



Full wwPDB EM Validation Report ⓘ

Sep 28, 2026 – 12:31 PM JST

PDB ID : 9XK8 / pdb_00009xk8
EMDB ID : EMD-66951
Title : In situ C2S2M2L4-type PSII-LHCII supercomplex, moderately bound (M-) LHCII trimer with CP29 and CP24, protomer 1
Authors : Li, J.; Elias, E.; Zhang, K.; Croce, R.; Zhu, J.
Deposited on : 2025-11-05
Resolution : 3.59 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

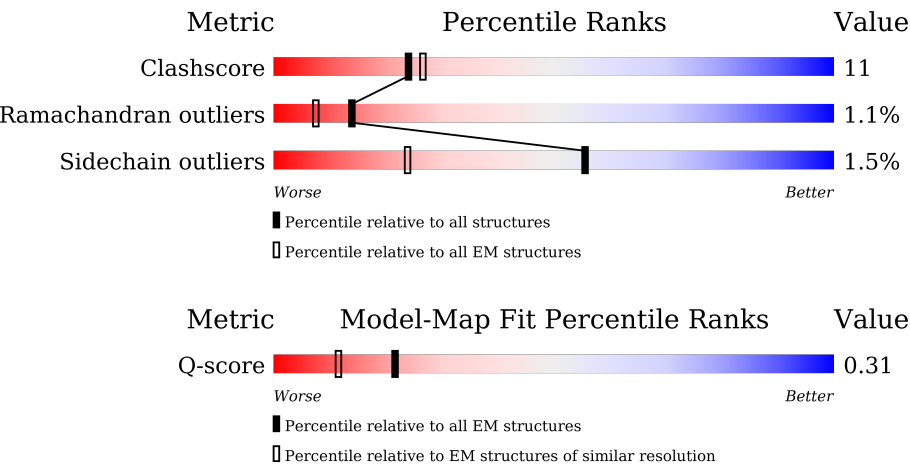
EMDB validation analysis : 0.0.1.dev133
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4-5-2 with Phenix2.2
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.51

1 Overall quality at a glance i

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

The reported resolution of this entry is 3.59 Å.

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



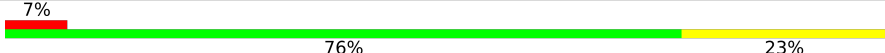
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	12565 (3.09 - 4.09)

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

Mol	Chain	Length	Quality of chain
1	01	219	68% 30% •
1	02	219	6% 80% 17% •
2	03	220	5% 79% 20%
3	04	205	74% 15% 10% •

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Mol	Chain	Length	Quality of chain
4	1R	234	

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
5	CLA	01	307	X	-	-	-
5	CLA	01	308	X	-	-	-
5	CLA	03	301	X	-	-	-
5	CLA	1R	301	X	-	-	-
6	CHL	01	304	X	-	-	-
6	CHL	01	306	X	-	-	-

2 Entry composition

There are 10 unique types of molecules in this entry. The entry contains 11464 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Chlorophyll a-b binding protein 2, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	01	219	Total	C	N	O	S	0	0
			1637	1061	268	303	5		
1	02	214	Total	C	N	O	S	0	0
			1576	1027	251	294	4		

- Molecule 2 is a protein called Chlorophyll a/b-binding protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	03	220	Total	C	N	O	S	0	0
			1685	1098	278	304	5		

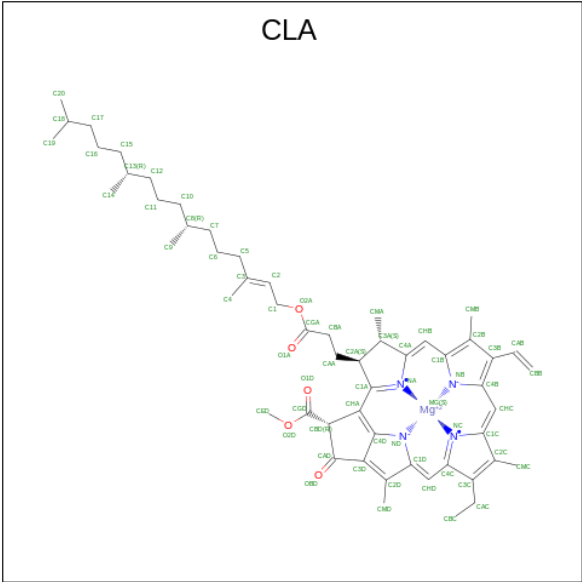
- Molecule 3 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	04	184	Total	C	N	O	S	0	0
			1403	916	230	253	4		

- Molecule 4 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	1R	234	Total	C	N	O	S	0	0
			1837	1193	299	342	3		

- Molecule 5 is CHLOROPHYLL A (CCD ID: CLA) (formula: $C_{55}H_{72}MgN_4O_5$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
5	01	1	Total	C	Mg	N	O	0
			54	44	1	4	5	
5	01	1	Total	C	Mg	N	O	0
			56	46	1	4	5	
5	01	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
5	01	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
5	01	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
5	01	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
5	01	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
5	01	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
5	02	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	02	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
5	02	1	Total	C	Mg	N	O	0
			42	34	1	4	3	
5	02	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	02	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	02	1	Total	C	Mg	N	O	0
			44	34	1	4	5	

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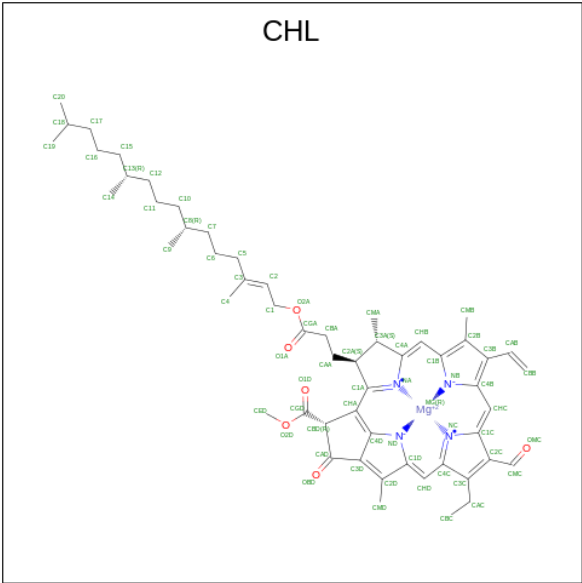
Mol	Chain	Residues	Atoms					AltConf
5	02	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
5	02	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	03	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
5	03	1	Total	C	Mg	N	O	0
			39	31	1	4	3	
5	03	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
5	03	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
5	03	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	03	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
5	03	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	04	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	04	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	04	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
5	04	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	04	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	04	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	04	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
5	04	1	Total	C	Mg	N	O	0
			41	33	1	4	3	
5	1R	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
5	1R	1	Total	C	Mg	N	O	0
			44	35	1	4	4	
5	1R	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
5	1R	1	Total	C	Mg	N	O	0
			49	39	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
5	1R	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	1R	1	Total	C	Mg	N	O	0
			49	39	1	4	5	
5	1R	1	Total	C	Mg	N	O	0
			44	34	1	4	5	
5	1R	1	Total	C	Mg	N	O	0
			46	36	1	4	5	

- Molecule 6 is CHLOROPHYLL B (CCD ID: CHL) (formula: C₅₅H₇₀MgN₄O₆) (labeled as "Ligand of Interest" by depositor).



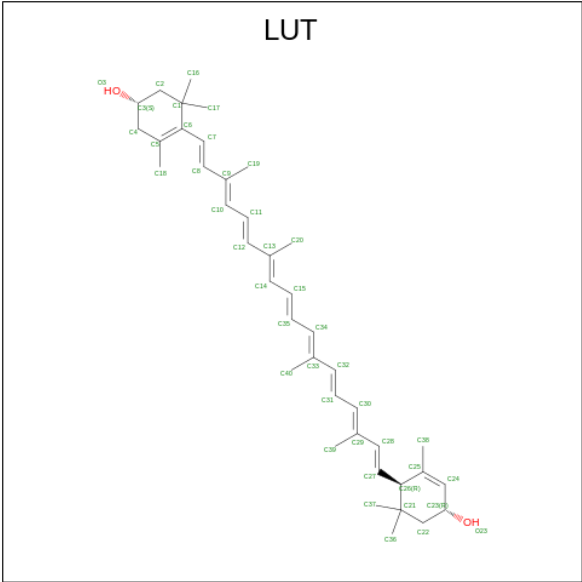
Mol	Chain	Residues	Atoms					AltConf
6	01	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	01	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	01	1	Total	C	Mg	N	O	0
			63	52	1	4	6	
6	01	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	01	1	Total	C	Mg	N	O	0
			62	51	1	4	6	
6	02	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	02	1	Total	C	Mg	N	O	0
			46	35	1	4	6	

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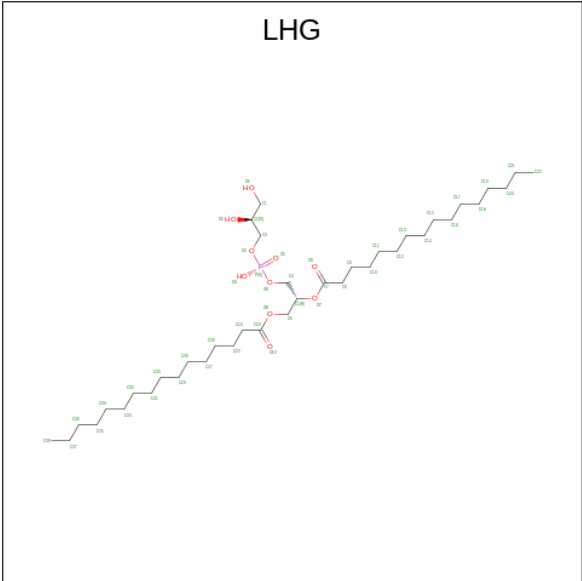
Mol	Chain	Residues	Atoms					AltConf
6	02	1	Total	C	Mg	N	O	0
			45	34	1	4	6	
6	02	1	Total	C	Mg	N	O	0
			45	34	1	4	6	
6	02	1	Total	C	Mg	N	O	0
			45	34	1	4	6	
6	02	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	03	1	Total	C	Mg	N	O	0
			40	32	1	4	3	
6	03	1	Total	C	Mg	N	O	0
			45	34	1	4	6	
6	03	1	Total	C	Mg	N	O	0
			43	34	1	4	4	
6	03	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	03	1	Total	C	Mg	N	O	0
			42	33	1	4	4	
6	04	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	04	1	Total	C	Mg	N	O	0
			41	32	1	4	4	
6	04	1	Total	C	Mg	N	O	0
			46	35	1	4	6	
6	04	1	Total	C	Mg	N	O	0
			43	34	1	4	4	
6	04	1	Total	C	Mg	N	O	0
			42	33	1	4	4	
6	1R	1	Total	C	Mg	N	O	0
			42	33	1	4	4	
6	1R	1	Total	C	Mg	N	O	0
			42	33	1	4	4	
6	1R	1	Total	C	Mg	N	O	0
			41	32	1	4	4	
6	1R	1	Total	C	Mg	N	O	0
			45	34	1	4	6	

- Molecule 7 is (3R,3'R,6S)-4,5-DIDEHYDRO-5,6-DIHYDRO-BETA,BETA-CAROTENE-3,3'-DIOL (CCD ID: LUT) (formula: C₄₀H₅₆O₂) (labeled as "Ligand of Interest" by depositor).



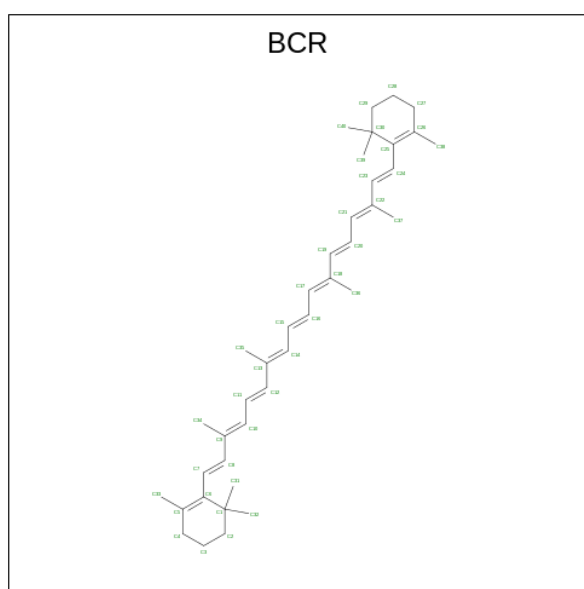
Mol	Chain	Residues	Atoms			AltConf
7	01	1	Total	C	O	0
			42	40	2	
7	01	1	Total	C	O	0
			42	40	2	
7	03	1	Total	C	O	0
			42	40	2	
7	1R	1	Total	C	O	0
			42	40	2	

- Molecule 8 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (CCD ID: LHG) (formula: C₃₈H₇₅O₁₀P) (labeled as "Ligand of Interest" by depositor).



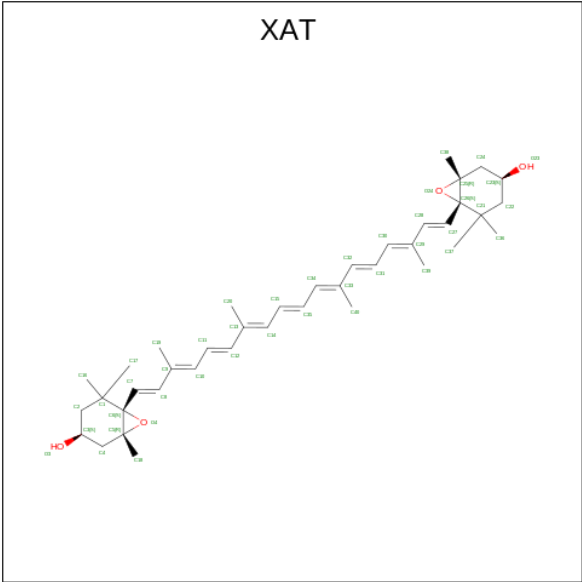
Mol	Chain	Residues	Atoms				AltConf
8	01	1	Total	C	O	P	0
			36	25	10	1	
8	03	1	Total	C	O	P	0
			45	34	10	1	
8	1R	1	Total	C	O	P	0
			38	27	10	1	
8	1R	1	Total	C	O	P	0
			37	26	10	1	

- Molecule 9 is BETA-CAROTENE (CCD ID: BCR) (formula: $C_{40}H_{56}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms		AltConf
9	04	1	Total	C	0
			40	40	

- Molecule 10 is (3S,5R,6S,3'S,5'R,6'S)-5,6,5',6'-DIEPOXY-5,6,5',6'-TETRAHYDRO-BETA, BETA-CAROTENE-3,3'-DIOL (CCD ID: XAT) (formula: $C_{40}H_{56}O_4$) (labeled as "Ligand of Interest" by depositor).

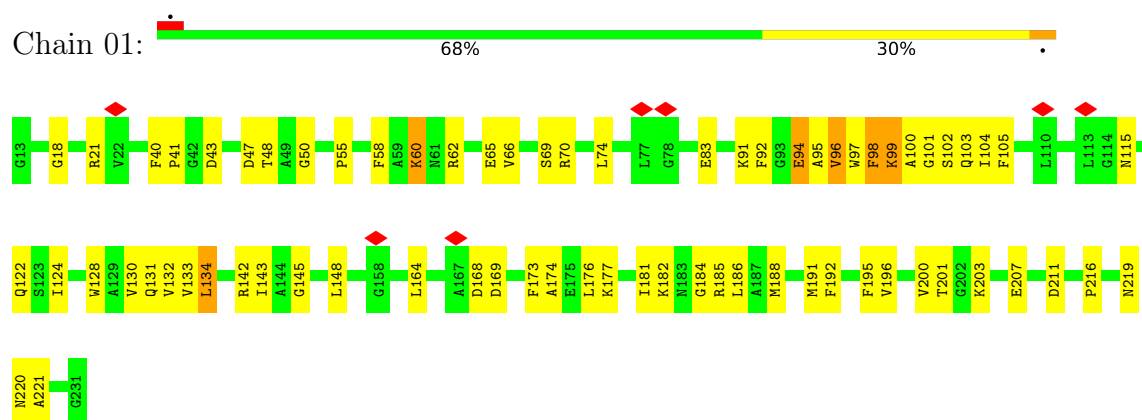


Mol	Chain	Residues	Atoms			AltConf
10	1R	1	Total	C	O	0
			44	40	4	

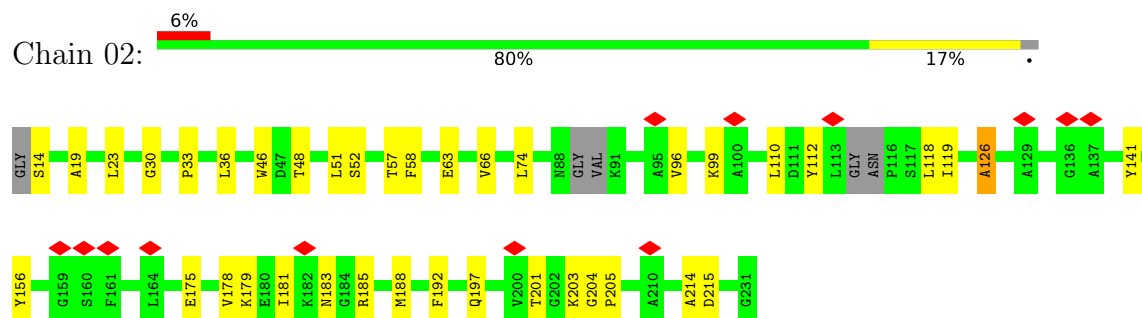
3 Residue-property plots

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

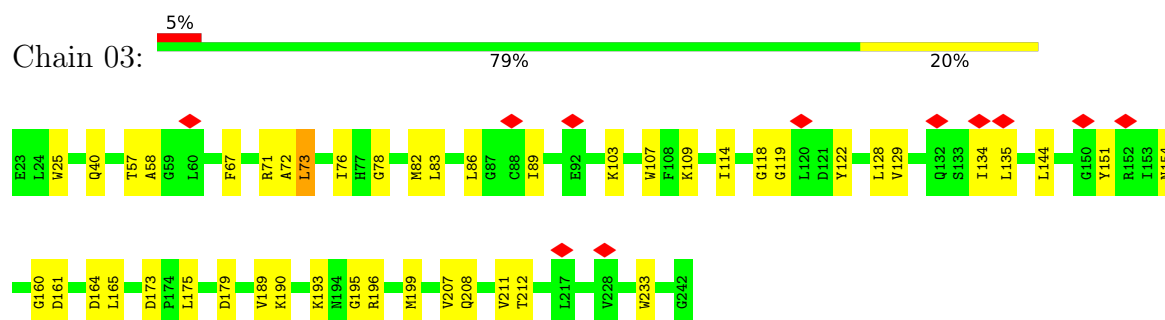
- Molecule 1: Chlorophyll a-b binding protein 2, chloroplastic



- Molecule 1: Chlorophyll a-b binding protein 2, chloroplastic

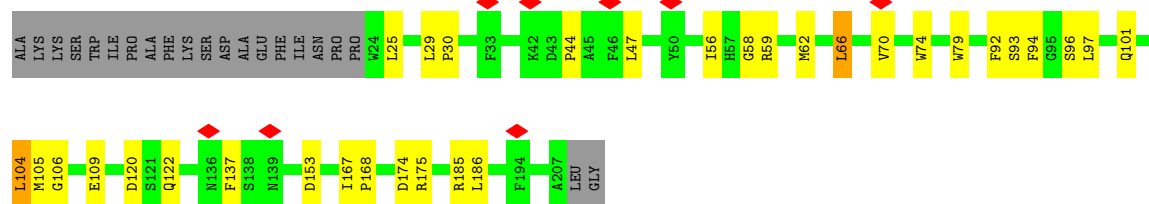


- Molecule 2: Chlorophyll a/b-binding protein



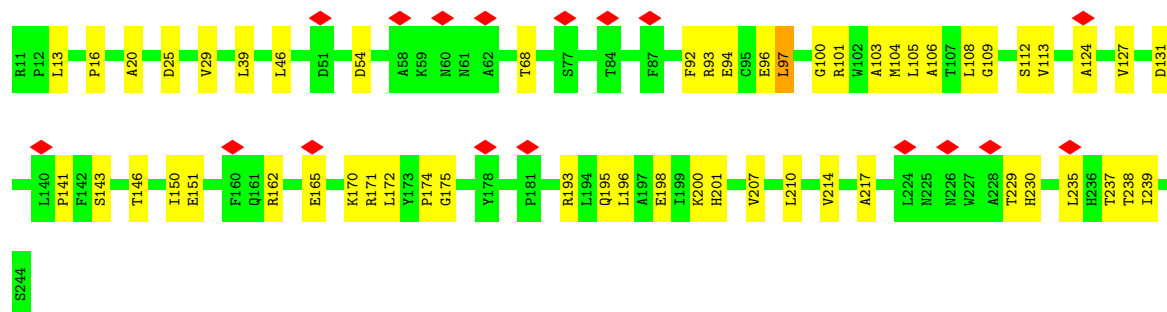
- Molecule 3: Chlorophyll a-b binding protein, chloroplastic

Chain 04:  74% 15% 10%



- Molecule 4: Chlorophyll a-b binding protein, chloroplastic

Chain 1R:  7% 76% 23%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	172752	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	1.375	Depositor
Minimum defocus (nm)	1400	Depositor
Maximum defocus (nm)	2200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.339	Depositor
Minimum map value	-0.246	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.008	Depositor
Map size ($\text{\AA}$)	419.84, 419.84, 419.84	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	0.82, 0.82, 0.82	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: LHG, CHL, CLA, BCR, LUT, XAT

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	01	0.32	1/1685 (0.1%)	0.71	4/2297 (0.2%)
1	02	0.27	0/1623	0.63	0/2219
2	03	0.23	0/1736	0.63	0/2366
3	04	0.29	0/1449	0.73	1/1974 (0.1%)
4	1R	0.25	0/1890	0.55	0/2574
All	All	0.27	1/8383 (0.0%)	0.65	5/11430 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	02	0	1
3	04	0	1
All	All	0	2

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	01	216	PRO	CG-CD	-5.16	1.33	1.50

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	01	94	GLU	N-CA-C	-8.90	102.93	113.88
1	01	216	PRO	N-CD-CG	-8.46	90.50	103.20
1	01	216	PRO	CA-N-CD	-6.90	102.34	112.00
3	04	66	LEU	CA-CB-CG	5.72	136.32	116.30
1	01	134	LEU	CA-CB-CG	5.37	135.08	116.30

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	02	156	TYR	Peptide
3	04	104	LEU	Peptide

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	01	1637	0	1572	64	0
1	02	1576	0	1470	21	0
2	03	1685	0	1612	34	0
3	04	1403	0	1330	24	0
4	1R	1837	0	1786	42	0
5	01	400	0	332	21	0
5	02	348	0	240	7	0
5	03	313	0	233	11	0
5	04	341	0	231	5	0
5	1R	376	0	286	18	0
6	01	263	0	213	19	0
6	02	273	0	177	5	0
6	03	216	0	139	4	0
6	04	218	0	143	6	0
6	1R	170	0	104	3	0
7	01	84	0	112	10	0
7	03	42	0	56	6	0
7	1R	42	0	56	5	0
8	01	36	0	42	4	0
8	03	45	0	63	2	0
8	1R	75	0	93	4	0
9	04	40	0	56	5	0
10	1R	44	0	56	7	0
All	All	11464	0	10402	235	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 11.

All (235) 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)
6:01:303:CHL:HBB2	6:01:304:CHL:HBB1	1.60	0.82
1:01:131:GLN:HE22	6:01:304:CHL:HMC	1.52	0.74
5:03:306:CLA:HBB1	7:03:313:LUT:H32	1.71	0.72
1:01:60:LYS:HE2	2:03:58:ALA:H	1.57	0.70
1:01:185:ARG:HB3	5:01:301:CLA:HBC3	1.73	0.70
1:01:101:GLY:C	1:01:103:GLN:H	2.03	0.67
1:01:92:PHE:HB3	1:01:96:VAL:HG22	1.77	0.67
4:1R:105:LEU:HA	4:1R:108:LEU:HD12	1.78	0.66
3:04:59:ARG:NH1	6:04:303:CHL:OBD	2.29	0.66
1:01:192:PHE:HB2	7:01:315:LUT:H35	1.77	0.66
1:01:83:GLU:OE1	1:01:98:PHE:HA	1.98	0.64
1:01:174:ALA:O	1:01:177:LYS:HB3	1.98	0.63
1:02:23:LEU:HG	1:02:30:GLY:HA2	1.81	0.62
4:1R:97:LEU:HD21	4:1R:172:LEU:HB2	1.82	0.61
5:03:312:CLA:HBB1	7:03:313:LUT:H12	1.83	0.61
1:01:132:VAL:HG13	6:01:306:CHL:HBB2	1.82	0.61
2:03:151:TYR:O	2:03:154:ASN:ND2	2.34	0.61
4:1R:229:THR:HB	4:1R:237:THR:HG21	1.83	0.61
2:03:114:ILE:HA	2:03:119:GLY:HA2	1.81	0.60
1:02:96:VAL:HG12	1:02:99:LYS:H	1.65	0.60
3:04:122:GLN:NE2	4:1R:16:PRO:O	2.35	0.60
2:03:161:ASP:H	2:03:164:ASP:HB2	1.64	0.60
7:01:314:LUT:H171	7:01:314:LUT:H8	1.83	0.59
4:1R:214:VAL:HA	4:1R:217:ALA:HB3	1.84	0.59
1:01:148:LEU:HG	6:01:305:CHL:HBB1	1.83	0.59
1:01:196:VAL:HG21	5:01:312:CLA:HBC3	1.83	0.59
6:03:303:CHL:HMB1	6:03:311:CHL:HMC	1.85	0.59
3:04:93:SER:OG	3:04:94:PHE:N	2.36	0.58
2:03:103:LYS:NZ	2:03:118:GLY:O	2.33	0.58
6:01:306:CHL:HAA1	2:03:57:THR:HG21	1.85	0.58
4:1R:210:LEU:HD11	10:1R:314:XAT:H12	1.85	0.58
6:01:306:CHL:H121	5:01:308:CLA:H122	1.84	0.58
1:01:133:VAL:HG21	8:01:316:LHG:H172	1.86	0.58
5:1R:301:CLA:H62	5:1R:310:CLA:H3A	1.86	0.58
1:01:18:GLY:O	1:01:21:ARG:NH1	2.37	0.57
3:04:44:PRO:HA	3:04:47:LEU:HB2	1.86	0.57
4:1R:25:ASP:OD1	4:1R:25:ASP:N	2.36	0.57
5:01:301:CLA:HAB	7:01:315:LUT:H32	1.85	0.57
5:01:301:CLA:HBB2	7:01:315:LUT:H15	1.87	0.57
1:01:21:ARG:NH1	1:01:43:ASP:O	2.38	0.57
2:03:190:LYS:NZ	5:03:312:CLA:O2D	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:01:316:LHG:HC82	8:1R:316:LHG:HC31	1.87	0.56
8:01:316:LHG:HC61	8:01:316:LHG:H101	1.86	0.56
4:1R:165:GLU:HB3	4:1R:171:ARG:HG2	1.87	0.56
2:03:207:VAL:HG21	5:03:308:CLA:HAC2	1.87	0.56
1:01:145:GLY:HA2	6:01:305:CHL:HMC	1.87	0.56
2:03:72:ALA:HA	2:03:165:LEU:HD11	1.88	0.56
2:03:208:GLN:O	2:03:212:THR:OG1	2.24	0.56
5:03:308:CLA:HMB2	5:03:309:CLA:HHD	1.88	0.56
1:01:97:TRP:NE1	1:01:100:ALA:HB2	2.21	0.55
1:02:203:LYS:HE2	1:02:204:GLY:H	1.72	0.55
4:1R:94:GLU:OE1	4:1R:171:ARG:NH1	2.39	0.55
1:01:182:LYS:HZ3	5:01:310:CLA:C1D	1.96	0.55
1:02:188:MET:HE3	1:02:192:PHE:HD2	1.72	0.55
4:1R:93:ARG:NH2	4:1R:96:GLU:OE1	2.39	0.55
1:01:134:LEU:HD21	6:01:303:CHL:HED3	1.90	0.54
1:01:192:PHE:HD1	7:01:315:LUT:H14	1.72	0.54
1:01:69:SER:HB3	1:01:188:MET:HE2	1.90	0.54
1:01:99:LYS:HE2	1:01:195:PHE:HE1	1.74	0.53
2:03:67:PHE:O	2:03:71:ARG:HB2	2.07	0.53
1:01:101:GLY:C	1:01:103:GLN:N	2.67	0.53
1:01:182:LYS:NZ	5:01:310:CLA:C4D	2.68	0.53
2:03:190:LYS:NZ	5:03:312:CLA:O1A	2.42	0.53
3:04:186:LEU:HD21	5:04:310:CLA:HMD3	1.91	0.53
1:01:98:PHE:CE2	1:01:99:LYS:HG2	2.45	0.52
3:04:109:GLU:HB3	6:04:304:CHL:HMA3	1.91	0.52
4:1R:108:LEU:HB3	5:1R:311:CLA:HBC2	1.90	0.52
4:1R:170:LYS:HG2	4:1R:174:PRO:HA	1.91	0.52
6:04:302:CHL:HBB2	6:04:304:CHL:HBC1	1.92	0.52
3:04:101:GLN:HA	3:04:104:LEU:HB2	1.92	0.52
1:01:173:PHE:O	1:01:176:LEU:HB3	2.10	0.52
3:04:58:GLY:O	3:04:62:MET:HG3	2.09	0.52
4:1R:201:HIS:HB3	7:1R:313:LUT:H15	1.92	0.52
1:02:52:SER:HB3	1:02:58:PHE:HA	1.92	0.51
3:04:120:ASP:OD1	3:04:120:ASP:N	2.42	0.51
1:01:70:ARG:NH1	6:01:305:CHL:OBD	2.40	0.51
6:01:303:CHL:HBC3	5:01:309:CLA:HMA2	1.93	0.51
3:04:175:ARG:NH2	5:04:310:CLA:O1A	2.44	0.50
1:02:185:ARG:HB3	5:02:608:CLA:HBC3	1.92	0.50
3:04:62:MET:O	3:04:66:LEU:HD12	2.11	0.50
2:03:89:ILE:HG21	5:03:312:CLA:HBB2	1.92	0.50
3:04:174:ASP:OD1	3:04:174:ASP:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1R:106:ALA:HB1	10:1R:314:XAT:H361	1.92	0.50
3:04:92:PHE:HA	4:1R:235:LEU:HB2	1.93	0.49
3:04:185:ARG:HB3	5:04:306:CLA:HBC3	1.94	0.49
6:01:306:CHL:H152	5:01:308:CLA:HBB1	1.93	0.49
4:1R:104:MET:HB3	7:1R:313:LUT:C35	2.42	0.49
2:03:107:TRP:O	2:03:109:LYS:NZ	2.44	0.49
2:03:86:LEU:HA	2:03:89:ILE:HG22	1.94	0.49
4:1R:131:ASP:OD1	4:1R:131:ASP:N	2.45	0.49
3:04:97:LEU:HD23	6:04:302:CHL:HAC1	1.95	0.49
4:1R:109:GLY:O	4:1R:113:VAL:HG23	2.13	0.48
1:01:65:GLU:OE1	1:01:185:ARG:NH2	2.45	0.48
7:01:315:LUT:H171	7:01:315:LUT:H8	1.96	0.48
4:1R:230:HIS:CD2	6:1R:312:CHL:NC	2.80	0.48
5:01:301:CLA:CBB	7:01:315:LUT:H34	2.43	0.48
1:01:220:ASN:OD1	1:01:220:ASN:N	2.46	0.48
1:01:128:TRP:O	1:01:132:VAL:HG23	2.14	0.47
2:03:175:LEU:HB2	7:03:313:LUT:H23	1.96	0.47
1:01:164:LEU:HD12	7:01:314:LUT:H222	1.96	0.47
1:02:197:GLN:O	1:02:201:THR:OG1	2.30	0.47
6:1R:302:CHL:HBB2	6:1R:303:CHL:CBB	2.44	0.47
1:02:110:LEU:HD11	5:02:609:CLA:HBD	1.96	0.47
5:04:314:CLA:HHC	5:04:314:CLA:HBB1	1.95	0.47
2:03:160:GLY:HA3	6:03:305:CHL:HBC1	1.97	0.47
4:1R:100:GLY:O	4:1R:103:ALA:N	2.48	0.47
1:01:50:GLY:O	1:02:57:THR:OG1	2.33	0.47
1:01:66:VAL:O	1:01:70:ARG:HG3	2.14	0.47
2:03:196:ARG:NH2	5:03:301:CLA:O1D	2.48	0.47
4:1R:175:GLY:N	5:1R:306:CLA:OBD	2.43	0.47
4:1R:207:VAL:HA	4:1R:210:LEU:HD12	1.96	0.47
10:1R:314:XAT:H31	10:1R:314:XAT:H391	1.59	0.47
9:04:313:BCR:H321	9:04:313:BCR:HC7	1.64	0.47
1:02:215:ASP:OD1	1:02:215:ASP:N	2.40	0.47
1:01:124:ILE:HD12	1:01:124:ILE:H	1.79	0.46
5:01:308:CLA:HAB	7:01:315:LUT:C35	2.45	0.46
1:02:33:PRO:HG2	1:02:36:LEU:HB2	1.98	0.46
3:04:93:SER:H	3:04:96:SER:HB2	1.80	0.46
1:01:41:PRO:HB2	1:01:181:ILE:HG21	1.97	0.46
1:02:74:LEU:HD22	6:02:606:CHL:HBD	1.95	0.46
5:01:301:CLA:H62	5:01:301:CLA:H41	1.65	0.46
2:03:83:LEU:C	5:03:310:CLA:HAB	2.41	0.46
4:1R:39:LEU:HD13	5:1R:301:CLA:H42	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:03:73:LEU:HA	2:03:76:ILE:HB	1.97	0.46
4:1R:101:ARG:NE	4:1R:198:GLU:OE2	2.49	0.46
1:01:115:ASN:OD1	1:01:115:ASN:N	2.49	0.46
4:1R:105:LEU:HD21	5:1R:306:CLA:HMC3	1.98	0.46
1:01:55:PRO:HA	1:01:58:PHE:HB3	1.98	0.46
1:02:14:SER:O	1:02:19:ALA:N	2.49	0.46
1:01:211:ASP:HB2	1:01:219:ASN:HD22	1.81	0.45
5:02:602:CLA:HBC2	6:02:605:CHL:HBB2	1.97	0.45
2:03:173:ASP:HA	7:03:313:LUT:H24	1.99	0.45
2:03:195:GLY:O	2:03:199:MET:HG2	2.17	0.45
2:03:208:GLN:HA	2:03:211:VAL:HG22	1.97	0.45
5:1R:308:CLA:HMD2	8:1R:316:LHG:HC32	1.98	0.45
1:01:97:TRP:CH2	1:01:99:LYS:HB2	2.51	0.45
1:01:191:MET:HE3	1:01:192:PHE:H	1.81	0.45
5:1R:307:CLA:H3A	5:1R:307:CLA:HBA2	1.64	0.45
3:04:66:LEU:O	3:04:70:VAL:HG13	2.15	0.45
1:01:104:ILE:HD12	1:01:124:ILE:HG13	1.98	0.45
1:02:46:TRP:O	1:02:48:THR:N	2.49	0.45
3:04:29:LEU:HD12	3:04:30:PRO:HD2	1.98	0.45
4:1R:146:THR:O	4:1R:150:ILE:HG22	2.17	0.45
5:1R:305:CLA:H2A	5:1R:305:CLA:HED3	1.99	0.45
1:01:203:LYS:HB3	1:01:207:GLU:HG3	1.98	0.45
1:02:175:GLU:O	1:02:179:LYS:HG3	2.17	0.45
5:1R:301:CLA:H71	10:1R:314:XAT:H192	1.98	0.45
6:01:306:CHL:HBC2	5:01:308:CLA:HBC1	1.98	0.45
5:03:301:CLA:H41	5:03:301:CLA:H61	1.77	0.45
1:01:97:TRP:CZ3	1:01:99:LYS:HB2	2.52	0.44
1:02:112:TYR:HB3	1:02:118:LEU:HD12	1.99	0.44
4:1R:54:ASP:OD1	4:1R:54:ASP:N	2.49	0.44
1:01:99:LYS:HA	1:01:99:LYS:HD3	1.49	0.44
1:01:130:VAL:O	1:01:134:LEU:HD12	2.17	0.44
5:01:307:CLA:HMB2	5:01:311:CLA:HBA2	1.99	0.44
5:1R:306:CLA:CAB	7:1R:313:LUT:H32	2.47	0.44
2:03:86:LEU:HD21	7:03:313:LUT:H401	1.99	0.44
4:1R:193:ARG:HA	4:1R:196:LEU:HG	2.00	0.44
4:1R:201:HIS:CE1	5:1R:308:CLA:NA	2.85	0.44
5:1R:305:CLA:HBC1	10:1R:314:XAT:H393	1.98	0.44
2:03:78:GLY:O	2:03:82:MET:HG3	2.17	0.44
9:04:313:BCR:H11C	9:04:313:BCR:H341	1.89	0.44
1:01:142:ARG:NH1	6:01:306:CHL:O1D	2.51	0.44
6:01:305:CHL:HBA1	6:01:305:CHL:H3A	1.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:01:308:CLA:H51	5:01:308:CLA:H11	1.83	0.44
10:1R:314:XAT:H201	10:1R:314:XAT:H15	1.51	0.44
4:1R:210:LEU:HB3	5:1R:309:CLA:HBC2	1.99	0.44
6:01:306:CHL:H142	5:01:308:CLA:H111	2.00	0.43
5:02:610:CLA:HHC	5:02:610:CLA:HBB1	1.98	0.43
5:04:309:CLA:HBA2	5:04:309:CLA:HBD	2.01	0.43
2:03:193:LYS:HD2	2:03:193:LYS:HA	1.90	0.43
3:04:153:ASP:OD1	3:04:153:ASP:N	2.51	0.43
4:1R:100:GLY:O	4:1R:104:MET:HG3	2.19	0.43
5:1R:301:CLA:H41	5:1R:301:CLA:H61	1.58	0.43
1:01:169:ASP:OD2	1:01:173:PHE:N	2.41	0.43
10:1R:314:XAT:H191	10:1R:314:XAT:H11	1.51	0.43
1:01:97:TRP:CE3	1:01:98:PHE:HB3	2.54	0.43
1:01:211:ASP:O	1:01:219:ASN:ND2	2.50	0.43
1:01:91:LYS:HA	1:01:91:LYS:HD2	1.87	0.43
1:02:96:VAL:HG13	1:02:205:PRO:HD3	2.00	0.43
4:1R:46:LEU:HA	4:1R:68:THR:HA	2.01	0.43
1:01:143:ILE:O	2:03:40:GLN:NE2	2.52	0.43
6:02:604:CHL:H3A	6:02:606:CHL:HMA1	1.99	0.43
4:1R:108:LEU:O	4:1R:112:SER:OG	2.30	0.42
4:1R:124:ALA:HA	4:1R:127:VAL:HG12	2.01	0.42
9:04:313:BCR:H24C	9:04:313:BCR:H21C	1.79	0.42
4:1R:151:GLU:OE2	6:1R:303:CHL:HMC	2.19	0.42
1:01:97:TRP:CD1	1:01:100:ALA:HB2	2.54	0.42
1:01:221:ALA:N	5:01:312:CLA:O1A	2.52	0.42
3:04:56:ILE:HG23	6:04:303:CHL:HED2	2.00	0.42
5:01:301:CLA:CAB	7:01:315:LUT:H34	2.49	0.42
1:02:141:TYR:CG	6:02:606:CHL:HMC	2.54	0.42
5:02:613:CLA:HAA2	2:03:135:LEU:HD21	2.01	0.42
5:02:614:CLA:HBA2	5:02:614:CLA:HBD	2.02	0.42
4:1R:196:LEU:O	4:1R:200:LYS:HG2	2.20	0.42
5:1R:301:CLA:HBC1	8:1R:315:LHG:H271	2.02	0.42
5:01:308:CLA:H101	5:03:301:CLA:H91	2.01	0.42
4:1R:101:ARG:NH1	4:1R:172:LEU:O	2.47	0.42
1:01:101:GLY:O	1:01:103:GLN:N	2.53	0.42
5:01:308:CLA:HBA1	5:01:308:CLA:H3A	1.72	0.42
5:02:614:CLA:HBC2	6:03:304:CHL:HBB2	2.02	0.42
2:03:173:ASP:CG	7:03:313:LUT:H24	2.45	0.42
1:01:168:ASP:OD1	1:01:168:ASP:N	2.53	0.41
1:01:132:VAL:HG11	8:03:314:LHG:H252	2.02	0.41
7:1R:313:LUT:H31	7:1R:313:LUT:H391	1.96	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:01:316:LHG:H161	8:1R:316:LHG:H252	2.02	0.41
3:04:104:LEU:O	3:04:106:GLY:N	2.54	0.41
9:04:313:BCR:HC21	5:1R:307:CLA:HHC	2.02	0.41
7:1R:313:LUT:H35	7:1R:313:LUT:H401	1.79	0.41
2:03:25:TRP:HB3	2:03:189:VAL:HG11	2.01	0.41
4:1R:238:THR:HG22	4:1R:239:ILE:H	1.86	0.41
1:01:69:SER:HB2	1:01:184:GLY:HA3	2.02	0.41
3:04:137:PHE:HE1	6:04:303:CHL:CHC	2.33	0.41
1:01:122:GLN:HG2	6:01:302:CHL:HAB	2.02	0.41
1:02:63:GLU:HA	1:02:66:VAL:HG12	2.03	0.41
9:04:313:BCR:H331	9:04:313:BCR:HC8	2.02	0.41
4:1R:92:PHE:HB3	5:1R:301:CLA:HHB	2.02	0.41
1:01:74:LEU:HD23	6:01:305:CHL:HED1	2.02	0.41
1:01:99:LYS:HD2	6:01:304:CHL:HMA2	2.02	0.41
4:1R:162:ARG:HH12	5:1R:305:CLA:HED2	1.85	0.41
1:01:47:ASP:OD1	1:01:47:ASP:N	2.54	0.41
1:01:174:ALA:O	1:01:177:LYS:CB	2.69	0.41
1:01:200:VAL:HG23	1:01:201:THR:HG23	2.03	0.41
2:03:129:VAL:HG22	6:03:302:CHL:C3D	2.51	0.41
3:04:25:LEU:HD12	3:04:25:LEU:HA	1.89	0.41
6:01:306:CHL:H43	8:03:314:LHG:HC92	2.02	0.40
5:01:308:CLA:H2	2:03:58:ALA:O	2.21	0.40
4:1R:29:VAL:HG21	4:1R:195:GLN:HB3	2.04	0.40
1:01:40:PHE:HA	1:01:62:ARG:HH21	1.85	0.40
1:02:178:VAL:HA	1:02:181:ILE:HG12	2.04	0.40
2:03:122:TYR:HB2	2:03:128:LEU:HD22	2.03	0.40
3:04:167:ILE:HA	3:04:168:PRO:HD3	2.00	0.40
4:1R:13:LEU:HD23	4:1R:20:ALA:HB2	2.04	0.40
1:01:105:PHE:HZ	2:03:233:TRP:HB3	1.87	0.40
1:02:126:ALA:HA	6:02:603:CHL:HMC	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	01	217/219 (99%)	186 (86%)	27 (12%)	4 (2%)	6	34
1	02	208/219 (95%)	173 (83%)	31 (15%)	4 (2%)	6	33
2	03	218/220 (99%)	186 (85%)	30 (14%)	2 (1%)	14	46
3	04	182/205 (89%)	144 (79%)	37 (20%)	1 (0%)	24	57
4	1R	232/234 (99%)	209 (90%)	22 (10%)	1 (0%)	30	61
All	All	1057/1097 (96%)	898 (85%)	147 (14%)	12 (1%)	14	43

