



wwPDB X-ray Structure Validation Summary Report ⓘ

Mar 8, 2026 – 04:36 PM UTC

PDB ID : 6FOS / pdb_00006fos
Title : Cyanidioschyzon merolae photosystem I
Authors : Nelson, N.; Hippler, M.; Antoshvili, M.; Caspy, I.
Deposited on : 2018-02-08
Resolution : 4.00 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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 : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtrriage (Phenix) : 2.0
EDS : 3.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

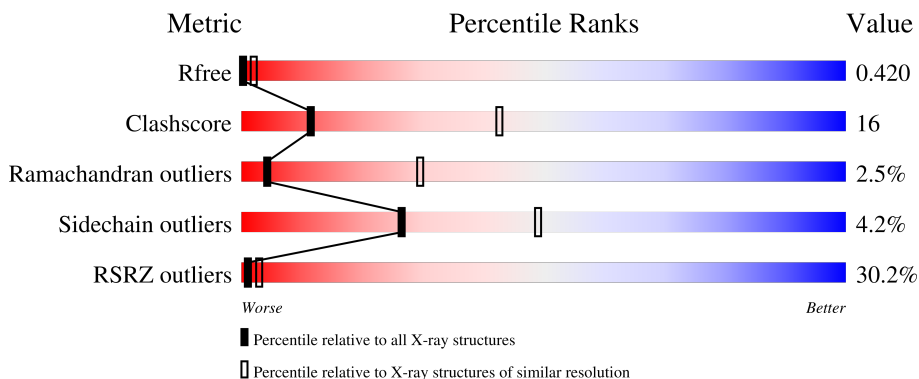
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.00 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} | 180053 | 1082 (4.20-3.80) |
| Clashscore | 190562 | 1129 (4.20-3.80) |
| Ramachandran outliers | 187476 | 1064 (4.20-3.80) |
| Sidechain outliers | 187428 | 1055 (4.20-3.80) |
| RSRZ outliers | 180081 | 1082 (4.20-3.80) |

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 | 2 | 222 | |
| 1 | 3 | 222 | |
| 2 | 4 | 214 | |
| 3 | A | 740 | |
| 4 | B | 725 | |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 5 | C | 80 | |
| 6 | D | 124 | |
| 7 | E | 69 | |
| 8 | F | 155 | |
| 9 | I | 32 | |
| 10 | J | 38 | |
| 11 | K | 47 | |
| 12 | L | 140 | |
| 13 | M | 29 | |
| 14 | O | 98 | |

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 |
|-----|------|-------|-----|-----------|----------|---------|------------------|
| 15 | CLA | 2 | 601 | X | - | - | - |
| 15 | CLA | 2 | 602 | X | - | - | - |
| 15 | CLA | 2 | 603 | X | - | - | - |
| 15 | CLA | 2 | 604 | X | - | - | - |
| 15 | CLA | 2 | 605 | X | - | - | - |
| 15 | CLA | 2 | 606 | X | - | - | - |
| 15 | CLA | 2 | 607 | X | - | - | - |
| 15 | CLA | 2 | 608 | X | - | - | - |
| 15 | CLA | 2 | 610 | X | - | - | - |
| 15 | CLA | 2 | 611 | X | - | - | - |
| 15 | CLA | 2 | 612 | X | - | - | - |
| 15 | CLA | 2 | 613 | X | - | - | - |
| 15 | CLA | 2 | 614 | X | - | - | - |
| 15 | CLA | 2 | 615 | X | - | - | - |
| 15 | CLA | 2 | 616 | X | - | - | - |
| 15 | CLA | 3 | 601 | X | - | - | - |
| 15 | CLA | 3 | 602 | X | - | - | - |
| 15 | CLA | 3 | 603 | X | - | - | - |
| 15 | CLA | 3 | 604 | X | - | - | - |
| 15 | CLA | 3 | 606 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 15 | CLA | 3 | 607 | X | - | - | - |
| 15 | CLA | 3 | 608 | X | - | - | - |
| 15 | CLA | 3 | 610 | X | - | - | - |
| 15 | CLA | 3 | 611 | X | - | - | - |
| 15 | CLA | 3 | 612 | X | - | - | - |
| 15 | CLA | 3 | 614 | X | - | - | - |
| 15 | CLA | 4 | 601 | X | - | - | - |
| 15 | CLA | 4 | 602 | X | - | - | - |
| 15 | CLA | 4 | 603 | X | - | - | - |
| 15 | CLA | 4 | 604 | X | - | - | - |
| 15 | CLA | 4 | 605 | X | - | - | - |
| 15 | CLA | 4 | 606 | X | - | - | - |
| 15 | CLA | 4 | 608 | X | - | - | - |
| 15 | CLA | 4 | 609 | X | - | - | - |
| 15 | CLA | 4 | 610 | X | - | - | - |
| 15 | CLA | 4 | 611 | X | - | - | - |
| 15 | CLA | 4 | 612 | X | - | - | - |
| 15 | CLA | 4 | 615 | X | - | - | - |
| 15 | CLA | 4 | 616 | X | - | - | - |
| 15 | CLA | A | 1011 | X | - | - | - |
| 15 | CLA | A | 1012 | X | - | - | - |
| 15 | CLA | A | 1013 | X | - | - | - |
| 15 | CLA | A | 1101 | X | - | - | - |
| 15 | CLA | A | 1102 | X | - | - | - |
| 15 | CLA | A | 1103 | X | - | - | - |
| 15 | CLA | A | 1104 | X | - | - | - |
| 15 | CLA | A | 1105 | X | - | - | - |
| 15 | CLA | A | 1106 | X | - | - | - |
| 15 | CLA | A | 1107 | X | - | - | - |
| 15 | CLA | A | 1108 | X | - | - | - |
| 15 | CLA | A | 1109 | X | - | - | - |
| 15 | CLA | A | 1110 | X | - | - | - |
| 15 | CLA | A | 1111 | X | - | - | - |
| 15 | CLA | A | 1112 | X | - | - | - |
| 15 | CLA | A | 1113 | X | - | - | - |
| 15 | CLA | A | 1114 | X | - | - | - |
| 15 | CLA | A | 1115 | X | - | - | - |
| 15 | CLA | A | 1116 | X | - | - | - |
| 15 | CLA | A | 1117 | X | - | - | - |
| 15 | CLA | A | 1118 | X | - | - | - |
| 15 | CLA | A | 1119 | X | - | - | - |
| 15 | CLA | A | 1120 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 15 | CLA | A | 1121 | X | - | - | - |
| 15 | CLA | A | 1122 | X | - | - | - |
| 15 | CLA | A | 1123 | X | - | - | - |
| 15 | CLA | A | 1124 | X | - | - | - |
| 15 | CLA | A | 1125 | X | - | - | - |
| 15 | CLA | A | 1126 | X | - | - | - |
| 15 | CLA | A | 1127 | X | - | - | - |
| 15 | CLA | A | 1128 | X | - | - | - |
| 15 | CLA | A | 1129 | X | - | - | - |
| 15 | CLA | A | 1130 | X | - | - | - |
| 15 | CLA | A | 1131 | X | - | - | - |
| 15 | CLA | A | 1132 | X | - | - | - |
| 15 | CLA | A | 1133 | X | - | - | - |
| 15 | CLA | A | 1134 | X | - | - | - |
| 15 | CLA | A | 1135 | X | - | - | - |
| 15 | CLA | A | 1136 | X | - | - | - |
| 15 | CLA | A | 1137 | X | - | - | - |
| 15 | CLA | A | 1138 | X | - | - | - |
| 15 | CLA | A | 1139 | X | - | - | - |
| 15 | CLA | A | 1140 | X | - | - | - |
| 15 | CLA | A | 1141 | X | - | - | - |
| 15 | CLA | B | 1021 | X | - | - | - |
| 15 | CLA | B | 1022 | X | - | - | - |
| 15 | CLA | B | 1023 | X | - | - | - |
| 15 | CLA | B | 1201 | X | - | - | - |
| 15 | CLA | B | 1202 | X | - | - | - |
| 15 | CLA | B | 1203 | X | - | - | - |
| 15 | CLA | B | 1204 | X | - | - | - |
| 15 | CLA | B | 1205 | X | - | - | - |
| 15 | CLA | B | 1206 | X | - | - | - |
| 15 | CLA | B | 1207 | X | - | - | - |
| 15 | CLA | B | 1208 | X | - | - | - |
| 15 | CLA | B | 1209 | X | - | - | - |
| 15 | CLA | B | 1210 | X | - | - | - |
| 15 | CLA | B | 1211 | X | - | - | - |
| 15 | CLA | B | 1212 | X | - | - | - |
| 15 | CLA | B | 1214 | X | - | - | - |
| 15 | CLA | B | 1215 | X | - | - | - |
| 15 | CLA | B | 1216 | X | - | - | - |
| 15 | CLA | B | 1217 | X | - | - | - |
| 15 | CLA | B | 1218 | X | - | - | - |
| 15 | CLA | B | 1219 | X | - | - | - |

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| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 15 | CLA | B | 1220 | X | - | - | - |
| 15 | CLA | B | 1221 | X | - | - | - |
| 15 | CLA | B | 1222 | X | - | - | - |
| 15 | CLA | B | 1223 | X | - | - | - |
| 15 | CLA | B | 1224 | X | - | - | - |
| 15 | CLA | B | 1225 | X | - | - | - |
| 15 | CLA | B | 1226 | X | - | - | - |
| 15 | CLA | B | 1227 | X | - | - | - |
| 15 | CLA | B | 1228 | X | - | - | - |
| 15 | CLA | B | 1229 | X | - | - | - |
| 15 | CLA | B | 1230 | X | - | - | - |
| 15 | CLA | B | 1231 | X | - | - | - |
| 15 | CLA | B | 1232 | X | - | - | - |
| 15 | CLA | B | 1234 | X | - | - | - |
| 15 | CLA | B | 1235 | X | - | - | - |
| 15 | CLA | B | 1236 | X | - | - | - |
| 15 | CLA | B | 1237 | X | - | - | - |
| 15 | CLA | B | 1238 | X | - | - | - |
| 15 | CLA | B | 1239 | X | - | - | - |
| 15 | CLA | F | 1301 | X | - | - | - |
| 15 | CLA | F | 1302 | X | - | - | - |
| 15 | CLA | J | 1302 | X | - | - | - |
| 15 | CLA | K | 1401 | X | - | - | - |
| 15 | CLA | K | 1402 | X | - | - | - |
| 15 | CLA | L | 1501 | X | - | - | - |
| 15 | CLA | L | 1502 | X | - | - | - |
| 15 | CLA | L | 1503 | X | - | - | - |
| 15 | CLA | O | 1601 | X | - | - | - |
| 15 | CLA | O | 1602 | X | - | - | - |
| 15 | CLA | O | 1603 | X | - | - | - |
| 17 | SF4 | C | 3002 | - | - | X | - |

2 Entry composition [i](#)

There are 18 unique types of molecules in this entry. The entry contains 25611 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 Similar to chlorophyll a/b-binding protein, CP24.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 1 | 2 | 144 | 1116 | 726 | 193 | 192 | 5 | 0 | 0 | 0 |
| 1 | 3 | 150 | 1181 | 769 | 200 | 206 | 6 | 0 | 0 | 0 |

- Molecule 2 is a protein called Similar to light harvesting protein.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 2 | 4 | 116 | 935 | 618 | 157 | 153 | 7 | 0 | 0 | 0 |

- Molecule 3 is a protein called Photosystem I P700 chlorophyll a apoprotein A1.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 3 | A | 740 | 5790 | 3787 | 994 | 982 | 27 | 0 | 0 | 0 |

- Molecule 4 is a protein called Photosystem I P700 chlorophyll a apoprotein A2.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 4 | B | 725 | 5766 | 3791 | 974 | 982 | 19 | 0 | 0 | 1 |

- Molecule 5 is a protein called Photosystem I iron-sulfur center.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 5 | C | 80 | 597 | 367 | 104 | 114 | 12 | 0 | 0 | 0 |

- Molecule 6 is a protein called Photosystem I p700 chlorophyll A apoprotein A2.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 6 | D | 124 | 976 | 618 | 171 | 182 | 5 | 0 | 0 | 0 |

- Molecule 7 is a protein called Photosystem I iron-sulfur center subunit VII.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 7 | E | 69 | 555 | 360 | 88 | 106 | 1 | 0 | 0 | 0 |

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

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 8 | F | 153 | 1256 | 806 | 213 | 233 | 4 | 0 | 0 | 0 |

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

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 9 | I | 32 | 238 | 163 | 33 | 40 | 2 | 0 | 0 | 0 |

- Molecule 10 is a protein called Photosystem I reaction center subunit IX.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 10 | J | 38 | 312 | 214 | 46 | 51 | 1 | 0 | 0 | 0 |

- Molecule 11 is a protein called Photosystem I reaction center subunit X.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 11 | K | 47 | 331 | 211 | 58 | 58 | 4 | 0 | 0 | 0 |

There is a discrepancy between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|-----------------------|------------|
| K | 14 | MET | - | initiating methionine | UNP Q85G51 |

- Molecule 12 is a protein called Photosystem I reaction center subunit XI.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 12 | L | 140 | 1071 | 703 | 174 | 191 | 3 | 0 | 0 | 0 |

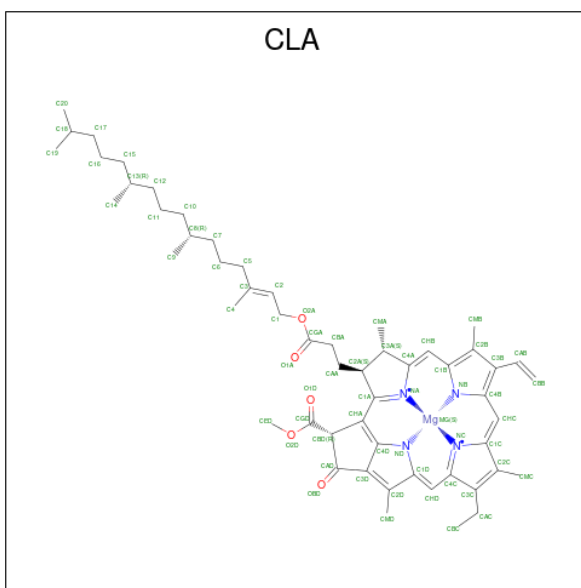
- Molecule 13 is a protein called Photosystem I reaction center subunit XII.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 13 | M | 29 | 214 | 142 | 34 | 36 | 2 | 0 | 0 | 0 |

- Molecule 14 is a protein called PsaM.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 14 | O | 98 | 755 | 509 | 116 | 129 | 1 | 0 | 0 | 0 |

- Molecule 15 is CHLOROPHYLL A (CCD ID: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|----|---|---------|---------|
| | | | Total | C | Mg | N | | |
| 15 | 2 | 1 | 25 | 20 | 1 | 4 | 0 | 0 |
| 15 | 2 | 1 | 25 | 20 | 1 | 4 | 0 | 0 |
| 15 | 2 | 1 | 25 | 20 | 1 | 4 | 0 | 0 |
| 15 | 2 | 1 | 25 | 20 | 1 | 4 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------------|---------|---------|--------|---------|---------|
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 2 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------------|---------|---------|------------------|---------|---------|
| 15 | 3 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | 4 | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | A | 1 | Total 50 | C 40 | Mg 1 | N 4 O 5 | 0 | 0 |
| 15 | A | 1 | Total 55 | C 45 | Mg 1 | N 4 O 5 | 0 | 0 |
| 15 | A | 1 | Total 55 | C 45 | Mg 1 | N 4 O 5 | 0 | 0 |
| 15 | A | 1 | Total 45 | C 35 | Mg 1 | N 4 O 5 | 0 | 0 |
| 15 | A | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 |
| 15 | A | 1 | Total 55 | C 45 | Mg 1 | N 4 O 5 | 0 | 0 |
| 15 | A | 1 | Total 55 | C 45 | Mg 1 | N 4 O 5 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|---------|
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 46 | 36 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |

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| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|---------|
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 45 | 35 | 1 | 4 | 5 | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | A | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 45 | 35 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 50 | 40 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |

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| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | |
|-----|-------|----------|-------------|---------|---------|--------|---------|---------|---|
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 25 | C 20 | Mg 1 | N 4 | 0 | 0 | |
| 15 | B | 1 | Total 55 | C 45 | Mg 1 | N 4 | O 5 | 0 | 0 |

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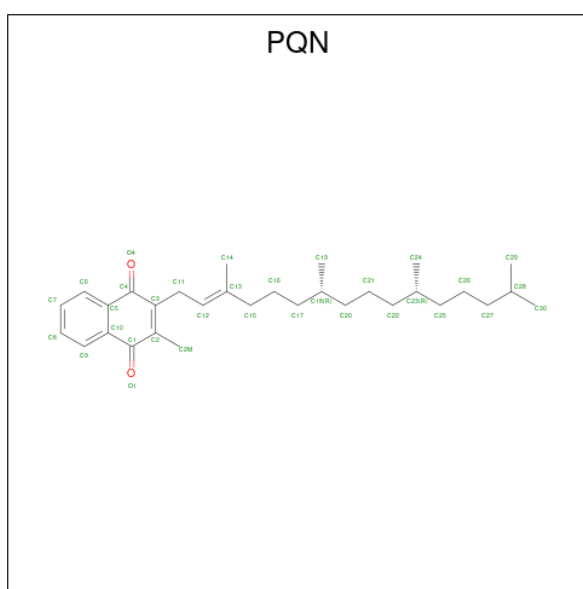
| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|----|---|---|---------|---------|
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 50 | 40 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 50 | 40 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 47 | 37 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 65 | 55 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 45 | 35 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 55 | 45 | 1 | 4 | 5 | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | B | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | F | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 45 | 35 | 1 | 4 | 5 | | |
| 15 | F | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | J | 1 | Total | C | Mg | N | O | 0 | 0 |
| | | | 50 | 40 | 1 | 4 | 5 | | |
| 15 | K | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | K | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | L | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |
| 15 | L | 1 | Total | C | Mg | N | | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | | |

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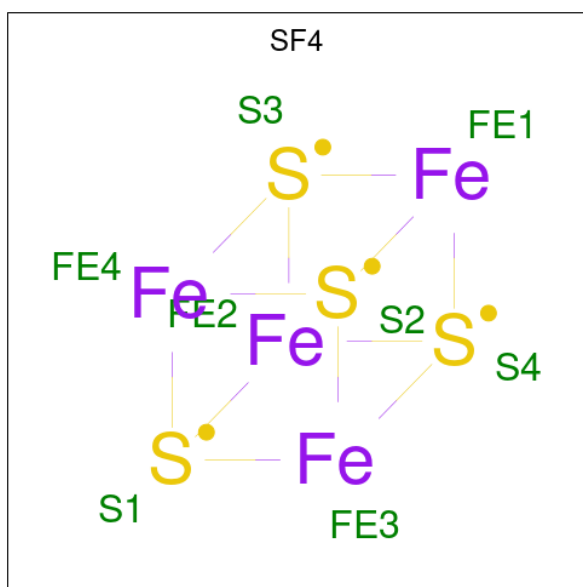
| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|----|---|---------|---------|
| 15 | L | 1 | Total | C | Mg | N | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | |
| 15 | O | 1 | Total | C | Mg | N | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | |
| 15 | O | 1 | Total | C | Mg | N | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | |
| 15 | O | 1 | Total | C | Mg | N | 0 | 0 |
| | | | 25 | 20 | 1 | 4 | | |

- Molecule 16 is PHYLLOQUINONE (CCD ID: PQN) (formula: C₃₁H₄₆O₂).



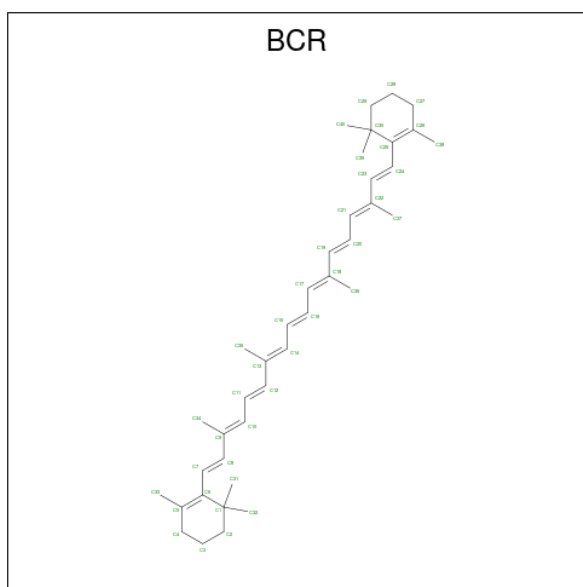
| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---------|---------|
| 16 | A | 1 | Total | C | O | 0 | 0 |
| | | | 33 | 31 | 2 | | |
| 16 | B | 1 | Total | C | O | 0 | 0 |
| | | | 33 | 31 | 2 | | |

- Molecule 17 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe₄S₄).



| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|---------------------|---------|---------|
| 17 | A | 1 | Total Fe S 8 4 4 | 0 | 0 |
| 17 | C | 1 | Total Fe S 8 4 4 | 0 | 0 |
| 17 | C | 1 | Total Fe S 8 4 4 | 0 | 0 |

- Molecule 18 is BETA-CAROTENE (CCD ID: BCR) (formula: C₄₀H₅₆).



| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|------------------|---------|---------|
| 18 | A | 1 | Total C 40 40 | 0 | 0 |

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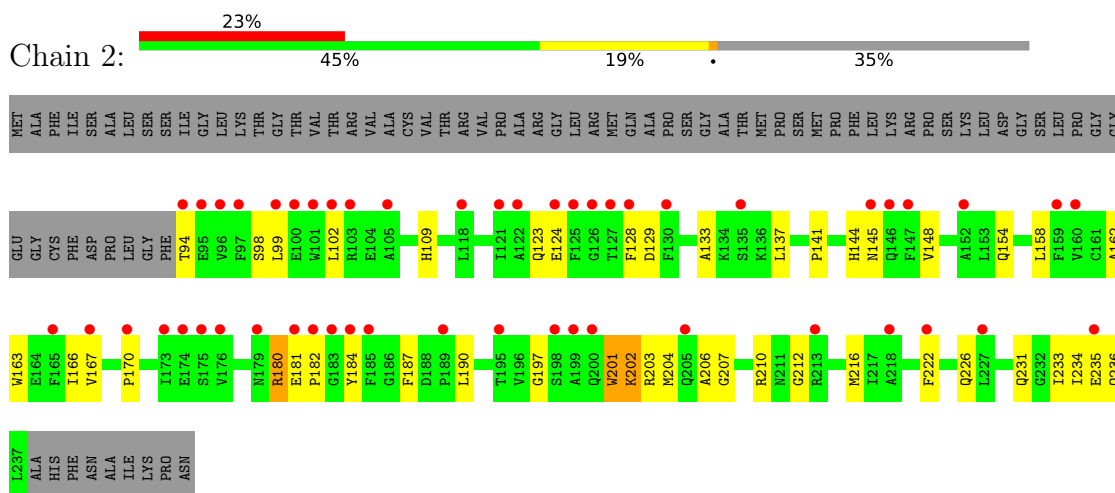
Continued from previous page...

| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|------------|--------------|-----------------|------------------|----------------|----------------|
| 18 | A | 1 | Total C 40 40 | 0 | 0 |
| 18 | A | 1 | Total C 40 40 | 0 | 0 |
| 18 | A | 1 | Total C 40 40 | 0 | 0 |
| 18 | A | 1 | Total C 40 40 | 0 | 0 |
| 18 | B | 1 | Total C 40 40 | 0 | 0 |
| 18 | B | 1 | Total C 40 40 | 0 | 0 |
| 18 | I | 1 | Total C 40 40 | 0 | 0 |

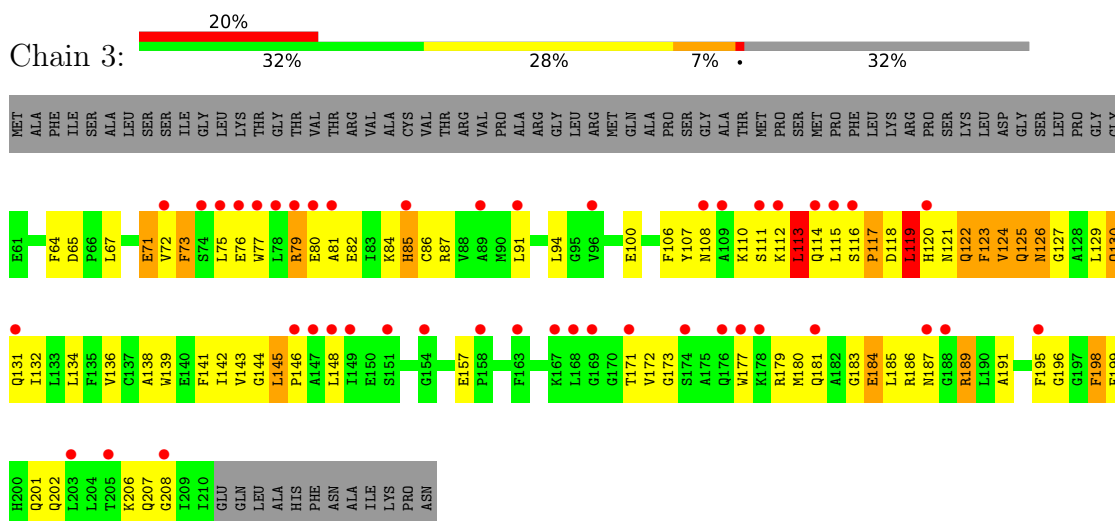
3 Residue-property plots [i](#)

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.

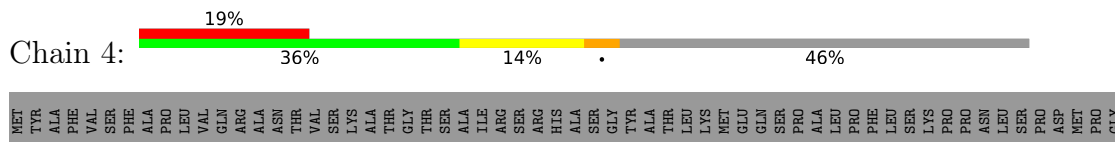
- Molecule 1: Similar to chlorophyll a/b-binding protein, CP24

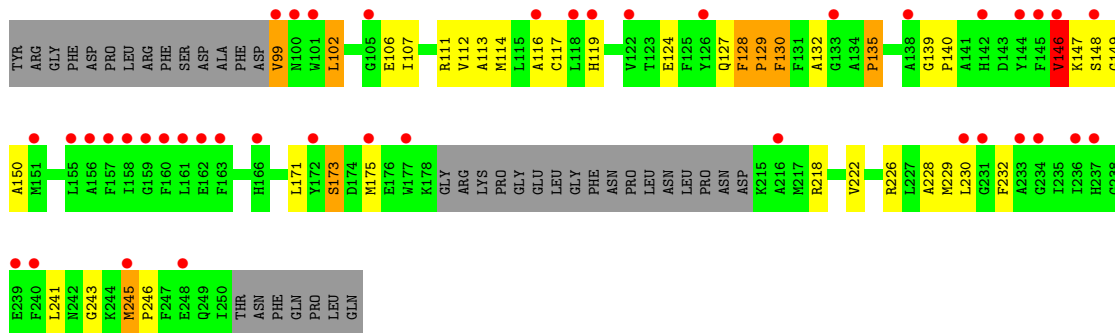


- Molecule 1: Similar to chlorophyll a/b-binding protein, CP24

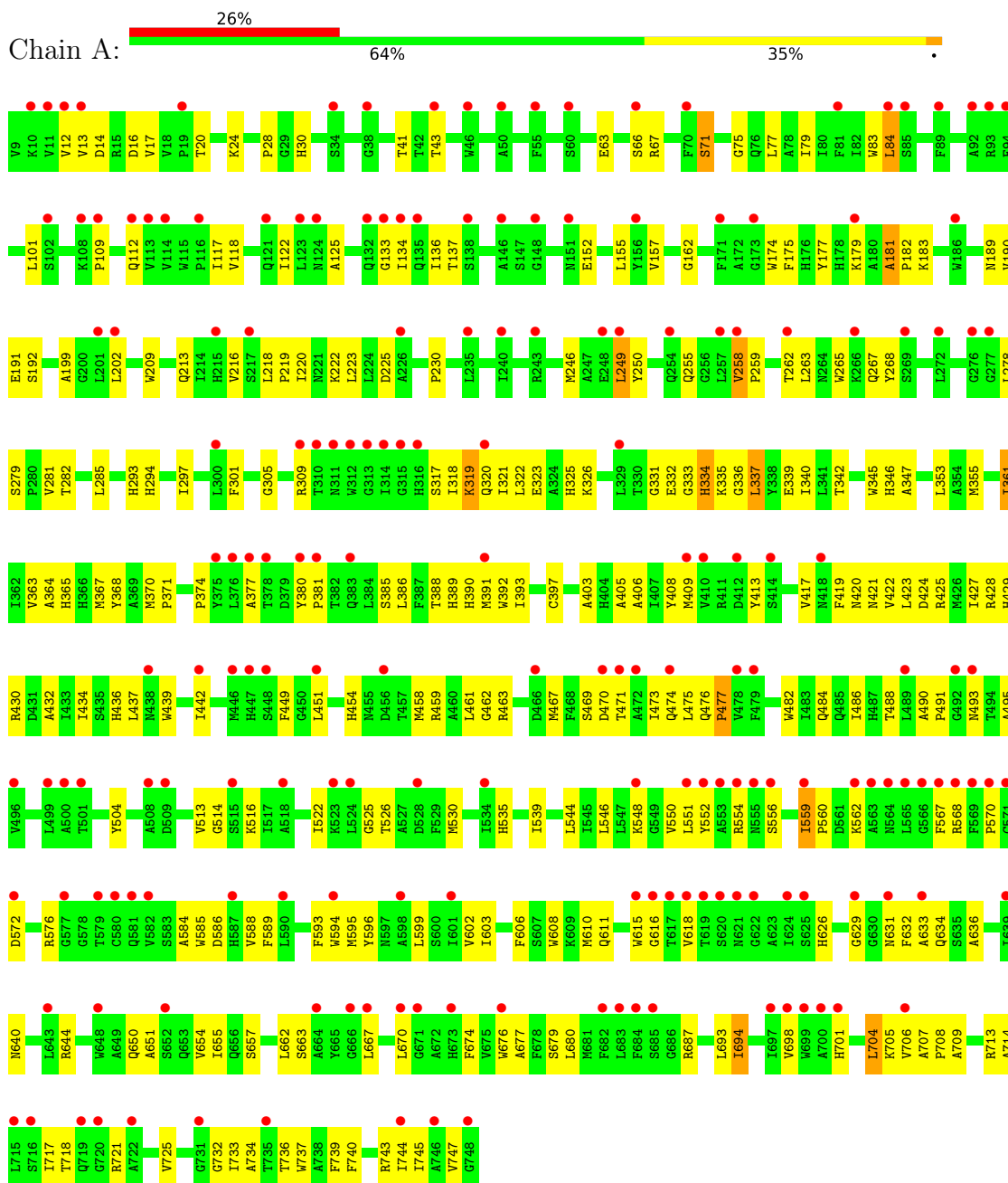


- Molecule 2: Similar to light harvesting protein

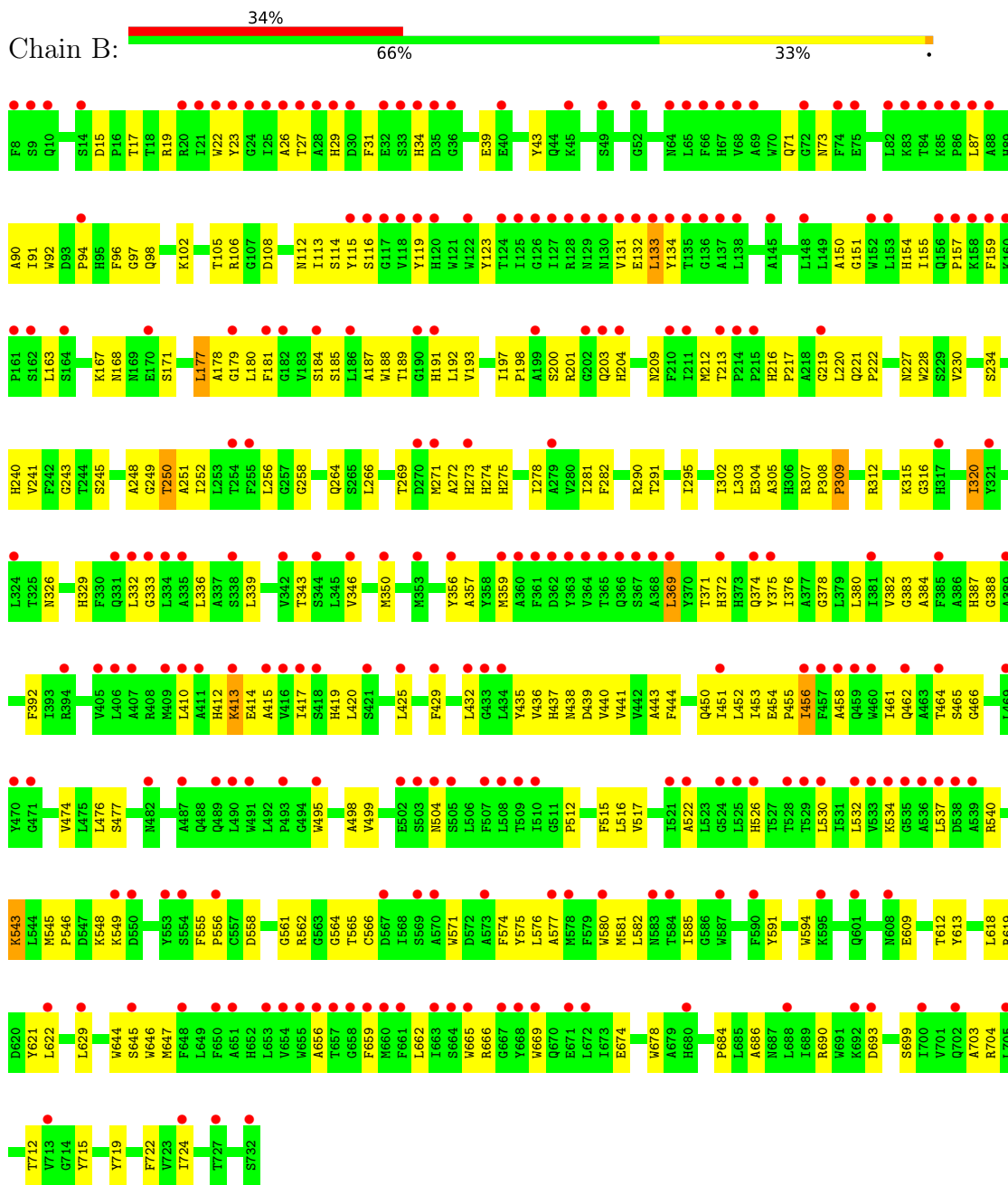




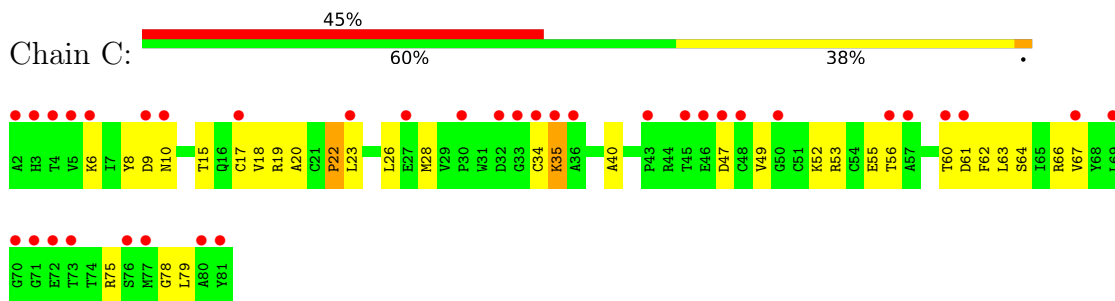
• Molecule 3: Photosystem I P700 chlorophyll a apoprotein A1



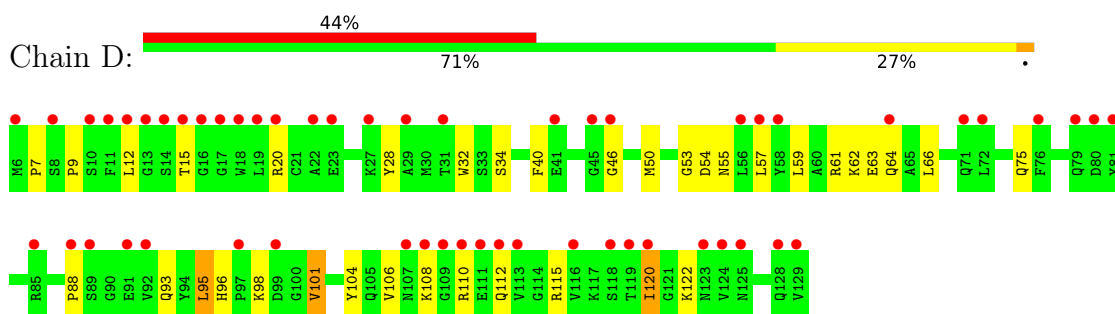
• Molecule 4: Photosystem I P700 chlorophyll a apoprotein A2



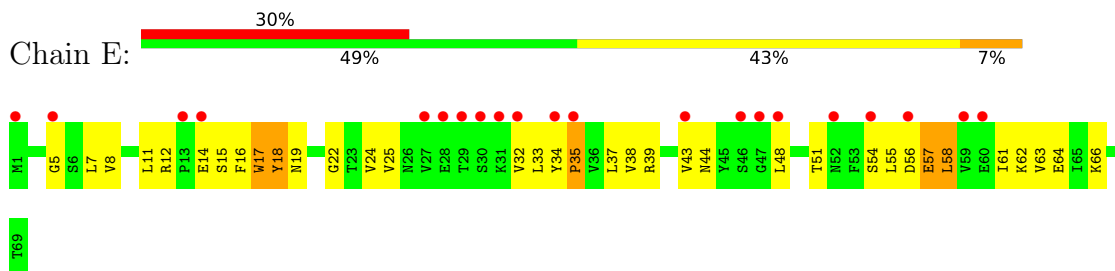
- Molecule 5: Photosystem I iron-sulfur center



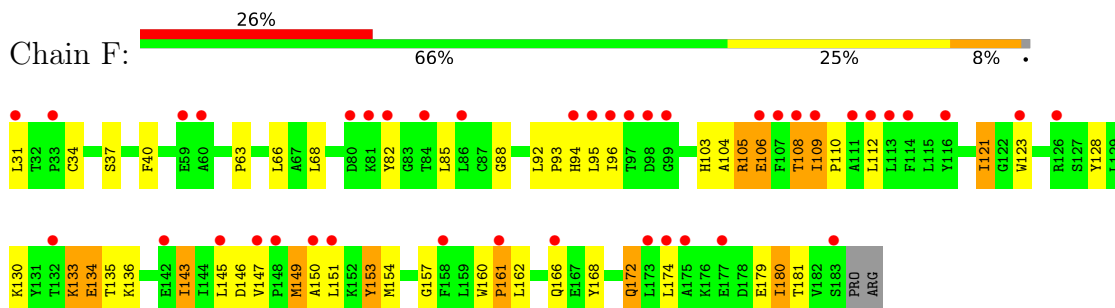
- Molecule 6: Photosystem I p700 chlorophyll A apoprotein A2



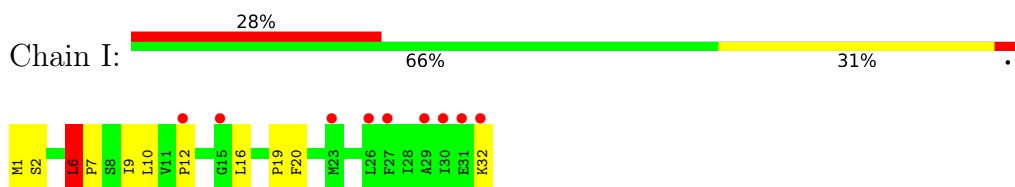
- Molecule 7: Photosystem I iron-sulfur center subunit VII



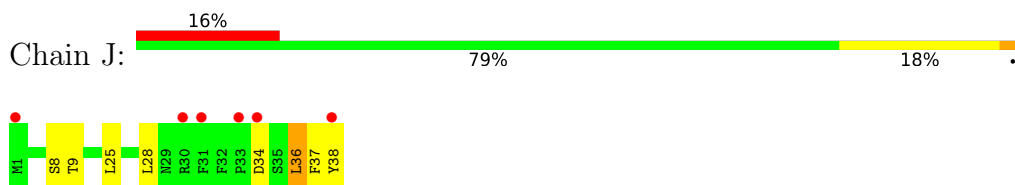
- Molecule 8: Photosystem I reaction center subunit II



- Molecule 9: Photosystem I reaction center subunit VIII

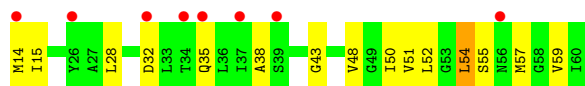


- Molecule 10: Photosystem I reaction center subunit IX

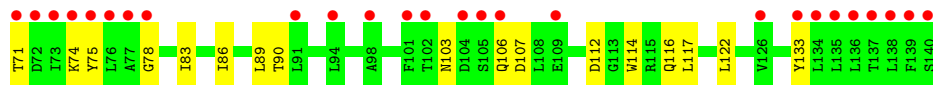
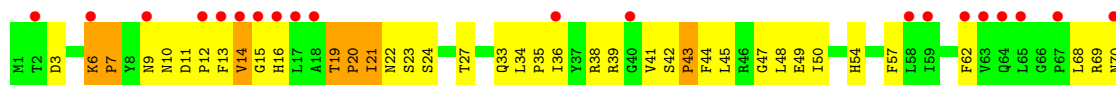


- Molecule 11: Photosystem I reaction center subunit X

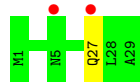




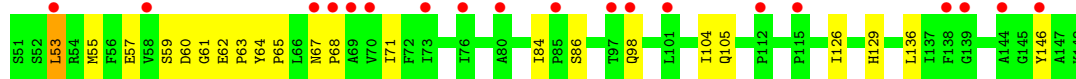
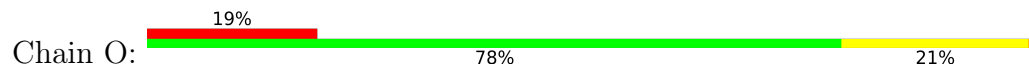
- Molecule 12: Photosystem I reaction center subunit XI



- Molecule 13: Photosystem I reaction center subunit XII



- Molecule 14: PsaM



4 Data and refinement statistics

| Property | Value | Source |
|---|---|------------------|
| Space group | C 2 2 21 | Depositor |
| Cell constants a, b, c, α , β , γ | 163.13Å 213.52Å 349.58Å 90.00° 90.00° 90.00° | Depositor |
| Resolution (Å) | 48.53 – 4.00 48.53 – 4.00 | Depositor EDS |
| % Data completeness (in resolution range) | 80.9 (48.53-4.00) 80.9 (48.53-4.00) | Depositor EDS |
| R_{merge} | (Not available) | Depositor |
| R_{sym} | (Not available) | Depositor |
| $\langle I/\sigma(I) \rangle$ ¹ | 1.60 (at 3.40Å) | Xtrriage |
| Refinement program | PHENIX (dev_3042: ???) | Depositor |
| R, R_{free} | 0.378 , 0.430 0.380 , 0.420 | Depositor DCC |
| R_{free} test set | 912 reflections (0.91%) | wwPDB-VP |
| Wilson B-factor (Å ²) | 137.1 | Xtrriage |
| Anisotropy | 0.070 | Xtrriage |
| Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²) | 0.14 , 85.8 | EDS |
| L-test for twinning ² | $\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.30$ | Xtrriage |
| Estimated twinning fraction | No twinning to report. | Xtrriage |
| F_o, F_c correlation | 0.76 | EDS |
| Total number of atoms | 25611 | wwPDB-VP |
| Average B, all atoms (Å ²) | 189.0 | wwPDB-VP |

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.61% 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: CLA, PQN, SF4, BCR

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 | 2 | 0.11 | 0/1142 | 0.35 | 0/1544 |
| 1 | 3 | 0.18 | 0/1210 | 0.60 | 0/1633 |
| 2 | 4 | 0.12 | 0/961 | 0.33 | 0/1289 |
| 3 | A | 0.10 | 0/5977 | 0.28 | 0/8146 |
| 4 | B | 0.10 | 0/5973 | 0.28 | 0/8163 |
| 5 | C | 0.11 | 0/607 | 0.35 | 0/822 |
| 6 | D | 0.10 | 0/998 | 0.29 | 0/1349 |
| 7 | E | 0.10 | 0/564 | 0.35 | 0/763 |
| 8 | F | 0.14 | 0/1289 | 0.37 | 0/1750 |
| 9 | I | 0.18 | 0/243 | 0.42 | 0/331 |
| 10 | J | 0.11 | 0/321 | 0.37 | 0/437 |
| 11 | K | 0.08 | 0/333 | 0.32 | 0/448 |
| 12 | L | 0.16 | 0/1097 | 0.42 | 0/1492 |
| 13 | M | 0.08 | 0/215 | 0.23 | 0/291 |
| 14 | O | 0.12 | 0/780 | 0.36 | 0/1068 |
| All | All | 0.12 | 0/21710 | 0.34 | 0/29526 |

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 | 2 | 1116 | 0 | 1088 | 40 | 0 |
| 1 | 3 | 1181 | 0 | 1169 | 75 | 0 |
| 2 | 4 | 935 | 0 | 926 | 28 | 0 |
| 3 | A | 5790 | 0 | 5719 | 231 | 0 |
| 4 | B | 5766 | 0 | 5589 | 193 | 0 |
| 5 | C | 597 | 0 | 584 | 36 | 0 |
| 6 | D | 976 | 0 | 967 | 31 | 0 |
| 7 | E | 555 | 0 | 576 | 25 | 0 |
| 8 | F | 1256 | 0 | 1227 | 60 | 0 |
| 9 | I | 238 | 0 | 265 | 9 | 0 |
| 10 | J | 312 | 0 | 327 | 11 | 0 |
| 11 | K | 331 | 0 | 349 | 9 | 0 |
| 12 | L | 1071 | 0 | 1090 | 41 | 0 |
| 13 | M | 214 | 0 | 236 | 0 | 0 |
| 14 | O | 755 | 0 | 760 | 13 | 0 |
| 15 | 2 | 375 | 0 | 45 | 2 | 0 |
| 15 | 3 | 275 | 0 | 33 | 5 | 0 |
| 15 | 4 | 325 | 0 | 39 | 3 | 0 |
| 15 | A | 1546 | 0 | 801 | 55 | 0 |
| 15 | B | 1267 | 0 | 522 | 52 | 0 |
| 15 | F | 70 | 0 | 35 | 0 | 0 |
| 15 | J | 50 | 0 | 38 | 1 | 0 |
| 15 | K | 50 | 0 | 6 | 0 | 0 |
| 15 | L | 75 | 0 | 9 | 2 | 0 |
| 15 | O | 75 | 0 | 9 | 0 | 0 |
| 16 | A | 33 | 0 | 46 | 3 | 0 |
| 16 | B | 33 | 0 | 46 | 1 | 0 |
| 17 | A | 8 | 0 | 0 | 0 | 0 |
| 17 | C | 16 | 0 | 0 | 4 | 0 |
| 18 | A | 200 | 0 | 260 | 25 | 0 |
| 18 | B | 80 | 0 | 105 | 8 | 0 |
| 18 | I | 40 | 0 | 53 | 4 | 0 |
| All | All | 25611 | 0 | 22919 | 779 | 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 16.

The worst 5 of 779 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) |
|-------------------|------------------|--------------------------|-------------------|
| 15:A:1012:CLA:H51 | 4:B:436:VAL:HG13 | 1.54 | 0.87 |
| 4:B:185:SER:HA | 4:B:275:HIS:HD1 | 1.45 | 0.81 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|--------------------|--------------------|--------------------------|-------------------|
| 5:C:10:ASN:HB3 | 5:C:60:THR:HG21 | 1.63 | 0.79 |
| 3:A:391:MET:HE2 | 3:A:602:VAL:HG11 | 1.65 | 0.79 |
| 15:B:1230:CLA:HBA1 | 18:B:4005:BCR:H281 | 1.65 | 0.79 |

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 | 2 | 142/222 (64%) | 122 (86%) | 17 (12%) | 3 (2%) | 5 | 32 |
| 1 | 3 | 148/222 (67%) | 124 (84%) | 18 (12%) | 6 (4%) | 2 | 21 |
| 2 | 4 | 112/214 (52%) | 96 (86%) | 7 (6%) | 9 (8%) | 1 | 12 |
| 3 | A | 738/740 (100%) | 645 (87%) | 82 (11%) | 11 (2%) | 8 | 38 |
| 4 | B | 723/725 (100%) | 630 (87%) | 86 (12%) | 7 (1%) | 12 | 45 |
| 5 | C | 78/80 (98%) | 69 (88%) | 8 (10%) | 1 (1%) | 9 | 41 |
| 6 | D | 122/124 (98%) | 107 (88%) | 12 (10%) | 3 (2%) | 4 | 29 |
| 7 | E | 67/69 (97%) | 52 (78%) | 9 (13%) | 6 (9%) | 0 | 10 |
| 8 | F | 151/155 (97%) | 132 (87%) | 14 (9%) | 5 (3%) | 3 | 24 |
| 9 | I | 30/32 (94%) | 27 (90%) | 2 (7%) | 1 (3%) | 3 | 24 |
| 10 | J | 36/38 (95%) | 34 (94%) | 1 (3%) | 1 (3%) | 4 | 27 |
| 11 | K | 45/47 (96%) | 36 (80%) | 8 (18%) | 1 (2%) | 5 | 31 |
| 12 | L | 138/140 (99%) | 110 (80%) | 20 (14%) | 8 (6%) | 1 | 16 |
| 13 | M | 27/29 (93%) | 25 (93%) | 1 (4%) | 1 (4%) | 2 | 22 |
| 14 | O | 96/98 (98%) | 84 (88%) | 10 (10%) | 2 (2%) | 5 | 32 |
| All | All | 2653/2935 (90%) | 2293 (86%) | 295 (11%) | 65 (2%) | 4 | 29 |

5 of 65 Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | 3 | 113 | LEU |
| 1 | 3 | 145 | LEU |
| 1 | 3 | 172 | VAL |
| 3 | A | 477 | PRO |
| 7 | E | 56 | ASP |

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 | 2 | 109/178 (61%) | 105 (96%) | 4 (4%) | 30 52 |
| 1 | 3 | 121/178 (68%) | 94 (78%) | 27 (22%) | 1 6 |
| 2 | 4 | 93/175 (53%) | 89 (96%) | 4 (4%) | 26 48 |
| 3 | A | 597/597 (100%) | 585 (98%) | 12 (2%) | 48 66 |
| 4 | B | 592/593 (100%) | 576 (97%) | 16 (3%) | 39 60 |
| 5 | C | 66/66 (100%) | 65 (98%) | 1 (2%) | 57 70 |
| 6 | D | 104/104 (100%) | 101 (97%) | 3 (3%) | 37 58 |
| 7 | E | 66/66 (100%) | 65 (98%) | 1 (2%) | 57 70 |
| 8 | F | 135/137 (98%) | 119 (88%) | 16 (12%) | 5 21 |
| 9 | I | 27/27 (100%) | 25 (93%) | 2 (7%) | 13 36 |
| 10 | J | 34/34 (100%) | 33 (97%) | 1 (3%) | 37 58 |
| 11 | K | 35/36 (97%) | 34 (97%) | 1 (3%) | 37 58 |
| 12 | L | 113/113 (100%) | 110 (97%) | 3 (3%) | 39 60 |
| 13 | M | 22/23 (96%) | 22 (100%) | 0 | 100 100 |
| 14 | O | 77/77 (100%) | 75 (97%) | 2 (3%) | 40 61 |
| All | All | 2191/2404 (91%) | 2098 (96%) | 93 (4%) | 26 49 |

5 of 93 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | B | 435 | TYR |
| 8 | F | 106 | GLU |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | B | 516 | LEU |
| 6 | D | 101 | VAL |
| 8 | F | 134 | GLU |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 23 such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | B | 450 | GLN |
| 6 | D | 71 | GLN |
| 4 | B | 603 | ASN |
| 6 | D | 75 | GLN |
| 3 | A | 215 | HIS |

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

147 ligands are modelled in this entry.

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

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 15 | CLA | B | 1205 | - | 24,32,73 | 3.28 | 11 (45%) | 31,54,113 | 2.52 | 11 (35%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 15 | CLA | B | 1225 | - | 54,58,73 | 1.52 | 6 (11%) | 64,95,113 | 2.04 | 19 (29%) |
| 15 | CLA | O | 1603 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 4 | 604 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | 4 | 615 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1117 | - | 59,63,73 | 1.46 | 7 (11%) | 70,101,113 | 2.01 | 17 (24%) |
| 15 | CLA | B | 1201 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | B | 1228 | - | 24,32,73 | 3.33 | 10 (41%) | 31,54,113 | 2.53 | 11 (35%) |
| 15 | CLA | B | 1224 | - | 59,63,73 | 1.46 | 7 (11%) | 70,101,113 | 2.02 | 19 (27%) |
| 15 | CLA | 4 | 612 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 16 | PQN | A | 2001 | - | 34,34,34 | 0.44 | 0 | 43,45,45 | 1.09 | 3 (6%) |
| 15 | CLA | 2 | 610 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1127 | - | 24,32,73 | 3.34 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 17 | SF4 | A | 3001 | - | 0,12,12 | - | - | - | - | - |
| 15 | CLA | A | 1012 | - | 59,63,73 | 1.47 | 8 (13%) | 70,101,113 | 1.94 | 17 (24%) |
| 15 | CLA | B | 1215 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | B | 1216 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | K | 1401 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1128 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | B | 1021 | - | 49,53,73 | 1.60 | 7 (14%) | 58,89,113 | 1.97 | 15 (25%) |
| 15 | CLA | L | 1502 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | 3 | 601 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.51 | 11 (35%) |
| 15 | CLA | 3 | 606 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | B | 1231 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | A | 1104 | - | 59,63,73 | 1.47 | 8 (13%) | 70,101,113 | 1.99 | 18 (25%) |
| 15 | CLA | 2 | 608 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 3 | 610 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | B | 1023 | - | 54,58,73 | 1.52 | 7 (12%) | 64,95,113 | 2.04 | 18 (28%) |
| 15 | CLA | B | 1206 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1113 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.49 | 12 (38%) |
| 15 | CLA | A | 1112 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | B | 1211 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | 2 | 603 | - | 24,32,73 | 3.30 | 11 (45%) | 31,54,113 | 2.47 | 10 (32%) |
| 15 | CLA | B | 1212 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.46 | 11 (35%) |
| 15 | CLA | 2 | 601 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | B | 1203 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 15 | CLA | B | 1223 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | 3 | 612 | - | 24,32,73 | 3.28 | 11 (45%) | 31,54,113 | 2.49 | 10 (32%) |
| 15 | CLA | 2 | 605 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | 2 | 607 | - | 24,32,73 | 3.30 | 11 (45%) | 31,54,113 | 2.42 | 10 (32%) |
| 15 | CLA | L | 1501 | - | 24,32,73 | 3.30 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | B | 1237 | - | 59,63,73 | 1.48 | 8 (13%) | 70,101,113 | 1.95 | 18 (25%) |
| 15 | CLA | 3 | 604 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.50 | 11 (35%) |
| 15 | CLA | A | 1110 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 17 | SF4 | C | 3002 | - | 0,12,12 | - | - | - | - | - |
| 15 | CLA | A | 1116 | - | 59,63,73 | 1.47 | 7 (11%) | 70,101,113 | 1.96 | 19 (27%) |
| 15 | CLA | A | 1125 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 10 (32%) |
| 15 | CLA | 3 | 603 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.53 | 11 (35%) |
| 18 | BCR | A | 4017 | - | 41,41,41 | 1.62 | 4 (9%) | 56,56,56 | 4.68 | 13 (23%) |
| 15 | CLA | B | 1227 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 2 | 604 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.49 | 12 (38%) |
| 15 | CLA | A | 1107 | 3 | 59,63,73 | 1.47 | 7 (11%) | 70,101,113 | 2.00 | 18 (25%) |
| 15 | CLA | B | 1238 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | B | 1229 | - | 54,58,73 | 1.54 | 7 (12%) | 64,95,113 | 2.14 | 19 (29%) |
| 15 | CLA | F | 1301 | - | 49,53,73 | 1.60 | 8 (16%) | 58,89,113 | 2.05 | 15 (25%) |
| 15 | CLA | 4 | 605 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | A | 1121 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1132 | - | 24,32,73 | 3.30 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1119 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1118 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | J | 1302 | - | 54,58,73 | 1.54 | 8 (14%) | 64,95,113 | 2.16 | 19 (29%) |
| 15 | CLA | O | 1601 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 18 | BCR | B | 4005 | - | 41,41,41 | 1.61 | 4 (9%) | 56,56,56 | 4.53 | 18 (32%) |
| 15 | CLA | A | 1138 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 3 | 608 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | A | 1106 | - | 59,63,73 | 1.46 | 7 (11%) | 70,101,113 | 2.00 | 20 (28%) |
| 15 | CLA | B | 1202 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 4 | 616 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 2 | 611 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | A | 1124 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.49 | 12 (38%) |
| 18 | BCR | A | 4008 | - | 41,41,41 | 1.60 | 4 (9%) | 56,56,56 | 4.53 | 16 (28%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 15 | CLA | B | 1217 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1129 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | A | 1120 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1108 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.47 | 12 (38%) |
| 15 | CLA | 4 | 610 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1101 | - | 49,53,73 | 1.60 | 7 (14%) | 58,89,113 | 2.04 | 16 (27%) |
| 15 | CLA | A | 1122 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | A | 1140 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | O | 1602 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | B | 1235 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1133 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | A | 1141 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | B | 1210 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1139 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | 3 | 602 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | 2 | 615 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 18 | BCR | A | 4007 | - | 41,41,41 | 1.61 | 5 (12%) | 56,56,56 | 4.76 | 18 (32%) |
| 15 | CLA | A | 1137 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 4 | 609 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 18 | BCR | A | 4011 | - | 41,41,41 | 1.60 | 4 (9%) | 56,56,56 | 4.51 | 17 (30%) |
| 15 | CLA | 4 | 603 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | L | 1503 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 2 | 616 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 18 | BCR | A | 4002 | - | 41,41,41 | 1.61 | 4 (9%) | 56,56,56 | 4.62 | 18 (32%) |
| 15 | CLA | A | 1105 | - | 59,63,73 | 1.46 | 7 (11%) | 70,101,113 | 2.03 | 18 (25%) |
| 15 | CLA | B | 1219 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 17 | SF4 | C | 3003 | - | 0,12,12 | - | - | - | - | - |
| 15 | CLA | A | 1134 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | 4 | 606 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1111 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | B | 1204 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.47 | 12 (38%) |
| 15 | CLA | A | 1013 | - | 59,63,73 | 1.47 | 7 (11%) | 70,101,113 | 1.96 | 16 (22%) |
| 15 | CLA | B | 1232 | - | 69,73,73 | 1.36 | 7 (10%) | 82,113,113 | 1.92 | 19 (23%) |
| 15 | CLA | A | 1135 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 18 | BCR | I | 4018 | - | 41,41,41 | 1.60 | 4 (9%) | 56,56,56 | 4.49 | 18 (32%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 15 | CLA | 2 | 612 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | B | 1220 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 18 | BCR | B | 4008 | - | 41,41,41 | 1.60 | 4 (9%) | 56,56,56 | 4.71 | 15 (26%) |
| 15 | CLA | B | 1234 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | K | 1402 | - | 24,32,73 | 3.28 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | 2 | 602 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 4 | 602 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 16 | PQN | B | 2002 | - | 34,34,34 | 0.40 | 0 | 43,45,45 | 1.18 | 3 (6%) |
| 15 | CLA | B | 1236 | - | 49,53,73 | 1.59 | 7 (14%) | 58,89,113 | 2.09 | 16 (27%) |
| 15 | CLA | 2 | 613 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.46 | 11 (35%) |
| 15 | CLA | A | 1011 | - | 54,58,73 | 1.53 | 7 (12%) | 64,95,113 | 2.11 | 19 (29%) |
| 15 | CLA | 3 | 611 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | 3 | 614 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1109 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1126 | - | 59,63,73 | 1.47 | 7 (11%) | 70,101,113 | 1.97 | 18 (25%) |
| 15 | CLA | B | 1222 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | B | 1239 | - | 24,32,73 | 3.33 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | B | 1230 | - | 51,55,73 | 1.57 | 7 (13%) | 60,91,113 | 2.21 | 16 (26%) |
| 15 | CLA | B | 1209 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1115 | - | 59,63,73 | 1.48 | 7 (11%) | 70,101,113 | 2.00 | 20 (28%) |
| 15 | CLA | A | 1131 | - | 49,53,73 | 1.61 | 7 (14%) | 58,89,113 | 2.01 | 14 (24%) |
| 15 | CLA | A | 1136 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | B | 1226 | - | 59,63,73 | 1.47 | 8 (13%) | 70,101,113 | 2.03 | 15 (21%) |
| 15 | CLA | 2 | 606 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | A | 1114 | - | 50,54,73 | 1.59 | 8 (16%) | 59,90,113 | 2.01 | 14 (23%) |
| 15 | CLA | A | 1123 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | B | 1214 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | A | 1130 | - | 59,63,73 | 1.47 | 7 (11%) | 70,101,113 | 2.01 | 20 (28%) |
| 15 | CLA | F | 1302 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 4 | 601 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | B | 1022 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 12 (38%) |
| 15 | CLA | B | 1207 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | 3 | 607 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 12 (38%) |
| 15 | CLA | A | 1102 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | B | 1221 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 15 | CLA | 2 | 614 | - | 24,32,73 | 3.31 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | B | 1218 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.47 | 11 (35%) |
| 15 | CLA | B | 1208 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |
| 15 | CLA | 4 | 608 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.49 | 11 (35%) |
| 15 | CLA | A | 1103 | - | 59,63,73 | 1.45 | 7 (11%) | 70,101,113 | 1.98 | 20 (28%) |
| 15 | CLA | 4 | 611 | - | 24,32,73 | 3.32 | 11 (45%) | 31,54,113 | 2.48 | 11 (35%) |

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 |
|-----|------|-------|------|------|-----------|---------------|---------|
| 15 | CLA | B | 1205 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1225 | - | 1/1/12/20 | 8/21/97/115 | - |
| 15 | CLA | O | 1603 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 604 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 615 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1117 | - | 1/1/13/20 | 10/27/103/115 | - |
| 15 | CLA | B | 1201 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1228 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1224 | - | 1/1/13/20 | 16/27/103/115 | - |
| 15 | CLA | 4 | 612 | - | 1/1/4/20 | - | - |
| 16 | PQN | A | 2001 | - | - | 10/23/43/43 | 0/2/2/2 |
| 15 | CLA | 2 | 610 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1127 | - | 1/1/4/20 | - | - |
| 17 | SF4 | A | 3001 | - | - | - | 0/6/5/5 |
| 15 | CLA | A | 1012 | - | 1/1/13/20 | 14/27/103/115 | - |
| 15 | CLA | B | 1215 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1216 | - | 1/1/4/20 | - | - |
| 15 | CLA | K | 1401 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1128 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1021 | - | 1/1/11/20 | 4/15/91/115 | - |
| 15 | CLA | L | 1502 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 601 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 606 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1231 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1104 | - | 1/1/13/20 | 12/27/103/115 | - |
| 15 | CLA | 2 | 608 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 610 | - | 1/1/4/20 | - | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|------|-----------|---------------|---------|
| 15 | CLA | B | 1023 | - | 1/1/12/20 | 7/21/97/115 | - |
| 15 | CLA | B | 1206 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1113 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1112 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1211 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 603 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1212 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 601 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1203 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1223 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 612 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 605 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 607 | - | 1/1/4/20 | - | - |
| 15 | CLA | L | 1501 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1237 | - | 1/1/13/20 | 9/27/103/115 | - |
| 15 | CLA | 3 | 604 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1110 | - | 1/1/4/20 | - | - |
| 17 | SF4 | C | 3002 | - | - | - | 0/6/5/5 |
| 15 | CLA | A | 1116 | - | 1/1/13/20 | 16/27/103/115 | - |
| 15 | CLA | A | 1125 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 603 | - | 1/1/4/20 | - | - |
| 18 | BCR | A | 4017 | - | - | 12/29/63/63 | 0/2/2/2 |
| 15 | CLA | B | 1227 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 604 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1107 | 3 | 1/1/13/20 | 10/27/103/115 | - |
| 15 | CLA | B | 1238 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1229 | - | 1/1/12/20 | 6/21/97/115 | - |
| 15 | CLA | F | 1301 | - | 1/1/11/20 | 7/15/91/115 | - |
| 15 | CLA | 4 | 605 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1121 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1132 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1119 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1118 | - | 1/1/4/20 | - | - |
| 15 | CLA | J | 1302 | - | 1/1/12/20 | 13/21/97/115 | - |
| 15 | CLA | O | 1601 | - | 1/1/4/20 | - | - |
| 18 | BCR | B | 4005 | - | - | 15/29/63/63 | 0/2/2/2 |
| 15 | CLA | A | 1138 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 608 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1106 | - | 1/1/13/20 | 12/27/103/115 | - |
| 15 | CLA | B | 1202 | - | 1/1/4/20 | - | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|------|-----------|---------------|---------|
| 15 | CLA | 4 | 616 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 611 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1124 | - | 1/1/4/20 | - | - |
| 18 | BCR | A | 4008 | - | - | 14/29/63/63 | 0/2/2/2 |
| 15 | CLA | B | 1217 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1129 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1120 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1108 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 610 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1101 | - | 1/1/11/20 | 9/15/91/115 | - |
| 15 | CLA | A | 1122 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1140 | - | 1/1/4/20 | - | - |
| 15 | CLA | O | 1602 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1235 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1133 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1141 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1210 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1139 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 602 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 615 | - | 1/1/4/20 | - | - |
| 18 | BCR | A | 4007 | - | - | 18/29/63/63 | 0/2/2/2 |
| 15 | CLA | A | 1137 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 609 | - | 1/1/4/20 | - | - |
| 18 | BCR | A | 4011 | - | - | 11/29/63/63 | 0/2/2/2 |
| 15 | CLA | 4 | 603 | - | 1/1/4/20 | - | - |
| 15 | CLA | L | 1503 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 616 | - | 1/1/4/20 | - | - |
| 18 | BCR | A | 4002 | - | - | 8/29/63/63 | 0/2/2/2 |
| 15 | CLA | A | 1105 | - | 1/1/13/20 | 9/27/103/115 | - |
| 15 | CLA | B | 1219 | - | 1/1/4/20 | - | - |
| 17 | SF4 | C | 3003 | - | - | - | 0/6/5/5 |
| 15 | CLA | A | 1134 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 606 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1111 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1204 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1013 | - | 1/1/13/20 | 13/27/103/115 | - |
| 15 | CLA | B | 1232 | - | 1/1/15/20 | 20/39/115/115 | - |
| 15 | CLA | A | 1135 | - | 1/1/4/20 | - | - |
| 18 | BCR | I | 4018 | - | - | 17/29/63/63 | 0/2/2/2 |
| 15 | CLA | 2 | 612 | - | 1/1/4/20 | - | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|------|-----------|---------------|---------|
| 15 | CLA | B | 1220 | - | 1/1/4/20 | - | - |
| 18 | BCR | B | 4008 | - | - | 14/29/63/63 | 0/2/2/2 |
| 15 | CLA | B | 1234 | - | 1/1/4/20 | - | - |
| 15 | CLA | K | 1402 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 602 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 602 | - | 1/1/4/20 | - | - |
| 16 | PQN | B | 2002 | - | - | 7/23/43/43 | 0/2/2/2 |
| 15 | CLA | B | 1236 | - | 1/1/11/20 | 6/15/91/115 | - |
| 15 | CLA | 2 | 613 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1011 | - | 1/1/12/20 | 6/21/97/115 | - |
| 15 | CLA | 3 | 611 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 614 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1109 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1126 | - | 1/1/13/20 | 11/27/103/115 | - |
| 15 | CLA | B | 1222 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1239 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1230 | - | 1/1/11/20 | 9/18/94/115 | - |
| 15 | CLA | B | 1209 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1115 | - | 1/1/13/20 | 12/27/103/115 | - |
| 15 | CLA | A | 1131 | - | 1/1/11/20 | 4/15/91/115 | - |
| 15 | CLA | A | 1136 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1226 | - | 1/1/13/20 | 12/27/103/115 | - |
| 15 | CLA | 2 | 606 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1114 | - | 1/1/11/20 | 7/17/93/115 | - |
| 15 | CLA | A | 1123 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1214 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1130 | - | 1/1/13/20 | 12/27/103/115 | - |
| 15 | CLA | F | 1302 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 601 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1022 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1207 | - | 1/1/4/20 | - | - |
| 15 | CLA | 3 | 607 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1102 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1221 | - | 1/1/4/20 | - | - |
| 15 | CLA | 2 | 614 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1218 | - | 1/1/4/20 | - | - |
| 15 | CLA | B | 1208 | - | 1/1/4/20 | - | - |
| 15 | CLA | 4 | 608 | - | 1/1/4/20 | - | - |
| 15 | CLA | A | 1103 | - | 1/1/13/20 | 11/27/103/115 | - |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|----------|----------|-------|
| 15 | CLA | 4 | 611 | - | 1/1/4/20 | - | - |

The worst 5 of 1400 bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|------|-------------|----------|
| 15 | A | 1128 | CLA | C3D-C2D | 8.69 | 1.54 | 1.35 |
| 15 | A | 1127 | CLA | C3D-C2D | 8.69 | 1.54 | 1.35 |
| 15 | B | 1239 | CLA | C3D-C2D | 8.68 | 1.54 | 1.35 |
| 15 | A | 1108 | CLA | C3D-C2D | 8.68 | 1.54 | 1.35 |
| 15 | A | 1124 | CLA | C3D-C2D | 8.68 | 1.54 | 1.35 |

The worst 5 of 1811 bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 18 | A | 4007 | BCR | C10-C11-C12 | 19.60 | 179.99 | 123.20 |
| 18 | A | 4008 | BCR | C10-C11-C12 | 19.29 | 179.09 | 123.20 |
| 18 | A | 4017 | BCR | C10-C11-C12 | 19.09 | 178.52 | 123.20 |
| 18 | B | 4008 | BCR | C10-C11-C12 | 18.97 | 178.17 | 123.20 |
| 18 | B | 4005 | BCR | C10-C11-C12 | 18.87 | 177.87 | 123.20 |

5 of 134 chirality outliers are listed below:

| Mol | Chain | Res | Type | Atom |
|-----|-------|-----|------|------|
| 15 | 2 | 601 | CLA | ND |
| 15 | 2 | 602 | CLA | ND |
| 15 | 2 | 603 | CLA | ND |
| 15 | 2 | 604 | CLA | ND |
| 15 | 2 | 605 | CLA | ND |

5 of 411 torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms |
|-----|-------|------|------|-----------------|
| 15 | A | 1011 | CLA | C1A-C2A-CAA-CBA |
| 15 | A | 1012 | CLA | CAD-CBD-CGD-O1D |
| 15 | A | 1012 | CLA | CAD-CBD-CGD-O2D |
| 15 | A | 1012 | CLA | CBD-CGD-O2D-CED |
| 15 | A | 1101 | CLA | C1A-C2A-CAA-CBA |

There are no ring outliers.

67 monomers are involved in 145 short contacts:

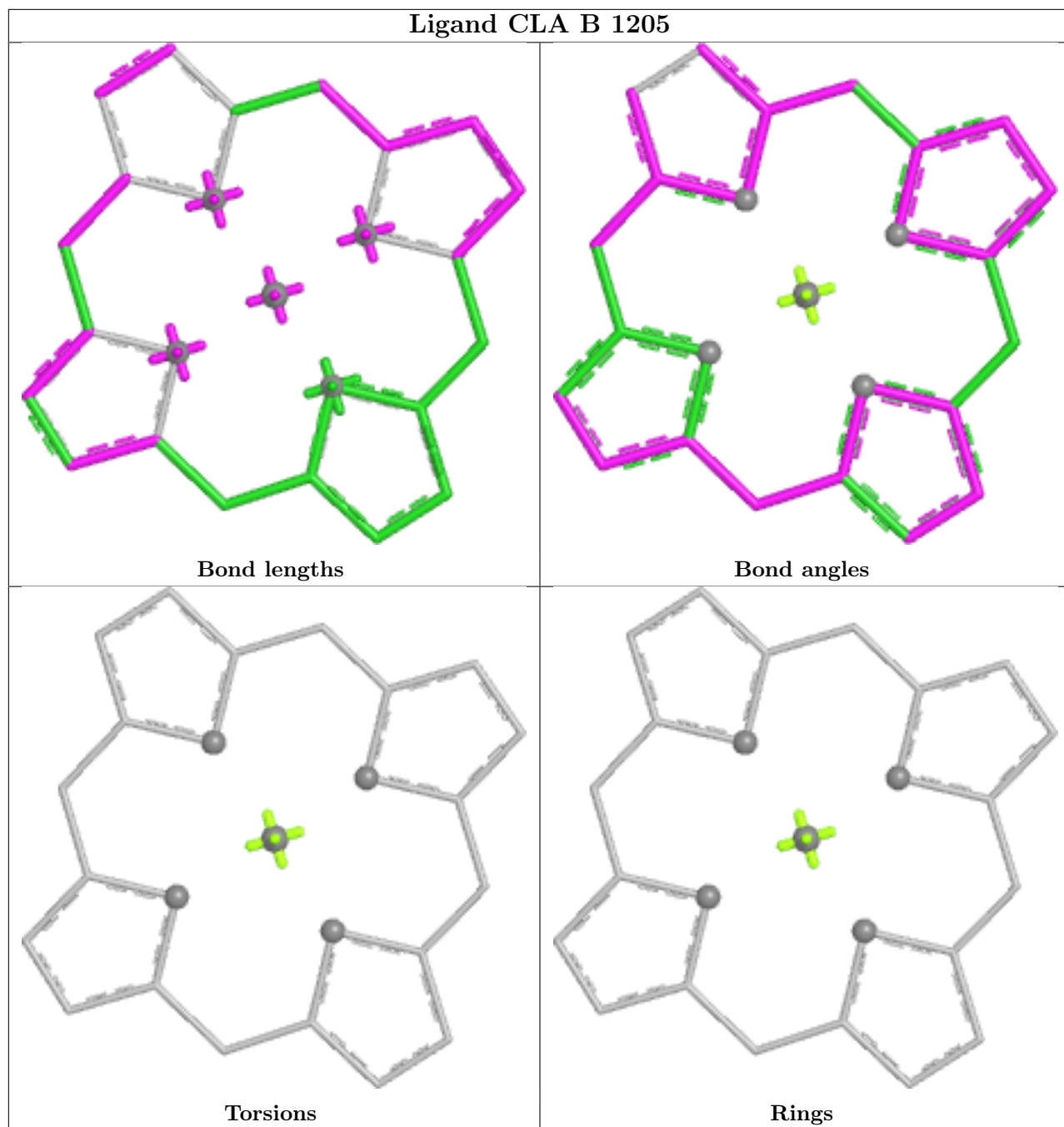
| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 15 | B | 1205 | CLA | 1 | 0 |
| 15 | B | 1225 | CLA | 5 | 0 |
| 15 | 4 | 615 | CLA | 1 | 0 |
| 15 | A | 1117 | CLA | 3 | 0 |
| 15 | B | 1201 | CLA | 1 | 0 |
| 15 | B | 1228 | CLA | 2 | 0 |
| 15 | B | 1224 | CLA | 7 | 0 |
| 15 | 4 | 612 | CLA | 1 | 0 |
| 16 | A | 2001 | PQN | 3 | 0 |
| 15 | A | 1127 | CLA | 1 | 0 |
| 15 | A | 1012 | CLA | 6 | 0 |
| 15 | B | 1021 | CLA | 4 | 0 |
| 15 | L | 1502 | CLA | 1 | 0 |
| 15 | 3 | 601 | CLA | 1 | 0 |
| 15 | 3 | 606 | CLA | 2 | 0 |
| 15 | A | 1104 | CLA | 1 | 0 |
| 15 | 3 | 610 | CLA | 1 | 0 |
| 15 | B | 1023 | CLA | 5 | 0 |
| 15 | B | 1206 | CLA | 1 | 0 |
| 15 | A | 1112 | CLA | 1 | 0 |
| 15 | B | 1212 | CLA | 1 | 0 |
| 15 | B | 1203 | CLA | 2 | 0 |
| 15 | 2 | 607 | CLA | 1 | 0 |
| 15 | L | 1501 | CLA | 1 | 0 |
| 15 | B | 1237 | CLA | 1 | 0 |
| 15 | 3 | 604 | CLA | 1 | 0 |
| 17 | C | 3002 | SF4 | 3 | 0 |
| 18 | A | 4017 | BCR | 6 | 0 |
| 15 | B | 1227 | CLA | 1 | 0 |
| 15 | A | 1107 | CLA | 2 | 0 |
| 15 | B | 1229 | CLA | 6 | 0 |
| 15 | J | 1302 | CLA | 1 | 0 |
| 18 | B | 4005 | BCR | 7 | 0 |
| 15 | A | 1106 | CLA | 5 | 0 |
| 15 | B | 1202 | CLA | 1 | 0 |
| 15 | A | 1124 | CLA | 1 | 0 |
| 18 | A | 4008 | BCR | 1 | 0 |
| 15 | A | 1129 | CLA | 1 | 0 |
| 15 | A | 1122 | CLA | 1 | 0 |
| 15 | B | 1210 | CLA | 1 | 0 |
| 15 | A | 1139 | CLA | 1 | 0 |
| 18 | A | 4007 | BCR | 4 | 0 |
| 18 | A | 4011 | BCR | 11 | 0 |

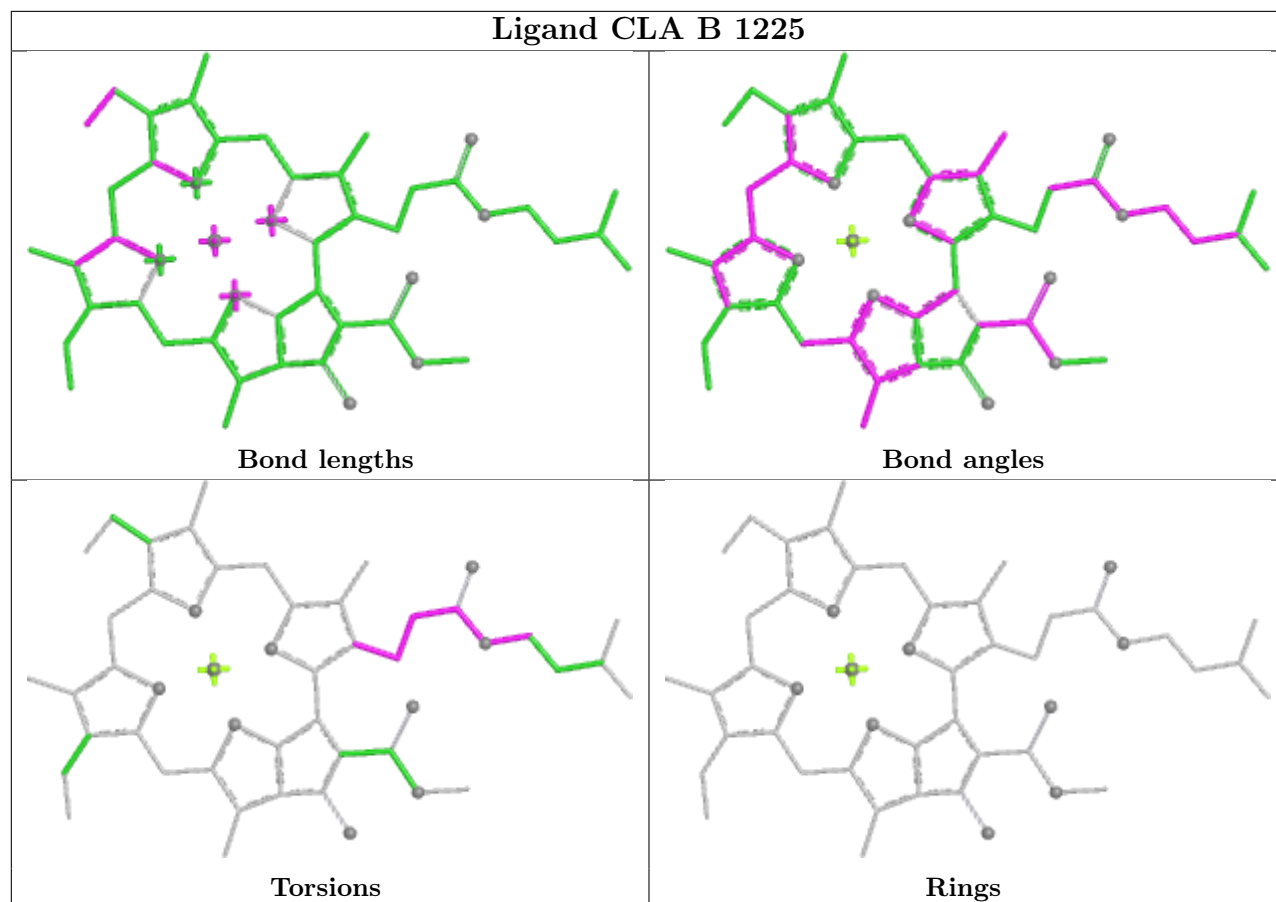
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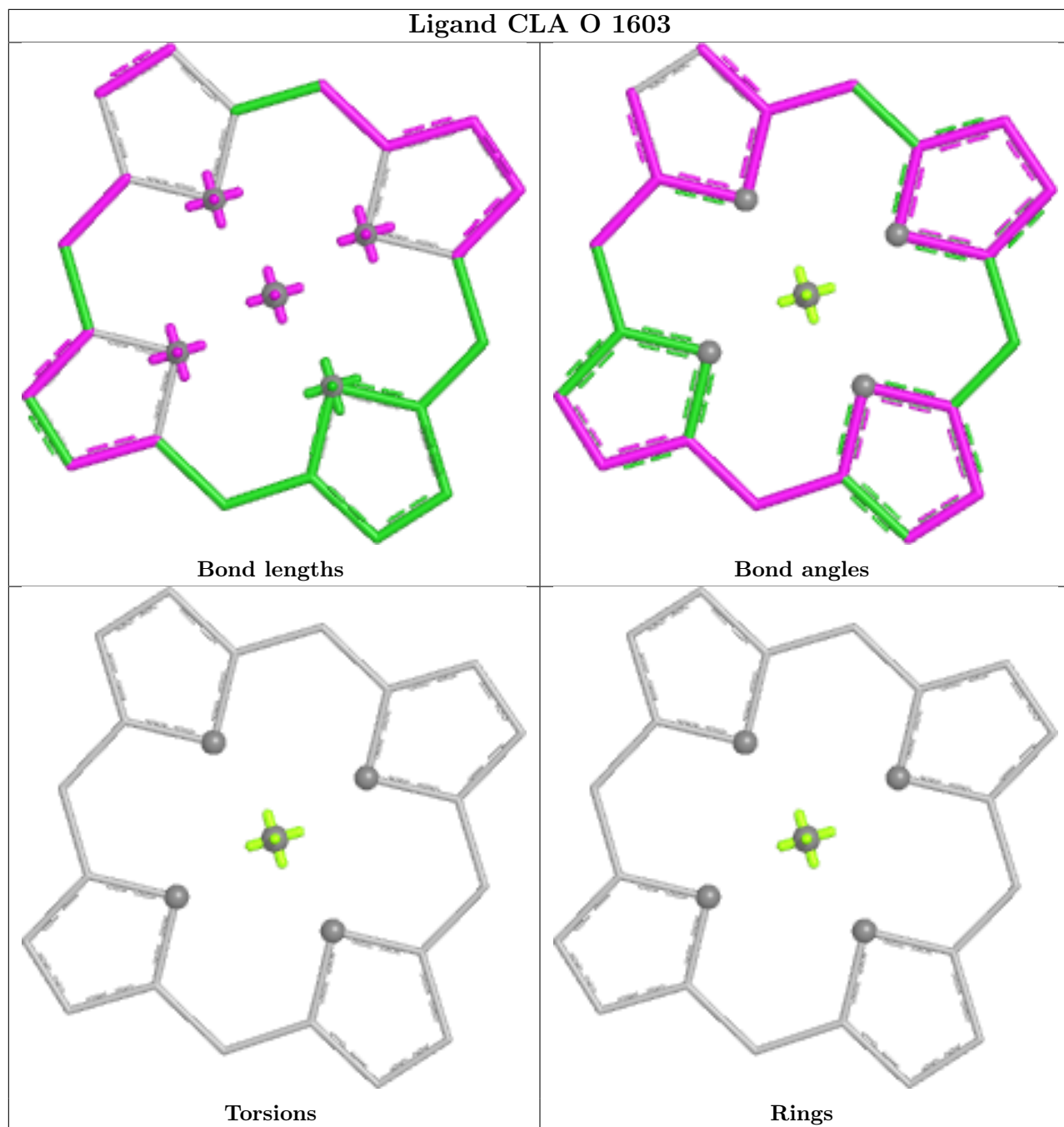
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| Mol | Chain | Res | Type | Clashes | Symm-Clashes |
|-----|-------|------|------|---------|--------------|
| 18 | A | 4002 | BCR | 3 | 0 |
| 15 | A | 1105 | CLA | 3 | 0 |
| 17 | C | 3003 | SF4 | 1 | 0 |
| 15 | 4 | 606 | CLA | 1 | 0 |
| 15 | A | 1013 | CLA | 7 | 0 |
| 15 | B | 1232 | CLA | 3 | 0 |
| 15 | A | 1135 | CLA | 1 | 0 |
| 18 | I | 4018 | BCR | 4 | 0 |
| 15 | 2 | 612 | CLA | 1 | 0 |
| 18 | B | 4008 | BCR | 1 | 0 |
| 16 | B | 2002 | PQN | 1 | 0 |
| 15 | B | 1236 | CLA | 1 | 0 |
| 15 | A | 1011 | CLA | 5 | 0 |
| 15 | A | 1126 | CLA | 10 | 0 |
| 15 | B | 1239 | CLA | 1 | 0 |
| 15 | B | 1230 | CLA | 6 | 0 |
| 15 | A | 1131 | CLA | 2 | 0 |
| 15 | B | 1226 | CLA | 6 | 0 |
| 15 | A | 1114 | CLA | 1 | 0 |
| 15 | A | 1123 | CLA | 1 | 0 |
| 15 | A | 1130 | CLA | 5 | 0 |
| 15 | B | 1022 | CLA | 1 | 0 |
| 15 | B | 1207 | CLA | 1 | 0 |
| 15 | A | 1103 | CLA | 1 | 0 |

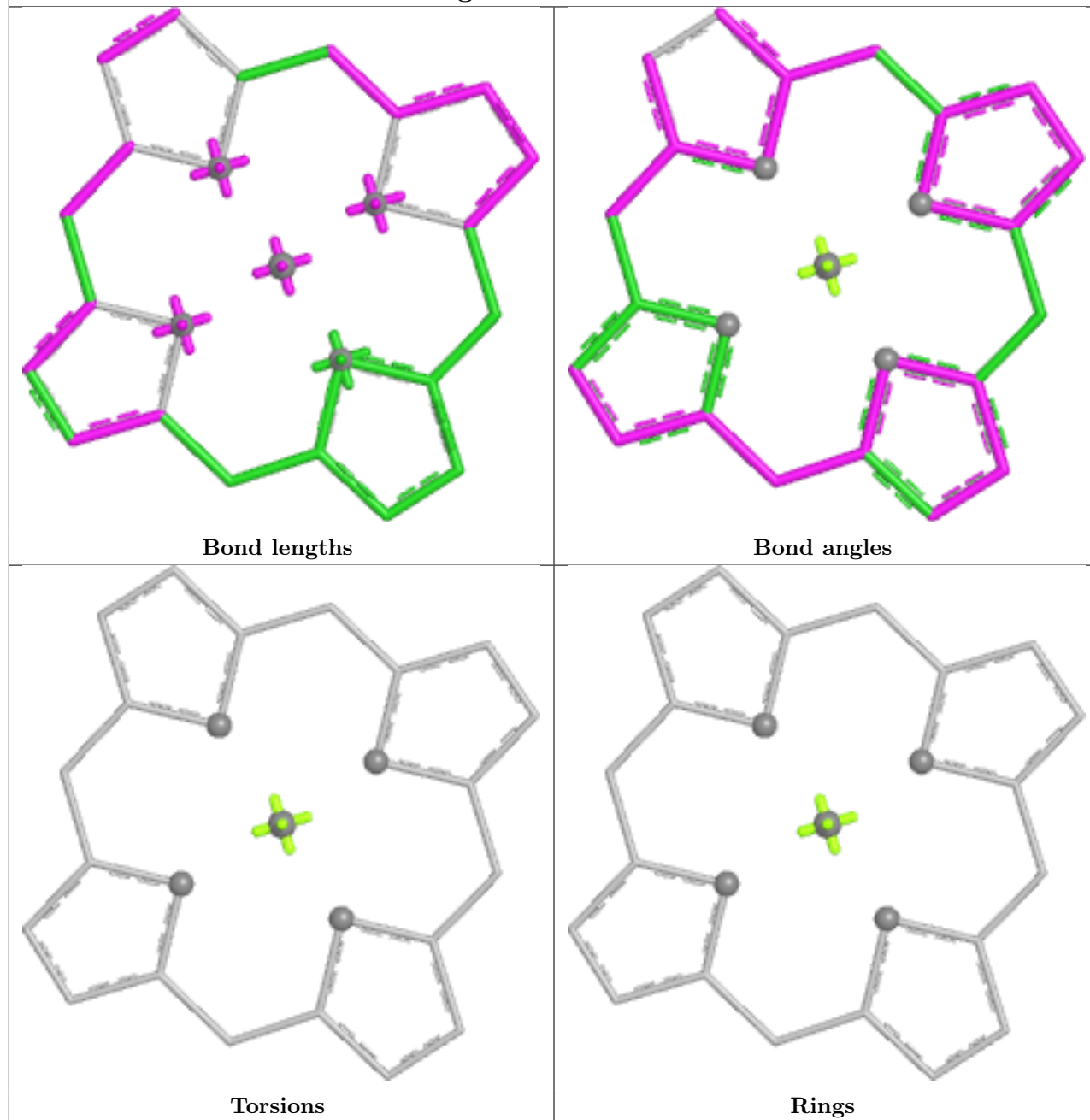
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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



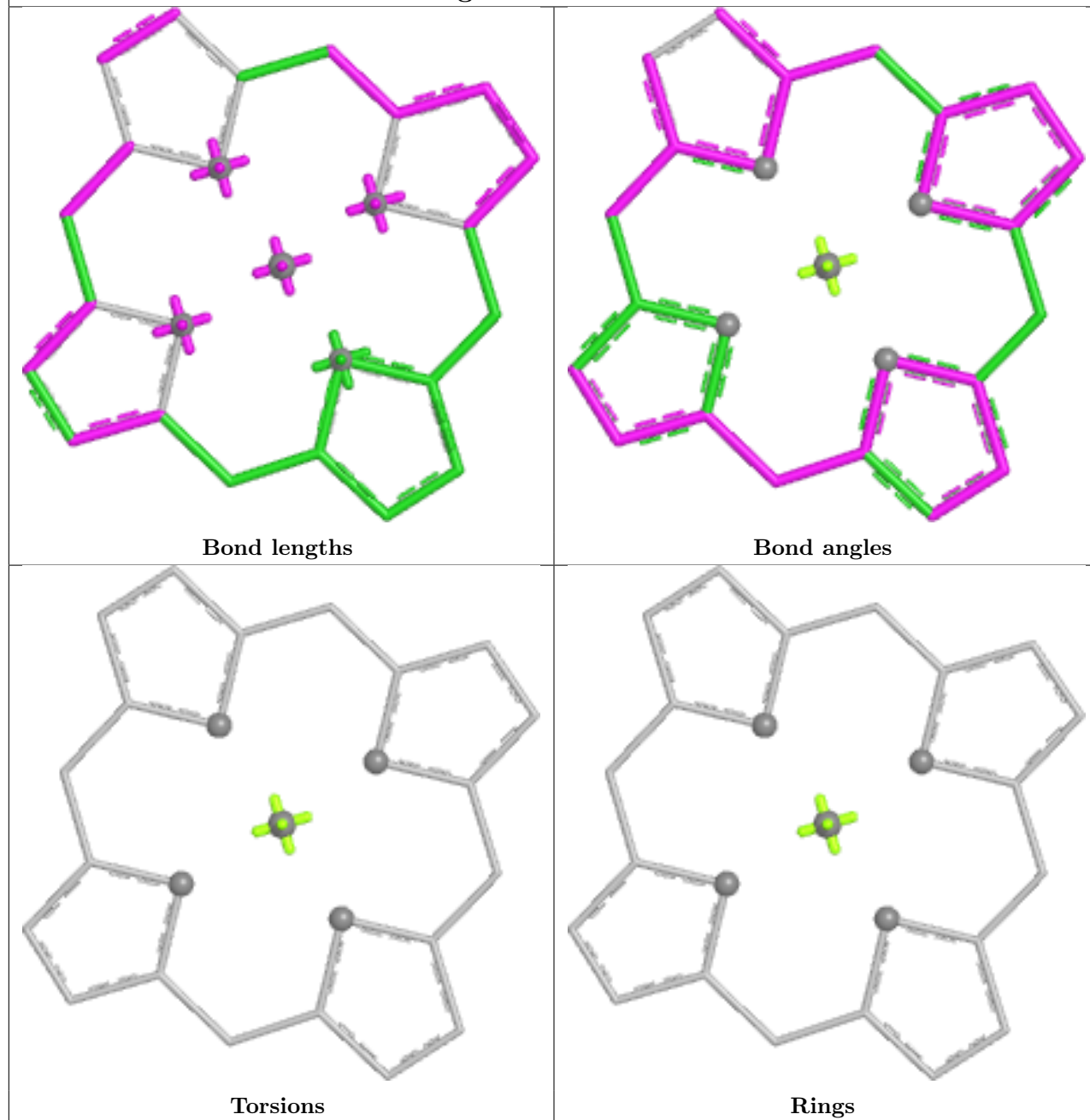


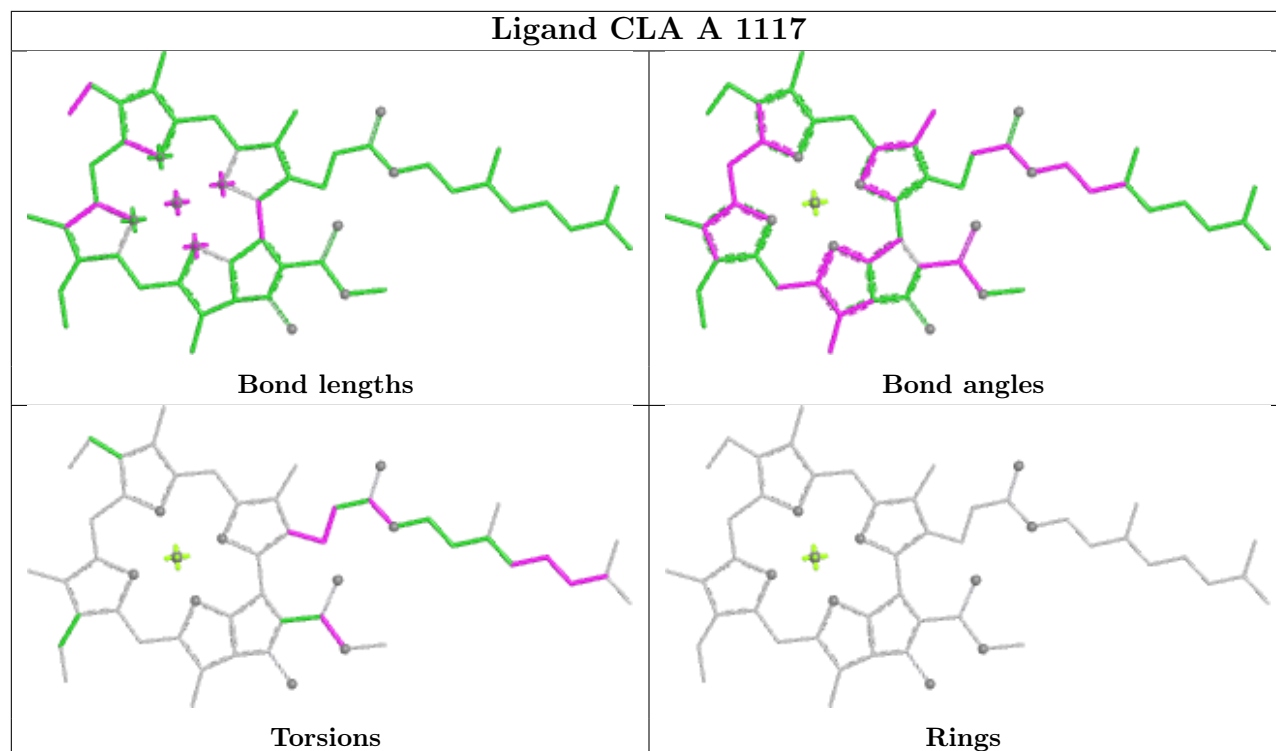


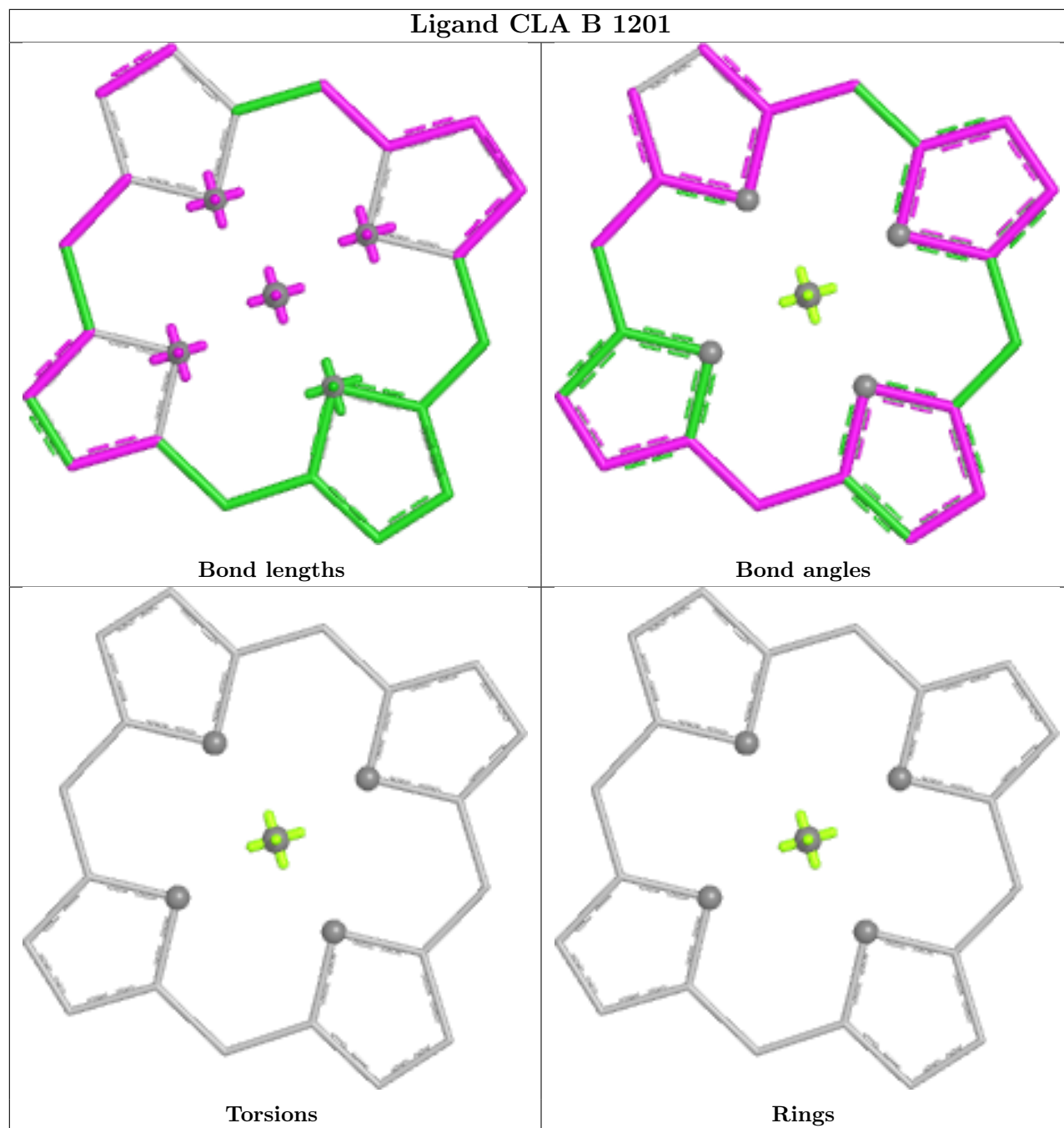
Ligand CLA 4 604

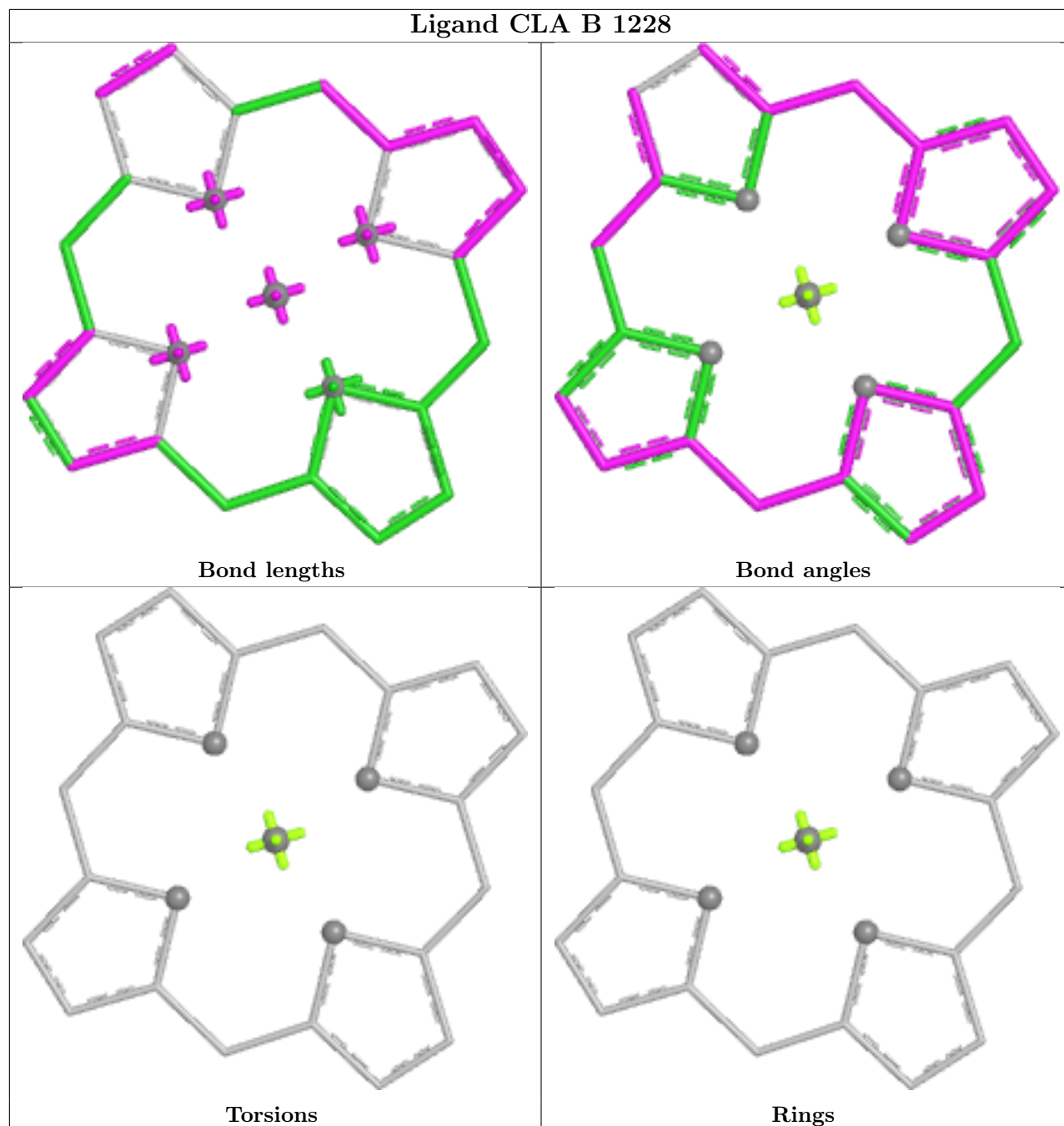


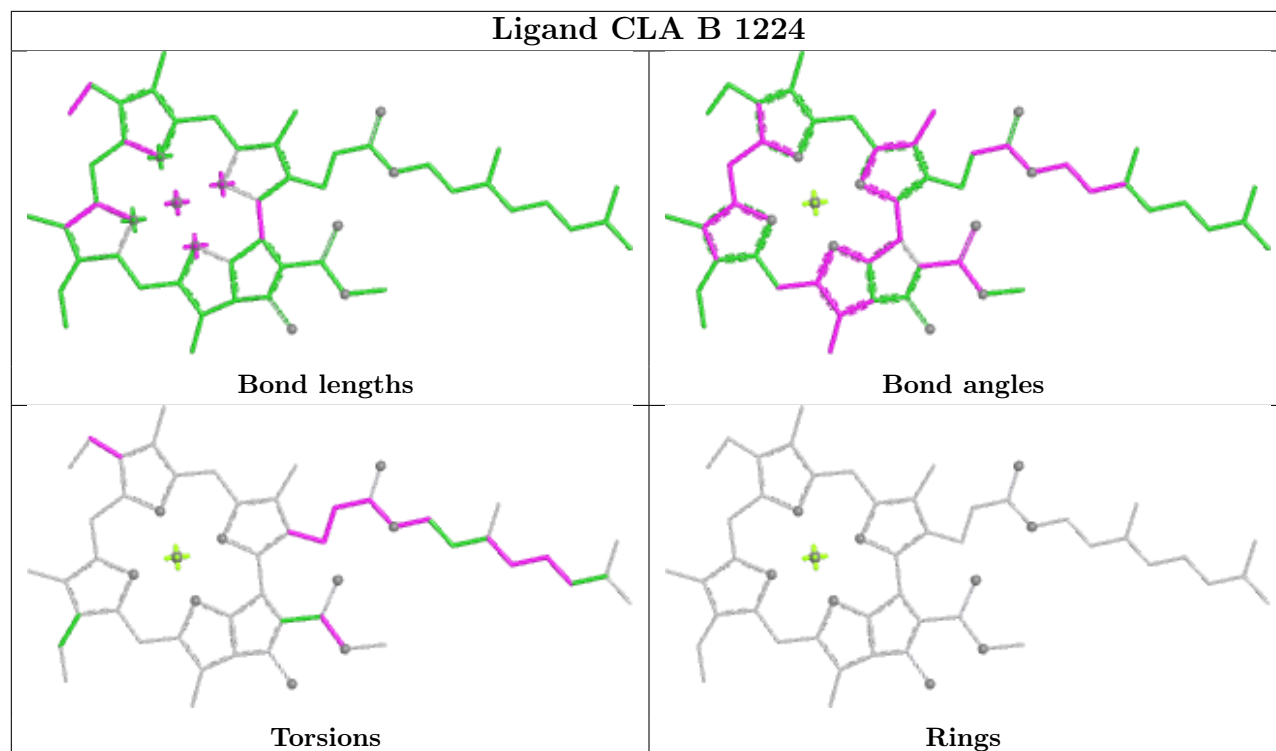
Ligand CLA 4 615

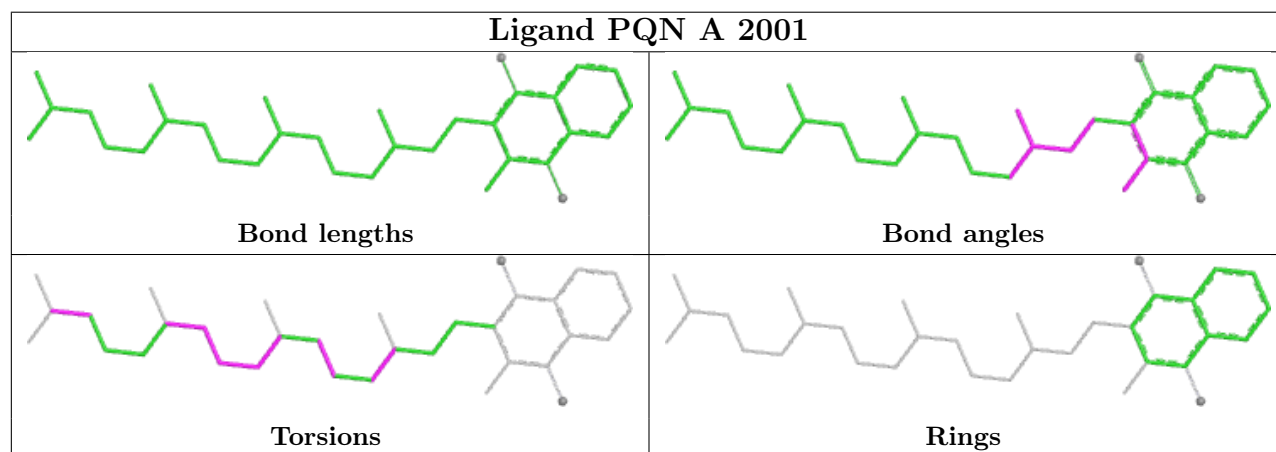
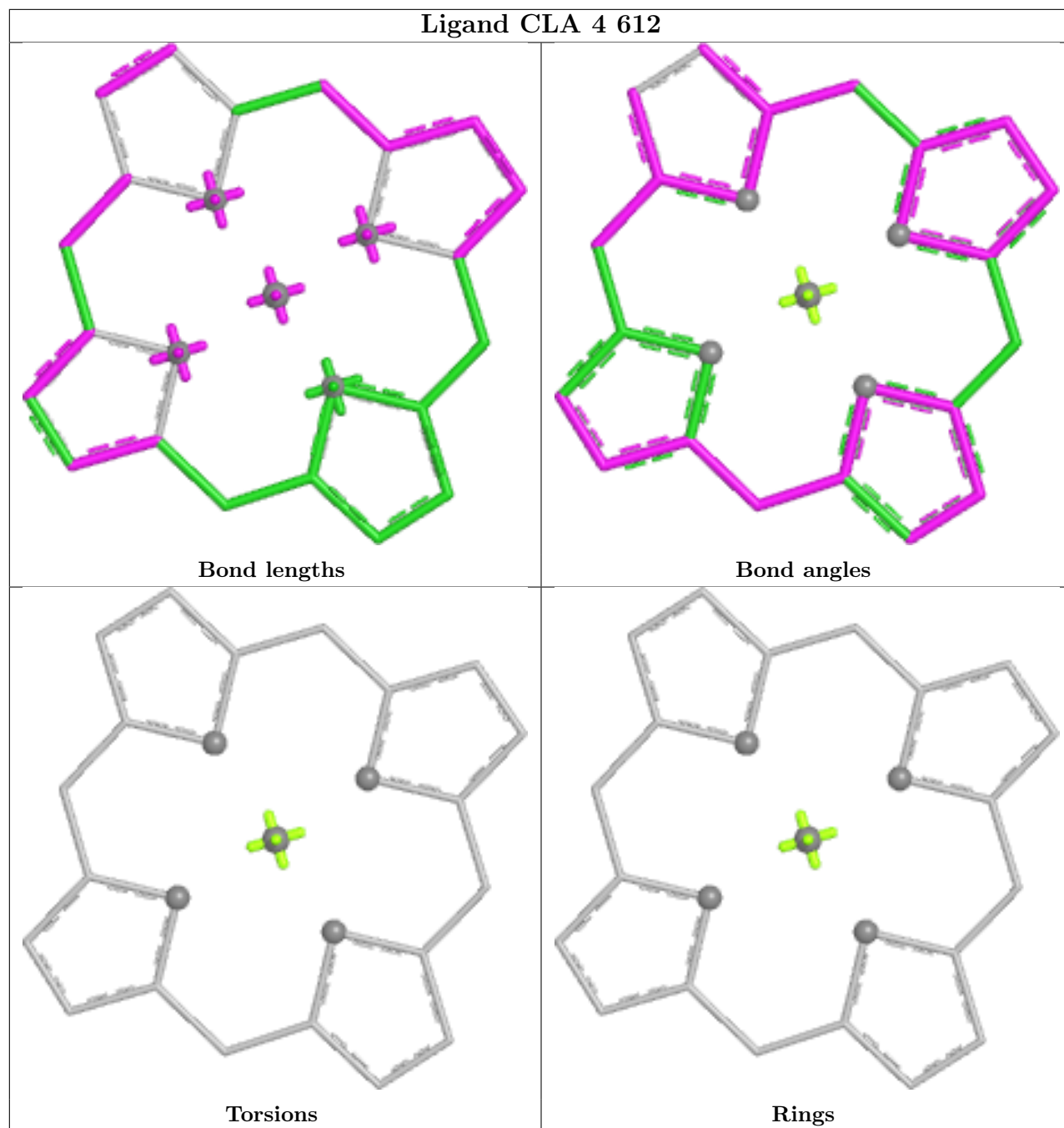




