



Full wwPDB X-ray Structure Validation Report ⓘ

Nov 29, 2023 – 09:59 pm GMT

PDB ID : 7NPA
Title : Crystal structure of the Coenzyme F420-dependent sulfite reductase from Methanothermococcus thermolithotrophicus at 1.55-Å resolution
Authors : Jespersen, M.; Wagner, T.
Deposited on : 2021-02-26
Resolution : 1.55 Å (reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp>

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:

MolProbity : 4.02b-467
Mogul : 1.8.4, CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

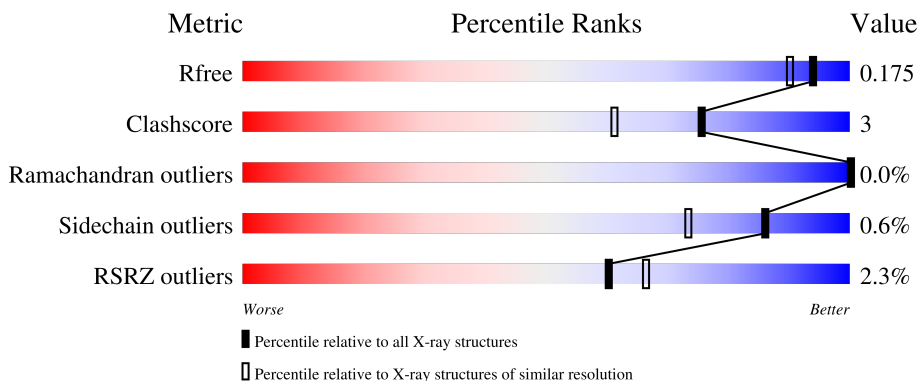
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.55 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.



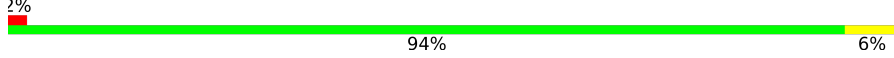
| Metric | Whole archive (#Entries) | Similar resolution (#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|---|
| R_{free} | 130704 | 1483 (1.56-1.56) |
| Clashscore | 141614 | 1529 (1.56-1.56) |
| Ramachandran outliers | 138981 | 1498 (1.56-1.56) |
| Sidechain outliers | 138945 | 1495 (1.56-1.56) |
| RSRZ outliers | 127900 | 1465 (1.56-1.56) |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower 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 electron density. The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | A | 618 | 95% 5% |
| 1 | B | 618 | 94% 6% |
| 1 | C | 618 | 96% . |
| 1 | D | 618 | 2% 92% 8% |
| 1 | E | 618 | 3% 91% 9% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 1 | F | 618 |  |
| 1 | G | 618 |  |
| 1 | H | 618 |  |
| 1 | I | 618 |  |
| 1 | J | 618 |  |
| 1 | K | 618 |  |
| 1 | L | 618 |  |
| 1 | M | 618 |  |
| 1 | N | 618 |  |
| 1 | O | 618 |  |
| 1 | P | 618 |  |

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 |
|-----|------|-------|---------|-----------|----------|---------|------------------|
| 2 | SF4 | N | 1006[A] | - | - | X | - |
| 2 | SF4 | N | 1007[A] | - | - | X | - |
| 5 | SRM | A | 1109 | X | - | - | - |
| 5 | SRM | B | 4210 | X | - | - | - |
| 5 | SRM | C | 3910 | X | - | - | - |
| 5 | SRM | D | 4610 | X | - | - | - |
| 5 | SRM | E | 1109 | X | - | - | - |
| 5 | SRM | F | 1109 | X | - | - | - |
| 5 | SRM | G | 1109 | X | - | - | - |
| 5 | SRM | H | 4410 | X | - | - | - |
| 5 | SRM | I | 1109 | X | - | - | - |
| 5 | SRM | J | 1109 | X | - | - | - |
| 5 | SRM | K | 1109 | X | - | - | - |
| 5 | SRM | L | 1109 | X | - | - | - |
| 5 | SRM | M | 1109 | X | - | - | - |
| 5 | SRM | N | 1012 | X | - | - | - |
| 5 | SRM | O | 1109 | X | - | - | - |
| 5 | SRM | P | 1109 | X | - | - | - |

2 Entry composition [i](#)

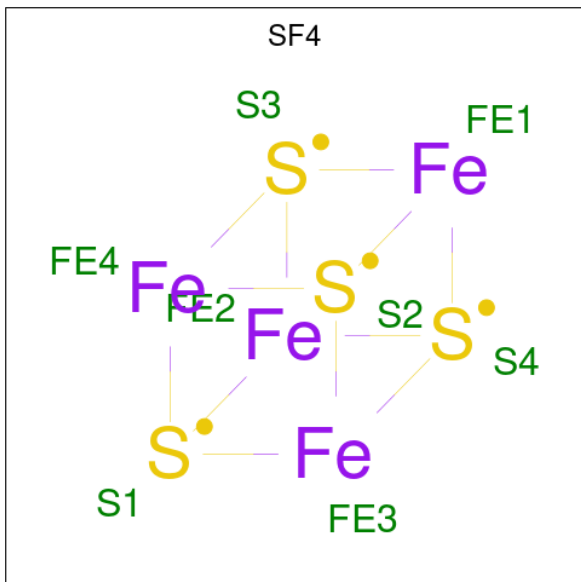
There are 13 unique types of molecules in this entry. The entry contains 93689 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Coenzyme F420-dependent sulfite reductase.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|-----------|-----------|-----------|---------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 1 | A | 618 | Total 4869 | C 3083 | N 820 | O 925 | S 41 | 0 | 4 | 0 |
| 1 | B | 618 | Total 4863 | C 3081 | N 821 | O 920 | S 41 | 0 | 3 | 0 |
| 1 | C | 618 | Total 4862 | C 3079 | N 820 | O 922 | S 41 | 0 | 3 | 0 |
| 1 | D | 617 | Total 4838 | C 3064 | N 816 | O 918 | S 40 | 0 | 1 | 0 |
| 1 | E | 617 | Total 4845 | C 3068 | N 817 | O 920 | S 40 | 0 | 2 | 0 |
| 1 | F | 618 | Total 4877 | C 3090 | N 823 | O 923 | S 41 | 0 | 5 | 0 |
| 1 | G | 618 | Total 4858 | C 3077 | N 819 | O 920 | S 42 | 0 | 3 | 0 |
| 1 | H | 617 | Total 4843 | C 3067 | N 817 | O 918 | S 41 | 0 | 2 | 0 |
| 1 | I | 618 | Total 4863 | C 3081 | N 821 | O 920 | S 41 | 0 | 3 | 0 |
| 1 | J | 618 | Total 4855 | C 3075 | N 819 | O 920 | S 41 | 0 | 2 | 0 |
| 1 | K | 617 | Total 4845 | C 3068 | N 817 | O 920 | S 40 | 0 | 2 | 0 |
| 1 | L | 617 | Total 4847 | C 3070 | N 819 | O 918 | S 40 | 0 | 2 | 0 |
| 1 | M | 617 | Total 4837 | C 3064 | N 816 | O 917 | S 40 | 0 | 1 | 0 |
| 1 | N | 616 | Total 6587 | C 4178 | N 1095 | O 1263 | S 51 | 0 | 266 | 0 |
| 1 | O | 617 | Total 4837 | C 3064 | N 816 | O 917 | S 40 | 0 | 1 | 0 |
| 1 | P | 617 | Total 4837 | C 3064 | N 816 | O 917 | S 40 | 0 | 1 | 0 |

- Molecule 2 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe₄S₄) (labeled as "Ligand of Interest" by depositor).



| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---------|---------|
| | | | Total | Fe | S | | |
| 2 | A | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | A | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | A | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | A | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | A | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | A | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | A | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | B | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | B | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | B | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | B | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | B | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | B | 1 | 8 | 4 | 4 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---------|---------|
| | | | Total | Fe | S | | |
| 2 | C | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | C | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | C | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | C | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | C | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | C | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | D | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | E | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | E | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | E | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | E | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | E | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | E | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | E | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | F | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | F | 1 | 8 | 4 | 4 | 0 | 0 |
| 2 | F | 1 | 8 | 4 | 4 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|------------|---------|--------|---------|---------|
| 2 | F | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | F | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | F | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | G | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | G | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | G | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | G | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | G | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | G | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | H | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | H | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | H | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | H | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | H | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | H | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | I | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | I | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | I | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | I | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | I | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|------------|---------|--------|---------|---------|
| 2 | J | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | J | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | J | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | J | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | J | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | J | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | J | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | K | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | K | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | K | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | K | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | K | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | K | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | K | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | L | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | L | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | L | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | L | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | L | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | L | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | L | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | M | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | M | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | M | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |

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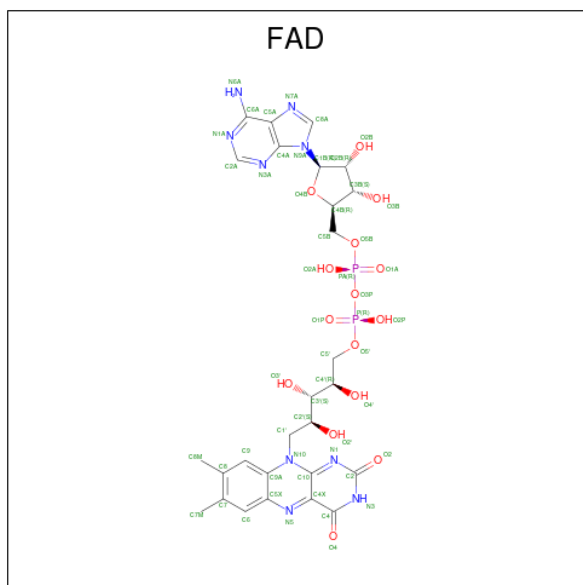
| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|---------|
| 2 | M | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | M | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | M | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | N | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | N | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | N | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | N | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | N | 1 | Total 16 | Fe 8 | S 8 | 0 | 1 |
| 2 | N | 1 | Total 8 | Fe 4 | S 4 | 0 | 1 |
| 2 | N | 1 | Total 8 | Fe 4 | S 4 | 0 | 1 |
| 2 | O | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | O | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | O | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | O | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | O | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | O | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | O | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | P | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | P | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | P | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | P | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |
| 2 | P | 1 | Total 8 | Fe 4 | S 4 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---------|---------|
| | | | Total | Fe | S | | |
| 2 | P | 1 | 8 | 4 | 4 | 0 | 0 |

- Molecule 3 is FLAVIN-ADENINE DINUCLEOTIDE (three-letter code: FAD) (formula: $C_{27}H_{33}N_9O_{15}P_2$) (labeled as "Ligand of Interest" by depositor).



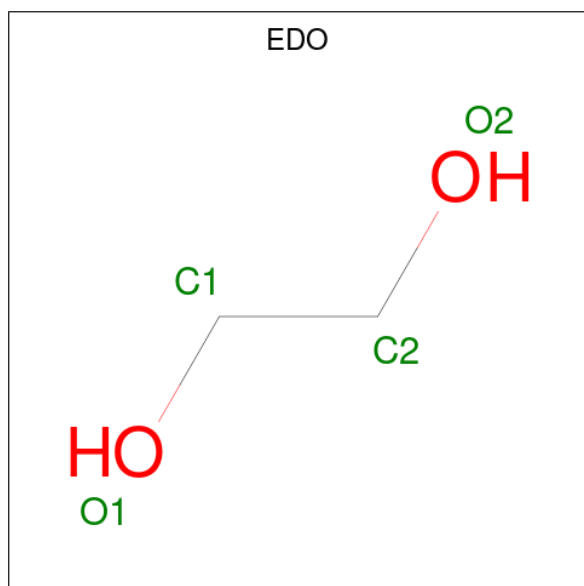
| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | |
|-----|-------|----------|-------|----|---|----|---------|---------|---|
| | | | Total | C | N | O | | | P |
| 3 | A | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | B | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | C | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | D | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | E | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | F | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | G | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | H | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | I | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |
| 3 | J | 1 | 53 | 27 | 9 | 15 | 2 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|---------|
| | | | Total | C | N | O | P | | |
| 3 | K | 1 | Total 53 | C 27 | N 9 | O 15 | P 2 | 0 | 0 |
| 3 | L | 1 | Total 53 | C 27 | N 9 | O 15 | P 2 | 0 | 0 |
| 3 | M | 1 | Total 53 | C 27 | N 9 | O 15 | P 2 | 0 | 0 |
| 3 | N | 1 | Total 53 | C 27 | N 9 | O 15 | P 2 | 0 | 1 |
| 3 | N | 1 | Total 53 | C 27 | N 9 | O 15 | P 2 | 0 | 1 |
| 3 | O | 1 | Total 53 | C 27 | N 9 | O 15 | P 2 | 0 | 0 |
| 3 | P | 1 | Total 53 | C 27 | N 9 | O 15 | P 2 | 0 | 0 |

- Molecule 4 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: C₂H₆O₂).



| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|------------|--------|--------|---------|---------|
| | | | Total | C | O | | |
| 4 | A | 1 | Total 4 | C 2 | O 2 | 0 | 0 |
| 4 | A | 1 | Total 4 | C 2 | O 2 | 0 | 0 |
| 4 | A | 1 | Total 4 | C 2 | O 2 | 0 | 0 |
| 4 | A | 1 | Total 4 | C 2 | O 2 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---|---------|---------|
| 4 | A | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | A | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | A | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | A | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | A | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 1 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 1 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 1 |
| | | | 4 | 2 | 2 | | |
| 4 | B | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | C | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | C | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---|---------|---------|
| 4 | C | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | C | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | C | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | C | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | C | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | D | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | E | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | E | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | E | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | E | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | E | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|--------------------|---------|---------|
| 4 | E | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | E | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | F | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | F | 1 | Total C O 4 2 2 | 0 | 1 |
| 4 | F | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | F | 1 | Total C O 4 2 2 | 0 | 1 |
| 4 | F | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | G | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | H | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | H | 1 | Total C O 4 2 2 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---|---------|---------|
| 4 | H | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | H | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | I | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | I | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | I | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | I | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | I | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | I | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | I | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | J | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | J | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | J | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | J | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | J | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | J | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | K | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | K | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | K | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | K | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |

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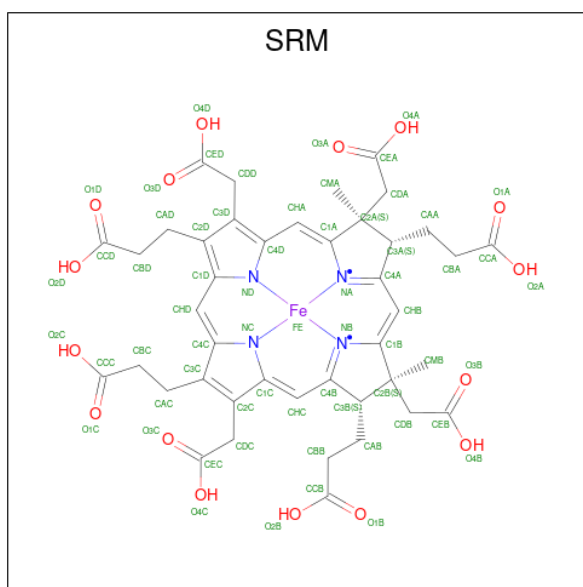
| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---|---------|---------|
| 4 | K | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | K | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | K | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | L | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | L | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | L | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | M | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |
| 4 | N | 1 | Total | C | O | 0 | 0 |
| | | | 4 | 2 | 2 | | |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|--------------------|---------|---------|
| 4 | N | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | O | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | P | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | P | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | P | 1 | Total C O 4 2 2 | 0 | 0 |
| 4 | P | 1 | Total C O 4 2 2 | 0 | 0 |

- Molecule 5 is SIROHEME (three-letter code: SRM) (formula: C₄₂H₄₄FeN₄O₁₆) (labeled as "Ligand of Interest" by depositor).



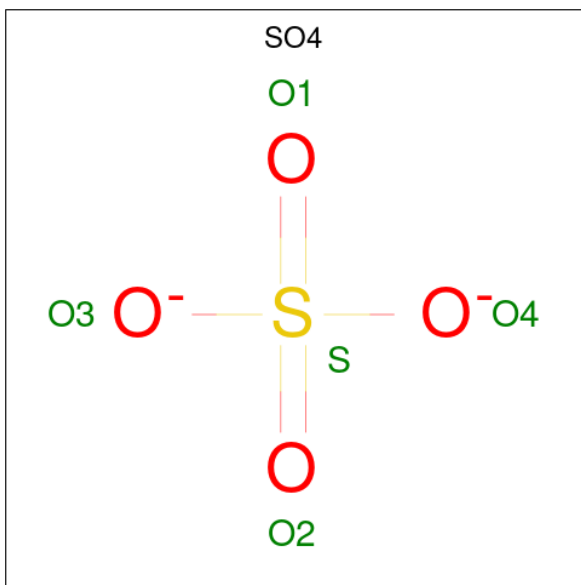
| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | |
|-----|-------|----------|-------------|----|----|---|---------|---------|---|
| | | | Total | C | Fe | N | | | O |
| 5 | A | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | B | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | C | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | D | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | E | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | F | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | G | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | H | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | I | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | J | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | K | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | L | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | M | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |
| 5 | N | 1 | Total 63 | 42 | 1 | 4 | 16 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | |
|-----|-------|----------|-------|----|----|---|---------|---------|---|
| 5 | O | 1 | Total | C | Fe | N | O | 0 | 0 |
| | | | 63 | 42 | 1 | 4 | 16 | | |
| 5 | P | 1 | Total | C | Fe | N | O | 0 | 0 |
| | | | 63 | 42 | 1 | 4 | 16 | | |

- Molecule 6 is SULFATE ION (three-letter code: SO4) (formula: O₄S).



| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|-----|---------|---------|
| 6 | A | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | B | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | B | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | C | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | D | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | D | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | D | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | E | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |
| 6 | F | 1 | Total | O S | 0 | 0 |
| | | | 5 | 4 1 | | |

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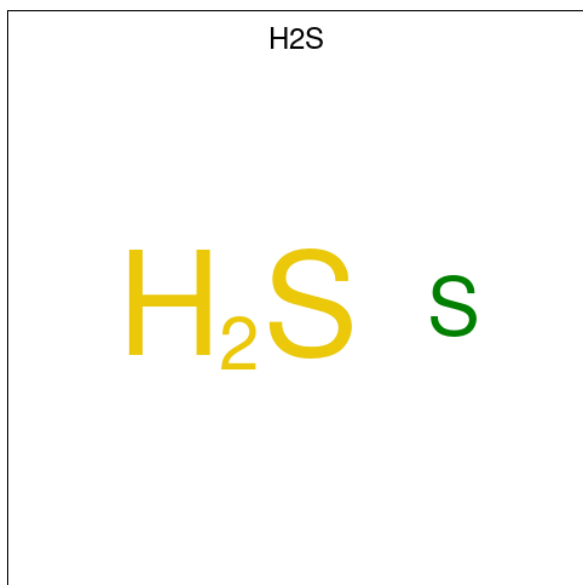
| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---|---------|---------|
| | | | Total | O | S | | |
| 6 | F | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | F | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | F | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | G | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | H | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | H | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | I | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | J | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | J | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | K | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | K | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | L | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | L | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | L | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | M | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | M | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | M | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | N | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | O | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | O | 1 | 5 | 4 | 1 | 0 | 0 |
| 6 | P | 1 | 5 | 4 | 1 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---|---------|---------|
| 6 | P | 1 | Total | O | S | 0 | 0 |
| | | | 5 | 4 | 1 | | |

- Molecule 7 is HYDROSULFURIC ACID (three-letter code: H2S) (formula: H₂S) (labeled as "Ligand of Interest" by depositor).



| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---------|---------|
| 7 | A | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | B | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | C | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | D | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | E | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | F | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | G | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | H | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | I | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |
| 7 | J | 1 | Total | S | 0 | 0 |
| | | | 1 | 1 | | |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|----------------|---------|---------|
| 7 | K | 1 | Total S 1 1 | 0 | 0 |
| 7 | L | 1 | Total S 1 1 | 0 | 0 |
| 7 | M | 1 | Total S 1 1 | 0 | 0 |
| 7 | N | 1 | Total S 1 1 | 0 | 0 |
| 7 | O | 1 | Total S 1 1 | 0 | 0 |
| 7 | P | 1 | Total S 1 1 | 0 | 0 |

- Molecule 8 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

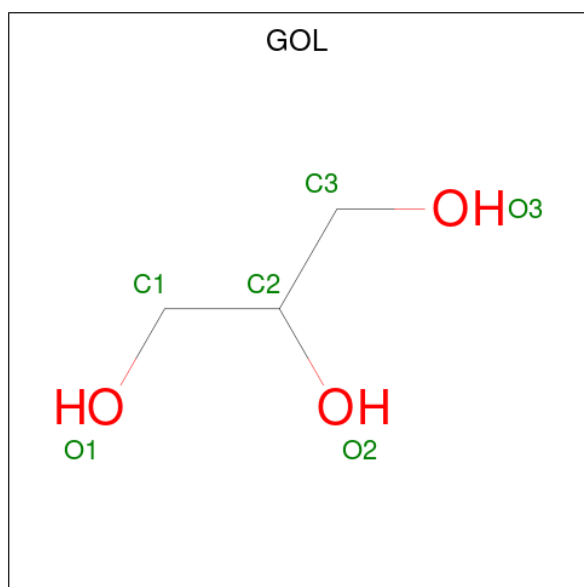
| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|-----------------|---------|---------|
| 8 | A | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | B | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | C | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | D | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | E | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | F | 1 | Total Cl 1 1 | 0 | 1 |
| 8 | G | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | H | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | I | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | J | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | K | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | L | 1 | Total Cl 1 1 | 0 | 1 |
| 8 | M | 2 | Total Cl 2 2 | 0 | 1 |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|-----------------|---------|---------|
| 8 | N | 1 | Total Cl 1 1 | 0 | 1 |
| 8 | O | 2 | Total Cl 2 2 | 0 | 1 |
| 8 | P | 2 | Total Cl 2 2 | 0 | 1 |

- Molecule 9 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|--------------------|---------|---------|
| 9 | B | 1 | Total C O 6 3 3 | 0 | 1 |
| 9 | B | 1 | Total C O 6 3 3 | 0 | 1 |
| 9 | B | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | C | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | C | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | E | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | F | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | G | 1 | Total C O 6 3 3 | 0 | 1 |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|--------------------|---------|---------|
| 9 | I | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | I | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | J | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | J | 1 | Total C O 6 3 3 | 0 | 1 |
| 9 | K | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | M | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | N | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | N | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | O | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | P | 1 | Total C O 6 3 3 | 0 | 0 |
| 9 | P | 1 | Total C O 6 3 3 | 0 | 0 |

- Molecule 10 is LITHIUM ION (three-letter code: LI) (formula: Li).

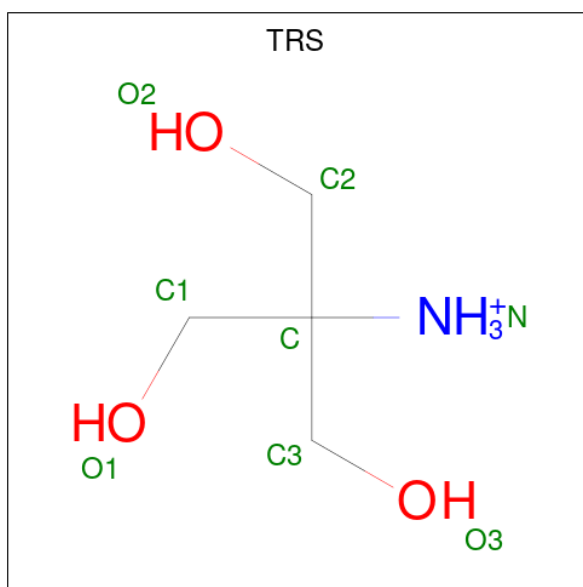
| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|-----------------|---------|---------|
| 10 | C | 1 | Total Li 1 1 | 0 | 0 |
| 10 | F | 1 | Total Li 1 1 | 0 | 0 |
| 10 | L | 1 | Total Li 1 1 | 0 | 0 |
| 10 | P | 1 | Total Li 1 1 | 0 | 0 |

- Molecule 11 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula: C₄H₁₀O₃).



| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|--------------------|---------|---------|
| 11 | D | 1 | Total C O 7 4 3 | 0 | 0 |
| 11 | K | 1 | Total C O 7 4 3 | 0 | 0 |
| 11 | M | 1 | Total C O 7 4 3 | 0 | 0 |
| 11 | M | 1 | Total C O 7 4 3 | 0 | 0 |
| 11 | N | 1 | Total C O 7 4 3 | 0 | 0 |

- Molecule 12 is 2-AMINO-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (three-letter code: TRS) (formula: C₄H₁₂NO₃).



| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|---|---|---|---------|---------|
| 12 | H | 1 | Total | C | N | O | 0 | 0 |
| | | | 8 | 4 | 1 | 3 | | |
| 12 | I | 1 | Total | C | N | O | 0 | 0 |
| | | | 8 | 4 | 1 | 3 | | |

- Molecule 13 is water.

| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|-----|---------|---------|
| 13 | A | 800 | Total | O | 0 | 6 |
| | | | 800 | 800 | | |
| 13 | B | 744 | Total | O | 0 | 4 |
| | | | 744 | 744 | | |
| 13 | C | 762 | Total | O | 0 | 0 |
| | | | 762 | 762 | | |
| 13 | D | 713 | Total | O | 0 | 5 |
| | | | 713 | 713 | | |
| 13 | E | 645 | Total | O | 0 | 0 |
| | | | 645 | 645 | | |
| 13 | F | 605 | Total | O | 0 | 0 |
| | | | 605 | 605 | | |
| 13 | G | 748 | Total | O | 0 | 3 |
| | | | 748 | 748 | | |
| 13 | H | 685 | Total | O | 0 | 0 |
| | | | 685 | 685 | | |
| 13 | I | 704 | Total | O | 0 | 7 |
| | | | 704 | 704 | | |
| 13 | J | 567 | Total | O | 0 | 1 |
| | | | 567 | 567 | | |

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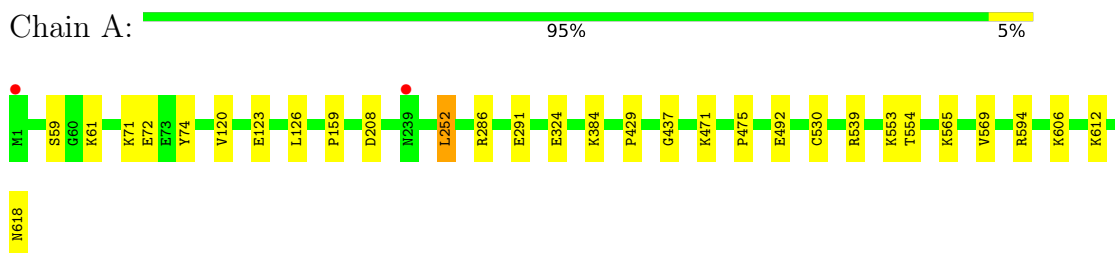
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| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|
| 13 | K | 766 | Total 766 | O 766 | 0 | 1 |
| 13 | L | 681 | Total 681 | O 681 | 0 | 3 |
| 13 | M | 690 | Total 690 | O 690 | 0 | 2 |
| 13 | N | 465 | Total 465 | O 465 | 0 | 12 |
| 13 | O | 665 | Total 665 | O 665 | 0 | 2 |
| 13 | P | 532 | Total 532 | O 532 | 0 | 0 |

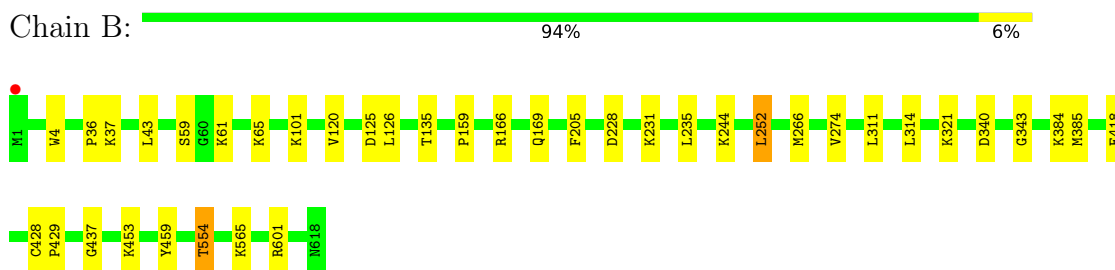
3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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.

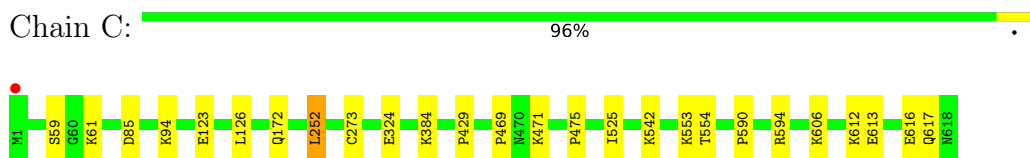
- Molecule 1: Coenzyme F420-dependent sulfite reductase



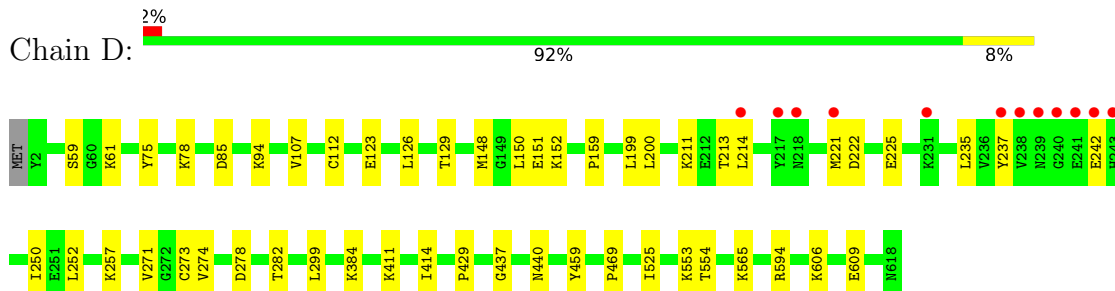
- Molecule 1: Coenzyme F420-dependent sulfite reductase



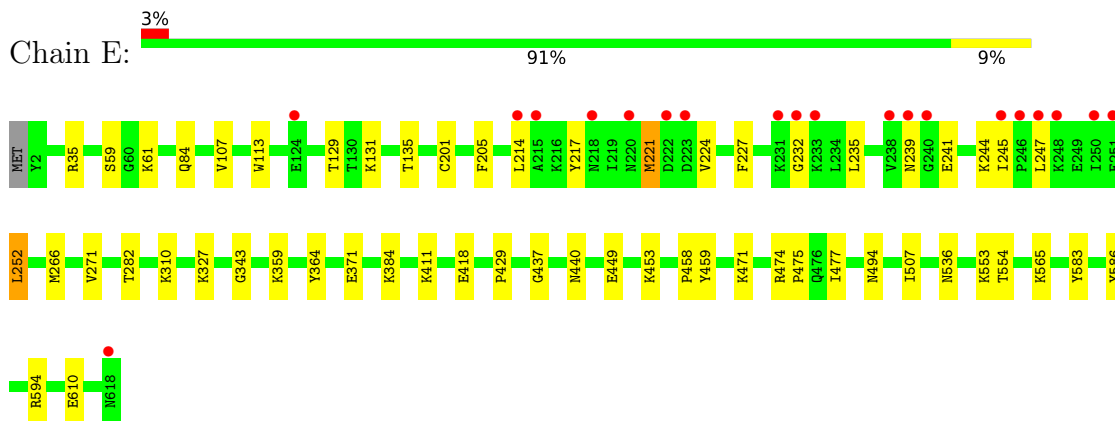
- Molecule 1: Coenzyme F420-dependent sulfite reductase



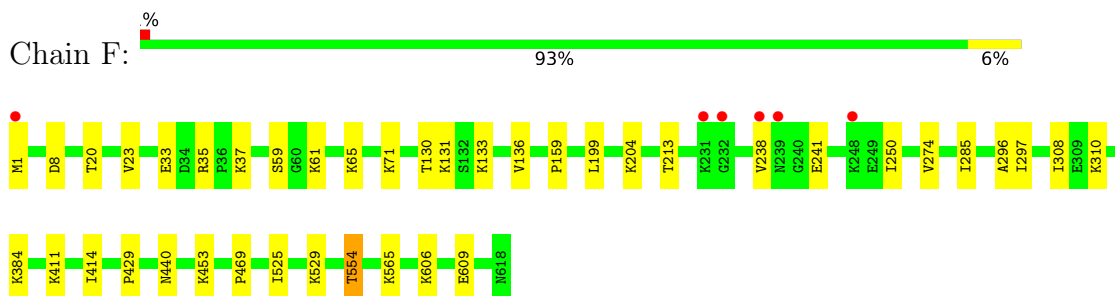
- Molecule 1: Coenzyme F420-dependent sulfite reductase



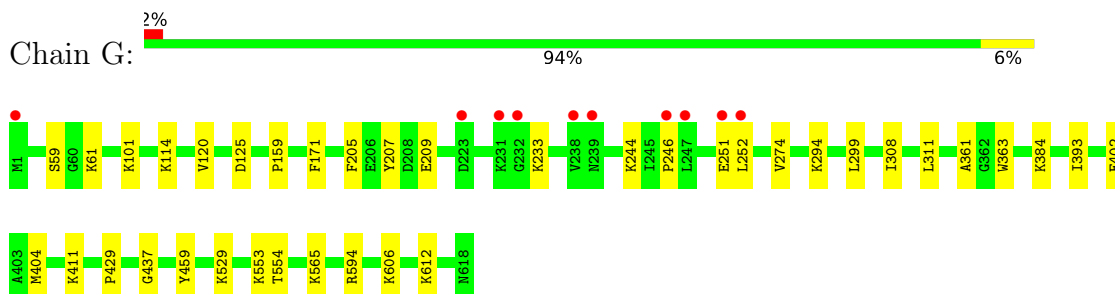
- Molecule 1: Coenzyme F420-dependent sulfite reductase



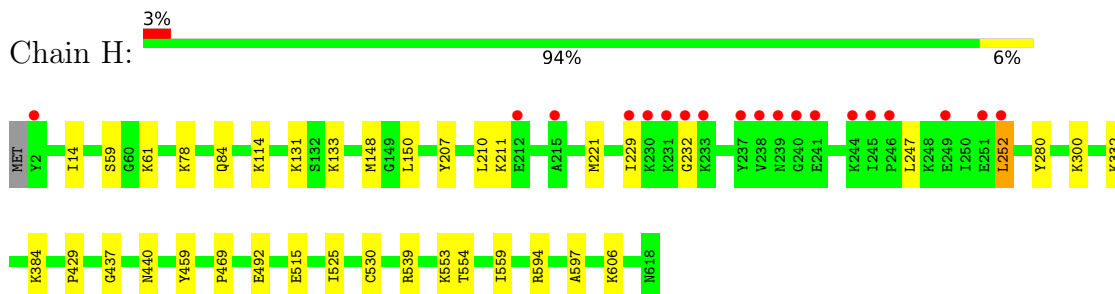
- Molecule 1: Coenzyme F420-dependent sulfite reductase



- Molecule 1: Coenzyme F420-dependent sulfite reductase



- Molecule 1: Coenzyme F420-dependent sulfite reductase

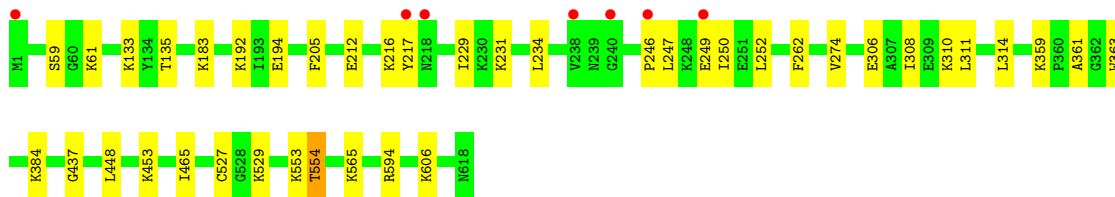


- Molecule 1: Coenzyme F420-dependent sulfite reductase

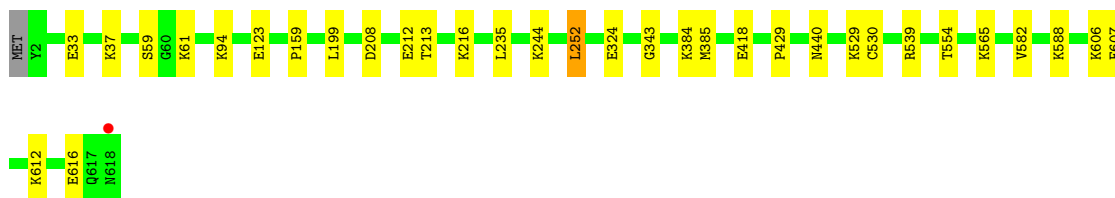




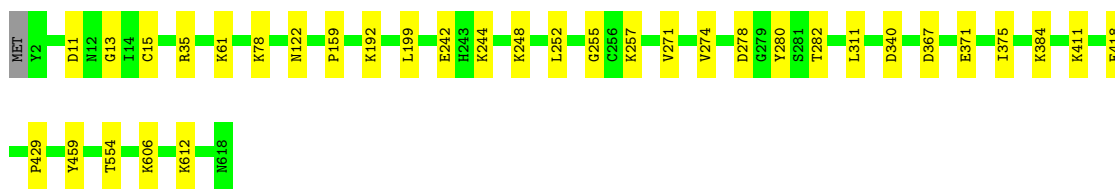
- Molecule 1: Coenzyme F420-dependent sulfite reductase



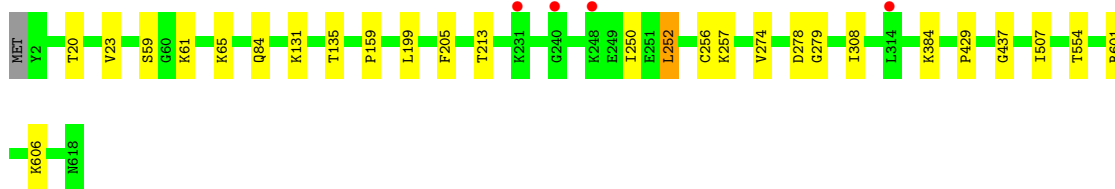
- Molecule 1: Coenzyme F420-dependent sulfite reductase



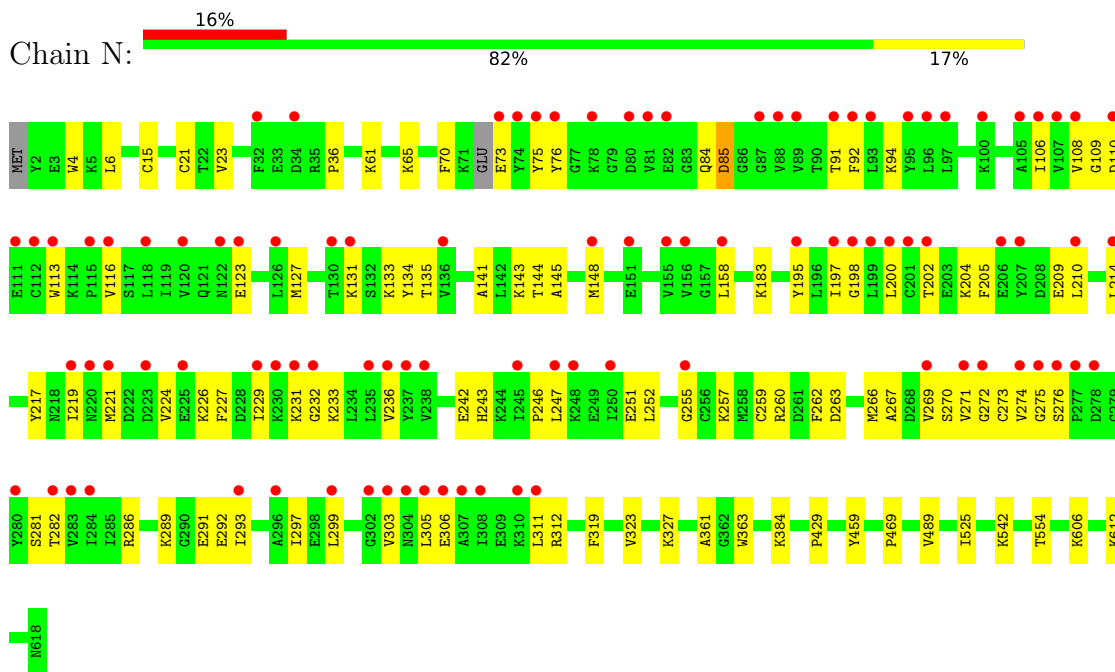
- Molecule 1: Coenzyme F420-dependent sulfite reductase



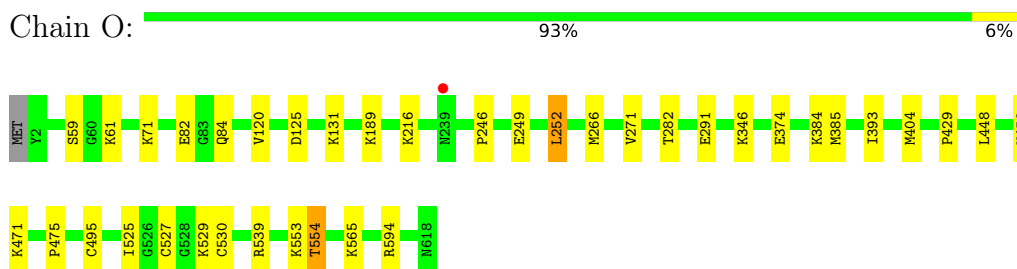
- Molecule 1: Coenzyme F420-dependent sulfite reductase



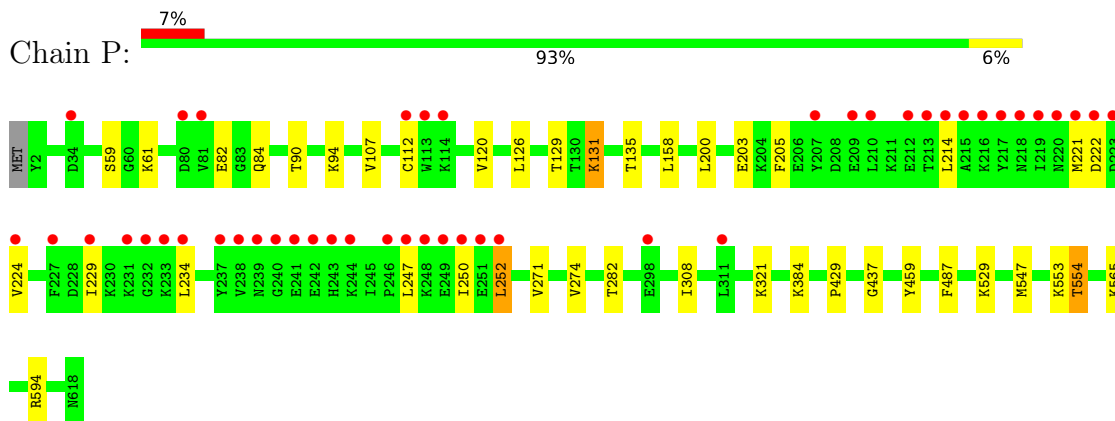
- Molecule 1: Coenzyme F420-dependent sulfite reductase



- Molecule 1: Coenzyme F420-dependent sulfite reductase



- Molecule 1: Coenzyme F420-dependent sulfite reductase



4 Data and refinement statistics

| Property | Value | Source |
|---|---|------------------|
| Space group | P 1 | Depositor |
| Cell constants a, b, c, α , β , γ | 113.15Å 124.16Å 241.06Å 102.28° 95.71° 90.25° | Depositor |
| Resolution (Å) | 77.29 – 1.55 121.27 – 1.55 | Depositor EDS |
| % Data completeness (in resolution range) | 75.5 (77.29-1.55) 75.5 (121.27-1.55) | Depositor EDS |
| R_{merge} | 0.18 | Depositor |
| R_{sym} | (Not available) | Depositor |
| $\langle I/\sigma(I) \rangle$ ¹ | 1.74 (at 1.55Å) | Xtrriage |
| Refinement program | PHENIX 1.17.1_3660 | Depositor |
| R, R_{free} | 0.159 , 0.171 0.164 , 0.175 | Depositor DCC |
| R_{free} test set | 69216 reflections (4.96%) | wwPDB-VP |
| Wilson B-factor (Å ²) | 13.8 | Xtrriage |
| Anisotropy | 0.016 | Xtrriage |
| Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²) | 0.35 , 47.4 | EDS |
| L-test for twinning ² | $\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$ | Xtrriage |
| Estimated twinning fraction | 0.010 for -h,k,-k-l | Xtrriage |
| F_o, F_c correlation | 0.96 | EDS |
| Total number of atoms | 93689 | wwPDB-VP |
| Average B, all atoms (Å ²) | 26.0 | wwPDB-VP |

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 14.18% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: LI, CL, SF4, SRM, TRS, FAD, PEG, SO4, GOL, EDO, H2S

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

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------|-------------|----------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 1 | A | 0.42 | 0/4946 | 0.60 | 0/6639 |
| 1 | B | 0.44 | 0/4940 | 0.60 | 0/6628 |
| 1 | C | 0.42 | 0/4939 | 0.58 | 0/6628 |
| 1 | D | 0.43 | 0/4915 | 0.59 | 0/6596 |
| 1 | E | 0.44 | 0/4922 | 0.59 | 0/6607 |
| 1 | F | 0.42 | 0/4954 | 0.58 | 0/6648 |
| 1 | G | 0.45 | 0/4935 | 0.60 | 0/6624 |
| 1 | H | 0.42 | 0/4920 | 0.57 | 0/6604 |
| 1 | I | 0.42 | 0/4940 | 0.59 | 0/6628 |
| 1 | J | 0.41 | 0/4932 | 0.57 | 0/6617 |
| 1 | K | 0.42 | 0/4922 | 0.60 | 0/6607 |
| 1 | L | 0.41 | 0/4925 | 0.58 | 0/6612 |
| 1 | M | 0.44 | 0/4914 | 0.60 | 0/6596 |
| 1 | N | 0.46 | 0/6693 | 0.57 | 0/8982 |
| 1 | O | 0.42 | 0/4914 | 0.58 | 0/6596 |
| 1 | P | 0.45 | 0/4914 | 0.58 | 0/6596 |
| All | All | 0.43 | 0/80625 | 0.59 | 0/108208 |

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | A | 4869 | 0 | 4909 | 25 | 0 |
| 1 | B | 4863 | 0 | 4917 | 35 | 0 |
| 1 | C | 4862 | 0 | 4908 | 19 | 0 |
| 1 | D | 4838 | 0 | 4881 | 35 | 0 |
| 1 | E | 4845 | 0 | 4884 | 36 | 0 |
| 1 | F | 4877 | 0 | 4931 | 27 | 0 |
| 1 | G | 4858 | 0 | 4906 | 31 | 0 |
| 1 | H | 4843 | 0 | 4885 | 29 | 0 |
| 1 | I | 4863 | 0 | 4917 | 28 | 0 |
| 1 | J | 4855 | 0 | 4905 | 34 | 0 |
| 1 | K | 4845 | 0 | 4884 | 24 | 0 |
| 1 | L | 4847 | 0 | 4888 | 25 | 0 |
| 1 | M | 4837 | 0 | 4881 | 21 | 0 |
| 1 | N | 6587 | 0 | 6651 | 104 | 0 |
| 1 | O | 4837 | 0 | 4881 | 30 | 0 |
| 1 | P | 4837 | 0 | 4881 | 31 | 0 |
| 2 | A | 48 | 0 | 0 | 2 | 0 |
| 2 | B | 48 | 0 | 0 | 2 | 0 |
| 2 | C | 48 | 0 | 0 | 0 | 0 |
| 2 | D | 48 | 0 | 0 | 1 | 0 |
| 2 | E | 48 | 0 | 0 | 1 | 0 |
| 2 | F | 48 | 0 | 0 | 0 | 0 |
| 2 | G | 48 | 0 | 0 | 2 | 0 |
| 2 | H | 48 | 0 | 0 | 1 | 0 |
| 2 | I | 48 | 0 | 0 | 0 | 0 |
| 2 | J | 48 | 0 | 0 | 1 | 0 |
| 2 | K | 48 | 0 | 0 | 0 | 0 |
| 2 | L | 48 | 0 | 0 | 0 | 0 |
| 2 | M | 48 | 0 | 0 | 2 | 0 |
| 2 | N | 64 | 0 | 0 | 5 | 0 |
| 2 | O | 48 | 0 | 0 | 1 | 0 |
| 2 | P | 48 | 0 | 0 | 1 | 0 |
| 3 | A | 53 | 0 | 31 | 0 | 0 |
| 3 | B | 53 | 0 | 31 | 0 | 0 |
| 3 | C | 53 | 0 | 31 | 0 | 0 |
| 3 | D | 53 | 0 | 31 | 1 | 0 |
| 3 | E | 53 | 0 | 31 | 1 | 0 |
| 3 | F | 53 | 0 | 31 | 0 | 0 |
| 3 | G | 53 | 0 | 31 | 0 | 0 |
| 3 | H | 53 | 0 | 31 | 0 | 0 |
| 3 | I | 53 | 0 | 31 | 1 | 0 |
| 3 | J | 53 | 0 | 31 | 0 | 0 |
| 3 | K | 53 | 0 | 31 | 1 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 3 | L | 53 | 0 | 31 | 0 | 0 |
| 3 | M | 53 | 0 | 31 | 0 | 0 |
| 3 | N | 106 | 0 | 62 | 3 | 0 |
| 3 | O | 53 | 0 | 31 | 0 | 0 |
| 3 | P | 53 | 0 | 31 | 2 | 0 |
| 4 | A | 40 | 0 | 60 | 2 | 0 |
| 4 | B | 52 | 0 | 78 | 2 | 0 |
| 4 | C | 32 | 0 | 48 | 0 | 0 |
| 4 | D | 36 | 0 | 54 | 1 | 0 |
| 4 | E | 32 | 0 | 48 | 1 | 0 |
| 4 | F | 20 | 0 | 30 | 2 | 0 |
| 4 | G | 48 | 0 | 72 | 4 | 0 |
| 4 | H | 16 | 0 | 24 | 4 | 0 |
| 4 | I | 32 | 0 | 48 | 1 | 0 |
| 4 | J | 28 | 0 | 42 | 4 | 0 |
| 4 | K | 28 | 0 | 42 | 1 | 0 |
| 4 | L | 16 | 0 | 24 | 0 | 0 |
| 4 | M | 52 | 0 | 78 | 0 | 0 |
| 4 | N | 8 | 0 | 12 | 0 | 0 |
| 4 | O | 36 | 0 | 54 | 0 | 0 |
| 4 | P | 16 | 0 | 24 | 0 | 0 |
| 5 | A | 63 | 0 | 34 | 0 | 0 |
| 5 | B | 63 | 0 | 34 | 0 | 0 |
| 5 | C | 63 | 0 | 34 | 0 | 0 |
| 5 | D | 63 | 0 | 34 | 0 | 0 |
| 5 | E | 63 | 0 | 34 | 1 | 0 |
| 5 | F | 63 | 0 | 34 | 1 | 0 |
| 5 | G | 63 | 0 | 34 | 0 | 0 |
| 5 | H | 63 | 0 | 34 | 0 | 0 |
| 5 | I | 63 | 0 | 34 | 0 | 0 |
| 5 | J | 63 | 0 | 34 | 0 | 0 |
| 5 | K | 63 | 0 | 34 | 0 | 0 |
| 5 | L | 63 | 0 | 34 | 0 | 0 |
| 5 | M | 63 | 0 | 34 | 1 | 0 |
| 5 | N | 63 | 0 | 34 | 1 | 0 |
| 5 | O | 63 | 0 | 34 | 1 | 0 |
| 5 | P | 63 | 0 | 34 | 0 | 0 |
| 6 | A | 5 | 0 | 0 | 0 | 0 |
| 6 | B | 10 | 0 | 0 | 1 | 0 |
| 6 | C | 5 | 0 | 0 | 0 | 0 |
| 6 | D | 15 | 0 | 0 | 0 | 0 |
| 6 | E | 5 | 0 | 0 | 0 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 6 | F | 20 | 0 | 0 | 1 | 0 |
| 6 | G | 5 | 0 | 0 | 0 | 0 |
| 6 | H | 10 | 0 | 0 | 0 | 0 |
| 6 | I | 5 | 0 | 0 | 0 | 0 |
| 6 | J | 10 | 0 | 0 | 0 | 0 |
| 6 | K | 10 | 0 | 0 | 0 | 0 |
| 6 | L | 15 | 0 | 0 | 0 | 0 |
| 6 | M | 15 | 0 | 0 | 0 | 0 |
| 6 | N | 5 | 0 | 0 | 0 | 0 |
| 6 | O | 10 | 0 | 0 | 0 | 0 |
| 6 | P | 10 | 0 | 0 | 0 | 0 |
| 7 | A | 1 | 0 | 0 | 0 | 0 |
| 7 | B | 1 | 0 | 0 | 0 | 0 |
| 7 | C | 1 | 0 | 0 | 0 | 0 |
| 7 | D | 1 | 0 | 0 | 0 | 0 |
| 7 | E | 1 | 0 | 0 | 0 | 0 |
| 7 | F | 1 | 0 | 0 | 0 | 0 |
| 7 | G | 1 | 0 | 0 | 0 | 0 |
| 7 | H | 1 | 0 | 0 | 0 | 0 |
| 7 | I | 1 | 0 | 0 | 0 | 0 |
| 7 | J | 1 | 0 | 0 | 0 | 0 |
| 7 | K | 1 | 0 | 0 | 0 | 0 |
| 7 | L | 1 | 0 | 0 | 0 | 0 |
| 7 | M | 1 | 0 | 0 | 0 | 0 |
| 7 | N | 1 | 0 | 0 | 0 | 0 |
| 7 | O | 1 | 0 | 0 | 0 | 0 |
| 7 | P | 1 | 0 | 0 | 0 | 0 |
| 8 | A | 2 | 0 | 0 | 0 | 0 |
| 8 | B | 2 | 0 | 0 | 0 | 0 |
| 8 | C | 2 | 0 | 0 | 0 | 0 |
| 8 | D | 2 | 0 | 0 | 0 | 0 |
| 8 | E | 2 | 0 | 0 | 0 | 0 |
| 8 | F | 1 | 0 | 0 | 0 | 0 |
| 8 | G | 2 | 0 | 0 | 0 | 0 |
| 8 | H | 2 | 0 | 0 | 0 | 0 |
| 8 | I | 2 | 0 | 0 | 0 | 0 |
| 8 | J | 2 | 0 | 0 | 0 | 0 |
| 8 | K | 2 | 0 | 0 | 0 | 0 |
| 8 | L | 1 | 0 | 0 | 0 | 0 |
| 8 | M | 2 | 0 | 0 | 0 | 0 |
| 8 | N | 1 | 0 | 0 | 0 | 0 |
| 8 | O | 2 | 0 | 0 | 0 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 8 | P | 2 | 0 | 0 | 0 | 0 |
| 9 | B | 18 | 0 | 24 | 1 | 0 |
| 9 | C | 12 | 0 | 16 | 3 | 0 |
| 9 | E | 6 | 0 | 8 | 0 | 0 |
| 9 | F | 6 | 0 | 8 | 1 | 0 |
| 9 | G | 6 | 0 | 8 | 0 | 0 |
| 9 | I | 12 | 0 | 16 | 4 | 0 |
| 9 | J | 12 | 0 | 16 | 0 | 0 |
| 9 | K | 6 | 0 | 8 | 0 | 0 |
| 9 | M | 6 | 0 | 8 | 1 | 0 |
| 9 | N | 12 | 0 | 16 | 1 | 0 |
| 9 | O | 6 | 0 | 8 | 0 | 0 |
| 9 | P | 12 | 0 | 16 | 2 | 0 |
| 10 | C | 1 | 0 | 0 | 0 | 0 |
| 10 | F | 1 | 0 | 0 | 0 | 0 |
| 10 | L | 1 | 0 | 0 | 0 | 0 |
| 10 | P | 1 | 0 | 0 | 0 | 0 |
| 11 | D | 7 | 0 | 10 | 0 | 0 |
| 11 | K | 7 | 0 | 10 | 1 | 0 |
| 11 | M | 14 | 0 | 20 | 2 | 0 |
| 11 | N | 7 | 0 | 10 | 0 | 0 |
| 12 | H | 8 | 0 | 12 | 0 | 0 |
| 12 | I | 8 | 0 | 12 | 0 | 0 |
| 13 | A | 800 | 0 | 0 | 5 | 0 |
| 13 | B | 744 | 0 | 0 | 7 | 0 |
| 13 | C | 762 | 0 | 0 | 1 | 0 |
| 13 | D | 713 | 0 | 0 | 2 | 0 |
| 13 | E | 645 | 0 | 0 | 2 | 0 |
| 13 | F | 605 | 0 | 0 | 4 | 0 |
| 13 | G | 748 | 0 | 0 | 3 | 0 |
| 13 | H | 685 | 0 | 0 | 1 | 0 |
| 13 | I | 704 | 0 | 0 | 3 | 0 |
| 13 | J | 567 | 0 | 0 | 7 | 0 |
| 13 | K | 766 | 0 | 0 | 3 | 0 |
| 13 | L | 681 | 0 | 0 | 5 | 0 |
| 13 | M | 690 | 0 | 0 | 2 | 0 |
| 13 | N | 465 | 0 | 0 | 2 | 0 |
| 13 | O | 665 | 0 | 0 | 3 | 0 |
| 13 | P | 532 | 0 | 0 | 4 | 0 |
| All | All | 93689 | 0 | 82144 | 518 | 0 |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 3.

All (518) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:B:274:VAL:HG21 | 1:B:311:LEU:CD1 | 2.03 | 0.87 |
| 1:N:263[B]:ASP:OD2 | 1:N:312[B]:ARG:NE | 2.16 | 0.78 |
| 1:B:274:VAL:HG21 | 1:B:311:LEU:HD12 | 1.70 | 0.71 |
| 1:J:252:LEU:HD23 | 1:J:252:LEU:H | 1.55 | 0.69 |
| 1:J:252:LEU:H | 1:J:252:LEU:CD2 | 2.05 | 0.68 |
| 1:O:252:LEU:H | 1:O:252:LEU:CD2 | 2.08 | 0.67 |
| 1:O:252:LEU:H | 1:O:252:LEU:HD23 | 1.60 | 0.66 |
| 1:N:131[B]:LYS:HD2 | 1:N:226[B]:LYS:HD2 | 1.80 | 0.64 |
| 1:G:274[A]:VAL:HG21 | 1:G:311:LEU:CD1 | 2.27 | 0.64 |
| 1:G:274[B]:VAL:HG11 | 1:G:311:LEU:CD1 | 2.28 | 0.63 |
| 1:N:210[A]:LEU:HG | 1:N:221[A]:MET:HE3 | 1.81 | 0.63 |
| 1:J:252:LEU:HD23 | 1:J:252:LEU:N | 2.13 | 0.63 |
| 1:N:252[A]:LEU:H | 1:N:252[A]:LEU:HD23 | 1.62 | 0.63 |
| 1:N:263[B]:ASP:CG | 1:N:312[B]:ARG:HE | 2.01 | 0.63 |
| 1:I:252:LEU:HD12 | 1:I:252:LEU:O | 1.99 | 0.62 |
| 1:H:78:LYS:HG3 | 1:H:280:TYR:CD2 | 2.34 | 0.61 |
| 1:P:229:ILE:HG22 | 1:P:229:ILE:O | 2.01 | 0.60 |
| 1:M:84:GLN:HB2 | 1:M:131:LYS:HA | 1.83 | 0.60 |
| 1:B:59:SER:HB2 | 1:B:61[A]:LYS:HG3 | 1.83 | 0.60 |
| 1:N:73[B]:GLU:HB3 | 1:N:75[B]:TYR:CE2 | 2.38 | 0.59 |
| 1:O:59:SER:HB2 | 1:O:61:LYS:HG3 | 1.84 | 0.59 |
| 1:G:59:SER:HB2 | 1:G:61:LYS:HG3 | 1.85 | 0.59 |
| 1:B:274:VAL:HG21 | 1:B:311:LEU:HD11 | 1.84 | 0.58 |
| 1:N:259[B]:CYS:O | 1:N:319[B]:PHE:HB2 | 2.03 | 0.58 |
| 1:C:94:LYS:HD2 | 1:C:123:GLU:HG3 | 1.86 | 0.58 |
| 1:F:71:LYS:HE3 | 1:F:285:ILE:HG22 | 1.86 | 0.58 |
| 1:N:73[B]:GLU:HB3 | 1:N:75[B]:TYR:HE2 | 1.68 | 0.58 |
| 1:N:262[B]:PHE:HB3 | 1:N:312[B]:ARG:HA | 1.86 | 0.58 |
| 1:N:525:ILE:HD11 | 9:N:1011:GOL:H32 | 1.85 | 0.58 |
| 1:P:84:GLN:HB2 | 1:P:131:LYS:HA | 1.86 | 0.58 |
| 1:N:84[B]:GLN:HB2 | 1:N:131[B]:LYS:HA | 1.85 | 0.58 |
| 1:N:198[B]:GLY:O | 1:N:270[B]:SER:HA | 2.03 | 0.58 |
| 1:N:214[B]:LEU:HD11 | 1:N:227[B]:PHE:CE1 | 2.39 | 0.57 |
| 1:L:248:LYS:HA | 1:L:248:LYS:HE3 | 1.84 | 0.57 |
| 1:O:61:LYS:HE2 | 1:O:266:MET:CG | 2.35 | 0.57 |
| 1:G:429:PRO:HG3 | 1:H:384:LYS:HE2 | 1.86 | 0.57 |
| 1:N:195[B]:TYR:CD1 | 1:N:289[B]:LYS:HB3 | 2.39 | 0.57 |
| 1:F:59:SER:HB2 | 1:F:61:LYS:HG3 | 1.86 | 0.57 |
| 1:O:527:CYS:SG | 1:O:529:LYS:HB2 | 2.44 | 0.57 |
| 1:D:151:GLU:HG2 | 1:D:152:LYS:HG3 | 1.85 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:N:134[B]:TYR:CE1 | 1:N:229[B]:ILE:HG13 | 2.40 | 0.57 |
| 1:F:35:ARG:HD3 | 13:F:1290:HOH:O | 2.05 | 0.56 |
| 1:N:23:VAL:HG12 | 1:N:143[B]:LYS:HE2 | 1.86 | 0.56 |
| 1:P:547:MET:SD | 9:P:1111:GOL:O3 | 2.62 | 0.56 |
| 1:A:612:LYS:NZ | 1:D:609:GLU:CD | 2.59 | 0.56 |
| 1:J:453:LYS:NZ | 13:J:1204:HOH:O | 2.37 | 0.56 |
| 1:E:371:GLU:OE2 | 1:E:411:LYS:HD2 | 2.06 | 0.56 |
| 1:N:113[B]:TRP:NE1 | 1:N:224[B]:VAL:O | 2.35 | 0.56 |
| 1:H:559:ILE:CD1 | 4:H:4412:EDO:H22 | 2.35 | 0.56 |
| 1:N:209[B]:GLU:HG2 | 1:N:251[B]:GLU:HB3 | 1.86 | 0.56 |
| 1:N:108[B]:VAL:HG21 | 3:N:1009[B]:FAD:C2A | 2.35 | 0.56 |
| 1:O:252:LEU:HD23 | 1:O:252:LEU:N | 2.21 | 0.56 |
| 1:E:214:LEU:HD11 | 1:E:227:PHE:HZ | 1.69 | 0.56 |
| 9:F:1114:GOL:H31 | 4:G:1116:EDO:H11 | 1.88 | 0.56 |
| 1:B:231:LYS:HE2 | 6:B:4226:SO4:O1 | 2.06 | 0.56 |
| 1:J:359:LYS:HE2 | 13:J:1343:HOH:O | 2.05 | 0.56 |
| 1:M:384:LYS:HE2 | 1:N:429:PRO:HG3 | 1.88 | 0.56 |
| 1:C:429:PRO:HG3 | 1:D:384:LYS:HE2 | 1.88 | 0.55 |
| 1:J:453:LYS:HE3 | 13:J:1249:HOH:O | 2.06 | 0.55 |
| 1:N:299[B]:LEU:N | 1:N:299[B]:LEU:HD23 | 2.21 | 0.55 |
| 1:N:61:LYS:O | 1:N:65:LYS:HB3 | 2.06 | 0.55 |
| 1:F:65:LYS:NZ | 13:F:1207:HOH:O | 2.39 | 0.55 |
| 1:E:217:TYR:CE2 | 1:E:245:ILE:HD13 | 2.42 | 0.55 |
| 13:I:1430:HOH:O | 1:J:554:THR:HG22 | 2.06 | 0.55 |
| 1:E:113:TRP:HB2 | 1:E:221:MET:HG2 | 1.89 | 0.55 |
| 1:H:559:ILE:HD11 | 4:H:4412:EDO:H22 | 1.88 | 0.55 |
| 1:K:33:GLU:HG3 | 1:K:37:LYS:HE2 | 1.88 | 0.55 |
| 1:D:112:CYS:SG | 1:D:222:ASP:HA | 2.47 | 0.55 |
| 1:I:429:PRO:HG3 | 1:J:384:LYS:HE2 | 1.87 | 0.55 |
| 1:K:429:PRO:HG3 | 1:L:384:LYS:HE2 | 1.89 | 0.55 |
| 1:N:214[B]:LEU:HD11 | 1:N:227[B]:PHE:HE1 | 1.71 | 0.55 |
| 1:B:453:LYS:NZ | 13:B:4310:HOH:O | 2.39 | 0.54 |
| 1:G:114:LYS:HG3 | 1:G:207:TYR:CZ | 2.43 | 0.54 |
| 1:J:231:LYS:HG3 | 4:J:1110:EDO:H21 | 1.88 | 0.54 |
| 1:N:36:PRO:HG3 | 2:N:1006[A]:SF4:S3 | 2.47 | 0.54 |
| 1:N:200[A]:LEU:HG | 1:N:263[A]:ASP:HA | 1.89 | 0.54 |
| 1:N:299[A]:LEU:HD23 | 1:N:299[A]:LEU:N | 2.21 | 0.54 |
| 1:N:305[A]:LEU:HD12 | 1:N:305[A]:LEU:C | 2.27 | 0.54 |
| 1:N:106[B]:ILE:HG23 | 1:N:141[B]:ALA:HB3 | 1.90 | 0.54 |
| 1:N:276[A]:SER:HB3 | 1:N:282[A]:THR:OG1 | 2.07 | 0.54 |
| 1:J:192:LYS:HE2 | 1:J:194:GLU:OE1 | 2.08 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|--------------------|--------------------------|-------------------|
| 1:N:214[A]:LEU:HD11 | 1:N:227[A]:PHE:CE1 | 2.43 | 0.54 |
| 1:P:203:GLU:OE1 | 1:P:247:LEU:HD13 | 2.08 | 0.54 |
| 1:P:120:VAL:HG21 | 1:P:126:LEU:HD13 | 1.89 | 0.54 |
| 1:L:242:GLU:OE1 | 1:L:244:LYS:HE3 | 2.08 | 0.53 |
| 13:G:1223:HOH:O | 1:H:515:GLU:HG3 | 2.07 | 0.53 |
| 1:N:289[B]:LYS:O | 1:N:292[B]:GLU:HB2 | 2.09 | 0.53 |
| 1:F:213:THR:HG21 | 1:F:250:ILE:HG12 | 1.89 | 0.53 |
| 1:I:612[B]:LYS:O | 1:I:616:GLU:HG3 | 2.09 | 0.53 |
| 1:I:324:GLU:HG2 | 13:I:1203:HOH:O | 2.09 | 0.53 |
| 1:E:235:LEU:HD22 | 1:E:244:LYS:HG2 | 1.91 | 0.53 |
| 1:B:101:LYS:NZ | 13:B:4313:HOH:O | 2.42 | 0.53 |
| 1:D:237:TYR:CE2 | 1:D:242:GLU:HB3 | 2.43 | 0.53 |
| 1:K:252:LEU:HD12 | 1:K:252:LEU:O | 2.09 | 0.53 |
| 1:N:209[A]:GLU:HG2 | 1:N:251[A]:GLU:HB3 | 1.89 | 0.53 |
| 1:P:107:VAL:CG2 | 1:P:129:THR:HG21 | 2.39 | 0.53 |
| 1:A:324:GLU:HG2 | 13:A:1225:HOH:O | 2.08 | 0.53 |
| 1:N:200[B]:LEU:HG | 1:N:263[B]:ASP:HA | 1.90 | 0.53 |
| 1:P:321:LYS:NZ | 13:P:1201:HOH:O | 2.30 | 0.53 |
| 1:B:37:LYS:HA | 4:B:4216:EDO:H12 | 1.90 | 0.52 |
| 1:N:94[A]:LYS:HG3 | 1:N:123[A]:GLU:HG2 | 1.92 | 0.52 |
| 1:G:411:LYS:HE2 | 13:G:1209:HOH:O | 2.08 | 0.52 |
| 1:L:11:ASP:OD1 | 1:L:35:ARG:NH2 | 2.42 | 0.52 |
| 1:N:145[B]:ALA:HA | 1:N:148[B]:MET:HE2 | 1.90 | 0.52 |
| 1:F:33:GLU:HB2 | 1:F:37:LYS:HE3 | 1.91 | 0.52 |
| 1:L:61:LYS:HE2 | 13:L:1238:HOH:O | 2.10 | 0.52 |
| 1:I:59:SER:HB2 | 1:I:61:LYS:HG3 | 1.92 | 0.52 |
| 1:N:291[A]:GLU:HA | 1:N:291[A]:GLU:OE1 | 2.10 | 0.52 |
| 1:D:213:THR:HG21 | 1:D:250:ILE:HG12 | 1.92 | 0.52 |
| 1:E:429:PRO:HG3 | 1:F:384:LYS:HE2 | 1.92 | 0.52 |
| 1:N:134[B]:TYR:HE2 | 1:N:227[B]:PHE:O | 1.93 | 0.52 |
| 1:N:267[A]:ALA:O | 1:N:286[A]:ARG:HD2 | 2.11 | 0.51 |
| 1:O:189:LYS:NZ | 13:O:1208:HOH:O | 2.43 | 0.51 |
| 1:D:94:LYS:HG3 | 1:D:126:LEU:HD23 | 1.92 | 0.51 |
| 1:F:274:VAL:HG13 | 1:F:308:ILE:HG12 | 1.92 | 0.51 |
| 1:I:612[A]:LYS:O | 1:I:616:GLU:HG3 | 2.09 | 0.51 |
| 1:L:61:LYS:HB3 | 1:L:340:ASP:HA | 1.93 | 0.51 |
| 1:N:327[A]:LYS:NZ | 13:N:1108:HOH:O | 2.43 | 0.51 |
| 1:D:414:ILE:N | 1:D:414:ILE:HD12 | 2.25 | 0.51 |
| 1:A:59:SER:HB2 | 1:A:61:LYS:HG3 | 1.91 | 0.51 |
| 1:C:252:LEU:HD12 | 1:C:252:LEU:O | 2.10 | 0.51 |
| 1:H:232:GLY:O | 1:H:247:LEU:HB2 | 2.10 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:N:275[B]:GLY:O | 1:N:303[B]:VAL:HG13 | 2.10 | 0.51 |
| 1:A:606:LYS:HB2 | 1:D:565:LYS:HB3 | 1.92 | 0.51 |
| 1:I:33:GLU:HB2 | 1:I:37:LYS:HE2 | 1.93 | 0.51 |
| 1:B:252:LEU:HD12 | 1:B:252:LEU:O | 2.11 | 0.51 |
| 1:J:527:CYS:SG | 4:J:1112:EDO:H11 | 2.51 | 0.51 |
| 1:N:197[A]:ILE:HG23 | 1:N:269[A]:VAL:HG13 | 1.94 | 0.51 |
| 1:D:85:ASP:OD2 | 1:D:273:CYS:HB3 | 2.12 | 0.50 |
| 1:L:252:LEU:CD2 | 1:L:252:LEU:H | 2.23 | 0.50 |
| 1:N:606:LYS:HB2 | 1:O:565:LYS:HB3 | 1.93 | 0.50 |
| 1:A:159:PRO:HD2 | 2:A:1101:SF4:S2 | 2.52 | 0.50 |
| 1:B:120:VAL:HG13 | 1:B:125:ASP:HB2 | 1.94 | 0.50 |
| 1:G:294:LYS:HG2 | 1:G:299:LEU:HD12 | 1.93 | 0.50 |
| 1:J:274:VAL:HG13 | 1:J:308:ILE:HG12 | 1.92 | 0.50 |
| 1:N:70:PHE:CZ | 1:N:266[B]:MET:O | 2.64 | 0.50 |
| 1:O:61:LYS:HE2 | 1:O:266:MET:HG3 | 1.94 | 0.50 |
| 1:P:529:LYS:HD3 | 13:P:1547:HOH:O | 2.12 | 0.50 |
| 1:N:134[B]:TYR:CZ | 1:N:229[B]:ILE:HG13 | 2.47 | 0.50 |
| 1:N:221[A]:MET:HE2 | 1:N:227[A]:PHE:CZ | 2.47 | 0.50 |
| 1:N:21:CYS:HB3 | 2:N:1006[A]:SF4:S1 | 2.52 | 0.50 |
| 1:D:469:PRO:HB2 | 1:D:525:ILE:HD12 | 1.94 | 0.50 |
| 1:H:229:ILE:CG2 | 1:H:247:LEU:HD11 | 2.42 | 0.50 |
| 1:J:216:LYS:HD3 | 1:J:216:LYS:N | 2.27 | 0.50 |
| 1:O:120:VAL:HG13 | 1:O:125:ASP:HB2 | 1.94 | 0.50 |
| 1:O:384:LYS:HE2 | 1:P:429:PRO:HG3 | 1.93 | 0.50 |
| 1:E:232:GLY:HA2 | 1:E:247:LEU:HD12 | 1.94 | 0.50 |
| 1:F:411:LYS:NZ | 13:F:1213:HOH:O | 2.43 | 0.50 |
| 1:P:84:GLN:HG2 | 3:P:1106:FAD:H3' | 1.93 | 0.50 |
| 1:B:565:LYS:HB3 | 1:C:606:LYS:HB2 | 1.94 | 0.50 |
| 1:E:449:GLU:O | 1:E:453:LYS:HB3 | 2.11 | 0.50 |
| 1:K:59:SER:HB2 | 1:K:61:LYS:HG3 | 1.93 | 0.50 |
| 1:A:252:LEU:HD23 | 1:A:252:LEU:H | 1.77 | 0.49 |
| 1:F:565:LYS:HB3 | 1:G:606:LYS:HB2 | 1.94 | 0.49 |
| 1:G:209:GLU:HG2 | 1:G:251:GLU:CD | 2.32 | 0.49 |
| 1:A:384:LYS:HE2 | 1:B:429:PRO:HG3 | 1.94 | 0.49 |
| 1:B:65:LYS:HD3 | 13:B:4393:HOH:O | 2.12 | 0.49 |
| 6:F:1117:SO4:O2 | 6:F:1118:SO4:O4 | 2.29 | 0.49 |
| 1:H:84:GLN:HB2 | 1:H:131:LYS:HA | 1.93 | 0.49 |
| 1:N:133[B]:LYS:HD3 | 1:N:133[B]:LYS:N | 2.27 | 0.49 |
| 1:O:495:CYS:HA | 2:O:1105:SF4:S4 | 2.51 | 0.49 |
| 1:A:252:LEU:H | 1:A:252:LEU:CD2 | 2.25 | 0.49 |
| 1:P:112:CYS:SG | 1:P:222:ASP:HA | 2.52 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:B:61[B]:LYS:HB3 | 1:B:340:ASP:HA | 1.93 | 0.49 |
| 1:E:214:LEU:HD11 | 1:E:227:PHE:CZ | 2.47 | 0.49 |
| 1:I:71:LYS:O | 1:I:286:ARG:HA | 2.12 | 0.49 |
| 1:K:94:LYS:CD | 1:K:123:GLU:HG3 | 2.42 | 0.49 |
| 1:E:384:LYS:HE2 | 1:F:429:PRO:HG3 | 1.95 | 0.49 |
| 1:H:300:LYS:NZ | 13:H:4510:HOH:O | 2.42 | 0.49 |
| 1:H:553:LYS:HE3 | 1:H:594:ARG:HG3 | 1.93 | 0.49 |
| 1:I:542:LYS:HZ1 | 9:I:1117:GOL:H32 | 1.77 | 0.49 |
| 1:F:136:VAL:HA | 1:F:204:LYS:HD2 | 1.94 | 0.49 |
| 1:M:252:LEU:N | 1:M:252:LEU:HD12 | 2.27 | 0.49 |
| 1:P:214:LEU:HD12 | 1:P:221:MET:HB2 | 1.94 | 0.49 |
| 1:G:384:LYS:HE2 | 1:H:429:PRO:HG3 | 1.95 | 0.49 |
| 1:F:609:GLU:OE1 | 1:G:612:LYS:HE3 | 2.13 | 0.49 |
| 1:L:367:ASP:O | 1:L:371:GLU:HG3 | 2.13 | 0.49 |
| 1:F:440:ASN:HB3 | 4:F:1113:EDO:H11 | 1.94 | 0.49 |
| 1:L:192:LYS:NZ | 13:L:1221:HOH:O | 2.45 | 0.49 |
| 1:N:489:VAL:HB | 1:N:542:LYS:HB2 | 1.95 | 0.49 |
| 1:D:211:LYS:HA | 1:D:221:MET:HE3 | 1.95 | 0.48 |
| 1:F:469:PRO:HB2 | 1:F:525:ILE:HD12 | 1.95 | 0.48 |
| 1:H:440:ASN:HB3 | 4:H:4413:EDO:H11 | 1.95 | 0.48 |
| 1:N:94[B]:LYS:HG3 | 1:N:123[B]:GLU:HG2 | 1.95 | 0.48 |
| 1:N:232[B]:GLY:C | 1:N:247[B]:LEU:HG | 2.34 | 0.48 |
| 1:D:237:TYR:CD2 | 1:D:242:GLU:HB3 | 2.48 | 0.48 |
| 1:M:213:THR:HG21 | 1:M:250:ILE:HG12 | 1.95 | 0.48 |
| 1:E:553:LYS:HE3 | 1:E:594:ARG:HG3 | 1.95 | 0.48 |
| 1:N:133[A]:LYS:HD3 | 1:N:133[A]:LYS:N | 2.28 | 0.48 |
| 1:N:252[A]:LEU:H | 1:N:252[A]:LEU:CD2 | 2.25 | 0.48 |
| 1:A:429:PRO:HG3 | 1:B:384:LYS:HE2 | 1.94 | 0.48 |
| 1:M:601:ARG:HH11 | 9:M:1114:GOL:H31 | 1.77 | 0.48 |
| 1:N:106[A]:ILE:HG23 | 1:N:141[A]:ALA:HB3 | 1.95 | 0.48 |
| 9:B:4217[A]:GOL:H32 | 13:B:4412:HOH:O | 2.14 | 0.48 |
| 1:D:440:ASN:HB3 | 4:D:4615:EDO:H11 | 1.96 | 0.48 |
| 1:O:246:PRO:HD2 | 1:O:249:GLU:OE1 | 2.14 | 0.48 |
| 1:D:59:SER:HB2 | 1:D:61:LYS:HG3 | 1.96 | 0.48 |
| 1:K:588:LYS:NZ | 13:K:1218:HOH:O | 2.45 | 0.48 |
| 1:N:4:TRP:CZ2 | 1:N:6:LEU:HD12 | 2.49 | 0.48 |
| 1:N:123[B]:GLU:O | 1:N:127[B]:MET:HG2 | 2.13 | 0.48 |
| 1:H:252:LEU:HD23 | 1:H:252:LEU:H | 1.79 | 0.48 |
| 1:C:252:LEU:HD12 | 1:C:252:LEU:N | 2.28 | 0.47 |
| 1:E:507:ILE:HG22 | 4:F:1110[B]:EDO:H12 | 1.95 | 0.47 |
| 1:P:487:PHE:CE1 | 9:P:1111:GOL:H32 | 2.48 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:H:59:SER:HB2 | 1:H:61:LYS:HG3 | 1.96 | 0.47 |
| 1:I:203:GLU:OE2 | 1:I:252:LEU:HB3 | 2.14 | 0.47 |
| 1:L:252:LEU:H | 1:L:252:LEU:HD23 | 1.79 | 0.47 |
| 1:N:274[B]:VAL:HG21 | 1:N:311:LEU:HD11 | 1.96 | 0.47 |
| 5:N:1012:SRM:HMA1 | 5:N:1012:SRM:O3A | 2.14 | 0.47 |
| 1:F:606:LYS:HB2 | 1:G:565:LYS:HB3 | 1.97 | 0.47 |
| 1:G:553:LYS:HE3 | 1:G:594:ARG:HG3 | 1.96 | 0.47 |
| 1:N:319[B]:PHE:O | 1:N:323[B]:VAL:HG23 | 2.12 | 0.47 |
| 1:O:84:GLN:HB2 | 1:O:131:LYS:HA | 1.97 | 0.47 |
| 1:D:242:GLU:O | 1:D:242:GLU:HG3 | 2.15 | 0.47 |
| 1:K:440:ASN:HB3 | 4:K:1116:EDO:H22 | 1.96 | 0.47 |
| 1:P:553:LYS:HE3 | 1:P:594:ARG:HG3 | 1.96 | 0.47 |
| 1:B:61[A]:LYS:HE2 | 1:B:266:MET:SD | 2.54 | 0.47 |
| 1:F:310:LYS:HE3 | 13:F:1477:HOH:O | 2.15 | 0.47 |
| 1:H:597:ALA:HA | 4:H:4412:EDO:H21 | 1.95 | 0.47 |
| 5:M:1109:SRM:O3A | 5:M:1109:SRM:HMA1 | 2.14 | 0.47 |
| 1:D:200:LEU:HD23 | 1:D:274:VAL:HG12 | 1.97 | 0.47 |
| 1:H:229:ILE:HG23 | 1:H:247:LEU:HD11 | 1.95 | 0.47 |
| 1:A:71:LYS:HG2 | 1:A:286:ARG:O | 2.14 | 0.47 |
| 1:B:135:THR:HA | 1:B:205:PHE:O | 2.15 | 0.47 |
| 1:C:384:LYS:HE2 | 1:D:429:PRO:HG3 | 1.97 | 0.47 |
| 1:K:213:THR:HA | 1:K:216:LYS:HE2 | 1.97 | 0.47 |
| 13:M:1819:HOH:O | 1:N:183[A]:LYS:HG3 | 2.14 | 0.47 |
| 1:H:211:LYS:HA | 1:H:221:MET:HE3 | 1.96 | 0.47 |
| 1:M:159:PRO:HD3 | 1:M:199:LEU:O | 2.15 | 0.47 |
| 1:N:135[A]:THR:HA | 1:N:205[A]:PHE:O | 2.15 | 0.47 |
| 1:N:297[B]:ILE:HB | 1:N:299[B]:LEU:HD21 | 1.96 | 0.47 |
| 1:C:613:GLU:O | 1:C:617:GLN:HG3 | 2.14 | 0.47 |
| 1:N:92[B]:PHE:CG | 1:N:293[B]:ILE:HG13 | 2.50 | 0.47 |
| 1:N:109[B]:GLY:N | 1:N:116[B]:VAL:O | 2.35 | 0.47 |
| 1:D:225:GLU:HB2 | 1:D:237:TYR:O | 2.15 | 0.47 |
| 1:G:233:LYS:HD2 | 1:G:244:LYS:CD | 2.45 | 0.47 |
| 1:I:609:GLU:HG2 | 1:L:612:LYS:HD3 | 1.97 | 0.47 |
| 1:K:235:LEU:HD22 | 1:K:244:LYS:HG2 | 1.97 | 0.47 |
| 1:N:108[A]:VAL:HG21 | 3:N:1001[A]:FAD:C2A | 2.45 | 0.47 |
| 1:P:107:VAL:HG23 | 1:P:129:THR:HG21 | 1.95 | 0.47 |
| 1:J:212:GLU:O | 1:J:216:LYS:HE2 | 2.14 | 0.46 |
| 1:A:553:LYS:HE3 | 1:A:594:ARG:HG3 | 1.97 | 0.46 |
| 1:J:246:PRO:O | 1:J:249:GLU:HB3 | 2.15 | 0.46 |
| 1:O:71:LYS:NZ | 1:O:291:GLU:OE1 | 2.44 | 0.46 |
| 1:H:148:MET:HE2 | 1:H:150:LEU:HD11 | 1.97 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:I:554:THR:HG22 | 13:J:1321:HOH:O | 2.16 | 0.46 |
| 1:P:90:THR:O | 1:P:94:LYS:HG3 | 2.16 | 0.46 |
| 1:E:252:LEU:HD12 | 1:E:252:LEU:O | 2.16 | 0.46 |
| 1:N:75[B]:TYR:HB3 | 1:N:299[B]:LEU:HB3 | 1.97 | 0.46 |
| 1:C:59:SER:HB2 | 1:C:61:LYS:HG3 | 1.98 | 0.46 |
| 1:A:618:ASN:ND2 | 13:A:1214:HOH:O | 2.43 | 0.46 |
| 1:H:210:LEU:HG | 1:H:221:MET:HE2 | 1.98 | 0.46 |
| 1:J:231:LYS:CG | 4:J:1110:EDO:H21 | 2.45 | 0.46 |
| 1:G:402:GLU:OE1 | 4:G:1120:EDO:H22 | 2.15 | 0.46 |
| 1:I:542:LYS:NZ | 9:I:1117:GOL:H32 | 2.30 | 0.46 |
| 1:K:384:LYS:HE2 | 1:L:429:PRO:HG3 | 1.97 | 0.46 |
| 1:N:233[B]:LYS:HG2 | 1:N:246[B]:PRO:HA | 1.98 | 0.46 |
| 1:N:276[A]:SER:CB | 1:N:282[A]:THR:OG1 | 2.63 | 0.46 |
| 1:J:310:LYS:O | 1:J:314:LEU:HD23 | 2.16 | 0.46 |
| 1:N:232[A]:GLY:C | 1:N:247[A]:LEU:HG | 2.36 | 0.46 |
| 1:P:135:THR:HA | 1:P:205:PHE:O | 2.16 | 0.46 |
| 1:G:171:PHE:HB3 | 4:G:1118:EDO:C2 | 2.46 | 0.46 |
| 1:I:20:THR:O | 1:I:23:VAL:HG22 | 2.16 | 0.46 |
| 1:I:252:LEU:HD12 | 1:I:252:LEU:C | 2.36 | 0.45 |
| 1:N:197[B]:ILE:HG23 | 1:N:269[B]:VAL:HG13 | 1.98 | 0.45 |
| 1:N:219[A]:ILE:HG21 | 1:N:236[A]:VAL:HG11 | 1.98 | 0.45 |
| 1:P:221:MET:HA | 1:P:224:VAL:HG23 | 1.97 | 0.45 |
| 1:H:148:MET:CE | 1:H:150:LEU:HD11 | 2.46 | 0.45 |
| 1:J:448:LEU:HD12 | 1:J:465:ILE:HD11 | 1.97 | 0.45 |
| 1:M:252:LEU:HD12 | 1:M:252:LEU:H | 1.81 | 0.45 |
| 1:N:214[A]:LEU:HD11 | 1:N:227[A]:PHE:CZ | 2.51 | 0.45 |
| 1:C:553:LYS:HE3 | 1:C:594:ARG:HG3 | 1.97 | 0.45 |
| 1:E:84:GLN:HB2 | 1:E:131:LYS:HA | 1.98 | 0.45 |
| 1:H:437:GLY:HA2 | 2:H:4405:SF4:S2 | 2.56 | 0.45 |
| 11:K:1115:PEG:H11 | 11:K:1115:PEG:H31 | 1.36 | 0.45 |
| 1:L:418:GLU:HG2 | 13:L:1214:HOH:O | 2.15 | 0.45 |
| 1:N:252[B]:LEU:HD23 | 1:N:252[B]:LEU:H | 1.81 | 0.45 |
| 1:A:565:LYS:HB3 | 1:D:606:LYS:HB2 | 1.99 | 0.45 |
| 1:B:601:ARG:HH11 | 9:C:3901:GOL:H2 | 1.81 | 0.45 |
| 1:G:274[A]:VAL:HG21 | 1:G:311:LEU:HD11 | 1.96 | 0.45 |
| 1:D:159:PRO:HD3 | 1:D:199:LEU:O | 2.16 | 0.45 |
| 1:M:59:SER:HB2 | 1:M:61:LYS:HG3 | 1.99 | 0.45 |
| 1:N:260[A]:ARG:HD2 | 1:N:319[A]:PHE:CZ | 2.52 | 0.45 |
| 1:B:554:THR:HG22 | 13:B:4413:HOH:O | 2.16 | 0.45 |
| 1:H:247:LEU:HD23 | 1:H:247:LEU:HA | 1.85 | 0.45 |
| 1:O:374:GLU:HG2 | 13:O:1388:HOH:O | 2.16 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:D:107:VAL:CG2 | 1:D:129:THR:HG21 | 2.47 | 0.45 |
| 1:G:233:LYS:HG2 | 1:G:246:PRO:HA | 1.99 | 0.45 |
| 1:J:262:PHE:CZ | 1:J:311:LEU:HD12 | 2.51 | 0.45 |
| 1:L:274:VAL:HG21 | 1:L:311:LEU:HD12 | 1.98 | 0.45 |
| 1:N:272[A]:GLY:HA2 | 3:N:1001[A]:FAD:O4' | 2.17 | 0.45 |
| 1:D:214:LEU:HD12 | 1:D:221:MET:HE3 | 1.98 | 0.45 |
| 1:J:361:ALA:HB3 | 1:J:363:TRP:CD1 | 2.52 | 0.45 |
| 1:K:324:GLU:HG2 | 13:K:1215:HOH:O | 2.16 | 0.45 |
| 1:N:274[B]:VAL:HG21 | 1:N:311:LEU:CD1 | 2.47 | 0.45 |
| 1:C:542:LYS:HZ1 | 9:C:3901:GOL:H32 | 1.82 | 0.45 |
| 1:F:59:SER:CB | 1:F:61:LYS:HG3 | 2.47 | 0.45 |
| 1:G:205:PHE:HA | 1:G:252:LEU:HA | 1.97 | 0.45 |
| 1:D:94:LYS:HG2 | 1:D:123:GLU:HG2 | 1.99 | 0.45 |
| 1:D:214:LEU:HD12 | 1:D:221:MET:CE | 2.47 | 0.45 |
| 1:E:252:LEU:CD1 | 1:E:252:LEU:C | 2.86 | 0.45 |
| 1:G:120:VAL:HG13 | 1:G:125:ASP:HB2 | 1.99 | 0.45 |
| 1:N:297[A]:ILE:HB | 1:N:299[A]:LEU:HD21 | 1.99 | 0.45 |
| 1:O:554:THR:HG22 | 13:P:1340:HOH:O | 2.17 | 0.45 |
| 1:B:314:LEU:HG | 13:B:4456:HOH:O | 2.18 | 0.44 |
| 1:C:85:ASP:OD2 | 1:C:273:CYS:HB3 | 2.17 | 0.44 |
| 1:E:201:CYS:HA | 3:E:1106:FAD:N5 | 2.32 | 0.44 |
| 1:E:239:ASN:O | 1:E:241:GLU:HG3 | 2.17 | 0.44 |
| 5:E:1109:SRM:HMA1 | 5:E:1109:SRM:O3A | 2.16 | 0.44 |
| 1:I:229:ILE:HG23 | 1:I:247:LEU:HD11 | 1.99 | 0.44 |
| 1:N:76[B]:TYR:O | 1:N:76[B]:TYR:CD1 | 2.70 | 0.44 |
| 1:P:271:VAL:HA | 1:P:282:THR:O | 2.16 | 0.44 |
| 1:I:279:GLY:HA3 | 4:I:1115:EDO:H21 | 1.98 | 0.44 |
| 1:L:252:LEU:HD21 | 1:L:257:LYS:HE2 | 1.99 | 0.44 |
| 1:M:135:THR:HA | 1:M:205:PHE:O | 2.17 | 0.44 |
| 1:M:252:LEU:CD1 | 1:M:252:LEU:C | 2.85 | 0.44 |
| 1:N:85[B]:ASP:OD2 | 1:N:273[B]:CYS:HB2 | 2.17 | 0.44 |
| 1:N:271[A]:VAL:CG1 | 1:N:281[A]:SER:HB3 | 2.47 | 0.44 |
| 1:O:553:LYS:HE3 | 1:O:594:ARG:HG3 | 1.99 | 0.44 |
| 1:I:527:CYS:SG | 9:I:1111:GOL:H2 | 2.58 | 0.44 |
| 1:N:76[A]:TYR:O | 1:N:76[A]:TYR:CD1 | 2.71 | 0.44 |
| 1:N:204[A]:LYS:NZ | 2:N:1007[A]:SF4:S1 | 2.82 | 0.44 |
| 1:N:361:ALA:HB3 | 1:N:363:TRP:CD1 | 2.52 | 0.44 |
| 1:O:429:PRO:HG3 | 1:P:384:LYS:HE2 | 2.00 | 0.44 |
| 1:P:82:GLU:N | 13:P:1231:HOH:O | 2.50 | 0.44 |
| 1:D:235:LEU:N | 1:D:235:LEU:HD23 | 2.31 | 0.44 |
| 5:F:1109:SRM:HMA1 | 5:F:1109:SRM:O3A | 2.17 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:J:529:LYS:HD3 | 4:J:1112:EDO:H22 | 2.00 | 0.44 |
| 1:M:429:PRO:HG3 | 1:N:384:LYS:HE2 | 1.98 | 0.44 |
| 1:M:437:GLY:HA2 | 2:M:1104:SF4:S2 | 2.57 | 0.44 |
| 1:N:469:PRO:HB2 | 1:N:525:ILE:HD12 | 2.00 | 0.44 |
| 1:D:75:TYR:HB3 | 1:D:299:LEU:HB3 | 1.98 | 0.44 |
| 1:F:238:VAL:O | 1:F:241:GLU:HG2 | 2.17 | 0.44 |
| 1:F:296:ALA:O | 1:F:297:ILE:HD13 | 2.17 | 0.44 |
| 1:G:274[B]:VAL:HG11 | 1:G:311:LEU:HD11 | 1.98 | 0.44 |
| 1:I:123:GLU:O | 1:I:127:MET:HG2 | 2.18 | 0.44 |
| 1:I:553:LYS:HE3 | 1:I:594:ARG:HG3 | 1.99 | 0.44 |
| 11:M:1115:PEG:H21 | 11:M:1115:PEG:H42 | 1.74 | 0.44 |
| 1:A:291:GLU:HG3 | 1:A:291:GLU:O | 2.18 | 0.44 |
| 1:A:471:LYS:HB3 | 1:A:475:PRO:HD2 | 1.99 | 0.44 |
| 1:J:217:TYR:OH | 1:J:249:GLU:OE2 | 2.35 | 0.44 |
| 1:J:606:LYS:HB2 | 1:K:565:LYS:HB3 | 1.99 | 0.44 |
| 1:N:91[A]:THR:HB | 1:N:297[A]:ILE:HD11 | 2.00 | 0.44 |
| 1:P:59:SER:HB2 | 1:P:61:LYS:HG3 | 2.00 | 0.44 |
| 1:C:471:LYS:HB3 | 1:C:475:PRO:HD2 | 2.00 | 0.44 |
| 1:C:542:LYS:NZ | 9:C:3901:GOL:H32 | 2.33 | 0.44 |
| 1:E:437:GLY:HA2 | 2:E:1104:SF4:S2 | 2.58 | 0.44 |
| 1:H:14:ILE:HD12 | 1:H:332:LYS:HE3 | 1.99 | 0.44 |
| 1:H:469:PRO:HB2 | 1:H:525:ILE:HD12 | 2.00 | 0.44 |
| 1:M:252:LEU:HD22 | 1:M:256:CYS:HB2 | 1.99 | 0.44 |
| 1:N:231[B]:LYS:HA | 1:N:231[B]:LYS:HD3 | 1.66 | 0.44 |
| 1:G:101:LYS:HA | 1:G:101:LYS:HD2 | 1.89 | 0.43 |
| 1:J:453:LYS:CE | 13:J:1249:HOH:O | 2.66 | 0.43 |
| 1:B:159:PRO:HD2 | 2:B:4202:SF4:S2 | 2.59 | 0.43 |
| 1:C:469:PRO:HB2 | 1:C:525:ILE:HD12 | 2.00 | 0.43 |
| 1:L:375:ILE:HD11 | 1:L:411:LYS:HE2 | 2.00 | 0.43 |
| 1:N:15:CYS:O | 1:N:255[A]:GLY:HA3 | 2.17 | 0.43 |
| 1:I:565:LYS:HB3 | 1:L:606:LYS:HB2 | 1.99 | 0.43 |
| 1:P:252:LEU:O | 1:P:252:LEU:HD23 | 2.18 | 0.43 |
| 1:A:72:GLU:OE2 | 1:A:74:TYR:OH | 2.29 | 0.43 |
| 1:I:213:THR:HG21 | 1:I:250:ILE:HG12 | 1.99 | 0.43 |
| 1:J:565:LYS:HB3 | 1:K:606:LYS:HB2 | 2.00 | 0.43 |
| 1:A:569[B]:VAL:HG21 | 4:A:1116:EDO:H22 | 1.99 | 0.43 |
| 1:G:209:GLU:OE1 | 1:G:209:GLU:N | 2.51 | 0.43 |
| 1:J:553:LYS:HE3 | 1:J:594:ARG:HG3 | 2.00 | 0.43 |
| 1:P:234:LEU:HD22 | 1:P:250:ILE:CD1 | 2.48 | 0.43 |
| 1:A:437:GLY:HA2 | 2:A:1104:SF4:S2 | 2.58 | 0.43 |
| 1:E:135:THR:HA | 1:E:205:PHE:O | 2.19 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|--------------------|--------------------------|-------------------|
| 1:I:84:GLN:HB2 | 1:I:131:LYS:HA | 2.01 | 0.43 |
| 1:J:59:SER:HB2 | 1:J:61:LYS:HG3 | 2.00 | 0.43 |
| 1:K:612:LYS:O | 1:K:616:GLU:HG3 | 2.18 | 0.43 |
| 1:N:158[A]:LEU:HD13 | 2:N:1007[A]:SF4:S1 | 2.58 | 0.43 |
| 1:N:210[A]:LEU:CG | 1:N:221[A]:MET:HE3 | 2.47 | 0.43 |
| 1:N:271[B]:VAL:CG1 | 1:N:281[B]:SER:HB3 | 2.48 | 0.43 |
| 1:N:612:LYS:NZ | 13:N:1106:HOH:O | 2.41 | 0.43 |
| 1:B:343:GLY:HA2 | 1:B:418:GLU:HG2 | 2.00 | 0.43 |
| 1:E:235:LEU:CD2 | 1:E:244:LYS:HG2 | 2.49 | 0.43 |
| 1:G:437:GLY:HA2 | 2:G:1104:SF4:S2 | 2.59 | 0.43 |
| 1:P:200:LEU:HD23 | 1:P:274:VAL:HG12 | 2.01 | 0.43 |
| 1:A:123:GLU:CG | 13:A:1213:HOH:O | 2.66 | 0.43 |
| 1:J:437:GLY:HA2 | 2:J:1104:SF4:S2 | 2.59 | 0.43 |
| 1:L:78:LYS:HD3 | 1:L:280:TYR:CE2 | 2.53 | 0.43 |
| 1:F:414:ILE:HD13 | 1:F:453[A]:LYS:HE2 | 2.00 | 0.43 |
| 1:J:133:LYS:HD3 | 1:J:133:LYS:N | 2.34 | 0.43 |
| 1:J:229:ILE:HG23 | 1:J:247:LEU:HD11 | 2.00 | 0.43 |
| 1:A:208:ASP:HB2 | 13:A:1725:HOH:O | 2.19 | 0.42 |
| 1:H:530:CYS:SG | 1:H:539:ARG:HD3 | 2.59 | 0.42 |
| 1:L:252:LEU:HD23 | 1:L:252:LEU:N | 2.34 | 0.42 |
| 1:N:76[B]:TYR:O | 1:N:76[B]:TYR:CG | 2.71 | 0.42 |
| 1:N:135[B]:THR:HA | 1:N:205[B]:PHE:O | 2.19 | 0.42 |
| 1:O:448:LEU:HD12 | 1:O:465:ILE:HD11 | 2.01 | 0.42 |
| 1:A:492:GLU:HG3 | 13:A:1512:HOH:O | 2.19 | 0.42 |
| 1:B:228:ASP:HB3 | 1:B:235:LEU:HB2 | 2.01 | 0.42 |
| 1:E:343:GLY:HA2 | 1:E:418:GLU:CG | 2.49 | 0.42 |
| 1:L:15:CYS:O | 1:L:255:GLY:HA3 | 2.19 | 0.42 |
| 1:C:172:GLN:OE1 | 1:C:590:PRO:HD2 | 2.18 | 0.42 |
| 1:I:225:GLU:OE2 | 1:I:239:ASN:N | 2.51 | 0.42 |
| 1:J:135:THR:HA | 1:J:205:PHE:O | 2.19 | 0.42 |
| 1:K:235:LEU:CD2 | 1:K:244:LYS:HG2 | 2.50 | 0.42 |
| 1:M:274:VAL:HG13 | 1:M:308:ILE:HG12 | 2.01 | 0.42 |
| 1:G:171:PHE:HB3 | 4:G:1118:EDO:H22 | 2.01 | 0.42 |
| 1:E:59:SER:HB2 | 1:E:61:LYS:HG3 | 2.01 | 0.42 |
| 1:E:494:ASN:HB3 | 1:E:536:ASN:O | 2.19 | 0.42 |
| 1:H:133:LYS:N | 1:H:133:LYS:HD3 | 2.35 | 0.42 |
| 1:K:94:LYS:HD3 | 1:K:123:GLU:HG3 | 2.01 | 0.42 |
| 1:L:13:GLY:HA2 | 13:L:1554:HOH:O | 2.19 | 0.42 |
| 1:I:71:LYS:HD2 | 1:I:291:GLU:OE1 | 2.19 | 0.42 |
| 1:I:588:LYS:NZ | 13:I:1245:HOH:O | 2.52 | 0.42 |
| 1:M:20:THR:O | 1:M:23:VAL:HG22 | 2.20 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:N:76[A]:TYR:HD2 | 1:N:303[A]:VAL:HG22 | 1.83 | 0.42 |
| 1:N:85[A]:ASP:OD2 | 1:N:273[A]:CYS:HB2 | 2.19 | 0.42 |
| 1:D:257:LYS:NZ | 13:D:4712:HOH:O | 2.42 | 0.42 |
| 1:E:310:LYS:HB3 | 1:E:310:LYS:HE3 | 1.82 | 0.42 |
| 1:G:361:ALA:HB3 | 1:G:363:TRP:CD1 | 2.54 | 0.42 |
| 1:L:248:LYS:HE3 | 1:L:248:LYS:CA | 2.49 | 0.42 |
| 1:N:204[A]:LYS:HD3 | 2:N:1007[A]:SF4:S1 | 2.60 | 0.42 |
| 1:A:120:VAL:HG21 | 1:A:126:LEU:HD13 | 2.01 | 0.42 |
| 1:A:530:CYS:SG | 1:A:539:ARG:HD3 | 2.60 | 0.42 |
| 13:E:1359:HOH:O | 1:F:554:THR:HG22 | 2.20 | 0.42 |
| 1:G:159:PRO:HD2 | 2:G:1101:SF4:S2 | 2.60 | 0.42 |
| 1:H:114:LYS:HG3 | 1:H:207:TYR:CZ | 2.55 | 0.42 |
| 1:F:130:THR:O | 1:F:131:LYS:HB2 | 2.20 | 0.42 |
| 1:N:110[B]:ASP:OD1 | 1:N:110[B]:ASP:N | 2.53 | 0.42 |
| 1:B:428:CYS:HB2 | 1:B:429:PRO:CD | 2.49 | 0.41 |
| 1:C:252:LEU:HD12 | 1:C:252:LEU:H | 1.85 | 0.41 |
| 1:D:148:MET:HE2 | 1:D:150:LEU:HD11 | 2.01 | 0.41 |
| 1:E:271:VAL:HA | 1:E:282:THR:O | 2.20 | 0.41 |
| 1:K:343:GLY:HA2 | 1:K:418:GLU:HG2 | 2.01 | 0.41 |
| 1:L:271:VAL:HA | 1:L:282:THR:O | 2.19 | 0.41 |
| 1:M:278:ASP:OD1 | 1:M:279:GLY:N | 2.53 | 0.41 |
| 1:N:269[B]:VAL:HG13 | 1:N:269[B]:VAL:O | 2.20 | 0.41 |
| 1:B:252:LEU:HD12 | 1:B:252:LEU:C | 2.40 | 0.41 |
| 3:D:4607:FAD:H9 | 3:D:4607:FAD:H1'1 | 1.81 | 0.41 |
| 1:E:565:LYS:HB3 | 1:H:606:LYS:HB2 | 2.01 | 0.41 |
| 1:F:159:PRO:HD3 | 1:F:199:LEU:O | 2.20 | 0.41 |
| 1:I:459:TYR:CD1 | 1:I:591:GLN:HA | 2.54 | 0.41 |
| 1:K:582:VAL:HG12 | 1:K:607:PHE:CE2 | 2.55 | 0.41 |
| 1:O:252:LEU:CD2 | 1:O:252:LEU:N | 2.77 | 0.41 |
| 1:H:78:LYS:HG3 | 1:H:280:TYR:CE2 | 2.56 | 0.41 |
| 3:I:1106:FAD:H1'1 | 3:I:1106:FAD:H9 | 1.84 | 0.41 |
| 1:O:530:CYS:SG | 1:O:539:ARG:HD3 | 2.61 | 0.41 |
| 1:P:205:PHE:CD1 | 1:P:250:ILE:HG21 | 2.56 | 0.41 |
| 1:E:458:PRO:HD2 | 1:E:583:TYR:CE2 | 2.55 | 0.41 |
| 1:G:274[B]:VAL:HG23 | 1:G:308:ILE:HG12 | 2.02 | 0.41 |
| 1:J:306:GLU:O | 1:J:310:LYS:HG3 | 2.20 | 0.41 |
| 1:K:208:ASP:O | 1:K:212:GLU:HG3 | 2.21 | 0.41 |
| 1:L:159:PRO:HD3 | 1:L:199:LEU:O | 2.20 | 0.41 |
| 1:M:252:LEU:HD11 | 1:M:257:LYS:HE3 | 2.02 | 0.41 |
| 1:B:321:LYS:HE3 | 13:B:4944:HOH:O | 2.20 | 0.41 |
| 1:K:159:PRO:HD3 | 1:K:199:LEU:O | 2.21 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|--------------------|--------------------------|-------------------|
| 1:K:385:MET:HB3 | 1:K:385:MET:HE3 | 1.97 | 0.41 |
| 1:P:158:LEU:HD21 | 3:P:1106:FAD:HM83 | 2.03 | 0.41 |
| 1:B:437:GLY:HA2 | 2:B:4205:SF4:S2 | 2.61 | 0.41 |
| 1:D:271:VAL:HA | 1:D:282:THR:O | 2.21 | 0.41 |
| 1:D:411:LYS:HE3 | 13:D:5084:HOH:O | 2.19 | 0.41 |
| 1:E:474:ARG:HD3 | 1:E:477:ILE:HD11 | 2.03 | 0.41 |
| 1:E:586:TYR:OH | 1:E:610:GLU:OE2 | 2.30 | 0.41 |
| 1:G:233:LYS:CD | 1:G:244:LYS:HB3 | 2.51 | 0.41 |
| 1:M:507:ILE:HD11 | 2:M:1103:SF4:S3 | 2.61 | 0.41 |
| 1:N:195[A]:TYR:OH | 1:N:292[A]:GLU:OE2 | 2.34 | 0.41 |
| 1:P:274:VAL:HG13 | 1:P:308:ILE:HG12 | 2.03 | 0.41 |
| 1:A:612:LYS:HZ3 | 1:D:609:GLU:CD | 2.24 | 0.41 |
| 1:B:61[A]:LYS:HE2 | 1:B:266:MET:CG | 2.51 | 0.41 |
| 1:D:252:LEU:H | 1:D:252:LEU:HD23 | 1.85 | 0.41 |
| 1:E:61:LYS:HE2 | 1:E:266:MET:CG | 2.51 | 0.41 |
| 1:E:440:ASN:HB3 | 4:E:1112:EDO:H22 | 2.02 | 0.41 |
| 1:N:305[A]:LEU:HD12 | 1:N:306[A]:GLU:N | 2.36 | 0.41 |
| 1:B:235:LEU:HD22 | 1:B:244:LYS:HG2 | 2.03 | 0.41 |
| 1:B:343:GLY:CA | 1:B:418:GLU:HG2 | 2.51 | 0.41 |
| 1:D:437:GLY:HA2 | 2:D:4605:SF4:S2 | 2.61 | 0.41 |
| 1:F:20:THR:O | 1:F:23:VAL:HG22 | 2.21 | 0.41 |
| 1:G:529:LYS:HE2 | 13:G:1702:HOH:O | 2.20 | 0.41 |
| 3:K:1106:FAD:H9 | 3:K:1106:FAD:H1'1 | 1.89 | 0.41 |
| 1:N:144[B]:THR:O | 1:N:148[B]:MET:HG3 | 2.20 | 0.41 |
| 1:O:82:GLU:O | 1:O:82:GLU:HG3 | 2.21 | 0.41 |
| 1:O:216:LYS:HE3 | 1:O:216:LYS:HB3 | 1.93 | 0.41 |
| 1:O:469:PRO:HB2 | 1:O:525:ILE:HD12 | 2.03 | 0.41 |
| 1:B:43:LEU:HG | 4:B:4211:EDO:H11 | 2.04 | 0.41 |
| 1:C:324:GLU:HG2 | 13:C:4008:HOH:O | 2.20 | 0.41 |
| 9:I:1111:GOL:H32 | 13:J:1370:HOH:O | 2.20 | 0.41 |
| 1:M:252:LEU:HD12 | 1:M:252:LEU:O | 2.21 | 0.41 |
| 13:O:1441:HOH:O | 1:P:554:THR:HG22 | 2.20 | 0.41 |
| 1:B:166:ARG:HD3 | 1:B:169:GLN:OE1 | 2.21 | 0.40 |
| 1:F:133:LYS:HD3 | 1:F:133:LYS:N | 2.36 | 0.40 |
| 1:K:343:GLY:CA | 1:K:418:GLU:HG2 | 2.52 | 0.40 |
| 1:N:311:LEU:HD23 | 1:N:311:LEU:HA | 1.89 | 0.40 |
| 1:B:120:VAL:HG11 | 1:B:126:LEU:HG | 2.03 | 0.40 |
| 1:C:612:LYS:O | 1:C:616:GLU:HG3 | 2.21 | 0.40 |
| 1:E:107:VAL:CG2 | 1:E:129:THR:HG21 | 2.52 | 0.40 |
| 1:E:327:LYS:NZ | 13:E:1219:HOH:O | 2.47 | 0.40 |
| 1:E:471:LYS:HB3 | 1:E:475:PRO:HD2 | 2.03 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|---------------------|---------------------|--------------------------|-------------------|
| 1:F:8:ASP:OD1 | 1:F:8:ASP:N | 2.55 | 0.40 |
| 1:K:529:LYS:HE3 | 13:K:1804:HOH:O | 2.20 | 0.40 |
| 1:L:122:ASN:HB3 | 13:L:1670:HOH:O | 2.21 | 0.40 |
| 1:M:65:LYS:NZ | 13:M:1225:HOH:O | 2.47 | 0.40 |
| 1:P:437:GLY:HA2 | 2:P:1104:SF4:S2 | 2.61 | 0.40 |
| 1:B:4:TRP:CH2 | 1:B:36:PRO:HB2 | 2.55 | 0.40 |
| 1:D:553:LYS:HE3 | 1:D:594:ARG:HG3 | 2.04 | 0.40 |
| 1:E:224:VAL:HG11 | 1:E:227:PHE:CE2 | 2.56 | 0.40 |
| 1:I:271:VAL:HA | 1:I:282:THR:O | 2.21 | 0.40 |
| 1:M:606:LYS:HB2 | 1:P:565:LYS:HB3 | 2.04 | 0.40 |
| 1:O:271:VAL:HA | 1:O:282:THR:O | 2.20 | 0.40 |
| 1:B:385:MET:HB3 | 1:B:385:MET:HE2 | 1.91 | 0.40 |
| 1:E:359:LYS:HG2 | 1:E:364:TYR:CE2 | 2.56 | 0.40 |
| 1:J:183:LYS:NZ | 13:J:1207:HOH:O | 2.41 | 0.40 |
| 1:N:91[B]:THR:HB | 1:N:297[B]:ILE:HD11 | 2.02 | 0.40 |
| 1:N:198[A]:GLY:O | 1:N:270[A]:SER:HA | 2.22 | 0.40 |
| 1:O:385:MET:HB3 | 1:O:385:MET:HE2 | 1.94 | 0.40 |
| 1:O:459:TYR:HH | 5:O:1109:SRM:CED | 2.34 | 0.40 |
| 1:A:569[B]:VAL:HG21 | 4:A:1116:EDO:C2 | 2.52 | 0.40 |
| 1:C:94:LYS:HG3 | 1:C:126:LEU:HD23 | 2.03 | 0.40 |
| 1:G:393:ILE:HD13 | 1:G:404:MET:HE3 | 2.04 | 0.40 |
| 1:J:234:LEU:HD22 | 1:J:250:ILE:CD1 | 2.51 | 0.40 |
| 1:K:530:CYS:SG | 1:K:539:ARG:HD3 | 2.62 | 0.40 |
| 11:M:1115:PEG:H32 | 11:M:1115:PEG:H12 | 1.77 | 0.40 |
| 1:N:257[B]:LYS:O | 1:N:319[B]:PHE:HA | 2.21 | 0.40 |
| 1:O:393:ILE:HD13 | 1:O:404:MET:HE3 | 2.02 | 0.40 |
| 1:O:471:LYS:HB3 | 1:O:475:PRO:HD2 | 2.03 | 0.40 |

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-------------------|------------|----------|----------|-------------|-----|
| 1 | A | 620/618 (100%) | 605 (98%) | 15 (2%) | 0 | 100 | 100 |
| 1 | B | 619/618 (100%) | 604 (98%) | 15 (2%) | 0 | 100 | 100 |
| 1 | C | 619/618 (100%) | 603 (97%) | 16 (3%) | 0 | 100 | 100 |
| 1 | D | 616/618 (100%) | 601 (98%) | 15 (2%) | 0 | 100 | 100 |
| 1 | E | 617/618 (100%) | 604 (98%) | 13 (2%) | 0 | 100 | 100 |
| 1 | F | 621/618 (100%) | 606 (98%) | 15 (2%) | 0 | 100 | 100 |
| 1 | G | 619/618 (100%) | 606 (98%) | 13 (2%) | 0 | 100 | 100 |
| 1 | H | 617/618 (100%) | 605 (98%) | 12 (2%) | 0 | 100 | 100 |
| 1 | I | 619/618 (100%) | 604 (98%) | 15 (2%) | 0 | 100 | 100 |
| 1 | J | 618/618 (100%) | 603 (98%) | 15 (2%) | 0 | 100 | 100 |
| 1 | K | 617/618 (100%) | 602 (98%) | 15 (2%) | 0 | 100 | 100 |
| 1 | L | 617/618 (100%) | 603 (98%) | 14 (2%) | 0 | 100 | 100 |
| 1 | M | 616/618 (100%) | 602 (98%) | 14 (2%) | 0 | 100 | 100 |
| 1 | N | 836/618 (135%) | 800 (96%) | 34 (4%) | 2 (0%) | 47 | 23 |
| 1 | O | 616/618 (100%) | 602 (98%) | 14 (2%) | 0 | 100 | 100 |
| 1 | P | 616/618 (100%) | 600 (97%) | 16 (3%) | 0 | 100 | 100 |
| All | All | 10103/9888 (102%) | 9850 (98%) | 251 (2%) | 2 (0%) | 100 | 100 |

All (2) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|--------|------|
| 1 | N | 243[A] | HIS |
| 1 | N | 243[B] | HIS |

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 X-ray entries followed by that with respect to entries of similar resolution.

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

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|------------|----------|-------------|----|
| 1 | A | 528/524 (101%) | 526 (100%) | 2 (0%) | 91 | 82 |
| 1 | B | 527/524 (101%) | 524 (99%) | 3 (1%) | 86 | 73 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|------------------|------------|----------|-------------|----|
| 1 | C | 527/524 (101%) | 525 (100%) | 2 (0%) | 91 | 82 |
| 1 | D | 524/524 (100%) | 520 (99%) | 4 (1%) | 81 | 66 |
| 1 | E | 525/524 (100%) | 520 (99%) | 5 (1%) | 76 | 57 |
| 1 | F | 529/524 (101%) | 525 (99%) | 4 (1%) | 81 | 66 |
| 1 | G | 527/524 (101%) | 525 (100%) | 2 (0%) | 91 | 82 |
| 1 | H | 525/524 (100%) | 521 (99%) | 4 (1%) | 81 | 66 |
| 1 | I | 527/524 (101%) | 525 (100%) | 2 (0%) | 91 | 82 |
| 1 | J | 526/524 (100%) | 525 (100%) | 1 (0%) | 93 | 86 |
| 1 | K | 525/524 (100%) | 523 (100%) | 2 (0%) | 91 | 82 |
| 1 | L | 525/524 (100%) | 522 (99%) | 3 (1%) | 86 | 73 |
| 1 | M | 524/524 (100%) | 522 (100%) | 2 (0%) | 91 | 82 |
| 1 | N | 718/524 (137%) | 710 (99%) | 8 (1%) | 73 | 53 |
| 1 | O | 524/524 (100%) | 521 (99%) | 3 (1%) | 86 | 73 |
| 1 | P | 524/524 (100%) | 520 (99%) | 4 (1%) | 81 | 66 |
| All | All | 8605/8384 (103%) | 8554 (99%) | 51 (1%) | 86 | 73 |

All (51) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|--------|------|
| 1 | A | 252 | LEU |
| 1 | A | 554 | THR |
| 1 | B | 252 | LEU |
| 1 | B | 459 | TYR |
| 1 | B | 554 | THR |
| 1 | C | 252 | LEU |
| 1 | C | 554 | THR |
| 1 | D | 78 | LYS |
| 1 | D | 278 | ASP |
| 1 | D | 459 | TYR |
| 1 | D | 554 | THR |
| 1 | E | 35 | ARG |
| 1 | E | 221 | MET |
| 1 | E | 252 | LEU |
| 1 | E | 459 | TYR |
| 1 | E | 554 | THR |
| 1 | F | 1 | MET |
| 1 | F | 529[A] | LYS |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|--------|------|
| 1 | F | 529[B] | LYS |
| 1 | F | 554 | THR |
| 1 | G | 459 | TYR |
| 1 | G | 554 | THR |
| 1 | H | 252 | LEU |
| 1 | H | 459 | TYR |
| 1 | H | 492 | GLU |
| 1 | H | 554 | THR |
| 1 | I | 252 | LEU |
| 1 | I | 554 | THR |
| 1 | J | 554 | THR |
| 1 | K | 252 | LEU |
| 1 | K | 554 | THR |
| 1 | L | 278 | ASP |
| 1 | L | 459 | TYR |
| 1 | L | 554 | THR |
| 1 | M | 252 | LEU |
| 1 | M | 554 | THR |
| 1 | N | 85[A] | ASP |
| 1 | N | 85[B] | ASP |
| 1 | N | 202[A] | THR |
| 1 | N | 202[B] | THR |
| 1 | N | 217[A] | TYR |
| 1 | N | 242[A] | GLU |
| 1 | N | 459 | TYR |
| 1 | N | 554 | THR |
| 1 | O | 252 | LEU |
| 1 | O | 346 | LYS |
| 1 | O | 554 | THR |
| 1 | P | 131 | LYS |
| 1 | P | 252 | LEU |
| 1 | P | 459 | TYR |
| 1 | P | 554 | THR |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

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 360 ligands modelled in this entry, 16 are modelled with single atom and 33 are monoatomic - leaving 311 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 | $\# Z > 2$ |
| 2 | SF4 | A | 1101 | 1 | 0,12,12 | - | - | - | | |
| 9 | GOL | J | 1114 | - | 5,5,5 | 0.09 | 0 | 5,5,5 | 0.30 | 0 |
| 2 | SF4 | P | 1107 | 1 | 0,12,12 | - | - | - | | |
| 4 | EDO | I | 1112 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.26 | 0 |
| 2 | SF4 | L | 1104 | 1 | 0,12,12 | - | - | - | | |
| 6 | SO4 | L | 1113 | - | 4,4,4 | 0.12 | 0 | 6,6,6 | 0.17 | 0 |
| 4 | EDO | B | 4201 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.04 | 0 |
| 2 | SF4 | N | 1002 | 1 | 0,12,12 | - | - | - | | |
| 6 | SO4 | M | 1125 | - | 4,4,4 | 0.17 | 0 | 6,6,6 | 0.15 | 0 |
| 2 | SF4 | K | 1107 | 1 | 0,12,12 | - | - | - | | |
| 4 | EDO | F | 1108 | - | 3,3,3 | 0.41 | 0 | 2,2,2 | 0.55 | 0 |
| 4 | EDO | O | 1108 | - | 3,3,3 | 0.51 | 0 | 2,2,2 | 0.50 | 0 |
| 6 | SO4 | N | 1016 | - | 4,4,4 | 0.15 | 0 | 6,6,6 | 0.27 | 0 |
| 6 | SO4 | L | 1114 | - | 4,4,4 | 0.15 | 0 | 6,6,6 | 0.18 | 0 |
| 4 | EDO | A | 1118 | - | 3,3,3 | 0.13 | 0 | 2,2,2 | 0.13 | 0 |
| 6 | SO4 | I | 1120 | - | 4,4,4 | 0.13 | 0 | 6,6,6 | 0.28 | 0 |
| 2 | SF4 | J | 1104 | 1 | 0,12,12 | - | - | - | | |
| 2 | SF4 | I | 1103 | 1 | 0,12,12 | - | - | - | | |
| 2 | SF4 | J | 1103 | 1 | 0,12,12 | - | - | - | | |
| 2 | SF4 | K | 1102 | 1 | 0,12,12 | - | - | - | | |
| 4 | EDO | O | 1114 | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.28 | 0 |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|---------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 2 | SF4 | H | 4402 | 1 | 0,12,12 | - | - | - | | |
| 2 | SF4 | I | 1102 | 1 | 0,12,12 | - | - | - | | |
| 11 | PEG | N | 1014 | - | 6,6,6 | 0.12 | 0 | 5,5,5 | 0.08 | 0 |
| 5 | SRM | K | 1109 | 1 | 68,70,70 | 2.49 | 20 (29%) | 81,112,112 | 1.61 | 18 (22%) |
| 2 | SF4 | N | 1003 | 1 | 0,12,12 | - | - | - | | |
| 2 | SF4 | E | 1102 | 1 | 0,12,12 | - | - | - | | |
| 5 | SRM | E | 1109 | 1 | 68,70,70 | 2.52 | 18 (26%) | 81,112,112 | 1.63 | 20 (24%) |
| 2 | SF4 | L | 1102 | 1 | 0,12,12 | - | - | - | | |
| 5 | SRM | A | 1109 | 1 | 68,70,70 | 2.47 | 20 (29%) | 81,112,112 | 1.64 | 17 (20%) |
| 2 | SF4 | G | 1103 | 1 | 0,12,12 | - | - | - | | |
| 9 | GOL | N | 1011 | - | 5,5,5 | 0.11 | 0 | 5,5,5 | 0.32 | 0 |
| 2 | SF4 | I | 1101 | 1 | 0,12,12 | - | - | - | | |
| 9 | GOL | M | 1114 | - | 5,5,5 | 0.12 | 0 | 5,5,5 | 0.32 | 0 |
| 2 | SF4 | I | 1105 | 1 | 0,12,12 | - | - | - | | |
| 4 | EDO | G | 1112 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.20 | 0 |
| 4 | EDO | M | 1108 | - | 3,3,3 | 0.44 | 0 | 2,2,2 | 0.35 | 0 |
| 4 | EDO | F | 1112[A] | - | 3,3,3 | 0.14 | 0 | 2,2,2 | 0.35 | 0 |
| 2 | SF4 | C | 3903 | 1 | 0,12,12 | - | - | - | | |
| 2 | SF4 | G | 1102 | 1 | 0,12,12 | - | - | - | | |
| 4 | EDO | A | 1111 | - | 3,3,3 | 0.11 | 0 | 2,2,2 | 0.31 | 0 |
| 4 | EDO | M | 1110 | - | 3,3,3 | 0.41 | 0 | 2,2,2 | 0.71 | 0 |
| 9 | GOL | C | 3913 | - | 5,5,5 | 0.10 | 0 | 5,5,5 | 0.33 | 0 |
| 4 | EDO | J | 1110 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.16 | 0 |
| 4 | EDO | J | 1116 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.24 | 0 |
| 6 | SO4 | F | 1116 | - | 4,4,4 | 0.45 | 0 | 6,6,6 | 0.06 | 0 |
| 3 | FAD | C | 3907 | - | 53,58,58 | 1.29 | 8 (15%) | 68,89,89 | 1.15 | 7 (10%) |
| 4 | EDO | C | 3918 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.06 | 0 |
| 4 | EDO | G | 1117 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.28 | 0 |
| 5 | SRM | P | 1109 | 1 | 68,70,70 | 2.42 | 18 (26%) | 81,112,112 | 1.56 | 15 (18%) |
| 2 | SF4 | C | 3906 | 1 | 0,12,12 | - | - | - | | |
| 4 | EDO | J | 1115 | - | 3,3,3 | 0.12 | 0 | 2,2,2 | 0.09 | 0 |
| 6 | SO4 | F | 1117 | - | 4,4,4 | 0.43 | 0 | 6,6,6 | 0.06 | 0 |
| 9 | GOL | B | 4218[B] | - | 5,5,5 | 0.13 | 0 | 5,5,5 | 0.37 | 0 |
| 2 | SF4 | K | 1103 | 1 | 0,12,12 | - | - | - | | |
| 3 | FAD | N | 1009[B] | - | 53,58,58 | 0.61 | 0 | 68,89,89 | 0.68 | 1 (1%) |
| 2 | SF4 | D | 4604 | 1 | 0,12,12 | - | - | - | | |
| 6 | SO4 | H | 4415 | - | 4,4,4 | 0.14 | 0 | 6,6,6 | 0.16 | 0 |
| 2 | SF4 | F | 1103 | 1 | 0,12,12 | - | - | - | | |
| 4 | EDO | G | 1121 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.10 | 0 |
| 4 | EDO | D | 4609 | - | 3,3,3 | 0.40 | 0 | 2,2,2 | 0.56 | 0 |
| 6 | SO4 | B | 4226 | - | 4,4,4 | 0.14 | 0 | 6,6,6 | 0.22 | 0 |
| 4 | EDO | H | 4413 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.19 | 0 |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|---------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 4 | EDO | A | 1117 | - | 3,3,3 | 0.04 | 0 | 2,2,2 | 0.12 | 0 |
| 4 | EDO | I | 1114 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.21 | 0 |
| 2 | SF4 | I | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 3 | FAD | D | 4607 | - | 53,58,58 | 1.34 | 7 (13%) | 68,89,89 | 1.26 | 13 (19%) |
| 2 | SF4 | G | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | I | 1115 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | O | 1115 | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | J | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | L | 1112 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | K | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 11 | PEG | K | 1115 | - | 6,6,6 | 0.12 | 0 | 5,5,5 | 0.08 | 0 |
| 6 | SO4 | P | 1116 | - | 4,4,4 | 0.43 | 0 | 6,6,6 | 0.08 | 0 |
| 2 | SF4 | H | 4405 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | C | 3916 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.14 | 0 |
| 2 | SF4 | A | 1103 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | M | 1112 | - | 3,3,3 | 0.04 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | N | 1005 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | C | 3905 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | O | 1103 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | A | 1112 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | M | 1116 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 9 | GOL | E | 1114 | - | 5,5,5 | 0.12 | 0 | 5,5,5 | 0.36 | 0 |
| 4 | EDO | A | 1108 | - | 3,3,3 | 0.45 | 0 | 2,2,2 | 0.39 | 0 |
| 4 | EDO | G | 1118 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | B | 4220[B] | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.18 | 0 |
| 4 | EDO | G | 1113 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.28 | 0 |
| 6 | SO4 | F | 1118 | - | 4,4,4 | 0.37 | 0 | 6,6,6 | 0.05 | 0 |
| 4 | EDO | O | 1117 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | E | 1110 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.28 | 0 |
| 4 | EDO | G | 1114 | - | 3,3,3 | 0.11 | 0 | 2,2,2 | 0.03 | 0 |
| 4 | EDO | H | 4409 | - | 3,3,3 | 0.53 | 0 | 2,2,2 | 0.14 | 0 |
| 4 | EDO | M | 1117 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | A | 1110 | - | 3,3,3 | 0.47 | 0 | 2,2,2 | 0.28 | 0 |
| 6 | SO4 | O | 1120 | - | 4,4,4 | 0.43 | 0 | 6,6,6 | 0.05 | 0 |
| 4 | EDO | M | 1118 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.10 | 0 |
| 6 | SO4 | D | 4619 | - | 4,4,4 | 0.14 | 0 | 6,6,6 | 0.15 | 0 |
| 2 | SF4 | L | 1103 | 1 | 0,12,12 | - | - | - | - | - |
| 3 | FAD | B | 4207 | - | 53,58,58 | 1.28 | 6 (11%) | 68,89,89 | 1.17 | 6 (8%) |
| 2 | SF4 | D | 4603 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | F | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | O | 1112 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.25 | 0 |
| 4 | EDO | B | 4213 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|---------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 4 | EDO | I | 1116 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.10 | 0 |
| 4 | EDO | N | 1010 | - | 3,3,3 | 0.11 | 0 | 2,2,2 | 0.38 | 0 |
| 2 | SF4 | M | 1102 | 1 | 0,12,12 | - | - | - | - | - |
| 5 | SRM | M | 1109 | 1 | 68,70,70 | 2.75 | 22 (32%) | 81,112,112 | 1.88 | 25 (30%) |
| 3 | FAD | N | 1001[A] | - | 53,58,58 | 0.61 | 0 | 68,89,89 | 0.71 | 2 (2%) |
| 6 | SO4 | P | 1115 | - | 4,4,4 | 0.14 | 0 | 6,6,6 | 0.15 | 0 |
| 4 | EDO | C | 3914 | - | 3,3,3 | 0.14 | 0 | 2,2,2 | 0.30 | 0 |
| 4 | EDO | D | 4615 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.07 | 0 |
| 9 | GOL | B | 4217[A] | - | 5,5,5 | 0.11 | 0 | 5,5,5 | 0.35 | 0 |
| 5 | SRM | G | 1109 | 1 | 68,70,70 | 2.48 | 19 (27%) | 81,112,112 | 1.65 | 16 (19%) |
| 2 | SF4 | M | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 9 | GOL | P | 1111 | - | 5,5,5 | 0.10 | 0 | 5,5,5 | 0.32 | 0 |
| 4 | EDO | O | 1113 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | A | 1115 | - | 3,3,3 | 0.11 | 0 | 2,2,2 | 0.17 | 0 |
| 5 | SRM | J | 1109 | 1 | 68,70,70 | 2.43 | 19 (27%) | 81,112,112 | 1.54 | 13 (16%) |
| 2 | SF4 | I | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | M | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | B | 4202 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | L | 1108 | - | 3,3,3 | 0.46 | 0 | 2,2,2 | 0.39 | 0 |
| 4 | EDO | C | 3909 | - | 3,3,3 | 0.50 | 0 | 2,2,2 | 0.14 | 0 |
| 4 | EDO | D | 4611 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.29 | 0 |
| 11 | PEG | M | 1120 | - | 6,6,6 | 0.13 | 0 | 5,5,5 | 0.09 | 0 |
| 5 | SRM | H | 4410 | 1 | 68,70,70 | 2.87 | 23 (33%) | 81,112,112 | 1.97 | 27 (33%) |
| 6 | SO4 | O | 1119 | - | 4,4,4 | 0.15 | 0 | 6,6,6 | 0.26 | 0 |
| 2 | SF4 | B | 4205 | 1 | 0,12,12 | - | - | - | - | - |
| 5 | SRM | N | 1012 | 1 | 68,70,70 | 2.55 | 21 (30%) | 81,112,112 | 1.64 | 18 (22%) |
| 3 | FAD | J | 1106 | - | 53,58,58 | 1.28 | 6 (11%) | 68,89,89 | 1.22 | 9 (13%) |
| 4 | EDO | K | 1110 | - | 3,3,3 | 0.58 | 0 | 2,2,2 | 0.05 | 0 |
| 6 | SO4 | B | 4225 | - | 4,4,4 | 0.54 | 0 | 6,6,6 | 0.09 | 0 |
| 2 | SF4 | L | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | H | 4411 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.36 | 0 |
| 4 | EDO | M | 1113 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | N | 1013 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.16 | 0 |
| 2 | SF4 | D | 4608 | 1 | 0,12,12 | - | - | - | - | - |
| 3 | FAD | M | 1106 | - | 53,58,58 | 1.29 | 6 (11%) | 68,89,89 | 1.19 | 7 (10%) |
| 4 | EDO | E | 1116 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | E | 1108 | - | 3,3,3 | 0.48 | 0 | 2,2,2 | 0.54 | 0 |
| 9 | GOL | N | 1015 | - | 5,5,5 | 0.11 | 0 | 5,5,5 | 0.32 | 0 |
| 4 | EDO | P | 1108 | - | 3,3,3 | 0.41 | 0 | 2,2,2 | 0.55 | 0 |
| 2 | SF4 | H | 4404 | 1 | 0,12,12 | - | - | - | - | - |
| 12 | TRS | I | 1119 | - | 7,7,7 | 0.17 | 0 | 9,9,9 | 0.20 | 0 |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|---------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 4 | EDO | B | 4222[A] | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.33 | 0 |
| 4 | EDO | P | 1114 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.15 | 0 |
| 4 | EDO | D | 4616 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.26 | 0 |
| 4 | EDO | E | 1113 | - | 3,3,3 | 0.13 | 0 | 2,2,2 | 0.20 | 0 |
| 2 | SF4 | L | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | M | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | O | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | I | 1118 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 4 | EDO | M | 1119 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.18 | 0 |
| 3 | FAD | E | 1106 | - | 53,58,58 | 1.33 | 7 (13%) | 68,89,89 | 1.17 | 7 (10%) |
| 3 | FAD | I | 1106 | - | 53,58,58 | 0.70 | 0 | 68,89,89 | 0.69 | 1 (1%) |
| 4 | EDO | C | 3911 | - | 3,3,3 | 0.55 | 0 | 2,2,2 | 0.35 | 0 |
| 4 | EDO | C | 3912 | - | 3,3,3 | 0.11 | 0 | 2,2,2 | 0.33 | 0 |
| 4 | EDO | H | 4412 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.27 | 0 |
| 2 | SF4 | M | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | I | 1110 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 4 | EDO | C | 3915 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | J | 1111 | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.18 | 0 |
| 6 | SO4 | J | 1118 | - | 4,4,4 | 0.14 | 0 | 6,6,6 | 0.12 | 0 |
| 4 | EDO | B | 4216 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 4 | EDO | K | 1111 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.28 | 0 |
| 2 | SF4 | G | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | B | 4219[A] | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.18 | 0 |
| 6 | SO4 | G | 1122 | - | 4,4,4 | 0.18 | 0 | 6,6,6 | 0.24 | 0 |
| 4 | EDO | G | 1110 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.31 | 0 |
| 4 | EDO | M | 1122 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.24 | 0 |
| 6 | SO4 | K | 1119 | - | 4,4,4 | 0.42 | 0 | 6,6,6 | 0.05 | 0 |
| 4 | EDO | B | 4211 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | E | 1103 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | A | 1114 | - | 3,3,3 | 0.11 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | N | 1004 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | D | 4612 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 6 | SO4 | M | 1127 | - | 4,4,4 | 0.43 | 0 | 6,6,6 | 0.05 | 0 |
| 5 | SRM | I | 1109 | 1 | 68,70,70 | 2.55 | 20 (29%) | 81,112,112 | 1.61 | 13 (16%) |
| 4 | EDO | G | 1120 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | O | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 11 | PEG | M | 1115 | - | 6,6,6 | 0.14 | 0 | 5,5,5 | 0.08 | 0 |
| 4 | EDO | D | 4617 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | F | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | D | 4605 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | L | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 9 | GOL | O | 1116 | - | 5,5,5 | 0.11 | 0 | 5,5,5 | 0.40 | 0 |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|---------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 4 | EDO | E | 1111 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.16 | 0 |
| 3 | FAD | G | 1106 | - | 53,58,58 | 0.70 | 0 | 68,89,89 | 0.66 | 1 (1%) |
| 4 | EDO | G | 1116 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 4 | EDO | J | 1108 | - | 3,3,3 | 0.50 | 0 | 2,2,2 | 0.49 | 0 |
| 4 | EDO | B | 4212 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | E | 1112 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | H | 4408 | 1 | 0,12,12 | - | - | - | - | - |
| 6 | SO4 | D | 4620 | - | 4,4,4 | 0.38 | 0 | 6,6,6 | 0.05 | 0 |
| 2 | SF4 | D | 4606 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | O | 1118 | - | 3,3,3 | 0.12 | 0 | 2,2,2 | 0.12 | 0 |
| 2 | SF4 | A | 1102 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | P | 1103 | 1 | 0,12,12 | - | - | - | - | - |
| 9 | GOL | P | 1112 | - | 5,5,5 | 0.10 | 0 | 5,5,5 | 0.31 | 0 |
| 2 | SF4 | B | 4208 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | E | 1115 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | P | 1102 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | F | 1113 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.09 | 0 |
| 4 | EDO | K | 1108 | - | 3,3,3 | 0.42 | 0 | 2,2,2 | 0.41 | 0 |
| 4 | EDO | K | 1114 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | E | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | M | 1121 | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.42 | 0 |
| 3 | FAD | H | 4407 | - | 53,58,58 | 1.20 | 7 (13%) | 68,89,89 | 1.29 | 11 (16%) |
| 3 | FAD | F | 1106 | - | 53,58,58 | 1.25 | 6 (11%) | 68,89,89 | 1.29 | 11 (16%) |
| 2 | SF4 | C | 3908 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | I | 1108 | - | 3,3,3 | 0.49 | 0 | 2,2,2 | 0.38 | 0 |
| 4 | EDO | P | 1113 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.22 | 0 |
| 2 | SF4 | O | 1102 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | P | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | F | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 3 | FAD | A | 1106 | - | 53,58,58 | 1.21 | 6 (11%) | 68,89,89 | 1.20 | 7 (10%) |
| 2 | SF4 | N | 1006[A] | 1 | 0,12,12 | - | - | - | - | - |
| 5 | SRM | D | 4610 | 1 | 68,70,70 | 2.39 | 19 (27%) | 81,112,112 | 1.70 | 17 (20%) |
| 4 | EDO | B | 4221 | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.05 | 0 |
| 4 | EDO | D | 4618 | - | 3,3,3 | 0.13 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | P | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | E | 1117 | - | 3,3,3 | 0.11 | 0 | 2,2,2 | 0.28 | 0 |
| 2 | SF4 | O | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | D | 4613 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.22 | 0 |
| 2 | SF4 | D | 4602 | 1 | 0,12,12 | - | - | - | - | - |
| 9 | GOL | B | 4224 | - | 5,5,5 | 0.11 | 0 | 5,5,5 | 0.32 | 0 |
| 4 | EDO | A | 1113 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.14 | 0 |
| 2 | SF4 | H | 4406 | 1 | 0,12,12 | - | - | - | - | - |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|---------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 4 | EDO | G | 1111 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | A | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 5 | SRM | C | 3910 | 1 | 68,70,70 | 2.48 | 19 (27%) | 81,112,112 | 1.62 | 16 (19%) |
| 4 | EDO | M | 1123 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.20 | 0 |
| 4 | EDO | B | 4215 | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.15 | 0 |
| 6 | SO4 | A | 1119 | - | 4,4,4 | 0.19 | 0 | 6,6,6 | 0.21 | 0 |
| 2 | SF4 | N | 1007[A] | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | C | 3917 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | A | 1116 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.16 | 0 |
| 9 | GOL | F | 1114 | - | 5,5,5 | 0.11 | 0 | 5,5,5 | 0.31 | 0 |
| 2 | SF4 | C | 3904 | 1 | 0,12,12 | - | - | - | - | - |
| 3 | FAD | O | 1106 | - | 53,58,58 | 1.30 | 6 (11%) | 68,89,89 | 1.19 | 6 (8%) |
| 2 | SF4 | F | 1102 | 1 | 0,12,12 | - | - | - | - | - |
| 5 | SRM | F | 1109 | 1 | 68,70,70 | 2.48 | 20 (29%) | 81,112,112 | 1.73 | 16 (19%) |
| 2 | SF4 | G | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | P | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 9 | GOL | C | 3901 | - | 5,5,5 | 0.09 | 0 | 5,5,5 | 0.32 | 0 |
| 2 | SF4 | K | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 6 | SO4 | D | 4621 | - | 4,4,4 | 0.41 | 0 | 6,6,6 | 0.05 | 0 |
| 2 | SF4 | B | 4206 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | M | 1103 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | F | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | O | 1105 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | B | 4209 | - | 3,3,3 | 0.40 | 0 | 2,2,2 | 0.64 | 0 |
| 4 | EDO | M | 1124 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | J | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | K | 1112 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.17 | 0 |
| 9 | GOL | J | 1117[A] | - | 5,5,5 | 0.09 | 0 | 5,5,5 | 0.36 | 0 |
| 4 | EDO | O | 1111 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 4 | EDO | K | 1116 | - | 3,3,3 | 0.10 | 0 | 2,2,2 | 0.10 | 0 |
| 4 | EDO | J | 1112 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 5 | SRM | L | 1109 | 1 | 68,70,70 | 2.57 | 20 (29%) | 81,112,112 | 1.61 | 16 (19%) |
| 2 | SF4 | J | 1102 | 1 | 0,12,12 | - | - | - | - | - |
| 5 | SRM | O | 1109 | 1 | 68,70,70 | 3.62 | 25 (36%) | 81,112,112 | 2.39 | 33 (40%) |
| 9 | GOL | I | 1117 | - | 5,5,5 | 0.10 | 0 | 5,5,5 | 0.32 | 0 |
| 2 | SF4 | B | 4203 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | O | 1110 | - | 3,3,3 | 0.42 | 0 | 2,2,2 | 0.55 | 0 |
| 3 | FAD | L | 1106 | - | 53,58,58 | 1.29 | 6 (11%) | 68,89,89 | 1.16 | 8 (11%) |
| 6 | SO4 | H | 4414 | - | 4,4,4 | 0.48 | 0 | 6,6,6 | 0.07 | 0 |
| 2 | SF4 | J | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | N | 1008[B] | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | D | 4614 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|---------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 12 | TRS | H | 4401 | - | 7,7,7 | 0.16 | 0 | 9,9,9 | 0.29 | 0 |
| 4 | EDO | G | 1108 | - | 3,3,3 | 0.59 | 0 | 2,2,2 | 0.31 | 0 |
| 9 | GOL | G | 1119[A] | - | 5,5,5 | 0.10 | 0 | 5,5,5 | 0.35 | 0 |
| 2 | SF4 | C | 3902 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | F | 1111 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | H | 4403 | 1 | 0,12,12 | - | - | - | - | - |
| 6 | SO4 | C | 3919 | - | 4,4,4 | 0.46 | 0 | 6,6,6 | 0.07 | 0 |
| 2 | SF4 | B | 4204 | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | E | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 9 | GOL | K | 1117 | - | 5,5,5 | 0.09 | 0 | 5,5,5 | 0.35 | 0 |
| 4 | EDO | J | 1113 | - | 3,3,3 | 0.17 | 0 | 2,2,2 | 0.17 | 0 |
| 4 | EDO | G | 1115 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.18 | 0 |
| 2 | SF4 | K | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | K | 1113 | - | 3,3,3 | 0.05 | 0 | 2,2,2 | 0.18 | 0 |
| 6 | SO4 | M | 1126 | - | 4,4,4 | 0.38 | 0 | 6,6,6 | 0.05 | 0 |
| 2 | SF4 | N | 1006[B] | 1 | 0,12,12 | - | - | - | - | - |
| 2 | SF4 | G | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 9 | GOL | I | 1111 | - | 5,5,5 | 0.11 | 0 | 5,5,5 | 0.32 | 0 |
| 4 | EDO | L | 1110 | - | 3,3,3 | 0.42 | 0 | 2,2,2 | 0.61 | 0 |
| 4 | EDO | B | 4223 | - | 3,3,3 | 0.07 | 0 | 2,2,2 | 0.19 | 0 |
| 4 | EDO | I | 1113 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.19 | 0 |
| 2 | SF4 | E | 1101 | 1 | 0,12,12 | - | - | - | - | - |
| 3 | FAD | K | 1106 | - | 53,58,58 | 1.21 | 5 (9%) | 68,89,89 | 1.17 | 7 (10%) |
| 6 | SO4 | K | 1118 | - | 4,4,4 | 0.47 | 0 | 6,6,6 | 0.05 | 0 |
| 3 | FAD | P | 1106 | - | 53,58,58 | 1.20 | 6 (11%) | 68,89,89 | 1.31 | 10 (14%) |
| 4 | EDO | B | 4214 | - | 3,3,3 | 0.06 | 0 | 2,2,2 | 0.15 | 0 |
| 4 | EDO | P | 1110 | - | 3,3,3 | 0.08 | 0 | 2,2,2 | 0.28 | 0 |
| 6 | SO4 | J | 1119 | - | 4,4,4 | 0.42 | 0 | 6,6,6 | 0.07 | 0 |
| 6 | SO4 | L | 1115 | - | 4,4,4 | 0.44 | 0 | 6,6,6 | 0.06 | 0 |
| 6 | SO4 | E | 1118 | - | 4,4,4 | 0.17 | 0 | 6,6,6 | 0.24 | 0 |
| 2 | SF4 | A | 1107 | 1 | 0,12,12 | - | - | - | - | - |
| 4 | EDO | F | 1110[B] | - | 3,3,3 | 0.24 | 0 | 2,2,2 | 0.18 | 0 |
| 6 | SO4 | F | 1115 | - | 4,4,4 | 0.13 | 0 | 6,6,6 | 0.27 | 0 |
| 4 | EDO | M | 1111 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.27 | 0 |
| 4 | EDO | L | 1111 | - | 3,3,3 | 0.09 | 0 | 2,2,2 | 0.27 | 0 |
| 5 | SRM | B | 4210 | 1 | 68,70,70 | 2.61 | 20 (29%) | 81,112,112 | 1.62 | 17 (20%) |
| 2 | SF4 | A | 1104 | 1 | 0,12,12 | - | - | - | - | - |
| 11 | PEG | D | 4601 | - | 6,6,6 | 0.14 | 0 | 5,5,5 | 0.08 | 0 |
| 2 | SF4 | E | 1105 | 1 | 0,12,12 | - | - | - | - | - |