All (12) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	01	98	PHE
1	01	48	THR
1	01	95	ALA
1	02	126	ALA
1	02	214	ALA
2	03	179	ASP
1	02	51	LEU
1	01	102	SER
3	04	105	MET
1	02	119	ILE
2	03	134	ILE
4	1R	141	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	01	162/166 (98%)	157 (97%)	5 (3%)	35	59
1	02	150/166 (90%)	149 (99%)	1 (1%)	76	78
2	03	166/172 (96%)	164 (99%)	2 (1%)	63	73
3	04	133/157 (85%)	131 (98%)	2 (2%)	57	70

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	1R	191/191 (100%)	189 (99%)	2 (1%)	68	75
All	All	802/852 (94%)	790 (98%)	12 (2%)	55	70

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

Mol	Chain	Res	Type
1	01	60	LYS
1	01	94	GLU
1	01	96	VAL
1	01	99	LYS
1	01	186	LEU
1	02	183	ASN
2	03	73	LEU
2	03	144	LEU
3	04	74	TRP
3	04	79	TRP
4	1R	97	LEU
4	1R	143	SER

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

Mol	Chain	Res	Type
1	02	122	GLN
2	03	125	ASN
3	04	122	GLN
4	1R	90	GLN

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

74 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
6	CHL	1R	312	4	48,53,74	2.27	17 (35%)	53,89,114	3.14	22 (41%)
6	CHL	02	607	-	50,54,74	2.25	17 (34%)	56,90,114	3.12	21 (37%)
5	CLA	02	609	-	46,50,73	2.55	19 (41%)	55,85,113	3.46	30 (54%)
5	CLA	1R	301	4	64,68,73	2.18	19 (29%)	77,107,113	2.99	31 (40%)
6	CHL	02	606	-	48,53,74	2.27	16 (33%)	53,89,114	3.15	21 (39%)
5	CLA	04	312	-	43,48,73	2.66	20 (46%)	51,83,113	3.54	27 (52%)
5	CLA	01	311	-	50,54,73	2.51	20 (40%)	60,90,113	3.34	27 (45%)
5	CLA	04	306	3	47,52,73	2.56	20 (42%)	56,88,113	3.29	26 (46%)
6	CHL	03	302	2	44,48,74	2.26	17 (38%)	46,82,114	3.40	20 (43%)
6	CHL	03	311	-	46,50,74	2.35	19 (41%)	51,85,114	3.33	24 (47%)
5	CLA	03	309	-	47,52,73	2.57	20 (42%)	56,88,113	3.38	26 (46%)
9	BCR	04	313	-	41,41,41	1.72	8 (19%)	56,56,56	1.67	12 (21%)
6	CHL	03	304	-	47,51,74	2.21	18 (38%)	52,86,114	3.28	23 (44%)
6	CHL	1R	303	-	45,50,74	2.23	16 (35%)	49,85,114	3.33	23 (46%)
6	CHL	04	304	-	47,51,74	2.22	15 (31%)	52,86,114	3.28	23 (44%)
5	CLA	04	308	-	43,48,73	2.66	20 (46%)	51,83,113	3.52	28 (54%)
8	LHG	1R	316	-	36,36,48	0.29	0	39,42,54	0.36	0
5	CLA	01	310	1	45,49,73	2.62	20 (44%)	54,84,113	3.53	27 (50%)
6	CHL	04	303	-	50,54,74	2.23	20 (40%)	56,90,114	3.16	22 (39%)
10	XAT	1R	314	-	39,47,47	0.96	0	54,74,74	3.50	28 (51%)
6	CHL	02	604	-	48,53,74	2.28	15 (31%)	53,89,114	3.16	20 (37%)
7	LUT	03	313	-	42,43,43	1.65	8 (19%)	51,60,60	1.70	12 (23%)
5	CLA	03	307	-	44,49,73	2.55	19 (43%)	52,84,113	3.47	26 (50%)
5	CLA	04	307	-	47,52,73	2.56	20 (42%)	56,88,113	3.33	26 (46%)
5	CLA	1R	308	4	47,52,73	2.66	24 (51%)	56,88,113	3.73	28 (50%)
6	CHL	01	302	-	50,54,74	2.24	16 (32%)	56,90,114	3.16	22 (39%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
6	CHL	01	306	1	66,70,74	1.97	19 (28%)	75,109,114	2.75	24 (32%)
6	CHL	02	603	-	50,54,74	2.25	16 (32%)	56,90,114	3.18	22 (39%)
6	CHL	01	304	-	67,71,74	1.93	18 (26%)	76,110,114	2.81	25 (32%)
5	CLA	01	308	-	69,73,73	2.11	19 (27%)	83,113,113	2.93	31 (37%)
5	CLA	03	306	-	41,47,73	2.64	18 (43%)	49,81,113	3.61	27 (55%)
7	LUT	1R	313	-	42,43,43	1.69	8 (19%)	51,60,60	1.82	11 (21%)
5	CLA	04	310	-	47,52,73	2.59	20 (42%)	56,88,113	3.41	26 (46%)
5	CLA	1R	307	8	53,57,73	2.43	20 (37%)	62,93,113	3.12	28 (45%)
5	CLA	03	310	-	49,53,73	2.53	20 (40%)	59,89,113	3.20	27 (45%)
5	CLA	1R	310	-	47,52,73	2.55	19 (40%)	56,88,113	3.38	26 (46%)
5	CLA	01	307	1	60,64,73	2.26	19 (31%)	72,102,113	2.97	31 (43%)
5	CLA	1R	306	-	43,48,73	2.66	19 (44%)	51,83,113	3.53	28 (54%)
6	CHL	02	601	-	50,54,74	2.24	17 (34%)	56,90,114	3.13	21 (37%)
7	LUT	01	314	-	42,43,43	1.66	8 (19%)	51,60,60	1.98	15 (29%)
8	LHG	03	314	-	44,44,48	0.29	0	47,50,54	0.37	0
5	CLA	04	309	3	47,52,73	2.58	19 (40%)	56,88,113	3.37	29 (51%)
6	CHL	1R	302	-	45,50,74	2.23	16 (35%)	49,85,114	3.11	22 (44%)
5	CLA	03	301	2	64,68,73	2.22	19 (29%)	77,107,113	3.00	30 (38%)
5	CLA	04	311	-	47,52,73	2.57	20 (42%)	56,88,113	3.37	26 (46%)
5	CLA	02	610	-	47,52,73	2.58	20 (42%)	56,88,113	3.34	26 (46%)
6	CHL	1R	304	-	44,49,74	2.37	16 (36%)	48,84,114	3.37	21 (43%)
8	LHG	1R	315	5	37,37,48	0.29	0	40,43,54	0.45	0
7	LUT	01	315	-	42,43,43	1.61	8 (19%)	51,60,60	2.10	18 (35%)
6	CHL	04	302	-	44,49,74	2.30	17 (38%)	49,83,114	3.38	25 (51%)
5	CLA	02	608	1	43,48,73	2.68	19 (44%)	51,83,113	3.46	28 (54%)
5	CLA	04	314	-	45,49,73	2.63	20 (44%)	54,84,113	3.44	30 (55%)
5	CLA	03	308	2	43,48,73	2.59	19 (44%)	52,82,113	3.51	30 (57%)
5	CLA	03	312	-	47,52,73	2.55	20 (42%)	56,88,113	3.33	26 (46%)
5	CLA	1R	305	4	48,52,73	2.45	18 (37%)	56,87,113	3.42	27 (48%)
6	CHL	03	303	-	48,53,74	2.25	16 (33%)	53,89,114	3.06	20 (37%)
5	CLA	01	309	-	50,54,73	2.48	20 (40%)	60,90,113	3.18	27 (45%)
6	CHL	04	305	-	45,50,74	2.25	15 (33%)	49,85,114	3.25	22 (44%)
5	CLA	02	612	1	47,52,73	2.53	19 (40%)	56,88,113	3.54	26 (46%)
6	CHL	03	305	-	50,54,74	2.23	18 (36%)	56,90,114	3.14	21 (37%)
5	CLA	01	301	-	58,62,73	2.35	20 (34%)	69,99,113	3.12	30 (43%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
8	LHG	01	316	-	35,35,48	0.31	0	38,41,54	0.45	0
5	CLA	01	313	-	50,54,73	2.51	20 (40%)	60,90,113	3.32	28 (46%)
5	CLA	02	602	-	47,52,73	2.54	20 (42%)	56,88,113	3.35	26 (46%)
5	CLA	02	611	-	47,52,73	2.56	20 (42%)	56,88,113	3.32	26 (46%)
6	CHL	02	605	-	48,53,74	2.25	20 (41%)	53,89,114	2.95	21 (39%)
6	CHL	04	301	-	50,54,74	2.24	18 (36%)	56,90,114	3.08	25 (44%)
5	CLA	02	613	-	50,54,73	2.49	19 (38%)	60,90,113	3.32	28 (46%)
5	CLA	01	312	-	50,54,73	2.53	20 (40%)	60,90,113	3.27	27 (45%)
5	CLA	1R	311	-	50,54,73	2.47	19 (38%)	60,90,113	3.25	27 (45%)
6	CHL	01	303	-	50,54,74	2.24	18 (36%)	56,90,114	3.13	23 (41%)
6	CHL	01	305	-	50,54,74	2.21	19 (38%)	56,90,114	3.03	20 (35%)
5	CLA	1R	309	-	52,57,73	2.45	20 (38%)	62,94,113	3.22	29 (46%)
5	CLA	02	614	-	47,52,73	2.57	20 (42%)	56,88,113	3.35	26 (46%)

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
6	CHL	1R	312	4	-	9/15/91/117	-
6	CHL	02	607	-	-	11/17/93/117	-
5	CLA	02	609	-	-	1/12/88/115	-
5	CLA	1R	301	4	1/1/14/20	9/33/109/115	-
6	CHL	02	606	-	-	8/15/91/117	-
5	CLA	04	312	-	-	2/8/84/115	-
5	CLA	01	311	-	-	0/17/93/115	-
5	CLA	04	306	3	-	5/13/89/115	-
6	CHL	03	302	2	-	4/6/84/117	-
6	CHL	03	311	-	-	6/12/88/117	-
5	CLA	03	309	-	-	5/13/89/115	-
9	BCR	04	313	-	-	6/29/63/63	0/2/2/2
6	CHL	03	304	-	-	6/14/90/117	-
6	CHL	1R	303	-	-	4/12/88/117	-
6	CHL	04	304	-	-	4/14/90/117	-
5	CLA	04	308	-	-	2/8/84/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
8	LHG	1R	316	-	-	4/41/41/53	-
5	CLA	01	310	1	-	3/10/86/115	-
6	CHL	04	303	-	-	6/17/93/117	-
10	XAT	1R	314	-	-	4/31/93/93	0/4/4/4
6	CHL	02	604	-	-	6/15/91/117	-
7	LUT	03	313	-	-	0/29/67/67	0/2/2/2
5	CLA	03	307	-	-	3/10/86/115	-
5	CLA	04	307	-	-	4/13/89/115	-
6	CHL	01	306	1	1/1/14/21	17/37/113/117	-
5	CLA	1R	308	4	-	7/13/89/115	-
6	CHL	01	302	-	-	14/17/93/117	-
6	CHL	02	603	-	-	11/17/93/117	-
6	CHL	01	304	-	1/1/14/21	22/38/114/117	-
5	CLA	01	308	-	1/1/15/20	16/39/115/115	-
5	CLA	03	306	-	-	0/8/80/115	-
7	LUT	1R	313	-	-	0/29/67/67	0/2/2/2
5	CLA	04	310	-	-	2/13/89/115	-
5	CLA	1R	307	8	-	7/20/96/115	-
5	CLA	03	310	-	-	5/15/91/115	-
5	CLA	1R	310	-	-	2/13/89/115	-
5	CLA	01	307	1	1/1/13/20	11/29/105/115	-
5	CLA	1R	306	-	-	2/8/84/115	-
6	CHL	02	601	-	-	11/17/93/117	-
7	LUT	01	314	-	-	1/29/67/67	0/2/2/2
8	LHG	03	314	-	-	10/49/49/53	-
5	CLA	04	309	3	-	4/13/89/115	-
6	CHL	1R	302	-	-	6/12/88/117	-
5	CLA	03	301	2	1/1/14/20	6/33/109/115	-
5	CLA	04	311	-	-	4/13/89/115	-
5	CLA	02	610	-	-	2/13/89/115	-
6	CHL	1R	304	-	-	5/10/86/117	-
8	LHG	1R	315	5	-	10/42/42/53	-
7	LUT	01	315	-	-	1/29/67/67	0/2/2/2
6	CHL	04	302	-	-	4/12/84/117	-
5	CLA	02	608	1	-	2/8/84/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	CLA	04	314	-	-	2/10/86/115	-
5	CLA	03	308	2	-	2/10/82/115	-
5	CLA	03	312	-	-	2/13/89/115	-
5	CLA	1R	305	4	-	2/13/90/115	-
6	CHL	03	303	-	-	9/15/91/117	-
5	CLA	01	309	-	-	7/17/93/115	-
6	CHL	04	305	-	-	4/12/88/117	-
5	CLA	02	612	1	-	1/13/89/115	-
6	CHL	03	305	-	-	8/17/93/117	-
5	CLA	01	301	-	-	14/26/102/115	-
8	LHG	01	316	-	-	12/40/40/53	-
5	CLA	01	313	-	-	3/17/93/115	-
5	CLA	02	602	-	-	3/13/89/115	-
5	CLA	02	611	-	-	2/13/89/115	-
6	CHL	02	605	-	-	7/15/91/117	-
6	CHL	04	301	-	-	10/17/93/117	-
5	CLA	02	613	-	-	7/17/93/115	-
5	CLA	01	312	-	-	5/17/93/115	-
5	CLA	1R	311	-	-	8/17/93/115	-
6	CHL	01	303	-	-	6/17/93/117	-
6	CHL	01	305	-	-	7/17/93/117	-
5	CLA	1R	309	-	-	3/19/95/115	-
5	CLA	02	614	-	-	7/13/89/115	-

