d | 410 | LMG | O6-C1-O1 | -2.83 | 103.28 | 109.97 |
| 21 | N | 601 | CHL | C4-C3-C5 | 2.82 | 120.02 | 115.27 |
| 21 | G | 607 | CHL | C4-C3-C5 | 2.82 | 120.02 | 115.27 |
| 22 | C | 506 | CLA | O2D-CGD-O1D | -2.82 | 118.32 | 123.84 |
| 21 | g | 609 | CHL | C4-C3-C5 | 2.82 | 120.01 | 115.27 |
| 21 | N | 607 | CHL | C4-C3-C5 | 2.82 | 120.01 | 115.27 |
| 22 | y | 613 | CLA | O2D-CGD-O1D | -2.82 | 118.33 | 123.84 |
| 21 | r | 308 | CHL | C4-C3-C5 | 2.82 | 120.01 | 115.27 |
| 21 | n | 601 | CHL | C4-C3-C5 | 2.82 | 120.01 | 115.27 |
| 30 | d | 401 | PHO | CMB-C2B-C3B | 2.82 | 129.95 | 124.68 |
| 22 | b | 603 | CLA | O2D-CGD-O1D | -2.82 | 118.33 | 123.84 |
| 21 | G | 609 | CHL | C4-C3-C5 | 2.82 | 120.01 | 115.27 |
| 30 | D | 401 | PHO | CMB-C2B-C3B | 2.82 | 129.94 | 124.68 |
| 22 | c | 505 | CLA | O2D-CGD-O1D | -2.81 | 118.34 | 123.84 |
| 35 | H | 102 | DGD | CDB-CCB-CBB | -2.81 | 100.15 | 114.42 |
| 25 | r | 315 | NEX | C38-C25-C24 | 2.81 | 117.44 | 114.28 |
| 21 | g | 607 | CHL | C4-C3-C5 | 2.81 | 120.00 | 115.27 |
| 22 | Y | 609 | CLA | O2D-CGD-O1D | -2.81 | 118.34 | 123.84 |
| 21 | G | 608 | CHL | C4-C3-C5 | 2.81 | 120.00 | 115.27 |
| 35 | h | 102 | DGD | CDB-CCB-CBB | -2.81 | 100.16 | 114.42 |
| 33 | D | 402 | SQD | O8-S-C6 | 2.81 | 110.22 | 105.74 |
| 22 | C | 507 | CLA | CMB-C2B-C3B | 2.81 | 129.93 | 124.68 |
| 22 | R | 302 | CLA | CMB-C2B-C3B | 2.81 | 129.93 | 124.68 |
| 22 | g | 614 | CLA | O2D-CGD-O1D | -2.81 | 118.35 | 123.84 |
| 22 | G | 614 | CLA | O2D-CGD-O1D | -2.81 | 118.35 | 123.84 |
| 22 | C | 511 | CLA | C4D-C3D-CAD | -2.81 | 104.79 | 108.10 |
| 21 | y | 607 | CHL | C4-C3-C5 | 2.81 | 120.00 | 115.27 |
| 22 | c | 511 | CLA | CMB-C2B-C3B | 2.81 | 129.93 | 124.68 |
| 22 | s | 309 | CLA | O2D-CGD-O1D | -2.81 | 118.35 | 123.84 |
| 21 | R | 306 | CHL | C4-C3-C5 | 2.81 | 119.99 | 115.27 |
| 21 | y | 601 | CHL | C4-C3-C5 | 2.81 | 119.99 | 115.27 |
| 22 | b | 612 | CLA | O2D-CGD-O1D | -2.80 | 118.36 | 123.84 |
| 36 | C | 523 | LMG | O6-C1-O1 | -2.80 | 103.33 | 109.97 |
| 31 | B | 619 | BCR | C33-C5-C6 | -2.80 | 121.38 | 124.53 |
| 22 | r | 303 | CLA | CMB-C2B-C3B | 2.80 | 129.92 | 124.68 |
| 22 | N | 609 | CLA | O2D-CGD-O1D | -2.80 | 118.36 | 123.84 |
| 22 | r | 304 | CLA | O2D-CGD-O1D | -2.80 | 118.36 | 123.84 |
| 22 | R | 303 | CLA | O2D-CGD-O1D | -2.80 | 118.36 | 123.84 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | n | 607 | CHL | C4-C3-C5 | 2.80 | 119.98 | 115.27 |
| 22 | Y | 612 | CLA | O2D-CGD-O1D | -2.80 | 118.36 | 123.84 |
| 22 | N | 613 | CLA | O2D-CGD-O1D | -2.80 | 118.36 | 123.84 |
| 21 | r | 307 | CHL | C4-C3-C5 | 2.80 | 119.98 | 115.27 |
| 22 | D | 405 | CLA | CMB-C2B-C3B | 2.80 | 129.91 | 124.68 |
| 21 | G | 601 | CHL | C4-C3-C5 | 2.80 | 119.98 | 115.27 |
| 22 | c | 506 | CLA | CMB-C2B-C3B | 2.80 | 129.91 | 124.68 |
| 21 | Y | 608 | CHL | C4-C3-C5 | 2.80 | 119.98 | 115.27 |
| 22 | C | 507 | CLA | O2D-CGD-O1D | -2.80 | 118.37 | 123.84 |
| 31 | B | 620 | BCR | C15-C16-C17 | -2.79 | 117.75 | 123.47 |
| 31 | B | 621 | BCR | C24-C23-C22 | -2.79 | 122.01 | 126.23 |
| 22 | B | 606 | CLA | O2D-CGD-O1D | -2.79 | 118.37 | 123.84 |
| 21 | g | 601 | CHL | C4-C3-C5 | 2.79 | 119.97 | 115.27 |
| 31 | b | 616 | BCR | C33-C5-C6 | -2.79 | 121.39 | 124.53 |
| 22 | G | 610 | CLA | O2D-CGD-O1D | -2.79 | 118.38 | 123.84 |
| 35 | c | 518 | DGD | CDB-CCB-CBB | -2.79 | 100.24 | 114.42 |
| 22 | g | 610 | CLA | O2D-CGD-O1D | -2.79 | 118.38 | 123.84 |
| 21 | g | 608 | CHL | C4-C3-C5 | 2.79 | 119.97 | 115.27 |
| 22 | y | 610 | CLA | O2D-CGD-O1D | -2.79 | 118.38 | 123.84 |
| 31 | b | 617 | BCR | C15-C16-C17 | -2.79 | 117.76 | 123.47 |
| 21 | n | 606 | CHL | C4-C3-C5 | 2.79 | 119.96 | 115.27 |
| 21 | y | 608 | CHL | C4-C3-C5 | 2.79 | 119.96 | 115.27 |
| 33 | d | 402 | SQD | O8-S-C6 | 2.79 | 110.18 | 105.74 |
| 21 | r | 306 | CHL | C4-C3-C5 | 2.79 | 119.96 | 115.27 |
| 26 | l | 102 | LHG | O8-C23-C24 | 2.79 | 120.65 | 111.91 |
| 21 | N | 606 | CHL | C4-C3-C5 | 2.79 | 119.96 | 115.27 |
| 21 | N | 608 | CHL | C4-C3-C5 | 2.79 | 119.96 | 115.27 |
| 22 | n | 609 | CLA | O2D-CGD-O1D | -2.78 | 118.39 | 123.84 |
| 26 | L | 103 | LHG | O8-C23-C24 | 2.78 | 120.64 | 111.91 |
| 31 | b | 618 | BCR | C24-C23-C22 | -2.78 | 122.03 | 126.23 |
| 22 | x | 101 | CLA | CMB-C2B-C3B | 2.78 | 129.88 | 124.68 |
| 35 | C | 519 | DGD | CDB-CCB-CBB | -2.78 | 100.30 | 114.42 |
| 36 | c | 523 | LMG | O6-C1-O1 | -2.78 | 103.39 | 109.97 |
| 22 | d | 404 | CLA | CMB-C2B-C3B | 2.78 | 129.88 | 124.68 |
| 22 | c | 506 | CLA | O2D-CGD-O1D | -2.78 | 118.40 | 123.84 |
| 32 | D | 407 | PL9 | C22-C23-C24 | -2.78 | 120.97 | 127.66 |
| 22 | B | 608 | CLA | O2D-CGD-O1D | -2.78 | 118.41 | 123.84 |
| 22 | S | 309 | CLA | O2D-CGD-O1D | -2.77 | 118.41 | 123.84 |
| 21 | y | 609 | CHL | C4-C3-C5 | 2.77 | 119.94 | 115.27 |
| 22 | B | 610 | CLA | O2D-CGD-O1D | -2.77 | 118.42 | 123.84 |
| 21 | Y | 606 | CHL | C4-C3-C5 | 2.77 | 119.93 | 115.27 |
| 22 | A | 407 | CLA | O2D-CGD-O1D | -2.77 | 118.42 | 123.84 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 31 | C | 516 | BCR | C33-C5-C6 | -2.77 | 121.42 | 124.53 |
| 22 | a | 406 | CLA | CMB-C2B-C3B | 2.77 | 129.85 | 124.68 |
| 22 | b | 607 | CLA | O2D-CGD-O1D | -2.76 | 118.44 | 123.84 |
| 31 | D | 406 | BCR | C24-C23-C22 | -2.76 | 122.07 | 126.23 |
| 24 | y | 615 | XAT | C31-C32-C33 | -2.76 | 118.67 | 126.42 |
| 22 | s | 310 | CLA | O2D-CGD-O1D | -2.75 | 118.45 | 123.84 |
| 22 | c | 507 | CLA | O2D-CGD-O1D | -2.75 | 118.45 | 123.84 |
| 22 | r | 309 | CLA | CMB-C2B-C3B | 2.75 | 129.83 | 124.68 |
| 30 | A | 408 | PHO | CMB-C2B-C3B | 2.75 | 129.82 | 124.68 |
| 32 | d | 406 | PL9 | C7-C8-C9 | -2.75 | 122.21 | 126.79 |
| 22 | N | 609 | CLA | CMB-C2B-C3B | 2.75 | 129.82 | 124.68 |
| 22 | A | 407 | CLA | CMB-C2B-C3B | 2.75 | 129.82 | 124.68 |
| 22 | g | 611 | CLA | O2D-CGD-O1D | -2.75 | 118.46 | 123.84 |
| 30 | a | 407 | PHO | CMB-C2B-C3B | 2.75 | 129.82 | 124.68 |
| 32 | d | 406 | PL9 | C22-C23-C24 | -2.75 | 121.04 | 127.66 |
| 22 | S | 304 | CLA | O2D-CGD-O1D | -2.75 | 118.47 | 123.84 |
| 22 | a | 406 | CLA | O2D-CGD-O1D | -2.75 | 118.47 | 123.84 |
| 22 | s | 313 | CLA | O2D-CGD-O1D | -2.75 | 118.47 | 123.84 |
| 25 | g | 618 | NEX | C5-C6-C1 | -2.74 | 116.97 | 119.70 |
| 22 | b | 605 | CLA | O2D-CGD-O1D | -2.74 | 118.48 | 123.84 |
| 22 | G | 610 | CLA | CMB-C2B-C3B | 2.74 | 129.81 | 124.68 |
| 22 | d | 404 | CLA | CHB-C4A-NA | 2.74 | 128.30 | 124.51 |
| 33 | L | 102 | SQD | O5-C5-C4 | 2.74 | 114.67 | 109.69 |
| 22 | R | 308 | CLA | CMB-C2B-C3B | 2.74 | 129.80 | 124.68 |
| 22 | s | 304 | CLA | O2D-CGD-O1D | -2.74 | 118.49 | 123.84 |
| 22 | S | 313 | CLA | O2D-CGD-O1D | -2.73 | 118.49 | 123.84 |
| 22 | G | 611 | CLA | O2D-CGD-O1D | -2.73 | 118.49 | 123.84 |
| 22 | C | 508 | CLA | O2D-CGD-O1D | -2.73 | 118.49 | 123.84 |
| 22 | Y | 610 | CLA | O2D-CGD-O1D | -2.73 | 118.50 | 123.84 |
| 22 | n | 610 | CLA | O2D-CGD-O1D | -2.73 | 118.50 | 123.84 |
| 31 | D | 406 | BCR | C33-C5-C6 | -2.73 | 121.46 | 124.53 |
| 22 | C | 503 | CLA | CMB-C2B-C3B | 2.73 | 129.78 | 124.68 |
| 22 | r | 311 | CLA | O2D-CGD-O1D | -2.73 | 118.50 | 123.84 |
| 22 | g | 610 | CLA | CMB-C2B-C3B | 2.73 | 129.78 | 124.68 |
| 26 | S | 314 | LHG | O8-C23-C24 | 2.73 | 120.47 | 111.91 |
| 22 | G | 602 | CLA | CHB-C4A-NA | 2.73 | 128.28 | 124.51 |
| 22 | s | 312 | CLA | CMB-C2B-C3B | 2.73 | 129.78 | 124.68 |
| 22 | N | 610 | CLA | O2D-CGD-O1D | -2.73 | 118.51 | 123.84 |
| 22 | R | 311 | CLA | O2D-CGD-O1D | -2.73 | 118.51 | 123.84 |
| 31 | d | 405 | BCR | C33-C5-C6 | -2.73 | 121.47 | 124.53 |
| 31 | k | 101 | BCR | C24-C23-C22 | -2.73 | 122.12 | 126.23 |
| 22 | R | 309 | CLA | O2D-CGD-O1D | -2.73 | 118.51 | 123.84 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | y | 610 | CLA | CMB-C2B-C3B | 2.72 | 129.78 | 124.68 |
| 22 | R | 310 | CLA | O2D-CGD-O1D | -2.72 | 118.51 | 123.84 |
| 22 | g | 602 | CLA | CHB-C4A-NA | 2.72 | 128.28 | 124.51 |
| 35 | a | 413 | DGD | CDB-CCB-CBB | -2.72 | 100.61 | 114.42 |
| 31 | c | 515 | BCR | C33-C5-C6 | -2.72 | 121.47 | 124.53 |
| 32 | D | 407 | PL9 | C7-C8-C9 | -2.72 | 122.26 | 126.79 |
| 35 | A | 401 | DGD | CDB-CCB-CBB | -2.72 | 100.62 | 114.42 |
| 22 | S | 312 | CLA | CMB-C2B-C3B | 2.72 | 129.76 | 124.68 |
| 26 | R | 301 | LHG | O8-C23-C24 | 2.71 | 120.42 | 111.91 |
| 31 | d | 405 | BCR | C24-C23-C22 | -2.71 | 122.14 | 126.23 |
| 33 | l | 101 | SQD | O5-C5-C4 | 2.71 | 114.62 | 109.69 |
| 22 | y | 604 | CLA | CMB-C2B-C3B | 2.71 | 129.75 | 124.68 |
| 22 | g | 610 | CLA | CHB-C4A-NA | 2.71 | 128.26 | 124.51 |
| 22 | c | 502 | CLA | CMB-C2B-C3B | 2.71 | 129.75 | 124.68 |
| 22 | b | 606 | CLA | O2D-CGD-O1D | -2.71 | 118.54 | 123.84 |
| 26 | s | 314 | LHG | O8-C23-C24 | 2.71 | 120.41 | 111.91 |
| 22 | Y | 604 | CLA | C1B-CHB-C4A | -2.71 | 124.75 | 130.12 |
| 22 | r | 310 | CLA | O2D-CGD-O1D | -2.71 | 118.54 | 123.84 |
| 22 | D | 405 | CLA | CHB-C4A-NA | 2.71 | 128.26 | 124.51 |
| 31 | c | 516 | BCR | C15-C16-C17 | -2.71 | 117.92 | 123.47 |
| 22 | S | 310 | CLA | O2D-CGD-O1D | -2.71 | 118.54 | 123.84 |
| 21 | N | 607 | CHL | CMB-C2B-C3B | 2.71 | 129.74 | 124.68 |
| 22 | S | 305 | CLA | CHB-C4A-NA | 2.71 | 128.26 | 124.51 |
| 35 | c | 517 | DGD | CDB-CCB-CBB | -2.71 | 100.68 | 114.42 |
| 22 | N | 609 | CLA | CHB-C4A-NA | 2.71 | 128.25 | 124.51 |
| 22 | n | 609 | CLA | CMB-C2B-C3B | 2.71 | 129.74 | 124.68 |
| 22 | B | 609 | CLA | O2D-CGD-O1D | -2.71 | 118.55 | 123.84 |
| 26 | r | 302 | LHG | O8-C23-C24 | 2.71 | 120.40 | 111.91 |
| 21 | y | 601 | CHL | CMB-C2B-C3B | 2.71 | 129.74 | 124.68 |
| 21 | G | 607 | CHL | CMB-C2B-C3B | 2.71 | 129.74 | 124.68 |
| 21 | S | 306 | CHL | CMB-C2B-C3B | 2.70 | 129.74 | 124.68 |
| 31 | K | 101 | BCR | C24-C23-C22 | -2.70 | 122.15 | 126.23 |
| 21 | N | 601 | CHL | CMB-C2B-C3B | 2.70 | 129.74 | 124.68 |
| 22 | N | 604 | CLA | CHB-C4A-NA | 2.70 | 128.25 | 124.51 |
| 21 | S | 307 | CHL | CMB-C2B-C3B | 2.70 | 129.74 | 124.68 |
| 21 | s | 301 | CHL | CMB-C2B-C3B | 2.70 | 129.73 | 124.68 |
| 22 | Y | 609 | CLA | CMB-C2B-C3B | 2.70 | 129.73 | 124.68 |
| 21 | S | 301 | CHL | CMB-C2B-C3B | 2.70 | 129.73 | 124.68 |
| 22 | Y | 604 | CLA | CMB-C2B-C3B | 2.70 | 129.73 | 124.68 |
| 22 | r | 312 | CLA | O2D-CGD-O1D | -2.70 | 118.56 | 123.84 |
| 22 | Y | 602 | CLA | CHB-C4A-NA | 2.70 | 128.25 | 124.51 |
| 26 | C | 521 | LHG | O8-C23-C24 | 2.70 | 120.38 | 111.91 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | r | 308 | CHL | CMB-C2B-C3B | 2.70 | 129.73 | 124.68 |
| 21 | n | 601 | CHL | CMB-C2B-C3B | 2.70 | 129.73 | 124.68 |
| 21 | R | 305 | CHL | CMB-C2B-C3B | 2.70 | 129.73 | 124.68 |
| 22 | y | 611 | CLA | O2D-CGD-O1D | -2.70 | 118.56 | 123.84 |
| 22 | n | 602 | CLA | CHB-C4A-NA | 2.70 | 128.24 | 124.51 |
| 26 | y | 617 | LHG | C11-C10-C9 | -2.70 | 100.74 | 114.42 |
| 22 | n | 609 | CLA | CHB-C4A-NA | 2.70 | 128.24 | 124.51 |
| 21 | y | 608 | CHL | CMB-C2B-C3B | 2.70 | 129.72 | 124.68 |
| 21 | r | 301 | CHL | CMB-C2B-C3B | 2.70 | 129.72 | 124.68 |
| 22 | y | 602 | CLA | CHB-C4A-NA | 2.70 | 128.24 | 124.51 |
| 35 | C | 518 | DGD | CDB-CCB-CBB | -2.69 | 100.75 | 114.42 |
| 21 | n | 607 | CHL | CMB-C2B-C3B | 2.69 | 129.72 | 124.68 |
| 21 | s | 306 | CHL | CMB-C2B-C3B | 2.69 | 129.72 | 124.68 |
| 21 | G | 608 | CHL | CMB-C2B-C3B | 2.69 | 129.72 | 124.68 |
| 22 | N | 604 | CLA | C1B-CHB-C4A | -2.69 | 124.78 | 130.12 |
| 21 | r | 306 | CHL | CMB-C2B-C3B | 2.69 | 129.72 | 124.68 |
| 21 | y | 605 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 22 | n | 604 | CLA | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 21 | g | 601 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 22 | r | 312 | CLA | CHB-C4A-NA | 2.69 | 128.23 | 124.51 |
| 21 | S | 302 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 21 | n | 605 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 22 | B | 605 | CLA | O2D-CGD-O1D | -2.69 | 118.58 | 123.84 |
| 21 | g | 608 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 21 | s | 307 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 22 | Y | 604 | CLA | CHB-C4A-NA | 2.69 | 128.23 | 124.51 |
| 21 | N | 605 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 21 | N | 608 | CHL | CMB-C2B-C3B | 2.69 | 129.71 | 124.68 |
| 22 | b | 614 | CLA | O2D-CGD-O1D | -2.69 | 118.58 | 123.84 |
| 22 | g | 604 | CLA | CMB-C2B-C3B | 2.69 | 129.70 | 124.68 |
| 21 | y | 606 | CHL | CMB-C2B-C3B | 2.69 | 129.70 | 124.68 |
| 21 | Y | 607 | CHL | CMB-C2B-C3B | 2.69 | 129.70 | 124.68 |
| 21 | R | 307 | CHL | CMB-C2B-C3B | 2.69 | 129.70 | 124.68 |
| 22 | r | 305 | CLA | O2D-CGD-O1D | -2.69 | 118.59 | 123.84 |
| 33 | l | 101 | SQD | O8-S-C6 | 2.69 | 110.02 | 105.74 |
| 22 | N | 603 | CLA | O2D-CGD-O1D | -2.68 | 118.59 | 123.84 |
| 22 | S | 305 | CLA | C1-C2-C3 | -2.68 | 122.41 | 126.75 |
| 22 | N | 604 | CLA | CMB-C2B-C3B | 2.68 | 129.70 | 124.68 |
| 21 | R | 306 | CHL | CMB-C2B-C3B | 2.68 | 129.70 | 124.68 |
| 21 | G | 605 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 21 | g | 606 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 21 | G | 609 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | G | 604 | CLA | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 21 | Y | 601 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 21 | s | 302 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 22 | b | 602 | CLA | O2D-CGD-O1D | -2.68 | 118.60 | 123.84 |
| 22 | y | 610 | CLA | CHB-C4A-NA | 2.68 | 128.22 | 124.51 |
| 22 | N | 602 | CLA | CHB-C4A-NA | 2.68 | 128.22 | 124.51 |
| 22 | n | 603 | CLA | O2D-CGD-O1D | -2.68 | 118.60 | 123.84 |
| 22 | c | 502 | CLA | O2D-CGD-O1D | -2.68 | 118.60 | 123.84 |
| 21 | g | 605 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 21 | Y | 608 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 26 | c | 521 | LHG | O8-C23-C24 | 2.68 | 120.31 | 111.91 |
| 21 | n | 606 | CHL | CMB-C2B-C3B | 2.68 | 129.69 | 124.68 |
| 22 | r | 303 | CLA | O2D-CGD-O1D | -2.68 | 118.61 | 123.84 |
| 22 | R | 302 | CLA | O2D-CGD-O1D | -2.68 | 118.61 | 123.84 |
| 33 | L | 102 | SQD | O8-S-C6 | 2.68 | 110.00 | 105.74 |
| 22 | Y | 609 | CLA | CHB-C4A-NA | 2.67 | 128.21 | 124.51 |
| 22 | n | 604 | CLA | C1B-CHB-C4A | -2.67 | 124.82 | 130.12 |
| 22 | G | 610 | CLA | CHB-C4A-NA | 2.67 | 128.21 | 124.51 |
| 30 | D | 401 | PHO | O2D-CGD-O1D | -2.67 | 118.61 | 123.84 |
| 21 | N | 606 | CHL | CMB-C2B-C3B | 2.67 | 129.68 | 124.68 |
| 21 | n | 608 | CHL | CMB-C2B-C3B | 2.67 | 129.68 | 124.68 |
| 22 | s | 305 | CLA | CHB-C4A-NA | 2.67 | 128.21 | 124.51 |
| 21 | Y | 606 | CHL | CMB-C2B-C3B | 2.67 | 129.67 | 124.68 |
| 22 | R | 304 | CLA | O2D-CGD-O1D | -2.67 | 118.62 | 123.84 |
| 21 | g | 607 | CHL | CMB-C2B-C3B | 2.67 | 129.67 | 124.68 |
| 22 | g | 604 | CLA | C1B-CHB-C4A | -2.67 | 124.83 | 130.12 |
| 22 | G | 604 | CLA | C1B-CHB-C4A | -2.67 | 124.83 | 130.12 |
| 21 | g | 609 | CHL | CMB-C2B-C3B | 2.67 | 129.67 | 124.68 |
| 26 | d | 409 | LHG | O8-C23-C24 | 2.67 | 120.28 | 111.91 |
| 31 | C | 517 | BCR | C15-C16-C17 | -2.67 | 118.01 | 123.47 |
| 36 | C | 502 | LMG | O3-C3-C2 | -2.67 | 104.19 | 110.35 |
| 21 | y | 607 | CHL | CMB-C2B-C3B | 2.67 | 129.67 | 124.68 |
| 21 | G | 606 | CHL | CMB-C2B-C3B | 2.67 | 129.66 | 124.68 |
| 21 | y | 609 | CHL | CMB-C2B-C3B | 2.66 | 129.66 | 124.68 |
| 22 | y | 604 | CLA | C1B-CHB-C4A | -2.66 | 124.84 | 130.12 |
| 22 | s | 305 | CLA | C1-C2-C3 | -2.66 | 122.44 | 126.75 |
| 22 | g | 603 | CLA | O2D-CGD-O1D | -2.66 | 118.63 | 123.84 |
| 22 | B | 617 | CLA | O2D-CGD-O1D | -2.66 | 118.63 | 123.84 |
| 22 | C | 503 | CLA | O2D-CGD-O1D | -2.66 | 118.63 | 123.84 |
| 22 | a | 405 | CLA | O2D-CGD-O1D | -2.66 | 118.64 | 123.84 |
| 22 | y | 603 | CLA | O2D-CGD-O1D | -2.66 | 118.64 | 123.84 |
| 21 | G | 601 | CHL | CMB-C2B-C3B | 2.66 | 129.65 | 124.68 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | Y | 605 | CHL | CMB-C2B-C3B | 2.66 | 129.65 | 124.68 |
| 26 | D | 410 | LHG | O8-C23-C24 | 2.65 | 120.24 | 111.91 |
| 21 | r | 307 | CHL | CMB-C2B-C3B | 2.65 | 129.64 | 124.68 |
| 22 | g | 614 | CLA | C1B-CHB-C4A | -2.65 | 124.86 | 130.12 |
| 22 | r | 309 | CLA | O2D-CGD-O1D | -2.65 | 118.65 | 123.84 |
| 31 | a | 409 | BCR | C15-C14-C13 | -2.65 | 123.53 | 127.31 |
| 22 | n | 613 | CLA | C1B-CHB-C4A | -2.65 | 124.87 | 130.12 |
| 22 | y | 604 | CLA | CHB-C4A-NA | 2.65 | 128.18 | 124.51 |
| 31 | A | 410 | BCR | C15-C14-C13 | -2.65 | 123.53 | 127.31 |
| 21 | N | 606 | CHL | O2A-CGA-CBA | 2.65 | 120.22 | 111.91 |
| 22 | G | 603 | CLA | O2D-CGD-O1D | -2.65 | 118.66 | 123.84 |
| 22 | n | 604 | CLA | CHB-C4A-NA | 2.65 | 128.17 | 124.51 |
| 22 | A | 406 | CLA | O2D-CGD-O1D | -2.64 | 118.67 | 123.84 |
| 22 | B | 614 | CLA | O2D-CGD-O1D | -2.64 | 118.67 | 123.84 |
| 22 | G | 604 | CLA | CHB-C4A-NA | 2.64 | 128.17 | 124.51 |
| 22 | b | 611 | CLA | O2D-CGD-O1D | -2.64 | 118.67 | 123.84 |
| 21 | g | 601 | CHL | O2A-CGA-CBA | 2.64 | 120.20 | 111.91 |
| 22 | N | 613 | CLA | C1B-CHB-C4A | -2.64 | 124.88 | 130.12 |
| 22 | a | 404 | CLA | CMB-C2B-C3B | 2.64 | 129.62 | 124.68 |
| 26 | D | 409 | LHG | O8-C23-C24 | 2.64 | 120.20 | 111.91 |
| 22 | R | 309 | CLA | CHB-C4A-NA | 2.64 | 128.16 | 124.51 |
| 22 | G | 614 | CLA | C1B-CHB-C4A | -2.64 | 124.89 | 130.12 |
| 22 | C | 505 | CLA | C1B-CHB-C4A | -2.64 | 124.89 | 130.12 |
| 22 | s | 312 | CLA | O2D-CGD-O1D | -2.64 | 118.67 | 123.84 |
| 22 | Y | 612 | CLA | C1B-CHB-C4A | -2.64 | 124.89 | 130.12 |
| 21 | r | 308 | CHL | O2A-CGA-CBA | 2.64 | 120.20 | 111.91 |
| 22 | Y | 603 | CLA | O2D-CGD-O1D | -2.64 | 118.67 | 123.84 |
| 22 | c | 503 | CLA | O2D-CGD-O1D | -2.64 | 118.67 | 123.84 |
| 22 | G | 611 | CLA | C1B-CHB-C4A | -2.64 | 124.89 | 130.12 |
| 21 | y | 606 | CHL | O2A-CGA-CBA | 2.64 | 120.19 | 111.91 |
| 21 | N | 607 | CHL | O2A-CGA-CBA | 2.64 | 120.19 | 111.91 |
| 22 | c | 502 | CLA | CHB-C4A-NA | 2.64 | 128.16 | 124.51 |
| 21 | g | 609 | CHL | O2A-CGA-CBA | 2.64 | 120.19 | 111.91 |
| 21 | y | 601 | CHL | O2A-CGA-CBA | 2.64 | 120.19 | 111.91 |
| 22 | S | 305 | CLA | O2D-CGD-O1D | -2.64 | 118.68 | 123.84 |
| 21 | N | 601 | CHL | O2A-CGA-CBA | 2.64 | 120.19 | 111.91 |
| 22 | R | 308 | CLA | O2D-CGD-O1D | -2.64 | 118.68 | 123.84 |
| 26 | g | 619 | LHG | C11-C10-C9 | -2.64 | 101.03 | 114.42 |
| 22 | A | 405 | CLA | CMB-C2B-C3B | 2.64 | 129.61 | 124.68 |
| 21 | y | 608 | CHL | O2A-CGA-CBA | 2.64 | 120.19 | 111.91 |
| 26 | d | 408 | LHG | O8-C23-C24 | 2.64 | 120.19 | 111.91 |
| 21 | N | 608 | CHL | O2A-CGA-CBA | 2.64 | 120.18 | 111.91 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | B | 604 | CLA | O2D-CGD-O1D | -2.64 | 118.68 | 123.84 |
| 21 | G | 608 | CHL | O2A-CGA-CBA | 2.64 | 120.18 | 111.91 |
| 21 | n | 607 | CHL | O2A-CGA-CBA | 2.64 | 120.18 | 111.91 |
| 21 | n | 608 | CHL | O2A-CGA-CBA | 2.64 | 120.18 | 111.91 |
| 22 | s | 305 | CLA | O2D-CGD-O1D | -2.64 | 118.68 | 123.84 |
| 30 | d | 401 | PHO | O2D-CGD-O1D | -2.64 | 118.68 | 123.84 |
| 33 | D | 402 | SQD | O5-C5-C4 | 2.64 | 114.48 | 109.69 |
| 21 | y | 607 | CHL | O2A-CGA-CBA | 2.64 | 120.18 | 111.91 |
| 33 | d | 402 | SQD | O5-C5-C4 | 2.64 | 114.48 | 109.69 |
| 22 | B | 613 | CLA | O2D-CGD-O1D | -2.64 | 118.69 | 123.84 |
| 22 | g | 611 | CLA | C1B-CHB-C4A | -2.64 | 124.90 | 130.12 |
| 21 | G | 601 | CHL | O2A-CGA-CBA | 2.64 | 120.18 | 111.91 |
| 22 | g | 604 | CLA | CHB-C4A-NA | 2.63 | 128.16 | 124.51 |
| 21 | y | 609 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 21 | n | 601 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 21 | R | 307 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 21 | G | 606 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 35 | C | 519 | DGD | C3G-C2G-C1G | -2.63 | 105.56 | 111.79 |
| 21 | r | 301 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 22 | y | 613 | CLA | C1B-CHB-C4A | -2.63 | 124.90 | 130.12 |
| 21 | Y | 607 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 21 | Y | 608 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 21 | r | 307 | CHL | O2A-CGA-CBA | 2.63 | 120.17 | 111.91 |
| 36 | w | 102 | LMG | O3-C3-C2 | -2.63 | 104.27 | 110.35 |
| 21 | G | 609 | CHL | O2A-CGA-CBA | 2.63 | 120.16 | 111.91 |
| 22 | R | 311 | CLA | CHB-C4A-NA | 2.63 | 128.15 | 124.51 |
| 21 | R | 305 | CHL | O2A-CGA-CBA | 2.63 | 120.16 | 111.91 |
| 21 | R | 306 | CHL | O2A-CGA-CBA | 2.63 | 120.16 | 111.91 |
| 31 | C | 516 | BCR | C27-C26-C25 | 2.63 | 126.55 | 122.73 |
| 21 | n | 606 | CHL | O2A-CGA-CBA | 2.63 | 120.16 | 111.91 |
| 35 | c | 518 | DGD | C3G-C2G-C1G | -2.63 | 105.57 | 111.79 |
| 21 | g | 608 | CHL | O2A-CGA-CBA | 2.63 | 120.16 | 111.91 |
| 21 | G | 607 | CHL | O2A-CGA-CBA | 2.63 | 120.15 | 111.91 |
| 22 | b | 610 | CLA | O2D-CGD-O1D | -2.63 | 118.70 | 123.84 |
| 31 | a | 409 | BCR | C27-C26-C25 | 2.63 | 126.55 | 122.73 |
| 26 | Y | 617 | LHG | O8-C23-C24 | 2.63 | 120.15 | 111.91 |
| 21 | y | 605 | CHL | O2A-CGA-CBA | 2.63 | 120.15 | 111.91 |
| 21 | Y | 601 | CHL | O2A-CGA-CBA | 2.63 | 120.15 | 111.91 |
| 21 | S | 301 | CHL | O2A-CGA-CBA | 2.63 | 120.15 | 111.91 |
| 21 | r | 306 | CHL | O2A-CGA-CBA | 2.63 | 120.15 | 111.91 |
| 21 | n | 605 | CHL | O2A-CGA-CBA | 2.62 | 120.14 | 111.91 |
| 22 | c | 505 | CLA | CHB-C4A-NA | 2.62 | 128.14 | 124.51 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | Y | 610 | CLA | C1B-CHB-C4A | -2.62 | 124.92 | 130.12 |
| 21 | g | 607 | CHL | O2A-CGA-CBA | 2.62 | 120.14 | 111.91 |
| 21 | s | 301 | CHL | O2A-CGA-CBA | 2.62 | 120.14 | 111.91 |
| 22 | B | 604 | CLA | C1B-CHB-C4A | -2.62 | 124.93 | 130.12 |
| 22 | n | 604 | CLA | O2D-CGD-O1D | -2.62 | 118.72 | 123.84 |
| 32 | d | 406 | PL9 | C27-C28-C29 | -2.62 | 121.35 | 127.66 |
| 31 | b | 616 | BCR | C27-C26-C25 | 2.62 | 126.53 | 122.73 |
| 21 | N | 605 | CHL | O2A-CGA-CBA | 2.62 | 120.13 | 111.91 |
| 22 | N | 604 | CLA | O2D-CGD-O1D | -2.62 | 118.72 | 123.84 |
| 22 | S | 312 | CLA | O2D-CGD-O1D | -2.62 | 118.72 | 123.84 |
| 21 | g | 606 | CHL | O2A-CGA-CBA | 2.62 | 120.12 | 111.91 |
| 22 | A | 409 | CLA | CHB-C4A-NA | 2.62 | 128.13 | 124.51 |
| 22 | C | 503 | CLA | CHB-C4A-NA | 2.62 | 128.13 | 124.51 |
| 21 | Y | 605 | CHL | O2A-CGA-CBA | 2.62 | 120.11 | 111.91 |
| 22 | b | 611 | CLA | CHB-C4A-NA | 2.61 | 128.13 | 124.51 |
| 21 | Y | 606 | CHL | O2A-CGA-CBA | 2.61 | 120.11 | 111.91 |
| 22 | c | 504 | CLA | C1B-CHB-C4A | -2.61 | 124.94 | 130.12 |
| 22 | x | 101 | CLA | O2D-CGD-O1D | -2.61 | 118.73 | 123.84 |
| 22 | a | 408 | CLA | O2D-CGD-O1D | -2.61 | 118.73 | 123.84 |
| 22 | C | 506 | CLA | CHB-C4A-NA | 2.61 | 128.12 | 124.51 |
| 22 | b | 601 | CLA | C1B-CHB-C4A | -2.61 | 124.95 | 130.12 |
| 22 | y | 604 | CLA | O2D-CGD-O1D | -2.61 | 118.74 | 123.84 |
| 31 | K | 102 | BCR | C24-C23-C22 | -2.61 | 122.30 | 126.23 |
| 22 | G | 604 | CLA | O2D-CGD-O1D | -2.61 | 118.74 | 123.84 |
| 22 | B | 603 | CLA | O2D-CGD-O1D | -2.61 | 118.74 | 123.84 |
| 22 | b | 601 | CLA | O2D-CGD-O1D | -2.61 | 118.74 | 123.84 |
| 22 | y | 611 | CLA | C1B-CHB-C4A | -2.60 | 124.96 | 130.12 |
| 22 | C | 504 | CLA | O2D-CGD-O1D | -2.60 | 118.75 | 123.84 |
| 32 | D | 407 | PL9 | C27-C28-C29 | -2.60 | 121.39 | 127.66 |
| 22 | r | 310 | CLA | CHB-C4A-NA | 2.60 | 128.11 | 124.51 |
| 22 | b | 606 | CLA | CHB-C4A-NA | 2.60 | 128.11 | 124.51 |
| 22 | c | 510 | CLA | C3D-C2D-C1D | 2.60 | 109.38 | 105.83 |
| 22 | c | 507 | CLA | CHB-C4A-NA | 2.60 | 128.11 | 124.51 |
| 22 | Y | 604 | CLA | O2D-CGD-O1D | -2.60 | 118.75 | 123.84 |
| 22 | B | 614 | CLA | CHB-C4A-NA | 2.60 | 128.11 | 124.51 |
| 22 | Y | 602 | CLA | O2D-CGD-O1D | -2.60 | 118.75 | 123.84 |
| 35 | C | 518 | DGD | C3G-C2G-C1G | -2.60 | 105.64 | 111.79 |
| 22 | y | 602 | CLA | O2D-CGD-O1D | -2.60 | 118.75 | 123.84 |
| 22 | G | 602 | CLA | O2D-CGD-O1D | -2.60 | 118.75 | 123.84 |
| 22 | g | 604 | CLA | O2D-CGD-O1D | -2.60 | 118.75 | 123.84 |
| 22 | A | 409 | CLA | O2D-CGD-O1D | -2.60 | 118.75 | 123.84 |
| 22 | C | 508 | CLA | CHB-C4A-NA | 2.60 | 128.11 | 124.51 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | b | 604 | CLA | O2D-CGD-O1D | -2.60 | 118.76 | 123.84 |
| 22 | n | 602 | CLA | O2D-CGD-O1D | -2.60 | 118.76 | 123.84 |
| 22 | N | 610 | CLA | C1B-CHB-C4A | -2.60 | 124.97 | 130.12 |
| 31 | A | 410 | BCR | C27-C26-C25 | 2.60 | 126.50 | 122.73 |
| 36 | M | 101 | LMG | O6-C1-O1 | -2.59 | 103.83 | 109.97 |
| 31 | k | 102 | BCR | C24-C23-C22 | -2.59 | 122.32 | 126.23 |
| 35 | c | 517 | DGD | C3G-C2G-C1G | -2.59 | 105.66 | 111.79 |
| 22 | d | 404 | CLA | O2D-CGD-O1D | -2.59 | 118.77 | 123.84 |
| 22 | n | 610 | CLA | C1B-CHB-C4A | -2.59 | 124.99 | 130.12 |
| 35 | c | 519 | DGD | C3G-C2G-C1G | -2.59 | 105.66 | 111.79 |
| 36 | T | 101 | LMG | O6-C1-O1 | -2.59 | 103.84 | 109.97 |
| 31 | B | 619 | BCR | C27-C26-C25 | 2.59 | 126.49 | 122.73 |
| 26 | y | 617 | LHG | O8-C23-C24 | 2.59 | 120.03 | 111.91 |
| 22 | r | 309 | CLA | CHB-C4A-NA | 2.59 | 128.09 | 124.51 |
| 33 | L | 102 | SQD | C4-C3-C2 | 2.59 | 115.34 | 110.82 |
| 31 | K | 102 | BCR | C33-C5-C6 | -2.58 | 121.63 | 124.53 |
| 31 | c | 515 | BCR | C27-C26-C25 | 2.58 | 126.48 | 122.73 |
| 35 | J | 101 | DGD | C3G-C2G-C1G | -2.58 | 105.69 | 111.79 |
| 22 | c | 508 | CLA | CHB-C4A-NA | 2.58 | 128.08 | 124.51 |
| 22 | D | 405 | CLA | O2D-CGD-O1D | -2.58 | 118.80 | 123.84 |
| 22 | R | 308 | CLA | CHB-C4A-NA | 2.58 | 128.08 | 124.51 |
| 31 | A | 410 | BCR | C33-C5-C6 | -2.58 | 121.63 | 124.53 |
| 22 | C | 509 | CLA | CHB-C4A-NA | 2.57 | 128.07 | 124.51 |
| 22 | D | 404 | CLA | C1B-CHB-C4A | -2.57 | 125.02 | 130.12 |
| 22 | B | 607 | CLA | O2D-CGD-O1D | -2.57 | 118.81 | 123.84 |
| 26 | n | 617 | LHG | C11-C10-C9 | -2.57 | 101.36 | 114.42 |
| 22 | C | 511 | CLA | C3D-C2D-C1D | 2.57 | 109.34 | 105.83 |
| 22 | g | 602 | CLA | O2D-CGD-O1D | -2.57 | 118.81 | 123.84 |
| 30 | A | 408 | PHO | O2D-CGD-O1D | -2.57 | 118.82 | 123.84 |
| 31 | C | 517 | BCR | C33-C5-C6 | -2.57 | 121.64 | 124.53 |
| 31 | c | 516 | BCR | C33-C5-C6 | -2.57 | 121.65 | 124.53 |
| 33 | l | 101 | SQD | C4-C3-C2 | 2.57 | 115.30 | 110.82 |
| 22 | a | 408 | CLA | CHB-C4A-NA | 2.57 | 128.06 | 124.51 |
| 22 | c | 513 | CLA | CHB-C4A-NA | 2.56 | 128.06 | 124.51 |
| 31 | b | 616 | BCR | C11-C10-C9 | -2.56 | 123.65 | 127.31 |
| 22 | r | 305 | CLA | C1B-CHB-C4A | -2.56 | 125.04 | 130.12 |
| 23 | r | 313 | LUT | C21-C26-C25 | 2.56 | 116.00 | 111.42 |
| 22 | B | 611 | CLA | C1B-CHB-C4A | -2.56 | 125.05 | 130.12 |
| 23 | R | 312 | LUT | C21-C26-C25 | 2.56 | 116.00 | 111.42 |
| 24 | Y | 615 | XAT | C11-C12-C13 | -2.56 | 119.23 | 126.42 |
| 31 | k | 102 | BCR | C33-C5-C6 | -2.56 | 121.66 | 124.53 |
| 31 | C | 517 | BCR | C27-C26-C25 | 2.56 | 126.44 | 122.73 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 31 | a | 409 | BCR | C11-C10-C9 | -2.56 | 123.66 | 127.31 |
| 35 | C | 518 | DGD | O3G-C1D-C2D | -2.56 | 104.31 | 108.30 |
| 22 | B | 606 | CLA | CHB-C4A-NA | 2.56 | 128.05 | 124.51 |
| 22 | C | 514 | CLA | CHB-C4A-NA | 2.55 | 128.04 | 124.51 |
| 22 | N | 602 | CLA | O2D-CGD-O1D | -2.55 | 118.84 | 123.84 |
| 22 | r | 304 | CLA | CHB-C4A-NA | 2.55 | 128.04 | 124.51 |
| 26 | G | 618 | LHG | O8-C23-C24 | 2.55 | 119.92 | 111.91 |
| 22 | c | 514 | CLA | CHB-C4A-NA | 2.55 | 128.04 | 124.51 |
| 22 | S | 310 | CLA | CHB-C4A-NA | 2.55 | 128.04 | 124.51 |
| 22 | r | 303 | CLA | C1B-CHB-C4A | -2.55 | 125.06 | 130.12 |
| 22 | b | 608 | CLA | C1B-CHB-C4A | -2.55 | 125.06 | 130.12 |
| 22 | R | 303 | CLA | CHB-C4A-NA | 2.55 | 128.04 | 124.51 |
| 22 | d | 403 | CLA | C1B-CHB-C4A | -2.55 | 125.07 | 130.12 |
| 22 | C | 515 | CLA | CHB-C4A-NA | 2.55 | 128.04 | 124.51 |
| 22 | B | 609 | CLA | CHB-C4A-NA | 2.55 | 128.04 | 124.51 |
| 22 | c | 502 | CLA | C1B-CHB-C4A | -2.55 | 125.07 | 130.12 |
| 22 | R | 304 | CLA | C1B-CHB-C4A | -2.55 | 125.07 | 130.12 |
| 22 | s | 310 | CLA | CHB-C4A-NA | 2.55 | 128.03 | 124.51 |
| 31 | a | 409 | BCR | C33-C5-C6 | -2.55 | 121.67 | 124.53 |
| 22 | g | 602 | CLA | C1B-CHB-C4A | -2.55 | 125.07 | 130.12 |
| 31 | B | 602 | BCR | C15-C16-C17 | -2.55 | 118.26 | 123.47 |
| 22 | S | 312 | CLA | C1B-CHB-C4A | -2.55 | 125.08 | 130.12 |
| 22 | A | 406 | CLA | CHB-C4A-NA | 2.54 | 128.03 | 124.51 |
| 22 | S | 313 | CLA | CHB-C4A-NA | 2.54 | 128.03 | 124.51 |
| 22 | G | 602 | CLA | C1B-CHB-C4A | -2.54 | 125.08 | 130.12 |
| 22 | Y | 602 | CLA | C1B-CHB-C4A | -2.54 | 125.08 | 130.12 |
| 22 | C | 503 | CLA | C1B-CHB-C4A | -2.54 | 125.08 | 130.12 |
| 25 | Y | 616 | NEX | C36-C21-C22 | -2.54 | 104.56 | 108.98 |
| 26 | g | 619 | LHG | O8-C23-C24 | 2.54 | 119.89 | 111.91 |
| 31 | B | 619 | BCR | C11-C10-C9 | -2.54 | 123.68 | 127.31 |
| 31 | T | 102 | BCR | C15-C14-C13 | -2.54 | 123.68 | 127.31 |
| 23 | N | 614 | LUT | C31-C32-C33 | -2.54 | 119.27 | 126.42 |
| 31 | B | 602 | BCR | C15-C14-C13 | -2.54 | 123.68 | 127.31 |
| 21 | Y | 605 | CHL | OMC-CMC-C2C | -2.54 | 119.94 | 125.69 |
| 23 | G | 615 | LUT | C31-C32-C33 | -2.54 | 119.28 | 126.42 |
| 22 | r | 303 | CLA | CHB-C4A-NA | 2.54 | 128.02 | 124.51 |
| 26 | D | 409 | LHG | C11-C10-C9 | -2.54 | 101.53 | 114.42 |
| 22 | n | 602 | CLA | C1B-CHB-C4A | -2.54 | 125.09 | 130.12 |
| 21 | G | 607 | CHL | OMC-CMC-C2C | -2.54 | 119.94 | 125.69 |
| 22 | s | 312 | CLA | C1B-CHB-C4A | -2.54 | 125.09 | 130.12 |
| 21 | R | 306 | CHL | OMC-CMC-C2C | -2.54 | 119.95 | 125.69 |
| 36 | c | 523 | LMG | O1-C7-C8 | -2.54 | 104.78 | 110.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 26 | L | 103 | LHG | C11-C10-C9 | -2.54 | 101.55 | 114.42 |
| 26 | d | 408 | LHG | C11-C10-C9 | -2.54 | 101.55 | 114.42 |
| 21 | n | 601 | CHL | OMC-CMC-C2C | -2.54 | 119.95 | 125.69 |
| 30 | a | 407 | PHO | O2D-CGD-O1D | -2.54 | 118.88 | 123.84 |
| 35 | c | 517 | DGD | O3G-C1D-C2D | -2.54 | 104.34 | 108.30 |
| 36 | C | 523 | LMG | O1-C7-C8 | -2.54 | 104.78 | 110.90 |
| 22 | C | 505 | CLA | CHB-C4A-NA | 2.53 | 128.02 | 124.51 |
| 21 | s | 307 | CHL | OMC-CMC-C2C | -2.53 | 119.96 | 125.69 |
| 22 | s | 313 | CLA | CHB-C4A-NA | 2.53 | 128.01 | 124.51 |
| 23 | n | 614 | LUT | C31-C32-C33 | -2.53 | 119.30 | 126.42 |
| 22 | R | 302 | CLA | CHB-C4A-NA | 2.53 | 128.01 | 124.51 |
| 22 | c | 513 | CLA | O2D-CGD-O1D | -2.53 | 118.89 | 123.84 |
| 23 | g | 615 | LUT | C31-C32-C33 | -2.53 | 119.30 | 126.42 |
| 21 | r | 307 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 21 | R | 305 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 22 | b | 603 | CLA | CHB-C4A-NA | 2.53 | 128.01 | 124.51 |
| 26 | l | 102 | LHG | C11-C10-C9 | -2.53 | 101.59 | 114.42 |
| 23 | R | 312 | LUT | C8-C7-C6 | -2.53 | 120.10 | 127.20 |
| 21 | N | 607 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 25 | r | 315 | NEX | C36-C21-C22 | -2.53 | 104.59 | 108.98 |
| 21 | g | 609 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 21 | y | 607 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 21 | y | 608 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 22 | b | 608 | CLA | CHB-C4A-NA | 2.53 | 128.01 | 124.51 |
| 21 | g | 608 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 21 | r | 301 | CHL | OMC-CMC-C2C | -2.53 | 119.97 | 125.69 |
| 21 | N | 601 | CHL | OMC-CMC-C2C | -2.52 | 119.98 | 125.69 |
| 23 | y | 614 | LUT | C31-C32-C33 | -2.52 | 119.33 | 126.42 |
| 31 | A | 410 | BCR | C11-C10-C9 | -2.52 | 123.71 | 127.31 |
| 21 | G | 609 | CHL | OMC-CMC-C2C | -2.52 | 119.98 | 125.69 |
| 21 | N | 606 | CHL | OMC-CMC-C2C | -2.52 | 119.98 | 125.69 |
| 21 | S | 306 | CHL | OMC-CMC-C2C | -2.52 | 119.98 | 125.69 |
| 22 | a | 405 | CLA | CHB-C4A-NA | 2.52 | 128.00 | 124.51 |
| 21 | y | 605 | CHL | OMC-CMC-C2C | -2.52 | 119.98 | 125.69 |
| 21 | r | 308 | CHL | OMC-CMC-C2C | -2.52 | 119.98 | 125.69 |
| 21 | S | 301 | CHL | OMC-CMC-C2C | -2.52 | 119.98 | 125.69 |
| 22 | C | 504 | CLA | CHB-C4A-NA | 2.52 | 128.00 | 124.51 |
| 21 | S | 302 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |
| 21 | S | 307 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |
| 31 | c | 516 | BCR | C27-C26-C25 | 2.52 | 126.39 | 122.73 |
| 21 | g | 606 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |
| 21 | n | 605 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | n | 606 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |
| 21 | N | 608 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |
| 31 | T | 102 | BCR | C15-C16-C17 | -2.52 | 118.32 | 123.47 |
| 22 | y | 602 | CLA | C1B-CHB-C4A | -2.52 | 125.13 | 130.12 |
| 21 | g | 607 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |
| 21 | R | 307 | CHL | OMC-CMC-C2C | -2.52 | 119.99 | 125.69 |
| 21 | y | 601 | CHL | OMC-CMC-C2C | -2.52 | 120.00 | 125.69 |
| 21 | s | 306 | CHL | OMC-CMC-C2C | -2.52 | 120.00 | 125.69 |
| 22 | N | 611 | CLA | CMB-C2B-C3B | 2.52 | 129.38 | 124.68 |
| 21 | g | 601 | CHL | OMC-CMC-C2C | -2.52 | 120.00 | 125.69 |
| 33 | L | 102 | SQD | C44-O6-C1 | 2.52 | 118.65 | 113.74 |
| 22 | B | 611 | CLA | CHB-C4A-NA | 2.52 | 127.99 | 124.51 |
| 22 | b | 613 | CLA | CHB-C4A-NA | 2.51 | 127.99 | 124.51 |
| 22 | s | 303 | CLA | CHB-C4A-NA | 2.51 | 127.99 | 124.51 |
| 33 | l | 101 | SQD | C44-O6-C1 | 2.51 | 118.65 | 113.74 |
| 22 | n | 611 | CLA | CMB-C2B-C3B | 2.51 | 129.38 | 124.68 |
| 23 | r | 313 | LUT | C8-C7-C6 | -2.51 | 120.14 | 127.20 |
| 26 | n | 617 | LHG | O8-C23-C24 | 2.51 | 119.80 | 111.91 |
| 22 | b | 607 | CLA | CHB-C4A-NA | 2.51 | 127.99 | 124.51 |
| 21 | G | 608 | CHL | OMC-CMC-C2C | -2.51 | 120.00 | 125.69 |
| 21 | N | 605 | CHL | OMC-CMC-C2C | -2.51 | 120.00 | 125.69 |
| 21 | y | 606 | CHL | OMC-CMC-C2C | -2.51 | 120.00 | 125.69 |
| 22 | C | 514 | CLA | O2D-CGD-O1D | -2.51 | 118.92 | 123.84 |
| 23 | Y | 613 | LUT | C31-C32-C33 | -2.51 | 119.36 | 126.42 |
| 21 | Y | 607 | CHL | OMC-CMC-C2C | -2.51 | 120.01 | 125.69 |
| 22 | c | 503 | CLA | CHB-C4A-NA | 2.51 | 127.98 | 124.51 |
| 21 | n | 607 | CHL | OMC-CMC-C2C | -2.51 | 120.01 | 125.69 |
| 22 | B | 616 | CLA | CHB-C4A-NA | 2.51 | 127.98 | 124.51 |
| 21 | G | 605 | CHL | OMC-CMC-C2C | -2.51 | 120.01 | 125.69 |
| 25 | y | 618 | NEX | C36-C21-C22 | -2.51 | 104.62 | 108.98 |
| 31 | T | 102 | BCR | C33-C5-C6 | -2.51 | 121.71 | 124.53 |
| 22 | C | 507 | CLA | C1B-CHB-C4A | -2.51 | 125.14 | 130.12 |
| 24 | Y | 615 | XAT | C8-C9-C10 | -2.51 | 115.09 | 118.94 |
| 22 | N | 602 | CLA | C1B-CHB-C4A | -2.51 | 125.15 | 130.12 |
| 22 | s | 303 | CLA | CHD-C1D-ND | -2.51 | 122.15 | 124.45 |
| 21 | y | 609 | CHL | OMC-CMC-C2C | -2.51 | 120.01 | 125.69 |
| 22 | W | 101 | CLA | CMB-C2B-C3B | 2.51 | 129.37 | 124.68 |
| 31 | d | 405 | BCR | C27-C26-C25 | 2.51 | 126.37 | 122.73 |
| 21 | r | 306 | CHL | OMC-CMC-C2C | -2.51 | 120.02 | 125.69 |
| 22 | s | 311 | CLA | O2D-CGD-O1D | -2.51 | 118.94 | 123.84 |
| 22 | S | 311 | CLA | O2D-CGD-O1D | -2.51 | 118.94 | 123.84 |
| 31 | h | 101 | BCR | C33-C5-C6 | -2.51 | 121.71 | 124.53 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 31 | k | 102 | BCR | C15-C14-C13 | -2.50 | 123.73 | 127.31 |
| 21 | Y | 601 | CHL | OMC-CMC-C2C | -2.50 | 120.03 | 125.69 |
| 22 | B | 607 | CLA | CHB-C4A-NA | 2.50 | 127.97 | 124.51 |
| 22 | R | 302 | CLA | C1B-CHB-C4A | -2.50 | 125.16 | 130.12 |
| 22 | G | 610 | CLA | C16-C15-C13 | -2.50 | 107.83 | 115.92 |
| 22 | g | 612 | CLA | CMB-C2B-C3B | 2.50 | 129.36 | 124.68 |
| 36 | b | 620 | LMG | O1-C7-C8 | -2.50 | 104.86 | 110.90 |
| 21 | s | 302 | CHL | OMC-CMC-C2C | -2.50 | 120.03 | 125.69 |
| 22 | S | 310 | CLA | C1B-CHB-C4A | -2.50 | 125.16 | 130.12 |
| 22 | c | 506 | CLA | C1B-CHB-C4A | -2.50 | 125.17 | 130.12 |
| 31 | a | 409 | BCR | C24-C23-C22 | -2.50 | 122.46 | 126.23 |
| 22 | C | 506 | CLA | C1-C2-C3 | -2.50 | 121.72 | 126.04 |
| 21 | G | 601 | CHL | OMC-CMC-C2C | -2.50 | 120.04 | 125.69 |
| 31 | k | 101 | BCR | C33-C5-C6 | -2.50 | 121.72 | 124.53 |
| 22 | c | 504 | CLA | CHB-C4A-NA | 2.50 | 127.97 | 124.51 |
| 31 | K | 102 | BCR | C15-C14-C13 | -2.50 | 123.75 | 127.31 |
| 22 | B | 607 | CLA | C1B-CHB-C4A | -2.50 | 125.17 | 130.12 |
| 22 | S | 303 | CLA | CHB-C4A-NA | 2.49 | 127.96 | 124.51 |
| 21 | n | 608 | CHL | OMC-CMC-C2C | -2.49 | 120.05 | 125.69 |
| 21 | Y | 608 | CHL | OMC-CMC-C2C | -2.49 | 120.05 | 125.69 |
| 21 | g | 605 | CHL | OMC-CMC-C2C | -2.49 | 120.05 | 125.69 |
| 31 | K | 101 | BCR | C33-C5-C6 | -2.49 | 121.73 | 124.53 |
| 22 | S | 313 | CLA | C1B-CHB-C4A | -2.49 | 125.18 | 130.12 |
| 36 | B | 623 | LMG | O1-C7-C8 | -2.49 | 104.88 | 110.90 |
| 22 | c | 505 | CLA | C1-C2-C3 | -2.49 | 121.73 | 126.04 |
| 22 | w | 101 | CLA | CMB-C2B-C3B | 2.49 | 129.34 | 124.68 |
| 21 | Y | 606 | CHL | OMC-CMC-C2C | -2.49 | 120.06 | 125.69 |
| 22 | b | 602 | CLA | CHB-C4A-NA | 2.49 | 127.95 | 124.51 |
| 21 | s | 301 | CHL | OMC-CMC-C2C | -2.49 | 120.06 | 125.69 |
| 22 | G | 612 | CLA | CMB-C2B-C3B | 2.49 | 129.34 | 124.68 |
| 22 | b | 604 | CLA | C1B-CHB-C4A | -2.49 | 125.19 | 130.12 |
| 21 | G | 606 | CHL | OMC-CMC-C2C | -2.49 | 120.06 | 125.69 |
| 31 | B | 602 | BCR | C24-C23-C22 | -2.49 | 122.48 | 126.23 |
| 22 | G | 611 | CLA | CHB-C4A-NA | 2.49 | 127.95 | 124.51 |
| 22 | b | 605 | CLA | CHB-C4A-NA | 2.49 | 127.95 | 124.51 |
| 37 | F | 101 | HEM | C1D-C2D-C3D | 2.49 | 109.57 | 106.96 |
| 22 | B | 610 | CLA | CHB-C4A-NA | 2.49 | 127.95 | 124.51 |
| 26 | n | 617 | LHG | C20-C19-C18 | -2.48 | 101.81 | 114.42 |
| 22 | s | 313 | CLA | C1B-CHB-C4A | -2.48 | 125.20 | 130.12 |
| 22 | S | 305 | CLA | C1B-CHB-C4A | -2.48 | 125.20 | 130.12 |
| 22 | R | 304 | CLA | O2A-CGA-O1A | -2.48 | 117.33 | 123.59 |
| 26 | b | 619 | LHG | C11-C10-C9 | -2.48 | 101.83 | 114.42 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 26 | b | 619 | LHG | O8-C23-C24 | 2.48 | 119.69 | 111.91 |
| 22 | s | 305 | CLA | C1B-CHB-C4A | -2.48 | 125.20 | 130.12 |
| 22 | n | 612 | CLA | C2A-C1A-CHA | 2.48 | 128.20 | 123.86 |
| 26 | c | 520 | LHG | C11-C10-C9 | -2.48 | 101.84 | 114.42 |
| 36 | k | 103 | LMG | O6-C1-O1 | -2.48 | 104.10 | 109.97 |
| 22 | B | 608 | CLA | CHB-C4A-NA | 2.48 | 127.94 | 124.51 |
| 22 | A | 405 | CLA | C1B-CHB-C4A | -2.48 | 125.21 | 130.12 |
| 26 | C | 520 | LHG | C11-C10-C9 | -2.48 | 101.85 | 114.42 |
| 26 | B | 622 | LHG | C11-C10-C9 | -2.48 | 101.86 | 114.42 |
| 22 | G | 613 | CLA | C2A-C1A-CHA | 2.48 | 128.19 | 123.86 |
| 22 | g | 613 | CLA | C2A-C1A-CHA | 2.47 | 128.19 | 123.86 |
| 31 | T | 102 | BCR | C24-C23-C22 | -2.47 | 122.50 | 126.23 |
| 31 | C | 516 | BCR | C15-C14-C13 | -2.47 | 123.78 | 127.31 |
| 31 | b | 617 | BCR | C11-C10-C9 | -2.47 | 123.78 | 127.31 |
| 22 | s | 310 | CLA | C1B-CHB-C4A | -2.47 | 125.22 | 130.12 |
| 22 | R | 309 | CLA | C1B-CHB-C4A | -2.47 | 125.22 | 130.12 |
| 22 | c | 509 | CLA | CHB-C4A-NA | 2.47 | 127.93 | 124.51 |
| 36 | K | 103 | LMG | O6-C1-O1 | -2.47 | 104.12 | 109.97 |
| 31 | B | 620 | BCR | C11-C10-C9 | -2.47 | 123.78 | 127.31 |
| 31 | D | 406 | BCR | C27-C26-C25 | 2.47 | 126.32 | 122.73 |
| 26 | D | 410 | LHG | C11-C10-C9 | -2.47 | 101.89 | 114.42 |
| 31 | c | 515 | BCR | C15-C14-C13 | -2.47 | 123.79 | 127.31 |
| 31 | A | 410 | BCR | C24-C23-C22 | -2.47 | 122.51 | 126.23 |
| 22 | Y | 611 | CLA | C2A-C1A-CHA | 2.47 | 128.17 | 123.86 |
| 31 | B | 602 | BCR | C33-C5-C6 | -2.47 | 121.76 | 124.53 |
| 22 | c | 508 | CLA | C1B-CHB-C4A | -2.47 | 125.23 | 130.12 |
| 22 | c | 509 | CLA | C1B-CHB-C4A | -2.47 | 125.23 | 130.12 |
| 22 | b | 602 | CLA | C1B-CHB-C4A | -2.46 | 125.24 | 130.12 |
| 22 | B | 605 | CLA | CHB-C4A-NA | 2.46 | 127.92 | 124.51 |
| 22 | C | 510 | CLA | C1B-CHB-C4A | -2.46 | 125.24 | 130.12 |
| 26 | d | 409 | LHG | C11-C10-C9 | -2.46 | 101.93 | 114.42 |
| 22 | C | 510 | CLA | CHB-C4A-NA | 2.46 | 127.92 | 124.51 |
| 26 | B | 622 | LHG | O8-C23-C24 | 2.46 | 119.63 | 111.91 |
| 22 | s | 309 | CLA | C1B-CHB-C4A | -2.46 | 125.24 | 130.12 |
| 36 | b | 620 | LMG | O3-C3-C2 | -2.46 | 104.66 | 110.35 |
| 26 | d | 408 | LHG | C20-C19-C18 | -2.46 | 101.93 | 114.42 |
| 37 | f | 101 | HEM | C1D-C2D-C3D | 2.46 | 109.54 | 106.96 |
| 26 | D | 408 | LHG | O8-C23-C24 | 2.46 | 119.63 | 111.91 |
| 36 | C | 523 | LMG | C38-C37-C36 | -2.46 | 101.94 | 114.42 |
| 22 | r | 312 | CLA | C1B-CHB-C4A | -2.46 | 125.25 | 130.12 |
| 22 | S | 308 | CLA | O2D-CGD-O1D | -2.46 | 119.03 | 123.84 |
| 26 | d | 407 | LHG | O8-C23-C24 | 2.46 | 119.62 | 111.91 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | b | 615 | CLA | CHB-C4A-NA | 2.46 | 127.91 | 124.51 |
| 24 | y | 615 | XAT | C11-C12-C13 | -2.45 | 119.52 | 126.42 |
| 22 | a | 404 | CLA | C1B-CHB-C4A | -2.45 | 125.26 | 130.12 |
| 22 | r | 305 | CLA | O2A-CGA-O1A | -2.45 | 117.40 | 123.59 |
| 22 | b | 604 | CLA | CHB-C4A-NA | 2.45 | 127.90 | 124.51 |
| 22 | y | 612 | CLA | C2A-C1A-CHA | 2.45 | 128.15 | 123.86 |
| 22 | c | 511 | CLA | C1B-CHB-C4A | -2.45 | 125.26 | 130.12 |
| 22 | C | 509 | CLA | C1B-CHB-C4A | -2.45 | 125.26 | 130.12 |
| 22 | Y | 611 | CLA | CHC-C1C-C2C | 2.45 | 133.51 | 126.72 |
| 22 | B | 618 | CLA | CHB-C4A-NA | 2.45 | 127.90 | 124.51 |
| 22 | S | 309 | CLA | C1B-CHB-C4A | -2.45 | 125.26 | 130.12 |
| 22 | s | 308 | CLA | O2D-CGD-O1D | -2.45 | 119.05 | 123.84 |
| 22 | B | 604 | CLA | CHB-C4A-NA | 2.45 | 127.90 | 124.51 |
| 22 | y | 612 | CLA | CHC-C1C-C2C | 2.45 | 133.50 | 126.72 |
| 22 | N | 612 | CLA | C2A-C1A-CHA | 2.45 | 128.14 | 123.86 |
| 22 | Y | 610 | CLA | CHB-C4A-NA | 2.45 | 127.90 | 124.51 |
| 25 | N | 617 | NEX | C27-C28-C29 | -2.45 | 121.73 | 125.53 |
| 36 | c | 523 | LMG | C38-C37-C36 | -2.45 | 101.99 | 114.42 |
| 22 | y | 611 | CLA | CHB-C4A-NA | 2.45 | 127.90 | 124.51 |
| 22 | c | 510 | CLA | CHB-C4A-NA | 2.45 | 127.90 | 124.51 |
| 26 | D | 409 | LHG | C20-C19-C18 | -2.45 | 102.00 | 114.42 |
| 22 | C | 507 | CLA | CHB-C4A-NA | 2.45 | 127.89 | 124.51 |
| 22 | A | 409 | CLA | C1-C2-C3 | -2.45 | 121.81 | 126.04 |
| 22 | b | 611 | CLA | C1B-CHB-C4A | -2.45 | 125.27 | 130.12 |
| 26 | G | 618 | LHG | C20-C19-C18 | -2.45 | 102.01 | 114.42 |
| 22 | G | 613 | CLA | CHC-C1C-C2C | 2.45 | 133.49 | 126.72 |
| 22 | c | 506 | CLA | CHB-C4A-NA | 2.44 | 127.89 | 124.51 |
| 22 | x | 101 | CLA | CHB-C4A-NA | 2.44 | 127.89 | 124.51 |
| 22 | b | 614 | CLA | C1B-CHB-C4A | -2.44 | 125.28 | 130.12 |
| 22 | B | 605 | CLA | C1B-CHB-C4A | -2.44 | 125.28 | 130.12 |
| 22 | g | 611 | CLA | CHB-C4A-NA | 2.44 | 127.89 | 124.51 |
| 22 | r | 310 | CLA | C1B-CHB-C4A | -2.44 | 125.28 | 130.12 |
| 22 | C | 511 | CLA | C1B-CHB-C4A | -2.44 | 125.28 | 130.12 |
| 22 | B | 603 | CLA | C1B-CHB-C4A | -2.44 | 125.29 | 130.12 |
| 22 | B | 610 | CLA | C1B-CHB-C4A | -2.44 | 125.29 | 130.12 |
| 36 | K | 103 | LMG | C40-C39-C38 | -2.44 | 102.04 | 114.42 |
| 22 | A | 405 | CLA | CHB-C4A-NA | 2.44 | 127.88 | 124.51 |
| 22 | A | 407 | CLA | CHB-C4A-NA | 2.44 | 127.88 | 124.51 |
| 22 | x | 101 | CLA | C1B-CHB-C4A | -2.44 | 125.29 | 130.12 |
| 22 | R | 311 | CLA | C1B-CHB-C4A | -2.44 | 125.29 | 130.12 |
| 31 | H | 101 | BCR | C33-C5-C6 | -2.44 | 121.79 | 124.53 |
| 22 | B | 617 | CLA | C1B-CHB-C4A | -2.44 | 125.29 | 130.12 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 36 | c | 523 | LMG | C40-C39-C38 | -2.44 | 102.06 | 114.42 |
| 22 | S | 303 | CLA | CHD-C1D-ND | -2.44 | 122.22 | 124.45 |
| 24 | G | 617 | XAT | C11-C12-C13 | -2.44 | 119.58 | 126.42 |
| 22 | c | 510 | CLA | C1B-CHB-C4A | -2.44 | 125.29 | 130.12 |
| 36 | k | 103 | LMG | C40-C39-C38 | -2.43 | 102.06 | 114.42 |
| 22 | B | 614 | CLA | C1B-CHB-C4A | -2.43 | 125.30 | 130.12 |
| 36 | B | 623 | LMG | O3-C3-C2 | -2.43 | 104.72 | 110.35 |
| 26 | c | 520 | LHG | O8-C6-C5 | -2.43 | 101.35 | 108.43 |
| 22 | b | 606 | CLA | C1B-CHB-C4A | -2.43 | 125.30 | 130.12 |
| 22 | r | 305 | CLA | CHB-C4A-NA | 2.43 | 127.88 | 124.51 |
| 22 | d | 404 | CLA | C1B-CHB-C4A | -2.43 | 125.30 | 130.12 |
| 36 | D | 411 | LMG | O3-C3-C2 | -2.43 | 104.72 | 110.35 |
| 22 | n | 612 | CLA | CHC-C1C-C2C | 2.43 | 133.45 | 126.72 |
| 22 | b | 601 | CLA | CHB-C4A-NA | 2.43 | 127.87 | 124.51 |
| 22 | C | 513 | CLA | CHB-C4A-NA | 2.43 | 127.87 | 124.51 |
| 36 | k | 103 | LMG | C38-C37-C36 | -2.43 | 102.08 | 114.42 |
| 22 | g | 613 | CLA | CHC-C1C-C2C | 2.43 | 133.45 | 126.72 |
| 22 | a | 406 | CLA | CHB-C4A-NA | 2.43 | 127.87 | 124.51 |
| 22 | N | 612 | CLA | CHC-C1C-C2C | 2.43 | 133.44 | 126.72 |
| 37 | F | 101 | HEM | CHA-C4D-C3D | 2.43 | 129.88 | 125.33 |
| 31 | b | 618 | BCR | C33-C5-C6 | -2.43 | 121.80 | 124.53 |
| 36 | C | 523 | LMG | C40-C39-C38 | -2.43 | 102.10 | 114.42 |
| 26 | C | 520 | LHG | O8-C6-C5 | -2.43 | 101.37 | 108.43 |
| 22 | b | 607 | CLA | C1B-CHB-C4A | -2.43 | 125.31 | 130.12 |
| 31 | b | 616 | BCR | C24-C23-C22 | -2.43 | 122.57 | 126.23 |
| 22 | C | 513 | CLA | CHD-C1D-ND | -2.43 | 122.22 | 124.45 |
| 22 | B | 615 | CLA | C1B-CHB-C4A | -2.43 | 125.31 | 130.12 |
| 22 | C | 511 | CLA | CHB-C4A-NA | 2.42 | 127.86 | 124.51 |
| 31 | b | 618 | BCR | C27-C26-C25 | 2.42 | 126.25 | 122.73 |
| 26 | r | 302 | LHG | C20-C19-C18 | -2.42 | 102.12 | 114.42 |
| 23 | N | 615 | LUT | C7-C8-C9 | -2.42 | 122.57 | 126.23 |
| 22 | b | 610 | CLA | CHB-C4A-NA | 2.42 | 127.86 | 124.51 |
| 26 | G | 618 | LHG | C11-C10-C9 | -2.42 | 102.12 | 114.42 |
| 25 | g | 618 | NEX | C11-C12-C13 | -2.42 | 119.61 | 126.42 |
| 22 | R | 304 | CLA | CHB-C4A-NA | 2.42 | 127.86 | 124.51 |
| 22 | r | 304 | CLA | C1B-CHB-C4A | -2.42 | 125.32 | 130.12 |
| 22 | R | 303 | CLA | C1B-CHB-C4A | -2.42 | 125.32 | 130.12 |
| 31 | B | 621 | BCR | C33-C5-C6 | -2.42 | 121.81 | 124.53 |
| 36 | K | 103 | LMG | C38-C37-C36 | -2.42 | 102.13 | 114.42 |
| 22 | g | 603 | CLA | CHB-C4A-NA | 2.42 | 127.86 | 124.51 |
| 22 | S | 311 | CLA | C1B-CHB-C4A | -2.42 | 125.33 | 130.12 |
| 26 | c | 520 | LHG | O8-C23-C24 | 2.42 | 119.50 | 111.91 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 36 | d | 410 | LMG | O3-C3-C2 | -2.42 | 104.76 | 110.35 |
| 26 | s | 314 | LHG | C11-C10-C9 | -2.42 | 102.14 | 114.42 |
| 22 | Y | 603 | CLA | CHB-C4A-NA | 2.42 | 127.86 | 124.51 |
| 22 | n | 603 | CLA | CHB-C4A-NA | 2.42 | 127.86 | 124.51 |
| 25 | N | 617 | NEX | C36-C21-C26 | -2.42 | 103.52 | 110.05 |
| 22 | c | 513 | CLA | C1B-CHB-C4A | -2.42 | 125.33 | 130.12 |
| 31 | B | 619 | BCR | C24-C23-C22 | -2.42 | 122.58 | 126.23 |
| 22 | b | 609 | CLA | CHB-C4A-NA | 2.42 | 127.85 | 124.51 |
| 22 | N | 603 | CLA | CHB-C4A-NA | 2.42 | 127.85 | 124.51 |
| 31 | B | 621 | BCR | C27-C26-C25 | 2.41 | 126.24 | 122.73 |
| 22 | N | 610 | CLA | CHB-C4A-NA | 2.41 | 127.85 | 124.51 |
| 36 | d | 410 | LMG | O1-C7-C8 | -2.41 | 105.08 | 110.90 |
| 36 | B | 601 | LMG | C40-C39-C38 | -2.41 | 102.17 | 114.42 |
| 36 | I | 101 | LMG | C40-C39-C38 | -2.41 | 102.17 | 114.42 |
| 22 | C | 512 | CLA | C1B-CHB-C4A | -2.41 | 125.34 | 130.12 |
| 26 | S | 314 | LHG | C11-C10-C9 | -2.41 | 102.18 | 114.42 |
| 26 | R | 301 | LHG | C20-C19-C18 | -2.41 | 102.18 | 114.42 |
| 31 | T | 102 | BCR | C11-C10-C9 | -2.41 | 123.87 | 127.31 |
| 36 | D | 411 | LMG | O1-C7-C8 | -2.41 | 105.08 | 110.90 |
| 22 | a | 408 | CLA | C1-C2-C3 | -2.41 | 121.87 | 126.04 |
| 37 | f | 101 | HEM | CHA-C4D-C3D | 2.41 | 129.85 | 125.33 |
| 21 | g | 605 | CHL | O2D-CGD-O1D | -2.41 | 119.12 | 123.84 |
| 26 | S | 314 | LHG | C20-C19-C18 | -2.41 | 102.19 | 114.42 |
| 21 | G | 601 | CHL | O2D-CGD-O1D | -2.41 | 119.13 | 123.84 |
| 22 | a | 404 | CLA | CHB-C4A-NA | 2.41 | 127.84 | 124.51 |
| 22 | s | 311 | CLA | C1B-CHB-C4A | -2.41 | 125.35 | 130.12 |
| 22 | n | 610 | CLA | CHB-C4A-NA | 2.41 | 127.84 | 124.51 |
| 22 | B | 612 | CLA | CHB-C4A-NA | 2.41 | 127.84 | 124.51 |
| 26 | C | 520 | LHG | O8-C23-C24 | 2.41 | 119.46 | 111.91 |
| 22 | b | 612 | CLA | C1B-CHB-C4A | -2.41 | 125.35 | 130.12 |
| 21 | N | 601 | CHL | O2D-CGD-O1D | -2.41 | 119.13 | 123.84 |
| 21 | G | 608 | CHL | O2D-CGD-O1D | -2.40 | 119.14 | 123.84 |
| 26 | s | 314 | LHG | C20-C19-C18 | -2.40 | 102.22 | 114.42 |
| 21 | R | 306 | CHL | O2D-CGD-O1D | -2.40 | 119.14 | 123.84 |
| 22 | s | 309 | CLA | CHB-C4A-NA | 2.40 | 127.84 | 124.51 |
| 22 | b | 605 | CLA | C1B-CHB-C4A | -2.40 | 125.36 | 130.12 |
| 37 | f | 101 | HEM | CMA-C3A-C4A | -2.40 | 124.77 | 128.46 |
| 26 | Y | 617 | LHG | C11-C10-C9 | -2.40 | 102.22 | 114.42 |
| 33 | D | 402 | SQD | C44-O6-C1 | 2.40 | 118.43 | 113.74 |
| 26 | r | 302 | LHG | C11-C10-C9 | -2.40 | 102.22 | 114.42 |
| 22 | y | 603 | CLA | CHB-C4A-NA | 2.40 | 127.83 | 124.51 |
| 26 | c | 522 | LHG | C11-C10-C9 | -2.40 | 102.23 | 114.42 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | n | 606 | CHL | O2D-CGD-O1D | -2.40 | 119.14 | 123.84 |
| 22 | C | 514 | CLA | C1B-CHB-C4A | -2.40 | 125.36 | 130.12 |
| 31 | B | 602 | BCR | C11-C10-C9 | -2.40 | 123.88 | 127.31 |
| 36 | C | 502 | LMG | C40-C39-C38 | -2.40 | 102.24 | 114.42 |
| 21 | n | 605 | CHL | O2D-CGD-O1D | -2.40 | 119.14 | 123.84 |
| 21 | n | 607 | CHL | O2D-CGD-O1D | -2.40 | 119.14 | 123.84 |
| 21 | S | 302 | CHL | O2D-CGD-O1D | -2.40 | 119.14 | 123.84 |
| 36 | B | 623 | LMG | C40-C39-C38 | -2.40 | 102.24 | 114.42 |
| 21 | R | 307 | CHL | O2D-CGD-O1D | -2.40 | 119.14 | 123.84 |
| 26 | R | 301 | LHG | C11-C10-C9 | -2.40 | 102.24 | 114.42 |
| 21 | n | 601 | CHL | O2D-CGD-O1D | -2.40 | 119.15 | 123.84 |
| 21 | Y | 601 | CHL | O2D-CGD-O1D | -2.40 | 119.15 | 123.84 |
| 21 | Y | 606 | CHL | O2D-CGD-O1D | -2.40 | 119.15 | 123.84 |
| 21 | Y | 605 | CHL | O2D-CGD-O1D | -2.40 | 119.15 | 123.84 |
| 22 | c | 511 | CLA | CHB-C4A-NA | 2.40 | 127.83 | 124.51 |
| 26 | C | 522 | LHG | C11-C10-C9 | -2.40 | 102.26 | 114.42 |
| 36 | w | 102 | LMG | C40-C39-C38 | -2.40 | 102.26 | 114.42 |
| 26 | c | 520 | LHG | C20-C19-C18 | -2.40 | 102.26 | 114.42 |
| 22 | c | 512 | CLA | CHB-C4A-NA | 2.40 | 127.83 | 124.51 |
| 22 | B | 613 | CLA | CHB-C4A-NA | 2.40 | 127.83 | 124.51 |
| 21 | s | 301 | CHL | O2D-CGD-O1D | -2.40 | 119.15 | 123.84 |
| 22 | R | 308 | CLA | C1B-CHB-C4A | -2.40 | 125.37 | 130.12 |
| 26 | L | 103 | LHG | C20-C19-C18 | -2.40 | 102.26 | 114.42 |
| 21 | s | 307 | CHL | O2D-CGD-O1D | -2.40 | 119.16 | 123.84 |
| 21 | R | 305 | CHL | O2D-CGD-O1D | -2.40 | 119.16 | 123.84 |
| 21 | r | 307 | CHL | O2D-CGD-O1D | -2.39 | 119.16 | 123.84 |
| 22 | b | 610 | CLA | C1B-CHB-C4A | -2.39 | 125.37 | 130.12 |
| 22 | R | 310 | CLA | CAA-C2A-C3A | -2.39 | 106.22 | 112.78 |
| 22 | D | 405 | CLA | C1B-CHB-C4A | -2.39 | 125.38 | 130.12 |
| 22 | C | 513 | CLA | C1B-CHB-C4A | -2.39 | 125.38 | 130.12 |
| 22 | B | 603 | CLA | CHB-C4A-NA | 2.39 | 127.82 | 124.51 |
| 36 | b | 620 | LMG | C40-C39-C38 | -2.39 | 102.27 | 114.42 |
| 21 | G | 607 | CHL | O2D-CGD-O1D | -2.39 | 119.16 | 123.84 |
| 21 | N | 606 | CHL | O2D-CGD-O1D | -2.39 | 119.16 | 123.84 |
| 21 | g | 609 | CHL | O2D-CGD-O1D | -2.39 | 119.16 | 123.84 |
| 26 | l | 102 | LHG | C20-C19-C18 | -2.39 | 102.28 | 114.42 |
| 21 | Y | 601 | CHL | C3B-C4B-NB | 2.39 | 112.30 | 109.21 |
| 21 | g | 601 | CHL | O2D-CGD-O1D | -2.39 | 119.16 | 123.84 |
| 21 | r | 301 | CHL | O2D-CGD-O1D | -2.39 | 119.16 | 123.84 |
| 33 | d | 402 | SQD | C44-O6-C1 | 2.39 | 118.41 | 113.74 |
| 26 | C | 520 | LHG | C20-C19-C18 | -2.39 | 102.29 | 114.42 |
| 21 | g | 608 | CHL | C3B-C4B-NB | 2.39 | 112.30 | 109.21 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | y | 606 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 21 | Y | 608 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 21 | G | 609 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 22 | G | 614 | CLA | CHB-C4A-NA | 2.39 | 127.82 | 124.51 |
| 21 | N | 605 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 22 | B | 609 | CLA | C1B-CHB-C4A | -2.39 | 125.39 | 130.12 |
| 21 | g | 608 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 21 | Y | 607 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 21 | g | 601 | CHL | C3B-C4B-NB | 2.39 | 112.30 | 109.21 |
| 22 | B | 608 | CLA | C1B-CHB-C4A | -2.39 | 125.39 | 130.12 |
| 22 | c | 512 | CLA | C1B-CHB-C4A | -2.39 | 125.39 | 130.12 |
| 26 | g | 619 | LHG | C5-O7-C7 | -2.39 | 111.92 | 117.79 |
| 21 | N | 608 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 21 | r | 308 | CHL | O2D-CGD-O1D | -2.39 | 119.17 | 123.84 |
| 36 | c | 523 | LMG | O1-C1-C2 | -2.39 | 104.58 | 108.30 |
| 21 | g | 606 | CHL | O2D-CGD-O1D | -2.38 | 119.17 | 123.84 |
| 21 | G | 606 | CHL | O2D-CGD-O1D | -2.38 | 119.17 | 123.84 |
| 21 | G | 608 | CHL | C3B-C4B-NB | 2.38 | 112.29 | 109.21 |
| 21 | Y | 606 | CHL | C3B-C4B-NB | 2.38 | 112.29 | 109.21 |
| 21 | s | 306 | CHL | O2D-CGD-O1D | -2.38 | 119.18 | 123.84 |
| 21 | s | 302 | CHL | O2D-CGD-O1D | -2.38 | 119.18 | 123.84 |
| 22 | G | 604 | CLA | C1-C2-C3 | -2.38 | 122.90 | 126.75 |
| 22 | S | 311 | CLA | CHB-C4A-NA | 2.38 | 127.80 | 124.51 |
| 22 | B | 615 | CLA | CHB-C4A-NA | 2.38 | 127.80 | 124.51 |
| 21 | g | 607 | CHL | O2D-CGD-O1D | -2.38 | 119.19 | 123.84 |
| 21 | S | 307 | CHL | O2D-CGD-O1D | -2.38 | 119.19 | 123.84 |
| 21 | R | 307 | CHL | C3B-C4B-NB | 2.38 | 112.29 | 109.21 |
| 31 | H | 101 | BCR | C11-C10-C9 | -2.38 | 123.92 | 127.31 |
| 31 | B | 620 | BCR | C33-C5-C6 | -2.38 | 121.86 | 124.53 |
| 22 | c | 512 | CLA | CHD-C1D-ND | -2.38 | 122.27 | 124.45 |
| 22 | B | 618 | CLA | C1B-CHB-C4A | -2.38 | 125.41 | 130.12 |
| 22 | b | 614 | CLA | CHB-C4A-NA | 2.38 | 127.80 | 124.51 |
| 21 | g | 605 | CHL | C3B-C4B-NB | 2.38 | 112.28 | 109.21 |
| 22 | b | 609 | CLA | C1B-CHB-C4A | -2.38 | 125.41 | 130.12 |
| 22 | r | 309 | CLA | C1B-CHB-C4A | -2.38 | 125.41 | 130.12 |
| 22 | r | 311 | CLA | CAA-C2A-C3A | -2.37 | 106.28 | 112.78 |
| 31 | A | 410 | BCR | C15-C16-C17 | -2.37 | 118.61 | 123.47 |
| 22 | G | 603 | CLA | CHB-C4A-NA | 2.37 | 127.80 | 124.51 |
| 22 | S | 309 | CLA | CHB-C4A-NA | 2.37 | 127.80 | 124.51 |
| 26 | B | 622 | LHG | C20-C19-C18 | -2.37 | 102.37 | 114.42 |
| 31 | a | 409 | BCR | C15-C16-C17 | -2.37 | 118.61 | 123.47 |
| 31 | h | 101 | BCR | C11-C10-C9 | -2.37 | 123.92 | 127.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 21 | N | 601 | CHL | C3B-C4B-NB | 2.37 | 112.28 | 109.21 |
| 21 | R | 306 | CHL | C3B-C4B-NB | 2.37 | 112.28 | 109.21 |
| 21 | s | 307 | CHL | C3B-C4B-NB | 2.37 | 112.28 | 109.21 |
| 22 | A | 406 | CLA | C1B-CHB-C4A | -2.37 | 125.42 | 130.12 |
| 37 | F | 101 | HEM | CMA-C3A-C4A | -2.37 | 124.82 | 128.46 |
| 22 | g | 614 | CLA | CHB-C4A-NA | 2.37 | 127.79 | 124.51 |
| 31 | b | 617 | BCR | C27-C26-C25 | 2.37 | 126.17 | 122.73 |
| 36 | D | 411 | LMG | O2-C2-C1 | -2.37 | 104.28 | 110.05 |
| 26 | c | 522 | LHG | C20-C19-C18 | -2.37 | 102.38 | 114.42 |
| 21 | r | 306 | CHL | O2D-CGD-O1D | -2.37 | 119.20 | 123.84 |
| 21 | N | 608 | CHL | C3B-C4B-NB | 2.37 | 112.28 | 109.21 |
| 21 | G | 605 | CHL | O2D-CGD-O1D | -2.37 | 119.20 | 123.84 |
| 23 | R | 312 | LUT | C31-C32-C33 | -2.37 | 119.76 | 126.42 |
| 36 | C | 502 | LMG | O2-C2-C1 | -2.37 | 104.29 | 110.05 |
| 21 | S | 306 | CHL | O2D-CGD-O1D | -2.37 | 119.20 | 123.84 |
| 21 | y | 605 | CHL | O2D-CGD-O1D | -2.37 | 119.20 | 123.84 |
| 21 | y | 609 | CHL | O2D-CGD-O1D | -2.37 | 119.20 | 123.84 |
| 21 | Y | 608 | CHL | C3B-C4B-NB | 2.37 | 112.27 | 109.21 |
| 21 | y | 607 | CHL | O2D-CGD-O1D | -2.37 | 119.21 | 123.84 |
| 36 | w | 102 | LMG | O2-C2-C1 | -2.37 | 104.29 | 110.05 |
| 21 | y | 601 | CHL | O2D-CGD-O1D | -2.37 | 119.21 | 123.84 |
| 26 | y | 617 | LHG | C5-O7-C7 | -2.37 | 111.96 | 117.79 |
| 22 | B | 612 | CLA | C1B-CHB-C4A | -2.37 | 125.43 | 130.12 |
| 21 | n | 608 | CHL | O2D-CGD-O1D | -2.37 | 119.21 | 123.84 |
| 22 | A | 407 | CLA | C1B-CHB-C4A | -2.37 | 125.43 | 130.12 |
| 26 | b | 619 | LHG | C20-C19-C18 | -2.37 | 102.41 | 114.42 |
| 21 | s | 302 | CHL | C3B-C4B-NB | 2.37 | 112.27 | 109.21 |
| 22 | n | 613 | CLA | CHB-C4A-NA | 2.37 | 127.78 | 124.51 |
| 21 | y | 608 | CHL | O2D-CGD-O1D | -2.37 | 119.21 | 123.84 |
| 36 | d | 410 | LMG | O2-C2-C1 | -2.37 | 104.30 | 110.05 |
| 22 | C | 512 | CLA | CHB-C4A-NA | 2.37 | 127.78 | 124.51 |
| 21 | S | 301 | CHL | O2D-CGD-O1D | -2.37 | 119.21 | 123.84 |
| 26 | C | 522 | LHG | C20-C19-C18 | -2.37 | 102.42 | 114.42 |
| 21 | G | 606 | CHL | C3B-C4B-NB | 2.37 | 112.27 | 109.21 |
| 21 | N | 607 | CHL | O2D-CGD-O1D | -2.37 | 119.21 | 123.84 |
| 22 | W | 101 | CLA | C1B-CHB-C4A | -2.36 | 125.43 | 130.12 |
| 22 | b | 612 | CLA | CHB-C4A-NA | 2.36 | 127.78 | 124.51 |
| 21 | G | 607 | CHL | C3B-C4B-NB | 2.36 | 112.27 | 109.21 |
| 21 | S | 302 | CHL | C3B-C4B-NB | 2.36 | 112.27 | 109.21 |
| 31 | H | 101 | BCR | C15-C14-C13 | -2.36 | 123.94 | 127.31 |
| 22 | b | 615 | CLA | C1B-CHB-C4A | -2.36 | 125.44 | 130.12 |
| 21 | g | 609 | CHL | C3B-C4B-NB | 2.36 | 112.27 | 109.21 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 35 | a | 413 | DGD | C3G-C2G-C1G | -2.36 | 106.20 | 111.79 |
| 22 | a | 406 | CLA | C1B-CHB-C4A | -2.36 | 125.44 | 130.12 |
| 26 | N | 618 | LHG | C5-O7-C7 | -2.36 | 111.98 | 117.79 |
| 22 | y | 604 | CLA | C1-C2-C3 | -2.36 | 122.93 | 126.75 |
| 22 | g | 612 | CLA | C1B-CHB-C4A | -2.36 | 125.44 | 130.12 |
| 22 | n | 603 | CLA | C1B-CHB-C4A | -2.36 | 125.44 | 130.12 |
| 35 | A | 401 | DGD | C3G-C2G-C1G | -2.36 | 106.20 | 111.79 |
| 21 | n | 607 | CHL | C3B-C4B-NB | 2.36 | 112.26 | 109.21 |
| 21 | N | 606 | CHL | C3B-C4B-NB | 2.36 | 112.26 | 109.21 |
| 21 | S | 301 | CHL | C3B-C4B-NB | 2.36 | 112.26 | 109.21 |
| 31 | B | 602 | BCR | C27-C26-C25 | 2.36 | 126.16 | 122.73 |
| 22 | B | 617 | CLA | CHB-C4A-NA | 2.36 | 127.78 | 124.51 |
| 36 | C | 523 | LMG | O1-C1-C2 | -2.36 | 104.62 | 108.30 |
| 26 | d | 407 | LHG | C11-C10-C9 | -2.36 | 102.44 | 114.42 |
| 22 | S | 308 | CLA | CHD-C1D-ND | -2.36 | 122.29 | 124.45 |
| 22 | Y | 612 | CLA | CHB-C4A-NA | 2.36 | 127.77 | 124.51 |
| 36 | M | 101 | LMG | C38-C37-C36 | -2.36 | 102.45 | 114.42 |
| 21 | n | 608 | CHL | C3B-C4B-NB | 2.36 | 112.26 | 109.21 |
| 22 | B | 613 | CLA | C1B-CHB-C4A | -2.36 | 125.45 | 130.12 |
| 26 | c | 521 | LHG | C11-C10-C9 | -2.36 | 102.46 | 114.42 |
| 33 | d | 402 | SQD | O48-C23-C24 | 2.36 | 119.31 | 111.91 |
| 31 | d | 405 | BCR | C11-C10-C9 | -2.36 | 123.95 | 127.31 |
| 22 | N | 611 | CLA | CHB-C4A-NA | 2.36 | 127.77 | 124.51 |
| 22 | G | 612 | CLA | C1B-CHB-C4A | -2.36 | 125.45 | 130.12 |
| 21 | y | 606 | CHL | C3B-C4B-NB | 2.36 | 112.25 | 109.21 |
| 21 | N | 607 | CHL | C3B-C4B-NB | 2.36 | 112.25 | 109.21 |
| 36 | T | 101 | LMG | C38-C37-C36 | -2.36 | 102.47 | 114.42 |
| 22 | a | 405 | CLA | C1B-CHB-C4A | -2.35 | 125.45 | 130.12 |
| 21 | g | 606 | CHL | C3B-C4B-NB | 2.35 | 112.25 | 109.21 |
| 21 | n | 601 | CHL | C3B-C4B-NB | 2.35 | 112.25 | 109.21 |
| 24 | N | 616 | XAT | C11-C12-C13 | -2.35 | 119.80 | 126.42 |
| 25 | Y | 616 | NEX | C36-C21-C26 | -2.35 | 103.69 | 110.05 |
| 22 | N | 604 | CLA | C1-C2-C3 | -2.35 | 122.94 | 126.75 |
| 22 | g | 603 | CLA | C1B-CHB-C4A | -2.35 | 125.46 | 130.12 |
| 31 | A | 410 | BCR | C7-C8-C9 | -2.35 | 122.68 | 126.23 |
| 36 | B | 601 | LMG | C38-C37-C36 | -2.35 | 102.49 | 114.42 |
| 22 | Y | 603 | CLA | C1B-CHB-C4A | -2.35 | 125.46 | 130.12 |
| 21 | y | 609 | CHL | C3B-C4B-NB | 2.35 | 112.25 | 109.21 |
| 26 | D | 408 | LHG | C11-C10-C9 | -2.35 | 102.49 | 114.42 |
| 22 | N | 613 | CLA | CHB-C4A-NA | 2.35 | 127.76 | 124.51 |
| 21 | s | 306 | CHL | C3B-C4B-NB | 2.35 | 112.25 | 109.21 |
| 36 | C | 502 | LMG | O7-C10-O9 | -2.35 | 118.03 | 123.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 33 | D | 402 | SQD | O48-C23-C24 | 2.35 | 119.28 | 111.91 |
| 21 | y | 601 | CHL | C3B-C4B-NB | 2.35 | 112.25 | 109.21 |
| 22 | c | 503 | CLA | O2A-CGA-O1A | -2.35 | 117.67 | 123.59 |
| 21 | y | 608 | CHL | C3B-C4B-NB | 2.35 | 112.24 | 109.21 |
| 22 | n | 604 | CLA | C1-C2-C3 | -2.35 | 122.95 | 126.75 |
| 31 | B | 620 | BCR | C27-C26-C25 | 2.35 | 126.14 | 122.73 |
| 21 | r | 301 | CHL | C3B-C4B-NB | 2.35 | 112.24 | 109.21 |
| 21 | r | 307 | CHL | C3B-C4B-NB | 2.35 | 112.24 | 109.21 |
| 31 | T | 102 | BCR | C27-C26-C25 | 2.35 | 126.14 | 122.73 |
| 22 | y | 603 | CLA | C1B-CHB-C4A | -2.35 | 125.47 | 130.12 |
| 21 | G | 605 | CHL | C3B-C4B-NB | 2.35 | 112.24 | 109.21 |
| 22 | g | 612 | CLA | CHB-C4A-NA | 2.35 | 127.75 | 124.51 |
| 23 | r | 313 | LUT | C31-C32-C33 | -2.35 | 119.83 | 126.42 |
| 36 | B | 623 | LMG | C38-C37-C36 | -2.34 | 102.53 | 114.42 |
| 22 | N | 603 | CLA | C1B-CHB-C4A | -2.34 | 125.48 | 130.12 |
| 36 | b | 620 | LMG | C38-C37-C36 | -2.34 | 102.53 | 114.42 |
| 22 | n | 611 | CLA | C1B-CHB-C4A | -2.34 | 125.48 | 130.12 |
| 21 | G | 601 | CHL | C3B-C4B-NB | 2.34 | 112.24 | 109.21 |
| 21 | S | 307 | CHL | C3B-C4B-NB | 2.34 | 112.24 | 109.21 |
| 22 | B | 606 | CLA | C1B-CHB-C4A | -2.34 | 125.48 | 130.12 |
| 26 | C | 521 | LHG | C11-C10-C9 | -2.34 | 102.54 | 114.42 |
| 21 | r | 308 | CHL | C3B-C4B-NB | 2.34 | 112.24 | 109.21 |
| 26 | g | 619 | LHG | C20-C19-C18 | -2.34 | 102.55 | 114.42 |
| 36 | I | 101 | LMG | C38-C37-C36 | -2.34 | 102.55 | 114.42 |
| 22 | G | 612 | CLA | CHB-C4A-NA | 2.34 | 127.75 | 124.51 |
| 22 | c | 503 | CLA | C1-C2-C3 | -2.34 | 122.00 | 126.04 |
| 31 | h | 101 | BCR | C15-C14-C13 | -2.34 | 123.97 | 127.31 |
| 22 | W | 101 | CLA | CHD-C1D-ND | -2.34 | 122.31 | 124.45 |
| 22 | w | 101 | CLA | C1B-CHB-C4A | -2.34 | 125.49 | 130.12 |
| 21 | n | 605 | CHL | C3B-C4B-NB | 2.34 | 112.23 | 109.21 |
| 21 | r | 306 | CHL | C3B-C4B-NB | 2.34 | 112.23 | 109.21 |
| 22 | N | 611 | CLA | C1B-CHB-C4A | -2.34 | 125.49 | 130.12 |
| 36 | c | 523 | LMG | O3-C3-C2 | -2.34 | 104.95 | 110.35 |
| 21 | N | 605 | CHL | C3B-C4B-NB | 2.34 | 112.23 | 109.21 |
| 22 | w | 101 | CLA | CHB-C4A-NA | 2.34 | 127.74 | 124.51 |
| 22 | s | 311 | CLA | CHB-C4A-NA | 2.34 | 127.74 | 124.51 |
| 22 | c | 503 | CLA | C1B-CHB-C4A | -2.33 | 125.49 | 130.12 |
| 22 | C | 504 | CLA | O2A-CGA-O1A | -2.33 | 117.70 | 123.59 |
| 21 | n | 606 | CHL | C3B-C4B-NB | 2.33 | 112.23 | 109.21 |
| 21 | R | 305 | CHL | C3B-C4B-NB | 2.33 | 112.23 | 109.21 |
| 22 | y | 613 | CLA | CHB-C4A-NA | 2.33 | 127.74 | 124.51 |
| 36 | C | 523 | LMG | O3-C3-C2 | -2.33 | 104.96 | 110.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | C | 504 | CLA | C1B-CHB-C4A | -2.33 | 125.50 | 130.12 |
| 22 | W | 101 | CLA | CHB-C4A-NA | 2.33 | 127.74 | 124.51 |
| 21 | g | 607 | CHL | C3B-C4B-NB | 2.33 | 112.22 | 109.21 |
| 21 | Y | 605 | CHL | C3B-C4B-NB | 2.33 | 112.22 | 109.21 |
| 26 | C | 522 | LHG | C5-O7-C7 | -2.33 | 112.05 | 117.79 |
| 36 | d | 410 | LMG | O1-C1-C2 | -2.33 | 104.66 | 108.30 |
| 31 | b | 617 | BCR | C33-C5-C6 | -2.33 | 121.91 | 124.53 |
| 21 | S | 306 | CHL | C3B-C4B-NB | 2.33 | 112.22 | 109.21 |
| 36 | D | 411 | LMG | O1-C1-C2 | -2.33 | 104.67 | 108.30 |
| 22 | g | 604 | CLA | C1-C2-C3 | -2.33 | 122.98 | 126.75 |
| 26 | y | 617 | LHG | C20-C19-C18 | -2.33 | 102.61 | 114.42 |
| 36 | w | 102 | LMG | O7-C10-O9 | -2.33 | 118.08 | 123.70 |
| 21 | s | 301 | CHL | C3B-C4B-NB | 2.33 | 112.22 | 109.21 |
| 31 | D | 406 | BCR | C11-C10-C9 | -2.33 | 123.99 | 127.31 |
| 22 | B | 616 | CLA | C1B-CHB-C4A | -2.33 | 125.51 | 130.12 |
| 31 | K | 102 | BCR | C27-C26-C25 | 2.33 | 126.11 | 122.73 |
| 21 | y | 605 | CHL | C3B-C4B-NB | 2.33 | 112.22 | 109.21 |
| 22 | s | 308 | CLA | CHD-C1D-ND | -2.33 | 122.32 | 124.45 |
| 26 | N | 618 | LHG | O8-C23-C24 | 2.33 | 119.20 | 111.91 |
| 22 | n | 609 | CLA | C1B-CHB-C4A | -2.32 | 125.51 | 130.12 |
| 35 | H | 102 | DGD | O2D-C2D-C1D | -2.32 | 104.40 | 110.05 |
| 26 | c | 522 | LHG | C5-O7-C7 | -2.32 | 112.07 | 117.79 |
| 21 | Y | 607 | CHL | C3B-C4B-NB | 2.32 | 112.21 | 109.21 |
| 36 | C | 502 | LMG | C38-C37-C36 | -2.32 | 102.64 | 114.42 |
| 31 | h | 101 | BCR | C27-C26-C25 | 2.32 | 126.10 | 122.73 |
| 22 | G | 603 | CLA | C1B-CHB-C4A | -2.32 | 125.52 | 130.12 |
| 36 | w | 102 | LMG | C38-C37-C36 | -2.32 | 102.65 | 114.42 |
| 35 | h | 102 | DGD | C1D-C2D-C3D | -2.32 | 105.17 | 110.00 |
| 25 | N | 617 | NEX | C11-C12-C13 | -2.32 | 119.90 | 126.42 |
| 21 | G | 609 | CHL | C3B-C4B-NB | 2.32 | 112.21 | 109.21 |
| 22 | n | 611 | CLA | CHB-C4A-NA | 2.32 | 127.72 | 124.51 |
| 22 | Y | 604 | CLA | C1-C2-C3 | -2.32 | 123.00 | 126.75 |
| 22 | b | 603 | CLA | C1B-CHB-C4A | -2.31 | 125.53 | 130.12 |
| 22 | C | 506 | CLA | C1B-CHB-C4A | -2.31 | 125.53 | 130.12 |
| 31 | a | 409 | BCR | C7-C8-C9 | -2.31 | 122.74 | 126.23 |
| 22 | C | 504 | CLA | C1-C2-C3 | -2.31 | 122.04 | 126.04 |
| 35 | H | 102 | DGD | C1D-C2D-C3D | -2.31 | 105.18 | 110.00 |
| 31 | K | 101 | BCR | C27-C26-C25 | 2.31 | 126.09 | 122.73 |
| 22 | N | 609 | CLA | C1B-CHB-C4A | -2.31 | 125.54 | 130.12 |
| 22 | g | 612 | CLA | O2D-CGD-O1D | -2.31 | 119.32 | 123.84 |
| 26 | Y | 617 | LHG | C20-C19-C18 | -2.31 | 102.70 | 114.42 |
| 21 | y | 607 | CHL | C3B-C4B-NB | 2.31 | 112.19 | 109.21 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 32 | d | 406 | PL9 | O1-C4-C3 | -2.31 | 118.18 | 120.72 |
| 31 | k | 102 | BCR | C27-C26-C25 | 2.31 | 126.08 | 122.73 |
| 22 | c | 505 | CLA | C1B-CHB-C4A | -2.31 | 125.55 | 130.12 |
| 33 | l | 103 | SQD | O6-C1-C2 | 2.31 | 111.91 | 108.30 |
| 22 | G | 612 | CLA | O2D-CGD-O1D | -2.31 | 119.33 | 123.84 |
| 22 | b | 613 | CLA | C1B-CHB-C4A | -2.31 | 125.55 | 130.12 |
| 22 | b | 605 | CLA | O2A-CGA-O1A | -2.31 | 117.77 | 123.59 |
| 35 | h | 102 | DGD | C3G-C2G-C1G | -2.31 | 106.33 | 111.79 |
| 22 | R | 304 | CLA | CHD-C1D-ND | -2.30 | 122.34 | 124.45 |
| 37 | f | 101 | HEM | CHD-C1D-ND | 2.30 | 126.93 | 124.43 |
| 32 | D | 407 | PL9 | O1-C4-C3 | -2.30 | 118.19 | 120.72 |
| 22 | g | 610 | CLA | C1B-CHB-C4A | -2.30 | 125.56 | 130.12 |
| 22 | Y | 609 | CLA | C1B-CHB-C4A | -2.30 | 125.56 | 130.12 |
| 35 | h | 102 | DGD | O2D-C2D-C1D | -2.30 | 104.46 | 110.05 |
| 23 | N | 615 | LUT | C10-C11-C12 | -2.30 | 116.04 | 123.22 |
| 22 | B | 606 | CLA | O2A-CGA-O1A | -2.30 | 117.79 | 123.59 |
| 25 | g | 618 | NEX | C36-C21-C22 | -2.30 | 104.99 | 108.98 |
| 22 | B | 608 | CLA | O2A-CGA-O1A | -2.30 | 117.79 | 123.59 |
| 30 | d | 401 | PHO | C1-C2-C3 | -2.30 | 122.07 | 126.04 |
| 33 | L | 101 | SQD | O48-C23-C24 | 2.30 | 119.12 | 111.91 |
| 26 | D | 409 | LHG | C18-C17-C16 | -2.30 | 102.76 | 114.42 |
| 35 | A | 401 | DGD | C4E-C3E-C2E | -2.30 | 106.81 | 110.82 |
| 22 | W | 101 | CLA | O2D-CGD-O1D | -2.29 | 119.35 | 123.84 |
| 26 | d | 408 | LHG | C18-C17-C16 | -2.29 | 102.79 | 114.42 |
| 24 | g | 617 | XAT | C11-C12-C13 | -2.29 | 119.98 | 126.42 |
| 22 | y | 610 | CLA | C1B-CHB-C4A | -2.29 | 125.58 | 130.12 |
| 22 | n | 611 | CLA | CHD-C1D-ND | -2.29 | 122.35 | 124.45 |
| 24 | r | 314 | XAT | C31-C32-C33 | -2.29 | 119.99 | 126.42 |
| 31 | k | 101 | BCR | C27-C26-C25 | 2.29 | 126.05 | 122.73 |
| 22 | A | 409 | CLA | C1B-CHB-C4A | -2.29 | 125.59 | 130.12 |
| 35 | h | 102 | DGD | O5D-C6D-C5D | -2.28 | 104.82 | 109.05 |
| 24 | y | 615 | XAT | O4-C5-C6 | 2.28 | 60.85 | 58.96 |
| 35 | a | 413 | DGD | C4E-C3E-C2E | -2.28 | 106.83 | 110.82 |
| 22 | Y | 612 | CLA | CHD-C1D-ND | -2.28 | 122.36 | 124.45 |
| 24 | g | 617 | XAT | O4-C5-C6 | 2.28 | 60.85 | 58.96 |
| 24 | R | 313 | XAT | C31-C32-C33 | -2.28 | 120.00 | 126.42 |
| 22 | c | 507 | CLA | C1B-CHB-C4A | -2.28 | 125.59 | 130.12 |
| 36 | B | 601 | LMG | O3-C3-C2 | -2.28 | 105.07 | 110.35 |
| 35 | H | 102 | DGD | O5D-C6D-C5D | -2.28 | 104.82 | 109.05 |
| 23 | R | 312 | LUT | C1-C6-C7 | -2.28 | 109.32 | 115.78 |
| 22 | G | 612 | CLA | CHD-C1D-ND | -2.28 | 122.36 | 124.45 |
| 33 | l | 103 | SQD | O48-C23-C24 | 2.28 | 119.07 | 111.91 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | C | 511 | CLA | O2D-CGD-O1D | -2.28 | 119.38 | 123.84 |
| 22 | G | 610 | CLA | C1B-CHB-C4A | -2.28 | 125.60 | 130.12 |
| 26 | G | 618 | LHG | C5-O7-C7 | -2.28 | 112.18 | 117.79 |
| 22 | b | 603 | CLA | O2A-CGA-O1A | -2.28 | 117.84 | 123.59 |
| 26 | l | 102 | LHG | C18-C17-C16 | -2.28 | 102.86 | 114.42 |
| 26 | D | 409 | LHG | C27-C26-C25 | -2.28 | 102.86 | 114.42 |
| 23 | r | 313 | LUT | C1-C6-C7 | -2.28 | 109.34 | 115.78 |
| 22 | c | 510 | CLA | O2D-CGD-O1D | -2.28 | 119.39 | 123.84 |
| 26 | d | 408 | LHG | C27-C26-C25 | -2.28 | 102.87 | 114.42 |
| 22 | N | 611 | CLA | O2D-CGD-O1D | -2.28 | 119.39 | 123.84 |
| 22 | g | 612 | CLA | CHD-C1D-ND | -2.28 | 122.36 | 124.45 |
| 22 | R | 304 | CLA | CMB-C2B-C3B | 2.28 | 128.94 | 124.68 |
| 22 | C | 515 | CLA | C1B-CHB-C4A | -2.27 | 125.61 | 130.12 |
| 22 | n | 611 | CLA | O2D-CGD-O1D | -2.27 | 119.39 | 123.84 |
| 22 | w | 101 | CLA | O2D-CGD-O1D | -2.27 | 119.39 | 123.84 |
| 31 | H | 101 | BCR | C27-C26-C25 | 2.27 | 126.03 | 122.73 |
| 22 | d | 403 | CLA | CHB-C4A-NA | 2.27 | 127.65 | 124.51 |
| 22 | s | 312 | CLA | CHB-C4A-NA | 2.27 | 127.65 | 124.51 |
| 26 | L | 103 | LHG | C18-C17-C16 | -2.27 | 102.89 | 114.42 |
| 35 | H | 102 | DGD | C3G-C2G-C1G | -2.27 | 106.42 | 111.79 |
| 36 | I | 101 | LMG | O3-C3-C2 | -2.27 | 105.11 | 110.35 |
| 30 | D | 401 | PHO | C1-C2-C3 | -2.27 | 122.12 | 126.04 |
| 26 | N | 618 | LHG | C20-C19-C18 | -2.26 | 102.93 | 114.42 |
| 22 | D | 404 | CLA | CHB-C4A-NA | 2.26 | 127.64 | 124.51 |
| 33 | L | 101 | SQD | O6-C1-C2 | 2.26 | 111.84 | 108.30 |
| 36 | k | 103 | LMG | C1-C2-C3 | -2.26 | 105.28 | 110.00 |
| 36 | K | 103 | LMG | C1-C2-C3 | -2.26 | 105.28 | 110.00 |
| 22 | a | 408 | CLA | C1B-CHB-C4A | -2.26 | 125.64 | 130.12 |
| 22 | w | 101 | CLA | CHD-C1D-ND | -2.26 | 122.38 | 124.45 |
| 24 | n | 615 | XAT | C11-C12-C13 | -2.26 | 120.06 | 126.42 |
| 31 | H | 101 | BCR | C20-C21-C22 | -2.26 | 124.08 | 127.31 |
| 25 | y | 618 | NEX | C36-C21-C26 | -2.26 | 103.94 | 110.05 |
| 22 | r | 305 | CLA | CMB-C2B-C3B | 2.26 | 128.91 | 124.68 |
| 22 | C | 508 | CLA | C1B-CHB-C4A | -2.26 | 125.64 | 130.12 |
| 37 | F | 101 | HEM | CHD-C1D-ND | 2.26 | 126.88 | 124.43 |
| 26 | c | 522 | LHG | O8-C6-C5 | -2.26 | 101.86 | 108.43 |
| 22 | s | 303 | CLA | O2A-CGA-O1A | -2.26 | 117.89 | 123.59 |
| 22 | S | 303 | CLA | O2A-CGA-O1A | -2.26 | 117.89 | 123.59 |
| 25 | r | 315 | NEX | C36-C21-C26 | -2.26 | 103.95 | 110.05 |
| 35 | c | 517 | DGD | O2D-C2D-C1D | -2.26 | 104.56 | 110.05 |
| 22 | a | 406 | CLA | O2A-CGA-O1A | -2.25 | 117.90 | 123.59 |
| 25 | N | 617 | NEX | C38-C25-C26 | -2.25 | 118.48 | 122.26 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 31 | d | 405 | BCR | C15-C16-C17 | -2.25 | 118.86 | 123.47 |
| 26 | r | 302 | LHG | C5-O7-C7 | -2.25 | 112.25 | 117.79 |
| 22 | C | 512 | CLA | O2A-CGA-O1A | -2.25 | 117.91 | 123.59 |
| 22 | b | 601 | CLA | C1-C2-C3 | -2.25 | 122.15 | 126.04 |
| 22 | S | 312 | CLA | CHB-C4A-NA | 2.25 | 127.62 | 124.51 |
| 26 | n | 617 | LHG | C18-C17-C16 | -2.25 | 103.01 | 114.42 |
| 26 | C | 522 | LHG | O8-C6-C5 | -2.25 | 101.89 | 108.43 |
| 36 | T | 101 | LMG | C40-C39-C38 | -2.25 | 103.02 | 114.42 |
| 22 | c | 514 | CLA | C1B-CHB-C4A | -2.24 | 125.67 | 130.12 |
| 36 | M | 101 | LMG | C40-C39-C38 | -2.24 | 103.03 | 114.42 |
| 22 | r | 305 | CLA | CHD-C1D-ND | -2.24 | 122.39 | 124.45 |
| 24 | Y | 615 | XAT | O4-C5-C6 | 2.24 | 60.81 | 58.96 |
| 22 | c | 511 | CLA | O2A-CGA-O1A | -2.24 | 117.93 | 123.59 |
| 35 | C | 518 | DGD | O2D-C2D-C1D | -2.24 | 104.60 | 110.05 |
| 36 | M | 101 | LMG | O3-C3-C2 | -2.24 | 105.17 | 110.35 |
| 35 | C | 519 | DGD | CBB-CAB-C9B | -2.24 | 103.06 | 114.42 |
| 31 | B | 619 | BCR | C7-C8-C9 | -2.24 | 122.86 | 126.23 |
| 22 | A | 407 | CLA | O2A-CGA-O1A | -2.24 | 117.95 | 123.59 |
| 31 | h | 101 | BCR | C20-C21-C22 | -2.24 | 124.12 | 127.31 |
| 26 | C | 522 | LHG | O8-C23-C24 | 2.23 | 118.92 | 111.91 |
| 22 | g | 614 | CLA | CHD-C1D-ND | -2.23 | 122.40 | 124.45 |
| 22 | N | 613 | CLA | CHD-C1D-ND | -2.23 | 122.40 | 124.45 |
| 35 | C | 519 | DGD | C1D-C2D-C3D | -2.23 | 105.35 | 110.00 |
| 26 | c | 522 | LHG | C18-C17-C16 | -2.23 | 103.09 | 114.42 |
| 35 | c | 518 | DGD | C1D-C2D-C3D | -2.23 | 105.35 | 110.00 |
| 22 | C | 511 | CLA | C4D-CHA-C1A | 2.23 | 123.96 | 121.25 |
| 26 | R | 301 | LHG | C5-O7-C7 | -2.23 | 112.30 | 117.79 |
| 26 | C | 520 | LHG | C18-C17-C16 | -2.23 | 103.10 | 114.42 |
| 36 | B | 623 | LMG | C42-C41-C40 | -2.23 | 103.10 | 114.42 |
| 22 | N | 611 | CLA | CHD-C1D-ND | -2.23 | 122.41 | 124.45 |
| 26 | N | 618 | LHG | C11-C10-C9 | -2.23 | 103.11 | 114.42 |
| 35 | c | 518 | DGD | CBB-CAB-C9B | -2.23 | 103.11 | 114.42 |
| 36 | b | 620 | LMG | C42-C41-C40 | -2.23 | 103.12 | 114.42 |
| 22 | B | 604 | CLA | C1-C2-C3 | -2.23 | 122.19 | 126.04 |
| 22 | r | 303 | CLA | C1-C2-C3 | -2.23 | 122.19 | 126.04 |
| 22 | C | 515 | CLA | C1-C2-C3 | -2.23 | 122.19 | 126.04 |
| 36 | T | 101 | LMG | O3-C3-C2 | -2.23 | 105.20 | 110.35 |
| 22 | s | 304 | CLA | CHD-C1D-ND | -2.23 | 122.41 | 124.45 |
| 26 | c | 520 | LHG | C18-C17-C16 | -2.22 | 103.14 | 114.42 |
| 31 | B | 619 | BCR | C15-C14-C13 | -2.22 | 124.14 | 127.31 |
| 31 | b | 616 | BCR | C7-C8-C9 | -2.22 | 122.88 | 126.23 |
| 22 | c | 514 | CLA | C1-C2-C3 | -2.22 | 122.20 | 126.04 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | R | 302 | CLA | C1-C2-C3 | -2.22 | 122.20 | 126.04 |
| 31 | D | 406 | BCR | C15-C16-C17 | -2.22 | 118.93 | 123.47 |
| 26 | C | 522 | LHG | C18-C17-C16 | -2.22 | 103.16 | 114.42 |
| 31 | C | 517 | BCR | C24-C23-C22 | -2.22 | 122.88 | 126.23 |
| 26 | r | 302 | LHG | C18-C17-C16 | -2.22 | 103.16 | 114.42 |
| 22 | y | 613 | CLA | CHD-C1D-ND | -2.22 | 122.42 | 124.45 |
| 26 | c | 522 | LHG | O8-C23-C24 | 2.22 | 118.87 | 111.91 |
| 26 | R | 301 | LHG | C18-C17-C16 | -2.21 | 103.19 | 114.42 |
| 35 | C | 518 | DGD | CBB-CAB-C9B | -2.21 | 103.19 | 114.42 |
| 26 | Y | 617 | LHG | C27-C26-C25 | -2.21 | 103.20 | 114.42 |
| 22 | S | 310 | CLA | O2A-CGA-O1A | -2.21 | 118.01 | 123.59 |
| 35 | c | 517 | DGD | CBB-CAB-C9B | -2.21 | 103.20 | 114.42 |
| 22 | G | 614 | CLA | CHD-C1D-ND | -2.21 | 122.42 | 124.45 |
| 25 | Y | 616 | NEX | C11-C12-C13 | -2.21 | 120.21 | 126.42 |
| 37 | f | 101 | HEM | CHB-C1B-NB | -2.21 | 121.65 | 124.38 |
| 31 | b | 616 | BCR | C15-C14-C13 | -2.20 | 124.16 | 127.31 |
| 22 | n | 613 | CLA | CHD-C1D-ND | -2.20 | 122.43 | 124.45 |
| 35 | c | 519 | DGD | C5B-C4B-C3B | -2.20 | 103.25 | 114.42 |
| 22 | C | 513 | CLA | O2A-CGA-O1A | -2.20 | 118.04 | 123.59 |
| 35 | H | 102 | DGD | CBB-CAB-C9B | -2.20 | 103.26 | 114.42 |
| 22 | g | 614 | CLA | O2A-CGA-O1A | -2.20 | 118.04 | 123.59 |
| 35 | J | 101 | DGD | C5B-C4B-C3B | -2.20 | 103.27 | 114.42 |
| 31 | c | 516 | BCR | C24-C23-C22 | -2.20 | 122.92 | 126.23 |
| 32 | a | 410 | PL9 | C7-C3-C4 | 2.20 | 120.85 | 118.08 |
| 22 | c | 512 | CLA | O2A-CGA-O1A | -2.20 | 118.05 | 123.59 |
| 26 | b | 619 | LHG | C18-C17-C16 | -2.20 | 103.28 | 114.42 |
| 26 | R | 301 | LHG | C27-C26-C25 | -2.20 | 103.28 | 114.42 |
| 22 | c | 510 | CLA | C4D-CHA-C1A | 2.19 | 123.92 | 121.25 |
| 26 | r | 302 | LHG | C27-C26-C25 | -2.19 | 103.30 | 114.42 |
| 26 | g | 619 | LHG | C27-C26-C25 | -2.19 | 103.30 | 114.42 |
| 36 | I | 101 | LMG | O6-C1-O1 | -2.19 | 104.79 | 109.97 |
| 22 | a | 404 | CLA | C1-C2-C3 | -2.19 | 122.25 | 126.04 |
| 22 | B | 605 | CLA | O2A-CGA-O1A | -2.19 | 118.07 | 123.59 |
| 26 | B | 622 | LHG | C18-C17-C16 | -2.19 | 103.31 | 114.42 |
| 22 | N | 613 | CLA | O2A-CGA-O1A | -2.19 | 118.07 | 123.59 |
| 32 | a | 410 | PL9 | C2-C3-C4 | 2.19 | 120.32 | 118.64 |
| 35 | h | 102 | DGD | CBB-CAB-C9B | -2.19 | 103.31 | 114.42 |
| 36 | B | 601 | LMG | O6-C1-O1 | -2.19 | 104.79 | 109.97 |
| 26 | G | 618 | LHG | C18-C17-C16 | -2.19 | 103.32 | 114.42 |
| 22 | b | 602 | CLA | O2A-CGA-O1A | -2.19 | 118.07 | 123.59 |
| 22 | n | 613 | CLA | O2A-CGA-O1A | -2.19 | 118.07 | 123.59 |
| 22 | A | 405 | CLA | C1-C2-C3 | -2.19 | 122.26 | 126.04 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | Y | 612 | CLA | O2A-CGA-O1A | -2.19 | 118.08 | 123.59 |
| 22 | s | 310 | CLA | O2A-CGA-O1A | -2.19 | 118.08 | 123.59 |
| 34 | a | 412 | BCT | O3-C-O1 | -2.19 | 113.88 | 119.55 |
| 22 | C | 511 | CLA | CMC-C2C-C1C | -2.19 | 121.71 | 125.04 |
| 36 | M | 101 | LMG | O2-C2-C1 | -2.18 | 104.74 | 110.05 |
| 37 | F | 101 | HEM | CHB-C1B-NB | -2.18 | 121.69 | 124.38 |
| 35 | J | 101 | DGD | CAB-C9B-C8B | -2.18 | 103.36 | 114.42 |
| 34 | D | 403 | BCT | O3-C-O1 | -2.18 | 113.89 | 119.55 |
| 22 | y | 613 | CLA | O2A-CGA-O1A | -2.18 | 118.09 | 123.59 |
| 22 | c | 510 | CLA | CMC-C2C-C1C | -2.18 | 121.72 | 125.04 |
| 24 | N | 616 | XAT | O4-C5-C6 | 2.18 | 60.76 | 58.96 |
| 22 | a | 406 | CLA | C1-C2-C3 | -2.17 | 123.23 | 126.75 |
| 35 | c | 517 | DGD | O3E-C3E-C2E | -2.17 | 105.32 | 110.35 |
| 32 | d | 406 | PL9 | C37-C38-C39 | -2.17 | 122.43 | 127.66 |
| 24 | n | 615 | XAT | O4-C5-C6 | 2.17 | 60.76 | 58.96 |
| 22 | S | 304 | CLA | CHD-C1D-ND | -2.17 | 122.46 | 124.45 |
| 33 | l | 101 | SQD | O48-C23-C24 | 2.17 | 118.73 | 111.91 |
| 35 | a | 413 | DGD | O5D-C6D-C5D | -2.17 | 105.03 | 109.05 |
| 33 | L | 102 | SQD | O48-C23-C24 | 2.17 | 118.72 | 111.91 |
| 35 | h | 102 | DGD | O3E-C3E-C2E | -2.17 | 105.33 | 110.35 |
| 32 | A | 411 | PL9 | C2-C3-C4 | 2.17 | 120.31 | 118.64 |
| 35 | J | 101 | DGD | CBB-CAB-C9B | -2.17 | 103.41 | 114.42 |
| 36 | M | 101 | LMG | C1-C2-C3 | -2.17 | 105.48 | 110.00 |
| 26 | s | 314 | LHG | C18-C17-C16 | -2.17 | 103.41 | 114.42 |
| 24 | G | 617 | XAT | O4-C5-C6 | 2.17 | 60.75 | 58.96 |
| 35 | C | 518 | DGD | O3E-C3E-C2E | -2.17 | 105.34 | 110.35 |
| 26 | s | 314 | LHG | C27-C26-C25 | -2.17 | 103.42 | 114.42 |
| 22 | G | 614 | CLA | O2A-CGA-O1A | -2.17 | 118.12 | 123.59 |
| 26 | C | 521 | LHG | C27-C26-C25 | -2.17 | 103.42 | 114.42 |
| 36 | T | 101 | LMG | O2-C2-C1 | -2.17 | 104.78 | 110.05 |
| 32 | A | 411 | PL9 | C7-C3-C4 | 2.17 | 120.81 | 118.08 |
| 26 | S | 314 | LHG | C27-C26-C25 | -2.17 | 103.43 | 114.42 |
| 36 | T | 101 | LMG | C1-C2-C3 | -2.17 | 105.49 | 110.00 |
| 35 | A | 401 | DGD | O5D-C6D-C5D | -2.16 | 105.04 | 109.05 |
| 26 | S | 314 | LHG | C18-C17-C16 | -2.16 | 103.44 | 114.42 |
| 35 | c | 519 | DGD | CBB-CAB-C9B | -2.16 | 103.44 | 114.42 |
| 26 | B | 622 | LHG | C27-C26-C25 | -2.16 | 103.45 | 114.42 |
| 22 | C | 510 | CLA | O2D-CGD-CBD | 2.16 | 115.11 | 111.27 |
| 26 | c | 521 | LHG | C27-C26-C25 | -2.16 | 103.45 | 114.42 |
| 35 | c | 519 | DGD | CAB-C9B-C8B | -2.16 | 103.46 | 114.42 |
| 31 | k | 102 | BCR | C11-C10-C9 | -2.16 | 124.23 | 127.31 |
| 22 | s | 305 | CLA | O2A-CGA-O1A | -2.16 | 118.14 | 123.59 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 26 | y | 617 | LHG | C27-C26-C25 | -2.16 | 103.47 | 114.42 |
| 26 | n | 617 | LHG | C27-C26-C25 | -2.16 | 103.47 | 114.42 |
| 35 | c | 517 | DGD | C5B-C4B-C3B | -2.16 | 103.47 | 114.42 |
| 35 | c | 518 | DGD | C5B-C4B-C3B | -2.16 | 103.47 | 114.42 |
| 24 | N | 616 | XAT | C35-C15-C14 | -2.16 | 119.06 | 123.47 |
| 31 | K | 102 | BCR | C11-C10-C9 | -2.16 | 124.23 | 127.31 |
| 22 | r | 304 | CLA | O2A-CGA-O1A | -2.16 | 118.15 | 123.59 |
| 22 | S | 311 | CLA | O2A-CGA-O1A | -2.16 | 118.15 | 123.59 |
| 35 | H | 102 | DGD | O3E-C3E-C2E | -2.15 | 105.37 | 110.35 |
| 35 | C | 519 | DGD | C5B-C4B-C3B | -2.15 | 103.49 | 114.42 |
| 25 | y | 618 | NEX | C31-C32-C33 | -2.15 | 120.37 | 126.42 |
| 25 | r | 315 | NEX | C31-C32-C33 | -2.15 | 120.37 | 126.42 |
| 22 | A | 407 | CLA | C1-C2-C3 | -2.15 | 123.27 | 126.75 |
| 26 | b | 619 | LHG | C27-C26-C25 | -2.15 | 103.50 | 114.42 |
| 35 | h | 102 | DGD | C3D-C4D-C5D | -2.15 | 106.40 | 110.24 |
| 31 | k | 101 | BCR | C11-C10-C9 | -2.15 | 124.24 | 127.31 |
| 35 | C | 518 | DGD | C5B-C4B-C3B | -2.15 | 103.50 | 114.42 |
| 22 | S | 305 | CLA | O2A-CGA-O1A | -2.15 | 118.16 | 123.59 |
| 22 | b | 606 | CLA | C1-C2-C3 | -2.15 | 122.32 | 126.04 |
| 23 | N | 615 | LUT | C16-C1-C6 | -2.15 | 106.81 | 110.30 |
| 31 | K | 102 | BCR | C7-C8-C9 | -2.15 | 122.99 | 126.23 |
| 32 | D | 407 | PL9 | O2-C1-C6 | 2.15 | 124.31 | 120.59 |
| 30 | d | 401 | PHO | CMC-C2C-C3C | 2.15 | 129.00 | 124.94 |
| 26 | C | 520 | LHG | C27-C26-C25 | -2.15 | 103.52 | 114.42 |
| 31 | b | 616 | BCR | C15-C16-C17 | -2.15 | 119.07 | 123.47 |
| 31 | B | 619 | BCR | C15-C16-C17 | -2.15 | 119.07 | 123.47 |
| 32 | D | 407 | PL9 | C37-C38-C39 | -2.15 | 122.49 | 127.66 |
| 22 | R | 303 | CLA | O2A-CGA-O1A | -2.15 | 118.18 | 123.59 |
| 35 | H | 102 | DGD | C3D-C4D-C5D | -2.15 | 106.41 | 110.24 |
| 35 | a | 413 | DGD | C1D-C2D-C3D | -2.15 | 105.53 | 110.00 |
| 22 | s | 311 | CLA | O2A-CGA-O1A | -2.14 | 118.18 | 123.59 |
| 26 | Y | 617 | LHG | C18-C17-C16 | -2.14 | 103.54 | 114.42 |
| 32 | D | 407 | PL9 | C20-C19-C21 | 2.14 | 118.88 | 115.27 |
| 32 | d | 406 | PL9 | C20-C19-C21 | 2.14 | 118.88 | 115.27 |
| 26 | c | 520 | LHG | C27-C26-C25 | -2.14 | 103.55 | 114.42 |
| 26 | L | 103 | LHG | C27-C26-C25 | -2.14 | 103.55 | 114.42 |
| 22 | S | 304 | CLA | CHB-C4A-NA | 2.14 | 127.47 | 124.51 |
| 22 | s | 308 | CLA | CED-O2D-CGD | 2.14 | 120.78 | 115.94 |
| 22 | G | 613 | CLA | CHD-C4C-C3C | -2.14 | 121.69 | 124.84 |
| 35 | A | 401 | DGD | O3E-C3E-C2E | -2.14 | 105.40 | 110.35 |
| 32 | d | 406 | PL9 | O2-C1-C6 | 2.14 | 124.30 | 120.59 |
| 22 | B | 609 | CLA | C1-C2-C3 | -2.14 | 122.34 | 126.04 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 26 | d | 407 | LHG | C27-C26-C25 | -2.14 | 103.56 | 114.42 |
| 26 | D | 408 | LHG | C27-C26-C25 | -2.14 | 103.56 | 114.42 |
| 30 | D | 401 | PHO | CMC-C2C-C3C | 2.14 | 128.97 | 124.94 |
| 22 | x | 101 | CLA | O2A-CGA-O1A | -2.14 | 118.20 | 123.59 |
| 33 | A | 412 | SQD | C1-C2-C3 | 2.14 | 114.45 | 110.00 |
| 35 | C | 519 | DGD | CAB-C9B-C8B | -2.14 | 103.58 | 114.42 |
| 35 | A | 401 | DGD | C1D-C2D-C3D | -2.14 | 105.55 | 110.00 |
| 22 | N | 603 | CLA | C1-C2-C3 | -2.13 | 122.35 | 126.04 |
| 26 | l | 102 | LHG | C27-C26-C25 | -2.13 | 103.59 | 114.42 |
| 22 | r | 303 | CLA | CHD-C1D-ND | -2.13 | 122.49 | 124.45 |
| 22 | N | 610 | CLA | O2A-CGA-O1A | -2.13 | 118.21 | 123.59 |
| 22 | C | 510 | CLA | O2A-CGA-O1A | -2.13 | 118.21 | 123.59 |
| 35 | a | 413 | DGD | O3E-C3E-C2E | -2.13 | 105.42 | 110.35 |
| 22 | c | 509 | CLA | O2D-CGD-CBD | 2.13 | 115.05 | 111.27 |
| 26 | g | 619 | LHG | C18-C17-C16 | -2.13 | 103.62 | 114.42 |
| 22 | Y | 610 | CLA | O2A-CGA-O1A | -2.13 | 118.22 | 123.59 |
| 35 | H | 102 | DGD | O3D-C3D-C4D | -2.13 | 105.44 | 110.35 |
| 35 | h | 102 | DGD | O3D-C3D-C4D | -2.13 | 105.44 | 110.35 |
| 22 | c | 509 | CLA | O2A-CGA-O1A | -2.12 | 118.23 | 123.59 |
| 35 | h | 102 | DGD | CAB-C9B-C8B | -2.12 | 103.64 | 114.42 |
| 22 | s | 309 | CLA | O2A-CGA-O1A | -2.12 | 118.23 | 123.59 |
| 22 | S | 309 | CLA | O2A-CGA-O1A | -2.12 | 118.23 | 123.59 |
| 26 | L | 103 | LHG | C5-O7-C7 | -2.12 | 112.56 | 117.79 |
| 22 | n | 610 | CLA | O2A-CGA-O1A | -2.12 | 118.23 | 123.59 |
| 35 | c | 518 | DGD | CAB-C9B-C8B | -2.12 | 103.65 | 114.42 |
| 22 | n | 602 | CLA | CHD-C1D-ND | -2.12 | 122.50 | 124.45 |
| 22 | G | 602 | CLA | CHD-C1D-ND | -2.12 | 122.50 | 124.45 |
| 22 | N | 602 | CLA | CHD-C1D-ND | -2.12 | 122.50 | 124.45 |
| 22 | g | 613 | CLA | CHD-C4C-C3C | -2.12 | 121.72 | 124.84 |
| 26 | D | 410 | LHG | C27-C26-C25 | -2.12 | 103.66 | 114.42 |
| 35 | a | 413 | DGD | CBB-CAB-C9B | -2.12 | 103.66 | 114.42 |
| 31 | k | 101 | BCR | C15-C14-C13 | -2.12 | 124.28 | 127.31 |
| 22 | Y | 611 | CLA | CHD-C4C-C3C | -2.12 | 121.72 | 124.84 |
| 26 | l | 102 | LHG | C5-O7-C7 | -2.12 | 112.57 | 117.79 |
| 26 | C | 521 | LHG | C20-C19-C18 | -2.12 | 103.67 | 114.42 |
| 30 | A | 408 | PHO | CMC-C2C-C3C | 2.12 | 128.94 | 124.94 |
| 22 | g | 602 | CLA | CHD-C1D-ND | -2.12 | 122.51 | 124.45 |
| 30 | a | 407 | PHO | CMC-C2C-C3C | 2.12 | 128.93 | 124.94 |
| 22 | Y | 602 | CLA | CHD-C1D-ND | -2.12 | 122.51 | 124.45 |
| 22 | G | 611 | CLA | O2A-CGA-O1A | -2.12 | 118.25 | 123.59 |
| 26 | g | 619 | LHG | O8-C6-C5 | -2.12 | 102.27 | 108.43 |
| 26 | G | 618 | LHG | C27-C26-C25 | -2.12 | 103.68 | 114.42 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 22 | y | 611 | CLA | O2A-CGA-O1A | -2.11 | 118.26 | 123.59 |
| 33 | a | 411 | SQD | C1-C2-C3 | 2.11 | 114.40 | 110.00 |
| 22 | g | 611 | CLA | O2A-CGA-O1A | -2.11 | 118.26 | 123.59 |
| 35 | A | 401 | DGD | CBB-CAB-C9B | -2.11 | 103.70 | 114.42 |
| 35 | H | 102 | DGD | CAB-C9B-C8B | -2.11 | 103.70 | 114.42 |
| 26 | d | 409 | LHG | C27-C26-C25 | -2.11 | 103.70 | 114.42 |
| 26 | y | 617 | LHG | C18-C17-C16 | -2.11 | 103.71 | 114.42 |
| 26 | c | 521 | LHG | C20-C19-C18 | -2.11 | 103.71 | 114.42 |
| 36 | k | 103 | LMG | O3-C3-C2 | -2.11 | 105.47 | 110.35 |
| 22 | N | 612 | CLA | CHD-C4C-C3C | -2.11 | 121.74 | 124.84 |
| 22 | d | 403 | CLA | O2A-CGA-O1A | -2.11 | 118.27 | 123.59 |
| 35 | a | 413 | DGD | CAB-C9B-C8B | -2.11 | 103.72 | 114.42 |
| 31 | K | 101 | BCR | C15-C14-C13 | -2.11 | 124.30 | 127.31 |
| 36 | K | 103 | LMG | O3-C3-C2 | -2.11 | 105.47 | 110.35 |
| 31 | K | 101 | BCR | C11-C10-C9 | -2.11 | 124.30 | 127.31 |
| 22 | D | 404 | CLA | O2A-CGA-O1A | -2.10 | 118.28 | 123.59 |
| 23 | N | 615 | LUT | C7-C6-C5 | -2.10 | 116.36 | 121.46 |
| 22 | n | 612 | CLA | CHD-C4C-C3C | -2.10 | 121.75 | 124.84 |
| 31 | K | 101 | BCR | C15-C16-C17 | -2.10 | 119.17 | 123.47 |
| 22 | B | 603 | CLA | O2A-CGA-O1A | -2.10 | 118.29 | 123.59 |
| 22 | s | 304 | CLA | CHB-C4A-NA | 2.10 | 127.42 | 124.51 |
| 24 | Y | 615 | XAT | C25-C24-C23 | -2.10 | 108.59 | 112.75 |
| 35 | A | 401 | DGD | CAB-C9B-C8B | -2.10 | 103.77 | 114.42 |
| 22 | D | 405 | CLA | C1-C2-C3 | -2.10 | 122.41 | 126.04 |
| 26 | c | 521 | LHG | C18-C17-C16 | -2.10 | 103.77 | 114.42 |
| 31 | K | 101 | BCR | C7-C8-C9 | -2.10 | 123.06 | 126.23 |
| 25 | g | 618 | NEX | C36-C21-C26 | -2.10 | 104.38 | 110.05 |
| 33 | a | 411 | SQD | O48-C23-O10 | -2.10 | 118.30 | 123.59 |
| 26 | C | 521 | LHG | C18-C17-C16 | -2.10 | 103.77 | 114.42 |
| 22 | S | 308 | CLA | CED-O2D-CGD | 2.10 | 120.68 | 115.94 |
| 25 | n | 616 | NEX | C36-C21-C26 | -2.10 | 104.38 | 110.05 |
| 31 | k | 101 | BCR | C15-C16-C17 | -2.10 | 119.18 | 123.47 |
| 31 | k | 102 | BCR | C7-C8-C9 | -2.09 | 123.07 | 126.23 |
| 22 | B | 616 | CLA | C1-C2-C3 | -2.09 | 122.42 | 126.04 |
| 22 | y | 612 | CLA | CHD-C4C-C3C | -2.09 | 121.76 | 124.84 |
| 23 | N | 615 | LUT | C15-C35-C34 | -2.09 | 119.19 | 123.47 |
| 22 | y | 602 | CLA | CHD-C1D-ND | -2.09 | 122.53 | 124.45 |
| 22 | G | 603 | CLA | C1-C2-C3 | -2.09 | 122.43 | 126.04 |
| 32 | d | 406 | PL9 | C31-C32-C33 | -2.09 | 105.01 | 111.88 |
| 26 | n | 617 | LHG | C5-O7-C7 | -2.09 | 112.65 | 117.79 |
| 22 | s | 309 | CLA | CHD-C1D-ND | -2.09 | 122.53 | 124.45 |
| 23 | Y | 614 | LUT | C3-C4-C5 | -2.09 | 107.69 | 111.85 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 33 | A | 412 | SQD | O48-C23-O10 | -2.09 | 118.32 | 123.59 |
| 22 | d | 404 | CLA | O2A-CGA-O1A | -2.09 | 118.32 | 123.59 |
| 32 | D | 407 | PL9 | C31-C32-C33 | -2.09 | 105.03 | 111.88 |
| 22 | b | 610 | CLA | O2A-CGA-O1A | -2.09 | 118.33 | 123.59 |
| 32 | D | 407 | PL9 | O2-C1-C2 | -2.08 | 117.00 | 121.78 |
| 23 | N | 615 | LUT | C1-C6-C7 | -2.08 | 109.88 | 115.78 |
| 22 | d | 404 | CLA | C1-C2-C3 | -2.08 | 122.44 | 126.04 |
| 36 | b | 620 | LMG | O2-C2-C1 | -2.08 | 104.99 | 110.05 |
| 22 | g | 603 | CLA | C1-C2-C3 | -2.08 | 122.44 | 126.04 |
| 35 | C | 518 | DGD | CAB-C9B-C8B | -2.08 | 103.85 | 114.42 |
| 26 | c | 522 | LHG | C27-C26-C25 | -2.08 | 103.85 | 114.42 |
| 22 | B | 613 | CLA | O2A-CGA-O1A | -2.08 | 118.34 | 123.59 |
| 22 | C | 511 | CLA | C1C-C2C-C3C | 2.08 | 109.14 | 106.96 |
| 22 | c | 508 | CLA | O2A-CGA-O1A | -2.08 | 118.34 | 123.59 |
| 36 | I | 101 | LMG | O2-C2-C1 | -2.08 | 105.00 | 110.05 |
| 22 | Y | 603 | CLA | C1-C2-C3 | -2.08 | 122.45 | 126.04 |
| 37 | F | 101 | HEM | C4B-CHC-C1C | 2.08 | 125.30 | 122.56 |
| 26 | C | 522 | LHG | C27-C26-C25 | -2.08 | 103.88 | 114.42 |
| 35 | c | 517 | DGD | CAB-C9B-C8B | -2.08 | 103.88 | 114.42 |
| 32 | d | 406 | PL9 | O2-C1-C2 | -2.08 | 117.02 | 121.78 |
| 22 | b | 602 | CLA | C1-C2-C3 | -2.08 | 122.45 | 126.04 |
| 31 | D | 406 | BCR | C15-C14-C13 | -2.08 | 124.35 | 127.31 |
| 23 | g | 616 | LUT | C31-C32-C33 | -2.08 | 120.59 | 126.42 |
| 22 | y | 603 | CLA | C1-C2-C3 | -2.07 | 122.45 | 126.04 |
| 36 | c | 523 | LMG | O2-C2-C1 | -2.07 | 105.01 | 110.05 |
| 36 | B | 601 | LMG | O2-C2-C1 | -2.07 | 105.01 | 110.05 |
| 22 | A | 409 | CLA | O2A-CGA-O1A | -2.07 | 118.36 | 123.59 |
| 36 | C | 502 | LMG | C3-C4-C5 | -2.07 | 106.55 | 110.24 |
| 36 | B | 623 | LMG | O2-C2-C1 | -2.07 | 105.02 | 110.05 |
| 33 | d | 402 | SQD | O5-C1-C2 | 2.07 | 114.73 | 110.35 |
| 31 | D | 406 | BCR | C7-C8-C9 | -2.07 | 123.11 | 126.23 |
| 26 | N | 618 | LHG | C18-C17-C16 | -2.07 | 103.92 | 114.42 |
| 22 | D | 405 | CLA | O2A-CGA-O1A | -2.07 | 118.38 | 123.59 |
| 31 | k | 101 | BCR | C7-C8-C9 | -2.07 | 123.11 | 126.23 |
| 22 | a | 408 | CLA | O2A-CGA-O1A | -2.07 | 118.38 | 123.59 |
| 26 | Y | 617 | LHG | C5-O7-C7 | -2.06 | 112.71 | 117.79 |
| 32 | D | 407 | PL9 | C32-C33-C34 | -2.06 | 122.69 | 127.66 |
| 35 | h | 102 | DGD | C5B-C4B-C3B | -2.06 | 103.96 | 114.42 |
| 22 | C | 507 | CLA | O2A-CGA-O1A | -2.06 | 118.39 | 123.59 |
| 33 | A | 412 | SQD | O48-C23-C24 | 2.06 | 118.38 | 111.91 |
| 35 | H | 102 | DGD | C5B-C4B-C3B | -2.06 | 103.96 | 114.42 |
| 22 | b | 613 | CLA | C1-C2-C3 | -2.06 | 122.48 | 126.04 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 36 | C | 523 | LMG | O2-C2-C1 | -2.06 | 105.04 | 110.05 |
| 22 | B | 605 | CLA | C1-C2-C3 | -2.06 | 122.48 | 126.04 |
| 26 | D | 410 | LHG | C5-O7-C7 | -2.06 | 112.73 | 117.79 |
| 33 | a | 411 | SQD | O48-C23-C24 | 2.06 | 118.36 | 111.91 |
| 33 | D | 402 | SQD | O5-C1-C2 | 2.06 | 114.70 | 110.35 |
| 22 | b | 615 | CLA | O2A-CGA-O1A | -2.05 | 118.41 | 123.59 |
| 22 | C | 509 | CLA | O2A-CGA-O1A | -2.05 | 118.41 | 123.59 |
| 22 | c | 506 | CLA | O2A-CGA-O1A | -2.05 | 118.41 | 123.59 |
| 25 | n | 616 | NEX | C38-C25-C26 | -2.05 | 118.82 | 122.26 |
| 37 | f | 101 | HEM | C4B-CHC-C1C | 2.05 | 125.27 | 122.56 |
| 22 | c | 510 | CLA | C1C-C2C-C3C | 2.05 | 109.11 | 106.96 |
| 31 | d | 405 | BCR | C7-C8-C9 | -2.05 | 123.13 | 126.23 |
| 23 | G | 616 | LUT | C31-C32-C33 | -2.05 | 120.65 | 126.42 |
| 35 | c | 518 | DGD | O2D-C2D-C1D | -2.05 | 105.06 | 110.05 |
| 24 | G | 617 | XAT | C25-C24-C23 | -2.05 | 108.69 | 112.75 |
| 31 | d | 405 | BCR | C15-C14-C13 | -2.05 | 124.38 | 127.31 |
| 26 | N | 618 | LHG | C27-C26-C25 | -2.05 | 104.02 | 114.42 |
| 22 | B | 603 | CLA | CHD-C1D-ND | -2.05 | 122.57 | 124.45 |
| 26 | C | 521 | LHG | C5-O7-C7 | -2.05 | 112.75 | 117.79 |
| 22 | B | 610 | CLA | C1-C2-C3 | -2.05 | 122.50 | 126.04 |
| 32 | d | 406 | PL9 | C32-C33-C34 | -2.05 | 122.73 | 127.66 |
| 22 | b | 607 | CLA | C1-C2-C3 | -2.04 | 122.51 | 126.04 |
| 22 | C | 512 | CLA | O2D-CGD-CBD | 2.04 | 114.90 | 111.27 |
| 22 | n | 603 | CLA | C1-C2-C3 | -2.04 | 122.51 | 126.04 |
| 31 | b | 617 | BCR | C24-C23-C22 | -2.04 | 123.15 | 126.23 |
| 35 | c | 519 | DGD | O3E-C3E-C2E | -2.04 | 105.63 | 110.35 |
| 26 | c | 521 | LHG | C5-O7-C7 | -2.04 | 112.77 | 117.79 |
| 36 | w | 102 | LMG | C3-C4-C5 | -2.04 | 106.60 | 110.24 |
| 22 | R | 302 | CLA | CHD-C1D-ND | -2.04 | 122.58 | 124.45 |
| 25 | y | 616 | NEX | C36-C21-C22 | -2.04 | 105.44 | 108.98 |
| 33 | a | 411 | SQD | O5-C5-C4 | 2.04 | 113.39 | 109.69 |
| 22 | B | 618 | CLA | O2A-CGA-O1A | -2.04 | 118.45 | 123.59 |
| 35 | C | 519 | DGD | O2D-C2D-C1D | -2.04 | 105.10 | 110.05 |
| 36 | T | 101 | LMG | O1-C7-C8 | -2.04 | 105.99 | 110.90 |
| 22 | g | 611 | CLA | CHD-C1D-ND | -2.03 | 122.58 | 124.45 |
| 33 | l | 103 | SQD | O5-C1-C2 | 2.03 | 114.66 | 110.35 |
| 22 | Y | 602 | CLA | O2A-CGA-O1A | -2.03 | 118.46 | 123.59 |
| 22 | c | 510 | CLA | CAC-C3C-C2C | -2.03 | 124.05 | 127.53 |
| 22 | B | 610 | CLA | O2A-CGA-O1A | -2.03 | 118.46 | 123.59 |
| 36 | D | 411 | LMG | C6-C5-C4 | -2.03 | 108.24 | 113.00 |
| 35 | H | 102 | DGD | C7B-C6B-C5B | -2.03 | 104.11 | 114.42 |
| 35 | a | 413 | DGD | C5B-C4B-C3B | -2.03 | 104.11 | 114.42 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 35 | h | 102 | DGD | C7B-C6B-C5B | -2.03 | 104.11 | 114.42 |
| 36 | D | 411 | LMG | C1-C2-C3 | -2.03 | 105.77 | 110.00 |
| 36 | b | 620 | LMG | O7-C10-O9 | -2.03 | 118.79 | 123.70 |
| 36 | M | 101 | LMG | O1-C7-C8 | -2.03 | 106.00 | 110.90 |
| 36 | B | 623 | LMG | O7-C10-O9 | -2.03 | 118.80 | 123.70 |
| 35 | J | 101 | DGD | O3E-C3E-C2E | -2.03 | 105.66 | 110.35 |
| 35 | c | 517 | DGD | C3D-C4D-C5D | -2.03 | 106.62 | 110.24 |
| 22 | N | 602 | CLA | O2A-CGA-O1A | -2.03 | 118.48 | 123.59 |
| 35 | A | 401 | DGD | C5B-C4B-C3B | -2.02 | 104.15 | 114.42 |
| 22 | N | 610 | CLA | CHD-C1D-ND | -2.02 | 122.59 | 124.45 |
| 22 | R | 308 | CLA | O2A-CGA-O1A | -2.02 | 118.49 | 123.59 |
| 25 | y | 616 | NEX | C36-C21-C26 | -2.02 | 104.58 | 110.05 |
| 22 | g | 604 | CLA | O2A-CGA-O1A | -2.02 | 118.49 | 123.59 |
| 22 | Y | 611 | CLA | CAA-CBA-CGA | -2.02 | 107.35 | 113.25 |
| 31 | B | 620 | BCR | C24-C23-C22 | -2.02 | 123.18 | 126.23 |
| 22 | c | 511 | CLA | O2D-CGD-CBD | 2.02 | 114.86 | 111.27 |
| 22 | b | 607 | CLA | O2A-CGA-O1A | -2.02 | 118.50 | 123.59 |
| 22 | c | 507 | CLA | O2A-CGA-O1A | -2.02 | 118.50 | 123.59 |
| 36 | d | 410 | LMG | C1-C2-C3 | -2.02 | 105.80 | 110.00 |
| 22 | N | 612 | CLA | CAA-CBA-CGA | -2.02 | 107.36 | 113.25 |
| 22 | a | 404 | CLA | O2A-CGA-O1A | -2.02 | 118.51 | 123.59 |
| 36 | b | 620 | LMG | C24-C23-C22 | -2.01 | 104.20 | 114.42 |
| 22 | y | 602 | CLA | O2A-CGA-O1A | -2.01 | 118.51 | 123.59 |
| 22 | r | 309 | CLA | O2A-CGA-O1A | -2.01 | 118.51 | 123.59 |
| 35 | a | 413 | DGD | O2D-C2D-C1D | -2.01 | 105.15 | 110.05 |
| 36 | K | 103 | LMG | O2-C2-C1 | -2.01 | 105.16 | 110.05 |
| 22 | G | 602 | CLA | O2A-CGA-O1A | -2.01 | 118.51 | 123.59 |
| 22 | Y | 604 | CLA | O2A-CGA-O1A | -2.01 | 118.51 | 123.59 |
| 22 | S | 309 | CLA | CHD-C1D-ND | -2.01 | 122.60 | 124.45 |
| 26 | d | 409 | LHG | C5-O7-C7 | -2.01 | 112.83 | 117.79 |
| 22 | c | 510 | CLA | C3A-C2A-C1A | 2.01 | 104.35 | 101.34 |
| 33 | A | 412 | SQD | O5-C5-C4 | 2.01 | 113.35 | 109.69 |
| 22 | B | 612 | CLA | CHD-C1D-ND | -2.01 | 122.61 | 124.45 |
| 22 | s | 313 | CLA | O2A-CGA-O1A | -2.01 | 118.52 | 123.59 |
| 31 | k | 102 | BCR | C35-C13-C14 | -2.01 | 120.11 | 122.92 |
| 22 | b | 609 | CLA | CHD-C1D-ND | -2.01 | 122.61 | 124.45 |
| 33 | L | 101 | SQD | O5-C1-C2 | 2.01 | 114.60 | 110.35 |
| 30 | d | 401 | PHO | O2A-CGA-O1A | -2.01 | 118.52 | 123.59 |
| 22 | n | 604 | CLA | O2A-CGA-O1A | -2.01 | 118.52 | 123.59 |
| 36 | k | 103 | LMG | O2-C2-C1 | -2.01 | 105.17 | 110.05 |
| 22 | G | 610 | CLA | CHD-C1D-ND | -2.01 | 122.61 | 124.45 |
| 35 | C | 518 | DGD | C3D-C4D-C5D | -2.01 | 106.66 | 110.24 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 31 | C | 516 | BCR | C11-C10-C9 | -2.01 | 124.45 | 127.31 |
| 31 | K | 102 | BCR | C35-C13-C14 | -2.01 | 120.11 | 122.92 |
| 22 | Y | 609 | CLA | CHD-C1D-ND | -2.01 | 122.61 | 124.45 |
| 35 | A | 401 | DGD | O2D-C2D-C1D | -2.00 | 105.18 | 110.05 |
| 22 | x | 101 | CLA | CHD-C1D-ND | -2.00 | 122.61 | 124.45 |
| 22 | g | 613 | CLA | CAA-CBA-CGA | -2.00 | 107.40 | 113.25 |
| 36 | d | 410 | LMG | C6-C5-C4 | -2.00 | 108.31 | 113.00 |
| 22 | y | 612 | CLA | CAA-CBA-CGA | -2.00 | 107.40 | 113.25 |
| 37 | F | 101 | HEM | CAA-CBA-CGA | -2.00 | 108.14 | 113.76 |
| 22 | C | 511 | CLA | CAC-C3C-C2C | -2.00 | 124.11 | 127.53 |
| 36 | B | 623 | LMG | C24-C23-C22 | -2.00 | 104.27 | 114.42 |
| 22 | G | 613 | CLA | CAA-CBA-CGA | -2.00 | 107.41 | 113.25 |
| 22 | Y | 602 | CLA | C1-C2-C3 | -2.00 | 122.58 | 126.04 |
| 37 | f | 101 | HEM | CAA-CBA-CGA | -2.00 | 108.15 | 113.76 |
| 35 | C | 518 | DGD | O6E-C1E-O5D | -2.00 | 105.24 | 109.97 |