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 |
|-----|------|-------|---------|------|-----------|---------------|---------|
| 4 | EDO | B | 4215 | - | - | 1/1/1/1 | - |
| 2 | SF4 | A | 1101 | 1 | - | - | 0/6/5/5 |
| 3 | FAD | I | 1106 | - | - | 1/30/50/50 | 0/6/6/6 |
| 4 | EDO | C | 3911 | - | - | 1/1/1/1 | - |
| 4 | EDO | C | 3912 | - | - | 0/1/1/1 | - |
| 4 | EDO | I | 1115 | - | - | 1/1/1/1 | - |
| 4 | EDO | O | 1115 | - | - | 0/1/1/1 | - |
| 9 | GOL | J | 1114 | - | - | 4/4/4/4 | - |
| 2 | SF4 | P | 1107 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | I | 1112 | - | - | 1/1/1/1 | - |
| 2 | SF4 | J | 1105 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | C | 3917 | - | - | 1/1/1/1 | - |
| 2 | SF4 | N | 1007[A] | 1 | - | - | 0/6/5/5 |
| 4 | EDO | L | 1112 | - | - | 1/1/1/1 | - |
| 11 | PEG | K | 1115 | - | - | 3/4/4/4 | - |
| 2 | SF4 | K | 1104 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | A | 1116 | - | - | 0/1/1/1 | - |
| 4 | EDO | H | 4412 | - | - | 1/1/1/1 | - |
| 4 | EDO | I | 1110 | - | - | 1/1/1/1 | - |
| 2 | SF4 | M | 1104 | 1 | - | - | 0/6/5/5 |
| 9 | GOL | F | 1114 | - | - | 1/4/4/4 | - |
| 2 | SF4 | C | 3904 | 1 | - | - | 0/6/5/5 |
| 3 | FAD | O | 1106 | - | - | 2/30/50/50 | 0/6/6/6 |
| 2 | SF4 | H | 4405 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | L | 1104 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | F | 1102 | 1 | - | - | 0/6/5/5 |
| 5 | SRM | F | 1109 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 4 | EDO | C | 3916 | - | - | 1/1/1/1 | - |
| 4 | EDO | C | 3915 | - | - | 1/1/1/1 | - |
| 4 | EDO | M | 1112 | - | - | 1/1/1/1 | - |
| 2 | SF4 | A | 1103 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | G | 1107 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | N | 1005 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | P | 1105 | 1 | - | - | 0/6/5/5 |
| 9 | GOL | C | 3901 | - | - | 2/4/4/4 | - |
| 4 | EDO | B | 4201 | - | - | 0/1/1/1 | - |
| 4 | EDO | J | 1111 | - | - | 1/1/1/1 | - |
| 2 | SF4 | N | 1002 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | C | 3905 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | K | 1107 | 1 | - | - | 0/6/5/5 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|---------|------|---------|----------|---------|
| 4 | EDO | A | 1112 | - | - | 0/1/1/1 | - |
| 2 | SF4 | O | 1103 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | K | 1105 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | M | 1116 | - | - | 0/1/1/1 | - |
| 9 | GOL | E | 1114 | - | - | 4/4/4/4 | - |
| 4 | EDO | B | 4216 | - | - | 0/1/1/1 | - |
| 4 | EDO | F | 1108 | - | - | 0/1/1/1 | - |
| 4 | EDO | K | 1111 | - | - | 0/1/1/1 | - |
| 4 | EDO | O | 1108 | - | - | 0/1/1/1 | - |
| 2 | SF4 | G | 1101 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | A | 1108 | - | - | 0/1/1/1 | - |
| 4 | EDO | G | 1118 | - | - | 0/1/1/1 | - |
| 4 | EDO | B | 4219[A] | - | - | 0/1/1/1 | - |
| 2 | SF4 | B | 4206 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | B | 4220[B] | - | - | 0/1/1/1 | - |
| 4 | EDO | G | 1113 | - | - | 1/1/1/1 | - |
| 4 | EDO | A | 1118 | - | - | 1/1/1/1 | - |
| 2 | SF4 | M | 1103 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | O | 1117 | - | - | 1/1/1/1 | - |
| 4 | EDO | B | 4209 | - | - | 0/1/1/1 | - |
| 4 | EDO | E | 1110 | - | - | 0/1/1/1 | - |
| 4 | EDO | G | 1110 | - | - | 0/1/1/1 | - |
| 4 | EDO | G | 1114 | - | - | 0/1/1/1 | - |
| 4 | EDO | H | 4409 | - | - | 0/1/1/1 | - |
| 4 | EDO | M | 1117 | - | - | 1/1/1/1 | - |
| 4 | EDO | M | 1122 | - | - | 1/1/1/1 | - |
| 2 | SF4 | F | 1105 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | O | 1105 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | A | 1110 | - | - | 1/1/1/1 | - |
| 4 | EDO | B | 4211 | - | - | 0/1/1/1 | - |
| 4 | EDO | M | 1124 | - | - | 0/1/1/1 | - |
| 2 | SF4 | E | 1103 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | A | 1114 | - | - | 0/1/1/1 | - |
| 2 | SF4 | N | 1004 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | J | 1104 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | J | 1107 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | K | 1112 | - | - | 0/1/1/1 | - |
| 4 | EDO | D | 4612 | - | - | 1/1/1/1 | - |
| 2 | SF4 | I | 1103 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | J | 1103 | 1 | - | - | 0/6/5/5 |
| 9 | GOL | J | 1117[A] | - | - | 2/4/4/4 | - |
| 2 | SF4 | K | 1102 | 1 | - | - | 0/6/5/5 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|---------|------|-----------|---------------|---------|
| 4 | EDO | O | 1111 | - | - | 0/1/1/1 | - |
| 4 | EDO | M | 1118 | - | - | 1/1/1/1 | - |
| 2 | SF4 | L | 1103 | 1 | - | - | 0/6/5/5 |
| 3 | FAD | B | 4207 | - | - | 1/30/50/50 | 0/6/6/6 |
| 5 | SRM | I | 1109 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 4 | EDO | K | 1116 | - | - | 1/1/1/1 | - |
| 4 | EDO | G | 1120 | - | - | 1/1/1/1 | - |
| 4 | EDO | J | 1112 | - | - | 1/1/1/1 | - |
| 5 | SRM | L | 1109 | 1 | 1/1/19/23 | 12/38/126/126 | - |
| 2 | SF4 | D | 4603 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | O | 1104 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | F | 1104 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | O | 1114 | - | - | 1/1/1/1 | - |
| 11 | PEG | M | 1115 | - | - | 4/4/4/4 | - |
| 2 | SF4 | H | 4402 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | D | 4617 | - | - | 1/1/1/1 | - |
| 2 | SF4 | I | 1102 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | F | 1101 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | J | 1102 | 1 | - | - | 0/6/5/5 |
| 5 | SRM | O | 1109 | 1 | 1/1/19/23 | 13/38/126/126 | - |
| 4 | EDO | O | 1112 | - | - | 1/1/1/1 | - |
| 9 | GOL | I | 1117 | - | - | 4/4/4/4 | - |
| 2 | SF4 | D | 4605 | 1 | - | - | 0/6/5/5 |
| 11 | PEG | N | 1014 | - | - | 3/4/4/4 | - |
| 2 | SF4 | L | 1107 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | B | 4203 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | B | 4213 | - | - | 1/1/1/1 | - |
| 5 | SRM | K | 1109 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 4 | EDO | O | 1110 | - | - | 1/1/1/1 | - |
| 3 | FAD | L | 1106 | - | - | 1/30/50/50 | 0/6/6/6 |
| 4 | EDO | I | 1116 | - | - | 0/1/1/1 | - |
| 4 | EDO | N | 1010 | - | - | 0/1/1/1 | - |
| 9 | GOL | O | 1116 | - | - | 4/4/4/4 | - |
| 2 | SF4 | M | 1102 | 1 | - | - | 0/6/5/5 |
| 5 | SRM | M | 1109 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 3 | FAD | N | 1001[A] | - | - | 9/30/50/50 | 0/6/6/6 |
| 4 | EDO | E | 1111 | - | - | 0/1/1/1 | - |
| 3 | FAD | G | 1106 | - | - | 1/30/50/50 | 0/6/6/6 |
| 2 | SF4 | J | 1101 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | G | 1116 | - | - | 1/1/1/1 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|---------|------|-----------|---------------|---------|
| 2 | SF4 | N | 1008[B] | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | N | 1003 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | C | 3914 | - | - | 0/1/1/1 | - |
| 4 | EDO | D | 4615 | - | - | 1/1/1/1 | - |
| 4 | EDO | J | 1108 | - | - | 0/1/1/1 | - |
| 4 | EDO | B | 4212 | - | - | 0/1/1/1 | - |
| 9 | GOL | B | 4217[A] | - | - | 2/4/4/4 | - |
| 5 | SRM | E | 1109 | 1 | 1/1/19/23 | 12/38/126/126 | - |
| 4 | EDO | D | 4614 | - | - | 1/1/1/1 | - |
| 5 | SRM | G | 1109 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 4 | EDO | E | 1112 | - | - | 1/1/1/1 | - |
| 2 | SF4 | E | 1102 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | L | 1102 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | M | 1101 | 1 | - | - | 0/6/5/5 |
| 9 | GOL | P | 1111 | - | - | 1/4/4/4 | - |
| 4 | EDO | O | 1113 | - | - | 1/1/1/1 | - |
| 5 | SRM | A | 1109 | 1 | 1/1/19/23 | 12/38/126/126 | - |
| 2 | SF4 | G | 1105 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | A | 1115 | - | - | 1/1/1/1 | - |
| 2 | SF4 | G | 1103 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | H | 4408 | 1 | - | - | 0/6/5/5 |
| 12 | TRS | H | 4401 | - | - | 6/9/9/9 | - |
| 9 | GOL | N | 1011 | - | - | 2/4/4/4 | - |
| 2 | SF4 | I | 1101 | 1 | - | - | 0/6/5/5 |
| 5 | SRM | J | 1109 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 9 | GOL | M | 1114 | - | - | 1/4/4/4 | - |
| 2 | SF4 | I | 1104 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | G | 1108 | - | - | 0/1/1/1 | - |
| 9 | GOL | G | 1119[A] | - | - | 0/4/4/4 | - |
| 2 | SF4 | I | 1105 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | G | 1112 | - | - | 1/1/1/1 | - |
| 4 | EDO | O | 1118 | - | - | 0/1/1/1 | - |
| 2 | SF4 | D | 4606 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | M | 1105 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | M | 1108 | - | - | 0/1/1/1 | - |
| 2 | SF4 | A | 1102 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | C | 3902 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | F | 1111 | - | - | 1/1/1/1 | - |
| 4 | EDO | F | 1112[A] | - | - | 0/1/1/1 | - |
| 2 | SF4 | H | 4403 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | A | 1111 | - | - | 0/1/1/1 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|---------|------|-----------|---------------|---------|
| 9 | GOL | C | 3913 | - | - | 4/4/4/4 | - |
| 2 | SF4 | C | 3903 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | M | 1110 | - | - | 1/1/1/1 | - |
| 2 | SF4 | G | 1102 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | B | 4202 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | L | 1108 | - | - | 0/1/1/1 | - |
| 4 | EDO | J | 1110 | - | - | 1/1/1/1 | - |
| 4 | EDO | C | 3909 | - | - | 0/1/1/1 | - |
| 4 | EDO | J | 1116 | - | - | 0/1/1/1 | - |
| 2 | SF4 | B | 4204 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | D | 4611 | - | - | 0/1/1/1 | - |
| 11 | PEG | M | 1120 | - | - | 1/4/4/4 | - |
| 2 | SF4 | P | 1103 | 1 | - | - | 0/6/5/5 |
| 9 | GOL | P | 1112 | - | - | 0/4/4/4 | - |
| 3 | FAD | C | 3907 | - | - | 3/30/50/50 | 0/6/6/6 |
| 2 | SF4 | E | 1107 | 1 | - | - | 0/6/5/5 |
| 9 | GOL | K | 1117 | - | - | 3/4/4/4 | - |
| 2 | SF4 | B | 4208 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | C | 3918 | - | - | 1/1/1/1 | - |
| 5 | SRM | P | 1109 | 1 | 1/1/19/23 | 12/38/126/126 | - |
| 4 | EDO | G | 1117 | - | - | 0/1/1/1 | - |
| 2 | SF4 | C | 3906 | 1 | - | - | 0/6/5/5 |
| 5 | SRM | H | 4410 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 4 | EDO | E | 1115 | - | - | 1/1/1/1 | - |
| 4 | EDO | G | 1115 | - | - | 1/1/1/1 | - |
| 4 | EDO | J | 1113 | - | - | 1/1/1/1 | - |
| 2 | SF4 | K | 1101 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | B | 4205 | 1 | - | - | 0/6/5/5 |
| 5 | SRM | N | 1012 | 1 | 1/1/19/23 | 14/38/126/126 | - |
| 3 | FAD | J | 1106 | - | - | 2/30/50/50 | 0/6/6/6 |
| 4 | EDO | J | 1115 | - | - | 0/1/1/1 | - |
| 4 | EDO | K | 1113 | - | - | 1/1/1/1 | - |
| 4 | EDO | K | 1110 | - | - | 0/1/1/1 | - |
| 2 | SF4 | P | 1102 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | N | 1006[B] | 1 | - | - | 0/6/5/5 |
| 4 | EDO | F | 1113 | - | - | 0/1/1/1 | - |
| 9 | GOL | B | 4218[B] | - | - | 2/4/4/4 | - |
| 2 | SF4 | L | 1101 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | K | 1108 | - | - | 0/1/1/1 | - |
| 4 | EDO | K | 1114 | - | - | 1/1/1/1 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|---------|------|-----------|---------------|---------|
| 4 | EDO | H | 4411 | - | - | 0/1/1/1 | - |
| 2 | SF4 | E | 1104 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | G | 1104 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | M | 1113 | - | - | 1/1/1/1 | - |
| 9 | GOL | I | 1111 | - | - | 1/4/4/4 | - |
| 4 | EDO | L | 1110 | - | - | 0/1/1/1 | - |
| 4 | EDO | B | 4223 | - | - | 1/1/1/1 | - |
| 4 | EDO | M | 1121 | - | - | 1/1/1/1 | - |
| 4 | EDO | N | 1013 | - | - | 0/1/1/1 | - |
| 4 | EDO | I | 1113 | - | - | 0/1/1/1 | - |
| 2 | SF4 | E | 1101 | 1 | - | - | 0/6/5/5 |
| 3 | FAD | K | 1106 | - | - | 1/30/50/50 | 0/6/6/6 |
| 3 | FAD | P | 1106 | - | - | 2/30/50/50 | 0/6/6/6 |
| 4 | EDO | B | 4214 | - | - | 1/1/1/1 | - |
| 2 | SF4 | K | 1103 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | D | 4608 | 1 | - | - | 0/6/5/5 |
| 3 | FAD | H | 4407 | - | - | 2/30/50/50 | 0/6/6/6 |
| 3 | FAD | F | 1106 | - | - | 3/30/50/50 | 0/6/6/6 |
| 3 | FAD | N | 1009[B] | - | - | 2/30/50/50 | 0/6/6/6 |
| 4 | EDO | M | 1119 | - | - | 0/1/1/1 | - |
| 2 | SF4 | C | 3908 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | I | 1108 | - | - | 0/1/1/1 | - |
| 4 | EDO | P | 1113 | - | - | 1/1/1/1 | - |
| 2 | SF4 | D | 4604 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | O | 1102 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | P | 1104 | 1 | - | - | 0/6/5/5 |
| 3 | FAD | M | 1106 | - | - | 2/30/50/50 | 0/6/6/6 |
| 2 | SF4 | F | 1107 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | P | 1110 | - | - | 0/1/1/1 | - |
| 4 | EDO | E | 1116 | - | - | 1/1/1/1 | - |
| 4 | EDO | E | 1108 | - | - | 0/1/1/1 | - |
| 9 | GOL | N | 1015 | - | - | 1/4/4/4 | - |
| 3 | FAD | A | 1106 | - | - | 1/30/50/50 | 0/6/6/6 |
| 4 | EDO | P | 1108 | - | - | 0/1/1/1 | - |
| 2 | SF4 | N | 1006[A] | 1 | - | - | 0/6/5/5 |
| 5 | SRM | D | 4610 | 1 | 1/1/19/23 | 11/38/126/126 | - |
| 2 | SF4 | F | 1103 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | B | 4221 | - | - | 1/1/1/1 | - |
| 2 | SF4 | H | 4404 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | G | 1121 | - | - | 0/1/1/1 | - |
| 4 | EDO | D | 4618 | - | - | 0/1/1/1 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|---------|------|-----------|---------------|---------|
| 12 | TRS | I | 1119 | - | - | 6/9/9/9 | - |
| 2 | SF4 | A | 1107 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | F | 1110[B] | - | - | 1/1/1/1 | - |
| 2 | SF4 | P | 1101 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | E | 1117 | - | - | 1/1/1/1 | - |
| 4 | EDO | D | 4609 | - | - | 0/1/1/1 | - |
| 4 | EDO | B | 4222[A] | - | - | 1/1/1/1 | - |
| 4 | EDO | P | 1114 | - | - | 1/1/1/1 | - |
| 2 | SF4 | O | 1101 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | M | 1111 | - | - | 0/1/1/1 | - |
| 4 | EDO | D | 4616 | - | - | 0/1/1/1 | - |
| 4 | EDO | L | 1111 | - | - | 0/1/1/1 | - |
| 3 | FAD | E | 1106 | - | - | 1/30/50/50 | 0/6/6/6 |
| 4 | EDO | E | 1113 | - | - | 1/1/1/1 | - |
| 5 | SRM | B | 4210 | 1 | 1/1/19/23 | 12/38/126/126 | - |
| 4 | EDO | D | 4613 | - | - | 1/1/1/1 | - |
| 4 | EDO | H | 4413 | - | - | 1/1/1/1 | - |
| 2 | SF4 | D | 4602 | 1 | - | - | 0/6/5/5 |
| 9 | GOL | B | 4224 | - | - | 3/4/4/4 | - |
| 4 | EDO | A | 1113 | - | - | 1/1/1/1 | - |
| 2 | SF4 | H | 4406 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | L | 1105 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | A | 1117 | - | - | 1/1/1/1 | - |
| 5 | SRM | C | 3910 | 1 | 1/1/19/23 | 12/38/126/126 | - |
| 4 | EDO | G | 1111 | - | - | 0/1/1/1 | - |
| 2 | SF4 | A | 1104 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | I | 1114 | - | - | 1/1/1/1 | - |
| 2 | SF4 | A | 1105 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | M | 1107 | 1 | - | - | 0/6/5/5 |
| 2 | SF4 | O | 1107 | 1 | - | - | 0/6/5/5 |
| 4 | EDO | I | 1118 | - | - | 1/1/1/1 | - |
| 4 | EDO | M | 1123 | - | - | 1/1/1/1 | - |
| 2 | SF4 | I | 1107 | 1 | - | - | 0/6/5/5 |
| 11 | PEG | D | 4601 | - | - | 3/4/4/4 | - |
| 2 | SF4 | E | 1105 | 1 | - | - | 0/6/5/5 |
| 3 | FAD | D | 4607 | - | - | 2/30/50/50 | 0/6/6/6 |

All (405) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|--------|--------|-------------|----------|
| 5 | O | 1109 | SRM | C4A-NA | -20.04 | 1.21 | 1.35 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|--------|-------------|----------|
| 5 | M | 1109 | SRM | C4A-NA | -15.21 | 1.24 | 1.35 |
| 5 | H | 4410 | SRM | C4A-NA | -15.08 | 1.24 | 1.35 |
| 5 | B | 4210 | SRM | C4A-NA | -13.42 | 1.25 | 1.35 |
| 5 | L | 1109 | SRM | C4A-NA | -13.40 | 1.25 | 1.35 |
| 5 | N | 1012 | SRM | C4A-NA | -13.16 | 1.25 | 1.35 |
| 5 | I | 1109 | SRM | C4A-NA | -13.14 | 1.25 | 1.35 |
| 5 | E | 1109 | SRM | C4A-NA | -12.75 | 1.26 | 1.35 |
| 5 | F | 1109 | SRM | C4A-NA | -12.17 | 1.26 | 1.35 |
| 5 | K | 1109 | SRM | C4A-NA | -12.11 | 1.26 | 1.35 |
| 5 | C | 3910 | SRM | C4A-NA | -12.10 | 1.26 | 1.35 |
| 5 | G | 1109 | SRM | C4A-NA | -12.05 | 1.26 | 1.35 |
| 5 | A | 1109 | SRM | C4A-NA | -11.68 | 1.27 | 1.35 |
| 5 | J | 1109 | SRM | C4A-NA | -11.61 | 1.27 | 1.35 |
| 5 | D | 4610 | SRM | C4A-NA | -11.35 | 1.27 | 1.35 |
| 5 | P | 1109 | SRM | C4A-NA | -11.26 | 1.27 | 1.35 |
| 5 | O | 1109 | SRM | C4B-NB | -10.53 | 1.27 | 1.35 |
| 5 | G | 1109 | SRM | CHD-C4C | 8.77 | 1.47 | 1.35 |
| 5 | E | 1109 | SRM | CHD-C4C | 8.76 | 1.47 | 1.35 |
| 5 | A | 1109 | SRM | CHD-C4C | 8.72 | 1.47 | 1.35 |
| 5 | P | 1109 | SRM | CHD-C4C | 8.69 | 1.47 | 1.35 |
| 5 | K | 1109 | SRM | CHD-C4C | 8.66 | 1.47 | 1.35 |
| 5 | C | 3910 | SRM | CHD-C4C | 8.62 | 1.47 | 1.35 |
| 5 | I | 1109 | SRM | CHD-C4C | 8.60 | 1.47 | 1.35 |
| 5 | N | 1012 | SRM | CHD-C4C | 8.60 | 1.47 | 1.35 |
| 5 | B | 4210 | SRM | CHD-C4C | 8.53 | 1.47 | 1.35 |
| 5 | L | 1109 | SRM | CHD-C4C | 8.47 | 1.47 | 1.35 |
| 5 | J | 1109 | SRM | CHD-C4C | 8.36 | 1.46 | 1.35 |
| 5 | F | 1109 | SRM | CHD-C4C | 8.09 | 1.46 | 1.35 |
| 5 | H | 4410 | SRM | CHD-C4C | 8.05 | 1.46 | 1.35 |
| 5 | O | 1109 | SRM | CHD-C4C | 7.99 | 1.46 | 1.35 |
| 5 | D | 4610 | SRM | CHD-C4C | 7.90 | 1.46 | 1.35 |
| 5 | M | 1109 | SRM | CHD-C4C | 7.42 | 1.45 | 1.35 |
| 5 | O | 1109 | SRM | C1C-NC | -5.39 | 1.29 | 1.39 |
| 5 | O | 1109 | SRM | FE-NC | 5.14 | 2.15 | 1.95 |
| 5 | F | 1109 | SRM | C3C-C2C | 5.14 | 1.47 | 1.36 |
| 5 | H | 4410 | SRM | C4B-NB | -5.13 | 1.31 | 1.35 |
| 5 | H | 4410 | SRM | C1C-NC | -5.12 | 1.29 | 1.39 |
| 5 | G | 1109 | SRM | C3C-C2C | 5.01 | 1.47 | 1.36 |
| 5 | L | 1109 | SRM | C3C-C2C | 4.94 | 1.47 | 1.36 |
| 5 | H | 4410 | SRM | C4C-NC | -4.85 | 1.30 | 1.39 |
| 5 | M | 1109 | SRM | C3C-C2C | 4.84 | 1.47 | 1.36 |
| 5 | B | 4210 | SRM | C3C-C2C | 4.82 | 1.47 | 1.36 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 5 | A | 1109 | SRM | C3C-C2C | 4.77 | 1.46 | 1.36 |
| 5 | J | 1109 | SRM | C3C-C2C | 4.75 | 1.46 | 1.36 |
| 5 | D | 4610 | SRM | C3C-C2C | 4.70 | 1.46 | 1.36 |
| 5 | K | 1109 | SRM | C3C-C2C | 4.65 | 1.46 | 1.36 |
| 5 | E | 1109 | SRM | CHC-C1C | 4.64 | 1.47 | 1.38 |
| 5 | D | 4610 | SRM | CHC-C1C | 4.63 | 1.47 | 1.38 |
| 5 | C | 3910 | SRM | C3C-C2C | 4.62 | 1.46 | 1.36 |
| 3 | E | 1106 | FAD | C9A-C5X | 4.61 | 1.48 | 1.41 |
| 5 | P | 1109 | SRM | C3C-C2C | 4.59 | 1.46 | 1.36 |
| 5 | N | 1012 | SRM | C3C-C2C | 4.59 | 1.46 | 1.36 |
| 5 | E | 1109 | SRM | C3C-C2C | 4.57 | 1.46 | 1.36 |
| 5 | O | 1109 | SRM | C3C-C2C | 4.55 | 1.46 | 1.36 |
| 5 | B | 4210 | SRM | CHC-C1C | 4.53 | 1.47 | 1.38 |
| 3 | D | 4607 | FAD | C9A-C5X | 4.52 | 1.48 | 1.41 |
| 5 | M | 1109 | SRM | CHC-C1C | 4.44 | 1.47 | 1.38 |
| 3 | F | 1106 | FAD | C9A-C5X | 4.44 | 1.48 | 1.41 |
| 5 | I | 1109 | SRM | C3C-C2C | 4.44 | 1.46 | 1.36 |
| 5 | J | 1109 | SRM | CHC-C1C | 4.43 | 1.47 | 1.38 |
| 5 | P | 1109 | SRM | CHC-C1C | 4.40 | 1.46 | 1.38 |
| 5 | H | 4410 | SRM | C3C-C2C | 4.40 | 1.46 | 1.36 |
| 5 | O | 1109 | SRM | C4D-ND | -4.37 | 1.27 | 1.36 |
| 5 | C | 3910 | SRM | CHC-C1C | 4.36 | 1.46 | 1.38 |
| 5 | O | 1109 | SRM | O4B-CEB | -4.33 | 1.16 | 1.30 |
| 3 | O | 1106 | FAD | C9A-C5X | 4.32 | 1.48 | 1.41 |
| 3 | M | 1106 | FAD | C9A-C5X | 4.29 | 1.48 | 1.41 |
| 5 | P | 1109 | SRM | C1C-NC | -4.27 | 1.31 | 1.39 |
| 5 | F | 1109 | SRM | CHC-C1C | 4.26 | 1.46 | 1.38 |
| 5 | O | 1109 | SRM | CHC-C1C | 4.25 | 1.46 | 1.38 |
| 5 | M | 1109 | SRM | C4B-NB | -4.24 | 1.32 | 1.35 |
| 5 | I | 1109 | SRM | CHC-C1C | 4.21 | 1.46 | 1.38 |
| 3 | C | 3907 | FAD | C9A-C5X | 4.17 | 1.48 | 1.41 |
| 5 | G | 1109 | SRM | CHC-C1C | 4.17 | 1.46 | 1.38 |
| 3 | B | 4207 | FAD | C9A-C5X | 4.13 | 1.48 | 1.41 |
| 5 | L | 1109 | SRM | CHC-C1C | 4.12 | 1.46 | 1.38 |
| 5 | A | 1109 | SRM | CHC-C1C | 4.08 | 1.46 | 1.38 |
| 3 | P | 1106 | FAD | C9A-C5X | 4.06 | 1.48 | 1.41 |
| 3 | H | 4407 | FAD | C9A-C5X | 4.03 | 1.47 | 1.41 |
| 3 | A | 1106 | FAD | C9A-C5X | 4.02 | 1.47 | 1.41 |
| 5 | I | 1109 | SRM | FE-NC | 3.98 | 2.11 | 1.95 |
| 3 | L | 1106 | FAD | C9A-C5X | 3.97 | 1.47 | 1.41 |
| 5 | J | 1109 | SRM | C1C-NC | -3.96 | 1.32 | 1.39 |
| 5 | B | 4210 | SRM | C1C-NC | -3.96 | 1.32 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 5 | B | 4210 | SRM | FE-NC | 3.94 | 2.11 | 1.95 |
| 5 | O | 1109 | SRM | O2B-CCB | -3.89 | 1.17 | 1.30 |
| 5 | K | 1109 | SRM | CHC-C1C | 3.89 | 1.45 | 1.38 |
| 5 | D | 4610 | SRM | FE-NC | 3.86 | 2.10 | 1.95 |
| 5 | C | 3910 | SRM | C1C-NC | -3.85 | 1.32 | 1.39 |
| 3 | K | 1106 | FAD | C9A-C5X | 3.82 | 1.47 | 1.41 |
| 3 | L | 1106 | FAD | C4-N3 | -3.82 | 1.31 | 1.38 |
| 5 | K | 1109 | SRM | FE-NC | 3.82 | 2.10 | 1.95 |
| 5 | L | 1109 | SRM | C1C-NC | -3.81 | 1.32 | 1.39 |
| 5 | E | 1109 | SRM | C1C-NC | -3.79 | 1.32 | 1.39 |
| 5 | A | 1109 | SRM | FE-NC | 3.77 | 2.10 | 1.95 |
| 5 | C | 3910 | SRM | FE-NC | 3.77 | 2.10 | 1.95 |
| 3 | J | 1106 | FAD | C9A-C5X | 3.76 | 1.47 | 1.41 |
| 5 | M | 1109 | SRM | C1C-NC | -3.74 | 1.32 | 1.39 |
| 5 | K | 1109 | SRM | C1C-NC | -3.74 | 1.32 | 1.39 |
| 5 | N | 1012 | SRM | CHC-C1C | 3.73 | 1.45 | 1.38 |
| 5 | P | 1109 | SRM | C3D-C2D | 3.72 | 1.47 | 1.39 |
| 5 | I | 1109 | SRM | C3D-C2D | 3.72 | 1.47 | 1.39 |
| 5 | N | 1012 | SRM | C1C-NC | -3.71 | 1.32 | 1.39 |
| 5 | O | 1109 | SRM | O4D-CED | -3.71 | 1.18 | 1.30 |
| 5 | P | 1109 | SRM | FE-NC | 3.70 | 2.10 | 1.95 |
| 5 | E | 1109 | SRM | FE-NC | 3.69 | 2.10 | 1.95 |
| 5 | J | 1109 | SRM | FE-NC | 3.66 | 2.10 | 1.95 |
| 5 | B | 4210 | SRM | C4C-NC | -3.65 | 1.32 | 1.39 |
| 5 | L | 1109 | SRM | C4C-NC | -3.65 | 1.32 | 1.39 |
| 5 | O | 1109 | SRM | C4C-NC | -3.65 | 1.32 | 1.39 |
| 5 | N | 1012 | SRM | C4C-NC | -3.64 | 1.32 | 1.39 |
| 5 | M | 1109 | SRM | FE-NC | 3.64 | 2.09 | 1.95 |
| 5 | I | 1109 | SRM | C1C-NC | -3.63 | 1.32 | 1.39 |
| 5 | G | 1109 | SRM | FE-NC | 3.63 | 2.09 | 1.95 |
| 5 | L | 1109 | SRM | C3D-C2D | 3.62 | 1.47 | 1.39 |
| 5 | F | 1109 | SRM | C1C-NC | -3.61 | 1.32 | 1.39 |
| 5 | G | 1109 | SRM | C4C-NC | -3.59 | 1.32 | 1.39 |
| 5 | D | 4610 | SRM | C1C-NC | -3.59 | 1.32 | 1.39 |
| 5 | F | 1109 | SRM | FE-NC | 3.59 | 2.09 | 1.95 |
| 5 | C | 3910 | SRM | C3D-C2D | 3.58 | 1.47 | 1.39 |
| 5 | N | 1012 | SRM | C3D-C2D | 3.57 | 1.47 | 1.39 |
| 5 | F | 1109 | SRM | C4C-NC | -3.56 | 1.32 | 1.39 |
| 5 | H | 4410 | SRM | FE-NC | 3.56 | 2.09 | 1.95 |
| 5 | I | 1109 | SRM | C4C-NC | -3.54 | 1.32 | 1.39 |
| 5 | L | 1109 | SRM | FE-NC | 3.53 | 2.09 | 1.95 |
| 5 | A | 1109 | SRM | C1C-NC | -3.52 | 1.32 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 5 | A | 1109 | SRM | C4C-NC | -3.51 | 1.33 | 1.39 |
| 5 | E | 1109 | SRM | C3D-C2D | 3.50 | 1.47 | 1.39 |
| 5 | H | 4410 | SRM | C3D-C2D | 3.50 | 1.47 | 1.39 |
| 5 | N | 1012 | SRM | FE-NC | 3.50 | 2.09 | 1.95 |
| 5 | K | 1109 | SRM | C3D-C2D | 3.48 | 1.47 | 1.39 |
| 5 | G | 1109 | SRM | C1C-NC | -3.47 | 1.33 | 1.39 |
| 5 | A | 1109 | SRM | C3D-C2D | 3.46 | 1.47 | 1.39 |
| 5 | H | 4410 | SRM | CHC-C1C | 3.45 | 1.45 | 1.38 |
| 5 | F | 1109 | SRM | C4B-NB | -3.45 | 1.32 | 1.35 |
| 5 | F | 1109 | SRM | C3D-C2D | 3.44 | 1.47 | 1.39 |
| 3 | B | 4207 | FAD | C4-N3 | -3.42 | 1.32 | 1.38 |
| 3 | O | 1106 | FAD | C4-N3 | -3.42 | 1.32 | 1.38 |
| 5 | M | 1109 | SRM | C3D-C2D | 3.40 | 1.47 | 1.39 |
| 5 | B | 4210 | SRM | C3D-C2D | 3.40 | 1.47 | 1.39 |
| 5 | P | 1109 | SRM | C4C-NC | -3.38 | 1.33 | 1.39 |
| 5 | M | 1109 | SRM | C4C-NC | -3.38 | 1.33 | 1.39 |
| 5 | O | 1109 | SRM | O4C-CEC | -3.37 | 1.19 | 1.30 |
| 5 | H | 4410 | SRM | O2B-CCB | -3.34 | 1.19 | 1.30 |
| 5 | K | 1109 | SRM | C4C-NC | -3.32 | 1.33 | 1.39 |
| 5 | C | 3910 | SRM | C4C-NC | -3.31 | 1.33 | 1.39 |
| 3 | J | 1106 | FAD | C4-N3 | -3.29 | 1.32 | 1.38 |
| 3 | J | 1106 | FAD | C5X-N5 | -3.28 | 1.33 | 1.39 |
| 5 | O | 1109 | SRM | C3D-C2D | 3.28 | 1.46 | 1.39 |
| 5 | J | 1109 | SRM | C3D-C2D | 3.27 | 1.46 | 1.39 |
| 5 | D | 4610 | SRM | C4C-NC | -3.26 | 1.33 | 1.39 |
| 3 | D | 4607 | FAD | C5X-N5 | -3.24 | 1.33 | 1.39 |
| 5 | E | 1109 | SRM | C4C-NC | -3.23 | 1.33 | 1.39 |
| 5 | B | 4210 | SRM | C4B-NB | -3.23 | 1.33 | 1.35 |
| 5 | O | 1109 | SRM | O2C-CCC | -3.23 | 1.19 | 1.30 |
| 3 | E | 1106 | FAD | C4-N3 | -3.22 | 1.32 | 1.38 |
| 5 | J | 1109 | SRM | C4C-NC | -3.11 | 1.33 | 1.39 |
| 5 | O | 1109 | SRM | O2A-CCA | -3.11 | 1.20 | 1.30 |
| 3 | M | 1106 | FAD | C4-N3 | -3.10 | 1.33 | 1.38 |
| 5 | K | 1109 | SRM | C4B-NB | -3.09 | 1.33 | 1.35 |
| 5 | G | 1109 | SRM | C3D-C2D | 3.08 | 1.46 | 1.39 |
| 3 | D | 4607 | FAD | C4-N3 | -3.07 | 1.33 | 1.38 |
| 5 | D | 4610 | SRM | C3D-C2D | 3.01 | 1.46 | 1.39 |
| 3 | H | 4407 | FAD | C8-C7 | 2.99 | 1.48 | 1.40 |
| 3 | B | 4207 | FAD | C5X-N5 | -2.98 | 1.33 | 1.39 |
| 5 | A | 1109 | SRM | C4B-NB | -2.97 | 1.33 | 1.35 |
| 3 | C | 3907 | FAD | C5X-N5 | -2.93 | 1.33 | 1.39 |
| 3 | K | 1106 | FAD | C4-N3 | -2.93 | 1.33 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 3 | C | 3907 | FAD | C8-C7 | 2.92 | 1.48 | 1.40 |
| 5 | H | 4410 | SRM | C4D-ND | -2.91 | 1.30 | 1.36 |
| 5 | H | 4410 | SRM | O4D-CED | -2.90 | 1.21 | 1.30 |
| 3 | P | 1106 | FAD | C4-N3 | -2.87 | 1.33 | 1.38 |
| 3 | B | 4207 | FAD | C8-C7 | 2.86 | 1.48 | 1.40 |
| 5 | H | 4410 | SRM | O2D-CCD | -2.85 | 1.21 | 1.30 |
| 5 | A | 1109 | SRM | C4D-CHA | 2.83 | 1.48 | 1.41 |
| 3 | C | 3907 | FAD | C4-N3 | -2.83 | 1.33 | 1.38 |
| 3 | K | 1106 | FAD | C5X-N5 | -2.82 | 1.34 | 1.39 |
| 3 | F | 1106 | FAD | C4-N3 | -2.82 | 1.33 | 1.38 |
| 3 | M | 1106 | FAD | C5X-N5 | -2.81 | 1.34 | 1.39 |
| 5 | B | 4210 | SRM | C4D-CHA | 2.80 | 1.48 | 1.41 |
| 5 | H | 4410 | SRM | O2C-CCC | -2.79 | 1.21 | 1.30 |
| 5 | A | 1109 | SRM | CHB-C4A | 2.79 | 1.47 | 1.39 |
| 3 | L | 1106 | FAD | C5X-N5 | -2.79 | 1.34 | 1.39 |
| 3 | E | 1106 | FAD | C5X-N5 | -2.77 | 1.34 | 1.39 |
| 5 | M | 1109 | SRM | O4D-CED | -2.76 | 1.21 | 1.30 |
| 3 | M | 1106 | FAD | C8-C7 | 2.75 | 1.47 | 1.40 |
| 3 | F | 1106 | FAD | C8-C7 | 2.75 | 1.47 | 1.40 |
| 5 | N | 1012 | SRM | C4D-CHA | 2.75 | 1.48 | 1.41 |
| 5 | H | 4410 | SRM | C4D-CHA | 2.75 | 1.48 | 1.41 |
| 5 | M | 1109 | SRM | CHC-C4B | -2.73 | 1.31 | 1.39 |
| 5 | K | 1109 | SRM | C4D-CHA | 2.73 | 1.48 | 1.41 |
| 5 | O | 1109 | SRM | C4D-CHA | 2.72 | 1.48 | 1.41 |
| 5 | E | 1109 | SRM | C4D-CHA | 2.72 | 1.48 | 1.41 |
| 5 | O | 1109 | SRM | O4A-CEA | -2.72 | 1.21 | 1.30 |
| 5 | O | 1109 | SRM | CHB-C4A | 2.71 | 1.46 | 1.39 |
| 5 | C | 3910 | SRM | C4D-CHA | 2.71 | 1.48 | 1.41 |
| 3 | P | 1106 | FAD | C8-C7 | 2.71 | 1.47 | 1.40 |
| 3 | D | 4607 | FAD | C8-C7 | 2.70 | 1.47 | 1.40 |
| 5 | M | 1109 | SRM | O2D-CCD | -2.69 | 1.21 | 1.30 |
| 5 | L | 1109 | SRM | C4D-CHA | 2.69 | 1.48 | 1.41 |
| 3 | O | 1106 | FAD | C8-C7 | 2.67 | 1.47 | 1.40 |
| 3 | L | 1106 | FAD | C8-C7 | 2.67 | 1.47 | 1.40 |
| 5 | D | 4610 | SRM | C4D-CHA | 2.66 | 1.48 | 1.41 |
| 5 | G | 1109 | SRM | CHB-C4A | 2.65 | 1.46 | 1.39 |
| 5 | O | 1109 | SRM | CHA-C1A | -2.64 | 1.31 | 1.35 |
| 5 | J | 1109 | SRM | C4D-CHA | 2.64 | 1.48 | 1.41 |
| 5 | P | 1109 | SRM | O4B-CEB | -2.63 | 1.21 | 1.30 |
| 3 | F | 1106 | FAD | C5X-N5 | -2.63 | 1.34 | 1.39 |
| 3 | E | 1106 | FAD | C8-C7 | 2.62 | 1.47 | 1.40 |
| 5 | J | 1109 | SRM | CHB-C4A | 2.61 | 1.46 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 3 | L | 1106 | FAD | C2-N3 | -2.61 | 1.32 | 1.39 |
| 3 | A | 1106 | FAD | C4-N3 | -2.61 | 1.34 | 1.38 |
| 3 | H | 4407 | FAD | C4-N3 | -2.60 | 1.34 | 1.38 |
| 5 | D | 4610 | SRM | O2B-CCB | -2.60 | 1.22 | 1.30 |
| 5 | M | 1109 | SRM | O4B-CEB | -2.60 | 1.22 | 1.30 |
| 5 | P | 1109 | SRM | C4D-CHA | 2.57 | 1.48 | 1.41 |
| 5 | K | 1109 | SRM | CHC-C4B | -2.57 | 1.31 | 1.39 |
| 5 | N | 1012 | SRM | O4D-CED | -2.56 | 1.22 | 1.30 |
| 5 | E | 1109 | SRM | C1D-CHD | 2.55 | 1.48 | 1.41 |
| 5 | H | 4410 | SRM | O4B-CEB | -2.54 | 1.22 | 1.30 |
| 3 | A | 1106 | FAD | C8-C7 | 2.53 | 1.47 | 1.40 |
| 5 | O | 1109 | SRM | O2D-CCD | -2.53 | 1.22 | 1.30 |
| 5 | G | 1109 | SRM | O4B-CEB | -2.53 | 1.22 | 1.30 |
| 3 | P | 1106 | FAD | C2-N3 | -2.52 | 1.33 | 1.39 |
| 3 | O | 1106 | FAD | C5X-N5 | -2.52 | 1.34 | 1.39 |
| 5 | M | 1109 | SRM | C4D-ND | -2.52 | 1.31 | 1.36 |
| 5 | M | 1109 | SRM | CHB-C4A | 2.51 | 1.46 | 1.39 |
| 5 | M | 1109 | SRM | O2B-CCB | -2.51 | 1.22 | 1.30 |
| 5 | J | 1109 | SRM | O4B-CEB | -2.50 | 1.22 | 1.30 |
| 5 | H | 4410 | SRM | CHC-C4B | -2.49 | 1.32 | 1.39 |
| 3 | O | 1106 | FAD | C2-N3 | -2.48 | 1.33 | 1.39 |
| 5 | A | 1109 | SRM | O4B-CEB | -2.48 | 1.22 | 1.30 |
| 5 | B | 4210 | SRM | C1D-CHD | 2.47 | 1.47 | 1.41 |
| 5 | E | 1109 | SRM | C4B-NB | -2.47 | 1.33 | 1.35 |
| 5 | L | 1109 | SRM | CHC-C4B | -2.46 | 1.32 | 1.39 |
| 5 | O | 1109 | SRM | C1D-CHD | 2.46 | 1.47 | 1.41 |
| 5 | G | 1109 | SRM | O2D-CCD | -2.46 | 1.22 | 1.30 |
| 5 | D | 4610 | SRM | CHB-C4A | 2.46 | 1.46 | 1.39 |
| 5 | H | 4410 | SRM | O4C-CEC | -2.46 | 1.22 | 1.30 |
| 5 | K | 1109 | SRM | O4B-CEB | -2.45 | 1.22 | 1.30 |
| 5 | I | 1109 | SRM | C4D-CHA | 2.45 | 1.47 | 1.41 |
| 5 | A | 1109 | SRM | C1D-CHD | 2.44 | 1.47 | 1.41 |
| 5 | H | 4410 | SRM | CHA-C1A | -2.44 | 1.31 | 1.35 |
| 5 | L | 1109 | SRM | O2A-CCA | -2.44 | 1.22 | 1.30 |
| 5 | H | 4410 | SRM | O2A-CCA | -2.44 | 1.22 | 1.30 |
| 5 | F | 1109 | SRM | C1D-CHD | 2.44 | 1.47 | 1.41 |
| 5 | K | 1109 | SRM | C1D-CHD | 2.43 | 1.47 | 1.41 |
| 5 | G | 1109 | SRM | C4D-CHA | 2.42 | 1.47 | 1.41 |
| 5 | N | 1012 | SRM | CHB-C4A | 2.41 | 1.46 | 1.39 |
| 5 | P | 1109 | SRM | CHB-C4A | 2.41 | 1.46 | 1.39 |
| 3 | J | 1106 | FAD | C8-C7 | 2.41 | 1.46 | 1.40 |
| 3 | B | 4207 | FAD | C2-N3 | -2.40 | 1.33 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 5 | A | 1109 | SRM | O2C-CCC | -2.40 | 1.22 | 1.30 |
| 3 | K | 1106 | FAD | C8-C7 | 2.40 | 1.46 | 1.40 |
| 5 | L | 1109 | SRM | O4D-CED | -2.40 | 1.22 | 1.30 |
| 5 | L | 1109 | SRM | O2D-CCD | -2.39 | 1.22 | 1.30 |
| 5 | L | 1109 | SRM | C1D-CHD | 2.39 | 1.47 | 1.41 |
| 5 | O | 1109 | SRM | CBB-CCB | 2.38 | 1.56 | 1.50 |
| 5 | P | 1109 | SRM | O2B-CCB | -2.38 | 1.22 | 1.30 |
| 5 | G | 1109 | SRM | C4B-NB | -2.38 | 1.33 | 1.35 |
| 5 | I | 1109 | SRM | O2B-CCB | -2.37 | 1.22 | 1.30 |
| 5 | J | 1109 | SRM | CHC-C4B | -2.37 | 1.32 | 1.39 |
| 5 | M | 1109 | SRM | O2C-CCC | -2.37 | 1.22 | 1.30 |
| 5 | E | 1109 | SRM | O2B-CCB | -2.37 | 1.22 | 1.30 |
| 5 | F | 1109 | SRM | O2B-CCB | -2.36 | 1.22 | 1.30 |
| 5 | M | 1109 | SRM | C4D-CHA | 2.36 | 1.47 | 1.41 |
| 5 | I | 1109 | SRM | C1D-CHD | 2.36 | 1.47 | 1.41 |
| 5 | M | 1109 | SRM | O4C-CEC | -2.36 | 1.22 | 1.30 |
| 5 | E | 1109 | SRM | O4D-CED | -2.36 | 1.22 | 1.30 |
| 5 | J | 1109 | SRM | C4B-NB | -2.36 | 1.33 | 1.35 |
| 3 | J | 1106 | FAD | C2-N3 | -2.35 | 1.33 | 1.39 |
| 3 | C | 3907 | FAD | C4X-N5 | 2.35 | 1.35 | 1.30 |
| 5 | C | 3910 | SRM | O2D-CCD | -2.35 | 1.22 | 1.30 |
| 5 | C | 3910 | SRM | CHB-C4A | 2.35 | 1.45 | 1.39 |
| 5 | F | 1109 | SRM | CHB-C4A | 2.35 | 1.45 | 1.39 |
| 5 | K | 1109 | SRM | O2D-CCD | -2.34 | 1.22 | 1.30 |
| 5 | K | 1109 | SRM | CHB-C4A | 2.34 | 1.45 | 1.39 |
| 3 | K | 1106 | FAD | C2-N3 | -2.34 | 1.33 | 1.39 |
| 5 | D | 4610 | SRM | CHC-C4B | -2.34 | 1.32 | 1.39 |
| 5 | C | 3910 | SRM | O4D-CED | -2.33 | 1.22 | 1.30 |
| 5 | I | 1109 | SRM | CHB-C4A | 2.33 | 1.45 | 1.39 |
| 5 | B | 4210 | SRM | O4D-CED | -2.33 | 1.22 | 1.30 |
| 5 | C | 3910 | SRM | C4B-NB | -2.33 | 1.33 | 1.35 |
| 5 | G | 1109 | SRM | O2B-CCB | -2.33 | 1.22 | 1.30 |
| 5 | A | 1109 | SRM | O2D-CCD | -2.33 | 1.22 | 1.30 |
| 3 | D | 4607 | FAD | C2-N3 | -2.32 | 1.33 | 1.39 |
| 5 | A | 1109 | SRM | O2B-CCB | -2.32 | 1.22 | 1.30 |
| 5 | N | 1012 | SRM | C1D-CHD | 2.32 | 1.47 | 1.41 |
| 3 | C | 3907 | FAD | C2-N3 | -2.32 | 1.33 | 1.39 |
| 5 | G | 1109 | SRM | O4D-CED | -2.31 | 1.23 | 1.30 |
| 5 | B | 4210 | SRM | O2D-CCD | -2.31 | 1.23 | 1.30 |
| 5 | D | 4610 | SRM | O2C-CCC | -2.31 | 1.23 | 1.30 |
| 5 | E | 1109 | SRM | CHB-C4A | 2.30 | 1.45 | 1.39 |
| 5 | G | 1109 | SRM | O2C-CCC | -2.30 | 1.23 | 1.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 5 | L | 1109 | SRM | O2B-CCB | -2.30 | 1.23 | 1.30 |
| 5 | F | 1109 | SRM | O4B-CEB | -2.30 | 1.23 | 1.30 |
| 5 | B | 4210 | SRM | O2A-CCA | -2.30 | 1.23 | 1.30 |
| 5 | I | 1109 | SRM | O2D-CCD | -2.30 | 1.23 | 1.30 |
| 5 | N | 1012 | SRM | C4B-NB | -2.29 | 1.33 | 1.35 |
| 3 | F | 1106 | FAD | C2B-C1B | -2.29 | 1.50 | 1.53 |
| 5 | M | 1109 | SRM | O2A-CCA | -2.28 | 1.23 | 1.30 |
| 5 | F | 1109 | SRM | O2C-CCC | -2.28 | 1.23 | 1.30 |
| 5 | C | 3910 | SRM | C1D-CHD | 2.27 | 1.47 | 1.41 |
| 5 | F | 1109 | SRM | C4D-CHA | 2.27 | 1.47 | 1.41 |
| 5 | J | 1109 | SRM | O2D-CCD | -2.27 | 1.23 | 1.30 |
| 5 | L | 1109 | SRM | C4B-NB | -2.26 | 1.33 | 1.35 |
| 5 | F | 1109 | SRM | O2D-CCD | -2.26 | 1.23 | 1.30 |
| 5 | F | 1109 | SRM | CHC-C4B | -2.26 | 1.32 | 1.39 |
| 5 | P | 1109 | SRM | O2A-CCA | -2.26 | 1.23 | 1.30 |
| 5 | A | 1109 | SRM | CHC-C4B | -2.25 | 1.32 | 1.39 |
| 3 | A | 1106 | FAD | C5X-N5 | -2.25 | 1.35 | 1.39 |
| 5 | I | 1109 | SRM | O4D-CED | -2.25 | 1.23 | 1.30 |
| 5 | K | 1109 | SRM | O4D-CED | -2.25 | 1.23 | 1.30 |
| 5 | C | 3910 | SRM | O2C-CCC | -2.25 | 1.23 | 1.30 |
| 3 | J | 1106 | FAD | C5A-C4A | 2.25 | 1.46 | 1.40 |
| 5 | C | 3910 | SRM | O4B-CEB | -2.24 | 1.23 | 1.30 |
| 5 | B | 4210 | SRM | CHC-C4B | -2.24 | 1.32 | 1.39 |
| 5 | I | 1109 | SRM | C4B-NB | -2.24 | 1.33 | 1.35 |
| 5 | J | 1109 | SRM | C1D-CHD | 2.24 | 1.47 | 1.41 |
| 5 | N | 1012 | SRM | O2D-CCD | -2.24 | 1.23 | 1.30 |
| 5 | B | 4210 | SRM | O4C-CEC | -2.24 | 1.23 | 1.30 |
| 5 | E | 1109 | SRM | O2C-CCC | -2.24 | 1.23 | 1.30 |
| 5 | D | 4610 | SRM | O2D-CCD | -2.24 | 1.23 | 1.30 |
| 5 | D | 4610 | SRM | O2A-CCA | -2.23 | 1.23 | 1.30 |
| 3 | H | 4407 | FAD | C5X-N5 | -2.23 | 1.35 | 1.39 |
| 5 | J | 1109 | SRM | O4D-CED | -2.23 | 1.23 | 1.30 |
| 5 | N | 1012 | SRM | CHC-C4B | -2.23 | 1.32 | 1.39 |
| 5 | M | 1109 | SRM | O4A-CEA | -2.23 | 1.23 | 1.30 |
| 5 | P | 1109 | SRM | C1D-CHD | 2.23 | 1.47 | 1.41 |
| 5 | G | 1109 | SRM | C1D-CHD | 2.23 | 1.47 | 1.41 |
| 3 | O | 1106 | FAD | C5A-C4A | 2.22 | 1.46 | 1.40 |
| 5 | C | 3910 | SRM | CHC-C4B | -2.21 | 1.32 | 1.39 |
| 5 | N | 1012 | SRM | O2C-CCC | -2.21 | 1.23 | 1.30 |
| 5 | J | 1109 | SRM | O4C-CEC | -2.21 | 1.23 | 1.30 |
| 5 | A | 1109 | SRM | O4D-CED | -2.21 | 1.23 | 1.30 |
| 5 | I | 1109 | SRM | O4C-CEC | -2.20 | 1.23 | 1.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 5 | P | 1109 | SRM | C4B-NB | -2.20 | 1.33 | 1.35 |
| 5 | N | 1012 | SRM | O4B-CEB | -2.20 | 1.23 | 1.30 |
| 3 | D | 4607 | FAD | C4X-N5 | 2.20 | 1.35 | 1.30 |
| 5 | N | 1012 | SRM | O4C-CEC | -2.20 | 1.23 | 1.30 |
| 5 | K | 1109 | SRM | O2C-CCC | -2.19 | 1.23 | 1.30 |
| 5 | B | 4210 | SRM | O4B-CEB | -2.19 | 1.23 | 1.30 |
| 5 | M | 1109 | SRM | C1D-CHD | 2.19 | 1.47 | 1.41 |
| 5 | E | 1109 | SRM | CHC-C4B | -2.18 | 1.32 | 1.39 |
| 5 | J | 1109 | SRM | O2C-CCC | -2.18 | 1.23 | 1.30 |
| 3 | D | 4607 | FAD | C5A-C4A | 2.18 | 1.46 | 1.40 |
| 5 | D | 4610 | SRM | O4B-CEB | -2.17 | 1.23 | 1.30 |
| 3 | A | 1106 | FAD | C4X-N5 | 2.17 | 1.35 | 1.30 |
| 5 | I | 1109 | SRM | O2C-CCC | -2.17 | 1.23 | 1.30 |
| 5 | I | 1109 | SRM | CHC-C4B | -2.17 | 1.32 | 1.39 |
| 3 | H | 4407 | FAD | C5A-C4A | 2.17 | 1.46 | 1.40 |
| 5 | A | 1109 | SRM | O4C-CEC | -2.17 | 1.23 | 1.30 |
| 5 | J | 1109 | SRM | O2B-CCB | -2.16 | 1.23 | 1.30 |
| 3 | F | 1106 | FAD | C5A-C4A | 2.16 | 1.46 | 1.40 |
| 5 | L | 1109 | SRM | O4C-CEC | -2.16 | 1.23 | 1.30 |
| 5 | I | 1109 | SRM | O4B-CEB | -2.15 | 1.23 | 1.30 |
| 5 | D | 4610 | SRM | C1D-CHD | 2.15 | 1.47 | 1.41 |
| 5 | C | 3910 | SRM | O4C-CEC | -2.14 | 1.23 | 1.30 |
| 5 | L | 1109 | SRM | CHB-C4A | 2.14 | 1.45 | 1.39 |
| 5 | H | 4410 | SRM | CDC-C2C | -2.14 | 1.47 | 1.51 |
| 3 | E | 1106 | FAD | C5A-C4A | 2.13 | 1.46 | 1.40 |
| 5 | F | 1109 | SRM | O4D-CED | -2.13 | 1.23 | 1.30 |
| 3 | L | 1106 | FAD | C5A-C4A | 2.12 | 1.46 | 1.40 |
| 3 | B | 4207 | FAD | C5A-C4A | 2.12 | 1.46 | 1.40 |
| 5 | B | 4210 | SRM | O2B-CCB | -2.12 | 1.23 | 1.30 |
| 5 | L | 1109 | SRM | O2C-CCC | -2.12 | 1.23 | 1.30 |
| 5 | P | 1109 | SRM | O2D-CCD | -2.11 | 1.23 | 1.30 |
| 3 | E | 1106 | FAD | C4X-N5 | 2.10 | 1.34 | 1.30 |
| 5 | B | 4210 | SRM | CHB-C4A | 2.10 | 1.45 | 1.39 |
| 3 | E | 1106 | FAD | C2-N3 | -2.10 | 1.34 | 1.39 |
| 5 | E | 1109 | SRM | O2D-CCD | -2.10 | 1.23 | 1.30 |
| 5 | H | 4410 | SRM | CHB-C4A | 2.10 | 1.45 | 1.39 |
| 5 | K | 1109 | SRM | O2B-CCB | -2.09 | 1.23 | 1.30 |
| 5 | B | 4210 | SRM | O2C-CCC | -2.09 | 1.23 | 1.30 |
| 3 | P | 1106 | FAD | C5A-C4A | 2.09 | 1.46 | 1.40 |
| 3 | C | 3907 | FAD | PA-O2A | -2.08 | 1.45 | 1.55 |
| 5 | N | 1012 | SRM | O2B-CCB | -2.08 | 1.23 | 1.30 |
| 5 | K | 1109 | SRM | O2A-CCA | -2.08 | 1.23 | 1.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 3 | P | 1106 | FAD | C5X-N5 | -2.08 | 1.35 | 1.39 |
| 5 | A | 1109 | SRM | O2A-CCA | -2.08 | 1.23 | 1.30 |
| 5 | F | 1109 | SRM | C4D-ND | -2.07 | 1.31 | 1.36 |
| 5 | P | 1109 | SRM | O2C-CCC | -2.07 | 1.23 | 1.30 |
| 3 | M | 1106 | FAD | C5A-C4A | 2.07 | 1.46 | 1.40 |
| 3 | A | 1106 | FAD | C2-N3 | -2.07 | 1.34 | 1.39 |
| 3 | H | 4407 | FAD | C2-N3 | -2.07 | 1.34 | 1.39 |
| 5 | C | 3910 | SRM | O2B-CCB | -2.06 | 1.23 | 1.30 |
| 3 | C | 3907 | FAD | C5A-C4A | 2.06 | 1.46 | 1.40 |
| 5 | F | 1109 | SRM | O2A-CCA | -2.06 | 1.23 | 1.30 |
| 5 | K | 1109 | SRM | O4C-CEC | -2.06 | 1.23 | 1.30 |
| 5 | L | 1109 | SRM | O4B-CEB | -2.06 | 1.23 | 1.30 |
| 5 | O | 1109 | SRM | CHC-C4B | -2.05 | 1.33 | 1.39 |
| 3 | H | 4407 | FAD | C4X-N5 | 2.05 | 1.34 | 1.30 |
| 5 | P | 1109 | SRM | CHC-C4B | -2.05 | 1.33 | 1.39 |
| 3 | M | 1106 | FAD | C2-N3 | -2.05 | 1.34 | 1.39 |
| 5 | N | 1012 | SRM | O2A-CCA | -2.05 | 1.23 | 1.30 |
| 5 | E | 1109 | SRM | O4B-CEB | -2.03 | 1.23 | 1.30 |
| 5 | G | 1109 | SRM | CHC-C4B | -2.03 | 1.33 | 1.39 |
| 5 | D | 4610 | SRM | C4C-C3C | 2.03 | 1.48 | 1.45 |
| 5 | H | 4410 | SRM | C1D-CHD | 2.03 | 1.46 | 1.41 |
| 5 | I | 1109 | SRM | O2A-CCA | -2.02 | 1.23 | 1.30 |
| 5 | N | 1012 | SRM | C4D-ND | -2.02 | 1.32 | 1.36 |
| 5 | G | 1109 | SRM | CHA-C1A | -2.01 | 1.32 | 1.35 |
| 5 | D | 4610 | SRM | C4B-NB | -2.01 | 1.33 | 1.35 |
| 5 | O | 1109 | SRM | C1A-NA | -2.01 | 1.29 | 1.41 |

All (411) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 5 | O | 1109 | SRM | C3D-CDD-CED | 7.20 | 122.82 | 114.21 |
| 5 | O | 1109 | SRM | C1A-NA-C4A | 6.87 | 113.01 | 105.23 |
| 5 | O | 1109 | SRM | C4C-NC-C1C | 6.76 | 111.97 | 105.35 |
| 5 | F | 1109 | SRM | C2A-C1A-CHA | -5.75 | 118.29 | 123.54 |
| 5 | O | 1109 | SRM | C2A-C1A-CHA | -5.36 | 118.65 | 123.54 |
| 5 | O | 1109 | SRM | CAB-C3B-C4B | 5.24 | 120.44 | 111.19 |
| 5 | L | 1109 | SRM | C2A-C1A-CHA | -5.06 | 118.92 | 123.54 |
| 5 | H | 4410 | SRM | C2A-C1A-CHA | -5.06 | 118.92 | 123.54 |
| 5 | G | 1109 | SRM | C2A-C1A-CHA | -5.05 | 118.93 | 123.54 |
| 5 | N | 1012 | SRM | C2A-C1A-CHA | -4.95 | 119.02 | 123.54 |
| 5 | M | 1109 | SRM | C3D-CDD-CED | 4.89 | 120.06 | 114.21 |
| 5 | K | 1109 | SRM | C2C-C1C-NC | 4.77 | 114.96 | 110.32 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 5 | I | 1109 | SRM | C2C-C1C-NC | 4.66 | 114.86 | 110.32 |
| 5 | C | 3910 | SRM | C2A-C1A-CHA | -4.63 | 119.32 | 123.54 |
| 5 | D | 4610 | SRM | C3C-C4C-NC | 4.49 | 114.69 | 110.32 |
| 5 | M | 1109 | SRM | C2A-C1A-CHA | -4.30 | 119.62 | 123.54 |
| 5 | E | 1109 | SRM | C2A-C1A-CHA | -4.29 | 119.62 | 123.54 |
| 5 | J | 1109 | SRM | C4C-C3C-C2C | -4.25 | 101.94 | 106.86 |
| 5 | A | 1109 | SRM | C2A-C1A-CHA | -4.24 | 119.67 | 123.54 |
| 5 | D | 4610 | SRM | C2A-C1A-CHA | -4.23 | 119.68 | 123.54 |
| 5 | J | 1109 | SRM | C3C-C4C-NC | 4.22 | 114.43 | 110.32 |
| 5 | K | 1109 | SRM | C2A-C1A-CHA | -4.22 | 119.69 | 123.54 |
| 5 | D | 4610 | SRM | C4C-C3C-C2C | -4.21 | 101.98 | 106.86 |
| 5 | D | 4610 | SRM | C2C-C1C-NC | 4.20 | 114.41 | 110.32 |
| 5 | M | 1109 | SRM | C2C-C1C-NC | 4.13 | 114.34 | 110.32 |
| 5 | L | 1109 | SRM | C2C-C1C-NC | 4.10 | 114.31 | 110.32 |
| 5 | I | 1109 | SRM | C3C-C4C-NC | 4.10 | 114.31 | 110.32 |
| 5 | F | 1109 | SRM | C2C-C1C-NC | 4.04 | 114.25 | 110.32 |
| 5 | N | 1012 | SRM | C2C-C1C-NC | 4.02 | 114.23 | 110.32 |
| 5 | B | 4210 | SRM | C2A-C1A-CHA | -4.00 | 119.89 | 123.54 |
| 5 | H | 4410 | SRM | C4C-C3C-C2C | -3.98 | 102.26 | 106.86 |
| 5 | H | 4410 | SRM | CAA-C3A-C4A | 3.96 | 118.18 | 111.19 |
| 5 | O | 1109 | SRM | C4C-C3C-C2C | -3.96 | 102.28 | 106.86 |
| 5 | P | 1109 | SRM | C4C-C3C-C2C | -3.95 | 102.29 | 106.86 |
| 5 | C | 3910 | SRM | C3C-C4C-NC | 3.93 | 114.14 | 110.32 |
| 5 | A | 1109 | SRM | C2C-C1C-NC | 3.91 | 114.13 | 110.32 |
| 5 | B | 4210 | SRM | C3C-C4C-NC | 3.91 | 114.13 | 110.32 |
| 3 | M | 1106 | FAD | C4-C4X-N5 | 3.90 | 123.78 | 118.23 |
| 5 | J | 1109 | SRM | C2C-C1C-NC | 3.88 | 114.10 | 110.32 |
| 5 | B | 4210 | SRM | C4C-C3C-C2C | -3.80 | 102.47 | 106.86 |
| 5 | F | 1109 | SRM | C3C-C4C-NC | 3.79 | 114.02 | 110.32 |
| 5 | O | 1109 | SRM | C3B-C4B-CHC | -3.77 | 115.18 | 123.32 |
| 5 | I | 1109 | SRM | C2A-C1A-CHA | -3.77 | 120.10 | 123.54 |
| 5 | M | 1109 | SRM | C1C-C2C-C3C | -3.76 | 102.51 | 106.86 |
| 5 | P | 1109 | SRM | C3C-C4C-NC | 3.76 | 113.98 | 110.32 |
| 5 | J | 1109 | SRM | C2A-C1A-CHA | -3.72 | 120.14 | 123.54 |
| 5 | N | 1012 | SRM | C1C-C2C-C3C | -3.72 | 102.55 | 106.86 |
| 5 | C | 3910 | SRM | C2C-C1C-NC | 3.71 | 113.94 | 110.32 |
| 5 | I | 1109 | SRM | C1C-C2C-C3C | -3.71 | 102.57 | 106.86 |
| 5 | C | 3910 | SRM | C4C-C3C-C2C | -3.69 | 102.59 | 106.86 |
| 5 | K | 1109 | SRM | C1C-C2C-C3C | -3.67 | 102.62 | 106.86 |
| 5 | K | 1109 | SRM | C3C-C4C-NC | 3.67 | 113.89 | 110.32 |
| 5 | B | 4210 | SRM | C2C-C1C-NC | 3.66 | 113.89 | 110.32 |
| 5 | O | 1109 | SRM | O4C-CEC-O3C | 3.66 | 132.42 | 123.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 5 | G | 1109 | SRM | C3C-C4C-NC | 3.63 | 113.86 | 110.32 |
| 3 | P | 1106 | FAD | C4A-C5A-N7A | -3.63 | 105.61 | 109.40 |
| 5 | F | 1109 | SRM | C4C-C3C-C2C | -3.63 | 102.66 | 106.86 |
| 3 | P | 1106 | FAD | C4-C4X-N5 | 3.63 | 123.40 | 118.23 |
| 5 | G | 1109 | SRM | C4C-C3C-C2C | -3.63 | 102.66 | 106.86 |
| 3 | K | 1106 | FAD | N3A-C2A-N1A | -3.59 | 123.07 | 128.68 |
| 5 | F | 1109 | SRM | C1C-C2C-C3C | -3.57 | 102.72 | 106.86 |
| 5 | P | 1109 | SRM | C2A-C1A-CHA | -3.54 | 120.31 | 123.54 |
| 5 | L | 1109 | SRM | C1C-C2C-C3C | -3.54 | 102.77 | 106.86 |
| 5 | L | 1109 | SRM | C4C-C3C-C2C | -3.53 | 102.78 | 106.86 |
| 5 | P | 1109 | SRM | C2C-C1C-NC | 3.53 | 113.75 | 110.32 |
| 5 | H | 4410 | SRM | C3A-C4A-CHB | -3.51 | 115.75 | 123.32 |
| 5 | A | 1109 | SRM | C3C-C4C-NC | 3.50 | 113.73 | 110.32 |
| 5 | I | 1109 | SRM | C4C-C3C-C2C | -3.50 | 102.81 | 106.86 |
| 5 | M | 1109 | SRM | C3C-C4C-NC | 3.47 | 113.70 | 110.32 |
| 5 | K | 1109 | SRM | C4C-C3C-C2C | -3.47 | 102.85 | 106.86 |
| 5 | E | 1109 | SRM | C3C-C4C-NC | 3.45 | 113.68 | 110.32 |
| 5 | A | 1109 | SRM | C4C-C3C-C2C | -3.45 | 102.87 | 106.86 |
| 5 | A | 1109 | SRM | C1C-C2C-C3C | -3.45 | 102.87 | 106.86 |
| 5 | O | 1109 | SRM | O4D-CED-O3D | 3.45 | 131.89 | 123.30 |
| 5 | H | 4410 | SRM | C2B-C3B-C4B | -3.44 | 96.51 | 100.90 |
| 5 | H | 4410 | SRM | C4A-CHB-C1B | -3.42 | 120.83 | 125.88 |
| 5 | O | 1109 | SRM | C2B-C3B-C4B | -3.39 | 96.56 | 100.90 |
| 5 | H | 4410 | SRM | C3A-C2A-C1A | -3.39 | 95.11 | 100.92 |
| 5 | B | 4210 | SRM | C1C-C2C-C3C | -3.37 | 102.97 | 106.86 |
| 5 | H | 4410 | SRM | C3B-C4B-CHC | -3.37 | 116.06 | 123.32 |
| 5 | E | 1109 | SRM | C4C-C3C-C2C | -3.36 | 102.98 | 106.86 |
| 5 | L | 1109 | SRM | C3C-C4C-NC | 3.35 | 113.58 | 110.32 |
| 5 | O | 1109 | SRM | O3D-CED-CDD | -3.34 | 113.50 | 123.04 |
| 3 | B | 4207 | FAD | N3A-C2A-N1A | -3.33 | 123.47 | 128.68 |
| 5 | H | 4410 | SRM | CAB-C3B-C4B | 3.32 | 117.04 | 111.19 |
| 5 | B | 4210 | SRM | CAC-CBC-CCC | -3.31 | 106.48 | 113.60 |
| 3 | D | 4607 | FAD | N3A-C2A-N1A | -3.30 | 123.52 | 128.68 |
| 3 | F | 1106 | FAD | C4-C4X-N5 | 3.29 | 122.92 | 118.23 |
| 5 | E | 1109 | SRM | C2C-C1C-NC | 3.29 | 113.52 | 110.32 |
| 5 | H | 4410 | SRM | C4C-NC-C1C | 3.29 | 108.57 | 105.35 |
| 3 | C | 3907 | FAD | N3A-C2A-N1A | -3.24 | 123.61 | 128.68 |
| 5 | C | 3910 | SRM | C1C-C2C-C3C | -3.24 | 103.11 | 106.86 |
| 5 | M | 1109 | SRM | CAB-C3B-C4B | 3.24 | 116.90 | 111.19 |
| 3 | A | 1106 | FAD | N3A-C2A-N1A | -3.20 | 123.68 | 128.68 |
| 5 | E | 1109 | SRM | C1C-C2C-C3C | -3.20 | 103.16 | 106.86 |
| 5 | M | 1109 | SRM | C2B-C3B-C4B | -3.20 | 96.81 | 100.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 5 | M | 1109 | SRM | C4C-C3C-C2C | -3.20 | 103.16 | 106.86 |
| 3 | H | 4407 | FAD | N3A-C2A-N1A | -3.19 | 123.69 | 128.68 |
| 5 | G | 1109 | SRM | C1C-C2C-C3C | -3.19 | 103.17 | 106.86 |
| 5 | D | 4610 | SRM | C3D-CDD-CED | 3.19 | 118.02 | 114.21 |
| 3 | P | 1106 | FAD | N3A-C2A-N1A | -3.15 | 123.75 | 128.68 |
| 3 | M | 1106 | FAD | N3A-C2A-N1A | -3.14 | 123.77 | 128.68 |
| 5 | N | 1012 | SRM | C4C-C3C-C2C | -3.12 | 103.25 | 106.86 |
| 5 | N | 1012 | SRM | C3C-C4C-NC | 3.09 | 113.33 | 110.32 |
| 5 | M | 1109 | SRM | O4B-CEB-CDB | 3.09 | 124.27 | 114.35 |
| 5 | H | 4410 | SRM | C1C-C2C-C3C | -3.08 | 103.30 | 106.86 |
| 3 | A | 1106 | FAD | C4-C4X-N5 | 3.06 | 122.59 | 118.23 |
| 3 | F | 1106 | FAD | N3A-C2A-N1A | -3.02 | 123.96 | 128.68 |
| 5 | O | 1109 | SRM | CAA-C3A-C4A | 3.02 | 116.52 | 111.19 |
| 5 | D | 4610 | SRM | C1C-C2C-C3C | -3.00 | 103.39 | 106.86 |
| 5 | H | 4410 | SRM | C2A-C1A-NA | 3.00 | 116.03 | 111.21 |
| 5 | G | 1109 | SRM | C2C-C1C-NC | 2.99 | 113.24 | 110.32 |
| 3 | H | 4407 | FAD | O2-C2-N1 | -2.99 | 116.88 | 121.83 |
| 5 | L | 1109 | SRM | O4B-CEB-CDB | 2.98 | 123.91 | 114.35 |
| 5 | P | 1109 | SRM | C1C-C2C-C3C | -2.97 | 103.42 | 106.86 |
| 3 | O | 1106 | FAD | N3A-C2A-N1A | -2.96 | 124.04 | 128.68 |
| 5 | O | 1109 | SRM | C3A-C2A-C1A | -2.96 | 95.84 | 100.92 |
| 5 | H | 4410 | SRM | CAC-CBC-CCC | -2.96 | 107.24 | 113.60 |
| 3 | L | 1106 | FAD | N3A-C2A-N1A | -2.95 | 124.08 | 128.68 |
| 5 | O | 1109 | SRM | CAA-CBA-CCA | 2.94 | 120.32 | 112.51 |
| 5 | M | 1109 | SRM | C3B-C4B-CHC | -2.92 | 117.02 | 123.32 |
| 3 | E | 1106 | FAD | N3A-C2A-N1A | -2.91 | 124.13 | 128.68 |
| 3 | B | 4207 | FAD | C2A-N1A-C6A | 2.89 | 123.70 | 118.75 |
| 5 | M | 1109 | SRM | O1C-CCC-CBC | -2.89 | 113.78 | 123.08 |
| 5 | G | 1109 | SRM | CAC-CBC-CCC | -2.86 | 107.44 | 113.60 |
| 5 | O | 1109 | SRM | O3B-CEB-CDB | -2.85 | 114.60 | 122.94 |
| 5 | E | 1109 | SRM | CAB-C3B-C4B | 2.85 | 116.22 | 111.19 |
| 3 | H | 4407 | FAD | C4A-C5A-N7A | -2.85 | 106.43 | 109.40 |
| 3 | E | 1106 | FAD | C4-C4X-N5 | 2.85 | 122.28 | 118.23 |
| 5 | H | 4410 | SRM | O4B-CEB-CDB | 2.84 | 123.48 | 114.35 |
| 5 | H | 4410 | SRM | CDA-C2A-C3A | 2.84 | 115.99 | 108.39 |
| 5 | J | 1109 | SRM | CAC-CBC-CCC | -2.83 | 107.51 | 113.60 |
| 5 | F | 1109 | SRM | O4B-CEB-CDB | 2.82 | 123.42 | 114.35 |
| 5 | J | 1109 | SRM | C1C-C2C-C3C | -2.82 | 103.60 | 106.86 |
| 3 | K | 1106 | FAD | C4-C4X-N5 | 2.82 | 122.25 | 118.23 |
| 3 | D | 4607 | FAD | C5X-C9A-N10 | 2.81 | 120.86 | 117.95 |
| 5 | M | 1109 | SRM | C3A-C2A-C1A | -2.79 | 96.14 | 100.92 |
| 5 | O | 1109 | SRM | CDA-C2A-C1A | 2.78 | 115.87 | 107.12 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 3 | J | 1106 | FAD | N3A-C2A-N1A | -2.77 | 124.34 | 128.68 |
| 3 | O | 1106 | FAD | C4-C4X-N5 | 2.77 | 122.18 | 118.23 |
| 5 | H | 4410 | SRM | O1C-CCC-CBC | -2.77 | 114.18 | 123.08 |
| 5 | C | 3910 | SRM | O4B-CEB-CDB | 2.76 | 123.22 | 114.35 |
| 5 | M | 1109 | SRM | C3A-C4A-CHB | -2.75 | 117.38 | 123.32 |
| 5 | A | 1109 | SRM | CAC-CBC-CCC | -2.75 | 107.69 | 113.60 |
| 3 | F | 1106 | FAD | C4A-C5A-N7A | -2.74 | 106.55 | 109.40 |
| 5 | H | 4410 | SRM | C2C-C1C-NC | 2.74 | 112.98 | 110.32 |
| 3 | H | 4407 | FAD | O4-C4-C4X | -2.72 | 119.39 | 126.60 |
| 5 | G | 1109 | SRM | C4A-CHB-C1B | -2.70 | 121.89 | 125.88 |
| 5 | E | 1109 | SRM | O4B-CEB-CDB | 2.70 | 123.03 | 114.35 |
| 5 | G | 1109 | SRM | O4B-CEB-CDB | 2.69 | 123.00 | 114.35 |
| 3 | J | 1106 | FAD | C5X-C9A-N10 | 2.69 | 120.73 | 117.95 |
| 5 | I | 1109 | SRM | O4B-CEB-CDB | 2.69 | 122.99 | 114.35 |
| 3 | D | 4607 | FAD | C2A-N1A-C6A | 2.66 | 123.30 | 118.75 |
| 5 | O | 1109 | SRM | CDD-C3D-C4D | 2.66 | 131.39 | 127.36 |
| 3 | L | 1106 | FAD | C4X-C10-N1 | -2.65 | 118.58 | 124.73 |
| 5 | H | 4410 | SRM | C3C-C4C-NC | 2.64 | 112.89 | 110.32 |
| 3 | F | 1106 | FAD | C4X-C10-N1 | -2.64 | 118.61 | 124.73 |
| 5 | B | 4210 | SRM | O4B-CEB-CDB | 2.63 | 122.81 | 114.35 |
| 5 | D | 4610 | SRM | O4B-CEB-CDB | 2.63 | 122.81 | 114.35 |
| 5 | B | 4210 | SRM | CHC-C1C-NC | -2.63 | 121.60 | 124.44 |
| 5 | G | 1109 | SRM | CBD-CAD-C2D | -2.62 | 108.15 | 112.62 |
| 5 | D | 4610 | SRM | C2B-C3B-C4B | -2.62 | 97.55 | 100.90 |
| 3 | O | 1106 | FAD | O4B-C1B-C2B | -2.61 | 103.11 | 106.93 |
| 3 | A | 1106 | FAD | O4-C4-C4X | -2.61 | 119.68 | 126.60 |
| 3 | C | 3907 | FAD | O4-C4-C4X | -2.61 | 119.69 | 126.60 |
| 5 | C | 3910 | SRM | C2B-C3B-C4B | -2.60 | 97.58 | 100.90 |
| 3 | L | 1106 | FAD | O4-C4-C4X | -2.59 | 119.73 | 126.60 |
| 3 | P | 1106 | FAD | O2-C2-N1 | -2.58 | 117.55 | 121.83 |
| 5 | L | 1109 | SRM | C2B-C3B-C4B | -2.58 | 97.60 | 100.90 |
| 5 | C | 3910 | SRM | C3B-C4B-CHC | -2.58 | 117.75 | 123.32 |
| 5 | L | 1109 | SRM | C4D-CHA-C1A | -2.58 | 125.00 | 130.12 |
| 5 | H | 4410 | SRM | C3A-C4A-NA | 2.58 | 115.91 | 110.85 |
| 5 | F | 1109 | SRM | C3A-C2A-C1A | -2.57 | 96.51 | 100.92 |
| 5 | F | 1109 | SRM | CAB-C3B-C4B | 2.57 | 115.72 | 111.19 |
| 3 | D | 4607 | FAD | C4-C4X-N5 | 2.57 | 121.88 | 118.23 |
| 5 | D | 4610 | SRM | CAC-CBC-CCC | -2.57 | 108.08 | 113.60 |
| 5 | E | 1109 | SRM | C2B-C3B-C4B | -2.56 | 97.63 | 100.90 |
| 5 | E | 1109 | SRM | C4D-CHA-C1A | -2.56 | 125.05 | 130.12 |
| 5 | P | 1109 | SRM | C4A-CHB-C1B | -2.56 | 122.11 | 125.88 |
| 5 | N | 1012 | SRM | CAC-CBC-CCC | -2.55 | 108.12 | 113.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 5 | P | 1109 | SRM | CHC-C1C-NC | -2.54 | 121.69 | 124.44 |
| 5 | A | 1109 | SRM | CBD-CAD-C2D | -2.54 | 108.29 | 112.62 |
| 5 | H | 4410 | SRM | C3D-CDD-CED | 2.54 | 117.25 | 114.21 |
| 5 | A | 1109 | SRM | C3B-C4B-CHC | -2.53 | 117.85 | 123.32 |
| 5 | G | 1109 | SRM | C3A-C2A-C1A | -2.53 | 96.58 | 100.92 |
| 5 | D | 4610 | SRM | O3B-CEB-CDB | -2.53 | 115.55 | 122.94 |
| 5 | A | 1109 | SRM | CDA-C2A-C3A | 2.53 | 115.16 | 108.39 |
| 3 | H | 4407 | FAD | C4-C4X-N5 | 2.52 | 121.82 | 118.23 |
| 5 | K | 1109 | SRM | O4B-CEB-CDB | 2.52 | 122.45 | 114.35 |
| 3 | E | 1106 | FAD | C4X-C10-N1 | -2.51 | 118.89 | 124.73 |
| 5 | I | 1109 | SRM | CHC-C1C-NC | -2.51 | 121.72 | 124.44 |
| 5 | C | 3910 | SRM | CDA-C2A-C3A | 2.51 | 115.11 | 108.39 |
| 5 | M | 1109 | SRM | CAC-C3C-C4C | 2.50 | 129.61 | 124.89 |
| 5 | E | 1109 | SRM | C3A-C4A-NA | 2.50 | 115.76 | 110.85 |
| 5 | O | 1109 | SRM | C3B-C4B-NB | 2.50 | 115.76 | 110.85 |
| 5 | A | 1109 | SRM | O4B-CEB-CDB | 2.49 | 122.34 | 114.35 |
| 5 | K | 1109 | SRM | C3D-CDD-CED | 2.49 | 117.19 | 114.21 |
| 3 | B | 4207 | FAD | C4-C4X-N5 | 2.49 | 121.77 | 118.23 |
| 5 | F | 1109 | SRM | C3B-C4B-CHC | -2.48 | 117.96 | 123.32 |
| 3 | H | 4407 | FAD | C4X-C10-N1 | -2.48 | 118.97 | 124.73 |
| 5 | A | 1109 | SRM | C3A-C2A-C1A | -2.48 | 96.66 | 100.92 |
| 3 | K | 1106 | FAD | O4-C4-C4X | -2.47 | 120.04 | 126.60 |
| 5 | B | 4210 | SRM | C3A-C4A-NA | 2.47 | 115.70 | 110.85 |
| 3 | A | 1106 | FAD | C4A-C5A-N7A | -2.46 | 106.83 | 109.40 |
| 5 | O | 1109 | SRM | C3A-C4A-CHB | -2.46 | 118.01 | 123.32 |
| 3 | J | 1106 | FAD | C4X-C10-N1 | -2.45 | 119.04 | 124.73 |
| 5 | B | 4210 | SRM | C2B-C3B-C4B | -2.44 | 97.78 | 100.90 |
| 3 | D | 4607 | FAD | C4X-C10-N1 | -2.44 | 119.08 | 124.73 |
| 5 | K | 1109 | SRM | CHC-C1C-NC | -2.43 | 121.81 | 124.44 |
| 5 | M | 1109 | SRM | O4D-CED-O3D | 2.43 | 129.35 | 123.30 |
| 5 | E | 1109 | SRM | C3A-C4A-CHB | -2.42 | 118.09 | 123.32 |
| 3 | E | 1106 | FAD | C10-N1-C2 | 2.42 | 121.75 | 116.90 |
| 3 | B | 4207 | FAD | C4X-C10-N1 | -2.42 | 119.11 | 124.73 |
| 5 | O | 1109 | SRM | O3C-CEC-CDC | -2.42 | 115.02 | 122.08 |
| 5 | E | 1109 | SRM | CHC-C1C-NC | -2.41 | 121.83 | 124.44 |
| 5 | P | 1109 | SRM | O4B-CEB-CDB | 2.41 | 122.09 | 114.35 |
| 5 | G | 1109 | SRM | CAB-C3B-C4B | 2.41 | 115.44 | 111.19 |
| 5 | A | 1109 | SRM | C4A-CHB-C1B | -2.40 | 122.33 | 125.88 |
| 3 | E | 1106 | FAD | C4A-C5A-N7A | -2.40 | 106.90 | 109.40 |
| 5 | F | 1109 | SRM | CAA-C3A-C4A | 2.39 | 115.41 | 111.19 |
| 5 | F | 1109 | SRM | CDA-C2A-C3A | 2.39 | 114.80 | 108.39 |
| 3 | P | 1106 | FAD | C4X-C10-N1 | -2.39 | 119.18 | 124.73 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|---------|------|-------------|-------|-------------|----------|
| 3 | O | 1106 | FAD | O4-C4-C4X | -2.39 | 120.25 | 126.60 |
| 5 | M | 1109 | SRM | CAC-CBC-CCC | -2.39 | 108.46 | 113.60 |
| 3 | F | 1106 | FAD | C10-N1-C2 | 2.39 | 121.68 | 116.90 |
| 5 | P | 1109 | SRM | C3D-CDD-CED | 2.38 | 117.06 | 114.21 |
| 5 | D | 4610 | SRM | CHC-C1C-NC | -2.37 | 121.87 | 124.44 |
| 5 | O | 1109 | SRM | CDB-C2B-C3B | 2.37 | 114.74 | 108.39 |
| 5 | N | 1012 | SRM | O4B-CEB-CDB | 2.37 | 121.96 | 114.35 |
| 5 | A | 1109 | SRM | C2B-C3B-C4B | -2.37 | 97.87 | 100.90 |
| 3 | J | 1106 | FAD | C4-C4X-N5 | 2.36 | 121.59 | 118.23 |
| 5 | L | 1109 | SRM | C3B-C4B-CHC | -2.36 | 118.22 | 123.32 |
| 5 | B | 4210 | SRM | CAB-C3B-C4B | 2.36 | 115.36 | 111.19 |
| 5 | E | 1109 | SRM | C3D-CDD-CED | 2.36 | 117.03 | 114.21 |
| 5 | B | 4210 | SRM | CDA-C2A-C3A | 2.36 | 114.70 | 108.39 |
| 5 | O | 1109 | SRM | CHC-C1C-NC | 2.35 | 126.98 | 124.44 |
| 5 | I | 1109 | SRM | C3A-C4A-NA | 2.35 | 115.47 | 110.85 |
| 3 | H | 4407 | FAD | C2A-N1A-C6A | 2.35 | 122.77 | 118.75 |
| 5 | A | 1109 | SRM | O3D-CED-CDD | -2.35 | 116.33 | 123.04 |
| 5 | P | 1109 | SRM | C3A-C4A-NA | 2.35 | 115.46 | 110.85 |
| 3 | A | 1106 | FAD | C2A-N1A-C6A | 2.35 | 122.77 | 118.75 |
| 5 | N | 1012 | SRM | CBD-CAD-C2D | -2.34 | 108.62 | 112.62 |
| 3 | D | 4607 | FAD | O4-C4-C4X | -2.34 | 120.39 | 126.60 |
| 5 | I | 1109 | SRM | CAC-CBC-CCC | -2.34 | 108.57 | 113.60 |
| 3 | L | 1106 | FAD | C4A-C5A-N7A | -2.34 | 106.96 | 109.40 |
| 5 | D | 4610 | SRM | C4D-CHA-C1A | -2.34 | 125.49 | 130.12 |
| 3 | C | 3907 | FAD | C5X-C9A-N10 | 2.34 | 120.37 | 117.95 |
| 5 | C | 3910 | SRM | CAC-CBC-CCC | -2.34 | 108.58 | 113.60 |
| 5 | P | 1109 | SRM | CBD-CAD-C2D | -2.33 | 108.64 | 112.62 |
| 5 | E | 1109 | SRM | C3B-C4B-CHC | -2.33 | 118.28 | 123.32 |
| 3 | P | 1106 | FAD | C10-N1-C2 | 2.33 | 121.56 | 116.90 |
| 5 | B | 4210 | SRM | C4D-CHA-C1A | -2.33 | 125.51 | 130.12 |
| 3 | H | 4407 | FAD | C10-N1-C2 | 2.32 | 121.55 | 116.90 |
| 3 | A | 1106 | FAD | C10-N1-C2 | 2.32 | 121.54 | 116.90 |
| 3 | M | 1106 | FAD | C10-N1-C2 | 2.32 | 121.54 | 116.90 |
| 3 | A | 1106 | FAD | N6A-C6A-N1A | 2.32 | 123.38 | 118.57 |
| 3 | F | 1106 | FAD | C4X-C10-N10 | 2.32 | 119.87 | 116.48 |
| 3 | N | 1001[A] | FAD | C5A-C6A-N6A | 2.32 | 123.87 | 120.35 |
| 3 | L | 1106 | FAD | C4-C4X-N5 | 2.31 | 121.53 | 118.23 |
| 3 | J | 1106 | FAD | C9A-N10-C10 | -2.31 | 117.16 | 120.77 |
| 5 | G | 1109 | SRM | C2B-C3B-C4B | -2.31 | 97.94 | 100.90 |
| 5 | N | 1012 | SRM | C4A-CHB-C1B | -2.31 | 122.48 | 125.88 |
| 5 | P | 1109 | SRM | C3B-C4B-CHC | -2.31 | 118.34 | 123.32 |
| 5 | K | 1109 | SRM | CDA-C2A-C3A | 2.30 | 114.55 | 108.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|---------|------|-------------|-------|-------------|----------|
| 3 | I | 1106 | FAD | C5A-C6A-N6A | 2.30 | 123.84 | 120.35 |
| 5 | M | 1109 | SRM | O3D-CED-CDD | -2.30 | 116.48 | 123.04 |
| 3 | P | 1106 | FAD | O4-C4-C4X | -2.30 | 120.51 | 126.60 |
| 3 | C | 3907 | FAD | C4X-C10-N1 | -2.29 | 119.41 | 124.73 |
| 5 | G | 1109 | SRM | CDA-C2A-C3A | 2.29 | 114.53 | 108.39 |
| 5 | B | 4210 | SRM | C3A-C2A-C1A | -2.29 | 96.99 | 100.92 |
| 5 | H | 4410 | SRM | O3B-CEB-CDB | -2.29 | 116.25 | 122.94 |
| 5 | O | 1109 | SRM | CMA-C2A-CDA | -2.29 | 107.03 | 110.80 |
| 5 | P | 1109 | SRM | C2B-C3B-C4B | -2.29 | 97.98 | 100.90 |
| 3 | O | 1106 | FAD | C4X-C10-N1 | -2.29 | 119.42 | 124.73 |
| 5 | L | 1109 | SRM | O3B-CEB-CDB | -2.28 | 116.29 | 122.94 |
| 5 | C | 3910 | SRM | C3A-C4A-NA | 2.27 | 115.32 | 110.85 |
| 5 | F | 1109 | SRM | C2A-C1A-NA | 2.27 | 114.86 | 111.21 |
| 5 | P | 1109 | SRM | C3A-C4A-CHB | -2.27 | 118.42 | 123.32 |
| 5 | C | 3910 | SRM | C3A-C4A-CHB | -2.27 | 118.43 | 123.32 |
| 5 | K | 1109 | SRM | C3B-C4B-CHC | -2.27 | 118.43 | 123.32 |
| 5 | I | 1109 | SRM | C3B-C4B-CHC | -2.27 | 118.43 | 123.32 |
| 5 | O | 1109 | SRM | CDA-C2A-C3A | 2.27 | 114.46 | 108.39 |
| 5 | L | 1109 | SRM | C3A-C2A-C1A | -2.26 | 97.04 | 100.92 |
| 5 | D | 4610 | SRM | CAB-C3B-C4B | 2.26 | 115.18 | 111.19 |
| 3 | H | 4407 | FAD | C4X-C10-N10 | 2.26 | 119.78 | 116.48 |
| 3 | N | 1009[B] | FAD | C5A-C6A-N6A | 2.26 | 123.78 | 120.35 |
| 5 | I | 1109 | SRM | C3A-C2A-C1A | -2.26 | 97.05 | 100.92 |
| 5 | D | 4610 | SRM | C3B-C4B-CHC | -2.25 | 118.46 | 123.32 |
| 5 | L | 1109 | SRM | CBD-CAD-C2D | -2.25 | 108.78 | 112.62 |
| 5 | M | 1109 | SRM | O3C-CEC-CDC | -2.24 | 115.52 | 122.08 |
| 5 | O | 1109 | SRM | CAC-CBC-CCC | -2.24 | 108.77 | 113.60 |
| 3 | K | 1106 | FAD | C4A-C5A-N7A | -2.24 | 107.06 | 109.40 |
| 3 | J | 1106 | FAD | C4A-C5A-N7A | -2.24 | 107.06 | 109.40 |
| 5 | I | 1109 | SRM | C2B-C3B-C4B | -2.24 | 98.04 | 100.90 |
| 5 | N | 1012 | SRM | O3D-CED-CDD | -2.24 | 116.65 | 123.04 |
| 5 | H | 4410 | SRM | CMB-C2B-CDB | -2.24 | 107.11 | 110.80 |
| 5 | A | 1109 | SRM | CAC-C3C-C4C | 2.24 | 129.11 | 124.89 |
| 3 | B | 4207 | FAD | O4-C4-C4X | -2.24 | 120.67 | 126.60 |
| 5 | N | 1012 | SRM | C3A-C4A-NA | 2.24 | 115.24 | 110.85 |
| 3 | F | 1106 | FAD | O4-C4-C4X | -2.23 | 120.67 | 126.60 |
| 5 | L | 1109 | SRM | C3A-C4A-NA | 2.23 | 115.23 | 110.85 |
| 5 | C | 3910 | SRM | C4A-CHB-C1B | -2.23 | 122.59 | 125.88 |
| 3 | P | 1106 | FAD | C4X-C10-N10 | 2.22 | 119.73 | 116.48 |
| 5 | B | 4210 | SRM | C3B-C4B-CHC | -2.22 | 118.52 | 123.32 |
| 5 | K | 1109 | SRM | C3A-C2A-C1A | -2.22 | 97.11 | 100.92 |
| 5 | E | 1109 | SRM | O3D-CED-CDD | -2.22 | 116.72 | 123.04 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 5 | N | 1012 | SRM | C3B-C4B-CHC | -2.21 | 118.55 | 123.32 |
| 5 | J | 1109 | SRM | CAA-C3A-C4A | 2.21 | 115.08 | 111.19 |
| 5 | N | 1012 | SRM | C3A-C2A-C1A | -2.20 | 97.14 | 100.92 |
| 5 | C | 3910 | SRM | CAB-C3B-C4B | 2.20 | 115.07 | 111.19 |
| 5 | M | 1109 | SRM | C4A-CHB-C1B | -2.20 | 122.64 | 125.88 |
| 3 | F | 1106 | FAD | O2-C2-N1 | -2.20 | 118.19 | 121.83 |
| 5 | O | 1109 | SRM | CMB-C2B-CDB | -2.19 | 107.19 | 110.80 |
| 3 | M | 1106 | FAD | C4X-C10-N1 | -2.19 | 119.65 | 124.73 |
| 5 | D | 4610 | SRM | CDA-C2A-C3A | 2.19 | 114.26 | 108.39 |
| 3 | D | 4607 | FAD | C10-N1-C2 | 2.19 | 121.28 | 116.90 |
| 5 | J | 1109 | SRM | C3A-C4A-NA | 2.19 | 115.15 | 110.85 |
| 5 | M | 1109 | SRM | CAA-C3A-C4A | 2.19 | 115.05 | 111.19 |
| 5 | O | 1109 | SRM | CBC-CAC-C3C | 2.19 | 118.70 | 112.63 |
| 5 | P | 1109 | SRM | CAA-C3A-C4A | 2.19 | 115.05 | 111.19 |
| 3 | D | 4607 | FAD | C9A-C5X-N5 | -2.18 | 120.06 | 122.43 |
| 5 | F | 1109 | SRM | O3B-CEB-CDB | -2.18 | 116.56 | 122.94 |
| 3 | C | 3907 | FAD | C2A-N1A-C6A | 2.17 | 122.47 | 118.75 |
| 5 | K | 1109 | SRM | CAC-CBC-CCC | -2.17 | 108.93 | 113.60 |
| 5 | O | 1109 | SRM | O1C-CCC-CBC | -2.17 | 116.11 | 123.08 |
| 5 | G | 1109 | SRM | C3B-C4B-CHC | -2.17 | 118.64 | 123.32 |
| 5 | K | 1109 | SRM | C2B-C3B-C4B | -2.17 | 98.13 | 100.90 |
| 3 | D | 4607 | FAD | C4A-C5A-N7A | -2.16 | 107.14 | 109.40 |
| 3 | J | 1106 | FAD | O2-C2-N1 | -2.16 | 118.24 | 121.83 |
| 5 | K | 1109 | SRM | O3B-CEB-CDB | -2.16 | 116.62 | 122.94 |
| 5 | O | 1109 | SRM | CHB-C4A-NA | 2.16 | 130.07 | 124.61 |
| 5 | C | 3910 | SRM | CAA-C3A-C4A | 2.16 | 115.00 | 111.19 |
| 5 | L | 1109 | SRM | CDA-C2A-C3A | 2.16 | 114.17 | 108.39 |
| 5 | O | 1109 | SRM | C2B-C1B-CHB | -2.15 | 121.57 | 123.54 |
| 5 | E | 1109 | SRM | O3B-CEB-CDB | -2.15 | 116.65 | 122.94 |
| 5 | H | 4410 | SRM | O2A-CCA-CBA | 2.15 | 120.93 | 114.03 |
| 5 | K | 1109 | SRM | C4D-CHA-C1A | -2.14 | 125.87 | 130.12 |
| 5 | H | 4410 | SRM | C4D-CHA-C1A | -2.14 | 125.88 | 130.12 |
| 5 | K | 1109 | SRM | C3A-C4A-CHB | -2.14 | 118.70 | 123.32 |
| 3 | M | 1106 | FAD | O2-C2-N1 | -2.14 | 118.29 | 121.83 |
| 3 | L | 1106 | FAD | C4X-C4-N3 | 2.14 | 118.62 | 113.19 |
| 5 | J | 1109 | SRM | C3A-C2A-C1A | -2.13 | 97.26 | 100.92 |
| 3 | M | 1106 | FAD | O4-C4-C4X | -2.13 | 120.95 | 126.60 |
| 5 | J | 1109 | SRM | C3B-C4B-CHC | -2.13 | 118.73 | 123.32 |
| 5 | J | 1109 | SRM | C4D-CHA-C1A | -2.13 | 125.90 | 130.12 |
| 5 | L | 1109 | SRM | O1C-CCC-CBC | -2.12 | 116.26 | 123.08 |
| 5 | O | 1109 | SRM | C4D-CHA-C1A | -2.12 | 125.92 | 130.12 |
| 5 | F | 1109 | SRM | C2B-C3B-C4B | -2.12 | 98.19 | 100.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 5 | M | 1109 | SRM | CMA-C2A-CDA | -2.12 | 107.31 | 110.80 |
| 5 | I | 1109 | SRM | CAB-C3B-C4B | 2.12 | 114.93 | 111.19 |
| 3 | E | 1106 | FAD | C4X-C10-N10 | 2.12 | 119.57 | 116.48 |
| 5 | J | 1109 | SRM | CHC-C1C-NC | -2.11 | 122.15 | 124.44 |
| 3 | J | 1106 | FAD | O4-C4-C4X | -2.11 | 120.99 | 126.60 |
| 3 | D | 4607 | FAD | C9A-N10-C10 | -2.11 | 117.47 | 120.77 |
| 5 | M | 1109 | SRM | O3B-CEB-CDB | -2.11 | 116.78 | 122.94 |
| 5 | B | 4210 | SRM | O3D-CED-CDD | -2.11 | 117.03 | 123.04 |
| 5 | F | 1109 | SRM | O1C-CCC-CBC | -2.10 | 116.33 | 123.08 |
| 5 | K | 1109 | SRM | CBD-CAD-C2D | -2.10 | 109.03 | 112.62 |
| 5 | H | 4410 | SRM | O3D-CED-CDD | -2.10 | 117.05 | 123.04 |
| 3 | D | 4607 | FAD | C9-C9A-N10 | -2.10 | 119.00 | 121.84 |
| 5 | A | 1109 | SRM | C3A-C4A-CHB | -2.09 | 118.80 | 123.32 |
| 5 | N | 1012 | SRM | C2A-C1A-NA | 2.09 | 114.57 | 111.21 |
| 5 | E | 1109 | SRM | C4A-CHB-C1B | -2.09 | 122.80 | 125.88 |
| 3 | E | 1106 | FAD | O2-C2-N1 | -2.09 | 118.37 | 121.83 |
| 5 | N | 1012 | SRM | O3B-CEB-CDB | -2.08 | 116.86 | 122.94 |
| 5 | E | 1109 | SRM | CBD-CAD-C2D | -2.08 | 109.07 | 112.62 |
| 3 | P | 1106 | FAD | C3B-C2B-C1B | 2.08 | 104.11 | 100.98 |
| 5 | L | 1109 | SRM | O3D-CED-CDD | -2.08 | 117.11 | 123.04 |
| 3 | F | 1106 | FAD | C4X-C4-N3 | 2.08 | 118.46 | 113.19 |
| 5 | F | 1109 | SRM | C3D-CDD-CED | 2.08 | 116.69 | 114.21 |
| 5 | E | 1109 | SRM | C3A-C2A-C1A | -2.08 | 97.36 | 100.92 |
| 5 | D | 4610 | SRM | CAA-CBA-CCA | 2.07 | 118.01 | 112.51 |
| 3 | C | 3907 | FAD | C4-C4X-N5 | 2.07 | 121.18 | 118.23 |
| 3 | M | 1106 | FAD | N6A-C6A-N1A | 2.07 | 122.87 | 118.57 |
| 5 | G | 1109 | SRM | C2A-C1A-NA | 2.07 | 114.53 | 111.21 |
| 3 | C | 3907 | FAD | C9A-C5X-N5 | -2.07 | 120.19 | 122.43 |
| 3 | F | 1106 | FAD | C2A-N1A-C6A | 2.06 | 122.28 | 118.75 |
| 5 | E | 1109 | SRM | O1C-CCC-CBC | -2.06 | 116.46 | 123.08 |
| 3 | F | 1106 | FAD | C10-C4X-N5 | -2.06 | 120.48 | 124.86 |
| 5 | D | 4610 | SRM | C3A-C4A-CHB | -2.06 | 118.87 | 123.32 |
| 3 | K | 1106 | FAD | C2A-N1A-C6A | 2.06 | 122.27 | 118.75 |
| 3 | K | 1106 | FAD | C4X-C10-N1 | -2.06 | 119.96 | 124.73 |
| 5 | K | 1109 | SRM | C3A-C4A-NA | 2.05 | 114.88 | 110.85 |
| 3 | L | 1106 | FAD | C2A-N1A-C6A | 2.05 | 122.25 | 118.75 |
| 3 | D | 4607 | FAD | C4X-C4-N3 | 2.05 | 118.39 | 113.19 |
| 5 | C | 3910 | SRM | CHC-C1C-NC | -2.04 | 122.23 | 124.44 |
| 5 | M | 1109 | SRM | C3A-C4A-NA | 2.04 | 114.86 | 110.85 |
| 5 | G | 1109 | SRM | O3D-CED-CDD | -2.04 | 117.22 | 123.04 |
| 3 | H | 4407 | FAD | C4X-C4-N3 | 2.04 | 118.37 | 113.19 |
| 3 | K | 1106 | FAD | C10-N1-C2 | 2.04 | 120.98 | 116.90 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|---------|------|-------------|-------|-------------|----------|
| 5 | N | 1012 | SRM | C3D-CDD-CED | 2.04 | 116.65 | 114.21 |
| 5 | A | 1109 | SRM | C3B-C4B-NB | 2.04 | 114.86 | 110.85 |
| 3 | J | 1106 | FAD | C4X-C10-N10 | 2.04 | 119.46 | 116.48 |
| 5 | N | 1012 | SRM | C3A-C4A-CHB | -2.04 | 118.93 | 123.32 |
| 5 | O | 1109 | SRM | CHD-C4C-NC | 2.03 | 126.63 | 124.43 |
| 3 | L | 1106 | FAD | C10-N1-C2 | 2.03 | 120.97 | 116.90 |
| 5 | B | 4210 | SRM | O1C-CCC-CBC | -2.03 | 116.56 | 123.08 |
| 3 | H | 4407 | FAD | C4-N3-C2 | -2.02 | 121.91 | 125.64 |
| 3 | P | 1106 | FAD | C4X-C4-N3 | 2.02 | 118.32 | 113.19 |
| 3 | B | 4207 | FAD | C10-N1-C2 | 2.02 | 120.94 | 116.90 |
| 3 | O | 1106 | FAD | C3B-C2B-C1B | 2.02 | 104.02 | 100.98 |
| 5 | M | 1109 | SRM | C2A-C1A-NA | 2.02 | 114.45 | 111.21 |
| 5 | M | 1109 | SRM | C4D-CHA-C1A | -2.01 | 126.13 | 130.12 |
| 5 | H | 4410 | SRM | CHC-C4B-NB | 2.01 | 129.69 | 124.61 |
| 5 | N | 1012 | SRM | C4D-CHA-C1A | -2.01 | 126.14 | 130.12 |
| 3 | N | 1001[A] | FAD | C4-N3-C2 | -2.01 | 121.93 | 125.64 |
| 5 | J | 1109 | SRM | O4B-CEB-CDB | 2.01 | 120.80 | 114.35 |
| 5 | H | 4410 | SRM | CAB-CBB-CCB | 2.01 | 117.83 | 112.51 |
| 5 | O | 1109 | SRM | C1C-CHC-C4B | -2.00 | 121.79 | 126.62 |
| 3 | G | 1106 | FAD | C5A-C6A-N6A | 2.00 | 123.40 | 120.35 |
| 3 | D | 4607 | FAD | N6A-C6A-N1A | 2.00 | 122.73 | 118.57 |

All (16) chirality outliers are listed below:

| Mol | Chain | Res | Type | Atom |
|-----|-------|------|------|------|
| 5 | A | 1109 | SRM | NC |
| 5 | B | 4210 | SRM | NC |
| 5 | C | 3910 | SRM | NC |
| 5 | D | 4610 | SRM | NC |
| 5 | E | 1109 | SRM | NC |
| 5 | F | 1109 | SRM | NC |
| 5 | G | 1109 | SRM | NC |
| 5 | H | 4410 | SRM | NC |
| 5 | I | 1109 | SRM | NC |
| 5 | J | 1109 | SRM | NC |
| 5 | K | 1109 | SRM | NC |
| 5 | L | 1109 | SRM | NC |
| 5 | M | 1109 | SRM | NC |
| 5 | N | 1012 | SRM | NC |
| 5 | O | 1109 | SRM | NC |
| 5 | P | 1109 | SRM | NC |

All (353) torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms |
|-----|-------|---------|------|-----------------|
| 3 | N | 1001[A] | FAD | C2'-C3'-C4'-C5' |
| 3 | N | 1001[A] | FAD | O3'-C3'-C4'-C5' |
| 3 | N | 1001[A] | FAD | C5'-O5'-P-O3P |
| 4 | J | 1110 | EDO | O1-C1-C2-O2 |
| 5 | N | 1012 | SRM | C2C-C3C-CAC-CBC |
| 5 | O | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | O | 1109 | SRM | C4C-C3C-CAC-CBC |
| 9 | B | 4218[B] | GOL | O1-C1-C2-C3 |
| 9 | B | 4224 | GOL | C1-C2-C3-O3 |
| 9 | B | 4224 | GOL | O2-C2-C3-O3 |
| 9 | C | 3901 | GOL | C1-C2-C3-O3 |
| 9 | C | 3913 | GOL | C1-C2-C3-O3 |
| 9 | C | 3913 | GOL | O2-C2-C3-O3 |
| 9 | E | 1114 | GOL | O2-C2-C3-O3 |
| 9 | I | 1117 | GOL | O1-C1-C2-O2 |
| 9 | I | 1117 | GOL | O1-C1-C2-C3 |
| 9 | J | 1114 | GOL | O1-C1-C2-O2 |
| 9 | J | 1114 | GOL | O1-C1-C2-C3 |
| 9 | J | 1117[A] | GOL | C1-C2-C3-O3 |
| 9 | O | 1116 | GOL | O1-C1-C2-C3 |
| 9 | O | 1116 | GOL | C1-C2-C3-O3 |
| 12 | H | 4401 | TRS | N-C-C2-O2 |
| 12 | I | 1119 | TRS | N-C-C1-O1 |
| 11 | K | 1115 | PEG | C1-C2-O2-C3 |
| 5 | B | 4210 | SRM | C2C-C3C-CAC-CBC |
| 5 | H | 4410 | SRM | C2C-C3C-CAC-CBC |
| 5 | I | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | J | 1109 | SRM | C2C-C3C-CAC-CBC |
| 11 | D | 4601 | PEG | C1-C2-O2-C3 |
| 5 | B | 4210 | SRM | C4C-C3C-CAC-CBC |
| 5 | C | 3910 | SRM | C4C-C3C-CAC-CBC |
| 5 | I | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | J | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | N | 1012 | SRM | C4C-C3C-CAC-CBC |
| 11 | M | 1115 | PEG | O1-C1-C2-O2 |
| 5 | G | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | H | 4410 | SRM | C2A-C3A-CAA-CBA |
| 5 | N | 1012 | SRM | C2A-C3A-CAA-CBA |
| 3 | N | 1001[A] | FAD | O3'-C3'-C4'-O4' |
| 5 | B | 4210 | SRM | C4A-C3A-CAA-CBA |
| 5 | E | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | G | 1109 | SRM | C4A-C3A-CAA-CBA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|---------|------|-----------------|
| 5 | L | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | M | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | F | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | K | 1109 | SRM | C2C-C3C-CAC-CBC |
| 3 | N | 1001[A] | FAD | C2'-C3'-C4'-O4' |
| 5 | A | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | D | 4610 | SRM | C4C-C3C-CAC-CBC |
| 5 | F | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | G | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | H | 4410 | SRM | C4C-C3C-CAC-CBC |
| 5 | K | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | L | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | P | 1109 | SRM | C4C-C3C-CAC-CBC |
| 5 | A | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | C | 3910 | SRM | C2C-C3C-CAC-CBC |
| 5 | E | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | G | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | L | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | M | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | P | 1109 | SRM | C2C-C3C-CAC-CBC |
| 5 | A | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | B | 4210 | SRM | C2A-C3A-CAA-CBA |
| 5 | E | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | L | 1109 | SRM | C2A-C3A-CAA-CBA |
| 9 | I | 1117 | GOL | O2-C2-C3-O3 |
| 5 | A | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | D | 4610 | SRM | C4A-C3A-CAA-CBA |
| 5 | H | 4410 | SRM | C4A-C3A-CAA-CBA |
| 5 | K | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | N | 1012 | SRM | C4A-C3A-CAA-CBA |
| 5 | P | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | D | 4610 | SRM | C2C-C3C-CAC-CBC |
| 11 | D | 4601 | PEG | O2-C3-C4-O4 |
| 11 | K | 1115 | PEG | O1-C1-C2-O2 |
| 11 | M | 1120 | PEG | O1-C1-C2-O2 |
| 11 | N | 1014 | PEG | O2-C3-C4-O4 |
| 4 | J | 1112 | EDO | O1-C1-C2-O2 |
| 5 | G | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | H | 4410 | SRM | C3A-CAA-CBA-CCA |
| 5 | O | 1109 | SRM | C3A-CAA-CBA-CCA |
| 11 | M | 1115 | PEG | C4-C3-O2-C2 |
| 5 | E | 1109 | SRM | C4C-C3C-CAC-CBC |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|---------|------|-----------------|
| 5 | M | 1109 | SRM | C4C-C3C-CAC-CBC |
| 11 | D | 4601 | PEG | O1-C1-C2-O2 |
| 11 | K | 1115 | PEG | O2-C3-C4-O4 |
| 5 | D | 4610 | SRM | C2A-C3A-CAA-CBA |
| 5 | F | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | J | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | M | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | O | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | P | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | C | 3910 | SRM | C4A-C3A-CAA-CBA |
| 5 | I | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | J | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | O | 1109 | SRM | C4A-C3A-CAA-CBA |
| 5 | C | 3910 | SRM | C3A-CAA-CBA-CCA |
| 5 | D | 4610 | SRM | C3A-CAA-CBA-CCA |
| 5 | E | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | L | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | M | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | P | 1109 | SRM | C3A-CAA-CBA-CCA |
| 9 | B | 4217[A] | GOL | O1-C1-C2-C3 |
| 9 | C | 3913 | GOL | O1-C1-C2-C3 |
| 9 | E | 1114 | GOL | O1-C1-C2-C3 |
| 9 | E | 1114 | GOL | C1-C2-C3-O3 |
| 9 | I | 1111 | GOL | O1-C1-C2-C3 |
| 9 | I | 1117 | GOL | C1-C2-C3-O3 |
| 9 | J | 1114 | GOL | C1-C2-C3-O3 |
| 9 | K | 1117 | GOL | C1-C2-C3-O3 |
| 9 | M | 1114 | GOL | C1-C2-C3-O3 |
| 9 | N | 1011 | GOL | C1-C2-C3-O3 |
| 5 | K | 1109 | SRM | C2A-C3A-CAA-CBA |
| 11 | M | 1115 | PEG | C1-C2-O2-C3 |
| 9 | C | 3901 | GOL | O2-C2-C3-O3 |
| 9 | C | 3913 | GOL | O1-C1-C2-O2 |
| 9 | K | 1117 | GOL | O2-C2-C3-O3 |
| 5 | D | 4610 | SRM | C2B-CDB-CEB-O4B |
| 5 | E | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | L | 1109 | SRM | C2B-CDB-CEB-O3B |
| 4 | A | 1118 | EDO | O1-C1-C2-O2 |
| 4 | B | 4223 | EDO | O1-C1-C2-O2 |
| 4 | E | 1116 | EDO | O1-C1-C2-O2 |
| 4 | F | 1110[B] | EDO | O1-C1-C2-O2 |
| 4 | G | 1113 | EDO | O1-C1-C2-O2 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|---------|------|-----------------|
| 4 | J | 1113 | EDO | O1-C1-C2-O2 |
| 4 | M | 1113 | EDO | O1-C1-C2-O2 |
| 4 | P | 1113 | EDO | O1-C1-C2-O2 |
| 5 | I | 1109 | SRM | C2A-C3A-CAA-CBA |
| 5 | F | 1109 | SRM | C4A-C3A-CAA-CBA |
| 12 | H | 4401 | TRS | C3-C-C2-O2 |
| 12 | I | 1119 | TRS | C3-C-C1-O1 |
| 5 | F | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | I | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | N | 1012 | SRM | C3A-CAA-CBA-CCA |
| 9 | B | 4218[B] | GOL | O1-C1-C2-O2 |
| 9 | N | 1011 | GOL | O2-C2-C3-O3 |
| 9 | O | 1116 | GOL | O2-C2-C3-O3 |
| 5 | A | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | B | 4210 | SRM | C3A-CAA-CBA-CCA |
| 5 | C | 3910 | SRM | C2B-CDB-CEB-O4B |
| 5 | F | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | H | 4410 | SRM | C2B-CDB-CEB-O3B |
| 5 | L | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | M | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | N | 1012 | SRM | C2B-CDB-CEB-O4B |
| 5 | O | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | P | 1109 | SRM | C2B-CDB-CEB-O4B |
| 4 | I | 1118 | EDO | O1-C1-C2-O2 |
| 4 | L | 1112 | EDO | O1-C1-C2-O2 |
| 4 | O | 1114 | EDO | O1-C1-C2-O2 |
| 5 | A | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | C | 3910 | SRM | C3C-CAC-CBC-CCC |
| 5 | E | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | I | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | N | 1012 | SRM | C3C-CAC-CBC-CCC |
| 5 | J | 1109 | SRM | C3A-CAA-CBA-CCA |
| 5 | B | 4210 | SRM | C3C-CAC-CBC-CCC |
| 5 | D | 4610 | SRM | C3C-CAC-CBC-CCC |
| 5 | F | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | G | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | H | 4410 | SRM | C3C-CAC-CBC-CCC |
| 5 | J | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | K | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | M | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | O | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | P | 1109 | SRM | C3C-CAC-CBC-CCC |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|---------|------|-----------------|
| 5 | K | 1109 | SRM | C3A-CAA-CBA-CCA |
| 9 | O | 1116 | GOL | O1-C1-C2-O2 |
| 5 | A | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | B | 4210 | SRM | C2B-CDB-CEB-O4B |
| 5 | C | 3910 | SRM | C2B-CDB-CEB-O3B |
| 5 | D | 4610 | SRM | C2B-CDB-CEB-O3B |
| 5 | E | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | G | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | I | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | J | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | K | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | N | 1012 | SRM | C2B-CDB-CEB-O3B |
| 4 | B | 4222[A] | EDO | O1-C1-C2-O2 |
| 4 | C | 3916 | EDO | O1-C1-C2-O2 |
| 4 | E | 1115 | EDO | O1-C1-C2-O2 |
| 4 | M | 1112 | EDO | O1-C1-C2-O2 |
| 5 | L | 1109 | SRM | C3C-CAC-CBC-CCC |
| 5 | C | 3910 | SRM | C2A-C3A-CAA-CBA |
| 9 | B | 4224 | GOL | O1-C1-C2-O2 |
| 9 | F | 1114 | GOL | O1-C1-C2-O2 |
| 9 | J | 1114 | GOL | O2-C2-C3-O3 |
| 9 | J | 1117[A] | GOL | O2-C2-C3-O3 |
| 12 | H | 4401 | TRS | C2-C-C1-O1 |
| 12 | H | 4401 | TRS | C3-C-C1-O1 |
| 12 | I | 1119 | TRS | C1-C-C2-O2 |
| 12 | I | 1119 | TRS | N-C-C2-O2 |
| 3 | N | 1001[A] | FAD | C5'-O5'-P-O2P |
| 5 | A | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | B | 4210 | SRM | C2B-CDB-CEB-O3B |
| 5 | F | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | G | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | H | 4410 | SRM | C2B-CDB-CEB-O4B |
| 5 | I | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | J | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | K | 1109 | SRM | C2B-CDB-CEB-O3B |
| 5 | M | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | O | 1109 | SRM | C2B-CDB-CEB-O4B |
| 5 | P | 1109 | SRM | C2B-CDB-CEB-O3B |
| 4 | C | 3917 | EDO | O1-C1-C2-O2 |
| 4 | D | 4614 | EDO | O1-C1-C2-O2 |
| 4 | E | 1112 | EDO | O1-C1-C2-O2 |
| 4 | E | 1113 | EDO | O1-C1-C2-O2 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|---------|------|-----------------|
| 4 | I | 1110 | EDO | O1-C1-C2-O2 |
| 4 | I | 1112 | EDO | O1-C1-C2-O2 |
| 4 | I | 1114 | EDO | O1-C1-C2-O2 |
| 4 | M | 1117 | EDO | O1-C1-C2-O2 |
| 4 | O | 1117 | EDO | O1-C1-C2-O2 |
| 4 | P | 1114 | EDO | O1-C1-C2-O2 |
| 5 | N | 1012 | SRM | C3D-CDD-CED-O4D |
| 3 | H | 4407 | FAD | N10-C1'-C2'-O2' |
| 5 | M | 1109 | SRM | C4B-C3B-CAB-CBB |
| 5 | N | 1012 | SRM | C4B-C3B-CAB-CBB |
| 4 | A | 1110 | EDO | O1-C1-C2-O2 |
| 4 | B | 4213 | EDO | O1-C1-C2-O2 |
| 4 | D | 4613 | EDO | O1-C1-C2-O2 |
| 4 | E | 1117 | EDO | O1-C1-C2-O2 |
| 4 | G | 1120 | EDO | O1-C1-C2-O2 |
| 4 | H | 4412 | EDO | O1-C1-C2-O2 |
| 4 | K | 1114 | EDO | O1-C1-C2-O2 |
| 4 | M | 1121 | EDO | O1-C1-C2-O2 |
| 4 | M | 1122 | EDO | O1-C1-C2-O2 |
| 5 | N | 1012 | SRM | C3D-CDD-CED-O3D |
| 3 | N | 1001[A] | FAD | PA-O3P-P-O2P |
| 3 | O | 1106 | FAD | PA-O3P-P-O1P |
| 9 | N | 1015 | GOL | C1-C2-C3-O3 |
| 5 | B | 4210 | SRM | C4B-C3B-CAB-CBB |
| 5 | P | 1109 | SRM | C4B-C3B-CAB-CBB |
| 5 | E | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | G | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | B | 4210 | SRM | CAB-CBB-CCB-O2B |
| 5 | P | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | J | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | F | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | I | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | F | 1109 | SRM | CAB-CBB-CCB-O2B |
| 4 | A | 1113 | EDO | O1-C1-C2-O2 |
| 4 | A | 1115 | EDO | O1-C1-C2-O2 |
| 4 | B | 4214 | EDO | O1-C1-C2-O2 |
| 4 | D | 4617 | EDO | O1-C1-C2-O2 |
| 4 | F | 1111 | EDO | O1-C1-C2-O2 |
| 4 | J | 1111 | EDO | O1-C1-C2-O2 |
| 5 | J | 1109 | SRM | C4B-C3B-CAB-CBB |
| 5 | K | 1109 | SRM | C4B-C3B-CAB-CBB |
| 3 | L | 1106 | FAD | O4B-C4B-C5B-O5B |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|------|------|-----------------|
| 3 | O | 1106 | FAD | O4B-C4B-C5B-O5B |
| 12 | H | 4401 | TRS | C1-C-C2-O2 |
| 12 | I | 1119 | TRS | C2-C-C1-O1 |
| 12 | I | 1119 | TRS | C3-C-C2-O2 |
| 5 | C | 3910 | SRM | CAB-CBB-CCB-O1B |
| 5 | H | 4410 | SRM | CAB-CBB-CCB-O1B |
| 11 | N | 1014 | PEG | C4-C3-O2-C2 |
| 5 | A | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | K | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | L | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | A | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | L | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | O | 1109 | SRM | CAB-CBB-CCB-O2B |
| 5 | D | 4610 | SRM | CAB-CBB-CCB-O2B |
| 5 | H | 4410 | SRM | CAB-CBB-CCB-O2B |
| 5 | O | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | P | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | C | 3910 | SRM | CAB-CBB-CCB-O2B |
| 5 | D | 4610 | SRM | CAB-CBB-CCB-O1B |
| 5 | I | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | C | 3910 | SRM | C4B-C3B-CAB-CBB |
| 5 | G | 1109 | SRM | C4B-C3B-CAB-CBB |
| 5 | H | 4410 | SRM | C4B-C3B-CAB-CBB |
| 5 | I | 1109 | SRM | C4B-C3B-CAB-CBB |
| 5 | L | 1109 | SRM | C4B-C3B-CAB-CBB |
| 5 | G | 1109 | SRM | CAB-CBB-CCB-O1B |
| 3 | C | 3907 | FAD | O4B-C4B-C5B-O5B |
| 5 | E | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | K | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | B | 4210 | SRM | CAB-CBB-CCB-O1B |
| 5 | J | 1109 | SRM | CAB-CBB-CCB-O1B |
| 3 | C | 3907 | FAD | PA-O3P-P-O1P |
| 3 | D | 4607 | FAD | PA-O3P-P-O1P |
| 3 | J | 1106 | FAD | PA-O3P-P-O1P |
| 3 | M | 1106 | FAD | PA-O3P-P-O1P |
| 5 | A | 1109 | SRM | C4B-C3B-CAB-CBB |
| 5 | O | 1109 | SRM | C4B-C3B-CAB-CBB |
| 4 | C | 3911 | EDO | O1-C1-C2-O2 |
| 4 | K | 1116 | EDO | O1-C1-C2-O2 |
| 3 | G | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | P | 1106 | FAD | O4B-C4B-C5B-O5B |
| 11 | N | 1014 | PEG | C1-C2-O2-C3 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|---------|------|-----------------|
| 9 | B | 4217[A] | GOL | O1-C1-C2-O2 |
| 5 | D | 4610 | SRM | C4B-C3B-CAB-CBB |
| 5 | M | 1109 | SRM | CAB-CBB-CCB-O2B |
| 3 | D | 4607 | FAD | O4B-C4B-C5B-O5B |
| 4 | B | 4215 | EDO | O1-C1-C2-O2 |
| 4 | B | 4221 | EDO | O1-C1-C2-O2 |
| 4 | C | 3918 | EDO | O1-C1-C2-O2 |
| 4 | D | 4615 | EDO | O1-C1-C2-O2 |
| 4 | G | 1112 | EDO | O1-C1-C2-O2 |
| 4 | G | 1115 | EDO | O1-C1-C2-O2 |
| 4 | I | 1115 | EDO | O1-C1-C2-O2 |
| 4 | K | 1113 | EDO | O1-C1-C2-O2 |
| 4 | M | 1118 | EDO | O1-C1-C2-O2 |
| 4 | M | 1123 | EDO | O1-C1-C2-O2 |
| 4 | O | 1112 | EDO | O1-C1-C2-O2 |
| 4 | O | 1113 | EDO | O1-C1-C2-O2 |
| 5 | M | 1109 | SRM | CAB-CBB-CCB-O1B |
| 5 | N | 1012 | SRM | CAB-CBB-CCB-O1B |
| 5 | N | 1012 | SRM | CAB-CBB-CCB-O2B |
| 9 | E | 1114 | GOL | O1-C1-C2-O2 |
| 9 | K | 1117 | GOL | O1-C1-C2-O2 |
| 3 | A | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | B | 4207 | FAD | O4B-C4B-C5B-O5B |
| 3 | E | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | F | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | H | 4407 | FAD | O4B-C4B-C5B-O5B |
| 3 | I | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | K | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | M | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | N | 1009[B] | FAD | O4B-C4B-C5B-O5B |
| 3 | C | 3907 | FAD | PA-O3P-P-O2P |
| 3 | F | 1106 | FAD | PA-O3P-P-O1P |
| 3 | N | 1001[A] | FAD | PA-O3P-P-O1P |
| 3 | N | 1009[B] | FAD | PA-O3P-P-O2P |
| 12 | H | 4401 | TRS | N-C-C1-O1 |
| 5 | O | 1109 | SRM | CAC-CBC-CCC-O2C |
| 3 | J | 1106 | FAD | O4B-C4B-C5B-O5B |
| 3 | N | 1001[A] | FAD | O4B-C4B-C5B-O5B |
| 4 | A | 1117 | EDO | O1-C1-C2-O2 |
| 4 | C | 3915 | EDO | O1-C1-C2-O2 |
| 4 | D | 4612 | EDO | O1-C1-C2-O2 |
| 4 | G | 1116 | EDO | O1-C1-C2-O2 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|------|------|-----------------|
| 4 | H | 4413 | EDO | O1-C1-C2-O2 |
| 4 | M | 1110 | EDO | O1-C1-C2-O2 |
| 4 | O | 1110 | EDO | O1-C1-C2-O2 |
| 9 | P | 1111 | GOL | O1-C1-C2-O2 |
| 5 | N | 1012 | SRM | CAA-CBA-CCA-O2A |
| 3 | F | 1106 | FAD | N10-C1'-C2'-O2' |
| 3 | P | 1106 | FAD | N10-C1'-C2'-O2' |
| 5 | O | 1109 | SRM | CAC-CBC-CCC-O1C |
| 5 | B | 4210 | SRM | CAC-CBC-CCC-O1C |
| 5 | A | 1109 | SRM | CAC-CBC-CCC-O1C |
| 5 | E | 1109 | SRM | CAC-CBC-CCC-O1C |
| 5 | E | 1109 | SRM | CAC-CBC-CCC-O2C |
| 5 | P | 1109 | SRM | CAC-CBC-CCC-O2C |
| 5 | C | 3910 | SRM | CAC-CBC-CCC-O1C |
| 5 | F | 1109 | SRM | CAC-CBC-CCC-O1C |
| 5 | L | 1109 | SRM | CAC-CBC-CCC-O1C |
| 11 | M | 1115 | PEG | O2-C3-C4-O4 |

There are no ring outliers.

57 monomers are involved in 72 short contacts:

| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|---------|------|---------|--------------|
| 2 | A | 1101 | SF4 | 1 | 0 |
| 2 | J | 1104 | SF4 | 1 | 0 |
| 5 | E | 1109 | SRM | 1 | 0 |
| 9 | N | 1011 | GOL | 1 | 0 |
| 9 | M | 1114 | GOL | 1 | 0 |
| 4 | J | 1110 | EDO | 2 | 0 |
| 6 | F | 1117 | SO4 | 1 | 0 |
| 3 | N | 1009[B] | FAD | 1 | 0 |
| 6 | B | 4226 | SO4 | 1 | 0 |
| 4 | H | 4413 | EDO | 1 | 0 |
| 3 | D | 4607 | FAD | 1 | 0 |
| 4 | I | 1115 | EDO | 1 | 0 |
| 11 | K | 1115 | PEG | 1 | 0 |
| 2 | H | 4405 | SF4 | 1 | 0 |
| 4 | G | 1118 | EDO | 2 | 0 |
| 6 | F | 1118 | SO4 | 1 | 0 |
| 5 | M | 1109 | SRM | 1 | 0 |
| 3 | N | 1001[A] | FAD | 2 | 0 |
| 4 | D | 4615 | EDO | 1 | 0 |
| 9 | B | 4217[A] | GOL | 1 | 0 |

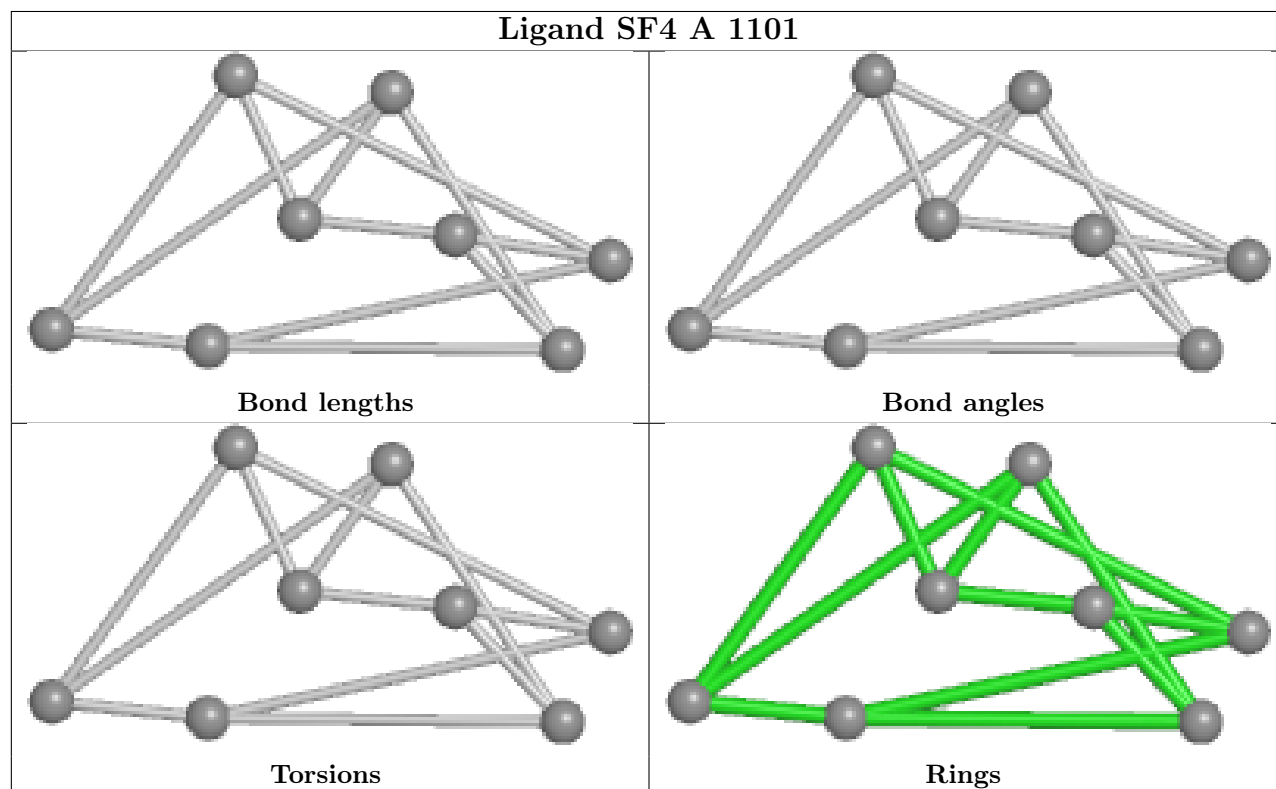
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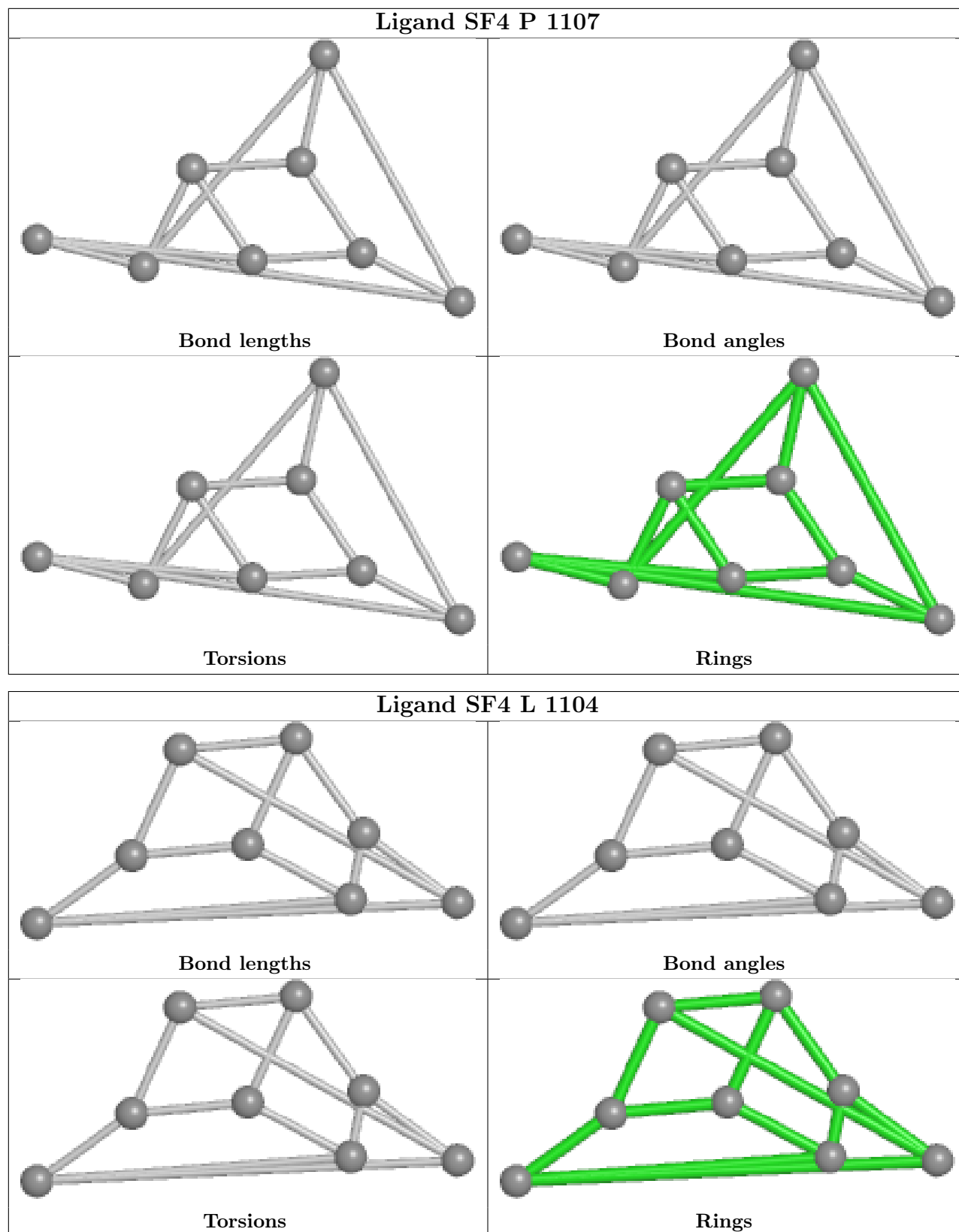
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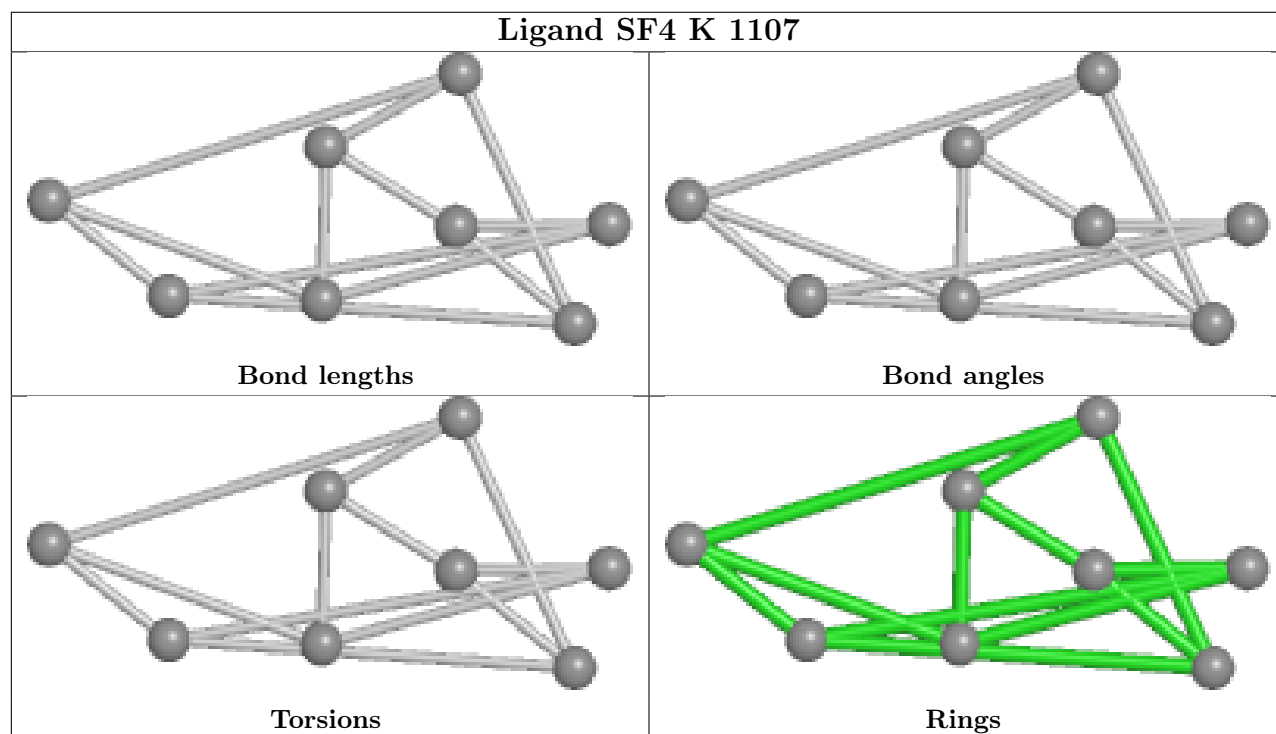
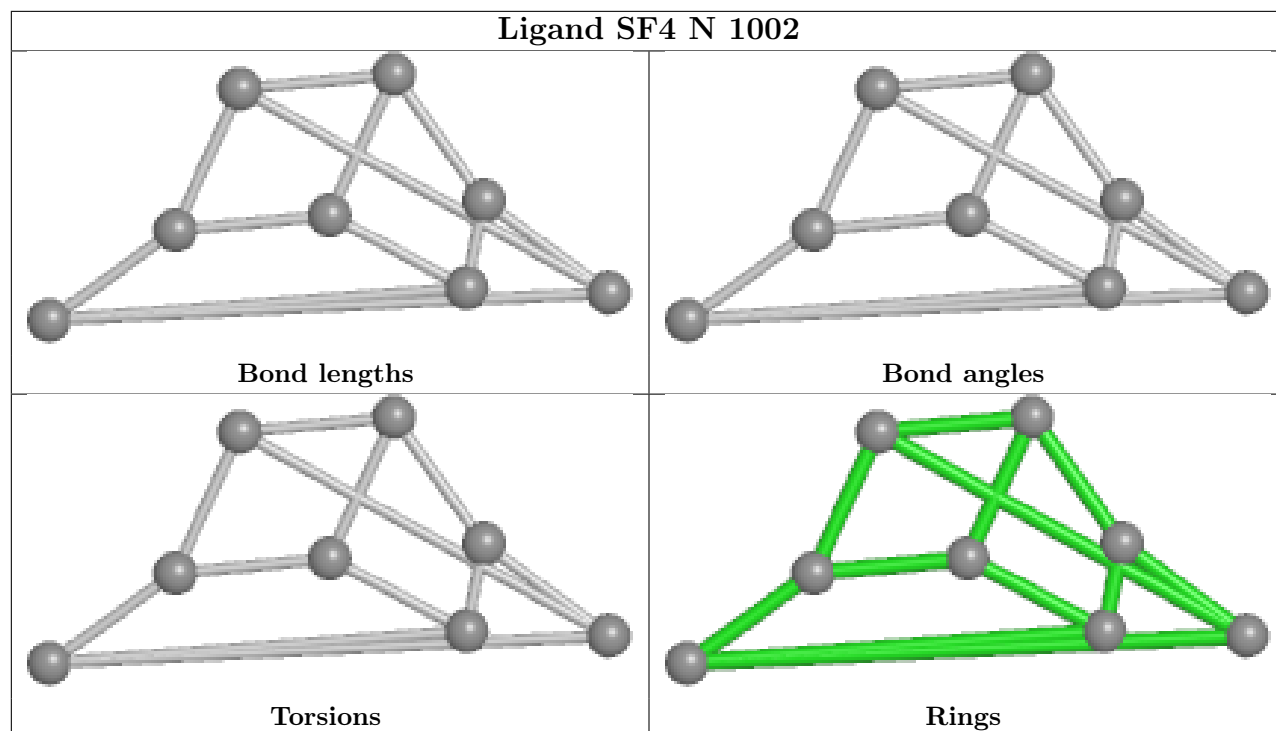
| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|---------|------|---------|--------------|
| 9 | P | 1111 | GOL | 2 | 0 |
| 2 | B | 4202 | SF4 | 1 | 0 |
| 2 | B | 4205 | SF4 | 1 | 0 |
| 5 | N | 1012 | SRM | 1 | 0 |
| 3 | E | 1106 | FAD | 1 | 0 |
| 3 | I | 1106 | FAD | 1 | 0 |
| 4 | H | 4412 | EDO | 3 | 0 |
| 2 | M | 1104 | SF4 | 1 | 0 |
| 4 | B | 4216 | EDO | 1 | 0 |
| 2 | G | 1101 | SF4 | 1 | 0 |
| 4 | B | 4211 | EDO | 1 | 0 |
| 4 | G | 1120 | EDO | 1 | 0 |
| 11 | M | 1115 | PEG | 2 | 0 |
| 2 | D | 4605 | SF4 | 1 | 0 |
| 4 | G | 1116 | EDO | 1 | 0 |
| 4 | E | 1112 | EDO | 1 | 0 |
| 4 | F | 1113 | EDO | 1 | 0 |
| 2 | E | 1104 | SF4 | 1 | 0 |
| 2 | P | 1104 | SF4 | 1 | 0 |
| 2 | N | 1006[A] | SF4 | 2 | 0 |
| 2 | N | 1007[A] | SF4 | 3 | 0 |
| 4 | A | 1116 | EDO | 2 | 0 |
| 9 | F | 1114 | GOL | 1 | 0 |
| 5 | F | 1109 | SRM | 1 | 0 |
| 9 | C | 3901 | GOL | 3 | 0 |
| 2 | M | 1103 | SF4 | 1 | 0 |
| 2 | O | 1105 | SF4 | 1 | 0 |
| 4 | K | 1116 | EDO | 1 | 0 |
| 4 | J | 1112 | EDO | 2 | 0 |
| 5 | O | 1109 | SRM | 1 | 0 |
| 9 | I | 1117 | GOL | 2 | 0 |
| 2 | G | 1104 | SF4 | 1 | 0 |
| 9 | I | 1111 | GOL | 2 | 0 |
| 3 | K | 1106 | FAD | 1 | 0 |
| 3 | P | 1106 | FAD | 2 | 0 |
| 4 | F | 1110[B] | EDO | 1 | 0 |
| 2 | A | 1104 | SF4 | 1 | 0 |

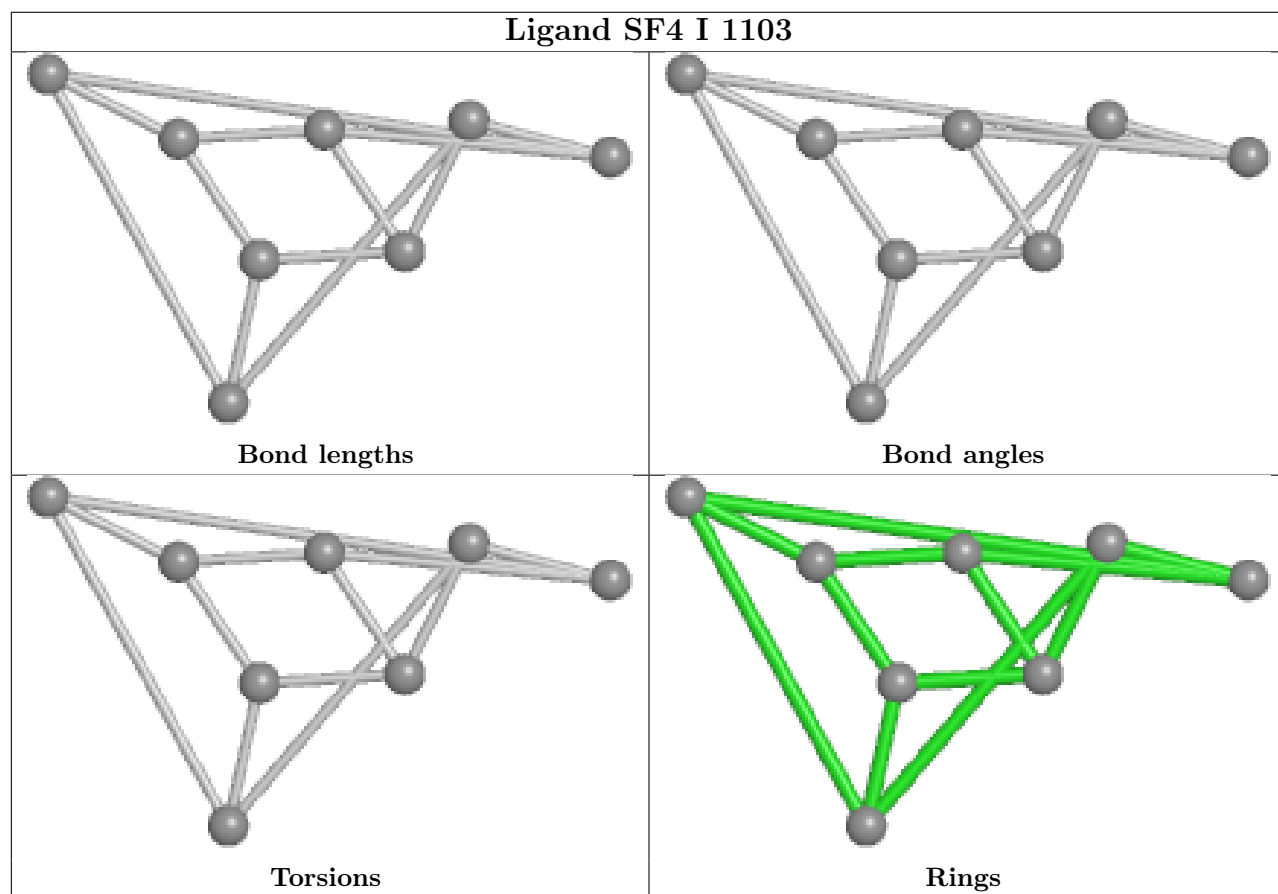
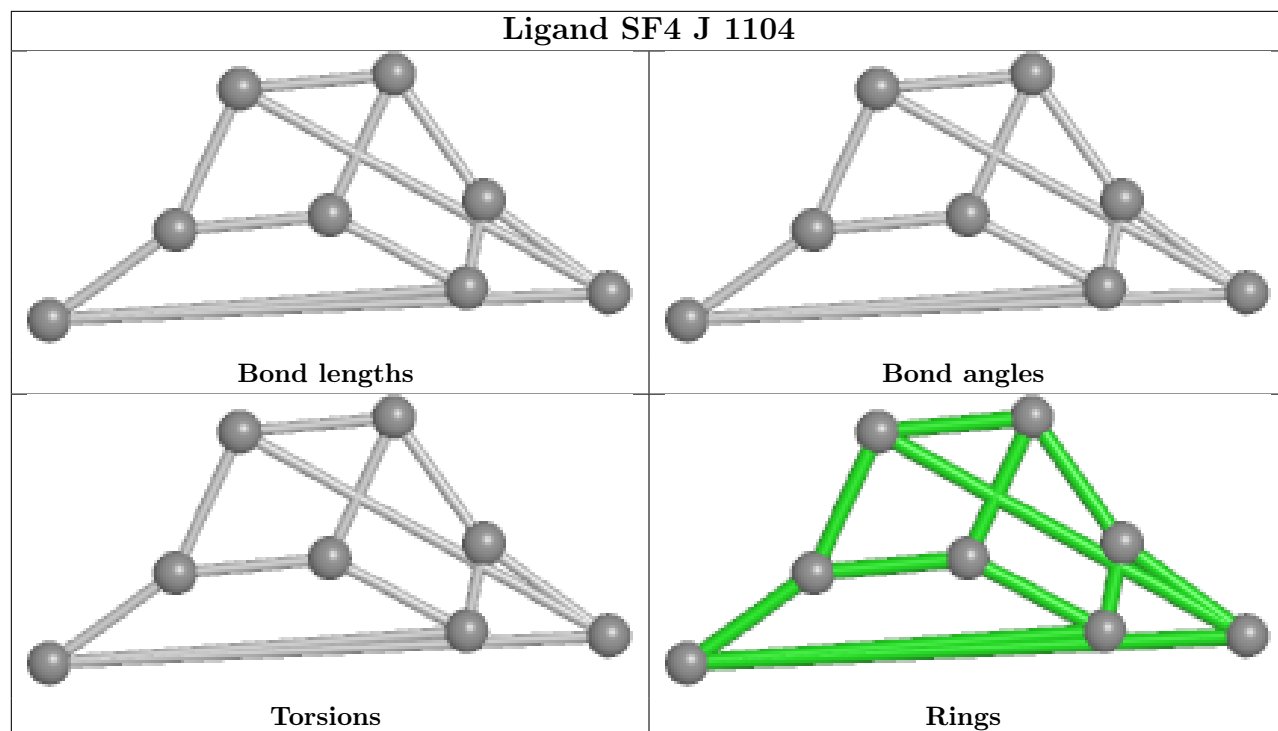
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier.