All (1235) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	04	310	CLA	C1D-ND	8.75	1.48	1.37
5	02	609	CLA	C1D-ND	8.73	1.48	1.37
5	01	311	CLA	C1D-ND	8.72	1.48	1.37
5	03	309	CLA	C1D-ND	8.71	1.48	1.37
5	03	306	CLA	C1D-ND	8.70	1.48	1.37
5	01	313	CLA	C1D-ND	8.69	1.48	1.37
5	04	308	CLA	C1D-ND	8.66	1.48	1.37
5	03	307	CLA	C1D-ND	8.66	1.48	1.37
5	04	312	CLA	C1D-ND	8.65	1.48	1.37
5	04	311	CLA	C1D-ND	8.64	1.48	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	1R	308	CLA	C1D-ND	8.63	1.48	1.37
5	02	611	CLA	C1D-ND	8.63	1.48	1.37
5	04	309	CLA	C1D-ND	8.61	1.48	1.37
5	02	613	CLA	C1D-ND	8.61	1.48	1.37
5	02	610	CLA	C1D-ND	8.60	1.48	1.37
5	02	612	CLA	C1D-ND	8.60	1.48	1.37
5	03	312	CLA	C1D-ND	8.58	1.48	1.37
5	01	312	CLA	C1D-ND	8.57	1.48	1.37
5	1R	309	CLA	C1D-ND	8.56	1.48	1.37
5	04	307	CLA	C1D-ND	8.53	1.48	1.37
5	02	608	CLA	C1D-ND	8.53	1.48	1.37
5	1R	306	CLA	C1D-ND	8.52	1.48	1.37
5	01	308	CLA	C1D-ND	8.51	1.48	1.37
5	1R	305	CLA	C1D-ND	8.49	1.48	1.37
5	1R	310	CLA	C1D-ND	8.48	1.48	1.37
5	01	310	CLA	C1D-ND	8.48	1.48	1.37
5	03	308	CLA	C1D-ND	8.47	1.48	1.37
5	03	310	CLA	C1D-ND	8.44	1.48	1.37
5	04	314	CLA	C1D-ND	8.43	1.48	1.37
5	03	301	CLA	C1D-ND	8.42	1.48	1.37
5	02	614	CLA	C1D-ND	8.42	1.48	1.37
5	1R	301	CLA	C1D-ND	8.40	1.48	1.37
5	01	309	CLA	C1D-ND	8.36	1.48	1.37
5	02	602	CLA	C1D-ND	8.33	1.48	1.37
5	01	301	CLA	C1D-ND	8.33	1.48	1.37
5	04	306	CLA	C1D-ND	8.30	1.48	1.37
5	1R	311	CLA	C1D-ND	8.30	1.48	1.37
5	01	307	CLA	C1D-ND	8.18	1.47	1.37
5	1R	307	CLA	C1D-ND	8.17	1.47	1.37
5	02	609	CLA	O2D-CGD	5.23	1.46	1.33
5	01	301	CLA	O2D-CGD	5.21	1.45	1.33
6	01	303	CHL	O2D-CGD	5.21	1.45	1.33
6	01	304	CHL	O2D-CGD	5.20	1.45	1.33
6	03	304	CHL	O2D-CGD	5.20	1.45	1.33
5	1R	311	CLA	O2D-CGD	5.19	1.45	1.33
6	01	302	CHL	O2D-CGD	5.18	1.45	1.33
6	04	302	CHL	O2D-CGD	5.18	1.45	1.33
5	03	308	CLA	O2D-CGD	5.18	1.45	1.33
5	04	314	CLA	O2D-CGD	5.17	1.45	1.33
6	03	305	CHL	O2D-CGD	5.17	1.45	1.33
5	1R	307	CLA	O2D-CGD	5.17	1.45	1.33
5	01	311	CLA	O2D-CGD	5.16	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	03	311	CHL	O2D-CGD	5.15	1.45	1.33
6	04	303	CHL	O2D-CGD	5.15	1.45	1.33
5	02	613	CLA	O2D-CGD	5.15	1.45	1.33
6	01	306	CHL	O2D-CGD	5.15	1.45	1.33
6	02	607	CHL	O2D-CGD	5.14	1.45	1.33
5	01	313	CLA	O2D-CGD	5.14	1.45	1.33
5	01	307	CLA	O2D-CGD	5.14	1.45	1.33
6	02	601	CHL	O2D-CGD	5.14	1.45	1.33
6	02	603	CHL	O2D-CGD	5.13	1.45	1.33
6	04	301	CHL	O2D-CGD	5.13	1.45	1.33
5	03	301	CLA	O2D-CGD	5.11	1.45	1.33
5	01	312	CLA	O2D-CGD	5.11	1.45	1.33
5	03	310	CLA	O2D-CGD	5.10	1.45	1.33
5	01	309	CLA	O2D-CGD	5.07	1.45	1.33
5	1R	308	CLA	CHB-C1B	5.07	1.50	1.39
6	04	304	CHL	O2D-CGD	5.04	1.45	1.33
5	01	310	CLA	O2D-CGD	5.03	1.45	1.33
5	01	308	CLA	O2D-CGD	5.02	1.45	1.33
5	1R	306	CLA	CHC-C1C	4.98	1.48	1.38
6	03	311	CHL	C3A-C2A	-4.96	1.49	1.54
6	01	305	CHL	O2D-CGD	4.91	1.45	1.33
5	1R	305	CLA	O2D-CGD	4.89	1.45	1.33
5	1R	301	CLA	O2D-CGD	4.84	1.45	1.33
5	1R	306	CLA	C3A-C2A	-4.82	1.50	1.54
5	01	312	CLA	C3C-C2C	4.79	1.46	1.36
5	02	608	CLA	C3A-C2A	-4.79	1.50	1.54
5	01	301	CLA	C3C-C2C	4.75	1.46	1.36
5	04	309	CLA	C3D-C4D	-4.74	1.33	1.44
5	01	309	CLA	CHC-C1C	4.74	1.48	1.38
5	1R	308	CLA	O2D-CGD	4.70	1.46	1.30
5	02	614	CLA	O2D-CGD	4.70	1.46	1.30
6	03	303	CHL	O2D-CGD	4.70	1.46	1.30
5	04	312	CLA	O2D-CGD	4.69	1.45	1.30
5	01	301	CLA	CHC-C1C	4.68	1.48	1.38
5	1R	309	CLA	O2D-CGD	4.67	1.45	1.30
5	1R	306	CLA	C3D-C4D	-4.67	1.33	1.44
5	02	612	CLA	O2D-CGD	4.66	1.45	1.30
5	02	608	CLA	O2D-CGD	4.66	1.45	1.30
5	02	614	CLA	C3C-C2C	4.66	1.46	1.36
6	02	605	CHL	O2D-CGD	4.66	1.45	1.30
6	04	303	CHL	C3D-C4D	-4.66	1.33	1.44
6	1R	304	CHL	C3D-C4D	-4.66	1.33	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	02	611	CLA	O2D-CGD	4.66	1.45	1.30
6	02	605	CHL	C3D-C4D	-4.66	1.33	1.44
6	04	305	CHL	O2D-CGD	4.65	1.45	1.30
5	1R	306	CLA	O2D-CGD	4.65	1.45	1.30
6	02	604	CHL	O2D-CGD	4.65	1.45	1.30
6	1R	302	CHL	O2D-CGD	4.65	1.45	1.30
6	02	606	CHL	O2D-CGD	4.65	1.45	1.30
5	04	309	CLA	O2D-CGD	4.65	1.45	1.30
5	02	610	CLA	O2D-CGD	4.64	1.45	1.30
5	03	306	CLA	O2D-CGD	4.64	1.45	1.30
5	04	307	CLA	O2D-CGD	4.64	1.45	1.30
6	1R	303	CHL	O2D-CGD	4.64	1.45	1.30
5	03	307	CLA	O2D-CGD	4.64	1.45	1.30
5	03	312	CLA	O2D-CGD	4.64	1.45	1.30
5	03	309	CLA	O2D-CGD	4.64	1.45	1.30
6	1R	304	CHL	O2D-CGD	4.63	1.45	1.30
5	04	308	CLA	O2D-CGD	4.63	1.45	1.30
5	1R	310	CLA	O2D-CGD	4.63	1.45	1.30
6	03	311	CHL	C2C-C3C	4.63	1.46	1.36
5	02	602	CLA	O2D-CGD	4.63	1.45	1.30
5	01	309	CLA	C3D-C4D	-4.62	1.33	1.44
6	1R	312	CHL	O2D-CGD	4.62	1.45	1.30
6	1R	302	CHL	C3D-C4D	-4.62	1.33	1.44
6	01	306	CHL	C2C-C3C	4.62	1.46	1.36
5	04	310	CLA	O2D-CGD	4.61	1.45	1.30
5	03	310	CLA	C3C-C2C	4.61	1.46	1.36
6	03	311	CHL	C3D-C4D	-4.61	1.33	1.44
6	1R	304	CHL	C3A-C2A	-4.60	1.50	1.54
5	04	311	CLA	O2D-CGD	4.60	1.45	1.30
5	04	306	CLA	C3C-C2C	4.60	1.46	1.36
5	1R	301	CLA	CHC-C1C	4.60	1.47	1.38
6	1R	312	CHL	C2C-C3C	4.59	1.46	1.36
5	02	614	CLA	CHC-C1C	4.59	1.47	1.38
6	04	305	CHL	C2C-C3C	4.59	1.46	1.36
6	03	303	CHL	C2C-C3C	4.59	1.46	1.36
6	02	607	CHL	C2C-C3C	4.59	1.46	1.36
6	04	304	CHL	C3D-C4D	-4.59	1.33	1.44
6	01	303	CHL	C3D-C4D	-4.59	1.33	1.44
5	04	310	CLA	C3C-C2C	4.59	1.46	1.36
5	1R	309	CLA	C3C-C2C	4.58	1.46	1.36
6	03	302	CHL	C2C-C3C	4.58	1.46	1.36
5	04	314	CLA	C3A-C2A	-4.58	1.50	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	02	604	CHL	C3D-C4D	-4.58	1.33	1.44
6	04	302	CHL	C3D-C4D	-4.58	1.33	1.44
5	04	306	CLA	C3D-C4D	-4.58	1.33	1.44
6	01	306	CHL	C3D-C4D	-4.58	1.33	1.44
6	02	607	CHL	C3D-C4D	-4.57	1.33	1.44
6	04	304	CHL	C2C-C3C	4.57	1.46	1.36
5	04	314	CLA	C3D-C4D	-4.57	1.33	1.44
6	01	302	CHL	C2C-C3C	4.57	1.46	1.36
6	01	305	CHL	C2C-C3C	4.57	1.46	1.36
5	03	306	CLA	C3D-C4D	-4.56	1.33	1.44
6	03	303	CHL	C3D-C4D	-4.56	1.33	1.44
6	1R	303	CHL	C3D-C4D	-4.56	1.33	1.44
5	04	306	CLA	O2D-CGD	4.56	1.45	1.30
6	02	603	CHL	C2C-C3C	4.56	1.46	1.36
5	04	309	CLA	O2A-CGA	4.55	1.46	1.30
6	1R	303	CHL	C2C-C3C	4.55	1.46	1.36
6	04	301	CHL	C3D-C4D	-4.54	1.33	1.44
5	01	307	CLA	CHC-C1C	4.54	1.47	1.38
5	03	306	CLA	CHC-C1C	4.54	1.47	1.38
5	03	301	CLA	C3D-C4D	-4.54	1.33	1.44
6	02	601	CHL	C2C-C3C	4.54	1.46	1.36
5	01	313	CLA	C3C-C2C	4.54	1.46	1.36
6	1R	303	CHL	CHC-C1C	4.53	1.47	1.38
6	1R	312	CHL	C3D-C4D	-4.53	1.33	1.44
5	02	608	CLA	C3C-C2C	4.53	1.46	1.36
6	02	603	CHL	C3D-C4D	-4.53	1.34	1.44
5	01	307	CLA	C3D-C4D	-4.53	1.34	1.44
6	1R	312	CHL	O2A-CGA	4.52	1.46	1.30
5	1R	307	CLA	C3D-C4D	-4.52	1.34	1.44
5	01	307	CLA	C3C-C2C	4.52	1.46	1.36
5	03	310	CLA	O2A-CGA	4.52	1.45	1.30
6	04	301	CHL	C2C-C3C	4.52	1.46	1.36
5	02	612	CLA	C3C-C2C	4.52	1.46	1.36
5	1R	310	CLA	O2A-CGA	4.52	1.45	1.30
5	02	610	CLA	O2A-CGA	4.52	1.45	1.30
5	1R	301	CLA	C3D-C4D	-4.52	1.34	1.44
6	04	305	CHL	C3D-C4D	-4.51	1.34	1.44
5	01	310	CLA	C3C-C2C	4.51	1.46	1.36
6	02	606	CHL	C2C-C3C	4.51	1.46	1.36
6	02	606	CHL	C3D-C4D	-4.51	1.34	1.44
5	02	602	CLA	C3C-C2C	4.51	1.46	1.36
5	02	609	CLA	C3C-C2C	4.51	1.46	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	03	309	CLA	O2A-CGA	4.51	1.45	1.30
6	02	604	CHL	C2C-C3C	4.50	1.46	1.36
5	04	311	CLA	C3C-C2C	4.50	1.46	1.36
6	01	304	CHL	C3D-C4D	-4.50	1.34	1.44
5	01	310	CLA	C3D-C4D	-4.50	1.34	1.44
6	02	606	CHL	O2A-CGA	4.50	1.45	1.30
6	02	607	CHL	O2A-CGA	4.50	1.45	1.30
5	02	602	CLA	O2A-CGA	4.50	1.45	1.30
6	02	601	CHL	O2A-CGA	4.50	1.45	1.30
5	04	310	CLA	C3D-C4D	-4.49	1.34	1.44
6	03	303	CHL	O2A-CGA	4.49	1.45	1.30
6	02	605	CHL	C2C-C3C	4.49	1.46	1.36
6	04	302	CHL	C2C-C3C	4.49	1.46	1.36
5	02	611	CLA	O2A-CGA	4.49	1.45	1.30
6	01	303	CHL	C2C-C3C	4.49	1.46	1.36
6	02	605	CHL	O2A-CGA	4.49	1.45	1.30
6	01	305	CHL	O2A-CGA	4.49	1.45	1.30
5	02	614	CLA	O2A-CGA	4.48	1.45	1.30
6	01	302	CHL	O2A-CGA	4.48	1.45	1.30
6	01	303	CHL	O2A-CGA	4.48	1.45	1.30
6	02	603	CHL	O2A-CGA	4.48	1.45	1.30
5	04	314	CLA	C3C-C2C	4.48	1.46	1.36
6	02	601	CHL	C3D-C4D	-4.48	1.34	1.44
5	04	310	CLA	O2A-CGA	4.48	1.45	1.30
5	01	311	CLA	CHC-C1C	4.48	1.47	1.38
5	02	612	CLA	O2A-CGA	4.47	1.45	1.30
5	04	311	CLA	O2A-CGA	4.47	1.45	1.30
5	04	307	CLA	O2A-CGA	4.47	1.45	1.30
6	1R	304	CHL	C2C-C3C	4.47	1.46	1.36
5	1R	307	CLA	CHC-C1C	4.47	1.47	1.38
6	03	304	CHL	C3D-C4D	-4.47	1.34	1.44
5	04	312	CLA	C3C-C2C	4.47	1.46	1.36
5	04	306	CLA	O2A-CGA	4.47	1.45	1.30
6	03	302	CHL	C3D-C4D	-4.47	1.34	1.44
6	02	604	CHL	O2A-CGA	4.47	1.45	1.30
5	1R	311	CLA	C3C-C2C	4.46	1.46	1.36
5	04	306	CLA	CHC-C1C	4.46	1.47	1.38
5	02	611	CLA	C3C-C2C	4.46	1.46	1.36
5	01	310	CLA	CHC-C1C	4.46	1.47	1.38
7	1R	313	LUT	C34-C33	4.46	1.41	1.35
6	03	304	CHL	C2C-C3C	4.46	1.46	1.36
6	03	305	CHL	C2C-C3C	4.46	1.46	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	03	305	CHL	O2A-CGA	4.46	1.45	1.30
6	1R	312	CHL	CHC-C1C	4.46	1.47	1.38
5	03	301	CLA	CHC-C1C	4.46	1.47	1.38
5	02	610	CLA	C3C-C2C	4.45	1.46	1.36
5	03	301	CLA	C3C-C2C	4.45	1.46	1.36
5	04	308	CLA	C3C-C2C	4.45	1.46	1.36
5	1R	309	CLA	C3D-C4D	-4.45	1.34	1.44
6	03	305	CHL	C3D-C4D	-4.45	1.34	1.44
5	03	310	CLA	C3D-C4D	-4.44	1.34	1.44
5	01	311	CLA	C3C-C2C	4.44	1.46	1.36
6	03	303	CHL	CHD-C1D	4.44	1.47	1.38
5	04	312	CLA	C3D-C4D	-4.44	1.34	1.44
5	02	608	CLA	CHC-C1C	4.44	1.47	1.38
5	03	312	CLA	O2A-CGA	4.43	1.45	1.30
5	1R	310	CLA	C3C-C2C	4.43	1.46	1.36
5	02	613	CLA	C3C-C2C	4.43	1.46	1.36
5	1R	308	CLA	O2A-CGA	4.43	1.45	1.30
5	02	614	CLA	C3D-C4D	-4.42	1.34	1.44
5	04	311	CLA	CHC-C1C	4.42	1.47	1.38
6	02	604	CHL	CHC-C1C	4.42	1.47	1.38
5	04	309	CLA	C3C-C2C	4.42	1.46	1.36
6	01	304	CHL	C2C-C3C	4.42	1.46	1.36
6	1R	312	CHL	CHD-C1D	4.42	1.47	1.38
5	01	309	CLA	C3C-C2C	4.42	1.46	1.36
6	01	302	CHL	C3D-C4D	-4.42	1.34	1.44
5	03	310	CLA	CHC-C1C	4.42	1.47	1.38
5	04	308	CLA	C3D-C4D	-4.42	1.34	1.44
6	1R	302	CHL	C2C-C3C	4.42	1.46	1.36
5	01	301	CLA	C3D-C4D	-4.42	1.34	1.44
5	03	307	CLA	C3C-C2C	4.42	1.46	1.36
5	02	602	CLA	CHC-C1C	4.42	1.47	1.38
6	04	301	CHL	O2A-CGA	4.42	1.45	1.30
5	02	608	CLA	C3D-C4D	-4.41	1.34	1.44
6	04	303	CHL	C2C-C3C	4.41	1.46	1.36
6	02	607	CHL	CHD-C1D	4.41	1.47	1.38
5	1R	307	CLA	C3C-C2C	4.41	1.46	1.36
6	1R	302	CHL	CHD-C1D	4.41	1.47	1.38
5	1R	305	CLA	C3D-C4D	-4.41	1.34	1.44
5	03	312	CLA	C3C-C2C	4.41	1.46	1.36
5	04	307	CLA	C3D-C4D	-4.41	1.34	1.44
5	01	308	CLA	C3D-C4D	-4.40	1.34	1.44
5	01	313	CLA	CHC-C1C	4.39	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	03	309	CLA	C3C-C2C	4.39	1.46	1.36
5	01	307	CLA	O2A-CGA	4.39	1.46	1.33
5	04	308	CLA	CHC-C1C	4.39	1.47	1.38
5	04	307	CLA	C3C-C2C	4.38	1.46	1.36
5	1R	308	CLA	CHC-C1C	4.38	1.47	1.38
6	02	603	CHL	CHC-C1C	4.38	1.47	1.38
5	02	612	CLA	C3D-C4D	-4.38	1.34	1.44
5	03	308	CLA	C3D-C4D	-4.37	1.34	1.44
5	04	311	CLA	C3D-C4D	-4.37	1.34	1.44
5	1R	310	CLA	C3D-C4D	-4.37	1.34	1.44
5	03	312	CLA	C3D-C4D	-4.37	1.34	1.44
5	01	313	CLA	C3D-C4D	-4.37	1.34	1.44
5	03	307	CLA	C3D-C4D	-4.37	1.34	1.44
6	03	302	CHL	CHC-C1C	4.37	1.47	1.38
5	1R	311	CLA	CHC-C1C	4.36	1.47	1.38
5	04	312	CLA	CHC-C1C	4.36	1.47	1.38
5	1R	311	CLA	C3D-C4D	-4.36	1.34	1.44
5	03	308	CLA	C3C-C2C	4.36	1.46	1.36
5	02	609	CLA	CHC-C1C	4.36	1.47	1.38
5	03	312	CLA	CHC-C1C	4.36	1.47	1.38
6	04	304	CHL	CHD-C1D	4.35	1.46	1.38
6	01	305	CHL	C3D-C4D	-4.35	1.34	1.44
5	1R	309	CLA	O2A-CGA	4.35	1.46	1.33
5	02	611	CLA	CHC-C1C	4.35	1.47	1.38
5	01	310	CLA	C3A-C2A	-4.35	1.50	1.54
6	01	305	CHL	CHC-C1C	4.34	1.47	1.38
5	01	312	CLA	CHC-C1C	4.34	1.47	1.38
6	01	306	CHL	CHC-C1C	4.34	1.47	1.38
6	04	305	CHL	CHD-C1D	4.34	1.46	1.38
5	01	301	CLA	O2A-CGA	4.34	1.46	1.33
5	02	609	CLA	C3D-C4D	-4.34	1.34	1.44
5	1R	307	CLA	O2A-CGA	4.34	1.46	1.33
5	02	610	CLA	C3D-C4D	-4.33	1.34	1.44
6	1R	304	CHL	CHC-C1C	4.33	1.47	1.38
5	1R	309	CLA	CHC-C1C	4.33	1.47	1.38
5	02	602	CLA	C3D-C4D	-4.33	1.34	1.44
6	04	305	CHL	CHC-C1C	4.33	1.47	1.38
6	03	302	CHL	CHD-C1D	4.33	1.46	1.38
6	02	606	CHL	CHC-C1C	4.33	1.47	1.38
5	03	309	CLA	C3D-C4D	-4.33	1.34	1.44
6	03	302	CHL	C3A-C2A	-4.33	1.50	1.54
5	01	312	CLA	C3D-C4D	-4.32	1.34	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	04	304	CHL	CHC-C1C	4.32	1.47	1.38
6	1R	304	CHL	CHD-C1D	4.31	1.46	1.38
5	01	308	CLA	CHC-C1C	4.31	1.47	1.38
6	03	305	CHL	CHC-C1C	4.31	1.47	1.38
5	04	309	CLA	CHC-C1C	4.31	1.47	1.38
6	02	604	CHL	CHD-C1D	4.30	1.46	1.38
5	1R	305	CLA	CHC-C1C	4.30	1.47	1.38
6	01	302	CHL	CHC-C1C	4.30	1.47	1.38
5	04	314	CLA	CHC-C1C	4.29	1.47	1.38
6	01	306	CHL	CHD-C1D	4.29	1.46	1.38
6	04	303	CHL	O2A-CGA	4.29	1.45	1.30
5	02	611	CLA	C3D-C4D	-4.28	1.34	1.44
6	01	302	CHL	CHD-C1D	4.28	1.46	1.38
6	01	304	CHL	CHC-C1C	4.28	1.47	1.38
6	03	311	CHL	CHC-C1C	4.28	1.47	1.38
5	02	613	CLA	CHC-C1C	4.28	1.47	1.38
5	02	613	CLA	C3D-C4D	-4.27	1.34	1.44
6	02	601	CHL	CHD-C1D	4.27	1.46	1.38
5	03	309	CLA	CHC-C1C	4.27	1.47	1.38
5	04	310	CLA	CHC-C1C	4.27	1.47	1.38
5	01	311	CLA	C3D-C4D	-4.27	1.34	1.44
5	1R	308	CLA	C4B-NB	-4.27	1.32	1.37
6	02	607	CHL	CHC-C1C	4.26	1.47	1.38
5	01	308	CLA	O2A-CGA	4.26	1.45	1.33
6	03	311	CHL	CHD-C1D	4.26	1.46	1.38
5	1R	305	CLA	C3C-C2C	4.26	1.45	1.36
6	02	606	CHL	CHD-C1D	4.26	1.46	1.38
6	04	302	CHL	CHD-C1D	4.26	1.46	1.38
5	02	610	CLA	CHC-C1C	4.25	1.47	1.38
6	02	603	CHL	CHD-C1D	4.25	1.46	1.38
6	1R	303	CHL	CHD-C1D	4.25	1.46	1.38
6	02	605	CHL	CHD-C1D	4.25	1.46	1.38
6	01	306	CHL	O2A-CGA	4.24	1.45	1.33
6	01	304	CHL	O2A-CGA	4.24	1.45	1.33
6	03	304	CHL	CHC-C1C	4.24	1.47	1.38
6	03	304	CHL	CHD-C1D	4.23	1.46	1.38
5	01	308	CLA	C3C-C2C	4.23	1.45	1.36
5	1R	310	CLA	CHC-C1C	4.23	1.47	1.38
5	03	308	CLA	CHC-C1C	4.22	1.47	1.38
5	04	307	CLA	CHC-C1C	4.22	1.47	1.38
5	03	301	CLA	O2A-CGA	4.22	1.45	1.33
5	1R	301	CLA	C3C-C2C	4.22	1.45	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	04	302	CHL	CHC-C1C	4.21	1.47	1.38
6	01	303	CHL	CHC-C1C	4.20	1.47	1.38
6	04	303	CHL	CHD-C1D	4.20	1.46	1.38
5	03	307	CLA	CHC-C1C	4.19	1.47	1.38
6	02	601	CHL	CHC-C1C	4.19	1.47	1.38
5	1R	308	CLA	C3D-C4D	-4.18	1.34	1.44
6	02	605	CHL	CHC-C1C	4.17	1.47	1.38
6	01	303	CHL	CHD-C1D	4.17	1.46	1.38
6	04	301	CHL	CHD-C1D	4.16	1.46	1.38
5	1R	301	CLA	O2A-CGA	4.16	1.45	1.33
5	04	308	CLA	C3A-C2A	-4.15	1.50	1.54
6	01	304	CHL	CHD-C1D	4.14	1.46	1.38
5	03	306	CLA	C3C-C2C	4.13	1.45	1.36
6	03	305	CHL	CHD-C1D	4.12	1.46	1.38
6	04	301	CHL	CHC-C1C	4.12	1.46	1.38
7	01	314	LUT	C10-C9	4.12	1.41	1.35
5	01	309	CLA	O2A-CGA	4.09	1.46	1.33
5	04	312	CLA	C3A-C2A	-4.08	1.50	1.54
5	02	613	CLA	O2A-CGA	4.07	1.46	1.33
5	01	311	CLA	O2A-CGA	4.06	1.45	1.33
6	02	604	CHL	CHD-C4C	4.05	1.48	1.39
5	01	313	CLA	O2A-CGA	4.05	1.45	1.33
7	01	315	LUT	C14-C13	4.04	1.41	1.35
5	1R	308	CLA	C3C-C2C	4.04	1.45	1.36
6	1R	302	CHL	CHC-C1C	4.04	1.46	1.38
7	01	314	LUT	C14-C13	4.03	1.41	1.35
5	01	312	CLA	O2A-CGA	4.02	1.45	1.33
7	03	313	LUT	C14-C13	4.02	1.41	1.35
6	01	302	CHL	CHD-C4C	4.01	1.48	1.39
7	03	313	LUT	C34-C33	4.01	1.41	1.35
5	1R	306	CLA	C3C-C2C	4.00	1.45	1.36
5	1R	311	CLA	O2A-CGA	3.98	1.45	1.33
6	03	311	CHL	CHD-C4C	3.97	1.48	1.39
6	03	303	CHL	CHD-C4C	3.97	1.48	1.39
6	1R	312	CHL	CHD-C4C	3.96	1.48	1.39
6	02	603	CHL	CHD-C4C	3.96	1.48	1.39
6	03	302	CHL	CHD-C4C	3.96	1.48	1.39
6	1R	302	CHL	CHD-C4C	3.95	1.48	1.39
6	1R	304	CHL	CHD-C4C	3.95	1.48	1.39
7	01	314	LUT	C34-C33	3.95	1.41	1.35
6	04	305	CHL	CHD-C4C	3.95	1.48	1.39
5	02	612	CLA	CHC-C1C	3.94	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	03	303	CHL	CHC-C1C	3.94	1.46	1.38
6	01	306	CHL	CHD-C4C	3.93	1.48	1.39
6	02	607	CHL	CHD-C4C	3.92	1.48	1.39
6	04	302	CHL	CHD-C4C	3.91	1.48	1.39
6	01	305	CHL	CHD-C1D	3.91	1.46	1.38
6	02	606	CHL	CHD-C4C	3.91	1.48	1.39
7	1R	313	LUT	C10-C9	3.91	1.41	1.35
7	1R	313	LUT	C14-C13	3.88	1.40	1.35
6	02	601	CHL	CHD-C4C	3.87	1.48	1.39
6	04	304	CHL	CHD-C4C	3.87	1.48	1.39
6	04	303	CHL	CHC-C1C	3.86	1.46	1.38
5	02	612	CLA	CHB-C1B	3.86	1.48	1.39
5	02	608	CLA	CHB-C1B	3.85	1.48	1.39
6	03	305	CHL	CHD-C4C	3.84	1.48	1.39
6	04	303	CHL	CHD-C4C	3.83	1.48	1.39
7	03	313	LUT	C10-C9	3.83	1.40	1.35
6	03	304	CHL	OBD-CAD	3.82	1.29	1.22
7	01	314	LUT	C30-C29	3.81	1.40	1.35
6	03	304	CHL	CHD-C4C	3.81	1.47	1.39
5	01	312	CLA	OBD-CAD	3.81	1.29	1.22
6	02	604	CHL	OBD-CAD	3.81	1.29	1.22
6	01	302	CHL	OBD-CAD	3.80	1.29	1.22
7	1R	313	LUT	C30-C29	3.79	1.40	1.35
5	01	301	CLA	OBD-CAD	3.79	1.29	1.22
6	1R	303	CHL	CHD-C4C	3.79	1.47	1.39
5	01	308	CLA	OBD-CAD	3.79	1.29	1.22
5	03	301	CLA	CHB-C1B	3.79	1.47	1.39
6	03	302	CHL	OBD-CAD	3.78	1.29	1.22
5	04	307	CLA	CHB-C1B	3.78	1.47	1.39
5	01	310	CLA	OBD-CAD	3.78	1.29	1.22
6	01	303	CHL	CHD-C4C	3.78	1.47	1.39
5	03	312	CLA	CHB-C1B	3.78	1.47	1.39
5	1R	305	CLA	OBD-CAD	3.77	1.29	1.22
5	04	310	CLA	OBD-CAD	3.77	1.29	1.22
5	04	308	CLA	CHB-C1B	3.77	1.47	1.39
6	04	301	CHL	CHD-C4C	3.77	1.47	1.39
6	01	306	CHL	OBD-CAD	3.77	1.29	1.22
6	01	303	CHL	OBD-CAD	3.76	1.29	1.22
6	04	302	CHL	OBD-CAD	3.76	1.29	1.22
6	04	301	CHL	OBD-CAD	3.76	1.29	1.22
5	01	311	CLA	CHB-C1B	3.76	1.47	1.39
5	04	307	CLA	OBD-CAD	3.76	1.29	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	02	602	CLA	OBD-CAD	3.76	1.29	1.22
6	02	603	CHL	OBD-CAD	3.75	1.28	1.22
5	1R	310	CLA	CHB-C1B	3.75	1.47	1.39
7	01	315	LUT	C34-C33	3.75	1.40	1.35
5	04	312	CLA	CHB-C1B	3.75	1.47	1.39
5	04	306	CLA	OBD-CAD	3.75	1.28	1.22
5	03	306	CLA	CHB-C1B	3.75	1.47	1.39
5	03	309	CLA	OBD-CAD	3.75	1.28	1.22
5	04	308	CLA	OBD-CAD	3.74	1.28	1.22
5	04	311	CLA	OBD-CAD	3.74	1.28	1.22
5	02	614	CLA	OBD-CAD	3.73	1.28	1.22
5	01	310	CLA	CHB-C1B	3.72	1.47	1.39
6	02	605	CHL	CHD-C4C	3.72	1.47	1.39
5	04	311	CLA	CHB-C1B	3.72	1.47	1.39
6	03	303	CHL	OBD-CAD	3.72	1.28	1.22
5	01	313	CLA	OBD-CAD	3.72	1.28	1.22
5	03	307	CLA	CHB-C1B	3.71	1.47	1.39
5	04	314	CLA	OBD-CAD	3.71	1.28	1.22
5	02	610	CLA	CHB-C1B	3.71	1.47	1.39
5	02	610	CLA	OBD-CAD	3.71	1.28	1.22
5	02	611	CLA	OBD-CAD	3.71	1.28	1.22
5	02	614	CLA	CHB-C1B	3.71	1.47	1.39
5	1R	309	CLA	OBD-CAD	3.71	1.28	1.22
6	02	605	CHL	OBD-CAD	3.71	1.28	1.22
5	02	613	CLA	OBD-CAD	3.70	1.28	1.22
6	04	304	CHL	OBD-CAD	3.70	1.28	1.22
6	01	304	CHL	OBD-CAD	3.70	1.28	1.22
5	1R	311	CLA	OBD-CAD	3.69	1.28	1.22
5	02	602	CLA	CHB-C1B	3.69	1.47	1.39
6	02	606	CHL	OBD-CAD	3.69	1.28	1.22
5	02	612	CLA	OBD-CAD	3.69	1.28	1.22
5	02	611	CLA	CHB-C1B	3.69	1.47	1.39
5	01	311	CLA	OBD-CAD	3.68	1.28	1.22
5	01	313	CLA	CHB-C1B	3.68	1.47	1.39
6	01	304	CHL	CHD-C4C	3.68	1.47	1.39
6	02	607	CHL	OBD-CAD	3.67	1.28	1.22
5	02	609	CLA	OBD-CAD	3.67	1.28	1.22
5	04	310	CLA	CHB-C1B	3.67	1.47	1.39
6	1R	312	CHL	OBD-CAD	3.67	1.28	1.22
6	1R	304	CHL	OBD-CAD	3.67	1.28	1.22
5	1R	309	CLA	CHB-C1B	3.67	1.47	1.39
6	04	305	CHL	OBD-CAD	3.67	1.28	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	04	306	CLA	CHB-C1B	3.66	1.47	1.39
5	1R	311	CLA	CHB-C1B	3.66	1.47	1.39
5	03	307	CLA	OBD-CAD	3.66	1.28	1.22
9	04	313	BCR	C17-C18	3.66	1.40	1.35
5	01	307	CLA	OBD-CAD	3.66	1.28	1.22
5	03	308	CLA	OBD-CAD	3.66	1.28	1.22
6	01	305	CHL	OBD-CAD	3.66	1.28	1.22
6	03	305	CHL	OBD-CAD	3.65	1.28	1.22
5	02	613	CLA	CHB-C1B	3.65	1.47	1.39
7	01	315	LUT	C10-C9	3.64	1.40	1.35
6	02	601	CHL	OBD-CAD	3.63	1.28	1.22
5	03	301	CLA	OBD-CAD	3.63	1.28	1.22
5	01	308	CLA	CHB-C1B	3.63	1.47	1.39
5	1R	306	CLA	CHC-C4B	3.63	1.47	1.39
5	1R	306	CLA	CHB-C1B	3.62	1.47	1.39
5	03	308	CLA	CHB-C1B	3.61	1.47	1.39
5	1R	310	CLA	OBD-CAD	3.60	1.28	1.22
5	1R	307	CLA	OBD-CAD	3.60	1.28	1.22
5	03	312	CLA	OBD-CAD	3.59	1.28	1.22
6	1R	302	CHL	OBD-CAD	3.59	1.28	1.22
5	03	309	CLA	CHB-C1B	3.59	1.47	1.39
5	04	312	CLA	OBD-CAD	3.58	1.28	1.22
5	02	609	CLA	CHB-C1B	3.58	1.47	1.39
5	1R	308	CLA	OBD-CAD	3.58	1.28	1.22
6	01	305	CHL	CHC-C4B	3.57	1.47	1.39
6	01	305	CHL	CHD-C4C	3.56	1.47	1.39
5	1R	308	CLA	MG-NA	-3.56	1.97	2.06
5	1R	301	CLA	CHB-C1B	3.55	1.47	1.39
6	01	304	CHL	CHC-C4B	3.55	1.47	1.39
6	1R	312	CHL	CHC-C4B	3.54	1.47	1.39
6	01	306	CHL	CHC-C4B	3.52	1.47	1.39
6	01	303	CHL	CHC-C4B	3.52	1.47	1.39
6	04	302	CHL	CHC-C4B	3.52	1.47	1.39
6	1R	304	CHL	CHC-C4B	3.52	1.47	1.39
6	03	311	CHL	OBD-CAD	3.52	1.28	1.22
5	01	312	CLA	CHB-C1B	3.51	1.47	1.39
9	04	313	BCR	C21-C22	3.51	1.40	1.35
6	1R	303	CHL	OBD-CAD	3.51	1.28	1.22
6	04	303	CHL	OBD-CAD	3.50	1.28	1.22
9	04	313	BCR	C14-C13	3.50	1.40	1.35
6	03	302	CHL	CHC-C4B	3.49	1.47	1.39
6	04	304	CHL	CHC-C4B	3.48	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	02	604	CHL	CHC-C4B	3.47	1.47	1.39
5	1R	305	CLA	CHB-C1B	3.46	1.47	1.39
5	03	306	CLA	OBD-CAD	3.46	1.28	1.22
5	01	309	CLA	CHC-C4B	3.46	1.47	1.39
5	04	309	CLA	CHB-C1B	3.46	1.47	1.39
6	02	606	CHL	CHC-C4B	3.46	1.47	1.39
5	02	608	CLA	OBD-CAD	3.45	1.28	1.22
5	03	310	CLA	CHD-C1D	3.45	1.45	1.38
6	1R	303	CHL	CHC-C4B	3.44	1.47	1.39
5	02	608	CLA	CHC-C4B	3.44	1.47	1.39
6	04	305	CHL	CHC-C4B	3.43	1.47	1.39
5	04	314	CLA	CHB-C1B	3.42	1.47	1.39
7	01	315	LUT	C30-C29	3.42	1.40	1.35
9	04	313	BCR	C10-C9	3.42	1.40	1.35
6	02	603	CHL	CHC-C4B	3.42	1.47	1.39
5	03	306	CLA	CHC-C4B	3.42	1.47	1.39
7	03	313	LUT	C30-C29	3.42	1.40	1.35
5	1R	307	CLA	CHC-C4B	3.42	1.47	1.39
5	01	301	CLA	CHC-C4B	3.41	1.47	1.39
6	03	303	CHL	CHB-C1B	3.41	1.47	1.39
6	04	301	CHL	CHC-C4B	3.40	1.47	1.39
6	02	601	CHL	CHC-C4B	3.40	1.47	1.39
6	02	607	CHL	CHC-C4B	3.40	1.47	1.39
5	03	310	CLA	CHD-C4C	3.40	1.47	1.39
5	01	312	CLA	CHD-C1D	3.39	1.45	1.38
6	03	311	CHL	CHC-C4B	3.39	1.47	1.39
5	04	314	CLA	CHD-C1D	3.38	1.45	1.38
6	01	302	CHL	CHC-C4B	3.38	1.47	1.39
5	1R	301	CLA	OBD-CAD	3.37	1.28	1.22
5	03	310	CLA	CHB-C1B	3.37	1.47	1.39
5	1R	306	CLA	OBD-CAD	3.36	1.28	1.22
5	03	310	CLA	OBD-CAD	3.36	1.28	1.22
6	03	305	CHL	CHC-C4B	3.36	1.46	1.39
5	04	314	CLA	CHD-C4C	3.35	1.46	1.39
5	04	309	CLA	CHD-C1D	3.35	1.44	1.38
5	04	314	CLA	CHC-C4B	3.35	1.46	1.39
5	1R	301	CLA	CHC-C4B	3.34	1.46	1.39
5	01	309	CLA	CHD-C4C	3.34	1.46	1.39
6	03	304	CHL	CHC-C4B	3.33	1.46	1.39
5	03	308	CLA	CHD-C1D	3.32	1.44	1.38
5	03	308	CLA	CHD-C4C	3.32	1.46	1.39
5	02	602	CLA	CHC-C4B	3.32	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	01	309	CLA	CHD-C1D	3.31	1.44	1.38
5	1R	307	CLA	CHD-C1D	3.31	1.44	1.38
6	02	605	CHL	CHC-C4B	3.30	1.46	1.39
5	1R	305	CLA	CHD-C4C	3.30	1.46	1.39
5	03	309	CLA	CHC-C4B	3.30	1.46	1.39
5	01	312	CLA	CHD-C4C	3.30	1.46	1.39
5	03	301	CLA	CHC-C4B	3.30	1.46	1.39
5	04	310	CLA	CHC-C4B	3.29	1.46	1.39
5	02	610	CLA	CHC-C4B	3.29	1.46	1.39
5	04	310	CLA	CHD-C1D	3.29	1.44	1.38
5	01	301	CLA	CHD-C1D	3.28	1.44	1.38
5	04	310	CLA	CHD-C4C	3.28	1.46	1.39
5	04	309	CLA	OBD-CAD	3.27	1.28	1.22
5	04	306	CLA	CHD-C1D	3.27	1.44	1.38
5	01	301	CLA	CHD-C4C	3.27	1.46	1.39
5	1R	309	CLA	CHD-C1D	3.27	1.44	1.38
5	01	310	CLA	CHC-C4B	3.26	1.46	1.39
5	01	313	CLA	CHC-C4B	3.26	1.46	1.39
5	02	614	CLA	CHC-C4B	3.26	1.46	1.39
5	02	614	CLA	CHD-C4C	3.26	1.46	1.39
5	1R	310	CLA	CHC-C4B	3.25	1.46	1.39
5	01	311	CLA	CHC-C4B	3.25	1.46	1.39
5	02	609	CLA	CHC-C4B	3.25	1.46	1.39
5	02	611	CLA	CHC-C4B	3.25	1.46	1.39
5	03	310	CLA	CHC-C4B	3.24	1.46	1.39
5	04	311	CLA	CHC-C4B	3.24	1.46	1.39
5	01	307	CLA	CHD-C4C	3.24	1.46	1.39
5	04	306	CLA	CHD-C4C	3.24	1.46	1.39
5	01	307	CLA	CHD-C1D	3.24	1.44	1.38
5	02	610	CLA	CHD-C1D	3.24	1.44	1.38
5	04	308	CLA	CHC-C4B	3.24	1.46	1.39
6	02	606	CHL	CHB-C1B	3.23	1.46	1.39
5	03	312	CLA	CHC-C4B	3.23	1.46	1.39
6	04	305	CHL	CHB-C1B	3.22	1.46	1.39
5	01	307	CLA	CHC-C4B	3.22	1.46	1.39
6	1R	304	CHL	CHB-C1B	3.22	1.46	1.39
5	04	307	CLA	CHD-C1D	3.21	1.44	1.38
5	03	307	CLA	CHC-C4B	3.21	1.46	1.39
5	1R	305	CLA	CHC-C4B	3.21	1.46	1.39
5	04	307	CLA	CHD-C4C	3.21	1.46	1.39
5	04	312	CLA	CHC-C4B	3.20	1.46	1.39
5	1R	307	CLA	CHB-C1B	3.19	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	01	313	CLA	CHD-C4C	3.19	1.46	1.39
5	04	309	CLA	CHD-C4C	3.19	1.46	1.39
5	03	310	CLA	C3D-C2D	3.19	1.47	1.39
6	02	601	CHL	CHB-C1B	3.19	1.46	1.39
5	04	308	CLA	CHD-C4C	3.19	1.46	1.39
6	01	306	CHL	CHB-C1B	3.19	1.46	1.39
5	1R	309	CLA	CHC-C4B	3.18	1.46	1.39
5	02	613	CLA	CHC-C4B	3.18	1.46	1.39
5	1R	311	CLA	CHC-C4B	3.18	1.46	1.39
5	01	312	CLA	CHC-C4B	3.18	1.46	1.39
5	01	313	CLA	CHD-C1D	3.18	1.44	1.38
6	01	303	CHL	CHB-C1B	3.18	1.46	1.39
5	04	308	CLA	CHD-C1D	3.18	1.44	1.38
6	02	603	CHL	CHB-C1B	3.18	1.46	1.39
5	03	309	CLA	CHD-C4C	3.17	1.46	1.39
5	03	307	CLA	CHD-C1D	3.17	1.44	1.38
6	04	303	CHL	CHC-C4B	3.17	1.46	1.39
5	1R	305	CLA	CHD-C1D	3.17	1.44	1.38
6	1R	302	CHL	CHC-C4B	3.17	1.46	1.39
9	04	313	BCR	C8-C9	-3.17	1.39	1.45
6	04	304	CHL	CHB-C1B	3.16	1.46	1.39
5	04	309	CLA	CHC-C4B	3.16	1.46	1.39
6	02	604	CHL	CHB-C1B	3.16	1.46	1.39
5	1R	309	CLA	CHD-C4C	3.16	1.46	1.39
5	04	306	CLA	CHC-C4B	3.15	1.46	1.39
5	02	609	CLA	CHD-C1D	3.15	1.44	1.38
5	01	310	CLA	CHD-C1D	3.14	1.44	1.38
5	02	613	CLA	CHD-C4C	3.14	1.46	1.39
5	01	309	CLA	OBD-CAD	3.14	1.27	1.22
5	04	307	CLA	CHC-C4B	3.14	1.46	1.39
5	02	611	CLA	CHD-C4C	3.13	1.46	1.39
5	1R	307	CLA	CHD-C4C	3.13	1.46	1.39
6	03	302	CHL	CHB-C1B	3.13	1.46	1.39
5	1R	311	CLA	CHD-C4C	3.13	1.46	1.39
5	03	309	CLA	CHD-C1D	3.13	1.44	1.38
5	04	309	CLA	C4B-NB	-3.13	1.33	1.37
5	02	611	CLA	CHD-C1D	3.12	1.44	1.38
6	02	607	CHL	CHB-C1B	3.12	1.46	1.39
5	03	308	CLA	CHC-C4B	3.11	1.46	1.39
5	04	312	CLA	CHD-C4C	3.11	1.46	1.39
5	02	613	CLA	CHD-C1D	3.11	1.44	1.38
6	04	302	CHL	CHB-C1B	3.11	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	01	302	CHL	CHB-C1B	3.10	1.46	1.39
5	02	610	CLA	CHD-C4C	3.10	1.46	1.39
5	04	312	CLA	CHD-C1D	3.10	1.44	1.38
5	01	307	CLA	CHB-C1B	3.10	1.46	1.39
6	04	301	CHL	CHB-C1B	3.10	1.46	1.39
5	04	311	CLA	CHD-C1D	3.10	1.44	1.38
5	03	307	CLA	CHD-C4C	3.09	1.46	1.39
5	1R	307	CLA	C3B-C4B	3.09	1.50	1.42
5	01	308	CLA	CHD-C4C	3.09	1.46	1.39
5	02	609	CLA	CHD-C4C	3.09	1.46	1.39
6	03	305	CHL	CHB-C1B	3.08	1.46	1.39
6	03	303	CHL	CHC-C4B	3.08	1.46	1.39
5	02	612	CLA	CHD-C4C	3.08	1.46	1.39
5	01	309	CLA	CHB-C1B	3.07	1.46	1.39
5	1R	301	CLA	CHD-C4C	3.07	1.46	1.39
5	1R	310	CLA	CHD-C4C	3.07	1.46	1.39
5	1R	301	CLA	CHD-C1D	3.07	1.44	1.38
5	1R	311	CLA	CHD-C1D	3.06	1.44	1.38
6	03	311	CHL	CHB-C1B	3.05	1.46	1.39
5	1R	310	CLA	CHD-C1D	3.05	1.44	1.38
5	01	301	CLA	CHB-C1B	3.05	1.46	1.39
6	1R	312	CHL	CHB-C1B	3.04	1.46	1.39
5	1R	307	CLA	C1B-NB	-3.04	1.34	1.37
5	04	306	CLA	C4B-NB	-3.04	1.34	1.37
5	02	614	CLA	CHD-C1D	3.04	1.44	1.38
5	02	608	CLA	C3D-C2D	3.04	1.47	1.39
6	02	604	CHL	C1D-C2D	3.04	1.51	1.45
6	01	304	CHL	CHB-C1B	3.04	1.46	1.39
5	01	310	CLA	CHD-C4C	3.04	1.46	1.39
6	01	305	CHL	CHB-C1B	3.03	1.46	1.39
5	02	602	CLA	CHD-C4C	3.03	1.46	1.39
5	1R	307	CLA	C3D-C2D	3.03	1.47	1.39
5	01	307	CLA	C4B-NB	-3.03	1.34	1.37
5	02	608	CLA	CHD-C4C	3.03	1.46	1.39
5	01	312	CLA	C3D-C2D	3.03	1.47	1.39
5	01	308	CLA	CHC-C4B	3.03	1.46	1.39
5	03	301	CLA	CHD-C1D	3.03	1.44	1.38
5	04	314	CLA	C3B-C4B	3.03	1.49	1.42
5	01	308	CLA	CHD-C1D	3.02	1.44	1.38
6	1R	303	CHL	CHB-C1B	3.02	1.46	1.39
5	1R	301	CLA	C4B-NB	-3.02	1.34	1.37
6	02	605	CHL	CHB-C1B	3.02	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	02	608	CLA	CHD-C1D	3.02	1.44	1.38
6	1R	302	CHL	C3D-C2D	3.01	1.47	1.39
5	03	308	CLA	C3D-C2D	3.01	1.47	1.39
5	03	312	CLA	CHD-C1D	3.01	1.44	1.38
5	04	311	CLA	CHD-C4C	3.00	1.46	1.39
5	01	311	CLA	C4B-NB	-3.00	1.34	1.37
5	01	307	CLA	C3D-C2D	3.00	1.47	1.39
5	02	611	CLA	C3D-C2D	2.99	1.47	1.39
9	04	313	BCR	C23-C22	-2.98	1.39	1.45
6	1R	312	CHL	C1D-C2D	2.98	1.51	1.45
5	01	309	CLA	C3D-C2D	2.97	1.47	1.39
5	03	306	CLA	CHD-C4C	2.97	1.46	1.39
5	02	612	CLA	CHC-C4B	2.97	1.46	1.39
7	03	313	LUT	C8-C9	-2.96	1.39	1.45
6	04	303	CHL	CHB-C1B	2.96	1.46	1.39
6	04	305	CHL	C1D-C2D	2.96	1.51	1.45
5	03	312	CLA	CHD-C4C	2.96	1.46	1.39
5	04	307	CLA	C3D-C2D	2.96	1.47	1.39
6	1R	304	CHL	C1D-C2D	2.96	1.51	1.45
5	02	613	CLA	C3D-C2D	2.96	1.47	1.39
6	01	302	CHL	C1D-C2D	2.95	1.51	1.45
5	01	308	CLA	C3D-C2D	2.95	1.47	1.39
6	02	606	CHL	C1D-C2D	2.95	1.51	1.45
5	1R	309	CLA	C3D-C2D	2.94	1.47	1.39
5	01	308	CLA	C4B-NB	-2.94	1.34	1.37
6	04	302	CHL	C3D-C2D	2.94	1.47	1.39
5	1R	305	CLA	C3D-C2D	2.93	1.47	1.39
6	01	306	CHL	C1D-C2D	2.93	1.51	1.45
5	02	610	CLA	C3B-C4B	2.93	1.49	1.42
6	01	306	CHL	C3D-C2D	2.93	1.47	1.39
6	03	311	CHL	C1D-C2D	2.93	1.51	1.45
6	04	304	CHL	C1D-C2D	2.93	1.51	1.45
6	01	305	CHL	C3D-C2D	2.93	1.47	1.39
7	01	314	LUT	C8-C9	-2.93	1.39	1.45
5	04	310	CLA	C1D-C2D	2.93	1.51	1.45
5	03	301	CLA	C4B-NB	-2.93	1.34	1.37
5	03	309	CLA	C3B-C4B	2.93	1.49	1.42
5	02	610	CLA	C3D-C2D	2.92	1.47	1.39
6	01	304	CHL	C3B-C4B	2.92	1.49	1.42
5	03	301	CLA	CHD-C4C	2.92	1.45	1.39
6	02	601	CHL	C1D-C2D	2.92	1.51	1.45
6	02	606	CHL	C3D-C2D	2.92	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	01	311	CLA	CHD-C1D	2.92	1.44	1.38
5	03	306	CLA	C3B-C4B	2.92	1.49	1.42
6	02	603	CHL	C1D-C2D	2.92	1.51	1.45
5	02	614	CLA	C3D-C2D	2.92	1.47	1.39
5	02	612	CLA	CHD-C1D	2.91	1.44	1.38
5	1R	310	CLA	C3B-C4B	2.91	1.49	1.42
6	03	302	CHL	C1D-C2D	2.91	1.51	1.45
6	04	301	CHL	C3D-C2D	2.91	1.47	1.39
7	1R	313	LUT	C8-C9	-2.91	1.39	1.45
5	01	311	CLA	CHD-C4C	2.91	1.45	1.39
5	1R	311	CLA	C3D-C2D	2.90	1.47	1.39
5	04	311	CLA	C3D-C2D	2.90	1.47	1.39
6	03	311	CHL	C3D-C2D	2.90	1.47	1.39
5	01	310	CLA	C3D-C2D	2.89	1.47	1.39
5	01	313	CLA	C3D-C2D	2.89	1.47	1.39
5	01	301	CLA	C4B-NB	-2.89	1.34	1.37
6	02	607	CHL	C3D-C2D	2.89	1.47	1.39
6	04	302	CHL	C1D-C2D	2.89	1.51	1.45
6	02	603	CHL	C3D-C2D	2.89	1.47	1.39
5	03	301	CLA	C3D-C2D	2.89	1.47	1.39
6	02	604	CHL	C3D-C2D	2.89	1.47	1.39
5	04	314	CLA	C3D-C2D	2.89	1.47	1.39
6	03	302	CHL	C3D-C2D	2.89	1.47	1.39
5	02	612	CLA	MG-NA	-2.89	1.99	2.06
6	03	303	CHL	C1D-C2D	2.89	1.51	1.45
6	03	304	CHL	C1D-C2D	2.89	1.51	1.45
6	02	601	CHL	C3D-C2D	2.89	1.47	1.39
6	03	303	CHL	C3D-C2D	2.88	1.47	1.39
5	02	613	CLA	C1D-C2D	2.88	1.51	1.45
5	03	307	CLA	C4B-NB	-2.88	1.34	1.37
6	1R	302	CHL	CHB-C1B	2.88	1.45	1.39
6	04	305	CHL	C3D-C2D	2.88	1.47	1.39
6	03	304	CHL	CHB-C1B	2.88	1.45	1.39
5	02	602	CLA	C3D-C2D	2.88	1.47	1.39
5	03	306	CLA	CHD-C1D	2.88	1.44	1.38
5	01	312	CLA	C1D-C2D	2.88	1.51	1.45
5	02	609	CLA	C3D-C2D	2.87	1.47	1.39
5	03	312	CLA	C4B-NB	-2.87	1.34	1.37
6	02	607	CHL	C1D-C2D	2.87	1.51	1.45
5	01	311	CLA	C3D-C2D	2.87	1.47	1.39
5	04	307	CLA	C4B-NB	-2.87	1.34	1.37
5	04	308	CLA	C3D-C2D	2.87	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	01	309	CLA	C1D-C2D	2.86	1.51	1.45
5	01	311	CLA	C3B-C4B	2.86	1.49	1.42
5	01	301	CLA	C3D-C2D	2.86	1.46	1.39
6	03	304	CHL	C3D-C2D	2.86	1.46	1.39
5	03	306	CLA	C3D-C2D	2.86	1.46	1.39
5	1R	306	CLA	C3B-C4B	2.86	1.49	1.42
5	03	309	CLA	C3D-C2D	2.86	1.46	1.39
6	04	303	CHL	C3B-C4B	2.86	1.49	1.42
5	03	307	CLA	C3D-C2D	2.86	1.46	1.39
6	04	304	CHL	C3D-C2D	2.86	1.46	1.39
6	04	303	CHL	C3D-C2D	2.86	1.46	1.39
6	01	302	CHL	C3D-C2D	2.86	1.46	1.39
6	03	305	CHL	C3D-C2D	2.86	1.46	1.39
5	1R	309	CLA	C1D-C2D	2.85	1.51	1.45
6	02	605	CHL	C3D-C2D	2.85	1.46	1.39
6	1R	302	CHL	C1D-C2D	2.85	1.50	1.45
5	03	308	CLA	C1D-C2D	2.85	1.50	1.45
5	1R	301	CLA	C3D-C2D	2.85	1.46	1.39
5	01	309	CLA	C3B-C4B	2.84	1.49	1.42
5	02	610	CLA	C1D-C2D	2.84	1.50	1.45
5	1R	306	CLA	CHD-C4C	2.84	1.45	1.39
5	03	312	CLA	C3D-C2D	2.84	1.46	1.39
5	04	309	CLA	MG-NA	-2.83	1.99	2.06
7	03	313	LUT	C32-C33	-2.83	1.39	1.45
5	03	309	CLA	C1D-C2D	2.83	1.50	1.45
5	1R	306	CLA	CHD-C1D	2.83	1.43	1.38
5	04	311	CLA	C4B-NB	-2.83	1.34	1.37
5	04	309	CLA	C1D-C2D	2.83	1.50	1.45
5	02	612	CLA	C1D-C2D	2.83	1.50	1.45
6	1R	303	CHL	C3D-C2D	2.83	1.46	1.39
5	02	609	CLA	C4B-NB	-2.82	1.34	1.37
5	01	312	CLA	C4B-NB	-2.82	1.34	1.37
6	1R	304	CHL	C3D-C2D	2.82	1.46	1.39
5	04	312	CLA	C4B-NB	-2.82	1.34	1.37
6	01	304	CHL	C1D-C2D	2.82	1.50	1.45
5	04	306	CLA	C3D-C2D	2.82	1.46	1.39
5	04	308	CLA	C1D-C2D	2.81	1.50	1.45
6	04	303	CHL	C1D-C2D	2.81	1.50	1.45
5	02	610	CLA	C4B-NB	-2.81	1.34	1.37
5	02	602	CLA	CHD-C1D	2.80	1.43	1.38
6	03	305	CHL	C1D-C2D	2.80	1.50	1.45
5	1R	310	CLA	C3D-C2D	2.80	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	1R	311	CLA	C4B-NB	-2.80	1.34	1.37
5	1R	305	CLA	C3B-C4B	2.79	1.49	1.42
5	01	301	CLA	C1D-C2D	2.79	1.50	1.45
5	01	313	CLA	C1D-C2D	2.79	1.50	1.45
5	02	602	CLA	C3B-C4B	2.79	1.49	1.42
5	03	310	CLA	C1D-C2D	2.79	1.50	1.45
6	1R	312	CHL	C3D-C2D	2.79	1.46	1.39
6	01	304	CHL	C3D-C2D	2.79	1.46	1.39
5	04	309	CLA	C3D-C2D	2.79	1.46	1.39
6	01	305	CHL	C3B-C4B	2.78	1.49	1.42
5	1R	305	CLA	C1D-C2D	2.78	1.50	1.45
6	01	303	CHL	C3D-C2D	2.78	1.46	1.39
5	02	611	CLA	C4B-NB	-2.77	1.34	1.37
6	01	303	CHL	C3B-C4B	2.77	1.49	1.42
5	02	602	CLA	C4B-NB	-2.77	1.34	1.37
7	01	315	LUT	C8-C9	-2.77	1.40	1.45
5	02	612	CLA	C3D-C2D	2.76	1.46	1.39
5	02	608	CLA	C3B-C4B	2.76	1.49	1.42
6	1R	303	CHL	C1D-C2D	2.76	1.50	1.45
5	02	608	CLA	C4B-NB	-2.76	1.34	1.37
5	04	312	CLA	C3D-C2D	2.76	1.46	1.39
5	1R	310	CLA	MG-NA	-2.76	1.99	2.06
5	01	312	CLA	C3B-C4B	2.76	1.49	1.42
5	04	310	CLA	C3B-C4B	2.76	1.49	1.42
6	04	302	CHL	C3B-C4B	2.76	1.49	1.42
5	1R	306	CLA	C3D-C2D	2.75	1.46	1.39
5	1R	310	CLA	C1D-C2D	2.75	1.50	1.45
5	04	312	CLA	C3B-C4B	2.75	1.49	1.42
5	04	308	CLA	C4B-NB	-2.75	1.34	1.37
6	1R	302	CHL	C1B-NB	-2.74	1.34	1.37
5	04	309	CLA	C3B-C4B	2.74	1.49	1.42
5	02	614	CLA	C1D-C2D	2.74	1.50	1.45
5	04	310	CLA	C3D-C2D	2.73	1.46	1.39
5	1R	309	CLA	C3B-C4B	2.73	1.49	1.42
5	02	611	CLA	C3B-C4B	2.73	1.49	1.42
5	1R	306	CLA	C4B-NB	-2.73	1.34	1.37
5	02	613	CLA	C3B-C4B	2.73	1.49	1.42
5	01	313	CLA	C3B-C4B	2.73	1.49	1.42
5	1R	308	CLA	CHC-C4B	2.72	1.45	1.39
5	04	314	CLA	C1D-C2D	2.72	1.50	1.45
5	04	307	CLA	C1D-C2D	2.72	1.50	1.45
5	03	309	CLA	C4B-NB	-2.72	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	02	609	CLA	C3B-C4B	2.72	1.49	1.42
5	04	311	CLA	C3B-C4B	2.72	1.49	1.42
5	02	614	CLA	C4B-NB	-2.72	1.34	1.37
5	1R	308	CLA	C3D-C2D	2.71	1.46	1.39
5	1R	306	CLA	MG-NA	-2.71	1.99	2.06
5	04	312	CLA	C1D-C2D	2.71	1.50	1.45
5	02	609	CLA	C1D-C2D	2.71	1.50	1.45
5	02	611	CLA	C1D-C2D	2.70	1.50	1.45
5	04	311	CLA	C1D-C2D	2.70	1.50	1.45
5	01	310	CLA	C3B-C4B	2.70	1.49	1.42
5	1R	308	CLA	C1B-C2B	2.70	1.49	1.43
5	1R	301	CLA	C1D-C2D	2.70	1.50	1.45
5	1R	310	CLA	C4B-NB	-2.69	1.34	1.37
5	04	307	CLA	MG-NA	-2.68	1.99	2.06
5	03	312	CLA	C3B-C4B	2.68	1.49	1.42
6	02	604	CHL	C3B-C4B	2.68	1.49	1.42
5	03	301	CLA	C1D-C2D	2.68	1.50	1.45
5	01	313	CLA	C4B-NB	-2.68	1.34	1.37
5	02	613	CLA	C4B-NB	-2.68	1.34	1.37
5	01	301	CLA	C3B-C4B	2.68	1.49	1.42
5	01	310	CLA	C4B-NB	-2.67	1.34	1.37
5	04	308	CLA	C1B-C2B	2.67	1.49	1.43
5	1R	309	CLA	C4B-NB	-2.67	1.34	1.37
5	1R	301	CLA	C3B-C4B	2.66	1.49	1.42
5	03	306	CLA	MG-NA	-2.66	1.99	2.06
6	03	305	CHL	C3B-C4B	2.66	1.49	1.42
5	03	307	CLA	C3B-C4B	2.66	1.49	1.42
6	04	301	CHL	C3B-C4B	2.66	1.49	1.42
5	02	612	CLA	C3B-C4B	2.66	1.49	1.42
5	1R	307	CLA	C4B-NB	-2.65	1.34	1.37
6	04	305	CHL	C1B-C2B	2.65	1.49	1.43
5	03	301	CLA	MG-NA	-2.65	2.00	2.06
5	03	301	CLA	C3B-C4B	2.65	1.49	1.42
6	03	303	CHL	C1B-C2B	2.65	1.49	1.43
5	03	308	CLA	C4B-NB	-2.65	1.34	1.37
5	03	310	CLA	C4B-NB	-2.64	1.34	1.37
5	04	306	CLA	C1D-C2D	2.64	1.50	1.45
5	04	310	CLA	C4B-NB	-2.64	1.34	1.37
5	1R	311	CLA	MG-NA	-2.64	2.00	2.06
5	02	608	CLA	C1D-C2D	2.64	1.50	1.45
6	1R	304	CHL	C3B-C4B	2.64	1.48	1.42
5	1R	305	CLA	MG-NA	-2.64	2.00	2.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	03	306	CLA	C4B-NB	-2.64	1.34	1.37
5	02	602	CLA	MG-NA	-2.63	2.00	2.06
7	1R	313	LUT	C32-C33	-2.63	1.40	1.45
5	02	612	CLA	C4B-NB	-2.63	1.34	1.37
6	1R	312	CHL	C3B-C4B	2.63	1.48	1.42
9	04	313	BCR	C12-C13	-2.63	1.40	1.45
5	02	602	CLA	C1B-C2B	2.63	1.49	1.43
7	01	315	LUT	C32-C33	-2.63	1.40	1.45
5	1R	301	CLA	MG-NA	-2.63	2.00	2.06
5	01	308	CLA	C1D-C2D	2.62	1.50	1.45
5	01	311	CLA	MG-NA	-2.62	2.00	2.06
5	01	311	CLA	C1B-NB	-2.62	1.34	1.37
6	02	603	CHL	C3B-C4B	2.62	1.48	1.42
5	02	614	CLA	MG-NA	-2.61	2.00	2.06
5	02	612	CLA	C1B-C2B	2.61	1.49	1.43
5	02	613	CLA	MG-NA	-2.61	2.00	2.06
5	03	312	CLA	C1D-C2D	2.61	1.50	1.45
6	03	302	CHL	C3B-C4B	2.61	1.48	1.42
5	03	310	CLA	MG-NA	-2.60	2.00	2.06
5	01	309	CLA	C4B-NB	-2.60	1.34	1.37
6	02	601	CHL	C1B-C2B	2.60	1.49	1.43
5	03	310	CLA	C3B-C4B	2.60	1.48	1.42
5	03	307	CLA	C1D-C2D	2.60	1.50	1.45
5	01	307	CLA	C1D-C2D	2.59	1.50	1.45
5	02	613	CLA	C1B-C2B	2.59	1.49	1.43
6	02	606	CHL	C3B-C4B	2.59	1.48	1.42
5	01	311	CLA	C1D-C2D	2.59	1.50	1.45
5	1R	311	CLA	C3B-C4B	2.59	1.48	1.42
5	1R	311	CLA	C1D-C2D	2.59	1.50	1.45
6	01	302	CHL	C3B-C4B	2.58	1.48	1.42
5	03	306	CLA	C1D-C2D	2.58	1.50	1.45
7	03	313	LUT	C28-C29	-2.58	1.40	1.45
5	01	308	CLA	MG-NA	-2.58	2.00	2.06
5	01	301	CLA	MG-NA	-2.57	2.00	2.06
5	03	308	CLA	C1B-C2B	2.57	1.49	1.43
5	02	614	CLA	C3B-C4B	2.57	1.48	1.42
5	04	310	CLA	MG-NA	-2.57	2.00	2.06
5	03	309	CLA	C1B-NB	-2.57	1.34	1.37
6	04	304	CHL	C3B-C4B	2.57	1.48	1.42
5	01	301	CLA	C1B-NB	-2.57	1.34	1.37
5	04	311	CLA	MG-NA	-2.57	2.00	2.06
6	1R	304	CHL	C1B-C2B	2.57	1.49	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	03	308	CLA	C4C-C3C	2.57	1.49	1.45
5	01	310	CLA	MG-NA	-2.57	2.00	2.06
6	04	305	CHL	C3B-C4B	2.57	1.48	1.42
5	02	609	CLA	MG-NA	-2.57	2.00	2.06
6	1R	303	CHL	C3B-C4B	2.57	1.48	1.42
5	04	307	CLA	C1B-C2B	2.56	1.49	1.43
5	01	310	CLA	C1B-C2B	2.56	1.49	1.43
6	02	607	CHL	C3B-C4B	2.56	1.48	1.42
6	02	603	CHL	C1B-C2B	2.56	1.49	1.43
5	03	301	CLA	C1B-C2B	2.56	1.49	1.43
5	1R	307	CLA	C1D-C2D	2.56	1.50	1.45
5	01	309	CLA	C1B-NB	-2.55	1.34	1.37
6	02	601	CHL	C3B-C4B	2.55	1.48	1.42
5	1R	305	CLA	C4B-NB	-2.55	1.34	1.37
5	04	306	CLA	C3B-C4B	2.55	1.48	1.42
6	04	301	CHL	C1D-C2D	2.54	1.50	1.45
5	01	313	CLA	C1B-C2B	2.54	1.49	1.43
5	02	602	CLA	C1D-C2D	2.54	1.50	1.45
5	1R	309	CLA	MG-NA	-2.54	2.00	2.06
5	01	307	CLA	C3B-C4B	2.54	1.48	1.42
5	02	610	CLA	MG-NA	-2.54	2.00	2.06
5	03	307	CLA	C1B-C2B	2.54	1.49	1.43
6	03	303	CHL	C4C-C3C	2.54	1.49	1.45
5	04	311	CLA	C1B-C2B	2.54	1.49	1.43
5	04	308	CLA	MG-NA	-2.54	2.00	2.06
5	03	312	CLA	MG-NA	-2.53	2.00	2.06
5	1R	308	CLA	C4D-ND	2.53	1.41	1.37
5	04	306	CLA	MG-NA	-2.53	2.00	2.06
5	01	313	CLA	MG-NA	-2.53	2.00	2.06
7	01	315	LUT	C12-C13	-2.53	1.40	1.45
5	02	609	CLA	C1B-C2B	2.53	1.49	1.43
5	03	308	CLA	C3B-C4B	2.53	1.48	1.42
5	04	312	CLA	C1B-C2B	2.52	1.49	1.43
5	03	312	CLA	C1B-C2B	2.52	1.49	1.43
6	03	302	CHL	C1B-C2B	2.52	1.49	1.43
5	1R	308	CLA	C1B-NB	-2.52	1.34	1.37
5	04	307	CLA	C3B-C4B	2.52	1.48	1.42
5	01	307	CLA	MG-NA	-2.52	2.00	2.06
5	01	308	CLA	C1B-C2B	2.52	1.49	1.43
5	1R	309	CLA	C1B-C2B	2.52	1.49	1.43
5	03	307	CLA	MG-NA	-2.51	2.00	2.06
5	02	610	CLA	C1B-C2B	2.51	1.49	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	01	309	CLA	MG-NA	-2.51	2.00	2.06
5	02	608	CLA	MG-NA	-2.51	2.00	2.06
6	02	607	CHL	C4C-C3C	2.51	1.49	1.45
5	02	614	CLA	C1B-C2B	2.51	1.49	1.43
6	1R	302	CHL	C3B-C4B	2.51	1.48	1.42
7	1R	313	LUT	C28-C29	-2.51	1.40	1.45
5	02	602	CLA	C1B-NB	-2.50	1.34	1.37
5	02	610	CLA	C1B-NB	-2.50	1.34	1.37
5	1R	309	CLA	C1B-NB	-2.50	1.34	1.37
6	02	606	CHL	C1B-C2B	2.49	1.49	1.43
5	01	312	CLA	MG-NA	-2.49	2.00	2.06
5	1R	306	CLA	C1D-C2D	2.49	1.50	1.45
5	1R	310	CLA	C1B-C2B	2.49	1.49	1.43
5	02	611	CLA	MG-NA	-2.49	2.00	2.06
5	03	306	CLA	C1B-NB	-2.49	1.34	1.37
9	04	313	BCR	C19-C18	-2.49	1.40	1.45
5	04	310	CLA	C1B-C2B	2.49	1.49	1.43
6	03	311	CHL	C3B-C4B	2.49	1.48	1.42
5	1R	310	CLA	C1B-NB	-2.48	1.34	1.37
6	04	304	CHL	C1B-C2B	2.48	1.49	1.43
5	04	306	CLA	C1B-NB	-2.48	1.34	1.37
6	01	302	CHL	C1B-C2B	2.48	1.49	1.43
5	04	311	CLA	C1B-NB	-2.48	1.34	1.37
5	1R	301	CLA	C1B-NB	-2.48	1.34	1.37
5	04	312	CLA	MG-NA	-2.48	2.00	2.06
5	1R	308	CLA	MG-NC	2.48	2.12	2.06
5	1R	307	CLA	MG-NA	-2.48	2.00	2.06
6	01	303	CHL	C1D-C2D	2.48	1.50	1.45
5	03	312	CLA	C1B-NB	-2.47	1.34	1.37
5	04	309	CLA	C1B-NB	-2.47	1.34	1.37
5	04	308	CLA	C3B-C4B	2.47	1.48	1.42
5	03	309	CLA	MG-NA	-2.47	2.00	2.06
5	04	310	CLA	C1B-NB	-2.47	1.34	1.37
5	01	311	CLA	C1B-C2B	2.46	1.49	1.43
5	01	312	CLA	C4C-C3C	2.46	1.49	1.45
5	1R	308	CLA	MG-NB	-2.46	2.00	2.05
5	1R	311	CLA	C1B-C2B	2.46	1.49	1.43
6	03	305	CHL	C1B-C2B	2.46	1.49	1.43
5	02	612	CLA	C1B-NB	-2.45	1.34	1.37
5	1R	311	CLA	C1B-NB	-2.45	1.34	1.37
6	02	604	CHL	C1B-C2B	2.45	1.49	1.43
5	02	608	CLA	C1B-C2B	2.45	1.49	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	03	306	CLA	C1B-C2B	2.45	1.49	1.43
5	03	308	CLA	MG-NA	-2.44	2.00	2.06
5	1R	306	CLA	C1B-NB	-2.44	1.34	1.37
7	01	314	LUT	C32-C33	-2.44	1.40	1.45
5	03	301	CLA	C1B-NB	-2.44	1.34	1.37
5	03	310	CLA	C1B-NB	-2.44	1.34	1.37
6	01	306	CHL	C1B-C2B	2.44	1.49	1.43
6	03	302	CHL	C4C-C3C	2.43	1.49	1.45
6	03	311	CHL	C1B-C2B	2.43	1.49	1.43
6	03	304	CHL	C3B-C4B	2.43	1.48	1.42
5	1R	305	CLA	C1B-C2B	2.42	1.49	1.43
6	04	302	CHL	C4C-C3C	2.42	1.49	1.45
5	01	310	CLA	C1B-NB	-2.42	1.34	1.37
5	03	309	CLA	C1B-C2B	2.42	1.49	1.43
6	02	606	CHL	C4C-C3C	2.41	1.49	1.45
6	1R	304	CHL	C4C-C3C	2.41	1.49	1.45
6	1R	302	CHL	C4C-C3C	2.41	1.49	1.45
5	01	312	CLA	C1B-NB	-2.41	1.34	1.37
6	04	301	CHL	C1B-NB	-2.40	1.34	1.37
5	02	609	CLA	C1B-NB	-2.40	1.34	1.37
5	04	314	CLA	C4B-NB	-2.40	1.34	1.37
5	02	611	CLA	C1B-C2B	2.40	1.48	1.43
6	01	306	CHL	C3B-C4B	2.40	1.48	1.42
5	01	312	CLA	C1B-C2B	2.40	1.48	1.43
6	01	304	CHL	C1B-C2B	2.40	1.48	1.43
6	01	303	CHL	C1B-C2B	2.40	1.48	1.43
7	03	313	LUT	C12-C13	-2.40	1.40	1.45
6	02	605	CHL	C4C-C3C	2.40	1.49	1.45
6	03	303	CHL	C3B-C4B	2.39	1.48	1.42
5	02	613	CLA	C1B-NB	-2.39	1.34	1.37
6	1R	303	CHL	C1B-C2B	2.39	1.48	1.43
5	03	307	CLA	C1B-NB	-2.38	1.34	1.37
5	01	308	CLA	C3B-C4B	2.38	1.48	1.42
6	02	604	CHL	C4C-C3C	2.38	1.49	1.45
5	04	312	CLA	C1B-NB	-2.38	1.34	1.37
6	02	605	CHL	C1B-NB	-2.37	1.34	1.37
5	04	314	CLA	C1B-NB	-2.37	1.34	1.37
5	04	314	CLA	C1B-C2B	2.37	1.48	1.43
6	02	607	CHL	C1B-C2B	2.37	1.48	1.43
6	04	302	CHL	C1B-C2B	2.37	1.48	1.43
5	02	611	CLA	C1B-NB	-2.36	1.34	1.37
6	1R	302	CHL	CHB-C4A	-2.36	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	04	301	CHL	C4C-C3C	2.36	1.49	1.45
5	1R	306	CLA	C1C-C2C	2.36	1.49	1.44
5	02	614	CLA	C1B-NB	-2.36	1.34	1.37
6	02	601	CHL	C4C-C3C	2.35	1.49	1.45
5	04	306	CLA	C1B-C2B	2.35	1.48	1.43
6	04	303	CHL	C1B-C2B	2.35	1.48	1.43
6	01	305	CHL	C1B-C2B	2.35	1.48	1.43
6	01	306	CHL	C4C-C3C	2.35	1.49	1.45
5	01	310	CLA	C1D-C2D	2.35	1.50	1.45
5	1R	309	CLA	C4C-C3C	2.35	1.49	1.45
7	01	315	LUT	C28-C29	-2.34	1.40	1.45
6	1R	312	CHL	C4C-C3C	2.34	1.49	1.45
5	1R	307	CLA	C1C-C2C	2.34	1.49	1.44
6	02	603	CHL	C4C-C3C	2.34	1.49	1.45
7	01	314	LUT	C28-C29	-2.34	1.40	1.45
6	02	605	CHL	C1D-ND	-2.34	1.34	1.37
5	1R	308	CLA	CHD-C4C	2.33	1.44	1.39
6	04	304	CHL	C4C-C3C	2.33	1.49	1.45
5	1R	308	CLA	C1D-C2D	2.33	1.49	1.45
5	04	309	CLA	C1B-C2B	2.33	1.48	1.43
6	01	303	CHL	C4C-C3C	2.33	1.49	1.45
5	04	314	CLA	MG-NA	-2.32	2.00	2.06
7	01	314	LUT	C12-C13	-2.32	1.41	1.45
6	03	304	CHL	C1B-C2B	2.32	1.48	1.43
5	01	307	CLA	C1B-NB	-2.31	1.34	1.37
5	02	608	CLA	C1B-NB	-2.31	1.34	1.37
5	04	310	CLA	C4C-C3C	2.31	1.49	1.45
6	04	303	CHL	C1B-NB	-2.31	1.34	1.37
6	1R	312	CHL	C1B-C2B	2.31	1.48	1.43
6	1R	303	CHL	C1B-NB	-2.31	1.34	1.37
6	03	304	CHL	C1B-NB	-2.31	1.34	1.37
5	1R	305	CLA	C1B-NB	-2.30	1.35	1.37
5	01	309	CLA	C1C-C2C	2.30	1.49	1.44
6	01	305	CHL	C1D-C2D	2.30	1.49	1.45
5	04	307	CLA	C1B-NB	-2.30	1.35	1.37
5	02	608	CLA	C1C-C2C	2.30	1.49	1.44
5	01	307	CLA	CHB-C4A	-2.29	1.32	1.37
5	01	308	CLA	C1B-NB	-2.29	1.35	1.37
5	01	313	CLA	C1B-NB	-2.29	1.35	1.37
6	03	305	CHL	C4C-C3C	2.28	1.49	1.45
6	04	303	CHL	C4C-C3C	2.28	1.49	1.45
5	1R	308	CLA	C3B-C4B	2.28	1.48	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	01	301	CLA	C1C-C2C	2.27	1.49	1.44
5	1R	306	CLA	C1B-C2B	2.27	1.48	1.43
5	04	308	CLA	C1C-C2C	2.27	1.49	1.44
6	01	304	CHL	C1B-NB	-2.26	1.35	1.37
6	02	605	CHL	C1B-C2B	2.26	1.48	1.43
5	03	310	CLA	C4C-C3C	2.26	1.48	1.45
6	1R	303	CHL	C4C-C3C	2.26	1.48	1.45
6	03	311	CHL	C4C-C3C	2.25	1.48	1.45
6	01	304	CHL	C4C-C3C	2.25	1.48	1.45
6	02	605	CHL	C1D-C2D	2.25	1.49	1.45
7	1R	313	LUT	C12-C13	-2.25	1.41	1.45
6	02	605	CHL	C3B-C4B	2.24	1.48	1.42
5	03	309	CLA	C4C-C3C	2.24	1.48	1.45
5	01	301	CLA	C4C-C3C	2.24	1.48	1.45
5	03	308	CLA	C1B-NB	-2.24	1.35	1.37
6	04	305	CHL	C4C-C3C	2.23	1.48	1.45
5	01	307	CLA	C1C-C2C	2.22	1.48	1.44
5	1R	308	CLA	CHD-C1D	2.21	1.42	1.38
5	04	312	CLA	C4C-C3C	2.21	1.48	1.45
5	03	301	CLA	C1C-C2C	2.21	1.48	1.44
6	03	304	CHL	CHB-C4A	-2.21	1.32	1.37
6	04	303	CHL	C4B-NB	-2.21	1.35	1.37
5	04	308	CLA	C1B-NB	-2.21	1.35	1.37
6	01	303	CHL	C1B-NB	-2.21	1.35	1.37
5	03	306	CLA	C1C-C2C	2.21	1.48	1.44
5	1R	301	CLA	C1B-C2B	2.20	1.48	1.43
5	03	310	CLA	C1C-C2C	2.20	1.48	1.44
5	01	313	CLA	C4C-C3C	2.20	1.48	1.45
6	01	302	CHL	C4C-C3C	2.20	1.48	1.45
6	04	301	CHL	C1B-C2B	2.19	1.48	1.43
6	04	301	CHL	CHB-C4A	-2.19	1.32	1.37
5	02	609	CLA	C4C-C3C	2.19	1.48	1.45
5	1R	309	CLA	C1C-C2C	2.19	1.48	1.44
6	01	305	CHL	C1D-ND	-2.19	1.35	1.37
5	04	314	CLA	C4C-C3C	2.18	1.48	1.45
6	03	304	CHL	C4C-C3C	2.18	1.48	1.45
5	1R	301	CLA	C1C-C2C	2.18	1.48	1.44
6	01	305	CHL	C2C-C1C	2.17	1.49	1.44
6	02	607	CHL	C1B-NB	-2.15	1.35	1.37
5	03	312	CLA	C4C-C3C	2.15	1.48	1.45
5	02	614	CLA	C4C-C3C	2.15	1.48	1.45
5	04	309	CLA	C4C-C3C	2.15	1.48	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	02	610	CLA	C4C-C3C	2.14	1.48	1.45
5	1R	308	CLA	C4C-C3C	2.14	1.48	1.45
5	1R	305	CLA	C1C-C2C	2.14	1.48	1.44
5	02	602	CLA	C1C-C2C	2.14	1.48	1.44
6	1R	303	CHL	CHB-C4A	-2.14	1.32	1.37
5	01	309	CLA	C4C-C3C	2.14	1.48	1.45
5	1R	311	CLA	C4C-C3C	2.14	1.48	1.45
6	02	606	CHL	MG-NA	-2.13	2.01	2.06
6	04	302	CHL	C1B-NB	-2.13	1.35	1.37
6	03	302	CHL	C1B-NB	-2.13	1.35	1.37
5	01	310	CLA	C1C-C2C	2.13	1.48	1.44
6	03	304	CHL	C4B-NB	-2.12	1.35	1.37
6	01	305	CHL	C1B-NB	-2.12	1.35	1.37
6	04	303	CHL	CHB-C4A	-2.11	1.32	1.37
5	04	311	CLA	C1C-C2C	2.11	1.48	1.44
6	02	605	CHL	CHB-C4A	-2.11	1.32	1.37
6	01	304	CHL	CHB-C4A	-2.10	1.32	1.37
6	04	302	CHL	CHB-C4A	-2.10	1.32	1.37
5	02	614	CLA	C1C-C2C	2.10	1.48	1.44
6	04	303	CHL	MG-NA	-2.10	2.01	2.06
5	03	307	CLA	C4C-C3C	2.10	1.48	1.45
5	04	311	CLA	C4C-C3C	2.10	1.48	1.45
5	01	313	CLA	C1C-C2C	2.10	1.48	1.44
6	01	305	CHL	C4C-C3C	2.09	1.48	1.45
6	03	304	CHL	MG-NA	-2.09	2.01	2.06
5	1R	307	CLA	CHB-C4A	-2.09	1.32	1.37
5	02	609	CLA	C1C-C2C	2.09	1.48	1.44
5	04	312	CLA	C1C-C2C	2.09	1.48	1.44
5	01	309	CLA	CHB-C4A	-2.08	1.32	1.37
5	01	308	CLA	C1C-C2C	2.08	1.48	1.44
5	02	613	CLA	C1C-C2C	2.08	1.48	1.44
5	04	306	CLA	C1C-C2C	2.08	1.48	1.44
5	1R	308	CLA	C4D-CHA	2.08	1.45	1.38
5	04	306	CLA	C4C-C3C	2.08	1.48	1.45
6	1R	312	CHL	C1B-NB	-2.08	1.35	1.37
5	02	611	CLA	C4C-C3C	2.08	1.48	1.45
5	01	312	CLA	C1C-C2C	2.08	1.48	1.44
5	04	307	CLA	C4C-C3C	2.08	1.48	1.45
5	02	602	CLA	C4C-C3C	2.08	1.48	1.45
5	04	308	CLA	C4C-C3C	2.08	1.48	1.45
5	03	307	CLA	C1C-C2C	2.07	1.48	1.44
5	1R	308	CLA	C3B-C2B	2.07	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	02	610	CLA	C1C-C2C	2.07	1.48	1.44
5	04	310	CLA	C1C-C2C	2.07	1.48	1.44
6	1R	312	CHL	CHB-C4A	-2.06	1.32	1.37
5	01	311	CLA	C1C-C2C	2.06	1.48	1.44
6	04	301	CHL	C1D-ND	-2.06	1.35	1.37
6	04	303	CHL	C2C-C1C	2.06	1.49	1.44
6	03	302	CHL	C2C-C1C	2.06	1.49	1.44
6	01	305	CHL	CHB-C4A	-2.06	1.32	1.37
5	03	309	CLA	C1C-C2C	2.06	1.48	1.44
5	04	307	CLA	C1C-C2C	2.06	1.48	1.44
6	01	306	CHL	CMC-C2C	2.06	1.49	1.45
5	01	301	CLA	C1B-C2B	2.05	1.48	1.43
5	03	312	CLA	C1C-C2C	2.05	1.48	1.44
6	02	605	CHL	C4B-NB	-2.05	1.35	1.37
6	03	311	CHL	C1B-NB	-2.05	1.35	1.37
6	04	302	CHL	C2C-C1C	2.05	1.49	1.44
6	03	305	CHL	C2C-C1C	2.05	1.49	1.44
6	03	305	CHL	CHB-C4A	-2.04	1.32	1.37
5	02	612	CLA	C1C-C2C	2.04	1.48	1.44
6	01	303	CHL	CHB-C4A	-2.04	1.32	1.37
6	01	303	CHL	C1D-ND	-2.04	1.35	1.37
5	04	314	CLA	C1C-C2C	2.04	1.48	1.44
6	04	305	CHL	MG-NA	-2.04	2.01	2.06
6	03	311	CHL	MG-NA	-2.04	2.01	2.06
6	02	601	CHL	C1B-NB	-2.04	1.35	1.37
6	03	305	CHL	C1B-NB	-2.04	1.35	1.37
5	1R	307	CLA	C4C-C3C	2.04	1.48	1.45
5	02	611	CLA	C1C-C2C	2.03	1.48	1.44
6	01	306	CHL	C4B-NB	-2.03	1.35	1.37
6	1R	304	CHL	C1B-NB	-2.03	1.35	1.37
5	01	310	CLA	C4C-C3C	2.03	1.48	1.45
6	02	607	CHL	CHB-C4A	-2.02	1.32	1.37
6	03	311	CHL	CHB-C4A	-2.02	1.32	1.37
6	02	603	CHL	C1B-NB	-2.02	1.35	1.37
5	01	311	CLA	C4C-C3C	2.02	1.48	1.45
5	1R	310	CLA	C1C-C2C	2.02	1.48	1.44
6	1R	302	CHL	C1D-ND	-2.02	1.35	1.37
6	02	605	CHL	CMC-C2C	2.02	1.49	1.45
6	01	306	CHL	CHB-C4A	-2.01	1.32	1.37
6	01	306	CHL	C2C-C1C	2.01	1.48	1.44
6	01	302	CHL	C1B-NB	-2.01	1.35	1.37
6	03	303	CHL	CMC-C2C	2.01	1.49	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	03	310	CLA	C1B-C2B	2.01	1.48	1.43
6	03	311	CHL	C4B-NB	-2.01	1.35	1.37
6	04	304	CHL	C1B-NB	-2.01	1.35	1.37
6	02	601	CHL	C2C-C1C	2.00	1.48	1.44
6	01	304	CHL	C2C-C1C	2.00	1.48	1.44
6	03	302	CHL	CHB-C4A	-2.00	1.32	1.37
5	03	308	CLA	C1C-C2C	2.00	1.48	1.44