All (353) chirality outliers are listed below:

| Mol | Chain | Res | Type | Atom |
|-----|-------|-----|------|------|
| 21 | g | 601 | CHL | NC |
| 21 | g | 601 | CHL | C8 |
| 21 | g | 601 | CHL | ND |
| 21 | g | 601 | CHL | NA |
| 21 | g | 605 | CHL | NC |
| 21 | g | 605 | CHL | ND |
| 21 | g | 605 | CHL | NA |
| 21 | g | 606 | CHL | NC |
| 21 | g | 606 | CHL | ND |
| 21 | g | 606 | CHL | NA |
| 21 | g | 607 | CHL | NC |
| 21 | g | 607 | CHL | C8 |
| 21 | g | 607 | CHL | ND |
| 21 | g | 607 | CHL | NA |
| 21 | g | 608 | CHL | NC |
| 21 | g | 608 | CHL | C8 |
| 21 | g | 608 | CHL | ND |
| 21 | g | 608 | CHL | NA |
| 21 | g | 609 | CHL | NC |
| 21 | g | 609 | CHL | C8 |
| 21 | g | 609 | CHL | ND |
| 21 | g | 609 | CHL | NA |
| 21 | n | 601 | CHL | NC |

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| Mol | Chain | Res | Type | Atom |
|------------|--------------|------------|-------------|-------------|
| 21 | n | 601 | CHL | C8 |
| 21 | n | 601 | CHL | ND |
| 21 | n | 601 | CHL | NA |
| 21 | n | 605 | CHL | NC |
| 21 | n | 605 | CHL | ND |
| 21 | n | 605 | CHL | NA |
| 21 | n | 606 | CHL | NC |
| 21 | n | 606 | CHL | C8 |
| 21 | n | 606 | CHL | ND |
| 21 | n | 606 | CHL | NA |
| 21 | n | 607 | CHL | NC |
| 21 | n | 607 | CHL | C8 |
| 21 | n | 607 | CHL | ND |
| 21 | n | 607 | CHL | NA |
| 21 | n | 608 | CHL | NC |
| 21 | n | 608 | CHL | C8 |
| 21 | n | 608 | CHL | ND |
| 21 | n | 608 | CHL | NA |
| 21 | y | 601 | CHL | NC |
| 21 | y | 601 | CHL | C8 |
| 21 | y | 601 | CHL | ND |
| 21 | y | 601 | CHL | NA |
| 21 | y | 605 | CHL | NC |
| 21 | y | 605 | CHL | ND |
| 21 | y | 605 | CHL | NA |
| 21 | y | 606 | CHL | NC |
| 21 | y | 606 | CHL | ND |
| 21 | y | 606 | CHL | NA |
| 21 | y | 607 | CHL | NC |
| 21 | y | 607 | CHL | C8 |
| 21 | y | 607 | CHL | ND |
| 21 | y | 607 | CHL | NA |
| 21 | y | 608 | CHL | NC |
| 21 | y | 608 | CHL | C8 |
| 21 | y | 608 | CHL | ND |
| 21 | y | 608 | CHL | NA |
| 21 | y | 609 | CHL | NC |
| 21 | y | 609 | CHL | C8 |
| 21 | y | 609 | CHL | ND |
| 21 | y | 609 | CHL | NA |
| 21 | G | 601 | CHL | NC |
| 21 | G | 601 | CHL | C8 |

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| Mol | Chain | Res | Type | Atom |
|------------|--------------|------------|-------------|-------------|
| 21 | G | 601 | CHL | ND |
| 21 | G | 601 | CHL | NA |
| 21 | G | 605 | CHL | NC |
| 21 | G | 605 | CHL | ND |
| 21 | G | 605 | CHL | NA |
| 21 | G | 606 | CHL | NC |
| 21 | G | 606 | CHL | ND |
| 21 | G | 606 | CHL | NA |
| 21 | G | 607 | CHL | NC |
| 21 | G | 607 | CHL | C8 |
| 21 | G | 607 | CHL | ND |
| 21 | G | 607 | CHL | NA |
| 21 | G | 608 | CHL | NC |
| 21 | G | 608 | CHL | C8 |
| 21 | G | 608 | CHL | ND |
| 21 | G | 608 | CHL | NA |
| 21 | G | 609 | CHL | NC |
| 21 | G | 609 | CHL | C8 |
| 21 | G | 609 | CHL | ND |
| 21 | G | 609 | CHL | NA |
| 21 | N | 601 | CHL | NC |
| 21 | N | 601 | CHL | C8 |
| 21 | N | 601 | CHL | ND |
| 21 | N | 601 | CHL | NA |
| 21 | N | 605 | CHL | NC |
| 21 | N | 605 | CHL | ND |
| 21 | N | 605 | CHL | NA |
| 21 | N | 606 | CHL | NC |
| 21 | N | 606 | CHL | C8 |
| 21 | N | 606 | CHL | ND |
| 21 | N | 606 | CHL | NA |
| 21 | N | 607 | CHL | NC |
| 21 | N | 607 | CHL | C8 |
| 21 | N | 607 | CHL | ND |
| 21 | N | 607 | CHL | NA |
| 21 | N | 608 | CHL | NC |
| 21 | N | 608 | CHL | C8 |
| 21 | N | 608 | CHL | ND |
| 21 | N | 608 | CHL | NA |
| 21 | Y | 601 | CHL | NC |
| 21 | Y | 601 | CHL | C8 |
| 21 | Y | 601 | CHL | ND |

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| Mol | Chain | Res | Type | Atom |
|------------|--------------|------------|-------------|-------------|
| 21 | Y | 601 | CHL | NA |
| 21 | Y | 605 | CHL | NC |
| 21 | Y | 605 | CHL | ND |
| 21 | Y | 605 | CHL | NA |
| 21 | Y | 606 | CHL | NC |
| 21 | Y | 606 | CHL | C8 |
| 21 | Y | 606 | CHL | ND |
| 21 | Y | 606 | CHL | NA |
| 21 | Y | 607 | CHL | NC |
| 21 | Y | 607 | CHL | C8 |
| 21 | Y | 607 | CHL | ND |
| 21 | Y | 607 | CHL | NA |
| 21 | Y | 608 | CHL | NC |
| 21 | Y | 608 | CHL | C8 |
| 21 | Y | 608 | CHL | ND |
| 21 | Y | 608 | CHL | NA |
| 21 | r | 301 | CHL | NC |
| 21 | r | 301 | CHL | ND |
| 21 | r | 301 | CHL | NA |
| 21 | r | 306 | CHL | NC |
| 21 | r | 306 | CHL | C8 |
| 21 | r | 306 | CHL | ND |
| 21 | r | 306 | CHL | NA |
| 21 | r | 307 | CHL | NC |
| 21 | r | 307 | CHL | C8 |
| 21 | r | 307 | CHL | ND |
| 21 | r | 307 | CHL | NA |
| 21 | r | 308 | CHL | NC |
| 21 | r | 308 | CHL | C8 |
| 21 | r | 308 | CHL | ND |
| 21 | r | 308 | CHL | NA |
| 21 | s | 301 | CHL | NC |
| 21 | s | 301 | CHL | ND |
| 21 | s | 301 | CHL | NA |
| 21 | s | 302 | CHL | NC |
| 21 | s | 302 | CHL | ND |
| 21 | s | 302 | CHL | NA |
| 21 | s | 306 | CHL | NC |
| 21 | s | 306 | CHL | ND |
| 21 | s | 306 | CHL | NA |
| 21 | s | 307 | CHL | NC |
| 21 | s | 307 | CHL | ND |

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| Mol | Chain | Res | Type | Atom |
|------------|--------------|------------|-------------|-------------|
| 21 | s | 307 | CHL | NA |
| 21 | S | 301 | CHL | NC |
| 21 | S | 301 | CHL | ND |
| 21 | S | 301 | CHL | NA |
| 21 | S | 302 | CHL | NC |
| 21 | S | 302 | CHL | ND |
| 21 | S | 302 | CHL | NA |
| 21 | S | 306 | CHL | NC |
| 21 | S | 306 | CHL | ND |
| 21 | S | 306 | CHL | NA |
| 21 | S | 307 | CHL | NC |
| 21 | S | 307 | CHL | ND |
| 21 | S | 307 | CHL | NA |
| 21 | R | 305 | CHL | NC |
| 21 | R | 305 | CHL | C8 |
| 21 | R | 305 | CHL | ND |
| 21 | R | 305 | CHL | NA |
| 21 | R | 306 | CHL | NC |
| 21 | R | 306 | CHL | C8 |
| 21 | R | 306 | CHL | ND |
| 21 | R | 306 | CHL | NA |
| 21 | R | 307 | CHL | NC |
| 21 | R | 307 | CHL | C8 |
| 21 | R | 307 | CHL | ND |
| 21 | R | 307 | CHL | NA |
| 22 | g | 602 | CLA | ND |
| 22 | g | 603 | CLA | ND |
| 22 | g | 604 | CLA | ND |
| 22 | g | 610 | CLA | ND |
| 22 | g | 611 | CLA | ND |
| 22 | g | 612 | CLA | ND |
| 22 | g | 613 | CLA | ND |
| 22 | g | 614 | CLA | ND |
| 22 | n | 602 | CLA | ND |
| 22 | n | 603 | CLA | ND |
| 22 | n | 604 | CLA | ND |
| 22 | n | 609 | CLA | ND |
| 22 | n | 610 | CLA | ND |
| 22 | n | 611 | CLA | ND |
| 22 | n | 612 | CLA | ND |
| 22 | n | 613 | CLA | ND |
| 22 | y | 602 | CLA | ND |

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| Mol | Chain | Res | Type | Atom |
|------------|--------------|------------|-------------|-------------|
| 22 | y | 603 | CLA | ND |
| 22 | y | 604 | CLA | ND |
| 22 | y | 610 | CLA | ND |
| 22 | y | 611 | CLA | ND |
| 22 | y | 612 | CLA | ND |
| 22 | y | 613 | CLA | ND |
| 22 | G | 602 | CLA | ND |
| 22 | G | 603 | CLA | ND |
| 22 | G | 604 | CLA | ND |
| 22 | G | 610 | CLA | ND |
| 22 | G | 611 | CLA | ND |
| 22 | G | 612 | CLA | ND |
| 22 | G | 613 | CLA | ND |
| 22 | G | 614 | CLA | ND |
| 22 | N | 602 | CLA | ND |
| 22 | N | 603 | CLA | ND |
| 22 | N | 604 | CLA | ND |
| 22 | N | 609 | CLA | ND |
| 22 | N | 610 | CLA | ND |
| 22 | N | 611 | CLA | ND |
| 22 | N | 612 | CLA | ND |
| 22 | N | 613 | CLA | ND |
| 22 | Y | 602 | CLA | ND |
| 22 | Y | 603 | CLA | ND |
| 22 | Y | 604 | CLA | ND |
| 22 | Y | 609 | CLA | ND |
| 22 | Y | 610 | CLA | ND |
| 22 | Y | 611 | CLA | ND |
| 22 | Y | 612 | CLA | ND |
| 22 | a | 404 | CLA | ND |
| 22 | a | 405 | CLA | ND |
| 22 | a | 406 | CLA | ND |
| 22 | a | 408 | CLA | ND |
| 22 | b | 601 | CLA | ND |
| 22 | b | 602 | CLA | ND |
| 22 | b | 603 | CLA | ND |
| 22 | b | 604 | CLA | ND |
| 22 | b | 605 | CLA | ND |
| 22 | b | 606 | CLA | ND |
| 22 | b | 607 | CLA | ND |
| 22 | b | 608 | CLA | ND |
| 22 | b | 609 | CLA | ND |

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| Mol | Chain | Res | Type | Atom |
|------------|--------------|------------|-------------|-------------|
| 22 | b | 610 | CLA | ND |
| 22 | b | 611 | CLA | ND |
| 22 | b | 612 | CLA | ND |
| 22 | b | 613 | CLA | ND |
| 22 | b | 614 | CLA | ND |
| 22 | b | 615 | CLA | ND |
| 22 | c | 502 | CLA | ND |
| 22 | c | 503 | CLA | ND |
| 22 | c | 504 | CLA | ND |
| 22 | c | 505 | CLA | ND |
| 22 | c | 506 | CLA | ND |
| 22 | c | 507 | CLA | ND |
| 22 | c | 508 | CLA | ND |
| 22 | c | 509 | CLA | ND |
| 22 | c | 510 | CLA | ND |
| 22 | c | 511 | CLA | ND |
| 22 | c | 512 | CLA | ND |
| 22 | c | 513 | CLA | ND |
| 22 | c | 514 | CLA | ND |
| 22 | d | 403 | CLA | ND |
| 22 | d | 404 | CLA | ND |
| 22 | w | 101 | CLA | ND |
| 22 | x | 101 | CLA | ND |
| 22 | A | 405 | CLA | ND |
| 22 | A | 406 | CLA | ND |
| 22 | A | 407 | CLA | ND |
| 22 | A | 409 | CLA | ND |
| 22 | B | 603 | CLA | ND |
| 22 | B | 604 | CLA | ND |
| 22 | B | 605 | CLA | ND |
| 22 | B | 606 | CLA | ND |
| 22 | B | 607 | CLA | ND |
| 22 | B | 608 | CLA | ND |
| 22 | B | 609 | CLA | ND |
| 22 | B | 610 | CLA | ND |
| 22 | B | 611 | CLA | ND |
| 22 | B | 612 | CLA | ND |
| 22 | B | 613 | CLA | ND |
| 22 | B | 614 | CLA | ND |
| 22 | B | 615 | CLA | ND |
| 22 | B | 616 | CLA | ND |
| 22 | B | 617 | CLA | ND |

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| Mol | Chain | Res | Type | Atom |
|------------|--------------|------------|-------------|-------------|
| 22 | B | 618 | CLA | ND |
| 22 | C | 503 | CLA | ND |
| 22 | C | 504 | CLA | ND |
| 22 | C | 505 | CLA | ND |
| 22 | C | 506 | CLA | ND |
| 22 | C | 507 | CLA | ND |
| 22 | C | 508 | CLA | ND |
| 22 | C | 509 | CLA | ND |
| 22 | C | 510 | CLA | ND |
| 22 | C | 511 | CLA | ND |
| 22 | C | 512 | CLA | ND |
| 22 | C | 513 | CLA | ND |
| 22 | C | 514 | CLA | ND |
| 22 | C | 515 | CLA | ND |
| 22 | D | 404 | CLA | ND |
| 22 | D | 405 | CLA | ND |
| 22 | W | 101 | CLA | ND |
| 22 | r | 303 | CLA | ND |
| 22 | r | 304 | CLA | ND |
| 22 | r | 305 | CLA | ND |
| 22 | r | 309 | CLA | ND |
| 22 | r | 310 | CLA | ND |
| 22 | r | 311 | CLA | ND |
| 22 | r | 312 | CLA | ND |
| 22 | s | 303 | CLA | ND |
| 22 | s | 304 | CLA | ND |
| 22 | s | 305 | CLA | ND |
| 22 | s | 309 | CLA | ND |
| 22 | s | 310 | CLA | ND |
| 22 | s | 311 | CLA | ND |
| 22 | s | 312 | CLA | ND |
| 22 | s | 313 | CLA | ND |
| 22 | S | 303 | CLA | ND |
| 22 | S | 304 | CLA | ND |
| 22 | S | 305 | CLA | ND |
| 22 | S | 309 | CLA | ND |
| 22 | S | 310 | CLA | ND |
| 22 | S | 311 | CLA | ND |
| 22 | S | 312 | CLA | ND |
| 22 | S | 313 | CLA | ND |
| 22 | R | 302 | CLA | ND |
| 22 | R | 303 | CLA | ND |

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| Mol | Chain | Res | Type | Atom |
|-----|-------|-----|------|------|
| 22 | R | 304 | CLA | ND |
| 22 | R | 308 | CLA | ND |
| 22 | R | 309 | CLA | ND |
| 22 | R | 310 | CLA | ND |
| 22 | R | 311 | CLA | ND |
| 24 | g | 617 | XAT | C25 |
| 24 | g | 617 | XAT | C6 |
| 24 | n | 615 | XAT | C25 |
| 24 | n | 615 | XAT | C6 |
| 24 | y | 615 | XAT | C25 |
| 24 | y | 615 | XAT | C6 |
| 24 | G | 617 | XAT | C25 |
| 24 | G | 617 | XAT | C6 |
| 24 | G | 617 | XAT | C26 |
| 24 | N | 616 | XAT | C25 |
| 24 | N | 616 | XAT | C6 |
| 24 | Y | 615 | XAT | C25 |
| 24 | Y | 615 | XAT | C6 |
| 24 | r | 314 | XAT | C25 |
| 24 | R | 313 | XAT | C25 |
| 25 | g | 618 | NEX | C25 |
| 25 | g | 618 | NEX | C26 |
| 25 | n | 616 | NEX | C25 |
| 25 | n | 616 | NEX | C26 |
| 25 | y | 616 | NEX | C25 |
| 25 | y | 616 | NEX | C26 |
| 25 | y | 618 | NEX | C25 |
| 25 | y | 618 | NEX | C26 |
| 25 | N | 617 | NEX | C25 |
| 25 | N | 617 | NEX | C26 |
| 25 | Y | 616 | NEX | C25 |
| 25 | Y | 616 | NEX | C26 |
| 25 | r | 315 | NEX | C25 |
| 25 | r | 315 | NEX | C26 |
| 33 | d | 402 | SQD | C5 |
| 33 | D | 402 | SQD | C5 |