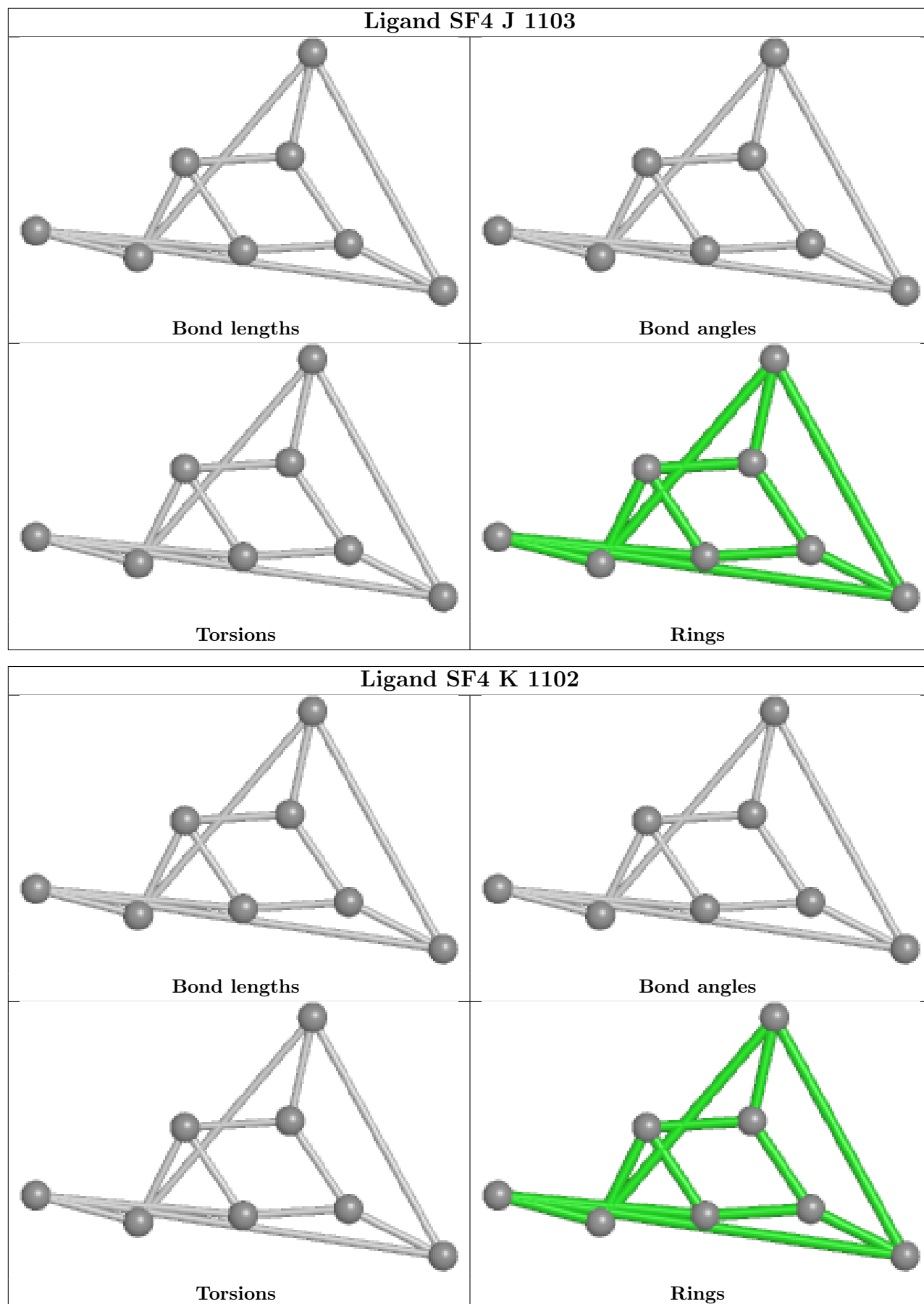
Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

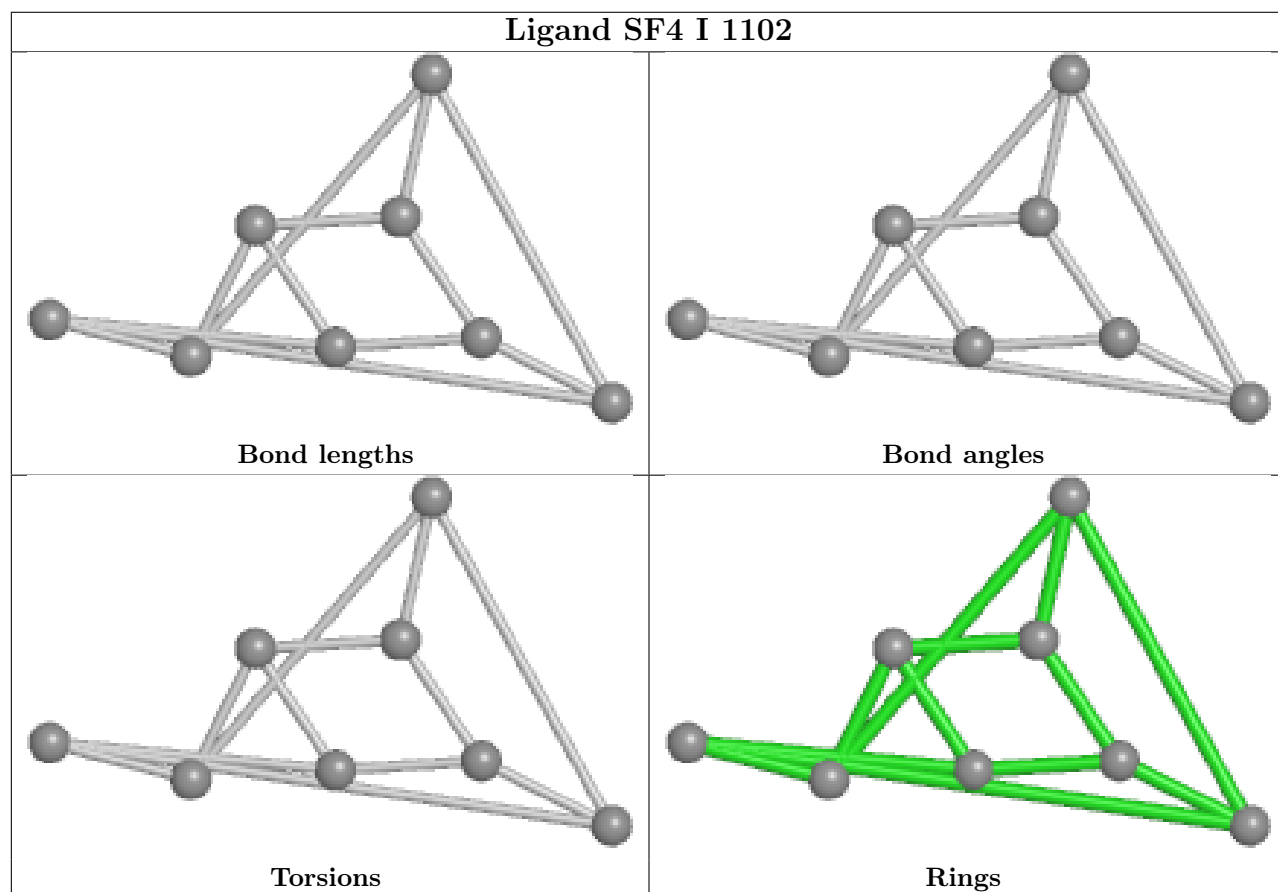
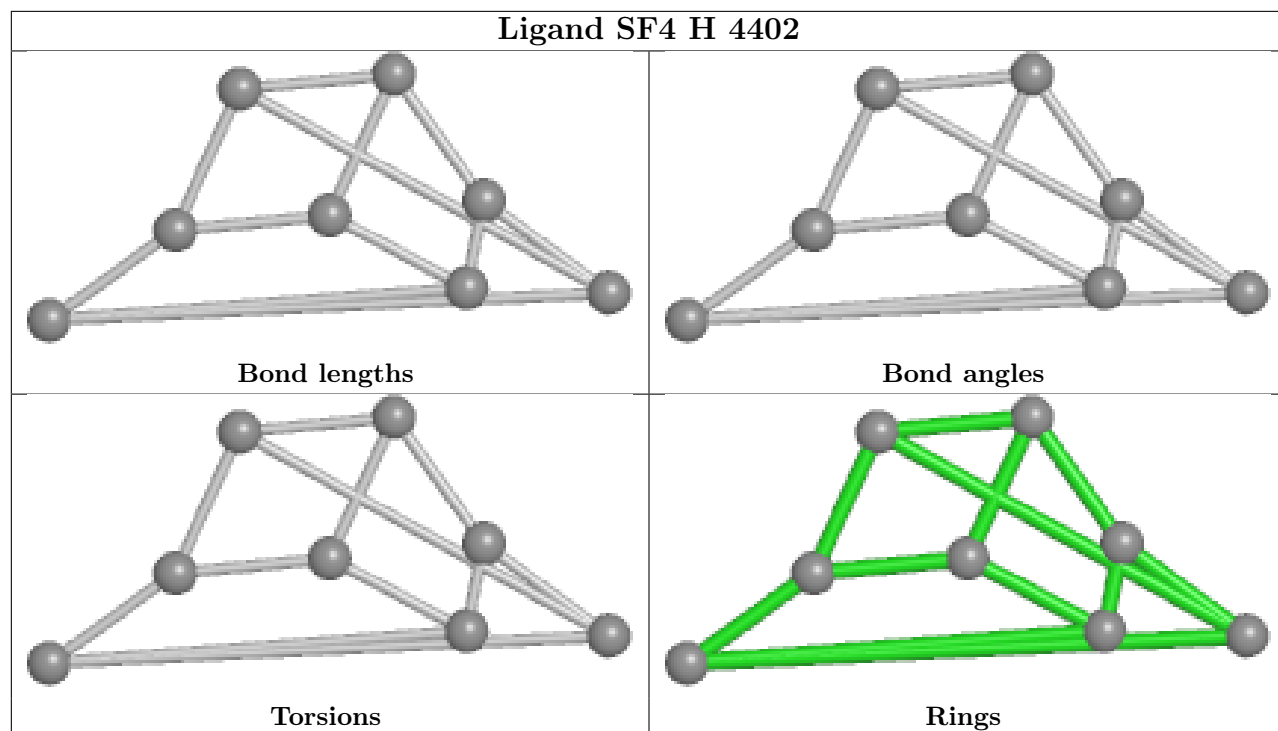


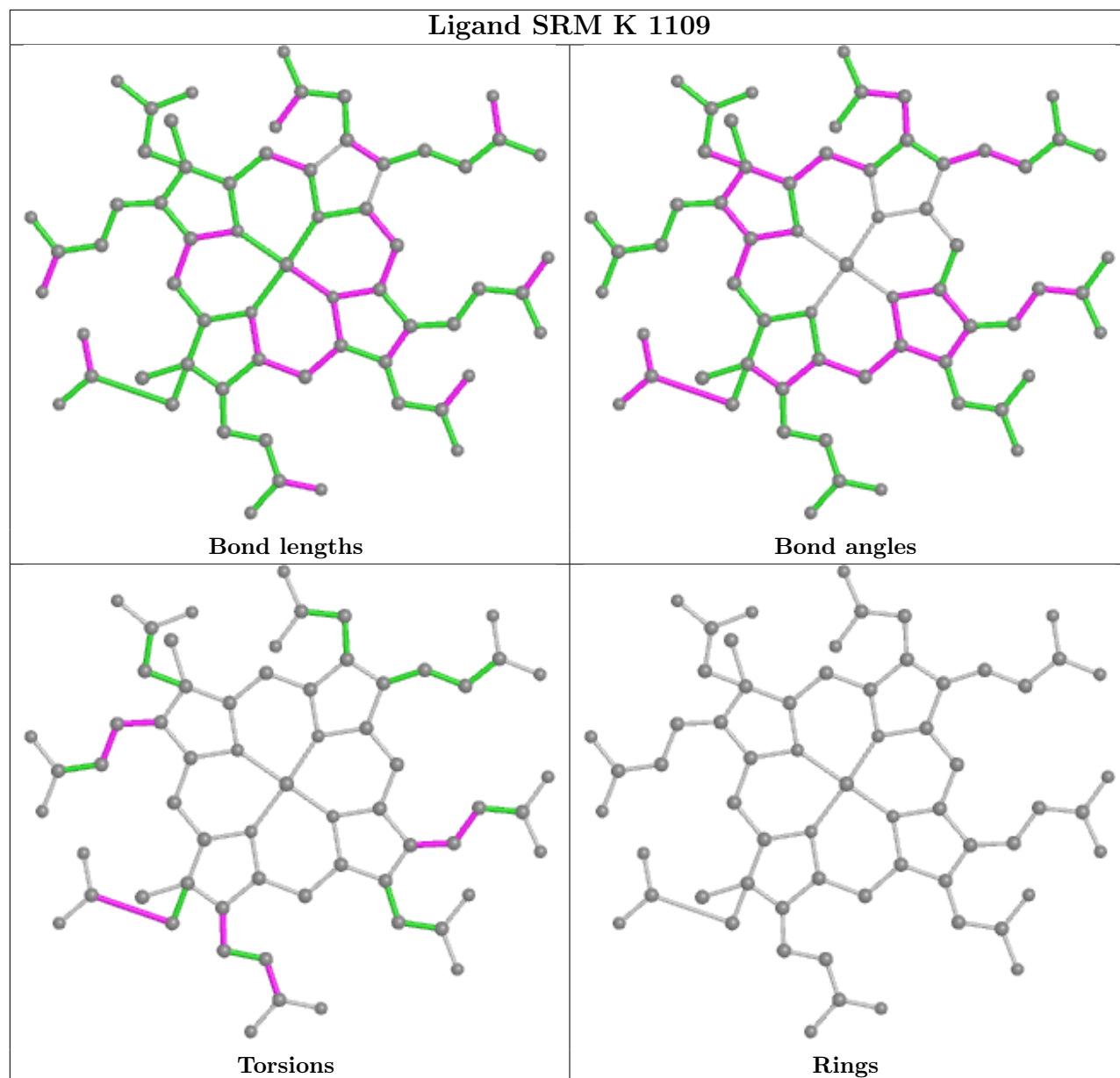


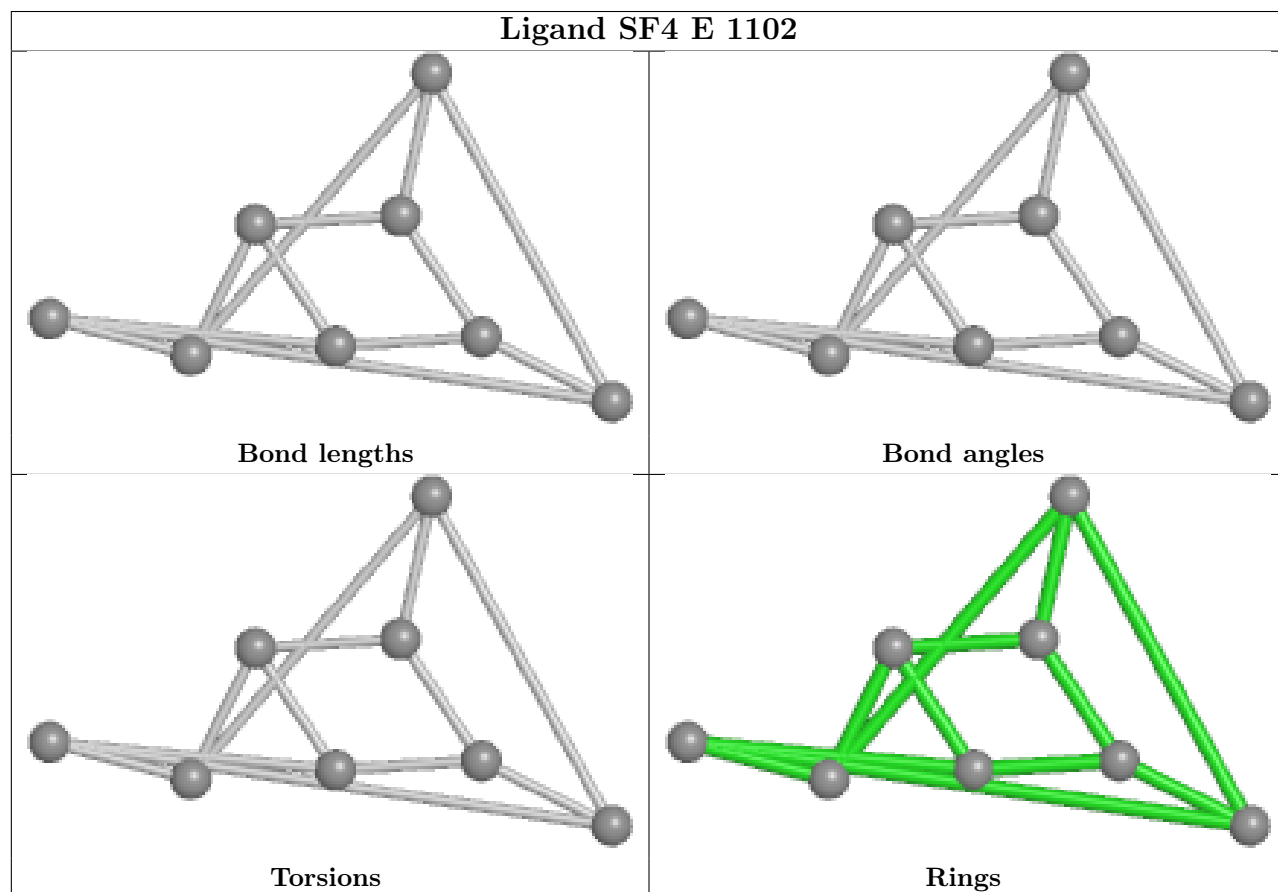
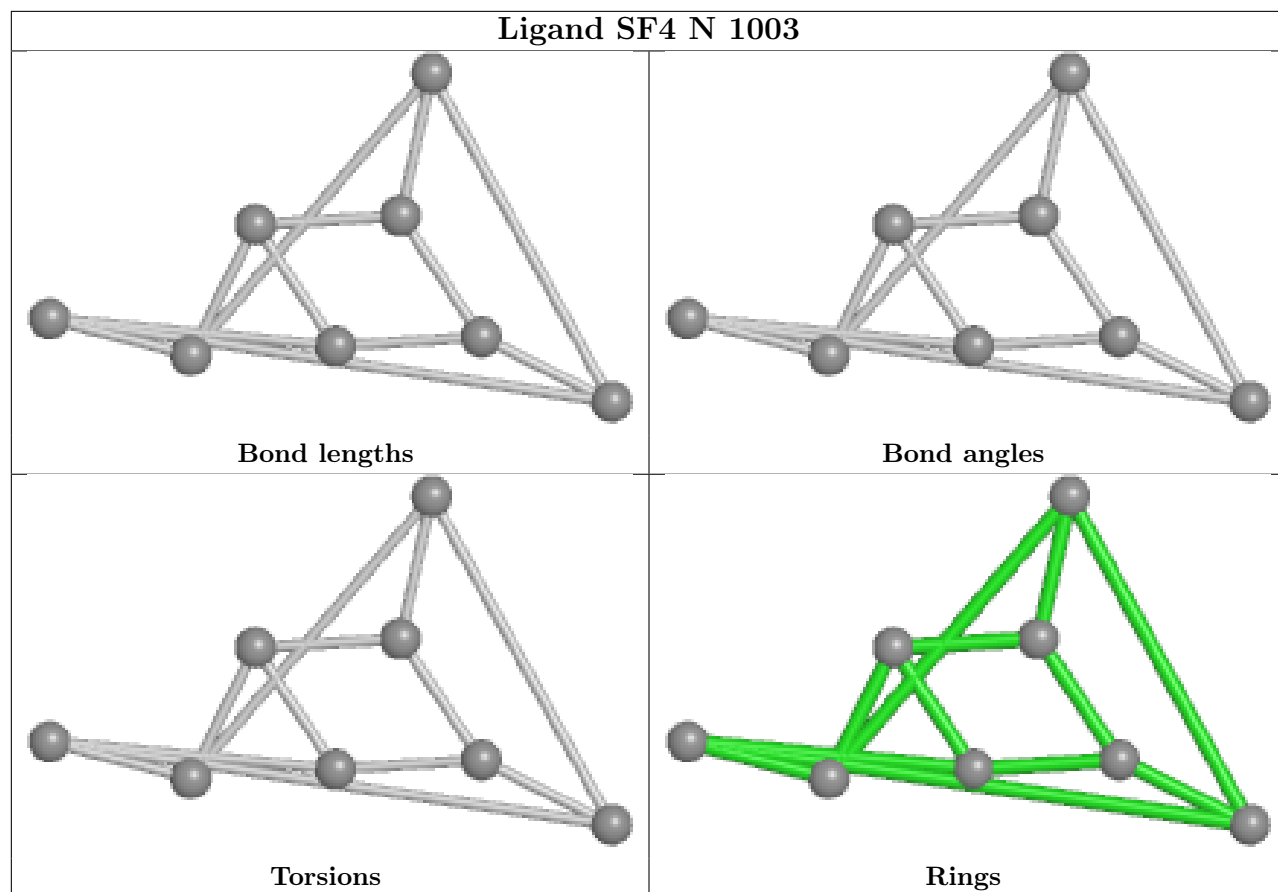


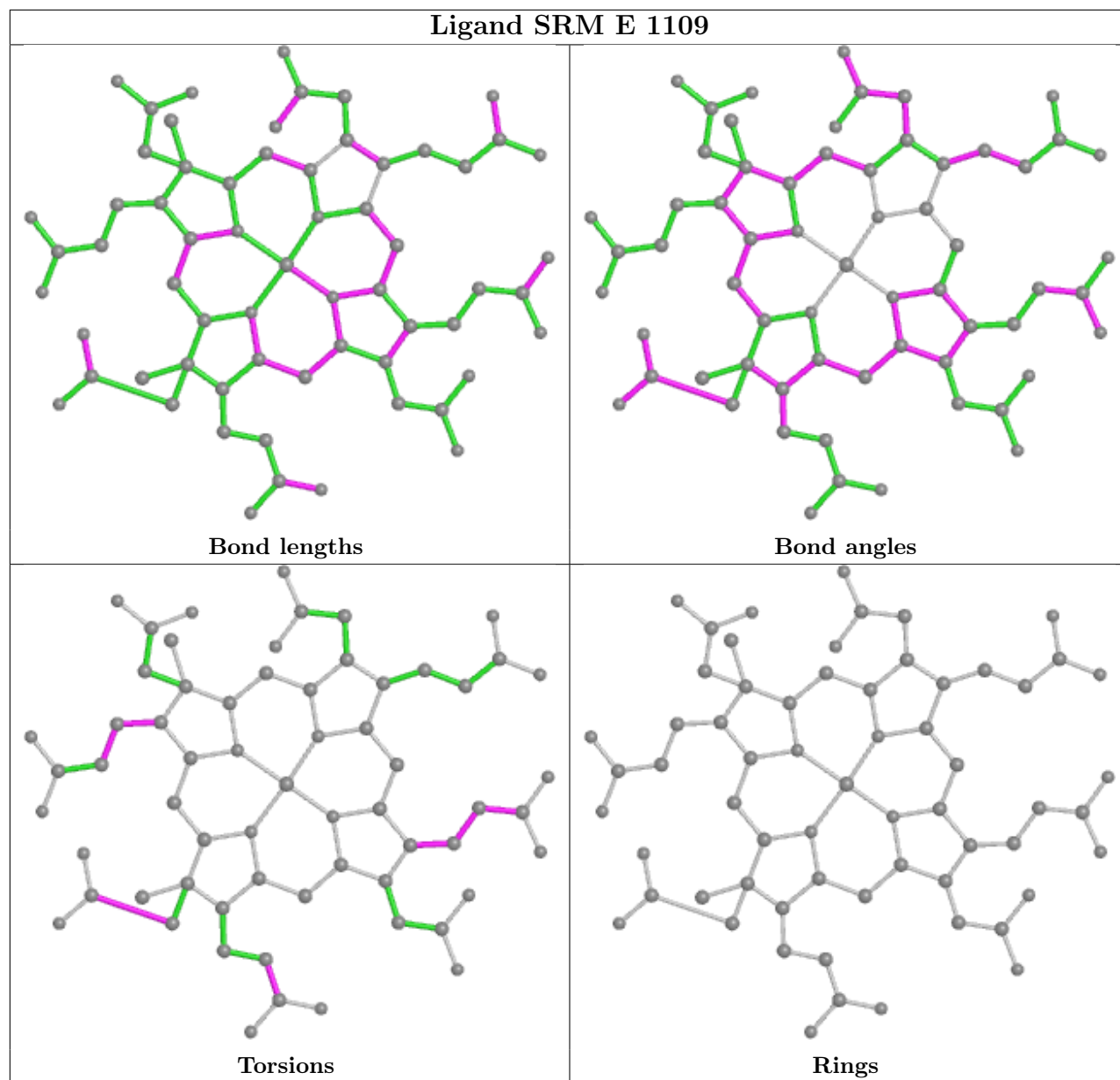


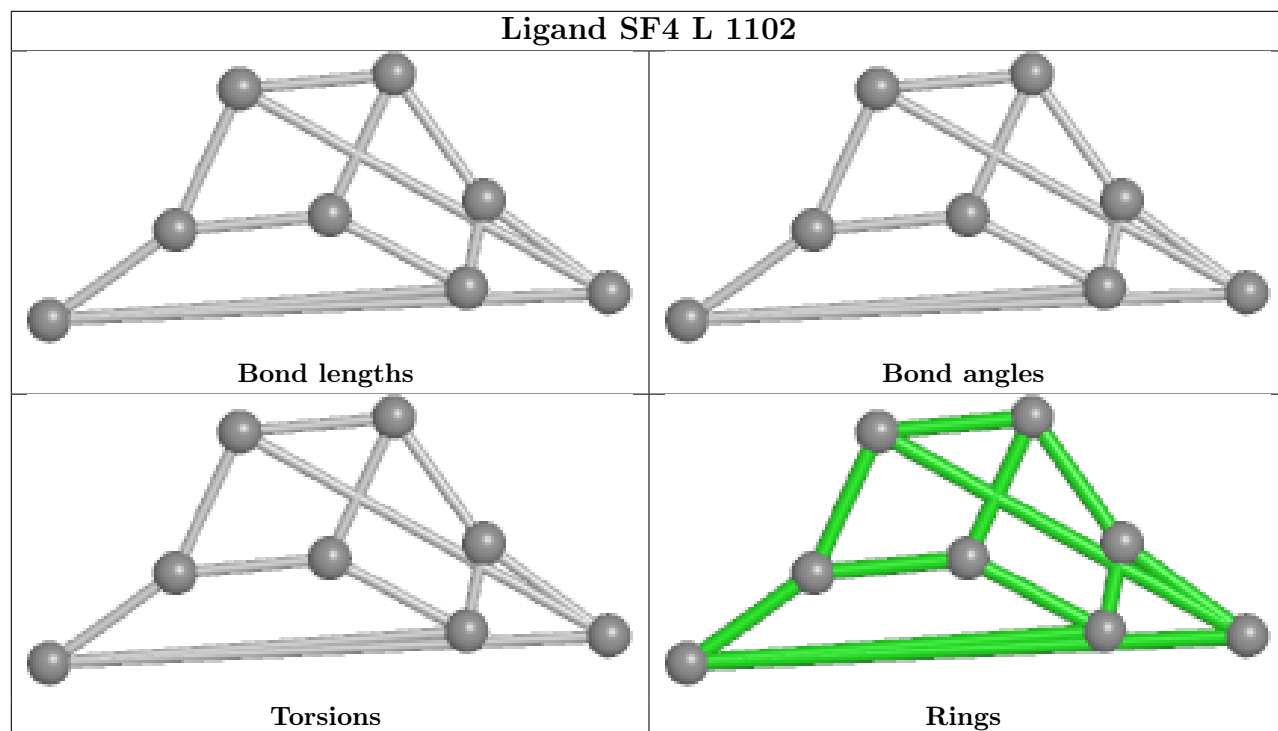


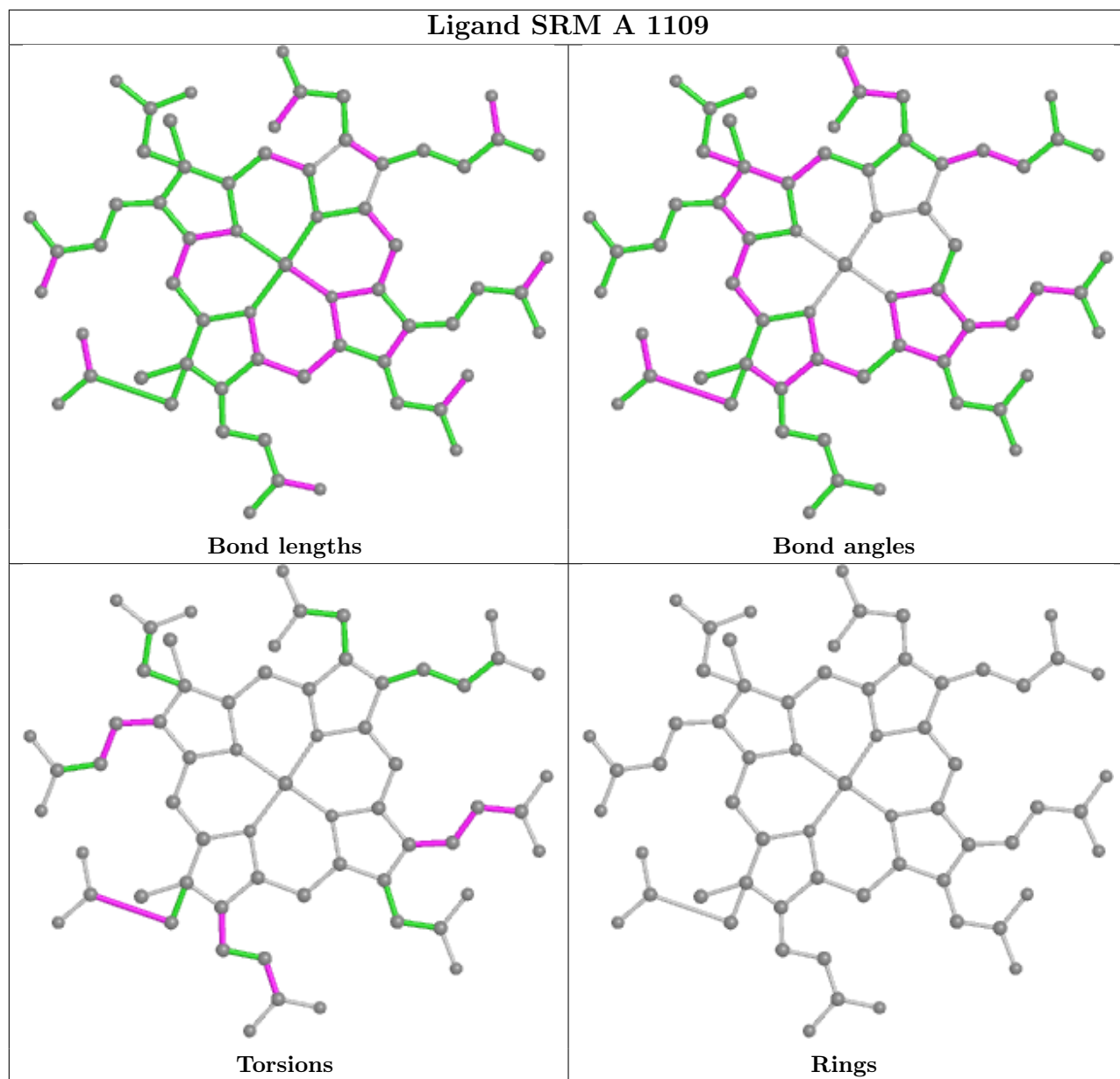


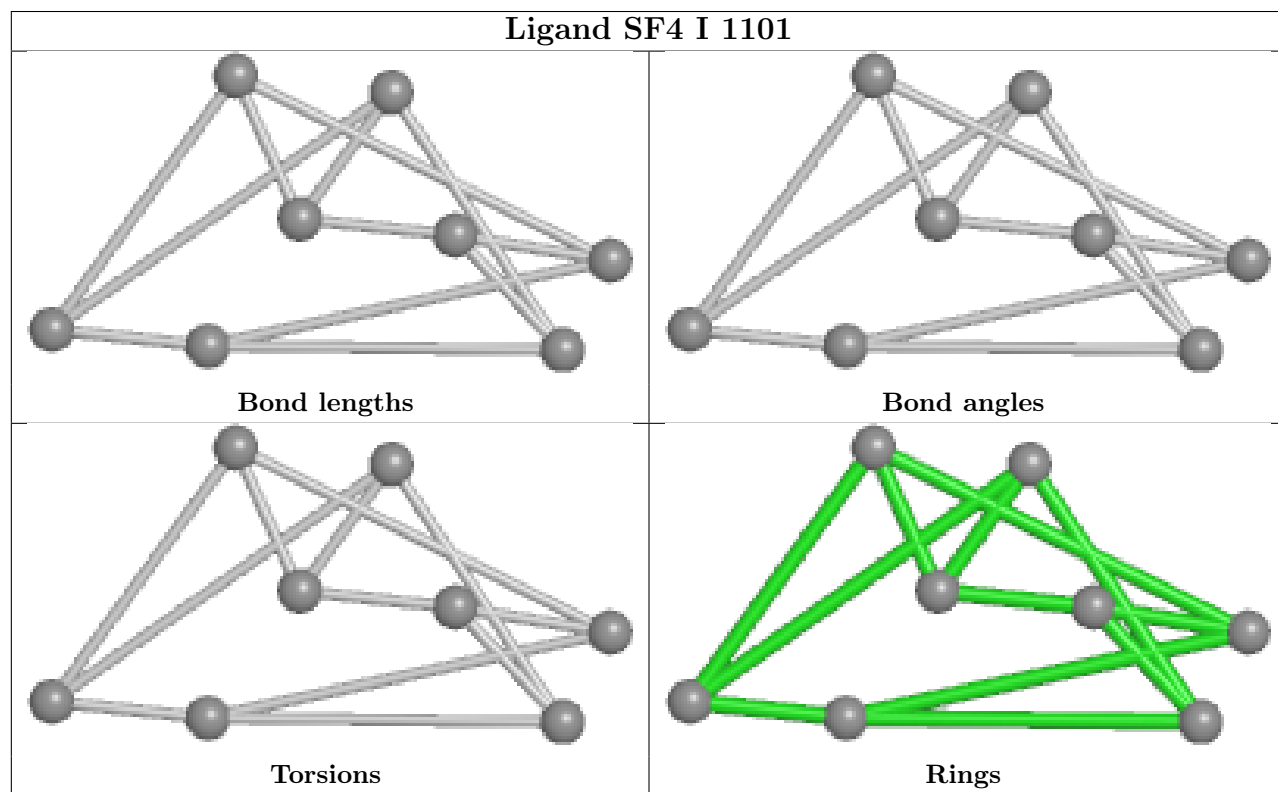
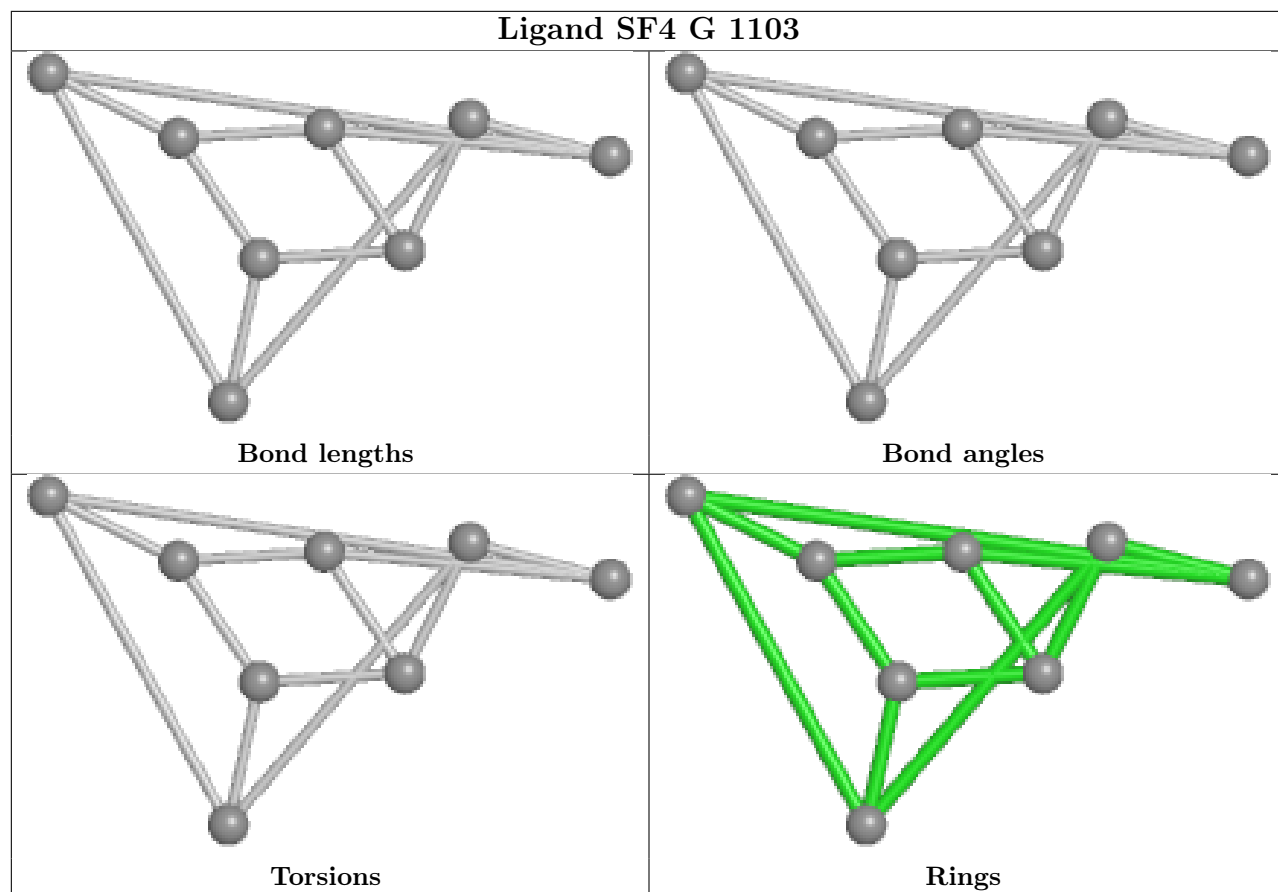


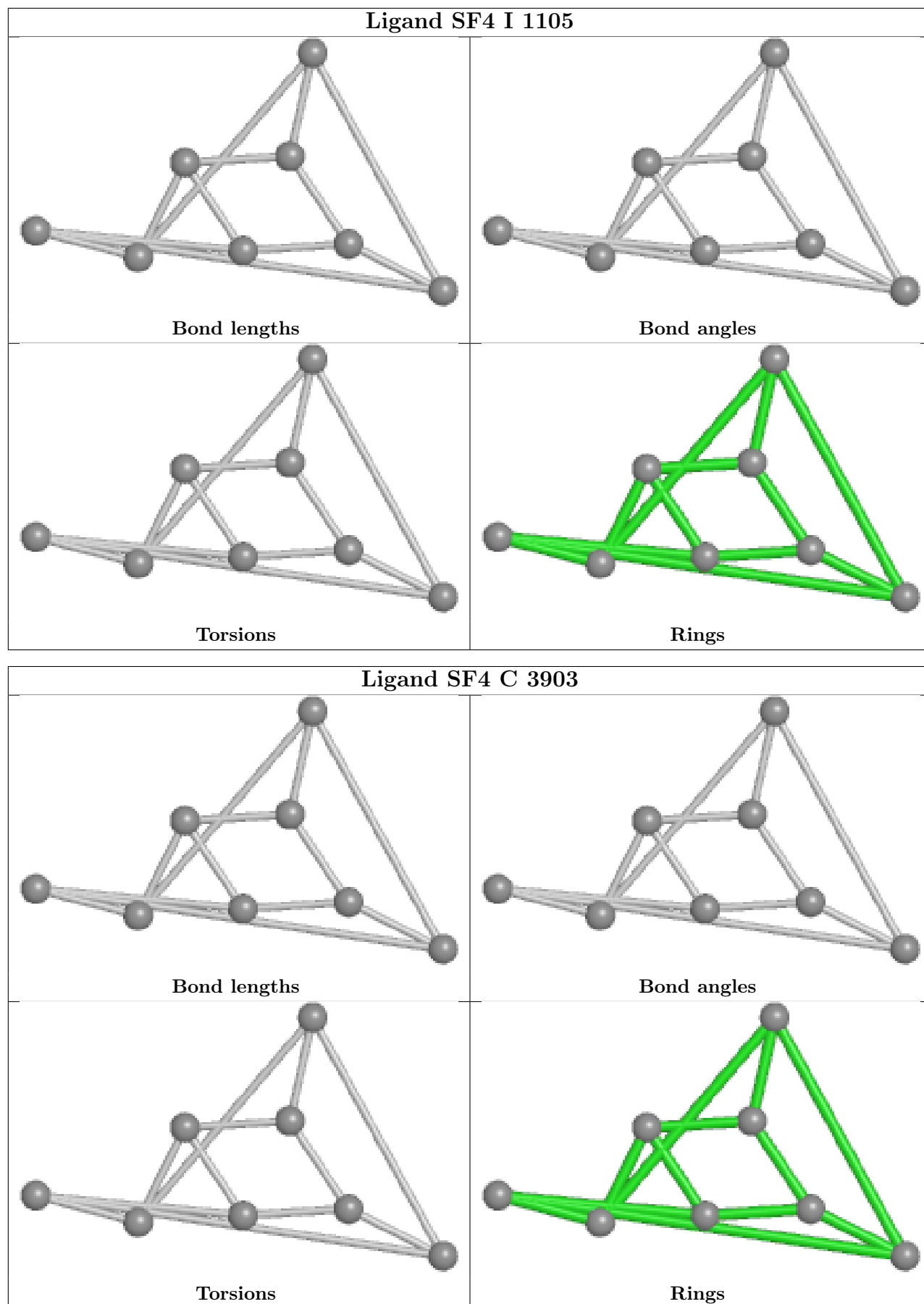


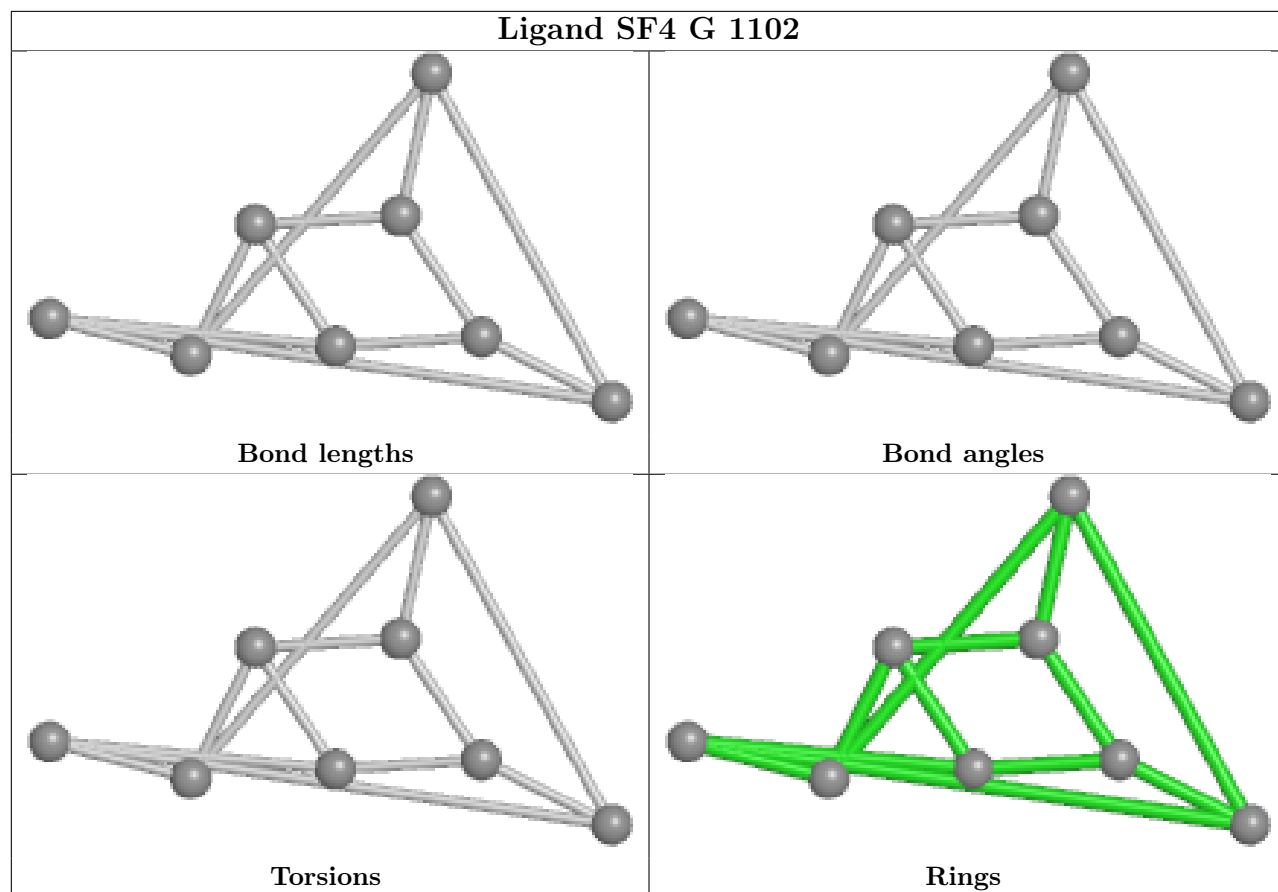


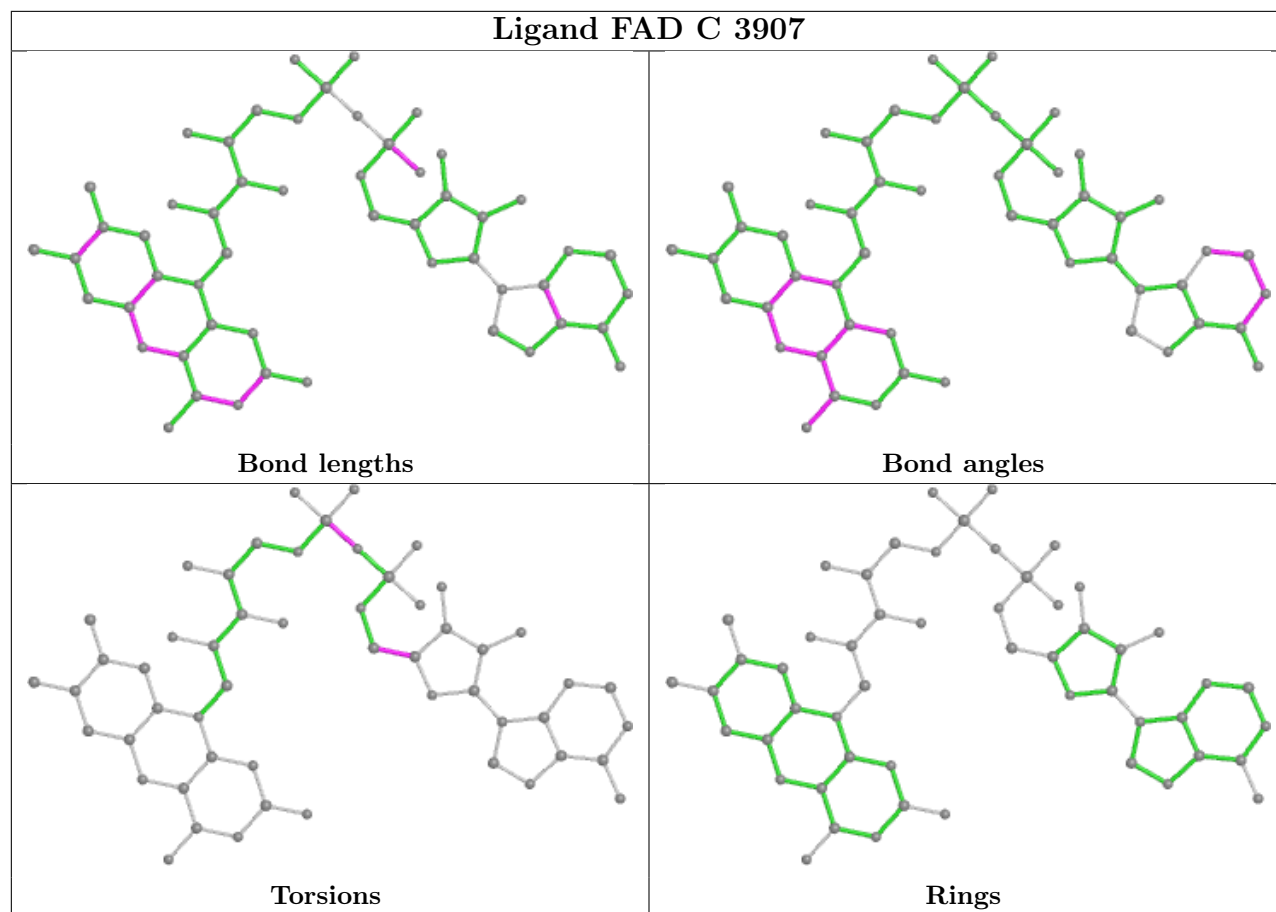


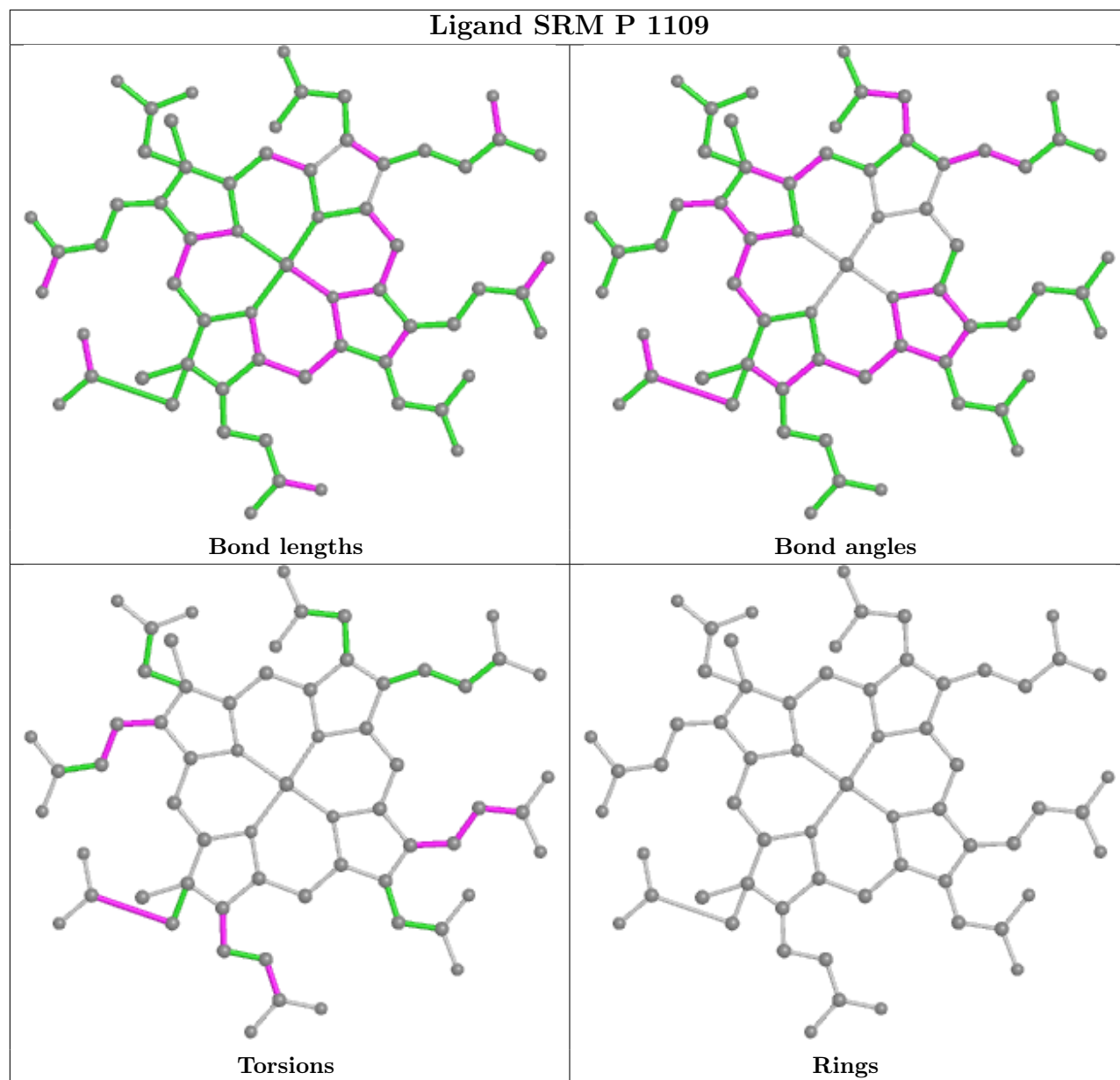


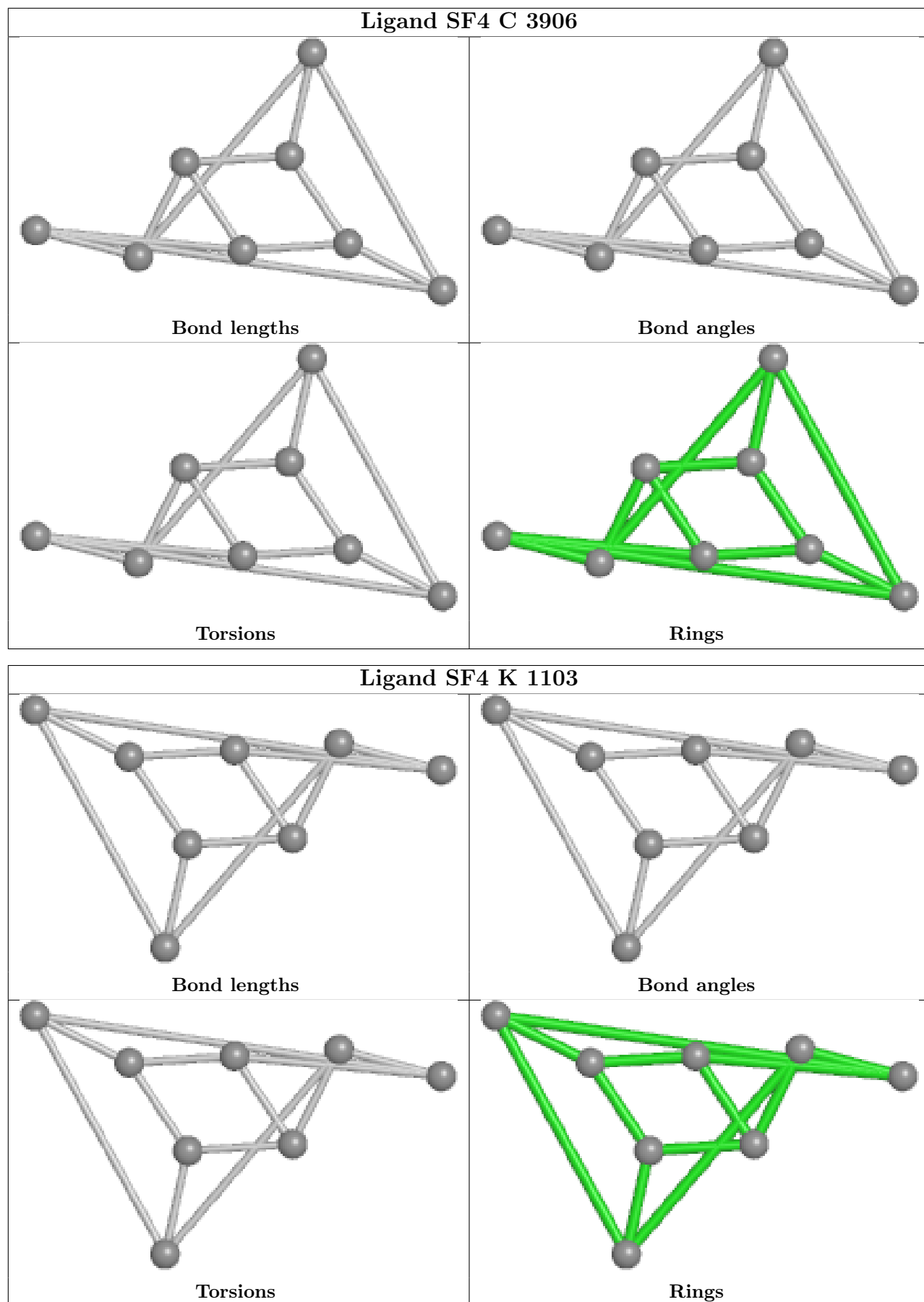


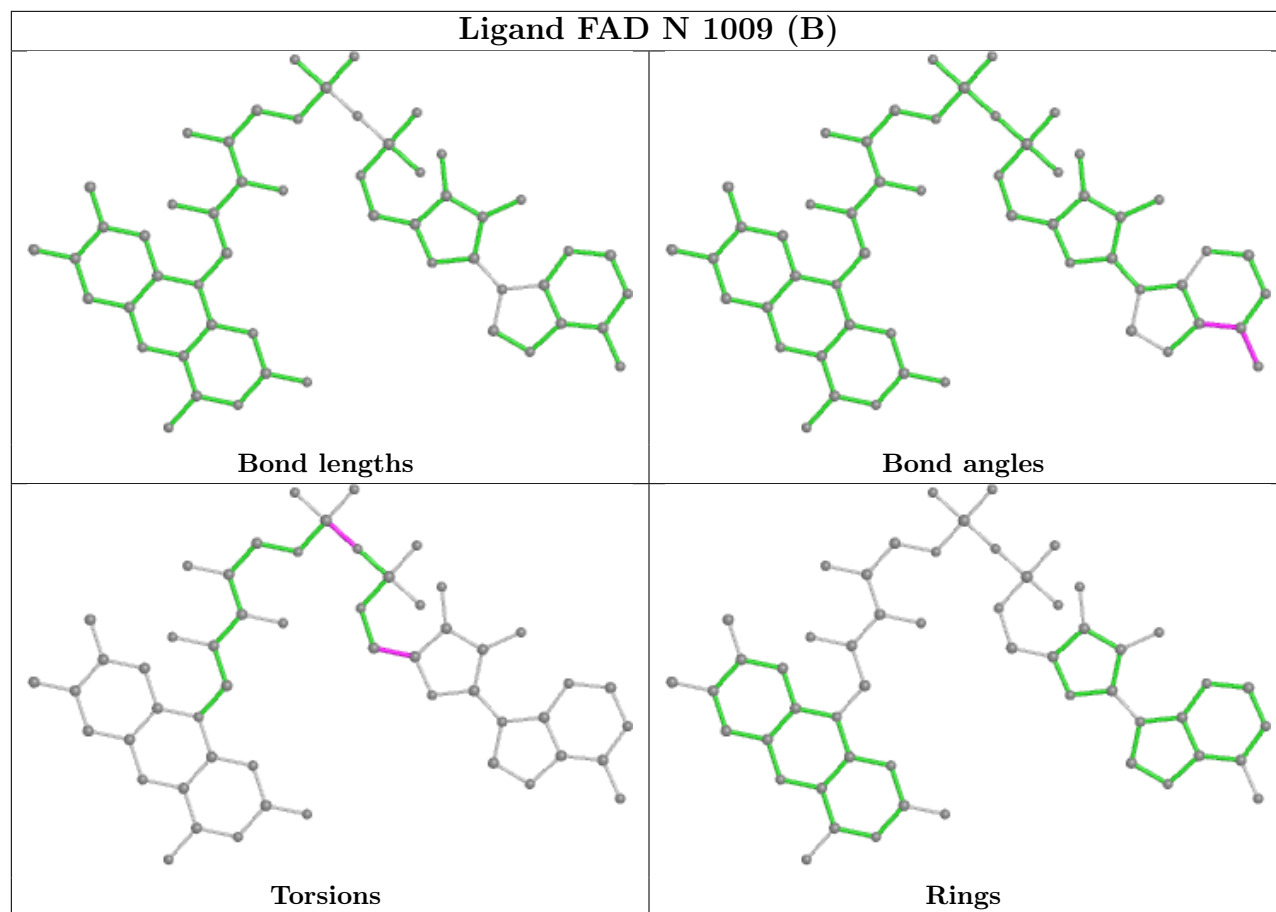


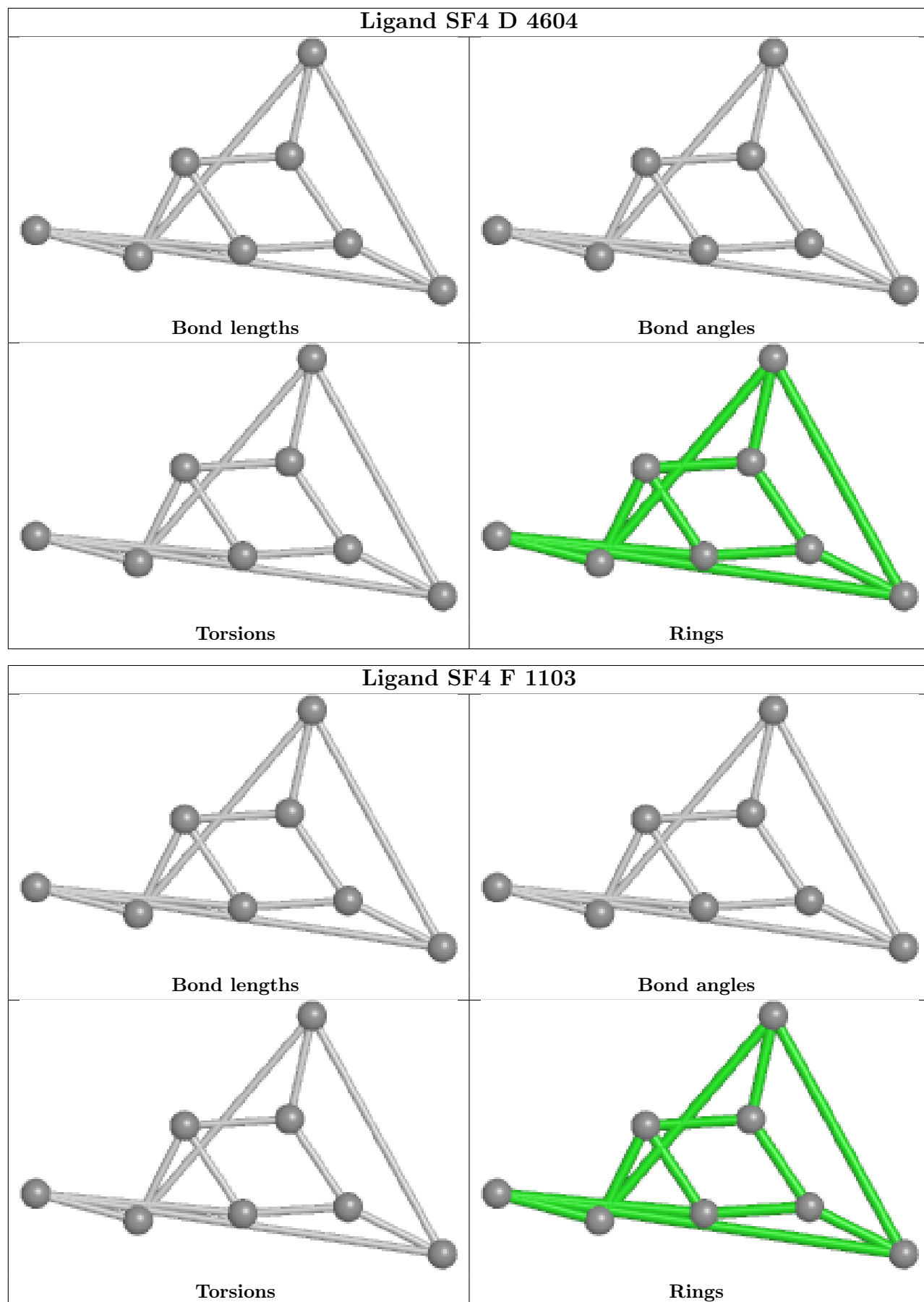


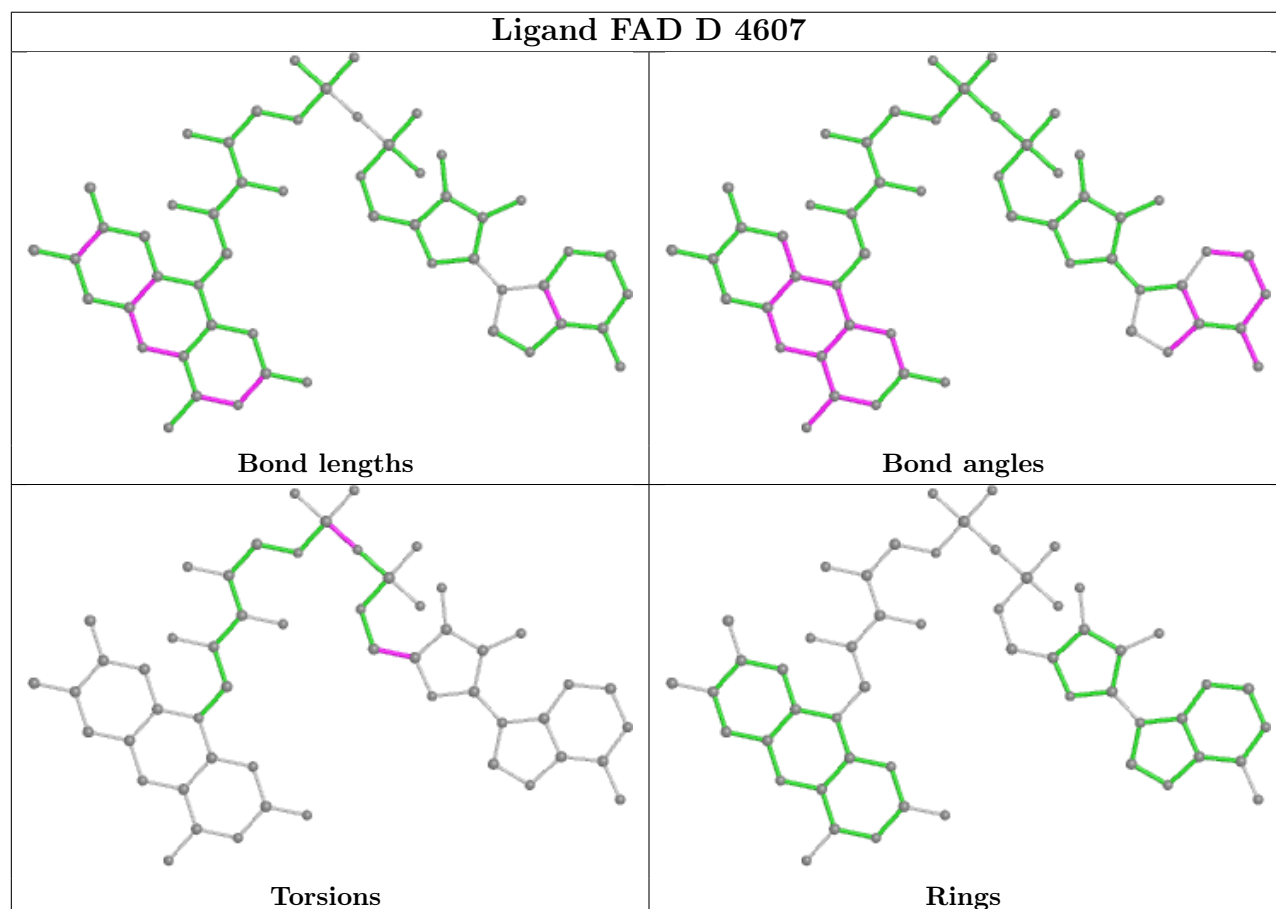
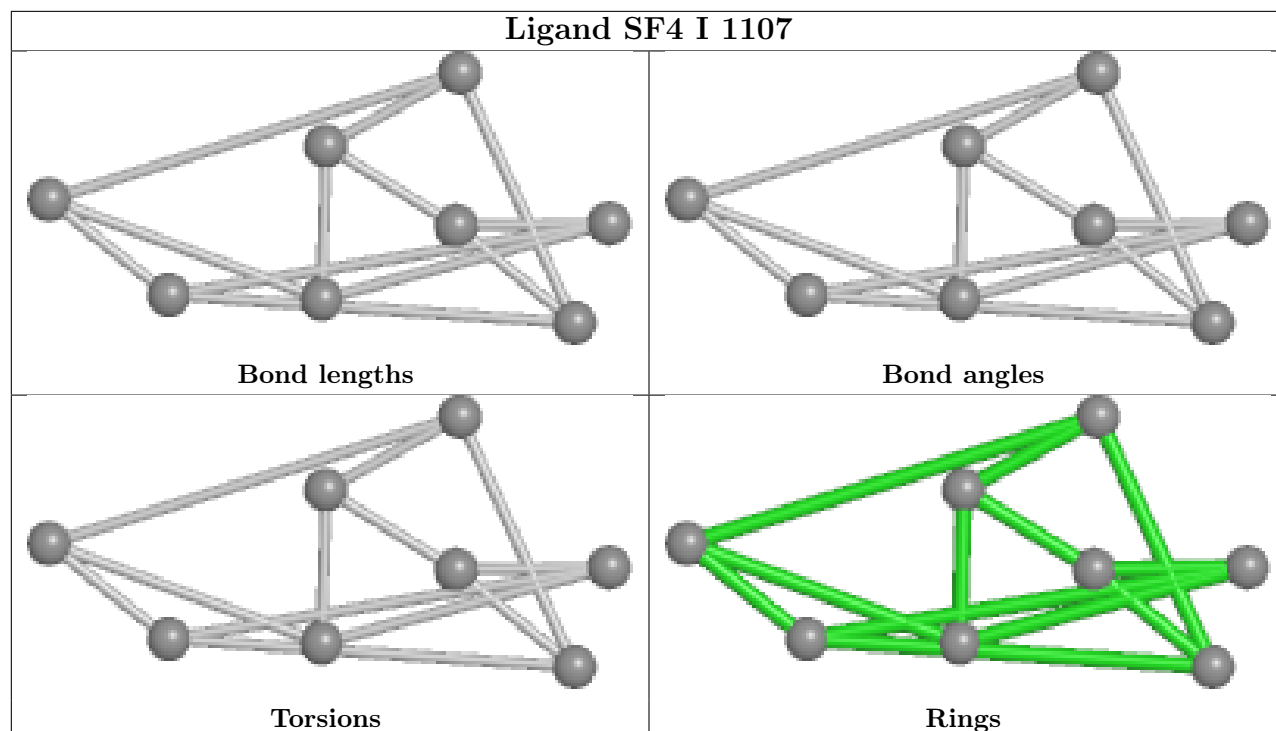


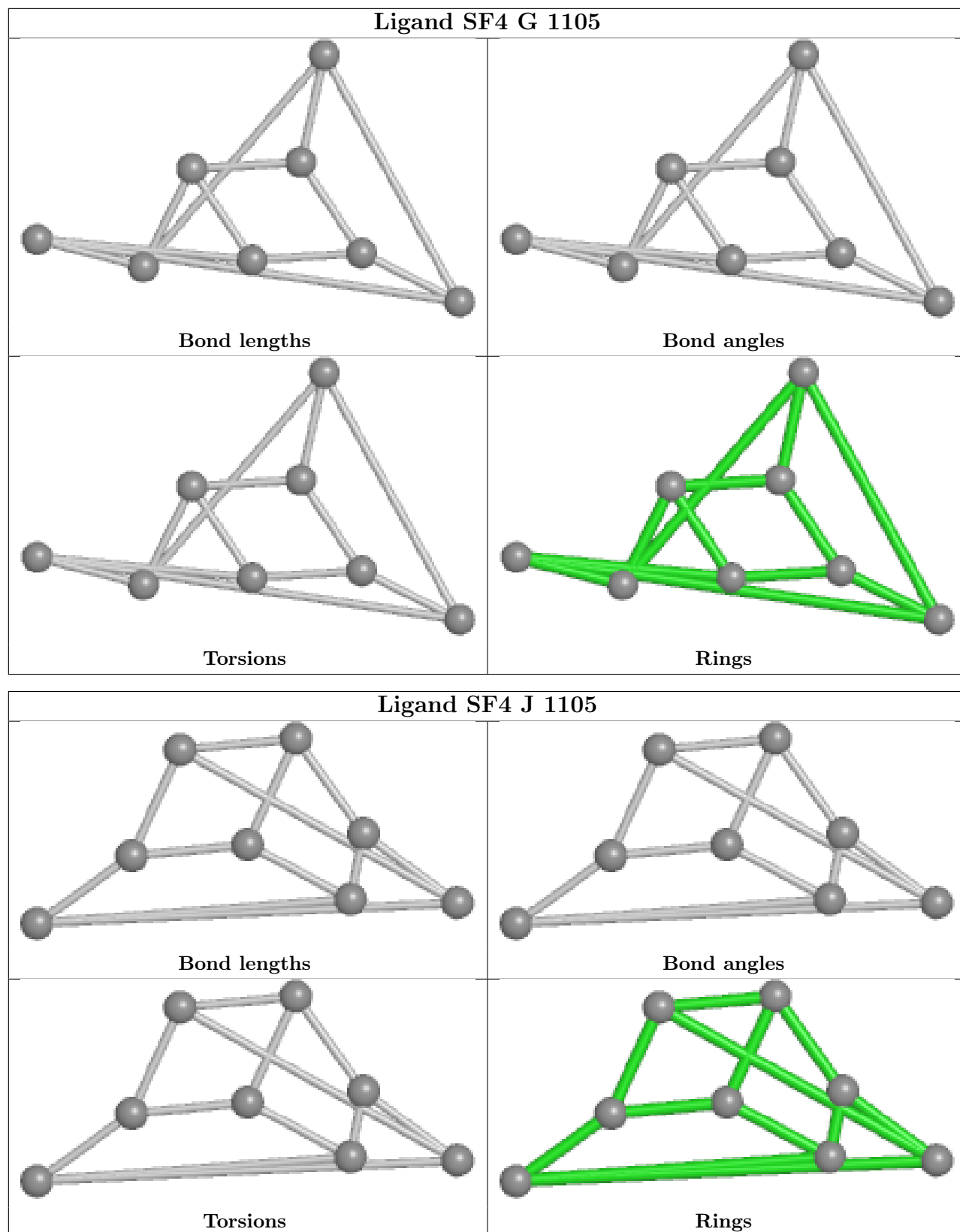


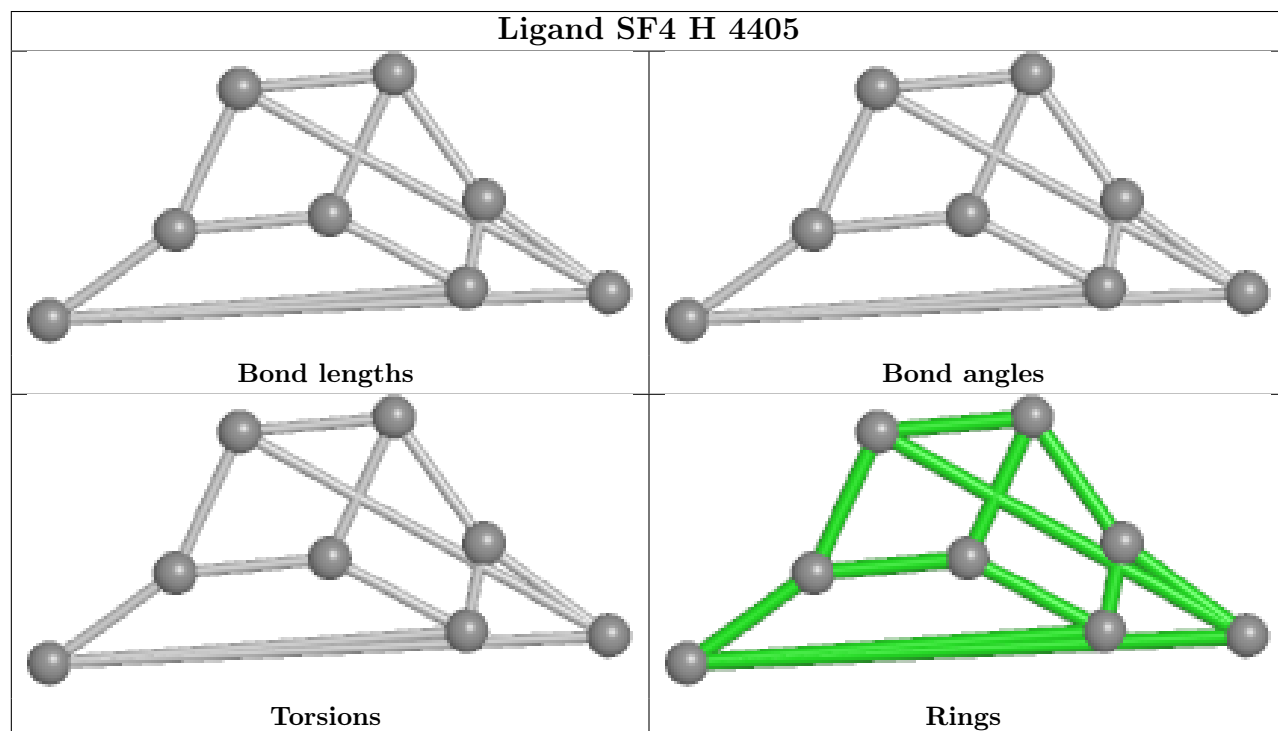
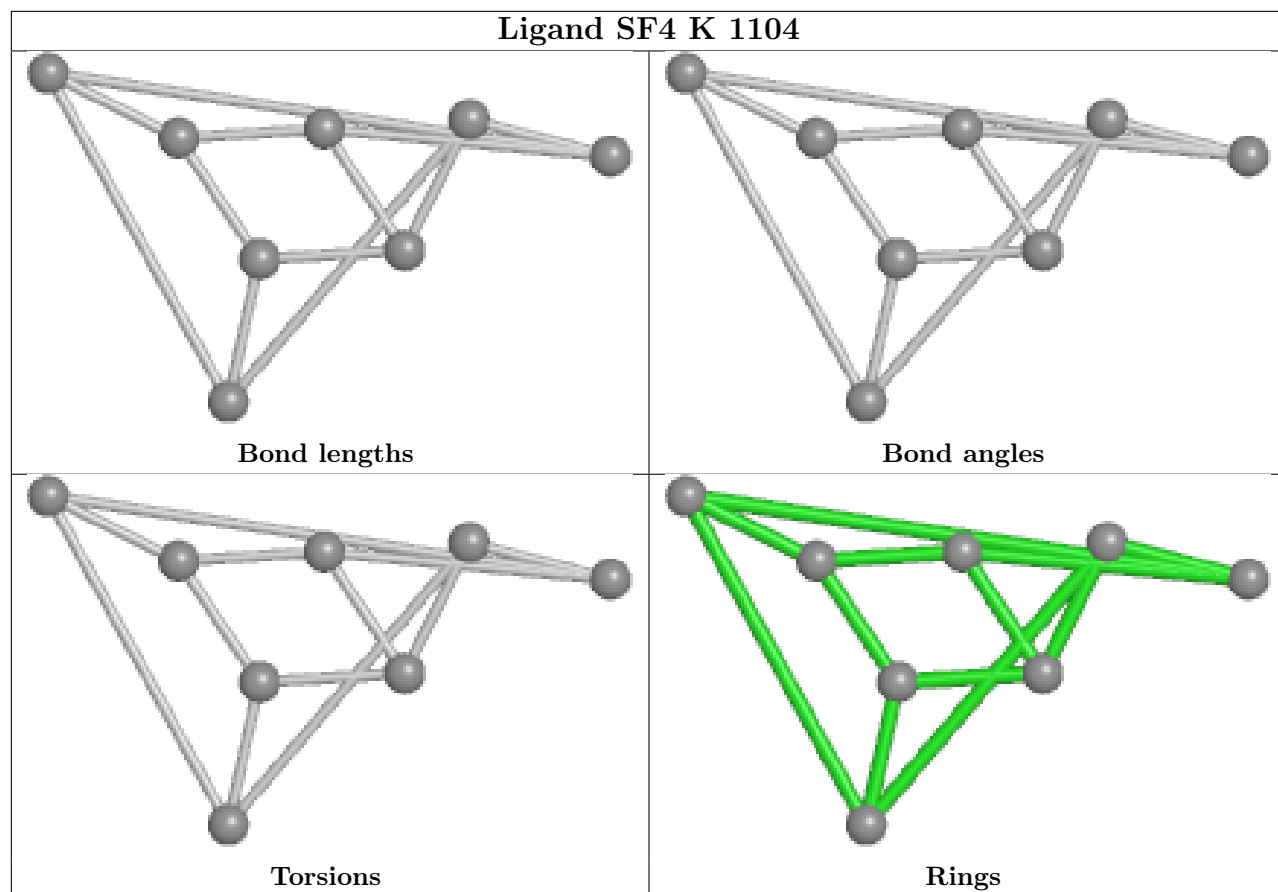


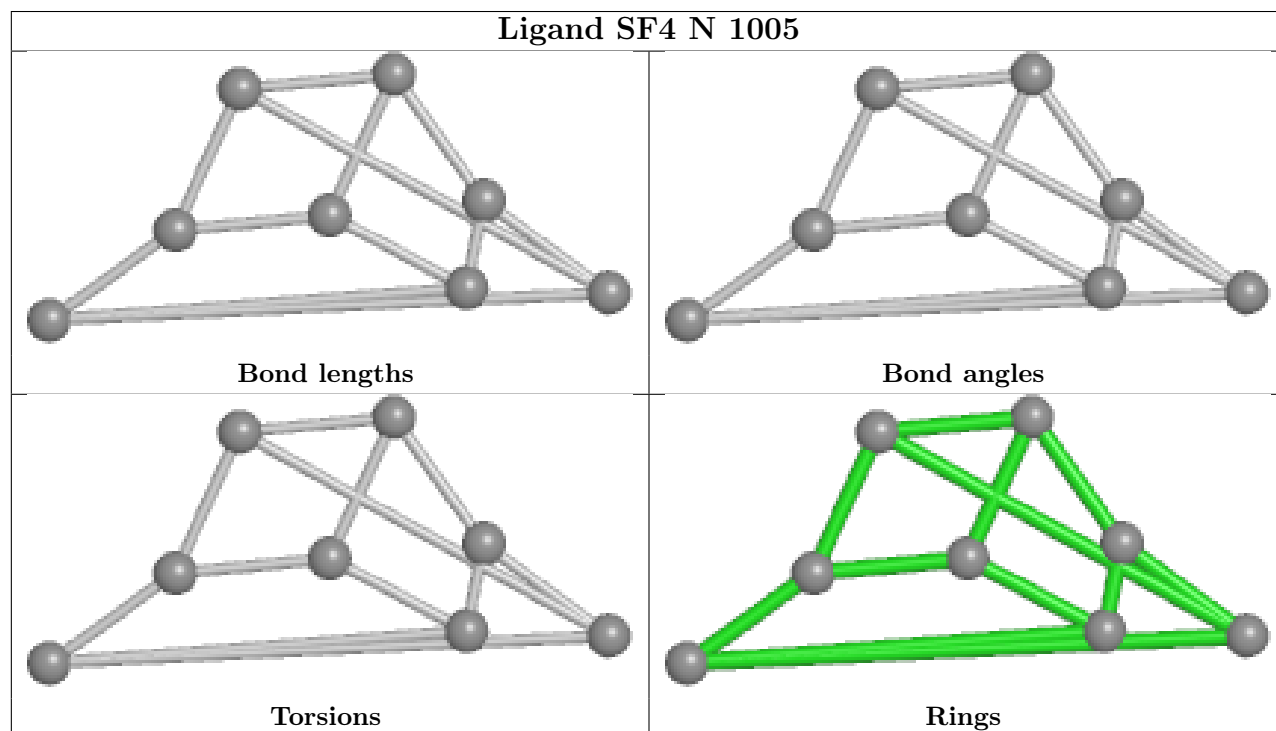
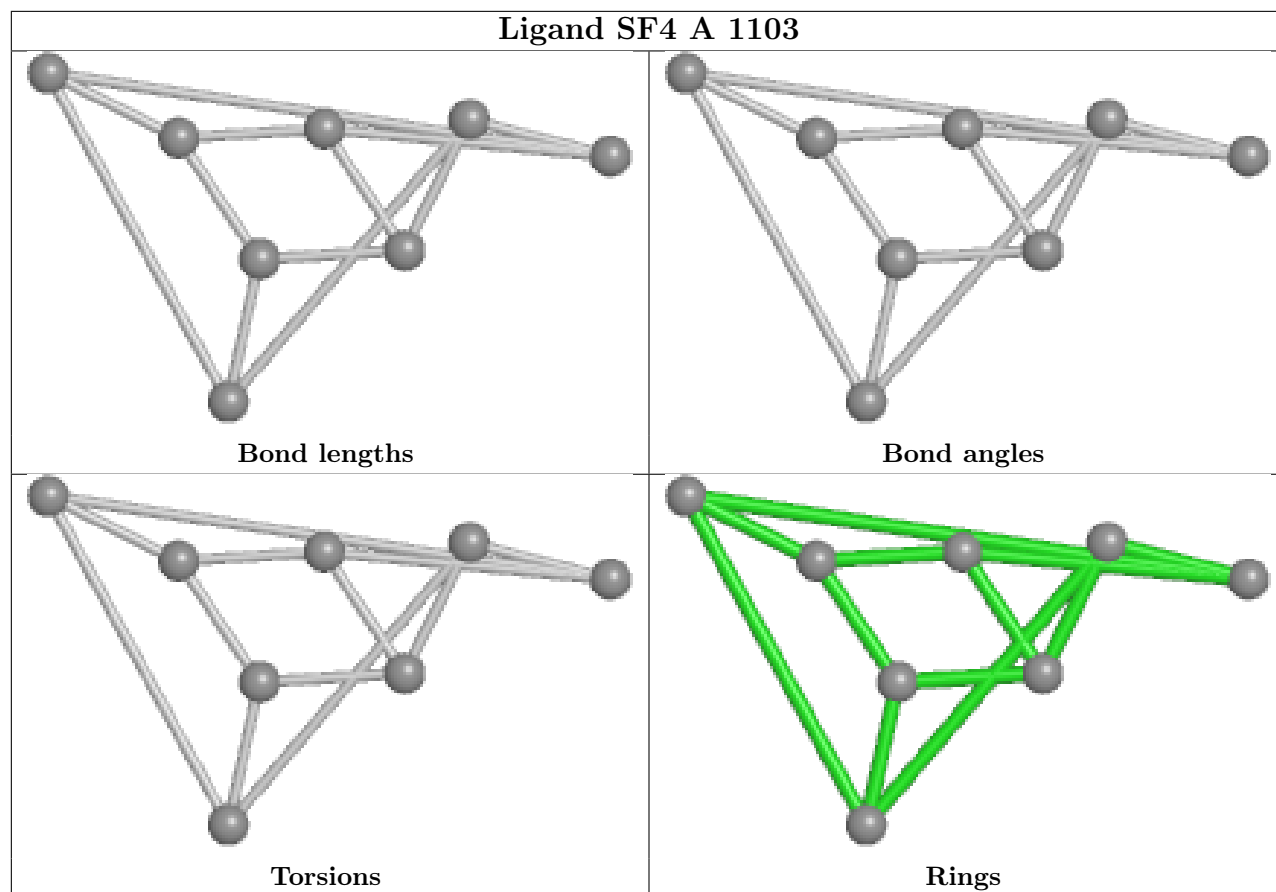


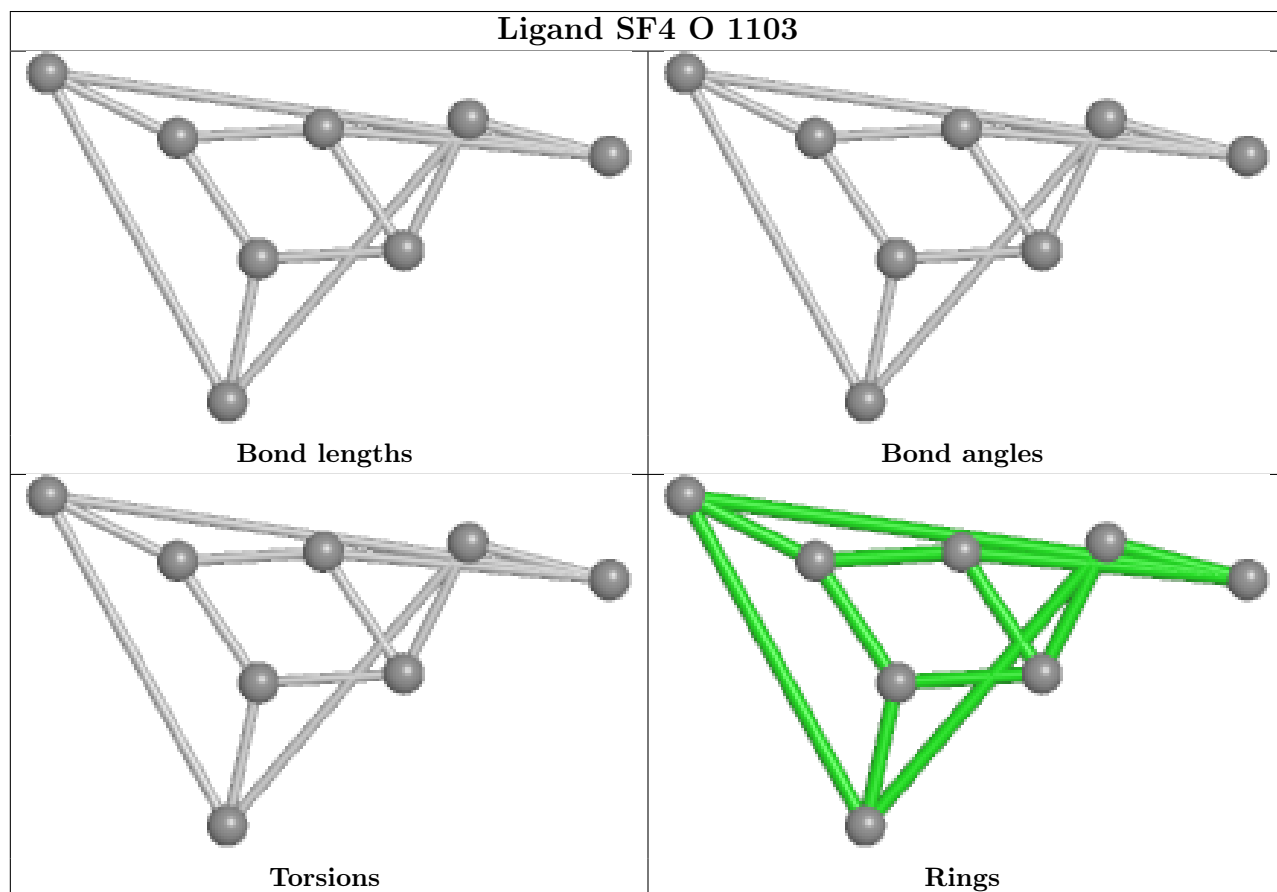
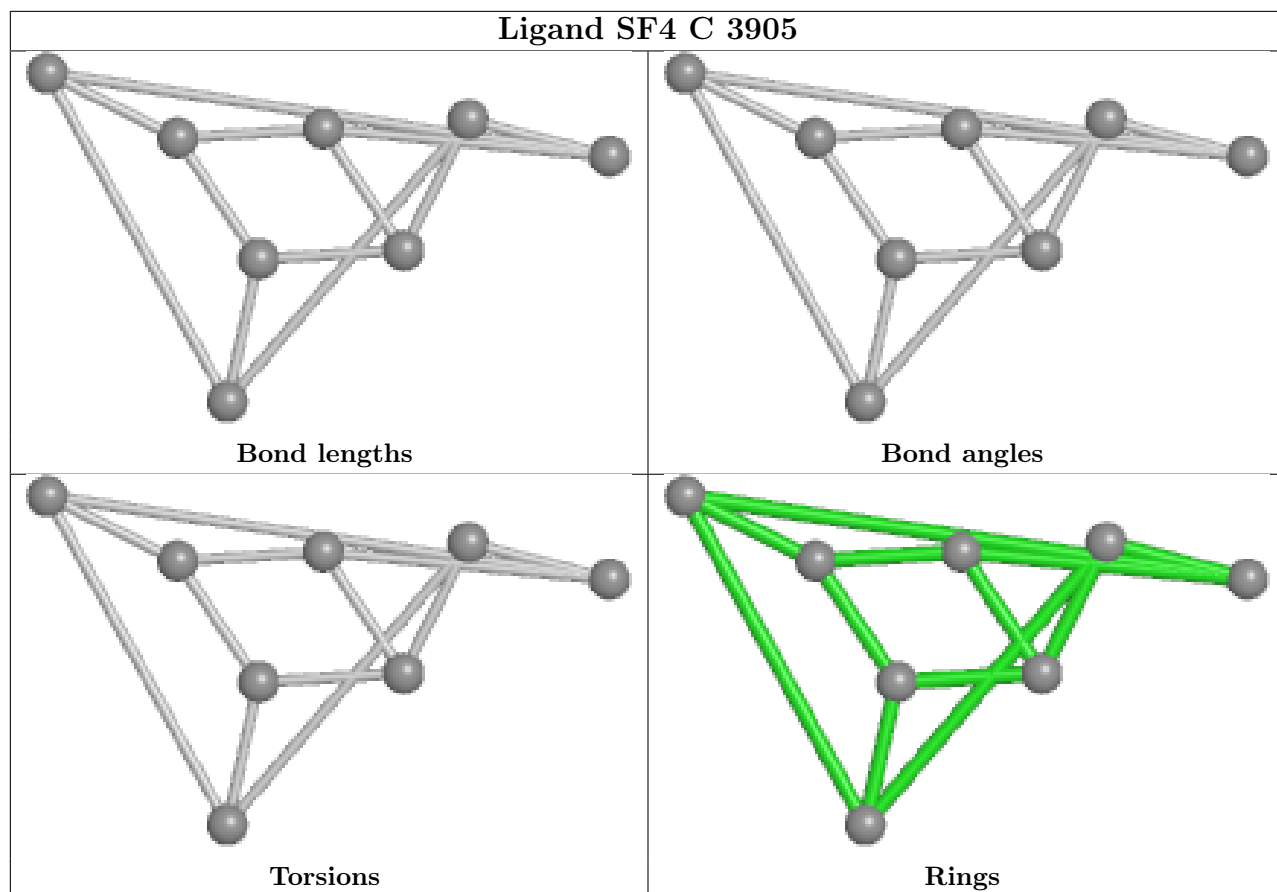


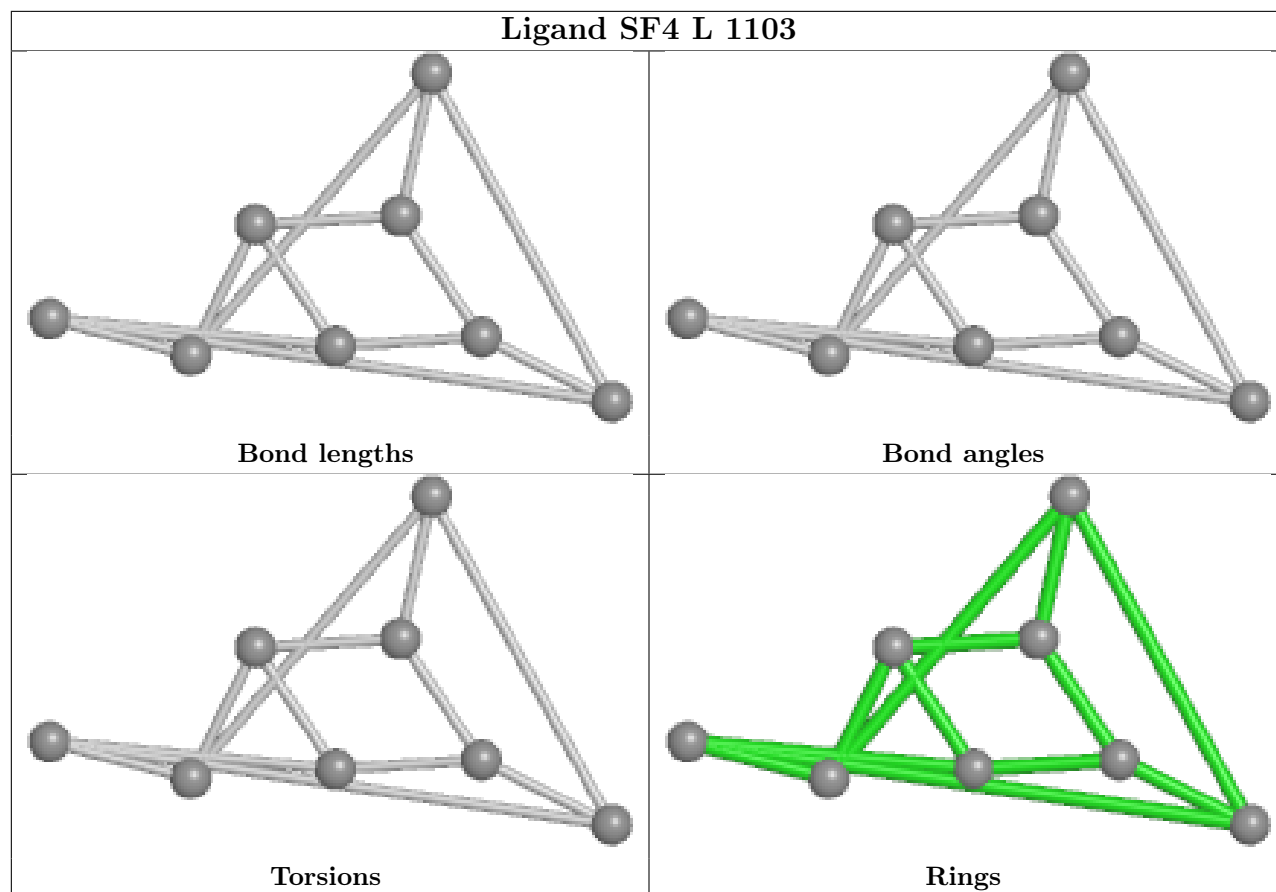


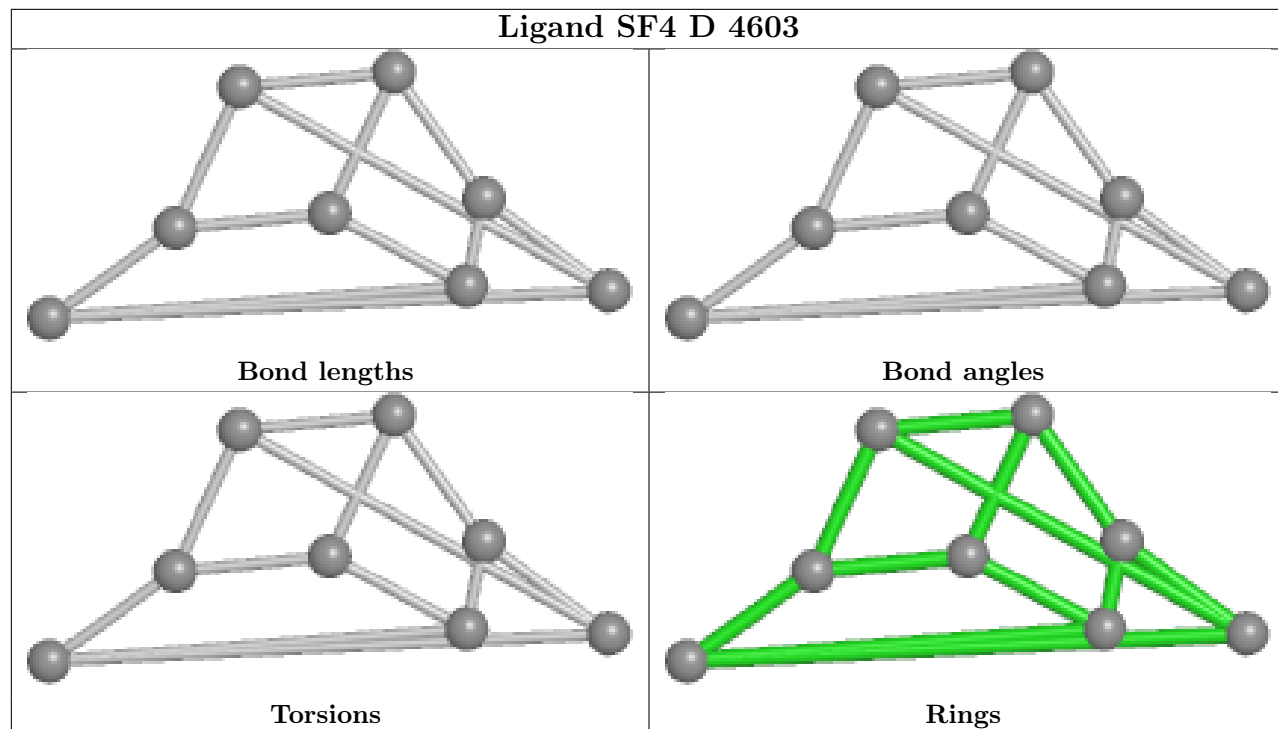
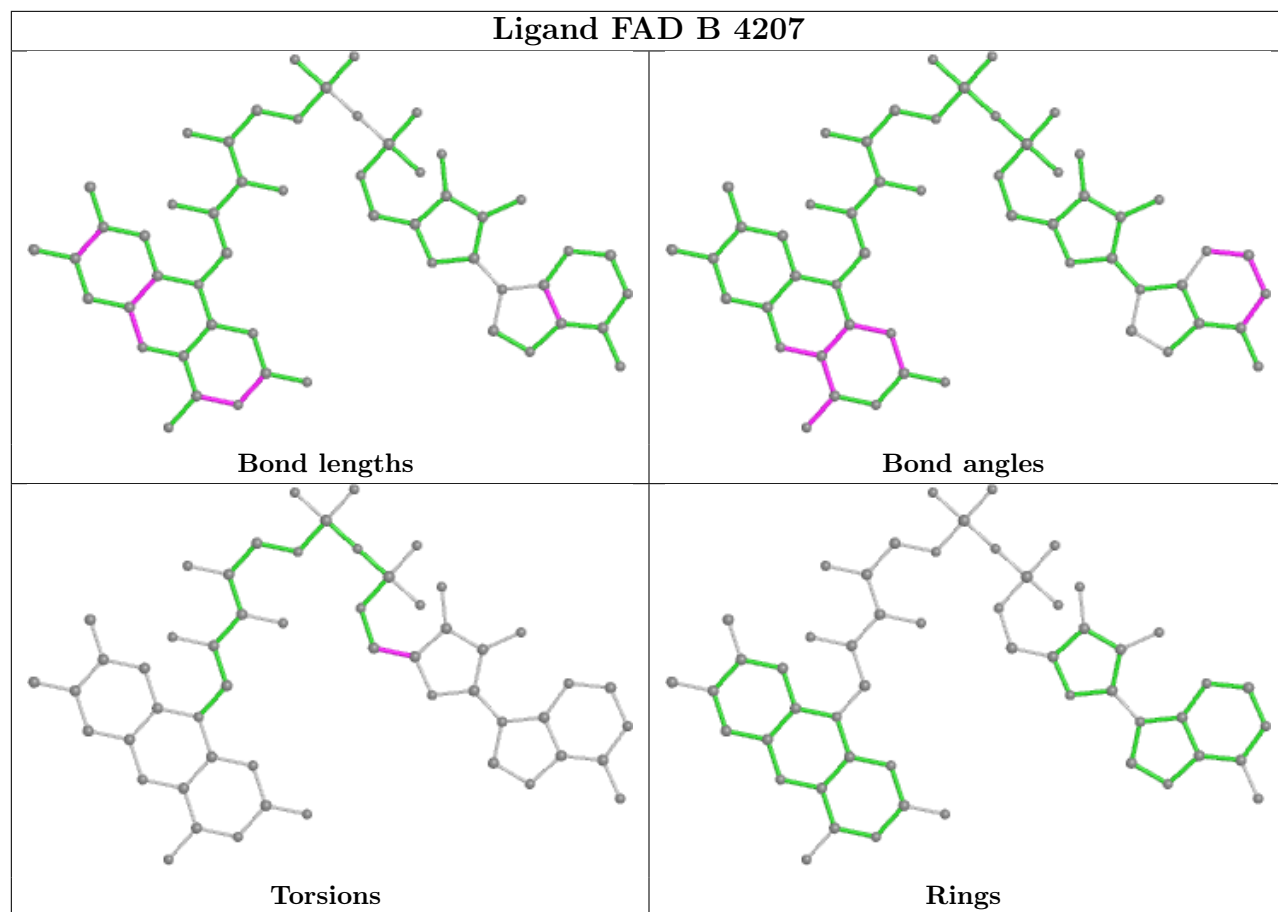


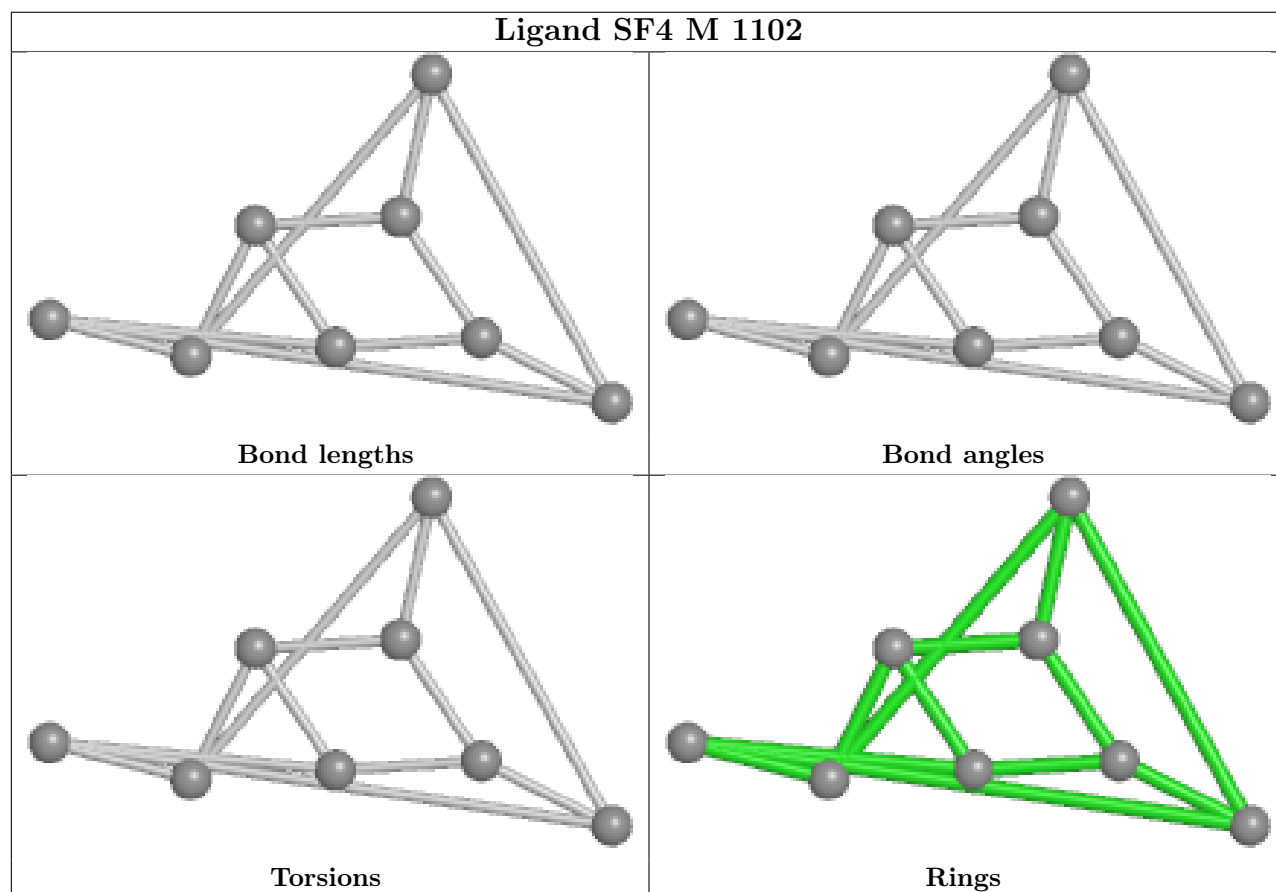
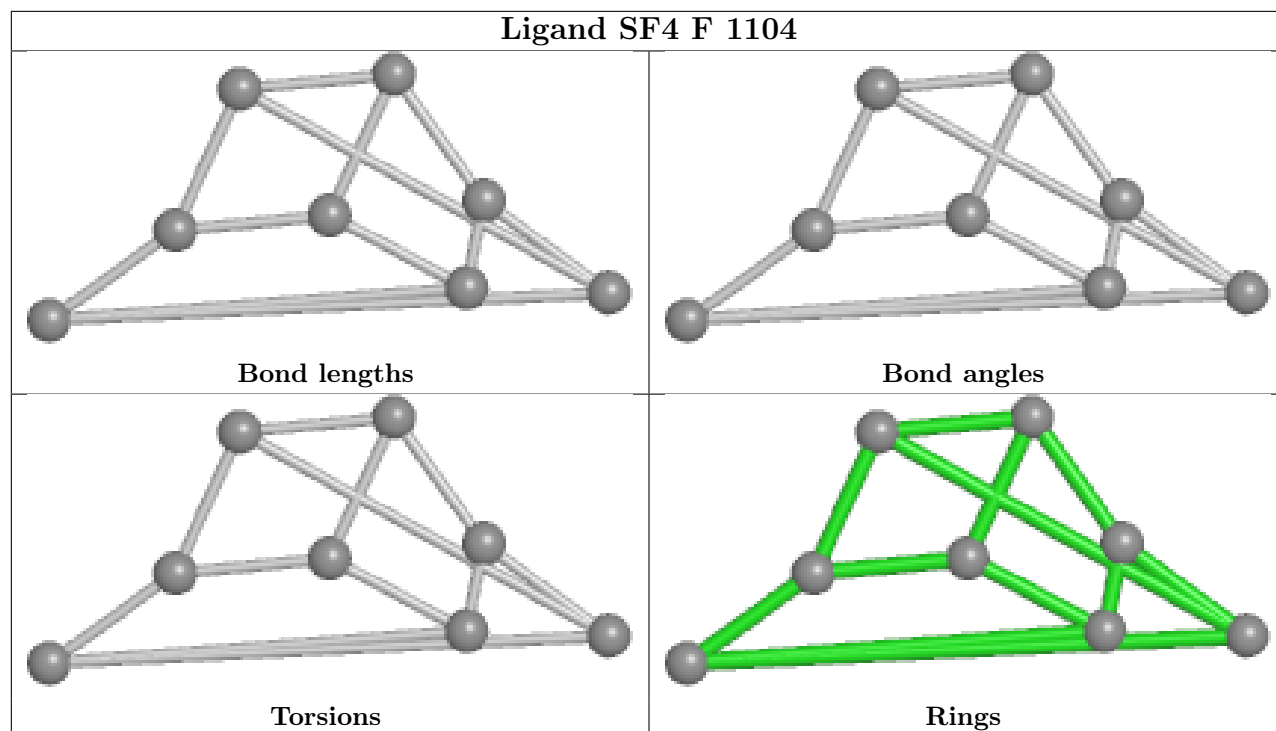


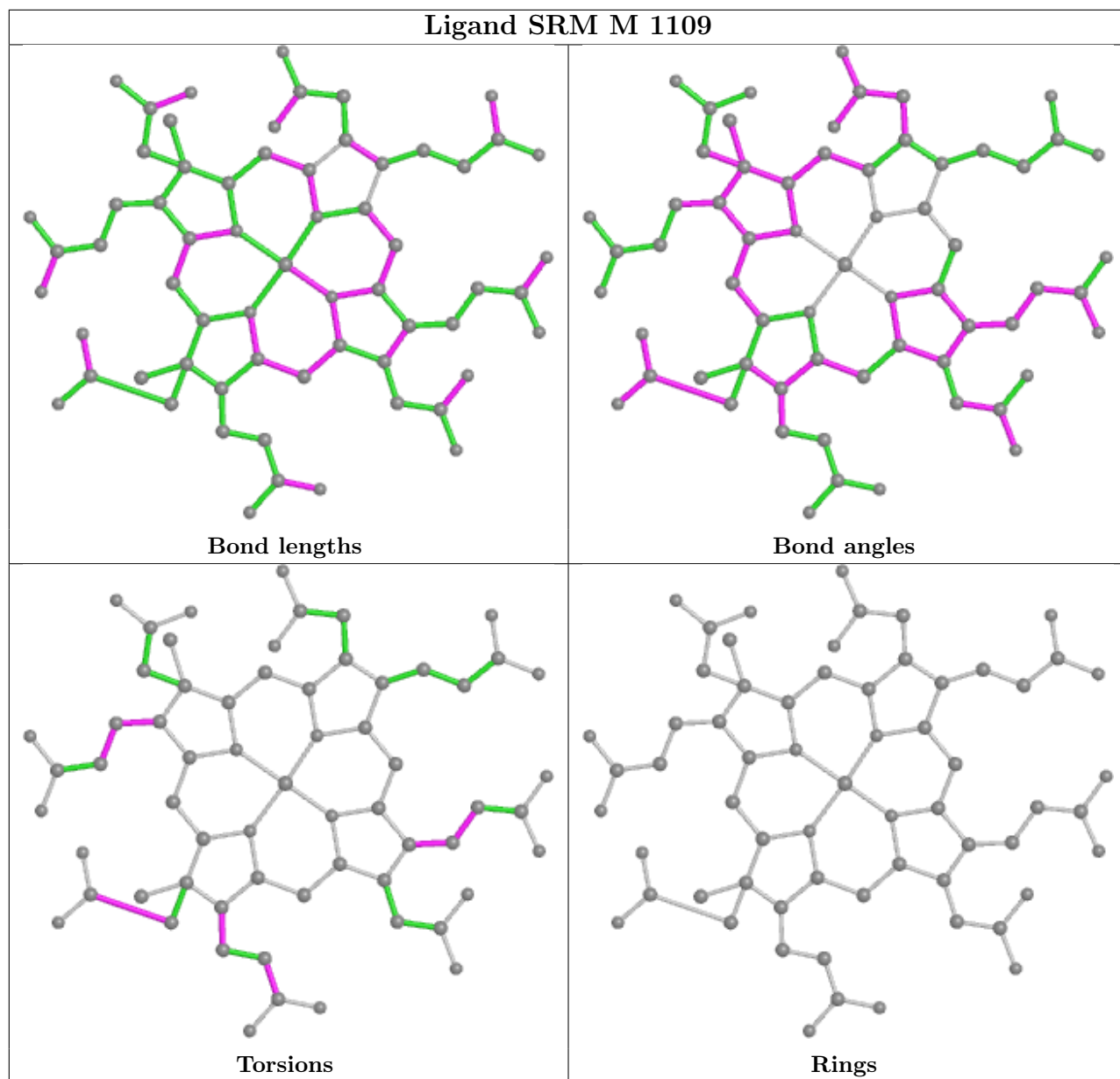


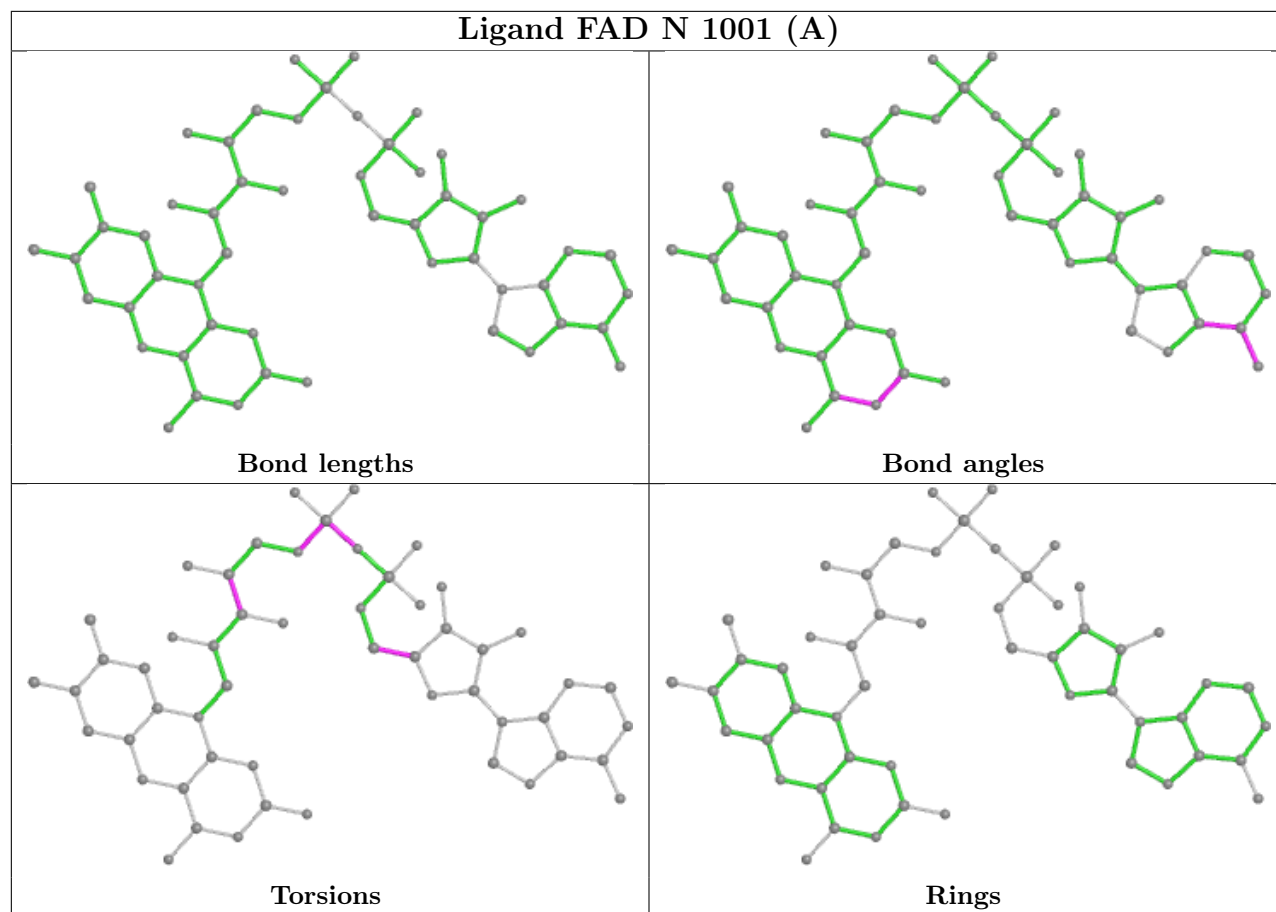


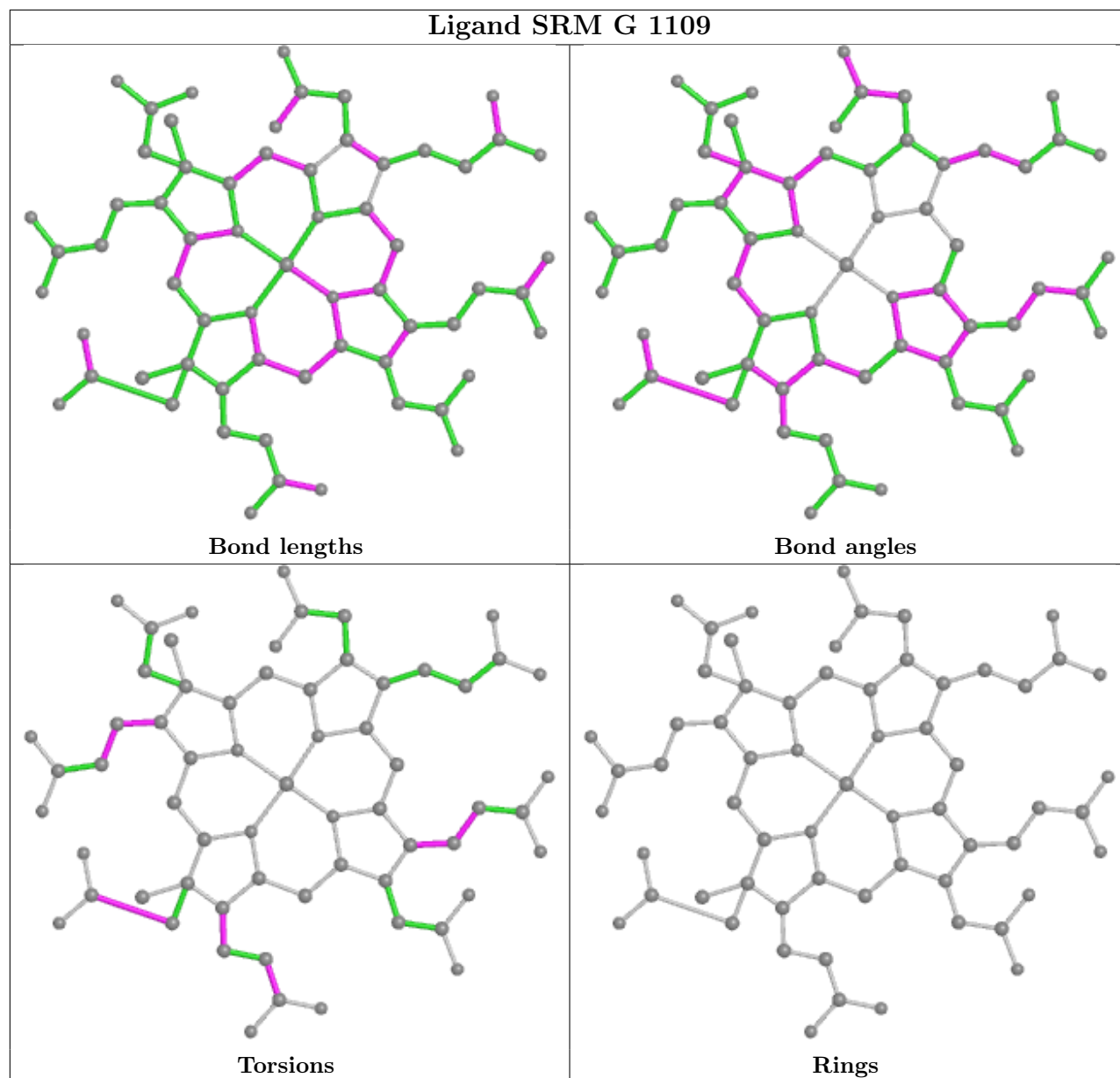


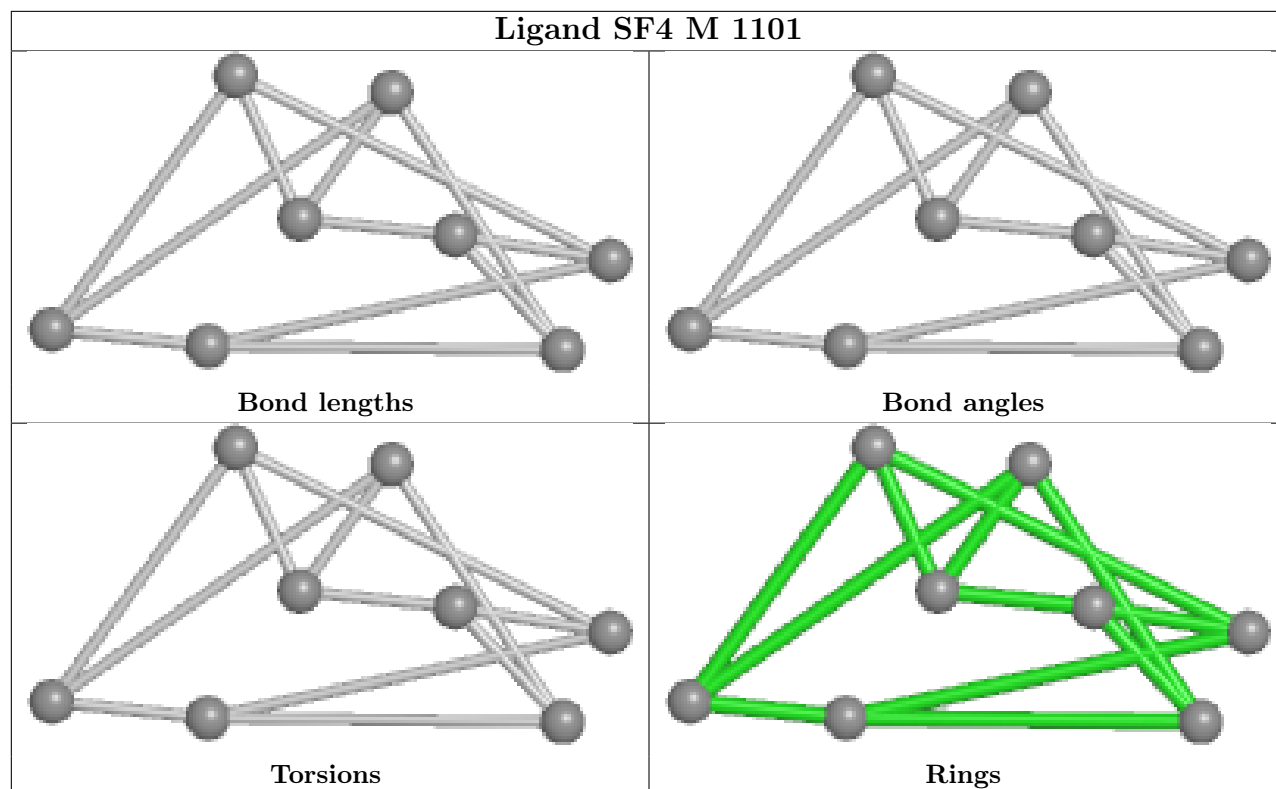


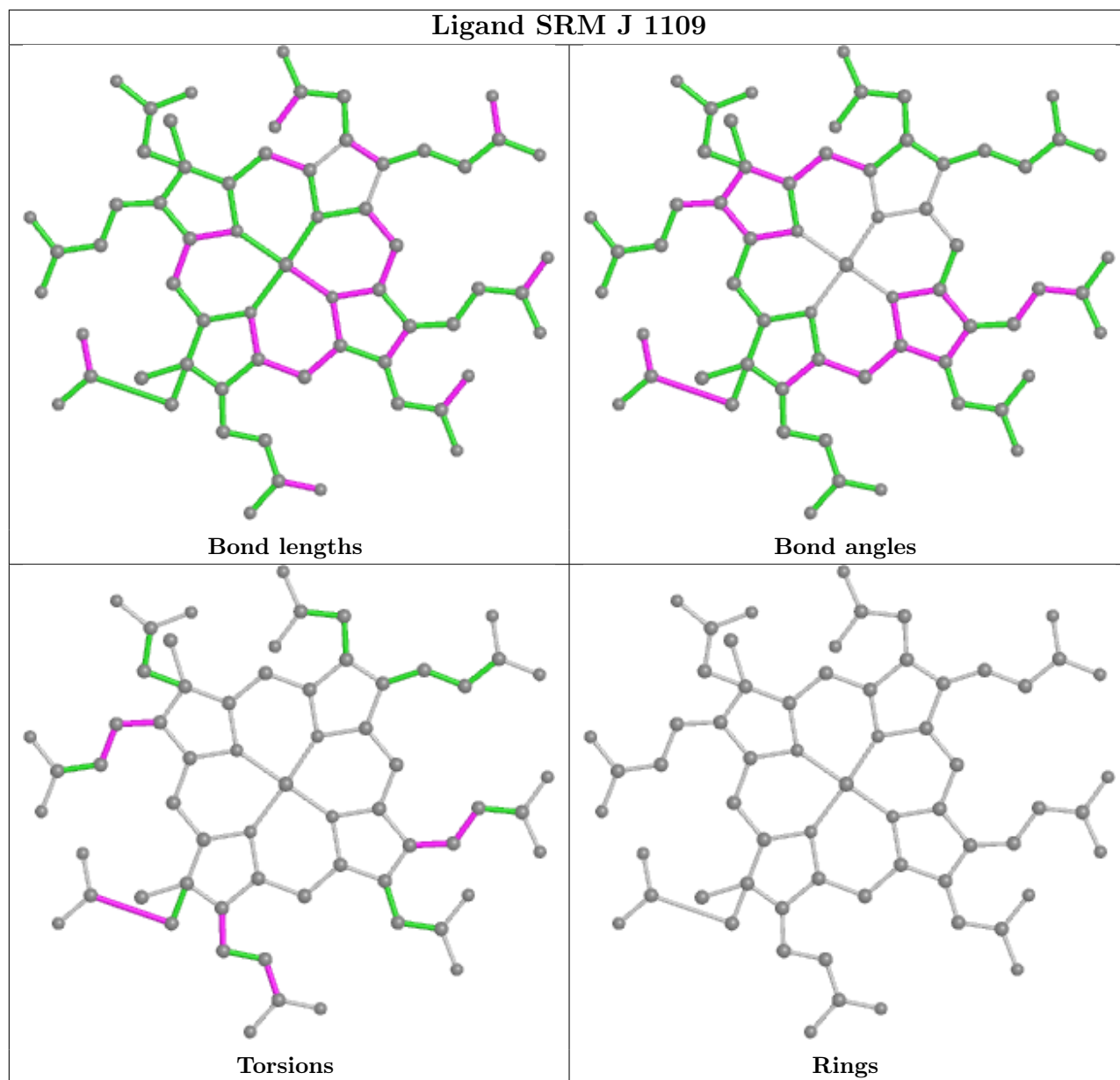


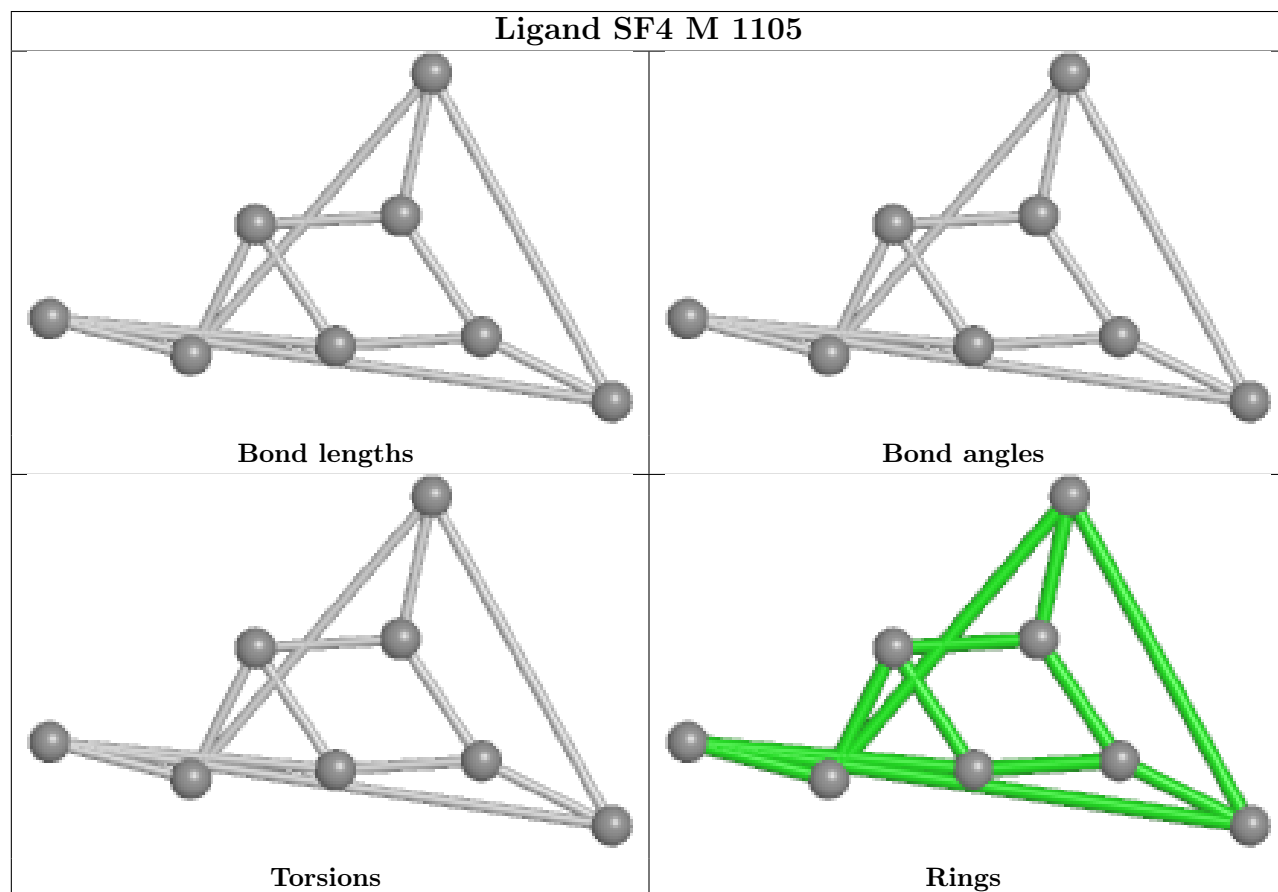
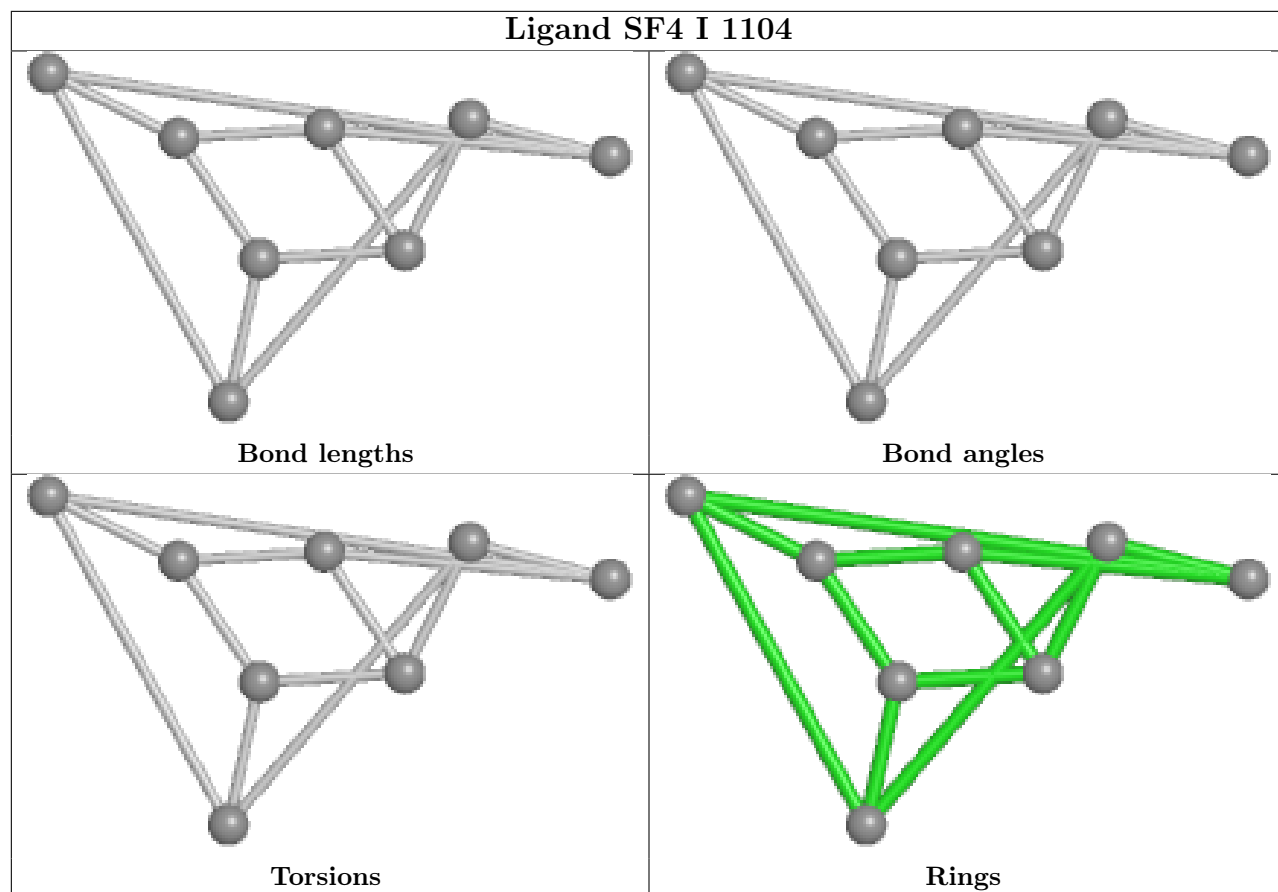