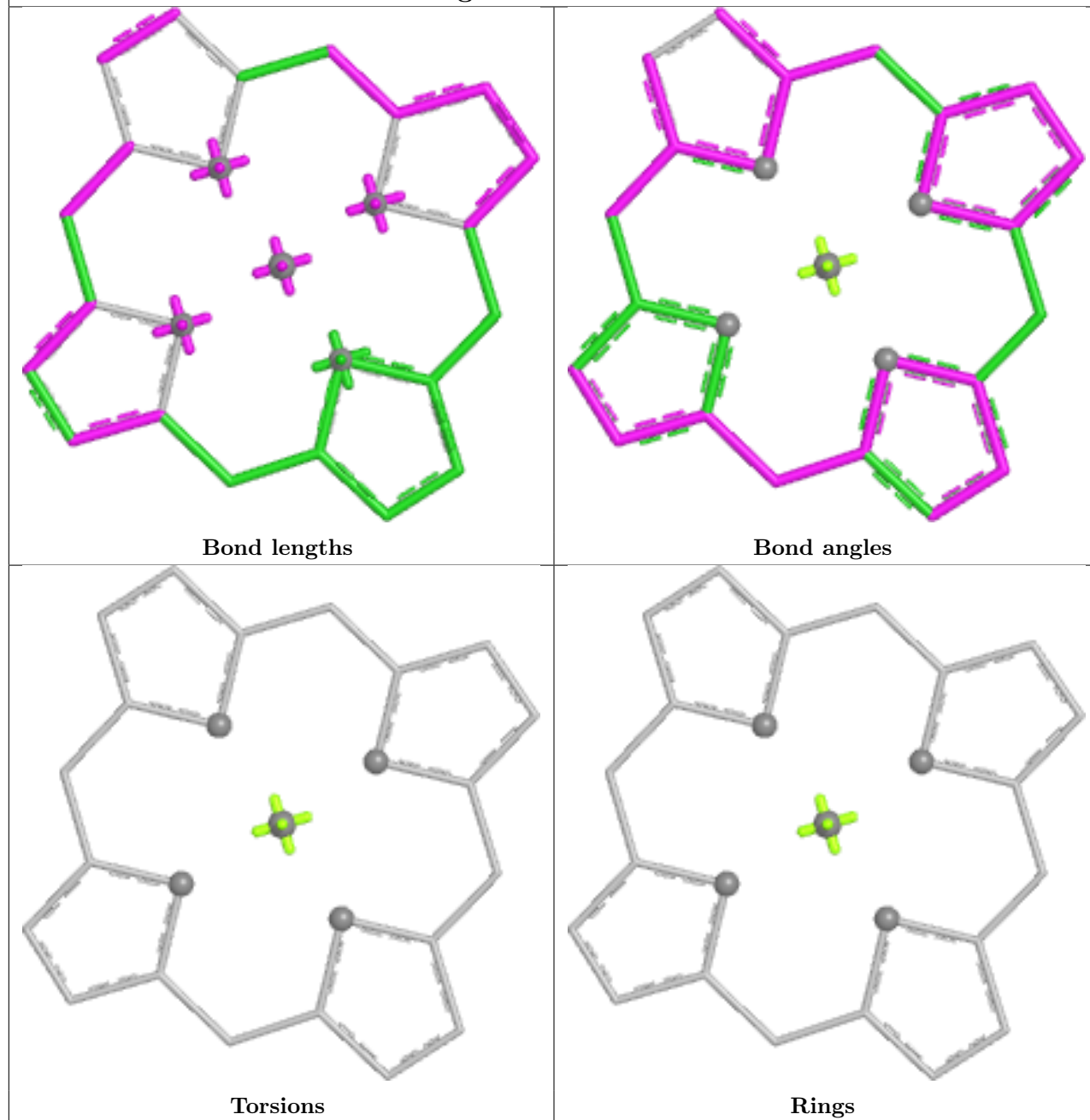


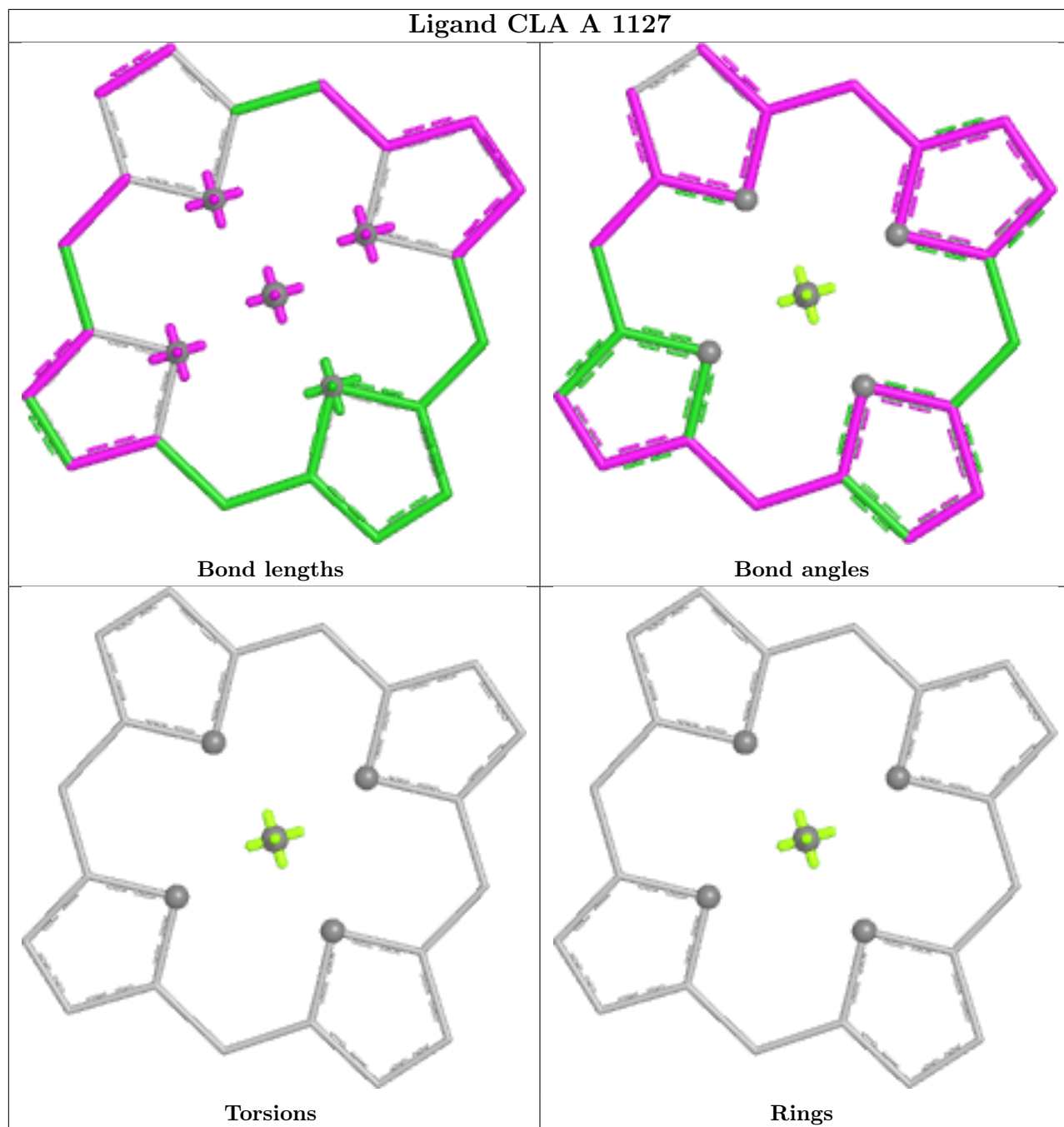


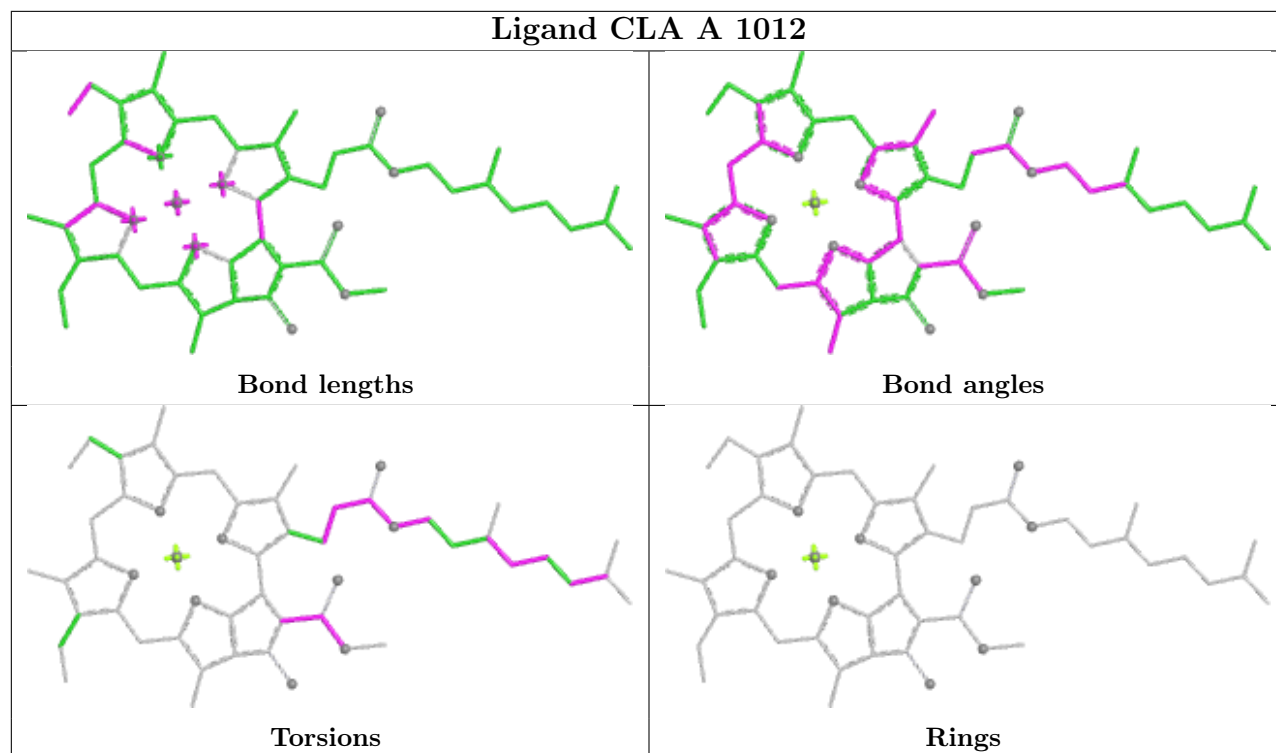


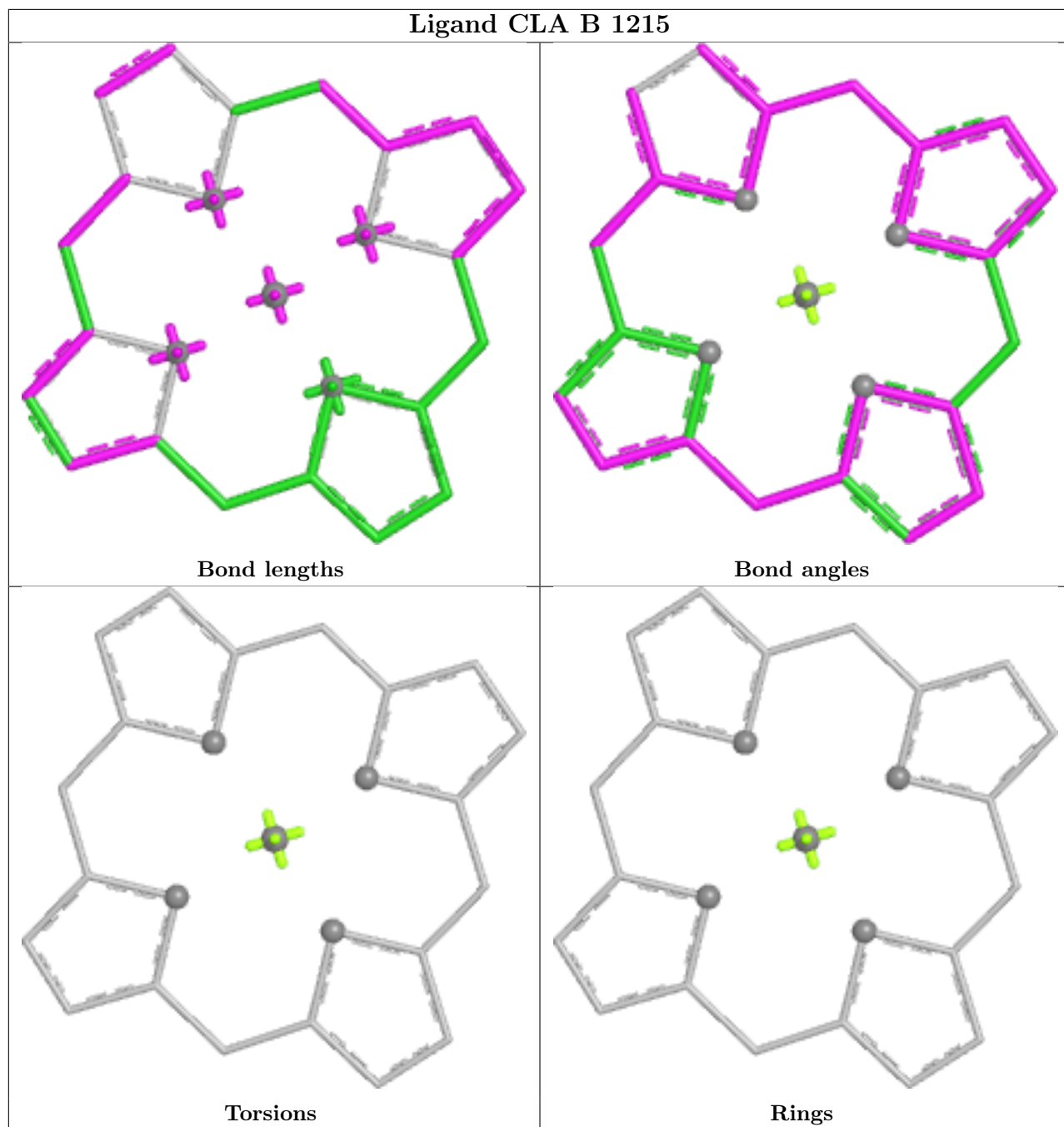


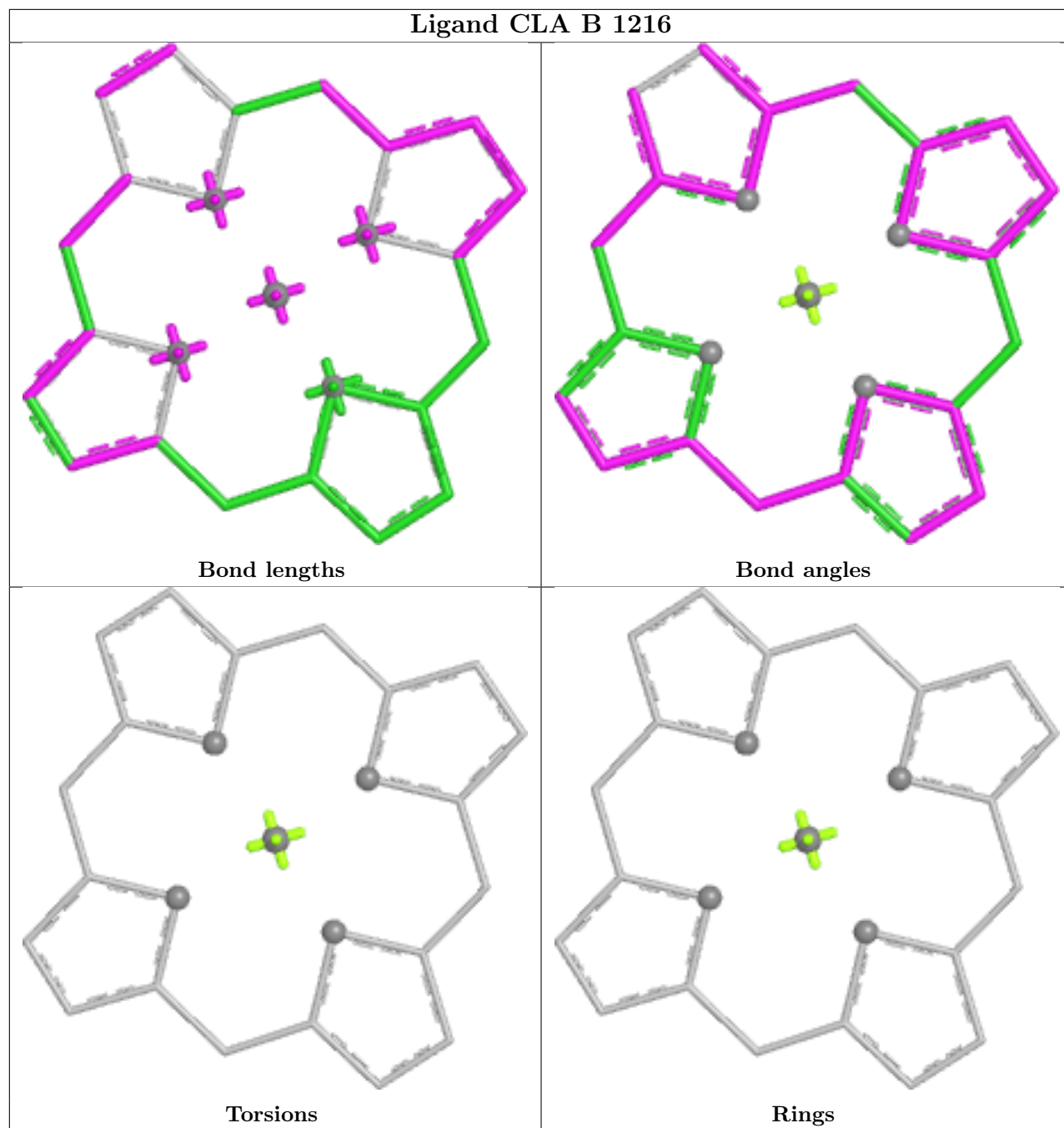
Ligand CLA 2 610

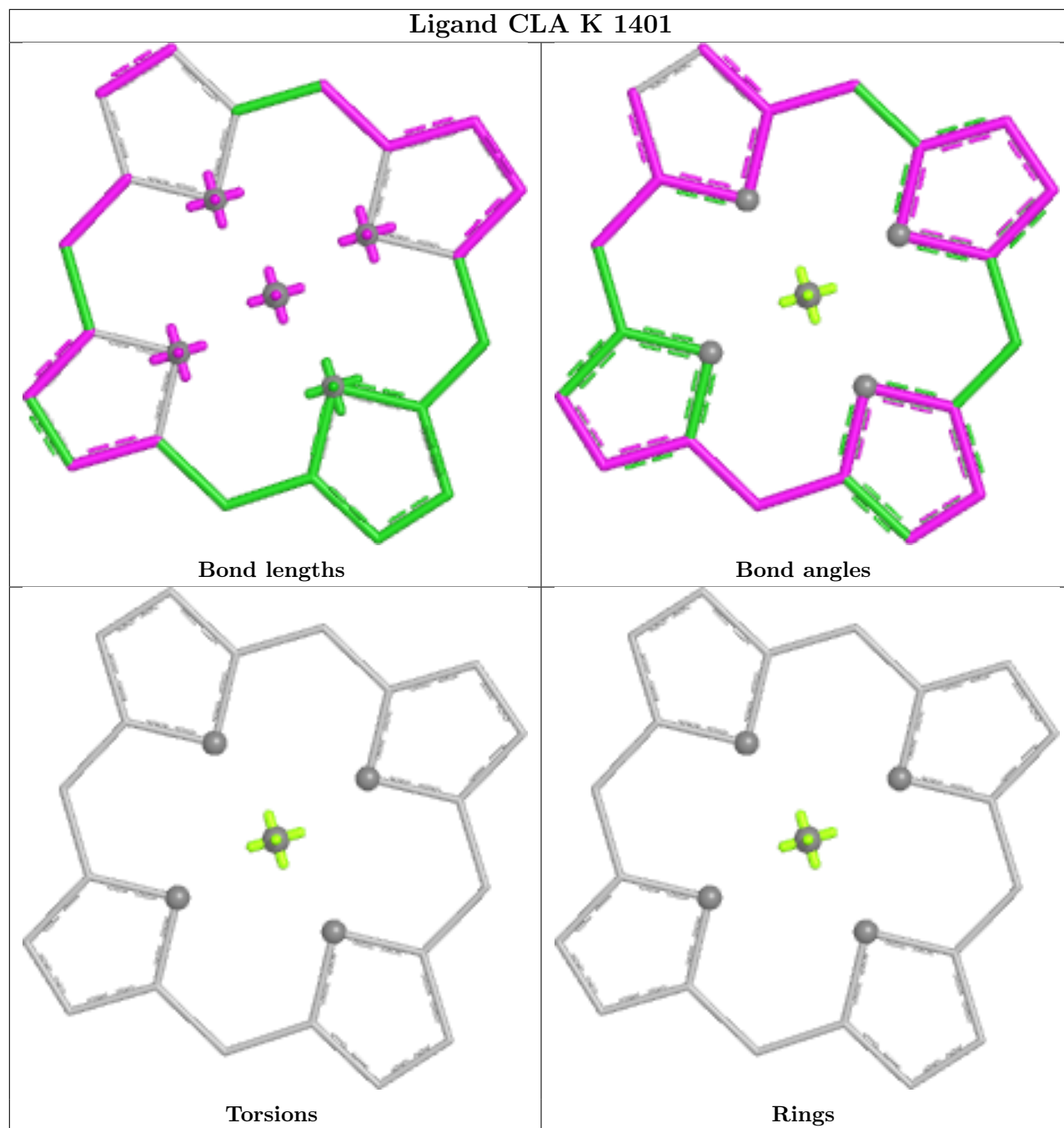


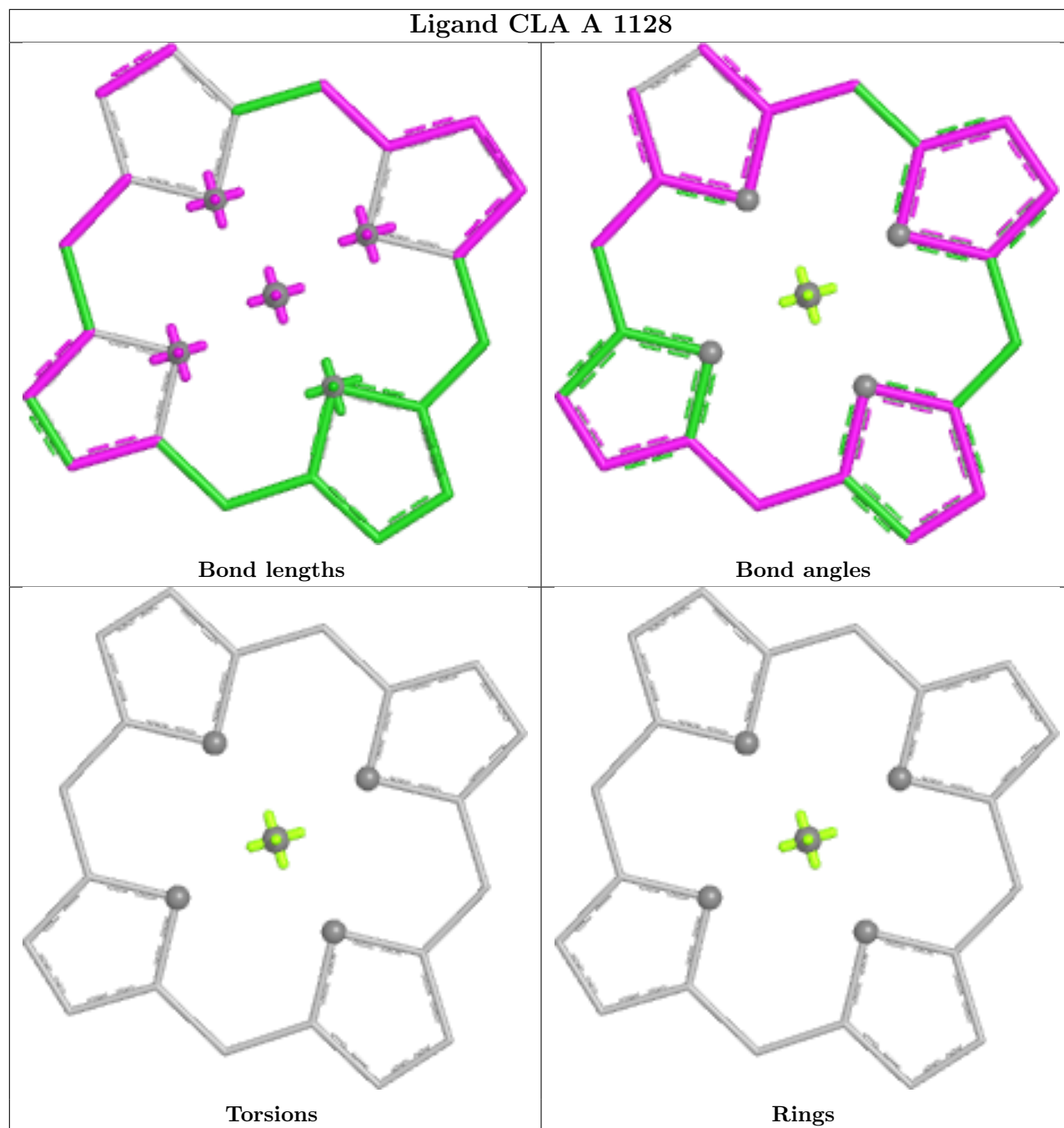


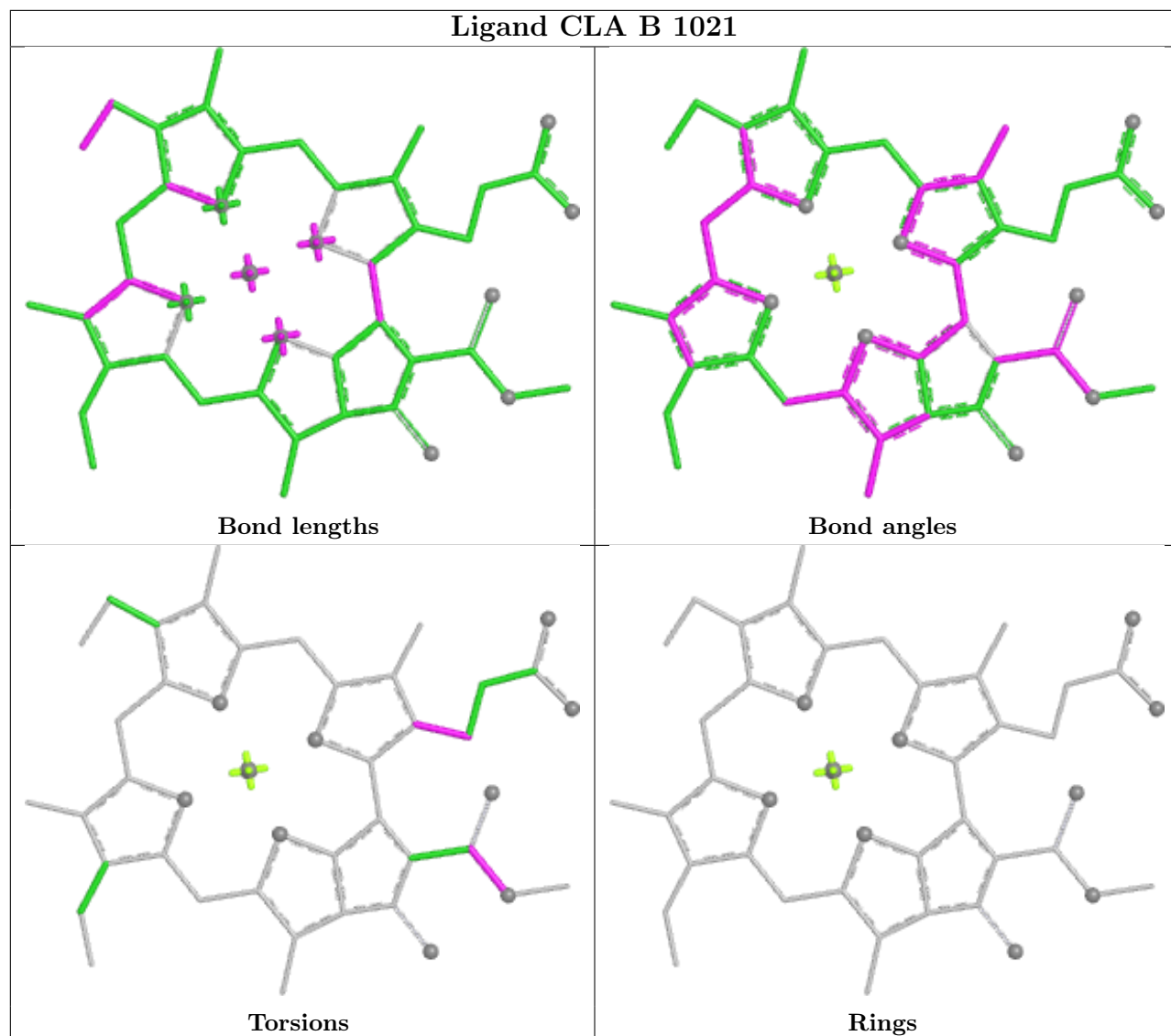


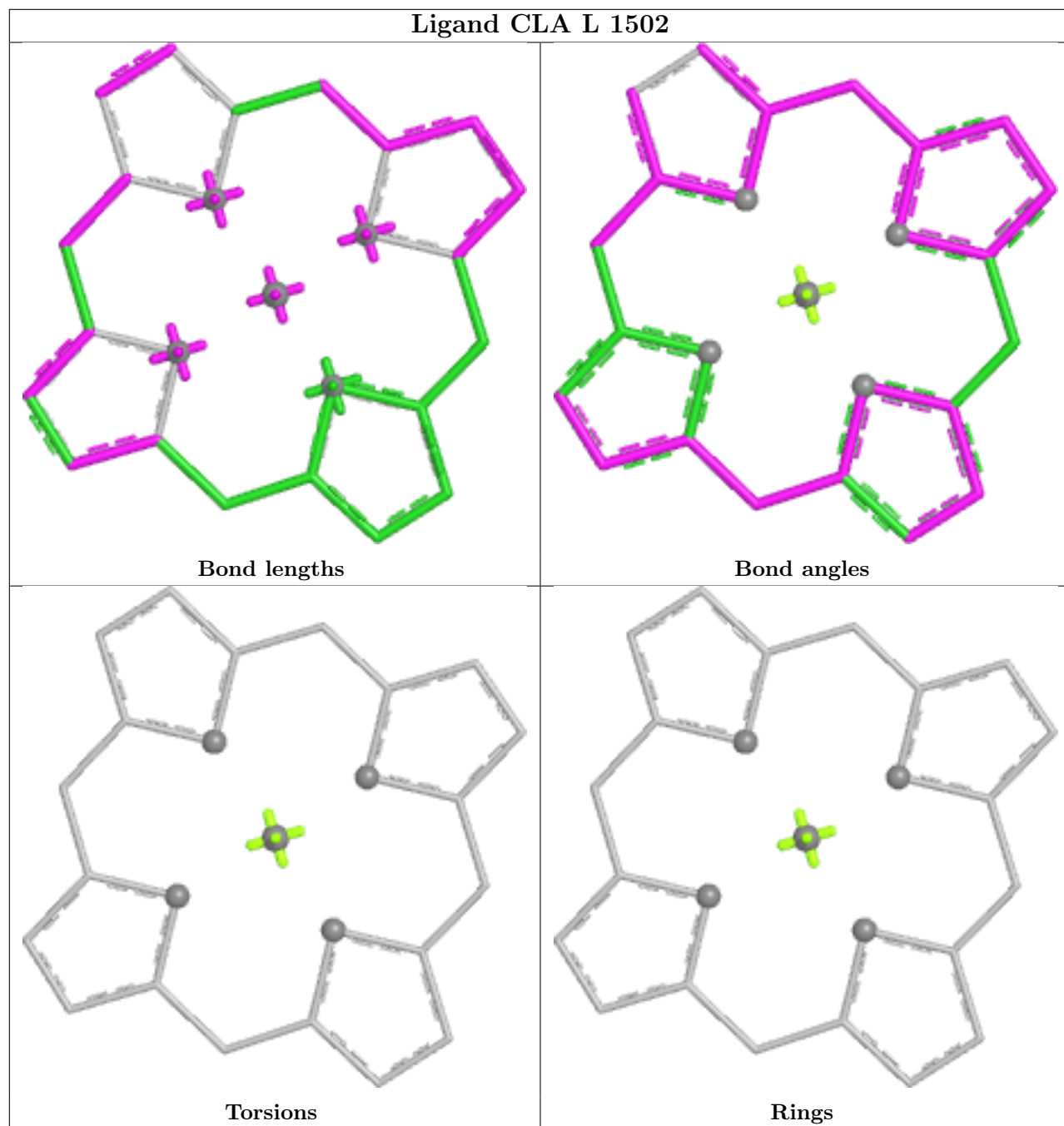




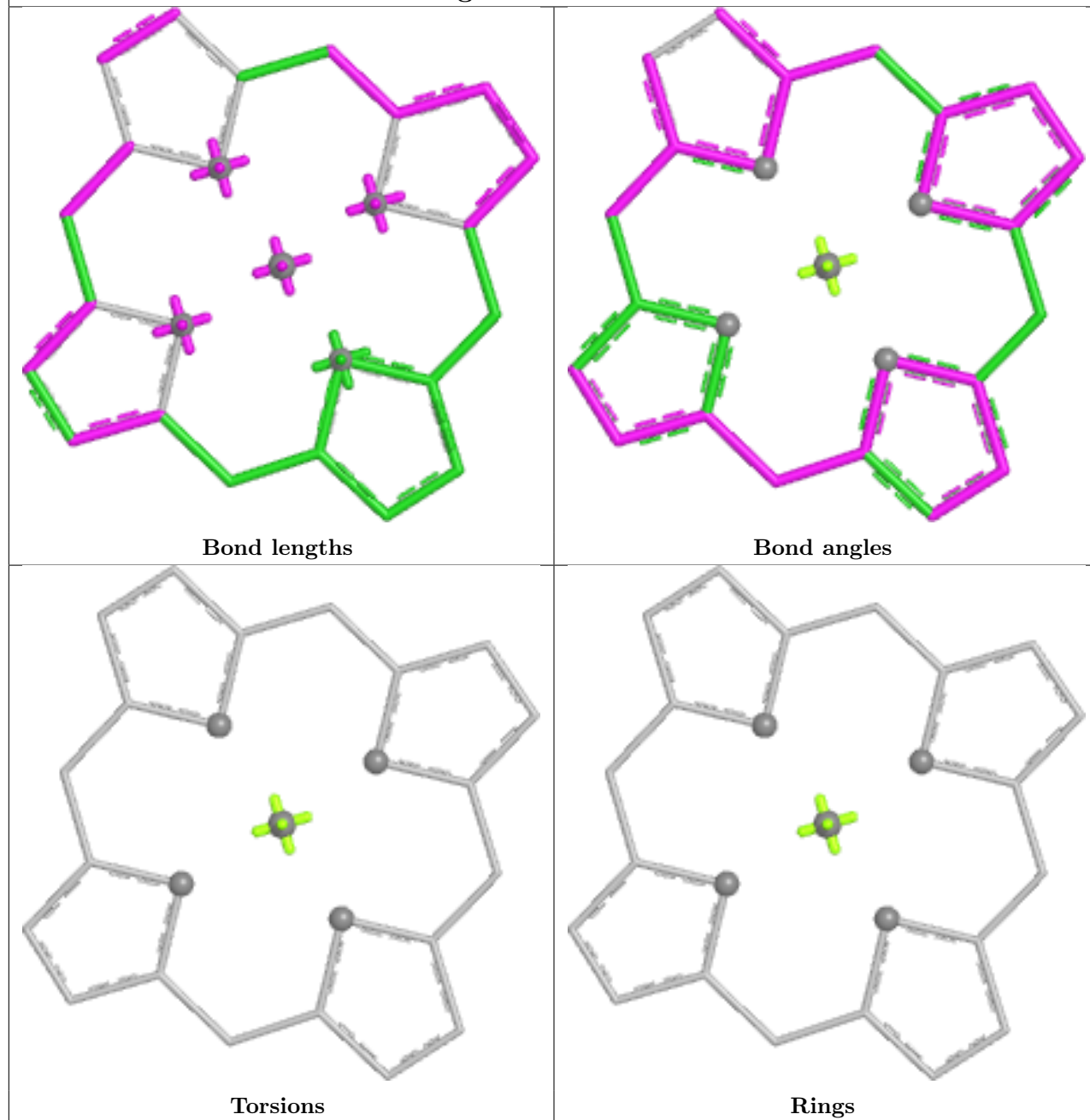




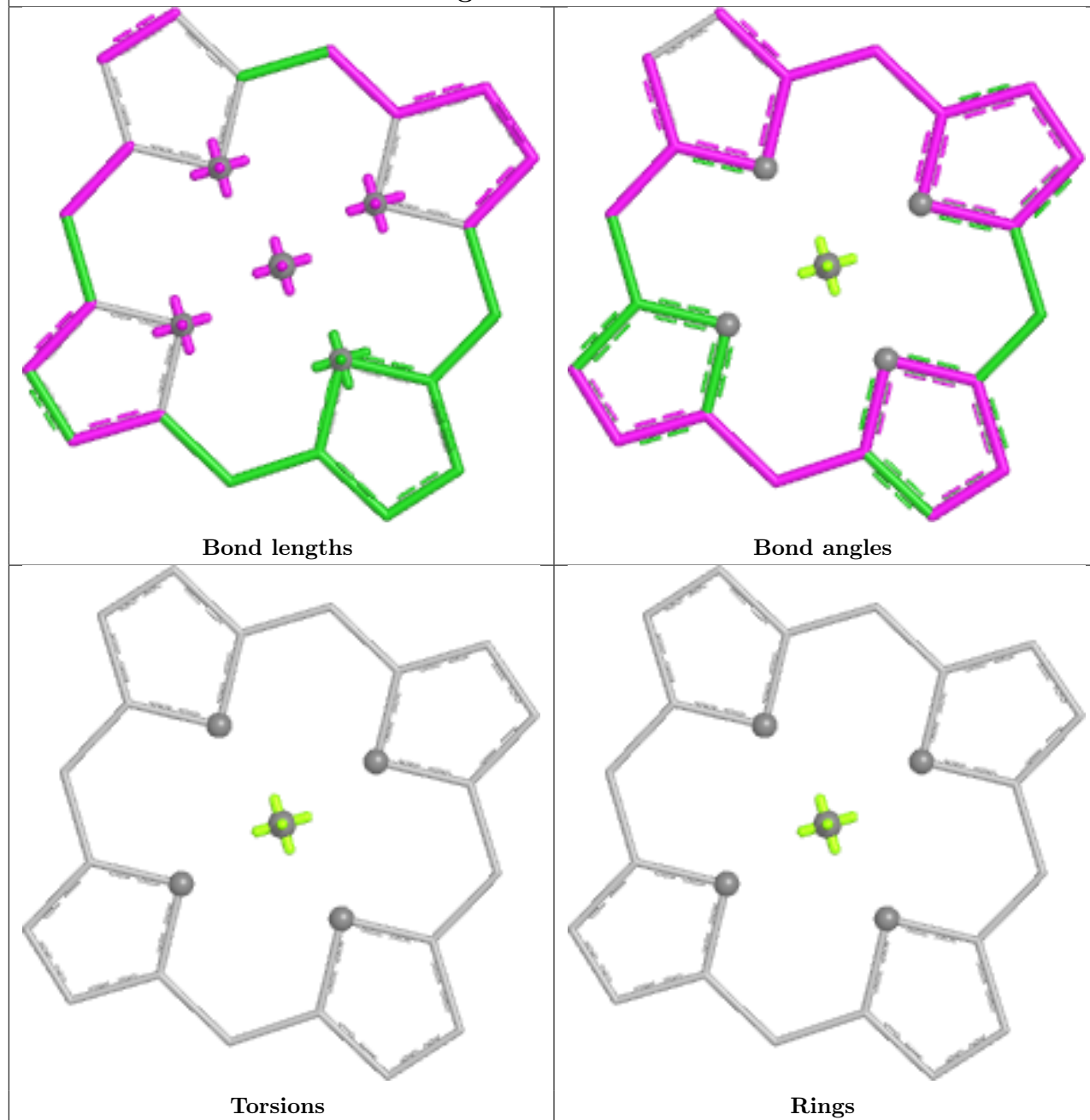


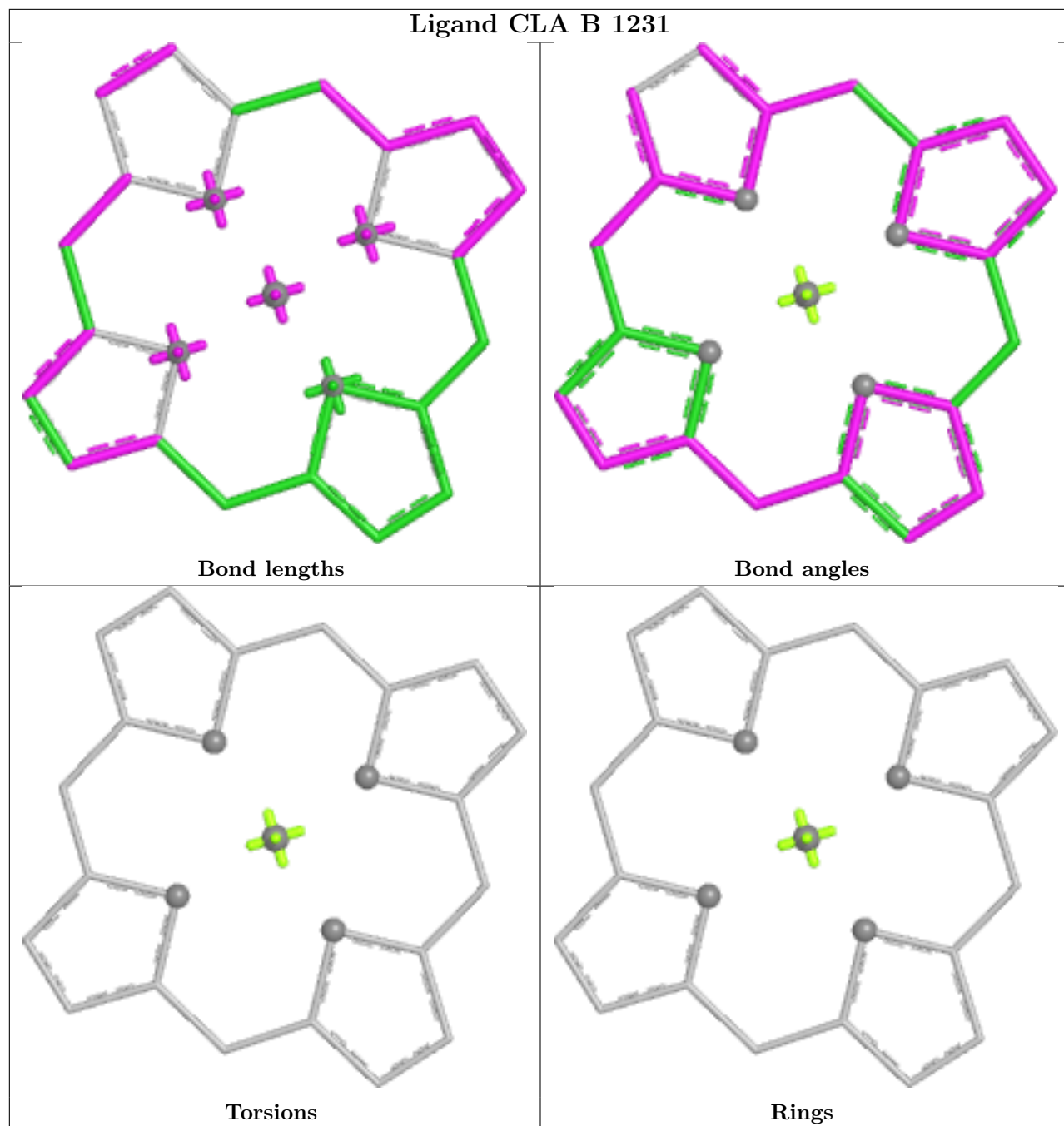


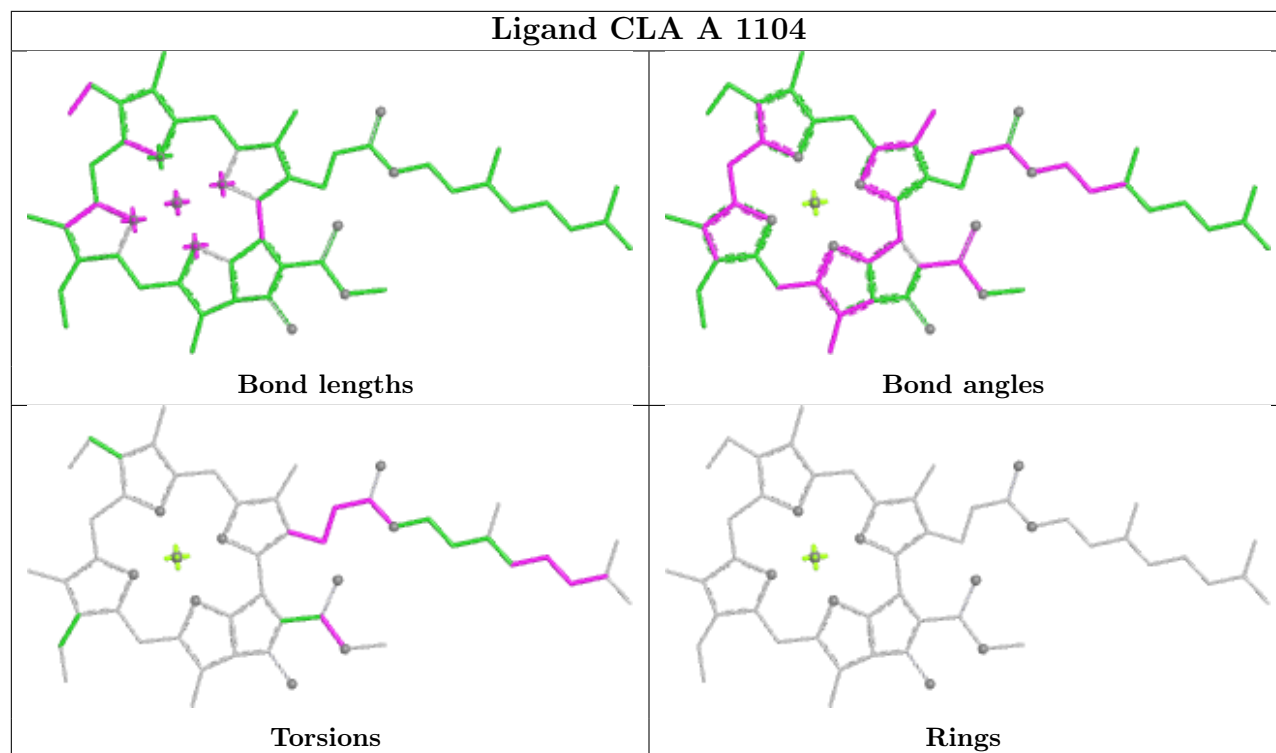
Ligand CLA 3 601



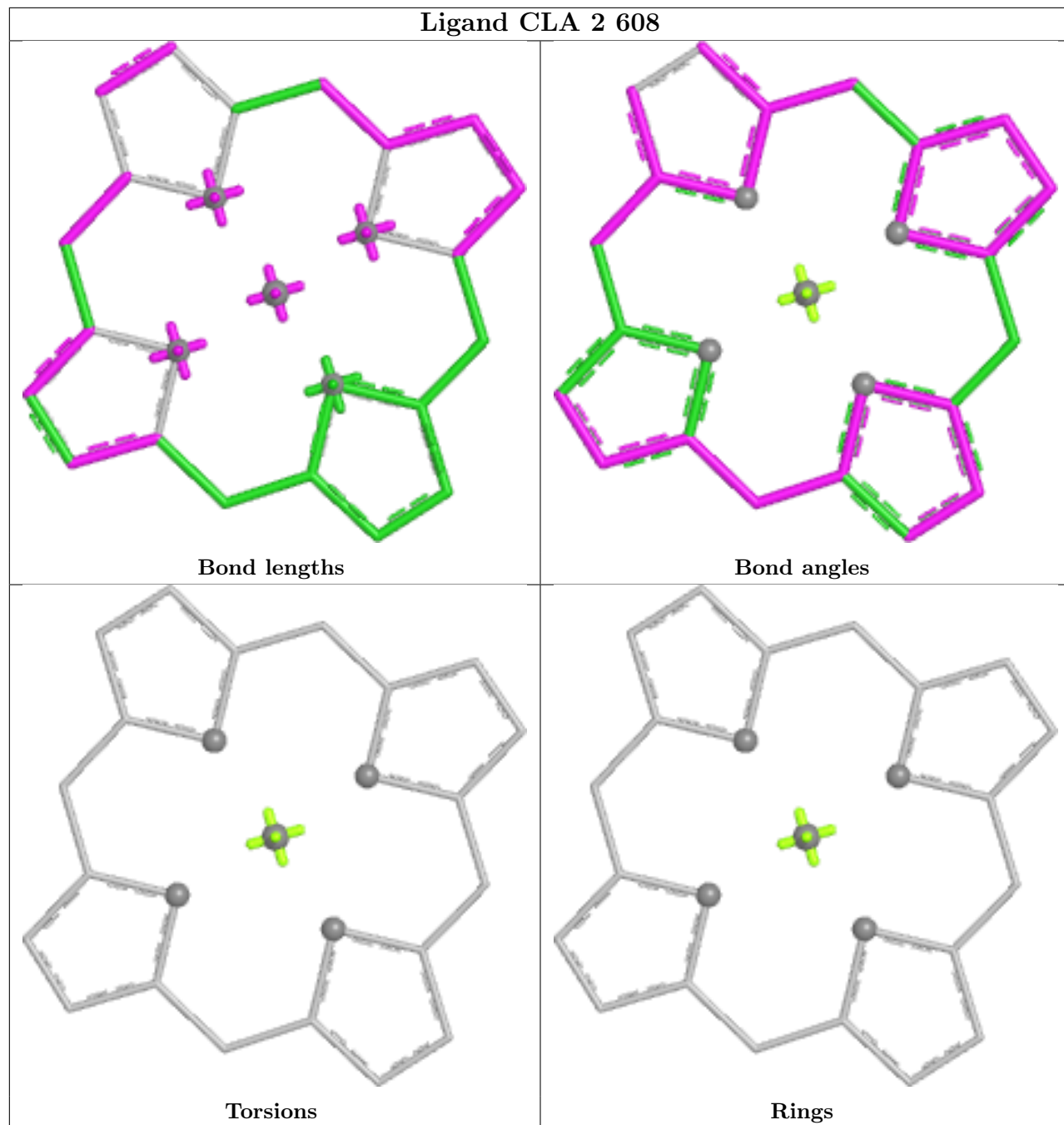
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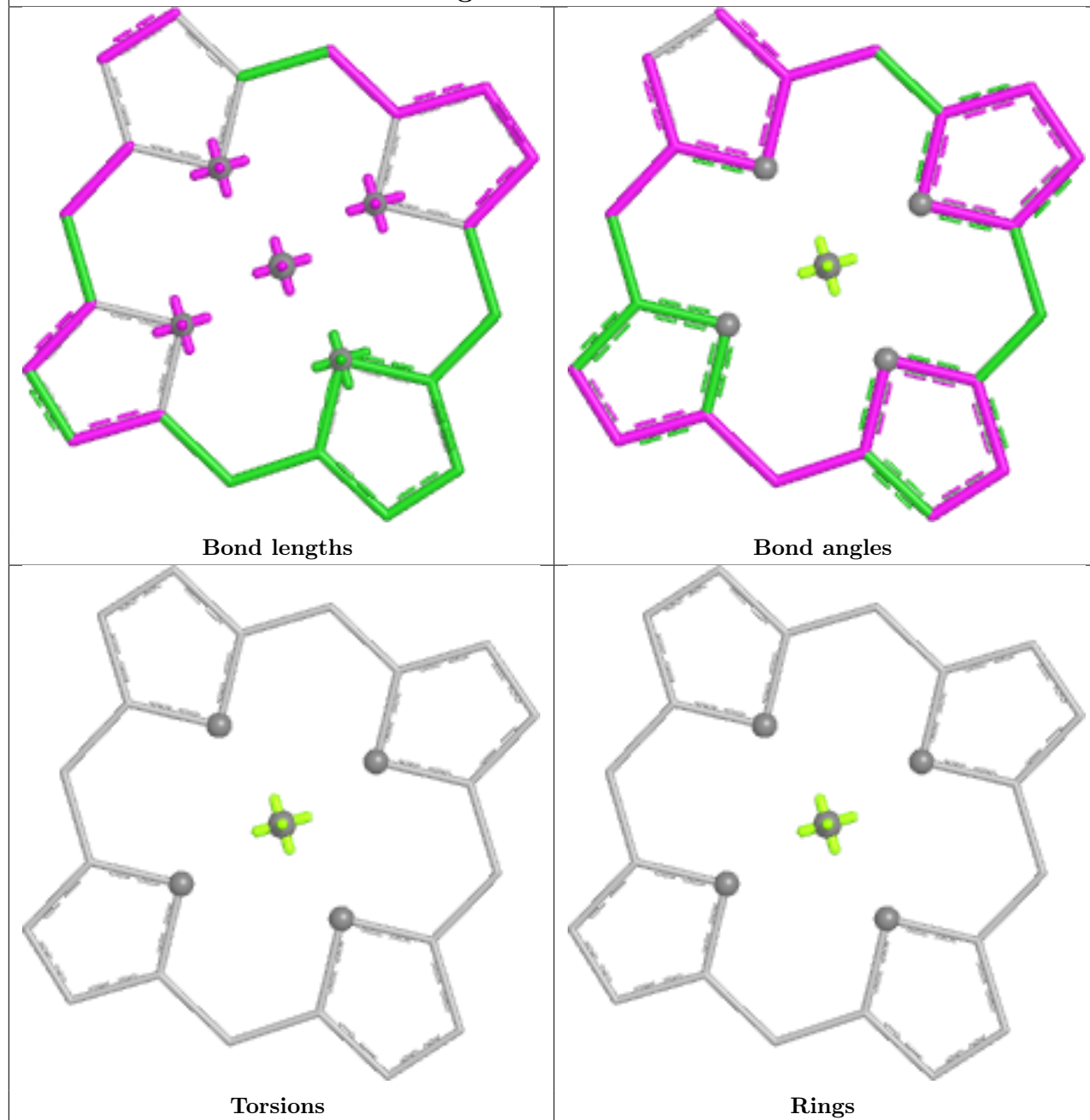


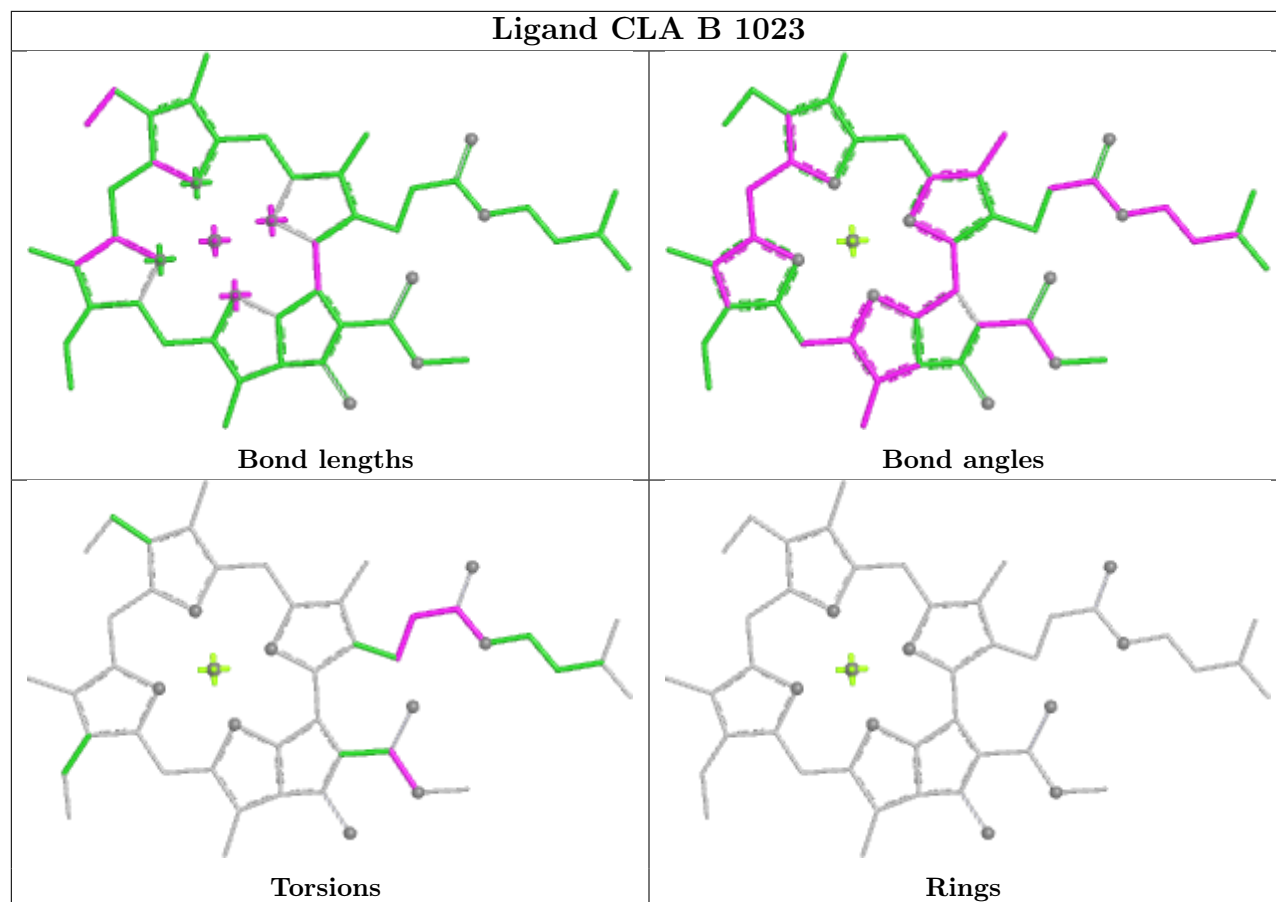


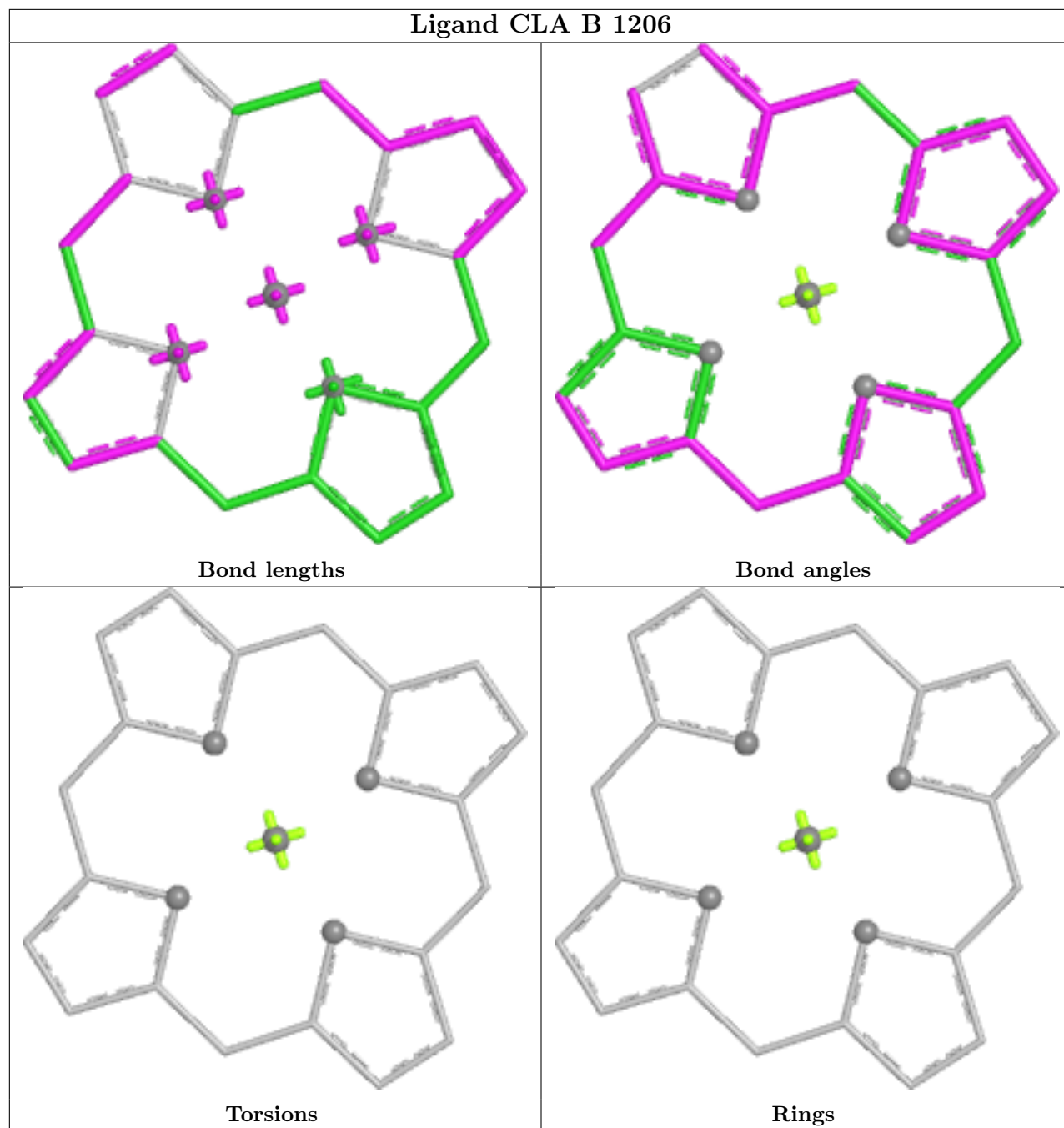
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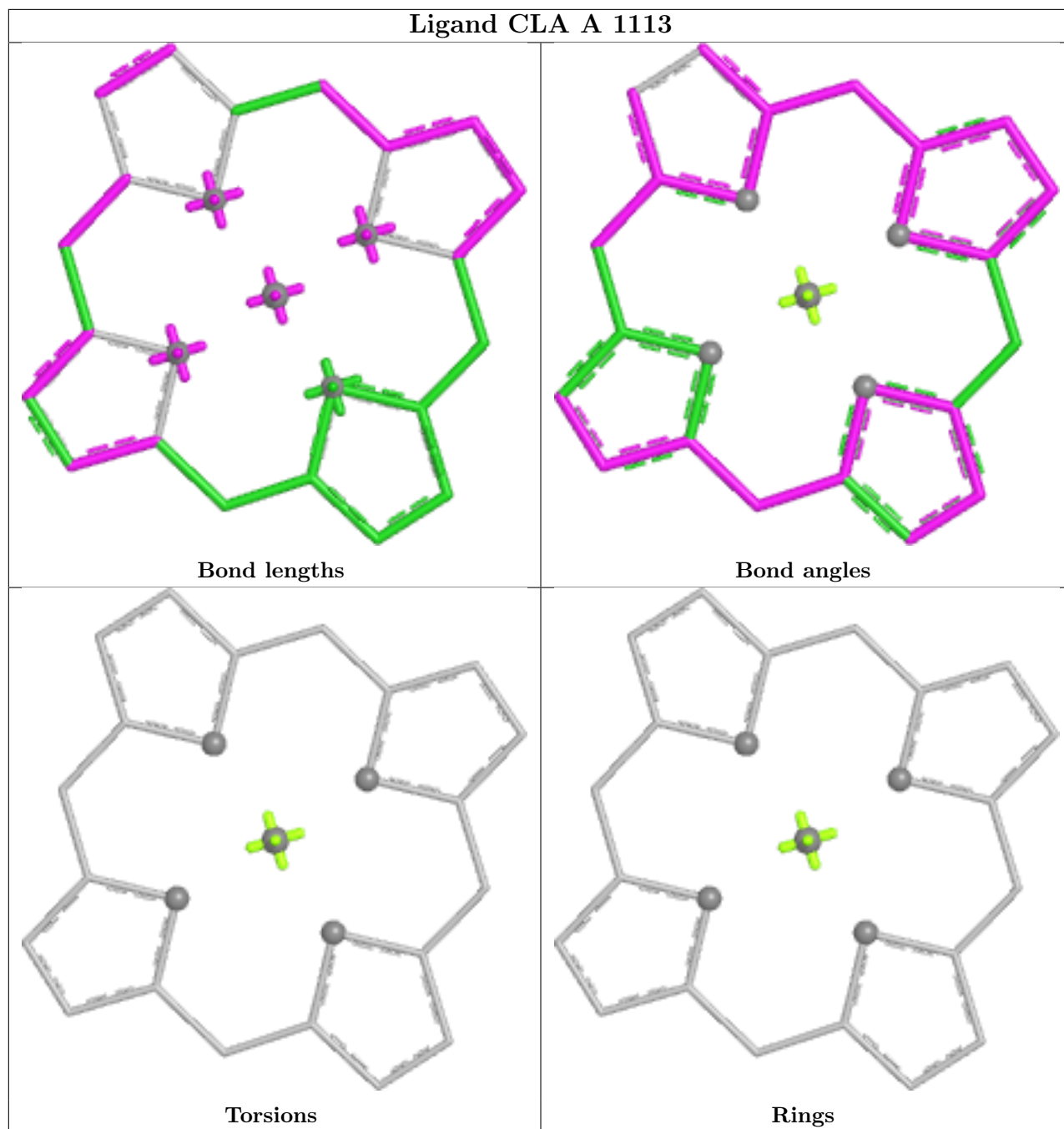


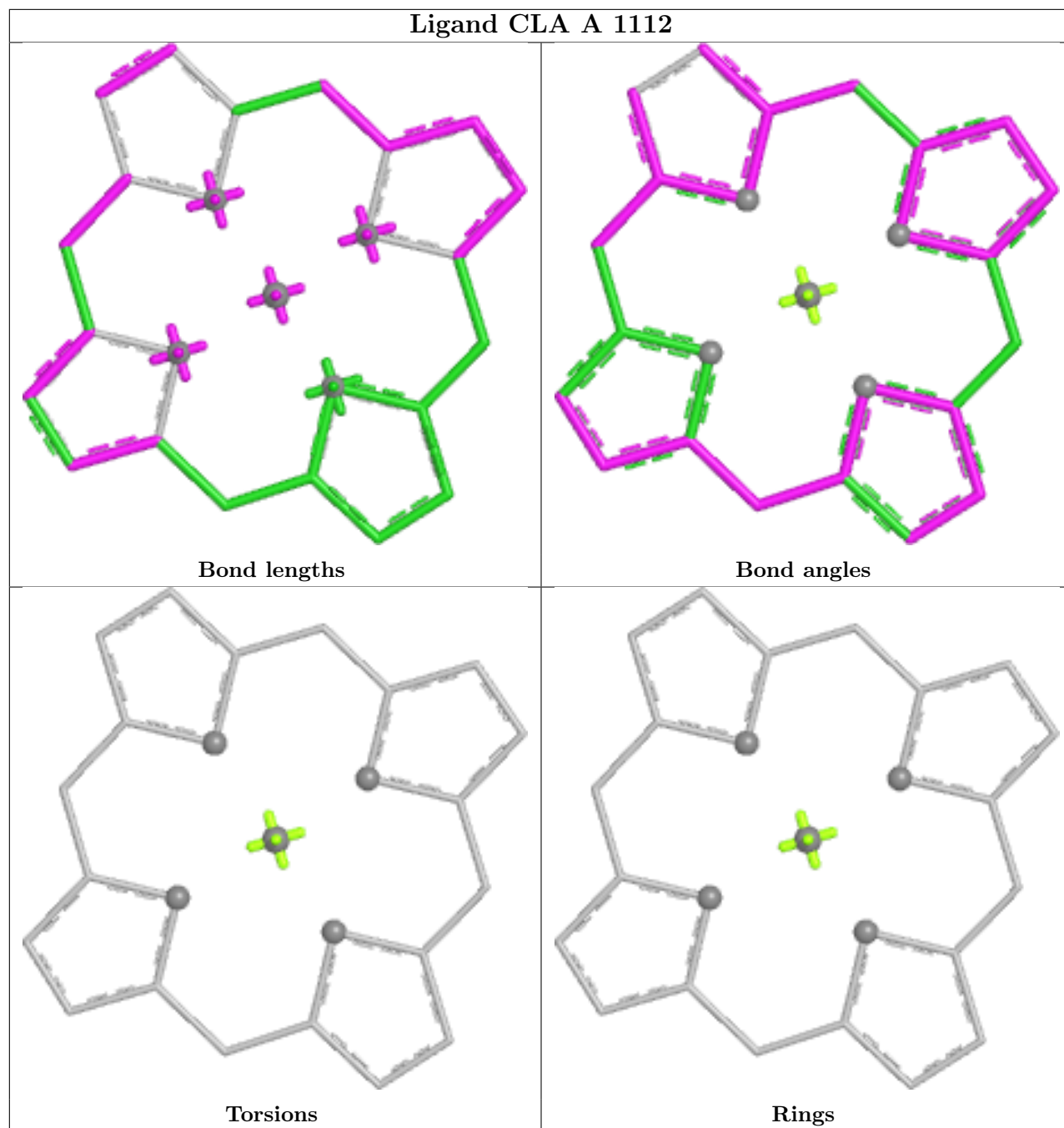
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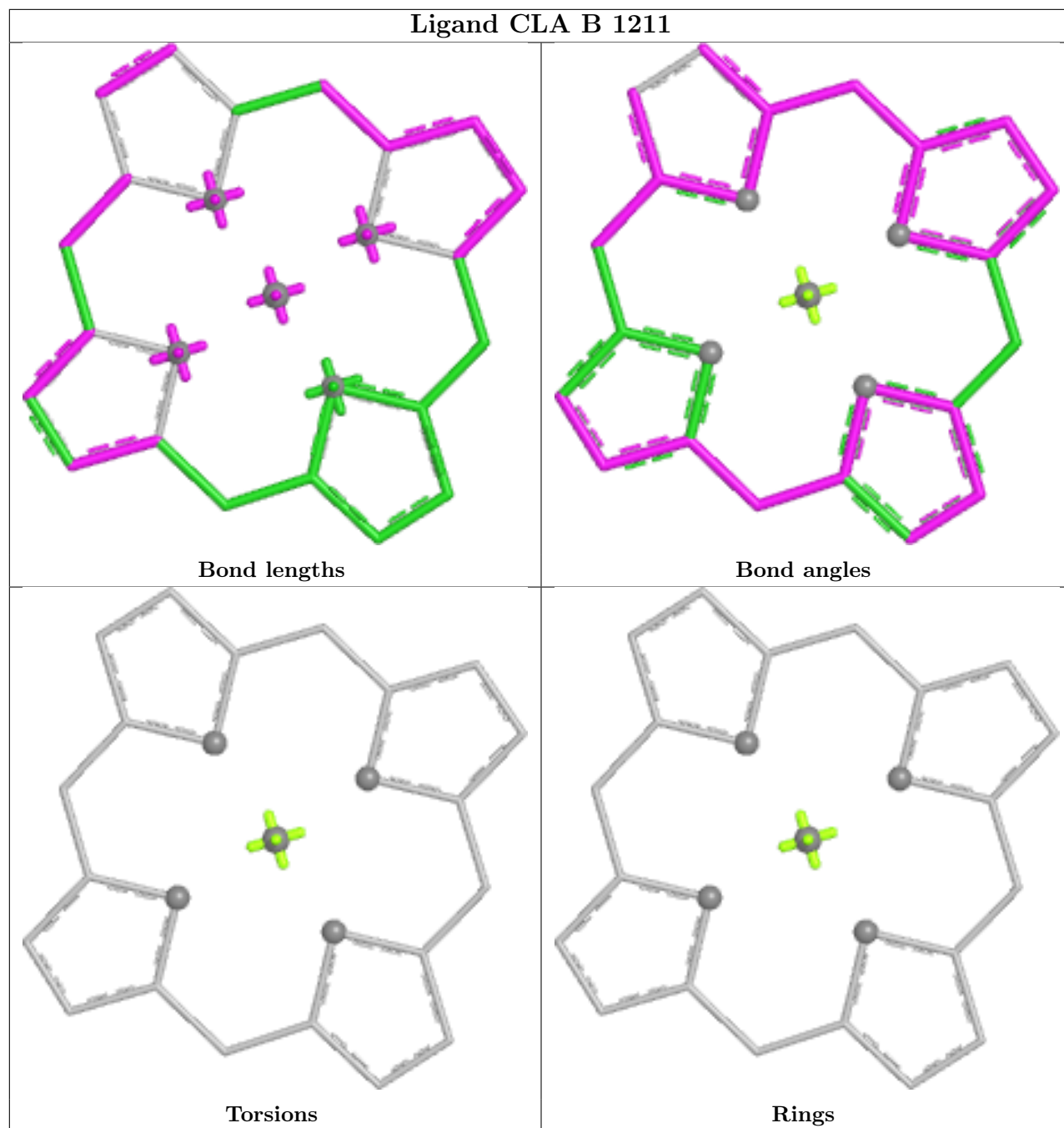




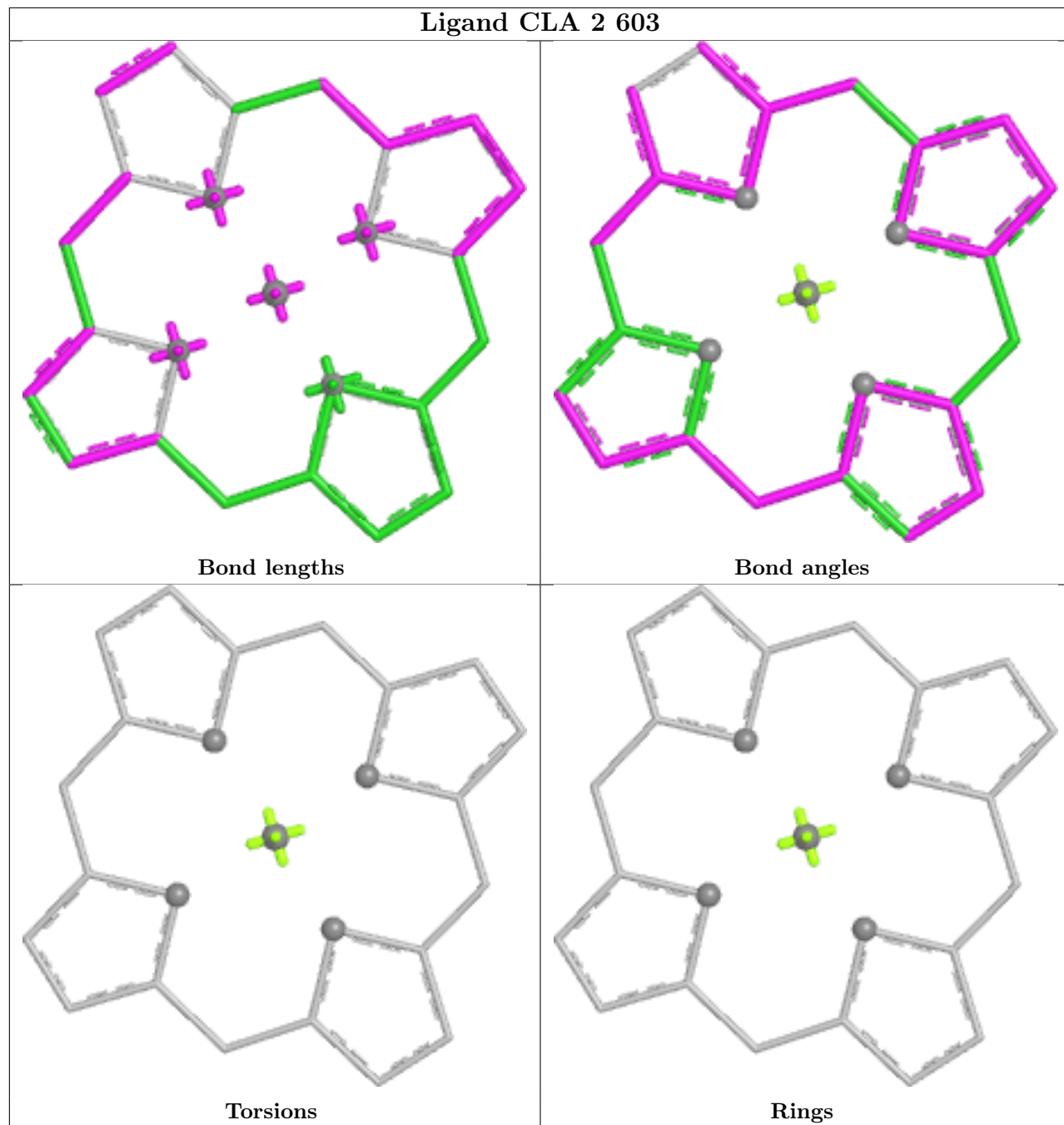


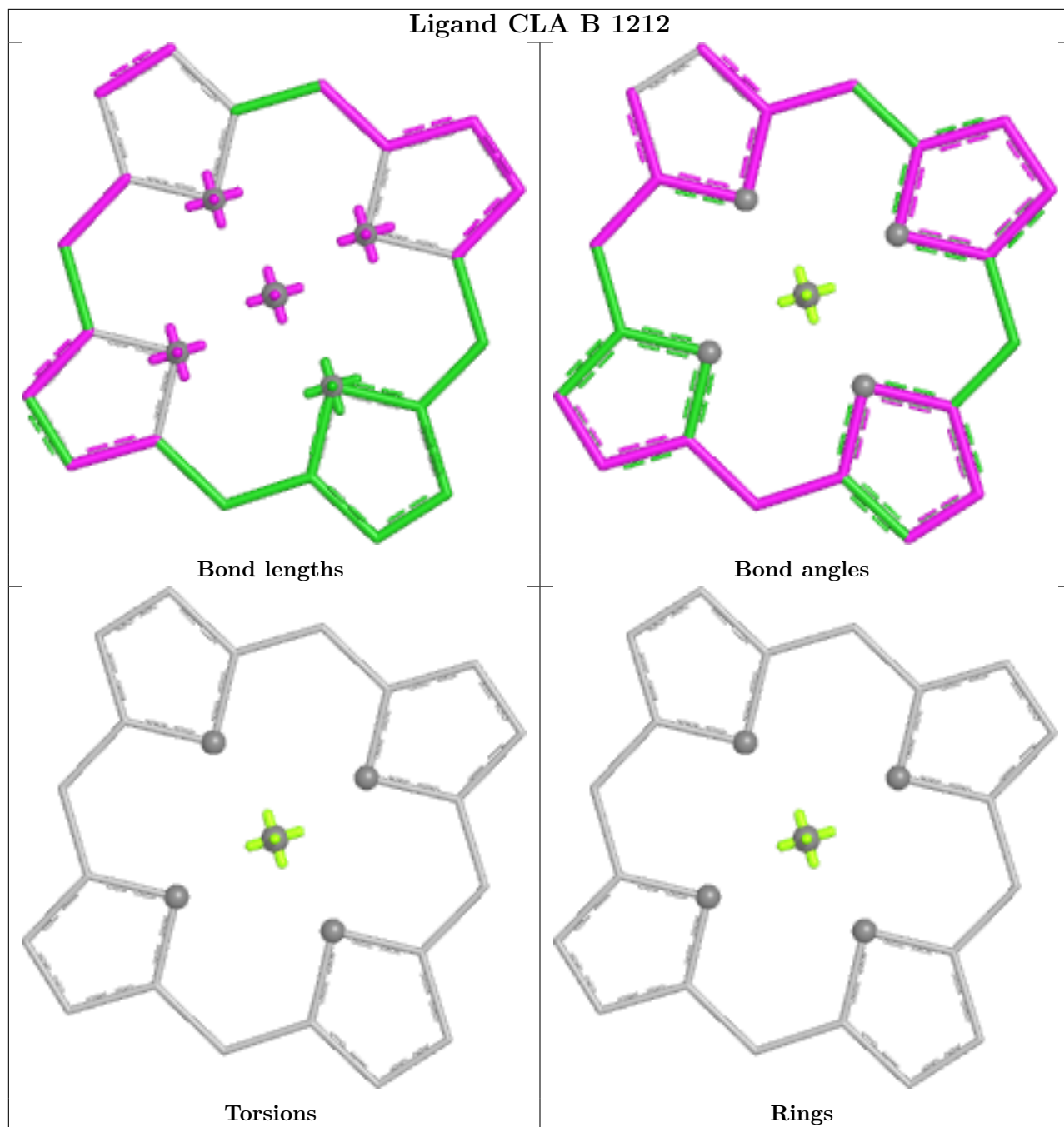




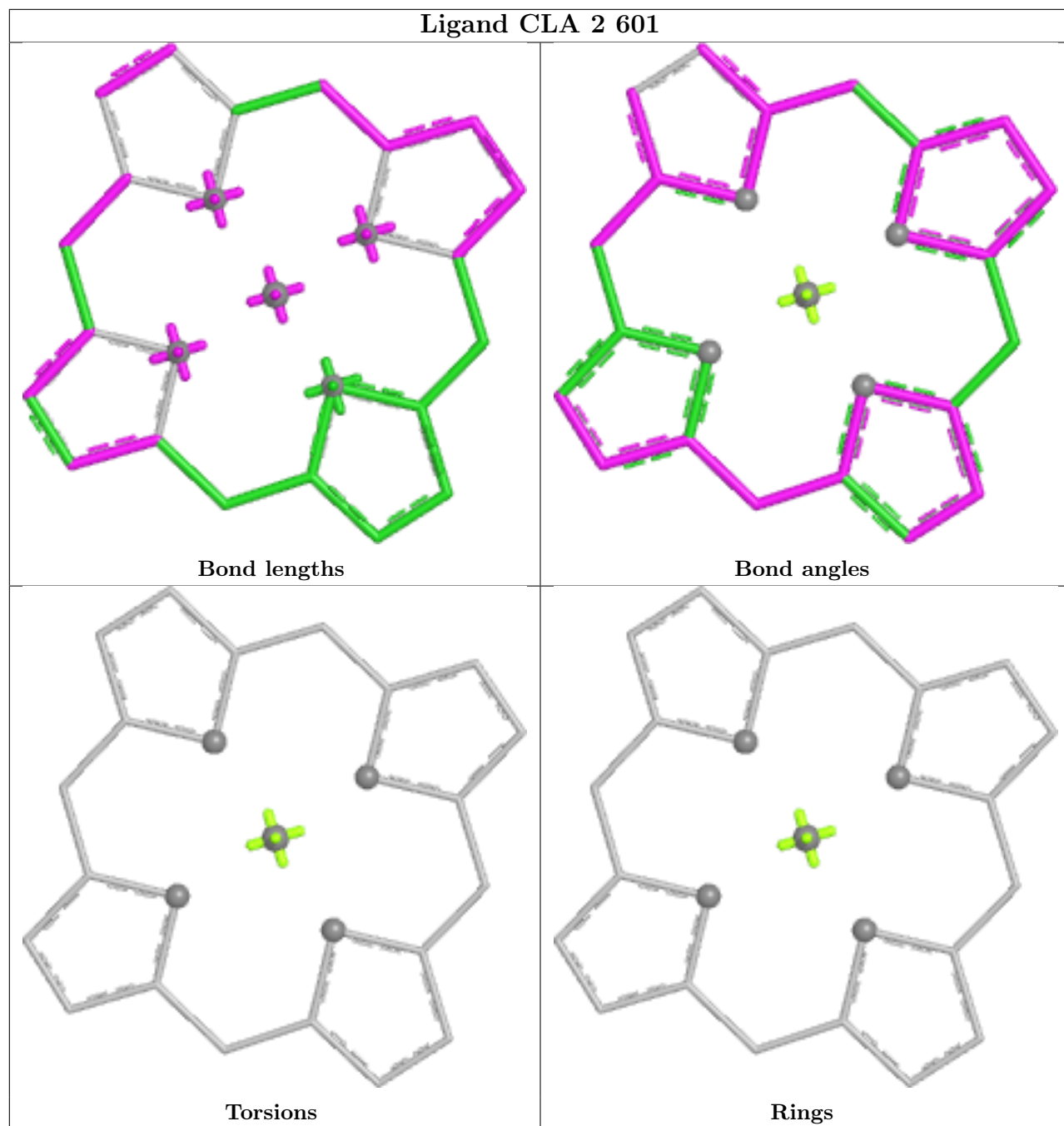


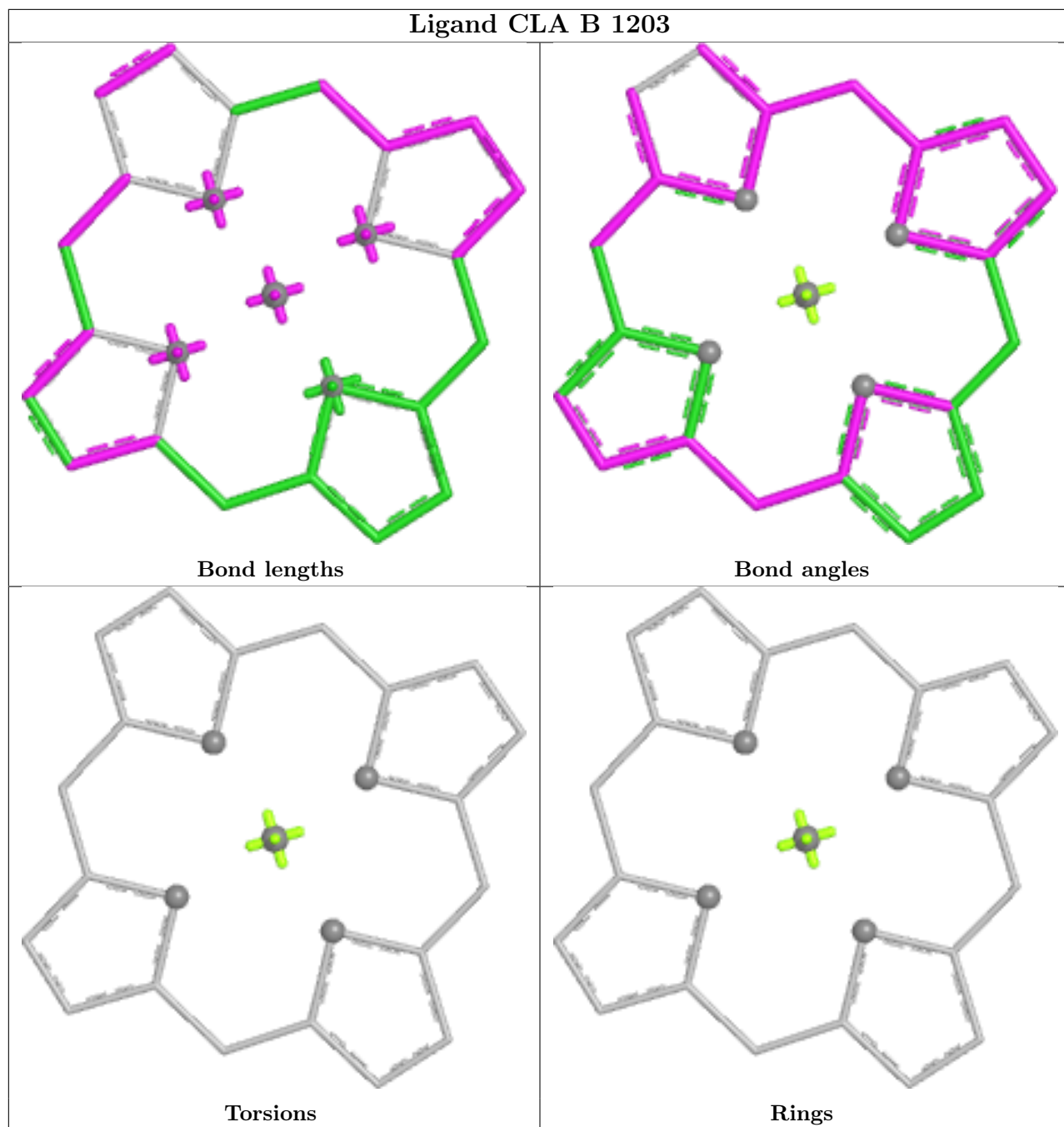
Ligand CLA 2 603

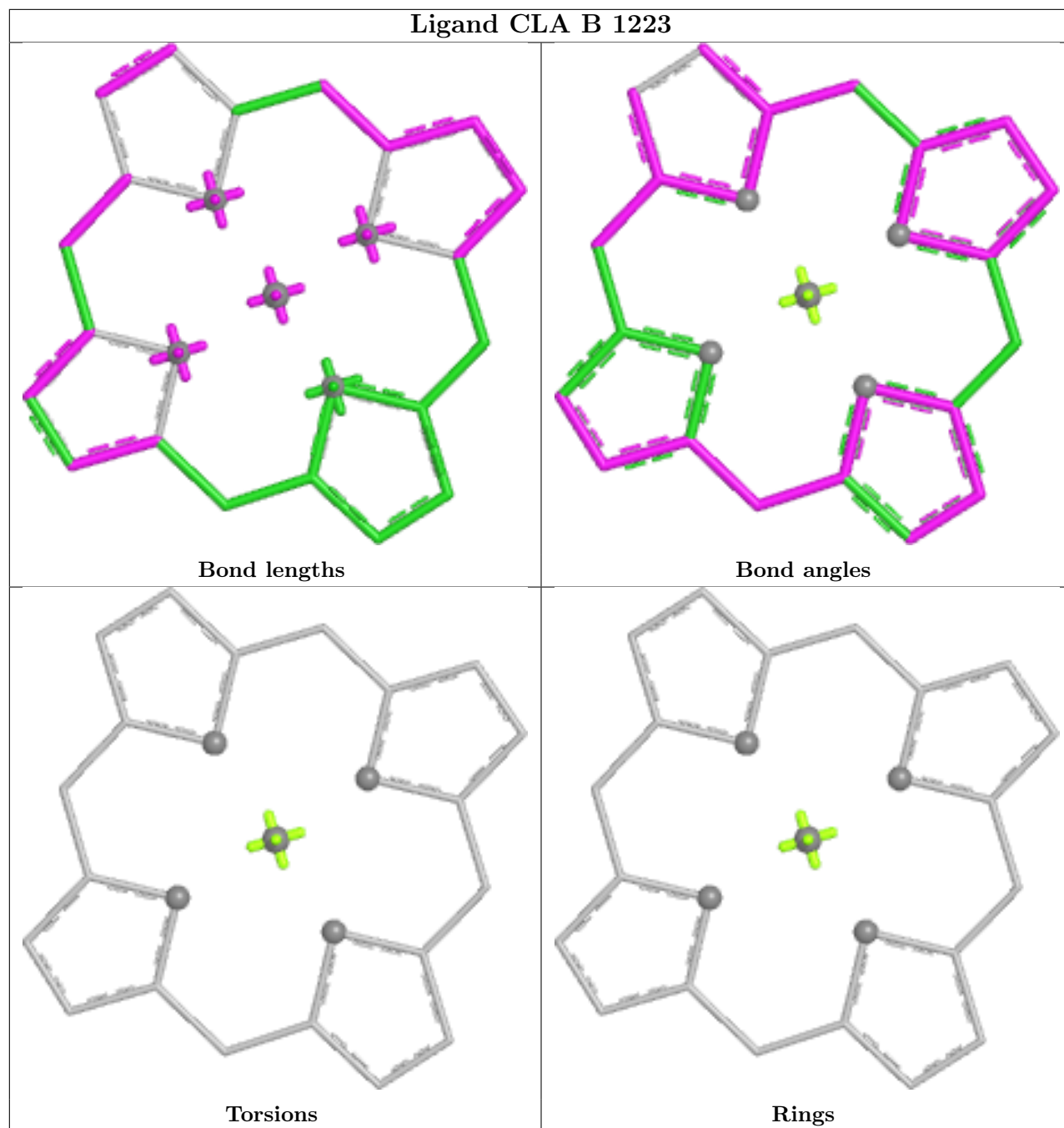




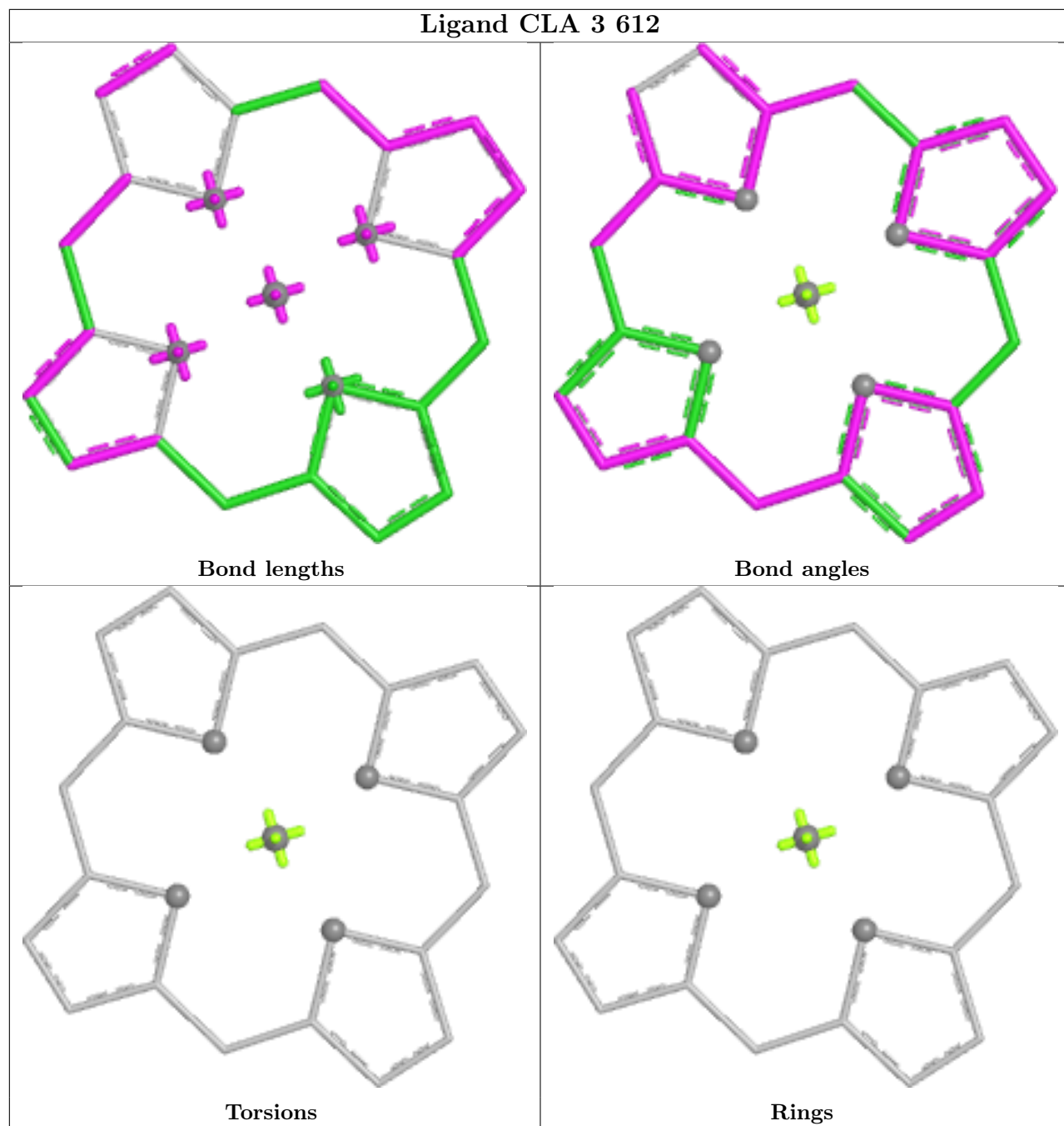
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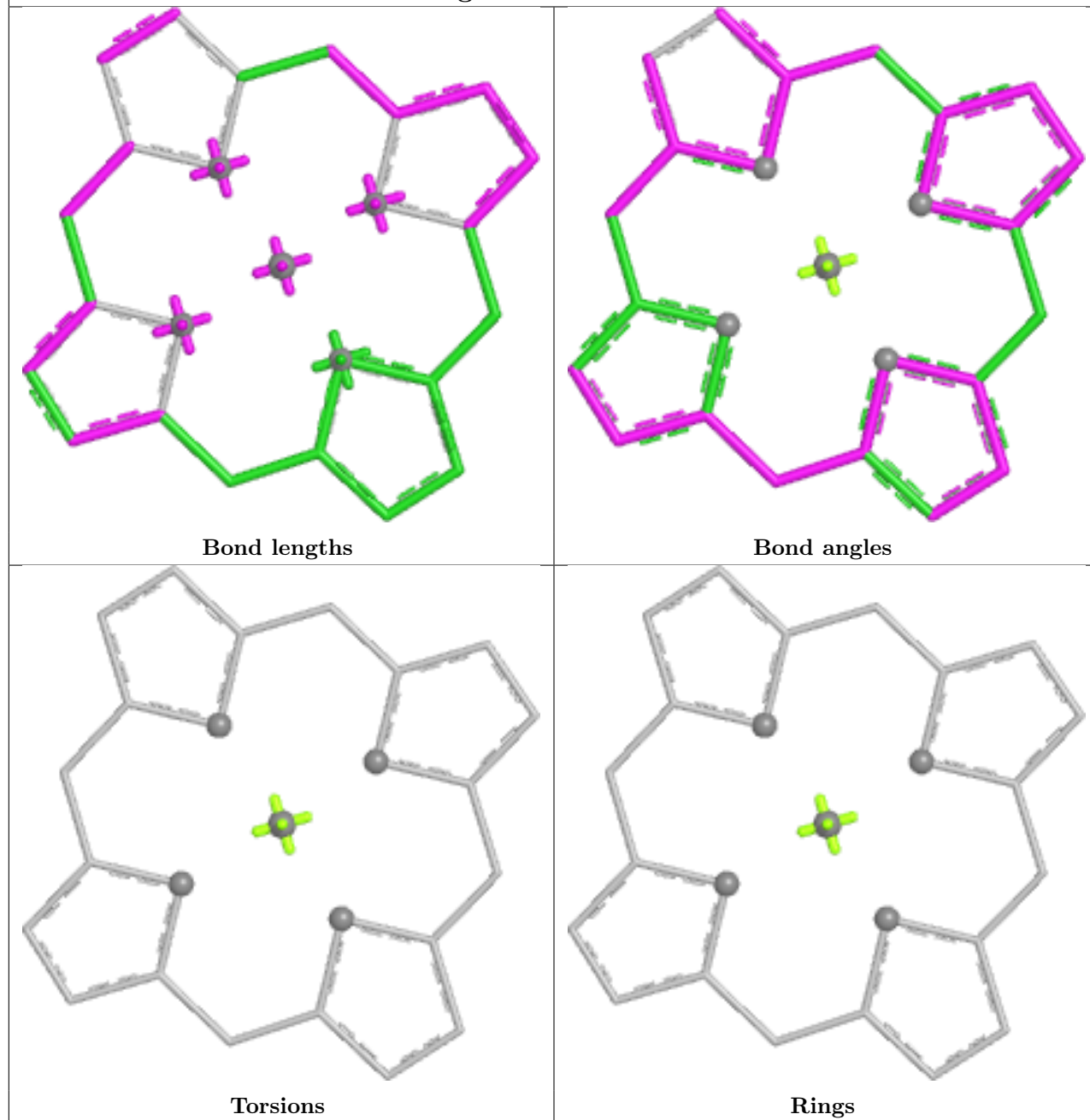




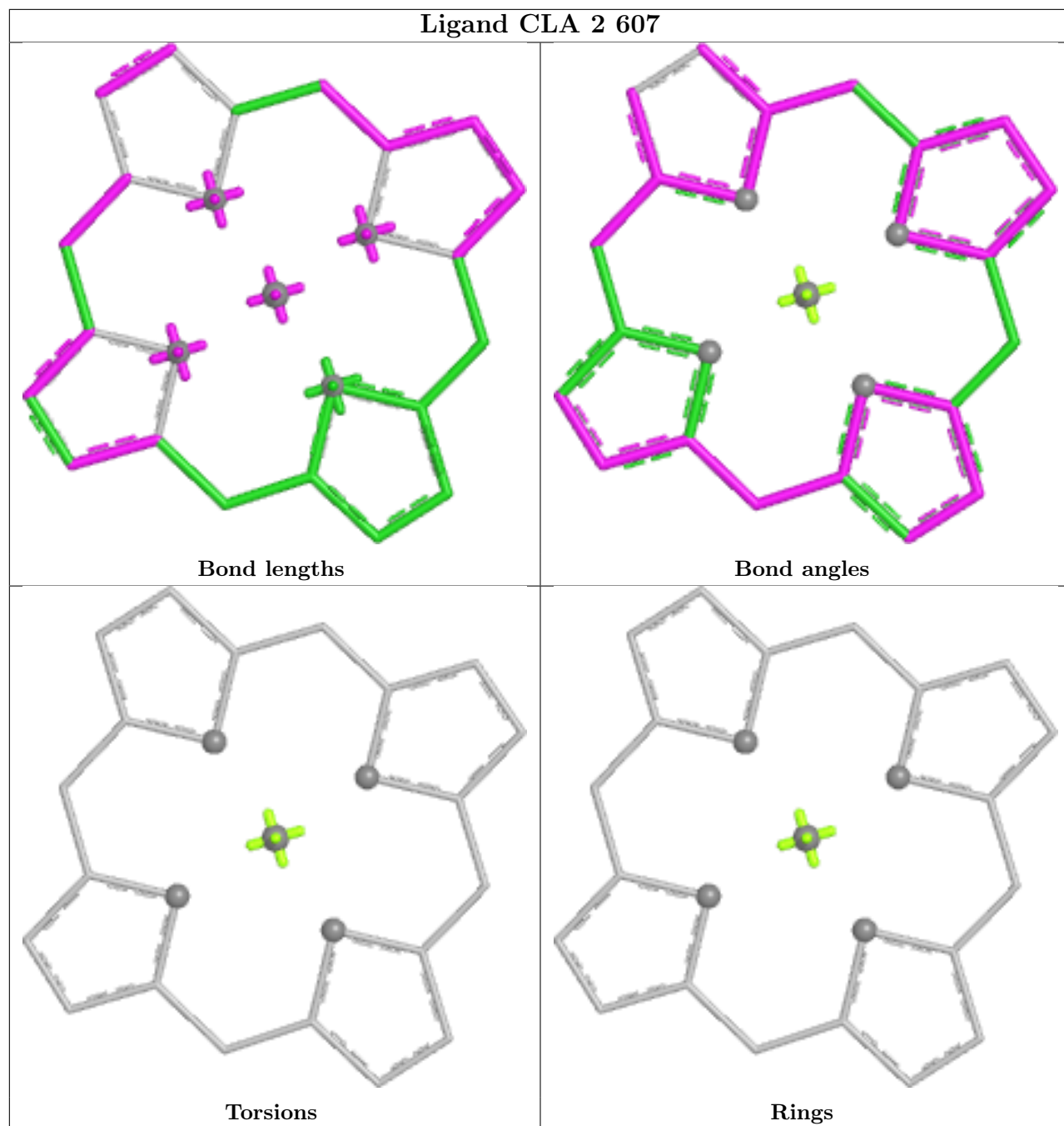
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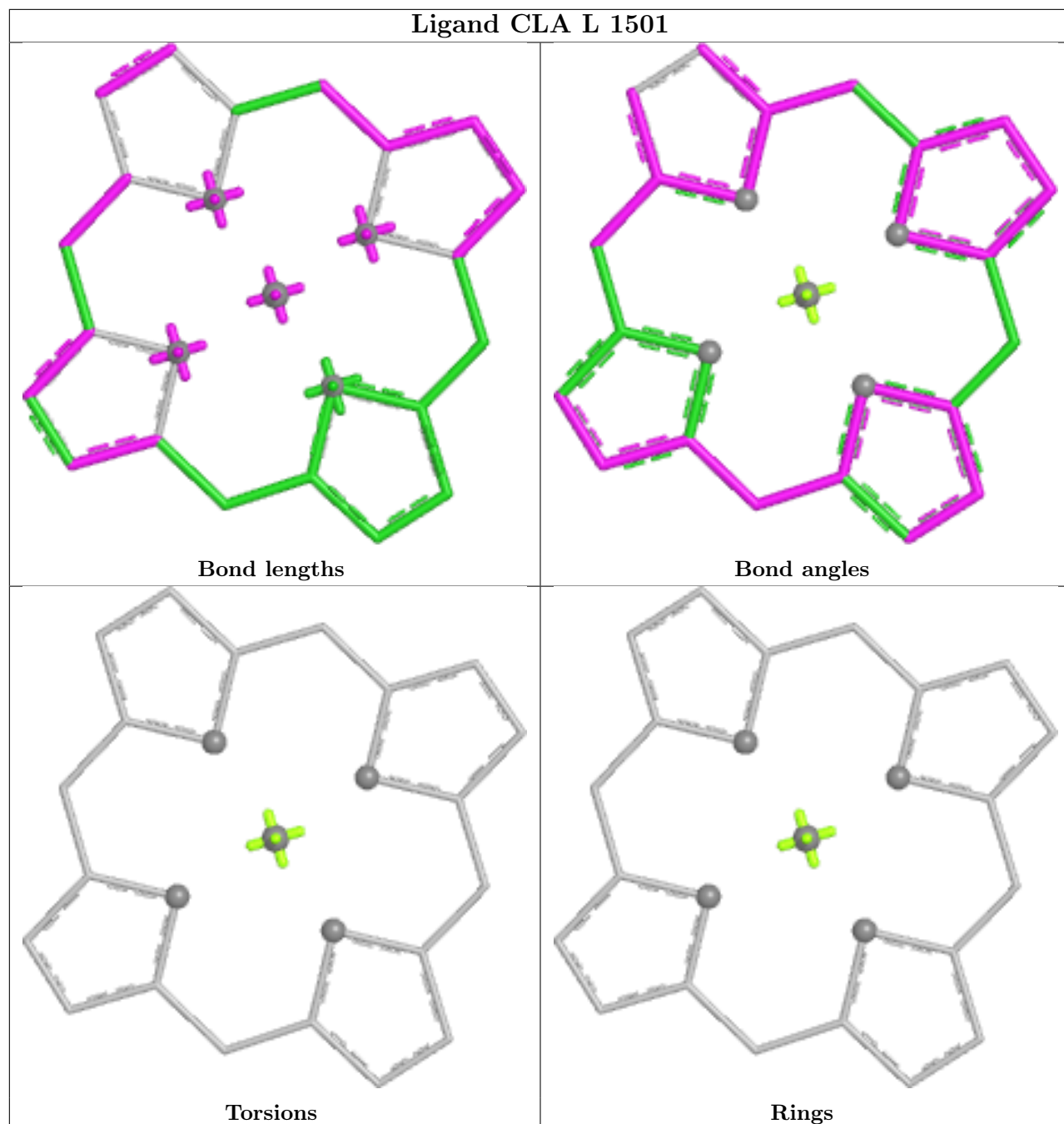


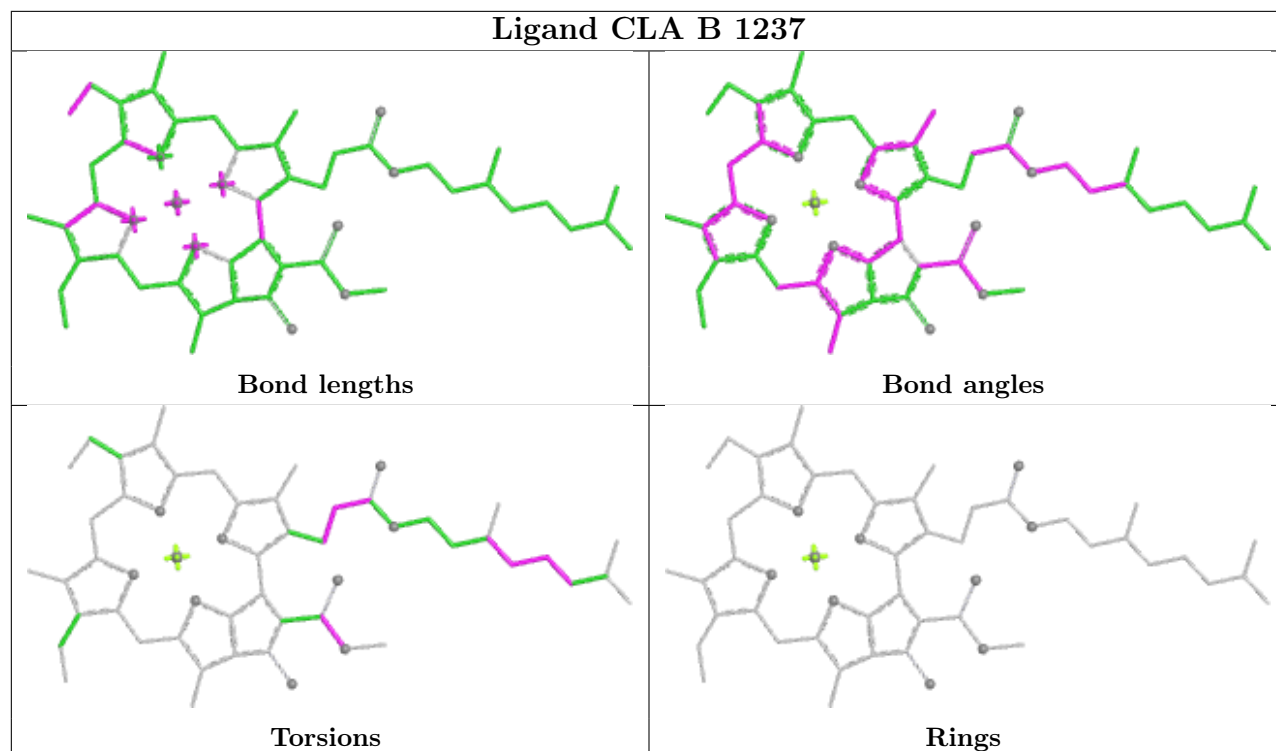
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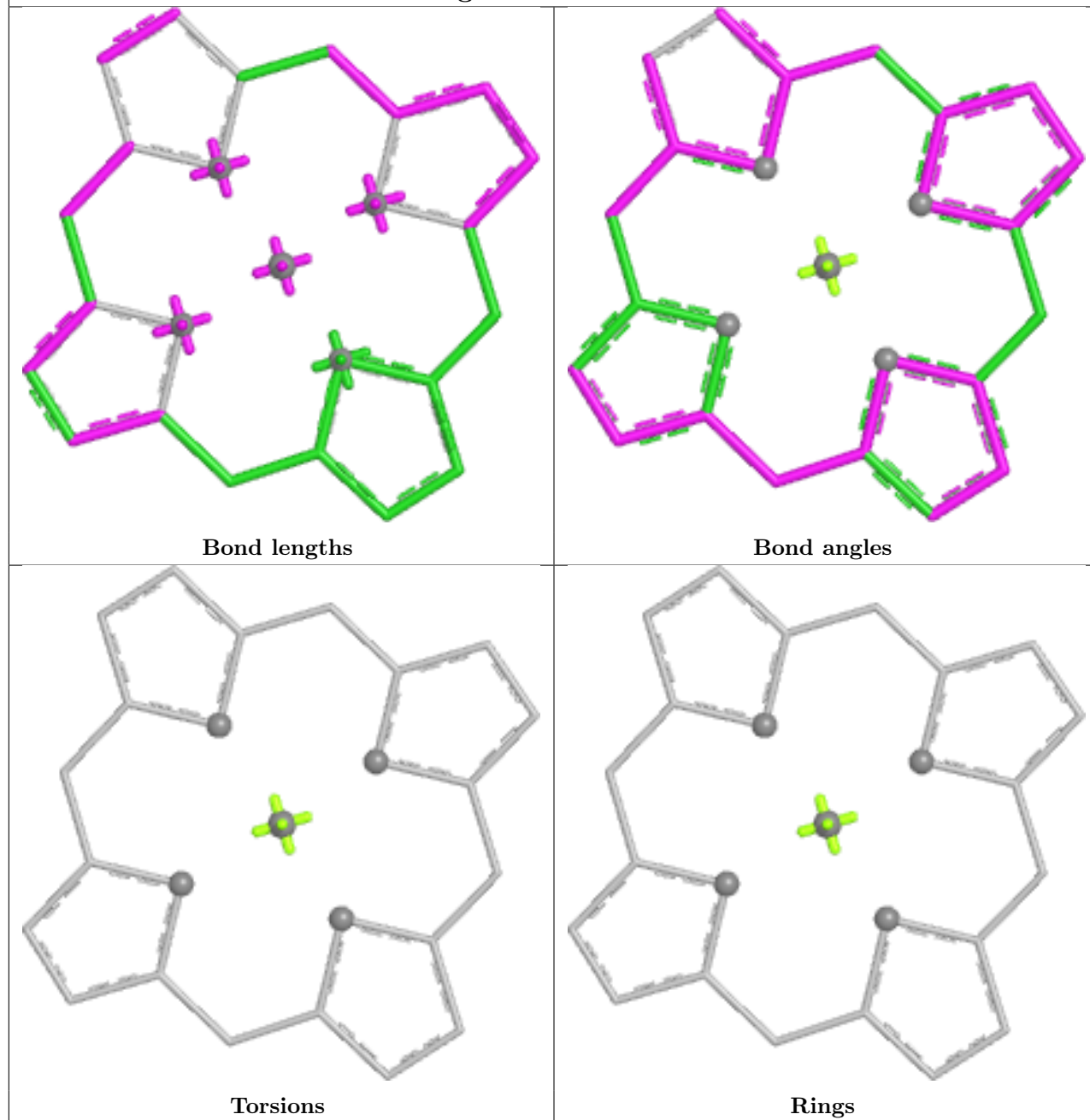
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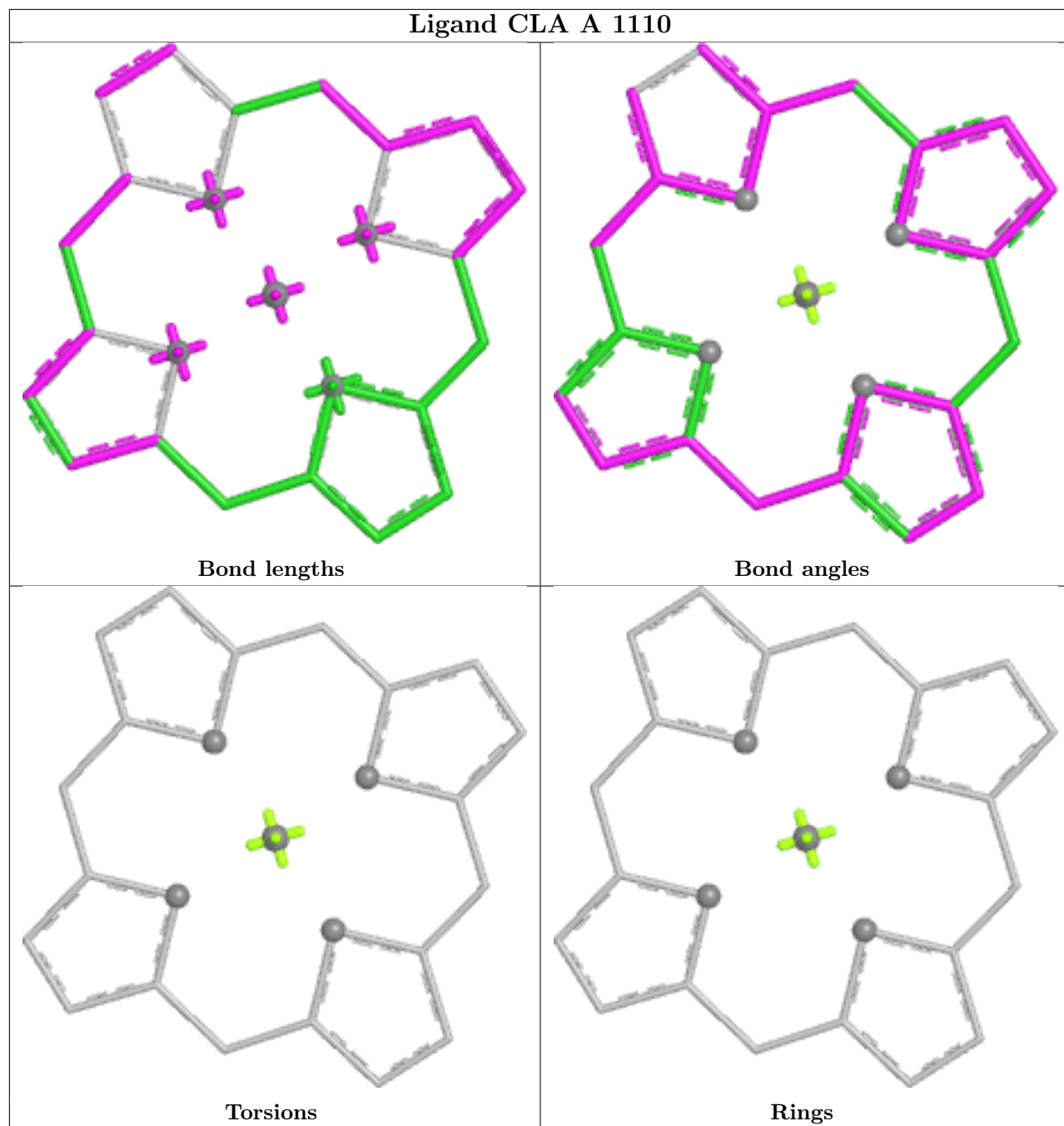