All (4559) torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | g | 601 | CHL | C1A-C2A-CAA-CBA |
| 21 | g | 601 | CHL | C1C-C2C-CMC-OMC |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | g | 601 | CHL | C3C-C2C-CMC-OMC |
| 21 | g | 605 | CHL | C1C-C2C-CMC-OMC |
| 21 | g | 605 | CHL | C3C-C2C-CMC-OMC |
| 21 | g | 605 | CHL | CBD-CGD-O2D-CED |
| 21 | g | 605 | CHL | O1D-CGD-O2D-CED |
| 21 | g | 606 | CHL | C2-C1-O2A-CGA |
| 21 | g | 606 | CHL | C1C-C2C-CMC-OMC |
| 21 | g | 606 | CHL | C3C-C2C-CMC-OMC |
| 21 | g | 606 | CHL | CBD-CGD-O2D-CED |
| 21 | g | 607 | CHL | C1A-C2A-CAA-CBA |
| 21 | g | 607 | CHL | C3A-C2A-CAA-CBA |
| 21 | g | 607 | CHL | C1C-C2C-CMC-OMC |
| 21 | g | 607 | CHL | C3C-C2C-CMC-OMC |
| 21 | g | 607 | CHL | CBD-CGD-O2D-CED |
| 21 | g | 607 | CHL | O1D-CGD-O2D-CED |
| 21 | g | 608 | CHL | C3C-C2C-CMC-OMC |
| 21 | g | 608 | CHL | C2-C3-C5-C6 |
| 21 | g | 608 | CHL | C4-C3-C5-C6 |
| 21 | g | 609 | CHL | CBA-CGA-O2A-C1 |
| 21 | g | 609 | CHL | O1A-CGA-O2A-C1 |
| 21 | n | 601 | CHL | C1A-C2A-CAA-CBA |
| 21 | n | 601 | CHL | C1C-C2C-CMC-OMC |
| 21 | n | 601 | CHL | C3C-C2C-CMC-OMC |
| 21 | n | 605 | CHL | C1C-C2C-CMC-OMC |
| 21 | n | 605 | CHL | C3C-C2C-CMC-OMC |
| 21 | n | 605 | CHL | CBD-CGD-O2D-CED |
| 21 | n | 606 | CHL | C1A-C2A-CAA-CBA |
| 21 | n | 606 | CHL | C3A-C2A-CAA-CBA |
| 21 | n | 606 | CHL | C1C-C2C-CMC-OMC |
| 21 | n | 606 | CHL | C3C-C2C-CMC-OMC |
| 21 | n | 606 | CHL | CBD-CGD-O2D-CED |
| 21 | n | 607 | CHL | C3C-C2C-CMC-OMC |
| 21 | n | 607 | CHL | C2-C3-C5-C6 |
| 21 | n | 607 | CHL | C4-C3-C5-C6 |
| 21 | n | 608 | CHL | CBA-CGA-O2A-C1 |
| 21 | n | 608 | CHL | O1A-CGA-O2A-C1 |
| 21 | y | 601 | CHL | C1A-C2A-CAA-CBA |
| 21 | y | 601 | CHL | C1C-C2C-CMC-OMC |
| 21 | y | 601 | CHL | C3C-C2C-CMC-OMC |
| 21 | y | 605 | CHL | C1A-C2A-CAA-CBA |
| 21 | y | 605 | CHL | CBA-CGA-O2A-C1 |
| 21 | y | 605 | CHL | O1A-CGA-O2A-C1 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | y | 605 | CHL | C1C-C2C-CMC-OMC |
| 21 | y | 605 | CHL | C3C-C2C-CMC-OMC |
| 21 | y | 605 | CHL | CBD-CGD-O2D-CED |
| 21 | y | 606 | CHL | C1C-C2C-CMC-OMC |
| 21 | y | 606 | CHL | C3C-C2C-CMC-OMC |
| 21 | y | 606 | CHL | CBD-CGD-O2D-CED |
| 21 | y | 607 | CHL | C1A-C2A-CAA-CBA |
| 21 | y | 607 | CHL | C3A-C2A-CAA-CBA |
| 21 | y | 607 | CHL | C1C-C2C-CMC-OMC |
| 21 | y | 607 | CHL | C3C-C2C-CMC-OMC |
| 21 | y | 607 | CHL | CBD-CGD-O2D-CED |
| 21 | y | 607 | CHL | O1D-CGD-O2D-CED |
| 21 | y | 608 | CHL | C3C-C2C-CMC-OMC |
| 21 | y | 608 | CHL | C2-C3-C5-C6 |
| 21 | y | 608 | CHL | C4-C3-C5-C6 |
| 21 | y | 609 | CHL | CBA-CGA-O2A-C1 |
| 21 | y | 609 | CHL | O1A-CGA-O2A-C1 |
| 21 | G | 601 | CHL | C1A-C2A-CAA-CBA |
| 21 | G | 601 | CHL | C1C-C2C-CMC-OMC |
| 21 | G | 601 | CHL | C3C-C2C-CMC-OMC |
| 21 | G | 605 | CHL | C1C-C2C-CMC-OMC |
| 21 | G | 605 | CHL | C3C-C2C-CMC-OMC |
| 21 | G | 605 | CHL | CBD-CGD-O2D-CED |
| 21 | G | 605 | CHL | O1D-CGD-O2D-CED |
| 21 | G | 606 | CHL | C2-C1-O2A-CGA |
| 21 | G | 606 | CHL | C1C-C2C-CMC-OMC |
| 21 | G | 606 | CHL | C3C-C2C-CMC-OMC |
| 21 | G | 606 | CHL | CBD-CGD-O2D-CED |
| 21 | G | 607 | CHL | C1A-C2A-CAA-CBA |
| 21 | G | 607 | CHL | C3A-C2A-CAA-CBA |
| 21 | G | 607 | CHL | C1C-C2C-CMC-OMC |
| 21 | G | 607 | CHL | C3C-C2C-CMC-OMC |
| 21 | G | 607 | CHL | CBD-CGD-O2D-CED |
| 21 | G | 607 | CHL | O1D-CGD-O2D-CED |
| 21 | G | 608 | CHL | C3C-C2C-CMC-OMC |
| 21 | G | 608 | CHL | C2-C3-C5-C6 |
| 21 | G | 608 | CHL | C4-C3-C5-C6 |
| 21 | G | 609 | CHL | CBA-CGA-O2A-C1 |
| 21 | G | 609 | CHL | O1A-CGA-O2A-C1 |
| 21 | N | 601 | CHL | C1A-C2A-CAA-CBA |
| 21 | N | 601 | CHL | C1C-C2C-CMC-OMC |
| 21 | N | 601 | CHL | C3C-C2C-CMC-OMC |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | N | 605 | CHL | C1C-C2C-CMC-OMC |
| 21 | N | 605 | CHL | C3C-C2C-CMC-OMC |
| 21 | N | 605 | CHL | CBD-CGD-O2D-CED |
| 21 | N | 606 | CHL | C1A-C2A-CAA-CBA |
| 21 | N | 606 | CHL | C3A-C2A-CAA-CBA |
| 21 | N | 606 | CHL | C1C-C2C-CMC-OMC |
| 21 | N | 606 | CHL | C3C-C2C-CMC-OMC |
| 21 | N | 606 | CHL | CBD-CGD-O2D-CED |
| 21 | N | 606 | CHL | O1D-CGD-O2D-CED |
| 21 | N | 607 | CHL | C3C-C2C-CMC-OMC |
| 21 | N | 607 | CHL | C2-C3-C5-C6 |
| 21 | N | 607 | CHL | C4-C3-C5-C6 |
| 21 | N | 608 | CHL | CBA-CGA-O2A-C1 |
| 21 | N | 608 | CHL | O1A-CGA-O2A-C1 |
| 21 | Y | 601 | CHL | C1A-C2A-CAA-CBA |
| 21 | Y | 601 | CHL | C1C-C2C-CMC-OMC |
| 21 | Y | 601 | CHL | C3C-C2C-CMC-OMC |
| 21 | Y | 605 | CHL | C2-C1-O2A-CGA |
| 21 | Y | 605 | CHL | C1C-C2C-CMC-OMC |
| 21 | Y | 605 | CHL | C3C-C2C-CMC-OMC |
| 21 | Y | 605 | CHL | CBD-CGD-O2D-CED |
| 21 | Y | 606 | CHL | C1A-C2A-CAA-CBA |
| 21 | Y | 606 | CHL | C3A-C2A-CAA-CBA |
| 21 | Y | 606 | CHL | C1C-C2C-CMC-OMC |
| 21 | Y | 606 | CHL | C3C-C2C-CMC-OMC |
| 21 | Y | 606 | CHL | CBD-CGD-O2D-CED |
| 21 | Y | 606 | CHL | O1D-CGD-O2D-CED |
| 21 | Y | 607 | CHL | C3C-C2C-CMC-OMC |
| 21 | Y | 607 | CHL | C2-C3-C5-C6 |
| 21 | Y | 607 | CHL | C4-C3-C5-C6 |
| 21 | Y | 608 | CHL | CBA-CGA-O2A-C1 |
| 21 | Y | 608 | CHL | O1A-CGA-O2A-C1 |
| 21 | r | 301 | CHL | C1A-C2A-CAA-CBA |
| 21 | r | 301 | CHL | C1C-C2C-CMC-OMC |
| 21 | r | 301 | CHL | C3C-C2C-CMC-OMC |
| 21 | r | 301 | CHL | CBD-CGD-O2D-CED |
| 21 | r | 306 | CHL | CBD-CGD-O2D-CED |
| 21 | r | 306 | CHL | O1D-CGD-O2D-CED |
| 21 | r | 307 | CHL | CBA-CGA-O2A-C1 |
| 21 | r | 307 | CHL | O1A-CGA-O2A-C1 |
| 21 | r | 307 | CHL | CBD-CGD-O2D-CED |
| 21 | r | 307 | CHL | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | r | 307 | CHL | O2A-C1-C2-C3 |
| 21 | r | 308 | CHL | C1C-C2C-CMC-OMC |
| 21 | r | 308 | CHL | C3C-C2C-CMC-OMC |
| 21 | r | 308 | CHL | CBD-CGD-O2D-CED |
| 21 | r | 308 | CHL | O1D-CGD-O2D-CED |
| 21 | s | 301 | CHL | C1A-C2A-CAA-CBA |
| 21 | s | 301 | CHL | C3A-C2A-CAA-CBA |
| 21 | s | 301 | CHL | C1C-C2C-CMC-OMC |
| 21 | s | 301 | CHL | C3C-C2C-CMC-OMC |
| 21 | s | 301 | CHL | CBD-CGD-O2D-CED |
| 21 | s | 301 | CHL | O1D-CGD-O2D-CED |
| 21 | s | 302 | CHL | C1A-C2A-CAA-CBA |
| 21 | s | 306 | CHL | C1C-C2C-CMC-OMC |
| 21 | s | 306 | CHL | C3C-C2C-CMC-OMC |
| 21 | s | 307 | CHL | C1C-C2C-CMC-OMC |
| 21 | s | 307 | CHL | C3C-C2C-CMC-OMC |
| 21 | S | 301 | CHL | C1A-C2A-CAA-CBA |
| 21 | S | 301 | CHL | C1C-C2C-CMC-OMC |
| 21 | S | 301 | CHL | C3C-C2C-CMC-OMC |
| 21 | S | 301 | CHL | CBD-CGD-O2D-CED |
| 21 | S | 302 | CHL | C1A-C2A-CAA-CBA |
| 21 | S | 306 | CHL | C1C-C2C-CMC-OMC |
| 21 | S | 306 | CHL | C3C-C2C-CMC-OMC |
| 21 | S | 307 | CHL | C1C-C2C-CMC-OMC |
| 21 | S | 307 | CHL | C3C-C2C-CMC-OMC |
| 21 | R | 305 | CHL | CBD-CGD-O2D-CED |
| 21 | R | 305 | CHL | O1D-CGD-O2D-CED |
| 21 | R | 306 | CHL | CBA-CGA-O2A-C1 |
| 21 | R | 306 | CHL | O1A-CGA-O2A-C1 |
| 21 | R | 306 | CHL | CBD-CGD-O2D-CED |
| 21 | R | 306 | CHL | O1D-CGD-O2D-CED |
| 21 | R | 306 | CHL | O2A-C1-C2-C3 |
| 21 | R | 307 | CHL | C1C-C2C-CMC-OMC |
| 21 | R | 307 | CHL | C3C-C2C-CMC-OMC |
| 21 | R | 307 | CHL | CBD-CGD-O2D-CED |
| 21 | R | 307 | CHL | O1D-CGD-O2D-CED |
| 22 | g | 602 | CLA | C1A-C2A-CAA-CBA |
| 22 | g | 602 | CLA | C3A-C2A-CAA-CBA |
| 22 | g | 610 | CLA | C1A-C2A-CAA-CBA |
| 22 | g | 613 | CLA | C1A-C2A-CAA-CBA |
| 22 | g | 613 | CLA | CHA-CBD-CGD-O1D |
| 22 | g | 614 | CLA | C1A-C2A-CAA-CBA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | g | 614 | CLA | C3A-C2A-CAA-CBA |
| 22 | n | 602 | CLA | C1A-C2A-CAA-CBA |
| 22 | n | 602 | CLA | C3A-C2A-CAA-CBA |
| 22 | n | 609 | CLA | C1A-C2A-CAA-CBA |
| 22 | n | 612 | CLA | C1A-C2A-CAA-CBA |
| 22 | n | 612 | CLA | CHA-CBD-CGD-O1D |
| 22 | n | 613 | CLA | C1A-C2A-CAA-CBA |
| 22 | n | 613 | CLA | C3A-C2A-CAA-CBA |
| 22 | y | 602 | CLA | C1A-C2A-CAA-CBA |
| 22 | y | 602 | CLA | C3A-C2A-CAA-CBA |
| 22 | y | 610 | CLA | C1A-C2A-CAA-CBA |
| 22 | y | 612 | CLA | C1A-C2A-CAA-CBA |
| 22 | y | 612 | CLA | CHA-CBD-CGD-O1D |
| 22 | y | 613 | CLA | C1A-C2A-CAA-CBA |
| 22 | y | 613 | CLA | C3A-C2A-CAA-CBA |
| 22 | G | 602 | CLA | C1A-C2A-CAA-CBA |
| 22 | G | 602 | CLA | C3A-C2A-CAA-CBA |
| 22 | G | 610 | CLA | C1A-C2A-CAA-CBA |
| 22 | G | 613 | CLA | C1A-C2A-CAA-CBA |
| 22 | G | 613 | CLA | CHA-CBD-CGD-O1D |
| 22 | G | 614 | CLA | C1A-C2A-CAA-CBA |
| 22 | G | 614 | CLA | C3A-C2A-CAA-CBA |
| 22 | N | 602 | CLA | C1A-C2A-CAA-CBA |
| 22 | N | 602 | CLA | C3A-C2A-CAA-CBA |
| 22 | N | 609 | CLA | C1A-C2A-CAA-CBA |
| 22 | N | 612 | CLA | C1A-C2A-CAA-CBA |
| 22 | N | 612 | CLA | CHA-CBD-CGD-O1D |
| 22 | N | 613 | CLA | C1A-C2A-CAA-CBA |
| 22 | N | 613 | CLA | C3A-C2A-CAA-CBA |
| 22 | Y | 602 | CLA | C1A-C2A-CAA-CBA |
| 22 | Y | 602 | CLA | C3A-C2A-CAA-CBA |
| 22 | Y | 609 | CLA | C1A-C2A-CAA-CBA |
| 22 | Y | 611 | CLA | C1A-C2A-CAA-CBA |
| 22 | Y | 611 | CLA | CHA-CBD-CGD-O1D |
| 22 | Y | 612 | CLA | C1A-C2A-CAA-CBA |
| 22 | Y | 612 | CLA | C3A-C2A-CAA-CBA |
| 22 | a | 406 | CLA | C1A-C2A-CAA-CBA |
| 22 | a | 406 | CLA | C3A-C2A-CAA-CBA |
| 22 | a | 406 | CLA | CHA-CBD-CGD-O1D |
| 22 | a | 406 | CLA | CHA-CBD-CGD-O2D |
| 22 | b | 601 | CLA | CHA-CBD-CGD-O1D |
| 22 | b | 601 | CLA | CHA-CBD-CGD-O2D |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 603 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 609 | CLA | CHA-CBD-CGD-O1D |
| 22 | b | 609 | CLA | CHA-CBD-CGD-O2D |
| 22 | b | 609 | CLA | CAD-CBD-CGD-O1D |
| 22 | b | 611 | CLA | C1A-C2A-CAA-CBA |
| 22 | b | 611 | CLA | C3A-C2A-CAA-CBA |
| 22 | c | 503 | CLA | CHA-CBD-CGD-O1D |
| 22 | c | 503 | CLA | CHA-CBD-CGD-O2D |
| 22 | c | 503 | CLA | CAD-CBD-CGD-O1D |
| 22 | c | 503 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 504 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 504 | CLA | CAD-CBD-CGD-O1D |
| 22 | c | 504 | CLA | CAD-CBD-CGD-O2D |
| 22 | c | 504 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 505 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 507 | CLA | O1A-CGA-O2A-C1 |
| 22 | c | 507 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 508 | CLA | CHA-CBD-CGD-O1D |
| 22 | c | 508 | CLA | CHA-CBD-CGD-O2D |
| 22 | c | 509 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 509 | CLA | C3A-C2A-CAA-CBA |
| 22 | c | 510 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 510 | CLA | C3A-C2A-CAA-CBA |
| 22 | c | 512 | CLA | C3A-C2A-CAA-CBA |
| 22 | c | 513 | CLA | CHA-CBD-CGD-O1D |
| 22 | c | 513 | CLA | CHA-CBD-CGD-O2D |
| 22 | c | 513 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 513 | CLA | C14-C13-C15-C16 |
| 22 | c | 514 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 514 | CLA | CAD-CBD-CGD-O1D |
| 22 | c | 514 | CLA | CAD-CBD-CGD-O2D |
| 22 | d | 404 | CLA | C2-C3-C5-C6 |
| 22 | d | 404 | CLA | C4-C3-C5-C6 |
| 22 | A | 407 | CLA | C1A-C2A-CAA-CBA |
| 22 | A | 407 | CLA | C3A-C2A-CAA-CBA |
| 22 | A | 407 | CLA | CHA-CBD-CGD-O1D |
| 22 | A | 407 | CLA | CHA-CBD-CGD-O2D |
| 22 | B | 604 | CLA | CHA-CBD-CGD-O1D |
| 22 | B | 604 | CLA | CHA-CBD-CGD-O2D |
| 22 | B | 606 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 612 | CLA | CHA-CBD-CGD-O1D |
| 22 | B | 612 | CLA | CHA-CBD-CGD-O2D |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | B | 612 | CLA | CAD-CBD-CGD-O1D |
| 22 | B | 614 | CLA | C1A-C2A-CAA-CBA |
| 22 | B | 614 | CLA | C3A-C2A-CAA-CBA |
| 22 | C | 504 | CLA | CHA-CBD-CGD-O1D |
| 22 | C | 504 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 504 | CLA | CAD-CBD-CGD-O1D |
| 22 | C | 504 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 505 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 505 | CLA | CAD-CBD-CGD-O1D |
| 22 | C | 505 | CLA | CAD-CBD-CGD-O2D |
| 22 | C | 505 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 506 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 508 | CLA | O1A-CGA-O2A-C1 |
| 22 | C | 508 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 509 | CLA | CHA-CBD-CGD-O1D |
| 22 | C | 509 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 510 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 510 | CLA | C3A-C2A-CAA-CBA |
| 22 | C | 511 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 511 | CLA | C3A-C2A-CAA-CBA |
| 22 | C | 513 | CLA | C3A-C2A-CAA-CBA |
| 22 | C | 514 | CLA | CHA-CBD-CGD-O1D |
| 22 | C | 514 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 514 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 514 | CLA | C14-C13-C15-C16 |
| 22 | C | 515 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 515 | CLA | CAD-CBD-CGD-O1D |
| 22 | C | 515 | CLA | CAD-CBD-CGD-O2D |
| 22 | D | 405 | CLA | C2-C3-C5-C6 |
| 22 | D | 405 | CLA | C4-C3-C5-C6 |
| 22 | r | 305 | CLA | CBA-CGA-O2A-C1 |
| 22 | r | 309 | CLA | C1A-C2A-CAA-CBA |
| 22 | r | 309 | CLA | C3A-C2A-CAA-CBA |
| 22 | r | 309 | CLA | CBD-CGD-O2D-CED |
| 22 | r | 310 | CLA | C3A-C2A-CAA-CBA |
| 22 | r | 311 | CLA | C1A-C2A-CAA-CBA |
| 22 | r | 311 | CLA | C3A-C2A-CAA-CBA |
| 22 | r | 311 | CLA | CBD-CGD-O2D-CED |
| 22 | s | 303 | CLA | C1A-C2A-CAA-CBA |
| 22 | s | 304 | CLA | CHA-CBD-CGD-O1D |
| 22 | s | 304 | CLA | CHA-CBD-CGD-O2D |
| 22 | s | 305 | CLA | C1A-C2A-CAA-CBA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | s | 305 | CLA | C3A-C2A-CAA-CBA |
| 22 | s | 308 | CLA | CAD-CBD-CGD-O1D |
| 22 | s | 308 | CLA | CAD-CBD-CGD-O2D |
| 22 | s | 310 | CLA | CHA-CBD-CGD-O1D |
| 22 | s | 310 | CLA | CHA-CBD-CGD-O2D |
| 22 | s | 310 | CLA | CAD-CBD-CGD-O1D |
| 22 | s | 310 | CLA | CBD-CGD-O2D-CED |
| 22 | s | 312 | CLA | CBD-CGD-O2D-CED |
| 22 | s | 313 | CLA | C3A-C2A-CAA-CBA |
| 22 | S | 303 | CLA | C1A-C2A-CAA-CBA |
| 22 | S | 304 | CLA | CHA-CBD-CGD-O1D |
| 22 | S | 304 | CLA | CHA-CBD-CGD-O2D |
| 22 | S | 305 | CLA | C1A-C2A-CAA-CBA |
| 22 | S | 305 | CLA | C3A-C2A-CAA-CBA |
| 22 | S | 308 | CLA | CAD-CBD-CGD-O1D |
| 22 | S | 308 | CLA | CAD-CBD-CGD-O2D |
| 22 | S | 310 | CLA | CHA-CBD-CGD-O1D |
| 22 | S | 310 | CLA | CHA-CBD-CGD-O2D |
| 22 | S | 310 | CLA | CAD-CBD-CGD-O1D |
| 22 | S | 310 | CLA | CBD-CGD-O2D-CED |
| 22 | S | 312 | CLA | CBD-CGD-O2D-CED |
| 22 | S | 313 | CLA | C3A-C2A-CAA-CBA |
| 22 | R | 304 | CLA | CBA-CGA-O2A-C1 |
| 22 | R | 308 | CLA | C1A-C2A-CAA-CBA |
| 22 | R | 308 | CLA | C3A-C2A-CAA-CBA |
| 22 | R | 308 | CLA | CBD-CGD-O2D-CED |
| 22 | R | 309 | CLA | C3A-C2A-CAA-CBA |
| 22 | R | 310 | CLA | C1A-C2A-CAA-CBA |
| 22 | R | 310 | CLA | C3A-C2A-CAA-CBA |
| 22 | R | 310 | CLA | CBD-CGD-O2D-CED |
| 23 | g | 615 | LUT | C11-C10-C9-C8 |
| 23 | g | 615 | LUT | C11-C10-C9-C19 |
| 23 | g | 615 | LUT | C11-C12-C13-C20 |
| 23 | g | 615 | LUT | C12-C13-C14-C15 |
| 23 | g | 615 | LUT | C20-C13-C14-C15 |
| 23 | g | 615 | LUT | C27-C28-C29-C39 |
| 23 | g | 615 | LUT | C39-C29-C30-C31 |
| 23 | g | 615 | LUT | C31-C32-C33-C40 |
| 23 | g | 615 | LUT | C32-C33-C34-C35 |
| 23 | g | 615 | LUT | C40-C33-C34-C35 |
| 23 | g | 616 | LUT | C5-C6-C7-C8 |
| 23 | g | 616 | LUT | C7-C8-C9-C19 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 23 | g | 616 | LUT | C11-C10-C9-C8 |
| 23 | g | 616 | LUT | C11-C12-C13-C14 |
| 23 | g | 616 | LUT | C20-C13-C14-C15 |
| 23 | g | 616 | LUT | C39-C29-C30-C31 |
| 23 | g | 616 | LUT | C31-C32-C33-C34 |
| 23 | g | 616 | LUT | C31-C32-C33-C40 |
| 23 | g | 616 | LUT | C32-C33-C34-C35 |
| 23 | g | 616 | LUT | C40-C33-C34-C35 |
| 23 | n | 614 | LUT | C11-C10-C9-C8 |
| 23 | n | 614 | LUT | C11-C10-C9-C19 |
| 23 | n | 614 | LUT | C11-C12-C13-C20 |
| 23 | n | 614 | LUT | C12-C13-C14-C15 |
| 23 | n | 614 | LUT | C20-C13-C14-C15 |
| 23 | n | 614 | LUT | C27-C28-C29-C39 |
| 23 | n | 614 | LUT | C39-C29-C30-C31 |
| 23 | n | 614 | LUT | C31-C32-C33-C40 |
| 23 | n | 614 | LUT | C32-C33-C34-C35 |
| 23 | n | 614 | LUT | C40-C33-C34-C35 |
| 23 | y | 614 | LUT | C11-C10-C9-C8 |
| 23 | y | 614 | LUT | C11-C10-C9-C19 |
| 23 | y | 614 | LUT | C11-C12-C13-C20 |
| 23 | y | 614 | LUT | C12-C13-C14-C15 |
| 23 | y | 614 | LUT | C20-C13-C14-C15 |
| 23 | y | 614 | LUT | C27-C28-C29-C39 |
| 23 | y | 614 | LUT | C39-C29-C30-C31 |
| 23 | y | 614 | LUT | C31-C32-C33-C40 |
| 23 | y | 614 | LUT | C32-C33-C34-C35 |
| 23 | y | 614 | LUT | C40-C33-C34-C35 |
| 23 | G | 615 | LUT | C11-C10-C9-C8 |
| 23 | G | 615 | LUT | C11-C10-C9-C19 |
| 23 | G | 615 | LUT | C11-C12-C13-C20 |
| 23 | G | 615 | LUT | C12-C13-C14-C15 |
| 23 | G | 615 | LUT | C20-C13-C14-C15 |
| 23 | G | 615 | LUT | C27-C28-C29-C39 |
| 23 | G | 615 | LUT | C39-C29-C30-C31 |
| 23 | G | 615 | LUT | C31-C32-C33-C40 |
| 23 | G | 615 | LUT | C32-C33-C34-C35 |
| 23 | G | 615 | LUT | C40-C33-C34-C35 |
| 23 | G | 616 | LUT | C5-C6-C7-C8 |
| 23 | G | 616 | LUT | C7-C8-C9-C19 |
| 23 | G | 616 | LUT | C11-C10-C9-C8 |
| 23 | G | 616 | LUT | C11-C12-C13-C14 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 23 | G | 616 | LUT | C20-C13-C14-C15 |
| 23 | G | 616 | LUT | C39-C29-C30-C31 |
| 23 | G | 616 | LUT | C31-C32-C33-C34 |
| 23 | G | 616 | LUT | C32-C33-C34-C35 |
| 23 | G | 616 | LUT | C40-C33-C34-C35 |
| 23 | N | 614 | LUT | C11-C10-C9-C8 |
| 23 | N | 614 | LUT | C11-C10-C9-C19 |
| 23 | N | 614 | LUT | C11-C12-C13-C20 |
| 23 | N | 614 | LUT | C12-C13-C14-C15 |
| 23 | N | 614 | LUT | C20-C13-C14-C15 |
| 23 | N | 614 | LUT | C27-C28-C29-C39 |
| 23 | N | 614 | LUT | C39-C29-C30-C31 |
| 23 | N | 614 | LUT | C31-C32-C33-C40 |
| 23 | N | 614 | LUT | C32-C33-C34-C35 |
| 23 | N | 614 | LUT | C40-C33-C34-C35 |
| 23 | N | 615 | LUT | C11-C12-C13-C14 |
| 23 | N | 615 | LUT | C11-C12-C13-C20 |
| 23 | N | 615 | LUT | C20-C13-C14-C15 |
| 23 | N | 615 | LUT | C27-C28-C29-C39 |
| 23 | N | 615 | LUT | C39-C29-C30-C31 |
| 23 | N | 615 | LUT | C31-C32-C33-C40 |
| 23 | N | 615 | LUT | C40-C33-C34-C35 |
| 23 | Y | 613 | LUT | C11-C10-C9-C8 |
| 23 | Y | 613 | LUT | C11-C10-C9-C19 |
| 23 | Y | 613 | LUT | C11-C12-C13-C20 |
| 23 | Y | 613 | LUT | C12-C13-C14-C15 |
| 23 | Y | 613 | LUT | C20-C13-C14-C15 |
| 23 | Y | 613 | LUT | C27-C28-C29-C39 |
| 23 | Y | 613 | LUT | C39-C29-C30-C31 |
| 23 | Y | 613 | LUT | C31-C32-C33-C40 |
| 23 | Y | 613 | LUT | C32-C33-C34-C35 |
| 23 | Y | 613 | LUT | C40-C33-C34-C35 |
| 23 | Y | 614 | LUT | C5-C6-C7-C8 |
| 23 | Y | 614 | LUT | C7-C8-C9-C19 |
| 23 | Y | 614 | LUT | C11-C10-C9-C8 |
| 23 | Y | 614 | LUT | C11-C12-C13-C14 |
| 23 | Y | 614 | LUT | C11-C12-C13-C20 |
| 23 | Y | 614 | LUT | C20-C13-C14-C15 |
| 23 | Y | 614 | LUT | C39-C29-C30-C31 |
| 23 | Y | 614 | LUT | C31-C32-C33-C34 |
| 23 | Y | 614 | LUT | C32-C33-C34-C35 |
| 23 | Y | 614 | LUT | C40-C33-C34-C35 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 23 | r | 313 | LUT | C5-C6-C7-C8 |
| 23 | r | 313 | LUT | C7-C8-C9-C19 |
| 23 | r | 313 | LUT | C11-C10-C9-C8 |
| 23 | r | 313 | LUT | C11-C10-C9-C19 |
| 23 | r | 313 | LUT | C11-C12-C13-C14 |
| 23 | r | 313 | LUT | C20-C13-C14-C15 |
| 23 | r | 313 | LUT | C28-C29-C30-C31 |
| 23 | r | 313 | LUT | C32-C33-C34-C35 |
| 23 | r | 313 | LUT | C40-C33-C34-C35 |
| 23 | R | 312 | LUT | C5-C6-C7-C8 |
| 23 | R | 312 | LUT | C7-C8-C9-C19 |
| 23 | R | 312 | LUT | C11-C10-C9-C8 |
| 23 | R | 312 | LUT | C11-C10-C9-C19 |
| 23 | R | 312 | LUT | C11-C12-C13-C14 |
| 23 | R | 312 | LUT | C20-C13-C14-C15 |
| 23 | R | 312 | LUT | C28-C29-C30-C31 |
| 23 | R | 312 | LUT | C32-C33-C34-C35 |
| 23 | R | 312 | LUT | C40-C33-C34-C35 |
| 24 | g | 617 | XAT | C7-C8-C9-C19 |
| 24 | g | 617 | XAT | C11-C10-C9-C19 |
| 24 | g | 617 | XAT | C27-C28-C29-C30 |
| 24 | g | 617 | XAT | C27-C28-C29-C39 |
| 24 | g | 617 | XAT | C28-C29-C30-C31 |
| 24 | g | 617 | XAT | C39-C29-C30-C31 |
| 24 | g | 617 | XAT | C31-C32-C33-C40 |
| 24 | n | 615 | XAT | C7-C8-C9-C19 |
| 24 | n | 615 | XAT | C11-C10-C9-C19 |
| 24 | n | 615 | XAT | C11-C12-C13-C14 |
| 24 | n | 615 | XAT | C11-C12-C13-C20 |
| 24 | n | 615 | XAT | C20-C13-C14-C15 |
| 24 | n | 615 | XAT | C27-C28-C29-C30 |
| 24 | n | 615 | XAT | C27-C28-C29-C39 |
| 24 | n | 615 | XAT | C28-C29-C30-C31 |
| 24 | n | 615 | XAT | C39-C29-C30-C31 |
| 24 | n | 615 | XAT | C40-C33-C34-C35 |
| 24 | y | 615 | XAT | C11-C10-C9-C19 |
| 24 | y | 615 | XAT | C11-C12-C13-C20 |
| 24 | y | 615 | XAT | C20-C13-C14-C15 |
| 24 | y | 615 | XAT | C27-C28-C29-C30 |
| 24 | y | 615 | XAT | C27-C28-C29-C39 |
| 24 | y | 615 | XAT | C28-C29-C30-C31 |
| 24 | y | 615 | XAT | C39-C29-C30-C31 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 24 | y | 615 | XAT | C32-C33-C34-C35 |
| 24 | G | 617 | XAT | C7-C8-C9-C19 |
| 24 | G | 617 | XAT | C11-C10-C9-C19 |
| 24 | G | 617 | XAT | C20-C13-C14-C15 |
| 24 | G | 617 | XAT | C27-C28-C29-C30 |
| 24 | G | 617 | XAT | C27-C28-C29-C39 |
| 24 | G | 617 | XAT | C28-C29-C30-C31 |
| 24 | G | 617 | XAT | C39-C29-C30-C31 |
| 24 | G | 617 | XAT | C32-C33-C34-C35 |
| 24 | N | 616 | XAT | C7-C8-C9-C19 |
| 24 | N | 616 | XAT | C11-C10-C9-C19 |
| 24 | N | 616 | XAT | C11-C12-C13-C14 |
| 24 | N | 616 | XAT | C11-C12-C13-C20 |
| 24 | N | 616 | XAT | C20-C13-C14-C15 |
| 24 | N | 616 | XAT | C27-C28-C29-C30 |
| 24 | N | 616 | XAT | C27-C28-C29-C39 |
| 24 | N | 616 | XAT | C28-C29-C30-C31 |
| 24 | N | 616 | XAT | C39-C29-C30-C31 |
| 24 | N | 616 | XAT | C40-C33-C34-C35 |
| 24 | Y | 615 | XAT | C11-C10-C9-C19 |
| 24 | Y | 615 | XAT | C11-C12-C13-C14 |
| 24 | Y | 615 | XAT | C11-C12-C13-C20 |
| 24 | Y | 615 | XAT | C27-C28-C29-C30 |
| 24 | Y | 615 | XAT | C27-C28-C29-C39 |
| 24 | Y | 615 | XAT | C28-C29-C30-C31 |
| 24 | Y | 615 | XAT | C39-C29-C30-C31 |
| 24 | Y | 615 | XAT | C32-C33-C34-C35 |
| 24 | r | 314 | XAT | C7-C8-C9-C10 |
| 24 | r | 314 | XAT | C7-C8-C9-C19 |
| 24 | r | 314 | XAT | C11-C10-C9-C8 |
| 24 | r | 314 | XAT | C12-C13-C14-C15 |
| 24 | r | 314 | XAT | C20-C13-C14-C15 |
| 24 | r | 314 | XAT | C40-C33-C34-C35 |
| 24 | R | 313 | XAT | C7-C8-C9-C10 |
| 24 | R | 313 | XAT | C7-C8-C9-C19 |
| 24 | R | 313 | XAT | C11-C10-C9-C8 |
| 24 | R | 313 | XAT | C12-C13-C14-C15 |
| 24 | R | 313 | XAT | C20-C13-C14-C15 |
| 24 | R | 313 | XAT | C40-C33-C34-C35 |
| 25 | g | 618 | NEX | C7-C8-C9-C10 |
| 25 | g | 618 | NEX | C11-C10-C9-C8 |
| 25 | g | 618 | NEX | C11-C12-C13-C20 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 25 | g | 618 | NEX | C20-C13-C14-C15 |
| 25 | g | 618 | NEX | C21-C26-C27-C28 |
| 25 | g | 618 | NEX | C28-C29-C30-C31 |
| 25 | g | 618 | NEX | C39-C29-C30-C31 |
| 25 | g | 618 | NEX | C31-C32-C33-C40 |
| 25 | g | 618 | NEX | C40-C33-C34-C35 |
| 25 | n | 616 | NEX | C7-C8-C9-C19 |
| 25 | n | 616 | NEX | C11-C10-C9-C19 |
| 25 | n | 616 | NEX | C11-C12-C13-C14 |
| 25 | n | 616 | NEX | C11-C12-C13-C20 |
| 25 | n | 616 | NEX | C20-C13-C14-C15 |
| 25 | n | 616 | NEX | C21-C26-C27-C28 |
| 25 | n | 616 | NEX | C28-C29-C30-C31 |
| 25 | n | 616 | NEX | C39-C29-C30-C31 |
| 25 | n | 616 | NEX | C40-C33-C34-C35 |
| 25 | y | 616 | NEX | C11-C10-C9-C8 |
| 25 | y | 616 | NEX | C11-C12-C13-C14 |
| 25 | y | 616 | NEX | C20-C13-C14-C15 |
| 25 | y | 616 | NEX | C21-C26-C27-C28 |
| 25 | y | 616 | NEX | C28-C29-C30-C31 |
| 25 | y | 616 | NEX | C39-C29-C30-C31 |
| 25 | y | 616 | NEX | C31-C32-C33-C34 |
| 25 | y | 616 | NEX | C31-C32-C33-C40 |
| 25 | y | 618 | NEX | C11-C10-C9-C8 |
| 25 | y | 618 | NEX | C11-C10-C9-C19 |
| 25 | y | 618 | NEX | C11-C12-C13-C14 |
| 25 | y | 618 | NEX | C20-C13-C14-C15 |
| 25 | y | 618 | NEX | C27-C28-C29-C30 |
| 25 | y | 618 | NEX | C28-C29-C30-C31 |
| 25 | y | 618 | NEX | C39-C29-C30-C31 |
| 25 | N | 617 | NEX | C7-C8-C9-C19 |
| 25 | N | 617 | NEX | C11-C12-C13-C20 |
| 25 | N | 617 | NEX | C20-C13-C14-C15 |
| 25 | N | 617 | NEX | C21-C26-C27-C28 |
| 25 | N | 617 | NEX | C28-C29-C30-C31 |
| 25 | N | 617 | NEX | C39-C29-C30-C31 |
| 25 | N | 617 | NEX | C31-C32-C33-C34 |
| 25 | N | 617 | NEX | C31-C32-C33-C40 |
| 25 | N | 617 | NEX | C32-C33-C34-C35 |
| 25 | Y | 616 | NEX | C7-C8-C9-C10 |
| 25 | Y | 616 | NEX | C11-C10-C9-C8 |
| 25 | Y | 616 | NEX | C11-C12-C13-C20 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 25 | Y | 616 | NEX | C20-C13-C14-C15 |
| 25 | Y | 616 | NEX | C27-C28-C29-C30 |
| 25 | Y | 616 | NEX | C28-C29-C30-C31 |
| 25 | Y | 616 | NEX | C31-C32-C33-C34 |
| 25 | Y | 616 | NEX | C31-C32-C33-C40 |
| 25 | Y | 616 | NEX | C32-C33-C34-C35 |
| 25 | r | 315 | NEX | C11-C10-C9-C8 |
| 25 | r | 315 | NEX | C11-C10-C9-C19 |
| 25 | r | 315 | NEX | C11-C12-C13-C14 |
| 25 | r | 315 | NEX | C20-C13-C14-C15 |
| 25 | r | 315 | NEX | C27-C28-C29-C30 |
| 25 | r | 315 | NEX | C28-C29-C30-C31 |
| 25 | r | 315 | NEX | C39-C29-C30-C31 |
| 26 | g | 619 | LHG | O1-C1-C2-C3 |
| 26 | g | 619 | LHG | O2-C2-C3-O3 |
| 26 | g | 619 | LHG | C3-O3-P-O4 |
| 26 | n | 617 | LHG | O1-C1-C2-C3 |
| 26 | n | 617 | LHG | C1-C2-C3-O3 |
| 26 | n | 617 | LHG | O2-C2-C3-O3 |
| 26 | n | 617 | LHG | C3-O3-P-O4 |
| 26 | n | 617 | LHG | C3-O3-P-O6 |
| 26 | y | 617 | LHG | O2-C2-C3-O3 |
| 26 | y | 617 | LHG | C3-O3-P-O5 |
| 26 | y | 617 | LHG | C3-O3-P-O6 |
| 26 | G | 618 | LHG | O1-C1-C2-O2 |
| 26 | G | 618 | LHG | C4-O6-P-O5 |
| 26 | N | 618 | LHG | O1-C1-C2-C3 |
| 26 | N | 618 | LHG | O2-C2-C3-O3 |
| 26 | N | 618 | LHG | C3-O3-P-O4 |
| 26 | Y | 617 | LHG | C4-O6-P-O4 |
| 26 | Y | 617 | LHG | O7-C5-C6-O8 |
| 26 | b | 619 | LHG | C3-O3-P-O5 |
| 26 | b | 619 | LHG | C4-O6-P-O5 |
| 26 | c | 520 | LHG | C3-O3-P-O5 |
| 26 | c | 520 | LHG | C8-C7-O7-C5 |
| 26 | c | 521 | LHG | C3-O3-P-O5 |
| 26 | c | 521 | LHG | C4-O6-P-O5 |
| 26 | c | 522 | LHG | O1-C1-C2-C3 |
| 26 | d | 407 | LHG | C3-O3-P-O5 |
| 26 | d | 407 | LHG | C4-O6-P-O4 |
| 26 | d | 408 | LHG | O1-C1-C2-C3 |
| 26 | d | 408 | LHG | C4-O6-P-O5 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | d | 409 | LHG | C3-O3-P-O5 |
| 26 | d | 409 | LHG | C4-O6-P-O5 |
| 26 | l | 102 | LHG | O1-C1-C2-C3 |
| 26 | l | 102 | LHG | C3-O3-P-O4 |
| 26 | B | 622 | LHG | C3-O3-P-O5 |
| 26 | B | 622 | LHG | C4-O6-P-O5 |
| 26 | C | 520 | LHG | C3-O3-P-O5 |
| 26 | C | 520 | LHG | C8-C7-O7-C5 |
| 26 | C | 521 | LHG | C3-O3-P-O5 |
| 26 | C | 521 | LHG | C4-O6-P-O5 |
| 26 | C | 522 | LHG | O1-C1-C2-C3 |
| 26 | D | 408 | LHG | C3-O3-P-O5 |
| 26 | D | 408 | LHG | C4-O6-P-O4 |
| 26 | D | 409 | LHG | O1-C1-C2-C3 |
| 26 | D | 409 | LHG | C4-O6-P-O5 |
| 26 | D | 410 | LHG | C3-O3-P-O5 |
| 26 | D | 410 | LHG | C4-O6-P-O5 |
| 26 | L | 103 | LHG | O1-C1-C2-C3 |
| 26 | L | 103 | LHG | C3-O3-P-O4 |
| 26 | r | 302 | LHG | O1-C1-C2-C3 |
| 26 | s | 314 | LHG | C4-O6-P-O5 |
| 26 | S | 314 | LHG | C4-O6-P-O5 |
| 26 | R | 301 | LHG | O1-C1-C2-C3 |
| 30 | d | 401 | PHO | CBD-CGD-O2D-CED |
| 30 | D | 401 | PHO | CBD-CGD-O2D-CED |
| 31 | b | 617 | BCR | C7-C8-C9-C10 |
| 31 | b | 617 | BCR | C7-C8-C9-C34 |
| 31 | b | 617 | BCR | C37-C22-C23-C24 |
| 31 | c | 515 | BCR | C7-C8-C9-C34 |
| 31 | d | 405 | BCR | C1-C6-C7-C8 |
| 31 | d | 405 | BCR | C6-C7-C8-C9 |
| 31 | h | 101 | BCR | C6-C7-C8-C9 |
| 31 | h | 101 | BCR | C7-C8-C9-C10 |
| 31 | h | 101 | BCR | C7-C8-C9-C34 |
| 31 | k | 101 | BCR | C18-C19-C20-C21 |
| 31 | k | 101 | BCR | C37-C22-C23-C24 |
| 31 | k | 101 | BCR | C22-C23-C24-C25 |
| 31 | k | 102 | BCR | C1-C6-C7-C8 |
| 31 | B | 602 | BCR | C1-C6-C7-C8 |
| 31 | B | 602 | BCR | C7-C8-C9-C10 |
| 31 | B | 602 | BCR | C7-C8-C9-C34 |
| 31 | B | 602 | BCR | C9-C10-C11-C12 |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|-----------------|
| 31 | B | 602 | BCR | C11-C12-C13-C14 |
| 31 | B | 602 | BCR | C11-C12-C13-C35 |
| 31 | B | 602 | BCR | C16-C17-C18-C36 |
| 31 | B | 602 | BCR | C36-C18-C19-C20 |
| 31 | B | 602 | BCR | C21-C22-C23-C24 |
| 31 | B | 602 | BCR | C37-C22-C23-C24 |
| 31 | B | 620 | BCR | C7-C8-C9-C10 |
| 31 | B | 620 | BCR | C7-C8-C9-C34 |
| 31 | B | 620 | BCR | C37-C22-C23-C24 |
| 31 | C | 516 | BCR | C7-C8-C9-C34 |
| 31 | D | 406 | BCR | C1-C6-C7-C8 |
| 31 | D | 406 | BCR | C6-C7-C8-C9 |
| 31 | H | 101 | BCR | C6-C7-C8-C9 |
| 31 | H | 101 | BCR | C7-C8-C9-C10 |
| 31 | H | 101 | BCR | C7-C8-C9-C34 |
| 31 | K | 101 | BCR | C18-C19-C20-C21 |
| 31 | K | 101 | BCR | C37-C22-C23-C24 |
| 31 | K | 101 | BCR | C22-C23-C24-C25 |
| 31 | K | 102 | BCR | C1-C6-C7-C8 |
| 31 | T | 102 | BCR | C1-C6-C7-C8 |
| 31 | T | 102 | BCR | C7-C8-C9-C10 |
| 31 | T | 102 | BCR | C7-C8-C9-C34 |
| 31 | T | 102 | BCR | C9-C10-C11-C12 |
| 31 | T | 102 | BCR | C11-C12-C13-C14 |
| 31 | T | 102 | BCR | C11-C12-C13-C35 |
| 31 | T | 102 | BCR | C16-C17-C18-C36 |
| 31 | T | 102 | BCR | C36-C18-C19-C20 |
| 31 | T | 102 | BCR | C21-C22-C23-C24 |
| 31 | T | 102 | BCR | C37-C22-C23-C24 |
| 32 | d | 406 | PL9 | C12-C13-C14-C15 |
| 32 | d | 406 | PL9 | C13-C14-C16-C17 |
| 32 | d | 406 | PL9 | C18-C19-C21-C22 |
| 32 | d | 406 | PL9 | C24-C26-C27-C28 |
| 32 | d | 406 | PL9 | C27-C28-C29-C30 |
| 32 | d | 406 | PL9 | C39-C41-C42-C43 |
| 32 | D | 407 | PL9 | C12-C13-C14-C15 |
| 32 | D | 407 | PL9 | C13-C14-C16-C17 |
| 32 | D | 407 | PL9 | C18-C19-C21-C22 |
| 32 | D | 407 | PL9 | C24-C26-C27-C28 |
| 32 | D | 407 | PL9 | C27-C28-C29-C30 |
| 32 | D | 407 | PL9 | C39-C41-C42-C43 |
| 33 | a | 411 | SQD | O5-C1-O6-C44 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 33 | a | 411 | SQD | C8-C7-O47-C45 |
| 33 | a | 411 | SQD | C5-C6-S-O8 |
| 33 | a | 411 | SQD | C5-C6-S-O9 |
| 33 | d | 402 | SQD | C5-C6-S-O7 |
| 33 | d | 402 | SQD | C5-C6-S-O8 |
| 33 | l | 101 | SQD | C2-C1-O6-C44 |
| 33 | l | 101 | SQD | O5-C1-O6-C44 |
| 33 | l | 101 | SQD | O49-C7-O47-C45 |
| 33 | l | 101 | SQD | C8-C7-O47-C45 |
| 33 | l | 103 | SQD | C2-C1-O6-C44 |
| 33 | l | 103 | SQD | O5-C1-O6-C44 |
| 33 | l | 103 | SQD | O49-C7-O47-C45 |
| 33 | A | 412 | SQD | O5-C1-O6-C44 |
| 33 | A | 412 | SQD | C8-C7-O47-C45 |
| 33 | A | 412 | SQD | C5-C6-S-O8 |
| 33 | A | 412 | SQD | C5-C6-S-O9 |
| 33 | D | 402 | SQD | C5-C6-S-O7 |
| 33 | D | 402 | SQD | C5-C6-S-O8 |
| 33 | L | 101 | SQD | C2-C1-O6-C44 |
| 33 | L | 101 | SQD | O5-C1-O6-C44 |
| 33 | L | 101 | SQD | O49-C7-O47-C45 |
| 33 | L | 102 | SQD | C2-C1-O6-C44 |
| 33 | L | 102 | SQD | O5-C1-O6-C44 |
| 33 | L | 102 | SQD | O49-C7-O47-C45 |
| 33 | L | 102 | SQD | C8-C7-O47-C45 |
| 35 | a | 413 | DGD | C2D-C1D-O3G-C3G |
| 35 | a | 413 | DGD | O6D-C1D-O3G-C3G |
| 35 | c | 518 | DGD | O1G-C1G-C2G-O2G |
| 35 | c | 518 | DGD | C2E-C1E-O5D-C6D |
| 35 | c | 518 | DGD | O6E-C1E-O5D-C6D |
| 35 | c | 519 | DGD | C2D-C1D-O3G-C3G |
| 35 | c | 519 | DGD | O6D-C1D-O3G-C3G |
| 35 | A | 401 | DGD | C2D-C1D-O3G-C3G |
| 35 | A | 401 | DGD | O6D-C1D-O3G-C3G |
| 35 | C | 519 | DGD | O1G-C1G-C2G-O2G |
| 35 | C | 519 | DGD | C2E-C1E-O5D-C6D |
| 35 | C | 519 | DGD | O6E-C1E-O5D-C6D |
| 35 | J | 101 | DGD | C2D-C1D-O3G-C3G |
| 35 | J | 101 | DGD | O6D-C1D-O3G-C3G |
| 36 | c | 523 | LMG | C2-C1-O1-C7 |
| 36 | c | 523 | LMG | O6-C1-O1-C7 |
| 36 | c | 523 | LMG | O7-C8-C9-O8 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 36 | c | 523 | LMG | O9-C10-O7-C8 |
| 36 | c | 523 | LMG | C11-C10-O7-C8 |
| 36 | w | 102 | LMG | C2-C1-O1-C7 |
| 36 | w | 102 | LMG | O6-C1-O1-C7 |
| 36 | B | 601 | LMG | O6-C1-O1-C7 |
| 36 | C | 502 | LMG | C2-C1-O1-C7 |
| 36 | C | 502 | LMG | O6-C1-O1-C7 |
| 36 | C | 523 | LMG | C2-C1-O1-C7 |
| 36 | C | 523 | LMG | O6-C1-O1-C7 |
| 36 | C | 523 | LMG | O7-C8-C9-O8 |
| 36 | C | 523 | LMG | O9-C10-O7-C8 |
| 36 | C | 523 | LMG | C11-C10-O7-C8 |
| 36 | I | 101 | LMG | O6-C1-O1-C7 |
| 37 | f | 101 | HEM | C1A-C2A-CAA-CBA |
| 37 | f | 101 | HEM | C3A-C2A-CAA-CBA |
| 37 | F | 101 | HEM | C1A-C2A-CAA-CBA |
| 37 | F | 101 | HEM | C3A-C2A-CAA-CBA |
| 21 | g | 601 | CHL | C4C-C3C-CAC-CBC |
| 21 | n | 601 | CHL | C4C-C3C-CAC-CBC |
| 21 | y | 601 | CHL | C4C-C3C-CAC-CBC |
| 21 | G | 601 | CHL | C4C-C3C-CAC-CBC |
| 21 | N | 601 | CHL | C4C-C3C-CAC-CBC |
| 21 | Y | 601 | CHL | C4C-C3C-CAC-CBC |
| 21 | n | 606 | CHL | O1D-CGD-O2D-CED |
| 22 | b | 608 | CLA | O1D-CGD-O2D-CED |
| 22 | b | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | b | 615 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 505 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 513 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 614 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 618 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 506 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 514 | CLA | O1D-CGD-O2D-CED |
| 22 | r | 309 | CLA | O1D-CGD-O2D-CED |
| 22 | R | 308 | CLA | O1D-CGD-O2D-CED |
| 21 | g | 601 | CHL | C2C-C3C-CAC-CBC |
| 21 | n | 601 | CHL | C2C-C3C-CAC-CBC |
| 21 | y | 601 | CHL | C2C-C3C-CAC-CBC |
| 21 | G | 601 | CHL | C2C-C3C-CAC-CBC |
| 21 | N | 601 | CHL | C2C-C3C-CAC-CBC |
| 21 | Y | 601 | CHL | C2C-C3C-CAC-CBC |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | g | 609 | CHL | O1D-CGD-O2D-CED |
| 21 | n | 608 | CHL | O1D-CGD-O2D-CED |
| 21 | y | 609 | CHL | O1D-CGD-O2D-CED |
| 21 | G | 609 | CHL | O1D-CGD-O2D-CED |
| 21 | N | 608 | CHL | O1D-CGD-O2D-CED |
| 21 | Y | 608 | CHL | O1D-CGD-O2D-CED |
| 22 | g | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | n | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | y | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | G | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | N | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | Y | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 503 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 504 | CLA | O1D-CGD-O2D-CED |
| 22 | r | 303 | CLA | O1D-CGD-O2D-CED |
| 22 | s | 308 | CLA | O1D-CGD-O2D-CED |
| 22 | S | 308 | CLA | O1D-CGD-O2D-CED |
| 22 | R | 302 | CLA | O1D-CGD-O2D-CED |
| 21 | g | 608 | CHL | CBD-CGD-O2D-CED |
| 21 | g | 609 | CHL | CBD-CGD-O2D-CED |
| 21 | n | 607 | CHL | CBD-CGD-O2D-CED |
| 21 | n | 608 | CHL | CBD-CGD-O2D-CED |
| 21 | y | 608 | CHL | CBD-CGD-O2D-CED |
| 21 | y | 609 | CHL | CBD-CGD-O2D-CED |
| 21 | G | 608 | CHL | CBD-CGD-O2D-CED |
| 21 | G | 609 | CHL | CBD-CGD-O2D-CED |
| 21 | N | 607 | CHL | CBD-CGD-O2D-CED |
| 21 | N | 608 | CHL | CBD-CGD-O2D-CED |
| 21 | Y | 607 | CHL | CBD-CGD-O2D-CED |
| 21 | Y | 608 | CHL | CBD-CGD-O2D-CED |
| 21 | s | 307 | CHL | CBD-CGD-O2D-CED |
| 21 | S | 307 | CHL | CBD-CGD-O2D-CED |
| 22 | g | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | g | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | g | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | g | 612 | CLA | CBD-CGD-O2D-CED |
| 22 | g | 613 | CLA | CBD-CGD-O2D-CED |
| 22 | n | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | n | 609 | CLA | CBD-CGD-O2D-CED |
| 22 | n | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | n | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | n | 612 | CLA | CBD-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | y | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | y | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | y | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | y | 612 | CLA | CBD-CGD-O2D-CED |
| 22 | G | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | G | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | G | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | G | 612 | CLA | CBD-CGD-O2D-CED |
| 22 | G | 613 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 609 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 612 | CLA | CBD-CGD-O2D-CED |
| 22 | Y | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | Y | 609 | CLA | CBD-CGD-O2D-CED |
| 22 | Y | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | Y | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 601 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 608 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 612 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 613 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 615 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 510 | CLA | CBD-CGD-O2D-CED |
| 22 | w | 101 | CLA | CBD-CGD-O2D-CED |
| 22 | x | 101 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 603 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 604 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 607 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 611 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 614 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 615 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 616 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 618 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 511 | CLA | CBD-CGD-O2D-CED |
| 22 | W | 101 | CLA | CBD-CGD-O2D-CED |
| 22 | r | 303 | CLA | CBD-CGD-O2D-CED |
| 22 | r | 305 | CLA | CBD-CGD-O2D-CED |
| 22 | s | 303 | CLA | CBD-CGD-O2D-CED |
| 22 | s | 305 | CLA | CBD-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | s | 308 | CLA | CBD-CGD-O2D-CED |
| 22 | S | 303 | CLA | CBD-CGD-O2D-CED |
| 22 | S | 305 | CLA | CBD-CGD-O2D-CED |
| 22 | S | 308 | CLA | CBD-CGD-O2D-CED |
| 22 | R | 302 | CLA | CBD-CGD-O2D-CED |
| 22 | R | 304 | CLA | CBD-CGD-O2D-CED |
| 30 | a | 407 | PHO | CBD-CGD-O2D-CED |
| 30 | A | 408 | PHO | CBD-CGD-O2D-CED |
| 22 | g | 602 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 602 | CLA | O1A-CGA-O2A-C1 |
| 22 | y | 602 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 602 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 602 | CLA | O1A-CGA-O2A-C1 |
| 22 | Y | 602 | CLA | O1A-CGA-O2A-C1 |
| 22 | c | 514 | CLA | O1A-CGA-O2A-C1 |
| 22 | C | 515 | CLA | O1A-CGA-O2A-C1 |
| 22 | r | 305 | CLA | O1A-CGA-O2A-C1 |
| 22 | r | 309 | CLA | O1A-CGA-O2A-C1 |
| 22 | R | 304 | CLA | O1A-CGA-O2A-C1 |
| 22 | R | 308 | CLA | O1A-CGA-O2A-C1 |
| 21 | g | 609 | CHL | C4C-C3C-CAC-CBC |
| 21 | n | 608 | CHL | C4C-C3C-CAC-CBC |
| 21 | y | 609 | CHL | C4C-C3C-CAC-CBC |
| 21 | G | 609 | CHL | C4C-C3C-CAC-CBC |
| 21 | N | 608 | CHL | C4C-C3C-CAC-CBC |
| 21 | Y | 608 | CHL | C4C-C3C-CAC-CBC |
| 21 | y | 605 | CHL | O1D-CGD-O2D-CED |
| 21 | r | 301 | CHL | O1D-CGD-O2D-CED |
| 21 | S | 301 | CHL | O1D-CGD-O2D-CED |
| 22 | b | 601 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | r | 305 | CLA | O1D-CGD-O2D-CED |
| 22 | R | 304 | CLA | O1D-CGD-O2D-CED |
| 21 | r | 308 | CHL | C8-C10-C11-C12 |
| 21 | R | 307 | CHL | C8-C10-C11-C12 |
| 21 | g | 609 | CHL | C2C-C3C-CAC-CBC |
| 21 | n | 608 | CHL | C2C-C3C-CAC-CBC |
| 21 | y | 609 | CHL | C2C-C3C-CAC-CBC |
| 21 | G | 609 | CHL | C2C-C3C-CAC-CBC |
| 21 | N | 608 | CHL | C2C-C3C-CAC-CBC |
| 21 | Y | 608 | CHL | C2C-C3C-CAC-CBC |
| 22 | g | 612 | CLA | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | n | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | G | 612 | CLA | O1D-CGD-O2D-CED |
| 22 | N | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | b | 604 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 507 | CLA | O1D-CGD-O2D-CED |
| 22 | w | 101 | CLA | O1D-CGD-O2D-CED |
| 22 | x | 101 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 603 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 607 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 508 | CLA | O1D-CGD-O2D-CED |
| 22 | W | 101 | CLA | O1D-CGD-O2D-CED |
| 22 | s | 312 | CLA | O1D-CGD-O2D-CED |
| 22 | S | 312 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 514 | CLA | CBA-CGA-O2A-C1 |
| 22 | C | 515 | CLA | CBA-CGA-O2A-C1 |
| 22 | r | 309 | CLA | CBA-CGA-O2A-C1 |
| 22 | R | 308 | CLA | CBA-CGA-O2A-C1 |
| 33 | l | 101 | SQD | C24-C23-O48-C46 |
| 33 | L | 102 | SQD | C24-C23-O48-C46 |
| 22 | a | 405 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 602 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 502 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 509 | CLA | CBD-CGD-O2D-CED |
| 22 | A | 406 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 605 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 613 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 503 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 510 | CLA | CBD-CGD-O2D-CED |
| 22 | r | 312 | CLA | CBD-CGD-O2D-CED |
| 22 | s | 311 | CLA | CBD-CGD-O2D-CED |
| 22 | S | 311 | CLA | CBD-CGD-O2D-CED |
| 22 | R | 311 | CLA | CBD-CGD-O2D-CED |
| 21 | g | 607 | CHL | O1A-CGA-O2A-C1 |
| 21 | n | 606 | CHL | O1A-CGA-O2A-C1 |
| 21 | y | 607 | CHL | O1A-CGA-O2A-C1 |
| 21 | G | 607 | CHL | O1A-CGA-O2A-C1 |
| 21 | N | 606 | CHL | O1A-CGA-O2A-C1 |
| 21 | Y | 606 | CHL | O1A-CGA-O2A-C1 |
| 21 | r | 306 | CHL | O1A-CGA-O2A-C1 |
| 21 | R | 305 | CHL | O1A-CGA-O2A-C1 |
| 22 | g | 604 | CLA | O1A-CGA-O2A-C1 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | g | 610 | CLA | O1A-CGA-O2A-C1 |
| 22 | g | 611 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 604 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 609 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 610 | CLA | O1A-CGA-O2A-C1 |
| 22 | y | 604 | CLA | O1A-CGA-O2A-C1 |
| 22 | y | 610 | CLA | O1A-CGA-O2A-C1 |
| 22 | y | 611 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 604 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 610 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 611 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 604 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 609 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 610 | CLA | O1A-CGA-O2A-C1 |
| 22 | Y | 604 | CLA | O1A-CGA-O2A-C1 |
| 22 | Y | 609 | CLA | O1A-CGA-O2A-C1 |
| 22 | Y | 610 | CLA | O1A-CGA-O2A-C1 |
| 22 | a | 406 | CLA | O1A-CGA-O2A-C1 |
| 22 | c | 505 | CLA | O1A-CGA-O2A-C1 |
| 22 | x | 101 | CLA | O1A-CGA-O2A-C1 |
| 22 | A | 407 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 603 | CLA | O1A-CGA-O2A-C1 |
| 22 | C | 506 | CLA | O1A-CGA-O2A-C1 |
| 26 | c | 522 | LHG | O10-C23-O8-C6 |
| 26 | C | 522 | LHG | O10-C23-O8-C6 |
| 33 | l | 101 | SQD | O10-C23-O48-C46 |
| 33 | L | 102 | SQD | O10-C23-O48-C46 |
| 35 | a | 413 | DGD | O1A-C1A-O1G-C1G |
| 35 | A | 401 | DGD | O1A-C1A-O1G-C1G |
| 21 | g | 606 | CHL | O1D-CGD-O2D-CED |
| 21 | n | 605 | CHL | O1D-CGD-O2D-CED |
| 21 | y | 606 | CHL | O1D-CGD-O2D-CED |
| 21 | G | 606 | CHL | O1D-CGD-O2D-CED |
| 21 | N | 605 | CHL | O1D-CGD-O2D-CED |
| 21 | Y | 605 | CHL | O1D-CGD-O2D-CED |
| 22 | b | 603 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 504 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 606 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 505 | CLA | O1D-CGD-O2D-CED |
| 22 | s | 310 | CLA | O1D-CGD-O2D-CED |
| 22 | S | 310 | CLA | O1D-CGD-O2D-CED |
| 30 | d | 401 | PHO | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 30 | D | 401 | PHO | O1D-CGD-O2D-CED |
| 22 | r | 311 | CLA | O1D-CGD-O2D-CED |
| 22 | R | 310 | CLA | O1D-CGD-O2D-CED |
| 22 | a | 406 | CLA | CBD-CGD-O2D-CED |
| 22 | A | 407 | CLA | CBD-CGD-O2D-CED |
| 22 | g | 613 | CLA | O1D-CGD-O2D-CED |
| 22 | n | 612 | CLA | O1D-CGD-O2D-CED |
| 22 | y | 612 | CLA | O1D-CGD-O2D-CED |
| 22 | G | 613 | CLA | O1D-CGD-O2D-CED |
| 22 | N | 612 | CLA | O1D-CGD-O2D-CED |
| 22 | Y | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 510 | CLA | O1D-CGD-O2D-CED |
| 22 | s | 303 | CLA | O1D-CGD-O2D-CED |
| 22 | S | 303 | CLA | O1D-CGD-O2D-CED |
| 26 | c | 520 | LHG | O9-C7-O7-C5 |
| 26 | C | 520 | LHG | O9-C7-O7-C5 |
| 30 | a | 407 | PHO | O1A-CGA-O2A-C1 |
| 30 | A | 408 | PHO | O1A-CGA-O2A-C1 |
| 21 | g | 607 | CHL | C2C-C3C-CAC-CBC |
| 21 | n | 606 | CHL | C2C-C3C-CAC-CBC |
| 33 | l | 103 | SQD | C45-C46-O48-C23 |
| 33 | L | 101 | SQD | C45-C46-O48-C23 |
| 22 | C | 511 | CLA | O1D-CGD-O2D-CED |
| 21 | g | 608 | CHL | C3-C5-C6-C7 |
| 21 | n | 607 | CHL | C3-C5-C6-C7 |
| 21 | y | 608 | CHL | C3-C5-C6-C7 |
| 21 | G | 608 | CHL | C3-C5-C6-C7 |
| 21 | N | 607 | CHL | C3-C5-C6-C7 |
| 21 | Y | 607 | CHL | C3-C5-C6-C7 |
| 22 | g | 611 | CLA | C3-C5-C6-C7 |
| 22 | g | 612 | CLA | C3-C5-C6-C7 |
| 22 | n | 610 | CLA | C3-C5-C6-C7 |
| 22 | n | 611 | CLA | C3-C5-C6-C7 |
| 22 | y | 611 | CLA | C3-C5-C6-C7 |
| 22 | G | 611 | CLA | C3-C5-C6-C7 |
| 22 | G | 612 | CLA | C3-C5-C6-C7 |
| 22 | N | 610 | CLA | C3-C5-C6-C7 |
| 22 | N | 611 | CLA | C3-C5-C6-C7 |
| 22 | Y | 610 | CLA | C3-C5-C6-C7 |
| 22 | b | 601 | CLA | C3-C5-C6-C7 |
| 22 | b | 612 | CLA | C3-C5-C6-C7 |
| 22 | b | 613 | CLA | C3-C5-C6-C7 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 22 | c | 502 | CLA | C3-C5-C6-C7 |
| 22 | c | 508 | CLA | C3-C5-C6-C7 |
| 22 | w | 101 | CLA | C3-C5-C6-C7 |
| 22 | x | 101 | CLA | C3-C5-C6-C7 |
| 22 | B | 603 | CLA | C3-C5-C6-C7 |
| 22 | B | 604 | CLA | C3-C5-C6-C7 |
| 22 | B | 615 | CLA | C3-C5-C6-C7 |
| 22 | B | 616 | CLA | C3-C5-C6-C7 |
| 22 | C | 503 | CLA | C3-C5-C6-C7 |
| 22 | C | 509 | CLA | C3-C5-C6-C7 |
| 22 | W | 101 | CLA | C3-C5-C6-C7 |
| 22 | r | 304 | CLA | C3-C5-C6-C7 |
| 22 | R | 303 | CLA | C3-C5-C6-C7 |
| 30 | a | 407 | PHO | C3-C5-C6-C7 |
| 30 | d | 401 | PHO | C3-C5-C6-C7 |
| 30 | A | 408 | PHO | C3-C5-C6-C7 |
| 30 | D | 401 | PHO | C3-C5-C6-C7 |
| 21 | g | 601 | CHL | CBA-CGA-O2A-C1 |
| 21 | n | 601 | CHL | CBA-CGA-O2A-C1 |
| 21 | y | 601 | CHL | CBA-CGA-O2A-C1 |
| 21 | G | 601 | CHL | CBA-CGA-O2A-C1 |
| 21 | N | 601 | CHL | CBA-CGA-O2A-C1 |
| 21 | Y | 601 | CHL | CBA-CGA-O2A-C1 |
| 21 | r | 306 | CHL | CBA-CGA-O2A-C1 |
| 21 | R | 305 | CHL | CBA-CGA-O2A-C1 |
| 22 | g | 602 | CLA | CBA-CGA-O2A-C1 |
| 22 | g | 604 | CLA | CBA-CGA-O2A-C1 |
| 22 | g | 610 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 602 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 609 | CLA | CBA-CGA-O2A-C1 |
| 22 | y | 602 | CLA | CBA-CGA-O2A-C1 |
| 22 | y | 610 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 602 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 604 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 610 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 602 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 604 | CLA | CBA-CGA-O2A-C1 |
| 22 | Y | 602 | CLA | CBA-CGA-O2A-C1 |
| 22 | Y | 604 | CLA | CBA-CGA-O2A-C1 |
| 22 | Y | 609 | CLA | CBA-CGA-O2A-C1 |
| 22 | a | 406 | CLA | CBA-CGA-O2A-C1 |
| 22 | b | 603 | CLA | CBA-CGA-O2A-C1 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | c | 507 | CLA | CBA-CGA-O2A-C1 |
| 22 | x | 101 | CLA | CBA-CGA-O2A-C1 |
| 22 | A | 407 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 603 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 606 | CLA | CBA-CGA-O2A-C1 |
| 22 | C | 508 | CLA | CBA-CGA-O2A-C1 |
| 26 | c | 522 | LHG | C24-C23-O8-C6 |
| 26 | C | 522 | LHG | C24-C23-O8-C6 |
| 35 | a | 413 | DGD | C2A-C1A-O1G-C1G |
| 35 | A | 401 | DGD | C2A-C1A-O1G-C1G |
| 36 | M | 101 | LMG | C29-C28-O8-C9 |
| 36 | T | 101 | LMG | C29-C28-O8-C9 |
| 21 | N | 606 | CHL | C2C-C3C-CAC-CBC |
| 21 | Y | 606 | CHL | C2C-C3C-CAC-CBC |
| 33 | l | 103 | SQD | C8-C7-O47-C45 |
| 33 | L | 101 | SQD | C8-C7-O47-C45 |
| 36 | b | 620 | LMG | C11-C10-O7-C8 |
| 36 | B | 623 | LMG | C11-C10-O7-C8 |
| 22 | g | 610 | CLA | O1D-CGD-O2D-CED |
| 22 | n | 609 | CLA | O1D-CGD-O2D-CED |
| 22 | y | 610 | CLA | O1D-CGD-O2D-CED |
| 22 | G | 610 | CLA | O1D-CGD-O2D-CED |
| 22 | N | 609 | CLA | O1D-CGD-O2D-CED |
| 22 | Y | 609 | CLA | O1D-CGD-O2D-CED |
| 30 | a | 407 | PHO | O1D-CGD-O2D-CED |
| 30 | A | 408 | PHO | O1D-CGD-O2D-CED |
| 22 | b | 607 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 609 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 610 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 612 | CLA | CBD-CGD-O2D-CED |
| 21 | y | 607 | CHL | C2C-C3C-CAC-CBC |
| 21 | G | 607 | CHL | C2C-C3C-CAC-CBC |
| 21 | r | 308 | CHL | C2C-C3C-CAC-CBC |
| 21 | s | 301 | CHL | C2-C1-O2A-CGA |
| 21 | R | 307 | CHL | C2C-C3C-CAC-CBC |
| 36 | k | 103 | LMG | O6-C5-C6-O5 |
| 36 | K | 103 | LMG | O6-C5-C6-O5 |
| 35 | c | 518 | DGD | C4D-C5D-C6D-O5D |
| 35 | C | 519 | DGD | C4D-C5D-C6D-O5D |
| 22 | c | 512 | CLA | C4-C3-C5-C6 |
| 22 | C | 513 | CLA | C4-C3-C5-C6 |
| 22 | r | 310 | CLA | C4-C3-C5-C6 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | s | 310 | CLA | C4-C3-C5-C6 |
| 22 | S | 310 | CLA | C4-C3-C5-C6 |
| 22 | R | 309 | CLA | C4-C3-C5-C6 |
| 21 | s | 302 | CHL | CBD-CGD-O2D-CED |
| 21 | S | 302 | CHL | CBD-CGD-O2D-CED |
| 22 | g | 602 | CLA | CBD-CGD-O2D-CED |
| 22 | n | 602 | CLA | CBD-CGD-O2D-CED |
| 22 | y | 602 | CLA | CBD-CGD-O2D-CED |
| 22 | G | 602 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 602 | CLA | CBD-CGD-O2D-CED |
| 22 | Y | 602 | CLA | CBD-CGD-O2D-CED |
| 22 | c | 511 | CLA | CBD-CGD-O2D-CED |
| 22 | C | 512 | CLA | CBD-CGD-O2D-CED |
| 21 | g | 607 | CHL | C2A-CAA-CBA-CGA |
| 21 | n | 606 | CHL | C2A-CAA-CBA-CGA |
| 21 | y | 607 | CHL | C2A-CAA-CBA-CGA |
| 21 | G | 607 | CHL | C2A-CAA-CBA-CGA |
| 21 | N | 606 | CHL | C2A-CAA-CBA-CGA |
| 21 | Y | 606 | CHL | C2A-CAA-CBA-CGA |
| 21 | s | 302 | CHL | C2A-CAA-CBA-CGA |
| 21 | S | 302 | CHL | C2A-CAA-CBA-CGA |
| 22 | g | 603 | CLA | C2A-CAA-CBA-CGA |
| 22 | n | 603 | CLA | C2A-CAA-CBA-CGA |
| 22 | y | 603 | CLA | C2A-CAA-CBA-CGA |
| 22 | G | 603 | CLA | C2A-CAA-CBA-CGA |
| 22 | N | 603 | CLA | C2A-CAA-CBA-CGA |
| 22 | Y | 603 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 611 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 614 | CLA | C2A-CAA-CBA-CGA |
| 22 | c | 507 | CLA | C2A-CAA-CBA-CGA |
| 22 | c | 508 | CLA | C2A-CAA-CBA-CGA |
| 22 | B | 614 | CLA | C2A-CAA-CBA-CGA |
| 22 | B | 617 | CLA | C2A-CAA-CBA-CGA |
| 22 | C | 508 | CLA | C2A-CAA-CBA-CGA |
| 22 | C | 509 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 601 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 604 | CLA | O1A-CGA-O2A-C1 |
| 21 | g | 608 | CHL | O1D-CGD-O2D-CED |
| 21 | n | 607 | CHL | O1D-CGD-O2D-CED |
| 21 | y | 608 | CHL | O1D-CGD-O2D-CED |
| 21 | G | 608 | CHL | O1D-CGD-O2D-CED |
| 21 | N | 607 | CHL | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | Y | 607 | CHL | O1D-CGD-O2D-CED |
| 21 | g | 607 | CHL | CBA-CGA-O2A-C1 |
| 21 | g | 608 | CHL | CBA-CGA-O2A-C1 |
| 21 | n | 606 | CHL | CBA-CGA-O2A-C1 |
| 21 | n | 607 | CHL | CBA-CGA-O2A-C1 |
| 21 | y | 607 | CHL | CBA-CGA-O2A-C1 |
| 21 | G | 607 | CHL | CBA-CGA-O2A-C1 |
| 21 | N | 606 | CHL | CBA-CGA-O2A-C1 |
| 21 | Y | 606 | CHL | CBA-CGA-O2A-C1 |
| 22 | g | 611 | CLA | CBA-CGA-O2A-C1 |
| 22 | g | 613 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 604 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 610 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 612 | CLA | CBA-CGA-O2A-C1 |
| 22 | y | 604 | CLA | CBA-CGA-O2A-C1 |
| 22 | y | 611 | CLA | CBA-CGA-O2A-C1 |
| 22 | y | 612 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 611 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 613 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 609 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 610 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 612 | CLA | CBA-CGA-O2A-C1 |
| 22 | Y | 610 | CLA | CBA-CGA-O2A-C1 |
| 22 | Y | 611 | CLA | CBA-CGA-O2A-C1 |
| 22 | b | 601 | CLA | CBA-CGA-O2A-C1 |
| 22 | b | 606 | CLA | CBA-CGA-O2A-C1 |
| 22 | b | 615 | CLA | CBA-CGA-O2A-C1 |
| 22 | c | 505 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 604 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 609 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 618 | CLA | CBA-CGA-O2A-C1 |
| 22 | C | 506 | CLA | CBA-CGA-O2A-C1 |
| 22 | r | 310 | CLA | CBA-CGA-O2A-C1 |
| 22 | s | 305 | CLA | CBA-CGA-O2A-C1 |
| 22 | s | 311 | CLA | CBA-CGA-O2A-C1 |
| 22 | S | 305 | CLA | CBA-CGA-O2A-C1 |
| 22 | R | 309 | CLA | CBA-CGA-O2A-C1 |
| 30 | a | 407 | PHO | CBA-CGA-O2A-C1 |
| 30 | A | 408 | PHO | CBA-CGA-O2A-C1 |
| 22 | C | 513 | CLA | CBD-CGD-O2D-CED |
| 21 | g | 607 | CHL | C4C-C3C-CAC-CBC |
| 21 | n | 606 | CHL | C4C-C3C-CAC-CBC |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | y | 607 | CHL | C4C-C3C-CAC-CBC |
| 21 | G | 607 | CHL | C4C-C3C-CAC-CBC |
| 21 | N | 606 | CHL | C4C-C3C-CAC-CBC |
| 21 | Y | 606 | CHL | C4C-C3C-CAC-CBC |
| 21 | s | 307 | CHL | O1D-CGD-O2D-CED |
| 21 | S | 307 | CHL | O1D-CGD-O2D-CED |
| 22 | b | 612 | CLA | O1D-CGD-O2D-CED |
| 22 | b | 613 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 615 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 616 | CLA | O1D-CGD-O2D-CED |
| 22 | s | 305 | CLA | O1D-CGD-O2D-CED |
| 22 | S | 305 | CLA | O1D-CGD-O2D-CED |
| 33 | a | 411 | SQD | O49-C7-O47-C45 |
| 33 | A | 412 | SQD | O49-C7-O47-C45 |
| 32 | d | 406 | PL9 | C12-C13-C14-C16 |
| 32 | d | 406 | PL9 | C27-C28-C29-C31 |
| 32 | d | 406 | PL9 | C42-C43-C44-C46 |
| 32 | D | 407 | PL9 | C12-C13-C14-C16 |
| 32 | D | 407 | PL9 | C27-C28-C29-C31 |
| 32 | D | 407 | PL9 | C42-C43-C44-C46 |
| 21 | r | 308 | CHL | O1A-CGA-O2A-C1 |
| 21 | R | 307 | CHL | O1A-CGA-O2A-C1 |
| 22 | b | 606 | CLA | O1A-CGA-O2A-C1 |
| 22 | b | 615 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 609 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 618 | CLA | O1A-CGA-O2A-C1 |
| 22 | r | 304 | CLA | O1A-CGA-O2A-C1 |
| 22 | r | 312 | CLA | O1A-CGA-O2A-C1 |
| 22 | R | 303 | CLA | O1A-CGA-O2A-C1 |
| 22 | R | 311 | CLA | O1A-CGA-O2A-C1 |
| 33 | l | 103 | SQD | O10-C23-O48-C46 |
| 33 | L | 101 | SQD | O10-C23-O48-C46 |
| 21 | g | 606 | CHL | C2C-C3C-CAC-CBC |
| 21 | n | 605 | CHL | C2C-C3C-CAC-CBC |
| 21 | y | 606 | CHL | C2C-C3C-CAC-CBC |
| 21 | G | 606 | CHL | C2C-C3C-CAC-CBC |
| 21 | N | 605 | CHL | C2C-C3C-CAC-CBC |
| 21 | Y | 605 | CHL | C2C-C3C-CAC-CBC |
| 23 | r | 313 | LUT | C9-C10-C11-C12 |
| 23 | R | 312 | LUT | C9-C10-C11-C12 |
| 24 | n | 615 | XAT | C9-C10-C11-C12 |
| 24 | N | 616 | XAT | C9-C10-C11-C12 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 31 | B | 602 | BCR | C19-C20-C21-C22 |
| 31 | T | 102 | BCR | C19-C20-C21-C22 |
| 36 | k | 103 | LMG | C4-C5-C6-O5 |
| 36 | K | 103 | LMG | C4-C5-C6-O5 |
| 22 | c | 512 | CLA | CBD-CGD-O2D-CED |
| 26 | G | 618 | LHG | O2-C2-C3-O3 |
| 26 | Y | 617 | LHG | O2-C2-C3-O3 |
| 21 | y | 608 | CHL | CBA-CGA-O2A-C1 |
| 21 | G | 608 | CHL | CBA-CGA-O2A-C1 |
| 21 | N | 607 | CHL | CBA-CGA-O2A-C1 |
| 21 | Y | 607 | CHL | CBA-CGA-O2A-C1 |
| 22 | a | 405 | CLA | CBA-CGA-O2A-C1 |
| 22 | b | 611 | CLA | CBA-CGA-O2A-C1 |
| 22 | c | 509 | CLA | CBA-CGA-O2A-C1 |
| 22 | A | 406 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 614 | CLA | CBA-CGA-O2A-C1 |
| 22 | C | 510 | CLA | CBA-CGA-O2A-C1 |
| 22 | r | 312 | CLA | CBA-CGA-O2A-C1 |
| 22 | s | 310 | CLA | CBA-CGA-O2A-C1 |
| 22 | S | 310 | CLA | CBA-CGA-O2A-C1 |
| 22 | S | 311 | CLA | CBA-CGA-O2A-C1 |
| 22 | R | 311 | CLA | CBA-CGA-O2A-C1 |
| 21 | g | 601 | CHL | O1A-CGA-O2A-C1 |
| 21 | n | 601 | CHL | O1A-CGA-O2A-C1 |
| 21 | y | 601 | CHL | O1A-CGA-O2A-C1 |
| 21 | G | 601 | CHL | O1A-CGA-O2A-C1 |
| 21 | N | 601 | CHL | O1A-CGA-O2A-C1 |
| 21 | Y | 601 | CHL | O1A-CGA-O2A-C1 |
| 22 | g | 613 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 612 | CLA | O1A-CGA-O2A-C1 |
| 22 | y | 612 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 613 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 612 | CLA | O1A-CGA-O2A-C1 |
| 22 | Y | 611 | CLA | O1A-CGA-O2A-C1 |
| 22 | b | 603 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 606 | CLA | O1A-CGA-O2A-C1 |
| 22 | s | 305 | CLA | O1A-CGA-O2A-C1 |
| 22 | S | 305 | CLA | O1A-CGA-O2A-C1 |
| 21 | g | 608 | CHL | C5-C6-C7-C8 |
| 21 | n | 607 | CHL | C5-C6-C7-C8 |
| 21 | y | 608 | CHL | C5-C6-C7-C8 |
| 21 | G | 608 | CHL | C5-C6-C7-C8 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | N | 607 | CHL | C5-C6-C7-C8 |
| 21 | Y | 607 | CHL | C5-C6-C7-C8 |
| 21 | S | 307 | CHL | C2C-C3C-CAC-CBC |
| 22 | g | 614 | CLA | CBD-CGD-O2D-CED |
| 22 | n | 613 | CLA | CBD-CGD-O2D-CED |
| 22 | y | 613 | CLA | CBD-CGD-O2D-CED |
| 22 | G | 614 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 613 | CLA | CBD-CGD-O2D-CED |
| 22 | Y | 612 | CLA | CBD-CGD-O2D-CED |
| 26 | d | 407 | LHG | C28-C29-C30-C31 |
| 26 | D | 408 | LHG | C28-C29-C30-C31 |
| 21 | y | 608 | CHL | O1A-CGA-O2A-C1 |
| 21 | G | 608 | CHL | O1A-CGA-O2A-C1 |
| 21 | N | 607 | CHL | O1A-CGA-O2A-C1 |
| 21 | Y | 607 | CHL | O1A-CGA-O2A-C1 |
| 35 | c | 518 | DGD | O6D-C5D-C6D-O5D |
| 35 | C | 519 | DGD | O6D-C5D-C6D-O5D |
| 22 | c | 511 | CLA | C3-C5-C6-C7 |
| 22 | C | 512 | CLA | C3-C5-C6-C7 |
| 21 | r | 308 | CHL | CBA-CGA-O2A-C1 |
| 21 | R | 307 | CHL | CBA-CGA-O2A-C1 |
| 22 | r | 304 | CLA | CBA-CGA-O2A-C1 |
| 22 | R | 303 | CLA | CBA-CGA-O2A-C1 |
| 26 | c | 520 | LHG | C24-C23-O8-C6 |
| 21 | g | 608 | CHL | O1A-CGA-O2A-C1 |
| 21 | n | 607 | CHL | O1A-CGA-O2A-C1 |
| 22 | b | 611 | CLA | O1A-CGA-O2A-C1 |
| 22 | c | 509 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 614 | CLA | O1A-CGA-O2A-C1 |
| 22 | C | 510 | CLA | O1A-CGA-O2A-C1 |
| 22 | r | 310 | CLA | O1A-CGA-O2A-C1 |
| 22 | s | 310 | CLA | O1A-CGA-O2A-C1 |
| 22 | s | 311 | CLA | O1A-CGA-O2A-C1 |
| 22 | S | 310 | CLA | O1A-CGA-O2A-C1 |
| 22 | S | 311 | CLA | O1A-CGA-O2A-C1 |
| 22 | R | 309 | CLA | O1A-CGA-O2A-C1 |
| 21 | s | 307 | CHL | C2C-C3C-CAC-CBC |
| 21 | S | 302 | CHL | C2C-C3C-CAC-CBC |
| 32 | d | 406 | PL9 | C47-C48-C49-C51 |
| 32 | D | 407 | PL9 | C47-C48-C49-C51 |
| 36 | C | 523 | LMG | O6-C5-C6-O5 |
| 21 | g | 601 | CHL | C4-C3-C5-C6 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | n | 601 | CHL | C4-C3-C5-C6 |
| 21 | y | 601 | CHL | C4-C3-C5-C6 |
| 21 | G | 601 | CHL | C4-C3-C5-C6 |
| 21 | N | 601 | CHL | C4-C3-C5-C6 |
| 21 | Y | 601 | CHL | C4-C3-C5-C6 |
| 22 | s | 309 | CLA | C4-C3-C5-C6 |
| 22 | S | 309 | CLA | C4-C3-C5-C6 |
| 21 | g | 601 | CHL | C2-C3-C5-C6 |
| 21 | n | 601 | CHL | C2-C3-C5-C6 |
| 21 | y | 601 | CHL | C2-C3-C5-C6 |
| 21 | G | 601 | CHL | C2-C3-C5-C6 |
| 21 | N | 601 | CHL | C2-C3-C5-C6 |
| 21 | Y | 601 | CHL | C2-C3-C5-C6 |
| 21 | g | 605 | CHL | C2A-CAA-CBA-CGA |
| 21 | G | 605 | CHL | C2A-CAA-CBA-CGA |
| 21 | Y | 608 | CHL | C2A-CAA-CBA-CGA |
| 21 | r | 301 | CHL | C2A-CAA-CBA-CGA |
| 21 | r | 307 | CHL | C2A-CAA-CBA-CGA |
| 21 | R | 306 | CHL | C2A-CAA-CBA-CGA |
| 22 | g | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | n | 610 | CLA | O1D-CGD-O2D-CED |
| 22 | y | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | G | 611 | CLA | O1D-CGD-O2D-CED |
| 22 | N | 610 | CLA | O1D-CGD-O2D-CED |
| 22 | Y | 610 | CLA | O1D-CGD-O2D-CED |
| 26 | b | 619 | LHG | C28-C29-C30-C31 |
| 26 | B | 622 | LHG | C28-C29-C30-C31 |
| 36 | c | 523 | LMG | O6-C5-C6-O5 |
| 22 | a | 405 | CLA | O1A-CGA-O2A-C1 |
| 22 | A | 406 | CLA | O1A-CGA-O2A-C1 |
| 36 | M | 101 | LMG | O10-C28-O8-C9 |
| 36 | T | 101 | LMG | O10-C28-O8-C9 |
| 35 | c | 518 | DGD | O6D-C1D-O3G-C3G |
| 35 | C | 519 | DGD | O6D-C1D-O3G-C3G |
| 32 | d | 406 | PL9 | C9-C11-C12-C13 |
| 32 | d | 406 | PL9 | C14-C16-C17-C18 |
| 32 | D | 407 | PL9 | C9-C11-C12-C13 |
| 32 | D | 407 | PL9 | C14-C16-C17-C18 |
| 21 | r | 308 | CHL | C4C-C3C-CAC-CBC |
| 21 | R | 307 | CHL | C4C-C3C-CAC-CBC |
| 26 | c | 520 | LHG | C28-C29-C30-C31 |
| 26 | C | 520 | LHG | C28-C29-C30-C31 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | s | 313 | CLA | CBA-CGA-O2A-C1 |
| 22 | S | 313 | CLA | CBA-CGA-O2A-C1 |
| 26 | C | 520 | LHG | C24-C23-O8-C6 |
| 21 | s | 302 | CHL | C2C-C3C-CAC-CBC |
| 36 | M | 101 | LMG | O6-C5-C6-O5 |
| 36 | T | 101 | LMG | O6-C5-C6-O5 |
| 22 | s | 311 | CLA | O1D-CGD-O2D-CED |
| 22 | S | 311 | CLA | O1D-CGD-O2D-CED |
| 22 | a | 405 | CLA | O1D-CGD-O2D-CED |
| 22 | b | 610 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 502 | CLA | O1D-CGD-O2D-CED |
| 22 | A | 406 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 613 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 503 | CLA | O1D-CGD-O2D-CED |
| 22 | r | 312 | CLA | O1D-CGD-O2D-CED |
| 22 | R | 311 | CLA | O1D-CGD-O2D-CED |
| 26 | N | 618 | LHG | C1-C2-C3-O3 |
| 26 | Y | 617 | LHG | C1-C2-C3-O3 |
| 22 | s | 313 | CLA | O1A-CGA-O2A-C1 |
| 22 | S | 313 | CLA | O1A-CGA-O2A-C1 |
| 21 | s | 301 | CHL | CBA-CGA-O2A-C1 |
| 22 | b | 614 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 617 | CLA | CBA-CGA-O2A-C1 |
| 22 | r | 311 | CLA | CBA-CGA-O2A-C1 |
| 22 | R | 310 | CLA | CBA-CGA-O2A-C1 |
| 26 | r | 302 | LHG | C24-C23-O8-C6 |
| 26 | R | 301 | LHG | C24-C23-O8-C6 |
| 33 | a | 411 | SQD | C24-C23-O48-C46 |
| 33 | l | 103 | SQD | C24-C23-O48-C46 |
| 33 | A | 412 | SQD | C24-C23-O48-C46 |
| 33 | L | 101 | SQD | C24-C23-O48-C46 |
| 22 | b | 602 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 605 | CLA | O1D-CGD-O2D-CED |
| 21 | G | 607 | CHL | C8-C10-C11-C12 |
| 21 | N | 606 | CHL | C8-C10-C11-C12 |
| 22 | g | 611 | CLA | C5-C6-C7-C8 |
| 22 | y | 611 | CLA | C5-C6-C7-C8 |
| 22 | G | 611 | CLA | C5-C6-C7-C8 |
| 22 | Y | 610 | CLA | C5-C6-C7-C8 |
| 26 | G | 618 | LHG | O6-C4-C5-O7 |
| 26 | c | 522 | LHG | C29-C30-C31-C32 |
| 26 | C | 522 | LHG | C29-C30-C31-C32 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | g | 607 | CHL | C8-C10-C11-C12 |
| 21 | n | 606 | CHL | C8-C10-C11-C12 |
| 21 | y | 607 | CHL | C8-C10-C11-C12 |
| 21 | y | 609 | CHL | C8-C10-C11-C12 |
| 21 | Y | 606 | CHL | C8-C10-C11-C12 |
| 22 | g | 603 | CLA | C10-C11-C12-C13 |
| 22 | g | 613 | CLA | C8-C10-C11-C12 |
| 22 | n | 603 | CLA | C10-C11-C12-C13 |
| 22 | n | 610 | CLA | C5-C6-C7-C8 |
| 22 | n | 612 | CLA | C8-C10-C11-C12 |
| 22 | y | 603 | CLA | C10-C11-C12-C13 |
| 22 | y | 612 | CLA | C8-C10-C11-C12 |
| 22 | G | 603 | CLA | C10-C11-C12-C13 |
| 22 | G | 613 | CLA | C8-C10-C11-C12 |
| 22 | N | 603 | CLA | C10-C11-C12-C13 |
| 22 | N | 610 | CLA | C5-C6-C7-C8 |
| 22 | N | 612 | CLA | C8-C10-C11-C12 |
| 22 | Y | 603 | CLA | C10-C11-C12-C13 |
| 22 | Y | 611 | CLA | C8-C10-C11-C12 |
| 22 | r | 309 | CLA | C5-C6-C7-C8 |
| 22 | R | 308 | CLA | C5-C6-C7-C8 |
| 26 | c | 521 | LHG | C23-C24-C25-C26 |
| 26 | d | 407 | LHG | C23-C24-C25-C26 |
| 26 | C | 521 | LHG | C23-C24-C25-C26 |
| 26 | D | 408 | LHG | C23-C24-C25-C26 |
| 22 | g | 614 | CLA | O2A-C1-C2-C3 |
| 22 | n | 613 | CLA | O2A-C1-C2-C3 |
| 22 | y | 613 | CLA | O2A-C1-C2-C3 |
| 22 | G | 614 | CLA | O2A-C1-C2-C3 |
| 22 | N | 613 | CLA | O2A-C1-C2-C3 |
| 22 | Y | 612 | CLA | O2A-C1-C2-C3 |
| 26 | s | 314 | LHG | O7-C5-C6-O8 |
| 26 | S | 314 | LHG | O7-C5-C6-O8 |
| 22 | r | 311 | CLA | O1A-CGA-O2A-C1 |
| 22 | R | 310 | CLA | O1A-CGA-O2A-C1 |
| 22 | c | 512 | CLA | C2-C3-C5-C6 |
| 22 | C | 513 | CLA | C2-C3-C5-C6 |
| 22 | r | 310 | CLA | C2-C3-C5-C6 |
| 21 | g | 601 | CHL | C14-C13-C15-C16 |
| 21 | n | 601 | CHL | C14-C13-C15-C16 |
| 21 | n | 608 | CHL | C14-C13-C15-C16 |
| 21 | y | 601 | CHL | C14-C13-C15-C16 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | y | 609 | CHL | C14-C13-C15-C16 |
| 21 | G | 601 | CHL | C14-C13-C15-C16 |
| 21 | N | 601 | CHL | C14-C13-C15-C16 |
| 21 | N | 608 | CHL | C14-C13-C15-C16 |
| 21 | Y | 601 | CHL | C14-C13-C15-C16 |
| 21 | Y | 608 | CHL | C14-C13-C15-C16 |
| 22 | g | 612 | CLA | C6-C7-C8-C9 |
| 22 | n | 611 | CLA | C6-C7-C8-C9 |
| 22 | G | 612 | CLA | C6-C7-C8-C9 |
| 22 | N | 611 | CLA | C6-C7-C8-C9 |
| 22 | a | 405 | CLA | C6-C7-C8-C9 |
| 22 | b | 601 | CLA | C11-C10-C8-C9 |
| 22 | c | 514 | CLA | C11-C10-C8-C9 |
| 22 | w | 101 | CLA | C6-C7-C8-C9 |
| 22 | A | 406 | CLA | C6-C7-C8-C9 |
| 22 | B | 604 | CLA | C11-C10-C8-C9 |
| 22 | C | 515 | CLA | C11-C10-C8-C9 |
| 22 | W | 101 | CLA | C6-C7-C8-C9 |
| 21 | g | 609 | CHL | C2A-CAA-CBA-CGA |
| 21 | n | 608 | CHL | C2A-CAA-CBA-CGA |
| 21 | y | 609 | CHL | C2A-CAA-CBA-CGA |
| 21 | G | 609 | CHL | C2A-CAA-CBA-CGA |
| 21 | N | 608 | CHL | C2A-CAA-CBA-CGA |
| 22 | S | 308 | CLA | C2A-CAA-CBA-CGA |
| 23 | g | 615 | LUT | C7-C8-C9-C19 |
| 23 | g | 616 | LUT | C11-C12-C13-C20 |
| 23 | n | 614 | LUT | C7-C8-C9-C19 |
| 23 | y | 614 | LUT | C7-C8-C9-C19 |
| 23 | G | 615 | LUT | C7-C8-C9-C19 |
| 23 | G | 616 | LUT | C11-C12-C13-C20 |
| 23 | N | 614 | LUT | C7-C8-C9-C19 |
| 23 | N | 615 | LUT | C7-C8-C9-C19 |
| 23 | Y | 613 | LUT | C7-C8-C9-C19 |
| 23 | Y | 614 | LUT | C27-C28-C29-C39 |
| 23 | r | 313 | LUT | C31-C32-C33-C40 |
| 23 | R | 312 | LUT | C31-C32-C33-C40 |
| 24 | y | 615 | XAT | C7-C8-C9-C19 |
| 24 | y | 615 | XAT | C31-C32-C33-C40 |
| 24 | G | 617 | XAT | C31-C32-C33-C40 |
| 24 | Y | 615 | XAT | C7-C8-C9-C19 |
| 24 | Y | 615 | XAT | C31-C32-C33-C40 |
| 24 | r | 314 | XAT | C31-C32-C33-C40 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 24 | R | 313 | XAT | C27-C28-C29-C39 |
| 24 | R | 313 | XAT | C31-C32-C33-C40 |
| 25 | g | 618 | NEX | C27-C28-C29-C39 |
| 25 | n | 616 | NEX | C31-C32-C33-C40 |
| 25 | y | 618 | NEX | C11-C12-C13-C20 |
| 25 | y | 618 | NEX | C31-C32-C33-C40 |
| 25 | N | 617 | NEX | C27-C28-C29-C39 |
| 25 | r | 315 | NEX | C11-C12-C13-C20 |
| 25 | r | 315 | NEX | C31-C32-C33-C40 |
| 31 | d | 405 | BCR | C7-C8-C9-C34 |
| 31 | k | 101 | BCR | C11-C12-C13-C35 |
| 31 | D | 406 | BCR | C7-C8-C9-C34 |
| 31 | K | 101 | BCR | C11-C12-C13-C35 |
| 23 | g | 615 | LUT | C11-C12-C13-C14 |
| 23 | g | 615 | LUT | C27-C28-C29-C30 |
| 23 | g | 616 | LUT | C7-C8-C9-C10 |
| 23 | n | 614 | LUT | C11-C12-C13-C14 |
| 23 | n | 614 | LUT | C27-C28-C29-C30 |
| 23 | y | 614 | LUT | C11-C12-C13-C14 |
| 23 | y | 614 | LUT | C27-C28-C29-C30 |
| 23 | G | 615 | LUT | C11-C12-C13-C14 |
| 23 | G | 615 | LUT | C27-C28-C29-C30 |
| 23 | G | 616 | LUT | C7-C8-C9-C10 |
| 23 | N | 614 | LUT | C11-C12-C13-C14 |
| 23 | N | 614 | LUT | C27-C28-C29-C30 |
| 23 | Y | 613 | LUT | C11-C12-C13-C14 |
| 23 | Y | 613 | LUT | C27-C28-C29-C30 |
| 23 | Y | 614 | LUT | C7-C8-C9-C10 |
| 23 | r | 313 | LUT | C27-C28-C29-C30 |
| 23 | R | 312 | LUT | C27-C28-C29-C30 |
| 31 | d | 405 | BCR | C7-C8-C9-C10 |
| 31 | k | 101 | BCR | C21-C22-C23-C24 |
| 31 | D | 406 | BCR | C7-C8-C9-C10 |
| 31 | K | 101 | BCR | C21-C22-C23-C24 |
| 35 | h | 102 | DGD | O6E-C5E-C6E-O5E |
| 35 | H | 102 | DGD | O6E-C5E-C6E-O5E |
| 26 | y | 617 | LHG | C7-C8-C9-C10 |
| 21 | s | 301 | CHL | O1A-CGA-O2A-C1 |
| 21 | n | 608 | CHL | C8-C10-C11-C12 |
| 21 | N | 608 | CHL | C8-C10-C11-C12 |
| 22 | g | 610 | CLA | C8-C10-C11-C12 |
| 22 | N | 609 | CLA | C8-C10-C11-C12 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | Y | 609 | CLA | C8-C10-C11-C12 |
| 22 | b | 615 | CLA | C15-C16-C17-C18 |
| 22 | d | 404 | CLA | C13-C15-C16-C17 |
| 22 | B | 618 | CLA | C15-C16-C17-C18 |
| 22 | C | 514 | CLA | C15-C16-C17-C18 |
| 22 | D | 405 | CLA | C13-C15-C16-C17 |
| 22 | s | 311 | CLA | C5-C6-C7-C8 |
| 22 | S | 311 | CLA | C5-C6-C7-C8 |
| 36 | B | 601 | LMG | O6-C5-C6-O5 |
| 36 | I | 101 | LMG | O6-C5-C6-O5 |
| 22 | g | 603 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 603 | CLA | CBA-CGA-O2A-C1 |
| 22 | y | 603 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 603 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 603 | CLA | CBA-CGA-O2A-C1 |
| 22 | Y | 603 | CLA | CBA-CGA-O2A-C1 |
| 36 | B | 601 | LMG | C29-C28-O8-C9 |
| 36 | I | 101 | LMG | C29-C28-O8-C9 |
| 21 | Y | 608 | CHL | C8-C10-C11-C12 |
| 21 | r | 308 | CHL | C10-C11-C12-C13 |
| 21 | R | 307 | CHL | C10-C11-C12-C13 |
| 22 | n | 609 | CLA | C8-C10-C11-C12 |
| 22 | y | 610 | CLA | C8-C10-C11-C12 |
| 22 | G | 610 | CLA | C8-C10-C11-C12 |
| 22 | G | 610 | CLA | C13-C15-C16-C17 |
| 22 | b | 601 | CLA | C8-C10-C11-C12 |
| 22 | b | 601 | CLA | C15-C16-C17-C18 |
| 22 | c | 502 | CLA | C13-C15-C16-C17 |
| 22 | c | 506 | CLA | C10-C11-C12-C13 |
| 22 | c | 513 | CLA | C15-C16-C17-C18 |
| 22 | d | 404 | CLA | C8-C10-C11-C12 |
| 22 | B | 604 | CLA | C8-C10-C11-C12 |
| 22 | B | 604 | CLA | C15-C16-C17-C18 |
| 22 | C | 503 | CLA | C13-C15-C16-C17 |
| 22 | C | 507 | CLA | C10-C11-C12-C13 |
| 22 | D | 405 | CLA | C8-C10-C11-C12 |
| 26 | Y | 617 | LHG | C7-C8-C9-C10 |
| 26 | r | 302 | LHG | C7-C8-C9-C10 |
| 26 | r | 302 | LHG | C23-C24-C25-C26 |
| 26 | R | 301 | LHG | C7-C8-C9-C10 |
| 26 | R | 301 | LHG | C23-C24-C25-C26 |
| 22 | c | 509 | CLA | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | C | 510 | CLA | O1D-CGD-O2D-CED |
| 21 | n | 605 | CHL | C4C-C3C-CAC-CBC |
| 21 | y | 606 | CHL | C4C-C3C-CAC-CBC |
| 22 | n | 609 | CLA | C15-C16-C17-C18 |
| 22 | G | 613 | CLA | C13-C15-C16-C17 |
| 22 | b | 613 | CLA | C5-C6-C7-C8 |
| 22 | c | 505 | CLA | C10-C11-C12-C13 |
| 22 | c | 510 | CLA | C13-C15-C16-C17 |
| 22 | B | 616 | CLA | C5-C6-C7-C8 |
| 22 | C | 506 | CLA | C10-C11-C12-C13 |
| 22 | C | 511 | CLA | C13-C15-C16-C17 |
| 22 | r | 310 | CLA | C15-C16-C17-C18 |
| 22 | R | 309 | CLA | C15-C16-C17-C18 |
| 21 | g | 606 | CHL | C4C-C3C-CAC-CBC |
| 21 | G | 606 | CHL | C4C-C3C-CAC-CBC |
| 21 | N | 605 | CHL | C4C-C3C-CAC-CBC |
| 21 | Y | 605 | CHL | C4C-C3C-CAC-CBC |
| 26 | g | 619 | LHG | O1-C1-C2-O2 |
| 26 | d | 408 | LHG | O1-C1-C2-O2 |
| 26 | D | 409 | LHG | O1-C1-C2-O2 |
| 26 | r | 302 | LHG | O1-C1-C2-O2 |
| 26 | R | 301 | LHG | O1-C1-C2-O2 |
| 26 | n | 617 | LHG | C7-C8-C9-C10 |
| 26 | N | 618 | LHG | C7-C8-C9-C10 |
| 26 | b | 619 | LHG | C23-C24-C25-C26 |
| 26 | c | 520 | LHG | C7-C8-C9-C10 |
| 26 | d | 409 | LHG | C23-C24-C25-C26 |
| 26 | B | 622 | LHG | C23-C24-C25-C26 |
| 26 | C | 520 | LHG | C7-C8-C9-C10 |
| 26 | D | 410 | LHG | C23-C24-C25-C26 |
| 26 | s | 314 | LHG | C7-C8-C9-C10 |
| 26 | S | 314 | LHG | C7-C8-C9-C10 |
| 35 | c | 517 | DGD | C1B-C2B-C3B-C4B |
| 35 | h | 102 | DGD | C1B-C2B-C3B-C4B |
| 35 | C | 518 | DGD | C1B-C2B-C3B-C4B |
| 35 | H | 102 | DGD | C1B-C2B-C3B-C4B |
| 36 | M | 101 | LMG | C4-C5-C6-O5 |
| 36 | T | 101 | LMG | C4-C5-C6-O5 |
| 22 | b | 614 | CLA | C15-C16-C17-C18 |
| 22 | B | 617 | CLA | C15-C16-C17-C18 |
| 22 | r | 310 | CLA | C10-C11-C12-C13 |
| 22 | R | 309 | CLA | C10-C11-C12-C13 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 36 | d | 410 | LMG | C29-C28-O8-C9 |
| 21 | n | 605 | CHL | C2-C1-O2A-CGA |
| 21 | y | 606 | CHL | C2-C1-O2A-CGA |
| 21 | N | 605 | CHL | C2-C1-O2A-CGA |
| 21 | g | 601 | CHL | C13-C15-C16-C17 |
| 21 | n | 601 | CHL | C13-C15-C16-C17 |
| 21 | y | 601 | CHL | C13-C15-C16-C17 |
| 21 | G | 601 | CHL | C13-C15-C16-C17 |
| 21 | N | 601 | CHL | C13-C15-C16-C17 |
| 21 | Y | 601 | CHL | C13-C15-C16-C17 |
| 22 | b | 609 | CLA | C10-C11-C12-C13 |
| 22 | B | 612 | CLA | C10-C11-C12-C13 |
| 26 | s | 314 | LHG | C23-C24-C25-C26 |
| 26 | S | 314 | LHG | C23-C24-C25-C26 |
| 36 | w | 102 | LMG | C28-C29-C30-C31 |
| 36 | C | 502 | LMG | C28-C29-C30-C31 |
| 37 | f | 101 | HEM | C3D-CAD-CBD-CGD |
| 37 | F | 101 | HEM | C3D-CAD-CBD-CGD |
| 22 | b | 604 | CLA | C10-C11-C12-C13 |
| 22 | c | 503 | CLA | C13-C15-C16-C17 |
| 22 | B | 607 | CLA | C10-C11-C12-C13 |
| 22 | C | 504 | CLA | C13-C15-C16-C17 |
| 22 | g | 610 | CLA | C6-C7-C8-C10 |
| 22 | n | 609 | CLA | C6-C7-C8-C10 |
| 22 | y | 610 | CLA | C6-C7-C8-C10 |
| 22 | G | 610 | CLA | C6-C7-C8-C10 |
| 22 | N | 609 | CLA | C6-C7-C8-C10 |
| 22 | Y | 609 | CLA | C6-C7-C8-C10 |
| 22 | b | 610 | CLA | C11-C10-C8-C7 |
| 22 | B | 613 | CLA | C11-C10-C8-C7 |
| 22 | a | 408 | CLA | C3-C5-C6-C7 |
| 22 | A | 409 | CLA | C3-C5-C6-C7 |
| 24 | g | 617 | XAT | C9-C10-C11-C12 |
| 24 | y | 615 | XAT | C9-C10-C11-C12 |
| 24 | G | 617 | XAT | C9-C10-C11-C12 |
| 24 | Y | 615 | XAT | C9-C10-C11-C12 |
| 25 | g | 618 | NEX | C13-C14-C15-C35 |
| 22 | C | 507 | CLA | CBD-CGD-O2D-CED |
| 22 | S | 313 | CLA | CBD-CGD-O2D-CED |
| 36 | D | 411 | LMG | C29-C28-O8-C9 |
| 22 | b | 606 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 609 | CLA | C2A-CAA-CBA-CGA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | B | 609 | CLA | C2A-CAA-CBA-CGA |
| 22 | B | 612 | CLA | C2A-CAA-CBA-CGA |
| 22 | s | 308 | CLA | C2A-CAA-CBA-CGA |
| 22 | a | 406 | CLA | O1D-CGD-O2D-CED |
| 22 | A | 407 | CLA | O1D-CGD-O2D-CED |
| 21 | g | 608 | CHL | C8-C10-C11-C12 |
| 21 | n | 607 | CHL | C8-C10-C11-C12 |
| 21 | y | 608 | CHL | C8-C10-C11-C12 |
| 21 | G | 608 | CHL | C8-C10-C11-C12 |
| 21 | N | 607 | CHL | C8-C10-C11-C12 |
| 21 | Y | 607 | CHL | C8-C10-C11-C12 |
| 21 | r | 306 | CHL | C10-C11-C12-C13 |
| 21 | R | 305 | CHL | C10-C11-C12-C13 |
| 22 | s | 310 | CLA | C5-C6-C7-C8 |
| 22 | S | 310 | CLA | C5-C6-C7-C8 |
| 22 | b | 614 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 617 | CLA | O1A-CGA-O2A-C1 |
| 22 | c | 506 | CLA | CBD-CGD-O2D-CED |
| 22 | s | 313 | CLA | CBD-CGD-O2D-CED |
| 26 | c | 522 | LHG | C23-C24-C25-C26 |
| 26 | d | 407 | LHG | C7-C8-C9-C10 |
| 26 | C | 522 | LHG | C23-C24-C25-C26 |
| 26 | D | 408 | LHG | C7-C8-C9-C10 |
| 31 | k | 102 | BCR | C10-C11-C12-C13 |
| 31 | B | 602 | BCR | C18-C19-C20-C21 |
| 31 | K | 102 | BCR | C10-C11-C12-C13 |
| 31 | T | 102 | BCR | C18-C19-C20-C21 |
| 26 | s | 314 | LHG | O2-C2-C3-O3 |
| 26 | S | 314 | LHG | O2-C2-C3-O3 |
| 21 | r | 307 | CHL | C3-C5-C6-C7 |
| 21 | R | 306 | CHL | C3-C5-C6-C7 |
| 21 | g | 609 | CHL | C8-C10-C11-C12 |
| 21 | G | 609 | CHL | C8-C10-C11-C12 |
| 22 | d | 404 | CLA | CBA-CGA-O2A-C1 |
| 22 | D | 405 | CLA | CBA-CGA-O2A-C1 |
| 22 | c | 503 | CLA | C8-C10-C11-C12 |
| 22 | c | 506 | CLA | C13-C15-C16-C17 |
| 22 | c | 509 | CLA | C5-C6-C7-C8 |
| 22 | C | 504 | CLA | C8-C10-C11-C12 |
| 22 | C | 507 | CLA | C13-C15-C16-C17 |
| 22 | C | 510 | CLA | C5-C6-C7-C8 |
| 21 | y | 609 | CHL | C15-C16-C17-C18 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 603 | CLA | C15-C16-C17-C18 |
| 22 | B | 606 | CLA | C15-C16-C17-C18 |
| 26 | g | 619 | LHG | C3-O3-P-O6 |
| 26 | G | 618 | LHG | C3-O3-P-O6 |
| 26 | G | 618 | LHG | C4-O6-P-O3 |
| 26 | N | 618 | LHG | C3-O3-P-O6 |
| 26 | Y | 617 | LHG | C3-O3-P-O6 |
| 26 | Y | 617 | LHG | C4-O6-P-O3 |
| 26 | b | 619 | LHG | C4-O6-P-O3 |
| 26 | c | 520 | LHG | C4-O6-P-O3 |
| 26 | c | 521 | LHG | C3-O3-P-O6 |
| 26 | d | 409 | LHG | C3-O3-P-O6 |
| 26 | B | 622 | LHG | C4-O6-P-O3 |
| 26 | C | 520 | LHG | C4-O6-P-O3 |
| 26 | C | 521 | LHG | C3-O3-P-O6 |
| 26 | D | 410 | LHG | C3-O3-P-O6 |
| 26 | G | 618 | LHG | C23-C24-C25-C26 |
| 22 | b | 607 | CLA | O1D-CGD-O2D-CED |
| 22 | Y | 602 | CLA | O1D-CGD-O2D-CED |
| 22 | g | 602 | CLA | O1D-CGD-O2D-CED |
| 22 | n | 602 | CLA | O1D-CGD-O2D-CED |
| 22 | y | 602 | CLA | O1D-CGD-O2D-CED |
| 22 | G | 602 | CLA | O1D-CGD-O2D-CED |
| 22 | N | 602 | CLA | O1D-CGD-O2D-CED |
| 22 | B | 610 | CLA | O1D-CGD-O2D-CED |
| 26 | g | 619 | LHG | C1-C2-C3-O3 |
| 26 | y | 617 | LHG | C1-C2-C3-O3 |
| 26 | G | 618 | LHG | C1-C2-C3-O3 |
| 26 | s | 314 | LHG | C1-C2-C3-O3 |
| 26 | S | 314 | LHG | C1-C2-C3-O3 |
| 35 | c | 518 | DGD | O1B-C1B-O2G-C2G |
| 35 | C | 519 | DGD | O1B-C1B-O2G-C2G |
| 21 | g | 607 | CHL | C4-C3-C5-C6 |
| 21 | n | 606 | CHL | C4-C3-C5-C6 |
| 21 | y | 607 | CHL | C4-C3-C5-C6 |
| 21 | G | 607 | CHL | C4-C3-C5-C6 |
| 21 | N | 606 | CHL | C4-C3-C5-C6 |
| 21 | Y | 606 | CHL | C4-C3-C5-C6 |
| 22 | d | 403 | CLA | C4-C3-C5-C6 |
| 22 | D | 404 | CLA | C4-C3-C5-C6 |
| 22 | R | 309 | CLA | C2-C3-C5-C6 |
| 22 | c | 502 | CLA | C5-C6-C7-C8 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | c | 508 | CLA | C8-C10-C11-C12 |
| 22 | C | 503 | CLA | C5-C6-C7-C8 |
| 22 | C | 509 | CLA | C8-C10-C11-C12 |
| 22 | B | 612 | CLA | O1D-CGD-O2D-CED |
| 21 | s | 301 | CHL | C2A-CAA-CBA-CGA |
| 21 | S | 301 | CHL | C2A-CAA-CBA-CGA |
| 21 | r | 307 | CHL | C6-C7-C8-C10 |
| 21 | R | 306 | CHL | C6-C7-C8-C10 |
| 22 | b | 611 | CLA | C16-C17-C18-C20 |
| 22 | c | 513 | CLA | C16-C17-C18-C20 |
| 22 | B | 614 | CLA | C16-C17-C18-C20 |
| 22 | C | 514 | CLA | C16-C17-C18-C20 |
| 36 | b | 620 | LMG | O6-C5-C6-O5 |
| 36 | B | 623 | LMG | O6-C5-C6-O5 |
| 22 | b | 609 | CLA | O1D-CGD-O2D-CED |
| 22 | g | 612 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 611 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 612 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 611 | CLA | CBA-CGA-O2A-C1 |
| 22 | w | 101 | CLA | CBA-CGA-O2A-C1 |
| 22 | W | 101 | CLA | CBA-CGA-O2A-C1 |
| 26 | d | 407 | LHG | C24-C23-O8-C6 |
| 26 | D | 408 | LHG | C24-C23-O8-C6 |
| 21 | S | 307 | CHL | C4C-C3C-CAC-CBC |
| 31 | k | 101 | BCR | C14-C15-C16-C17 |
| 31 | K | 101 | BCR | C14-C15-C16-C17 |
| 22 | r | 312 | CLA | C5-C6-C7-C8 |
| 22 | R | 311 | CLA | C5-C6-C7-C8 |
| 24 | g | 617 | XAT | C33-C34-C35-C15 |
| 25 | g | 618 | NEX | C9-C10-C11-C12 |
| 25 | Y | 616 | NEX | C29-C30-C31-C32 |
| 31 | k | 101 | BCR | C19-C20-C21-C22 |
| 31 | K | 101 | BCR | C19-C20-C21-C22 |
| 26 | l | 102 | LHG | C23-C24-C25-C26 |
| 26 | L | 103 | LHG | C23-C24-C25-C26 |
| 26 | N | 618 | LHG | C29-C30-C31-C32 |
| 26 | Y | 617 | LHG | C32-C33-C34-C35 |
| 36 | c | 523 | LMG | C11-C12-C13-C14 |
| 36 | B | 601 | LMG | C30-C31-C32-C33 |
| 36 | I | 101 | LMG | C30-C31-C32-C33 |
| 21 | s | 302 | CHL | O1D-CGD-O2D-CED |
| 21 | S | 302 | CHL | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | N | 618 | LHG | C8-C7-O7-C5 |
| 21 | R | 306 | CHL | C5-C6-C7-C8 |
| 23 | N | 615 | LUT | C11-C10-C9-C19 |
| 23 | r | 313 | LUT | C39-C29-C30-C31 |
| 23 | R | 312 | LUT | C39-C29-C30-C31 |
| 24 | g | 617 | XAT | C20-C13-C14-C15 |
| 24 | g | 617 | XAT | C40-C33-C34-C35 |
| 24 | y | 615 | XAT | C40-C33-C34-C35 |
| 24 | G | 617 | XAT | C40-C33-C34-C35 |
| 24 | Y | 615 | XAT | C20-C13-C14-C15 |
| 24 | Y | 615 | XAT | C40-C33-C34-C35 |
| 24 | r | 314 | XAT | C11-C10-C9-C19 |
| 24 | r | 314 | XAT | C39-C29-C30-C31 |
| 24 | R | 313 | XAT | C11-C10-C9-C19 |
| 24 | R | 313 | XAT | C39-C29-C30-C31 |
| 25 | y | 616 | NEX | C40-C33-C34-C35 |
| 25 | y | 618 | NEX | C40-C33-C34-C35 |
| 25 | N | 617 | NEX | C11-C10-C9-C19 |
| 25 | r | 315 | NEX | C40-C33-C34-C35 |
| 31 | c | 516 | BCR | C20-C21-C22-C37 |
| 31 | B | 602 | BCR | C11-C10-C9-C34 |
| 31 | C | 517 | BCR | C20-C21-C22-C37 |
| 31 | T | 102 | BCR | C11-C10-C9-C34 |
| 26 | b | 619 | LHG | C32-C33-C34-C35 |
| 26 | c | 520 | LHG | C27-C28-C29-C30 |
| 26 | c | 521 | LHG | C11-C10-C9-C8 |
| 26 | d | 408 | LHG | C27-C28-C29-C30 |
| 26 | d | 408 | LHG | C32-C33-C34-C35 |
| 26 | d | 409 | LHG | C27-C28-C29-C30 |
| 26 | B | 622 | LHG | C32-C33-C34-C35 |
| 26 | C | 520 | LHG | C27-C28-C29-C30 |
| 26 | C | 521 | LHG | C11-C10-C9-C8 |
| 26 | D | 409 | LHG | C27-C28-C29-C30 |
| 26 | D | 410 | LHG | C27-C28-C29-C30 |
| 26 | r | 302 | LHG | C32-C33-C34-C35 |
| 26 | R | 301 | LHG | C12-C13-C14-C15 |
| 26 | R | 301 | LHG | C32-C33-C34-C35 |
| 36 | C | 523 | LMG | C11-C12-C13-C14 |
| 36 | M | 101 | LMG | C17-C18-C19-C20 |
| 36 | T | 101 | LMG | C17-C18-C19-C20 |
| 22 | d | 404 | CLA | C16-C17-C18-C20 |
| 22 | D | 405 | CLA | C16-C17-C18-C20 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | s | 309 | CLA | C6-C7-C8-C10 |
| 22 | S | 309 | CLA | C6-C7-C8-C10 |
| 22 | c | 502 | CLA | CBA-CGA-O2A-C1 |
| 22 | C | 503 | CLA | CBA-CGA-O2A-C1 |
| 26 | n | 617 | LHG | C24-C25-C26-C27 |
| 26 | c | 521 | LHG | C18-C19-C20-C21 |
| 26 | C | 521 | LHG | C18-C19-C20-C21 |
| 26 | D | 409 | LHG | C32-C33-C34-C35 |
| 26 | r | 302 | LHG | C12-C13-C14-C15 |
| 33 | a | 411 | SQD | C26-C27-C28-C29 |
| 33 | A | 412 | SQD | C26-C27-C28-C29 |
| 35 | c | 519 | DGD | C5B-C6B-C7B-C8B |
| 35 | h | 102 | DGD | C5A-C6A-C7A-C8A |
| 35 | H | 102 | DGD | C5A-C6A-C7A-C8A |
| 35 | J | 101 | DGD | C5B-C6B-C7B-C8B |
| 36 | b | 620 | LMG | C22-C23-C24-C25 |
| 36 | B | 623 | LMG | C22-C23-C24-C25 |
| 36 | M | 101 | LMG | C33-C34-C35-C36 |
| 36 | T | 101 | LMG | C33-C34-C35-C36 |
| 33 | a | 411 | SQD | C46-C45-O47-C7 |
| 33 | A | 412 | SQD | C46-C45-O47-C7 |
| 22 | c | 511 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 512 | CLA | O1D-CGD-O2D-CED |
| 21 | r | 307 | CHL | C5-C6-C7-C8 |
| 26 | g | 619 | LHG | C26-C27-C28-C29 |
| 26 | b | 619 | LHG | C29-C30-C31-C32 |
| 26 | d | 409 | LHG | C10-C11-C12-C13 |
| 26 | B | 622 | LHG | C29-C30-C31-C32 |
| 36 | T | 101 | LMG | C30-C31-C32-C33 |
| 22 | g | 603 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 603 | CLA | O1A-CGA-O2A-C1 |
| 22 | y | 603 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 603 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 603 | CLA | O1A-CGA-O2A-C1 |
| 22 | Y | 603 | CLA | O1A-CGA-O2A-C1 |
| 26 | G | 618 | LHG | C29-C30-C31-C32 |
| 26 | N | 618 | LHG | C15-C16-C17-C18 |
| 26 | c | 520 | LHG | C12-C13-C14-C15 |
| 26 | d | 408 | LHG | C30-C31-C32-C33 |
| 26 | C | 520 | LHG | C12-C13-C14-C15 |
| 26 | D | 409 | LHG | C30-C31-C32-C33 |
| 26 | D | 410 | LHG | C10-C11-C12-C13 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 35 | c | 519 | DGD | C6B-C7B-C8B-C9B |
| 35 | J | 101 | DGD | C6B-C7B-C8B-C9B |
| 36 | b | 620 | LMG | C19-C20-C21-C22 |
| 36 | B | 623 | LMG | C19-C20-C21-C22 |
| 36 | M | 101 | LMG | C30-C31-C32-C33 |
| 22 | C | 512 | CLA | C5-C6-C7-C8 |
| 26 | C | 520 | LHG | O2-C2-C3-O3 |
| 35 | h | 102 | DGD | C4A-C5A-C6A-C7A |
| 35 | h | 102 | DGD | C3B-C4B-C5B-C6B |
| 35 | H | 102 | DGD | C4A-C5A-C6A-C7A |
| 35 | H | 102 | DGD | C3B-C4B-C5B-C6B |
| 22 | g | 603 | CLA | C3-C5-C6-C7 |
| 22 | n | 603 | CLA | C3-C5-C6-C7 |
| 22 | y | 603 | CLA | C3-C5-C6-C7 |
| 22 | G | 603 | CLA | C3-C5-C6-C7 |
| 22 | N | 603 | CLA | C3-C5-C6-C7 |
| 22 | Y | 603 | CLA | C3-C5-C6-C7 |
| 22 | s | 310 | CLA | C3-C5-C6-C7 |
| 22 | s | 311 | CLA | C3-C5-C6-C7 |
| 22 | S | 310 | CLA | C3-C5-C6-C7 |
| 22 | S | 311 | CLA | C3-C5-C6-C7 |
| 23 | G | 616 | LUT | C12-C13-C14-C15 |
| 23 | N | 615 | LUT | C11-C10-C9-C8 |
| 23 | N | 615 | LUT | C28-C29-C30-C31 |
| 23 | N | 615 | LUT | C32-C33-C34-C35 |
| 23 | Y | 614 | LUT | C28-C29-C30-C31 |
| 24 | g | 617 | XAT | C11-C10-C9-C8 |
| 24 | g | 617 | XAT | C12-C13-C14-C15 |
| 24 | g | 617 | XAT | C32-C33-C34-C35 |
| 24 | n | 615 | XAT | C11-C10-C9-C8 |
| 24 | n | 615 | XAT | C12-C13-C14-C15 |
| 24 | y | 615 | XAT | C12-C13-C14-C15 |
| 24 | G | 617 | XAT | C11-C10-C9-C8 |
| 24 | G | 617 | XAT | C12-C13-C14-C15 |
| 24 | N | 616 | XAT | C11-C10-C9-C8 |
| 24 | N | 616 | XAT | C12-C13-C14-C15 |
| 24 | N | 616 | XAT | C32-C33-C34-C35 |
| 24 | Y | 615 | XAT | C12-C13-C14-C15 |
| 24 | r | 314 | XAT | C28-C29-C30-C31 |
| 24 | R | 313 | XAT | C28-C29-C30-C31 |
| 25 | n | 616 | NEX | C11-C10-C9-C8 |
| 25 | n | 616 | NEX | C12-C13-C14-C15 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 25 | y | 616 | NEX | C32-C33-C34-C35 |
| 25 | y | 618 | NEX | C32-C33-C34-C35 |
| 25 | N | 617 | NEX | C11-C10-C9-C8 |
| 25 | r | 315 | NEX | C32-C33-C34-C35 |
| 31 | k | 101 | BCR | C16-C17-C18-C19 |
| 31 | k | 101 | BCR | C20-C21-C22-C23 |
| 31 | B | 602 | BCR | C11-C10-C9-C8 |
| 31 | K | 101 | BCR | C16-C17-C18-C19 |
| 31 | K | 101 | BCR | C20-C21-C22-C23 |
| 31 | T | 102 | BCR | C11-C10-C9-C8 |
| 35 | a | 413 | DGD | C2E-C1E-O5D-C6D |
| 35 | c | 518 | DGD | C2D-C1D-O3G-C3G |
| 35 | A | 401 | DGD | C2E-C1E-O5D-C6D |
| 35 | C | 519 | DGD | C2D-C1D-O3G-C3G |
| 22 | s | 303 | CLA | CBA-CGA-O2A-C1 |
| 22 | S | 303 | CLA | CBA-CGA-O2A-C1 |
| 26 | N | 618 | LHG | C24-C23-O8-C6 |
| 26 | g | 619 | LHG | C28-C29-C30-C31 |
| 26 | d | 408 | LHG | C11-C10-C9-C8 |
| 26 | d | 408 | LHG | C29-C30-C31-C32 |
| 26 | l | 102 | LHG | C25-C26-C27-C28 |
| 26 | D | 409 | LHG | C11-C10-C9-C8 |
| 26 | D | 409 | LHG | C29-C30-C31-C32 |
| 26 | L | 103 | LHG | C25-C26-C27-C28 |
| 26 | r | 302 | LHG | C27-C28-C29-C30 |
| 26 | s | 314 | LHG | C27-C28-C29-C30 |
| 26 | S | 314 | LHG | C27-C28-C29-C30 |
| 26 | R | 301 | LHG | C27-C28-C29-C30 |
| 33 | d | 402 | SQD | C12-C13-C14-C15 |
| 33 | D | 402 | SQD | C12-C13-C14-C15 |
| 36 | c | 523 | LMG | C33-C34-C35-C36 |
| 36 | C | 523 | LMG | C33-C34-C35-C36 |
| 36 | T | 101 | LMG | C29-C30-C31-C32 |
| 22 | c | 511 | CLA | C5-C6-C7-C8 |
| 22 | g | 612 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 611 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 612 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 611 | CLA | O1A-CGA-O2A-C1 |
| 22 | w | 101 | CLA | O1A-CGA-O2A-C1 |
| 22 | W | 101 | CLA | O1A-CGA-O2A-C1 |
| 26 | r | 302 | LHG | O10-C23-O8-C6 |
| 26 | R | 301 | LHG | O10-C23-O8-C6 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | r | 306 | CHL | C16-C17-C18-C20 |
| 21 | R | 305 | CHL | C16-C17-C18-C20 |
| 22 | a | 405 | CLA | C16-C17-C18-C20 |
| 22 | d | 404 | CLA | C16-C17-C18-C19 |
| 22 | A | 406 | CLA | C16-C17-C18-C20 |
| 22 | D | 405 | CLA | C16-C17-C18-C19 |
| 22 | s | 309 | CLA | C6-C7-C8-C9 |
| 22 | s | 313 | CLA | C6-C7-C8-C10 |
| 22 | S | 309 | CLA | C6-C7-C8-C9 |
| 22 | S | 313 | CLA | C6-C7-C8-C10 |
| 22 | c | 512 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 513 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 514 | CLA | C4-C3-C5-C6 |
| 22 | C | 515 | CLA | C4-C3-C5-C6 |
| 26 | n | 617 | LHG | C30-C31-C32-C33 |
| 26 | b | 619 | LHG | C11-C12-C13-C14 |
| 26 | c | 521 | LHG | C29-C30-C31-C32 |
| 26 | B | 622 | LHG | C11-C12-C13-C14 |
| 26 | C | 521 | LHG | C29-C30-C31-C32 |
| 35 | h | 102 | DGD | C5B-C6B-C7B-C8B |
| 35 | H | 102 | DGD | C5B-C6B-C7B-C8B |
| 35 | J | 101 | DGD | C6A-C7A-C8A-C9A |
| 36 | M | 101 | LMG | C29-C30-C31-C32 |
| 21 | g | 607 | CHL | C2-C3-C5-C6 |
| 21 | n | 606 | CHL | C2-C3-C5-C6 |
| 21 | y | 607 | CHL | C2-C3-C5-C6 |
| 21 | G | 607 | CHL | C2-C3-C5-C6 |
| 21 | N | 606 | CHL | C2-C3-C5-C6 |
| 21 | Y | 606 | CHL | C2-C3-C5-C6 |
| 22 | g | 612 | CLA | C11-C10-C8-C9 |
| 22 | n | 611 | CLA | C11-C10-C8-C9 |
| 22 | G | 612 | CLA | C11-C10-C8-C9 |
| 22 | N | 611 | CLA | C11-C10-C8-C9 |
| 22 | c | 505 | CLA | C11-C10-C8-C9 |
| 22 | d | 404 | CLA | C14-C13-C15-C16 |
| 22 | w | 101 | CLA | C11-C10-C8-C9 |
| 22 | C | 506 | CLA | C11-C10-C8-C9 |
| 22 | D | 405 | CLA | C14-C13-C15-C16 |
| 22 | W | 101 | CLA | C11-C10-C8-C9 |
| 30 | d | 401 | PHO | C11-C10-C8-C9 |
| 30 | d | 401 | PHO | C14-C13-C15-C16 |
| 30 | D | 401 | PHO | C11-C10-C8-C9 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 30 | D | 401 | PHO | C14-C13-C15-C16 |
| 35 | a | 413 | DGD | O6D-C5D-C6D-O5D |
| 33 | A | 412 | SQD | C23-C24-C25-C26 |
| 26 | n | 617 | LHG | C28-C29-C30-C31 |
| 26 | y | 617 | LHG | C29-C30-C31-C32 |
| 26 | N | 618 | LHG | C24-C25-C26-C27 |
| 26 | N | 618 | LHG | C27-C28-C29-C30 |
| 26 | b | 619 | LHG | C30-C31-C32-C33 |
| 26 | b | 619 | LHG | C33-C34-C35-C36 |
| 26 | c | 521 | LHG | C27-C28-C29-C30 |
| 26 | c | 522 | LHG | C9-C10-C11-C12 |
| 26 | B | 622 | LHG | C30-C31-C32-C33 |
| 26 | B | 622 | LHG | C33-C34-C35-C36 |
| 26 | C | 521 | LHG | C27-C28-C29-C30 |
| 26 | C | 522 | LHG | C9-C10-C11-C12 |
| 35 | c | 518 | DGD | C7A-C8A-C9A-CAA |
| 35 | c | 519 | DGD | C6A-C7A-C8A-C9A |
| 35 | C | 519 | DGD | C7A-C8A-C9A-CAA |
| 36 | b | 620 | LMG | C20-C21-C22-C23 |
| 36 | B | 623 | LMG | C20-C21-C22-C23 |
| 22 | a | 404 | CLA | C15-C16-C17-C18 |
| 22 | A | 405 | CLA | C15-C16-C17-C18 |
| 21 | Y | 601 | CHL | C2A-CAA-CBA-CGA |
| 22 | s | 313 | CLA | C2A-CAA-CBA-CGA |
| 22 | S | 313 | CLA | C2A-CAA-CBA-CGA |
| 23 | g | 616 | LUT | C27-C28-C29-C39 |
| 23 | G | 616 | LUT | C27-C28-C29-C39 |
| 23 | r | 313 | LUT | C11-C12-C13-C20 |
| 23 | R | 312 | LUT | C11-C12-C13-C20 |
| 24 | g | 617 | XAT | C11-C12-C13-C20 |
| 24 | n | 615 | XAT | C31-C32-C33-C40 |
| 24 | G | 617 | XAT | C11-C12-C13-C20 |
| 24 | N | 616 | XAT | C31-C32-C33-C40 |
| 24 | r | 314 | XAT | C11-C12-C13-C20 |
| 24 | r | 314 | XAT | C27-C28-C29-C39 |
| 24 | R | 313 | XAT | C11-C12-C13-C20 |
| 25 | n | 616 | NEX | C27-C28-C29-C39 |
| 25 | y | 616 | NEX | C27-C28-C29-C39 |
| 21 | S | 302 | CHL | C4C-C3C-CAC-CBC |
| 26 | Y | 617 | LHG | C27-C28-C29-C30 |
| 26 | c | 520 | LHG | C32-C33-C34-C35 |
| 26 | C | 520 | LHG | C32-C33-C34-C35 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 35 | c | 519 | DGD | C2B-C3B-C4B-C5B |
| 35 | J | 101 | DGD | C2B-C3B-C4B-C5B |
| 36 | k | 103 | LMG | C32-C33-C34-C35 |
| 36 | B | 623 | LMG | C16-C17-C18-C19 |
| 36 | K | 103 | LMG | C32-C33-C34-C35 |
| 26 | G | 618 | LHG | O1-C1-C2-C3 |
| 26 | c | 520 | LHG | O1-C1-C2-C3 |
| 26 | d | 407 | LHG | O1-C1-C2-C3 |
| 26 | C | 520 | LHG | O1-C1-C2-C3 |
| 26 | D | 408 | LHG | O1-C1-C2-C3 |
| 26 | s | 314 | LHG | O1-C1-C2-C3 |
| 26 | S | 314 | LHG | O1-C1-C2-C3 |
| 23 | g | 615 | LUT | C31-C32-C33-C34 |
| 23 | n | 614 | LUT | C31-C32-C33-C34 |
| 23 | y | 614 | LUT | C31-C32-C33-C34 |
| 23 | G | 615 | LUT | C31-C32-C33-C34 |
| 23 | N | 614 | LUT | C31-C32-C33-C34 |
| 23 | Y | 613 | LUT | C31-C32-C33-C34 |
| 24 | y | 615 | XAT | C11-C12-C13-C14 |
| 22 | a | 405 | CLA | C3-C5-C6-C7 |
| 22 | c | 512 | CLA | C3-C5-C6-C7 |
| 22 | A | 406 | CLA | C3-C5-C6-C7 |
| 22 | C | 513 | CLA | C3-C5-C6-C7 |
| 36 | b | 620 | LMG | O9-C10-O7-C8 |
| 36 | B | 623 | LMG | O9-C10-O7-C8 |
| 22 | y | 612 | CLA | C15-C16-C17-C18 |
| 26 | s | 314 | LHG | C8-C7-O7-C5 |
| 26 | S | 314 | LHG | C8-C7-O7-C5 |
| 21 | s | 307 | CHL | C4C-C3C-CAC-CBC |
| 26 | n | 617 | LHG | C12-C13-C14-C15 |
| 26 | s | 314 | LHG | C32-C33-C34-C35 |
| 26 | S | 314 | LHG | C32-C33-C34-C35 |
| 36 | b | 620 | LMG | C16-C17-C18-C19 |
| 33 | a | 411 | SQD | C23-C24-C25-C26 |
| 26 | g | 619 | LHG | C30-C31-C32-C33 |
| 26 | G | 618 | LHG | C25-C26-C27-C28 |
| 26 | N | 618 | LHG | C10-C11-C12-C13 |
| 26 | c | 522 | LHG | C32-C33-C34-C35 |
| 33 | l | 103 | SQD | C9-C10-C11-C12 |
| 33 | L | 101 | SQD | C9-C10-C11-C12 |
| 36 | c | 523 | LMG | C14-C15-C16-C17 |
| 36 | d | 410 | LMG | C15-C16-C17-C18 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 36 | k | 103 | LMG | C38-C39-C40-C41 |
| 36 | C | 523 | LMG | C14-C15-C16-C17 |
| 36 | D | 411 | LMG | C15-C16-C17-C18 |
| 36 | K | 103 | LMG | C38-C39-C40-C41 |
| 36 | M | 101 | LMG | C32-C33-C34-C35 |
| 36 | T | 101 | LMG | C32-C33-C34-C35 |
| 35 | A | 401 | DGD | O6D-C5D-C6D-O5D |
| 21 | r | 307 | CHL | C6-C7-C8-C9 |
| 21 | R | 306 | CHL | C6-C7-C8-C9 |
| 22 | b | 611 | CLA | C16-C17-C18-C19 |
| 22 | x | 101 | CLA | C16-C17-C18-C19 |
| 22 | B | 603 | CLA | C16-C17-C18-C19 |
| 22 | B | 614 | CLA | C16-C17-C18-C19 |
| 35 | a | 413 | DGD | O6E-C1E-O5D-C6D |
| 35 | A | 401 | DGD | O6E-C1E-O5D-C6D |
| 26 | b | 619 | LHG | C26-C27-C28-C29 |
| 26 | B | 622 | LHG | C26-C27-C28-C29 |
| 26 | C | 522 | LHG | C32-C33-C34-C35 |
| 33 | l | 103 | SQD | C27-C28-C29-C30 |
| 33 | L | 101 | SQD | C27-C28-C29-C30 |
| 35 | a | 413 | DGD | C8A-C9A-CAA-CBA |
| 35 | A | 401 | DGD | C8A-C9A-CAA-CBA |
| 36 | b | 620 | LMG | C34-C35-C36-C37 |
| 36 | B | 623 | LMG | C34-C35-C36-C37 |
| 35 | a | 413 | DGD | C4D-C5D-C6D-O5D |
| 35 | A | 401 | DGD | C4D-C5D-C6D-O5D |
| 26 | g | 619 | LHG | C11-C12-C13-C14 |
| 26 | c | 521 | LHG | C13-C14-C15-C16 |
| 26 | c | 522 | LHG | C13-C14-C15-C16 |
| 26 | C | 521 | LHG | C13-C14-C15-C16 |
| 26 | C | 522 | LHG | C13-C14-C15-C16 |
| 26 | C | 522 | LHG | C30-C31-C32-C33 |
| 33 | l | 101 | SQD | C12-C13-C14-C15 |
| 33 | L | 102 | SQD | C12-C13-C14-C15 |
| 35 | c | 517 | DGD | C4A-C5A-C6A-C7A |
| 35 | c | 519 | DGD | C7B-C8B-C9B-CAB |
| 35 | A | 401 | DGD | C4A-C5A-C6A-C7A |
| 35 | C | 518 | DGD | C4A-C5A-C6A-C7A |
| 35 | J | 101 | DGD | C7B-C8B-C9B-CAB |
| 36 | k | 103 | LMG | C18-C19-C20-C21 |
| 36 | k | 103 | LMG | C30-C31-C32-C33 |
| 36 | K | 103 | LMG | C18-C19-C20-C21 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 36 | K | 103 | LMG | C30-C31-C32-C33 |
| 36 | M | 101 | LMG | C16-C17-C18-C19 |
| 36 | T | 101 | LMG | C16-C17-C18-C19 |
| 26 | c | 522 | LHG | C30-C31-C32-C33 |
| 33 | a | 411 | SQD | C14-C15-C16-C17 |
| 33 | A | 412 | SQD | C14-C15-C16-C17 |
| 35 | a | 413 | DGD | C4A-C5A-C6A-C7A |
| 36 | b | 620 | LMG | C31-C32-C33-C34 |
| 36 | B | 623 | LMG | C31-C32-C33-C34 |
| 22 | c | 513 | CLA | CBA-CGA-O2A-C1 |
| 26 | n | 617 | LHG | C24-C23-O8-C6 |
| 26 | G | 618 | LHG | C16-C17-C18-C19 |
| 26 | s | 314 | LHG | C30-C31-C32-C33 |
| 26 | S | 314 | LHG | C30-C31-C32-C33 |
| 35 | a | 413 | DGD | C2A-C3A-C4A-C5A |
| 35 | A | 401 | DGD | C2A-C3A-C4A-C5A |
| 21 | g | 605 | CHL | C3A-C2A-CAA-CBA |
| 21 | y | 605 | CHL | C3A-C2A-CAA-CBA |
| 21 | G | 605 | CHL | C3A-C2A-CAA-CBA |
| 21 | r | 301 | CHL | C3A-C2A-CAA-CBA |
| 21 | r | 306 | CHL | C3A-C2A-CAA-CBA |
| 21 | r | 307 | CHL | C3A-C2A-CAA-CBA |
| 21 | S | 301 | CHL | C3A-C2A-CAA-CBA |
| 21 | R | 305 | CHL | C3A-C2A-CAA-CBA |
| 21 | R | 306 | CHL | C3A-C2A-CAA-CBA |
| 22 | g | 610 | CLA | C3A-C2A-CAA-CBA |
| 22 | g | 613 | CLA | C3A-C2A-CAA-CBA |
| 22 | n | 609 | CLA | C3A-C2A-CAA-CBA |
| 22 | n | 612 | CLA | C3A-C2A-CAA-CBA |
| 22 | y | 610 | CLA | C3A-C2A-CAA-CBA |
| 22 | y | 612 | CLA | C3A-C2A-CAA-CBA |
| 22 | G | 610 | CLA | C3A-C2A-CAA-CBA |
| 22 | G | 613 | CLA | C3A-C2A-CAA-CBA |
| 22 | N | 609 | CLA | C3A-C2A-CAA-CBA |
| 22 | N | 612 | CLA | C3A-C2A-CAA-CBA |
| 22 | Y | 609 | CLA | C3A-C2A-CAA-CBA |
| 22 | Y | 611 | CLA | C3A-C2A-CAA-CBA |
| 22 | b | 614 | CLA | C3A-C2A-CAA-CBA |
| 22 | c | 511 | CLA | C3A-C2A-CAA-CBA |
| 22 | x | 101 | CLA | C3A-C2A-CAA-CBA |
| 22 | B | 603 | CLA | C3A-C2A-CAA-CBA |
| 22 | B | 617 | CLA | C3A-C2A-CAA-CBA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | C | 512 | CLA | C3A-C2A-CAA-CBA |
| 22 | s | 304 | CLA | C3A-C2A-CAA-CBA |
| 22 | S | 304 | CLA | C3A-C2A-CAA-CBA |
| 30 | a | 407 | PHO | C3A-C2A-CAA-CBA |
| 30 | A | 408 | PHO | C3A-C2A-CAA-CBA |
| 22 | g | 603 | CLA | C8-C10-C11-C12 |
| 22 | n | 603 | CLA | C8-C10-C11-C12 |
| 22 | y | 603 | CLA | C8-C10-C11-C12 |
| 22 | G | 603 | CLA | C8-C10-C11-C12 |
| 22 | N | 603 | CLA | C8-C10-C11-C12 |
| 22 | Y | 603 | CLA | C8-C10-C11-C12 |
| 30 | a | 407 | PHO | C5-C6-C7-C8 |
| 30 | A | 408 | PHO | C5-C6-C7-C8 |
| 24 | g | 617 | XAT | C29-C30-C31-C32 |
| 26 | b | 619 | LHG | C27-C28-C29-C30 |
| 26 | B | 622 | LHG | C27-C28-C29-C30 |
| 35 | c | 519 | DGD | C4A-C5A-C6A-C7A |
| 35 | J | 101 | DGD | C4A-C5A-C6A-C7A |
| 36 | b | 620 | LMG | C15-C16-C17-C18 |
| 36 | k | 103 | LMG | C29-C30-C31-C32 |
| 36 | K | 103 | LMG | C29-C30-C31-C32 |
| 26 | c | 520 | LHG | O10-C23-O8-C6 |
| 26 | C | 520 | LHG | O10-C23-O8-C6 |
| 22 | x | 101 | CLA | C16-C17-C18-C20 |
| 22 | B | 603 | CLA | C16-C17-C18-C20 |
| 21 | s | 302 | CHL | C4C-C3C-CAC-CBC |
| 26 | l | 102 | LHG | C12-C13-C14-C15 |
| 26 | D | 410 | LHG | C29-C30-C31-C32 |
| 26 | L | 103 | LHG | C12-C13-C14-C15 |
| 36 | b | 620 | LMG | C38-C39-C40-C41 |
| 36 | B | 623 | LMG | C15-C16-C17-C18 |
| 36 | B | 623 | LMG | C38-C39-C40-C41 |
| 36 | M | 101 | LMG | C34-C35-C36-C37 |
| 36 | T | 101 | LMG | C34-C35-C36-C37 |
| 26 | d | 409 | LHG | C29-C30-C31-C32 |
| 33 | a | 411 | SQD | C11-C12-C13-C14 |
| 33 | A | 412 | SQD | C11-C12-C13-C14 |
| 36 | c | 523 | LMG | C19-C20-C21-C22 |
| 36 | C | 523 | LMG | C19-C20-C21-C22 |
| 33 | l | 103 | SQD | C25-C26-C27-C28 |
| 33 | L | 101 | SQD | C25-C26-C27-C28 |
| 22 | d | 404 | CLA | O1A-CGA-O2A-C1 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | D | 405 | CLA | O1A-CGA-O2A-C1 |
| 22 | C | 514 | CLA | CBA-CGA-O2A-C1 |
| 26 | r | 302 | LHG | C5-C6-O8-C23 |
| 26 | R | 301 | LHG | C5-C6-O8-C23 |
| 26 | g | 619 | LHG | C29-C30-C31-C32 |
| 26 | n | 617 | LHG | O1-C1-C2-O2 |
| 26 | N | 618 | LHG | O1-C1-C2-O2 |
| 26 | c | 522 | LHG | O1-C1-C2-O2 |
| 26 | C | 522 | LHG | O1-C1-C2-O2 |
| 36 | c | 523 | LMG | C12-C13-C14-C15 |
| 36 | k | 103 | LMG | C16-C17-C18-C19 |
| 36 | C | 523 | LMG | C12-C13-C14-C15 |
| 36 | K | 103 | LMG | C16-C17-C18-C19 |
| 22 | a | 405 | CLA | C16-C17-C18-C19 |
| 22 | A | 406 | CLA | C16-C17-C18-C19 |
| 26 | d | 409 | LHG | C15-C16-C17-C18 |
| 26 | c | 520 | LHG | O2-C2-C3-O3 |
| 22 | Y | 612 | CLA | O1D-CGD-O2D-CED |
| 26 | D | 410 | LHG | C15-C16-C17-C18 |
| 26 | c | 520 | LHG | C30-C31-C32-C33 |
| 36 | M | 101 | LMG | C28-C29-C30-C31 |
| 36 | T | 101 | LMG | C28-C29-C30-C31 |
| 26 | g | 619 | LHG | C33-C34-C35-C36 |
| 26 | C | 520 | LHG | C30-C31-C32-C33 |
| 26 | N | 618 | LHG | O9-C7-O7-C5 |
| 22 | n | 613 | CLA | O1D-CGD-O2D-CED |
| 22 | G | 614 | CLA | O1D-CGD-O2D-CED |
| 26 | n | 617 | LHG | C11-C12-C13-C14 |
| 26 | G | 618 | LHG | C17-C18-C19-C20 |
| 35 | c | 517 | DGD | C2B-C3B-C4B-C5B |
| 35 | h | 102 | DGD | C4B-C5B-C6B-C7B |
| 35 | C | 518 | DGD | C2B-C3B-C4B-C5B |
| 35 | H | 102 | DGD | C4B-C5B-C6B-C7B |
| 36 | w | 102 | LMG | C18-C19-C20-C21 |
| 36 | C | 502 | LMG | C18-C19-C20-C21 |
| 22 | d | 404 | CLA | C10-C11-C12-C13 |
| 22 | D | 405 | CLA | C10-C11-C12-C13 |
| 22 | c | 502 | CLA | O1A-CGA-O2A-C1 |
| 22 | C | 503 | CLA | O1A-CGA-O2A-C1 |
| 22 | s | 303 | CLA | O1A-CGA-O2A-C1 |
| 22 | S | 303 | CLA | O1A-CGA-O2A-C1 |
| 26 | n | 617 | LHG | C33-C34-C35-C36 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | y | 617 | LHG | C27-C28-C29-C30 |
| 26 | y | 617 | LHG | C33-C34-C35-C36 |
| 22 | c | 513 | CLA | C16-C17-C18-C19 |
| 22 | C | 514 | CLA | C16-C17-C18-C19 |
| 23 | g | 615 | LUT | C5-C6-C7-C8 |
| 23 | n | 614 | LUT | C5-C6-C7-C8 |
| 23 | y | 614 | LUT | C5-C6-C7-C8 |
| 23 | G | 615 | LUT | C5-C6-C7-C8 |
| 23 | N | 614 | LUT | C5-C6-C7-C8 |
| 23 | Y | 613 | LUT | C5-C6-C7-C8 |
| 31 | a | 409 | BCR | C1-C6-C7-C8 |
| 31 | b | 616 | BCR | C1-C6-C7-C8 |
| 31 | b | 616 | BCR | C5-C6-C7-C8 |
| 31 | c | 515 | BCR | C1-C6-C7-C8 |
| 31 | c | 515 | BCR | C5-C6-C7-C8 |
| 31 | c | 515 | BCR | C23-C24-C25-C30 |
| 31 | c | 516 | BCR | C23-C24-C25-C30 |
| 31 | d | 405 | BCR | C5-C6-C7-C8 |
| 31 | d | 405 | BCR | C23-C24-C25-C30 |
| 31 | h | 101 | BCR | C1-C6-C7-C8 |
| 31 | k | 101 | BCR | C1-C6-C7-C8 |
| 31 | k | 102 | BCR | C5-C6-C7-C8 |
| 31 | A | 410 | BCR | C1-C6-C7-C8 |
| 31 | A | 410 | BCR | C5-C6-C7-C8 |
| 31 | B | 602 | BCR | C5-C6-C7-C8 |
| 31 | B | 619 | BCR | C1-C6-C7-C8 |
| 31 | B | 619 | BCR | C5-C6-C7-C8 |
| 31 | C | 516 | BCR | C1-C6-C7-C8 |
| 31 | C | 516 | BCR | C5-C6-C7-C8 |
| 31 | C | 516 | BCR | C23-C24-C25-C30 |
| 31 | C | 517 | BCR | C23-C24-C25-C30 |
| 31 | D | 406 | BCR | C5-C6-C7-C8 |
| 31 | D | 406 | BCR | C23-C24-C25-C30 |
| 31 | H | 101 | BCR | C1-C6-C7-C8 |
| 31 | K | 101 | BCR | C1-C6-C7-C8 |
| 31 | K | 102 | BCR | C5-C6-C7-C8 |
| 31 | T | 102 | BCR | C5-C6-C7-C8 |
| 26 | s | 314 | LHG | C24-C25-C26-C27 |
| 22 | g | 614 | CLA | O1D-CGD-O2D-CED |
| 22 | y | 613 | CLA | O1D-CGD-O2D-CED |
| 22 | N | 613 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 503 | CLA | CBA-CGA-O2A-C1 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | C | 504 | CLA | CBA-CGA-O2A-C1 |
| 26 | G | 618 | LHG | C24-C23-O8-C6 |
| 22 | c | 508 | CLA | C13-C15-C16-C17 |
| 22 | C | 509 | CLA | C13-C15-C16-C17 |
| 30 | a | 407 | PHO | C13-C15-C16-C17 |
| 30 | A | 408 | PHO | C13-C15-C16-C17 |
| 33 | d | 402 | SQD | C8-C7-O47-C45 |
| 33 | D | 402 | SQD | C8-C7-O47-C45 |
| 26 | S | 314 | LHG | C24-C25-C26-C27 |
| 36 | k | 103 | LMG | C28-C29-C30-C31 |
| 36 | K | 103 | LMG | C28-C29-C30-C31 |
| 26 | N | 618 | LHG | C28-C29-C30-C31 |
| 35 | c | 517 | DGD | C6B-C7B-C8B-C9B |
| 35 | C | 518 | DGD | C6B-C7B-C8B-C9B |
| 36 | b | 620 | LMG | C37-C38-C39-C40 |
| 36 | B | 623 | LMG | C37-C38-C39-C40 |
| 26 | l | 102 | LHG | C32-C33-C34-C35 |
| 26 | L | 103 | LHG | C32-C33-C34-C35 |
| 22 | b | 602 | CLA | C4-C3-C5-C6 |
| 22 | B | 605 | CLA | C4-C3-C5-C6 |
| 21 | r | 308 | CHL | C6-C7-C8-C10 |
| 21 | R | 307 | CHL | C6-C7-C8-C10 |
| 22 | g | 612 | CLA | C6-C7-C8-C10 |
| 22 | n | 611 | CLA | C6-C7-C8-C10 |
| 22 | G | 612 | CLA | C6-C7-C8-C10 |
| 22 | N | 611 | CLA | C6-C7-C8-C10 |
| 22 | b | 614 | CLA | C12-C13-C15-C16 |
| 22 | c | 505 | CLA | C11-C10-C8-C7 |
| 22 | c | 511 | CLA | C2-C3-C5-C6 |
| 22 | c | 511 | CLA | C11-C12-C13-C15 |
| 22 | d | 404 | CLA | C12-C13-C15-C16 |
| 22 | w | 101 | CLA | C6-C7-C8-C10 |
| 22 | B | 617 | CLA | C12-C13-C15-C16 |
| 22 | C | 506 | CLA | C11-C10-C8-C7 |
| 22 | C | 512 | CLA | C2-C3-C5-C6 |
| 22 | C | 512 | CLA | C11-C12-C13-C15 |
| 22 | D | 405 | CLA | C12-C13-C15-C16 |
| 22 | W | 101 | CLA | C6-C7-C8-C10 |
| 30 | d | 401 | PHO | C11-C10-C8-C7 |
| 30 | d | 401 | PHO | C12-C13-C15-C16 |
| 30 | D | 401 | PHO | C11-C10-C8-C7 |
| 30 | D | 401 | PHO | C12-C13-C15-C16 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | c | 513 | CLA | O1A-CGA-O2A-C1 |
| 22 | C | 514 | CLA | O1A-CGA-O2A-C1 |
| 21 | g | 608 | CHL | C2C-C3C-CAC-CBC |
| 21 | G | 608 | CHL | C2C-C3C-CAC-CBC |
| 35 | a | 413 | DGD | C7B-C8B-C9B-CAB |
| 35 | A | 401 | DGD | C7B-C8B-C9B-CAB |
| 24 | y | 615 | XAT | C33-C34-C35-C15 |
| 21 | G | 608 | CHL | C16-C17-C18-C20 |
| 21 | N | 607 | CHL | C16-C17-C18-C20 |
| 21 | Y | 607 | CHL | C2C-C3C-CAC-CBC |
| 36 | k | 103 | LMG | C17-C18-C19-C20 |
| 36 | K | 103 | LMG | C17-C18-C19-C20 |
| 21 | g | 601 | CHL | C2A-CAA-CBA-CGA |
| 21 | n | 601 | CHL | C2A-CAA-CBA-CGA |
| 21 | y | 601 | CHL | C2A-CAA-CBA-CGA |
| 21 | y | 605 | CHL | C2A-CAA-CBA-CGA |
| 21 | G | 601 | CHL | C2A-CAA-CBA-CGA |
| 21 | N | 601 | CHL | C2A-CAA-CBA-CGA |
| 22 | g | 614 | CLA | C2A-CAA-CBA-CGA |
| 22 | n | 613 | CLA | C2A-CAA-CBA-CGA |
| 22 | y | 613 | CLA | C2A-CAA-CBA-CGA |
| 22 | G | 614 | CLA | C2A-CAA-CBA-CGA |
| 22 | N | 613 | CLA | C2A-CAA-CBA-CGA |
| 22 | Y | 612 | CLA | C2A-CAA-CBA-CGA |
| 22 | r | 310 | CLA | C2A-CAA-CBA-CGA |
| 22 | s | 310 | CLA | C2A-CAA-CBA-CGA |
| 22 | S | 310 | CLA | C2A-CAA-CBA-CGA |
| 22 | R | 309 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 610 | CLA | C5-C6-C7-C8 |
| 22 | B | 613 | CLA | C5-C6-C7-C8 |
| 21 | n | 607 | CHL | C2C-C3C-CAC-CBC |
| 21 | y | 608 | CHL | C2C-C3C-CAC-CBC |
| 21 | N | 607 | CHL | C2C-C3C-CAC-CBC |
| 26 | Y | 617 | LHG | C30-C31-C32-C33 |
| 22 | B | 607 | CLA | C8-C10-C11-C12 |
| 26 | c | 521 | LHG | C28-C29-C30-C31 |
| 26 | C | 521 | LHG | C28-C29-C30-C31 |
| 33 | a | 411 | SQD | C10-C11-C12-C13 |
| 33 | A | 412 | SQD | C10-C11-C12-C13 |
| 35 | c | 518 | DGD | C6A-C7A-C8A-C9A |
| 35 | C | 519 | DGD | C6A-C7A-C8A-C9A |
| 26 | y | 617 | LHG | C28-C29-C30-C31 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 31 | a | 409 | BCR | C6-C7-C8-C9 |
| 31 | A | 410 | BCR | C6-C7-C8-C9 |
| 21 | g | 608 | CHL | C16-C17-C18-C20 |
| 21 | n | 607 | CHL | C16-C17-C18-C20 |
| 21 | y | 608 | CHL | C16-C17-C18-C20 |
| 21 | Y | 607 | CHL | C16-C17-C18-C20 |
| 22 | r | 312 | CLA | C11-C12-C13-C14 |
| 22 | R | 311 | CLA | C11-C12-C13-C14 |
| 21 | N | 608 | CHL | C13-C15-C16-C17 |
| 22 | b | 604 | CLA | C8-C10-C11-C12 |
| 26 | N | 618 | LHG | C11-C10-C9-C8 |
| 26 | Y | 617 | LHG | C15-C16-C17-C18 |
| 33 | l | 103 | SQD | C14-C15-C16-C17 |
| 33 | L | 101 | SQD | C14-C15-C16-C17 |
| 36 | w | 102 | LMG | C30-C31-C32-C33 |
| 36 | C | 502 | LMG | C30-C31-C32-C33 |
| 26 | d | 409 | LHG | C7-C8-C9-C10 |
| 26 | D | 410 | LHG | C7-C8-C9-C10 |
| 26 | G | 618 | LHG | C8-C7-O7-C5 |
| 35 | c | 518 | DGD | C2B-C1B-O2G-C2G |
| 35 | C | 519 | DGD | C2B-C1B-O2G-C2G |
| 26 | d | 409 | LHG | C24-C25-C26-C27 |
| 26 | r | 302 | LHG | C26-C27-C28-C29 |
| 26 | R | 301 | LHG | C26-C27-C28-C29 |
| 36 | D | 411 | LMG | C18-C19-C20-C21 |
| 26 | D | 410 | LHG | C24-C25-C26-C27 |
| 36 | d | 410 | LMG | C18-C19-C20-C21 |
| 26 | s | 314 | LHG | O9-C7-O7-C5 |
| 26 | S | 314 | LHG | O9-C7-O7-C5 |
| 35 | c | 519 | DGD | O1B-C1B-O2G-C2G |
| 35 | J | 101 | DGD | O1B-C1B-O2G-C2G |
| 33 | a | 411 | SQD | C2-C1-O6-C44 |
| 33 | A | 412 | SQD | C2-C1-O6-C44 |
| 26 | d | 408 | LHG | O7-C5-C6-O8 |
| 26 | D | 409 | LHG | O7-C5-C6-O8 |
| 26 | l | 102 | LHG | C33-C34-C35-C36 |
| 26 | L | 103 | LHG | C33-C34-C35-C36 |
| 26 | s | 314 | LHG | C15-C16-C17-C18 |
| 26 | S | 314 | LHG | C15-C16-C17-C18 |
| 35 | c | 519 | DGD | C5A-C6A-C7A-C8A |
| 35 | J | 101 | DGD | C5A-C6A-C7A-C8A |
| 22 | c | 511 | CLA | C4-C3-C5-C6 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | C | 512 | CLA | C4-C3-C5-C6 |
| 26 | n | 617 | LHG | C23-C24-C25-C26 |
| 22 | c | 514 | CLA | C2-C3-C5-C6 |
| 22 | C | 515 | CLA | C2-C3-C5-C6 |
| 22 | s | 309 | CLA | C2-C3-C5-C6 |
| 22 | S | 309 | CLA | C2-C3-C5-C6 |
| 32 | a | 410 | PL9 | C4-C3-C7-C8 |
| 32 | A | 411 | PL9 | C4-C3-C7-C8 |
| 21 | r | 308 | CHL | C6-C7-C8-C9 |
| 21 | R | 307 | CHL | C6-C7-C8-C9 |
| 22 | g | 610 | CLA | C6-C7-C8-C9 |
| 22 | n | 609 | CLA | C6-C7-C8-C9 |
| 22 | y | 610 | CLA | C6-C7-C8-C9 |
| 22 | G | 610 | CLA | C6-C7-C8-C9 |
| 22 | N | 609 | CLA | C6-C7-C8-C9 |
| 22 | Y | 609 | CLA | C6-C7-C8-C9 |
| 22 | b | 610 | CLA | C11-C10-C8-C9 |
| 22 | b | 611 | CLA | C6-C7-C8-C9 |
| 22 | b | 614 | CLA | C14-C13-C15-C16 |
| 22 | c | 504 | CLA | C11-C10-C8-C9 |
| 22 | c | 511 | CLA | C11-C12-C13-C14 |
| 22 | B | 613 | CLA | C11-C10-C8-C9 |
| 22 | B | 614 | CLA | C6-C7-C8-C9 |
| 22 | B | 617 | CLA | C14-C13-C15-C16 |
| 22 | C | 505 | CLA | C11-C10-C8-C9 |
| 22 | C | 512 | CLA | C11-C12-C13-C14 |
| 26 | n | 617 | LHG | C11-C10-C9-C8 |
| 26 | d | 409 | LHG | C28-C29-C30-C31 |
| 26 | D | 410 | LHG | C28-C29-C30-C31 |
| 33 | l | 101 | SQD | C10-C11-C12-C13 |
| 33 | L | 102 | SQD | C10-C11-C12-C13 |
| 21 | r | 308 | CHL | C2A-CAA-CBA-CGA |
| 21 | R | 307 | CHL | C2A-CAA-CBA-CGA |
| 22 | g | 613 | CLA | C2A-CAA-CBA-CGA |
| 22 | n | 612 | CLA | C2A-CAA-CBA-CGA |
| 22 | y | 612 | CLA | C2A-CAA-CBA-CGA |
| 22 | G | 613 | CLA | C2A-CAA-CBA-CGA |
| 22 | N | 612 | CLA | C2A-CAA-CBA-CGA |
| 22 | Y | 611 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 601 | CLA | C2A-CAA-CBA-CGA |
| 22 | B | 604 | CLA | C2A-CAA-CBA-CGA |
| 21 | r | 306 | CHL | C8-C10-C11-C12 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | R | 305 | CHL | C8-C10-C11-C12 |
| 22 | a | 405 | CLA | C13-C15-C16-C17 |
| 22 | A | 406 | CLA | C13-C15-C16-C17 |
| 26 | Y | 617 | LHG | C17-C18-C19-C20 |
| 26 | c | 522 | LHG | C25-C26-C27-C28 |
| 26 | l | 102 | LHG | C29-C30-C31-C32 |
| 26 | C | 522 | LHG | C25-C26-C27-C28 |
| 26 | L | 103 | LHG | C29-C30-C31-C32 |
| 23 | r | 313 | LUT | C7-C8-C9-C10 |
| 23 | R | 312 | LUT | C7-C8-C9-C10 |
| 22 | C | 504 | CLA | O1A-CGA-O2A-C1 |
| 21 | g | 605 | CHL | C1A-C2A-CAA-CBA |
| 21 | G | 605 | CHL | C1A-C2A-CAA-CBA |
| 21 | r | 306 | CHL | C1A-C2A-CAA-CBA |
| 21 | r | 307 | CHL | C1A-C2A-CAA-CBA |
| 21 | s | 307 | CHL | C1A-C2A-CAA-CBA |
| 21 | S | 307 | CHL | C1A-C2A-CAA-CBA |
| 21 | R | 305 | CHL | C1A-C2A-CAA-CBA |
| 21 | R | 306 | CHL | C1A-C2A-CAA-CBA |
| 22 | a | 405 | CLA | C1A-C2A-CAA-CBA |
| 22 | b | 614 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 506 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 511 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 512 | CLA | C1A-C2A-CAA-CBA |
| 22 | x | 101 | CLA | C1A-C2A-CAA-CBA |
| 22 | A | 406 | CLA | C1A-C2A-CAA-CBA |
| 22 | B | 603 | CLA | C1A-C2A-CAA-CBA |
| 22 | B | 617 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 507 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 512 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 513 | CLA | C1A-C2A-CAA-CBA |
| 22 | r | 305 | CLA | C1A-C2A-CAA-CBA |
| 22 | r | 310 | CLA | C1A-C2A-CAA-CBA |
| 22 | s | 304 | CLA | C1A-C2A-CAA-CBA |
| 22 | s | 309 | CLA | C1A-C2A-CAA-CBA |
| 22 | s | 313 | CLA | C1A-C2A-CAA-CBA |
| 22 | S | 304 | CLA | C1A-C2A-CAA-CBA |
| 22 | S | 309 | CLA | C1A-C2A-CAA-CBA |
| 22 | S | 313 | CLA | C1A-C2A-CAA-CBA |
| 22 | R | 304 | CLA | C1A-C2A-CAA-CBA |
| 22 | R | 309 | CLA | C1A-C2A-CAA-CBA |
| 21 | g | 609 | CHL | C11-C12-C13-C15 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | G | 609 | CHL | C11-C12-C13-C15 |
| 21 | r | 306 | CHL | C16-C17-C18-C19 |
| 21 | R | 305 | CHL | C16-C17-C18-C19 |
| 22 | r | 312 | CLA | C11-C12-C13-C15 |
| 22 | R | 311 | CLA | C11-C12-C13-C15 |
| 26 | b | 619 | LHG | C8-C7-O7-C5 |
| 26 | B | 622 | LHG | C8-C7-O7-C5 |
| 26 | d | 409 | LHG | C12-C13-C14-C15 |
| 26 | D | 410 | LHG | C12-C13-C14-C15 |
| 36 | B | 601 | LMG | C32-C33-C34-C35 |
| 36 | I | 101 | LMG | C32-C33-C34-C35 |
| 22 | C | 509 | CLA | C5-C6-C7-C8 |
| 26 | d | 407 | LHG | C4-O6-P-O3 |
| 26 | d | 408 | LHG | C4-O6-P-O3 |
| 26 | D | 408 | LHG | C4-O6-P-O3 |
| 26 | D | 409 | LHG | C4-O6-P-O3 |
| 26 | C | 520 | LHG | C33-C34-C35-C36 |
| 36 | B | 601 | LMG | C38-C39-C40-C41 |
| 36 | I | 101 | LMG | C38-C39-C40-C41 |
| 26 | N | 618 | LHG | C23-C24-C25-C26 |
| 26 | c | 520 | LHG | C33-C34-C35-C36 |
| 22 | c | 503 | CLA | O1A-CGA-O2A-C1 |
| 22 | b | 610 | CLA | CBA-CGA-O2A-C1 |
| 22 | B | 613 | CLA | CBA-CGA-O2A-C1 |
| 33 | a | 411 | SQD | C18-C19-C20-C21 |
| 35 | H | 102 | DGD | C8A-C9A-CAA-CBA |
| 33 | A | 412 | SQD | C18-C19-C20-C21 |
| 35 | h | 102 | DGD | C8A-C9A-CAA-CBA |
| 36 | k | 103 | LMG | C14-C15-C16-C17 |
| 36 | K | 103 | LMG | C14-C15-C16-C17 |
| 22 | c | 508 | CLA | C5-C6-C7-C8 |
| 26 | s | 314 | LHG | C33-C34-C35-C36 |
| 26 | S | 314 | LHG | C33-C34-C35-C36 |
| 26 | n | 617 | LHG | C32-C33-C34-C35 |
| 35 | c | 517 | DGD | C5A-C6A-C7A-C8A |
| 35 | C | 518 | DGD | C5A-C6A-C7A-C8A |
| 36 | k | 103 | LMG | C34-C35-C36-C37 |
| 36 | K | 103 | LMG | C34-C35-C36-C37 |
| 22 | b | 608 | CLA | C8-C10-C11-C12 |
| 22 | B | 611 | CLA | C8-C10-C11-C12 |
| 36 | B | 601 | LMG | C4-C5-C6-O5 |
| 36 | I | 101 | LMG | C4-C5-C6-O5 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | G | 618 | LHG | C31-C32-C33-C34 |
| 35 | c | 517 | DGD | C5B-C6B-C7B-C8B |
| 35 | c | 518 | DGD | C5A-C6A-C7A-C8A |
| 35 | C | 519 | DGD | C5A-C6A-C7A-C8A |
| 26 | S | 314 | LHG | C24-C23-O8-C6 |
| 22 | g | 612 | CLA | C4-C3-C5-C6 |
| 22 | n | 611 | CLA | C4-C3-C5-C6 |
| 22 | G | 612 | CLA | C4-C3-C5-C6 |
| 22 | N | 611 | CLA | C4-C3-C5-C6 |
| 22 | w | 101 | CLA | C4-C3-C5-C6 |
| 22 | W | 101 | CLA | C4-C3-C5-C6 |
| 26 | c | 522 | LHG | C27-C28-C29-C30 |
| 26 | C | 522 | LHG | C27-C28-C29-C30 |
| 35 | C | 518 | DGD | C5B-C6B-C7B-C8B |
| 22 | g | 610 | CLA | C5-C6-C7-C8 |
| 22 | n | 609 | CLA | C5-C6-C7-C8 |
| 22 | G | 610 | CLA | C5-C6-C7-C8 |
| 22 | Y | 609 | CLA | C5-C6-C7-C8 |
| 36 | D | 411 | LMG | O6-C5-C6-O5 |
| 22 | g | 610 | CLA | C15-C16-C17-C18 |
| 26 | y | 617 | LHG | C24-C25-C26-C27 |
| 26 | c | 520 | LHG | C11-C10-C9-C8 |
| 26 | C | 520 | LHG | C11-C10-C9-C8 |
| 35 | a | 413 | DGD | C4B-C5B-C6B-C7B |
| 35 | A | 401 | DGD | C4B-C5B-C6B-C7B |
| 22 | y | 610 | CLA | C5-C6-C7-C8 |
| 22 | N | 609 | CLA | C5-C6-C7-C8 |
| 22 | c | 502 | CLA | C15-C16-C17-C18 |
| 22 | C | 503 | CLA | C15-C16-C17-C18 |
| 21 | g | 607 | CHL | C3-C5-C6-C7 |
| 21 | n | 606 | CHL | C3-C5-C6-C7 |
| 21 | y | 607 | CHL | C3-C5-C6-C7 |
| 21 | G | 607 | CHL | C3-C5-C6-C7 |
| 21 | N | 606 | CHL | C3-C5-C6-C7 |
| 21 | Y | 606 | CHL | C3-C5-C6-C7 |
| 26 | n | 617 | LHG | C19-C20-C21-C22 |
| 26 | Y | 617 | LHG | C4-C5-C6-O8 |
| 26 | b | 619 | LHG | C4-C5-C6-O8 |
| 26 | c | 520 | LHG | C16-C17-C18-C19 |
| 26 | c | 522 | LHG | C4-C5-C6-O8 |
| 26 | d | 407 | LHG | C27-C28-C29-C30 |
| 26 | d | 408 | LHG | C4-C5-C6-O8 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | B | 622 | LHG | C4-C5-C6-O8 |
| 26 | C | 520 | LHG | C16-C17-C18-C19 |
| 26 | C | 522 | LHG | C4-C5-C6-O8 |
| 26 | D | 408 | LHG | C27-C28-C29-C30 |
| 26 | D | 409 | LHG | C4-C5-C6-O8 |
| 33 | l | 103 | SQD | O6-C44-C45-C46 |
| 33 | L | 101 | SQD | O6-C44-C45-C46 |
| 36 | c | 523 | LMG | C7-C8-C9-O8 |
| 36 | B | 601 | LMG | C7-C8-C9-O8 |
| 36 | C | 523 | LMG | C7-C8-C9-O8 |
| 36 | I | 101 | LMG | C7-C8-C9-O8 |
| 26 | s | 314 | LHG | C24-C23-O8-C6 |
| 35 | a | 413 | DGD | O6E-C5E-C6E-O5E |
| 35 | A | 401 | DGD | O6E-C5E-C6E-O5E |
| 36 | d | 410 | LMG | O6-C5-C6-O5 |
| 22 | g | 613 | CLA | C13-C15-C16-C17 |
| 26 | y | 617 | LHG | C12-C13-C14-C15 |
| 26 | c | 521 | LHG | C32-C33-C34-C35 |
| 26 | C | 521 | LHG | C32-C33-C34-C35 |
| 35 | c | 518 | DGD | C2G-C3G-O3G-C1D |
| 35 | C | 519 | DGD | C2G-C3G-O3G-C1D |
| 22 | s | 311 | CLA | C11-C10-C8-C9 |
| 22 | S | 311 | CLA | C11-C10-C8-C9 |
| 26 | G | 618 | LHG | C24-C25-C26-C27 |
| 26 | G | 618 | LHG | C27-C28-C29-C30 |
| 21 | g | 606 | CHL | CAA-CBA-CGA-O2A |
| 21 | n | 605 | CHL | CAA-CBA-CGA-O2A |
| 21 | y | 606 | CHL | CAA-CBA-CGA-O2A |
| 21 | G | 606 | CHL | CAA-CBA-CGA-O2A |
| 21 | N | 605 | CHL | CAA-CBA-CGA-O2A |
| 21 | Y | 605 | CHL | CAA-CBA-CGA-O2A |
| 22 | b | 614 | CLA | C3-C5-C6-C7 |
| 22 | B | 617 | CLA | C3-C5-C6-C7 |
| 32 | d | 406 | PL9 | C44-C46-C47-C48 |
| 26 | c | 520 | LHG | O1-C1-C2-O2 |
| 26 | d | 407 | LHG | O1-C1-C2-O2 |
| 26 | l | 102 | LHG | O1-C1-C2-O2 |
| 26 | C | 520 | LHG | O1-C1-C2-O2 |
| 26 | D | 408 | LHG | O1-C1-C2-O2 |
| 26 | L | 103 | LHG | O1-C1-C2-O2 |
| 26 | b | 619 | LHG | C11-C10-C9-C8 |
| 26 | l | 102 | LHG | C30-C31-C32-C33 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | G | 613 | CLA | C15-C16-C17-C18 |
| 26 | B | 622 | LHG | C11-C10-C9-C8 |
| 26 | L | 103 | LHG | C30-C31-C32-C33 |
| 22 | S | 313 | CLA | O1D-CGD-O2D-CED |
| 26 | c | 522 | LHG | C8-C7-O7-C5 |
| 26 | C | 522 | LHG | C8-C7-O7-C5 |
| 22 | s | 313 | CLA | O1D-CGD-O2D-CED |
| 21 | r | 306 | CHL | C5-C6-C7-C8 |
| 22 | b | 614 | CLA | C13-C15-C16-C17 |
| 22 | c | 508 | CLA | C10-C11-C12-C13 |
| 22 | C | 509 | CLA | C10-C11-C12-C13 |
| 22 | C | 515 | CLA | C8-C10-C11-C12 |
| 22 | r | 312 | CLA | C10-C11-C12-C13 |
| 22 | R | 311 | CLA | C10-C11-C12-C13 |
| 31 | k | 101 | BCR | C16-C17-C18-C36 |
| 31 | B | 602 | BCR | C20-C21-C22-C37 |
| 31 | K | 101 | BCR | C16-C17-C18-C36 |
| 31 | T | 102 | BCR | C20-C21-C22-C37 |
| 22 | b | 614 | CLA | C4-C3-C5-C6 |
| 22 | B | 617 | CLA | C4-C3-C5-C6 |
| 22 | c | 504 | CLA | CBA-CGA-O2A-C1 |
| 22 | C | 505 | CLA | CBA-CGA-O2A-C1 |
| 35 | a | 413 | DGD | C9A-CAA-CBA-CCA |
| 36 | C | 502 | LMG | C32-C33-C34-C35 |
| 21 | R | 305 | CHL | C5-C6-C7-C8 |
| 22 | Y | 611 | CLA | C13-C15-C16-C17 |
| 22 | c | 514 | CLA | C8-C10-C11-C12 |
| 22 | B | 617 | CLA | C13-C15-C16-C17 |
| 35 | A | 401 | DGD | C9A-CAA-CBA-CCA |
| 36 | w | 102 | LMG | C32-C33-C34-C35 |
| 22 | c | 503 | CLA | C2A-CAA-CBA-CGA |
| 22 | C | 504 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 608 | CLA | C15-C16-C17-C18 |
| 22 | b | 611 | CLA | C5-C6-C7-C8 |
| 22 | B | 611 | CLA | C15-C16-C17-C18 |
| 22 | B | 614 | CLA | C5-C6-C7-C8 |
| 22 | g | 604 | CLA | C2-C1-O2A-CGA |
| 22 | n | 604 | CLA | C2-C1-O2A-CGA |
| 22 | y | 604 | CLA | C2-C1-O2A-CGA |
| 22 | G | 604 | CLA | C2-C1-O2A-CGA |
| 22 | N | 604 | CLA | C2-C1-O2A-CGA |
| 22 | Y | 604 | CLA | C2-C1-O2A-CGA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 609 | CLA | C2-C1-O2A-CGA |
| 22 | B | 612 | CLA | C2-C1-O2A-CGA |
| 26 | N | 618 | LHG | C12-C13-C14-C15 |
| 26 | Y | 617 | LHG | C24-C25-C26-C27 |
| 36 | T | 101 | LMG | C39-C40-C41-C42 |
| 26 | b | 619 | LHG | C24-C23-O8-C6 |
| 26 | B | 622 | LHG | C24-C23-O8-C6 |
| 26 | y | 617 | LHG | O6-C4-C5-O7 |
| 26 | s | 314 | LHG | O6-C4-C5-O7 |
| 26 | S | 314 | LHG | O6-C4-C5-O7 |
| 21 | g | 609 | CHL | C11-C12-C13-C14 |
| 21 | n | 608 | CHL | C16-C17-C18-C20 |
| 21 | G | 609 | CHL | C11-C12-C13-C14 |
| 26 | N | 618 | LHG | C25-C26-C27-C28 |
| 26 | d | 407 | LHG | C32-C33-C34-C35 |
| 26 | D | 408 | LHG | C32-C33-C34-C35 |
| 33 | d | 402 | SQD | C14-C15-C16-C17 |
| 33 | D | 402 | SQD | C14-C15-C16-C17 |
| 36 | M | 101 | LMG | C39-C40-C41-C42 |
| 26 | n | 617 | LHG | C27-C28-C29-C30 |
| 26 | d | 408 | LHG | C19-C20-C21-C22 |
| 26 | D | 409 | LHG | C19-C20-C21-C22 |
| 33 | a | 411 | SQD | O10-C23-O48-C46 |
| 33 | A | 412 | SQD | O10-C23-O48-C46 |
| 35 | h | 102 | DGD | CCA-CDA-CEA-CFA |
| 22 | b | 615 | CLA | C13-C15-C16-C17 |
| 22 | B | 618 | CLA | C13-C15-C16-C17 |
| 24 | y | 615 | XAT | C11-C10-C9-C8 |
| 25 | g | 618 | NEX | C32-C33-C34-C35 |
| 31 | d | 405 | BCR | C12-C13-C14-C15 |
| 31 | D | 406 | BCR | C12-C13-C14-C15 |
| 35 | H | 102 | DGD | CCA-CDA-CEA-CFA |
| 36 | c | 523 | LMG | C31-C32-C33-C34 |
| 36 | C | 523 | LMG | C31-C32-C33-C34 |
| 26 | r | 302 | LHG | O7-C5-C6-O8 |
| 26 | R | 301 | LHG | O7-C5-C6-O8 |
| 33 | d | 402 | SQD | O6-C44-C45-O47 |
| 33 | l | 101 | SQD | O47-C45-C46-O48 |
| 33 | D | 402 | SQD | O6-C44-C45-O47 |
| 33 | L | 102 | SQD | O47-C45-C46-O48 |
| 35 | c | 518 | DGD | O2G-C2G-C3G-O3G |
| 35 | C | 519 | DGD | O2G-C2G-C3G-O3G |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | y | 617 | LHG | C14-C15-C16-C17 |
| 36 | w | 102 | LMG | C33-C34-C35-C36 |
| 22 | g | 613 | CLA | C15-C16-C17-C18 |
| 22 | b | 608 | CLA | C5-C6-C7-C8 |
| 22 | c | 502 | CLA | C10-C11-C12-C13 |
| 22 | B | 611 | CLA | C5-C6-C7-C8 |
| 22 | b | 610 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 613 | CLA | O1A-CGA-O2A-C1 |
| 36 | I | 101 | LMG | O10-C28-O8-C9 |
| 26 | G | 618 | LHG | C28-C29-C30-C31 |
| 26 | N | 618 | LHG | C9-C10-C11-C12 |
| 26 | c | 520 | LHG | C9-C10-C11-C12 |
| 26 | C | 520 | LHG | C9-C10-C11-C12 |
| 36 | C | 502 | LMG | C33-C34-C35-C36 |
| 32 | d | 406 | PL9 | C20-C19-C21-C22 |
| 32 | D | 407 | PL9 | C20-C19-C21-C22 |
| 22 | N | 609 | CLA | C13-C15-C16-C17 |
| 22 | C | 503 | CLA | C10-C11-C12-C13 |
| 36 | D | 411 | LMG | C4-C5-C6-O5 |
| 21 | g | 608 | CHL | C6-C7-C8-C10 |
| 21 | n | 607 | CHL | C6-C7-C8-C10 |
| 21 | y | 608 | CHL | C6-C7-C8-C10 |
| 21 | y | 609 | CHL | C12-C13-C15-C16 |
| 21 | G | 608 | CHL | C6-C7-C8-C10 |
| 21 | N | 607 | CHL | C6-C7-C8-C10 |
| 21 | Y | 607 | CHL | C6-C7-C8-C10 |
| 21 | r | 306 | CHL | C12-C13-C15-C16 |
| 21 | R | 305 | CHL | C12-C13-C15-C16 |
| 22 | g | 602 | CLA | C11-C10-C8-C7 |
| 22 | n | 602 | CLA | C11-C10-C8-C7 |
| 22 | y | 602 | CLA | C11-C10-C8-C7 |
| 22 | y | 612 | CLA | C12-C13-C15-C16 |
| 22 | G | 602 | CLA | C11-C10-C8-C7 |
| 22 | G | 610 | CLA | C12-C13-C15-C16 |
| 22 | N | 602 | CLA | C11-C10-C8-C7 |
| 22 | Y | 602 | CLA | C11-C10-C8-C7 |
| 22 | b | 602 | CLA | C6-C7-C8-C10 |
| 22 | b | 605 | CLA | C12-C13-C15-C16 |
| 22 | b | 611 | CLA | C6-C7-C8-C10 |
| 22 | b | 612 | CLA | C11-C10-C8-C7 |
| 22 | c | 504 | CLA | C11-C10-C8-C7 |
| 22 | c | 513 | CLA | C12-C13-C15-C16 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | c | 514 | CLA | C11-C10-C8-C7 |
| 22 | d | 403 | CLA | C2-C3-C5-C6 |
| 22 | d | 403 | CLA | C11-C12-C13-C15 |
| 22 | B | 605 | CLA | C6-C7-C8-C10 |
| 22 | B | 608 | CLA | C12-C13-C15-C16 |
| 22 | B | 614 | CLA | C6-C7-C8-C10 |
| 22 | B | 615 | CLA | C11-C10-C8-C7 |
| 22 | C | 505 | CLA | C11-C10-C8-C7 |
| 22 | C | 514 | CLA | C12-C13-C15-C16 |
| 22 | C | 515 | CLA | C11-C10-C8-C7 |
| 22 | D | 404 | CLA | C2-C3-C5-C6 |
| 22 | D | 404 | CLA | C11-C12-C13-C15 |
| 22 | s | 303 | CLA | C6-C7-C8-C10 |
| 22 | S | 303 | CLA | C6-C7-C8-C10 |
| 33 | a | 411 | SQD | C12-C13-C14-C15 |
| 21 | g | 608 | CHL | C11-C10-C8-C9 |
| 21 | n | 607 | CHL | C11-C10-C8-C9 |
| 21 | y | 608 | CHL | C11-C10-C8-C9 |
| 21 | G | 608 | CHL | C11-C10-C8-C9 |
| 21 | N | 607 | CHL | C11-C10-C8-C9 |
| 21 | Y | 607 | CHL | C11-C10-C8-C9 |
| 22 | g | 602 | CLA | C14-C13-C15-C16 |
| 22 | n | 602 | CLA | C14-C13-C15-C16 |
| 22 | n | 609 | CLA | C14-C13-C15-C16 |
| 22 | y | 602 | CLA | C14-C13-C15-C16 |
| 22 | G | 602 | CLA | C14-C13-C15-C16 |
| 22 | G | 610 | CLA | C14-C13-C15-C16 |
| 22 | N | 602 | CLA | C14-C13-C15-C16 |
| 22 | Y | 602 | CLA | C14-C13-C15-C16 |
| 22 | b | 602 | CLA | C6-C7-C8-C9 |
| 22 | b | 604 | CLA | C11-C10-C8-C9 |
| 22 | b | 606 | CLA | C14-C13-C15-C16 |
| 22 | b | 609 | CLA | C6-C7-C8-C9 |
| 22 | b | 612 | CLA | C11-C10-C8-C9 |
| 22 | b | 614 | CLA | C11-C12-C13-C14 |
| 22 | b | 615 | CLA | C6-C7-C8-C9 |
| 22 | B | 605 | CLA | C6-C7-C8-C9 |
| 22 | B | 607 | CLA | C11-C10-C8-C9 |
| 22 | B | 609 | CLA | C14-C13-C15-C16 |
| 22 | B | 610 | CLA | C11-C12-C13-C14 |
| 22 | B | 612 | CLA | C6-C7-C8-C9 |
| 22 | B | 615 | CLA | C11-C10-C8-C9 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | B | 617 | CLA | C11-C12-C13-C14 |
| 22 | B | 618 | CLA | C6-C7-C8-C9 |
| 36 | K | 103 | LMG | C10-C11-C12-C13 |
| 26 | Y | 617 | LHG | C25-C26-C27-C28 |
| 33 | A | 412 | SQD | C12-C13-C14-C15 |
| 22 | d | 403 | CLA | CBA-CGA-O2A-C1 |
| 22 | D | 404 | CLA | CBA-CGA-O2A-C1 |
| 22 | g | 611 | CLA | C8-C10-C11-C12 |
| 22 | n | 610 | CLA | C8-C10-C11-C12 |
| 22 | y | 611 | CLA | C8-C10-C11-C12 |
| 22 | N | 610 | CLA | C8-C10-C11-C12 |
| 22 | Y | 610 | CLA | C8-C10-C11-C12 |
| 21 | S | 307 | CHL | C2A-CAA-CBA-CGA |
| 26 | N | 618 | LHG | C13-C14-C15-C16 |
| 36 | d | 410 | LMG | C4-C5-C6-O5 |
| 22 | c | 506 | CLA | O1D-CGD-O2D-CED |
| 22 | C | 507 | CLA | O1D-CGD-O2D-CED |
| 22 | c | 504 | CLA | O1A-CGA-O2A-C1 |
| 36 | B | 601 | LMG | O10-C28-O8-C9 |
| 23 | Y | 614 | LUT | C31-C32-C33-C40 |
| 22 | G | 611 | CLA | C8-C10-C11-C12 |
| 22 | a | 404 | CLA | C16-C17-C18-C20 |
| 22 | A | 405 | CLA | C16-C17-C18-C20 |
| 25 | g | 618 | NEX | C31-C32-C33-C34 |
| 31 | b | 616 | BCR | C21-C22-C23-C24 |
| 31 | B | 619 | BCR | C21-C22-C23-C24 |
| 26 | n | 617 | LHG | C29-C30-C31-C32 |
| 36 | b | 620 | LMG | C18-C19-C20-C21 |
| 26 | g | 619 | LHG | C9-C10-C11-C12 |
| 35 | c | 518 | DGD | CAA-CBA-CCA-CDA |
| 35 | C | 519 | DGD | CAA-CBA-CCA-CDA |
| 36 | B | 623 | LMG | C18-C19-C20-C21 |
| 22 | C | 505 | CLA | O1A-CGA-O2A-C1 |
| 21 | g | 606 | CHL | CBA-CGA-O2A-C1 |
| 21 | Y | 605 | CHL | CBA-CGA-O2A-C1 |
| 21 | s | 306 | CHL | C2C-C3C-CAC-CBC |
| 35 | c | 519 | DGD | CCA-CDA-CEA-CFA |
| 35 | J | 101 | DGD | CCA-CDA-CEA-CFA |
| 36 | k | 103 | LMG | C10-C11-C12-C13 |
| 21 | n | 608 | CHL | C15-C16-C17-C18 |
| 21 | Y | 608 | CHL | C15-C16-C17-C18 |
| 35 | c | 518 | DGD | C4A-C5A-C6A-C7A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 35 | C | 519 | DGD | C4A-C5A-C6A-C7A |
| 26 | G | 618 | LHG | O6-C4-C5-C6 |
| 26 | Y | 617 | LHG | O6-C4-C5-C6 |
| 26 | c | 521 | LHG | O6-C4-C5-C6 |
| 26 | c | 522 | LHG | O6-C4-C5-C6 |
| 26 | C | 521 | LHG | O6-C4-C5-C6 |
| 26 | C | 522 | LHG | O6-C4-C5-C6 |
| 26 | r | 302 | LHG | O6-C4-C5-C6 |
| 26 | R | 301 | LHG | O6-C4-C5-C6 |
| 32 | D | 407 | PL9 | C44-C46-C47-C48 |
| 33 | a | 411 | SQD | C9-C10-C11-C12 |
| 21 | G | 606 | CHL | CBA-CGA-O2A-C1 |
| 21 | N | 605 | CHL | CBA-CGA-O2A-C1 |
| 33 | A | 412 | SQD | C9-C10-C11-C12 |
| 22 | s | 303 | CLA | C4-C3-C5-C6 |
| 22 | S | 303 | CLA | C4-C3-C5-C6 |
| 22 | s | 303 | CLA | C2-C3-C5-C6 |
| 22 | S | 303 | CLA | C2-C3-C5-C6 |
| 21 | S | 306 | CHL | C2C-C3C-CAC-CBC |
| 26 | n | 617 | LHG | C35-C36-C37-C38 |
| 26 | d | 407 | LHG | C30-C31-C32-C33 |
| 26 | l | 102 | LHG | C27-C28-C29-C30 |
| 26 | D | 408 | LHG | C30-C31-C32-C33 |
| 26 | L | 103 | LHG | C27-C28-C29-C30 |
| 22 | b | 605 | CLA | C16-C17-C18-C20 |
| 22 | B | 608 | CLA | C16-C17-C18-C20 |
| 26 | G | 618 | LHG | C14-C15-C16-C17 |
| 26 | Y | 617 | LHG | C14-C15-C16-C17 |
| 22 | x | 101 | CLA | C8-C10-C11-C12 |
| 22 | B | 603 | CLA | C8-C10-C11-C12 |
| 21 | n | 605 | CHL | CBA-CGA-O2A-C1 |
| 35 | c | 518 | DGD | C9B-CAB-CBB-CCB |
| 35 | C | 519 | DGD | C9B-CAB-CBB-CCB |
| 21 | g | 601 | CHL | C3A-C2A-CAA-CBA |
| 21 | n | 601 | CHL | C3A-C2A-CAA-CBA |
| 21 | y | 601 | CHL | C3A-C2A-CAA-CBA |
| 21 | G | 601 | CHL | C3A-C2A-CAA-CBA |
| 21 | N | 601 | CHL | C3A-C2A-CAA-CBA |
| 21 | Y | 601 | CHL | C3A-C2A-CAA-CBA |
| 21 | s | 302 | CHL | C3A-C2A-CAA-CBA |
| 21 | S | 302 | CHL | C3A-C2A-CAA-CBA |
| 22 | c | 504 | CLA | C3A-C2A-CAA-CBA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | c | 506 | CLA | C3A-C2A-CAA-CBA |
| 22 | C | 505 | CLA | C3A-C2A-CAA-CBA |
| 22 | C | 507 | CLA | C3A-C2A-CAA-CBA |
| 24 | G | 617 | XAT | C33-C34-C35-C15 |
| 25 | N | 617 | NEX | C29-C30-C31-C32 |
| 26 | g | 619 | LHG | C23-C24-C25-C26 |
| 26 | g | 619 | LHG | C32-C33-C34-C35 |
| 26 | s | 314 | LHG | C29-C30-C31-C32 |
| 26 | S | 314 | LHG | C29-C30-C31-C32 |
| 33 | l | 103 | SQD | C17-C18-C19-C20 |
| 33 | L | 101 | SQD | C17-C18-C19-C20 |
| 22 | c | 506 | CLA | C16-C17-C18-C19 |
| 22 | C | 507 | CLA | C16-C17-C18-C19 |
| 21 | y | 606 | CHL | CBA-CGA-O2A-C1 |
| 26 | s | 314 | LHG | C10-C11-C12-C13 |
| 26 | S | 314 | LHG | C10-C11-C12-C13 |
| 36 | b | 620 | LMG | C40-C41-C42-C43 |
| 36 | B | 623 | LMG | C40-C41-C42-C43 |
| 22 | b | 610 | CLA | C15-C16-C17-C18 |
| 22 | B | 613 | CLA | C15-C16-C17-C18 |
| 26 | s | 314 | LHG | C4-C5-C6-O8 |
| 26 | S | 314 | LHG | C4-C5-C6-O8 |
| 33 | d | 402 | SQD | O6-C44-C45-C46 |
| 33 | D | 402 | SQD | O6-C44-C45-C46 |
| 35 | c | 518 | DGD | O1G-C1G-C2G-C3G |
| 35 | c | 518 | DGD | C1G-C2G-C3G-O3G |
| 35 | C | 519 | DGD | O1G-C1G-C2G-C3G |
| 35 | C | 519 | DGD | C1G-C2G-C3G-O3G |
| 36 | b | 620 | LMG | O1-C7-C8-C9 |
| 36 | k | 103 | LMG | O1-C7-C8-C9 |
| 36 | B | 623 | LMG | O1-C7-C8-C9 |
| 36 | K | 103 | LMG | O1-C7-C8-C9 |
| 36 | M | 101 | LMG | O1-C7-C8-C9 |
| 36 | T | 101 | LMG | O1-C7-C8-C9 |
| 36 | c | 523 | LMG | C38-C39-C40-C41 |
| 36 | C | 523 | LMG | C38-C39-C40-C41 |
| 22 | c | 513 | CLA | C3-C5-C6-C7 |
| 22 | b | 602 | CLA | C2-C3-C5-C6 |
| 22 | B | 605 | CLA | C2-C3-C5-C6 |
| 26 | b | 619 | LHG | C9-C10-C11-C12 |
| 26 | B | 622 | LHG | C9-C10-C11-C12 |
| 26 | r | 302 | LHG | C24-C25-C26-C27 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | r | 302 | LHG | C3-O3-P-O6 |
| 26 | R | 301 | LHG | C3-O3-P-O6 |
| 26 | R | 301 | LHG | C24-C25-C26-C27 |
| 22 | C | 514 | CLA | C3-C5-C6-C7 |
| 26 | G | 618 | LHG | C30-C31-C32-C33 |
| 26 | d | 407 | LHG | C34-C35-C36-C37 |
| 26 | D | 408 | LHG | C34-C35-C36-C37 |
| 26 | r | 302 | LHG | C30-C31-C32-C33 |
| 26 | R | 301 | LHG | C30-C31-C32-C33 |
| 36 | M | 101 | LMG | C12-C13-C14-C15 |
| 26 | n | 617 | LHG | O6-C4-C5-O7 |
| 26 | N | 618 | LHG | O6-C4-C5-O7 |
| 26 | c | 522 | LHG | O6-C4-C5-O7 |
| 26 | C | 522 | LHG | O6-C4-C5-O7 |
| 22 | c | 511 | CLA | CBA-CGA-O2A-C1 |
| 22 | C | 512 | CLA | CBA-CGA-O2A-C1 |
| 36 | T | 101 | LMG | C12-C13-C14-C15 |
| 21 | n | 608 | CHL | C16-C17-C18-C19 |
| 21 | N | 608 | CHL | C16-C17-C18-C19 |
| 22 | a | 404 | CLA | C16-C17-C18-C19 |
| 22 | A | 405 | CLA | C16-C17-C18-C19 |
| 26 | g | 619 | LHG | C24-C25-C26-C27 |
| 26 | d | 408 | LHG | C11-C12-C13-C14 |
| 26 | D | 409 | LHG | C11-C12-C13-C14 |
| 22 | d | 403 | CLA | O1A-CGA-O2A-C1 |
| 22 | D | 404 | CLA | O1A-CGA-O2A-C1 |
| 26 | d | 409 | LHG | C32-C33-C34-C35 |
| 26 | D | 410 | LHG | C32-C33-C34-C35 |
| 26 | Y | 617 | LHG | C16-C17-C18-C19 |
| 33 | d | 402 | SQD | O47-C45-C46-O48 |
| 33 | D | 402 | SQD | O47-C45-C46-O48 |
| 36 | b | 620 | LMG | O1-C7-C8-O7 |
| 36 | w | 102 | LMG | O1-C7-C8-O7 |
| 36 | B | 623 | LMG | O1-C7-C8-O7 |
| 36 | C | 502 | LMG | O1-C7-C8-O7 |
| 36 | M | 101 | LMG | O1-C7-C8-O7 |
| 36 | T | 101 | LMG | O1-C7-C8-O7 |
| 35 | h | 102 | DGD | O2G-C1B-C2B-C3B |
| 35 | H | 102 | DGD | O2G-C1B-C2B-C3B |
| 26 | S | 314 | LHG | C11-C12-C13-C14 |
| 35 | C | 519 | DGD | C5B-C6B-C7B-C8B |
| 21 | g | 608 | CHL | C16-C17-C18-C19 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | n | 607 | CHL | C16-C17-C18-C19 |
| 21 | y | 608 | CHL | C16-C17-C18-C19 |
| 21 | G | 608 | CHL | C16-C17-C18-C19 |
| 21 | N | 607 | CHL | C16-C17-C18-C19 |
| 21 | Y | 607 | CHL | C16-C17-C18-C19 |
| 22 | c | 506 | CLA | C16-C17-C18-C20 |
| 22 | C | 507 | CLA | C16-C17-C18-C20 |
| 22 | s | 313 | CLA | C6-C7-C8-C9 |
| 22 | S | 313 | CLA | C6-C7-C8-C9 |
| 26 | s | 314 | LHG | C11-C12-C13-C14 |
| 35 | c | 518 | DGD | C5B-C6B-C7B-C8B |
| 26 | c | 520 | LHG | C1-C2-C3-O3 |
| 26 | C | 520 | LHG | C1-C2-C3-O3 |
| 35 | a | 413 | DGD | C9B-CAB-CBB-CCB |
| 35 | A | 401 | DGD | C9B-CAB-CBB-CCB |
| 22 | s | 312 | CLA | C2-C1-O2A-CGA |
| 22 | S | 312 | CLA | C2-C1-O2A-CGA |
| 26 | Y | 617 | LHG | C11-C10-C9-C8 |
| 35 | c | 517 | DGD | C7B-C8B-C9B-CAB |
| 35 | C | 518 | DGD | C7B-C8B-C9B-CAB |
| 21 | r | 306 | CHL | C11-C12-C13-C14 |
| 21 | R | 305 | CHL | C11-C12-C13-C14 |
| 22 | g | 603 | CLA | C11-C10-C8-C9 |
| 22 | n | 603 | CLA | C11-C10-C8-C9 |
| 22 | y | 603 | CLA | C11-C10-C8-C9 |
| 22 | G | 603 | CLA | C11-C10-C8-C9 |
| 22 | N | 603 | CLA | C11-C10-C8-C9 |
| 22 | Y | 603 | CLA | C11-C10-C8-C9 |
| 22 | b | 607 | CLA | C11-C12-C13-C14 |
| 22 | c | 503 | CLA | C14-C13-C15-C16 |
| 22 | c | 507 | CLA | C6-C7-C8-C9 |
| 22 | c | 510 | CLA | C6-C7-C8-C9 |
| 22 | c | 512 | CLA | C11-C10-C8-C9 |
| 22 | C | 504 | CLA | C14-C13-C15-C16 |
| 22 | C | 508 | CLA | C6-C7-C8-C9 |
| 22 | C | 511 | CLA | C6-C7-C8-C9 |
| 22 | C | 513 | CLA | C11-C10-C8-C9 |
| 22 | s | 311 | CLA | C6-C7-C8-C9 |
| 22 | S | 311 | CLA | C6-C7-C8-C9 |
| 30 | a | 407 | PHO | C11-C10-C8-C9 |
| 30 | d | 401 | PHO | C6-C7-C8-C9 |
| 30 | A | 408 | PHO | C11-C10-C8-C9 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 30 | D | 401 | PHO | C6-C7-C8-C9 |
| 26 | C | 520 | LHG | C14-C15-C16-C17 |
| 26 | c | 520 | LHG | C14-C15-C16-C17 |
| 26 | r | 302 | LHG | C11-C12-C13-C14 |
| 26 | R | 301 | LHG | C11-C12-C13-C14 |
| 22 | c | 513 | CLA | C5-C6-C7-C8 |
| 22 | C | 514 | CLA | C5-C6-C7-C8 |
| 26 | c | 521 | LHG | C5-C4-O6-P |
| 26 | d | 407 | LHG | C2-C3-O3-P |
| 26 | d | 409 | LHG | C2-C3-O3-P |
| 26 | C | 521 | LHG | C5-C4-O6-P |
| 26 | D | 408 | LHG | C2-C3-O3-P |
| 26 | D | 410 | LHG | C2-C3-O3-P |
| 30 | a | 407 | PHO | C1A-C2A-CAA-CBA |
| 30 | A | 408 | PHO | C1A-C2A-CAA-CBA |
| 36 | d | 410 | LMG | C16-C17-C18-C19 |
| 36 | D | 411 | LMG | C16-C17-C18-C19 |
| 22 | b | 605 | CLA | C2A-CAA-CBA-CGA |
| 22 | B | 608 | CLA | C2A-CAA-CBA-CGA |
| 23 | N | 615 | LUT | C1-C6-C7-C8 |
| 31 | a | 409 | BCR | C5-C6-C7-C8 |
| 31 | a | 409 | BCR | C23-C24-C25-C26 |
| 31 | a | 409 | BCR | C23-C24-C25-C30 |
| 31 | b | 617 | BCR | C1-C6-C7-C8 |
| 31 | b | 617 | BCR | C5-C6-C7-C8 |
| 31 | c | 515 | BCR | C23-C24-C25-C26 |
| 31 | c | 516 | BCR | C1-C6-C7-C8 |
| 31 | c | 516 | BCR | C5-C6-C7-C8 |
| 31 | c | 516 | BCR | C23-C24-C25-C26 |
| 31 | d | 405 | BCR | C23-C24-C25-C26 |
| 31 | h | 101 | BCR | C5-C6-C7-C8 |
| 31 | h | 101 | BCR | C23-C24-C25-C26 |
| 31 | h | 101 | BCR | C23-C24-C25-C30 |
| 31 | k | 101 | BCR | C5-C6-C7-C8 |
| 31 | k | 101 | BCR | C23-C24-C25-C26 |
| 31 | k | 101 | BCR | C23-C24-C25-C30 |
| 31 | k | 102 | BCR | C23-C24-C25-C26 |
| 31 | k | 102 | BCR | C23-C24-C25-C30 |
| 31 | A | 410 | BCR | C23-C24-C25-C26 |
| 31 | A | 410 | BCR | C23-C24-C25-C30 |
| 31 | B | 620 | BCR | C1-C6-C7-C8 |
| 31 | B | 620 | BCR | C5-C6-C7-C8 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 31 | C | 516 | BCR | C23-C24-C25-C26 |
| 31 | C | 517 | BCR | C1-C6-C7-C8 |
| 31 | C | 517 | BCR | C5-C6-C7-C8 |
| 31 | C | 517 | BCR | C23-C24-C25-C26 |
| 31 | D | 406 | BCR | C23-C24-C25-C26 |
| 31 | H | 101 | BCR | C5-C6-C7-C8 |
| 31 | H | 101 | BCR | C23-C24-C25-C26 |
| 31 | H | 101 | BCR | C23-C24-C25-C30 |
| 31 | K | 101 | BCR | C5-C6-C7-C8 |
| 31 | K | 101 | BCR | C23-C24-C25-C26 |
| 31 | K | 101 | BCR | C23-C24-C25-C30 |
| 31 | K | 102 | BCR | C23-C24-C25-C26 |
| 31 | K | 102 | BCR | C23-C24-C25-C30 |
| 26 | C | 520 | LHG | C11-C12-C13-C14 |
| 26 | G | 618 | LHG | C32-C33-C34-C35 |
| 25 | Y | 616 | NEX | C11-C12-C13-C14 |
| 21 | N | 608 | CHL | C15-C16-C17-C18 |
| 26 | c | 520 | LHG | C11-C12-C13-C14 |
| 33 | l | 101 | SQD | C9-C10-C11-C12 |
| 36 | w | 102 | LMG | C11-C10-O7-C8 |
| 36 | C | 502 | LMG | C11-C10-O7-C8 |
| 33 | D | 402 | SQD | C10-C11-C12-C13 |
| 33 | L | 102 | SQD | C9-C10-C11-C12 |
| 36 | M | 101 | LMG | C22-C23-C24-C25 |
| 36 | T | 101 | LMG | C22-C23-C24-C25 |
| 26 | s | 314 | LHG | C12-C13-C14-C15 |
| 26 | S | 314 | LHG | C12-C13-C14-C15 |
| 33 | d | 402 | SQD | C10-C11-C12-C13 |
| 22 | C | 514 | CLA | C13-C15-C16-C17 |
| 36 | B | 601 | LMG | C36-C37-C38-C39 |
| 36 | I | 101 | LMG | C36-C37-C38-C39 |
| 22 | c | 513 | CLA | C13-C15-C16-C17 |
| 26 | y | 617 | LHG | O6-C4-C5-C6 |
| 26 | d | 408 | LHG | O2-C2-C3-O3 |
| 26 | D | 409 | LHG | O2-C2-C3-O3 |
| 26 | N | 618 | LHG | C18-C19-C20-C21 |
| 21 | g | 607 | CHL | C6-C7-C8-C10 |
| 21 | g | 608 | CHL | C11-C10-C8-C7 |
| 21 | n | 606 | CHL | C6-C7-C8-C10 |
| 21 | n | 607 | CHL | C11-C10-C8-C7 |
| 21 | y | 607 | CHL | C6-C7-C8-C10 |
| 21 | y | 608 | CHL | C11-C10-C8-C7 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | G | 607 | CHL | C6-C7-C8-C10 |
| 21 | G | 608 | CHL | C11-C10-C8-C7 |
| 21 | N | 606 | CHL | C6-C7-C8-C10 |
| 21 | N | 607 | CHL | C11-C10-C8-C7 |
| 21 | Y | 606 | CHL | C6-C7-C8-C10 |
| 21 | Y | 607 | CHL | C11-C10-C8-C7 |
| 22 | g | 602 | CLA | C12-C13-C15-C16 |
| 22 | n | 602 | CLA | C12-C13-C15-C16 |
| 22 | y | 602 | CLA | C12-C13-C15-C16 |
| 22 | G | 602 | CLA | C12-C13-C15-C16 |
| 22 | N | 602 | CLA | C12-C13-C15-C16 |
| 22 | Y | 602 | CLA | C12-C13-C15-C16 |
| 22 | b | 606 | CLA | C12-C13-C15-C16 |
| 22 | b | 607 | CLA | C6-C7-C8-C10 |
| 22 | b | 609 | CLA | C6-C7-C8-C10 |
| 22 | b | 612 | CLA | C12-C13-C15-C16 |
| 22 | b | 614 | CLA | C11-C12-C13-C15 |
| 22 | b | 615 | CLA | C6-C7-C8-C10 |
| 22 | c | 507 | CLA | C6-C7-C8-C10 |
| 22 | c | 509 | CLA | C11-C10-C8-C7 |
| 22 | c | 510 | CLA | C6-C7-C8-C10 |
| 22 | c | 512 | CLA | C11-C10-C8-C7 |
| 22 | B | 609 | CLA | C12-C13-C15-C16 |
| 22 | B | 610 | CLA | C6-C7-C8-C10 |
| 22 | B | 612 | CLA | C6-C7-C8-C10 |
| 22 | B | 615 | CLA | C12-C13-C15-C16 |
| 22 | B | 617 | CLA | C11-C12-C13-C15 |
| 22 | B | 618 | CLA | C6-C7-C8-C10 |
| 22 | C | 508 | CLA | C6-C7-C8-C10 |
| 22 | C | 510 | CLA | C11-C10-C8-C7 |
| 22 | C | 511 | CLA | C6-C7-C8-C10 |
| 22 | C | 513 | CLA | C11-C10-C8-C7 |
| 22 | r | 304 | CLA | C6-C7-C8-C10 |
| 22 | r | 310 | CLA | C6-C7-C8-C10 |
| 22 | R | 303 | CLA | C6-C7-C8-C10 |
| 22 | R | 309 | CLA | C6-C7-C8-C10 |
| 30 | a | 407 | PHO | C11-C12-C13-C15 |
| 30 | A | 408 | PHO | C11-C12-C13-C15 |
| 21 | n | 608 | CHL | C13-C15-C16-C17 |
| 23 | g | 615 | LUT | C33-C34-C35-C15 |
| 23 | g | 616 | LUT | C9-C10-C11-C12 |
| 23 | n | 614 | LUT | C33-C34-C35-C15 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 23 | y | 614 | LUT | C33-C34-C35-C15 |
| 23 | G | 615 | LUT | C33-C34-C35-C15 |
| 23 | N | 614 | LUT | C33-C34-C35-C15 |
| 23 | N | 615 | LUT | C29-C30-C31-C32 |
| 23 | Y | 613 | LUT | C33-C34-C35-C15 |
| 24 | G | 617 | XAT | C29-C30-C31-C32 |
| 25 | y | 616 | NEX | C13-C14-C15-C35 |
| 22 | R | 309 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 605 | CLA | C16-C17-C18-C19 |
| 22 | B | 608 | CLA | C16-C17-C18-C19 |
| 21 | g | 606 | CHL | O1A-CGA-O2A-C1 |
| 36 | k | 103 | LMG | C11-C12-C13-C14 |
| 36 | K | 103 | LMG | C11-C12-C13-C14 |
| 31 | k | 101 | BCR | C20-C21-C22-C37 |
| 31 | K | 101 | BCR | C20-C21-C22-C37 |
| 22 | N | 612 | CLA | C3-C5-C6-C7 |
| 22 | Y | 611 | CLA | C3-C5-C6-C7 |
| 35 | C | 519 | DGD | CAB-CBB-CCB-CDB |
| 21 | Y | 605 | CHL | O1A-CGA-O2A-C1 |
| 22 | r | 310 | CLA | CBD-CGD-O2D-CED |
| 26 | l | 102 | LHG | C24-C23-O8-C6 |
| 26 | L | 103 | LHG | C24-C23-O8-C6 |
| 33 | d | 402 | SQD | O47-C7-C8-C9 |
| 33 | D | 402 | SQD | O47-C7-C8-C9 |
| 35 | c | 518 | DGD | CAB-CBB-CCB-CDB |
| 26 | Y | 617 | LHG | C29-C30-C31-C32 |
| 35 | h | 102 | DGD | C7A-C8A-C9A-CAA |
| 35 | H | 102 | DGD | C7A-C8A-C9A-CAA |
| 36 | B | 601 | LMG | C31-C32-C33-C34 |
| 36 | I | 101 | LMG | C31-C32-C33-C34 |
| 36 | M | 101 | LMG | C13-C14-C15-C16 |
| 36 | T | 101 | LMG | C13-C14-C15-C16 |
| 21 | s | 307 | CHL | CAD-CBD-CGD-O2D |
| 21 | S | 307 | CHL | CAD-CBD-CGD-O2D |
| 22 | b | 602 | CLA | CAD-CBD-CGD-O2D |
| 22 | b | 605 | CLA | CAD-CBD-CGD-O2D |
| 22 | b | 606 | CLA | CAD-CBD-CGD-O2D |
| 22 | b | 607 | CLA | CAD-CBD-CGD-O2D |
| 22 | b | 614 | CLA | CAD-CBD-CGD-O2D |
| 22 | c | 510 | CLA | CAD-CBD-CGD-O2D |
| 22 | B | 605 | CLA | CAD-CBD-CGD-O2D |
| 22 | B | 608 | CLA | CAD-CBD-CGD-O2D |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | B | 610 | CLA | CAD-CBD-CGD-O2D |
| 22 | B | 617 | CLA | CAD-CBD-CGD-O2D |
| 22 | C | 511 | CLA | CAD-CBD-CGD-O2D |
| 22 | r | 310 | CLA | CAD-CBD-CGD-O2D |
| 22 | s | 309 | CLA | CAD-CBD-CGD-O2D |
| 22 | s | 311 | CLA | CAD-CBD-CGD-O2D |
| 22 | s | 312 | CLA | CAD-CBD-CGD-O2D |
| 22 | s | 313 | CLA | CAD-CBD-CGD-O2D |
| 22 | S | 309 | CLA | CAD-CBD-CGD-O2D |
| 22 | S | 311 | CLA | CAD-CBD-CGD-O2D |
| 22 | S | 312 | CLA | CAD-CBD-CGD-O2D |
| 22 | S | 313 | CLA | CAD-CBD-CGD-O2D |
| 22 | R | 309 | CLA | CAD-CBD-CGD-O2D |
| 25 | y | 616 | NEX | C7-C8-C9-C19 |
| 25 | y | 618 | NEX | C7-C8-C9-C19 |
| 25 | r | 315 | NEX | C7-C8-C9-C19 |
| 22 | g | 613 | CLA | C3-C5-C6-C7 |
| 22 | n | 612 | CLA | C3-C5-C6-C7 |
| 22 | y | 612 | CLA | C3-C5-C6-C7 |
| 22 | G | 613 | CLA | C3-C5-C6-C7 |
| 26 | d | 407 | LHG | C12-C13-C14-C15 |
| 26 | D | 408 | LHG | C12-C13-C14-C15 |
| 36 | k | 103 | LMG | C40-C41-C42-C43 |
| 36 | K | 103 | LMG | C40-C41-C42-C43 |
| 31 | b | 616 | BCR | C6-C7-C8-C9 |
| 31 | b | 616 | BCR | C22-C23-C24-C25 |
| 31 | b | 618 | BCR | C22-C23-C24-C25 |
| 31 | B | 619 | BCR | C6-C7-C8-C9 |
| 31 | B | 619 | BCR | C22-C23-C24-C25 |
| 31 | B | 621 | BCR | C22-C23-C24-C25 |
| 35 | h | 102 | DGD | O6E-C1E-O5D-C6D |
| 35 | H | 102 | DGD | O6E-C1E-O5D-C6D |
| 26 | r | 302 | LHG | C4-C5-C6-O8 |
| 26 | R | 301 | LHG | C4-C5-C6-O8 |
| 33 | d | 402 | SQD | C44-C45-C46-O48 |
| 33 | D | 402 | SQD | C44-C45-C46-O48 |
| 35 | c | 517 | DGD | O1G-C1G-C2G-C3G |
| 35 | C | 518 | DGD | O1G-C1G-C2G-C3G |
| 26 | b | 619 | LHG | C35-C36-C37-C38 |
| 26 | B | 622 | LHG | C35-C36-C37-C38 |
| 26 | S | 314 | LHG | C28-C29-C30-C31 |
| 36 | B | 623 | LMG | C42-C43-C44-C45 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | g | 619 | LHG | O6-C4-C5-O7 |
| 26 | Y | 617 | LHG | O6-C4-C5-O7 |
| 26 | c | 521 | LHG | O6-C4-C5-O7 |
| 26 | C | 521 | LHG | O6-C4-C5-O7 |
| 22 | r | 311 | CLA | O2A-C1-C2-C3 |
| 22 | R | 310 | CLA | O2A-C1-C2-C3 |
| 26 | Y | 617 | LHG | C9-C10-C11-C12 |
| 26 | s | 314 | LHG | C28-C29-C30-C31 |
| 36 | b | 620 | LMG | C42-C43-C44-C45 |
| 37 | f | 101 | HEM | C4B-C3B-CAB-CBB |
| 37 | F | 101 | HEM | C4B-C3B-CAB-CBB |
| 22 | d | 403 | CLA | CBD-CGD-O2D-CED |
| 22 | D | 404 | CLA | CBD-CGD-O2D-CED |
| 21 | Y | 608 | CHL | C16-C17-C18-C19 |
| 21 | s | 306 | CHL | CHA-CBD-CGD-O1D |
| 21 | s | 306 | CHL | CHA-CBD-CGD-O2D |
| 21 | S | 306 | CHL | CHA-CBD-CGD-O1D |
| 21 | S | 306 | CHL | CHA-CBD-CGD-O2D |
| 22 | g | 603 | CLA | CHA-CBD-CGD-O1D |
| 22 | g | 603 | CLA | CHA-CBD-CGD-O2D |
| 22 | g | 613 | CLA | CHA-CBD-CGD-O2D |
| 22 | n | 603 | CLA | CHA-CBD-CGD-O1D |
| 22 | n | 603 | CLA | CHA-CBD-CGD-O2D |
| 22 | n | 612 | CLA | CHA-CBD-CGD-O2D |
| 22 | y | 603 | CLA | CHA-CBD-CGD-O1D |
| 22 | y | 603 | CLA | CHA-CBD-CGD-O2D |
| 22 | y | 612 | CLA | CHA-CBD-CGD-O2D |
| 22 | G | 603 | CLA | CHA-CBD-CGD-O1D |
| 22 | G | 603 | CLA | CHA-CBD-CGD-O2D |
| 22 | G | 613 | CLA | CHA-CBD-CGD-O2D |
| 22 | N | 603 | CLA | CHA-CBD-CGD-O1D |
| 22 | N | 603 | CLA | CHA-CBD-CGD-O2D |
| 22 | N | 612 | CLA | CHA-CBD-CGD-O2D |
| 22 | Y | 603 | CLA | CHA-CBD-CGD-O1D |
| 22 | Y | 603 | CLA | CHA-CBD-CGD-O2D |
| 22 | Y | 611 | CLA | CHA-CBD-CGD-O2D |
| 22 | b | 603 | CLA | CHA-CBD-CGD-O1D |
| 22 | b | 603 | CLA | CHA-CBD-CGD-O2D |
| 22 | b | 611 | CLA | CHA-CBD-CGD-O1D |
| 22 | b | 611 | CLA | CHA-CBD-CGD-O2D |
| 22 | b | 613 | CLA | CHA-CBD-CGD-O1D |
| 22 | b | 613 | CLA | CHA-CBD-CGD-O2D |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | c | 509 | CLA | CHA-CBD-CGD-O1D |
| 22 | c | 509 | CLA | CHA-CBD-CGD-O2D |
| 22 | c | 511 | CLA | CHA-CBD-CGD-O1D |
| 22 | B | 606 | CLA | CHA-CBD-CGD-O1D |
| 22 | B | 606 | CLA | CHA-CBD-CGD-O2D |
| 22 | B | 614 | CLA | CHA-CBD-CGD-O1D |
| 22 | B | 614 | CLA | CHA-CBD-CGD-O2D |
| 22 | B | 616 | CLA | CHA-CBD-CGD-O1D |
| 22 | B | 616 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 510 | CLA | CHA-CBD-CGD-O1D |
| 22 | C | 510 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 512 | CLA | CHA-CBD-CGD-O1D |
| 22 | r | 304 | CLA | CHA-CBD-CGD-O1D |
| 22 | r | 304 | CLA | CHA-CBD-CGD-O2D |
| 22 | R | 303 | CLA | CHA-CBD-CGD-O1D |
| 22 | R | 303 | CLA | CHA-CBD-CGD-O2D |
| 21 | n | 605 | CHL | O1A-CGA-O2A-C1 |
| 21 | y | 606 | CHL | O1A-CGA-O2A-C1 |
| 21 | G | 606 | CHL | O1A-CGA-O2A-C1 |
| 21 | N | 605 | CHL | O1A-CGA-O2A-C1 |
| 23 | g | 616 | LUT | C12-C13-C14-C15 |
| 23 | G | 616 | LUT | C28-C29-C30-C31 |
| 24 | Y | 615 | XAT | C11-C10-C9-C8 |
| 31 | c | 516 | BCR | C20-C21-C22-C23 |
| 31 | B | 602 | BCR | C16-C17-C18-C19 |
| 31 | C | 517 | BCR | C20-C21-C22-C23 |
| 31 | T | 102 | BCR | C16-C17-C18-C19 |
| 22 | g | 603 | CLA | C5-C6-C7-C8 |
| 22 | y | 603 | CLA | C5-C6-C7-C8 |
| 26 | c | 522 | LHG | O7-C5-C6-O8 |
| 26 | C | 522 | LHG | O7-C5-C6-O8 |
| 22 | n | 603 | CLA | C5-C6-C7-C8 |
| 22 | G | 603 | CLA | C5-C6-C7-C8 |
| 22 | N | 603 | CLA | C5-C6-C7-C8 |
| 22 | Y | 603 | CLA | C5-C6-C7-C8 |
| 22 | C | 512 | CLA | O1A-CGA-O2A-C1 |
| 26 | s | 314 | LHG | O1-C1-C2-O2 |
| 26 | S | 314 | LHG | O1-C1-C2-O2 |
| 26 | b | 619 | LHG | C12-C13-C14-C15 |
| 36 | B | 601 | LMG | C11-C10-O7-C8 |
| 36 | I | 101 | LMG | C11-C10-O7-C8 |
| 21 | r | 307 | CHL | C4-C3-C5-C6 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | R | 306 | CHL | C4-C3-C5-C6 |
| 22 | a | 405 | CLA | C4-C3-C5-C6 |
| 22 | A | 406 | CLA | C4-C3-C5-C6 |
| 32 | d | 406 | PL9 | C15-C14-C16-C17 |
| 26 | Y | 617 | LHG | C28-C29-C30-C31 |
| 26 | B | 622 | LHG | C12-C13-C14-C15 |
| 36 | d | 410 | LMG | O10-C28-O8-C9 |
| 36 | D | 411 | LMG | O10-C28-O8-C9 |
| 21 | r | 307 | CHL | C2-C3-C5-C6 |
| 21 | R | 306 | CHL | C2-C3-C5-C6 |
| 22 | b | 614 | CLA | C2-C3-C5-C6 |
| 22 | B | 617 | CLA | C2-C3-C5-C6 |
| 26 | y | 617 | LHG | C24-C23-O8-C6 |
| 33 | D | 402 | SQD | O49-C7-O47-C45 |
| 22 | g | 613 | CLA | C6-C7-C8-C9 |
| 22 | n | 612 | CLA | C6-C7-C8-C9 |
| 22 | y | 612 | CLA | C6-C7-C8-C9 |
| 22 | G | 613 | CLA | C6-C7-C8-C9 |
| 22 | N | 612 | CLA | C6-C7-C8-C9 |
| 22 | Y | 611 | CLA | C6-C7-C8-C9 |
| 22 | b | 607 | CLA | C6-C7-C8-C9 |
| 22 | B | 610 | CLA | C6-C7-C8-C9 |
| 30 | a | 407 | PHO | C11-C12-C13-C14 |
| 30 | A | 408 | PHO | C11-C12-C13-C14 |
| 22 | c | 511 | CLA | O1A-CGA-O2A-C1 |
| 22 | x | 101 | CLA | C15-C16-C17-C18 |
| 22 | B | 603 | CLA | C15-C16-C17-C18 |
| 22 | r | 303 | CLA | C2A-CAA-CBA-CGA |
| 22 | R | 302 | CLA | C2A-CAA-CBA-CGA |
| 35 | C | 518 | DGD | C6A-C7A-C8A-C9A |
| 23 | G | 616 | LUT | C31-C32-C33-C40 |
| 35 | c | 517 | DGD | C6A-C7A-C8A-C9A |
| 36 | k | 103 | LMG | C19-C20-C21-C22 |
| 36 | K | 103 | LMG | C19-C20-C21-C22 |
| 24 | n | 615 | XAT | C7-C8-C9-C10 |
| 25 | N | 617 | NEX | C11-C12-C13-C14 |
| 35 | c | 518 | DGD | C8A-C9A-CAA-CBA |
| 35 | C | 519 | DGD | C8A-C9A-CAA-CBA |
| 21 | y | 609 | CHL | C16-C17-C18-C19 |
| 33 | d | 402 | SQD | O49-C7-O47-C45 |
| 21 | g | 601 | CHL | CBD-CGD-O2D-CED |
| 21 | N | 601 | CHL | CBD-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 23 | r | 313 | LUT | C13-C14-C15-C35 |
| 23 | R | 312 | LUT | C13-C14-C15-C35 |
| 22 | s | 309 | CLA | C5-C6-C7-C8 |
| 26 | b | 619 | LHG | C3-O3-P-O6 |
| 26 | c | 520 | LHG | C3-O3-P-O6 |
| 26 | d | 408 | LHG | C3-O3-P-O6 |
| 26 | d | 409 | LHG | C4-O6-P-O3 |
| 26 | l | 102 | LHG | C3-O3-P-O6 |
| 26 | B | 622 | LHG | C3-O3-P-O6 |
| 26 | C | 520 | LHG | C3-O3-P-O6 |
| 26 | D | 409 | LHG | C3-O3-P-O6 |
| 26 | D | 410 | LHG | C4-O6-P-O3 |
| 26 | L | 103 | LHG | C3-O3-P-O6 |
| 26 | s | 314 | LHG | C4-O6-P-O3 |
| 26 | S | 314 | LHG | C4-O6-P-O3 |
| 26 | r | 302 | LHG | C31-C32-C33-C34 |
| 26 | R | 301 | LHG | C31-C32-C33-C34 |
| 32 | D | 407 | PL9 | C15-C14-C16-C17 |
| 22 | S | 309 | CLA | C5-C6-C7-C8 |
| 26 | c | 522 | LHG | C2-C3-O3-P |
| 26 | d | 407 | LHG | C5-C4-O6-P |
| 26 | C | 522 | LHG | C2-C3-O3-P |
| 26 | D | 408 | LHG | C5-C4-O6-P |
| 22 | g | 612 | CLA | C2-C3-C5-C6 |
| 22 | n | 611 | CLA | C2-C3-C5-C6 |
| 22 | G | 612 | CLA | C2-C3-C5-C6 |
| 22 | N | 611 | CLA | C2-C3-C5-C6 |
| 22 | w | 101 | CLA | C2-C3-C5-C6 |
| 22 | W | 101 | CLA | C2-C3-C5-C6 |
| 26 | y | 617 | LHG | C13-C14-C15-C16 |
| 26 | G | 618 | LHG | C3-O3-P-O5 |
| 26 | Y | 617 | LHG | C3-O3-P-O5 |
| 26 | b | 619 | LHG | C4-O6-P-O4 |
| 26 | c | 520 | LHG | C4-O6-P-O5 |
| 26 | c | 522 | LHG | C3-O3-P-O4 |
| 26 | d | 408 | LHG | C3-O3-P-O4 |
| 26 | d | 409 | LHG | C3-O3-P-O4 |
| 26 | B | 622 | LHG | C4-O6-P-O4 |
| 26 | C | 520 | LHG | C4-O6-P-O5 |
| 26 | C | 522 | LHG | C3-O3-P-O4 |
| 26 | D | 409 | LHG | C3-O3-P-O4 |
| 26 | D | 410 | LHG | C3-O3-P-O4 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | r | 302 | LHG | C3-O3-P-O4 |
| 26 | R | 301 | LHG | C3-O3-P-O4 |
| 21 | N | 608 | CHL | C16-C17-C18-C20 |
| 22 | G | 613 | CLA | C16-C17-C18-C20 |
| 22 | b | 604 | CLA | C16-C17-C18-C20 |
| 22 | B | 607 | CLA | C16-C17-C18-C20 |
| 36 | k | 103 | LMG | O6-C1-O1-C7 |
| 36 | K | 103 | LMG | O6-C1-O1-C7 |
| 26 | d | 407 | LHG | O6-C4-C5-C6 |
| 26 | D | 408 | LHG | O6-C4-C5-C6 |
| 26 | s | 314 | LHG | O6-C4-C5-C6 |
| 26 | S | 314 | LHG | O6-C4-C5-C6 |
| 32 | d | 406 | PL9 | C42-C43-C44-C45 |
| 26 | d | 407 | LHG | C10-C11-C12-C13 |
| 26 | D | 408 | LHG | C10-C11-C12-C13 |
| 36 | D | 411 | LMG | C31-C32-C33-C34 |
| 36 | c | 523 | LMG | C37-C38-C39-C40 |
| 36 | C | 523 | LMG | C37-C38-C39-C40 |
| 22 | c | 506 | CLA | C2A-CAA-CBA-CGA |
| 22 | C | 503 | CLA | C2A-CAA-CBA-CGA |
| 22 | C | 507 | CLA | C2A-CAA-CBA-CGA |
| 22 | r | 305 | CLA | C2A-CAA-CBA-CGA |
| 36 | d | 410 | LMG | C31-C32-C33-C34 |
| 26 | y | 617 | LHG | C11-C12-C13-C14 |
| 26 | L | 103 | LHG | C11-C10-C9-C8 |
| 35 | c | 519 | DGD | C9B-CAB-CBB-CCB |
| 35 | J | 101 | DGD | C9B-CAB-CBB-CCB |
| 22 | Y | 609 | CLA | C11-C12-C13-C15 |
| 26 | l | 102 | LHG | C11-C10-C9-C8 |
| 35 | c | 517 | DGD | C4B-C5B-C6B-C7B |
| 21 | s | 306 | CHL | CAD-CBD-CGD-O1D |
| 21 | S | 306 | CHL | CAD-CBD-CGD-O1D |
| 22 | g | 613 | CLA | CAD-CBD-CGD-O1D |
| 22 | n | 612 | CLA | CAD-CBD-CGD-O1D |
| 22 | y | 612 | CLA | CAD-CBD-CGD-O1D |
| 22 | G | 613 | CLA | CAD-CBD-CGD-O1D |
| 22 | N | 612 | CLA | CAD-CBD-CGD-O1D |
| 22 | Y | 611 | CLA | CAD-CBD-CGD-O1D |
| 22 | b | 603 | CLA | CAD-CBD-CGD-O1D |
| 22 | b | 613 | CLA | CAD-CBD-CGD-O1D |
| 22 | B | 606 | CLA | CAD-CBD-CGD-O1D |
| 22 | B | 616 | CLA | CAD-CBD-CGD-O1D |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | s | 304 | CLA | CAD-CBD-CGD-O1D |
| 22 | S | 304 | CLA | CAD-CBD-CGD-O1D |
| 33 | a | 411 | SQD | C5-C6-S-O7 |
| 33 | d | 402 | SQD | C5-C6-S-O9 |
| 33 | l | 103 | SQD | O5-C5-C6-S |
| 33 | A | 412 | SQD | C5-C6-S-O7 |
| 33 | D | 402 | SQD | C5-C6-S-O9 |
| 33 | L | 101 | SQD | O5-C5-C6-S |
| 26 | c | 520 | LHG | C23-C24-C25-C26 |
| 26 | C | 520 | LHG | C23-C24-C25-C26 |
| 22 | c | 512 | CLA | C13-C15-C16-C17 |
| 22 | C | 513 | CLA | C13-C15-C16-C17 |
| 35 | h | 102 | DGD | C3A-C4A-C5A-C6A |
| 35 | C | 518 | DGD | C4B-C5B-C6B-C7B |
| 35 | H | 102 | DGD | C3A-C4A-C5A-C6A |
| 22 | r | 310 | CLA | O1D-CGD-O2D-CED |
| 26 | r | 302 | LHG | C15-C16-C17-C18 |
| 30 | d | 401 | PHO | CBA-CGA-O2A-C1 |
| 30 | D | 401 | PHO | CBA-CGA-O2A-C1 |
| 26 | d | 408 | LHG | C1-C2-C3-O3 |
| 26 | D | 409 | LHG | C1-C2-C3-O3 |
| 26 | R | 301 | LHG | C15-C16-C17-C18 |
| 22 | y | 610 | CLA | C11-C12-C13-C15 |
| 21 | g | 601 | CHL | C6-C7-C8-C10 |
| 21 | g | 601 | CHL | C12-C13-C15-C16 |
| 21 | n | 601 | CHL | C6-C7-C8-C10 |
| 21 | n | 601 | CHL | C12-C13-C15-C16 |
| 21 | y | 601 | CHL | C6-C7-C8-C10 |
| 21 | y | 601 | CHL | C12-C13-C15-C16 |
| 21 | G | 601 | CHL | C6-C7-C8-C10 |
| 21 | G | 601 | CHL | C12-C13-C15-C16 |
| 21 | N | 601 | CHL | C6-C7-C8-C10 |
| 21 | N | 601 | CHL | C12-C13-C15-C16 |
| 21 | Y | 601 | CHL | C6-C7-C8-C10 |
| 21 | Y | 601 | CHL | C12-C13-C15-C16 |
| 22 | g | 613 | CLA | C6-C7-C8-C10 |
| 22 | n | 612 | CLA | C6-C7-C8-C10 |
| 22 | y | 612 | CLA | C6-C7-C8-C10 |
| 22 | G | 613 | CLA | C6-C7-C8-C10 |
| 22 | N | 612 | CLA | C6-C7-C8-C10 |
| 22 | Y | 611 | CLA | C6-C7-C8-C10 |
| 22 | b | 601 | CLA | C11-C10-C8-C7 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 604 | CLA | C12-C13-C15-C16 |
| 22 | b | 607 | CLA | C12-C13-C15-C16 |
| 22 | b | 610 | CLA | C6-C7-C8-C10 |
| 22 | b | 611 | CLA | C12-C13-C15-C16 |
| 22 | c | 502 | CLA | C11-C10-C8-C7 |
| 22 | c | 503 | CLA | C11-C10-C8-C7 |
| 22 | c | 508 | CLA | C11-C12-C13-C15 |
| 22 | B | 604 | CLA | C11-C10-C8-C7 |
| 22 | B | 607 | CLA | C12-C13-C15-C16 |
| 22 | B | 610 | CLA | C12-C13-C15-C16 |
| 22 | B | 613 | CLA | C6-C7-C8-C10 |
| 22 | B | 614 | CLA | C12-C13-C15-C16 |
| 22 | C | 503 | CLA | C11-C10-C8-C7 |
| 22 | C | 504 | CLA | C11-C10-C8-C7 |
| 22 | C | 509 | CLA | C11-C12-C13-C15 |
| 22 | r | 303 | CLA | C11-C10-C8-C7 |
| 22 | R | 302 | CLA | C11-C10-C8-C7 |
| 26 | c | 520 | LHG | O6-C4-C5-O7 |
| 26 | d | 407 | LHG | O6-C4-C5-O7 |
| 26 | C | 520 | LHG | O6-C4-C5-O7 |
| 26 | D | 408 | LHG | O6-C4-C5-O7 |
| 26 | r | 302 | LHG | O6-C4-C5-O7 |
| 26 | R | 301 | LHG | O6-C4-C5-O7 |
| 32 | a | 410 | PL9 | C2-C3-C7-C8 |
| 32 | A | 411 | PL9 | C2-C3-C7-C8 |
| 24 | n | 615 | XAT | C29-C30-C31-C32 |
| 21 | G | 601 | CHL | CBD-CGD-O2D-CED |
| 26 | d | 407 | LHG | C8-C7-O7-C5 |
| 26 | d | 409 | LHG | C8-C7-O7-C5 |
| 26 | D | 408 | LHG | C8-C7-O7-C5 |
| 26 | D | 410 | LHG | C8-C7-O7-C5 |
| 22 | r | 304 | CLA | C5-C6-C7-C8 |
| 22 | c | 502 | CLA | C2A-CAA-CBA-CGA |
| 22 | R | 304 | CLA | C2A-CAA-CBA-CGA |
| 32 | D | 407 | PL9 | C42-C43-C44-C45 |
| 21 | g | 608 | CHL | C1C-C2C-CMC-OMC |
| 21 | n | 607 | CHL | C1C-C2C-CMC-OMC |
| 21 | y | 608 | CHL | C1C-C2C-CMC-OMC |
| 21 | G | 608 | CHL | C1C-C2C-CMC-OMC |
| 21 | N | 607 | CHL | C1C-C2C-CMC-OMC |
| 21 | Y | 607 | CHL | C1C-C2C-CMC-OMC |
| 26 | d | 409 | LHG | C14-C15-C16-C17 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 33 | l | 101 | SQD | C44-C45-C46-O48 |
| 33 | L | 102 | SQD | C44-C45-C46-O48 |
| 36 | w | 102 | LMG | O1-C7-C8-C9 |
| 36 | C | 502 | LMG | O1-C7-C8-C9 |
| 36 | T | 101 | LMG | C21-C22-C23-C24 |
| 26 | b | 619 | LHG | O7-C5-C6-O8 |
| 26 | B | 622 | LHG | O7-C5-C6-O8 |
| 33 | a | 411 | SQD | O6-C44-C45-O47 |
| 33 | l | 103 | SQD | O6-C44-C45-O47 |
| 33 | A | 412 | SQD | O6-C44-C45-O47 |
| 33 | L | 101 | SQD | O6-C44-C45-O47 |
| 36 | k | 103 | LMG | O1-C7-C8-O7 |
| 36 | K | 103 | LMG | O1-C7-C8-O7 |
| 26 | N | 618 | LHG | C35-C36-C37-C38 |
| 26 | D | 410 | LHG | C14-C15-C16-C17 |
| 36 | M | 101 | LMG | C21-C22-C23-C24 |
| 22 | R | 309 | CLA | O1D-CGD-O2D-CED |
| 21 | y | 601 | CHL | CBD-CGD-O2D-CED |
| 31 | B | 602 | BCR | C14-C15-C16-C17 |
| 22 | R | 303 | CLA | C5-C6-C7-C8 |
| 21 | r | 306 | CHL | C3-C5-C6-C7 |
| 21 | R | 305 | CHL | C3-C5-C6-C7 |
| 26 | L | 103 | LHG | C10-C11-C12-C13 |
| 26 | N | 618 | LHG | O10-C23-O8-C6 |
| 36 | b | 620 | LMG | C4-C5-C6-O5 |
| 36 | B | 623 | LMG | C4-C5-C6-O5 |
| 26 | l | 102 | LHG | C10-C11-C12-C13 |
| 22 | G | 610 | CLA | C16-C17-C18-C19 |
| 21 | g | 607 | CHL | C6-C7-C8-C9 |
| 21 | n | 606 | CHL | C6-C7-C8-C9 |
| 21 | y | 607 | CHL | C6-C7-C8-C9 |
| 21 | G | 607 | CHL | C6-C7-C8-C9 |
| 21 | N | 606 | CHL | C6-C7-C8-C9 |
| 21 | Y | 606 | CHL | C6-C7-C8-C9 |
| 21 | r | 306 | CHL | C14-C13-C15-C16 |
| 21 | R | 305 | CHL | C14-C13-C15-C16 |
| 22 | b | 605 | CLA | C14-C13-C15-C16 |
| 22 | b | 610 | CLA | C14-C13-C15-C16 |
| 22 | b | 612 | CLA | C14-C13-C15-C16 |
| 22 | c | 509 | CLA | C11-C10-C8-C9 |
| 22 | B | 608 | CLA | C14-C13-C15-C16 |
| 22 | B | 613 | CLA | C14-C13-C15-C16 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | B | 615 | CLA | C14-C13-C15-C16 |
| 22 | C | 510 | CLA | C11-C10-C8-C9 |
| 22 | r | 310 | CLA | C6-C7-C8-C9 |
| 22 | R | 309 | CLA | C6-C7-C8-C9 |
| 26 | L | 103 | LHG | O10-C23-O8-C6 |
| 26 | s | 314 | LHG | C31-C32-C33-C34 |
| 26 | S | 314 | LHG | C31-C32-C33-C34 |
| 36 | k | 103 | LMG | C37-C38-C39-C40 |
| 36 | b | 620 | LMG | C41-C42-C43-C44 |
| 36 | K | 103 | LMG | C37-C38-C39-C40 |
| 26 | y | 617 | LHG | C23-C24-C25-C26 |
| 26 | l | 102 | LHG | O10-C23-O8-C6 |
| 22 | c | 510 | CLA | CAA-CBA-CGA-O2A |
| 22 | C | 511 | CLA | CAA-CBA-CGA-O2A |
| 36 | B | 623 | LMG | C41-C42-C43-C44 |
| 23 | g | 615 | LUT | C10-C11-C12-C13 |
| 23 | n | 614 | LUT | C10-C11-C12-C13 |
| 23 | y | 614 | LUT | C10-C11-C12-C13 |
| 23 | G | 615 | LUT | C10-C11-C12-C13 |
| 23 | N | 614 | LUT | C10-C11-C12-C13 |
| 23 | Y | 613 | LUT | C10-C11-C12-C13 |
| 23 | r | 313 | LUT | C10-C11-C12-C13 |
| 23 | R | 312 | LUT | C10-C11-C12-C13 |
| 25 | g | 618 | NEX | C30-C31-C32-C33 |
| 25 | n | 616 | NEX | C30-C31-C32-C33 |
| 25 | y | 616 | NEX | C30-C31-C32-C33 |
| 25 | N | 617 | NEX | C30-C31-C32-C33 |
| 25 | Y | 616 | NEX | C30-C31-C32-C33 |
| 23 | G | 616 | LUT | C9-C10-C11-C12 |
| 25 | y | 618 | NEX | C13-C14-C15-C35 |
| 25 | r | 315 | NEX | C13-C14-C15-C35 |
| 22 | b | 605 | CLA | C10-C11-C12-C13 |
| 22 | B | 608 | CLA | C10-C11-C12-C13 |
| 22 | C | 514 | CLA | C8-C10-C11-C12 |
| 30 | d | 401 | PHO | O1A-CGA-O2A-C1 |
| 30 | D | 401 | PHO | O1A-CGA-O2A-C1 |
| 24 | G | 617 | XAT | C7-C8-C9-C10 |
| 22 | c | 513 | CLA | C8-C10-C11-C12 |
| 36 | c | 523 | LMG | C4-C5-C6-O5 |
| 26 | n | 617 | LHG | O10-C23-O8-C6 |
| 22 | b | 605 | CLA | C15-C16-C17-C18 |
| 22 | B | 608 | CLA | C15-C16-C17-C18 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 36 | C | 523 | LMG | C4-C5-C6-O5 |
| 21 | n | 601 | CHL | CBD-CGD-O2D-CED |
| 22 | G | 613 | CLA | C16-C17-C18-C19 |
| 36 | w | 102 | LMG | C16-C17-C18-C19 |
| 36 | C | 502 | LMG | C16-C17-C18-C19 |
| 21 | g | 606 | CHL | C1-C2-C3-C4 |
| 21 | n | 605 | CHL | C1-C2-C3-C4 |
| 21 | y | 606 | CHL | C1-C2-C3-C4 |
| 21 | G | 606 | CHL | C1-C2-C3-C4 |
| 21 | N | 605 | CHL | C1-C2-C3-C4 |
| 21 | Y | 605 | CHL | C1-C2-C3-C4 |
| 22 | s | 312 | CLA | C1-C2-C3-C4 |
| 22 | S | 312 | CLA | C1-C2-C3-C4 |
| 26 | y | 617 | LHG | C11-C10-C9-C8 |
| 35 | c | 518 | DGD | C3G-C2G-O2G-C1B |
| 35 | C | 519 | DGD | C3G-C2G-O2G-C1B |
| 26 | g | 619 | LHG | O6-C4-C5-C6 |
| 21 | g | 608 | CHL | C2-C1-O2A-CGA |
| 21 | n | 607 | CHL | C2-C1-O2A-CGA |
| 21 | y | 608 | CHL | C2-C1-O2A-CGA |
| 21 | G | 608 | CHL | C2-C1-O2A-CGA |
| 21 | N | 607 | CHL | C2-C1-O2A-CGA |
| 21 | Y | 607 | CHL | C2-C1-O2A-CGA |
| 21 | r | 308 | CHL | C2-C1-O2A-CGA |
| 21 | R | 307 | CHL | C2-C1-O2A-CGA |
| 22 | b | 601 | CLA | C2-C1-O2A-CGA |
| 22 | c | 508 | CLA | C2-C1-O2A-CGA |
| 22 | B | 604 | CLA | C2-C1-O2A-CGA |
| 22 | C | 509 | CLA | C2-C1-O2A-CGA |
| 22 | r | 312 | CLA | C2-C1-O2A-CGA |
| 22 | R | 311 | CLA | C2-C1-O2A-CGA |
| 36 | c | 523 | LMG | C35-C36-C37-C38 |
| 36 | C | 523 | LMG | C35-C36-C37-C38 |
| 36 | D | 411 | LMG | C32-C33-C34-C35 |
| 31 | T | 102 | BCR | C14-C15-C16-C17 |
| 36 | d | 410 | LMG | C32-C33-C34-C35 |
| 26 | y | 617 | LHG | C35-C36-C37-C38 |
| 33 | D | 402 | SQD | C11-C10-C9-C8 |
| 33 | d | 402 | SQD | C11-C10-C9-C8 |
| 35 | C | 518 | DGD | C2A-C3A-C4A-C5A |
| 35 | c | 517 | DGD | C2A-C3A-C4A-C5A |
| 22 | D | 404 | CLA | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 31 | b | 618 | BCR | C5-C6-C7-C8 |
| 31 | b | 618 | BCR | C23-C24-C25-C26 |
| 31 | B | 621 | BCR | C5-C6-C7-C8 |
| 31 | B | 621 | BCR | C23-C24-C25-C26 |
| 22 | a | 405 | CLA | C2-C3-C5-C6 |
| 22 | A | 406 | CLA | C2-C3-C5-C6 |
| 22 | d | 403 | CLA | O1D-CGD-O2D-CED |
| 36 | c | 523 | LMG | C16-C17-C18-C19 |
| 22 | c | 510 | CLA | C4C-C3C-CAC-CBC |
| 26 | c | 520 | LHG | C31-C32-C33-C34 |
| 26 | C | 520 | LHG | C31-C32-C33-C34 |
| 36 | d | 410 | LMG | C14-C15-C16-C17 |
| 36 | C | 523 | LMG | C16-C17-C18-C19 |
| 21 | s | 306 | CHL | C4C-C3C-CAC-CBC |
| 21 | S | 306 | CHL | C4C-C3C-CAC-CBC |
| 22 | C | 511 | CLA | C4C-C3C-CAC-CBC |
| 36 | D | 411 | LMG | C14-C15-C16-C17 |
| 21 | g | 601 | CHL | C16-C17-C18-C20 |
| 21 | n | 601 | CHL | C16-C17-C18-C20 |
| 21 | y | 601 | CHL | C16-C17-C18-C20 |
| 21 | G | 601 | CHL | C16-C17-C18-C20 |
| 21 | N | 601 | CHL | C16-C17-C18-C20 |
| 21 | Y | 601 | CHL | C16-C17-C18-C20 |
| 22 | c | 503 | CLA | C16-C17-C18-C20 |
| 22 | C | 504 | CLA | C16-C17-C18-C20 |
| 35 | C | 518 | DGD | C4D-C5D-C6D-O5D |
| 21 | G | 601 | CHL | C8-C10-C11-C12 |
| 21 | Y | 601 | CHL | C8-C10-C11-C12 |
| 30 | d | 401 | PHO | C2A-CAA-CBA-CGA |
| 30 | D | 401 | PHO | C2A-CAA-CBA-CGA |
| 35 | h | 102 | DGD | C2E-C1E-O5D-C6D |
| 35 | H | 102 | DGD | C2E-C1E-O5D-C6D |
| 36 | B | 601 | LMG | O7-C8-C9-O8 |
| 36 | I | 101 | LMG | O7-C8-C9-O8 |
| 21 | Y | 601 | CHL | CBD-CGD-O2D-CED |
| 26 | c | 522 | LHG | C3-O3-P-O6 |
| 26 | C | 522 | LHG | C3-O3-P-O6 |
| 35 | c | 517 | DGD | C4D-C5D-C6D-O5D |
| 21 | y | 601 | CHL | C8-C10-C11-C12 |
| 30 | d | 401 | PHO | CHA-CBD-CGD-O2D |
| 30 | D | 401 | PHO | CHA-CBD-CGD-O2D |
| 21 | G | 601 | CHL | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | N | 601 | CHL | O1D-CGD-O2D-CED |
| 21 | g | 601 | CHL | C8-C10-C11-C12 |
| 22 | x | 101 | CLA | C13-C15-C16-C17 |
| 33 | D | 402 | SQD | C30-C31-C32-C33 |
| 33 | a | 411 | SQD | O6-C44-C45-C46 |
| 33 | A | 412 | SQD | O6-C44-C45-C46 |
| 26 | C | 522 | LHG | C14-C15-C16-C17 |
| 33 | d | 402 | SQD | C30-C31-C32-C33 |
| 21 | g | 601 | CHL | O1D-CGD-O2D-CED |
| 21 | N | 601 | CHL | C8-C10-C11-C12 |
| 21 | n | 608 | CHL | C11-C12-C13-C15 |
| 22 | g | 611 | CLA | C6-C7-C8-C10 |
| 22 | g | 612 | CLA | C11-C10-C8-C7 |
| 22 | n | 609 | CLA | C12-C13-C15-C16 |
| 22 | n | 610 | CLA | C6-C7-C8-C10 |
| 22 | n | 611 | CLA | C11-C10-C8-C7 |
| 22 | y | 611 | CLA | C6-C7-C8-C10 |
| 22 | G | 611 | CLA | C6-C7-C8-C10 |
| 22 | G | 612 | CLA | C11-C10-C8-C7 |
| 22 | N | 610 | CLA | C6-C7-C8-C10 |
| 22 | N | 611 | CLA | C11-C10-C8-C7 |
| 22 | Y | 610 | CLA | C6-C7-C8-C10 |
| 22 | c | 503 | CLA | C12-C13-C15-C16 |
| 22 | w | 101 | CLA | C11-C10-C8-C7 |
| 22 | C | 504 | CLA | C12-C13-C15-C16 |
| 22 | W | 101 | CLA | C11-C10-C8-C7 |
| 22 | s | 311 | CLA | C6-C7-C8-C10 |
| 22 | S | 311 | CLA | C6-C7-C8-C10 |
| 26 | c | 522 | LHG | C14-C15-C16-C17 |
| 21 | Y | 607 | CHL | C4C-C3C-CAC-CBC |
| 21 | g | 608 | CHL | C6-C7-C8-C9 |
| 21 | n | 607 | CHL | C6-C7-C8-C9 |
| 21 | y | 608 | CHL | C6-C7-C8-C9 |
| 21 | G | 608 | CHL | C6-C7-C8-C9 |
| 21 | N | 607 | CHL | C6-C7-C8-C9 |
| 21 | Y | 607 | CHL | C6-C7-C8-C9 |
| 22 | g | 602 | CLA | C11-C10-C8-C9 |
| 22 | n | 602 | CLA | C11-C10-C8-C9 |
| 22 | y | 602 | CLA | C11-C10-C8-C9 |
| 22 | y | 612 | CLA | C14-C13-C15-C16 |
| 22 | G | 602 | CLA | C11-C10-C8-C9 |
| 22 | N | 602 | CLA | C11-C10-C8-C9 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | Y | 602 | CLA | C11-C10-C8-C9 |
| 22 | b | 604 | CLA | C14-C13-C15-C16 |
| 22 | b | 607 | CLA | C14-C13-C15-C16 |
| 22 | b | 610 | CLA | C6-C7-C8-C9 |
| 22 | c | 502 | CLA | C11-C10-C8-C9 |
| 22 | c | 508 | CLA | C11-C12-C13-C14 |
| 22 | c | 513 | CLA | C11-C12-C13-C14 |
| 22 | d | 403 | CLA | C11-C12-C13-C14 |
| 22 | B | 607 | CLA | C14-C13-C15-C16 |
| 22 | B | 610 | CLA | C14-C13-C15-C16 |
| 22 | B | 613 | CLA | C6-C7-C8-C9 |
| 22 | C | 503 | CLA | C11-C10-C8-C9 |
| 22 | C | 509 | CLA | C11-C12-C13-C14 |
| 22 | C | 514 | CLA | C11-C12-C13-C14 |
| 22 | D | 404 | CLA | C11-C12-C13-C14 |
| 22 | s | 303 | CLA | C6-C7-C8-C9 |
| 22 | S | 303 | CLA | C6-C7-C8-C9 |
| 21 | n | 601 | CHL | C8-C10-C11-C12 |
| 21 | n | 606 | CHL | C10-C11-C12-C13 |
| 21 | N | 606 | CHL | C10-C11-C12-C13 |
| 22 | B | 603 | CLA | C13-C15-C16-C17 |
| 24 | N | 616 | XAT | C29-C30-C31-C32 |
| 31 | k | 101 | BCR | C15-C16-C17-C18 |
| 31 | K | 101 | BCR | C15-C16-C17-C18 |
| 22 | b | 604 | CLA | C16-C17-C18-C19 |
| 22 | B | 607 | CLA | C16-C17-C18-C19 |
| 21 | g | 608 | CHL | C4C-C3C-CAC-CBC |
| 26 | N | 618 | LHG | C19-C20-C21-C22 |
| 33 | d | 402 | SQD | C23-C24-C25-C26 |
| 33 | D | 402 | SQD | C23-C24-C25-C26 |
| 21 | n | 607 | CHL | C4C-C3C-CAC-CBC |
| 21 | y | 608 | CHL | C4C-C3C-CAC-CBC |
| 21 | G | 608 | CHL | C4C-C3C-CAC-CBC |
| 26 | c | 520 | LHG | C26-C27-C28-C29 |
| 26 | C | 520 | LHG | C26-C27-C28-C29 |
| 21 | y | 601 | CHL | O1D-CGD-O2D-CED |
| 21 | N | 607 | CHL | C4C-C3C-CAC-CBC |
| 21 | g | 606 | CHL | CAA-CBA-CGA-O1A |
| 21 | n | 605 | CHL | CAA-CBA-CGA-O1A |
| 21 | y | 606 | CHL | CAA-CBA-CGA-O1A |
| 21 | G | 606 | CHL | CAA-CBA-CGA-O1A |
| 21 | N | 605 | CHL | CAA-CBA-CGA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | Y | 605 | CHL | CAA-CBA-CGA-O1A |
| 21 | g | 607 | CHL | C10-C11-C12-C13 |
| 21 | y | 607 | CHL | C10-C11-C12-C13 |
| 21 | G | 607 | CHL | C10-C11-C12-C13 |
| 26 | L | 103 | LHG | C28-C29-C30-C31 |
| 26 | l | 102 | LHG | C28-C29-C30-C31 |
| 26 | D | 408 | LHG | O10-C23-O8-C6 |
| 21 | Y | 606 | CHL | C10-C11-C12-C13 |
| 26 | c | 521 | LHG | O1-C1-C2-C3 |
| 26 | C | 521 | LHG | O1-C1-C2-C3 |
| 26 | d | 407 | LHG | O10-C23-O8-C6 |
| 22 | B | 605 | CLA | C16-C17-C18-C20 |
| 22 | r | 310 | CLA | C16-C17-C18-C20 |
| 22 | R | 309 | CLA | C16-C17-C18-C20 |
| 22 | g | 614 | CLA | CBA-CGA-O2A-C1 |
| 22 | n | 613 | CLA | CBA-CGA-O2A-C1 |
| 22 | y | 613 | CLA | CBA-CGA-O2A-C1 |
| 22 | G | 614 | CLA | CBA-CGA-O2A-C1 |
| 22 | N | 613 | CLA | CBA-CGA-O2A-C1 |
| 22 | Y | 612 | CLA | CBA-CGA-O2A-C1 |
| 26 | Y | 617 | LHG | C24-C23-O8-C6 |
| 21 | Y | 601 | CHL | O1D-CGD-O2D-CED |
| 36 | M | 101 | LMG | C19-C20-C21-C22 |
| 36 | T | 101 | LMG | C19-C20-C21-C22 |
| 22 | b | 601 | CLA | C5-C6-C7-C8 |
| 22 | B | 604 | CLA | C5-C6-C7-C8 |
| 21 | n | 601 | CHL | O1D-CGD-O2D-CED |
| 22 | B | 605 | CLA | C2A-CAA-CBA-CGA |
| 33 | D | 402 | SQD | O49-C7-C8-C9 |
| 24 | y | 615 | XAT | C29-C30-C31-C32 |
| 24 | N | 616 | XAT | C33-C34-C35-C15 |
| 24 | Y | 615 | XAT | C33-C34-C35-C15 |
| 24 | r | 314 | XAT | C13-C14-C15-C35 |
| 24 | R | 313 | XAT | C13-C14-C15-C35 |
| 36 | B | 601 | LMG | C37-C38-C39-C40 |
| 36 | I | 101 | LMG | C37-C38-C39-C40 |
| 26 | n | 617 | LHG | O6-C4-C5-C6 |
| 22 | y | 613 | CLA | O1A-CGA-O2A-C1 |
| 22 | N | 613 | CLA | O1A-CGA-O2A-C1 |
| 26 | y | 617 | LHG | C30-C31-C32-C33 |
| 36 | B | 601 | LMG | C33-C34-C35-C36 |
| 36 | I | 101 | LMG | C33-C34-C35-C36 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 602 | CLA | C16-C17-C18-C20 |
| 36 | k | 103 | LMG | C39-C40-C41-C42 |
| 21 | r | 306 | CHL | C4-C3-C5-C6 |
| 21 | R | 305 | CHL | C4-C3-C5-C6 |
| 22 | b | 604 | CLA | C4-C3-C5-C6 |
| 22 | B | 607 | CLA | C4-C3-C5-C6 |
| 36 | K | 103 | LMG | C39-C40-C41-C42 |
| 22 | g | 614 | CLA | O1A-CGA-O2A-C1 |
| 22 | n | 613 | CLA | O1A-CGA-O2A-C1 |
| 22 | G | 614 | CLA | O1A-CGA-O2A-C1 |
| 22 | Y | 612 | CLA | O1A-CGA-O2A-C1 |
| 21 | R | 307 | CHL | C5-C6-C7-C8 |
| 26 | G | 618 | LHG | O9-C7-O7-C5 |
| 33 | d | 402 | SQD | O49-C7-C8-C9 |
| 22 | s | 304 | CLA | CAA-CBA-CGA-O1A |
| 22 | S | 304 | CLA | CAA-CBA-CGA-O1A |
| 22 | c | 514 | CLA | C2-C1-O2A-CGA |
| 22 | C | 515 | CLA | C2-C1-O2A-CGA |
| 21 | r | 308 | CHL | C5-C6-C7-C8 |
| 36 | B | 623 | LMG | C29-C30-C31-C32 |
| 36 | C | 502 | LMG | O6-C5-C6-O5 |
| 21 | s | 306 | CHL | C2A-CAA-CBA-CGA |
| 22 | b | 602 | CLA | C2A-CAA-CBA-CGA |
| 22 | s | 312 | CLA | C2A-CAA-CBA-CGA |
| 22 | S | 312 | CLA | C2A-CAA-CBA-CGA |
| 35 | c | 517 | DGD | O1G-C1G-C2G-O2G |
| 35 | C | 518 | DGD | O1G-C1G-C2G-O2G |
| 36 | b | 620 | LMG | C29-C30-C31-C32 |
| 21 | g | 608 | CHL | C3A-C2A-CAA-CBA |
| 21 | n | 607 | CHL | C3A-C2A-CAA-CBA |
| 21 | y | 608 | CHL | C3A-C2A-CAA-CBA |
| 21 | G | 608 | CHL | C3A-C2A-CAA-CBA |
| 21 | N | 607 | CHL | C3A-C2A-CAA-CBA |
| 21 | Y | 607 | CHL | C3A-C2A-CAA-CBA |
| 22 | b | 607 | CLA | C3A-C2A-CAA-CBA |
| 22 | B | 610 | CLA | C3A-C2A-CAA-CBA |
| 21 | S | 306 | CHL | CAA-CBA-CGA-O1A |
| 26 | g | 619 | LHG | C27-C28-C29-C30 |
| 36 | w | 102 | LMG | O6-C5-C6-O5 |
| 26 | c | 522 | LHG | C11-C10-C9-C8 |
| 26 | C | 522 | LHG | C11-C10-C9-C8 |
| 22 | b | 601 | CLA | C11-C12-C13-C14 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 603 | CLA | C11-C12-C13-C14 |
| 22 | c | 503 | CLA | C11-C10-C8-C9 |
| 22 | c | 512 | CLA | C11-C12-C13-C14 |
| 22 | d | 403 | CLA | C6-C7-C8-C9 |
| 22 | B | 604 | CLA | C11-C12-C13-C14 |
| 22 | B | 606 | CLA | C11-C12-C13-C14 |
| 22 | C | 504 | CLA | C11-C10-C8-C9 |
| 22 | C | 513 | CLA | C11-C12-C13-C14 |
| 22 | D | 404 | CLA | C6-C7-C8-C9 |
| 22 | a | 405 | CLA | C15-C16-C17-C18 |
| 22 | A | 406 | CLA | C15-C16-C17-C18 |
| 26 | Y | 617 | LHG | C23-C24-C25-C26 |
| 25 | Y | 616 | NEX | C39-C29-C30-C31 |
| 35 | a | 413 | DGD | C1G-C2G-C3G-O3G |
| 35 | A | 401 | DGD | C1G-C2G-C3G-O3G |
| 36 | c | 523 | LMG | O1-C7-C8-C9 |
| 36 | C | 523 | LMG | O1-C7-C8-C9 |
| 36 | K | 103 | LMG | O9-C10-O7-C8 |
| 35 | c | 518 | DGD | O2G-C1B-C2B-C3B |
| 35 | C | 519 | DGD | O2G-C1B-C2B-C3B |
| 22 | S | 304 | CLA | CAA-CBA-CGA-O2A |
| 21 | S | 306 | CHL | C2A-CAA-CBA-CGA |
| 26 | G | 618 | LHG | O10-C23-O8-C6 |
| 22 | y | 610 | CLA | C11-C12-C13-C14 |
| 22 | Y | 609 | CLA | C11-C12-C13-C14 |
| 22 | b | 614 | CLA | C16-C17-C18-C20 |
| 22 | B | 617 | CLA | C16-C17-C18-C20 |
| 22 | C | 504 | CLA | C16-C17-C18-C19 |
| 35 | a | 413 | DGD | C6A-C7A-C8A-C9A |
| 35 | A | 401 | DGD | C6A-C7A-C8A-C9A |
| 35 | H | 102 | DGD | C7B-C8B-C9B-CAB |
| 22 | s | 304 | CLA | CAA-CBA-CGA-O2A |
| 35 | h | 102 | DGD | C7B-C8B-C9B-CAB |
| 21 | s | 306 | CHL | CAA-CBA-CGA-O1A |
| 22 | c | 509 | CLA | C4-C3-C5-C6 |
| 22 | C | 510 | CLA | C4-C3-C5-C6 |
| 21 | g | 608 | CHL | C1A-C2A-CAA-CBA |
| 21 | n | 607 | CHL | C1A-C2A-CAA-CBA |
| 21 | y | 608 | CHL | C1A-C2A-CAA-CBA |
| 21 | G | 608 | CHL | C1A-C2A-CAA-CBA |
| 21 | N | 607 | CHL | C1A-C2A-CAA-CBA |
| 21 | Y | 607 | CHL | C1A-C2A-CAA-CBA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 602 | CLA | C1A-C2A-CAA-CBA |
| 22 | b | 605 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 502 | CLA | C1A-C2A-CAA-CBA |
| 22 | B | 605 | CLA | C1A-C2A-CAA-CBA |
| 22 | B | 608 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 503 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 503 | CLA | C16-C17-C18-C19 |
| 36 | k | 103 | LMG | O9-C10-O7-C8 |
| 21 | N | 608 | CHL | C11-C12-C13-C15 |
| 22 | a | 405 | CLA | C6-C7-C8-C10 |
| 22 | b | 603 | CLA | C6-C7-C8-C10 |
| 22 | b | 604 | CLA | C11-C10-C8-C7 |
| 22 | A | 406 | CLA | C6-C7-C8-C10 |
| 22 | B | 606 | CLA | C6-C7-C8-C10 |
| 22 | B | 607 | CLA | C11-C10-C8-C7 |
| 35 | c | 518 | DGD | C3B-C4B-C5B-C6B |
| 35 | C | 519 | DGD | C3B-C4B-C5B-C6B |
| 36 | d | 410 | LMG | C35-C36-C37-C38 |
| 36 | D | 411 | LMG | C35-C36-C37-C38 |
| 21 | s | 306 | CHL | CAA-CBA-CGA-O2A |
| 21 | S | 306 | CHL | CAA-CBA-CGA-O2A |
| 36 | B | 623 | LMG | C39-C40-C41-C42 |
| 36 | b | 620 | LMG | C39-C40-C41-C42 |
| 22 | s | 311 | CLA | CAA-CBA-CGA-O2A |
| 22 | S | 311 | CLA | CAA-CBA-CGA-O2A |
| 22 | C | 508 | CLA | C5-C6-C7-C8 |
| 26 | r | 302 | LHG | C5-C4-O6-P |
| 26 | R | 301 | LHG | C5-C4-O6-P |
| 36 | C | 502 | LMG | C4-C5-C6-O5 |
| 22 | c | 507 | CLA | C5-C6-C7-C8 |
| 21 | g | 608 | CHL | CAA-CBA-CGA-O2A |
| 22 | c | 506 | CLA | C15-C16-C17-C18 |
| 22 | C | 507 | CLA | C15-C16-C17-C18 |
| 36 | w | 102 | LMG | C4-C5-C6-O5 |
| 22 | b | 604 | CLA | CBA-CGA-O2A-C1 |
| 21 | n | 607 | CHL | CAA-CBA-CGA-O2A |
| 21 | G | 608 | CHL | CAA-CBA-CGA-O2A |
| 21 | N | 607 | CHL | CAA-CBA-CGA-O2A |
| 24 | r | 314 | XAT | C32-C33-C34-C35 |
| 24 | R | 313 | XAT | C32-C33-C34-C35 |
| 35 | a | 413 | DGD | O2G-C2G-C3G-O3G |
| 35 | A | 401 | DGD | O2G-C2G-C3G-O3G |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | B | 607 | CLA | CBA-CGA-O2A-C1 |
| 21 | y | 608 | CHL | CAA-CBA-CGA-O2A |
| 21 | Y | 607 | CHL | CAA-CBA-CGA-O2A |
| 22 | A | 406 | CLA | C2A-CAA-CBA-CGA |
| 23 | r | 313 | LUT | C29-C30-C31-C32 |
| 23 | R | 312 | LUT | C29-C30-C31-C32 |
| 36 | C | 502 | LMG | C38-C39-C40-C41 |
| 36 | w | 102 | LMG | C38-C39-C40-C41 |
| 26 | c | 521 | LHG | C1-C2-C3-O3 |
| 26 | C | 521 | LHG | C1-C2-C3-O3 |
| 21 | g | 601 | CHL | C2-C1-O2A-CGA |
| 21 | n | 601 | CHL | C2-C1-O2A-CGA |
| 21 | y | 601 | CHL | C2-C1-O2A-CGA |
| 21 | G | 601 | CHL | C2-C1-O2A-CGA |
| 21 | Y | 601 | CHL | C2-C1-O2A-CGA |
| 35 | c | 519 | DGD | O6D-C5D-C6D-O5D |
| 35 | J | 101 | DGD | O6D-C5D-C6D-O5D |
| 21 | r | 306 | CHL | C2-C3-C5-C6 |
| 21 | R | 305 | CHL | C2-C3-C5-C6 |
| 22 | a | 408 | CLA | C2-C3-C5-C6 |
| 22 | b | 604 | CLA | O1A-CGA-O2A-C1 |
| 22 | B | 607 | CLA | O1A-CGA-O2A-C1 |
| 21 | S | 302 | CHL | CAA-CBA-CGA-O2A |
| 22 | x | 101 | CLA | C14-C13-C15-C16 |
| 22 | B | 603 | CLA | C14-C13-C15-C16 |
| 21 | s | 302 | CHL | CAA-CBA-CGA-O2A |
| 26 | C | 521 | LHG | C19-C20-C21-C22 |
| 26 | r | 302 | LHG | C10-C11-C12-C13 |
| 26 | R | 301 | LHG | C10-C11-C12-C13 |
| 26 | c | 521 | LHG | C19-C20-C21-C22 |
| 26 | c | 522 | LHG | C28-C29-C30-C31 |
| 22 | g | 602 | CLA | C2A-CAA-CBA-CGA |
| 22 | n | 602 | CLA | C2A-CAA-CBA-CGA |
| 22 | y | 602 | CLA | C2A-CAA-CBA-CGA |
| 22 | G | 602 | CLA | C2A-CAA-CBA-CGA |
| 22 | N | 602 | CLA | C2A-CAA-CBA-CGA |
| 22 | Y | 602 | CLA | C2A-CAA-CBA-CGA |
| 22 | a | 405 | CLA | C2A-CAA-CBA-CGA |
| 26 | C | 522 | LHG | C28-C29-C30-C31 |
| 26 | s | 314 | LHG | O10-C23-O8-C6 |
| 26 | S | 314 | LHG | O10-C23-O8-C6 |
| 23 | N | 615 | LUT | C5-C6-C7-C8 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 31 | b | 616 | BCR | C23-C24-C25-C30 |
| 31 | b | 617 | BCR | C23-C24-C25-C26 |
| 31 | b | 617 | BCR | C23-C24-C25-C30 |
| 31 | b | 618 | BCR | C1-C6-C7-C8 |
| 31 | b | 618 | BCR | C23-C24-C25-C30 |
| 31 | B | 602 | BCR | C23-C24-C25-C30 |
| 31 | B | 619 | BCR | C23-C24-C25-C30 |
| 31 | B | 620 | BCR | C23-C24-C25-C26 |
| 31 | B | 620 | BCR | C23-C24-C25-C30 |
| 31 | B | 621 | BCR | C1-C6-C7-C8 |
| 31 | B | 621 | BCR | C23-C24-C25-C30 |
| 31 | T | 102 | BCR | C23-C24-C25-C30 |
| 22 | g | 614 | CLA | CAA-CBA-CGA-O2A |
| 22 | n | 613 | CLA | CAA-CBA-CGA-O2A |
| 22 | y | 613 | CLA | CAA-CBA-CGA-O2A |
| 22 | G | 614 | CLA | CAA-CBA-CGA-O2A |
| 22 | N | 613 | CLA | CAA-CBA-CGA-O2A |
| 22 | Y | 612 | CLA | CAA-CBA-CGA-O2A |
| 35 | c | 517 | DGD | C1G-C2G-C3G-O3G |
| 35 | C | 518 | DGD | C1G-C2G-C3G-O3G |
| 22 | s | 308 | CLA | CAA-CBA-CGA-O2A |
| 22 | S | 308 | CLA | CAA-CBA-CGA-O2A |
| 26 | g | 619 | LHG | C14-C15-C16-C17 |
| 26 | Y | 617 | LHG | C10-C11-C12-C13 |
| 24 | Y | 615 | XAT | C29-C30-C31-C32 |
| 25 | n | 616 | NEX | C29-C30-C31-C32 |
| 25 | n | 616 | NEX | C33-C34-C35-C15 |
| 32 | d | 406 | PL9 | C35-C34-C36-C37 |
| 32 | D | 407 | PL9 | C35-C34-C36-C37 |
| 22 | r | 310 | CLA | C16-C17-C18-C19 |
| 22 | R | 309 | CLA | C16-C17-C18-C19 |
| 22 | s | 303 | CLA | C5-C6-C7-C8 |
| 22 | S | 303 | CLA | C5-C6-C7-C8 |
| 22 | A | 409 | CLA | C2-C3-C5-C6 |
| 36 | B | 601 | LMG | C8-C7-O1-C1 |
| 36 | D | 411 | LMG | C8-C7-O1-C1 |
| 36 | I | 101 | LMG | C8-C7-O1-C1 |
| 26 | c | 521 | LHG | C24-C23-O8-C6 |
| 26 | C | 521 | LHG | C24-C23-O8-C6 |
| 26 | c | 520 | LHG | C35-C36-C37-C38 |
| 21 | S | 302 | CHL | CAA-CBA-CGA-O1A |
| 22 | G | 603 | CLA | CBD-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | C | 520 | LHG | C35-C36-C37-C38 |
| 26 | b | 619 | LHG | C13-C14-C15-C16 |
| 22 | B | 618 | CLA | C3-C5-C6-C7 |
| 21 | s | 302 | CHL | CAA-CBA-CGA-O1A |
| 22 | b | 614 | CLA | O1D-CGD-O2D-CED |
| 26 | B | 622 | LHG | C13-C14-C15-C16 |
| 26 | N | 618 | LHG | O6-C4-C5-C6 |
| 26 | c | 520 | LHG | O6-C4-C5-C6 |
| 26 | C | 520 | LHG | O6-C4-C5-C6 |
| 30 | d | 401 | PHO | C4-C3-C5-C6 |
| 30 | D | 401 | PHO | C4-C3-C5-C6 |
| 35 | h | 102 | DGD | C2A-C3A-C4A-C5A |
| 35 | H | 102 | DGD | C2A-C3A-C4A-C5A |
| 21 | Y | 608 | CHL | C12-C13-C15-C16 |
| 22 | g | 603 | CLA | C11-C10-C8-C7 |
| 22 | g | 610 | CLA | C11-C12-C13-C15 |
| 22 | n | 603 | CLA | C11-C10-C8-C7 |
| 22 | y | 603 | CLA | C11-C10-C8-C7 |
| 22 | G | 603 | CLA | C11-C10-C8-C7 |
| 22 | N | 603 | CLA | C11-C10-C8-C7 |
| 22 | N | 609 | CLA | C11-C12-C13-C15 |
| 22 | Y | 603 | CLA | C11-C10-C8-C7 |
| 22 | b | 613 | CLA | C12-C13-C15-C16 |
| 22 | c | 514 | CLA | C12-C13-C15-C16 |
| 22 | B | 616 | CLA | C12-C13-C15-C16 |
| 22 | C | 515 | CLA | C12-C13-C15-C16 |
| 22 | g | 603 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 615 | CLA | C3-C5-C6-C7 |
| 26 | g | 619 | LHG | C35-C36-C37-C38 |
| 26 | b | 619 | LHG | O7-C7-C8-C9 |
| 36 | T | 101 | LMG | O8-C28-C29-C30 |
| 22 | y | 603 | CLA | CBD-CGD-O2D-CED |
| 22 | N | 603 | CLA | CBD-CGD-O2D-CED |
| 22 | Y | 603 | CLA | CBD-CGD-O2D-CED |
| 26 | n | 617 | LHG | C34-C35-C36-C37 |
| 22 | b | 613 | CLA | C15-C16-C17-C18 |
| 22 | B | 616 | CLA | C15-C16-C17-C18 |
| 22 | r | 303 | CLA | C10-C11-C12-C13 |
| 22 | R | 302 | CLA | C10-C11-C12-C13 |
| 22 | s | 312 | CLA | O2A-C1-C2-C3 |
| 22 | S | 312 | CLA | O2A-C1-C2-C3 |
| 26 | N | 618 | LHG | O8-C23-C24-C25 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | B | 622 | LHG | O7-C7-C8-C9 |
| 36 | M | 101 | LMG | O8-C28-C29-C30 |
| 21 | g | 601 | CHL | C16-C17-C18-C19 |
| 21 | n | 601 | CHL | C16-C17-C18-C19 |
| 21 | y | 601 | CHL | C16-C17-C18-C19 |
| 21 | G | 601 | CHL | C16-C17-C18-C19 |
| 21 | N | 601 | CHL | C16-C17-C18-C19 |
| 21 | Y | 601 | CHL | C16-C17-C18-C19 |
| 22 | b | 601 | CLA | C16-C17-C18-C20 |
| 22 | B | 604 | CLA | C16-C17-C18-C20 |
| 22 | B | 617 | CLA | O1D-CGD-O2D-CED |
| 22 | n | 612 | CLA | CAA-CBA-CGA-O2A |
| 22 | n | 603 | CLA | CBD-CGD-O2D-CED |
| 26 | D | 408 | LHG | C15-C16-C17-C18 |
| 21 | r | 308 | CHL | C4-C3-C5-C6 |
| 21 | R | 307 | CHL | C4-C3-C5-C6 |
| 22 | c | 504 | CLA | C4-C3-C5-C6 |
| 22 | C | 505 | CLA | C4-C3-C5-C6 |
| 22 | Y | 611 | CLA | C15-C16-C17-C18 |
| 26 | d | 407 | LHG | C15-C16-C17-C18 |
| 26 | D | 408 | LHG | C3-O3-P-O6 |
| 22 | s | 310 | CLA | C2-C3-C5-C6 |
| 22 | S | 310 | CLA | C2-C3-C5-C6 |
| 22 | g | 613 | CLA | CAA-CBA-CGA-O2A |
| 22 | y | 612 | CLA | CAA-CBA-CGA-O2A |
| 22 | G | 613 | CLA | CAA-CBA-CGA-O2A |
| 22 | N | 612 | CLA | CAA-CBA-CGA-O2A |
| 22 | Y | 611 | CLA | CAA-CBA-CGA-O2A |
| 22 | s | 311 | CLA | C11-C10-C8-C7 |
| 22 | S | 311 | CLA | C11-C10-C8-C7 |
| 21 | g | 601 | CHL | C6-C7-C8-C9 |
| 21 | n | 601 | CHL | C6-C7-C8-C9 |
| 21 | y | 601 | CHL | C6-C7-C8-C9 |
| 21 | G | 601 | CHL | C6-C7-C8-C9 |
| 21 | N | 601 | CHL | C6-C7-C8-C9 |
| 21 | Y | 601 | CHL | C6-C7-C8-C9 |
| 22 | b | 603 | CLA | C6-C7-C8-C9 |
| 22 | b | 611 | CLA | C14-C13-C15-C16 |
| 22 | c | 510 | CLA | C11-C12-C13-C14 |
| 22 | B | 606 | CLA | C6-C7-C8-C9 |
| 22 | B | 614 | CLA | C14-C13-C15-C16 |
| 22 | C | 511 | CLA | C11-C12-C13-C14 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | r | 303 | CLA | C11-C10-C8-C9 |
| 22 | R | 302 | CLA | C11-C10-C8-C9 |
| 33 | A | 412 | SQD | C27-C28-C29-C30 |
| 33 | a | 411 | SQD | C27-C28-C29-C30 |
| 22 | c | 514 | CLA | C3A-C2A-CAA-CBA |
| 22 | C | 515 | CLA | C3A-C2A-CAA-CBA |
| 30 | d | 401 | PHO | C3A-C2A-CAA-CBA |
| 30 | D | 401 | PHO | C3A-C2A-CAA-CBA |
| 22 | g | 604 | CLA | CAD-CBD-CGD-O2D |
| 22 | g | 610 | CLA | CAD-CBD-CGD-O2D |
| 22 | n | 604 | CLA | CAD-CBD-CGD-O2D |
| 22 | n | 609 | CLA | CAD-CBD-CGD-O2D |
| 22 | y | 604 | CLA | CAD-CBD-CGD-O2D |
| 22 | y | 610 | CLA | CAD-CBD-CGD-O2D |
| 22 | G | 604 | CLA | CAD-CBD-CGD-O2D |
| 22 | G | 610 | CLA | CAD-CBD-CGD-O2D |
| 22 | N | 604 | CLA | CAD-CBD-CGD-O2D |
| 22 | N | 609 | CLA | CAD-CBD-CGD-O2D |
| 22 | Y | 604 | CLA | CAD-CBD-CGD-O2D |
| 22 | Y | 609 | CLA | CAD-CBD-CGD-O2D |
| 22 | b | 609 | CLA | CAD-CBD-CGD-O2D |
| 22 | b | 612 | CLA | CAD-CBD-CGD-O2D |
| 22 | c | 503 | CLA | CAD-CBD-CGD-O2D |
| 22 | c | 505 | CLA | CAD-CBD-CGD-O2D |
| 22 | c | 512 | CLA | CAD-CBD-CGD-O2D |
| 22 | x | 101 | CLA | CAD-CBD-CGD-O2D |
| 22 | B | 603 | CLA | CAD-CBD-CGD-O2D |
| 22 | B | 609 | CLA | CAD-CBD-CGD-O2D |
| 22 | B | 612 | CLA | CAD-CBD-CGD-O2D |
| 22 | B | 615 | CLA | CAD-CBD-CGD-O2D |
| 22 | C | 504 | CLA | CAD-CBD-CGD-O2D |
| 22 | C | 506 | CLA | CAD-CBD-CGD-O2D |
| 22 | C | 513 | CLA | CAD-CBD-CGD-O2D |
| 22 | r | 305 | CLA | CAD-CBD-CGD-O2D |
| 22 | s | 310 | CLA | CAD-CBD-CGD-O2D |
| 22 | S | 310 | CLA | CAD-CBD-CGD-O2D |
| 22 | R | 304 | CLA | CAD-CBD-CGD-O2D |
| 25 | Y | 616 | NEX | C7-C8-C9-C19 |
| 26 | B | 622 | LHG | C10-C11-C12-C13 |
| 26 | b | 619 | LHG | C10-C11-C12-C13 |
| 26 | g | 619 | LHG | C7-C8-C9-C10 |
| 22 | c | 502 | CLA | CAA-CBA-CGA-O2A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | C | 503 | CLA | CAA-CBA-CGA-O2A |
| 22 | r | 304 | CLA | CAA-CBA-CGA-O2A |
| 22 | R | 303 | CLA | CAA-CBA-CGA-O2A |
| 35 | c | 517 | DGD | O2G-C1B-C2B-C3B |
| 35 | C | 518 | DGD | O2G-C1B-C2B-C3B |
| 22 | a | 408 | CLA | C4-C3-C5-C6 |
| 22 | A | 409 | CLA | C4-C3-C5-C6 |
| 21 | g | 605 | CHL | CAA-CBA-CGA-O2A |
| 22 | s | 308 | CLA | CAA-CBA-CGA-O1A |
| 22 | S | 308 | CLA | CAA-CBA-CGA-O1A |
| 22 | c | 514 | CLA | C13-C15-C16-C17 |
| 22 | C | 515 | CLA | C13-C15-C16-C17 |
| 21 | g | 601 | CHL | CAA-CBA-CGA-O2A |
| 21 | n | 601 | CHL | CAA-CBA-CGA-O2A |
| 21 | y | 601 | CHL | CAA-CBA-CGA-O2A |
| 21 | G | 601 | CHL | CAA-CBA-CGA-O2A |
| 21 | N | 601 | CHL | CAA-CBA-CGA-O2A |
| 21 | Y | 601 | CHL | CAA-CBA-CGA-O2A |
| 22 | c | 506 | CLA | CAA-CBA-CGA-O2A |
| 22 | C | 507 | CLA | CAA-CBA-CGA-O2A |
| 22 | s | 305 | CLA | CAA-CBA-CGA-O2A |
| 22 | S | 305 | CLA | CAA-CBA-CGA-O2A |
| 26 | Y | 617 | LHG | C31-C32-C33-C34 |
| 24 | g | 617 | XAT | C7-C8-C9-C10 |
| 26 | d | 408 | LHG | C31-C32-C33-C34 |
| 26 | D | 409 | LHG | C31-C32-C33-C34 |
| 24 | y | 615 | XAT | O4-C6-C7-C8 |
| 24 | Y | 615 | XAT | O4-C6-C7-C8 |
| 35 | a | 413 | DGD | O1G-C1G-C2G-C3G |
| 35 | A | 401 | DGD | O1G-C1G-C2G-C3G |
| 21 | G | 605 | CHL | CAA-CBA-CGA-O2A |
| 35 | c | 517 | DGD | O6D-C5D-C6D-O5D |
| 35 | c | 517 | DGD | C3B-C4B-C5B-C6B |
| 22 | b | 603 | CLA | O2A-C1-C2-C3 |
| 22 | B | 606 | CLA | O2A-C1-C2-C3 |
| 22 | s | 305 | CLA | O2A-C1-C2-C3 |
| 22 | S | 305 | CLA | O2A-C1-C2-C3 |
| 35 | J | 101 | DGD | C4B-C5B-C6B-C7B |
| 35 | C | 518 | DGD | O6D-C5D-C6D-O5D |
| 21 | r | 306 | CHL | C2A-CAA-CBA-CGA |
| 22 | C | 505 | CLA | C8-C10-C11-C12 |
| 26 | c | 521 | LHG | O7-C7-C8-C9 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 26 | L | 103 | LHG | C31-C32-C33-C34 |
| 35 | c | 519 | DGD | C4B-C5B-C6B-C7B |
| 35 | C | 518 | DGD | C3B-C4B-C5B-C6B |
| 22 | b | 614 | CLA | CBD-CGD-O2D-CED |
| 22 | B | 617 | CLA | CBD-CGD-O2D-CED |
| 22 | b | 608 | CLA | CHA-CBD-CGD-O1D |
| 22 | b | 608 | CLA | CHA-CBD-CGD-O2D |
| 22 | c | 502 | CLA | CHA-CBD-CGD-O1D |
| 22 | c | 502 | CLA | CHA-CBD-CGD-O2D |
| 22 | c | 504 | CLA | CHA-CBD-CGD-O1D |
| 22 | c | 504 | CLA | CHA-CBD-CGD-O2D |
| 22 | c | 511 | CLA | CHA-CBD-CGD-O2D |
| 22 | d | 403 | CLA | CHA-CBD-CGD-O1D |
| 22 | d | 403 | CLA | CHA-CBD-CGD-O2D |
| 22 | B | 611 | CLA | CHA-CBD-CGD-O1D |
| 22 | B | 611 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 503 | CLA | CHA-CBD-CGD-O1D |
| 22 | C | 503 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 505 | CLA | CHA-CBD-CGD-O1D |
| 22 | C | 505 | CLA | CHA-CBD-CGD-O2D |
| 22 | C | 512 | CLA | CHA-CBD-CGD-O2D |
| 22 | D | 404 | CLA | CHA-CBD-CGD-O1D |
| 22 | D | 404 | CLA | CHA-CBD-CGD-O2D |
| 22 | r | 311 | CLA | CHA-CBD-CGD-O1D |
| 22 | r | 311 | CLA | CHA-CBD-CGD-O2D |
| 22 | r | 312 | CLA | CHA-CBD-CGD-O1D |
| 22 | s | 308 | CLA | CHA-CBD-CGD-O2D |
| 22 | S | 308 | CLA | CHA-CBD-CGD-O2D |
| 22 | R | 310 | CLA | CHA-CBD-CGD-O1D |
| 22 | R | 310 | CLA | CHA-CBD-CGD-O2D |
| 22 | R | 311 | CLA | CHA-CBD-CGD-O1D |
| 21 | G | 605 | CHL | CAA-CBA-CGA-O1A |
| 26 | C | 521 | LHG | O7-C7-C8-C9 |
| 26 | B | 622 | LHG | C17-C18-C19-C20 |
| 26 | l | 102 | LHG | C31-C32-C33-C34 |
| 22 | c | 504 | CLA | C8-C10-C11-C12 |
| 31 | T | 102 | BCR | C12-C13-C14-C15 |
| 21 | g | 605 | CHL | CAA-CBA-CGA-O1A |
| 26 | b | 619 | LHG | C17-C18-C19-C20 |
| 22 | s | 310 | CLA | C6-C7-C8-C9 |
| 22 | b | 613 | CLA | C8-C10-C11-C12 |
| 22 | B | 616 | CLA | C8-C10-C11-C12 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | g | 610 | CLA | CAA-CBA-CGA-O2A |
| 22 | n | 609 | CLA | CAA-CBA-CGA-O2A |
| 22 | y | 610 | CLA | CAA-CBA-CGA-O2A |
| 22 | Y | 609 | CLA | CAA-CBA-CGA-O2A |
| 22 | c | 513 | CLA | CAA-CBA-CGA-O2A |
| 22 | C | 514 | CLA | CAA-CBA-CGA-O2A |
| 22 | r | 312 | CLA | CAA-CBA-CGA-O2A |
| 22 | s | 313 | CLA | CAA-CBA-CGA-O2A |
| 22 | S | 313 | CLA | CAA-CBA-CGA-O2A |
| 22 | R | 311 | CLA | CAA-CBA-CGA-O2A |
| 26 | G | 618 | LHG | O7-C7-C8-C9 |
| 35 | c | 519 | DGD | O2G-C1B-C2B-C3B |
| 22 | n | 603 | CLA | O1D-CGD-O2D-CED |
| 35 | c | 517 | DGD | O2G-C2G-C3G-O3G |
| 35 | C | 518 | DGD | O2G-C2G-C3G-O3G |
| 33 | d | 402 | SQD | C7-C8-C9-C10 |
| 33 | D | 402 | SQD | C7-C8-C9-C10 |
| 35 | H | 102 | DGD | C9B-CAB-CBB-CCB |
| 36 | M | 101 | LMG | C38-C39-C40-C41 |
| 36 | T | 101 | LMG | C38-C39-C40-C41 |
| 22 | N | 603 | CLA | O1D-CGD-O2D-CED |
| 36 | C | 523 | LMG | C30-C31-C32-C33 |
| 21 | y | 605 | CHL | CAA-CBA-CGA-O2A |
| 22 | G | 610 | CLA | CAA-CBA-CGA-O2A |
| 22 | b | 607 | CLA | CAA-CBA-CGA-O2A |
| 22 | B | 610 | CLA | CAA-CBA-CGA-O2A |
| 22 | r | 309 | CLA | CAA-CBA-CGA-O2A |
| 22 | s | 310 | CLA | CAA-CBA-CGA-O2A |
| 22 | S | 310 | CLA | CAA-CBA-CGA-O2A |
| 22 | R | 308 | CLA | CAA-CBA-CGA-O2A |
| 35 | h | 102 | DGD | C9B-CAB-CBB-CCB |
| 36 | c | 523 | LMG | C30-C31-C32-C33 |
| 21 | R | 305 | CHL | C2A-CAA-CBA-CGA |
| 22 | S | 310 | CLA | C6-C7-C8-C9 |
| 21 | s | 307 | CHL | CAA-CBA-CGA-O1A |
| 22 | Y | 603 | CLA | O1D-CGD-O2D-CED |
| 26 | d | 409 | LHG | C24-C23-O8-C6 |
| 26 | D | 410 | LHG | C24-C23-O8-C6 |
| 22 | G | 603 | CLA | O1D-CGD-O2D-CED |
| 36 | k | 103 | LMG | C11-C10-O7-C8 |
| 36 | K | 103 | LMG | C11-C10-O7-C8 |
| 22 | N | 609 | CLA | CAA-CBA-CGA-O2A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | r | 303 | CLA | CAA-CBA-CGA-O2A |
| 22 | R | 302 | CLA | CAA-CBA-CGA-O2A |
| 35 | J | 101 | DGD | O2G-C1B-C2B-C3B |
| 22 | g | 603 | CLA | C6-C7-C8-C10 |
| 22 | n | 603 | CLA | C6-C7-C8-C10 |
| 22 | n | 609 | CLA | C11-C12-C13-C15 |
| 22 | y | 603 | CLA | C6-C7-C8-C10 |
| 22 | G | 610 | CLA | C11-C12-C13-C15 |
| 22 | N | 603 | CLA | C6-C7-C8-C10 |
| 22 | Y | 603 | CLA | C6-C7-C8-C10 |
| 22 | b | 602 | CLA | C11-C12-C13-C15 |
| 22 | b | 614 | CLA | C6-C7-C8-C10 |
| 22 | B | 605 | CLA | C11-C12-C13-C15 |
| 22 | B | 617 | CLA | C6-C7-C8-C10 |
| 26 | d | 408 | LHG | C28-C29-C30-C31 |
| 26 | D | 409 | LHG | C28-C29-C30-C31 |
| 36 | b | 620 | LMG | O6-C1-O1-C7 |
| 21 | S | 307 | CHL | CAA-CBA-CGA-O1A |
| 21 | n | 608 | CHL | C11-C12-C13-C14 |
| 21 | y | 609 | CHL | C11-C12-C13-C14 |
| 21 | N | 608 | CHL | C11-C12-C13-C14 |
| 22 | c | 514 | CLA | C14-C13-C15-C16 |
| 22 | C | 507 | CLA | C11-C12-C13-C14 |
| 22 | C | 509 | CLA | C11-C10-C8-C9 |
| 22 | C | 515 | CLA | C14-C13-C15-C16 |
| 22 | r | 310 | CLA | C14-C13-C15-C16 |
| 22 | R | 309 | CLA | C14-C13-C15-C16 |
| 26 | C | 521 | LHG | C9-C10-C11-C12 |
| 26 | S | 314 | LHG | C9-C10-C11-C12 |
| 22 | Y | 603 | CLA | C15-C16-C17-C18 |
| 22 | B | 614 | CLA | C15-C16-C17-C18 |
| 36 | k | 103 | LMG | O7-C10-C11-C12 |
| 36 | K | 103 | LMG | O7-C10-C11-C12 |
| 33 | a | 411 | SQD | C4-C5-C6-S |
| 33 | A | 412 | SQD | C4-C5-C6-S |
| 21 | r | 308 | CHL | C11-C12-C13-C14 |
| 26 | s | 314 | LHG | C9-C10-C11-C12 |
| 26 | R | 301 | LHG | C29-C30-C31-C32 |
| 22 | g | 603 | CLA | C15-C16-C17-C18 |
| 22 | y | 603 | CLA | C15-C16-C17-C18 |
| 22 | G | 603 | CLA | C15-C16-C17-C18 |
| 22 | b | 611 | CLA | C15-C16-C17-C18 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 615 | CLA | C8-C10-C11-C12 |
| 22 | B | 610 | CLA | C2A-CAA-CBA-CGA |
| 26 | r | 302 | LHG | C29-C30-C31-C32 |
| 32 | a | 410 | PL9 | C7-C8-C9-C11 |
| 32 | A | 411 | PL9 | C7-C8-C9-C11 |
| 22 | y | 603 | CLA | O1D-CGD-O2D-CED |
| 26 | c | 521 | LHG | C9-C10-C11-C12 |
| 21 | g | 601 | CHL | CAA-CBA-CGA-O1A |
| 21 | G | 601 | CHL | CAA-CBA-CGA-O1A |
| 21 | N | 601 | CHL | CAA-CBA-CGA-O1A |
| 22 | n | 612 | CLA | CAA-CBA-CGA-O1A |
| 22 | S | 305 | CLA | CAA-CBA-CGA-O1A |
| 22 | n | 603 | CLA | C15-C16-C17-C18 |
| 22 | N | 603 | CLA | C15-C16-C17-C18 |
| 21 | R | 307 | CHL | C11-C12-C13-C14 |
| 26 | b | 619 | LHG | C31-C32-C33-C34 |
| 26 | B | 622 | LHG | C31-C32-C33-C34 |
| 26 | Y | 617 | LHG | O1-C1-C2-C3 |
| 30 | d | 401 | PHO | C2-C3-C5-C6 |
| 35 | a | 413 | DGD | O2G-C1B-C2B-C3B |
| 35 | A | 401 | DGD | O2G-C1B-C2B-C3B |
| 22 | g | 613 | CLA | CAA-CBA-CGA-O1A |
| 22 | y | 612 | CLA | CAA-CBA-CGA-O1A |
| 22 | G | 613 | CLA | CAA-CBA-CGA-O1A |
| 22 | N | 612 | CLA | CAA-CBA-CGA-O1A |
| 22 | Y | 611 | CLA | CAA-CBA-CGA-O1A |
| 22 | s | 305 | CLA | CAA-CBA-CGA-O1A |
| 22 | B | 618 | CLA | C8-C10-C11-C12 |
| 22 | b | 601 | CLA | C1A-C2A-CAA-CBA |
| 22 | b | 607 | CLA | C1A-C2A-CAA-CBA |
| 22 | c | 513 | CLA | C1A-C2A-CAA-CBA |
| 22 | B | 604 | CLA | C1A-C2A-CAA-CBA |
| 22 | B | 610 | CLA | C1A-C2A-CAA-CBA |
| 22 | C | 514 | CLA | C1A-C2A-CAA-CBA |
| 22 | s | 311 | CLA | C1A-C2A-CAA-CBA |
| 22 | S | 311 | CLA | C1A-C2A-CAA-CBA |
| 21 | n | 601 | CHL | CAA-CBA-CGA-O1A |
| 21 | y | 601 | CHL | CAA-CBA-CGA-O1A |
| 21 | Y | 601 | CHL | CAA-CBA-CGA-O1A |
| 22 | c | 506 | CLA | CAA-CBA-CGA-O1A |
| 22 | C | 507 | CLA | CAA-CBA-CGA-O1A |
| 22 | g | 603 | CLA | O1D-CGD-O2D-CED |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | N | 601 | CHL | C2-C1-O2A-CGA |
| 26 | G | 618 | LHG | O9-C7-C8-C9 |
| 35 | h | 102 | DGD | C1G-C2G-C3G-O3G |
| 35 | H | 102 | DGD | C1G-C2G-C3G-O3G |
| 22 | N | 602 | CLA | CAA-CBA-CGA-O2A |
| 21 | s | 307 | CHL | C2A-CAA-CBA-CGA |
| 22 | b | 607 | CLA | C2A-CAA-CBA-CGA |
| 22 | b | 613 | CLA | C2A-CAA-CBA-CGA |
| 22 | B | 616 | CLA | C2A-CAA-CBA-CGA |
| 26 | d | 407 | LHG | C3-O3-P-O6 |
| 26 | c | 521 | LHG | O2-C2-C3-O3 |
| 26 | C | 521 | LHG | O2-C2-C3-O3 |
| 22 | R | 303 | CLA | CAA-CBA-CGA-O1A |
| 26 | b | 619 | LHG | O9-C7-C8-C9 |
| 22 | x | 101 | CLA | C5-C6-C7-C8 |
| 22 | B | 603 | CLA | C5-C6-C7-C8 |
| 35 | h | 102 | DGD | C6A-C7A-C8A-C9A |
| 22 | g | 602 | CLA | CAA-CBA-CGA-O2A |
| 22 | n | 602 | CLA | CAA-CBA-CGA-O2A |
| 22 | y | 602 | CLA | CAA-CBA-CGA-O2A |
| 22 | G | 602 | CLA | CAA-CBA-CGA-O2A |
| 22 | Y | 602 | CLA | CAA-CBA-CGA-O2A |
| 35 | H | 102 | DGD | C6A-C7A-C8A-C9A |
| 22 | r | 304 | CLA | CAA-CBA-CGA-O1A |
| 26 | B | 622 | LHG | O9-C7-C8-C9 |
| 30 | D | 401 | PHO | C2-C3-C5-C6 |
| 35 | C | 519 | DGD | C4B-C5B-C6B-C7B |
| 26 | d | 407 | LHG | C4-O6-P-O5 |
| 26 | d | 408 | LHG | C4-O6-P-O4 |
| 26 | l | 102 | LHG | C3-O3-P-O5 |
| 26 | D | 408 | LHG | C4-O6-P-O5 |
| 26 | D | 409 | LHG | C4-O6-P-O4 |
| 26 | L | 103 | LHG | C3-O3-P-O5 |
| 26 | r | 302 | LHG | C4-O6-P-O5 |
| 26 | R | 301 | LHG | C4-O6-P-O5 |
| 35 | c | 518 | DGD | C4B-C5B-C6B-C7B |
| 22 | b | 607 | CLA | CAA-CBA-CGA-O1A |
| 22 | B | 610 | CLA | CAA-CBA-CGA-O1A |
| 22 | C | 503 | CLA | CAA-CBA-CGA-O1A |
| 22 | S | 313 | CLA | CAA-CBA-CGA-O1A |
| 22 | R | 311 | CLA | CAA-CBA-CGA-O1A |
| 33 | l | 103 | SQD | O10-C23-C24-C25 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 33 | L | 101 | SQD | O10-C23-C24-C25 |
| 36 | K | 103 | LMG | O9-C10-C11-C12 |
| 33 | l | 101 | SQD | O47-C7-C8-C9 |
| 33 | L | 102 | SQD | O47-C7-C8-C9 |
| 36 | B | 623 | LMG | O6-C1-O1-C7 |
| 31 | b | 616 | BCR | C23-C24-C25-C26 |
| 31 | B | 602 | BCR | C23-C24-C25-C26 |
| 31 | B | 619 | BCR | C23-C24-C25-C26 |
| 31 | T | 102 | BCR | C23-C24-C25-C26 |
| 22 | b | 604 | CLA | C5-C6-C7-C8 |
| 22 | B | 607 | CLA | C5-C6-C7-C8 |
| 22 | G | 610 | CLA | CAA-CBA-CGA-O1A |
| 22 | c | 502 | CLA | CAA-CBA-CGA-O1A |
| 22 | r | 309 | CLA | CAA-CBA-CGA-O1A |
| 22 | r | 312 | CLA | CAA-CBA-CGA-O1A |
| 22 | s | 313 | CLA | CAA-CBA-CGA-O1A |
| 22 | R | 308 | CLA | CAA-CBA-CGA-O1A |
| 26 | y | 617 | LHG | C15-C16-C17-C18 |
| 36 | w | 102 | LMG | C11-C12-C13-C14 |
| 22 | r | 311 | CLA | CAA-CBA-CGA-O2A |
| 22 | R | 310 | CLA | CAA-CBA-CGA-O2A |
| 22 | g | 610 | CLA | CAA-CBA-CGA-O1A |
| 22 | n | 609 | CLA | CAA-CBA-CGA-O1A |
| 22 | y | 610 | CLA | CAA-CBA-CGA-O1A |
| 22 | N | 609 | CLA | CAA-CBA-CGA-O1A |
| 22 | Y | 609 | CLA | CAA-CBA-CGA-O1A |
| 22 | s | 310 | CLA | CAA-CBA-CGA-O1A |
| 22 | S | 310 | CLA | CAA-CBA-CGA-O1A |
| 33 | l | 101 | SQD | O49-C7-C8-C9 |
| 33 | L | 102 | SQD | O49-C7-C8-C9 |
| 36 | k | 103 | LMG | O9-C10-C11-C12 |
| 36 | B | 601 | LMG | O10-C28-C29-C30 |
| 36 | I | 101 | LMG | O10-C28-C29-C30 |
| 36 | C | 502 | LMG | C11-C12-C13-C14 |
| 22 | G | 612 | CLA | CAA-CBA-CGA-O2A |
| 22 | N | 611 | CLA | CAA-CBA-CGA-O2A |
| 22 | w | 101 | CLA | CAA-CBA-CGA-O2A |
| 26 | d | 407 | LHG | C26-C27-C28-C29 |
| 26 | D | 408 | LHG | C26-C27-C28-C29 |
| 21 | S | 307 | CHL | CAA-CBA-CGA-O2A |
| 21 | g | 606 | CHL | CAD-CBD-CGD-O1D |
| 21 | n | 605 | CHL | CAD-CBD-CGD-O1D |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 21 | y | 606 | CHL | CAD-CBD-CGD-O1D |
| 21 | G | 606 | CHL | CAD-CBD-CGD-O1D |
| 21 | N | 605 | CHL | CAD-CBD-CGD-O1D |
| 21 | Y | 605 | CHL | CAD-CBD-CGD-O1D |
| 21 | s | 307 | CHL | CAD-CBD-CGD-O1D |
| 21 | S | 307 | CHL | CAD-CBD-CGD-O1D |
| 22 | b | 615 | CLA | CAD-CBD-CGD-O1D |
| 22 | c | 502 | CLA | CAD-CBD-CGD-O1D |
| 22 | B | 618 | CLA | CAD-CBD-CGD-O1D |
| 22 | C | 503 | CLA | CAD-CBD-CGD-O1D |
| 25 | y | 616 | NEX | C7-C8-C9-C10 |
| 25 | y | 618 | NEX | C7-C8-C9-C10 |
| 25 | r | 315 | NEX | C7-C8-C9-C10 |
| 30 | a | 407 | PHO | CAD-CBD-CGD-O1D |
| 30 | A | 408 | PHO | CAD-CBD-CGD-O1D |
| 33 | a | 411 | SQD | O5-C5-C6-S |
| 33 | A | 412 | SQD | O5-C5-C6-S |
| 21 | y | 605 | CHL | CAA-CBA-CGA-O1A |
| 22 | g | 612 | CLA | CAA-CBA-CGA-O2A |
| 22 | n | 603 | CLA | CAA-CBA-CGA-O2A |
| 22 | n | 611 | CLA | CAA-CBA-CGA-O2A |
| 22 | G | 603 | CLA | CAA-CBA-CGA-O2A |
| 22 | Y | 603 | CLA | CAA-CBA-CGA-O2A |
| 22 | b | 601 | CLA | CAA-CBA-CGA-O2A |
| 22 | c | 507 | CLA | CAA-CBA-CGA-O2A |
| 22 | C | 508 | CLA | CAA-CBA-CGA-O2A |
| 22 | W | 101 | CLA | CAA-CBA-CGA-O2A |
| 22 | y | 612 | CLA | C13-C15-C16-C17 |
| 22 | g | 610 | CLA | C11-C12-C13-C14 |
| 22 | n | 609 | CLA | C11-C12-C13-C14 |
| 22 | G | 610 | CLA | C11-C12-C13-C14 |
| 22 | N | 609 | CLA | C11-C12-C13-C14 |
| 22 | b | 602 | CLA | C11-C12-C13-C14 |
| 22 | b | 613 | CLA | C6-C7-C8-C9 |
| 22 | b | 614 | CLA | C6-C7-C8-C9 |
| 22 | c | 506 | CLA | C11-C12-C13-C14 |
| 22 | c | 508 | CLA | C11-C10-C8-C9 |
| 22 | B | 605 | CLA | C11-C12-C13-C14 |
| 22 | B | 616 | CLA | C6-C7-C8-C9 |
| 22 | B | 617 | CLA | C6-C7-C8-C9 |
| 22 | d | 404 | CLA | C15-C16-C17-C18 |
| 22 | D | 405 | CLA | C15-C16-C17-C18 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | b | 605 | CLA | C3-C5-C6-C7 |
| 21 | r | 306 | CHL | CAA-CBA-CGA-O2A |
| 21 | r | 307 | CHL | CAA-CBA-CGA-O2A |
| 21 | S | 301 | CHL | CAA-CBA-CGA-O2A |
| 21 | R | 305 | CHL | CAA-CBA-CGA-O2A |
| 21 | R | 306 | CHL | CAA-CBA-CGA-O2A |
| 22 | g | 603 | CLA | CAA-CBA-CGA-O2A |
| 22 | y | 603 | CLA | CAA-CBA-CGA-O2A |
| 22 | N | 603 | CLA | CAA-CBA-CGA-O2A |
| 22 | B | 604 | CLA | CAA-CBA-CGA-O2A |
| 26 | c | 520 | LHG | O8-C23-C24-C25 |
| 26 | C | 520 | LHG | O8-C23-C24-C25 |
| 36 | M | 101 | LMG | C35-C36-C37-C38 |
| 21 | s | 307 | CHL | CAA-CBA-CGA-O2A |
| 21 | S | 301 | CHL | C2-C1-O2A-CGA |
| 36 | T | 101 | LMG | C35-C36-C37-C38 |
| 36 | w | 102 | LMG | C34-C35-C36-C37 |
| 36 | C | 502 | LMG | C34-C35-C36-C37 |
| 22 | c | 512 | CLA | CAA-CBA-CGA-O2A |
| 22 | d | 403 | CLA | CAA-CBA-CGA-O2A |
| 22 | C | 513 | CLA | CAA-CBA-CGA-O2A |
| 33 | l | 103 | SQD | O47-C7-C8-C9 |
| 33 | L | 101 | SQD | O47-C7-C8-C9 |
| 22 | B | 608 | CLA | C3-C5-C6-C7 |
| 33 | l | 103 | SQD | O49-C7-C8-C9 |
| 33 | L | 101 | SQD | O49-C7-C8-C9 |
| 31 | K | 102 | BCR | C11-C12-C13-C35 |
| 21 | y | 609 | CHL | C11-C12-C13-C15 |
| 22 | G | 603 | CLA | C6-C7-C8-C10 |
| 22 | b | 604 | CLA | C2-C3-C5-C6 |
| 22 | b | 610 | CLA | C11-C12-C13-C15 |
| 22 | b | 610 | CLA | C12-C13-C15-C16 |
| 22 | c | 506 | CLA | C11-C12-C13-C15 |
| 22 | c | 509 | CLA | C2-C3-C5-C6 |
| 22 | c | 513 | CLA | C3A-C2A-CAA-CBA |
| 22 | x | 101 | CLA | C12-C13-C15-C16 |
| 22 | B | 603 | CLA | C12-C13-C15-C16 |
| 22 | B | 607 | CLA | C2-C3-C5-C6 |
| 22 | B | 613 | CLA | C11-C12-C13-C15 |
| 22 | B | 613 | CLA | C12-C13-C15-C16 |
| 22 | C | 507 | CLA | C11-C12-C13-C15 |
| 22 | C | 510 | CLA | C2-C3-C5-C6 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | C | 514 | CLA | C3A-C2A-CAA-CBA |
| 22 | r | 310 | CLA | C12-C13-C15-C16 |
| 22 | s | 303 | CLA | C3A-C2A-CAA-CBA |
| 22 | s | 303 | CLA | C11-C12-C13-C15 |
| 22 | S | 303 | CLA | C3A-C2A-CAA-CBA |
| 22 | S | 303 | CLA | C11-C12-C13-C15 |
| 22 | R | 309 | CLA | C12-C13-C15-C16 |
| 22 | g | 603 | CLA | CAA-CBA-CGA-O1A |
| 22 | n | 603 | CLA | CAA-CBA-CGA-O1A |
| 22 | y | 603 | CLA | CAA-CBA-CGA-O1A |
| 22 | G | 603 | CLA | CAA-CBA-CGA-O1A |
| 22 | N | 603 | CLA | CAA-CBA-CGA-O1A |
| 22 | Y | 603 | CLA | CAA-CBA-CGA-O1A |
| 22 | D | 404 | CLA | CAA-CBA-CGA-O1A |
| 22 | r | 303 | CLA | CAA-CBA-CGA-O1A |
| 22 | R | 302 | CLA | CAA-CBA-CGA-O1A |
| 22 | a | 404 | CLA | CAA-CBA-CGA-O2A |
| 22 | b | 613 | CLA | CAA-CBA-CGA-O2A |
| 22 | D | 404 | CLA | CAA-CBA-CGA-O2A |
| 26 | d | 408 | LHG | O8-C23-C24-C25 |
| 26 | D | 409 | LHG | O8-C23-C24-C25 |
| 21 | r | 306 | CHL | CAA-CBA-CGA-O1A |
| 22 | g | 602 | CLA | CAA-CBA-CGA-O1A |
| 22 | y | 602 | CLA | CAA-CBA-CGA-O1A |
| 22 | N | 602 | CLA | CAA-CBA-CGA-O1A |
| 22 | c | 512 | CLA | CAA-CBA-CGA-O1A |
| 22 | d | 403 | CLA | CAA-CBA-CGA-O1A |
| 35 | J | 101 | DGD | O1B-C1B-C2B-C3B |
| 22 | b | 615 | CLA | CAA-CBA-CGA-O2A |
| 22 | A | 405 | CLA | CAA-CBA-CGA-O2A |
| 22 | B | 616 | CLA | CAA-CBA-CGA-O2A |
| 36 | B | 601 | LMG | O8-C28-C29-C30 |
| 36 | I | 101 | LMG | O8-C28-C29-C30 |
| 22 | b | 613 | CLA | C10-C11-C12-C13 |
| 22 | c | 513 | CLA | C10-C11-C12-C13 |
| 22 | C | 514 | CLA | C10-C11-C12-C13 |
| 21 | S | 301 | CHL | O1A-CGA-O2A-C1 |
| 21 | r | 307 | CHL | CAA-CBA-CGA-O1A |
| 21 | R | 306 | CHL | CAA-CBA-CGA-O1A |
| 22 | n | 602 | CLA | CAA-CBA-CGA-O1A |
| 22 | G | 602 | CLA | CAA-CBA-CGA-O1A |
| 22 | Y | 602 | CLA | CAA-CBA-CGA-O1A |