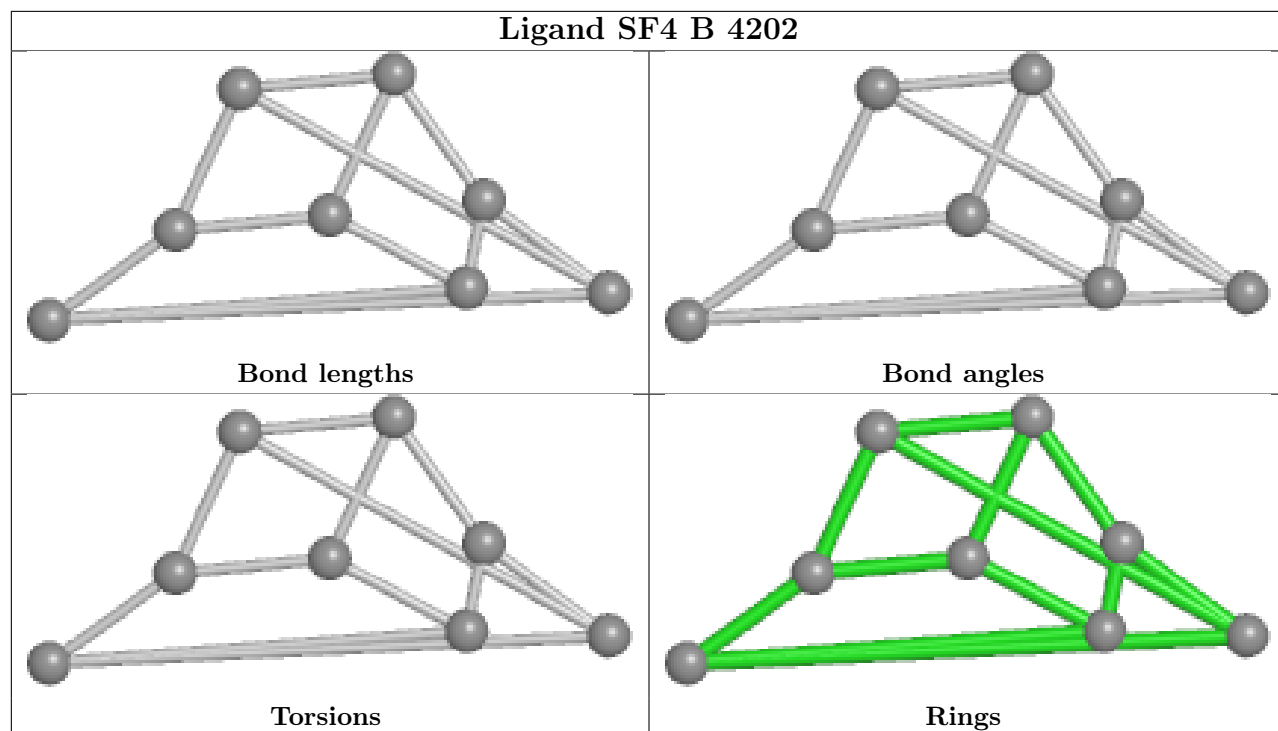


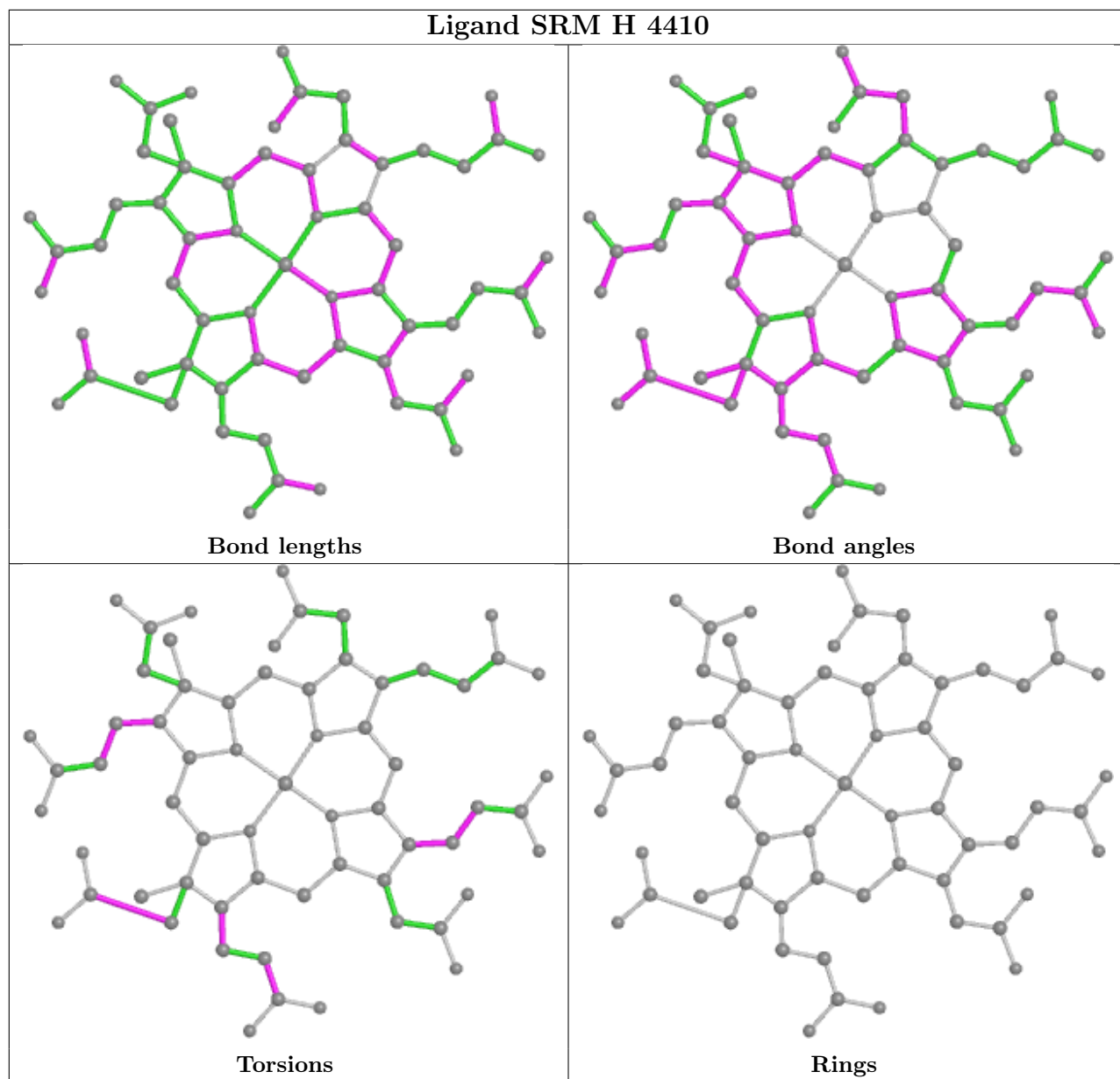


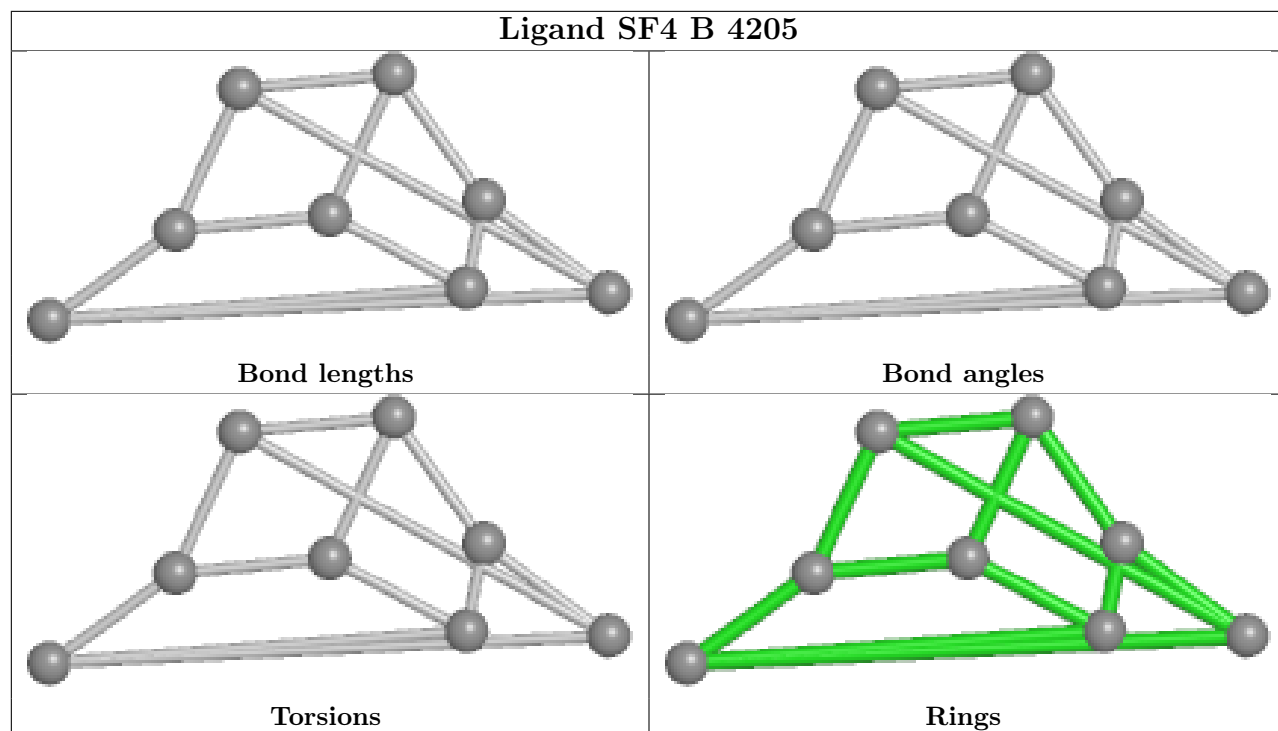


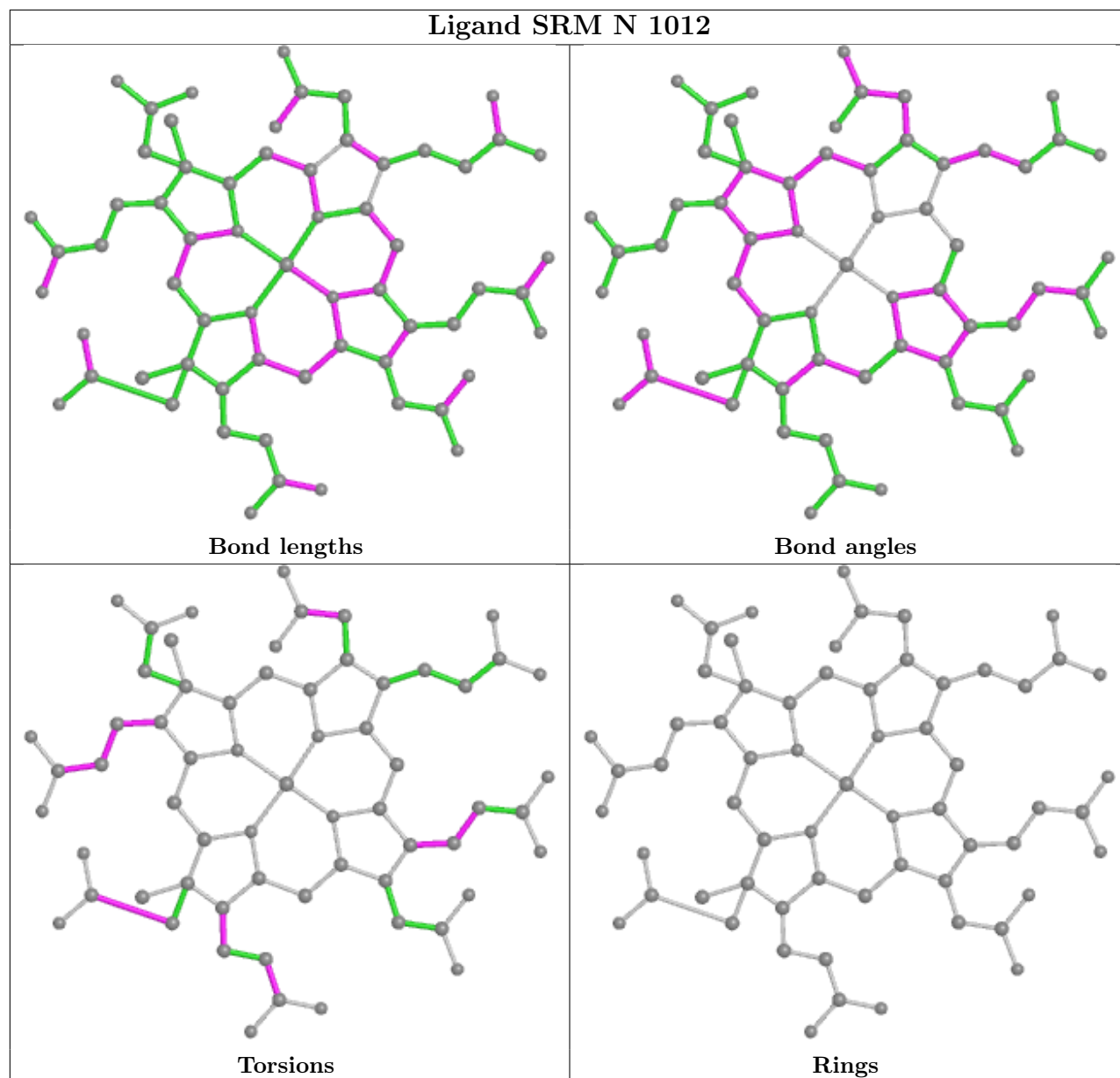


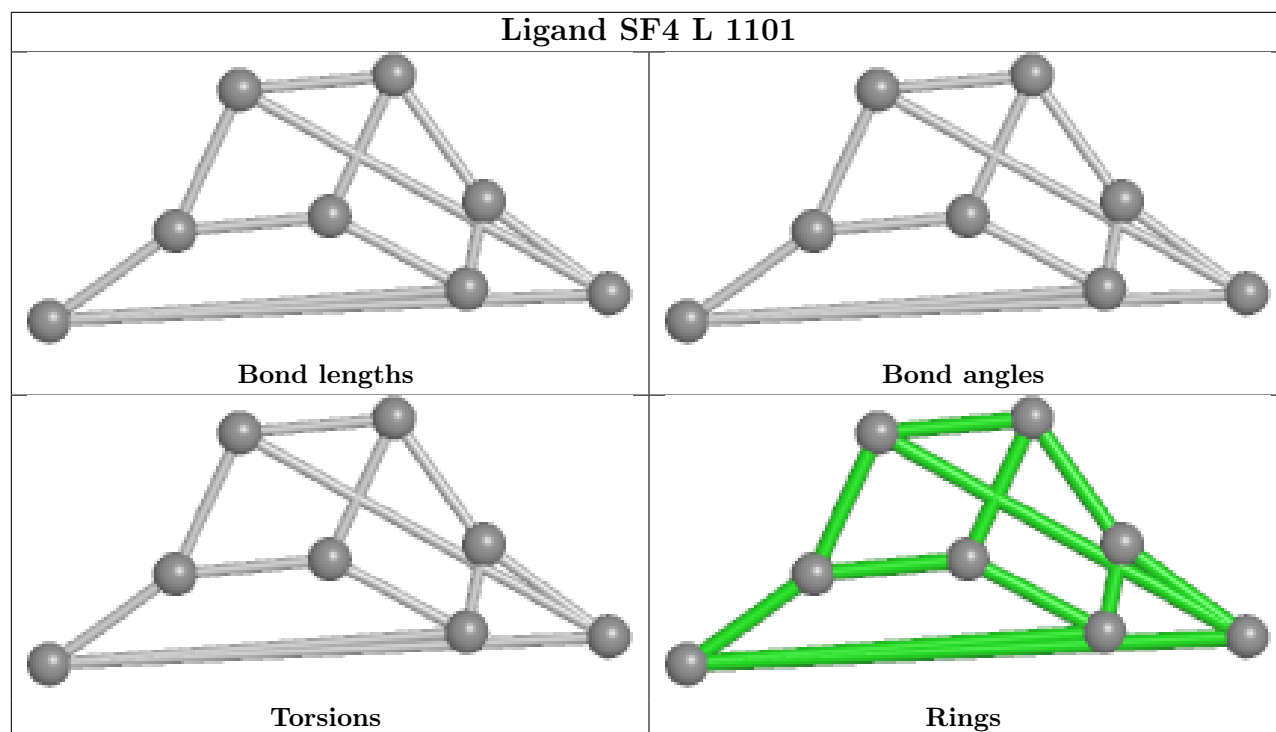
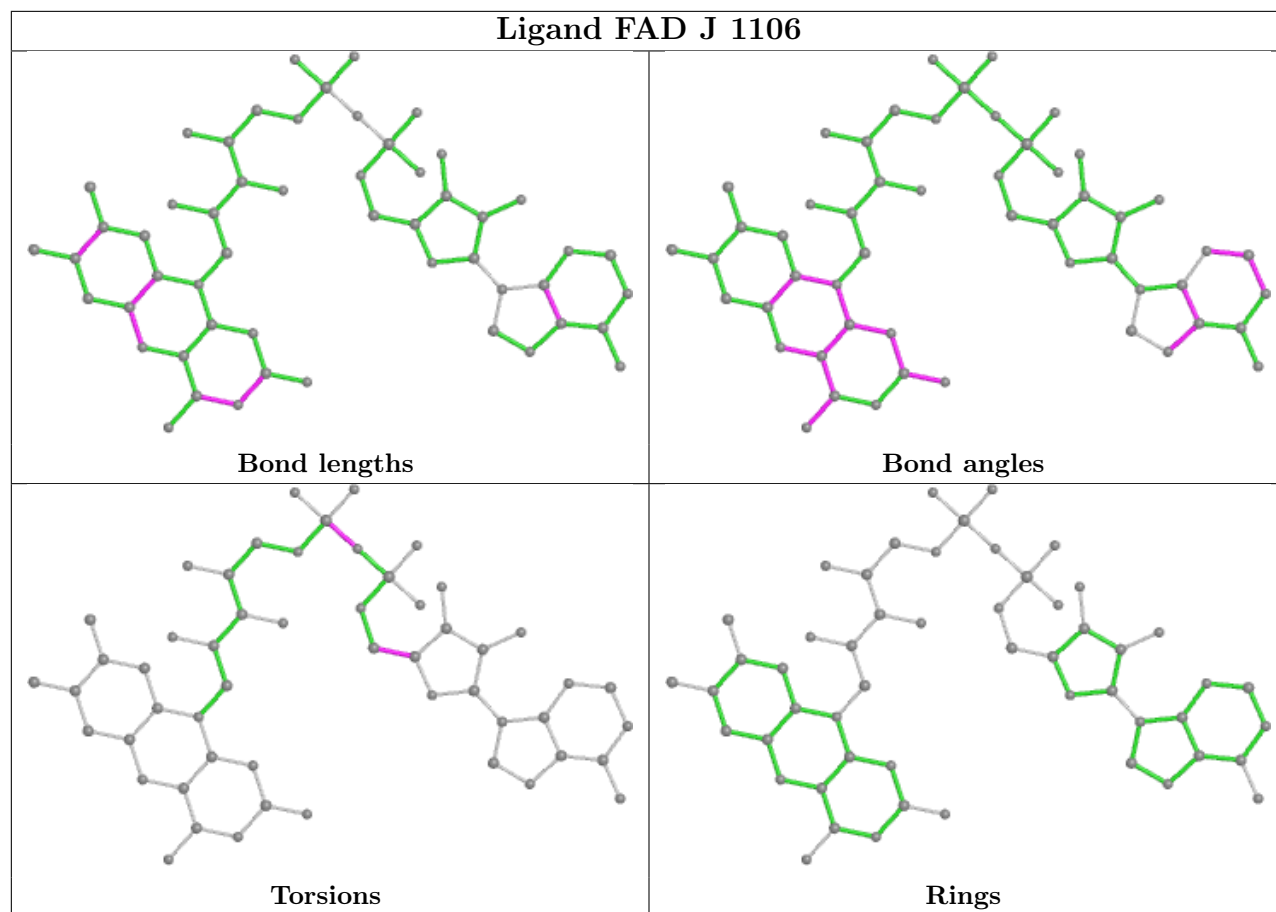


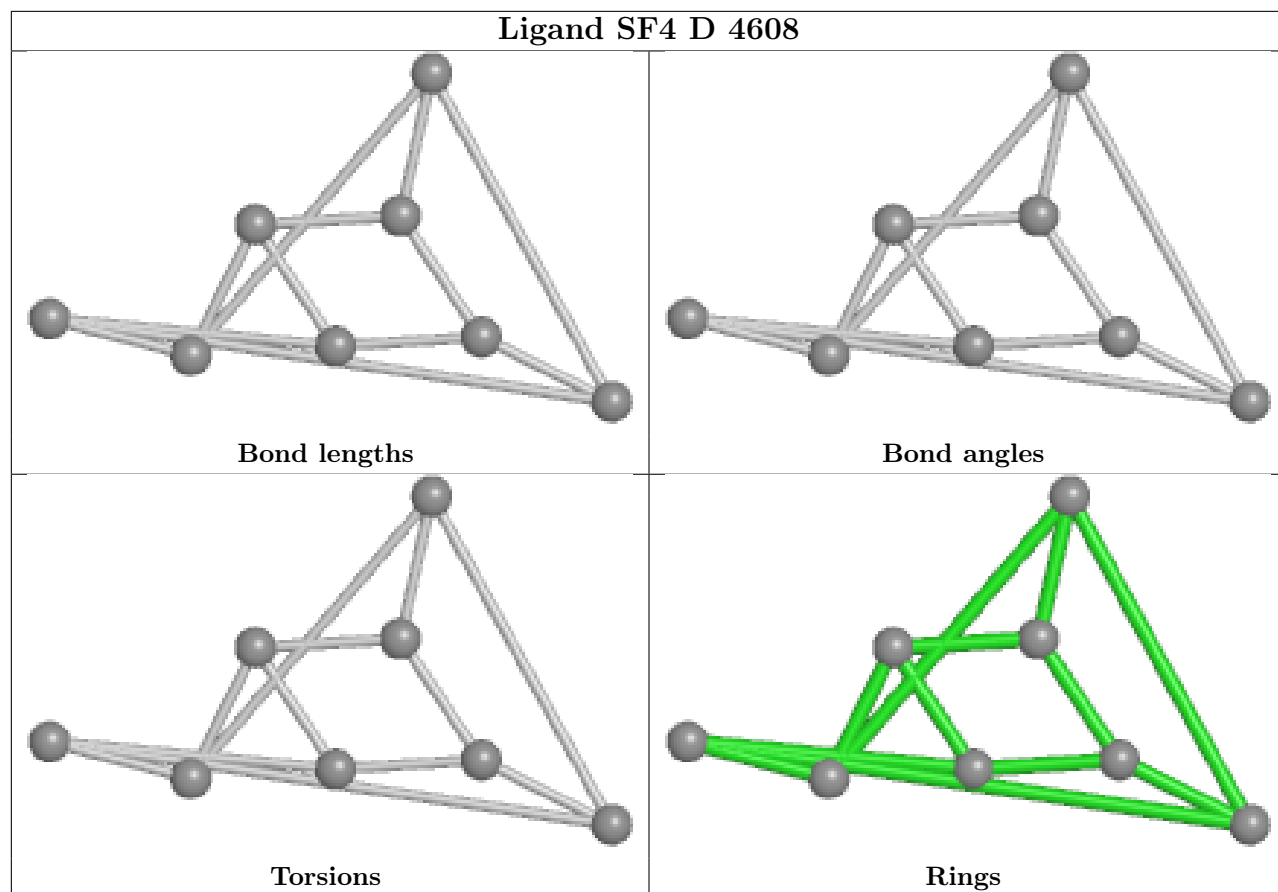


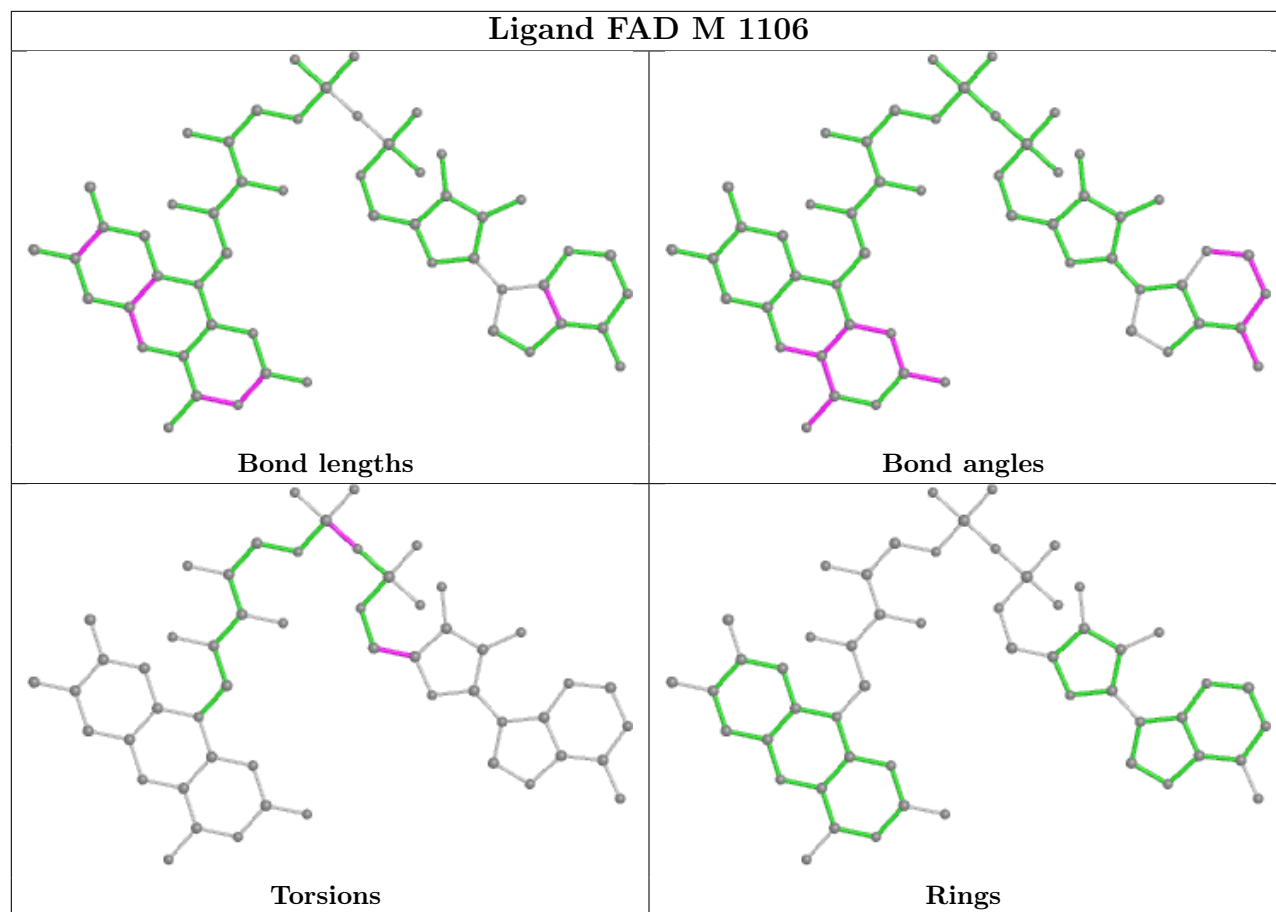


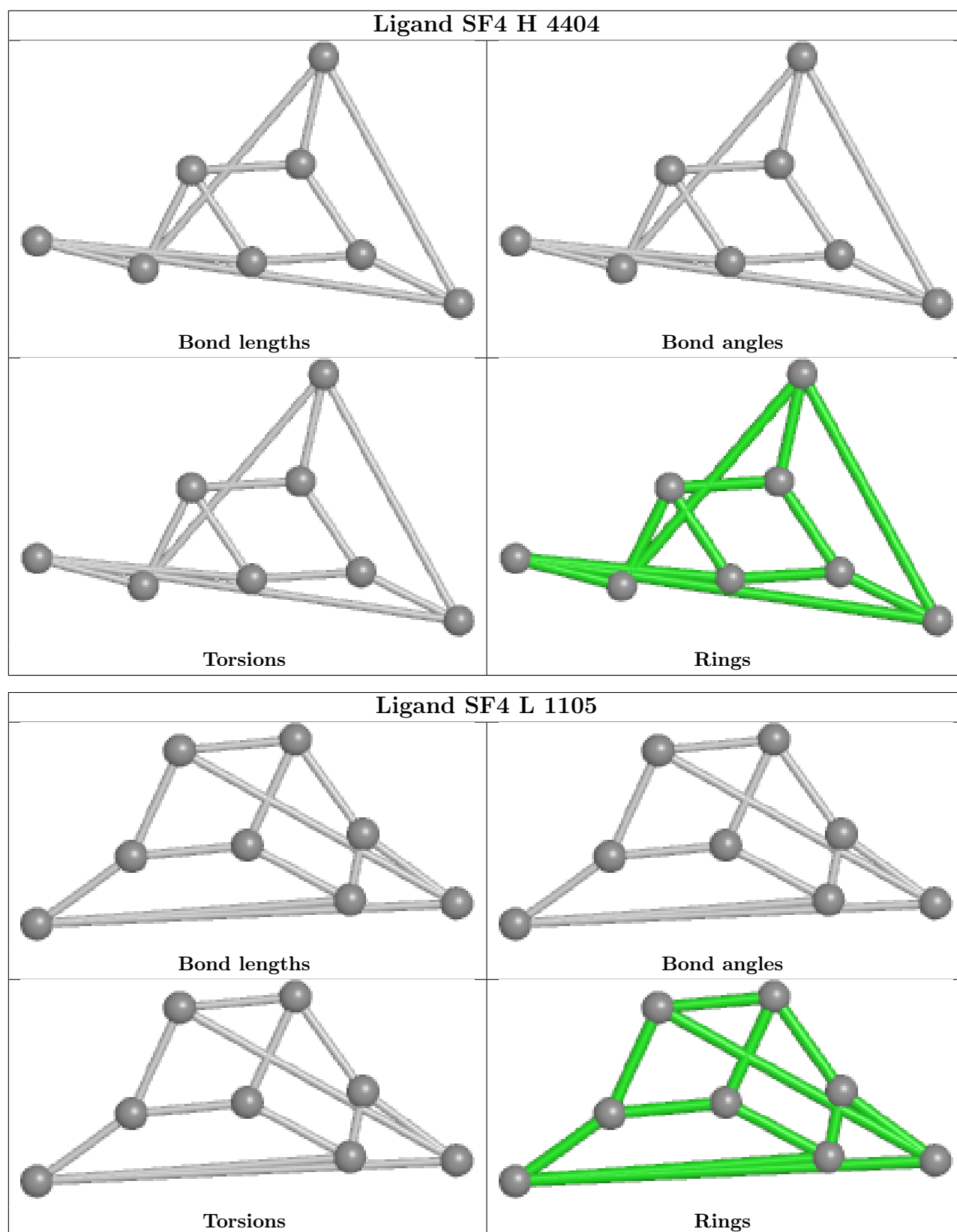


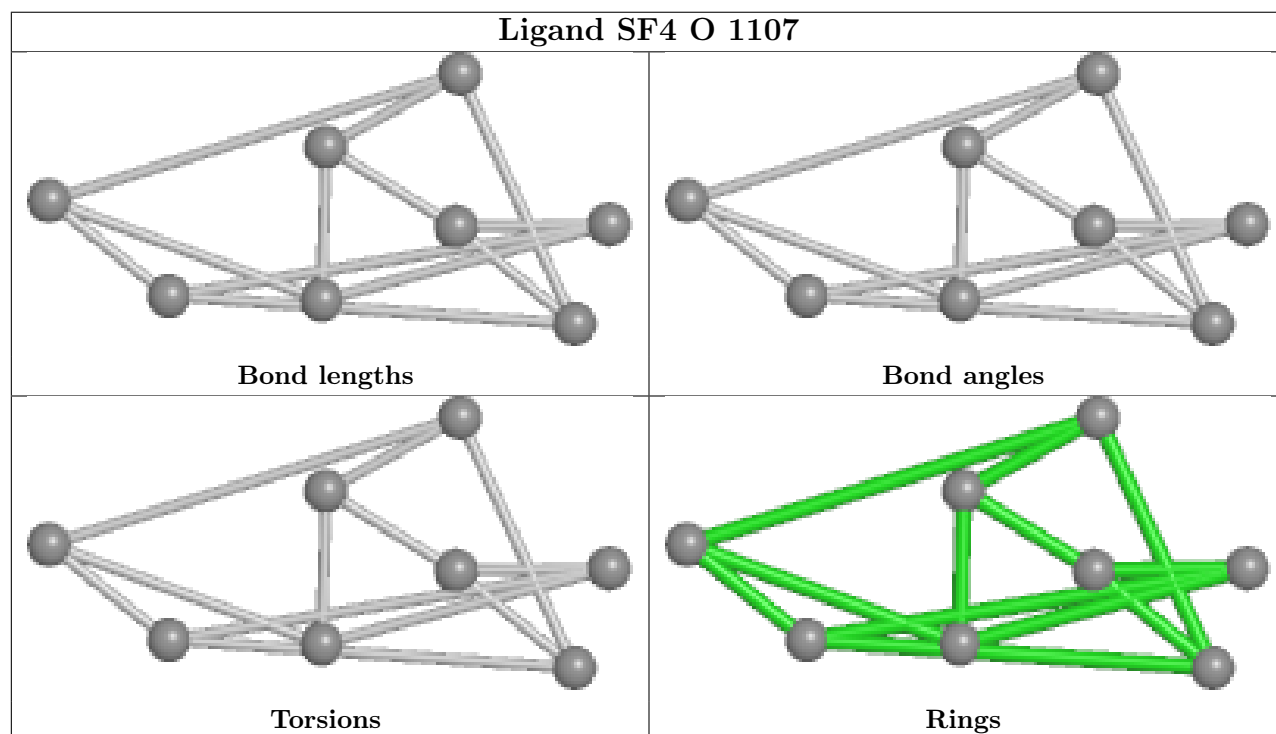
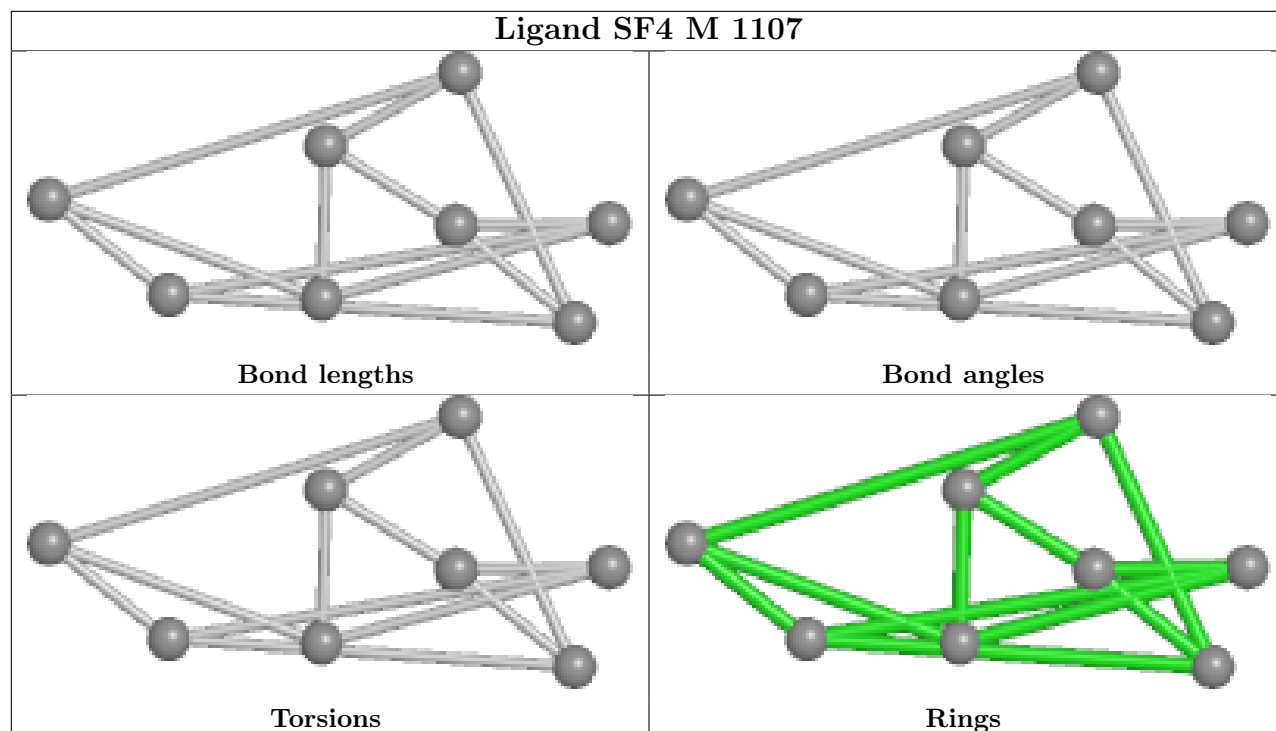


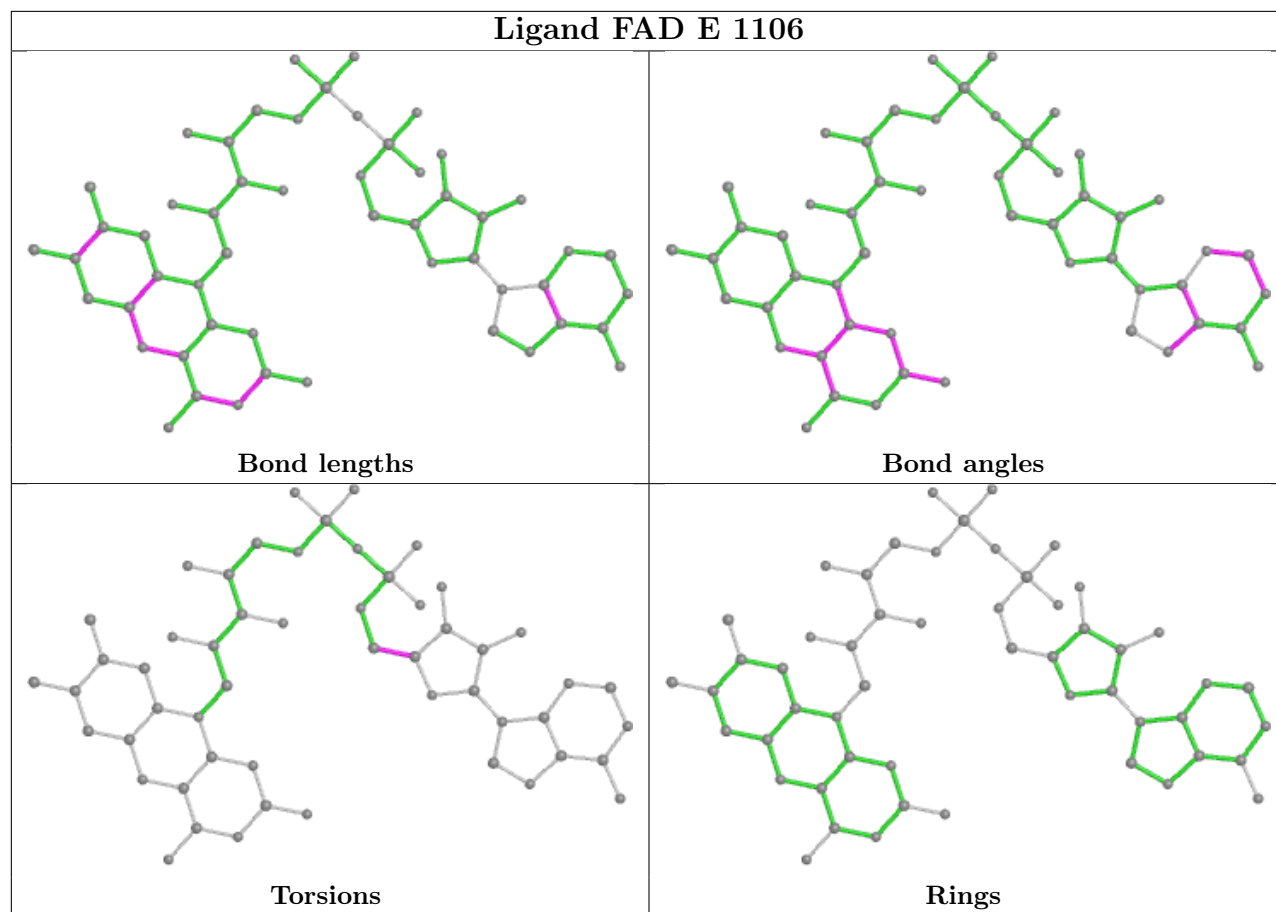


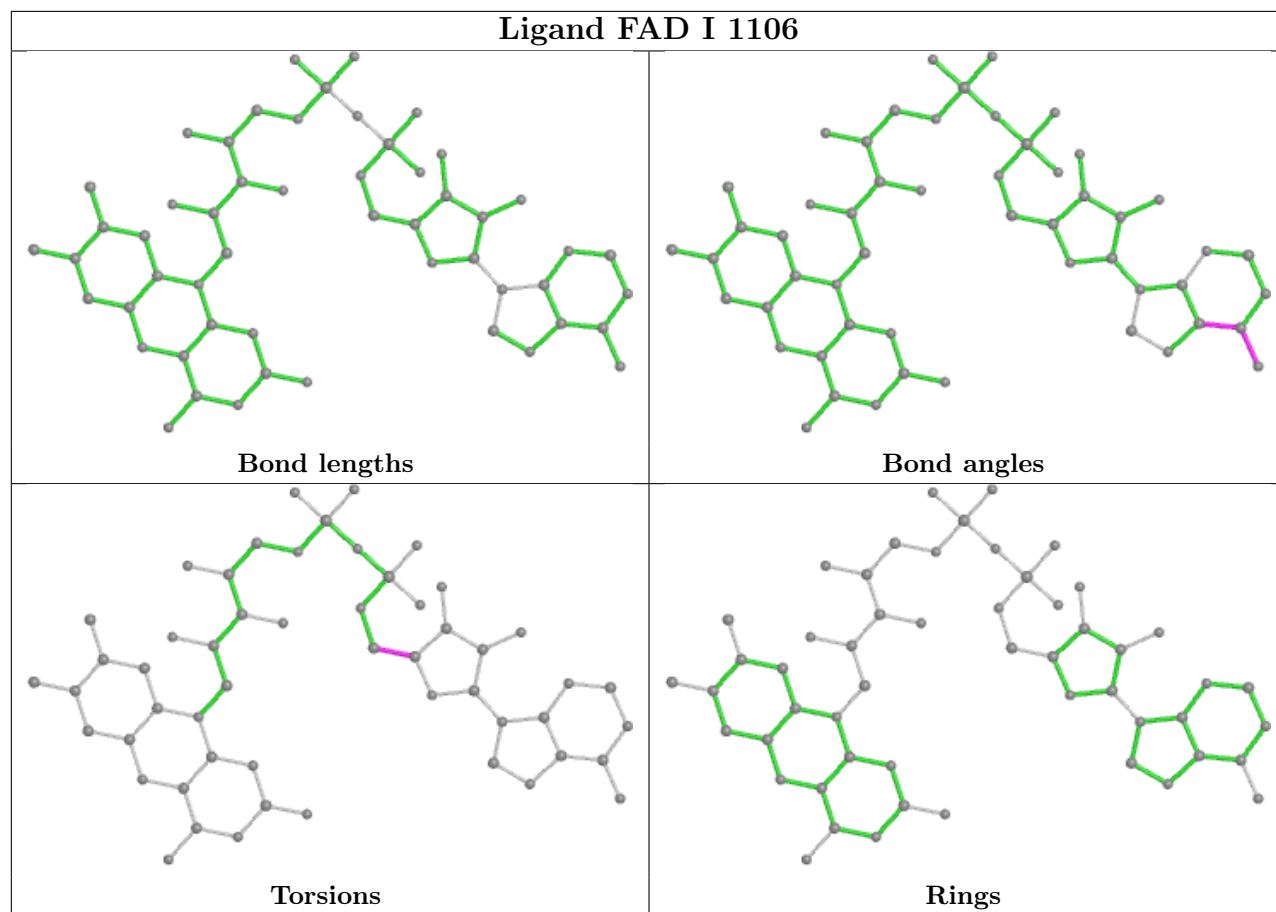


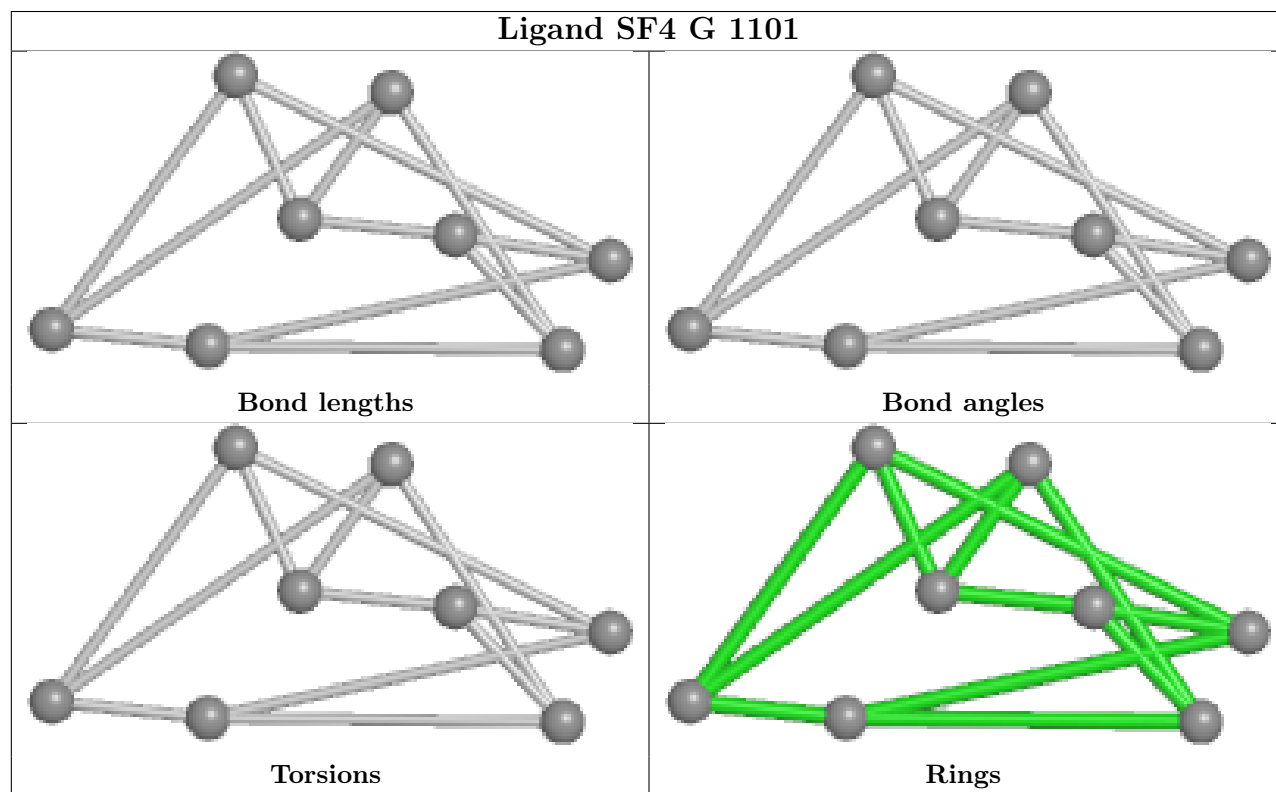
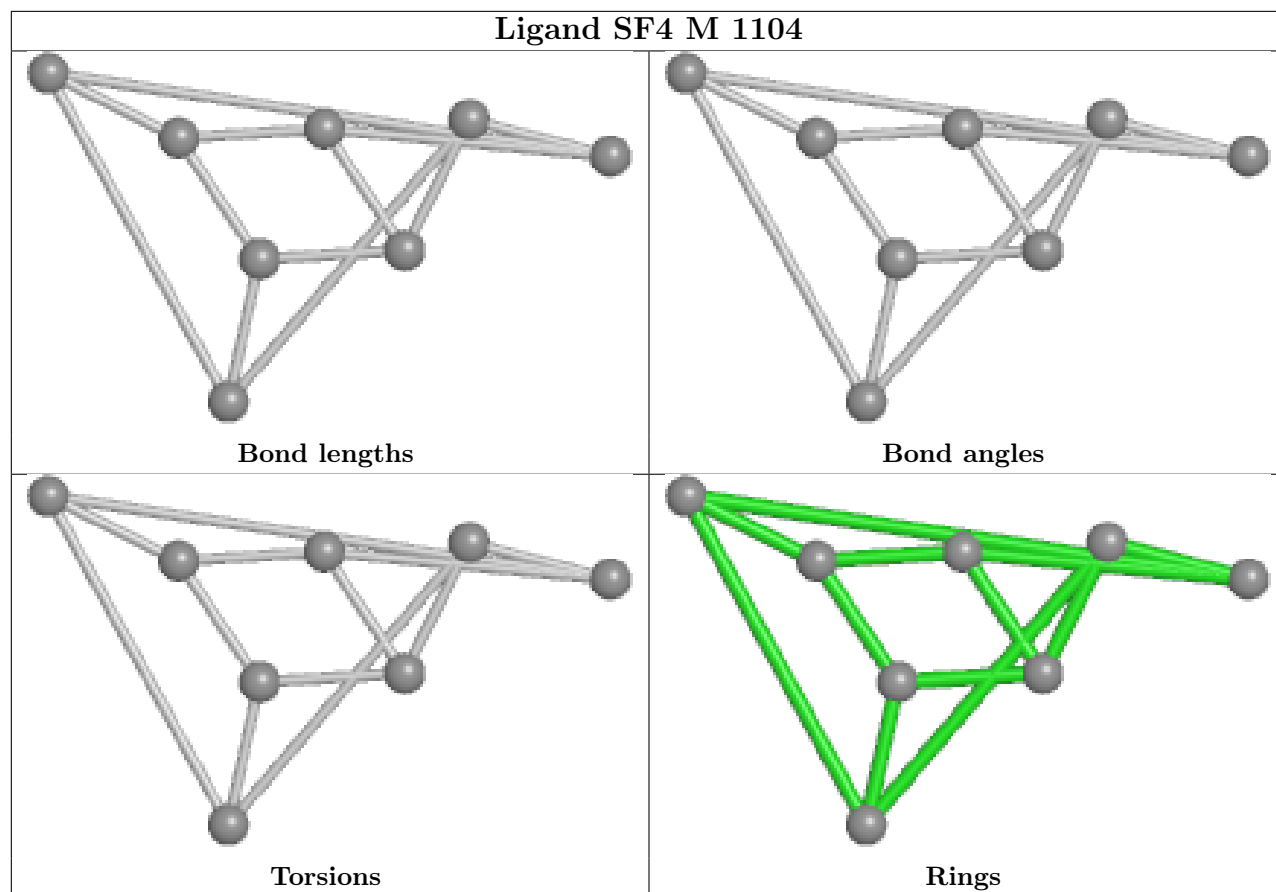


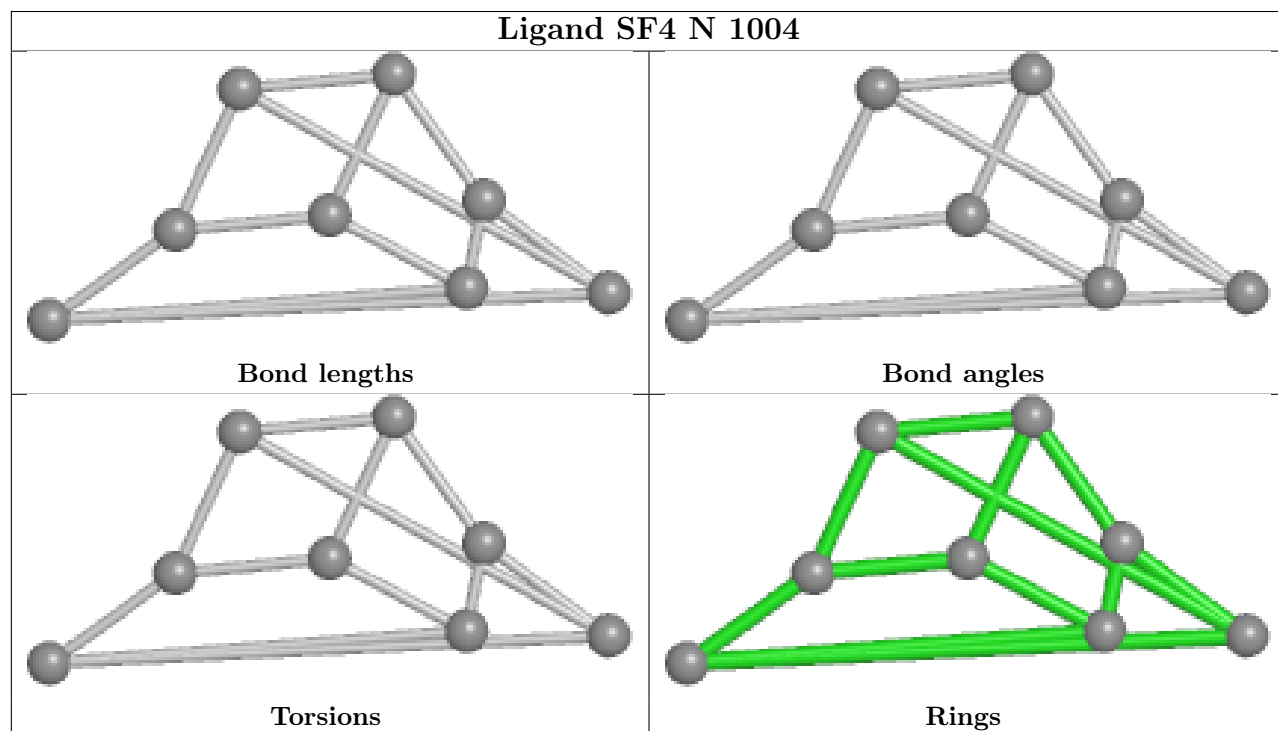
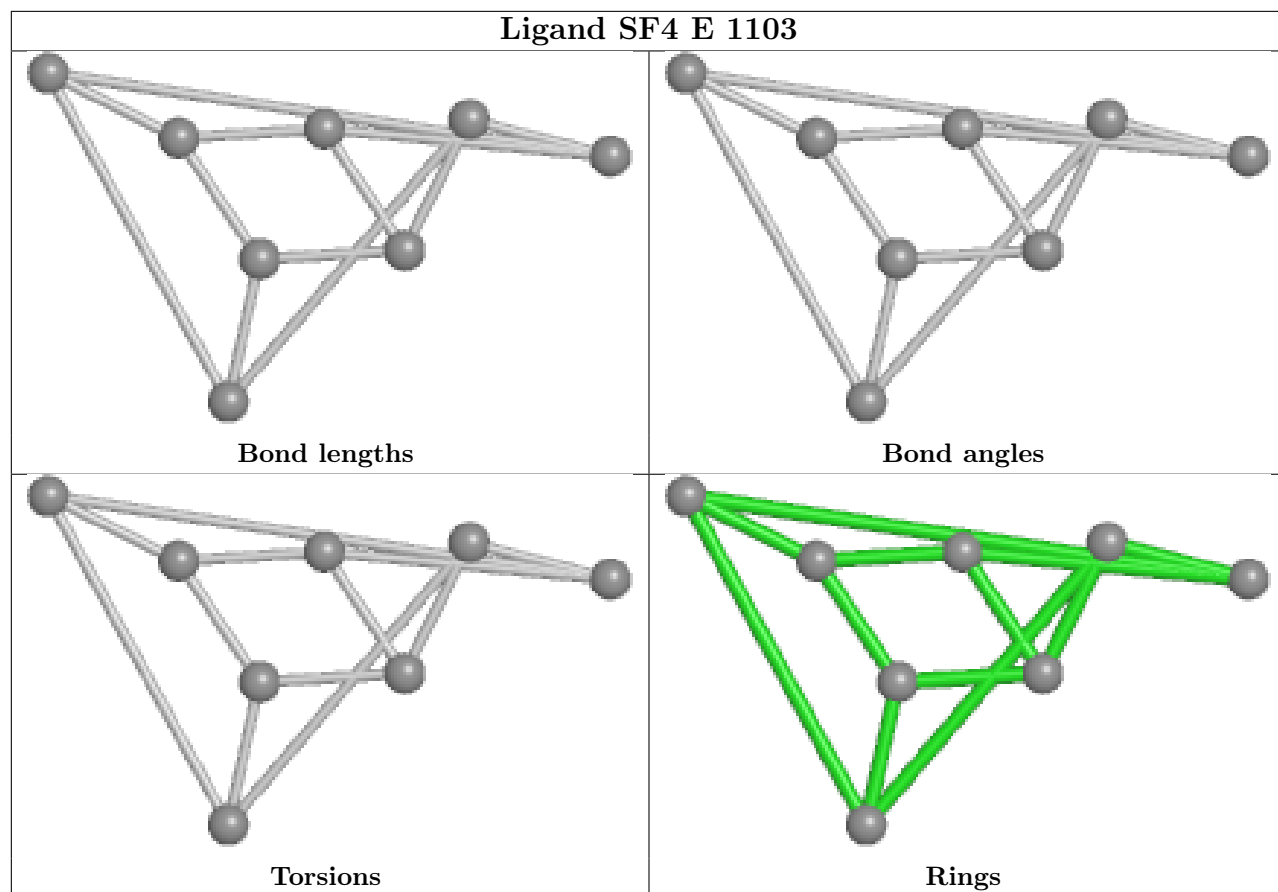


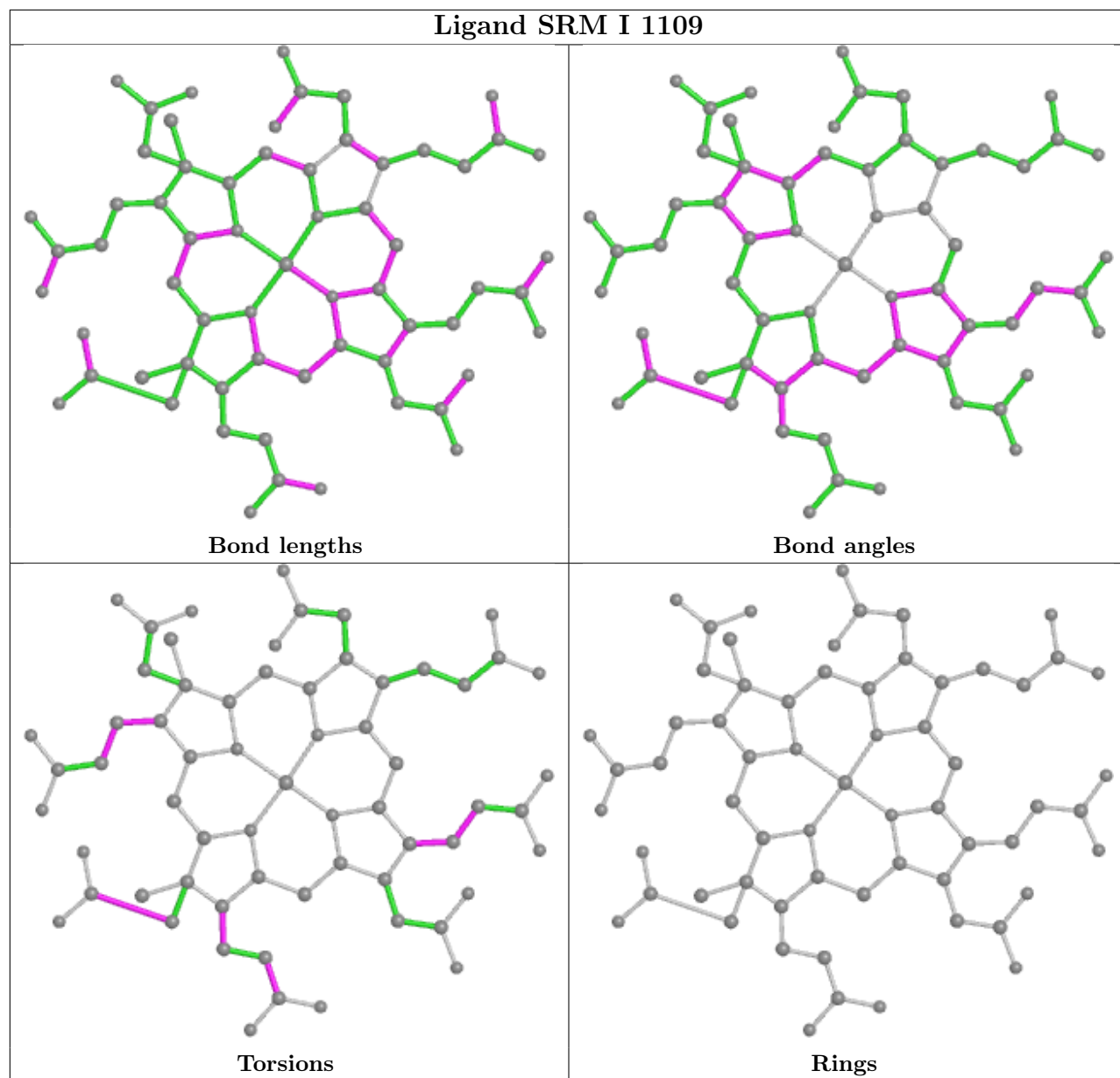


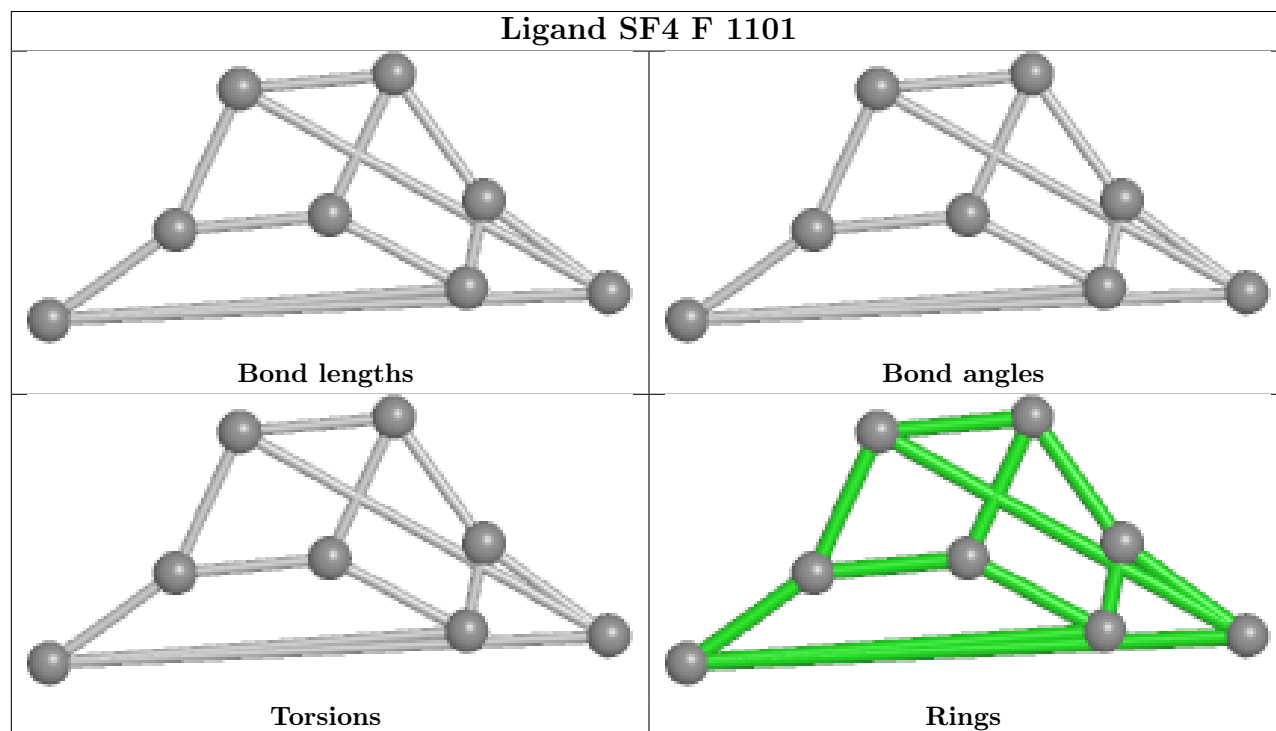
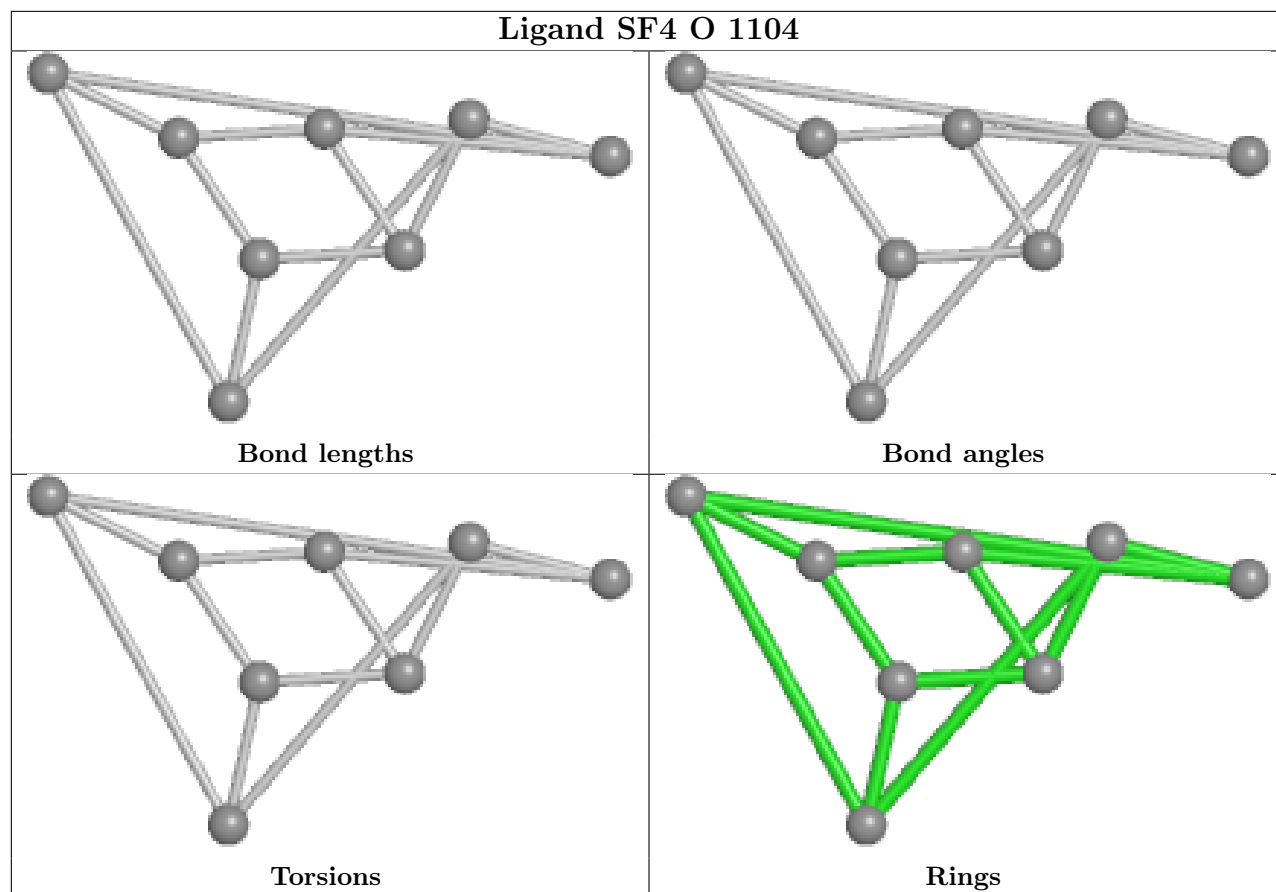


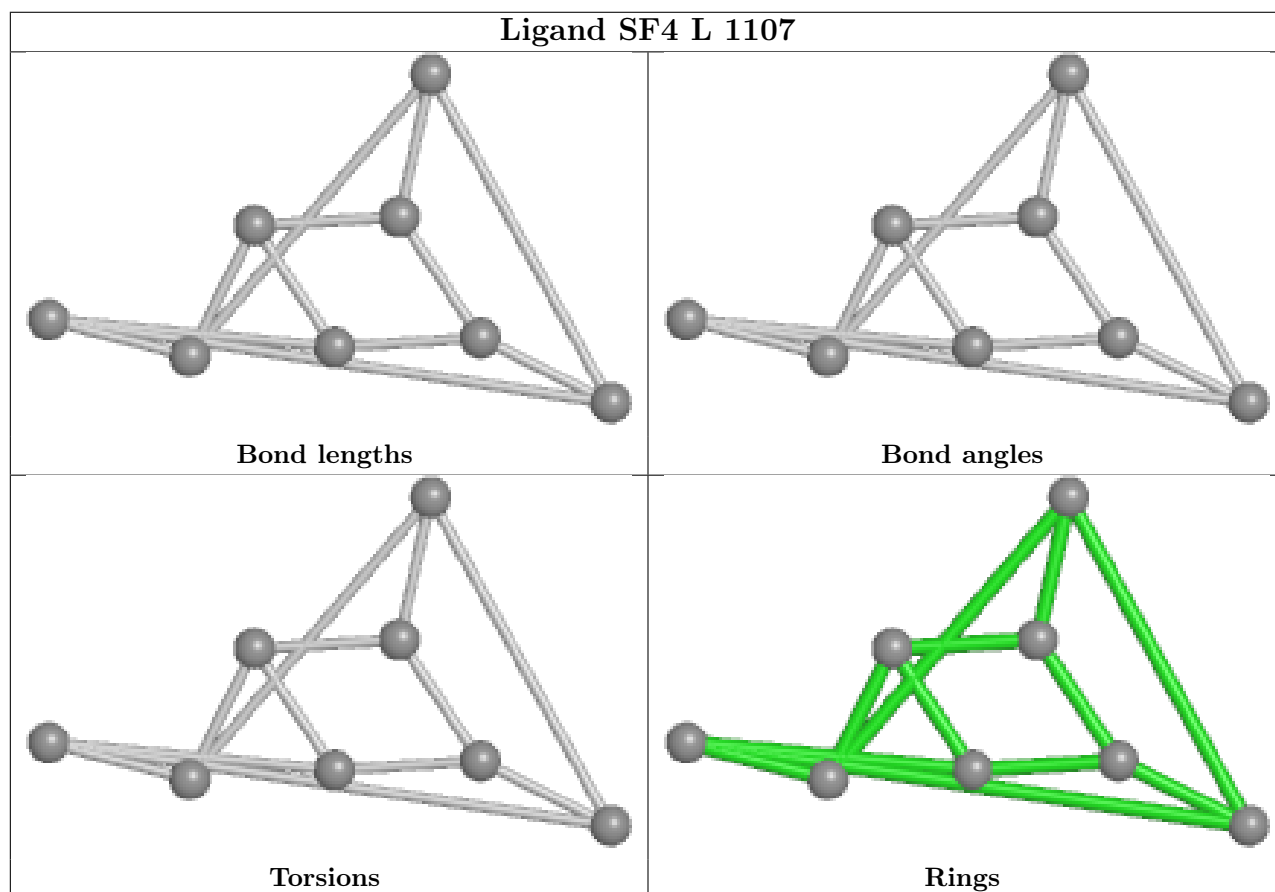
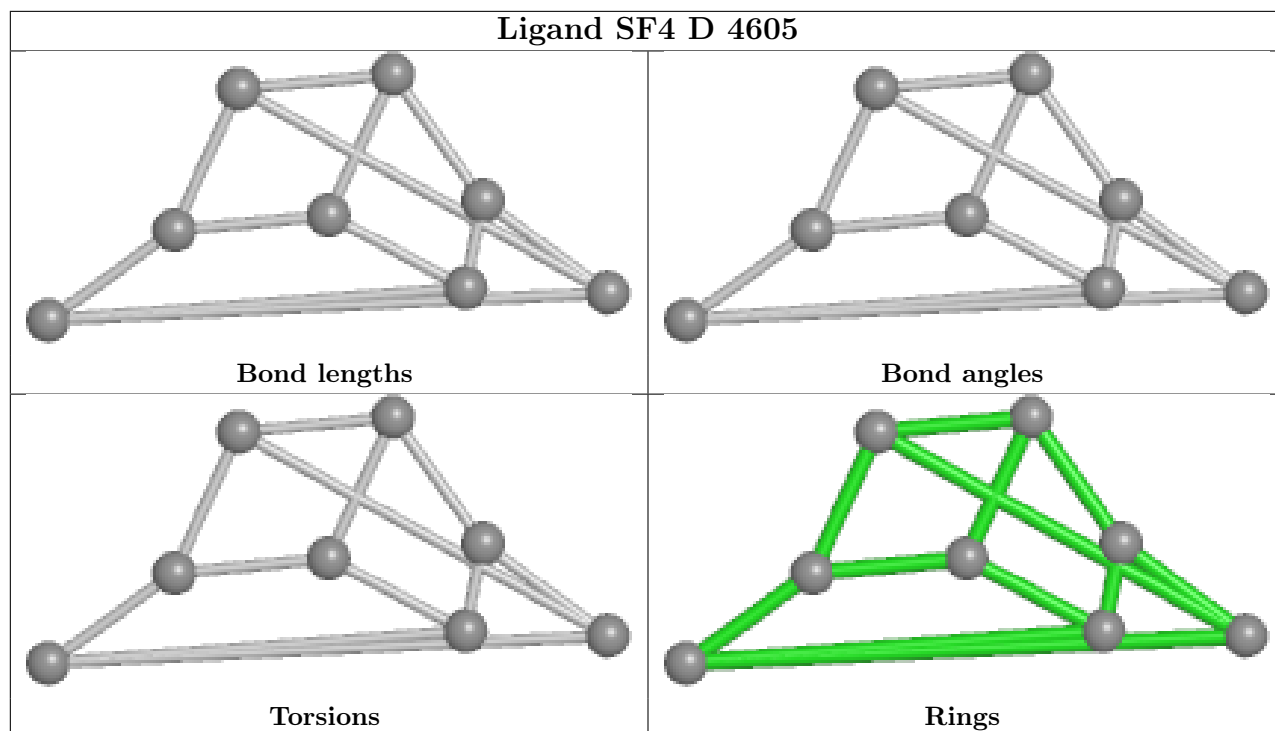


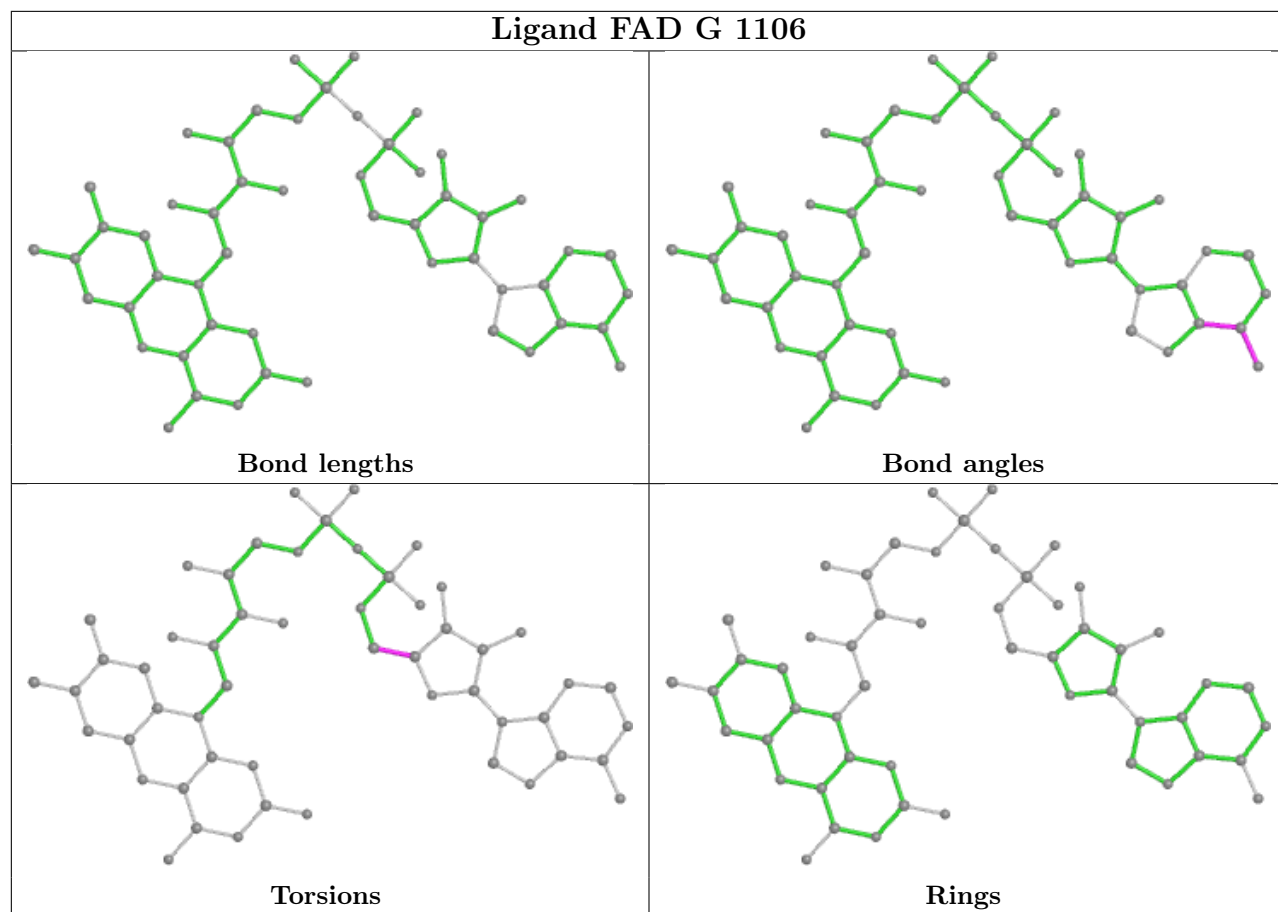


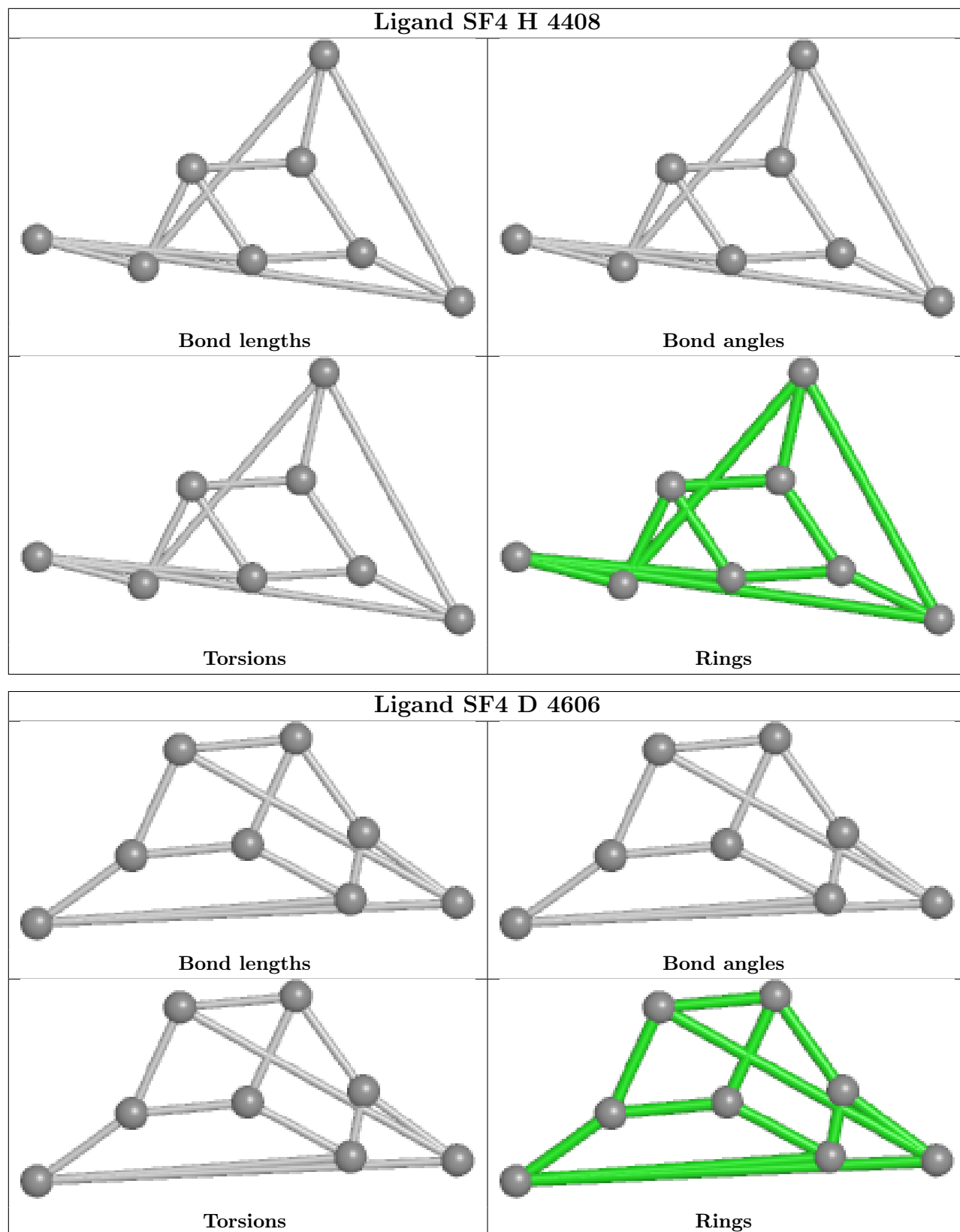


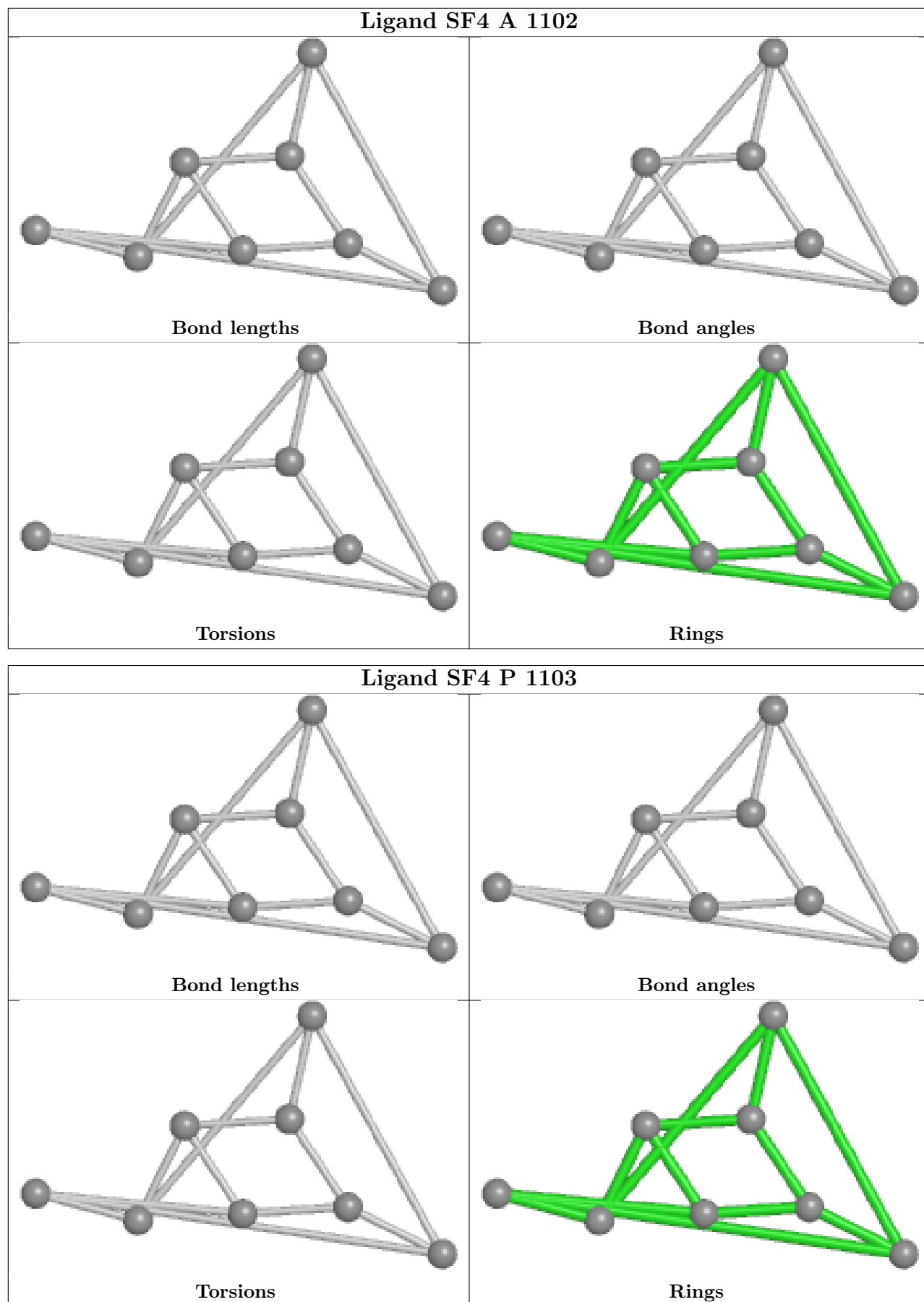


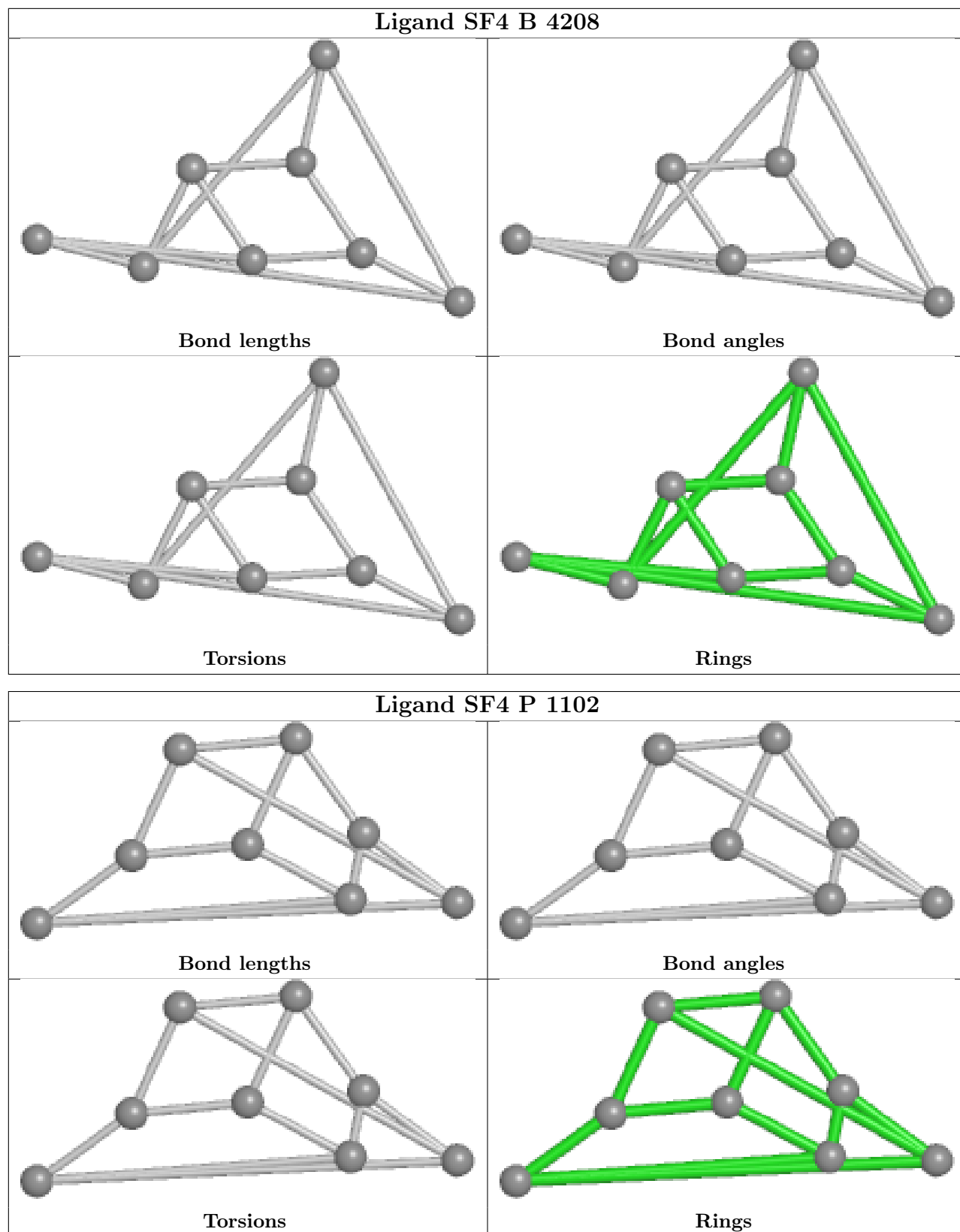


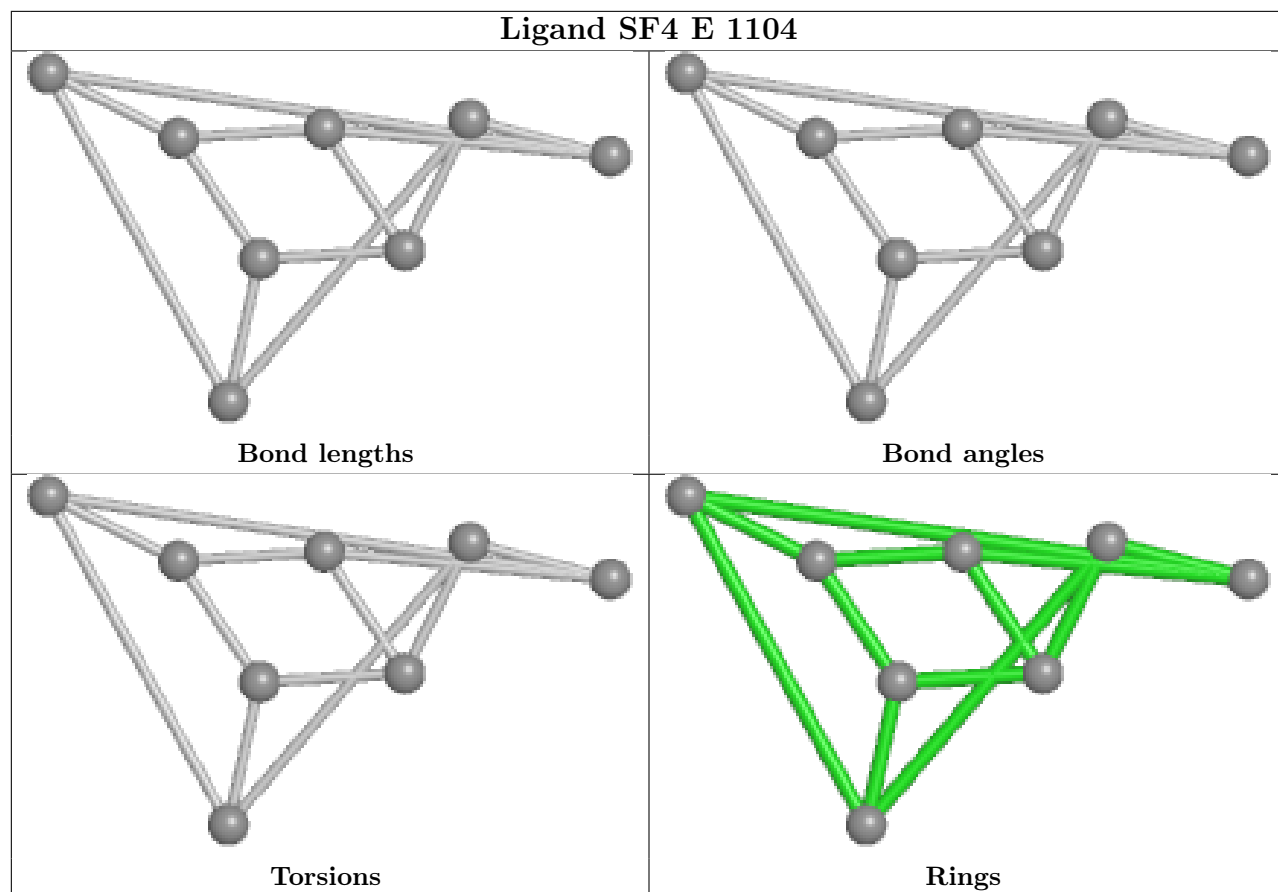


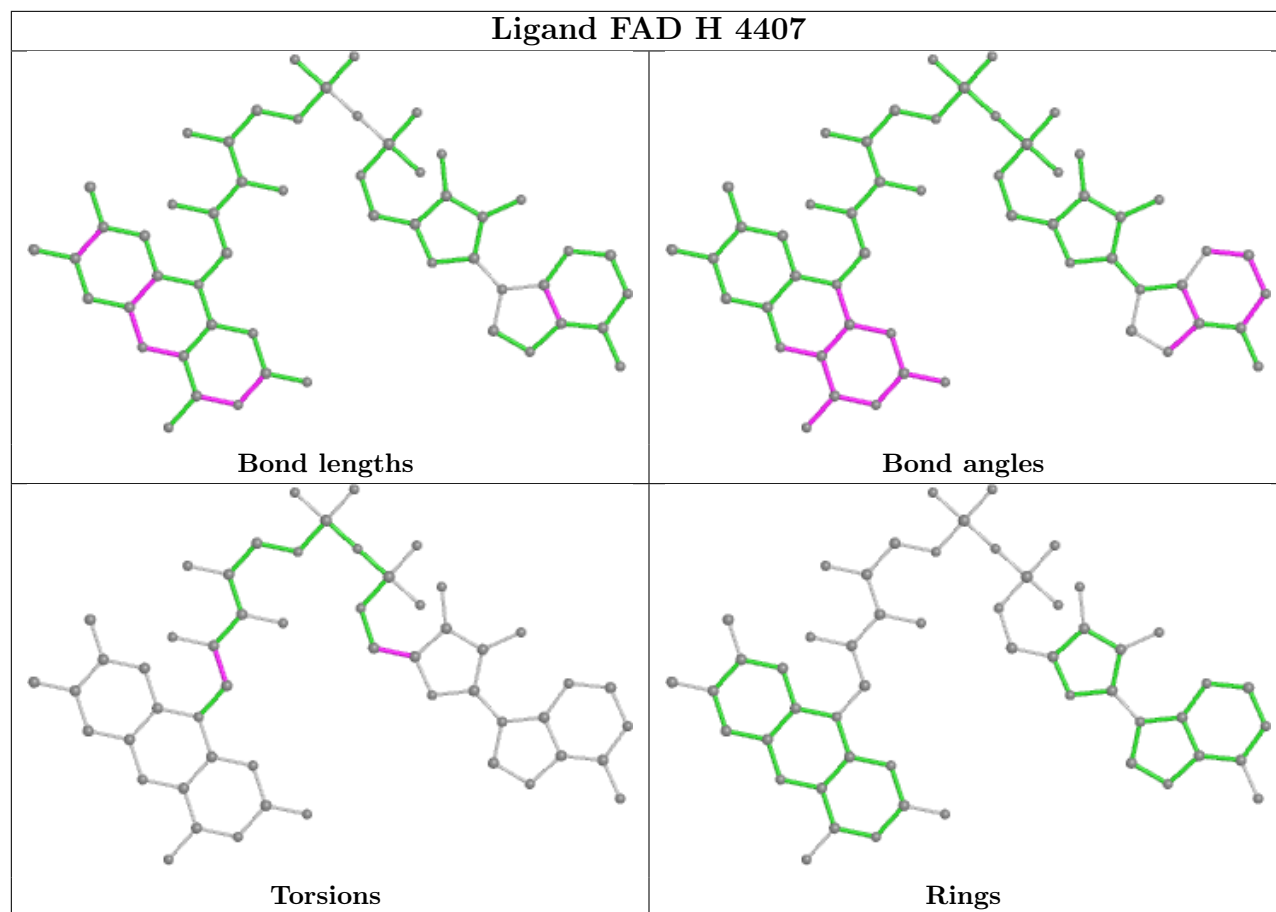


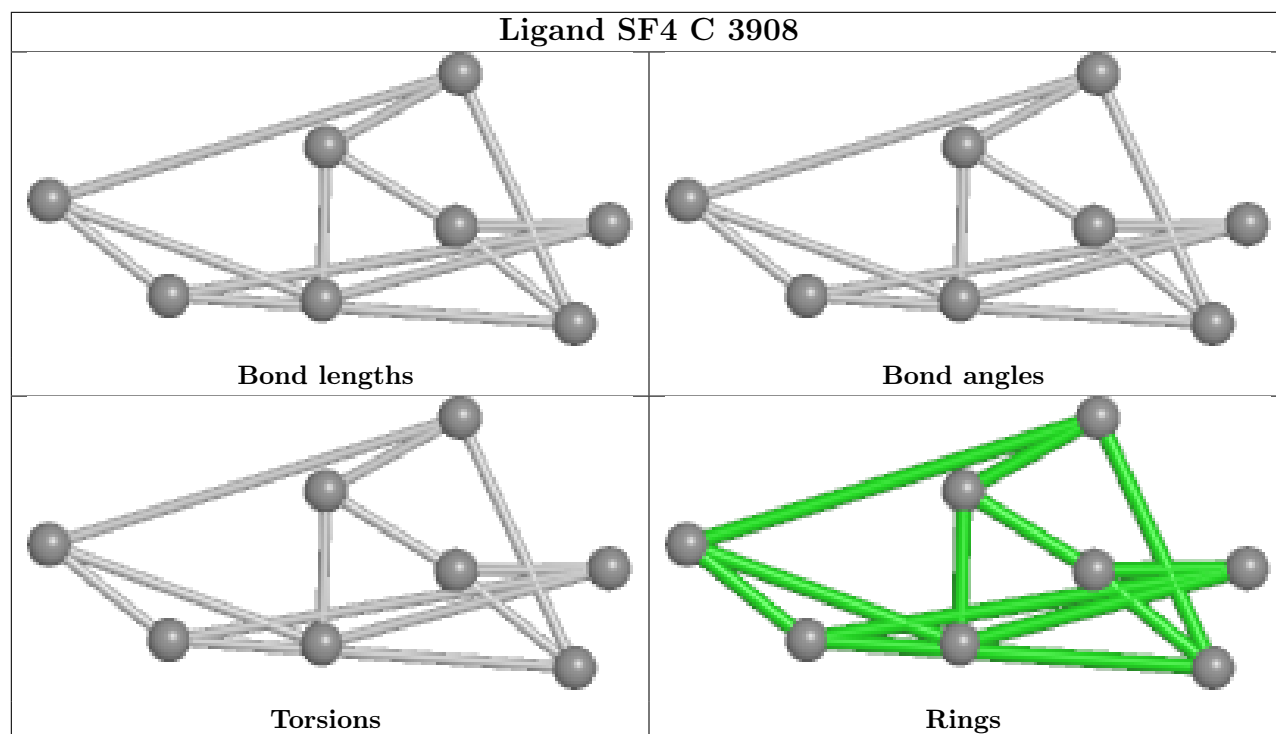
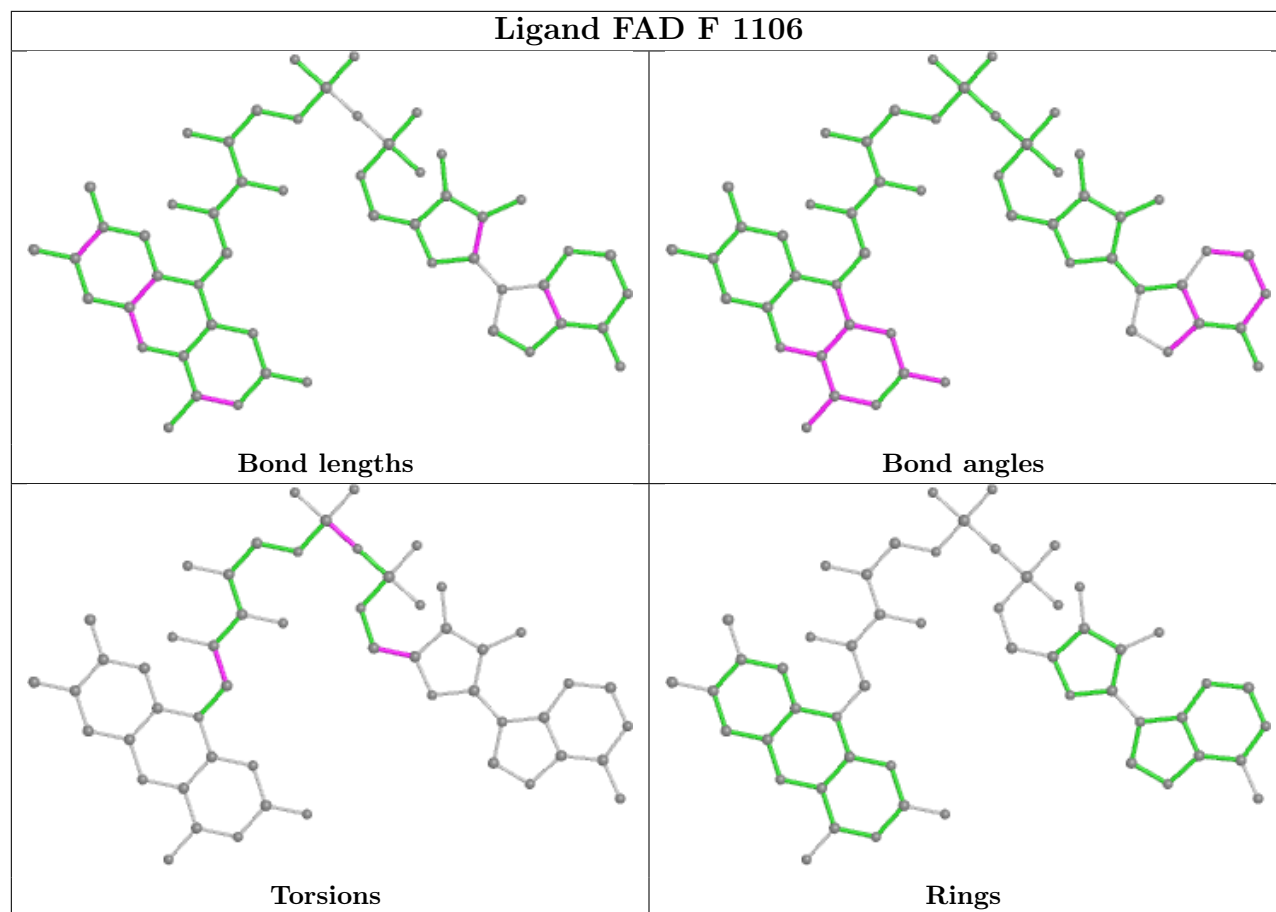


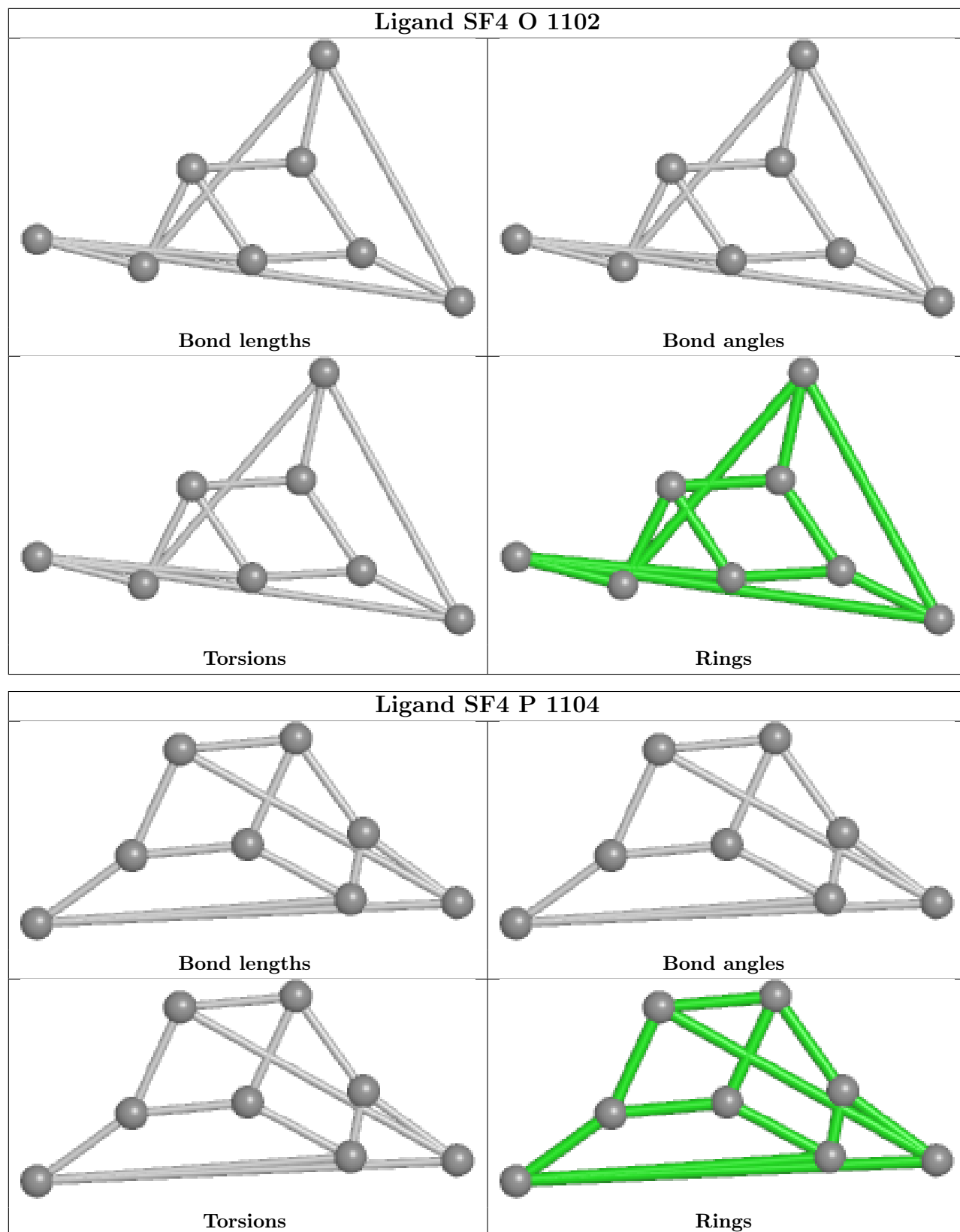


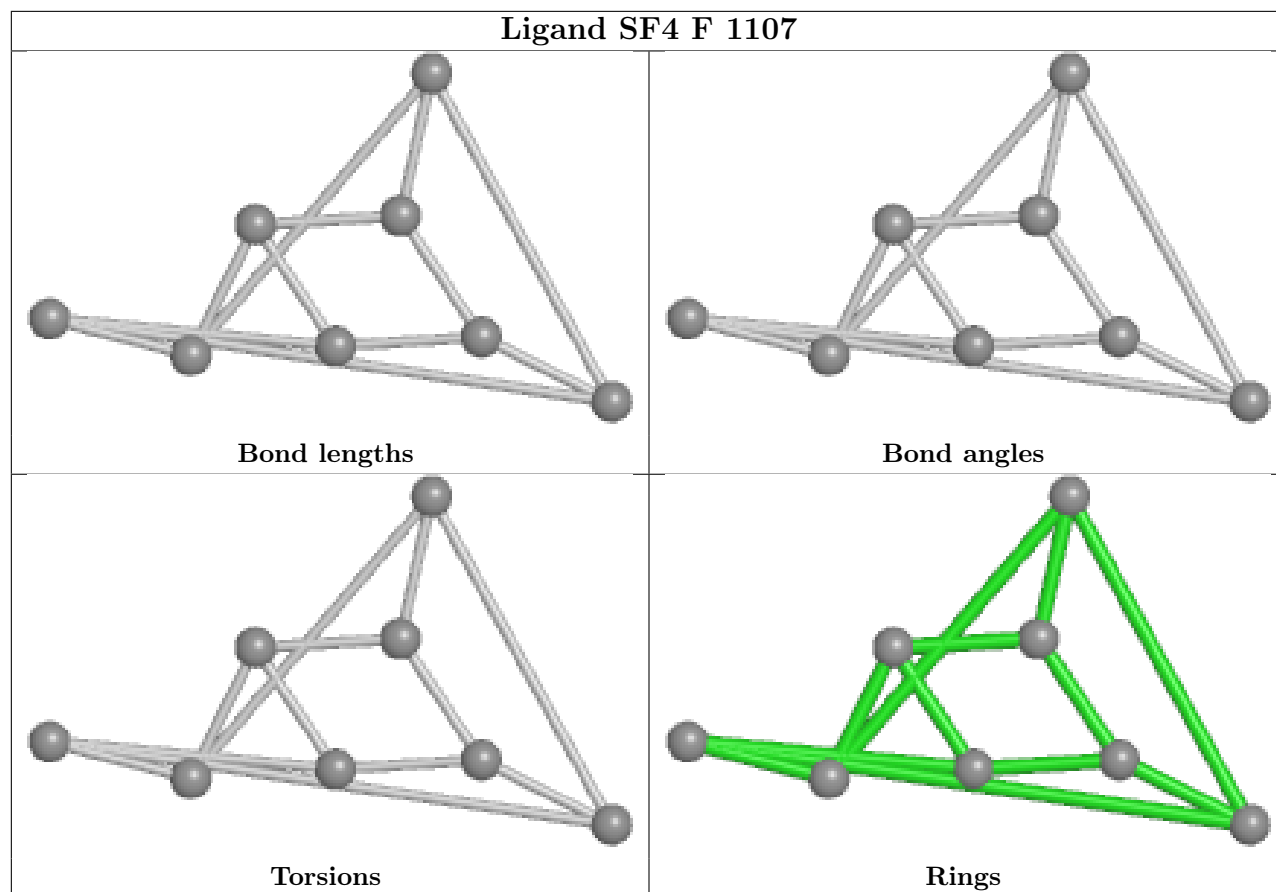


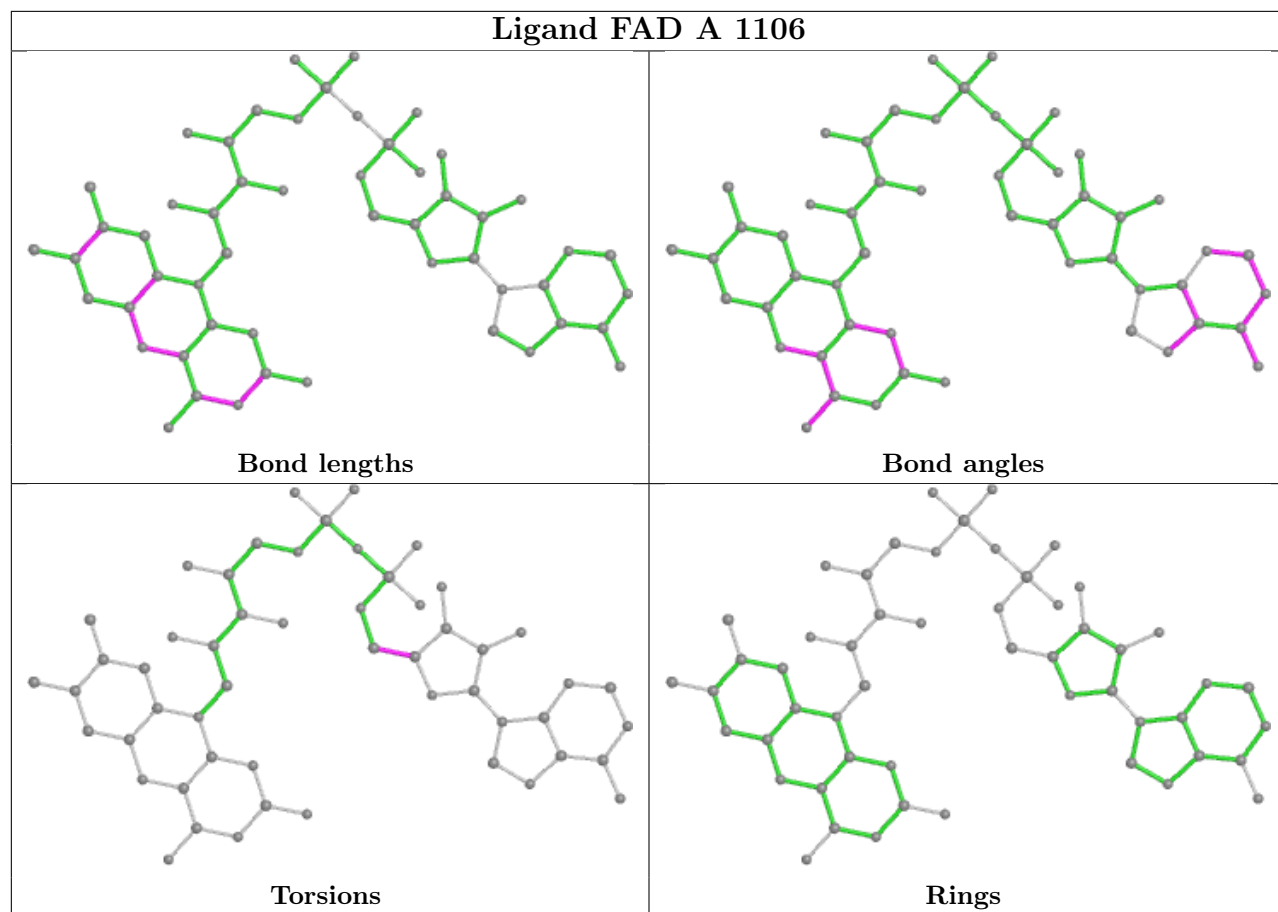


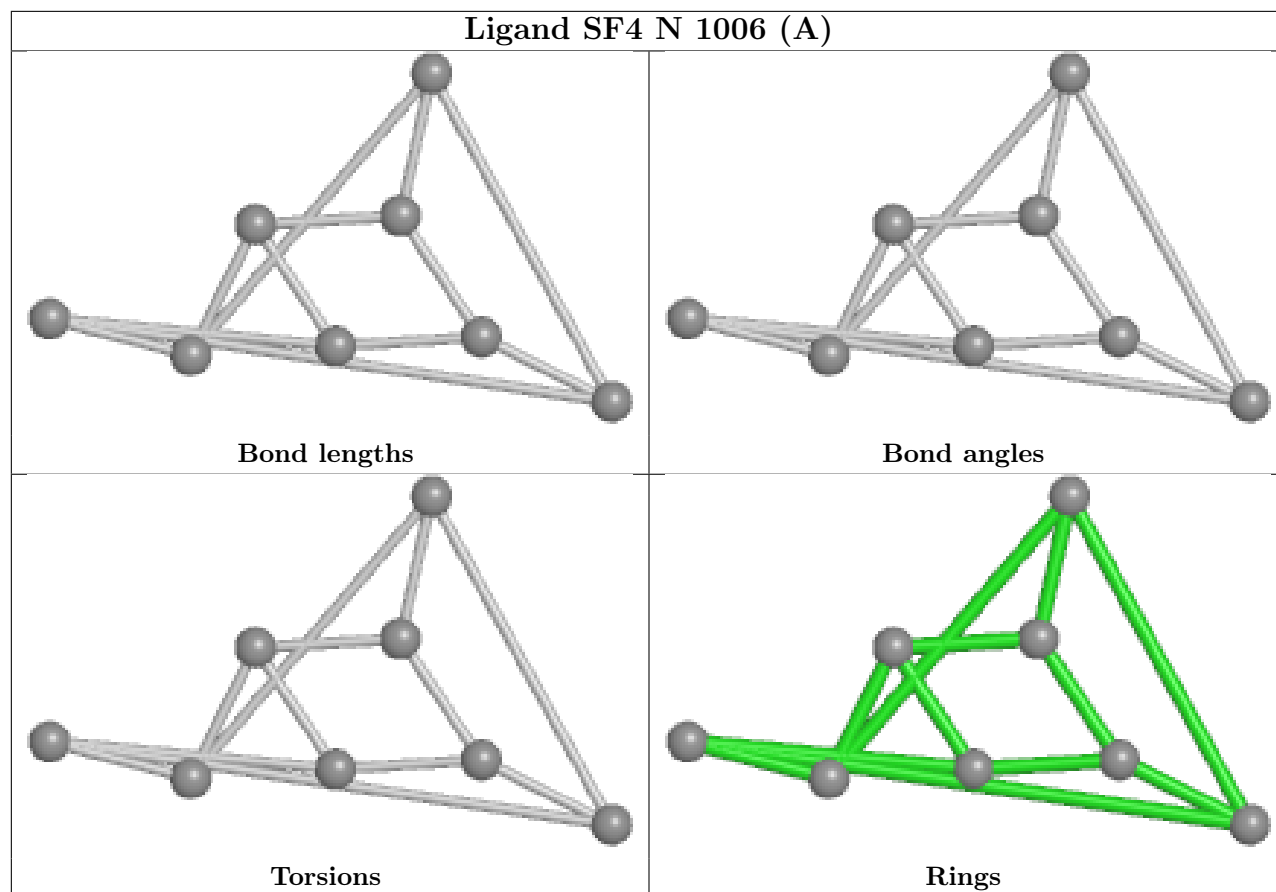


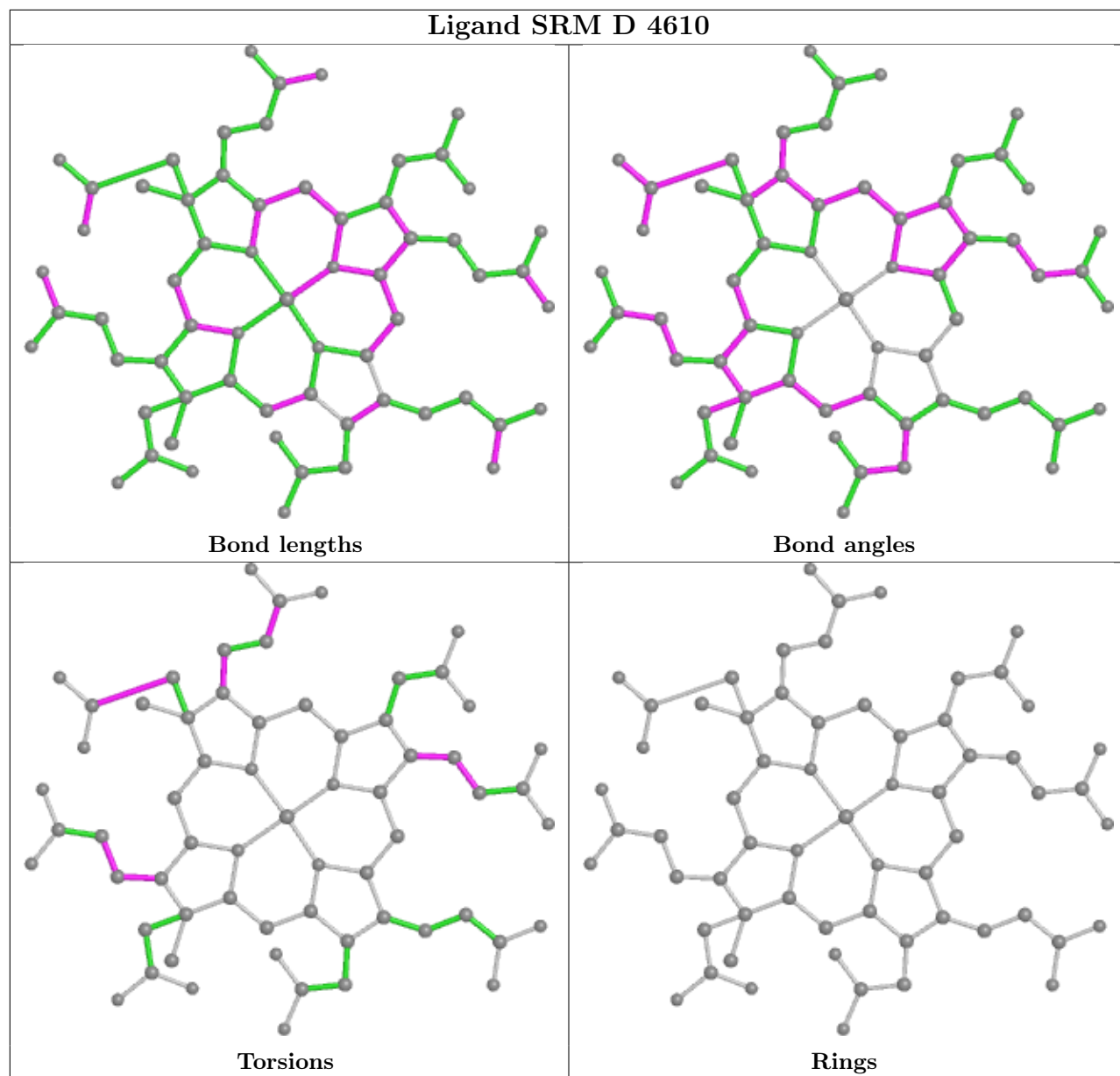


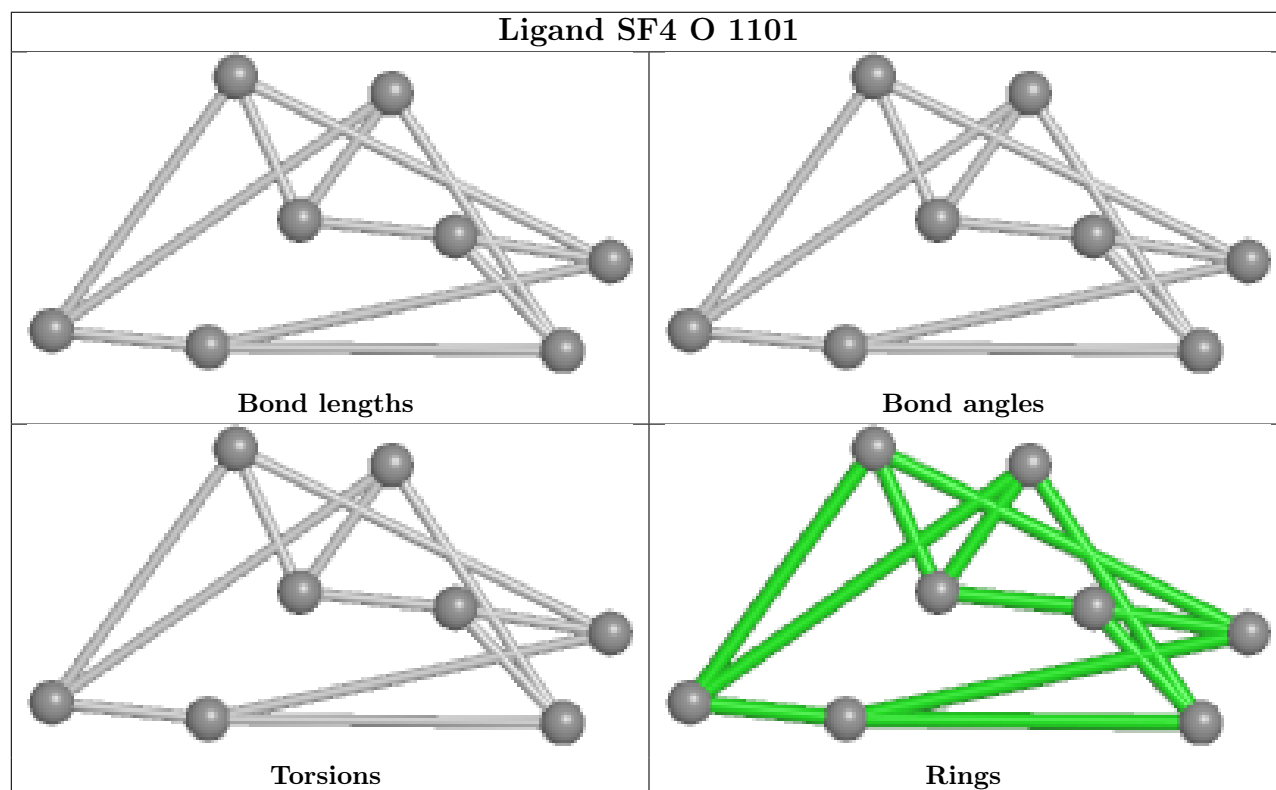
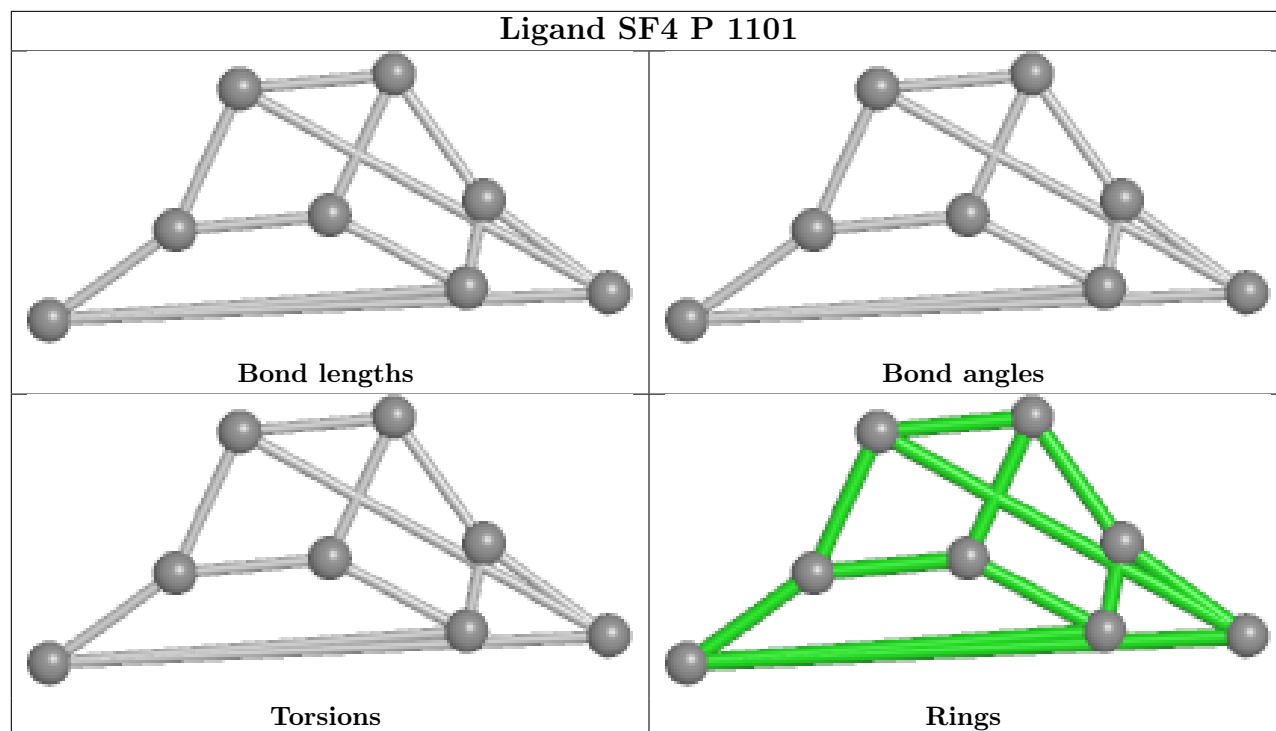


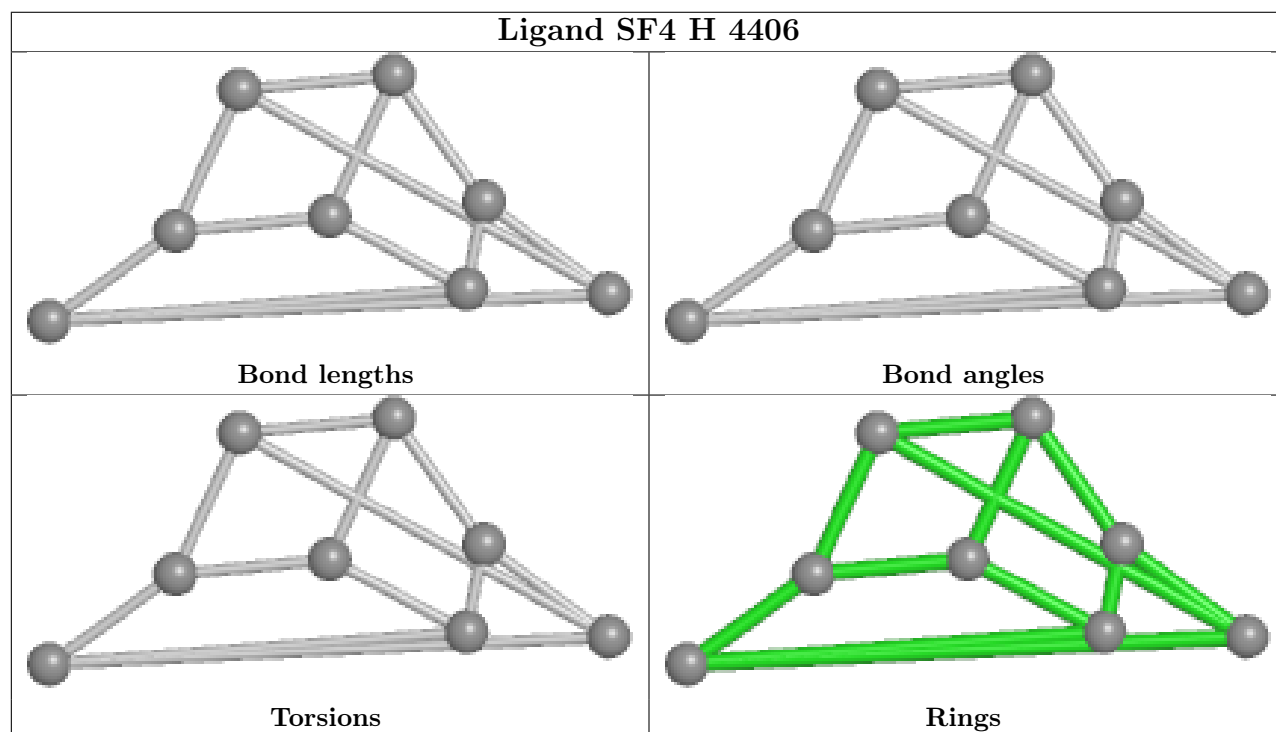
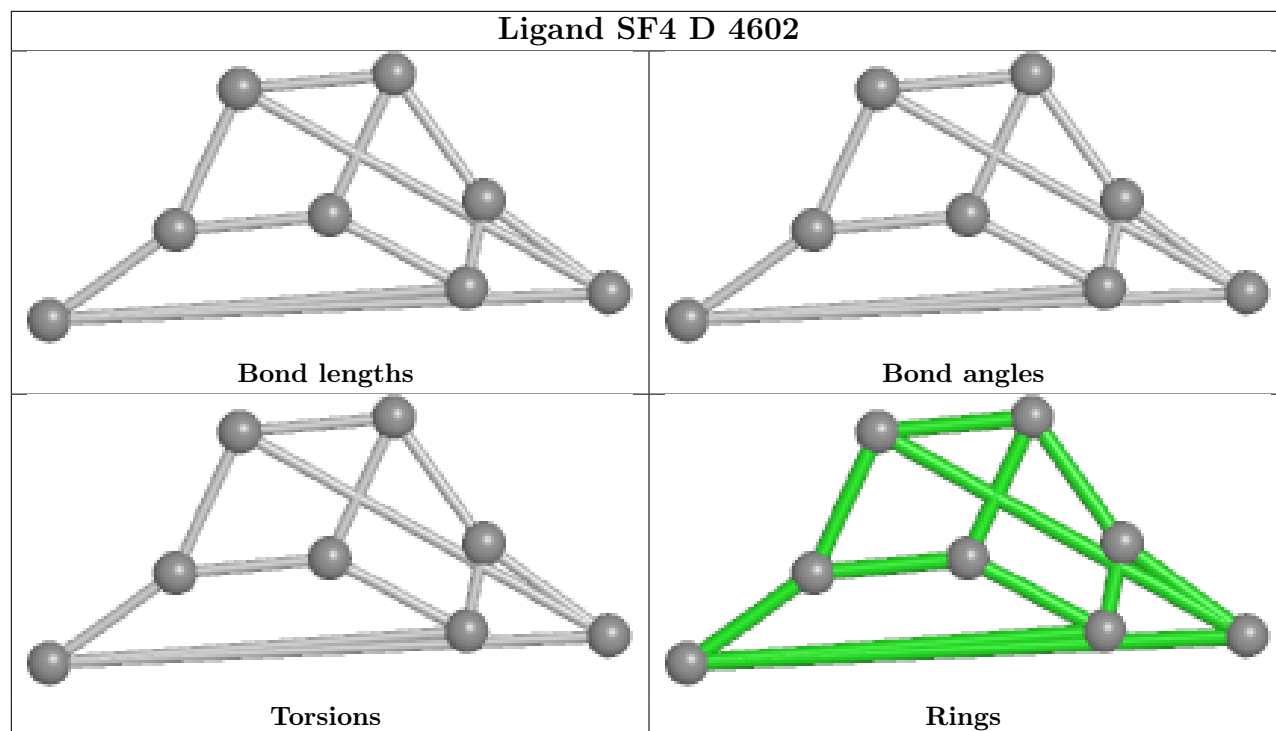


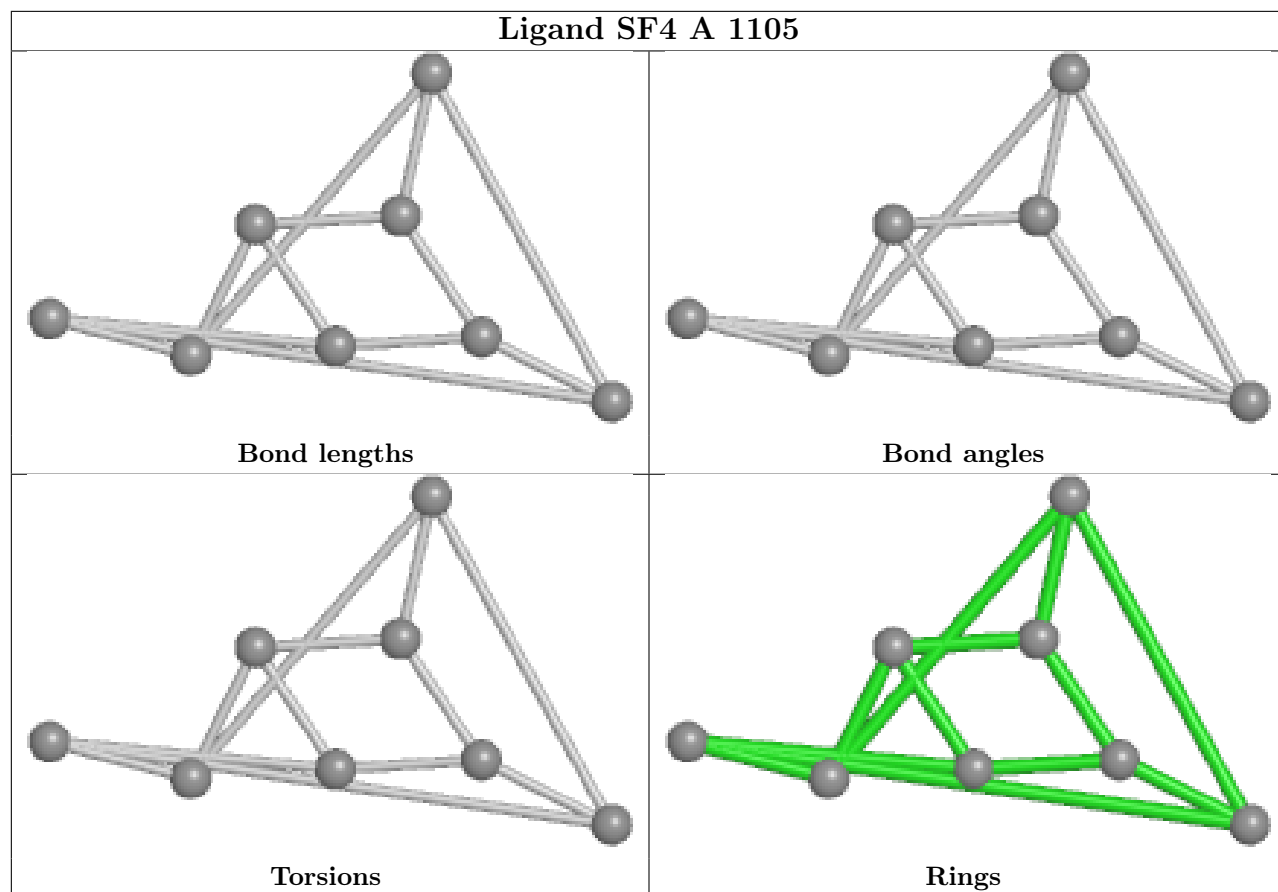


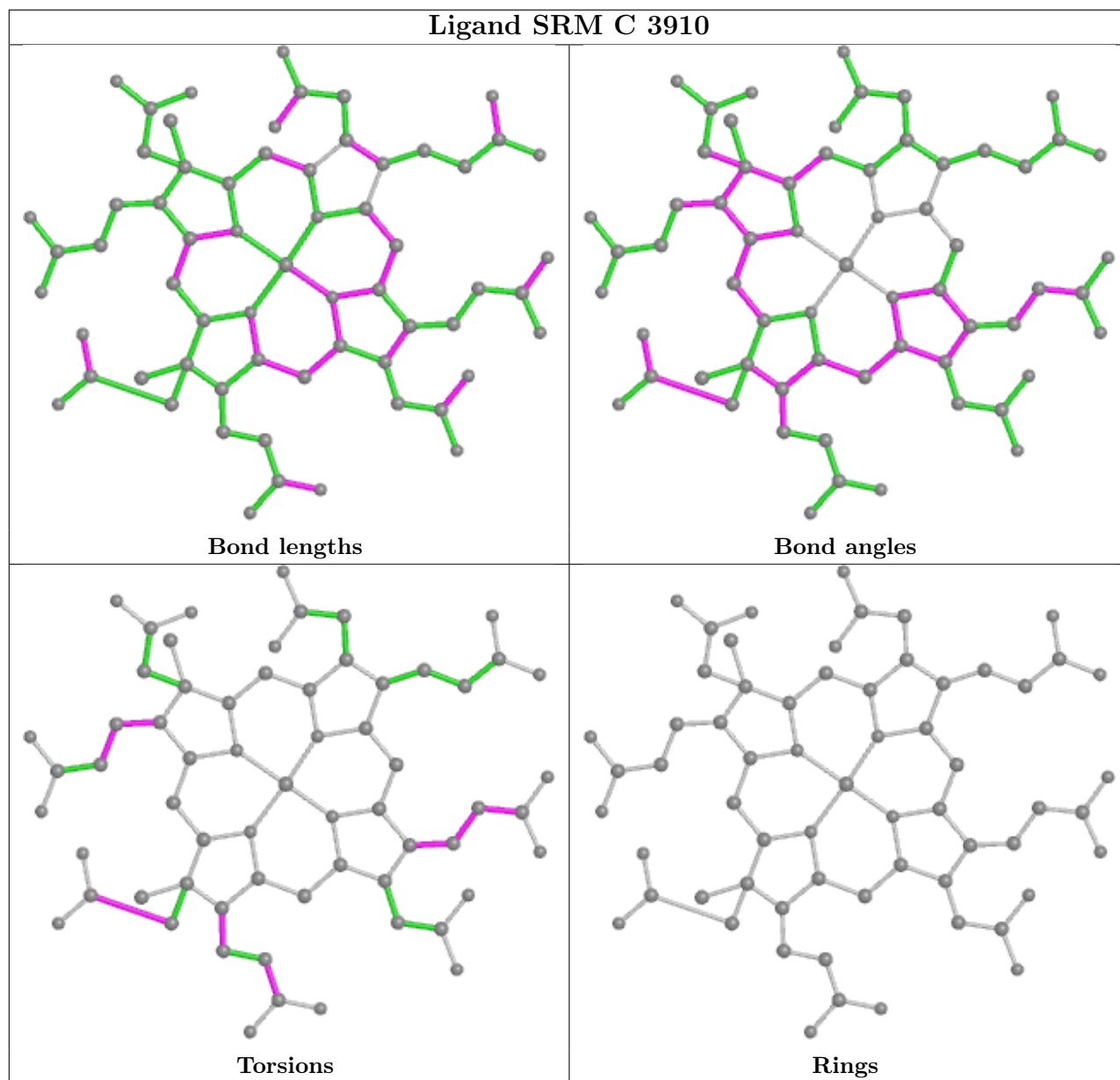


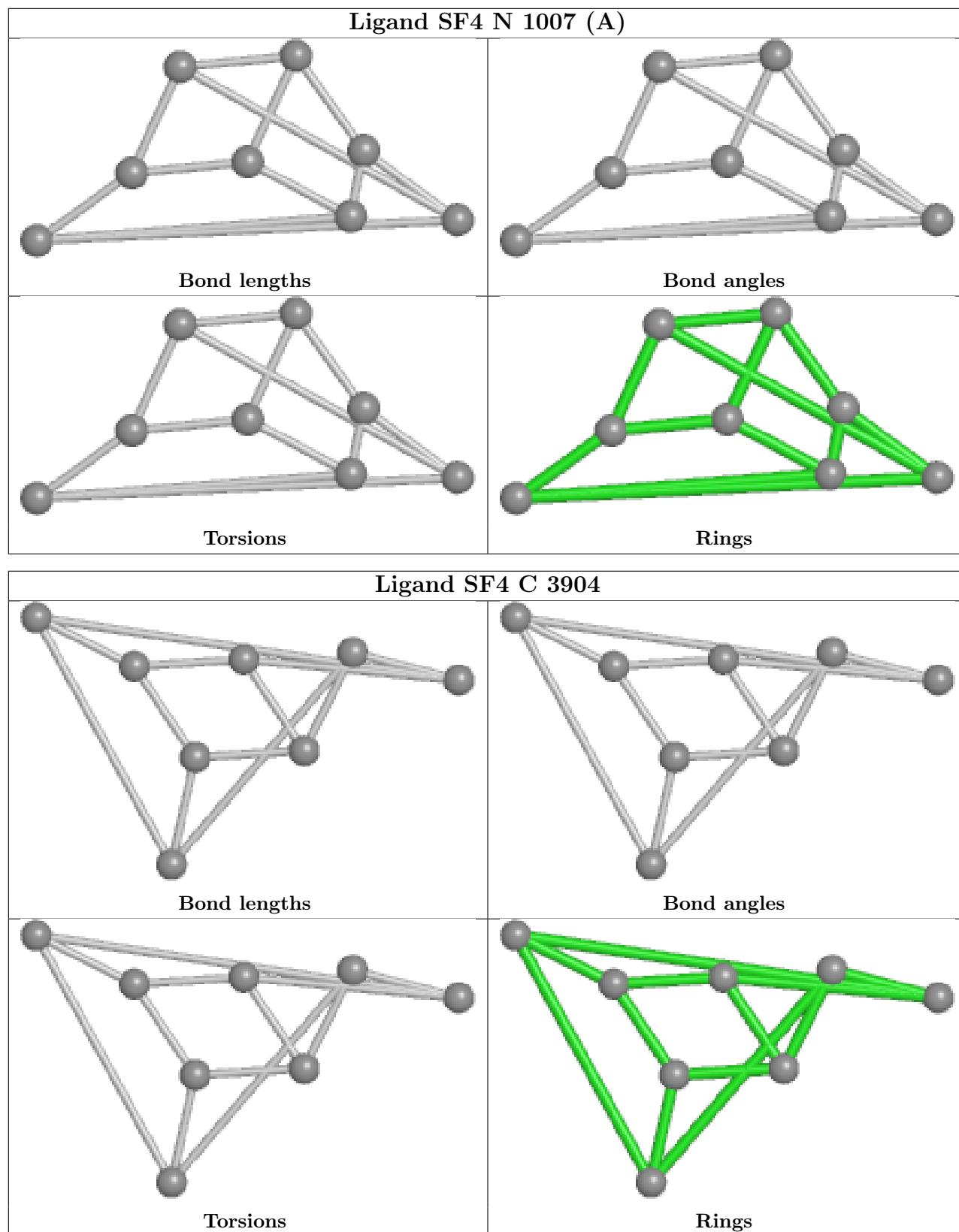


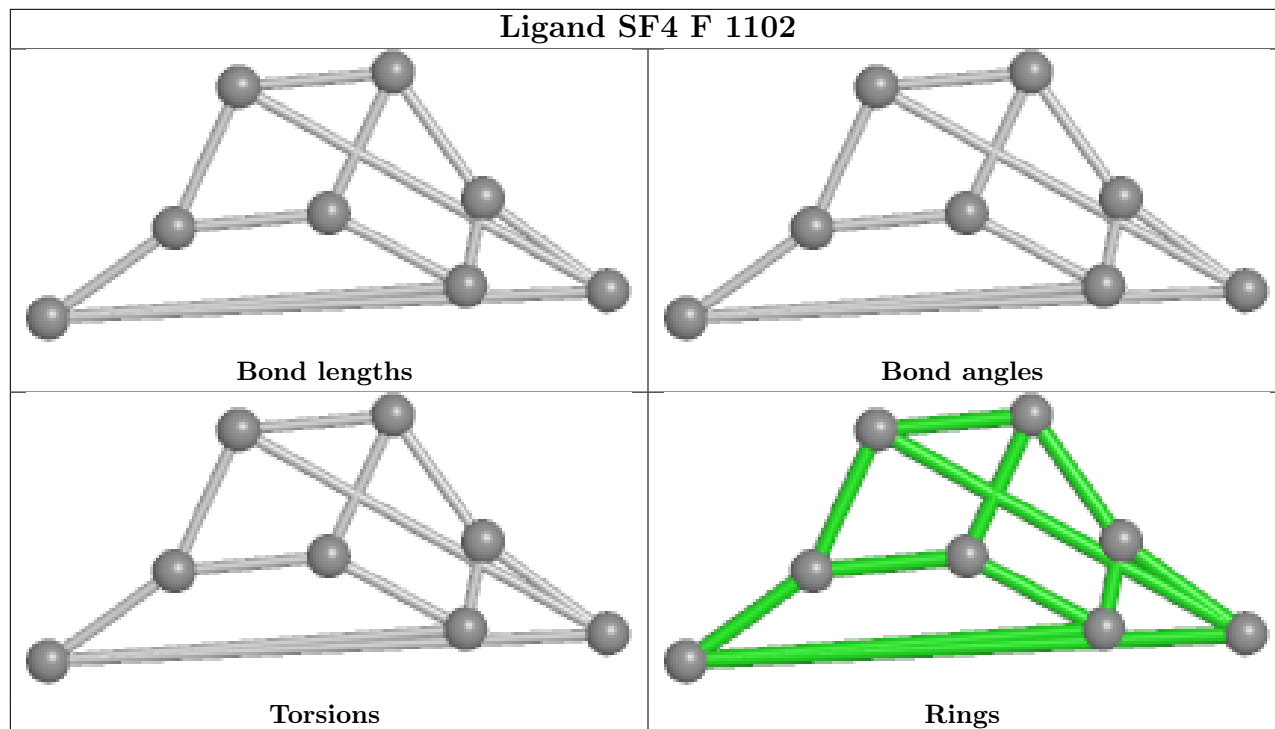
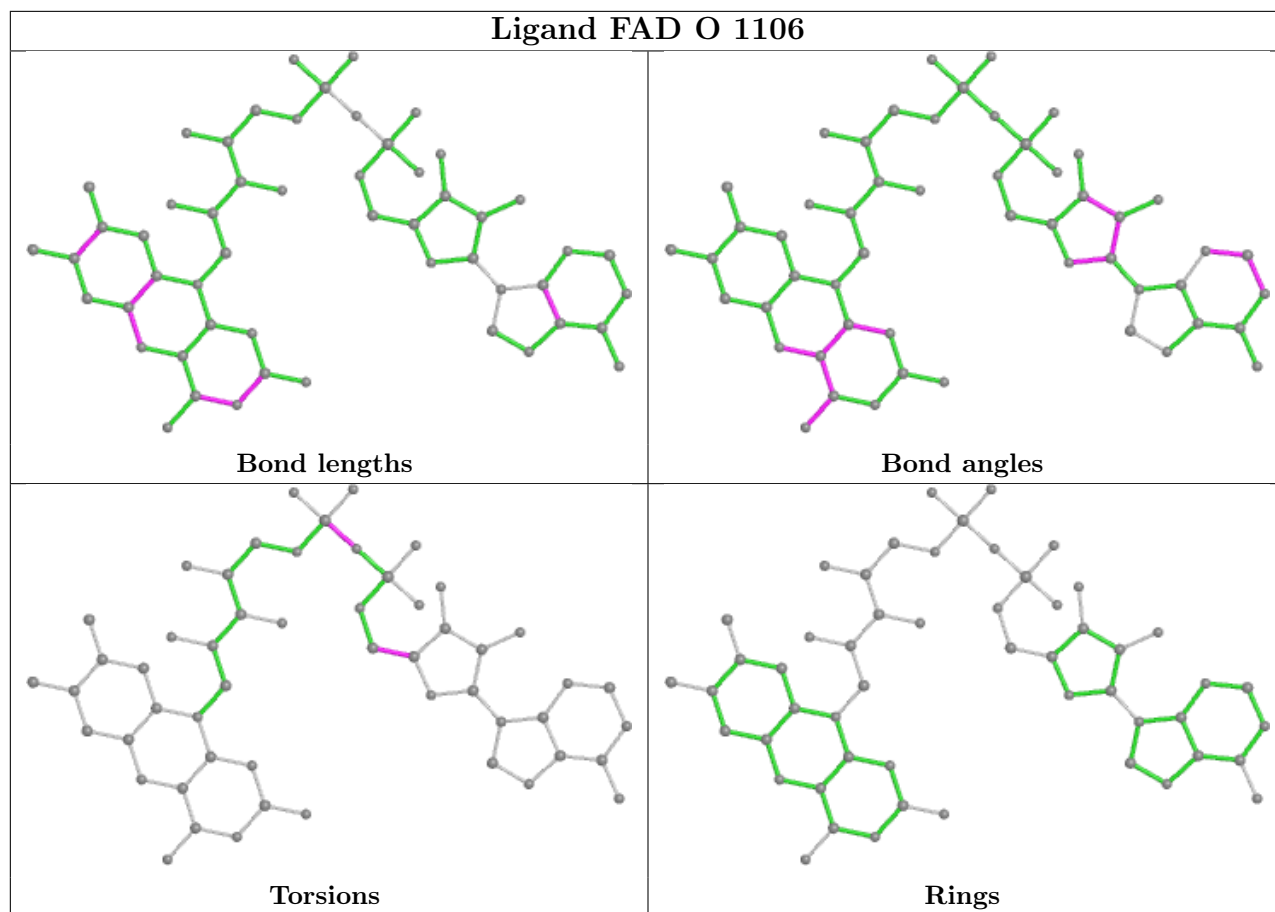


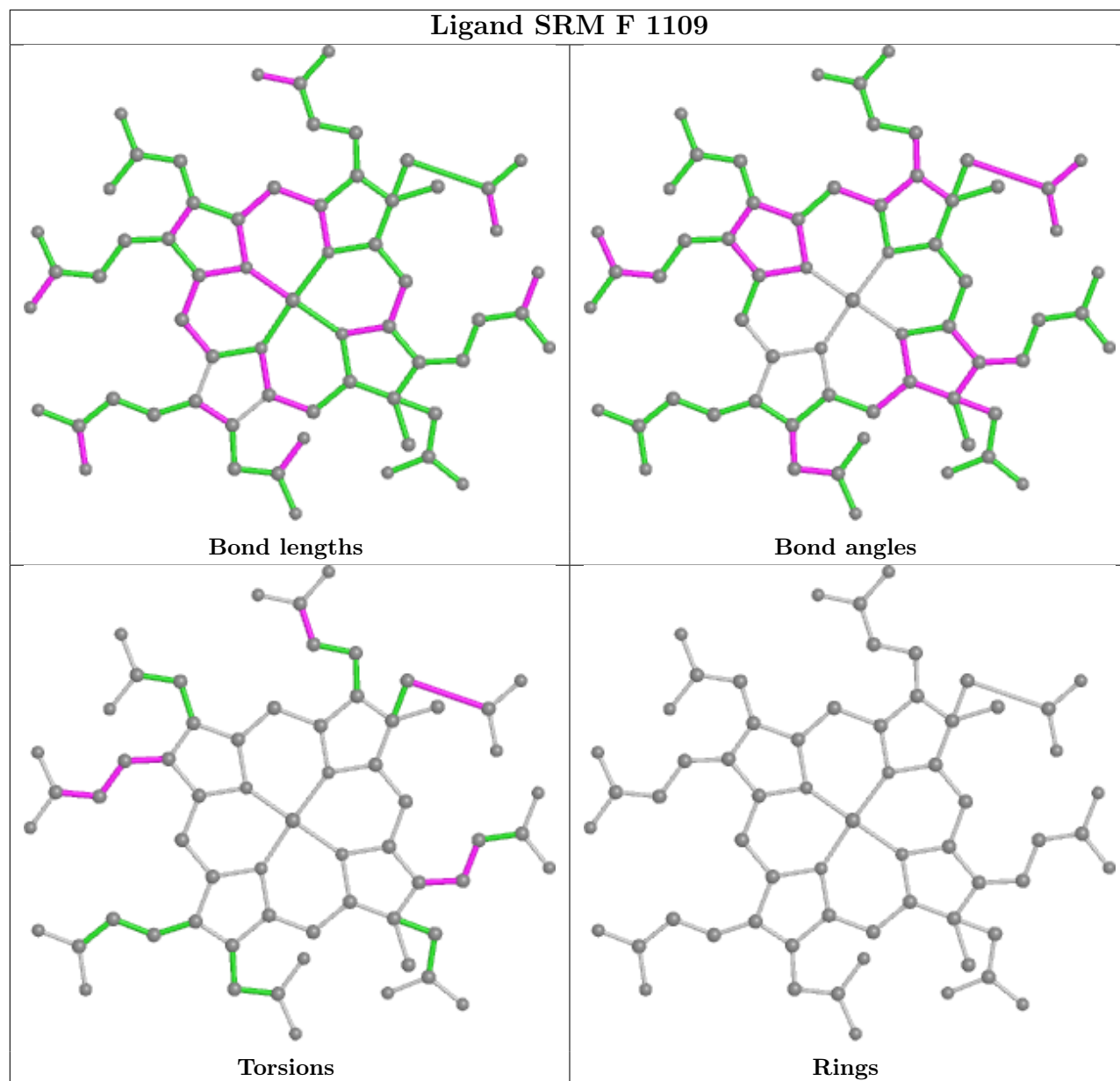


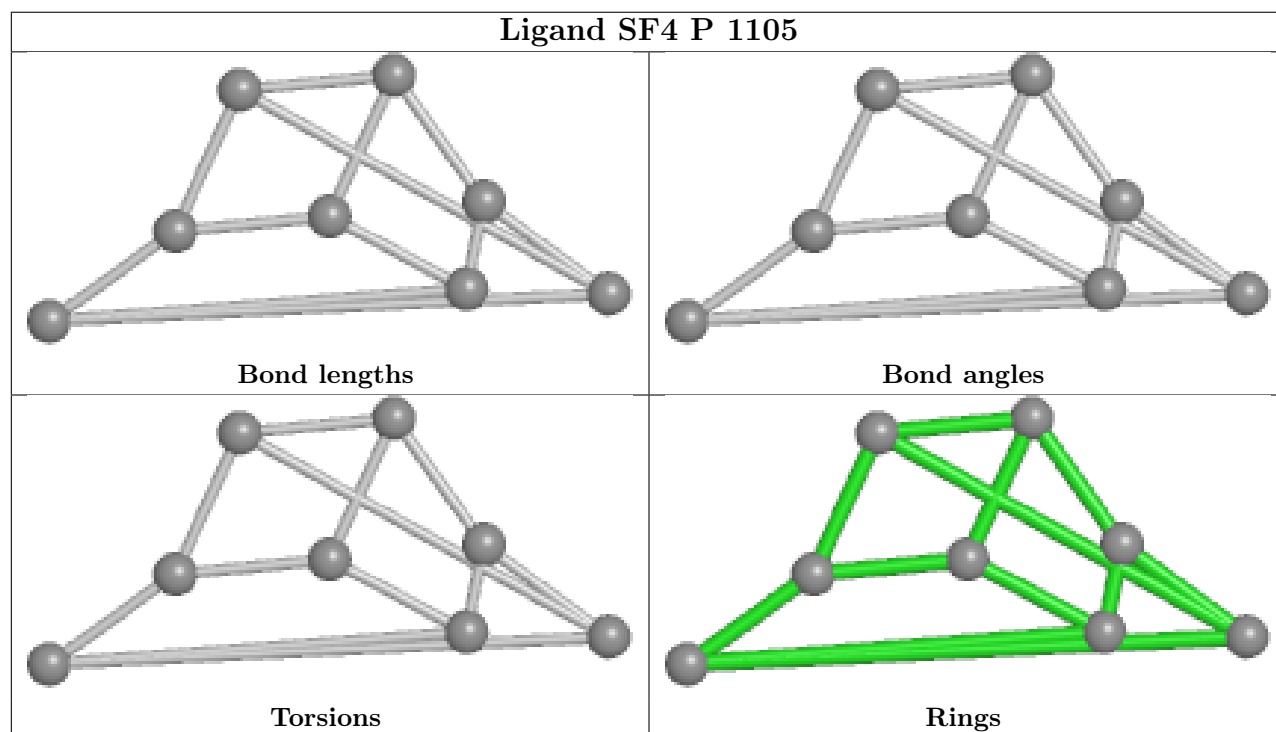
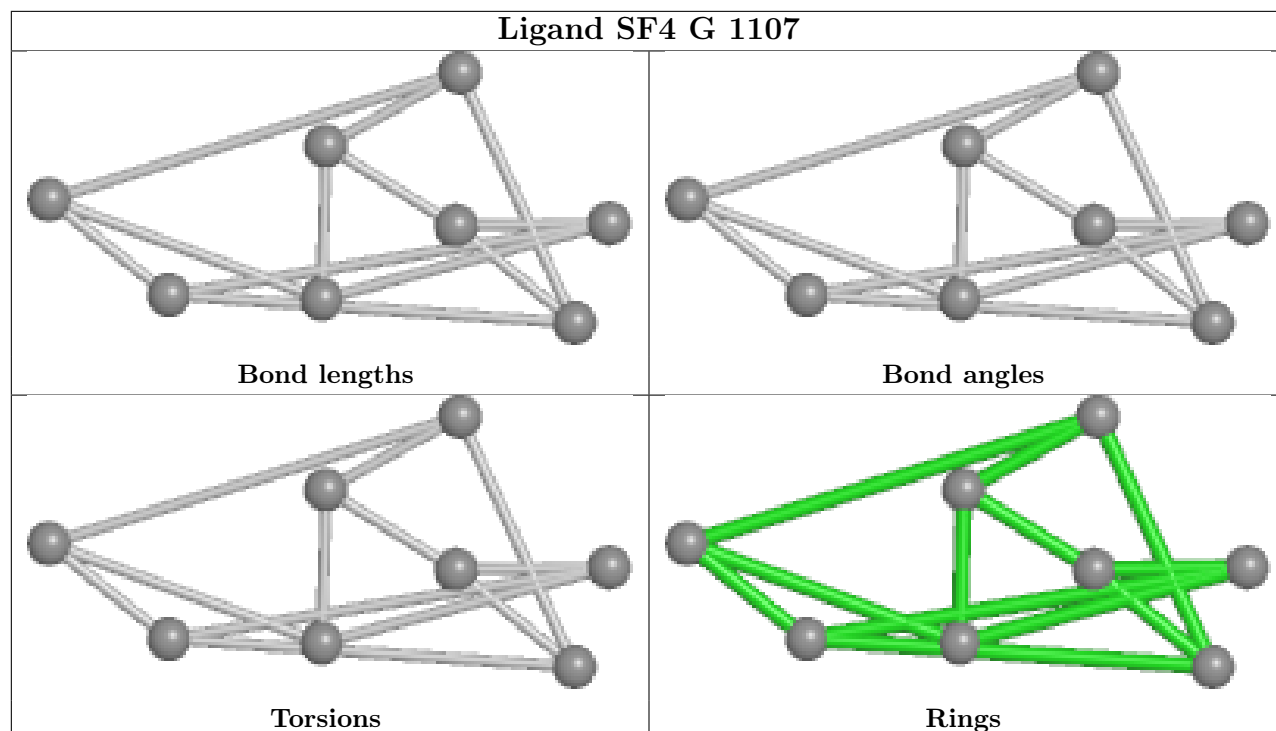