All (1727) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	03	304	CHL	C2B-C1B-NB	10.93	117.56	110.23
6	1R	303	CHL	C2B-C1B-NB	10.70	117.41	110.23
6	01	304	CHL	C2B-C1B-NB	10.54	117.30	110.23
6	03	305	CHL	C2B-C1B-NB	10.48	117.26	110.23
6	03	302	CHL	C2B-C1B-NB	10.47	117.25	110.23
6	1R	312	CHL	C2B-C1B-NB	10.42	117.22	110.23
6	04	303	CHL	C2B-C1B-NB	10.41	117.21	110.23
6	01	302	CHL	C2B-C1B-NB	10.37	117.18	110.23
6	04	302	CHL	C2B-C1B-NB	10.37	117.18	110.23
6	02	603	CHL	C2B-C1B-NB	10.34	117.16	110.23
6	03	311	CHL	C2B-C1B-NB	10.34	117.16	110.23
6	01	306	CHL	C2B-C1B-NB	10.32	117.15	110.23
6	02	606	CHL	C2B-C1B-NB	10.31	117.14	110.23
6	04	301	CHL	C2B-C1B-NB	10.29	117.13	110.23
6	04	304	CHL	C2B-C1B-NB	10.28	117.12	110.23
6	1R	304	CHL	C2B-C1B-NB	10.28	117.12	110.23
5	02	612	CLA	C1D-ND-C4D	-10.24	99.06	106.33
6	02	604	CHL	C2B-C1B-NB	10.24	117.09	110.23
6	01	305	CHL	C2B-C1B-NB	10.22	117.08	110.23
6	02	607	CHL	C2B-C1B-NB	10.15	117.03	110.23
5	1R	308	CLA	C2C-C1C-NC	10.09	119.43	109.97
5	03	301	CLA	C1D-ND-C4D	-10.07	99.18	106.33
6	01	303	CHL	C2B-C1B-NB	10.04	116.96	110.23
6	1R	302	CHL	C2B-C1B-NB	10.04	116.96	110.23
6	02	601	CHL	C2B-C1B-NB	9.97	116.92	110.23
5	1R	306	CLA	C1D-ND-C4D	-9.92	99.29	106.33
6	04	305	CHL	C2B-C1B-NB	9.90	116.87	110.23
5	02	614	CLA	C1D-ND-C4D	-9.85	99.34	106.33
5	02	602	CLA	C1D-ND-C4D	-9.79	99.38	106.33
5	03	306	CLA	C1D-ND-C4D	-9.74	99.41	106.33
5	1R	305	CLA	C1D-ND-C4D	-9.67	99.46	106.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	02	605	CHL	C2B-C1B-NB	9.63	116.69	110.23
5	1R	307	CLA	C2B-C1B-NB	9.56	116.64	110.23
5	01	311	CLA	C1D-ND-C4D	-9.55	99.55	106.33
5	1R	308	CLA	C1D-ND-C4D	-9.55	99.55	106.33
5	02	608	CLA	C1D-ND-C4D	-9.52	99.57	106.33
5	04	311	CLA	C1D-ND-C4D	-9.50	99.58	106.33
5	01	301	CLA	C2B-C1B-NB	9.50	116.60	110.23
5	01	313	CLA	C1D-ND-C4D	-9.48	99.60	106.33
5	1R	310	CLA	C1D-ND-C4D	-9.47	99.61	106.33
5	04	308	CLA	C1D-ND-C4D	-9.43	99.64	106.33
5	1R	301	CLA	C1D-ND-C4D	-9.41	99.65	106.33
5	02	610	CLA	C1D-ND-C4D	-9.38	99.67	106.33
5	01	307	CLA	C2B-C1B-NB	9.33	116.49	110.23
6	03	303	CHL	C2B-C1B-NB	9.32	116.48	110.23
5	03	309	CLA	C1D-ND-C4D	-9.31	99.72	106.33
5	1R	309	CLA	C1D-ND-C4D	-9.31	99.72	106.33
5	04	310	CLA	C1D-ND-C4D	-9.31	99.72	106.33
5	03	312	CLA	C1D-ND-C4D	-9.28	99.74	106.33
5	02	613	CLA	C1D-ND-C4D	-9.26	99.76	106.33
5	04	312	CLA	C1D-ND-C4D	-9.24	99.77	106.33
5	04	307	CLA	C1D-ND-C4D	-9.20	99.80	106.33
5	02	611	CLA	C1D-ND-C4D	-9.19	99.80	106.33
5	1R	311	CLA	C1D-ND-C4D	-9.16	99.83	106.33
5	02	609	CLA	C1D-ND-C4D	-9.11	99.86	106.33
5	04	309	CLA	C1D-ND-C4D	-9.08	99.88	106.33
5	03	307	CLA	C1D-ND-C4D	-9.07	99.89	106.33
5	04	310	CLA	CMD-C2D-C1D	9.06	140.68	124.71
5	01	310	CLA	C1D-ND-C4D	-9.02	99.93	106.33
5	04	306	CLA	C1D-ND-C4D	-9.01	99.93	106.33
5	1R	305	CLA	C2B-C1B-NB	8.94	116.23	110.23
5	01	309	CLA	C2B-C1B-NB	8.93	116.22	110.23
5	03	308	CLA	C1D-ND-C4D	-8.92	100.00	106.33
5	01	312	CLA	C2B-C1B-NB	8.91	116.20	110.23
5	01	308	CLA	C1D-ND-C4D	-8.89	100.02	106.33
5	04	314	CLA	C2B-C1B-NB	8.85	116.17	110.23
5	04	314	CLA	C1D-ND-C4D	-8.78	100.09	106.33
5	01	312	CLA	C1D-ND-C4D	-8.78	100.10	106.33
5	1R	308	CLA	C4A-NA-C1A	8.73	110.63	106.71
5	04	309	CLA	C2B-C1B-NB	8.71	116.07	110.23
5	02	609	CLA	C2B-C1B-NB	8.70	116.07	110.23
5	03	309	CLA	C2B-C1B-NB	8.69	116.06	110.23
5	02	612	CLA	CMD-C2D-C1D	8.64	139.94	124.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	02	612	CLA	C2C-C1C-NC	8.63	118.06	109.97
5	1R	301	CLA	C2B-C1B-NB	8.61	116.01	110.23
5	04	310	CLA	C2B-C1B-NB	8.60	116.00	110.23
5	01	309	CLA	C1D-ND-C4D	-8.60	100.23	106.33
5	02	613	CLA	C2B-C1B-NB	8.60	116.00	110.23
6	1R	312	CHL	CMD-C2D-C1D	8.57	139.81	124.71
6	1R	304	CHL	CMD-C2D-C1D	8.56	139.81	124.71
5	03	310	CLA	C2B-C1B-NB	8.55	115.96	110.23
5	1R	306	CLA	C2B-C1B-NB	8.52	115.94	110.23
5	03	310	CLA	C1D-ND-C4D	-8.51	100.29	106.33
5	01	301	CLA	C1D-ND-C4D	-8.48	100.31	106.33
5	04	312	CLA	C2B-C1B-NB	8.47	115.91	110.23
5	04	311	CLA	C2B-C1B-NB	8.46	115.90	110.23
5	1R	309	CLA	C2B-C1B-NB	8.46	115.90	110.23
5	03	312	CLA	C2C-C1C-NC	8.44	117.88	109.97
5	03	307	CLA	C2C-C1C-NC	8.42	117.86	109.97
5	02	611	CLA	C2B-C1B-NB	8.41	115.87	110.23
5	04	308	CLA	CMD-C2D-C1D	8.38	139.48	124.71
6	03	311	CHL	CMD-C2D-C1D	8.38	139.48	124.71
5	02	610	CLA	C2C-C1C-NC	8.38	117.82	109.97
5	04	309	CLA	CMD-C2D-C1D	8.37	139.47	124.71
5	02	614	CLA	C2B-C1B-NB	8.36	115.84	110.23
5	01	313	CLA	C2B-C1B-NB	8.36	115.83	110.23
5	1R	311	CLA	C2B-C1B-NB	8.35	115.83	110.23
6	02	604	CHL	CMD-C2D-C1D	8.34	139.42	124.71
6	1R	303	CHL	CMD-C2D-C1D	8.34	139.42	124.71
5	01	308	CLA	C2B-C1B-NB	8.34	115.82	110.23
6	01	304	CHL	CMD-C2D-C1D	8.34	139.41	124.71
5	01	312	CLA	C2C-C1C-NC	8.33	117.78	109.97
5	04	312	CLA	CMD-C2D-C1D	8.33	139.39	124.71
5	04	307	CLA	C2C-C1C-NC	8.32	117.77	109.97
5	04	312	CLA	C2C-C1C-NC	8.32	117.77	109.97
5	1R	307	CLA	C1D-ND-C4D	-8.32	100.43	106.33
6	01	302	CHL	CMD-C2D-C1D	8.31	139.37	124.71
6	03	303	CHL	CMD-C2D-C1D	8.30	139.34	124.71
6	02	607	CHL	CMD-C2D-C1D	8.30	139.34	124.71
5	1R	310	CLA	C2C-C1C-NC	8.30	117.75	109.97
5	03	308	CLA	C2B-C1B-NB	8.30	115.79	110.23
5	04	306	CLA	CMD-C2D-C1D	8.29	139.32	124.71
6	02	603	CHL	CMD-C2D-C1D	8.28	139.31	124.71
6	04	302	CHL	CMD-C2D-C1D	8.28	139.31	124.71
5	03	307	CLA	C2B-C1B-NB	8.28	115.78	110.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	04	306	CLA	C2B-C1B-NB	8.28	115.78	110.23
5	02	609	CLA	C2C-C1C-NC	8.28	117.72	109.97
5	02	611	CLA	C2C-C1C-NC	8.27	117.72	109.97
5	03	309	CLA	CMD-C2D-C1D	8.27	139.29	124.71
5	02	610	CLA	C2B-C1B-NB	8.26	115.77	110.23
5	1R	310	CLA	CMD-C2D-C1D	8.26	139.28	124.71
5	03	309	CLA	C2C-C1C-NC	8.26	117.71	109.97
5	01	310	CLA	C2B-C1B-NB	8.24	115.76	110.23
5	01	311	CLA	C2C-C1C-NC	8.23	117.69	109.97
5	02	613	CLA	C2C-C1C-NC	8.23	117.68	109.97
6	03	302	CHL	CMD-C2D-C1D	8.23	139.22	124.71
5	04	310	CLA	C2C-C1C-NC	8.22	117.67	109.97
6	02	601	CHL	CMD-C2D-C1D	8.21	139.18	124.71
5	04	311	CLA	C2C-C1C-NC	8.20	117.66	109.97
6	04	303	CHL	CMD-C2D-C1D	8.20	139.17	124.71
5	02	602	CLA	C2C-C1C-NC	8.20	117.65	109.97
5	1R	308	CLA	CMD-C2D-C1D	8.20	139.16	124.71
6	04	305	CHL	CMD-C2D-C1D	8.19	139.15	124.71
6	02	606	CHL	CMD-C2D-C1D	8.18	139.12	124.71
5	03	308	CLA	C2C-C1C-NC	8.17	117.62	109.97
5	1R	301	CLA	CMD-C2D-C1D	8.17	139.11	124.71
5	03	306	CLA	C2B-C1B-NB	8.16	115.70	110.23
5	1R	310	CLA	C2B-C1B-NB	8.16	115.70	110.23
6	01	306	CHL	CMD-C2D-C1D	8.15	139.08	124.71
6	04	304	CHL	CMD-C2D-C1D	8.15	139.07	124.71
5	01	310	CLA	C2C-C1C-NC	8.11	117.57	109.97
5	01	308	CLA	C2C-C1C-NC	8.11	117.56	109.97
5	04	311	CLA	CMD-C2D-C1D	8.10	138.99	124.71
5	01	311	CLA	C2B-C1B-NB	8.10	115.66	110.23
5	02	609	CLA	CMD-C2D-C1D	8.10	138.98	124.71
6	03	304	CHL	CMD-C2D-C1D	8.10	138.98	124.71
5	02	608	CLA	C2B-C1B-NB	8.09	115.65	110.23
5	02	613	CLA	CMD-C2D-C1D	8.08	138.96	124.71
10	1R	314	XAT	O4-C5-C4	8.08	119.45	113.38
5	01	301	CLA	CMD-C2D-C1D	8.07	138.94	124.71
5	03	306	CLA	CMD-C2D-C1D	8.07	138.94	124.71
5	02	602	CLA	C2B-C1B-NB	8.07	115.64	110.23
5	01	313	CLA	C2C-C1C-NC	8.07	117.53	109.97
5	04	307	CLA	C2B-C1B-NB	8.07	115.64	110.23
5	01	309	CLA	CMD-C2D-C1D	8.06	138.92	124.71
5	04	308	CLA	C2C-C1C-NC	8.05	117.51	109.97
5	1R	311	CLA	CMD-C2D-C1D	8.03	138.87	124.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	1R	309	CLA	C2C-C1C-NC	8.03	117.49	109.97
6	01	303	CHL	C2C-C3C-C4C	-8.03	100.77	106.49
5	1R	308	CLA	C3C-C4C-NC	8.03	119.57	110.57
5	03	307	CLA	CMD-C2D-C1D	8.02	138.85	124.71
5	02	614	CLA	CMD-C2D-C1D	8.02	138.84	124.71
5	01	307	CLA	C1D-ND-C4D	-8.01	100.64	106.33
5	04	314	CLA	CMD-C2D-C1D	8.00	138.81	124.71
5	03	308	CLA	CMD-C2D-C1D	7.99	138.80	124.71
5	01	313	CLA	CMD-C2D-C1D	7.98	138.78	124.71
5	03	312	CLA	C2B-C1B-NB	7.96	115.57	110.23
6	03	305	CHL	CMD-C2D-C1D	7.96	138.74	124.71
5	01	312	CLA	CMD-C2D-C1D	7.95	138.72	124.71
5	04	307	CLA	CMD-C2D-C1D	7.94	138.70	124.71
5	02	612	CLA	C2B-C1B-NB	7.93	115.55	110.23
5	1R	306	CLA	CMD-C2D-C1D	7.93	138.69	124.71
6	01	303	CHL	CMD-C2D-C1D	7.93	138.69	124.71
5	1R	305	CLA	CMD-C2D-C1D	7.92	138.67	124.71
5	04	314	CLA	C2C-C1C-NC	7.91	117.39	109.97
5	1R	305	CLA	C2C-C1C-NC	7.90	117.38	109.97
5	04	309	CLA	C2C-C1C-NC	7.90	117.37	109.97
5	01	308	CLA	CMD-C2D-C1D	7.89	138.62	124.71
5	03	312	CLA	CMD-C2D-C1D	7.88	138.60	124.71
5	02	611	CLA	CMD-C2D-C1D	7.88	138.60	124.71
6	01	305	CHL	C2C-C3C-C4C	-7.87	100.88	106.49
5	02	610	CLA	CMD-C2D-C1D	7.86	138.57	124.71
5	1R	309	CLA	CMD-C2D-C1D	7.86	138.57	124.71
5	04	308	CLA	C2B-C1B-NB	7.82	115.47	110.23
5	04	306	CLA	C2C-C1C-NC	7.82	117.30	109.97
6	1R	303	CHL	C2C-C3C-C4C	-7.82	100.92	106.49
6	1R	302	CHL	CMD-C2D-C1D	7.81	138.49	124.71
5	01	307	CLA	CMD-C2D-C1D	7.81	138.48	124.71
5	02	608	CLA	C2C-C1C-NC	7.81	117.29	109.97
5	03	301	CLA	C2C-C1C-NC	7.79	117.27	109.97
5	03	301	CLA	C2B-C1B-NB	7.79	115.45	110.23
5	1R	311	CLA	C2C-C1C-NC	7.78	117.27	109.97
5	03	301	CLA	CMD-C2D-C1D	7.77	138.41	124.71
6	01	304	CHL	C2C-C3C-C4C	-7.74	100.97	106.49
5	02	602	CLA	CMD-C2D-C1D	7.70	138.28	124.71
5	02	614	CLA	C2C-C1C-NC	7.62	117.11	109.97
5	02	608	CLA	CMD-C2D-C1D	7.61	138.13	124.71
5	01	310	CLA	CMD-C2D-C1D	7.61	138.12	124.71
5	01	307	CLA	C2C-C1C-NC	7.59	117.08	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	04	301	CHL	C2C-C3C-C4C	-7.57	101.09	106.49
5	03	310	CLA	C2C-C1C-NC	7.56	117.05	109.97
5	01	311	CLA	CMD-C2D-C1D	7.56	138.03	124.71
6	02	606	CHL	C2C-C3C-C4C	-7.53	101.12	106.49
6	03	311	CHL	C2C-C3C-C4C	-7.50	101.14	106.49
5	01	301	CLA	C2C-C1C-NC	7.48	116.98	109.97
10	1R	314	XAT	C11-C10-C9	-7.47	116.64	127.31
6	04	301	CHL	CMD-C2D-C1D	7.46	137.87	124.71
10	1R	314	XAT	C15-C14-C13	-7.46	116.67	127.31
5	1R	307	CLA	C2C-C1C-NC	7.43	116.93	109.97
6	03	305	CHL	C2C-C3C-C4C	-7.41	101.21	106.49
5	03	310	CLA	CMD-C2D-C1D	7.39	137.74	124.71
6	04	302	CHL	C2C-C3C-C4C	-7.36	101.25	106.49
5	1R	301	CLA	C2C-C1C-NC	7.35	116.86	109.97
6	02	603	CHL	C2C-C3C-C4C	-7.33	101.26	106.49
6	02	605	CHL	C2C-C3C-C4C	-7.33	101.27	106.49
6	02	607	CHL	C2C-C3C-C4C	-7.31	101.28	106.49
6	1R	304	CHL	C2C-C3C-C4C	-7.30	101.28	106.49
6	03	302	CHL	C2C-C3C-C4C	-7.21	101.35	106.49
6	04	303	CHL	C2C-C3C-C4C	-7.21	101.35	106.49
5	03	306	CLA	C2C-C1C-NC	7.18	116.70	109.97
6	04	305	CHL	C2C-C3C-C4C	-7.16	101.39	106.49
6	02	601	CHL	C2C-C3C-C4C	-7.16	101.39	106.49
6	02	604	CHL	C2C-C3C-C4C	-7.16	101.39	106.49
5	1R	307	CLA	CMD-C2D-C1D	7.14	137.31	124.71
6	1R	312	CHL	C2C-C3C-C4C	-7.14	101.40	106.49
6	03	303	CHL	C2C-C3C-C4C	-7.12	101.42	106.49
5	1R	308	CLA	CHD-C4C-C3C	-7.10	114.41	124.84
6	04	304	CHL	C2C-C3C-C4C	-7.01	101.49	106.49
6	01	302	CHL	C2C-C3C-C4C	-7.00	101.50	106.49
6	02	605	CHL	CMD-C2D-C1D	6.98	137.02	124.71
5	01	309	CLA	C2C-C1C-NC	6.98	116.51	109.97
6	1R	302	CHL	C2C-C3C-C4C	-6.97	101.52	106.49
10	1R	314	XAT	C31-C30-C29	-6.92	117.43	127.31
6	01	305	CHL	CMD-C2D-C1D	6.91	136.89	124.71
6	03	304	CHL	C2C-C3C-C4C	-6.88	101.59	106.49
10	1R	314	XAT	C38-C25-C26	-6.86	110.76	122.26
6	01	306	CHL	C2C-C3C-C4C	-6.82	101.63	106.49
10	1R	314	XAT	O24-C25-C38	6.60	122.96	115.06
7	1R	313	LUT	C15-C35-C34	6.55	136.90	123.47
5	02	612	CLA	CHD-C4C-C3C	-6.44	115.38	124.84
5	1R	306	CLA	CHD-C4C-C3C	-6.40	115.43	124.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	1R	314	XAT	C15-C35-C34	-6.32	110.53	123.47
6	1R	304	CHL	CHD-C1D-ND	-6.31	118.66	124.45
5	01	310	CLA	O2D-CGD-CBD	6.29	122.45	111.27
5	03	306	CLA	CHD-C4C-C3C	-6.29	115.59	124.84
6	02	604	CHL	CHD-C1D-ND	-6.29	118.68	124.45
5	01	311	CLA	C3C-C4C-NC	6.28	117.61	110.57
5	01	308	CLA	O2D-CGD-CBD	6.27	122.40	111.27
6	03	311	CHL	CHD-C1D-ND	-6.25	118.71	124.45
5	03	312	CLA	C3C-C4C-NC	6.21	117.54	110.57
5	02	608	CLA	C3C-C4C-NC	6.18	117.51	110.57
6	04	304	CHL	O2D-CGD-CBD	6.17	122.24	111.27
6	04	305	CHL	CHD-C1D-ND	-6.17	118.78	124.45
6	04	302	CHL	CHD-C1D-ND	-6.17	118.78	124.45
5	03	307	CLA	C3C-C4C-NC	6.17	117.49	110.57
5	02	602	CLA	C3C-C4C-NC	6.15	117.47	110.57
5	1R	306	CLA	C3C-C4C-NC	6.14	117.46	110.57
5	02	611	CLA	C3C-C4C-NC	6.10	117.42	110.57
6	01	306	CHL	CHD-C1D-ND	-6.10	118.84	124.45
5	01	310	CLA	C3C-C4C-NC	6.10	117.41	110.57
6	02	607	CHL	CHD-C1D-ND	-6.08	118.87	124.45
5	04	312	CLA	C3C-C4C-NC	6.08	117.39	110.57
6	1R	312	CHL	CHD-C1D-ND	-6.08	118.87	124.45
5	02	609	CLA	C3C-C4C-NC	6.07	117.38	110.57
5	1R	311	CLA	C3C-C4C-NC	6.05	117.36	110.57
6	04	304	CHL	CHD-C1D-ND	-6.05	118.89	124.45
5	03	306	CLA	C3C-C4C-NC	6.05	117.36	110.57
6	02	603	CHL	CHD-C1D-ND	-6.04	118.90	124.45
5	03	301	CLA	C3C-C4C-NC	6.04	117.34	110.57
6	02	606	CHL	CHD-C1D-ND	-6.03	118.91	124.45
5	1R	306	CLA	C2C-C1C-NC	6.02	115.61	109.97
5	04	311	CLA	C3C-C4C-NC	6.02	117.32	110.57
6	03	304	CHL	CHD-C1D-ND	-6.01	118.93	124.45
6	1R	302	CHL	CHD-C1D-ND	-6.01	118.93	124.45
6	02	601	CHL	CHD-C1D-ND	-6.01	118.93	124.45
5	04	308	CLA	C3C-C4C-NC	6.01	117.31	110.57
6	01	302	CHL	CHD-C1D-ND	-5.99	118.95	124.45
5	01	312	CLA	C3C-C4C-NC	5.97	117.27	110.57
6	1R	303	CHL	CHD-C1D-ND	-5.97	118.97	124.45
7	01	314	LUT	C7-C8-C9	5.97	135.25	126.23
6	03	302	CHL	CHD-C1D-ND	-5.96	118.98	124.45
5	02	610	CLA	C3C-C4C-NC	5.92	117.21	110.57
5	03	309	CLA	C3C-C4C-NC	5.92	117.21	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	301	CLA	C3C-C4C-NC	5.91	117.20	110.57
5	1R	310	CLA	C3C-C4C-NC	5.91	117.20	110.57
5	1R	307	CLA	C3C-C4C-NC	5.90	117.19	110.57
5	01	313	CLA	C3C-C4C-NC	5.90	117.19	110.57
5	01	311	CLA	CHD-C4C-C3C	-5.88	116.19	124.84
5	01	308	CLA	CHD-C4C-C3C	-5.87	116.21	124.84
5	01	308	CLA	C3C-C4C-NC	5.87	117.16	110.57
6	03	304	CHL	C3B-C2B-C1B	-5.87	100.07	107.16
6	01	306	CHL	C3B-C2B-C1B	-5.87	100.08	107.16
5	04	308	CLA	CHD-C4C-C3C	-5.87	116.22	124.84
5	1R	309	CLA	C3C-C4C-NC	5.86	117.15	110.57
5	02	608	CLA	CHD-C4C-C3C	-5.84	116.25	124.84
6	03	303	CHL	CHD-C1D-ND	-5.84	119.09	124.45
6	01	305	CHL	C3C-C4C-NC	5.84	117.12	110.57
10	1R	314	XAT	C7-C8-C9	-5.83	116.48	125.53
5	02	613	CLA	C3C-C4C-NC	5.82	117.10	110.57
6	03	305	CHL	CHD-C1D-ND	-5.81	119.11	124.45
5	1R	301	CLA	CHD-C4C-C3C	-5.78	116.34	124.84
5	03	301	CLA	CHD-C4C-C3C	-5.77	116.35	124.84
5	04	310	CLA	C3C-C4C-NC	5.77	117.05	110.57
5	01	307	CLA	C3B-C2B-C1B	-5.77	100.20	107.16
5	1R	301	CLA	C3C-C4C-NC	5.75	117.02	110.57
5	04	311	CLA	CHD-C4C-C3C	-5.74	116.40	124.84
5	04	306	CLA	C3C-C4C-NC	5.73	117.00	110.57
5	02	614	CLA	C3C-C4C-NC	5.71	116.97	110.57
5	04	307	CLA	C3C-C4C-NC	5.70	116.97	110.57
6	01	304	CHL	CHD-C1D-ND	-5.70	119.22	124.45
5	01	301	CLA	C3B-C2B-C1B	-5.68	100.30	107.16
5	02	612	CLA	C3C-C4C-NC	5.68	116.94	110.57
5	04	312	CLA	CHD-C4C-C3C	-5.68	116.49	124.84
5	01	309	CLA	C3C-C4C-NC	5.67	116.93	110.57
5	03	307	CLA	CHD-C4C-C3C	-5.66	116.51	124.84
5	02	613	CLA	CHD-C4C-C3C	-5.66	116.52	124.84
5	03	312	CLA	CHD-C4C-C3C	-5.66	116.52	124.84
6	01	303	CHL	C3C-C4C-NC	5.65	116.91	110.57
6	04	303	CHL	CHD-C1D-ND	-5.65	119.27	124.45
6	03	311	CHL	C3B-C2B-C1B	-5.64	100.35	107.16
5	02	611	CLA	CHD-C4C-C3C	-5.63	116.56	124.84
6	1R	303	CHL	C3B-C2B-C1B	-5.63	100.36	107.16
5	01	310	CLA	CHD-C4C-C3C	-5.61	116.60	124.84
5	1R	310	CLA	CHD-C4C-C3C	-5.59	116.62	124.84
5	1R	307	CLA	CHD-C4C-C3C	-5.57	116.65	124.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	03	308	CLA	C3C-C4C-NC	5.56	116.81	110.57
5	02	609	CLA	CHD-C4C-C3C	-5.56	116.67	124.84
5	03	310	CLA	C3C-C4C-NC	5.56	116.80	110.57
5	01	309	CLA	CHD-C4C-C3C	-5.55	116.68	124.84
5	01	307	CLA	CHD-C4C-C3C	-5.55	116.69	124.84
6	04	304	CHL	C3B-C2B-C1B	-5.54	100.48	107.16
5	02	614	CLA	C3B-C2B-C1B	-5.51	100.51	107.16
5	02	602	CLA	CHD-C4C-C3C	-5.51	116.74	124.84
5	01	307	CLA	C3C-C4C-NC	5.51	116.75	110.57
5	1R	308	CLA	C1D-CHD-C4C	-5.51	114.18	126.06
5	02	610	CLA	CHD-C4C-C3C	-5.49	116.77	124.84
5	01	308	CLA	C3B-C2B-C1B	-5.49	100.53	107.16
6	01	302	CHL	C3B-C2B-C1B	-5.49	100.54	107.16
5	1R	311	CLA	CHD-C4C-C3C	-5.49	116.77	124.84
6	1R	312	CHL	C3B-C2B-C1B	-5.48	100.54	107.16
6	03	302	CHL	C3B-C2B-C1B	-5.48	100.55	107.16
5	1R	305	CLA	C3C-C4C-NC	5.48	116.72	110.57
6	1R	304	CHL	C3B-C2B-C1B	-5.48	100.55	107.16
6	02	603	CHL	C3B-C2B-C1B	-5.47	100.56	107.16
6	03	305	CHL	C3B-C2B-C1B	-5.47	100.56	107.16
5	1R	301	CLA	O2D-CGD-CBD	5.46	120.98	111.27
5	04	307	CLA	CHD-C4C-C3C	-5.46	116.81	124.84
6	02	606	CHL	C3B-C2B-C1B	-5.46	100.57	107.16
6	02	605	CHL	C3C-C4C-NC	5.44	116.67	110.57
6	04	301	CHL	C3C-C4C-NC	5.44	116.67	110.57
5	1R	301	CLA	C3B-C2B-C1B	-5.44	100.60	107.16
5	02	609	CLA	C3B-C2B-C1B	-5.43	100.61	107.16
6	04	302	CHL	C3B-C2B-C1B	-5.42	100.61	107.16
5	04	306	CLA	CHD-C4C-C3C	-5.41	116.89	124.84
6	01	303	CHL	CHD-C1D-ND	-5.41	119.49	124.45
10	1R	314	XAT	O24-C25-C24	5.40	117.44	113.38
5	1R	309	CLA	CHD-C4C-C3C	-5.40	116.90	124.84
5	04	309	CLA	C3C-C4C-NC	5.40	116.62	110.57
5	1R	306	CLA	C3B-C2B-C1B	-5.39	100.65	107.16
5	01	313	CLA	CHD-C4C-C3C	-5.39	116.91	124.84
5	02	612	CLA	C1C-C2C-C3C	-5.39	101.29	106.96
5	04	314	CLA	O2D-CGD-CBD	5.38	120.84	111.27
6	04	305	CHL	C3B-C2B-C1B	-5.37	100.67	107.16
6	01	304	CHL	C3C-C4C-NC	5.37	116.60	110.57
6	02	601	CHL	C3B-C2B-C1B	-5.36	100.69	107.16
5	04	314	CLA	C3C-C4C-NC	5.36	116.58	110.57
6	03	305	CHL	C3C-C4C-NC	5.35	116.57	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	311	CLA	O2D-CGD-CBD	5.35	120.77	111.27
5	01	312	CLA	C3B-C2B-C1B	-5.34	100.71	107.16
5	04	306	CLA	C3B-C2B-C1B	-5.34	100.72	107.16
5	02	614	CLA	CHD-C4C-C3C	-5.33	117.00	124.84
6	02	604	CHL	C3B-C2B-C1B	-5.33	100.73	107.16
5	01	301	CLA	CHD-C4C-C3C	-5.32	117.02	124.84
5	1R	305	CLA	CHD-C4C-C3C	-5.32	117.02	124.84
6	1R	303	CHL	C3C-C4C-NC	5.31	116.53	110.57
5	02	613	CLA	C3B-C2B-C1B	-5.31	100.75	107.16
5	04	309	CLA	C3B-C2B-C1B	-5.31	100.75	107.16
5	1R	308	CLA	C2B-C1B-NB	5.30	113.78	110.23
6	02	607	CHL	C3B-C2B-C1B	-5.29	100.78	107.16
5	04	312	CLA	C3B-C2B-C1B	-5.28	100.79	107.16
5	04	311	CLA	C3B-C2B-C1B	-5.27	100.80	107.16
5	1R	305	CLA	C3B-C2B-C1B	-5.27	100.80	107.16
5	01	313	CLA	C3B-C2B-C1B	-5.27	100.81	107.16
5	03	309	CLA	CHD-C4C-C3C	-5.27	117.10	124.84
6	02	605	CHL	C3B-C2B-C1B	-5.26	100.81	107.16
5	01	310	CLA	C3B-C2B-C1B	-5.26	100.81	107.16
6	02	603	CHL	O2D-CGD-CBD	5.26	120.61	111.27
6	04	301	CHL	O2D-CGD-CBD	5.25	120.60	111.27
5	04	308	CLA	C3B-C2B-C1B	-5.25	100.82	107.16
5	03	310	CLA	CHD-C4C-C3C	-5.25	117.12	124.84
6	01	305	CHL	C3B-C2B-C1B	-5.25	100.83	107.16
6	04	302	CHL	C3C-C4C-NC	5.24	116.45	110.57
5	04	310	CLA	C3B-C2B-C1B	-5.23	100.85	107.16
6	03	311	CHL	C3C-C4C-NC	5.23	116.43	110.57
6	02	601	CHL	C3C-C4C-NC	5.21	116.42	110.57
5	04	307	CLA	C3B-C2B-C1B	-5.21	100.87	107.16
6	02	603	CHL	C3C-C4C-NC	5.21	116.41	110.57
6	04	301	CHL	CHD-C1D-ND	-5.20	119.67	124.45
6	04	305	CHL	C3C-C4C-NC	5.20	116.40	110.57
6	01	304	CHL	C3B-C2B-C1B	-5.19	100.89	107.16
5	01	312	CLA	CHD-C4C-C3C	-5.19	117.21	124.84
5	03	301	CLA	C3B-C2B-C1B	-5.19	100.90	107.16
5	02	612	CLA	CHD-C1D-ND	-5.18	119.69	124.45
5	1R	311	CLA	C3B-C2B-C1B	-5.18	100.91	107.16
5	03	307	CLA	C3B-C2B-C1B	-5.18	100.91	107.16
6	01	305	CHL	CHD-C1D-ND	-5.18	119.70	124.45
6	02	607	CHL	C3C-C4C-NC	5.17	116.37	110.57
5	04	310	CLA	CHD-C4C-C3C	-5.17	117.24	124.84
6	03	302	CHL	C3C-C4C-NC	5.17	116.37	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	02	611	CLA	C3B-C2B-C1B	-5.17	100.93	107.16
5	02	602	CLA	C3B-C2B-C1B	-5.16	100.93	107.16
5	03	309	CLA	C3B-C2B-C1B	-5.16	100.94	107.16
6	04	303	CHL	C3C-C4C-NC	5.15	116.35	110.57
6	04	301	CHL	C3B-C2B-C1B	-5.14	100.95	107.16
6	1R	304	CHL	C3C-C4C-NC	5.14	116.34	110.57
6	01	303	CHL	C3B-C2B-C1B	-5.13	100.97	107.16
6	02	606	CHL	C3C-C4C-NC	5.13	116.32	110.57
5	02	608	CLA	C3B-C2B-C1B	-5.13	100.97	107.16
5	01	309	CLA	C3B-C2B-C1B	-5.12	100.97	107.16
5	04	310	CLA	CHD-C1D-ND	-5.11	119.75	124.45
5	03	308	CLA	C3B-C2B-C1B	-5.11	100.99	107.16
5	1R	309	CLA	C3B-C2B-C1B	-5.11	100.99	107.16
5	03	310	CLA	C3B-C2B-C1B	-5.11	100.99	107.16
6	04	303	CHL	C3B-C2B-C1B	-5.11	101.00	107.16
5	03	301	CLA	O2D-CGD-CBD	5.10	120.33	111.27
5	03	312	CLA	C3B-C2B-C1B	-5.10	101.01	107.16
6	01	302	CHL	C3C-C4C-NC	5.09	116.28	110.57
5	03	306	CLA	C3B-C2B-C1B	-5.07	101.04	107.16
6	02	604	CHL	C3C-C4C-NC	5.07	116.25	110.57
6	01	305	CHL	C2D-C1D-ND	5.06	113.83	110.10
5	01	311	CLA	C3B-C2B-C1B	-5.06	101.05	107.16
6	03	304	CHL	C3C-C4C-NC	5.06	116.25	110.57
5	04	309	CLA	CHD-C4C-C3C	-5.06	117.41	124.84
6	01	306	CHL	C3C-C4C-NC	5.03	116.22	110.57
6	03	303	CHL	C3C-C4C-NC	5.03	116.21	110.57
10	1R	314	XAT	C40-C33-C34	-5.02	115.89	122.92
5	04	314	CLA	C3B-C2B-C1B	-5.01	101.11	107.16
6	04	304	CHL	C3C-C4C-NC	5.01	116.19	110.57
5	02	610	CLA	C3B-C2B-C1B	-5.01	101.12	107.16
6	1R	312	CHL	C3C-C4C-NC	5.01	116.19	110.57
10	1R	314	XAT	C26-C27-C28	-5.00	115.42	125.99
5	04	314	CLA	CHD-C4C-C3C	-4.98	117.52	124.84
6	1R	302	CHL	C3C-C4C-NC	4.97	116.14	110.57
5	01	313	CLA	O2D-CGD-CBD	4.96	120.08	111.27
5	1R	308	CLA	C3B-C2B-C1B	-4.94	101.20	107.16
6	02	601	CHL	O2D-CGD-CBD	4.94	120.05	111.27
5	03	301	CLA	C3D-C4D-ND	4.93	118.21	110.24
6	03	303	CHL	C3B-C2B-C1B	-4.93	101.22	107.16
5	1R	307	CLA	C3B-C2B-C1B	-4.92	101.22	107.16
5	03	308	CLA	CHD-C4C-C3C	-4.92	117.61	124.84
5	1R	310	CLA	C3B-C2B-C1B	-4.91	101.23	107.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	01	314	LUT	C35-C15-C14	4.91	133.52	123.47
6	01	305	CHL	CHD-C4C-C3C	-4.88	117.66	124.84
5	1R	308	CLA	CHC-C1C-C2C	-4.88	113.18	126.73
5	02	612	CLA	C3B-C2B-C1B	-4.87	101.28	107.16
6	01	303	CHL	O2D-CGD-CBD	4.86	119.91	111.27
6	1R	302	CHL	C3B-C2B-C1B	-4.85	101.30	107.16
6	02	607	CHL	O2D-CGD-CBD	4.84	119.87	111.27
6	01	302	CHL	O2D-CGD-CBD	4.83	119.86	111.27
6	04	303	CHL	C3D-C2D-C1D	-4.82	99.25	105.83
5	01	309	CLA	CHD-C1D-ND	-4.82	120.02	124.45
6	1R	303	CHL	C3D-C2D-C1D	-4.82	99.26	105.83
5	02	614	CLA	CHD-C1D-ND	-4.81	120.03	124.45
6	01	304	CHL	C3D-C2D-C1D	-4.81	99.27	105.83
5	02	614	CLA	C3D-C4D-ND	4.79	117.99	110.24
5	1R	308	CLA	CHC-C4B-NB	-4.78	119.20	124.26
6	01	306	CHL	O2D-CGD-CBD	4.76	119.73	111.27
5	01	301	CLA	O2D-CGD-CBD	4.76	119.72	111.27
5	03	310	CLA	CHD-C1D-ND	-4.74	120.10	124.45
5	02	612	CLA	C3D-C4D-ND	4.74	117.91	110.24
6	02	605	CHL	CHD-C1D-ND	-4.74	120.10	124.45
5	01	309	CLA	O2D-CGD-CBD	4.74	119.69	111.27
5	1R	301	CLA	C3D-C4D-ND	4.74	117.90	110.24
6	03	303	CHL	C3B-C4B-NB	4.73	114.90	110.52
6	01	305	CHL	C3D-C2D-C1D	-4.72	99.38	105.83
7	01	315	LUT	C39-C29-C28	4.72	125.52	118.08
6	03	303	CHL	C3D-C2D-C1D	-4.72	99.38	105.83
6	1R	304	CHL	C3D-C2D-C1D	-4.72	99.39	105.83
5	1R	310	CLA	C1C-C2C-C3C	-4.72	102.00	106.96
7	01	315	LUT	C35-C34-C33	4.72	134.04	127.31
6	03	305	CHL	C3D-C2D-C1D	-4.71	99.40	105.83
5	04	307	CLA	C1C-C2C-C3C	-4.70	102.01	106.96
5	02	613	CLA	C1C-C2C-C3C	-4.69	102.02	106.96
5	01	310	CLA	CAA-C2A-C3A	-4.69	105.15	116.10
6	01	302	CHL	C3D-C2D-C1D	-4.69	99.43	105.83
5	1R	306	CLA	C3D-C4D-ND	4.68	117.81	110.24
5	1R	305	CLA	C3D-C4D-ND	4.68	117.80	110.24
5	03	308	CLA	CHD-C1D-ND	-4.68	120.16	124.45
6	02	606	CHL	C3D-C2D-C1D	-4.67	99.45	105.83
5	04	314	CLA	C3D-C4D-ND	4.67	117.79	110.24
6	02	604	CHL	C3D-C2D-C1D	-4.67	99.46	105.83
5	1R	305	CLA	CHD-C1D-ND	-4.66	120.17	124.45
6	02	601	CHL	C3D-C2D-C1D	-4.66	99.47	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	03	311	CHL	C3D-C2D-C1D	-4.65	99.48	105.83
6	03	302	CHL	C3D-C2D-C1D	-4.65	99.49	105.83
5	02	608	CLA	C3D-C4D-ND	4.64	117.74	110.24
6	03	304	CHL	C3D-C2D-C1D	-4.64	99.50	105.83
5	03	310	CLA	O2D-CGD-CBD	4.63	119.50	111.27
5	1R	309	CLA	C3D-C4D-ND	4.63	117.73	110.24
6	02	603	CHL	C3D-C2D-C1D	-4.62	99.52	105.83
5	1R	305	CLA	C1C-C2C-C3C	-4.62	102.10	106.96
6	03	311	CHL	O2D-CGD-CBD	4.62	119.48	111.27
5	04	309	CLA	C3D-C4D-ND	4.62	117.72	110.24
5	04	308	CLA	C3D-C4D-ND	4.62	117.71	110.24
6	04	305	CHL	C3D-C2D-C1D	-4.62	99.53	105.83
10	1R	314	XAT	C18-C5-C6	-4.61	114.53	122.26
6	04	302	CHL	C3D-C2D-C1D	-4.60	99.55	105.83
6	04	304	CHL	C3D-C2D-C1D	-4.60	99.56	105.83
5	01	313	CLA	C3D-C4D-ND	4.59	117.66	110.24
5	04	306	CLA	C3D-C4D-ND	4.58	117.65	110.24
6	03	304	CHL	O2D-CGD-CBD	4.57	119.39	111.27
6	01	304	CHL	CHD-C4C-C3C	-4.57	118.12	124.84
5	04	308	CLA	CHD-C1D-ND	-4.54	120.28	124.45
5	02	610	CLA	C1C-C2C-C3C	-4.54	102.19	106.96
5	03	308	CLA	C3D-C4D-ND	4.53	117.57	110.24
5	01	307	CLA	C1C-C2C-C3C	-4.53	102.19	106.96
5	02	610	CLA	C3D-C4D-ND	4.53	117.56	110.24
5	01	312	CLA	O2D-CGD-CBD	4.53	119.31	111.27
10	1R	314	XAT	O4-C5-C18	4.52	120.47	115.06
5	1R	310	CLA	C3D-C4D-ND	4.52	117.55	110.24
6	02	607	CHL	C3D-C2D-C1D	-4.52	99.66	105.83
5	01	308	CLA	C1C-C2C-C3C	-4.51	102.21	106.96
5	04	314	CLA	C1C-C2C-C3C	-4.51	102.21	106.96
5	04	310	CLA	C3D-C4D-ND	4.51	117.54	110.24
5	02	602	CLA	C3D-C4D-ND	4.51	117.53	110.24
5	04	307	CLA	C3D-C4D-ND	4.51	117.53	110.24
5	01	301	CLA	C4D-CHA-C1A	-4.50	115.77	121.25
10	1R	314	XAT	C11-C12-C13	-4.50	113.77	126.42
5	01	310	CLA	C4D-CHA-C1A	-4.49	115.78	121.25
5	04	307	CLA	CHD-C1D-ND	-4.49	120.33	124.45
6	01	304	CHL	O2D-CGD-CBD	4.49	119.24	111.27
6	03	305	CHL	CHD-C4C-C3C	-4.48	118.25	124.84
6	04	303	CHL	C3B-C4B-NB	4.48	114.67	110.52
5	03	307	CLA	C1C-C2C-C3C	-4.48	102.25	106.96
6	01	303	CHL	C3D-C2D-C1D	-4.47	99.72	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	307	CLA	CHD-C1D-ND	-4.47	120.34	124.45
6	01	303	CHL	CHD-C4C-C3C	-4.47	118.27	124.84
5	03	310	CLA	C3D-C4D-ND	4.46	117.46	110.24
5	04	311	CLA	C3D-C4D-ND	4.46	117.46	110.24
6	01	306	CHL	C3D-C2D-C1D	-4.46	99.74	105.83
6	03	302	CHL	CAA-C2A-C3A	-4.46	105.69	116.10
5	03	306	CLA	C3D-C4D-ND	4.46	117.45	110.24
5	01	309	CLA	C3D-C4D-ND	4.46	117.45	110.24
5	04	308	CLA	C1C-C2C-C3C	-4.45	102.28	106.96
6	1R	302	CHL	C3D-C2D-C1D	-4.45	99.76	105.83
5	1R	308	CLA	C1C-C2C-C3C	-4.45	102.28	106.96
6	03	305	CHL	C2D-C1D-ND	4.45	113.38	110.10
5	1R	307	CLA	CHC-C4B-NB	-4.45	119.55	124.26
6	03	305	CHL	O2D-CGD-CBD	4.44	119.16	111.27
5	01	310	CLA	C3D-C4D-ND	4.44	117.42	110.24
5	1R	301	CLA	CHD-C1D-ND	-4.43	120.38	124.45
5	03	312	CLA	C3D-C4D-ND	4.43	117.40	110.24
5	03	309	CLA	C3D-C4D-ND	4.43	117.40	110.24
5	1R	309	CLA	C4D-CHA-C1A	-4.43	115.86	121.25
6	01	304	CHL	C2D-C1D-ND	4.42	113.36	110.10
5	01	312	CLA	C3D-C4D-ND	4.42	117.39	110.24
5	04	314	CLA	C4D-CHA-C1A	-4.42	115.87	121.25
5	04	311	CLA	C1C-C2C-C3C	-4.42	102.31	106.96
5	1R	307	CLA	O2D-CGD-CBD	4.42	119.12	111.27
5	01	311	CLA	C3D-C4D-ND	4.42	117.38	110.24
5	02	602	CLA	C1C-C2C-C3C	-4.41	102.32	106.96
5	04	310	CLA	C1C-C2C-C3C	-4.41	102.33	106.96
5	02	613	CLA	C3D-C4D-ND	4.40	117.36	110.24
5	01	307	CLA	O2D-CGD-CBD	4.40	119.09	111.27
5	04	312	CLA	C1C-C2C-C3C	-4.40	102.33	106.96
5	1R	306	CLA	C4D-CHA-C1A	-4.40	115.90	121.25
6	1R	303	CHL	CHD-C4C-C3C	-4.40	118.38	124.84
5	03	309	CLA	C1C-C2C-C3C	-4.40	102.33	106.96
5	04	309	CLA	C1C-C2C-C3C	-4.39	102.34	106.96
6	1R	312	CHL	C3D-C2D-C1D	-4.39	99.84	105.83
5	02	611	CLA	C1C-C2C-C3C	-4.39	102.34	106.96
5	03	308	CLA	CAC-C3C-C4C	4.39	130.50	124.81
5	02	613	CLA	O2D-CGD-CBD	4.38	119.06	111.27
5	02	609	CLA	C1C-C2C-C3C	-4.38	102.35	106.96
5	01	301	CLA	C3D-C4D-ND	4.38	117.32	110.24
6	1R	303	CHL	C2D-C1D-ND	4.38	113.33	110.10
6	04	303	CHL	O2D-CGD-CBD	4.38	119.04	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	03	308	CLA	O2D-CGD-CBD	4.37	119.04	111.27
5	02	611	CLA	C3D-C4D-ND	4.37	117.30	110.24
5	03	312	CLA	C1C-C2C-C3C	-4.37	102.37	106.96
5	01	313	CLA	CHD-C1D-ND	-4.37	120.44	124.45
5	01	310	CLA	C1C-C2C-C3C	-4.36	102.37	106.96
5	1R	311	CLA	C3D-C4D-ND	4.35	117.28	110.24
7	01	315	LUT	C31-C30-C29	4.35	133.52	127.31
6	03	302	CHL	CHD-C4C-C3C	-4.34	118.47	124.84
6	02	601	CHL	CHD-C4C-C3C	-4.33	118.47	124.84
5	01	312	CLA	C1C-C2C-C3C	-4.33	102.40	106.96
5	04	306	CLA	C1C-C2C-C3C	-4.33	102.41	106.96
5	02	612	CLA	C3D-C2D-C1D	-4.33	99.93	105.83
6	04	301	CHL	CHD-C4C-C3C	-4.33	118.48	124.84
5	1R	309	CLA	C1C-C2C-C3C	-4.32	102.41	106.96
6	04	301	CHL	C3D-C2D-C1D	-4.32	99.94	105.83
5	02	613	CLA	CHD-C1D-ND	-4.32	120.49	124.45
5	03	306	CLA	C3D-C2D-C1D	-4.32	99.94	105.83
5	03	306	CLA	CHD-C1D-ND	-4.31	120.49	124.45
5	03	301	CLA	C4D-CHA-C1A	-4.31	116.00	121.25
5	04	312	CLA	C3D-C4D-ND	4.30	117.20	110.24
5	02	608	CLA	C1C-C2C-C3C	-4.30	102.43	106.96
5	04	306	CLA	C4D-CHA-C1A	-4.30	116.02	121.25
5	01	313	CLA	C1C-C2C-C3C	-4.30	102.44	106.96
5	04	309	CLA	C4D-CHA-C1A	-4.30	116.02	121.25
5	1R	310	CLA	C4D-CHA-C1A	-4.30	116.02	121.25
6	03	304	CHL	CHD-C4C-C3C	-4.30	118.53	124.84
5	03	307	CLA	C3D-C4D-ND	4.29	117.18	110.24
5	03	301	CLA	C1C-C2C-C3C	-4.29	102.45	106.96
5	03	309	CLA	CHD-C1D-ND	-4.29	120.52	124.45
6	04	302	CHL	CHD-C4C-C3C	-4.28	118.54	124.84
6	02	606	CHL	CHD-C4C-C3C	-4.27	118.56	124.84
6	01	302	CHL	CHD-C4C-C3C	-4.27	118.56	124.84
5	1R	307	CLA	C3D-C4D-ND	4.27	117.14	110.24
6	04	305	CHL	CHD-C4C-C3C	-4.27	118.57	124.84
5	03	308	CLA	C1C-C2C-C3C	-4.27	102.47	106.96
6	03	311	CHL	CHD-C4C-C3C	-4.26	118.58	124.84
6	02	603	CHL	CHD-C4C-C3C	-4.26	118.58	124.84
5	1R	310	CLA	CHD-C1D-ND	-4.25	120.55	124.45
5	01	311	CLA	C1C-C2C-C3C	-4.24	102.50	106.96
5	02	614	CLA	C1C-C2C-C3C	-4.24	102.50	106.96
6	04	305	CHL	C3B-C4B-NB	4.24	114.44	110.52
6	04	302	CHL	O2D-CGD-CBD	4.23	118.78	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	1R	304	CHL	C2D-C1D-ND	4.23	113.22	110.10
6	01	306	CHL	CHD-C4C-C3C	-4.22	118.64	124.84
6	01	302	CHL	C2D-C1D-ND	4.22	113.21	110.10
5	02	611	CLA	CHD-C1D-ND	-4.21	120.58	124.45
5	1R	311	CLA	C3D-C2D-C1D	-4.21	100.09	105.83
5	02	608	CLA	CHD-C1D-ND	-4.21	120.59	124.45
5	1R	305	CLA	O2D-CGD-CBD	4.20	118.73	111.27
5	02	614	CLA	C4D-CHA-C1A	-4.20	116.14	121.25
6	01	303	CHL	C2D-C1D-ND	4.20	113.20	110.10
6	04	303	CHL	CHD-C4C-C3C	-4.19	118.67	124.84
5	01	308	CLA	C3D-C4D-ND	4.19	117.02	110.24
6	04	305	CHL	C2D-C1D-ND	4.19	113.19	110.10
6	02	601	CHL	C3B-C4B-NB	4.19	114.40	110.52
7	03	313	LUT	C15-C35-C34	4.19	132.05	123.47
5	02	609	CLA	C3D-C4D-ND	4.18	117.01	110.24
6	02	606	CHL	C2D-C1D-ND	4.18	113.19	110.10
5	04	311	CLA	CHD-C1D-ND	-4.18	120.61	124.45
10	1R	314	XAT	C31-C32-C33	-4.18	114.67	126.42
5	01	308	CLA	CHD-C1D-ND	-4.18	120.61	124.45
6	02	604	CHL	C2D-C1D-ND	4.17	113.18	110.10
5	03	310	CLA	C1C-C2C-C3C	-4.17	102.57	106.96
6	02	601	CHL	C2D-C1D-ND	4.17	113.17	110.10
6	02	605	CHL	CHD-C4C-C3C	-4.17	118.72	124.84
5	01	307	CLA	C3D-C4D-ND	4.17	116.98	110.24
6	03	302	CHL	C3B-C4B-NB	4.16	114.37	110.52
5	1R	309	CLA	CHD-C1D-ND	-4.16	120.63	124.45
5	1R	306	CLA	C3D-C2D-C1D	-4.15	100.16	105.83
5	1R	311	CLA	CHD-C1D-ND	-4.15	120.64	124.45
6	04	302	CHL	C2D-C1D-ND	4.15	113.16	110.10
6	1R	304	CHL	CHD-C4C-C3C	-4.14	118.75	124.84
5	04	309	CLA	CHD-C1D-ND	-4.14	120.65	124.45
5	1R	306	CLA	CMC-C2C-C1C	4.14	131.34	125.04
6	04	303	CHL	C2D-C1D-ND	4.13	113.15	110.10
5	02	614	CLA	C3D-C2D-C1D	-4.13	100.19	105.83
7	01	314	LUT	C19-C9-C8	4.13	124.58	118.08
6	02	603	CHL	C2D-C1D-ND	4.13	113.15	110.10
5	02	609	CLA	O2D-CGD-CBD	4.12	118.59	111.27
5	01	312	CLA	CHD-C1D-ND	-4.12	120.67	124.45
5	02	608	CLA	C3D-C2D-C1D	-4.12	100.21	105.83
5	1R	307	CLA	C1C-C2C-C3C	-4.12	102.63	106.96
6	02	604	CHL	CHD-C4C-C3C	-4.11	118.80	124.84
5	02	602	CLA	C3D-C2D-C1D	-4.11	100.22	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	02	609	CLA	CHD-C1D-ND	-4.11	120.68	124.45
5	02	610	CLA	CHC-C4B-NB	-4.11	119.91	124.26
6	03	302	CHL	C2D-C1D-ND	4.10	113.13	110.10
6	1R	312	CHL	CHD-C4C-C3C	-4.10	118.81	124.84
6	04	304	CHL	CHD-C4C-C3C	-4.10	118.82	124.84
5	01	313	CLA	C4D-CHA-C1A	-4.09	116.27	121.25
6	02	606	CHL	C3B-C4B-NB	4.09	114.31	110.52
5	1R	308	CLA	C3D-C2D-C1D	-4.09	100.25	105.83
5	01	312	CLA	C4D-CHA-C1A	-4.09	116.27	121.25
10	1R	314	XAT	C32-C33-C34	4.09	125.22	118.94
5	02	613	CLA	C3D-C2D-C1D	-4.09	100.25	105.83
6	02	603	CHL	C3B-C4B-NB	4.09	114.31	110.52
6	1R	304	CHL	C3B-C4B-NB	4.08	114.30	110.52
6	02	604	CHL	C3B-C4B-NB	4.08	114.30	110.52
5	02	610	CLA	CHD-C1D-ND	-4.08	120.70	124.45
5	01	308	CLA	C3D-C2D-C1D	-4.07	100.27	105.83
5	1R	308	CLA	C2D-C1D-ND	4.07	113.11	110.10
5	04	311	CLA	C3D-C2D-C1D	-4.07	100.27	105.83
5	02	602	CLA	C4D-CHA-C1A	-4.07	116.30	121.25
5	04	306	CLA	CHD-C1D-ND	-4.07	120.71	124.45
5	02	612	CLA	C4D-CHA-C1A	-4.06	116.30	121.25
5	01	301	CLA	C1C-C2C-C3C	-4.06	102.69	106.96
7	1R	313	LUT	C19-C9-C10	-4.05	117.25	122.92
6	01	302	CHL	C3B-C4B-NB	4.05	114.27	110.52
5	03	309	CLA	CHC-C4B-NB	-4.05	119.97	124.26
5	04	312	CLA	CHD-C1D-ND	-4.05	120.73	124.45
6	04	304	CHL	C2D-C1D-ND	4.05	113.09	110.10
5	02	609	CLA	C3D-C2D-C1D	-4.05	100.31	105.83
6	01	305	CHL	C1D-ND-C4D	-4.05	103.46	106.33
6	04	301	CHL	C3B-C4B-NB	4.04	114.27	110.52
9	04	313	BCR	C34-C9-C10	-4.04	117.27	122.92
5	04	308	CLA	C3D-C2D-C1D	-4.04	100.32	105.83
5	04	310	CLA	C4D-CHA-C1A	-4.03	116.34	121.25
6	03	304	CHL	C2D-C1D-ND	4.03	113.08	110.10
5	02	609	CLA	C4D-CHA-C1A	-4.03	116.34	121.25
5	01	311	CLA	C3D-C2D-C1D	-4.03	100.33	105.83
6	02	607	CHL	CHD-C4C-C3C	-4.03	118.92	124.84
5	01	301	CLA	CHD-C1D-ND	-4.03	120.75	124.45
6	03	305	CHL	C3B-C4B-NB	4.03	114.25	110.52
5	03	307	CLA	C4D-CHA-C1A	-4.03	116.35	121.25
5	1R	301	CLA	C3D-C2D-C1D	-4.03	100.34	105.83
5	02	610	CLA	C3D-C2D-C1D	-4.02	100.35	105.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	1R	310	CLA	CHC-C4B-NB	-4.02	120.01	124.26
5	1R	305	CLA	C4D-CHA-C1A	-4.01	116.36	121.25
6	1R	304	CHL	C1D-ND-C4D	-4.01	103.48	106.33
5	02	612	CLA	C2D-C1D-ND	4.01	113.06	110.10
5	03	306	CLA	C4D-CHA-C1A	-4.01	116.37	121.25
6	02	604	CHL	C1D-ND-C4D	-4.01	103.49	106.33
5	02	602	CLA	CHD-C1D-ND	-4.01	120.77	124.45
5	03	309	CLA	C4D-CHA-C1A	-4.01	116.37	121.25
5	01	308	CLA	O2D-CGD-O1D	-4.01	116.00	123.84
5	01	309	CLA	C3D-C2D-C1D	-4.01	100.36	105.83
5	1R	311	CLA	C4D-CHA-C1A	-4.00	116.38	121.25
5	02	611	CLA	C3D-C2D-C1D	-4.00	100.37	105.83
5	1R	311	CLA	O2D-CGD-CBD	4.00	118.38	111.27
6	03	311	CHL	C2D-C1D-ND	4.00	113.05	110.10
5	04	312	CLA	C3D-C2D-C1D	-4.00	100.38	105.83
6	01	304	CHL	C3B-C4B-NB	3.99	114.21	110.52
7	1R	313	LUT	C32-C33-C34	3.98	125.05	118.94
5	03	309	CLA	C3D-C2D-C1D	-3.98	100.40	105.83
6	02	607	CHL	C3B-C4B-NB	3.98	114.20	110.52
5	03	310	CLA	C4D-CHA-C1A	-3.97	116.41	121.25
5	03	301	CLA	C3D-C2D-C1D	-3.96	100.42	105.83
6	04	305	CHL	C1D-ND-C4D	-3.96	103.52	106.33
6	04	304	CHL	C3B-C4B-NB	3.96	114.19	110.52
5	03	306	CLA	CHC-C4B-NB	-3.96	120.06	124.26
5	02	613	CLA	C4D-CHA-C1A	-3.96	116.43	121.25
5	03	307	CLA	CHD-C1D-ND	-3.95	120.82	124.45
5	04	307	CLA	C3D-C2D-C1D	-3.95	100.44	105.83
5	01	313	CLA	C3D-C2D-C1D	-3.95	100.44	105.83
6	03	303	CHL	CMB-C2B-C1B	3.95	131.38	125.37
6	1R	302	CHL	CAC-C3C-C4C	3.94	129.92	124.81
5	1R	305	CLA	C3D-C2D-C1D	-3.93	100.47	105.83
5	04	314	CLA	CHD-C1D-ND	-3.93	120.84	124.45
5	03	312	CLA	C3D-C2D-C1D	-3.92	100.48	105.83
5	03	312	CLA	C4D-CHA-C1A	-3.92	116.48	121.25
6	03	303	CHL	CAC-C3C-C4C	3.91	129.89	124.81
5	03	301	CLA	CHD-C1D-ND	-3.91	120.86	124.45
5	04	312	CLA	C4D-CHA-C1A	-3.91	116.49	121.25
5	01	311	CLA	C4D-CHA-C1A	-3.91	116.49	121.25
5	04	309	CLA	CHC-C4B-NB	-3.91	120.12	124.26
5	1R	310	CLA	C3D-C2D-C1D	-3.91	100.50	105.83
6	02	605	CHL	C3D-C2D-C1D	-3.90	100.50	105.83
5	1R	301	CLA	C1C-C2C-C3C	-3.90	102.85	106.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	1R	304	CHL	CAA-C2A-C3A	-3.90	107.00	116.10
5	04	314	CLA	CHC-C4B-NB	-3.90	120.13	124.26
6	03	305	CHL	C1D-ND-C4D	-3.90	103.57	106.33
5	03	306	CLA	C1C-C2C-C3C	-3.90	102.86	106.96
5	1R	307	CLA	CHD-C1D-ND	-3.90	120.87	124.45
5	02	610	CLA	C4D-CHA-C1A	-3.89	116.51	121.25
6	04	302	CHL	C1D-ND-C4D	-3.89	103.57	106.33
6	01	304	CHL	C1D-ND-C4D	-3.89	103.57	106.33
5	1R	306	CLA	CHD-C1D-ND	-3.88	120.88	124.45
5	03	308	CLA	C3D-C2D-C1D	-3.88	100.53	105.83
5	1R	308	CLA	C3D-C4D-ND	3.88	116.52	110.24
5	04	307	CLA	C4D-CHA-C1A	-3.88	116.53	121.25
5	03	310	CLA	C3D-C2D-C1D	-3.88	100.53	105.83
6	02	603	CHL	C1D-ND-C4D	-3.88	103.58	106.33
5	02	608	CLA	C4D-CHA-C1A	-3.88	116.53	121.25
6	02	607	CHL	C2D-C1D-ND	3.87	112.96	110.10
6	03	303	CHL	C2D-C1D-ND	3.87	112.95	110.10
5	1R	309	CLA	C3D-C2D-C1D	-3.87	100.55	105.83
6	01	306	CHL	C2D-C1D-ND	3.86	112.95	110.10
5	04	308	CLA	C4D-CHA-C1A	-3.86	116.55	121.25
5	04	310	CLA	CMD-C2D-C3D	-3.85	118.75	127.61
5	04	310	CLA	C3D-C2D-C1D	-3.85	100.57	105.83
5	03	307	CLA	C3D-C2D-C1D	-3.85	100.57	105.83
6	04	304	CHL	C1D-ND-C4D	-3.85	103.60	106.33
6	03	304	CHL	CHB-C4A-NA	3.84	129.83	124.51
6	01	303	CHL	C3B-C4B-NB	3.84	114.08	110.52
5	01	301	CLA	CHB-C4A-NA	3.83	129.81	124.51
7	01	315	LUT	C35-C15-C14	3.83	131.32	123.47
6	1R	302	CHL	CHD-C4C-C3C	-3.83	119.21	124.84
5	1R	311	CLA	C1C-C2C-C3C	-3.83	102.93	106.96
6	03	303	CHL	CHD-C4C-C3C	-3.83	119.21	124.84
5	02	602	CLA	C2D-C1D-ND	3.83	112.92	110.10
5	04	311	CLA	C4D-CHA-C1A	-3.83	116.59	121.25
7	01	315	LUT	C19-C9-C8	3.82	124.09	118.08
5	01	312	CLA	C3D-C2D-C1D	-3.82	100.62	105.83
6	02	601	CHL	C1D-ND-C4D	-3.81	103.63	106.33
7	01	315	LUT	C30-C31-C32	-3.81	111.33	123.22
5	1R	306	CLA	CAC-C3C-C4C	3.81	129.75	124.81
6	03	311	CHL	C3B-C4B-NB	3.81	114.05	110.52
5	01	307	CLA	C3D-C2D-C1D	-3.81	100.64	105.83
6	04	301	CHL	C2D-C1D-ND	3.80	112.90	110.10
6	1R	302	CHL	C3B-C4B-NB	3.79	114.03	110.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	02	605	CHL	CAC-C3C-C4C	3.79	129.73	124.81
6	01	302	CHL	C1D-ND-C4D	-3.79	103.64	106.33
5	01	311	CLA	CHC-C4B-NB	-3.79	120.25	124.26
5	01	309	CLA	C4D-CHA-C1A	-3.79	116.64	121.25
6	03	304	CHL	C3B-C4B-NB	3.78	114.03	110.52
6	1R	312	CHL	C3B-C4B-NB	3.78	114.02	110.52
9	04	313	BCR	C15-C16-C17	3.78	131.22	123.47
5	04	309	CLA	CHB-C4A-NA	3.78	129.74	124.51
6	02	606	CHL	C1D-ND-C4D	-3.77	103.66	106.33
5	01	309	CLA	C1C-C2C-C3C	-3.76	103.00	106.96
6	04	303	CHL	CAC-C3C-C4C	3.76	129.69	124.81
6	03	302	CHL	C1D-ND-C4D	-3.76	103.67	106.33
6	01	303	CHL	CAC-C3C-C4C	3.75	129.68	124.81
6	01	305	CHL	C3B-C4B-NB	3.75	114.00	110.52
6	1R	312	CHL	C2D-C1D-ND	3.74	112.86	110.10
6	1R	304	CHL	CAC-C3C-C4C	3.74	129.66	124.81
6	01	306	CHL	C1D-ND-C4D	-3.73	103.69	106.33
6	1R	303	CHL	C3B-C4B-NB	3.73	113.97	110.52
6	1R	312	CHL	C1D-ND-C4D	-3.73	103.69	106.33
7	03	313	LUT	C19-C9-C10	-3.73	117.70	122.92
5	1R	306	CLA	CHC-C4B-NB	-3.73	120.31	124.26
6	02	605	CHL	C3B-C4B-NB	3.72	113.96	110.52
5	01	307	CLA	C4D-CHA-C1A	-3.72	116.73	121.25
5	01	311	CLA	C1D-CHD-C4C	-3.72	118.04	126.06
5	04	309	CLA	C3D-C2D-C1D	-3.71	100.77	105.83
6	02	604	CHL	CAC-C3C-C4C	3.71	129.62	124.81
5	03	308	CLA	C4D-CHA-C1A	-3.71	116.74	121.25
6	01	303	CHL	C1D-ND-C4D	-3.71	103.70	106.33
7	01	314	LUT	C39-C29-C30	-3.70	117.73	122.92
5	01	308	CLA	C4D-CHA-C1A	-3.69	116.75	121.25
5	1R	307	CLA	C3D-C2D-C1D	-3.69	100.80	105.83
5	02	611	CLA	C4D-CHA-C1A	-3.68	116.77	121.25
9	04	313	BCR	C37-C22-C21	-3.68	117.77	122.92
6	01	304	CHL	CAC-C3C-C4C	3.67	129.57	124.81
6	04	301	CHL	CAC-C3C-C4C	3.66	129.56	124.81
6	04	302	CHL	C3B-C4B-NB	3.66	113.91	110.52
5	02	612	CLA	CHC-C1C-C2C	-3.66	116.56	126.73
5	01	311	CLA	CHC-C1C-C2C	-3.66	116.57	126.73
6	03	311	CHL	C1D-ND-C4D	-3.66	103.74	106.33
5	02	614	CLA	C2D-C1D-ND	3.66	112.80	110.10
6	1R	303	CHL	C1D-ND-C4D	-3.65	103.74	106.33
7	1R	313	LUT	C40-C33-C34	-3.64	117.83	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	310	CLA	C3D-C2D-C1D	-3.64	100.87	105.83
6	02	607	CHL	C1D-ND-C4D	-3.64	103.75	106.33
6	03	311	CHL	CAA-C2A-C3A	-3.63	107.62	116.10
5	03	312	CLA	CHC-C1C-C2C	-3.62	116.68	126.73
5	03	312	CLA	CHD-C1D-ND	-3.62	121.13	124.45
6	04	303	CHL	C1D-ND-C4D	-3.61	103.77	106.33
5	01	310	CLA	O2D-CGD-O1D	-3.61	116.78	123.84
5	01	301	CLA	C3D-C2D-C1D	-3.61	100.91	105.83
5	03	312	CLA	C1D-CHD-C4C	-3.60	118.28	126.06
5	1R	306	CLA	C1D-CHD-C4C	-3.60	118.28	126.06
5	03	312	CLA	CHC-C4B-NB	-3.60	120.45	124.26
5	02	612	CLA	C3B-C4B-NB	3.59	113.85	110.52
5	1R	310	CLA	CHC-C1C-C2C	-3.59	116.75	126.73
5	01	311	CLA	C2D-C1D-ND	3.59	112.75	110.10
5	03	307	CLA	CHC-C1C-C2C	-3.59	116.76	126.73
5	03	307	CLA	CHB-C1B-NB	-3.59	120.46	124.26
5	03	308	CLA	CHC-C1C-C2C	-3.59	116.77	126.73
5	04	310	CLA	CHC-C4B-NB	-3.59	120.46	124.26
5	1R	307	CLA	C4D-CHA-C1A	-3.58	116.89	121.25
7	1R	313	LUT	C39-C29-C30	-3.58	117.91	122.92
5	03	308	CLA	C3B-C4B-NB	3.58	113.83	110.52
6	1R	303	CHL	CAC-C3C-C4C	3.57	129.44	124.81
5	01	311	CLA	CHD-C1D-ND	-3.57	121.17	124.45
6	04	302	CHL	CAC-C3C-C4C	3.57	129.44	124.81
5	01	312	CLA	CHC-C1C-C2C	-3.57	116.82	126.73
5	1R	305	CLA	CHB-C4A-NA	3.57	129.44	124.51
5	04	306	CLA	C3D-C2D-C1D	-3.56	100.97	105.83
5	03	306	CLA	C2D-C1D-ND	3.56	112.73	110.10
6	1R	302	CHL	C2D-C1D-ND	3.56	112.73	110.10
5	03	306	CLA	C1D-CHD-C4C	-3.56	118.38	126.06
5	03	306	CLA	CBD-CHA-C1A	3.56	132.69	128.50
5	04	307	CLA	CHC-C1C-C2C	-3.56	116.86	126.73
5	04	312	CLA	CHC-C1C-C2C	-3.55	116.87	126.73
5	1R	305	CLA	CHC-C4B-NB	-3.55	120.50	124.26
5	02	610	CLA	CHC-C1C-C2C	-3.54	116.89	126.73
7	03	313	LUT	C39-C29-C30	-3.54	117.96	122.92