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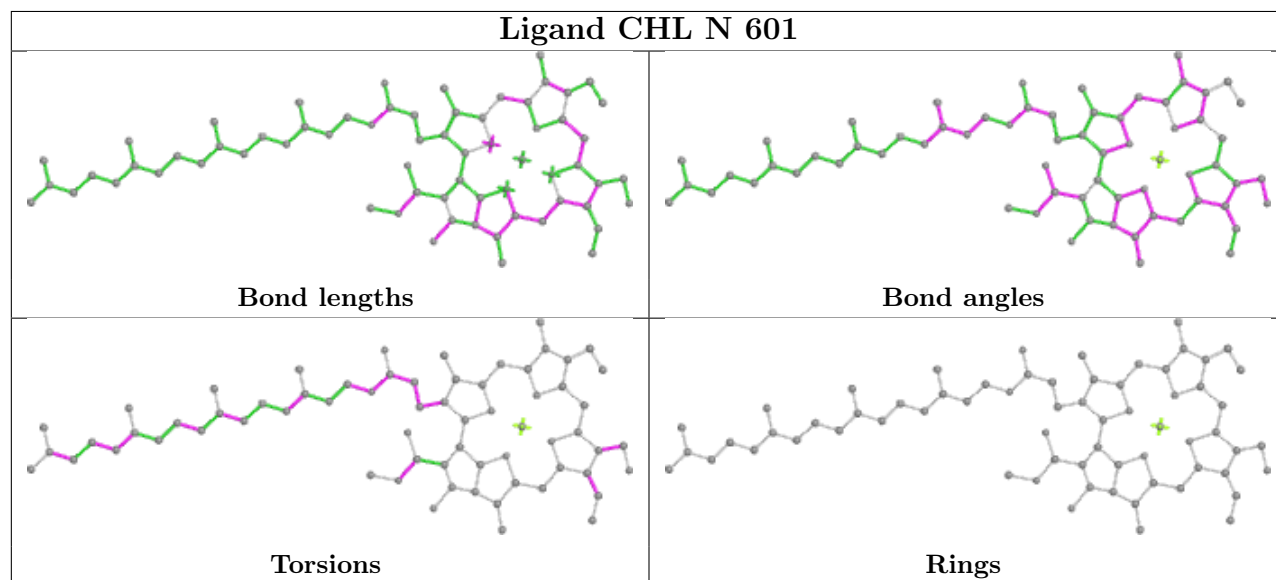
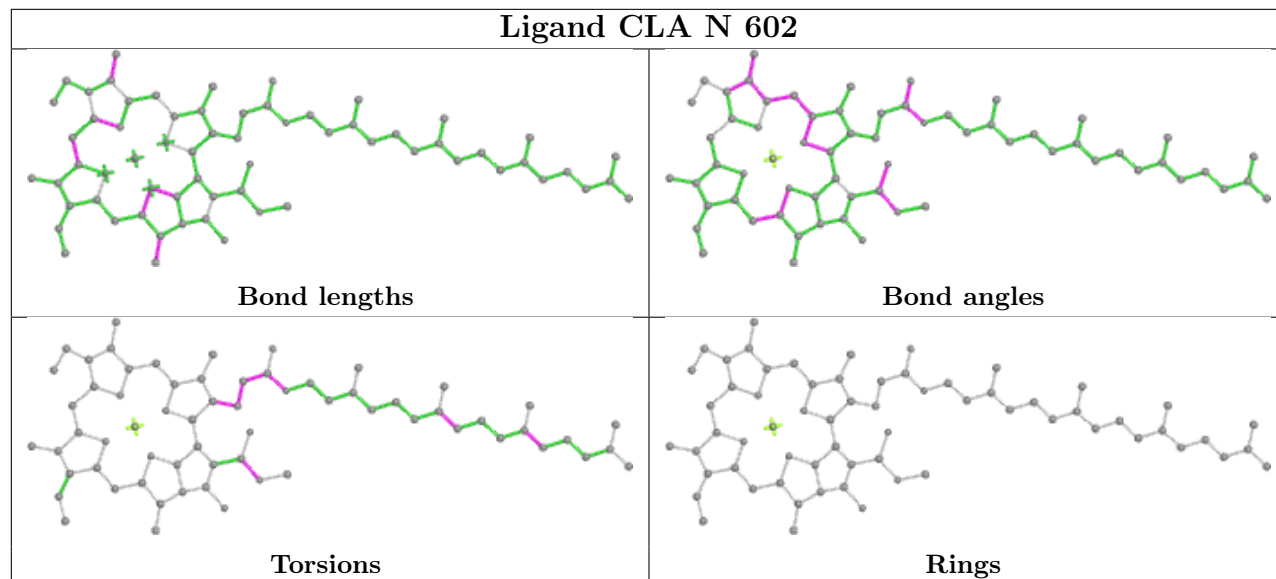
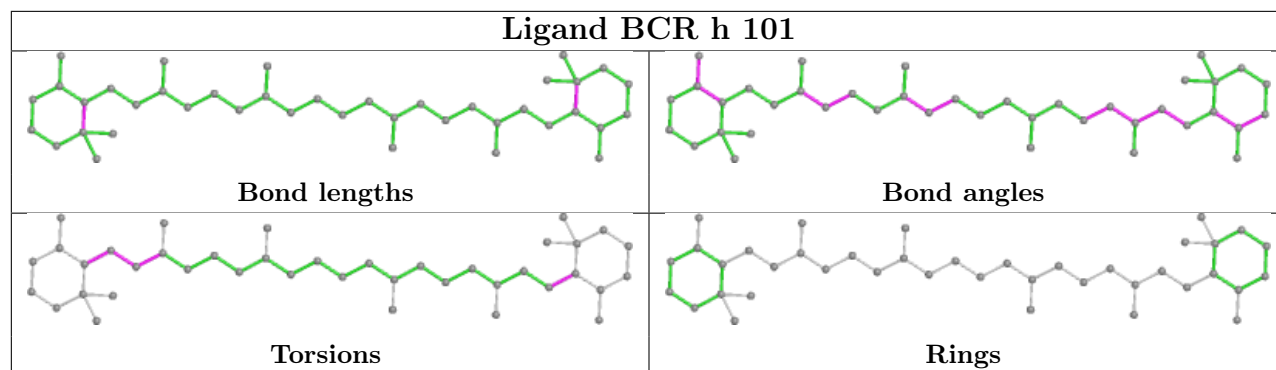
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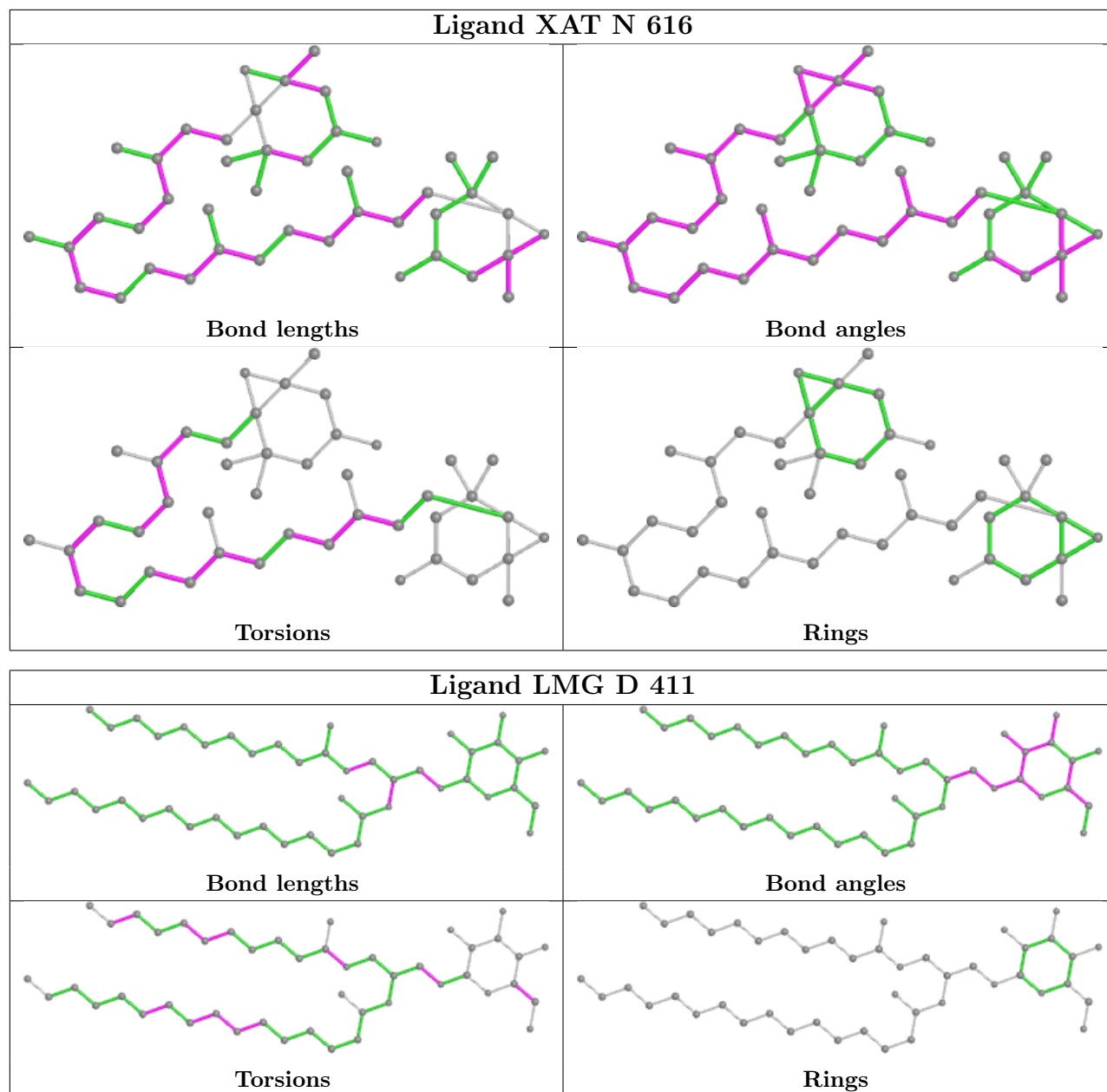
| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 22 | c | 507 | CLA | CAA-CBA-CGA-O1A |
| 22 | c | 513 | CLA | CAA-CBA-CGA-O1A |
| 22 | C | 508 | CLA | CAA-CBA-CGA-O1A |
| 22 | C | 514 | CLA | CAA-CBA-CGA-O1A |
| 35 | c | 519 | DGD | O1B-C1B-C2B-C3B |
| 36 | K | 103 | LMG | C15-C16-C17-C18 |
| 36 | k | 103 | LMG | C15-C16-C17-C18 |
| 22 | b | 602 | CLA | CAA-CBA-CGA-O2A |
| 22 | c | 514 | CLA | CAA-CBA-CGA-O2A |
| 22 | B | 618 | CLA | CAA-CBA-CGA-O2A |
| 22 | C | 515 | CLA | CAA-CBA-CGA-O2A |
| 26 | R | 301 | LHG | C28-C29-C30-C31 |
| 22 | B | 616 | CLA | C10-C11-C12-C13 |
| 21 | R | 305 | CHL | CAA-CBA-CGA-O1A |
| 22 | C | 513 | CLA | CAA-CBA-CGA-O1A |
| 22 | r | 311 | CLA | CAA-CBA-CGA-O1A |
| 22 | R | 310 | CLA | CAA-CBA-CGA-O1A |
| 26 | r | 302 | LHG | C28-C29-C30-C31 |
| 26 | C | 522 | LHG | C15-C16-C17-C18 |
| 21 | r | 301 | CHL | CAA-CBA-CGA-O2A |
| 22 | B | 605 | CLA | CAA-CBA-CGA-O2A |

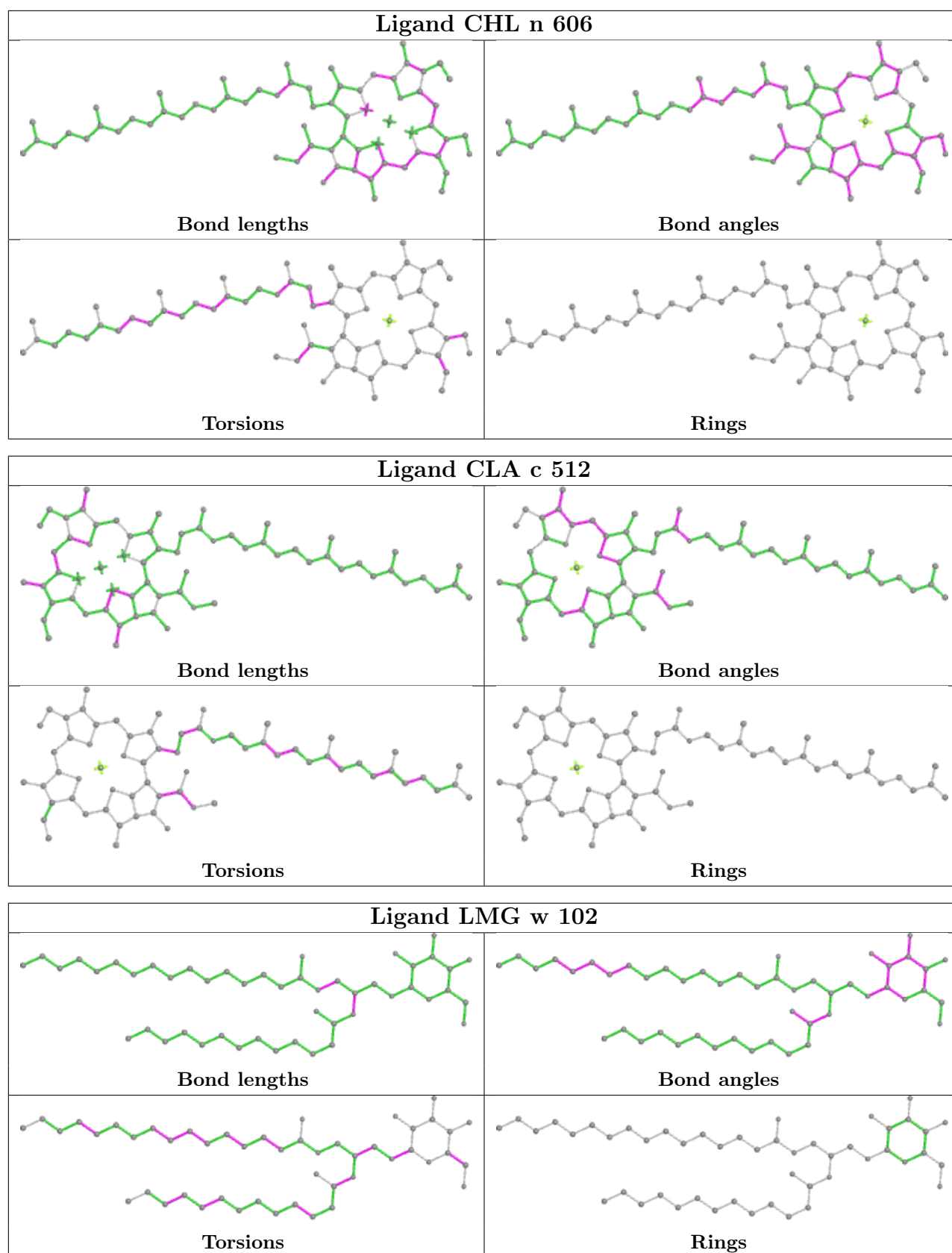
There are no ring outliers.

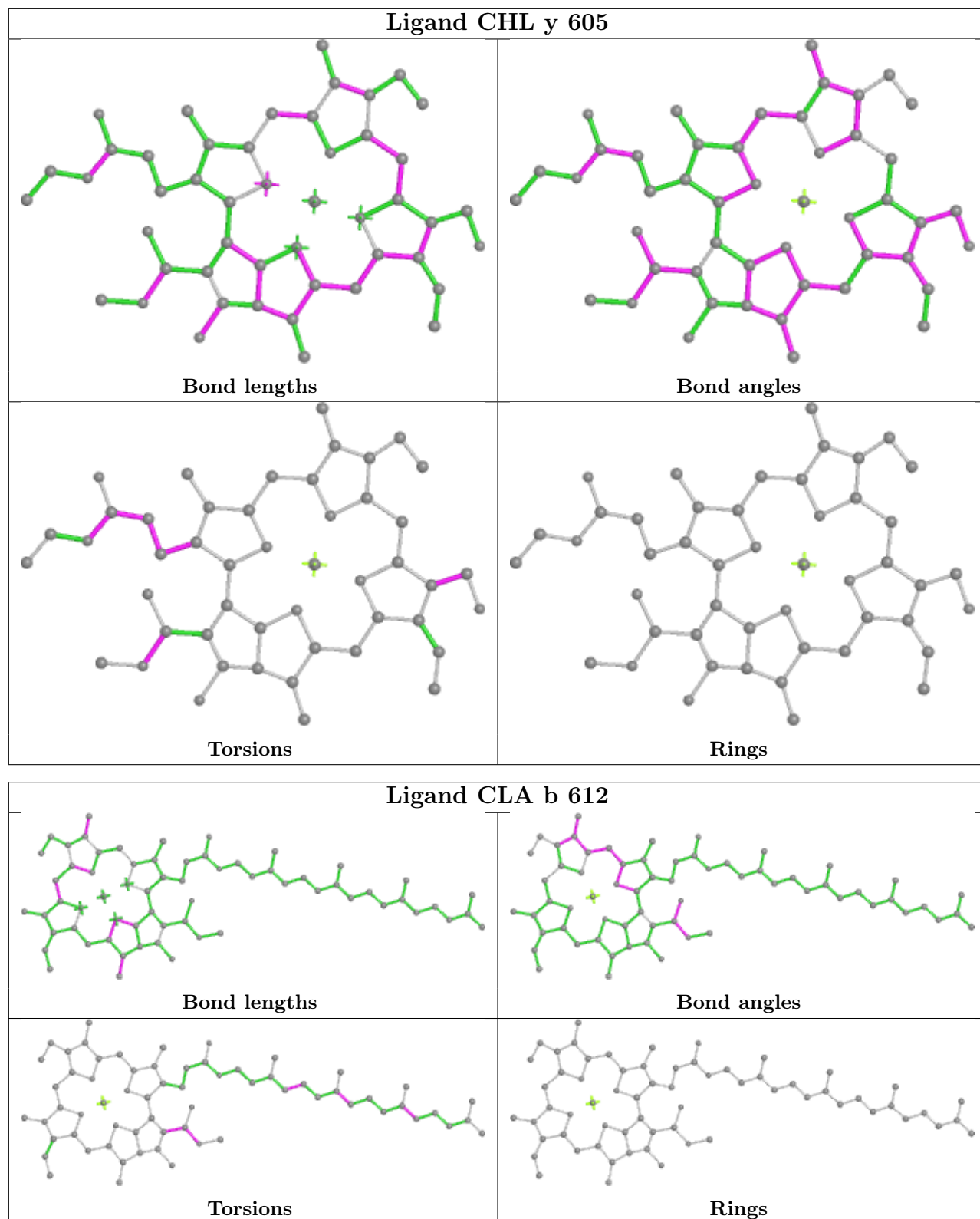
No monomer is involved in short contacts.

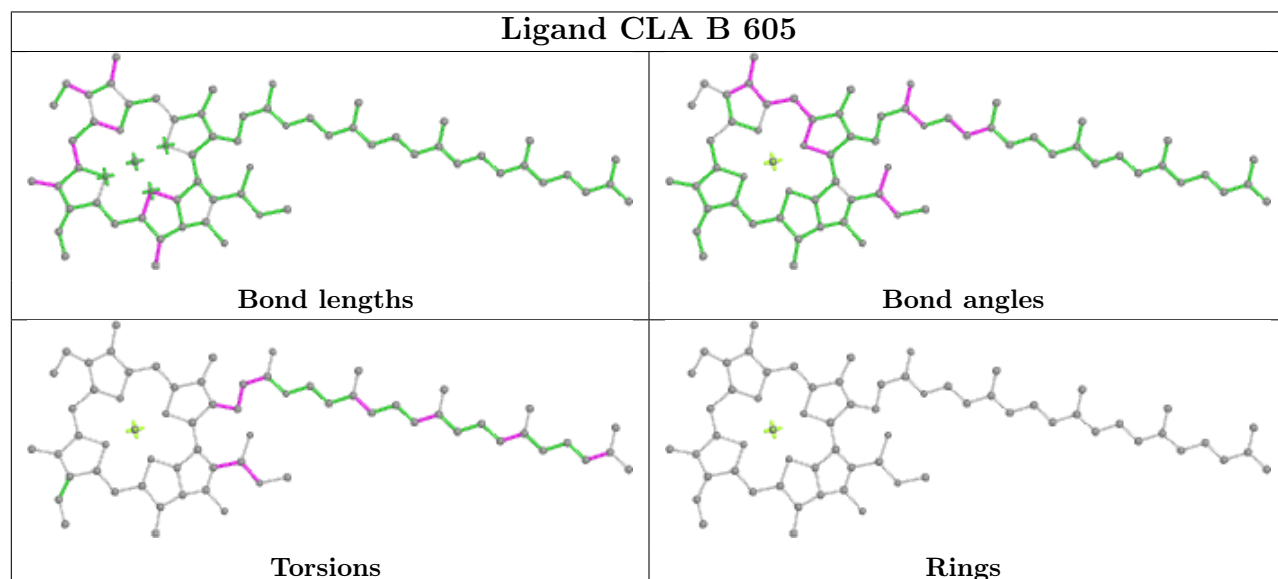
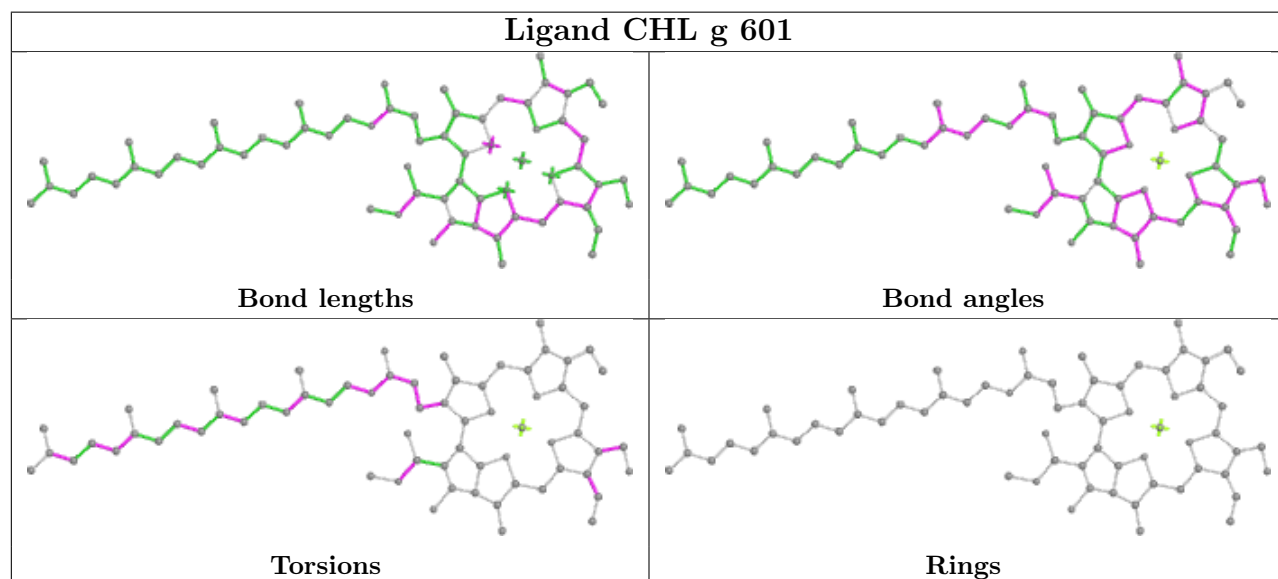
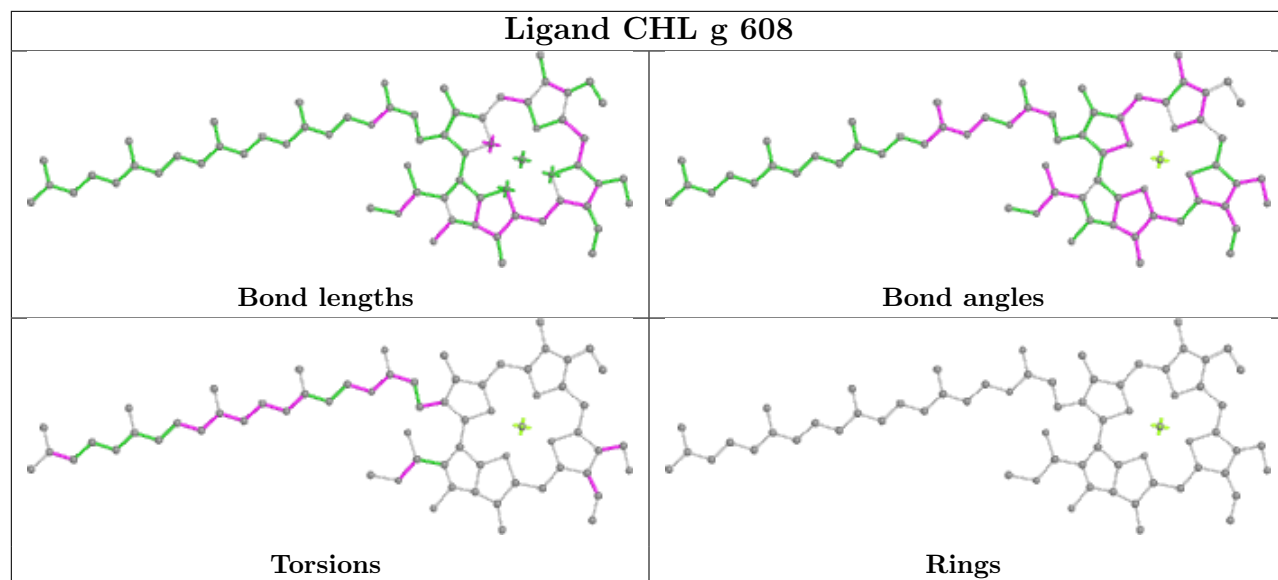
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

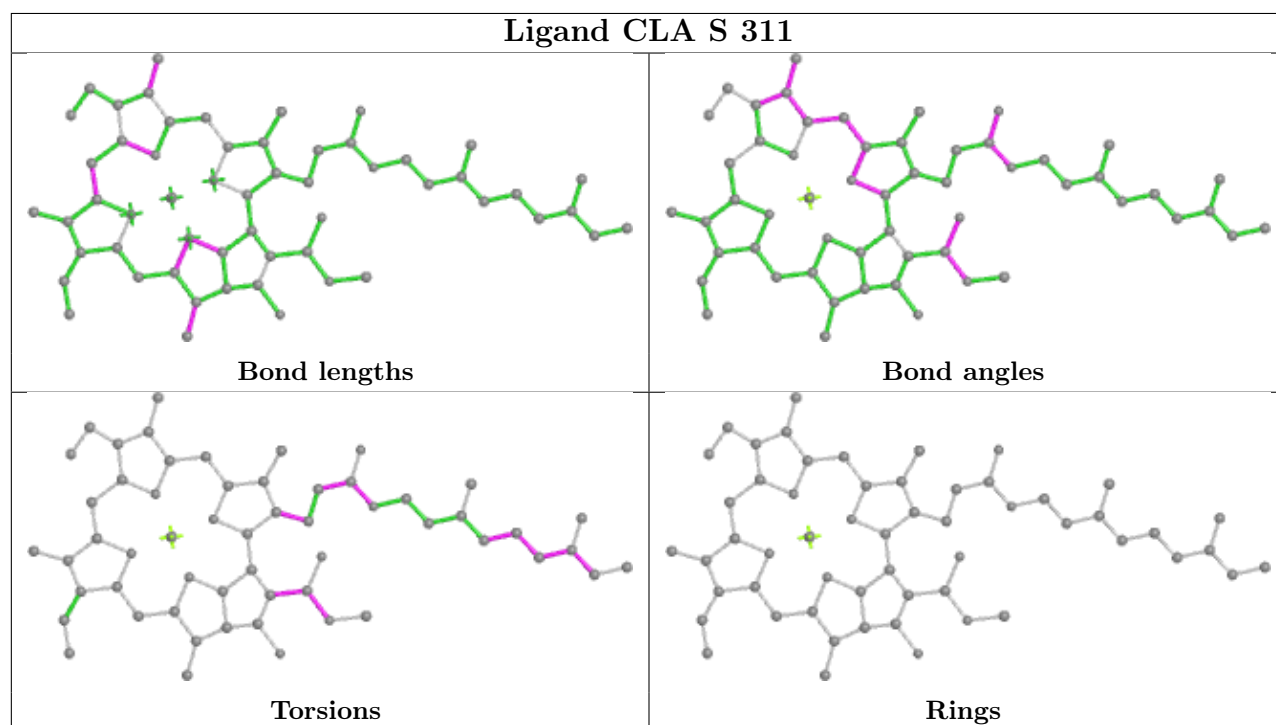
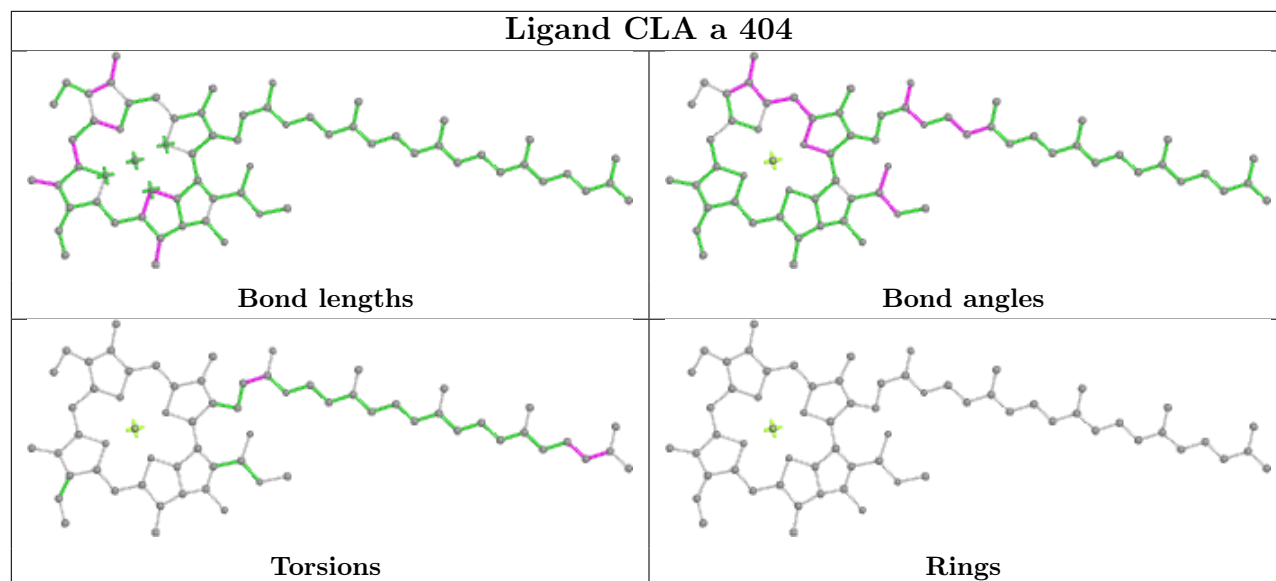
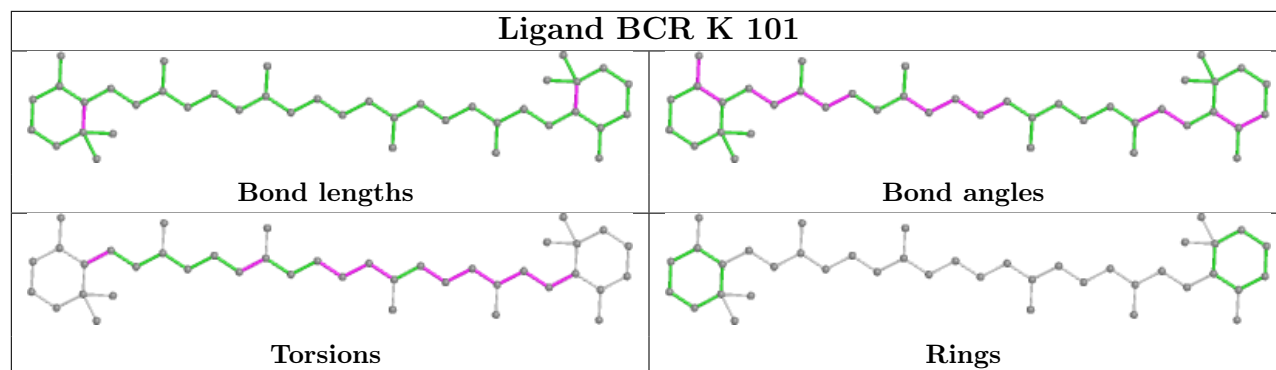


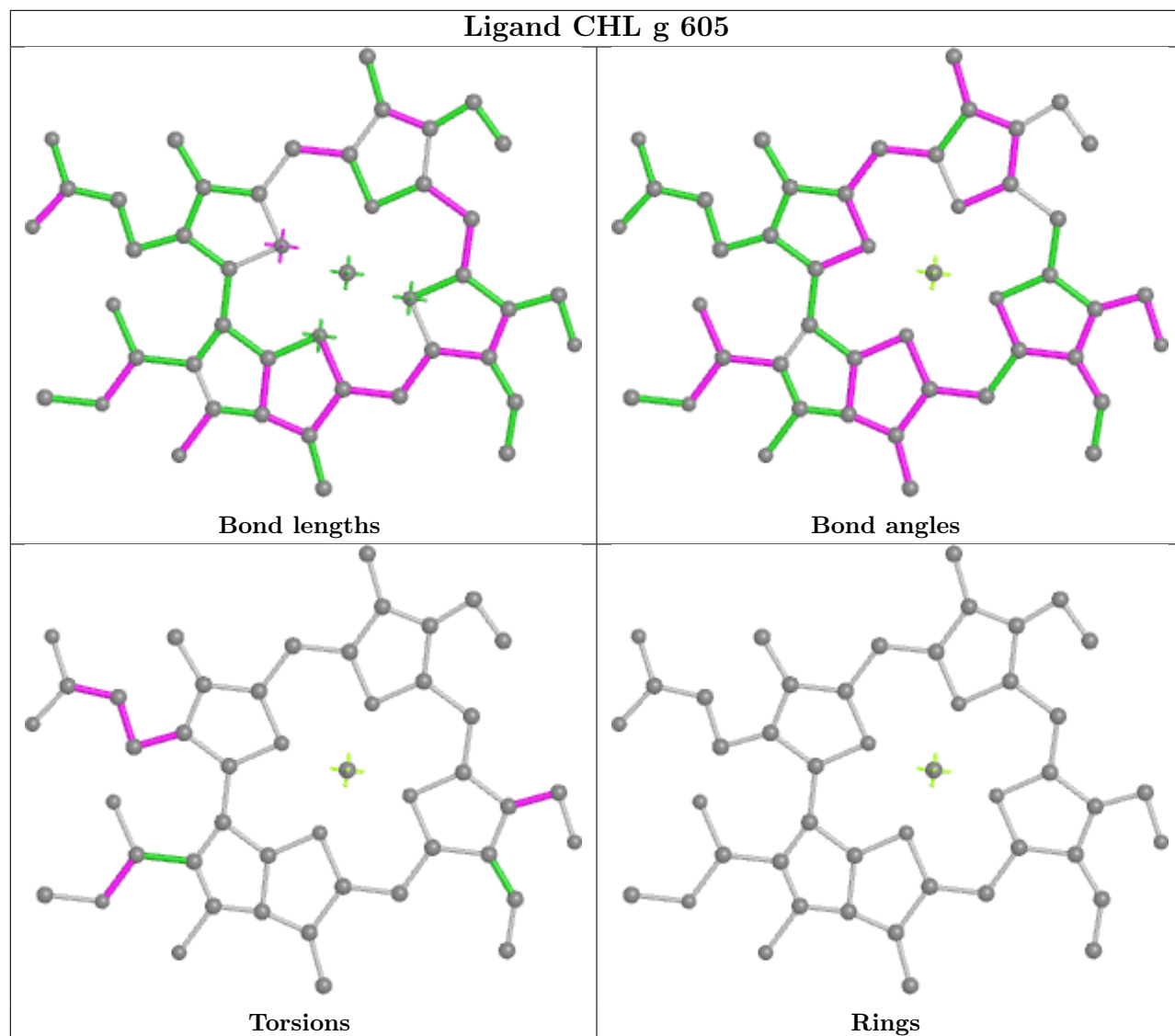


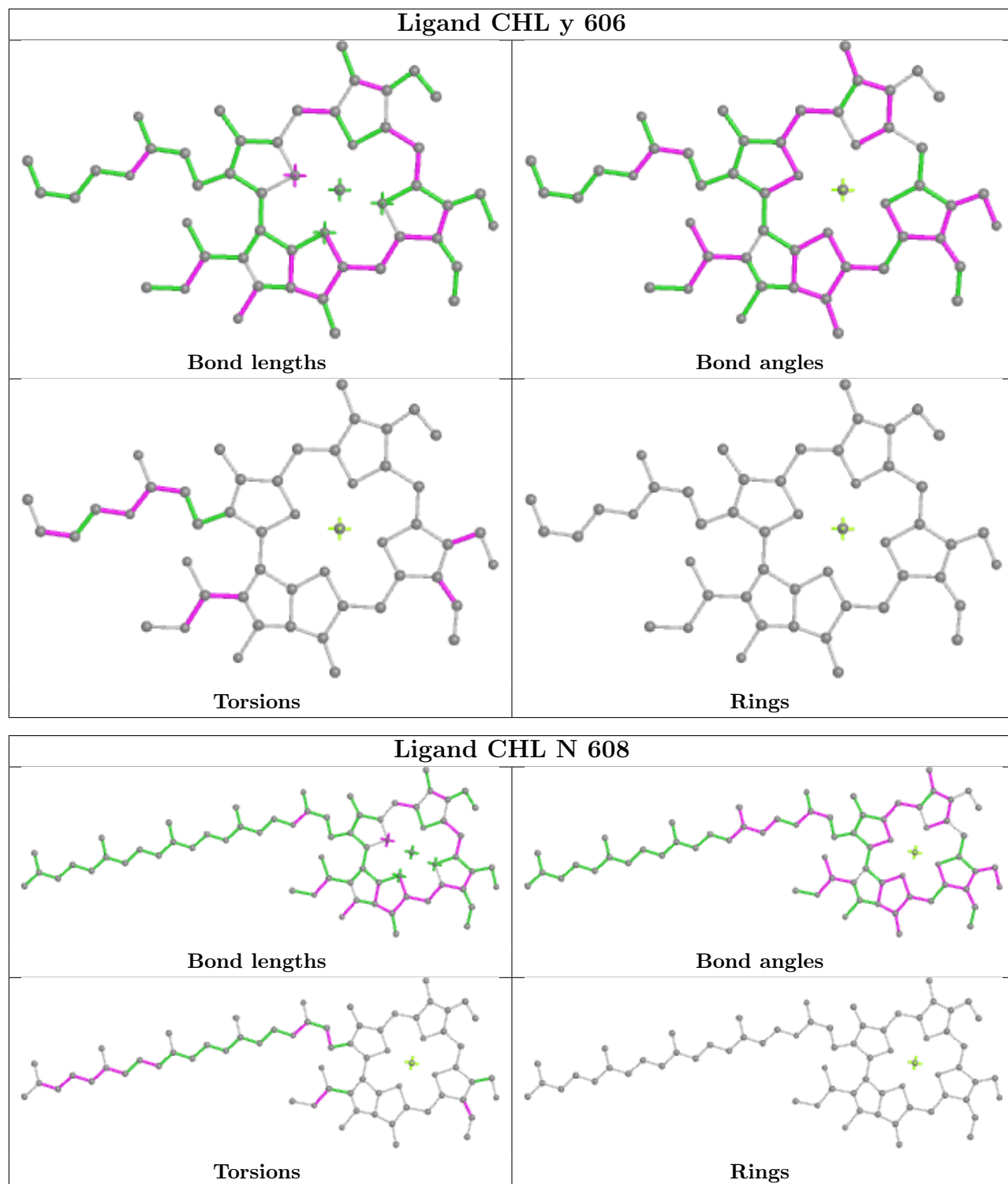


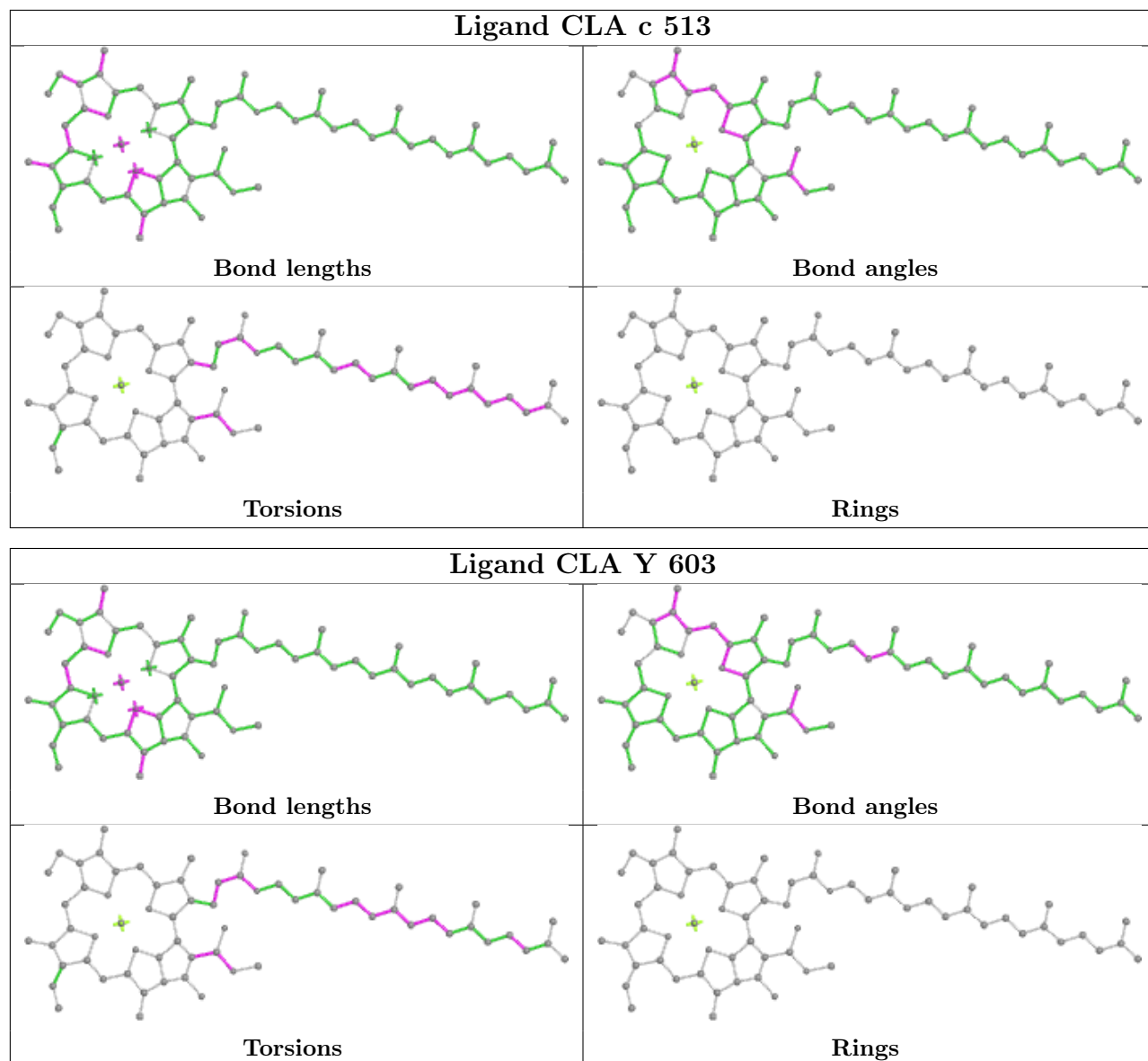


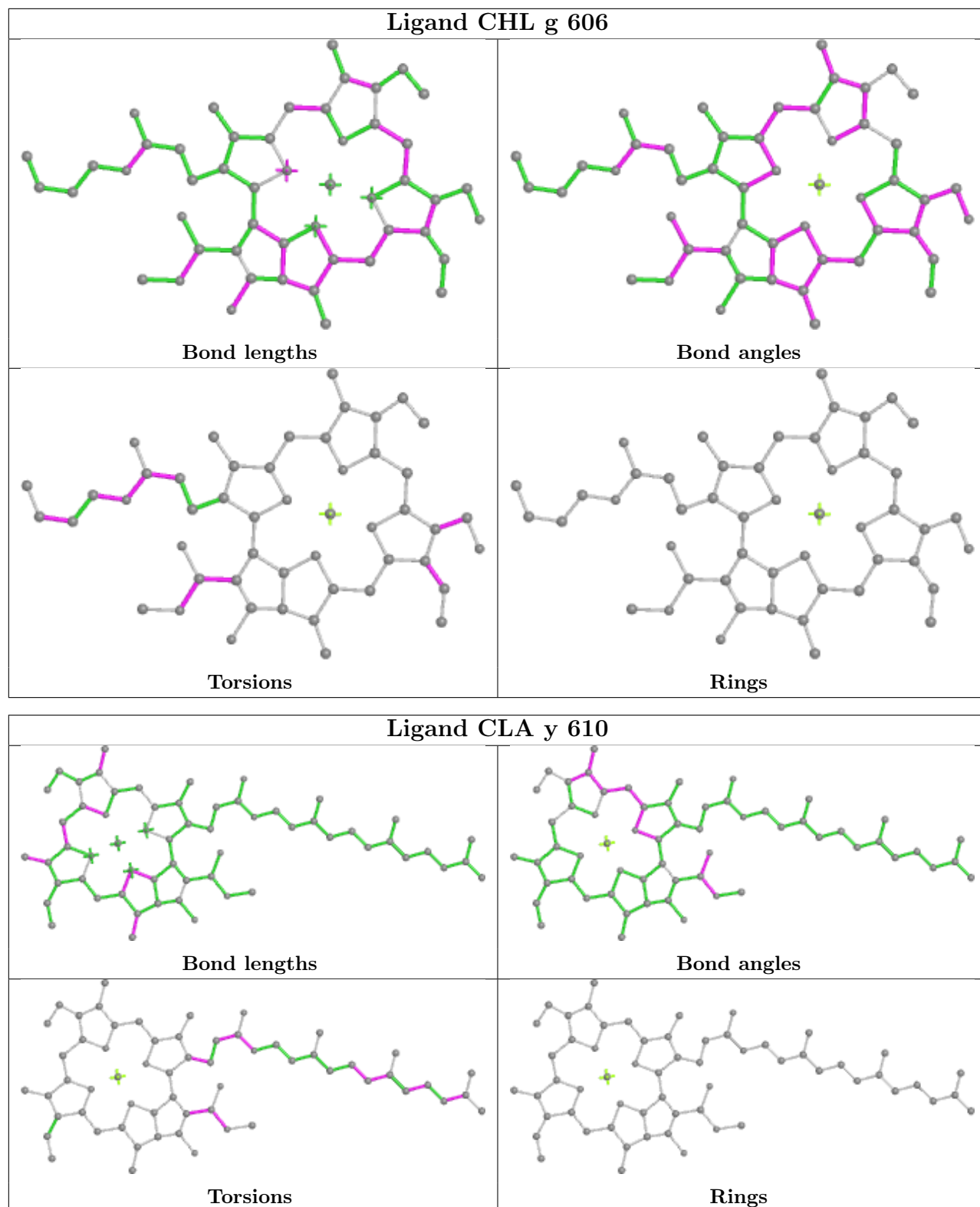


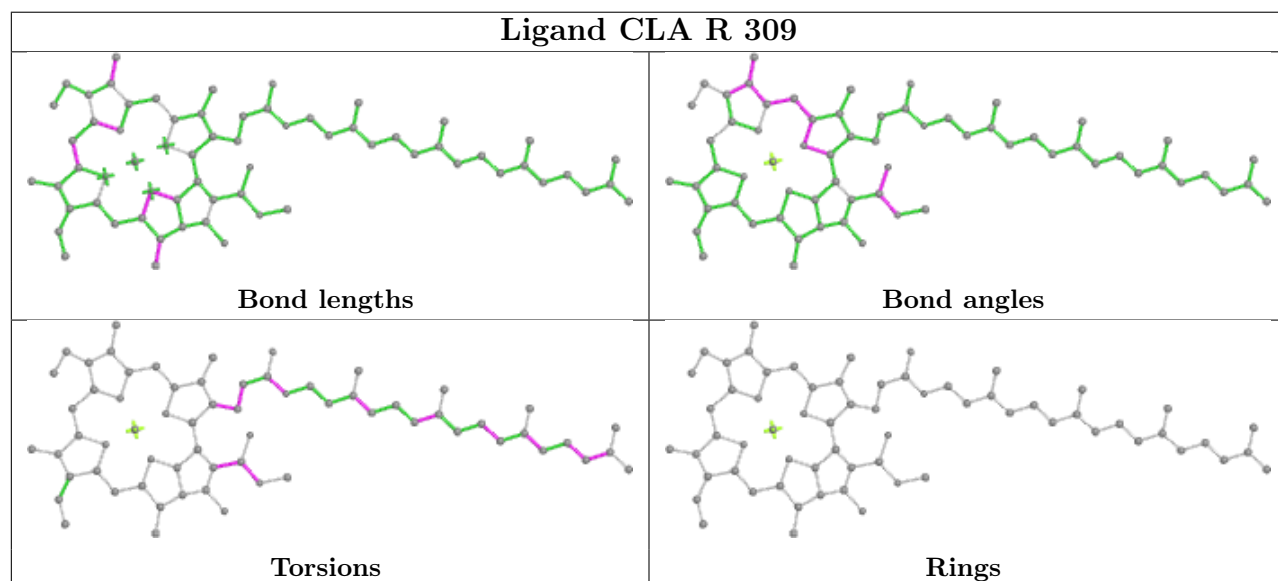
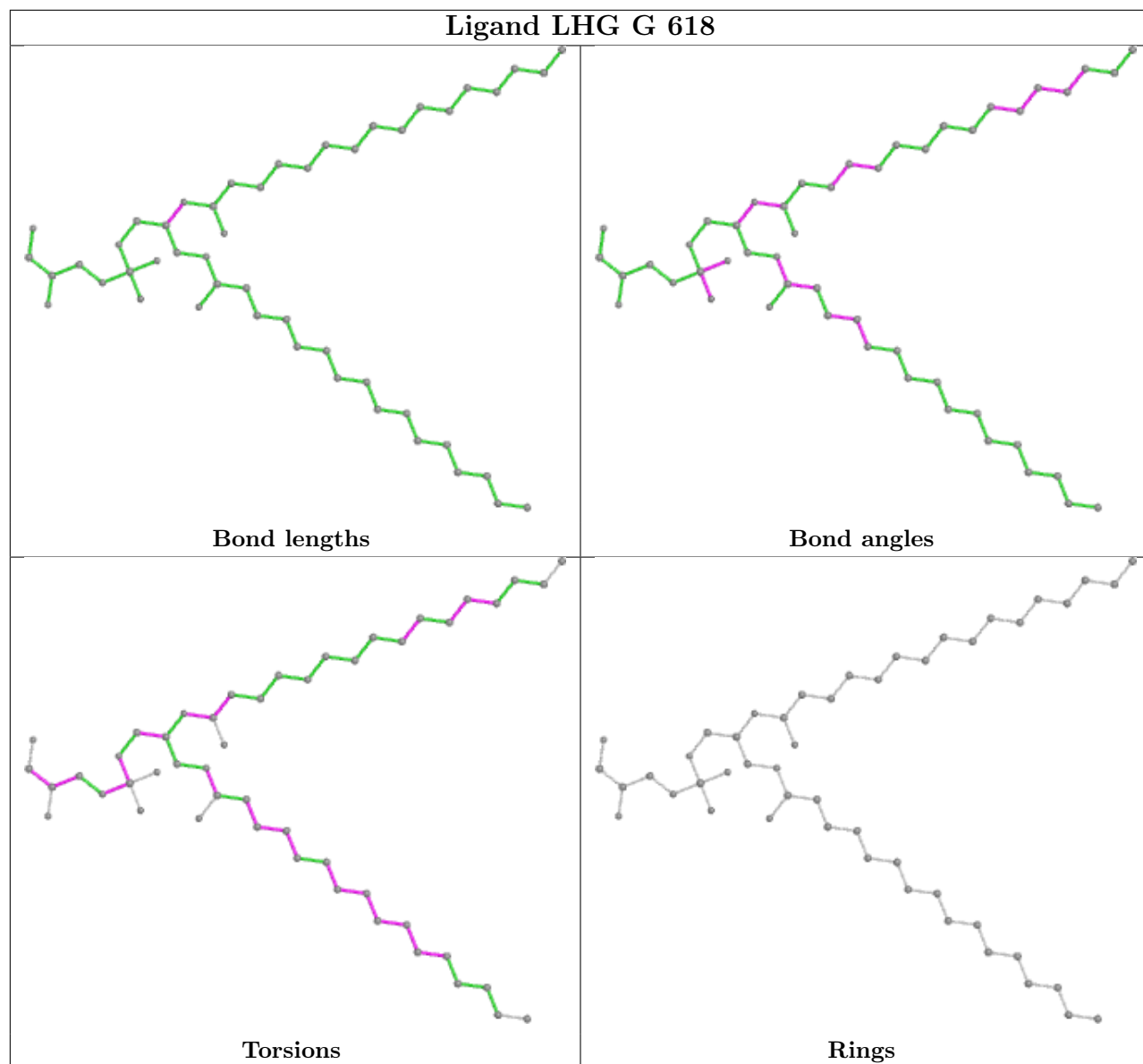


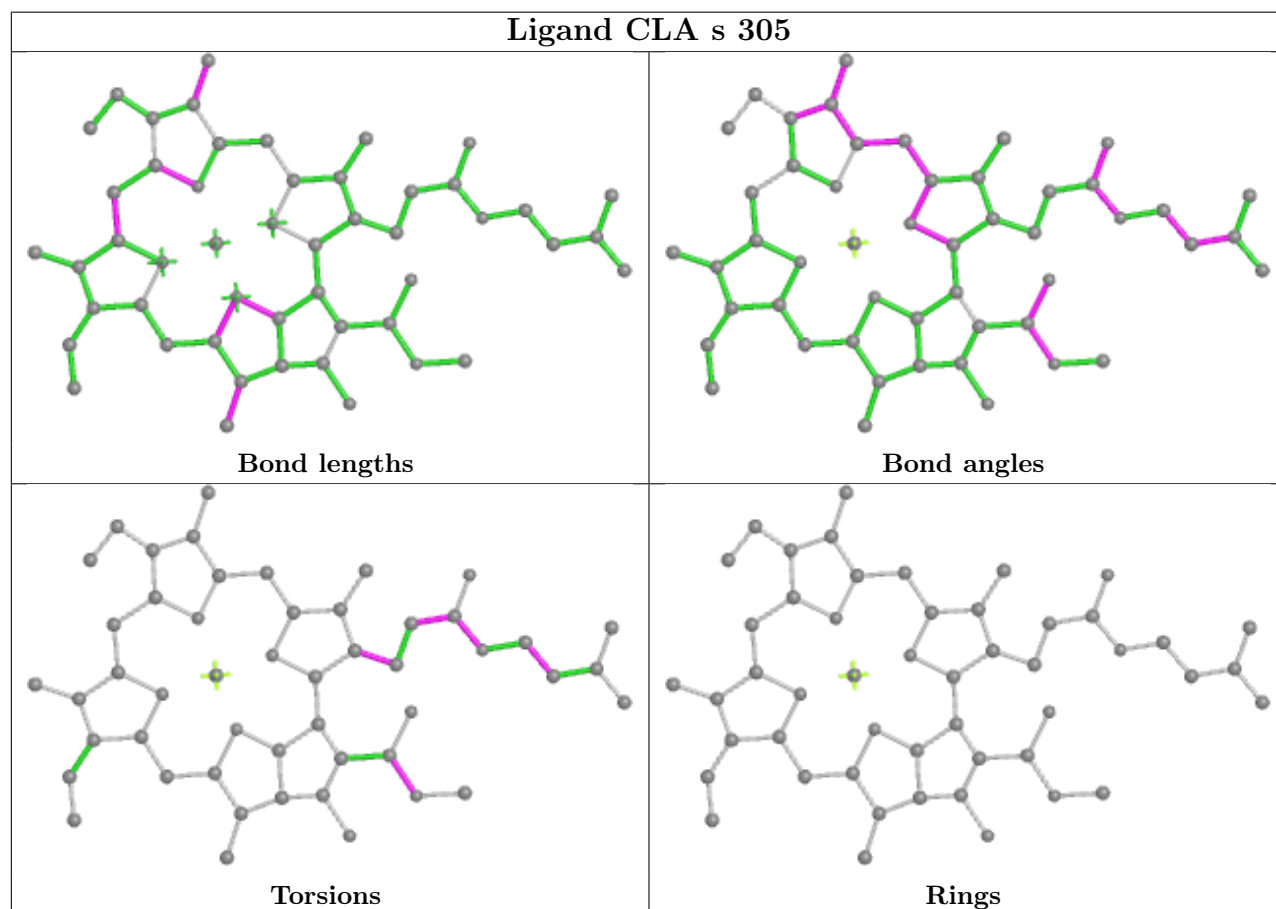
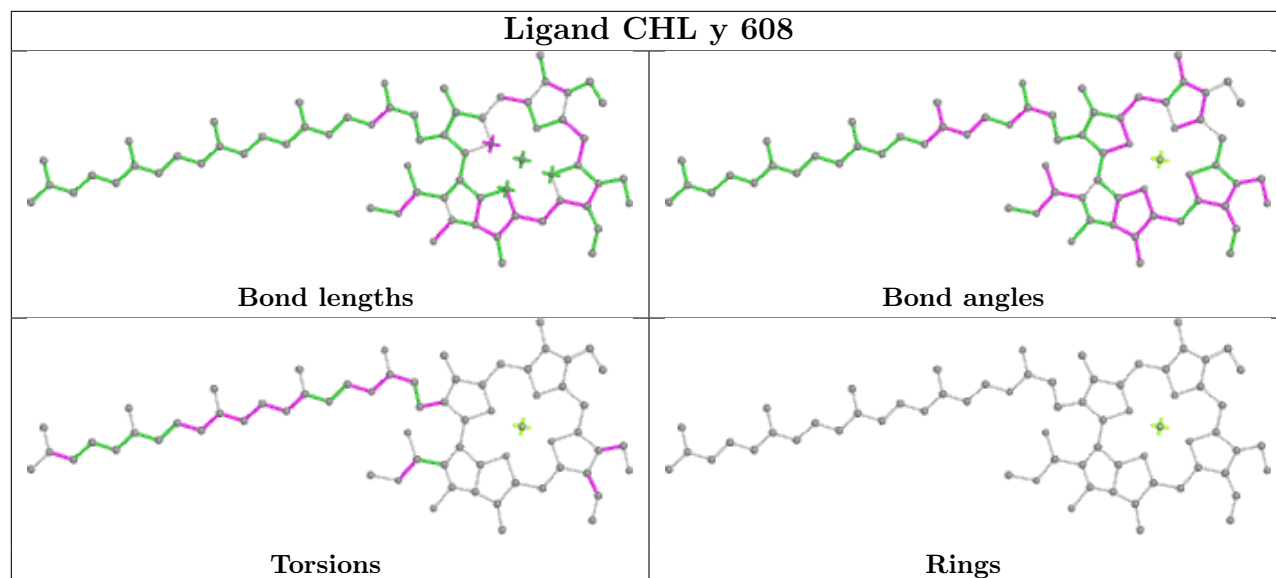


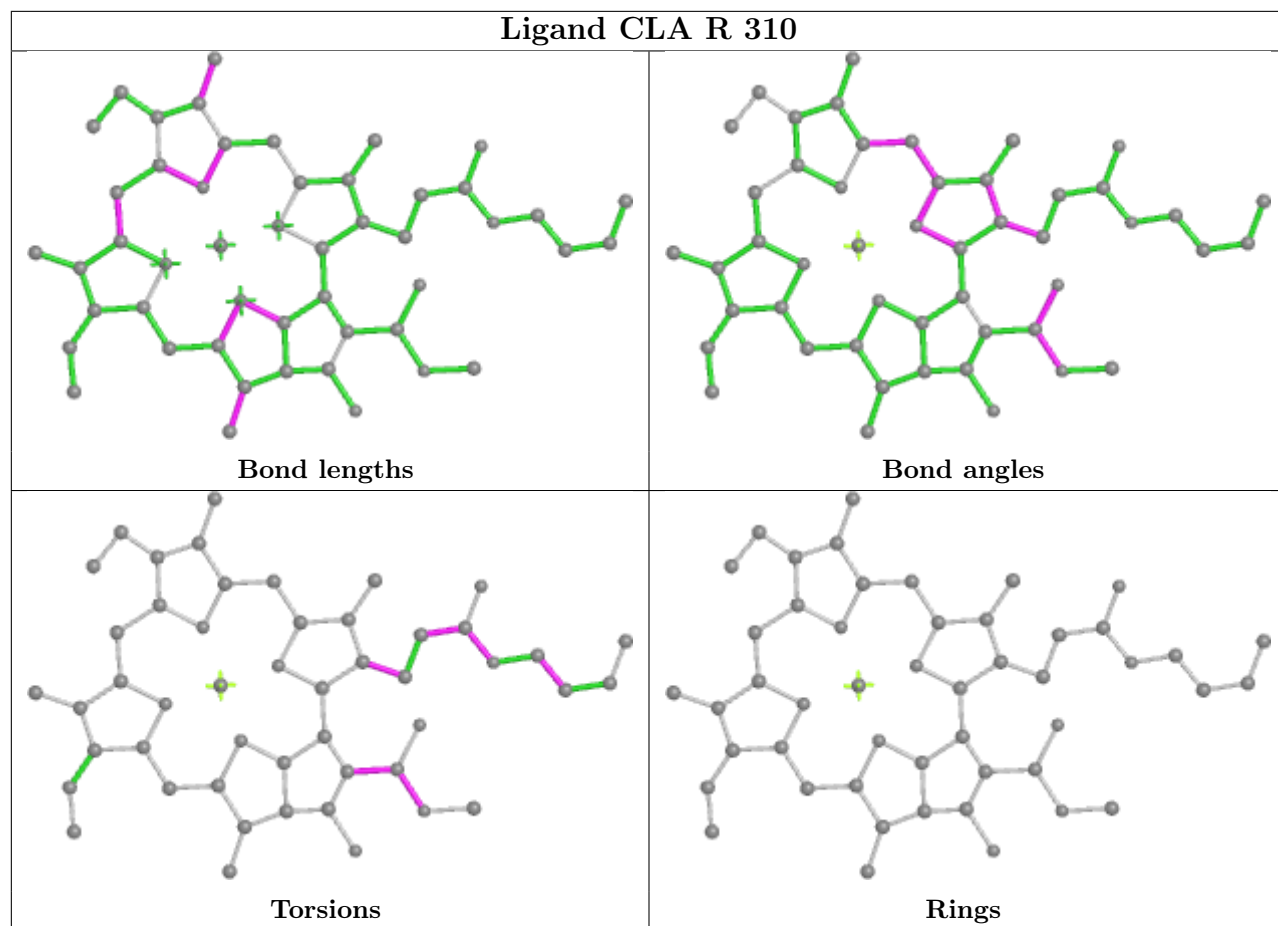


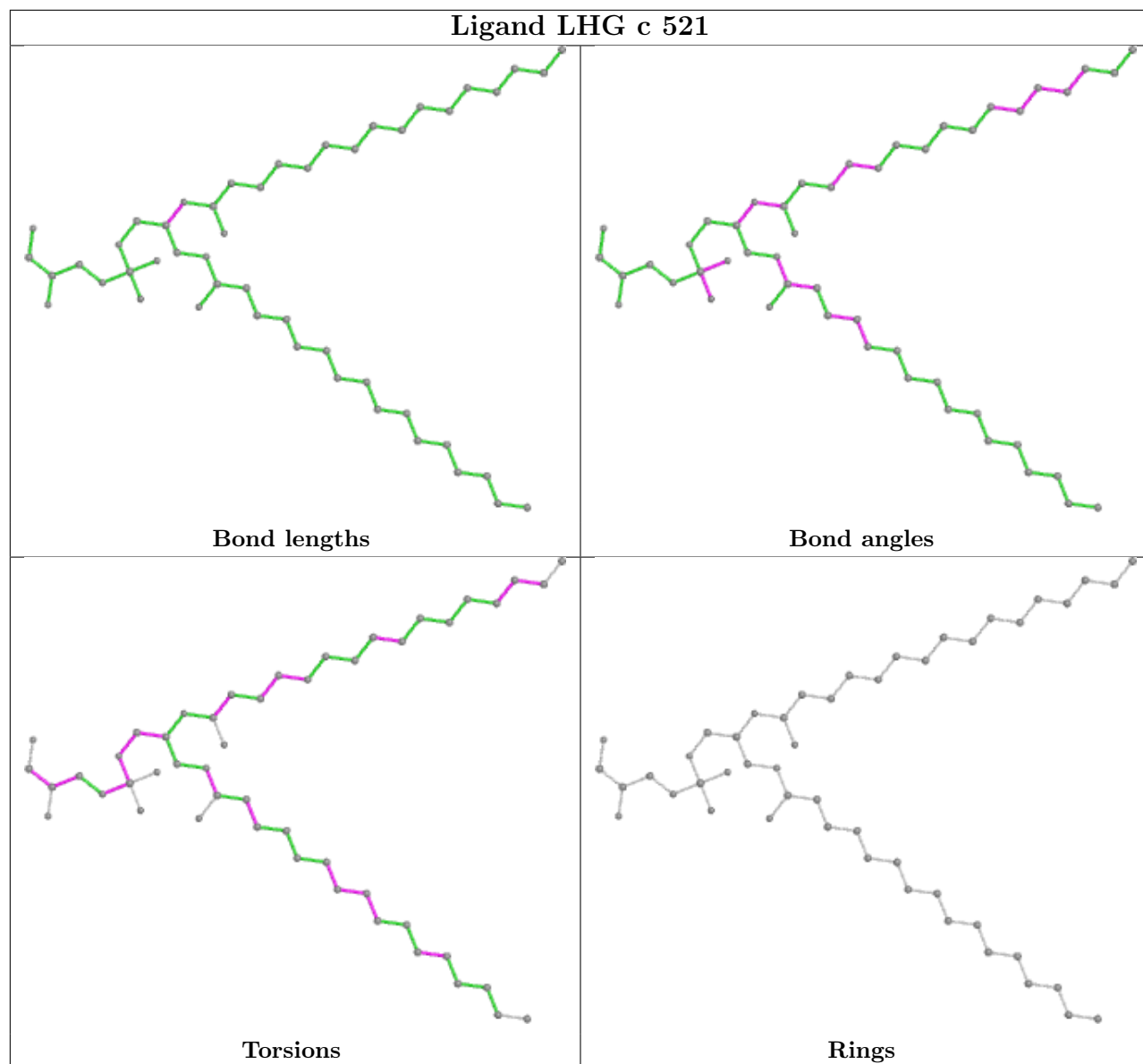


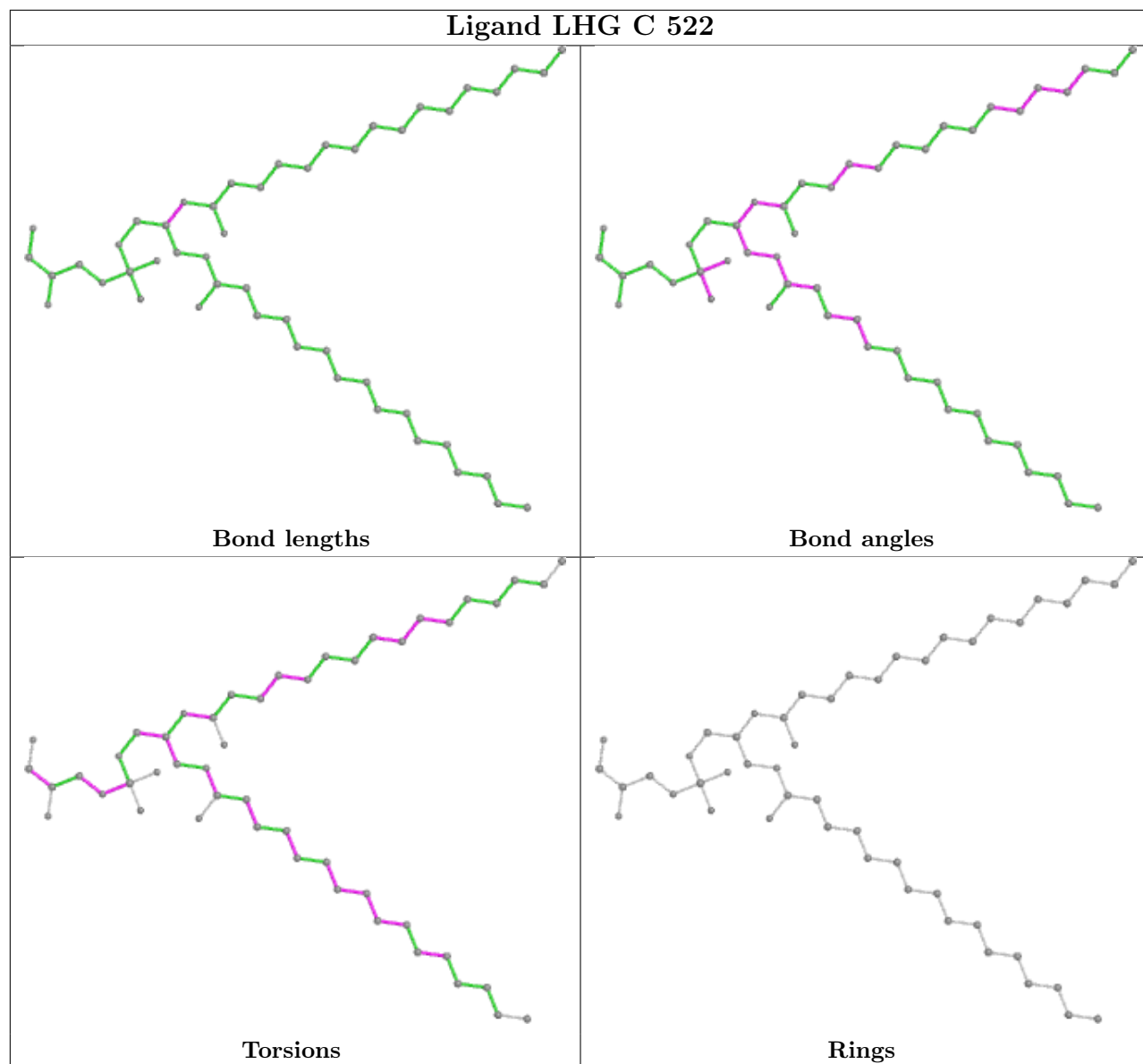


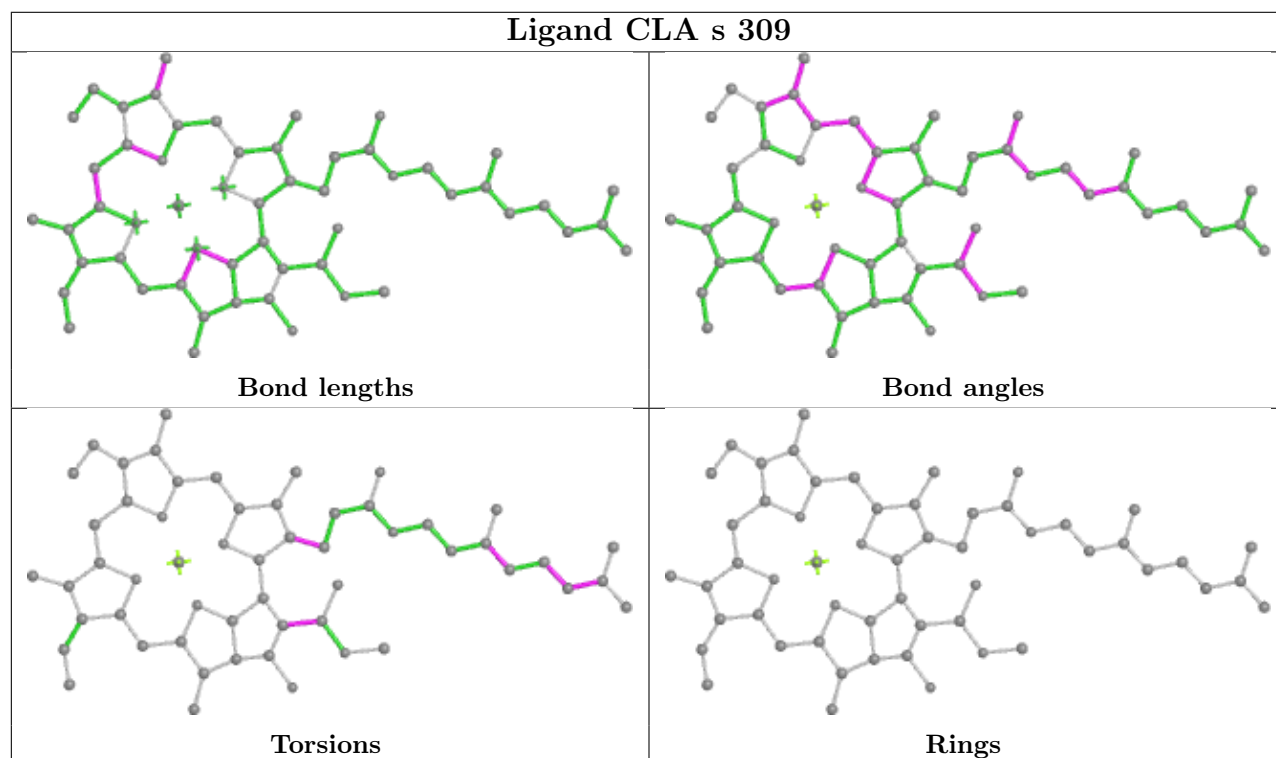
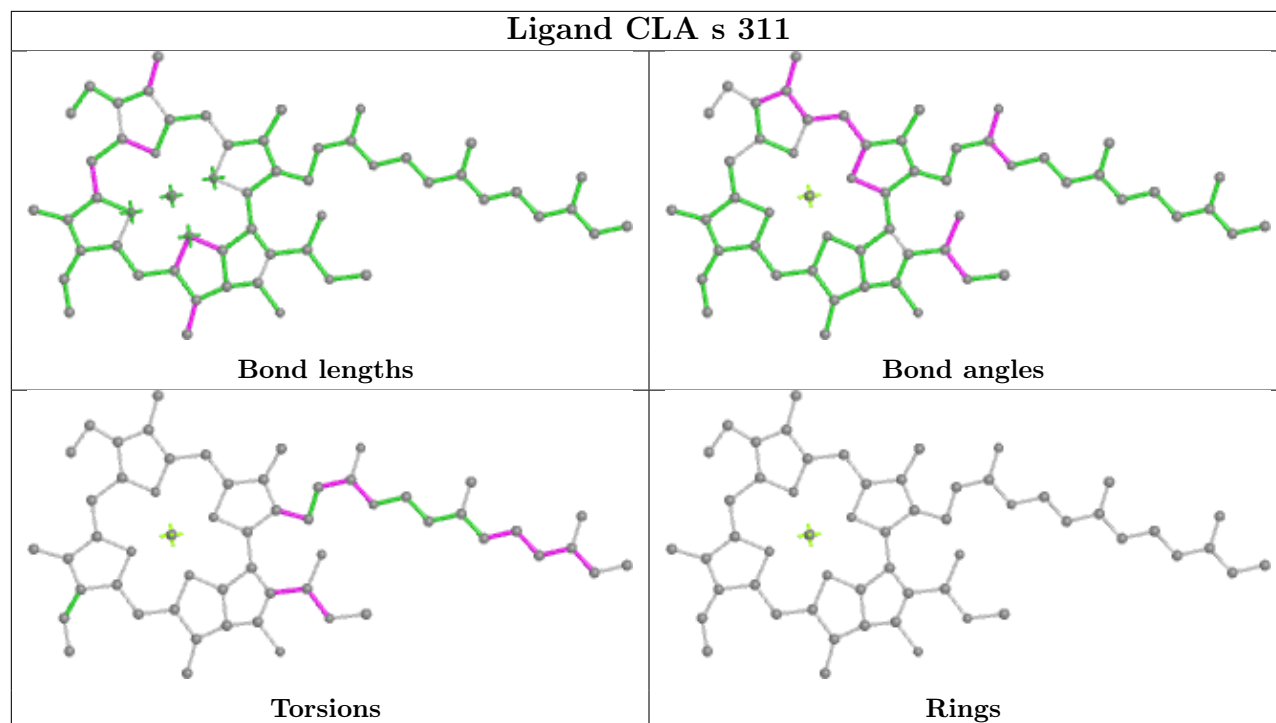


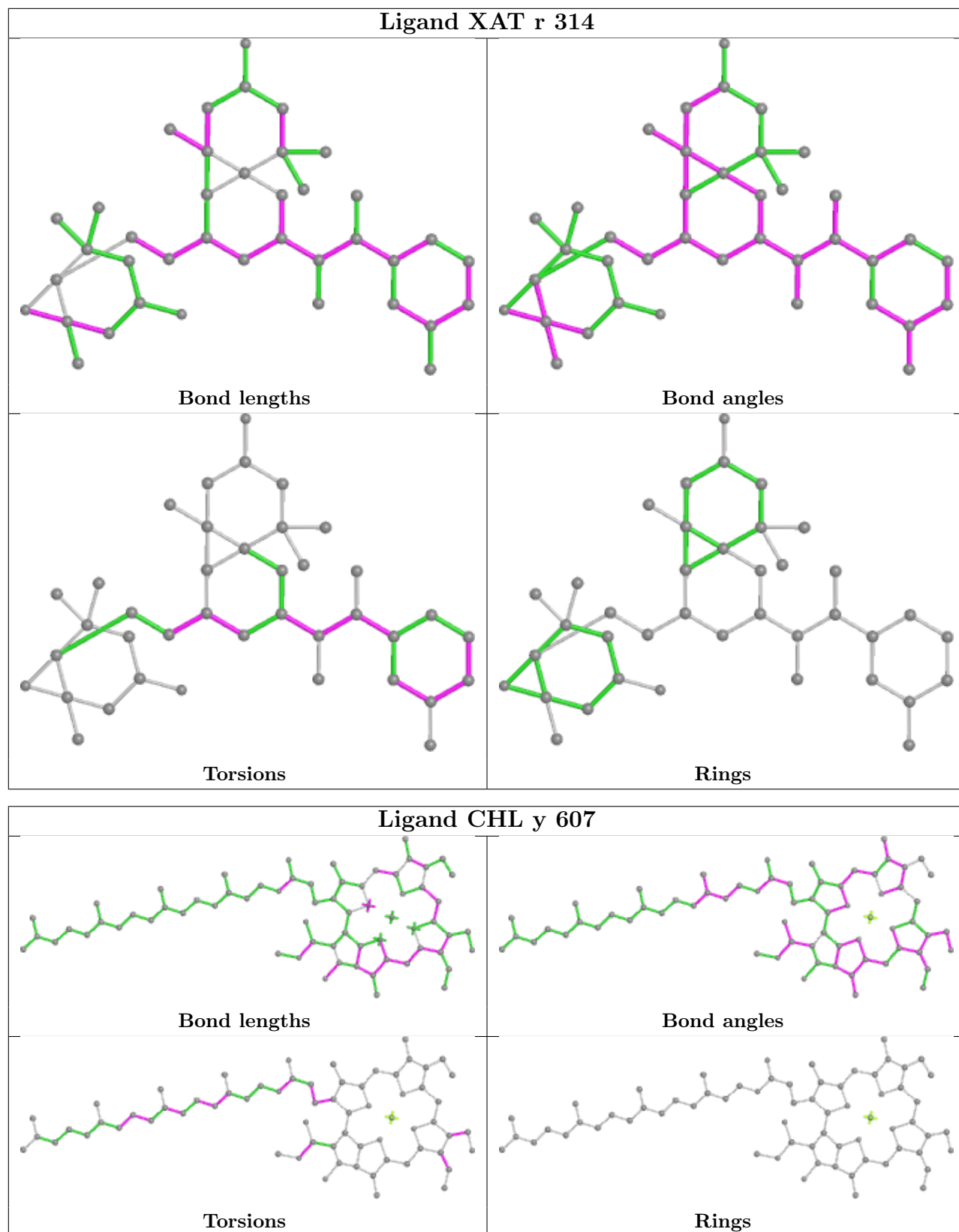


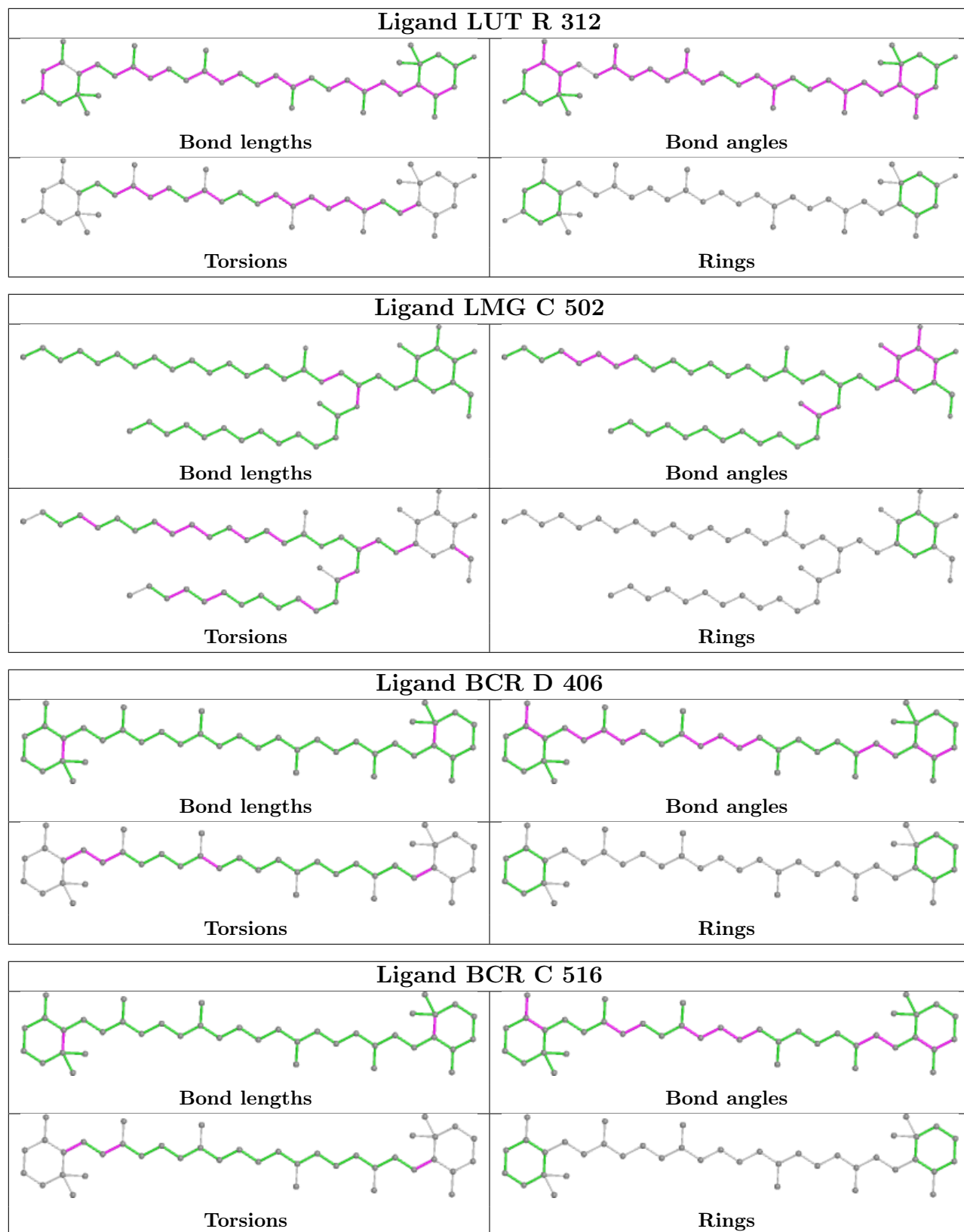


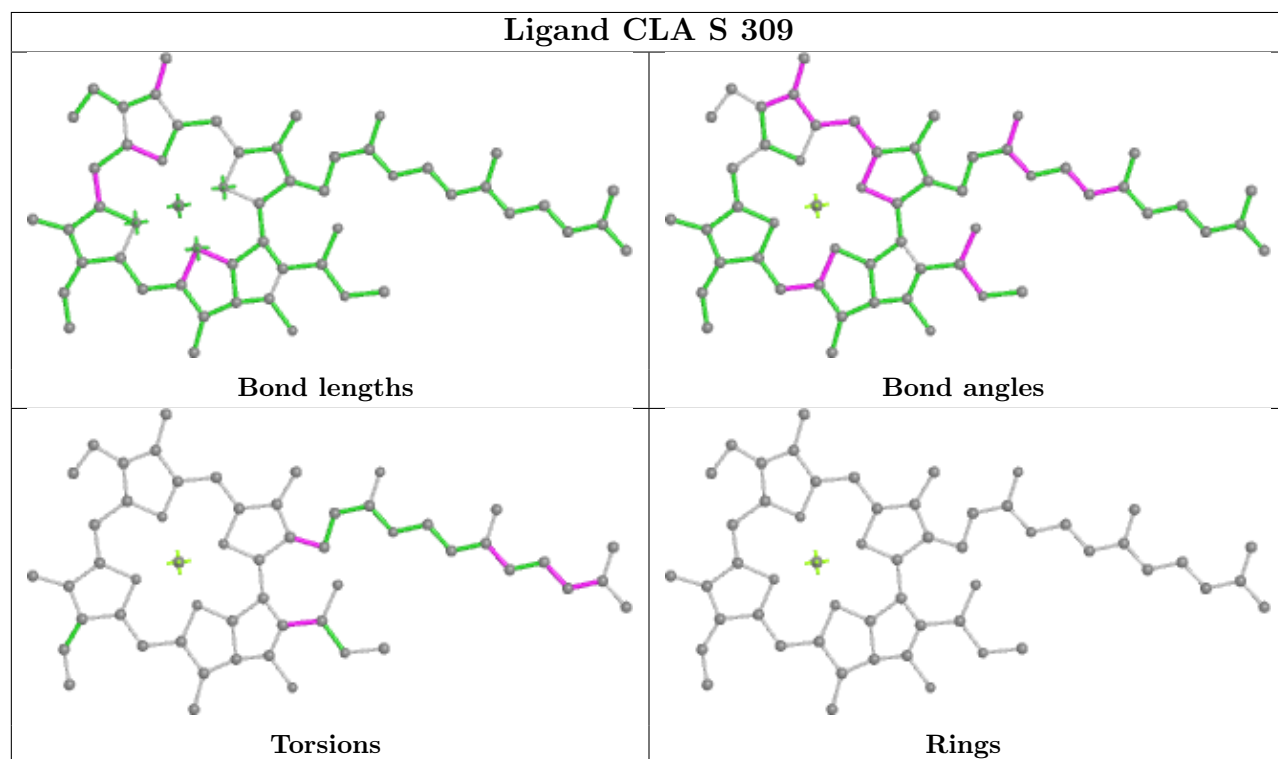
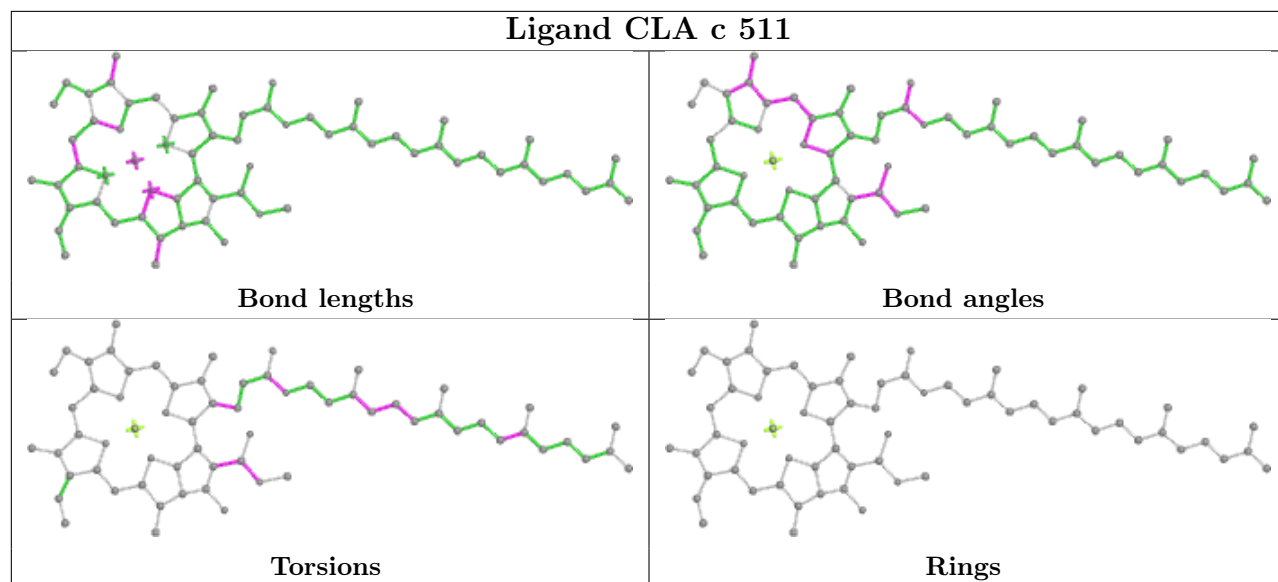


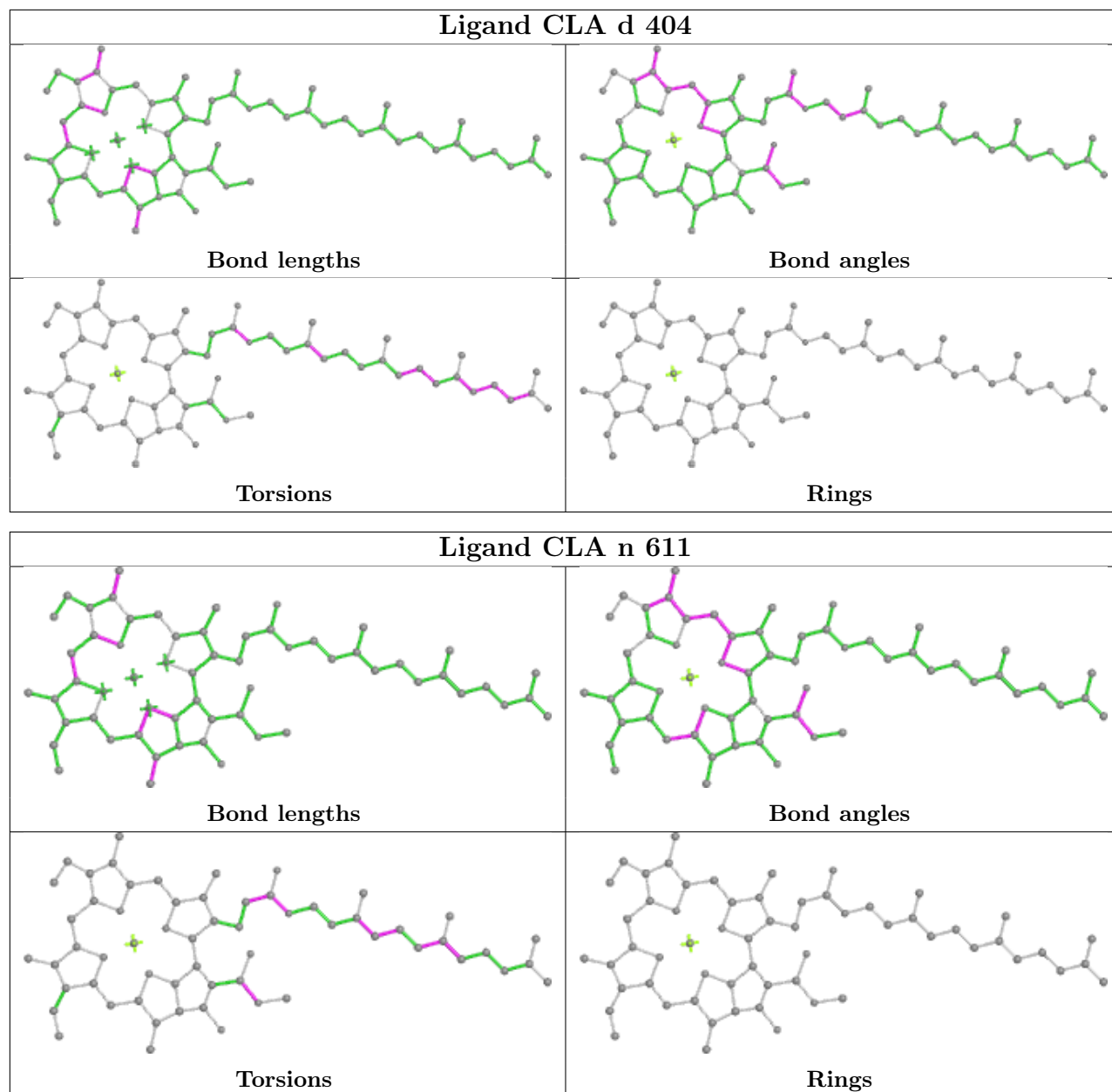


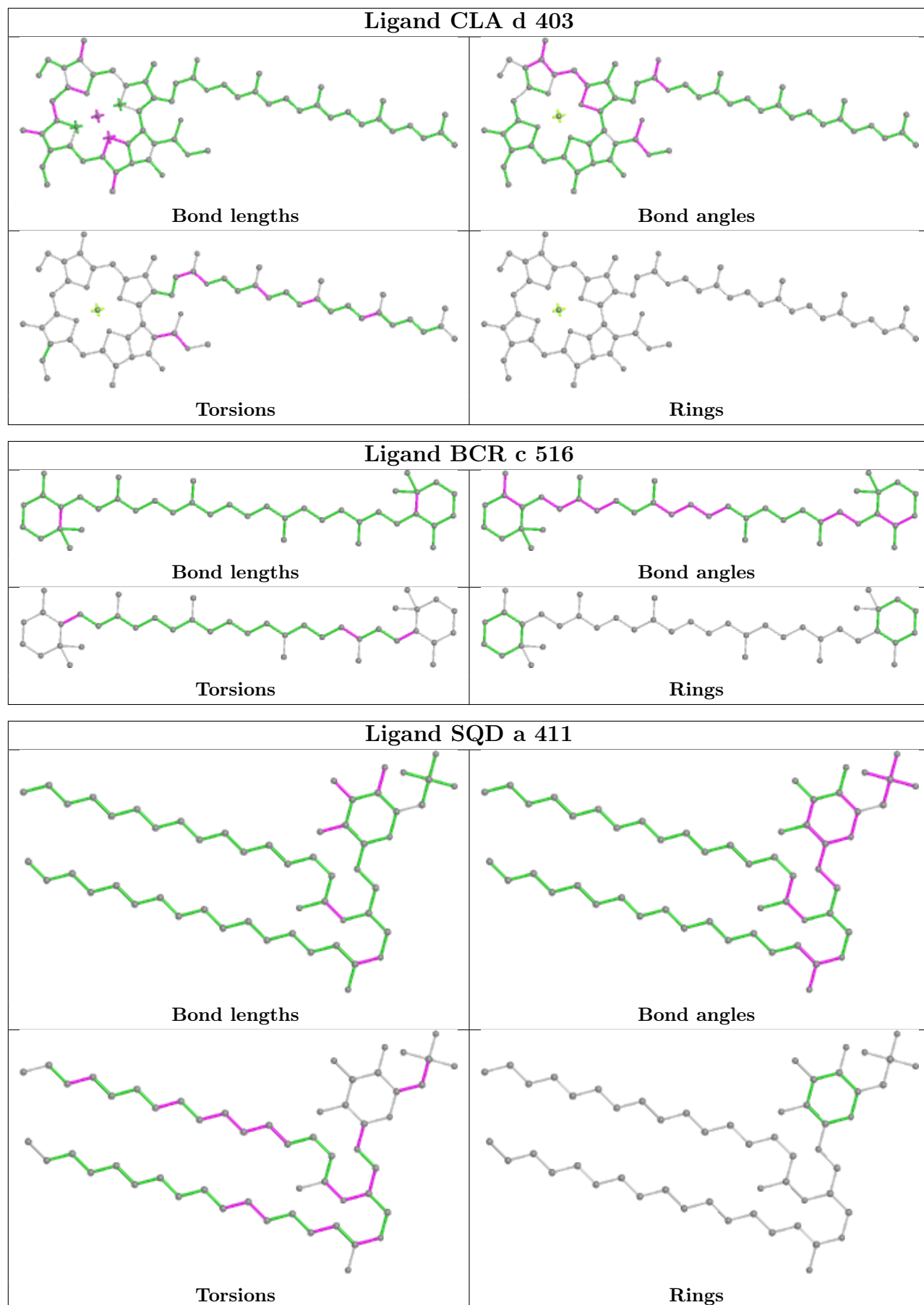


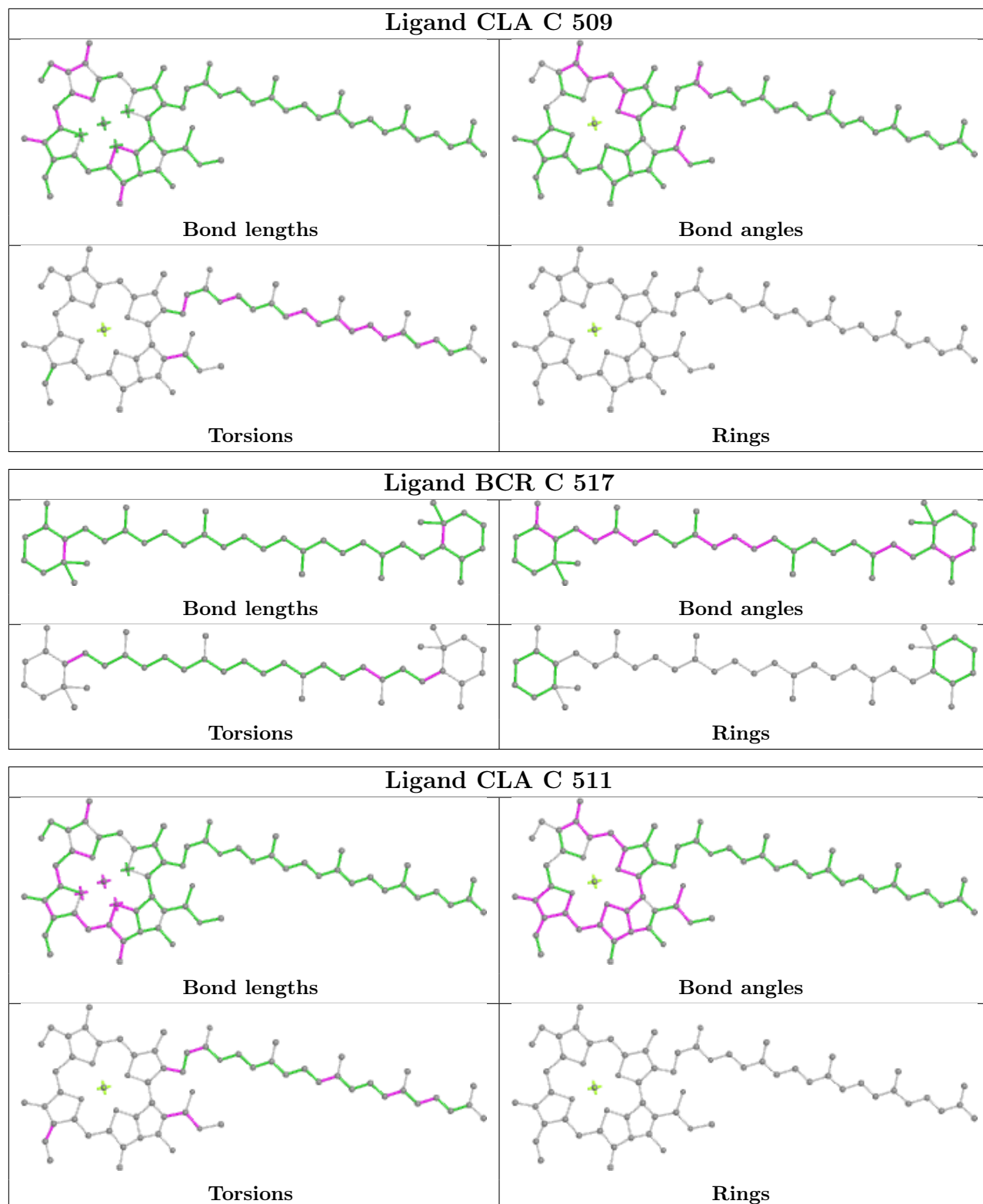


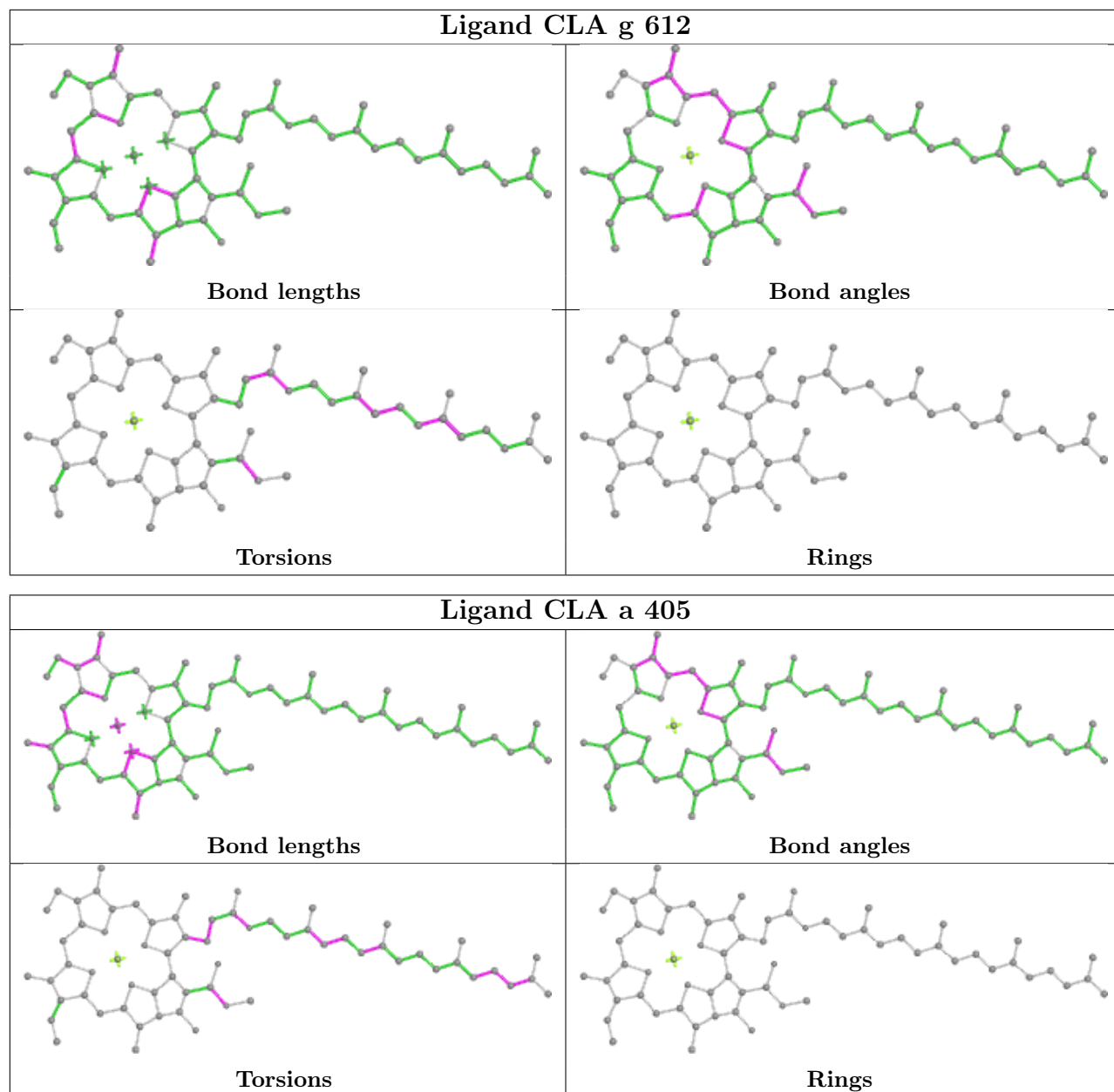


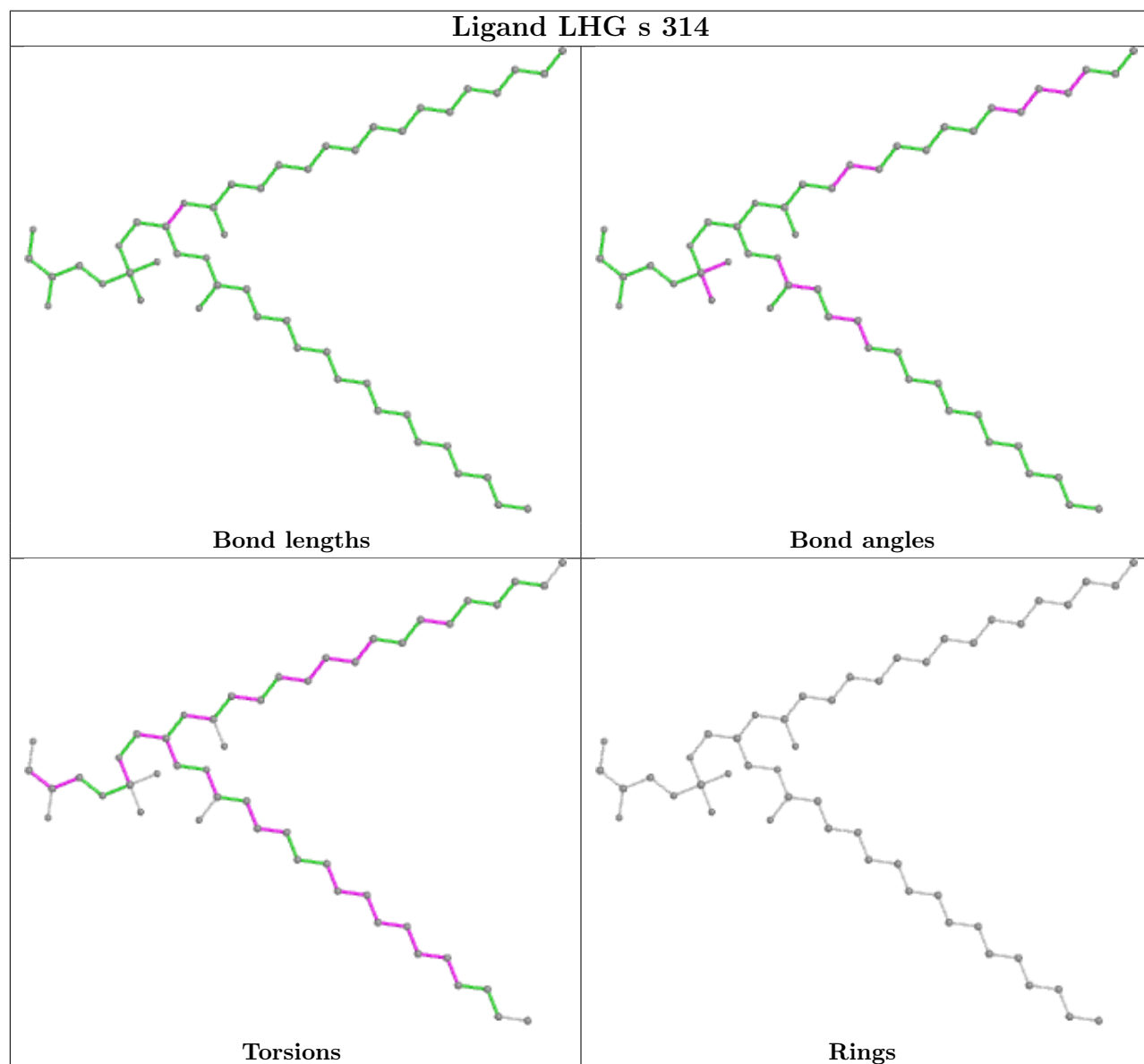
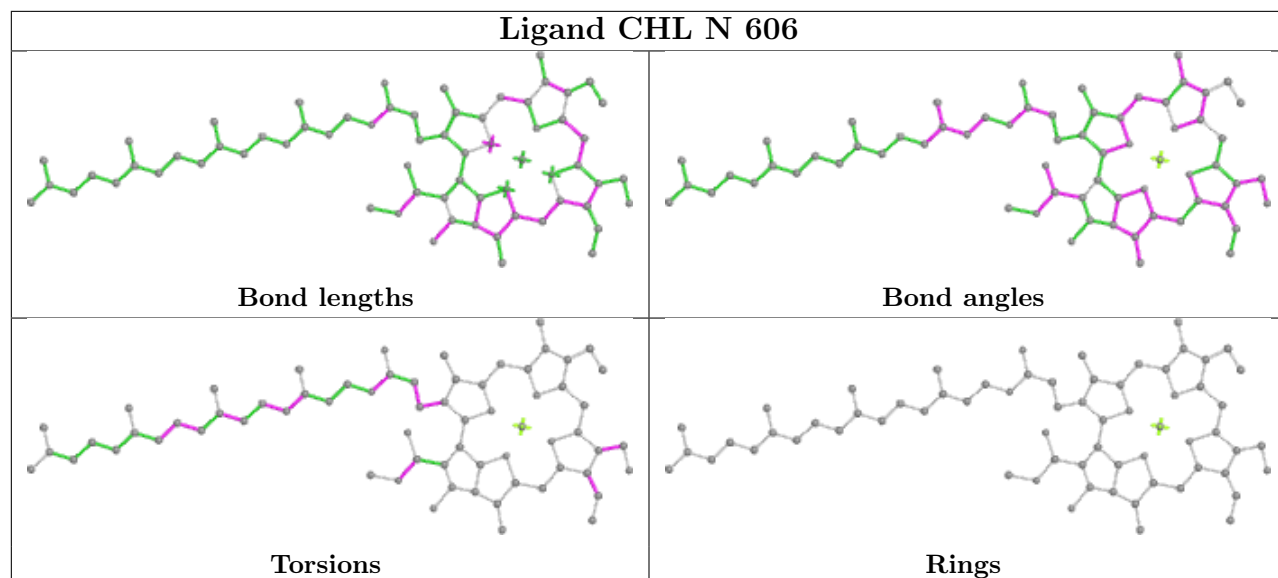


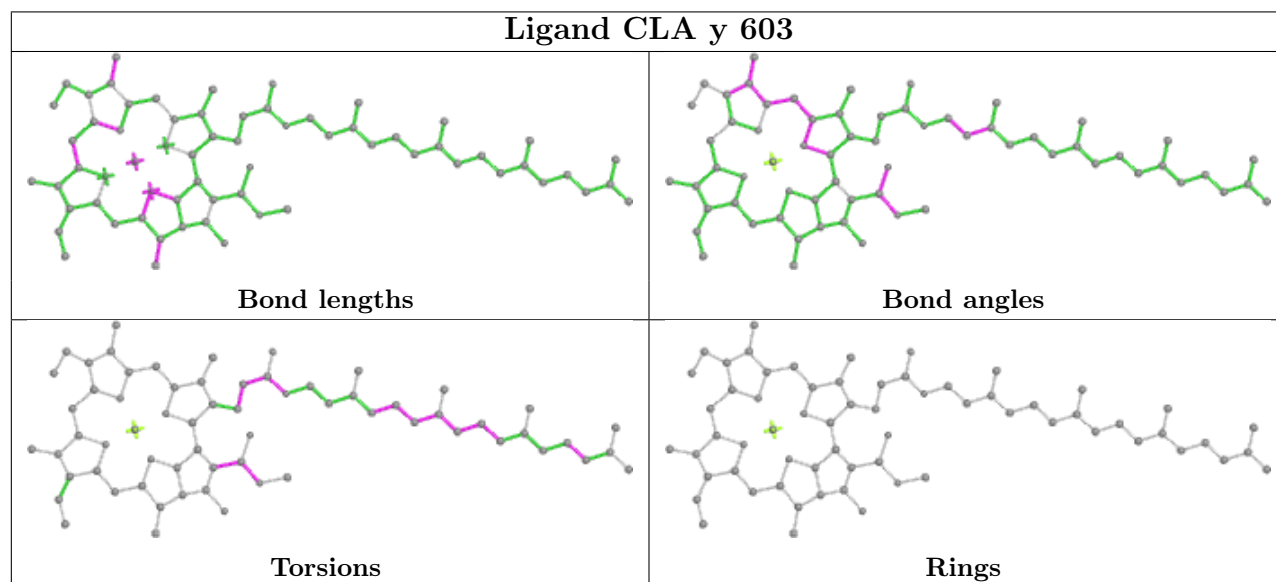
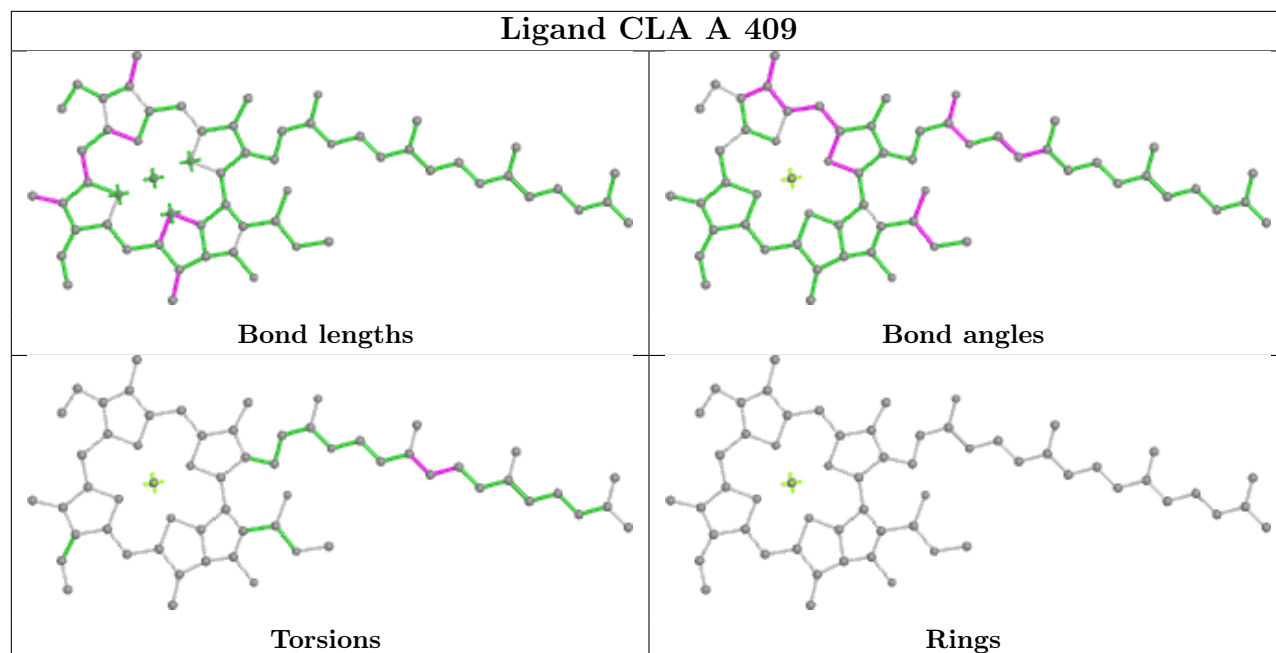


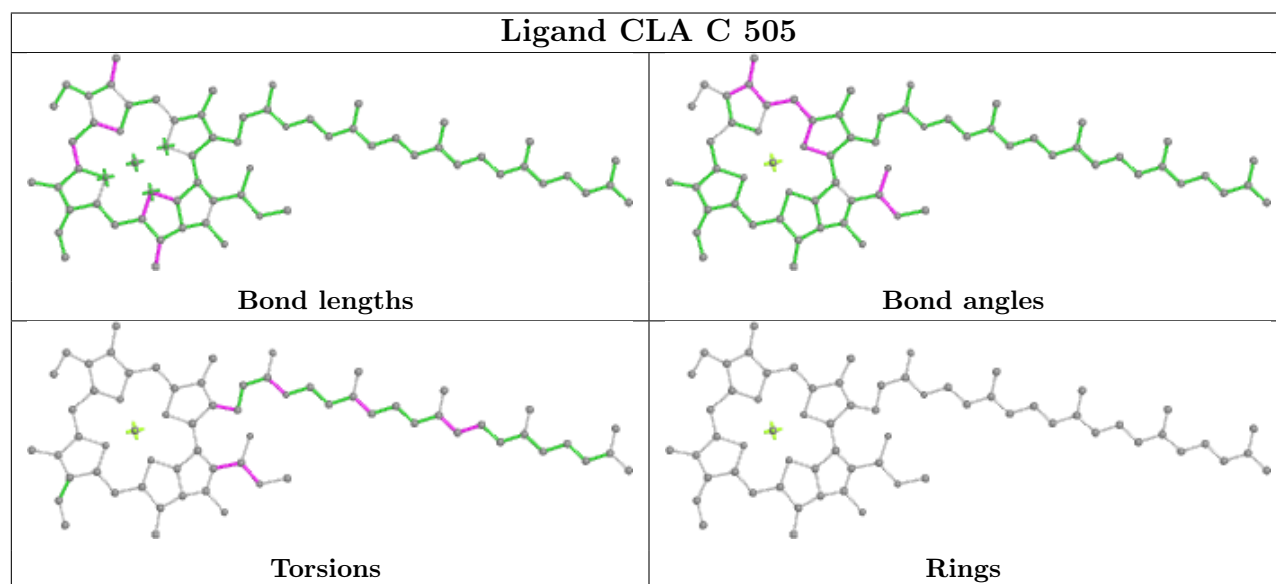
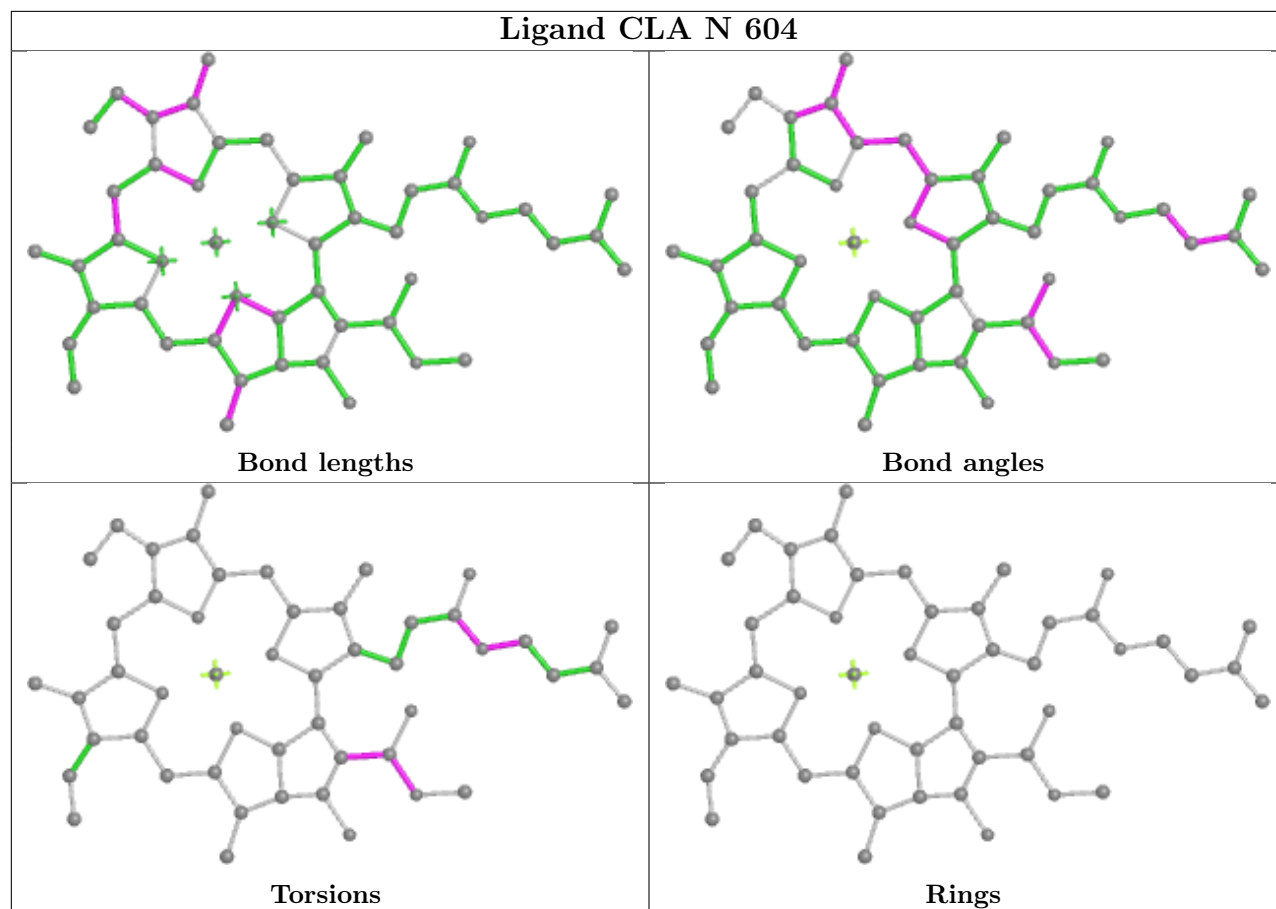