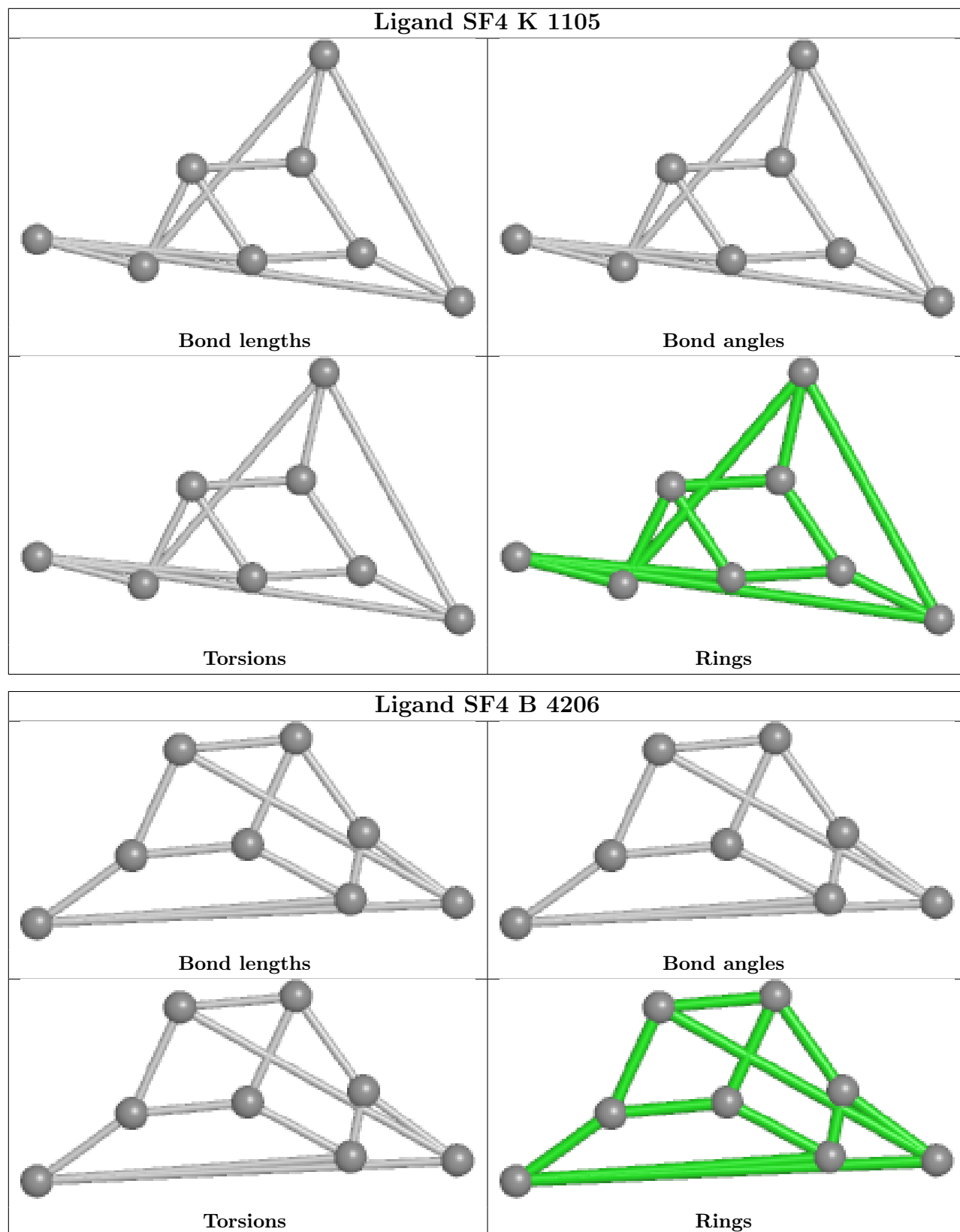


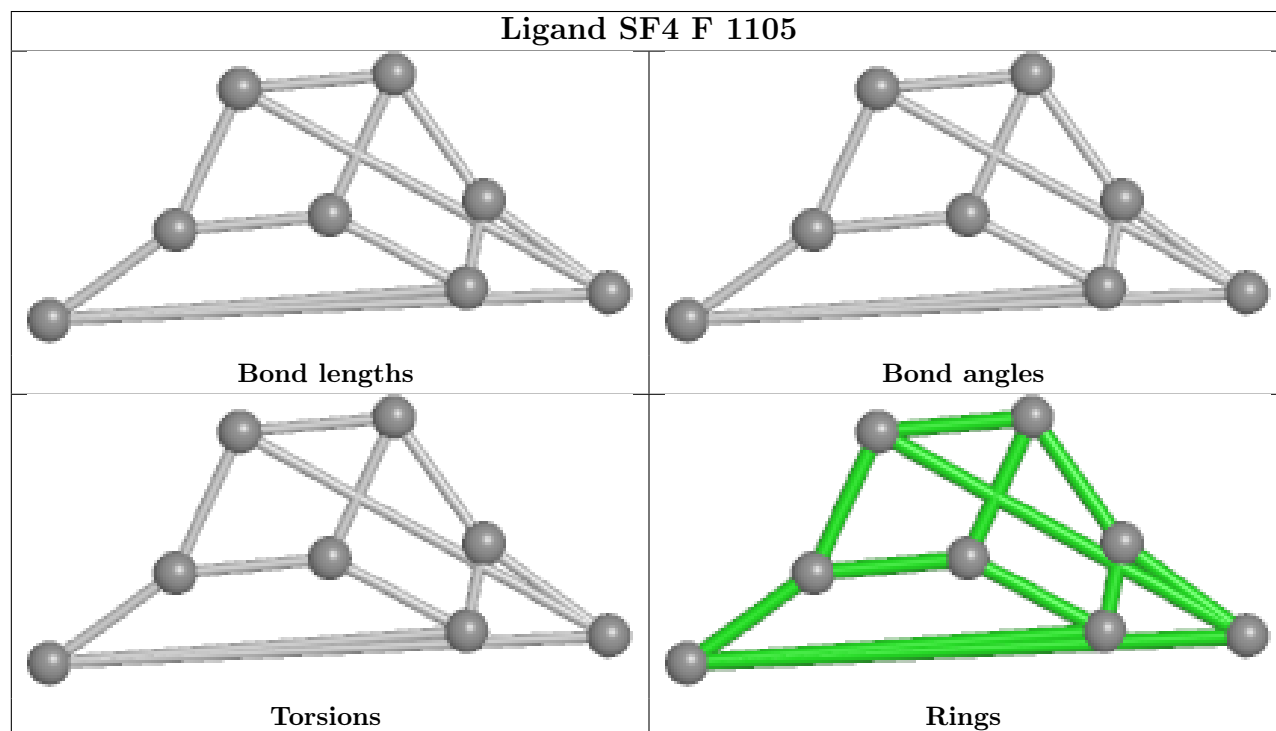
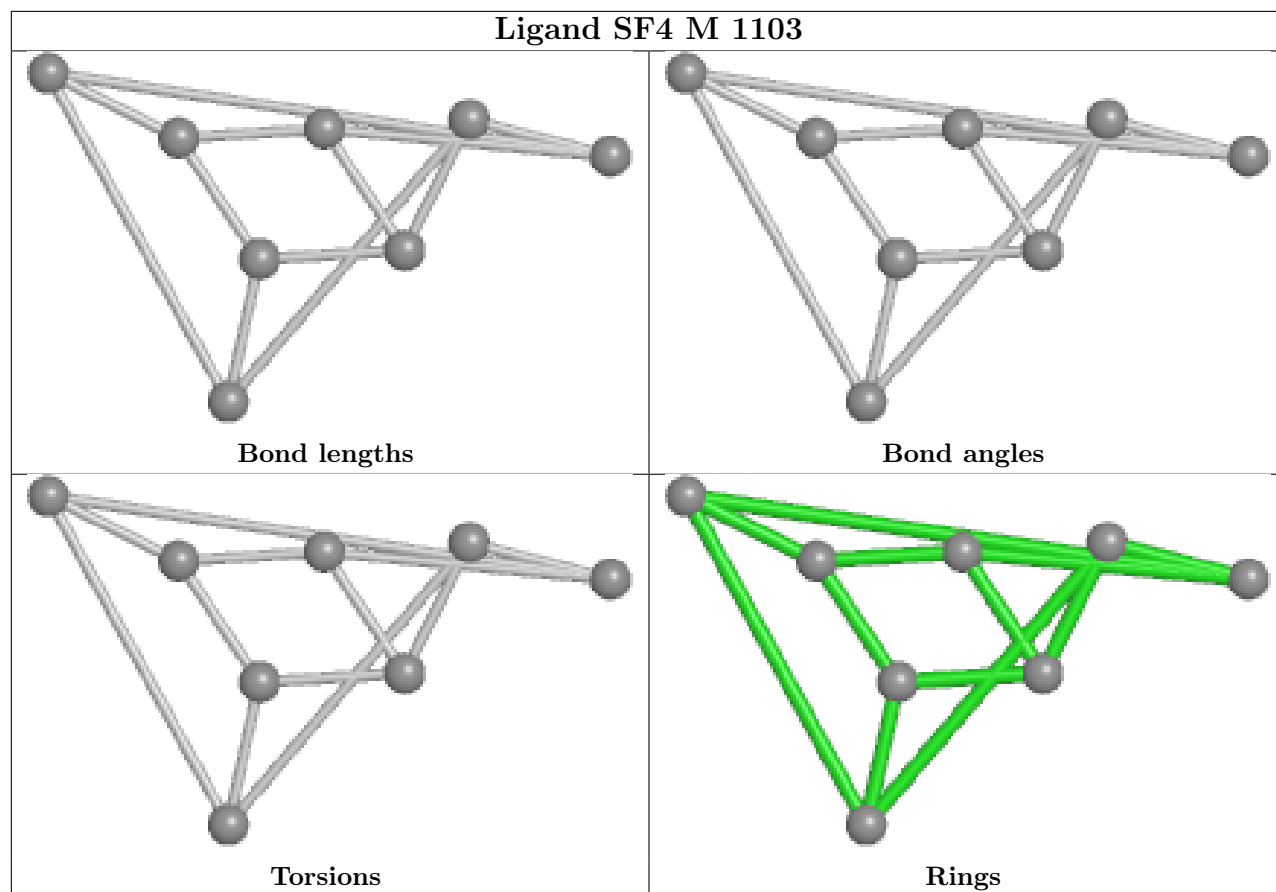


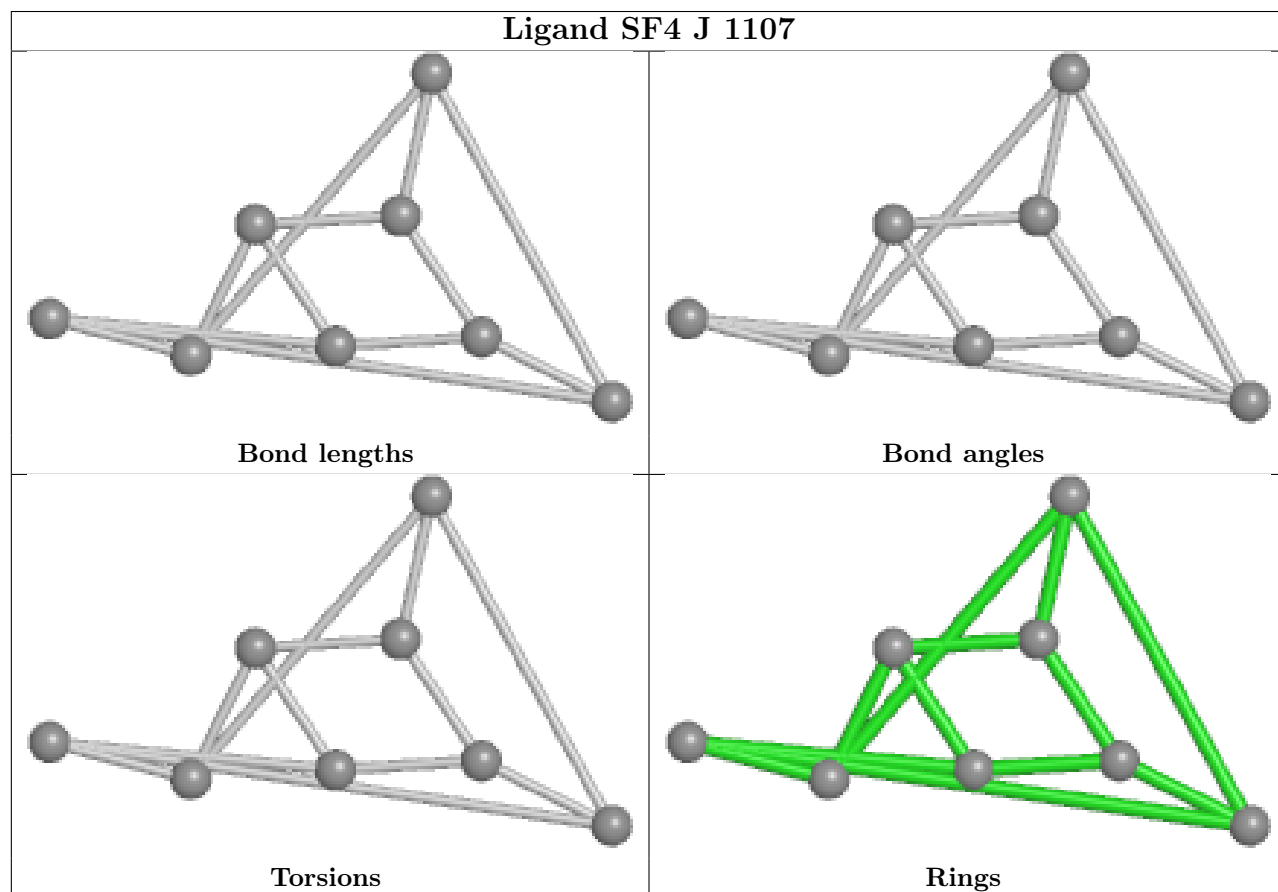
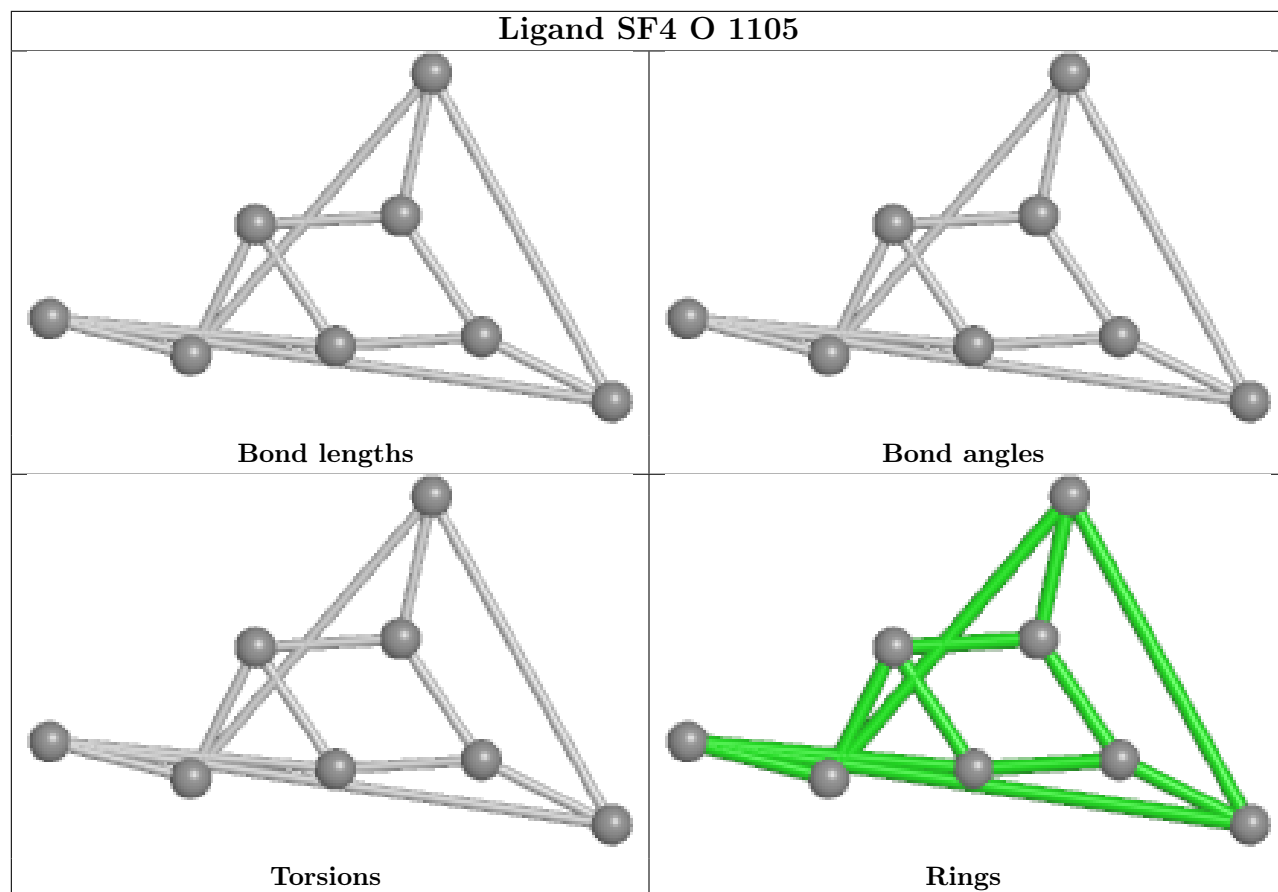


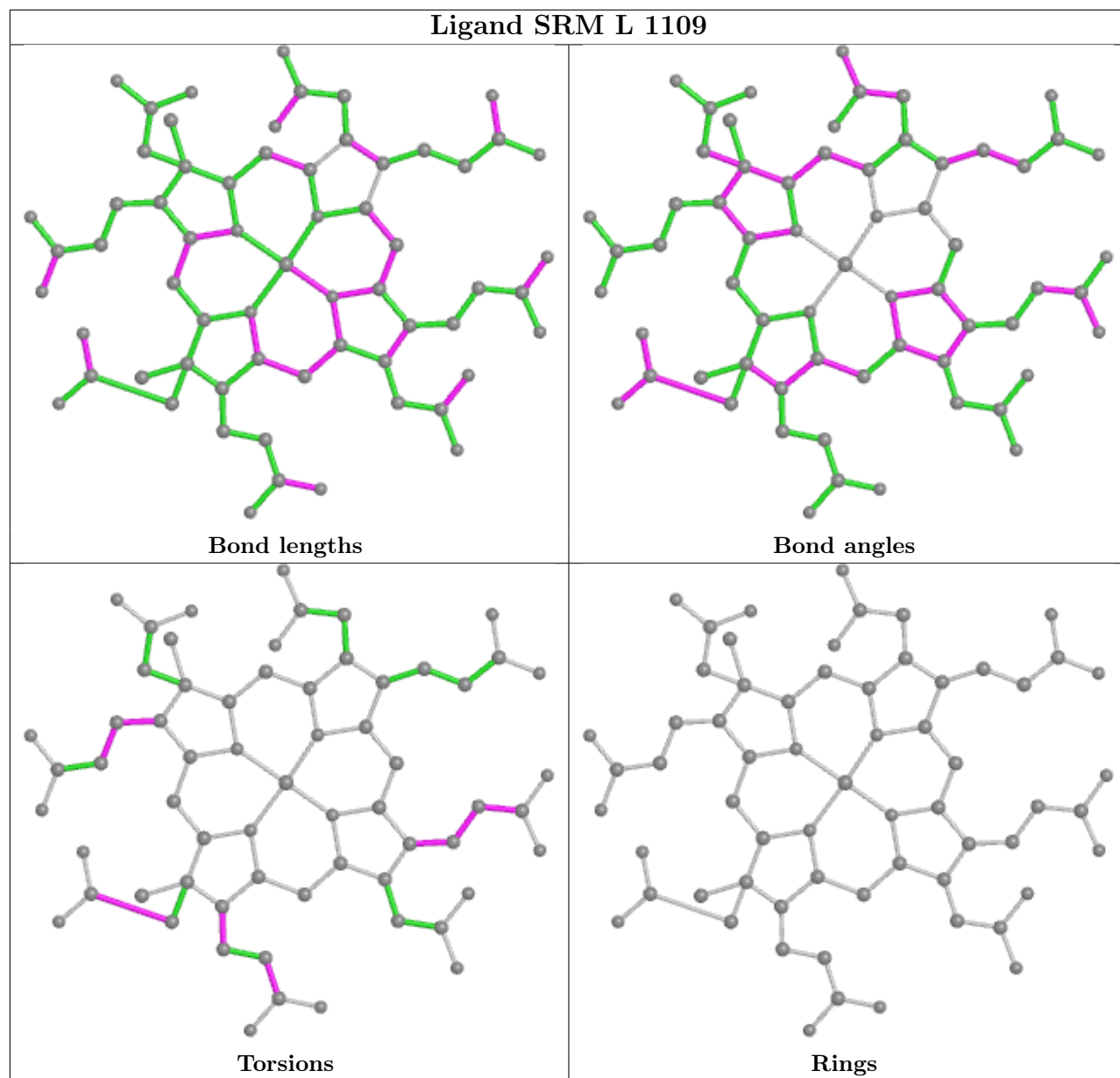


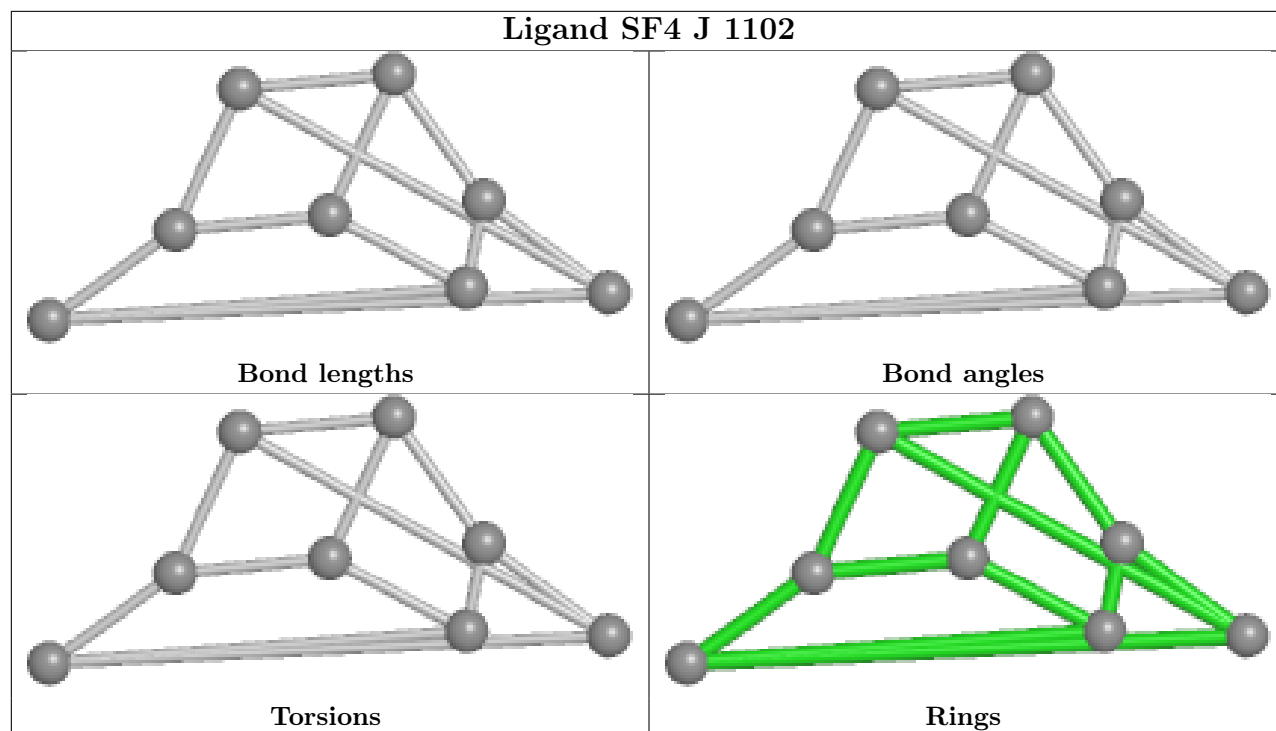


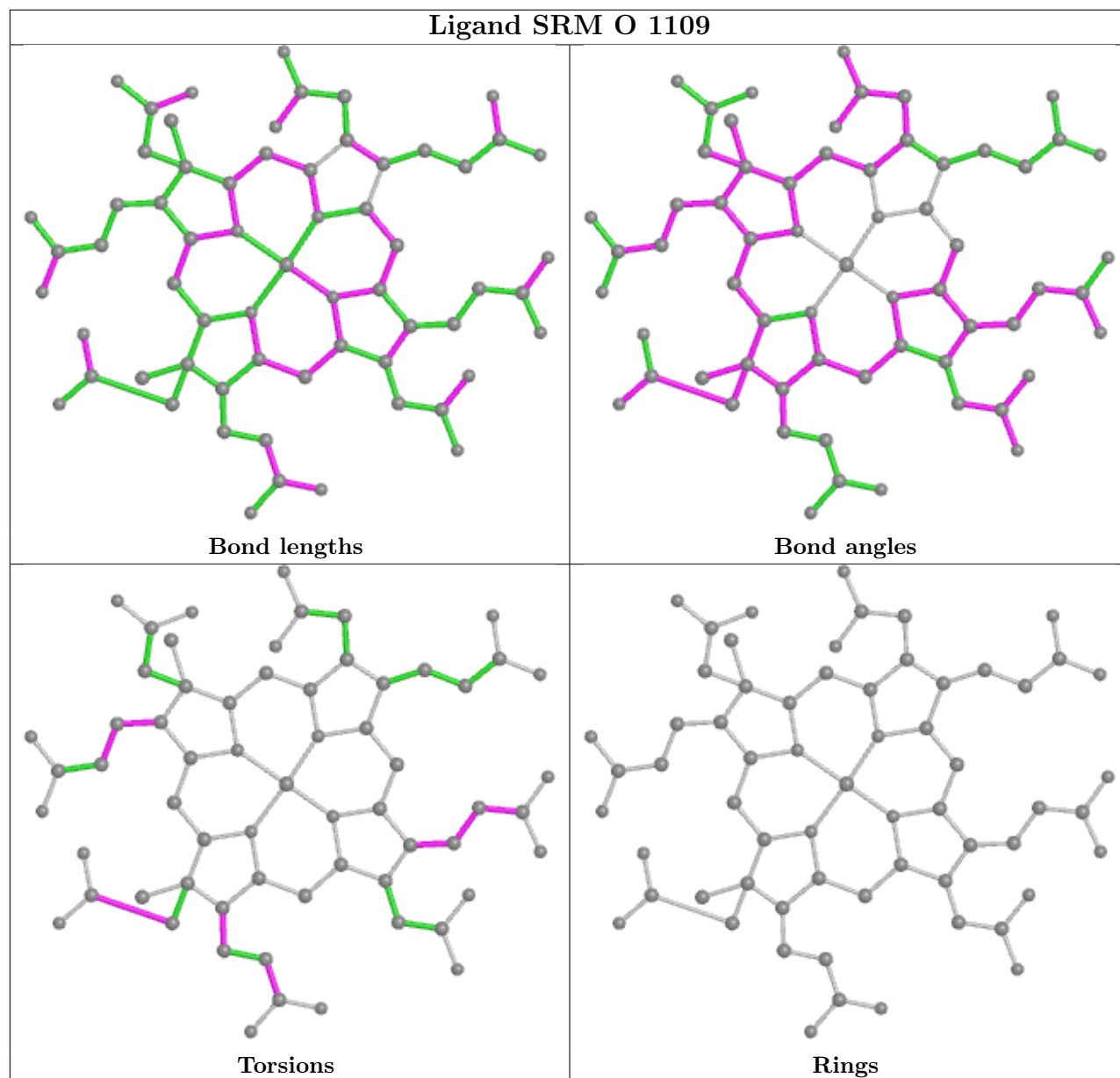


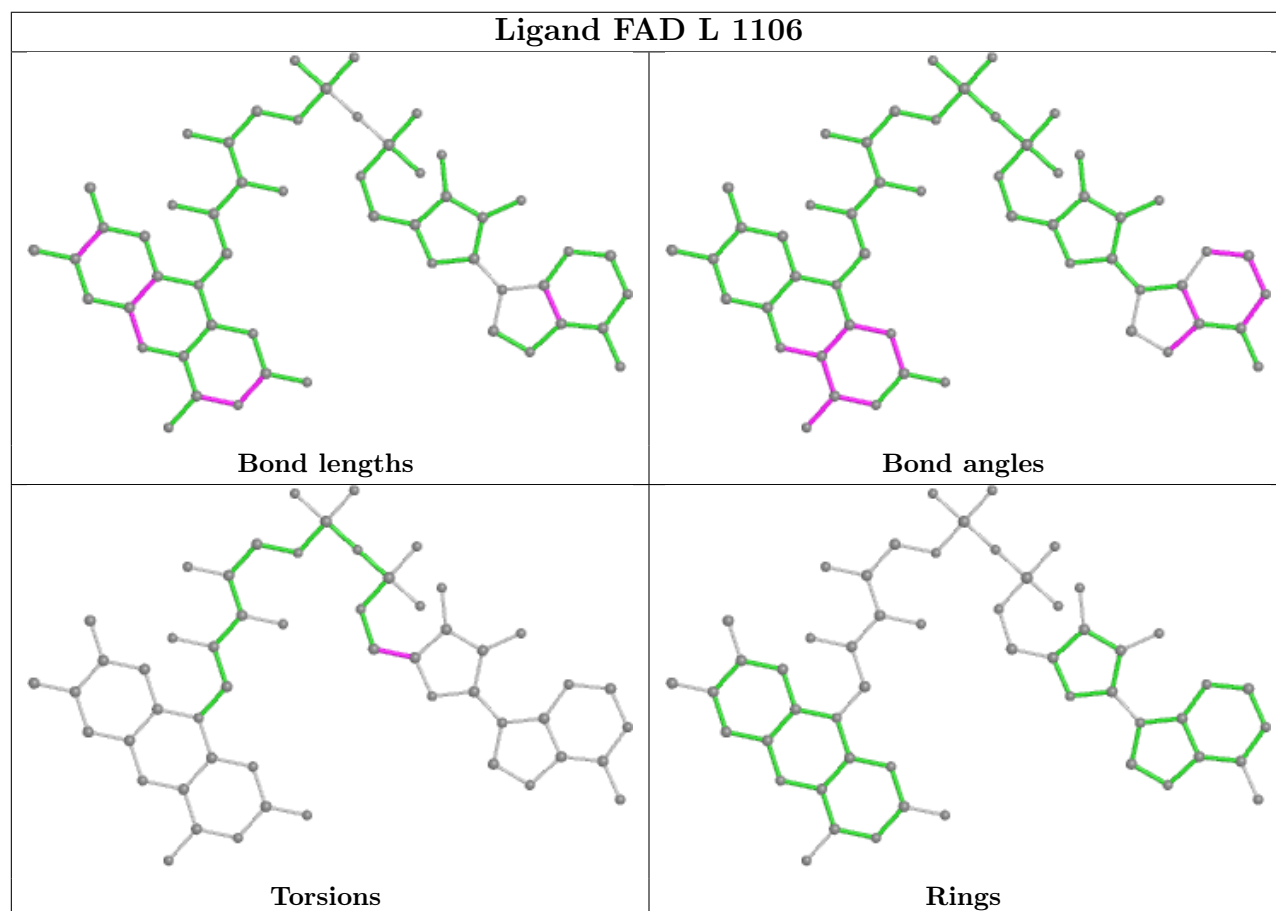
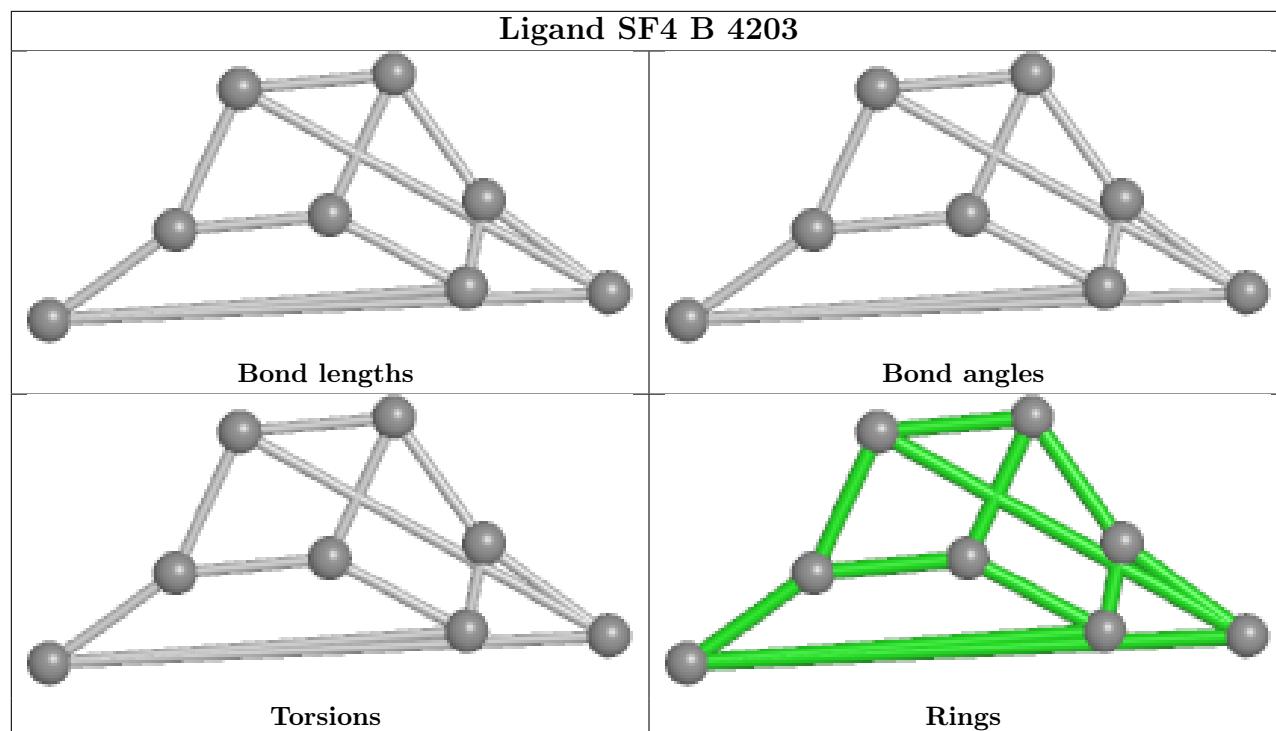


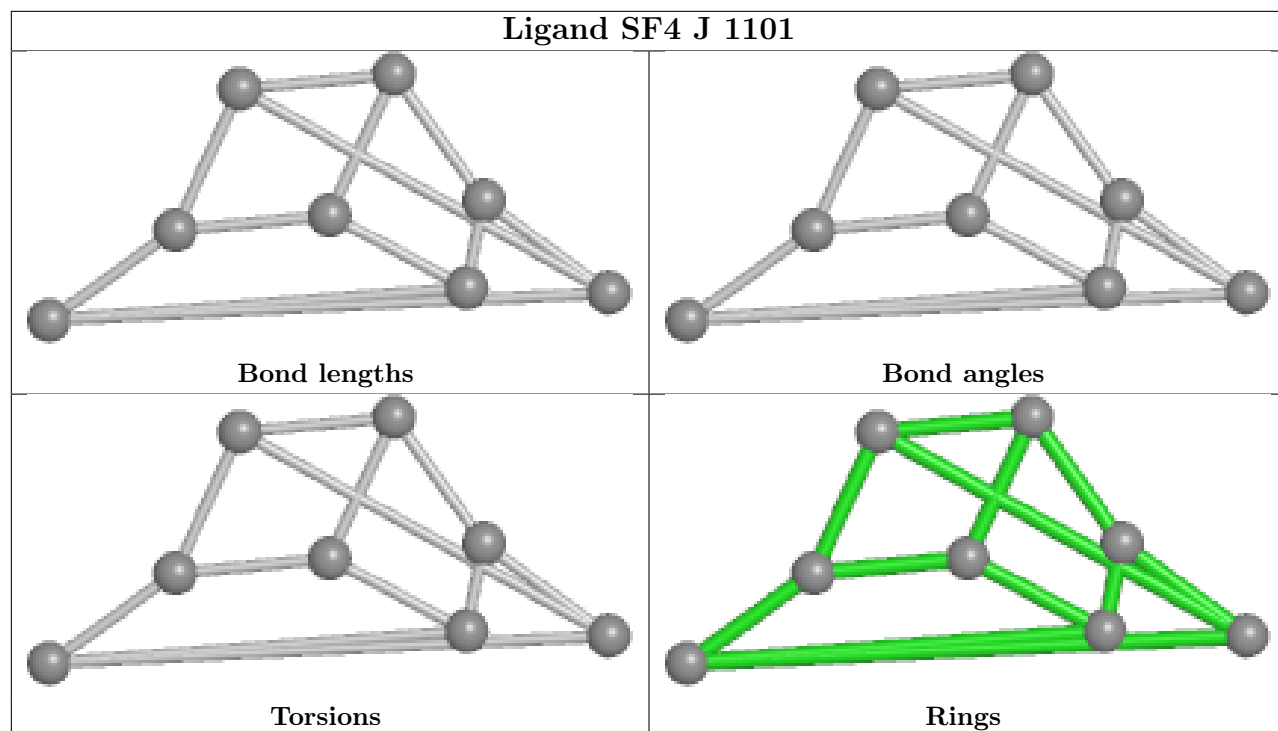


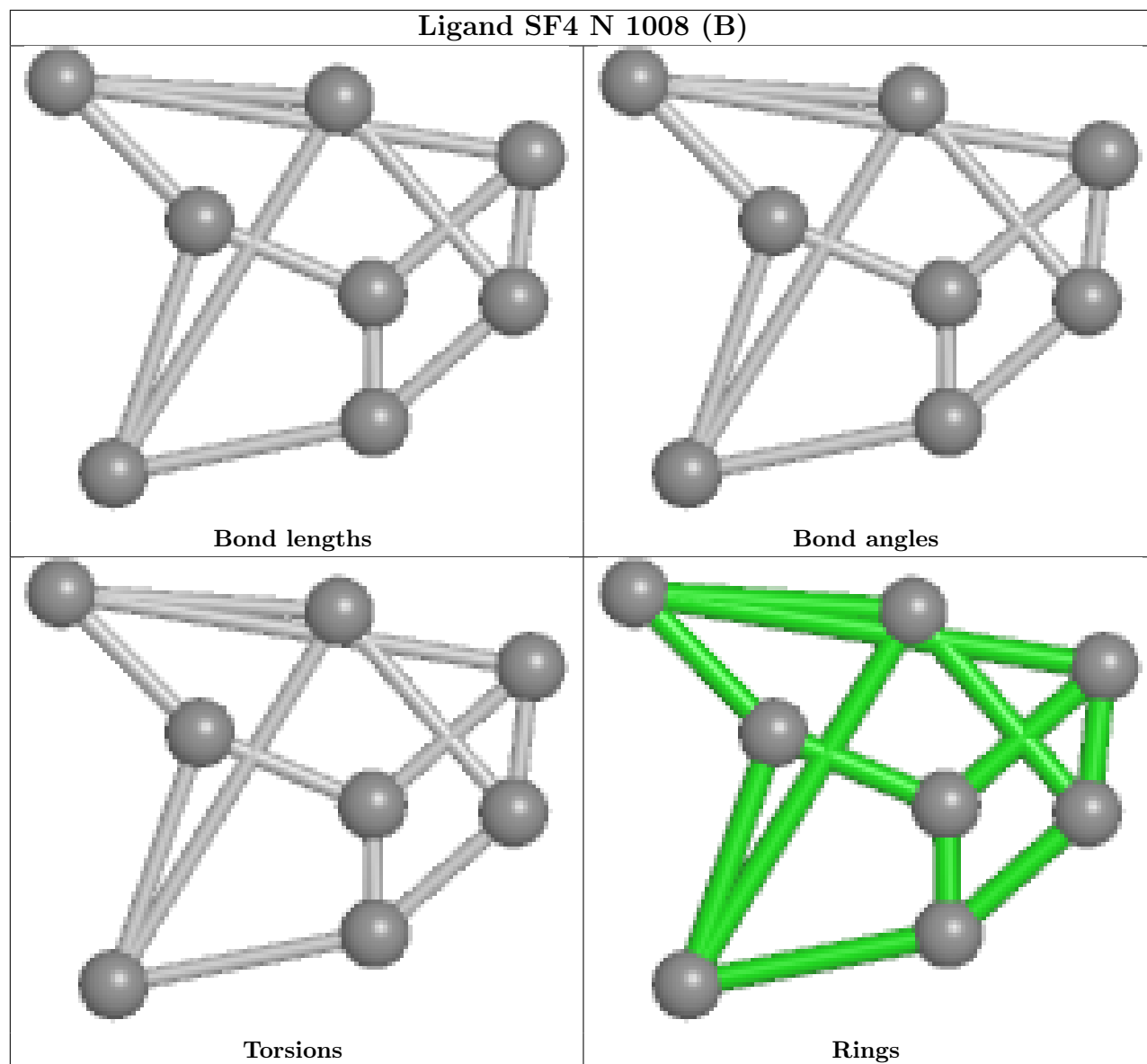


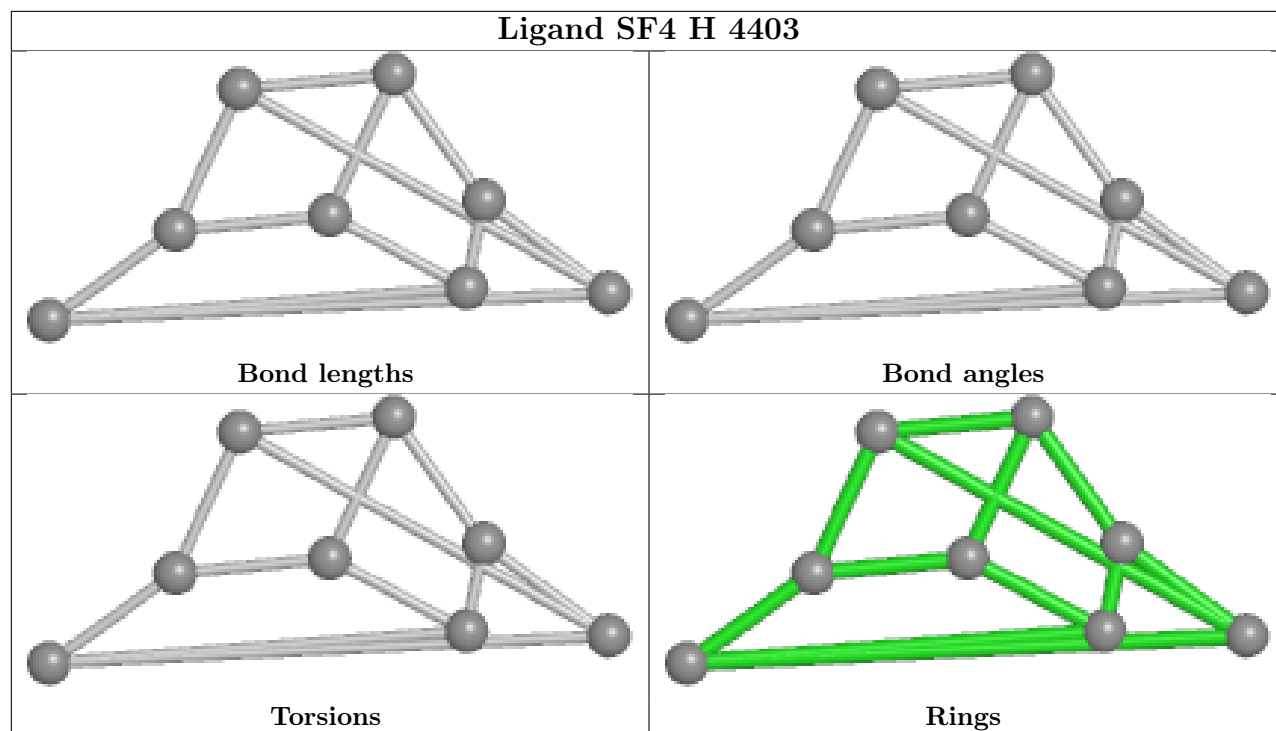
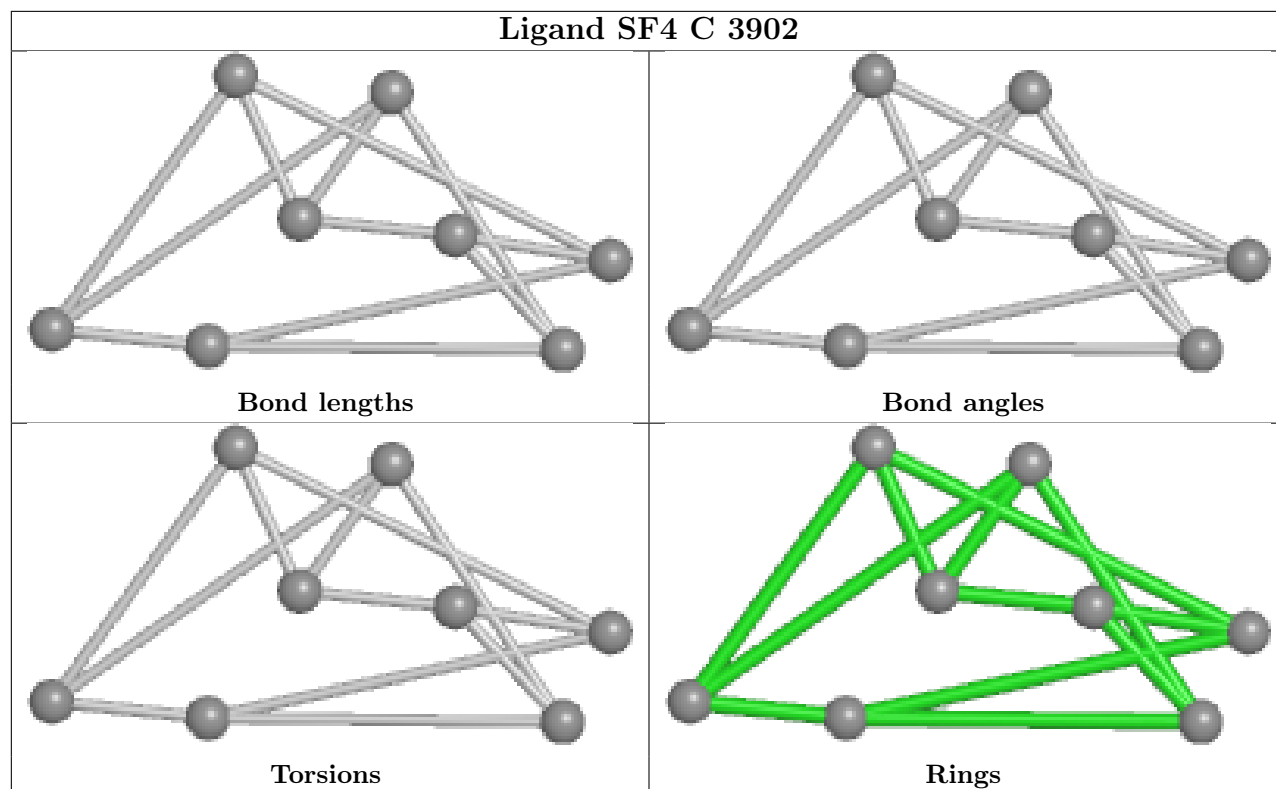


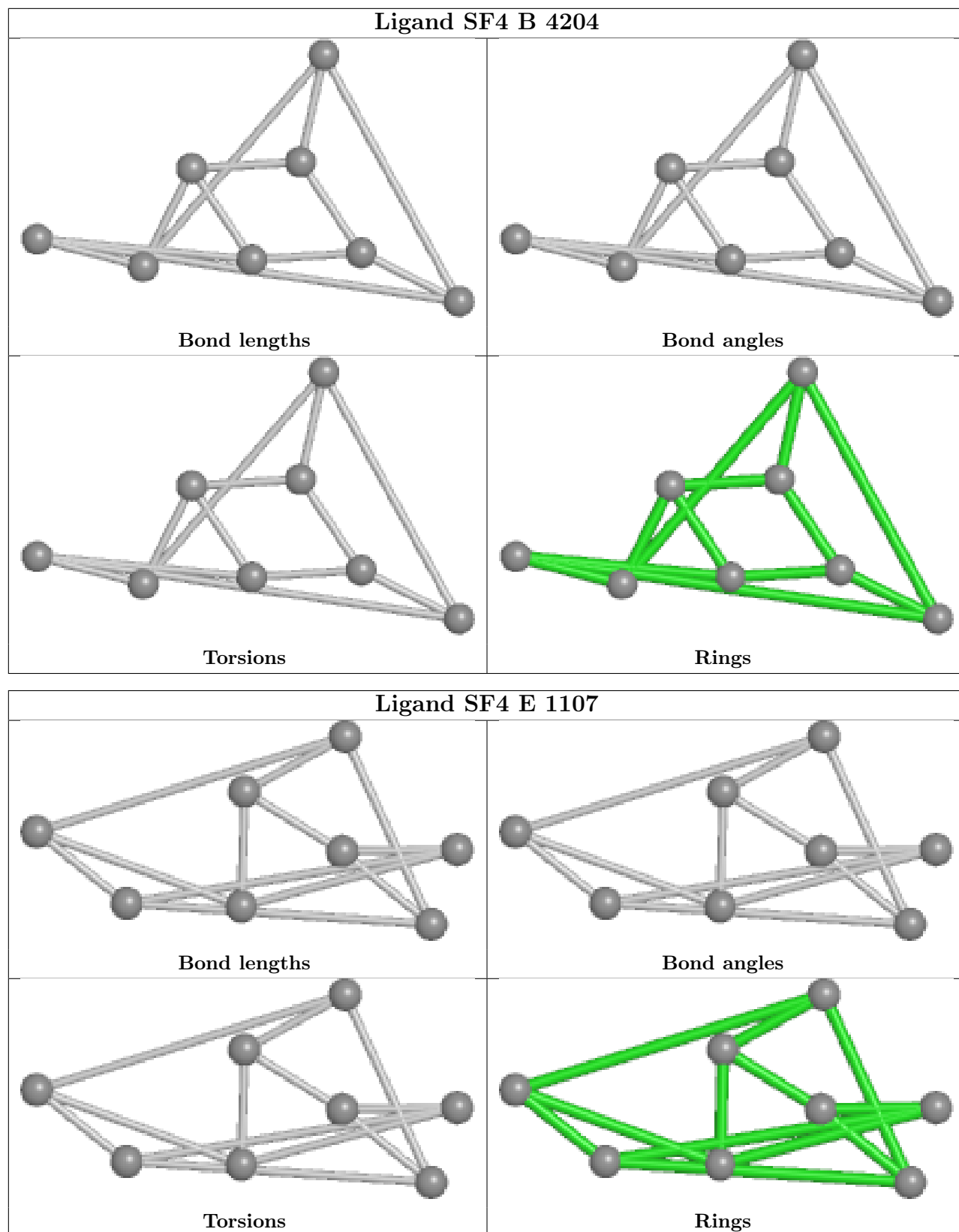


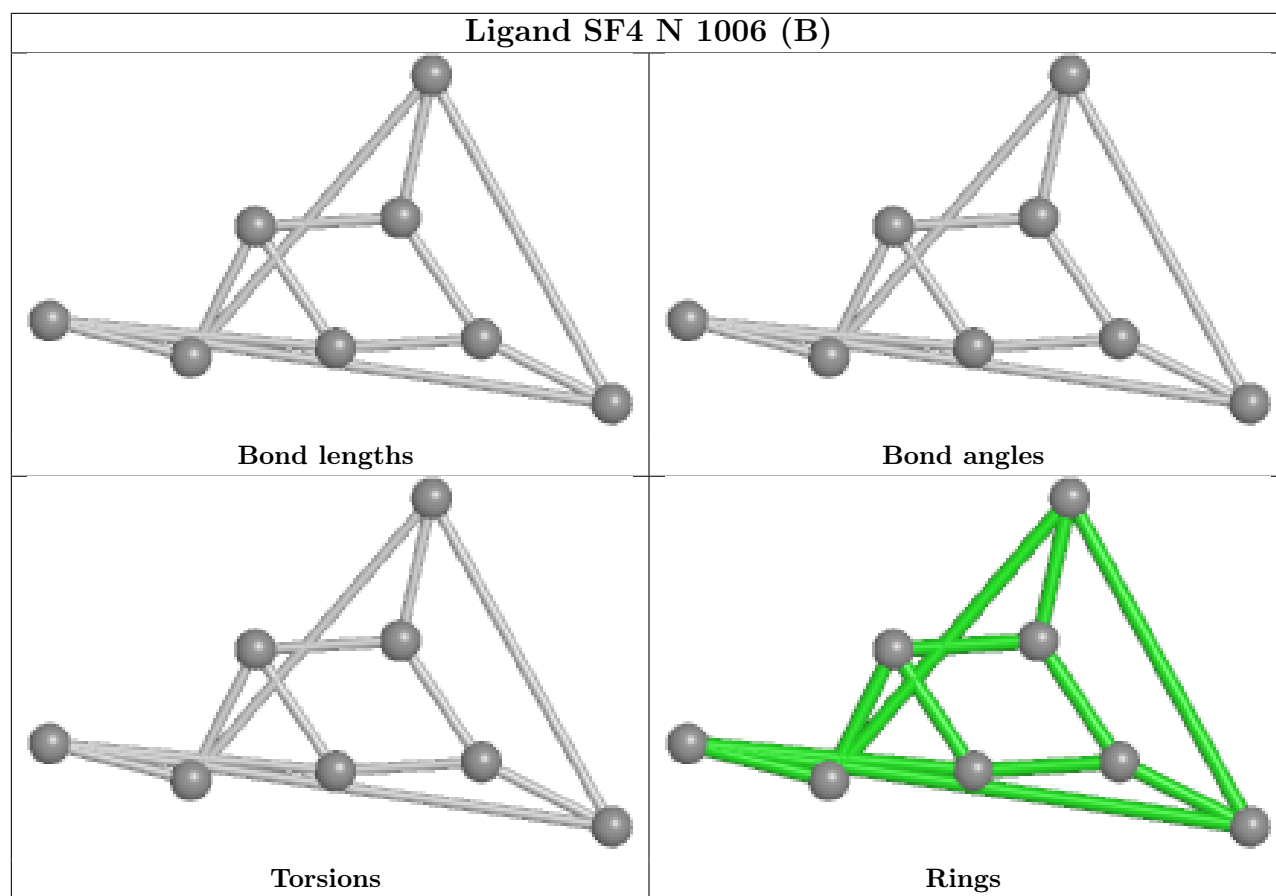
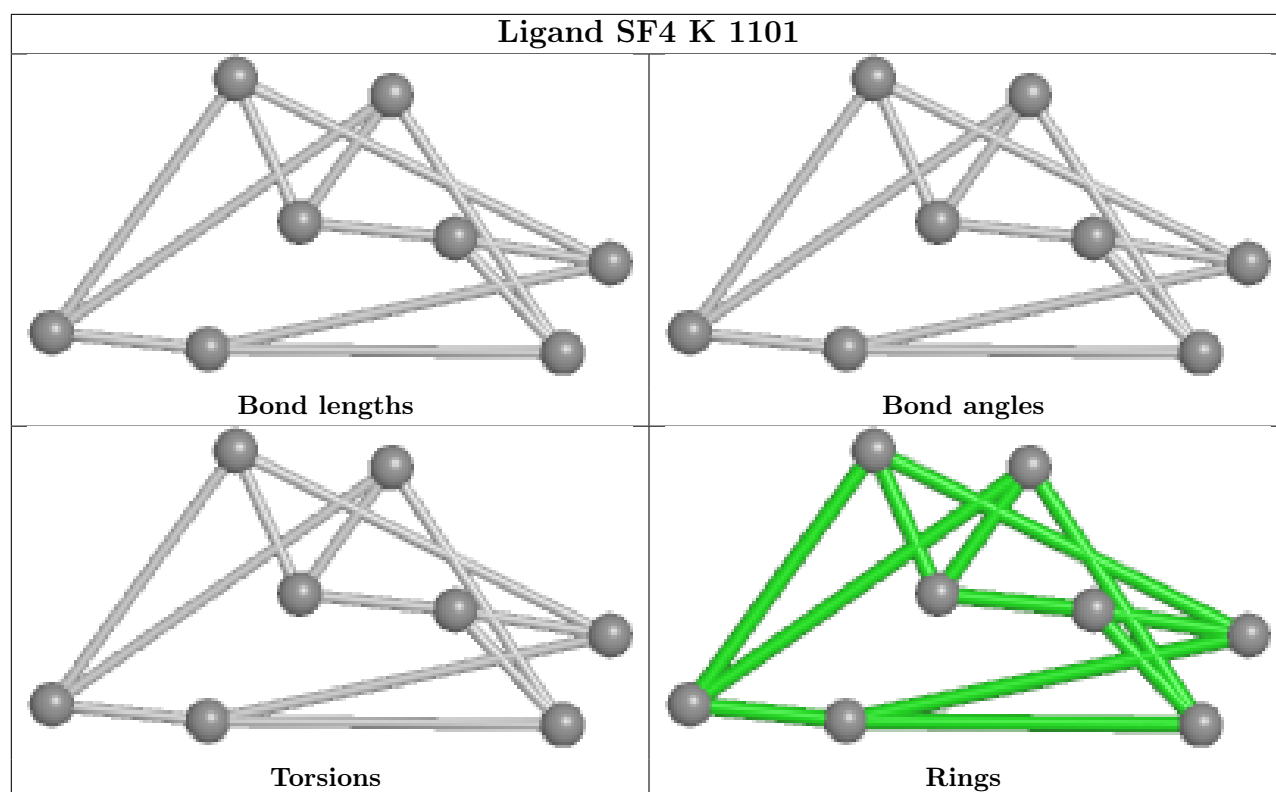


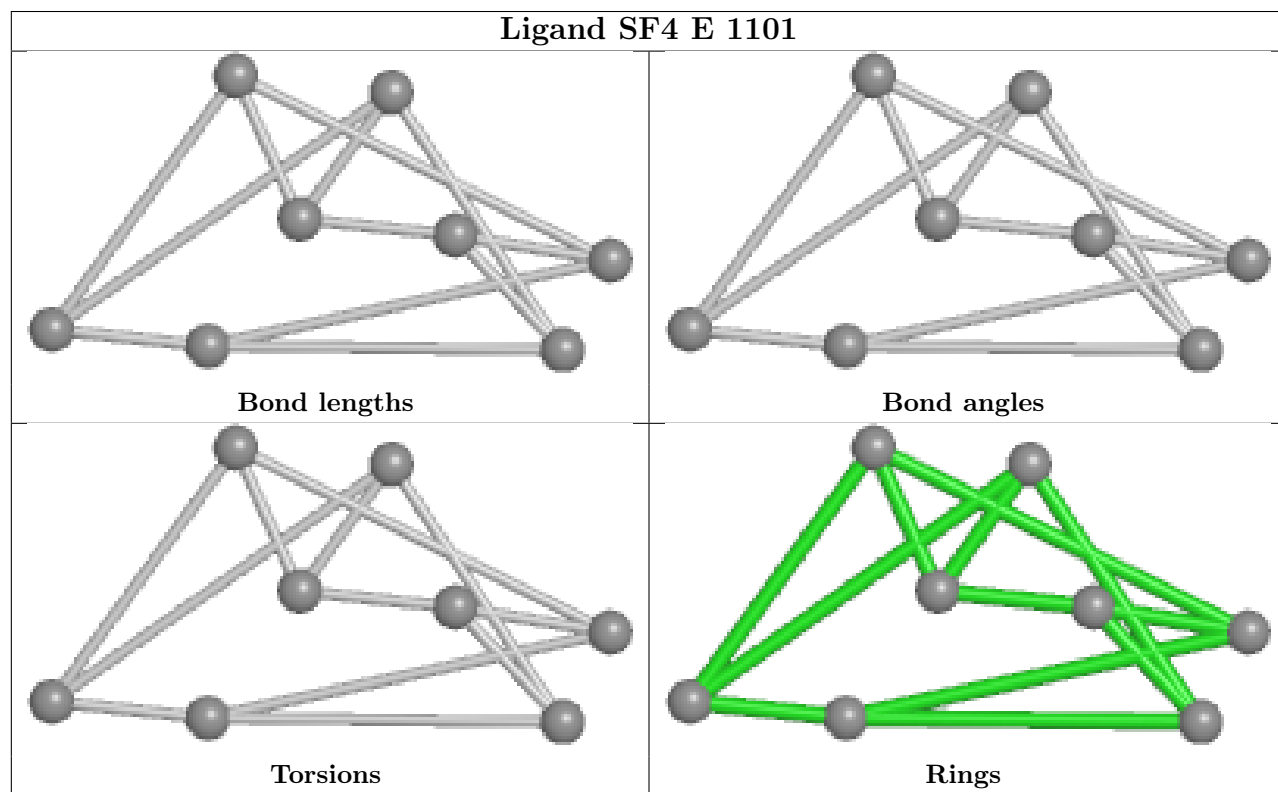
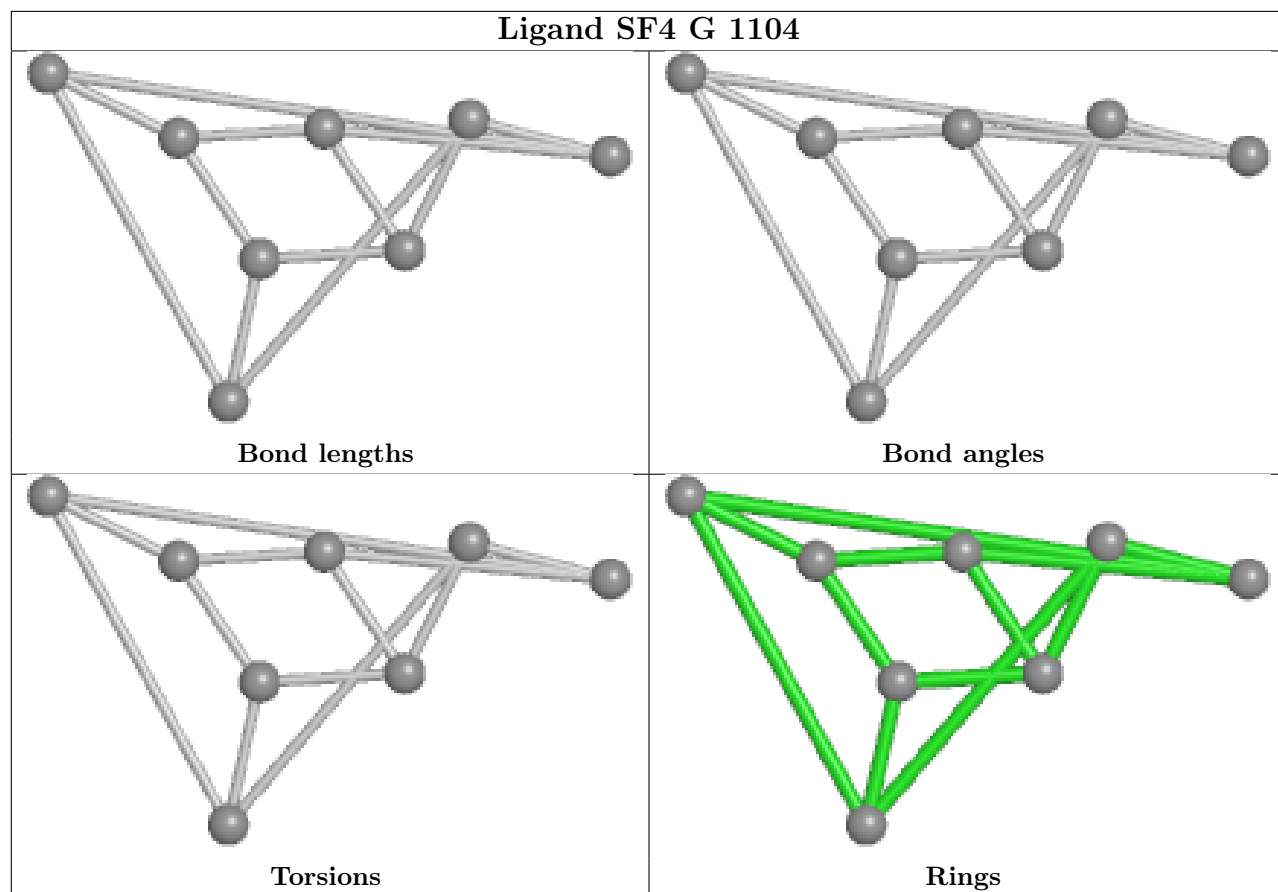


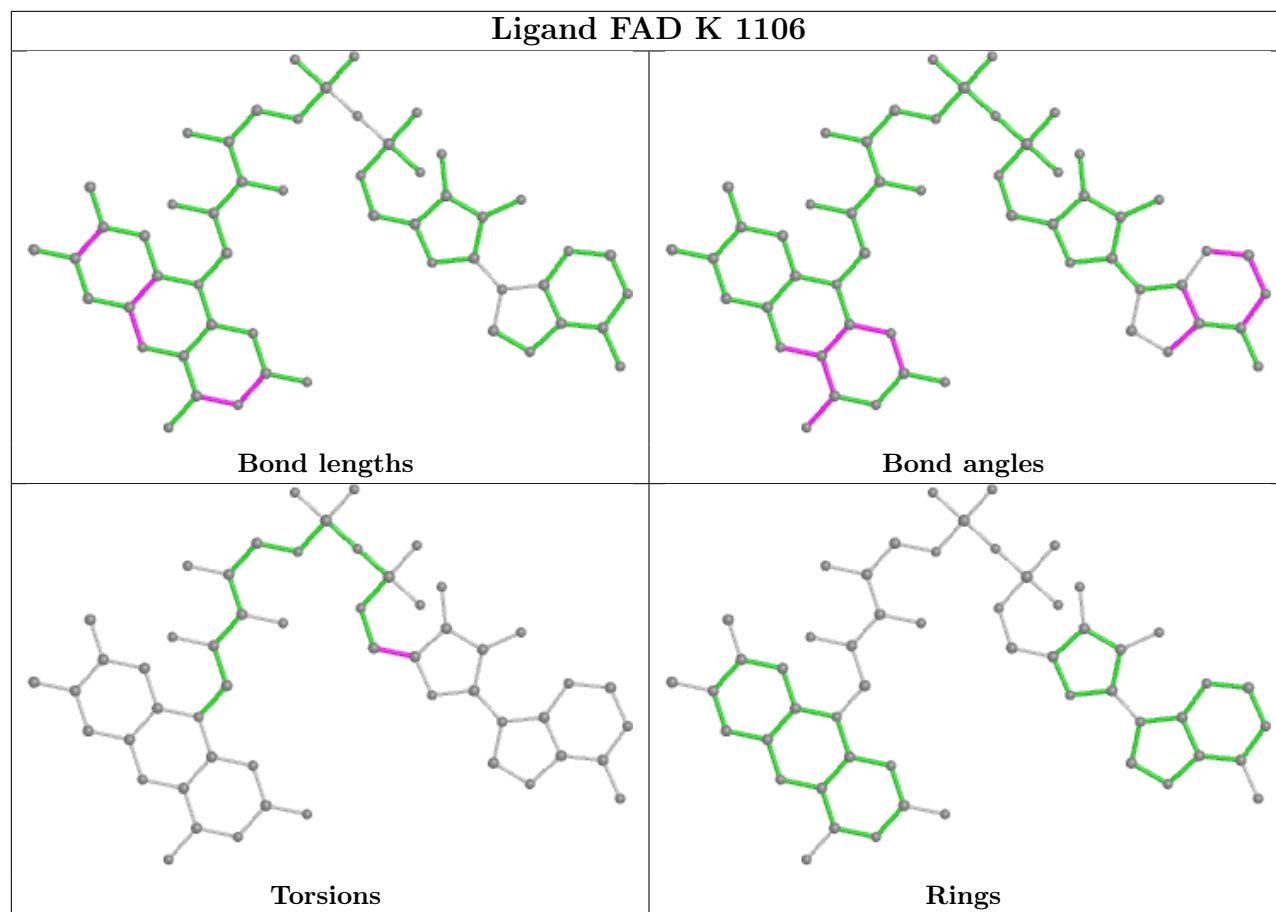


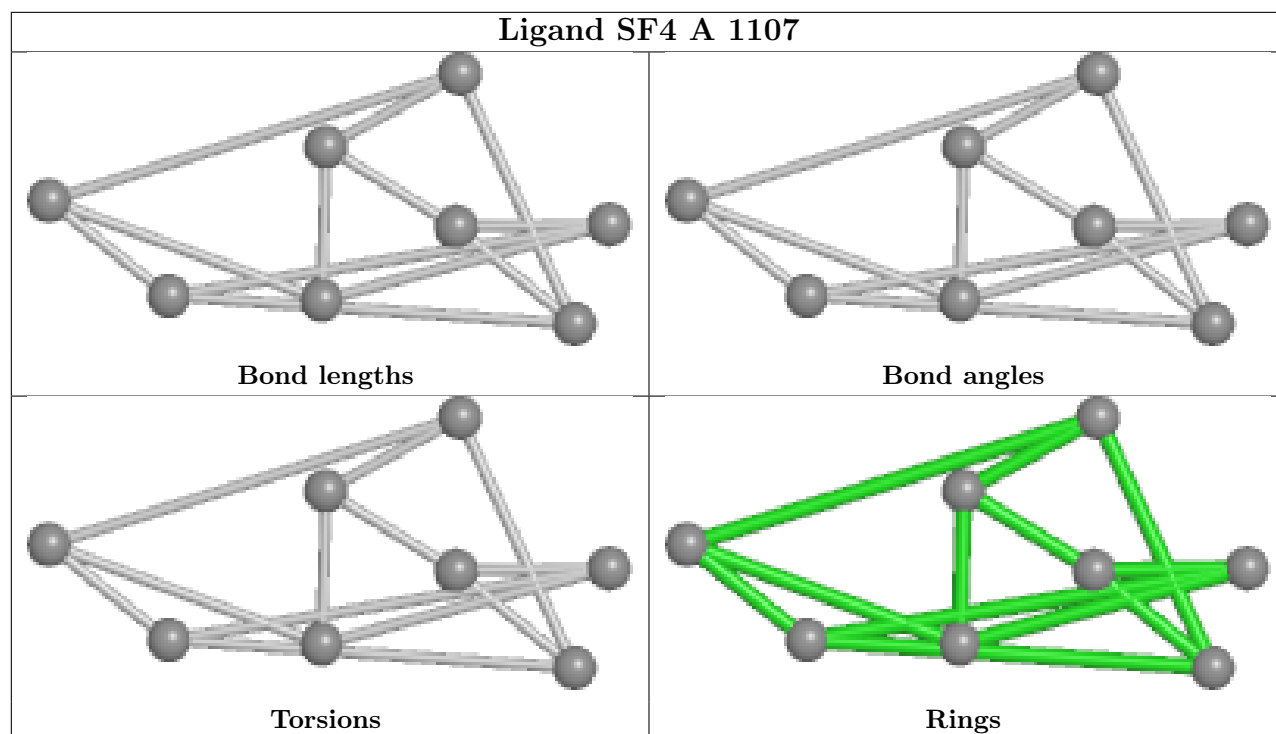
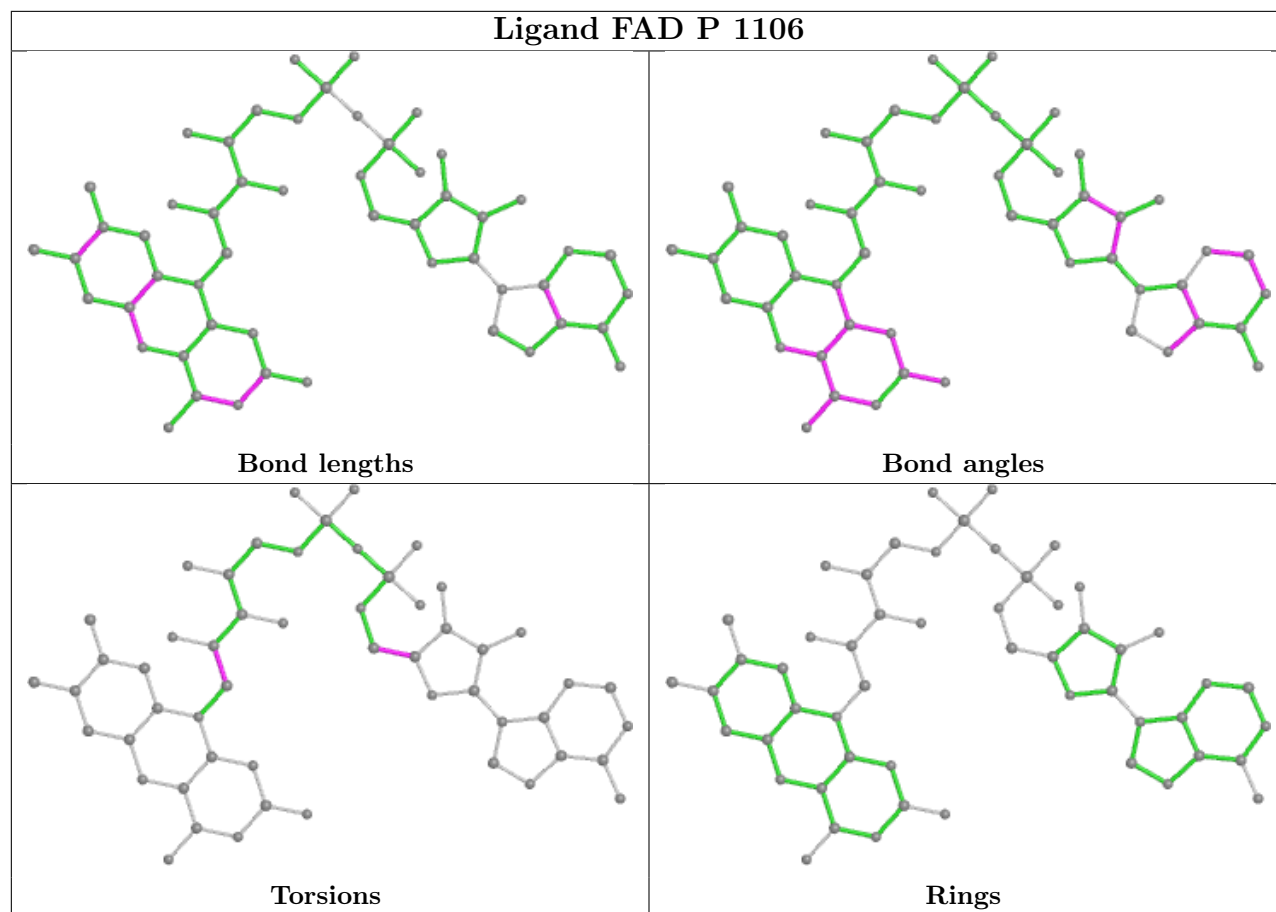


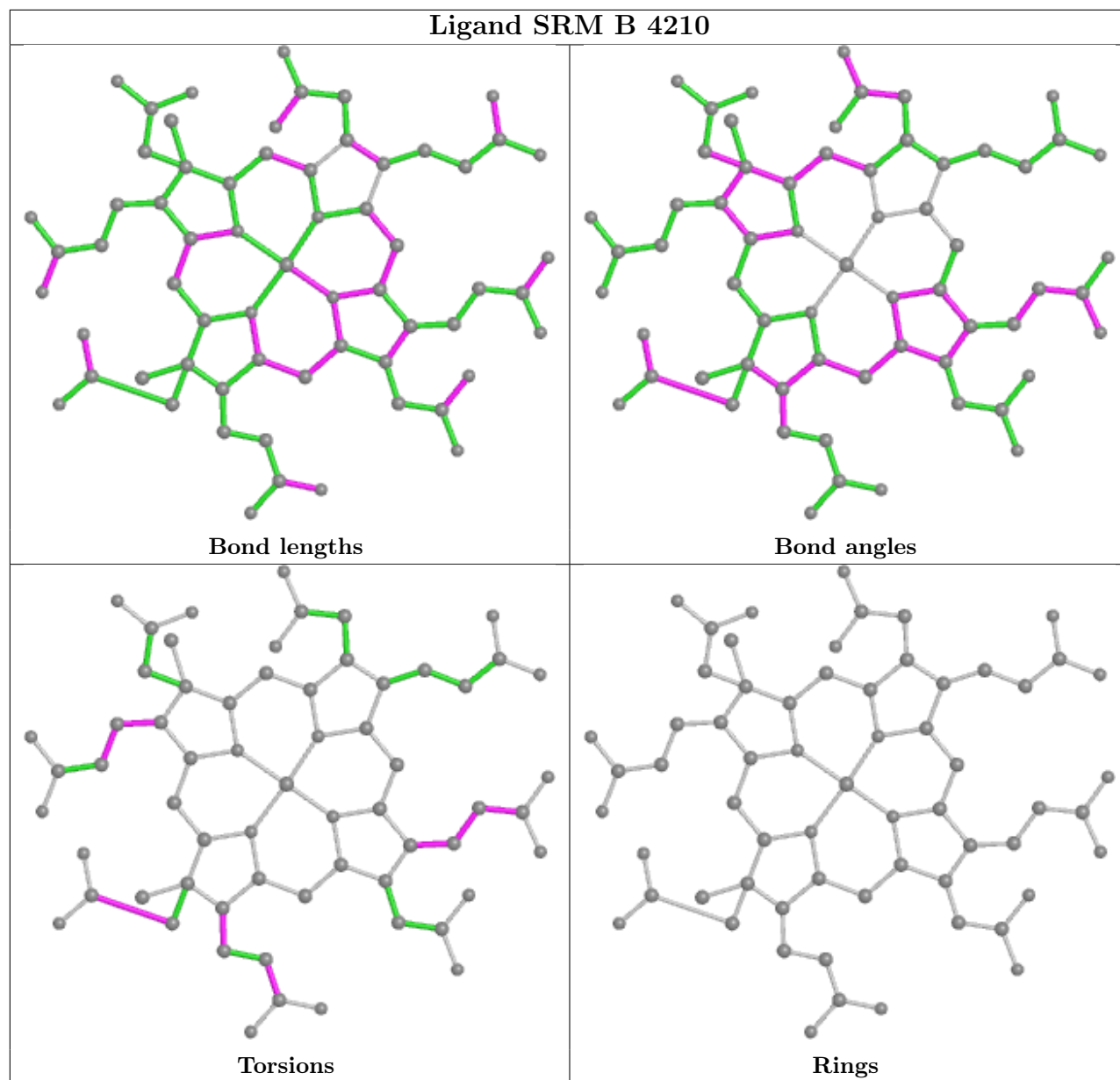


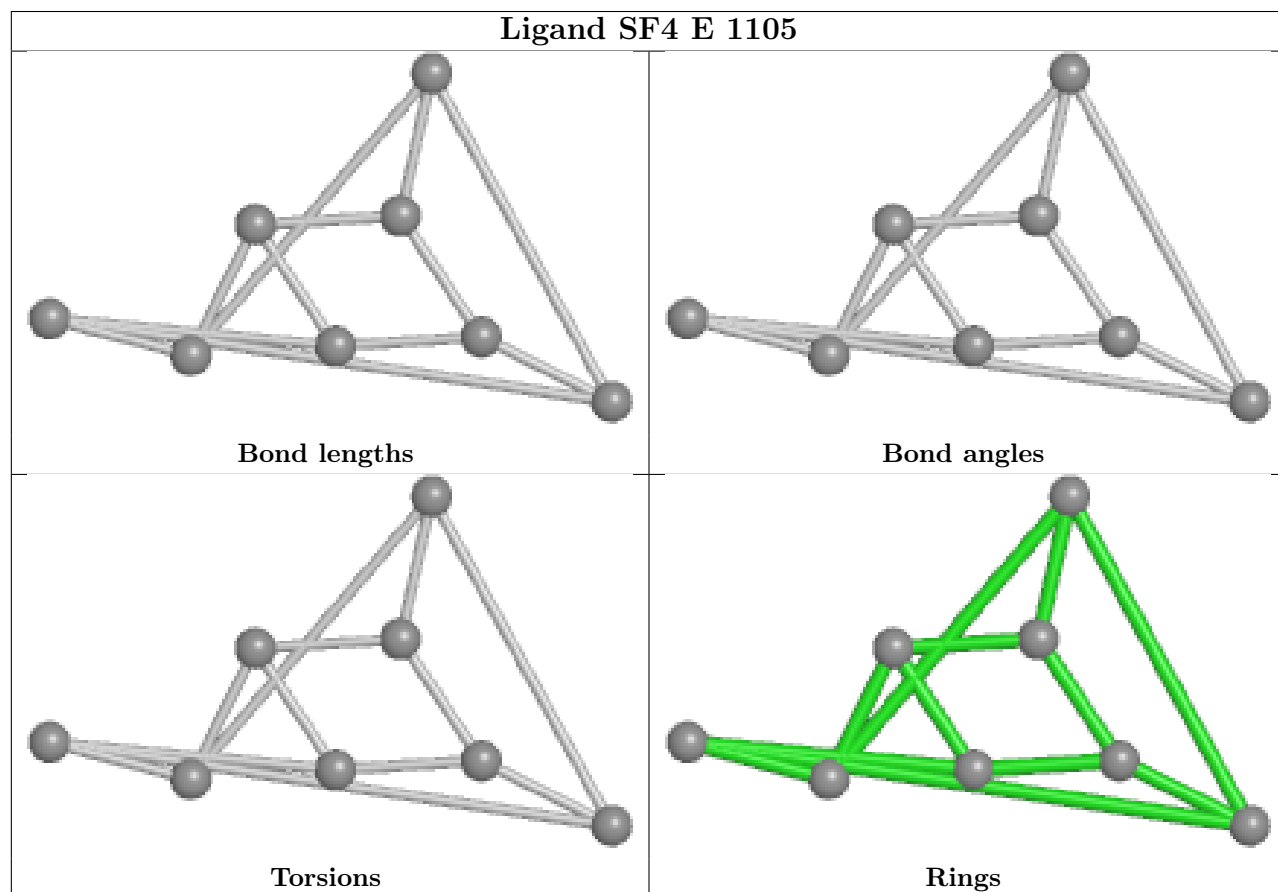
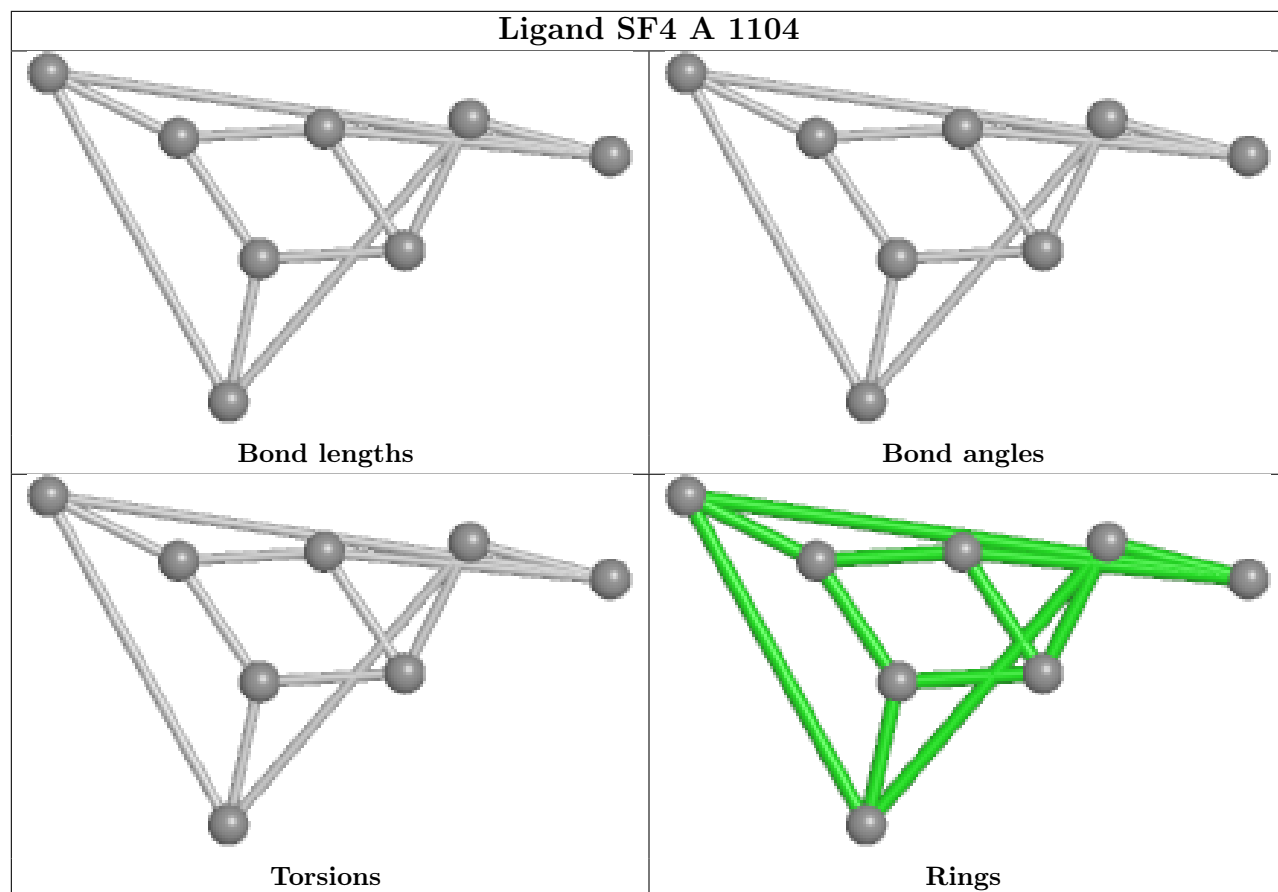












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

| Mol | Chain | Analysed | <RSRZ> | #RSRZ>2 | OWAB(Å ²) | Q<0.9 |
|-----|-------|-----------------|--------|------------------|-----------------------|---------|
| 1 | A | 618/618 (100%) | -0.44 | 2 (0%) 94 95 | 9, 16, 38, 83 | 0 |
| 1 | B | 618/618 (100%) | -0.42 | 1 (0%) 95 95 | 9, 18, 42, 83 | 0 |
| 1 | C | 618/618 (100%) | -0.44 | 1 (0%) 95 95 | 9, 17, 40, 77 | 0 |
| 1 | D | 617/618 (99%) | -0.28 | 12 (1%) 66 73 | 9, 20, 53, 94 | 0 |
| 1 | E | 617/618 (99%) | -0.22 | 20 (3%) 47 55 | 10, 22, 59, 88 | 0 |
| 1 | F | 618/618 (100%) | -0.18 | 6 (0%) 82 86 | 10, 25, 54, 79 | 0 |
| 1 | G | 618/618 (100%) | -0.33 | 10 (1%) 72 77 | 9, 17, 46, 94 | 0 |
| 1 | H | 617/618 (99%) | -0.27 | 19 (3%) 49 57 | 9, 21, 55, 86 | 0 |
| 1 | I | 618/618 (100%) | -0.45 | 1 (0%) 95 95 | 13, 20, 42, 78 | 0 |
| 1 | J | 618/618 (100%) | -0.29 | 7 (1%) 80 84 | 11, 24, 54, 79 | 0 |
| 1 | K | 617/618 (99%) | -0.46 | 1 (0%) 95 95 | 11, 17, 37, 61 | 0 |
| 1 | L | 617/618 (99%) | -0.43 | 0 100 100 | 10, 20, 45, 61 | 0 |
| 1 | M | 617/618 (99%) | -0.38 | 4 (0%) 89 92 | 11, 22, 45, 66 | 0 |
| 1 | N | 616/618 (99%) | 0.51 | 96 (15%) 2 1 | 12, 30, 52, 71 | 16 (2%) |
| 1 | O | 617/618 (99%) | -0.42 | 1 (0%) 95 95 | 11, 21, 44, 65 | 0 |
| 1 | P | 617/618 (99%) | 0.08 | 45 (7%) 15 17 | 9, 30, 74, 102 | 0 |
| All | All | 9878/9888 (99%) | -0.28 | 226 (2%) 60 66 | 9, 21, 50, 102 | 16 (0%) |

All (226) RSRZ outliers are listed below:

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|--------|------|------|
| 1 | P | 219 | ILE | 8.4 |
| 1 | E | 215 | ALA | 8.1 |
| 1 | N | 305[A] | LEU | 7.6 |
| 1 | G | 231 | LYS | 7.6 |
| 1 | N | 232[A] | GLY | 6.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | P | 250 | ILE | 6.5 |
| 1 | H | 231 | LYS | 6.4 |
| 1 | P | 247 | LEU | 6.2 |
| 1 | P | 213 | THR | 6.2 |
| 1 | N | 229[A] | ILE | 6.0 |
| 1 | N | 299[A] | LEU | 6.0 |
| 1 | N | 76[A] | TYR | 5.8 |
| 1 | P | 218 | ASN | 5.8 |
| 1 | P | 215 | ALA | 5.5 |
| 1 | P | 243 | HIS | 5.3 |
| 1 | D | 239 | ASN | 5.3 |
| 1 | N | 74[A] | TYR | 5.3 |
| 1 | N | 81[A] | VAL | 5.2 |
| 1 | N | 274[A] | VAL | 5.2 |
| 1 | P | 241 | GLU | 5.0 |
| 1 | N | 283[A] | VAL | 5.0 |
| 1 | P | 217 | TYR | 4.9 |
| 1 | C | 1 | MET | 4.8 |
| 1 | G | 1 | MET | 4.8 |
| 1 | P | 238 | VAL | 4.7 |
| 1 | P | 239 | ASN | 4.7 |
| 1 | D | 214 | LEU | 4.7 |
| 1 | D | 238 | VAL | 4.7 |
| 1 | P | 252 | LEU | 4.7 |
| 1 | P | 233 | LYS | 4.6 |
| 1 | N | 112[A] | CYS | 4.5 |
| 1 | N | 293[A] | ILE | 4.5 |
| 1 | P | 221 | MET | 4.5 |
| 1 | N | 310[A] | LYS | 4.4 |
| 1 | E | 246 | PRO | 4.4 |
| 1 | P | 214 | LEU | 4.4 |
| 1 | P | 231 | LYS | 4.4 |
| 1 | N | 247[A] | LEU | 4.3 |
| 1 | P | 232 | GLY | 4.3 |
| 1 | N | 284[A] | ILE | 4.2 |
| 1 | D | 231 | LYS | 4.2 |
| 1 | D | 240 | GLY | 4.2 |
| 1 | N | 88[A] | VAL | 4.1 |
| 1 | H | 240 | GLY | 4.0 |
| 1 | P | 244 | LYS | 4.0 |
| 1 | N | 269[A] | VAL | 4.0 |
| 1 | N | 272[A] | GLY | 4.0 |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|--------|------|------|
| 1 | N | 75[A] | TYR | 4.0 |
| 1 | P | 237 | TYR | 4.0 |
| 1 | E | 222 | ASP | 4.0 |
| 1 | N | 126[A] | LEU | 3.9 |
| 1 | N | 303[A] | VAL | 3.9 |
| 1 | H | 239 | ASN | 3.9 |
| 1 | G | 246 | PRO | 3.9 |
| 1 | N | 202[A] | THR | 3.8 |
| 1 | A | 1 | MET | 3.8 |
| 1 | B | 1 | MET | 3.8 |
| 1 | N | 96[A] | LEU | 3.8 |
| 1 | N | 106[A] | ILE | 3.8 |
| 1 | F | 239 | ASN | 3.7 |
| 1 | P | 248 | LYS | 3.7 |
| 1 | N | 271[A] | VAL | 3.7 |
| 1 | E | 231 | LYS | 3.6 |
| 1 | E | 239 | ASN | 3.6 |
| 1 | D | 241 | GLU | 3.6 |
| 1 | H | 251 | GLU | 3.6 |
| 1 | N | 275[A] | GLY | 3.6 |
| 1 | J | 1 | MET | 3.6 |
| 1 | E | 223 | ASP | 3.6 |
| 1 | N | 306[A] | GLU | 3.5 |
| 1 | N | 201[A] | CYS | 3.5 |
| 1 | P | 240 | GLY | 3.5 |
| 1 | H | 232 | GLY | 3.5 |
| 1 | N | 92[A] | PHE | 3.5 |
| 1 | N | 110[A] | ASP | 3.4 |
| 1 | N | 195[A] | TYR | 3.4 |
| 1 | A | 239 | ASN | 3.4 |
| 1 | P | 229 | ILE | 3.4 |
| 1 | E | 238 | VAL | 3.3 |
| 1 | N | 73[A] | GLU | 3.3 |
| 1 | G | 239 | ASN | 3.2 |
| 1 | P | 249 | GLU | 3.2 |
| 1 | D | 217 | TYR | 3.2 |
| 1 | P | 81 | VAL | 3.2 |
| 1 | N | 136[A] | VAL | 3.1 |
| 1 | N | 308[A] | ILE | 3.1 |
| 1 | M | 240 | GLY | 3.1 |
| 1 | F | 231 | LYS | 3.1 |
| 1 | N | 197[A] | ILE | 3.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | N | 107[A] | VAL | 3.0 |
| 1 | P | 112 | CYS | 3.0 |
| 1 | M | 231 | LYS | 3.0 |
| 1 | P | 216 | LYS | 3.0 |
| 1 | E | 214 | LEU | 3.0 |
| 1 | N | 282[A] | THR | 3.0 |
| 1 | P | 224 | VAL | 3.0 |
| 1 | P | 220 | ASN | 3.0 |
| 1 | P | 113 | TRP | 3.0 |
| 1 | G | 232 | GLY | 3.0 |
| 1 | N | 87[A] | GLY | 3.0 |
| 1 | N | 108[A] | VAL | 3.0 |
| 1 | H | 249 | GLU | 3.0 |
| 1 | N | 296[A] | ALA | 3.0 |
| 1 | M | 314 | LEU | 3.0 |
| 1 | N | 122[A] | ASN | 2.9 |
| 1 | P | 251 | GLU | 2.9 |
| 1 | N | 158[A] | LEU | 2.9 |
| 1 | J | 218 | ASN | 2.9 |
| 1 | P | 212 | GLU | 2.9 |
| 1 | N | 200[A] | LEU | 2.9 |
| 1 | F | 1 | MET | 2.9 |
| 1 | N | 221[A] | MET | 2.9 |
| 1 | E | 218 | ASN | 2.9 |
| 1 | E | 240 | GLY | 2.9 |
| 1 | N | 111[A] | GLU | 2.8 |
| 1 | P | 34 | ASP | 2.9 |
| 1 | N | 304[A] | ASN | 2.8 |
| 1 | N | 148[A] | MET | 2.8 |
| 1 | N | 248[A] | LYS | 2.8 |
| 1 | H | 244 | LYS | 2.8 |
| 1 | N | 231[A] | LYS | 2.8 |
| 1 | P | 222 | ASP | 2.8 |
| 1 | N | 155[A] | VAL | 2.8 |
| 1 | N | 80[A] | ASP | 2.8 |
| 1 | N | 238[A] | VAL | 2.8 |
| 1 | N | 280[A] | TYR | 2.8 |
| 1 | N | 210[A] | LEU | 2.7 |
| 1 | E | 232 | GLY | 2.7 |
| 1 | N | 95[A] | TYR | 2.7 |
| 1 | N | 207[A] | TYR | 2.7 |
| 1 | N | 78[A] | LYS | 2.7 |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|--------|------|------|
| 1 | N | 250[A] | ILE | 2.7 |
| 1 | H | 215 | ALA | 2.7 |
| 1 | N | 113[A] | TRP | 2.6 |
| 1 | P | 223 | ASP | 2.6 |
| 1 | D | 242 | GLU | 2.6 |
| 1 | E | 251 | GLU | 2.6 |
| 1 | P | 209 | GLU | 2.6 |
| 1 | J | 217 | TYR | 2.6 |
| 1 | E | 247 | LEU | 2.6 |
| 1 | N | 277[A] | PRO | 2.6 |
| 1 | N | 278[A] | ASP | 2.6 |
| 1 | H | 229 | ILE | 2.6 |
| 1 | P | 227 | PHE | 2.6 |
| 1 | D | 218 | ASN | 2.6 |
| 1 | G | 238 | VAL | 2.6 |
| 1 | H | 246 | PRO | 2.5 |
| 1 | P | 246 | PRO | 2.5 |
| 1 | N | 235[A] | LEU | 2.5 |
| 1 | P | 298 | GLU | 2.5 |
| 1 | N | 82[A] | GLU | 2.4 |
| 1 | N | 34 | ASP | 2.4 |
| 1 | D | 237 | TYR | 2.4 |
| 1 | N | 156[A] | VAL | 2.4 |
| 1 | E | 250 | ILE | 2.4 |
| 1 | P | 114 | LYS | 2.4 |
| 1 | D | 243 | HIS | 2.4 |
| 1 | N | 225[A] | GLU | 2.4 |
| 1 | I | 1 | MET | 2.4 |
| 1 | N | 115[A] | PRO | 2.4 |
| 1 | E | 233 | LYS | 2.4 |
| 1 | G | 223 | ASP | 2.4 |
| 1 | N | 89[A] | VAL | 2.4 |
| 1 | N | 245[A] | ILE | 2.4 |
| 1 | F | 232 | GLY | 2.4 |
| 1 | N | 255[A] | GLY | 2.4 |
| 1 | P | 242 | GLU | 2.4 |
| 1 | N | 276[A] | SER | 2.3 |
| 1 | F | 248 | LYS | 2.3 |
| 1 | H | 230 | LYS | 2.3 |
| 1 | N | 230[A] | LYS | 2.3 |
| 1 | N | 302[A] | GLY | 2.3 |
| 1 | G | 251 | GLU | 2.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | N | 97[A] | LEU | 2.3 |
| 1 | P | 234 | LEU | 2.3 |
| 1 | E | 248 | LYS | 2.3 |
| 1 | N | 32 | PHE | 2.3 |
| 1 | P | 80 | ASP | 2.3 |
| 1 | H | 245 | ILE | 2.3 |
| 1 | N | 219[A] | ILE | 2.3 |
| 1 | G | 252 | LEU | 2.3 |
| 1 | N | 199[A] | LEU | 2.3 |
| 1 | P | 210 | LEU | 2.3 |
| 1 | N | 120[A] | VAL | 2.3 |
| 1 | E | 220 | ASN | 2.3 |
| 1 | O | 239 | ASN | 2.3 |
| 1 | N | 131[A] | LYS | 2.2 |
| 1 | H | 252 | LEU | 2.2 |
| 1 | N | 214[A] | LEU | 2.2 |
| 1 | P | 207 | TYR | 2.2 |
| 1 | H | 238 | VAL | 2.2 |
| 1 | P | 311 | LEU | 2.2 |
| 1 | D | 221 | MET | 2.2 |
| 1 | N | 237[A] | TYR | 2.2 |
| 1 | K | 618 | ASN | 2.2 |
| 1 | H | 241 | GLU | 2.2 |
| 1 | J | 246 | PRO | 2.2 |
| 1 | H | 212 | GLU | 2.2 |
| 1 | H | 2 | TYR | 2.2 |
| 1 | H | 237 | TYR | 2.2 |
| 1 | J | 240 | GLY | 2.2 |
| 1 | H | 233 | LYS | 2.2 |
| 1 | N | 105[A] | ALA | 2.1 |
| 1 | M | 248 | LYS | 2.1 |
| 1 | E | 245 | ILE | 2.1 |
| 1 | E | 124 | GLU | 2.1 |
| 1 | J | 238 | VAL | 2.1 |
| 1 | J | 249 | GLU | 2.1 |
| 1 | N | 151[A] | GLU | 2.1 |
| 1 | N | 130[A] | THR | 2.1 |
| 1 | N | 220[A] | ASN | 2.1 |
| 1 | N | 123[A] | GLU | 2.1 |
| 1 | N | 206[A] | GLU | 2.1 |
| 1 | N | 91[A] | THR | 2.1 |
| 1 | F | 238 | VAL | 2.1 |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|--------|------|------|
| 1 | N | 236[A] | VAL | 2.1 |
| 1 | E | 618 | ASN | 2.1 |
| 1 | N | 198[A] | GLY | 2.1 |
| 1 | N | 93[A] | LEU | 2.1 |
| 1 | N | 118[A] | LEU | 2.1 |
| 1 | N | 311 | LEU | 2.1 |
| 1 | N | 116[A] | VAL | 2.0 |
| 1 | N | 307[A] | ALA | 2.0 |
| 1 | G | 247 | LEU | 2.0 |
| 1 | N | 223[A] | ASP | 2.0 |
| 1 | N | 100[A] | LYS | 2.0 |

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|----------------------------|-------|
| 9 | GOL | B | 4218[B] | 6/6 | 0.24 | 0.26 | 42,50,52,52 | 6 |
| 9 | GOL | J | 1114 | 6/6 | 0.28 | 0.34 | 70,71,72,72 | 0 |
| 11 | PEG | N | 1014 | 7/7 | 0.45 | 0.21 | 59,63,65,65 | 0 |
| 4 | EDO | L | 1112 | 4/4 | 0.55 | 0.30 | 63,63,64,65 | 0 |
| 9 | GOL | B | 4217[A] | 6/6 | 0.57 | 0.21 | 55,57,57,58 | 6 |
| 9 | GOL | P | 1112 | 6/6 | 0.60 | 0.19 | 69,69,71,71 | 0 |
| 12 | TRS | I | 1119 | 8/8 | 0.60 | 0.23 | 52,54,56,58 | 0 |
| 4 | EDO | B | 4221 | 4/4 | 0.61 | 0.14 | 58,59,59,60 | 0 |
| 4 | EDO | I | 1113 | 4/4 | 0.68 | 0.18 | 41,41,42,43 | 0 |
| 9 | GOL | E | 1114 | 6/6 | 0.69 | 0.15 | 56,59,60,60 | 0 |
| 9 | GOL | F | 1114 | 6/6 | 0.69 | 0.17 | 56,56,57,58 | 0 |
| 4 | EDO | M | 1113 | 4/4 | 0.70 | 0.19 | 47,47,48,49 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|----------------------------|-------|
| 4 | EDO | D | 4618 | 4/4 | 0.72 | 0.17 | 60,60,61,62 | 0 |
| 10 | LI | L | 1118 | 1/1 | 0.72 | 0.27 | 11,11,11,11 | 0 |
| 4 | EDO | A | 1114 | 4/4 | 0.72 | 0.13 | 57,57,57,58 | 0 |
| 4 | EDO | D | 4617 | 4/4 | 0.72 | 0.18 | 53,53,54,54 | 0 |
| 4 | EDO | G | 1120 | 4/4 | 0.73 | 0.12 | 37,38,39,40 | 0 |
| 4 | EDO | B | 4211 | 4/4 | 0.73 | 0.22 | 40,42,43,47 | 0 |
| 11 | PEG | K | 1115 | 7/7 | 0.73 | 0.14 | 41,45,50,50 | 0 |
| 4 | EDO | M | 1117 | 4/4 | 0.73 | 0.14 | 51,51,52,52 | 0 |
| 4 | EDO | K | 1113 | 4/4 | 0.73 | 0.14 | 37,39,40,40 | 0 |
| 4 | EDO | J | 1111 | 4/4 | 0.74 | 0.23 | 51,53,55,56 | 0 |
| 4 | EDO | E | 1116 | 4/4 | 0.74 | 0.17 | 39,40,43,45 | 0 |
| 4 | EDO | J | 1110 | 4/4 | 0.74 | 0.17 | 53,54,54,55 | 0 |
| 9 | GOL | K | 1117 | 6/6 | 0.75 | 0.15 | 38,41,43,46 | 0 |
| 9 | GOL | B | 4224 | 6/6 | 0.75 | 0.15 | 52,55,57,57 | 0 |
| 4 | EDO | M | 1124 | 4/4 | 0.75 | 0.21 | 51,51,51,51 | 0 |
| 4 | EDO | I | 1112 | 4/4 | 0.76 | 0.11 | 48,48,49,50 | 0 |
| 4 | EDO | N | 1013 | 4/4 | 0.76 | 0.16 | 49,50,51,53 | 0 |
| 4 | EDO | I | 1118 | 4/4 | 0.76 | 0.19 | 52,52,54,54 | 0 |
| 9 | GOL | M | 1114 | 6/6 | 0.76 | 0.14 | 53,54,54,56 | 0 |
| 9 | GOL | N | 1015 | 6/6 | 0.76 | 0.13 | 56,56,57,59 | 0 |
| 6 | SO4 | J | 1119 | 5/5 | 0.77 | 0.28 | 86,87,87,87 | 0 |
| 4 | EDO | F | 1111 | 4/4 | 0.77 | 0.14 | 35,37,37,37 | 0 |
| 4 | EDO | M | 1122 | 4/4 | 0.77 | 0.12 | 57,58,58,59 | 0 |
| 4 | EDO | D | 4615 | 4/4 | 0.77 | 0.17 | 50,50,50,51 | 0 |
| 4 | EDO | I | 1116 | 4/4 | 0.77 | 0.15 | 45,46,47,48 | 0 |
| 9 | GOL | O | 1116 | 6/6 | 0.78 | 0.16 | 59,60,61,61 | 0 |
| 4 | EDO | A | 1117 | 4/4 | 0.78 | 0.15 | 64,64,64,65 | 0 |
| 4 | EDO | E | 1112 | 4/4 | 0.78 | 0.14 | 46,47,47,47 | 0 |
| 4 | EDO | G | 1111 | 4/4 | 0.79 | 0.13 | 44,45,46,47 | 0 |
| 9 | GOL | I | 1117 | 6/6 | 0.79 | 0.14 | 60,61,62,63 | 0 |
| 4 | EDO | H | 4412 | 4/4 | 0.79 | 0.26 | 46,46,46,46 | 0 |
| 4 | EDO | G | 1112 | 4/4 | 0.80 | 0.12 | 45,46,47,48 | 0 |
| 9 | GOL | C | 3913 | 6/6 | 0.80 | 0.13 | 43,45,47,49 | 0 |
| 4 | EDO | G | 1115 | 4/4 | 0.80 | 0.11 | 45,45,45,47 | 0 |
| 4 | EDO | C | 3917 | 4/4 | 0.80 | 0.25 | 59,60,61,63 | 0 |
| 4 | EDO | A | 1118 | 4/4 | 0.80 | 0.13 | 47,48,49,49 | 0 |
| 9 | GOL | J | 1117[A] | 6/6 | 0.81 | 0.10 | 43,49,49,50 | 0 |
| 4 | EDO | K | 1116 | 4/4 | 0.81 | 0.12 | 42,42,44,44 | 0 |
| 4 | EDO | I | 1114 | 4/4 | 0.81 | 0.17 | 50,50,50,51 | 0 |
| 11 | PEG | M | 1115 | 7/7 | 0.81 | 0.17 | 36,39,42,45 | 0 |
| 4 | EDO | J | 1116 | 4/4 | 0.81 | 0.17 | 58,60,60,60 | 0 |
| 4 | EDO | B | 4222[A] | 4/4 | 0.81 | 0.16 | 25,28,29,31 | 4 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|----------------------------|-------|
| 4 | EDO | G | 1118 | 4/4 | 0.82 | 0.17 | 53,54,54,54 | 0 |
| 4 | EDO | J | 1112 | 4/4 | 0.82 | 0.15 | 38,39,39,39 | 0 |
| 4 | EDO | J | 1113 | 4/4 | 0.82 | 0.17 | 52,52,52,53 | 0 |
| 4 | EDO | O | 1117 | 4/4 | 0.82 | 0.13 | 49,50,50,51 | 0 |
| 6 | SO4 | F | 1118 | 5/5 | 0.82 | 0.31 | 101,102,102,102 | 0 |
| 4 | EDO | D | 4613 | 4/4 | 0.83 | 0.16 | 51,53,53,54 | 0 |
| 4 | EDO | K | 1114 | 4/4 | 0.83 | 0.23 | 50,51,53,53 | 0 |
| 4 | EDO | O | 1118 | 4/4 | 0.83 | 0.11 | 40,40,41,42 | 0 |
| 4 | EDO | P | 1114 | 4/4 | 0.83 | 0.17 | 58,58,58,59 | 0 |
| 10 | LI | F | 1121 | 1/1 | 0.83 | 0.32 | 18,18,18,18 | 0 |
| 4 | EDO | F | 1113 | 4/4 | 0.84 | 0.15 | 47,47,48,48 | 0 |
| 6 | SO4 | H | 4414 | 5/5 | 0.84 | 0.15 | 75,75,76,77 | 0 |
| 4 | EDO | M | 1118 | 4/4 | 0.84 | 0.14 | 51,52,53,53 | 0 |
| 12 | TRS | H | 4401 | 8/8 | 0.84 | 0.15 | 34,46,50,51 | 0 |
| 6 | SO4 | P | 1116 | 5/5 | 0.84 | 0.29 | 91,91,92,92 | 0 |
| 9 | GOL | P | 1111 | 6/6 | 0.85 | 0.26 | 53,54,55,57 | 0 |
| 4 | EDO | B | 4216 | 4/4 | 0.85 | 0.18 | 38,38,40,40 | 0 |
| 4 | EDO | C | 3916 | 4/4 | 0.85 | 0.13 | 51,51,52,53 | 0 |
| 4 | EDO | M | 1112 | 4/4 | 0.85 | 0.15 | 46,46,46,46 | 0 |
| 4 | EDO | H | 4413 | 4/4 | 0.85 | 0.12 | 45,45,45,45 | 0 |
| 4 | EDO | M | 1116 | 4/4 | 0.85 | 0.20 | 45,45,45,46 | 0 |
| 4 | EDO | P | 1113 | 4/4 | 0.85 | 0.15 | 46,47,47,48 | 0 |
| 4 | EDO | G | 1117 | 4/4 | 0.85 | 0.17 | 63,63,64,64 | 0 |
| 4 | EDO | B | 4215 | 4/4 | 0.85 | 0.14 | 49,50,52,53 | 0 |
| 9 | GOL | C | 3901 | 6/6 | 0.86 | 0.12 | 57,59,61,62 | 0 |
| 4 | EDO | G | 1114 | 4/4 | 0.86 | 0.10 | 48,48,49,49 | 0 |
| 11 | PEG | D | 4601 | 7/7 | 0.86 | 0.14 | 40,45,48,49 | 0 |
| 4 | EDO | D | 4612 | 4/4 | 0.86 | 0.12 | 46,47,47,47 | 0 |
| 6 | SO4 | F | 1117 | 5/5 | 0.86 | 0.18 | 88,88,89,89 | 0 |
| 11 | PEG | M | 1120 | 7/7 | 0.86 | 0.14 | 56,58,59,59 | 0 |
| 9 | GOL | I | 1111 | 6/6 | 0.86 | 0.23 | 40,45,46,47 | 0 |
| 4 | EDO | M | 1119 | 4/4 | 0.86 | 0.14 | 47,47,48,48 | 0 |
| 4 | EDO | E | 1111 | 4/4 | 0.86 | 0.13 | 43,43,45,46 | 0 |
| 4 | EDO | E | 1115 | 4/4 | 0.87 | 0.10 | 31,35,35,36 | 0 |
| 10 | LI | P | 1120 | 1/1 | 0.87 | 0.24 | 11,11,11,11 | 0 |
| 6 | SO4 | M | 1127 | 5/5 | 0.87 | 0.15 | 93,93,94,94 | 0 |
| 4 | EDO | O | 1111 | 4/4 | 0.87 | 0.13 | 19,21,24,25 | 0 |
| 8 | CL | N | 1018[A] | 1/1 | 0.87 | 0.09 | 40,40,40,40 | 1 |
| 9 | GOL | G | 1119[A] | 6/6 | 0.87 | 0.10 | 37,43,45,45 | 0 |
| 4 | EDO | O | 1113 | 4/4 | 0.87 | 0.13 | 52,53,54,55 | 0 |
| 4 | EDO | B | 4213 | 4/4 | 0.87 | 0.12 | 36,37,38,38 | 0 |
| 4 | EDO | G | 1116 | 4/4 | 0.87 | 0.16 | 67,67,67,67 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|----------------------------|-------|
| 4 | EDO | C | 3915 | 4/4 | 0.88 | 0.11 | 43,43,45,46 | 0 |
| 4 | EDO | A | 1116 | 4/4 | 0.88 | 0.12 | 46,47,48,50 | 0 |
| 4 | EDO | I | 1110 | 4/4 | 0.88 | 0.12 | 40,41,42,42 | 0 |
| 4 | EDO | B | 4220[B] | 4/4 | 0.88 | 0.16 | 47,47,48,49 | 4 |
| 4 | EDO | N | 1010 | 4/4 | 0.88 | 0.14 | 24,24,27,28 | 0 |
| 4 | EDO | D | 4616 | 4/4 | 0.88 | 0.11 | 52,52,53,53 | 0 |
| 4 | EDO | C | 3918 | 4/4 | 0.88 | 0.20 | 51,52,52,52 | 0 |
| 9 | GOL | N | 1011 | 6/6 | 0.88 | 0.20 | 31,33,37,39 | 0 |
| 4 | EDO | G | 1121 | 4/4 | 0.88 | 0.18 | 39,39,41,42 | 0 |
| 6 | SO4 | K | 1119 | 5/5 | 0.88 | 0.19 | 67,68,70,71 | 0 |
| 6 | SO4 | L | 1115 | 5/5 | 0.88 | 0.21 | 86,86,87,87 | 0 |
| 4 | EDO | J | 1115 | 4/4 | 0.89 | 0.18 | 56,56,56,57 | 0 |
| 4 | EDO | B | 4223 | 4/4 | 0.89 | 0.09 | 52,52,52,53 | 0 |
| 6 | SO4 | M | 1126 | 5/5 | 0.89 | 0.21 | 70,71,72,73 | 0 |
| 4 | EDO | K | 1110 | 4/4 | 0.89 | 0.16 | 28,29,31,31 | 0 |
| 4 | EDO | D | 4614 | 4/4 | 0.89 | 0.11 | 49,49,49,50 | 0 |
| 4 | EDO | M | 1123 | 4/4 | 0.89 | 0.13 | 47,47,48,49 | 0 |
| 4 | EDO | B | 4214 | 4/4 | 0.89 | 0.10 | 29,30,30,32 | 0 |
| 4 | EDO | A | 1110 | 4/4 | 0.90 | 0.13 | 47,48,48,48 | 0 |
| 4 | EDO | O | 1115 | 4/4 | 0.90 | 0.11 | 44,46,48,50 | 0 |
| 4 | EDO | B | 4219[A] | 4/4 | 0.90 | 0.09 | 45,45,46,46 | 4 |
| 4 | EDO | L | 1110 | 4/4 | 0.90 | 0.09 | 31,32,32,35 | 0 |
| 4 | EDO | C | 3914 | 4/4 | 0.90 | 0.10 | 40,41,42,43 | 0 |
| 4 | EDO | I | 1115 | 4/4 | 0.91 | 0.35 | 64,64,64,65 | 0 |
| 4 | EDO | M | 1111 | 4/4 | 0.91 | 0.12 | 20,21,23,24 | 0 |
| 4 | EDO | E | 1117 | 4/4 | 0.91 | 0.14 | 29,31,31,32 | 0 |
| 4 | EDO | A | 1115 | 4/4 | 0.91 | 0.07 | 49,49,50,51 | 0 |
| 6 | SO4 | F | 1116 | 5/5 | 0.91 | 0.35 | 88,88,88,89 | 0 |
| 4 | EDO | G | 1113 | 4/4 | 0.91 | 0.10 | 38,38,39,40 | 0 |
| 4 | EDO | A | 1113 | 4/4 | 0.91 | 0.10 | 30,31,32,33 | 0 |
| 4 | EDO | O | 1112 | 4/4 | 0.91 | 0.11 | 42,42,42,43 | 0 |
| 4 | EDO | G | 1110 | 4/4 | 0.91 | 0.13 | 17,19,23,24 | 0 |
| 4 | EDO | O | 1114 | 4/4 | 0.91 | 0.10 | 28,32,32,33 | 0 |
| 4 | EDO | H | 4411 | 4/4 | 0.91 | 0.14 | 18,24,24,26 | 0 |
| 4 | EDO | A | 1111 | 4/4 | 0.92 | 0.12 | 17,20,23,24 | 0 |
| 4 | EDO | B | 4201 | 4/4 | 0.92 | 0.12 | 45,46,46,48 | 0 |
| 4 | EDO | P | 1110 | 4/4 | 0.92 | 0.11 | 21,22,24,24 | 0 |
| 4 | EDO | M | 1110 | 4/4 | 0.92 | 0.10 | 35,37,39,40 | 0 |
| 4 | EDO | E | 1113 | 4/4 | 0.92 | 0.12 | 54,54,55,55 | 0 |
| 8 | CL | B | 4229[B] | 1/1 | 0.92 | 0.09 | 28,28,28,28 | 1 |
| 4 | EDO | A | 1112 | 4/4 | 0.93 | 0.11 | 33,33,34,35 | 0 |
| 4 | EDO | F | 1112[A] | 4/4 | 0.93 | 0.12 | 12,18,18,19 | 4 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|----------------------------|-------|
| 6 | SO4 | D | 4621 | 5/5 | 0.93 | 0.24 | 93,93,94,94 | 0 |
| 4 | EDO | F | 1110[B] | 4/4 | 0.93 | 0.14 | 12,14,14,14 | 4 |
| 3 | FAD | F | 1106 | 53/53 | 0.94 | 0.07 | 21,25,28,30 | 0 |
| 4 | EDO | E | 1108 | 4/4 | 0.94 | 0.07 | 27,27,28,29 | 0 |
| 4 | EDO | O | 1110 | 4/4 | 0.94 | 0.12 | 36,38,38,40 | 0 |
| 6 | SO4 | D | 4620 | 5/5 | 0.94 | 0.30 | 79,79,80,80 | 0 |
| 8 | CL | M | 1130[B] | 1/1 | 0.94 | 0.10 | 32,32,32,32 | 1 |
| 4 | EDO | K | 1111 | 4/4 | 0.94 | 0.11 | 20,21,24,24 | 0 |
| 4 | EDO | K | 1112 | 4/4 | 0.94 | 0.07 | 29,29,31,32 | 0 |
| 2 | SF4 | N | 1006[A] | 8/8 | 0.95 | 0.09 | 23,26,27,27 | 8 |
| 4 | EDO | B | 4212 | 4/4 | 0.95 | 0.10 | 18,18,21,22 | 0 |
| 10 | LI | C | 3923 | 1/1 | 0.95 | 0.18 | 18,18,18,18 | 0 |
| 4 | EDO | O | 1108 | 4/4 | 0.95 | 0.07 | 34,34,34,35 | 0 |
| 3 | FAD | P | 1106 | 53/53 | 0.95 | 0.08 | 27,31,35,38 | 0 |
| 4 | EDO | C | 3911 | 4/4 | 0.95 | 0.08 | 28,29,29,30 | 0 |
| 6 | SO4 | F | 1115 | 5/5 | 0.95 | 0.11 | 42,42,43,46 | 0 |
| 4 | EDO | C | 3912 | 4/4 | 0.95 | 0.12 | 17,20,21,22 | 0 |
| 4 | EDO | L | 1111 | 4/4 | 0.95 | 0.09 | 18,20,22,23 | 0 |
| 4 | EDO | M | 1121 | 4/4 | 0.95 | 0.10 | 32,33,33,34 | 0 |
| 2 | SF4 | N | 1006[B] | 8/8 | 0.95 | 0.09 | 30,33,33,35 | 8 |
| 4 | EDO | F | 1108 | 4/4 | 0.95 | 0.11 | 35,35,35,36 | 0 |
| 4 | EDO | E | 1110 | 4/4 | 0.95 | 0.09 | 17,20,21,22 | 0 |
| 8 | CL | F | 1120[B] | 1/1 | 0.96 | 0.07 | 29,29,29,29 | 1 |
| 6 | SO4 | J | 1118 | 5/5 | 0.96 | 0.16 | 52,53,54,57 | 0 |
| 4 | EDO | G | 1108 | 4/4 | 0.96 | 0.06 | 22,23,23,24 | 0 |
| 4 | EDO | P | 1108 | 4/4 | 0.96 | 0.07 | 37,37,37,37 | 0 |
| 6 | SO4 | L | 1113 | 5/5 | 0.96 | 0.17 | 42,44,46,47 | 0 |
| 4 | EDO | I | 1108 | 4/4 | 0.96 | 0.06 | 26,27,29,30 | 0 |
| 3 | FAD | N | 1001[A] | 53/53 | 0.96 | 0.10 | 16,20,26,27 | 53 |
| 4 | EDO | J | 1108 | 4/4 | 0.96 | 0.05 | 26,26,27,27 | 0 |
| 6 | SO4 | N | 1016 | 5/5 | 0.96 | 0.17 | 49,51,53,54 | 0 |
| 4 | EDO | L | 1108 | 4/4 | 0.96 | 0.06 | 28,29,29,31 | 0 |
| 6 | SO4 | H | 4415 | 5/5 | 0.96 | 0.16 | 45,46,46,49 | 0 |
| 6 | SO4 | O | 1119 | 5/5 | 0.97 | 0.13 | 47,47,49,49 | 0 |
| 6 | SO4 | O | 1120 | 5/5 | 0.97 | 0.13 | 47,48,49,49 | 0 |
| 4 | EDO | K | 1108 | 4/4 | 0.97 | 0.07 | 21,21,22,23 | 0 |
| 3 | FAD | J | 1106 | 53/53 | 0.97 | 0.06 | 22,26,29,32 | 0 |
| 4 | EDO | B | 4209 | 4/4 | 0.97 | 0.07 | 24,24,25,26 | 0 |
| 8 | CL | K | 1122[B] | 1/1 | 0.97 | 0.07 | 26,26,26,26 | 1 |
| 3 | FAD | D | 4607 | 53/53 | 0.97 | 0.06 | 20,22,25,27 | 0 |
| 3 | FAD | N | 1009[B] | 53/53 | 0.97 | 0.10 | 15,21,24,28 | 53 |
| 4 | EDO | D | 4609 | 4/4 | 0.97 | 0.07 | 30,31,32,33 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|----------------------------|-------|
| 4 | EDO | H | 4409 | 4/4 | 0.97 | 0.07 | 24,25,25,26 | 0 |
| 4 | EDO | D | 4611 | 4/4 | 0.97 | 0.08 | 17,19,21,21 | 0 |
| 3 | FAD | E | 1106 | 53/53 | 0.97 | 0.06 | 20,22,26,29 | 0 |
| 4 | EDO | C | 3909 | 4/4 | 0.97 | 0.08 | 22,22,24,24 | 0 |
| 4 | EDO | A | 1108 | 4/4 | 0.97 | 0.06 | 22,25,26,26 | 0 |
| 6 | SO4 | L | 1114 | 5/5 | 0.97 | 0.15 | 53,54,55,56 | 0 |
| 2 | SF4 | N | 1008[B] | 8/8 | 0.97 | 0.07 | 29,31,33,34 | 8 |
| 6 | SO4 | A | 1119 | 5/5 | 0.97 | 0.15 | 40,40,41,43 | 0 |
| 6 | SO4 | C | 3919 | 5/5 | 0.97 | 0.15 | 46,47,48,51 | 0 |
| 3 | FAD | H | 4407 | 53/53 | 0.97 | 0.06 | 17,20,24,26 | 0 |
| 3 | FAD | A | 1106 | 53/53 | 0.98 | 0.06 | 10,13,17,21 | 0 |
| 8 | CL | H | 4418[A] | 1/1 | 0.98 | 0.07 | 31,31,31,31 | 1 |
| 8 | CL | I | 1123[B] | 1/1 | 0.98 | 0.08 | 36,36,36,36 | 1 |
| 8 | CL | J | 1122[A] | 1/1 | 0.98 | 0.05 | 40,40,40,40 | 0 |
| 6 | SO4 | B | 4225 | 5/5 | 0.98 | 0.14 | 43,43,46,46 | 0 |
| 8 | CL | L | 1117[B] | 1/1 | 0.98 | 0.05 | 33,33,33,33 | 1 |
| 3 | FAD | G | 1106 | 53/53 | 0.98 | 0.06 | 11,14,17,21 | 0 |
| 6 | SO4 | D | 4619 | 5/5 | 0.98 | 0.15 | 48,48,50,52 | 0 |
| 3 | FAD | B | 4207 | 53/53 | 0.98 | 0.06 | 14,17,21,27 | 0 |
| 3 | FAD | I | 1106 | 53/53 | 0.98 | 0.06 | 12,18,19,21 | 0 |
| 6 | SO4 | E | 1118 | 5/5 | 0.98 | 0.16 | 40,41,44,44 | 0 |
| 3 | FAD | C | 3907 | 53/53 | 0.98 | 0.06 | 12,16,18,21 | 0 |
| 3 | FAD | K | 1106 | 53/53 | 0.98 | 0.06 | 11,14,18,23 | 0 |
| 3 | FAD | L | 1106 | 53/53 | 0.98 | 0.06 | 14,19,22,26 | 0 |
| 3 | FAD | M | 1106 | 53/53 | 0.98 | 0.06 | 17,21,24,27 | 0 |
| 6 | SO4 | G | 1122 | 5/5 | 0.98 | 0.13 | 34,35,37,37 | 0 |
| 4 | EDO | M | 1108 | 4/4 | 0.98 | 0.05 | 23,26,27,27 | 0 |
| 2 | SF4 | N | 1007[A] | 8/8 | 0.98 | 0.07 | 17,18,19,22 | 8 |
| 6 | SO4 | I | 1120 | 5/5 | 0.98 | 0.17 | 47,49,51,52 | 0 |
| 2 | SF4 | N | 1002 | 8/8 | 0.98 | 0.06 | 25,26,28,28 | 0 |
| 3 | FAD | O | 1106 | 53/53 | 0.98 | 0.06 | 13,18,22,28 | 0 |
| 5 | SRM | D | 4610 | 63/63 | 0.98 | 0.07 | 6,10,13,14 | 0 |
| 5 | SRM | E | 1109 | 63/63 | 0.98 | 0.07 | 8,11,14,16 | 0 |
| 5 | SRM | G | 1109 | 63/63 | 0.98 | 0.07 | 5,9,13,16 | 0 |
| 5 | SRM | H | 4410 | 63/63 | 0.98 | 0.07 | 9,11,15,18 | 0 |
| 6 | SO4 | M | 1125 | 5/5 | 0.98 | 0.15 | 48,50,50,51 | 0 |
| 5 | SRM | I | 1109 | 63/63 | 0.98 | 0.07 | 9,13,17,20 | 0 |
| 5 | SRM | J | 1109 | 63/63 | 0.98 | 0.07 | 11,14,18,22 | 0 |
| 5 | SRM | K | 1109 | 63/63 | 0.98 | 0.07 | 8,11,15,17 | 0 |
| 5 | SRM | L | 1109 | 63/63 | 0.98 | 0.07 | 8,11,15,17 | 0 |
| 5 | SRM | M | 1109 | 63/63 | 0.98 | 0.07 | 9,13,16,19 | 0 |
| 6 | SO4 | P | 1115 | 5/5 | 0.98 | 0.14 | 46,46,47,48 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|-----------------------------|-------|
| 5 | SRM | N | 1012 | 63/63 | 0.98 | 0.07 | 11,15,18,20 | 0 |
| 7 | H2S | J | 1120 | 1/1 | 0.98 | 0.04 | 22,22,22,22 | 0 |
| 7 | H2S | M | 1128 | 1/1 | 0.98 | 0.06 | 19,19,19,19 | 0 |
| 8 | CL | A | 1122[B] | 1/1 | 0.98 | 0.09 | 27,27,27,27 | 1 |
| 5 | SRM | O | 1109 | 63/63 | 0.98 | 0.07 | 8,11,14,17 | 0 |
| 8 | CL | E | 1121[B] | 1/1 | 0.98 | 0.06 | 27,27,27,27 | 1 |
| 2 | SF4 | G | 1102 | 8/8 | 0.99 | 0.08 | 11,12,13,13 | 0 |
| 6 | SO4 | B | 4226 | 5/5 | 0.99 | 0.11 | 40,40,41,41 | 0 |
| 2 | SF4 | G | 1103 | 8/8 | 0.99 | 0.09 | 13,14,14,14 | 0 |
| 2 | SF4 | G | 1104 | 8/8 | 0.99 | 0.08 | 11,11,12,12 | 0 |
| 2 | SF4 | G | 1105 | 8/8 | 0.99 | 0.07 | 15,16,16,17 | 0 |
| 2 | SF4 | G | 1107 | 8/8 | 0.99 | 0.09 | 10,12,12,12 | 0 |
| 2 | SF4 | H | 4402 | 8/8 | 0.99 | 0.07 | 17,18,18,18 | 0 |
| 2 | SF4 | H | 4403 | 8/8 | 0.99 | 0.07 | 17,18,18,19 | 0 |
| 2 | SF4 | H | 4404 | 8/8 | 0.99 | 0.09 | 10,10,11,11 | 0 |
| 2 | SF4 | H | 4408 | 8/8 | 0.99 | 0.07 | 15,17,18,18 | 0 |
| 2 | SF4 | I | 1101 | 8/8 | 0.99 | 0.08 | 15,16,16,16 | 0 |
| 2 | SF4 | I | 1103 | 8/8 | 0.99 | 0.08 | 14,14,15,15 | 0 |
| 2 | SF4 | I | 1105 | 8/8 | 0.99 | 0.08 | 15,15,16,16 | 0 |
| 2 | SF4 | I | 1107 | 8/8 | 0.99 | 0.07 | 15,16,17,18 | 0 |
| 2 | SF4 | J | 1101 | 8/8 | 0.99 | 0.06 | 19,21,21,22 | 0 |
| 2 | SF4 | J | 1102 | 8/8 | 0.99 | 0.07 | 17,17,17,18 | 0 |
| 2 | SF4 | J | 1103 | 8/8 | 0.99 | 0.08 | 13,13,13,13 | 0 |
| 6 | SO4 | K | 1118 | 5/5 | 0.99 | 0.11 | 41,42,44,45 | 0 |
| 2 | SF4 | J | 1105 | 8/8 | 0.99 | 0.08 | 12,13,13,14 | 0 |
| 2 | SF4 | J | 1107 | 8/8 | 0.99 | 0.07 | 18,18,19,19 | 0 |
| 2 | SF4 | K | 1102 | 8/8 | 0.99 | 0.08 | 12,12,13,13 | 0 |
| 2 | SF4 | K | 1103 | 8/8 | 0.99 | 0.08 | 13,13,14,15 | 0 |
| 2 | SF4 | K | 1105 | 8/8 | 0.99 | 0.07 | 14,16,16,17 | 0 |
| 2 | SF4 | K | 1107 | 8/8 | 0.99 | 0.08 | 12,12,13,14 | 0 |
| 2 | SF4 | L | 1101 | 8/8 | 0.99 | 0.07 | 17,17,17,18 | 0 |
| 2 | SF4 | L | 1102 | 8/8 | 0.99 | 0.07 | 16,17,18,18 | 0 |
| 2 | SF4 | L | 1105 | 8/8 | 0.99 | 0.08 | 12,13,14,14 | 0 |
| 2 | SF4 | L | 1107 | 8/8 | 0.99 | 0.07 | 15,16,16,16 | 0 |
| 2 | SF4 | M | 1101 | 8/8 | 0.99 | 0.07 | 16,17,17,18 | 0 |
| 2 | SF4 | M | 1103 | 8/8 | 0.99 | 0.07 | 15,16,17,17 | 0 |
| 7 | H2S | B | 4227 | 1/1 | 0.99 | 0.05 | 18,18,18,18 | 0 |
| 7 | H2S | C | 3920 | 1/1 | 0.99 | 0.06 | 16,16,16,16 | 0 |
| 7 | H2S | D | 4622 | 1/1 | 0.99 | 0.05 | 16,16,16,16 | 0 |
| 7 | H2S | E | 1119 | 1/1 | 0.99 | 0.07 | 17,17,17,17 | 0 |
| 2 | SF4 | M | 1104 | 8/8 | 0.99 | 0.08 | 14,14,14,15 | 0 |
| 7 | H2S | K | 1120 | 1/1 | 0.99 | 0.05 | 16,16,16,16 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|----------------------------|-------|
| 7 | H2S | L | 1116 | 1/1 | 0.99 | 0.06 | 18,18,18,18 | 0 |
| 2 | SF4 | M | 1105 | 8/8 | 0.99 | 0.07 | 19,20,21,21 | 0 |
| 7 | H2S | N | 1017 | 1/1 | 0.99 | 0.05 | 20,20,20,20 | 0 |
| 2 | SF4 | M | 1107 | 8/8 | 0.99 | 0.08 | 14,14,15,15 | 0 |
| 8 | CL | B | 4228 | 1/1 | 0.99 | 0.07 | 21,21,21,21 | 0 |
| 2 | SF4 | A | 1101 | 8/8 | 0.99 | 0.08 | 10,11,12,12 | 0 |
| 8 | CL | C | 3922[B] | 1/1 | 0.99 | 0.10 | 32,32,32,32 | 1 |
| 8 | CL | D | 4623 | 1/1 | 0.99 | 0.05 | 21,21,21,21 | 0 |
| 2 | SF4 | N | 1003 | 8/8 | 0.99 | 0.08 | 12,13,14,14 | 0 |
| 2 | SF4 | N | 1004 | 8/8 | 0.99 | 0.08 | 12,13,14,15 | 0 |
| 8 | CL | G | 1124 | 1/1 | 0.99 | 0.06 | 21,21,21,21 | 0 |
| 8 | CL | G | 1125[A] | 1/1 | 0.99 | 0.07 | 31,31,31,31 | 1 |
| 2 | SF4 | N | 1005 | 8/8 | 0.99 | 0.08 | 12,13,14,14 | 0 |
| 2 | SF4 | A | 1102 | 8/8 | 0.99 | 0.08 | 12,12,13,13 | 0 |
| 8 | CL | J | 1121 | 1/1 | 0.99 | 0.04 | 27,27,27,27 | 0 |
| 2 | SF4 | A | 1105 | 8/8 | 0.99 | 0.08 | 12,12,13,13 | 0 |
| 8 | CL | K | 1121 | 1/1 | 0.99 | 0.05 | 19,19,19,19 | 0 |
| 2 | SF4 | A | 1107 | 8/8 | 0.99 | 0.08 | 11,11,12,13 | 0 |
| 2 | SF4 | B | 4202 | 8/8 | 0.99 | 0.07 | 14,15,15,15 | 0 |
| 2 | SF4 | O | 1102 | 8/8 | 0.99 | 0.08 | 12,13,14,14 | 0 |
| 2 | SF4 | O | 1103 | 8/8 | 0.99 | 0.07 | 19,20,20,20 | 0 |
| 8 | CL | O | 1123[B] | 1/1 | 0.99 | 0.06 | 24,24,24,24 | 1 |
| 8 | CL | P | 1118[B] | 1/1 | 0.99 | 0.05 | 35,35,35,35 | 1 |
| 8 | CL | P | 1119 | 1/1 | 0.99 | 0.07 | 34,34,34,34 | 0 |
| 2 | SF4 | O | 1105 | 8/8 | 0.99 | 0.06 | 23,26,27,27 | 0 |
| 2 | SF4 | O | 1107 | 8/8 | 0.99 | 0.08 | 13,14,14,14 | 0 |
| 2 | SF4 | P | 1101 | 8/8 | 0.99 | 0.05 | 30,31,32,32 | 0 |
| 2 | SF4 | P | 1102 | 8/8 | 0.99 | 0.06 | 27,29,30,30 | 0 |
| 2 | SF4 | P | 1107 | 8/8 | 0.99 | 0.06 | 29,31,32,33 | 0 |
| 2 | SF4 | B | 4203 | 8/8 | 0.99 | 0.08 | 12,12,13,14 | 0 |
| 2 | SF4 | B | 4206 | 8/8 | 0.99 | 0.09 | 12,12,13,14 | 0 |
| 2 | SF4 | C | 3903 | 8/8 | 0.99 | 0.08 | 12,13,13,13 | 0 |
| 2 | SF4 | C | 3904 | 8/8 | 0.99 | 0.09 | 11,12,12,12 | 0 |
| 2 | SF4 | C | 3905 | 8/8 | 0.99 | 0.08 | 10,11,11,11 | 0 |
| 2 | SF4 | C | 3906 | 8/8 | 0.99 | 0.08 | 12,13,14,14 | 0 |
| 2 | SF4 | C | 3908 | 8/8 | 0.99 | 0.08 | 12,13,13,14 | 0 |
| 2 | SF4 | D | 4603 | 8/8 | 0.99 | 0.08 | 14,15,15,15 | 0 |
| 5 | SRM | A | 1109 | 63/63 | 0.99 | 0.07 | 6,9,13,16 | 0 |
| 5 | SRM | B | 4210 | 63/63 | 0.99 | 0.07 | 5,10,12,16 | 0 |
| 5 | SRM | C | 3910 | 63/63 | 0.99 | 0.07 | 6,10,14,17 | 0 |
| 2 | SF4 | D | 4606 | 8/8 | 0.99 | 0.09 | 11,11,12,12 | 0 |
| 2 | SF4 | E | 1101 | 8/8 | 0.99 | 0.06 | 17,17,19,19 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 5 | SRM | F | 1109 | 63/63 | 0.99 | 0.06 | 8,12,15,16 | 0 |
| 2 | SF4 | E | 1102 | 8/8 | 0.99 | 0.07 | 13,13,14,14 | 0 |
| 2 | SF4 | E | 1103 | 8/8 | 0.99 | 0.08 | 13,14,15,15 | 0 |
| 2 | SF4 | E | 1104 | 8/8 | 0.99 | 0.08 | 12,12,13,13 | 0 |
| 2 | SF4 | E | 1105 | 8/8 | 0.99 | 0.07 | 18,19,20,21 | 0 |
| 2 | SF4 | E | 1107 | 8/8 | 0.99 | 0.07 | 14,15,16,16 | 0 |
| 2 | SF4 | F | 1101 | 8/8 | 0.99 | 0.06 | 19,22,22,23 | 0 |
| 2 | SF4 | F | 1102 | 8/8 | 0.99 | 0.07 | 20,22,23,23 | 0 |
| 2 | SF4 | F | 1104 | 8/8 | 0.99 | 0.09 | 9,11,12,12 | 0 |
| 2 | SF4 | F | 1107 | 8/8 | 0.99 | 0.06 | 20,22,22,23 | 0 |
| 5 | SRM | P | 1109 | 63/63 | 0.99 | 0.07 | 11,13,19,20 | 0 |
| 2 | SF4 | G | 1101 | 8/8 | 0.99 | 0.08 | 12,13,13,13 | 0 |
| 2 | SF4 | O | 1104 | 8/8 | 1.00 | 0.08 | 14,15,16,17 | 0 |
| 2 | SF4 | A | 1104 | 8/8 | 1.00 | 0.09 | 10,10,11,12 | 0 |
| 2 | SF4 | F | 1105 | 8/8 | 1.00 | 0.08 | 12,12,12,13 | 0 |
| 2 | SF4 | L | 1103 | 8/8 | 1.00 | 0.08 | 12,12,13,13 | 0 |
| 2 | SF4 | L | 1104 | 8/8 | 1.00 | 0.09 | 11,12,12,12 | 0 |
| 8 | CL | M | 1129 | 1/1 | 1.00 | 0.09 | 24,24,24,24 | 0 |
| 2 | SF4 | P | 1103 | 8/8 | 1.00 | 0.09 | 11,12,12,13 | 0 |
| 2 | SF4 | P | 1104 | 8/8 | 1.00 | 0.09 | 10,10,11,12 | 0 |
| 8 | CL | O | 1122 | 1/1 | 1.00 | 0.07 | 20,20,20,20 | 0 |
| 7 | H2S | A | 1120 | 1/1 | 1.00 | 0.06 | 15,15,15,15 | 0 |
| 2 | SF4 | P | 1105 | 8/8 | 1.00 | 0.08 | 12,12,12,13 | 0 |
| 2 | SF4 | I | 1102 | 8/8 | 1.00 | 0.07 | 15,15,17,17 | 0 |
| 2 | SF4 | D | 4608 | 8/8 | 1.00 | 0.07 | 14,15,16,16 | 0 |
| 2 | SF4 | I | 1104 | 8/8 | 1.00 | 0.08 | 14,15,15,16 | 0 |
| 7 | H2S | F | 1119 | 1/1 | 1.00 | 0.06 | 20,20,20,20 | 0 |
| 7 | H2S | G | 1123 | 1/1 | 1.00 | 0.06 | 15,15,15,15 | 0 |
| 7 | H2S | H | 4416 | 1/1 | 1.00 | 0.07 | 17,17,17,17 | 0 |
| 7 | H2S | I | 1121 | 1/1 | 1.00 | 0.04 | 20,20,20,20 | 0 |
| 2 | SF4 | M | 1102 | 8/8 | 1.00 | 0.08 | 14,14,14,15 | 0 |
| 2 | SF4 | B | 4204 | 8/8 | 1.00 | 0.09 | 10,11,11,12 | 0 |
| 2 | SF4 | B | 4205 | 8/8 | 1.00 | 0.09 | 9,10,11,11 | 0 |
| 2 | SF4 | A | 1103 | 8/8 | 1.00 | 0.08 | 10,11,11,12 | 0 |
| 2 | SF4 | B | 4208 | 8/8 | 1.00 | 0.08 | 12,13,14,14 | 0 |
| 7 | H2S | O | 1121 | 1/1 | 1.00 | 0.06 | 17,17,17,17 | 0 |
| 7 | H2S | P | 1117 | 1/1 | 1.00 | 0.07 | 21,21,21,21 | 0 |
| 8 | CL | A | 1121 | 1/1 | 1.00 | 0.06 | 18,18,18,18 | 0 |
| 2 | SF4 | D | 4602 | 8/8 | 1.00 | 0.07 | 16,17,17,17 | 0 |
| 2 | SF4 | J | 1104 | 8/8 | 1.00 | 0.08 | 12,13,14,14 | 0 |
| 2 | SF4 | C | 3902 | 8/8 | 1.00 | 0.08 | 13,14,14,15 | 0 |
| 8 | CL | C | 3921 | 1/1 | 1.00 | 0.06 | 19,19,19,19 | 0 |

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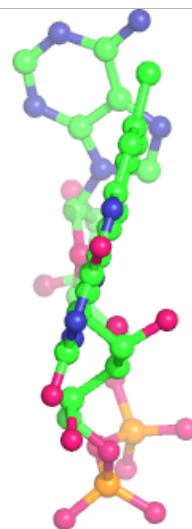
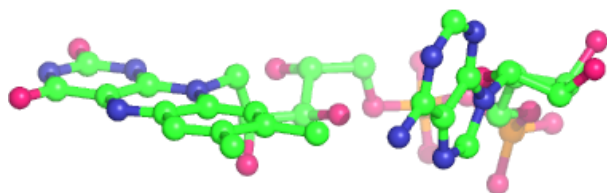
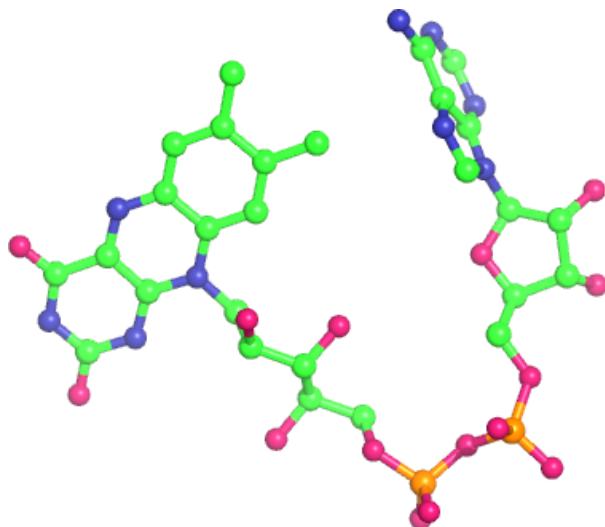
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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|---------|-------|------|------|-----------------------------|-------|
| 2 | SF4 | D | 4604 | 8/8 | 1.00 | 0.09 | 10,11,12,12 | 0 |
| 2 | SF4 | K | 1101 | 8/8 | 1.00 | 0.08 | 12,13,14,14 | 0 |
| 8 | CL | D | 4624[B] | 1/1 | 1.00 | 0.08 | 29,29,29,29 | 1 |
| 8 | CL | E | 1120 | 1/1 | 1.00 | 0.04 | 25,25,25,25 | 0 |
| 2 | SF4 | D | 4605 | 8/8 | 1.00 | 0.08 | 9,10,10,11 | 0 |
| 2 | SF4 | F | 1103 | 8/8 | 1.00 | 0.08 | 11,11,12,12 | 0 |
| 2 | SF4 | K | 1104 | 8/8 | 1.00 | 0.08 | 12,12,13,13 | 0 |
| 2 | SF4 | O | 1101 | 8/8 | 1.00 | 0.07 | 13,14,15,15 | 0 |
| 8 | CL | H | 4417 | 1/1 | 1.00 | 0.05 | 24,24,24,24 | 0 |
| 2 | SF4 | H | 4405 | 8/8 | 1.00 | 0.09 | 9,10,10,10 | 0 |
| 8 | CL | I | 1122 | 1/1 | 1.00 | 0.06 | 23,23,23,23 | 0 |
| 2 | SF4 | H | 4406 | 8/8 | 1.00 | 0.08 | 10,11,11,12 | 0 |