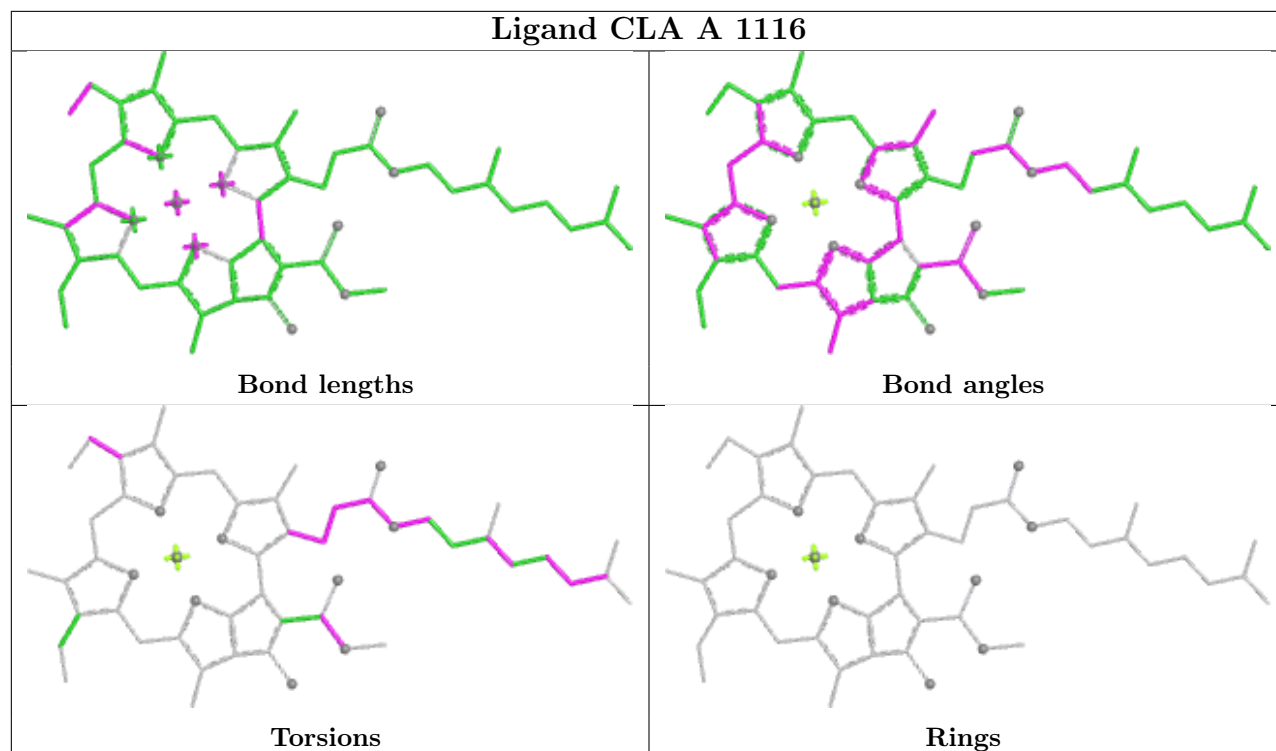


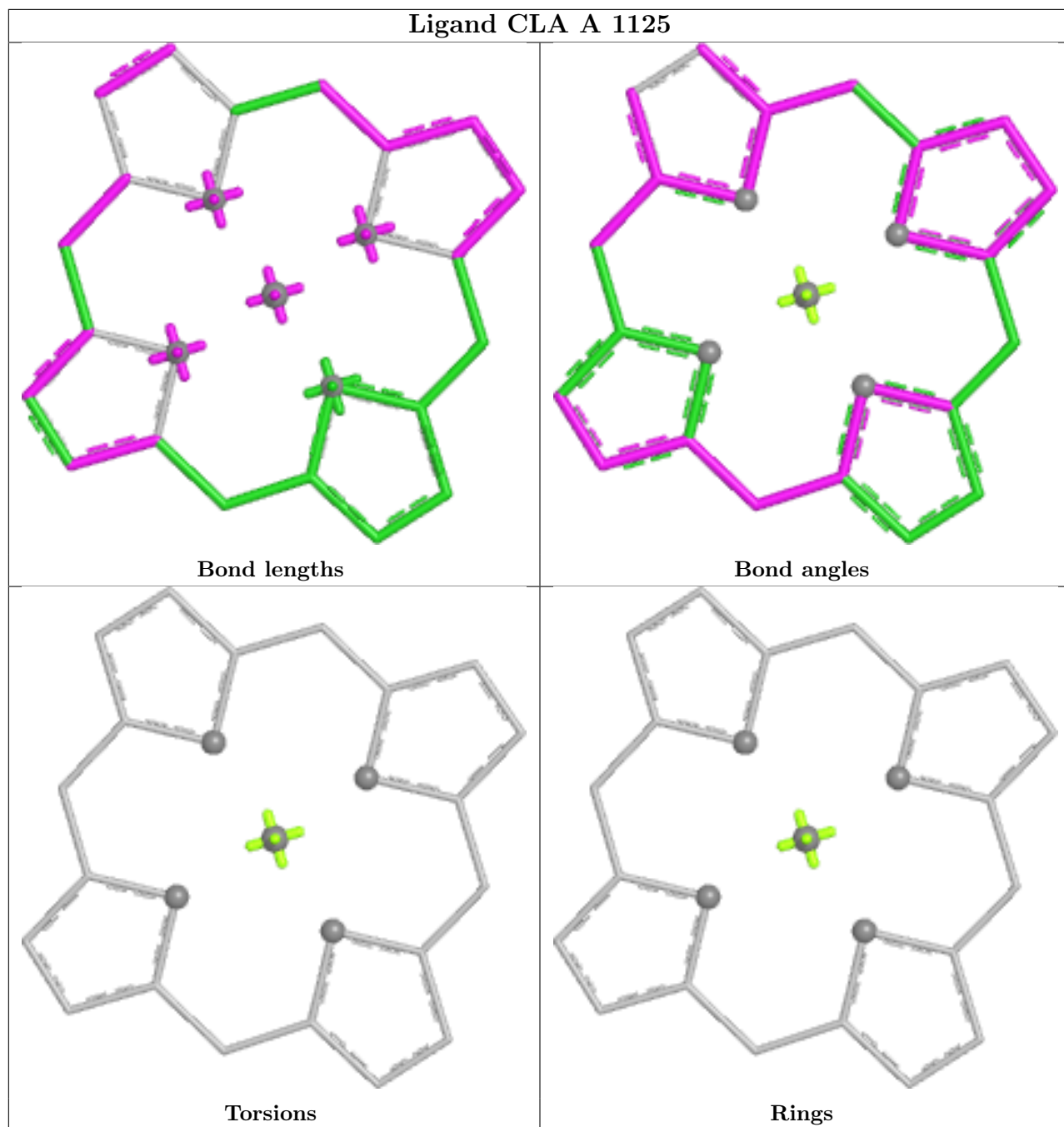


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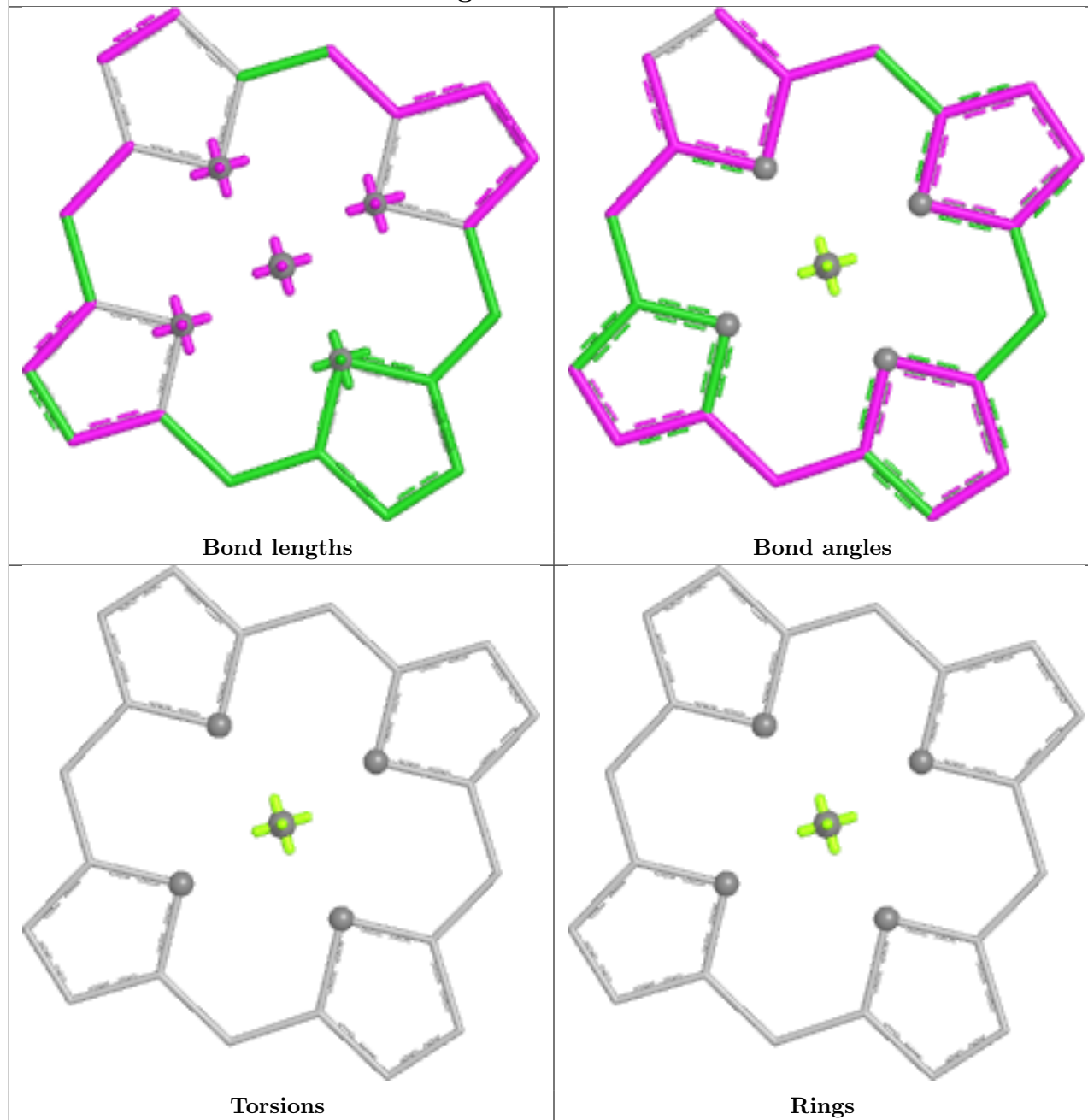




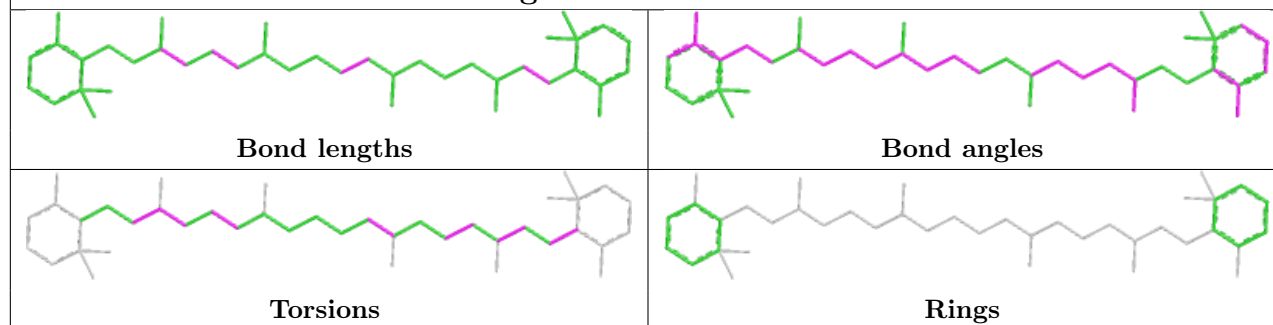


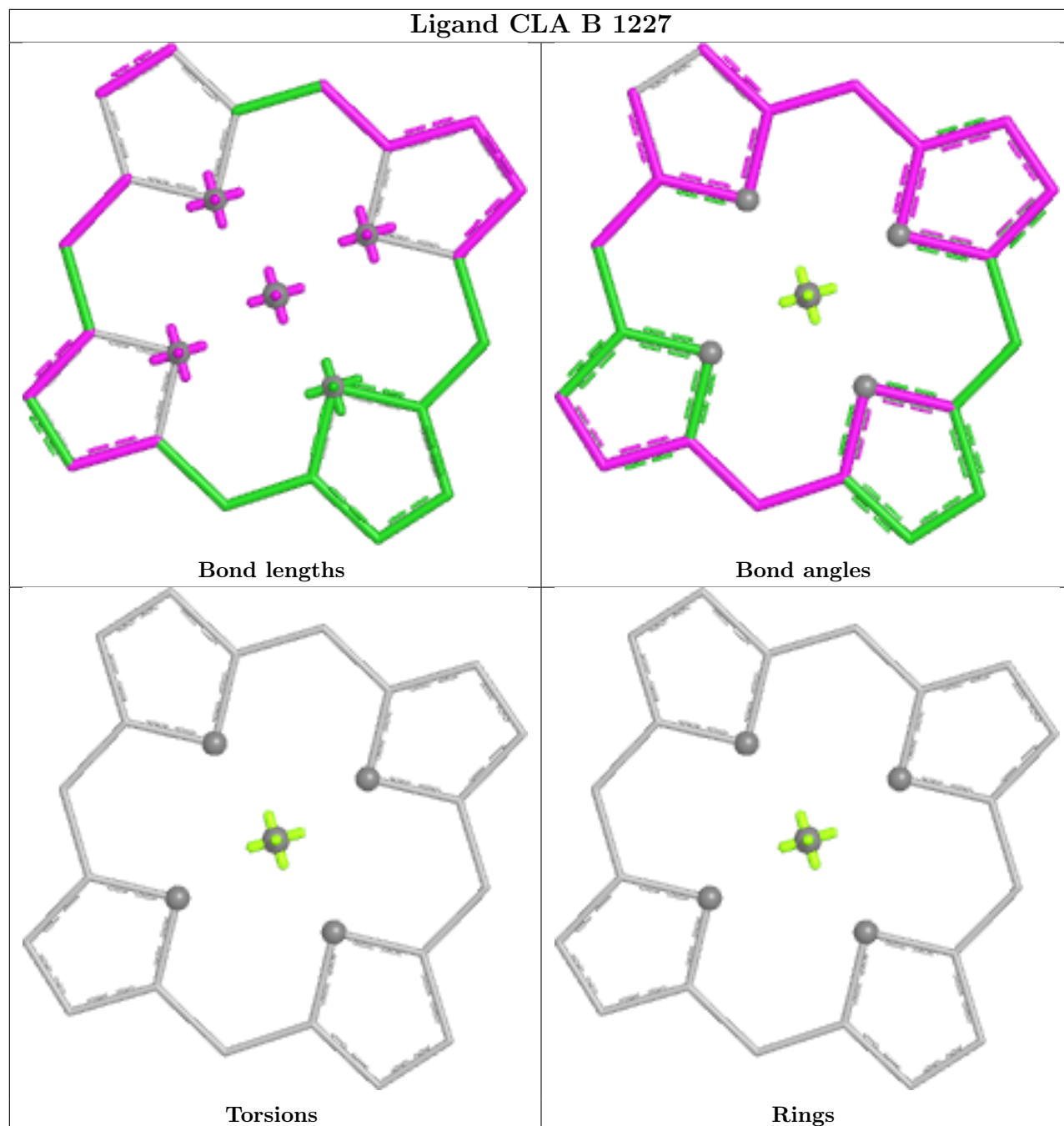


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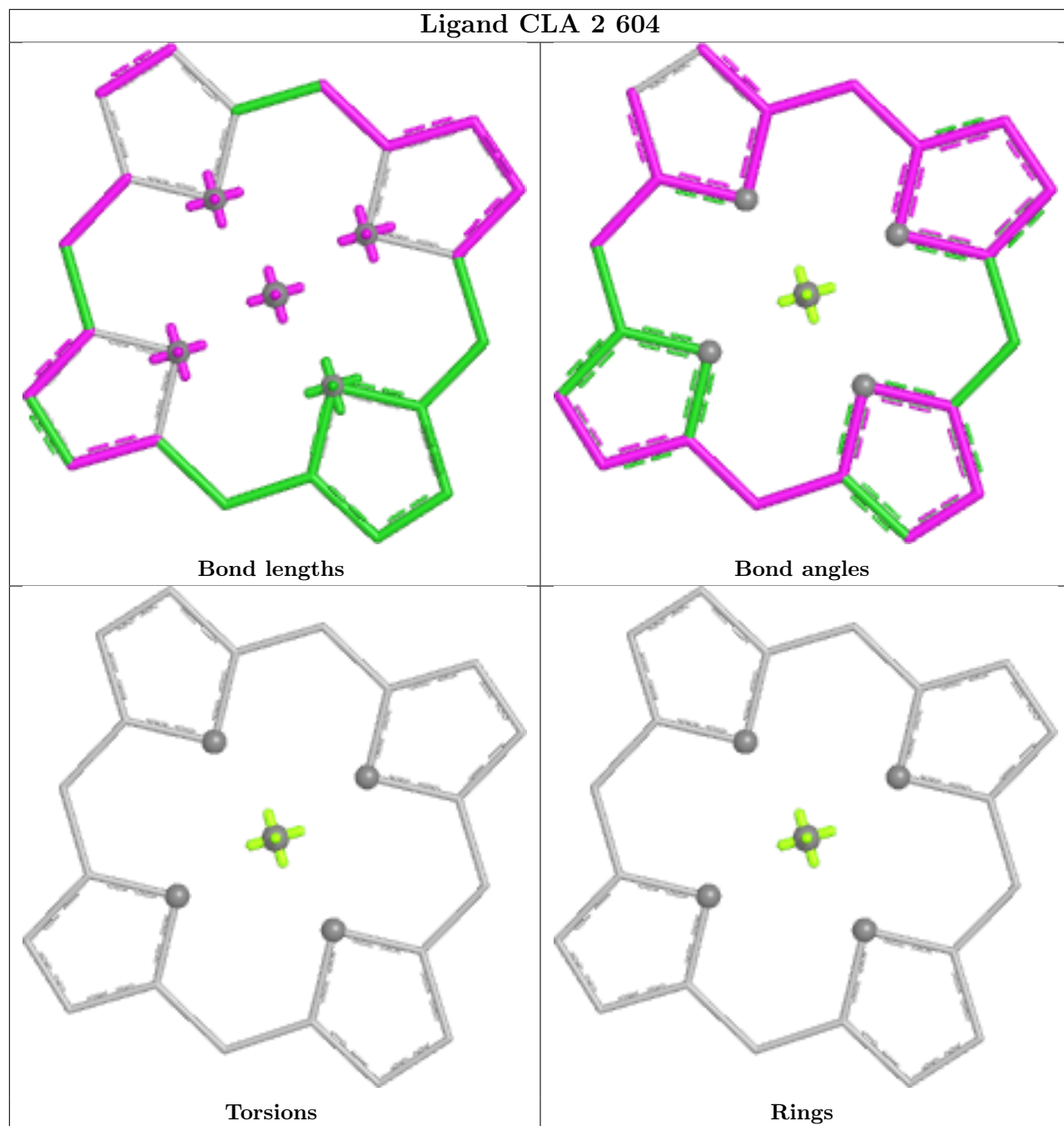


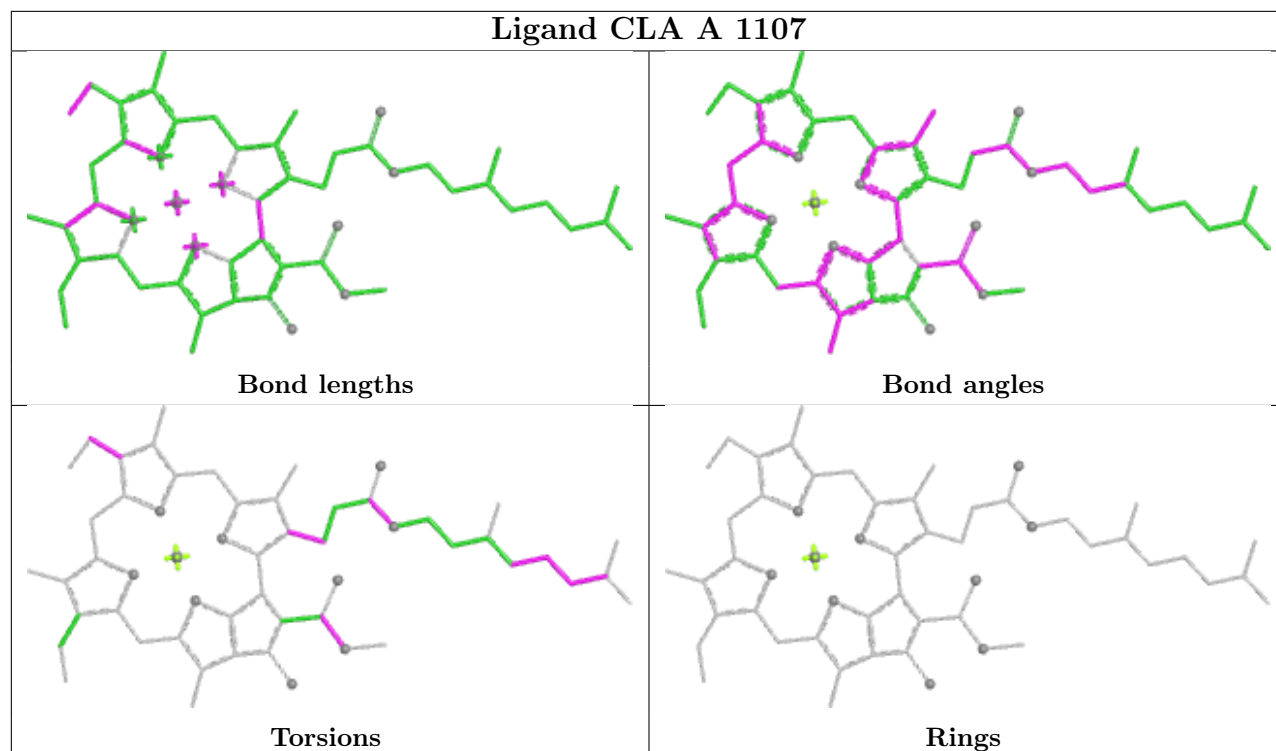
Ligand BCR A 4017

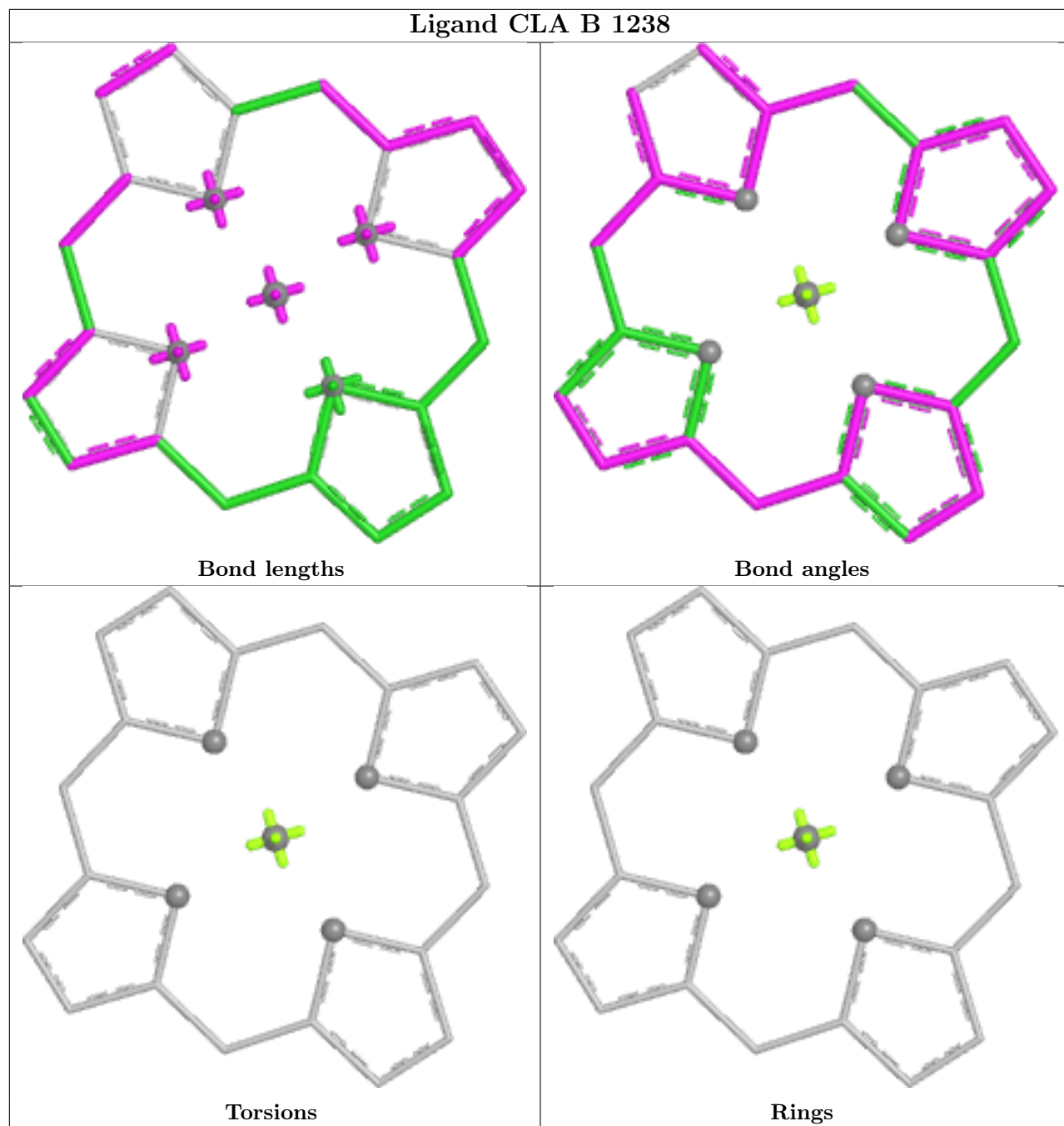


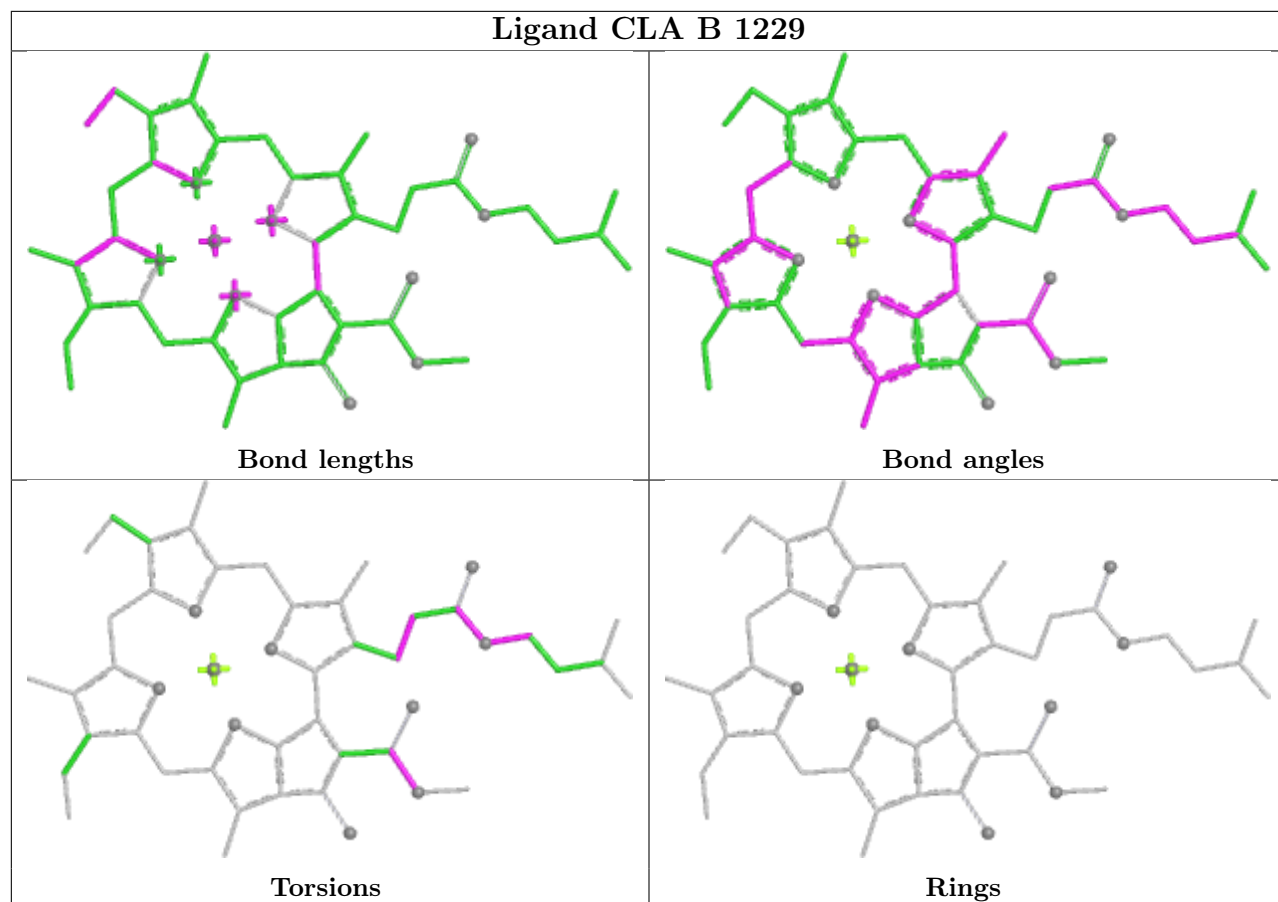


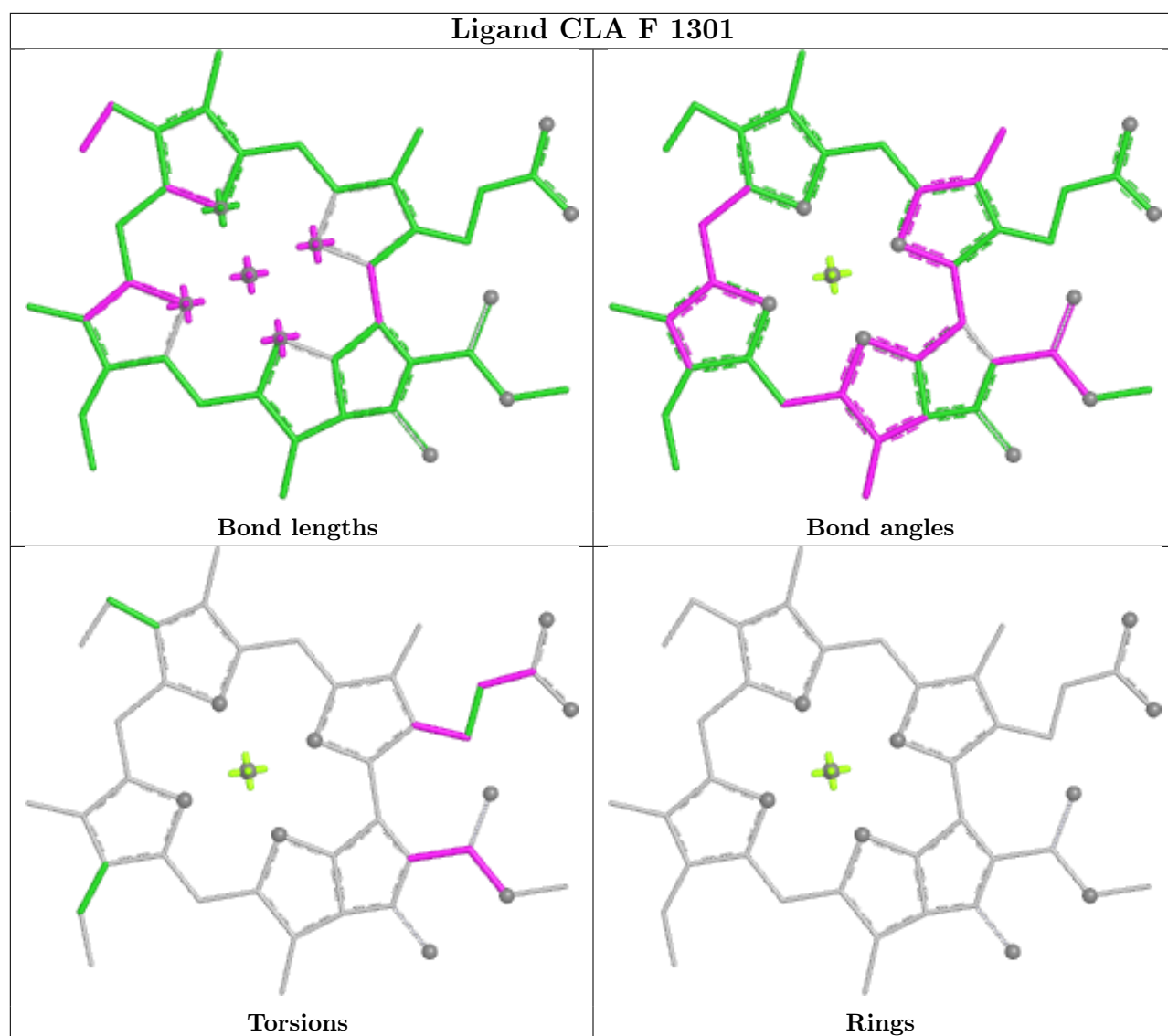
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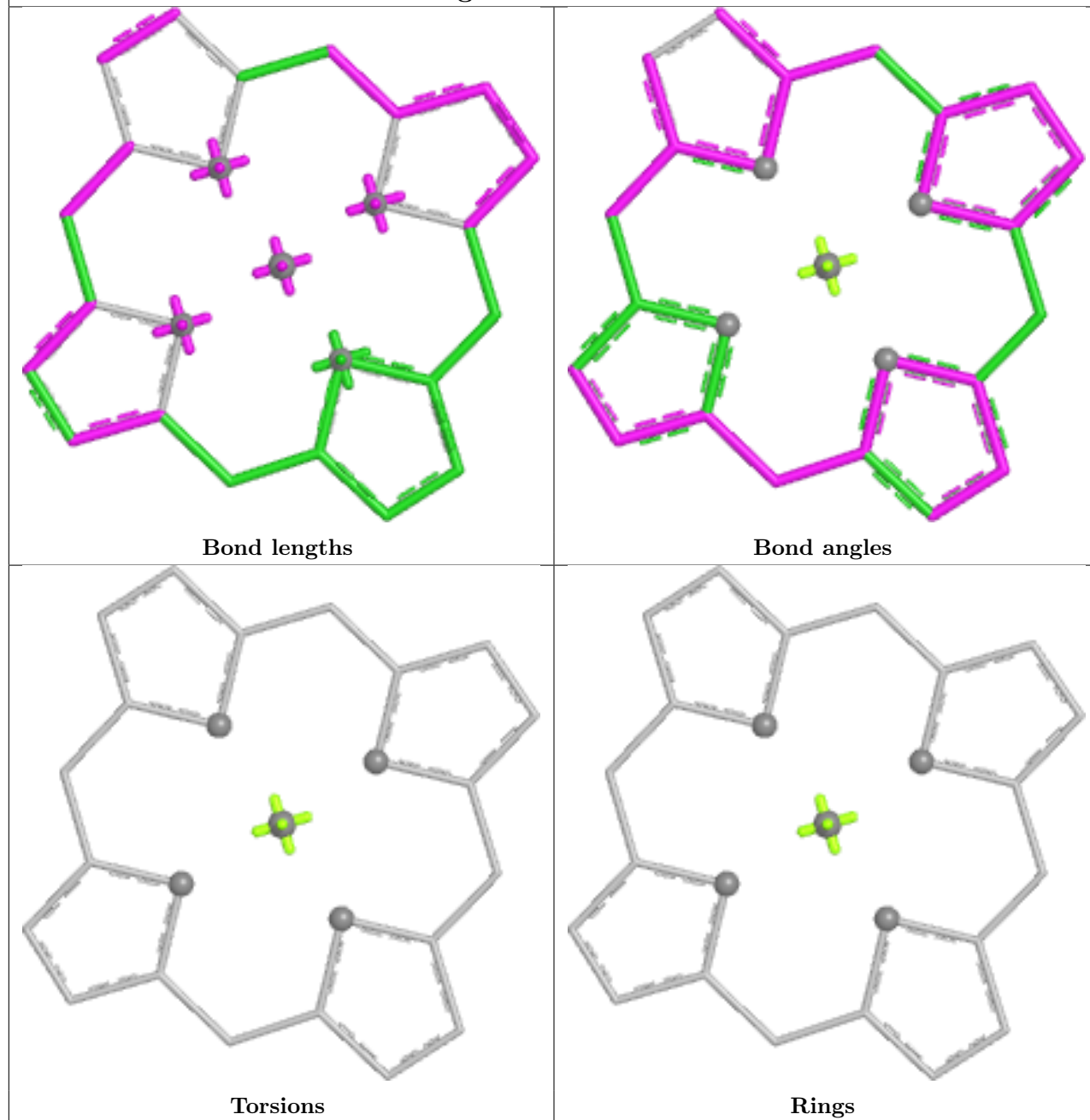


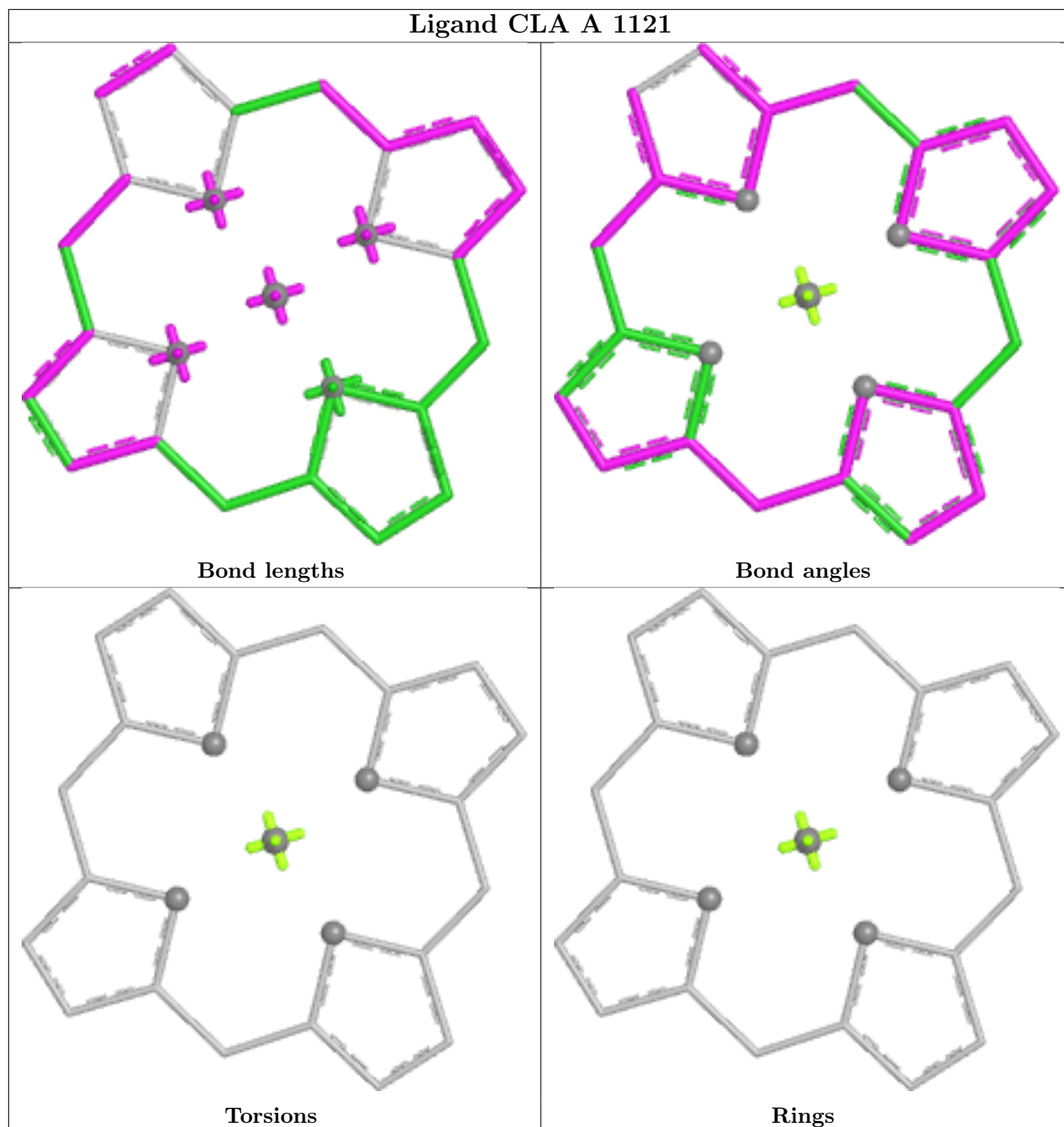


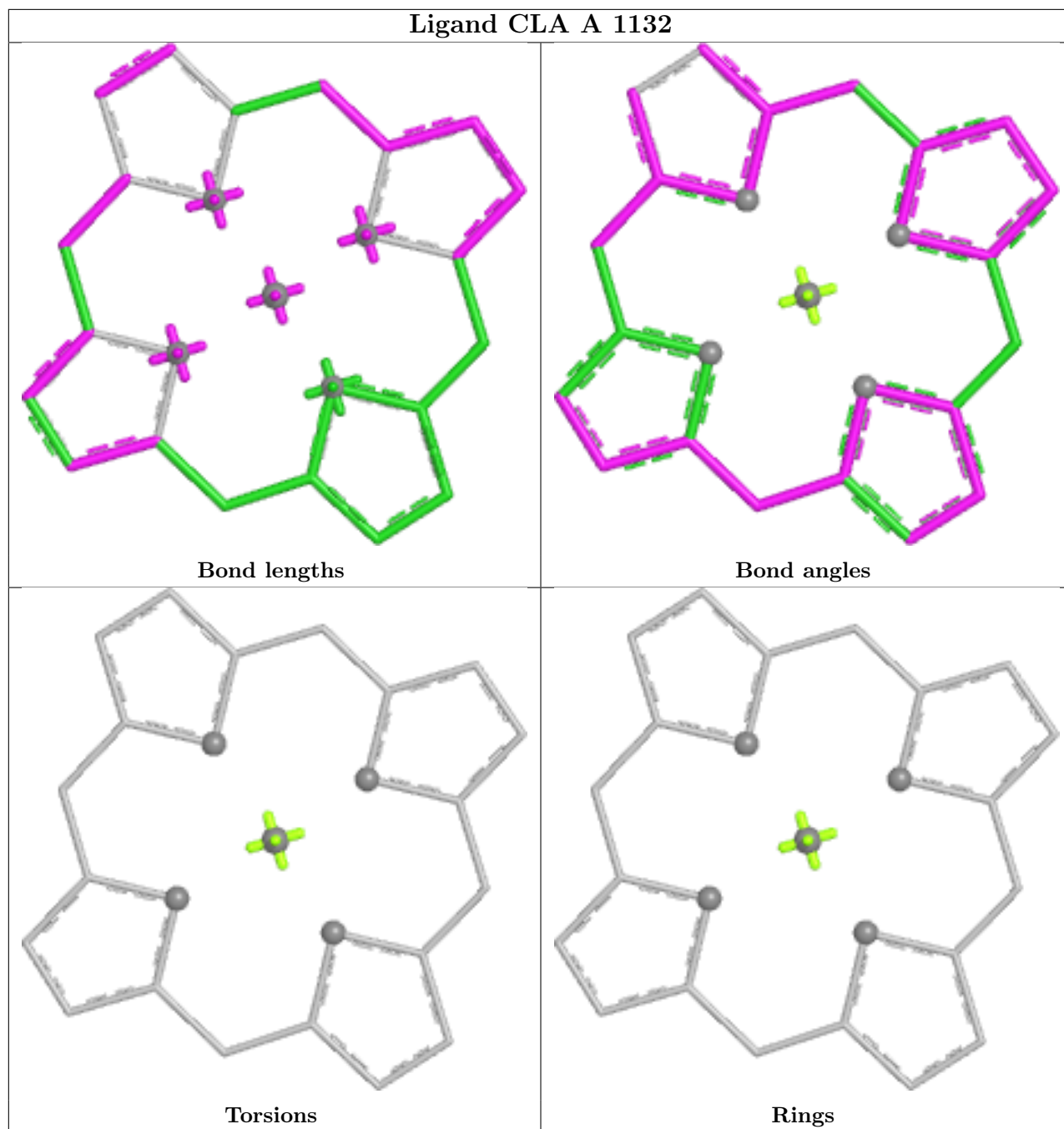




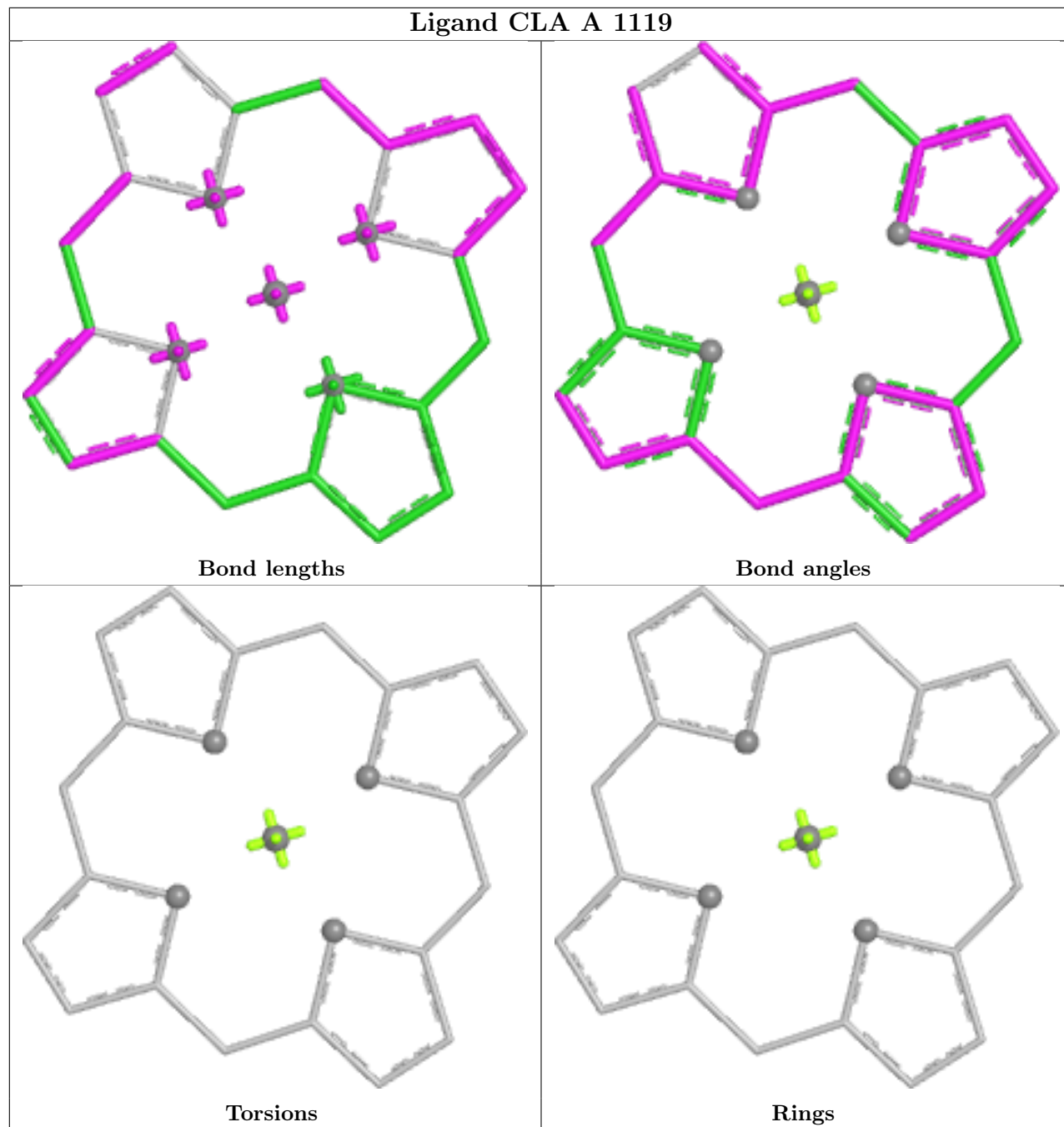
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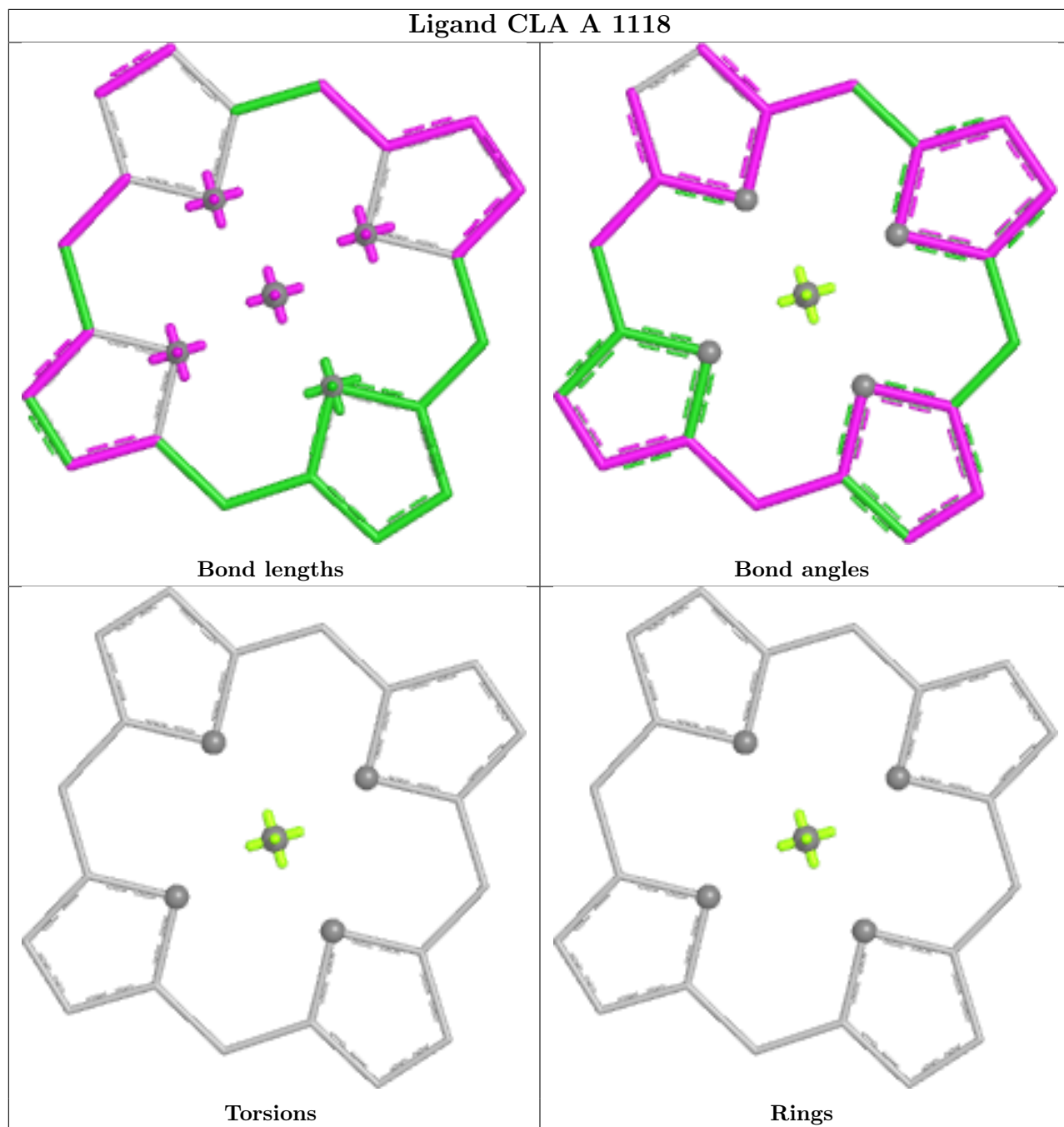


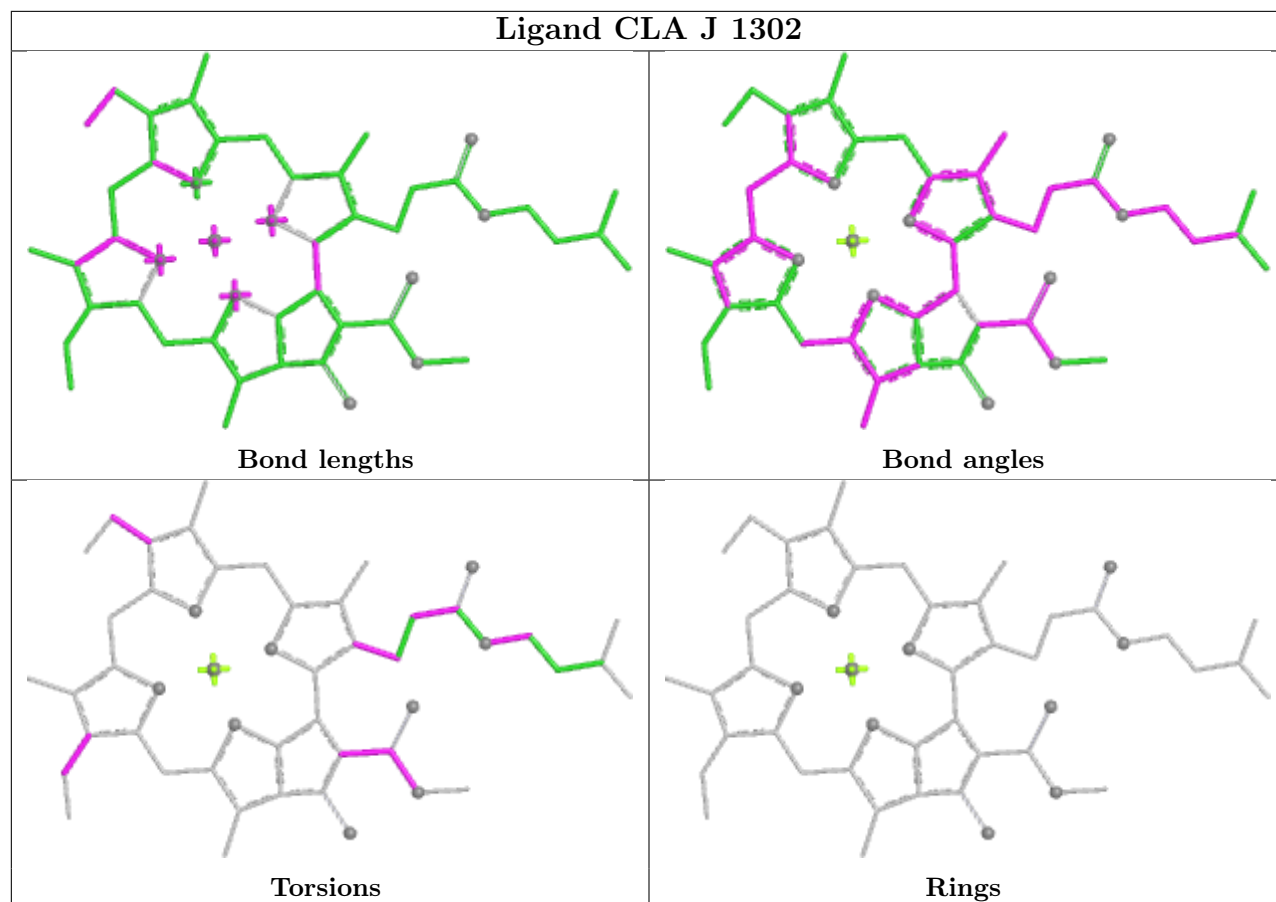


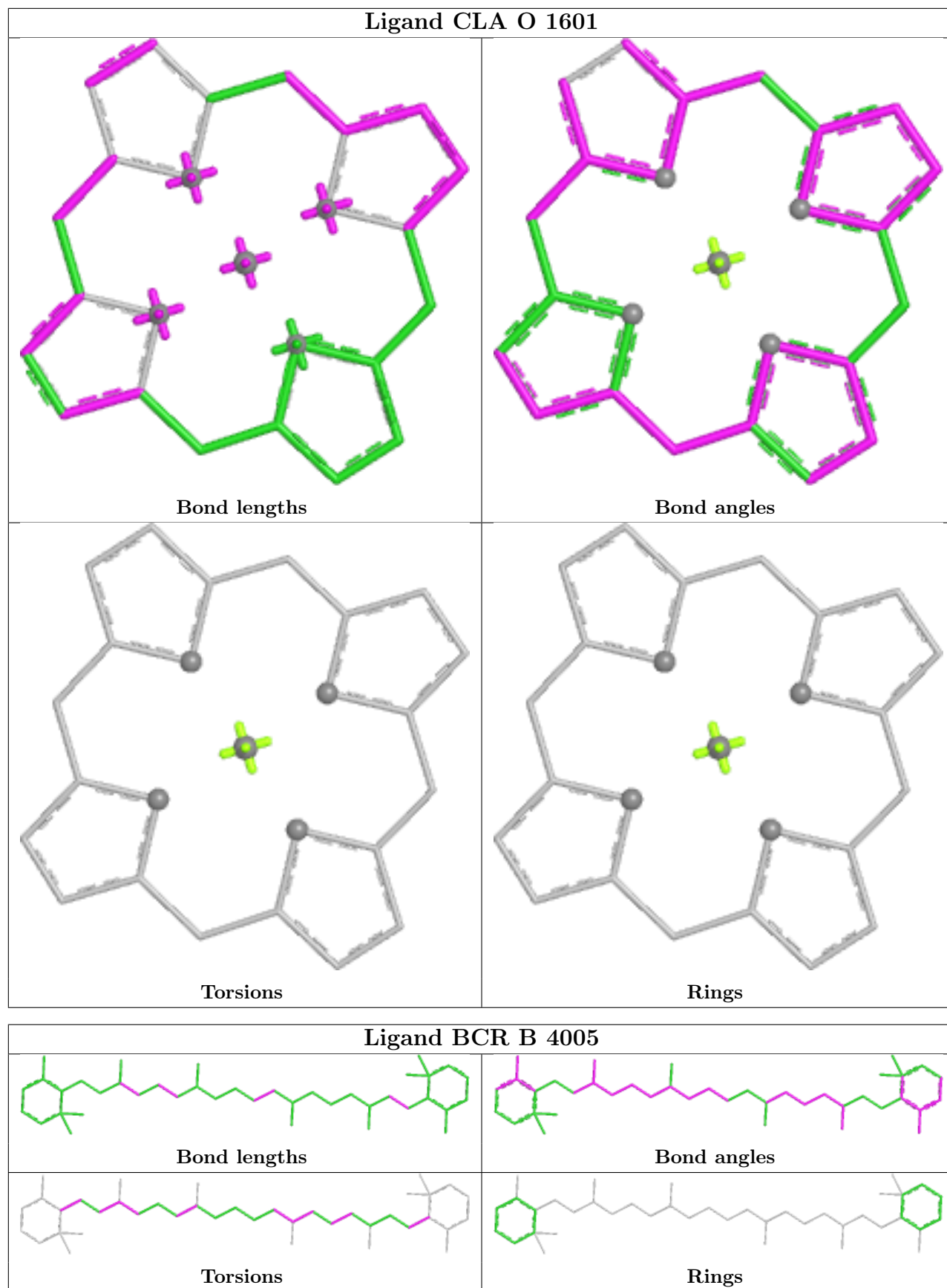


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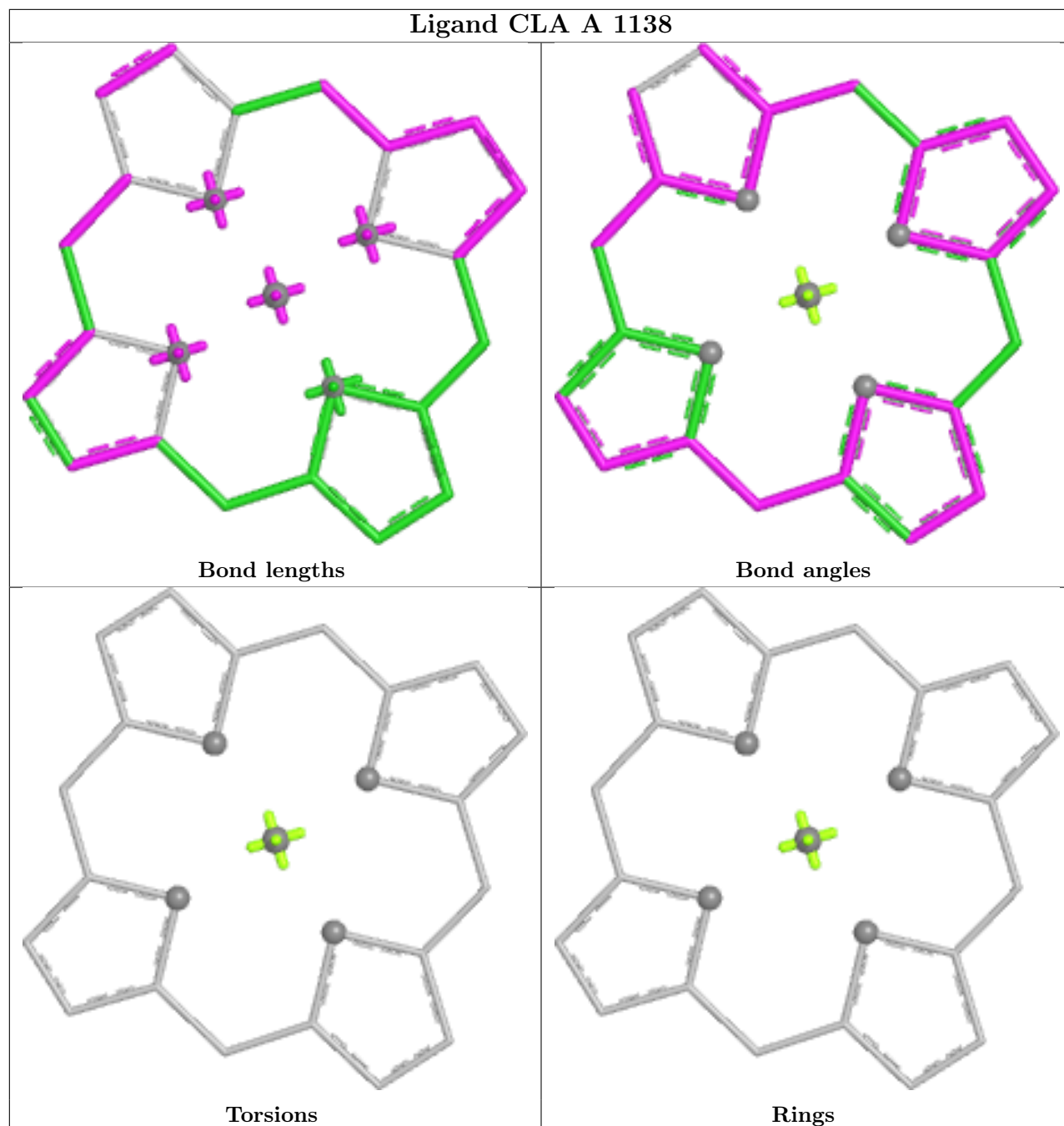




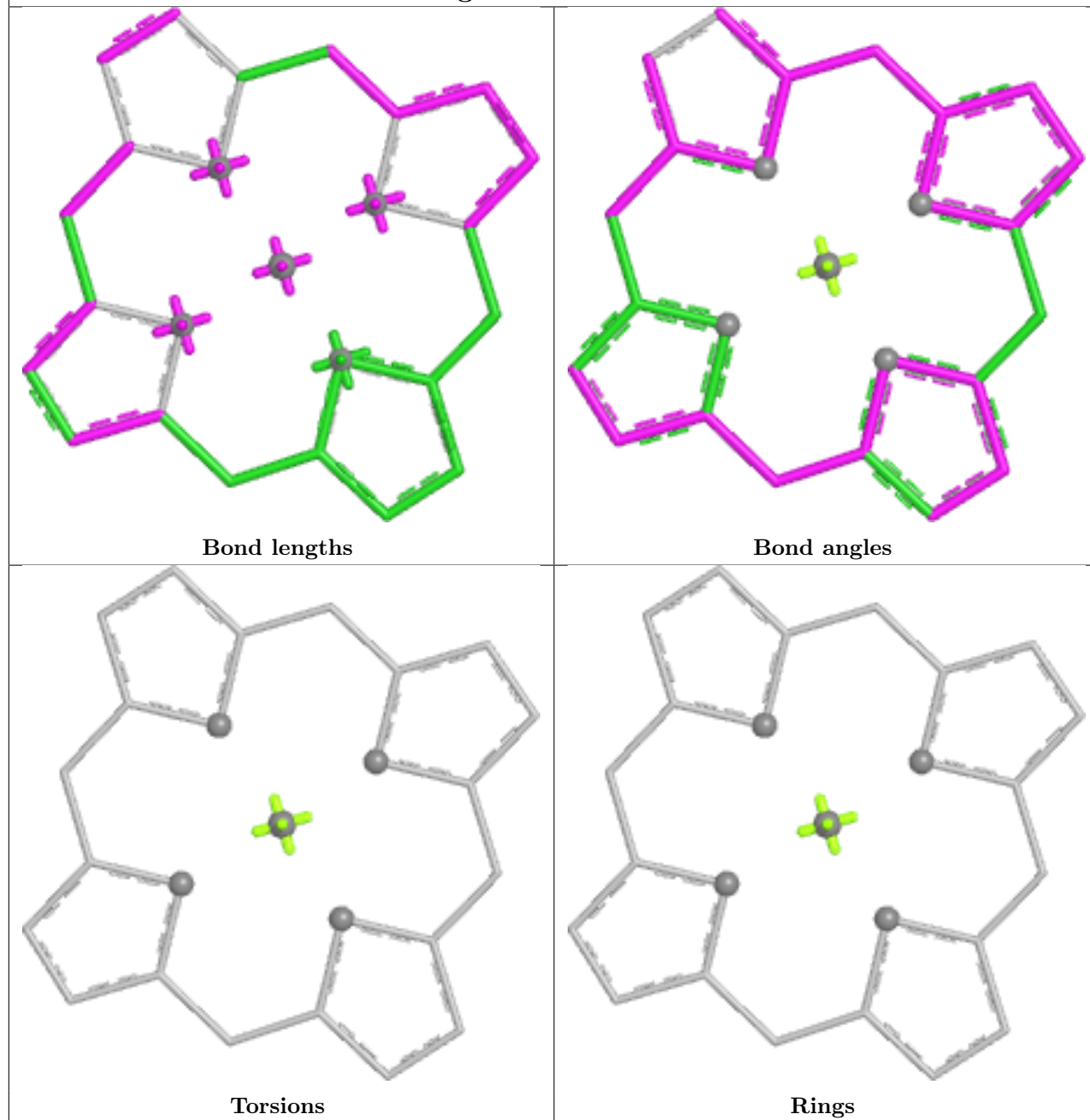


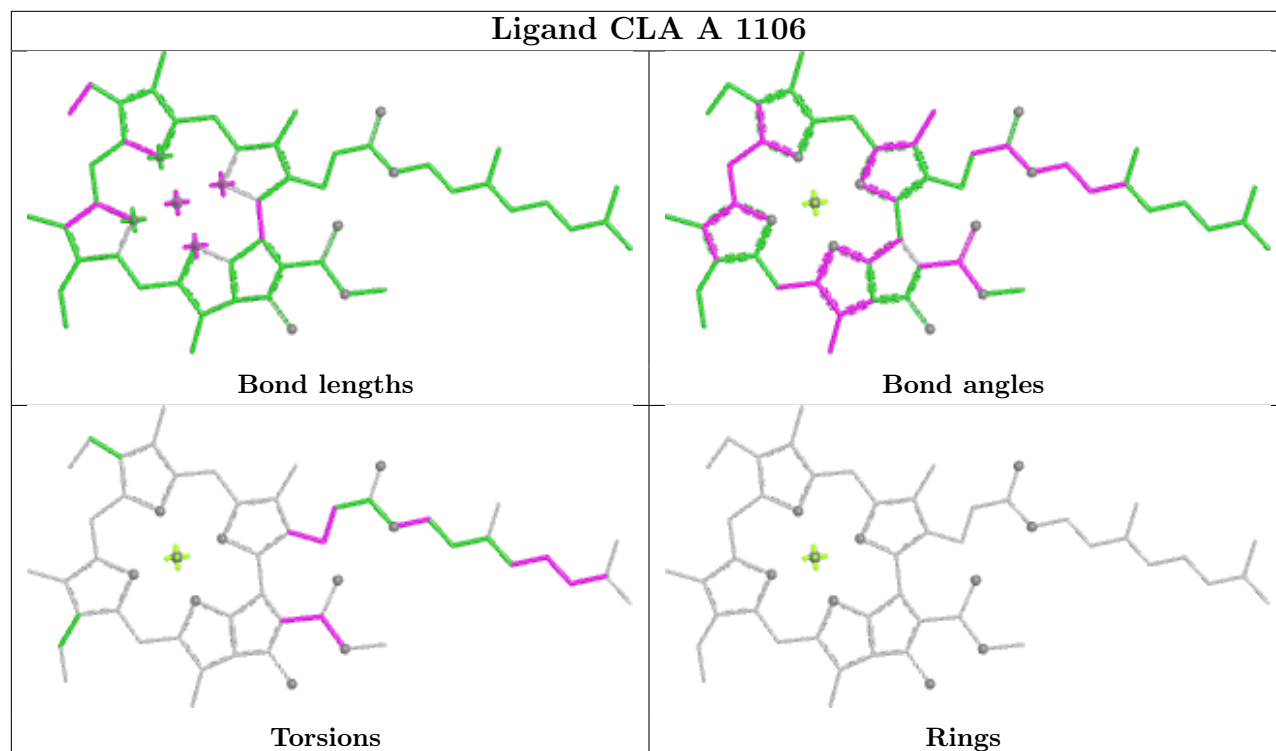


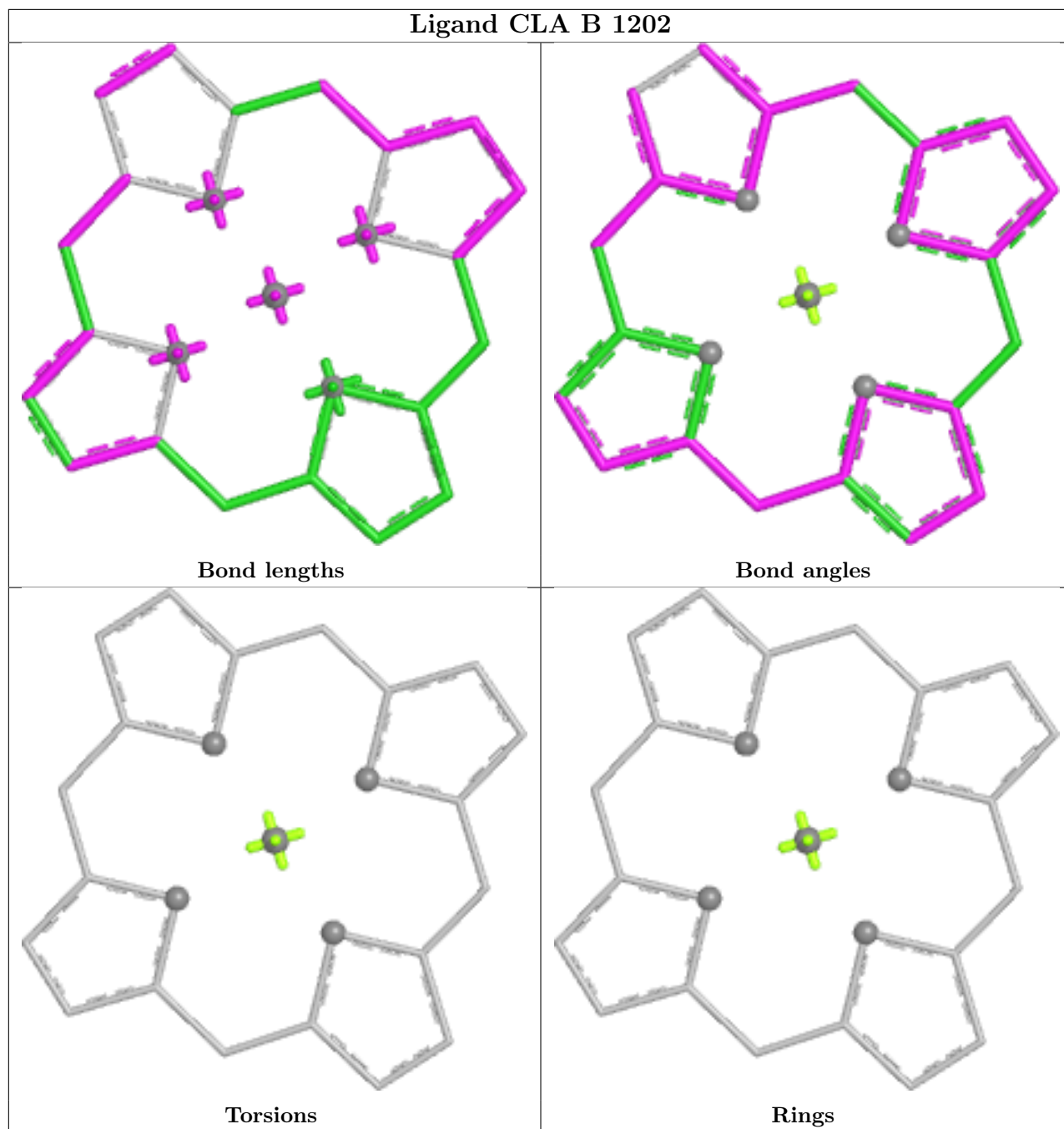
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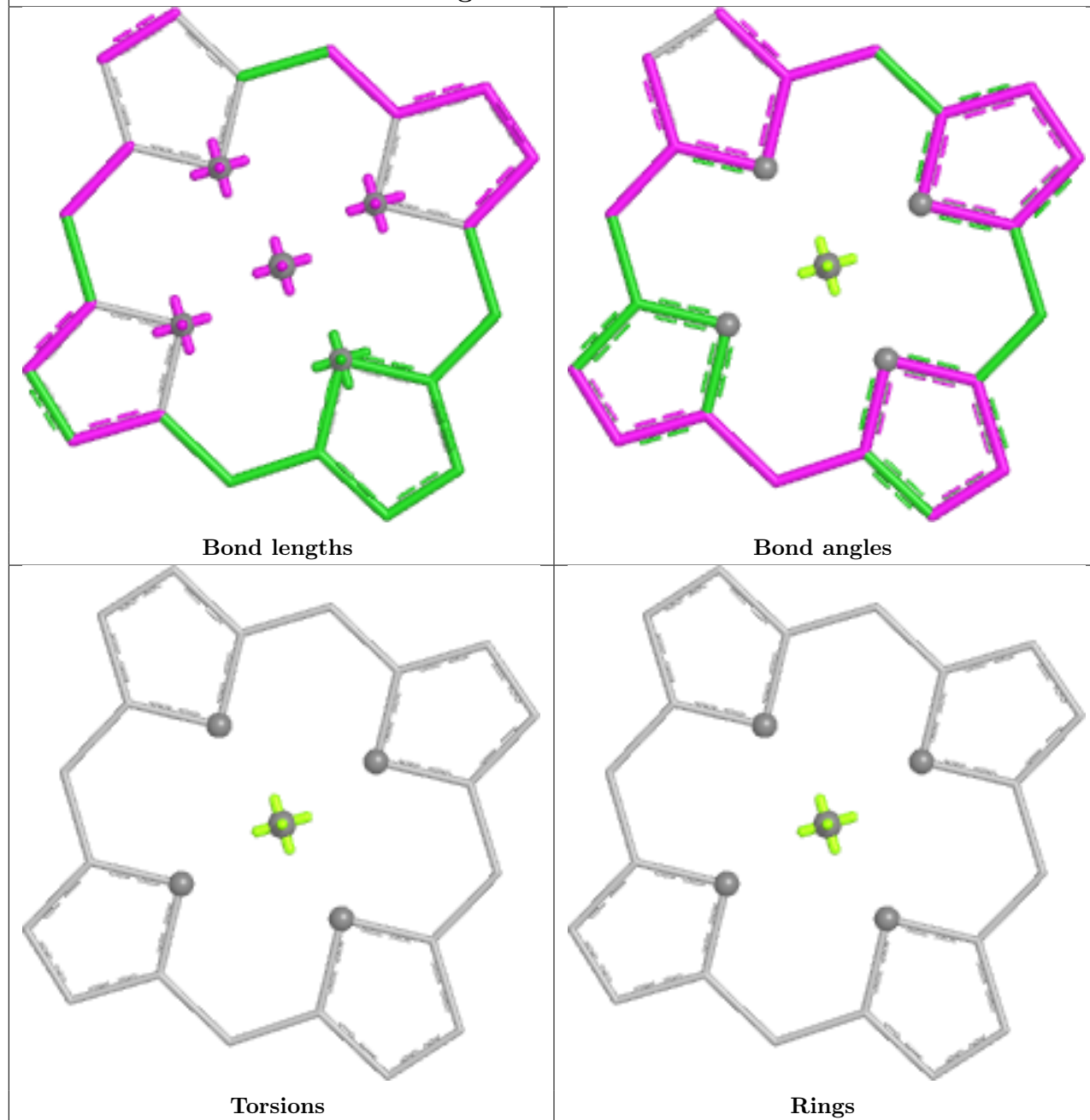
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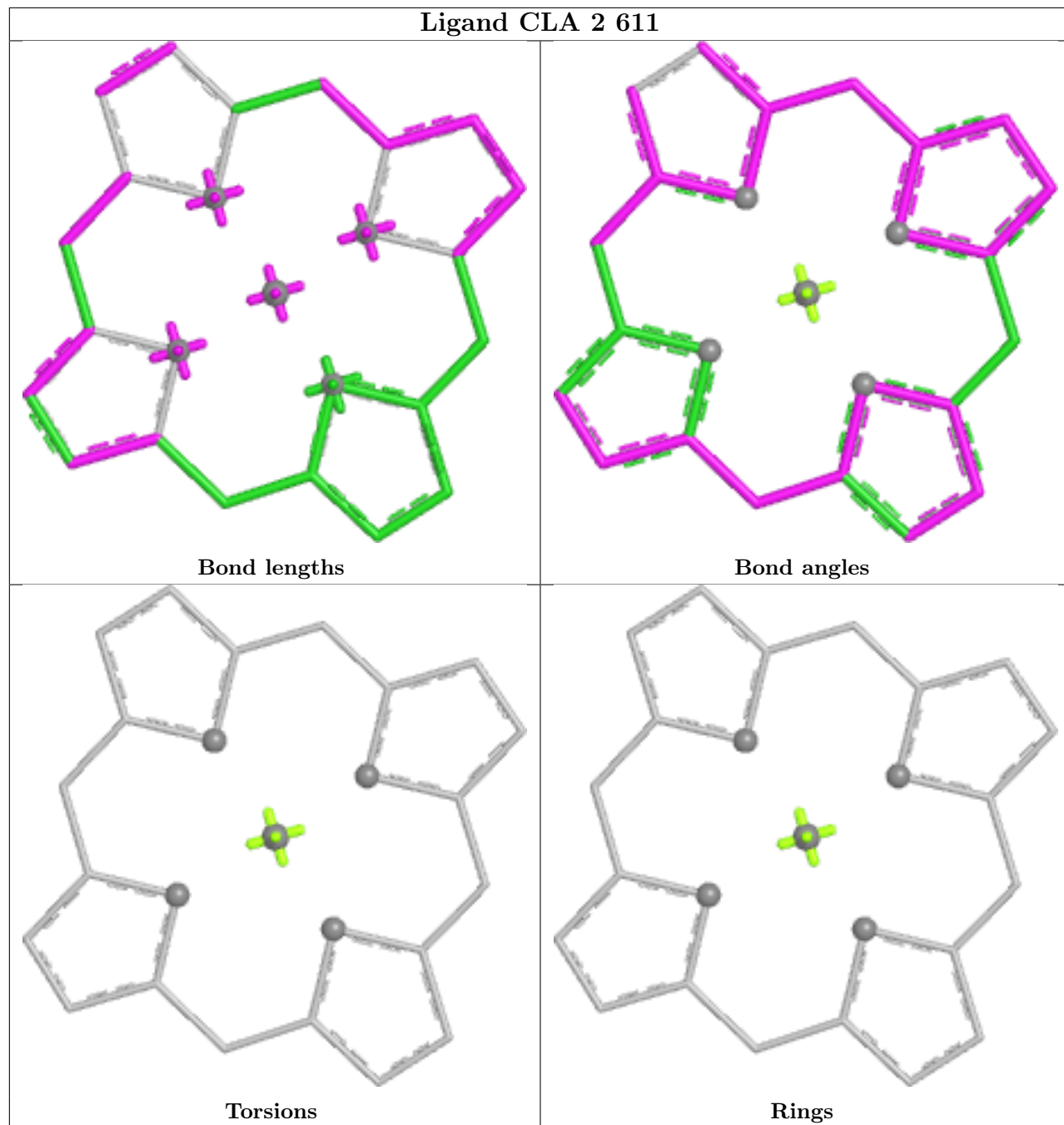


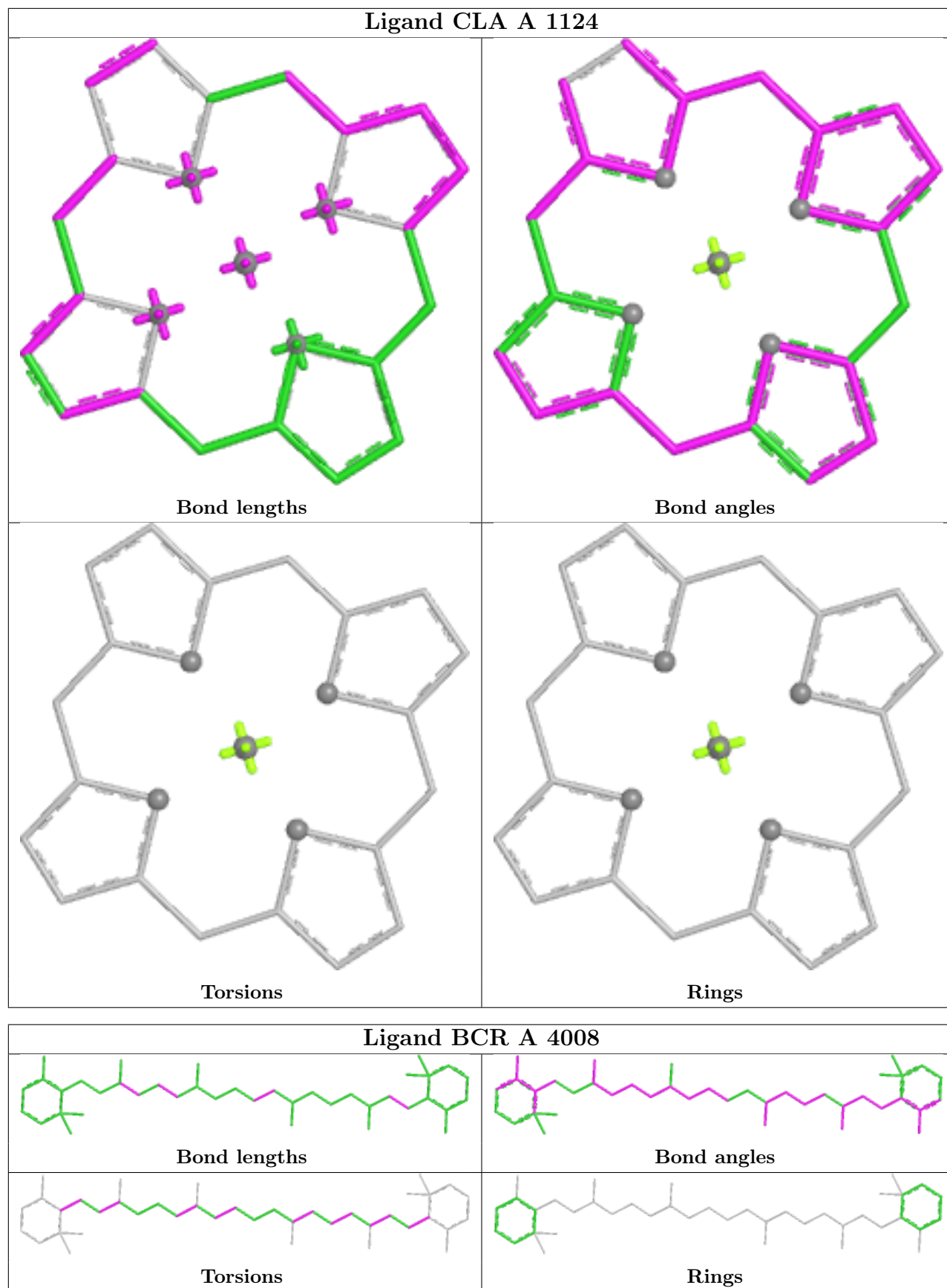


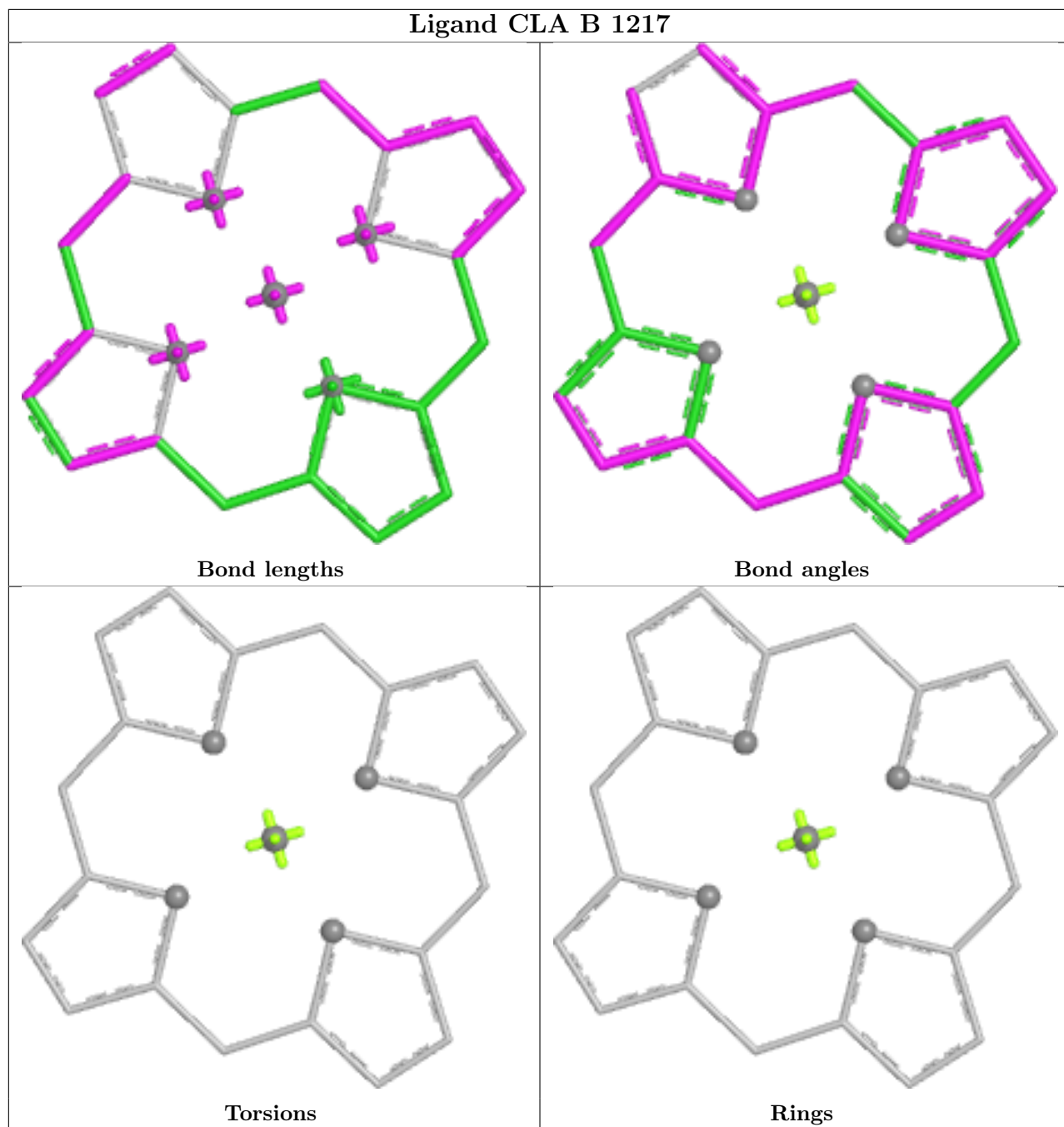
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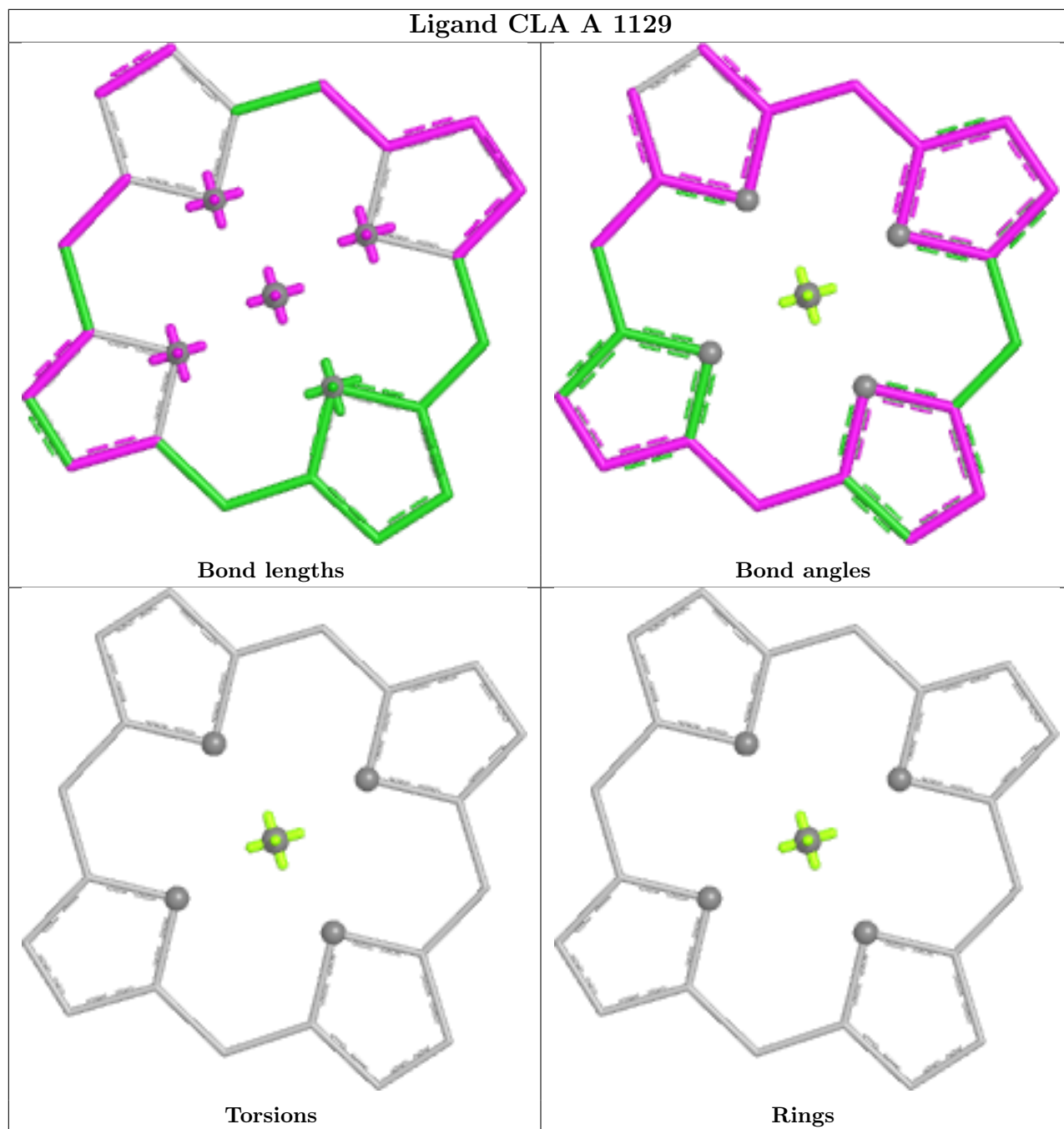


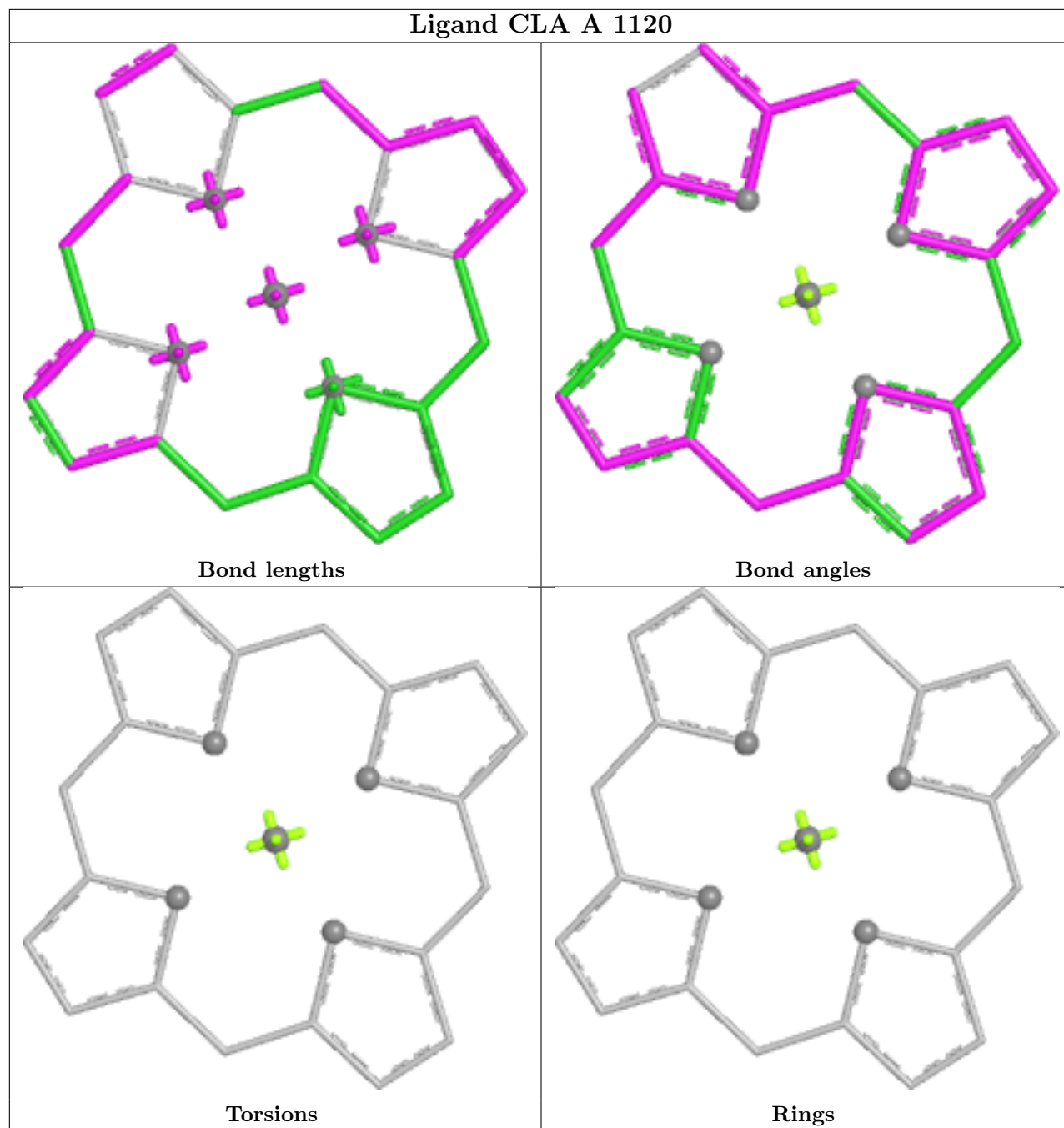
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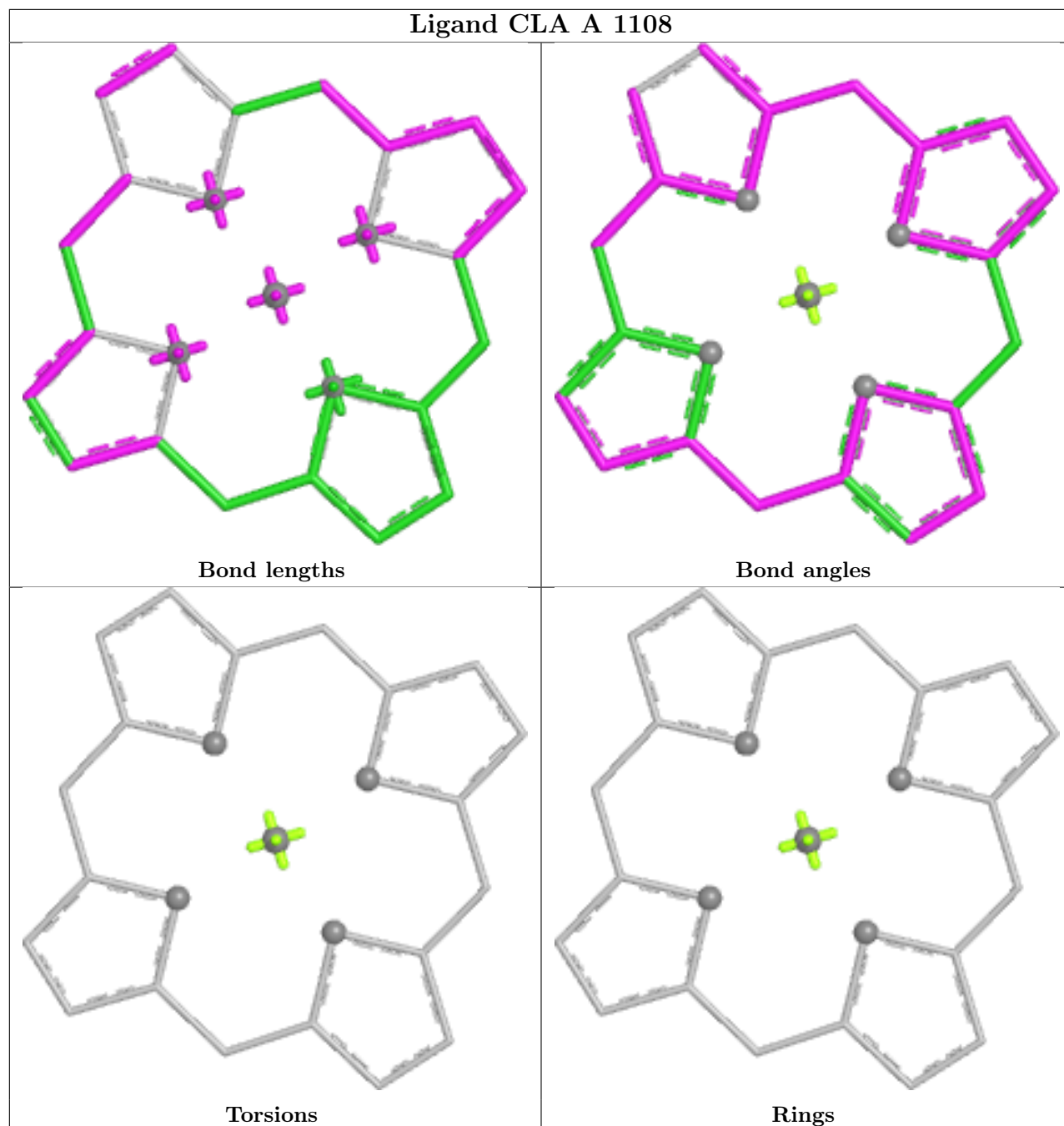