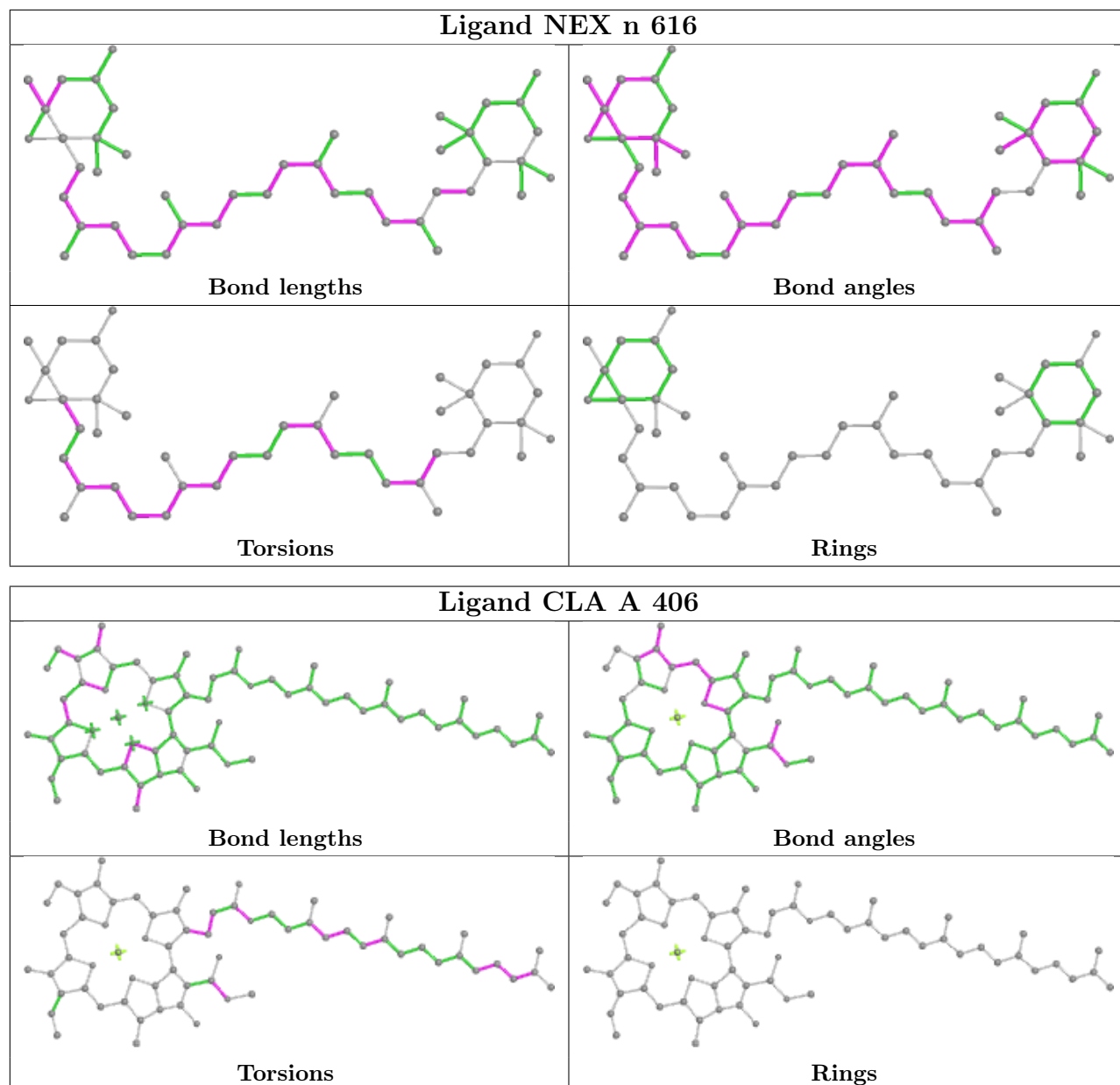


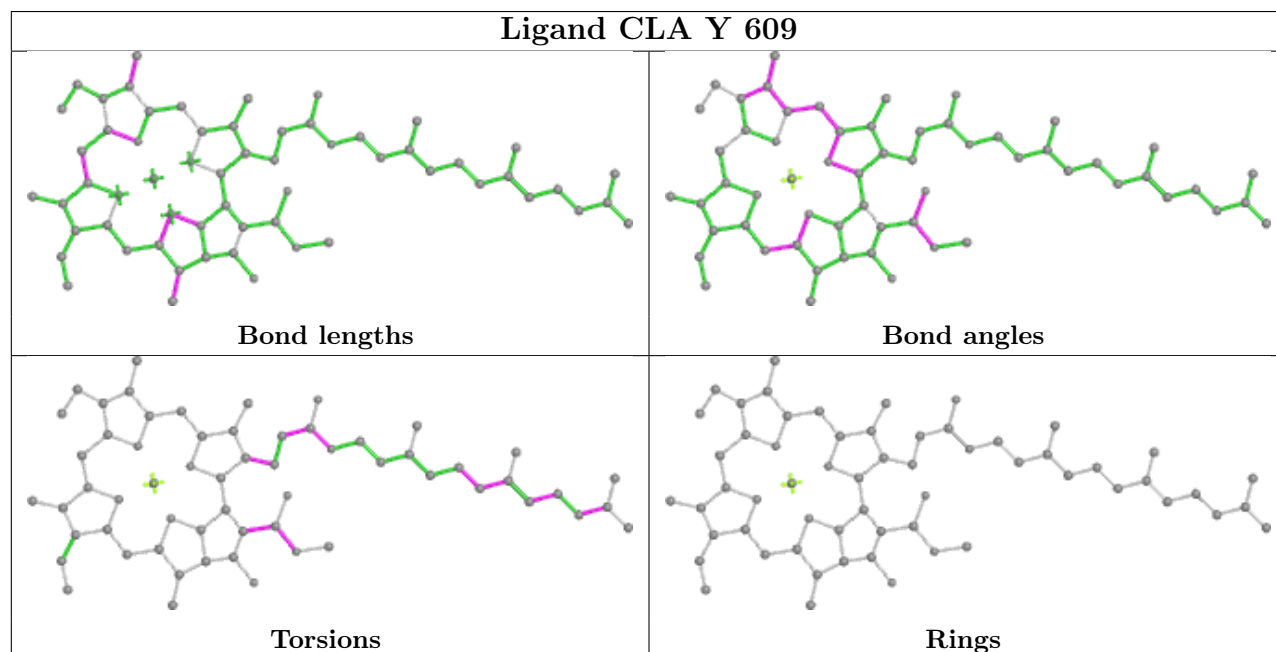
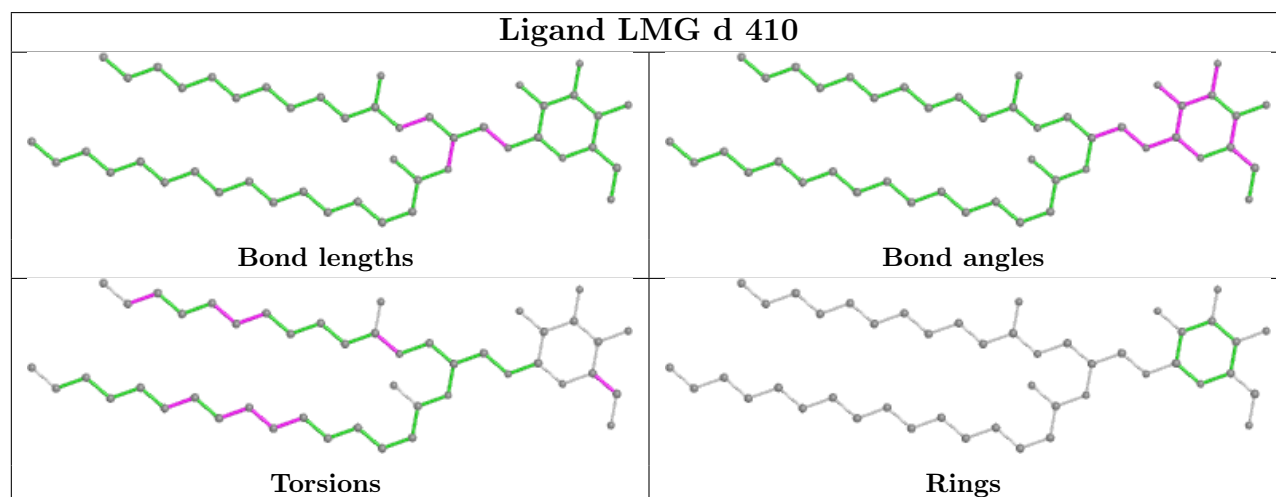
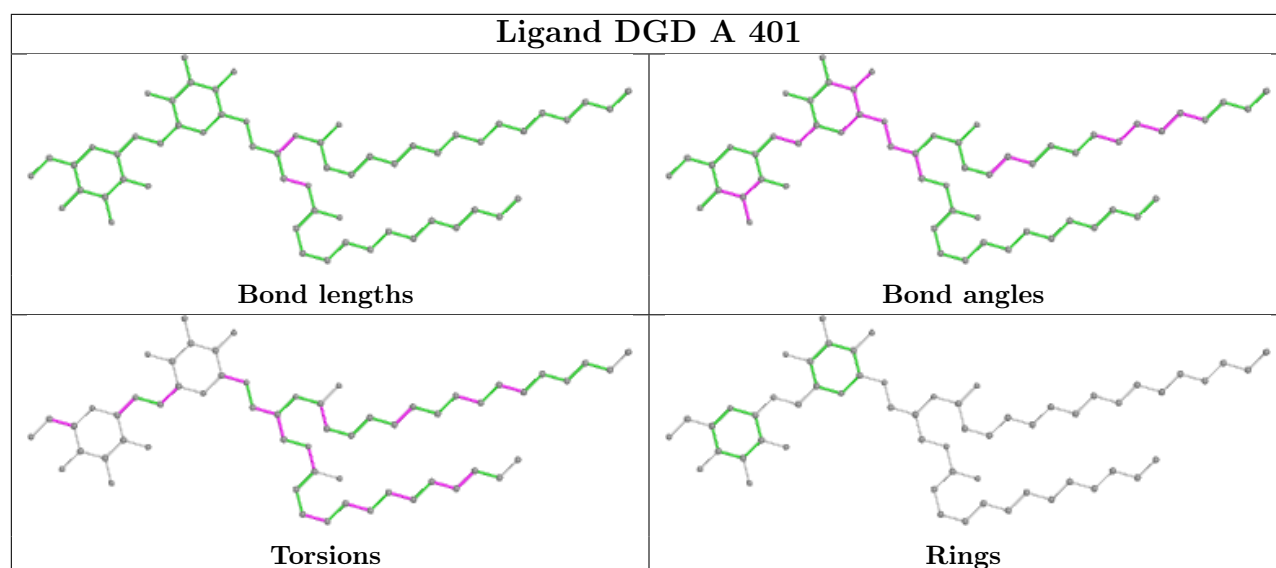


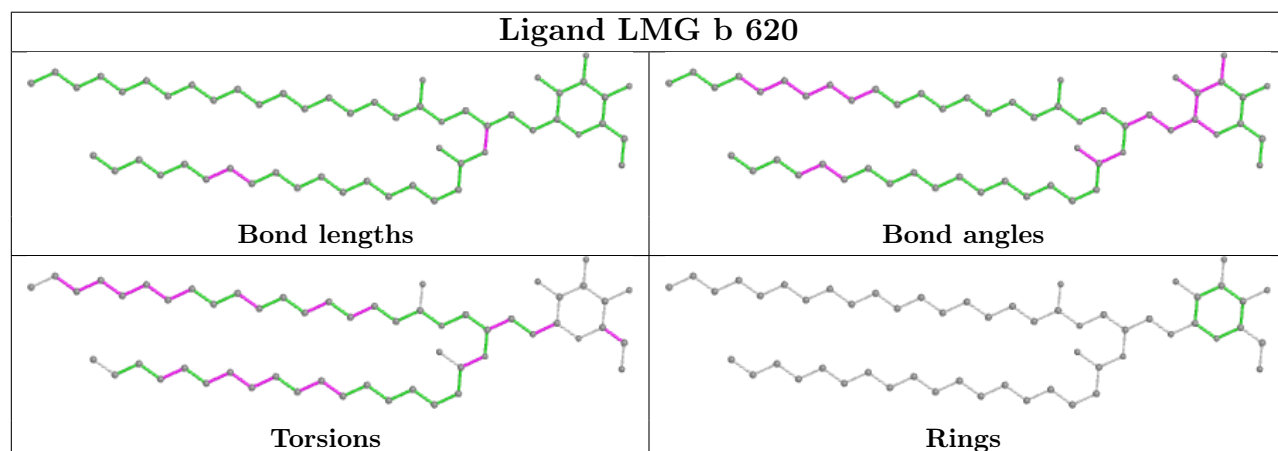
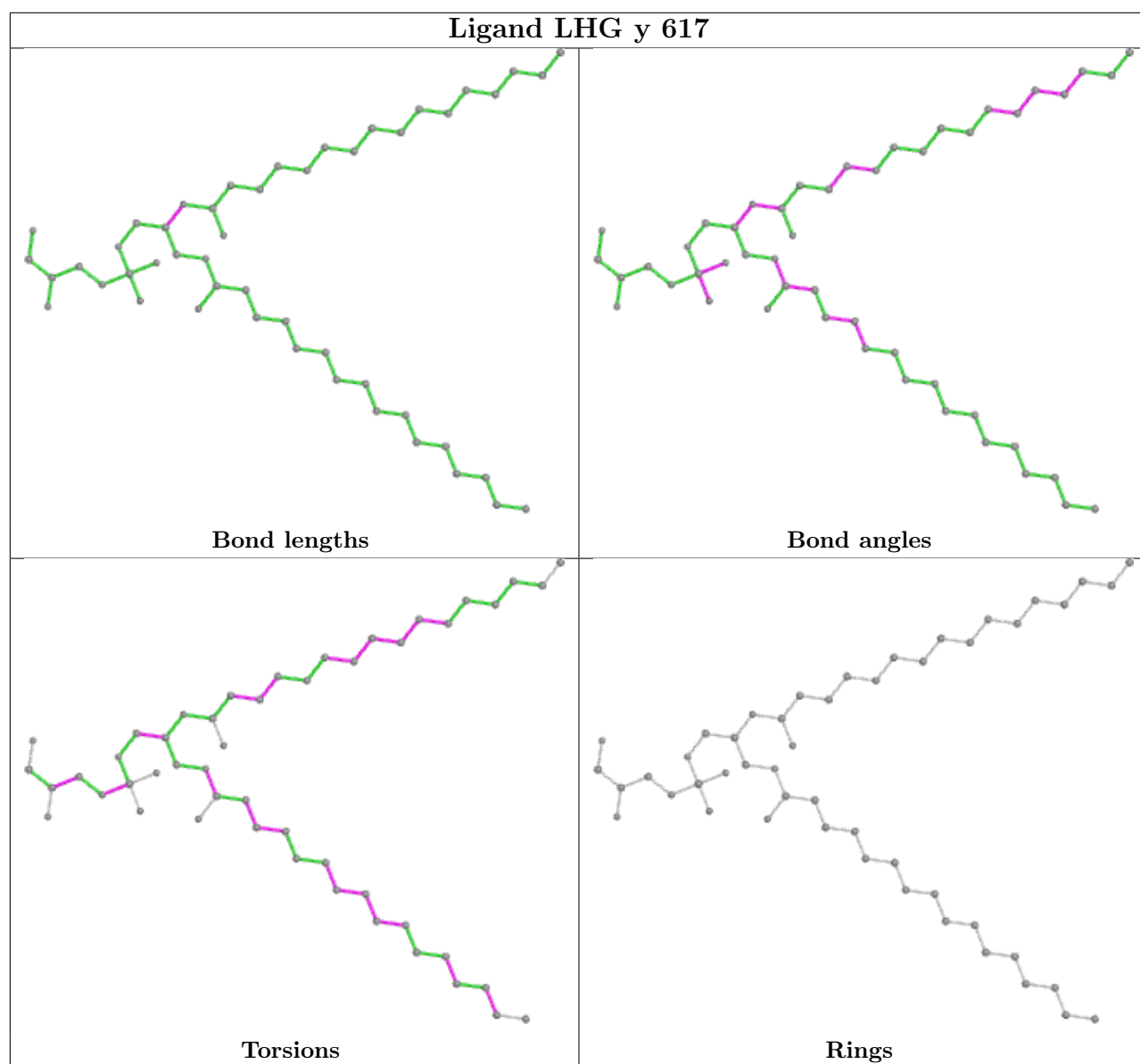


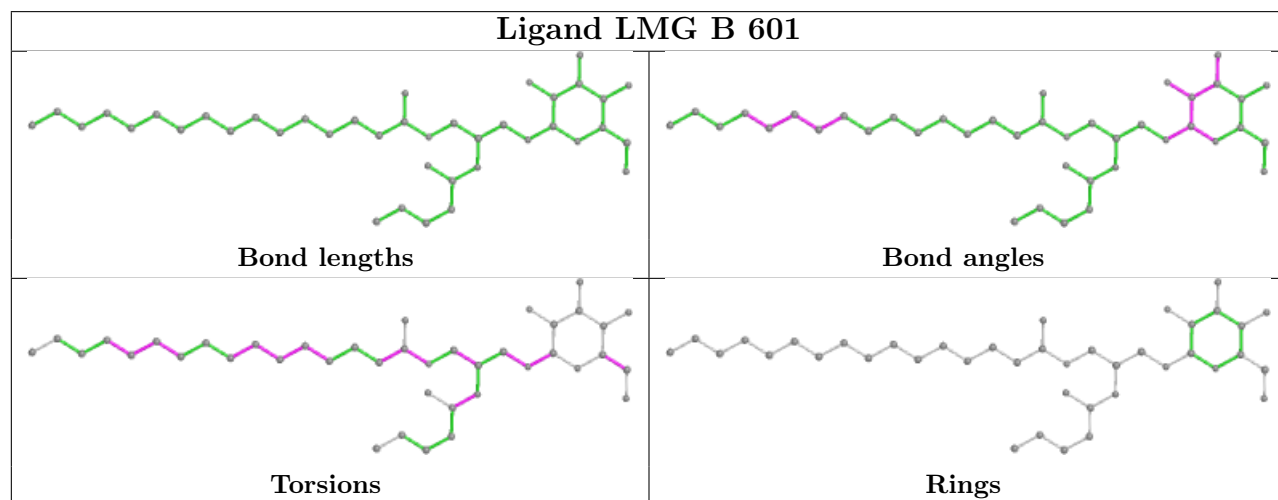
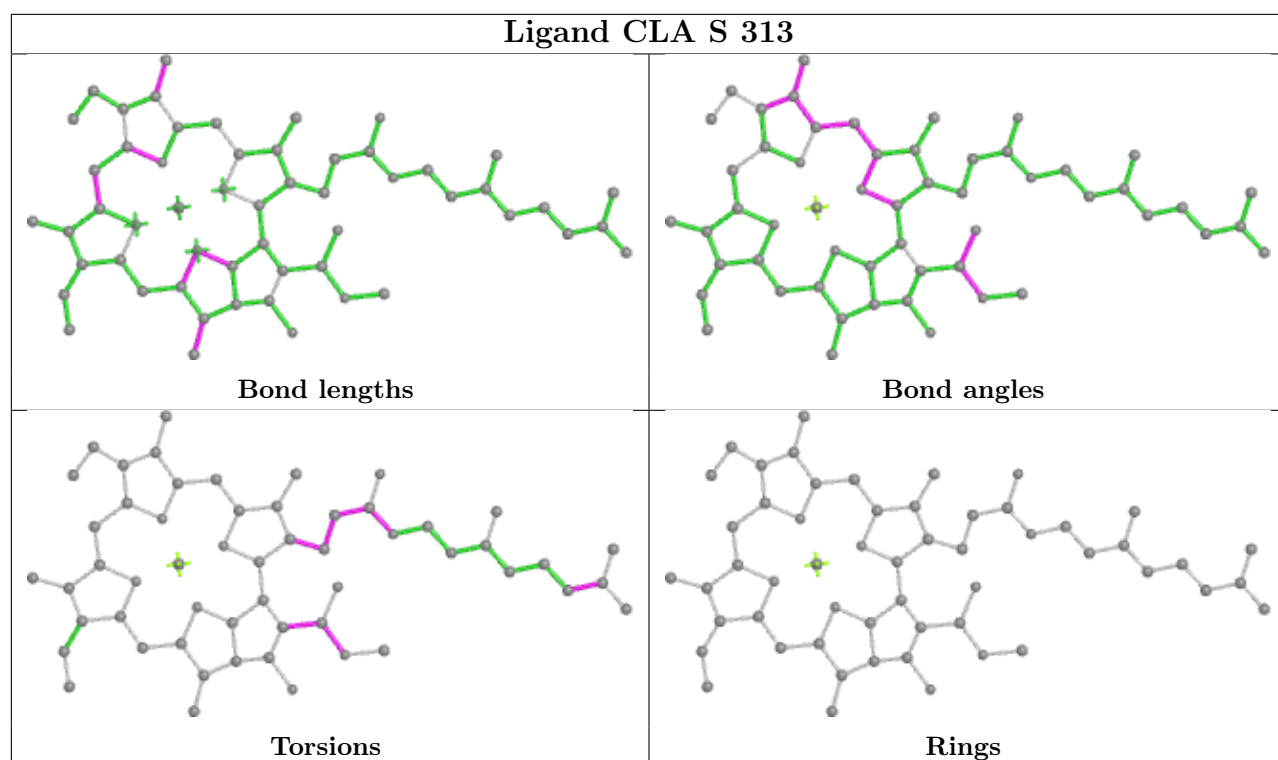


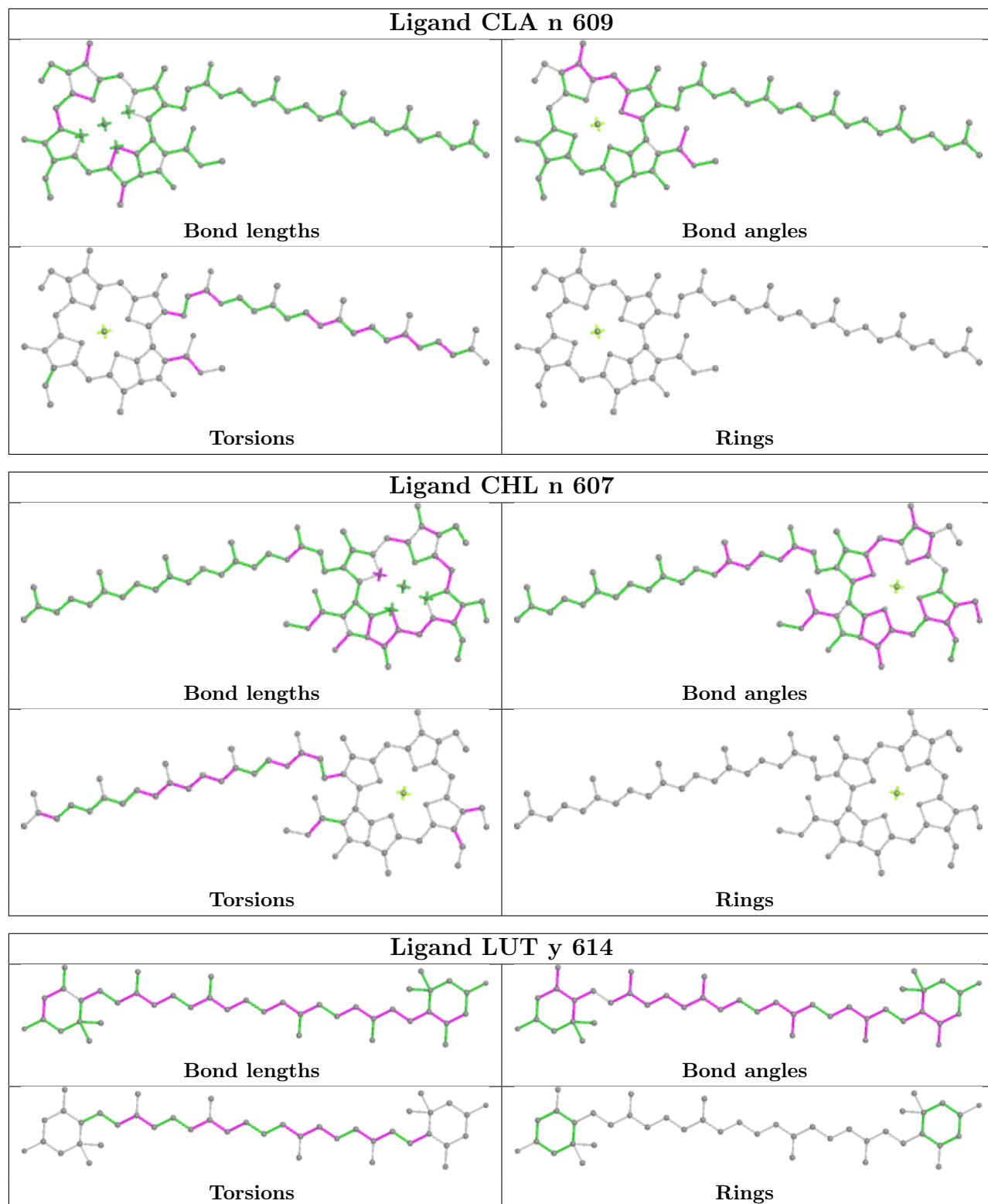


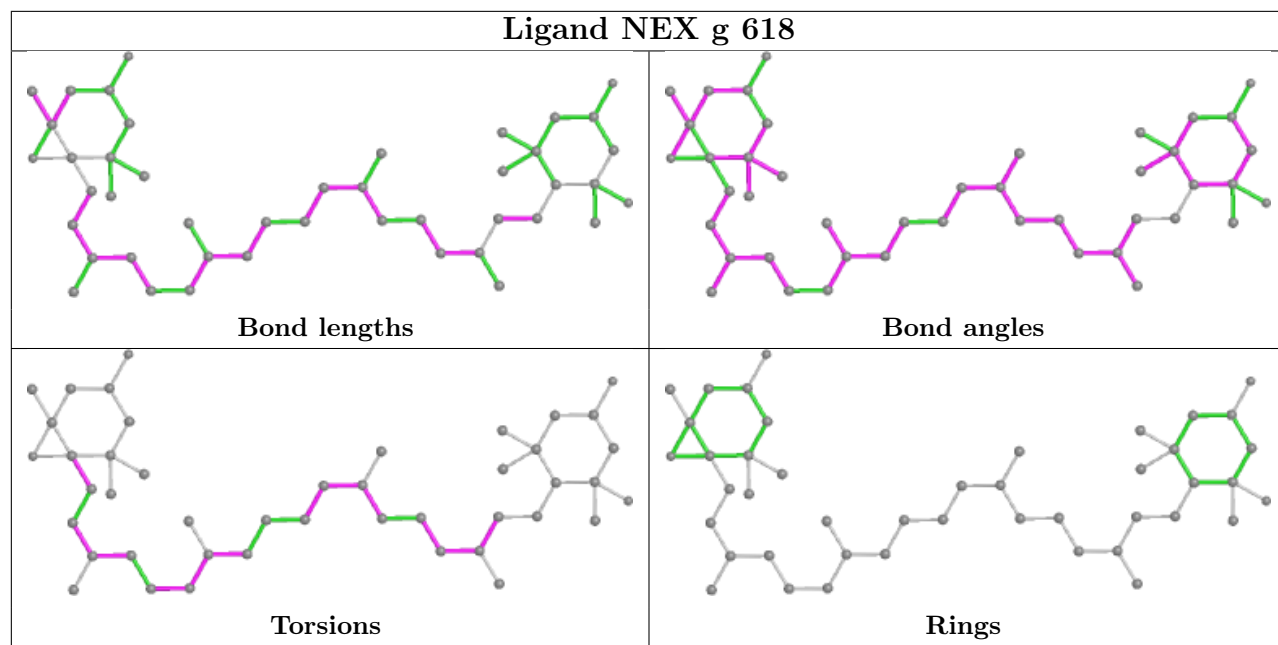


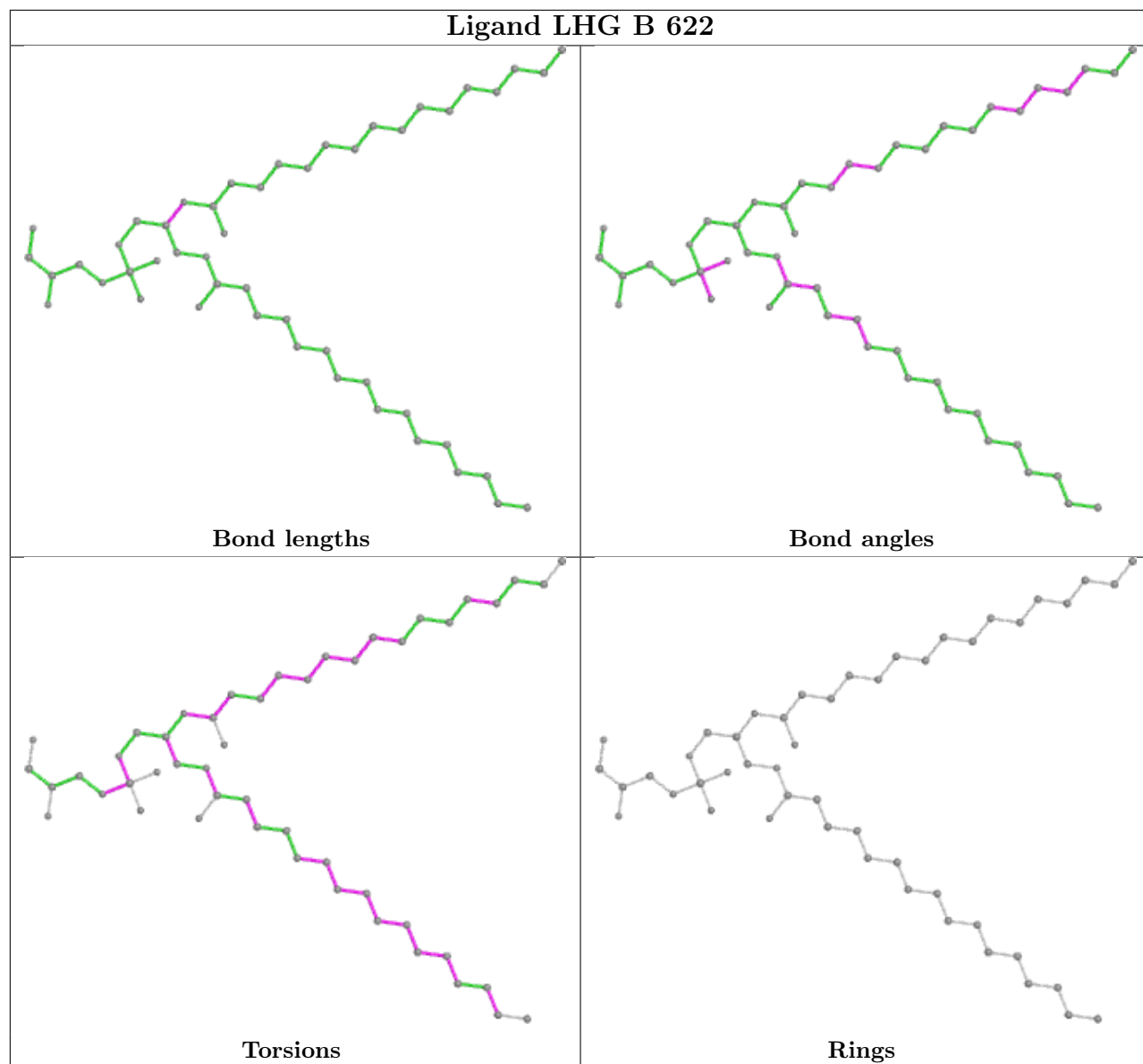


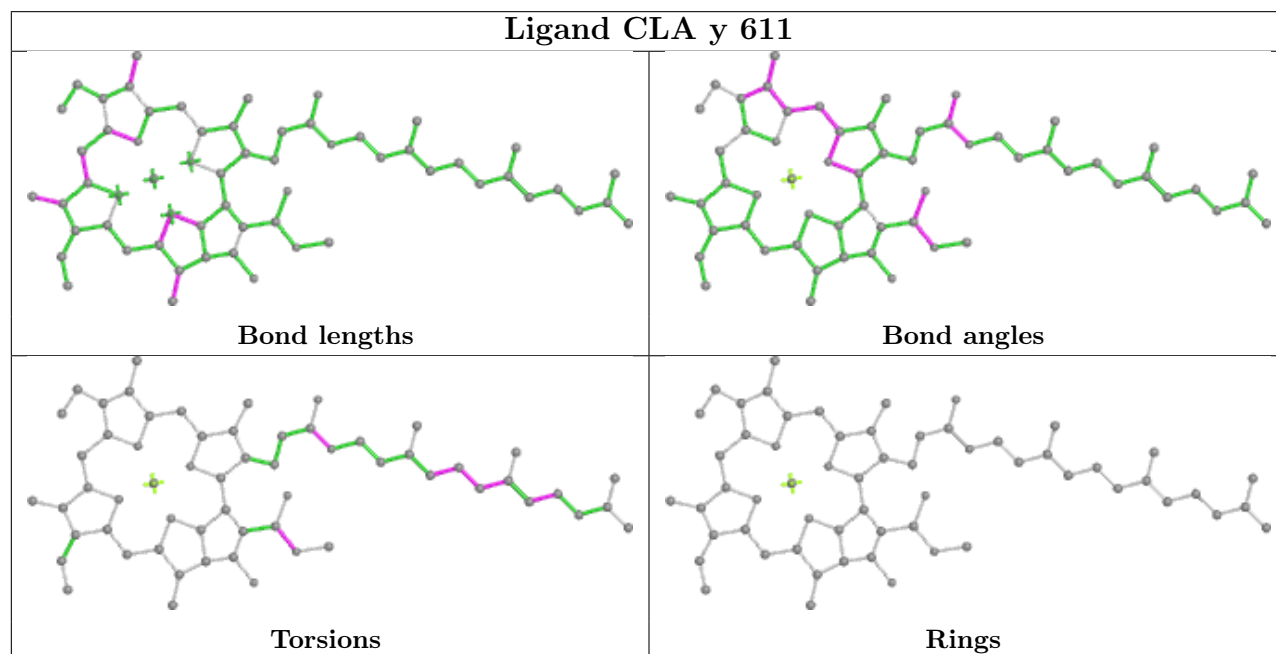
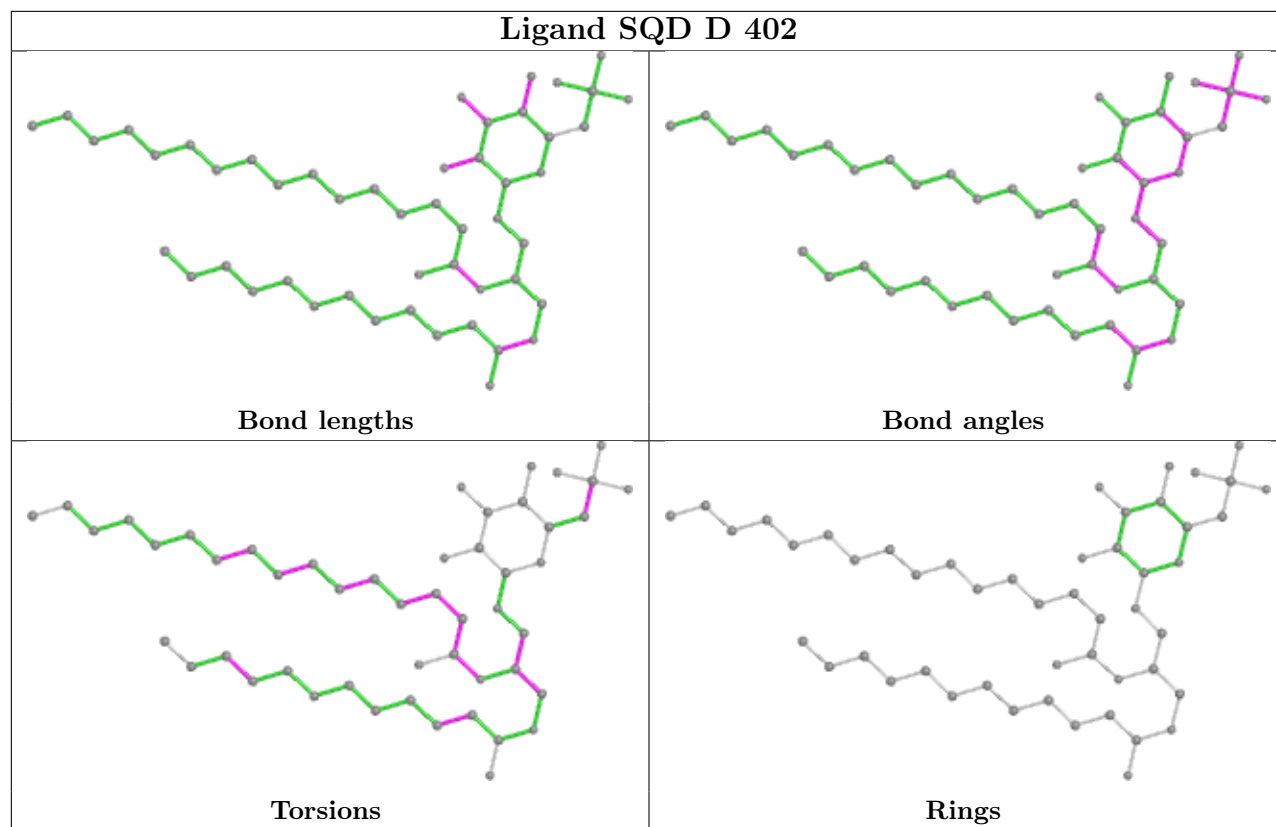


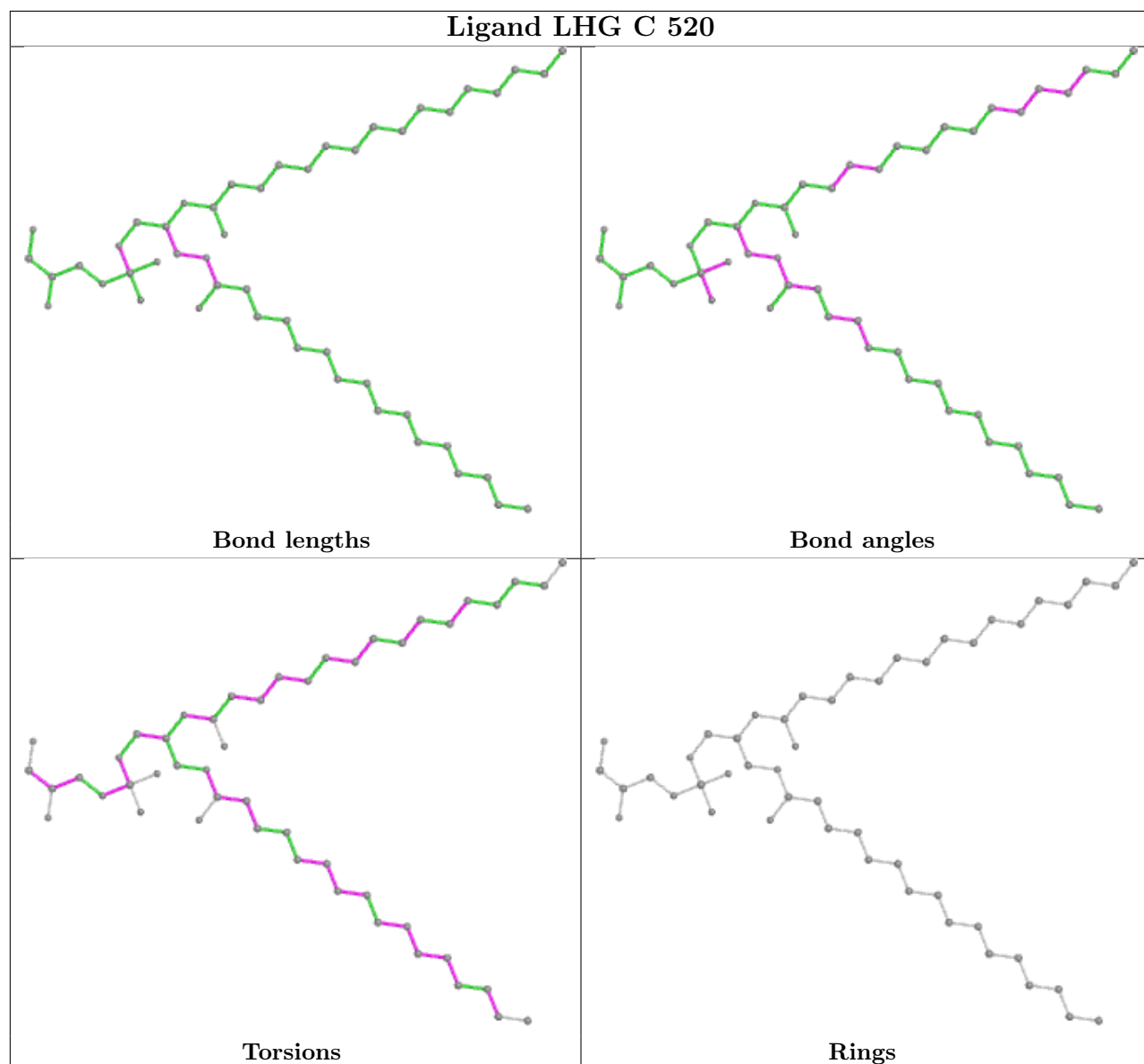
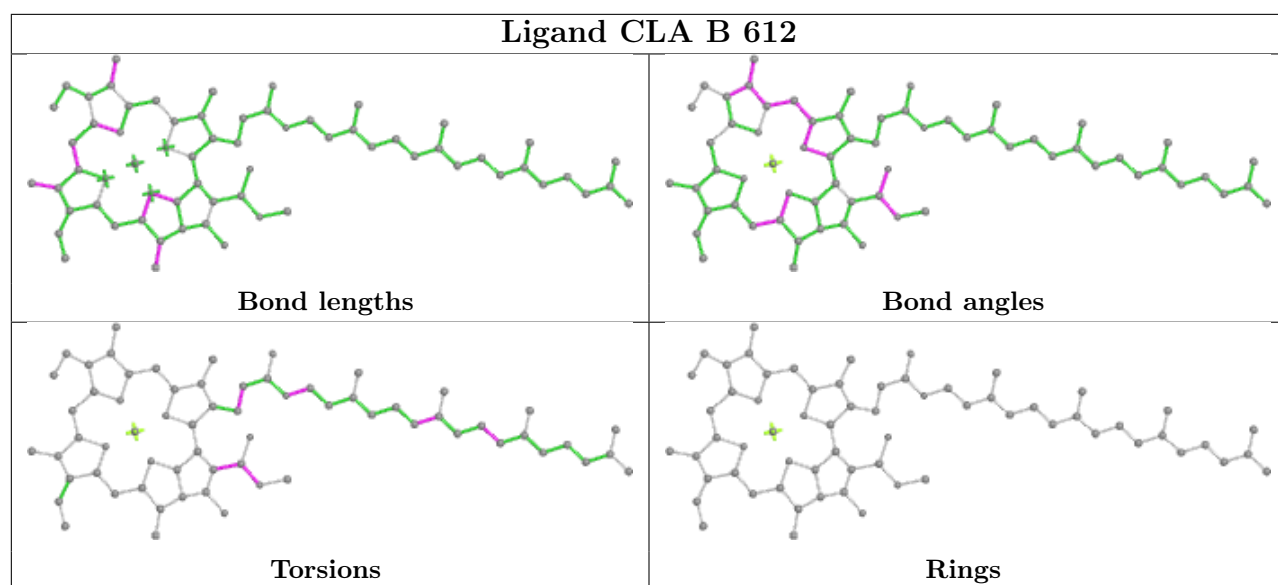


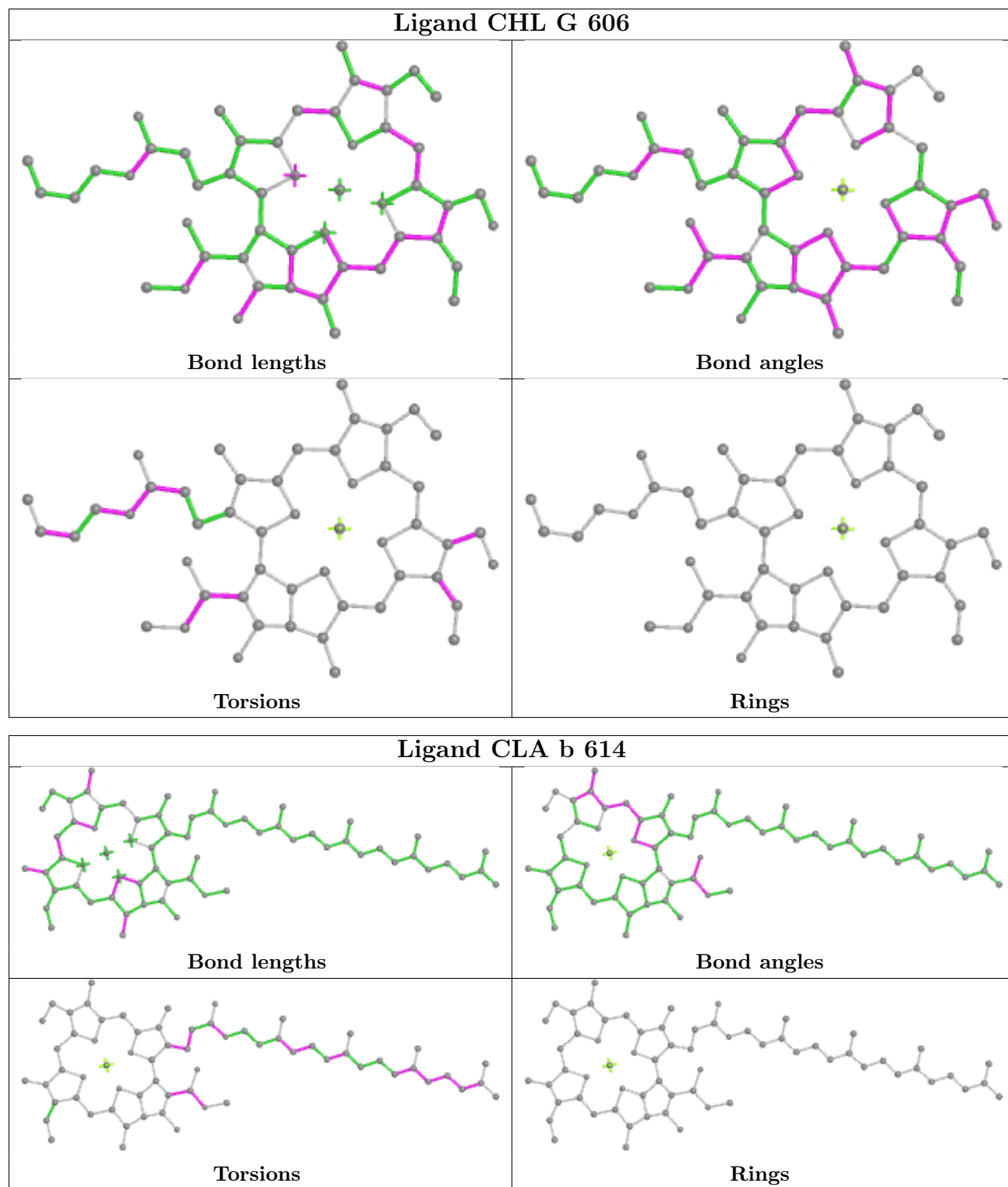


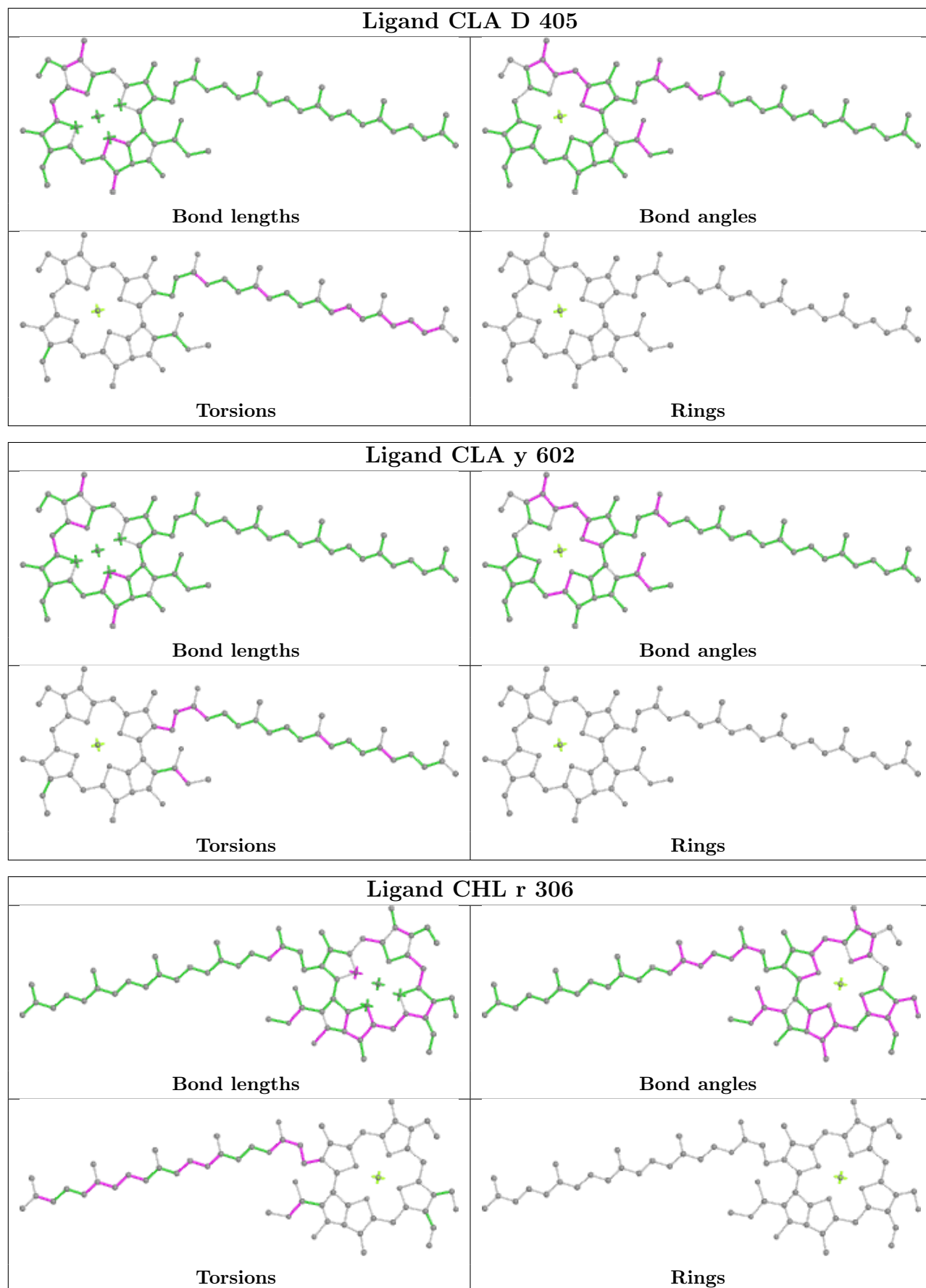


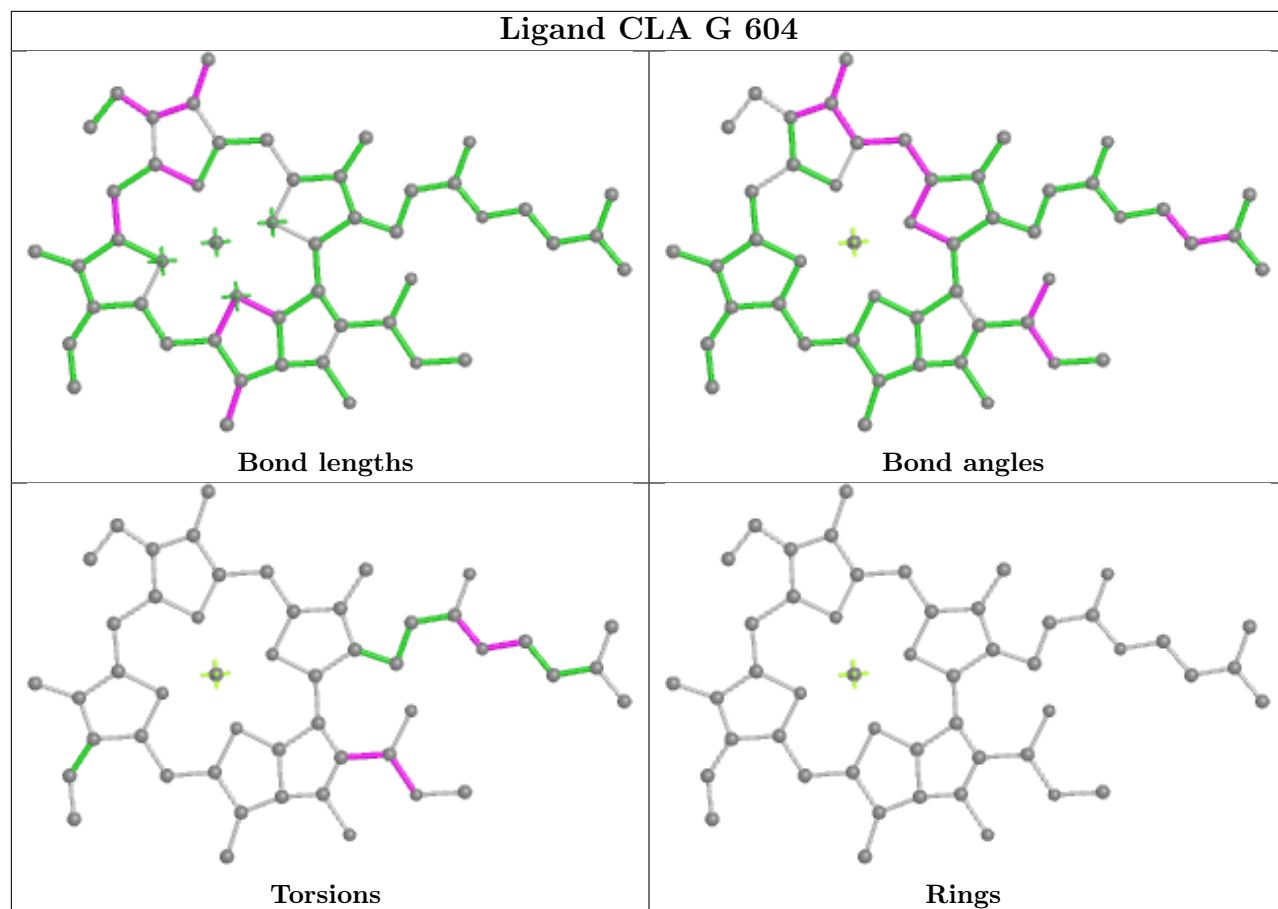


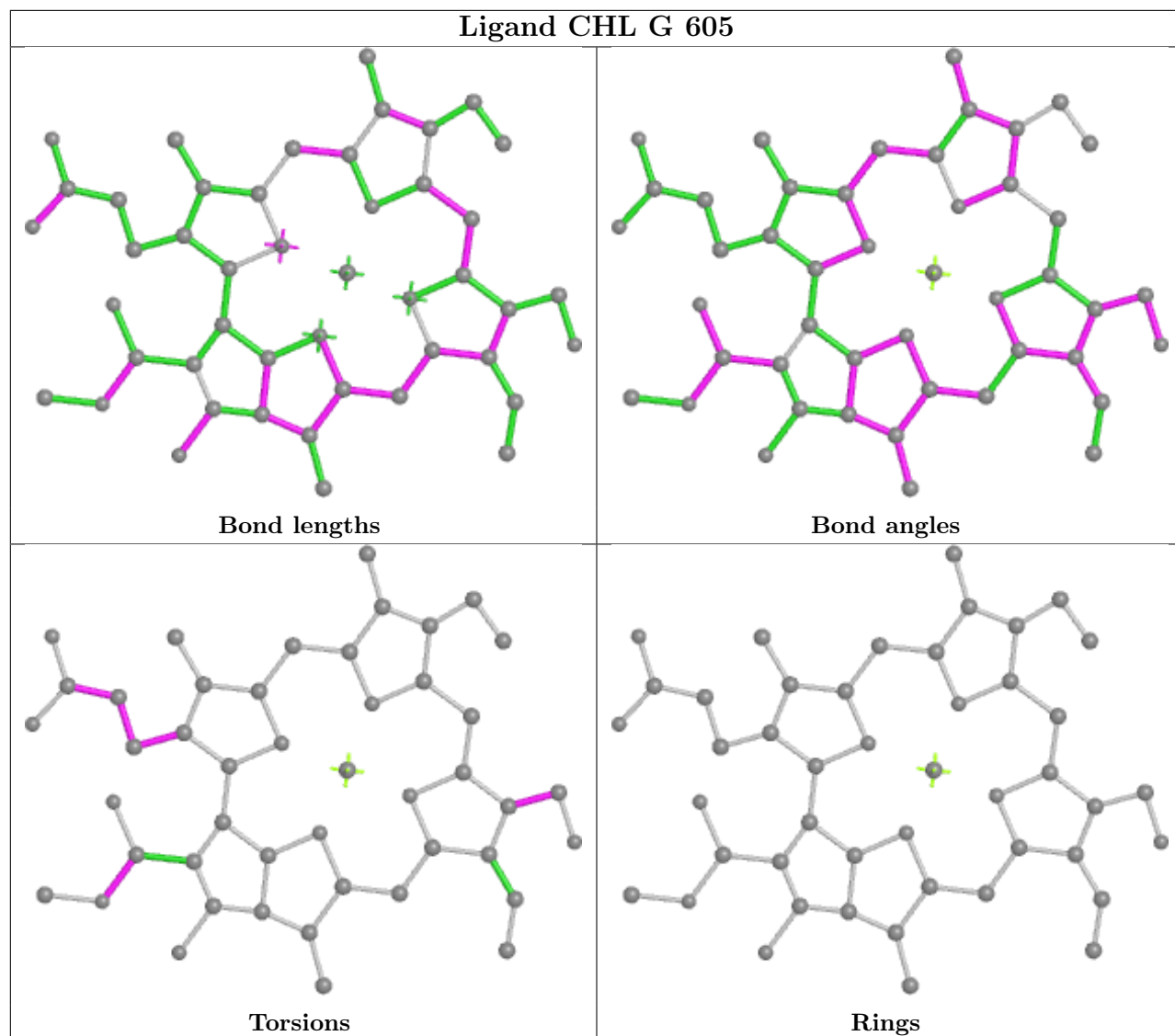


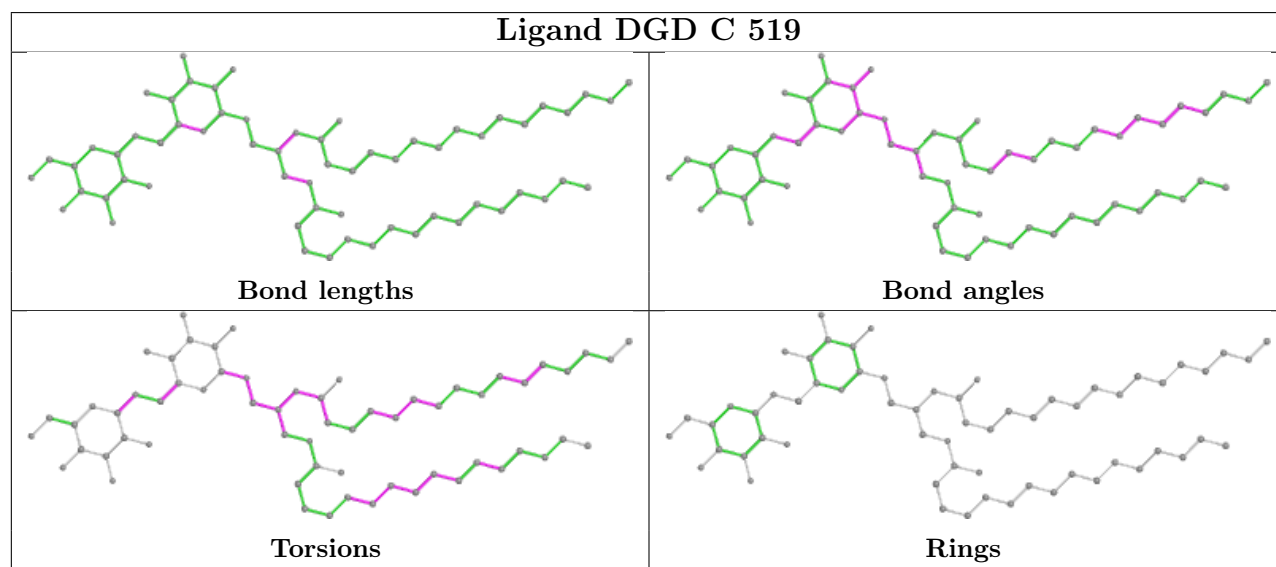
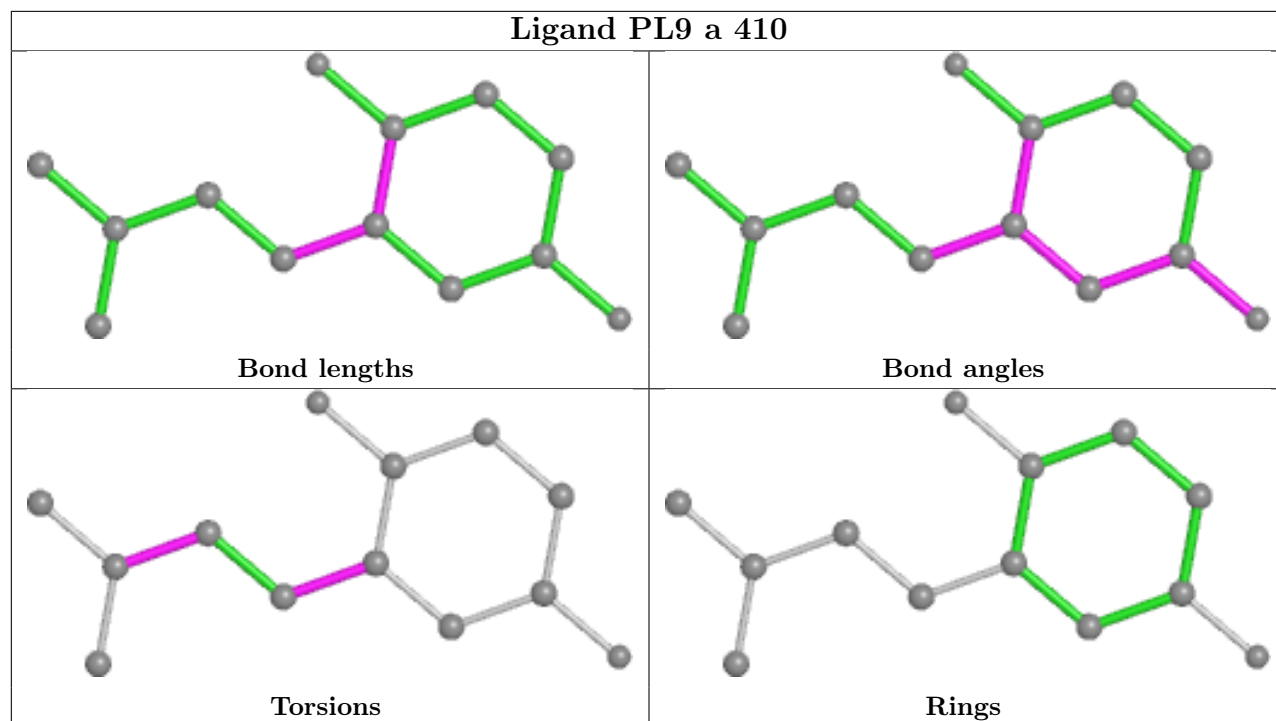


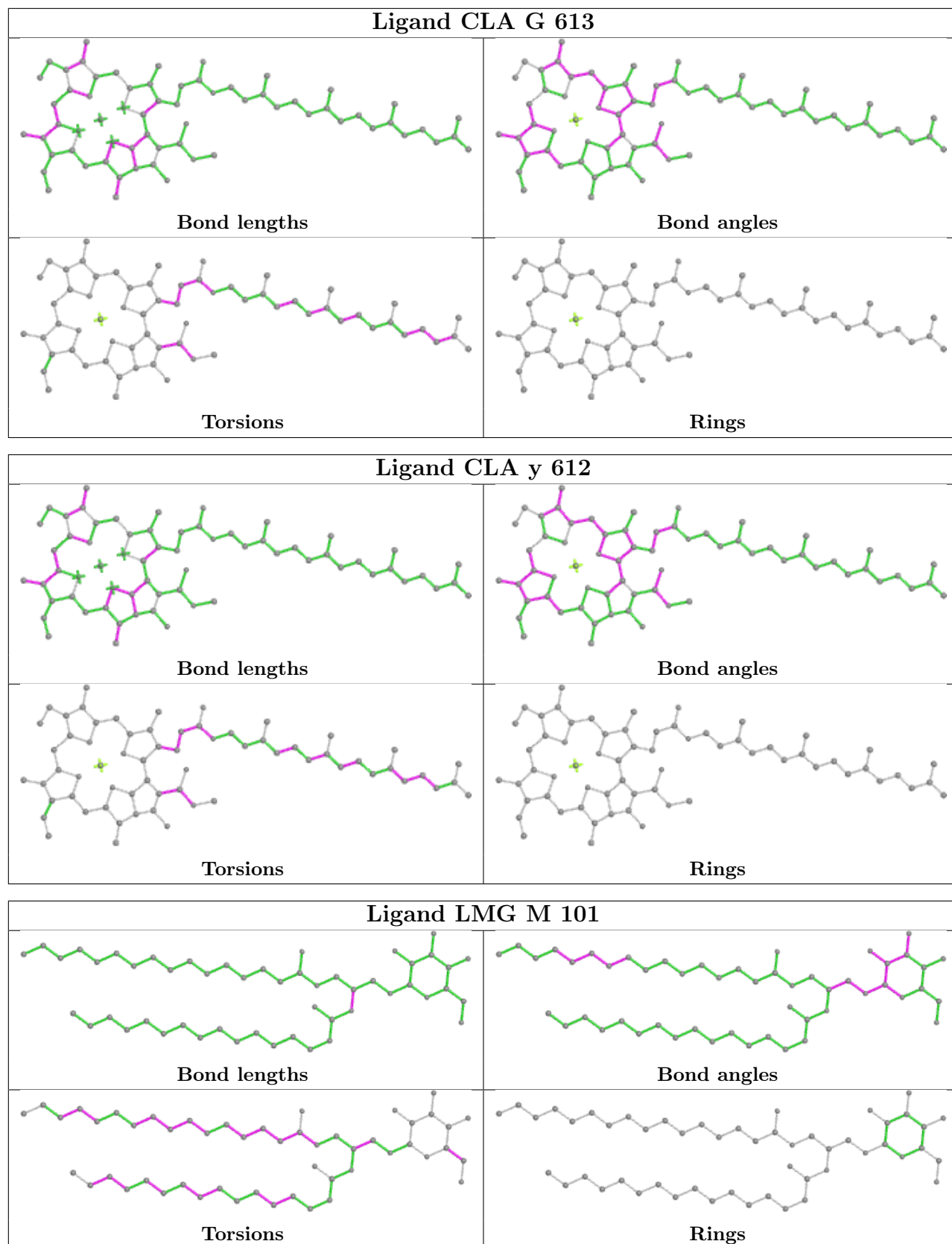


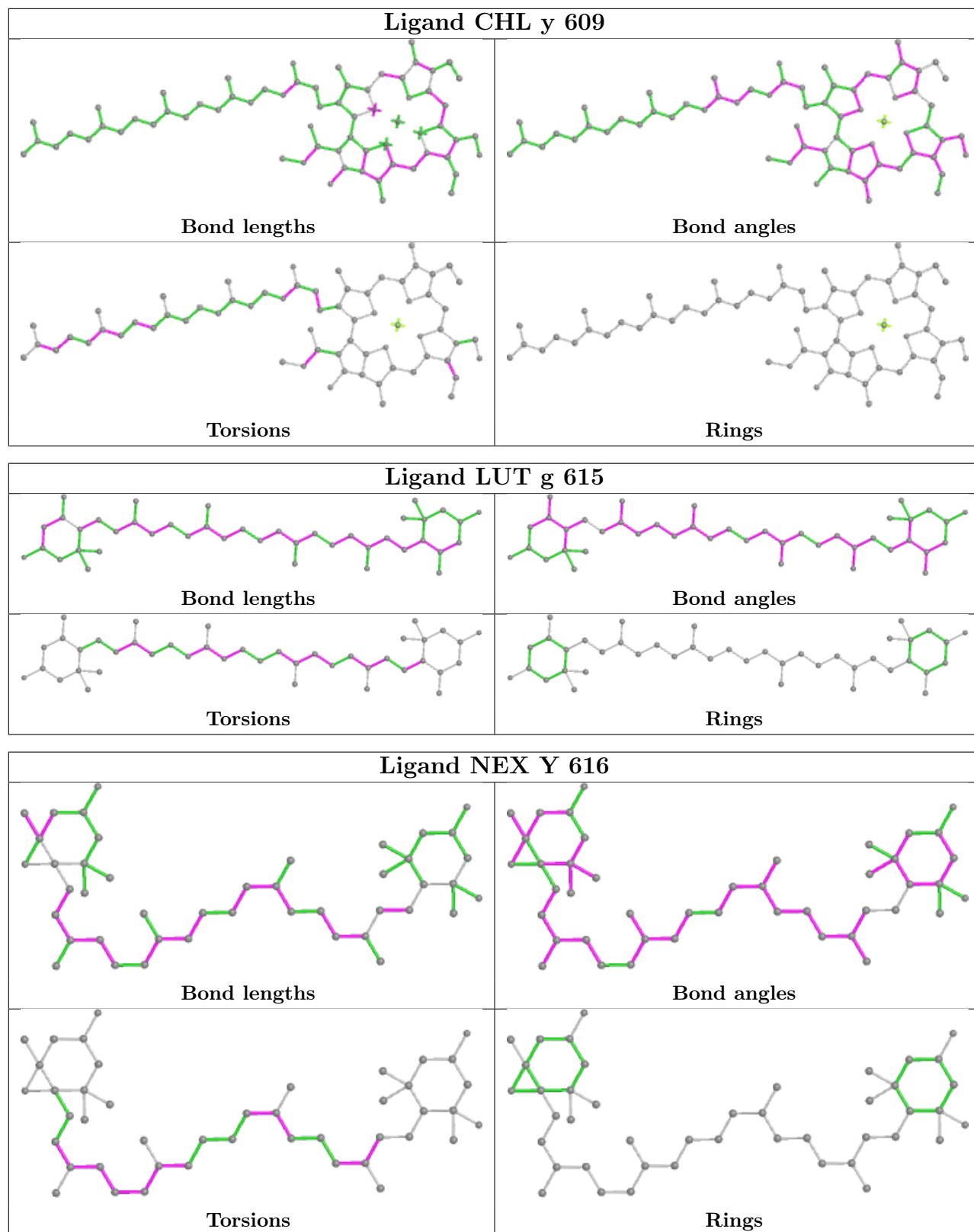


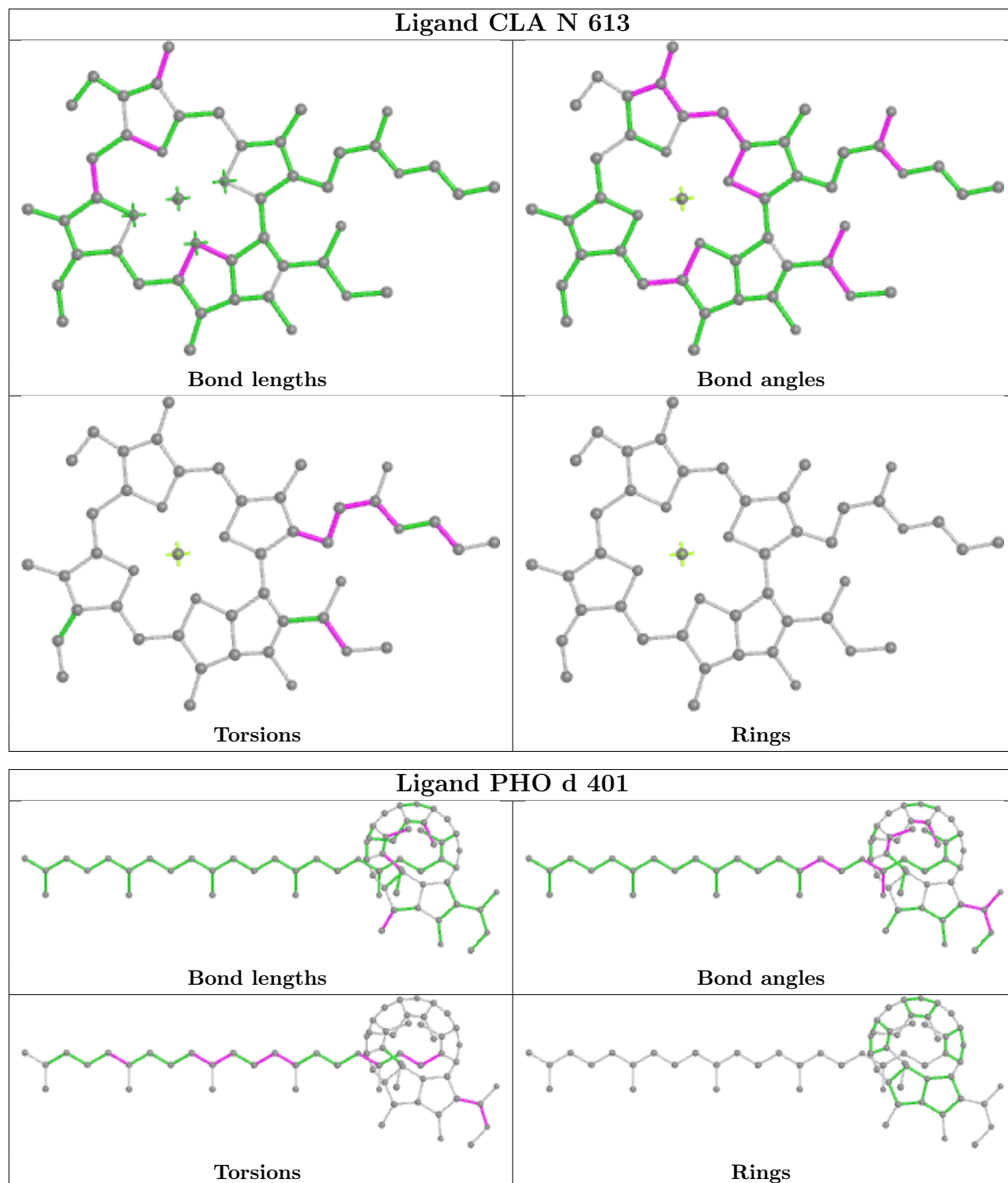


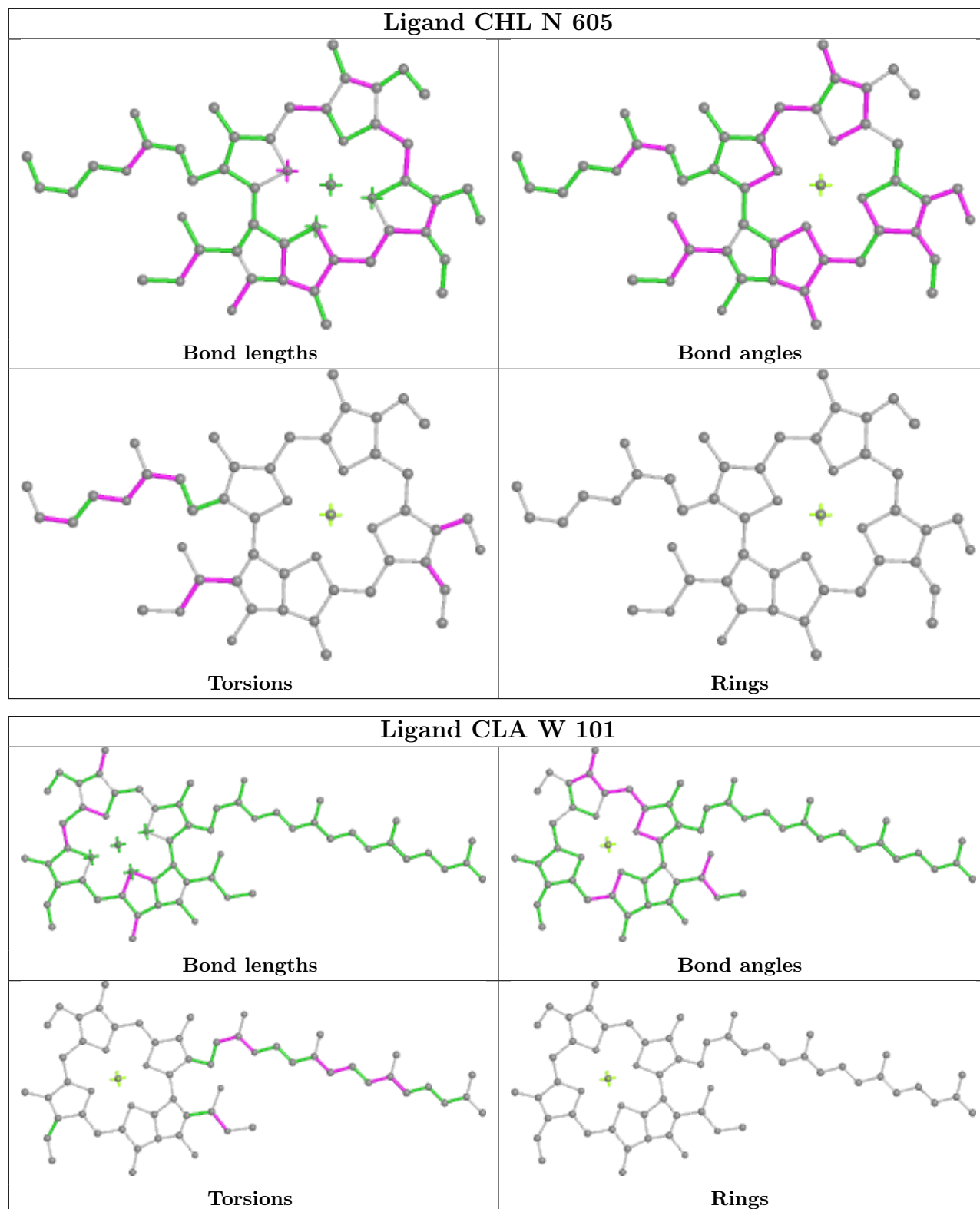


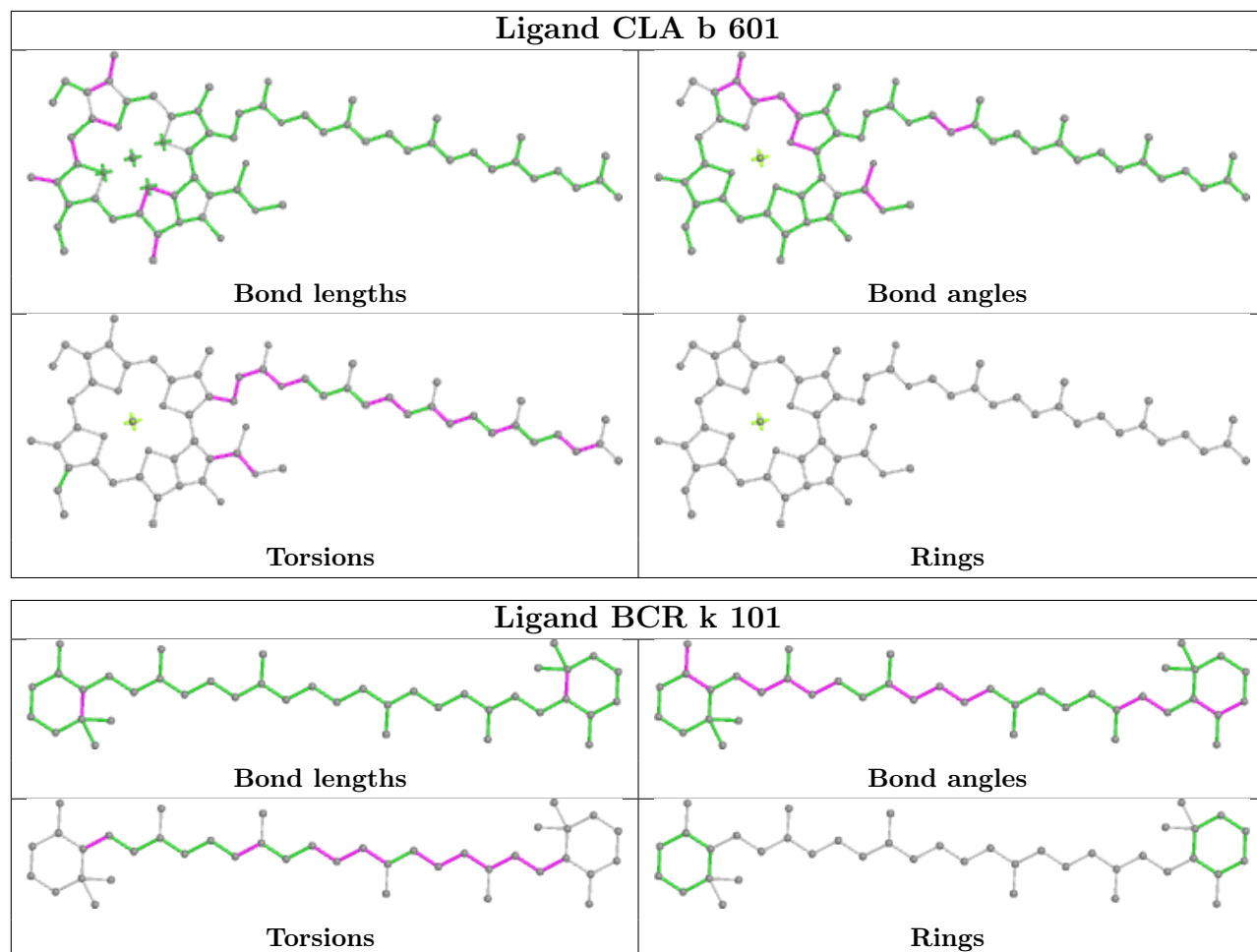


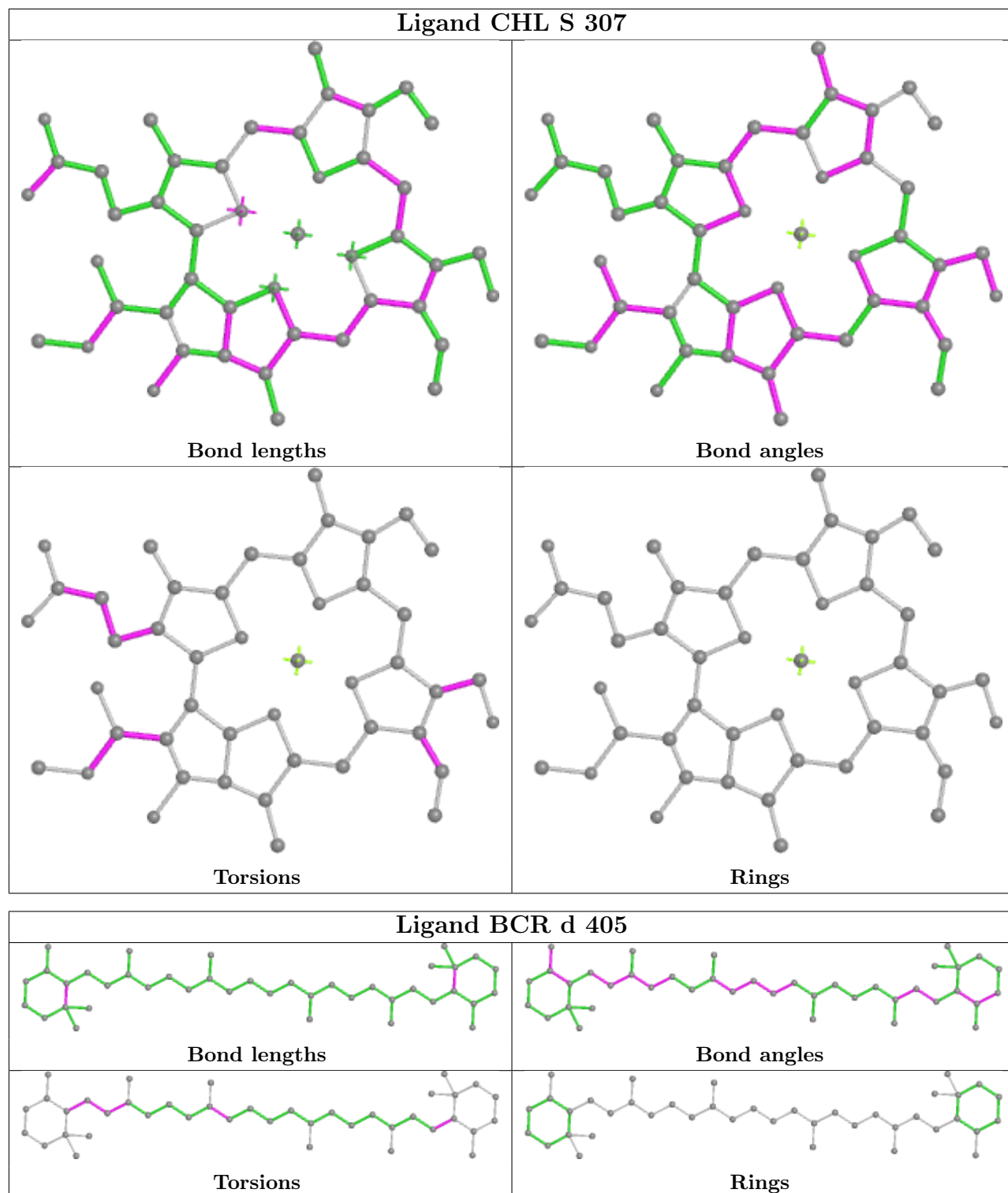


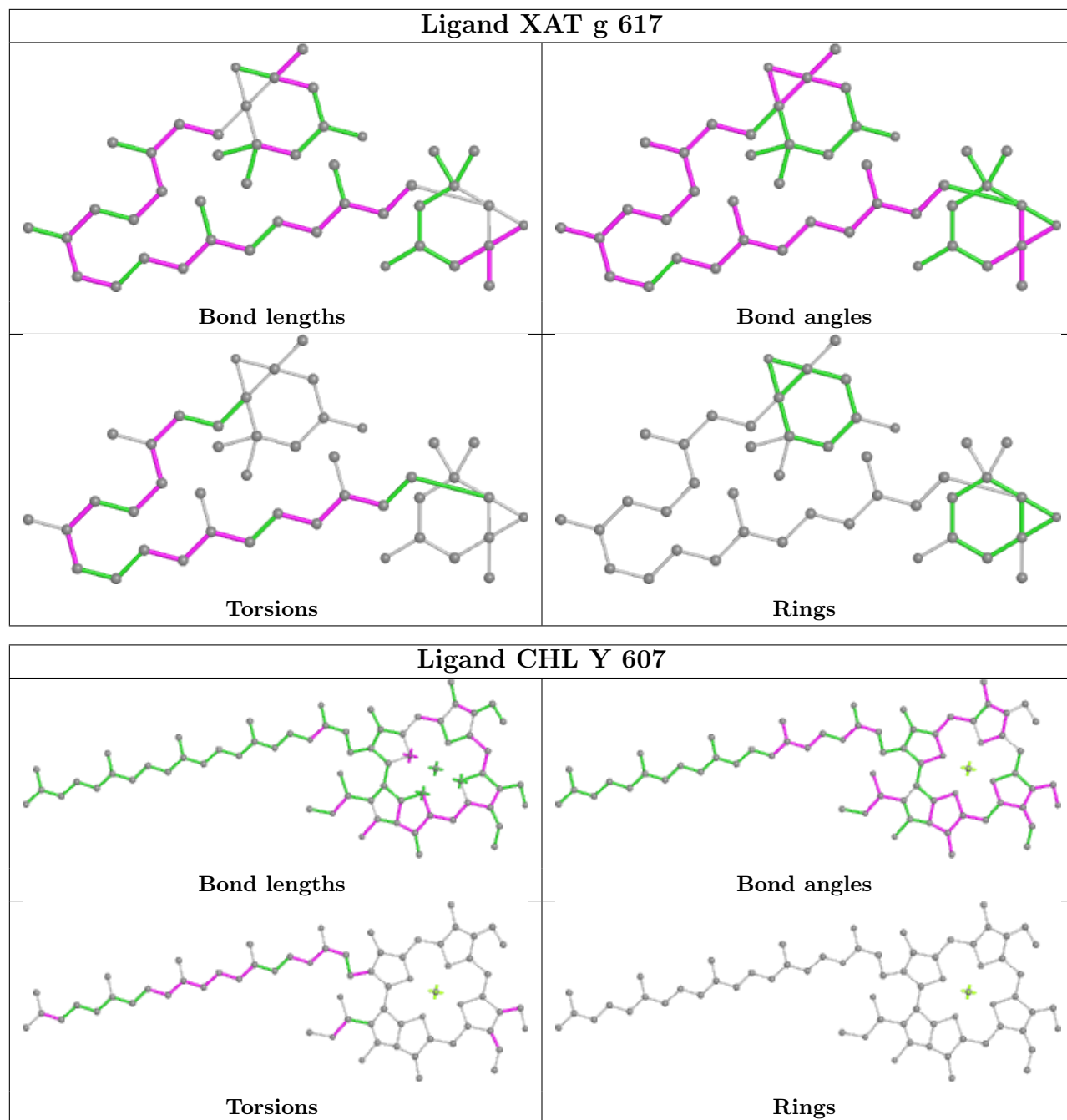


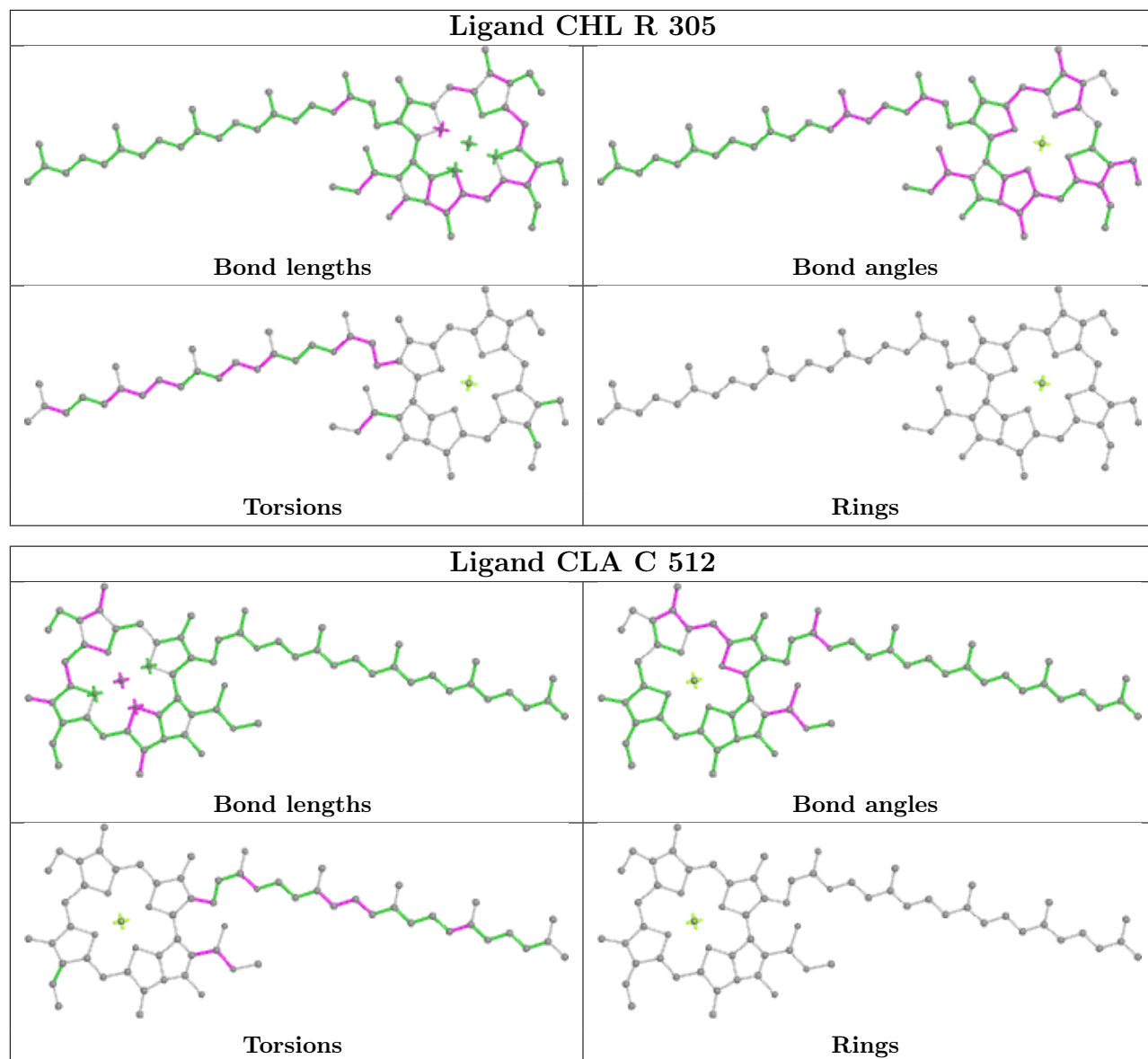


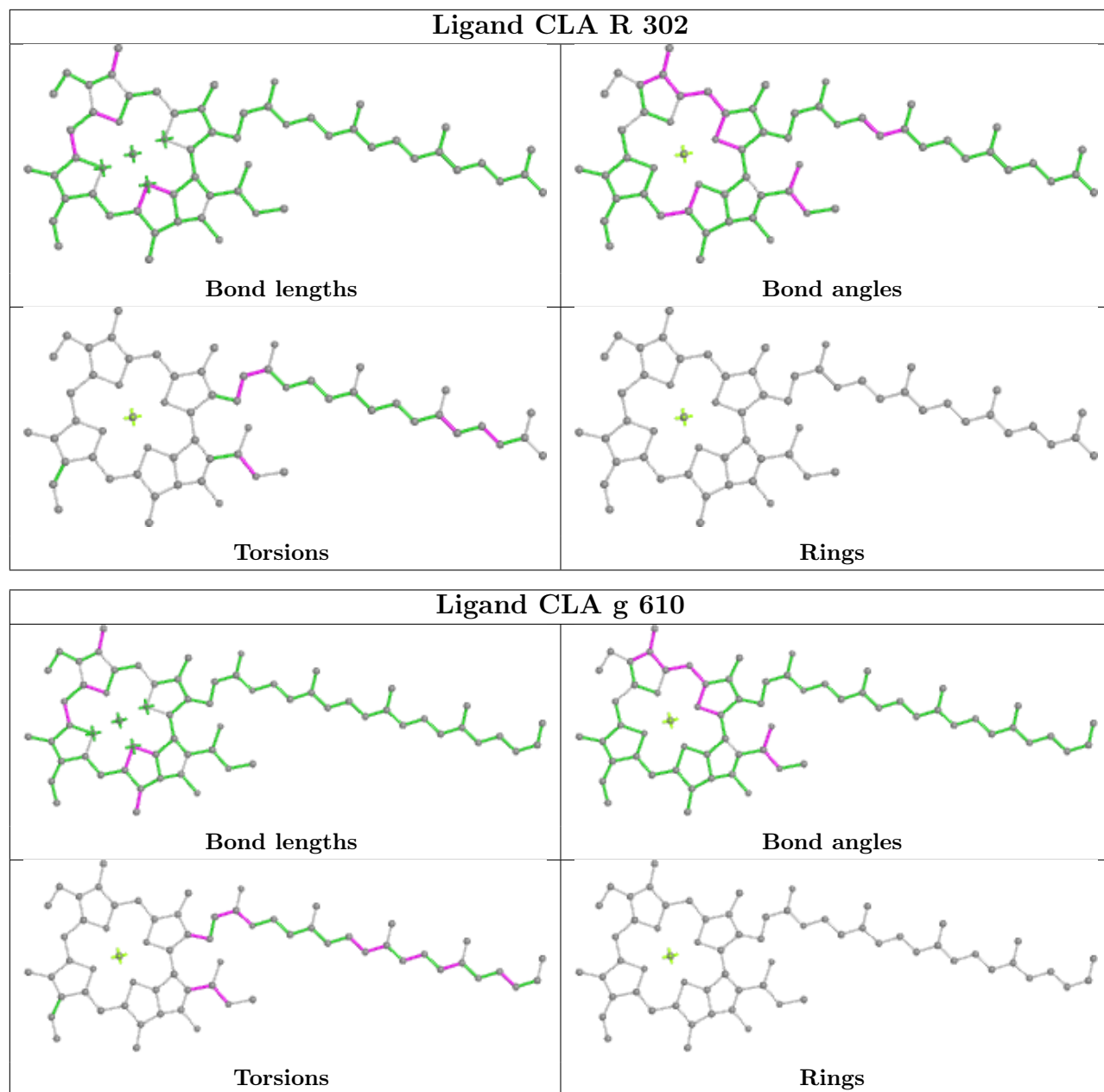


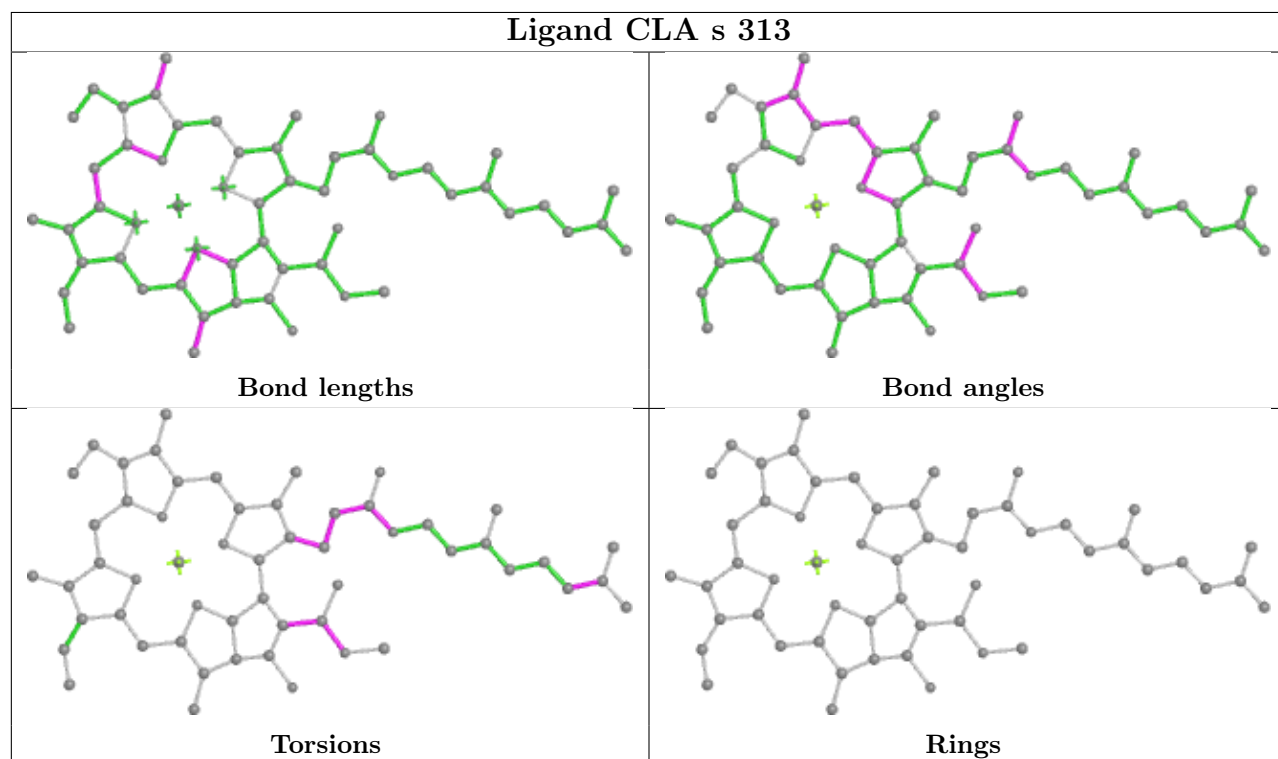
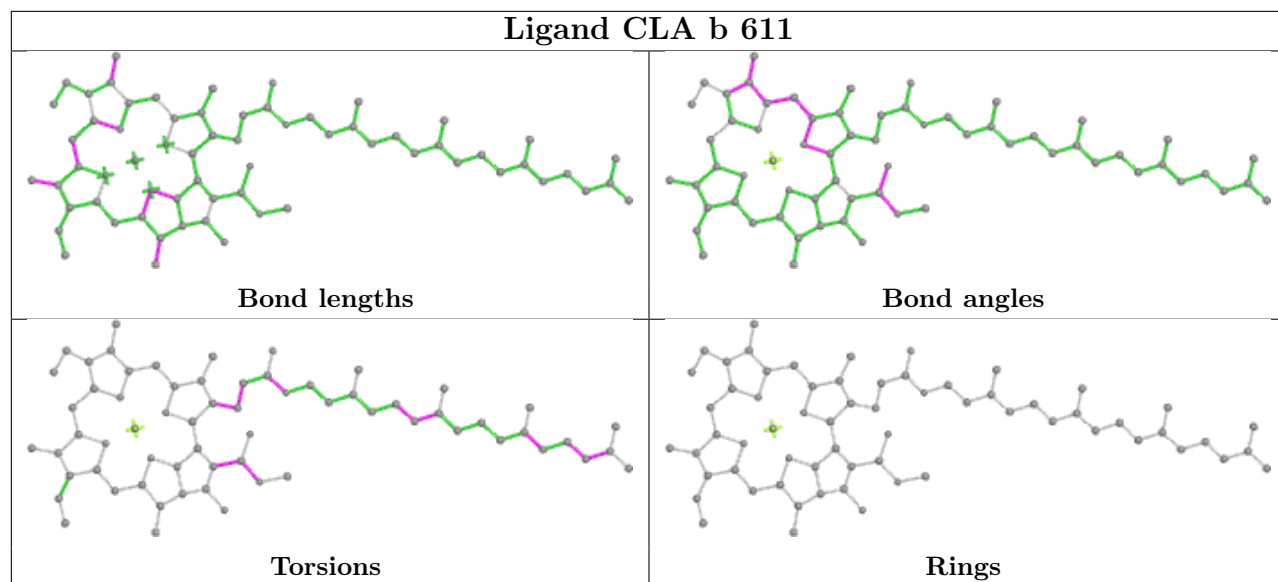


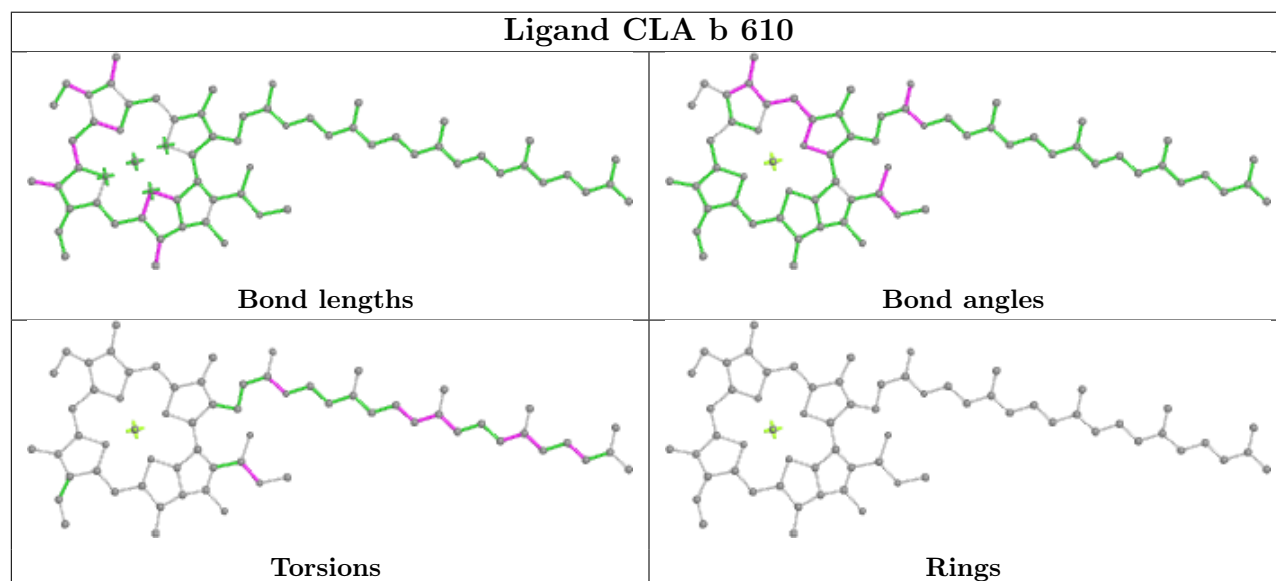
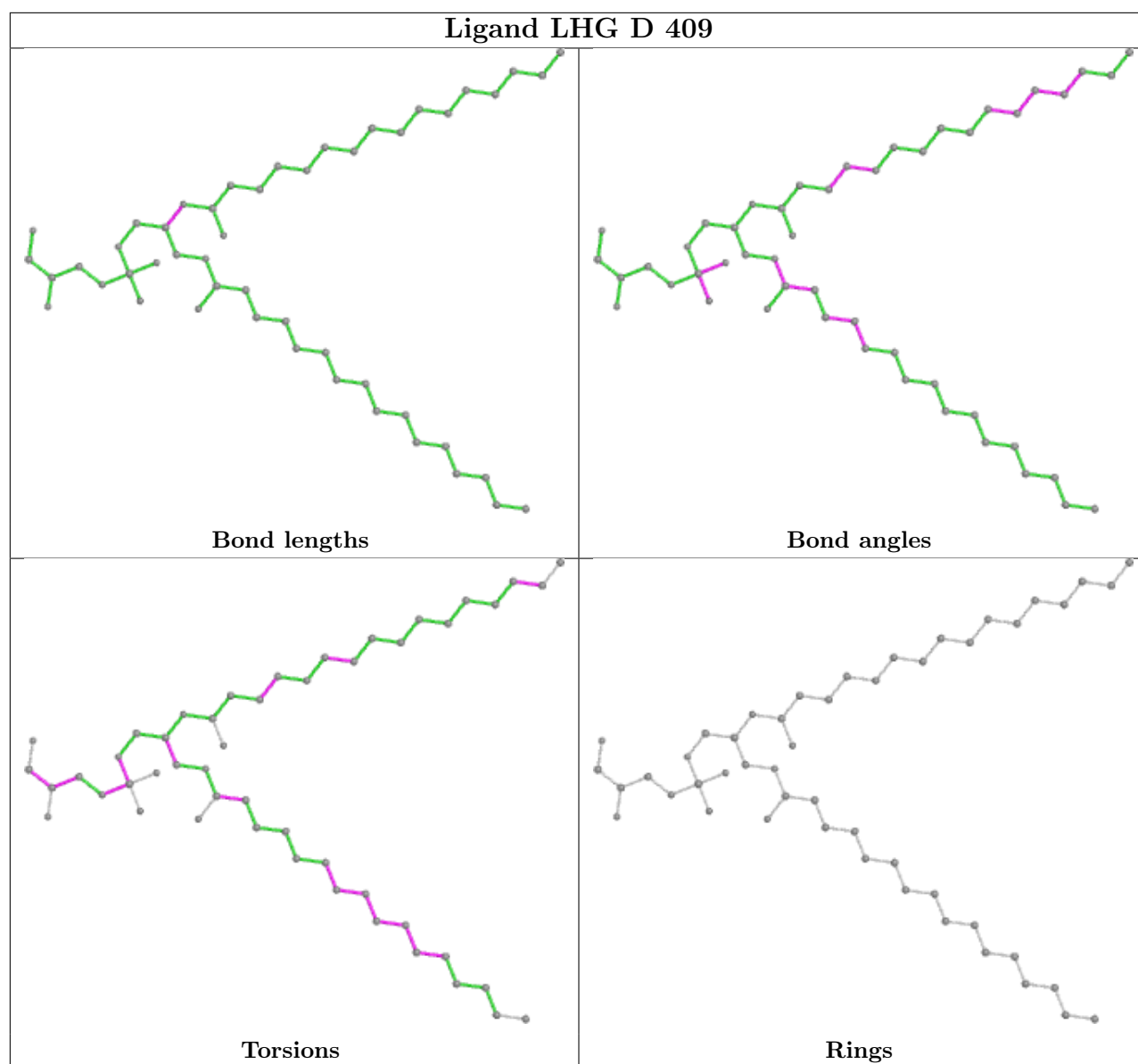


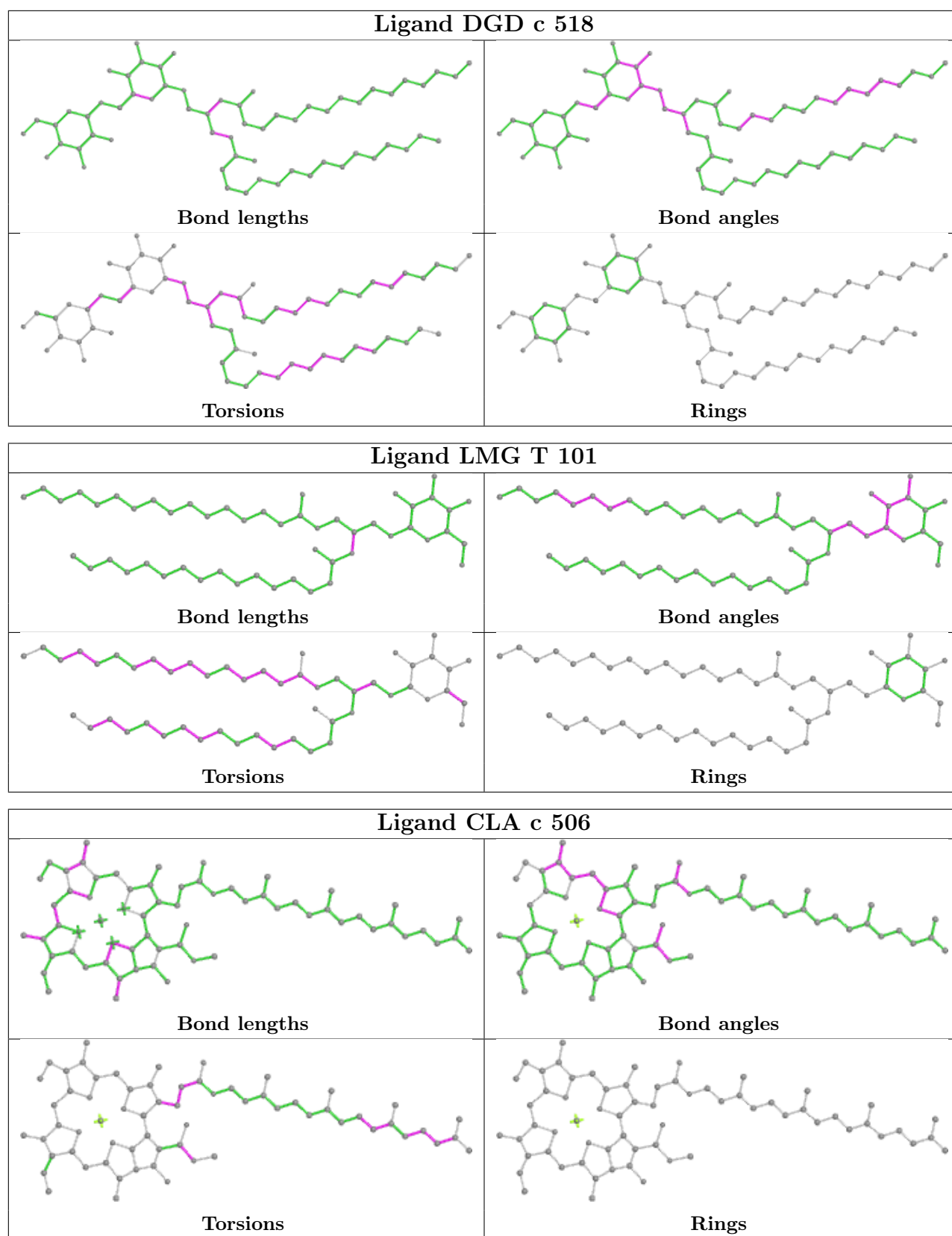


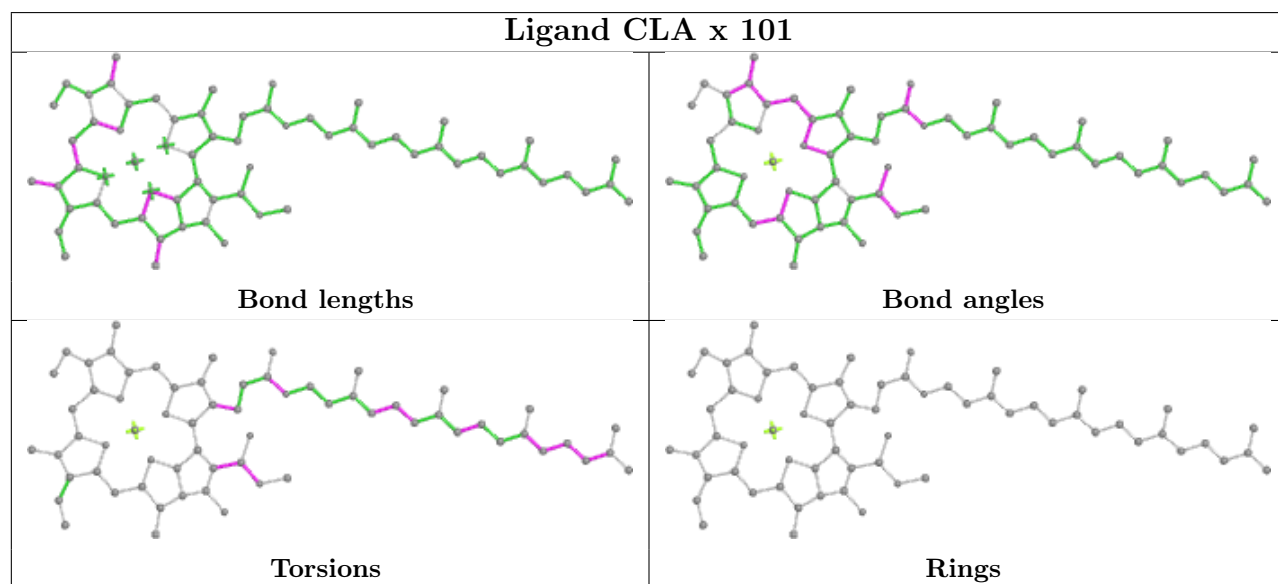
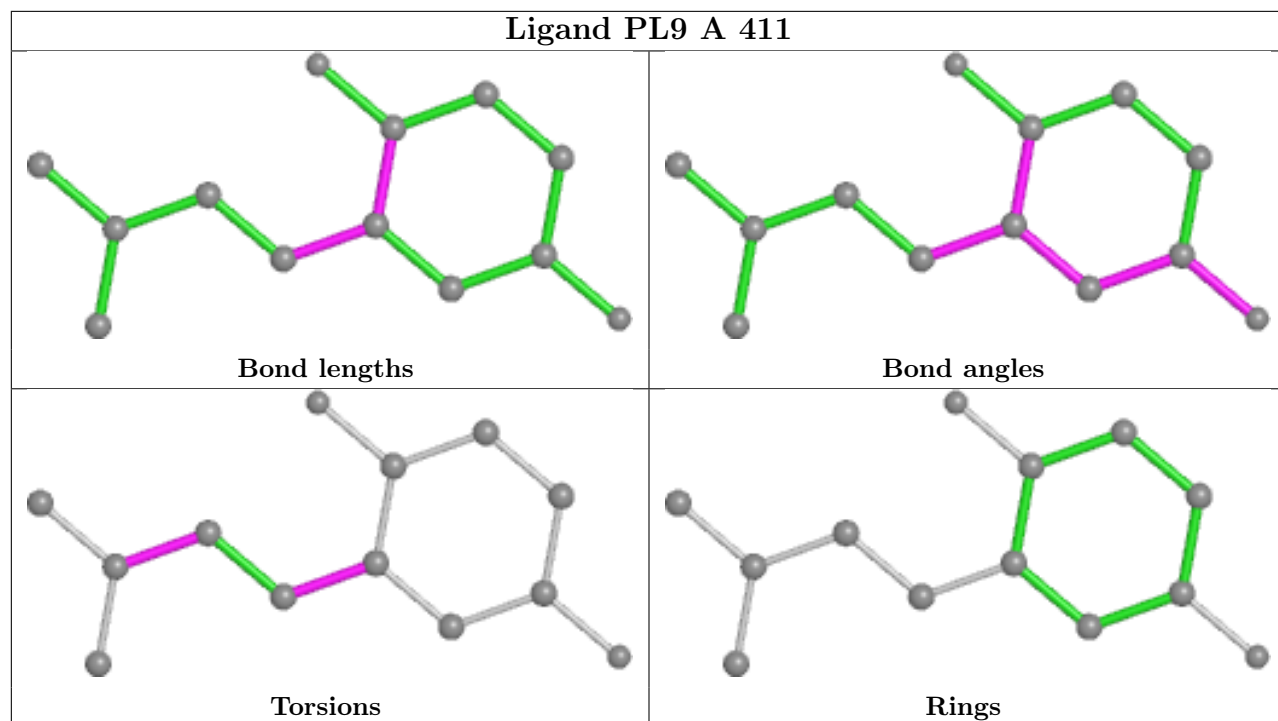


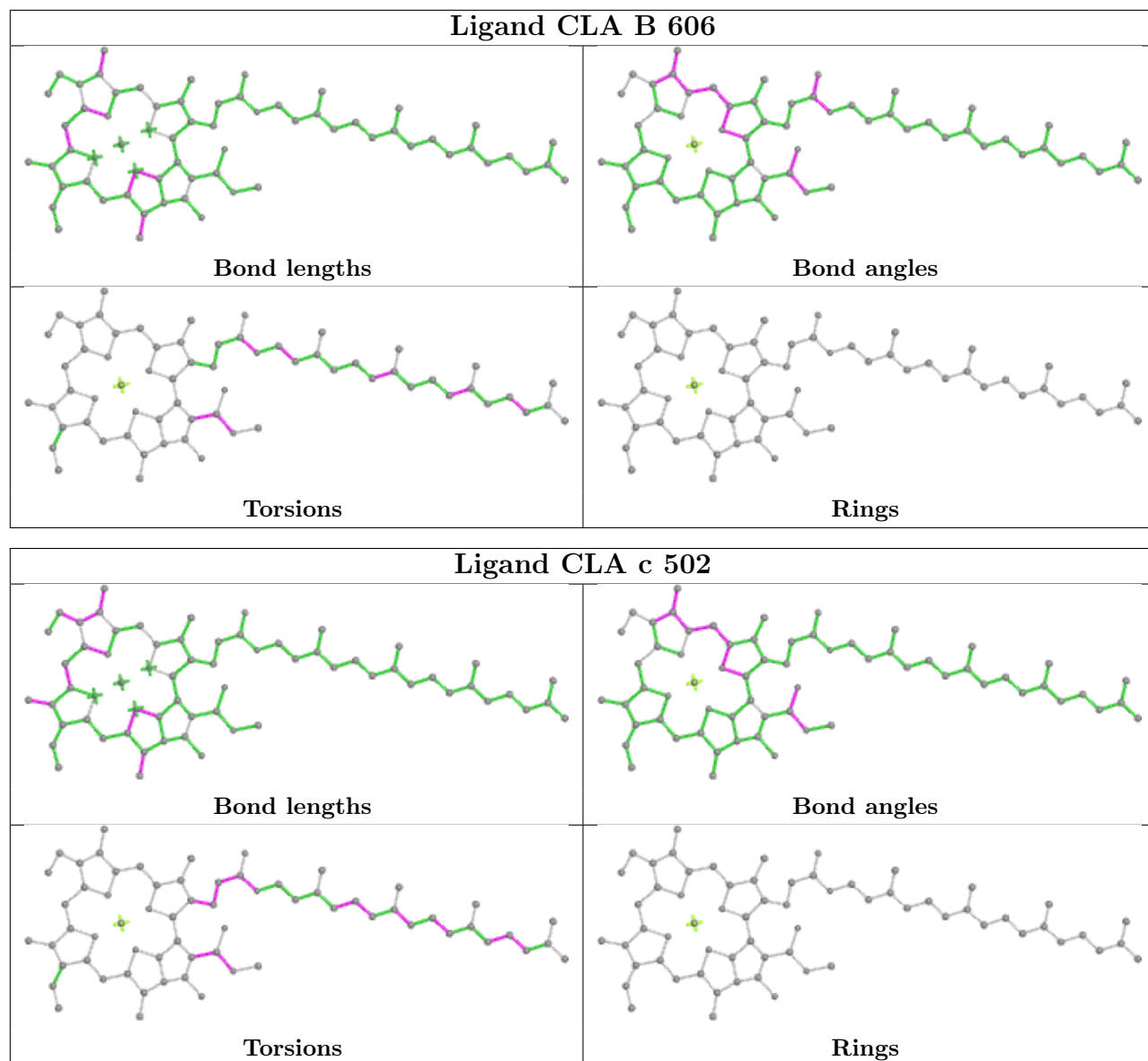


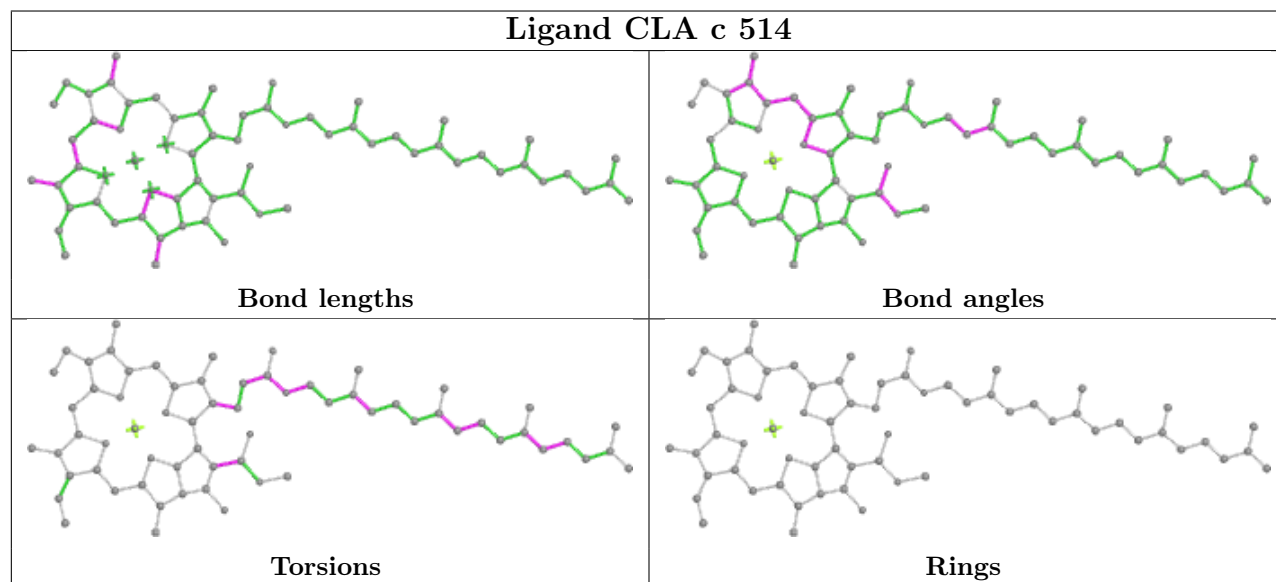
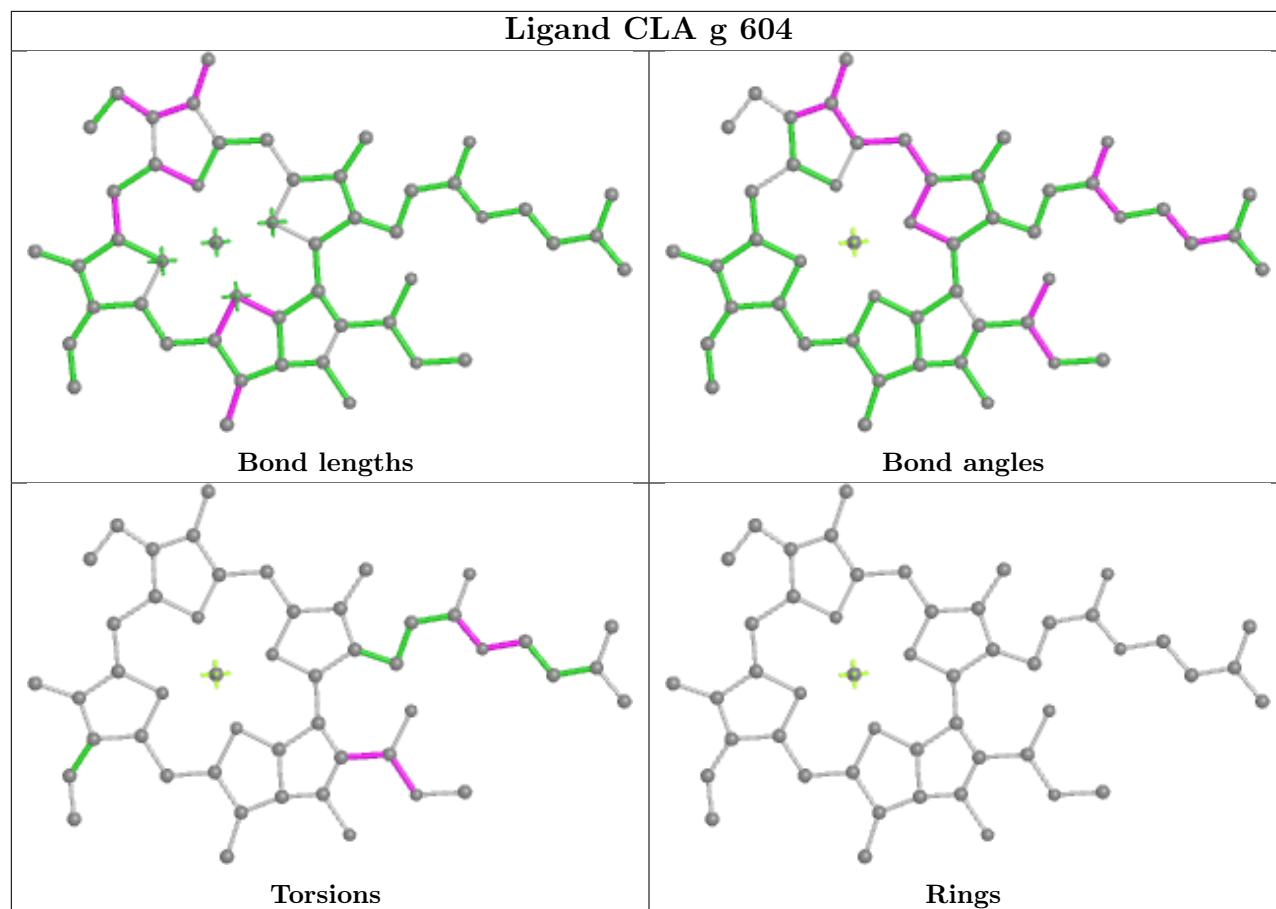


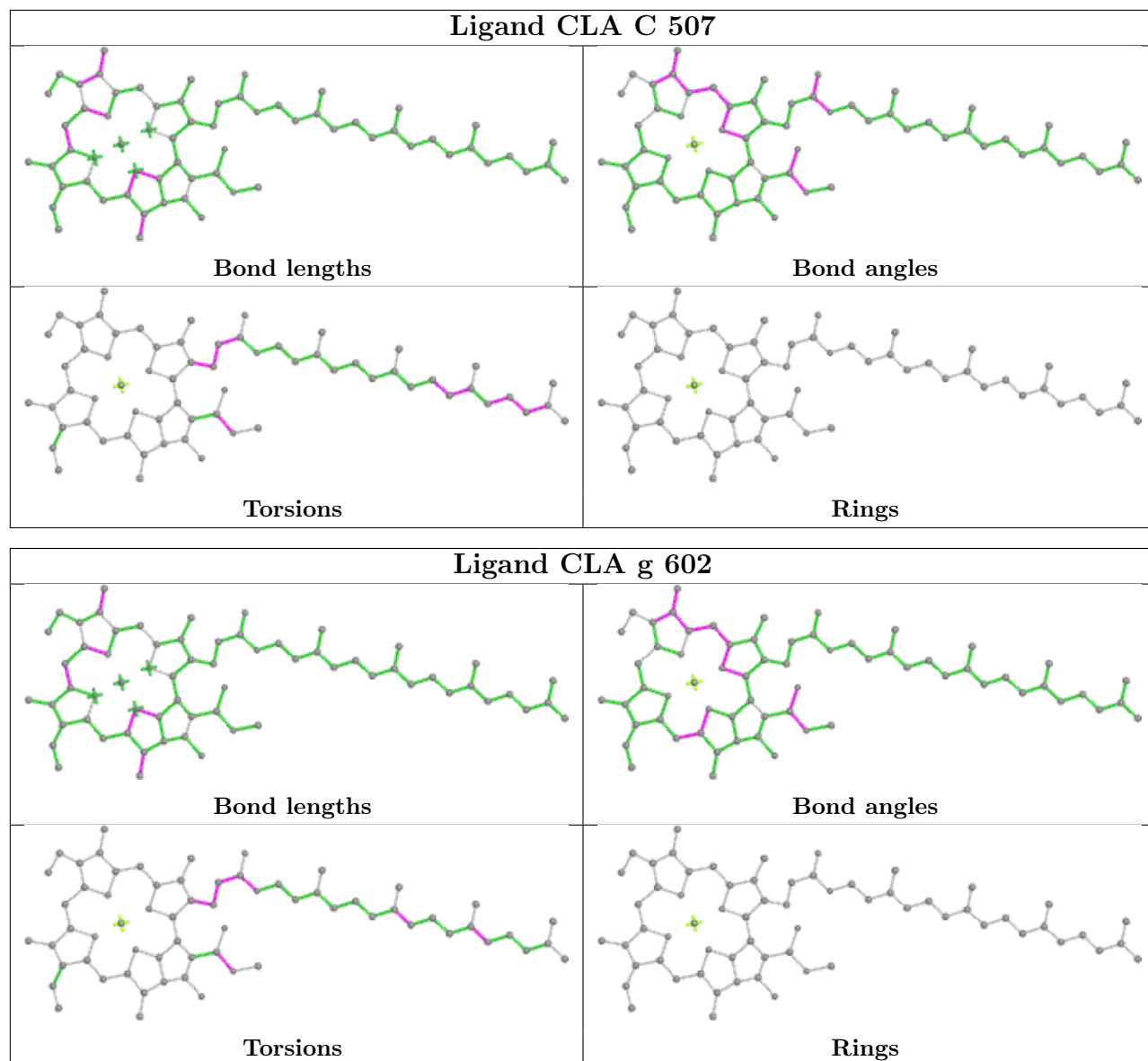


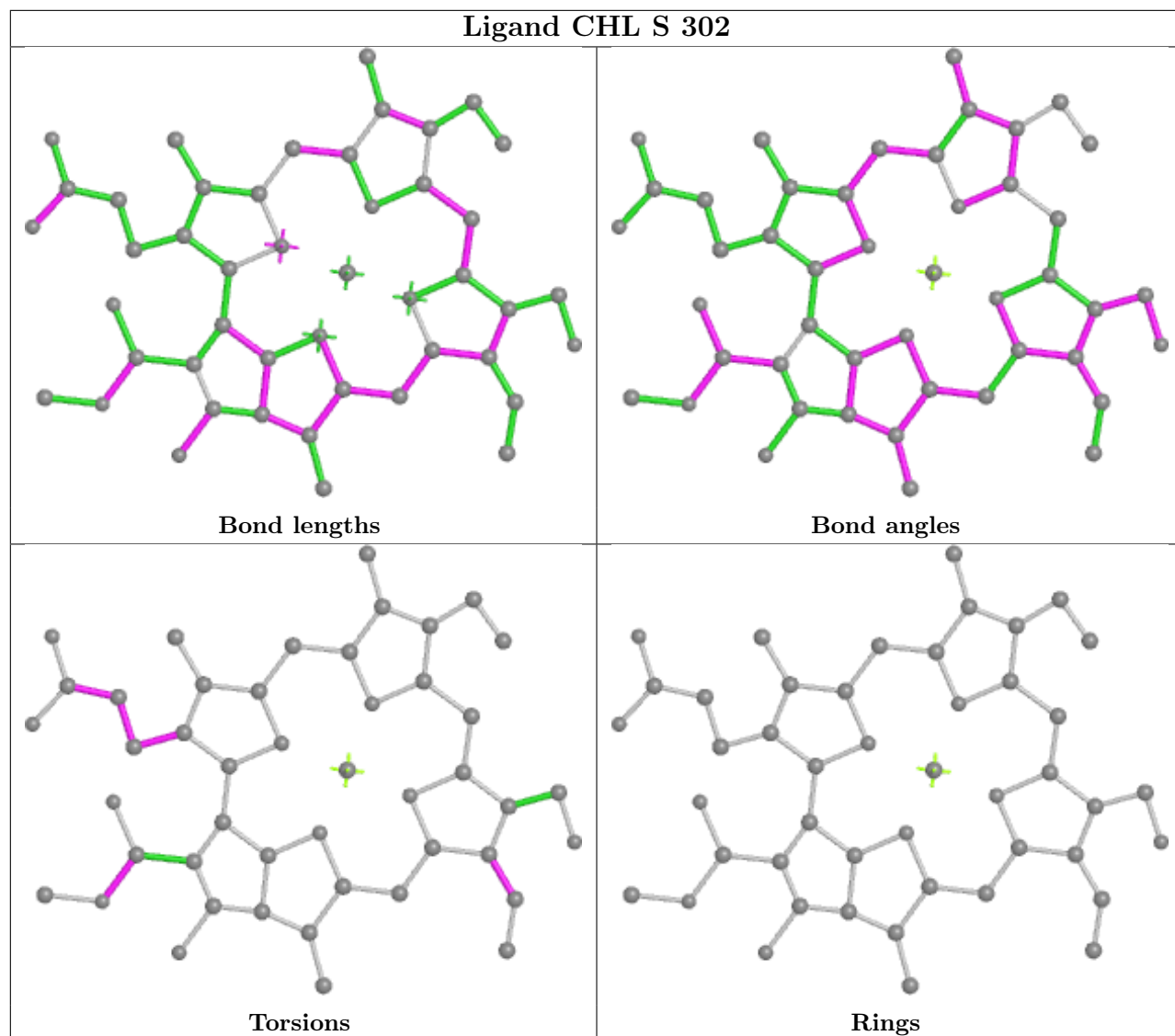


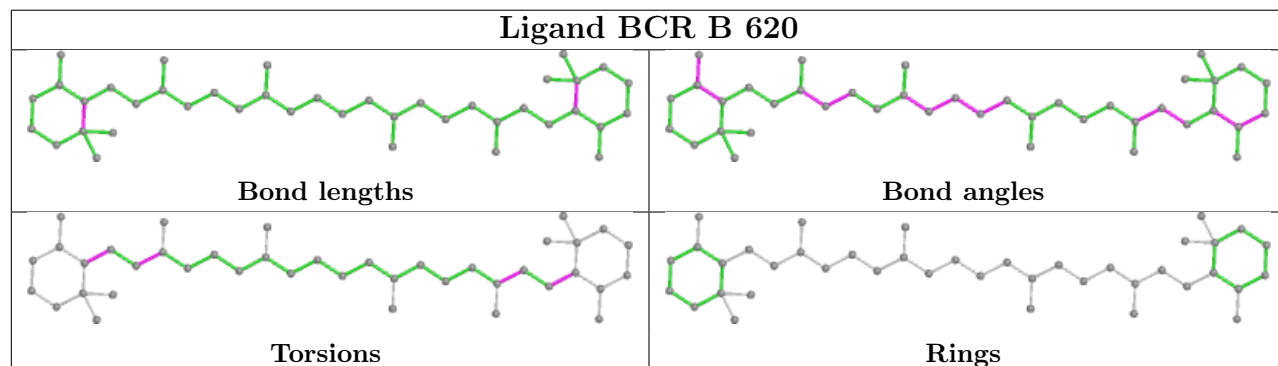
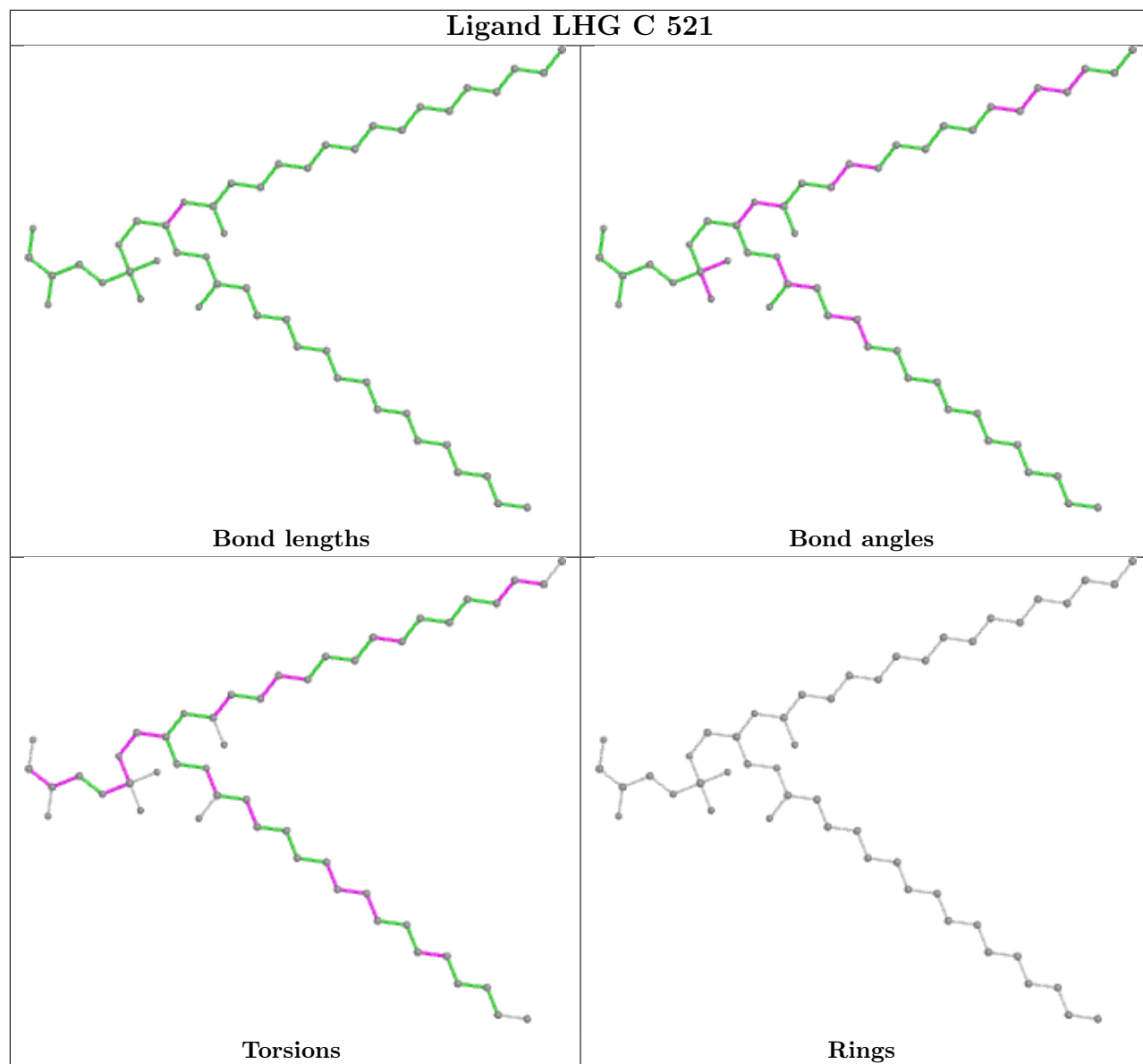


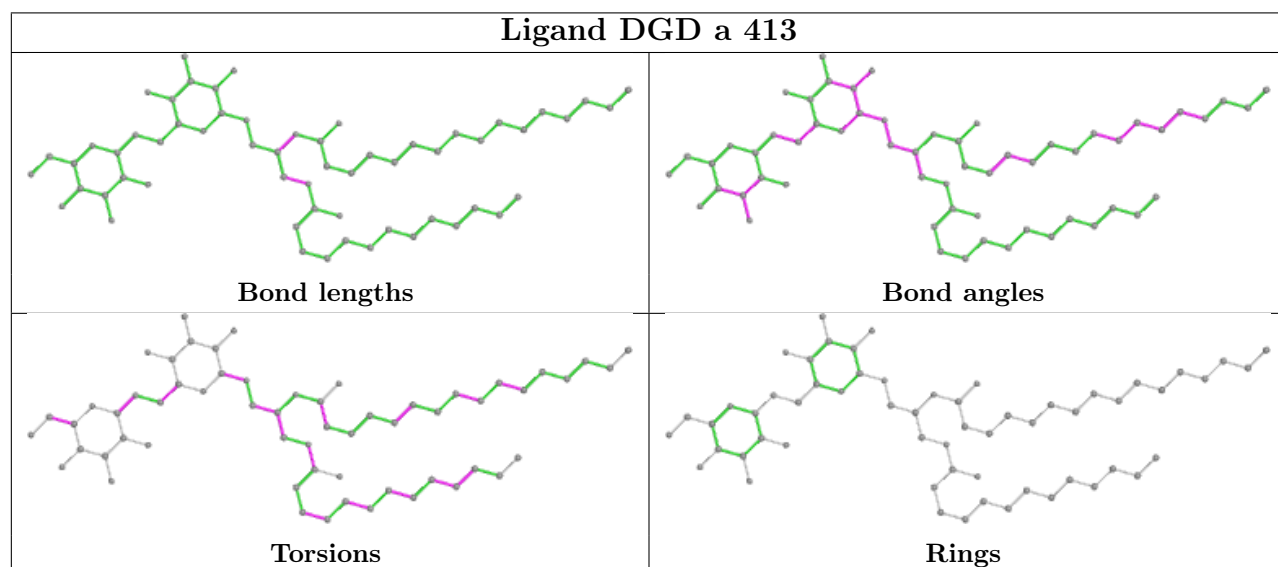
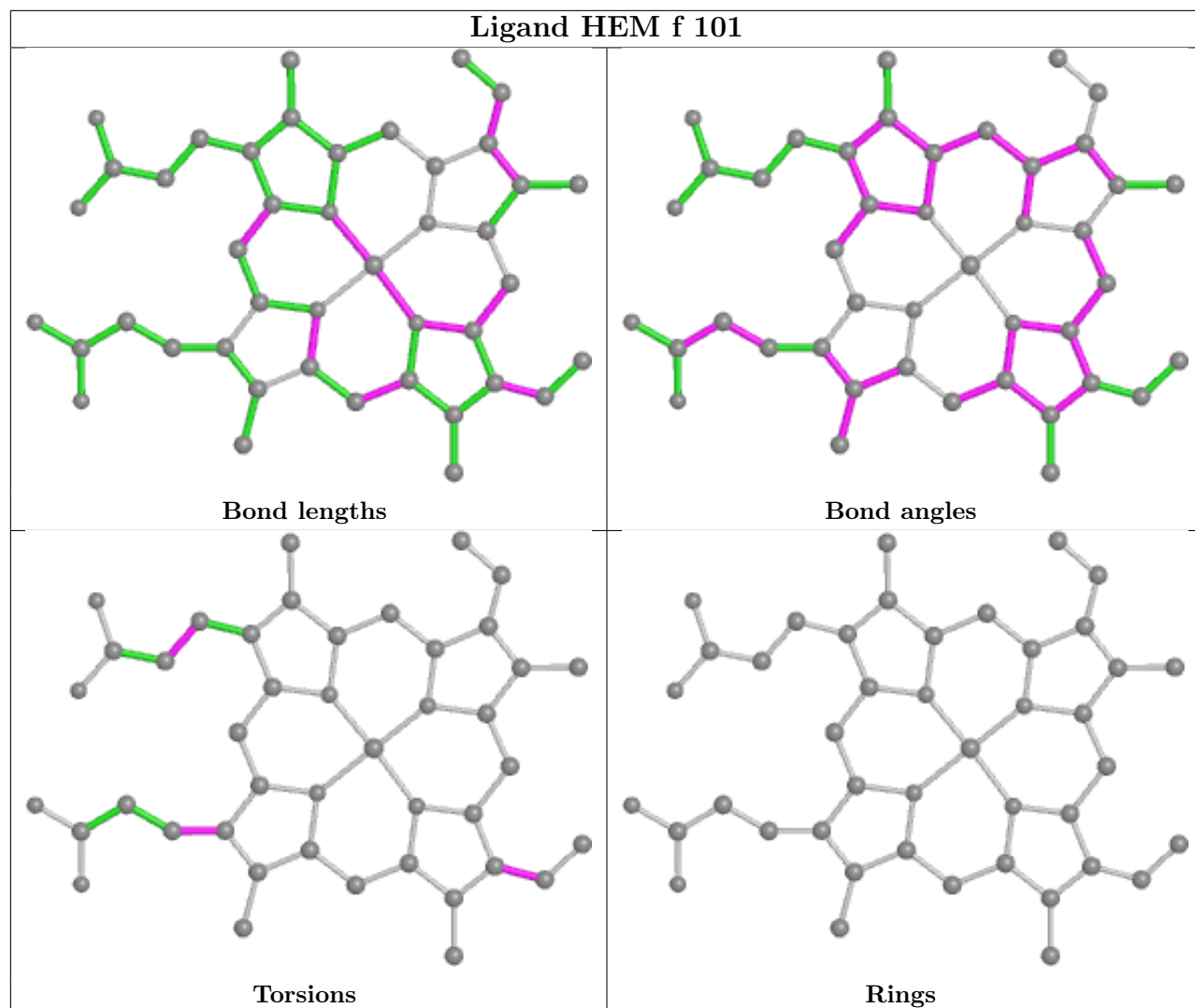


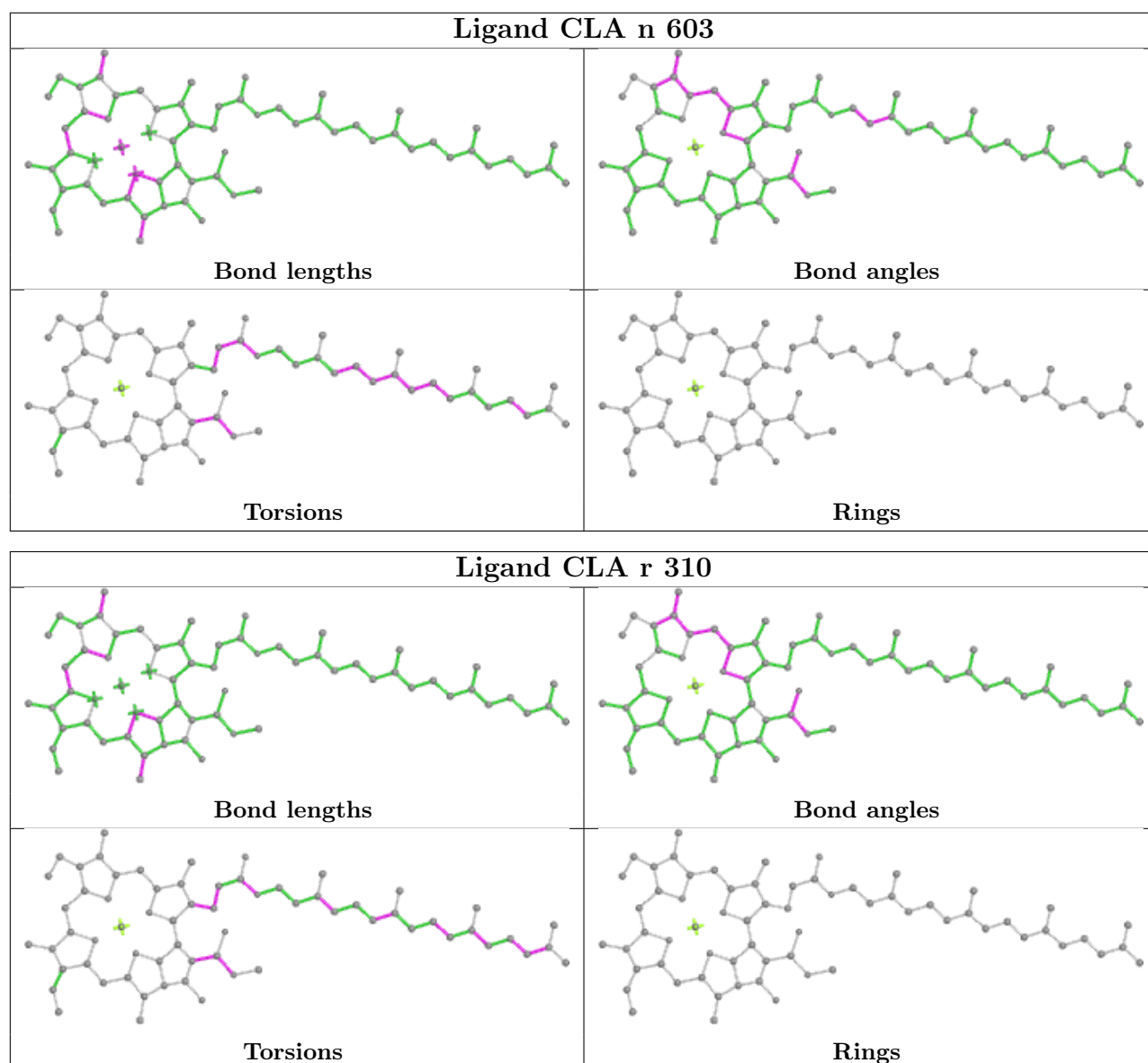


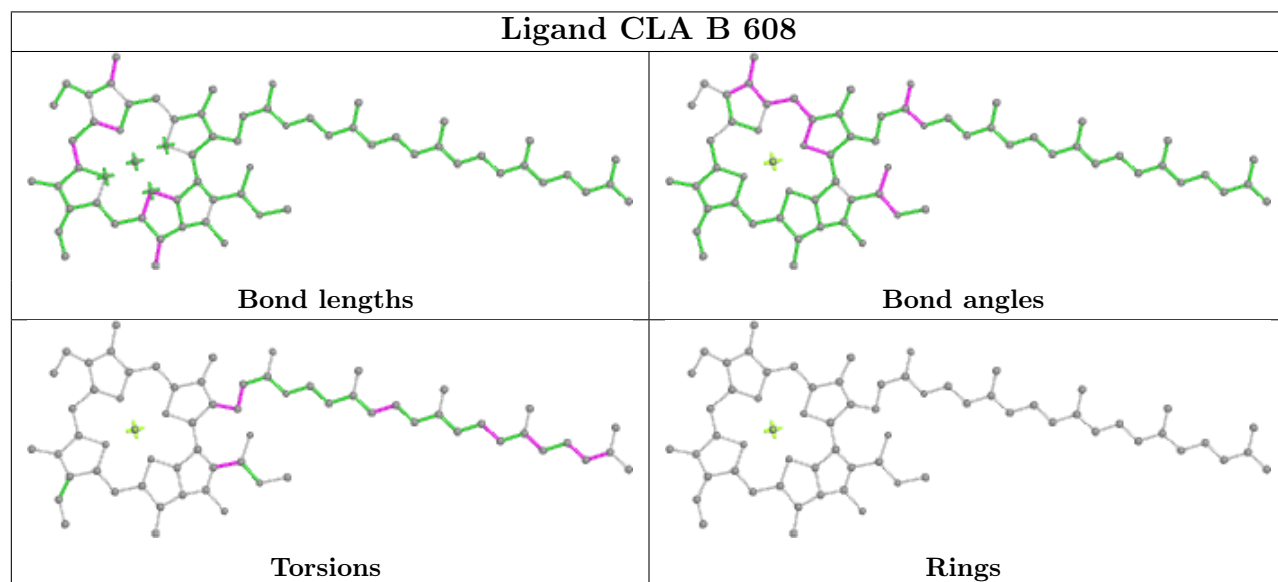
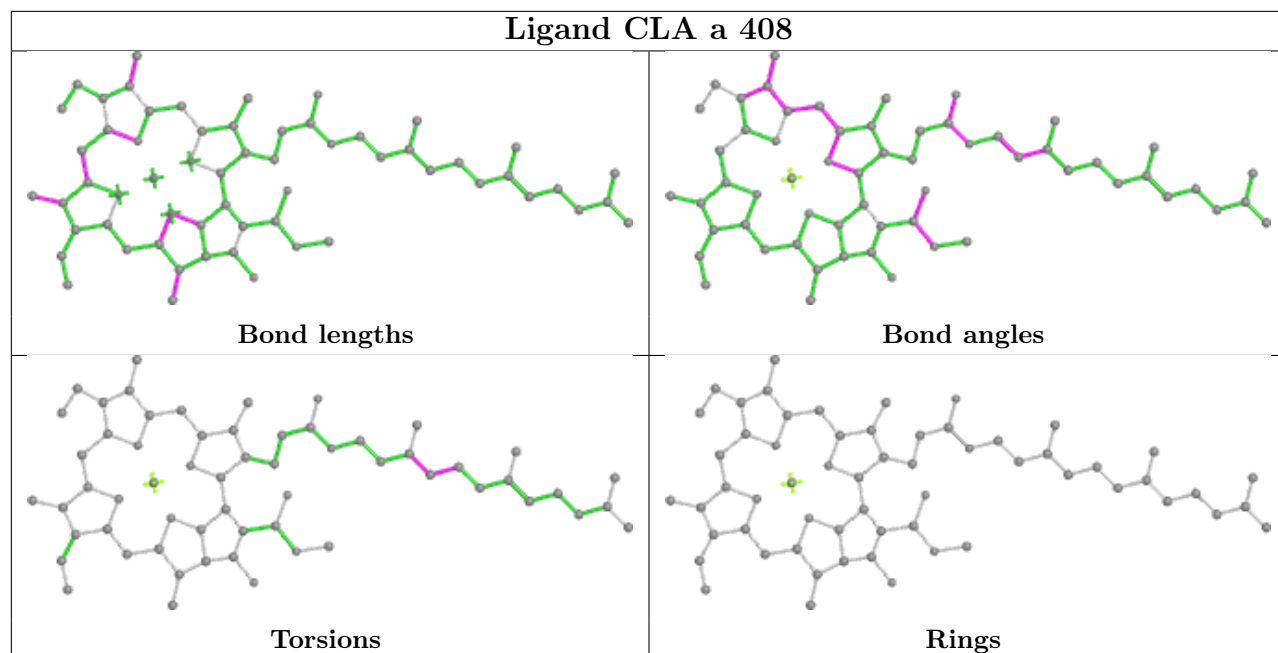