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

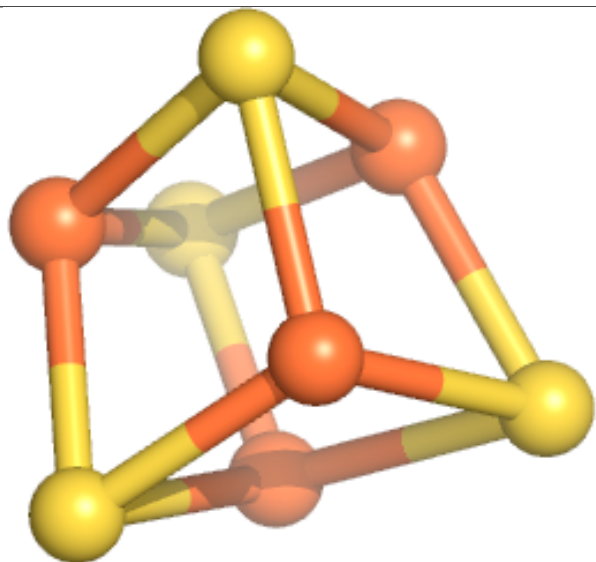
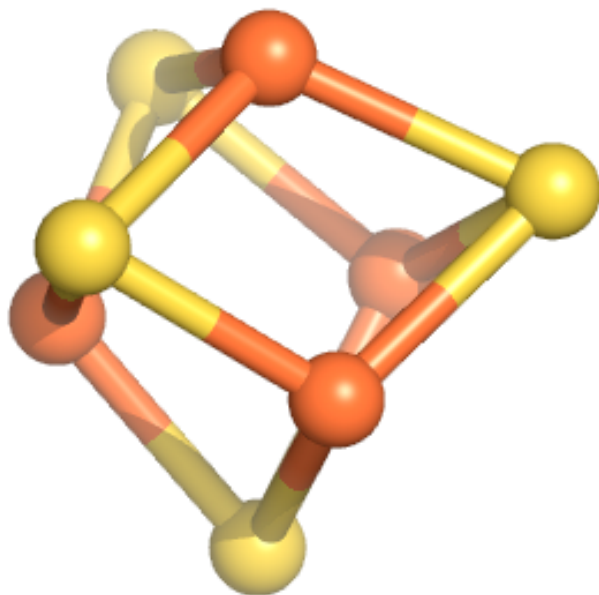
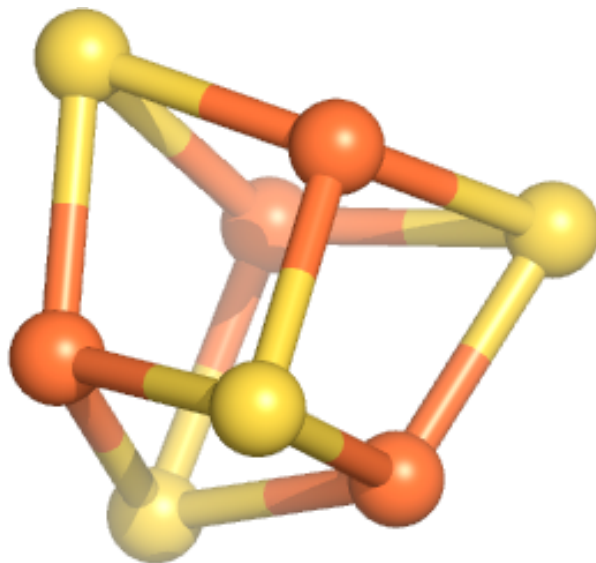
Electron density around FAD F 1106:

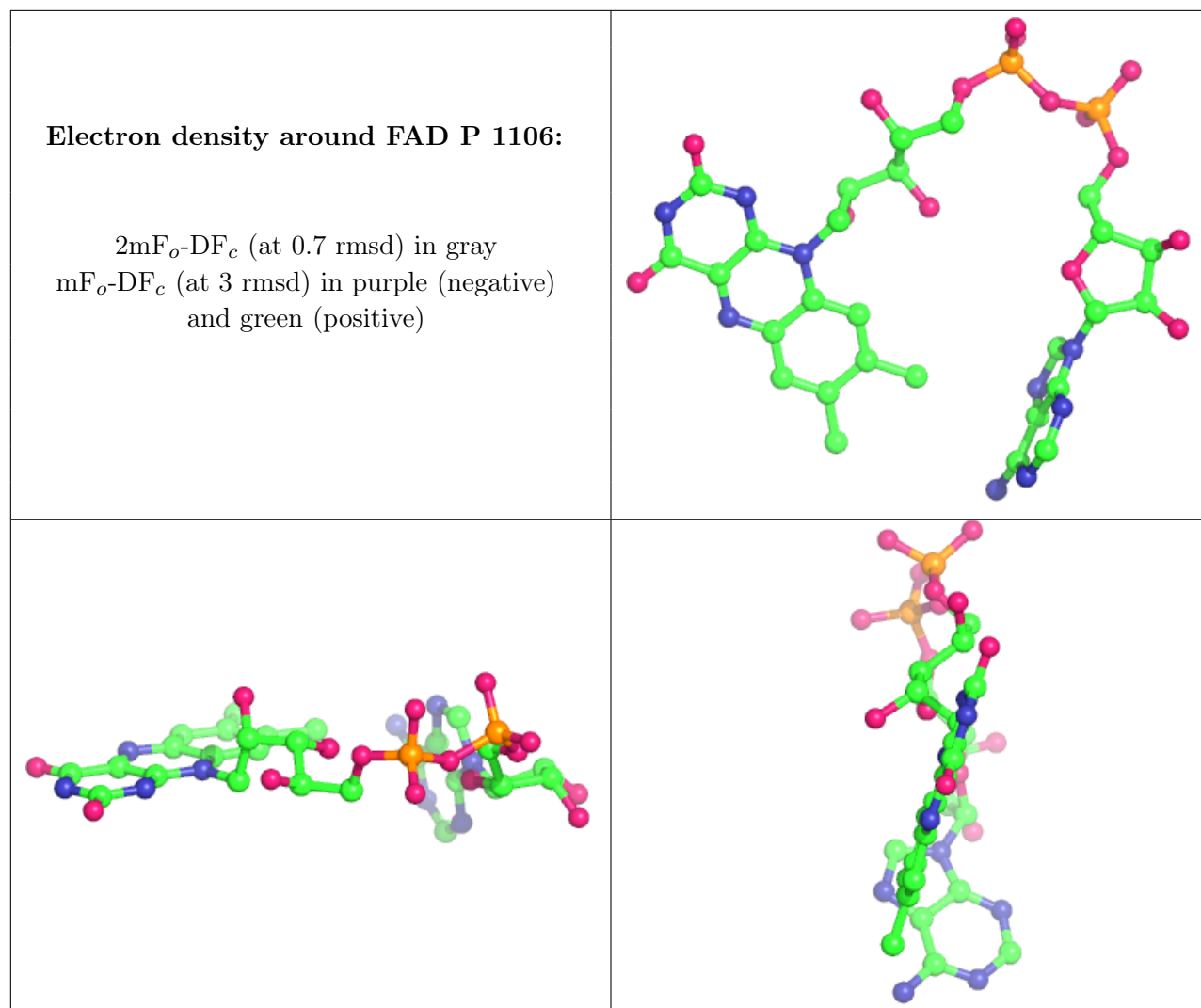
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

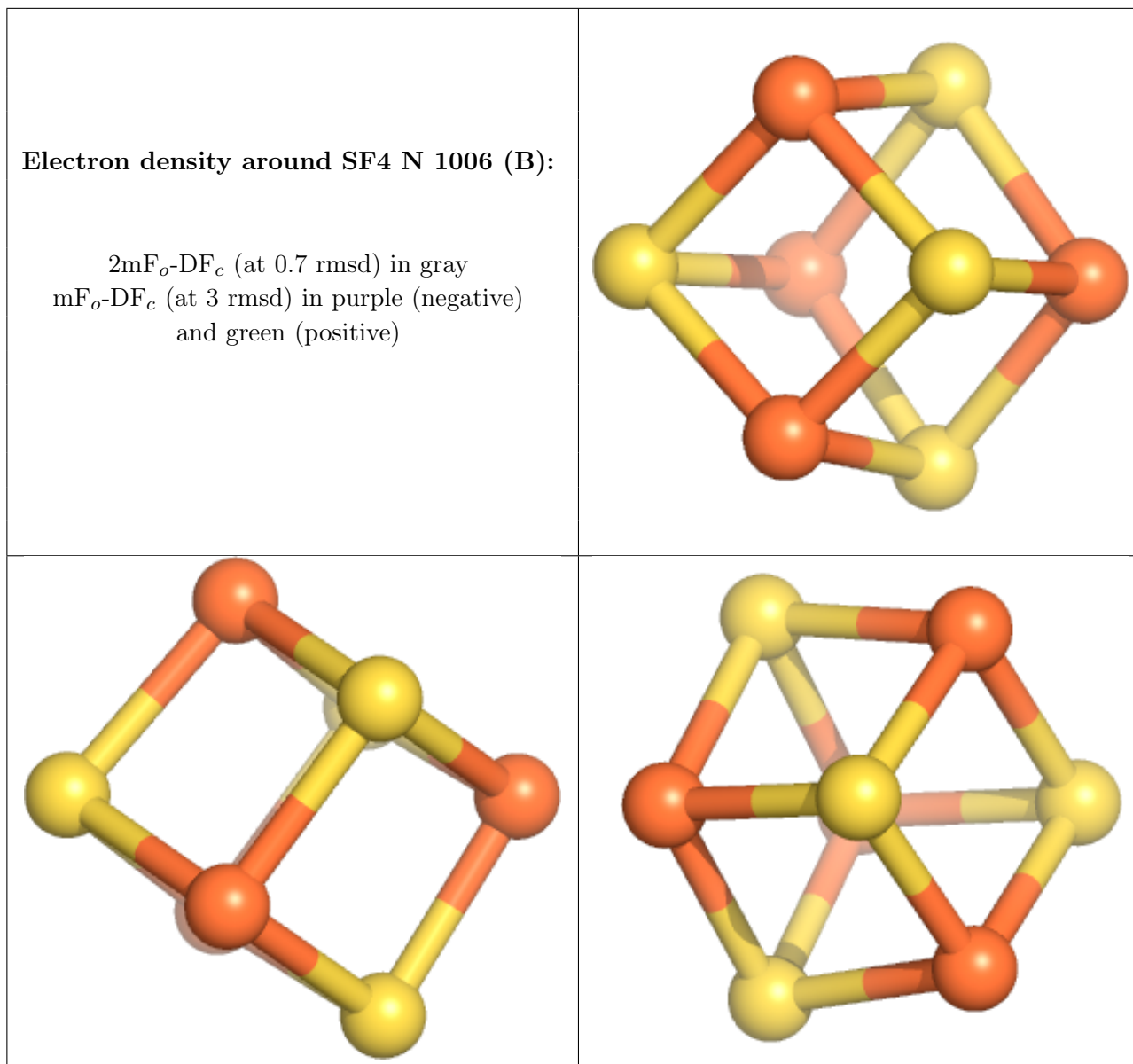


Electron density around SF4 N 1006 (A):

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

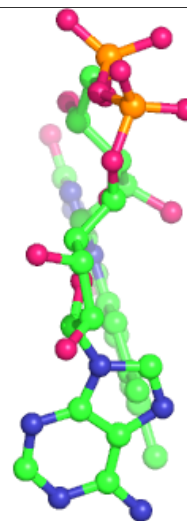
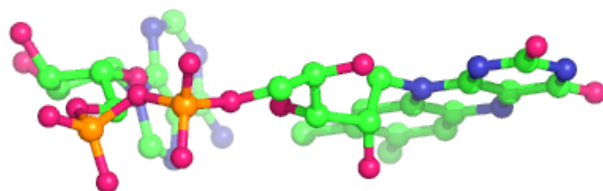
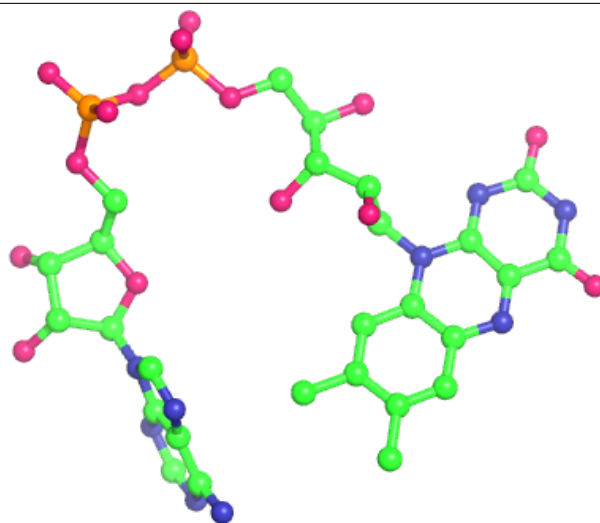






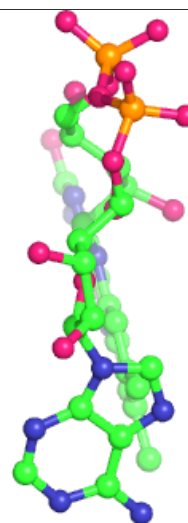
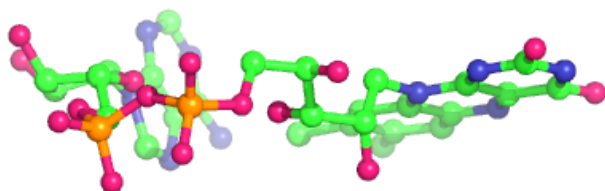
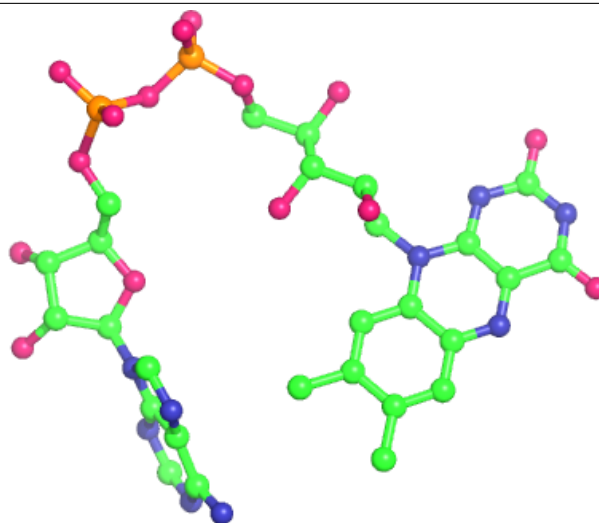
Electron density around FAD N 1001 (A):

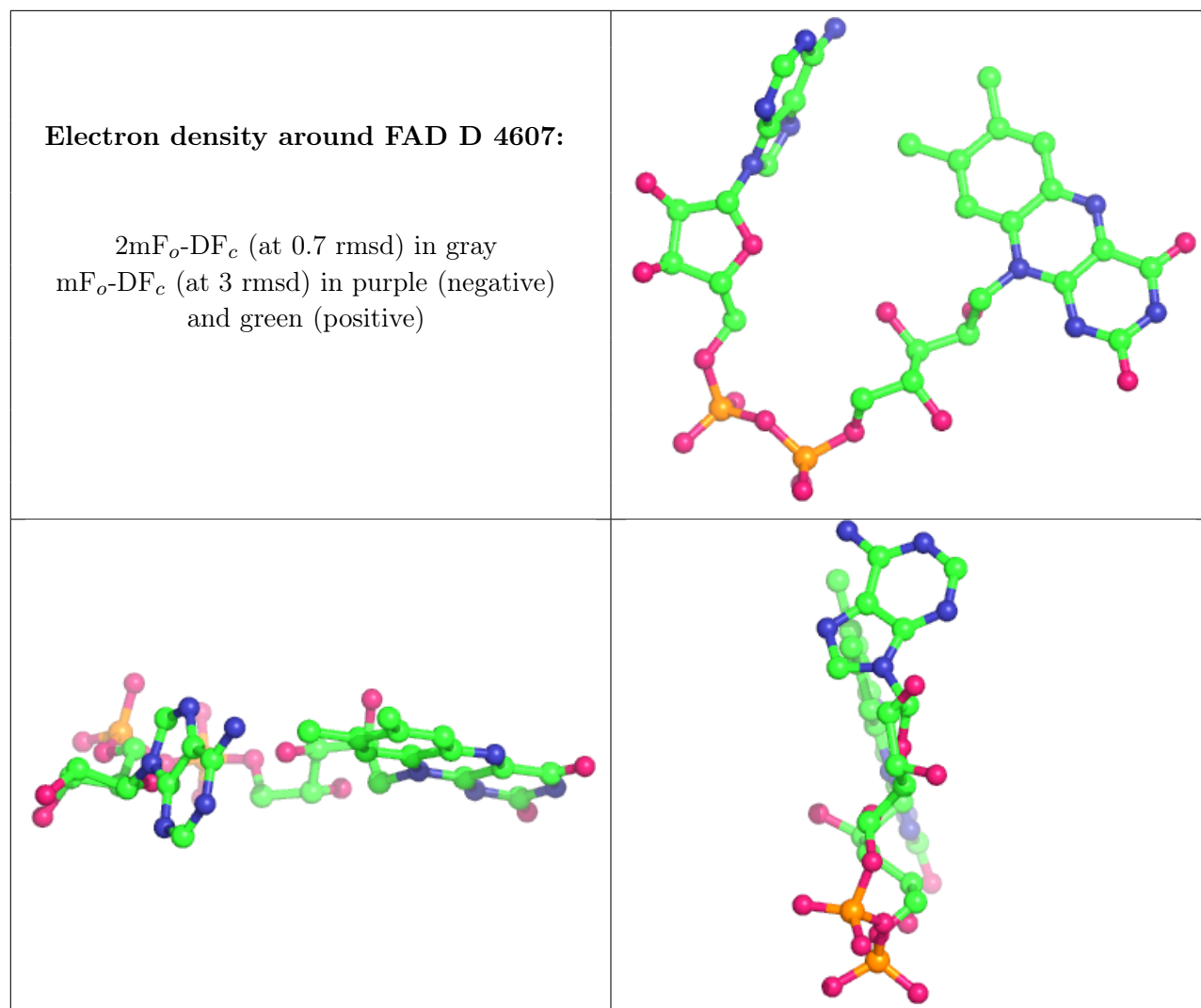
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around FAD J 1106:

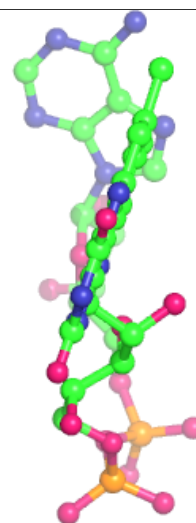
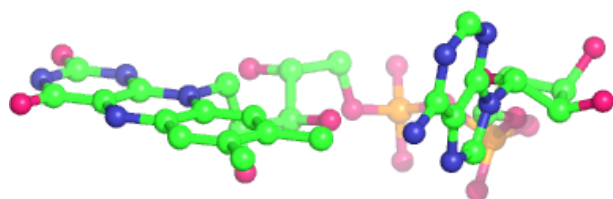
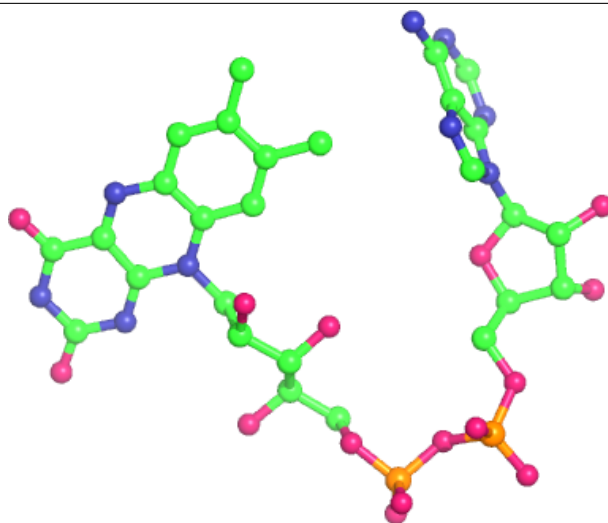
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





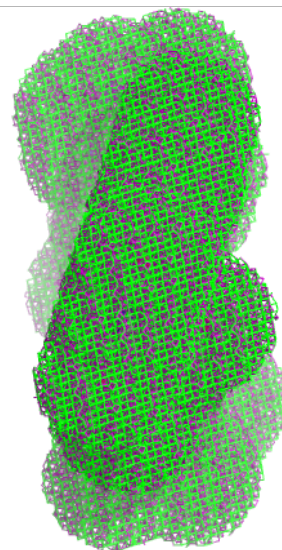
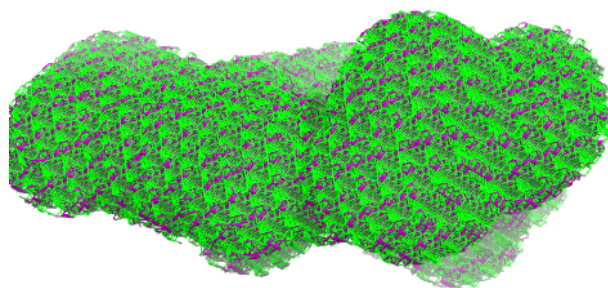
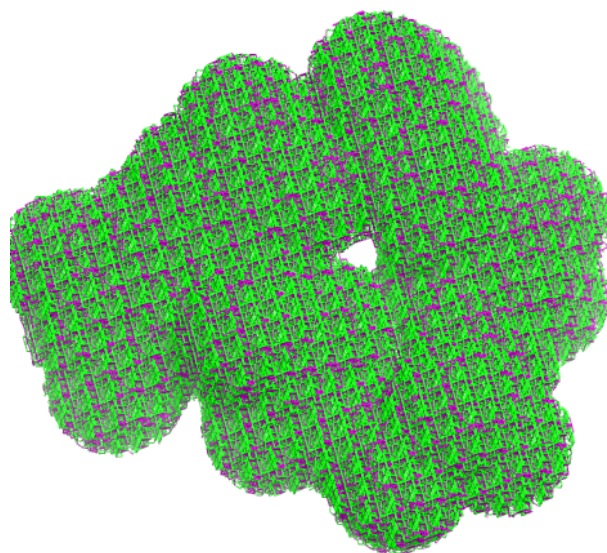
Electron density around FAD N 1009 (B):

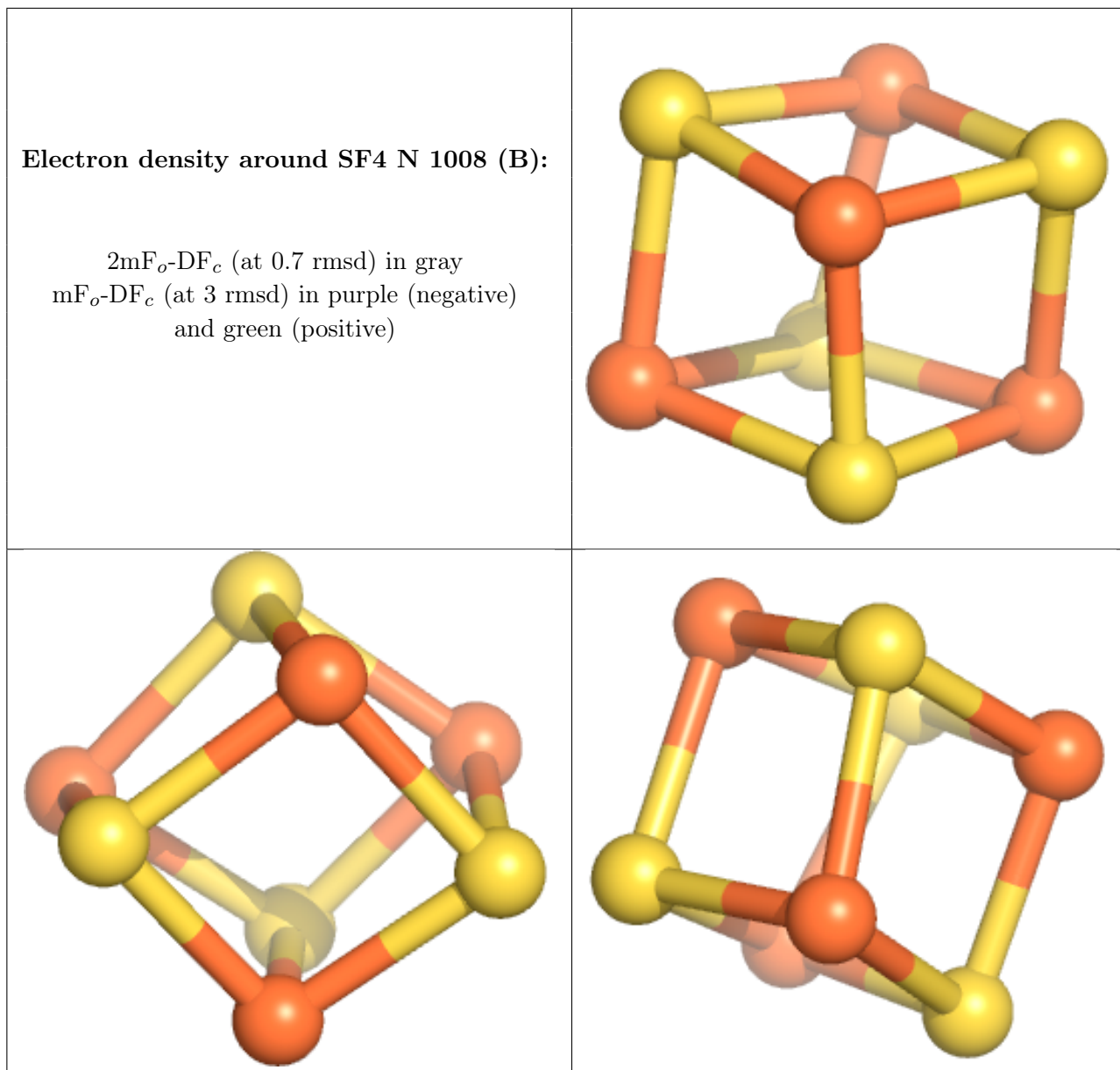
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around FAD E 1106:

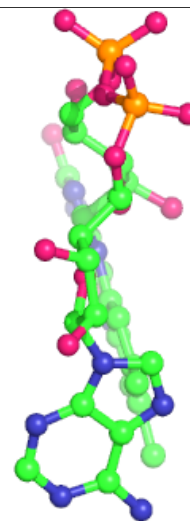
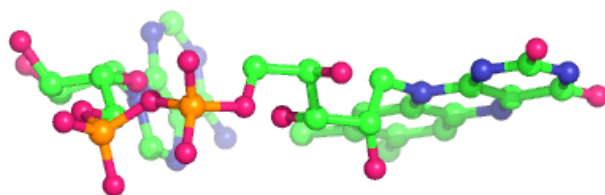
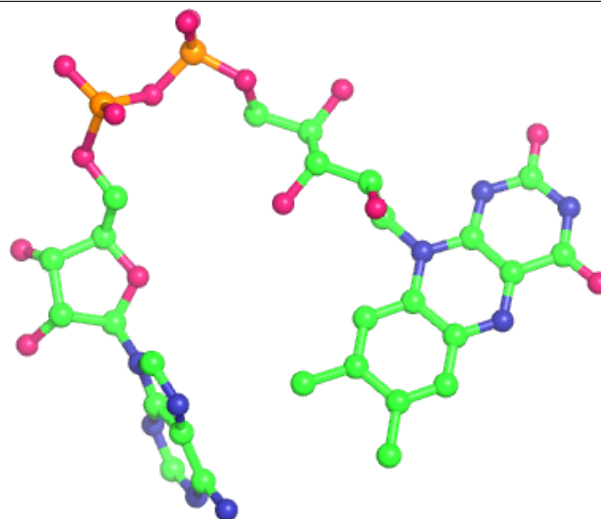
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





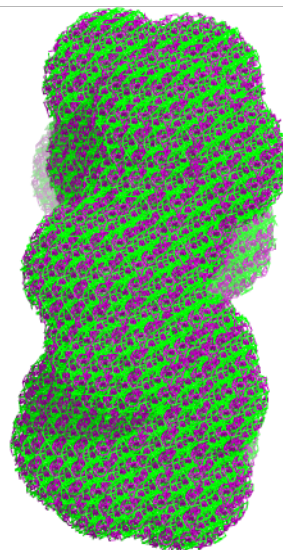
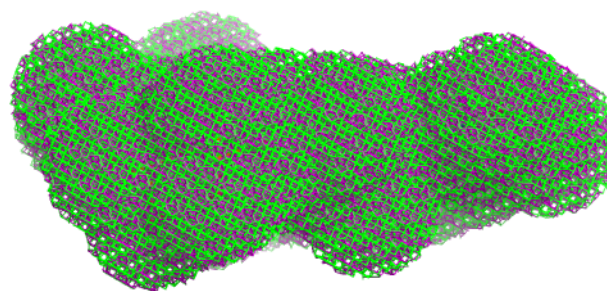
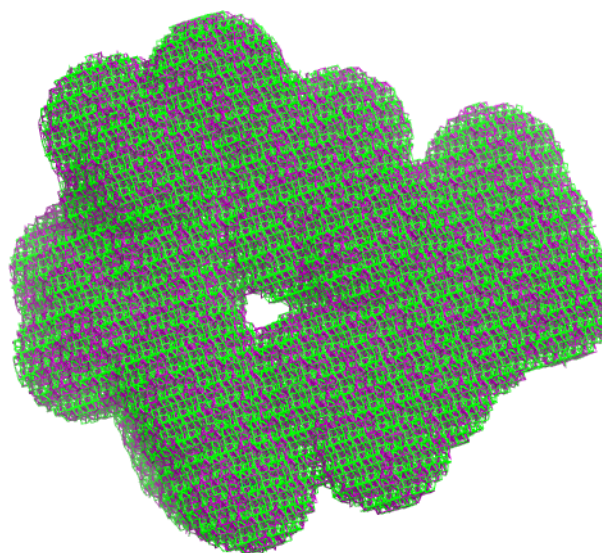
Electron density around FAD H 4407:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



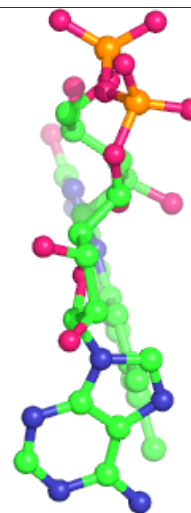
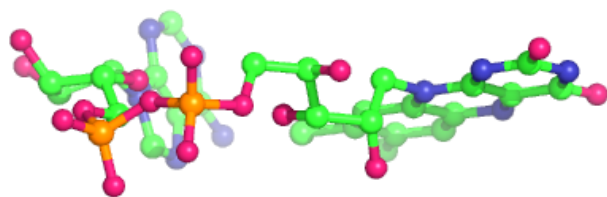
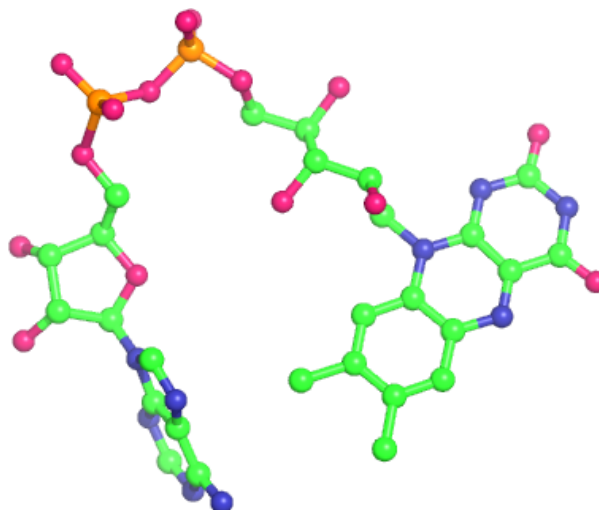
Electron density around FAD A 1106:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



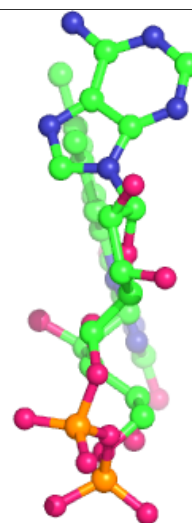
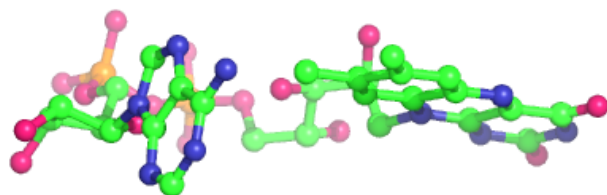
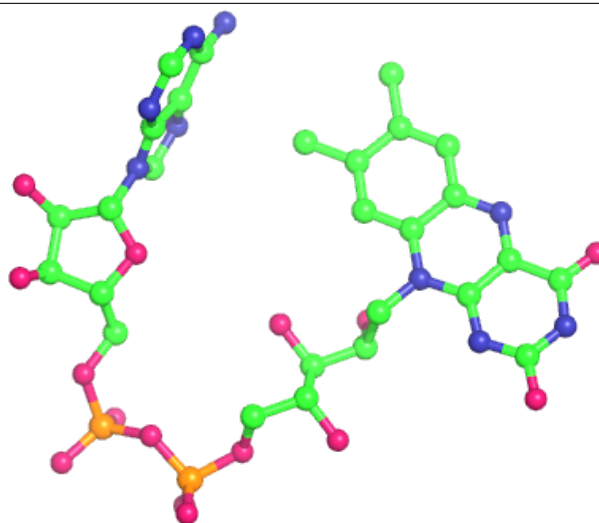
Electron density around FAD G 1106:

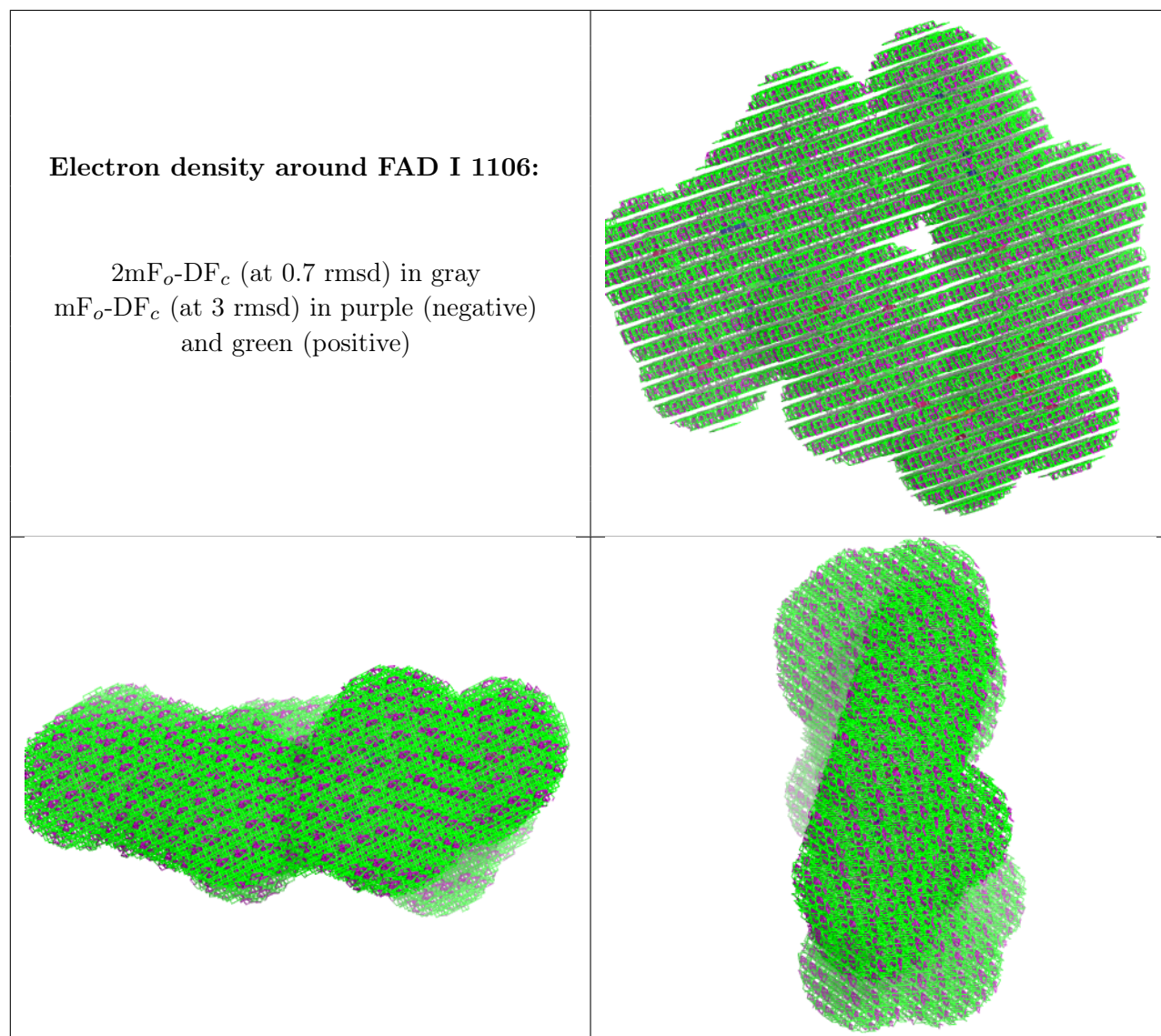
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

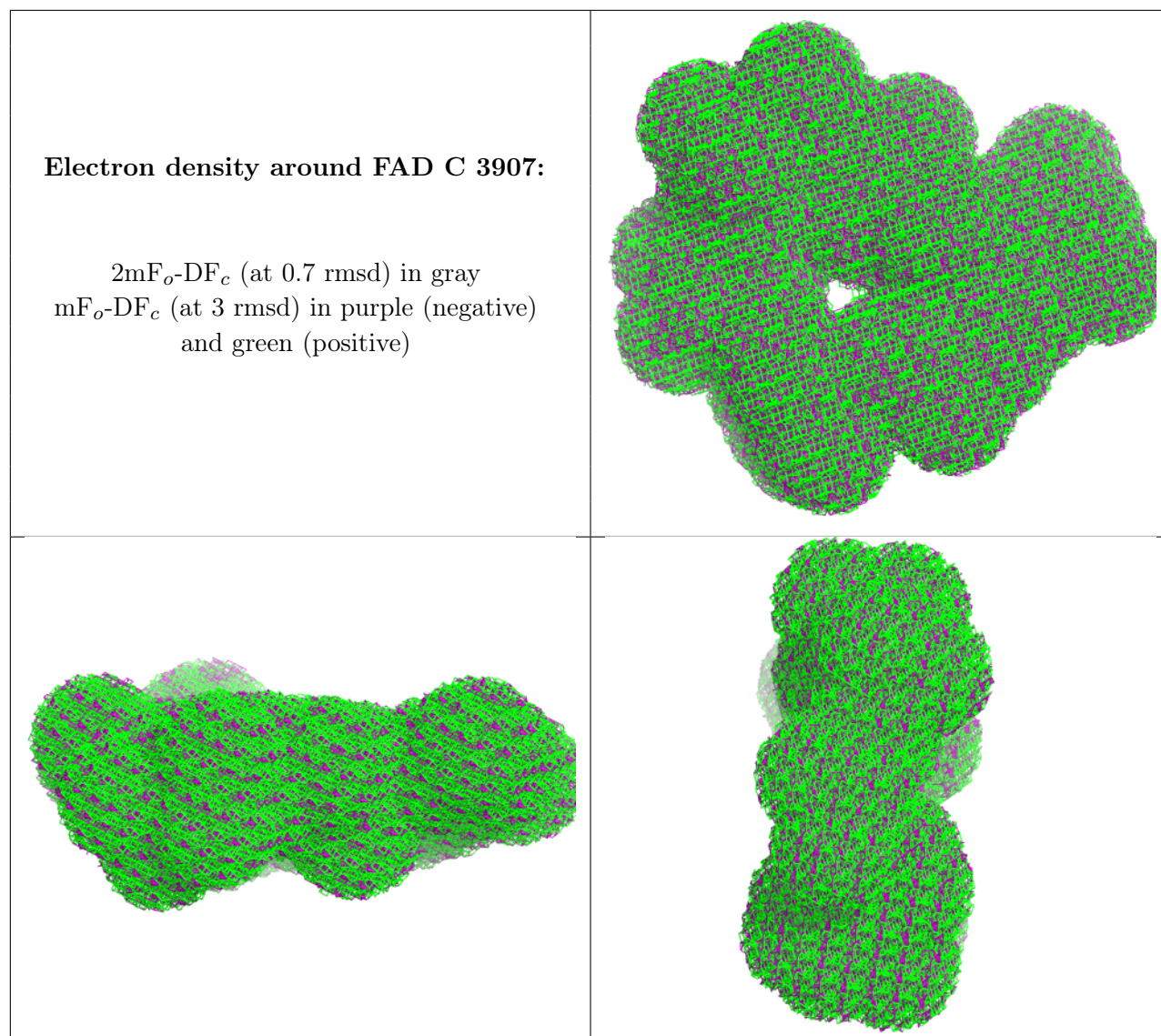


Electron density around FAD B 4207:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

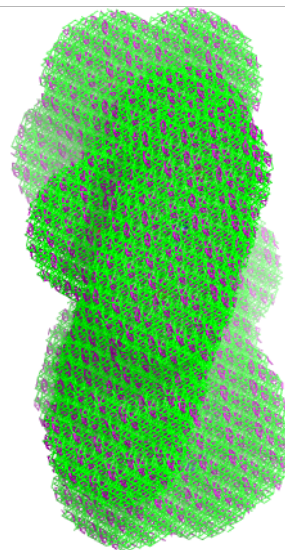
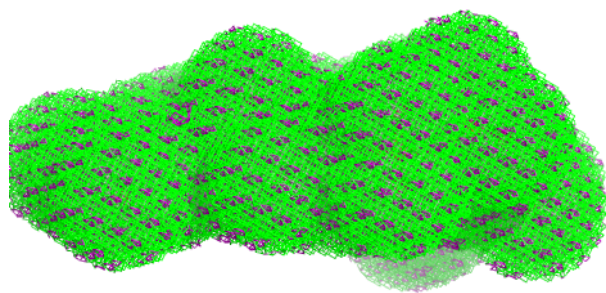
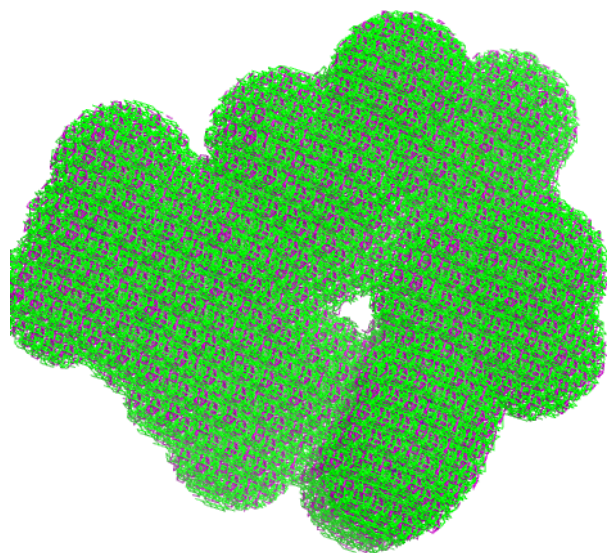


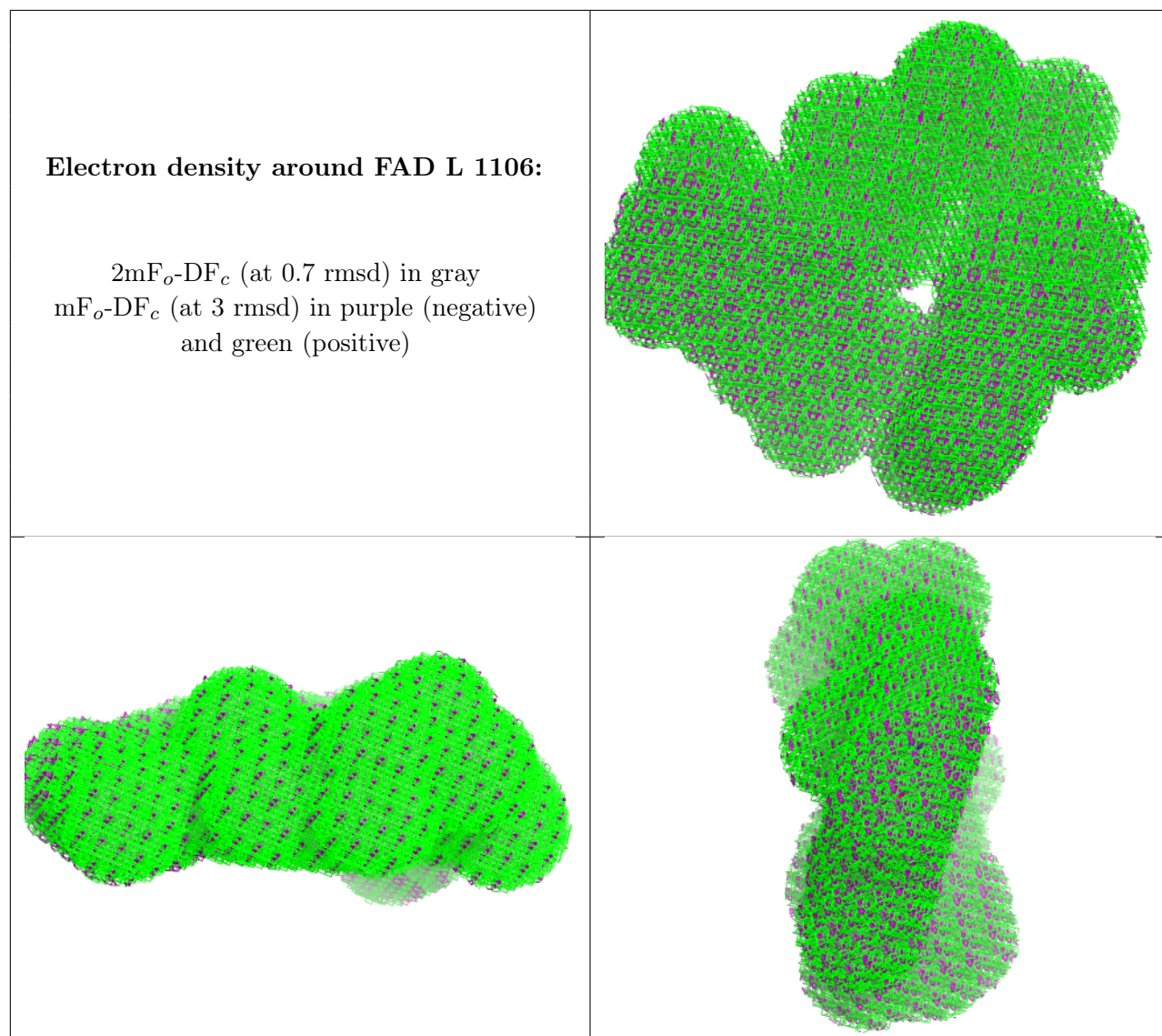




Electron density around FAD K 1106:

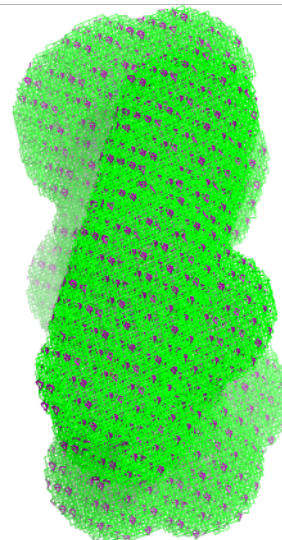
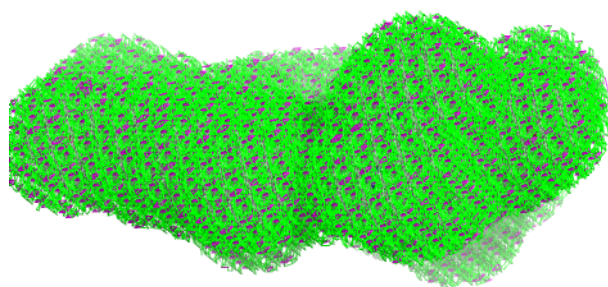
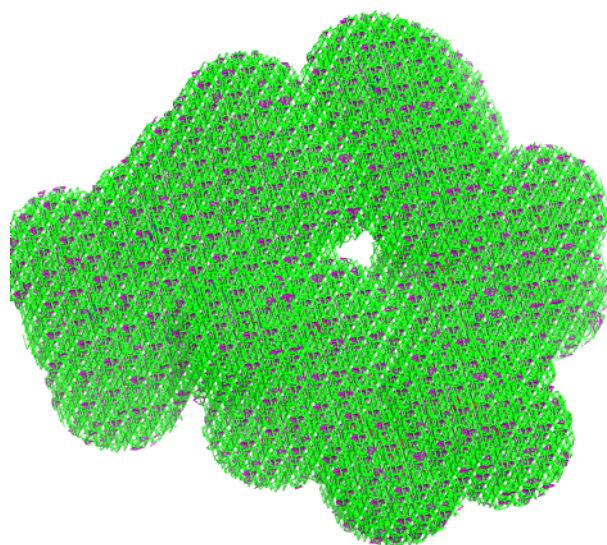
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

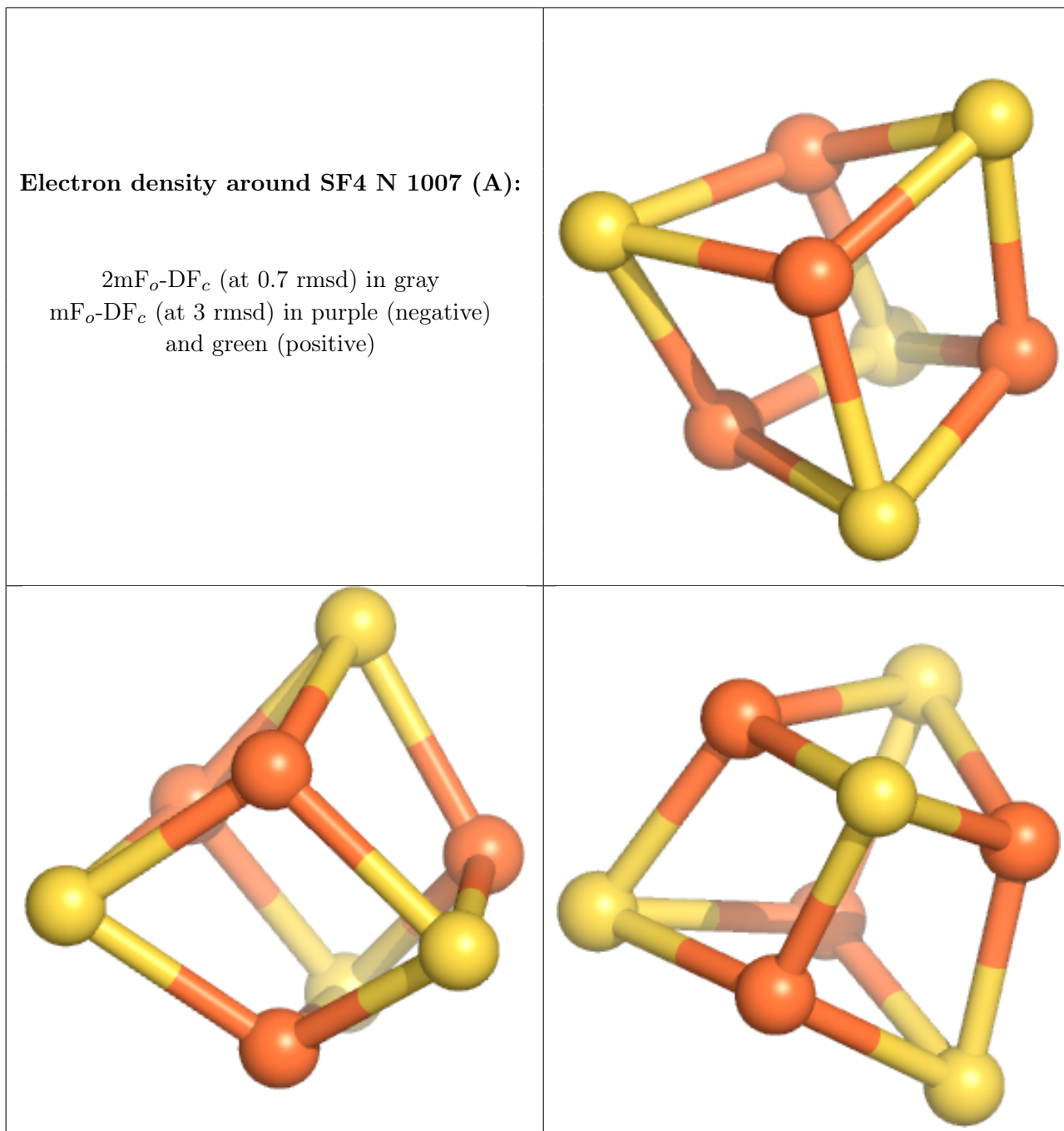




Electron density around FAD M 1106:

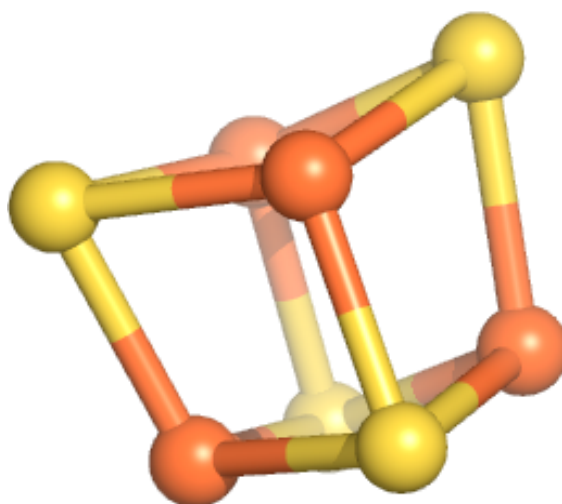
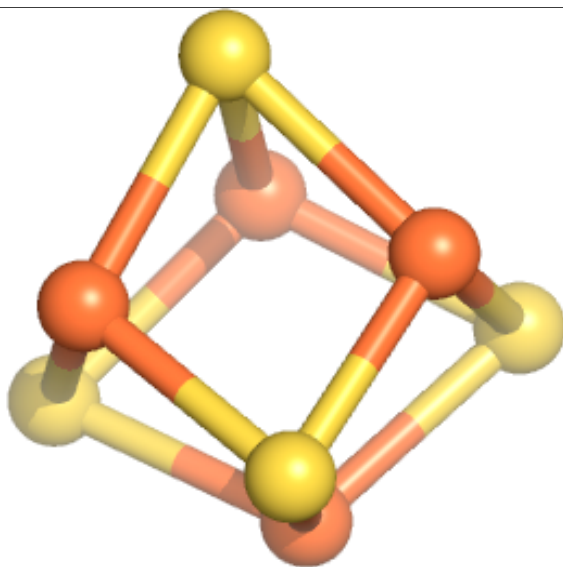
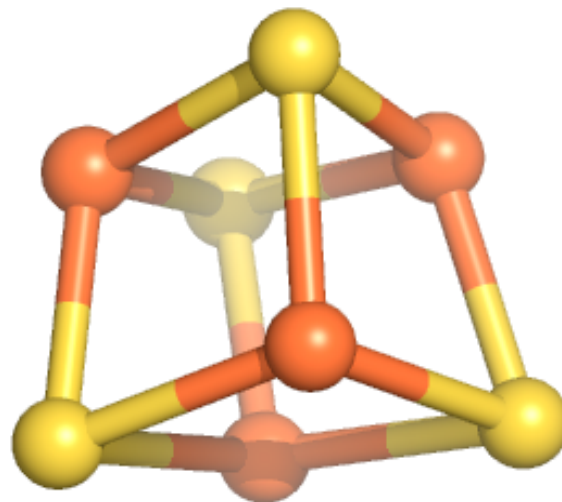
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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





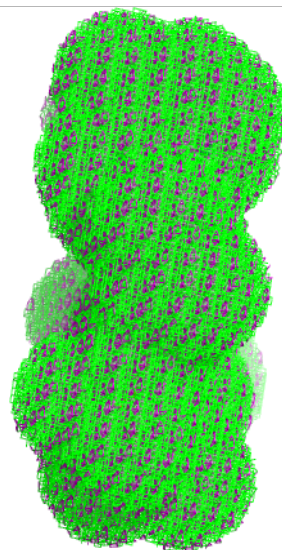
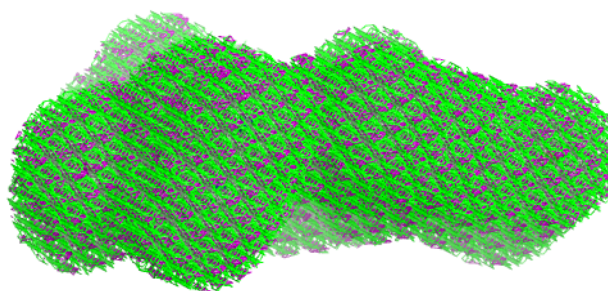
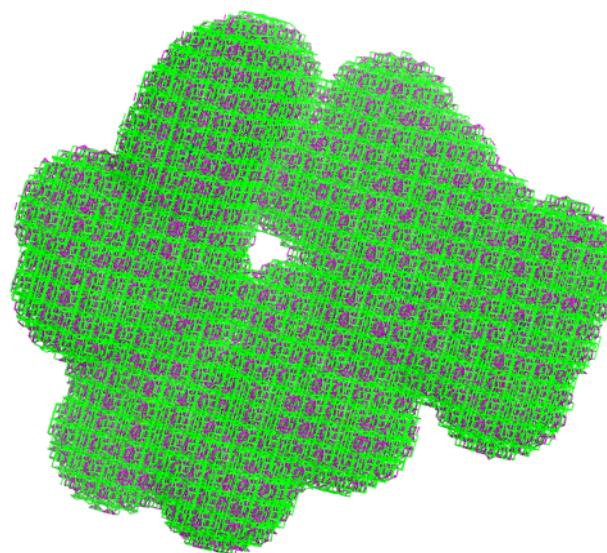
Electron density around SF4 N 1002:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
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and green (positive)



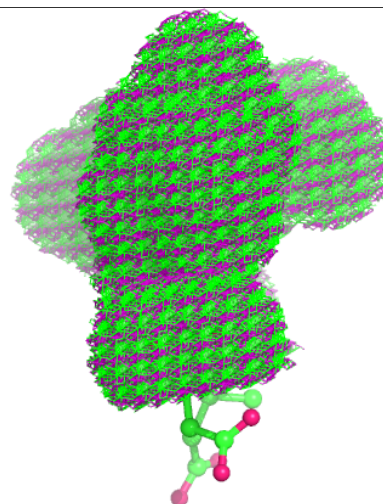
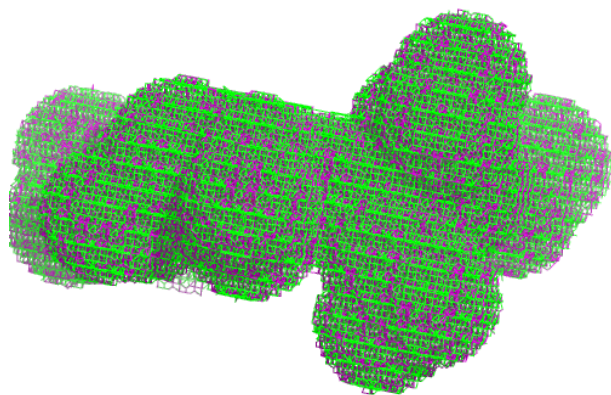
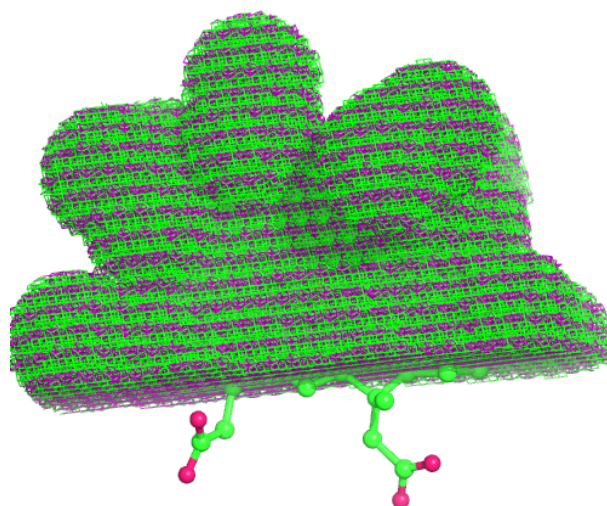
Electron density around FAD O 1106:

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and green (positive)



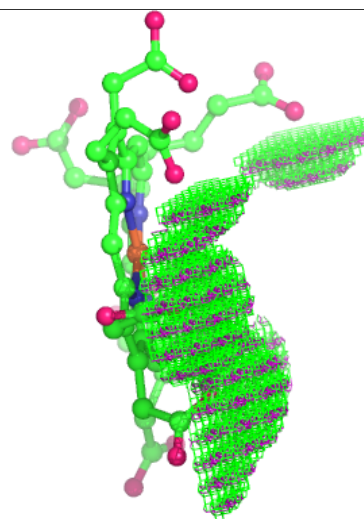
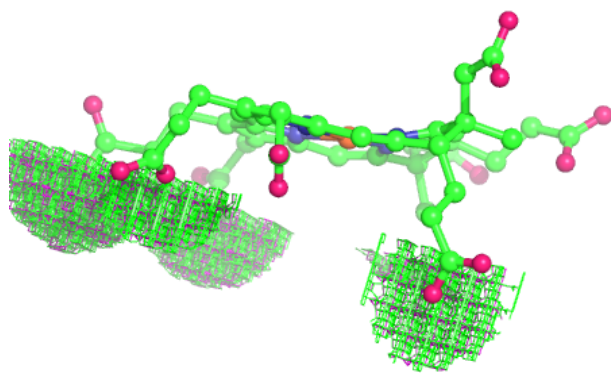
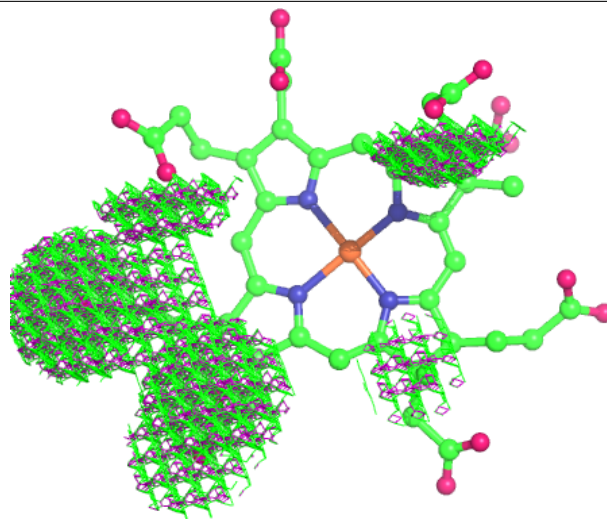
Electron density around SRM D 4610:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



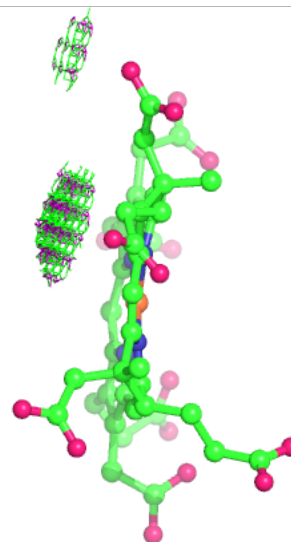
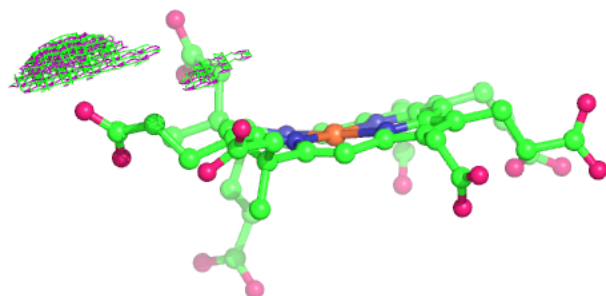
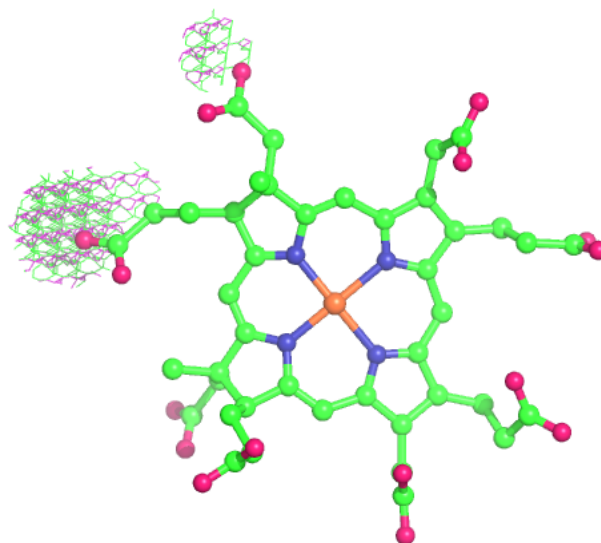
Electron density around SRM E 1109:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



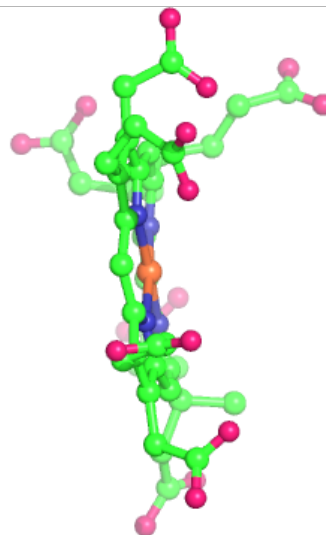
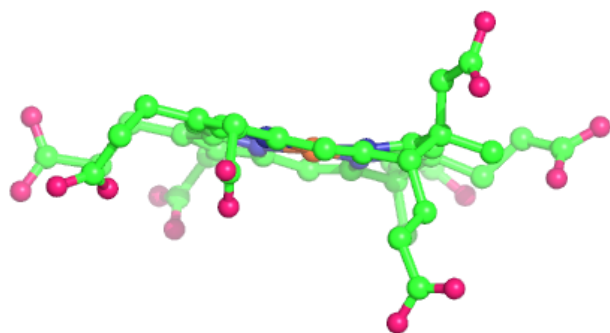
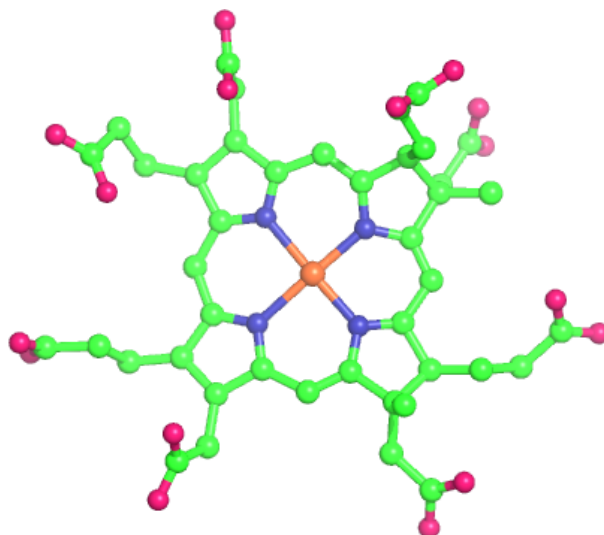
Electron density around SRM G 1109:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



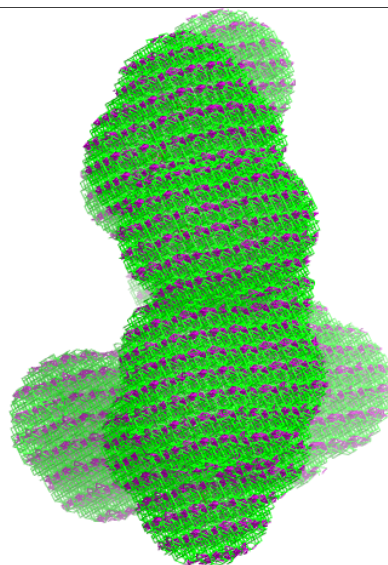
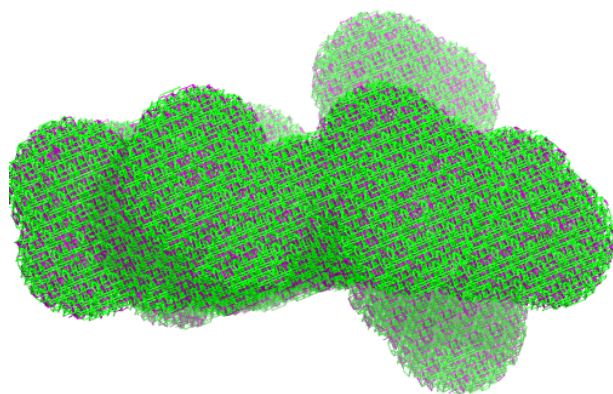
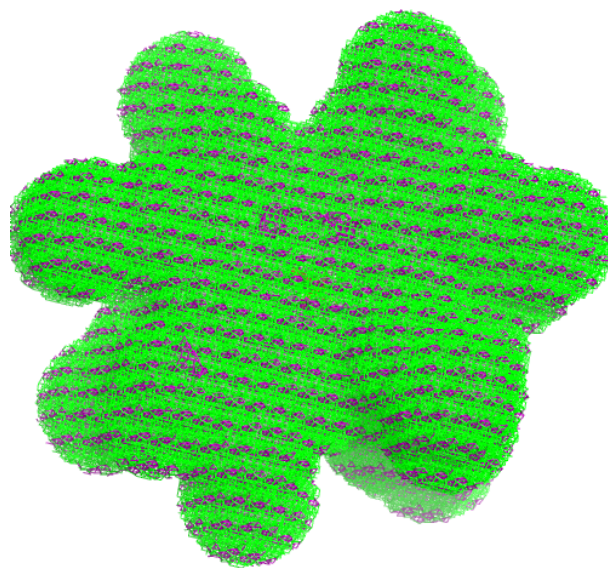
Electron density around SRM H 4410:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



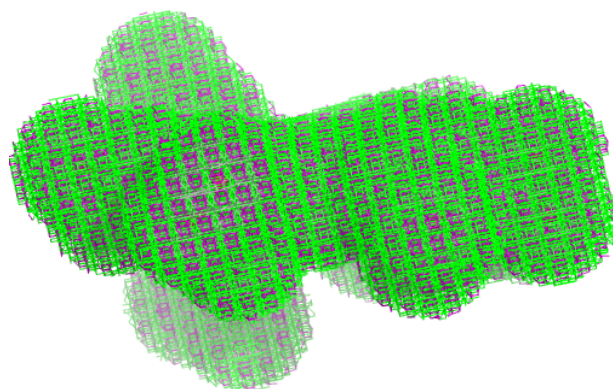
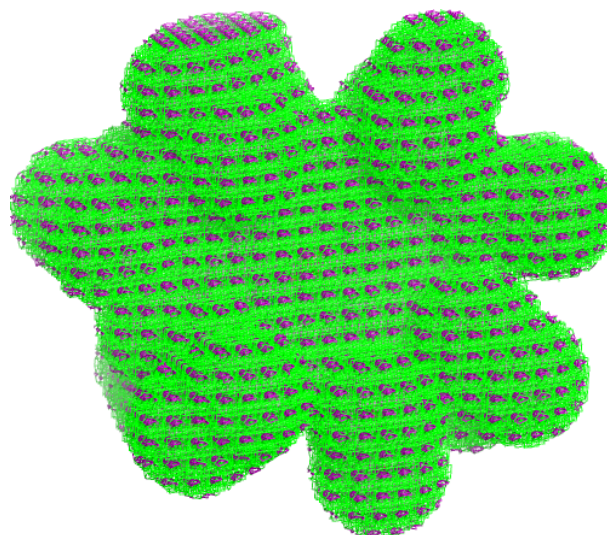
Electron density around SRM I 1109:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



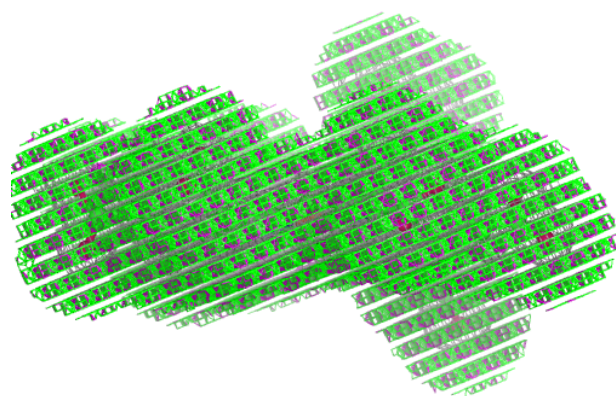
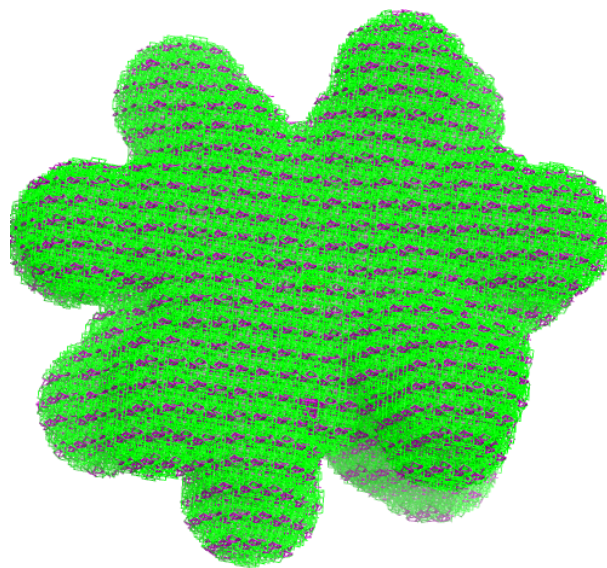
Electron density around SRM J 1109:

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and green (positive)



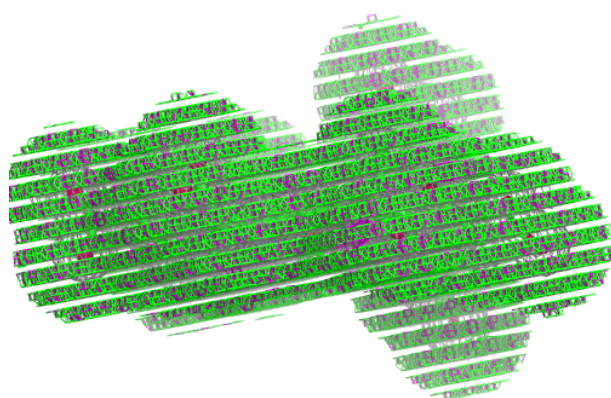
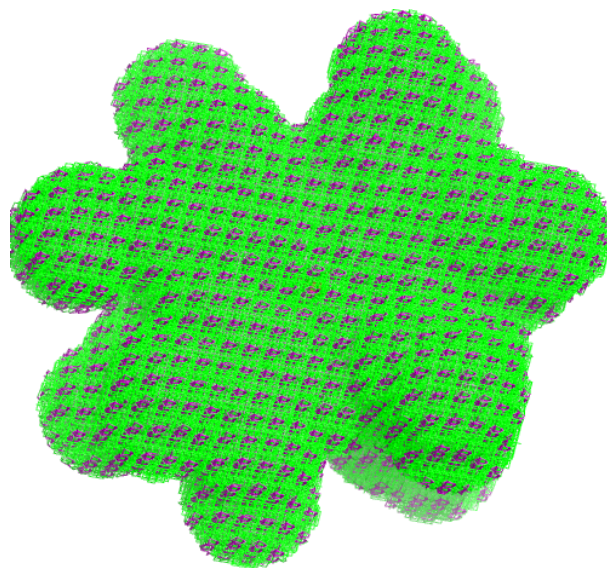
Electron density around SRM K 1109:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



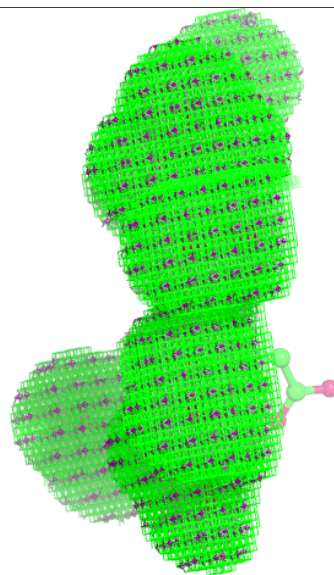
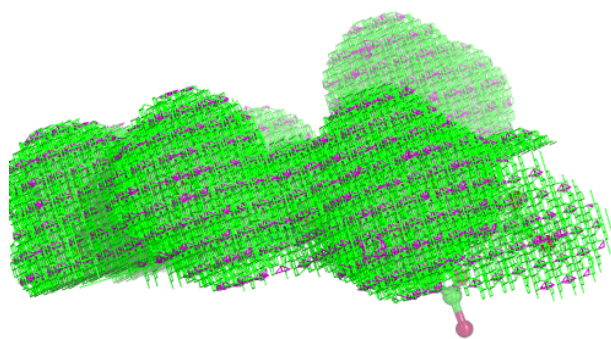
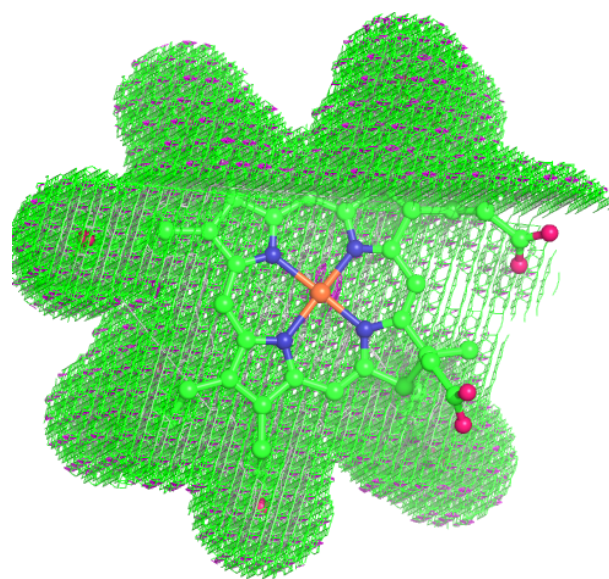
Electron density around SRM L 1109:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



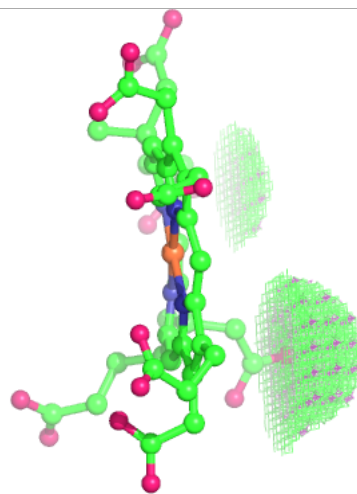
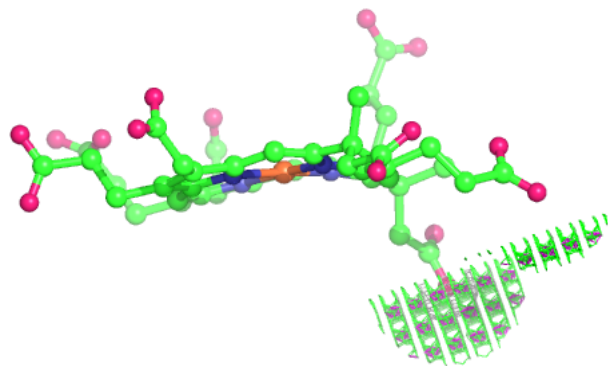
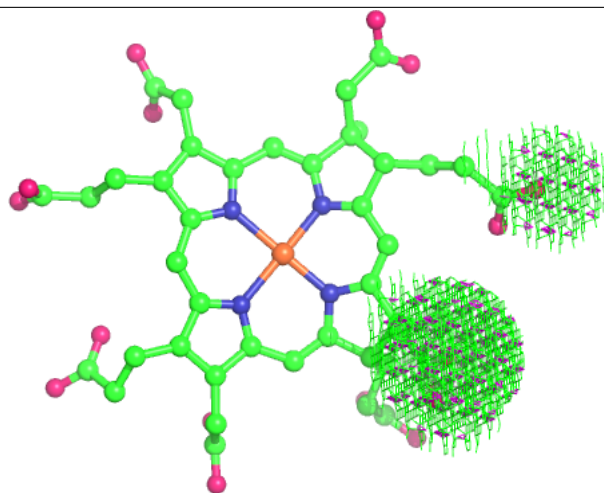
Electron density around SRM M 1109:

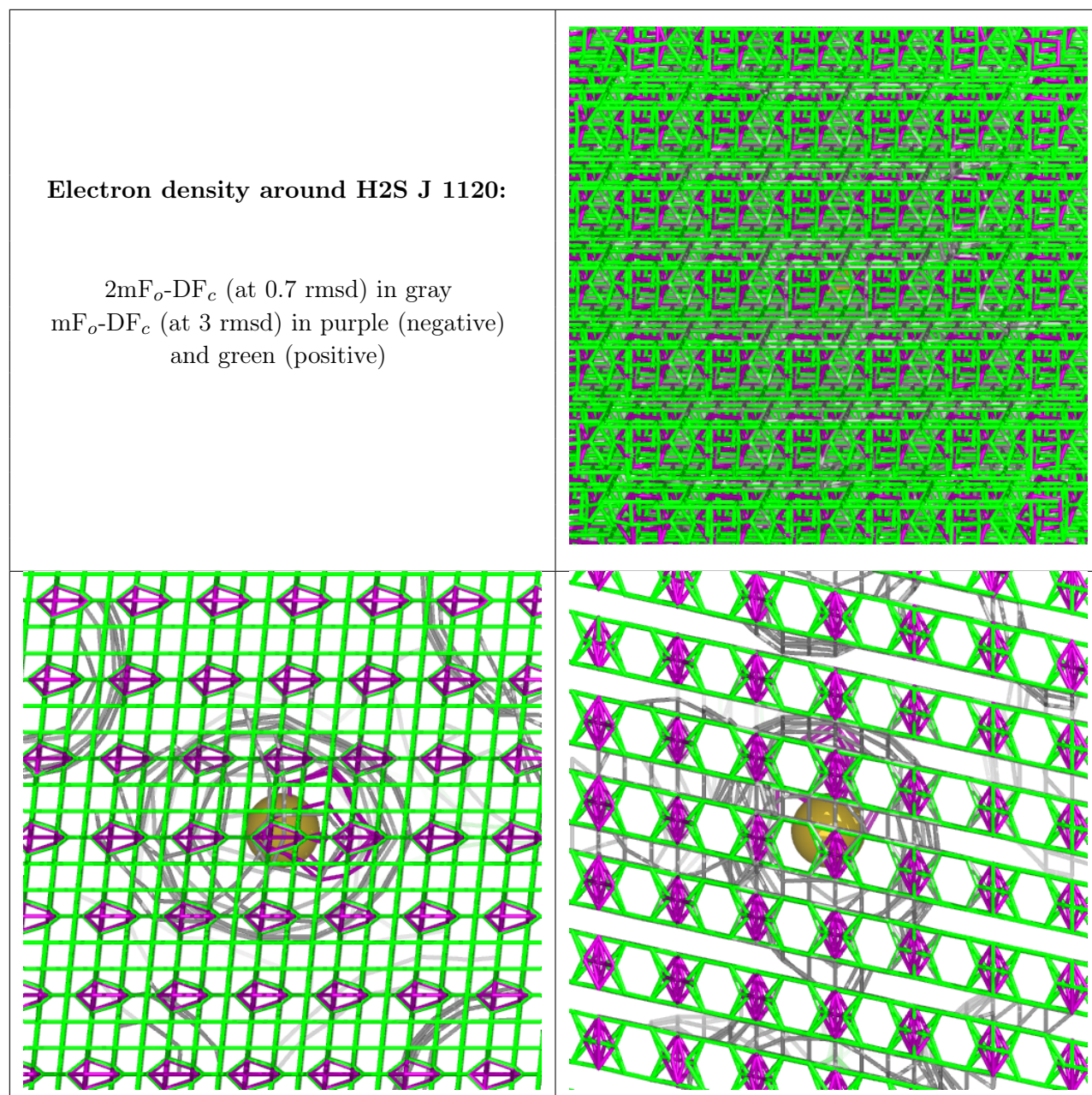
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around SRM N 1012:

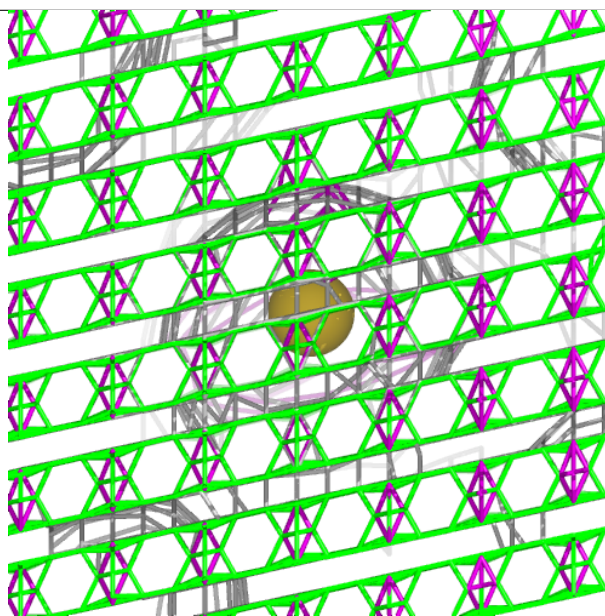
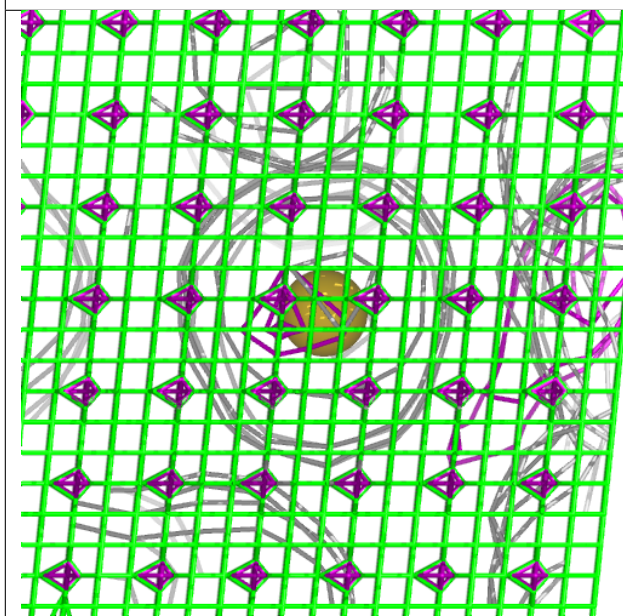
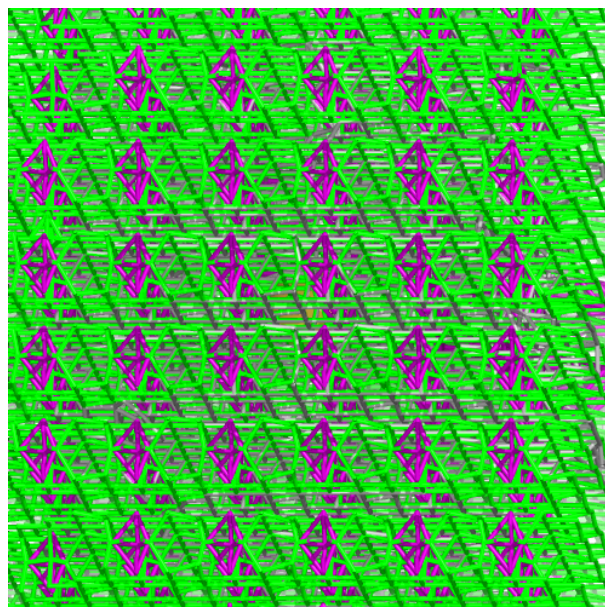
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





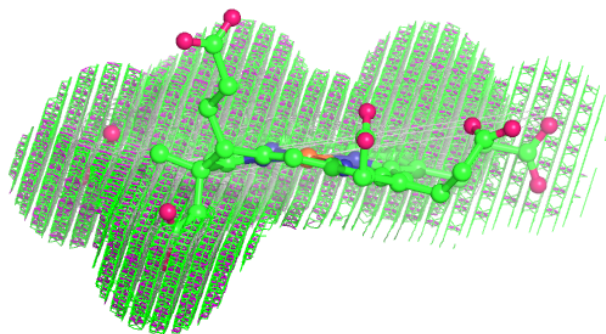
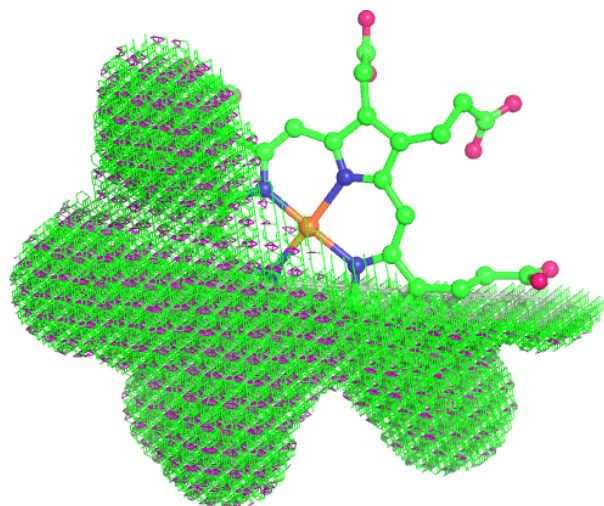
Electron density around H2S M 1128:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



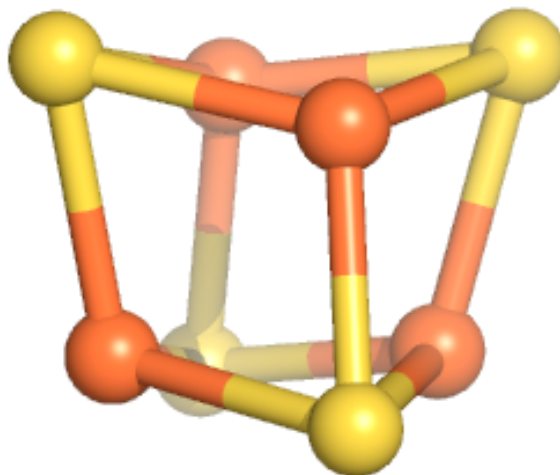
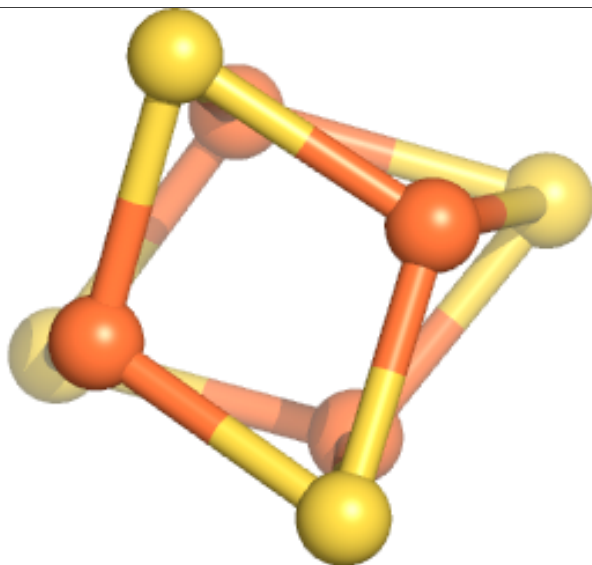
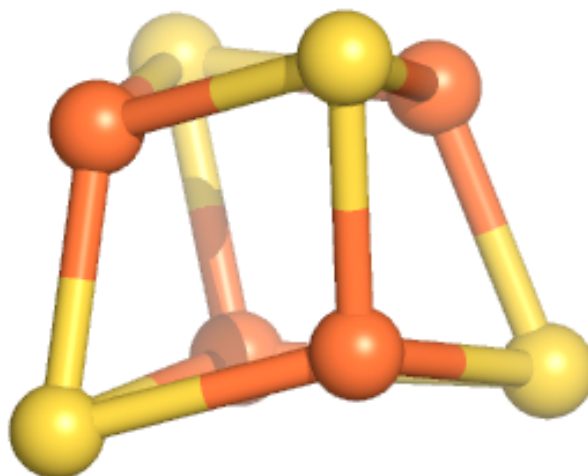
Electron density around SRM O 1109:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



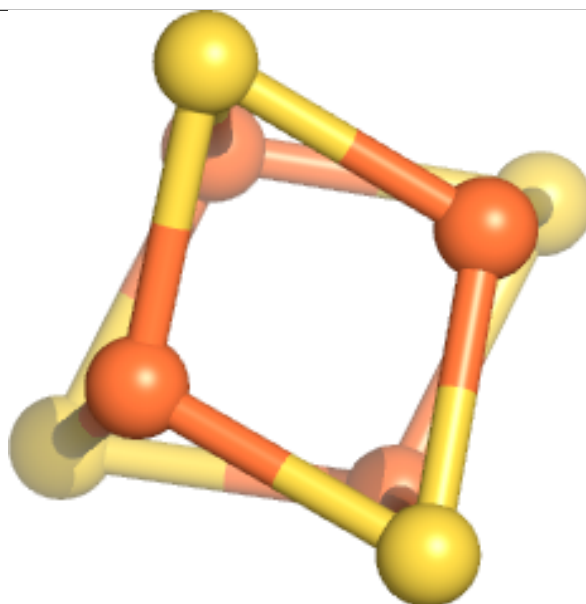
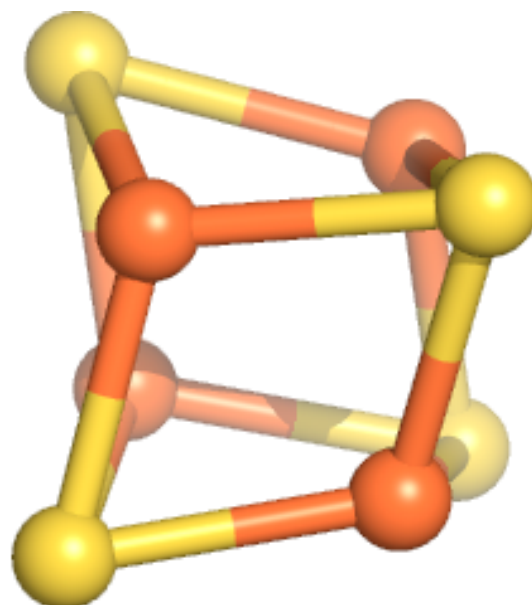
Electron density around SF4 G 1102:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



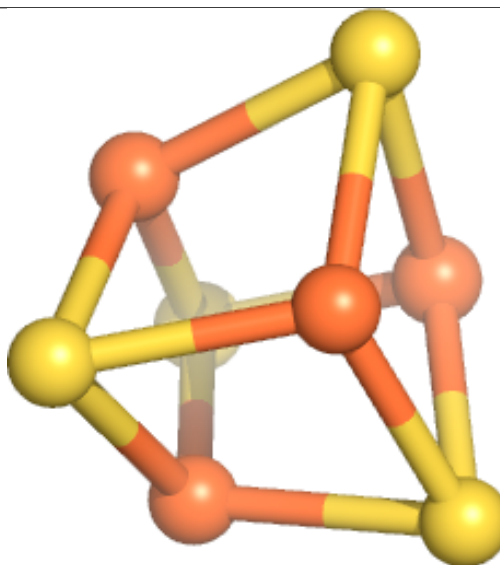
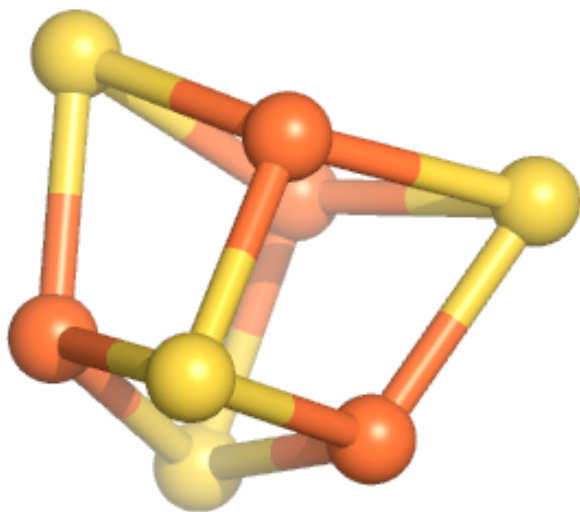
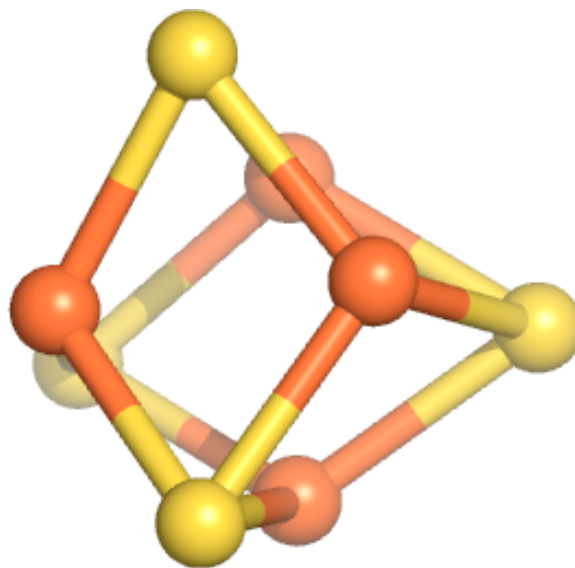
Electron density around SF4 G 1103:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



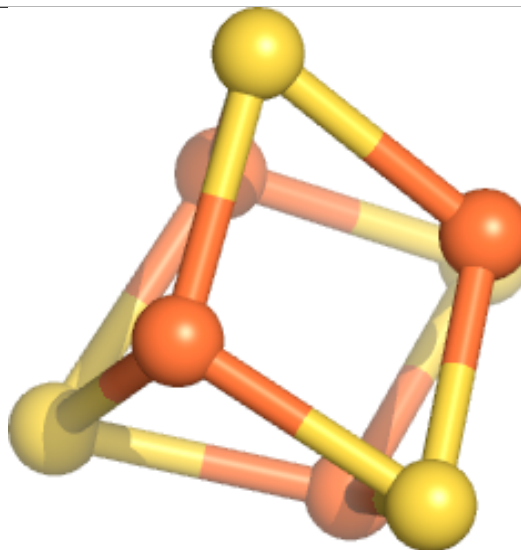
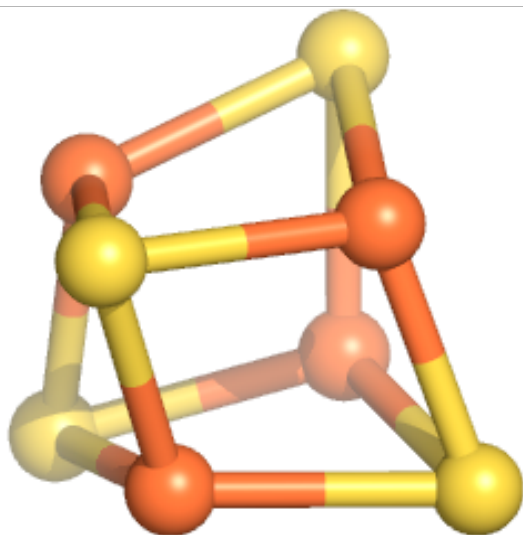
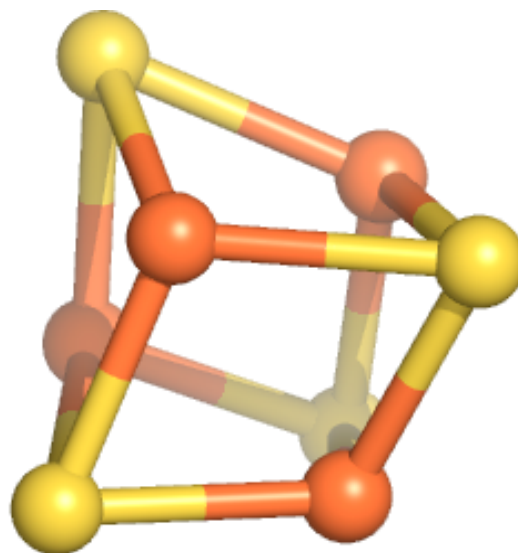
Electron density around SF4 G 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



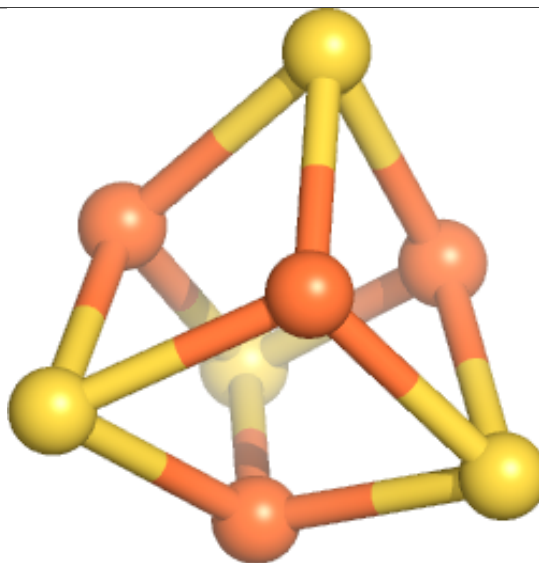
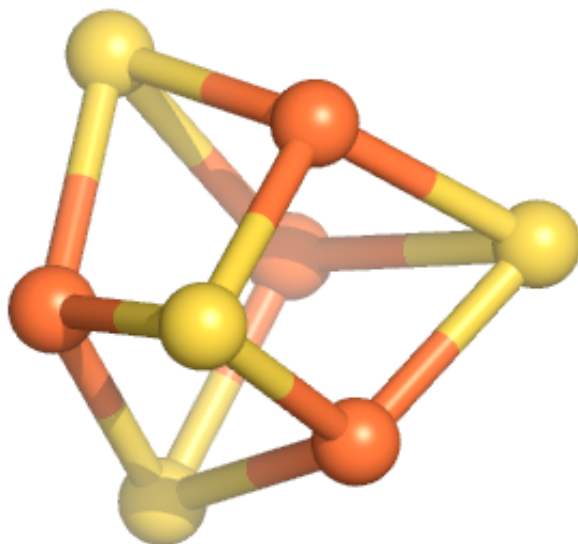
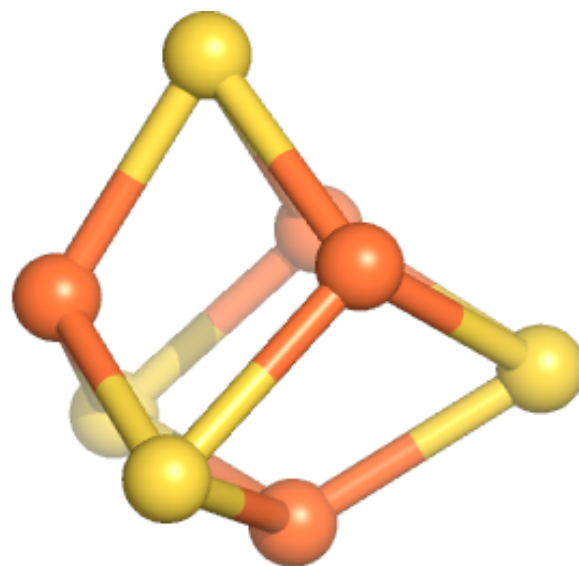
Electron density around SF4 G 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



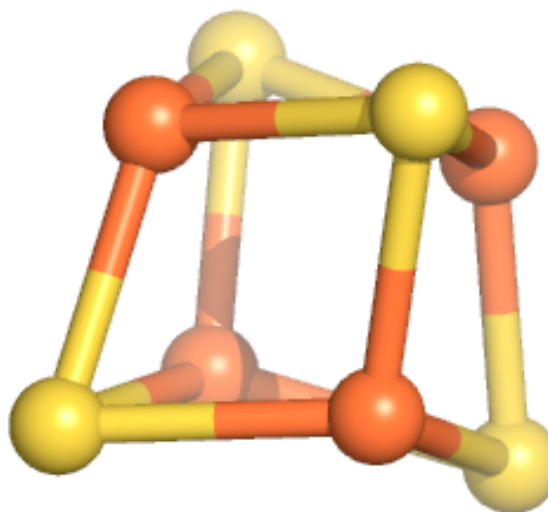
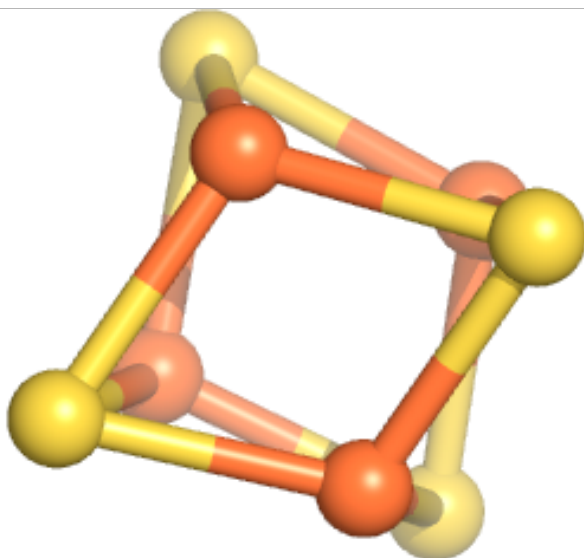
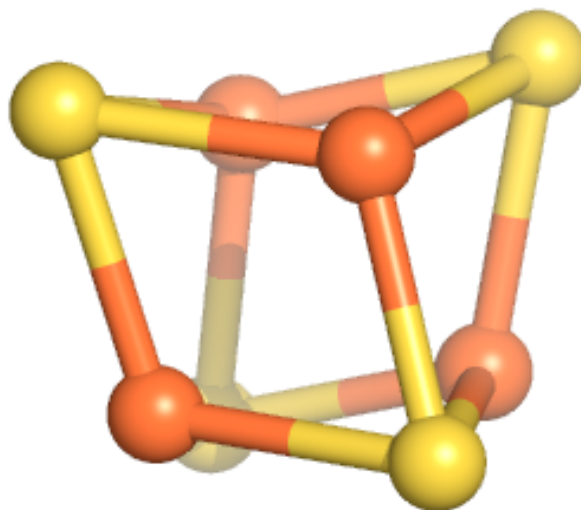
Electron density around SF4 G 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



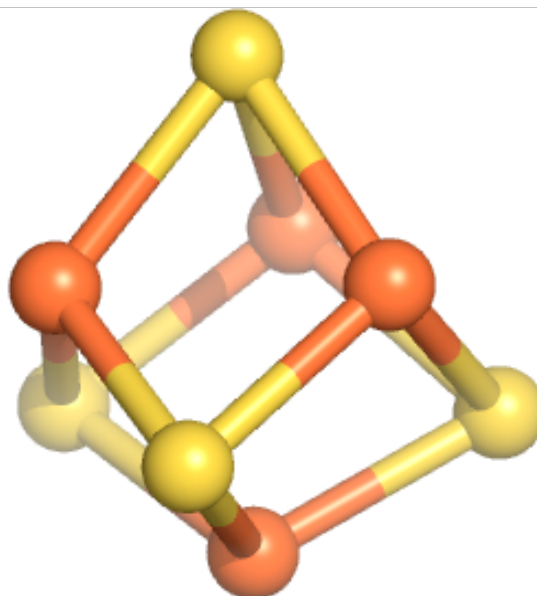
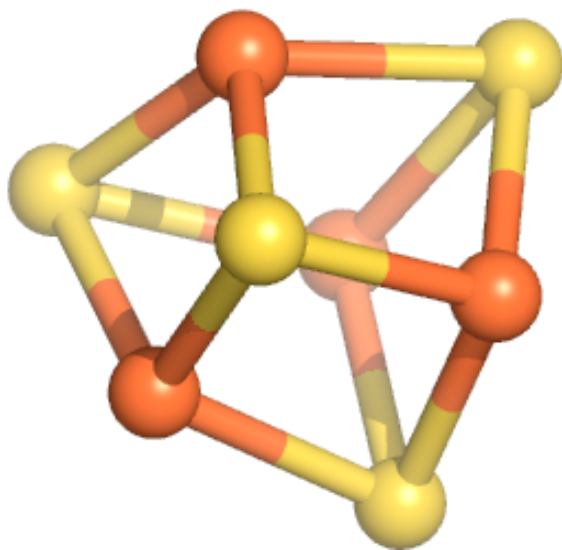
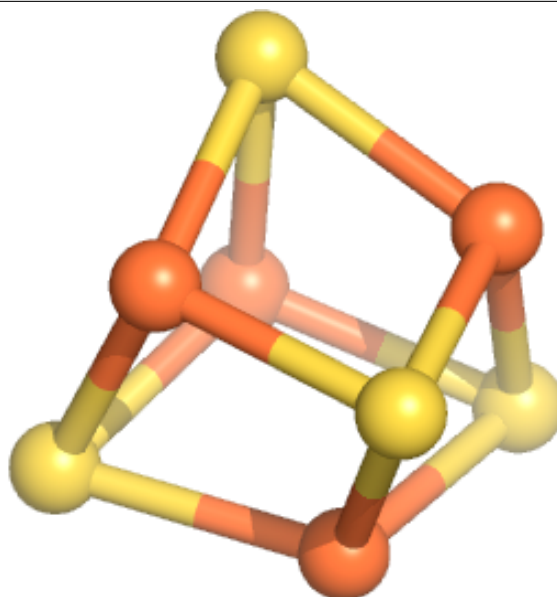
Electron density around SF4 H 4402:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



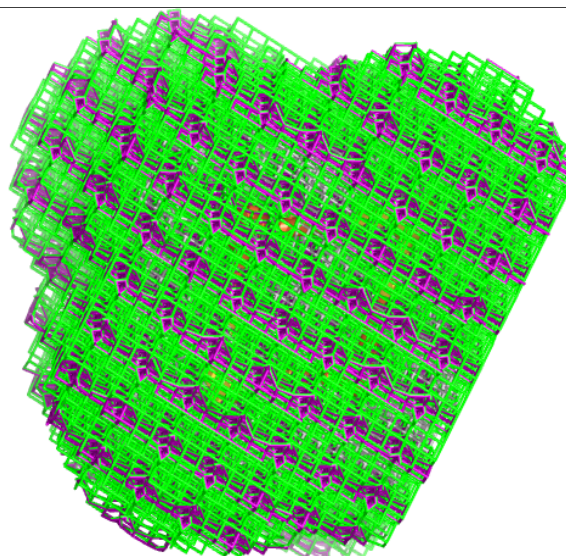
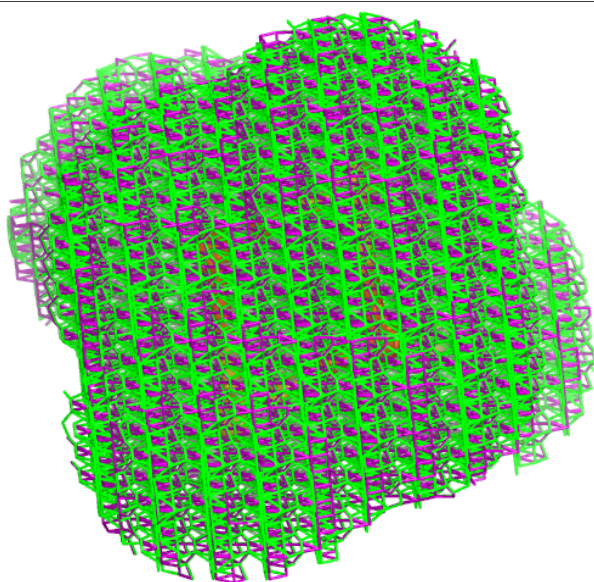
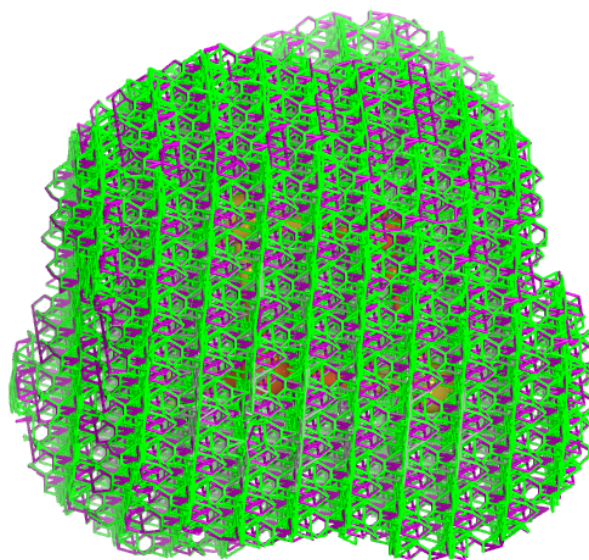
Electron density around SF4 H 4403:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



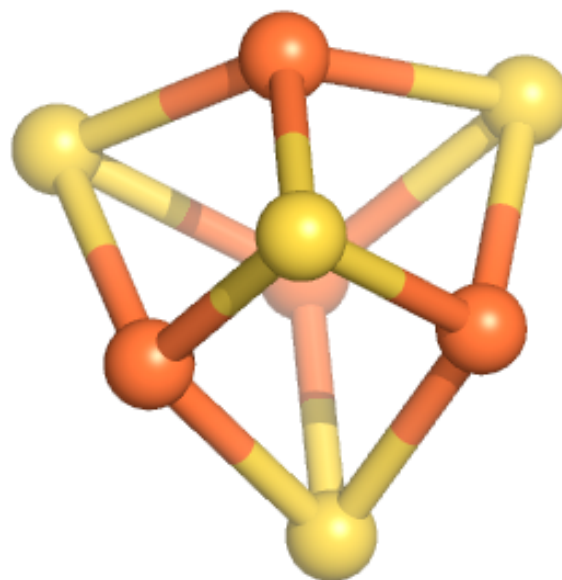
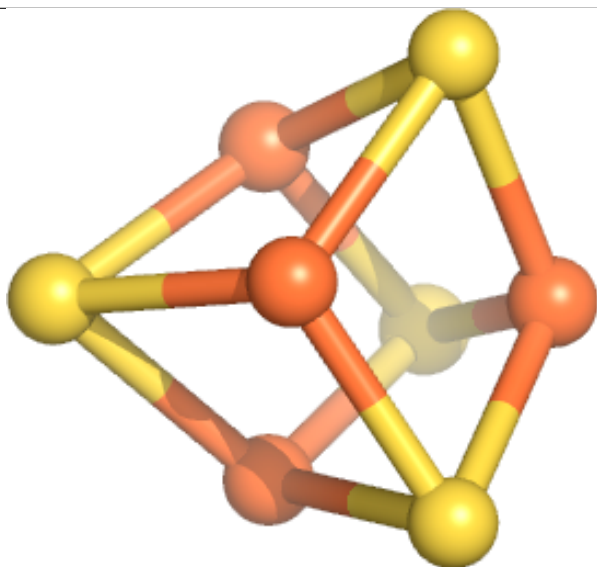
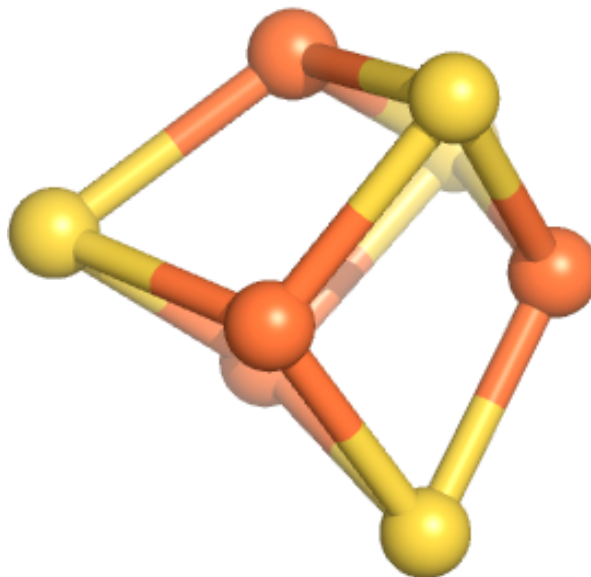
Electron density around SF4 H 4404:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



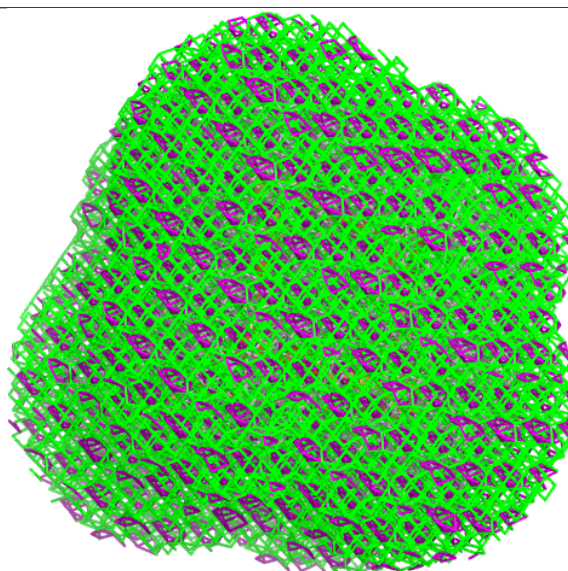
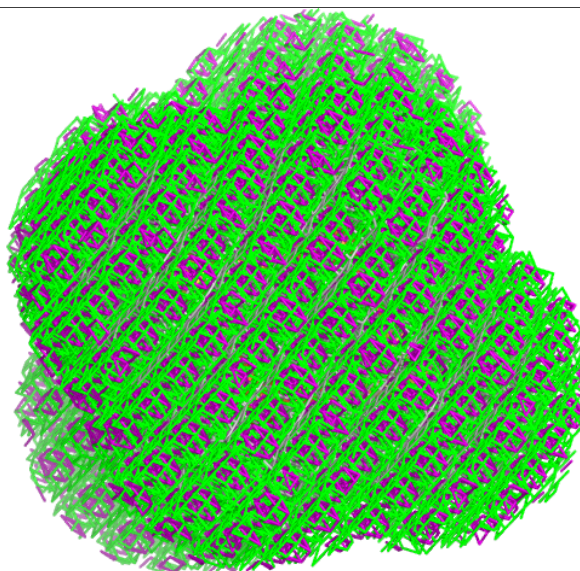
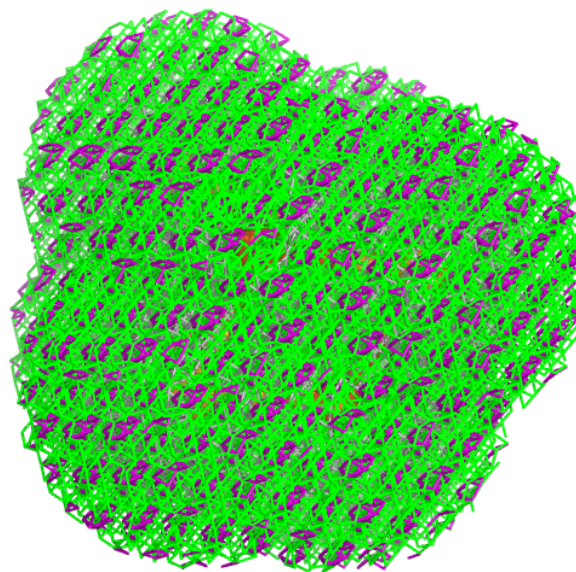
Electron density around SF4 H 4408:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



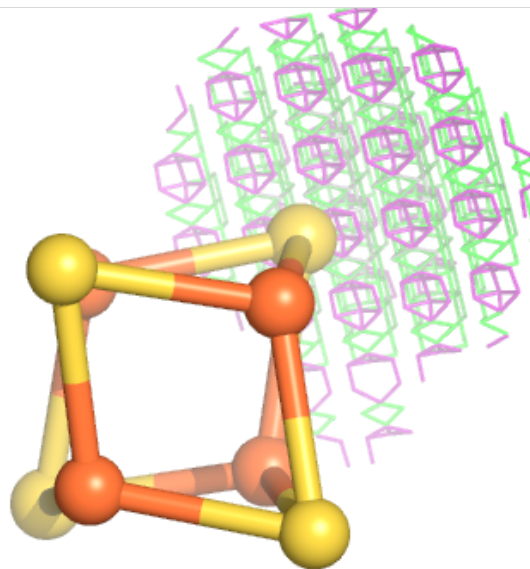
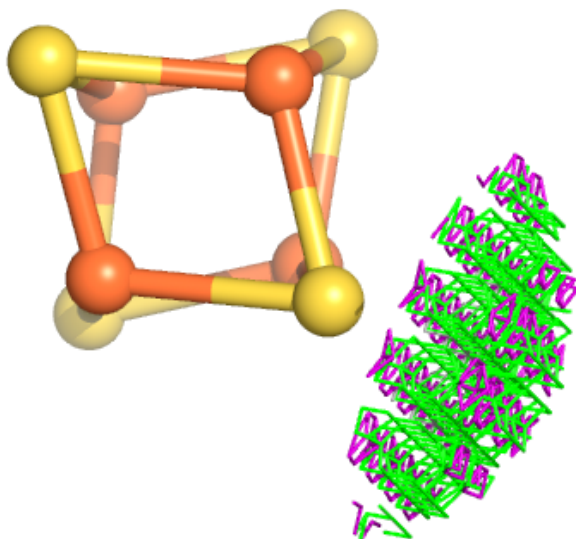
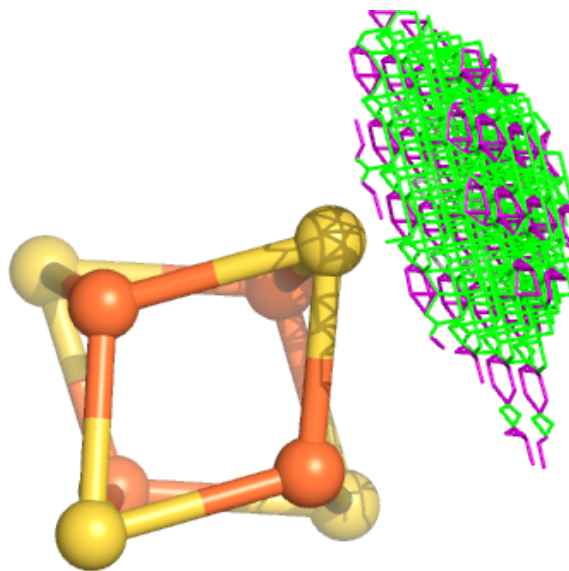
Electron density around SF4 I 1101:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



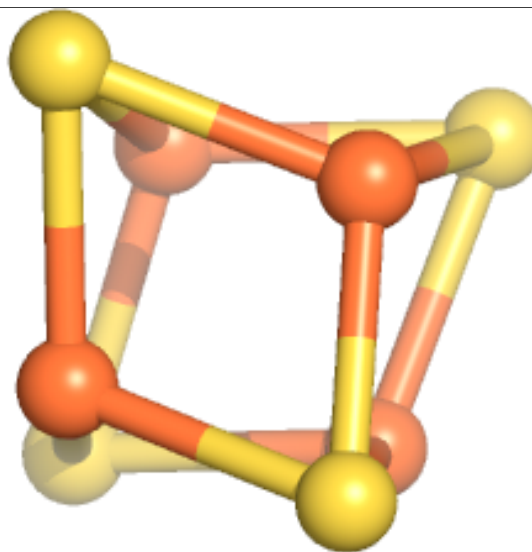
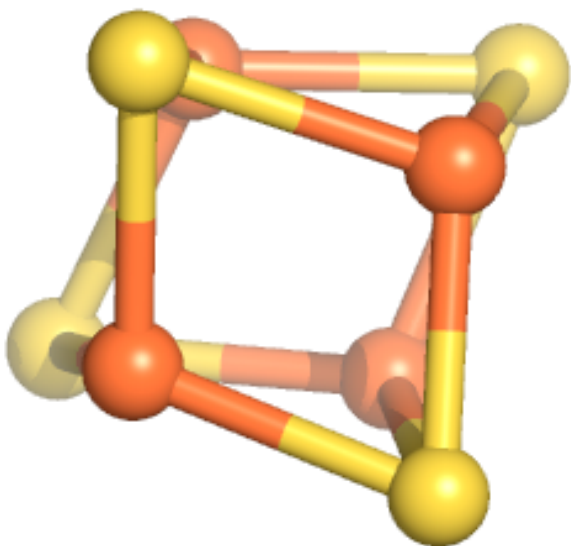
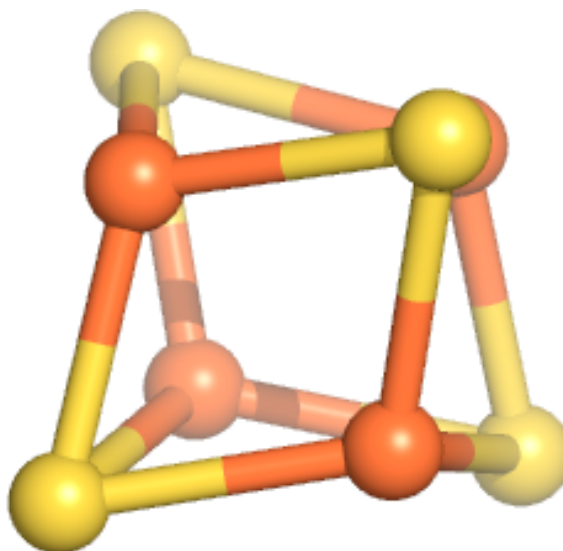
Electron density around SF4 I 1103:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



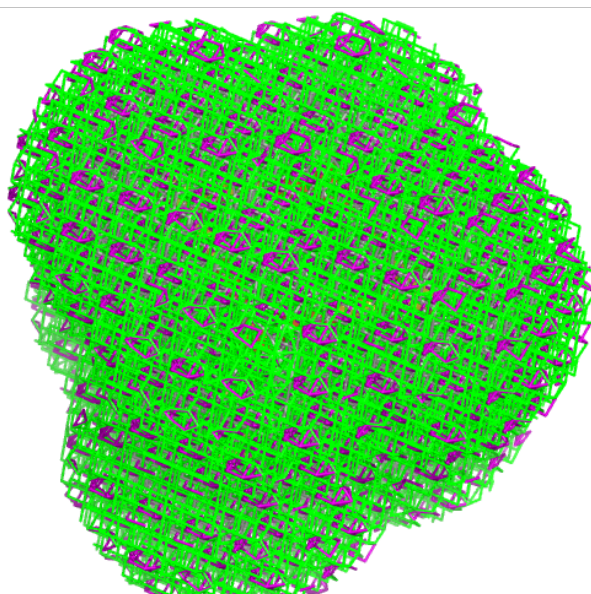
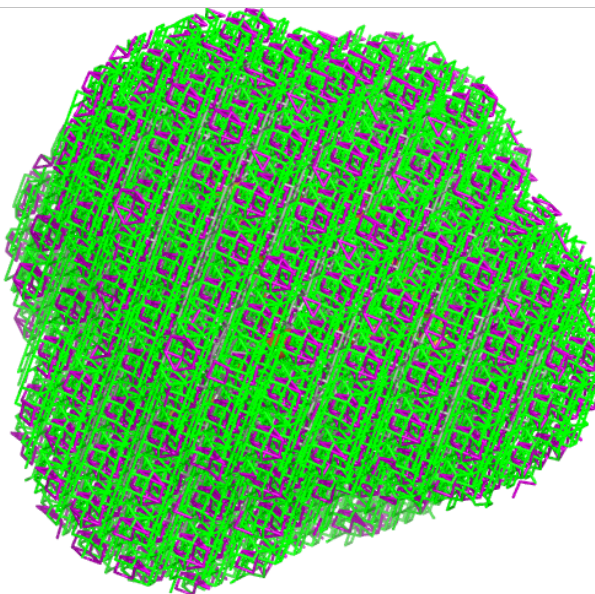
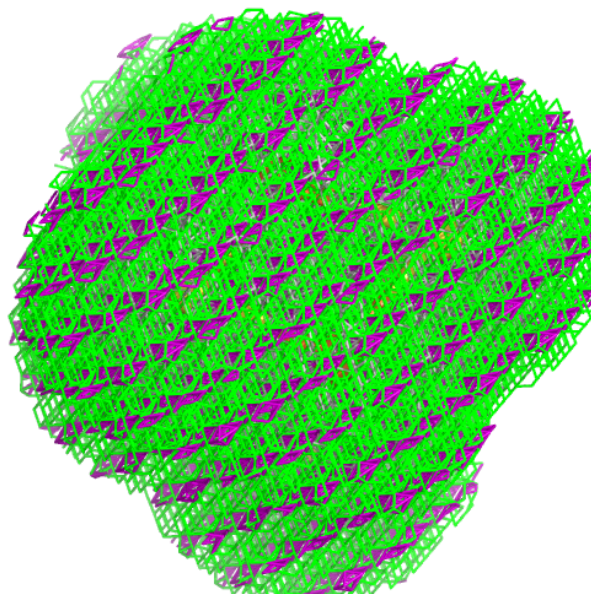
Electron density around SF4 I 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



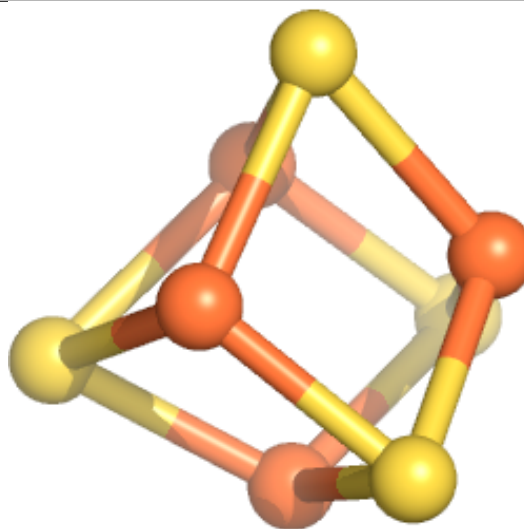
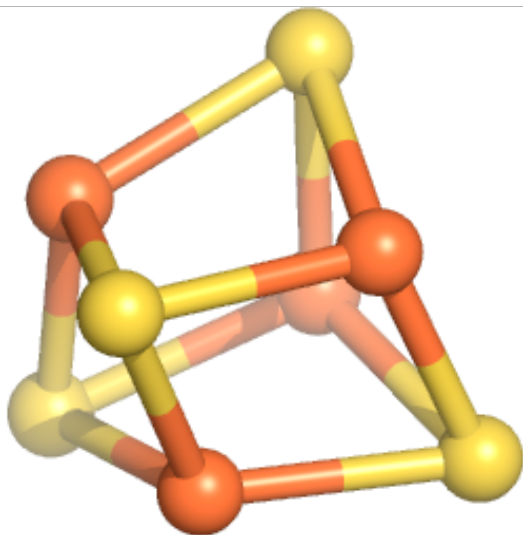
Electron density around SF4 I 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



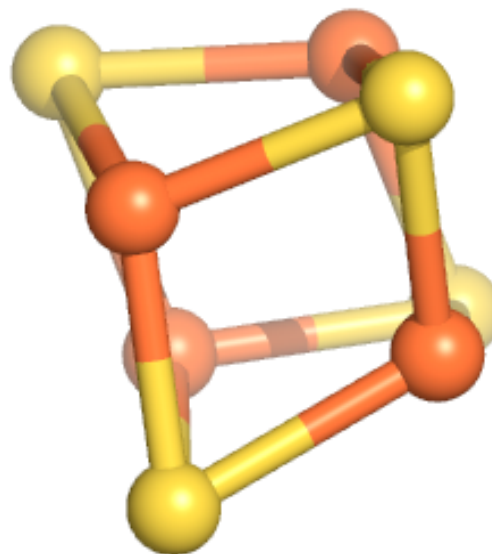
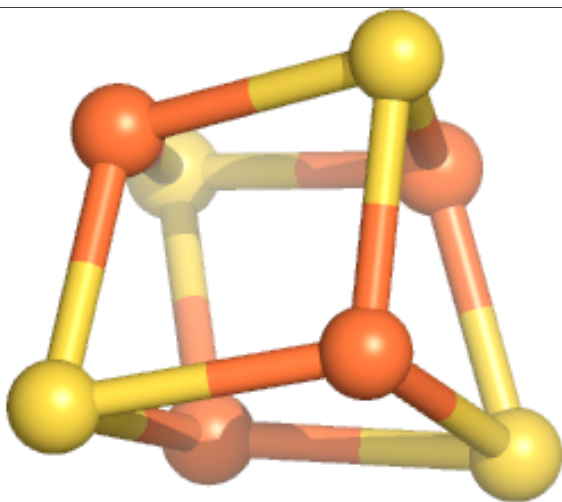
Electron density around SF4 J 1101:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



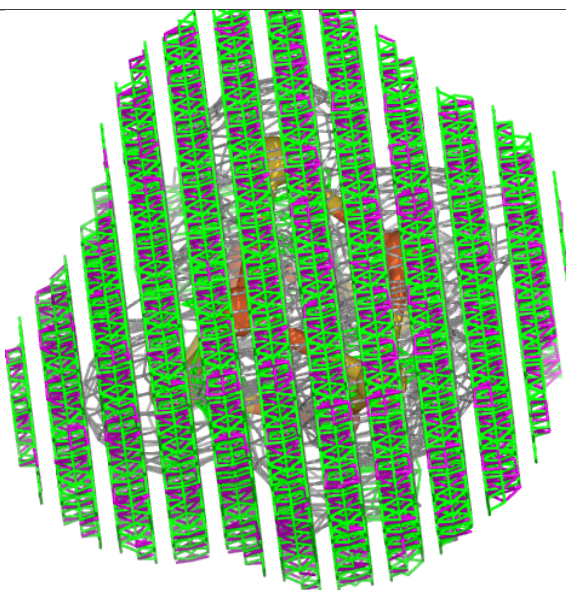
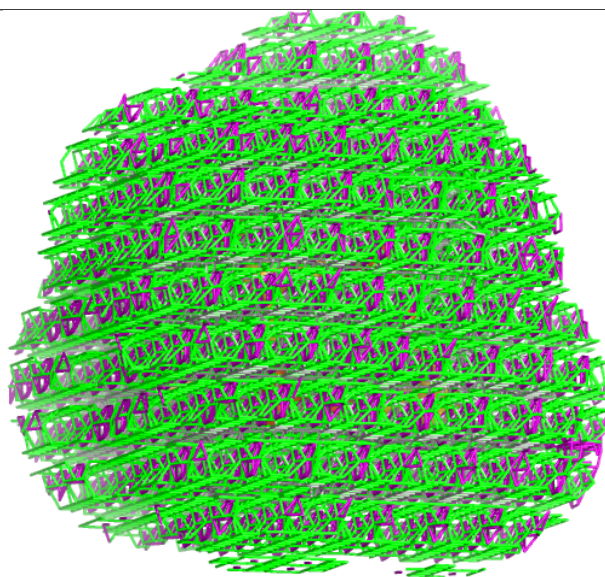
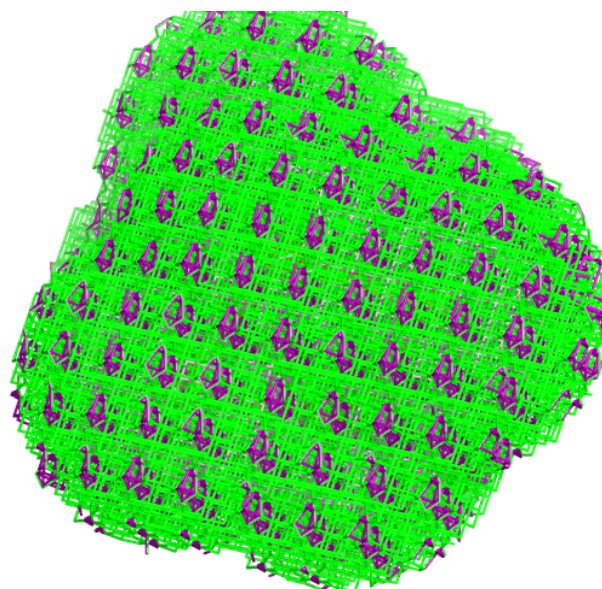
Electron density around SF4 J 1102:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



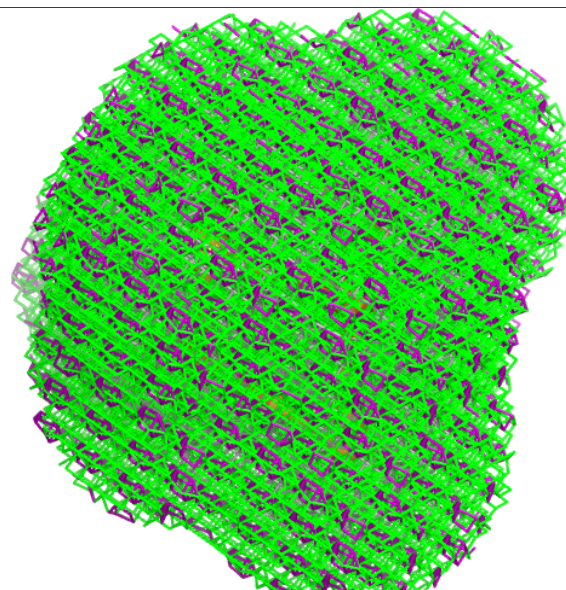
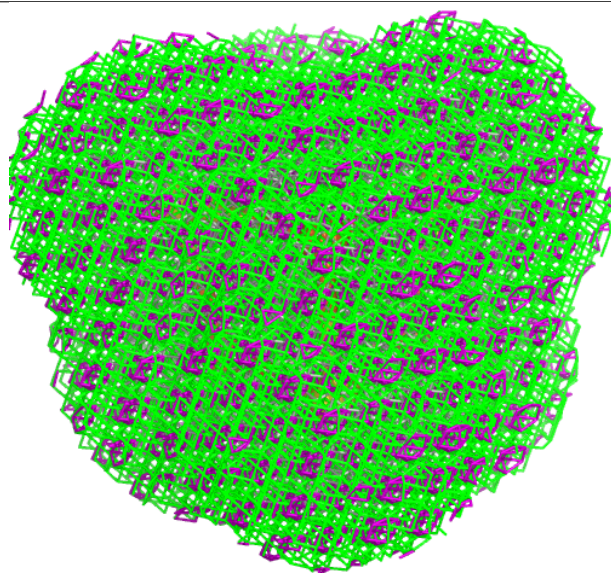
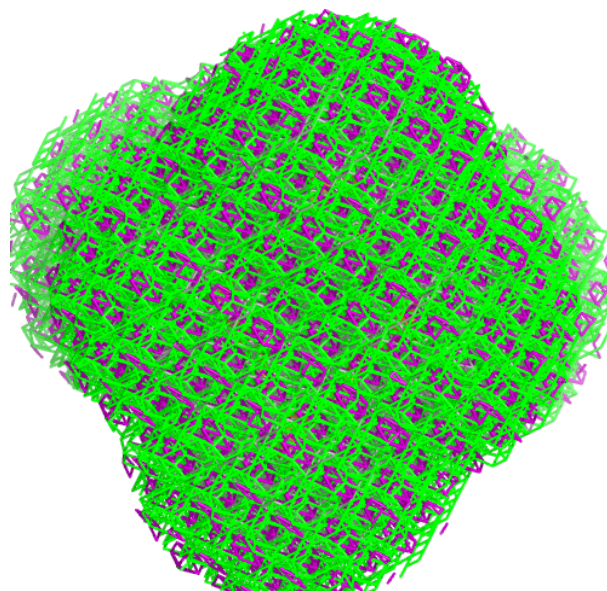
Electron density around SF4 J 1103:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



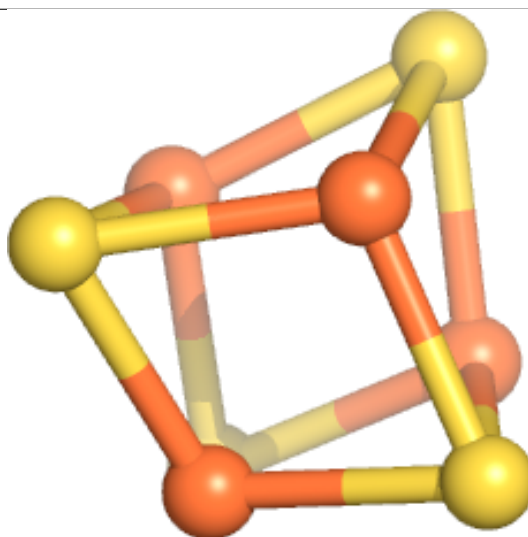
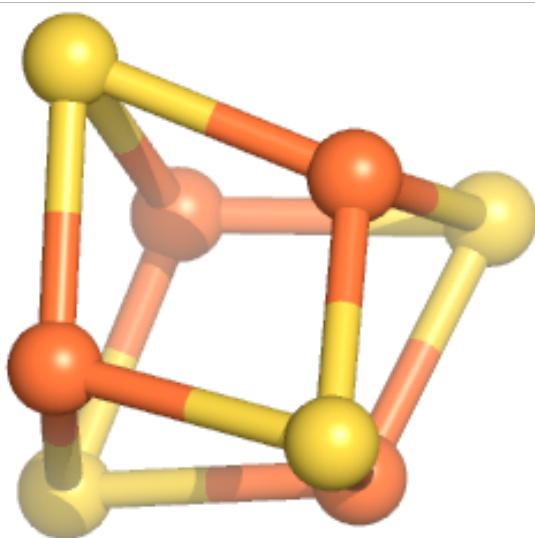
Electron density around SF4 J 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



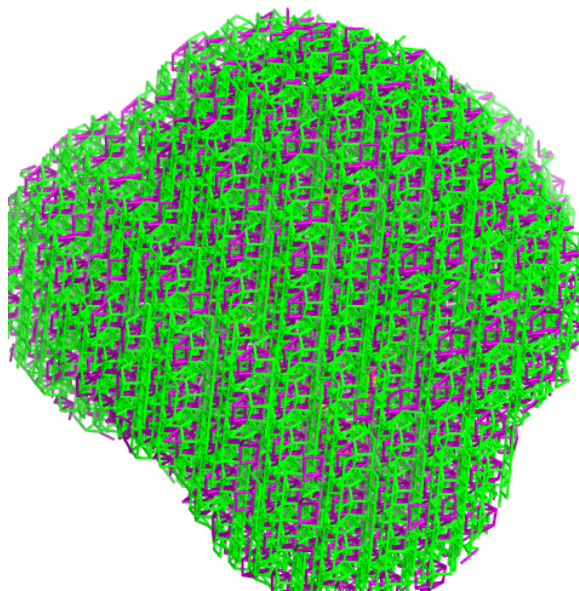
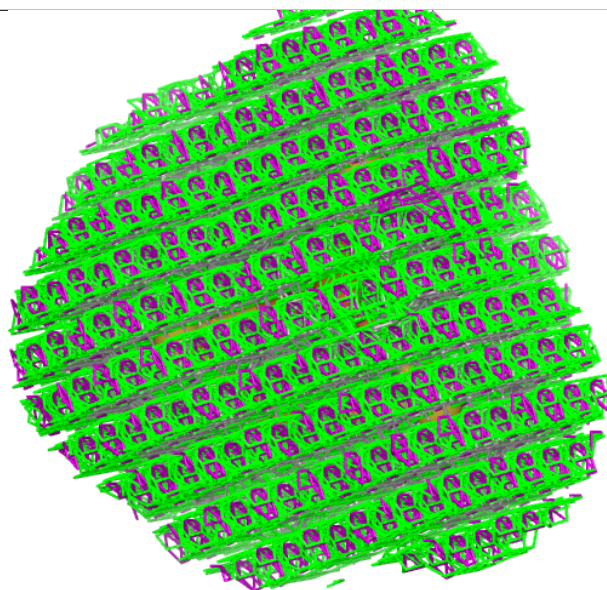
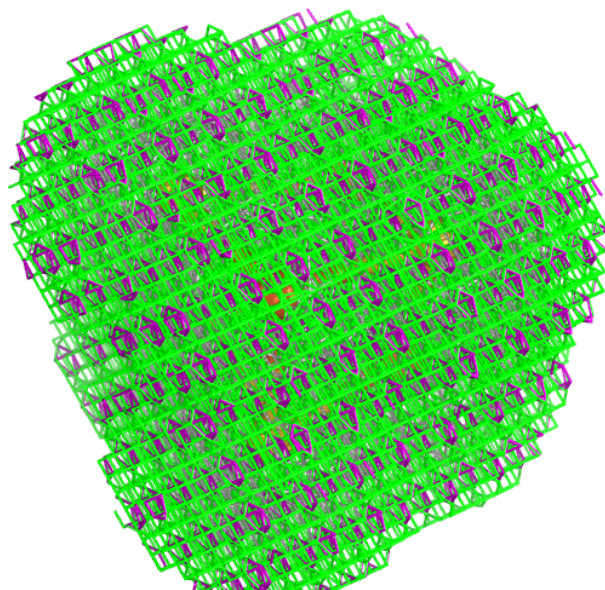
Electron density around SF4 J 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



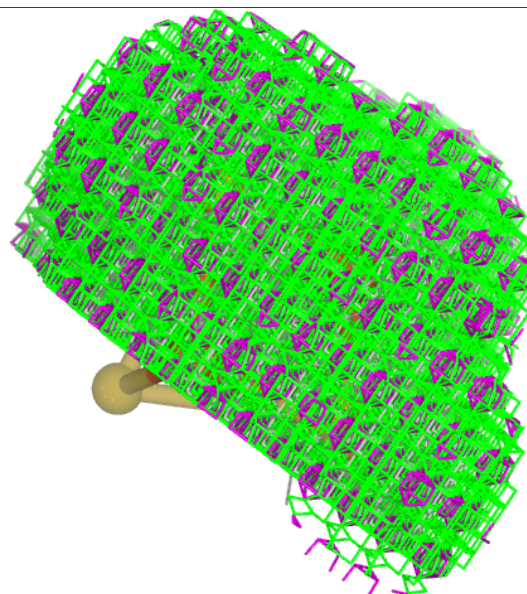
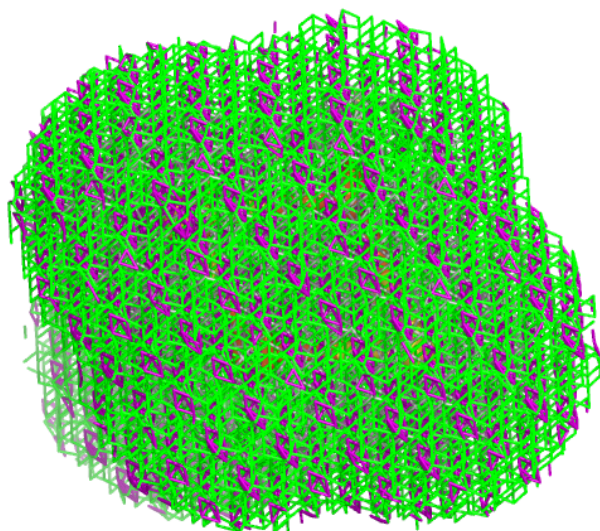
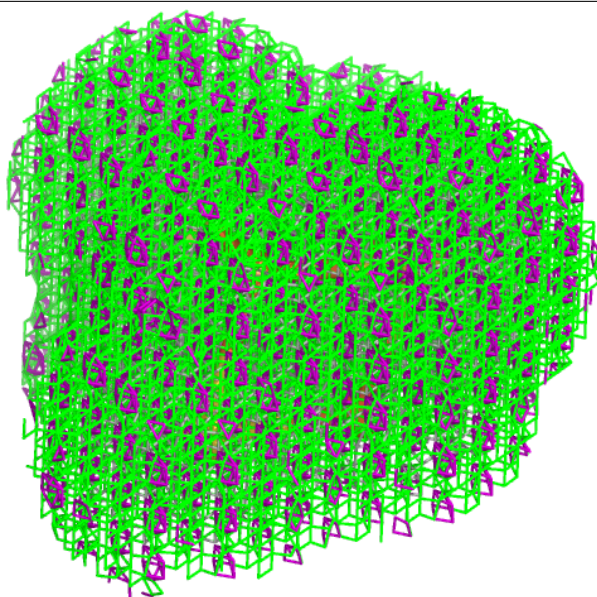
Electron density around SF4 K 1102:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