5	03	309	CLA	CAC-C3C-C4C	3.54	129.41	124.81
5	03	309	CLA	CHC-C1C-C2C	-3.54	116.90	126.73
5	01	308	CLA	CHC-C1C-C2C	-3.53	116.91	126.73
6	02	607	CHL	CAC-C3C-C4C	3.53	129.40	124.81
5	02	613	CLA	CHC-C1C-C2C	-3.53	116.92	126.73
5	02	611	CLA	CHC-C1C-C2C	-3.53	116.92	126.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	03	304	CHL	CAC-C3C-C4C	3.53	129.39	124.81
5	02	608	CLA	C2D-C1D-ND	3.53	112.71	110.10
6	01	306	CHL	C3D-C4D-ND	3.53	115.95	110.24
5	04	312	CLA	CHB-C1B-NB	-3.53	120.52	124.26
5	04	311	CLA	CHC-C1C-C2C	-3.52	116.96	126.73
5	1R	301	CLA	CAC-C3C-C4C	3.52	129.37	124.81
5	02	613	CLA	CHB-C1B-NB	-3.51	120.54	124.26
5	1R	306	CLA	C2D-C1D-ND	3.51	112.69	110.10
5	02	602	CLA	CHC-C4B-NB	-3.51	120.54	124.26
5	04	310	CLA	CHC-C1C-C2C	-3.50	117.00	126.73
5	02	612	CLA	C1D-CHD-C4C	-3.50	118.50	126.06
6	03	304	CHL	C1D-ND-C4D	-3.50	103.85	106.33
5	1R	301	CLA	C4-C3-C5	3.50	121.15	115.27
5	01	308	CLA	CHB-C1B-NB	-3.50	120.56	124.26
5	03	301	CLA	C2D-C1D-ND	3.50	112.68	110.10
5	1R	310	CLA	CHB-C1B-NB	-3.50	120.56	124.26
6	02	603	CHL	CAC-C3C-C4C	3.50	129.34	124.81
5	1R	301	CLA	C4D-CHA-C1A	-3.49	117.00	121.25
5	1R	311	CLA	C4C-C3C-C2C	-3.49	101.81	106.90
5	02	608	CLA	CHC-C4B-NB	-3.49	120.56	124.26
5	03	301	CLA	CHC-C4B-NB	-3.49	120.56	124.26
6	03	303	CHL	CHB-C1B-NB	-3.49	120.56	124.26
6	04	303	CHL	CHB-C4A-NA	3.49	129.34	124.51
6	03	302	CHL	CAC-C3C-C4C	3.48	129.33	124.81
6	1R	303	CHL	CHB-C4A-NA	3.48	129.33	124.51
5	1R	311	CLA	C2D-C1D-ND	3.48	112.67	110.10
5	01	310	CLA	CHD-C1D-ND	-3.48	121.26	124.45
5	02	609	CLA	CHC-C1C-C2C	-3.48	117.07	126.73
6	02	601	CHL	CAC-C3C-C4C	3.48	129.32	124.81
6	02	604	CHL	C3D-C4D-ND	3.47	115.86	110.24
5	04	307	CLA	CHB-C1B-NB	-3.47	120.58	124.26
5	1R	301	CLA	C1D-CHD-C4C	-3.47	118.57	126.06
5	04	311	CLA	CHC-C4B-NB	-3.46	120.59	124.26
5	03	308	CLA	CBD-CHA-C1A	3.46	132.58	128.50
6	04	302	CHL	C3D-C4D-ND	3.46	115.83	110.24
7	01	315	LUT	C19-C9-C10	-3.46	118.08	122.92
6	02	606	CHL	CAC-C3C-C4C	3.46	129.29	124.81
5	1R	311	CLA	CHC-C1C-C2C	-3.45	117.14	126.73
5	02	602	CLA	CHC-C1C-C2C	-3.45	117.14	126.73
5	01	312	CLA	CHC-C4B-NB	-3.45	120.60	124.26
5	04	312	CLA	CHC-C4B-NB	-3.44	120.61	124.26
5	1R	308	CLA	C4C-C3C-C2C	-3.44	101.88	106.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	04	303	CHL	CHC-C4B-NB	-3.44	120.61	124.26
5	02	612	CLA	C4A-NA-C1A	3.44	108.25	106.71
5	01	313	CLA	CHC-C1C-C2C	-3.44	117.17	126.73
6	1R	312	CHL	C3D-C4D-ND	3.44	115.80	110.24
5	04	306	CLA	CMD-C2D-C3D	-3.44	119.70	127.61
5	1R	306	CLA	C4C-C3C-C2C	-3.43	101.89	106.90
5	01	313	CLA	CHB-C1B-NB	-3.43	120.62	124.26
6	04	305	CHL	CMB-C2B-C1B	3.43	130.59	125.37
6	01	306	CHL	C3B-C4B-NB	3.43	113.70	110.52
6	04	304	CHL	C3D-C4D-ND	3.43	115.78	110.24
5	03	309	CLA	CHB-C4A-NA	3.43	129.25	124.51
6	1R	304	CHL	C3D-C4D-ND	3.42	115.78	110.24
5	03	306	CLA	CMC-C2C-C1C	3.42	130.25	125.04
5	1R	308	CLA	CHB-C1B-NB	-3.42	120.63	124.26
6	04	305	CHL	C3D-C4D-ND	3.42	115.78	110.24
5	02	602	CLA	CHB-C1B-NB	-3.42	120.64	124.26
5	01	308	CLA	CMB-C2B-C1B	3.42	130.57	125.37
5	1R	309	CLA	CHB-C1B-NB	-3.42	120.64	124.26
5	04	309	CLA	CMD-C2D-C3D	-3.41	119.76	127.61
6	03	305	CHL	CAC-C3C-C4C	3.41	129.24	124.81
5	02	611	CLA	CHC-C4B-NB	-3.41	120.65	124.26
6	01	302	CHL	CHB-C4A-NA	3.41	129.22	124.51
5	03	307	CLA	CHC-C4B-NB	-3.41	120.65	124.26
6	02	605	CHL	C2D-C1D-ND	3.41	112.61	110.10
5	1R	308	CLA	CAC-C3C-C4C	3.41	129.23	124.81
5	1R	311	CLA	CAC-C3C-C4C	3.41	129.23	124.81
5	03	301	CLA	C1D-CHD-C4C	-3.41	118.71	126.06
5	1R	309	CLA	CHC-C1C-C2C	-3.40	117.28	126.73
6	1R	312	CHL	CAC-C3C-C4C	3.40	129.22	124.81
5	01	313	CLA	CHC-C4B-NB	-3.40	120.66	124.26
6	01	302	CHL	CAC-C3C-C4C	3.40	129.22	124.81
5	1R	309	CLA	CHC-C4B-NB	-3.39	120.66	124.26
5	01	301	CLA	C1-C2-C3	-3.39	120.17	126.04
5	1R	301	CLA	CHC-C4B-NB	-3.39	120.67	124.26
5	01	308	CLA	CHB-C4A-NA	3.39	129.19	124.51
5	02	614	CLA	CMB-C2B-C1B	3.38	130.52	125.37
5	04	311	CLA	CHB-C1B-NB	-3.38	120.68	124.26
6	02	603	CHL	C3D-C4D-ND	3.38	115.71	110.24
7	03	313	LUT	C1-C6-C7	3.38	125.34	115.78
5	1R	305	CLA	CHC-C1C-C2C	-3.38	117.35	126.73
5	02	612	CLA	CHB-C1B-NB	-3.38	120.68	124.26
7	03	313	LUT	C39-C29-C28	3.38	123.40	118.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	04	314	CLA	C3D-C2D-C1D	-3.38	101.22	105.83
5	04	312	CLA	C1D-CHD-C4C	-3.37	118.78	126.06
5	02	609	CLA	CHB-C1B-NB	-3.37	120.69	124.26
10	1R	314	XAT	C35-C15-C14	3.37	130.37	123.47
6	02	606	CHL	C3D-C4D-ND	3.37	115.69	110.24
6	01	306	CHL	CHB-C4A-NA	3.37	129.17	124.51
5	04	311	CLA	C2D-C1D-ND	3.36	112.58	110.10
5	03	301	CLA	CHB-C1B-NB	-3.36	120.70	124.26
5	01	310	CLA	CHC-C4B-NB	-3.36	120.70	124.26
5	02	610	CLA	CAC-C3C-C4C	3.36	129.17	124.81
5	01	310	CLA	C1D-CHD-C4C	-3.36	118.81	126.06
5	02	609	CLA	CHB-C4A-NA	3.36	129.15	124.51
6	03	311	CHL	C3D-C4D-ND	3.35	115.66	110.24
6	03	305	CHL	CHB-C4A-NA	3.35	129.15	124.51
5	01	310	CLA	CHC-C1C-C2C	-3.35	117.42	126.73
5	04	309	CLA	CAC-C3C-C4C	3.35	129.15	124.81
5	01	313	CLA	CAC-C3C-C4C	3.35	129.15	124.81
5	01	308	CLA	C1D-CHD-C4C	-3.35	118.84	126.06
5	04	311	CLA	C1D-CHD-C4C	-3.35	118.84	126.06
5	04	309	CLA	CHC-C1C-C2C	-3.34	117.44	126.73
6	04	304	CHL	CAC-C3C-C4C	3.34	129.15	124.81
6	03	303	CHL	C1D-ND-C4D	-3.34	103.96	106.33
6	02	601	CHL	C3D-C4D-ND	3.34	115.64	110.24
5	04	308	CLA	CHB-C1B-NB	-3.34	120.72	124.26
5	02	610	CLA	C1D-CHD-C4C	-3.33	118.87	126.06
5	04	308	CLA	CHC-C1C-C2C	-3.33	117.48	126.73
5	01	312	CLA	C4C-C3C-C2C	-3.33	102.05	106.90
5	03	307	CLA	CHB-C4A-NA	3.33	129.11	124.51
5	04	309	CLA	CHB-C1B-NB	-3.32	120.74	124.26
5	04	314	CLA	CMD-C2D-C3D	-3.32	119.97	127.61
6	02	607	CHL	C3D-C4D-ND	3.32	115.61	110.24
5	01	309	CLA	CAC-C3C-C4C	3.32	129.12	124.81
5	03	307	CLA	C3B-C4B-NB	3.32	113.60	110.52
6	04	305	CHL	CHB-C1B-NB	-3.32	120.74	124.26
5	1R	310	CLA	C1D-CHD-C4C	-3.32	118.90	126.06
5	02	613	CLA	CHB-C4A-NA	3.32	129.10	124.51
5	03	307	CLA	C1D-CHD-C4C	-3.31	118.91	126.06
5	02	609	CLA	CHC-C4B-NB	-3.31	120.75	124.26
5	04	308	CLA	C1D-CHD-C4C	-3.31	118.91	126.06
6	01	302	CHL	C3D-C4D-ND	3.31	115.59	110.24
5	04	314	CLA	CHC-C1C-C2C	-3.31	117.54	126.73
6	01	304	CHL	CHB-C4A-NA	3.31	129.08	124.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	312	CLA	CHB-C4A-NA	3.30	129.08	124.51
6	04	301	CHL	C1D-ND-C4D	-3.30	103.99	106.33
5	02	609	CLA	CAC-C3C-C4C	3.30	129.09	124.81
7	01	315	LUT	C1-C6-C7	3.30	125.11	115.78
5	02	614	CLA	CHB-C1B-NB	-3.30	120.77	124.26
5	03	312	CLA	CHB-C1B-NB	-3.29	120.77	124.26
5	04	306	CLA	CHC-C1C-C2C	-3.29	117.59	126.73
5	02	613	CLA	CHC-C4B-NB	-3.29	120.77	124.26
6	01	306	CHL	CMB-C2B-C1B	3.29	130.38	125.37
5	02	608	CLA	C1D-CHD-C4C	-3.29	118.96	126.06
6	02	601	CHL	CMB-C2B-C1B	3.29	130.37	125.37
6	01	306	CHL	C1C-C2C-C3C	-3.28	104.51	107.11
6	03	305	CHL	C3D-C4D-ND	3.28	115.55	110.24
6	03	302	CHL	CHB-C4A-NA	3.28	129.05	124.51
6	02	606	CHL	CHB-C4A-NA	3.28	129.05	124.51
6	03	311	CHL	CHB-C4A-NA	3.28	129.05	124.51
5	03	307	CLA	CAC-C3C-C4C	3.28	129.06	124.81
6	04	305	CHL	CAC-C3C-C4C	3.28	129.06	124.81
5	1R	305	CLA	CAC-C3C-C4C	3.27	129.05	124.81
5	1R	309	CLA	C3B-C4B-NB	3.27	113.55	110.52
5	01	313	CLA	CHB-C4A-NA	3.27	129.03	124.51
6	02	605	CHL	C3D-C4D-ND	3.27	115.52	110.24
5	04	309	CLA	C1D-CHD-C4C	-3.26	119.02	126.06
5	01	311	CLA	CHB-C1B-NB	-3.26	120.80	124.26
5	1R	305	CLA	CHB-C1B-NB	-3.26	120.80	124.26
7	1R	313	LUT	C20-C13-C14	-3.26	118.36	122.92
5	01	301	CLA	C4C-C3C-C2C	-3.26	102.15	106.90
6	1R	302	CHL	C3D-C4D-ND	3.26	115.51	110.24
6	03	302	CHL	C3D-C4D-ND	3.26	115.51	110.24
5	04	312	CLA	CHB-C4A-NA	3.26	129.01	124.51
5	02	612	CLA	CMD-C2D-C3D	-3.26	120.12	127.61
5	1R	307	CLA	CAC-C3C-C4C	3.26	129.03	124.81
6	02	604	CHL	CHB-C4A-NA	3.26	129.01	124.51
6	01	305	CHL	C3D-C4D-ND	3.26	115.50	110.24
5	02	611	CLA	C1D-CHD-C4C	-3.26	119.03	126.06
6	02	607	CHL	CHB-C4A-NA	3.25	129.01	124.51
5	02	608	CLA	CHC-C1C-C2C	-3.25	117.69	126.73
5	04	310	CLA	CHB-C1B-NB	-3.25	120.81	124.26
5	02	613	CLA	C1D-CHD-C4C	-3.25	119.05	126.06
5	02	614	CLA	CHB-C4A-NA	3.25	129.01	124.51
5	01	301	CLA	CMD-C2D-C3D	-3.25	120.14	127.61
5	04	307	CLA	C3B-C4B-NB	3.25	113.53	110.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	1R	305	CLA	C2D-C1D-ND	3.25	112.50	110.10
6	04	301	CHL	C3D-C4D-ND	3.24	115.48	110.24
7	01	314	LUT	C19-C9-C10	-3.24	118.38	122.92
5	01	301	CLA	C4-C3-C5	3.24	120.72	115.27
5	01	301	CLA	CHC-C4B-NB	-3.24	120.83	124.26
6	03	303	CHL	C1C-C2C-C3C	-3.24	104.54	107.11
6	04	301	CHL	CHB-C4A-NA	3.24	128.99	124.51
6	02	601	CHL	CHB-C1B-NB	-3.24	120.83	124.26
5	02	611	CLA	C2D-C1D-ND	3.23	112.49	110.10
6	02	603	CHL	CHB-C4A-NA	3.23	128.98	124.51
6	03	304	CHL	CHB-C1B-NB	-3.23	120.83	124.26
5	02	613	CLA	C3B-C4B-NB	3.23	113.51	110.52
5	01	312	CLA	C3B-C4B-NB	3.23	113.51	110.52
5	04	309	CLA	C3B-C4B-NB	3.23	113.51	110.52
5	04	306	CLA	C1D-CHD-C4C	-3.23	119.09	126.06
5	04	308	CLA	CMD-C2D-C3D	-3.23	120.19	127.61
5	04	307	CLA	C1D-CHD-C4C	-3.23	119.09	126.06
5	02	612	CLA	CMB-C2B-C1B	3.23	130.28	125.37
5	02	613	CLA	C2D-C1D-ND	3.23	112.48	110.10
5	03	301	CLA	CHC-C1C-C2C	-3.23	117.77	126.73
6	01	302	CHL	CHB-C1B-NB	-3.23	120.84	124.26
5	01	309	CLA	CHC-C4B-NB	-3.22	120.84	124.26
7	01	314	LUT	C11-C10-C9	3.22	131.91	127.31
5	04	312	CLA	CMD-C2D-C3D	-3.22	120.22	127.61
5	1R	310	CLA	CMD-C2D-C3D	-3.22	120.22	127.61
6	02	603	CHL	CHB-C1B-NB	-3.22	120.85	124.26
5	1R	301	CLA	CMC-C2C-C1C	3.22	129.94	125.04
5	04	308	CLA	CMB-C2B-C1B	3.21	130.26	125.37
5	03	312	CLA	C2D-C1D-ND	3.21	112.47	110.10
5	01	311	CLA	C4C-C3C-C2C	-3.21	102.22	106.90
6	04	303	CHL	C3D-C4D-ND	3.21	115.43	110.24
5	01	301	CLA	CHC-C1C-C2C	-3.21	117.82	126.73
5	03	309	CLA	CHB-C1B-NB	-3.21	120.86	124.26
5	04	314	CLA	CHB-C4A-NA	3.20	128.94	124.51
9	04	313	BCR	C36-C18-C17	-3.20	118.44	122.92
5	03	310	CLA	CHC-C1C-C2C	-3.20	117.84	126.73
5	01	310	CLA	CHB-C1B-NB	-3.20	120.87	124.26
5	1R	311	CLA	CHB-C1B-NB	-3.20	120.87	124.26
5	01	311	CLA	CHB-C4A-NA	3.20	128.94	124.51
5	1R	311	CLA	C3B-C4B-NB	3.20	113.48	110.52
6	01	303	CHL	C3D-C4D-ND	3.20	115.41	110.24
5	02	610	CLA	C3B-C4B-NB	3.20	113.48	110.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	02	602	CLA	C1D-CHD-C4C	-3.20	119.16	126.06
6	02	606	CHL	CHB-C1B-NB	-3.20	120.87	124.26
6	04	303	CHL	C1C-C2C-C3C	-3.20	104.58	107.11
5	03	310	CLA	CAC-C3C-C4C	3.19	128.96	124.81
5	02	608	CLA	C4C-C3C-C2C	-3.19	102.24	106.90
6	03	311	CHL	CAC-C3C-C4C	3.19	128.95	124.81
5	04	314	CLA	C3B-C4B-NB	3.19	113.48	110.52
6	03	304	CHL	C3D-C4D-ND	3.19	115.40	110.24
6	01	305	CHL	CHB-C4A-NA	3.19	128.92	124.51
6	04	305	CHL	CHB-C4A-NA	3.19	128.92	124.51
5	03	312	CLA	CAC-C3C-C4C	3.19	128.95	124.81
5	04	307	CLA	CHB-C4A-NA	3.19	128.92	124.51
6	03	302	CHL	CHB-C1B-NB	-3.19	120.88	124.26
5	1R	310	CLA	CHB-C4A-NA	3.19	128.92	124.51
6	01	303	CHL	CHB-C4A-NA	3.19	128.92	124.51
6	03	305	CHL	CHB-C1B-NB	-3.19	120.88	124.26
5	03	309	CLA	CMD-C2D-C3D	-3.18	120.30	127.61
5	02	612	CLA	CHC-C4B-NB	-3.18	120.89	124.26
5	1R	305	CLA	C3B-C4B-NB	3.18	113.46	110.52
7	01	315	LUT	C39-C29-C30	-3.17	118.48	122.92
7	01	314	LUT	C20-C13-C14	-3.17	118.48	122.92
5	03	310	CLA	CMB-C2B-C1B	3.17	130.20	125.37
5	04	311	CLA	C3B-C4B-NB	3.17	113.46	110.52
5	01	310	CLA	CHB-C4A-NA	3.17	128.90	124.51
5	1R	311	CLA	C1D-CHD-C4C	-3.17	119.22	126.06
5	02	611	CLA	CHB-C1B-NB	-3.17	120.90	124.26
5	02	614	CLA	CHC-C1C-C2C	-3.17	117.93	126.73
5	04	312	CLA	C3B-C4B-NB	3.17	113.45	110.52
6	01	304	CHL	C3D-C4D-ND	3.17	115.36	110.24
5	02	610	CLA	C2D-C1D-ND	3.16	112.44	110.10
6	03	303	CHL	C3D-C4D-ND	3.16	115.35	110.24
6	1R	312	CHL	CMD-C2D-C3D	-3.16	120.34	127.61
5	04	310	CLA	C3B-C4B-NB	3.16	113.45	110.52
5	03	306	CLA	CAC-C3C-C4C	3.16	128.91	124.81
5	01	310	CLA	C4C-C3C-C2C	-3.16	102.30	106.90
5	1R	306	CLA	CMA-C3A-C2A	-3.16	108.73	116.10
6	1R	312	CHL	CHB-C4A-NA	3.16	128.88	124.51
5	1R	307	CLA	C1D-CHD-C4C	-3.15	119.25	126.06
5	1R	301	CLA	C2D-C1D-ND	3.15	112.43	110.10
5	03	308	CLA	CHB-C1B-NB	-3.15	120.92	124.26
5	02	609	CLA	C1D-CHD-C4C	-3.15	119.26	126.06
5	1R	310	CLA	C3B-C4B-NB	3.15	113.44	110.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	307	CLA	O2A-CGA-CBA	3.15	121.80	111.91
6	04	304	CHL	CHB-C4A-NA	3.15	128.87	124.51
5	04	308	CLA	C2D-C1D-ND	3.14	112.42	110.10
5	04	308	CLA	C3B-C4B-NB	3.14	113.43	110.52
5	03	312	CLA	C4C-C3C-C2C	-3.14	102.32	106.90
5	1R	306	CLA	CMB-C2B-C1B	3.14	130.15	125.37
6	02	601	CHL	CHB-C4A-NA	3.14	128.85	124.51
6	02	605	CHL	C1D-ND-C4D	-3.14	104.11	106.33
6	01	305	CHL	O2D-CGD-CBD	3.14	116.85	111.27
5	04	311	CLA	CHB-C4A-NA	3.14	128.85	124.51
6	02	605	CHL	CHB-C4A-NA	3.14	128.85	124.51
6	01	306	CHL	CAC-C3C-C4C	3.14	128.88	124.81
5	1R	309	CLA	C4C-C3C-C2C	-3.13	102.33	106.90
6	04	303	CHL	CHB-C1B-NB	-3.13	120.94	124.26
5	1R	309	CLA	C1-C2-C3	-3.13	121.69	126.75
6	1R	303	CHL	C3D-C4D-ND	3.13	115.30	110.24
5	1R	310	CLA	C2D-C1D-ND	3.13	112.41	110.10
5	03	301	CLA	C4C-C3C-C2C	-3.13	102.34	106.90
5	03	309	CLA	C1D-CHD-C4C	-3.13	119.32	126.06
5	01	313	CLA	C2D-C1D-ND	3.13	112.41	110.10
5	03	307	CLA	CMB-C2B-C1B	3.12	130.13	125.37
5	01	309	CLA	CMC-C2C-C1C	3.12	129.79	125.04
5	02	609	CLA	C4C-C3C-C2C	-3.12	102.35	106.90
5	1R	307	CLA	C4C-C3C-C2C	-3.12	102.35	106.90
5	04	314	CLA	CAC-C3C-C4C	3.12	128.86	124.81
5	02	611	CLA	C3B-C4B-NB	3.11	113.40	110.52
5	01	308	CLA	C2D-C1D-ND	3.11	112.40	110.10
7	1R	313	LUT	C39-C29-C28	3.11	122.97	118.08
5	02	602	CLA	C4C-C3C-C2C	-3.11	102.37	106.90
5	01	312	CLA	CHB-C1B-NB	-3.10	120.97	124.26
6	02	605	CHL	CMB-C2B-C1B	3.10	130.10	125.37
5	01	313	CLA	C1D-CHD-C4C	-3.10	119.37	126.06
5	04	314	CLA	C1D-CHD-C4C	-3.10	119.37	126.06
5	03	306	CLA	C4C-C3C-C2C	-3.10	102.38	106.90
6	01	305	CHL	CAC-C3C-C4C	3.09	128.82	124.81
5	03	306	CLA	CHC-C1C-C2C	-3.09	118.14	126.73
5	03	309	CLA	C2D-C1D-ND	3.09	112.38	110.10
5	1R	309	CLA	C1D-CHD-C4C	-3.09	119.39	126.06
5	1R	301	CLA	CHC-C1C-C2C	-3.09	118.14	126.73
5	04	312	CLA	C4C-C3C-C2C	-3.09	102.39	106.90
5	02	611	CLA	C4C-C3C-C2C	-3.09	102.39	106.90
5	02	610	CLA	CHB-C1B-NB	-3.09	120.99	124.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	04	302	CHL	CHB-C4A-NA	3.09	128.78	124.51
9	04	313	BCR	C33-C5-C6	3.09	128.00	124.53
5	01	313	CLA	C4C-C3C-C2C	-3.09	102.40	106.90
5	1R	311	CLA	CMB-C2B-C1B	3.09	130.07	125.37
6	1R	304	CHL	CHB-C1B-NB	-3.09	120.99	124.26
9	04	313	BCR	C37-C22-C23	3.08	122.94	118.08
5	04	311	CLA	C4C-C3C-C2C	-3.08	102.41	106.90
5	04	306	CLA	CHB-C1B-NB	-3.08	121.00	124.26
5	02	602	CLA	CAC-C3C-C4C	3.08	128.81	124.81
5	02	609	CLA	C3B-C4B-NB	3.08	113.37	110.52
5	04	309	CLA	CMA-C3A-C4A	-3.08	103.50	111.77
5	03	309	CLA	C3B-C4B-NB	3.08	113.37	110.52
5	01	307	CLA	CHC-C1C-C2C	-3.08	118.18	126.73
6	03	304	CHL	C1C-C2C-C3C	-3.08	104.67	107.11
5	03	307	CLA	C4C-C3C-C2C	-3.08	102.41	106.90
5	01	309	CLA	C4C-C3C-C2C	-3.07	102.42	106.90
5	1R	301	CLA	CMD-C2D-C3D	-3.07	120.54	127.61
5	03	312	CLA	C3B-C4B-NB	3.07	113.37	110.52
5	1R	307	CLA	CHC-C1C-C2C	-3.07	118.20	126.73
5	1R	308	CLA	CMD-C2D-C3D	-3.07	120.55	127.61
6	04	304	CHL	CHB-C1B-NB	-3.07	121.01	124.26
5	1R	307	CLA	CMC-C2C-C1C	3.07	129.71	125.04
7	01	314	LUT	C1-C6-C7	3.07	124.46	115.78
5	04	307	CLA	CHC-C4B-NB	-3.07	121.01	124.26
5	03	307	CLA	CMD-C2D-C3D	-3.06	120.57	127.61
5	04	307	CLA	CMB-C2B-C1B	3.06	130.03	125.37
5	04	310	CLA	CAC-C3C-C4C	3.06	128.78	124.81
5	01	307	CLA	CMB-C2B-C1B	3.06	130.03	125.37
5	03	310	CLA	C4C-C3C-C2C	-3.06	102.44	106.90
5	01	313	CLA	C3B-C4B-NB	3.06	113.35	110.52
5	02	614	CLA	C4C-C3C-C2C	-3.06	102.44	106.90
5	03	312	CLA	CHB-C4A-NA	3.05	128.74	124.51
5	03	301	CLA	CHB-C4A-NA	3.05	128.73	124.51
5	03	308	CLA	CMB-C2B-C1B	3.05	130.02	125.37
6	04	304	CHL	O2D-CGD-O1D	-3.05	117.88	123.84
5	03	309	CLA	C4C-C3C-C2C	-3.05	102.45	106.90
6	1R	303	CHL	CHB-C1B-NB	-3.05	121.03	124.26
6	02	604	CHL	CHB-C1B-NB	-3.05	121.03	124.26
5	02	602	CLA	C3B-C4B-NB	3.05	113.34	110.52
6	1R	302	CHL	C1D-ND-C4D	-3.04	104.17	106.33
5	04	310	CLA	C4C-C3C-C2C	-3.04	102.47	106.90
5	02	609	CLA	C2D-C1D-ND	3.04	112.34	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	03	301	CLA	CAC-C3C-C4C	3.04	128.75	124.81
5	02	611	CLA	CHB-C4A-NA	3.04	128.72	124.51
5	03	308	CLA	C4C-C3C-C2C	-3.04	102.47	106.90
5	04	307	CLA	C2D-C1D-ND	3.04	112.34	110.10
5	01	301	CLA	CMB-C2B-C1B	3.04	129.99	125.37
10	1R	314	XAT	C8-C9-C10	3.03	123.60	118.94
5	03	306	CLA	CMB-C2B-C1B	3.03	129.99	125.37
5	02	612	CLA	CHB-C4A-NA	3.03	128.70	124.51
5	1R	301	CLA	C4C-C3C-C2C	-3.03	102.48	106.90
5	03	308	CLA	CHC-C4B-NB	-3.03	121.05	124.26
5	04	310	CLA	CHB-C4A-NA	3.03	128.70	124.51
5	01	312	CLA	CMD-C2D-C3D	-3.03	120.66	127.61
6	1R	302	CHL	C1C-C2C-C3C	-3.02	104.72	107.11
5	04	308	CLA	C4C-C3C-C2C	-3.02	102.50	106.90
5	01	308	CLA	C3B-C4B-NB	3.02	113.32	110.52
5	03	308	CLA	CMD-C2D-C3D	-3.02	120.67	127.61
5	1R	305	CLA	CMC-C2C-C1C	3.02	129.64	125.04
5	04	306	CLA	C4C-C3C-C2C	-3.02	102.50	106.90
5	04	306	CLA	CHC-C4B-NB	-3.02	121.06	124.26
5	02	608	CLA	CHB-C1B-NB	-3.01	121.07	124.26
5	01	311	CLA	C3B-C4B-NB	3.01	113.31	110.52
5	02	610	CLA	C4C-C3C-C2C	-3.01	102.51	106.90
6	1R	304	CHL	CHB-C4A-NA	3.01	128.67	124.51
5	01	309	CLA	CMD-C2D-C3D	-3.01	120.70	127.61
5	02	609	CLA	CMD-C2D-C3D	-3.01	120.70	127.61
5	04	314	CLA	CHB-C1B-NB	-3.00	121.08	124.26
5	1R	311	CLA	CHC-C4B-NB	-3.00	121.08	124.26
6	03	303	CHL	CHB-C4A-NA	3.00	128.66	124.51
5	1R	306	CLA	C1C-C2C-C3C	-3.00	103.80	106.96
6	03	304	CHL	CMB-C2B-C1B	3.00	129.94	125.37
5	01	312	CLA	C1D-CHD-C4C	-3.00	119.59	126.06
5	02	602	CLA	CHB-C4A-NA	3.00	128.66	124.51
6	04	304	CHL	C1C-C2C-C3C	-3.00	104.73	107.11
6	01	302	CHL	C1C-C2C-C3C	-3.00	104.73	107.11
6	02	605	CHL	C1C-C2C-C3C	-3.00	104.73	107.11
5	02	608	CLA	CMA-C3A-C2A	-3.00	109.10	116.10
6	01	303	CHL	CHB-C1B-NB	-3.00	121.08	124.26
5	04	311	CLA	CMD-C2D-C3D	-3.00	120.72	127.61
6	01	304	CHL	CHB-C1B-NB	-3.00	121.09	124.26
5	02	610	CLA	CHB-C4A-NA	3.00	128.65	124.51
5	02	611	CLA	CAC-C3C-C4C	2.99	128.69	124.81
5	04	307	CLA	CAC-C3C-C4C	2.99	128.69	124.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	04	306	CLA	CHB-C4A-NA	2.99	128.65	124.51
5	1R	301	CLA	CHB-C4A-NA	2.99	128.65	124.51
5	04	312	CLA	C2D-C1D-ND	2.99	112.31	110.10
5	1R	301	CLA	O2A-CGA-CBA	2.99	121.29	111.91
5	1R	311	CLA	CHB-C4A-NA	2.99	128.64	124.51
5	02	613	CLA	CMB-C2B-C1B	2.98	129.91	125.37
5	1R	306	CLA	CHB-C1B-NB	-2.98	121.10	124.26
5	1R	309	CLA	CMB-C2B-C1B	2.98	129.91	125.37
5	01	310	CLA	C3B-C4B-NB	2.98	113.28	110.52
5	1R	309	CLA	C2D-C1D-ND	2.98	112.30	110.10
5	01	313	CLA	CMD-C2D-C3D	-2.98	120.77	127.61
7	03	313	LUT	C1-C6-C5	-2.97	118.43	122.61
6	02	603	CHL	CMB-C2B-C1B	2.97	129.89	125.37
5	02	613	CLA	CMD-C2D-C3D	-2.97	120.79	127.61
5	01	301	CLA	C1D-CHD-C4C	-2.97	119.66	126.06
5	04	311	CLA	CAC-C3C-C4C	2.97	128.66	124.81
6	1R	303	CHL	CMB-C2B-C1B	2.97	129.89	125.37
6	1R	304	CHL	CMD-C2D-C3D	-2.96	120.80	127.61
5	04	312	CLA	CAC-C3C-C4C	2.96	128.65	124.81
5	1R	306	CLA	CHB-C4A-NA	2.95	128.60	124.51
10	1R	314	XAT	C20-C13-C14	-2.95	118.78	122.92
6	02	607	CHL	CHB-C1B-NB	-2.95	121.13	124.26
6	02	601	CHL	C1C-C2C-C3C	-2.95	104.77	107.11
5	1R	309	CLA	CHB-C4A-NA	2.95	128.59	124.51
6	01	303	CHL	CMB-C2B-C1B	2.95	129.85	125.37
6	02	605	CHL	CHB-C1B-NB	-2.95	121.14	124.26
6	03	311	CHL	CHB-C1B-NB	-2.95	121.14	124.26
5	1R	305	CLA	C1D-CHD-C4C	-2.94	119.71	126.06
5	1R	308	CLA	CHB-C4A-NA	2.94	128.58	124.51
5	04	307	CLA	CMD-C2D-C3D	-2.94	120.85	127.61
9	04	313	BCR	C35-C13-C14	-2.94	118.81	122.92
6	02	607	CHL	C1C-C2C-C3C	-2.94	104.78	107.11
5	1R	305	CLA	CMD-C2D-C3D	-2.94	120.86	127.61
5	01	311	CLA	CAC-C3C-C4C	2.94	128.62	124.81
6	04	305	CHL	C1C-C2C-C3C	-2.93	104.78	107.11
5	01	307	CLA	C1D-CHD-C4C	-2.93	119.73	126.06
7	01	315	LUT	C31-C32-C33	2.93	134.65	126.42
5	01	307	CLA	CMD-C2D-C3D	-2.93	120.87	127.61
5	1R	309	CLA	CMD-C2D-C3D	-2.93	120.87	127.61
5	04	306	CLA	C3B-C4B-NB	2.93	113.23	110.52
5	03	312	CLA	CMD-C2D-C3D	-2.92	120.89	127.61
7	01	314	LUT	C39-C29-C28	2.92	122.67	118.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	309	CLA	CHC-C1C-C2C	-2.92	118.63	126.73
7	03	313	LUT	C40-C33-C34	-2.91	118.85	122.92
5	04	312	CLA	CMB-C2B-C1B	2.90	129.79	125.37
5	1R	305	CLA	CMB-C2B-C1B	2.90	129.78	125.37
7	01	315	LUT	C11-C10-C9	2.90	131.44	127.31
5	02	614	CLA	CAC-C3C-C4C	2.89	128.57	124.81
5	02	614	CLA	CMD-C2D-C3D	-2.89	120.96	127.61
6	1R	302	CHL	CHB-C4A-NA	2.89	128.51	124.51
5	01	309	CLA	C1D-CHD-C4C	-2.89	119.83	126.06
5	03	301	CLA	C1-C2-C3	-2.89	121.05	126.04
5	03	308	CLA	CHB-C4A-NA	2.89	128.50	124.51
6	04	304	CHL	CMB-C2B-C1B	2.89	129.76	125.37
5	1R	309	CLA	CAC-C3C-C4C	2.88	128.55	124.81
5	02	608	CLA	C3B-C4B-NB	2.88	113.19	110.52
6	02	607	CHL	CMD-C2D-C3D	-2.88	120.99	127.61
6	02	606	CHL	CMB-C2B-C1B	2.88	129.75	125.37
5	01	310	CLA	CAC-C3C-C4C	2.88	128.54	124.81
5	01	310	CLA	CMD-C2D-C3D	-2.87	121.00	127.61
5	04	309	CLA	C4C-C3C-C2C	-2.87	102.71	106.90
5	03	301	CLA	CMC-C2C-C1C	2.87	129.41	125.04
6	01	305	CHL	CHB-C1B-NB	-2.87	121.22	124.26
5	01	308	CLA	CMC-C2C-C1C	2.87	129.41	125.04
5	02	611	CLA	CMD-C2D-C3D	-2.87	121.02	127.61
5	02	609	CLA	CMB-C2B-C1B	2.87	129.74	125.37
5	04	306	CLA	CAC-C3C-C4C	2.86	128.53	124.81
5	1R	311	CLA	CMD-C2D-C3D	-2.86	121.04	127.61
7	03	313	LUT	C32-C33-C34	2.86	123.33	118.94
6	03	311	CHL	CMD-C2D-C3D	-2.86	121.04	127.61
5	03	307	CLA	C2D-C1D-ND	2.85	112.21	110.10
5	1R	310	CLA	C4C-C3C-C2C	-2.85	102.74	106.90
5	01	308	CLA	CAC-C3C-C4C	2.85	128.51	124.81
6	03	311	CHL	CMB-C2B-C1B	2.85	129.71	125.37
5	03	306	CLA	CHB-C1B-NB	-2.85	121.25	124.26
5	02	610	CLA	CMD-C2D-C3D	-2.84	121.07	127.61
6	01	302	CHL	CMB-C2B-C1B	2.84	129.69	125.37
5	04	310	CLA	C1D-CHD-C4C	-2.84	119.93	126.06
5	03	308	CLA	C1D-CHD-C4C	-2.84	119.94	126.06
5	01	308	CLA	CMD-C2D-C3D	-2.84	121.09	127.61
6	03	302	CHL	CMB-C2B-C1B	2.83	129.68	125.37
5	02	614	CLA	C1D-CHD-C4C	-2.83	119.95	126.06
5	03	301	CLA	C3B-C4B-NB	2.83	113.14	110.52
5	03	306	CLA	CMD-C2D-C3D	-2.83	121.11	127.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	309	CLA	CHB-C4A-NA	2.83	128.42	124.51
6	02	604	CHL	CMD-C2D-C3D	-2.82	121.12	127.61
6	04	302	CHL	CBD-CHA-C1A	2.82	131.83	128.50
6	02	607	CHL	CMB-C2B-C1B	2.82	129.67	125.37
5	01	308	CLA	C4C-C3C-C2C	-2.82	102.78	106.90
6	04	302	CHL	CHB-C1B-NB	-2.82	121.27	124.26
5	01	301	CLA	O2A-CGA-CBA	2.82	120.75	111.91
5	02	608	CLA	CHB-C4A-NA	2.82	128.41	124.51
6	1R	304	CHL	CMB-C2B-C1B	2.82	129.66	125.37
5	1R	306	CLA	CMD-C2D-C3D	-2.82	121.14	127.61
7	01	315	LUT	C1-C6-C5	-2.81	118.65	122.61
5	01	307	CLA	C4C-C3C-C2C	-2.81	102.80	106.90
6	04	302	CHL	CMD-C2D-C3D	-2.81	121.14	127.61
5	02	613	CLA	C4C-C3C-C2C	-2.81	102.80	106.90
6	01	304	CHL	O2A-CGA-CBA	2.81	120.73	111.91
5	03	306	CLA	CHB-C4A-NA	2.81	128.39	124.51
5	1R	307	CLA	O2A-CGA-CBA	2.81	120.72	111.91
5	03	301	CLA	CMD-C2D-C3D	-2.81	121.16	127.61
5	04	308	CLA	CAC-C3C-C4C	2.81	128.45	124.81
5	04	308	CLA	CHB-C4A-NA	2.81	128.39	124.51
5	04	314	CLA	C4C-C3C-C2C	-2.80	102.81	106.90
6	02	603	CHL	CMD-C2D-C3D	-2.80	121.17	127.61
7	03	313	LUT	C20-C13-C14	-2.80	119.00	122.92
6	04	302	CHL	C1C-C2C-C3C	-2.80	104.89	107.11
6	03	305	CHL	CMB-C2B-C1B	2.80	129.63	125.37
5	01	307	CLA	CHB-C4A-NA	2.80	128.38	124.51
6	01	306	CHL	CMD-C2D-C3D	-2.80	121.17	127.61
5	04	307	CLA	C4C-C3C-C2C	-2.80	102.82	106.90
6	01	304	CHL	CMB-C2B-C1B	2.80	129.63	125.37
5	04	311	CLA	CMB-C2B-C1B	2.80	129.63	125.37
6	02	604	CHL	C1C-C2C-C3C	-2.79	104.90	107.11
6	02	604	CHL	CMB-C2B-C1B	2.79	129.62	125.37
5	1R	310	CLA	CMB-C2B-C1B	2.79	129.62	125.37
6	01	302	CHL	CMD-C2D-C3D	-2.79	121.20	127.61
6	03	302	CHL	C1C-C2C-C3C	-2.79	104.90	107.11
5	03	308	CLA	C2D-C1D-ND	2.79	112.16	110.10
5	04	308	CLA	CAA-C2A-C3A	-2.78	109.61	116.10
5	04	310	CLA	CMB-C2B-C1B	2.78	129.60	125.37
5	04	314	CLA	C2A-C1A-CHA	-2.77	119.01	123.85
6	04	302	CHL	CMB-C2B-C1B	2.77	129.59	125.37
6	04	302	CHL	C3A-C4A-CHB	-2.77	116.72	124.01
6	03	305	CHL	C1C-C2C-C3C	-2.77	104.92	107.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	03	310	CLA	C1D-CHD-C4C	-2.76	120.09	126.06
5	01	310	CLA	C2D-C1D-ND	2.76	112.14	110.10
5	01	313	CLA	CMB-C2B-C1B	2.76	129.57	125.37
6	03	303	CHL	CMD-C2D-C3D	-2.76	121.27	127.61
5	03	301	CLA	CMB-C2B-C1B	2.75	129.56	125.37
6	04	301	CHL	CHB-C1B-NB	-2.75	121.35	124.26
6	03	302	CHL	CMD-C2D-C3D	-2.75	121.29	127.61
5	02	614	CLA	CHC-C4B-NB	-2.75	121.35	124.26
5	03	312	CLA	CMB-C2B-C1B	2.74	129.54	125.37
6	1R	303	CHL	CAA-C2A-C3A	-2.74	107.42	114.26
5	1R	308	CLA	C4D-CHA-C1A	-2.74	117.92	121.25
5	01	301	CLA	CHB-C1B-NB	-2.74	121.36	124.26
6	04	305	CHL	CMD-C2D-C3D	-2.74	121.32	127.61
6	01	304	CHL	CMD-C2D-C3D	-2.74	121.32	127.61
5	01	311	CLA	C4A-NA-C1A	2.74	107.94	106.71
6	1R	303	CHL	CMD-C2D-C3D	-2.73	121.33	127.61
6	02	603	CHL	C1C-C2C-C3C	-2.73	104.94	107.11
5	1R	309	CLA	O2A-CGA-CBA	2.73	120.48	111.91
7	01	314	LUT	C1-C6-C5	-2.73	118.77	122.61
6	02	601	CHL	CMD-C2D-C3D	-2.73	121.34	127.61
6	04	301	CHL	C1C-C2C-C3C	-2.73	104.95	107.11
5	03	310	CLA	CHC-C4B-NB	-2.72	121.37	124.26
6	03	304	CHL	CAA-C2A-C3A	-2.72	107.45	114.26
5	03	310	CLA	CHB-C4A-NA	2.72	128.28	124.51
7	1R	313	LUT	C12-C13-C14	2.72	123.12	118.94
6	01	305	CHL	CMB-C2B-C1B	2.72	129.50	125.37
6	04	304	CHL	CMD-C2D-C3D	-2.71	121.37	127.61
6	01	306	CHL	CHB-C1B-NB	-2.71	121.39	124.26
5	04	308	CLA	CHC-C4B-NB	-2.71	121.39	124.26
6	03	311	CHL	C1C-C2C-C3C	-2.71	104.96	107.11
5	1R	306	CLA	CHC-C1C-C2C	-2.71	119.20	126.73
5	02	613	CLA	CAC-C3C-C4C	2.71	128.33	124.81
5	01	310	CLA	CMB-C2B-C1B	2.71	129.50	125.37
5	01	312	CLA	CAC-C3C-C4C	2.70	128.31	124.81
5	04	308	CLA	CMC-C2C-C1C	2.70	129.15	125.04
5	01	307	CLA	CHC-C4B-NB	-2.70	121.40	124.26
5	01	311	CLA	O2D-CGD-O1D	-2.69	118.57	123.84
5	02	602	CLA	CMB-C2B-C1B	2.69	129.47	125.37
6	02	606	CHL	CMD-C2D-C3D	-2.69	121.43	127.61
5	01	312	CLA	O2D-CGD-O1D	-2.69	118.58	123.84
6	04	302	CHL	C2A-C1A-CHA	-2.69	118.55	122.71
5	1R	305	CLA	C4C-C3C-C2C	-2.69	102.98	106.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	03	310	CLA	CAA-C2A-C3A	-2.69	105.42	112.78
6	04	303	CHL	CMB-C2B-C1B	2.68	129.45	125.37
6	1R	312	CHL	CHB-C1B-NB	-2.68	121.42	124.26
6	1R	312	CHL	C1C-C2C-C3C	-2.68	104.99	107.11
5	1R	310	CLA	CAC-C3C-C4C	2.67	128.27	124.81
5	04	314	CLA	CMB-C2B-C1B	2.67	129.43	125.37
6	01	305	CHL	C1C-C2C-C3C	-2.67	105.00	107.11
5	1R	301	CLA	CHB-C1B-NB	-2.66	121.44	124.26
5	1R	307	CLA	CMB-C2B-C3B	2.66	133.04	126.59
5	02	602	CLA	CMD-C2D-C3D	-2.66	121.49	127.61
5	02	610	CLA	CMB-C2B-C1B	2.66	129.42	125.37
6	1R	304	CHL	C1C-C2C-C3C	-2.66	105.00	107.11
5	1R	308	CLA	CMB-C2B-C1B	2.66	129.41	125.37
5	01	308	CLA	CHC-C4B-NB	-2.66	121.45	124.26
5	01	312	CLA	C2D-C1D-ND	2.65	112.06	110.10
6	03	304	CHL	CMD-C2D-C3D	-2.65	121.52	127.61
7	01	315	LUT	C10-C11-C12	-2.65	114.95	123.22
10	1R	314	XAT	C12-C13-C14	2.65	123.00	118.94
5	1R	307	CLA	CHB-C4A-NA	2.65	128.17	124.51
5	01	301	CLA	O2D-CGD-O1D	-2.64	118.67	123.84
5	04	310	CLA	C2D-C1D-ND	2.64	112.05	110.10
5	01	308	CLA	O2A-CGA-CBA	2.64	120.19	111.91
10	1R	314	XAT	C19-C9-C10	-2.64	119.23	122.92
5	01	308	CLA	C4-C3-C5	2.63	119.70	115.27
5	01	311	CLA	CMB-C2B-C1B	2.63	129.37	125.37
5	04	312	CLA	CAA-C2A-C3A	-2.63	109.97	116.10
6	04	303	CHL	CMD-C2D-C3D	-2.62	121.58	127.61
6	01	303	CHL	CMD-C2D-C3D	-2.62	121.58	127.61
7	01	314	LUT	C40-C33-C34	-2.62	119.26	122.92
5	03	301	CLA	C4-C3-C5	2.62	119.67	115.27
5	03	301	CLA	C2A-C1A-CHA	-2.62	119.29	123.86
10	1R	314	XAT	C24-C23-C22	-2.61	105.73	110.77
5	03	310	CLA	C2D-C1D-ND	2.61	112.03	110.10
6	01	304	CHL	CHC-C4B-NB	-2.61	121.49	124.26
5	03	309	CLA	CMB-C2B-C1B	2.61	129.34	125.37
5	01	311	CLA	CMD-C2D-C3D	-2.61	121.62	127.61
5	01	307	CLA	C4-C3-C5	2.60	119.65	115.27
5	02	608	CLA	CMD-C2D-C3D	-2.59	121.66	127.61
5	04	314	CLA	CMA-C3A-C2A	-2.58	110.07	116.10
5	1R	301	CLA	CMB-C2B-C1B	2.58	129.30	125.37
7	01	314	LUT	C12-C13-C14	2.57	122.89	118.94
5	03	310	CLA	O2D-CGD-O1D	-2.57	118.81	123.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	01	309	CLA	C2A-C1A-CHA	-2.57	119.37	123.86
5	03	306	CLA	C3B-C4B-NB	2.57	112.89	110.52
5	03	301	CLA	O2A-CGA-CBA	2.56	119.94	111.91
5	04	314	CLA	CAA-C2A-C3A	-2.56	110.12	116.10
5	03	310	CLA	CMD-C2D-C3D	-2.56	121.72	127.61
5	1R	307	CLA	CHB-C1B-C2B	-2.55	120.02	127.24
5	1R	301	CLA	O2D-CGD-O1D	-2.55	118.85	123.84
5	04	307	CLA	CMC-C2C-C1C	2.55	128.92	125.04
6	1R	302	CHL	CMD-C2D-C3D	-2.55	121.75	127.61
5	03	307	CLA	CMC-C2C-C1C	2.55	128.92	125.04
10	1R	314	XAT	C10-C11-C12	2.54	131.15	123.22
5	02	614	CLA	C3B-C4B-NB	2.53	112.86	110.52
5	1R	306	CLA	C2A-C1A-CHA	-2.53	119.43	123.85
5	02	611	CLA	CMB-C2B-C1B	2.53	129.22	125.37
6	04	301	CHL	CAA-C2A-C3A	-2.53	105.86	112.78
5	01	307	CLA	C1-C2-C3	-2.53	121.67	126.04
5	04	309	CLA	CMB-C2B-C1B	2.52	129.21	125.37
5	1R	309	CLA	C2A-C1A-CHA	-2.52	119.44	123.86
6	01	302	CHL	O2D-CGD-O1D	-2.52	118.91	123.84
6	04	305	CHL	C2A-C1A-CHA	-2.52	119.46	123.86
5	03	307	CLA	C4A-NA-C1A	2.52	107.84	106.71
5	04	306	CLA	CMC-C2C-C1C	2.52	128.87	125.04
5	02	608	CLA	CMB-C2B-C1B	2.52	129.20	125.37
5	04	314	CLA	O2D-CGD-O1D	-2.51	118.94	123.84
5	01	308	CLA	C1-C2-C3	-2.51	121.71	126.04
6	03	305	CHL	CMD-C2D-C3D	-2.50	121.86	127.61
5	04	311	CLA	CMC-C2C-C1C	2.50	128.85	125.04
5	03	308	CLA	CMC-C2C-C1C	2.50	128.85	125.04
9	04	313	BCR	C19-C18-C17	2.50	122.78	118.94
5	04	308	CLA	C2A-C1A-CHA	-2.50	119.49	123.85
5	02	612	CLA	C4C-C3C-C2C	-2.50	103.26	106.90
5	1R	307	CLA	C3B-C4B-NB	2.50	112.83	110.52
5	1R	301	CLA	C3B-C4B-NB	2.49	112.83	110.52
6	02	603	CHL	O2D-CGD-O1D	-2.49	118.97	123.84
5	1R	307	CLA	CMD-C2D-C3D	-2.49	121.89	127.61
5	03	309	CLA	CMC-C2C-C1C	2.48	128.82	125.04
5	02	610	CLA	CMC-C2C-C1C	2.48	128.82	125.04
5	04	314	CLA	CMC-C2C-C1C	2.48	128.82	125.04
5	01	307	CLA	CAC-C3C-C4C	2.48	128.03	124.81
6	1R	304	CHL	C2A-C1A-CHA	-2.48	119.53	123.85
5	02	613	CLA	CMC-C2C-C1C	2.48	128.81	125.04
10	1R	314	XAT	C4-C3-C2	-2.48	105.99	110.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	02	609	CLA	CMC-C2C-C1C	2.48	128.81	125.04
5	02	602	CLA	CMC-C2C-C1C	2.47	128.80	125.04
5	01	312	CLA	CMB-C2B-C1B	2.47	129.13	125.37
5	01	309	CLA	C2D-C1D-ND	2.47	111.92	110.10
5	02	608	CLA	CAA-C2A-C3A	-2.47	110.34	116.10
5	03	310	CLA	CMC-C2C-C1C	2.47	128.79	125.04
5	01	307	CLA	CHB-C1B-C2B	-2.46	120.29	127.24
5	01	313	CLA	CMC-C2C-C1C	2.46	128.79	125.04
6	1R	312	CHL	C2A-C1A-CHA	-2.46	119.56	123.86
6	04	301	CHL	O2D-CGD-O1D	-2.46	119.03	123.84
5	01	310	CLA	CMC-C2C-C1C	2.45	128.78	125.04
7	01	315	LUT	C7-C8-C9	2.45	129.94	126.23
5	02	614	CLA	CMC-C2C-C1C	2.45	128.77	125.04
5	02	612	CLA	C2A-C1A-CHA	-2.45	119.58	123.86
6	1R	302	CHL	CAA-C2A-C3A	-2.45	108.14	114.26
7	1R	313	LUT	C8-C9-C10	2.45	122.70	118.94
5	04	306	CLA	CMB-C2B-C1B	2.45	129.10	125.37
5	03	310	CLA	C3B-C4B-NB	2.44	112.78	110.52
9	04	313	BCR	C24-C23-C22	-2.44	122.55	126.23
5	04	309	CLA	CMC-C2C-C1C	2.44	128.75	125.04
6	01	304	CHL	C4-C3-C5	2.43	119.37	115.27
5	01	308	CLA	C4A-NA-C1A	2.43	107.80	106.71
5	03	308	CLA	C3A-C4A-CHB	-2.43	117.61	124.01
5	04	306	CLA	C2A-C1A-CHA	-2.42	119.62	123.86
5	02	611	CLA	CMC-C2C-C1C	2.42	128.72	125.04
6	01	306	CHL	O2A-CGA-CBA	2.42	119.50	111.91
5	02	608	CLA	C2A-C1A-CHA	-2.42	119.64	123.85
6	01	303	CHL	C1C-C2C-C3C	-2.42	105.20	107.11
5	02	609	CLA	CBA-CAA-C2A	-2.41	108.09	113.47
7	03	313	LUT	C35-C15-C14	2.41	128.41	123.47
5	04	312	CLA	CMC-C2C-C1C	2.41	128.70	125.04
5	1R	310	CLA	CMC-C2C-C1C	2.40	128.69	125.04
5	01	307	CLA	CMC-C2C-C1C	2.40	128.69	125.04
6	1R	302	CHL	CHB-C1B-C2B	-2.40	120.46	127.24
6	01	306	CHL	C2A-C1A-CHA	-2.40	119.67	123.86
7	01	315	LUT	C15-C14-C13	2.39	130.72	127.31
6	04	304	CHL	C2A-C1A-CHA	-2.39	119.67	123.86
5	03	301	CLA	O2D-CGD-O1D	-2.39	119.16	123.84
9	04	313	BCR	C7-C6-C5	2.39	127.24	121.46
6	02	606	CHL	C1C-C2C-C3C	-2.38	105.22	107.11
5	01	307	CLA	CBB-CAB-C3B	-2.38	115.77	127.62
6	04	303	CHL	CED-O2D-CGD	2.38	121.32	115.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	03	312	CLA	CMC-C2C-C1C	2.38	128.66	125.04
6	02	606	CHL	C2A-C1A-CHA	-2.38	119.70	123.86
5	1R	308	CLA	C3B-C4B-NB	2.38	112.72	110.52
5	01	301	CLA	C2D-C1D-ND	2.36	111.85	110.10
5	04	306	CLA	C2D-C1D-ND	2.36	111.85	110.10
6	04	301	CHL	CMD-C2D-C3D	-2.36	122.20	127.61
6	04	304	CHL	CAA-C2A-C3A	-2.35	108.39	114.26
6	02	601	CHL	O2D-CGD-O1D	-2.35	119.24	123.84
5	03	308	CLA	C2A-C1A-CHA	-2.35	119.07	122.71
6	03	303	CHL	C2A-C1A-CHA	-2.34	119.77	123.86
6	03	311	CHL	C2A-C1A-CHA	-2.34	119.77	123.85
5	04	309	CLA	O2A-CGA-CBA	2.34	121.53	114.03
5	02	608	CLA	CAC-C3C-C4C	2.33	127.84	124.81
5	02	609	CLA	O2D-CGD-O1D	-2.33	119.28	123.84
5	1R	308	CLA	CHD-C1D-ND	-2.33	122.31	124.45
5	1R	309	CLA	C5-C3-C4	2.32	119.73	114.60
5	01	301	CLA	CAC-C3C-C4C	2.32	127.82	124.81
5	02	608	CLA	CMC-C2C-C1C	2.32	128.57	125.04
5	1R	309	CLA	O2D-CGD-O1D	-2.32	118.83	124.09
6	1R	312	CHL	C4D-CHA-C1A	-2.31	118.44	121.25
7	03	313	LUT	C7-C6-C5	-2.31	115.87	121.46
5	1R	301	CLA	C1-C2-C3	-2.31	122.05	126.04
5	1R	310	CLA	O2D-CGD-O1D	-2.31	118.85	124.09
5	01	307	CLA	C2A-C1A-CHA	-2.31	119.83	123.86
5	04	309	CLA	C2A-C1A-CHA	-2.30	119.83	123.86
7	01	315	LUT	C7-C6-C5	-2.30	115.89	121.46
6	01	304	CHL	C1-C2-C3	-2.29	122.08	126.04
5	02	612	CLA	CMC-C2C-C1C	2.29	128.53	125.04
9	04	313	BCR	C38-C26-C25	2.29	127.10	124.53
5	01	308	CLA	CBC-CAC-C3C	-2.29	106.12	112.43
6	01	306	CHL	O2D-CGD-O1D	-2.29	119.36	123.84
5	01	313	CLA	O2D-CGD-O1D	-2.29	119.37	123.84
5	01	309	CLA	CHB-C1B-C2B	-2.29	120.78	127.24
5	02	609	CLA	CAA-C2A-C3A	-2.29	108.55	114.26
6	01	303	CHL	O2D-CGD-O1D	-2.28	119.37	123.84
6	04	305	CHL	CAA-C2A-C3A	-2.28	108.57	114.26
5	01	301	CLA	C3B-C4B-NB	2.27	112.62	110.52
5	1R	307	CLA	C2D-C1D-ND	2.26	111.77	110.10
5	02	614	CLA	C2A-C1A-CHA	-2.26	119.90	123.86
5	1R	305	CLA	O2D-CGD-O1D	-2.26	119.41	123.84
5	1R	301	CLA	C2A-C1A-CHA	-2.26	119.90	123.86
5	03	306	CLA	C3A-C4A-CHB	-2.26	118.06	124.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	02	604	CHL	C2A-C1A-CHA	-2.26	119.91	123.86
5	03	312	CLA	O2D-CGD-O1D	-2.26	118.96	124.09
5	1R	306	CLA	CAA-C2A-C3A	-2.25	110.84	116.10
6	04	304	CHL	O1D-CGD-CBD	-2.25	119.89	124.48
6	01	304	CHL	C1C-C2C-C3C	-2.24	105.33	107.11
5	01	307	CLA	O2A-CGA-O1A	-2.24	117.93	123.59
5	02	613	CLA	C4A-NA-C1A	2.24	107.71	106.71
6	02	604	CHL	O2D-CGD-O1D	-2.24	119.00	124.09
5	1R	306	CLA	O2D-CGD-O1D	-2.24	119.00	124.09
9	04	313	BCR	C12-C13-C14	2.24	122.38	118.94
5	04	310	CLA	C2A-C1A-CHA	-2.24	119.94	123.86
5	1R	305	CLA	C2A-C1A-CHA	-2.24	119.94	123.86
6	04	303	CHL	C2A-C1A-CHA	-2.24	119.94	123.86
5	1R	310	CLA	C2A-C1A-CHA	-2.24	119.95	123.86
6	02	605	CHL	CMD-C2D-C3D	-2.23	122.48	127.61
5	1R	311	CLA	CED-O2D-CGD	2.23	120.98	115.94
6	1R	302	CHL	O2D-CGD-O1D	-2.23	119.03	124.09
5	01	312	CLA	C2A-C1A-CHA	-2.22	119.98	123.86
6	02	605	CHL	C4D-CHA-C1A	-2.21	118.56	121.25
6	01	303	CHL	C2A-C1A-CHA	-2.21	120.00	123.86
5	01	311	CLA	CMC-C2C-C1C	2.21	128.40	125.04
6	02	603	CHL	C2A-C1A-CHA	-2.21	120.00	123.86
5	02	610	CLA	O2D-CGD-O1D	-2.21	119.08	124.09
6	1R	303	CHL	C4D-CHA-C1A	-2.20	118.57	121.25
6	02	607	CHL	O2D-CGD-O1D	-2.20	119.53	123.84
5	04	309	CLA	C2D-C1D-ND	2.20	111.73	110.10
6	02	606	CHL	O2D-CGD-O1D	-2.20	119.09	124.09
5	02	611	CLA	O2D-CGD-O1D	-2.20	119.09	124.09
6	02	605	CHL	O2D-CGD-O1D	-2.20	119.10	124.09
5	01	309	CLA	O2D-CGD-O1D	-2.20	119.55	123.84
5	03	312	CLA	C4A-NA-C1A	2.20	107.69	106.71
5	04	311	CLA	C4A-NA-C1A	2.20	107.69	106.71
6	04	301	CHL	O2A-CGA-CBA	2.19	121.06	114.03
5	02	602	CLA	O2D-CGD-O1D	-2.19	119.12	124.09
6	1R	312	CHL	O2D-CGD-O1D	-2.19	119.12	124.09
6	04	301	CHL	CMB-C2B-C1B	2.19	128.70	125.37
6	1R	302	CHL	CMB-C2B-C3B	2.18	131.88	126.59
6	1R	304	CHL	O2D-CGD-O1D	-2.18	119.13	124.09
6	02	605	CHL	C2A-C1A-CHA	-2.18	120.04	123.86
10	1R	314	XAT	C28-C29-C30	2.18	122.29	118.94
5	01	313	CLA	C2A-C1A-CHA	-2.18	120.05	123.86
5	02	614	CLA	O2D-CGD-O1D	-2.18	119.14	124.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	02	608	CLA	O2D-CGD-O1D	-2.18	119.14	124.09
6	01	303	CHL	CHC-C4B-NB	-2.18	121.95	124.26
5	04	314	CLA	C2D-C1D-ND	2.17	111.71	110.10
6	01	302	CHL	C2A-C1A-CHA	-2.17	120.06	123.86
6	04	301	CHL	C2A-C1A-CHA	-2.17	120.06	123.86
5	1R	311	CLA	C2A-C1A-CHA	-2.17	120.06	123.86
5	03	309	CLA	O2D-CGD-O1D	-2.17	119.17	124.09
6	03	311	CHL	O2D-CGD-O1D	-2.17	119.60	123.84
5	1R	309	CLA	CMC-C2C-C1C	2.17	128.34	125.04
5	04	307	CLA	C2A-C1A-CHA	-2.17	120.07	123.86
5	03	306	CLA	C2A-C1A-CHA	-2.17	119.36	122.71
6	01	302	CHL	C4D-CHA-C1A	-2.16	118.62	121.25
6	03	305	CHL	O2D-CGD-O1D	-2.16	119.61	123.84
6	1R	312	CHL	CMB-C2B-C1B	2.16	128.66	125.37
6	02	601	CHL	C2A-C1A-CHA	-2.15	120.09	123.86
5	04	311	CLA	O2D-CGD-O1D	-2.15	119.20	124.09
6	01	304	CHL	CED-O2D-CGD	2.15	120.80	115.94
6	1R	303	CHL	O2D-CGD-O1D	-2.15	119.21	124.09
5	02	613	CLA	O2D-CGD-O1D	-2.15	119.64	123.84
5	1R	308	CLA	CMC-C2C-C1C	2.14	128.30	125.04
5	03	307	CLA	O2D-CGD-O1D	-2.14	119.23	124.09
6	1R	303	CHL	C1C-C2C-C3C	-2.14	105.42	107.11
6	04	305	CHL	O2D-CGD-O1D	-2.14	119.24	124.09
5	04	312	CLA	C4A-NA-C1A	2.14	107.67	106.71
10	1R	314	XAT	O4-C5-C6	-2.13	57.19	58.96
5	1R	308	CLA	O2D-CGD-O1D	-2.13	119.25	124.09
5	04	308	CLA	O2D-CGD-O1D	-2.13	119.25	124.09
7	03	313	LUT	C12-C13-C14	2.13	122.21	118.94
5	03	308	CLA	CED-O2D-CGD	2.13	120.76	115.94
6	01	303	CHL	C4D-CHA-C1A	-2.13	118.66	121.25
5	02	612	CLA	O2D-CGD-O1D	-2.13	119.25	124.09
6	02	607	CHL	C2A-C1A-CHA	-2.13	120.14	123.86
7	01	315	LUT	C20-C13-C14	-2.13	119.94	122.92
5	04	307	CLA	O2D-CGD-O1D	-2.13	119.26	124.09
5	1R	307	CLA	O2D-CGD-O1D	-2.12	119.68	123.84
5	04	308	CLA	CMA-C3A-C2A	-2.12	111.14	116.10
5	01	307	CLA	C2D-C1D-ND	2.12	111.67	110.10
5	01	307	CLA	O2D-CGD-O1D	-2.12	119.69	123.84
7	01	314	LUT	C35-C34-C33	2.12	130.34	127.31
6	02	606	CHL	C4D-CHA-C1A	-2.12	118.67	121.25
5	04	310	CLA	O2D-CGD-O1D	-2.12	119.28	124.09
6	03	311	CHL	C4D-CHA-C1A	-2.12	118.67	121.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	04	310	CLA	CMC-C2C-C1C	2.12	128.26	125.04
7	01	315	LUT	C11-C12-C13	2.12	132.36	126.42
5	04	306	CLA	O2D-CGD-O1D	-2.11	119.29	124.09
5	1R	301	CLA	O1D-CGD-CBD	-2.11	120.16	124.48
5	01	309	CLA	C3B-C4B-NB	2.11	112.47	110.52
5	02	609	CLA	CED-O2D-CGD	2.10	120.69	115.94
6	03	302	CHL	C2A-C1A-CHA	-2.10	120.19	123.85
5	1R	308	CLA	CHC-C1C-NC	2.10	127.39	124.20
5	02	613	CLA	C2A-C1A-CHA	-2.10	120.19	123.86
7	01	314	LUT	C31-C30-C29	2.09	130.29	127.31
6	03	304	CHL	O2D-CGD-O1D	-2.09	119.75	123.84
5	01	309	CLA	CBB-CAB-C3B	-2.09	117.23	127.62
5	03	308	CLA	O2D-CGD-O1D	-2.08	119.77	123.84
5	04	314	CLA	O1D-CGD-CBD	-2.08	120.22	124.48
6	1R	312	CHL	CHB-C1B-C2B	-2.08	121.36	127.24
5	01	301	CLA	C2A-C1A-CHA	-2.08	120.22	123.86
5	02	602	CLA	C2A-C1A-CHA	-2.08	120.23	123.86
5	04	309	CLA	O2D-CGD-O1D	-2.07	119.38	124.09
5	1R	311	CLA	O2D-CGD-O1D	-2.07	119.78	123.84
6	01	304	CHL	O1D-CGD-CBD	-2.07	120.25	124.48
6	02	603	CHL	C4D-CHA-C1A	-2.07	118.73	121.25
7	01	314	LUT	C7-C6-C5	-2.07	116.45	121.46
5	1R	308	CLA	C4D-C3D-CAD	2.07	110.53	108.10
5	02	610	CLA	C2A-C1A-CHA	-2.07	120.25	123.86
6	1R	303	CHL	C2A-C1A-CHA	-2.06	120.26	123.86
5	01	301	CLA	CMC-C2C-C1C	2.06	128.18	125.04
5	01	313	CLA	O2A-CGA-CBA	2.05	120.35	112.23
5	03	310	CLA	CHB-C1B-C2B	-2.05	121.45	127.24
6	01	305	CHL	CHC-C4B-NB	-2.05	122.09	124.26
6	01	306	CHL	C1-C2-C3	-2.05	122.50	126.04
5	01	312	CLA	O2A-CGA-CBA	2.05	120.33	112.23
6	03	304	CHL	C2A-C1A-CHA	-2.05	120.28	123.86
6	01	306	CHL	CHB-C1B-C2B	-2.04	121.46	127.24
6	04	302	CHL	O2D-CGD-O1D	-2.04	119.85	123.84
5	04	312	CLA	O2D-CGD-O1D	-2.04	119.45	124.09
6	01	305	CHL	CED-O2D-CGD	2.04	120.55	115.94
5	03	309	CLA	C4A-NA-C1A	2.04	107.62	106.71
6	03	303	CHL	O2D-CGD-O1D	-2.03	119.47	124.09
6	1R	302	CHL	CBC-CAC-C3C	-2.03	106.83	112.43
10	1R	314	XAT	C35-C34-C33	2.03	130.20	127.31
6	04	305	CHL	C4D-CHA-C1A	-2.03	118.78	121.25
10	1R	314	XAT	O24-C25-C26	-2.03	57.28	58.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	04	302	CHL	CHC-C4B-NB	-2.02	122.11	124.26
6	04	301	CHL	CHB-C1B-C2B	-2.02	121.52	127.24
7	1R	313	LUT	C31-C30-C29	2.02	130.19	127.31
6	1R	302	CHL	C2A-C1A-CHA	-2.02	120.33	123.86
5	1R	307	CLA	C2A-C1A-CHA	-2.02	120.33	123.86
6	04	301	CHL	O1D-CGD-CBD	-2.02	120.35	124.48
5	02	611	CLA	O2A-CGA-CBA	2.02	120.51	114.03
6	04	302	CHL	CHB-C1B-C2B	-2.02	121.55	127.24
6	03	311	CHL	CED-O2D-CGD	2.01	120.49	115.94
6	1R	303	CHL	CHB-C1B-C2B	-2.01	121.56	127.24
5	02	609	CLA	C4A-NA-C1A	2.01	107.61	106.71
7	1R	313	LUT	C1-C6-C5	-2.01	119.78	122.61
5	04	309	CLA	CAA-CBA-CGA	-2.01	107.18	112.51
6	03	305	CHL	C2A-C1A-CHA	-2.00	120.36	123.86
6	03	304	CHL	CED-O2D-CGD	2.00	120.47	115.94
5	1R	306	CLA	C3B-C4B-NB	2.00	112.37	110.52