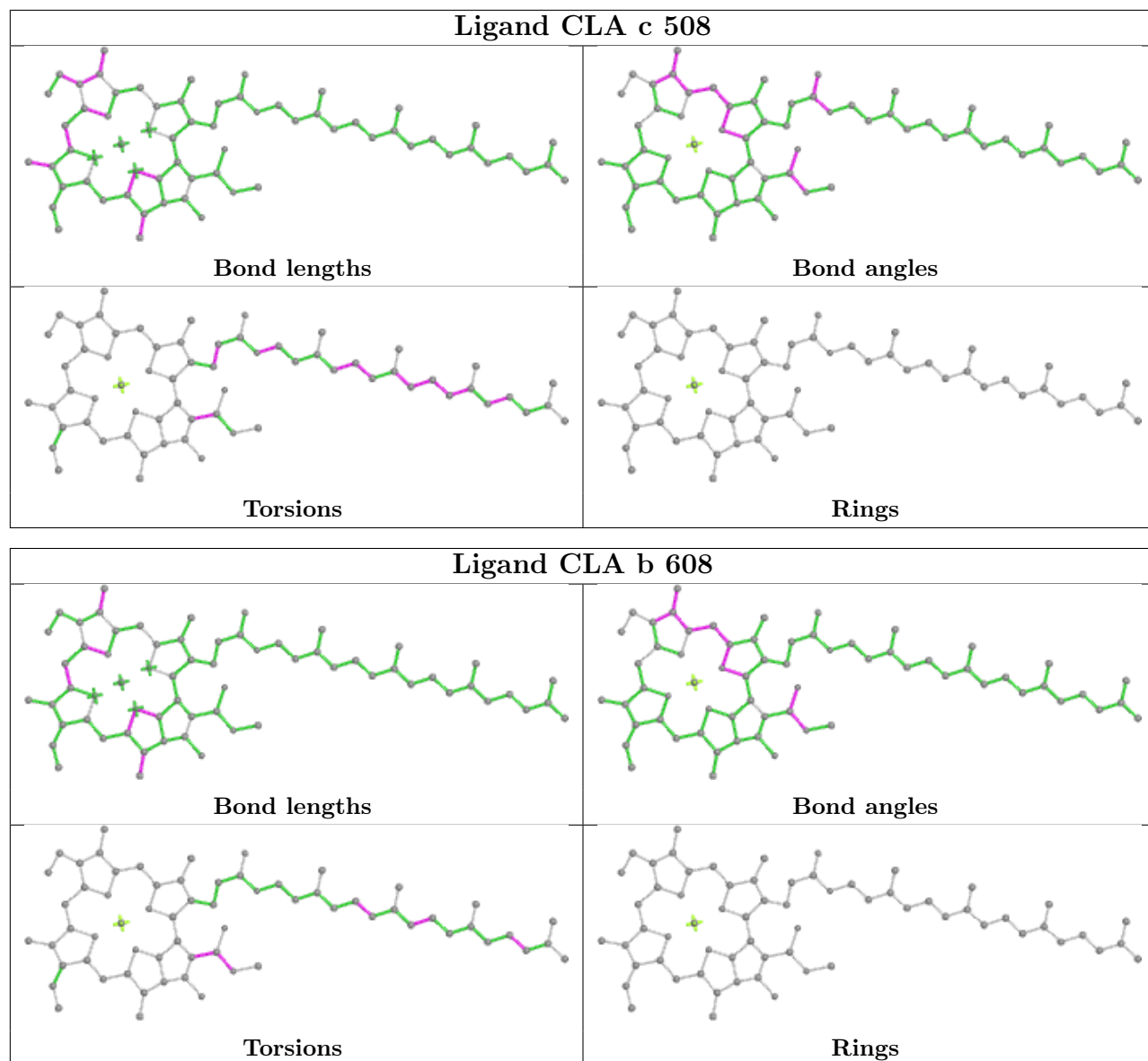


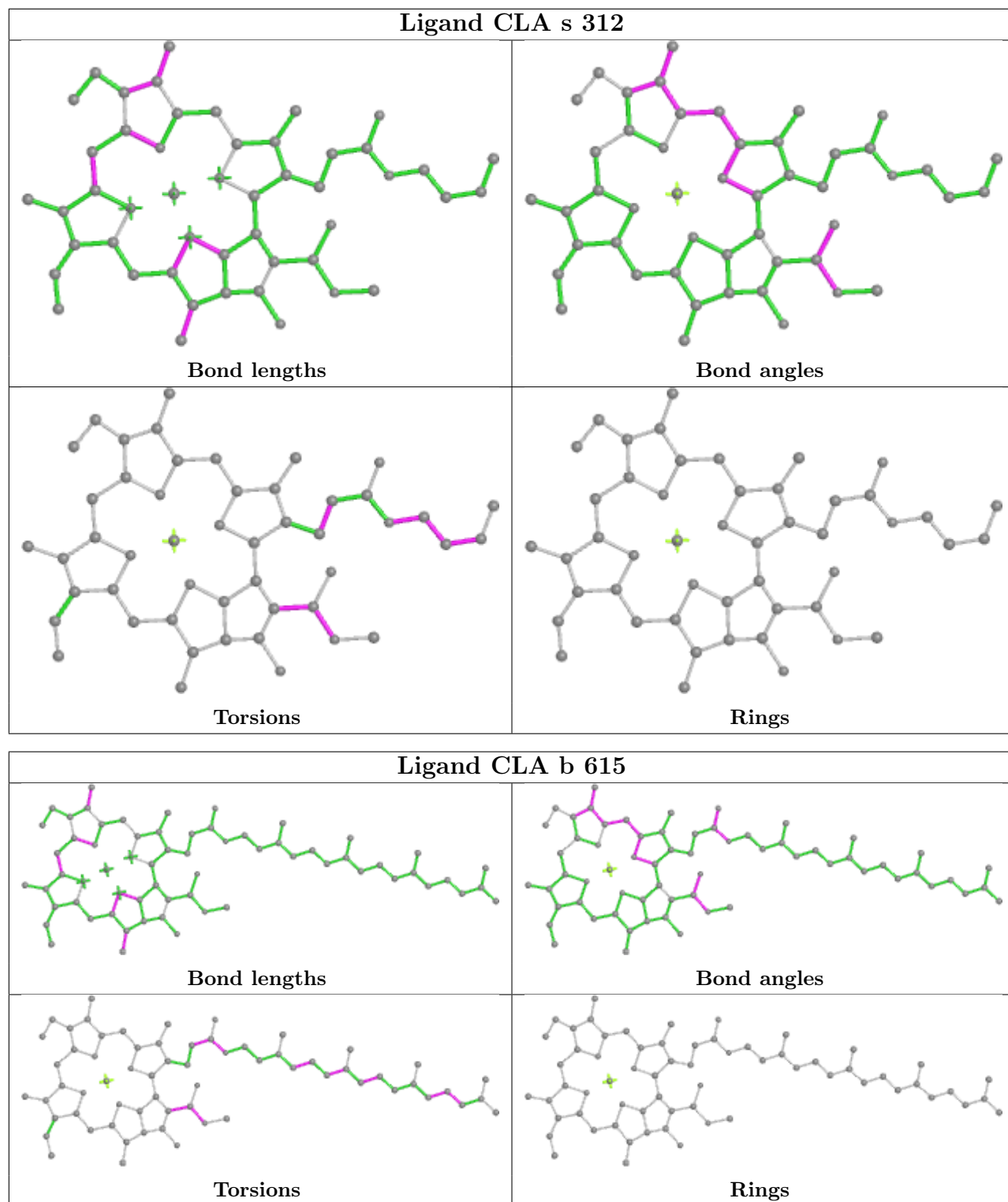


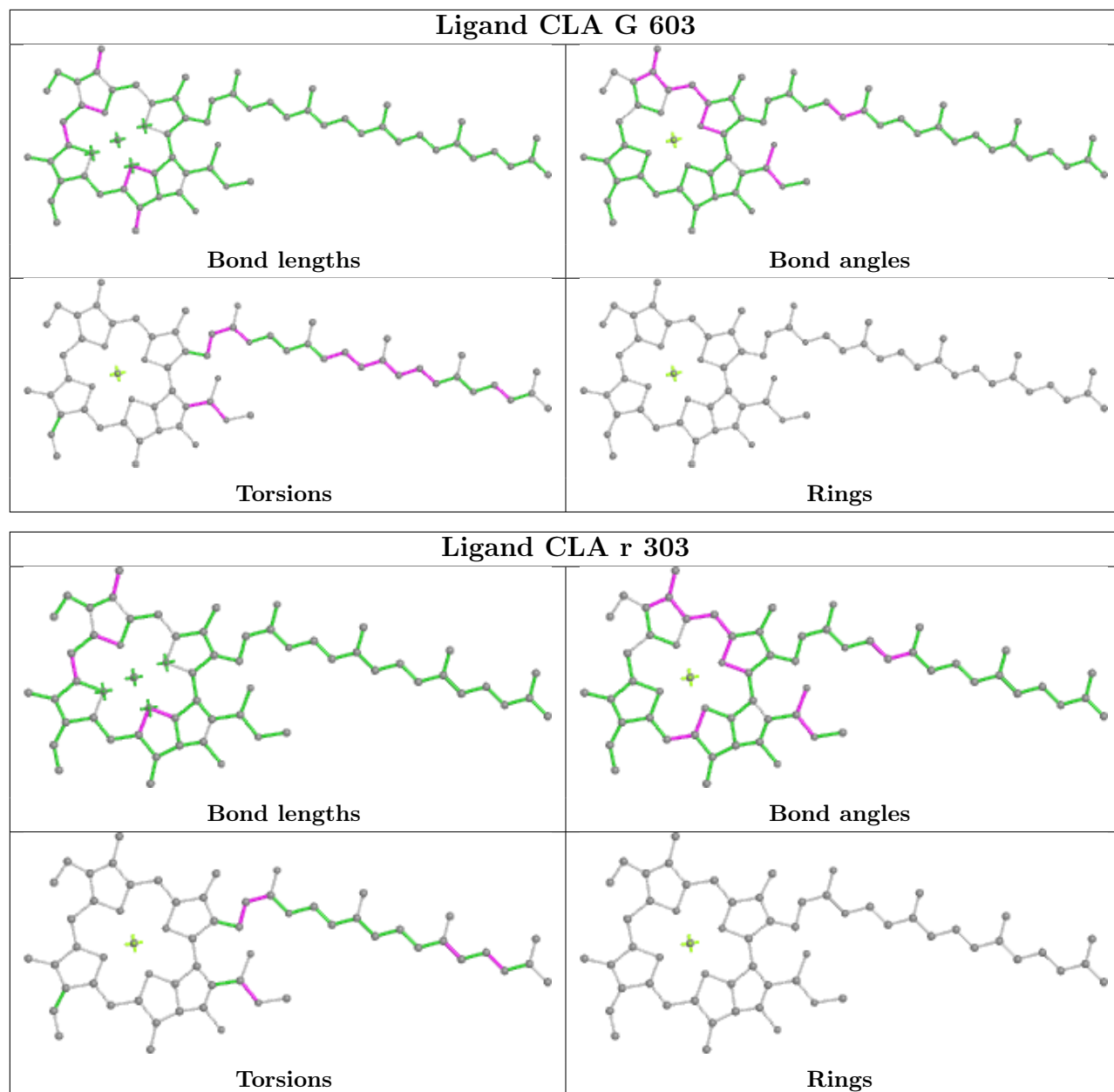


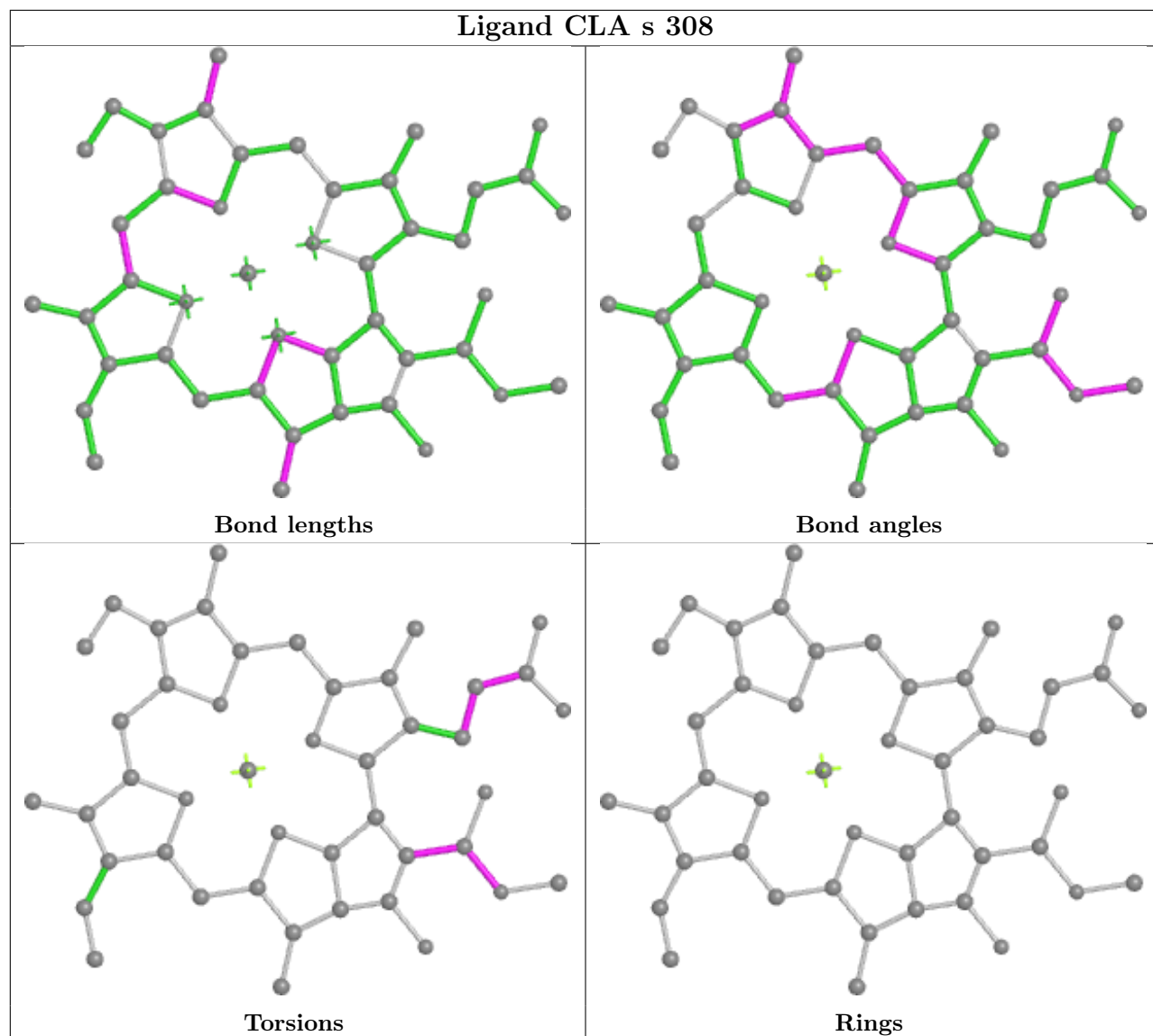


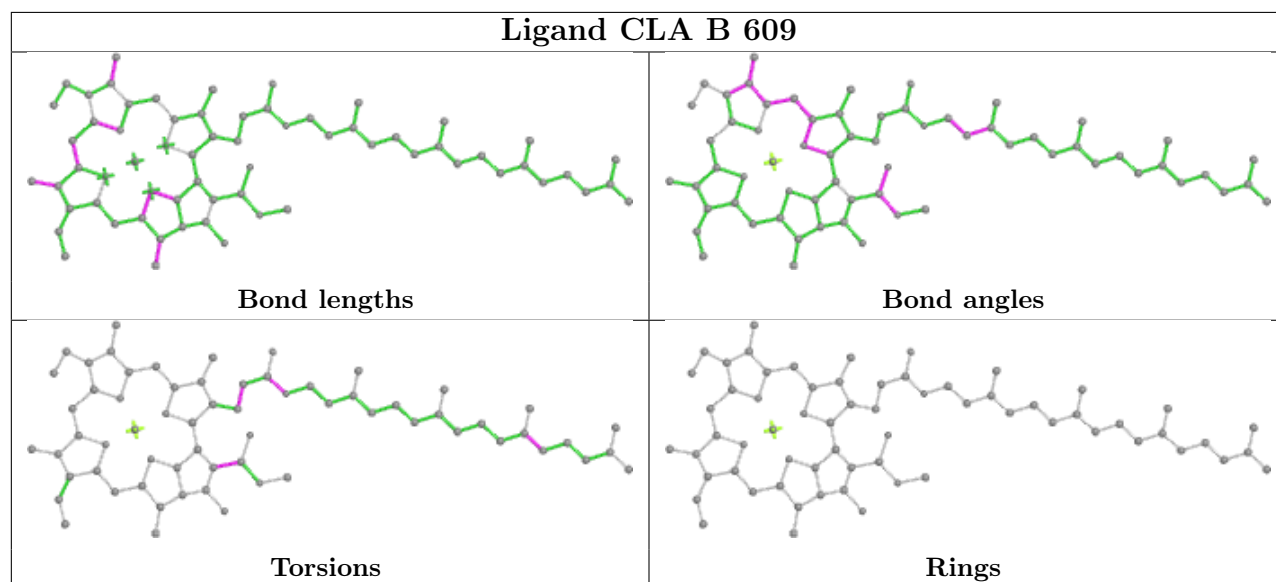
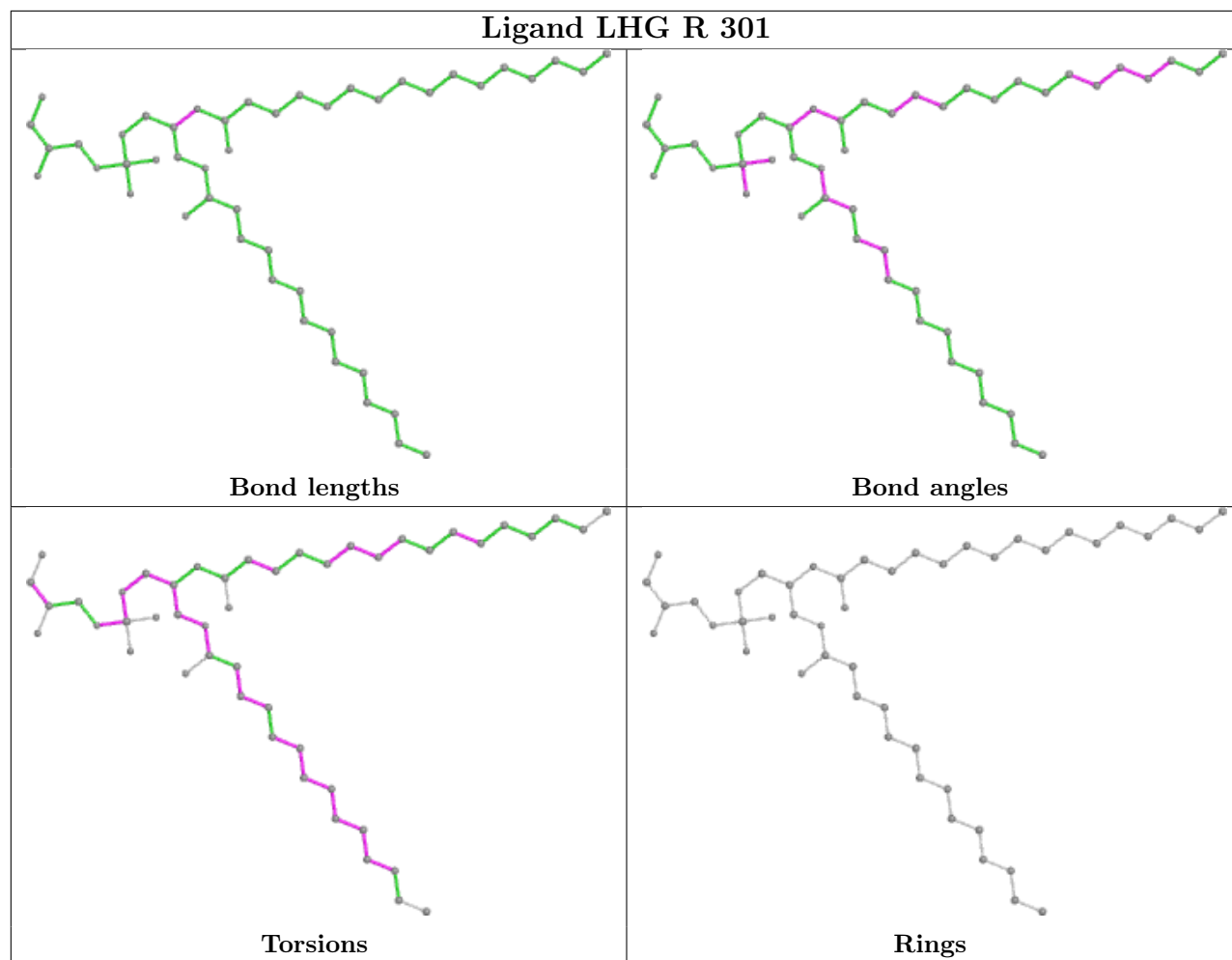


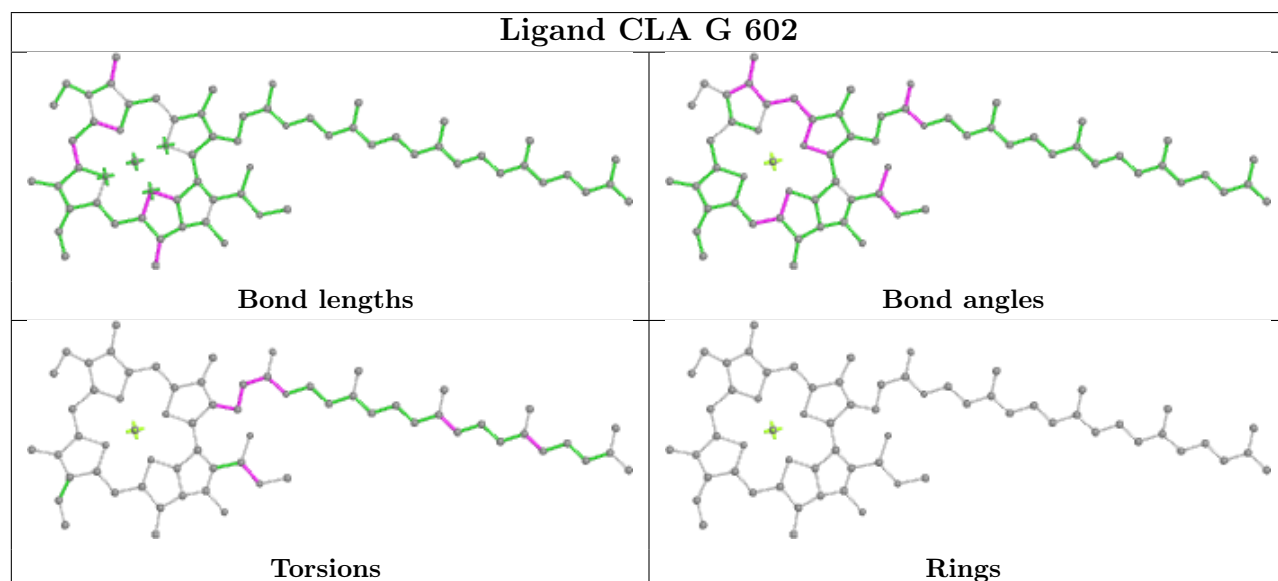
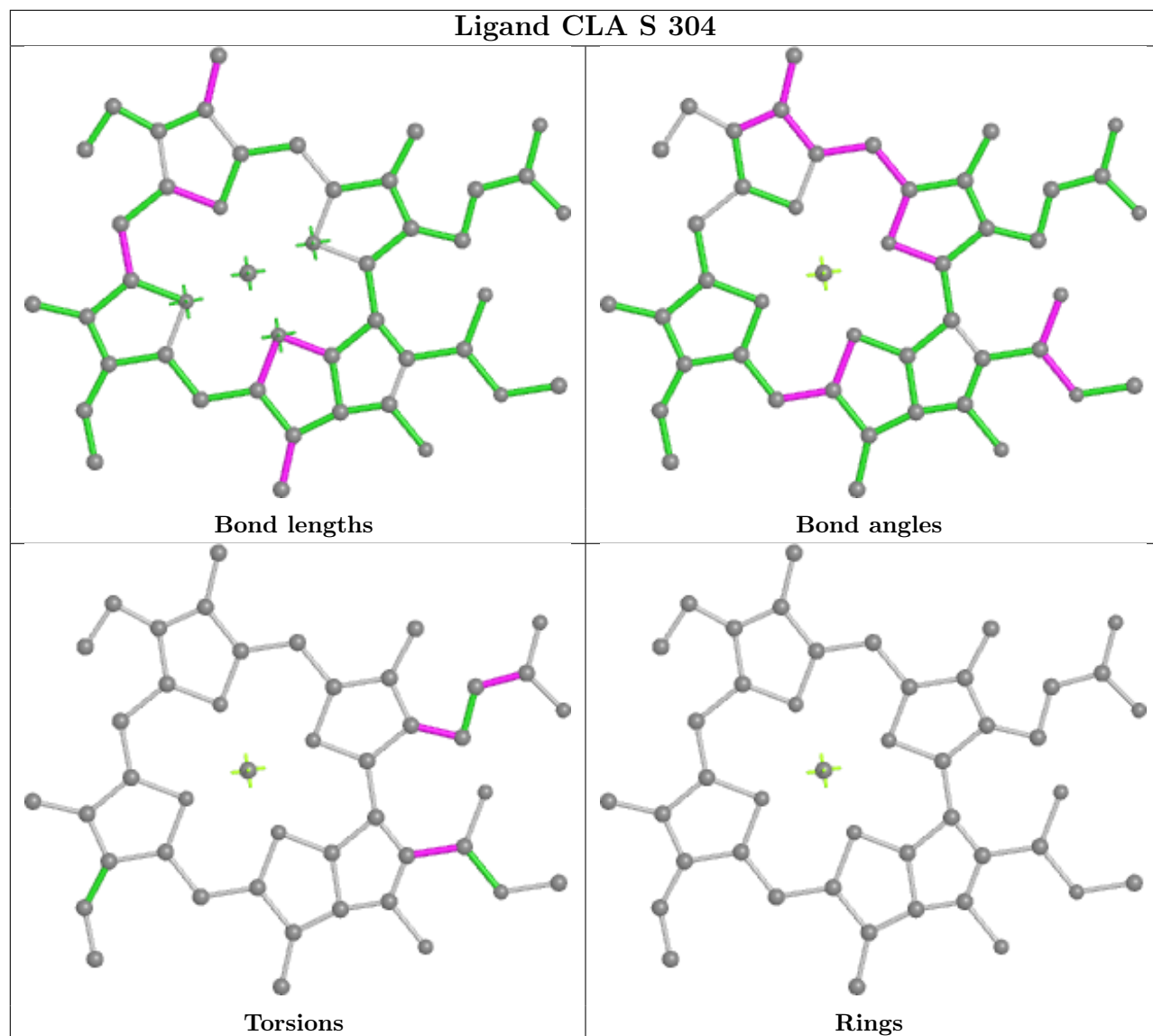


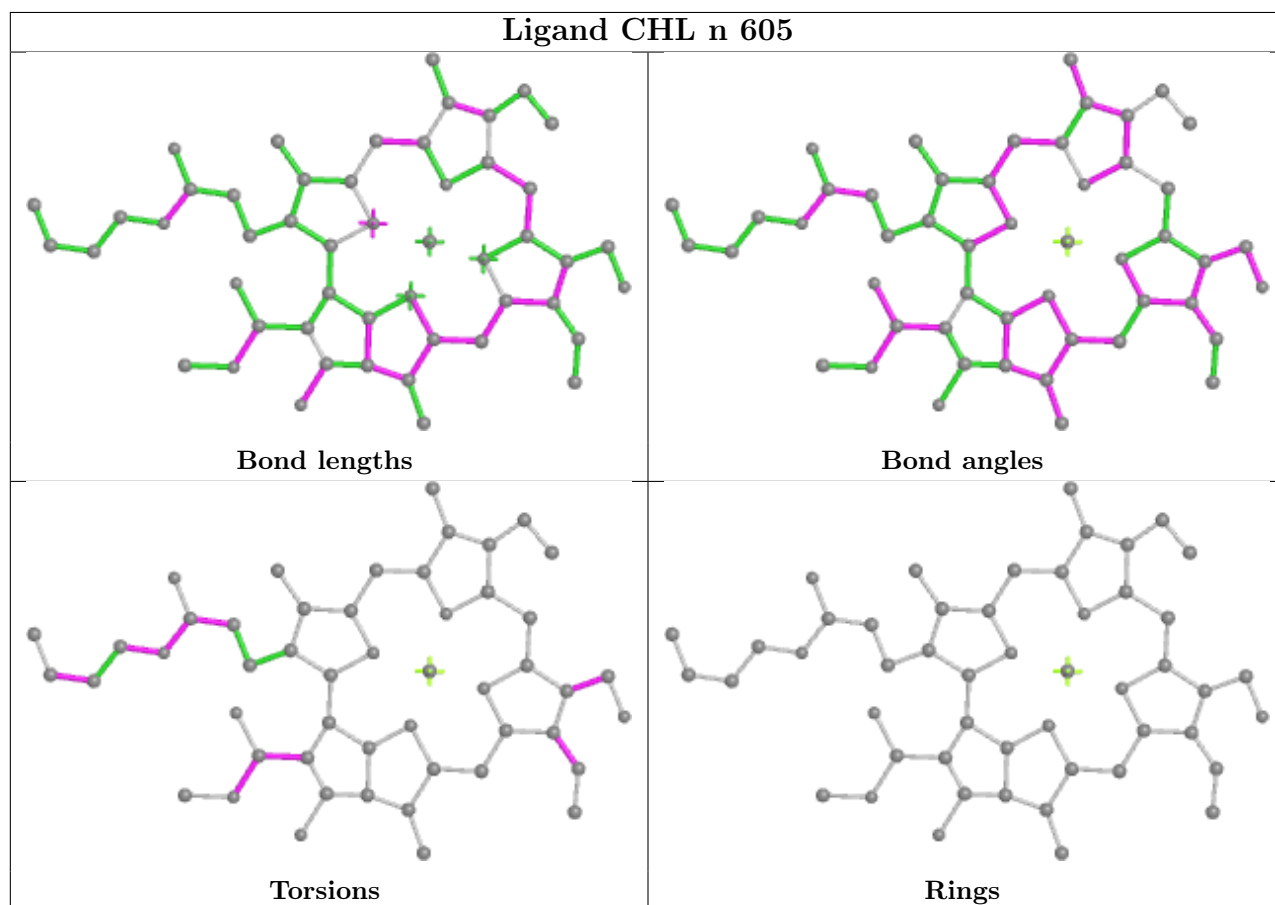
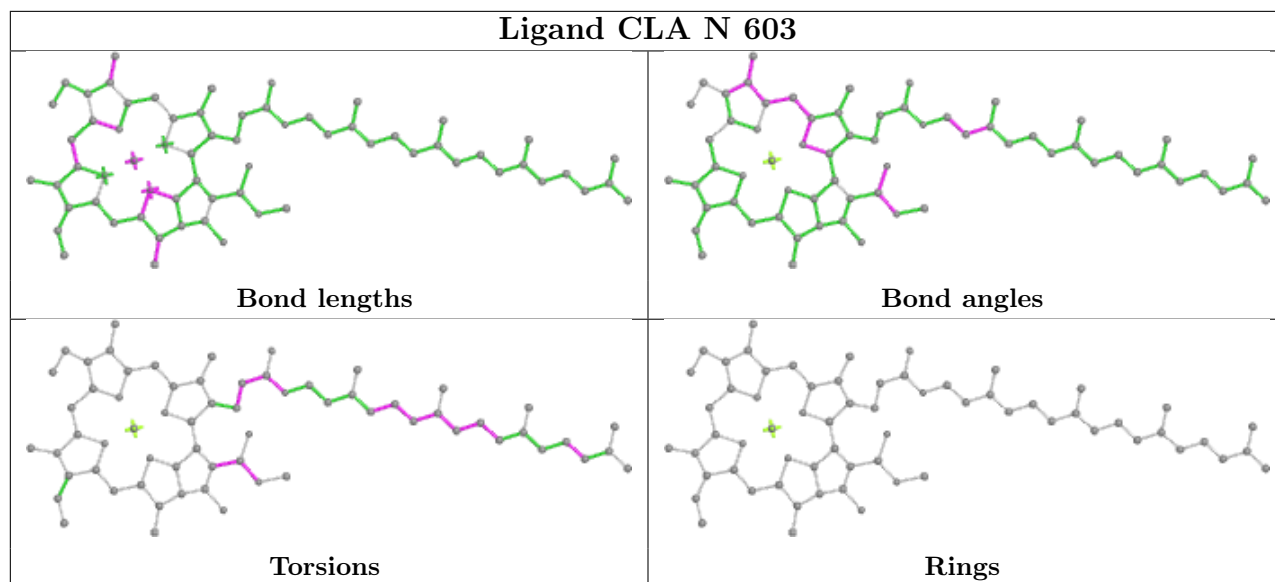


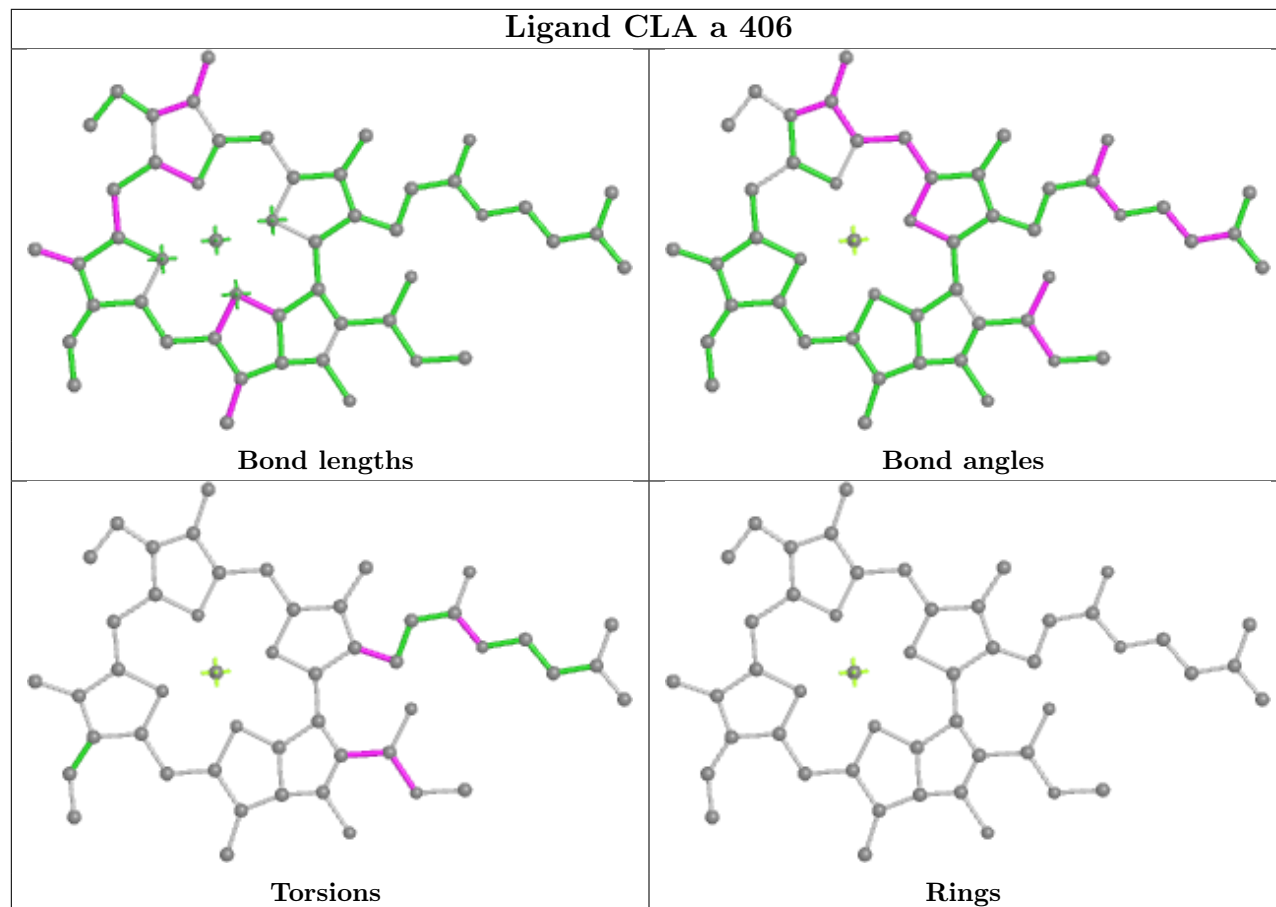
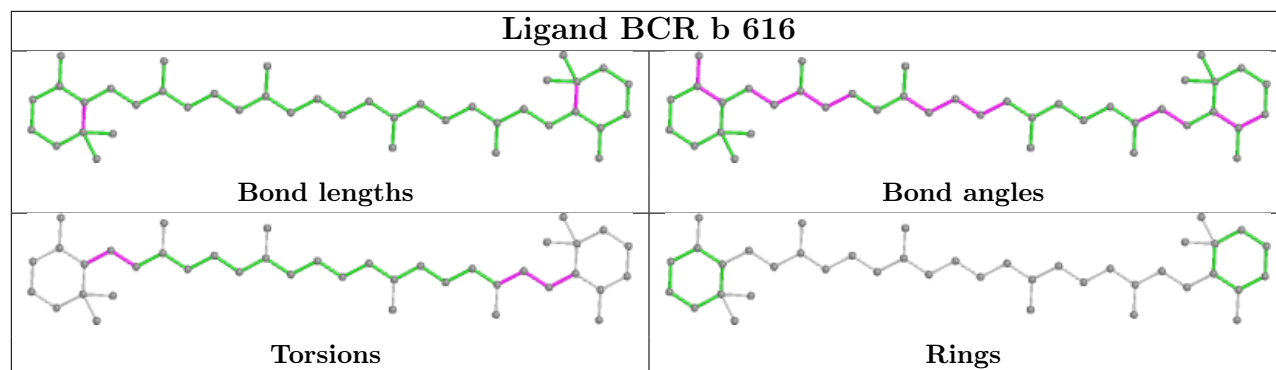


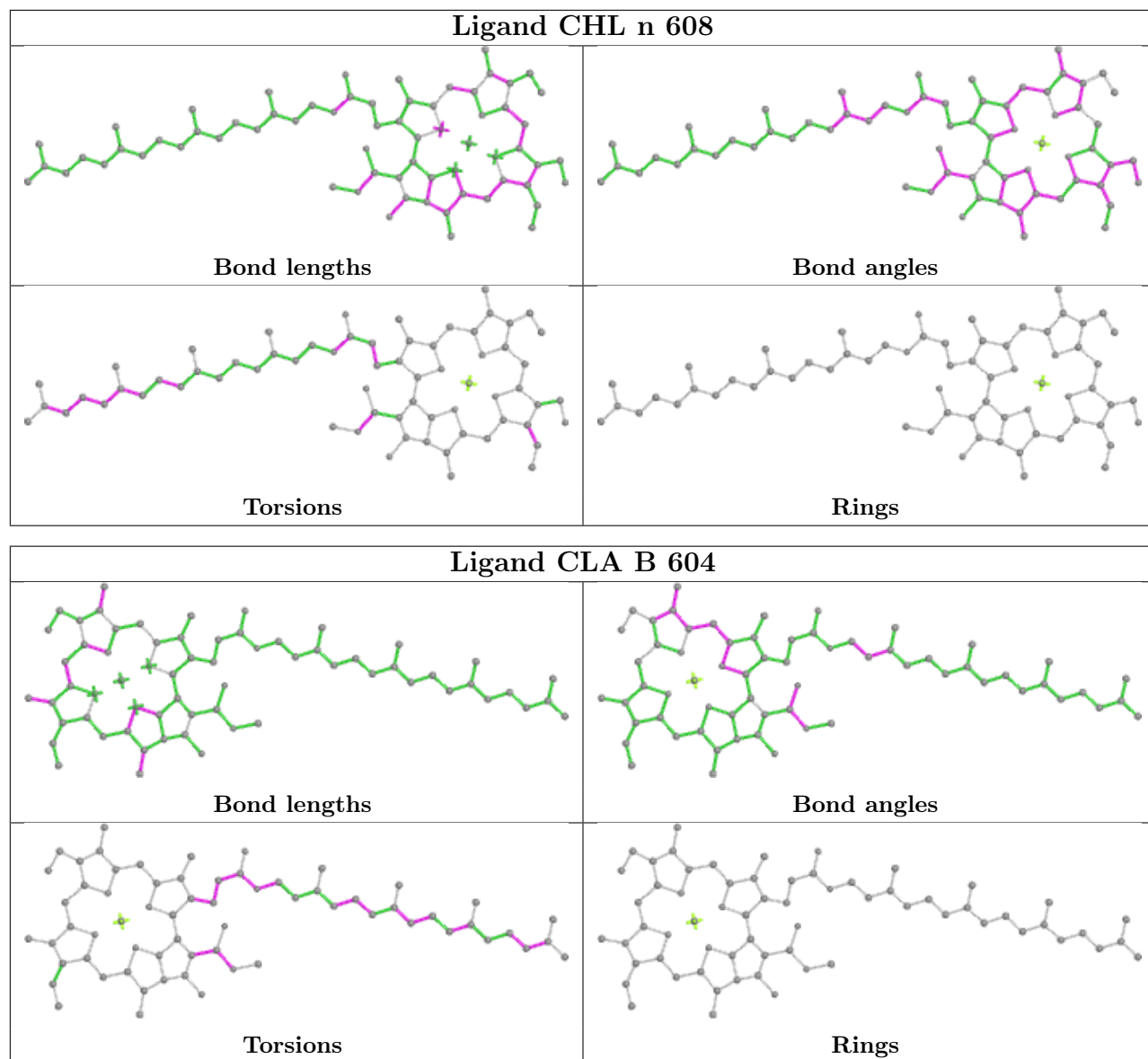


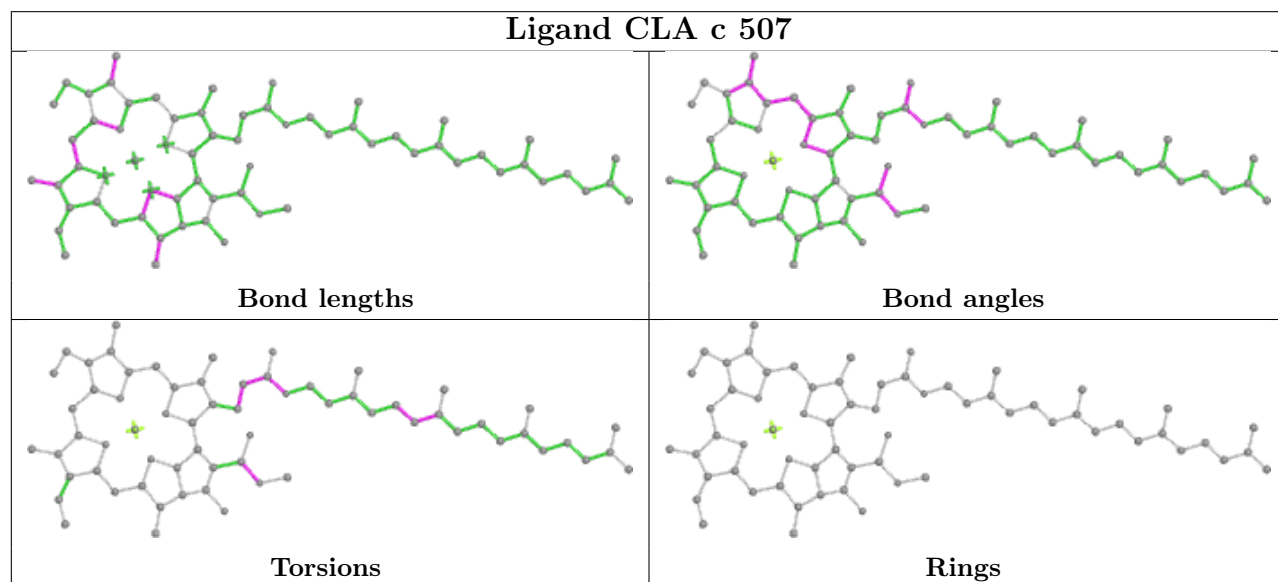
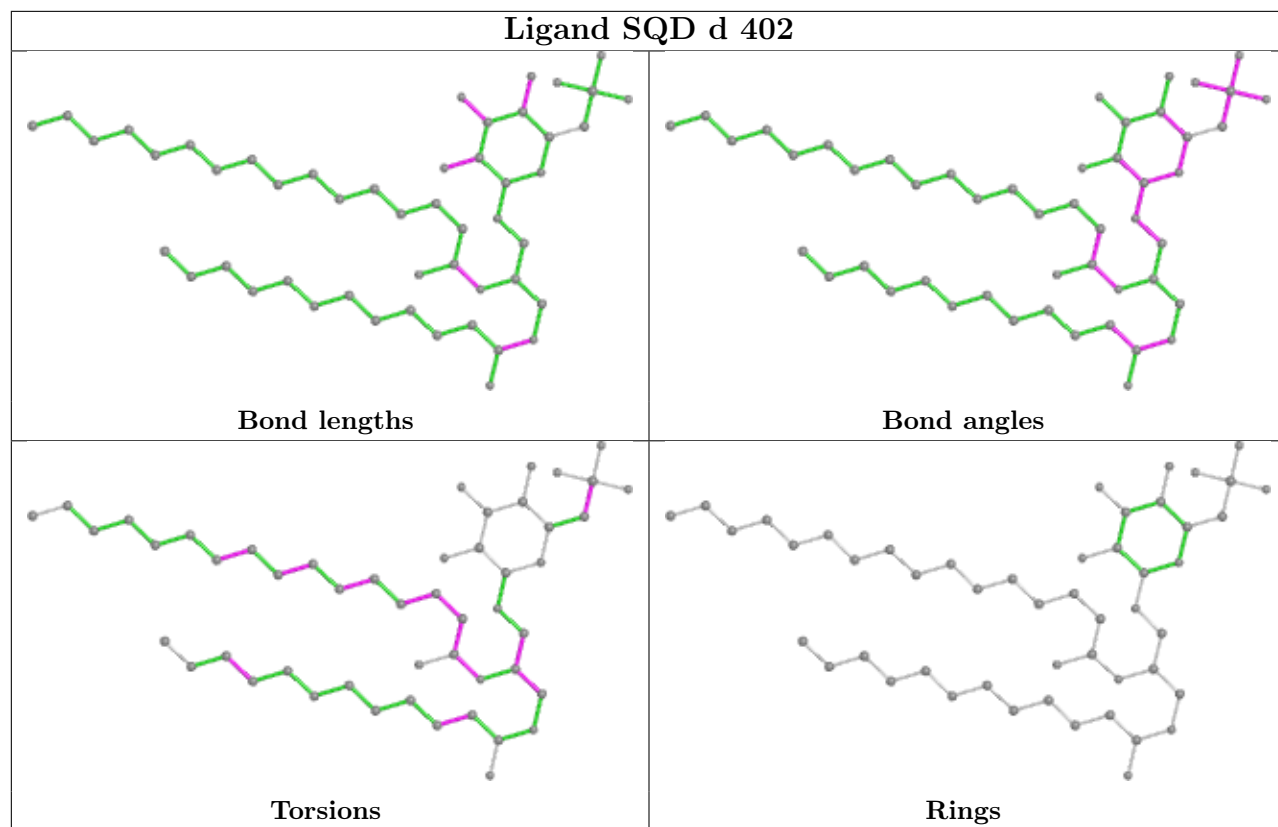


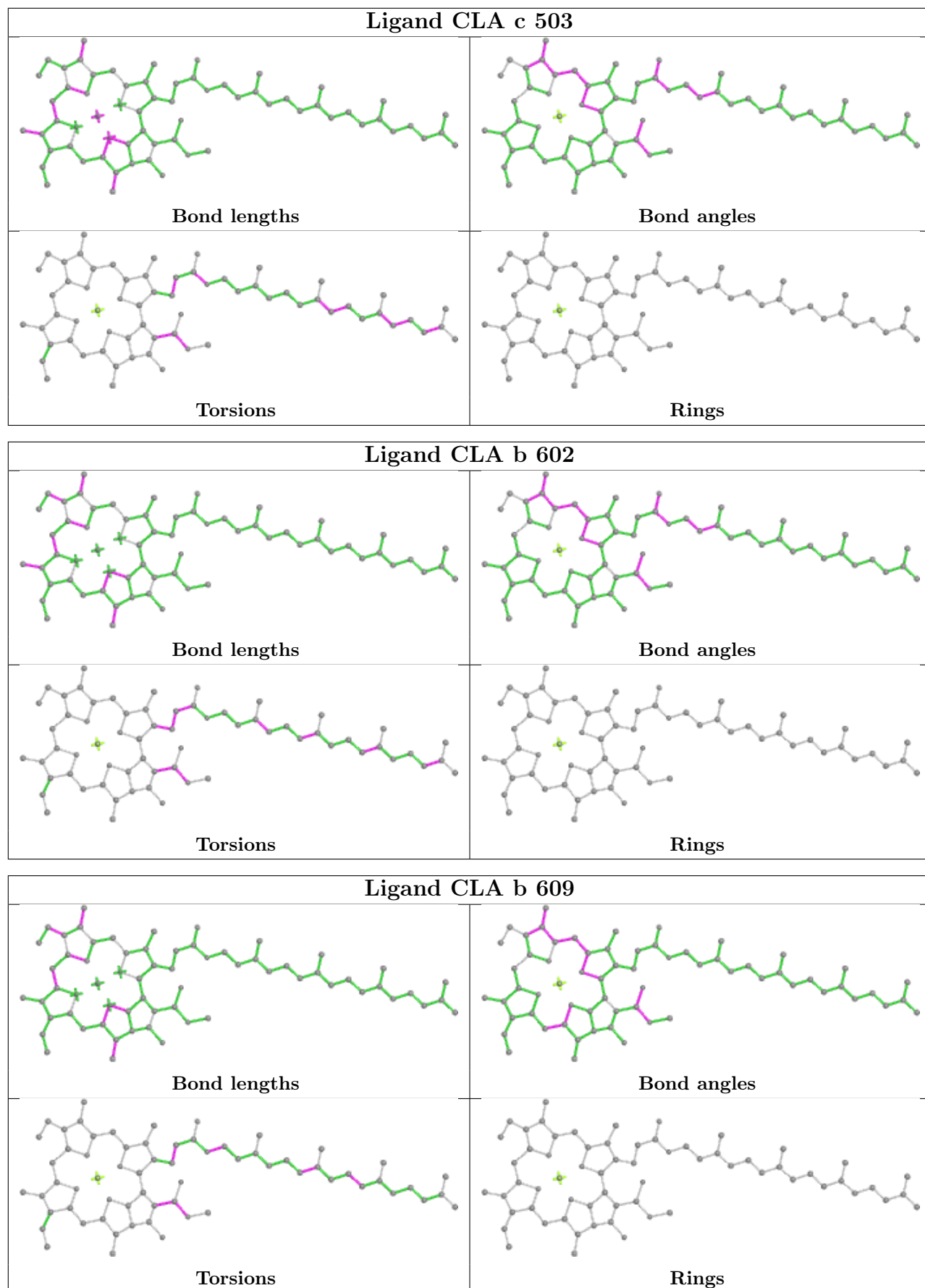


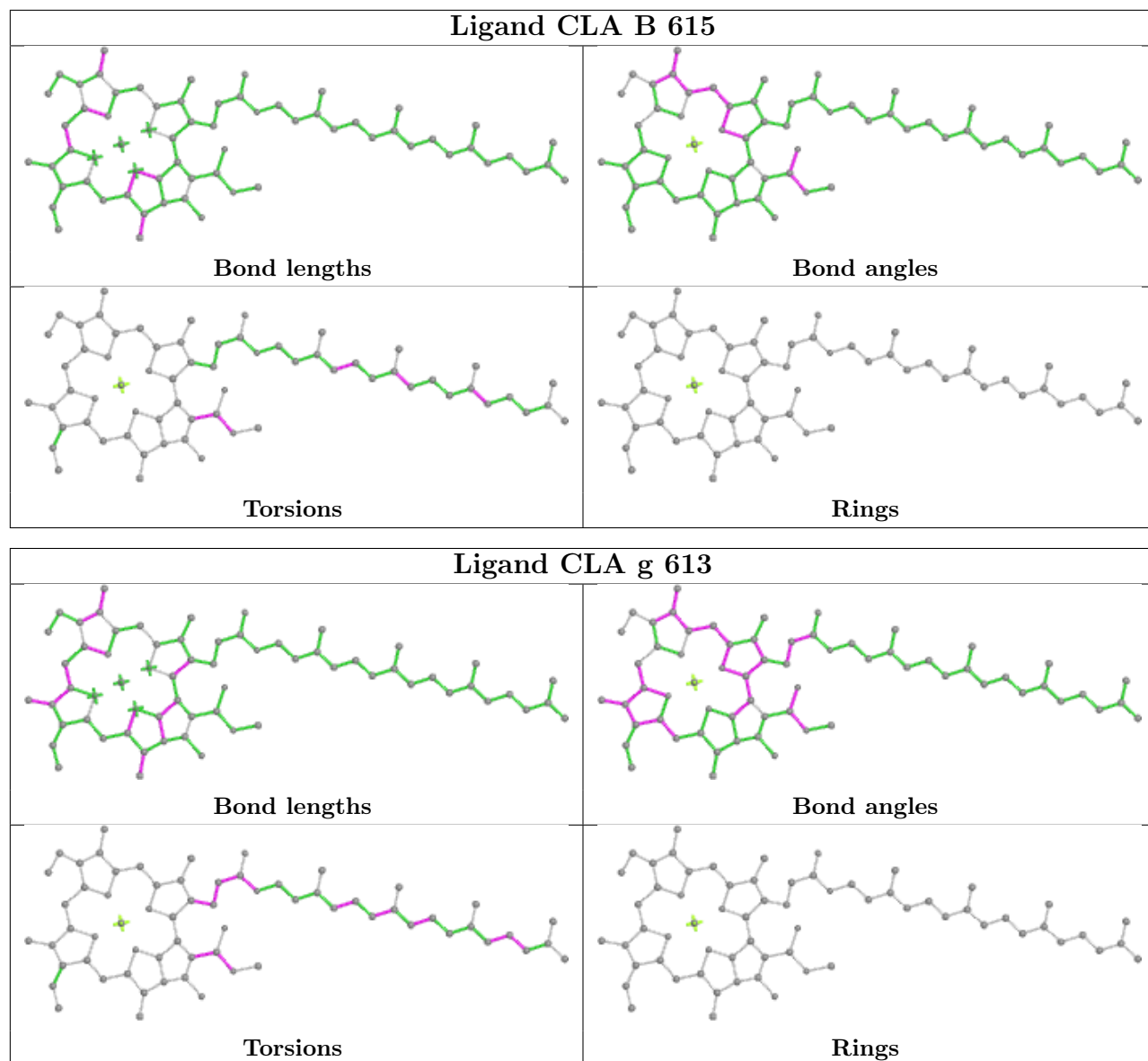


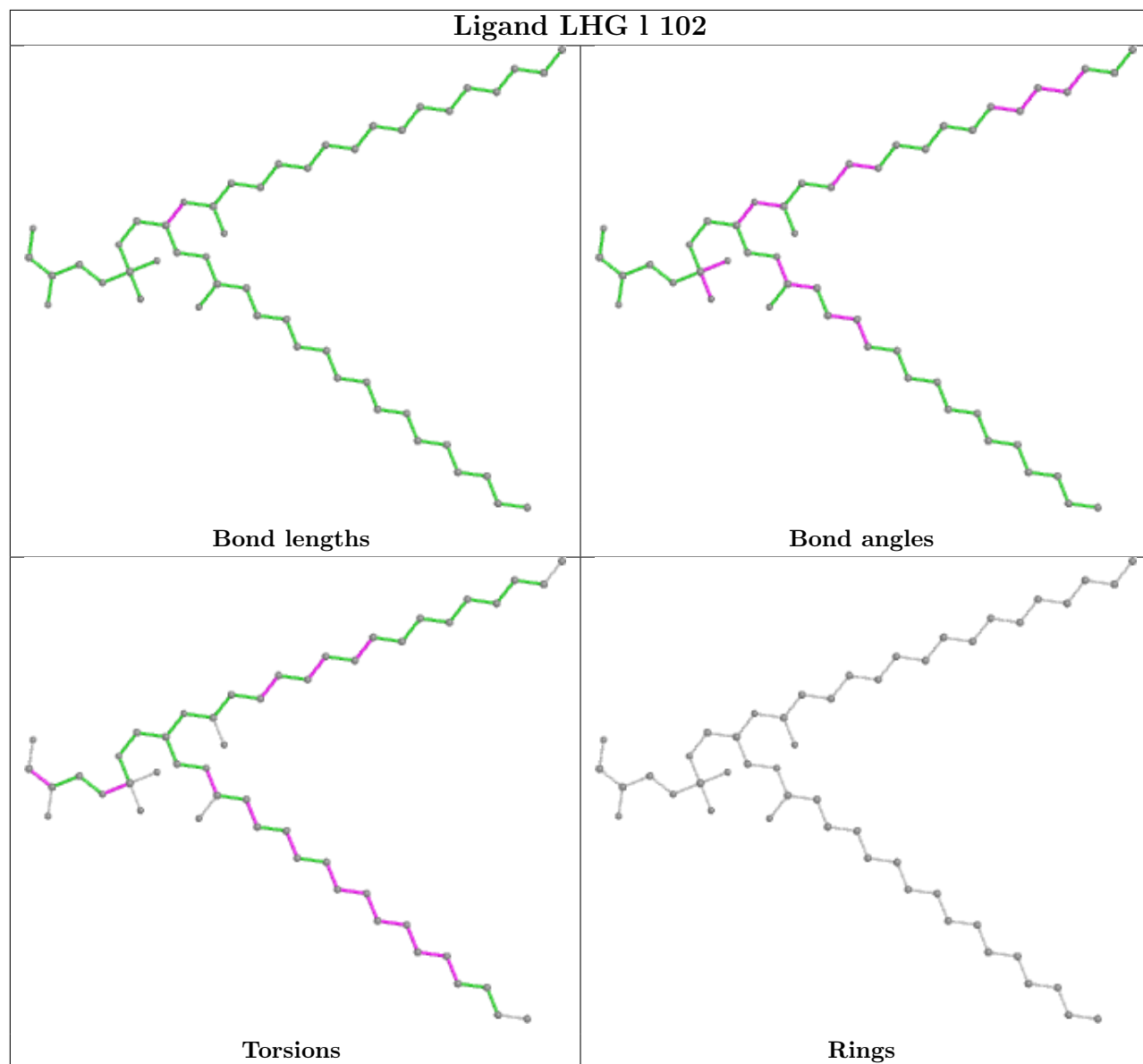


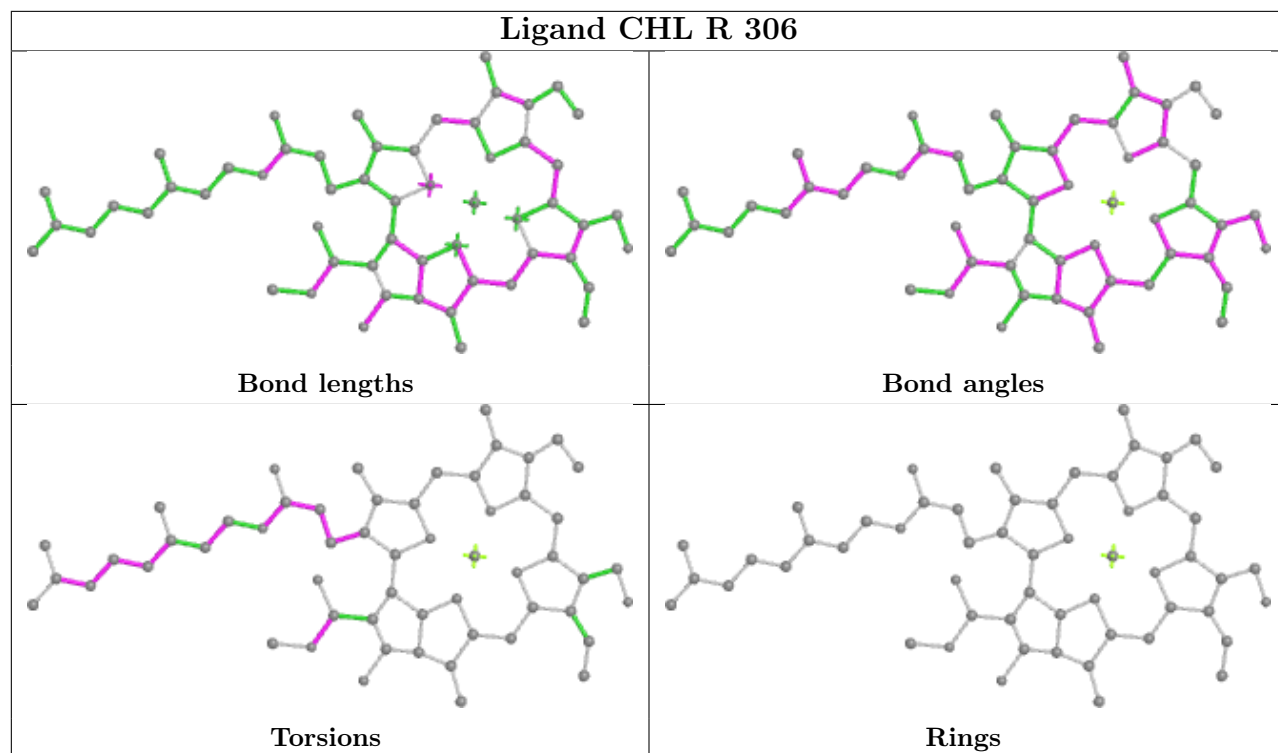


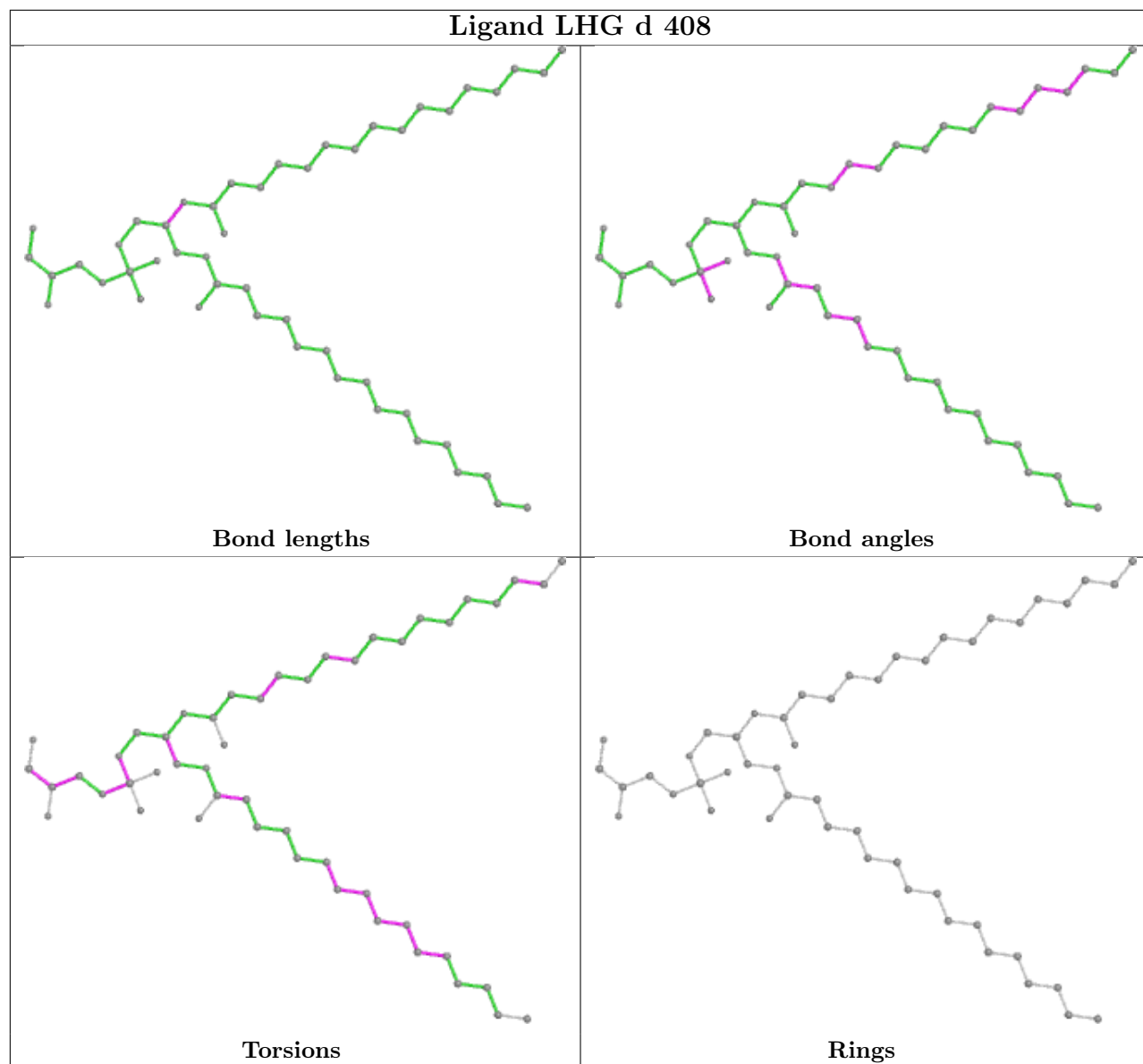


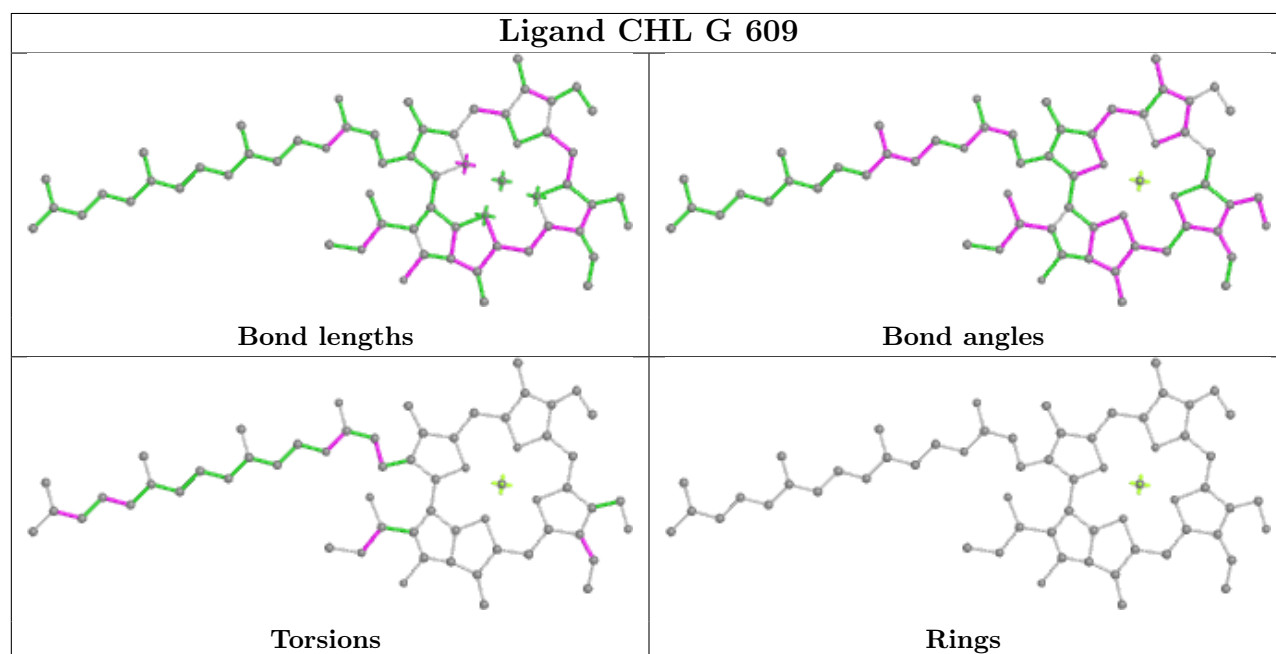
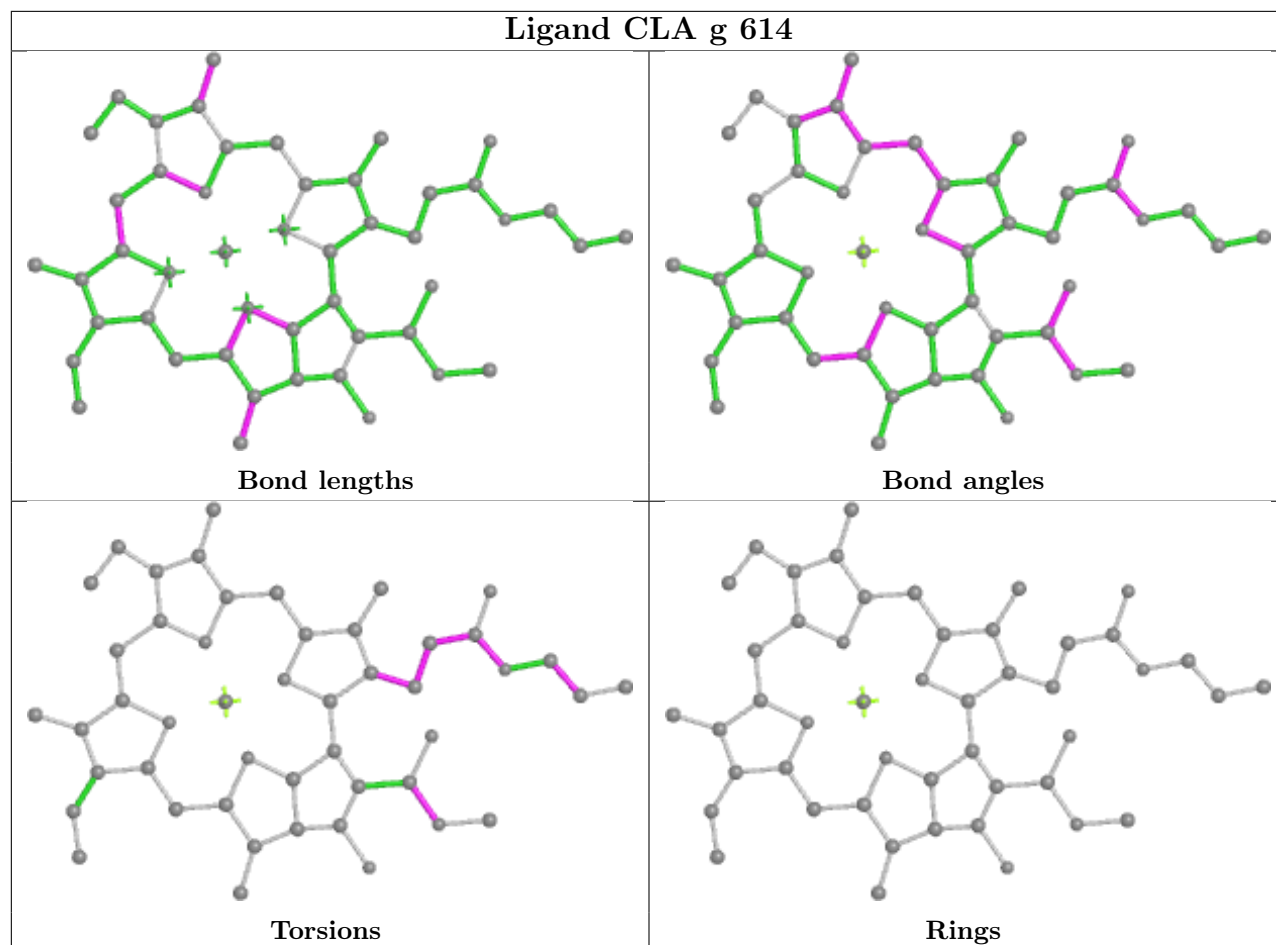


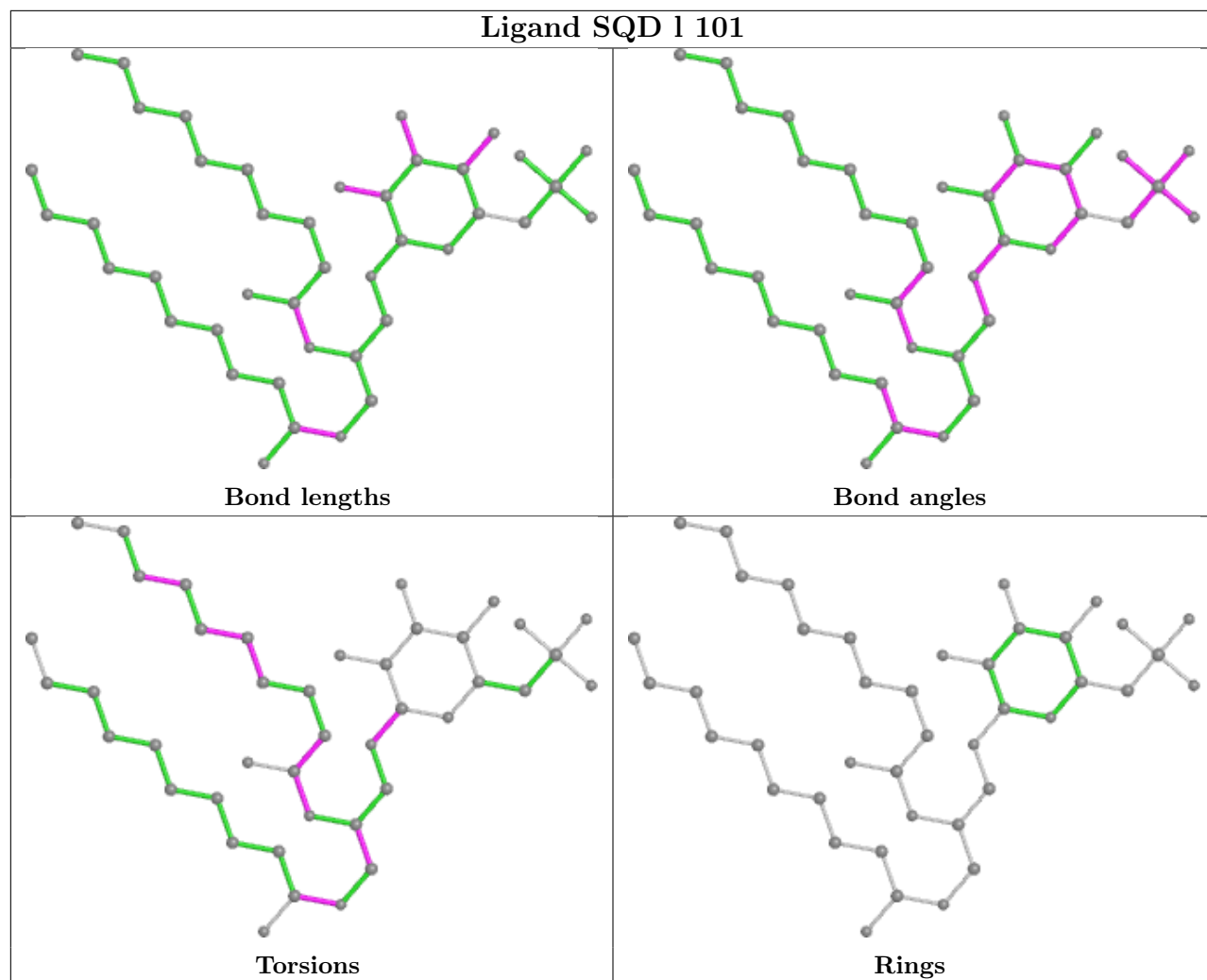


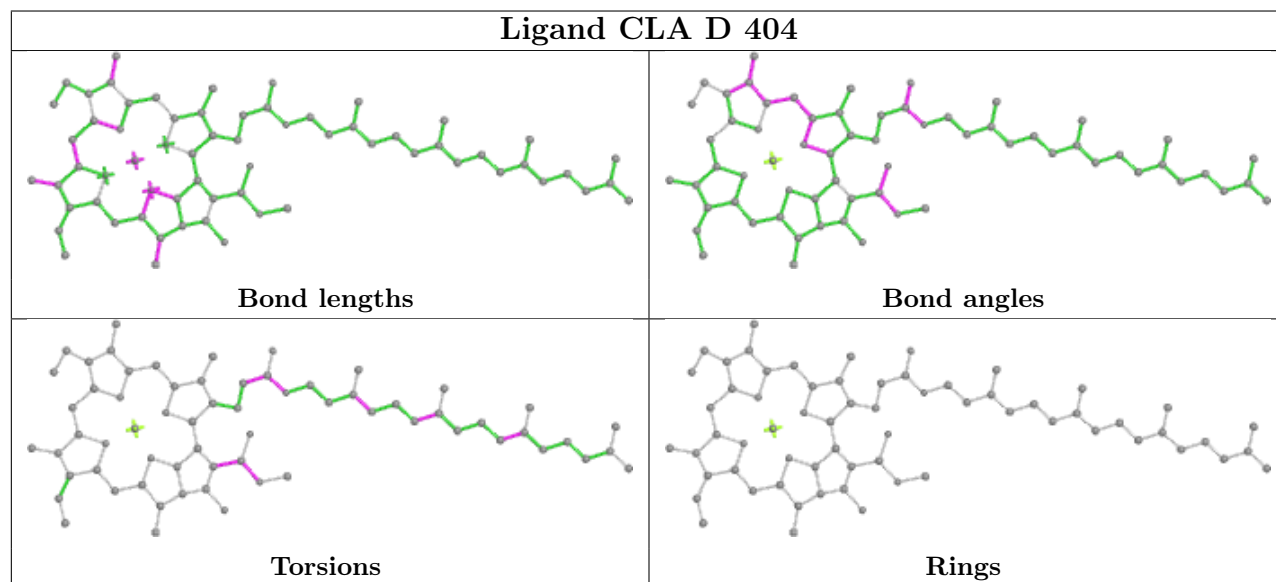
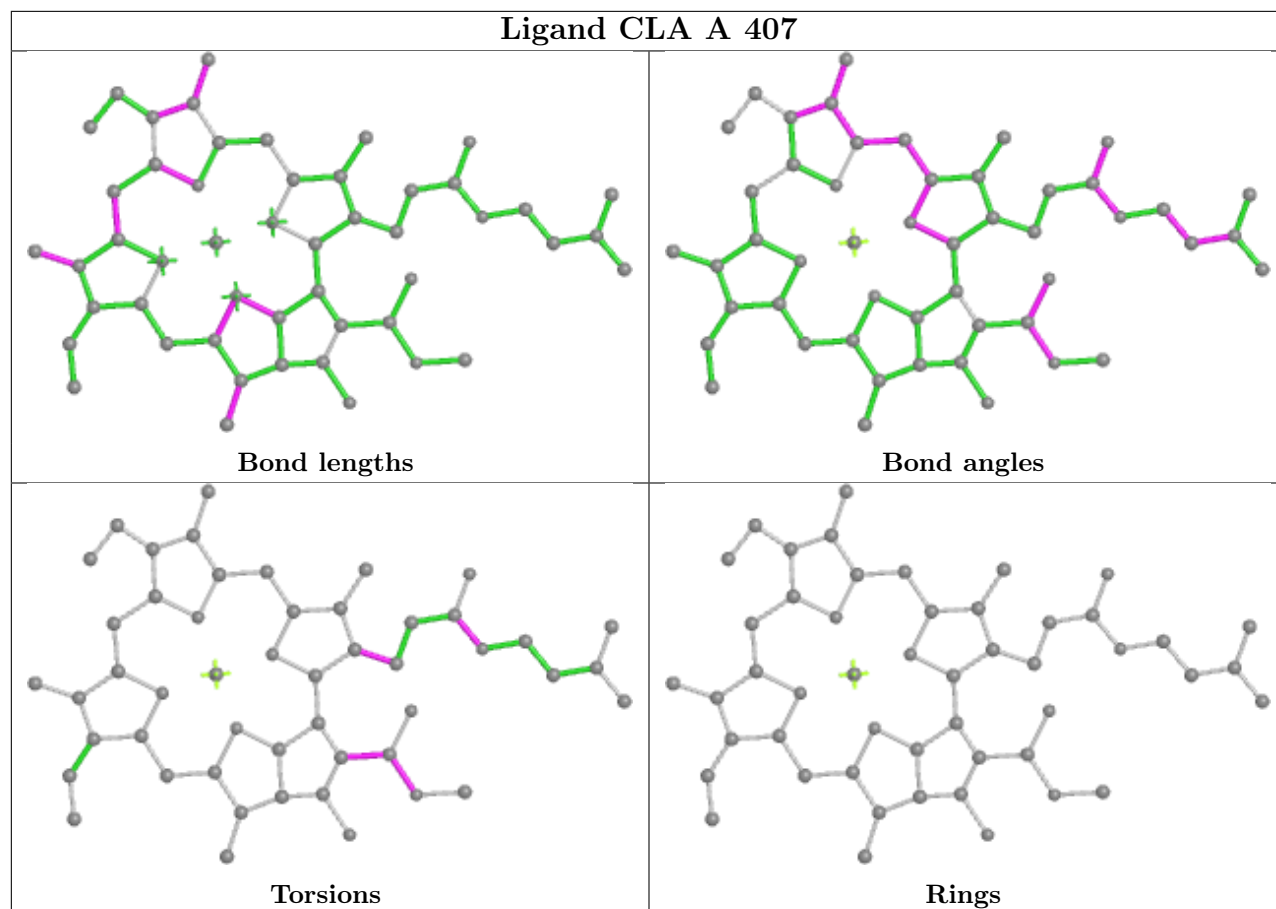


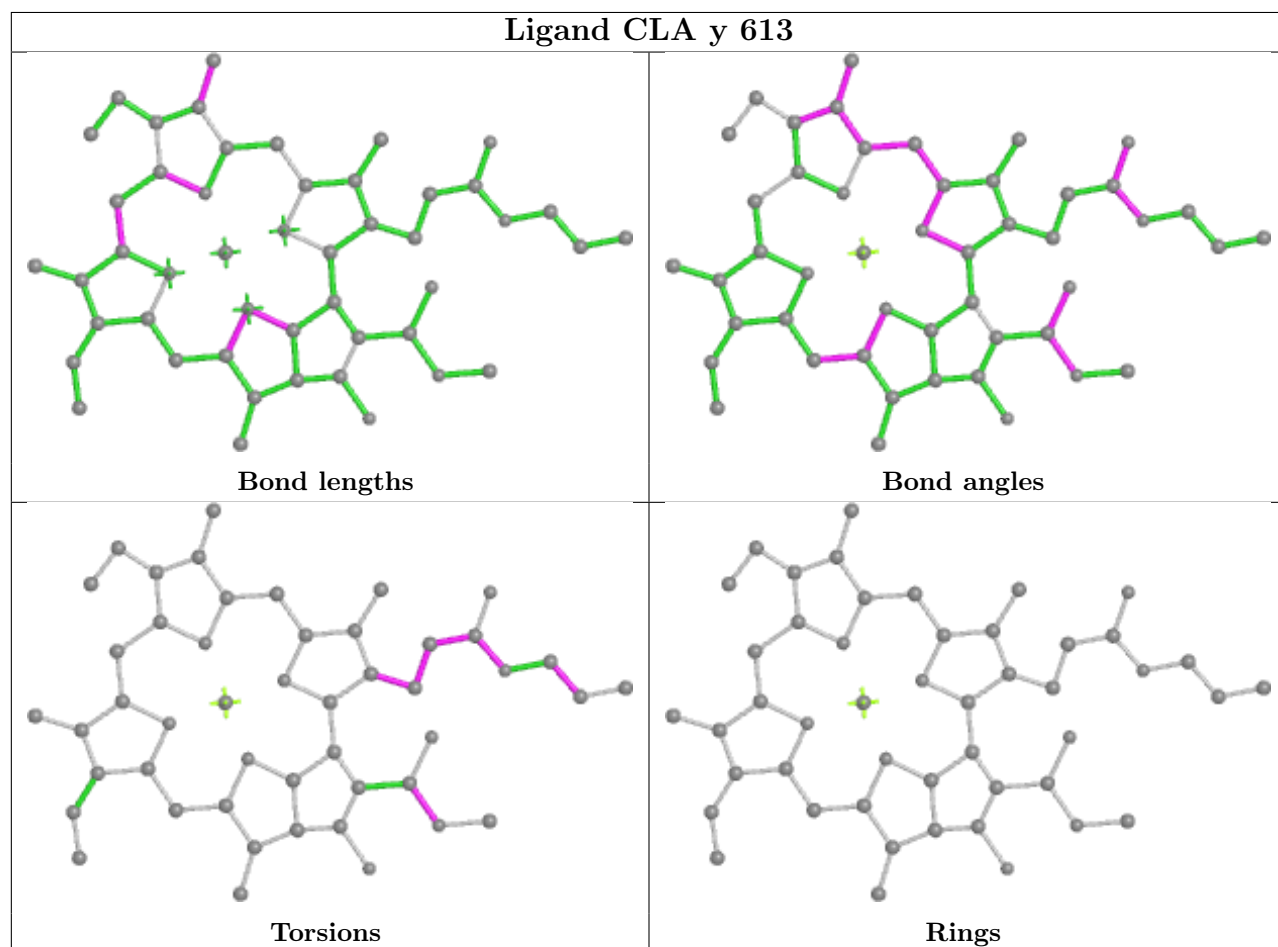
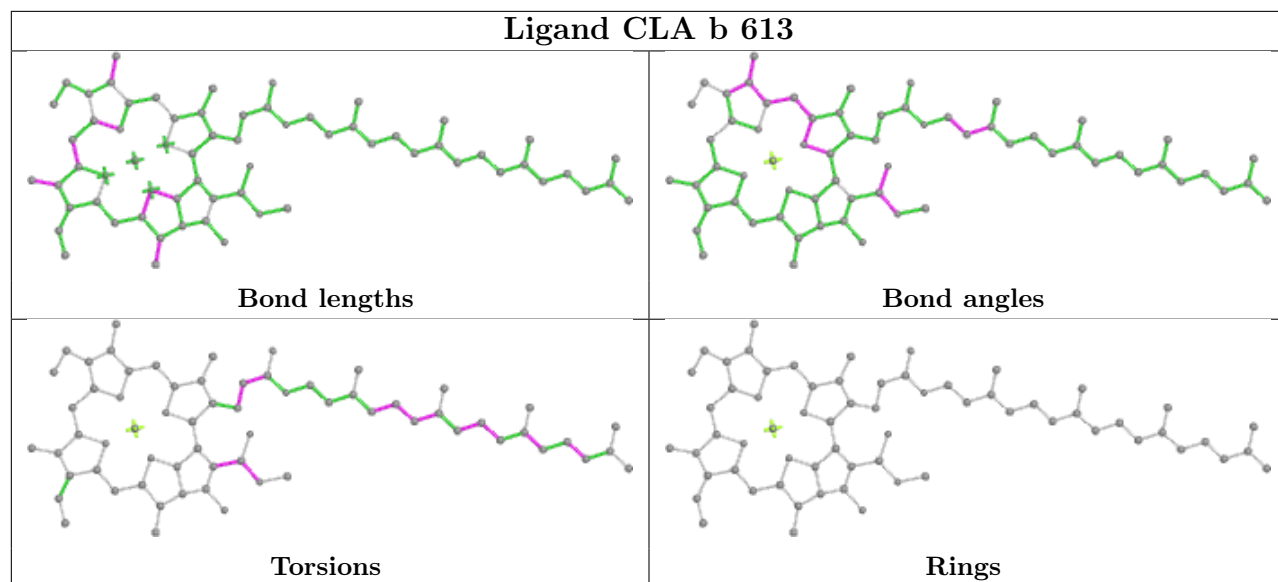


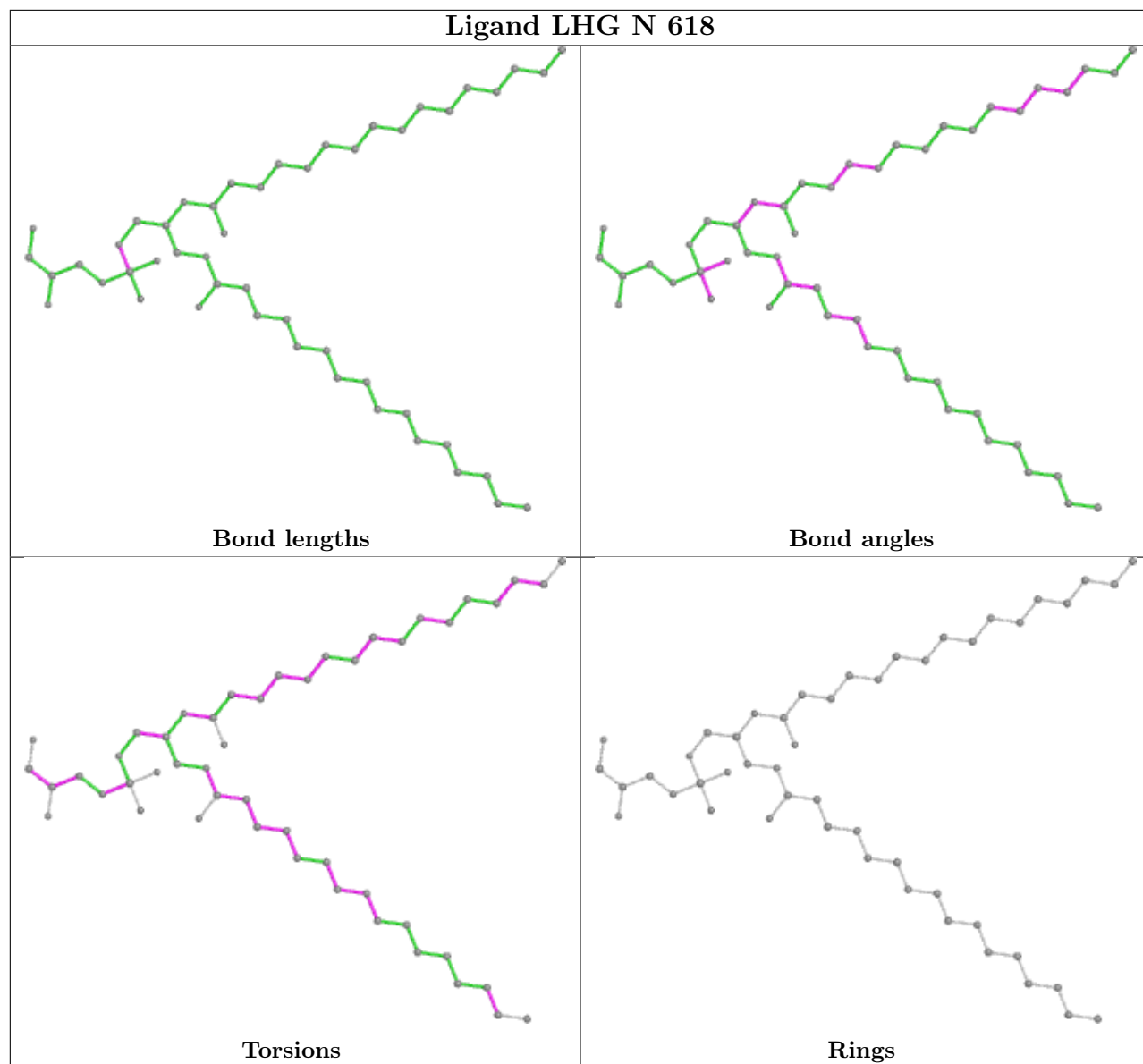


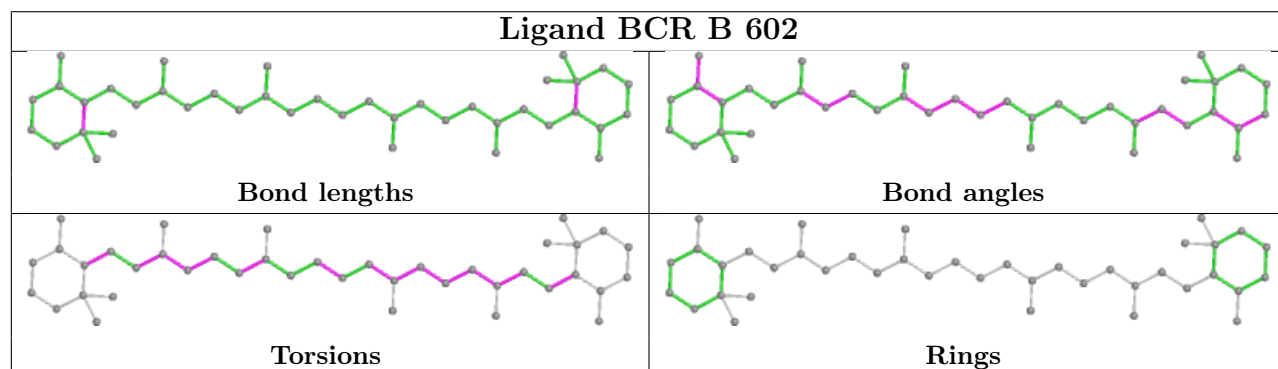
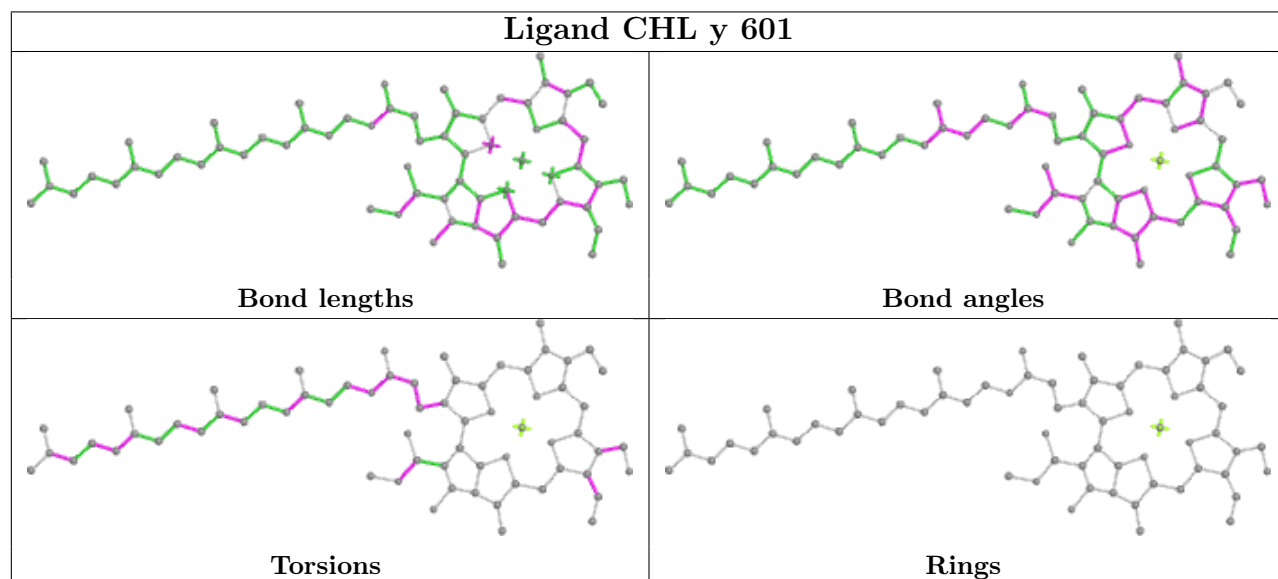
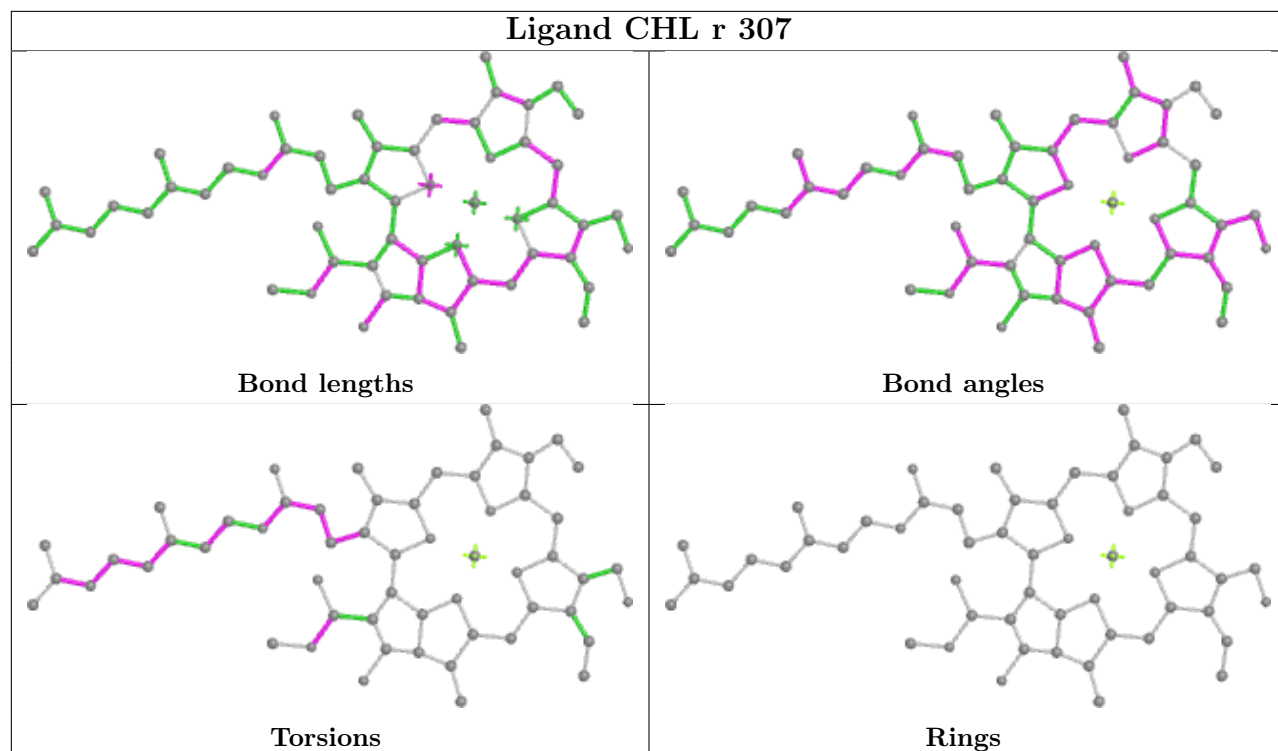


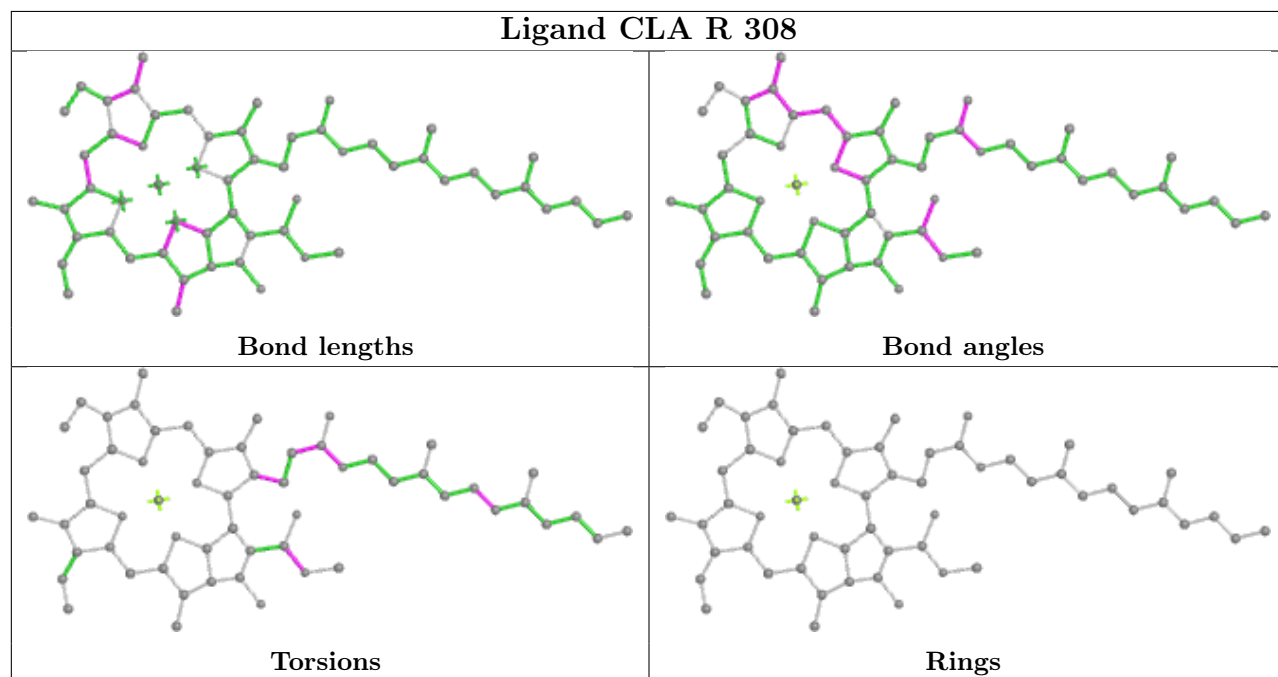
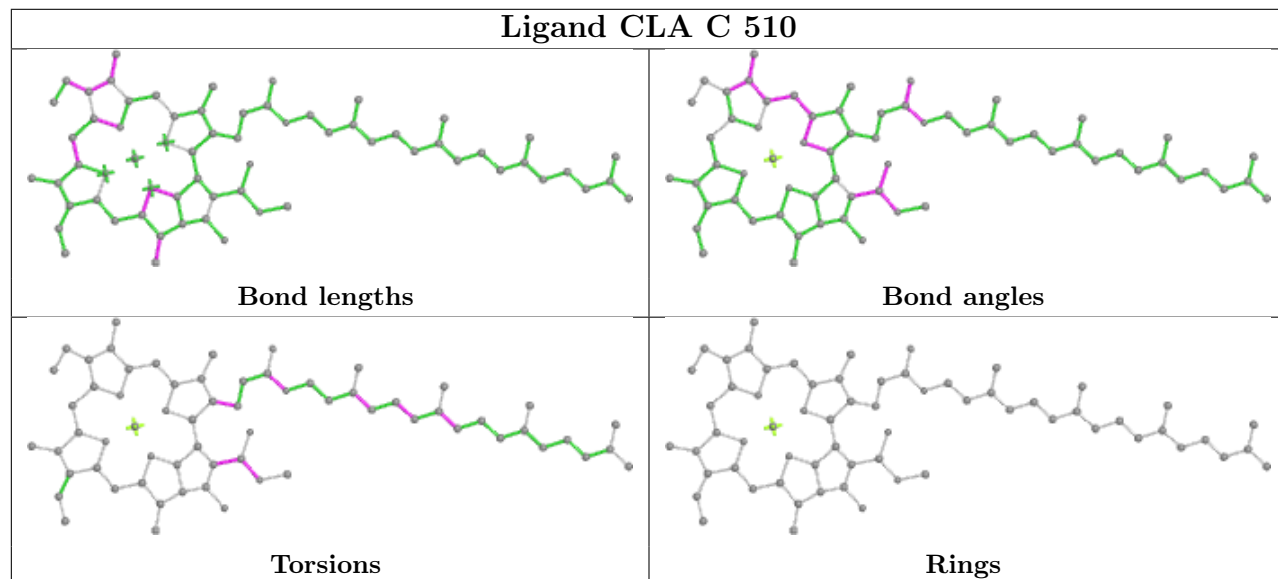
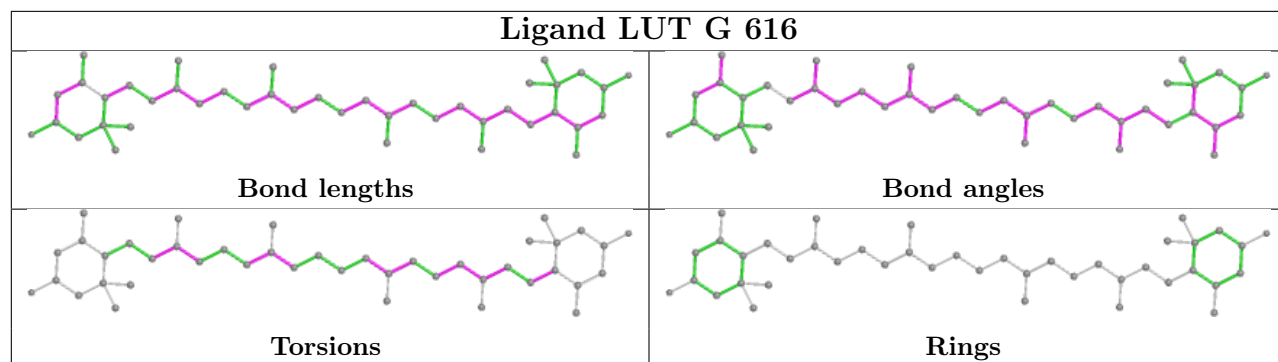


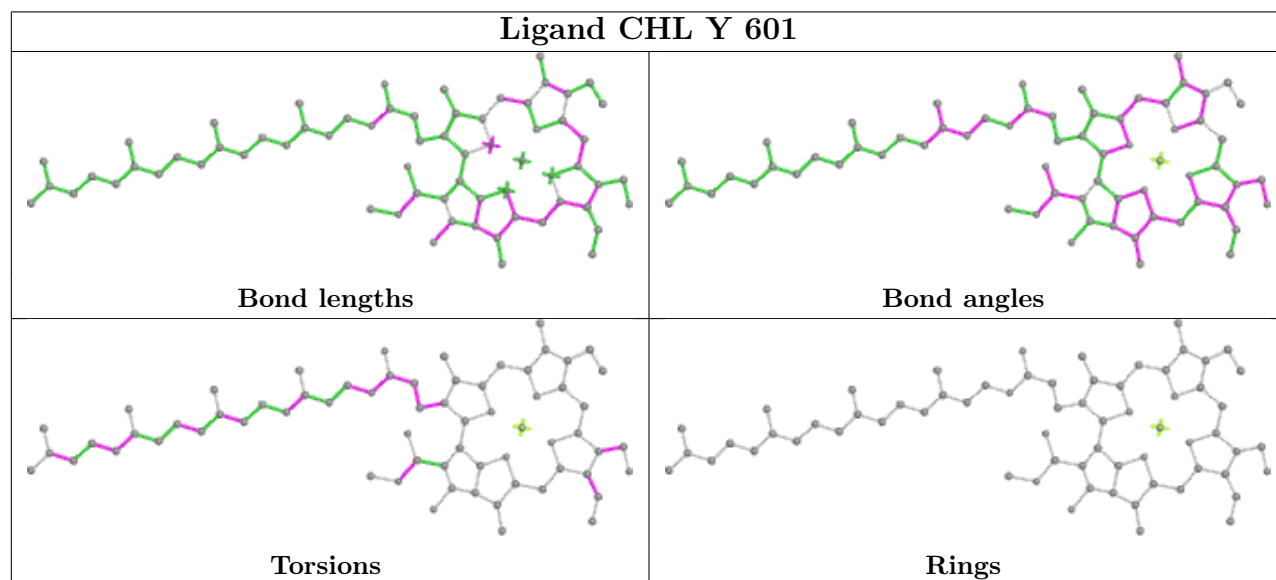
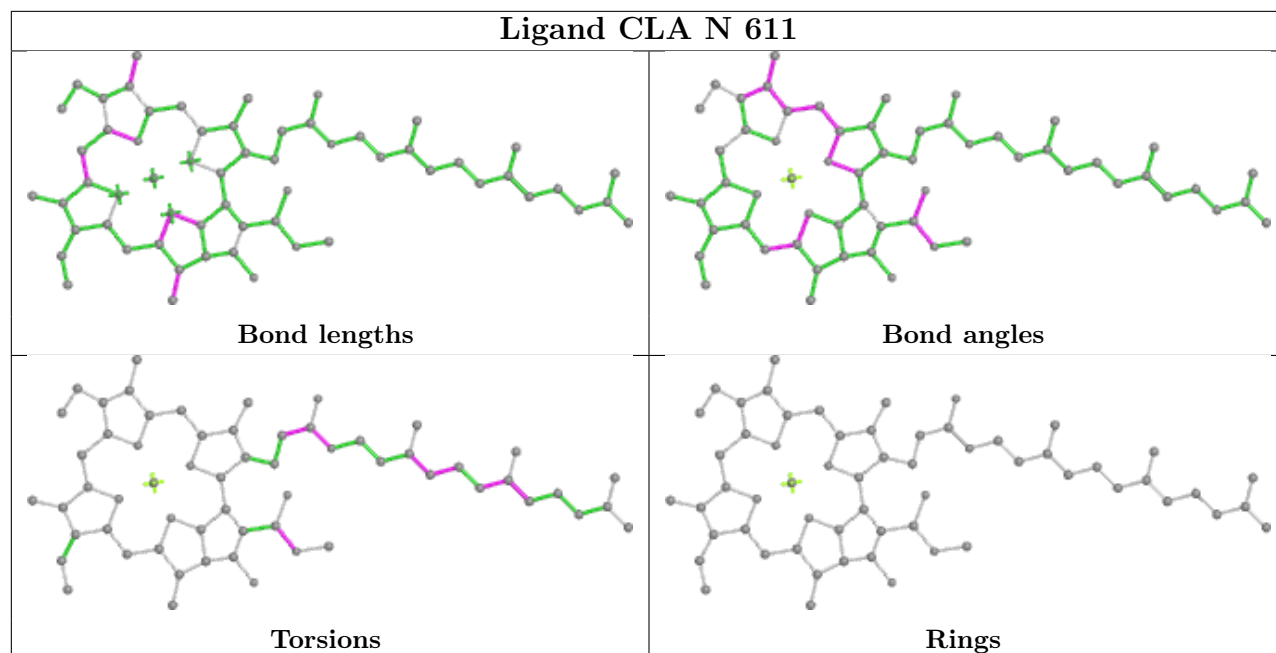


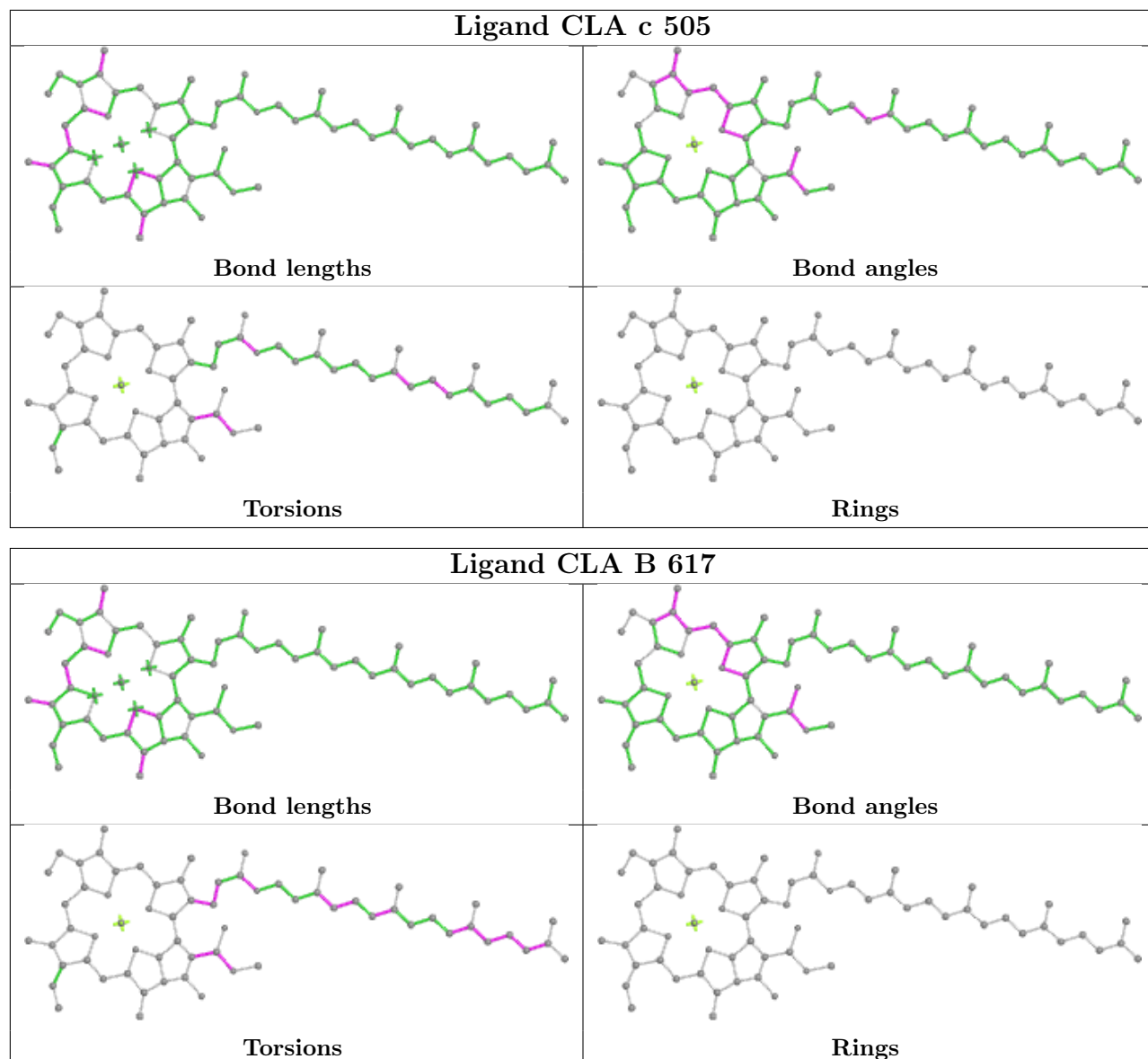


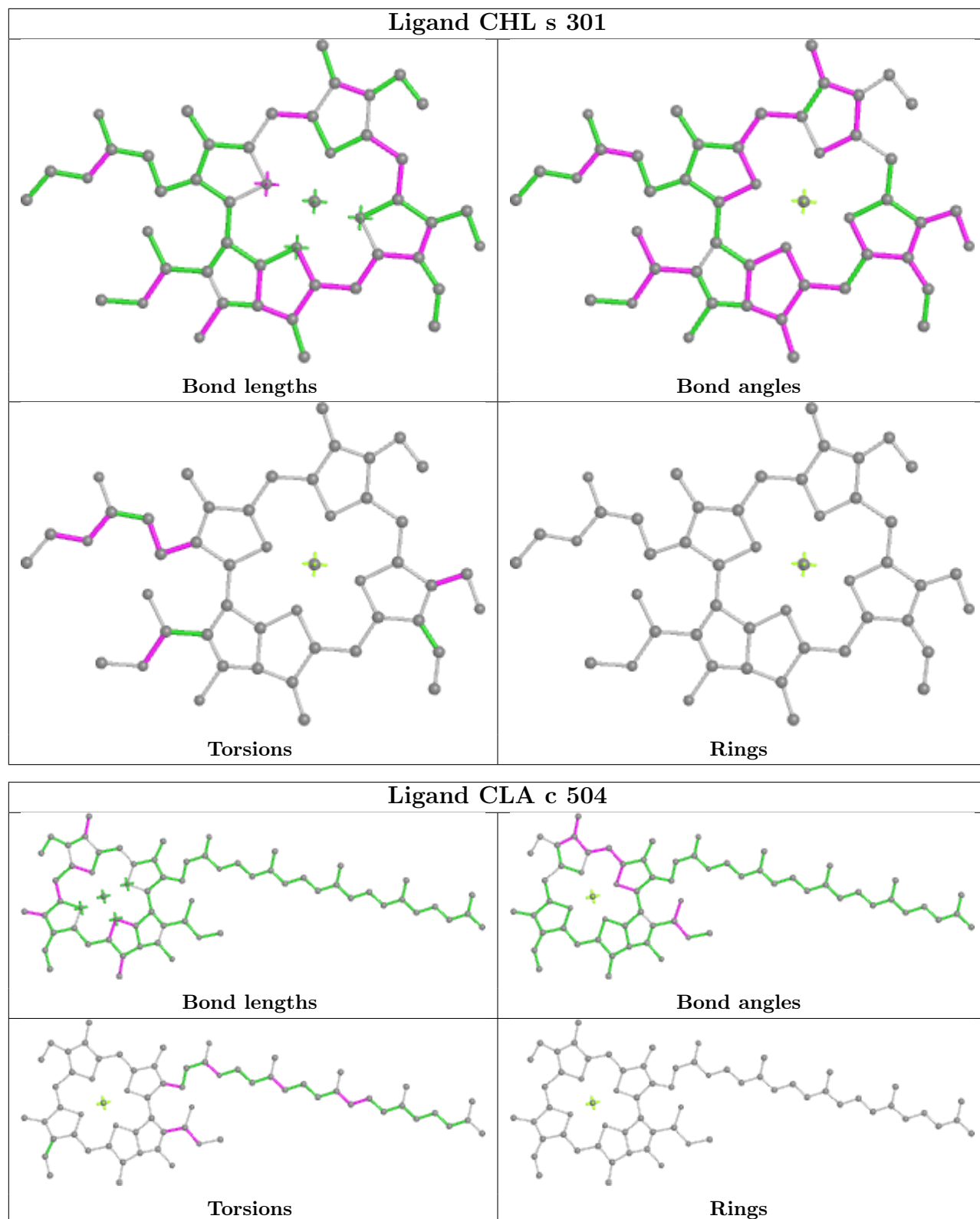


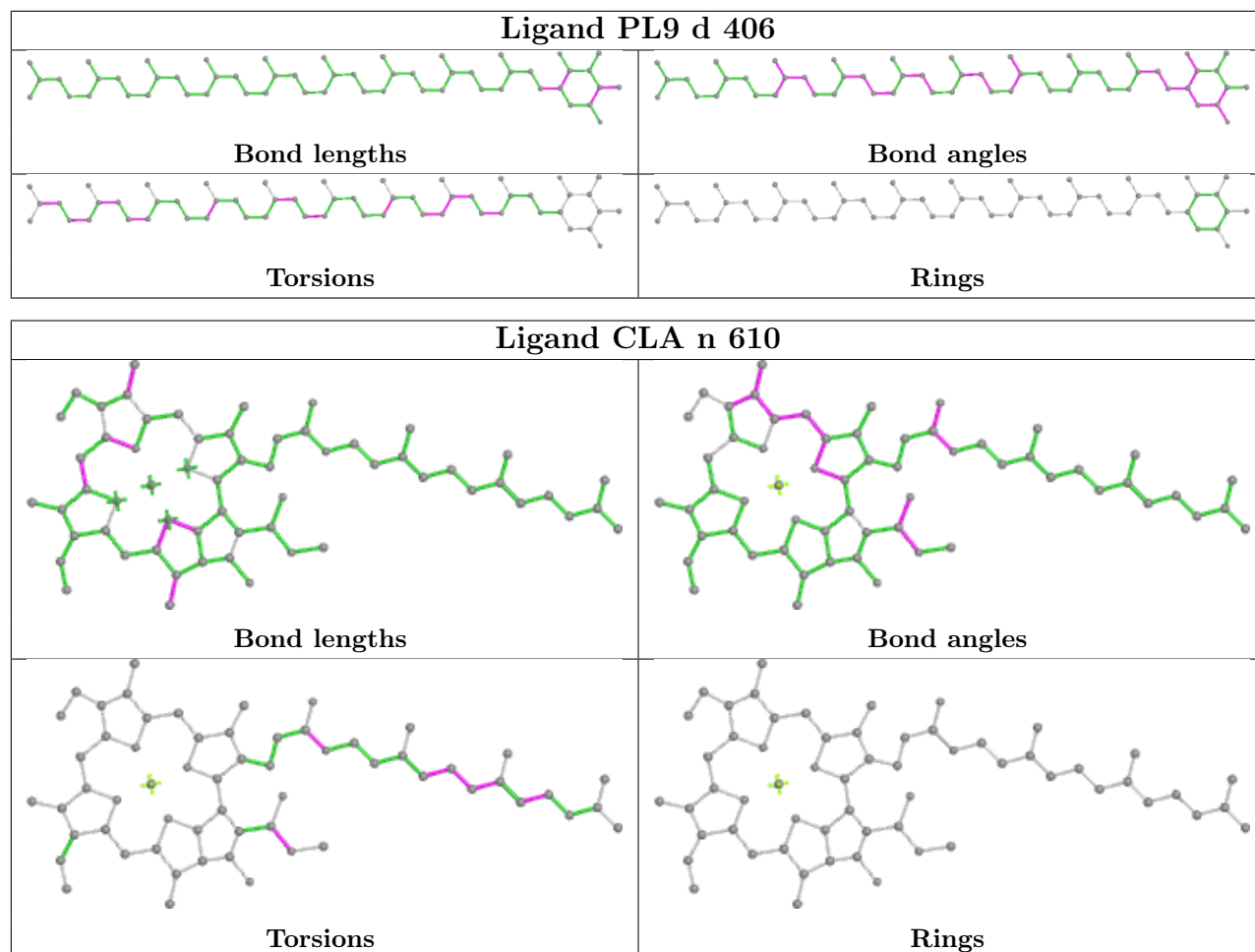


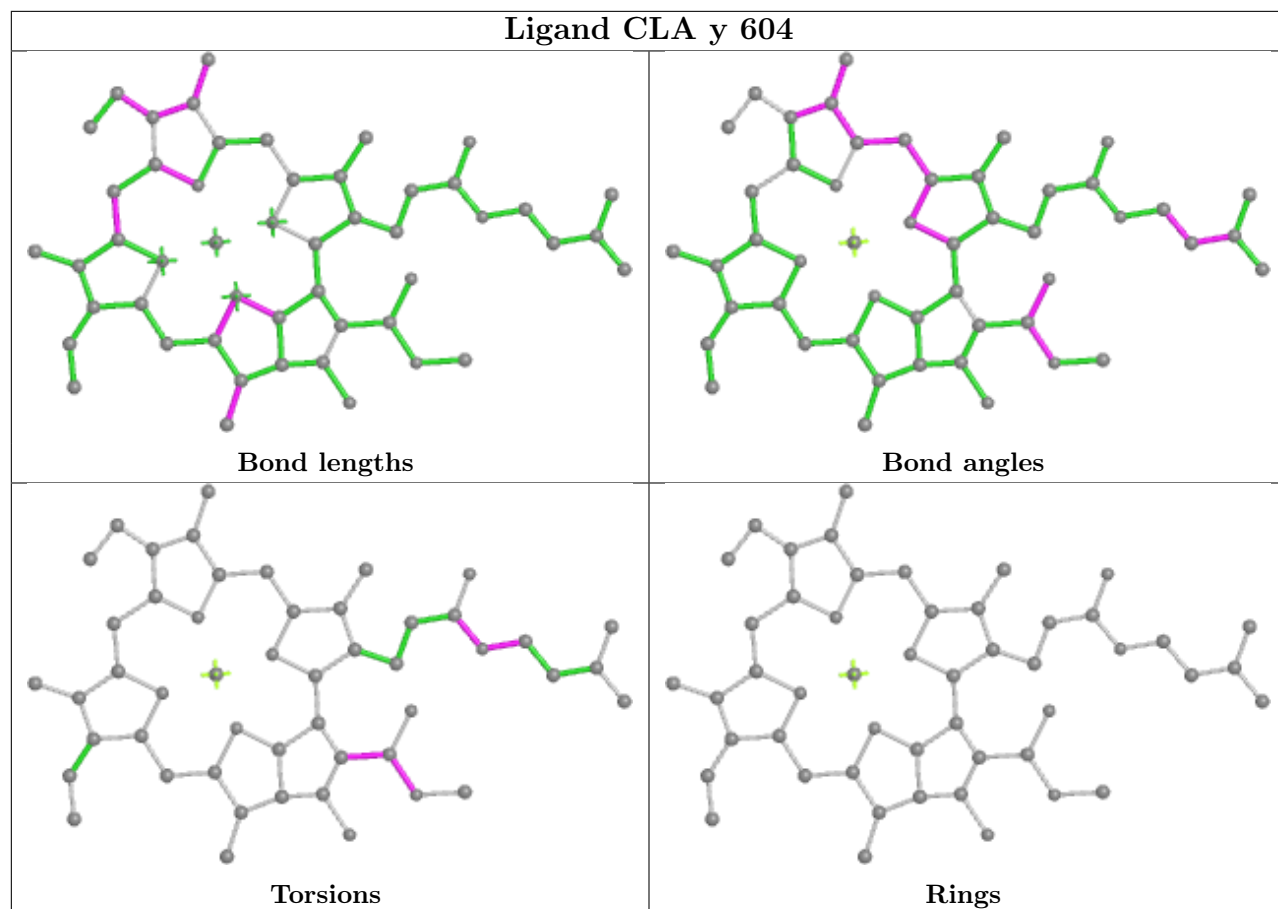


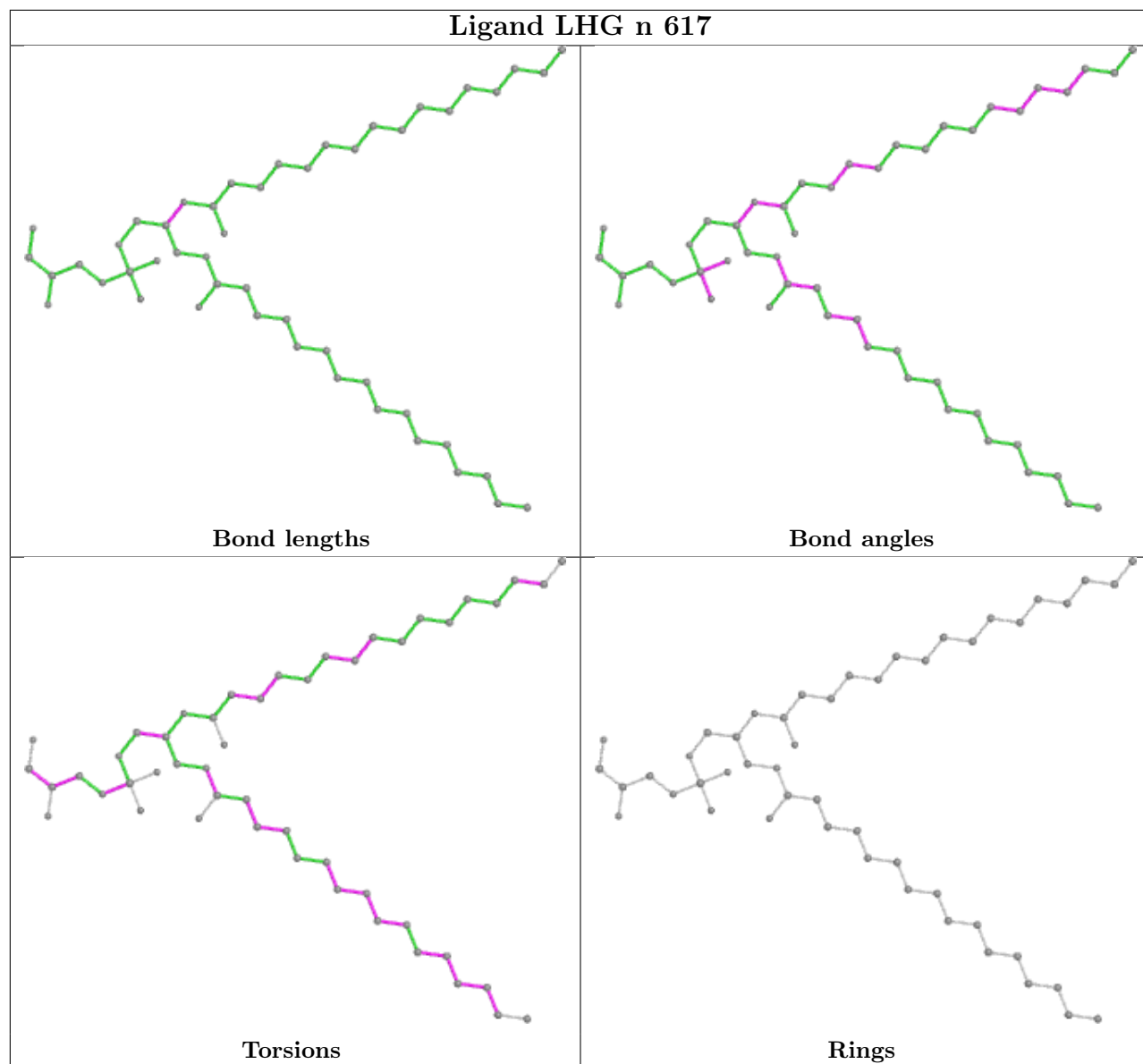


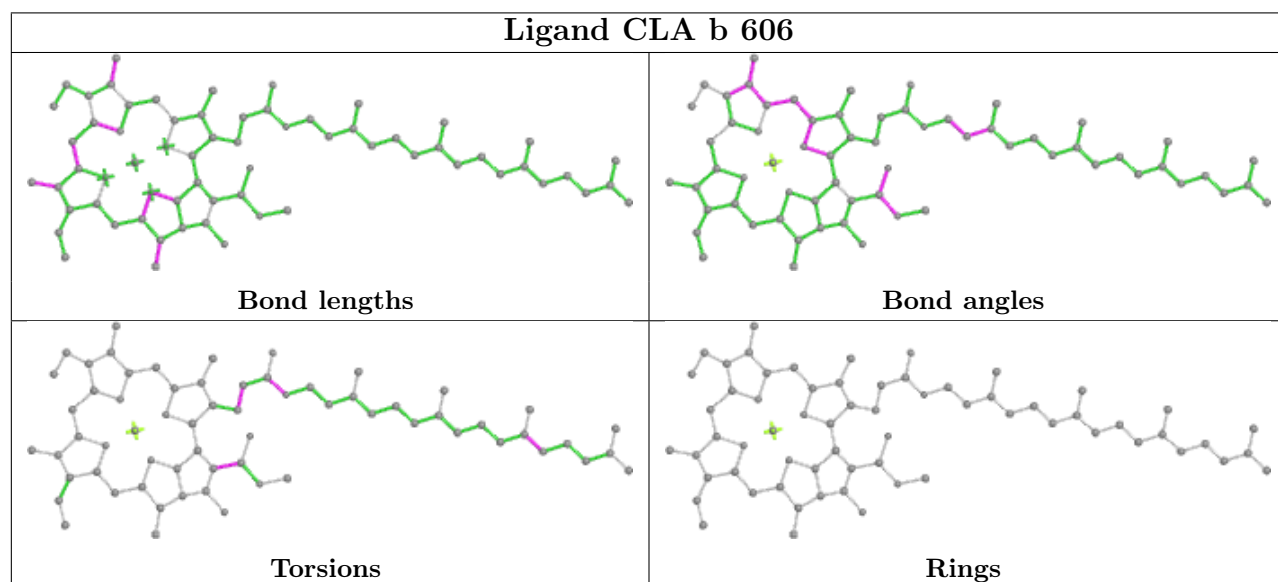
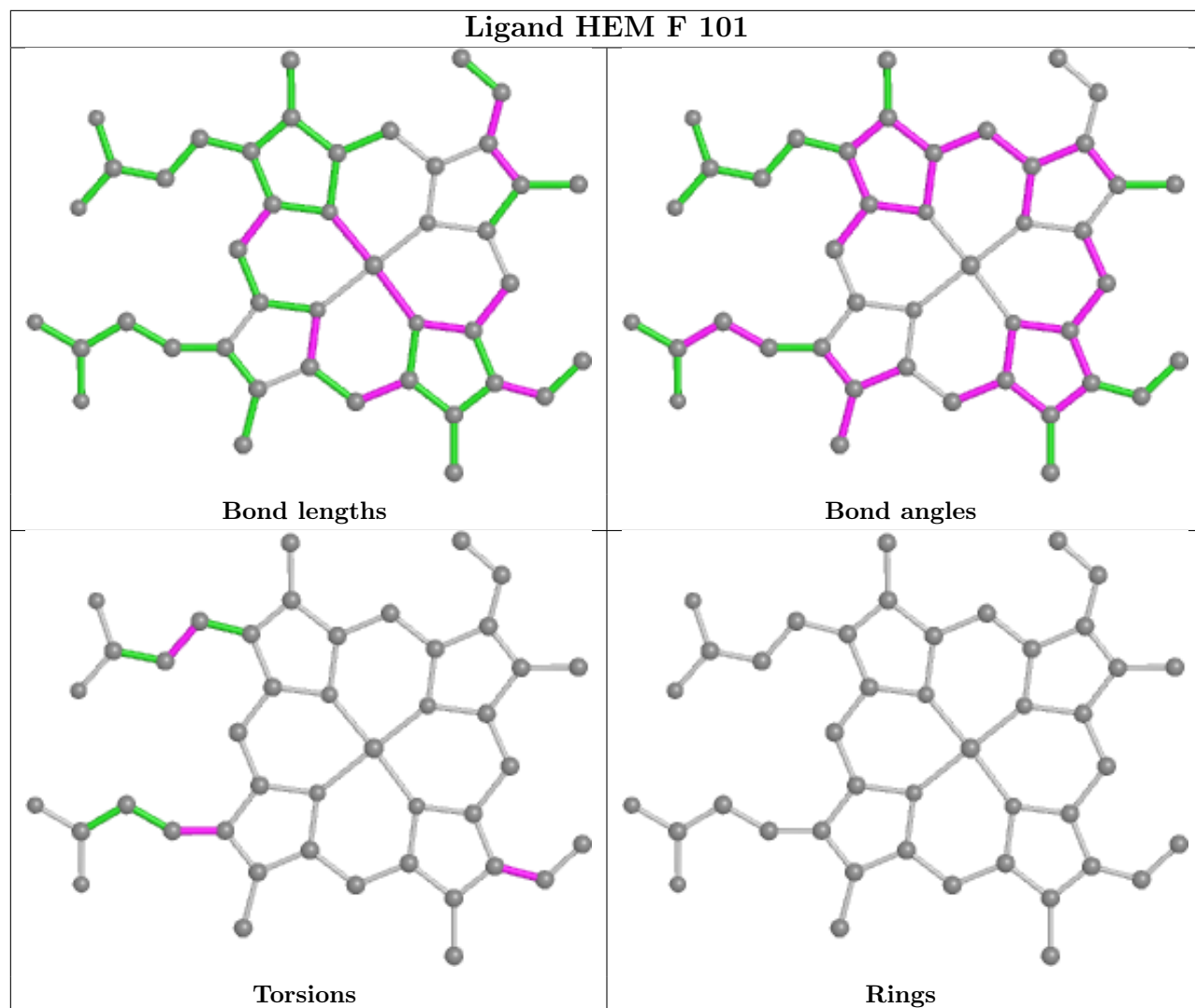


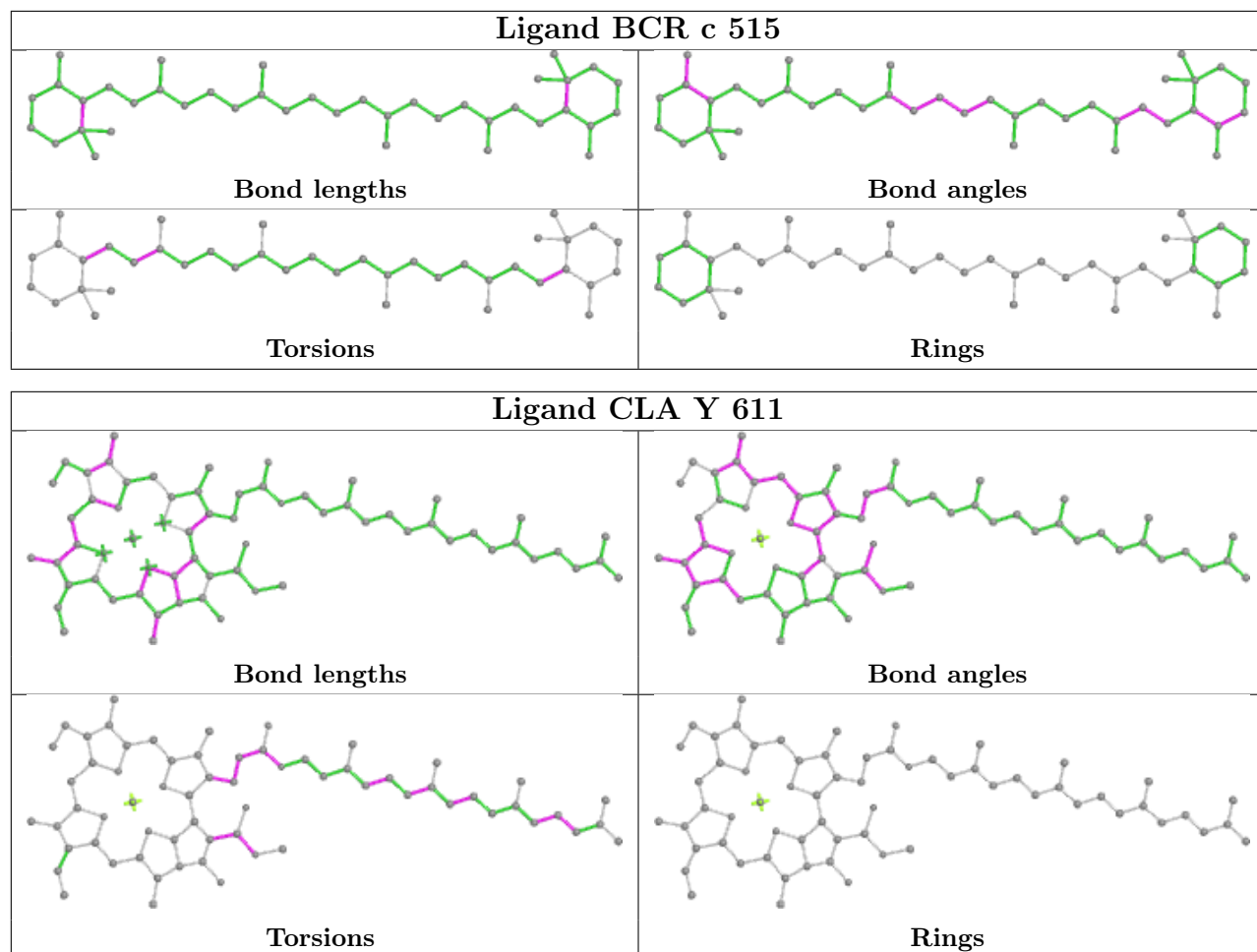


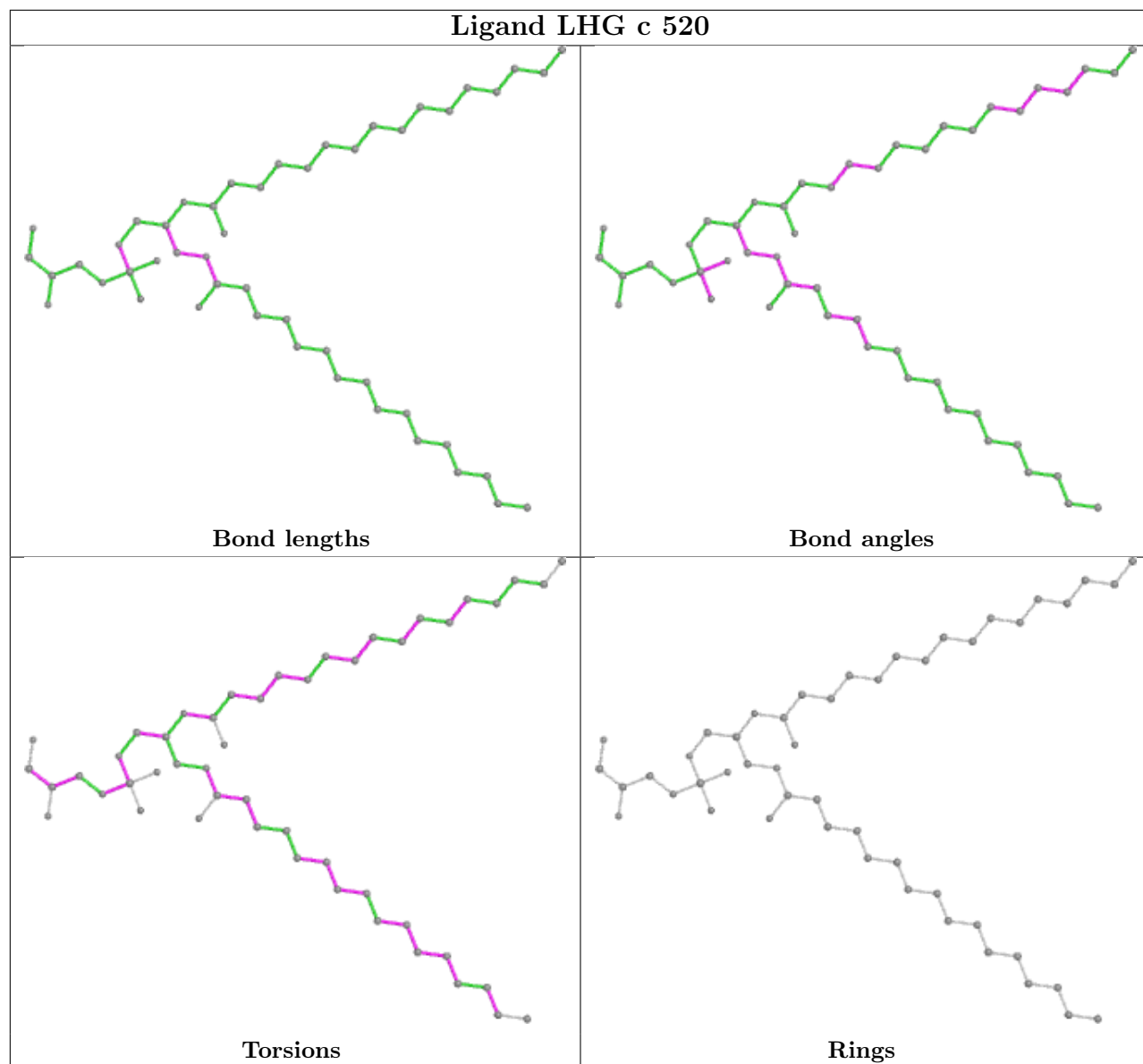


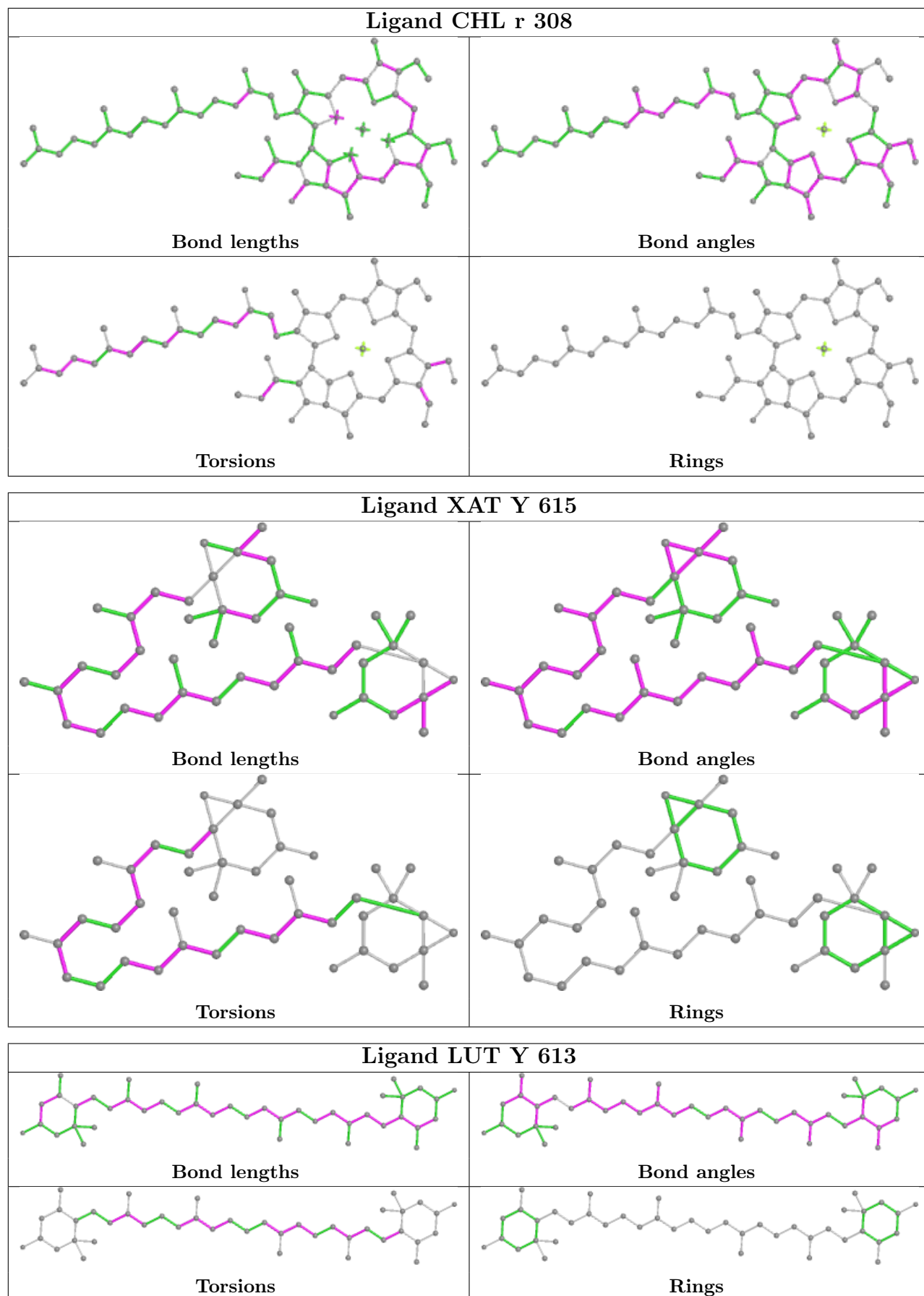


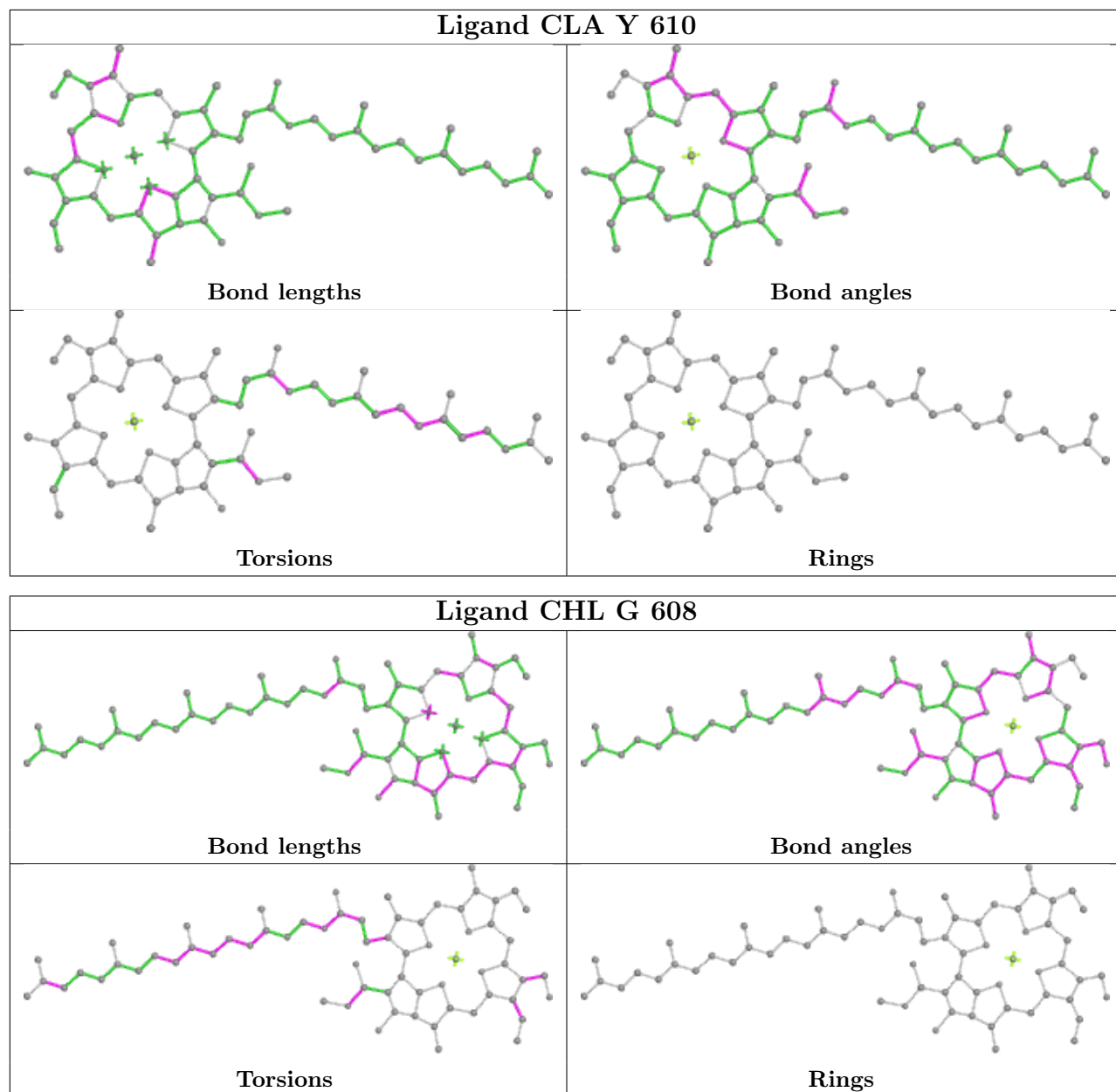


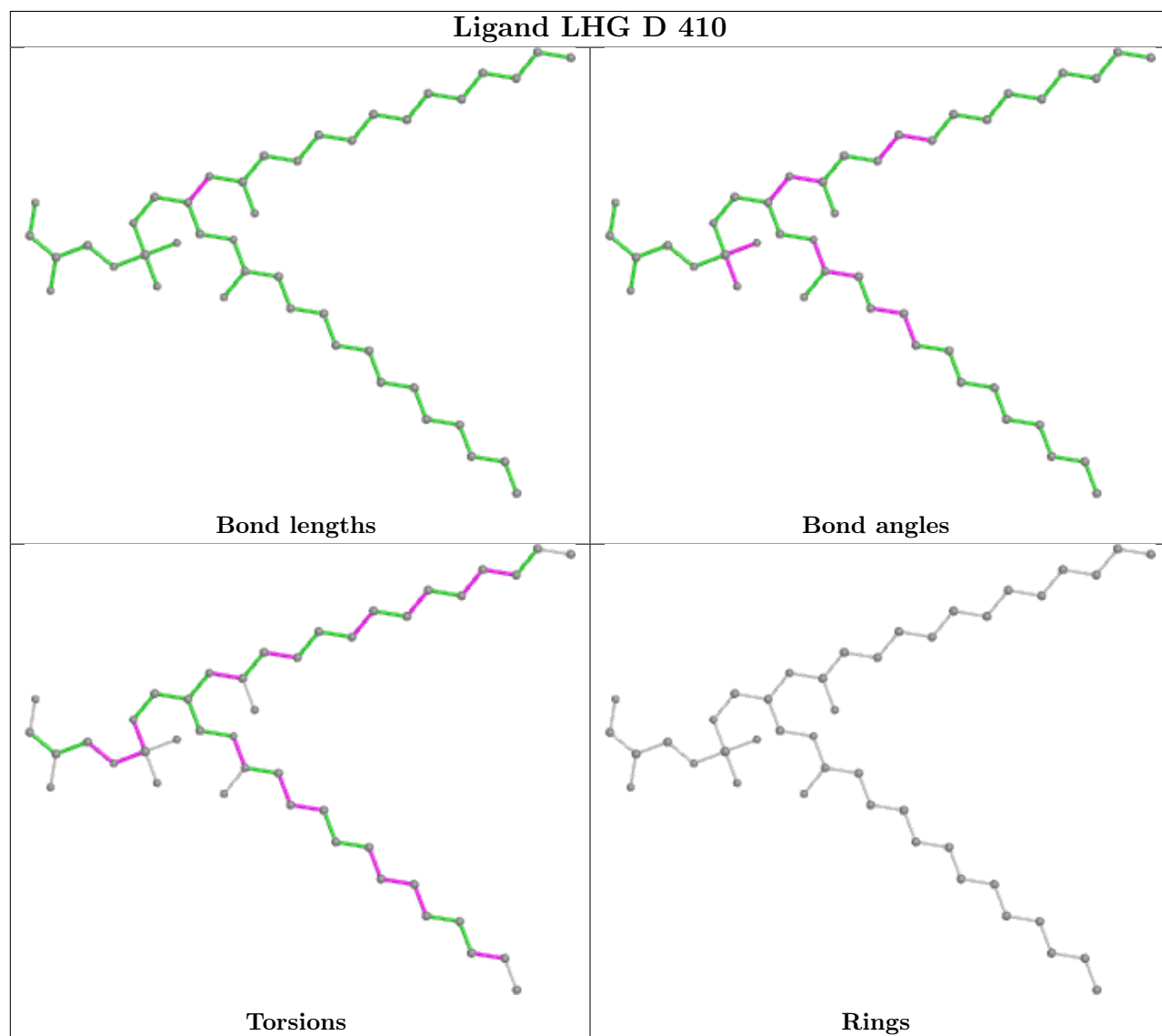
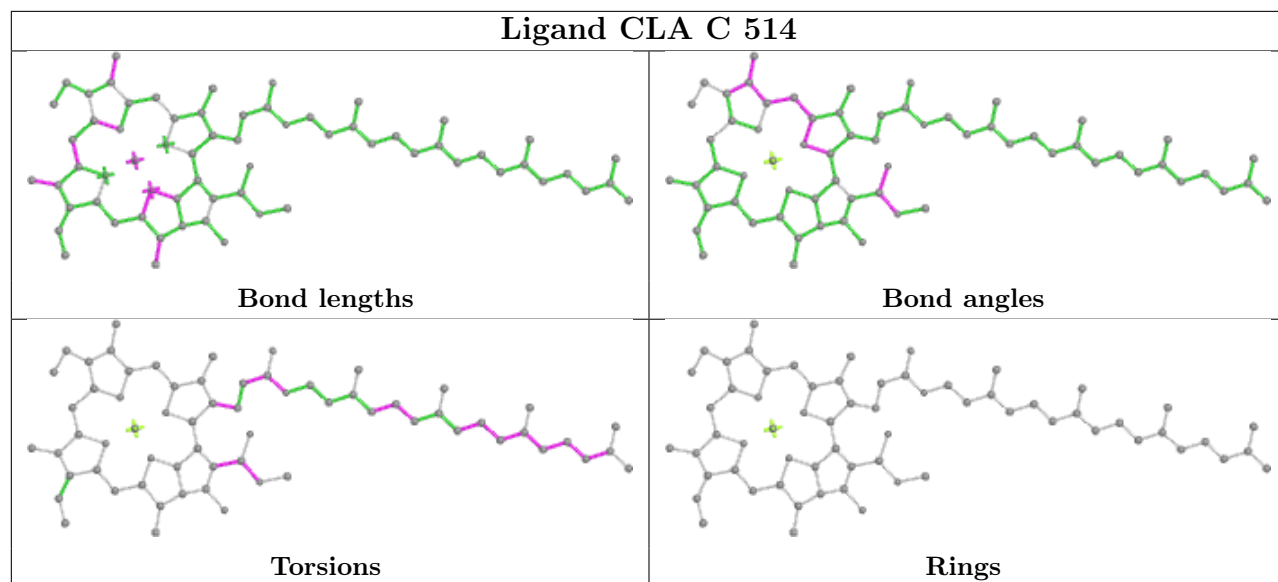