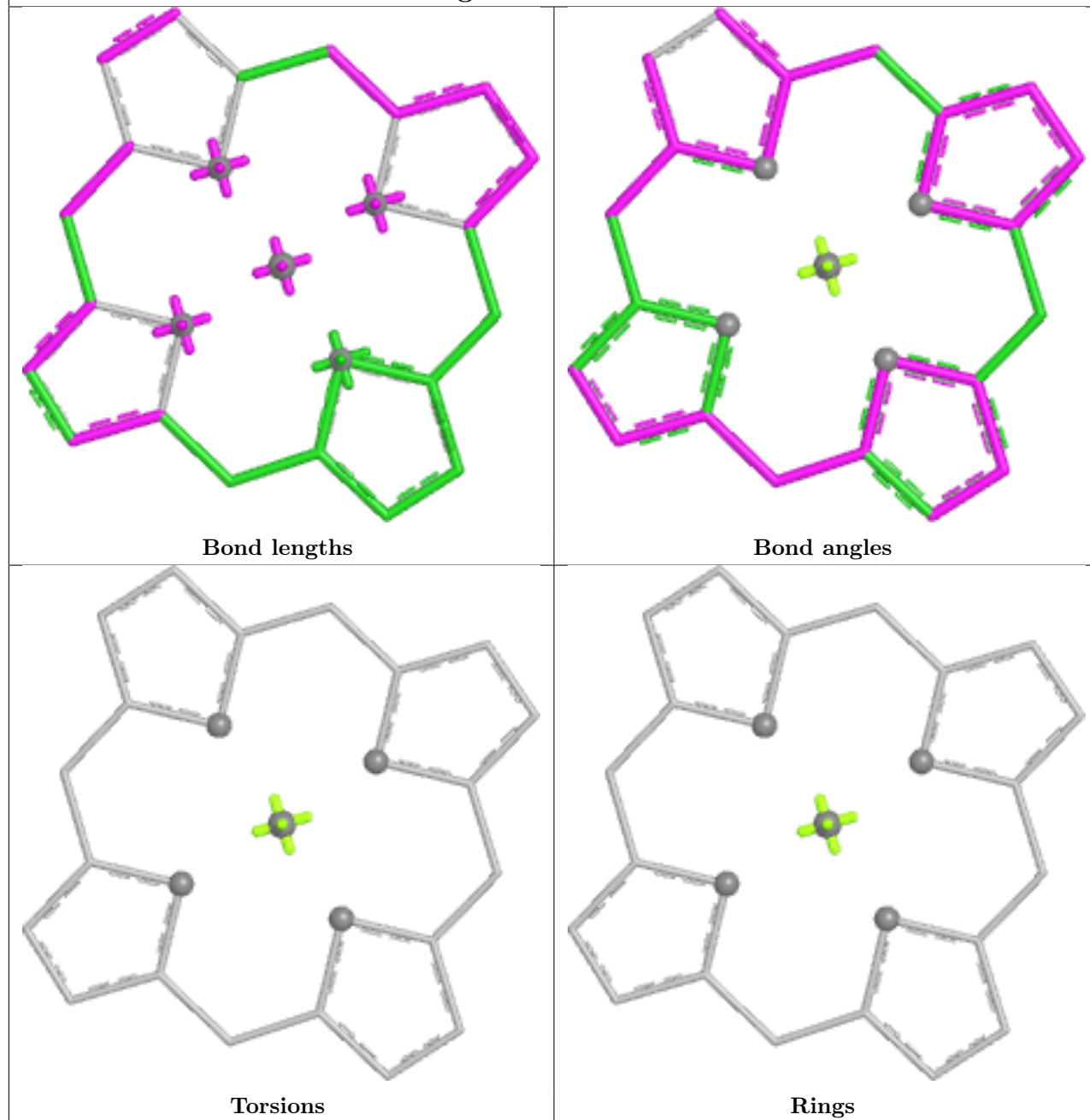


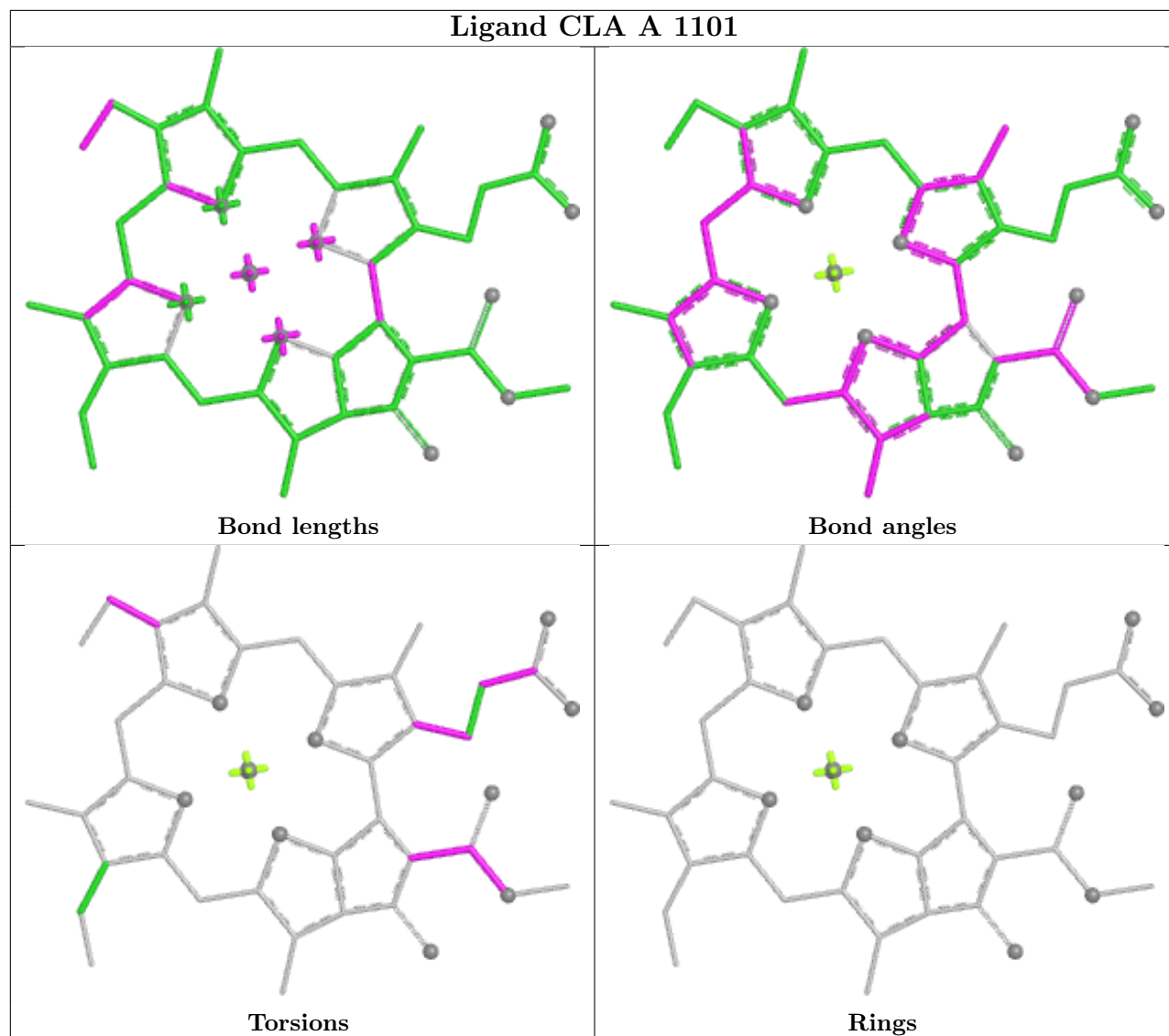


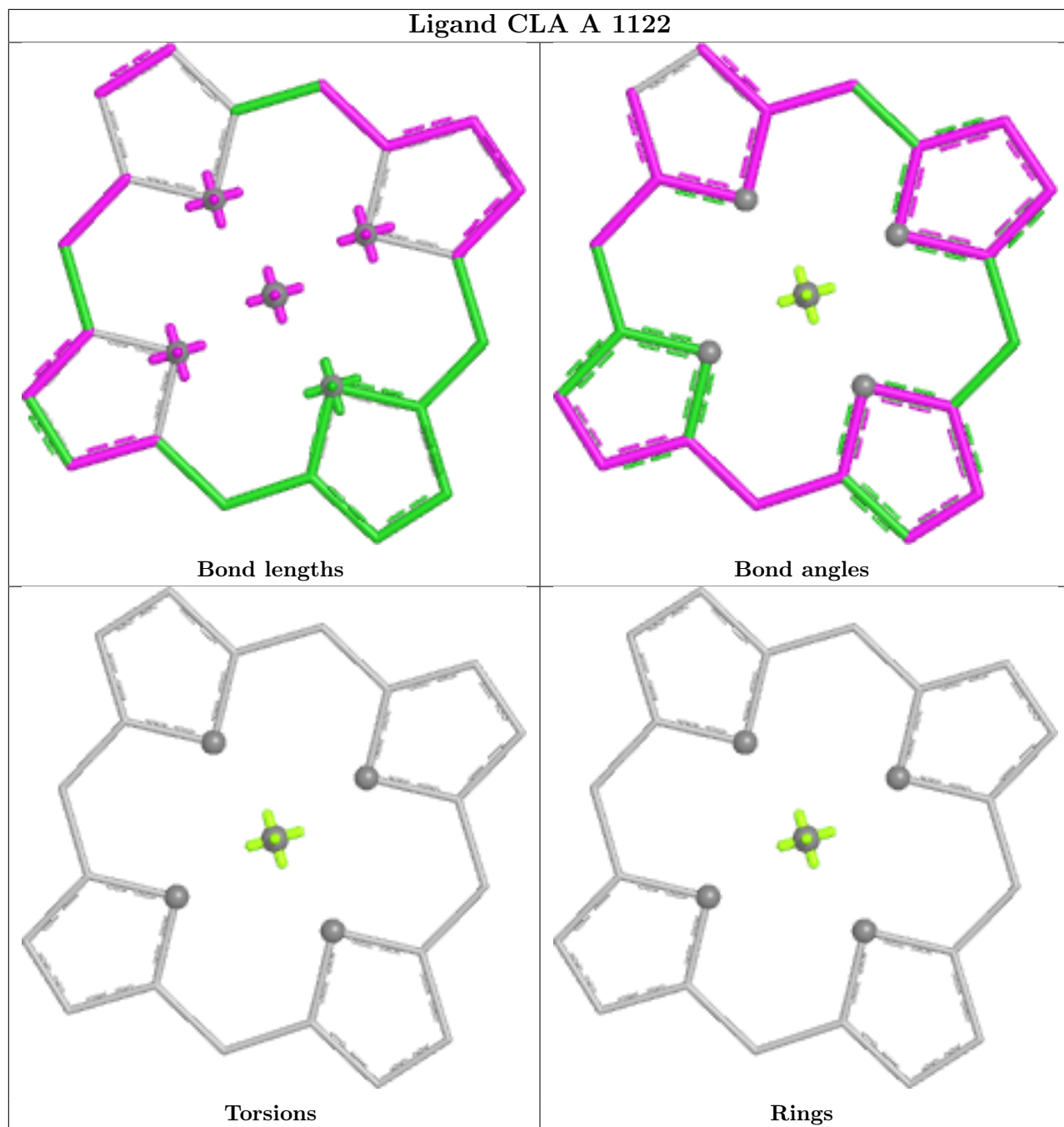


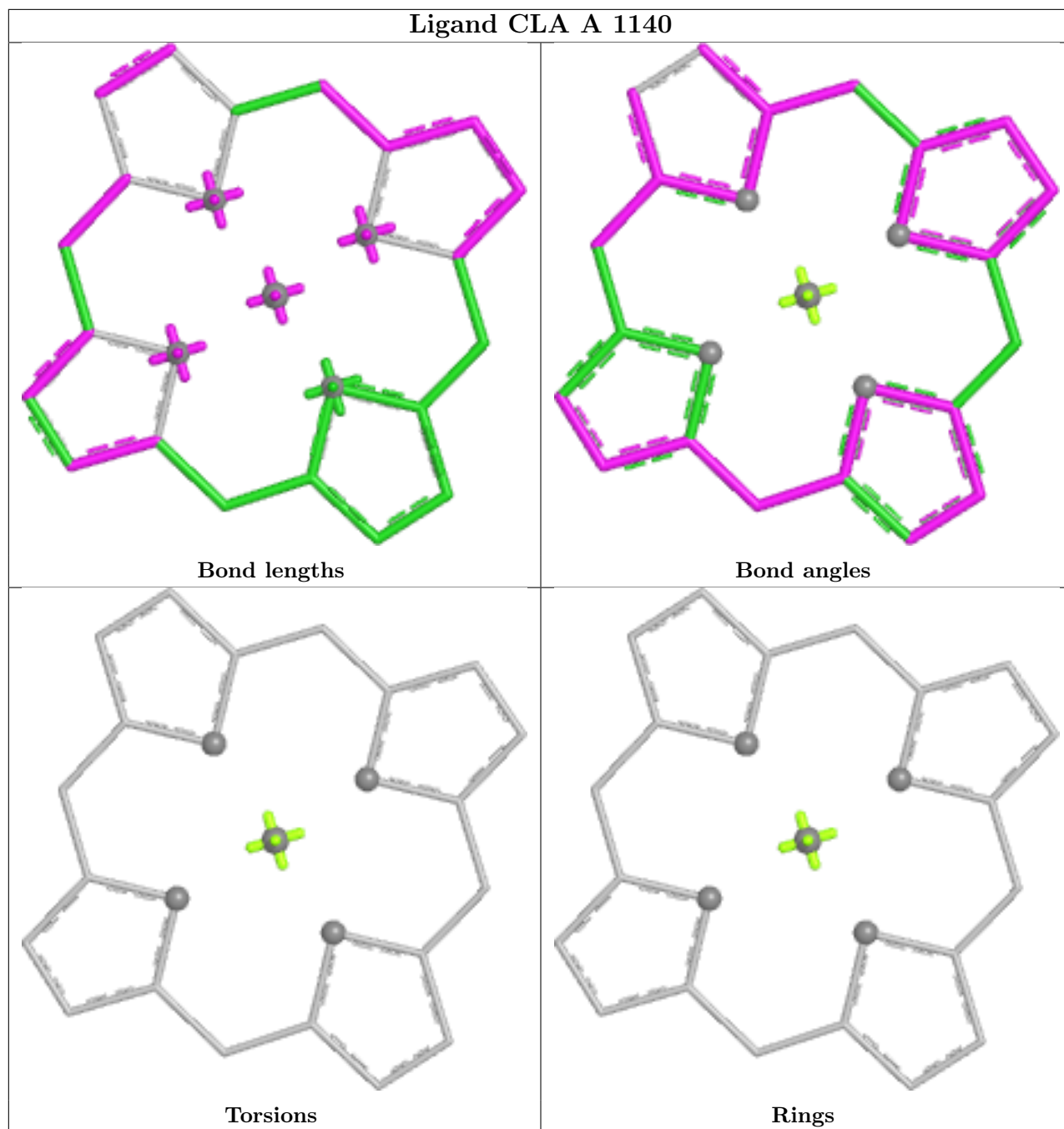


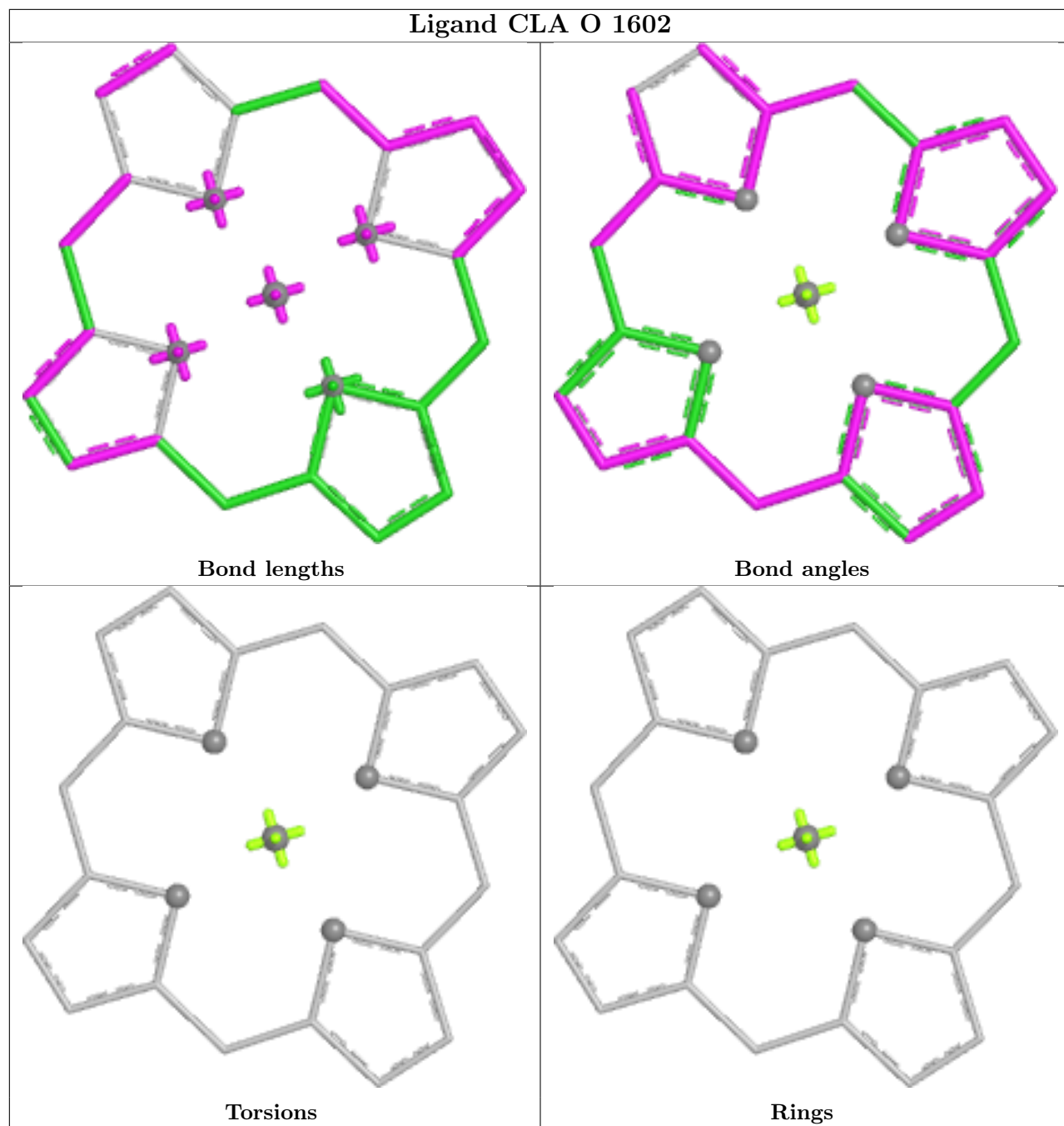
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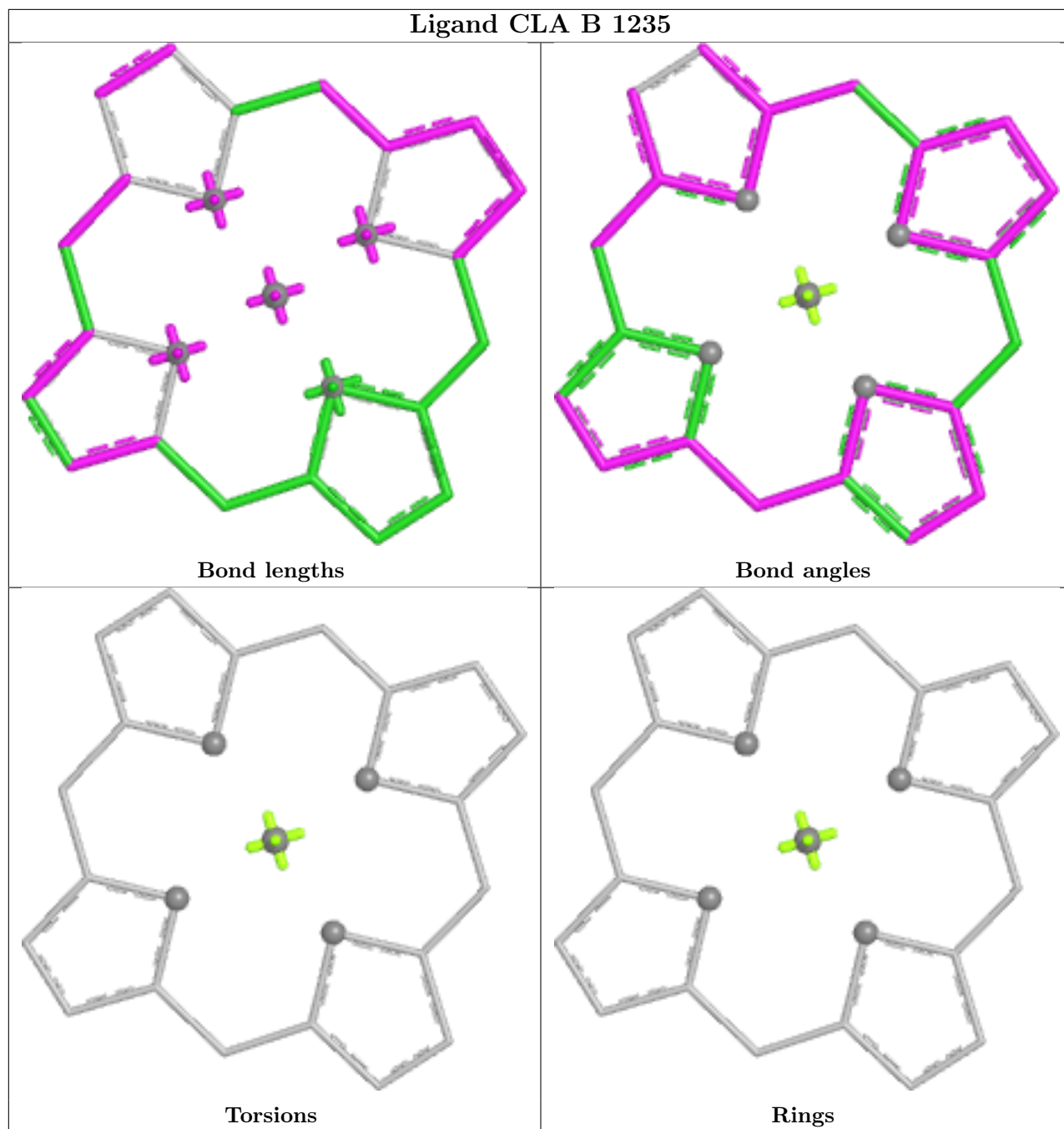




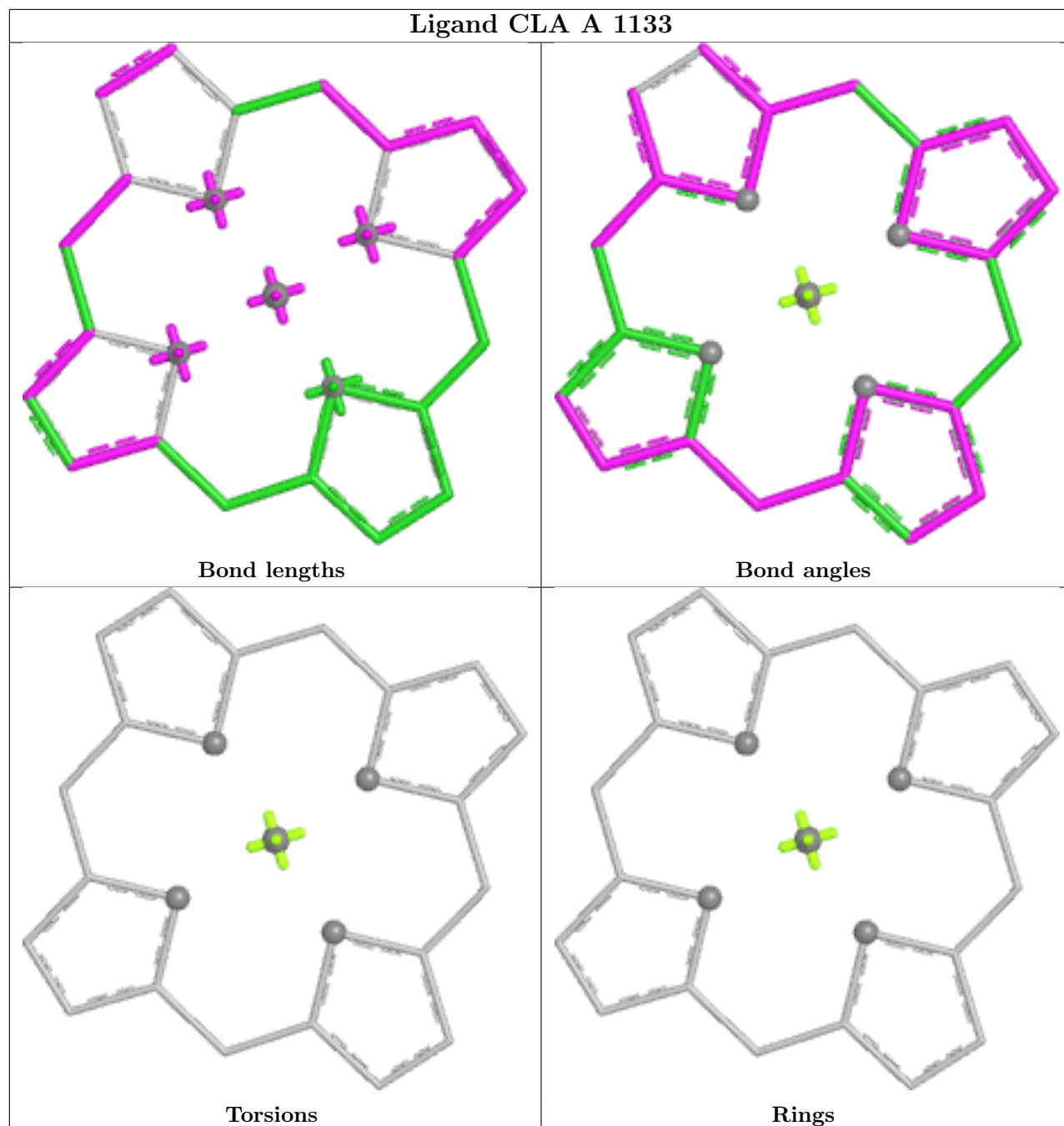


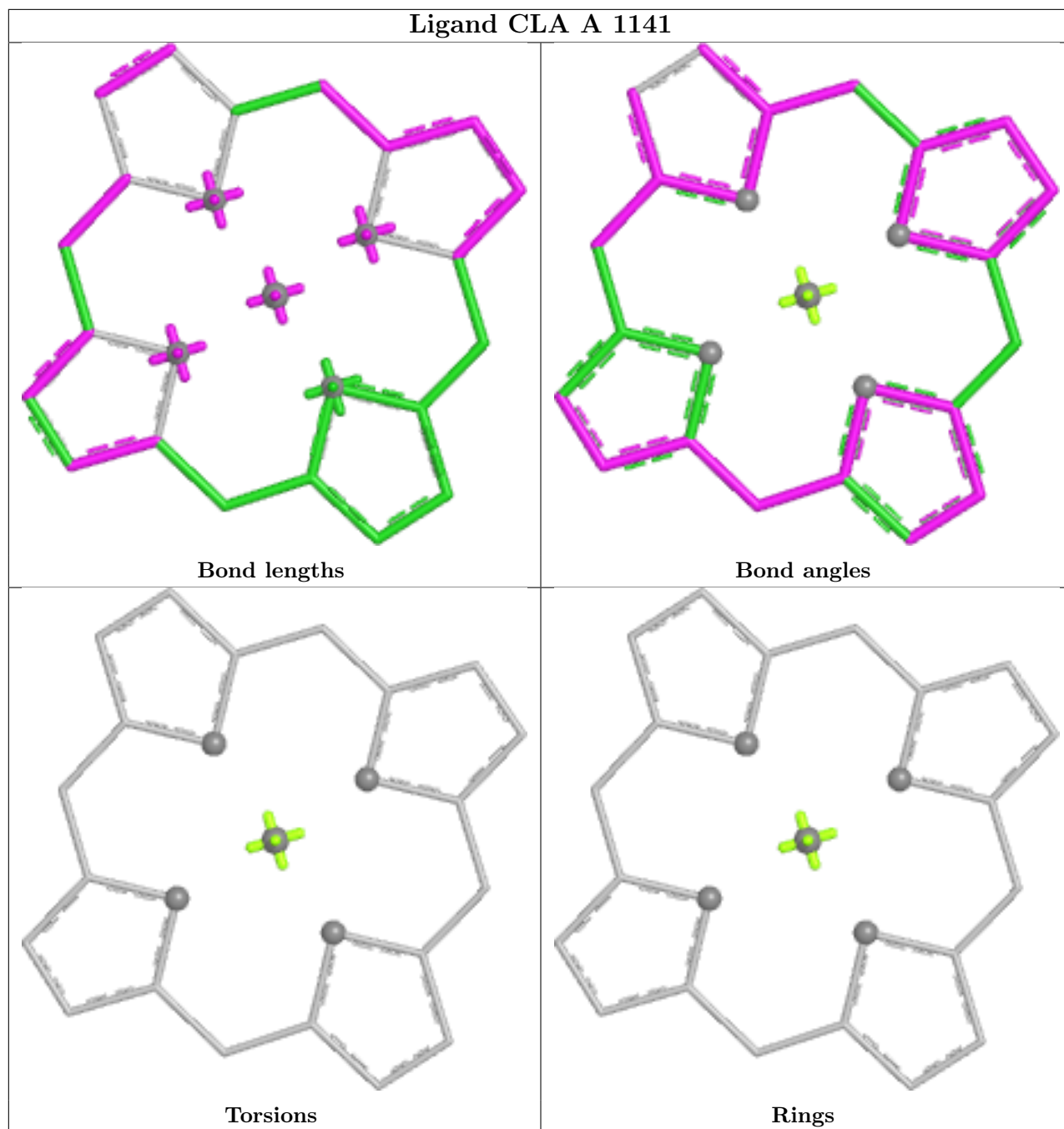


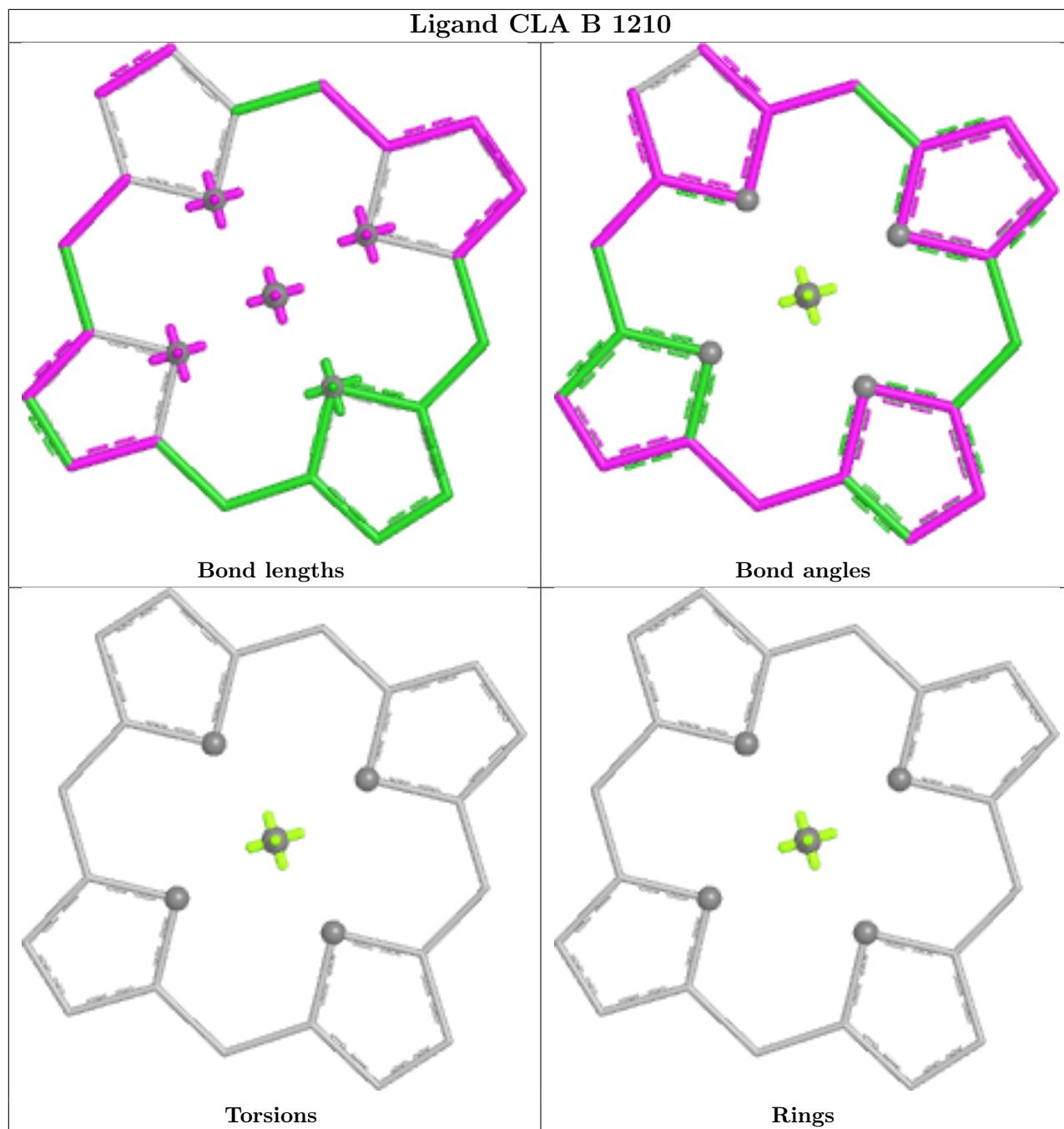




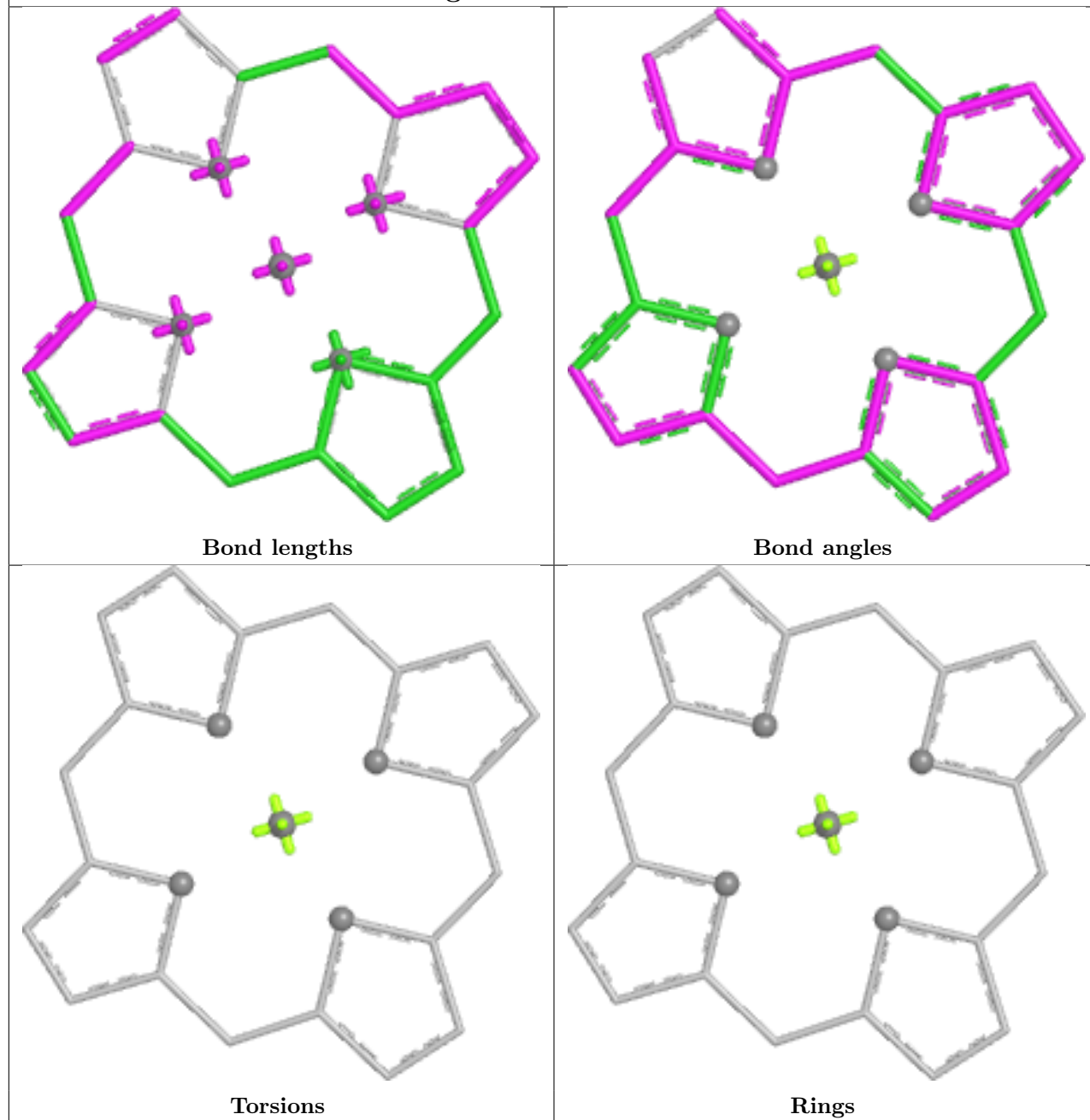
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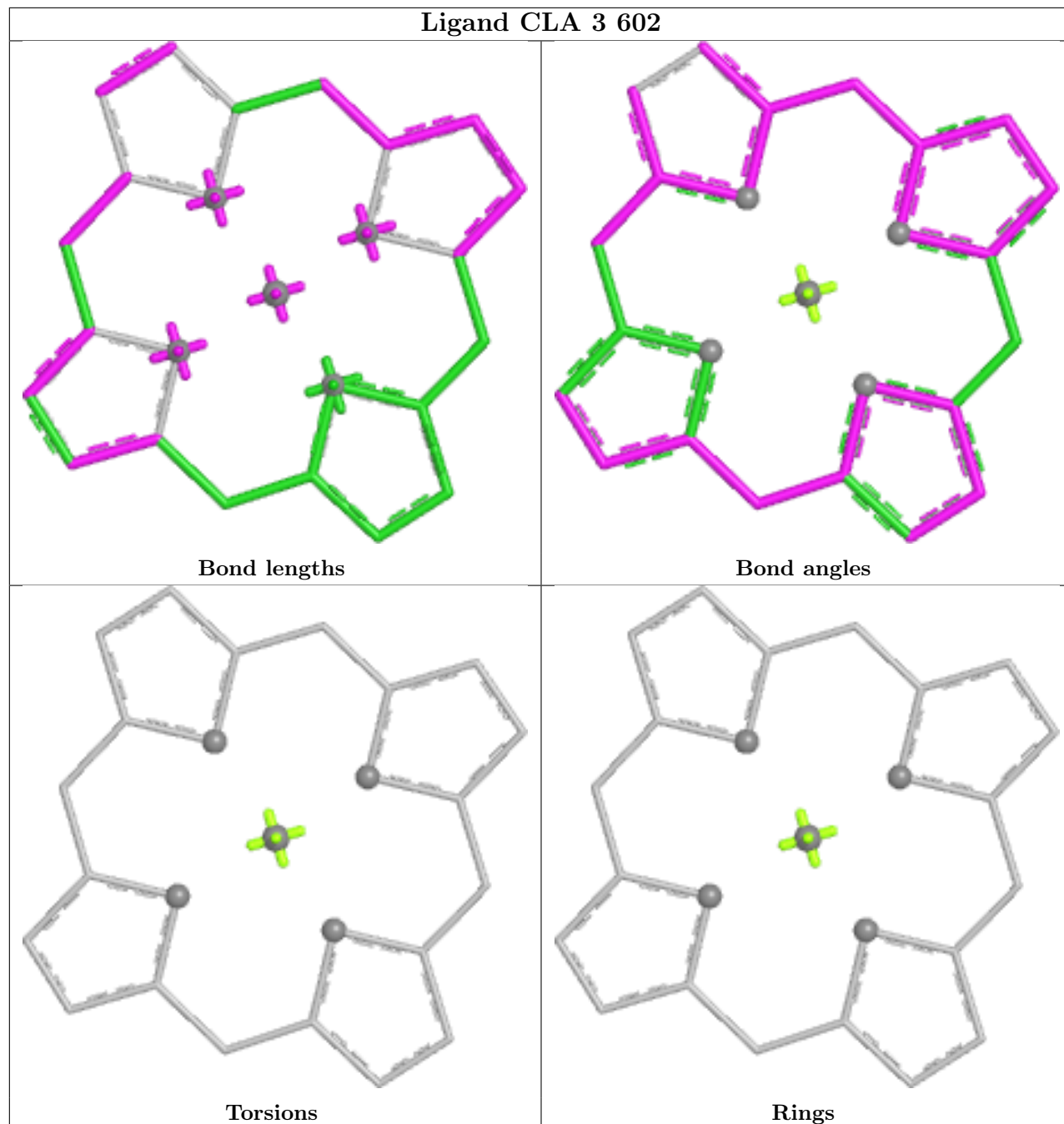


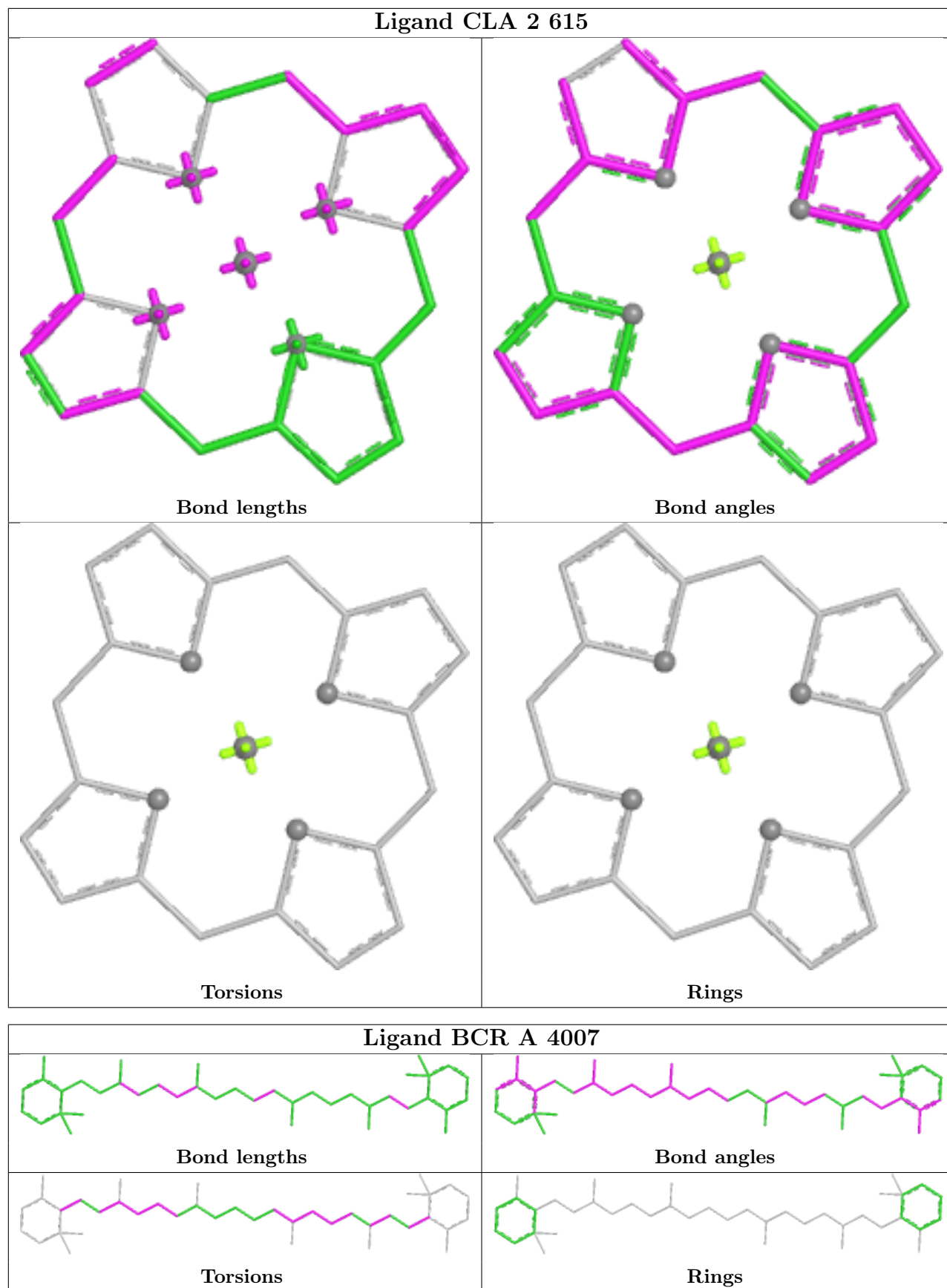


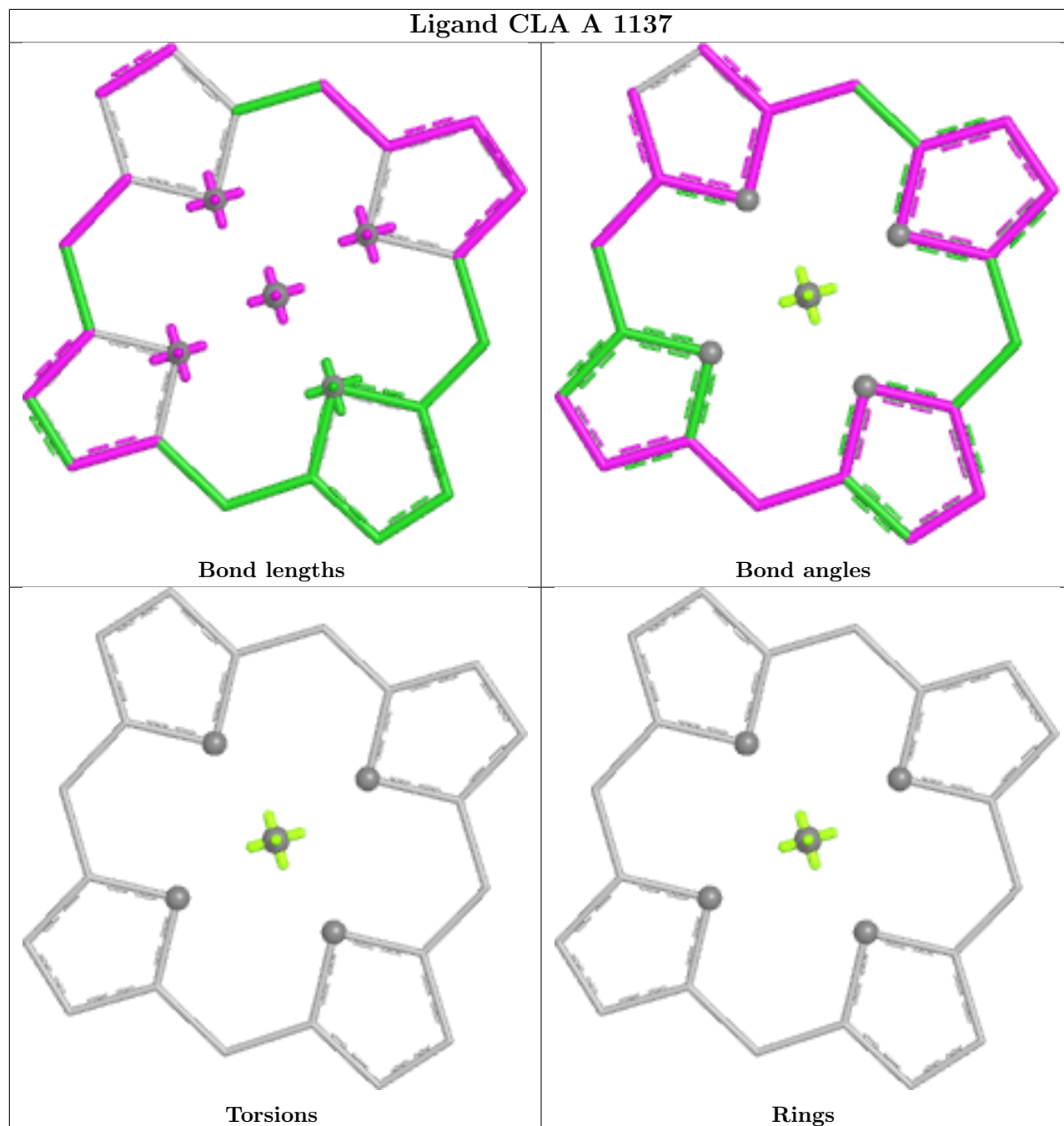
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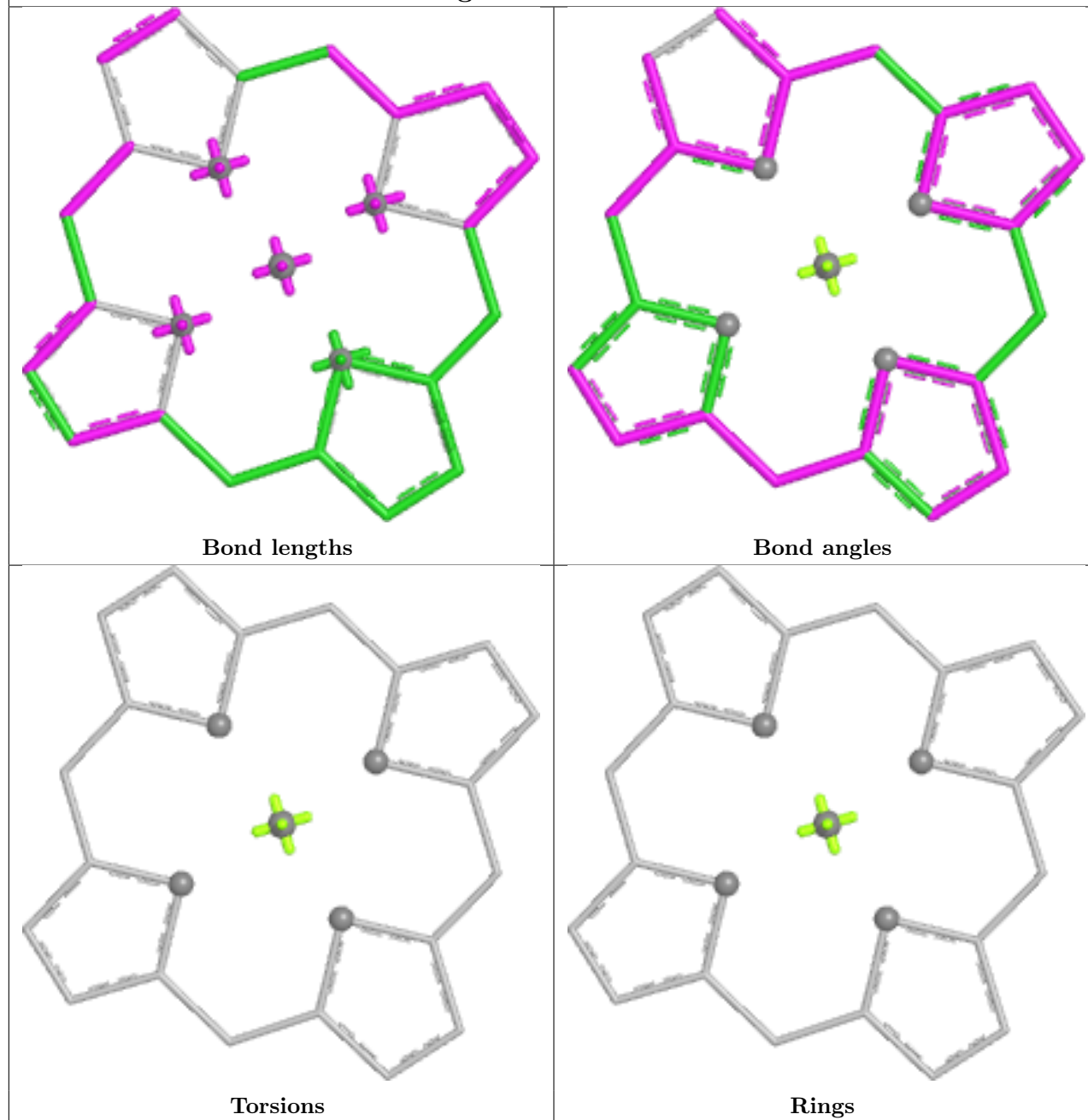
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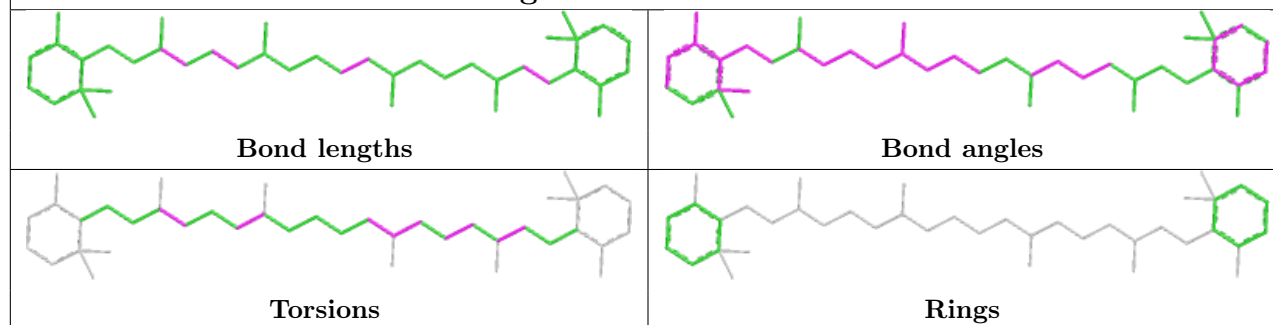




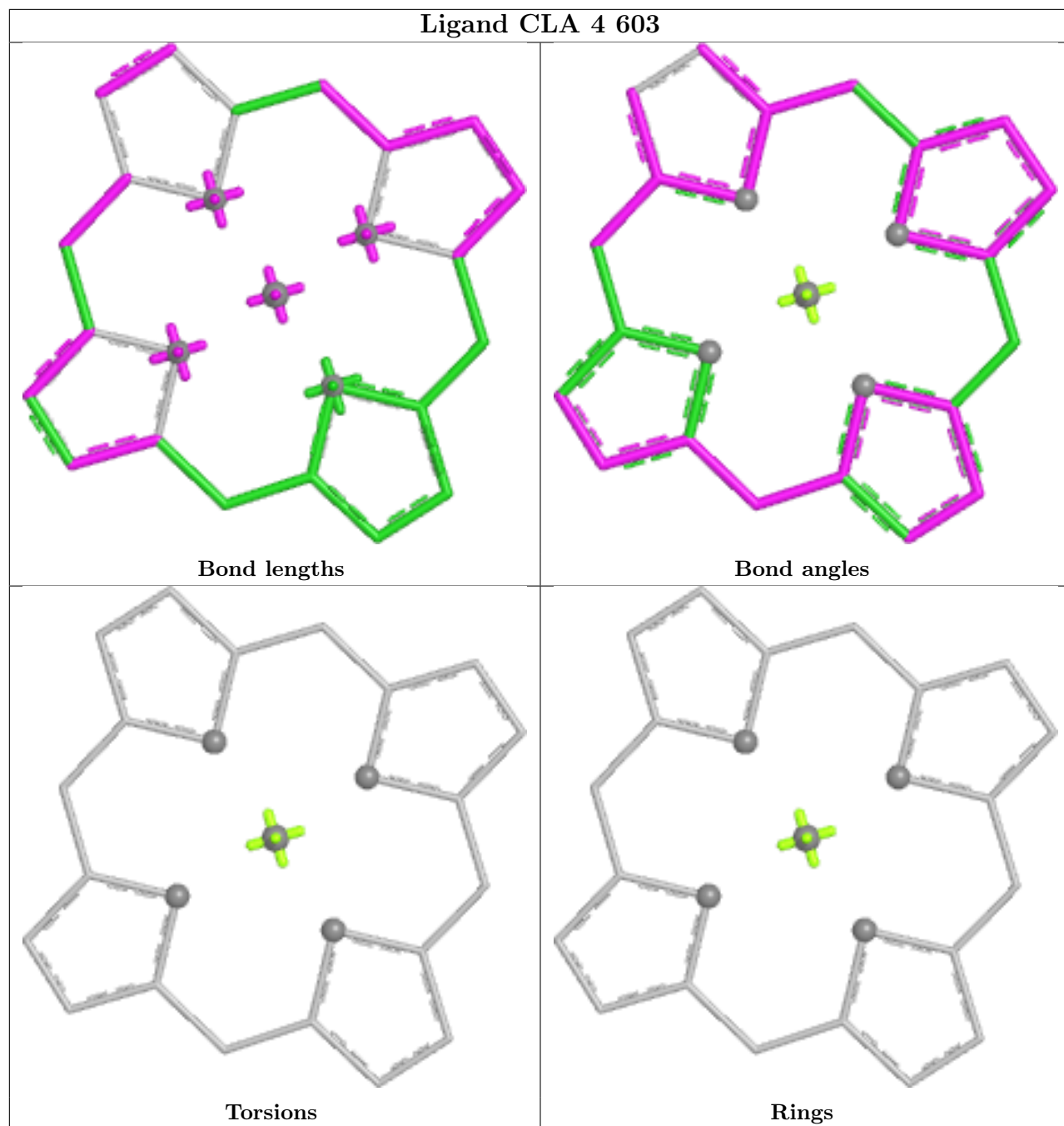
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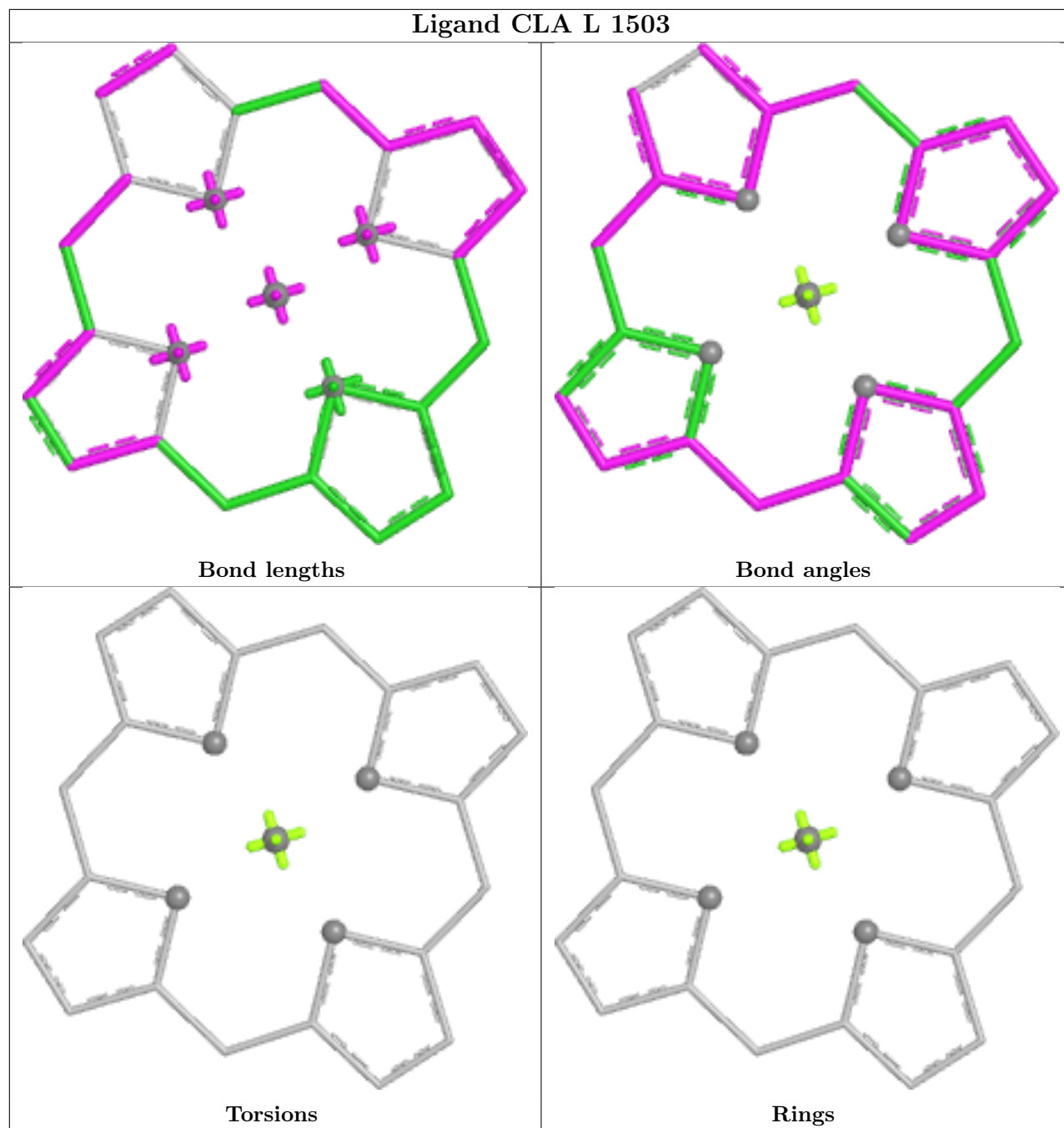


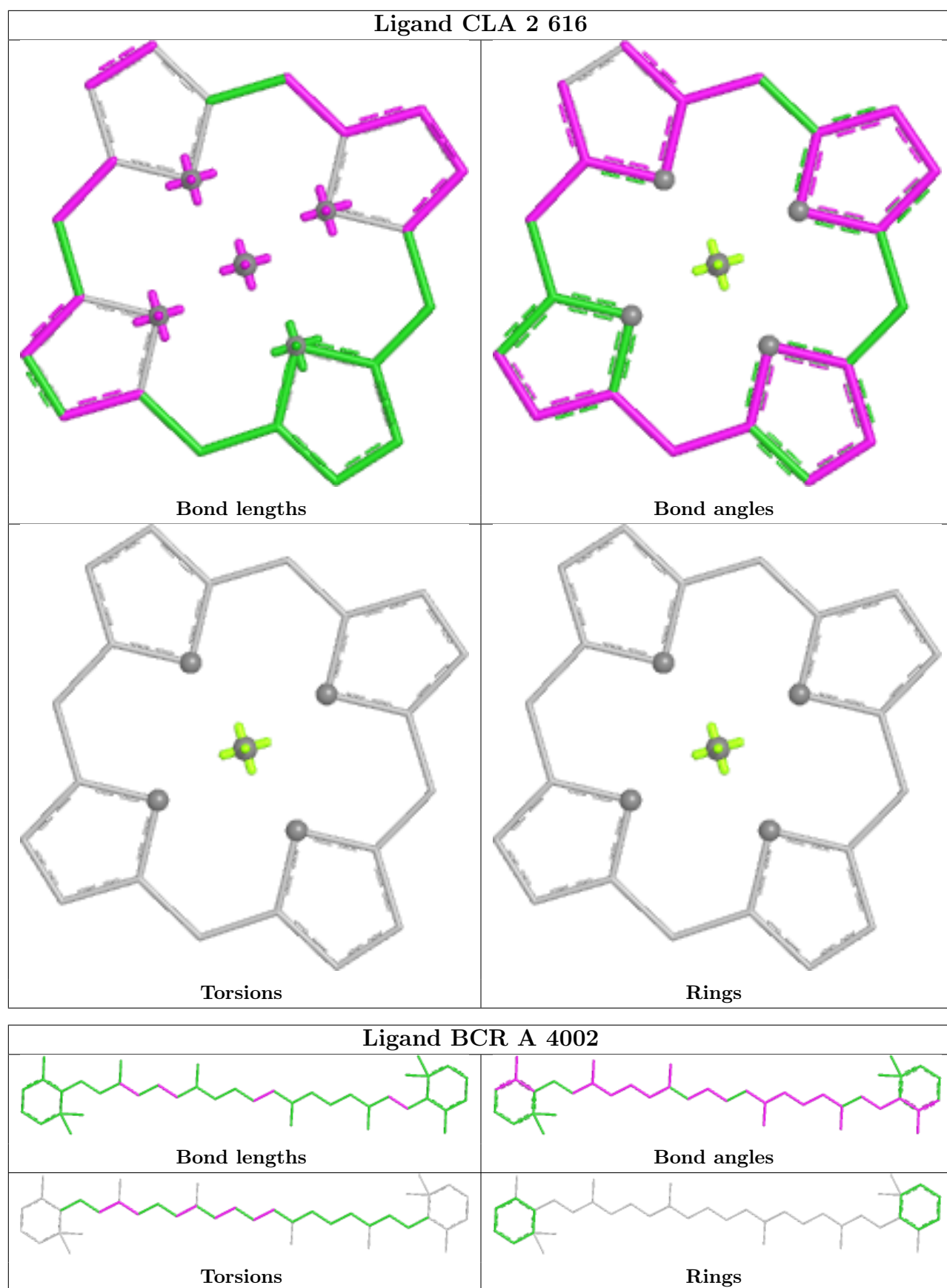
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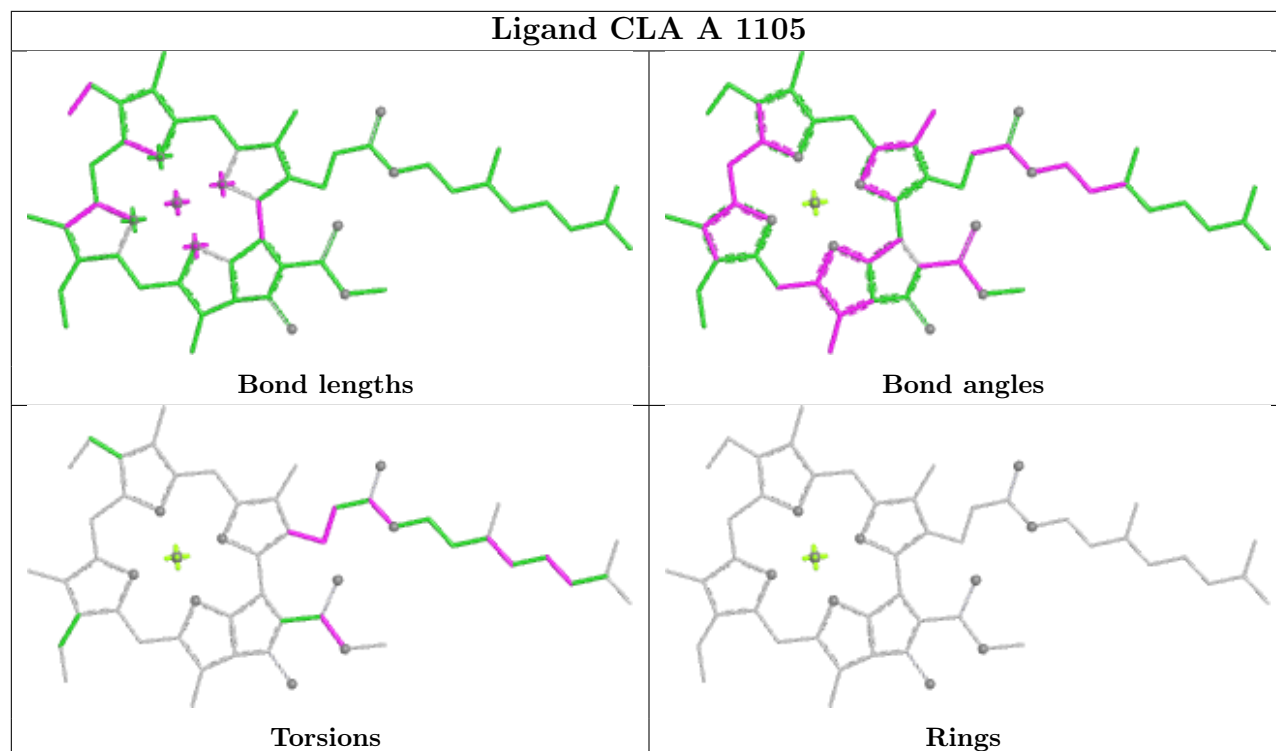


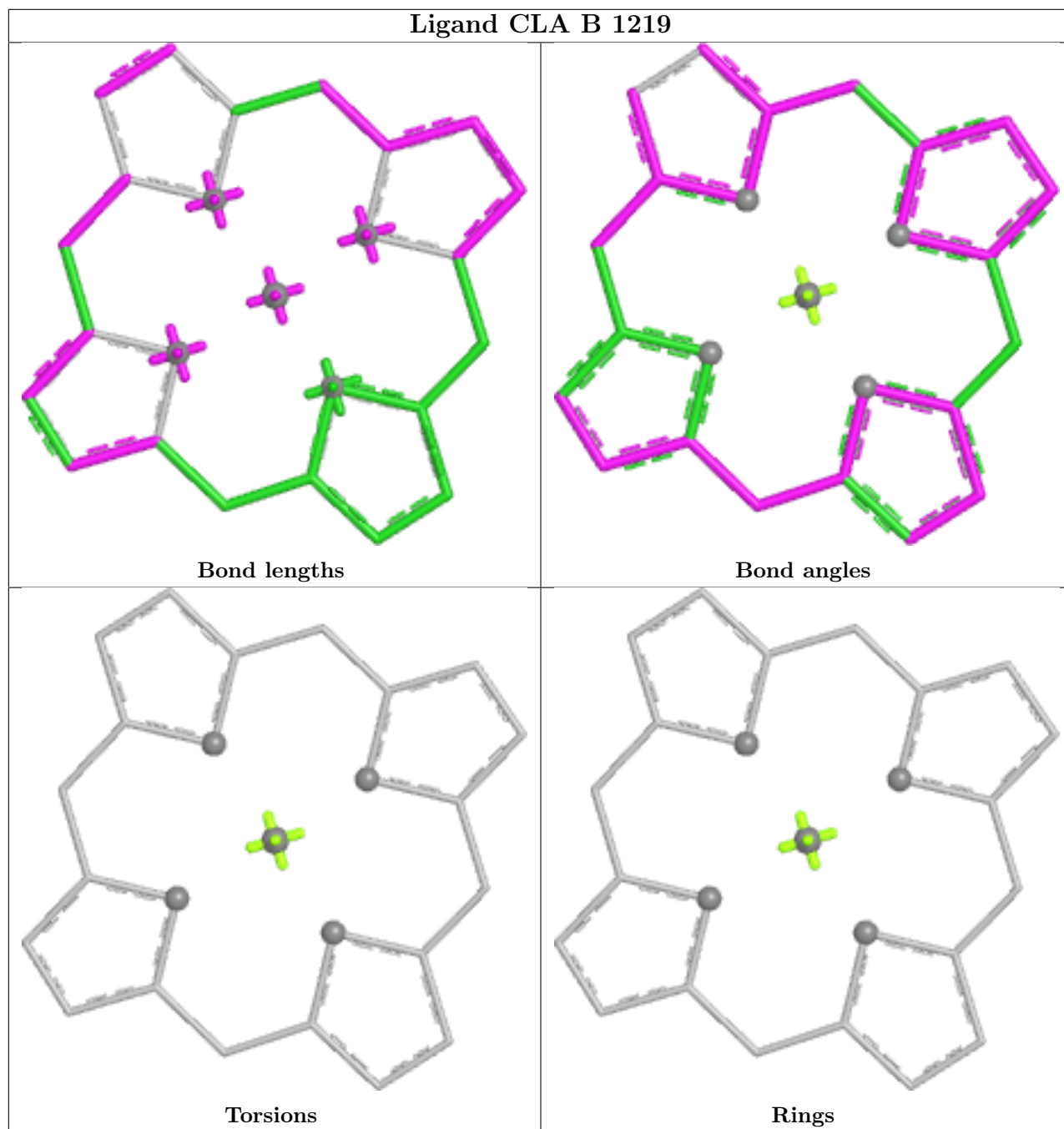
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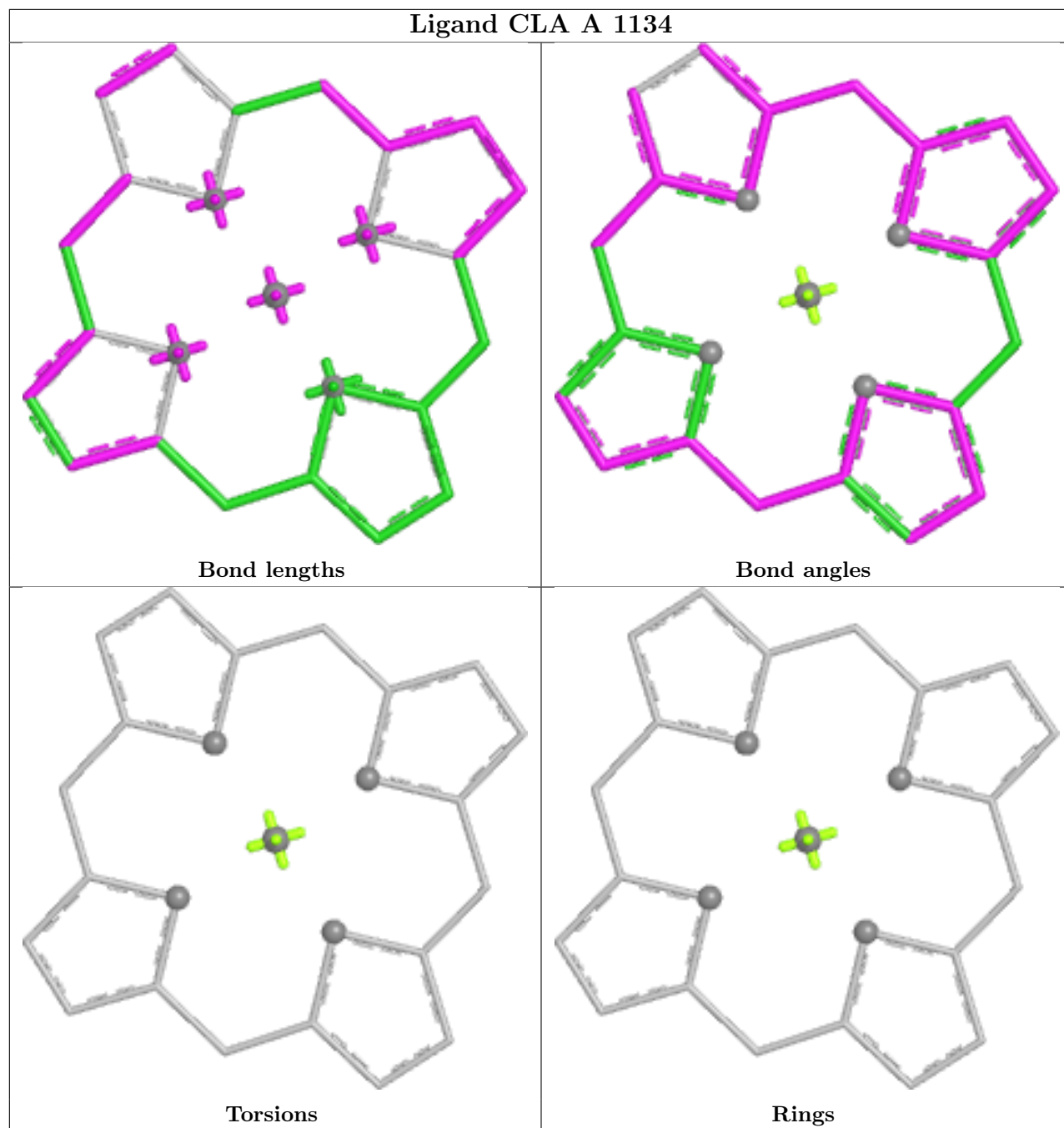




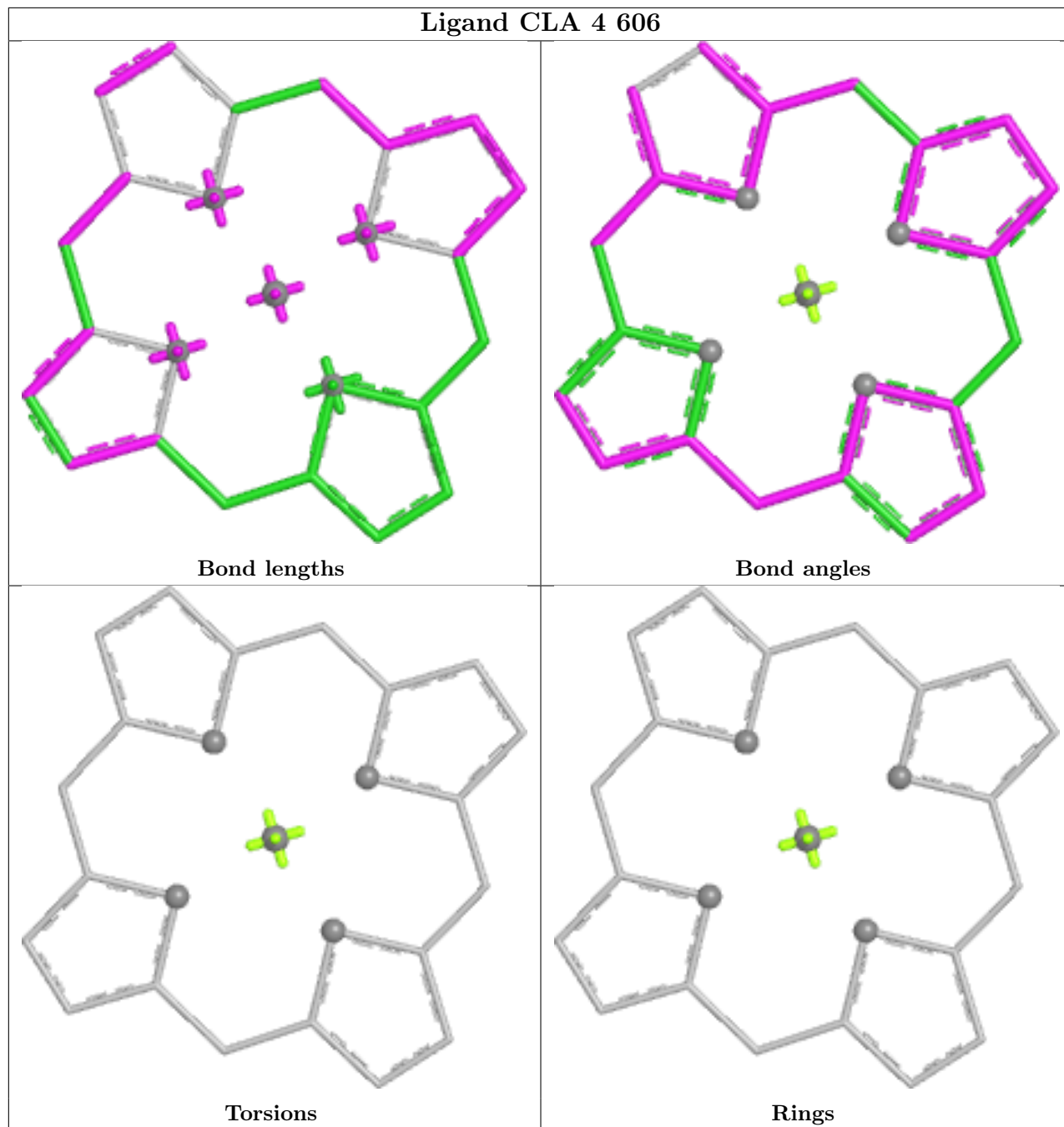




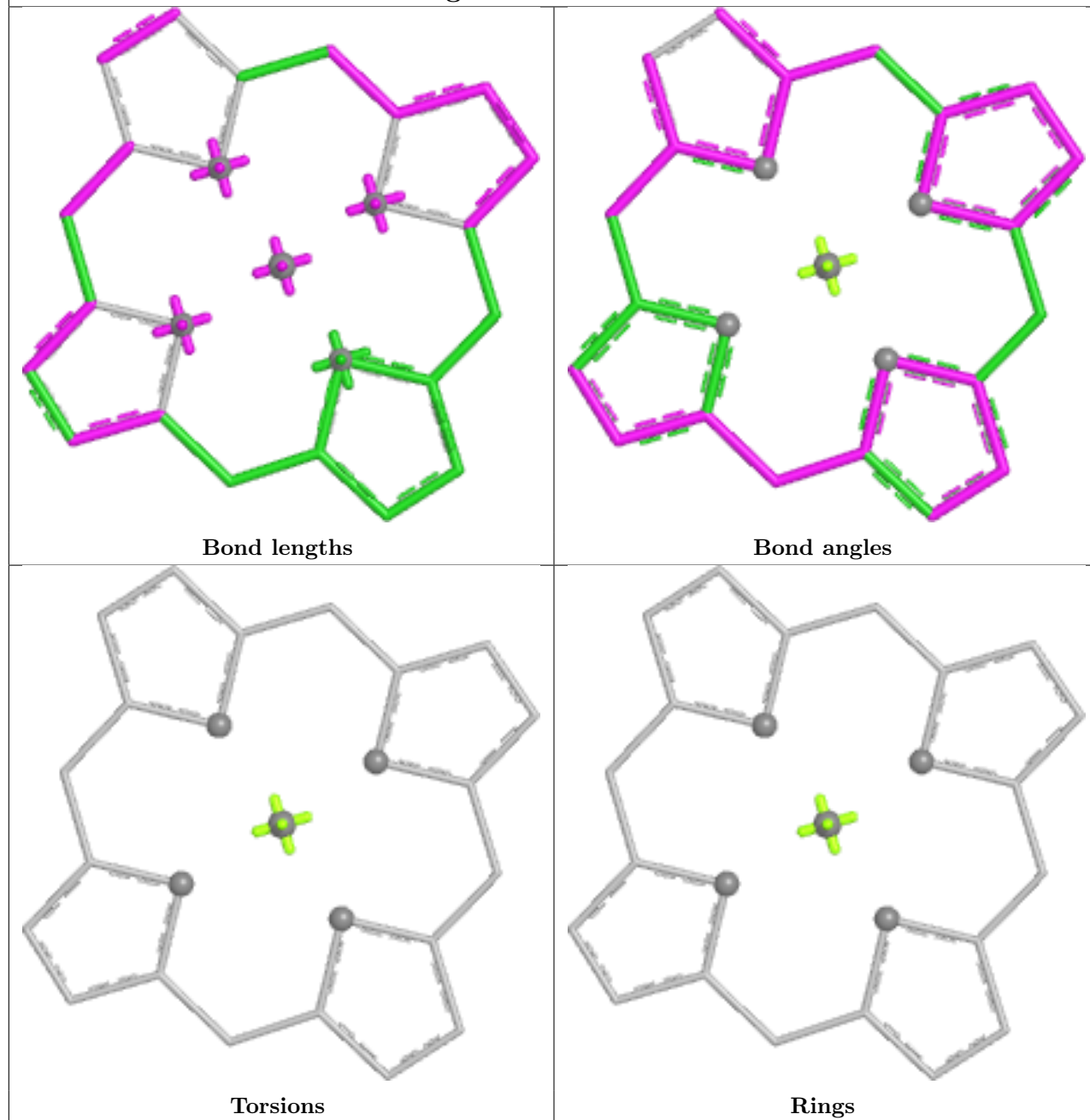


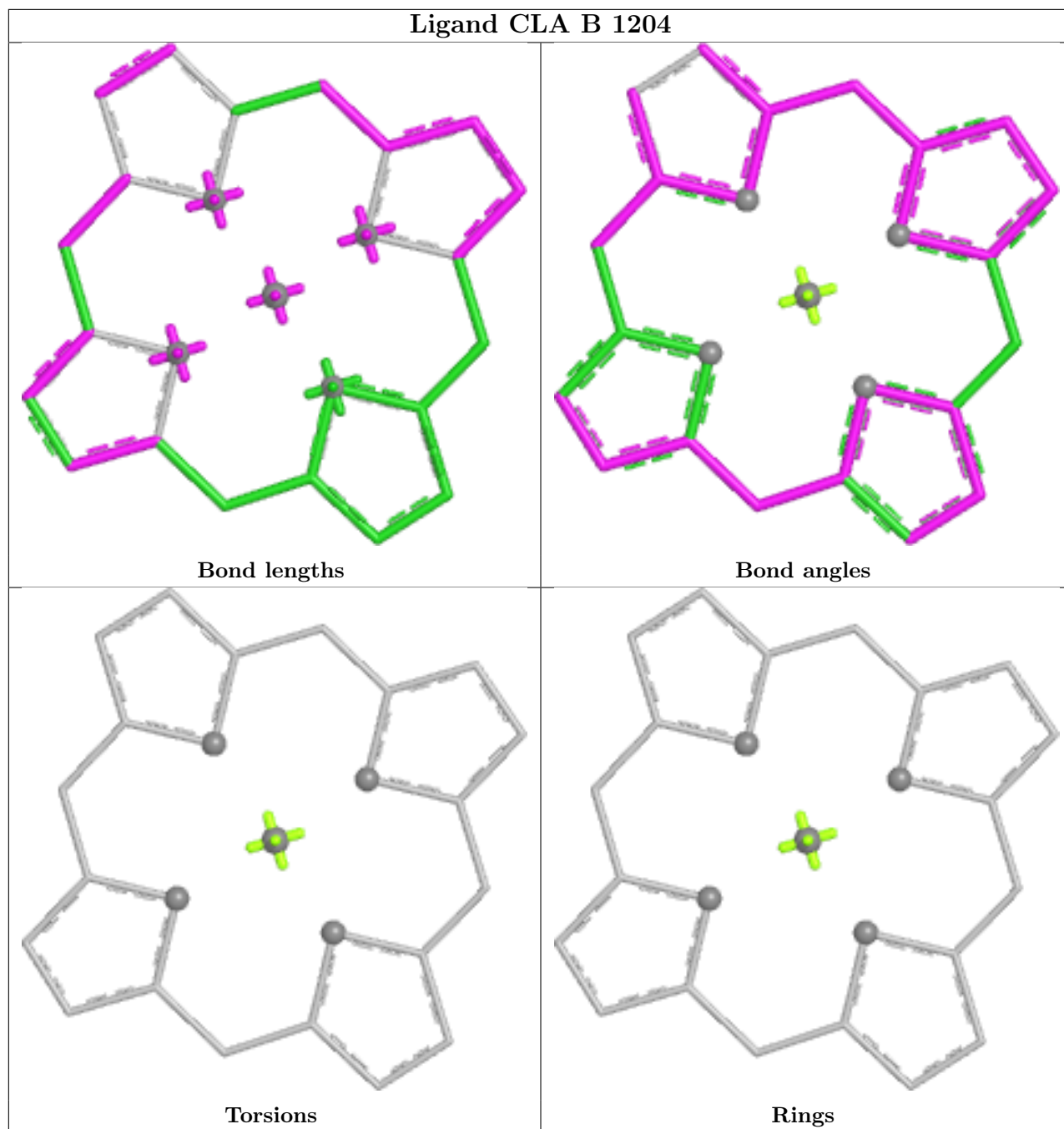


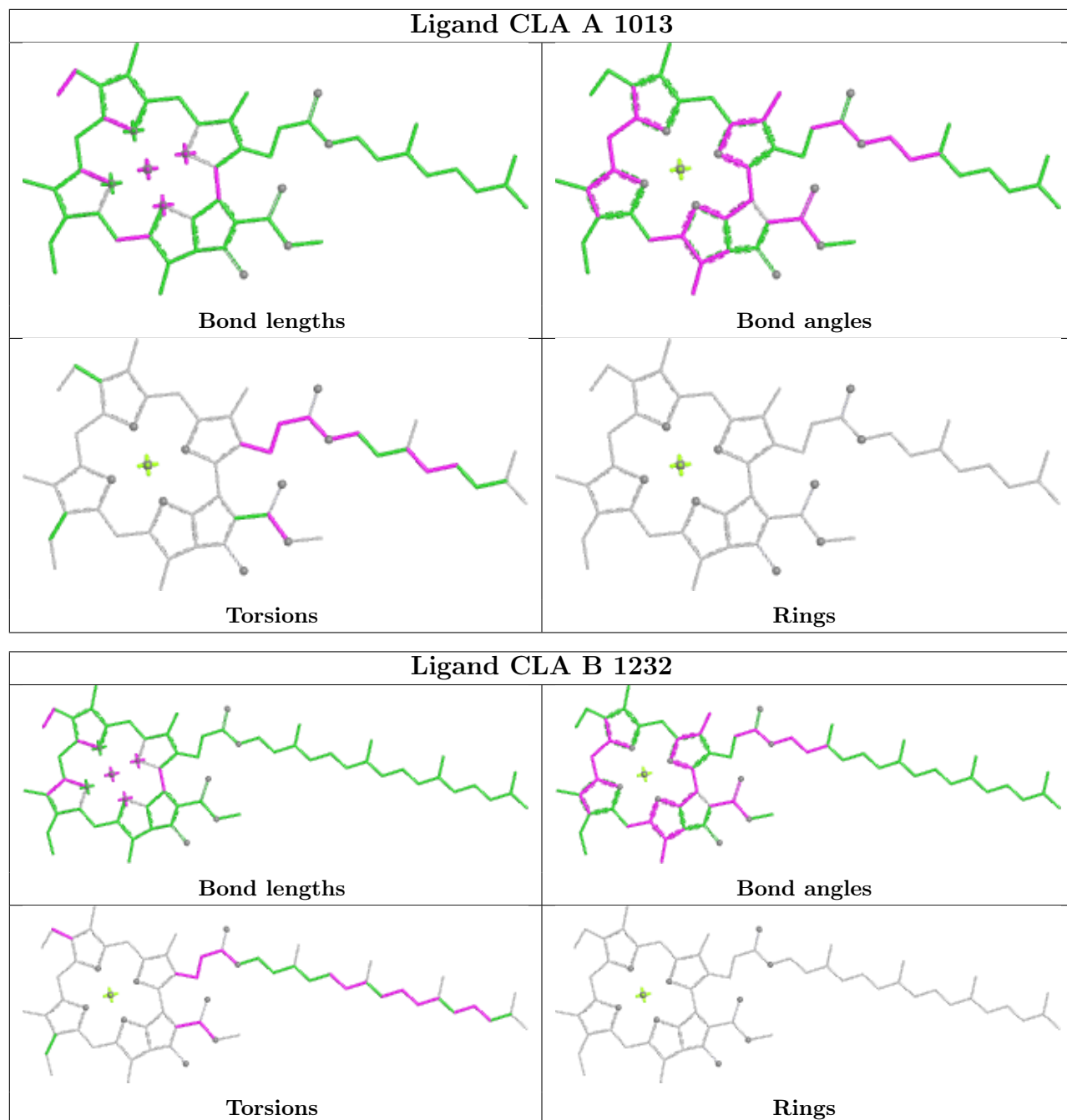
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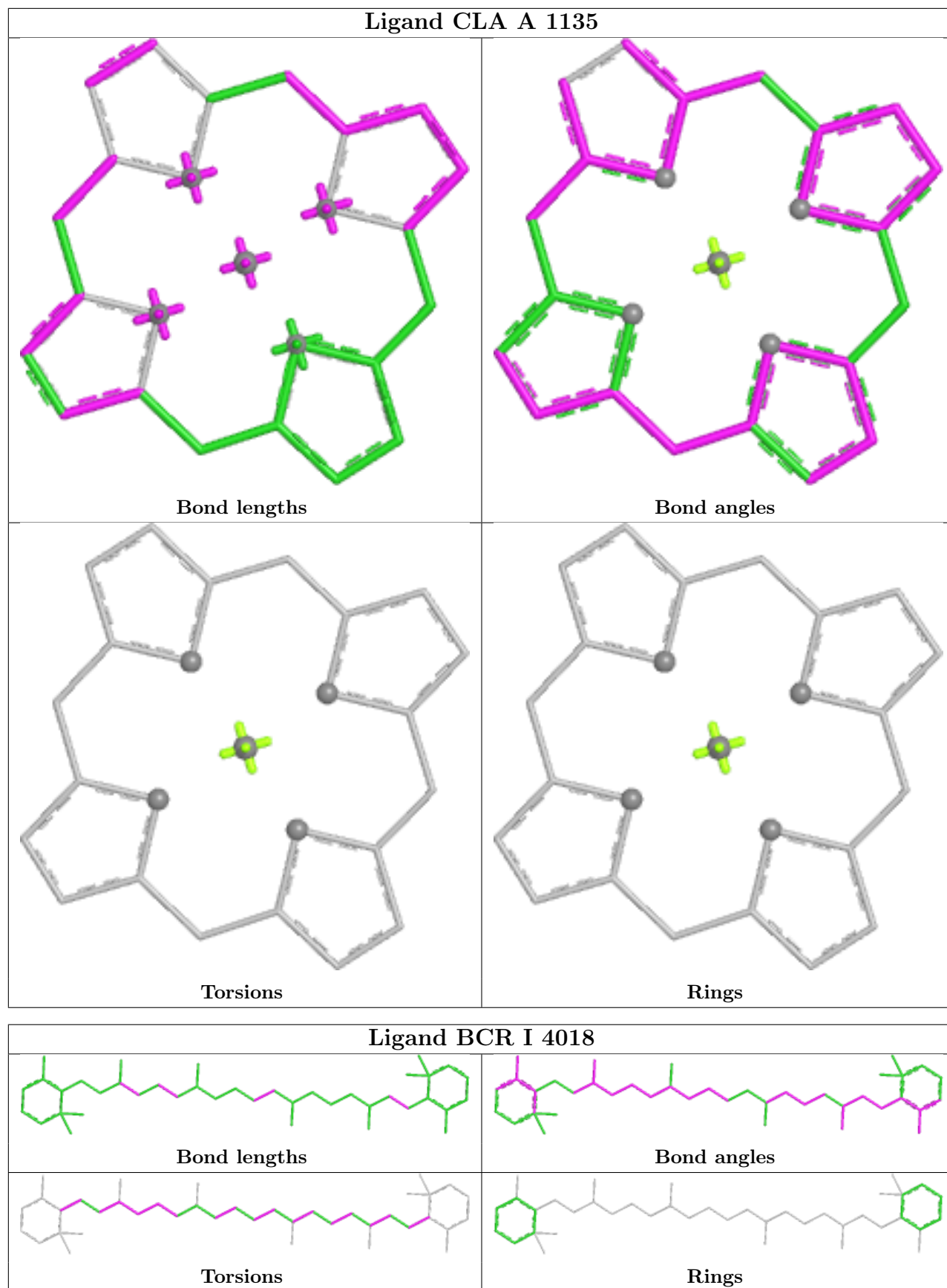


Ligand CLA A 1111

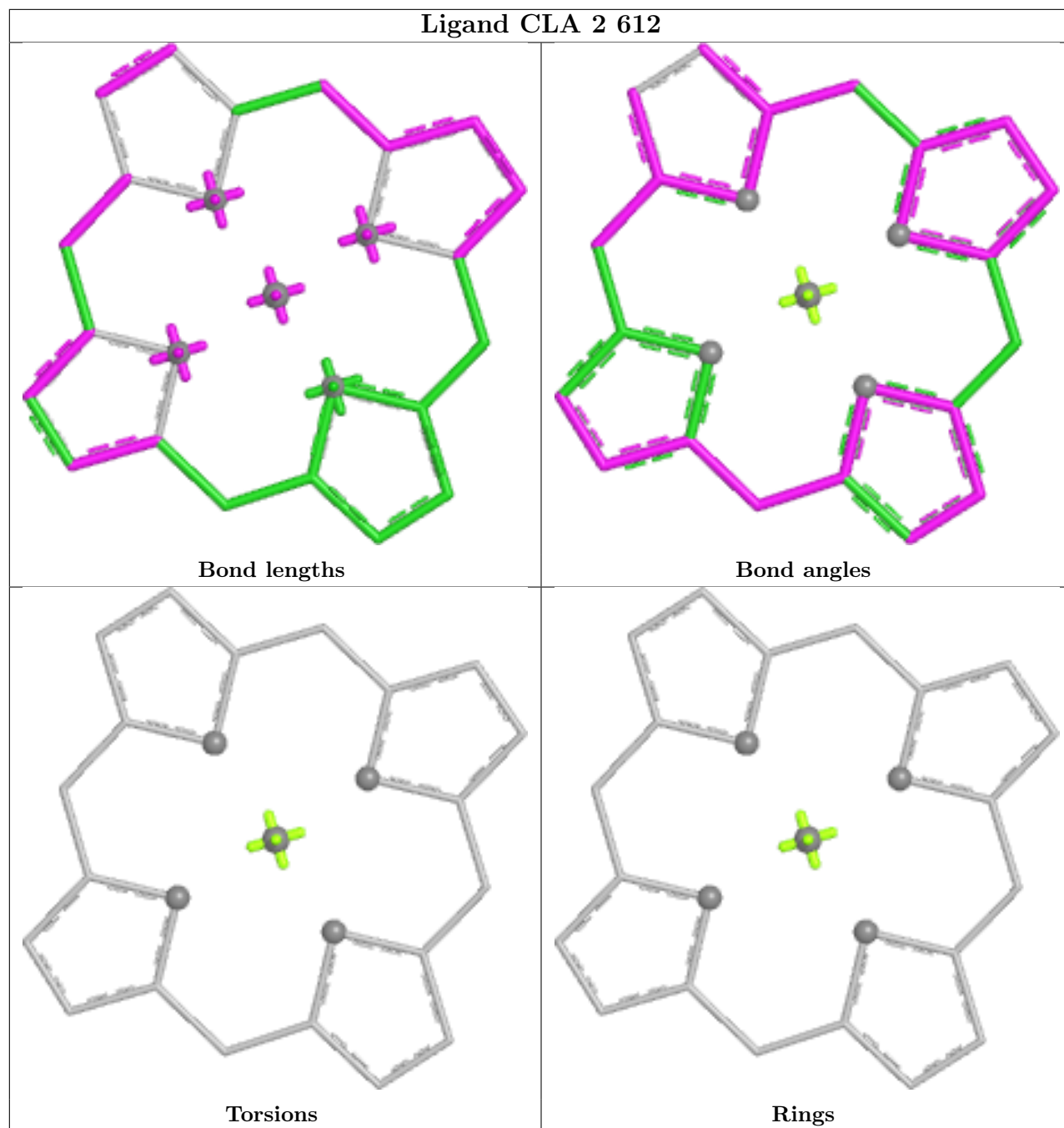


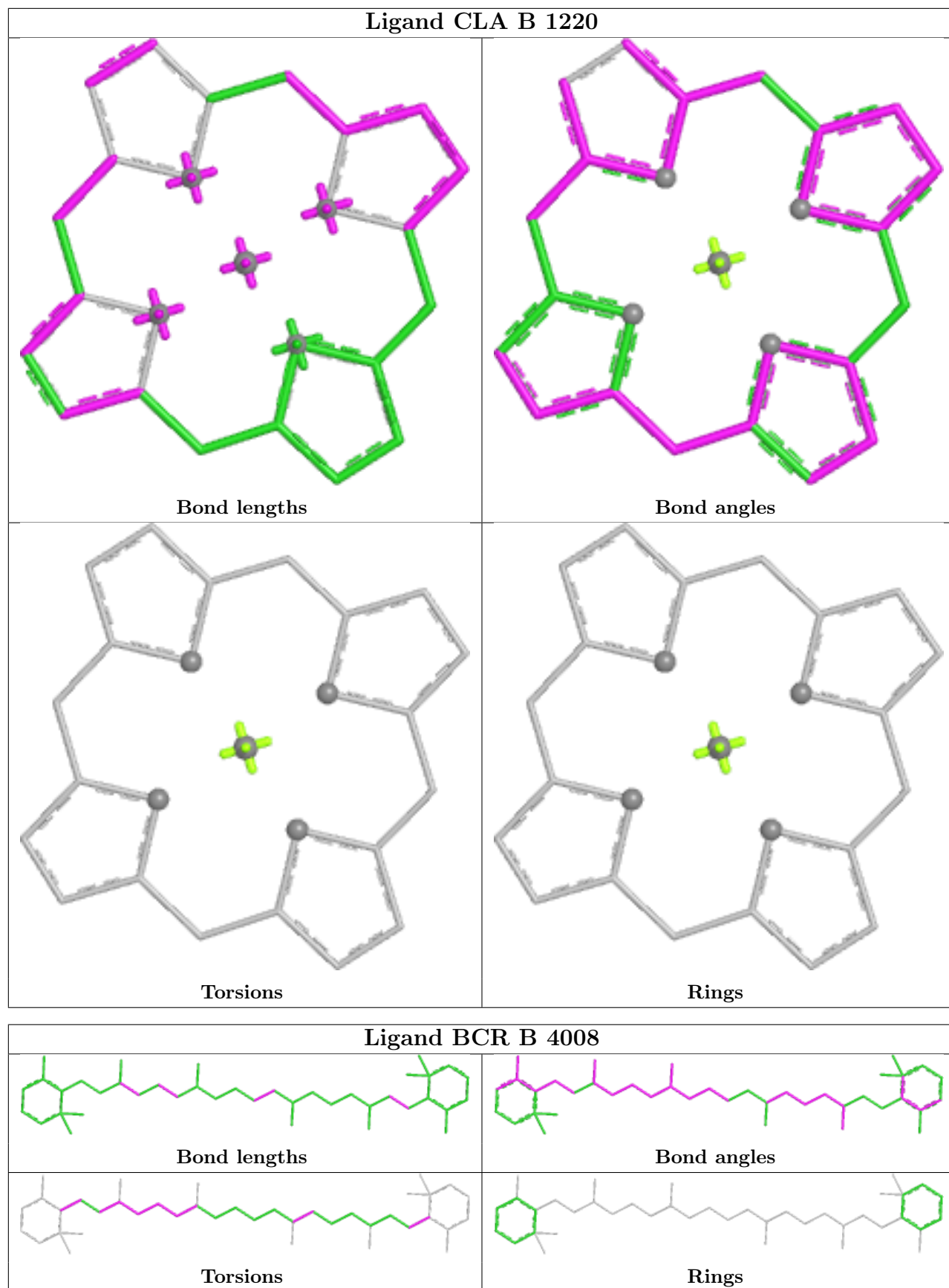


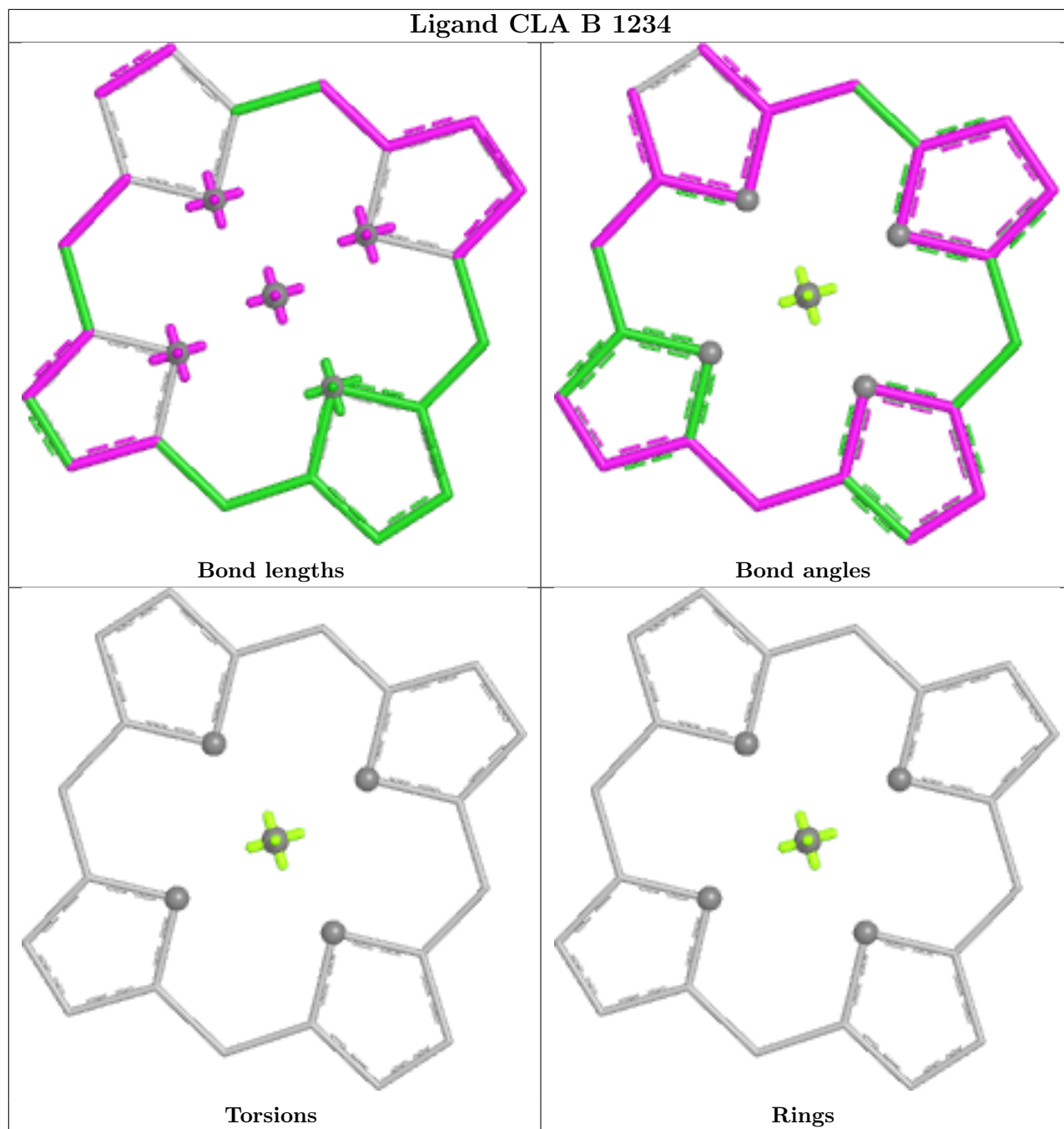


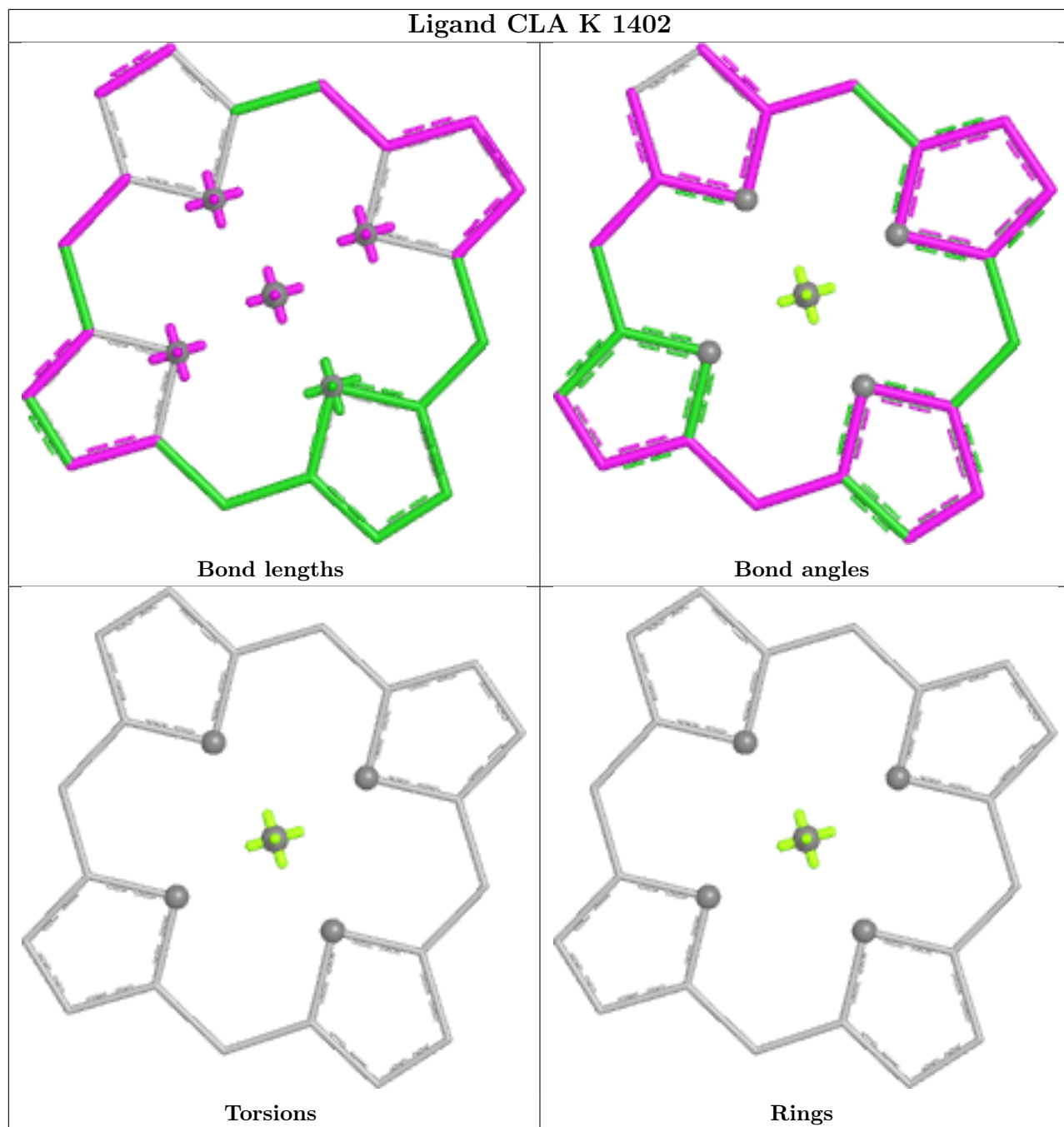


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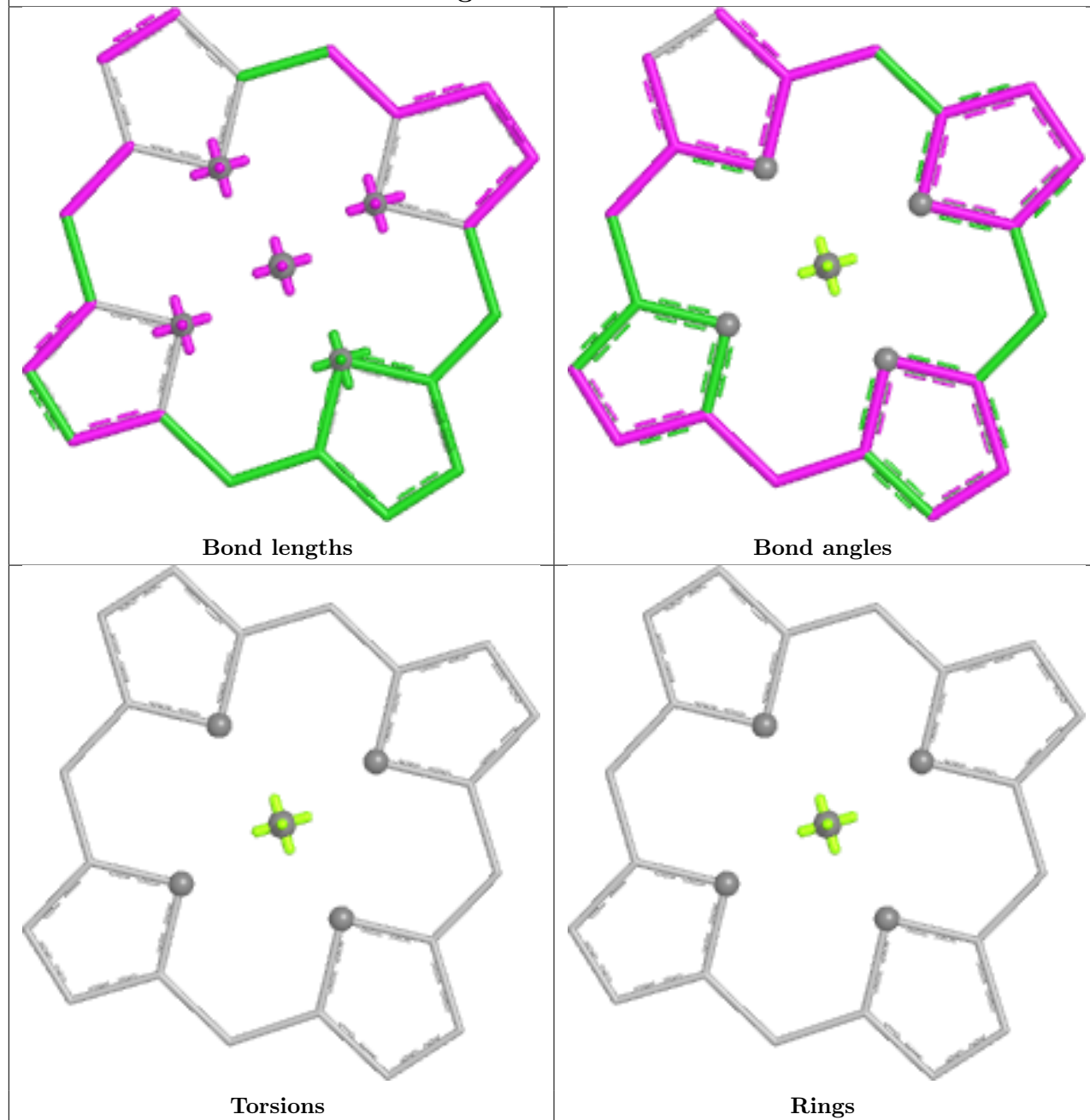


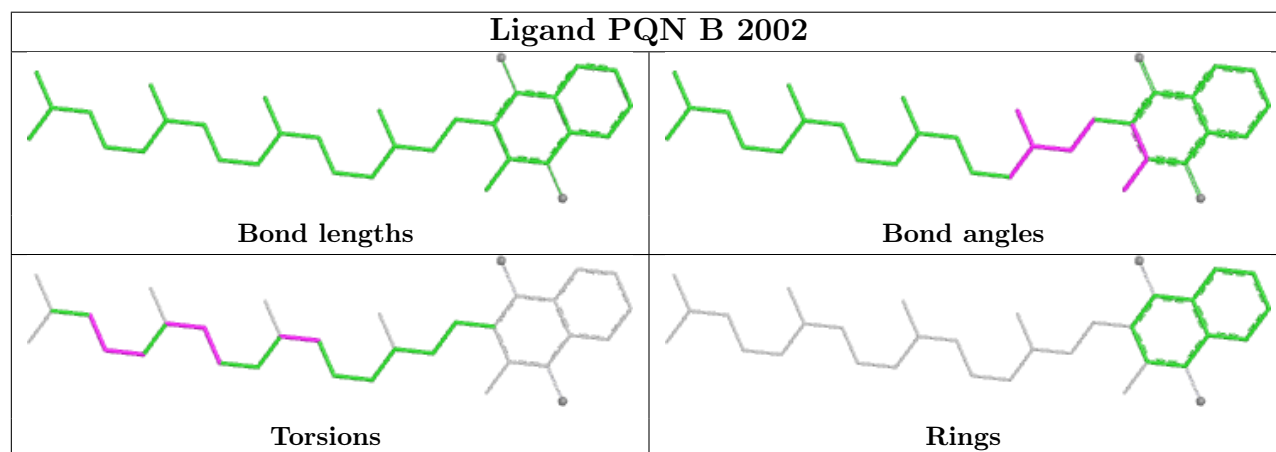
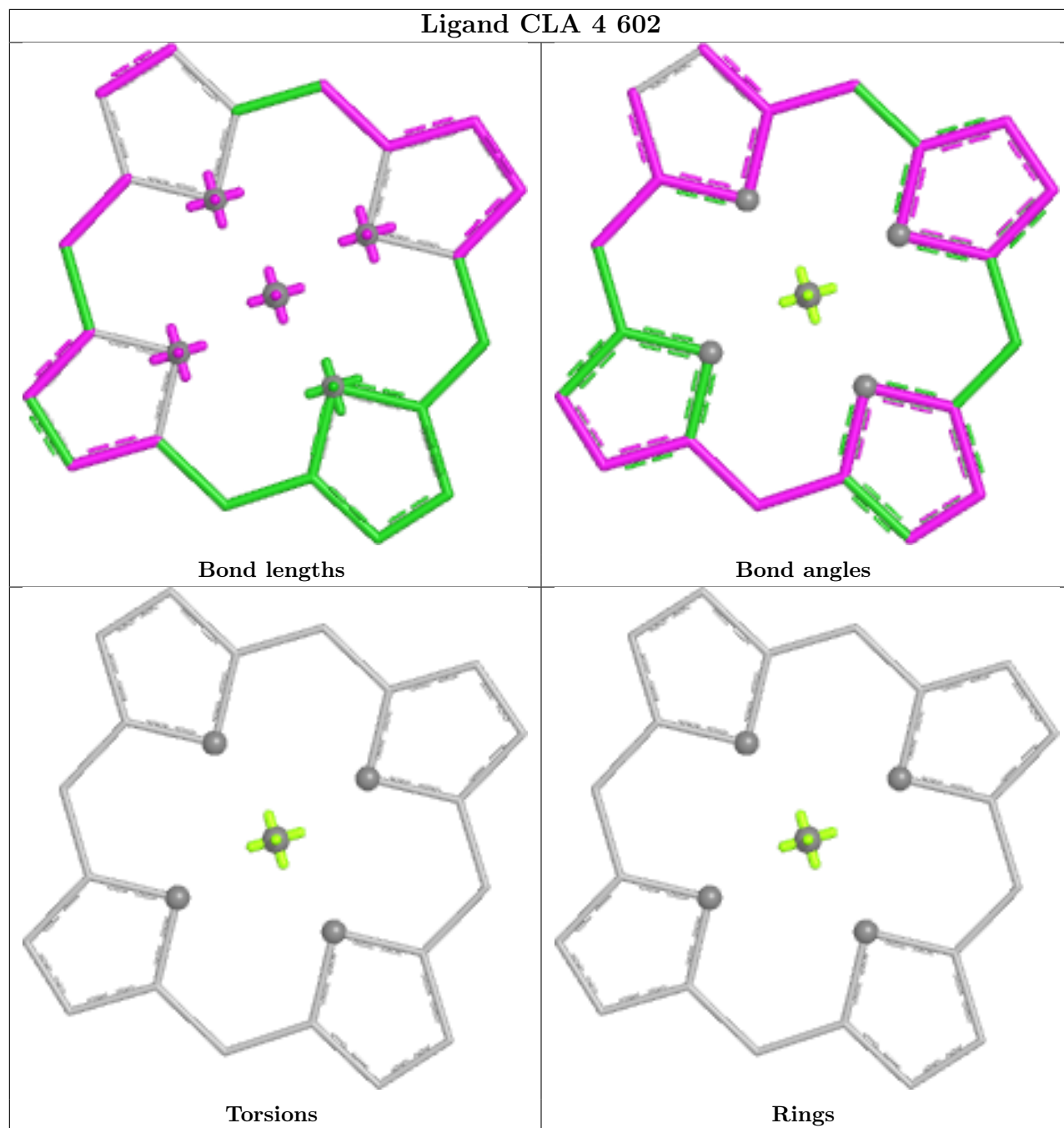