All (6) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
5	01	307	CLA	C8
5	01	308	CLA	C8
5	03	301	CLA	C8
5	1R	301	CLA	C8
6	01	304	CHL	C8
6	01	306	CHL	C8

All (425) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	01	301	CLA	C2B-C3B-CAB-CBB
5	01	301	CLA	C4B-C3B-CAB-CBB
5	01	301	CLA	CHA-CBD-CGD-O1D
5	01	301	CLA	CHA-CBD-CGD-O2D
5	01	301	CLA	CAD-CBD-CGD-O1D
5	01	301	CLA	CAD-CBD-CGD-O2D
5	01	301	CLA	C4-C3-C5-C6
5	01	308	CLA	C2B-C3B-CAB-CBB
5	01	308	CLA	C4B-C3B-CAB-CBB
5	02	613	CLA	CHA-CBD-CGD-O1D
5	02	613	CLA	CHA-CBD-CGD-O2D
5	02	614	CLA	C1A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
5	03	309	CLA	CAD-CBD-CGD-O2D
5	03	310	CLA	C2B-C3B-CAB-CBB
5	03	310	CLA	C4B-C3B-CAB-CBB
5	04	309	CLA	C1A-C2A-CAA-CBA
5	04	311	CLA	C1A-C2A-CAA-CBA
5	04	311	CLA	C3A-C2A-CAA-CBA
5	04	314	CLA	CHA-CBD-CGD-O1D
5	04	314	CLA	CHA-CBD-CGD-O2D
5	1R	301	CLA	C2-C3-C5-C6
5	1R	301	CLA	C4-C3-C5-C6
5	1R	305	CLA	CBD-CGD-O2D-CED
5	1R	307	CLA	C3A-C2A-CAA-CBA
6	01	302	CHL	C3C-C2C-CMC-OMC
6	01	302	CHL	CHA-CBD-CGD-O1D
6	01	302	CHL	CHA-CBD-CGD-O2D
6	01	302	CHL	CAD-CBD-CGD-O1D
6	01	303	CHL	C3C-C2C-CMC-OMC
6	01	304	CHL	C3C-C2C-CMC-OMC
6	01	304	CHL	CBD-CGD-O2D-CED
6	01	305	CHL	C1A-C2A-CAA-CBA
6	01	305	CHL	C3A-C2A-CAA-CBA
6	01	305	CHL	CHA-CBD-CGD-O1D
6	01	305	CHL	CHA-CBD-CGD-O2D
6	01	306	CHL	CHA-CBD-CGD-O1D
6	01	306	CHL	CHA-CBD-CGD-O2D
6	02	603	CHL	C3C-C2C-CMC-OMC
6	02	603	CHL	CHA-CBD-CGD-O1D
6	02	603	CHL	CHA-CBD-CGD-O2D
6	02	604	CHL	C3C-C2C-CMC-OMC
6	02	606	CHL	C3C-C2C-CMC-OMC
6	02	607	CHL	C1A-C2A-CAA-CBA
6	02	607	CHL	C3A-C2A-CAA-CBA
6	02	607	CHL	C1C-C2C-CMC-OMC
6	02	607	CHL	C3C-C2C-CMC-OMC
6	03	302	CHL	C3C-C2C-CMC-OMC
6	03	303	CHL	C1A-C2A-CAA-CBA
6	03	303	CHL	C3A-C2A-CAA-CBA
6	03	303	CHL	C3C-C2C-CMC-OMC
6	03	311	CHL	C3C-C2C-CMC-OMC
6	04	301	CHL	C3C-C2C-CMC-OMC
6	04	302	CHL	C3C-C2C-CMC-OMC
6	04	304	CHL	C1C-C2C-CMC-OMC