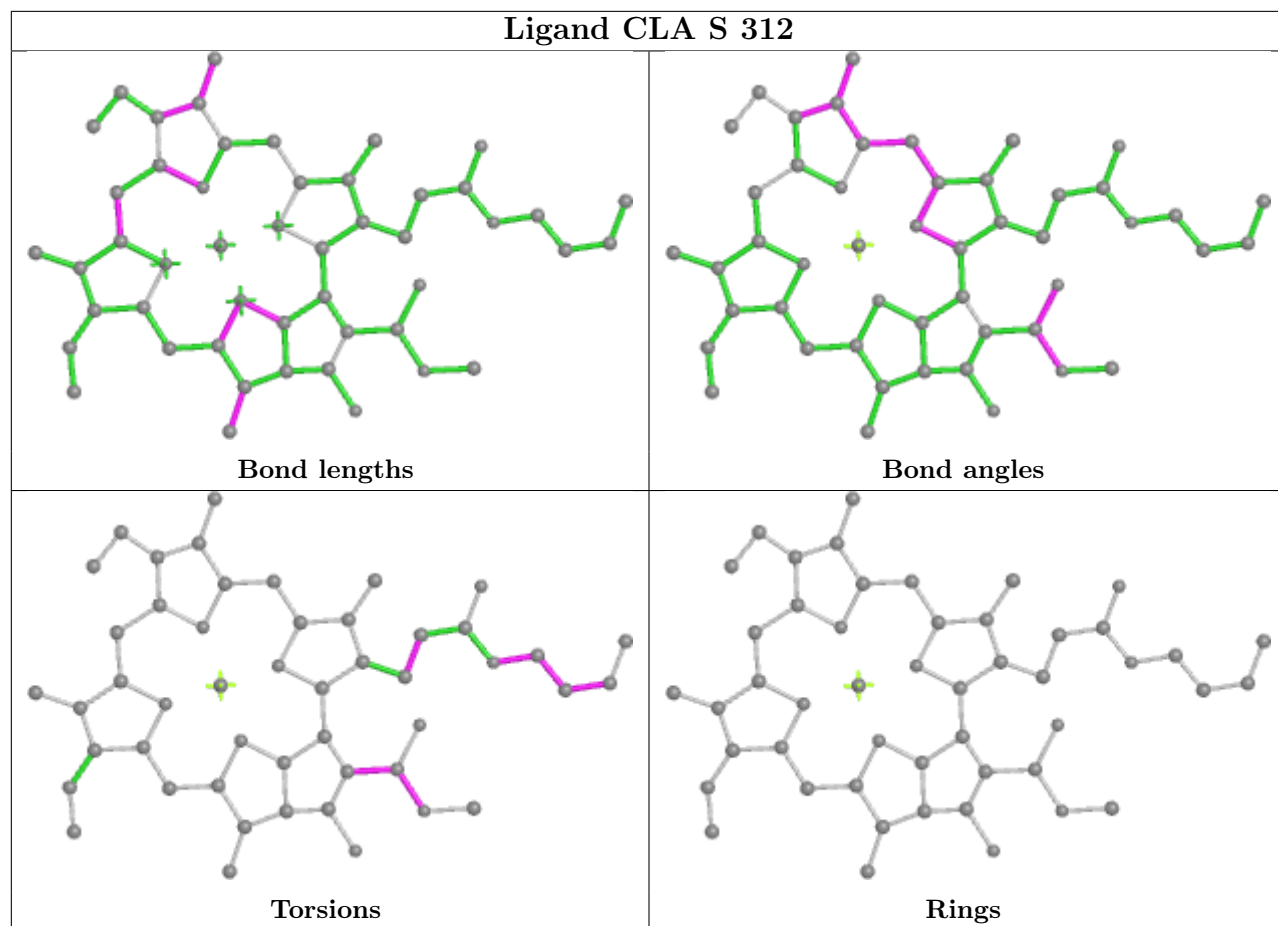


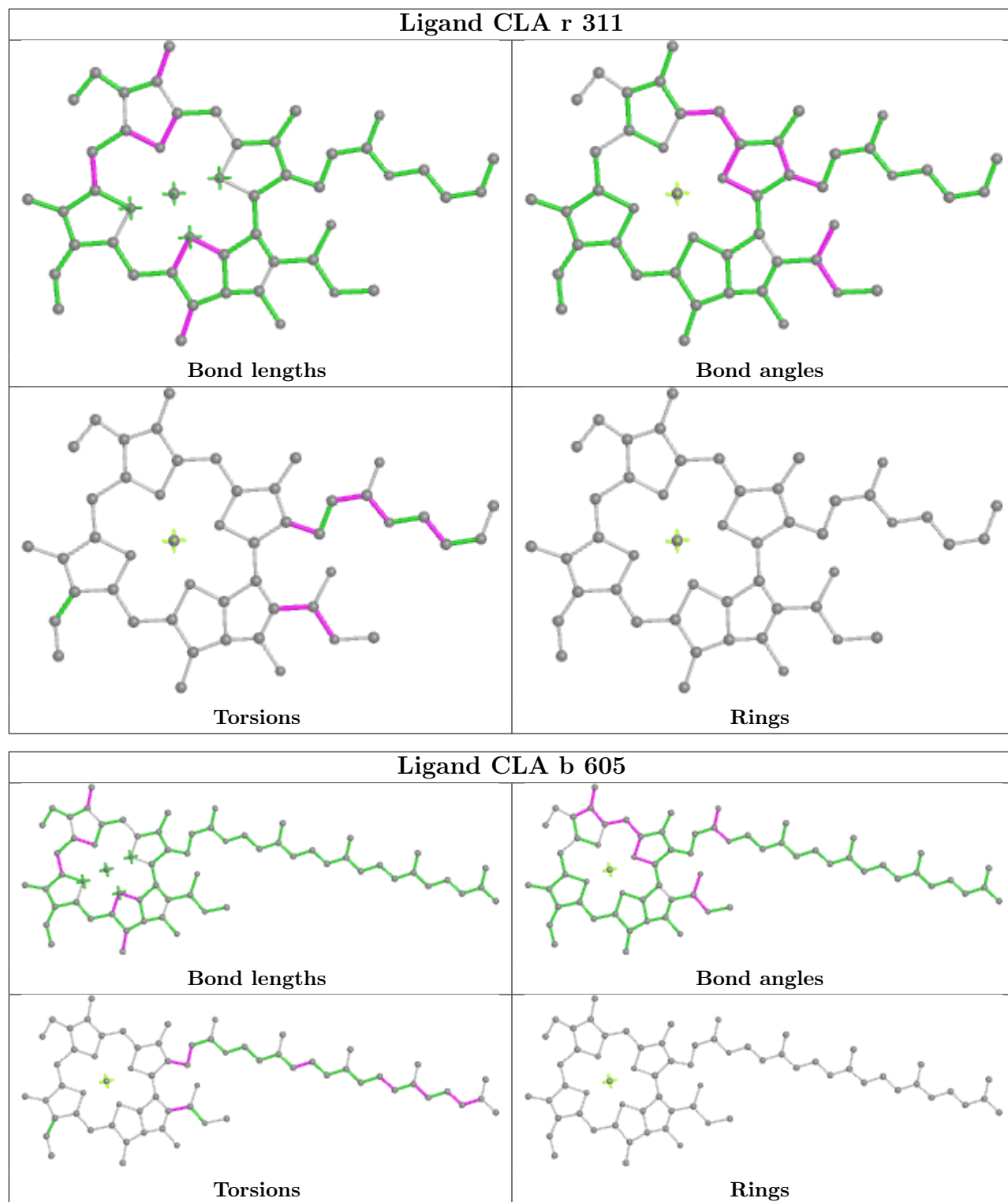


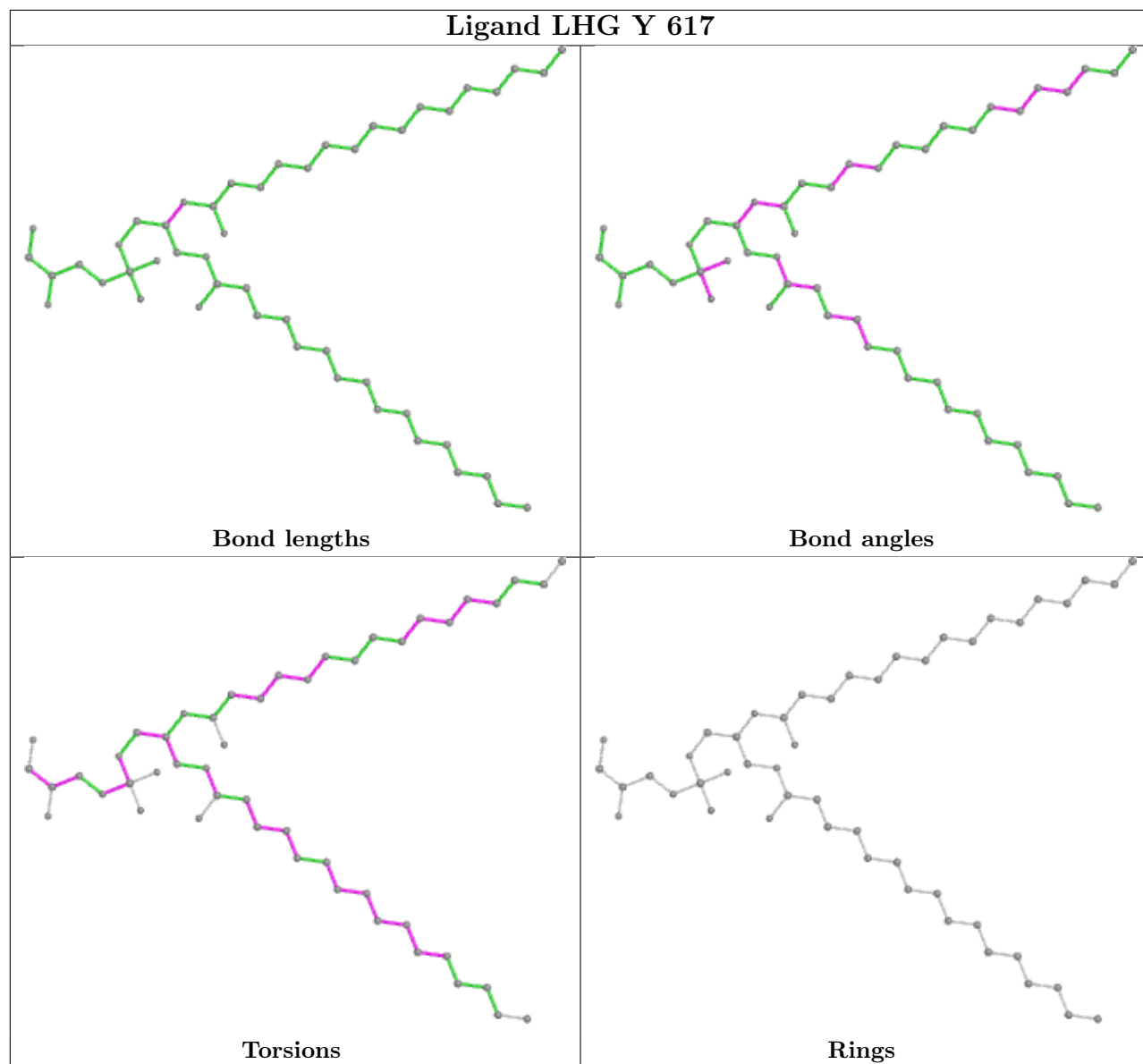


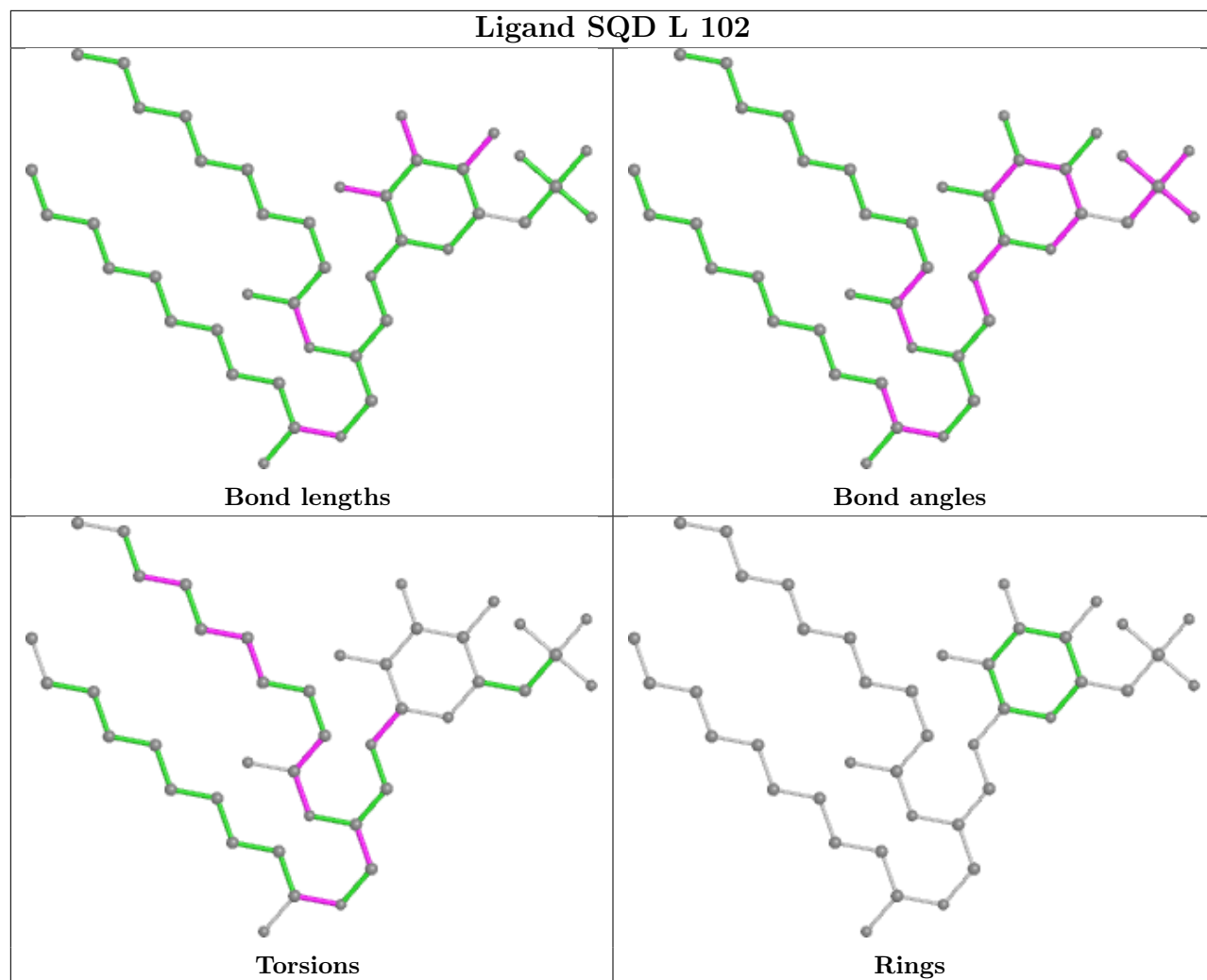


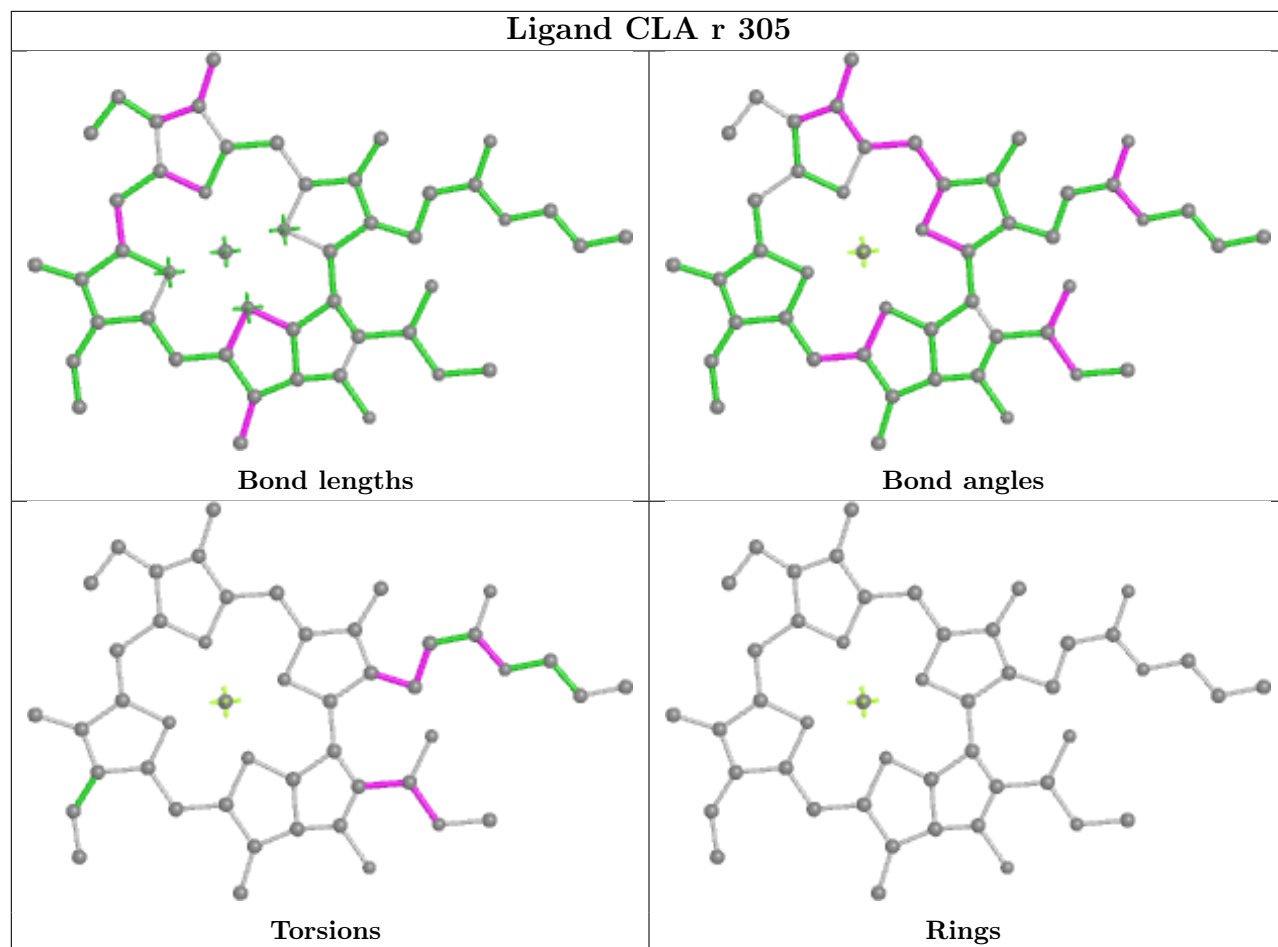


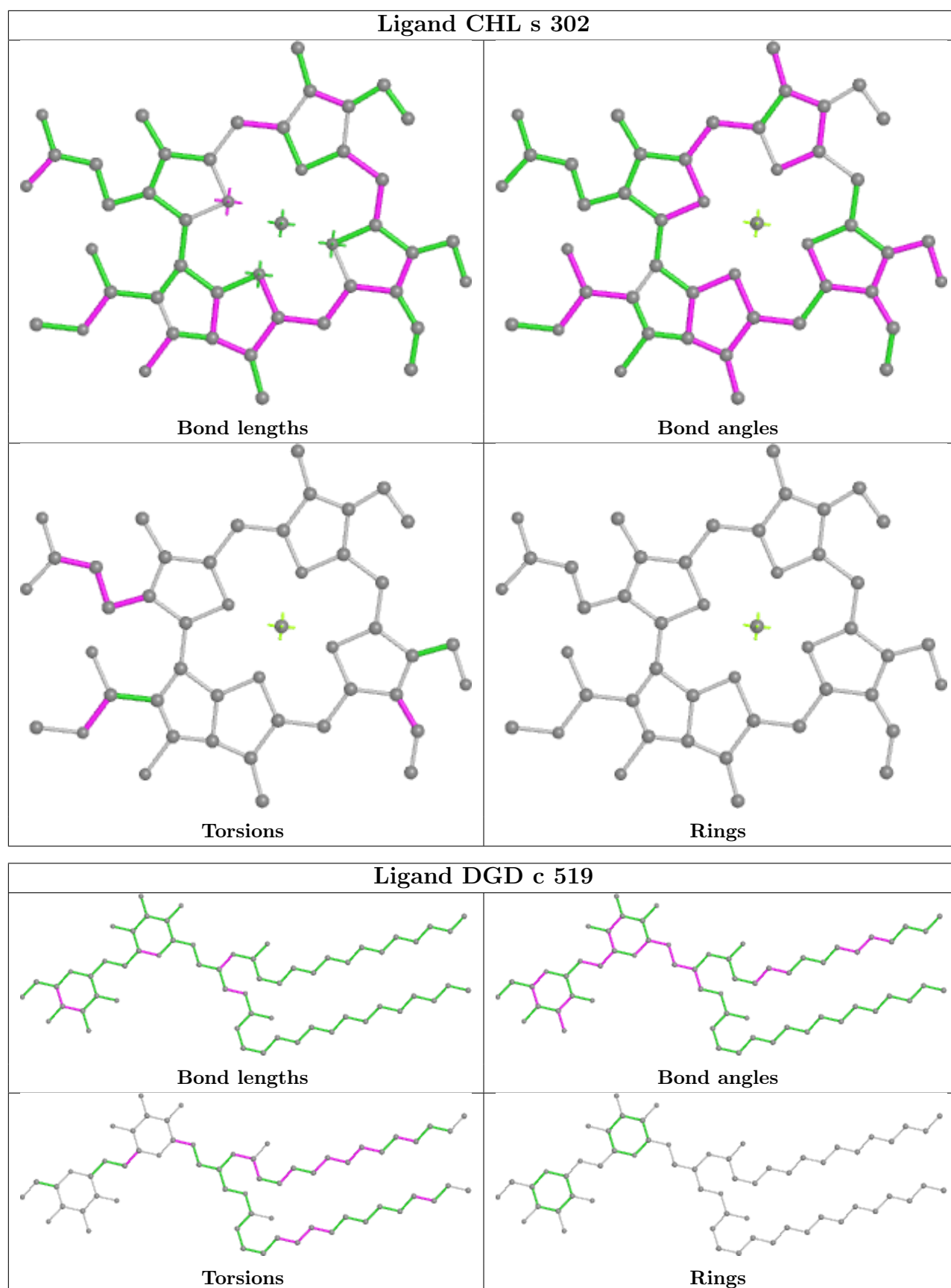


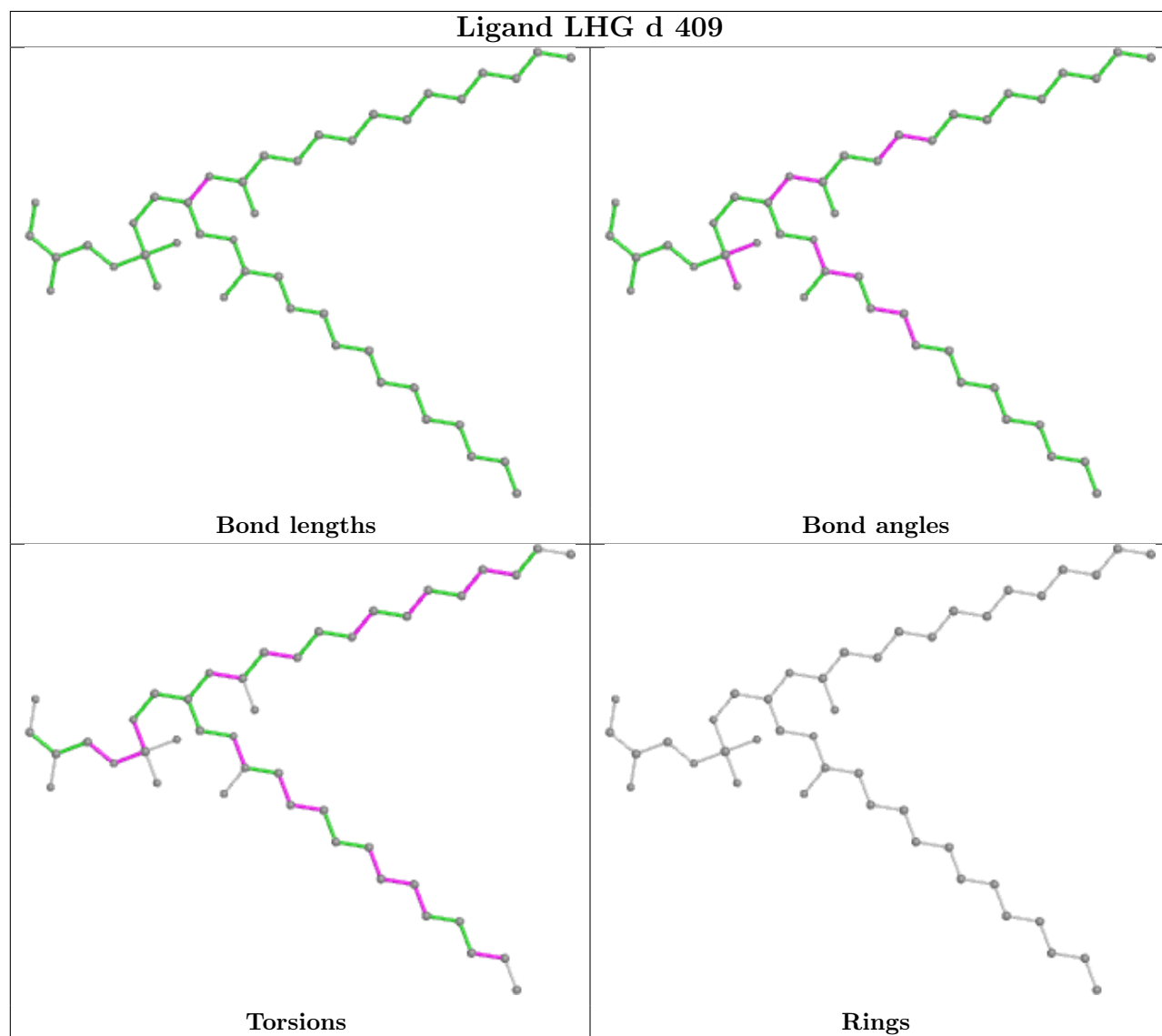
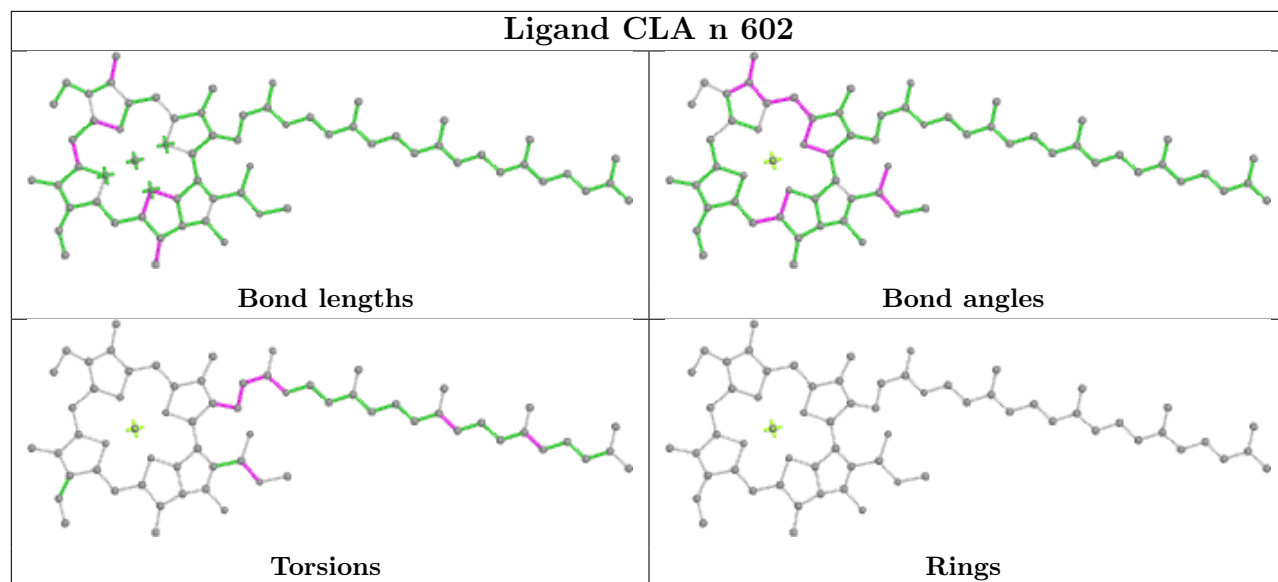


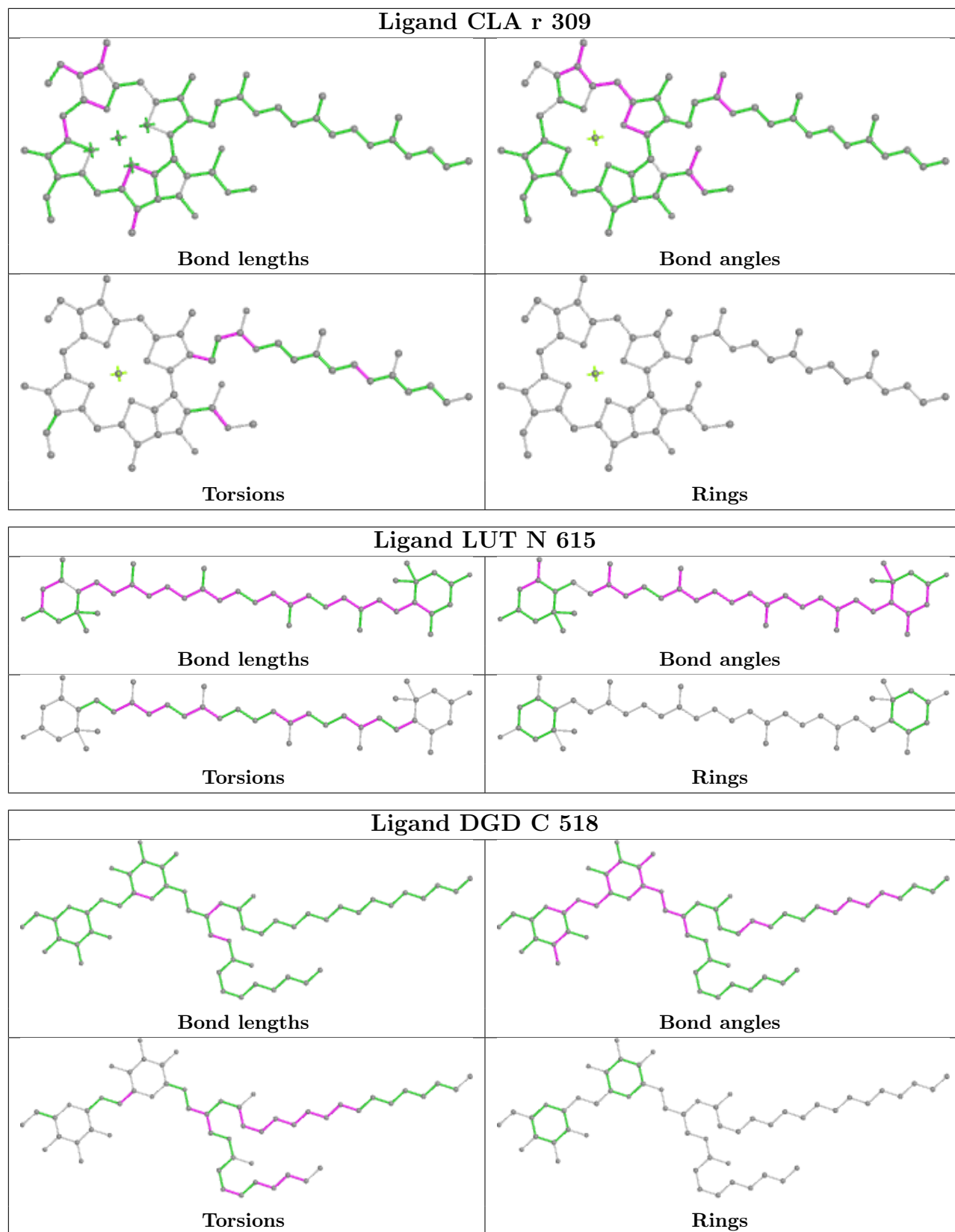


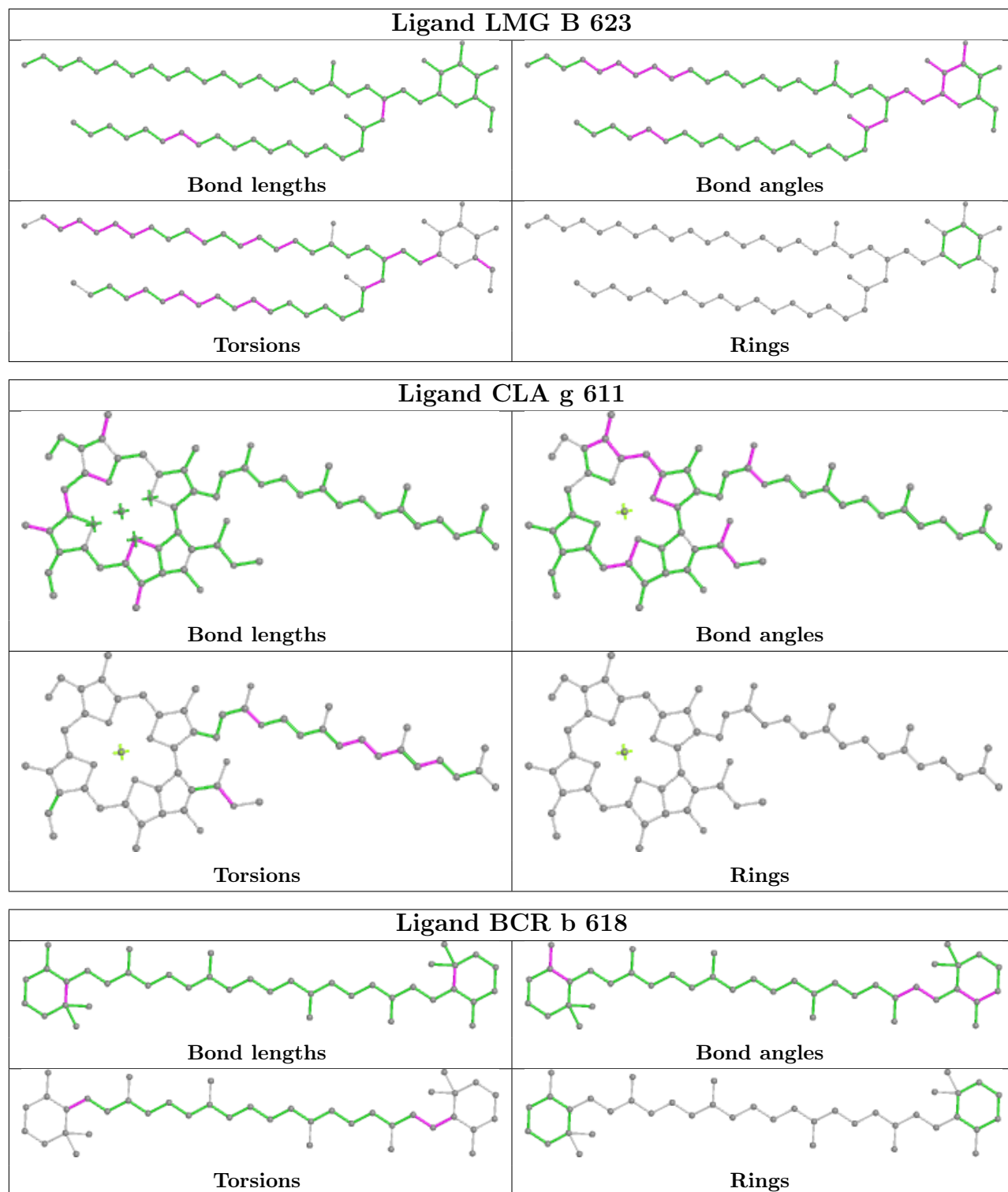


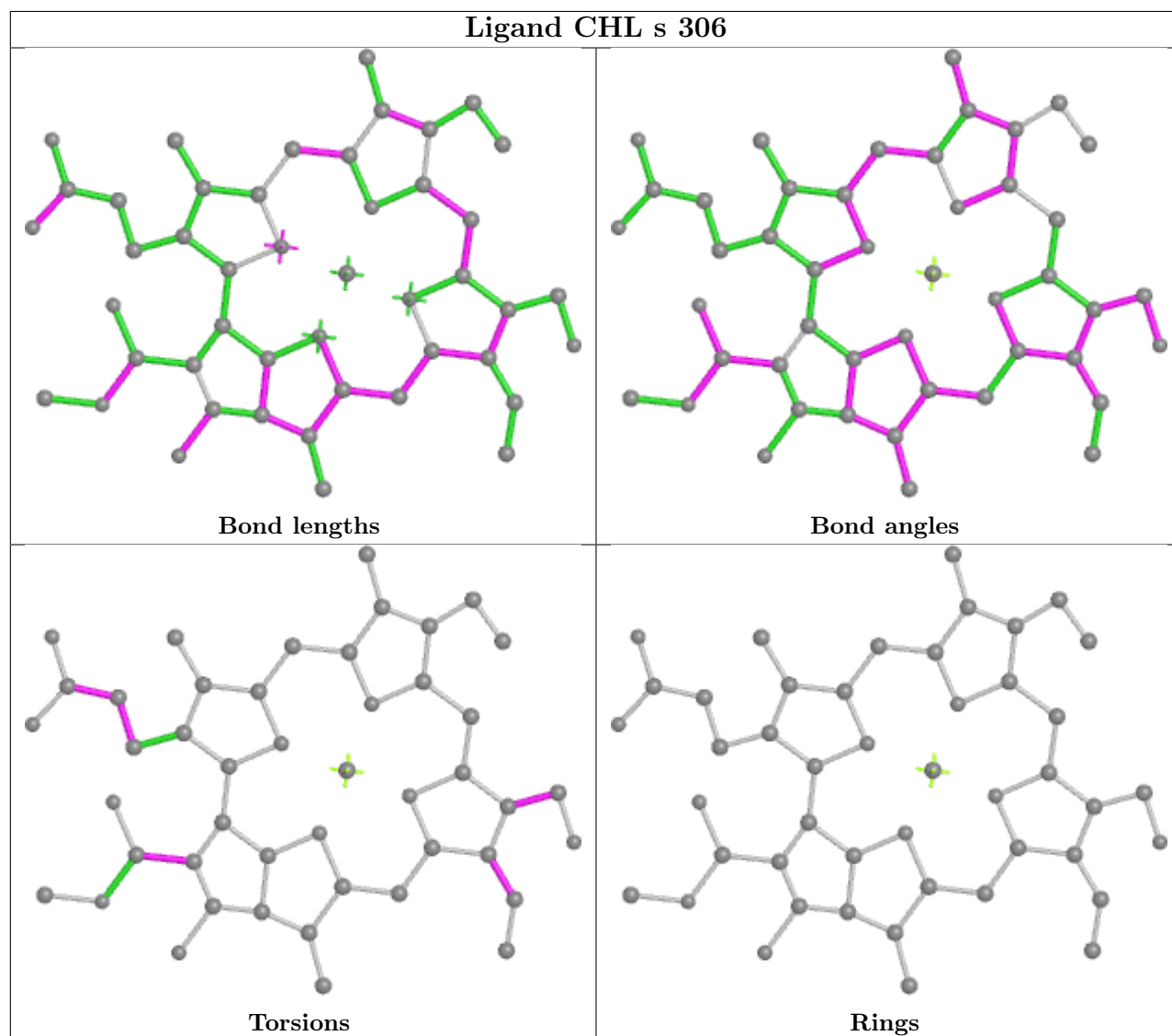
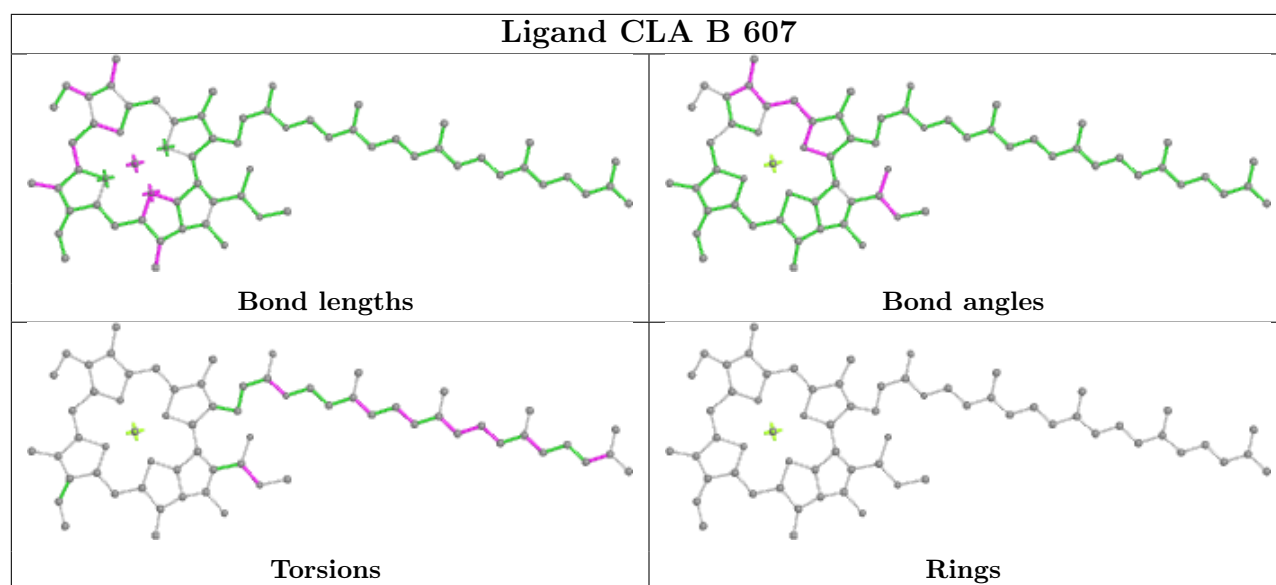


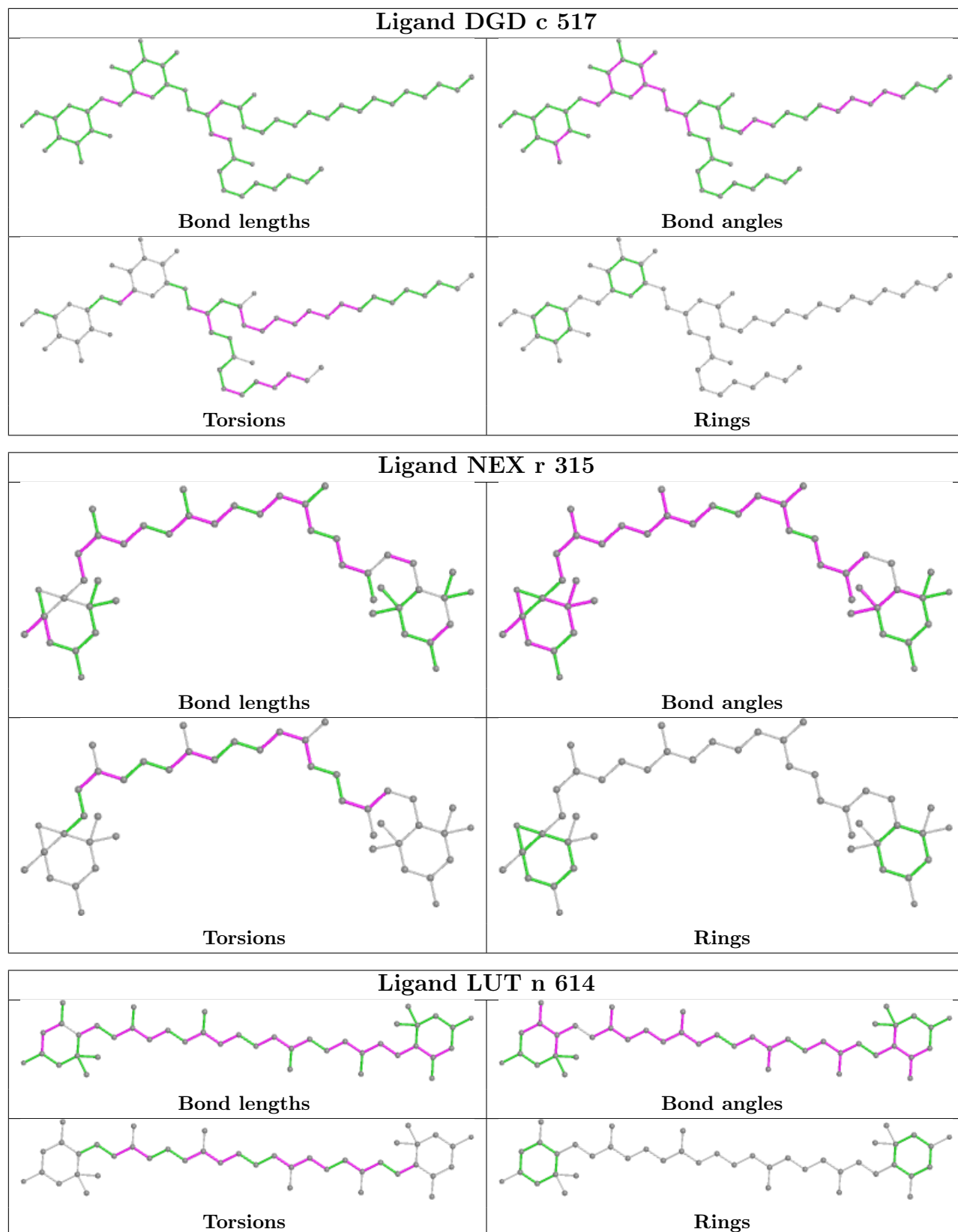


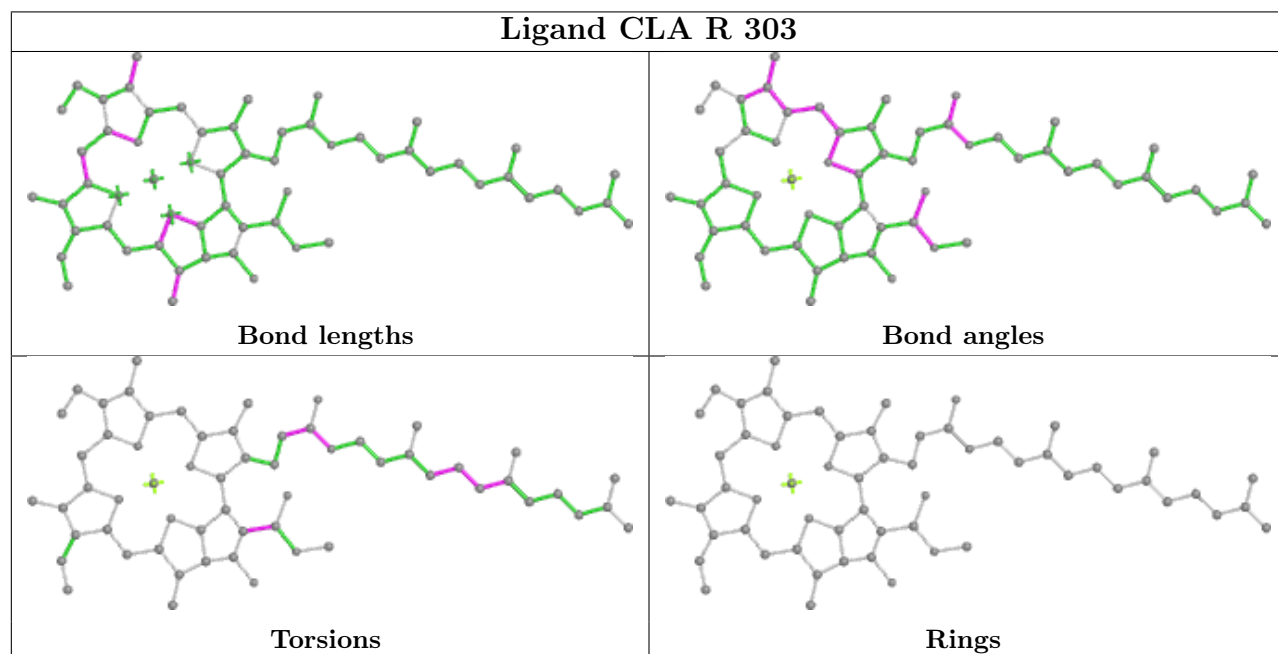
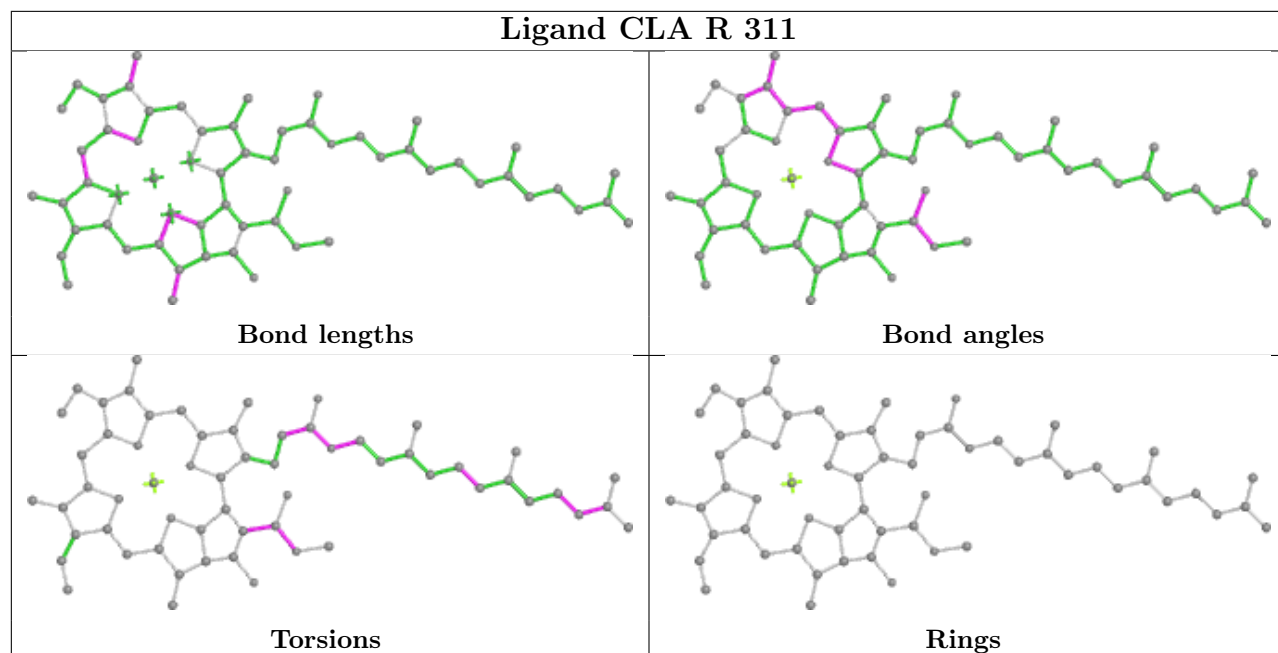


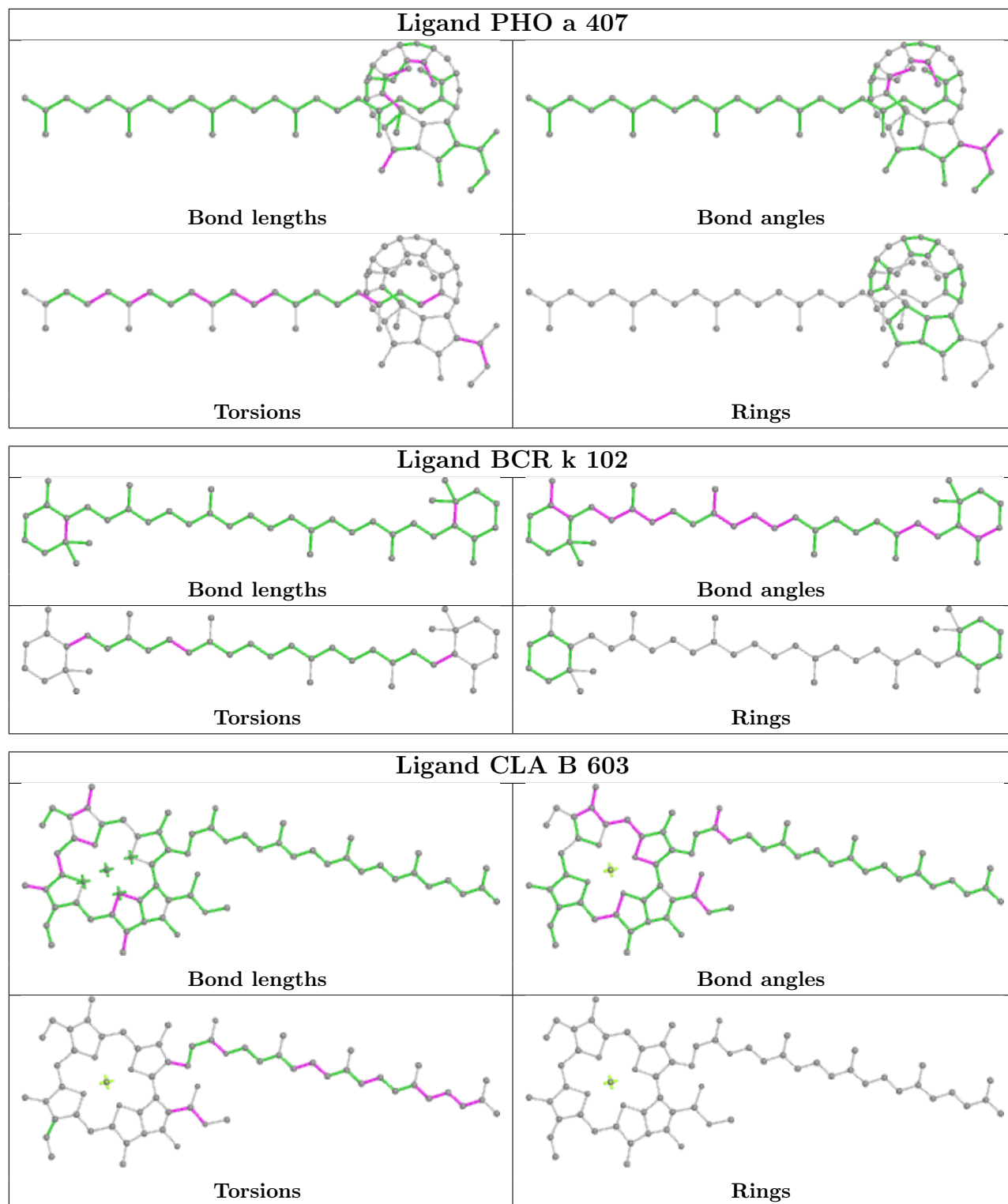


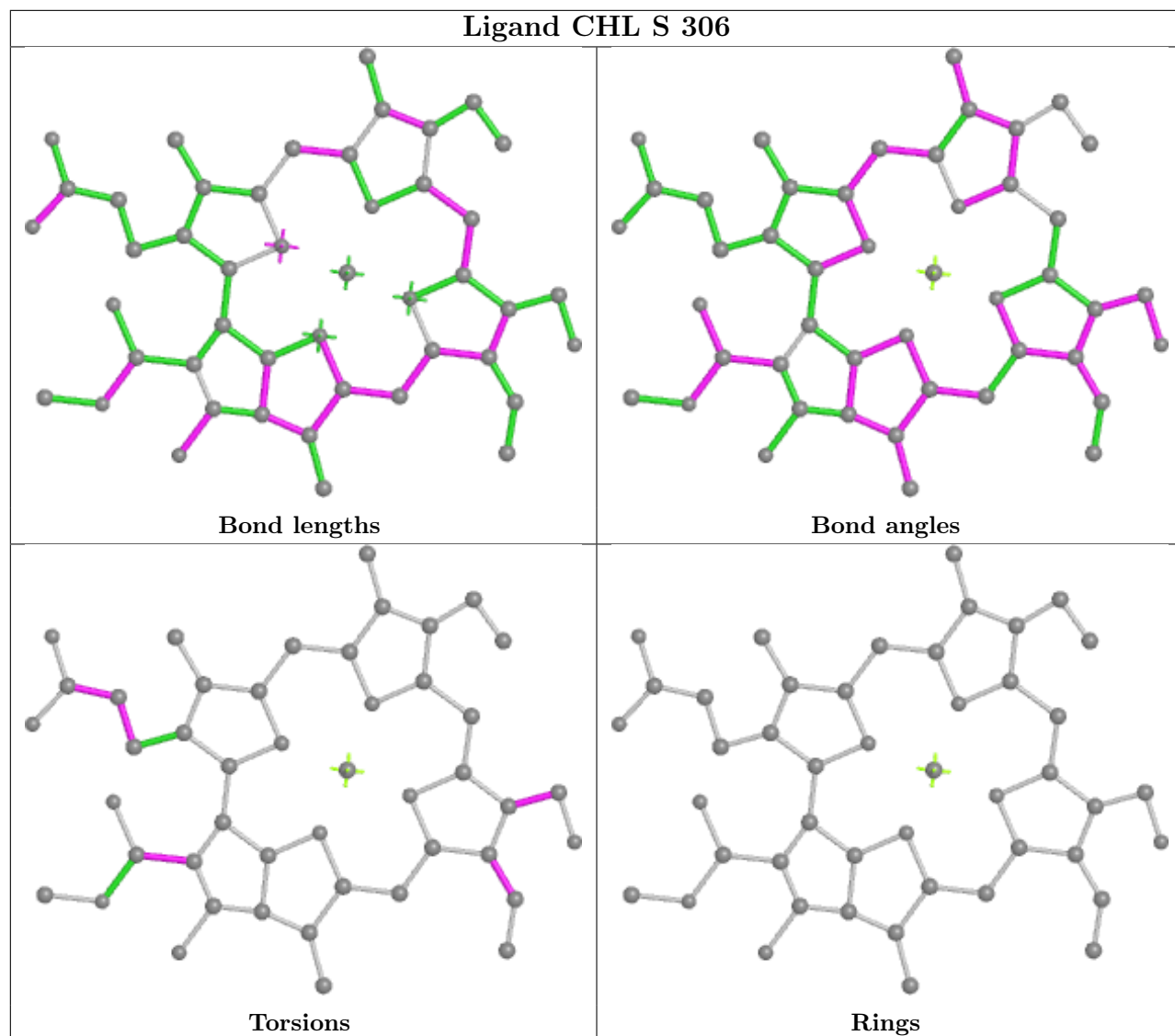


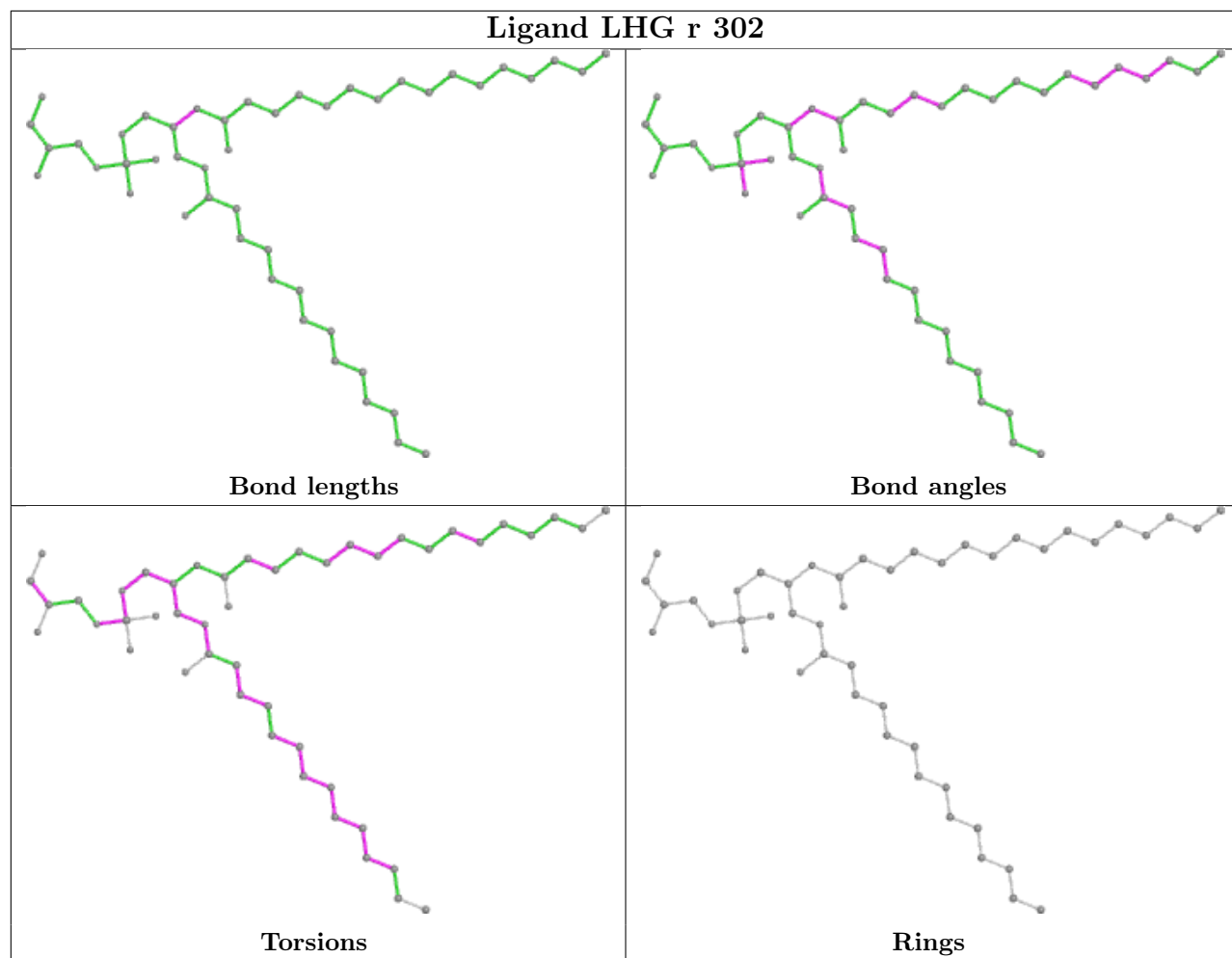


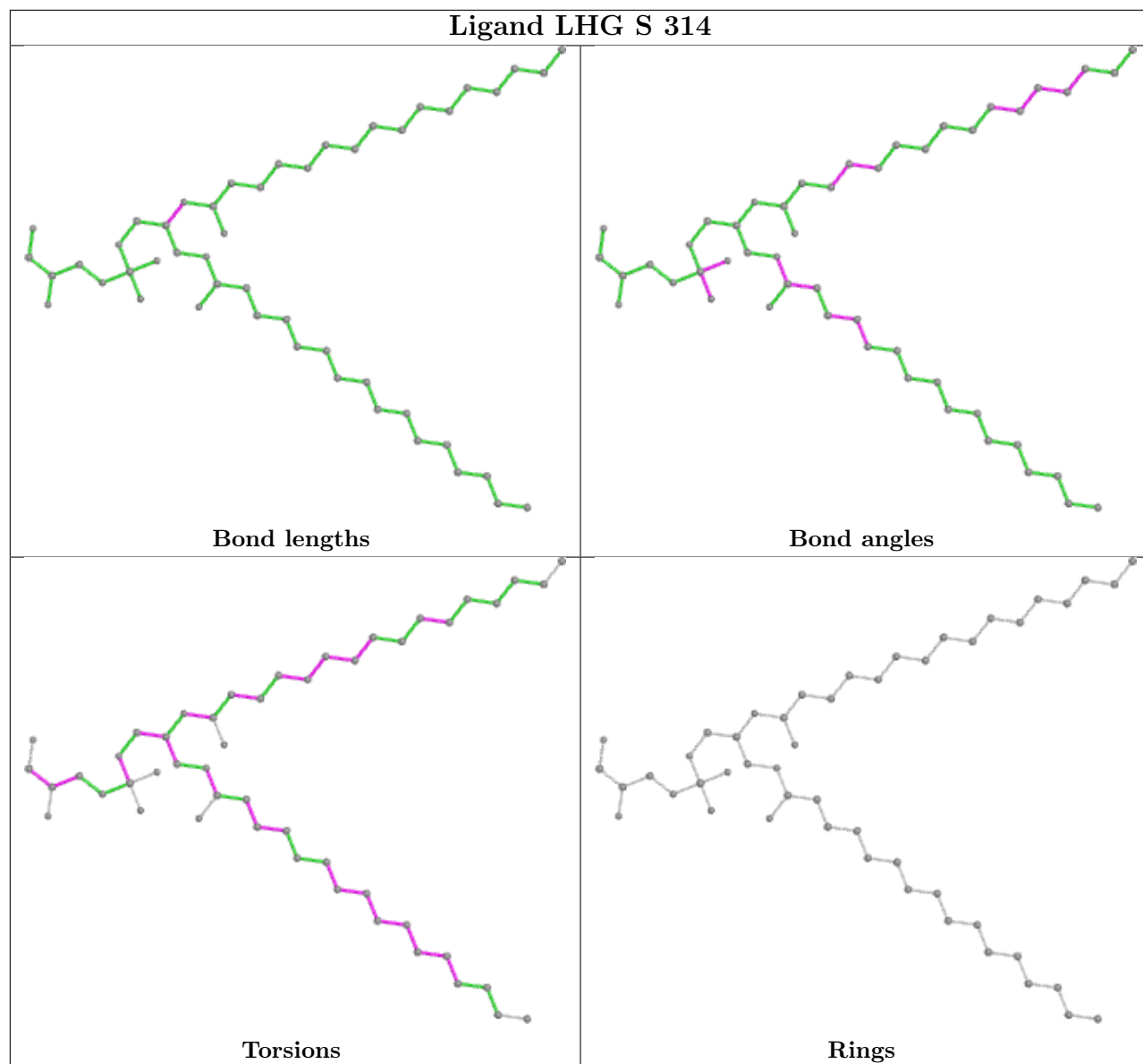


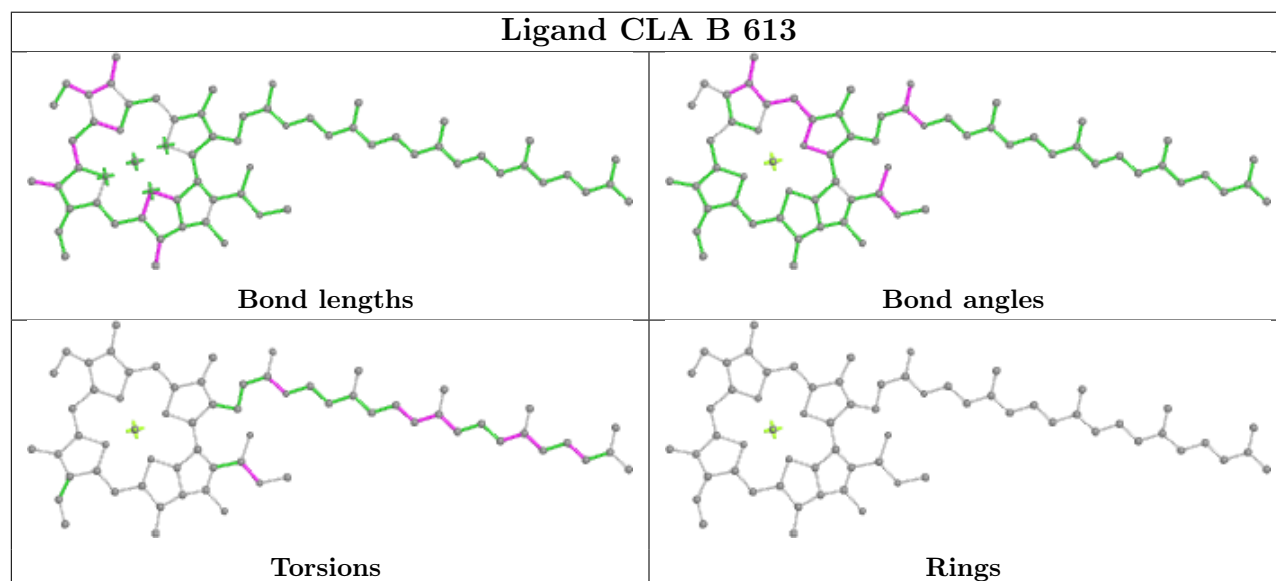
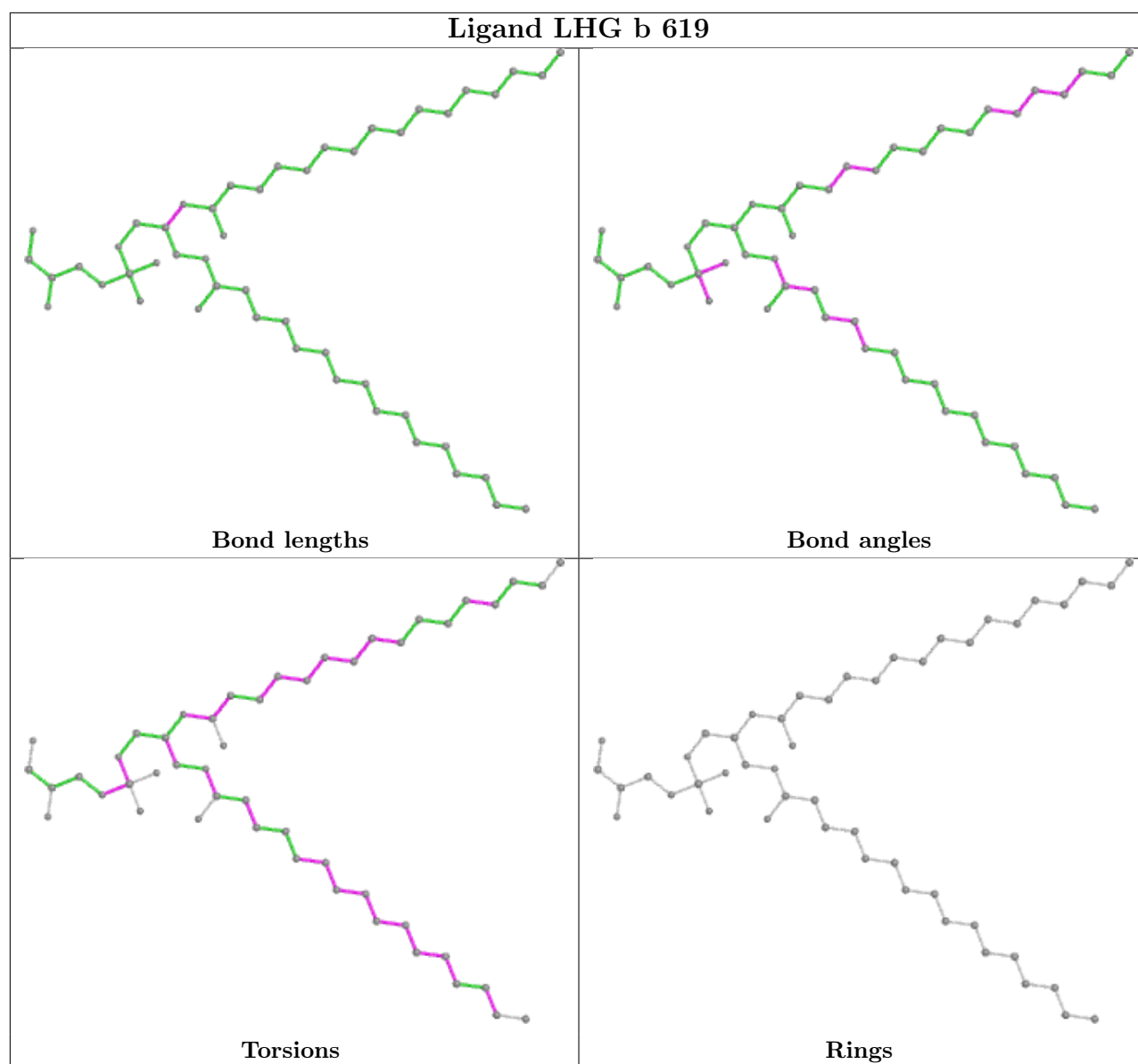


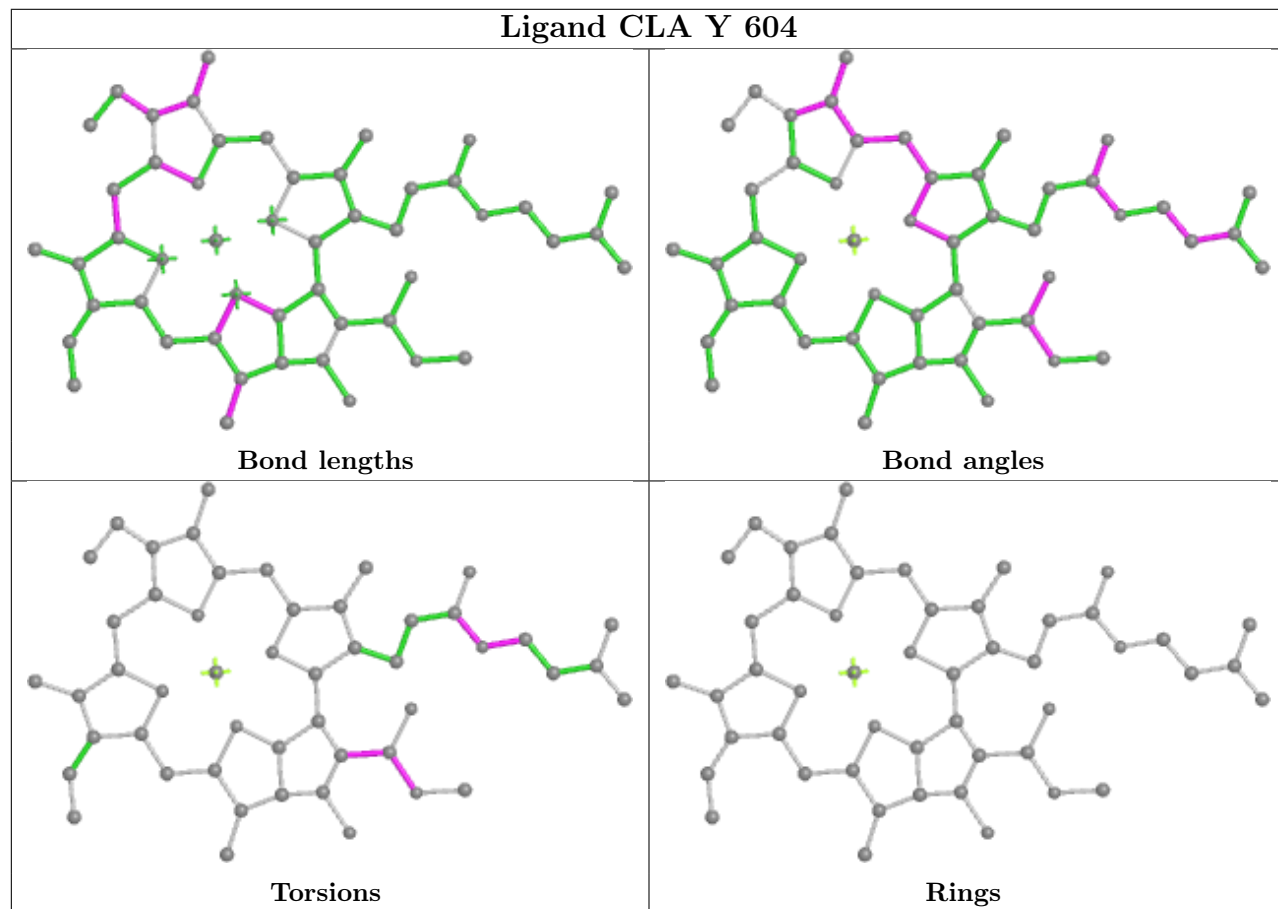
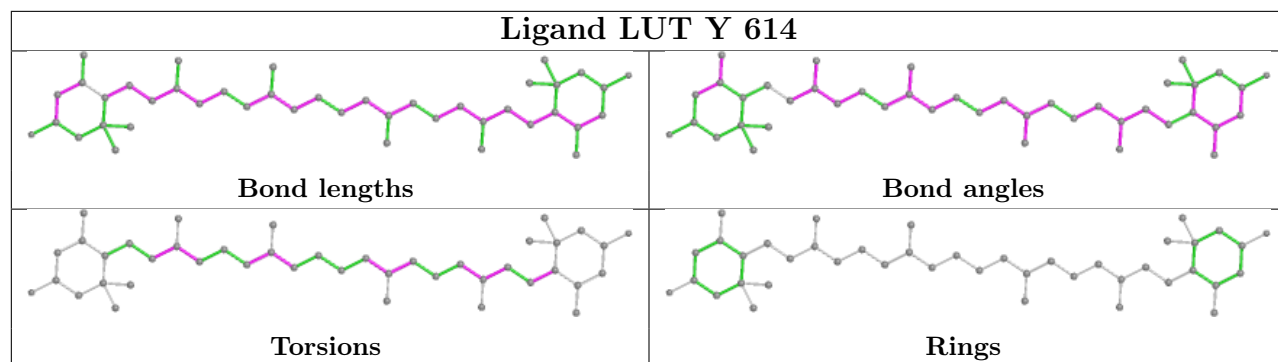


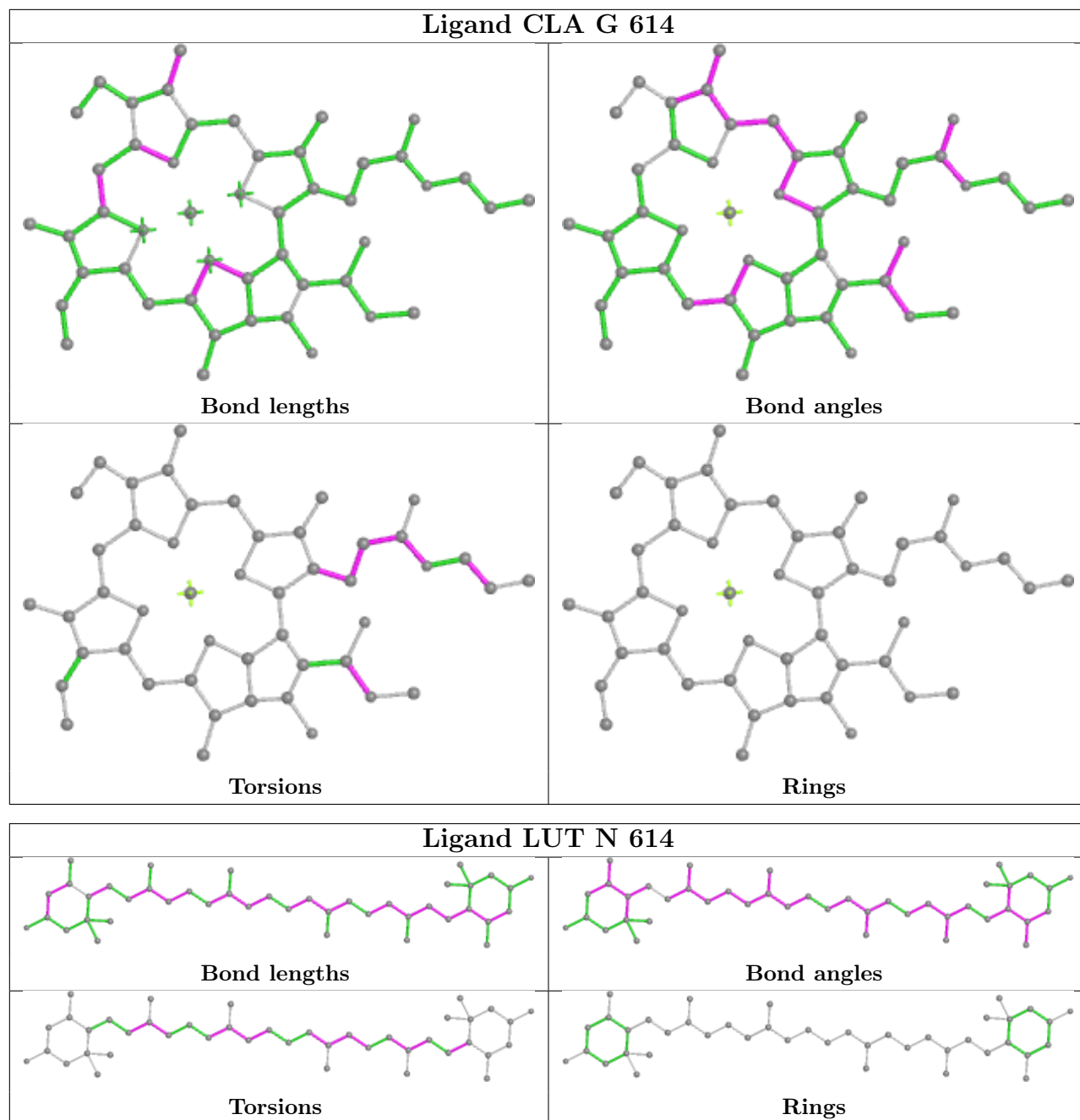


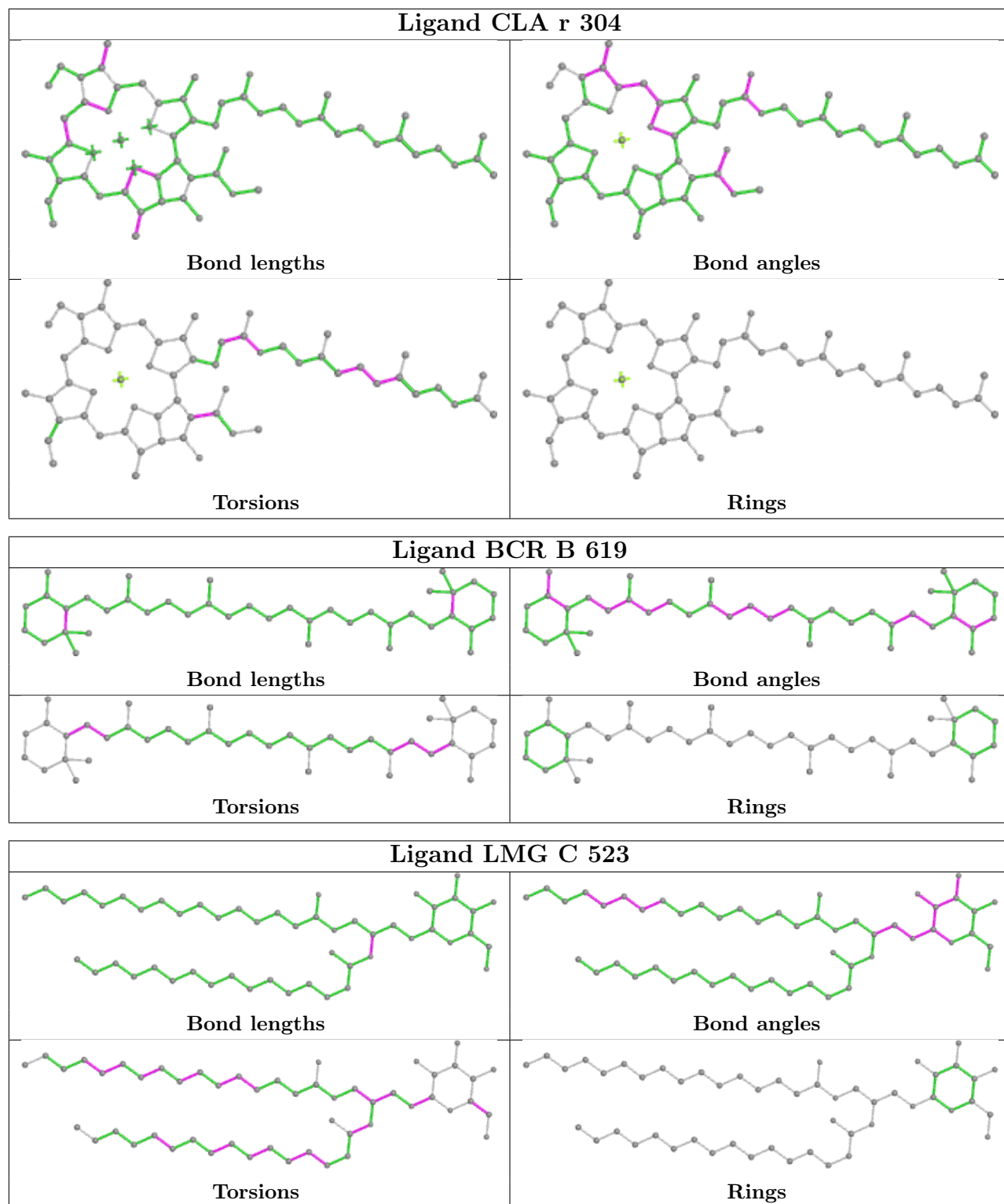


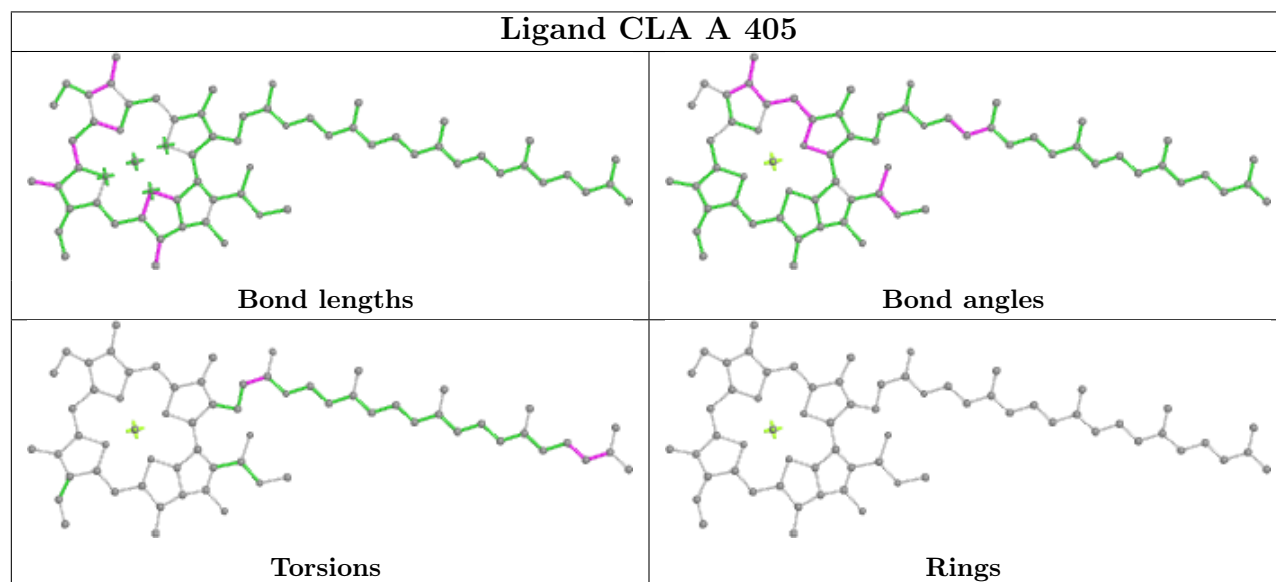
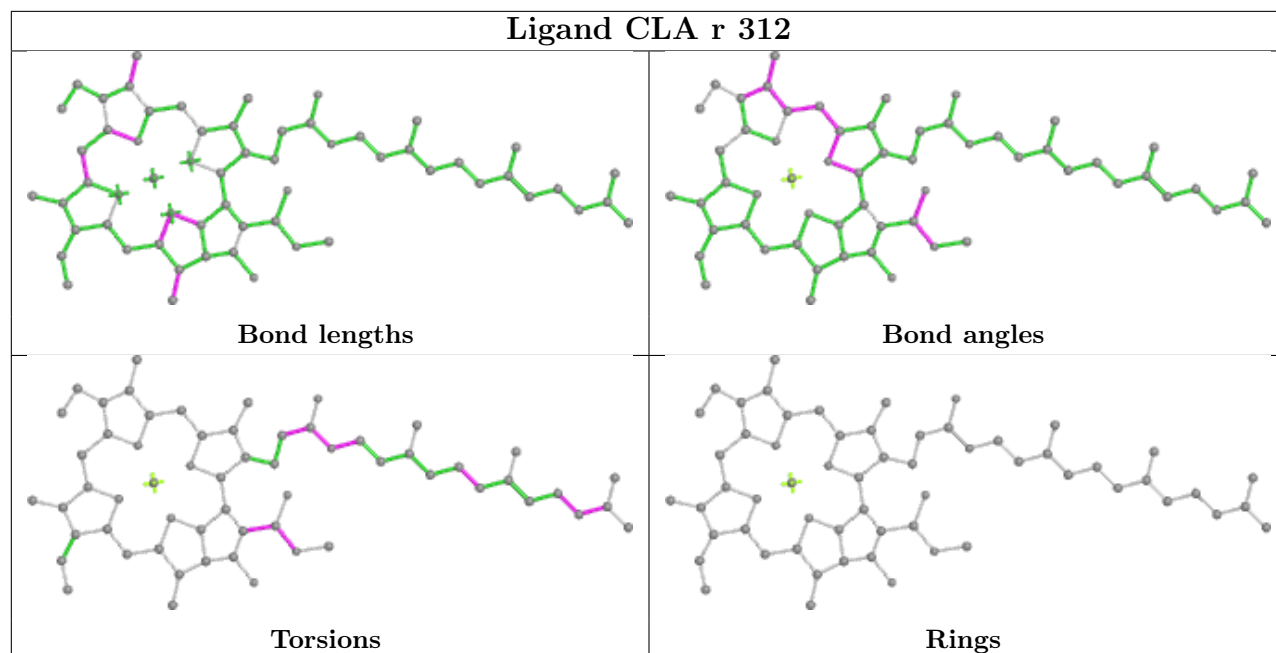


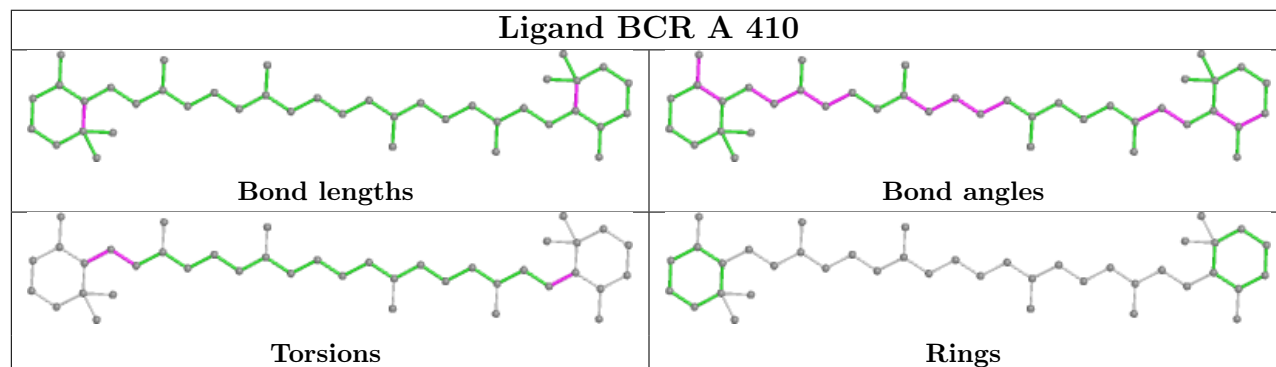
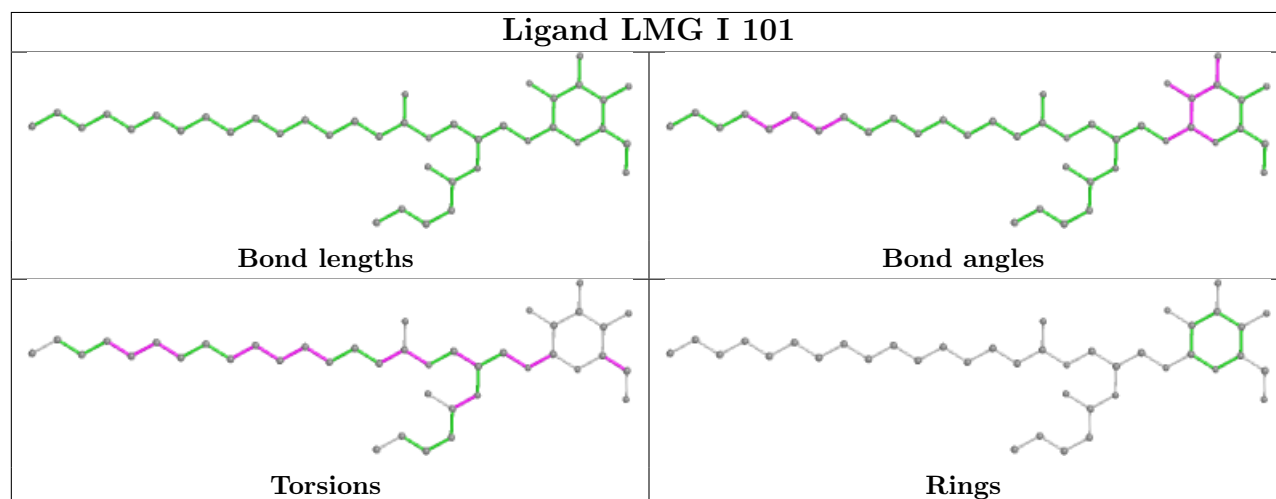
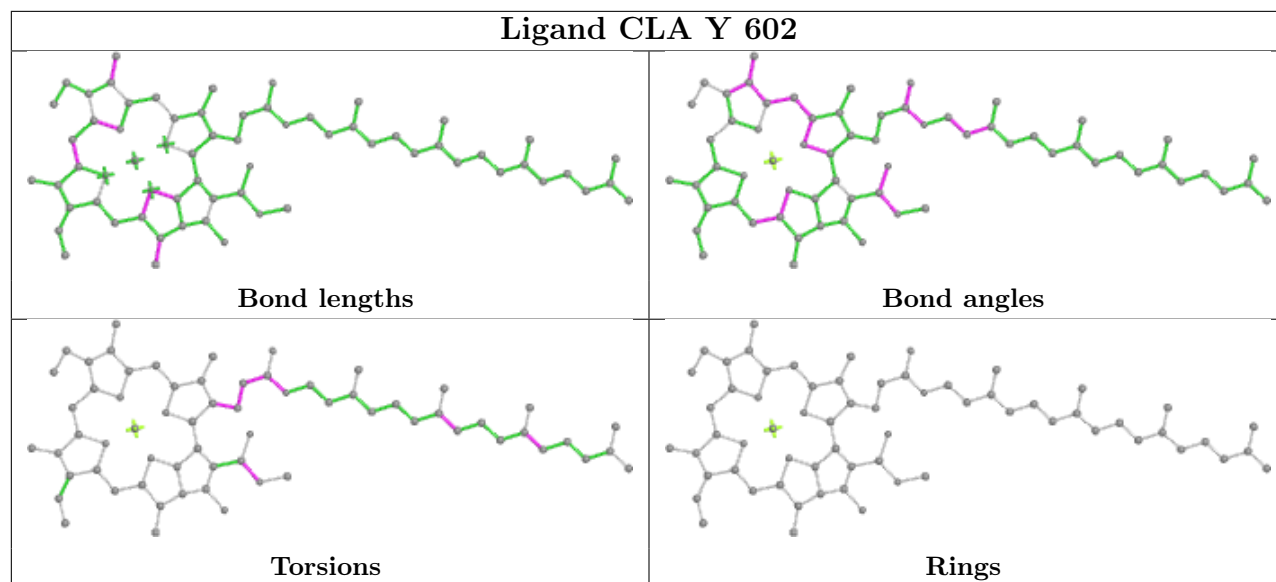


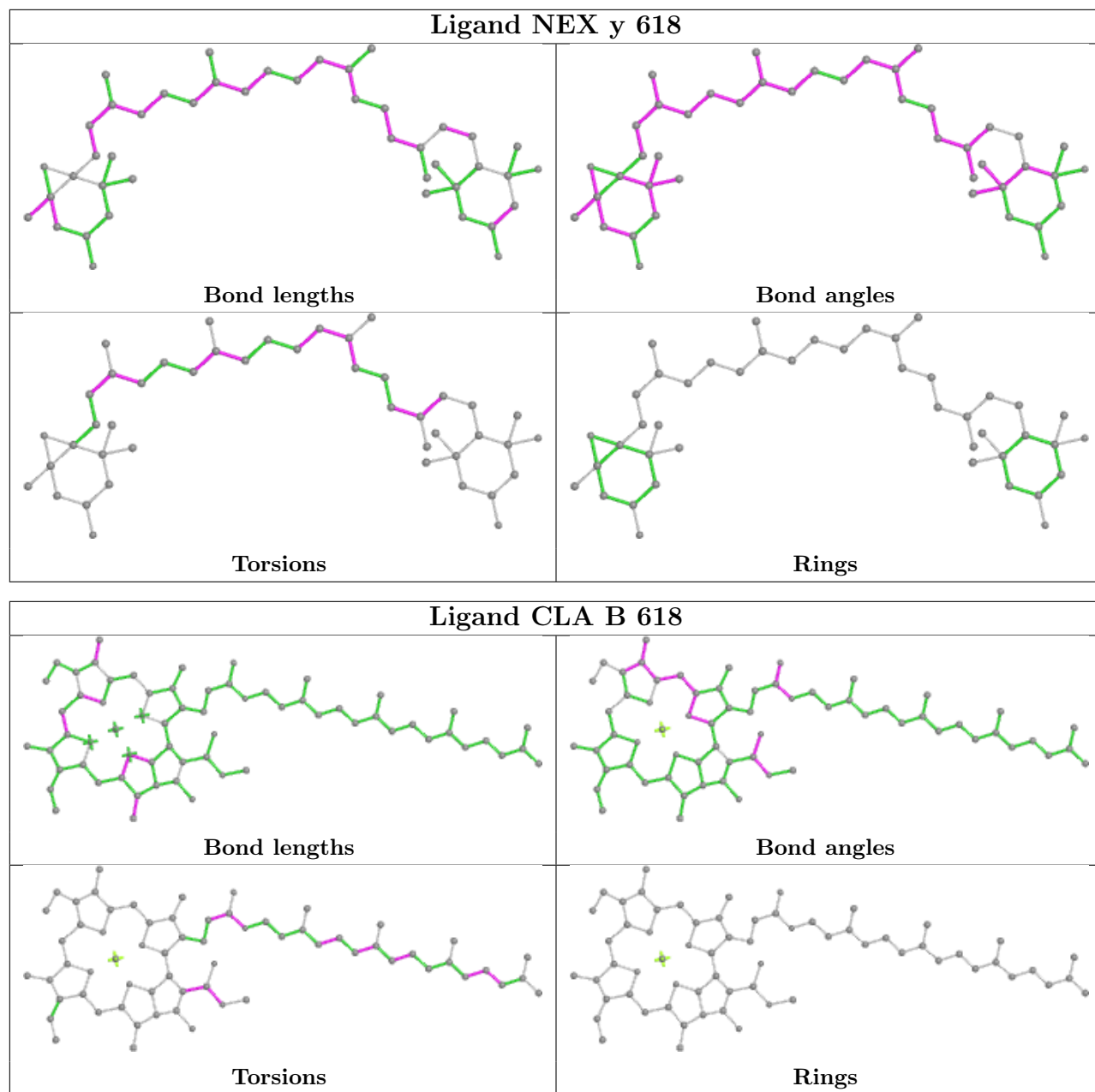


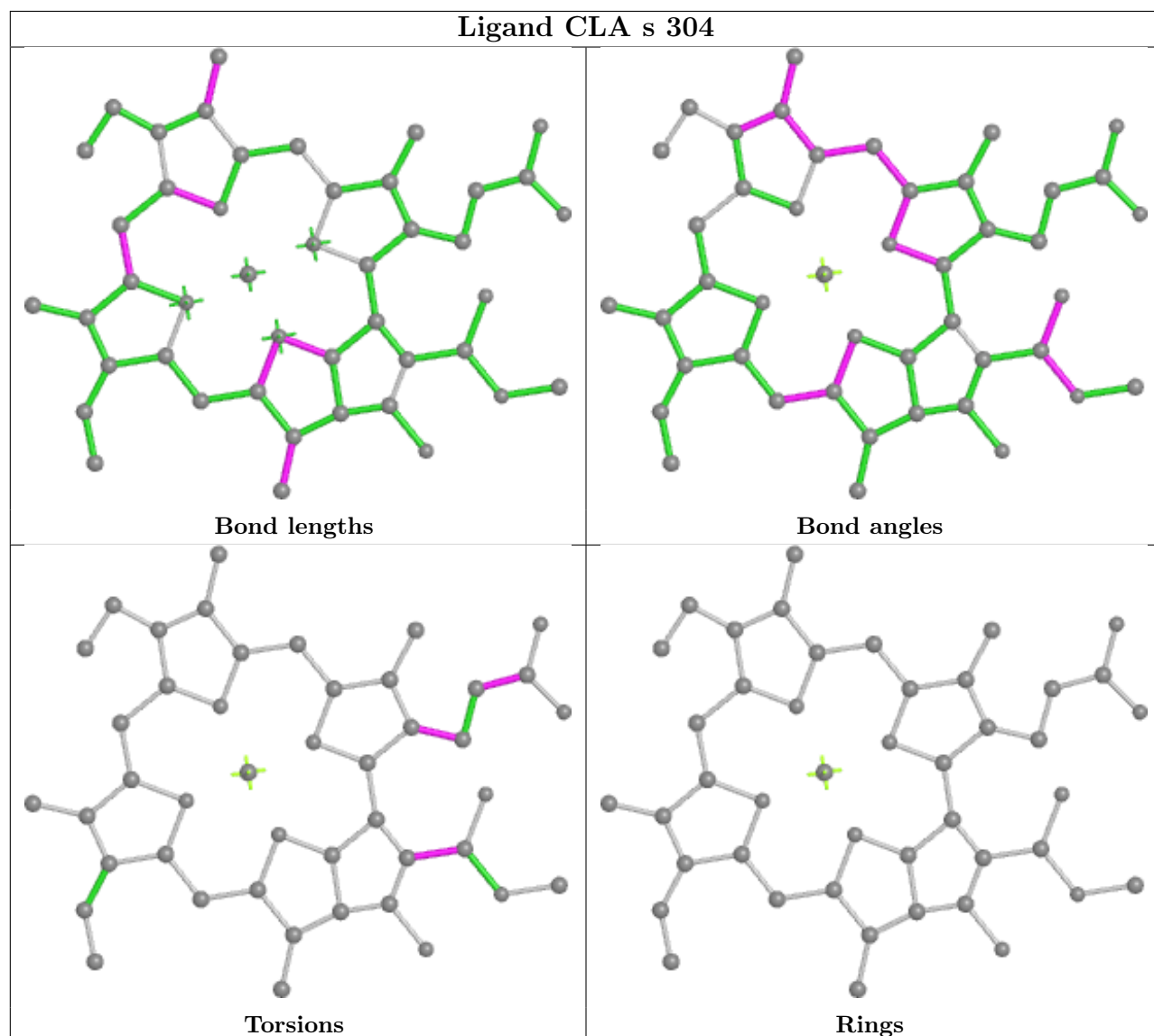
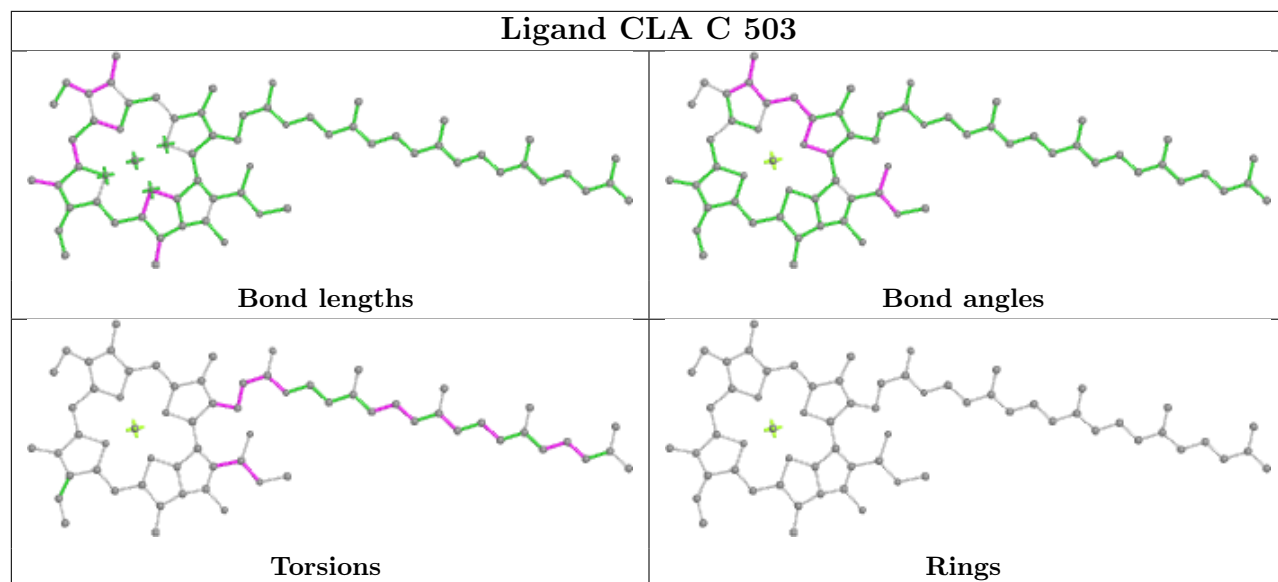


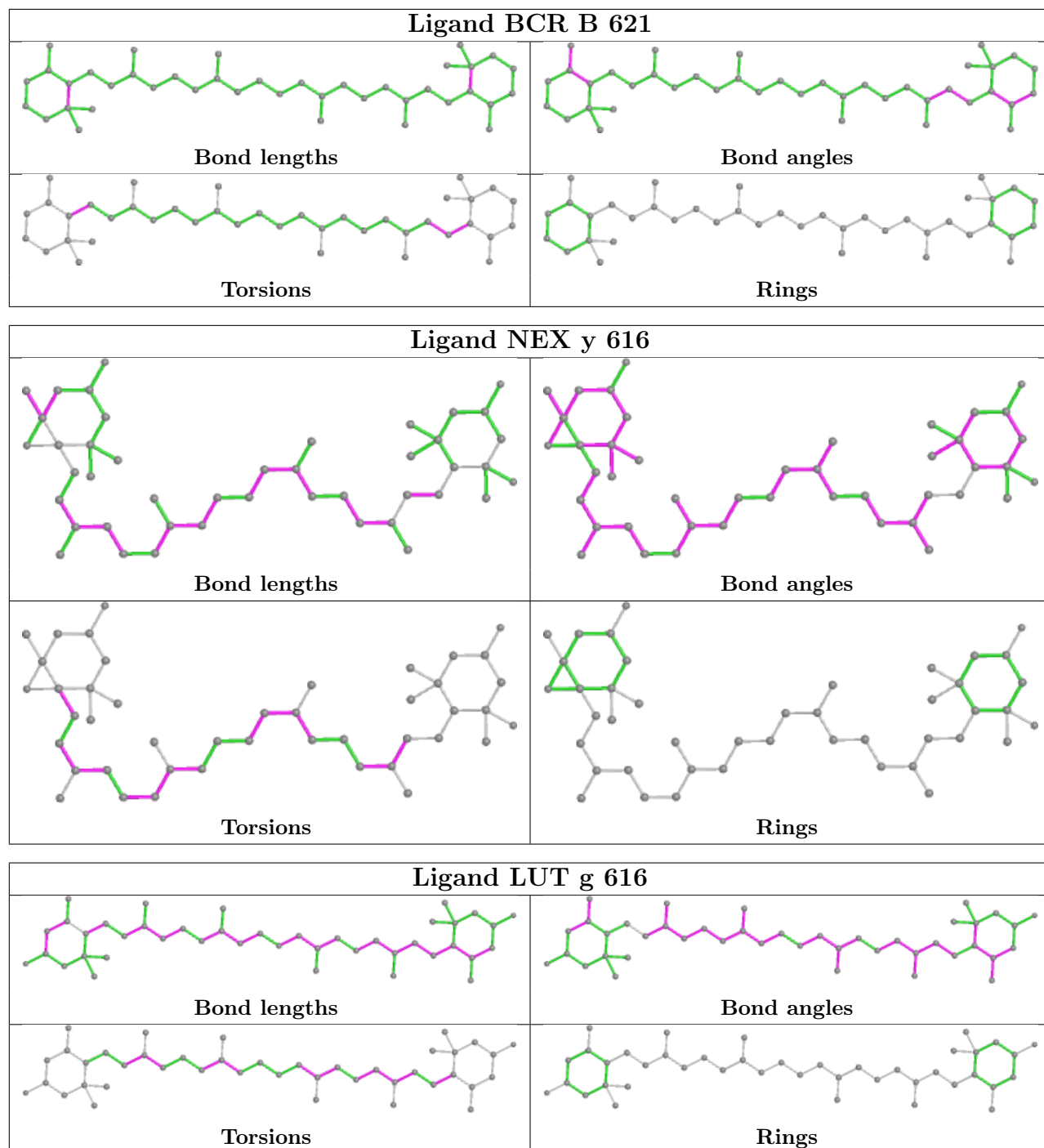


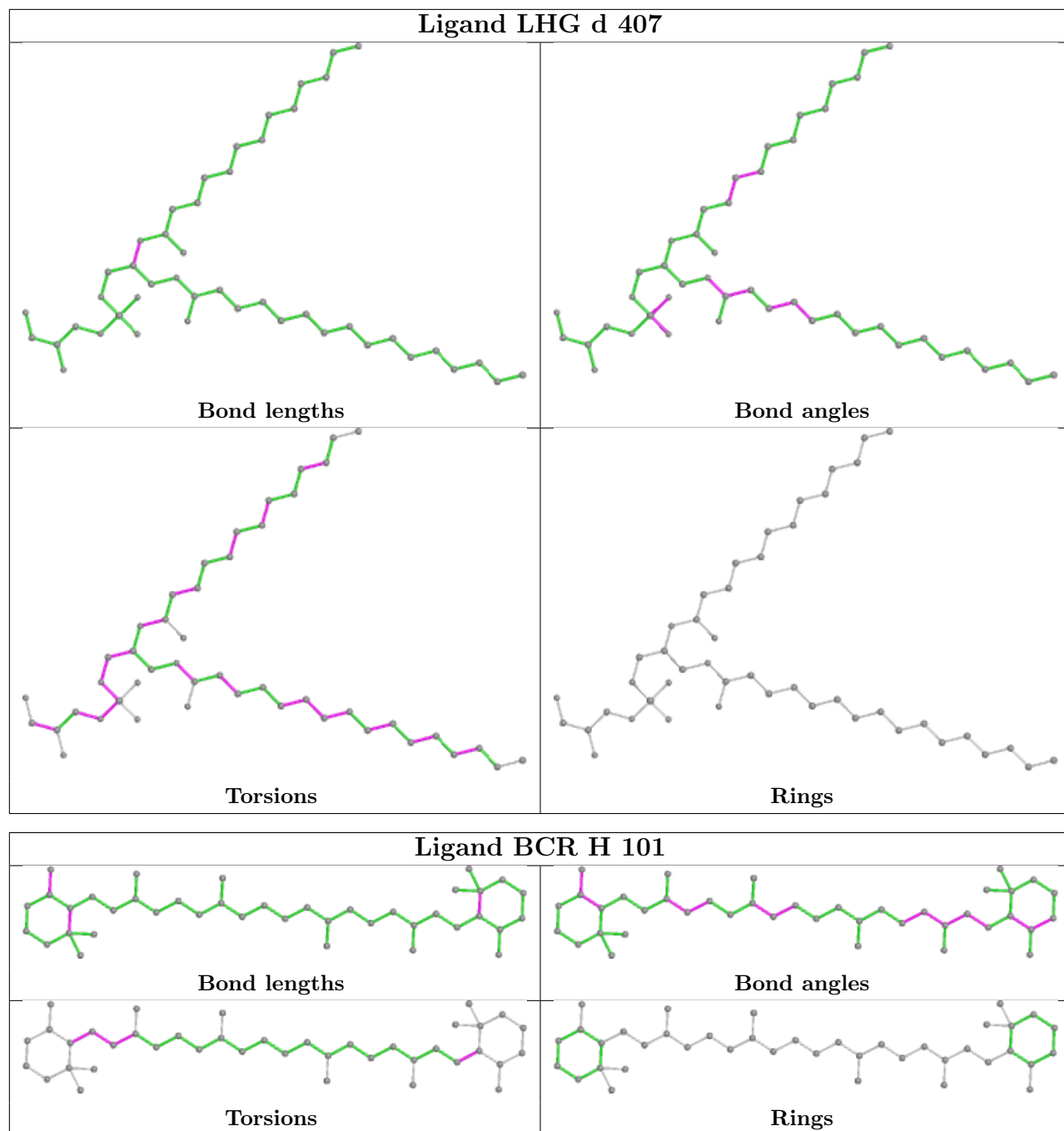


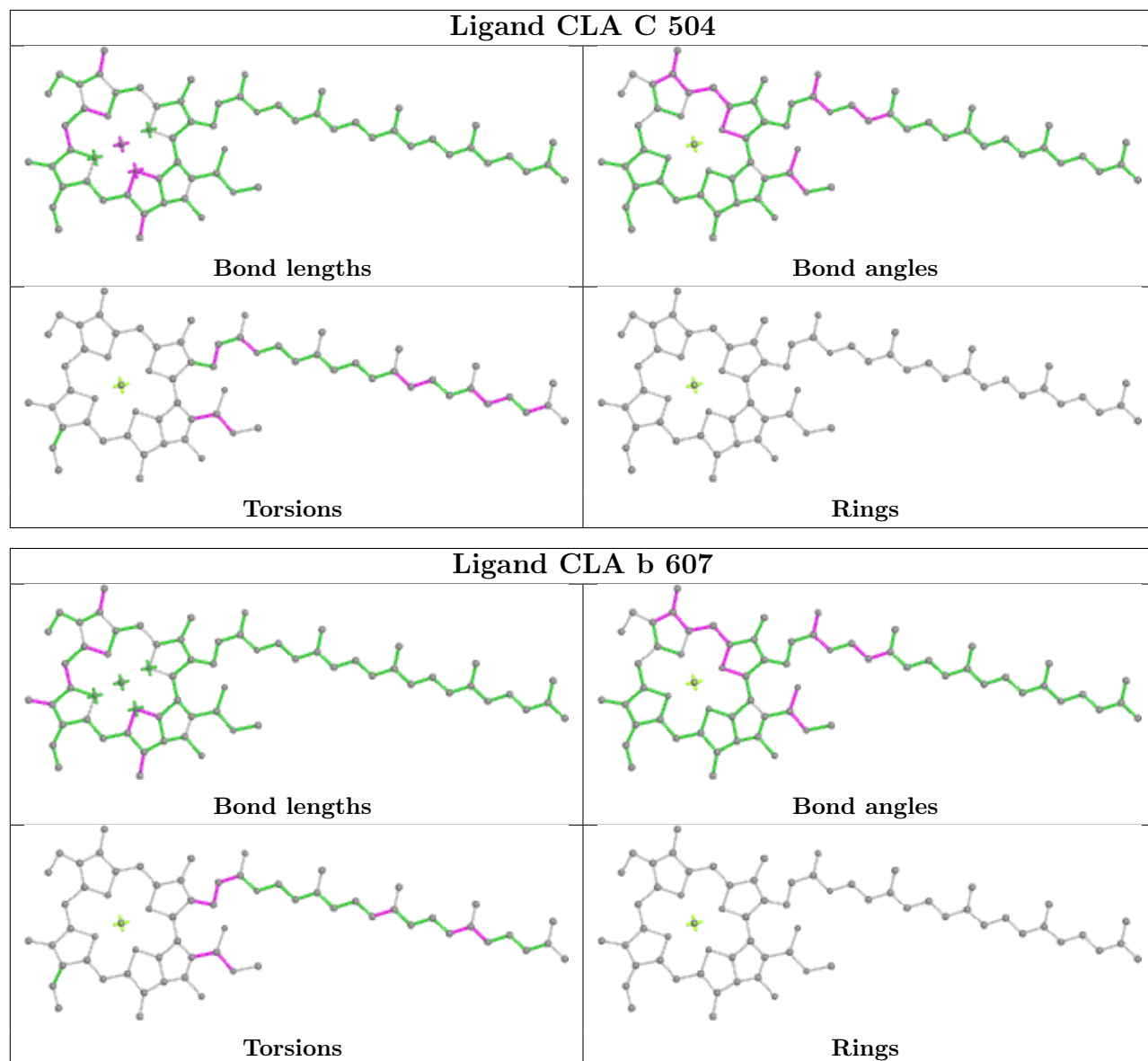


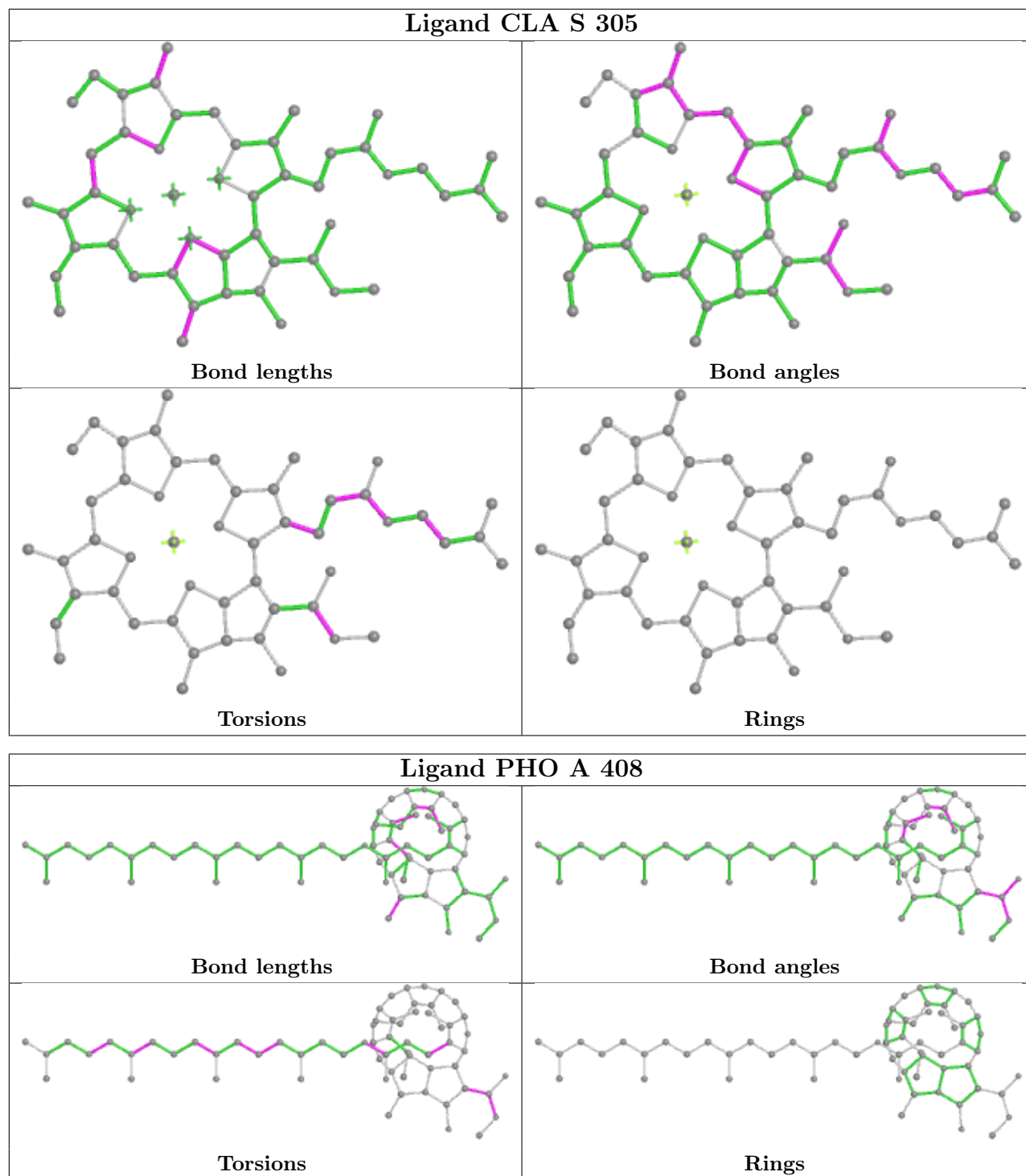


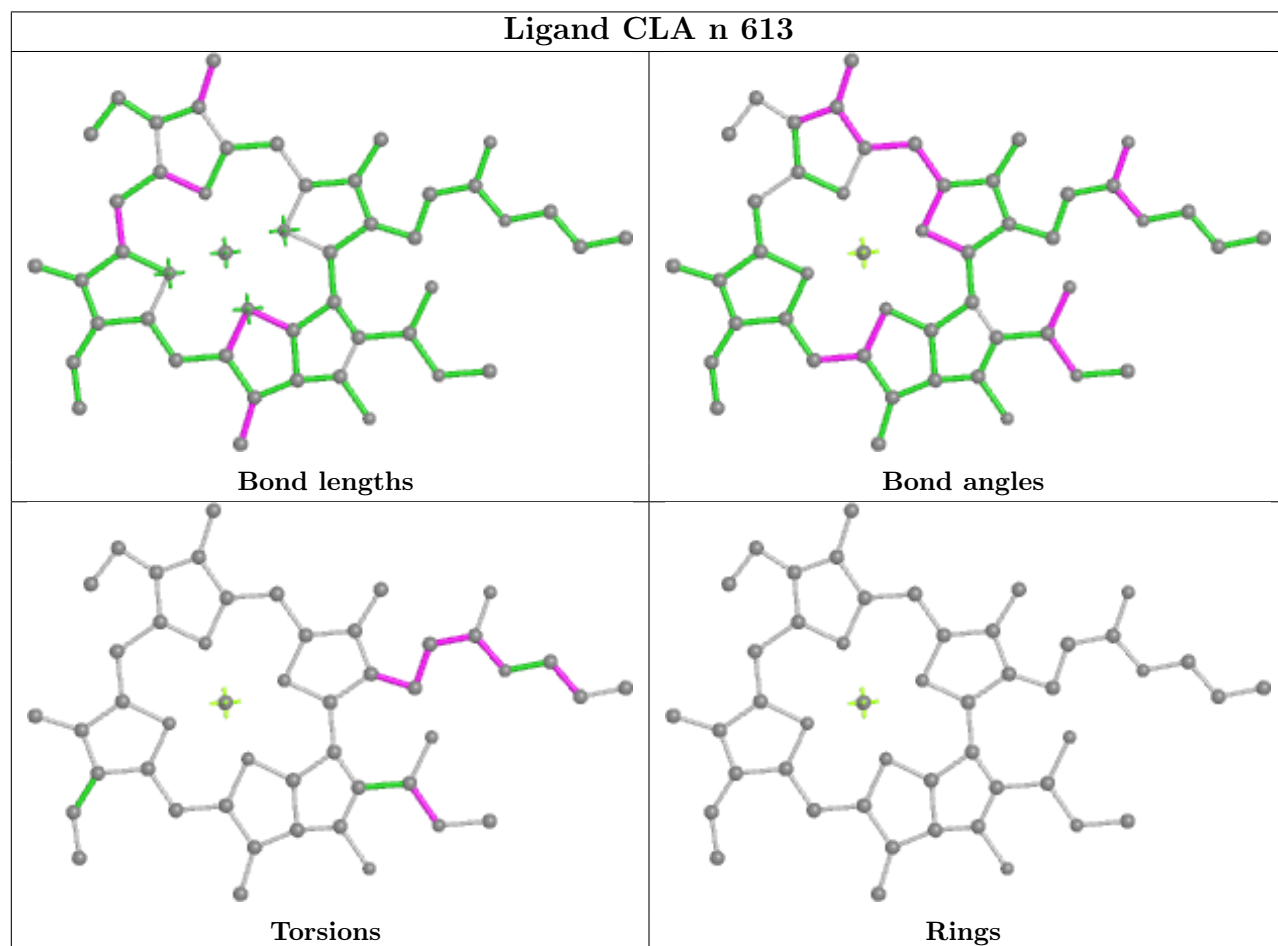
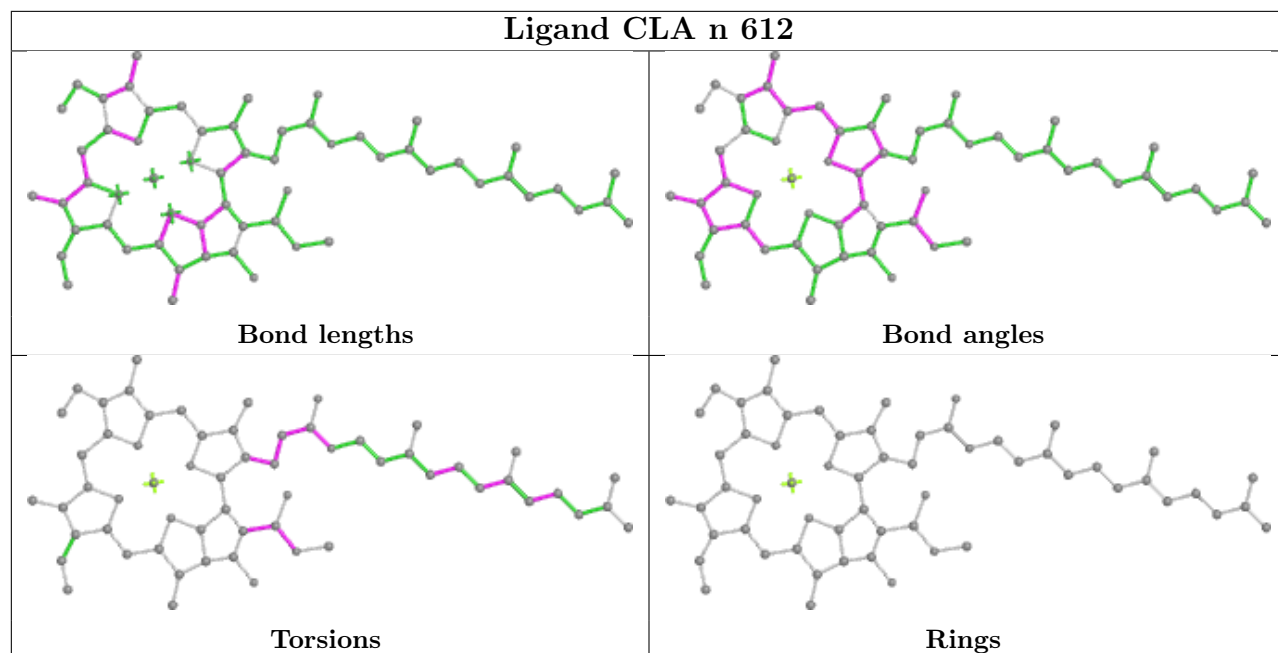


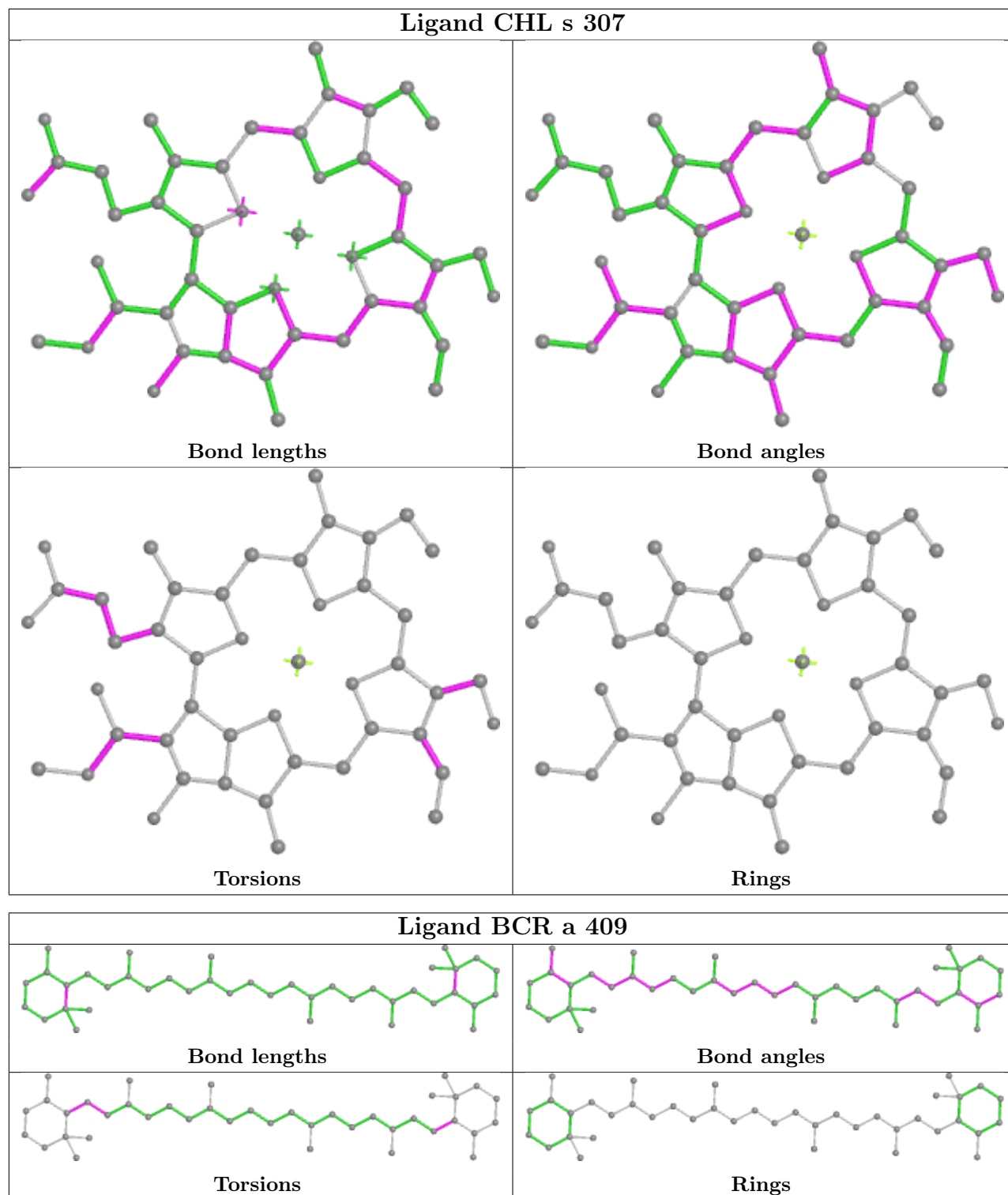


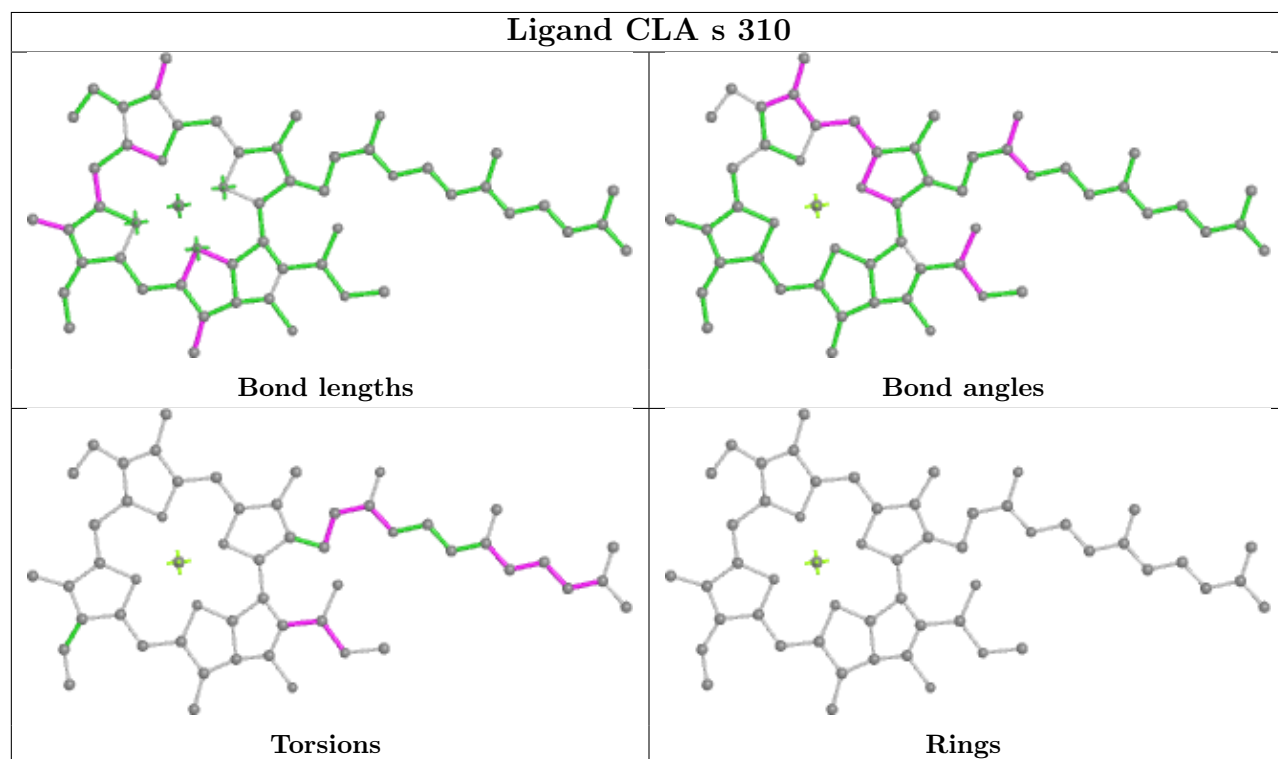
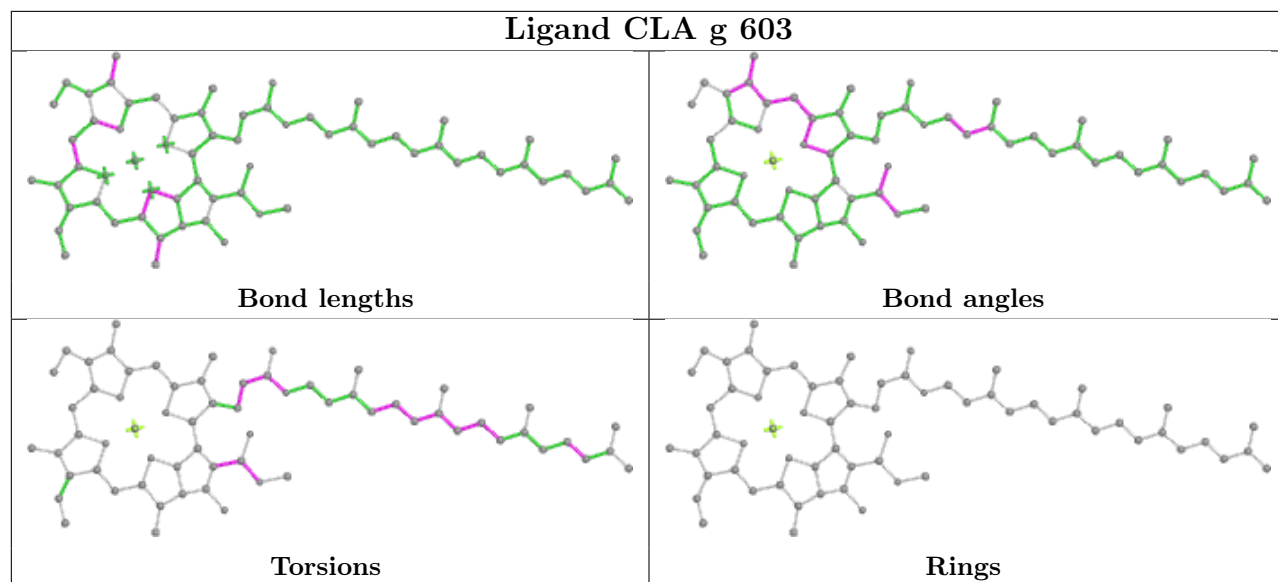


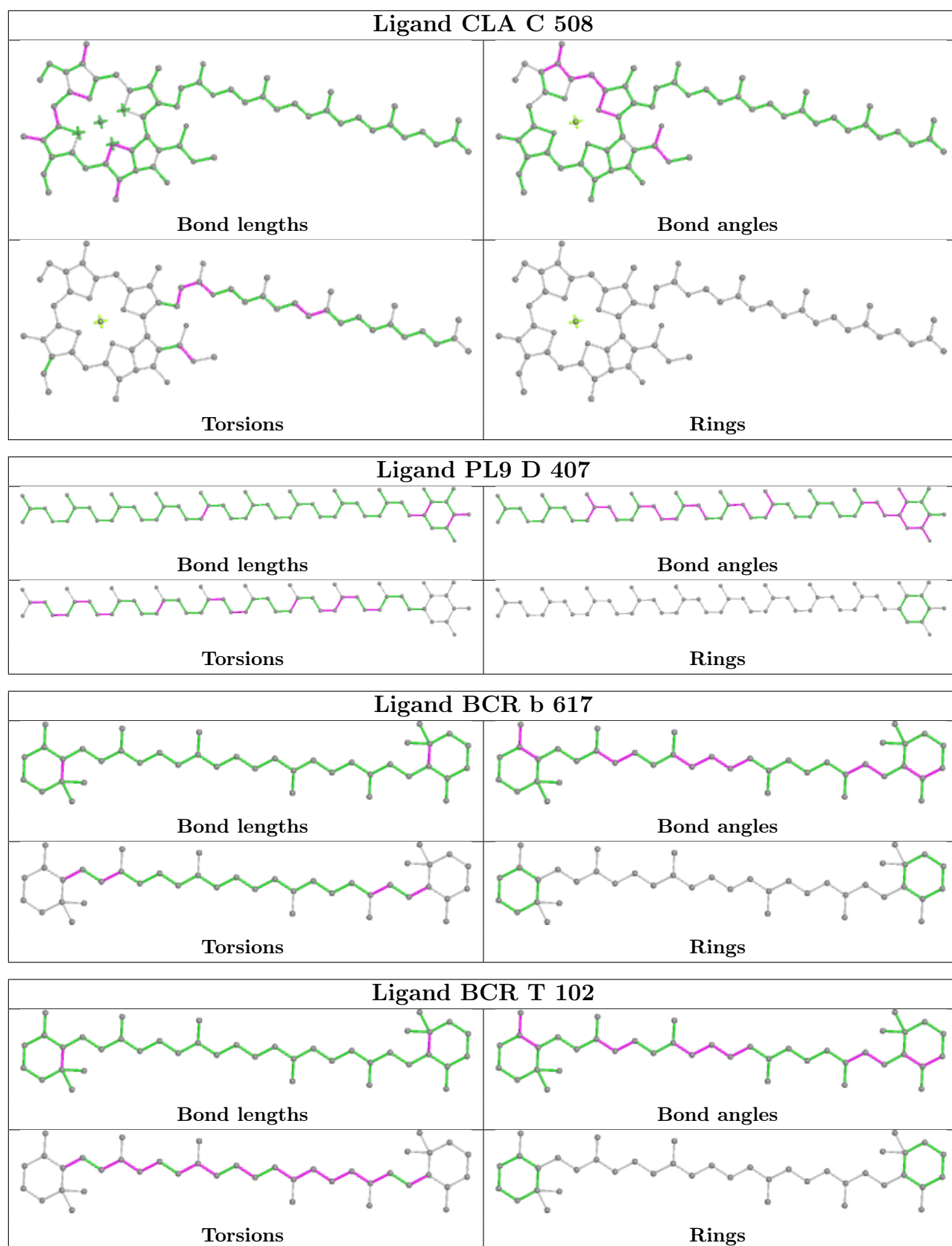


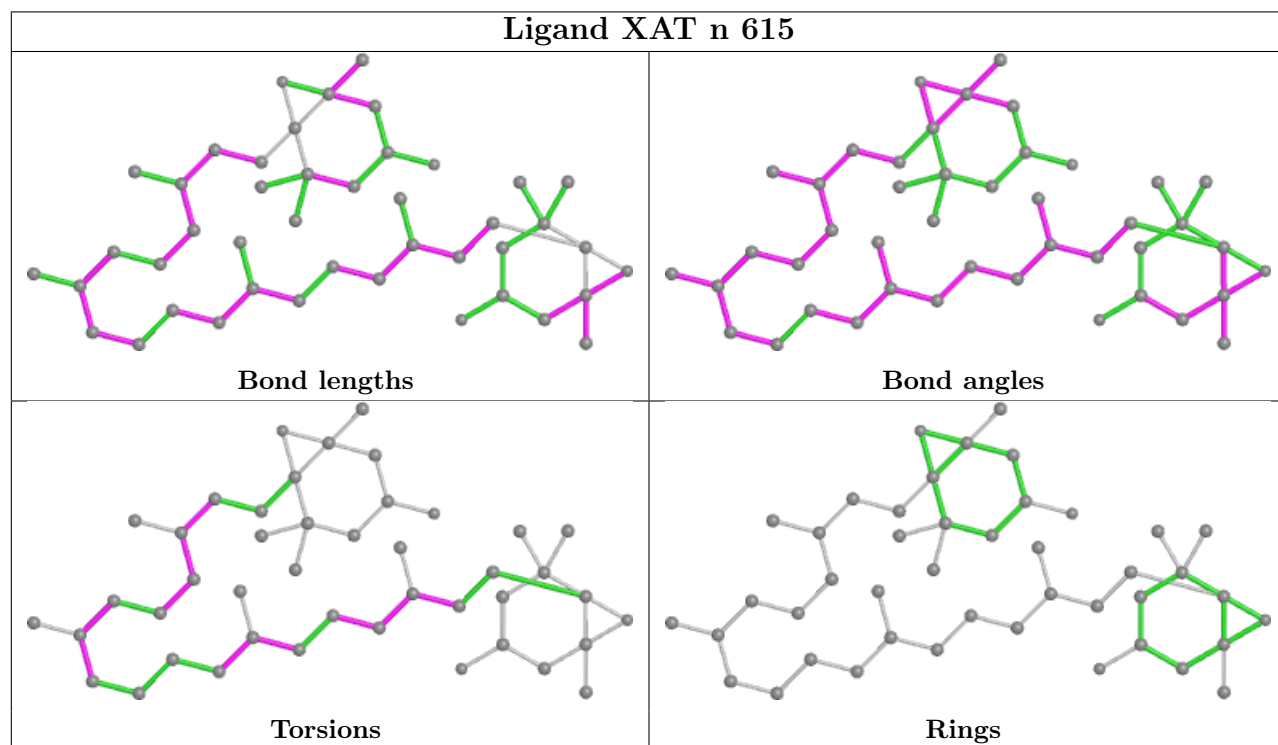
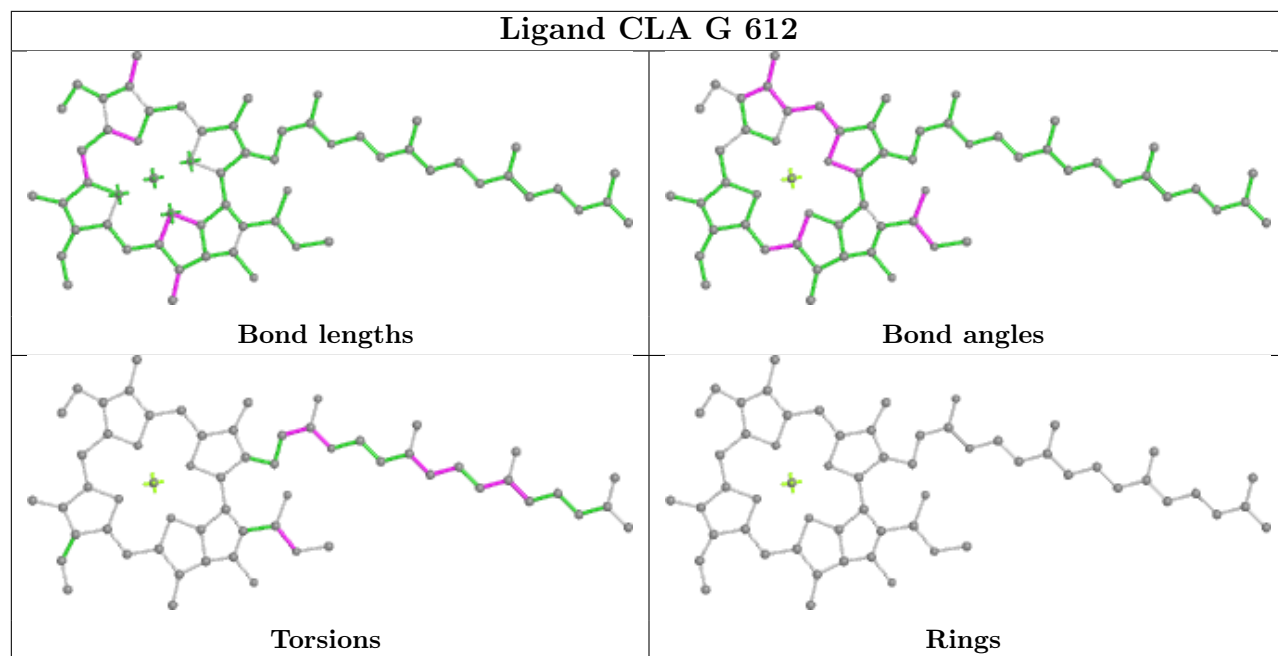


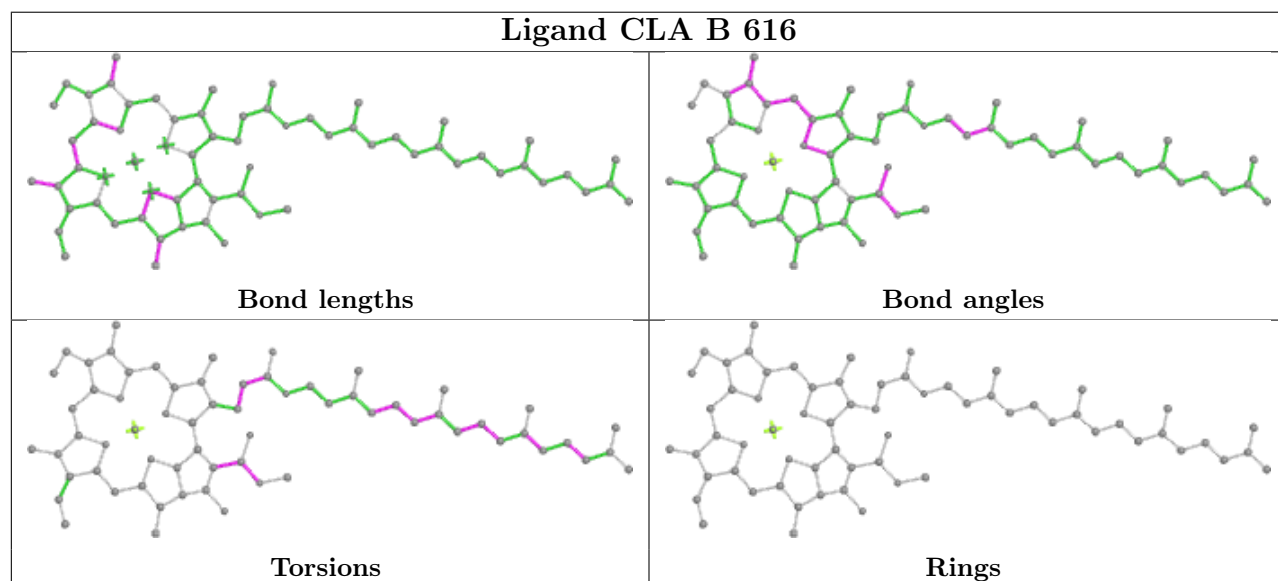
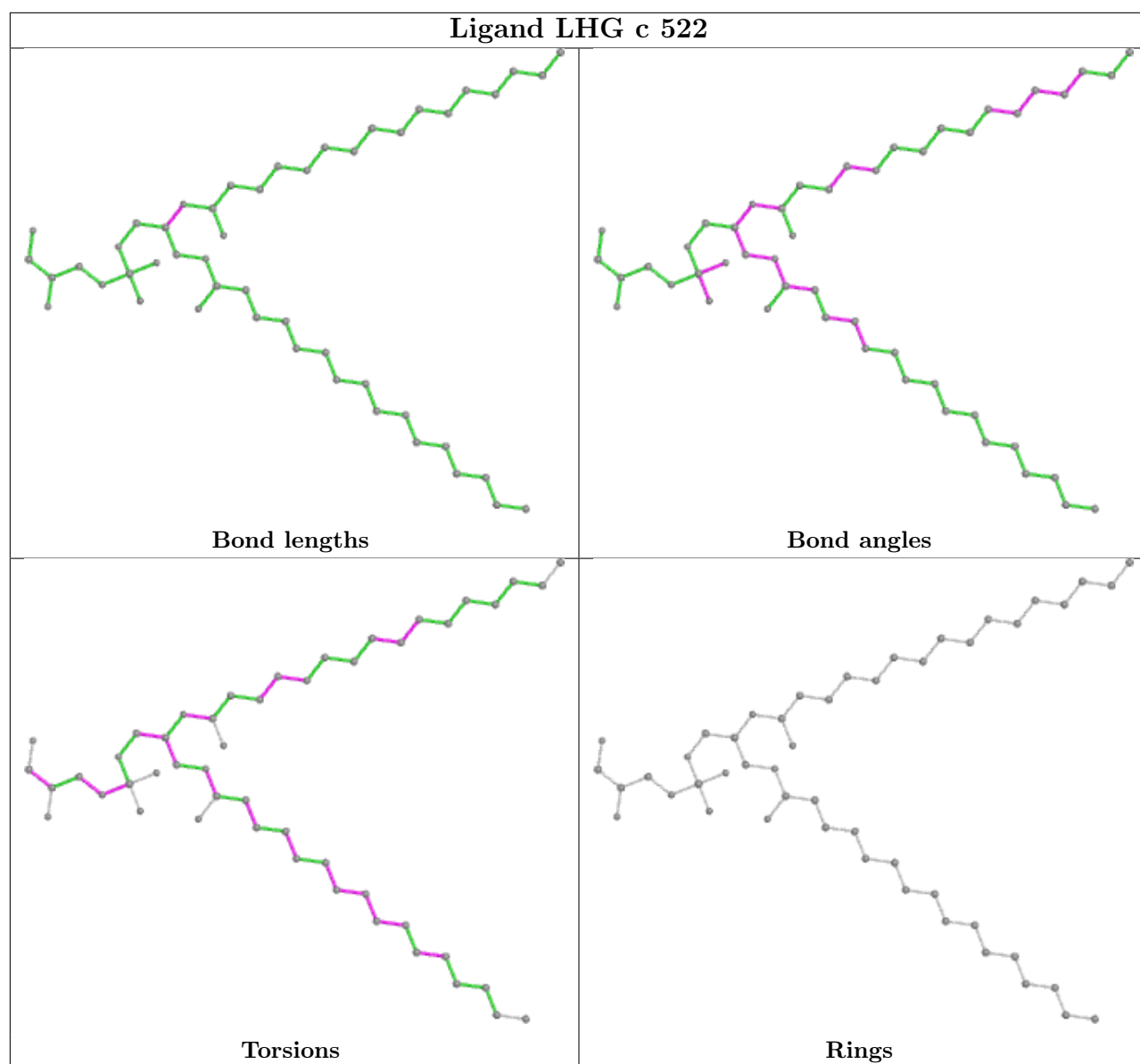