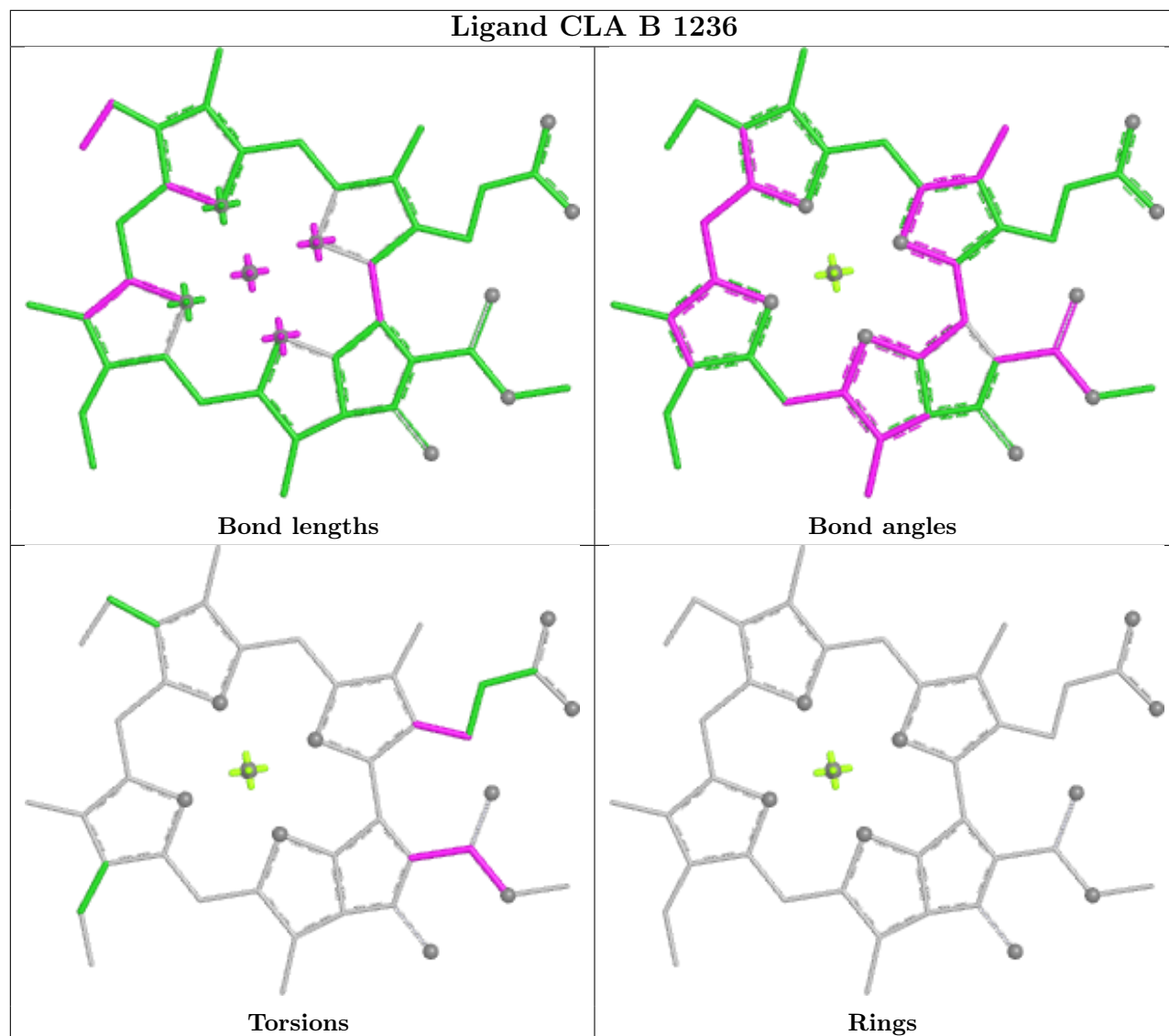




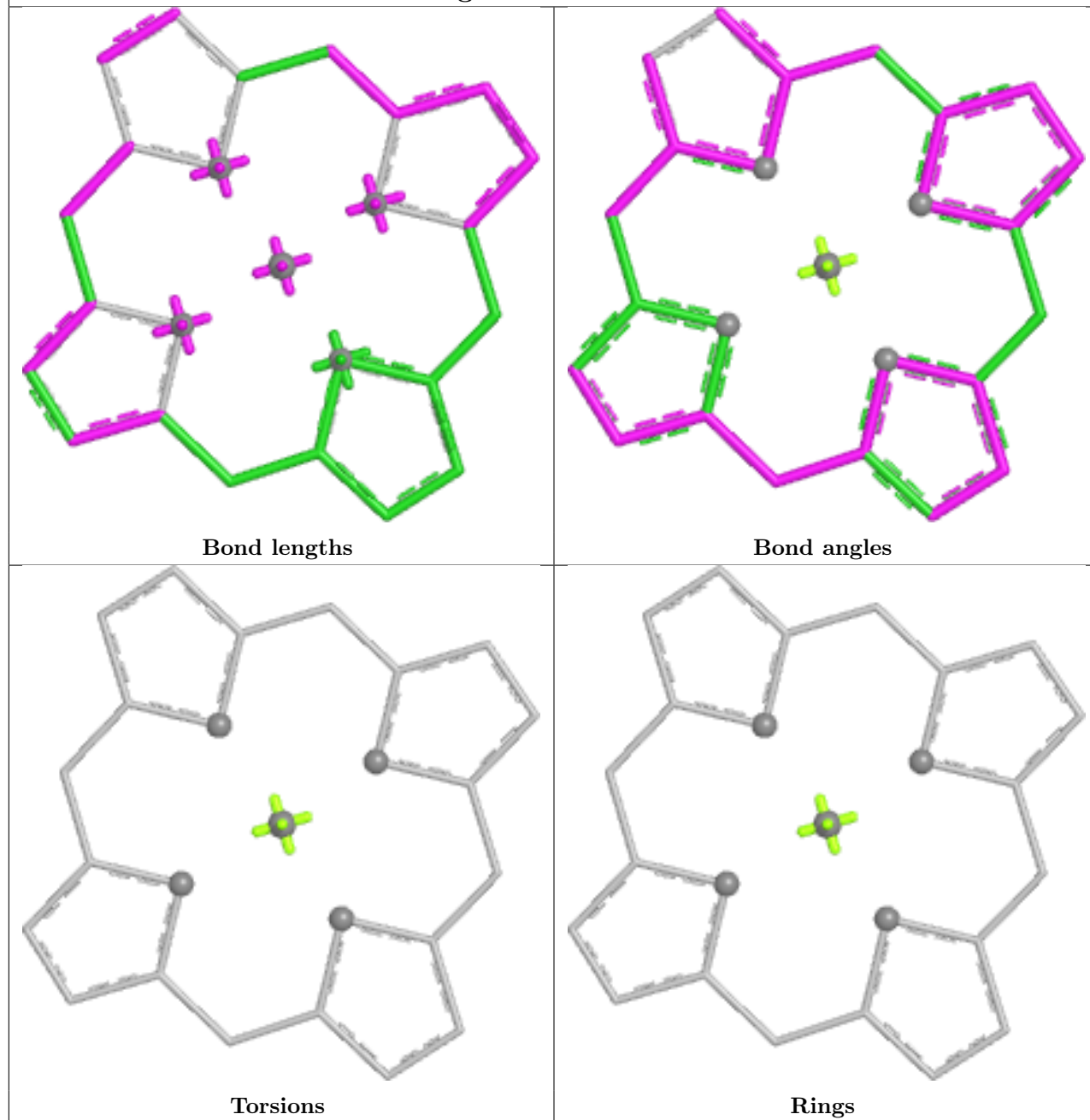
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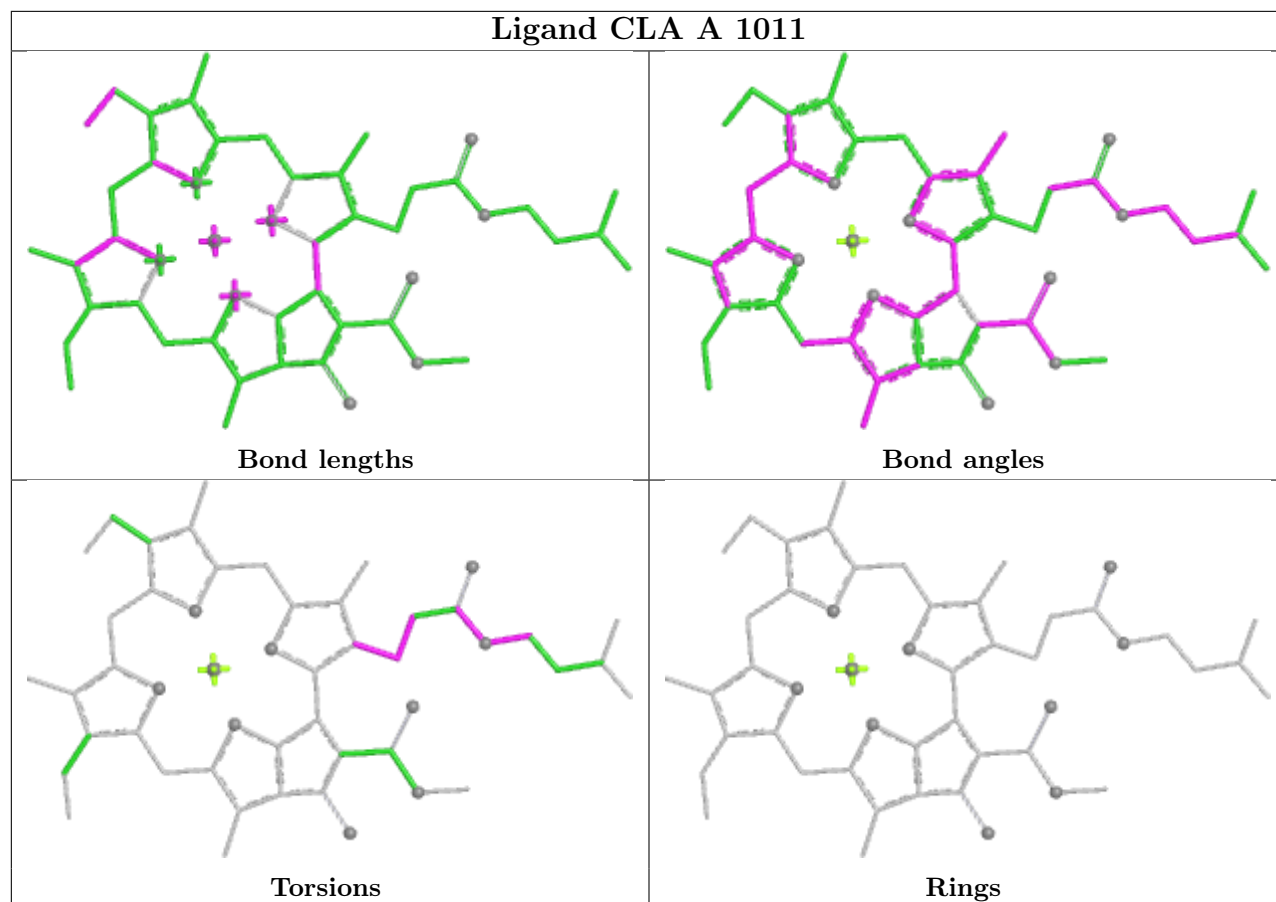




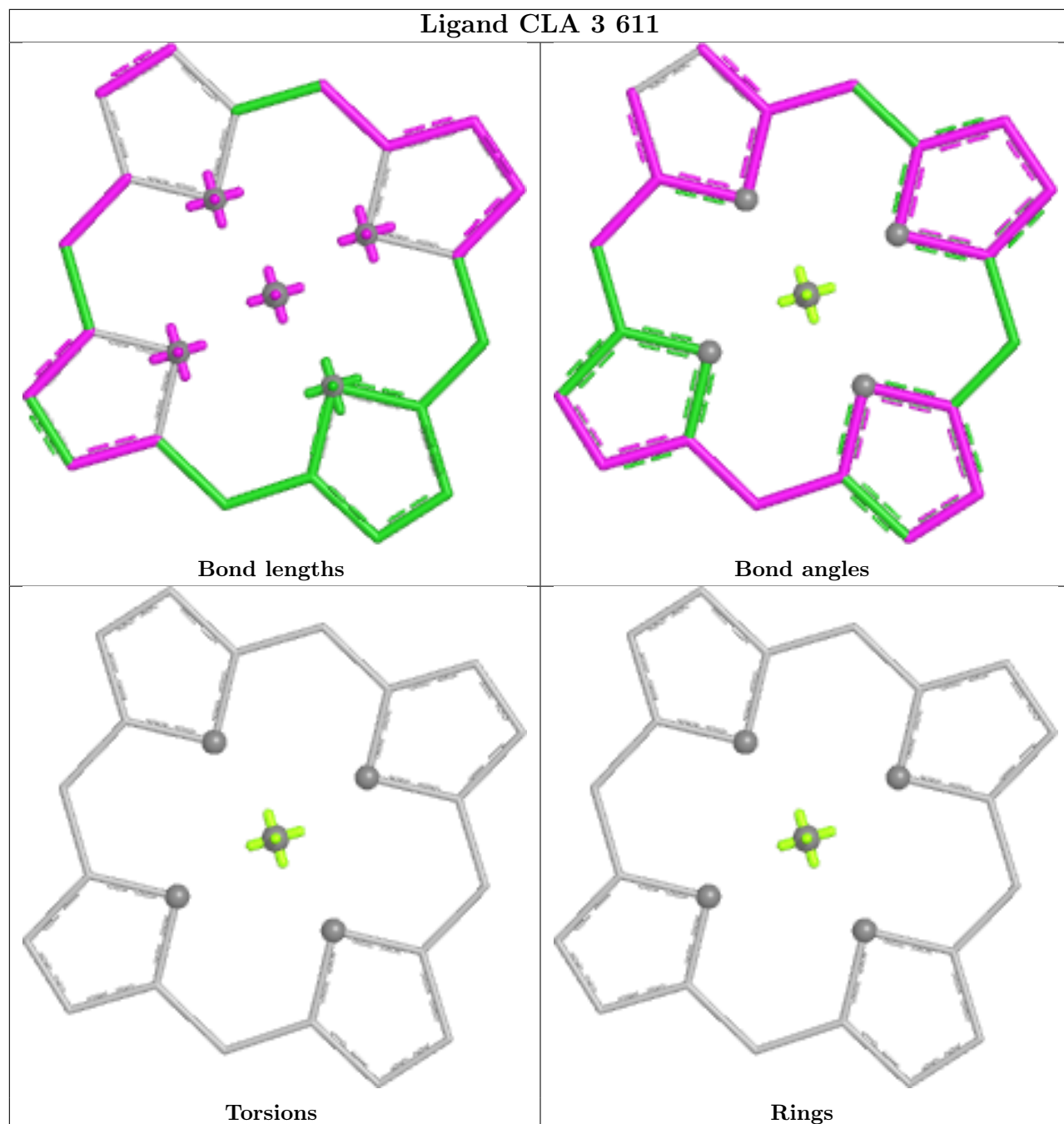


Ligand CLA 2 613

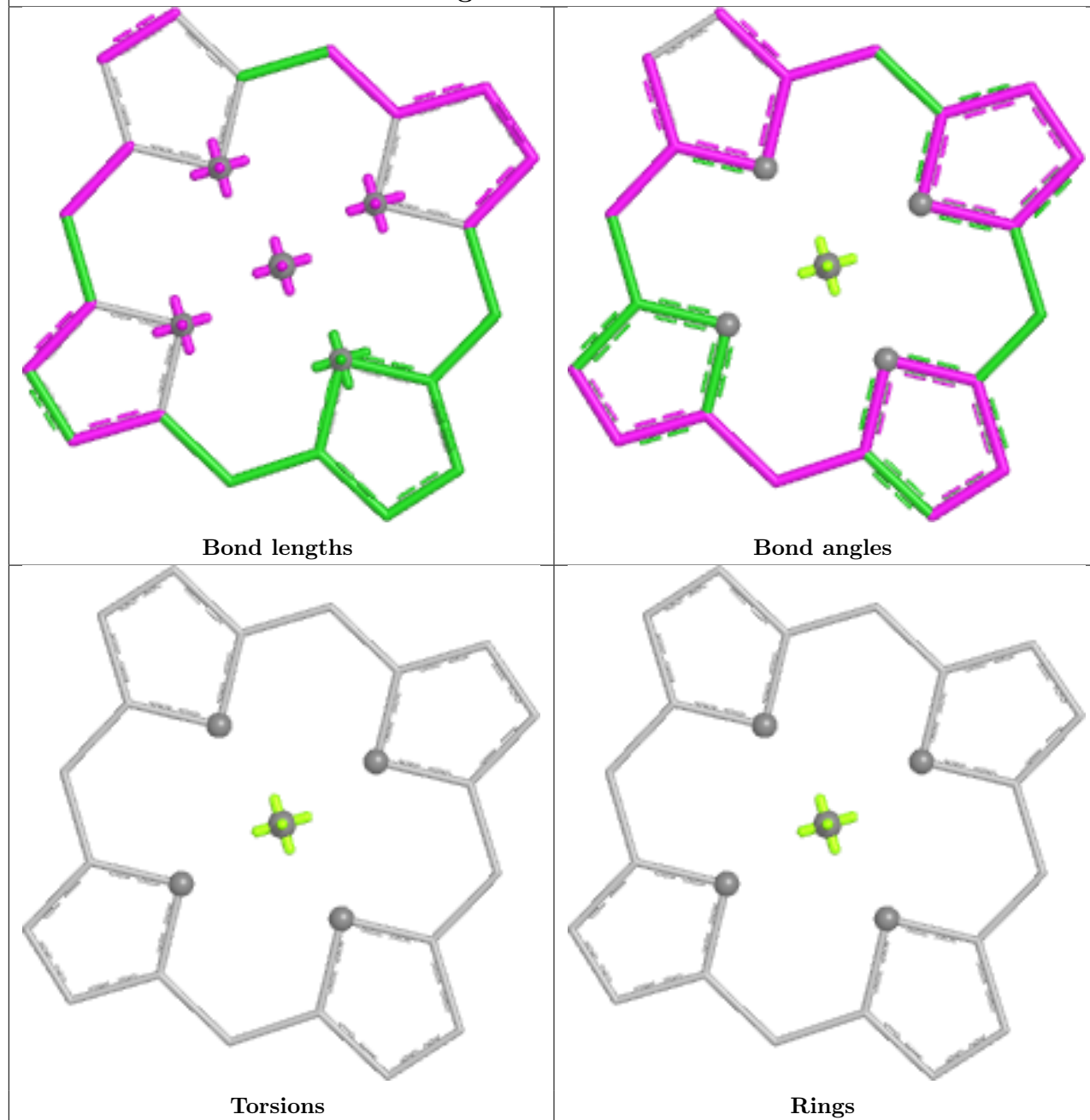


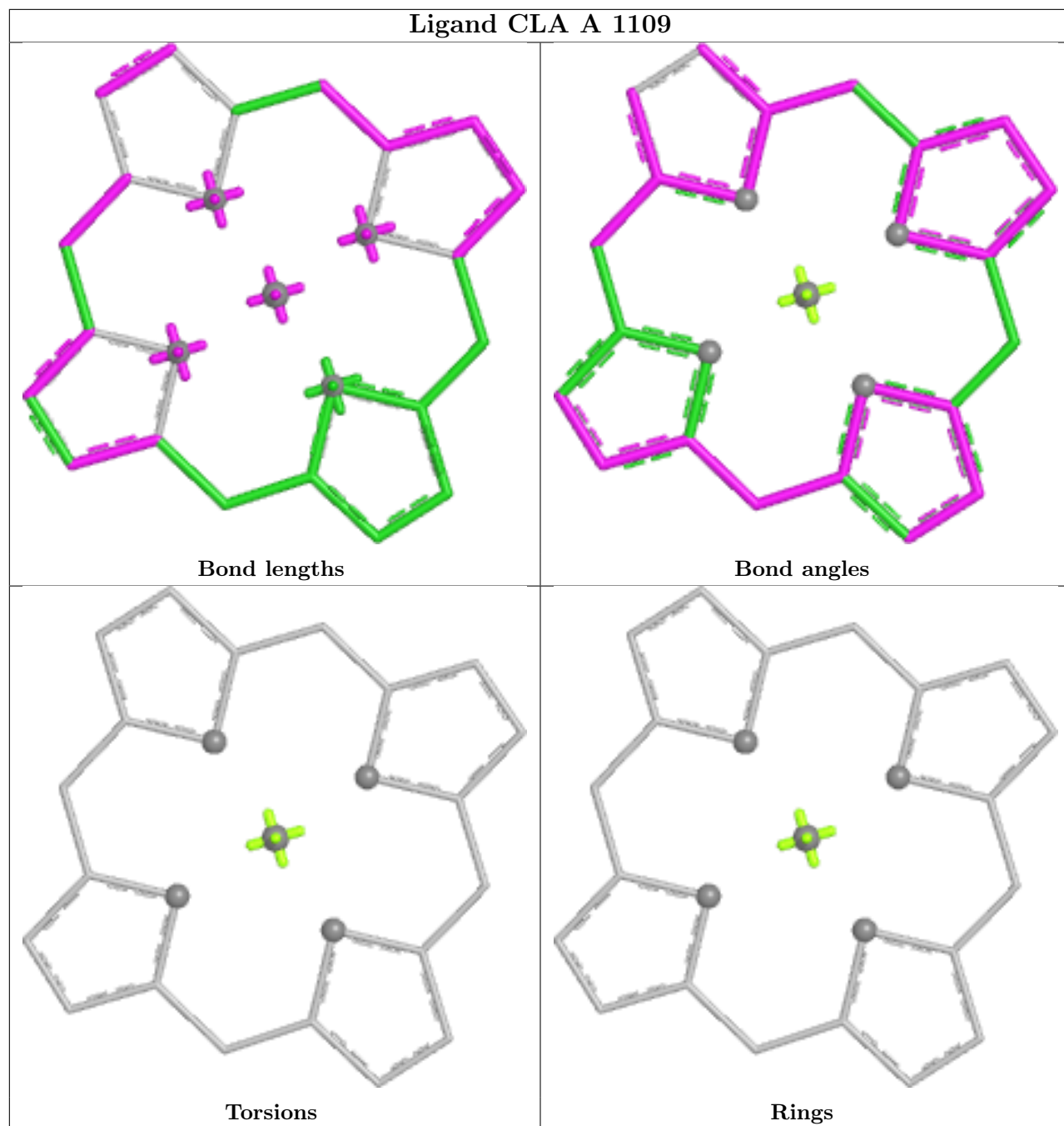


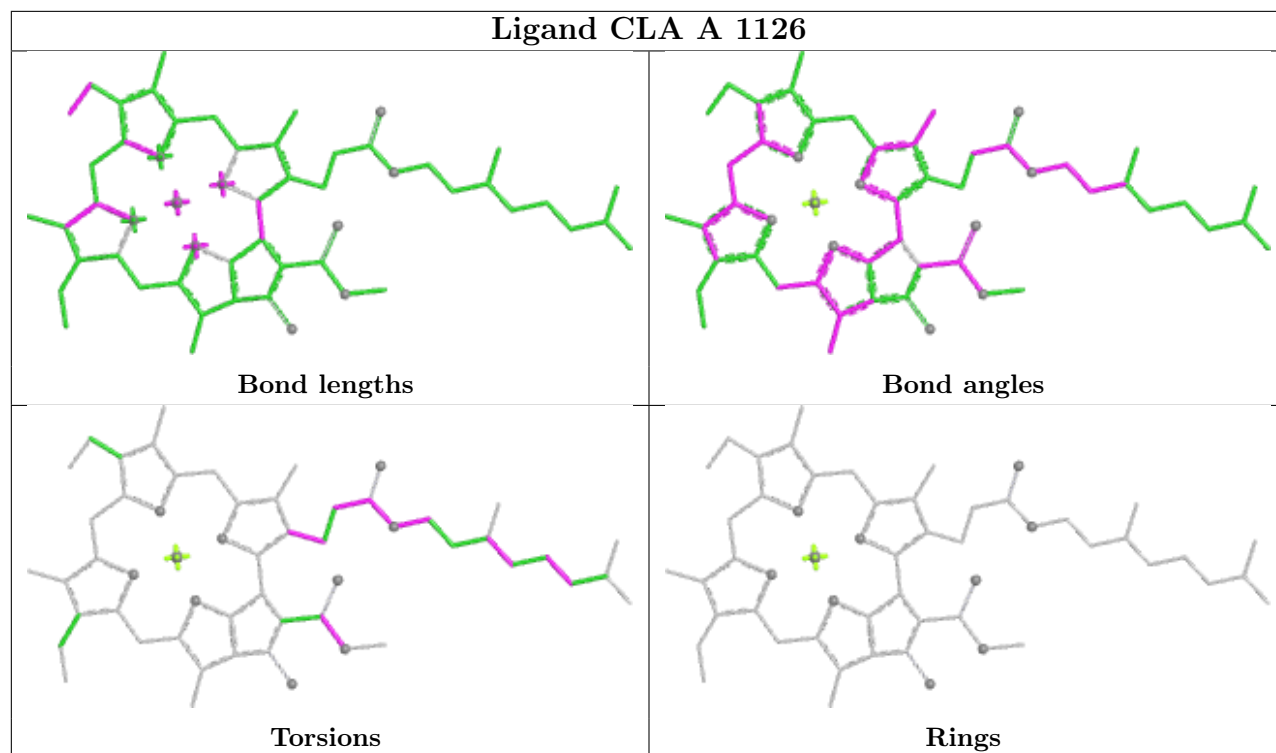
Ligand CLA 3 611

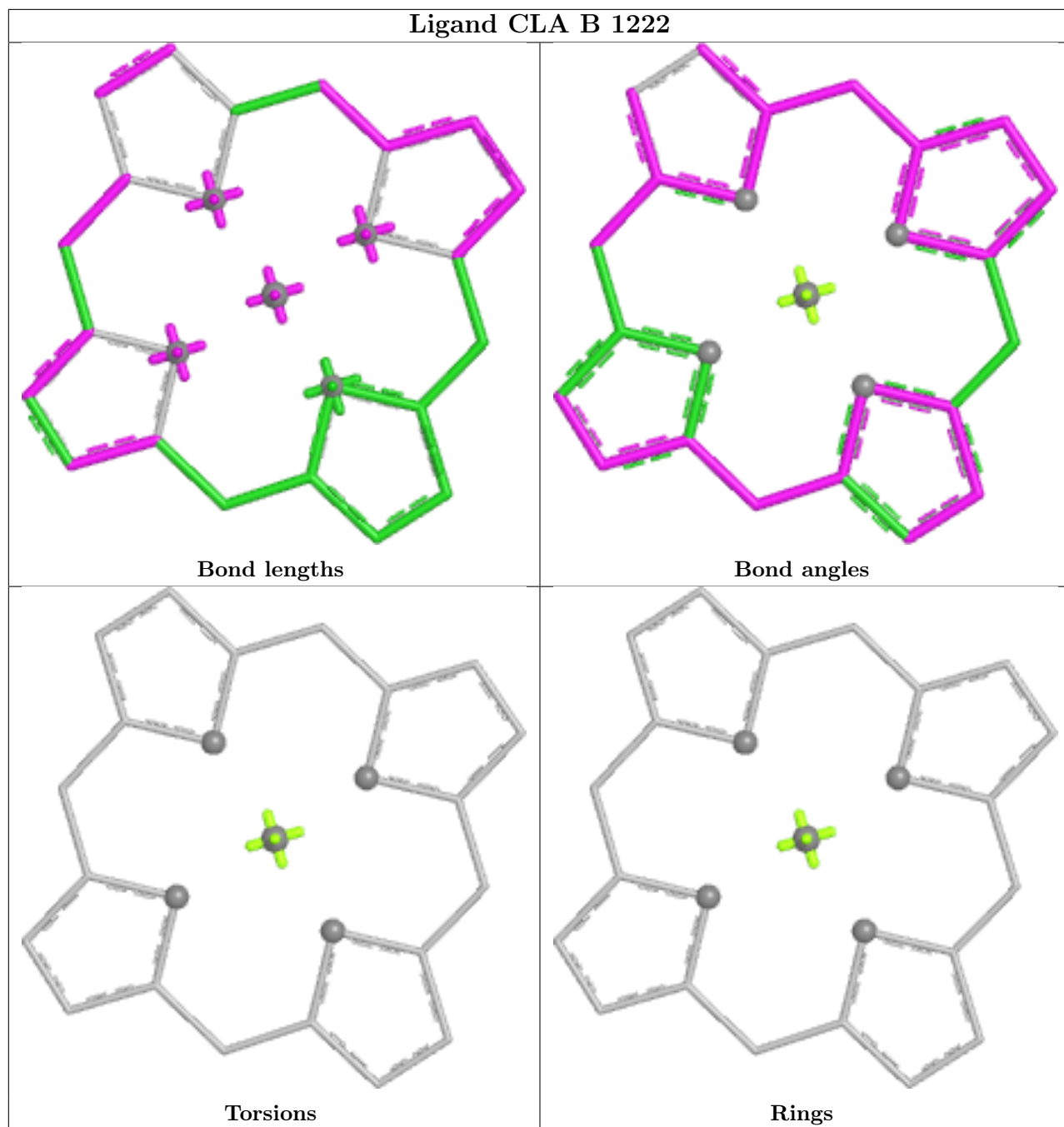


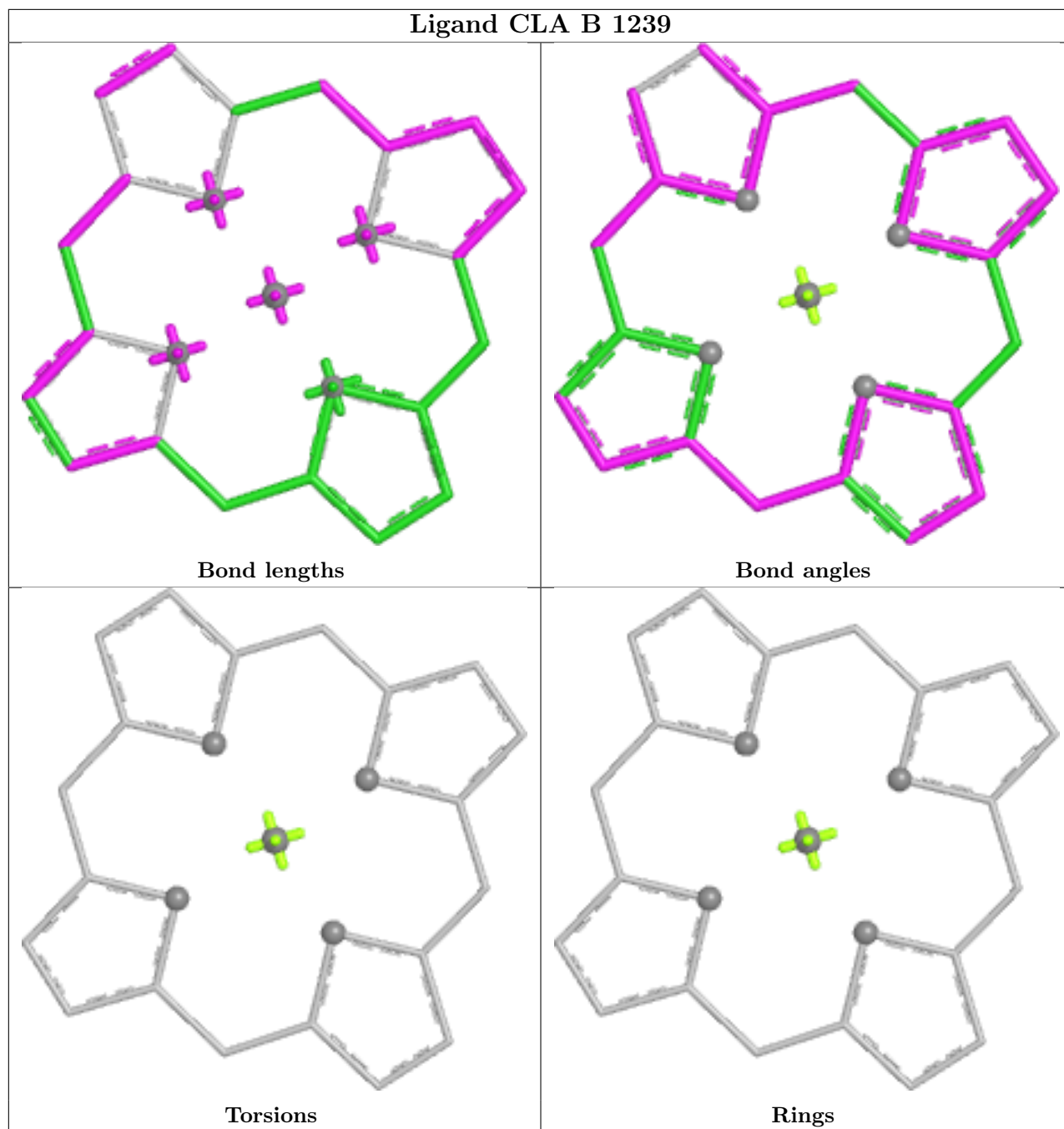
Ligand CLA 3 614

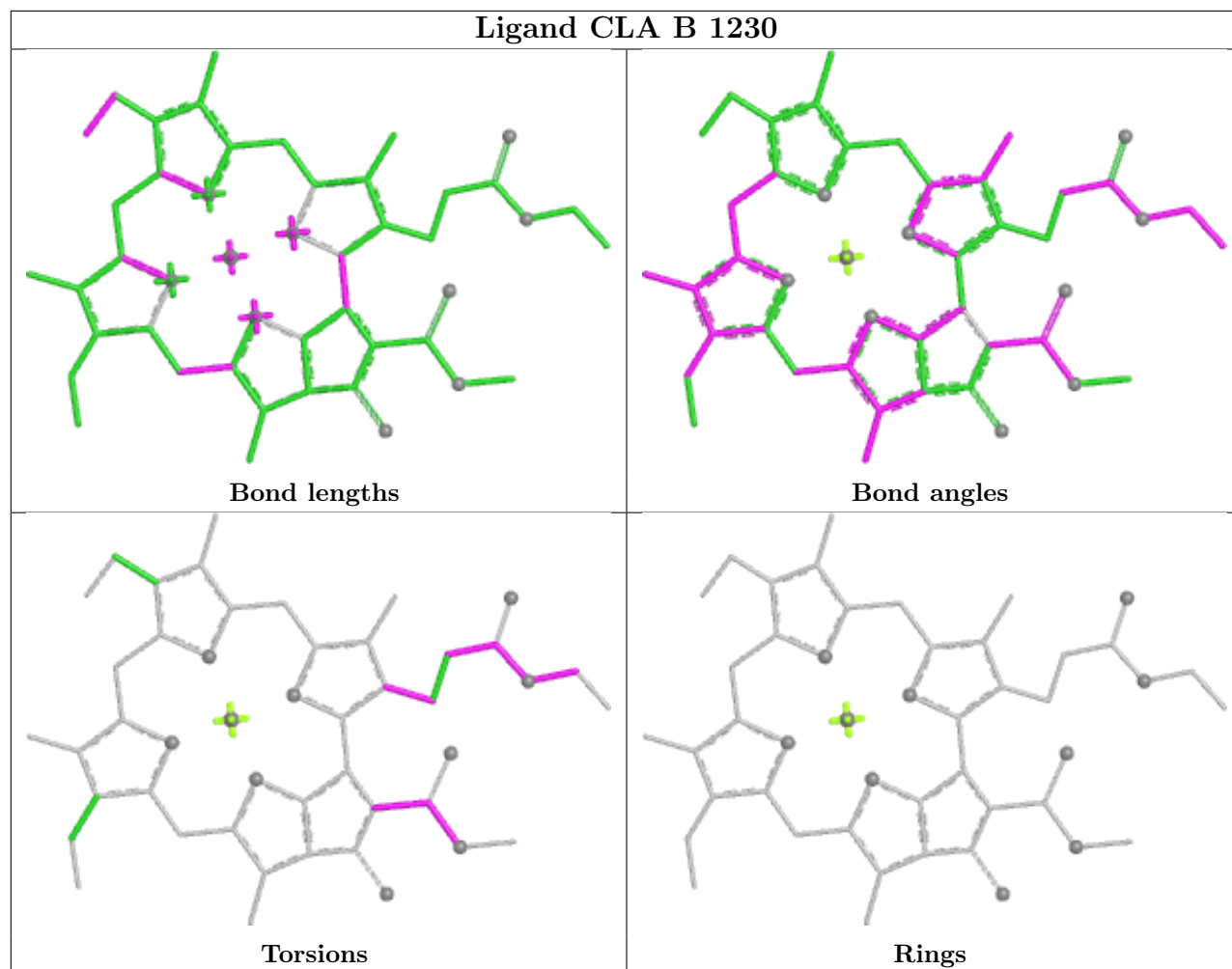


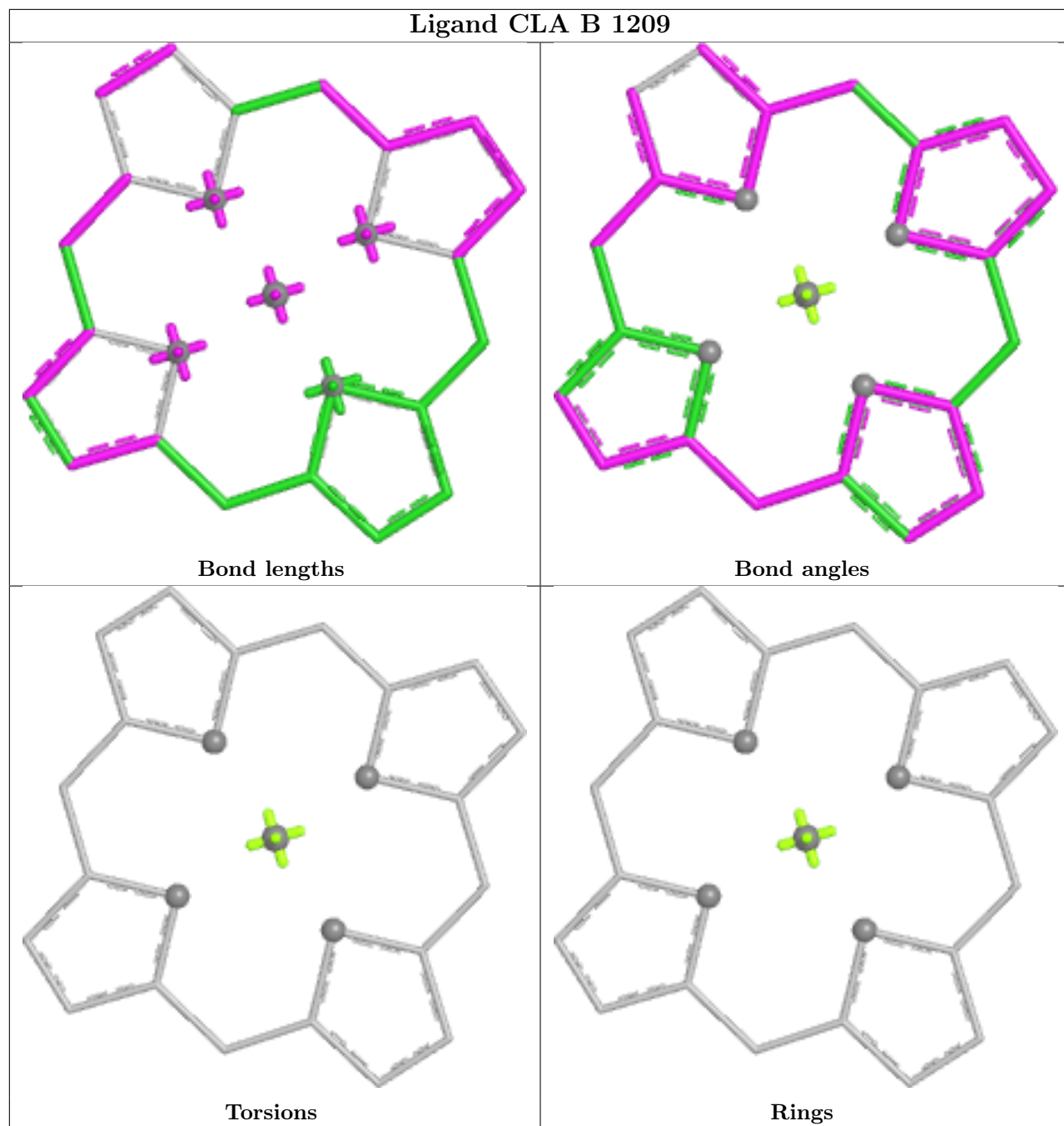


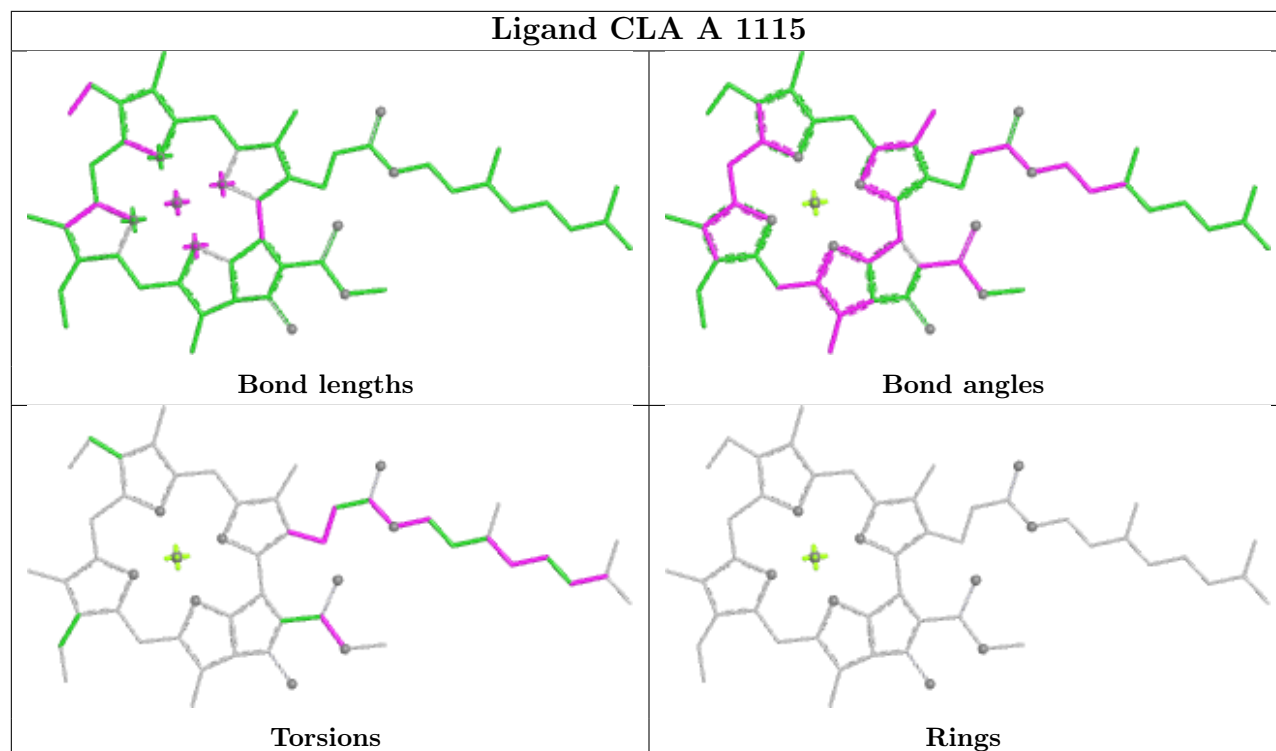


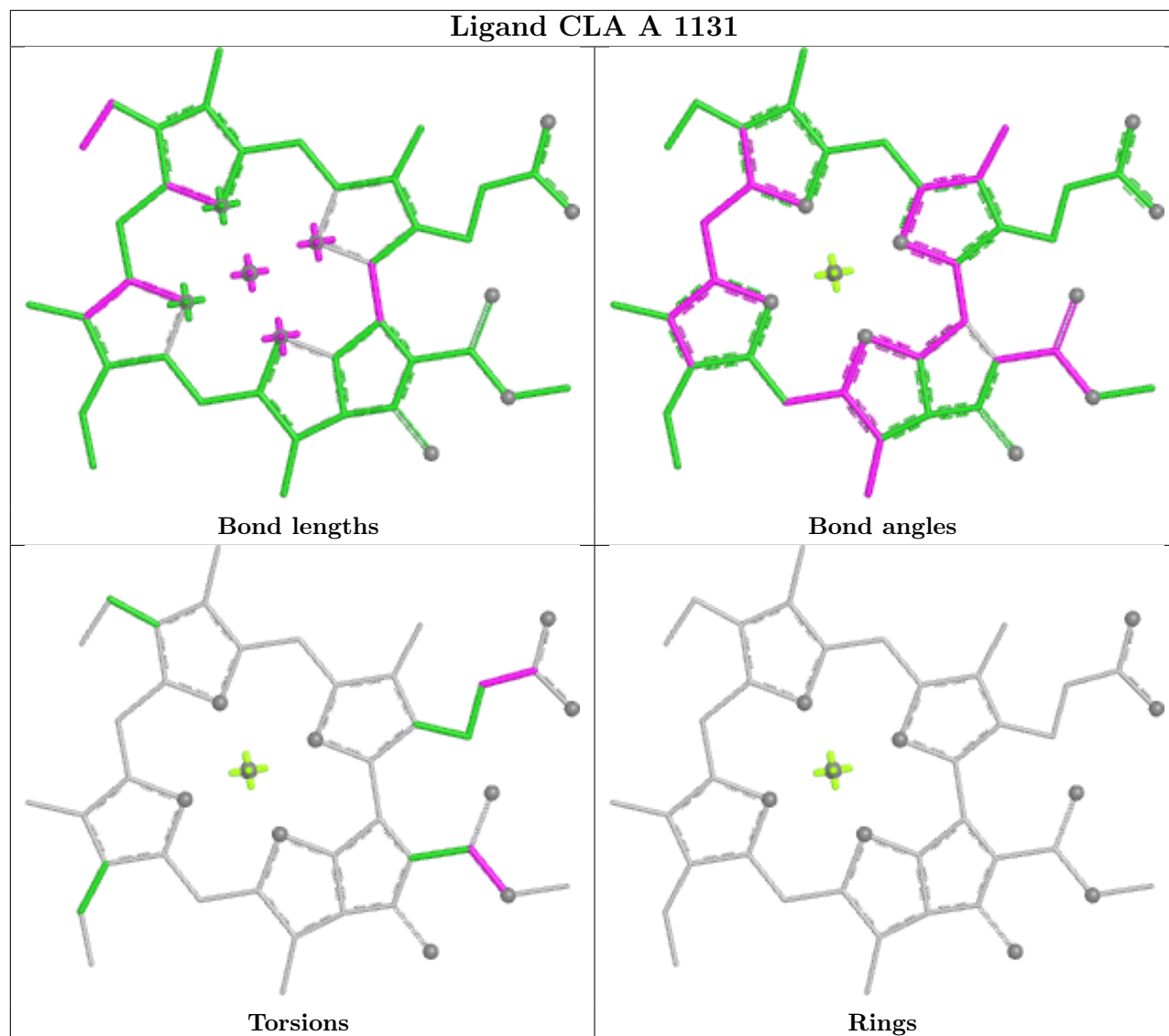




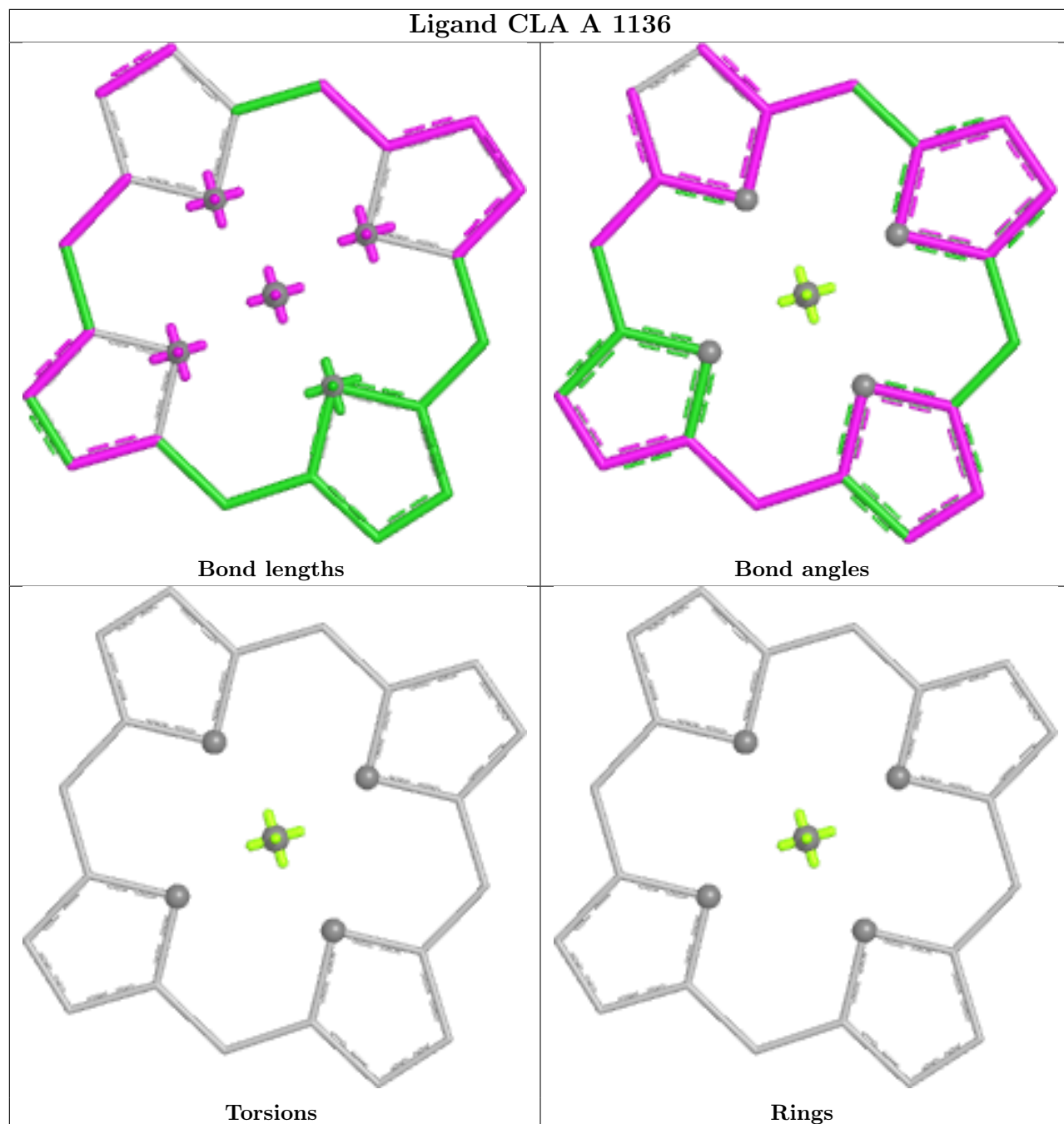


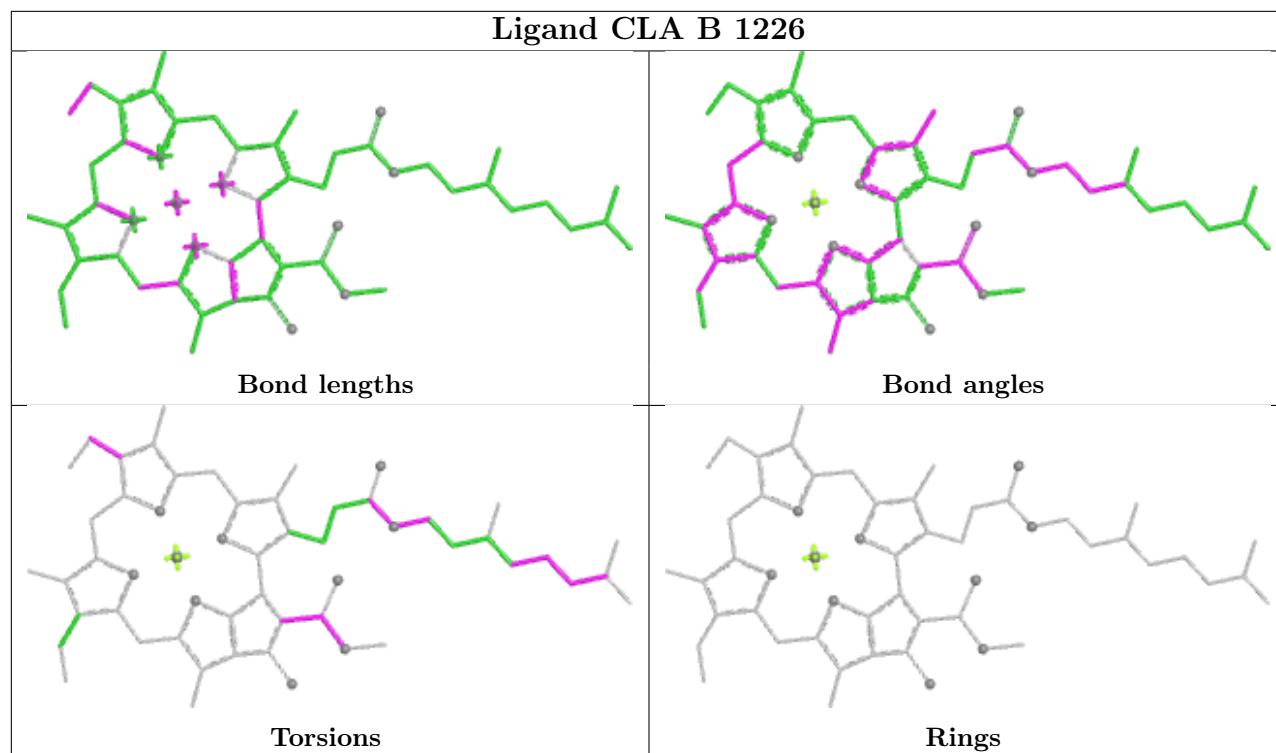




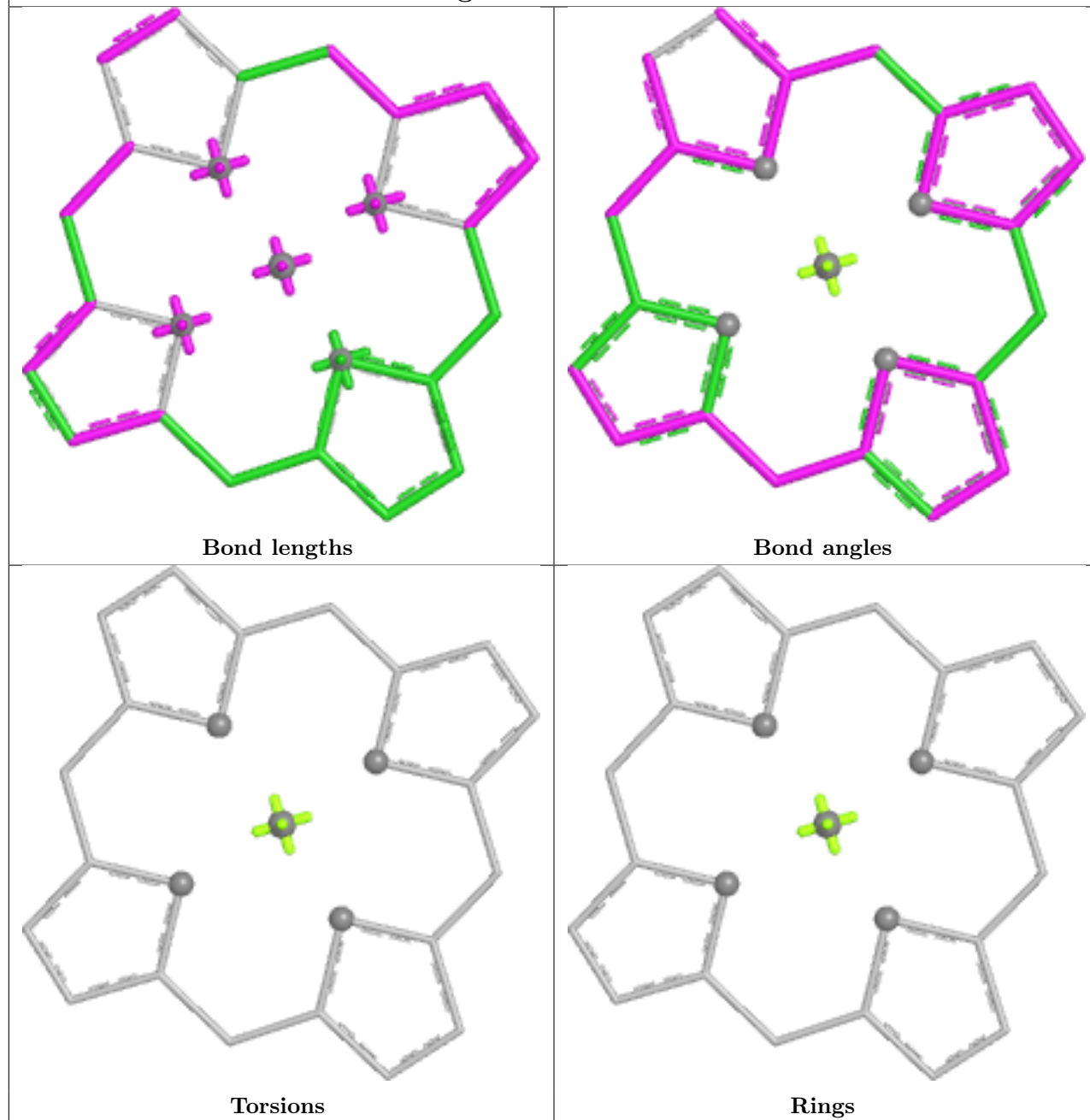


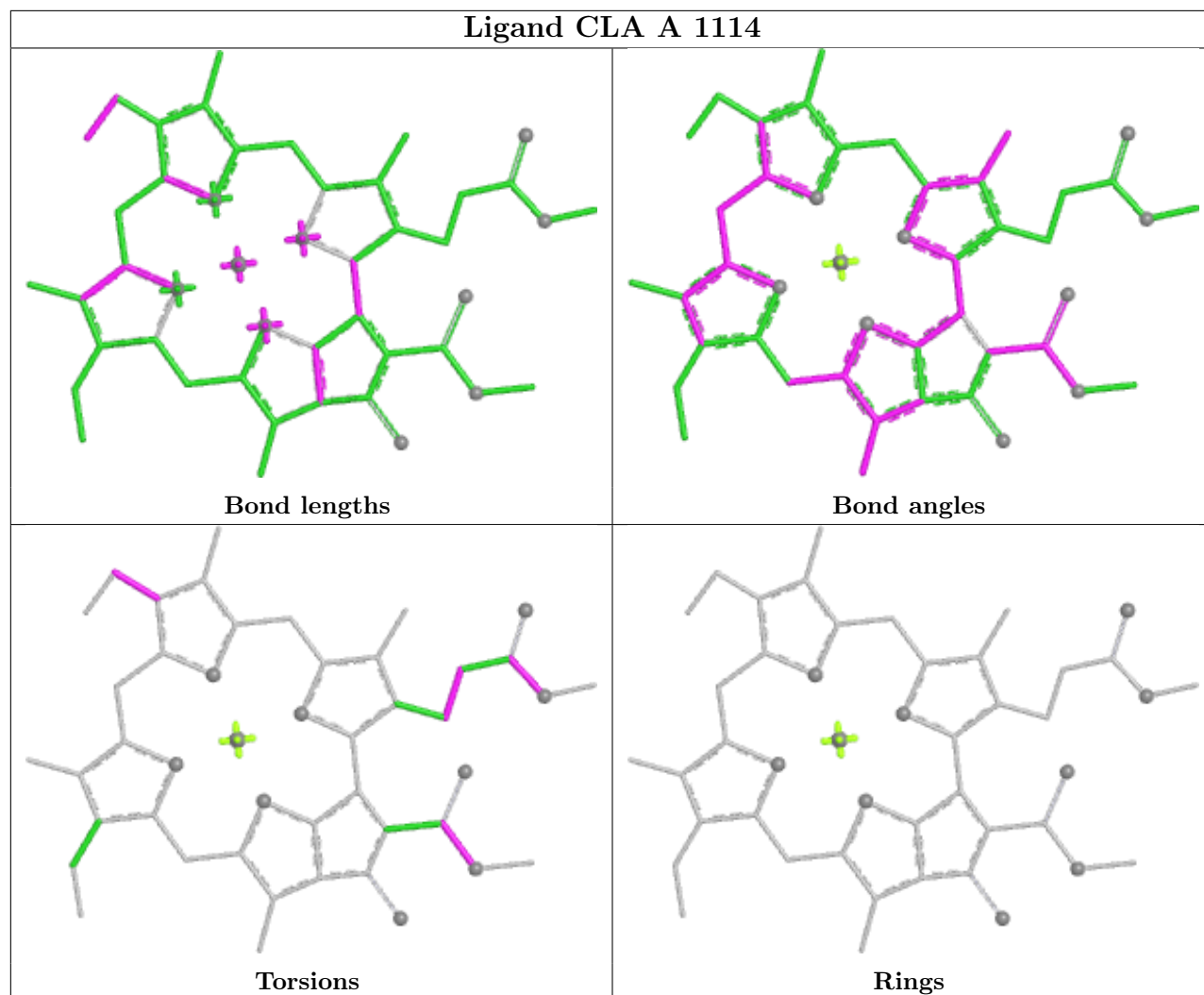
Ligand CLA A 1136



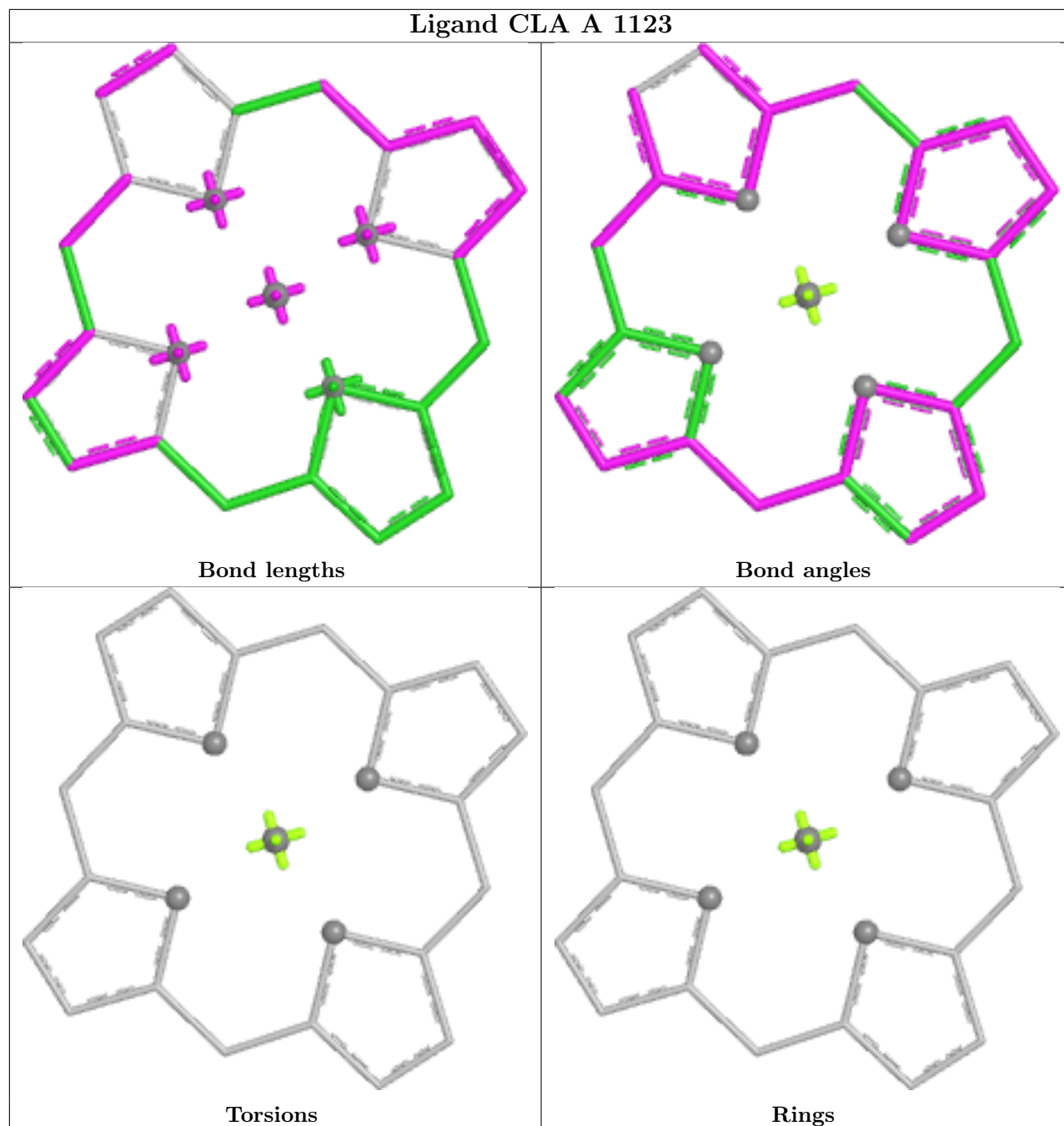


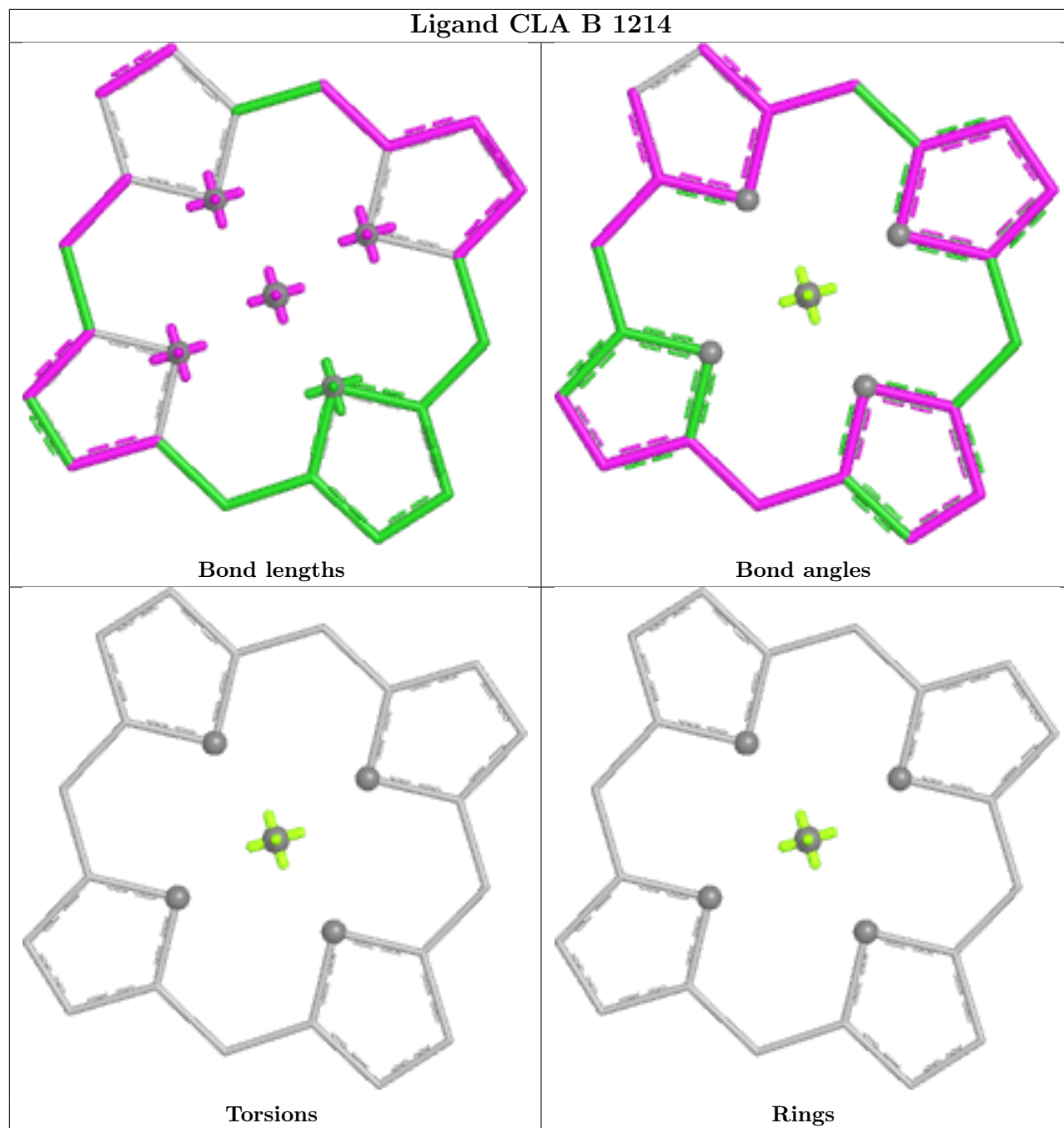
Ligand CLA 2 606

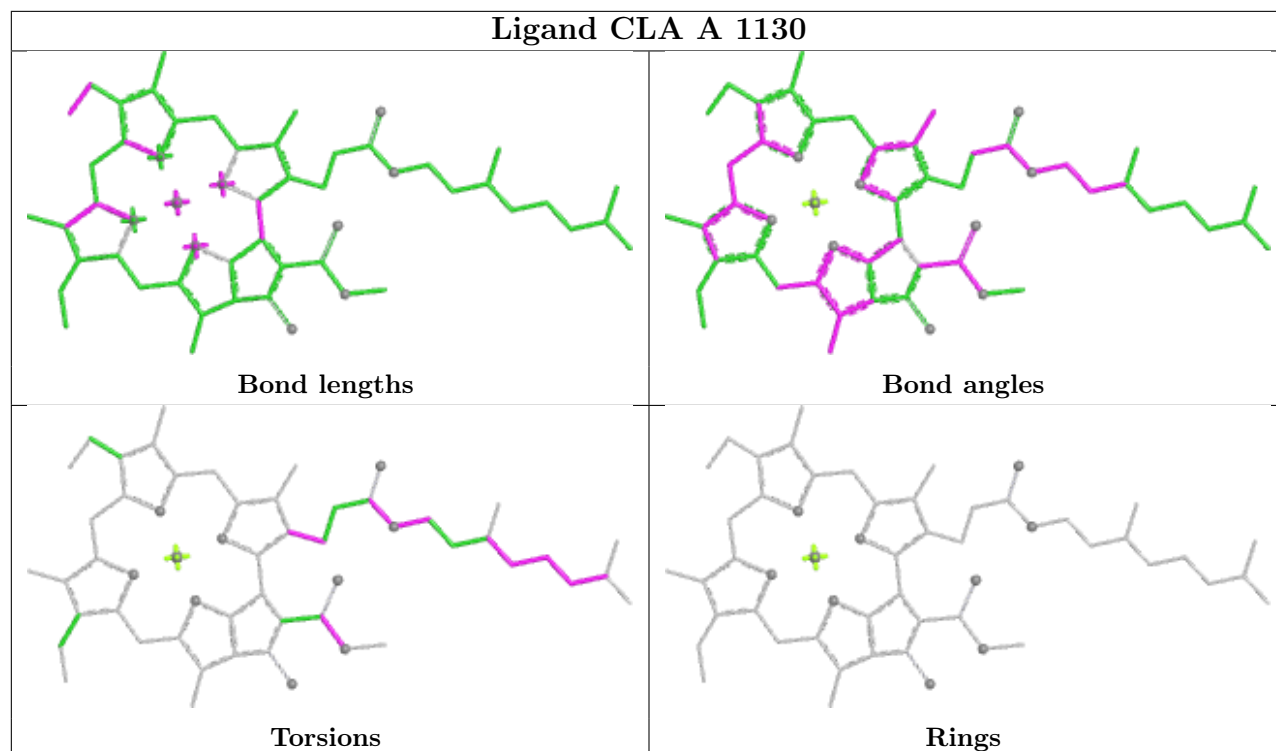


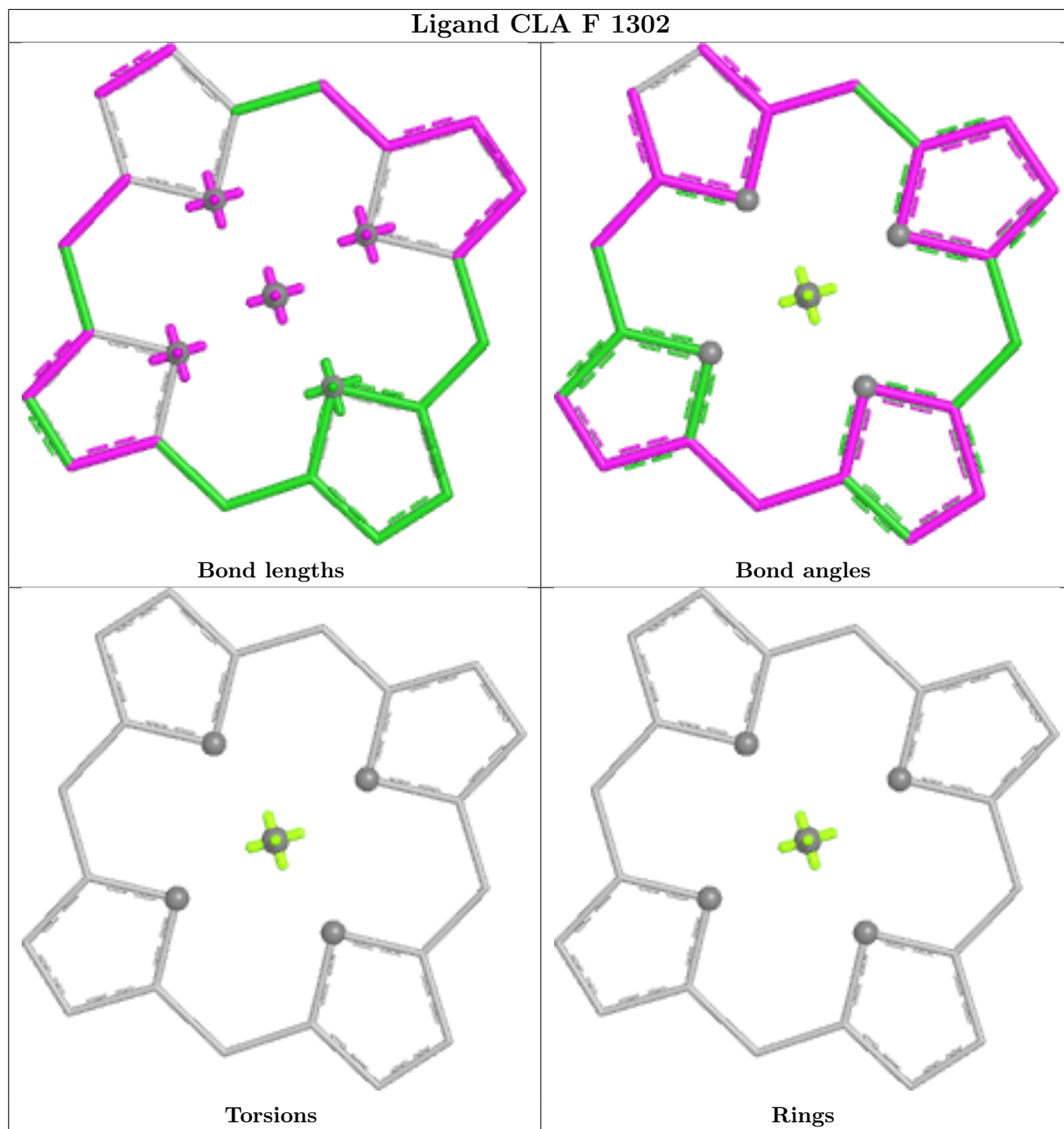


Ligand CLA A 1123

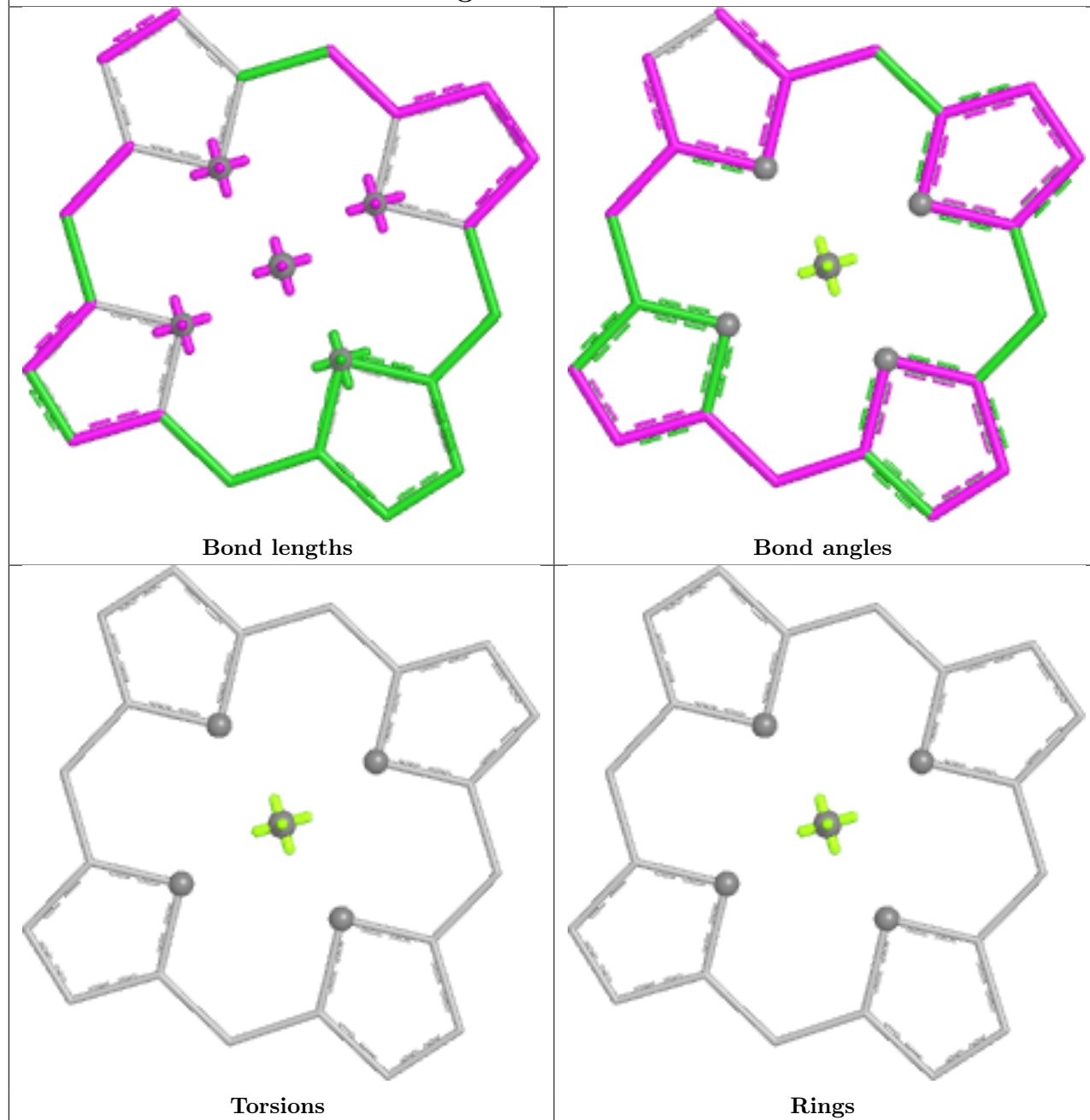


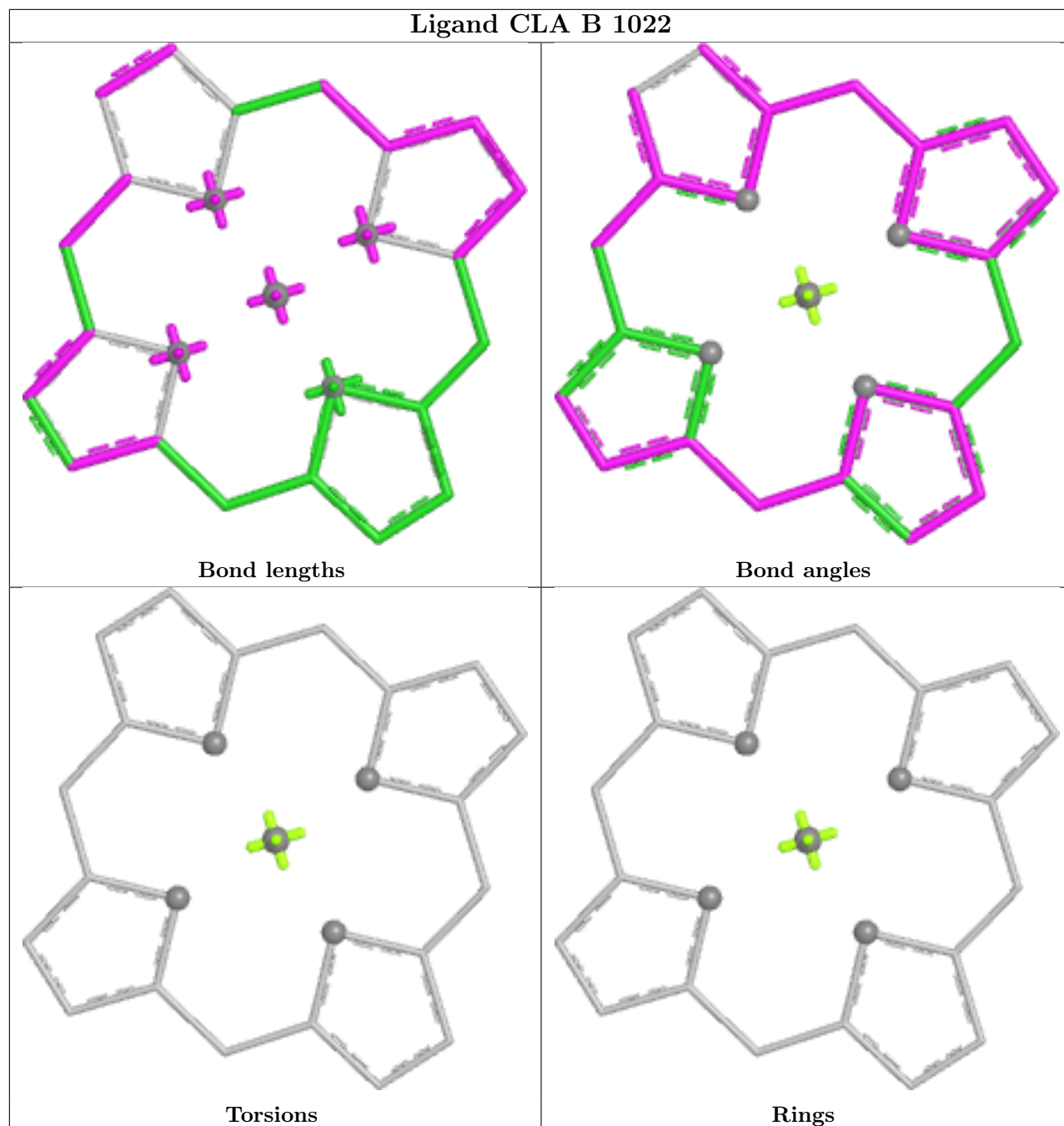


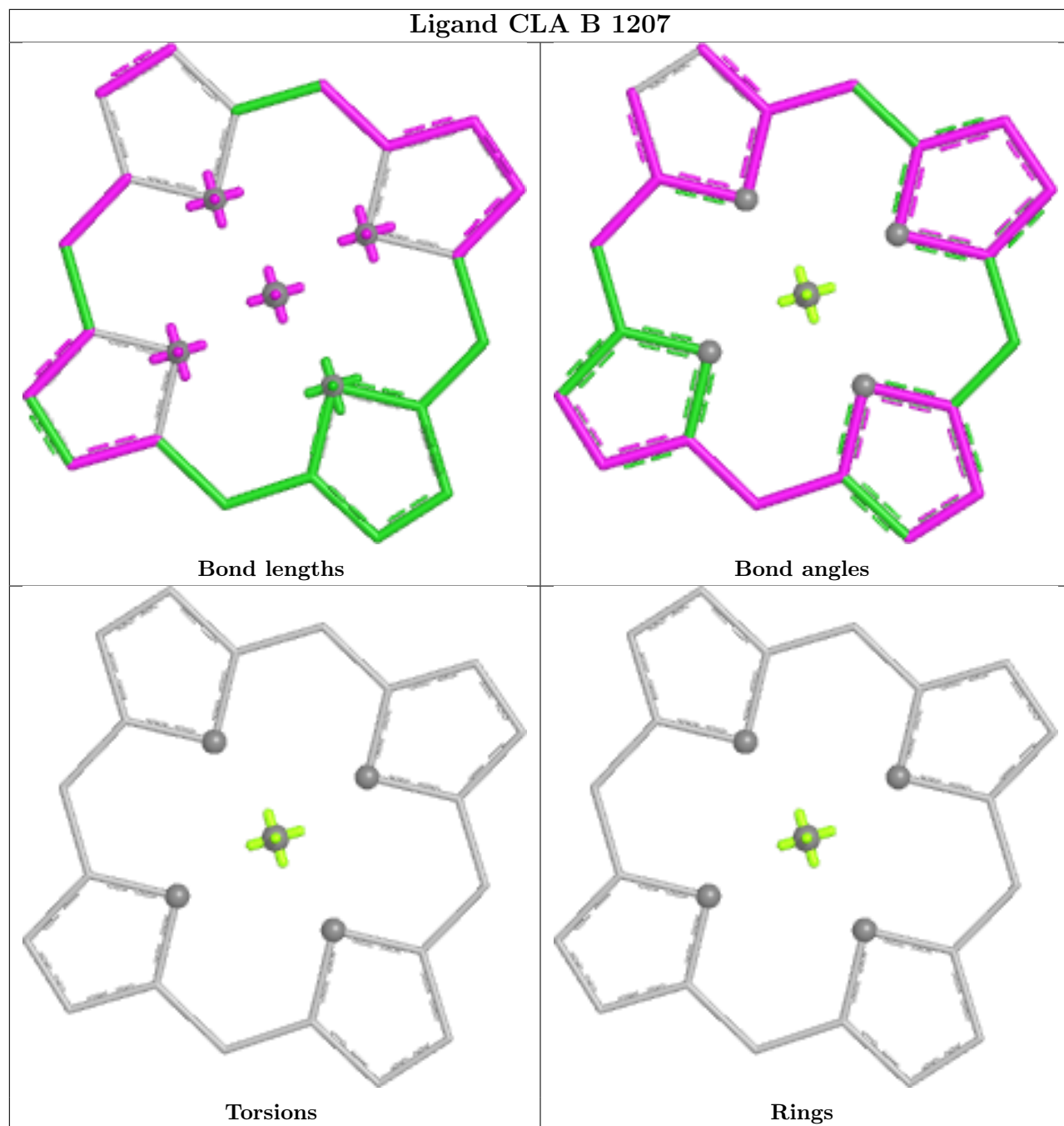




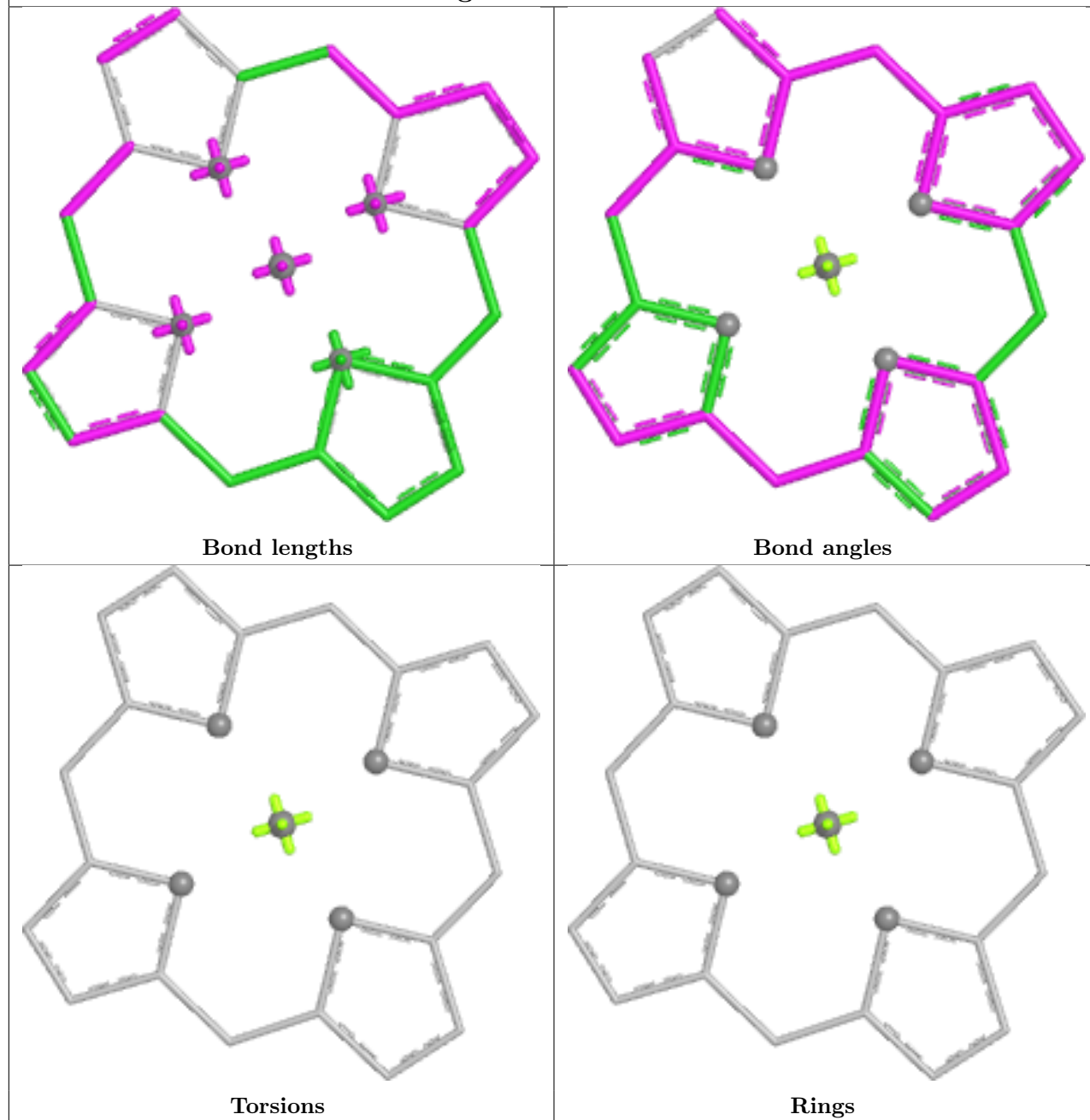
Ligand CLA 4 601

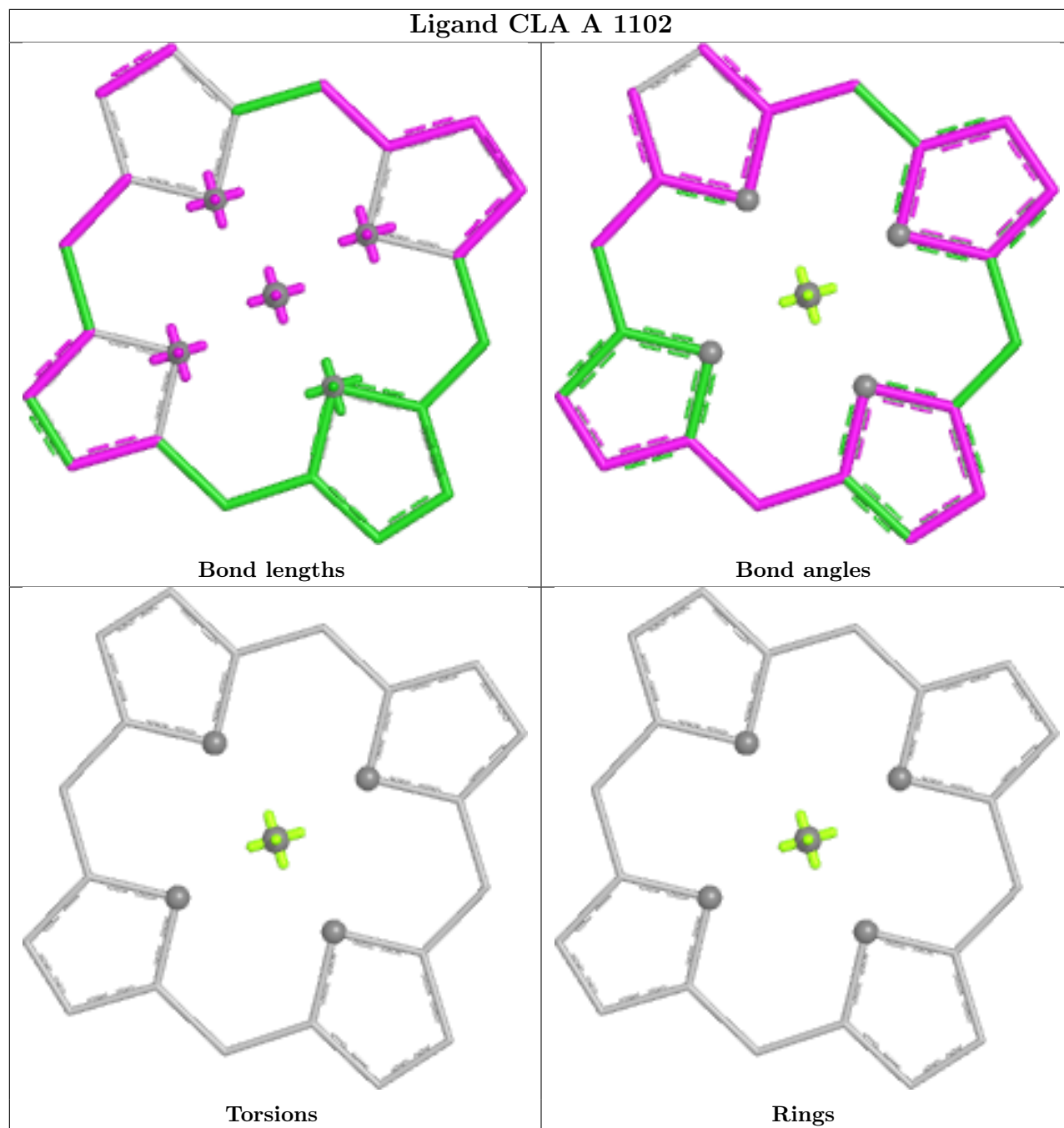


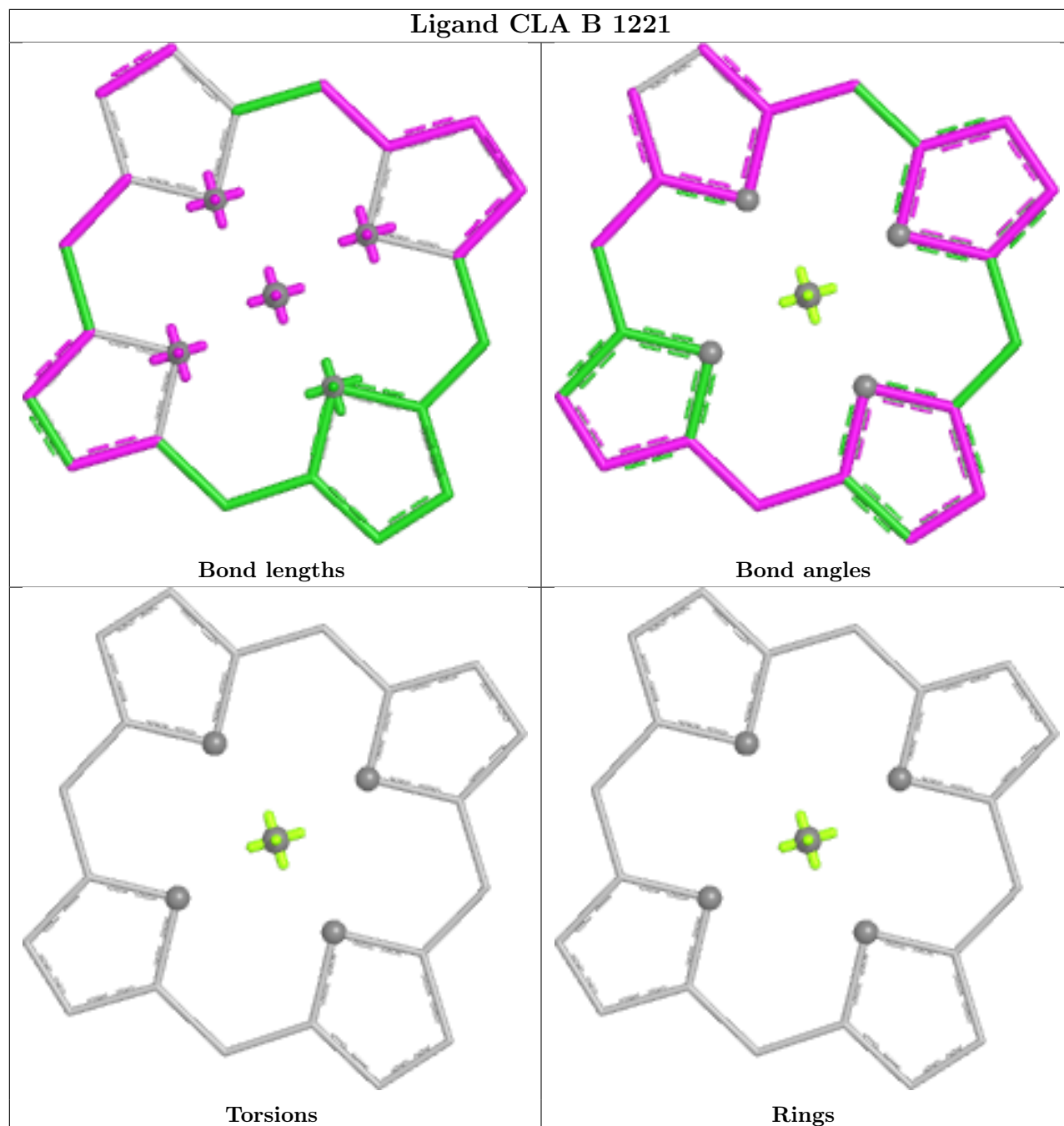




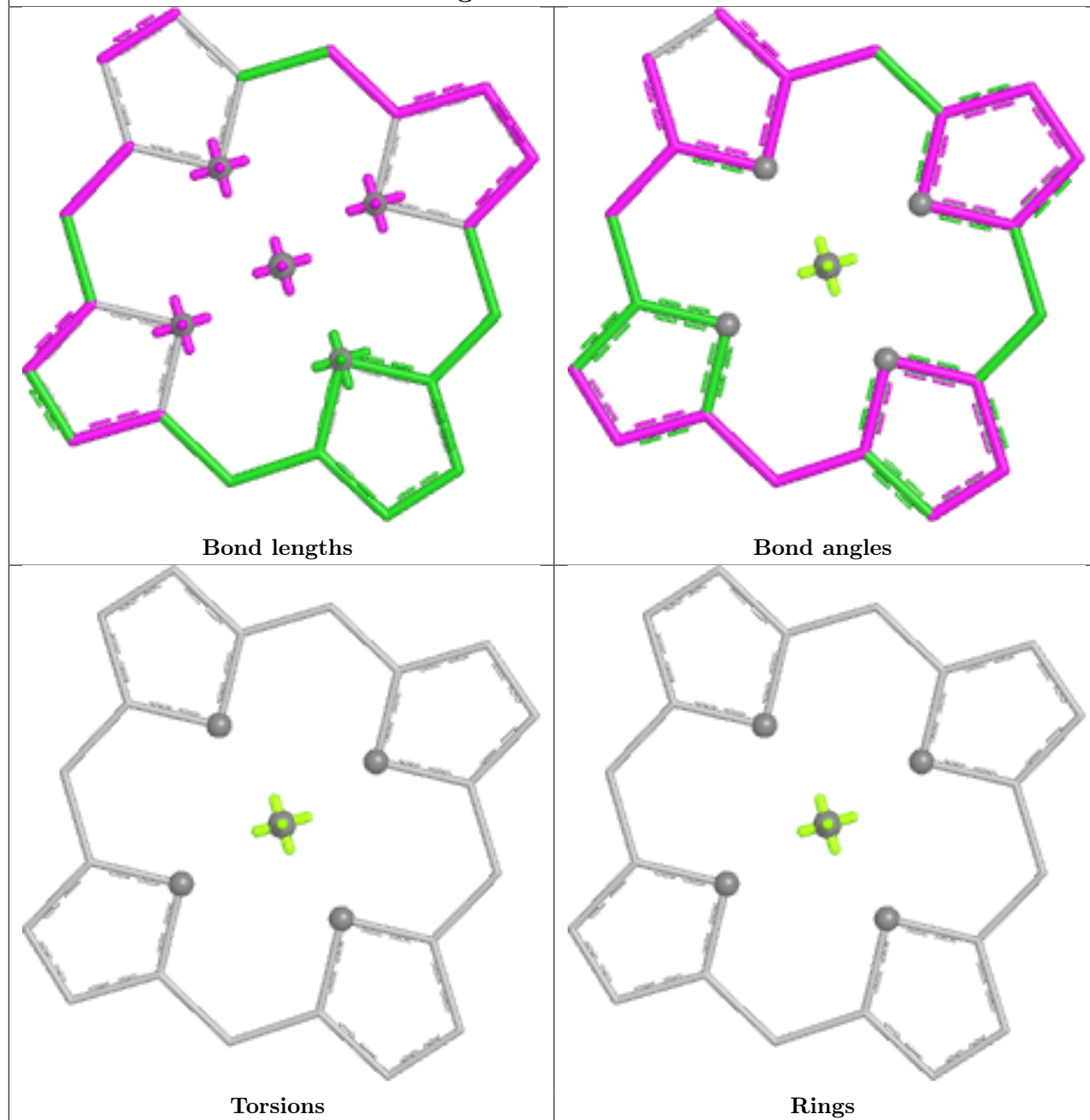
Ligand CLA 3 607

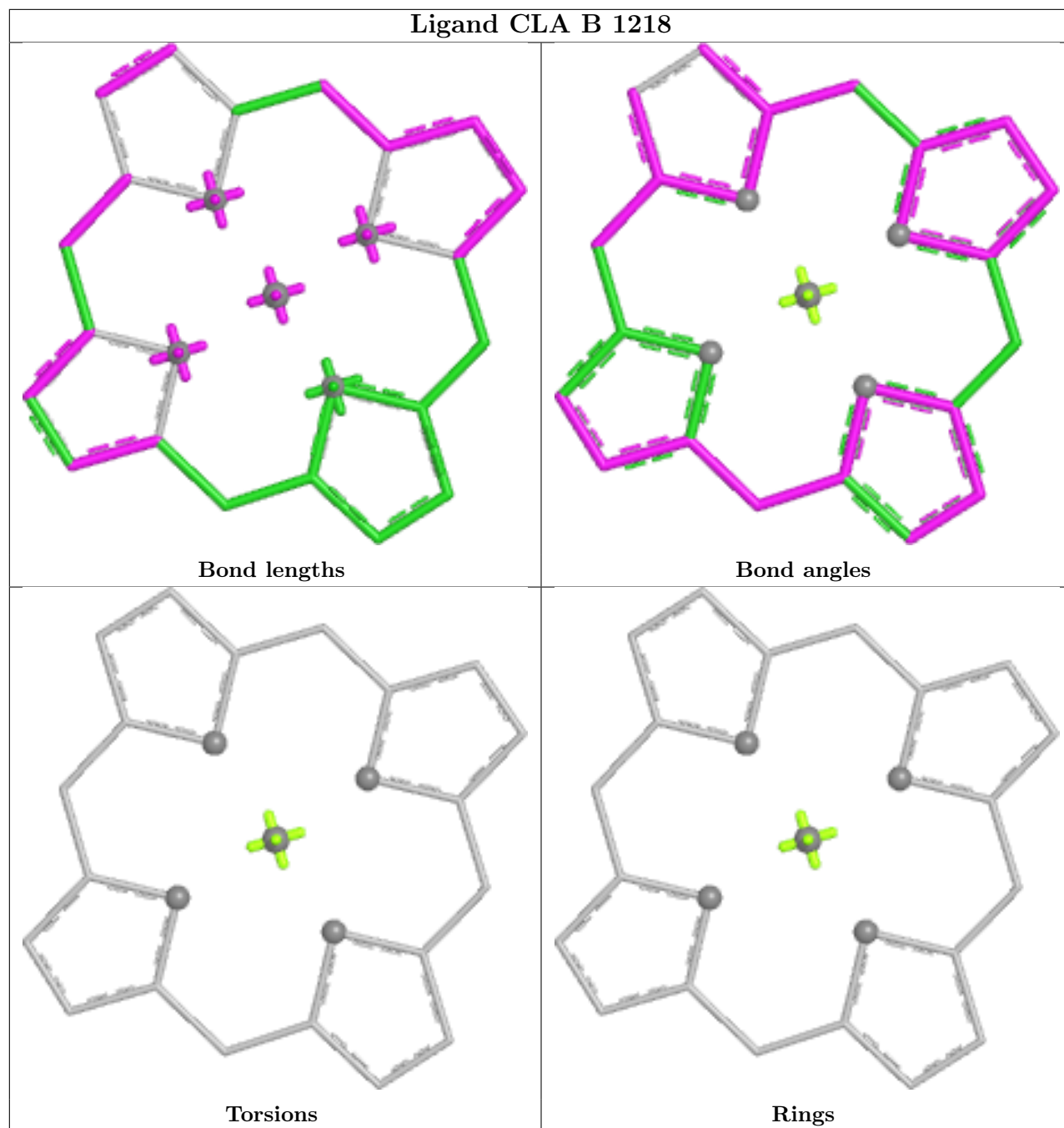


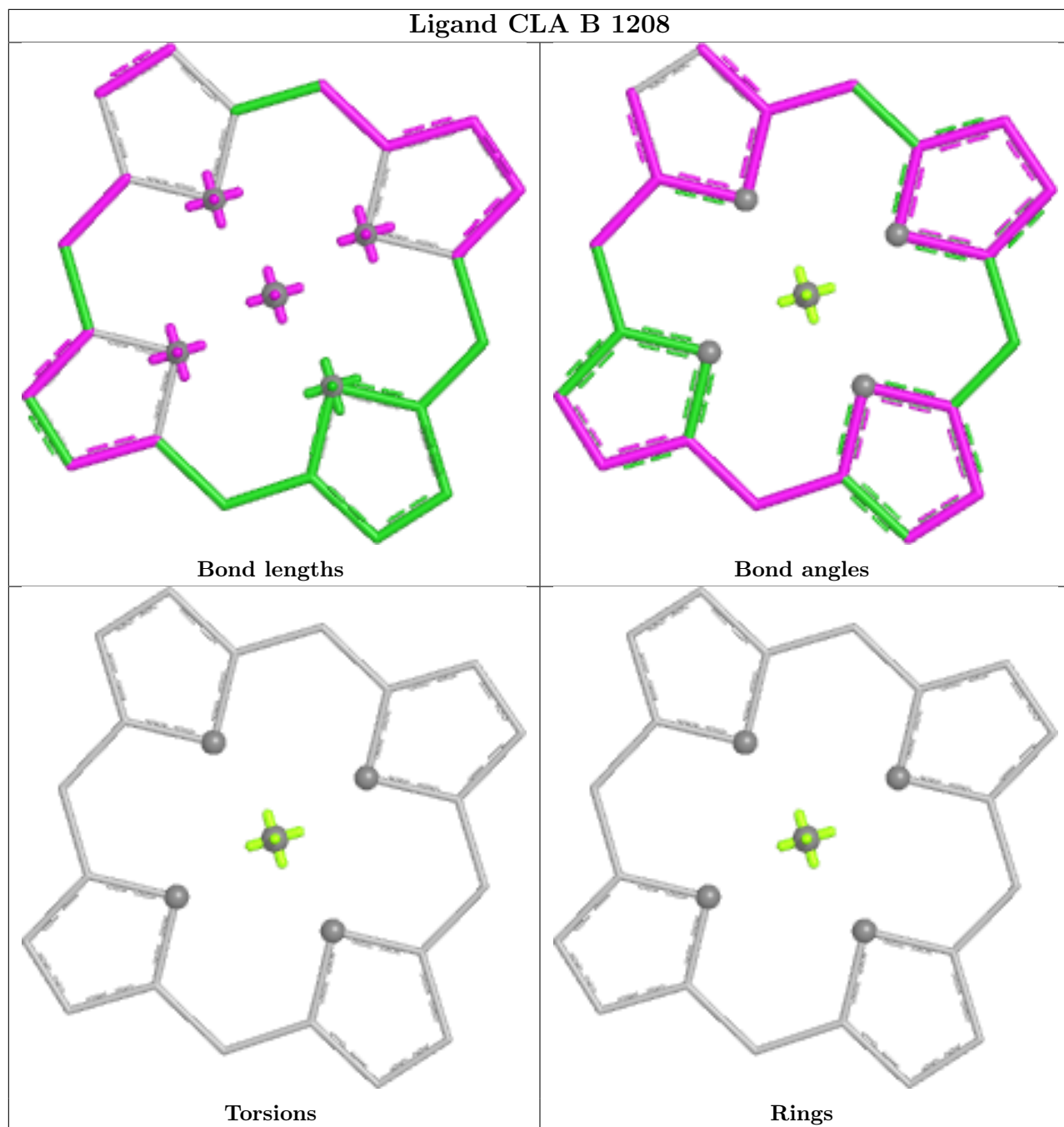




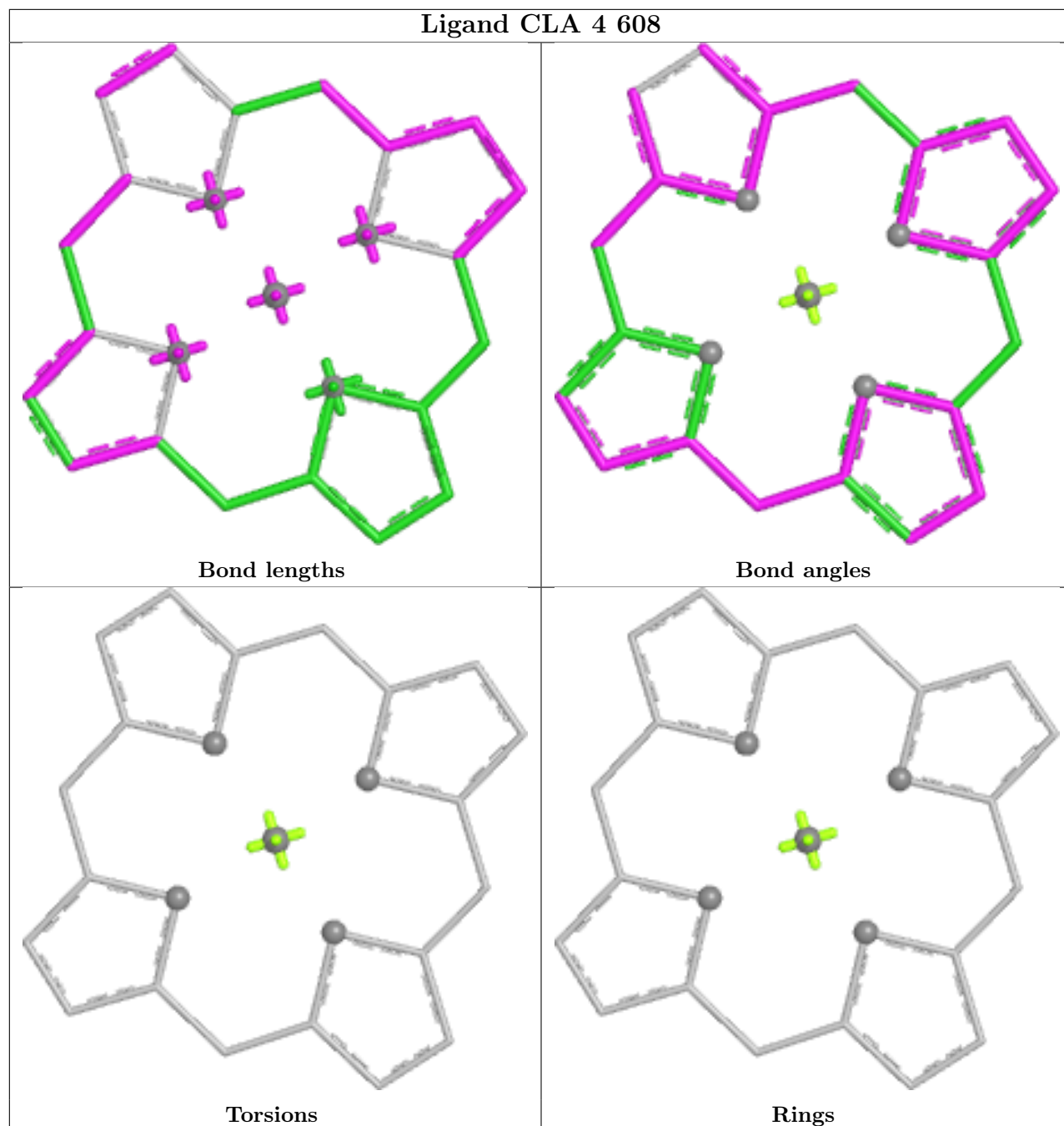
Ligand CLA 2 614

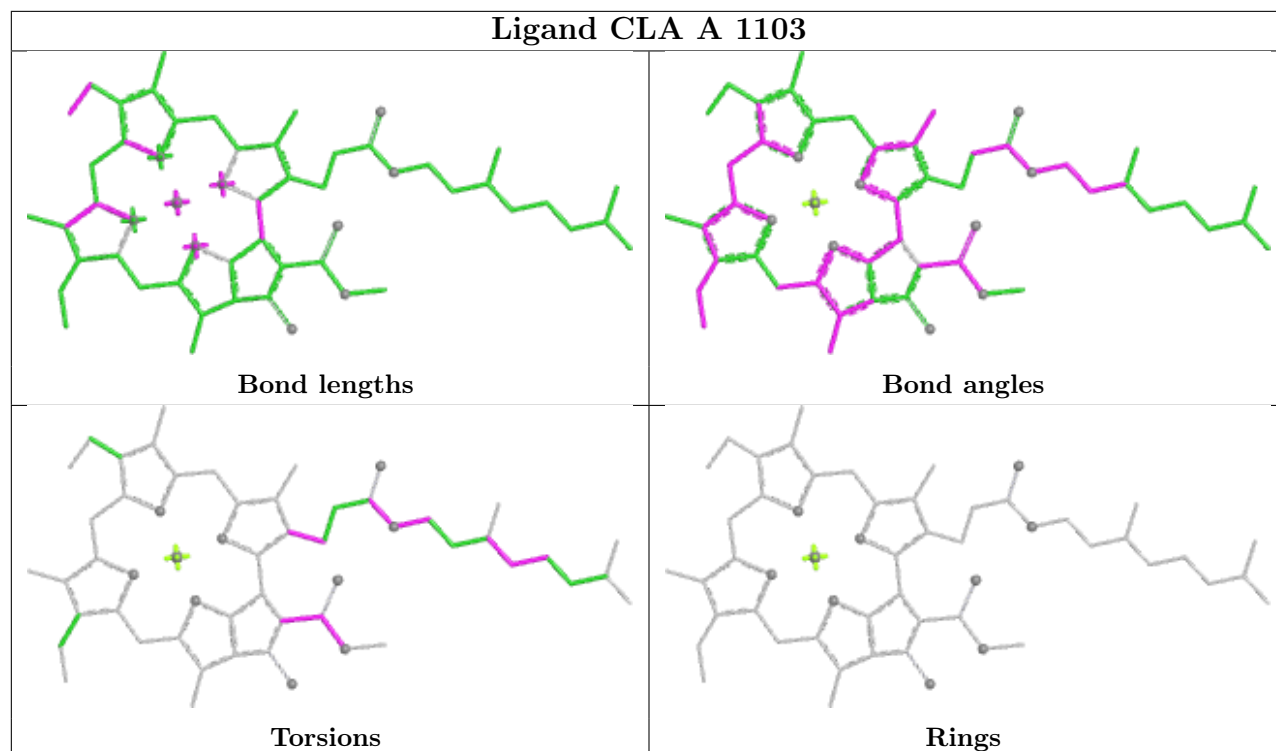


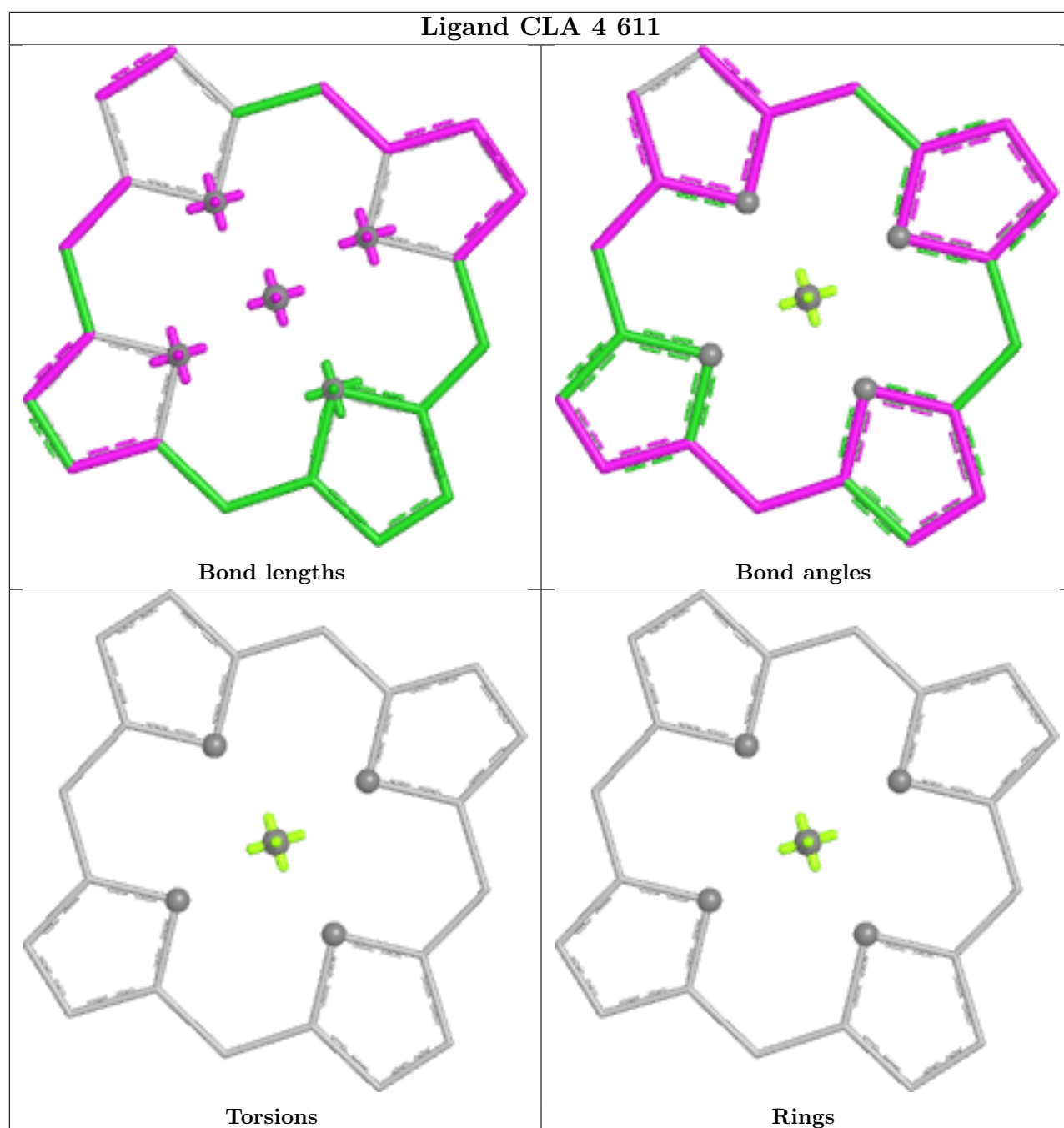




Ligand CLA 4 608







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

6.1 Protein, DNA and RNA chains

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 | 2 | 144/222 (64%) | 2.10 | 50 (34%) 1 2 | 118, 215, 376, 389 | 0 |
| 1 | 3 | 150/222 (67%) | 1.77 | 45 (30%) 1 3 | 117, 198, 289, 310 | 0 |
| 2 | 4 | 116/214 (54%) | 1.89 | 41 (35%) 1 2 | 169, 252, 362, 412 | 0 |
| 3 | A | 740/740 (100%) | 1.62 | 189 (25%) 1 4 | 40, 129, 195, 255 | 0 |
| 4 | B | 725/725 (100%) | 2.05 | 244 (33%) 1 2 | 101, 201, 318, 438 | 0 |
| 5 | C | 80/80 (100%) | 2.67 | 36 (45%) 0 1 | 113, 162, 221, 292 | 0 |
| 6 | D | 124/124 (100%) | 2.95 | 54 (43%) 0 1 | 132, 186, 251, 415 | 0 |
| 7 | E | 69/69 (100%) | 3.20 | 21 (30%) 1 3 | 138, 189, 265, 445 | 0 |
| 8 | F | 153/155 (98%) | 1.42 | 41 (26%) 1 3 | 117, 180, 248, 265 | 0 |
| 9 | I | 32/32 (100%) | 1.52 | 9 (28%) 1 3 | 184, 254, 380, 425 | 0 |
| 10 | J | 38/38 (100%) | 1.04 | 6 (15%) 5 9 | 88, 121, 212, 234 | 0 |
| 11 | K | 47/47 (100%) | 1.01 | 8 (17%) 4 7 | 132, 172, 260, 291 | 0 |
| 12 | L | 140/140 (100%) | 1.93 | 46 (32%) 1 2 | 156, 233, 383, 404 | 0 |
| 13 | M | 29/29 (100%) | 0.87 | 2 (6%) 23 21 | 177, 247, 271, 276 | 0 |
| 14 | O | 98/98 (100%) | 1.45 | 19 (19%) 3 6 | 212, 278, 405, 427 | 0 |
| All | All | 2685/2935 (91%) | 1.89 | 811 (30%) 1 3 | 40, 183, 328, 445 | 0 |