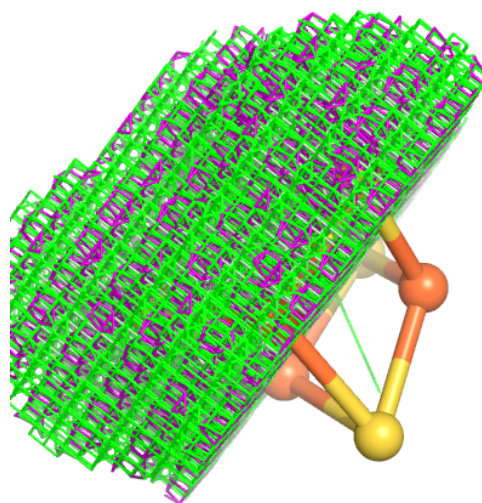
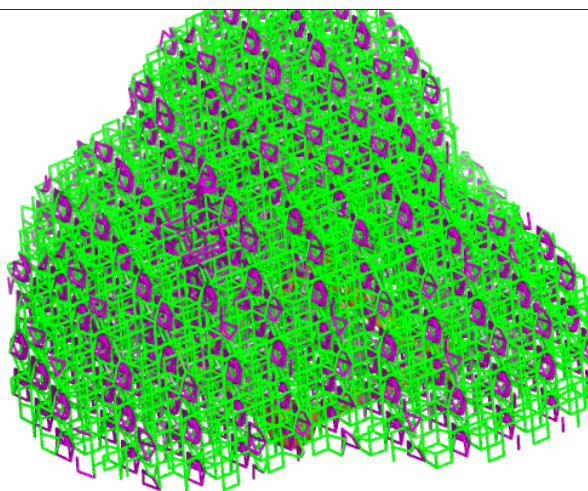
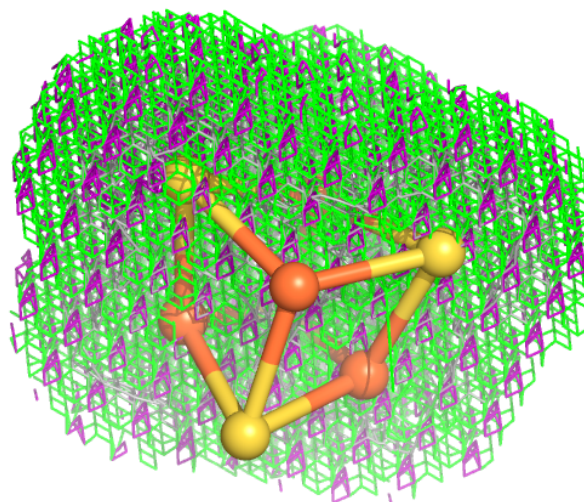
Electron density around SF4 K 1103:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



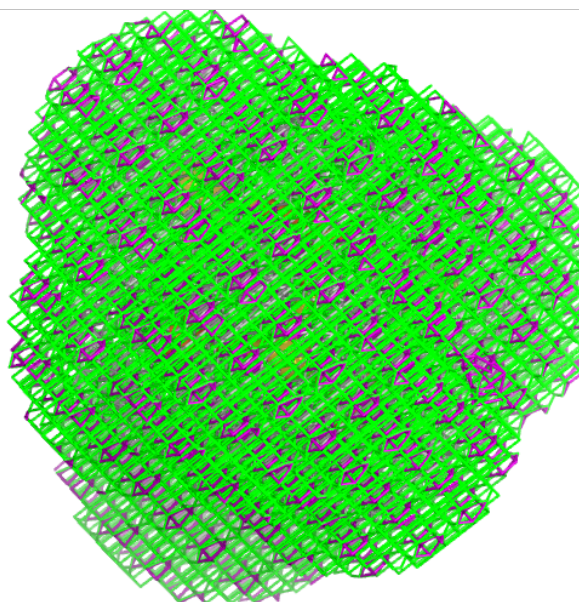
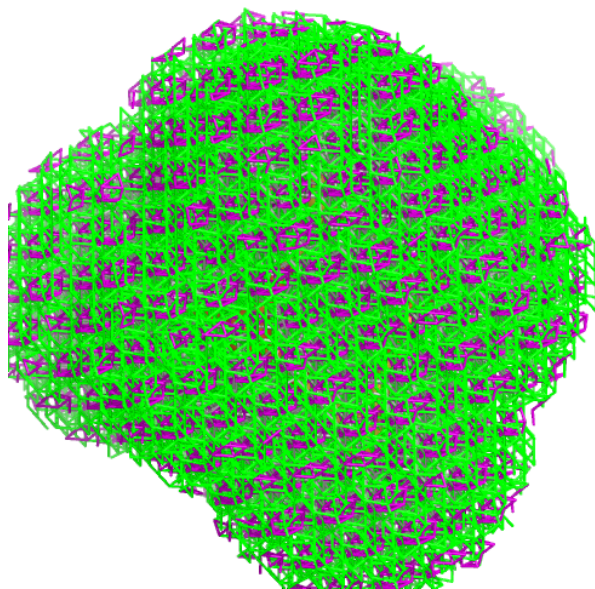
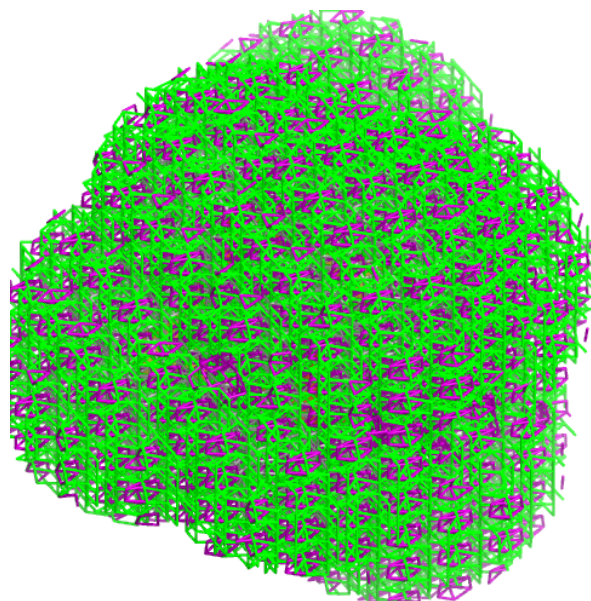
Electron density around SF4 K 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



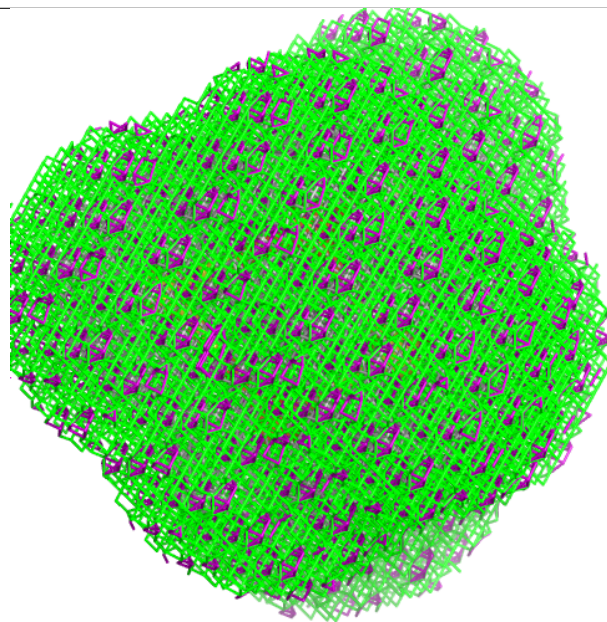
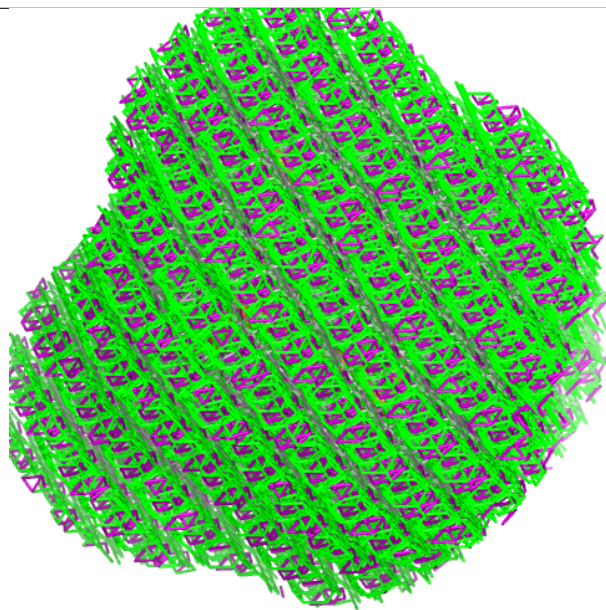
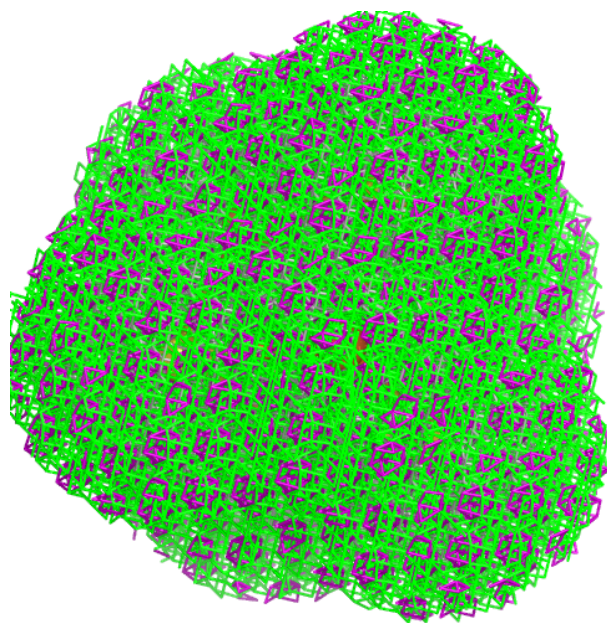
Electron density around SF4 K 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



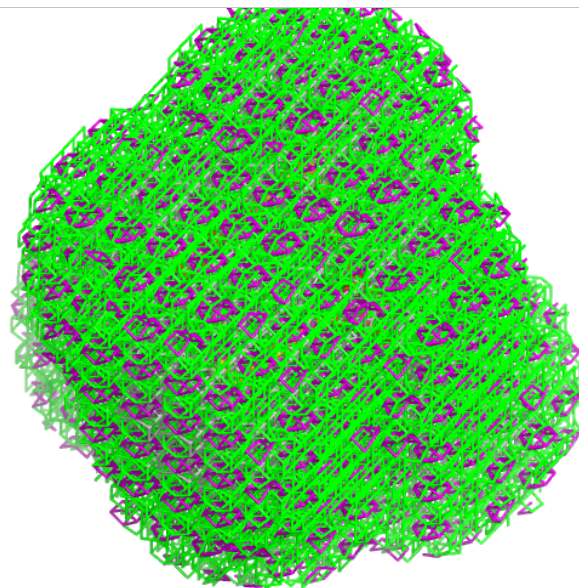
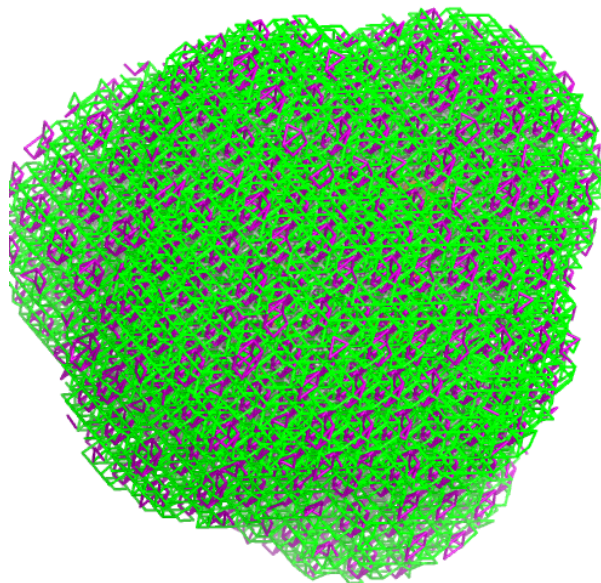
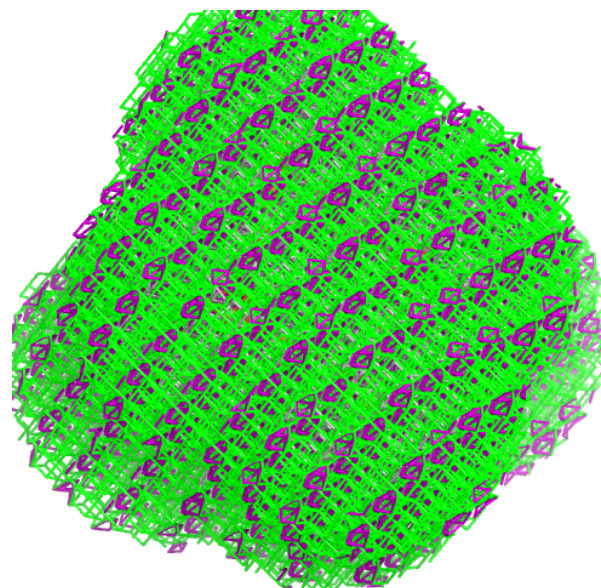
Electron density around SF4 L 1101:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



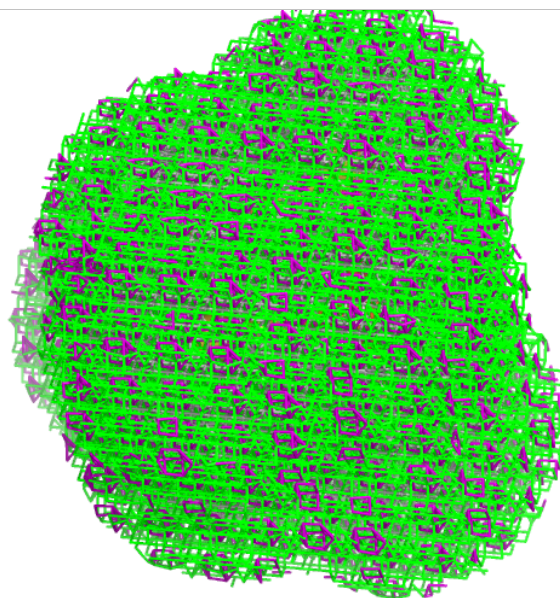
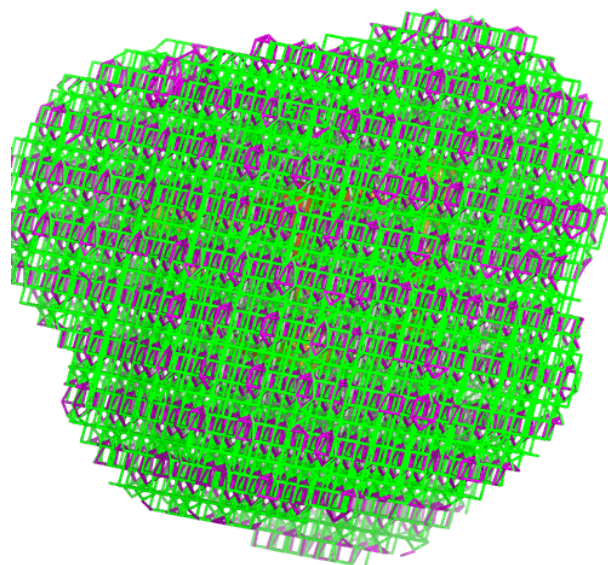
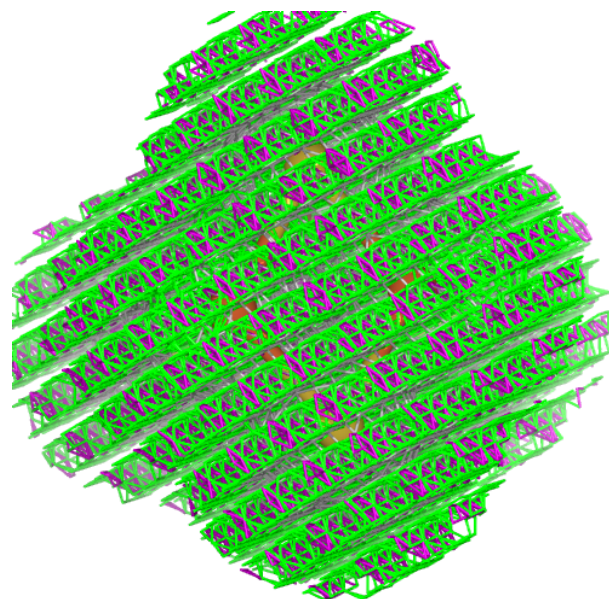
Electron density around SF4 L 1102:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



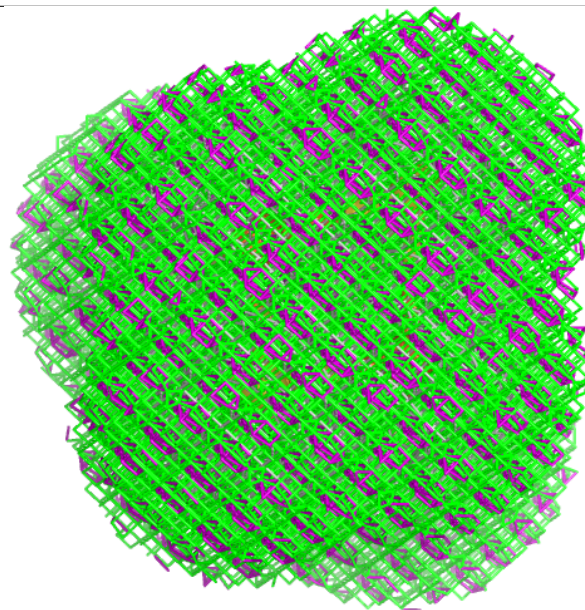
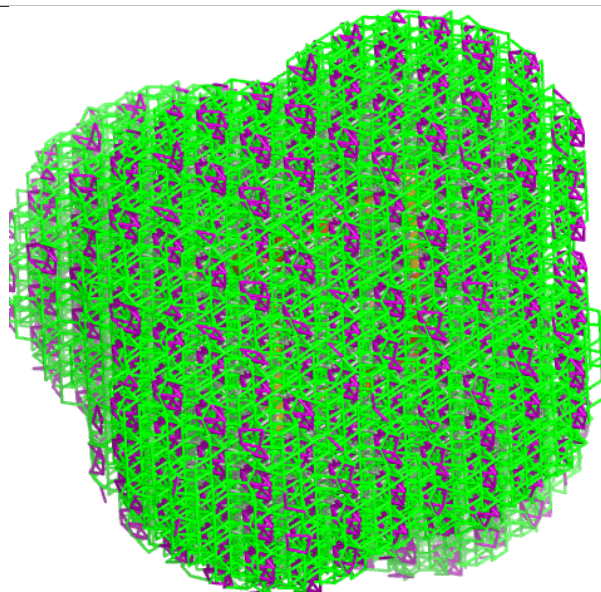
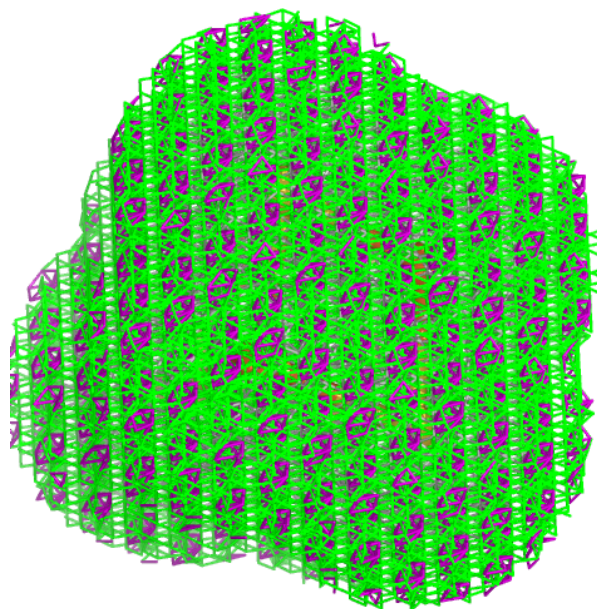
Electron density around SF4 L 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



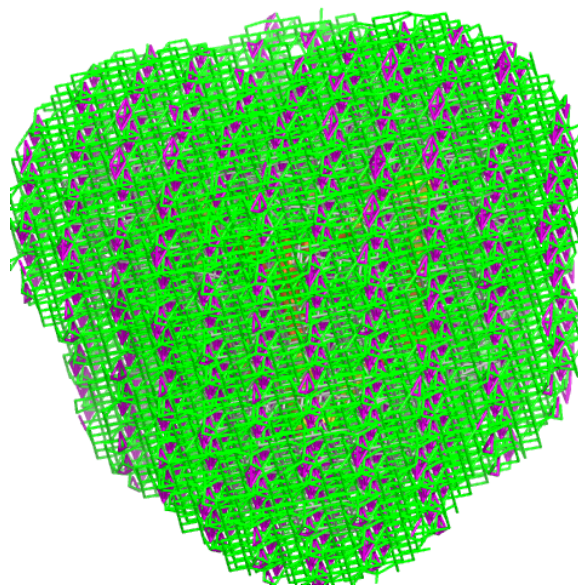
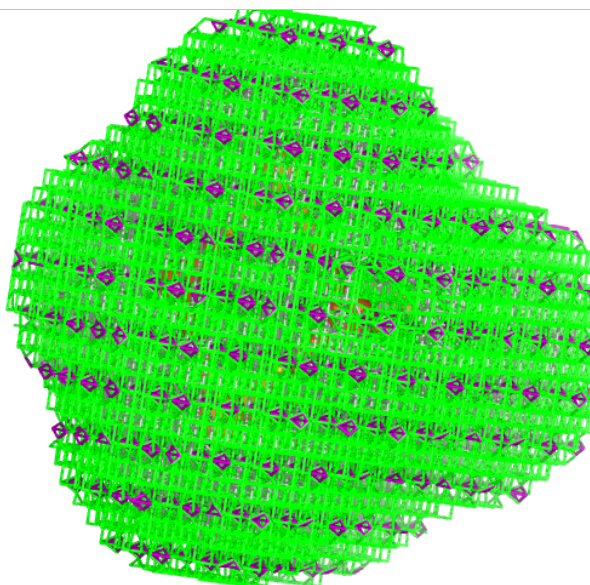
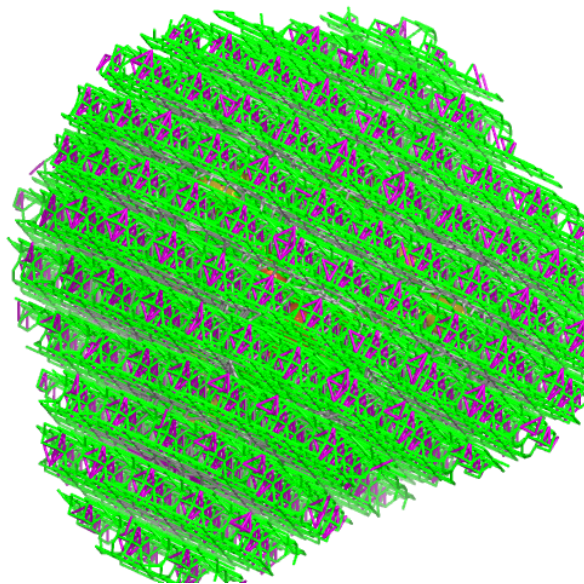
Electron density around SF4 L 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



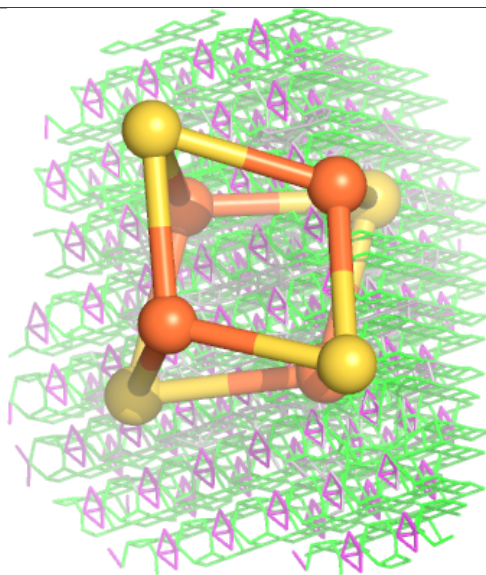
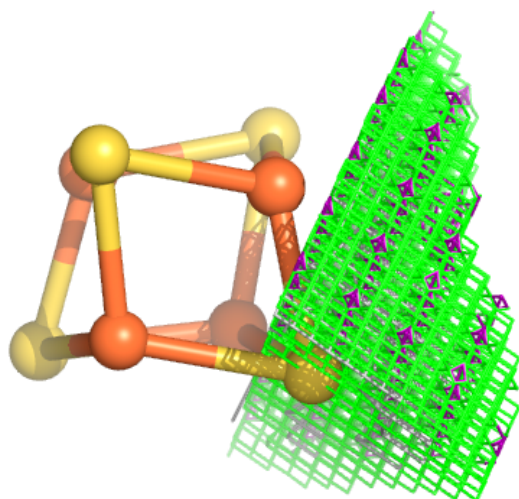
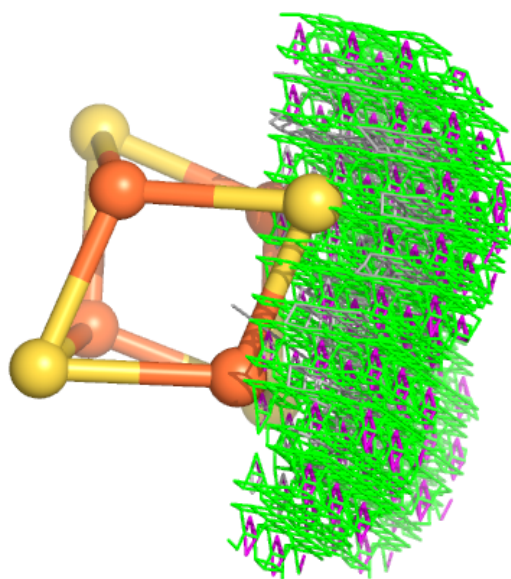
Electron density around SF4 M 1101:

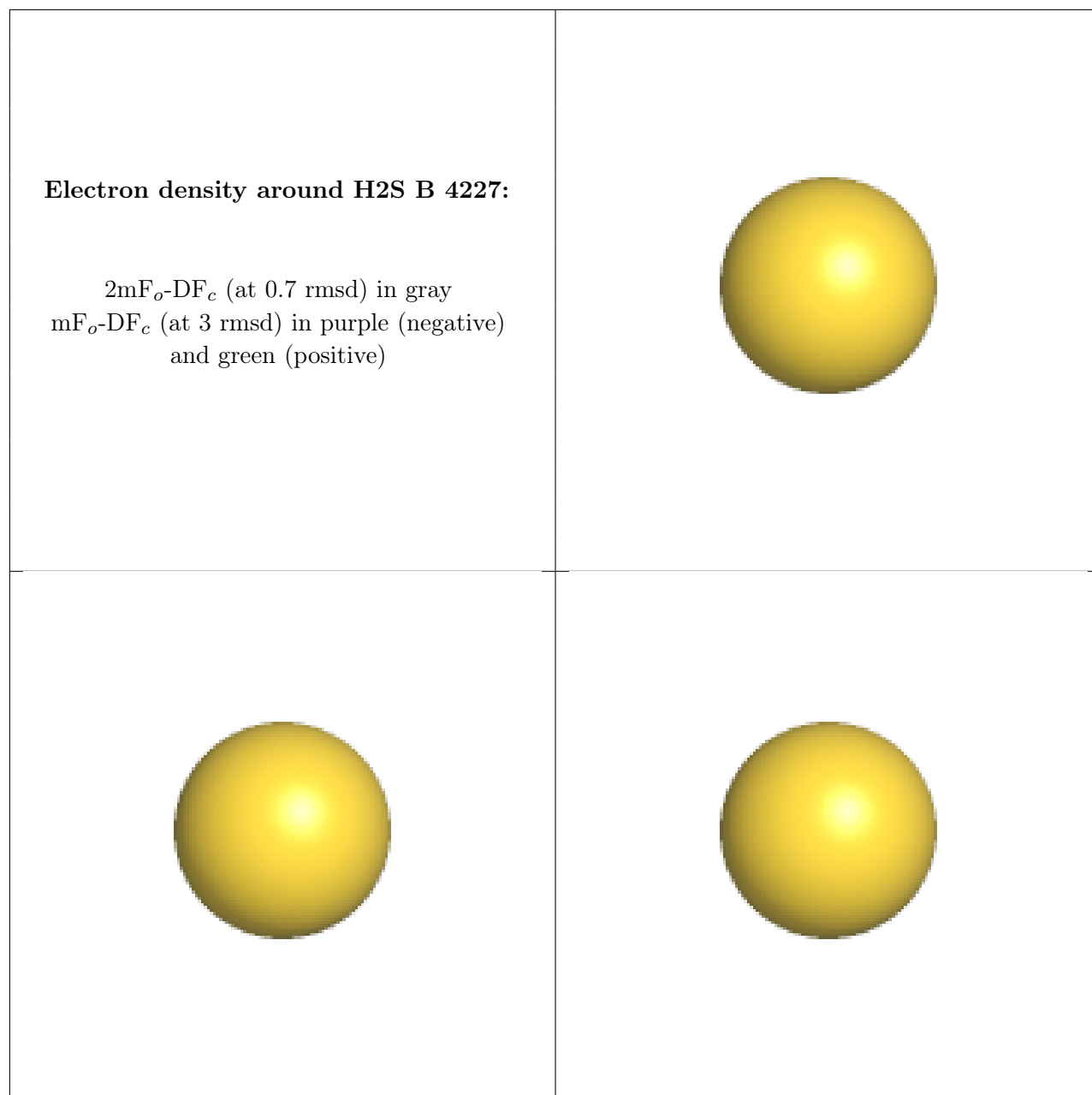
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around SF4 M 1103:

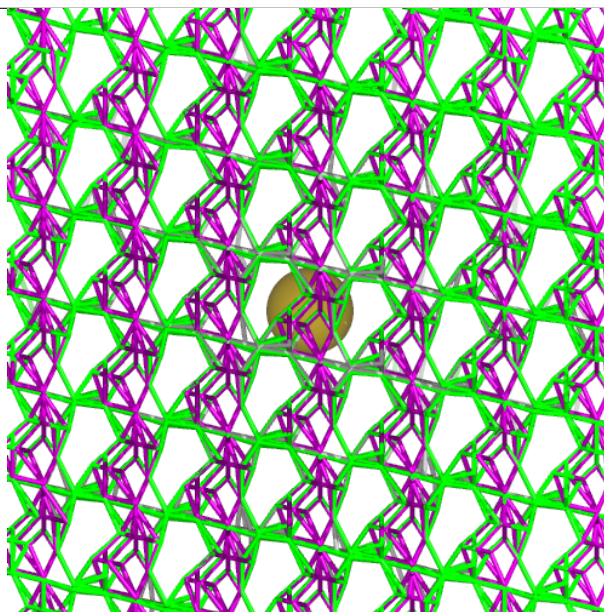
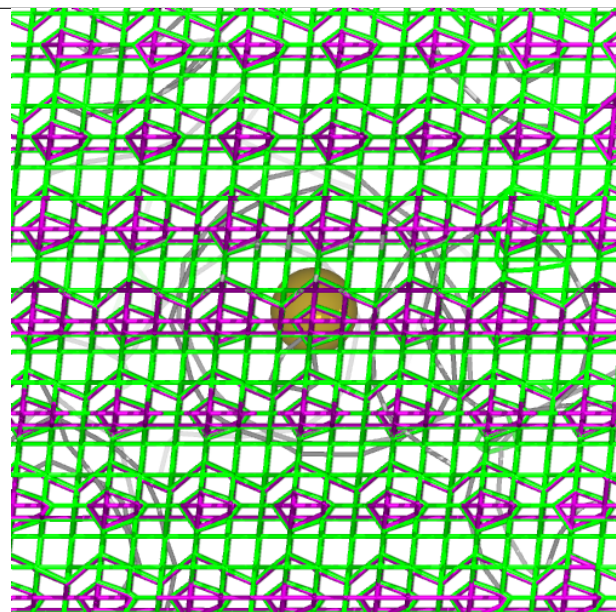
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





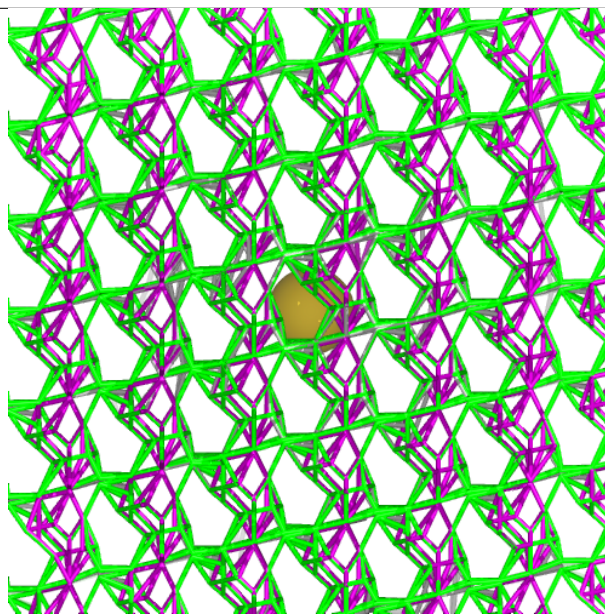
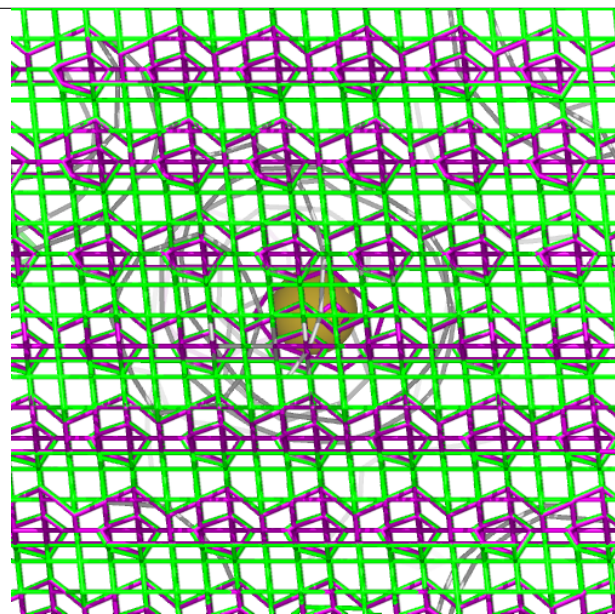
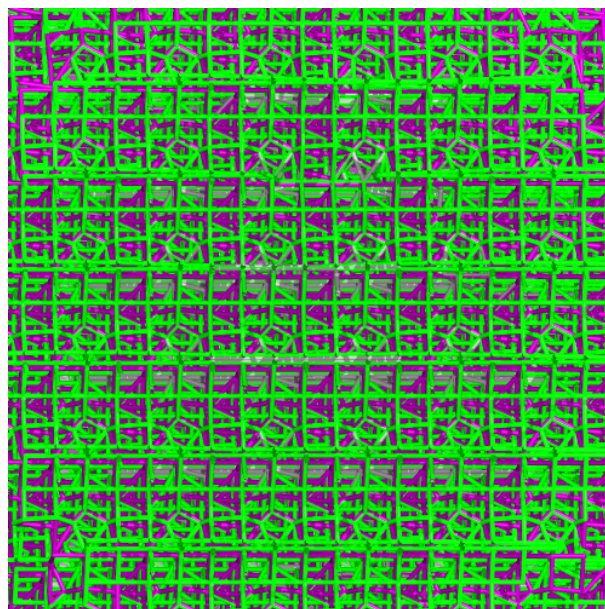
Electron density around H2S C 3920:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



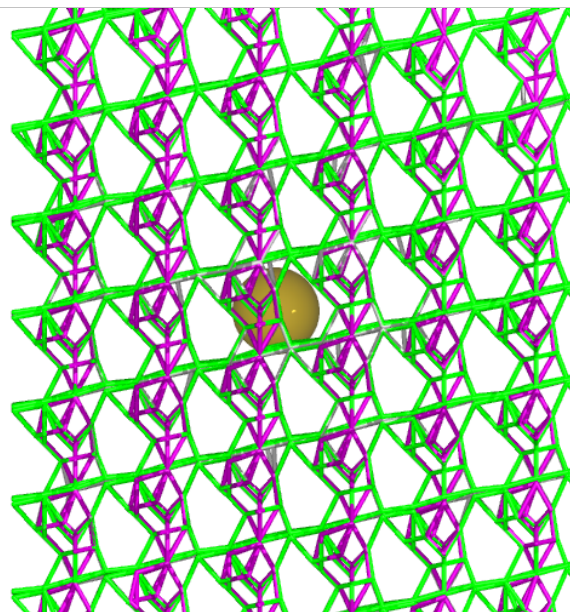
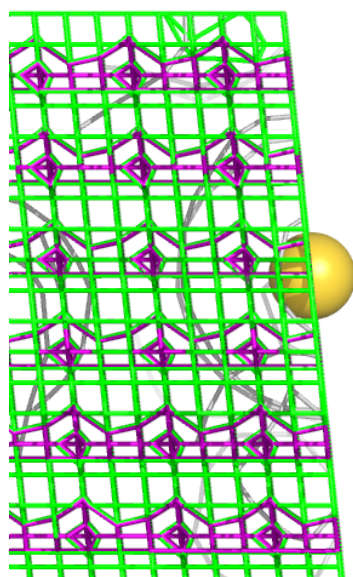
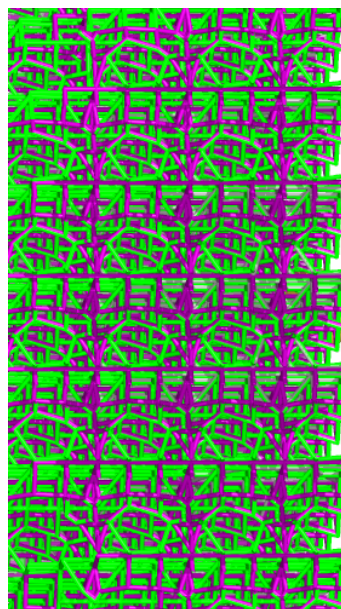
Electron density around H2S D 4622:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



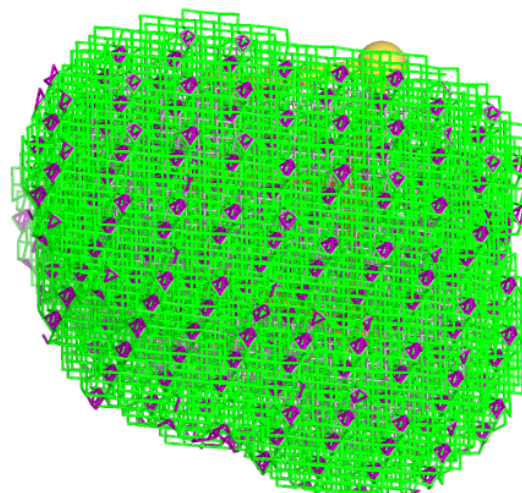
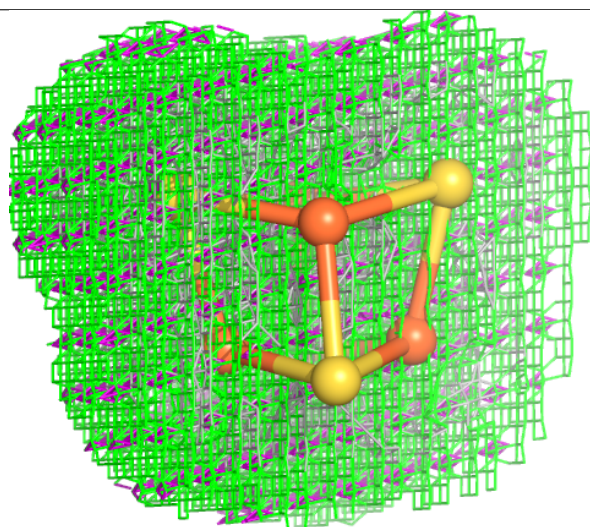
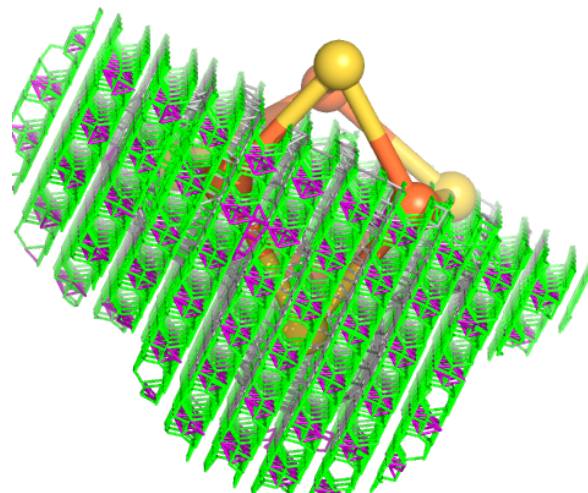
Electron density around H2S E 1119:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



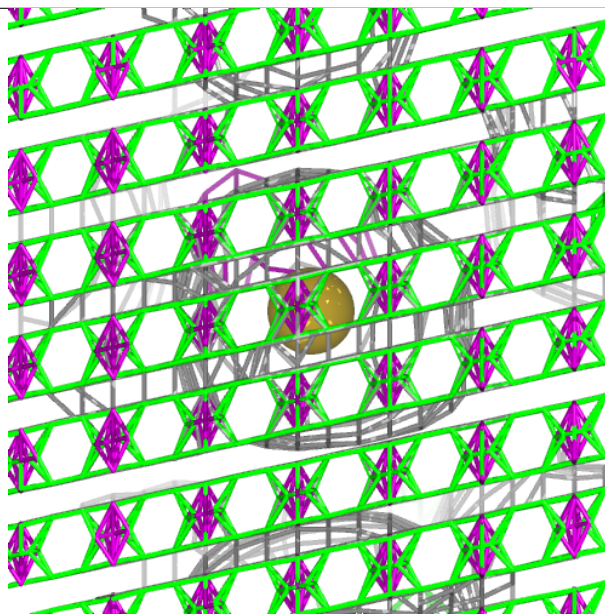
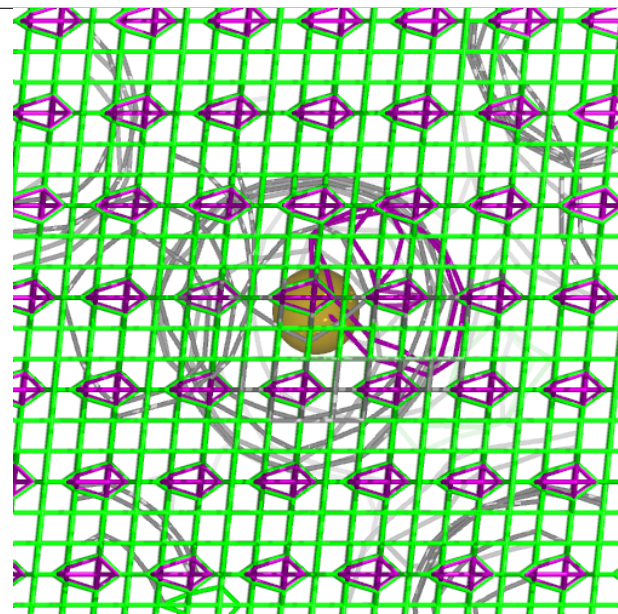
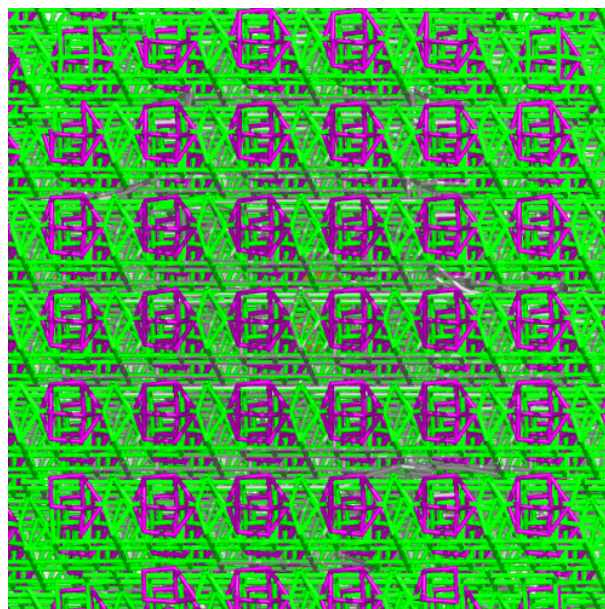
Electron density around SF4 M 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



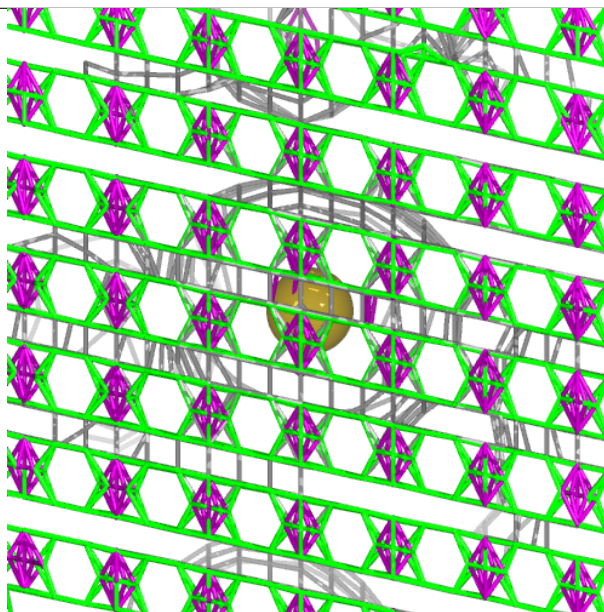
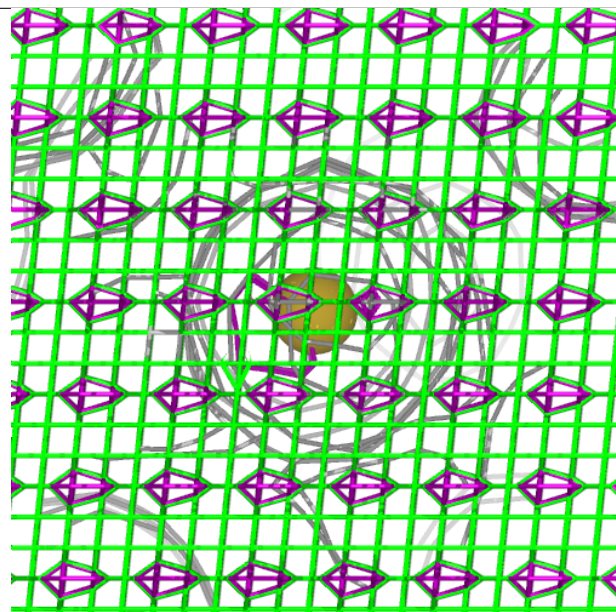
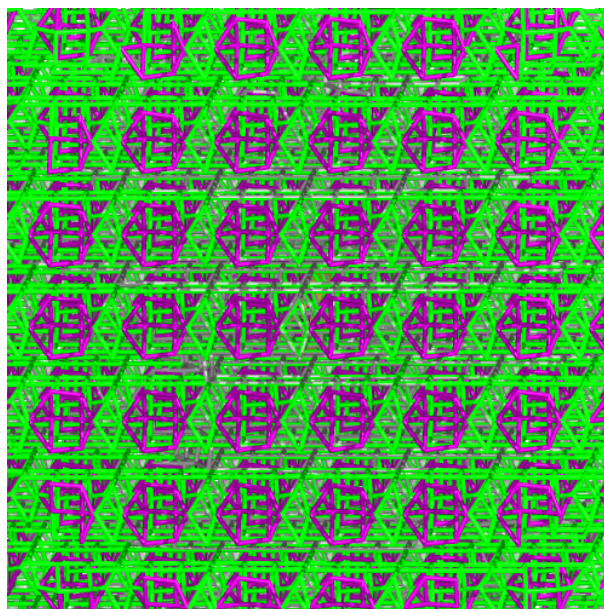
Electron density around H2S K 1120:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



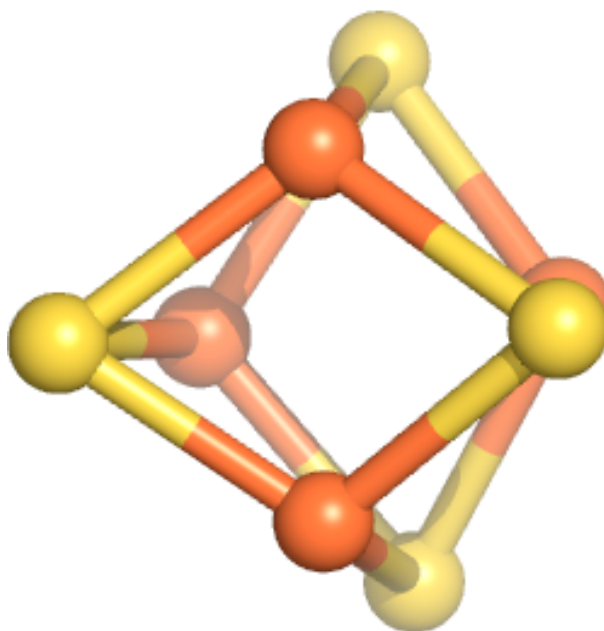
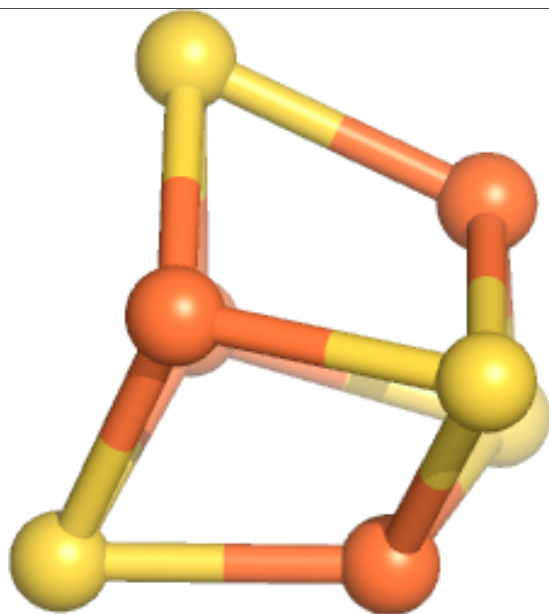
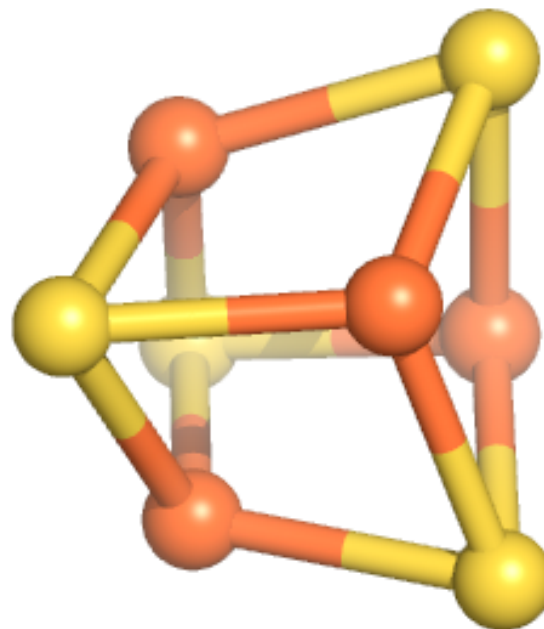
Electron density around H2S L 1116:

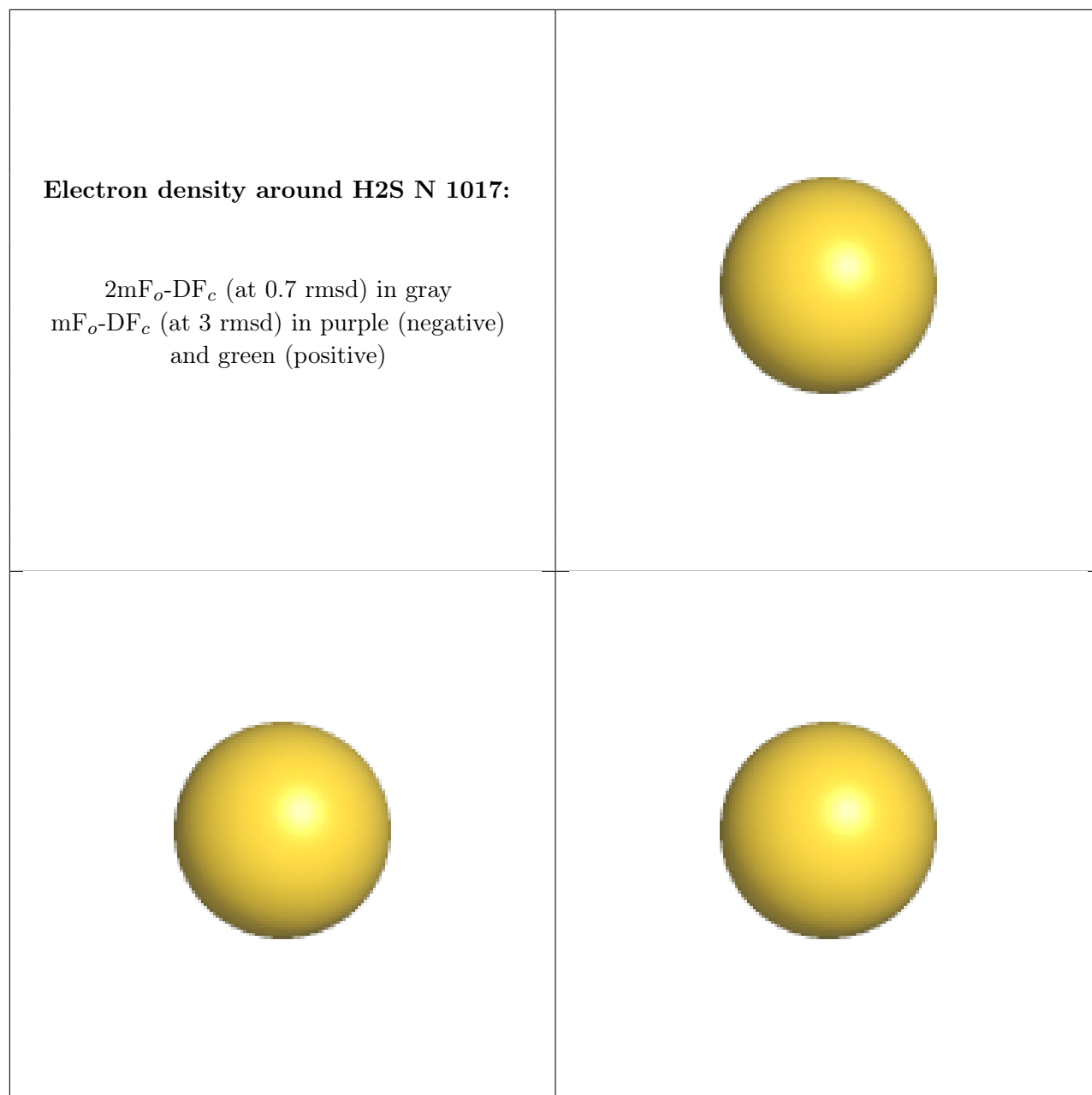
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around SF4 M 1105:

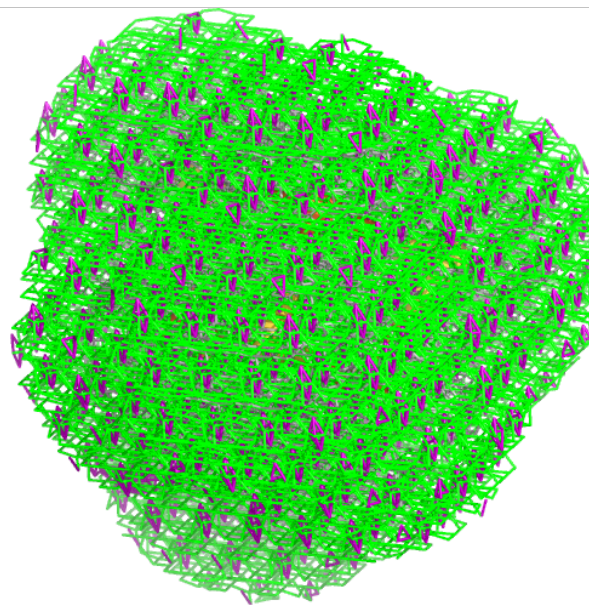
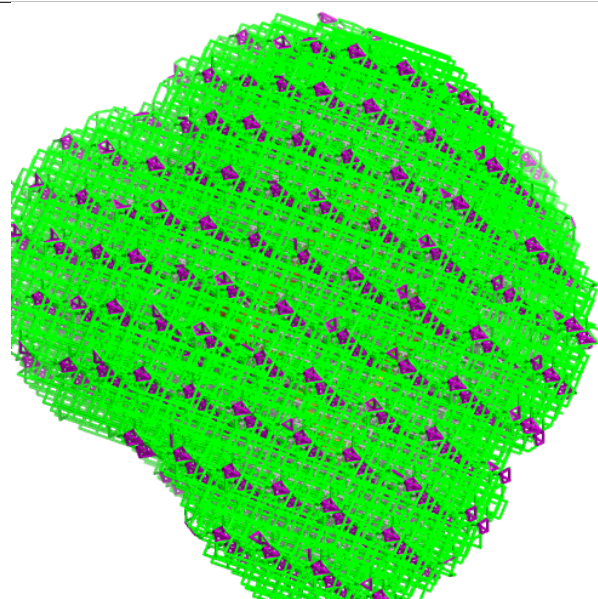
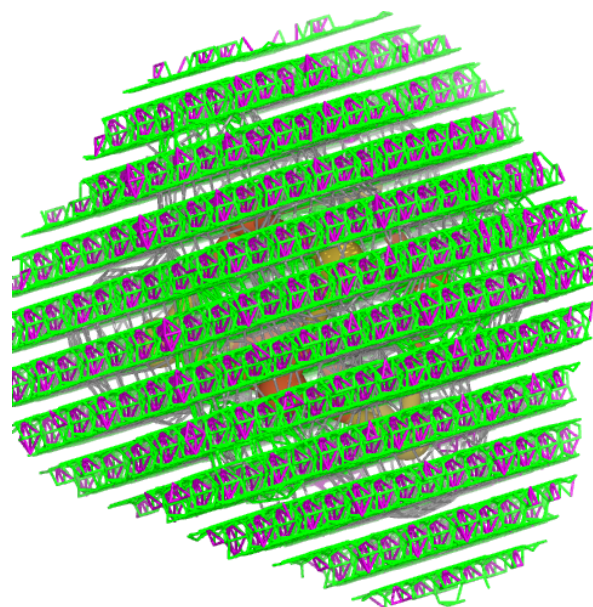
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





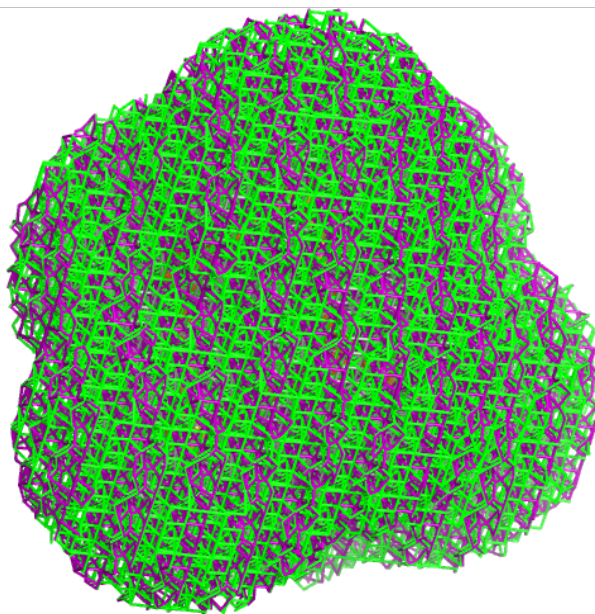
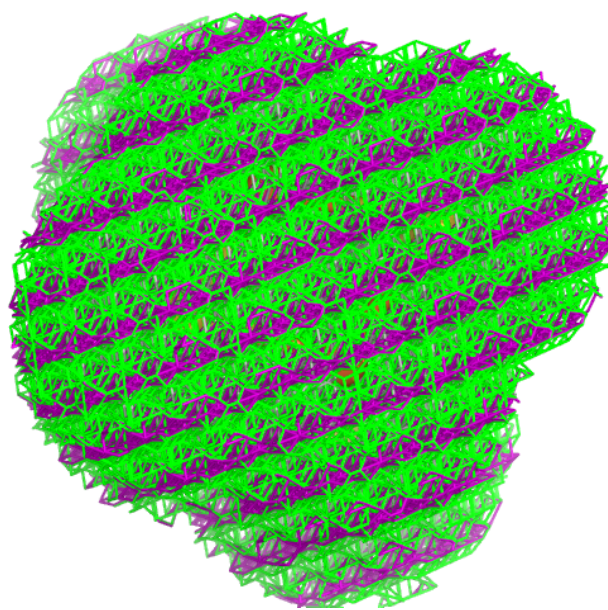
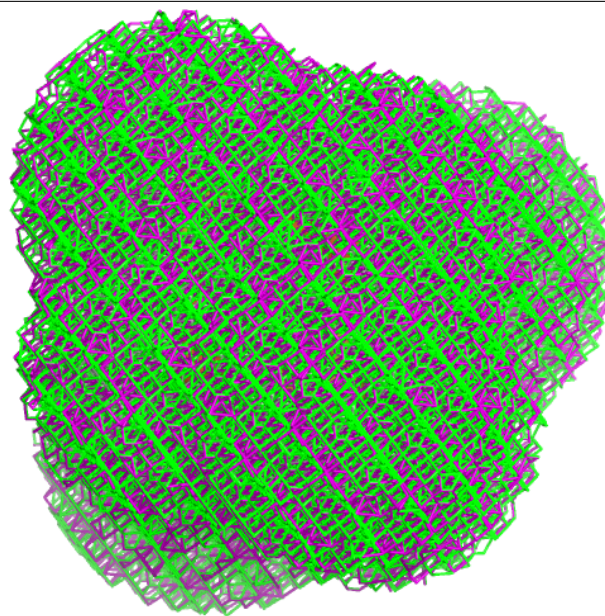
Electron density around SF4 M 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



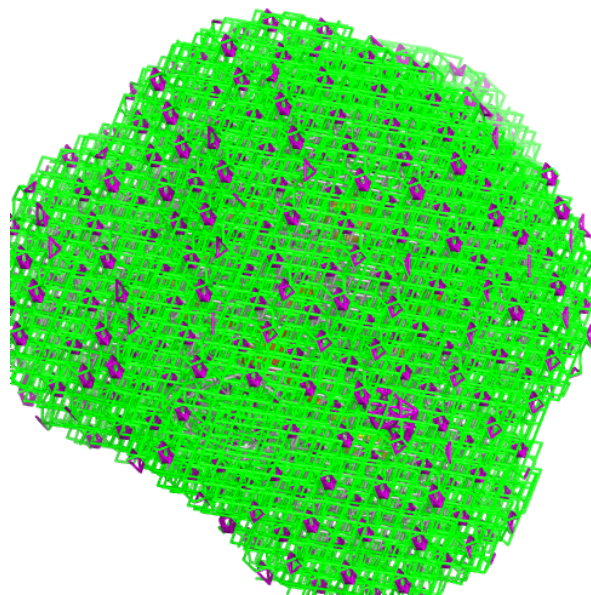
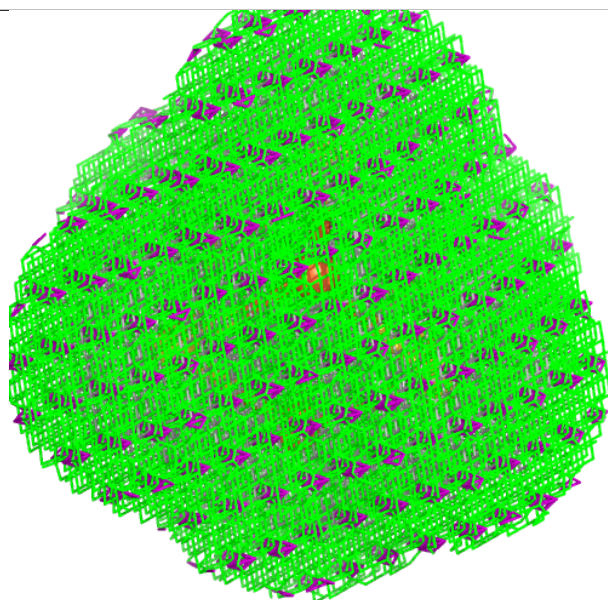
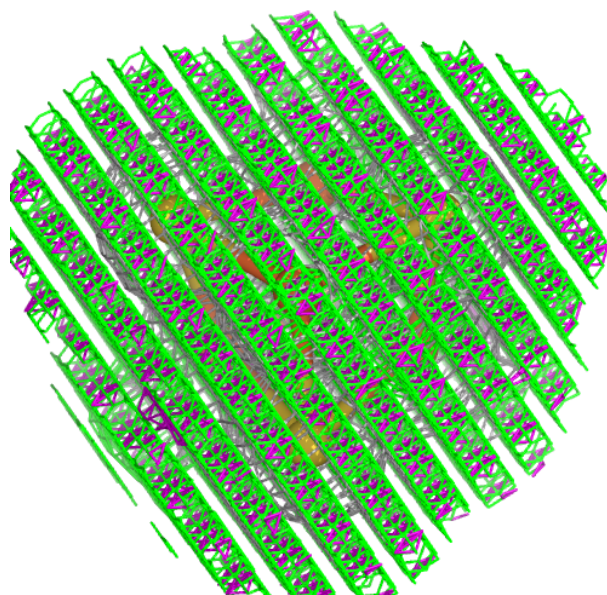
Electron density around SF4 A 1101:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



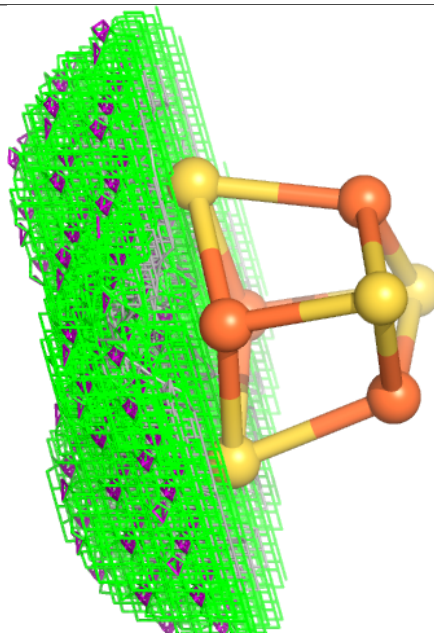
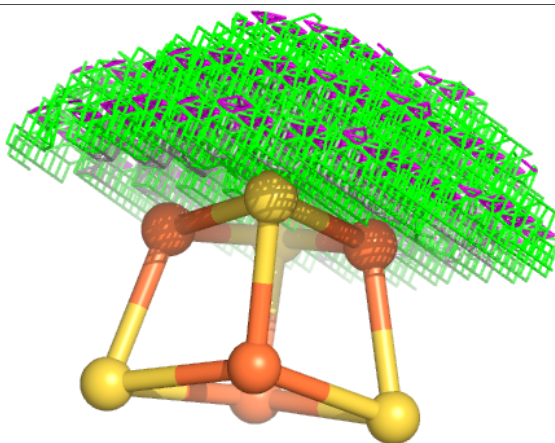
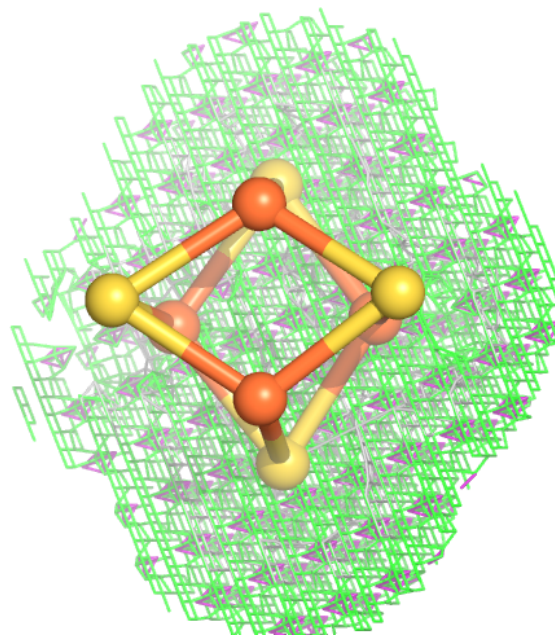
Electron density around SF4 N 1003:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



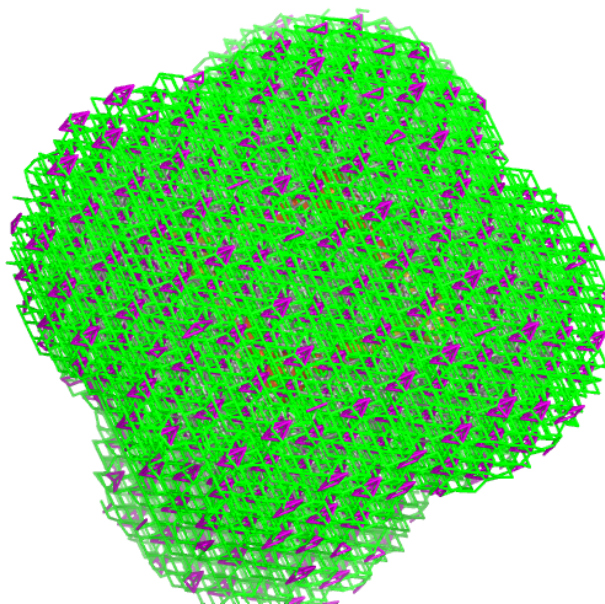
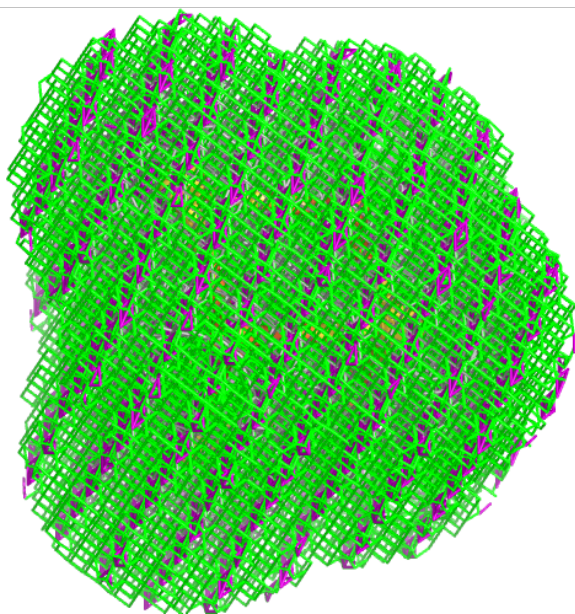
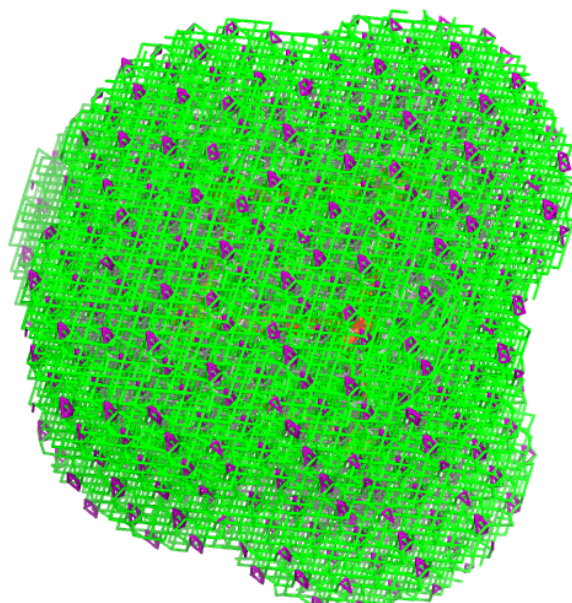
Electron density around SF4 N 1004:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



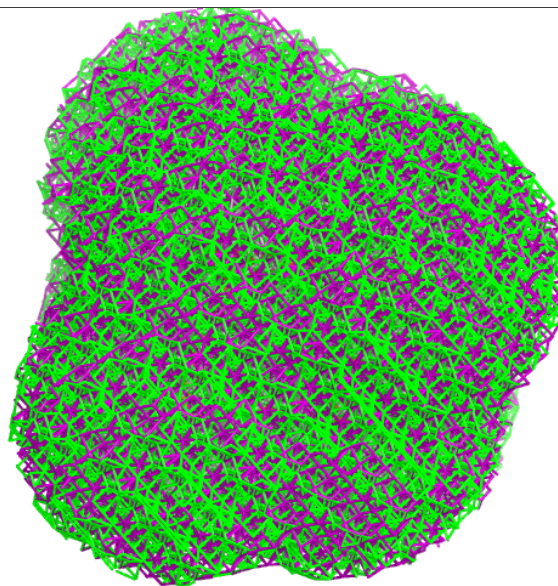
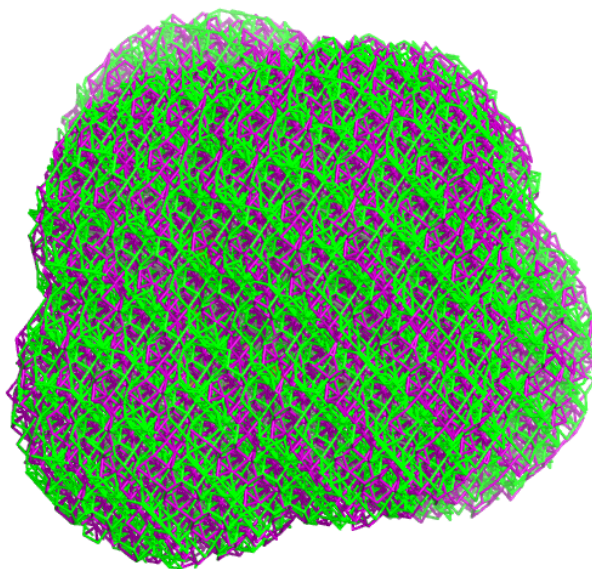
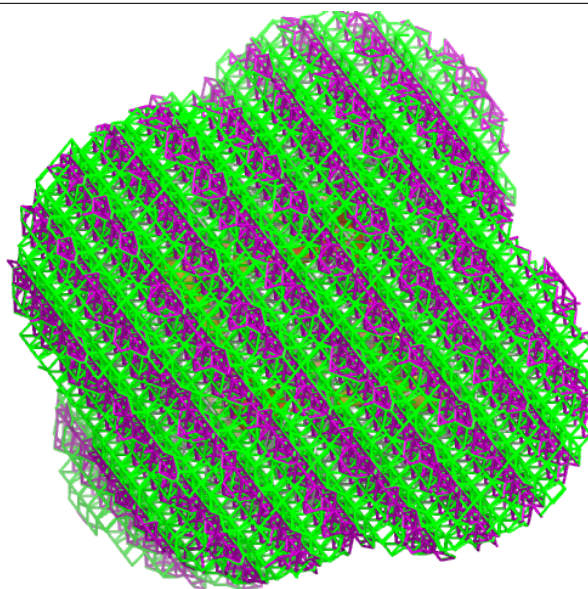
Electron density around SF4 N 1005:

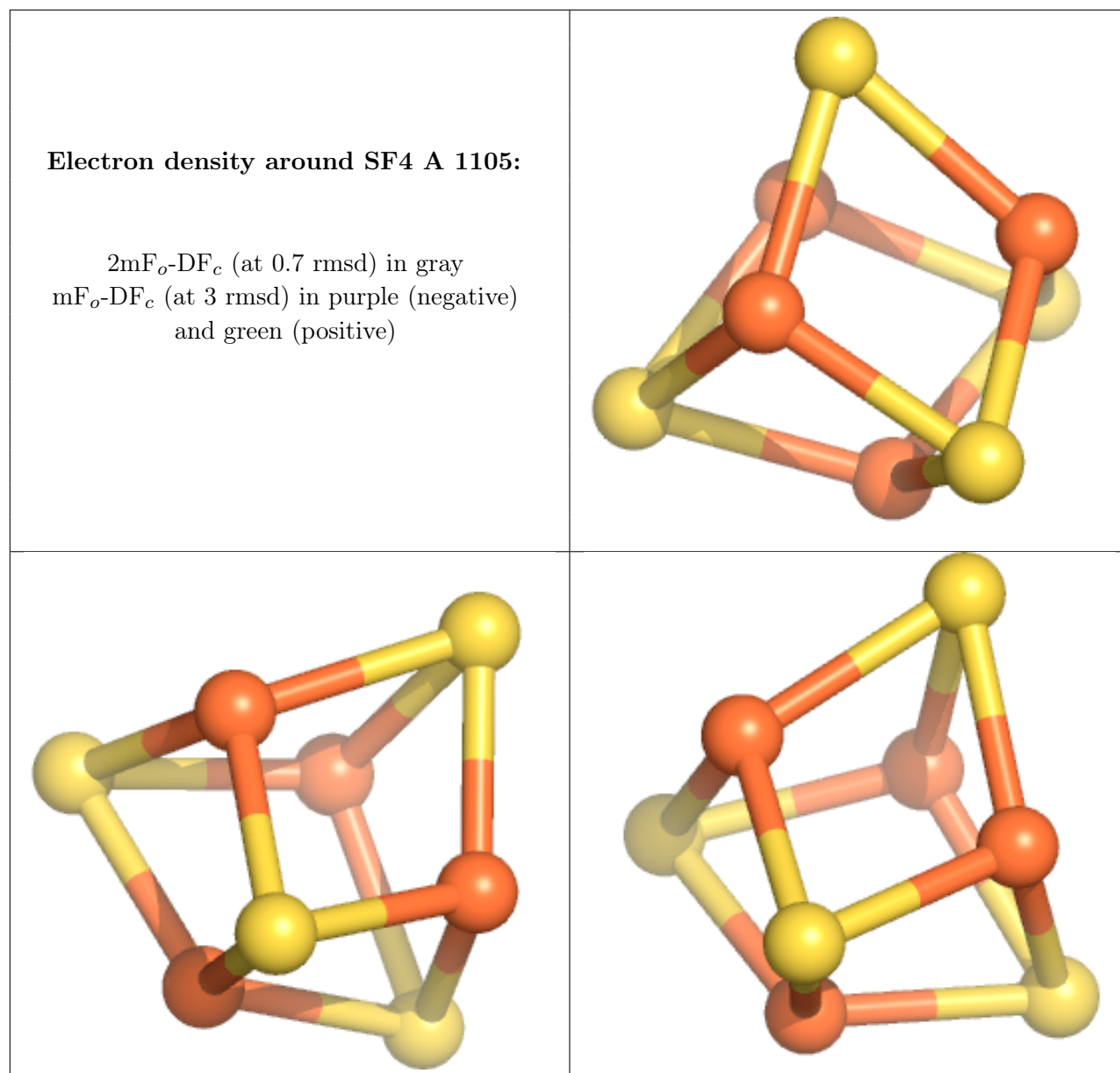
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around SF4 A 1102:

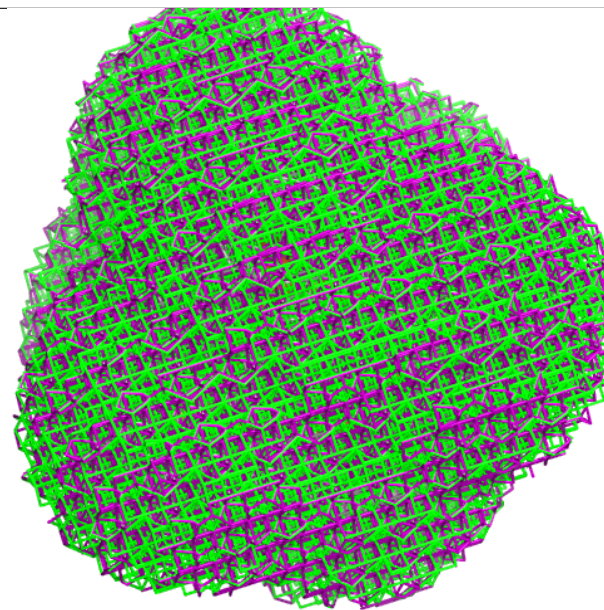
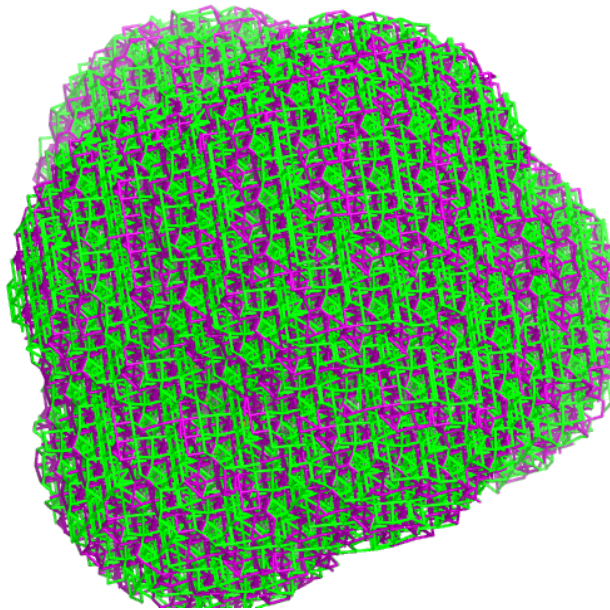
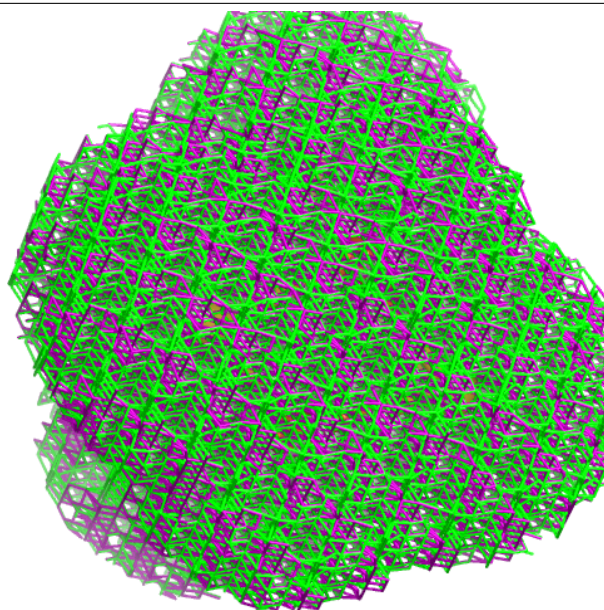
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

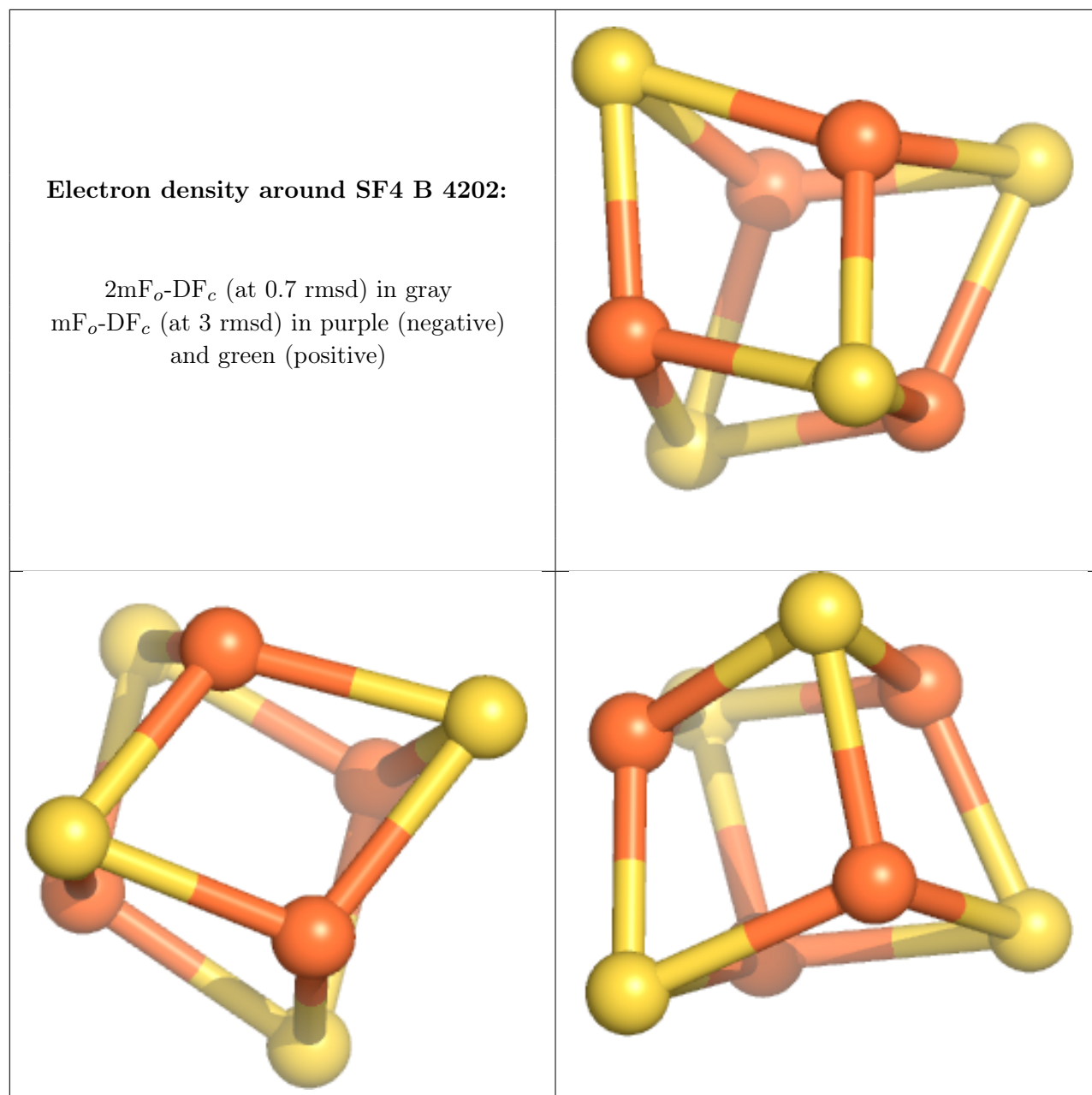




Electron density around SF4 A 1107:

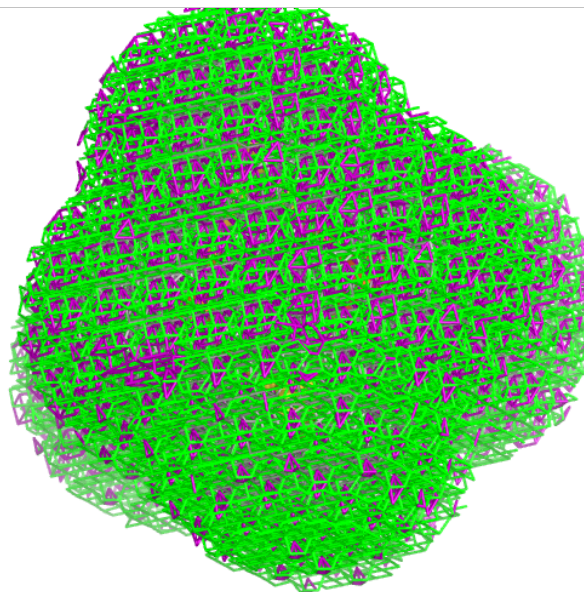
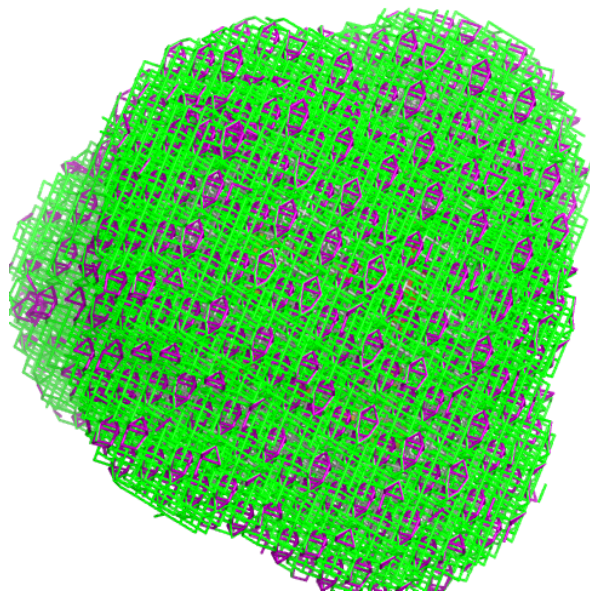
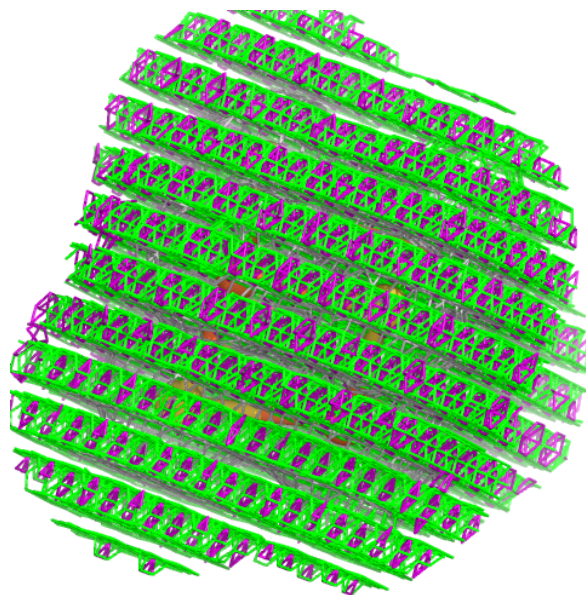
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





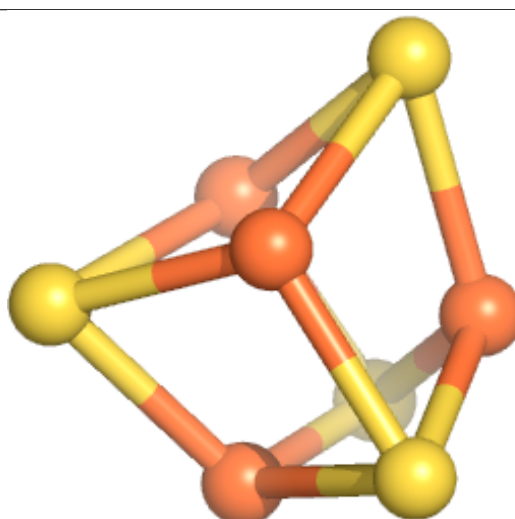
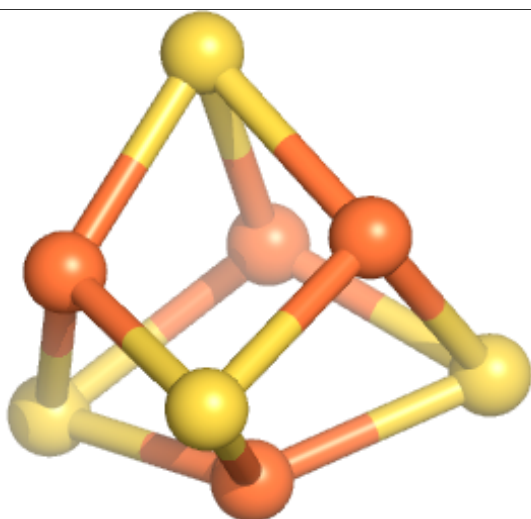
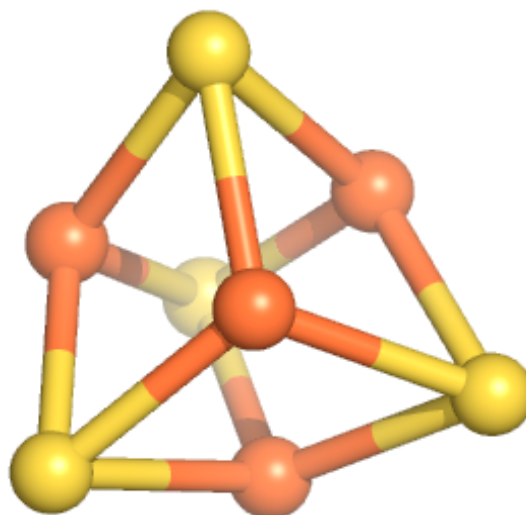
Electron density around SF4 O 1102:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



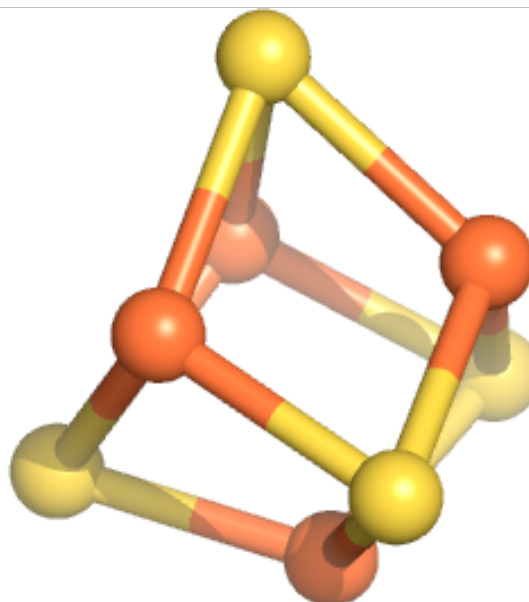
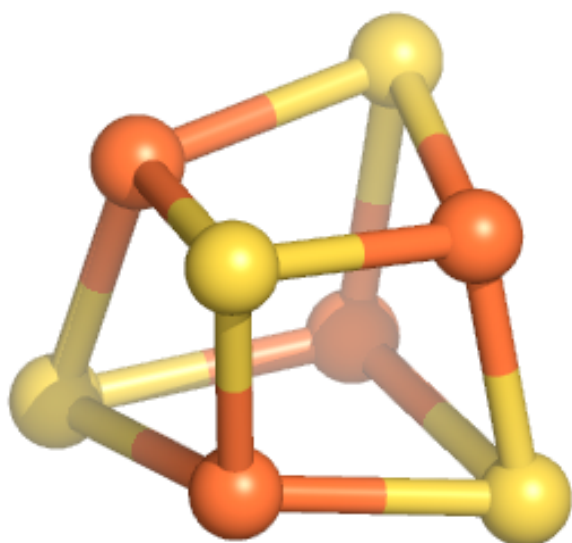
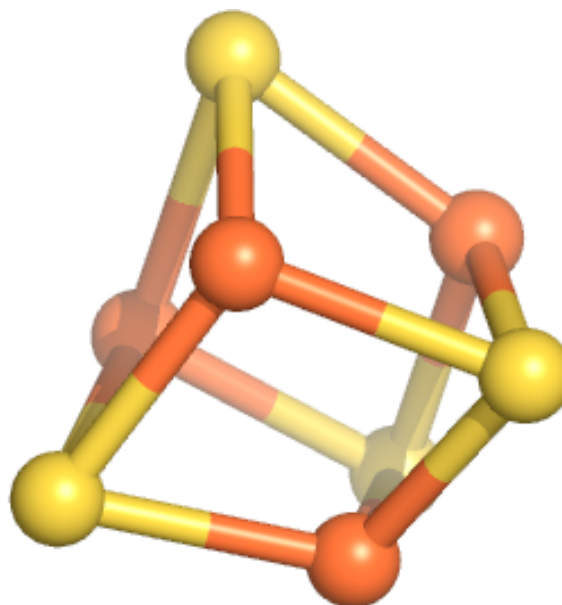
Electron density around SF4 O 1103:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



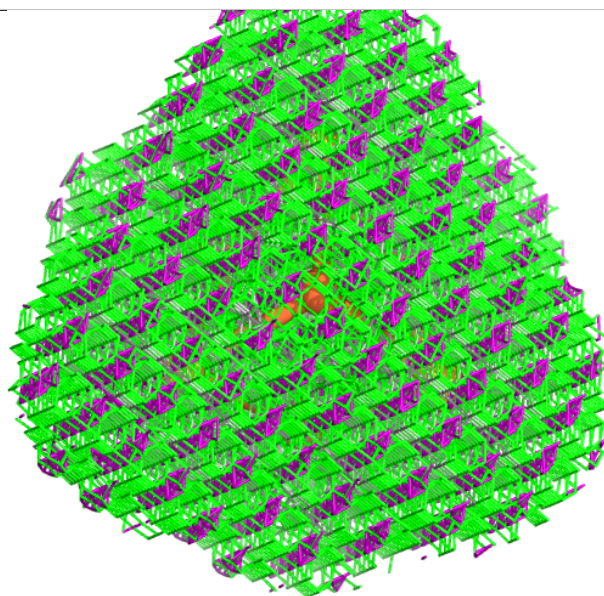
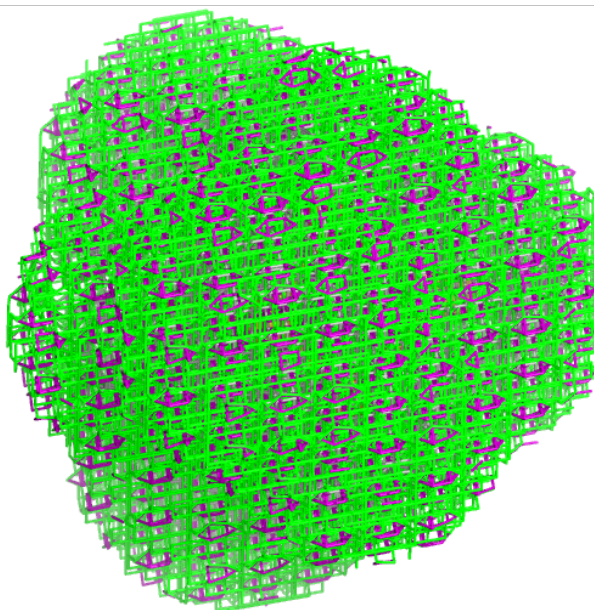
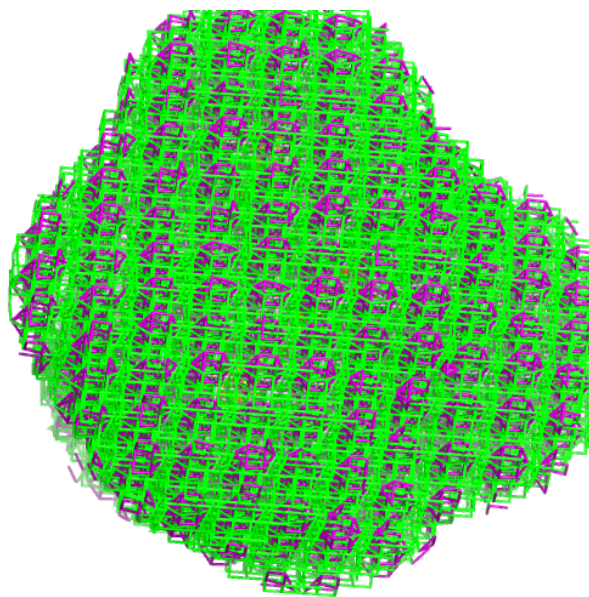
Electron density around SF4 O 1105:

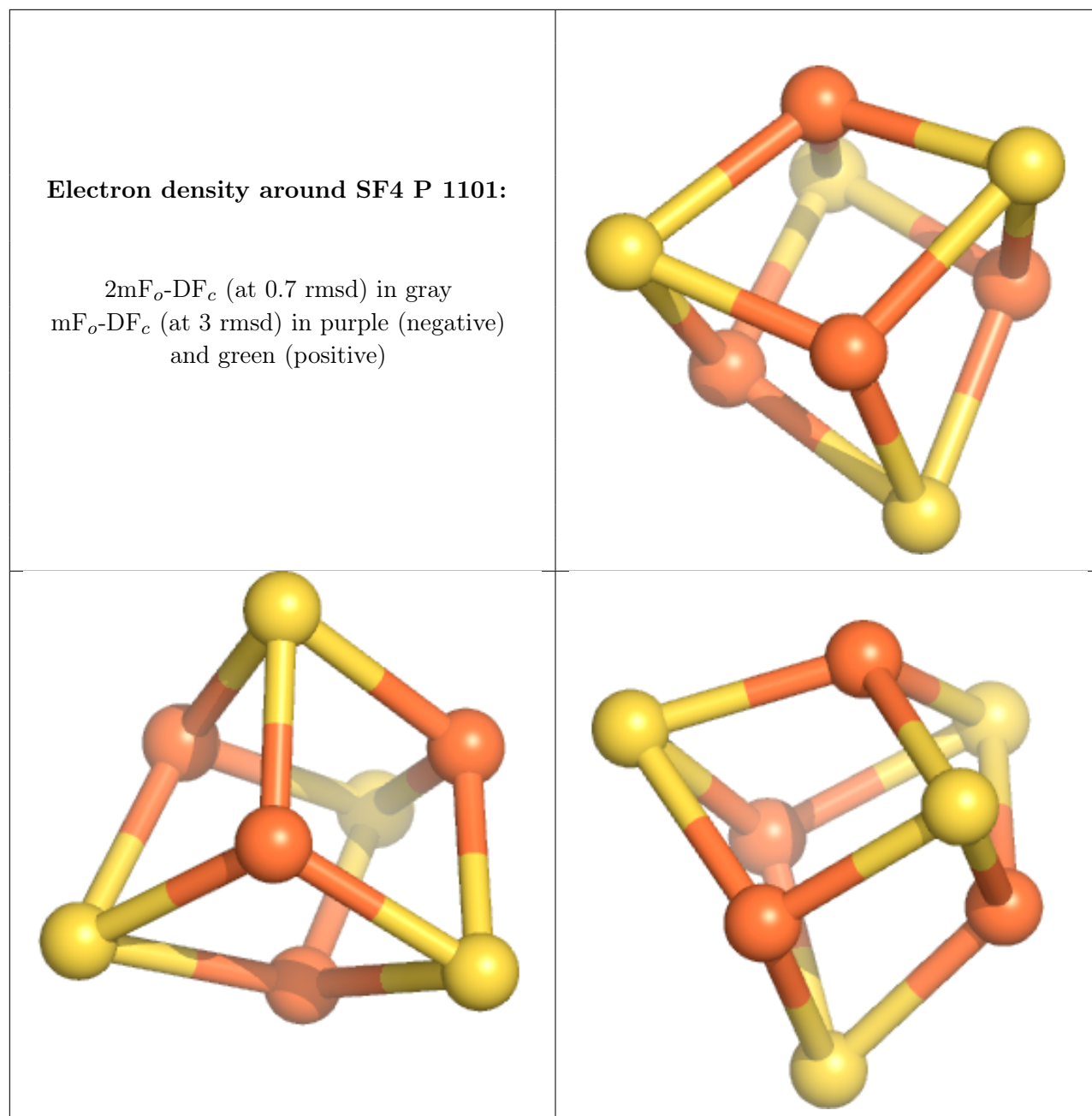
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

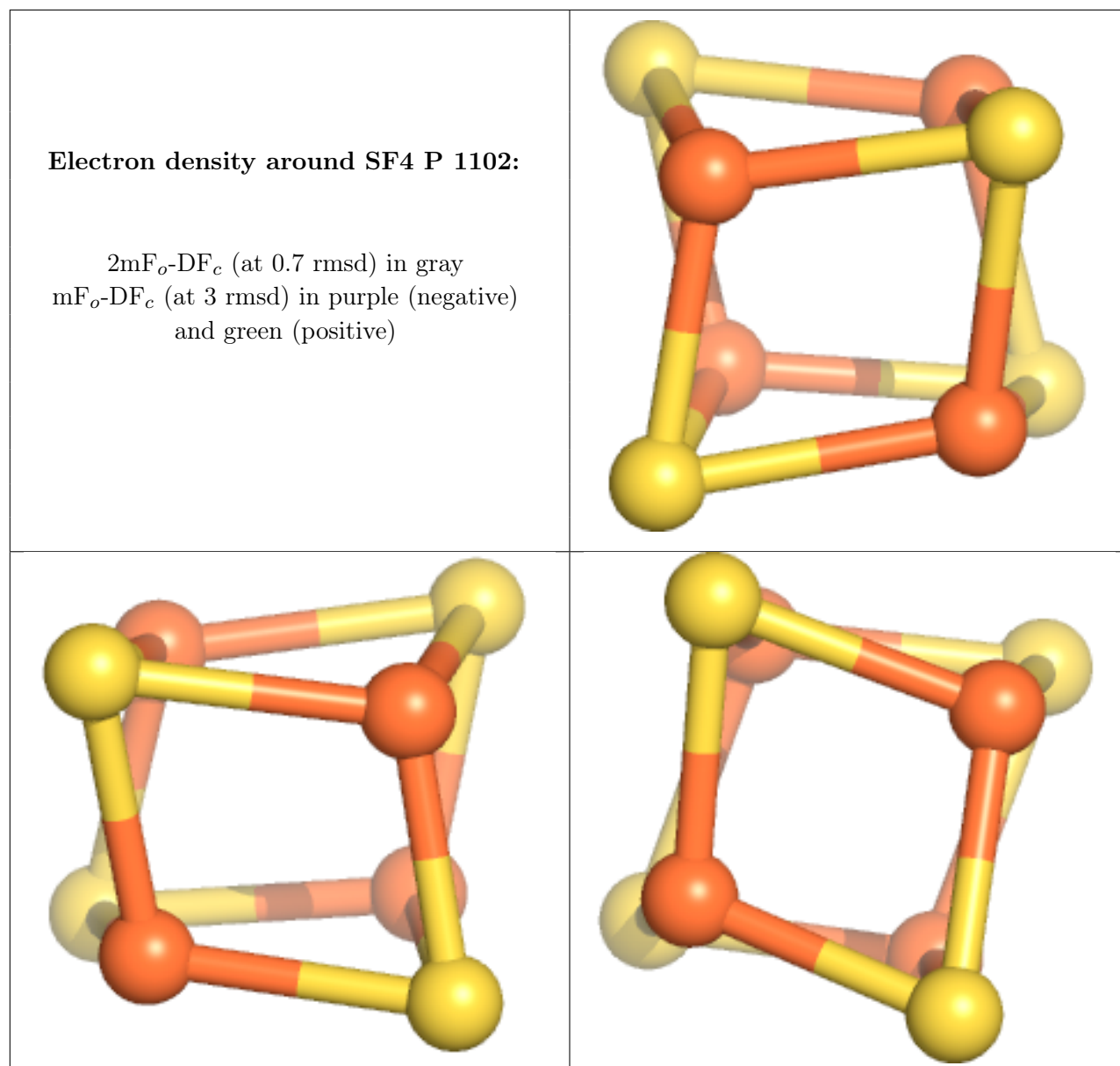


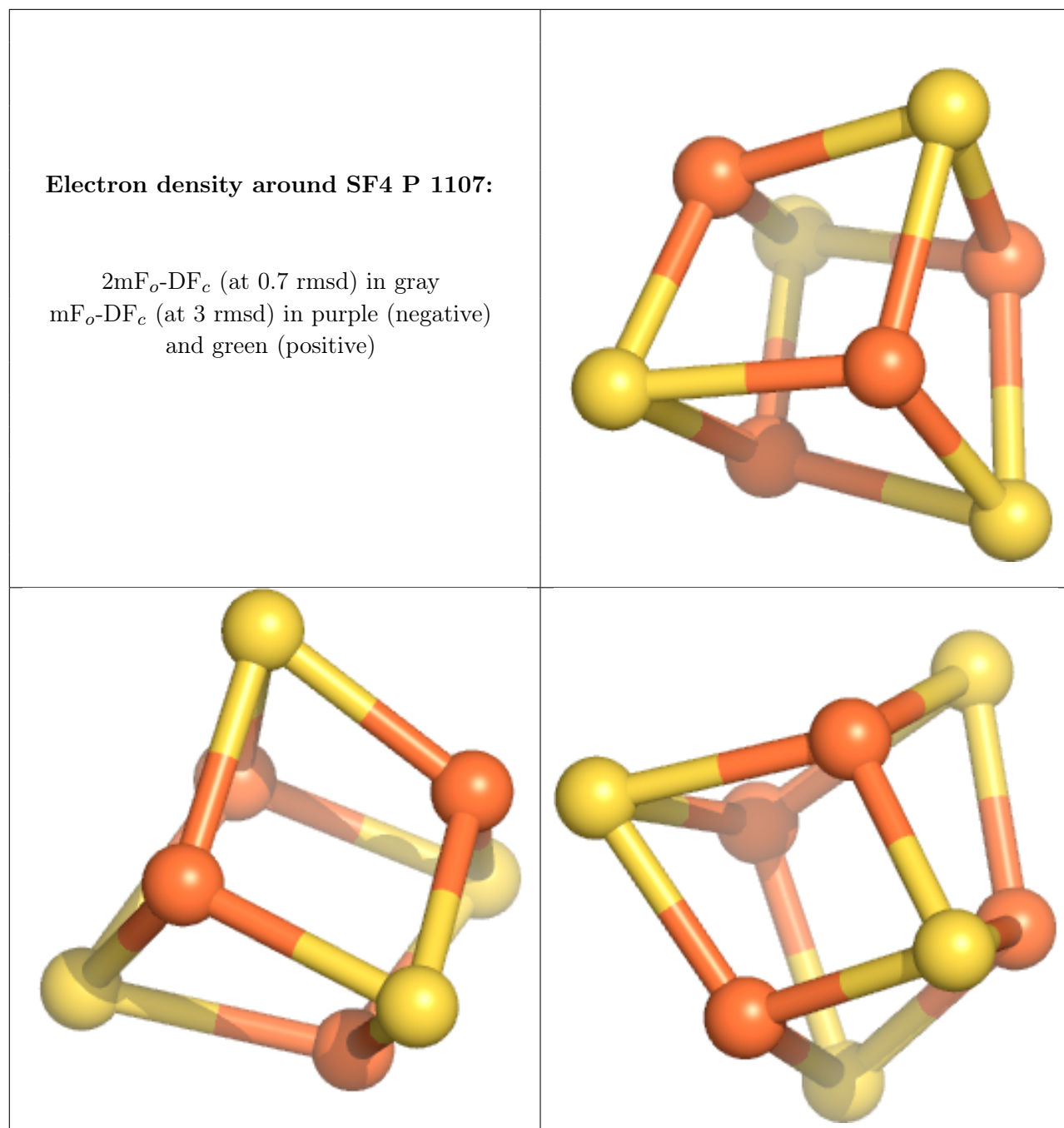
Electron density around SF4 O 1107:

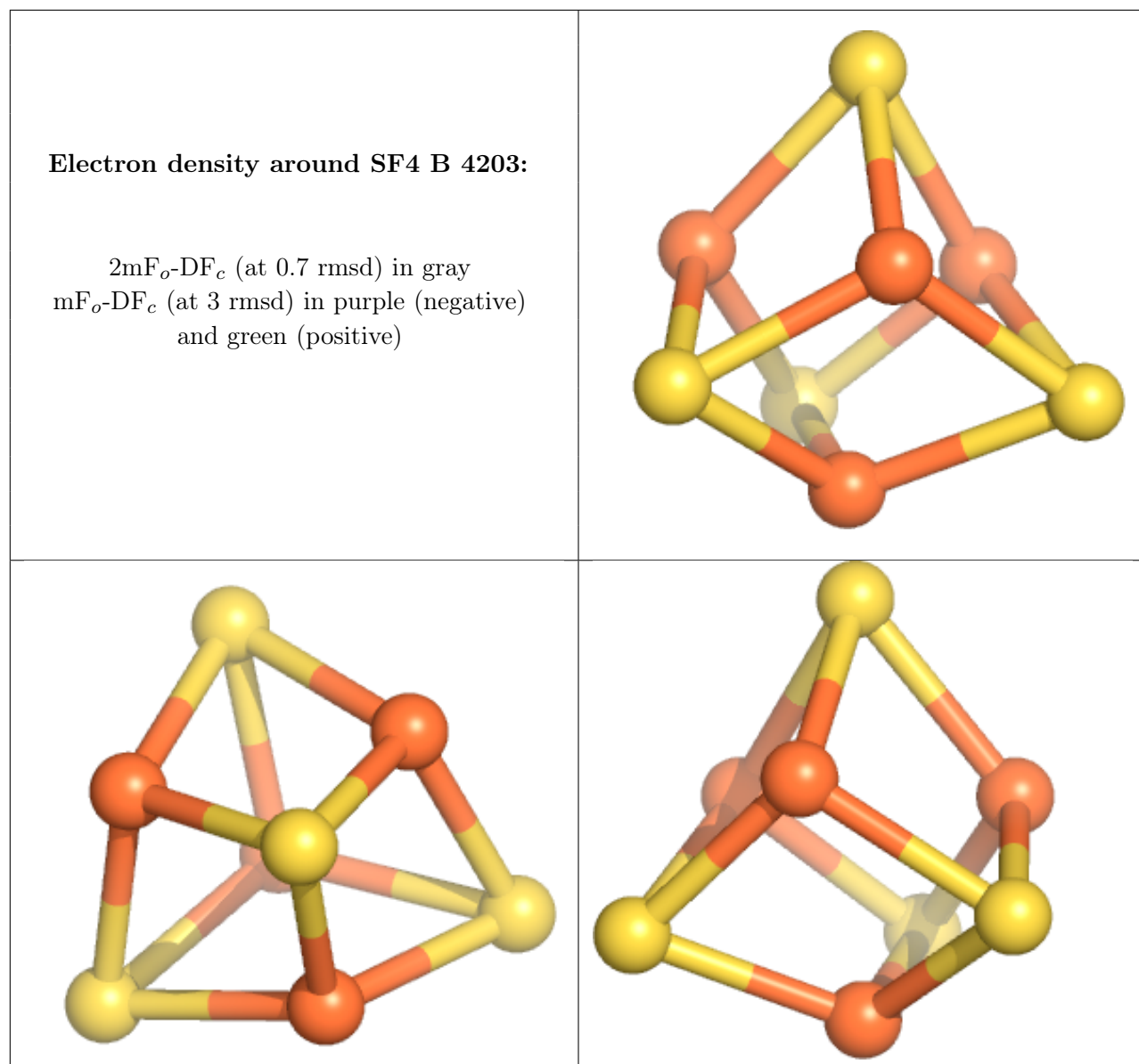
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





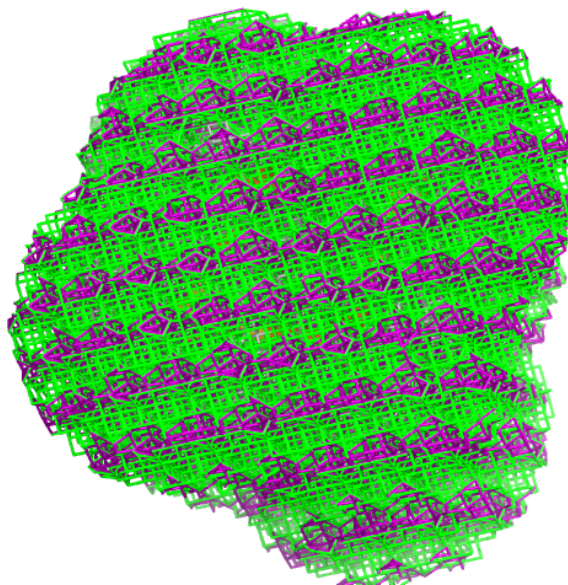
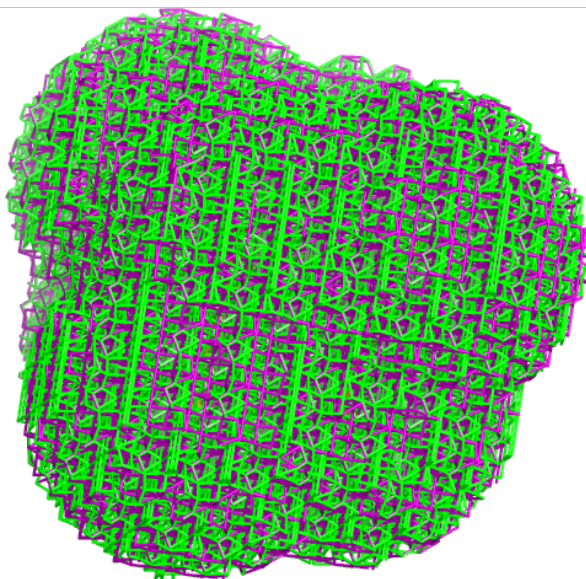
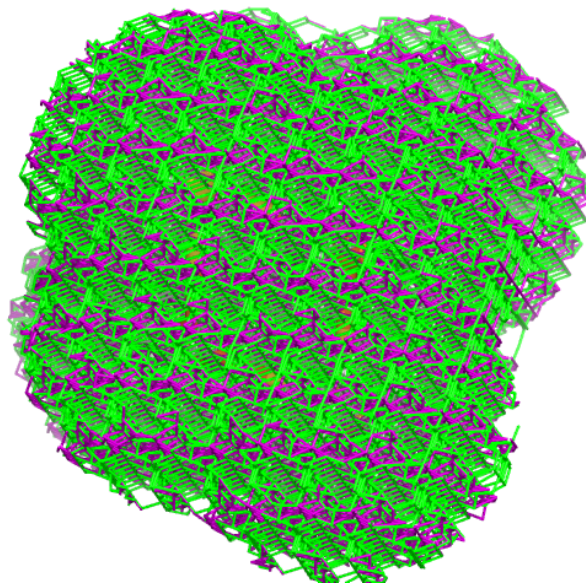






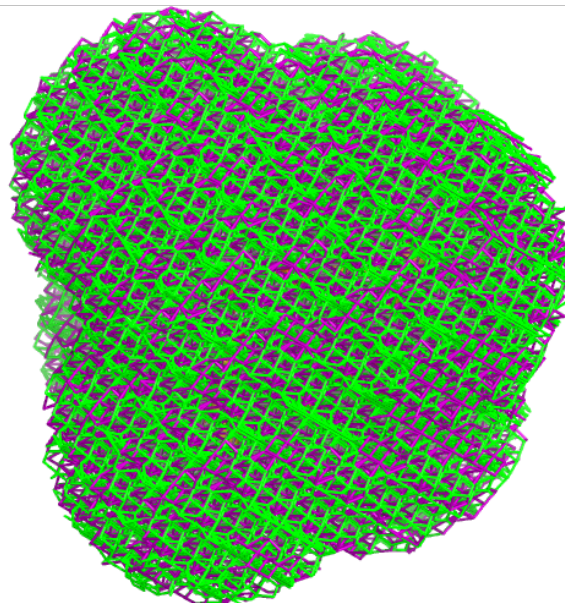
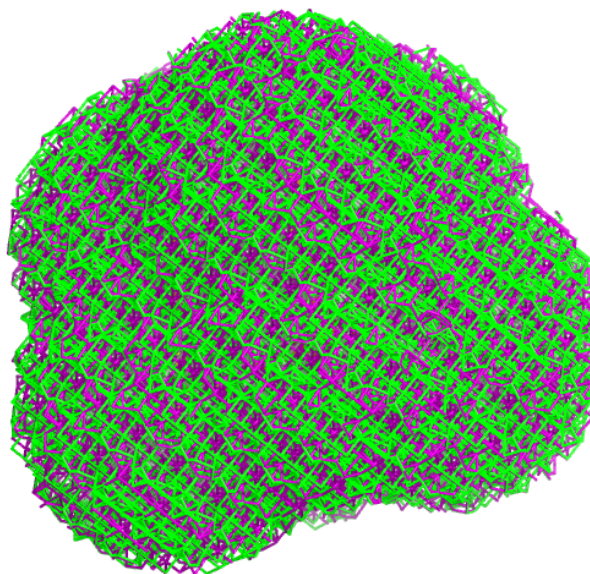
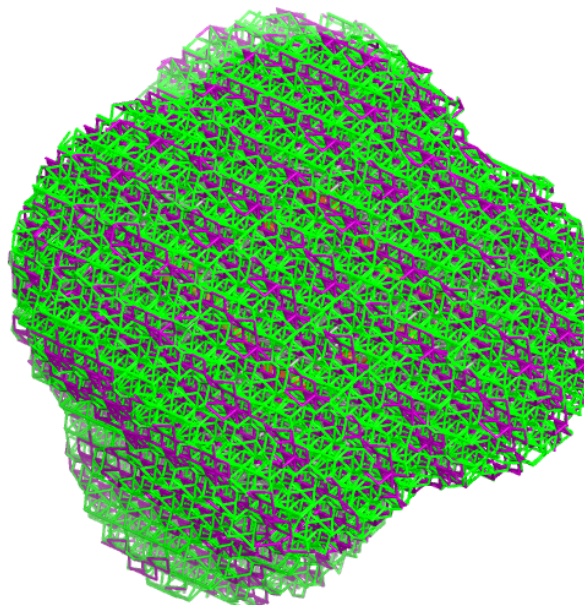
Electron density around SF4 B 4206:

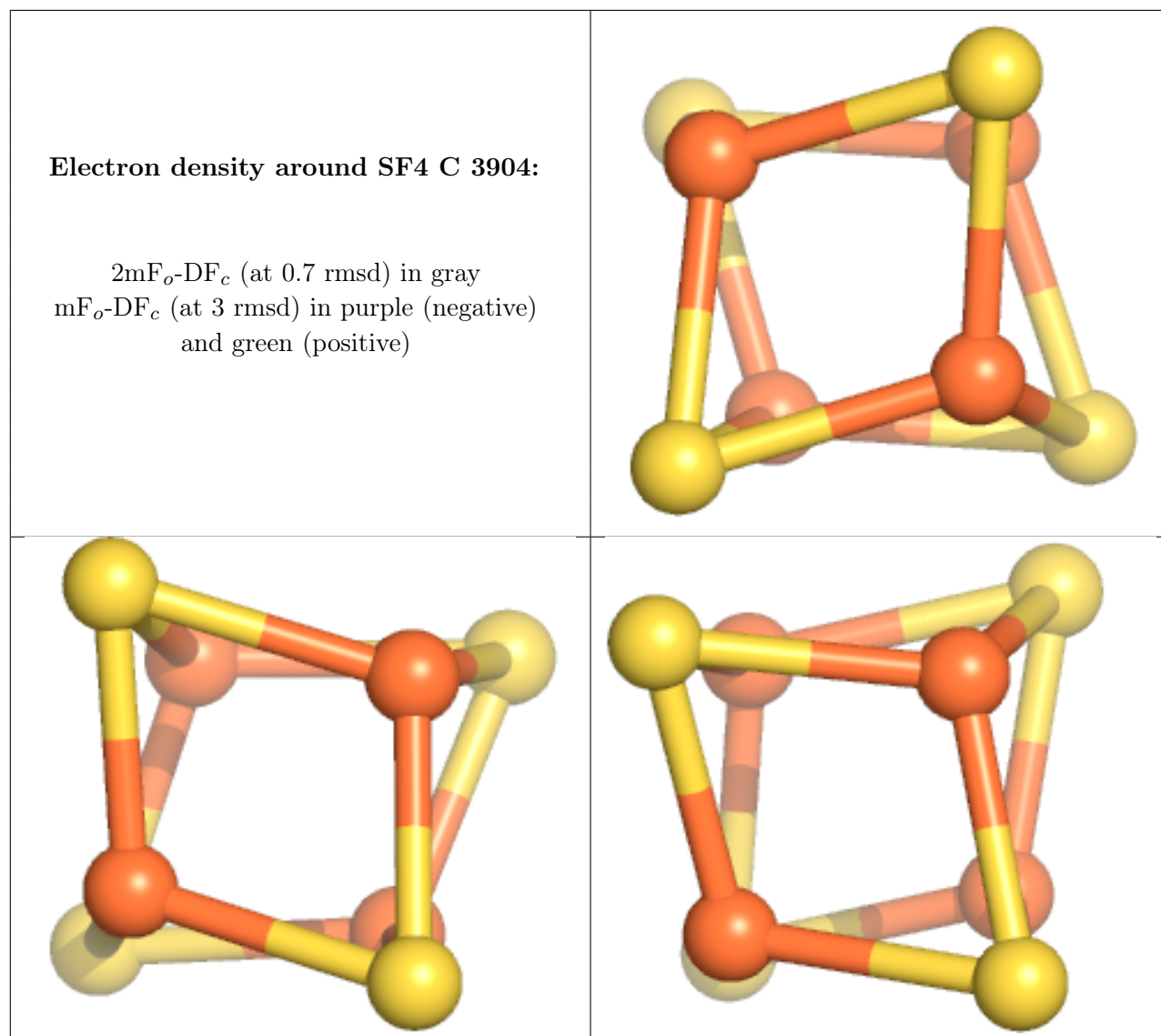
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around SF4 C 3903:

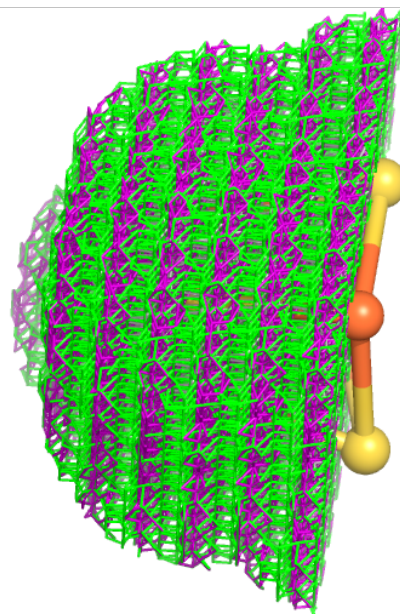
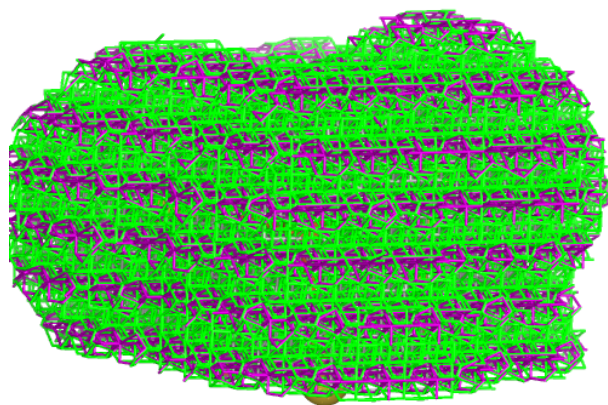
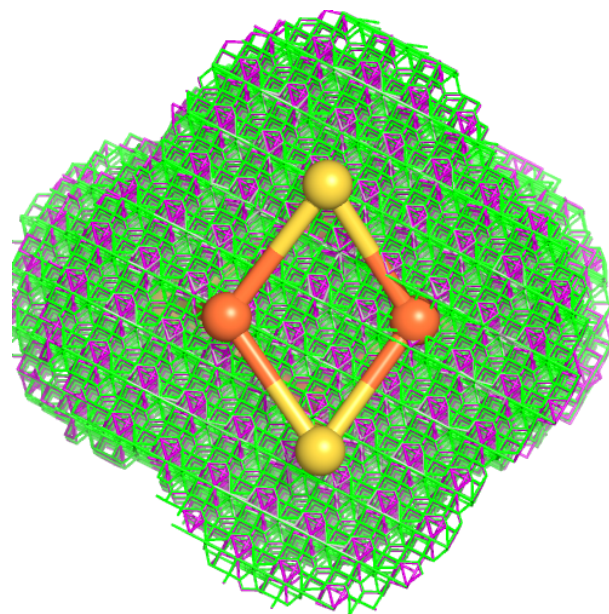
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

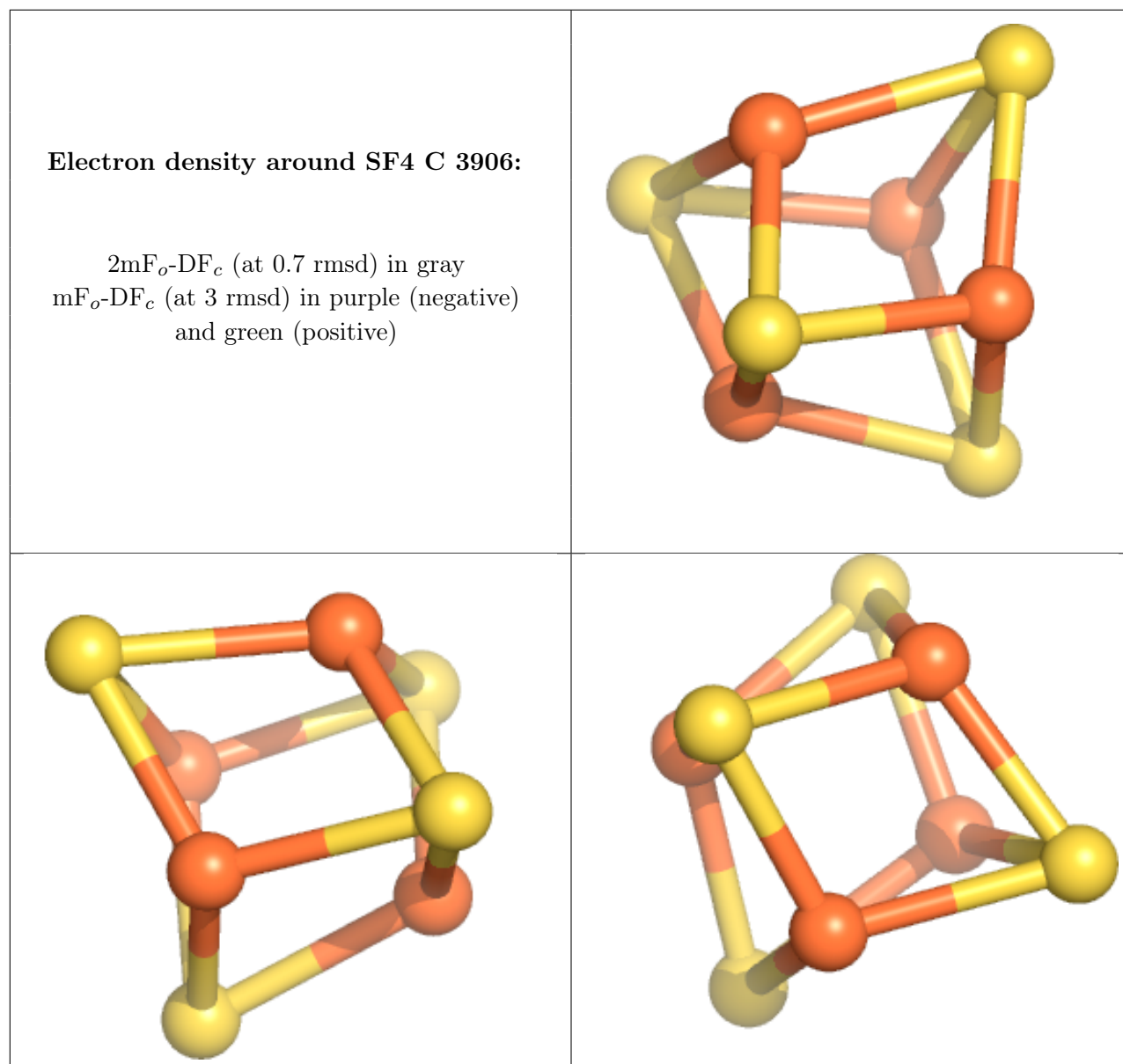




Electron density around SF4 C 3905:

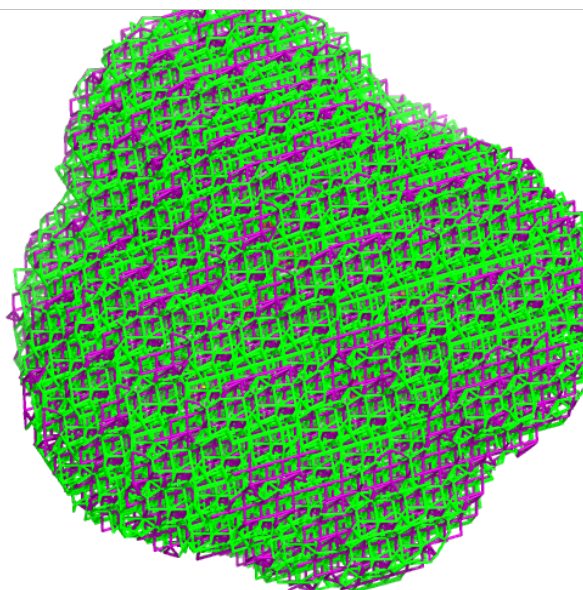
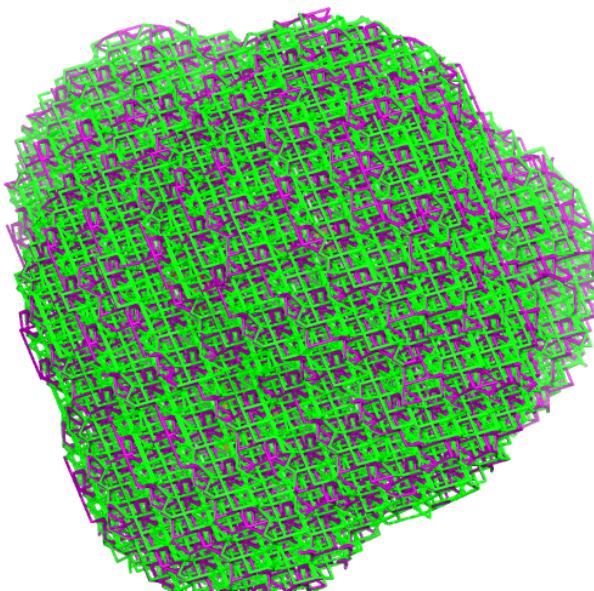
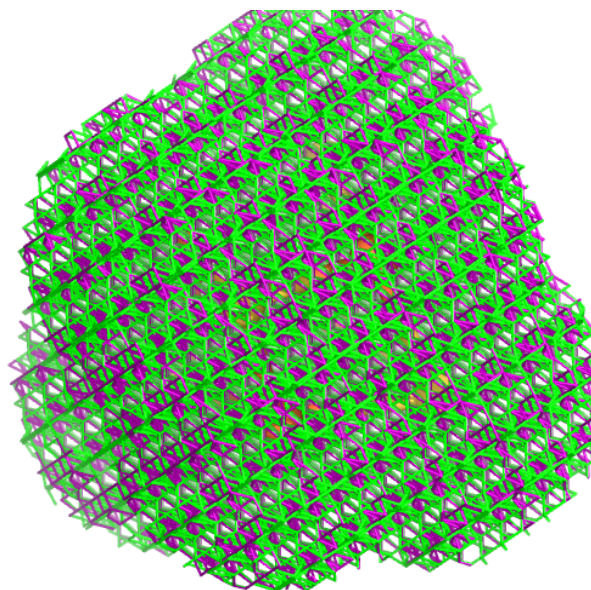
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





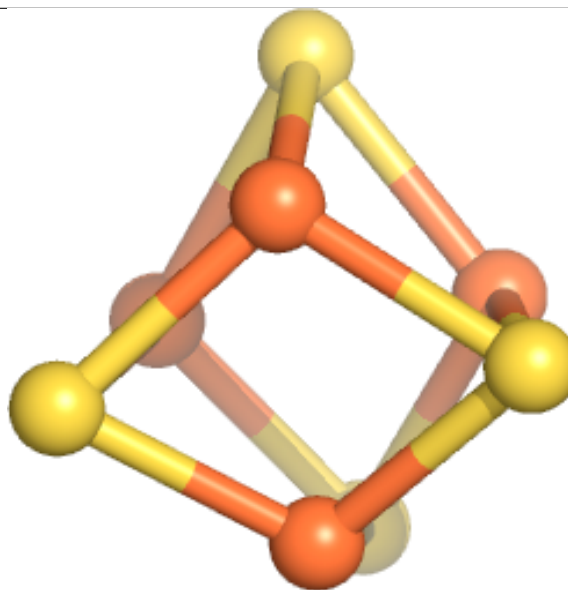
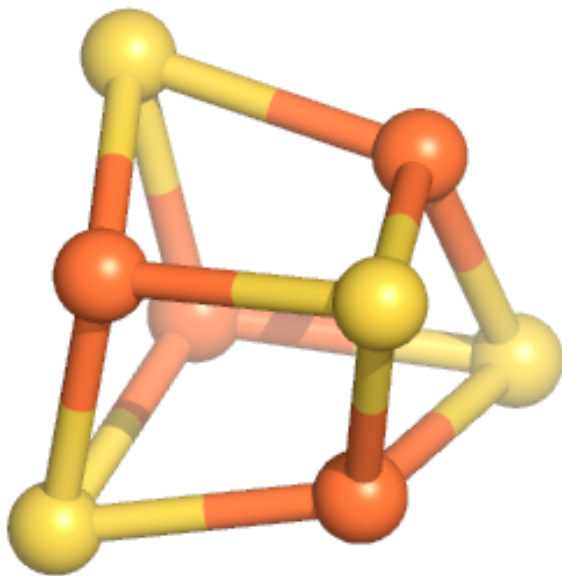
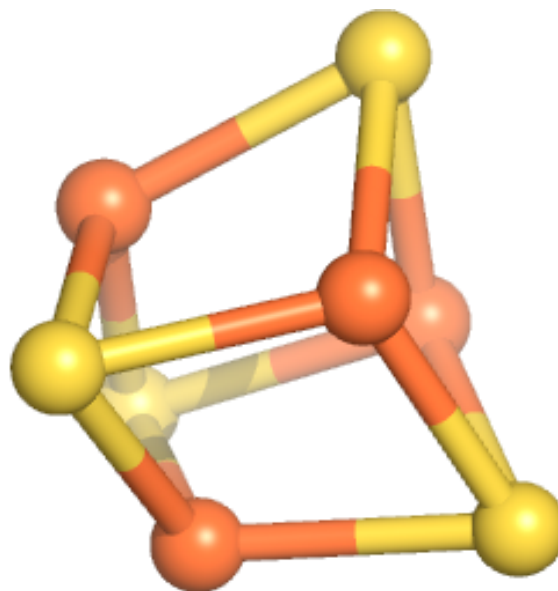
Electron density around SF4 C 3908:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



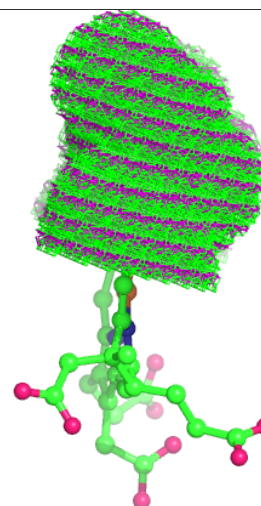
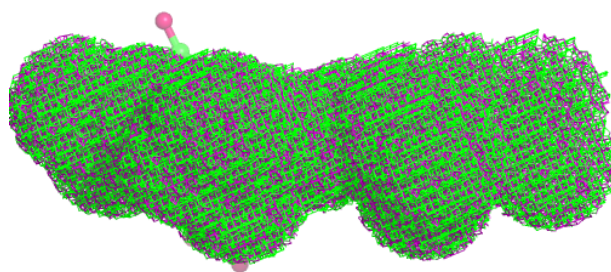
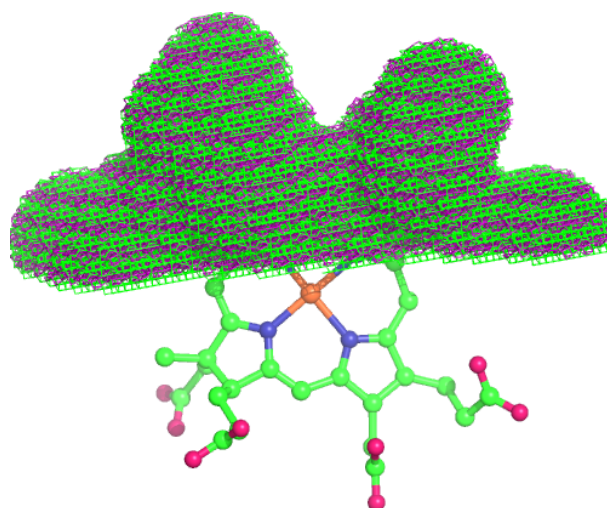
Electron density around SF4 D 4603:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



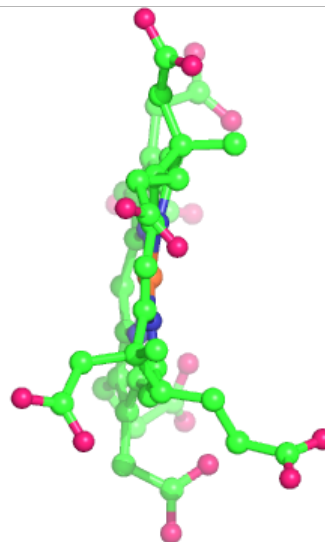
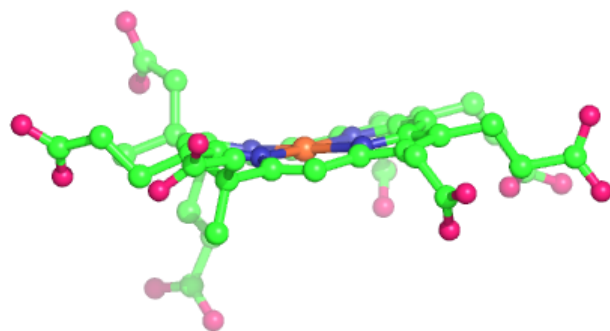
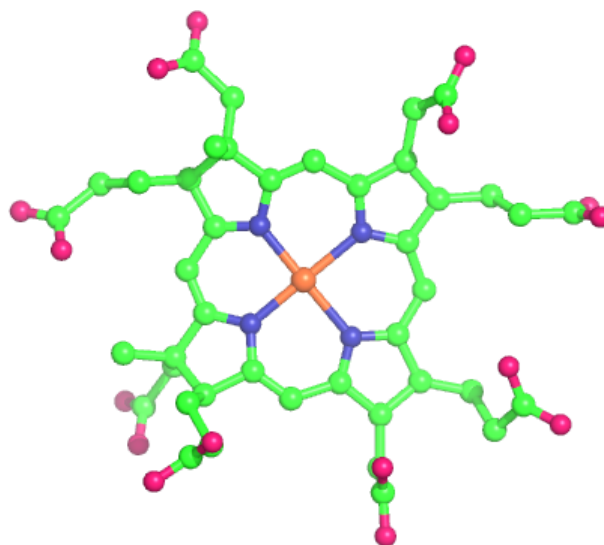
Electron density around SRM A 1109:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



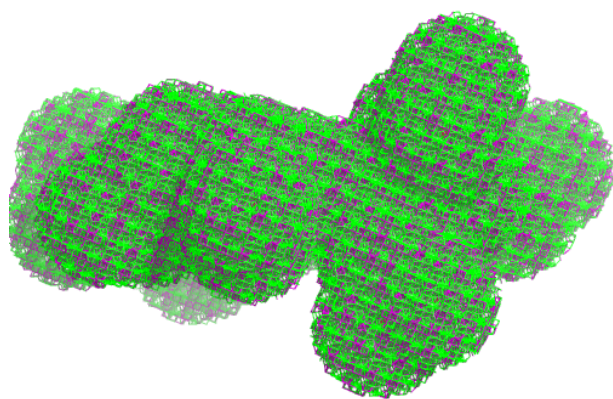
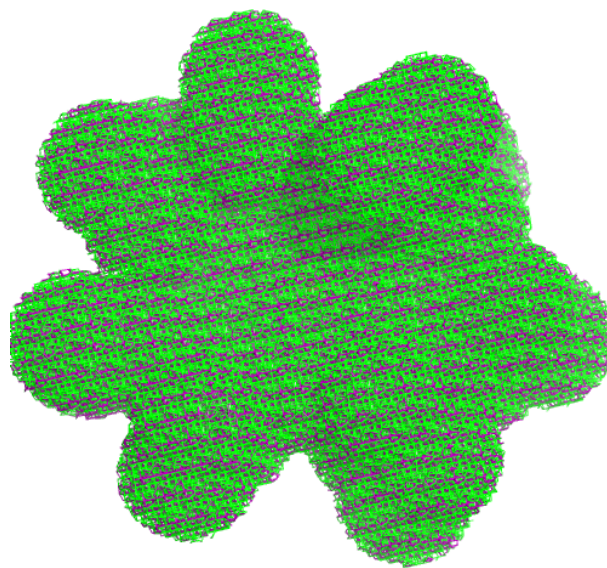
Electron density around SRM B 4210:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



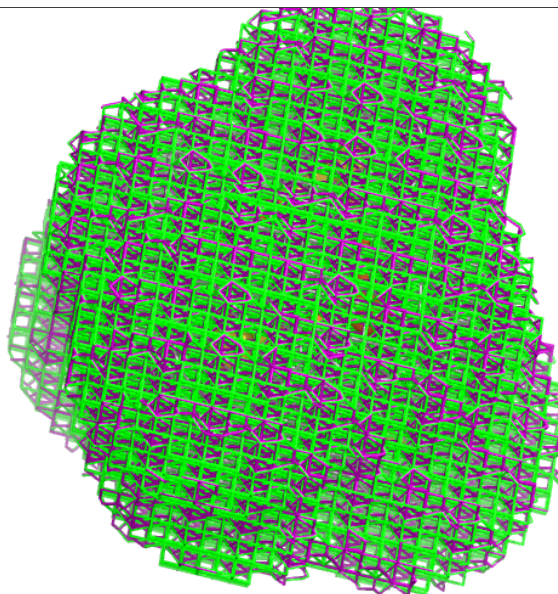
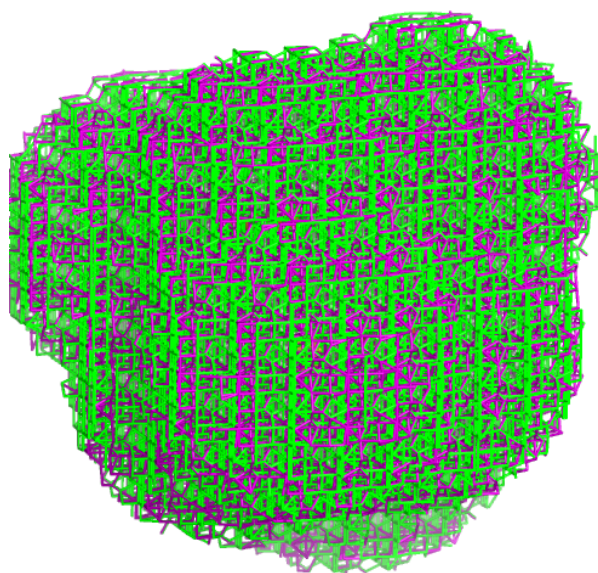
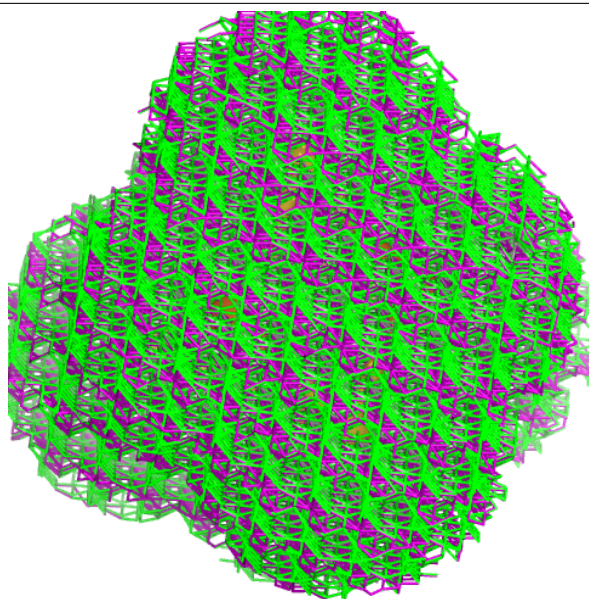
Electron density around SRM C 3910:

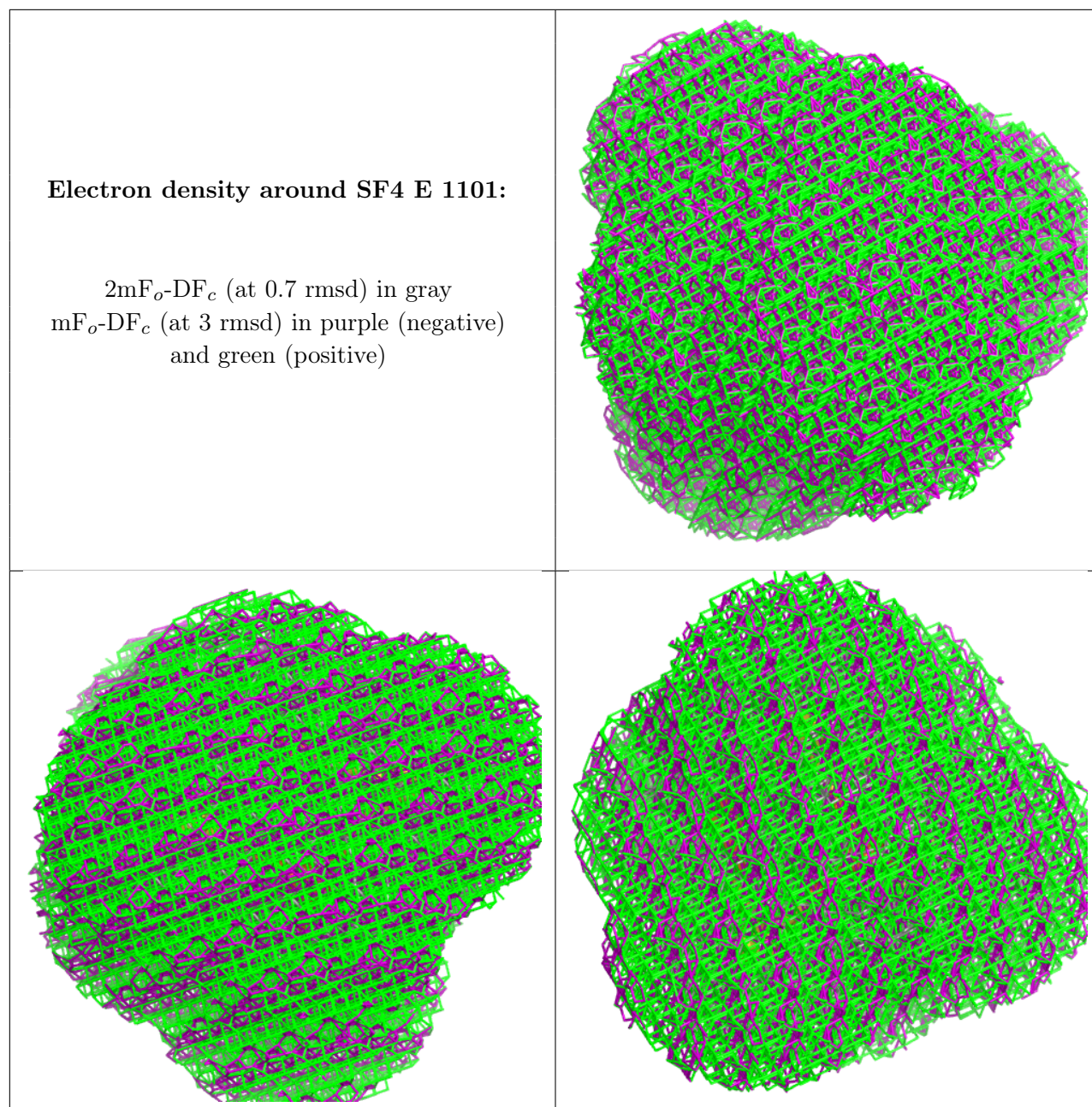
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around SF4 D 4606:

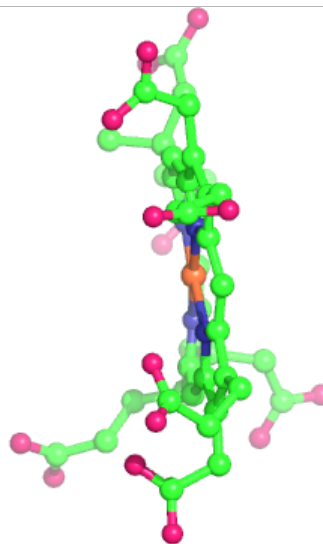
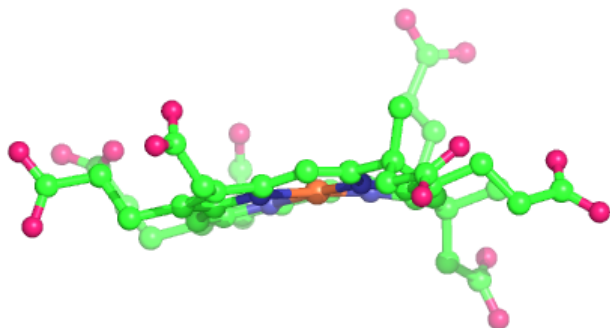
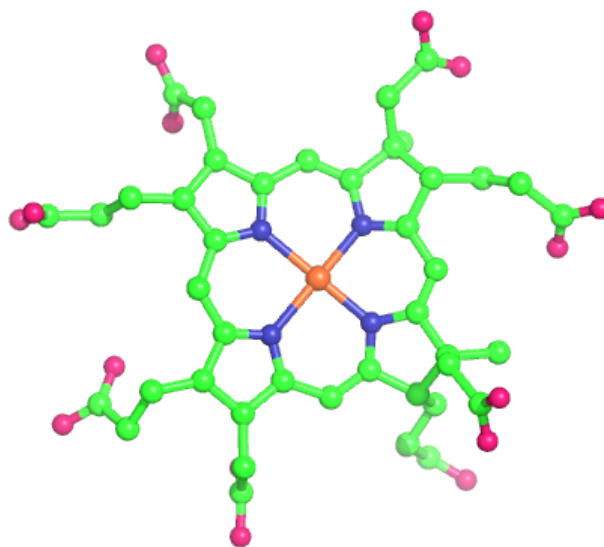
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

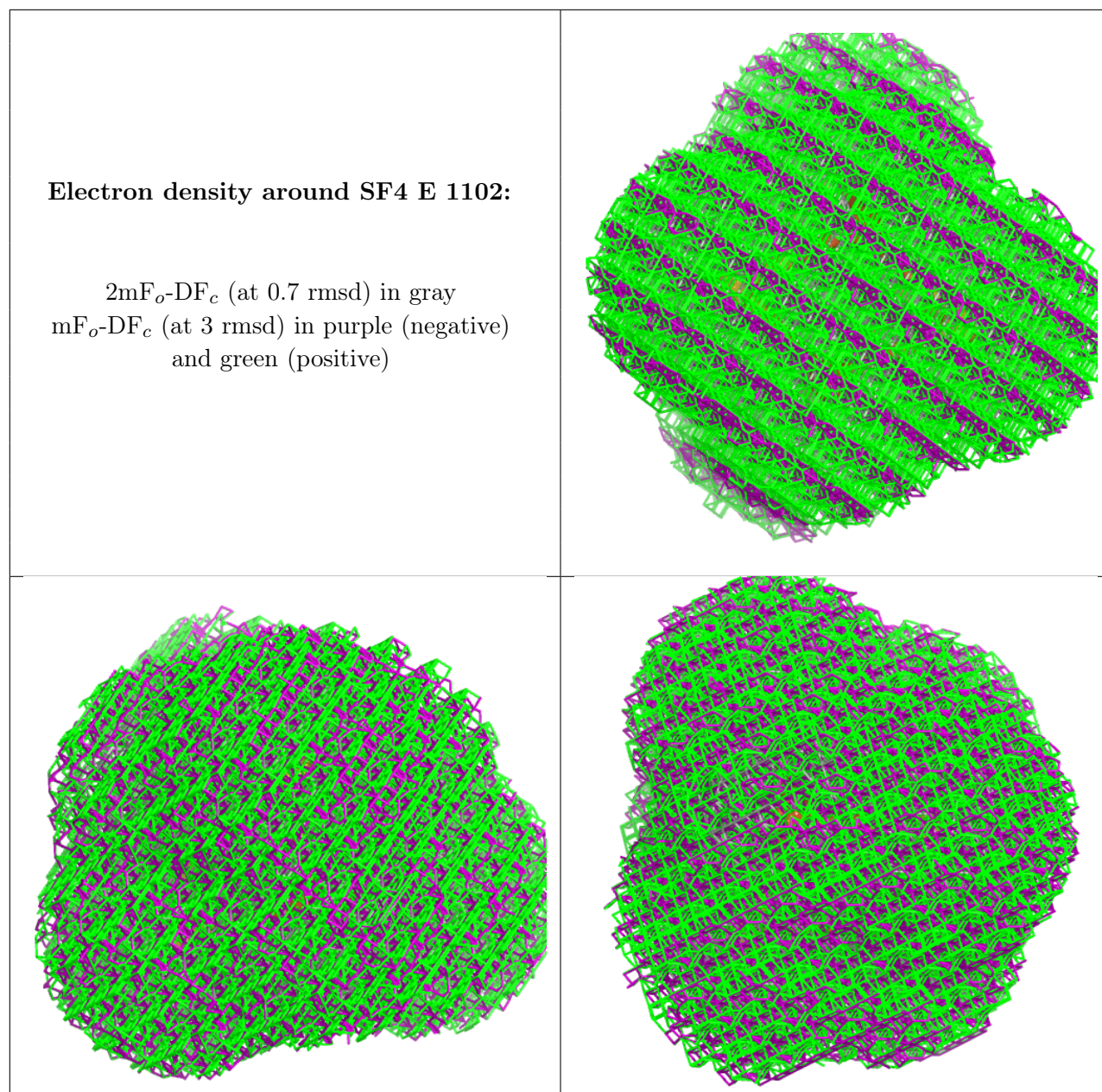




Electron density around SRM F 1109:

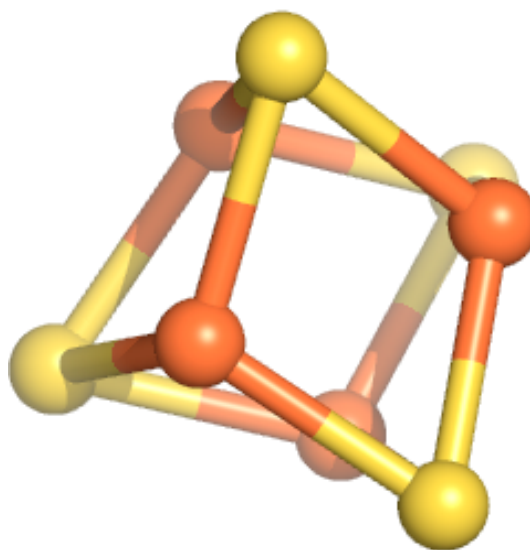
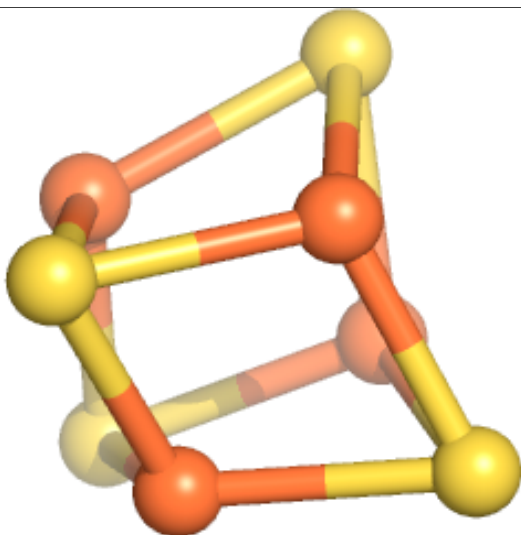
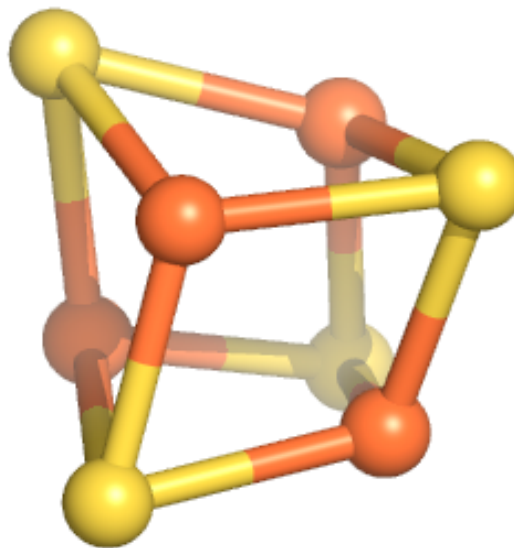
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





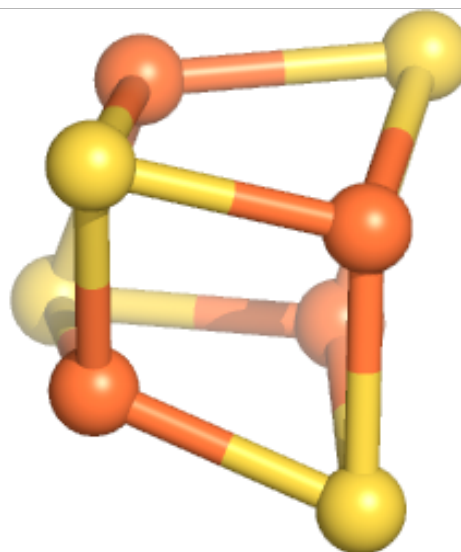
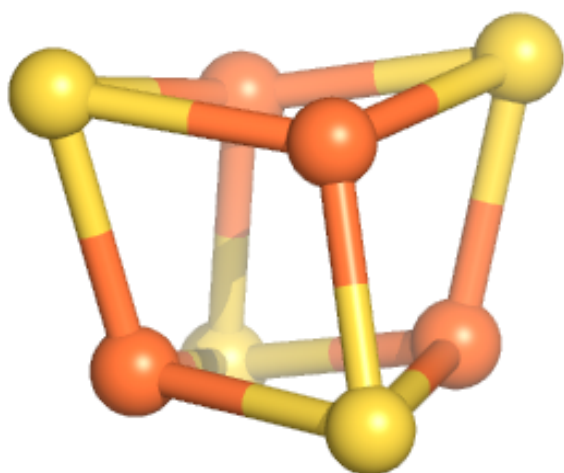
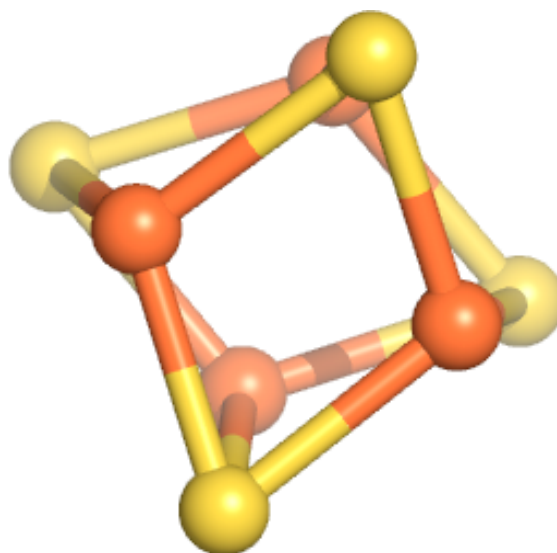
Electron density around SF4 E 1103:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



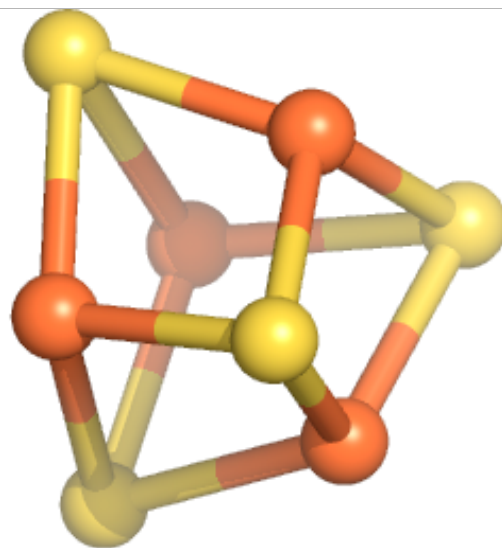
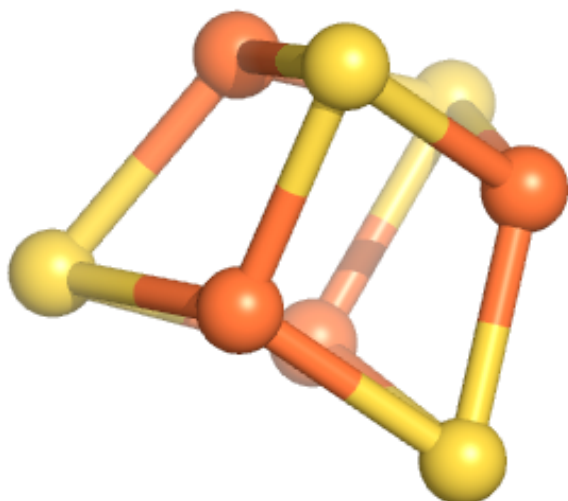
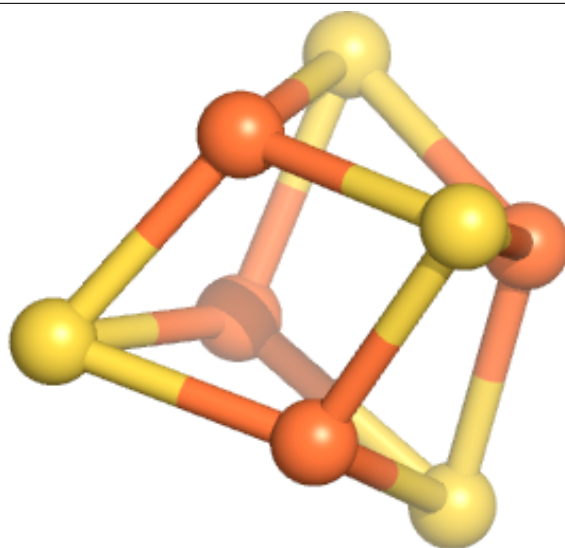
Electron density around SF4 E 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



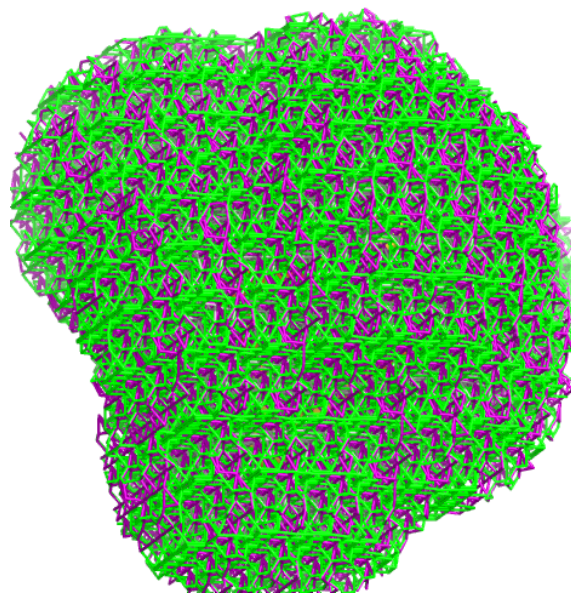
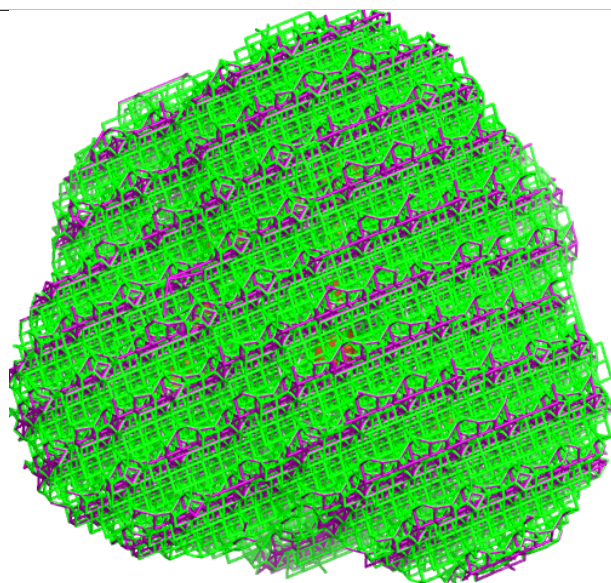
Electron density around SF4 E 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



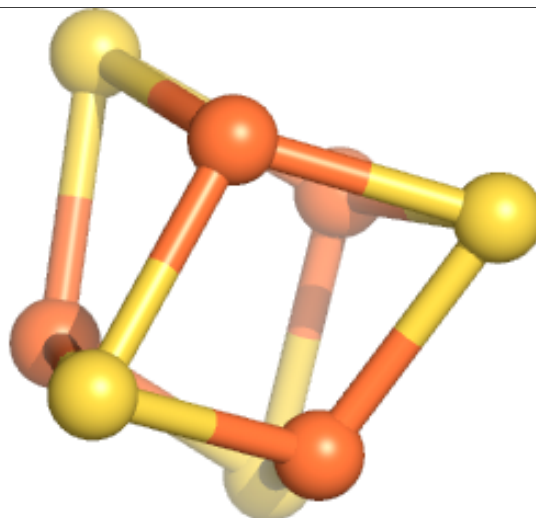
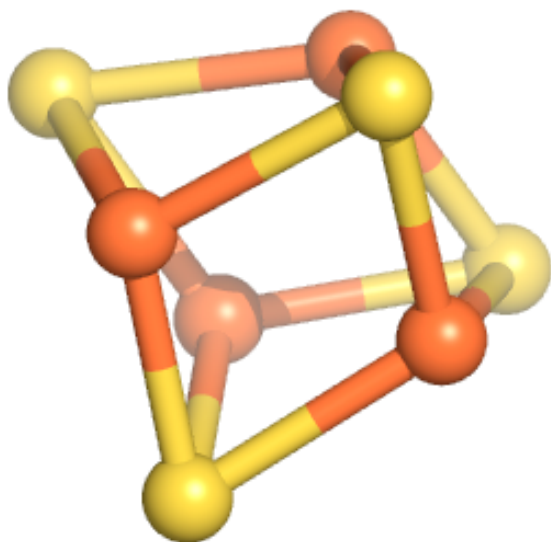
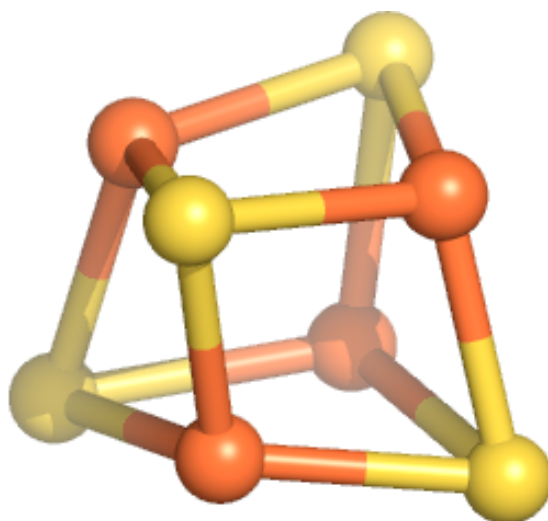
Electron density around SF4 E 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



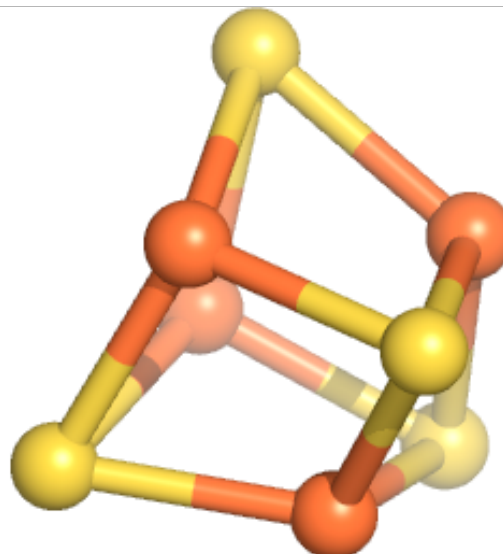
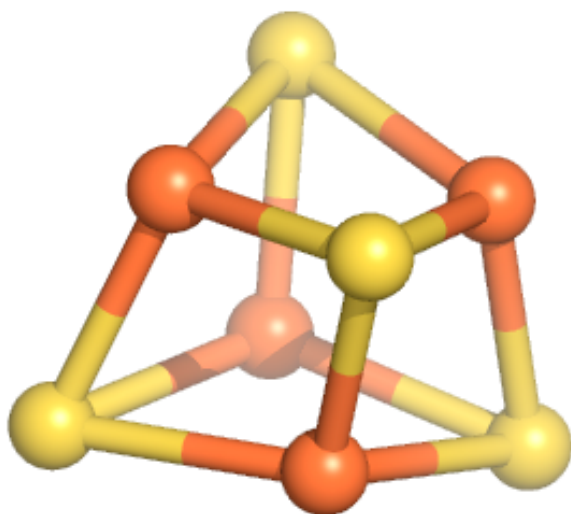
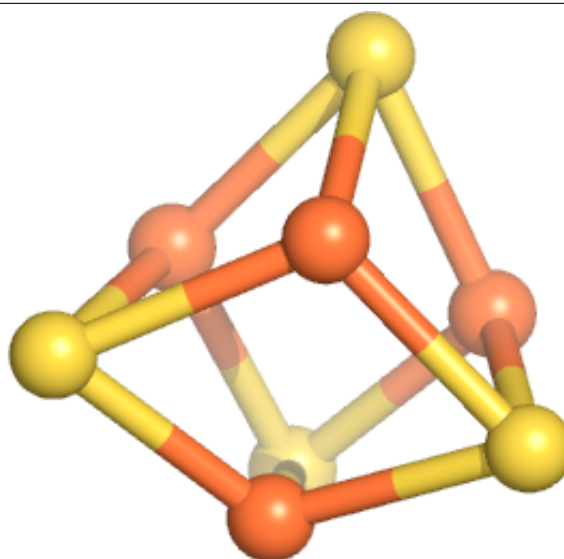
Electron density around SF4 F 1101:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



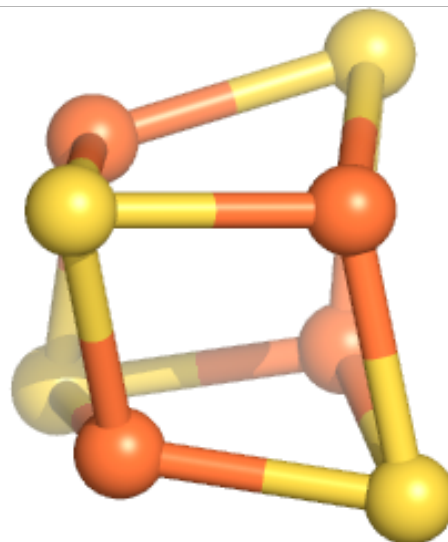
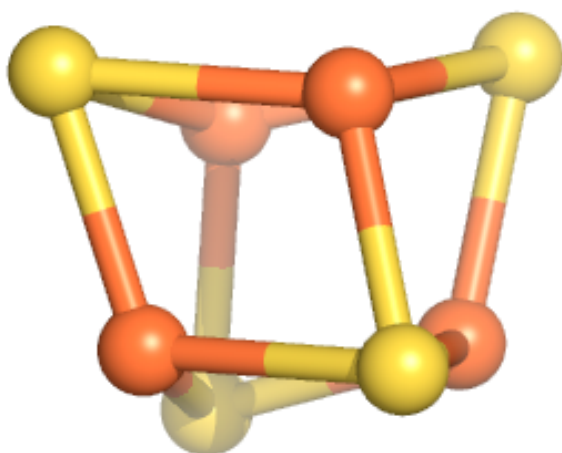
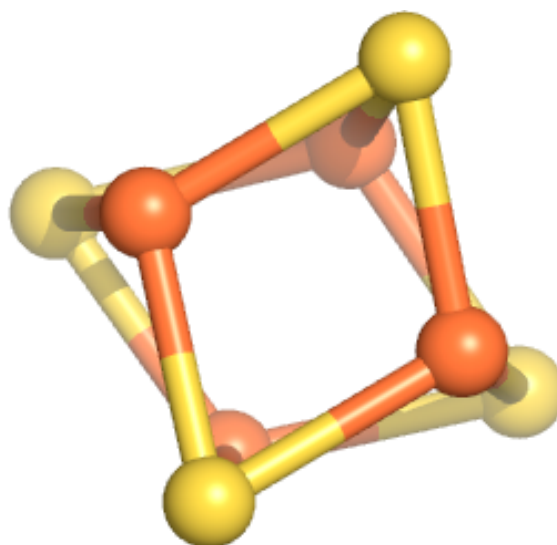
Electron density around SF4 F 1102:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



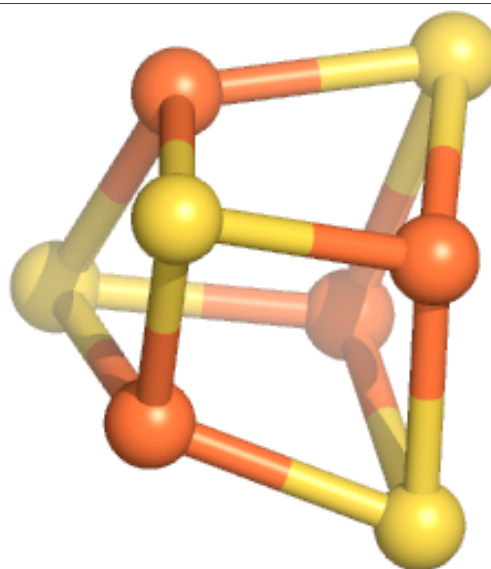
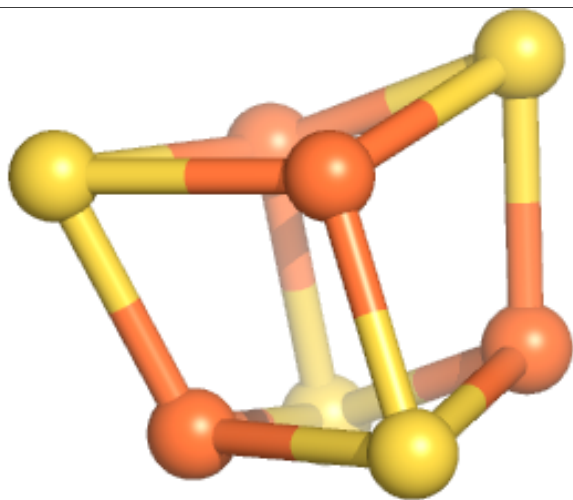
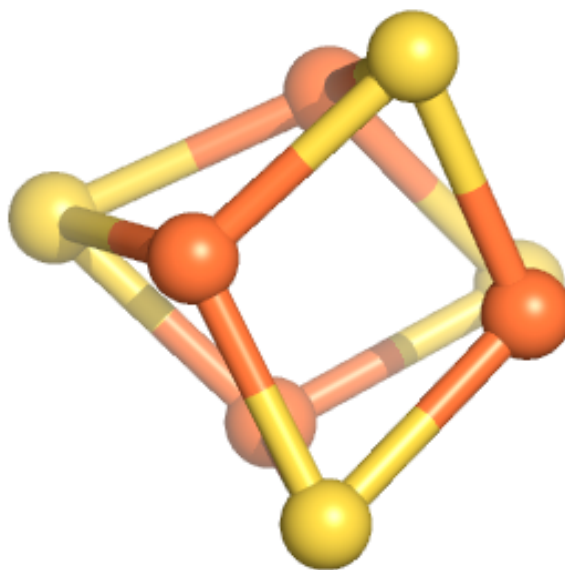
Electron density around SF4 F 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



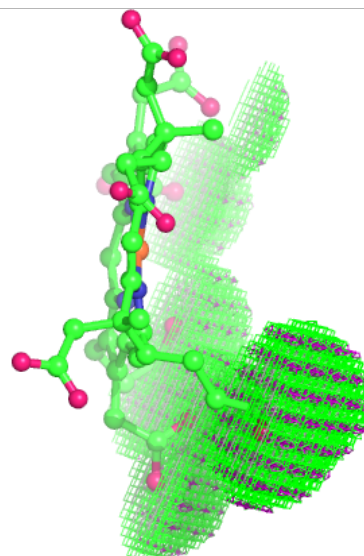
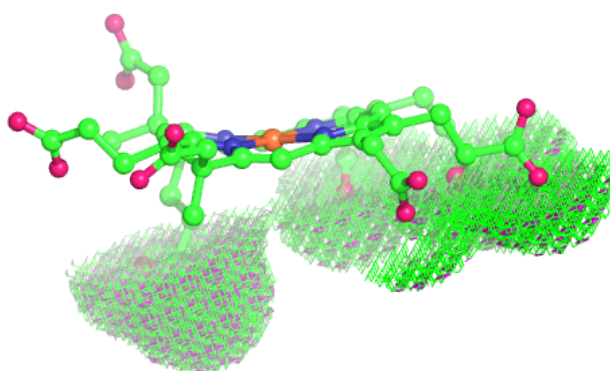
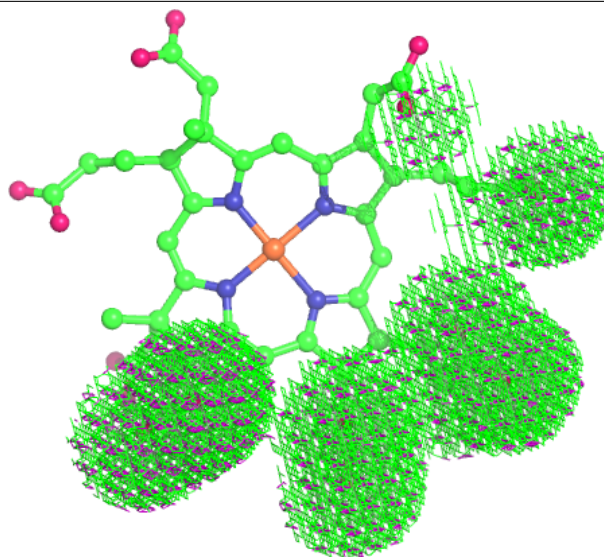
Electron density around SF4 F 1107:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



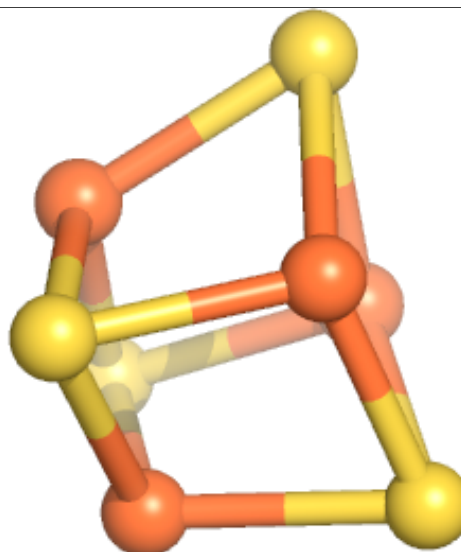
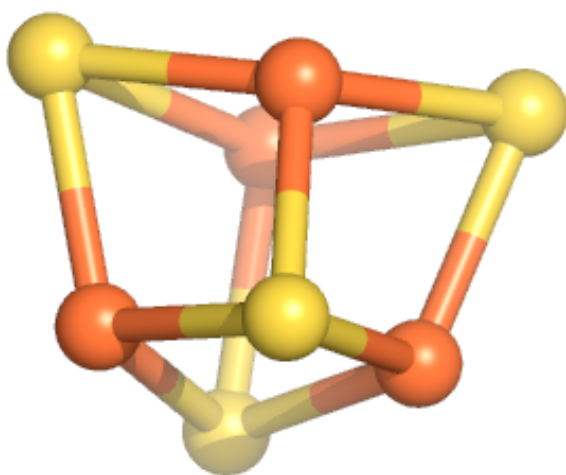
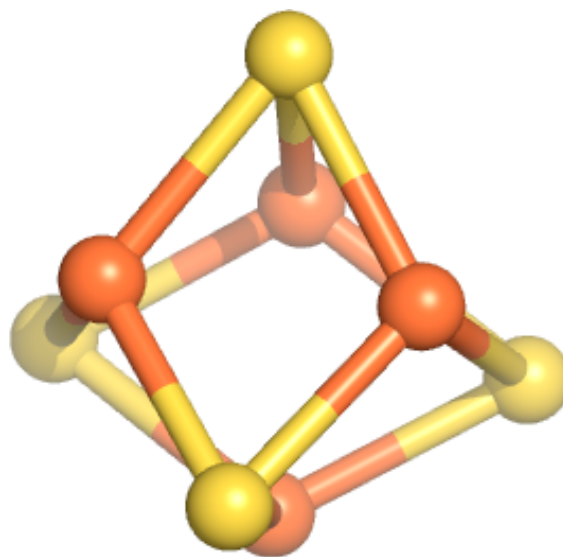
Electron density around SRM P 1109:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



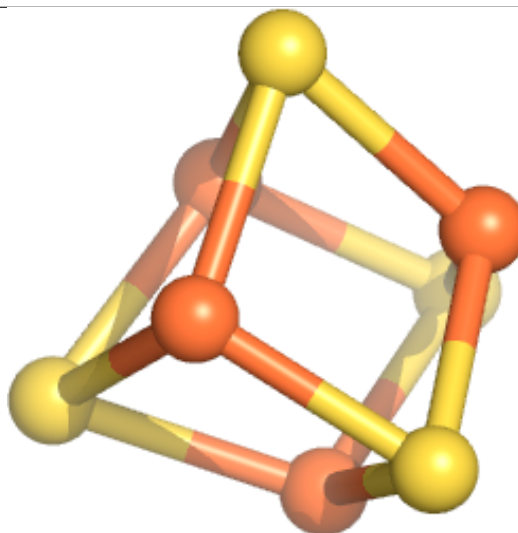
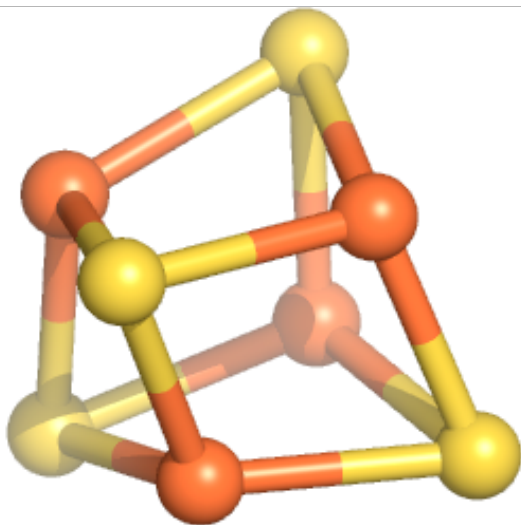
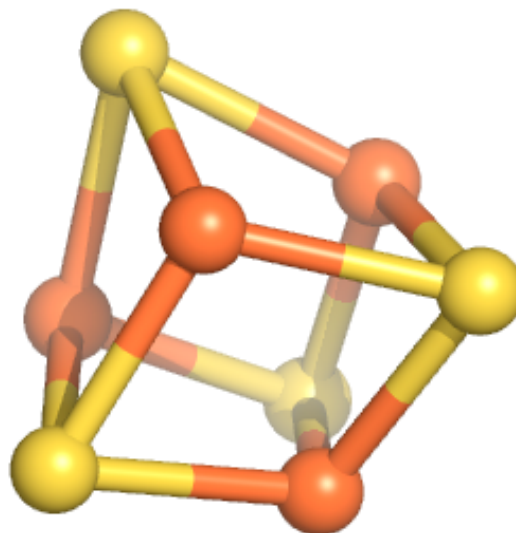
Electron density around SF4 G 1101:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



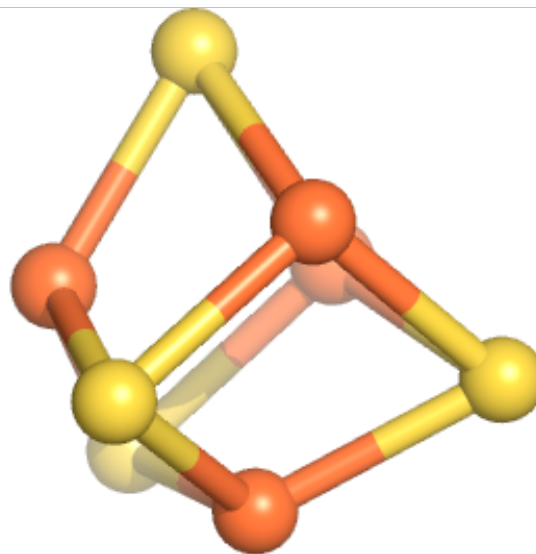
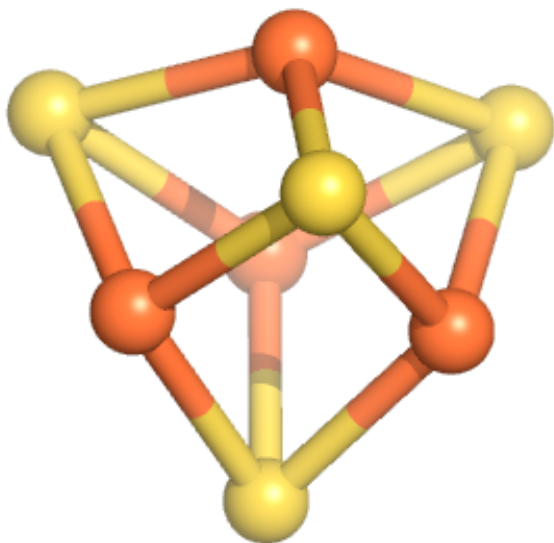
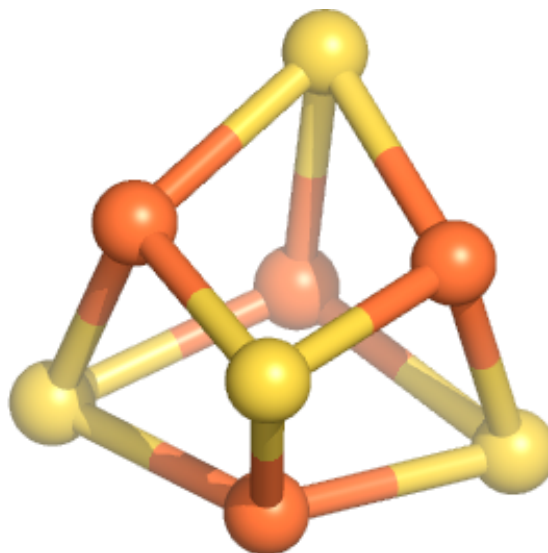
Electron density around SF4 O 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



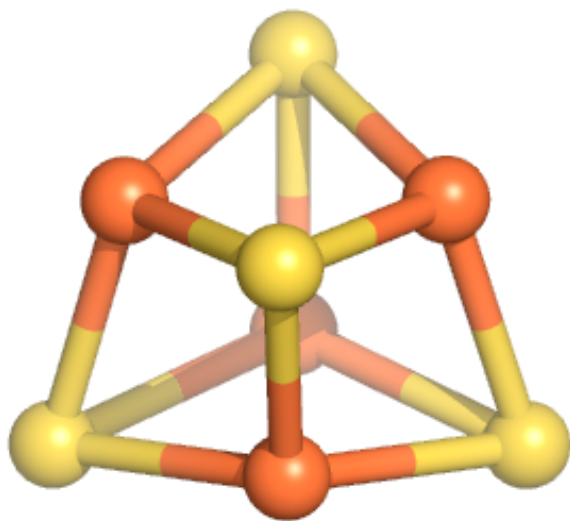
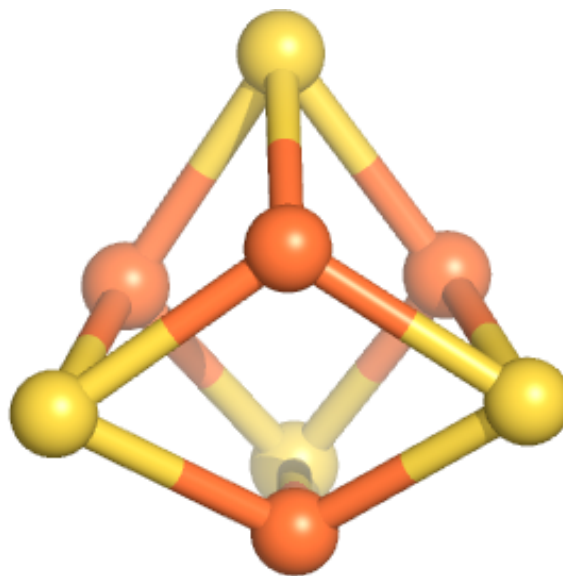
Electron density around SF4 A 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



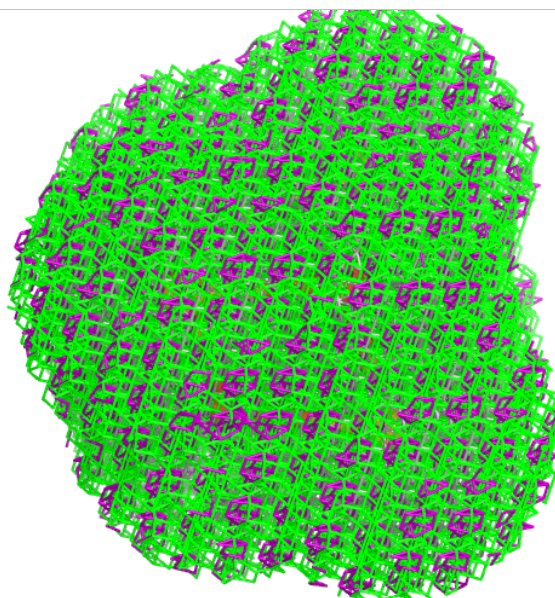
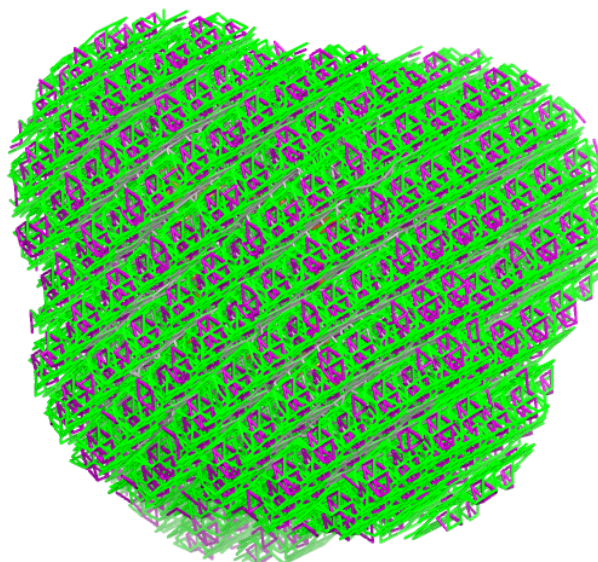
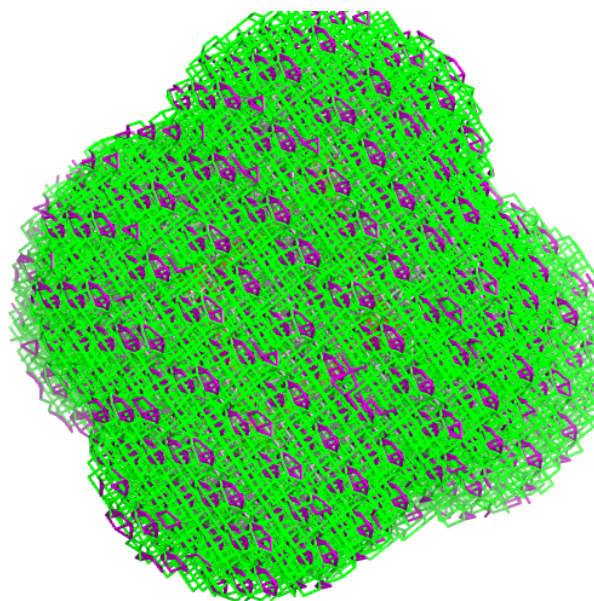
Electron density around SF4 F 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



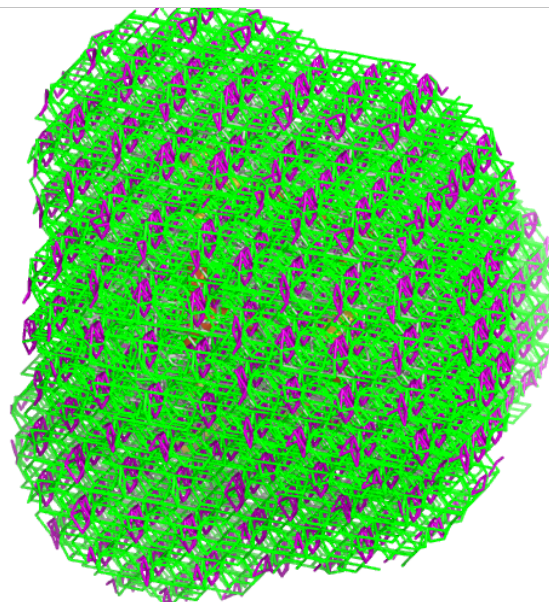
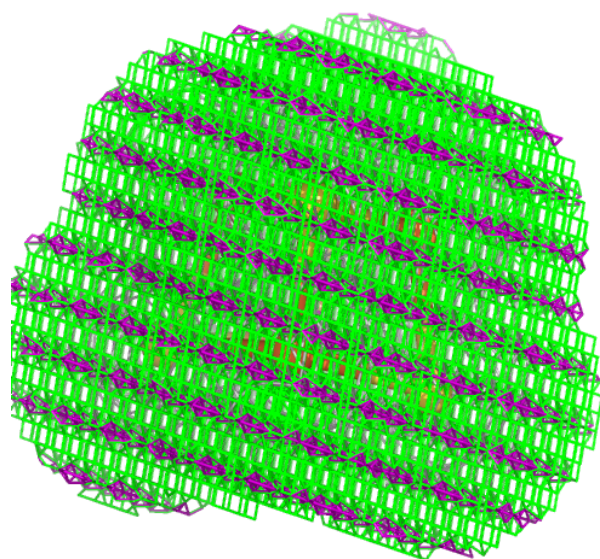
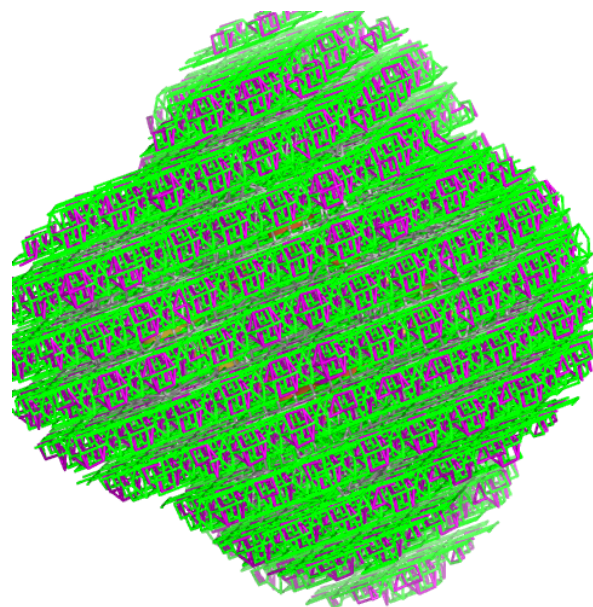
Electron density around SF4 L 1103:

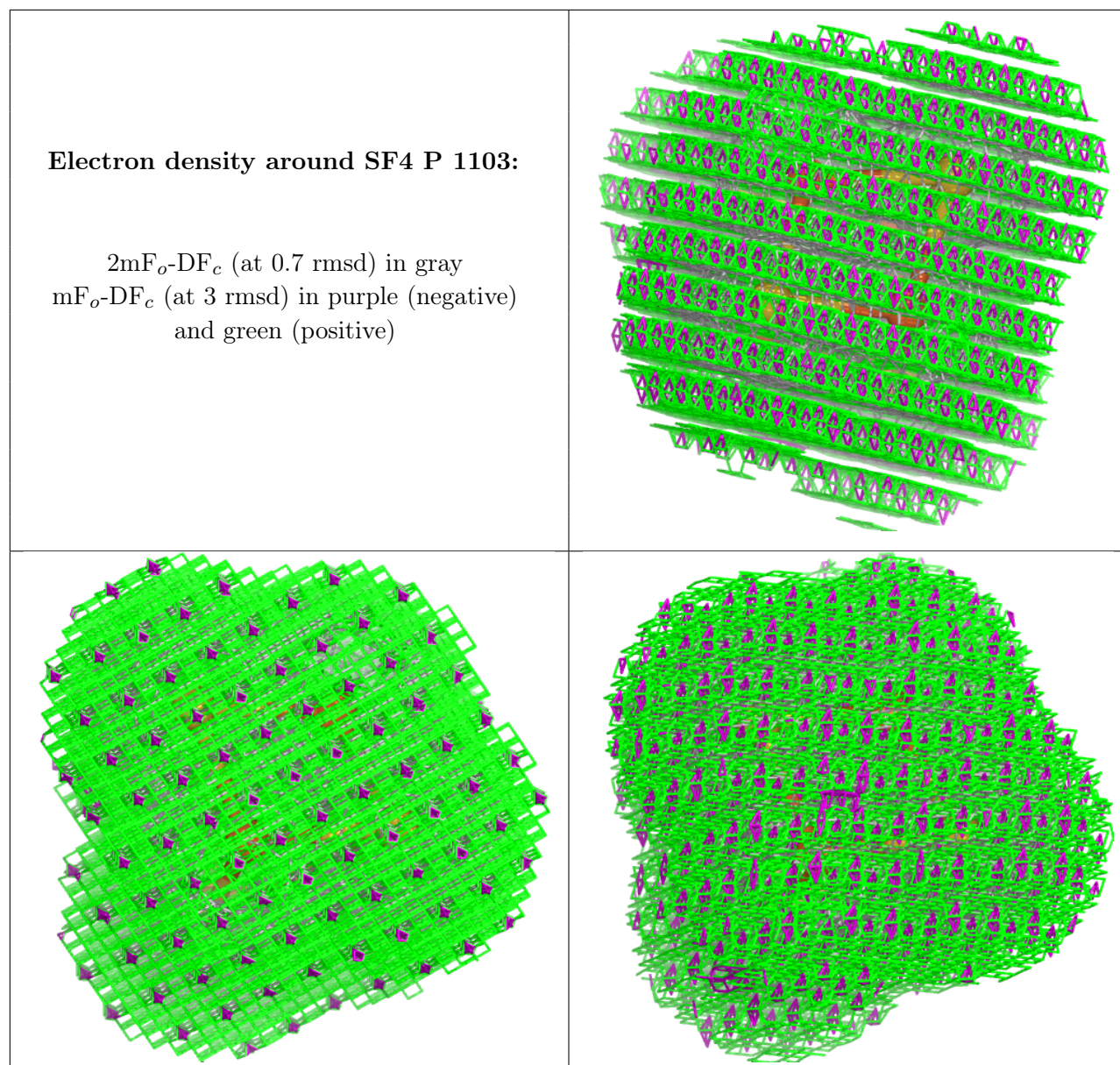
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

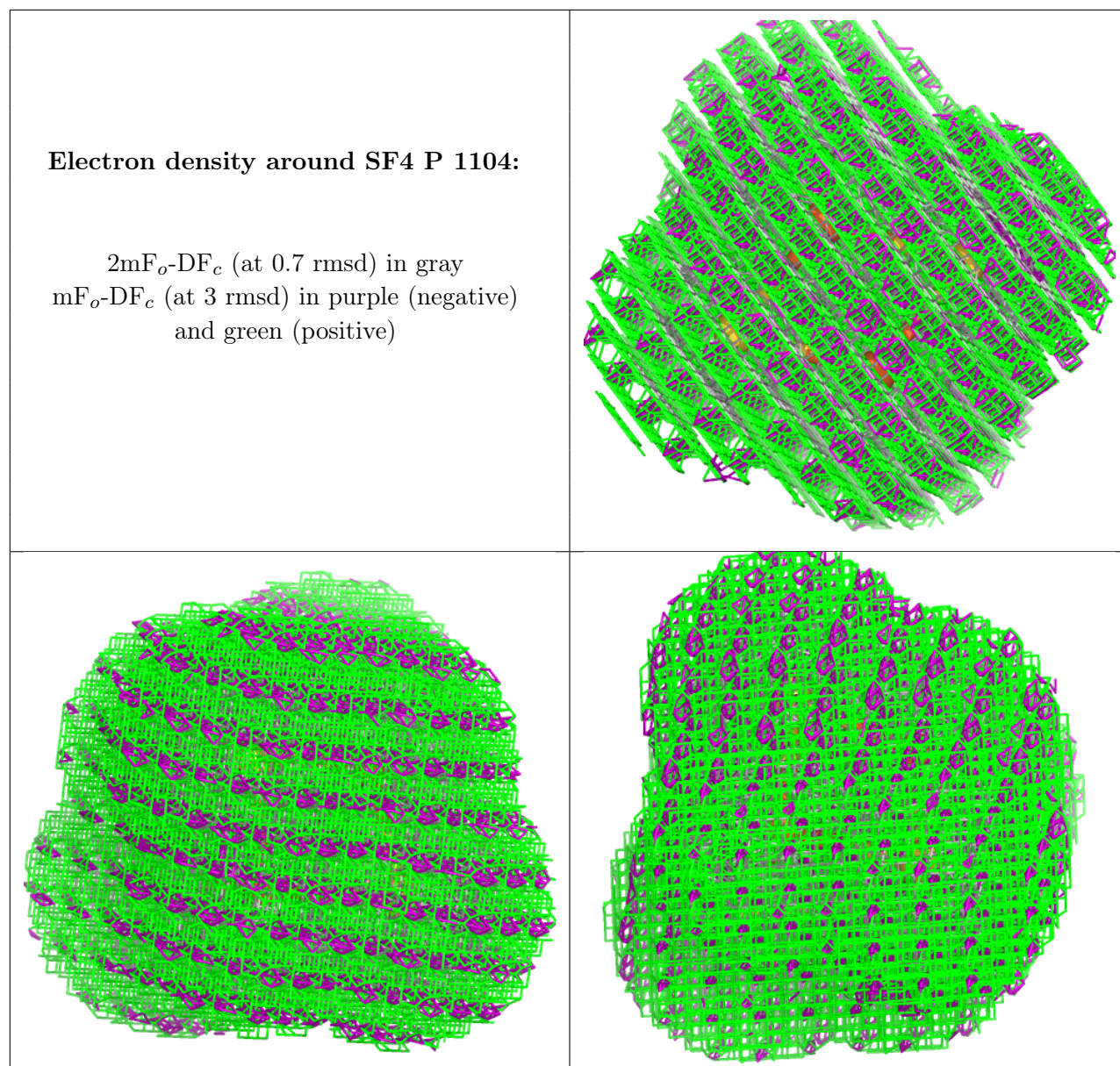


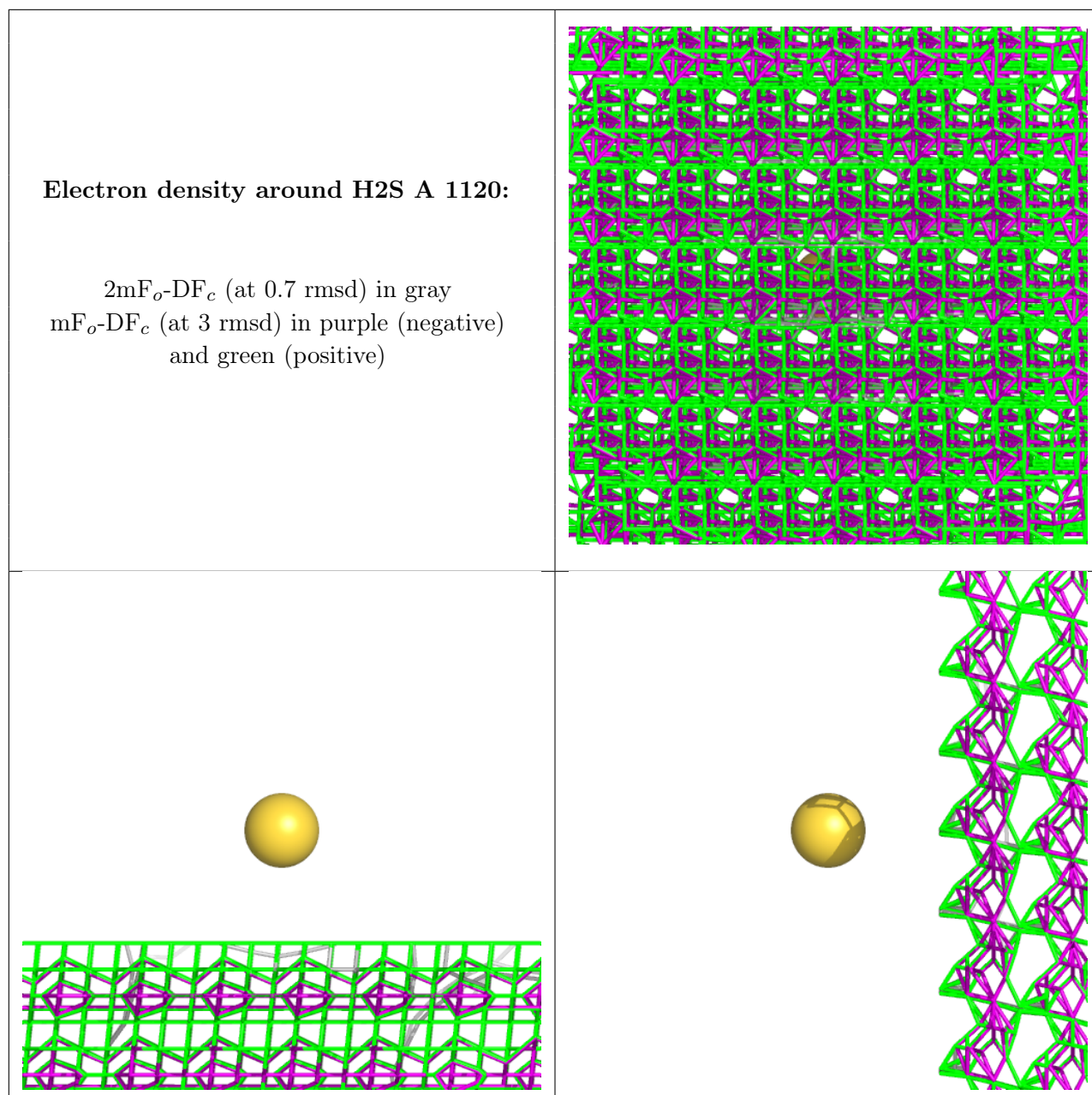
Electron density around SF4 L 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



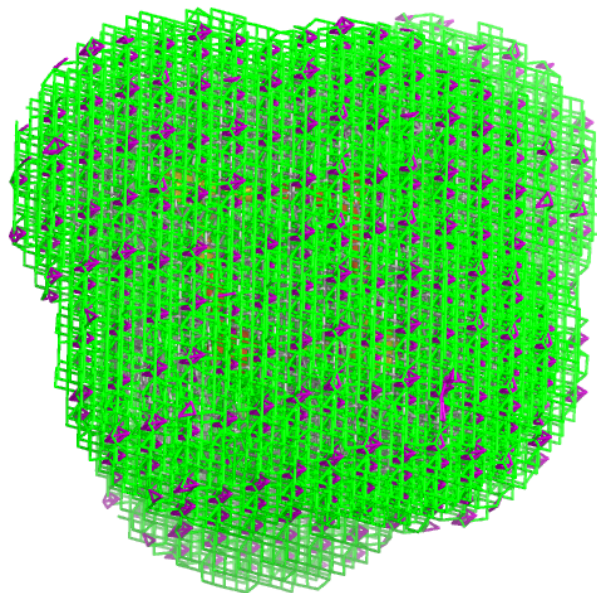
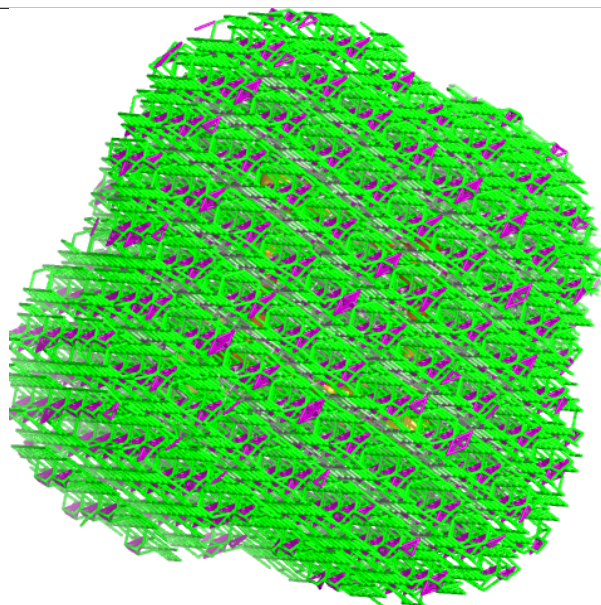
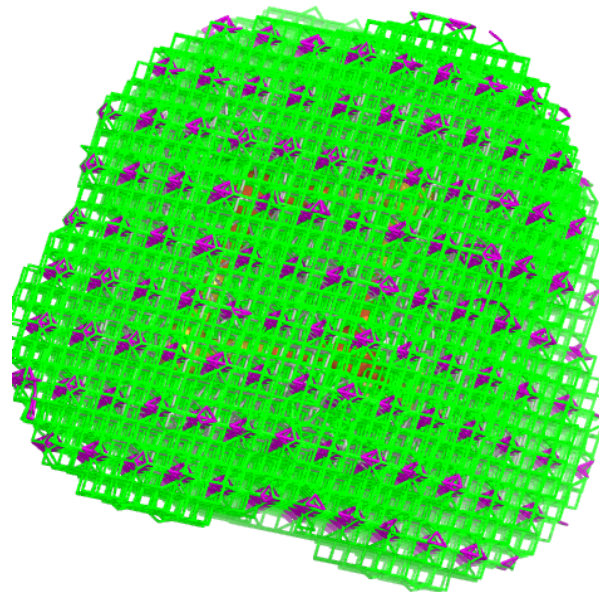






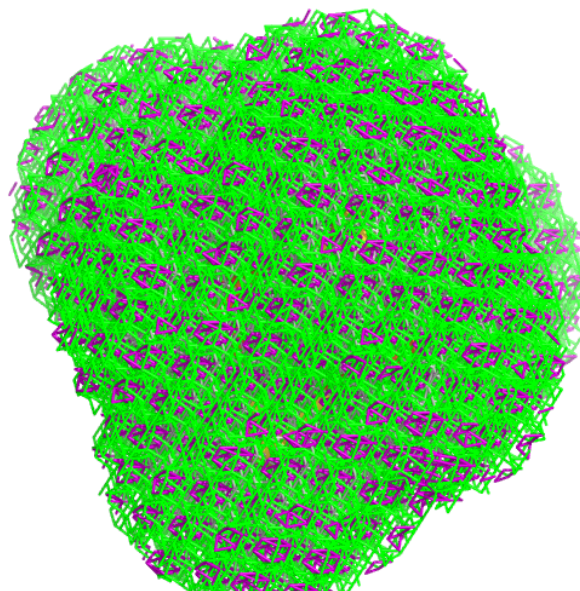
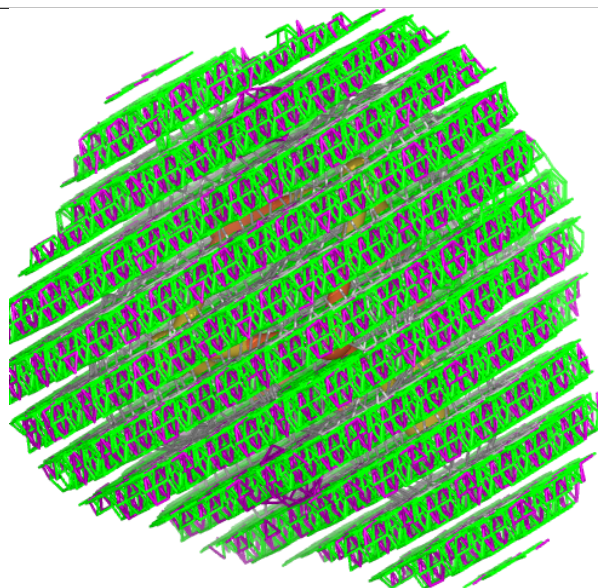
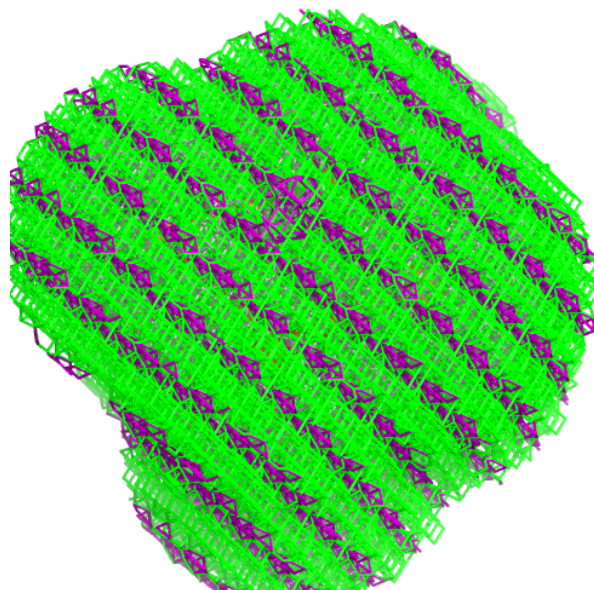
Electron density around SF4 P 1105:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



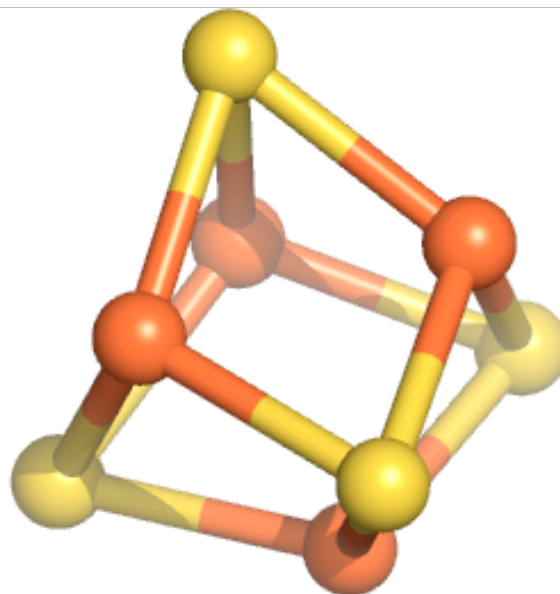
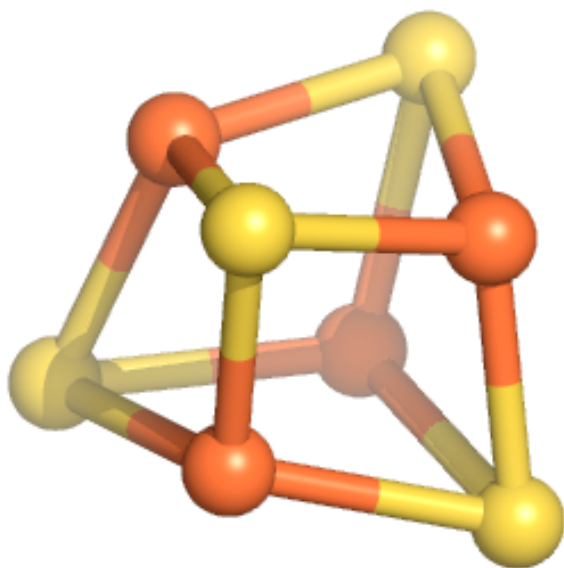
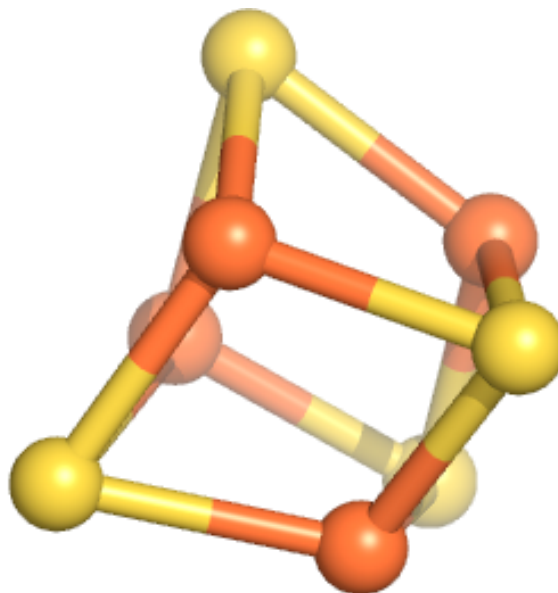
Electron density around SF4 I 1102:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



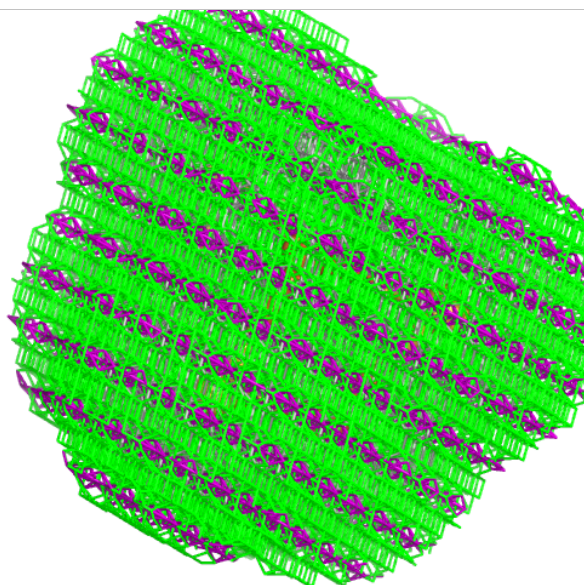
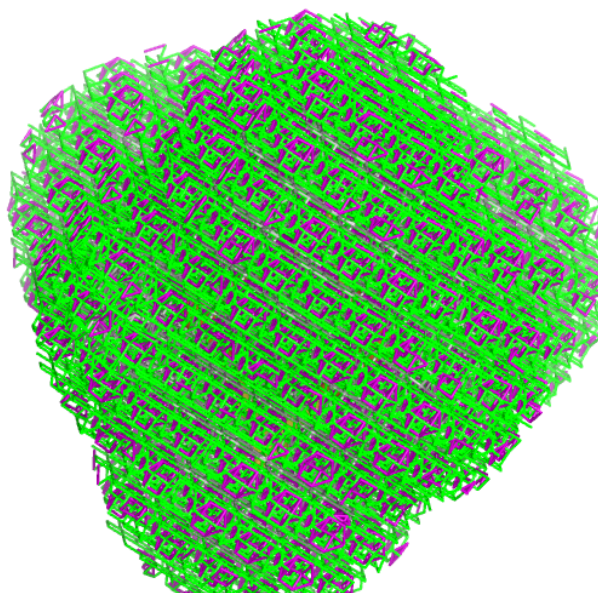
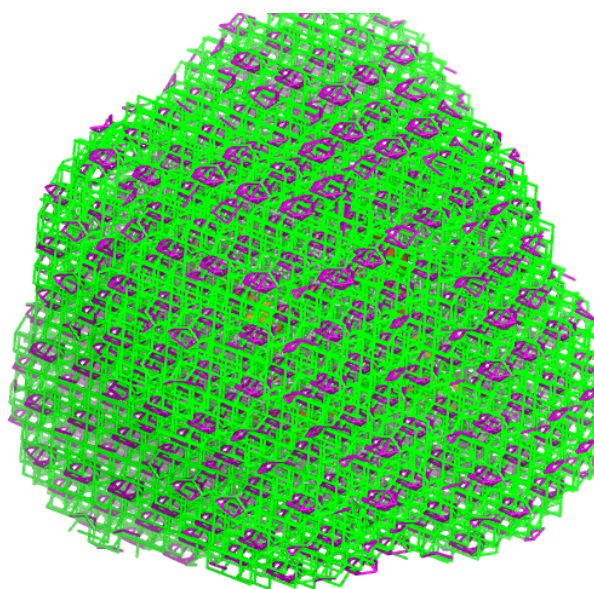
Electron density around SF4 D 4608:

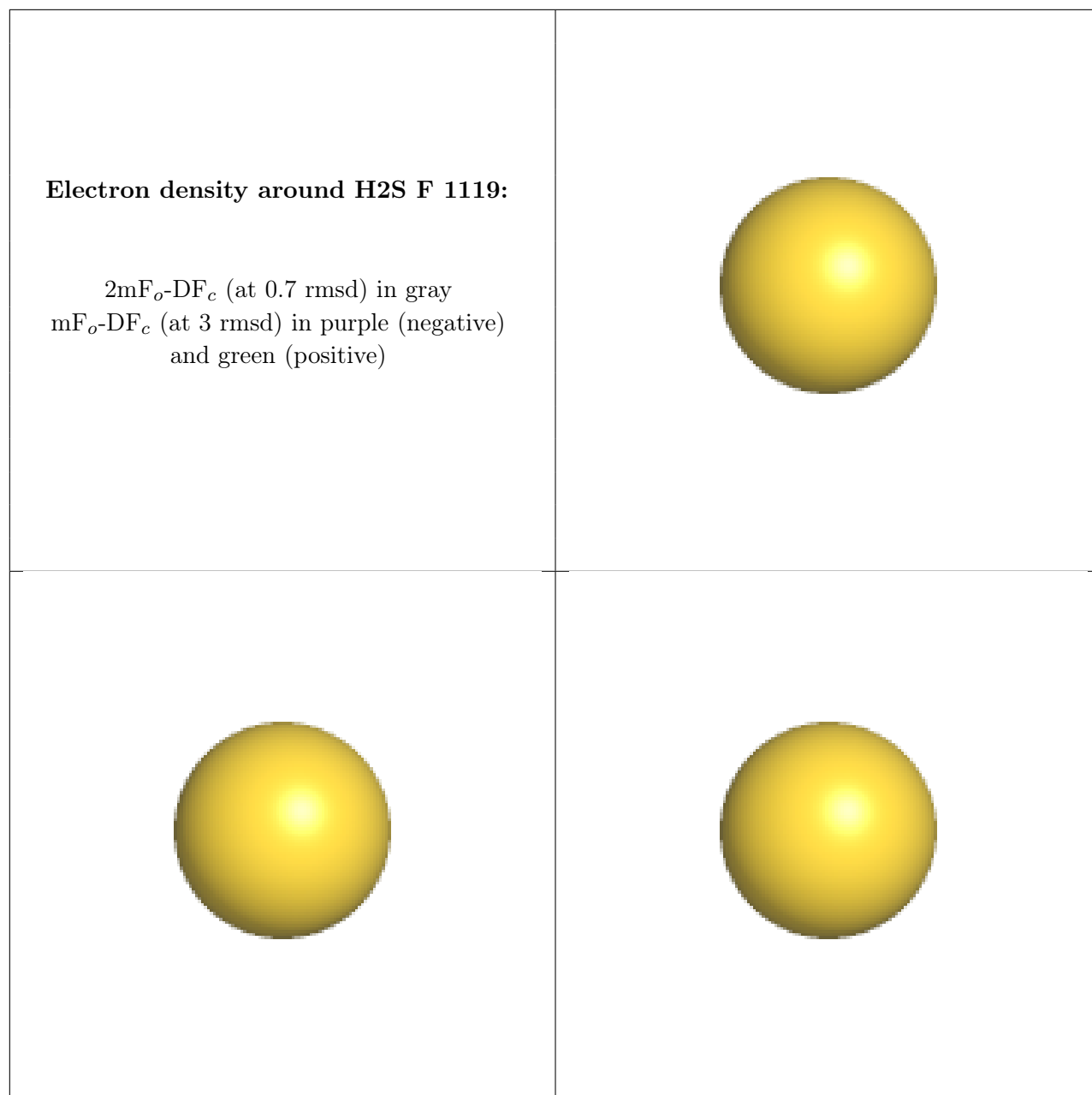
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

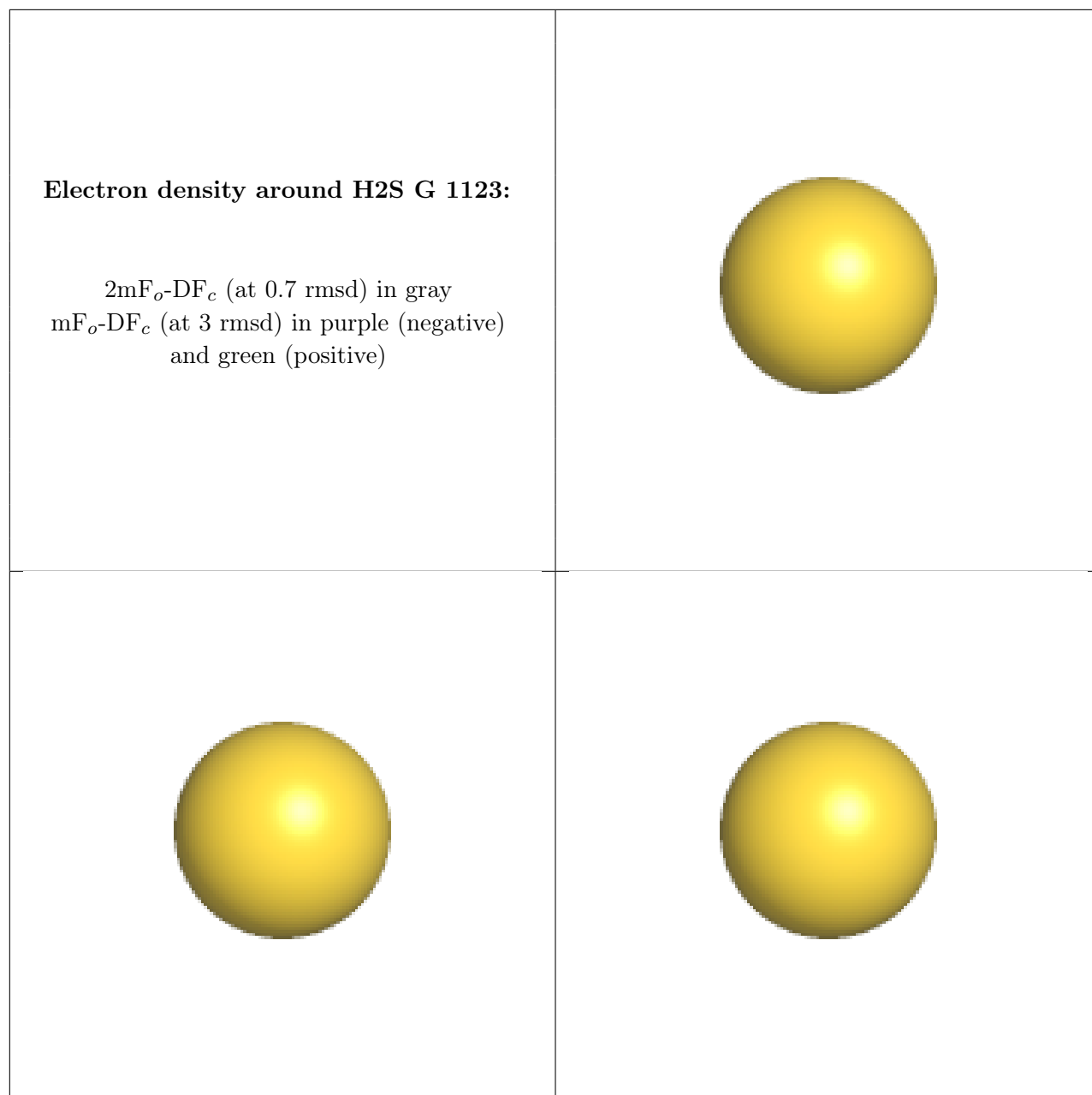


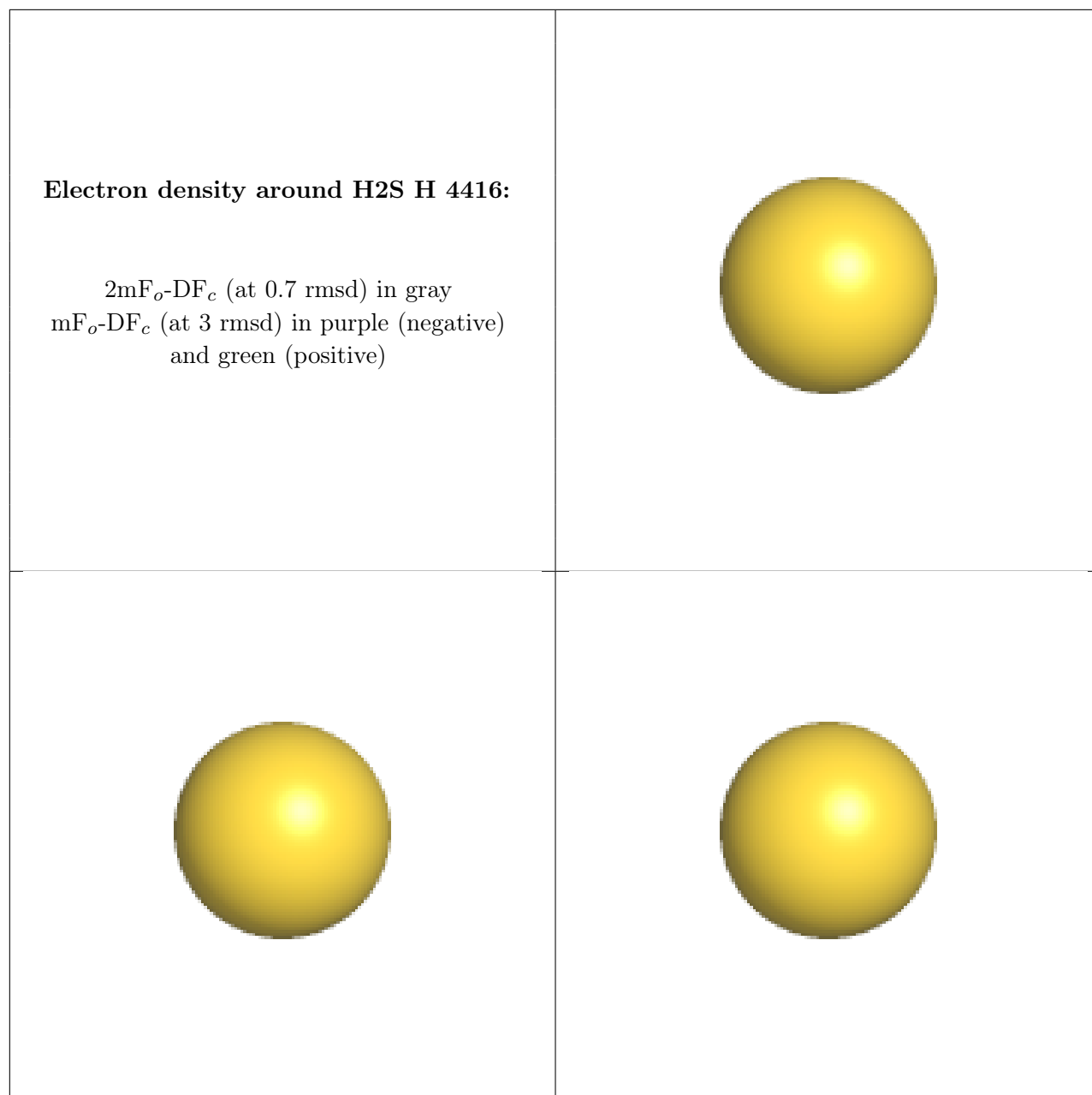
Electron density around SF4 I 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



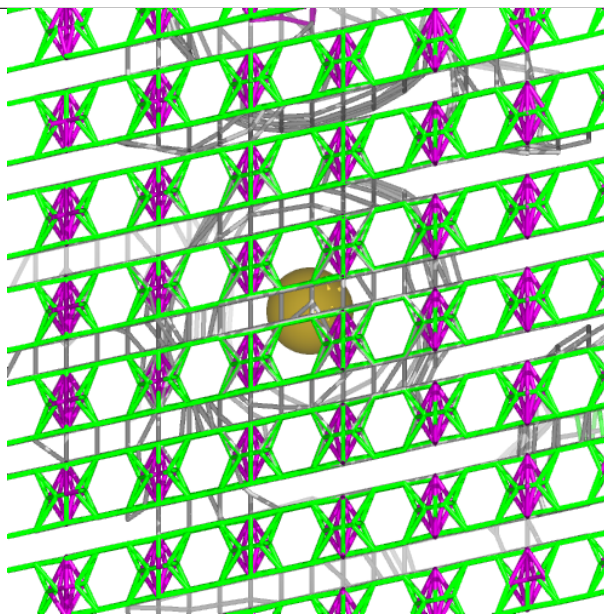
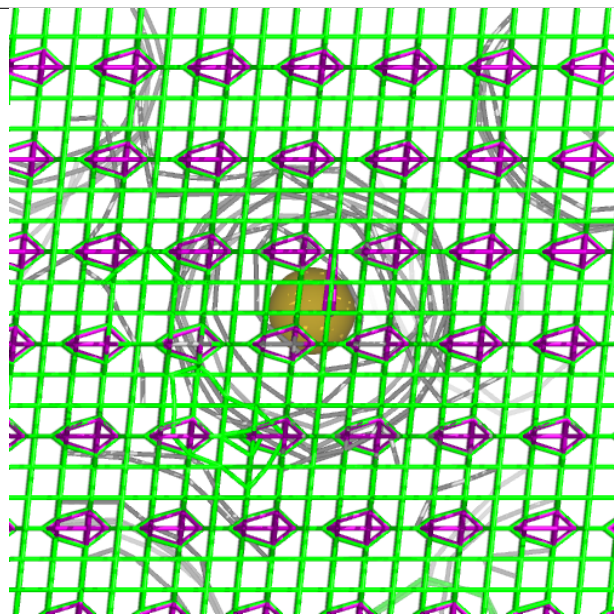
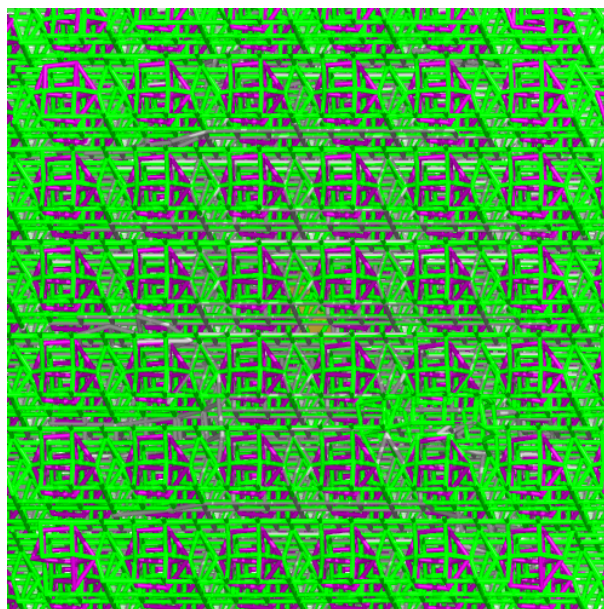






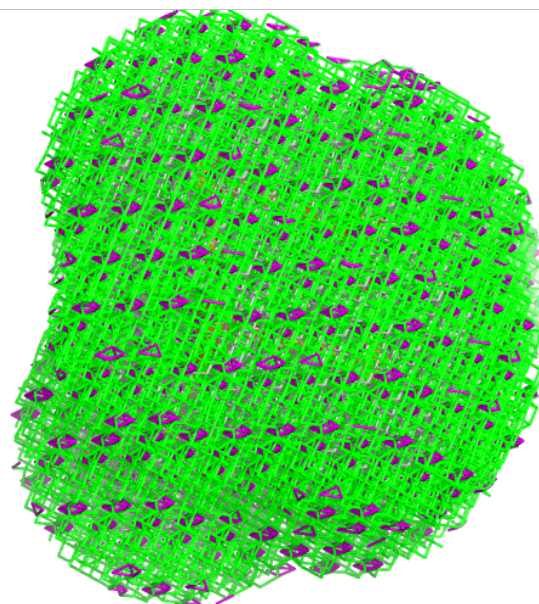
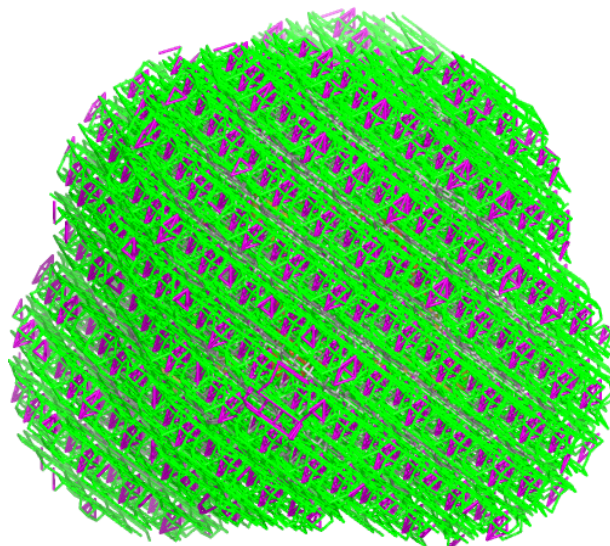
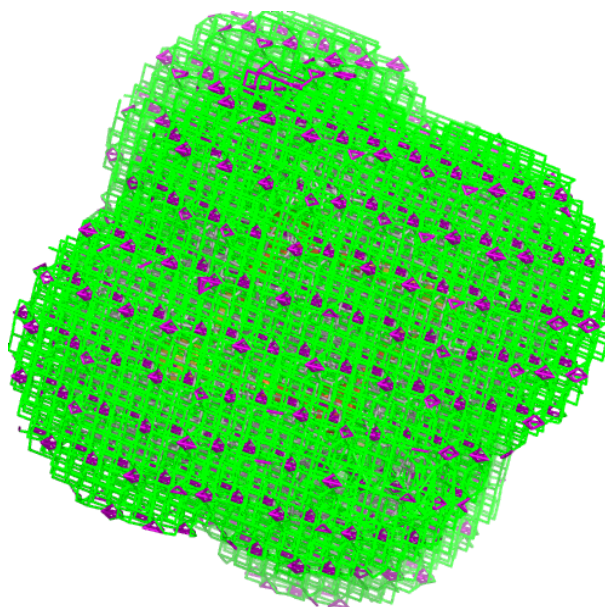
Electron density around H2S I 1121:

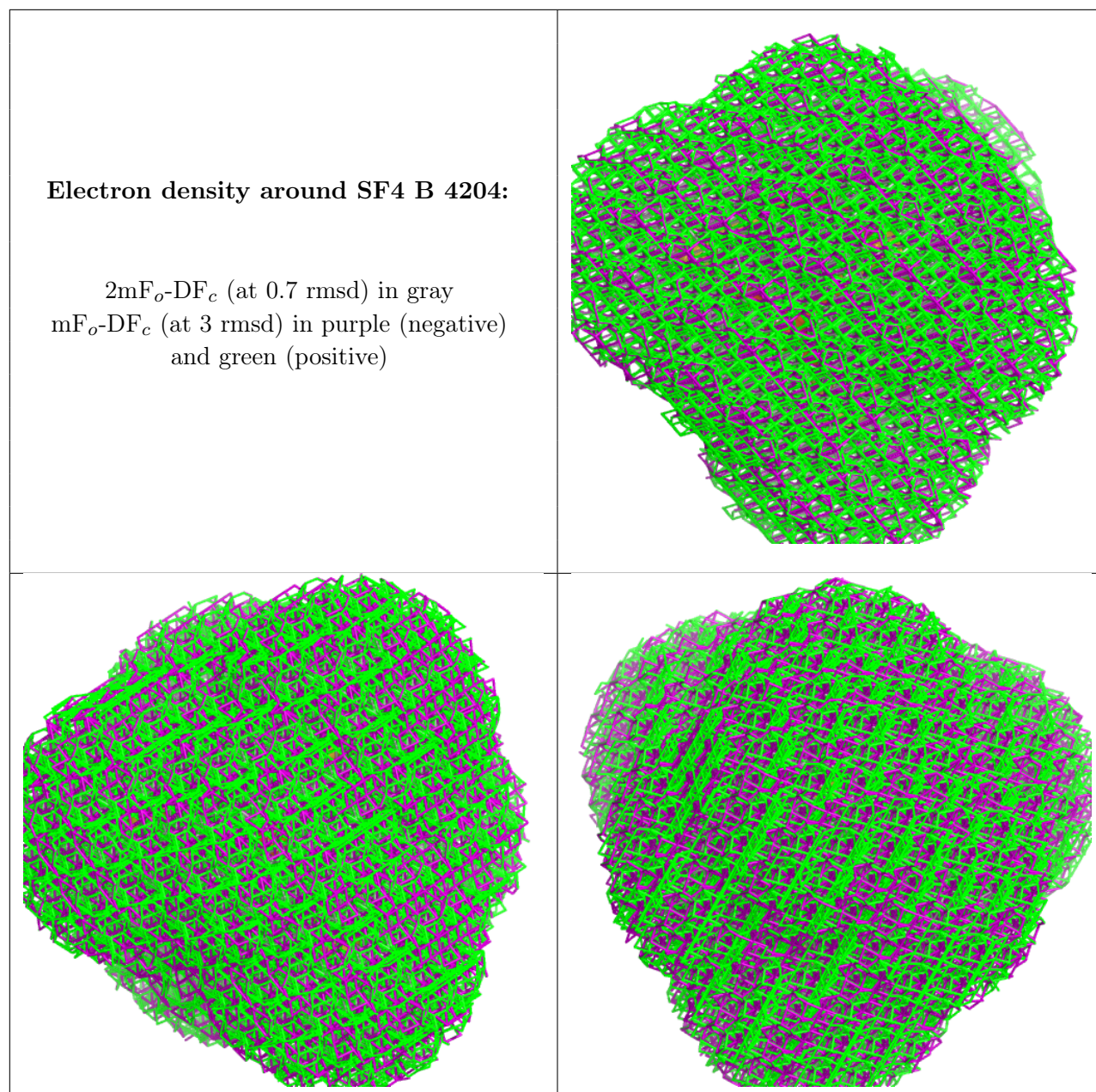
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

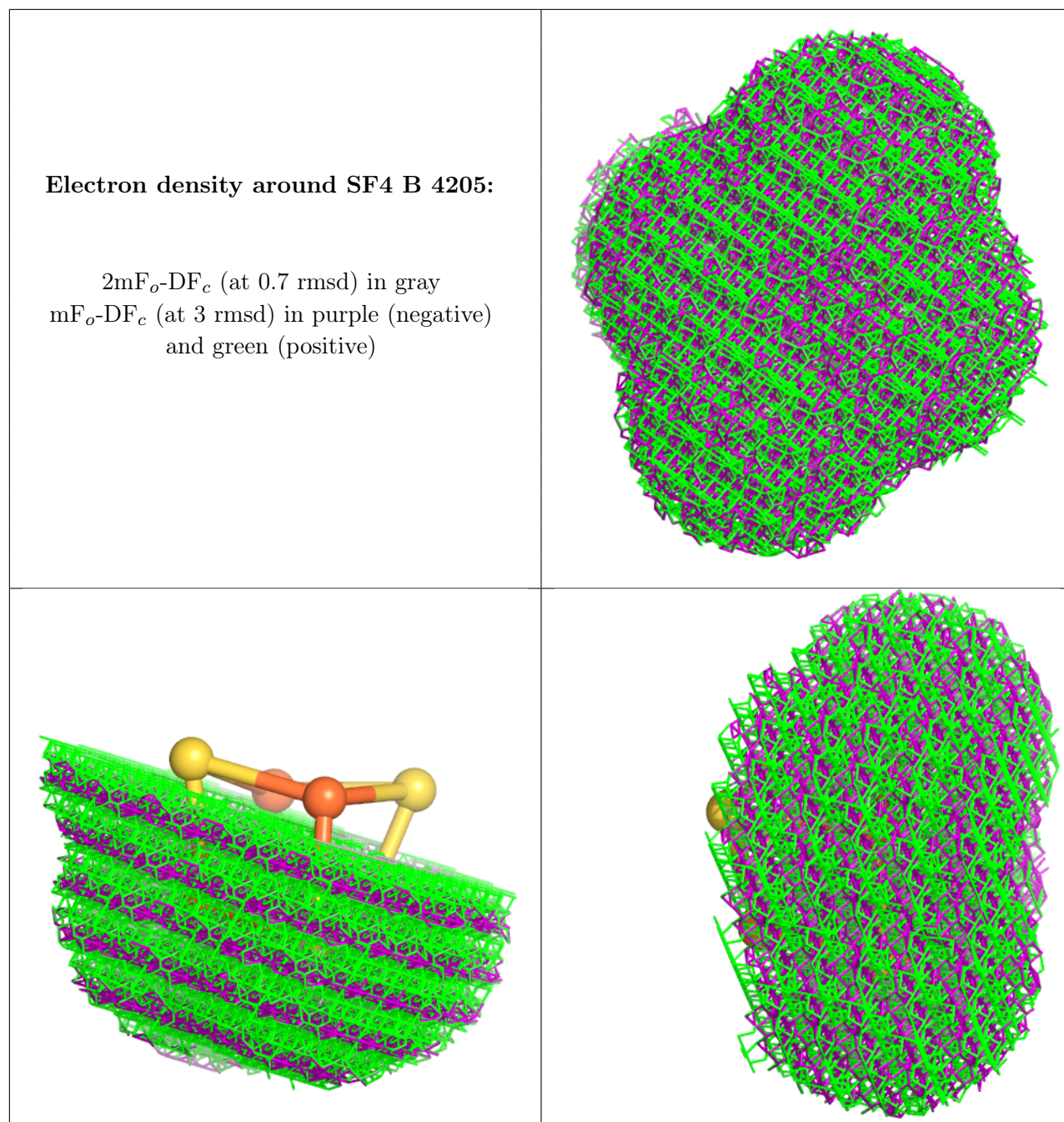


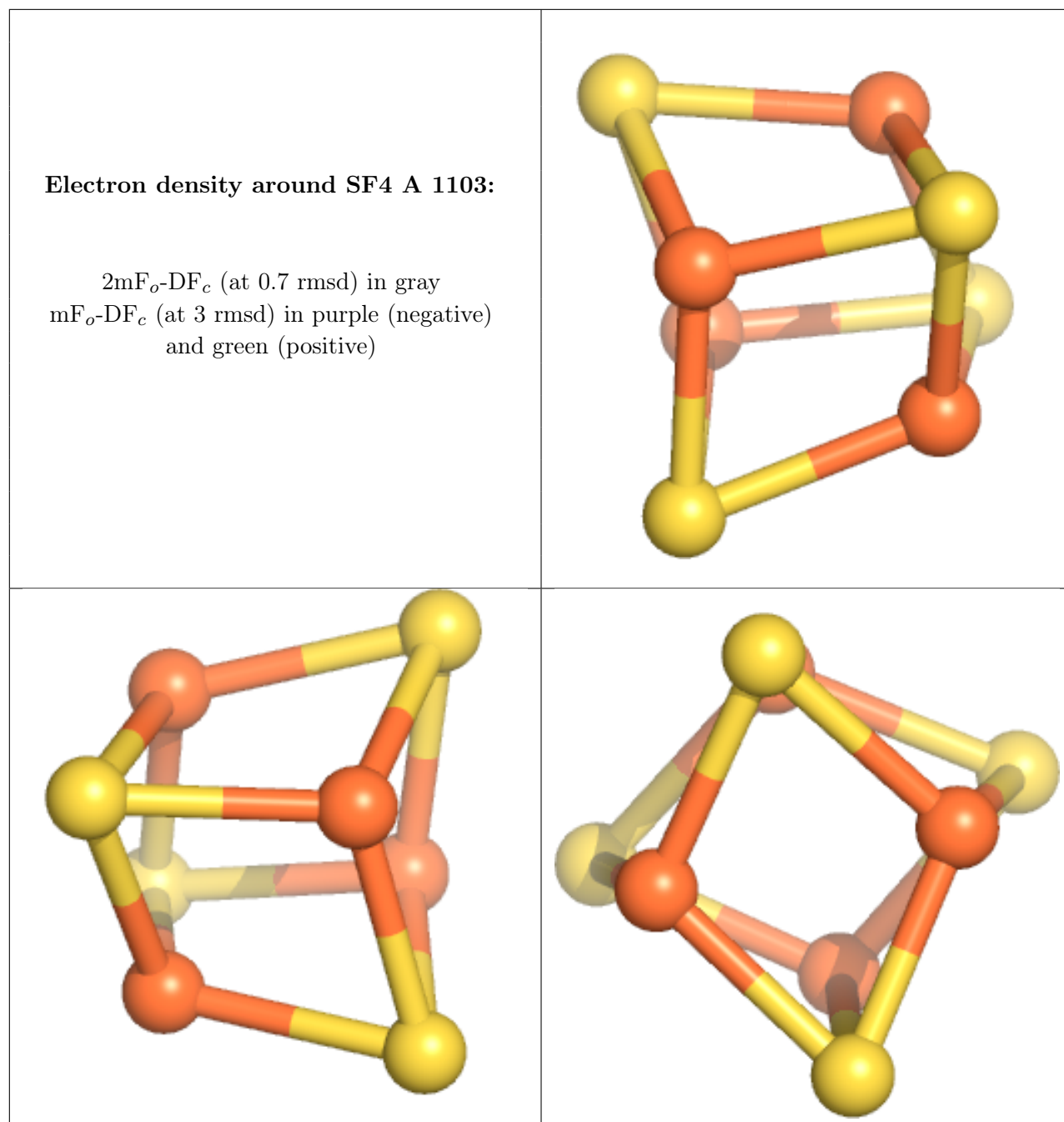
Electron density around SF4 M 1102:

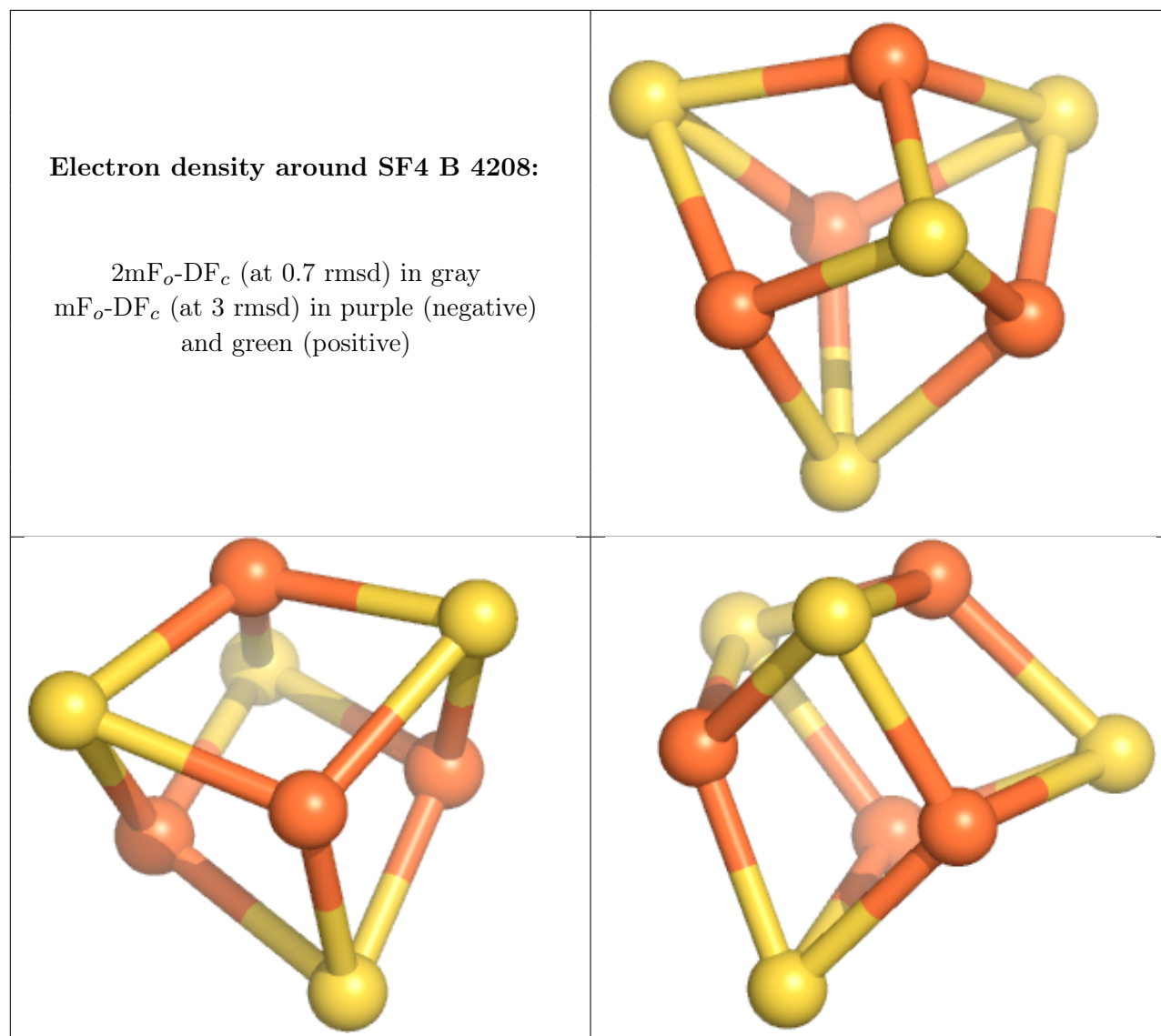
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

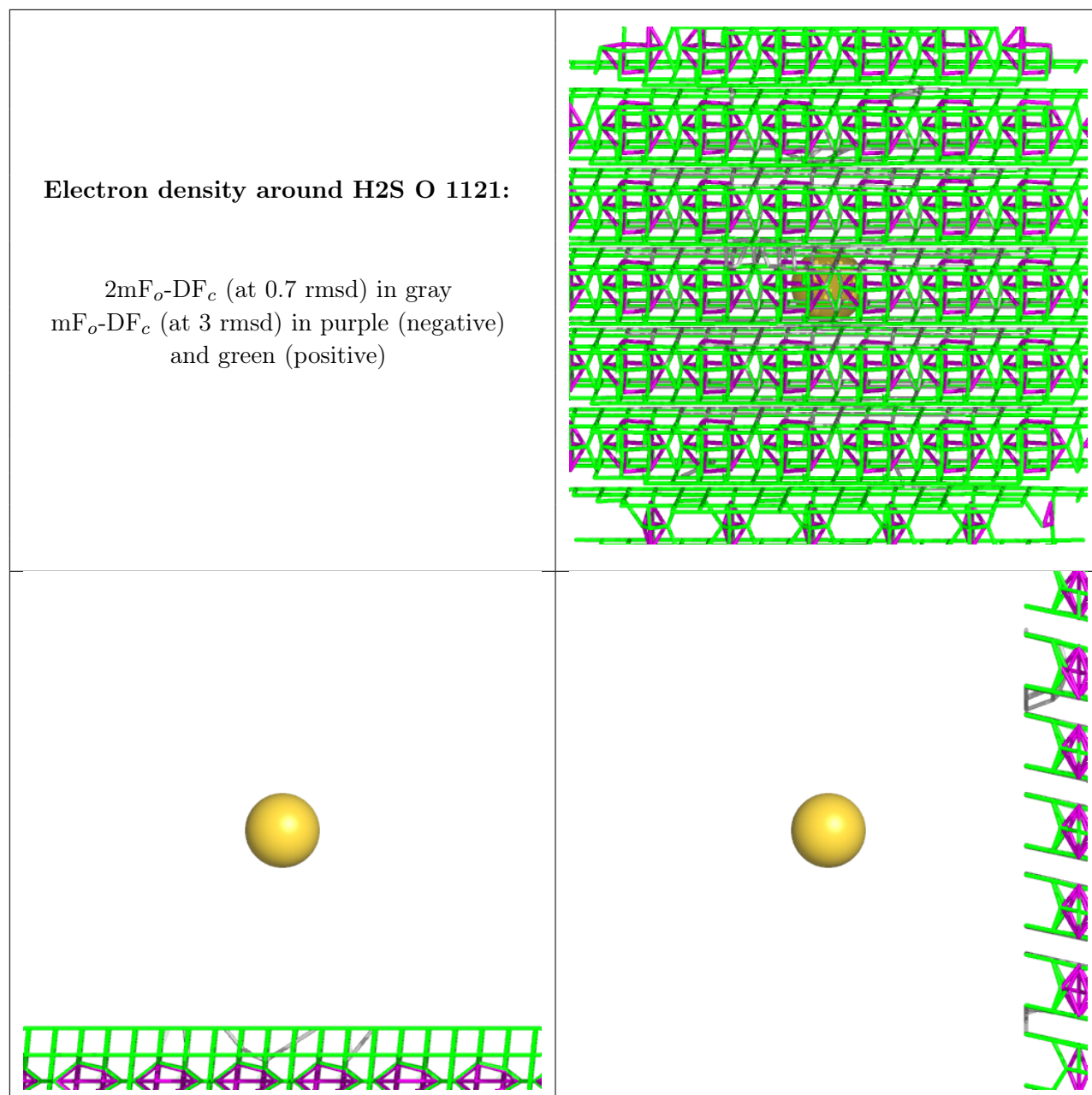












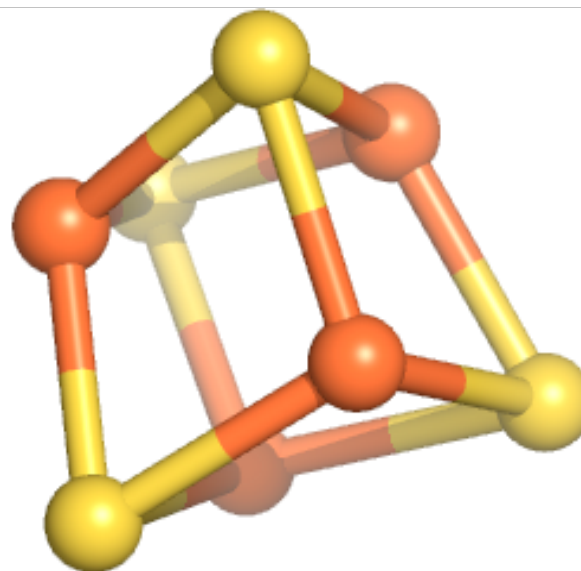
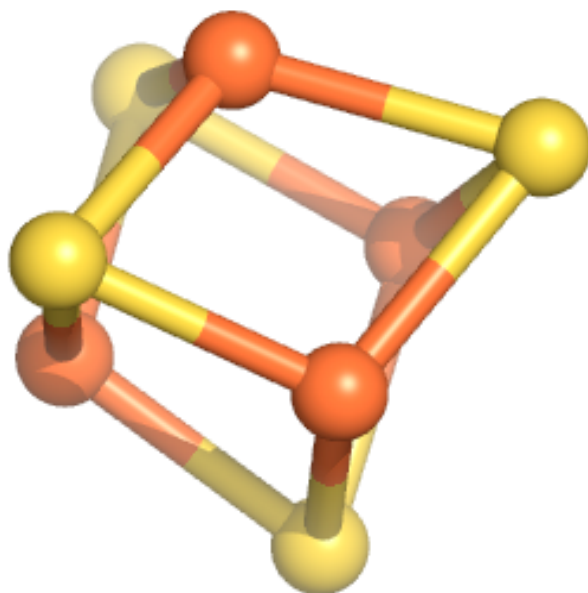
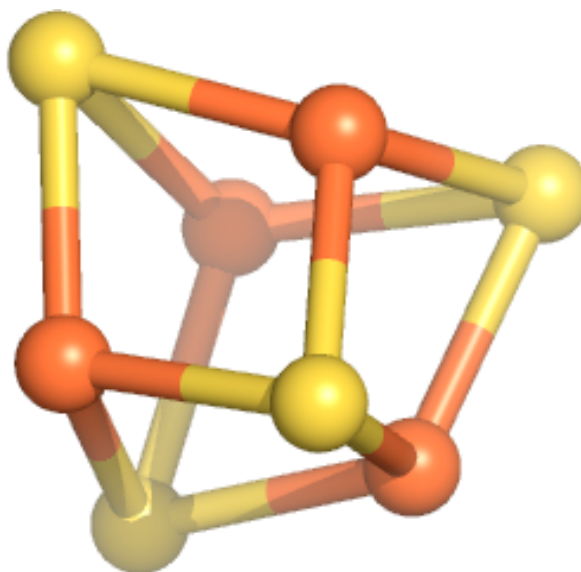
Electron density around H2S P 1117:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



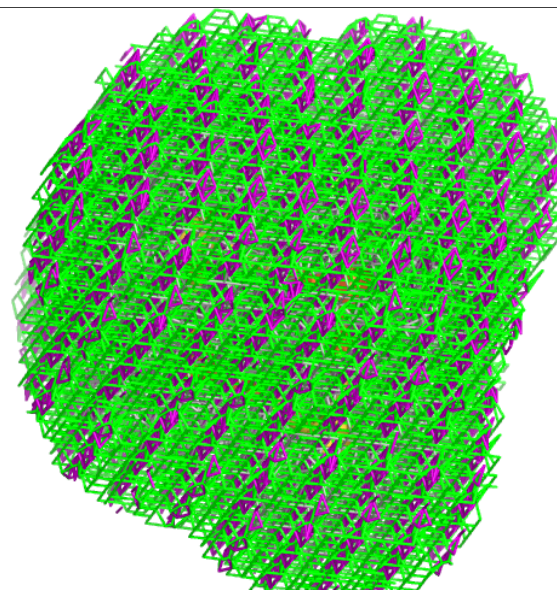
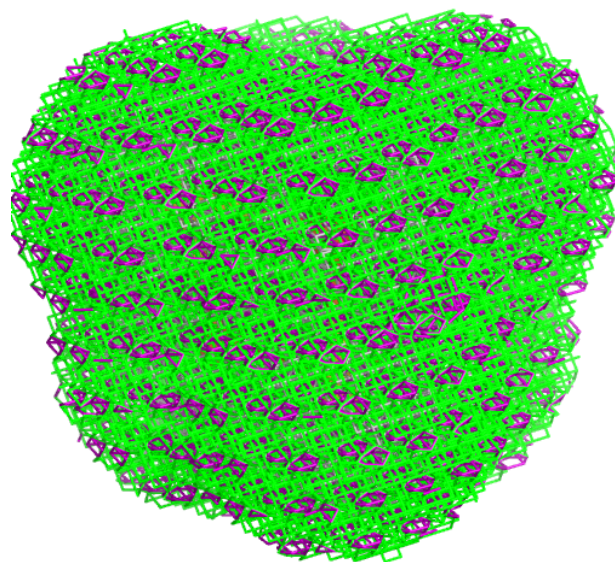
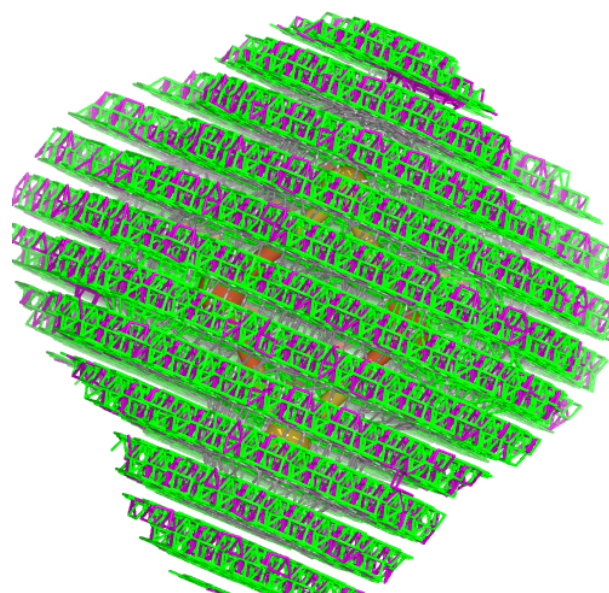
Electron density around SF4 D 4602:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



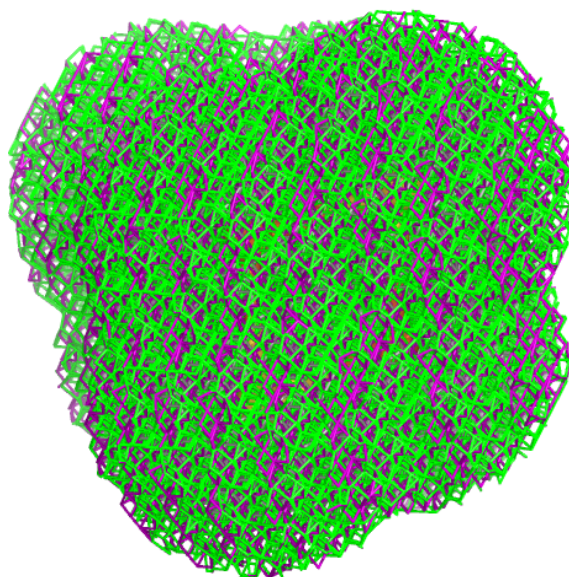
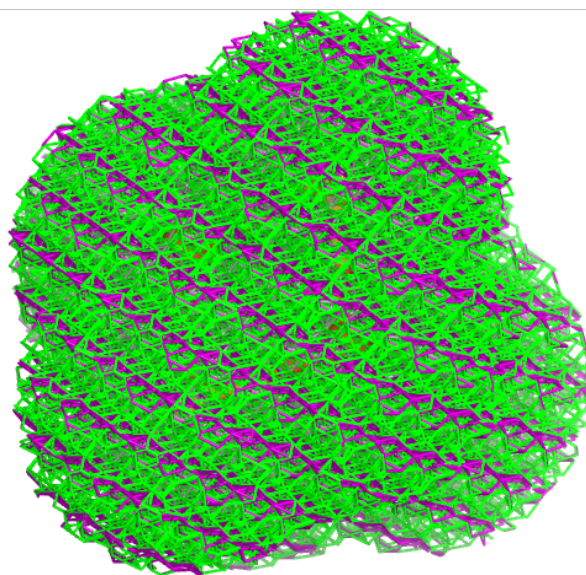
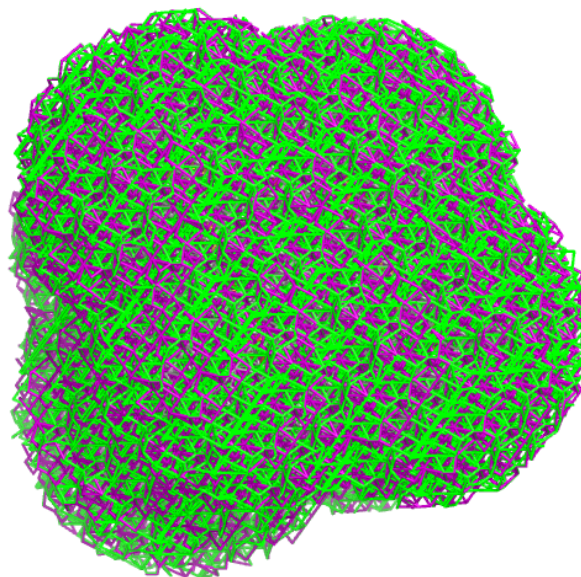
Electron density around SF4 J 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



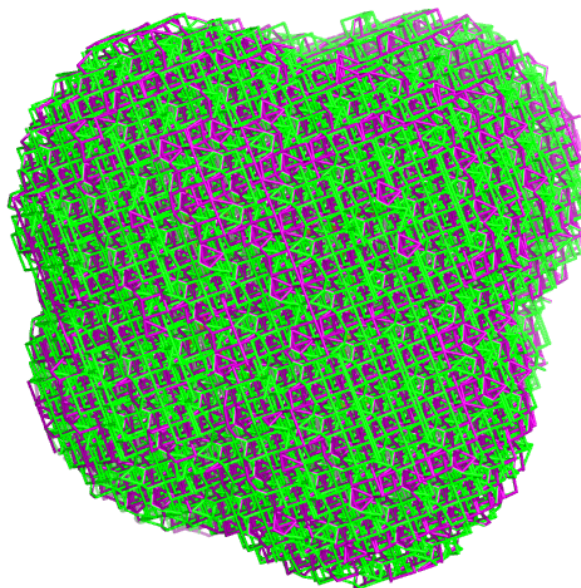
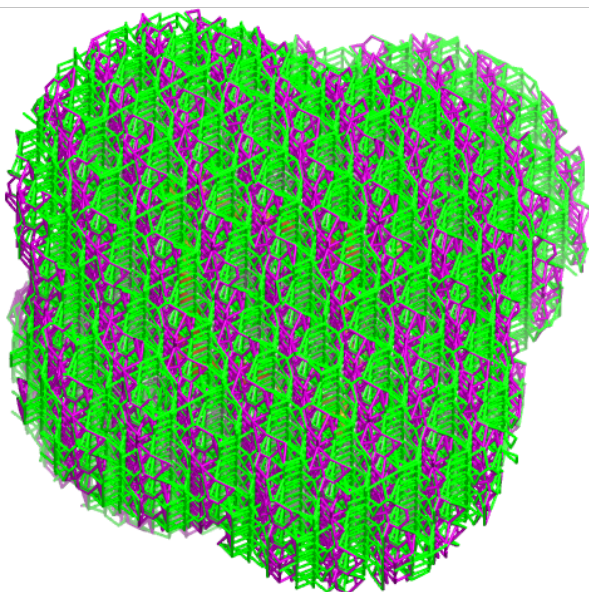
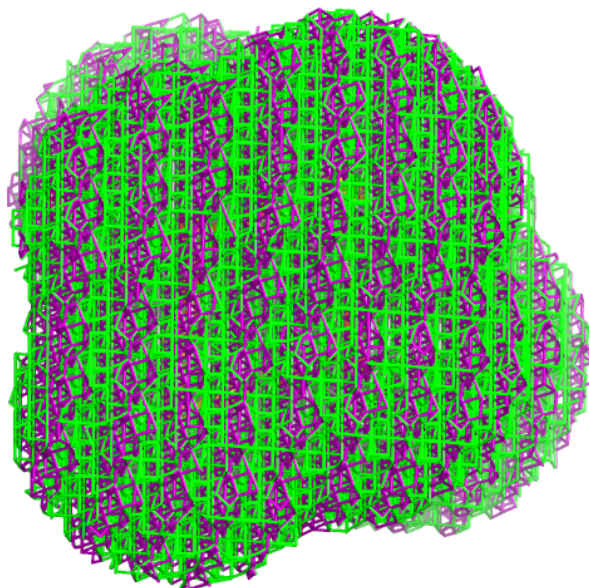
Electron density around SF4 C 3902:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



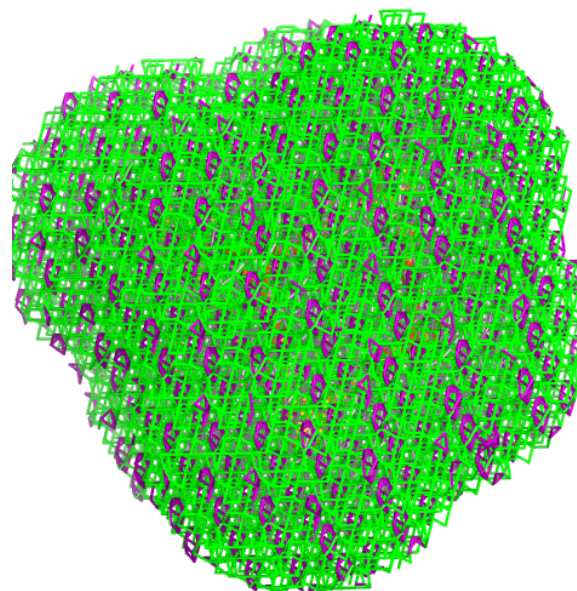
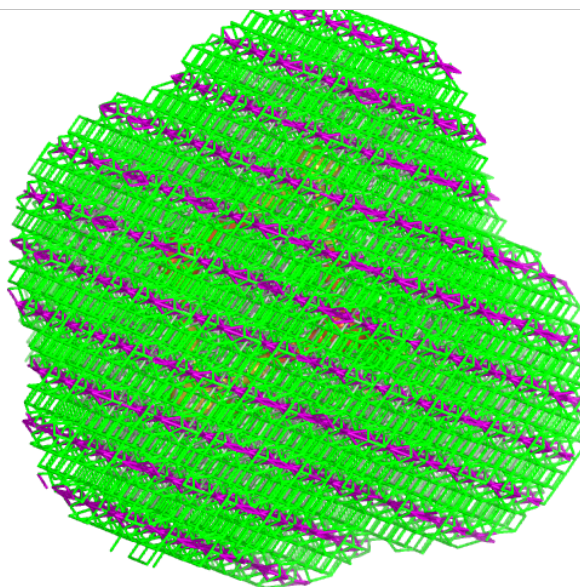
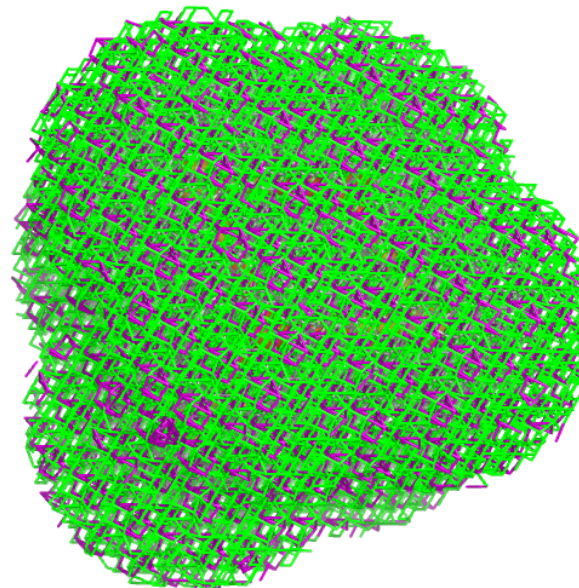
Electron density around SF4 D 4604:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



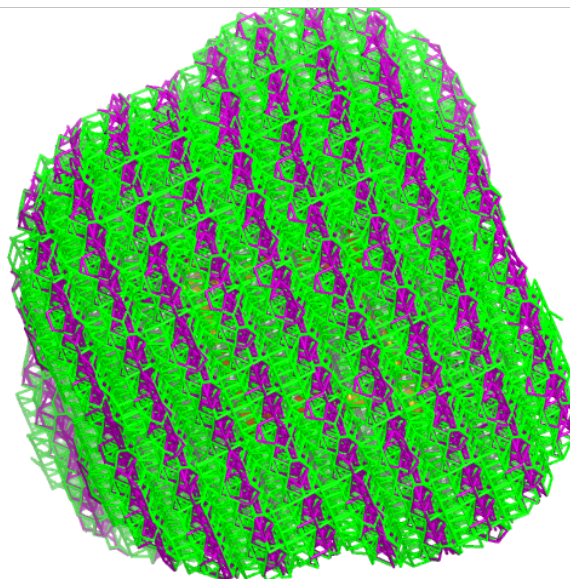
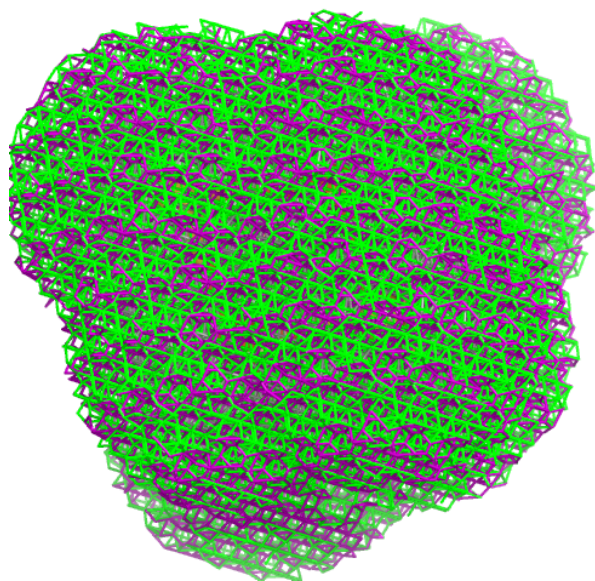
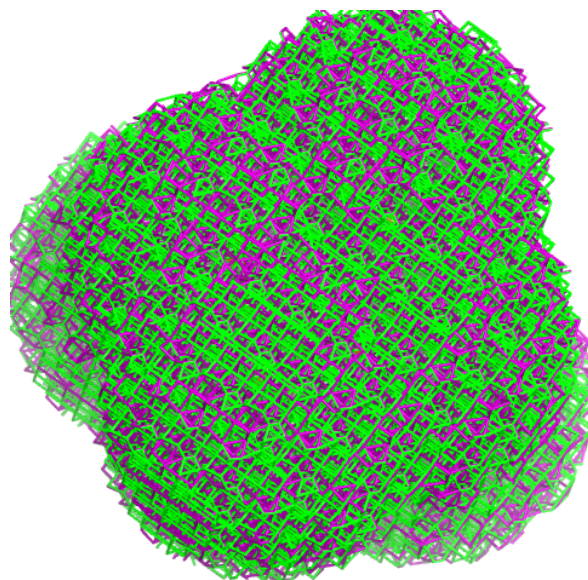
Electron density around SF4 K 1101:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



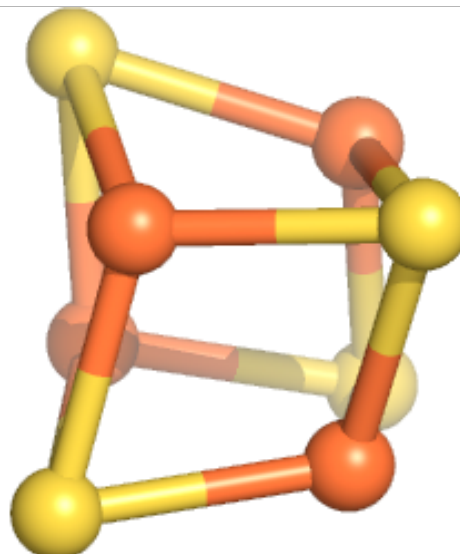
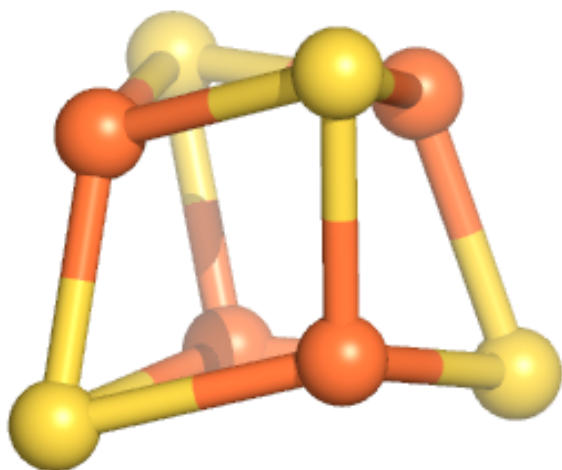
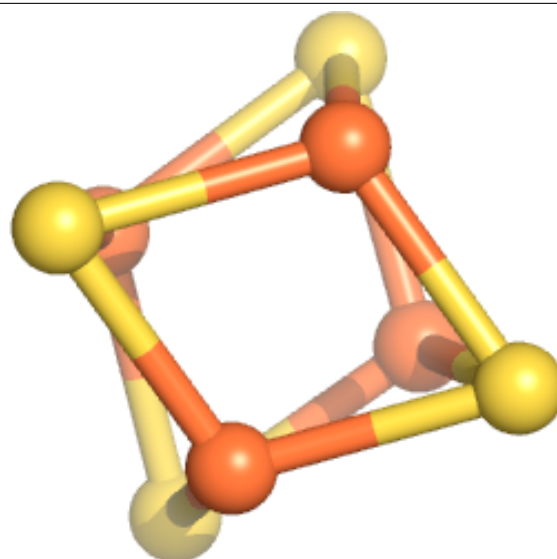
Electron density around SF4 D 4605:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



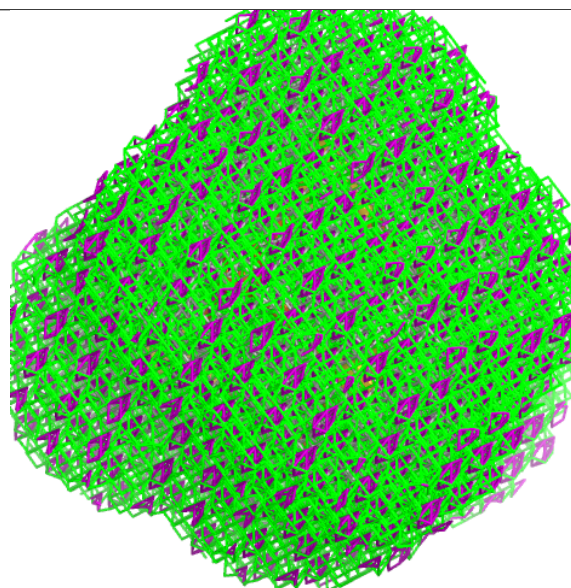
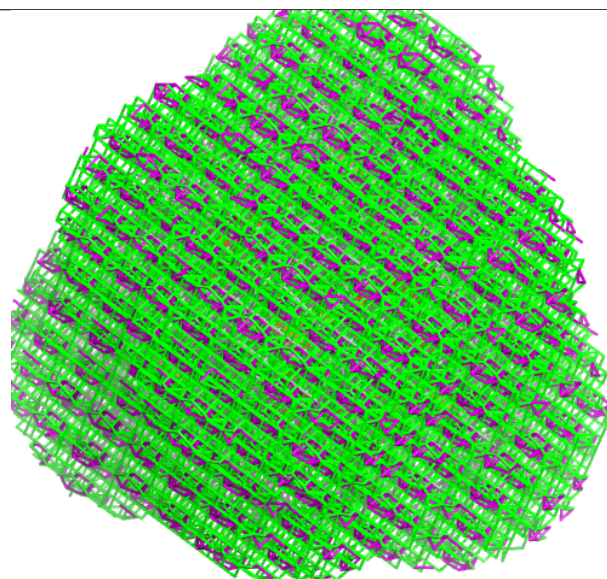
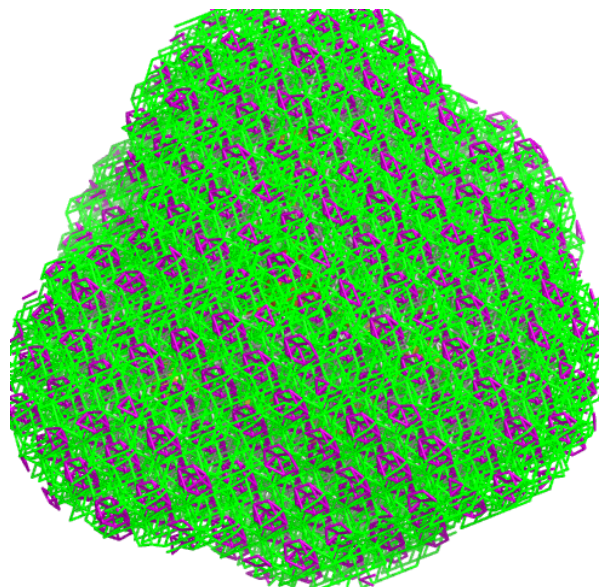
Electron density around SF4 F 1103:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



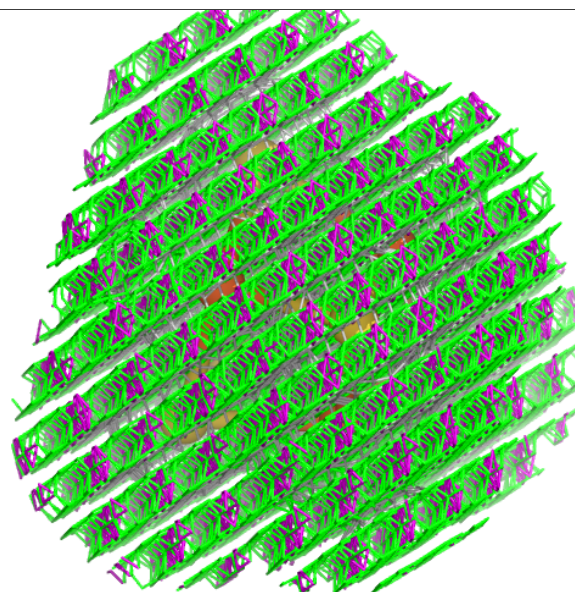
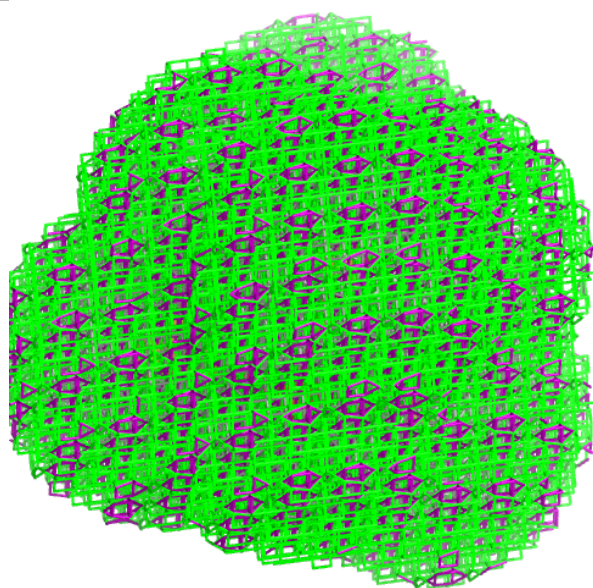
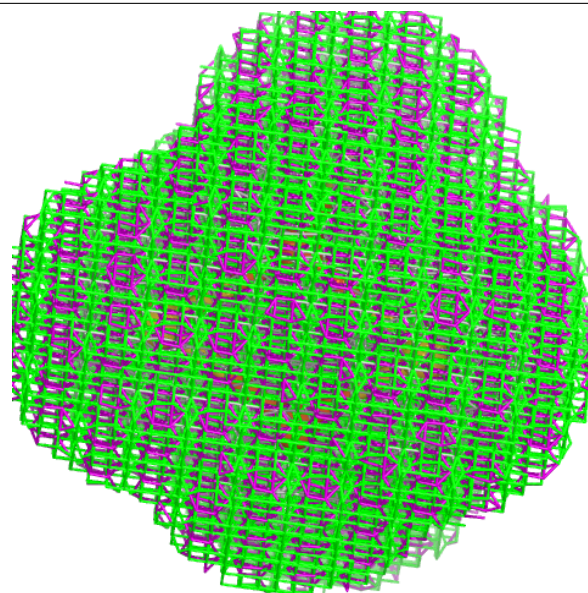
Electron density around SF4 K 1104:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



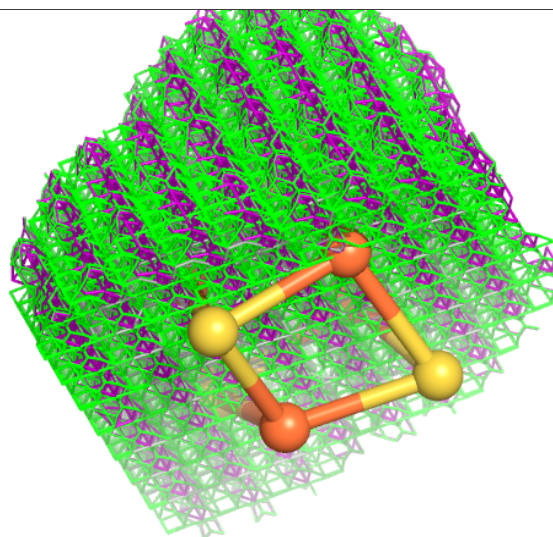
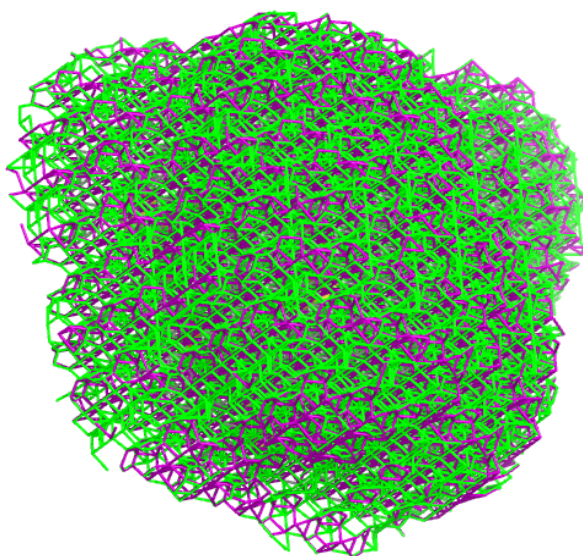
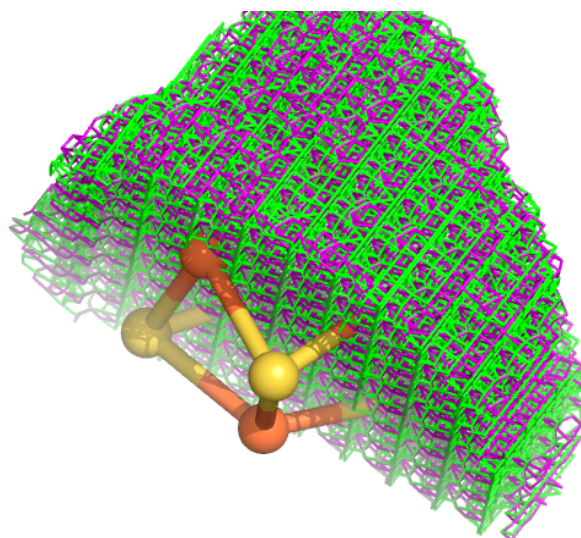
Electron density around SF4 O 1101:

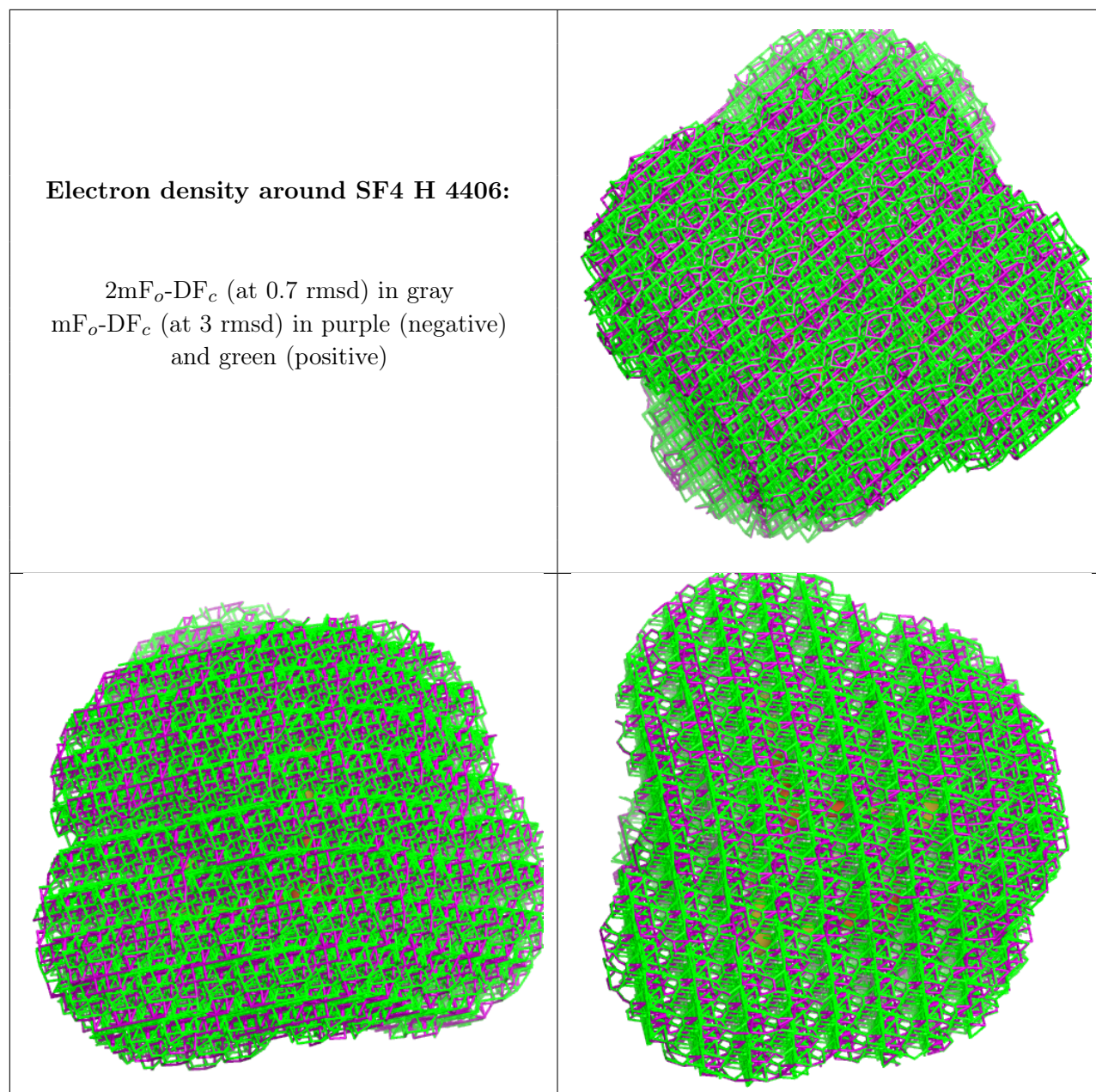
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around SF4 H 4405:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





6.5 Other polymers [i](#)

There are no such residues in this entry.