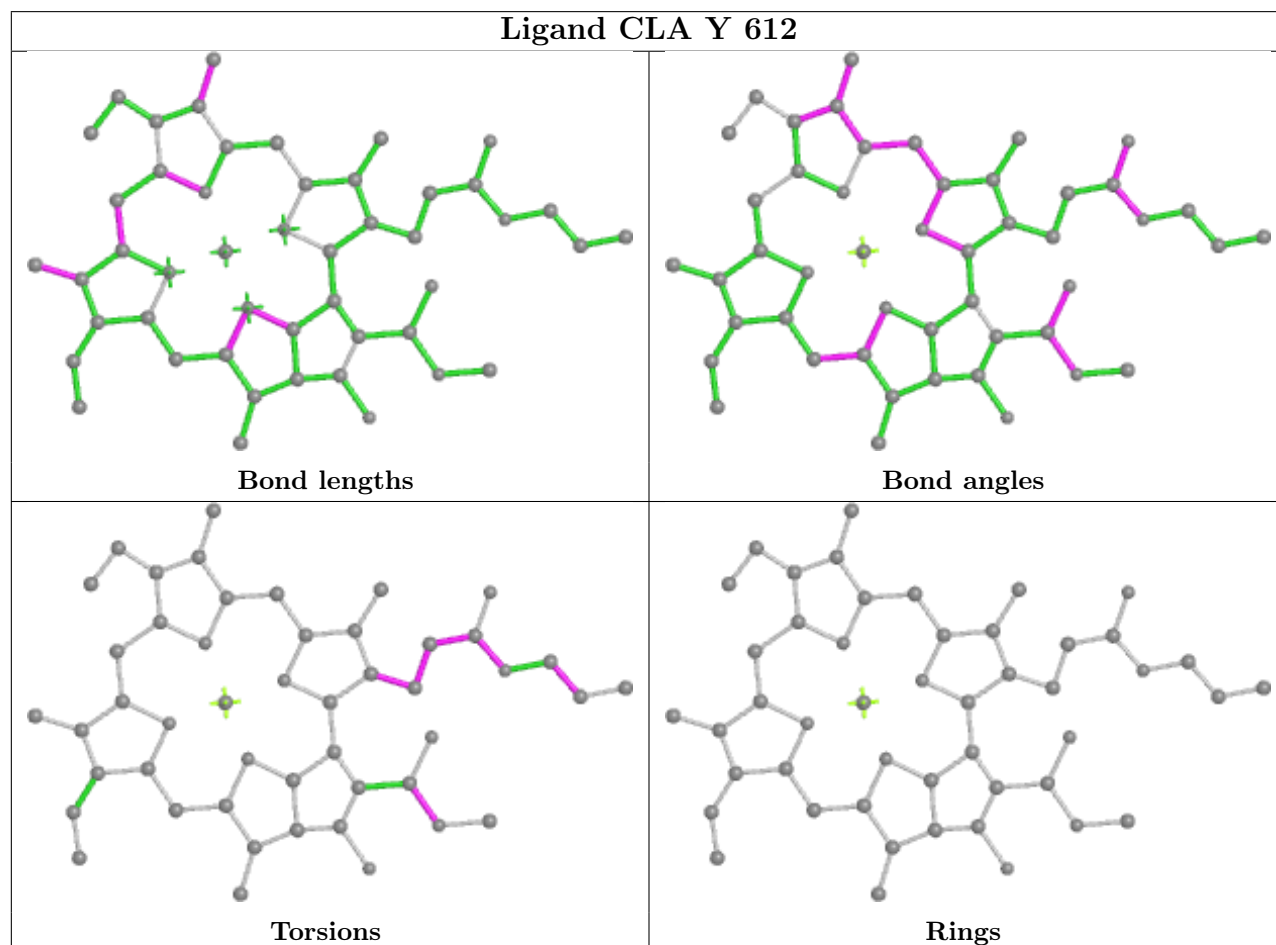
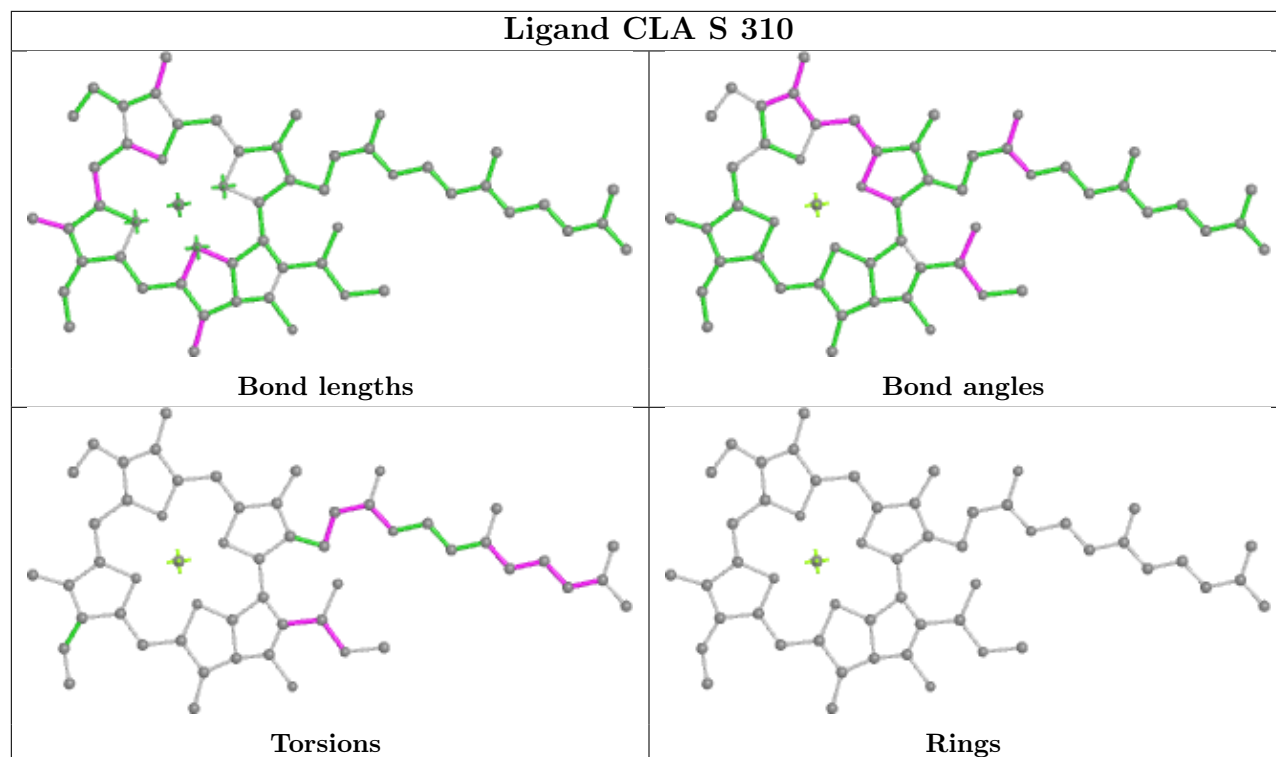


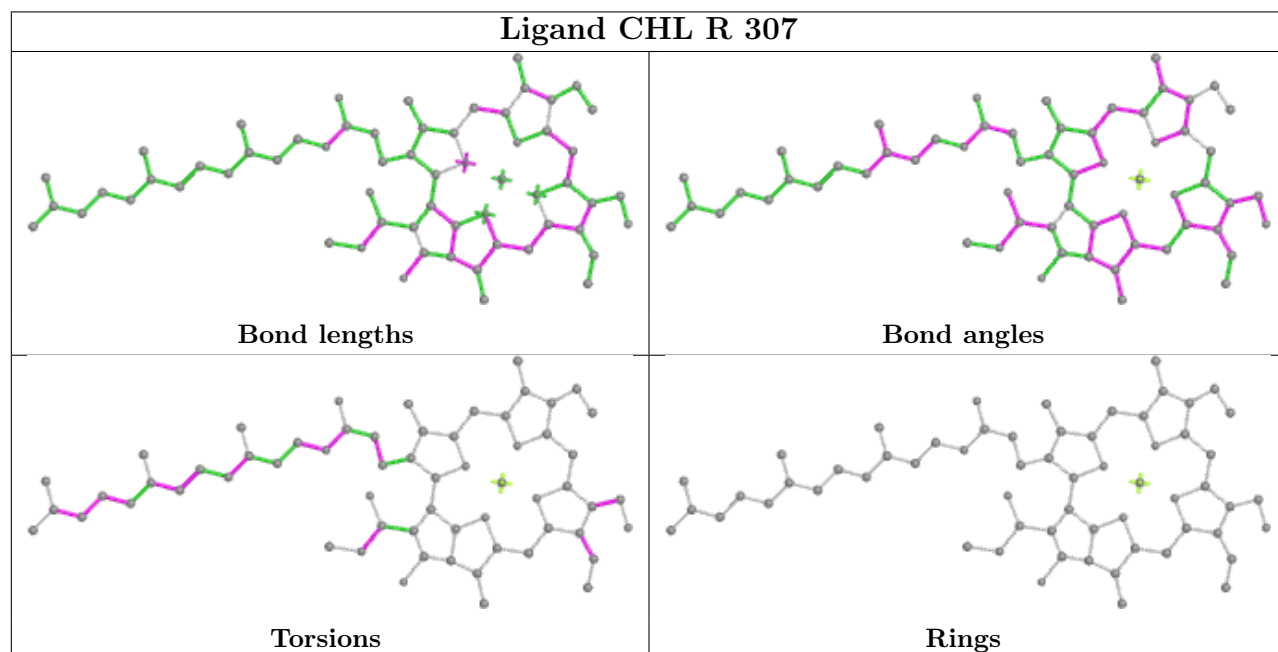
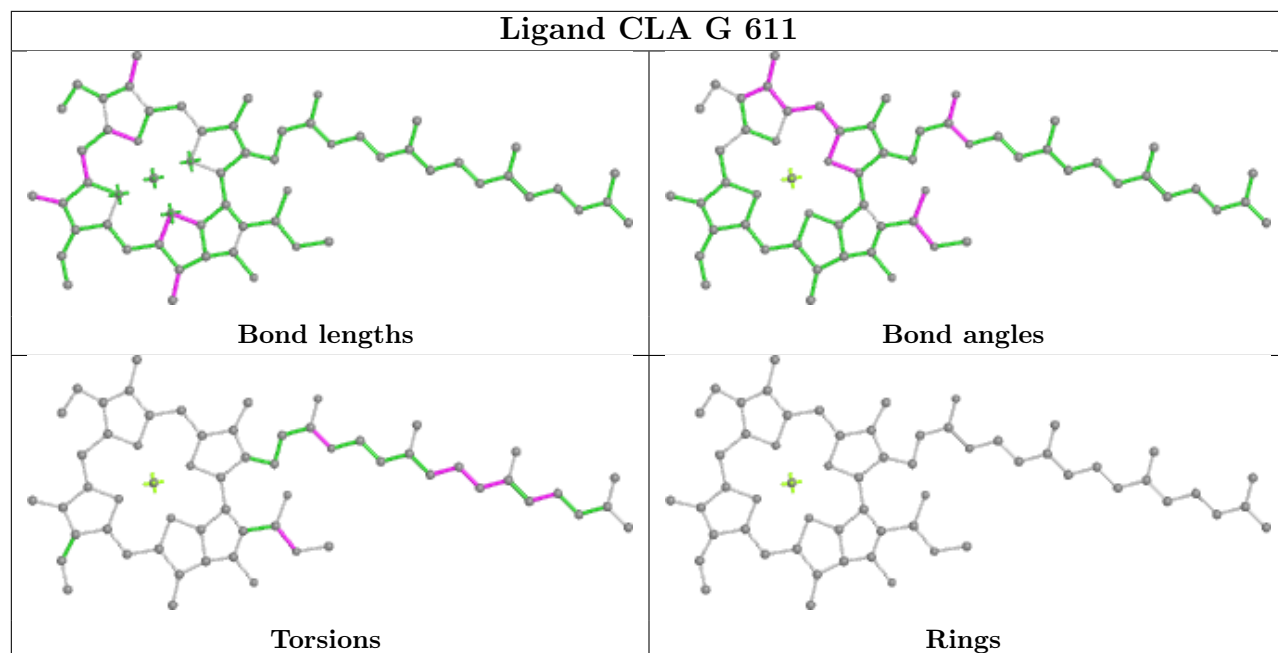


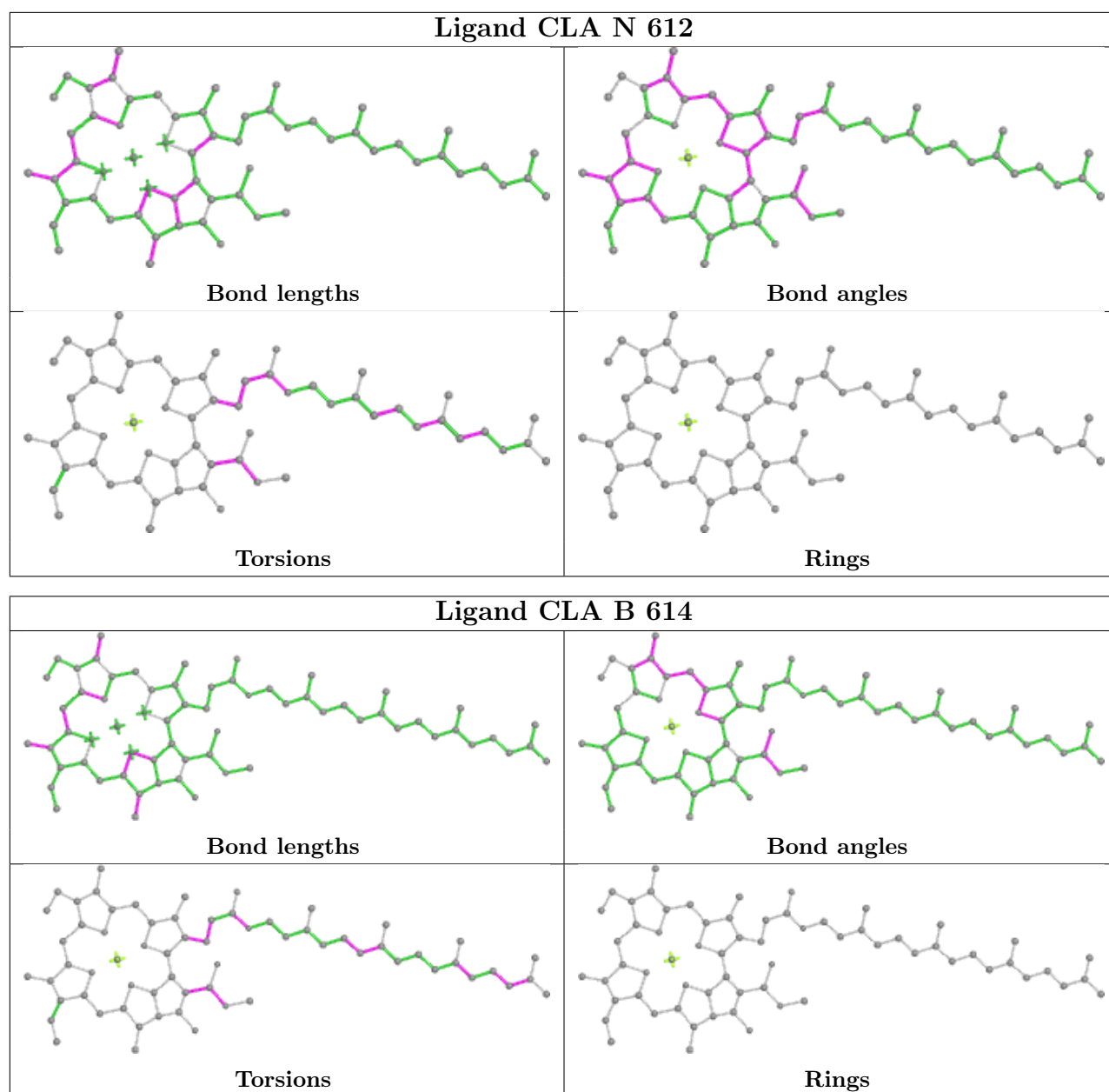


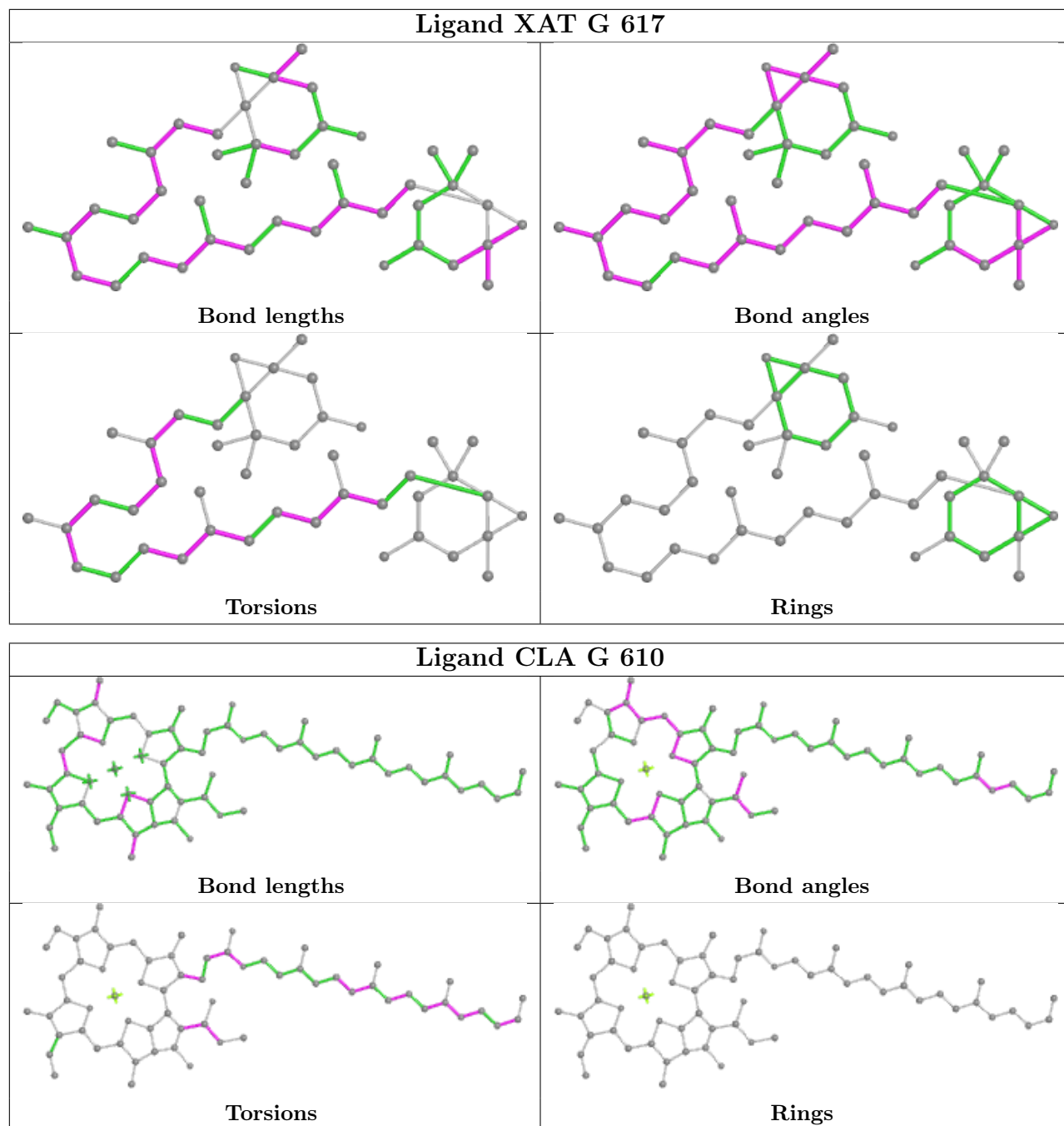


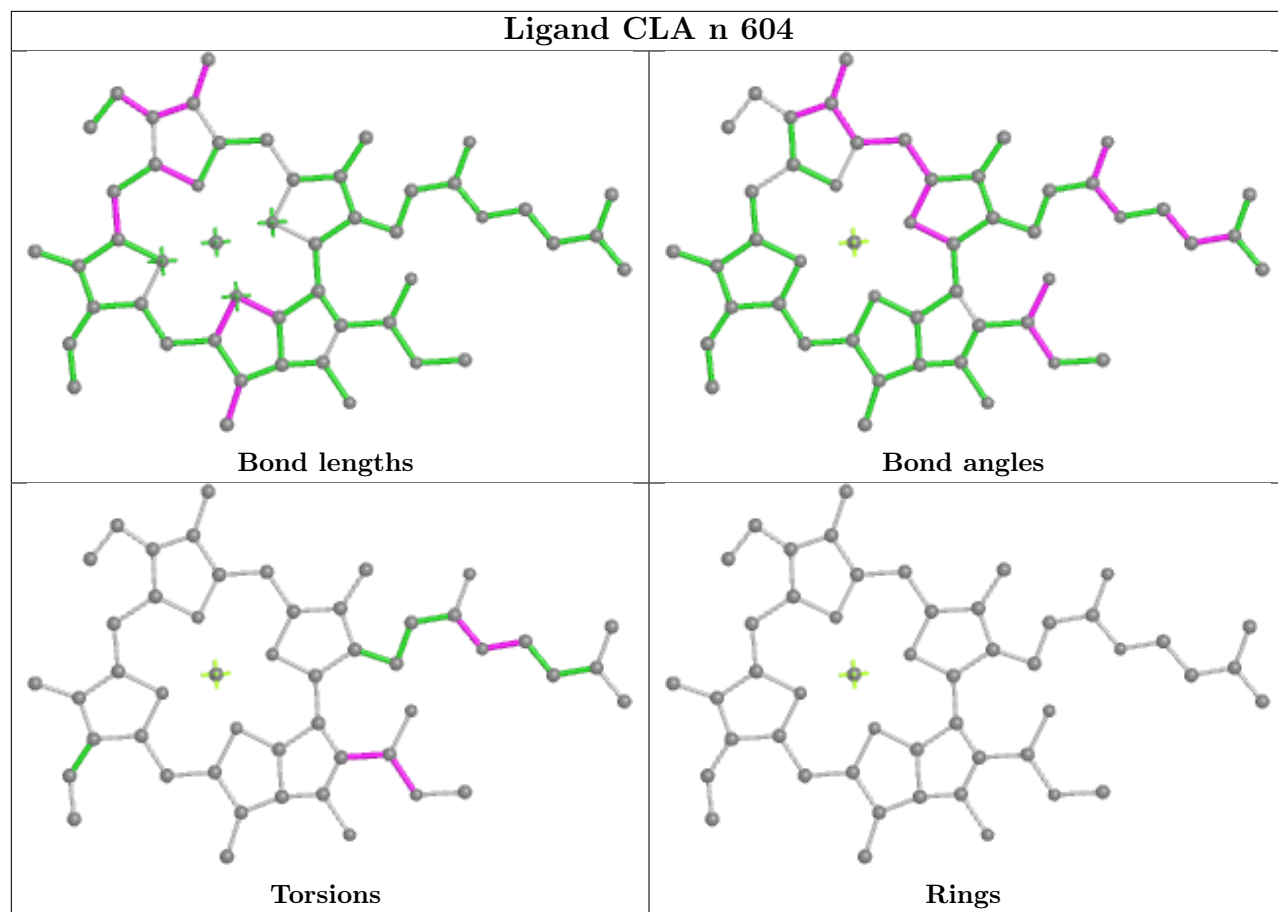


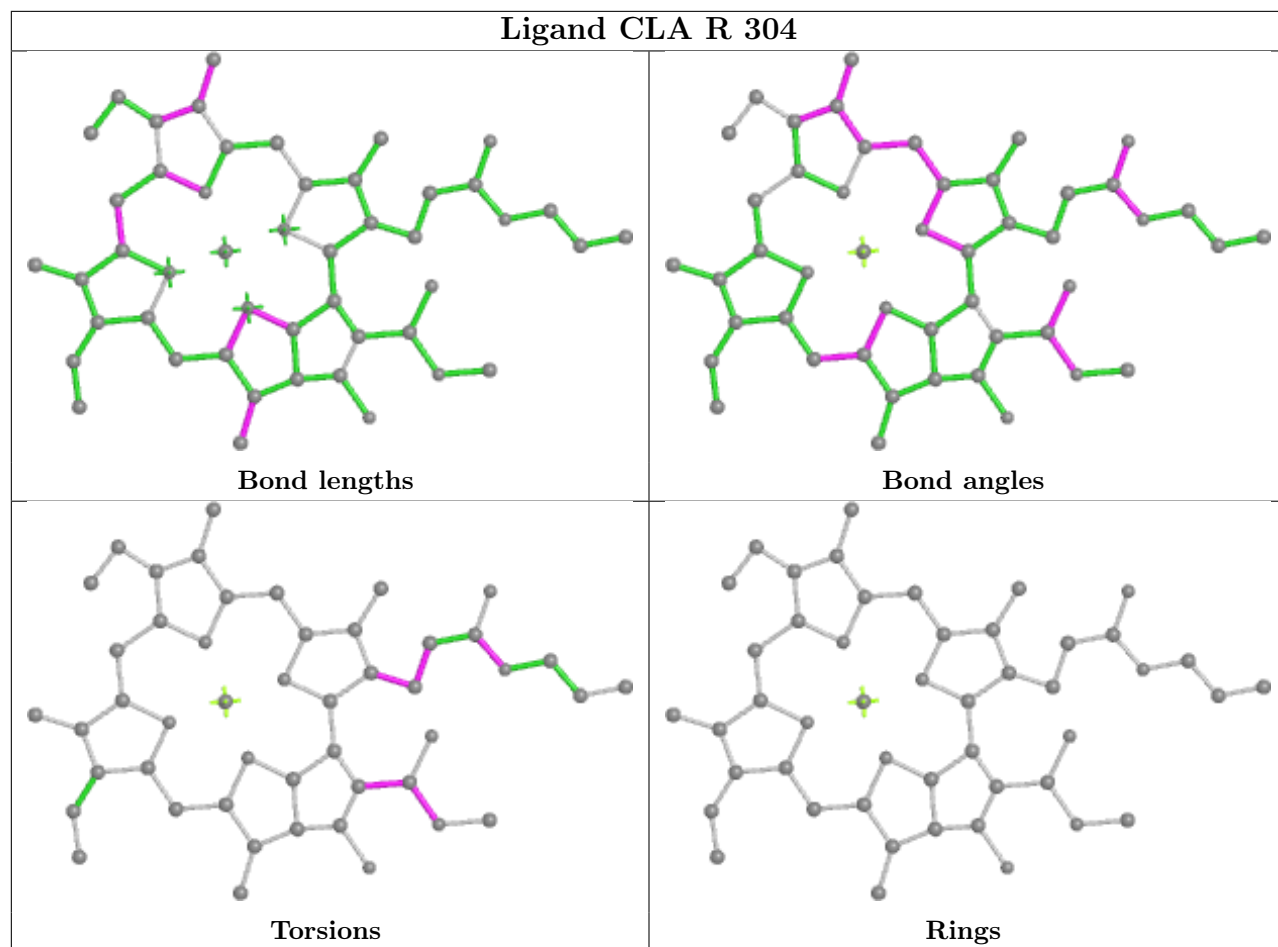


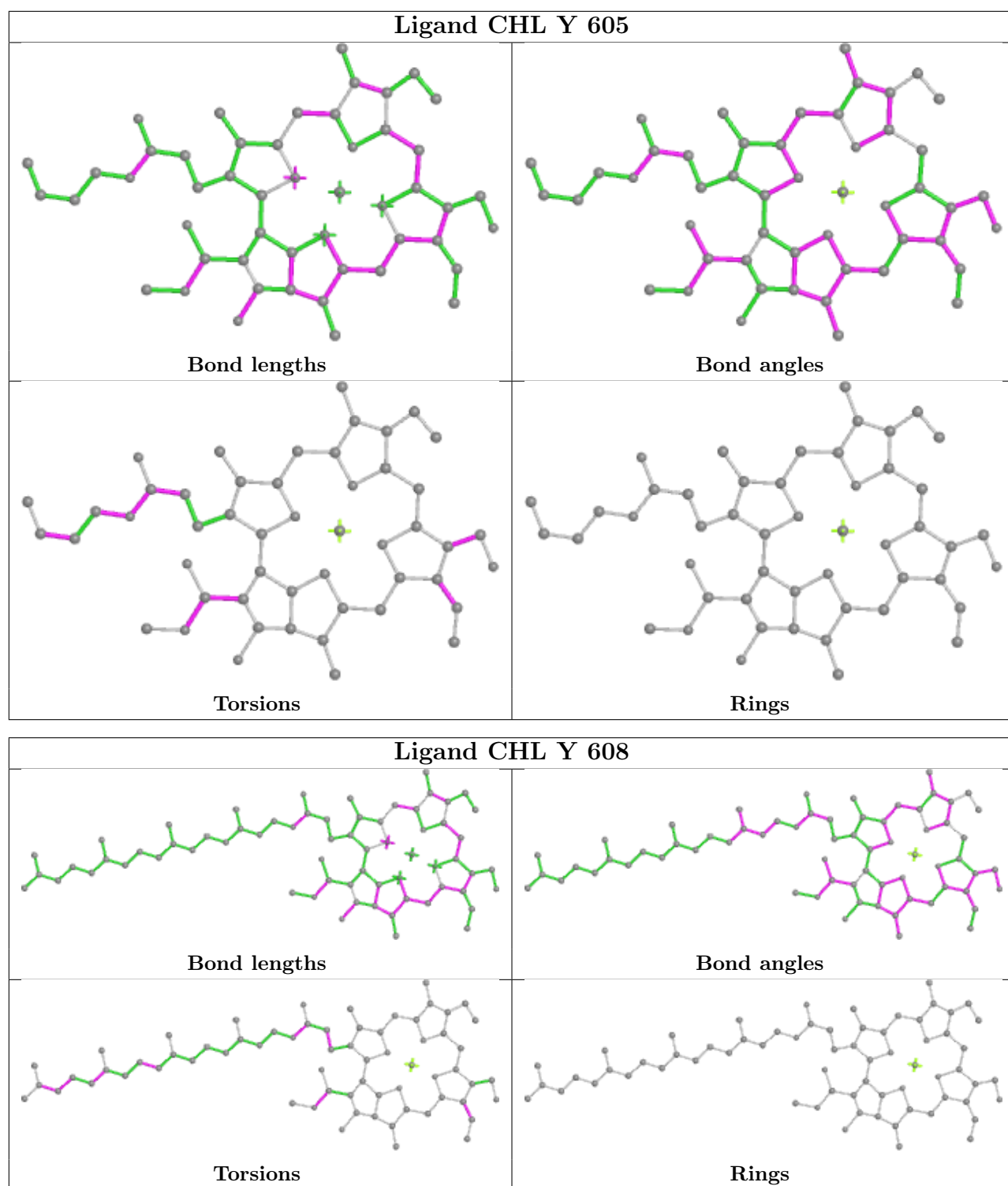


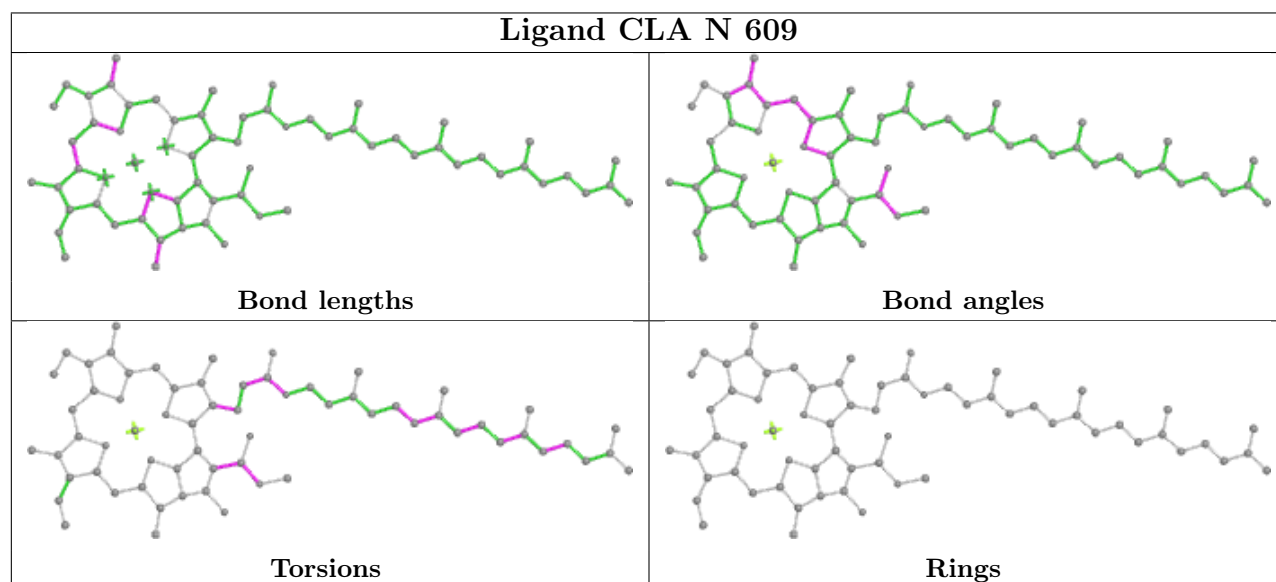
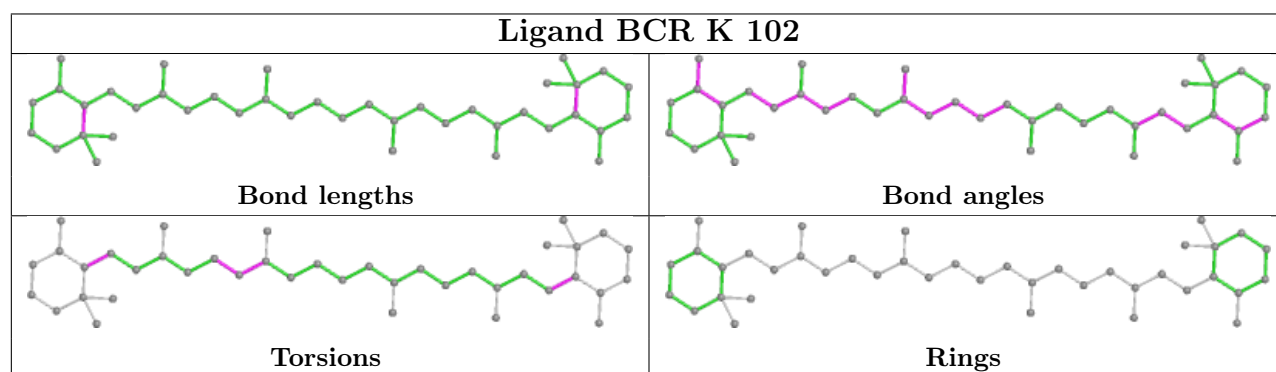
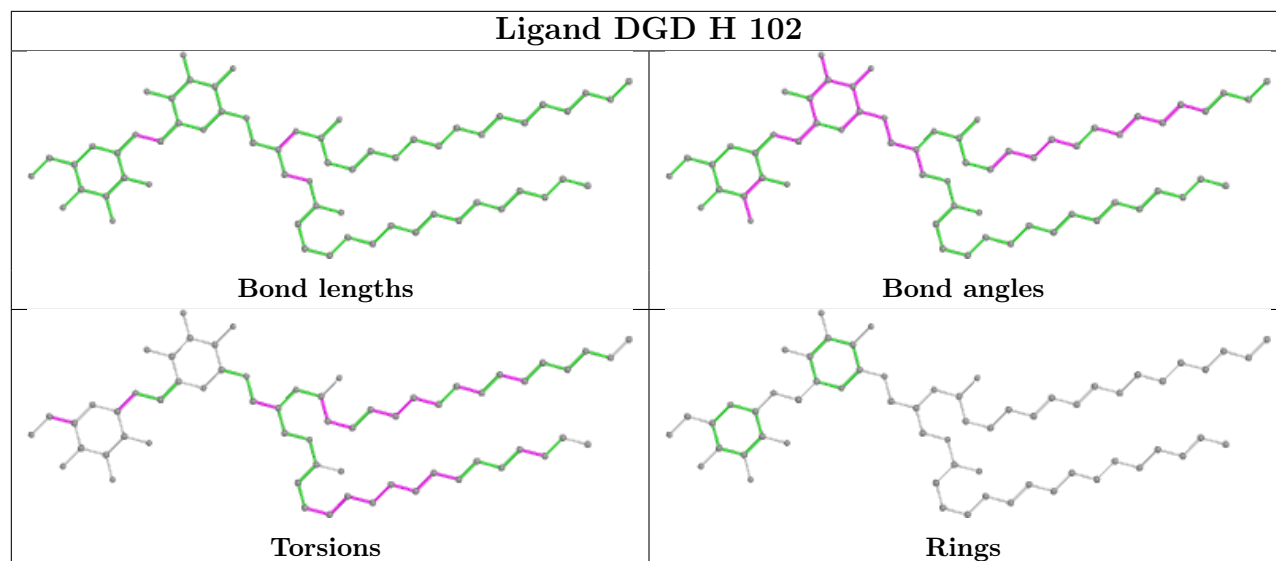


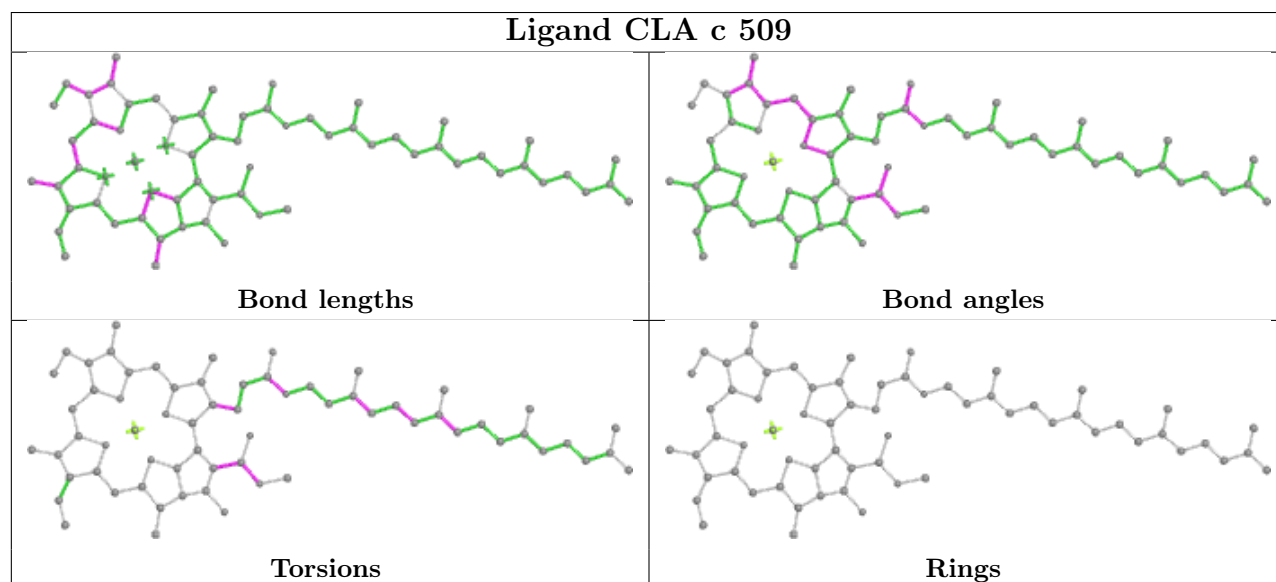
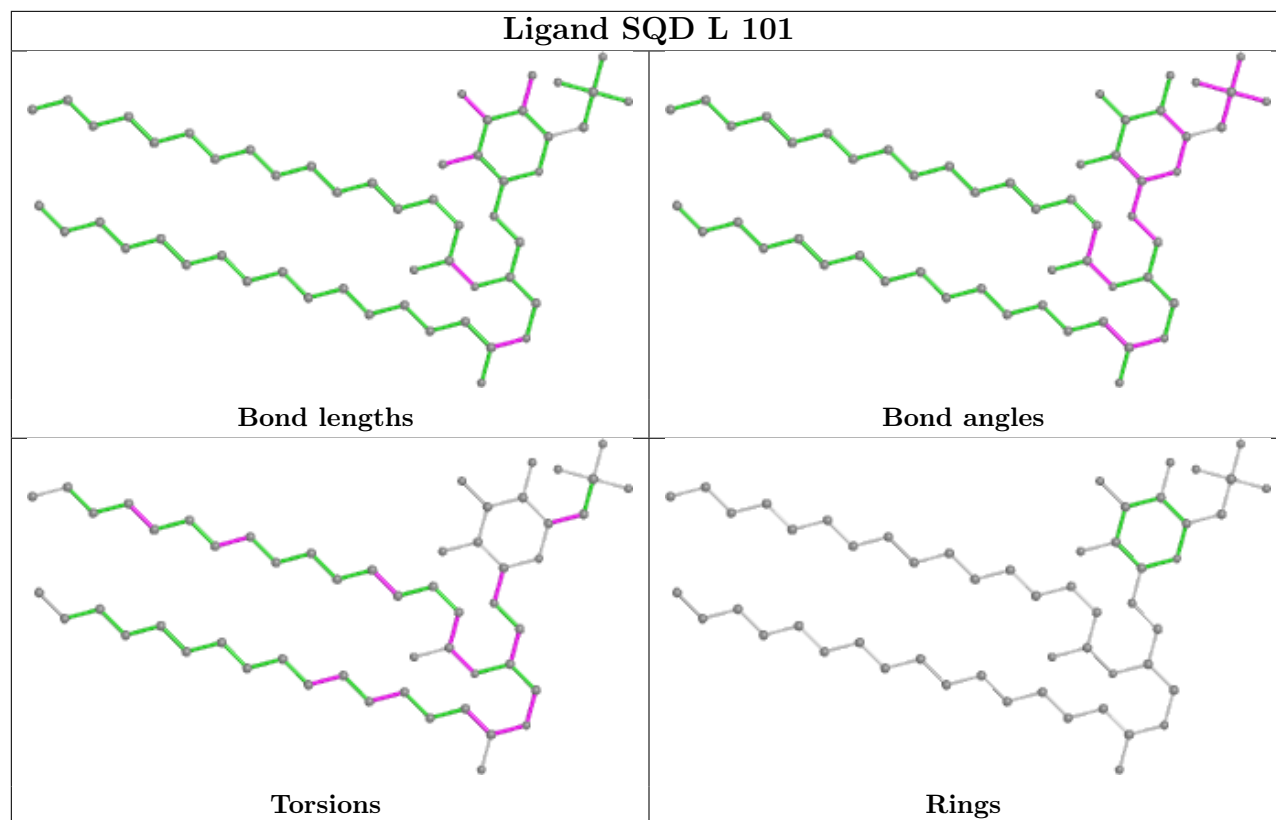


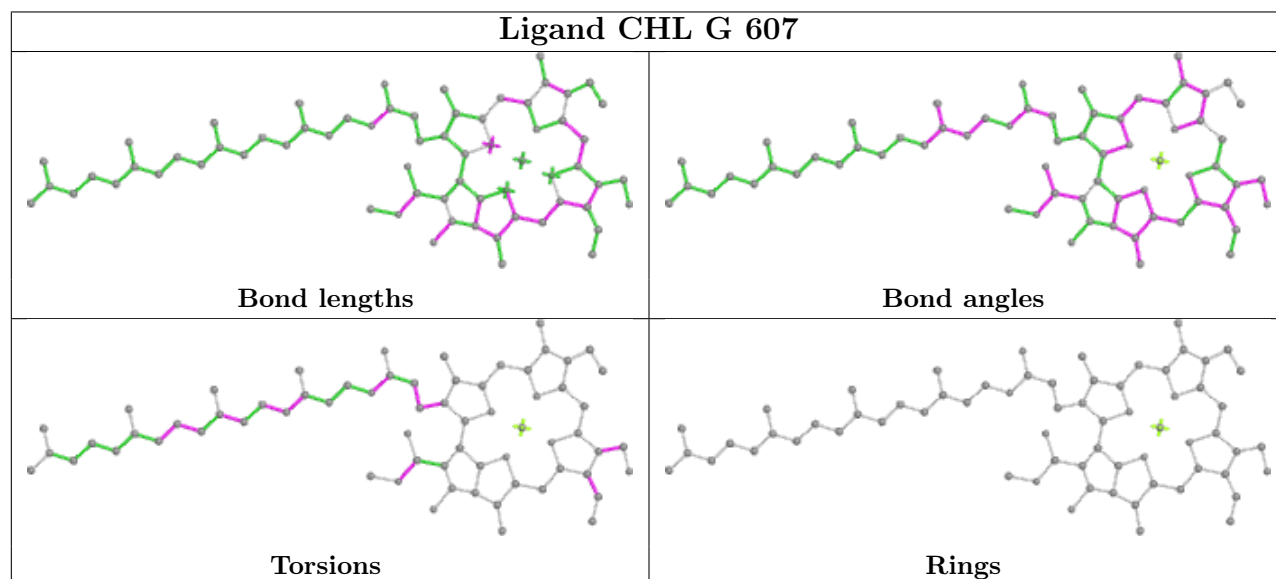
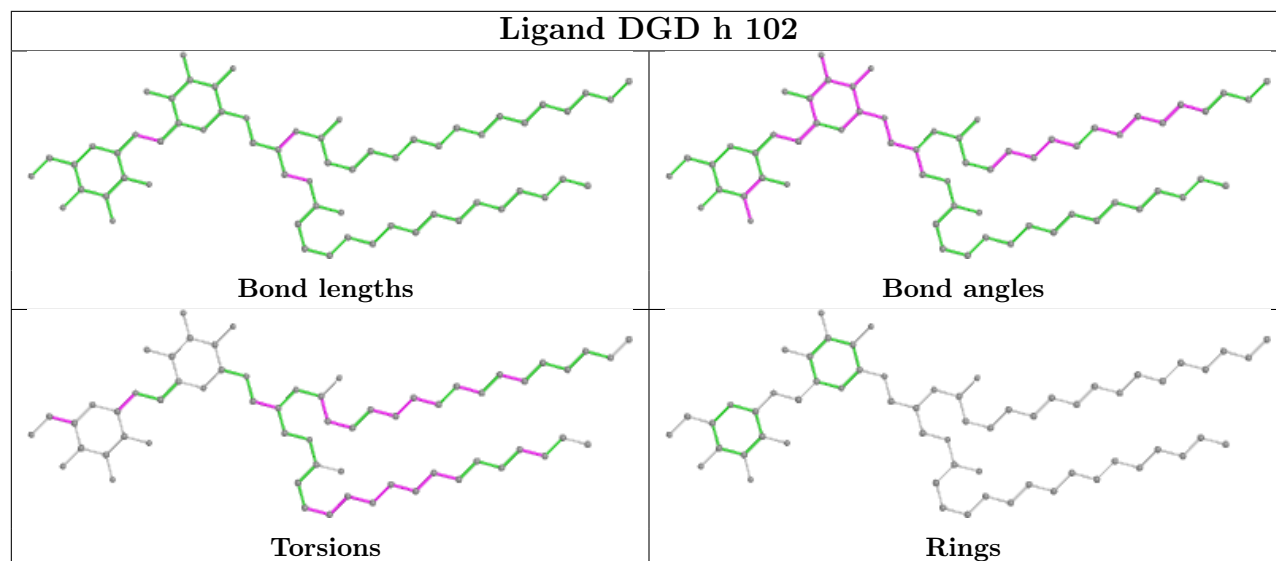


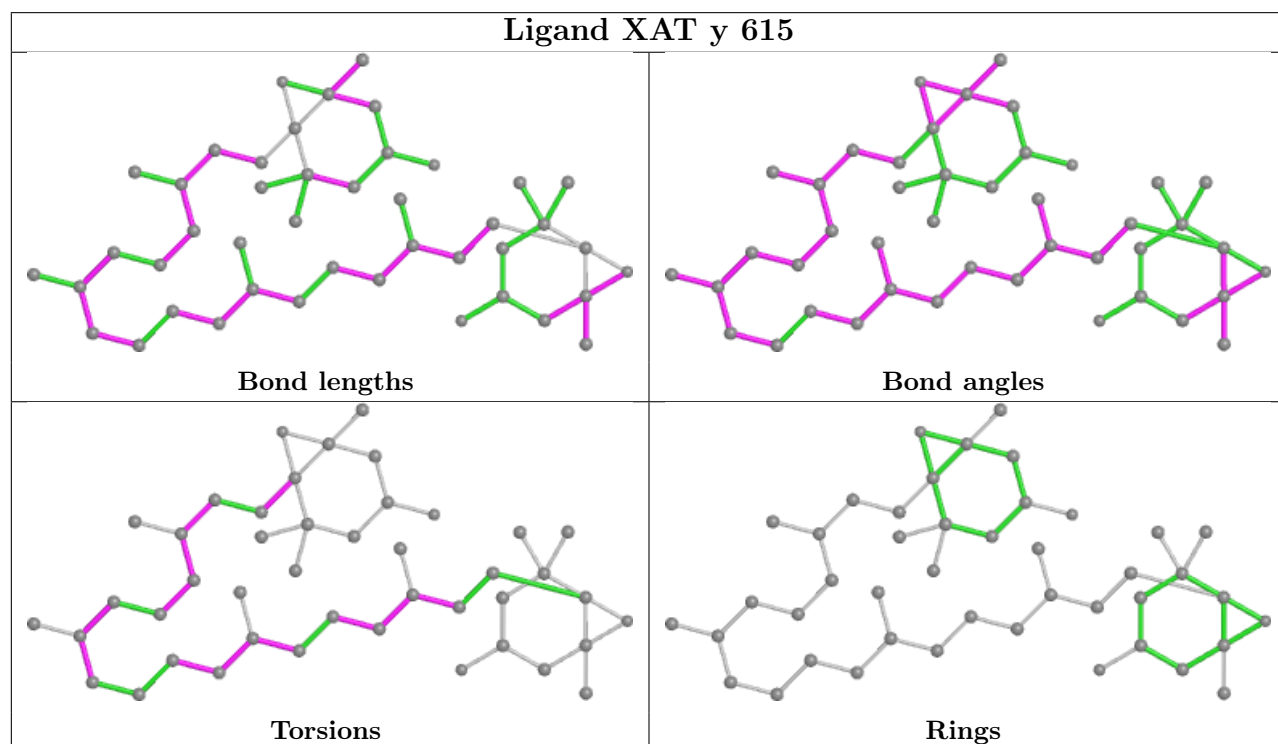
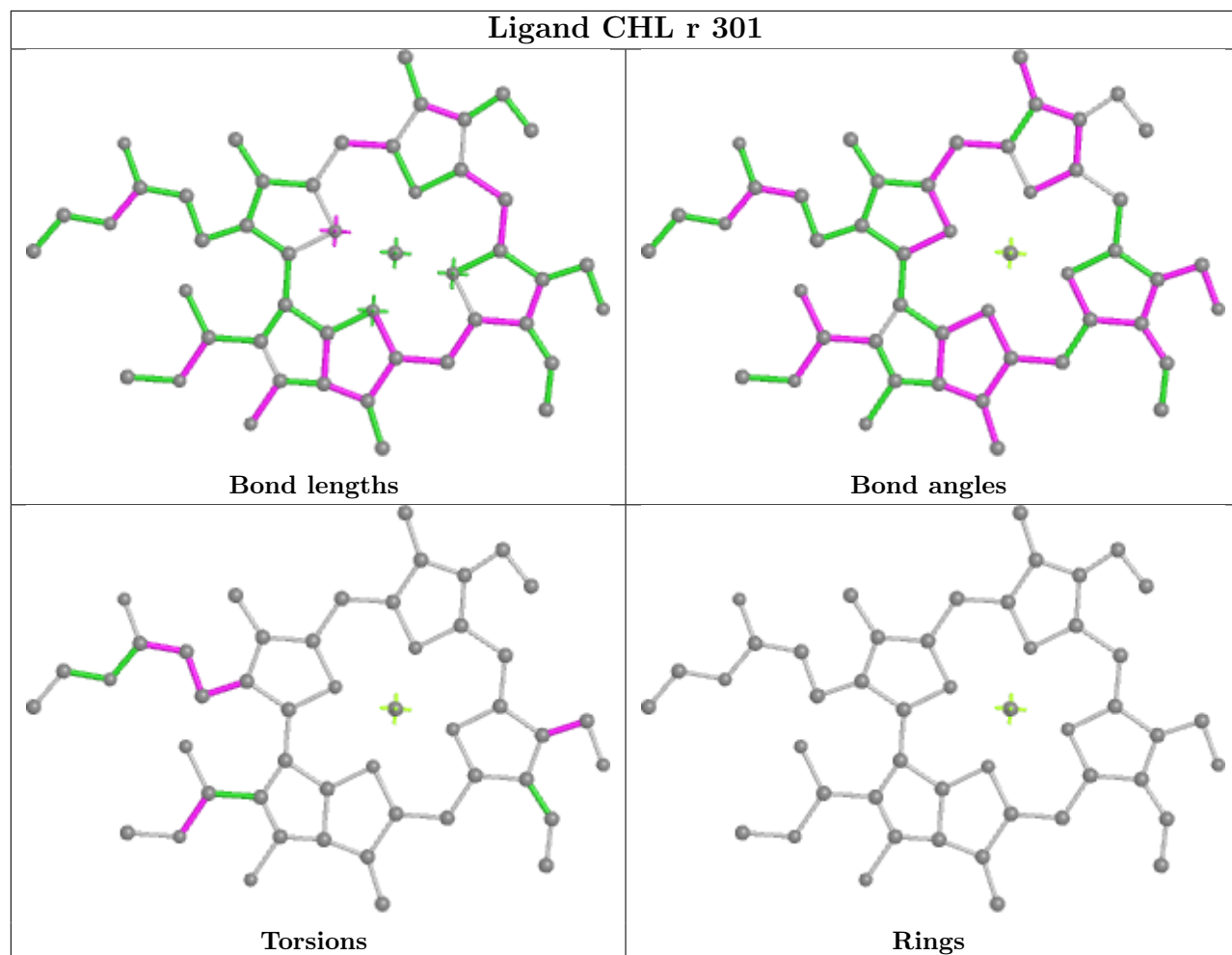


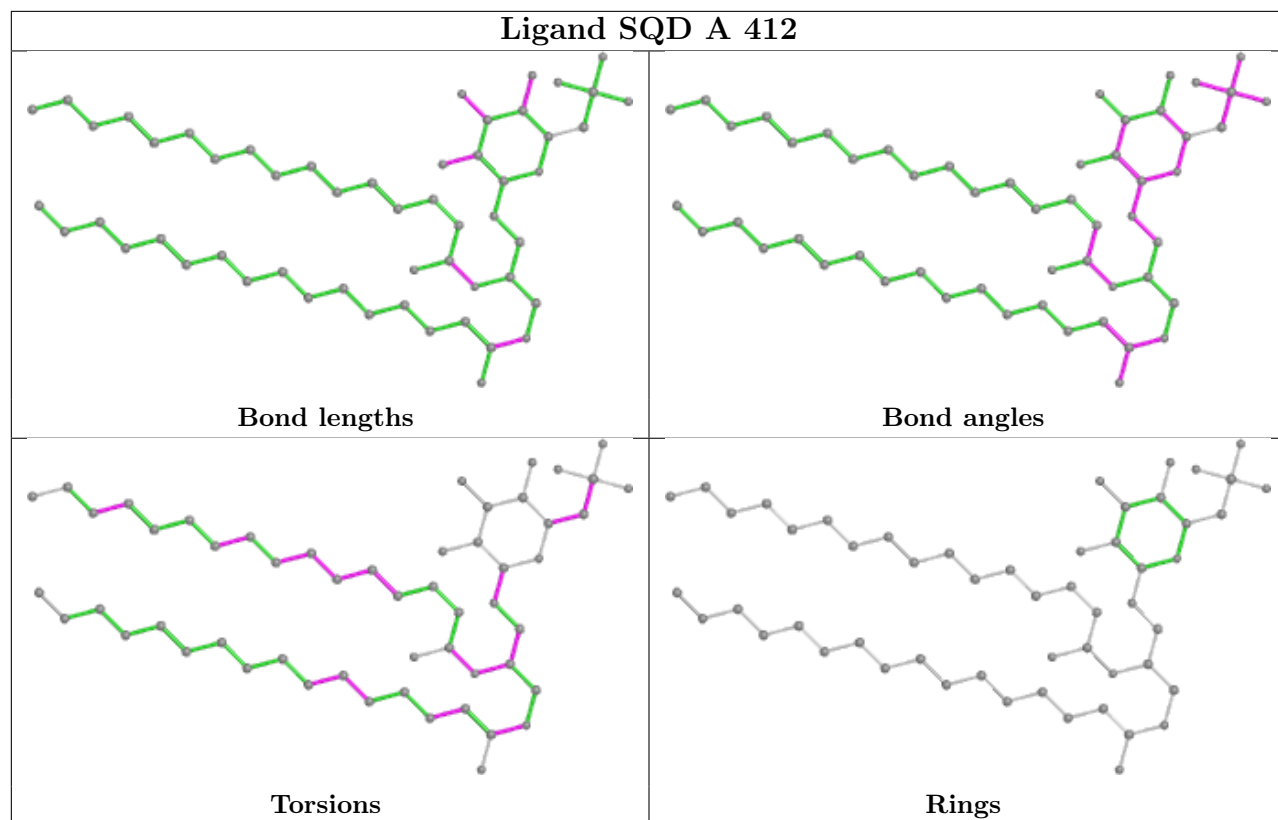


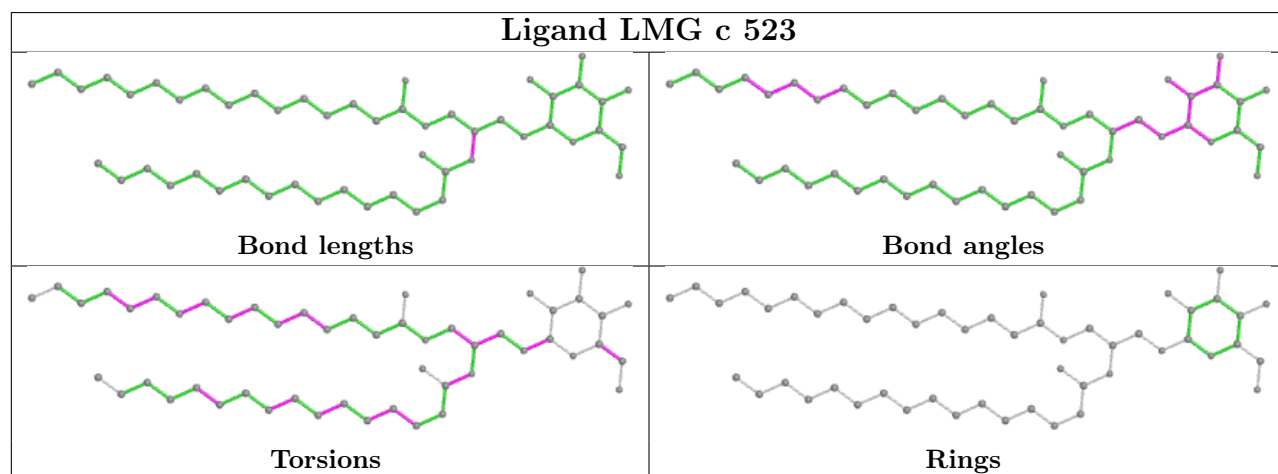
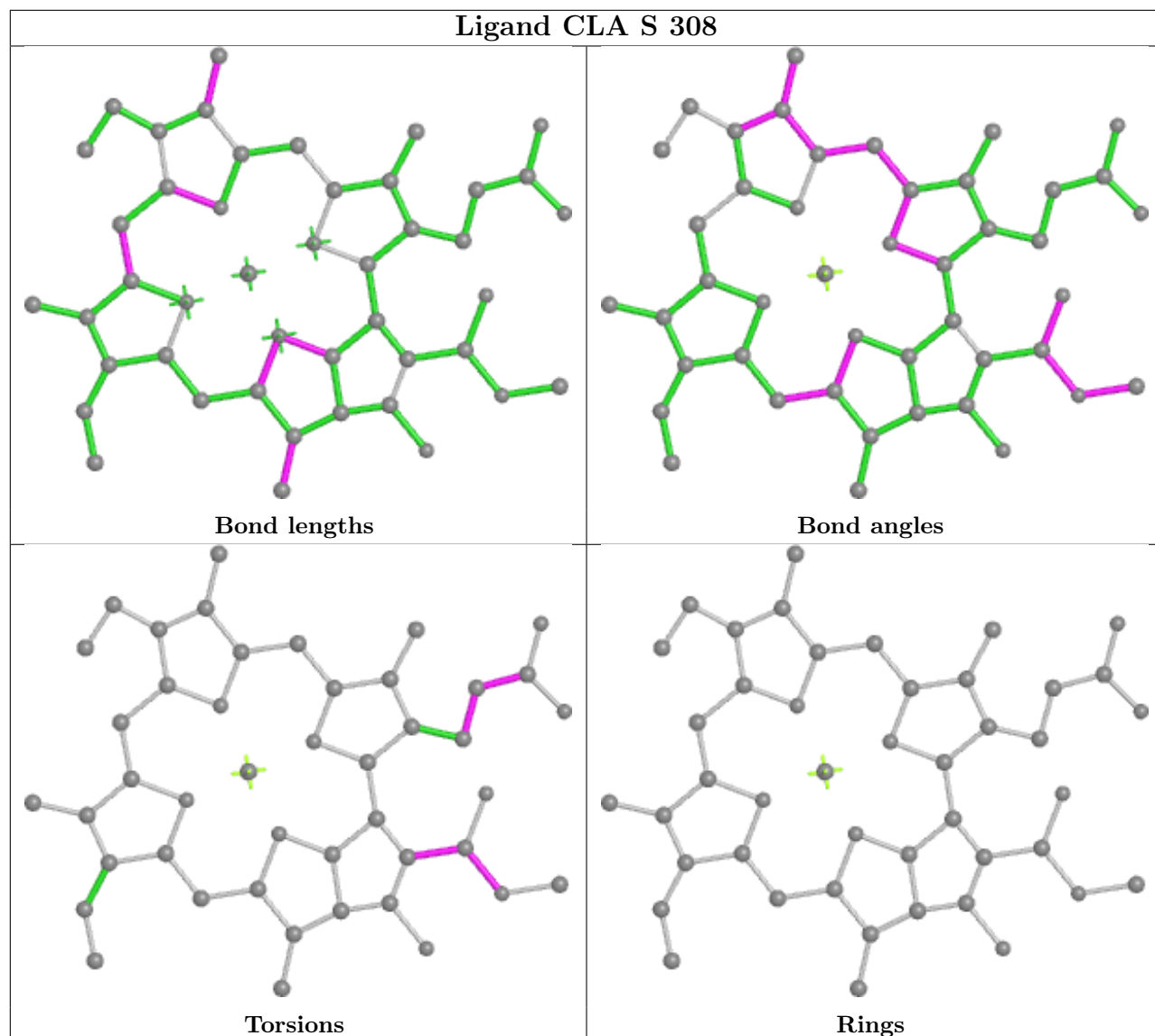


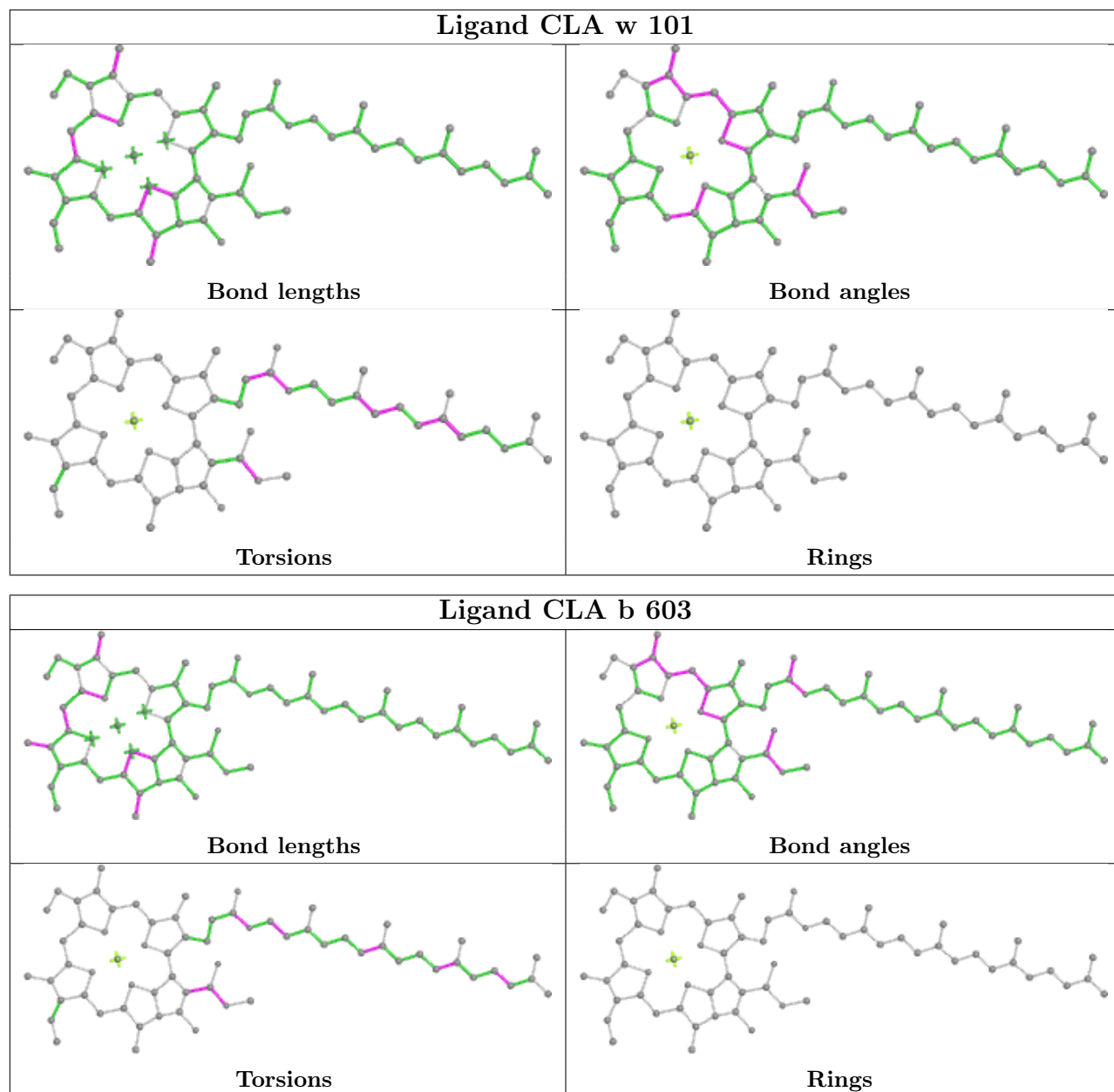


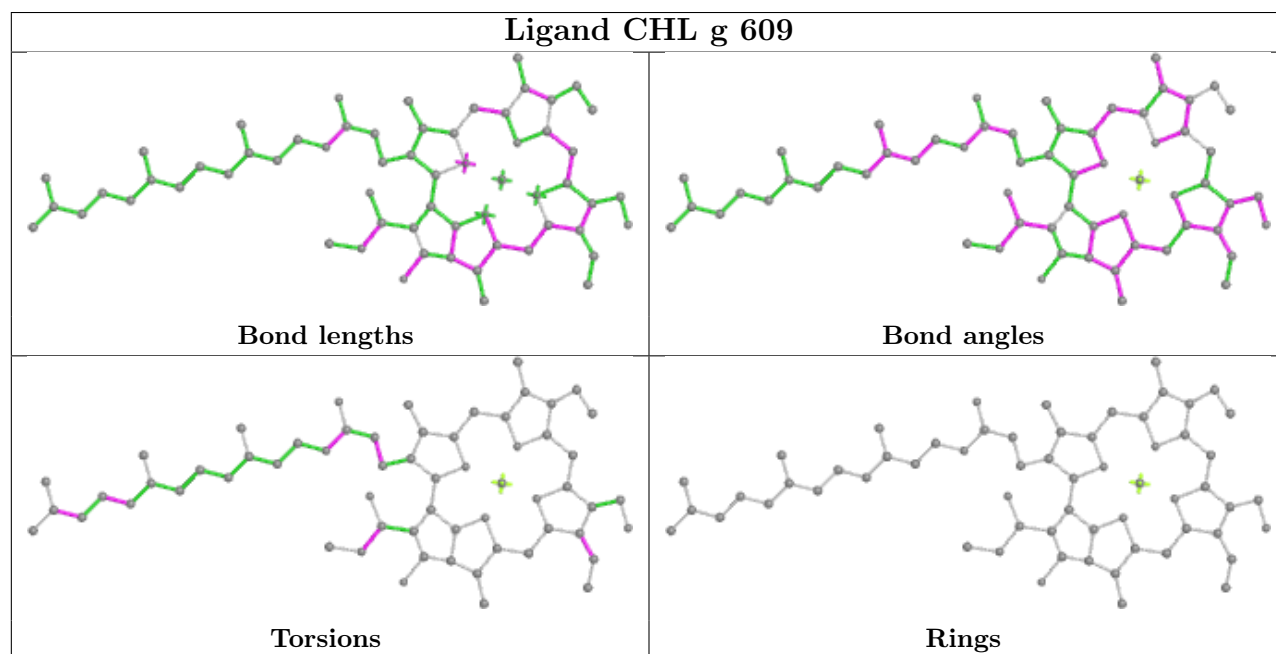
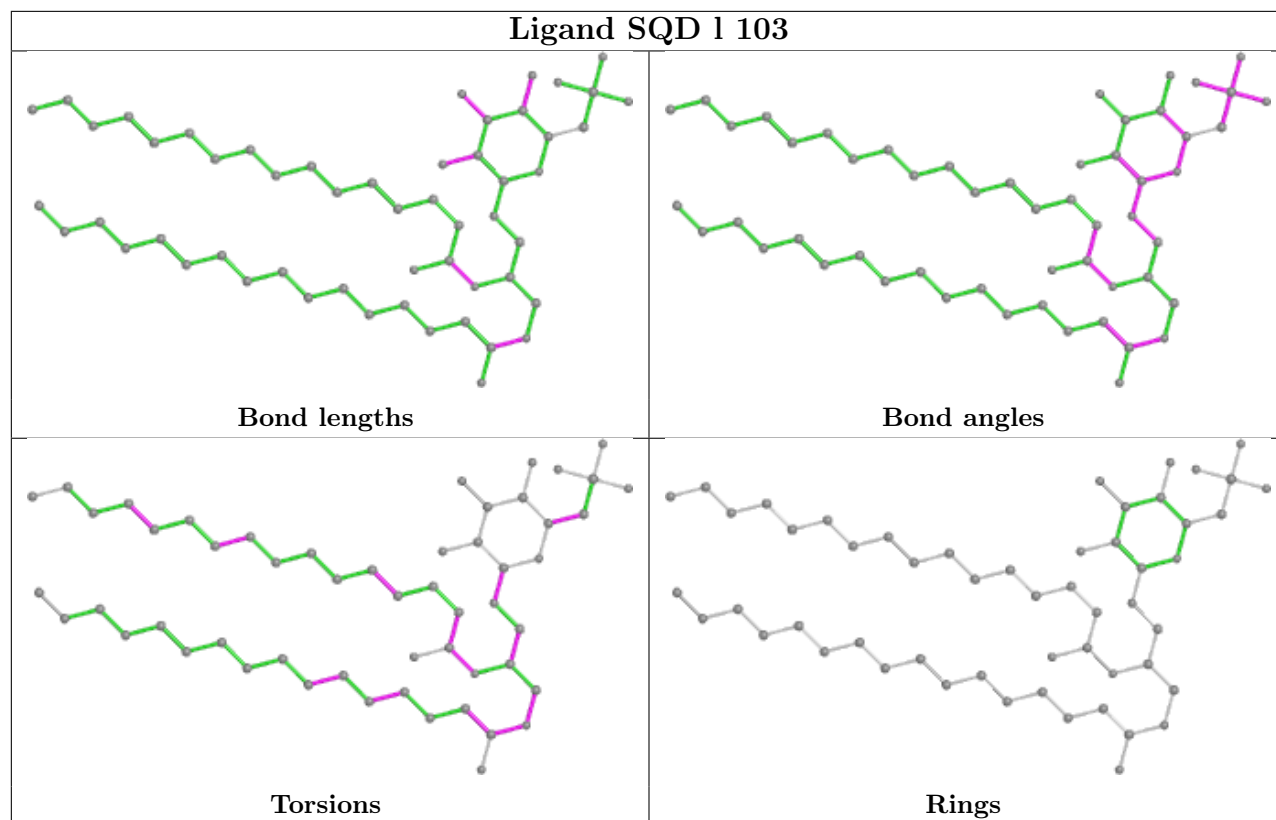


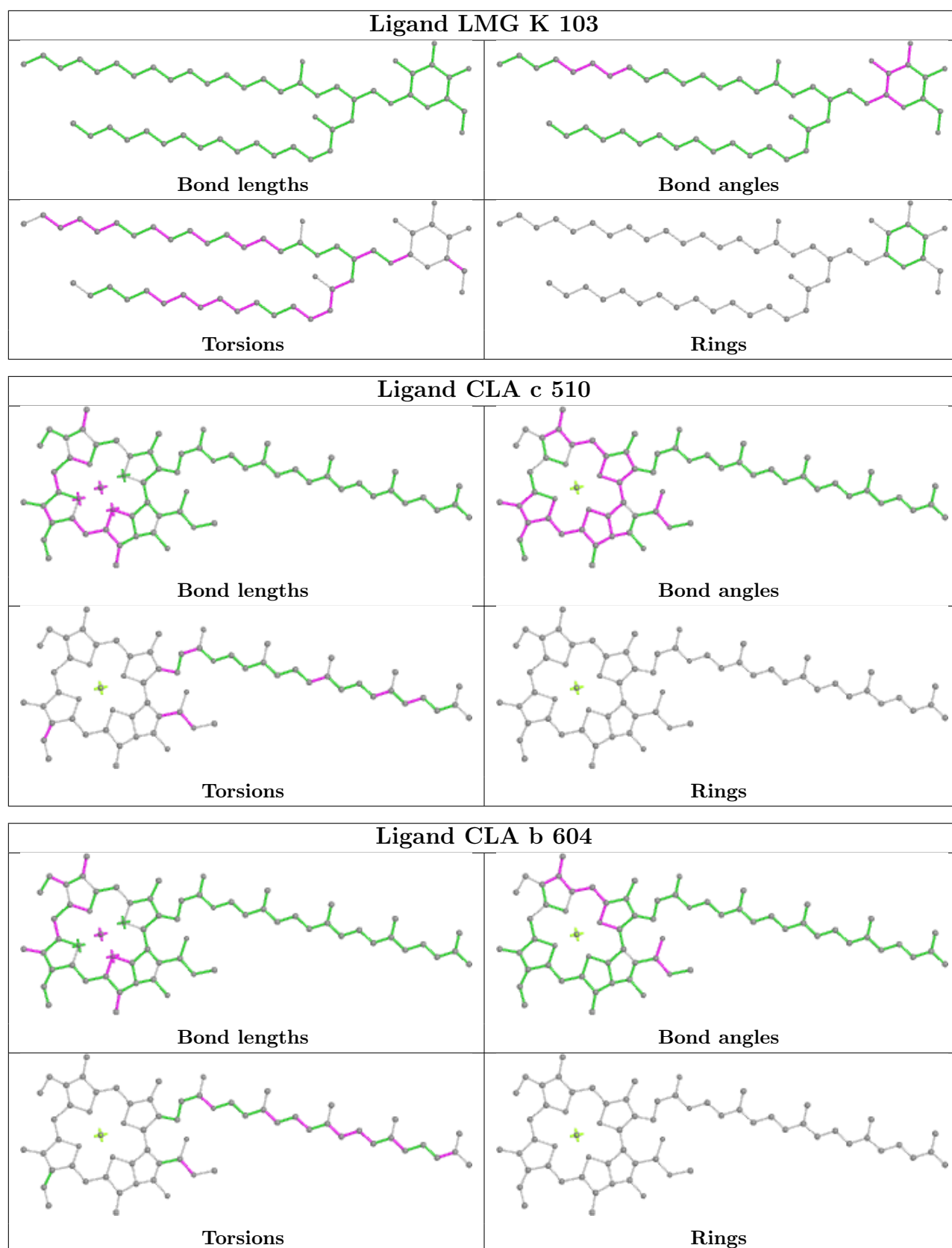


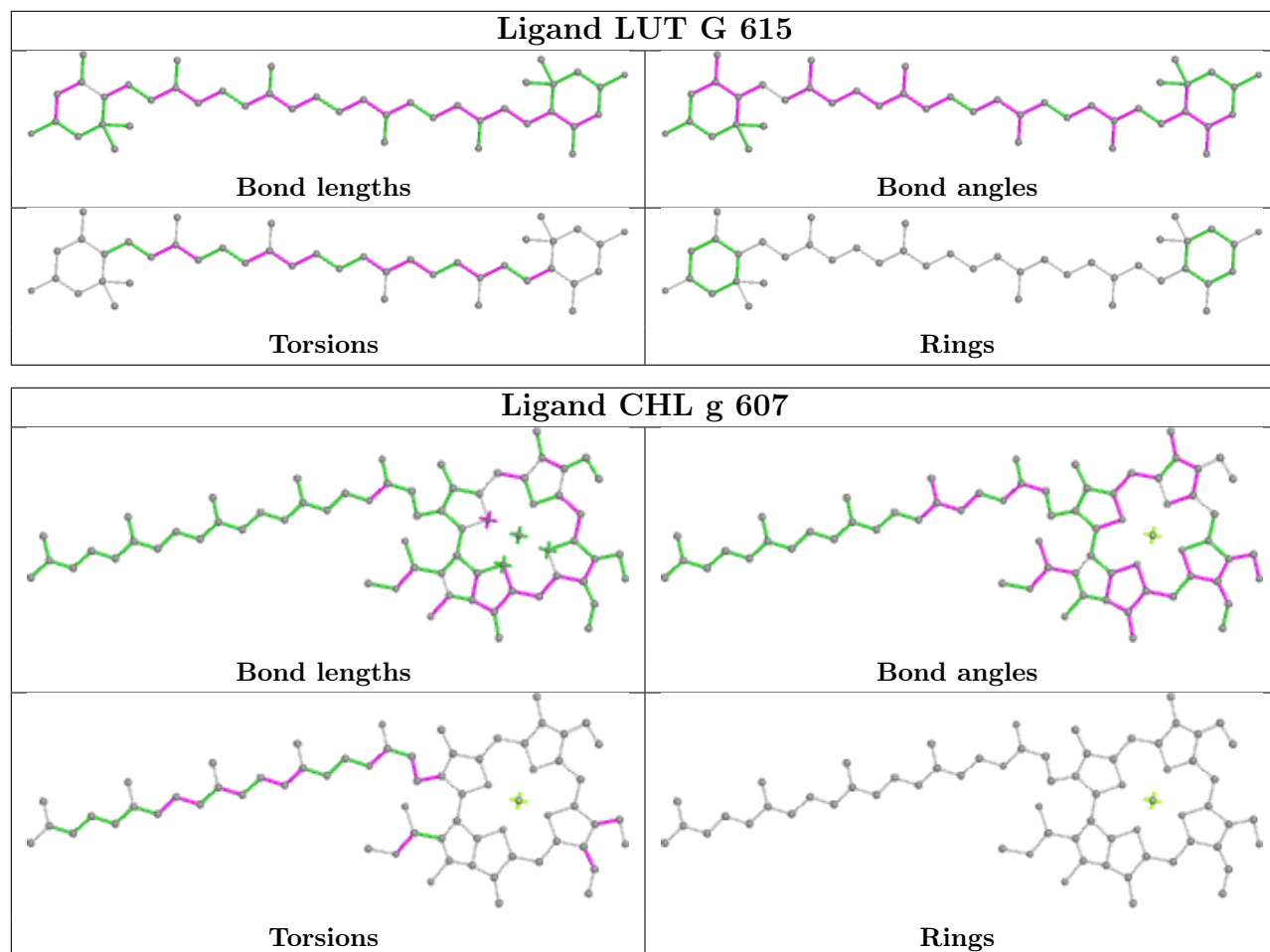


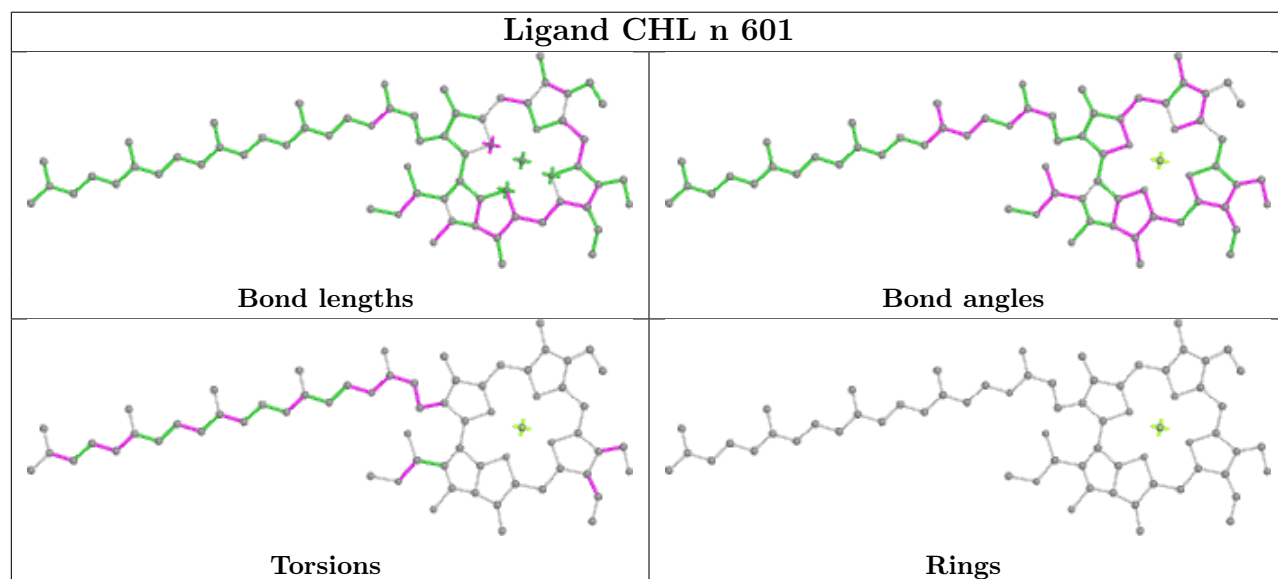
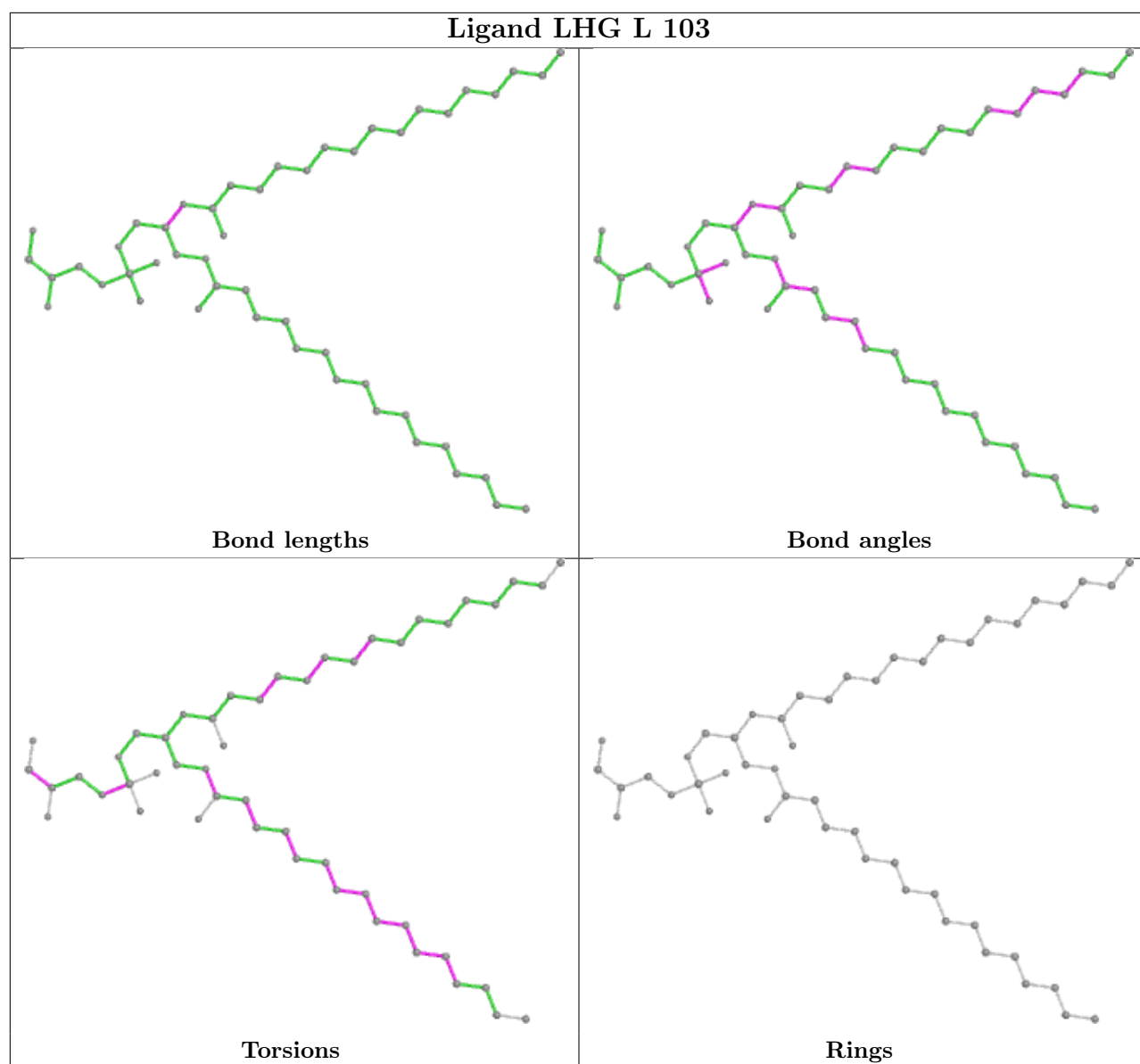


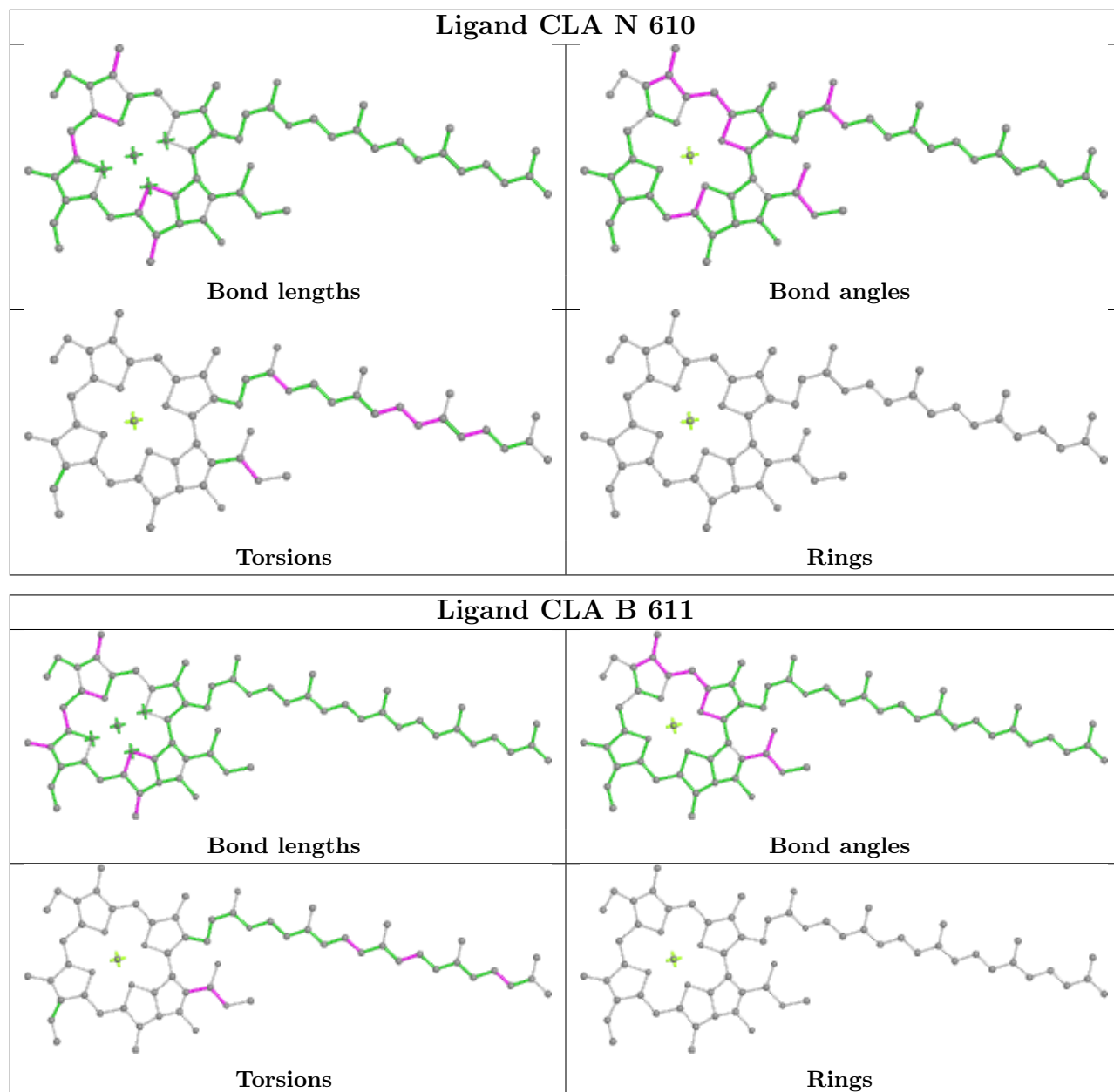


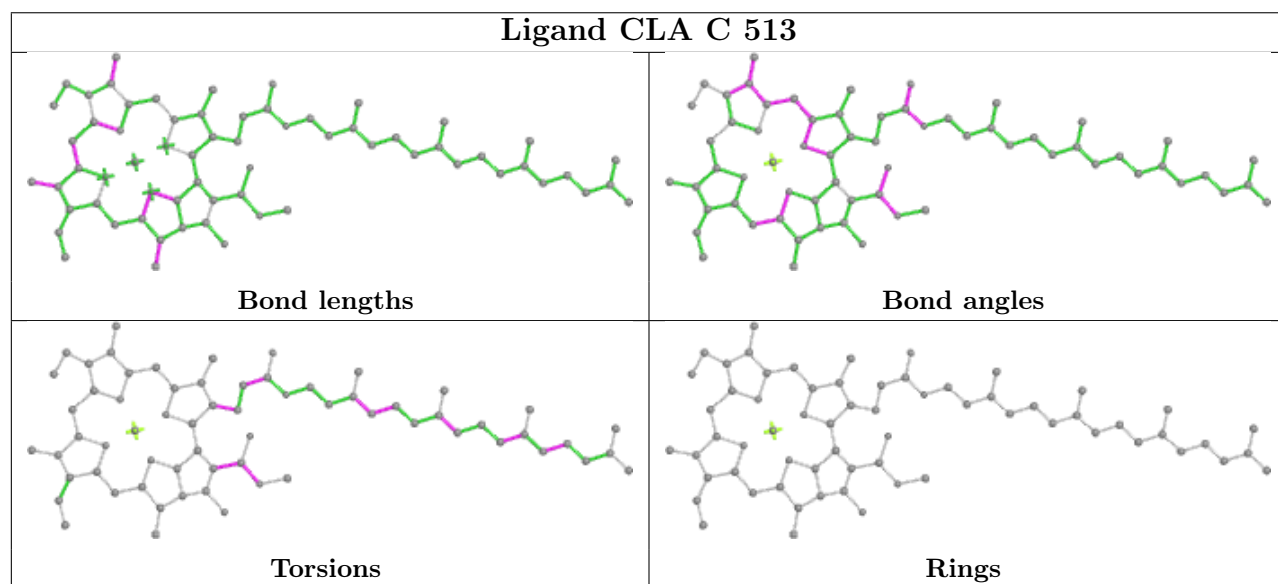
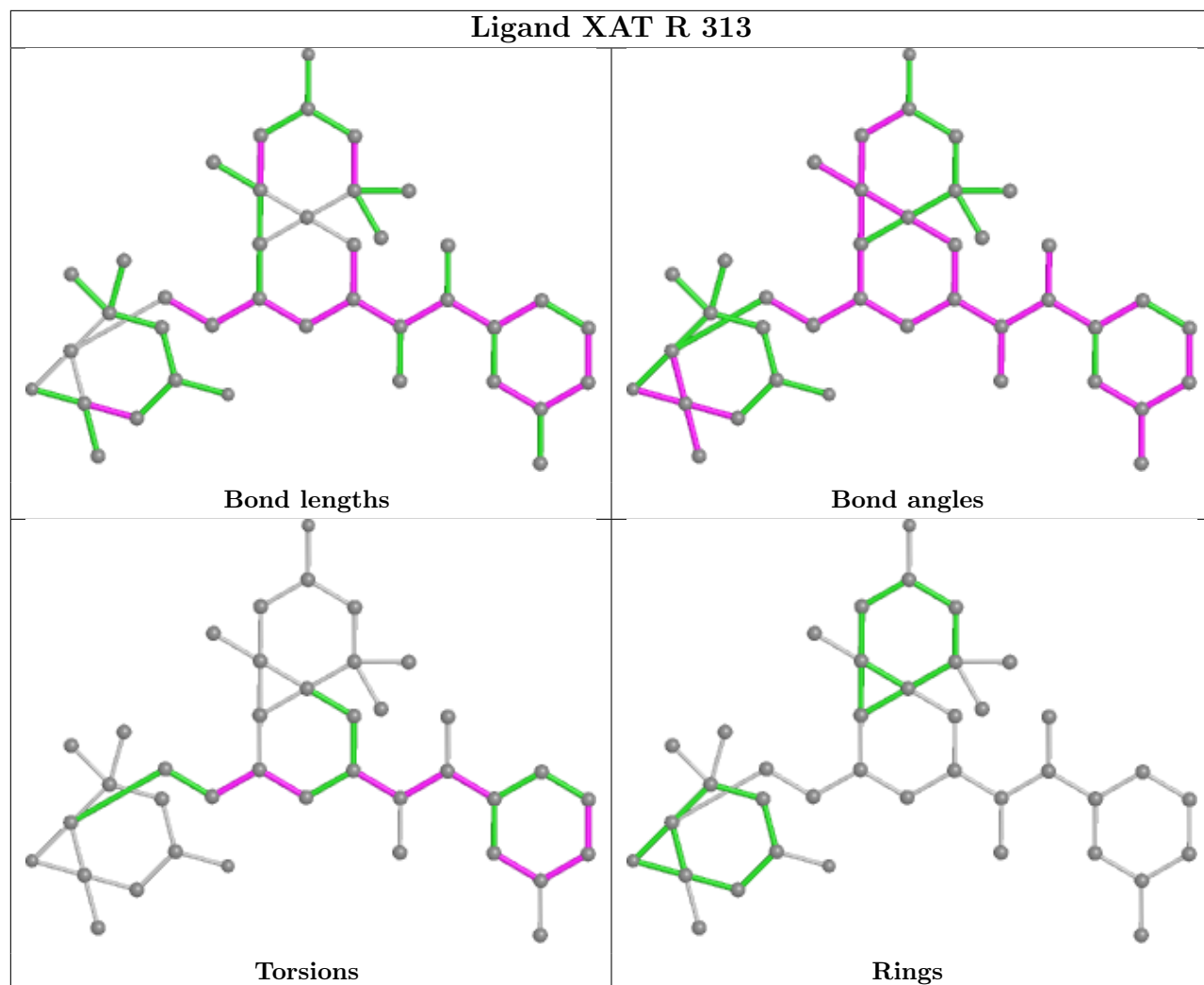


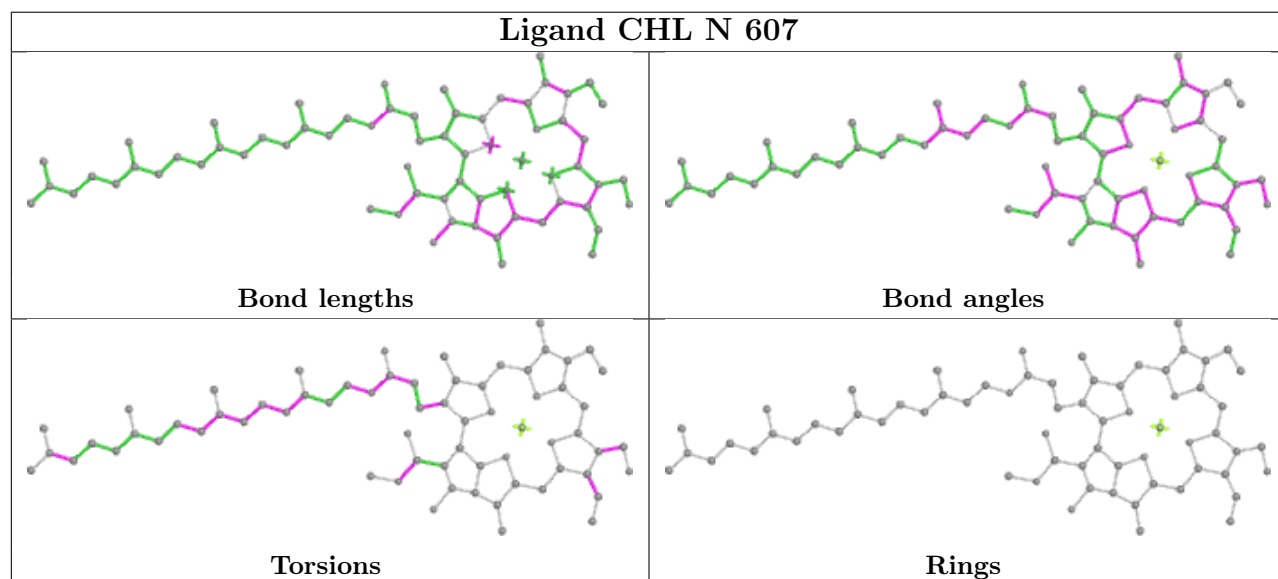
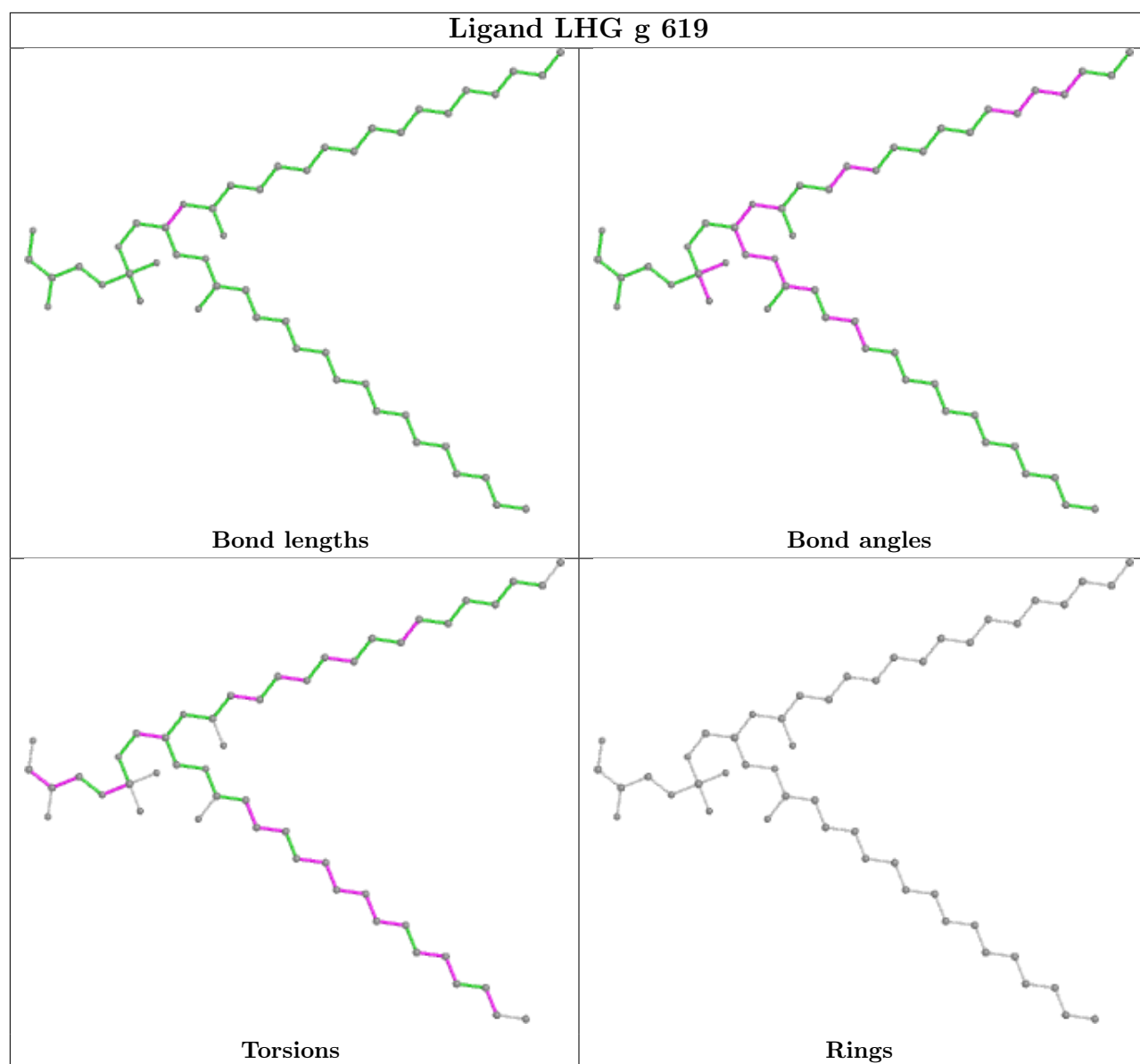


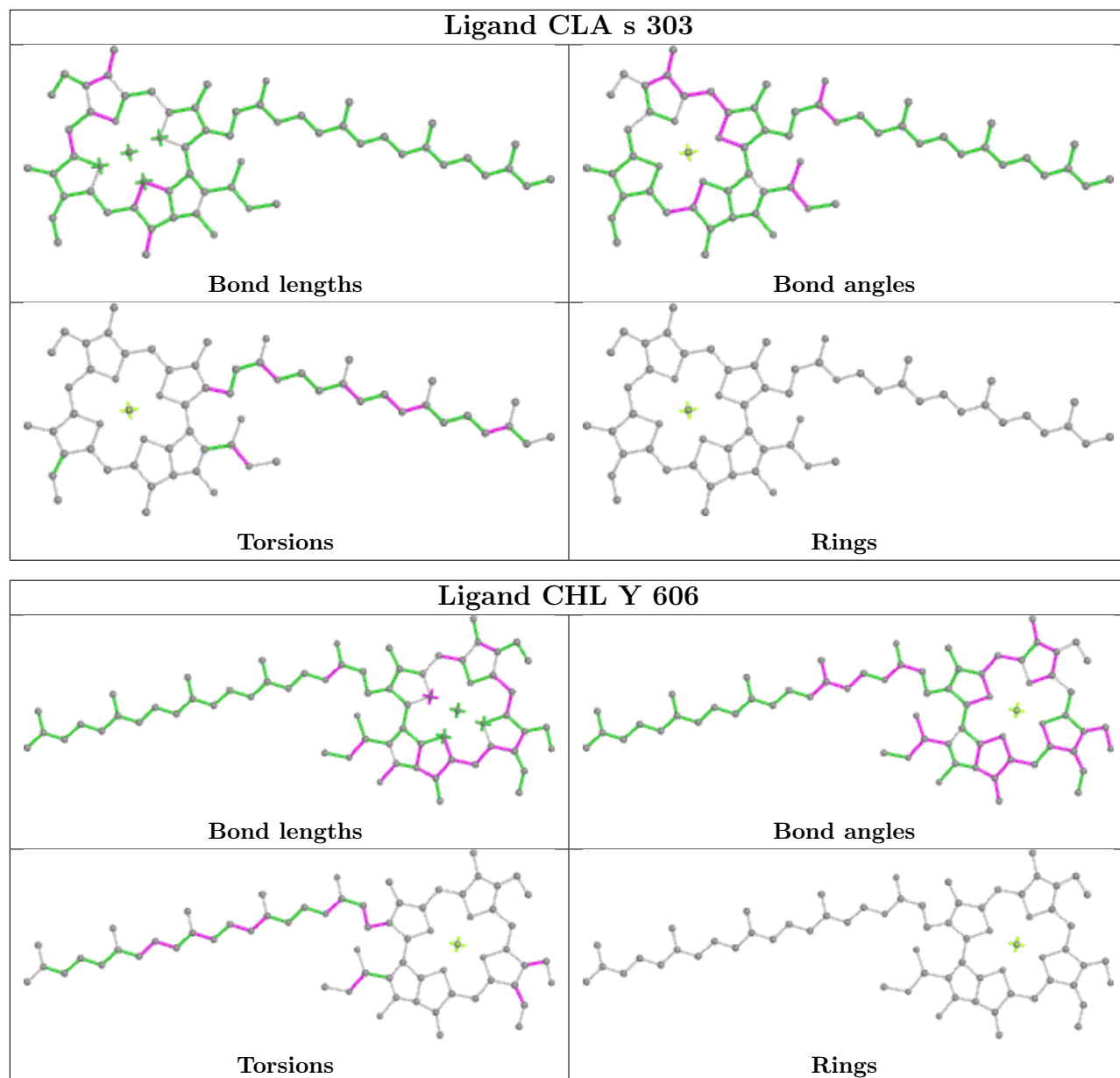


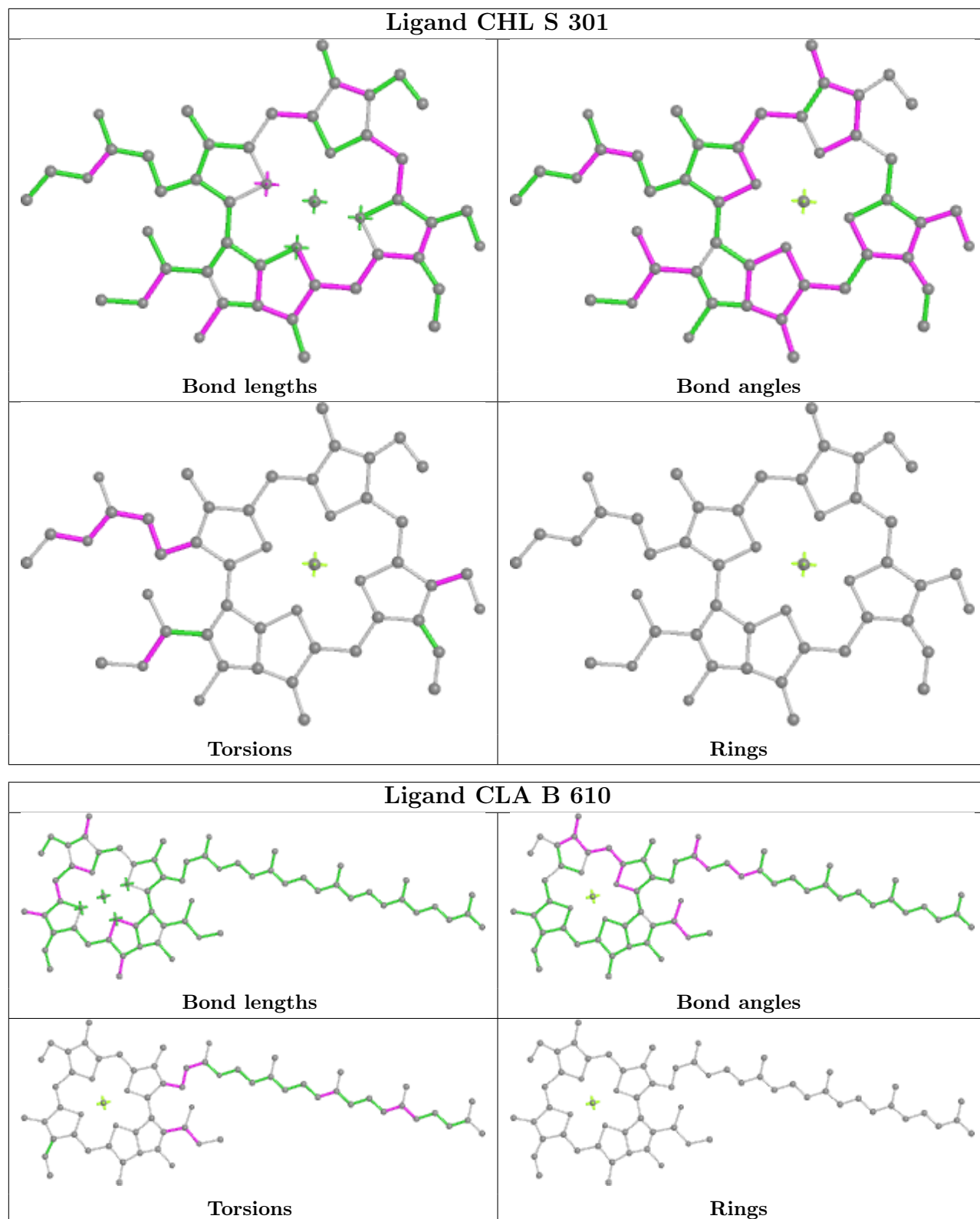


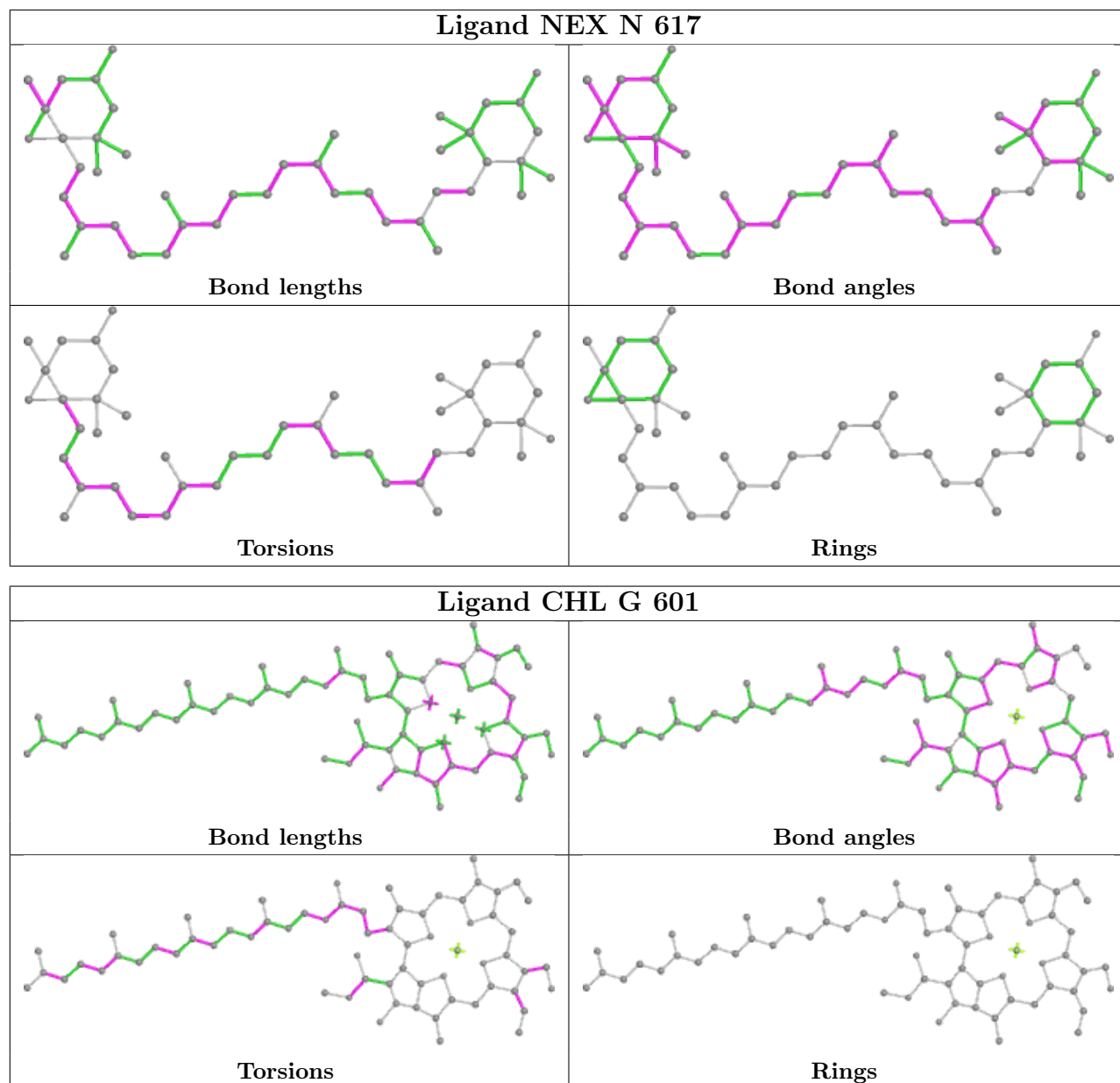


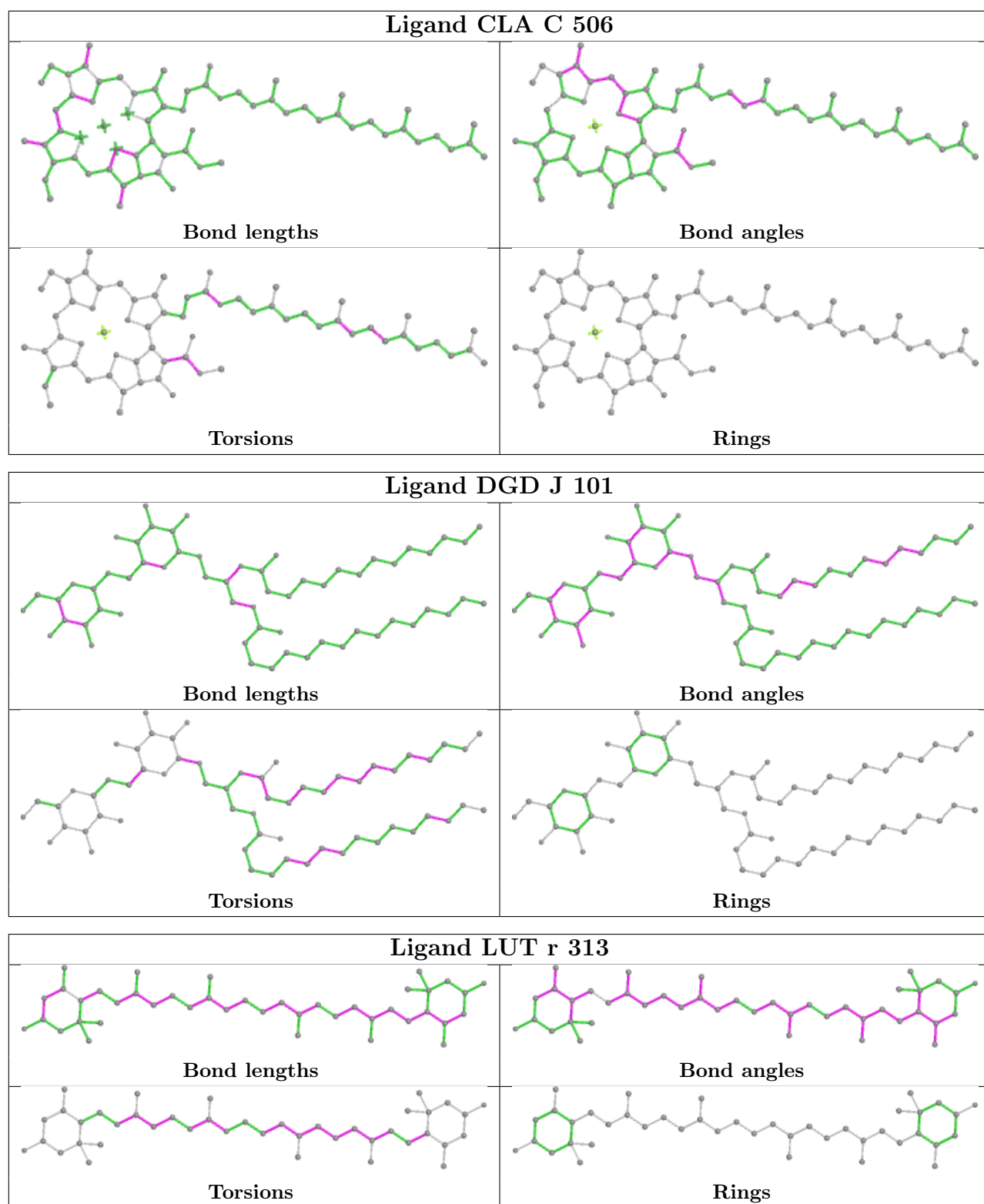


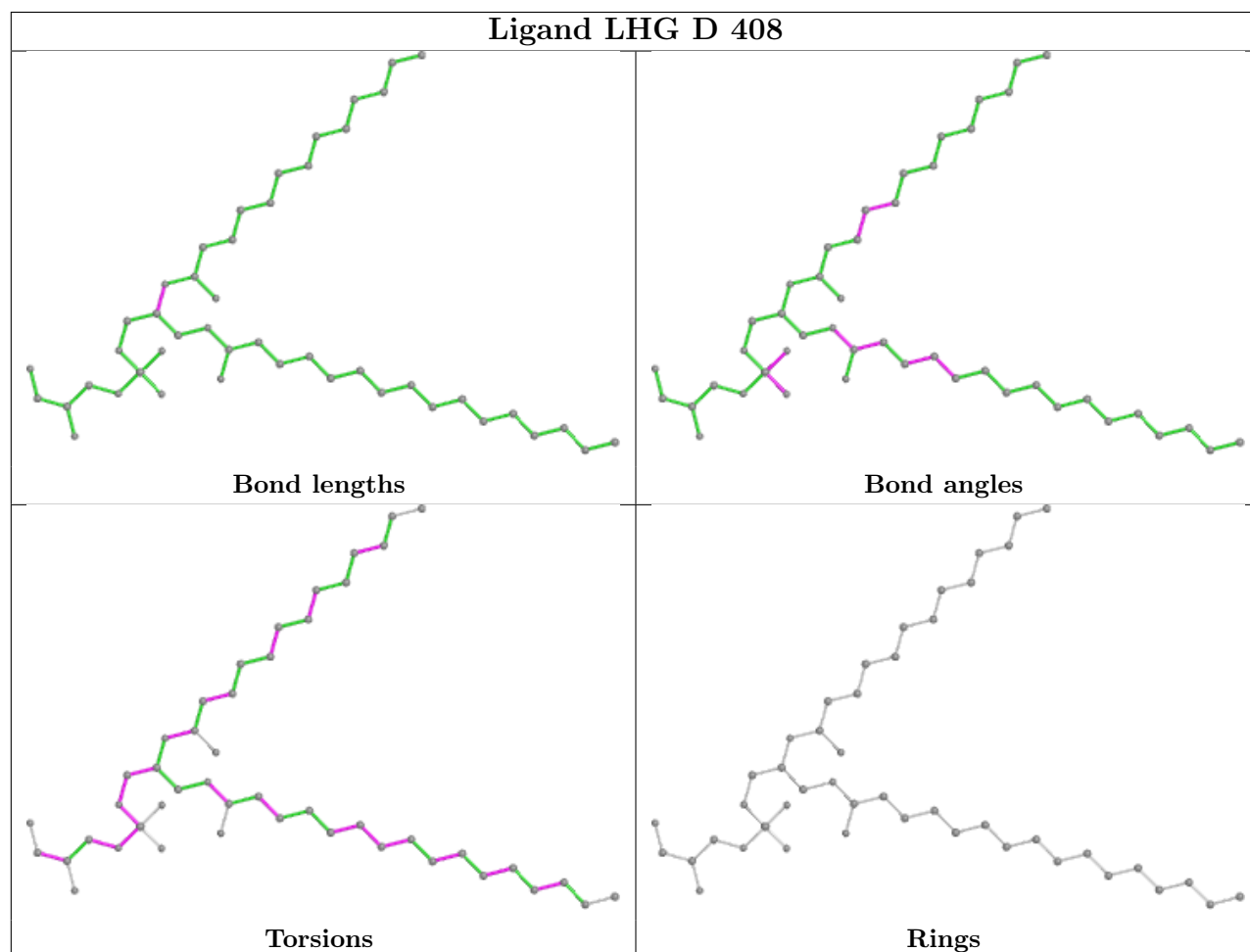
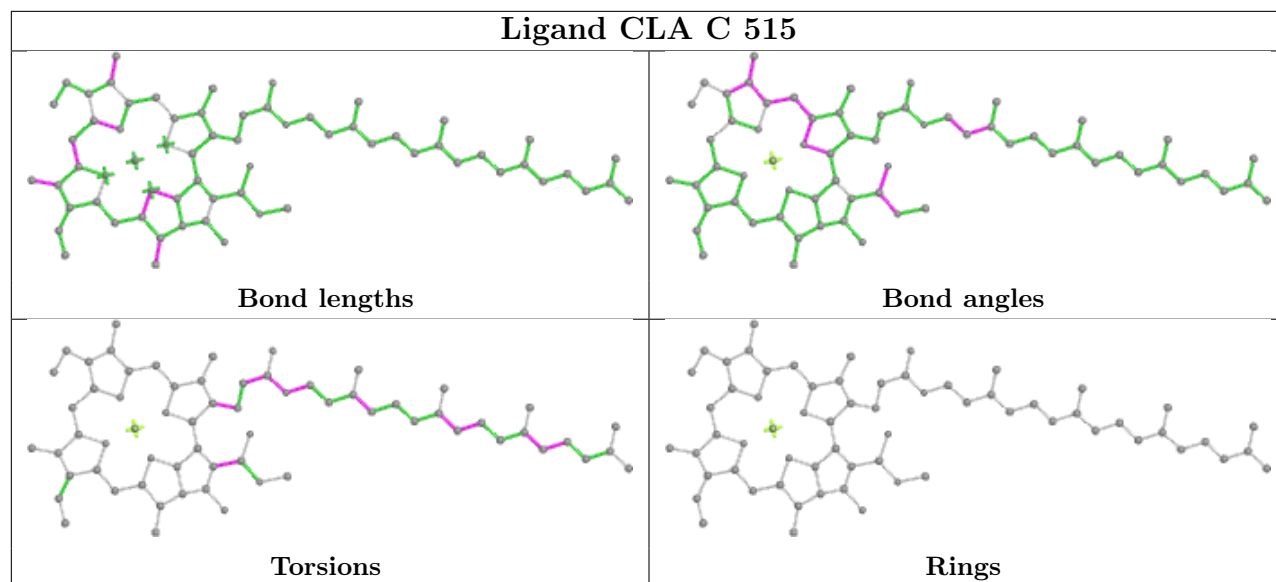


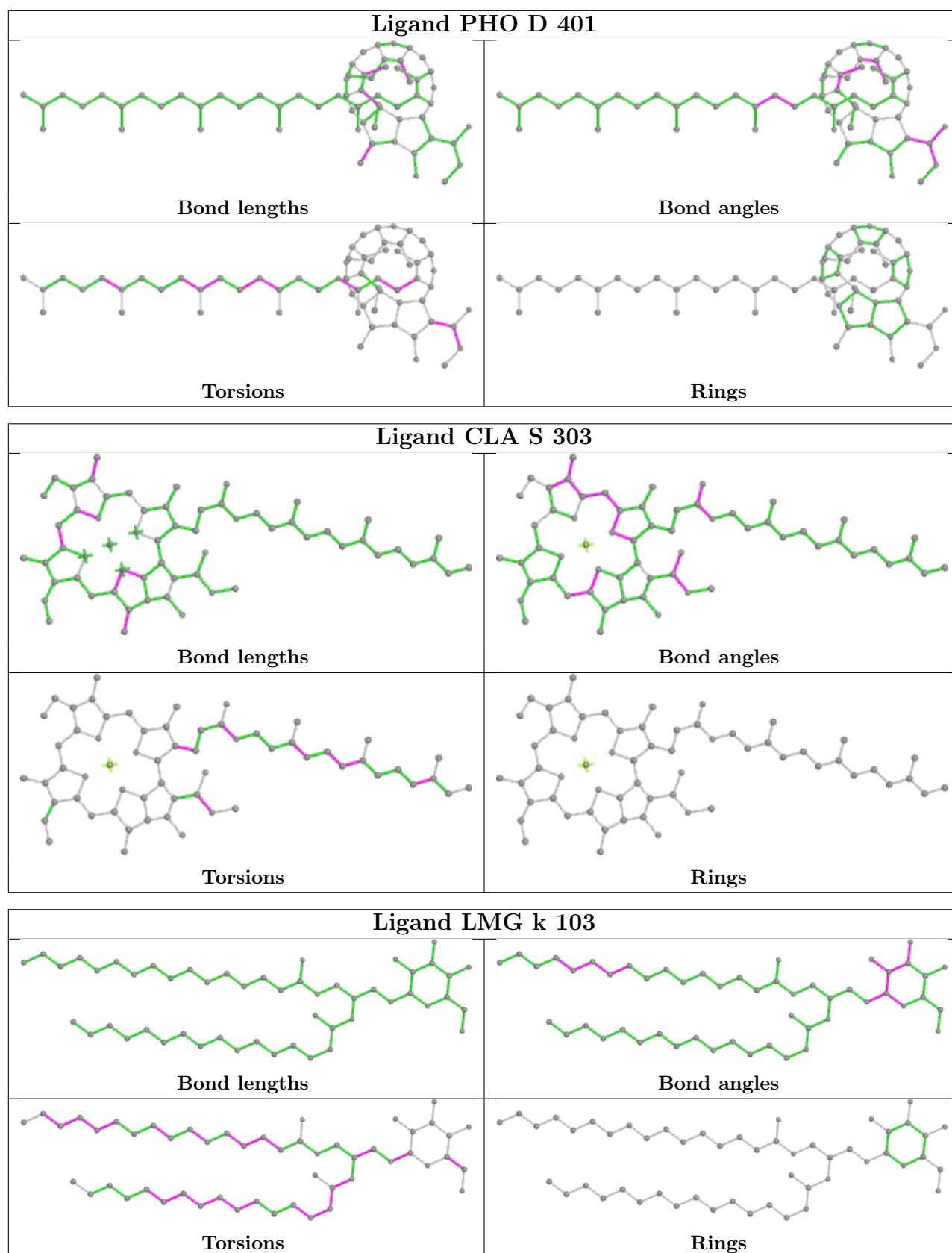












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

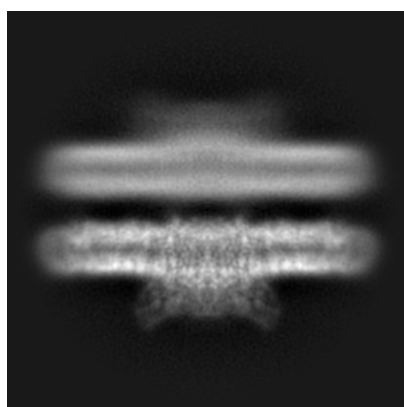
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10865. These allow visual inspection of the internal detail of the map and identification of artifacts.

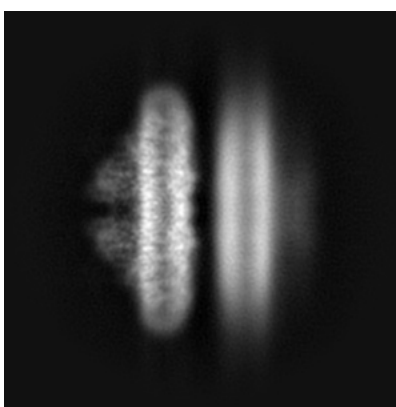
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

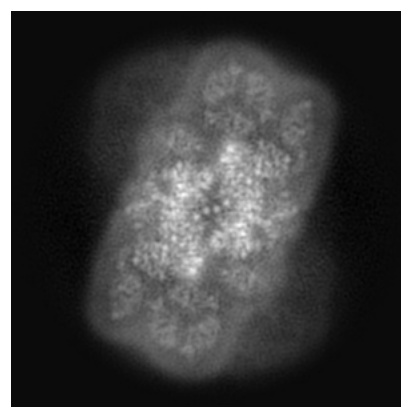
6.1.1 Primary map



X



Y

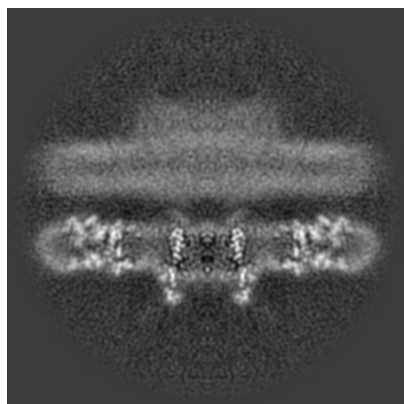


Z

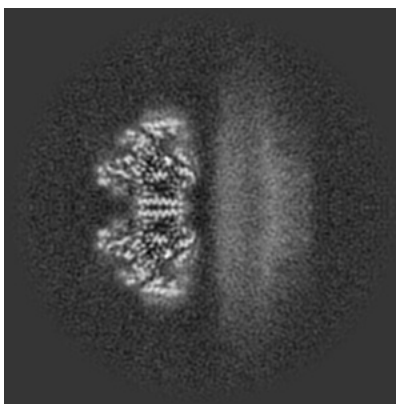
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

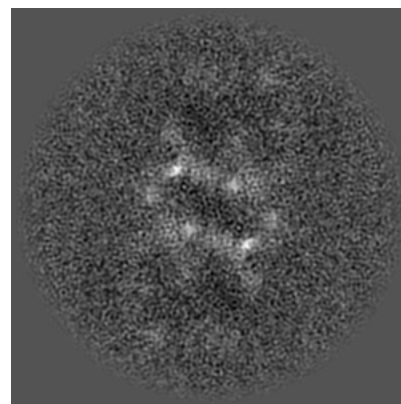
6.2.1 Primary map



X Index: 170



Y Index: 170

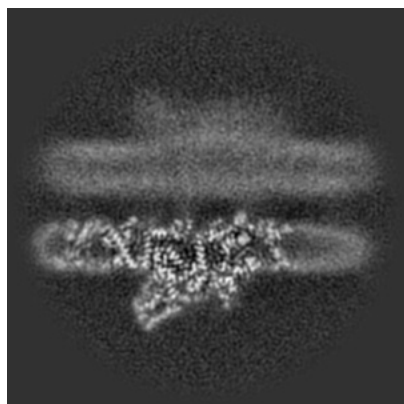


Z Index: 170

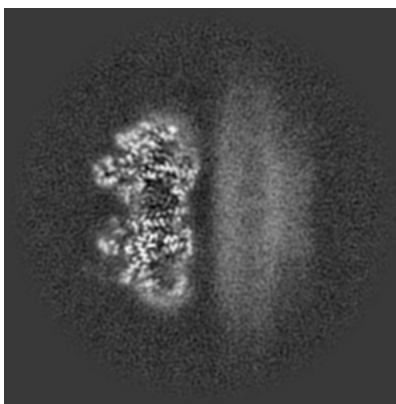
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

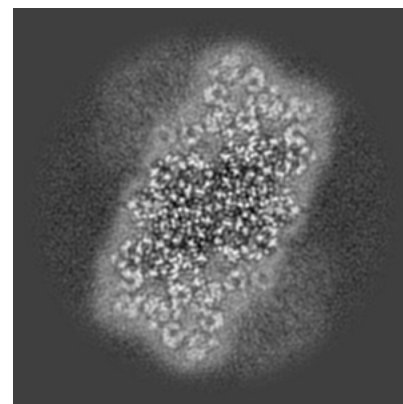
6.3.1 Primary map



X Index: 156



Y Index: 166

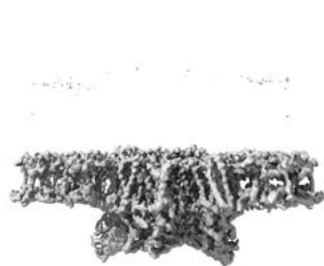


Z Index: 121

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

6.4 Orthogonal surface views [i](#)

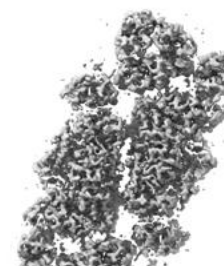
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.85. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

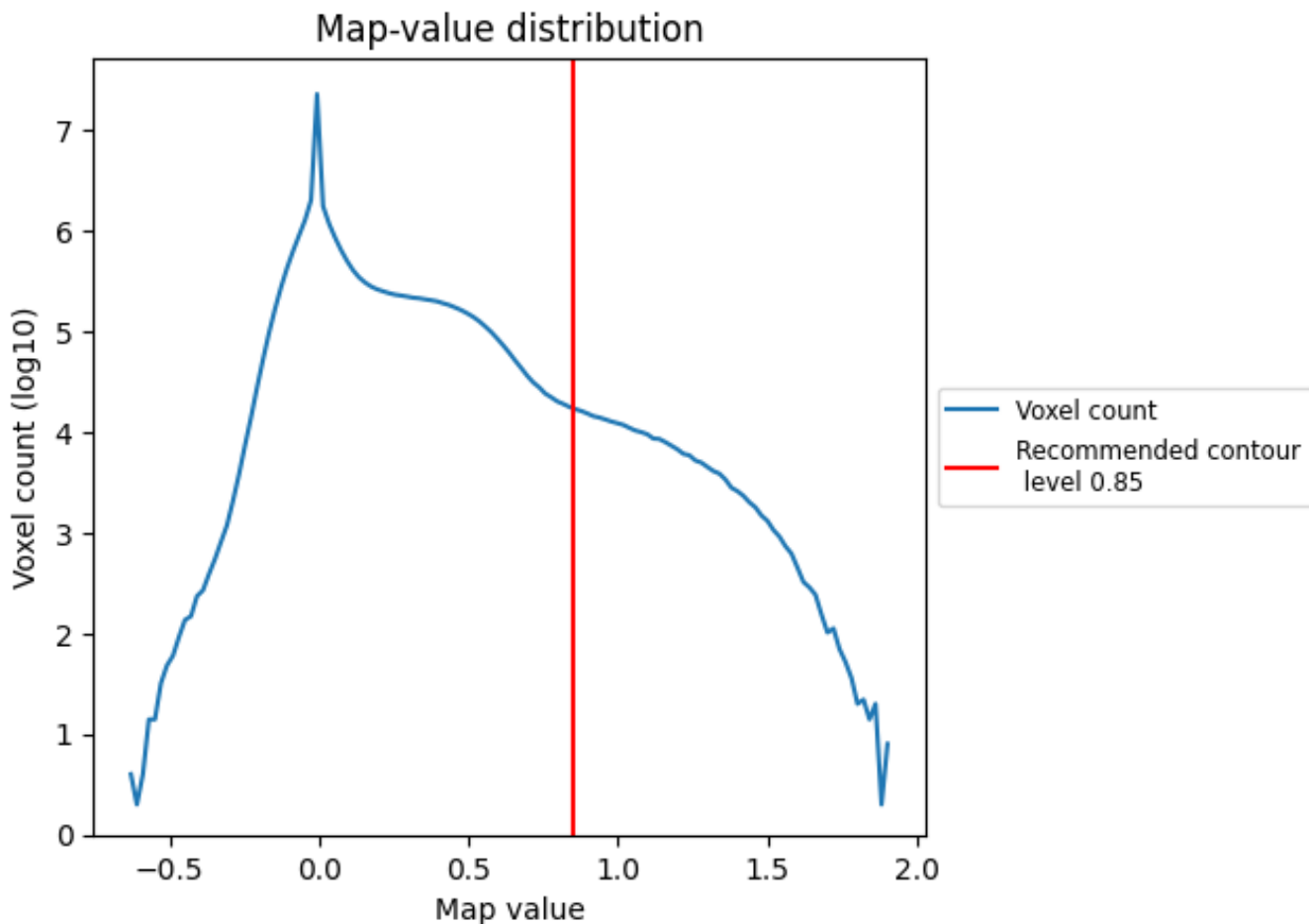
6.5 Mask visualisation

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

7 Map analysis [i](#)

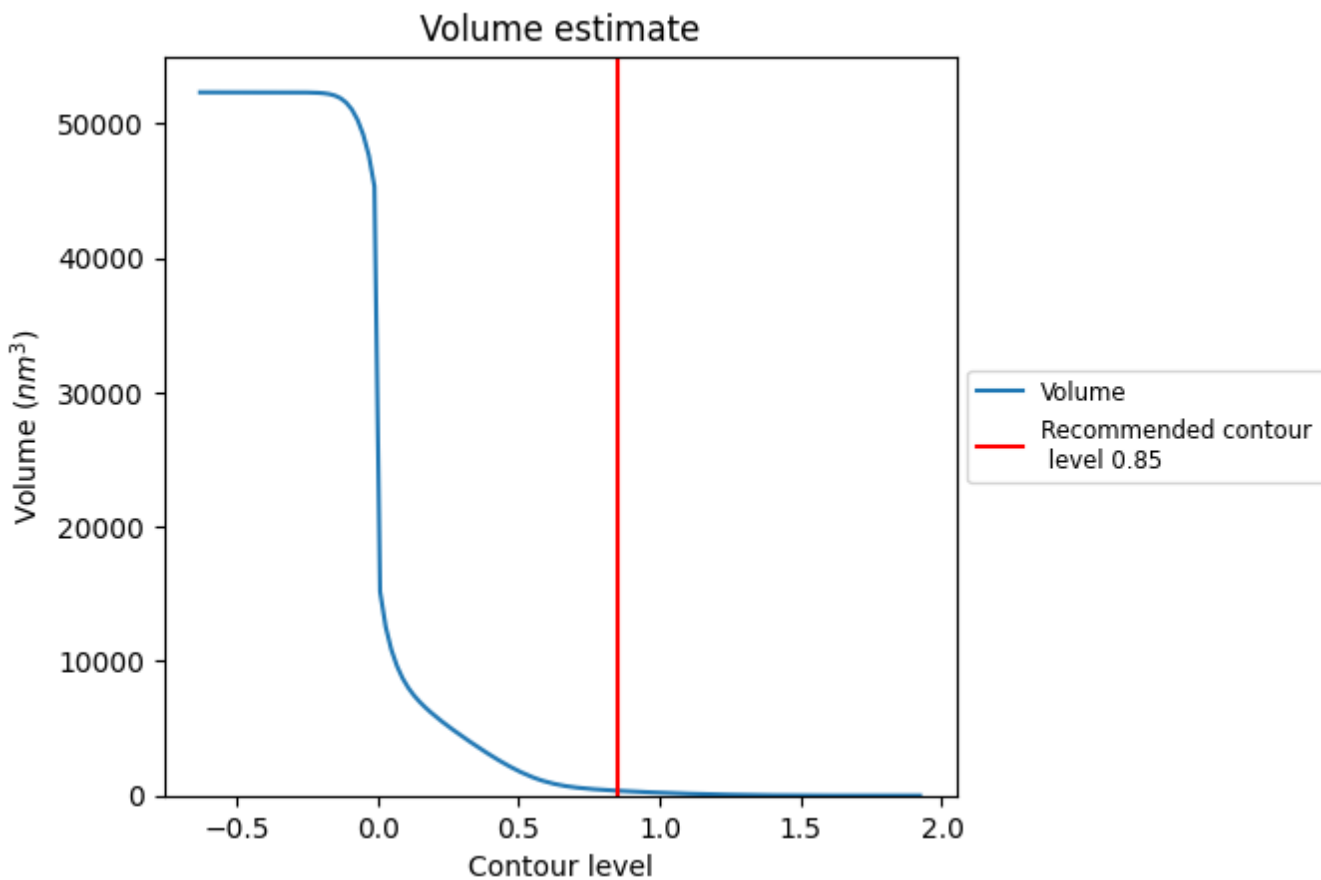
This section contains the results of statistical analysis of the map.

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.

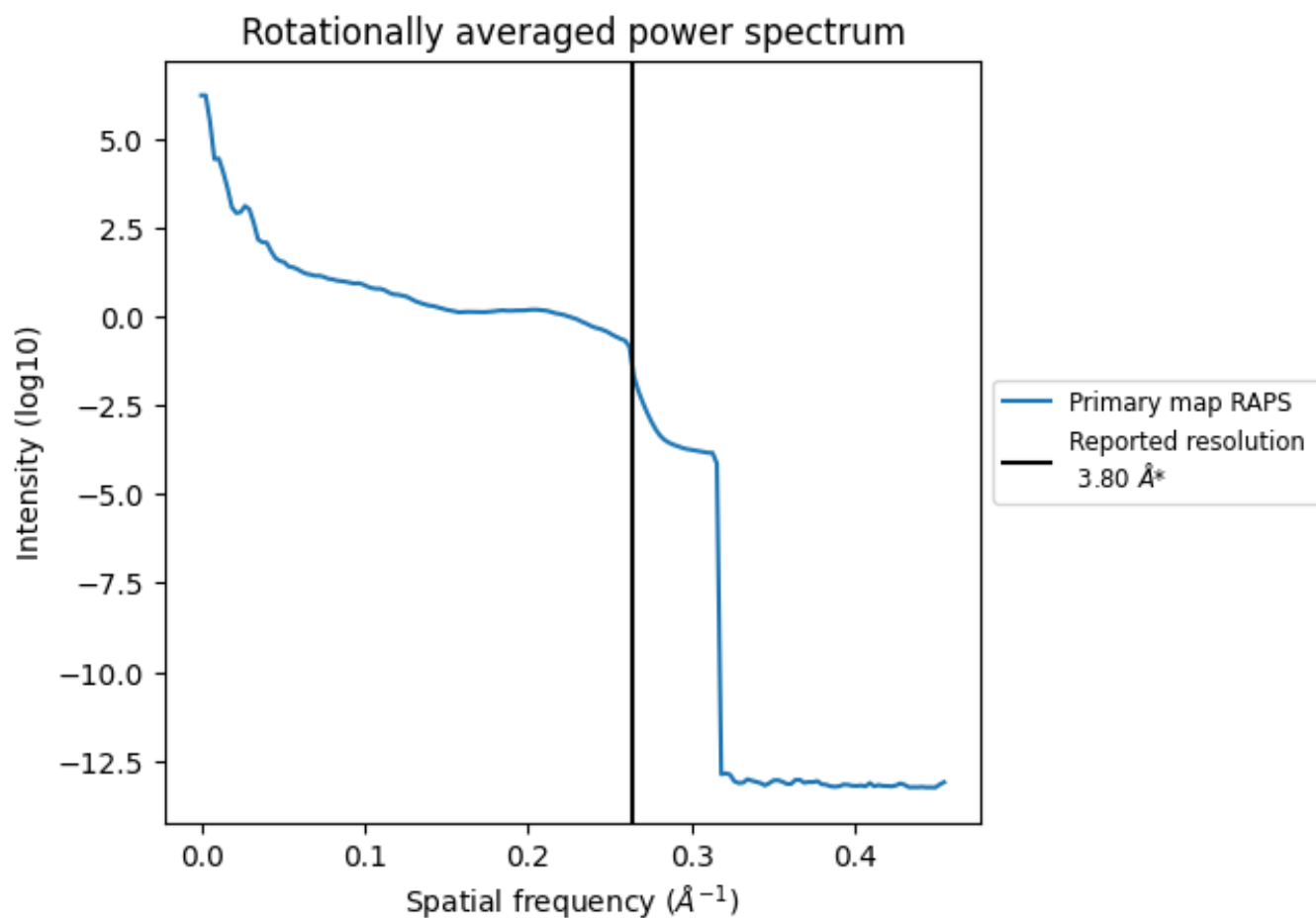
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 360 nm³; this corresponds to an approximate mass of 325 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.263\AA^{-1}

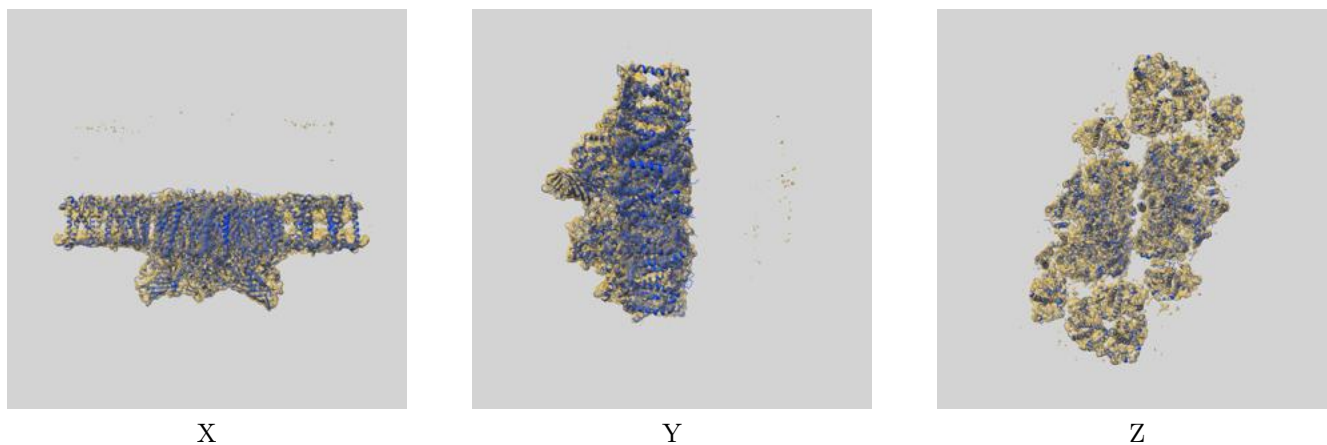
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

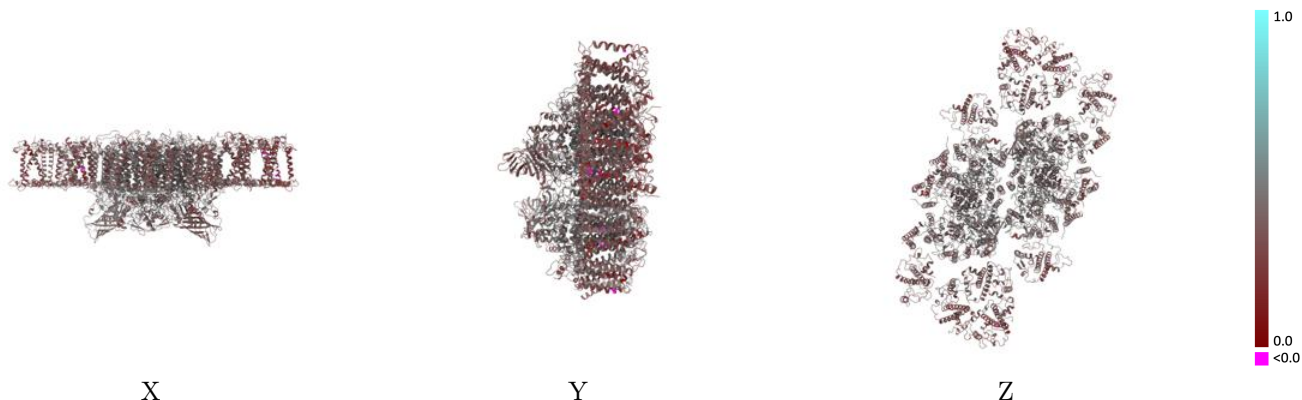
This section contains information regarding the fit between EMDB map EMD-10865 and PDB model 6YP7. Per-residue inclusion information can be found in section 3 on page 38.

9.1 Map-model overlay [i](#)



The images above show the 3D surface view of the map at the recommended contour level 0.85 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



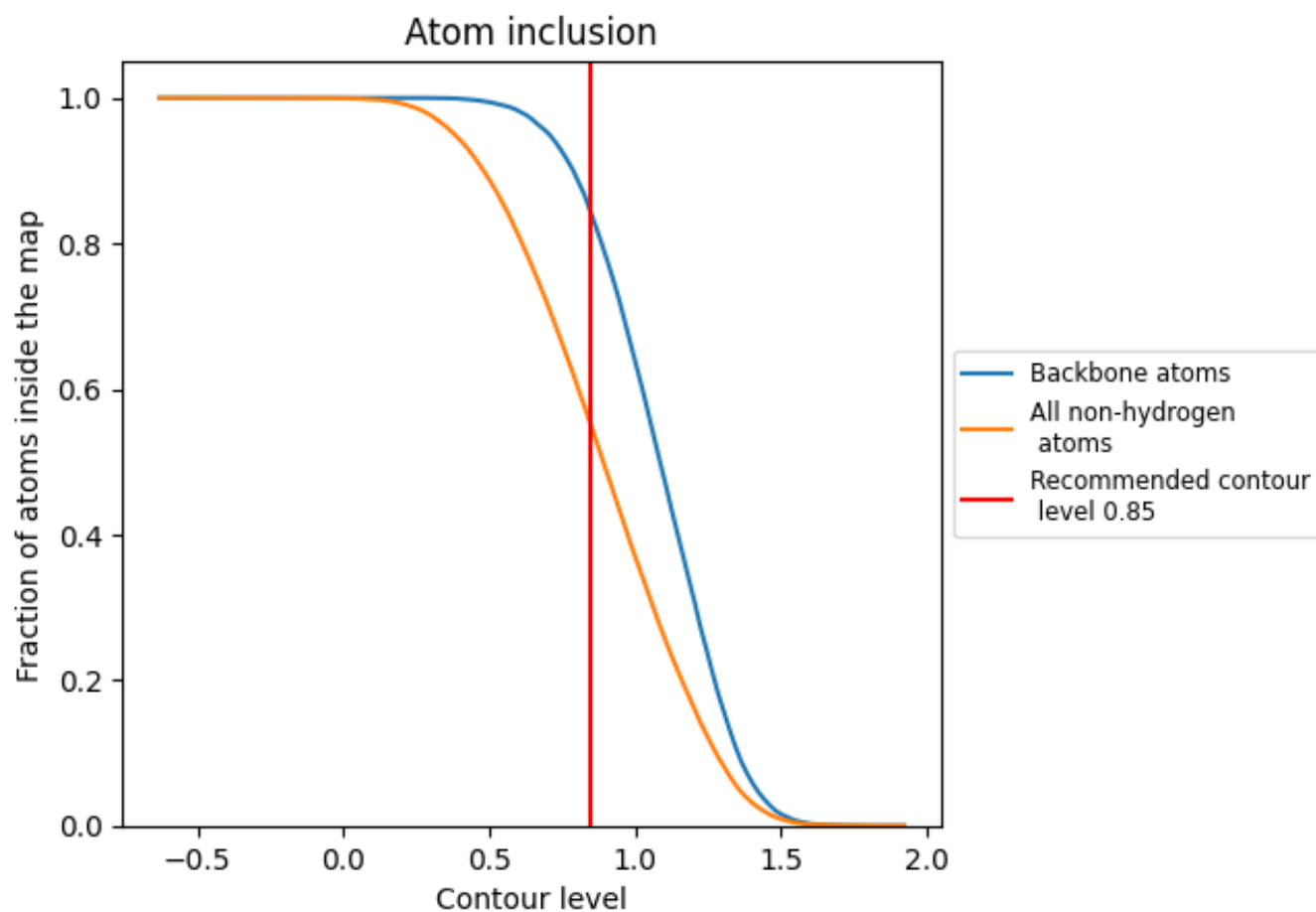
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.85).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 84% of all backbone atoms, 55% 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 (0.85) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| All |  0.5489 |  0.3820 |
| A |  0.6073 |  0.4440 |
| B |  0.6106 |  0.4330 |
| C |  0.6011 |  0.4200 |
| D |  0.5869 |  0.4380 |
| E |  0.6387 |  0.3060 |
| F |  0.5964 |  0.3180 |
| G |  0.4516 |  0.2780 |
| H |  0.5192 |  0.3920 |
| I |  0.5272 |  0.4460 |
| J |  0.2669 |  0.3740 |
| K |  0.4342 |  0.4020 |
| L |  0.4013 |  0.4420 |
| M |  0.3529 |  0.3940 |
| N |  0.4788 |  0.2880 |
| O |  0.5686 |  0.4020 |
| R |  0.4706 |  0.3470 |
| S |  0.5432 |  0.3340 |
| T |  0.3668 |  0.4390 |
| W |  0.4435 |  0.3460 |
| X |  0.5219 |  0.3380 |
| Y |  0.5448 |  0.3440 |
| Z |  0.5281 |  0.3270 |
| a |  0.6190 |  0.4440 |
| b |  0.6220 |  0.4350 |
| c |  0.6053 |  0.4220 |
| d |  0.5892 |  0.4410 |
| e |  0.6739 |  0.3500 |
| f |  0.5964 |  0.3260 |
| g |  0.4415 |  0.2710 |
| h |  0.5356 |  0.4140 |
| i |  0.6044 |  0.4440 |
| j |  0.2789 |  0.3520 |
| k |  0.4296 |  0.4000 |
| l |  0.3947 |  0.4490 |



Continued on next page...

Continued from previous page...

| Chain | Atom inclusion | Q-score |
|-------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| m |  0.4157 |  0.3850 |
| n |  0.4894 |  0.2920 |
| o |  0.5422 |  0.3560 |
| r |  0.4676 |  0.3520 |
| s |  0.5427 |  0.3330 |
| t |  0.4961 |  0.4360 |
| w |  0.4700 |  0.4050 |
| x |  0.5254 |  0.3640 |
| y |  0.5440 |  0.3470 |
| z |  0.5411 |  0.3310 |