The worst 5 of 811 RSRZ outliers are listed below:

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 7 | E | 30 | SER | 45.8 |
| 7 | E | 29 | THR | 38.4 |
| 6 | D | 107 | ASN | 33.8 |
| 7 | E | 31 | LYS | 31.9 |
| 4 | B | 130 | ASN | 26.2 |

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 oligosaccharides 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 |
|-----|------|-------|------|-------|-------|------|----------------------------|-------|
| 15 | CLA | 3 | 603 | 25/65 | -0.32 | 0.21 | 246,261,286,294 | 0 |
| 15 | CLA | 3 | 608 | 25/65 | -0.16 | 0.26 | 298,335,354,361 | 0 |
| 15 | CLA | B | 1218 | 25/65 | -0.03 | 0.18 | 300,335,347,356 | 0 |
| 15 | CLA | B | 1227 | 25/65 | 0.09 | 0.28 | 211,262,292,303 | 0 |
| 15 | CLA | 3 | 607 | 25/65 | 0.28 | 0.17 | 213,230,253,258 | 0 |
| 15 | CLA | O | 1603 | 25/65 | 0.33 | 0.15 | 179,204,218,223 | 0 |
| 15 | CLA | 2 | 606 | 25/65 | 0.34 | 0.20 | 191,219,239,244 | 0 |
| 15 | CLA | B | 1217 | 25/65 | 0.36 | 0.20 | 231,256,273,279 | 0 |
| 15 | CLA | 3 | 611 | 25/65 | 0.39 | 0.24 | 118,182,201,208 | 0 |
| 15 | CLA | 2 | 601 | 25/65 | 0.41 | 0.21 | 164,206,231,233 | 0 |
| 15 | CLA | 4 | 611 | 25/65 | 0.41 | 0.14 | 216,237,248,253 | 0 |
| 15 | CLA | 4 | 601 | 25/65 | 0.42 | 0.18 | 182,213,243,269 | 0 |
| 15 | CLA | 4 | 602 | 25/65 | 0.45 | 0.34 | 496,534,558,558 | 0 |
| 15 | CLA | B | 1209 | 25/65 | 0.45 | 0.24 | 235,264,283,284 | 0 |
| 15 | CLA | O | 1602 | 25/65 | 0.46 | 0.26 | 303,330,344,350 | 0 |
| 15 | CLA | 2 | 611 | 25/65 | 0.48 | 0.24 | 183,236,260,270 | 0 |
| 15 | CLA | 4 | 604 | 25/65 | 0.49 | 0.26 | 156,208,225,230 | 0 |
| 15 | CLA | 2 | 613 | 25/65 | 0.49 | 0.20 | 182,222,233,242 | 0 |
| 15 | CLA | 2 | 616 | 25/65 | 0.53 | 0.26 | 150,192,224,226 | 0 |
| 15 | CLA | 2 | 608 | 25/65 | 0.53 | 0.16 | 188,210,232,242 | 0 |
| 15 | CLA | 2 | 615 | 25/65 | 0.53 | 0.16 | 232,276,300,304 | 0 |
| 15 | CLA | B | 1232 | 65/65 | 0.55 | 0.13 | 128,185,220,230 | 0 |
| 15 | CLA | B | 1208 | 25/65 | 0.58 | 0.17 | 203,267,283,288 | 0 |
| 15 | CLA | 4 | 608 | 25/65 | 0.58 | 0.29 | 343,352,370,376 | 0 |
| 15 | CLA | O | 1601 | 25/65 | 0.59 | 0.24 | 333,342,346,354 | 0 |
| 15 | CLA | 4 | 616 | 25/65 | 0.60 | 0.16 | 189,214,233,237 | 0 |
| 15 | CLA | 4 | 610 | 25/65 | 0.60 | 0.24 | 157,182,206,213 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 15 | CLA | 2 | 602 | 25/65 | 0.61 | 0.14 | 132,169,184,193 | 0 |
| 15 | CLA | 3 | 602 | 25/65 | 0.62 | 0.15 | 135,182,210,216 | 0 |
| 15 | CLA | B | 1219 | 25/65 | 0.63 | 0.14 | 159,177,201,218 | 0 |
| 15 | CLA | 4 | 615 | 25/65 | 0.63 | 0.28 | 236,276,298,305 | 0 |
| 15 | CLA | 3 | 614 | 25/65 | 0.63 | 0.20 | 104,155,182,201 | 0 |
| 15 | CLA | B | 1212 | 25/65 | 0.64 | 0.27 | 184,204,223,230 | 0 |
| 16 | PQN | B | 2002 | 33/33 | 0.64 | 0.29 | 126,151,167,174 | 0 |
| 15 | CLA | B | 1223 | 25/65 | 0.65 | 0.28 | 233,265,282,284 | 0 |
| 15 | CLA | B | 1216 | 25/65 | 0.65 | 0.24 | 337,368,376,377 | 0 |
| 15 | CLA | B | 1210 | 25/65 | 0.65 | 0.16 | 227,262,274,291 | 0 |
| 15 | CLA | L | 1501 | 25/65 | 0.65 | 0.15 | 151,182,196,207 | 0 |
| 15 | CLA | 2 | 614 | 25/65 | 0.66 | 0.23 | 181,245,252,253 | 0 |
| 18 | BCR | A | 4008 | 40/40 | 0.66 | 0.40 | 48,114,172,181 | 0 |
| 18 | BCR | A | 4007 | 40/40 | 0.67 | 0.31 | 60,129,164,195 | 0 |
| 15 | CLA | L | 1502 | 25/65 | 0.67 | 0.24 | 146,181,197,213 | 0 |
| 15 | CLA | 2 | 603 | 25/65 | 0.68 | 0.18 | 157,184,202,206 | 0 |
| 15 | CLA | B | 1221 | 25/65 | 0.68 | 0.30 | 178,214,233,234 | 0 |
| 15 | CLA | B | 1231 | 25/65 | 0.68 | 0.27 | 247,265,279,286 | 0 |
| 15 | CLA | 3 | 601 | 25/65 | 0.69 | 0.15 | 144,196,210,234 | 0 |
| 18 | BCR | I | 4018 | 40/40 | 0.69 | 0.28 | 82,148,219,223 | 0 |
| 15 | CLA | 4 | 609 | 25/65 | 0.70 | 0.25 | 252,286,299,301 | 0 |
| 15 | CLA | B | 1204 | 25/65 | 0.70 | 0.26 | 259,286,298,310 | 0 |
| 15 | CLA | 2 | 607 | 25/65 | 0.70 | 0.18 | 159,202,220,235 | 0 |
| 15 | CLA | 4 | 603 | 25/65 | 0.71 | 0.15 | 103,149,175,192 | 0 |
| 15 | CLA | B | 1236 | 45/65 | 0.71 | 0.29 | 123,190,211,222 | 0 |
| 15 | CLA | K | 1402 | 25/65 | 0.71 | 0.21 | 139,167,192,202 | 0 |
| 15 | CLA | 3 | 604 | 25/65 | 0.73 | 0.18 | 189,234,254,266 | 0 |
| 15 | CLA | A | 1109 | 25/65 | 0.73 | 0.16 | 55,102,136,154 | 0 |
| 18 | BCR | A | 4017 | 40/40 | 0.73 | 0.33 | 86,164,194,202 | 0 |
| 15 | CLA | 2 | 610 | 25/65 | 0.73 | 0.17 | 164,216,237,243 | 0 |
| 15 | CLA | K | 1401 | 25/65 | 0.74 | 0.16 | 151,187,207,218 | 0 |
| 15 | CLA | 3 | 606 | 25/65 | 0.76 | 0.15 | 172,210,242,250 | 0 |
| 15 | CLA | 3 | 612 | 25/65 | 0.76 | 0.20 | 163,188,205,220 | 0 |
| 15 | CLA | A | 1120 | 25/65 | 0.76 | 0.22 | 109,183,229,234 | 0 |
| 15 | CLA | B | 1214 | 25/65 | 0.77 | 0.36 | 274,296,313,326 | 0 |
| 15 | CLA | L | 1503 | 25/65 | 0.78 | 0.21 | 237,249,262,268 | 0 |
| 15 | CLA | A | 1112 | 25/65 | 0.78 | 0.20 | 97,124,135,141 | 0 |
| 15 | CLA | B | 1021 | 45/65 | 0.78 | 0.28 | 114,149,172,191 | 0 |
| 15 | CLA | 2 | 604 | 25/65 | 0.79 | 0.21 | 139,163,200,206 | 0 |
| 15 | CLA | A | 1137 | 25/65 | 0.79 | 0.24 | 71,135,157,165 | 0 |
| 15 | CLA | 4 | 606 | 25/65 | 0.79 | 0.17 | 161,216,236,250 | 0 |
| 15 | CLA | B | 1238 | 25/65 | 0.79 | 0.16 | 103,134,162,167 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 15 | CLA | F | 1302 | 25/65 | 0.79 | 0.17 | 186,229,263,264 | 0 |
| 15 | CLA | B | 1203 | 25/65 | 0.79 | 0.27 | 100,156,175,184 | 0 |
| 15 | CLA | A | 1119 | 25/65 | 0.79 | 0.22 | 110,152,178,187 | 0 |
| 18 | BCR | A | 4011 | 40/40 | 0.79 | 0.33 | 51,112,139,162 | 0 |
| 15 | CLA | B | 1207 | 25/65 | 0.79 | 0.17 | 262,286,303,307 | 0 |
| 18 | BCR | B | 4008 | 40/40 | 0.79 | 0.38 | 172,230,254,261 | 0 |
| 15 | CLA | B | 1228 | 25/65 | 0.79 | 0.16 | 132,186,206,213 | 0 |
| 15 | CLA | A | 1121 | 25/65 | 0.80 | 0.20 | 105,146,174,178 | 0 |
| 15 | CLA | 4 | 612 | 25/65 | 0.80 | 0.17 | 87,127,149,161 | 0 |
| 15 | CLA | A | 1138 | 25/65 | 0.80 | 0.21 | 107,137,164,202 | 0 |
| 15 | CLA | A | 1116 | 55/65 | 0.80 | 0.26 | 42,90,116,124 | 0 |
| 16 | PQN | A | 2001 | 33/33 | 0.81 | 0.24 | 36,100,136,159 | 0 |
| 15 | CLA | B | 1235 | 25/65 | 0.81 | 0.17 | 105,137,154,160 | 0 |
| 18 | BCR | A | 4002 | 40/40 | 0.82 | 0.24 | 29,93,126,132 | 0 |
| 15 | CLA | F | 1301 | 45/65 | 0.82 | 0.23 | 96,146,168,177 | 0 |
| 15 | CLA | B | 1220 | 25/65 | 0.82 | 0.17 | 197,228,243,255 | 0 |
| 15 | CLA | A | 1123 | 25/65 | 0.82 | 0.23 | 90,121,141,147 | 0 |
| 15 | CLA | A | 1103 | 55/65 | 0.82 | 0.25 | 48,92,121,124 | 0 |
| 18 | BCR | B | 4005 | 40/40 | 0.82 | 0.29 | 90,132,165,170 | 0 |
| 15 | CLA | A | 1114 | 46/65 | 0.82 | 0.18 | 44,120,152,168 | 0 |
| 15 | CLA | A | 1101 | 45/65 | 0.82 | 0.24 | 62,120,151,173 | 0 |
| 15 | CLA | A | 1105 | 55/65 | 0.83 | 0.21 | 39,125,150,190 | 0 |
| 15 | CLA | B | 1023 | 50/65 | 0.83 | 0.23 | 88,147,172,183 | 0 |
| 15 | CLA | J | 1302 | 50/65 | 0.83 | 0.18 | 88,178,204,225 | 0 |
| 15 | CLA | A | 1131 | 45/65 | 0.84 | 0.20 | 57,87,101,121 | 0 |
| 15 | CLA | B | 1226 | 55/65 | 0.84 | 0.29 | 72,163,196,199 | 0 |
| 15 | CLA | A | 1111 | 25/65 | 0.84 | 0.17 | 62,104,123,138 | 0 |
| 15 | CLA | A | 1012 | 55/65 | 0.84 | 0.25 | 67,145,178,191 | 0 |
| 15 | CLA | A | 1141 | 25/65 | 0.84 | 0.15 | 145,178,193,196 | 0 |
| 15 | CLA | A | 1125 | 25/65 | 0.84 | 0.20 | 14,51,82,84 | 0 |
| 15 | CLA | B | 1230 | 47/65 | 0.85 | 0.18 | 84,129,151,175 | 0 |
| 15 | CLA | A | 1115 | 55/65 | 0.85 | 0.14 | 77,115,144,156 | 0 |
| 15 | CLA | A | 1128 | 25/65 | 0.85 | 0.16 | 46,72,86,89 | 0 |
| 15 | CLA | 2 | 605 | 25/65 | 0.85 | 0.13 | 88,123,137,147 | 0 |
| 15 | CLA | B | 1225 | 50/65 | 0.85 | 0.26 | 89,228,243,267 | 0 |
| 15 | CLA | A | 1134 | 25/65 | 0.85 | 0.16 | 96,146,167,169 | 0 |
| 15 | CLA | A | 1135 | 25/65 | 0.85 | 0.20 | 101,119,157,168 | 0 |
| 15 | CLA | B | 1201 | 25/65 | 0.85 | 0.18 | 139,156,172,175 | 0 |
| 15 | CLA | B | 1229 | 50/65 | 0.85 | 0.17 | 105,140,167,180 | 0 |
| 15 | CLA | A | 1130 | 55/65 | 0.86 | 0.23 | 121,209,233,235 | 0 |
| 15 | CLA | 2 | 612 | 25/65 | 0.86 | 0.22 | 142,175,184,189 | 0 |
| 15 | CLA | B | 1234 | 25/65 | 0.86 | 0.26 | 228,248,256,260 | 0 |

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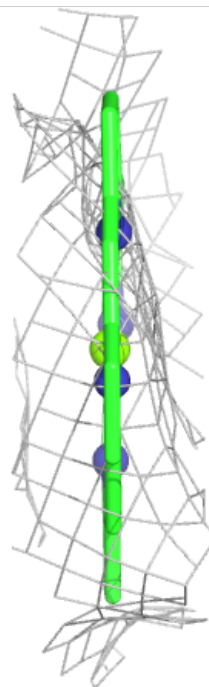
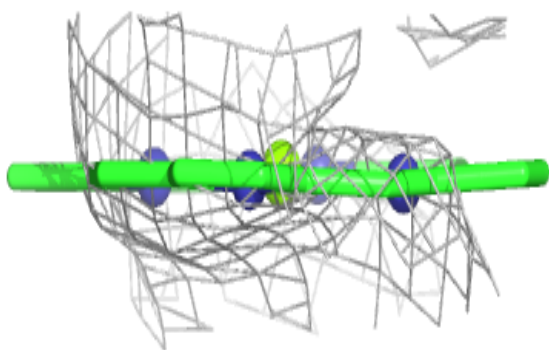
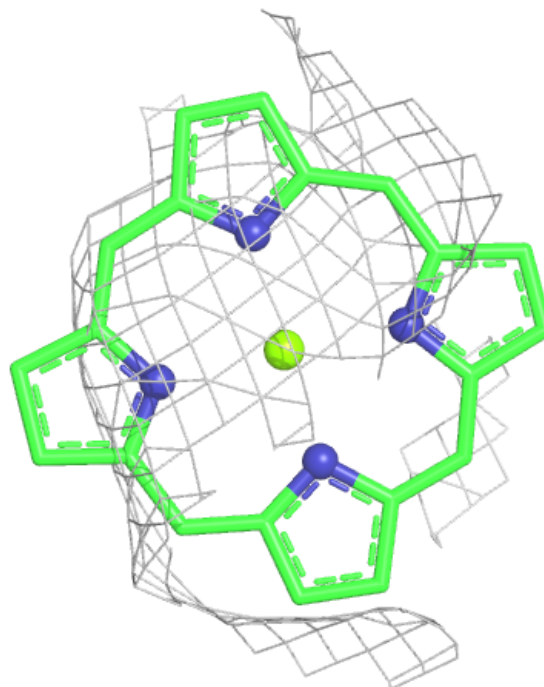
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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 15 | CLA | A | 1133 | 25/65 | 0.86 | 0.18 | 127,167,194,209 | 0 |
| 15 | CLA | B | 1202 | 25/65 | 0.86 | 0.21 | 128,158,167,172 | 0 |
| 15 | CLA | B | 1237 | 55/65 | 0.86 | 0.19 | 82,150,181,203 | 0 |
| 15 | CLA | A | 1118 | 25/65 | 0.86 | 0.28 | 155,183,211,214 | 0 |
| 15 | CLA | A | 1011 | 50/65 | 0.87 | 0.28 | 98,141,159,202 | 0 |
| 15 | CLA | B | 1022 | 25/65 | 0.87 | 0.20 | 106,141,159,178 | 0 |
| 15 | CLA | A | 1107 | 55/65 | 0.87 | 0.20 | 55,115,172,216 | 0 |
| 15 | CLA | A | 1129 | 25/65 | 0.87 | 0.24 | 142,179,197,200 | 0 |
| 15 | CLA | A | 1108 | 25/65 | 0.87 | 0.19 | 45,123,143,151 | 0 |
| 15 | CLA | B | 1215 | 25/65 | 0.87 | 0.17 | 134,189,204,215 | 0 |
| 15 | CLA | A | 1113 | 25/65 | 0.87 | 0.14 | 86,119,141,149 | 0 |
| 15 | CLA | A | 1139 | 25/65 | 0.87 | 0.20 | 91,143,148,161 | 0 |
| 15 | CLA | B | 1239 | 25/65 | 0.87 | 0.17 | 131,149,167,170 | 0 |
| 15 | CLA | A | 1132 | 25/65 | 0.87 | 0.17 | 69,121,152,153 | 0 |
| 15 | CLA | A | 1122 | 25/65 | 0.88 | 0.13 | 52,112,129,135 | 0 |
| 15 | CLA | A | 1102 | 25/65 | 0.88 | 0.19 | 58,103,120,128 | 0 |
| 15 | CLA | A | 1110 | 25/65 | 0.88 | 0.19 | 139,192,211,225 | 0 |
| 15 | CLA | A | 1127 | 25/65 | 0.88 | 0.15 | 0,57,91,97 | 0 |
| 15 | CLA | A | 1013 | 55/65 | 0.88 | 0.23 | 45,141,172,184 | 0 |
| 15 | CLA | A | 1104 | 55/65 | 0.88 | 0.20 | 41,85,120,133 | 0 |
| 15 | CLA | 4 | 605 | 25/65 | 0.89 | 0.15 | 105,126,145,154 | 0 |
| 15 | CLA | A | 1117 | 55/65 | 0.89 | 0.27 | 12,113,142,154 | 0 |
| 15 | CLA | B | 1222 | 25/65 | 0.89 | 0.25 | 204,224,242,243 | 0 |
| 15 | CLA | A | 1124 | 25/65 | 0.89 | 0.16 | 50,82,106,122 | 0 |
| 15 | CLA | B | 1224 | 55/65 | 0.89 | 0.34 | 174,218,261,270 | 0 |
| 15 | CLA | 3 | 610 | 25/65 | 0.89 | 0.13 | 144,167,182,195 | 0 |
| 15 | CLA | B | 1211 | 25/65 | 0.89 | 0.14 | 166,183,201,217 | 0 |
| 15 | CLA | B | 1206 | 25/65 | 0.89 | 0.19 | 148,173,194,203 | 0 |
| 15 | CLA | A | 1106 | 55/65 | 0.91 | 0.23 | 61,117,147,168 | 0 |
| 15 | CLA | B | 1205 | 25/65 | 0.92 | 0.17 | 260,280,296,302 | 0 |
| 15 | CLA | A | 1136 | 25/65 | 0.92 | 0.24 | 87,161,186,206 | 0 |
| 15 | CLA | A | 1126 | 55/65 | 0.92 | 0.23 | 26,91,120,129 | 0 |
| 15 | CLA | A | 1140 | 25/65 | 0.93 | 0.17 | 68,92,127,132 | 0 |
| 17 | SF4 | C | 3003 | 8/8 | 0.94 | 0.21 | 117,158,186,198 | 0 |
| 17 | SF4 | C | 3002 | 8/8 | 0.95 | 0.15 | 137,166,186,216 | 0 |
| 17 | SF4 | A | 3001 | 8/8 | 0.95 | 0.14 | 145,192,216,219 | 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.

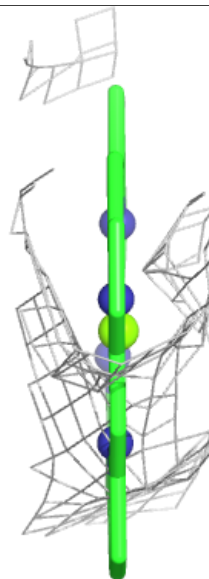
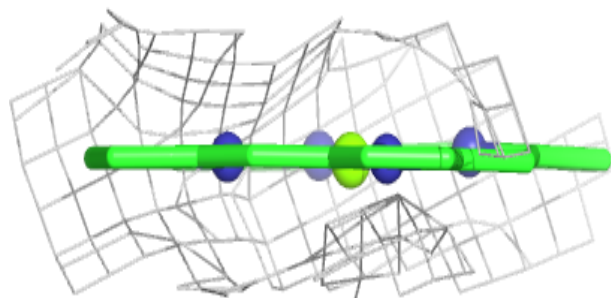
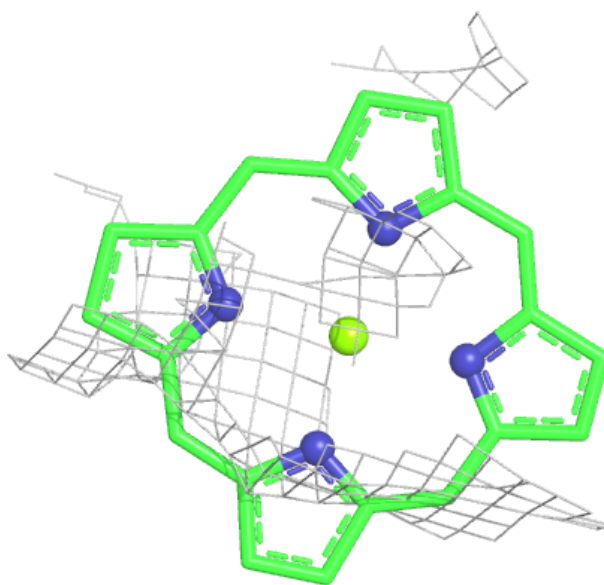
Electron density around CLA 3 603:

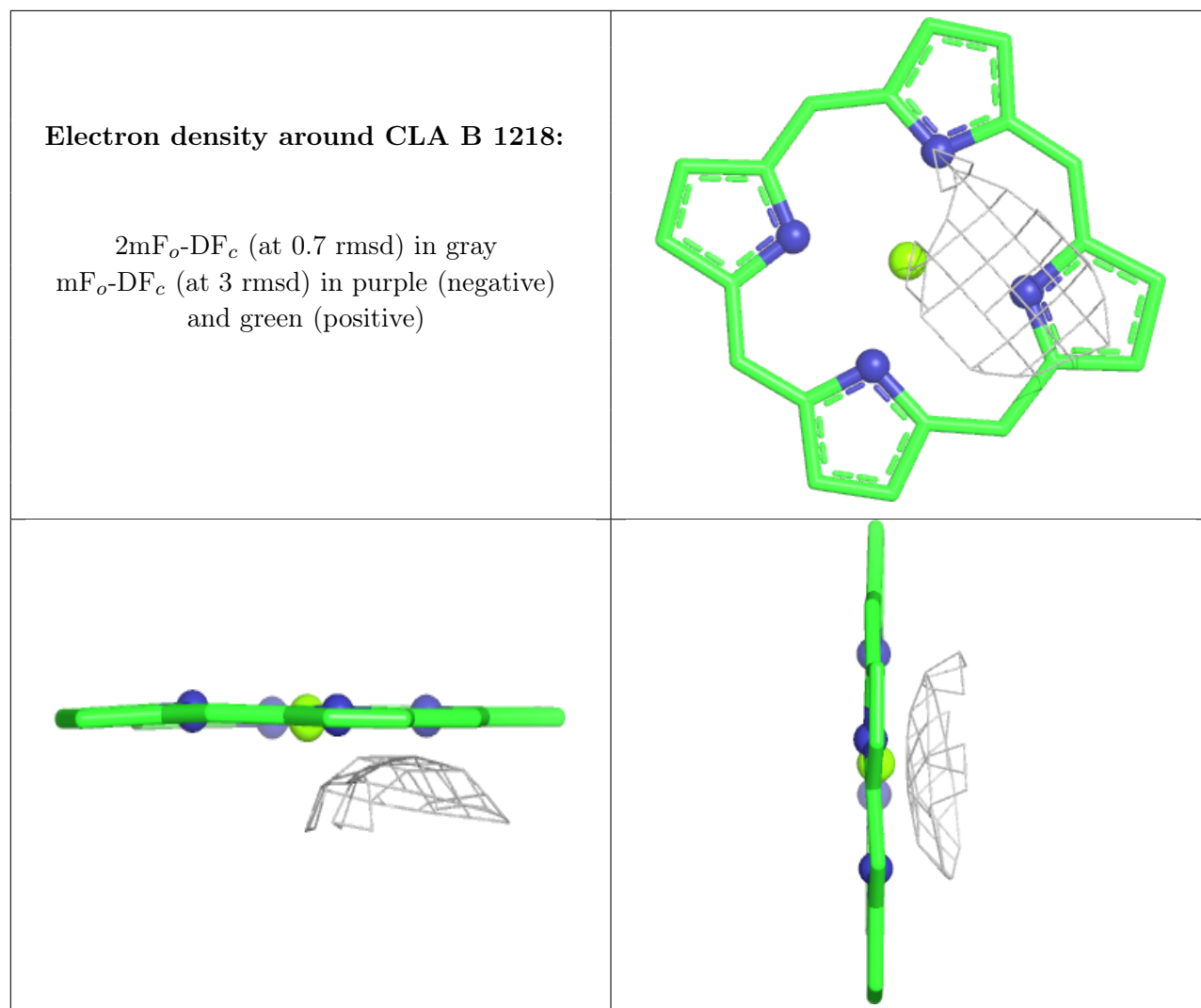
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA 3 608:

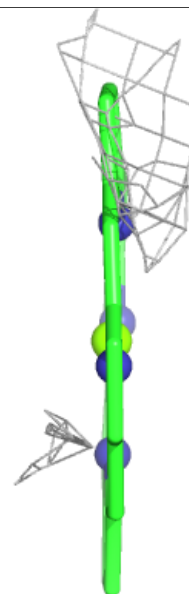
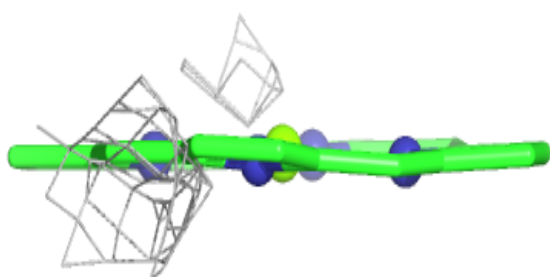
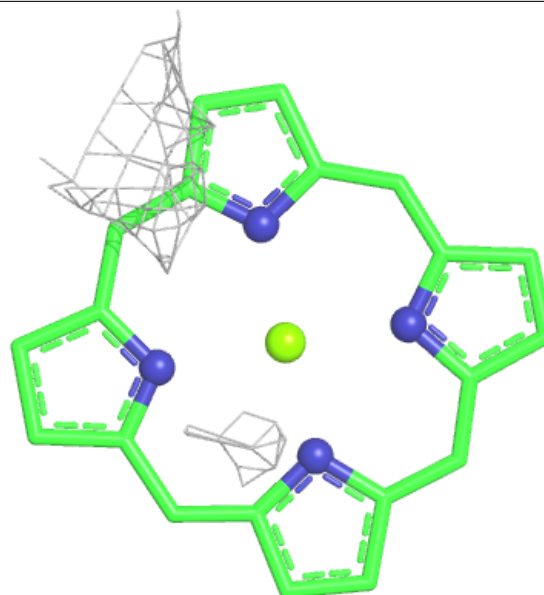
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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





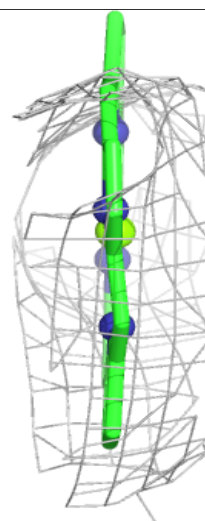
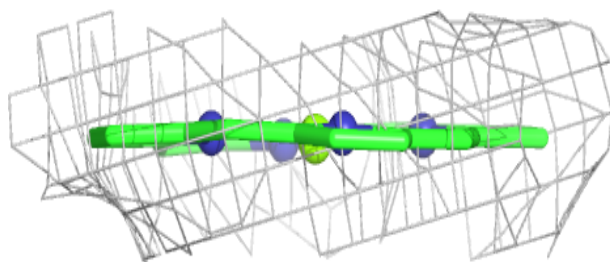
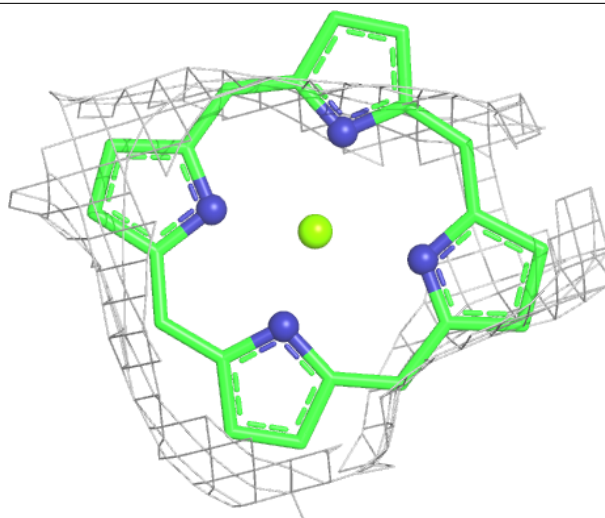
Electron density around CLA B 1227:

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



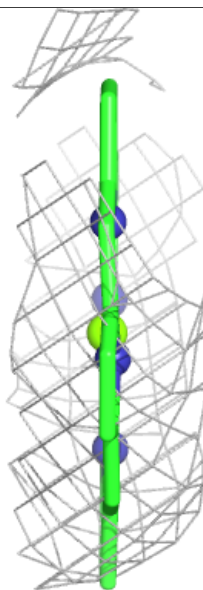
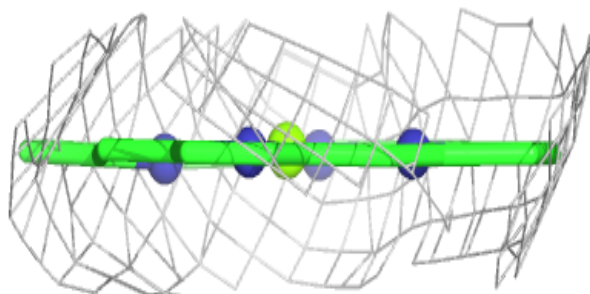
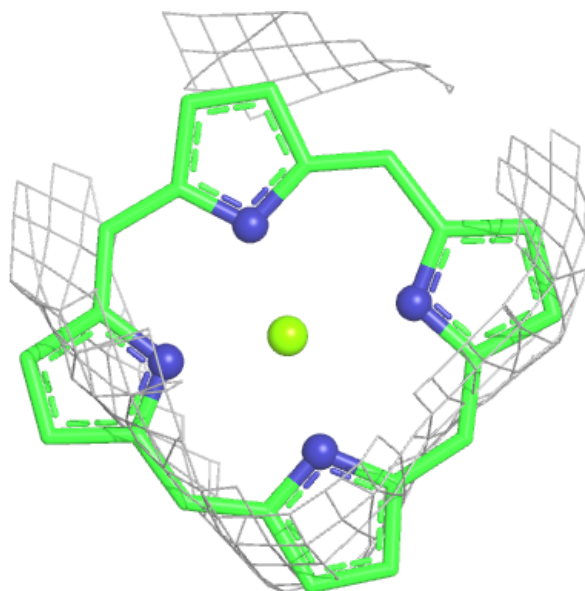
Electron density around CLA 3 607:

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and green (positive)



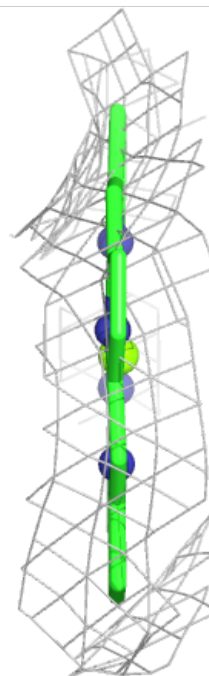
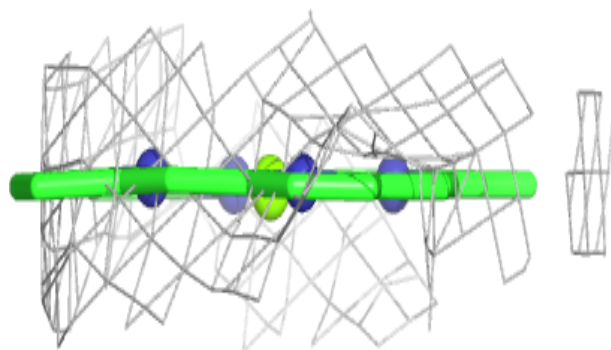
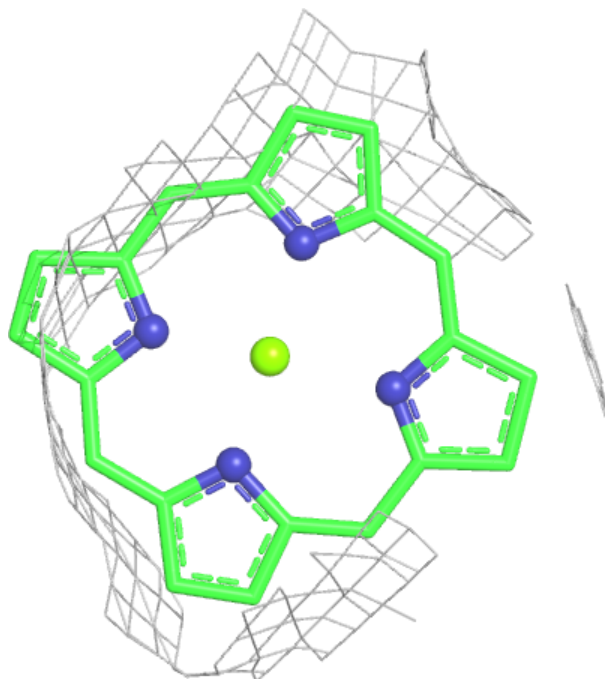
Electron density around CLA O 1603:

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



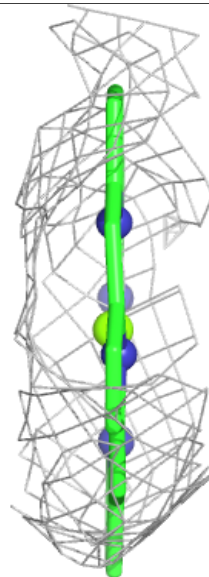
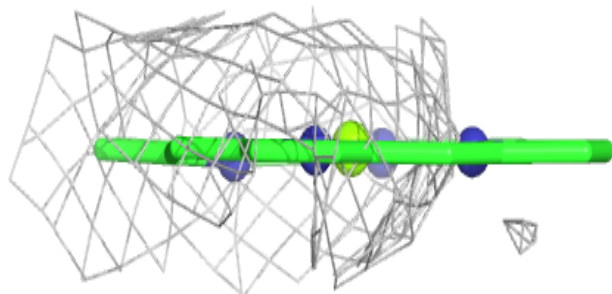
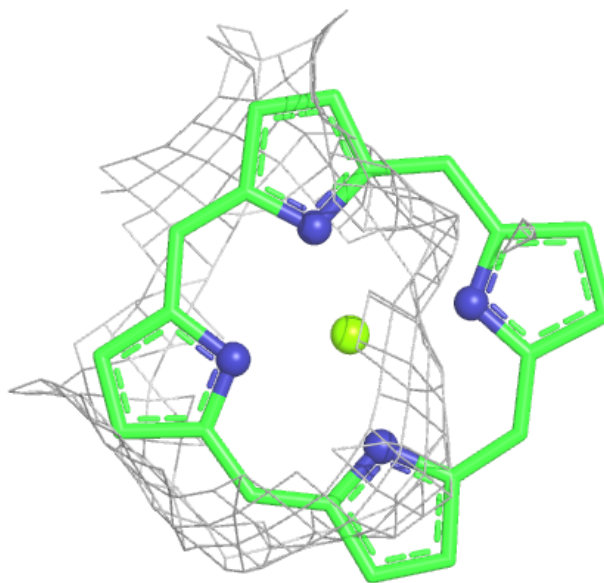
Electron density around CLA 2 606:

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and green (positive)



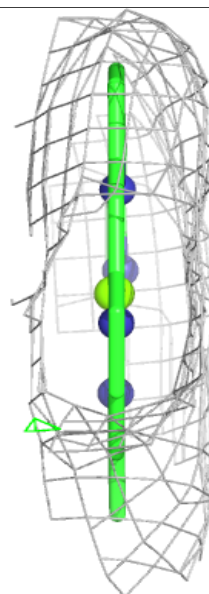
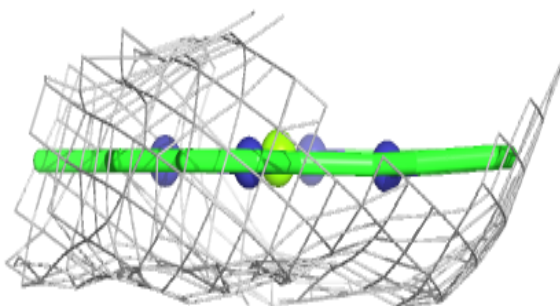
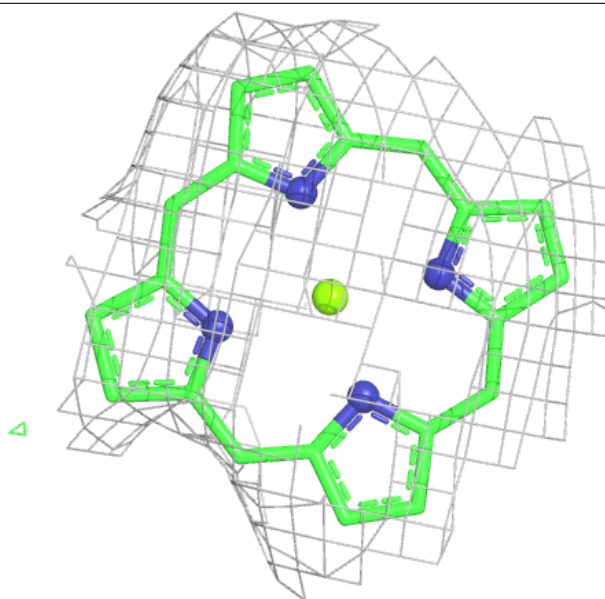
Electron density around CLA B 1217:

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and green (positive)



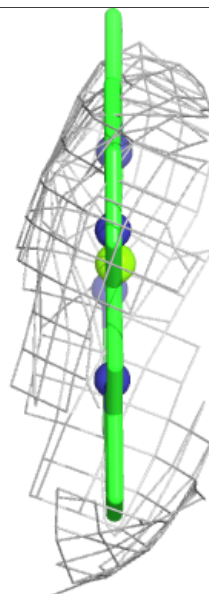
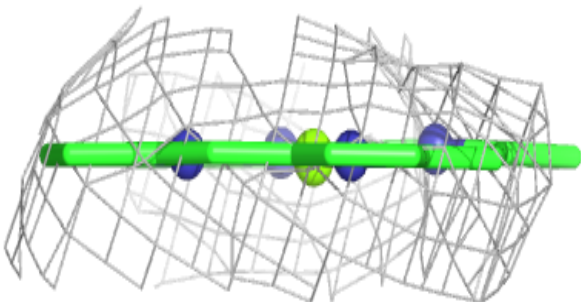
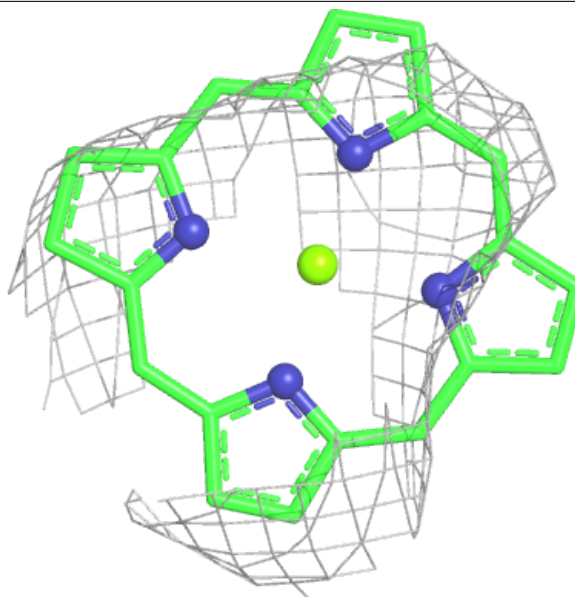
Electron density around CLA 3 611:

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and green (positive)



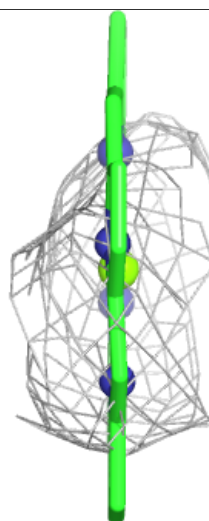
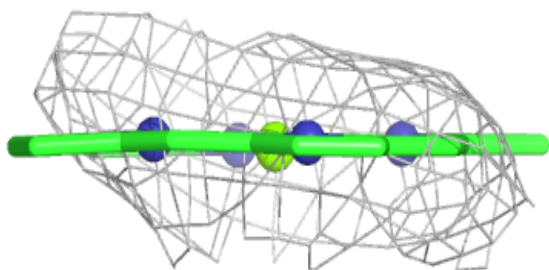
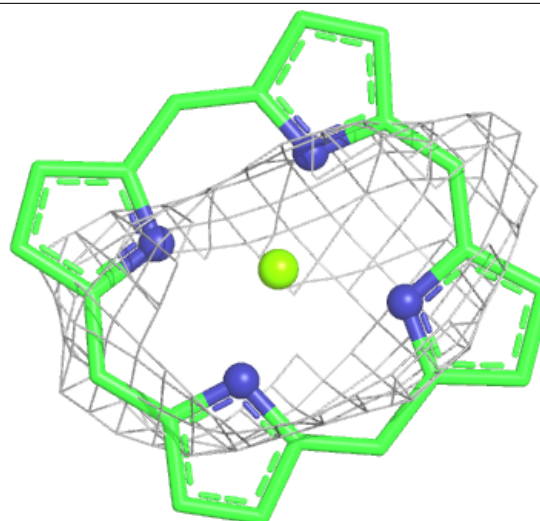
Electron density around CLA 2 601:

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and green (positive)



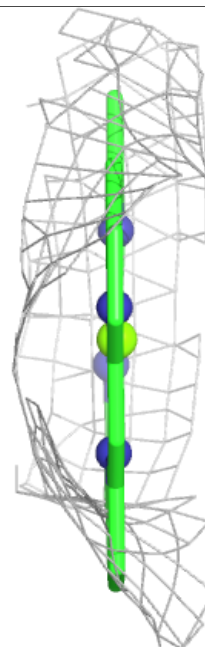
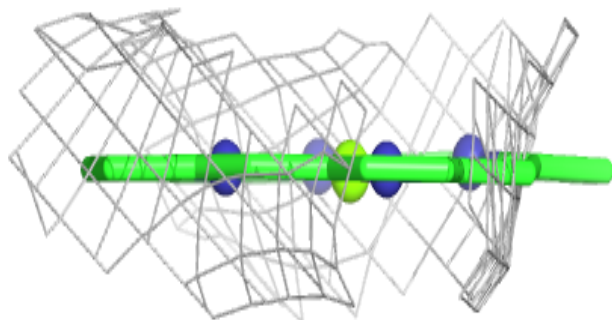
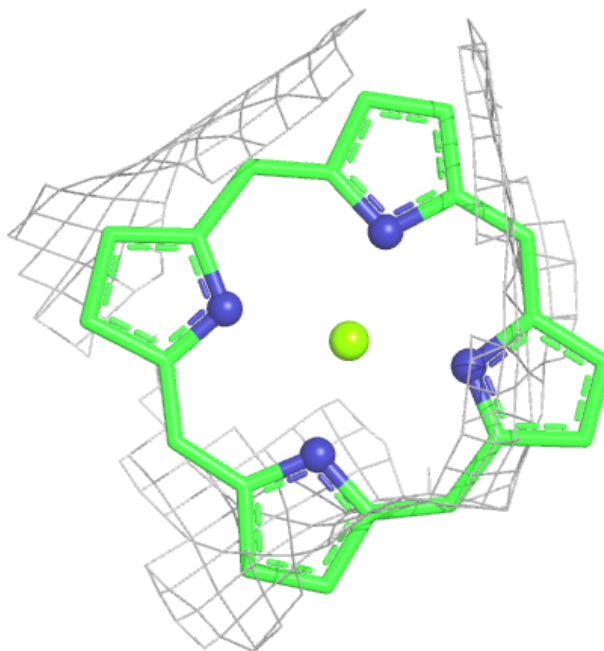
Electron density around CLA 4 611:

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and green (positive)



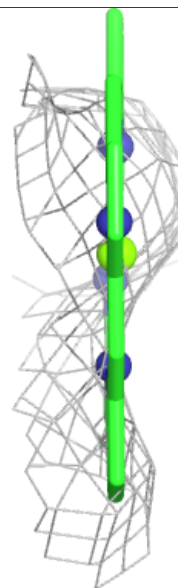
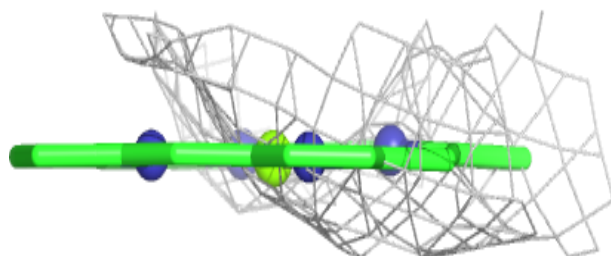
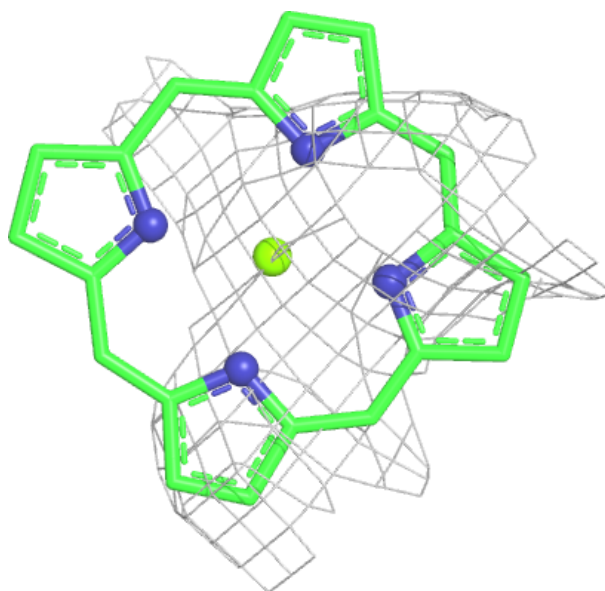
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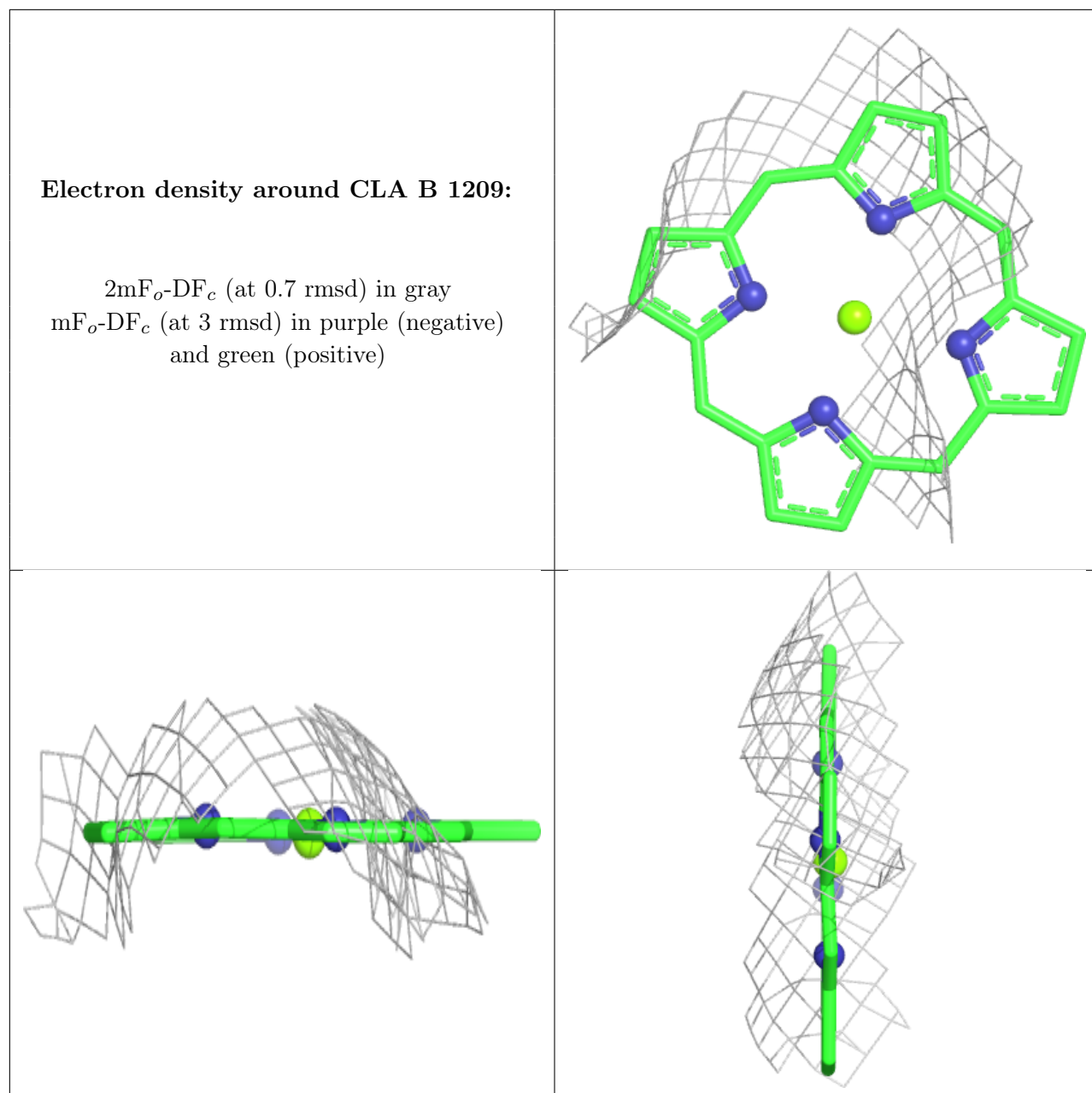
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and green (positive)



Electron density around CLA 4 602:

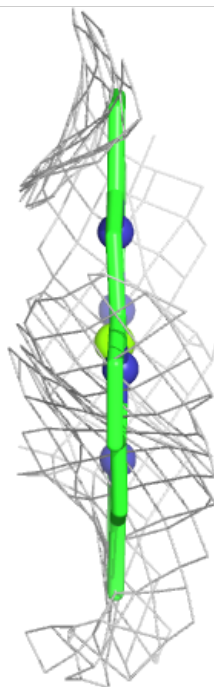
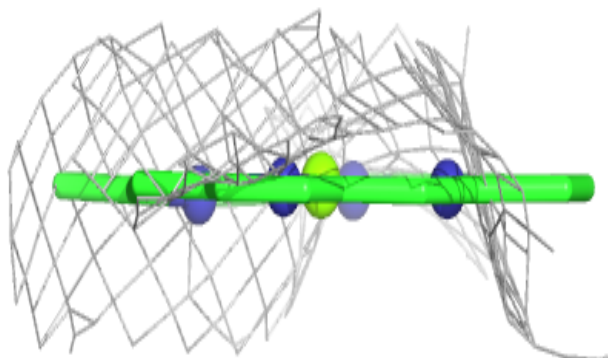
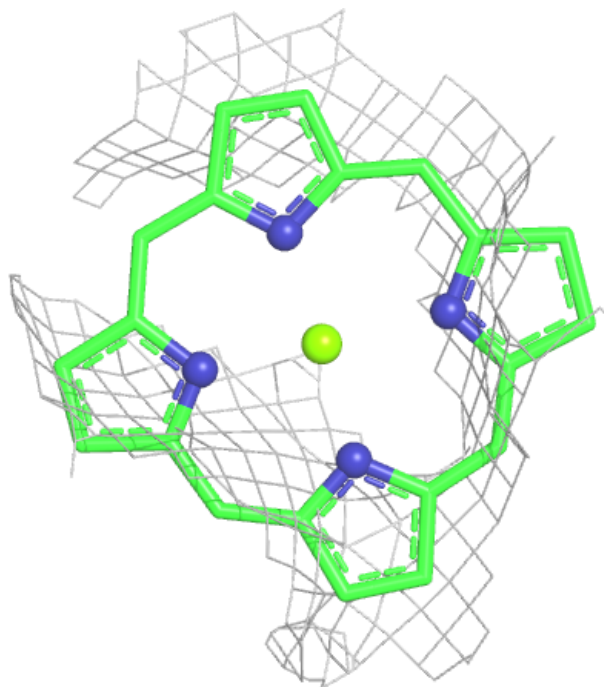
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and green (positive)





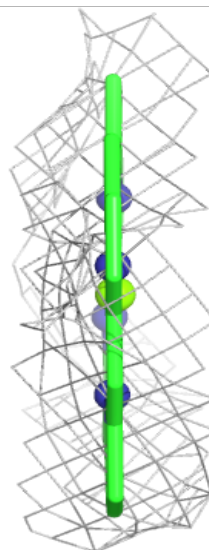
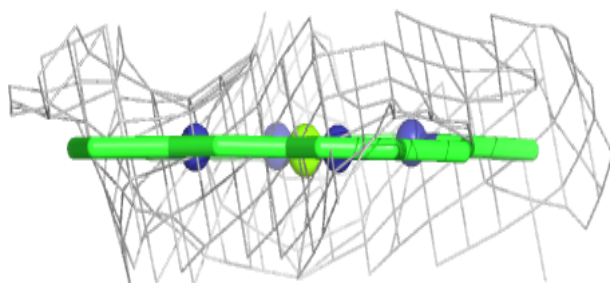
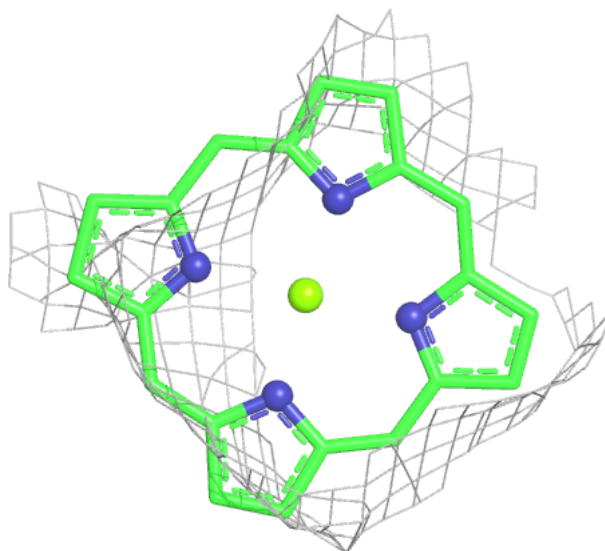
Electron density around CLA O 1602:

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and green (positive)



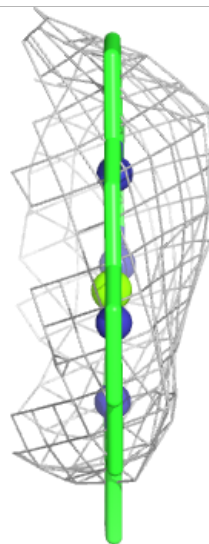
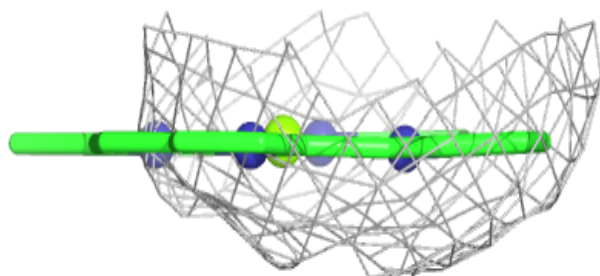
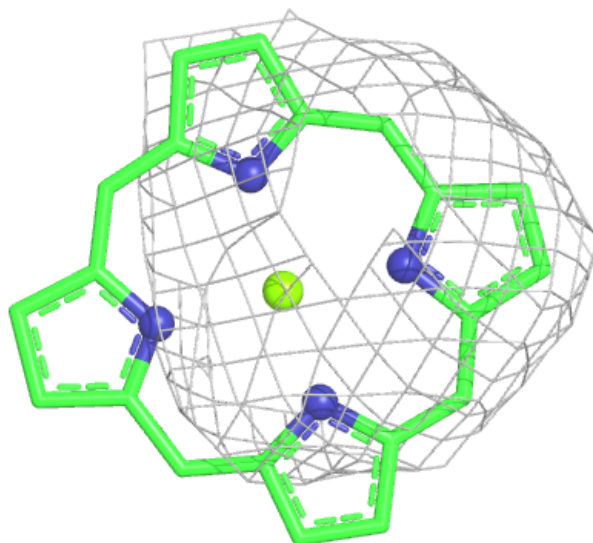
Electron density around CLA 2 611:

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and green (positive)



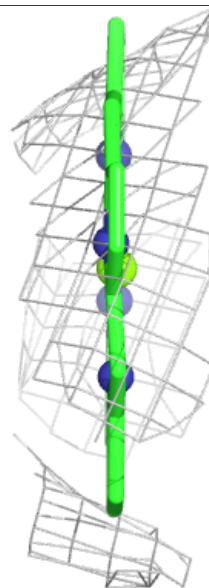
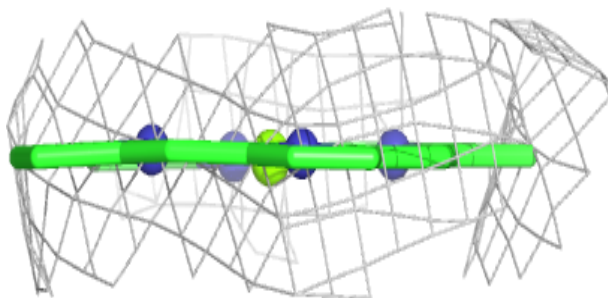
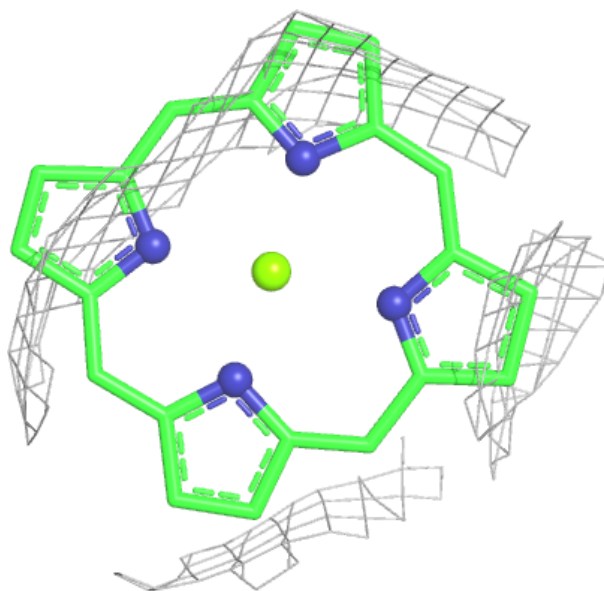
Electron density around CLA 4 604:

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and green (positive)



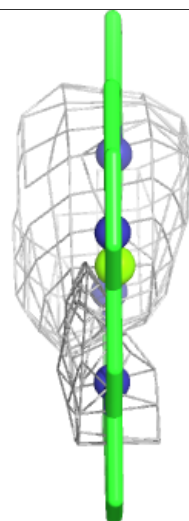
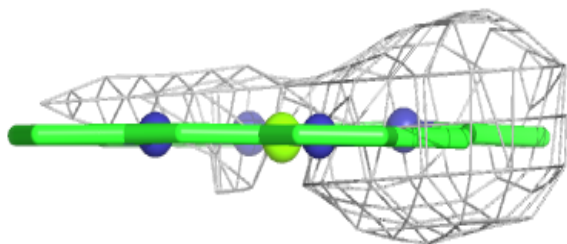
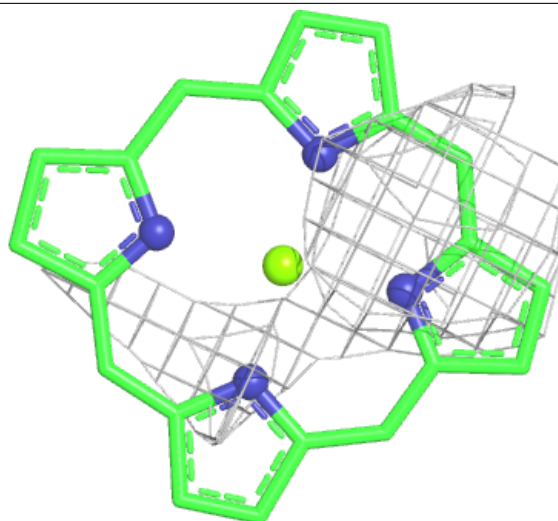
Electron density around CLA 2 613:

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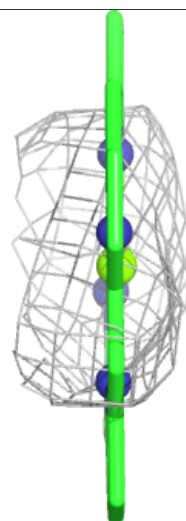
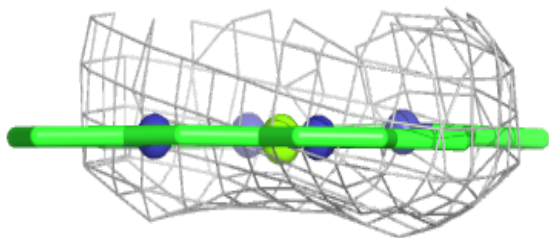
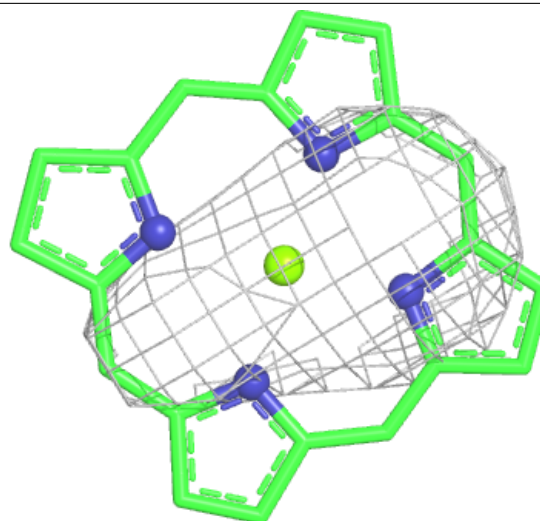
Electron density around CLA 2 616:

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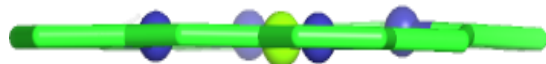
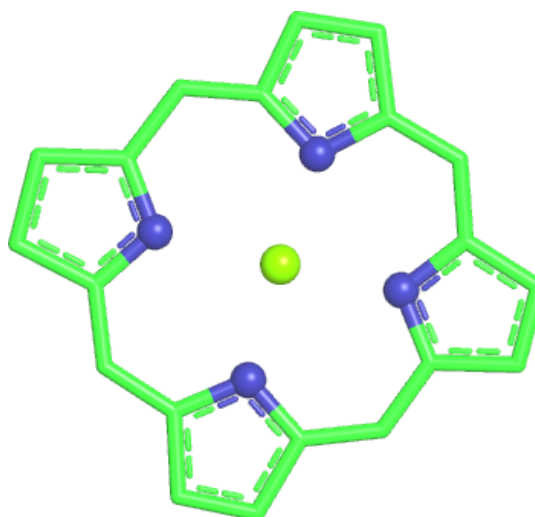
Electron density around CLA 2 608:

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and green (positive)



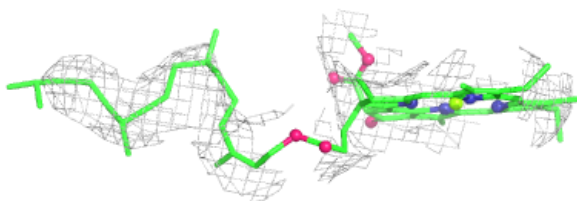
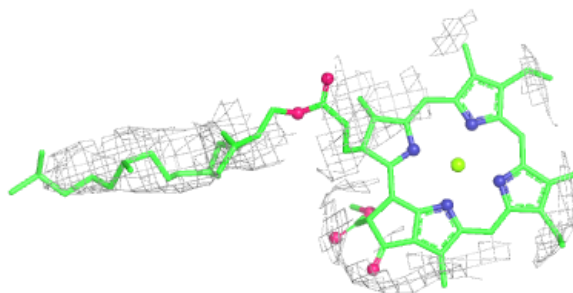
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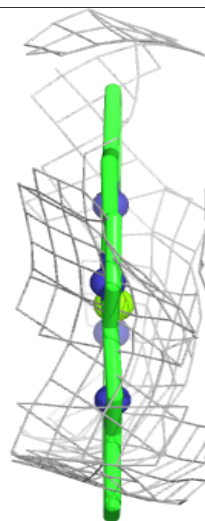
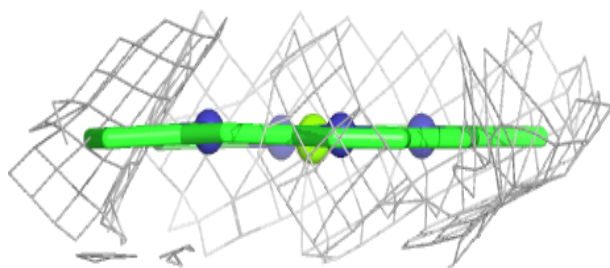
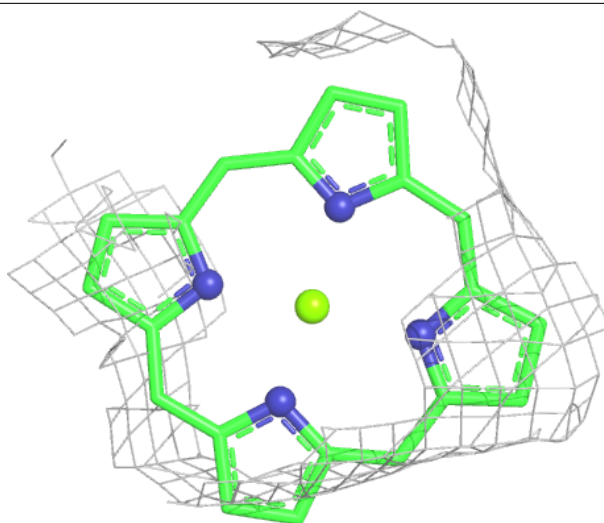
Electron density around CLA B 1232:

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and green (positive)



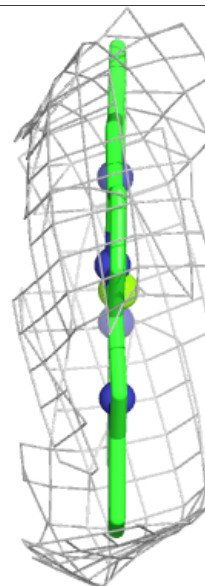
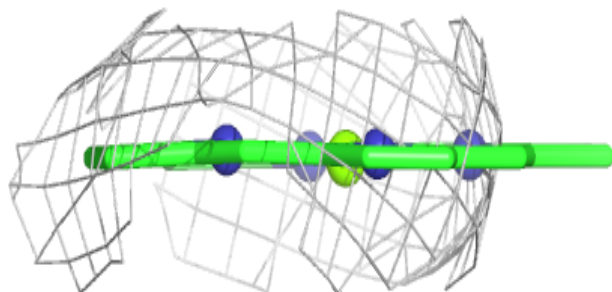
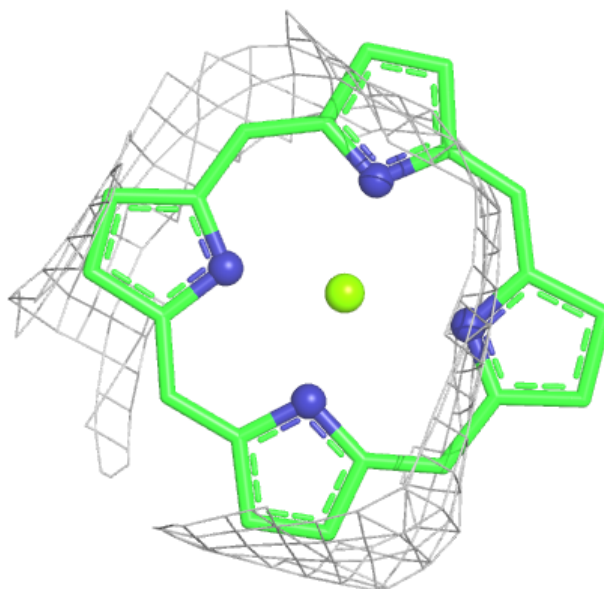
Electron density around CLA B 1208:

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and green (positive)



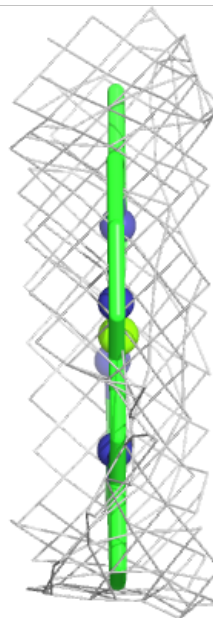
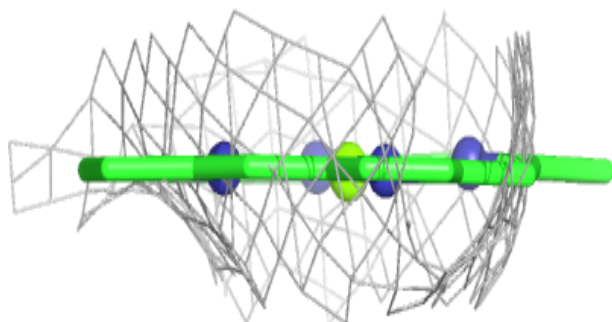
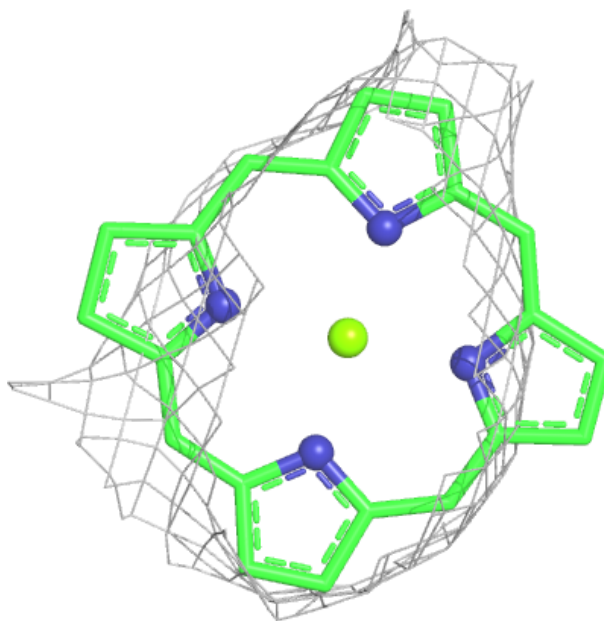
Electron density around CLA 4 608:

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



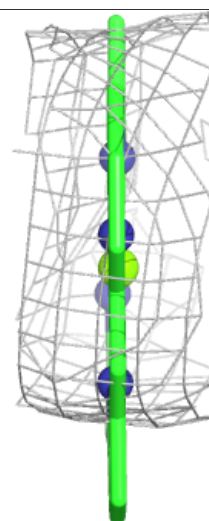
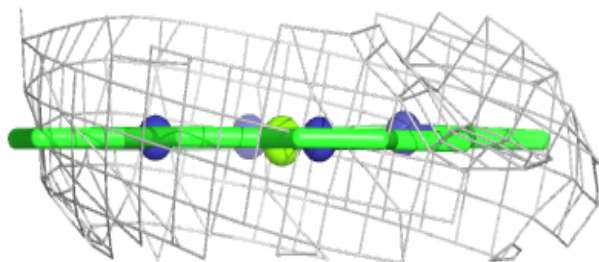
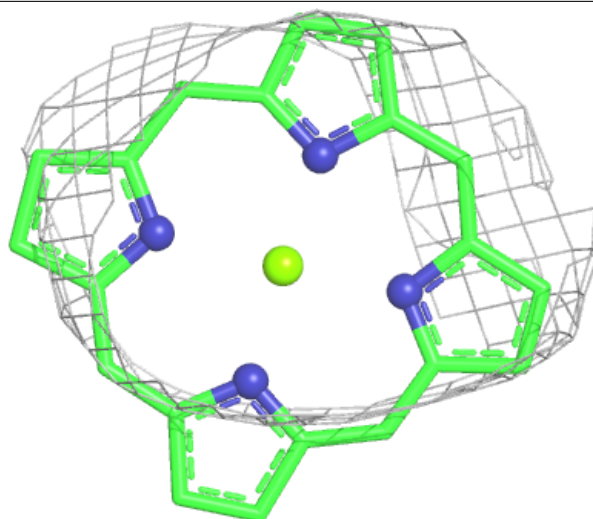
Electron density around CLA O 1601:

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



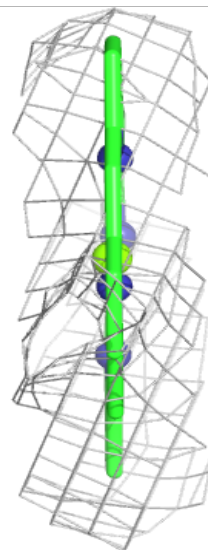
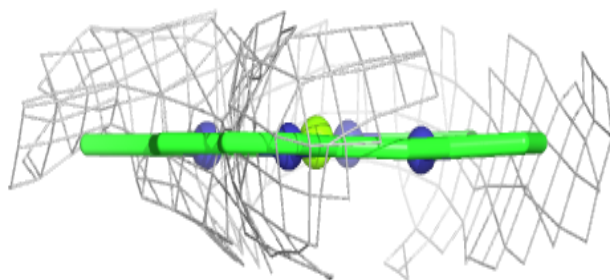
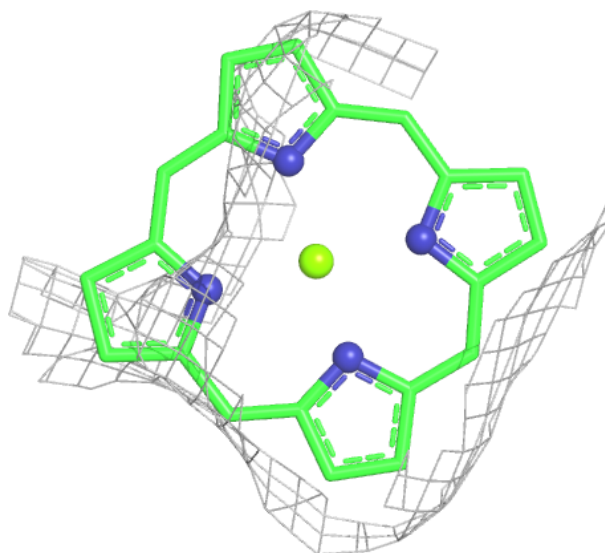
Electron density around CLA 4 616:

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



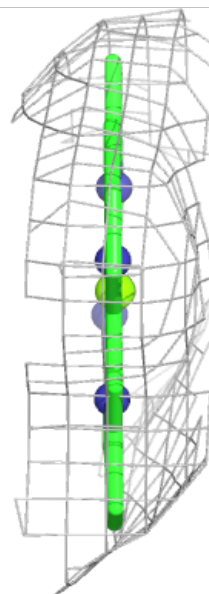
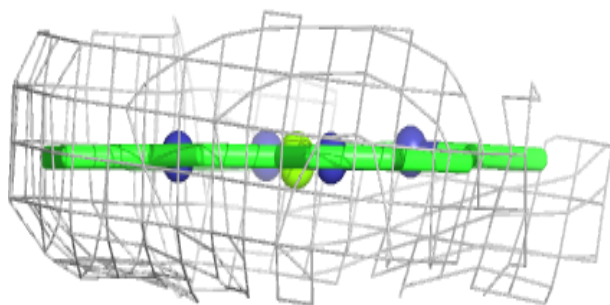
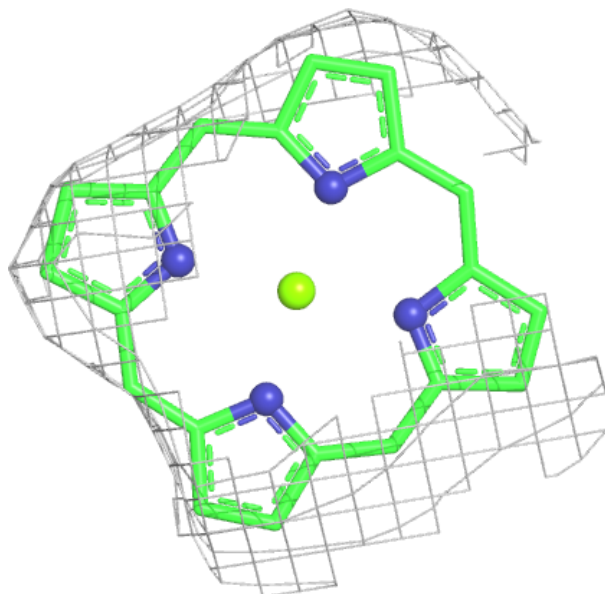
Electron density around CLA 4 610:

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



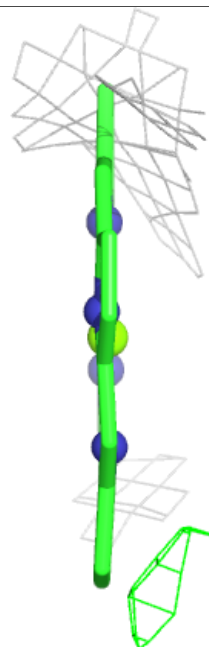
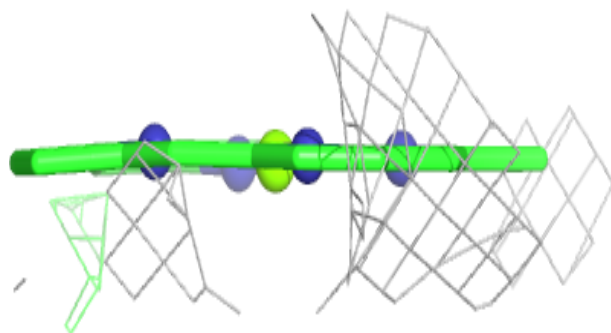
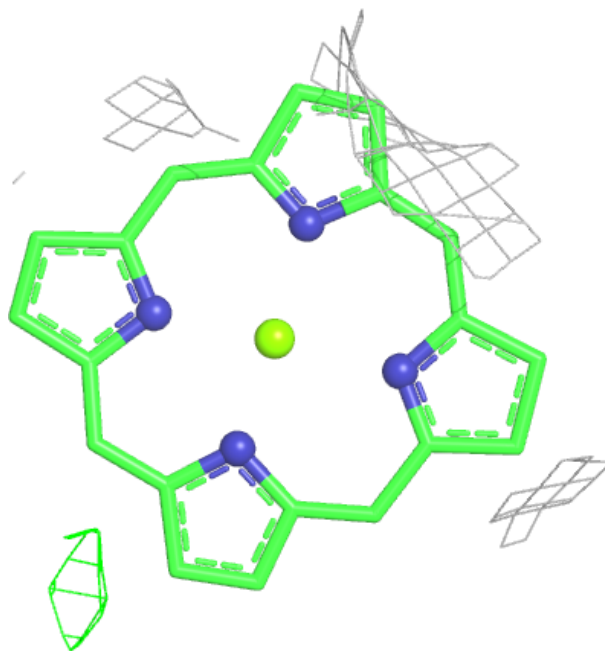
Electron density around CLA 2 602:

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



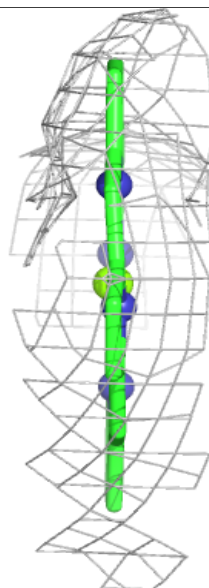
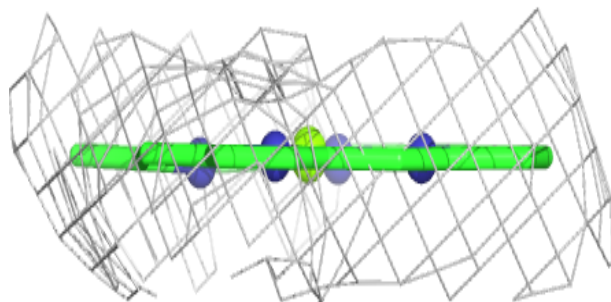
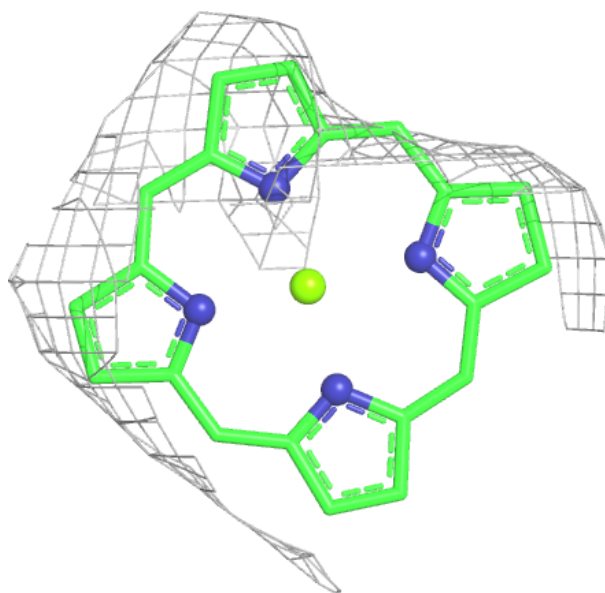
Electron density around CLA 3 602:

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



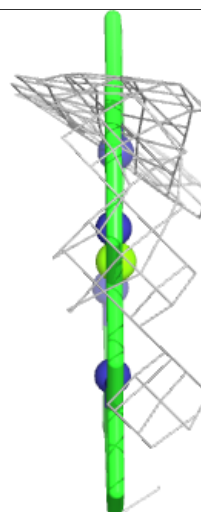
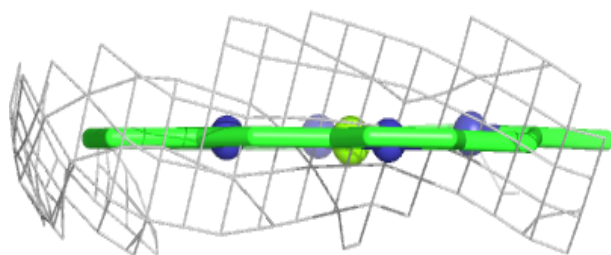
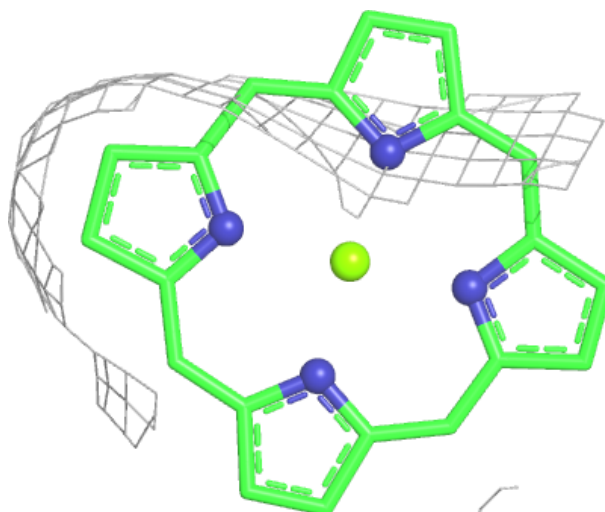
Electron density around CLA B 1219:

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



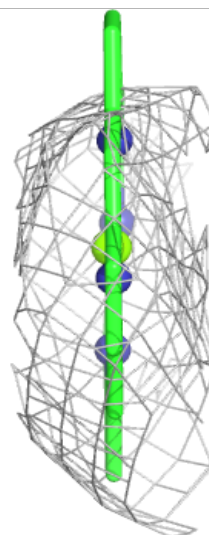
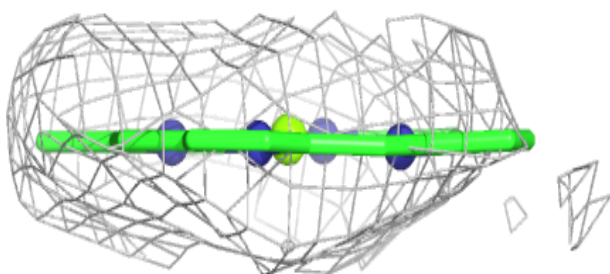
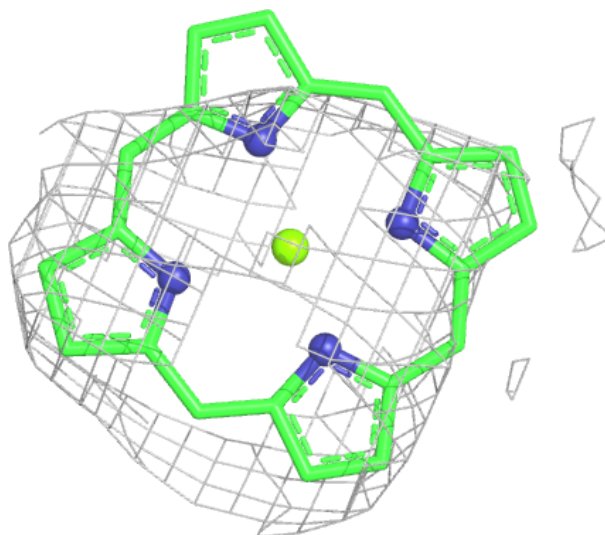
Electron density around CLA 4 615:

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



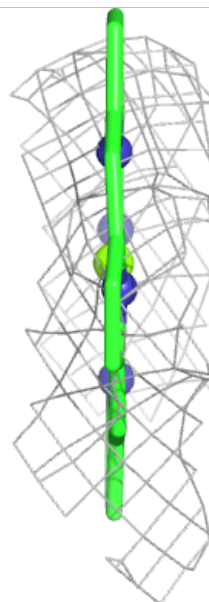
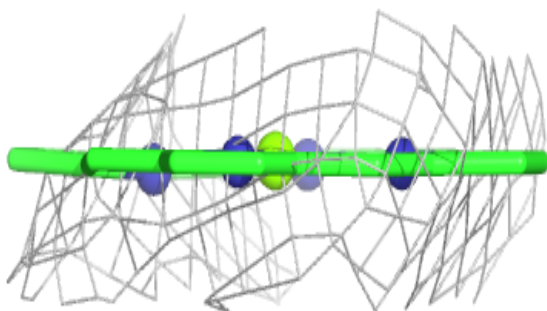
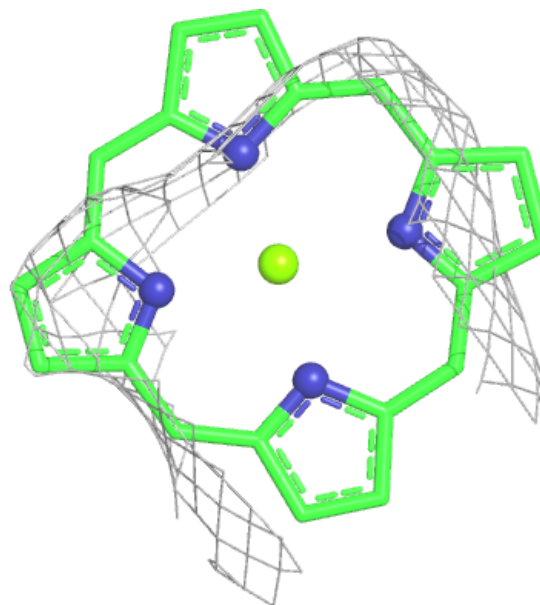
Electron density around CLA 3 614:

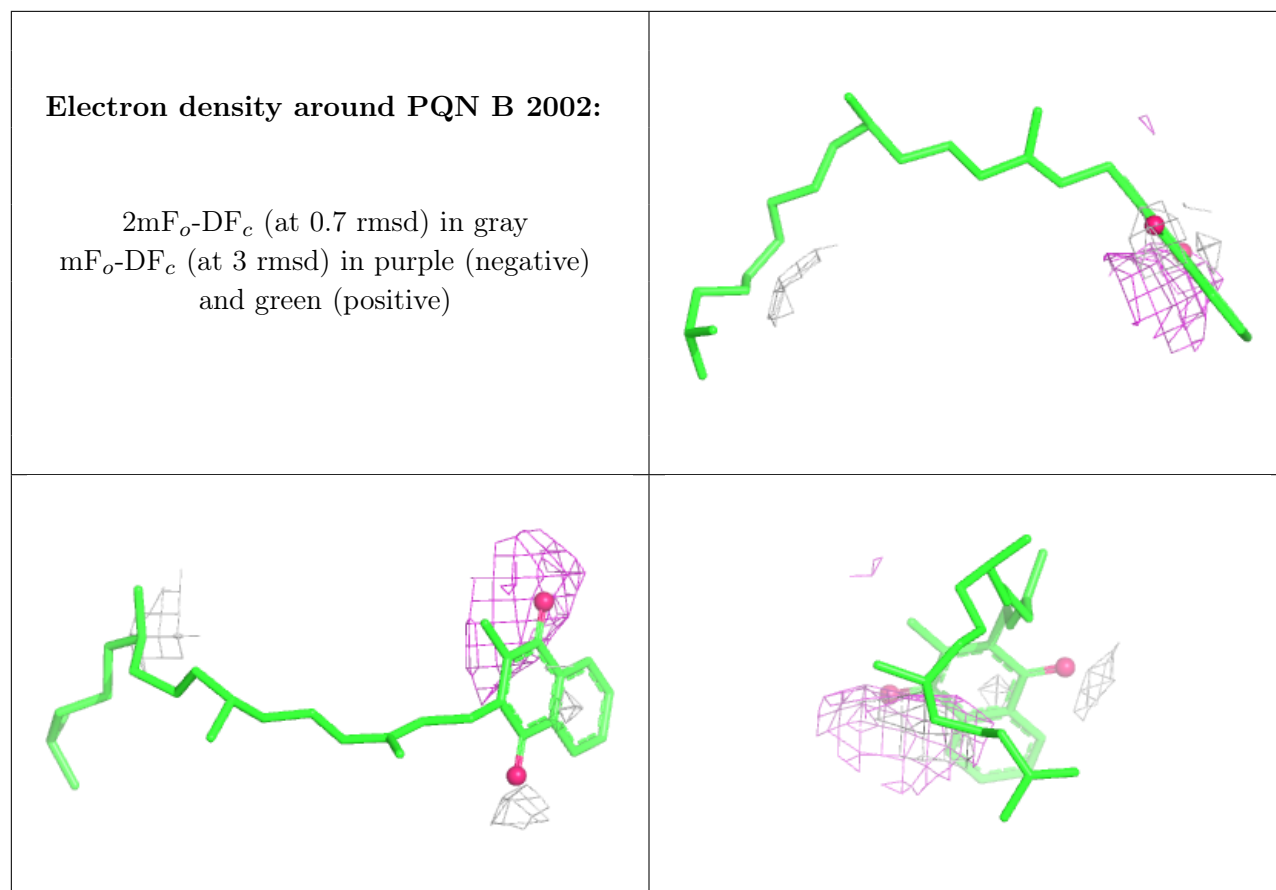
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA B 1212:

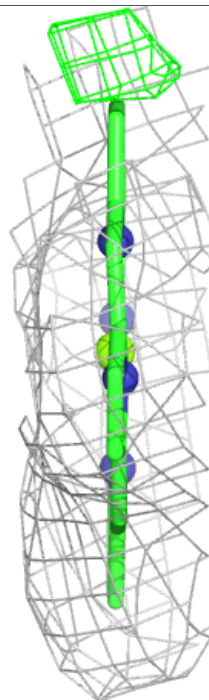
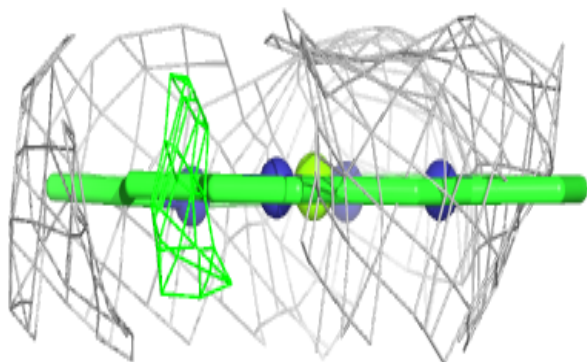
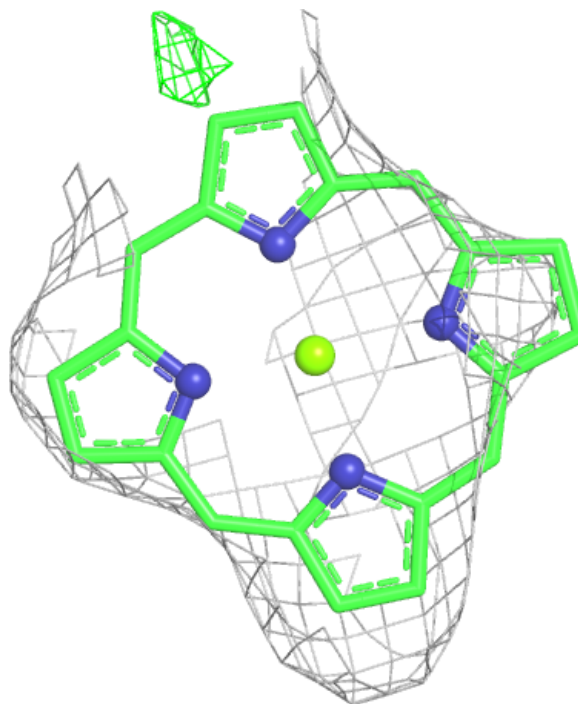
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





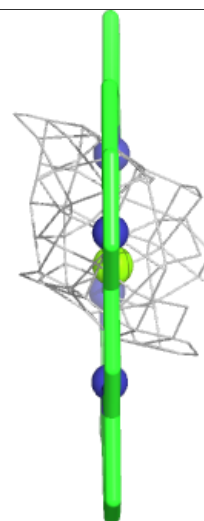
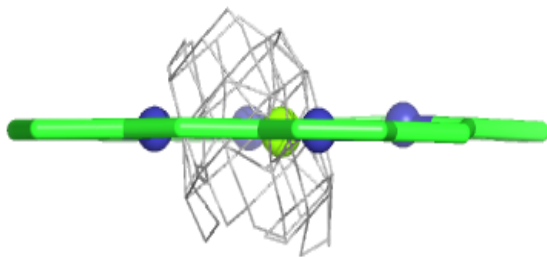
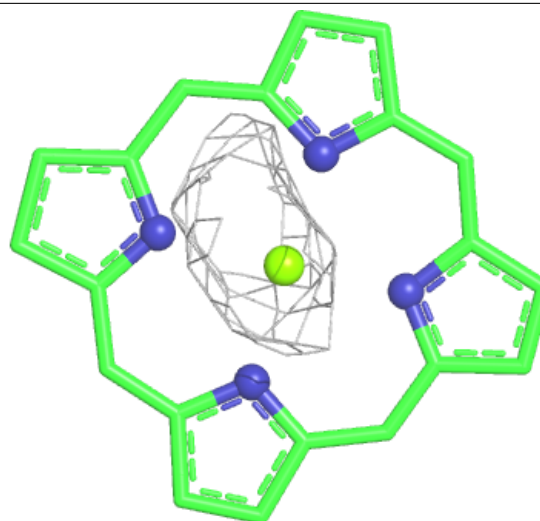
Electron density around CLA B 1223:

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



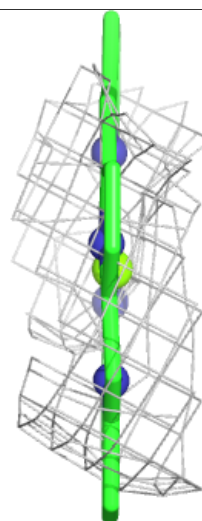
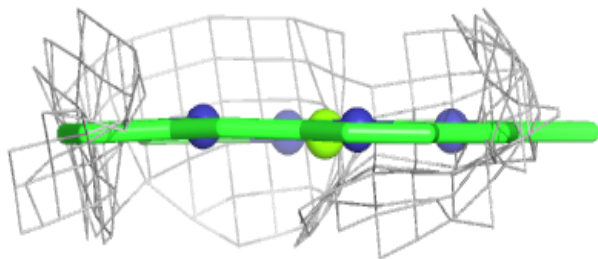
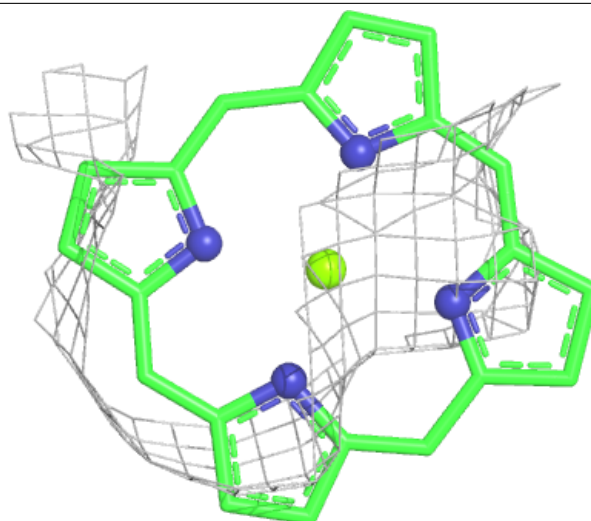
Electron density around CLA B 1216:

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



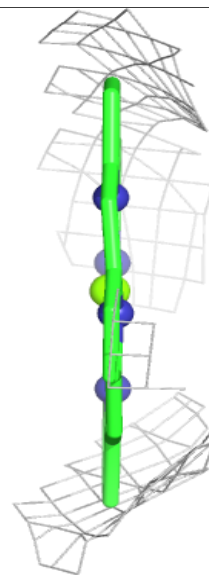
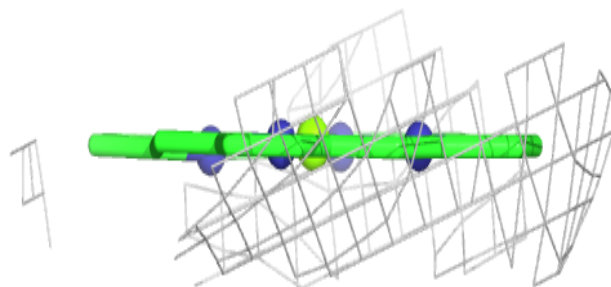
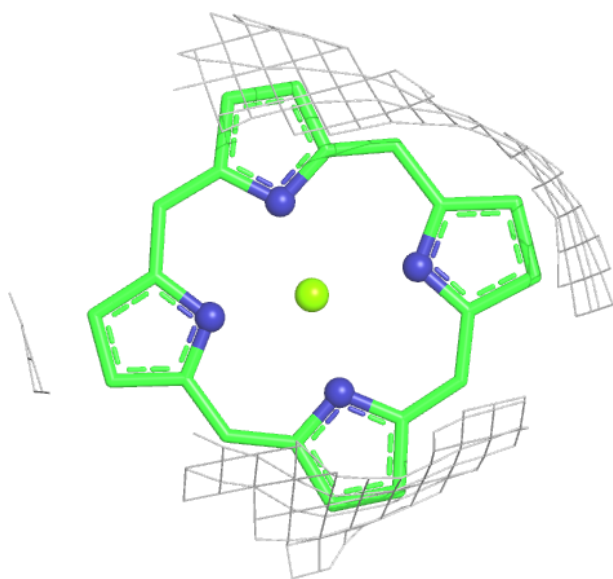
Electron density around CLA B 1210:

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



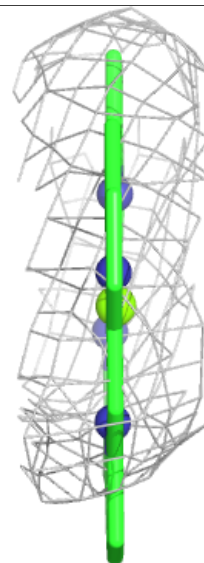
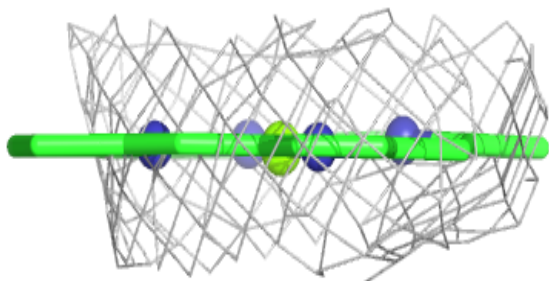
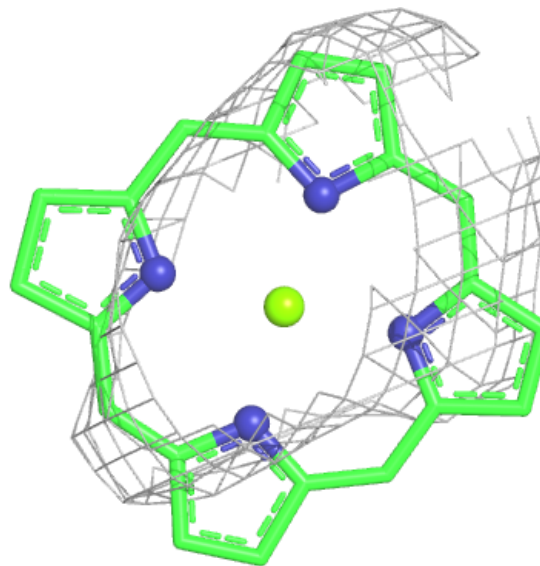
Electron density around CLA L 1501:

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



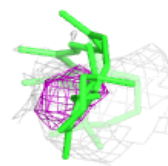
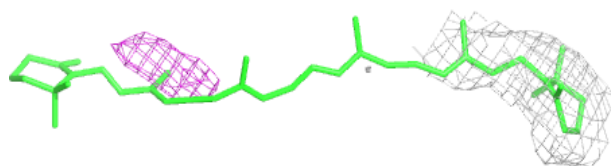
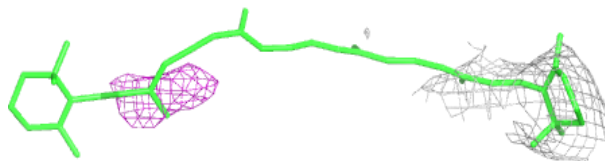
Electron density around CLA 2 614:

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

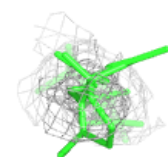
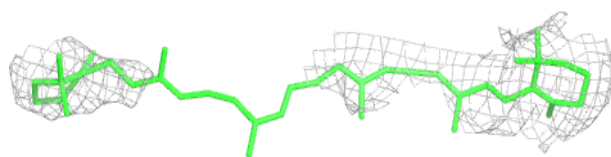
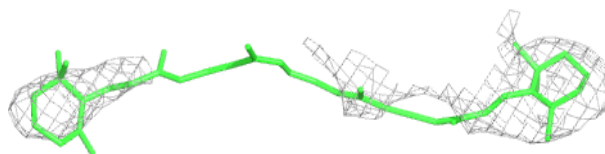


Electron density around BCR A 4008:

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

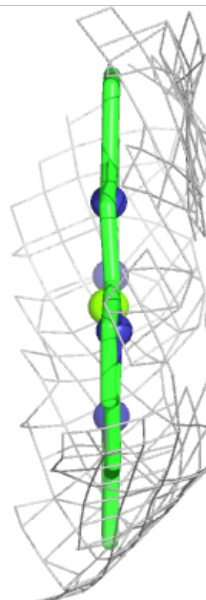
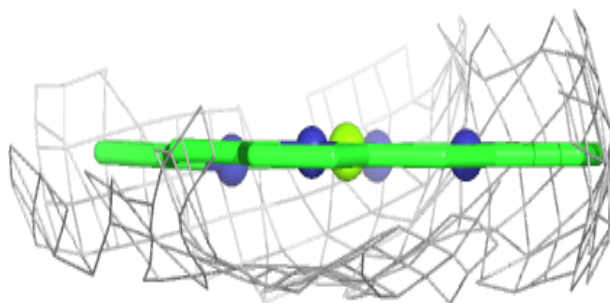
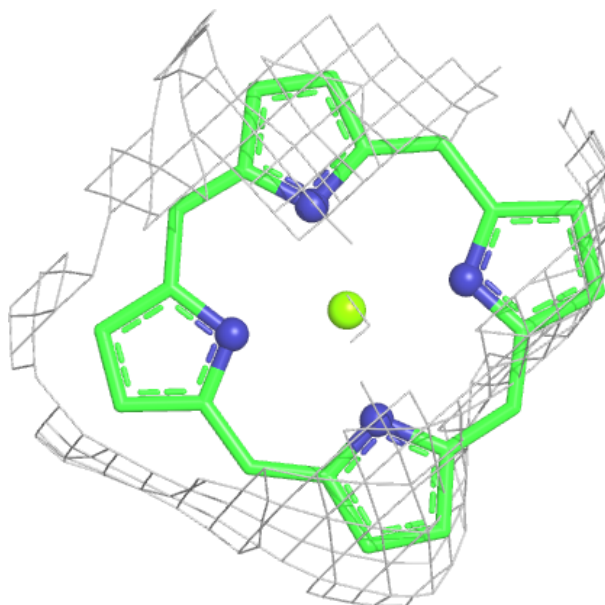
**Electron density around BCR A 4007:**