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Mol	Chain	Res	Type	Atoms
6	04	304	CHL	C3C-C2C-CMC-OMC
6	04	305	CHL	C3C-C2C-CMC-OMC
6	1R	302	CHL	C3C-C2C-CMC-OMC
6	1R	303	CHL	C2B-C3B-CAB-CBB
6	1R	303	CHL	C4B-C3B-CAB-CBB
6	1R	303	CHL	C3C-C2C-CMC-OMC
6	1R	304	CHL	C3C-C2C-CMC-OMC
6	1R	312	CHL	C3C-C2C-CMC-OMC
8	01	316	LHG	C3-O3-P-O5
8	03	314	LHG	O10-C23-O8-C6
8	03	314	LHG	C24-C23-O8-C6
8	1R	315	LHG	O10-C23-O8-C6
8	1R	315	LHG	C24-C23-O8-C6
6	03	305	CHL	O1D-CGD-O2D-CED
5	02	613	CLA	CBD-CGD-O2D-CED
6	01	306	CHL	CBD-CGD-O2D-CED
6	02	607	CHL	CBD-CGD-O2D-CED
6	03	305	CHL	CBD-CGD-O2D-CED
6	03	311	CHL	CBD-CGD-O2D-CED
6	04	302	CHL	CBD-CGD-O2D-CED
6	04	302	CHL	O1D-CGD-O2D-CED
5	02	613	CLA	O1D-CGD-O2D-CED
5	01	310	CLA	CBD-CGD-O2D-CED
6	02	601	CHL	CBD-CGD-O2D-CED
6	03	304	CHL	CBD-CGD-O2D-CED
6	04	301	CHL	CBD-CGD-O2D-CED
6	01	304	CHL	O1D-CGD-O2D-CED
5	01	301	CLA	C3-C5-C6-C7
5	03	301	CLA	C3-C5-C6-C7
5	1R	301	CLA	C3-C5-C6-C7
6	01	304	CHL	C3-C5-C6-C7
5	1R	305	CLA	O1D-CGD-O2D-CED
6	02	607	CHL	O1D-CGD-O2D-CED
5	01	301	CLA	C2-C3-C5-C6
6	01	302	CHL	CBD-CGD-O2D-CED
5	03	309	CLA	C2A-CAA-CBA-CGA
6	01	304	CHL	C2A-CAA-CBA-CGA
6	03	303	CHL	C2A-CAA-CBA-CGA
6	04	303	CHL	C2A-CAA-CBA-CGA
6	1R	312	CHL	C2A-CAA-CBA-CGA
5	01	307	CLA	CBD-CGD-O2D-CED
5	01	308	CLA	CBD-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
5	1R	307	CLA	CBD-CGD-O2D-CED
6	01	306	CHL	O1D-CGD-O2D-CED
6	03	311	CHL	O1D-CGD-O2D-CED
5	01	308	CLA	C3-C5-C6-C7
6	01	302	CHL	C2A-CAA-CBA-CGA
5	01	310	CLA	O1D-CGD-O2D-CED
6	01	306	CHL	C11-C10-C8-C9
9	04	313	BCR	C37-C22-C23-C24
10	1R	314	XAT	C27-C28-C29-C39
9	04	313	BCR	C21-C22-C23-C24
10	1R	314	XAT	C27-C28-C29-C30
6	01	306	CHL	C10-C11-C12-C13
5	1R	301	CLA	CBA-CGA-O2A-C1
6	01	306	CHL	C5-C6-C7-C8
6	04	301	CHL	O1D-CGD-O2D-CED
6	03	304	CHL	O1D-CGD-O2D-CED
5	03	301	CLA	C8-C10-C11-C12
6	01	304	CHL	C13-C15-C16-C17
6	02	601	CHL	O1D-CGD-O2D-CED
5	1R	311	CLA	CBA-CGA-O2A-C1
6	01	304	CHL	C8-C10-C11-C12
5	01	301	CLA	C2A-CAA-CBA-CGA
5	1R	308	CLA	C2A-CAA-CBA-CGA
6	01	303	CHL	C2A-CAA-CBA-CGA
6	01	302	CHL	O1D-CGD-O2D-CED
8	01	316	LHG	C11-C10-C9-C8
8	01	316	LHG	C15-C16-C17-C18
8	01	316	LHG	C2-C3-O3-P
8	03	314	LHG	C15-C16-C17-C18
5	01	308	CLA	O1D-CGD-O2D-CED
5	1R	307	CLA	C2A-CAA-CBA-CGA
5	1R	301	CLA	O1A-CGA-O2A-C1
5	01	308	CLA	C5-C6-C7-C8
5	01	309	CLA	C4B-C3B-CAB-CBB
5	02	614	CLA	C4B-C3B-CAB-CBB
5	04	306	CLA	C4B-C3B-CAB-CBB
6	02	605	CHL	C4B-C3B-CAB-CBB
6	03	311	CHL	C4B-C3B-CAB-CBB
6	01	306	CHL	C8-C10-C11-C12
5	01	313	CLA	C3A-C2A-CAA-CBA
5	02	611	CLA	C3A-C2A-CAA-CBA
5	04	309	CLA	C3A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
6	02	601	CHL	C3A-C2A-CAA-CBA
6	02	605	CHL	C3A-C2A-CAA-CBA
6	04	301	CHL	C3A-C2A-CAA-CBA
5	01	308	CLA	C16-C17-C18-C19
5	01	308	CLA	C16-C17-C18-C20
5	01	307	CLA	C2B-C3B-CAB-CBB
5	01	309	CLA	C2B-C3B-CAB-CBB
5	02	614	CLA	C2B-C3B-CAB-CBB
5	04	306	CLA	C2B-C3B-CAB-CBB
6	02	605	CHL	C2B-C3B-CAB-CBB
6	03	311	CHL	C2B-C3B-CAB-CBB
9	04	313	BCR	C1-C6-C7-C8
9	04	313	BCR	C5-C6-C7-C8
9	04	313	BCR	C23-C24-C25-C26
5	02	612	CLA	C2A-CAA-CBA-CGA
5	03	301	CLA	C2A-CAA-CBA-CGA
5	01	307	CLA	O1D-CGD-O2D-CED
5	03	301	CLA	C4-C3-C5-C6
5	01	307	CLA	C1A-C2A-CAA-CBA
5	01	313	CLA	C1A-C2A-CAA-CBA
5	02	611	CLA	C1A-C2A-CAA-CBA
5	1R	307	CLA	C1A-C2A-CAA-CBA
6	01	302	CHL	C1A-C2A-CAA-CBA
6	01	306	CHL	C1A-C2A-CAA-CBA
6	02	601	CHL	C1A-C2A-CAA-CBA
6	02	605	CHL	C1A-C2A-CAA-CBA
6	03	305	CHL	C1A-C2A-CAA-CBA
6	04	301	CHL	C1A-C2A-CAA-CBA
5	1R	311	CLA	O1A-CGA-O2A-C1
5	01	307	CLA	C4-C3-C5-C6
8	01	316	LHG	C9-C10-C11-C12
5	1R	307	CLA	O1D-CGD-O2D-CED
8	1R	315	LHG	C23-C24-C25-C26
8	01	316	LHG	O7-C5-C6-O8
6	01	304	CHL	C4-C3-C5-C6
6	01	304	CHL	C2-C3-C5-C6
6	01	304	CHL	C6-C7-C8-C10
6	01	304	CHL	C6-C7-C8-C9
5	01	307	CLA	C4B-C3B-CAB-CBB
5	04	308	CLA	C4B-C3B-CAB-CBB
8	03	314	LHG	O6-C4-C5-C6
8	01	316	LHG	C7-C8-C9-C10