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



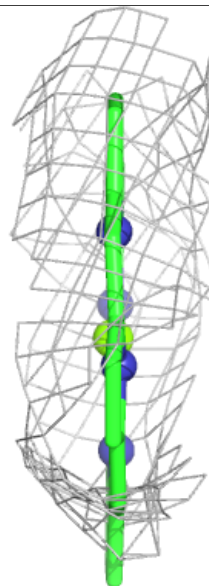
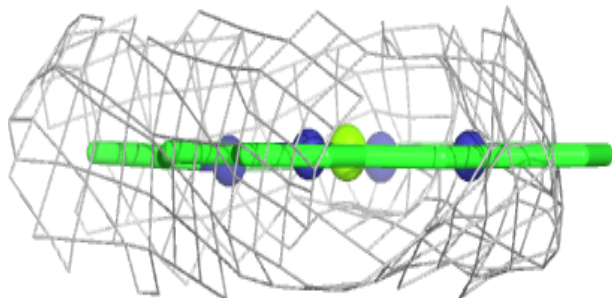
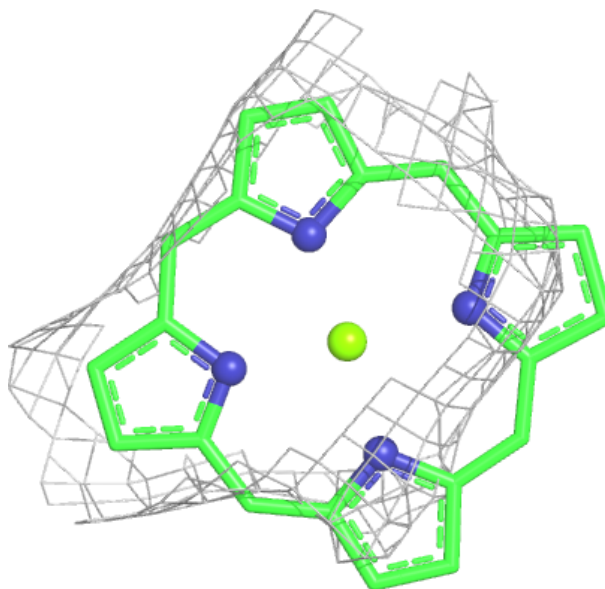
Electron density around CLA L 1502:

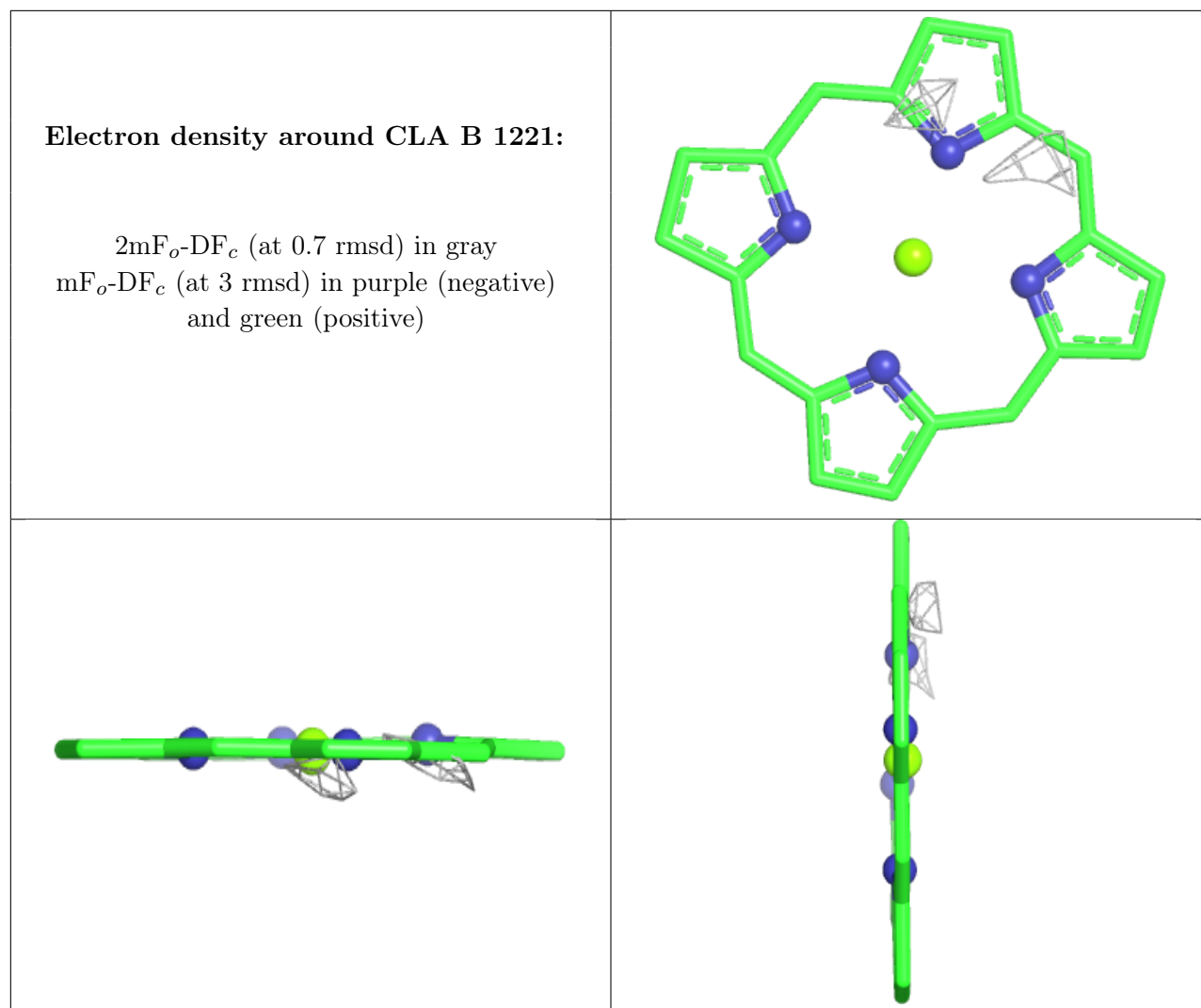
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA 2 603:

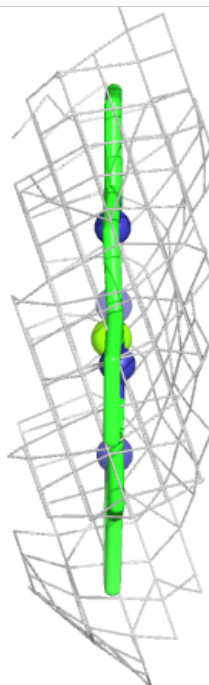
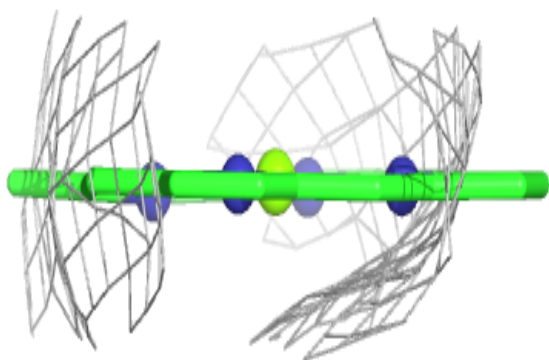
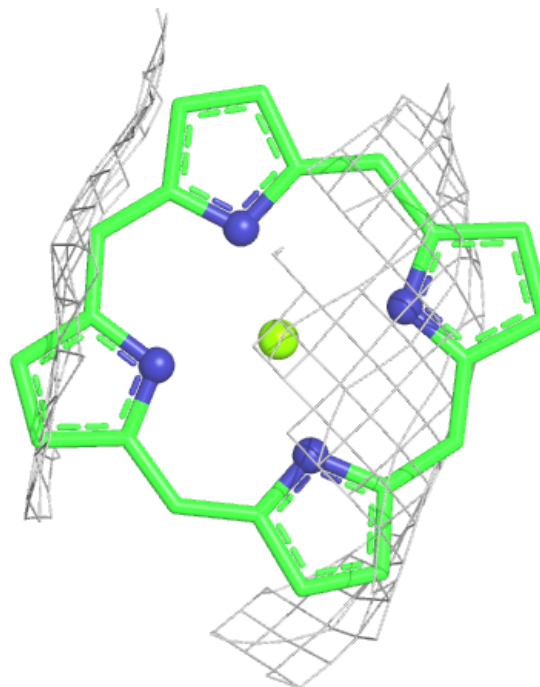
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





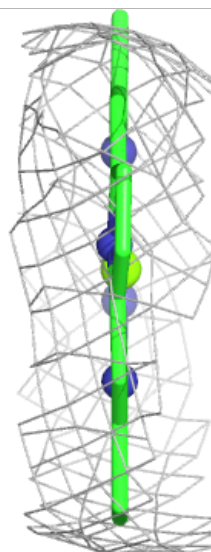
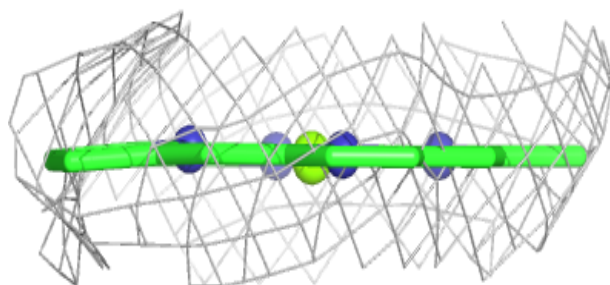
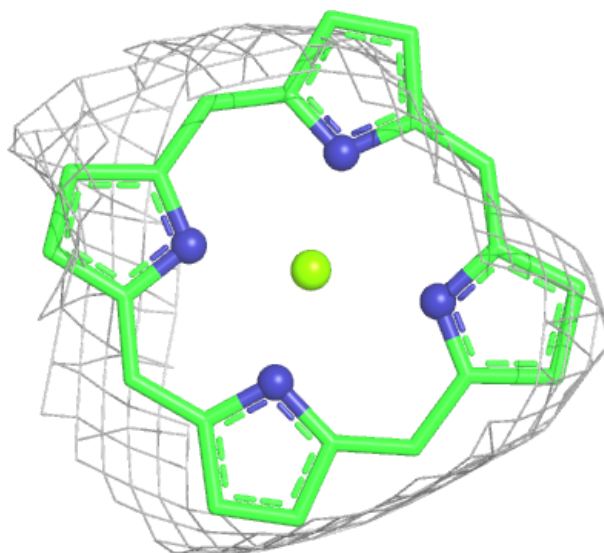
Electron density around CLA B 1231:

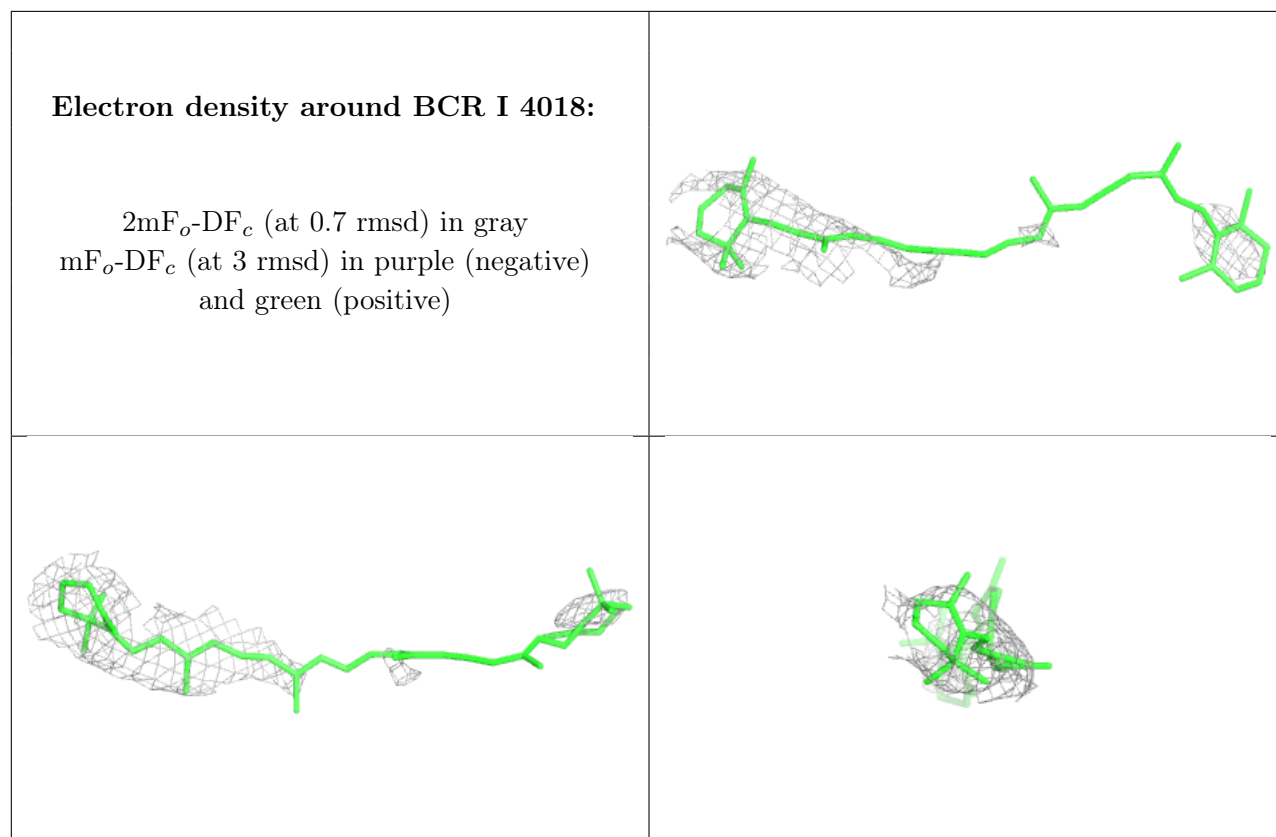
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA 3 601:

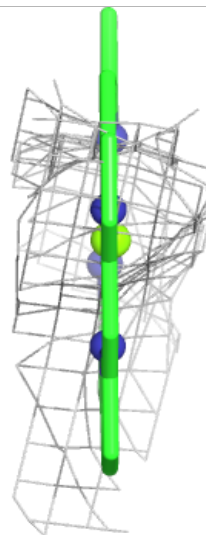
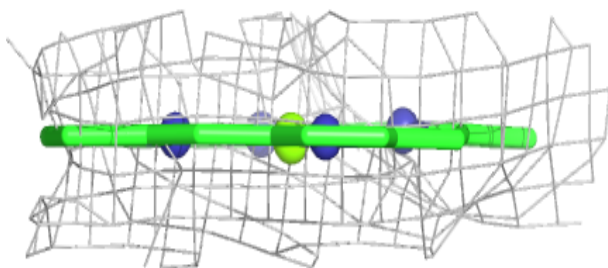
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





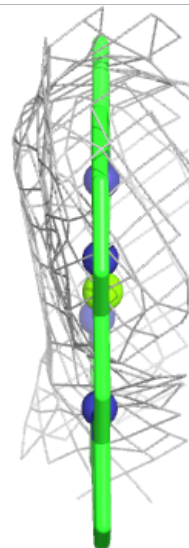
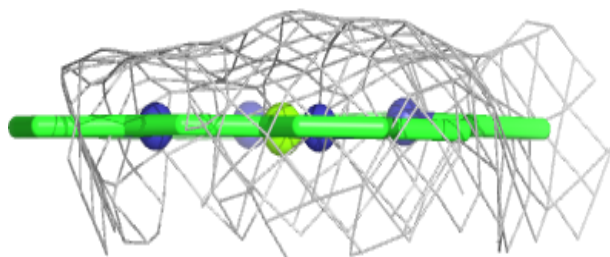
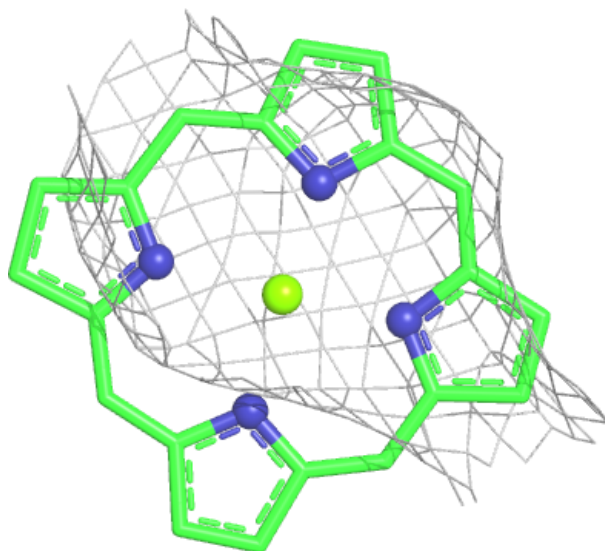
Electron density around CLA 4 609:

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



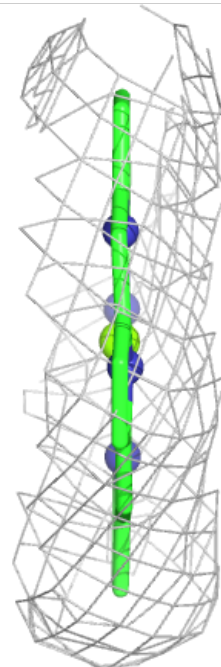
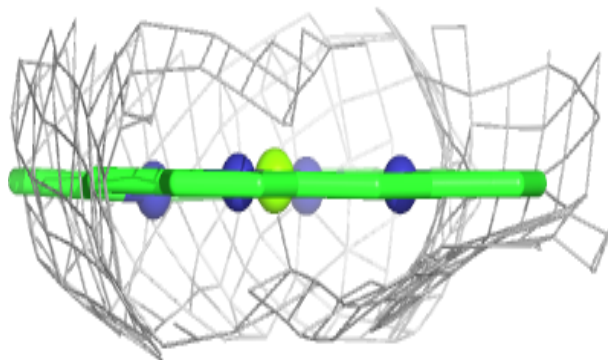
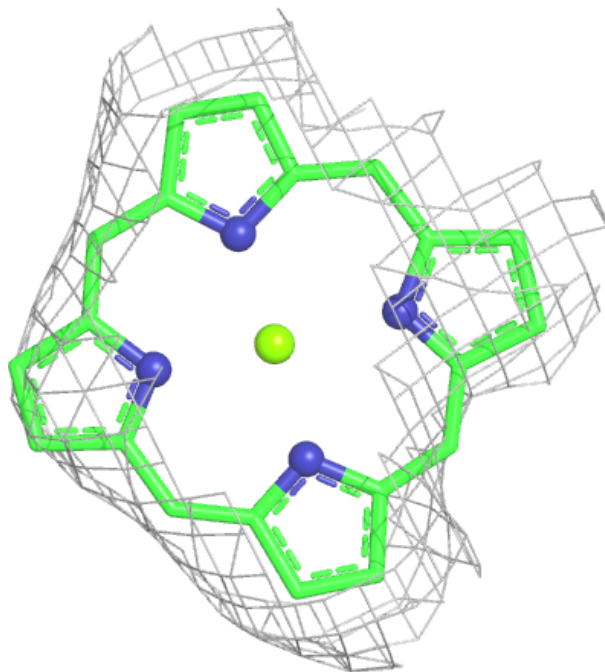
Electron density around CLA B 1204:

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



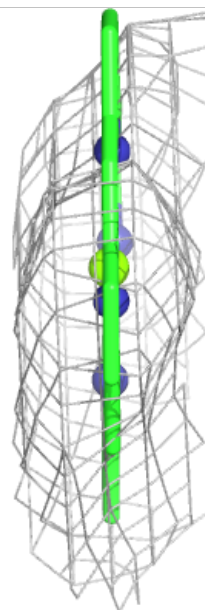
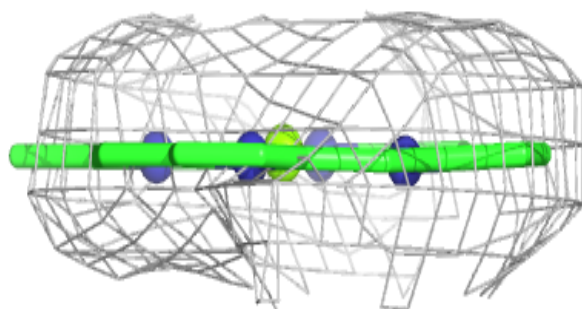
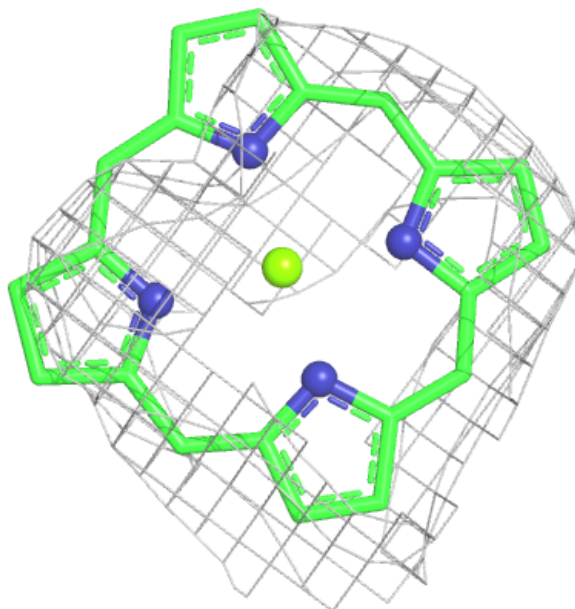
Electron density around CLA 2 607:

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



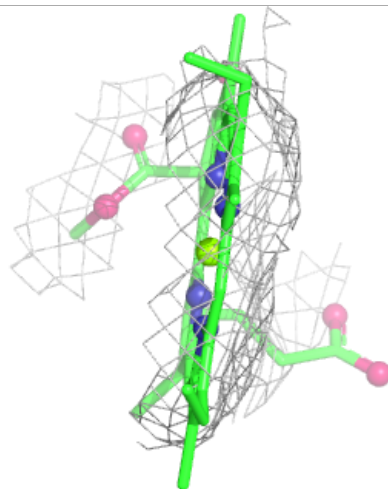
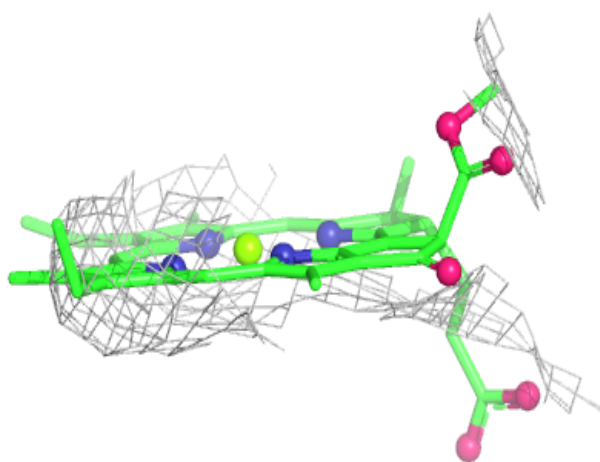
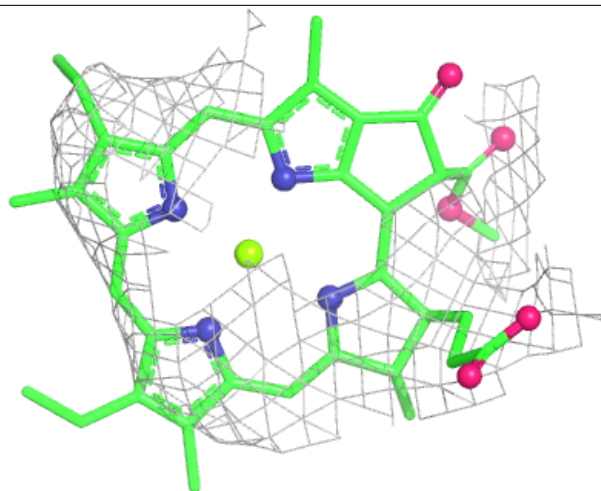
Electron density around CLA 4 603:

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



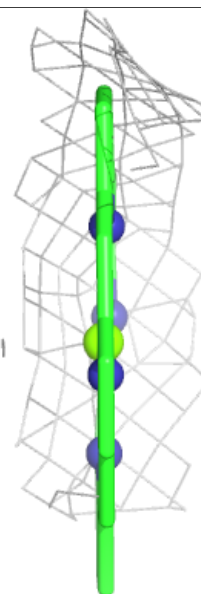
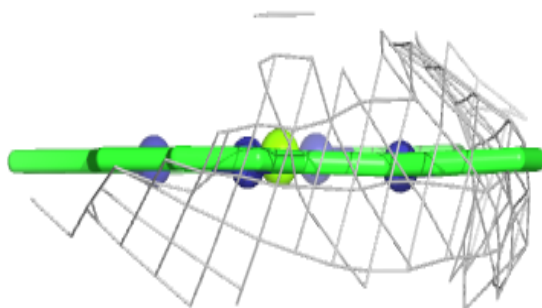
Electron density around CLA B 1236:

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



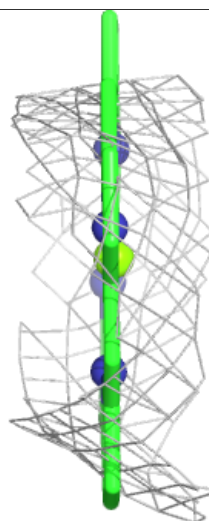
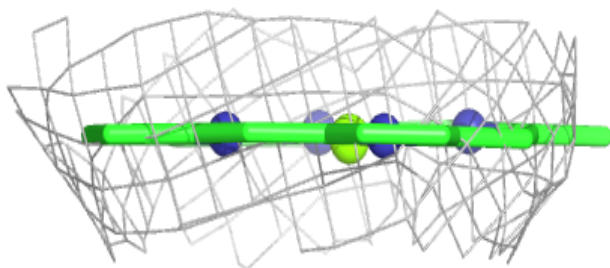
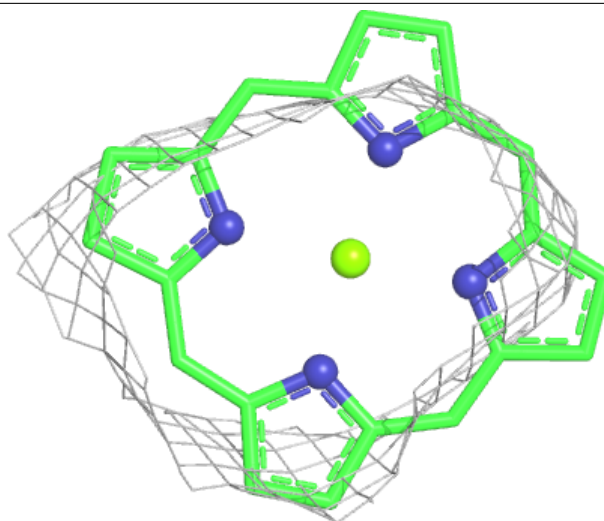
Electron density around CLA K 1402:

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



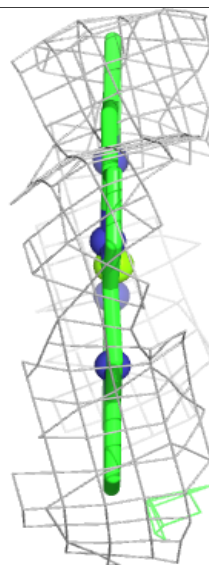
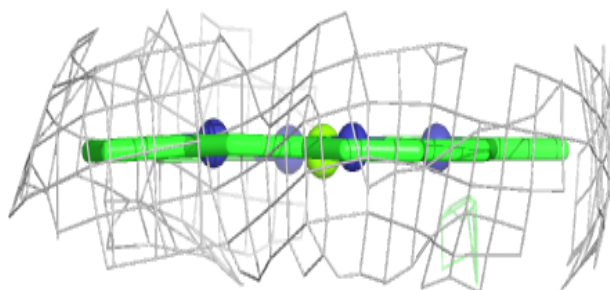
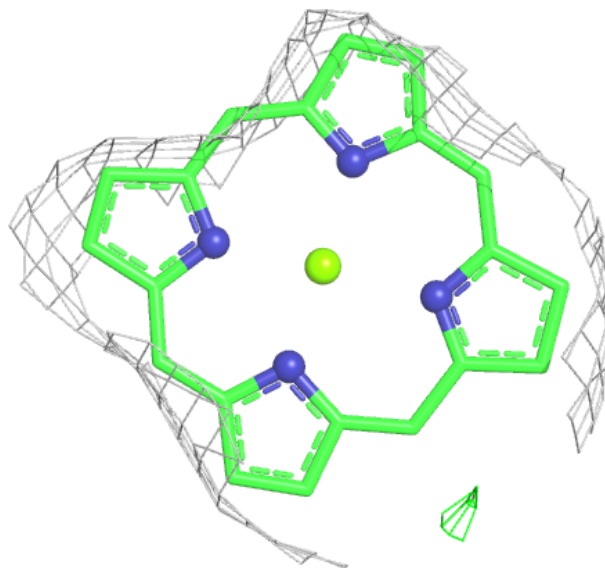
Electron density around CLA 3 604:

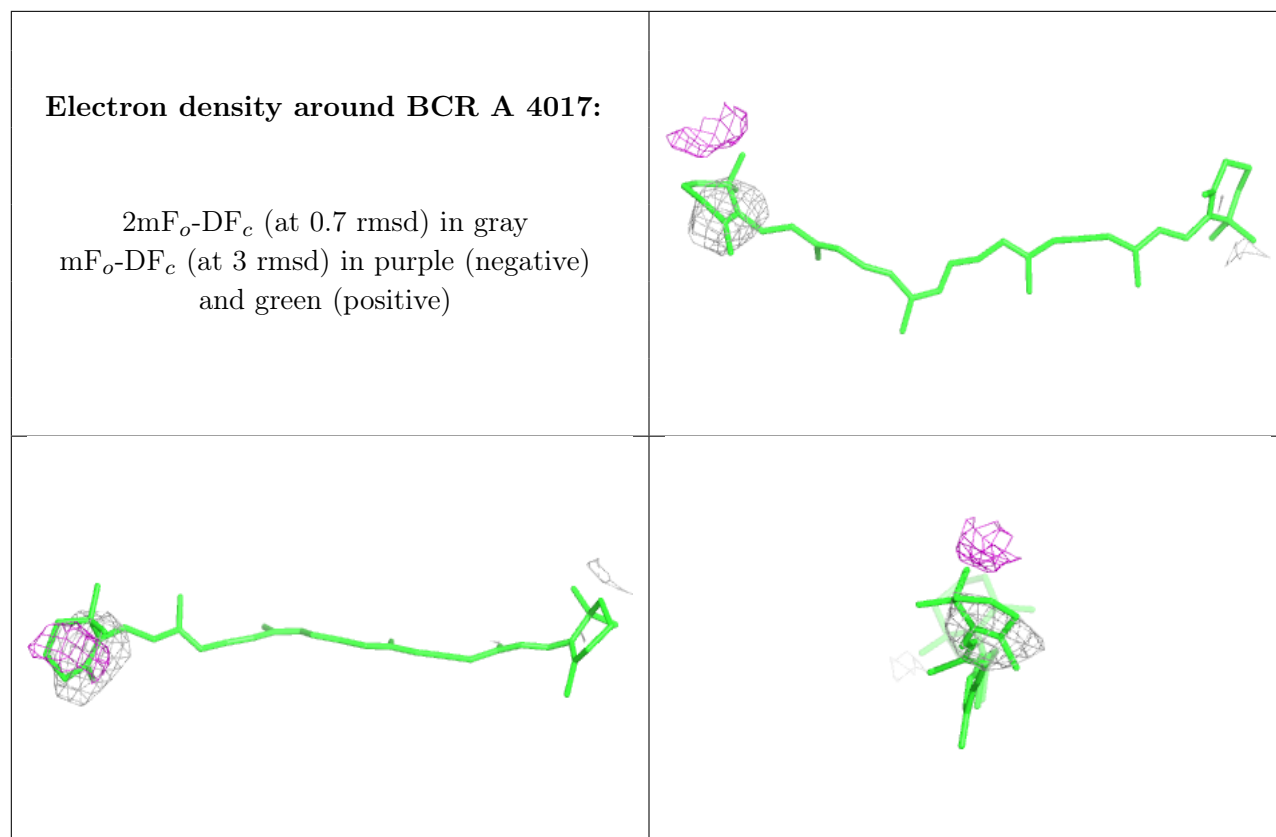
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA A 1109:

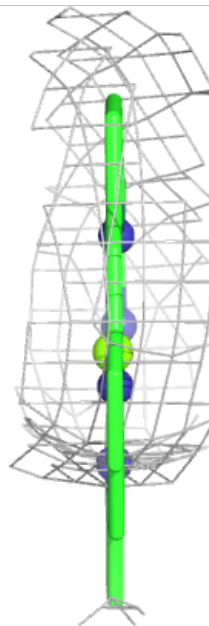
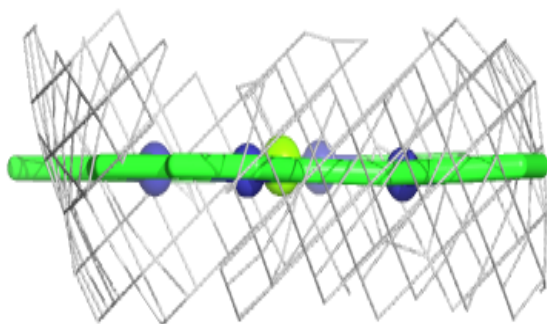
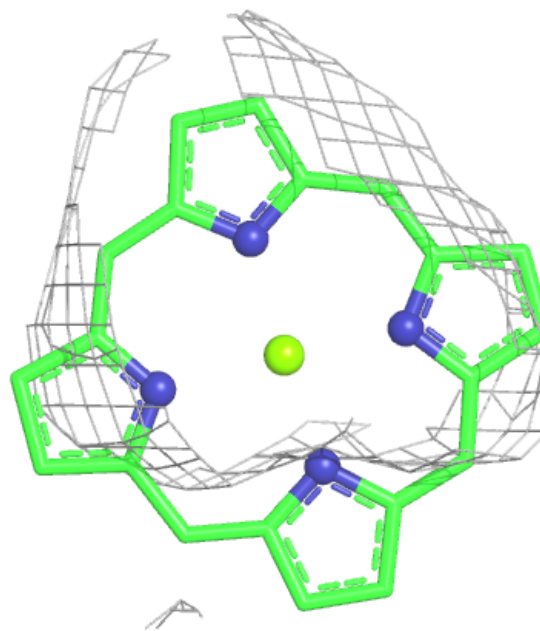
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





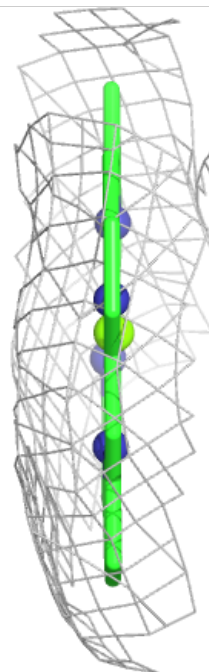
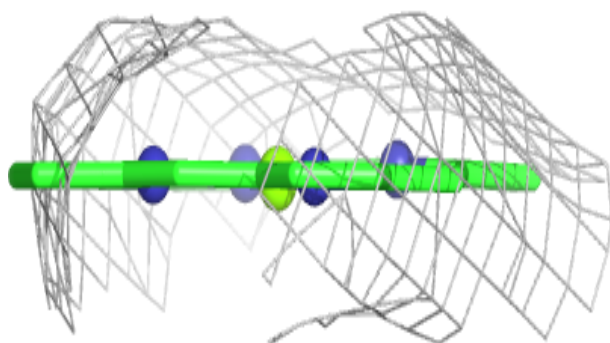
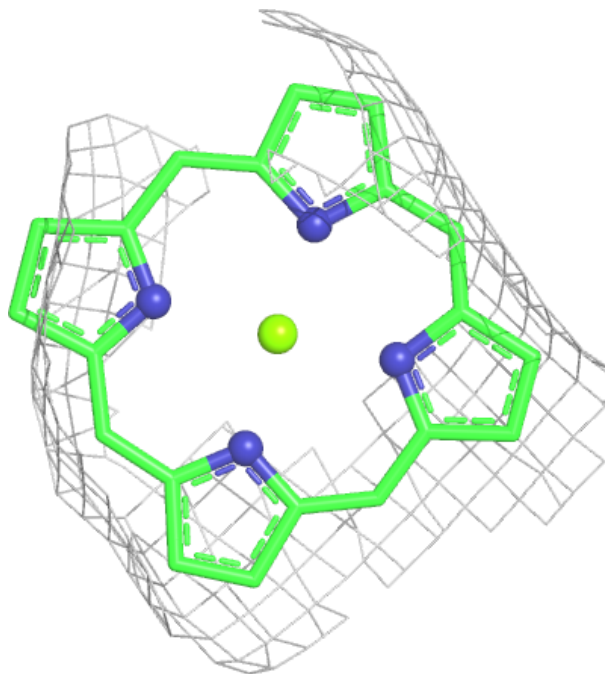
Electron density around CLA 2 610:

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



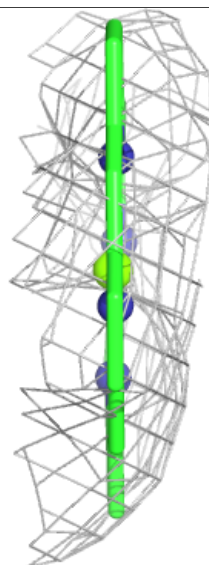
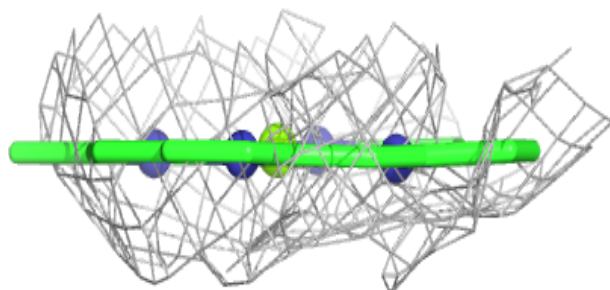
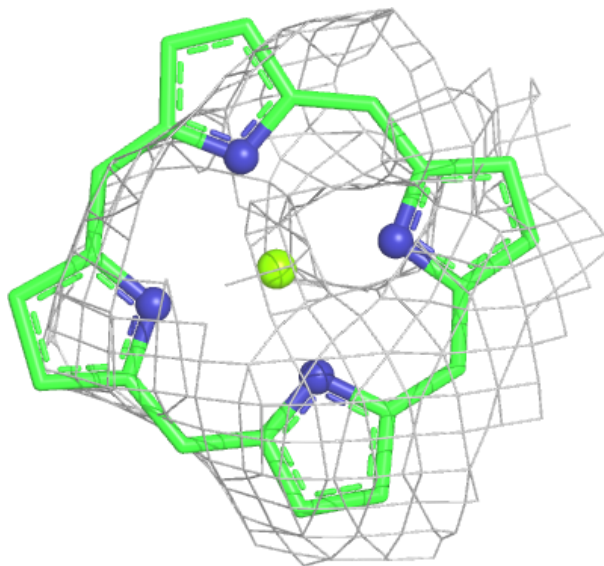
Electron density around CLA K 1401:

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



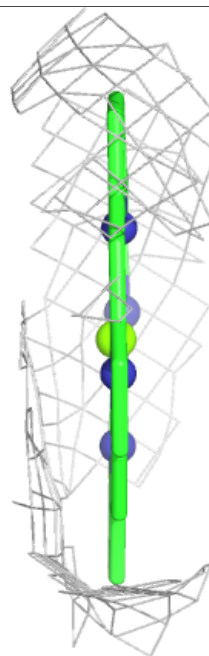
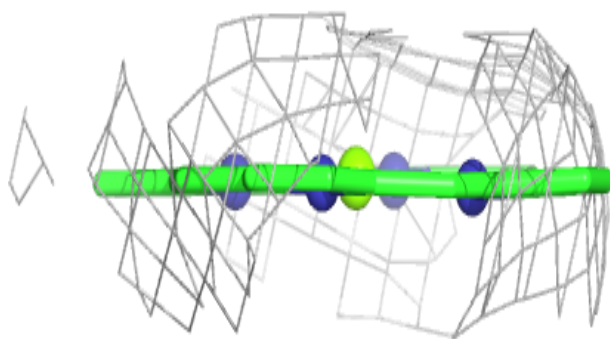
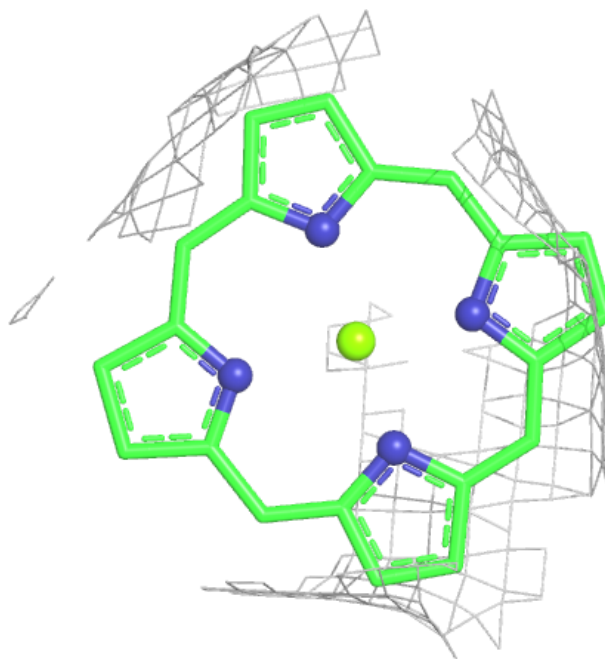
Electron density around CLA 3 606:

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



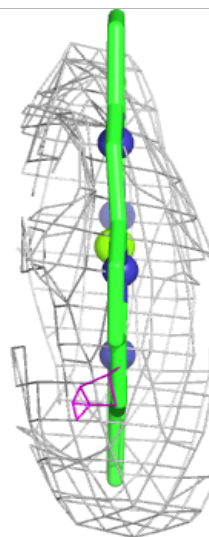
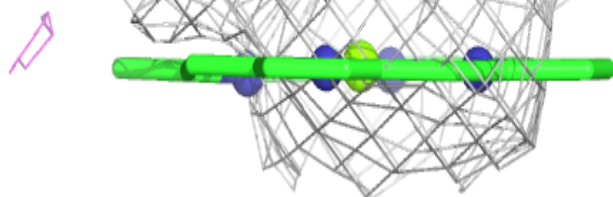
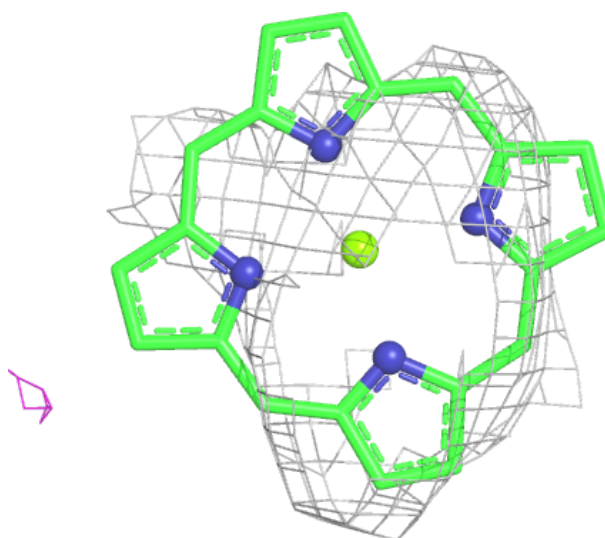
Electron density around CLA 3 612:

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



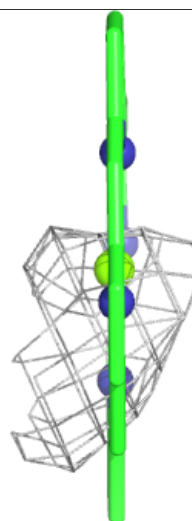
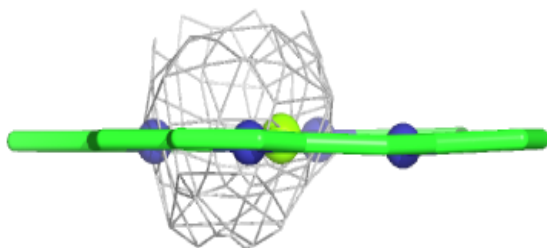
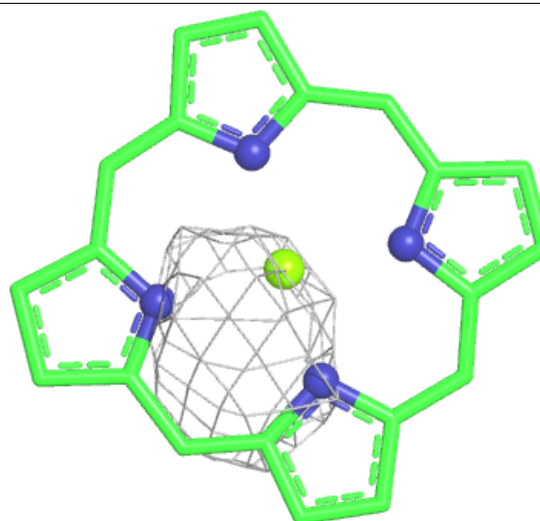
Electron density around CLA A 1120:

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



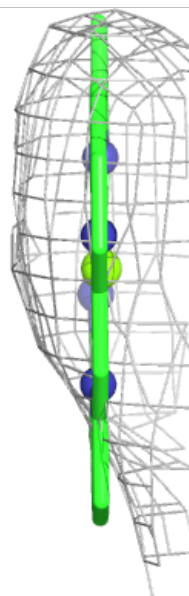
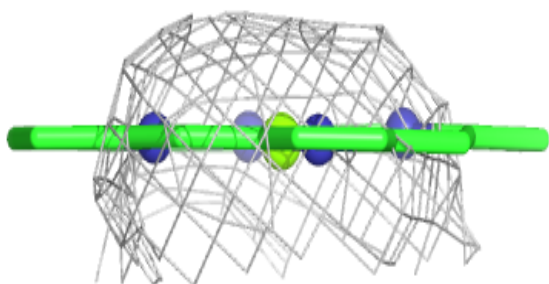
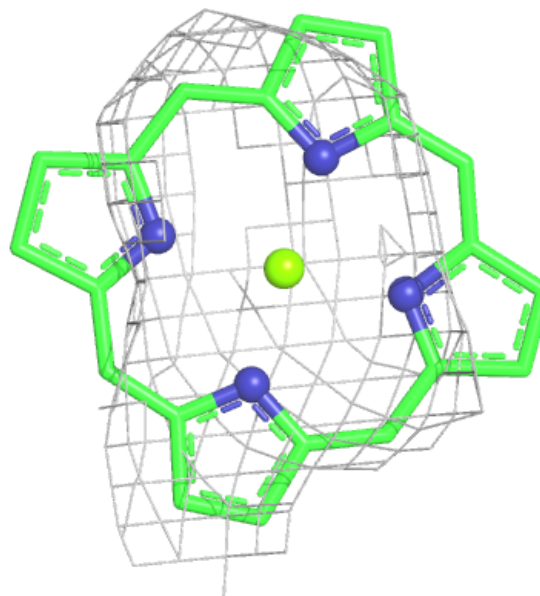
Electron density around CLA B 1214:

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



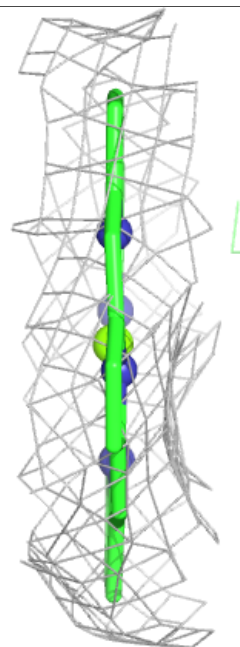
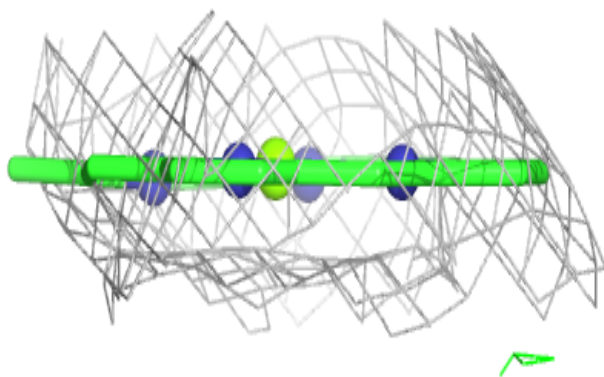
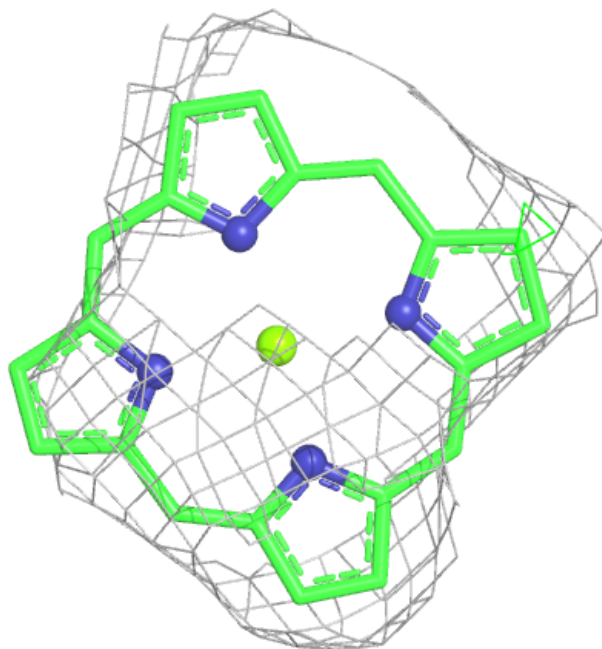
Electron density around CLA L 1503:

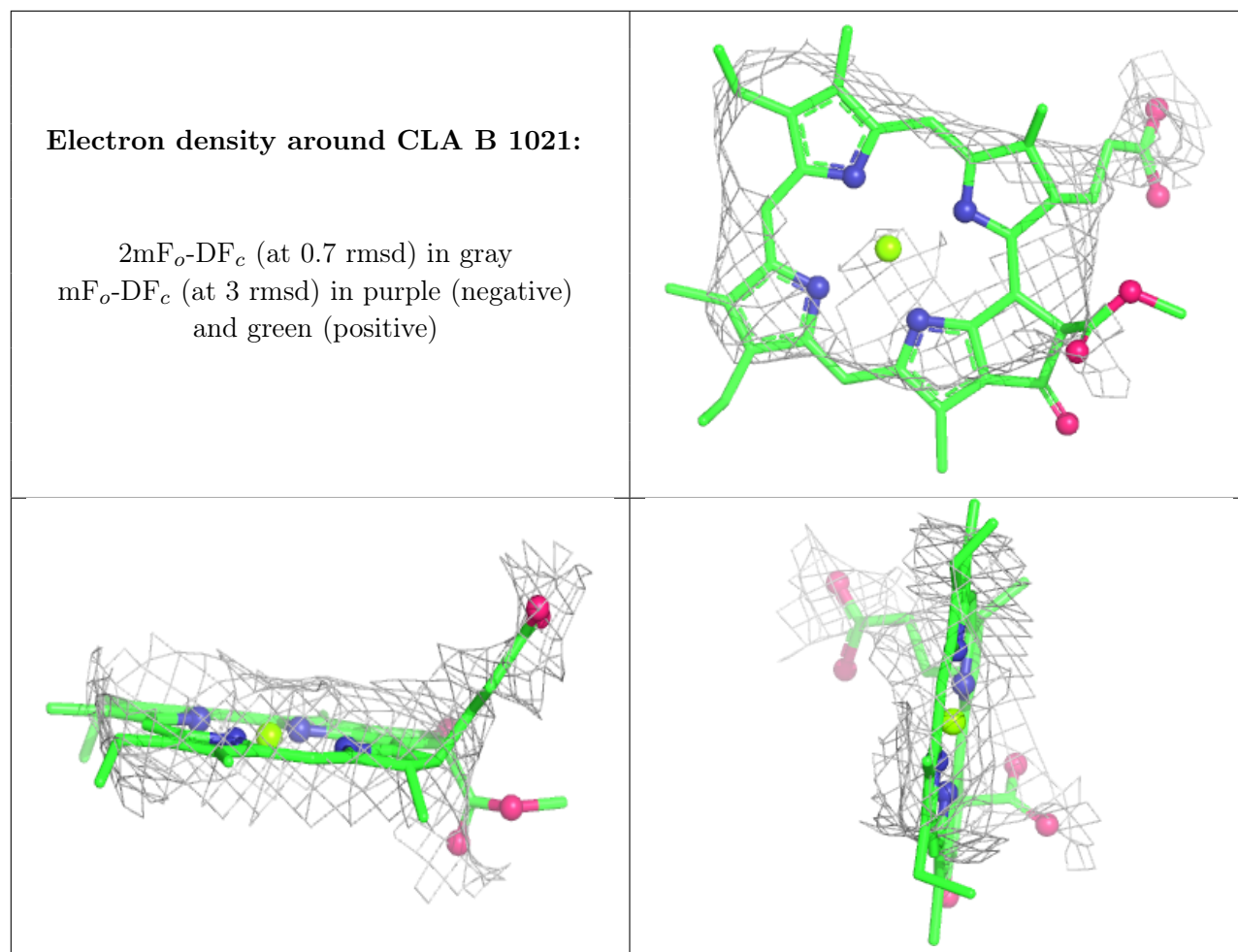
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA A 1112:

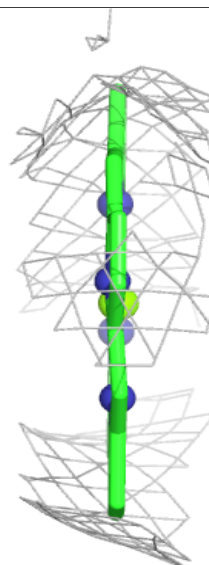
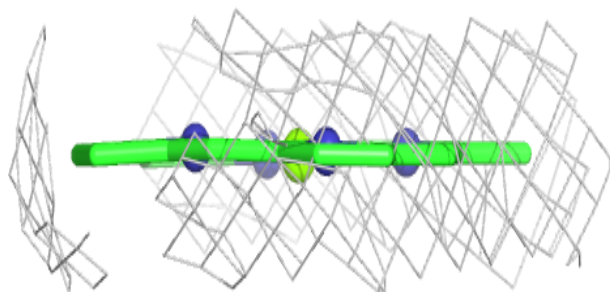
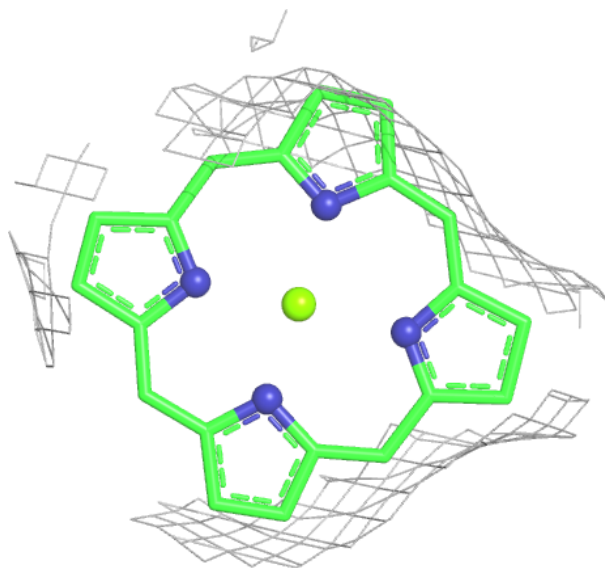
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





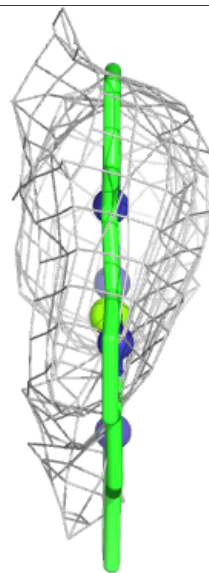
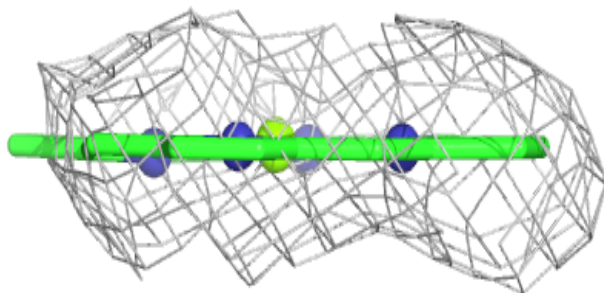
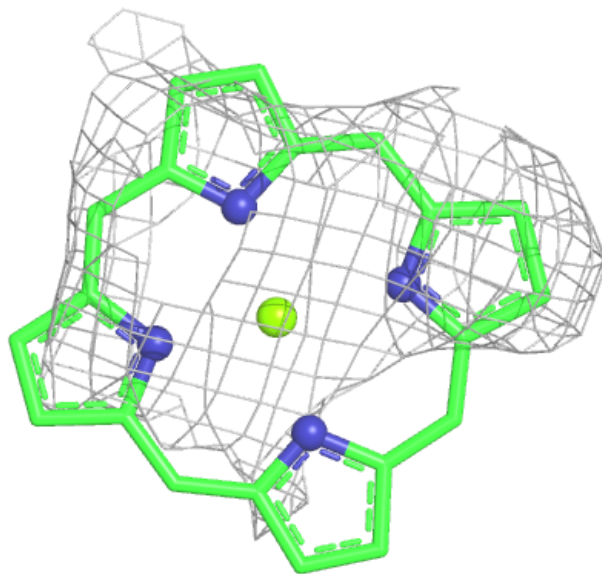
Electron density around CLA 2 604:

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



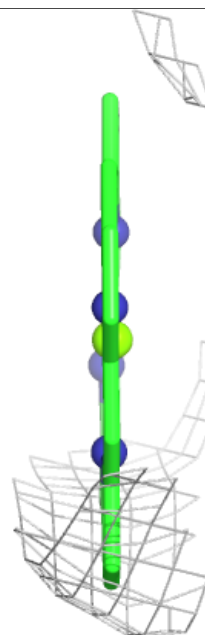
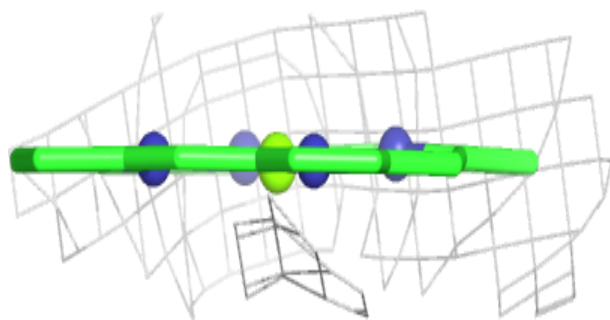
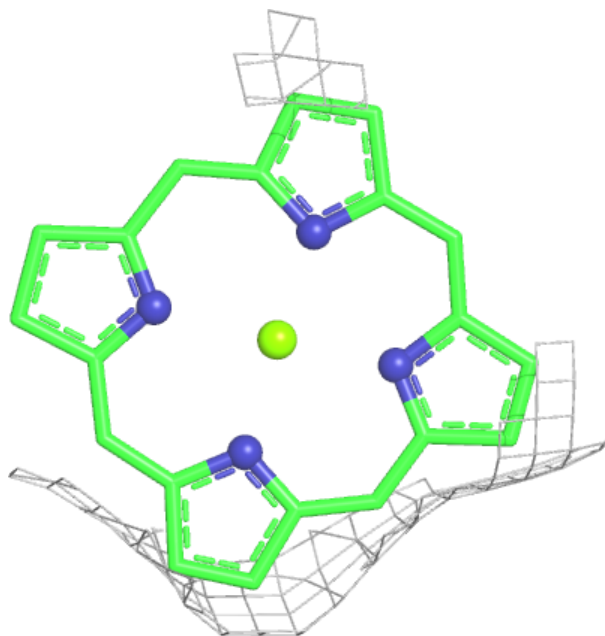
Electron density around CLA A 1137:

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



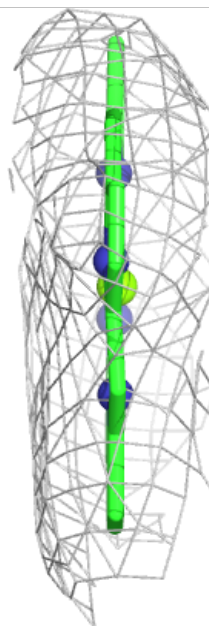
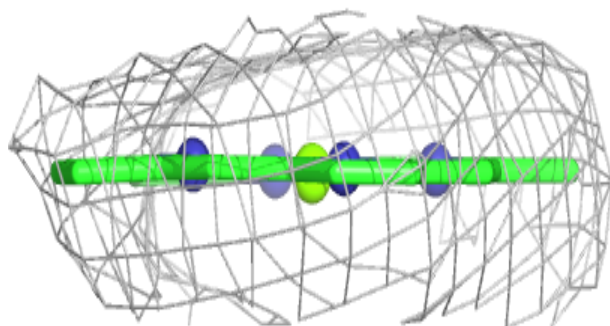
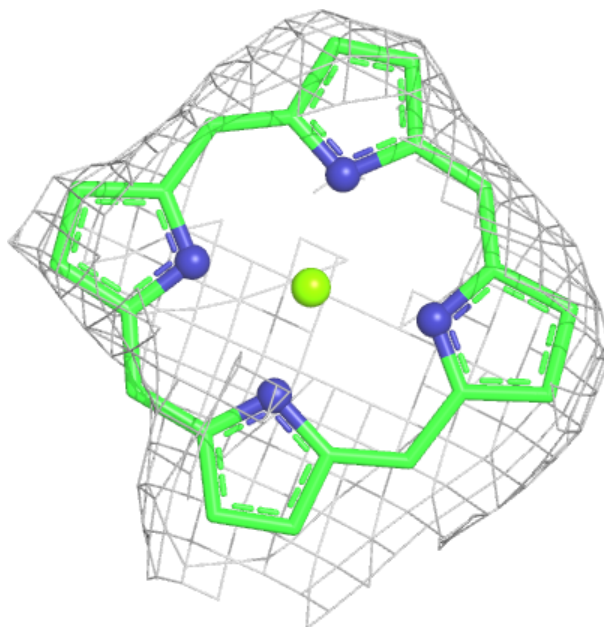
Electron density around CLA 4 606:

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



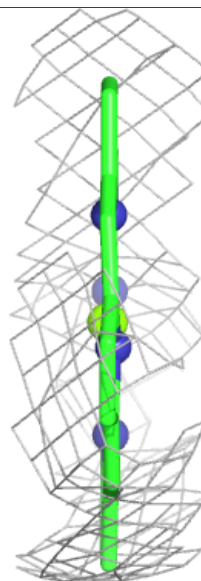
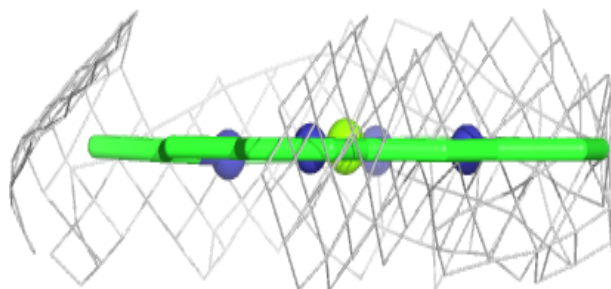
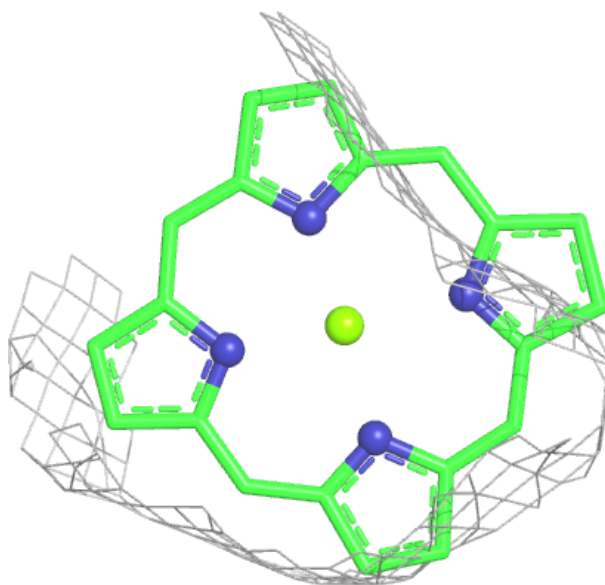
Electron density around CLA B 1238:

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



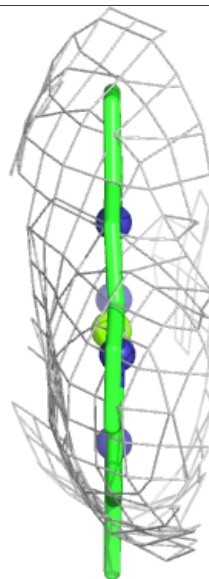
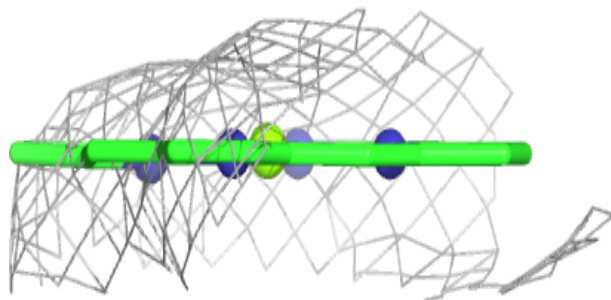
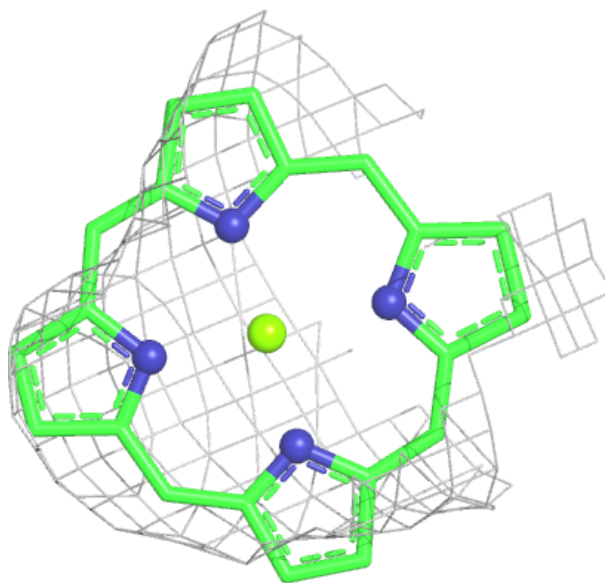
Electron density around CLA F 1302:

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



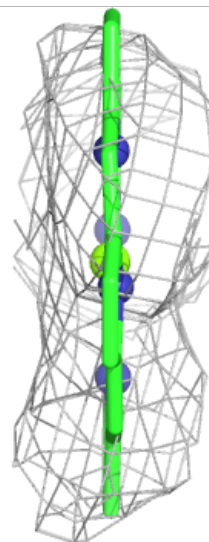
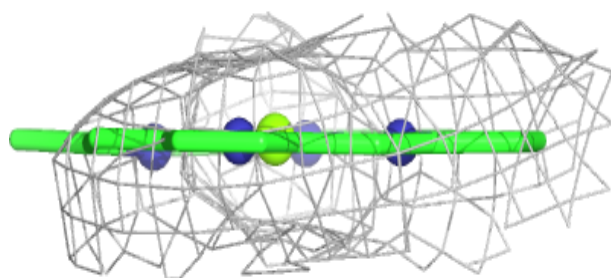
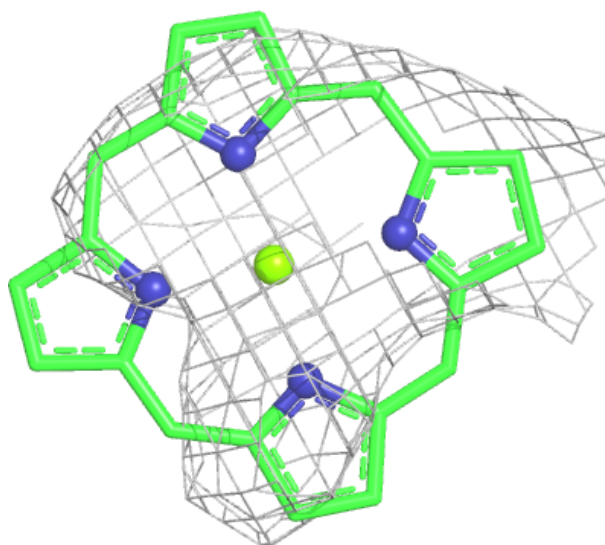
Electron density around CLA B 1203:

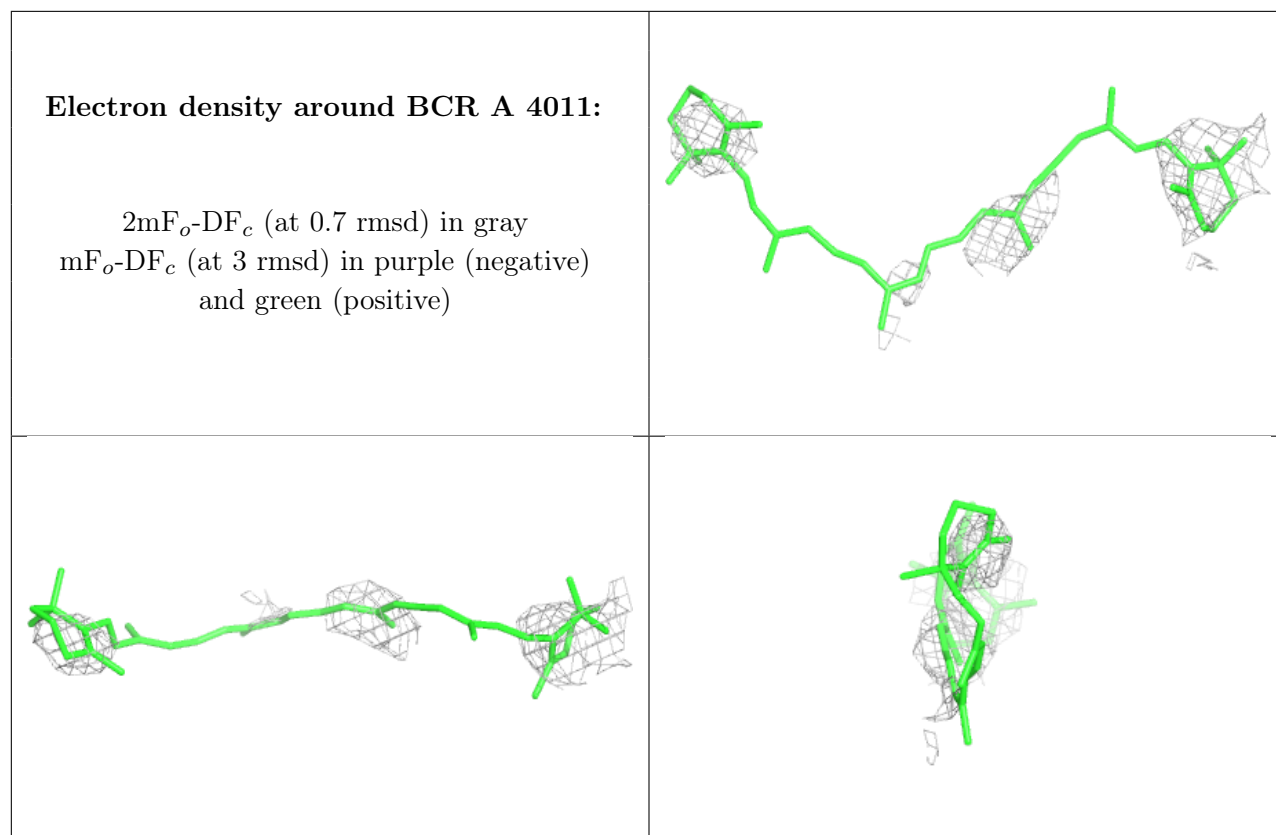
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA A 1119:

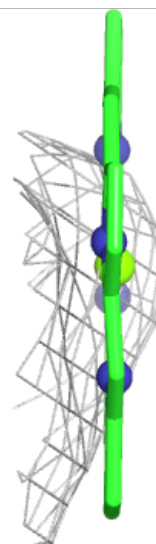
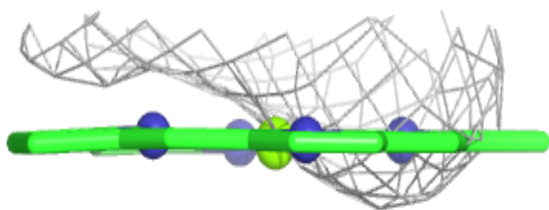
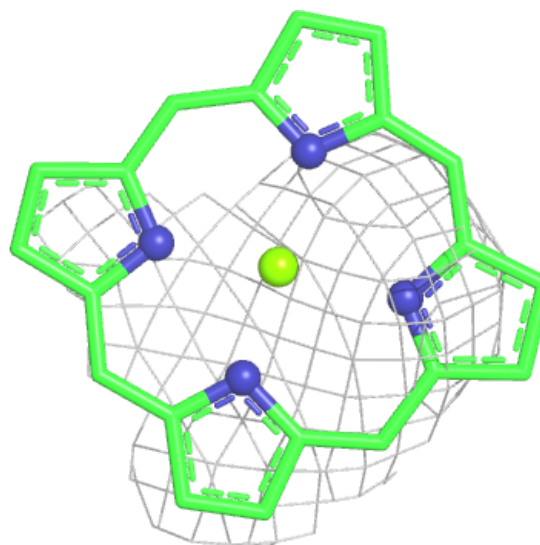
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

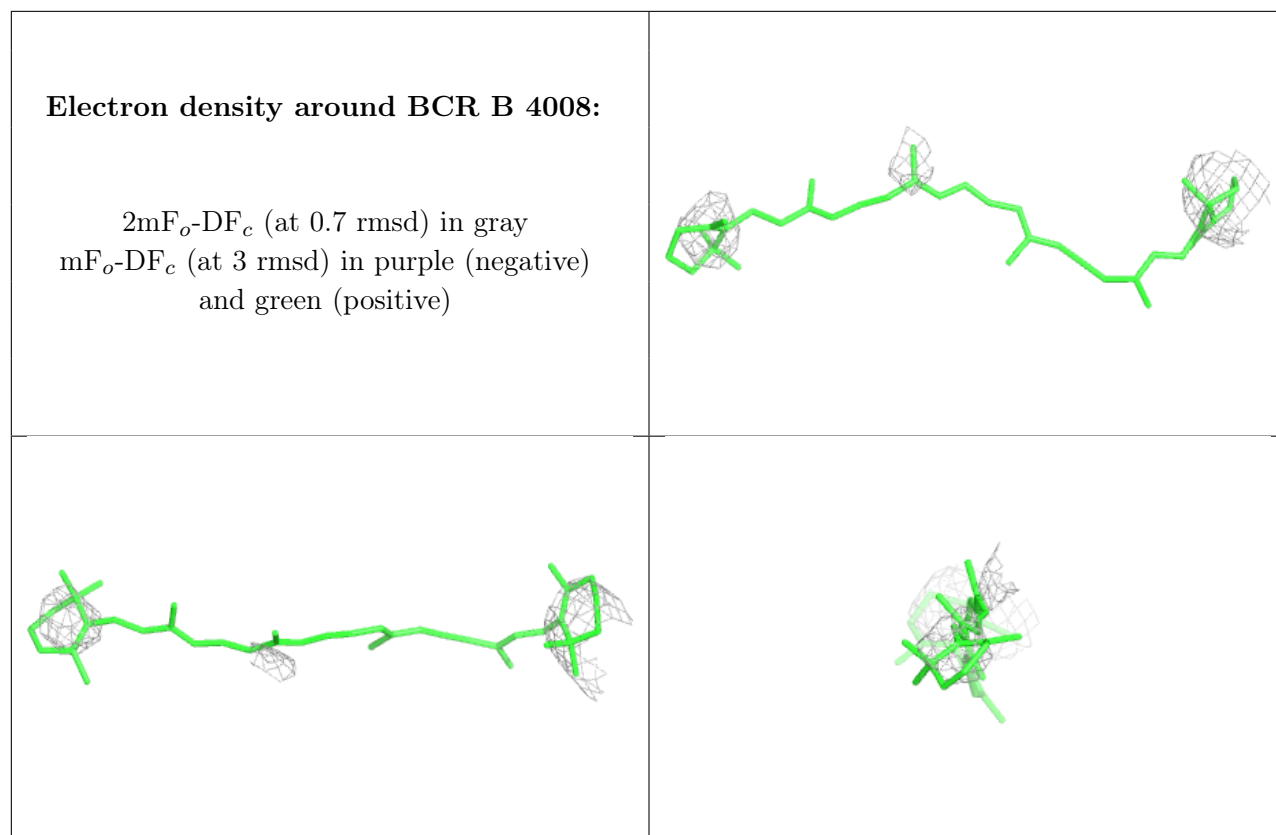




Electron density around CLA B 1207:

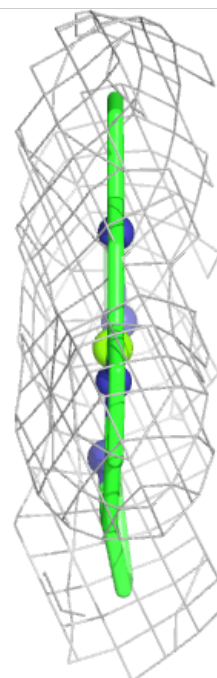
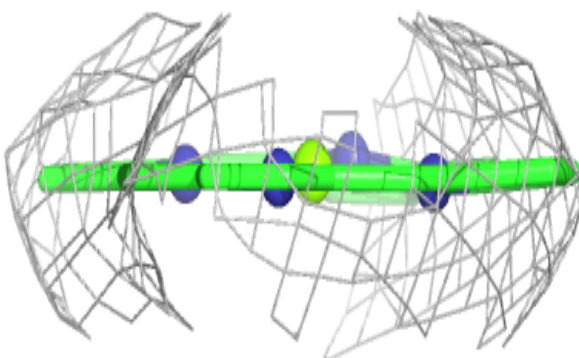
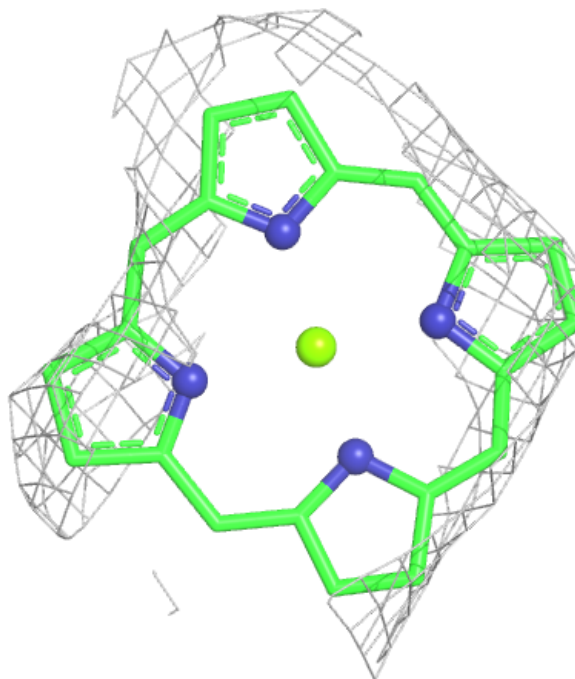
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





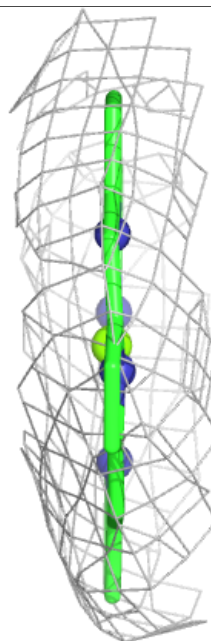
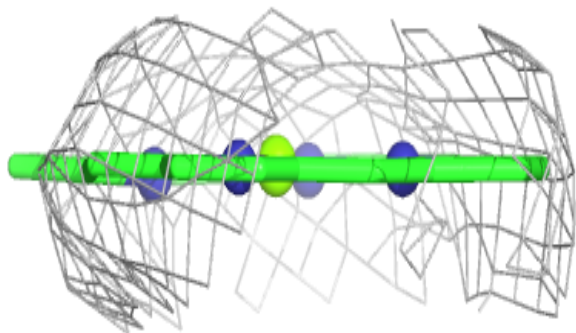
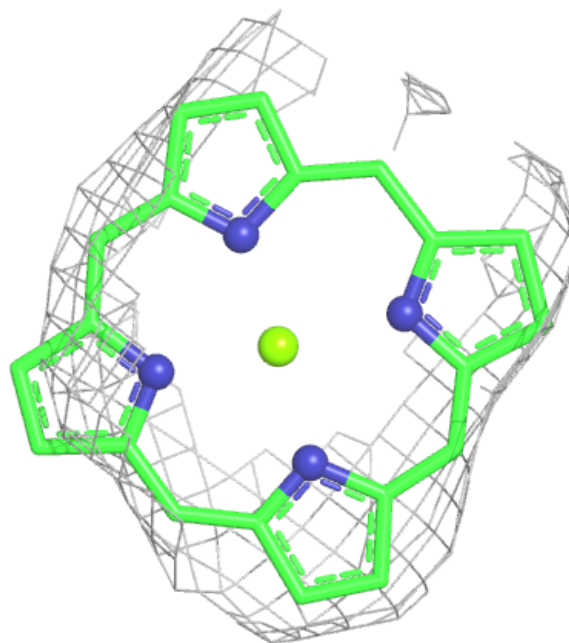
Electron density around CLA B 1228:

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



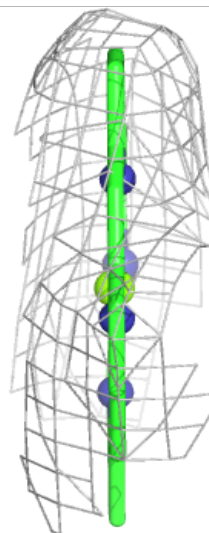
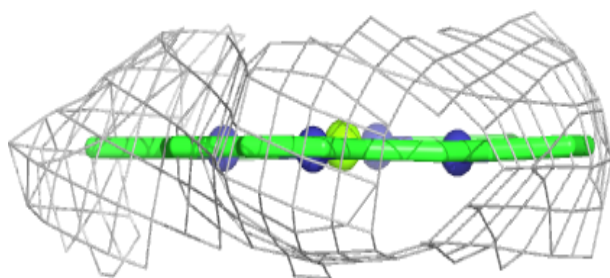
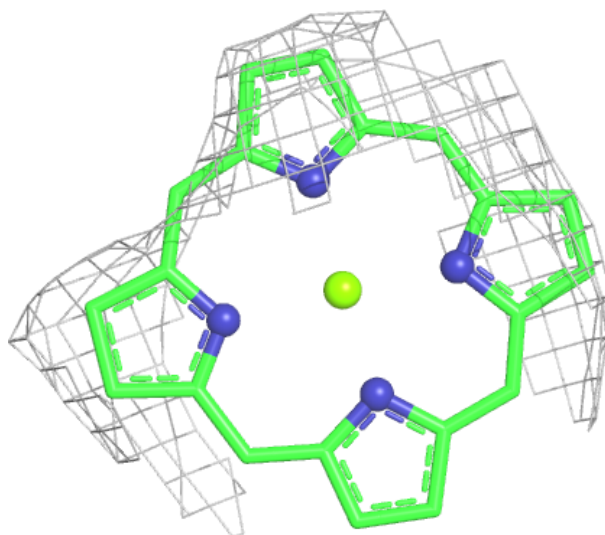
Electron density around CLA A 1121:

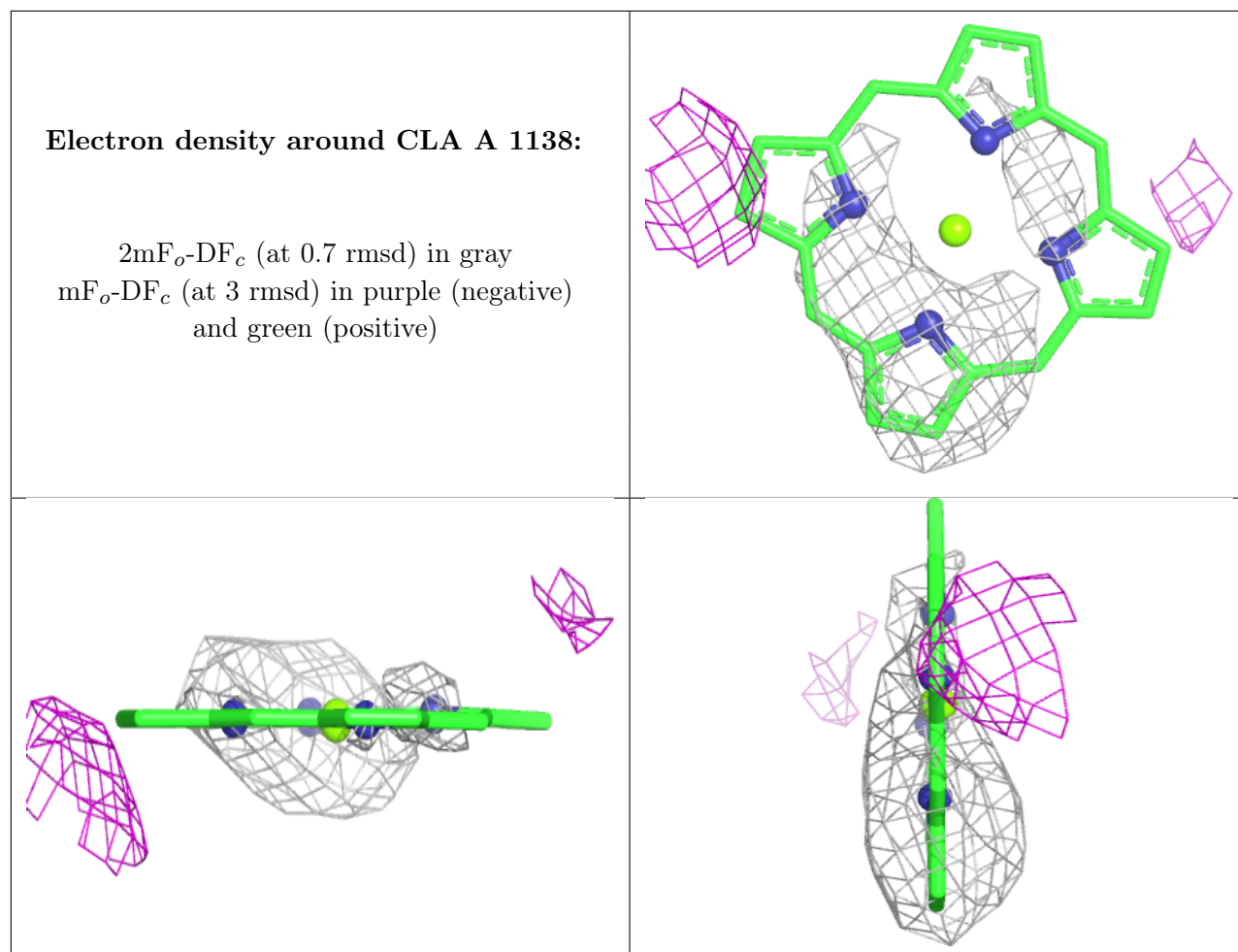
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA 4 612:

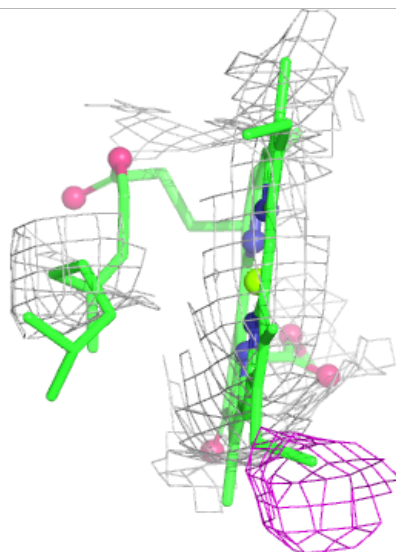
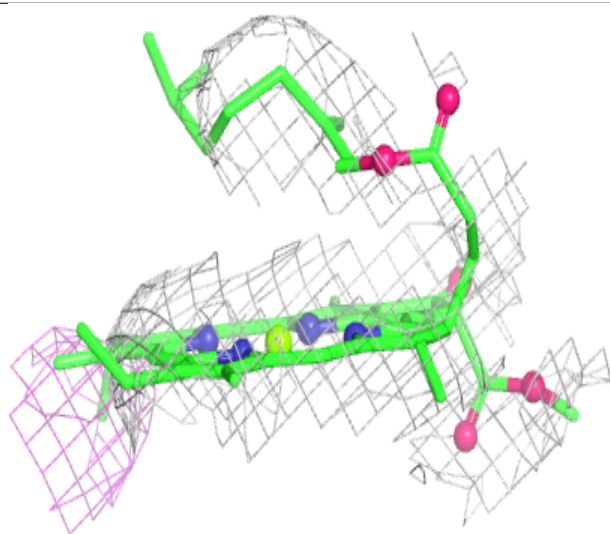
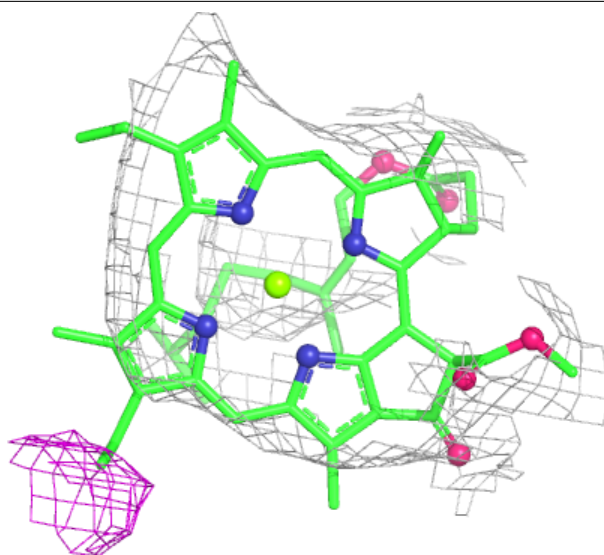
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

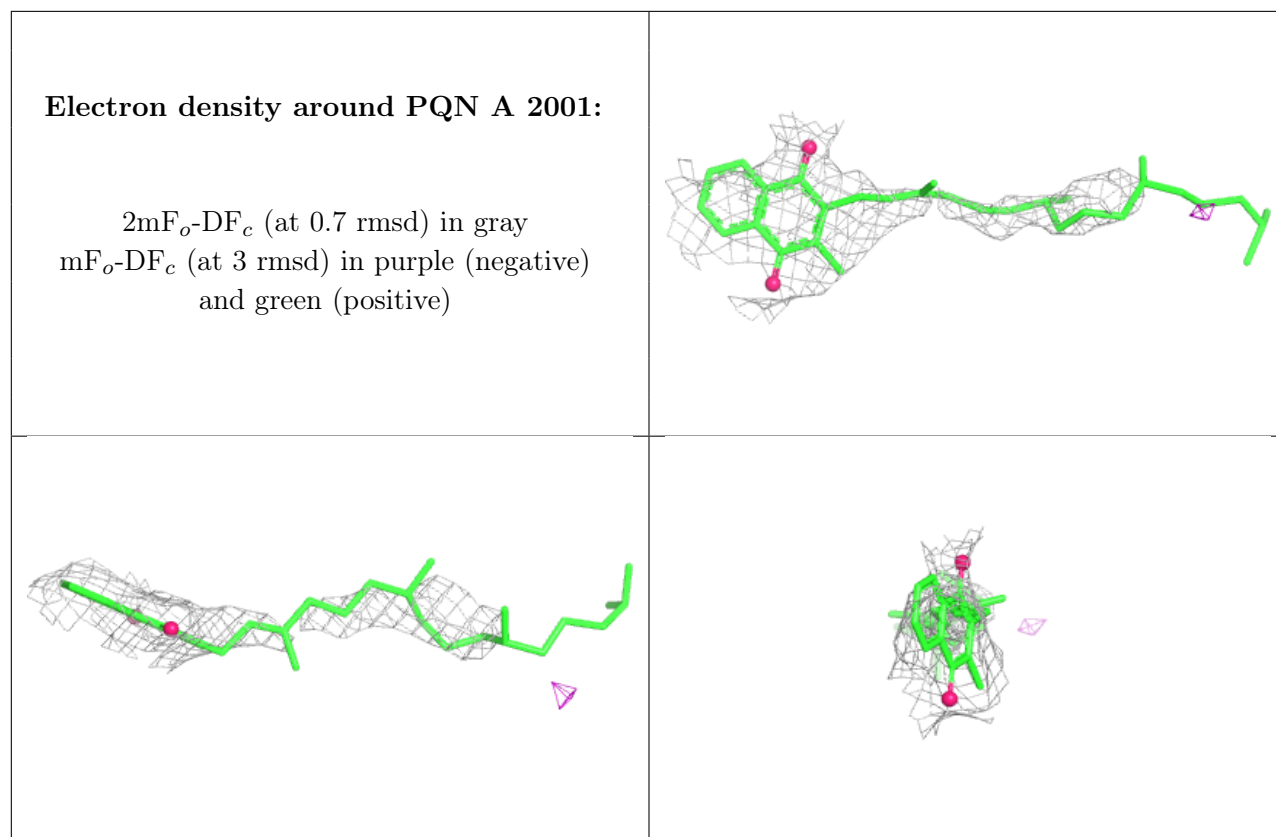




Electron density around CLA A 1116:

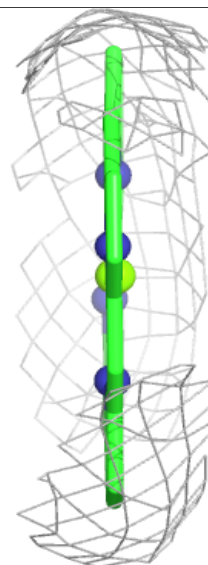
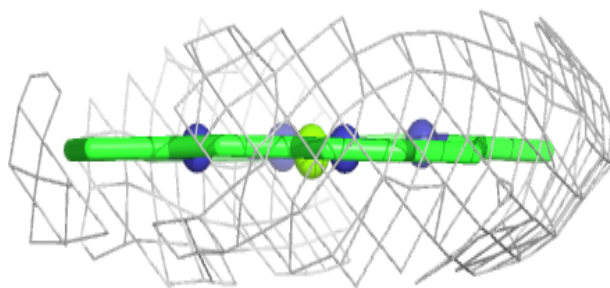
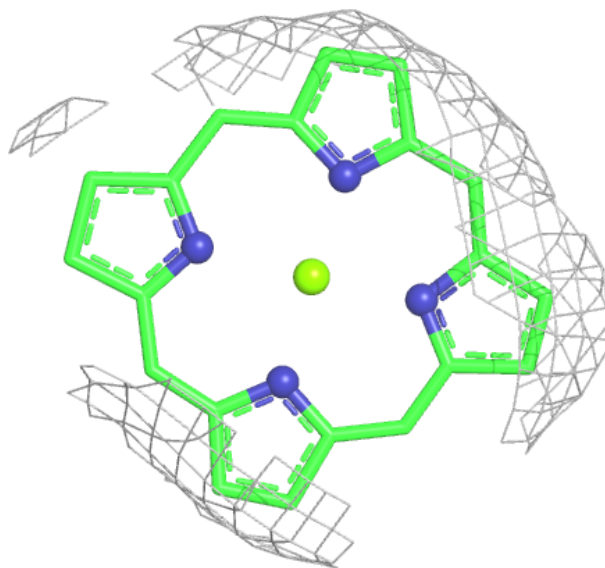
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





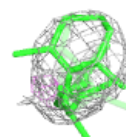
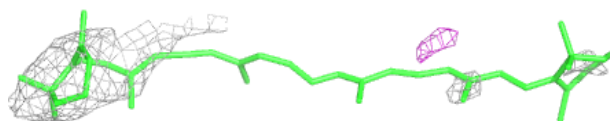
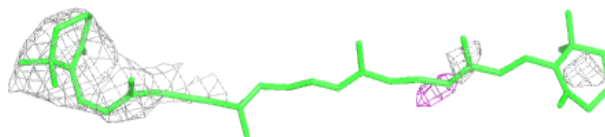
Electron density around CLA B 1235:

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

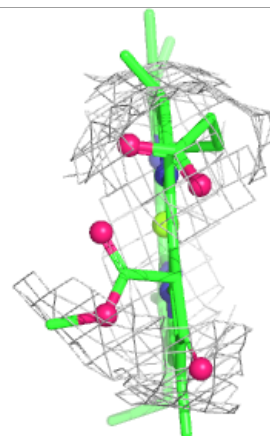
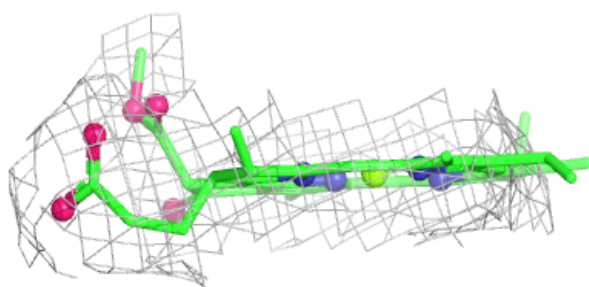
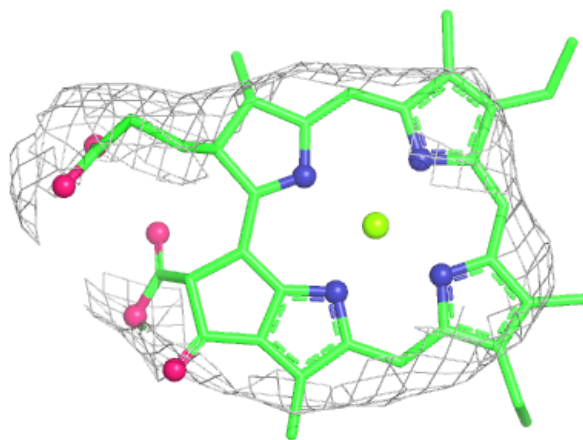


Electron density around BCR A 4002:

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

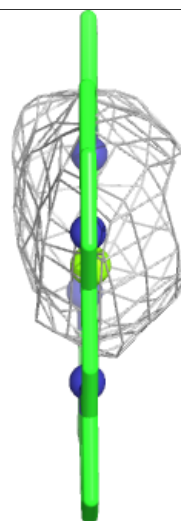
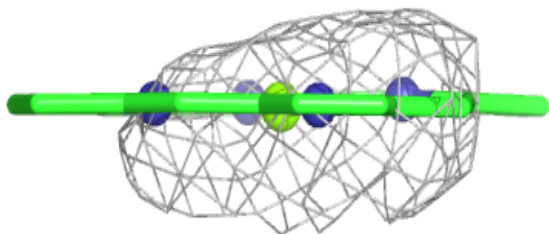
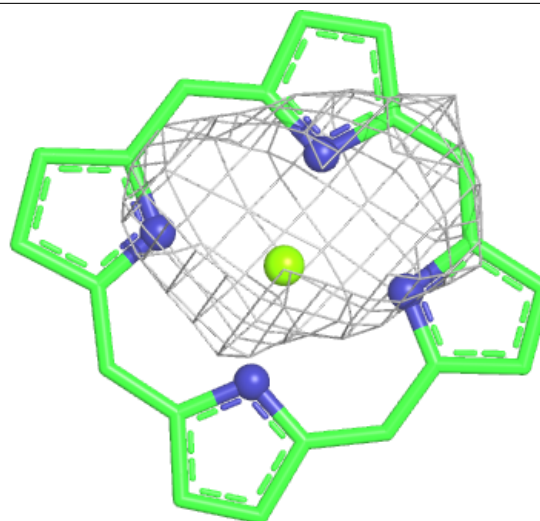
**Electron density around CLA F 1301:**

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



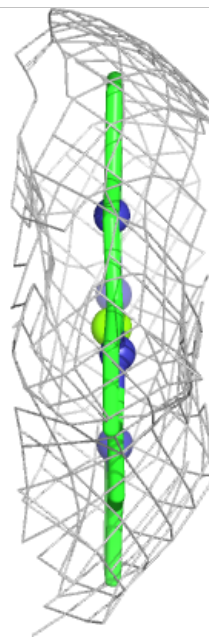
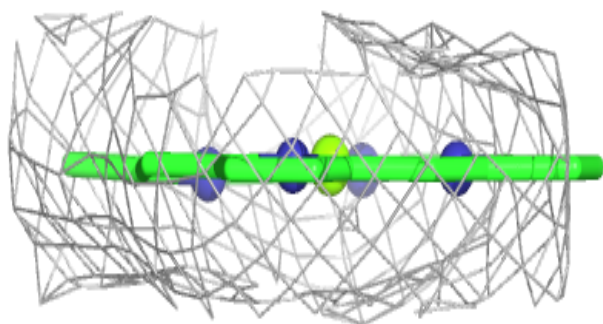
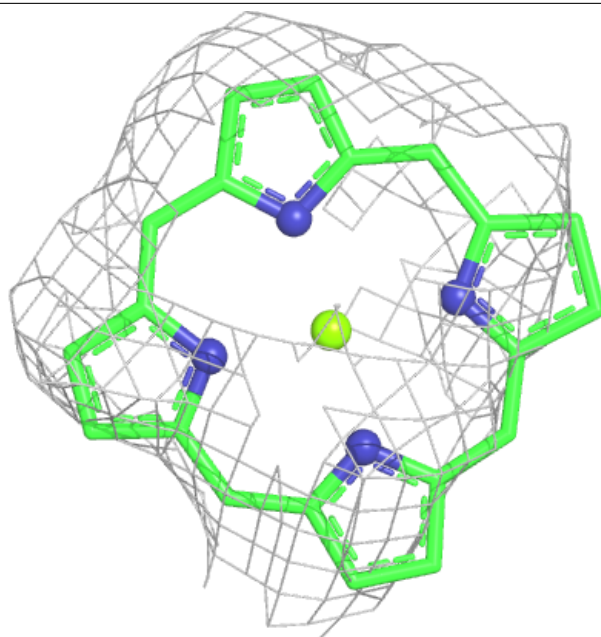
Electron density around CLA B 1220:

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



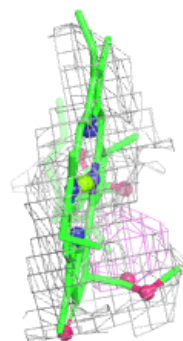
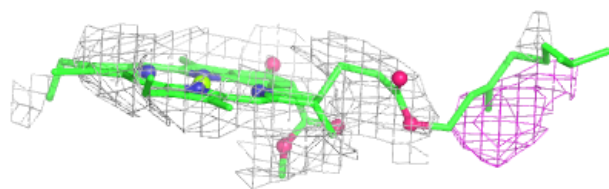
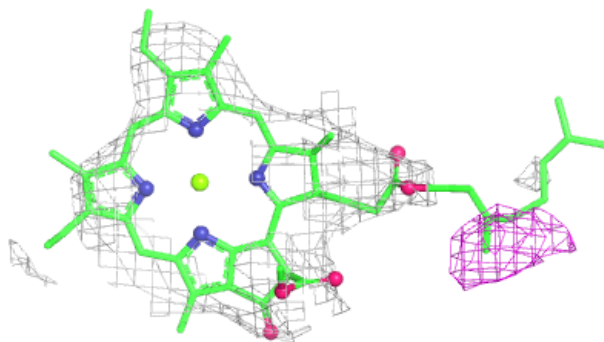
Electron density around CLA A 1123:

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

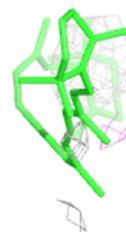
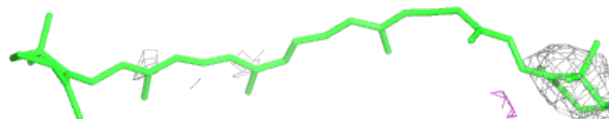
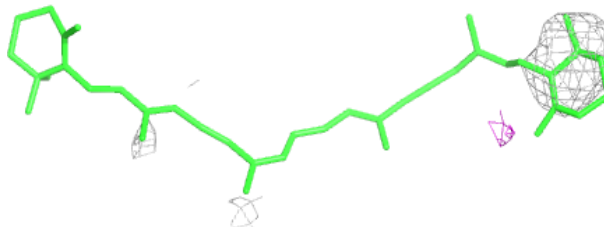


Electron density around CLA A 1103:

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

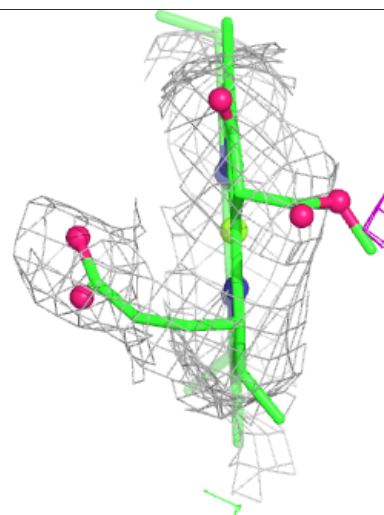
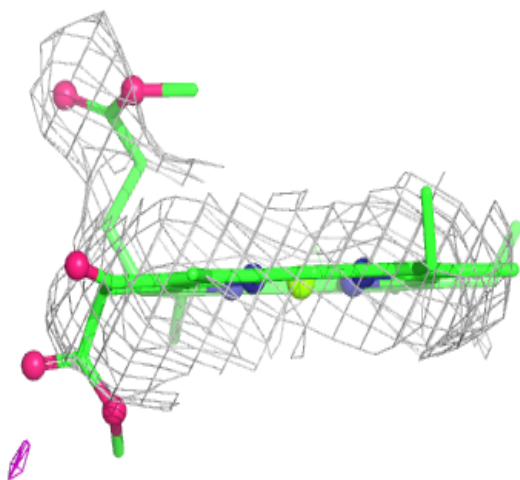
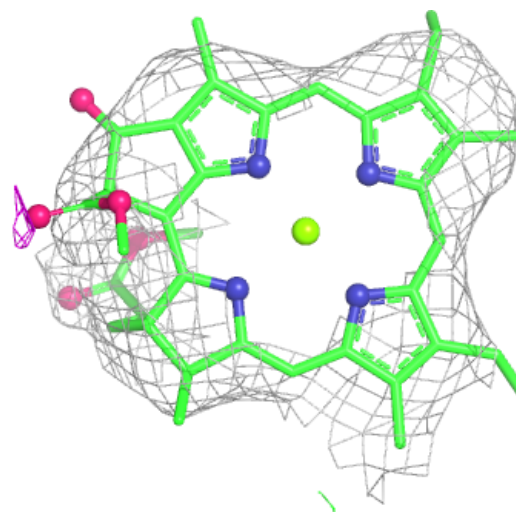
**Electron density around BCR B 4005:**

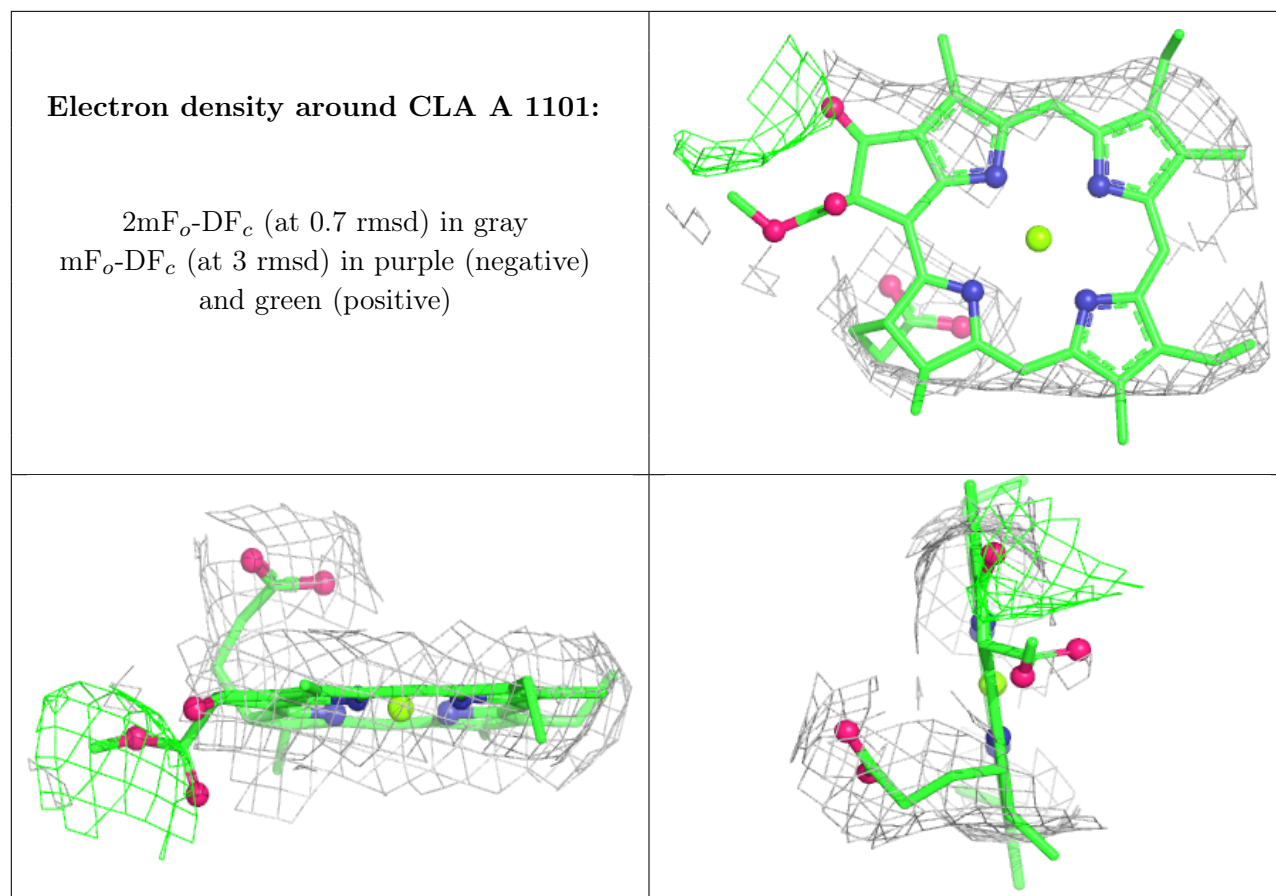
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA A 1114:

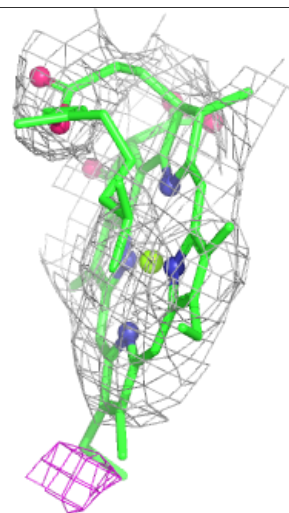
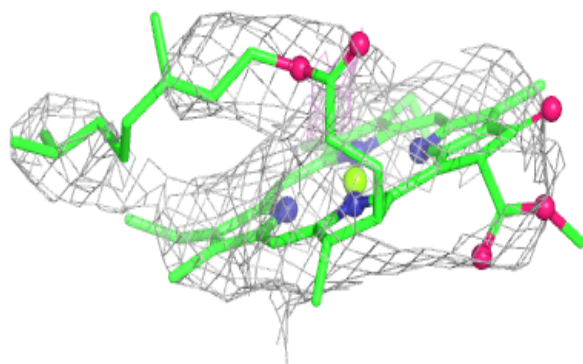
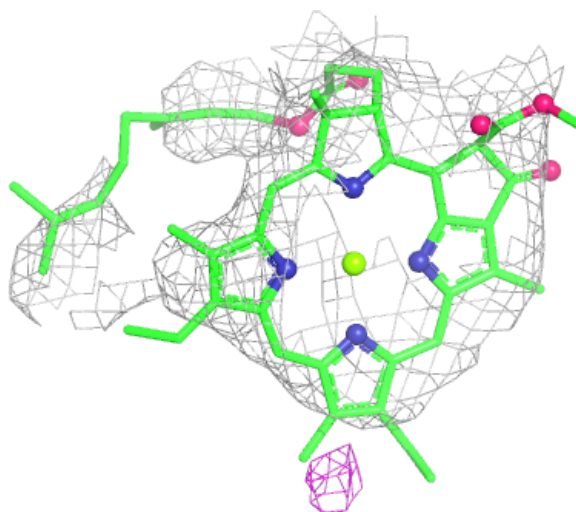
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





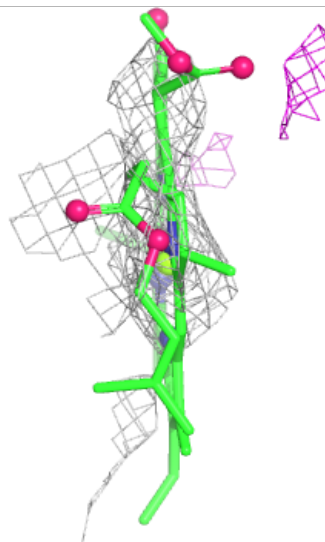
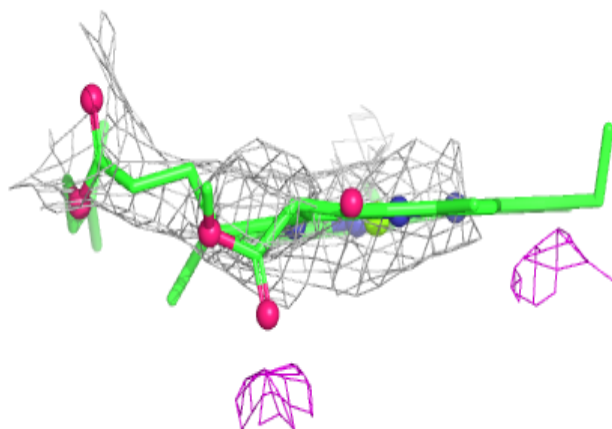
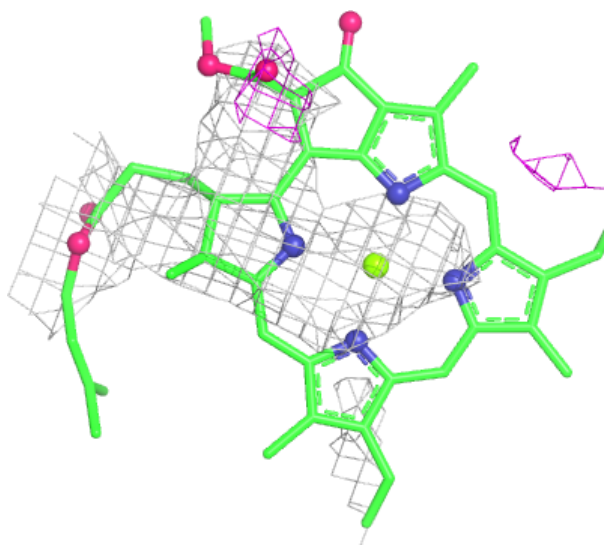
Electron density around CLA A 1105:

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



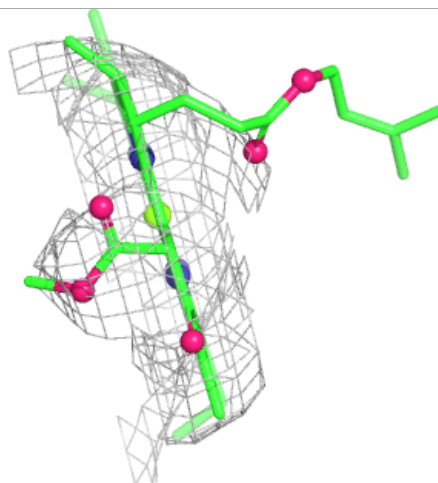
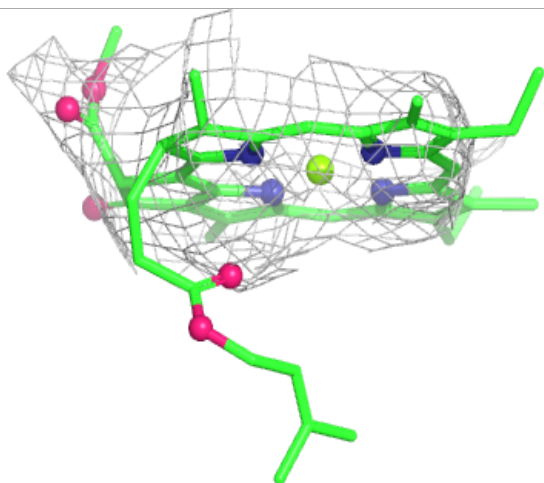
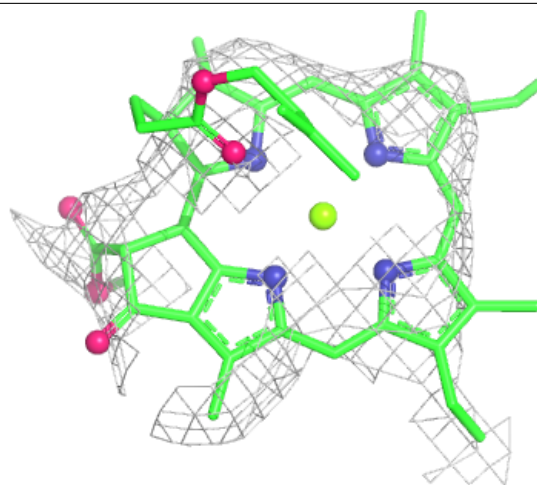
Electron density around CLA B 1023:

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



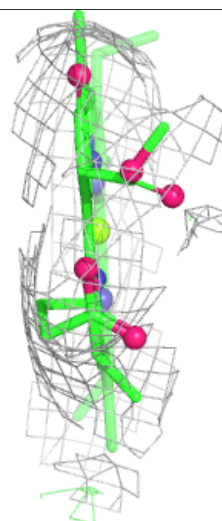
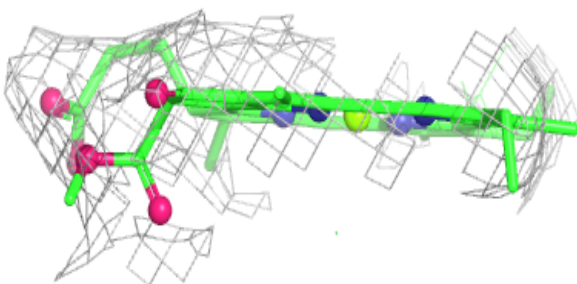
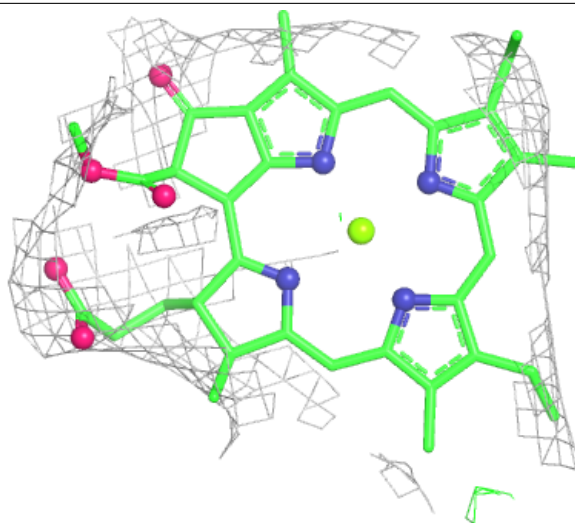
Electron density around CLA J 1302:

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



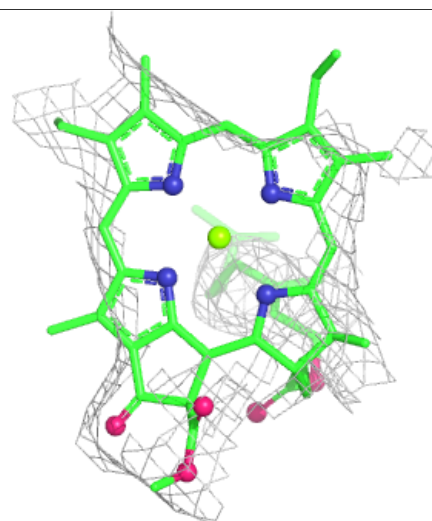
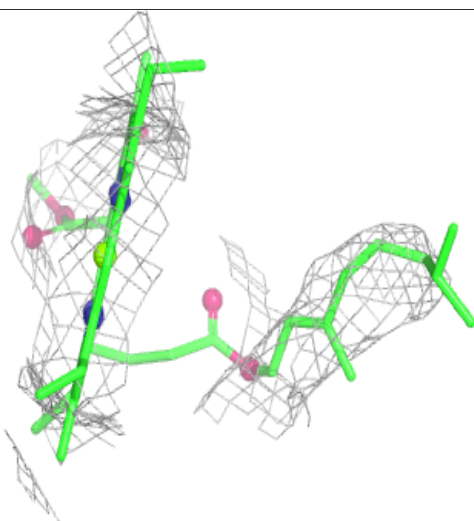
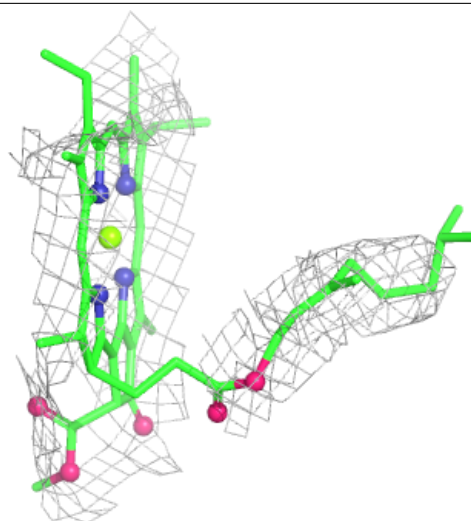
Electron density around CLA A 1131:

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



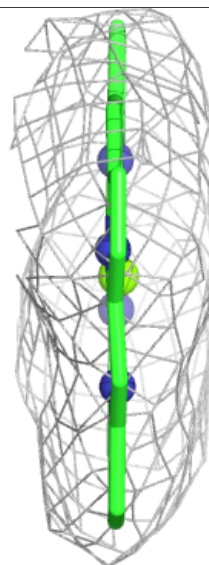
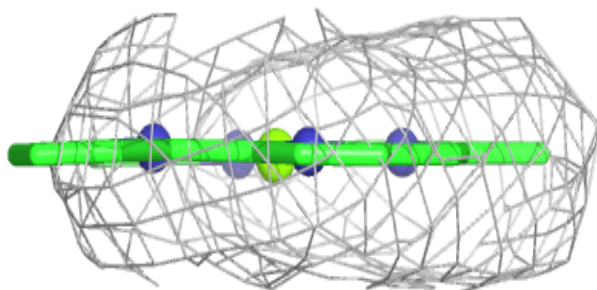
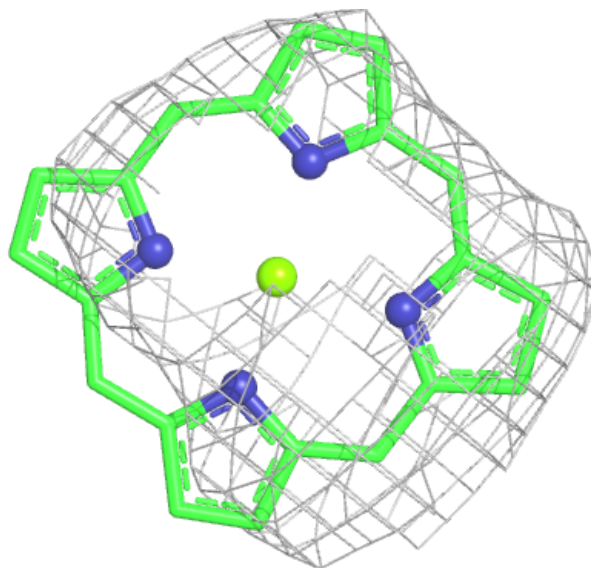
Electron density around CLA B 1226:

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



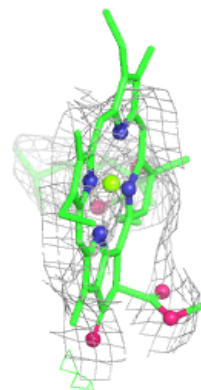
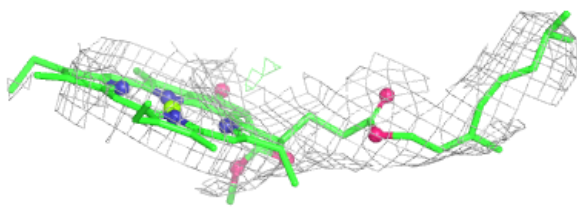
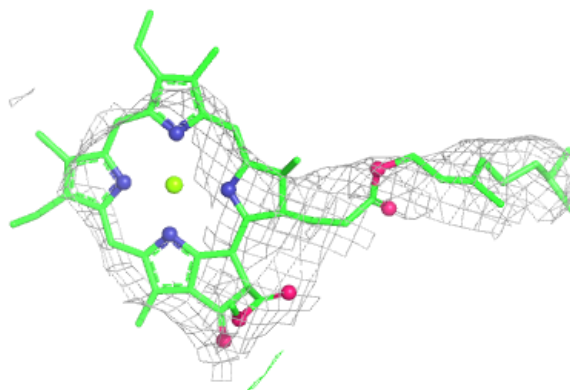
Electron density around CLA A 1111:

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



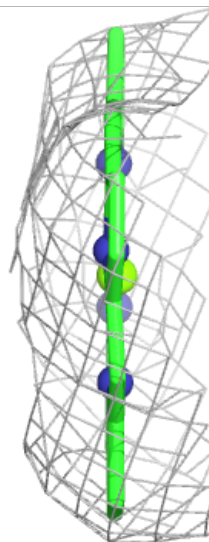
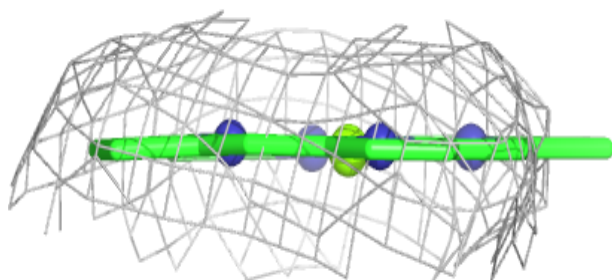
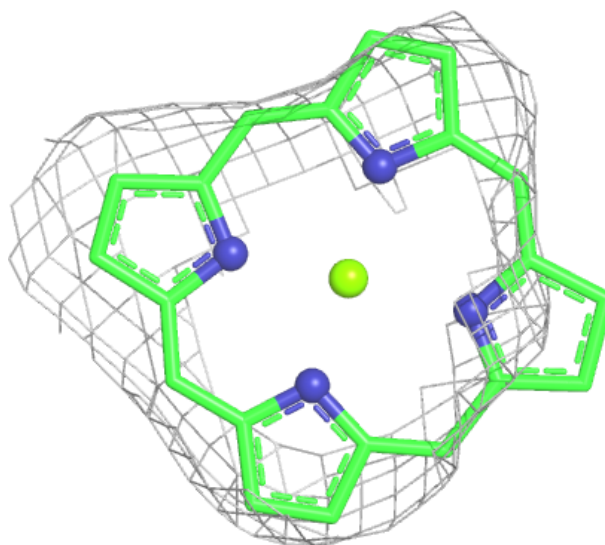
Electron density around CLA A 1012:

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



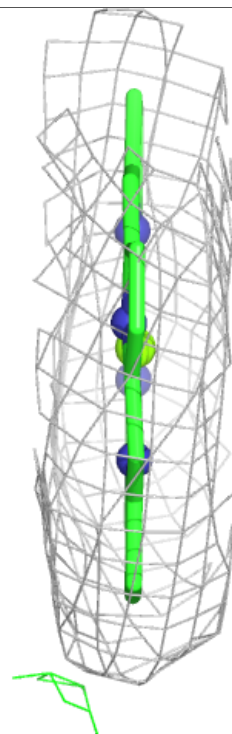
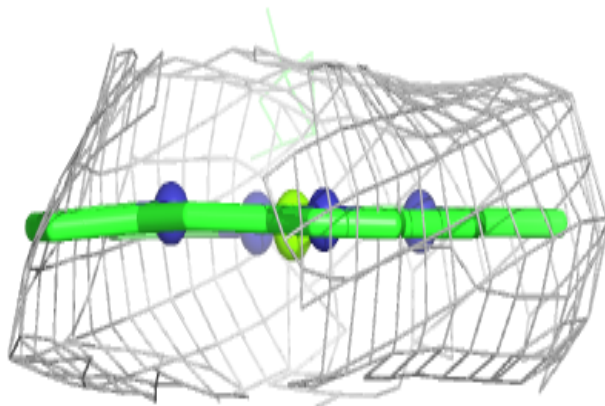
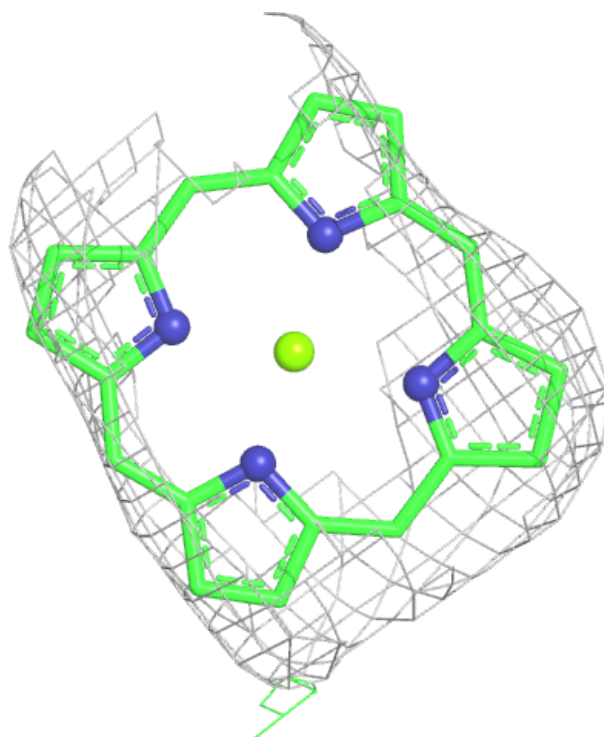
Electron density around CLA A 1141:

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



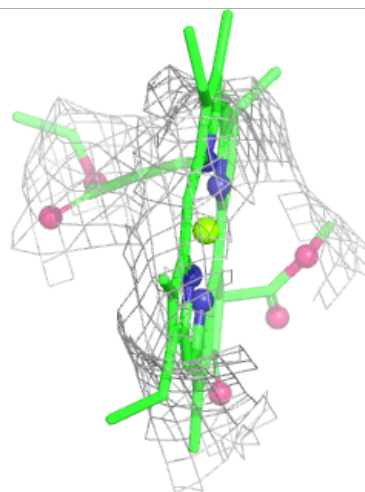
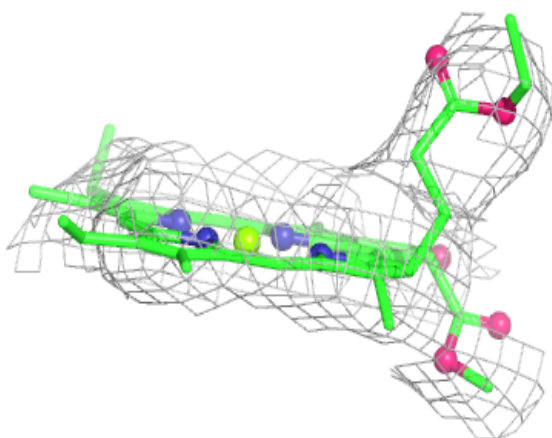
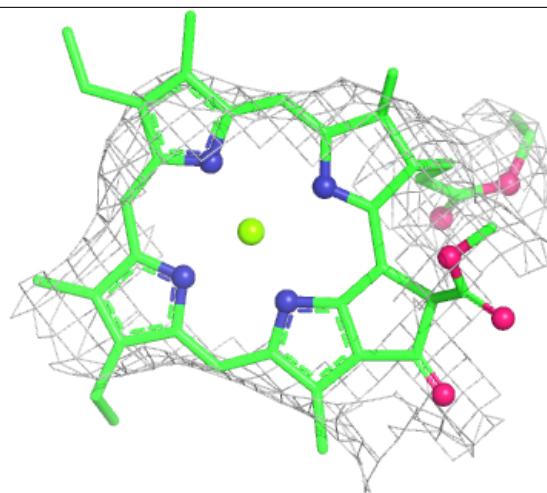
Electron density around CLA A 1125:

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



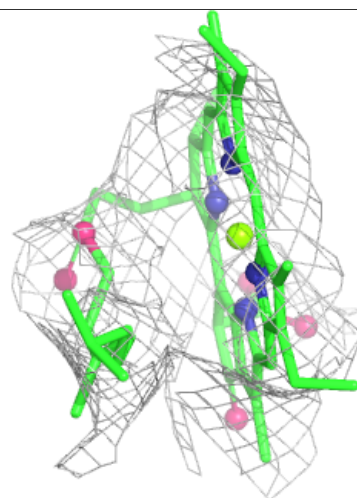
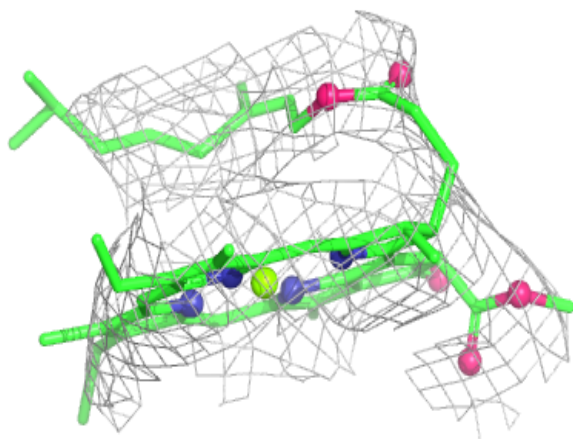
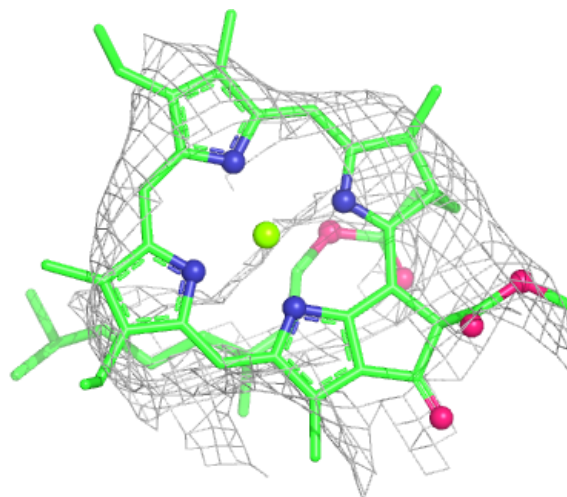
Electron density around CLA B 1230:

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



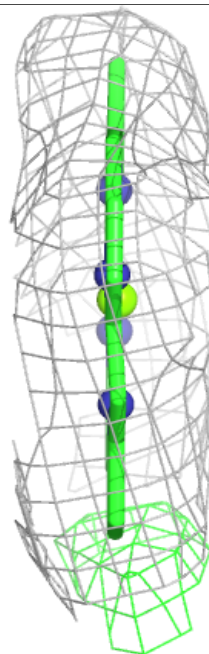
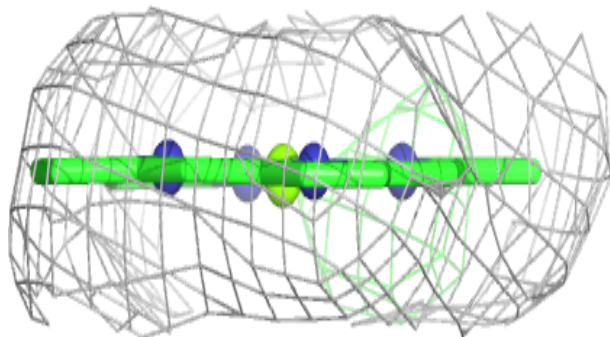
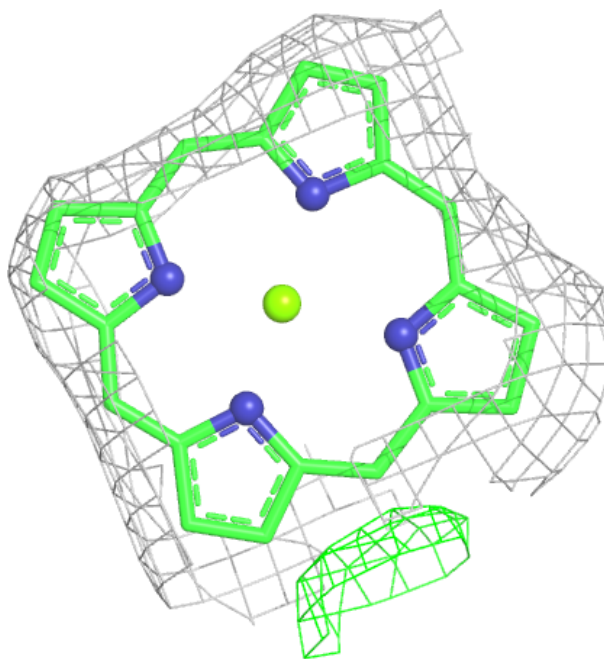
Electron density around CLA A 1115:

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



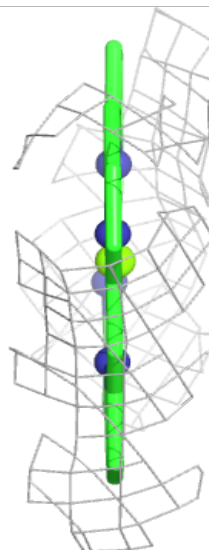
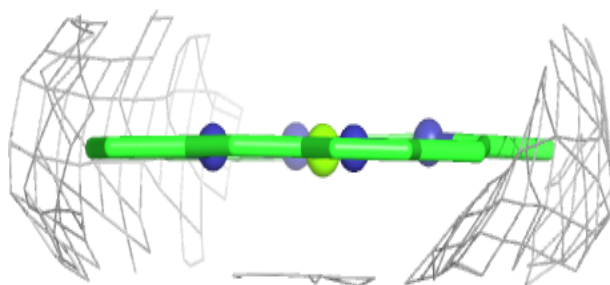
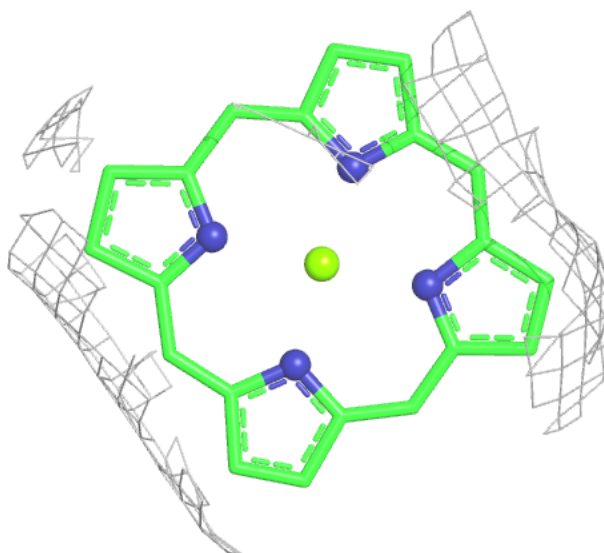
Electron density around CLA A 1128:

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



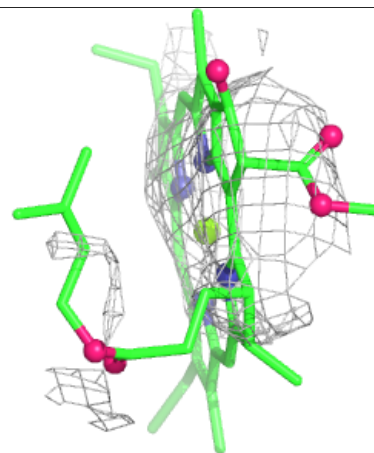
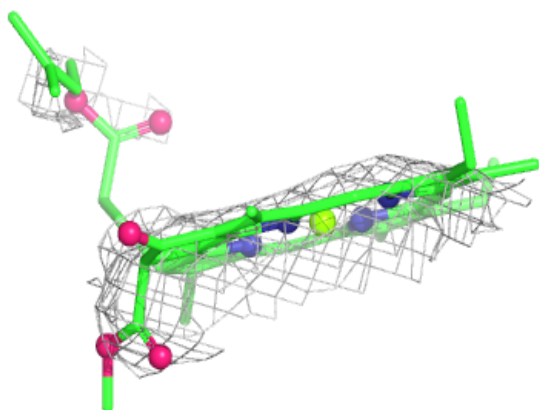
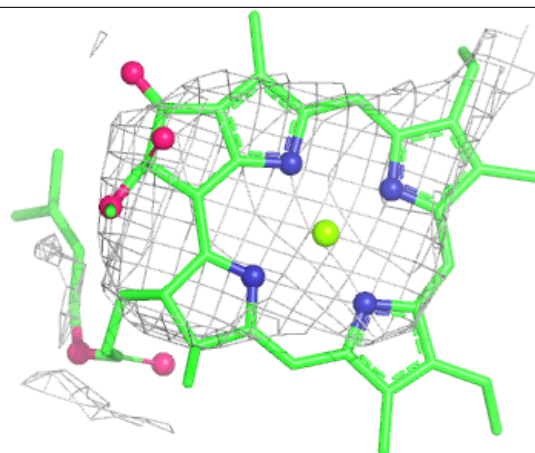
Electron density around CLA 2 605:

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



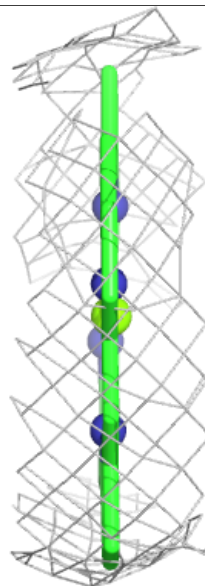
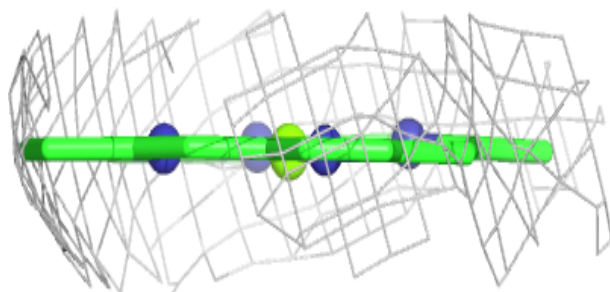
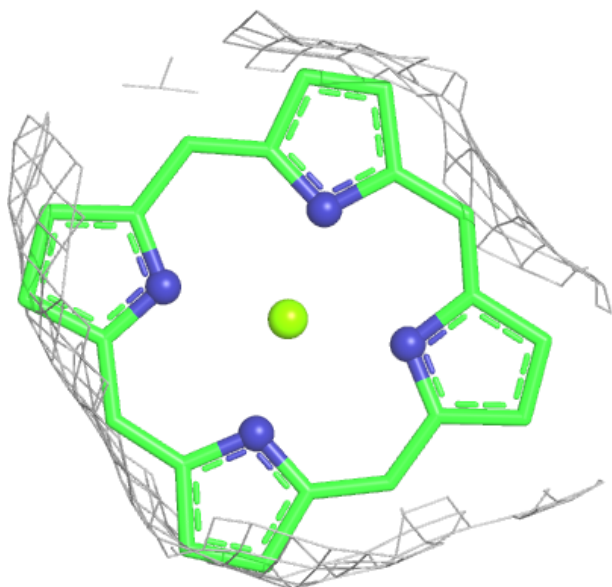
Electron density around CLA B 1225:

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



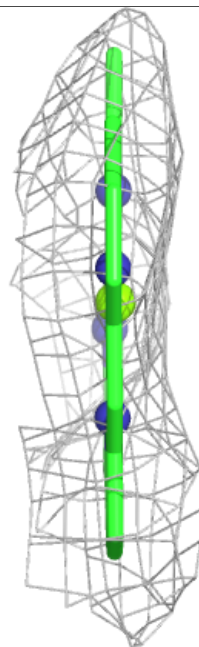
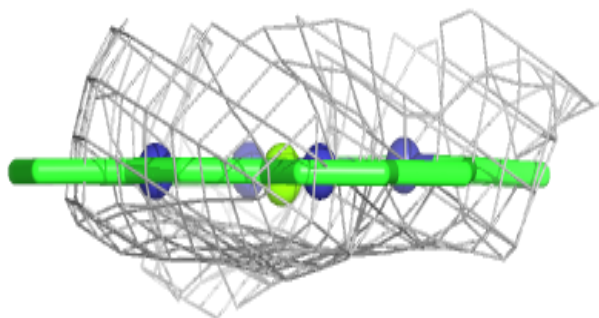
Electron density around CLA A 1134:

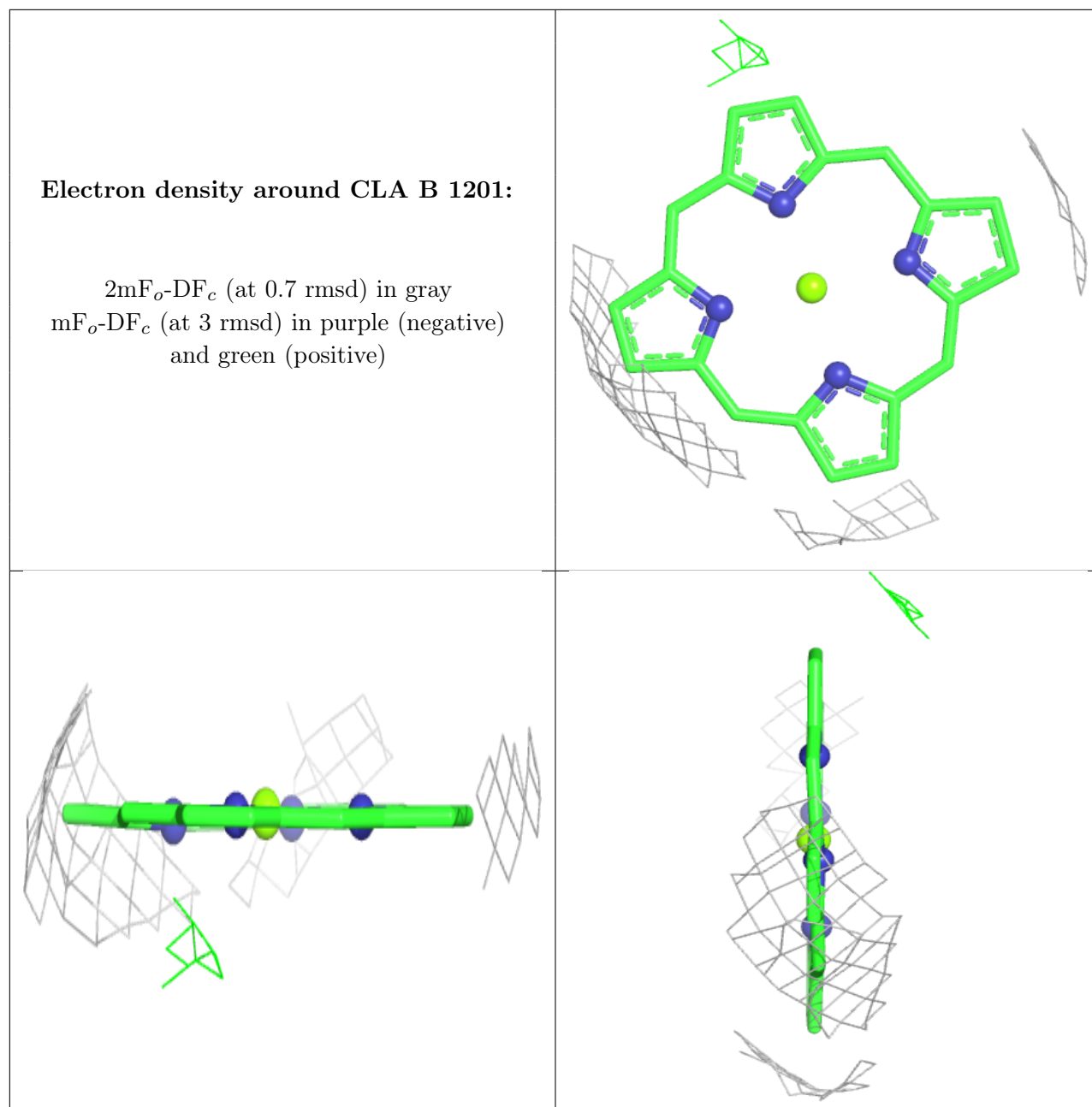
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

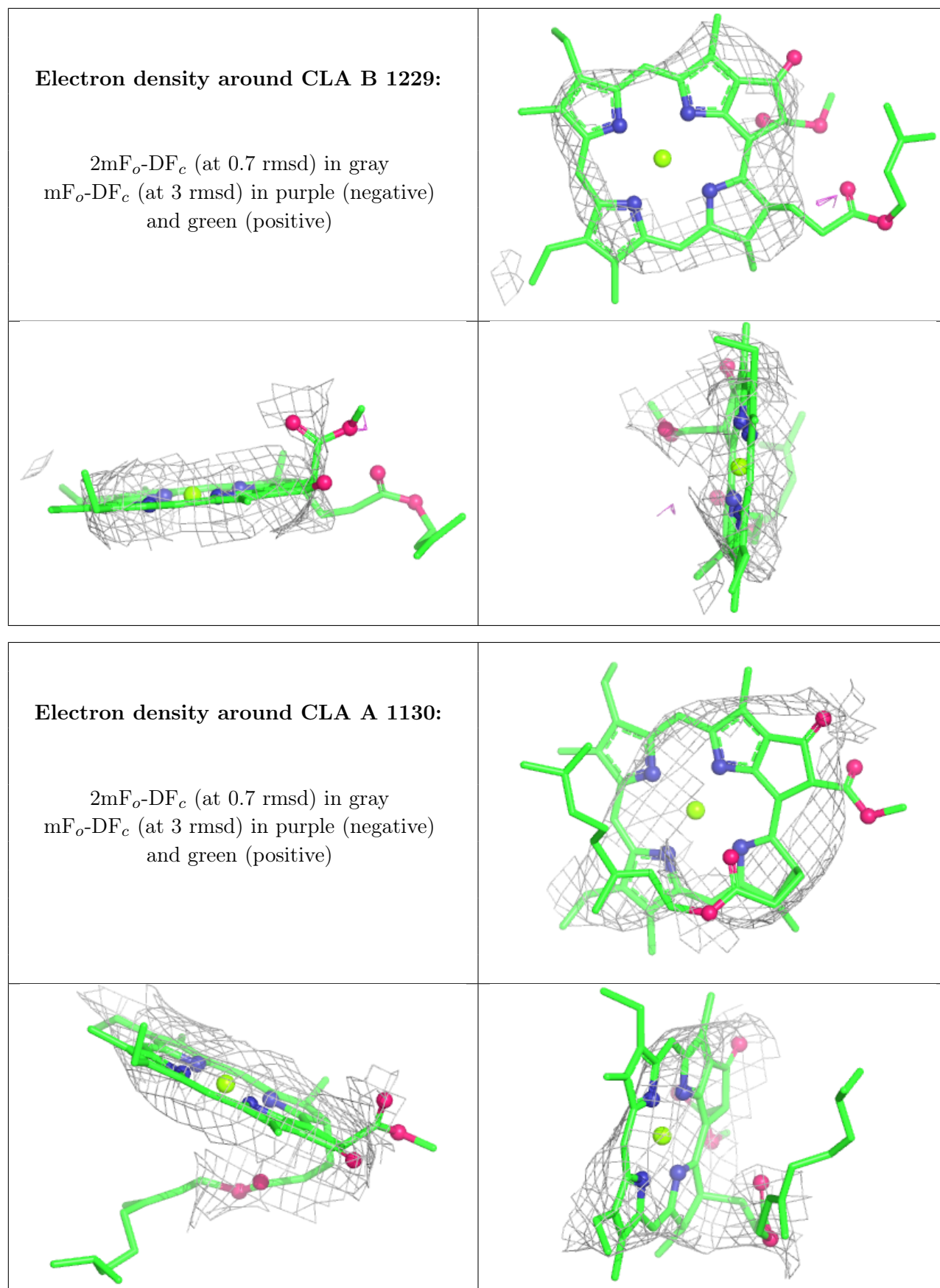


Electron density around CLA A 1135:

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

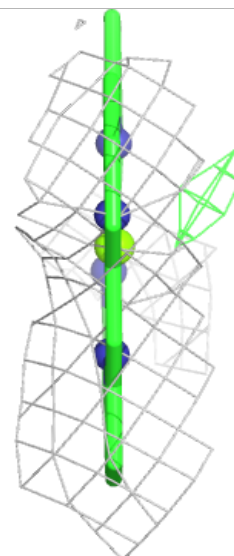
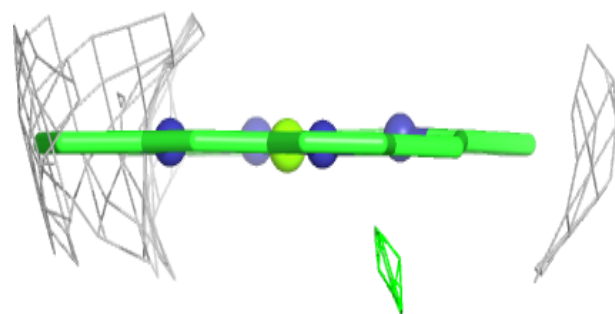
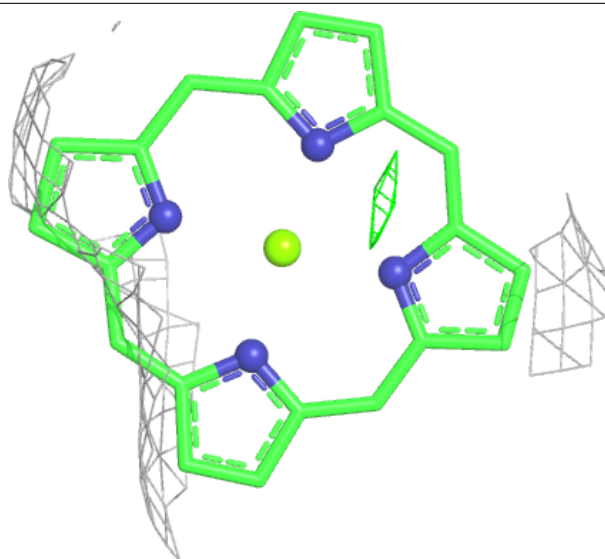






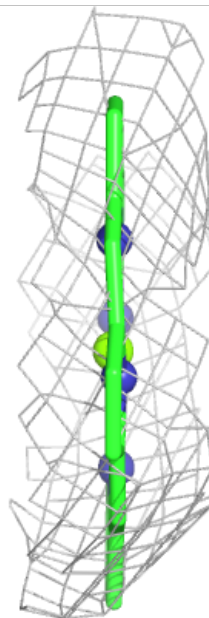
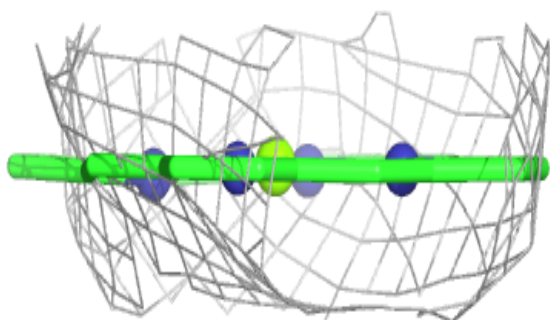
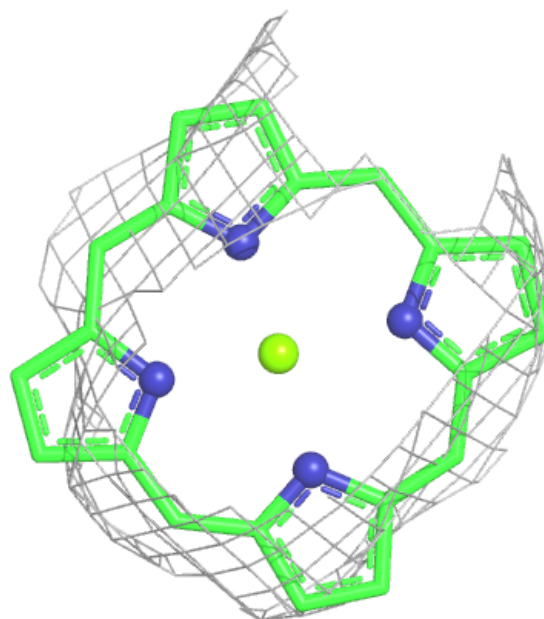
Electron density around CLA 2 612:

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



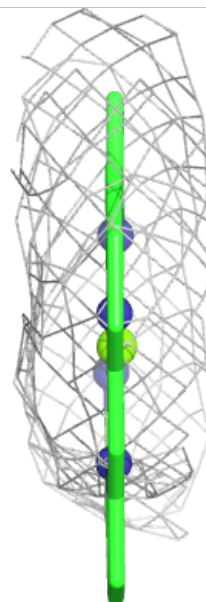
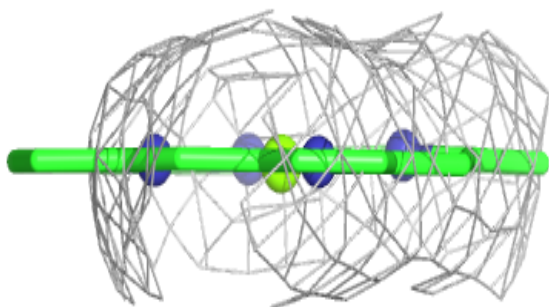
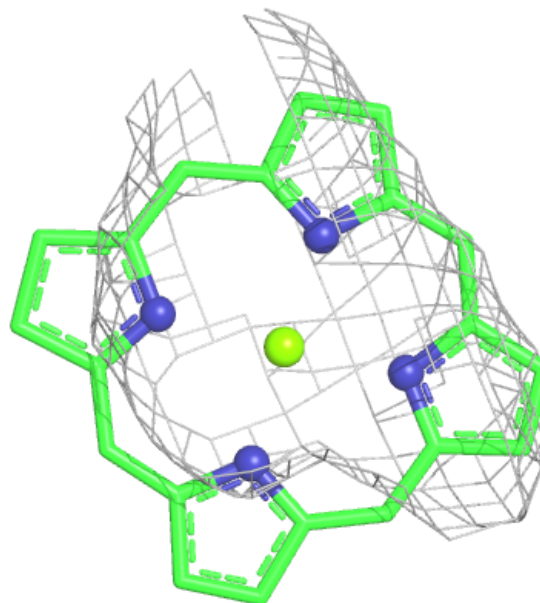
Electron density around CLA B 1234:

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



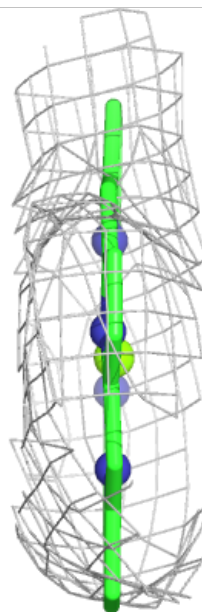
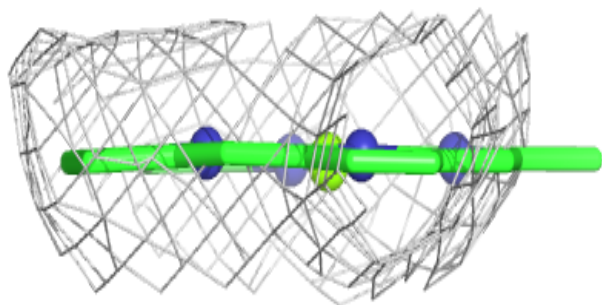
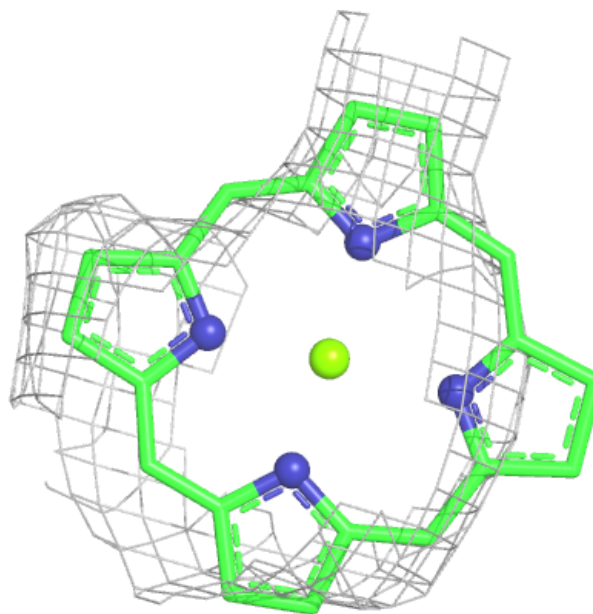
Electron density around CLA A 1133:

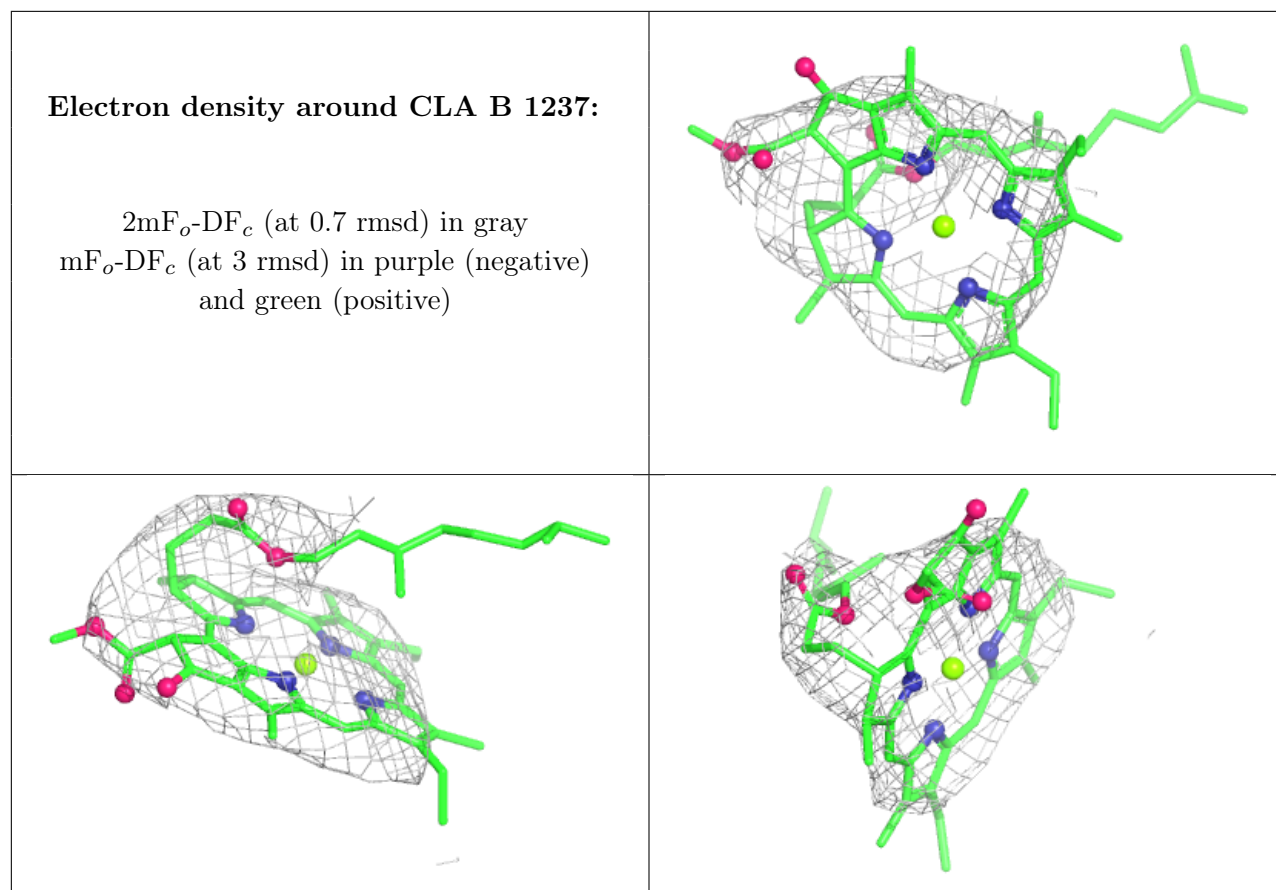
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA B 1202:

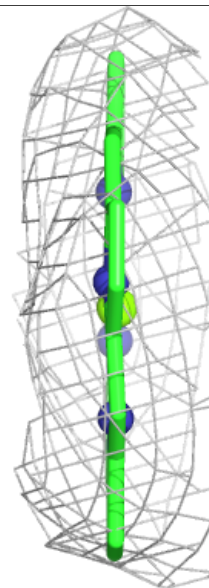
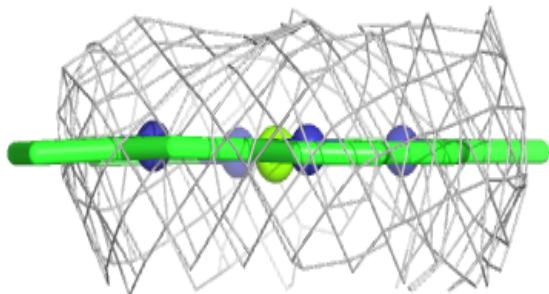
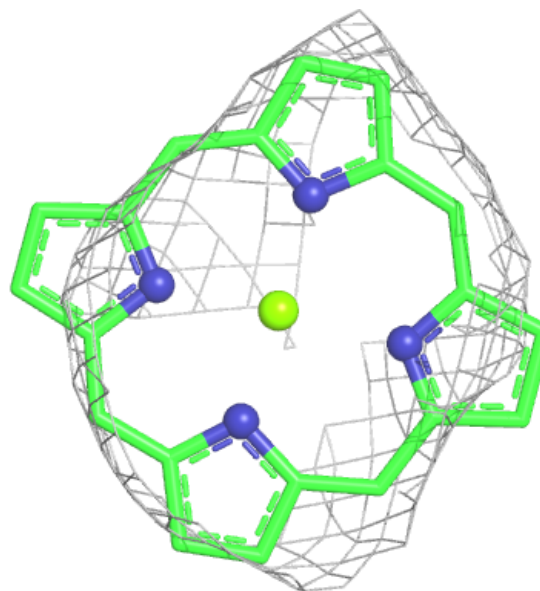
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





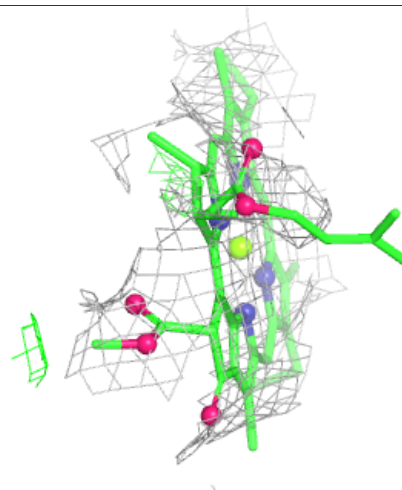
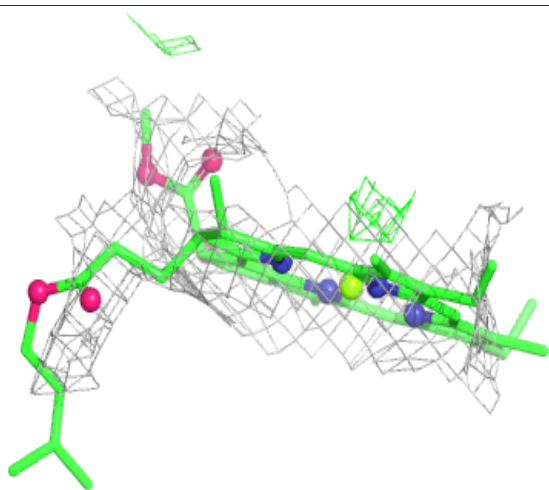
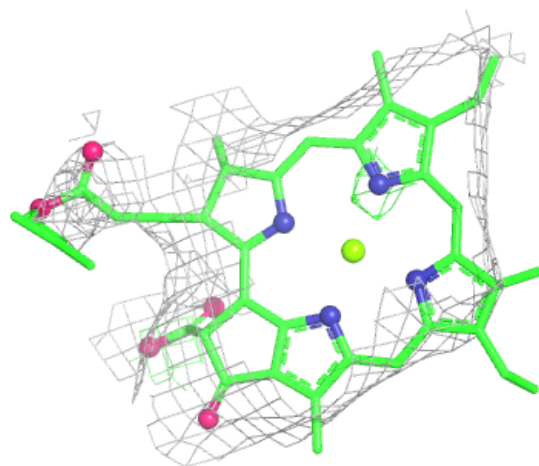
Electron density around CLA A 1118:

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



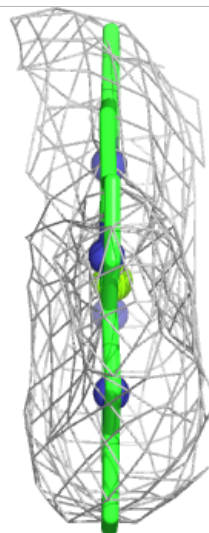
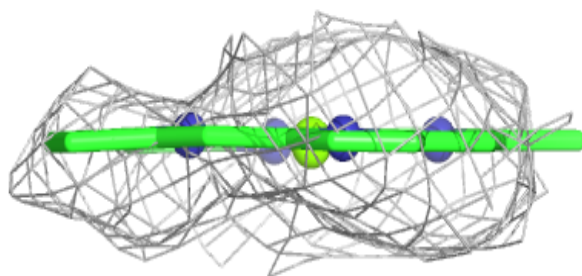
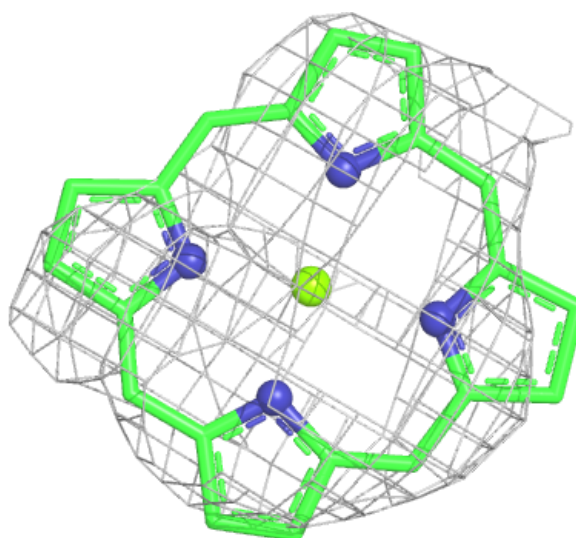
Electron density around CLA A 1011:

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



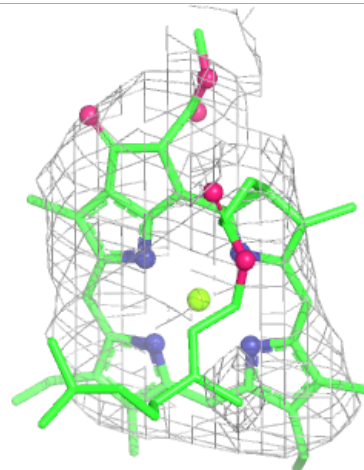
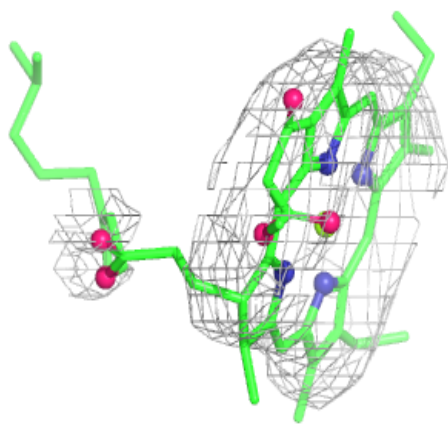
Electron density around CLA B 1022:

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



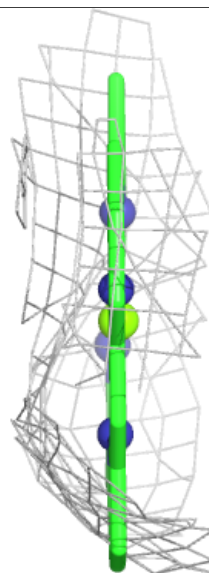
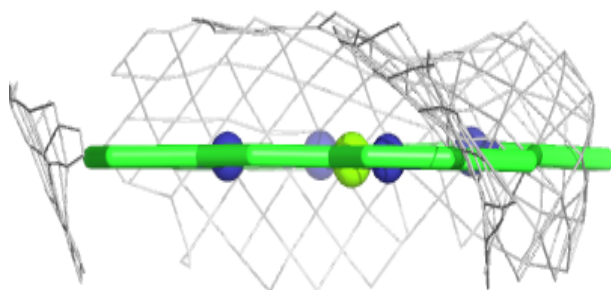
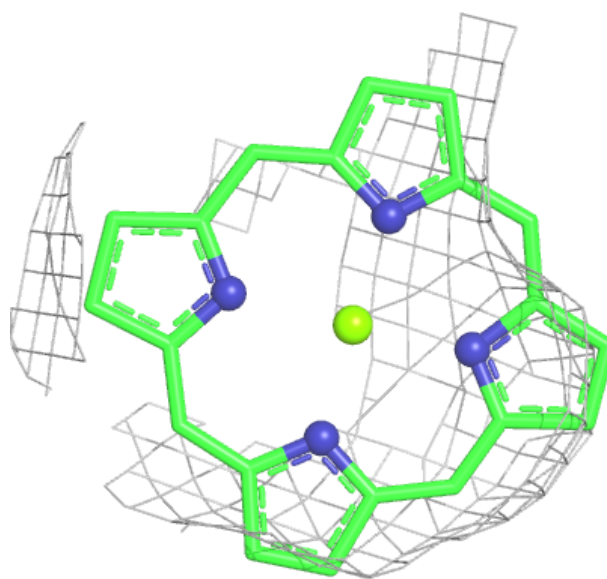
Electron density around CLA A 1107:

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



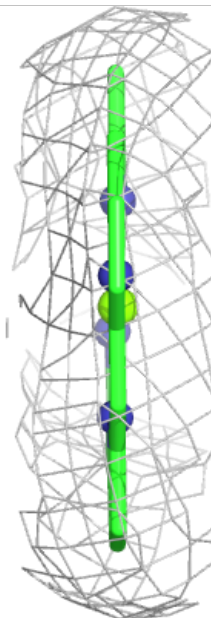
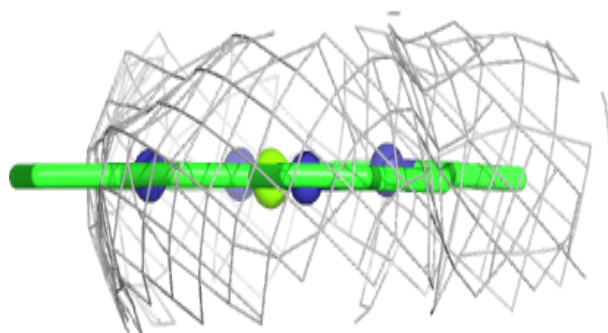
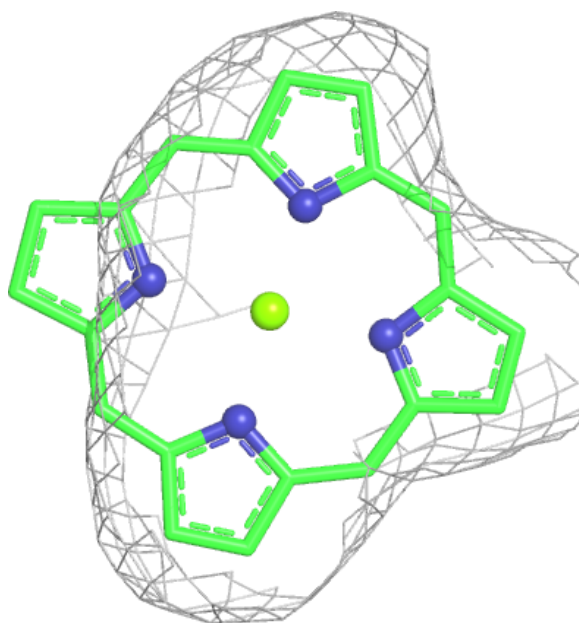
Electron density around CLA A 1129:

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



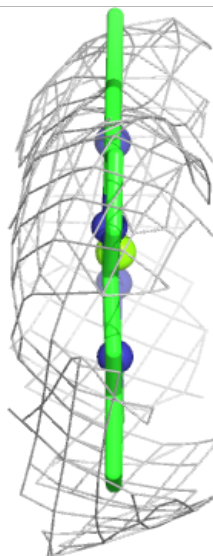
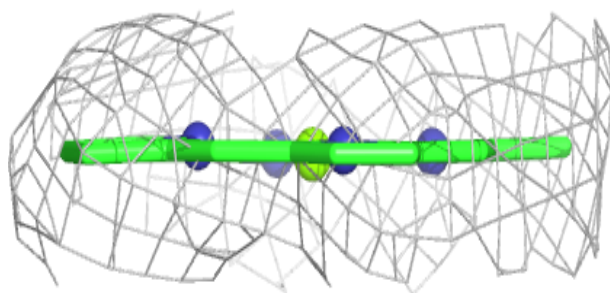
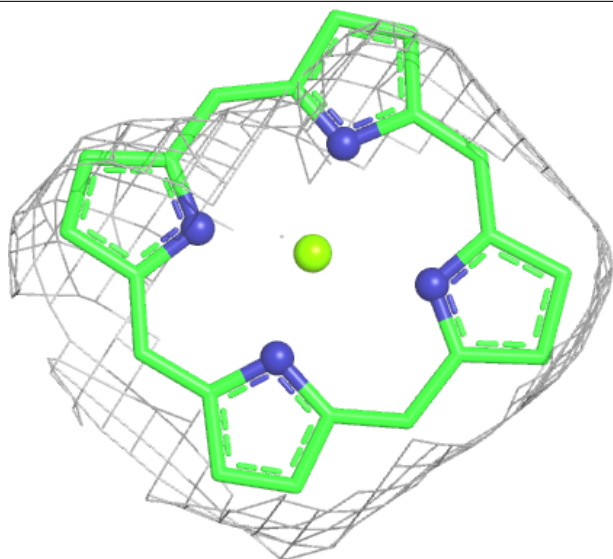
Electron density around CLA A 1108:

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



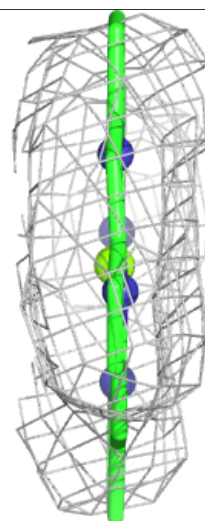
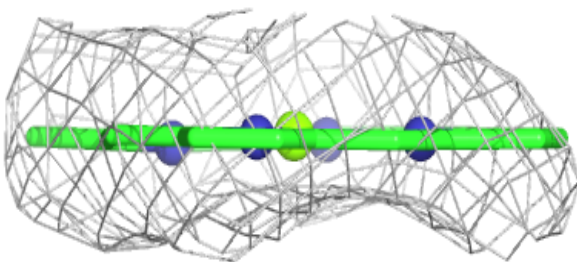
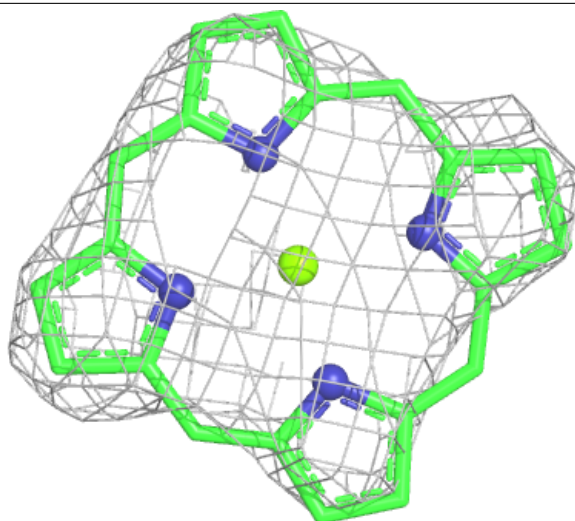
Electron density around CLA B 1215:

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



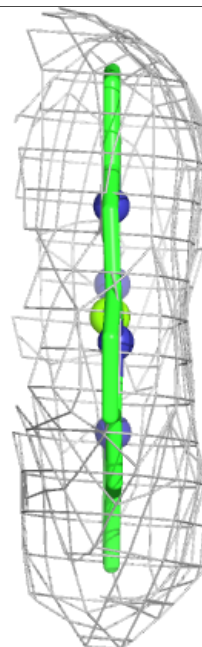
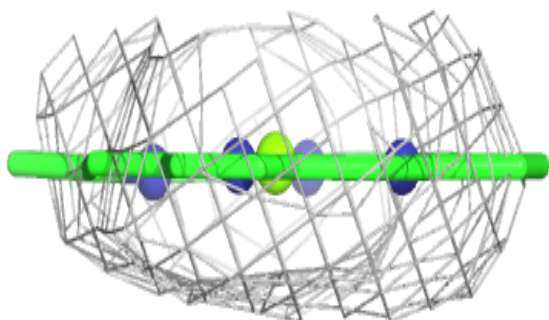
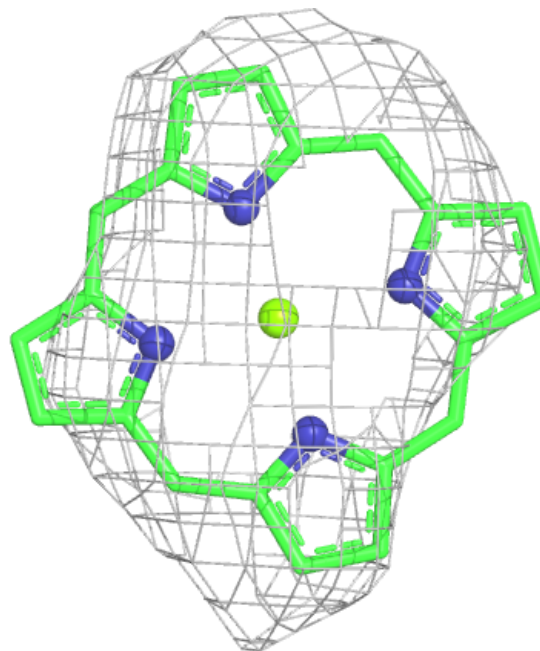
Electron density around CLA A 1113:

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



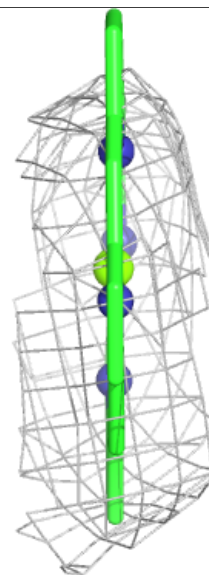
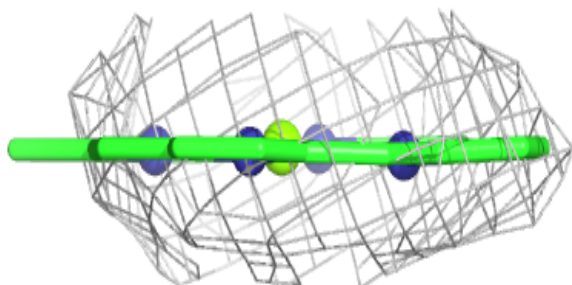
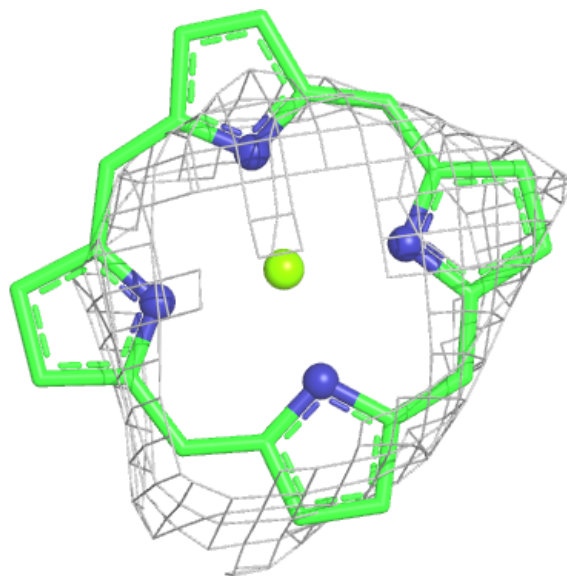
Electron density around CLA A 1139:

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



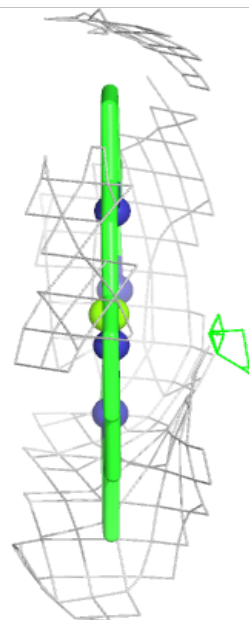
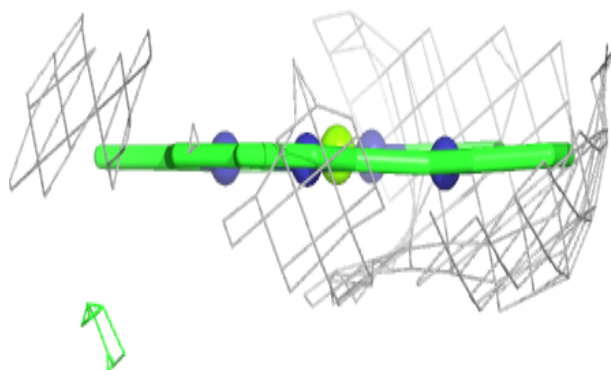
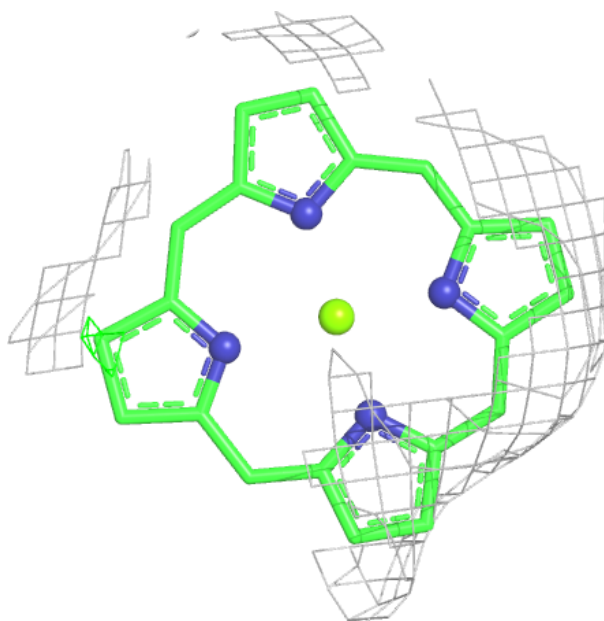
Electron density around CLA B 1239:

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



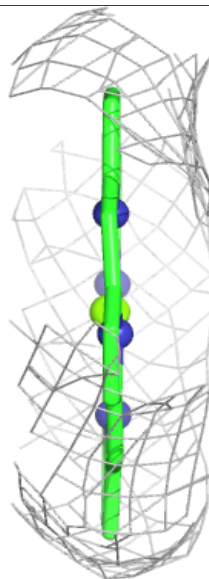
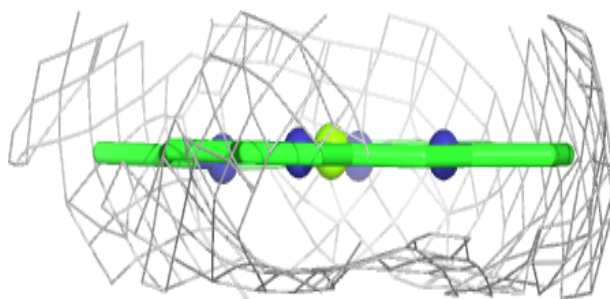
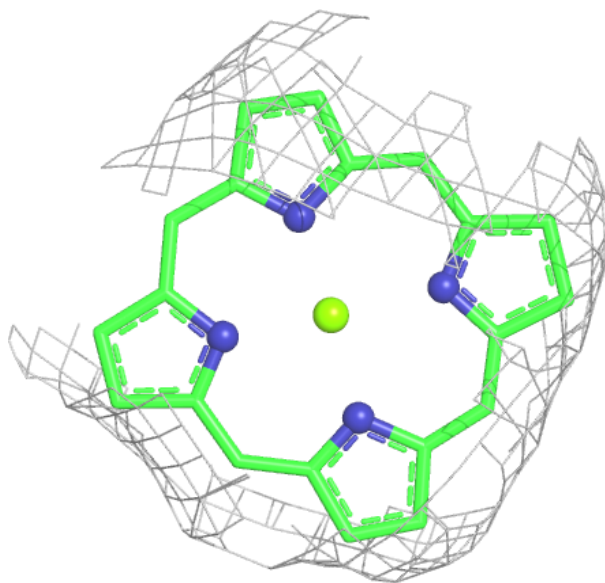
Electron density around CLA A 1132:

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



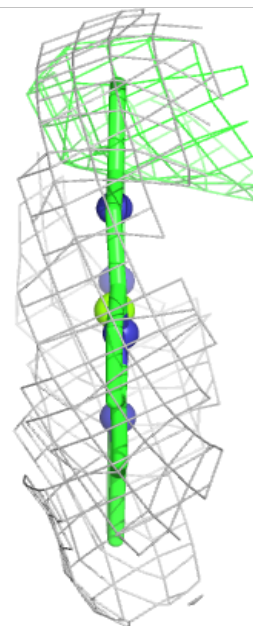
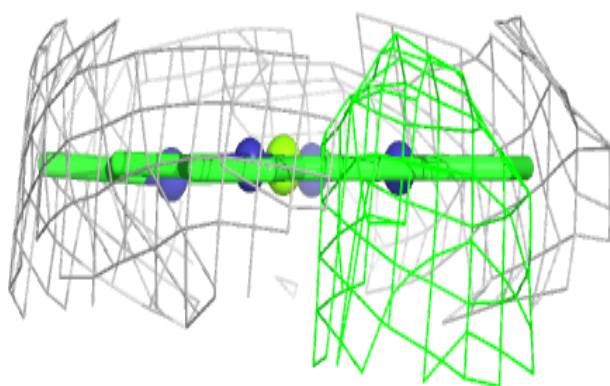
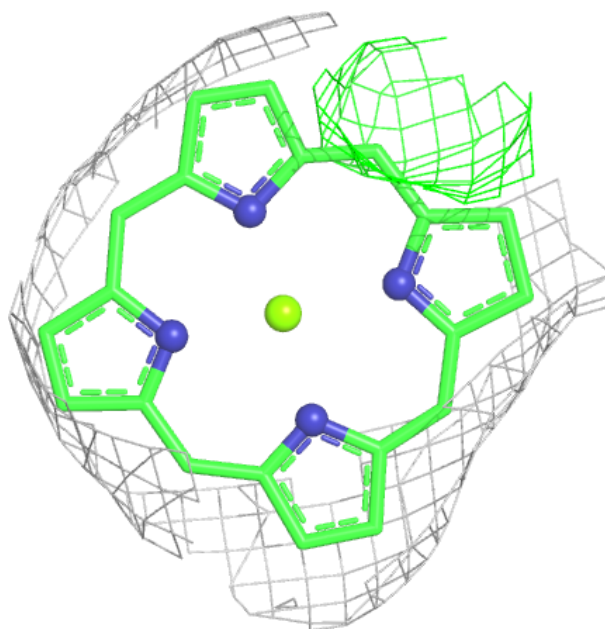
Electron density around CLA A 1122:

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



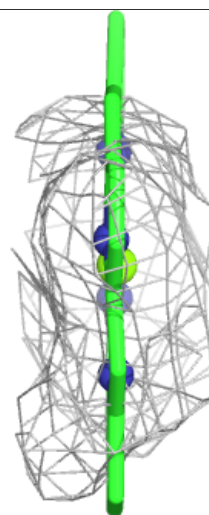
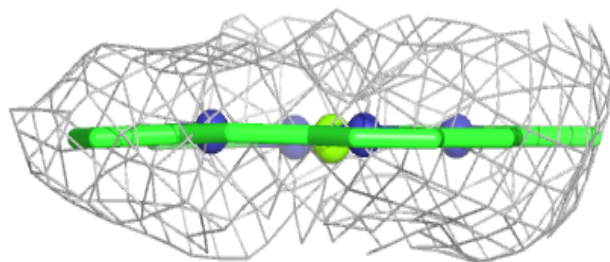
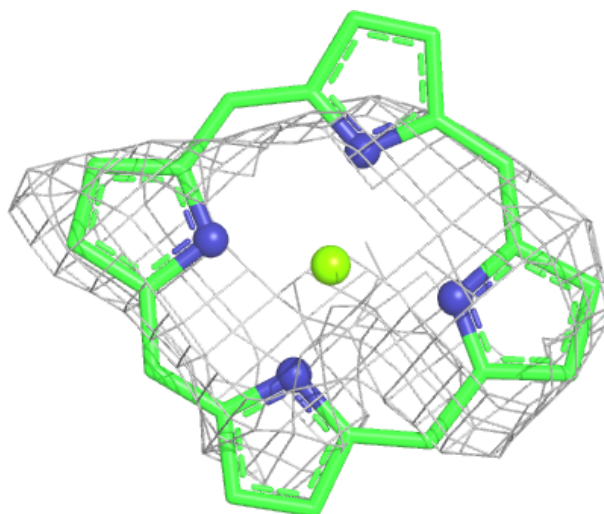
Electron density around CLA A 1102:

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



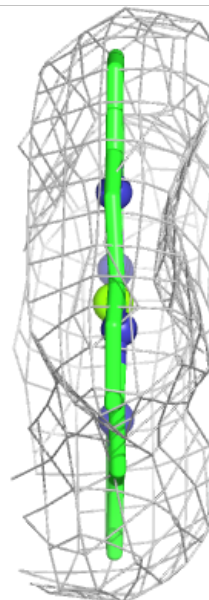
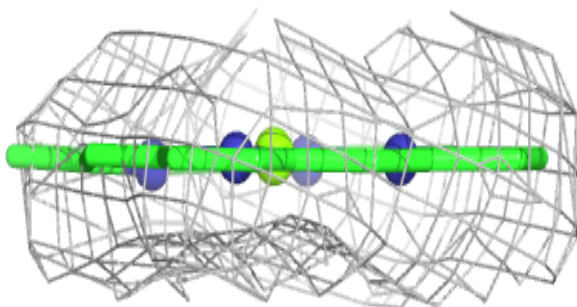
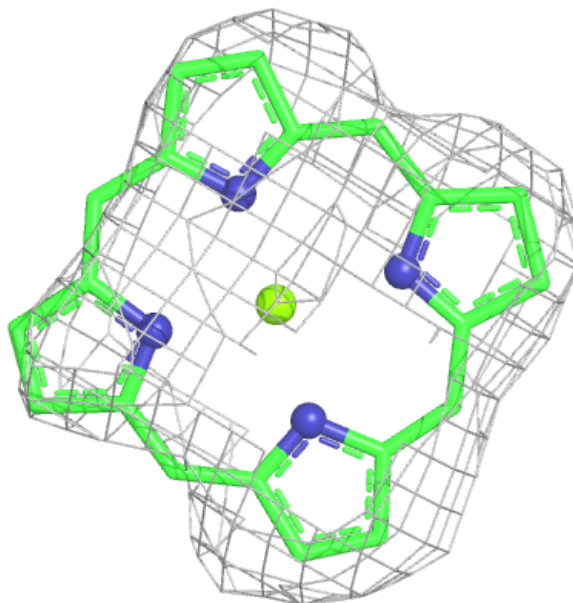
Electron density around CLA A 1110:

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



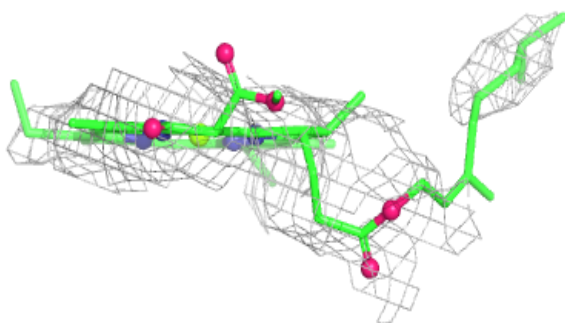
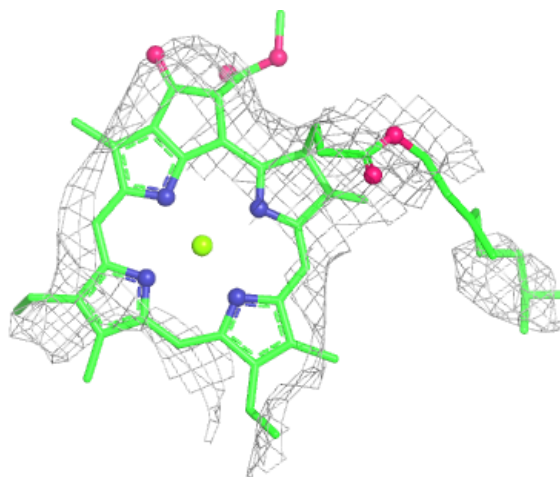
Electron density around CLA A 1127:

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



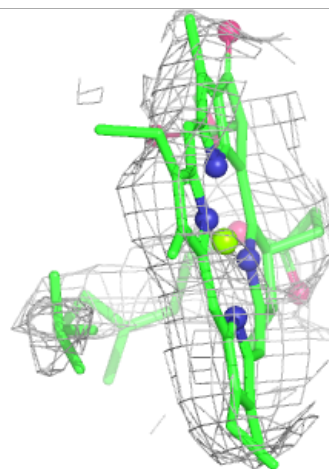
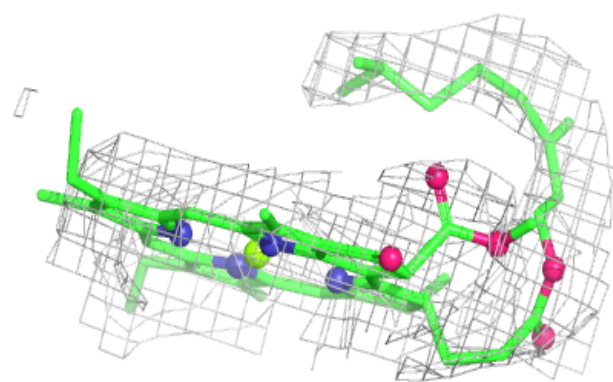
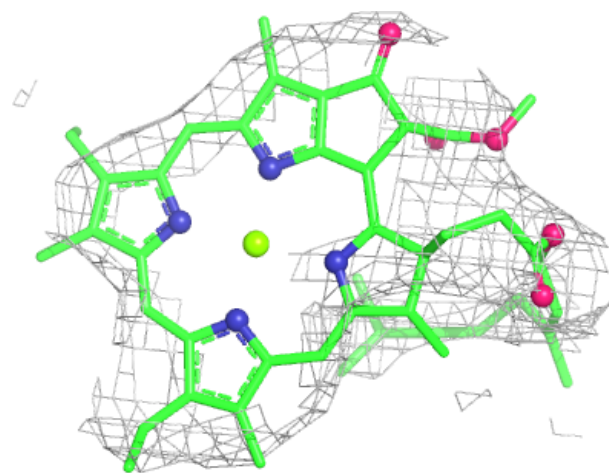
Electron density around CLA A 1013:

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



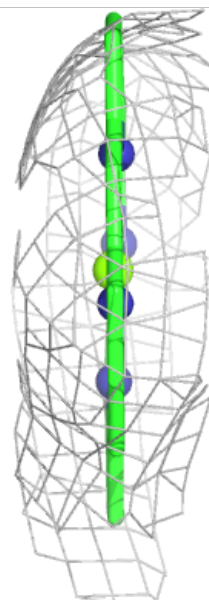
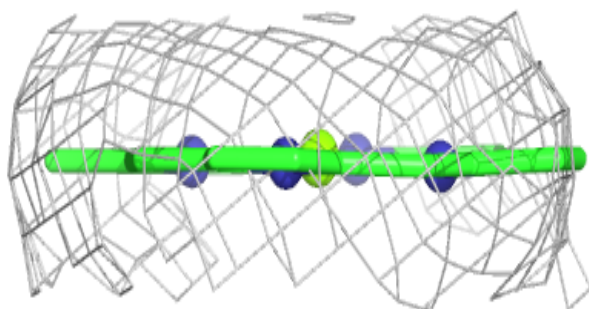
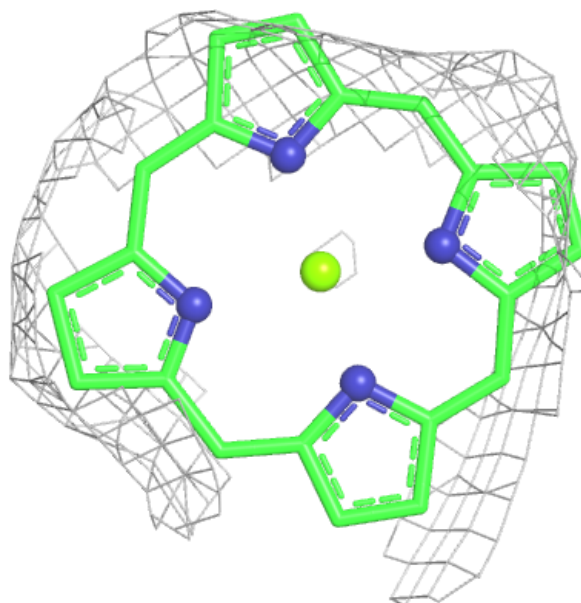
Electron density around CLA A 1104:

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



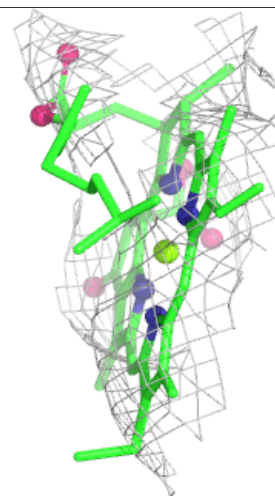
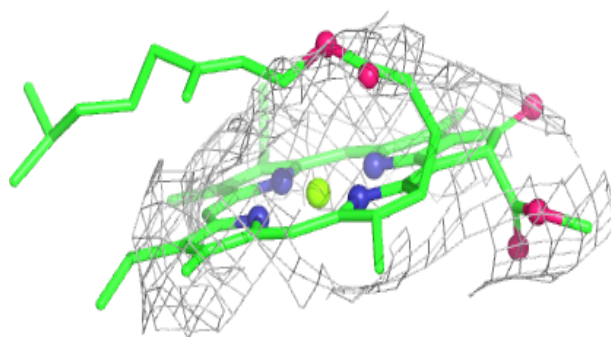
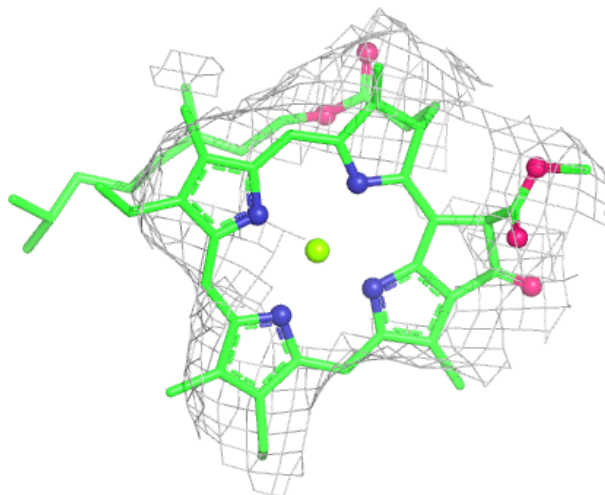
Electron density around CLA 4 605:

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



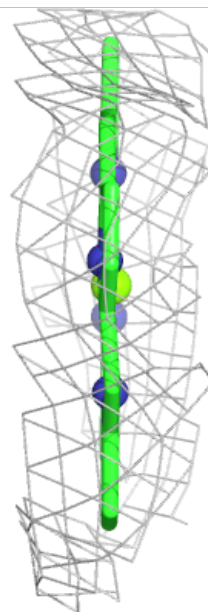
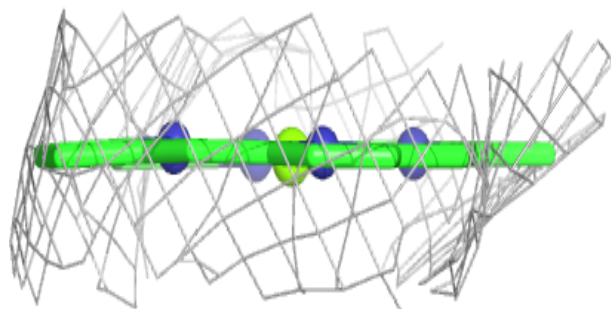
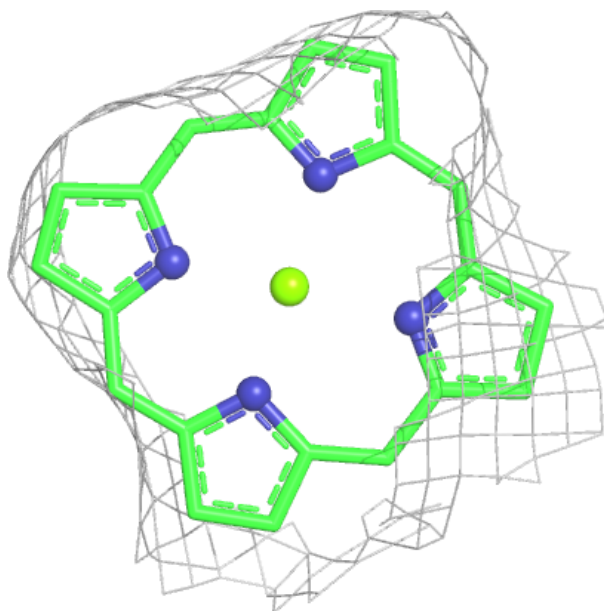
Electron density around CLA A 1117:

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



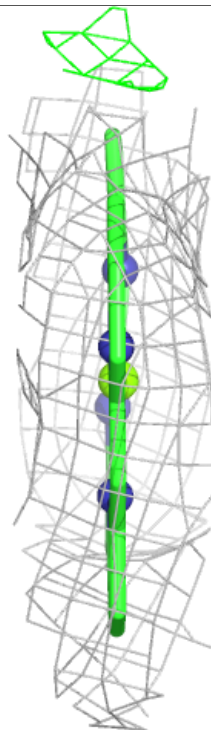
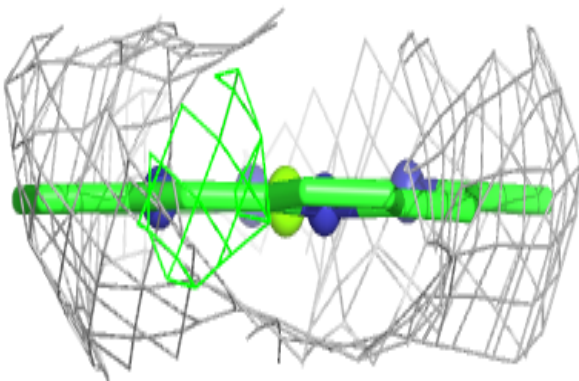
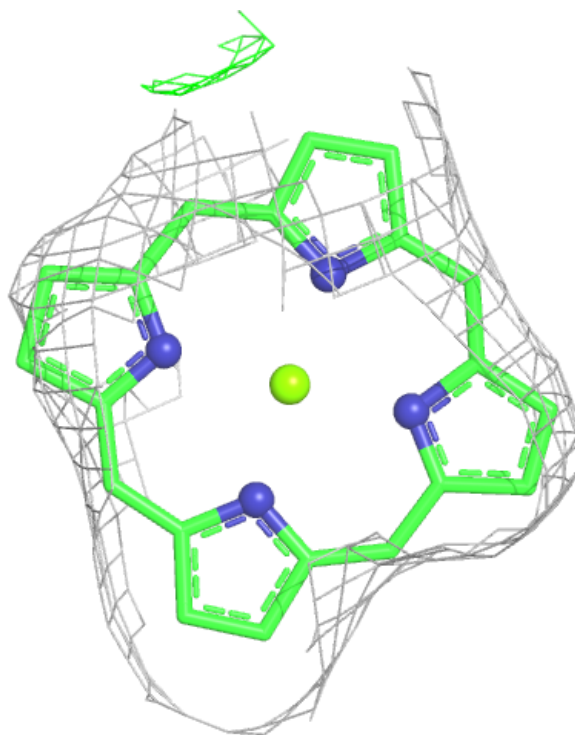
Electron density around CLA B 1222:

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



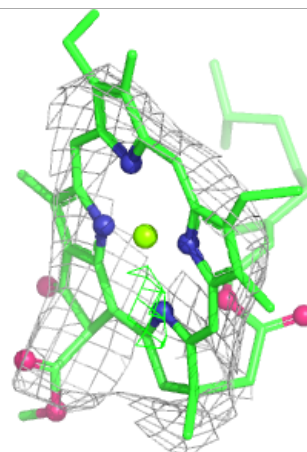
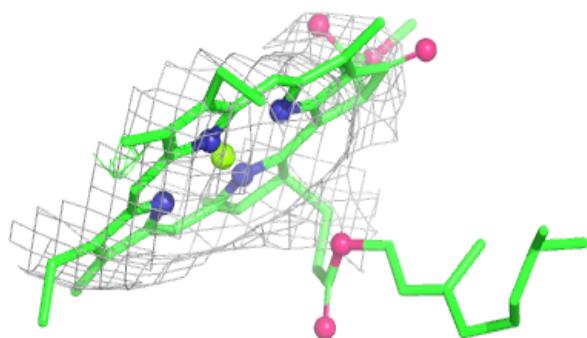
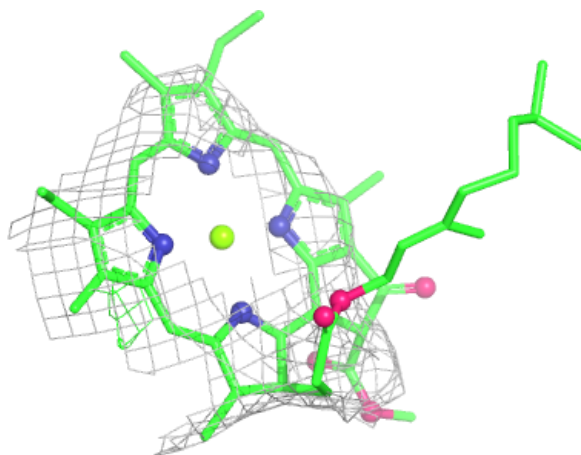
Electron density around CLA A 1124:

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



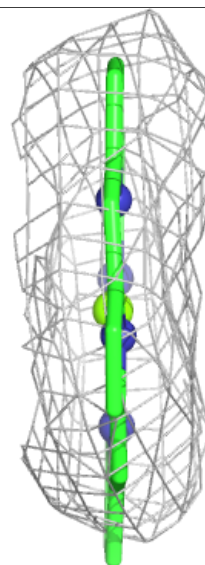
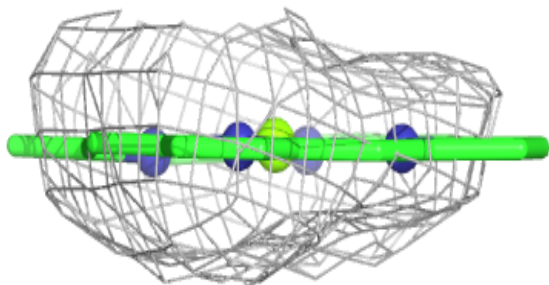
Electron density around CLA B 1224:

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



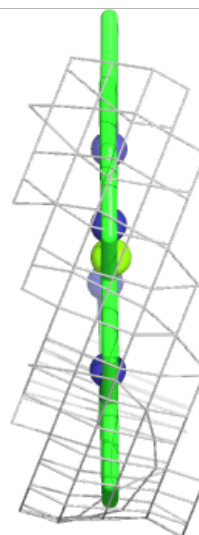
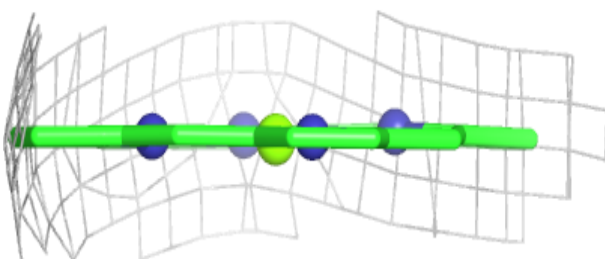
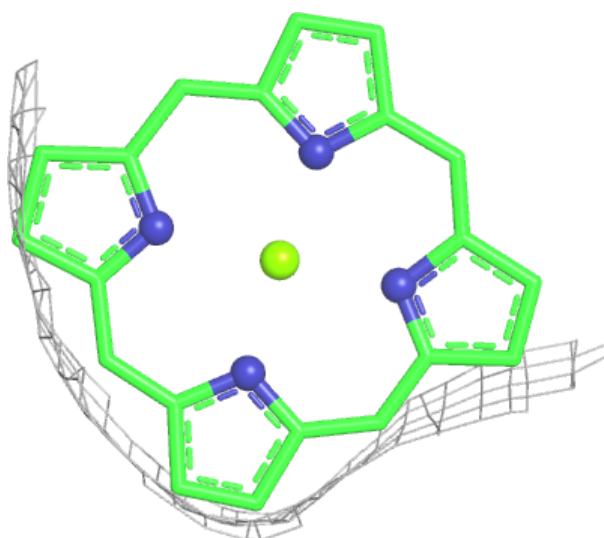
Electron density around CLA 3 610:

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



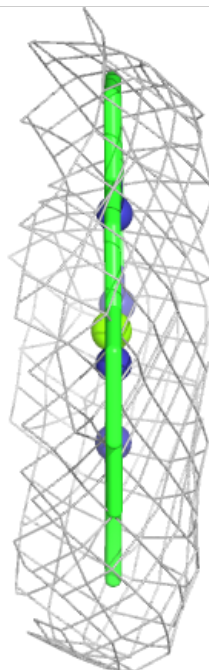
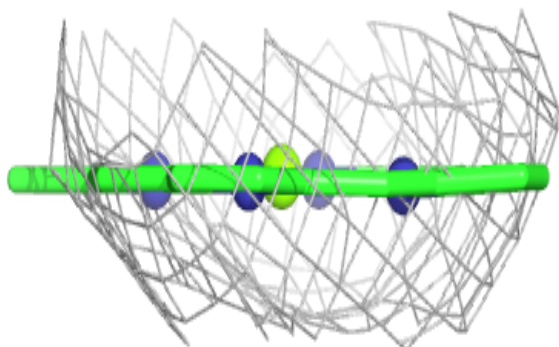
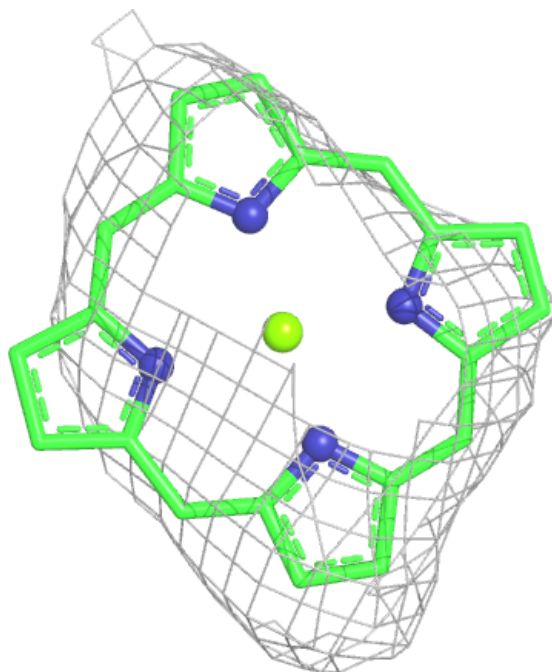
Electron density around CLA B 1211:

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



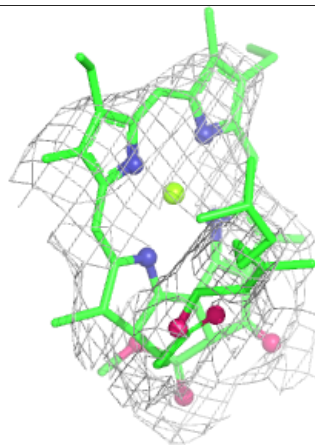
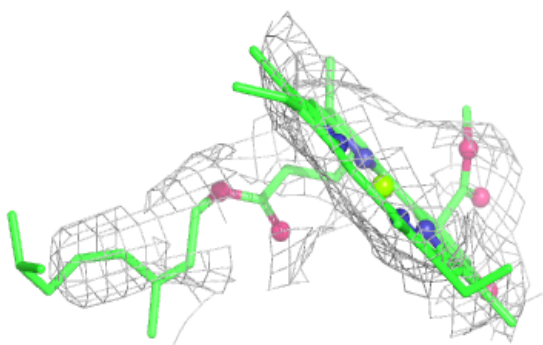
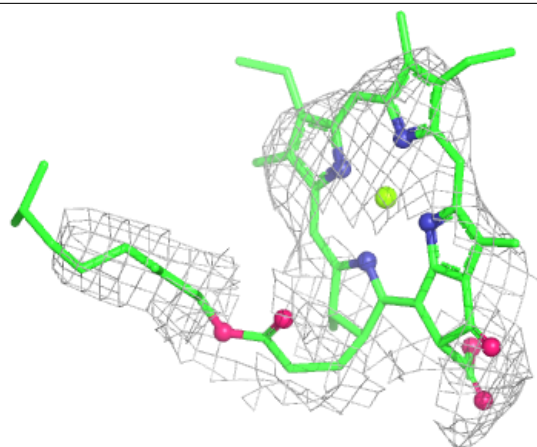
Electron density around CLA B 1206:

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



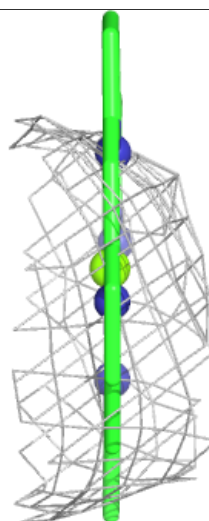
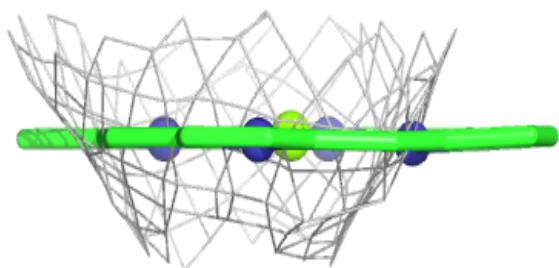
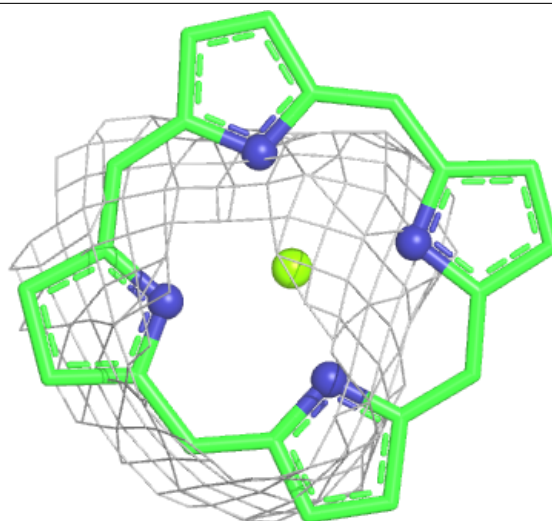
Electron density around CLA A 1106:

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



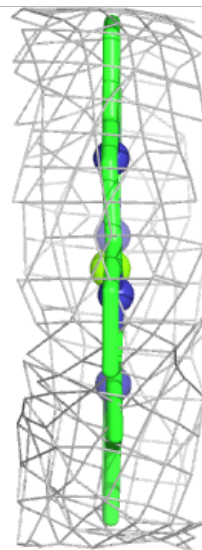
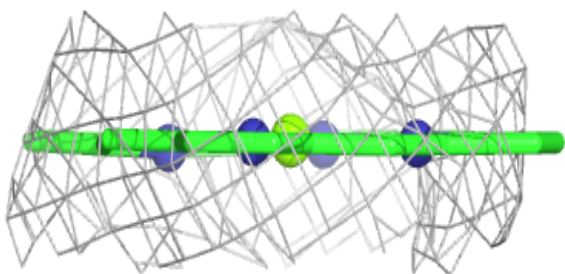
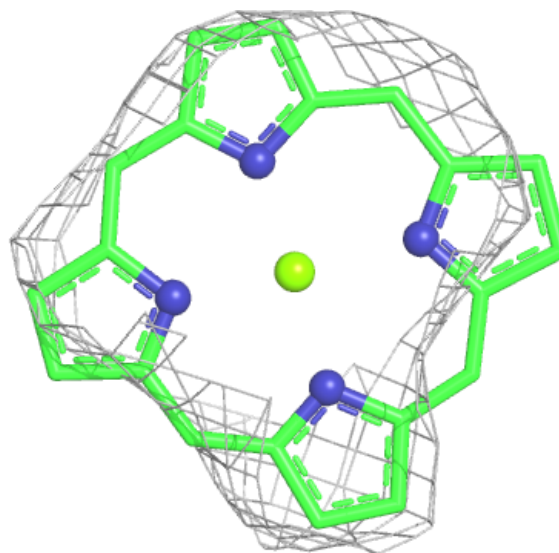
Electron density around CLA B 1205:

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



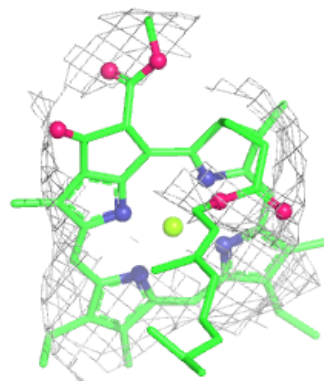
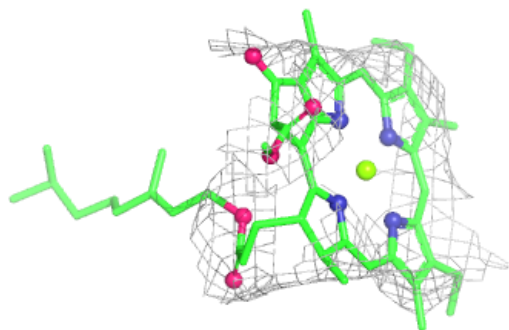
Electron density around CLA A 1136:

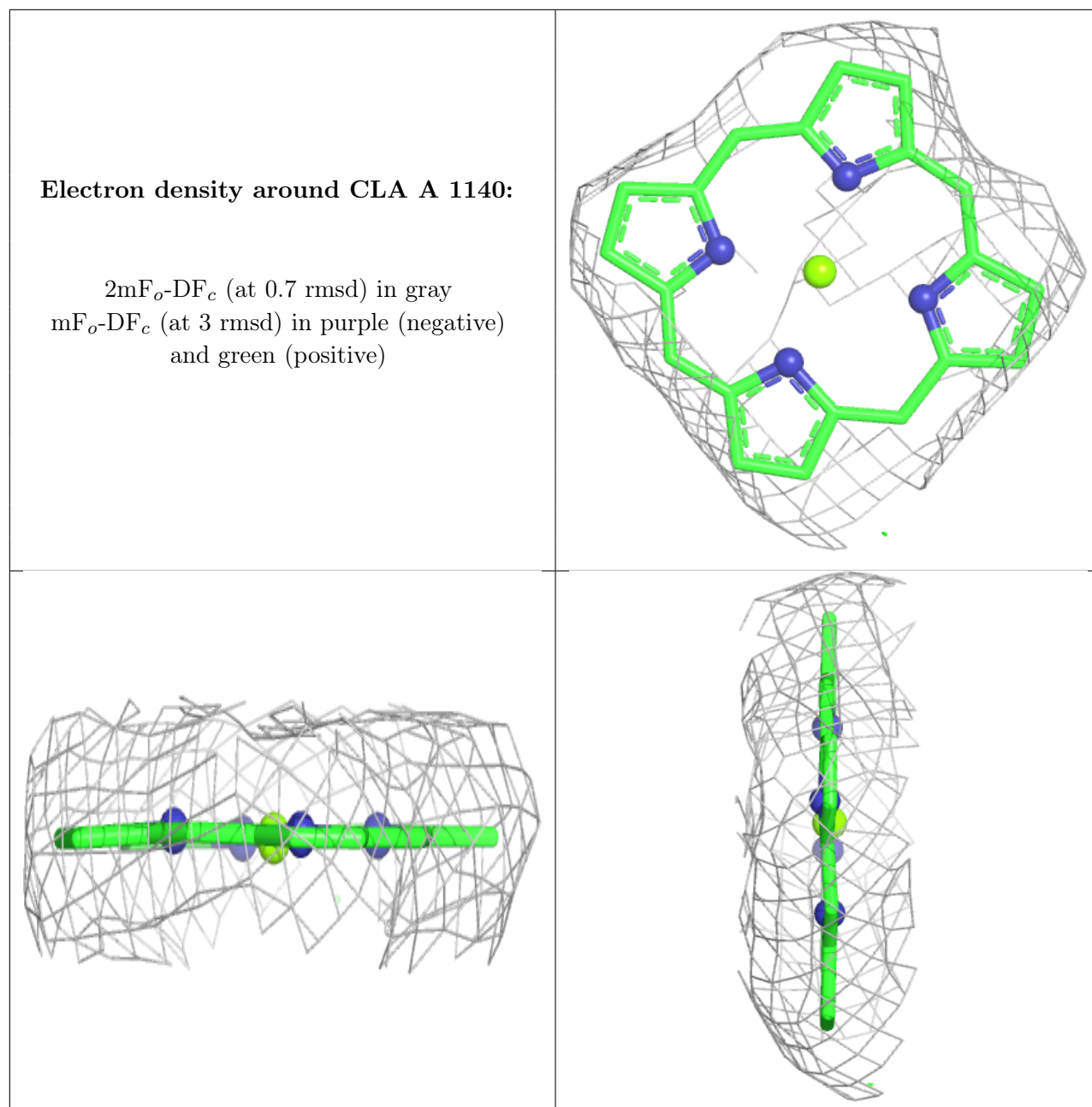
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA A 1126:

$2mF_o-DF_c$ (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.