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Mol	Chain	Res	Type	Atoms
8	03	314	LHG	C5-C4-O6-P
5	01	308	CLA	C3A-C2A-CAA-CBA
5	01	309	CLA	C3A-C2A-CAA-CBA
5	03	301	CLA	C2-C3-C5-C6
5	01	312	CLA	C2C-C3C-CAC-CBC
6	02	601	CHL	C3C-C2C-CMC-OMC
6	03	304	CHL	C3C-C2C-CMC-OMC
5	04	308	CLA	C2B-C3B-CAB-CBB
5	1R	301	CLA	C2B-C3B-CAB-CBB
6	03	304	CHL	C2B-C3B-CAB-CBB
8	1R	316	LHG	C15-C16-C17-C18
5	1R	301	CLA	C2A-CAA-CBA-CGA
6	02	605	CHL	C2A-CAA-CBA-CGA
5	03	307	CLA	C1A-C2A-CAA-CBA
6	01	304	CHL	C11-C12-C13-C15
6	01	304	CHL	CAD-CBD-CGD-O2D
8	03	314	LHG	O6-C4-C5-O7
5	02	613	CLA	C2A-CAA-CBA-CGA
6	02	601	CHL	C2A-CAA-CBA-CGA
5	01	308	CLA	CHA-CBD-CGD-O1D
5	01	308	CLA	CHA-CBD-CGD-O2D
5	01	309	CLA	CHA-CBD-CGD-O1D
6	01	306	CHL	O1A-CGA-O2A-C1
5	01	309	CLA	C1A-C2A-CAA-CBA
5	03	301	CLA	C1A-C2A-CAA-CBA
6	01	304	CHL	C1A-C2A-CAA-CBA
6	1R	302	CHL	CHA-CBD-CGD-O2D
6	1R	304	CHL	CHA-CBD-CGD-O2D
6	01	306	CHL	CBA-CGA-O2A-C1
8	1R	315	LHG	C3-O3-P-O6
8	1R	315	LHG	O2-C2-C3-O3
5	01	307	CLA	C2-C3-C5-C6
5	1R	301	CLA	C4B-C3B-CAB-CBB
5	1R	306	CLA	C4B-C3B-CAB-CBB
5	1R	311	CLA	C4B-C3B-CAB-CBB
6	01	302	CHL	C4B-C3B-CAB-CBB
6	01	306	CHL	C4B-C3B-CAB-CBB
6	02	601	CHL	C4B-C3B-CAB-CBB
6	02	603	CHL	C4B-C3B-CAB-CBB
6	02	604	CHL	C4B-C3B-CAB-CBB
6	02	606	CHL	C4B-C3B-CAB-CBB
6	02	607	CHL	C4B-C3B-CAB-CBB

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Mol	Chain	Res	Type	Atoms
6	03	302	CHL	C4B-C3B-CAB-CBB
6	03	304	CHL	C4B-C3B-CAB-CBB
6	03	305	CHL	C4B-C3B-CAB-CBB
6	04	304	CHL	C4B-C3B-CAB-CBB
6	04	305	CHL	C4B-C3B-CAB-CBB
6	1R	302	CHL	C4B-C3B-CAB-CBB
6	1R	304	CHL	C4B-C3B-CAB-CBB
6	1R	312	CHL	C4B-C3B-CAB-CBB
5	01	309	CLA	CAD-CBD-CGD-O1D
5	03	307	CLA	CAD-CBD-CGD-O2D
5	04	312	CLA	CHA-CBD-CGD-O1D
6	01	304	CHL	C12-C13-C15-C16
6	01	306	CHL	C6-C7-C8-C10
6	01	306	CHL	C11-C10-C8-C7
5	01	301	CLA	CAA-CBA-CGA-O2A
5	03	307	CLA	CAD-CBD-CGD-O1D
5	03	309	CLA	CAD-CBD-CGD-O1D
6	01	302	CHL	C1C-C2C-CMC-OMC
6	01	303	CHL	C1C-C2C-CMC-OMC
6	01	304	CHL	C1C-C2C-CMC-OMC
6	02	601	CHL	C1C-C2C-CMC-OMC
6	02	603	CHL	C1C-C2C-CMC-OMC
6	02	604	CHL	C1C-C2C-CMC-OMC
6	02	606	CHL	C1C-C2C-CMC-OMC
6	03	302	CHL	C1C-C2C-CMC-OMC
6	03	303	CHL	C1C-C2C-CMC-OMC
6	03	304	CHL	C1C-C2C-CMC-OMC
6	03	311	CHL	C1C-C2C-CMC-OMC
6	04	301	CHL	C1C-C2C-CMC-OMC
6	04	302	CHL	C1C-C2C-CMC-OMC
6	04	305	CHL	C1C-C2C-CMC-OMC
6	1R	302	CHL	C1C-C2C-CMC-OMC
6	1R	303	CHL	C1C-C2C-CMC-OMC
6	1R	304	CHL	C1C-C2C-CMC-OMC
6	1R	312	CHL	C1C-C2C-CMC-OMC
8	01	316	LHG	C4-C5-C6-O8
5	01	307	CLA	C5-C6-C7-C8
5	01	301	CLA	C2C-C3C-CAC-CBC
6	01	304	CHL	C11-C12-C13-C14
5	1R	311	CLA	C2A-CAA-CBA-CGA
5	1R	311	CLA	C2B-C3B-CAB-CBB
6	01	306	CHL	C2B-C3B-CAB-CBB

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Mol	Chain	Res	Type	Atoms
6	02	601	CHL	C2B-C3B-CAB-CBB
6	03	302	CHL	C2B-C3B-CAB-CBB
6	03	303	CHL	C2B-C3B-CAB-CBB
6	1R	302	CHL	C2B-C3B-CAB-CBB
6	1R	312	CHL	C2B-C3B-CAB-CBB
5	1R	307	CLA	CAA-CBA-CGA-O2A
5	1R	307	CLA	C1-C2-C3-C4
5	03	310	CLA	C2A-CAA-CBA-CGA
6	04	303	CHL	O1D-CGD-O2D-CED
8	01	316	LHG	C3-O3-P-O6
8	01	316	LHG	C4-O6-P-O3
8	03	314	LHG	C3-O3-P-O6
8	1R	316	LHG	C3-O3-P-O6
6	01	304	CHL	C14-C13-C15-C16
5	1R	308	CLA	C4B-C3B-CAB-CBB
5	01	312	CLA	C4C-C3C-CAC-CBC
5	03	310	CLA	CAA-CBA-CGA-O1A
5	01	301	CLA	C2-C1-O2A-CGA
5	01	307	CLA	C2-C1-O2A-CGA
5	01	307	CLA	C2A-CAA-CBA-CGA
5	02	614	CLA	C3A-C2A-CAA-CBA
6	01	304	CHL	C3A-C2A-CAA-CBA
6	02	606	CHL	C3A-C2A-CAA-CBA
6	02	601	CHL	CAA-CBA-CGA-O1A
8	1R	316	LHG	C14-C15-C16-C17
10	1R	314	XAT	C40-C33-C34-C35
6	02	601	CHL	CAA-CBA-CGA-O2A
5	01	308	CLA	C1A-C2A-CAA-CBA
6	02	606	CHL	C1A-C2A-CAA-CBA
6	1R	312	CHL	C1A-C2A-CAA-CBA
6	01	305	CHL	C3C-C2C-CMC-OMC
6	03	305	CHL	C3C-C2C-CMC-OMC
5	03	310	CLA	CAA-CBA-CGA-O2A
5	03	308	CLA	C2B-C3B-CAB-CBB
5	04	307	CLA	C2B-C3B-CAB-CBB
5	1R	306	CLA	C2B-C3B-CAB-CBB
5	1R	308	CLA	C2B-C3B-CAB-CBB
6	01	302	CHL	C2B-C3B-CAB-CBB
6	02	603	CHL	C2B-C3B-CAB-CBB
6	02	604	CHL	C2B-C3B-CAB-CBB
6	02	606	CHL	C2B-C3B-CAB-CBB
6	02	607	CHL	C2B-C3B-CAB-CBB

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Mol	Chain	Res	Type	Atoms
6	03	305	CHL	C2B-C3B-CAB-CBB
6	04	301	CHL	C2B-C3B-CAB-CBB
6	04	304	CHL	C2B-C3B-CAB-CBB
6	04	305	CHL	C2B-C3B-CAB-CBB
6	1R	304	CHL	C2B-C3B-CAB-CBB
5	02	614	CLA	CAA-CBA-CGA-O1A
6	02	605	CHL	CAA-CBA-CGA-O2A
8	03	314	LHG	C14-C15-C16-C17
6	02	603	CHL	CBD-CGD-O2D-CED
10	1R	314	XAT	C32-C33-C34-C35
6	04	303	CHL	CAA-CBA-CGA-O2A
5	1R	301	CLA	C2-C1-O2A-CGA
6	01	303	CHL	CAA-CBA-CGA-O2A
6	02	604	CHL	CAA-CBA-CGA-O2A
5	01	301	CLA	C4C-C3C-CAC-CBC
7	01	315	LUT	C5-C6-C7-C8
5	02	614	CLA	CAA-CBA-CGA-O2A
5	01	312	CLA	CBD-CGD-O2D-CED
5	1R	310	CLA	CAA-CBA-CGA-O2A
6	02	605	CHL	CAA-CBA-CGA-O1A
6	1R	312	CHL	CAA-CBA-CGA-O2A
8	1R	315	LHG	C24-C25-C26-C27
5	03	312	CLA	CAA-CBA-CGA-O2A
6	01	303	CHL	CAA-CBA-CGA-O1A
6	02	604	CHL	CAA-CBA-CGA-O1A
5	04	306	CLA	CAA-CBA-CGA-O2A
5	04	309	CLA	CAA-CBA-CGA-O2A
6	04	303	CHL	CAA-CBA-CGA-O1A
5	01	308	CLA	C11-C12-C13-C15
6	02	607	CHL	CAA-CBA-CGA-O2A
6	01	305	CHL	CAA-CBA-CGA-O2A
8	1R	315	LHG	O8-C23-C24-C25
5	04	311	CLA	CAA-CBA-CGA-O2A
6	02	603	CHL	CAA-CBA-CGA-O2A
6	03	303	CHL	CAA-CBA-CGA-O2A
5	04	310	CLA	CAA-CBA-CGA-O2A
6	04	303	CHL	CBD-CGD-O2D-CED
6	01	306	CHL	C6-C7-C8-C9
5	03	312	CLA	CAA-CBA-CGA-O1A
6	1R	312	CHL	C3A-C2A-CAA-CBA
5	1R	309	CLA	CAA-CBA-CGA-O2A
5	02	602	CLA	CAA-CBA-CGA-O2A

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Mol	Chain	Res	Type	Atoms
5	04	307	CLA	CAA-CBA-CGA-O2A
5	04	311	CLA	CAA-CBA-CGA-O1A
5	01	307	CLA	CAD-CBD-CGD-O2D
5	02	609	CLA	CAD-CBD-CGD-O2D
6	01	302	CHL	CAD-CBD-CGD-O2D
5	01	313	CLA	C2A-CAA-CBA-CGA
5	02	610	CLA	CAA-CBA-CGA-O2A
6	03	303	CHL	CAA-CBA-CGA-O1A
6	01	304	CHL	CAA-CBA-CGA-O2A
5	04	306	CLA	CAA-CBA-CGA-O1A
5	04	309	CLA	CAA-CBA-CGA-O1A
6	02	606	CHL	CAA-CBA-CGA-O1A
5	03	309	CLA	CAA-CBA-CGA-O2A
5	1R	308	CLA	CAA-CBA-CGA-O1A
6	02	603	CHL	CAA-CBA-CGA-O1A
6	02	607	CHL	CAA-CBA-CGA-O1A
6	1R	312	CHL	CAA-CBA-CGA-O1A
5	02	602	CLA	CAA-CBA-CGA-O1A
5	02	610	CLA	CAA-CBA-CGA-O1A
5	03	309	CLA	CAA-CBA-CGA-O1A
5	1R	310	CLA	CAA-CBA-CGA-O1A
6	01	302	CHL	CAA-CBA-CGA-O2A
6	01	305	CHL	CAA-CBA-CGA-O1A
6	02	606	CHL	CAA-CBA-CGA-O2A
5	01	309	CLA	CHA-CBD-CGD-O2D
5	01	310	CLA	CHA-CBD-CGD-O1D
5	04	310	CLA	CAA-CBA-CGA-O1A
5	1R	308	CLA	CAA-CBA-CGA-O2A
5	04	307	CLA	CAA-CBA-CGA-O1A
5	02	613	CLA	CAA-CBA-CGA-O2A
8	01	316	LHG	O8-C23-C24-C25
6	02	603	CHL	C2A-CAA-CBA-CGA
6	02	603	CHL	O1D-CGD-O2D-CED
8	03	314	LHG	C28-C29-C30-C31
5	01	308	CLA	C11-C12-C13-C14
5	01	308	CLA	CAA-CBA-CGA-O2A
8	1R	315	LHG	O10-C23-C24-C25
8	03	314	LHG	C16-C17-C18-C19
5	02	608	CLA	CHA-CBD-CGD-O2D
5	04	312	CLA	CHA-CBD-CGD-O2D
5	1R	308	CLA	C1A-C2A-CAA-CBA
5	1R	311	CLA	C1A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
6	01	303	CHL	C1A-C2A-CAA-CBA
6	04	303	CHL	C1A-C2A-CAA-CBA
6	01	304	CHL	CAA-CBA-CGA-O1A
8	1R	315	LHG	O7-C7-C8-C9
6	01	302	CHL	CAA-CBA-CGA-O1A
5	01	312	CLA	CAA-CBA-CGA-O2A
5	01	308	CLA	C15-C16-C17-C18
5	03	308	CLA	C4B-C3B-CAB-CBB
5	04	307	CLA	C4B-C3B-CAB-CBB
6	03	303	CHL	C4B-C3B-CAB-CBB
6	04	301	CHL	C4B-C3B-CAB-CBB
8	1R	316	LHG	C3-O3-P-O5
5	1R	309	CLA	CAA-CBA-CGA-O1A
7	01	314	LUT	C5-C6-C7-C8
9	04	313	BCR	C23-C24-C25-C30
6	02	607	CHL	C2C-C3C-CAC-CBC
6	03	305	CHL	CAA-CBA-CGA-O1A
6	03	305	CHL	CAA-CBA-CGA-O2A
6	01	306	CHL	C14-C13-C15-C16
5	02	613	CLA	CAA-CBA-CGA-O1A
5	1R	311	CLA	CAA-CBA-CGA-O2A
6	01	304	CHL	C5-C6-C7-C8
5	04	306	CLA	C2A-CAA-CBA-CGA
5	1R	309	CLA	C2A-CAA-CBA-CGA
5	02	602	CLA	CAD-CBD-CGD-O2D
5	02	608	CLA	CHA-CBD-CGD-O1D
5	02	614	CLA	CAD-CBD-CGD-O2D
5	1R	308	CLA	C3A-C2A-CAA-CBA
6	1R	302	CHL	CHA-CBD-CGD-O1D
8	01	316	LHG	O7-C7-C8-C9
5	1R	311	CLA	CAA-CBA-CGA-O1A
8	1R	315	LHG	O9-C7-C8-C9
6	04	301	CHL	CAA-CBA-CGA-O1A
5	01	312	CLA	CAA-CBA-CGA-O1A
6	04	301	CHL	CAA-CBA-CGA-O2A

There are no ring outliers.

61 monomers are involved in 118 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	1R	312	CHL	1	0
5	02	609	CLA	1	0

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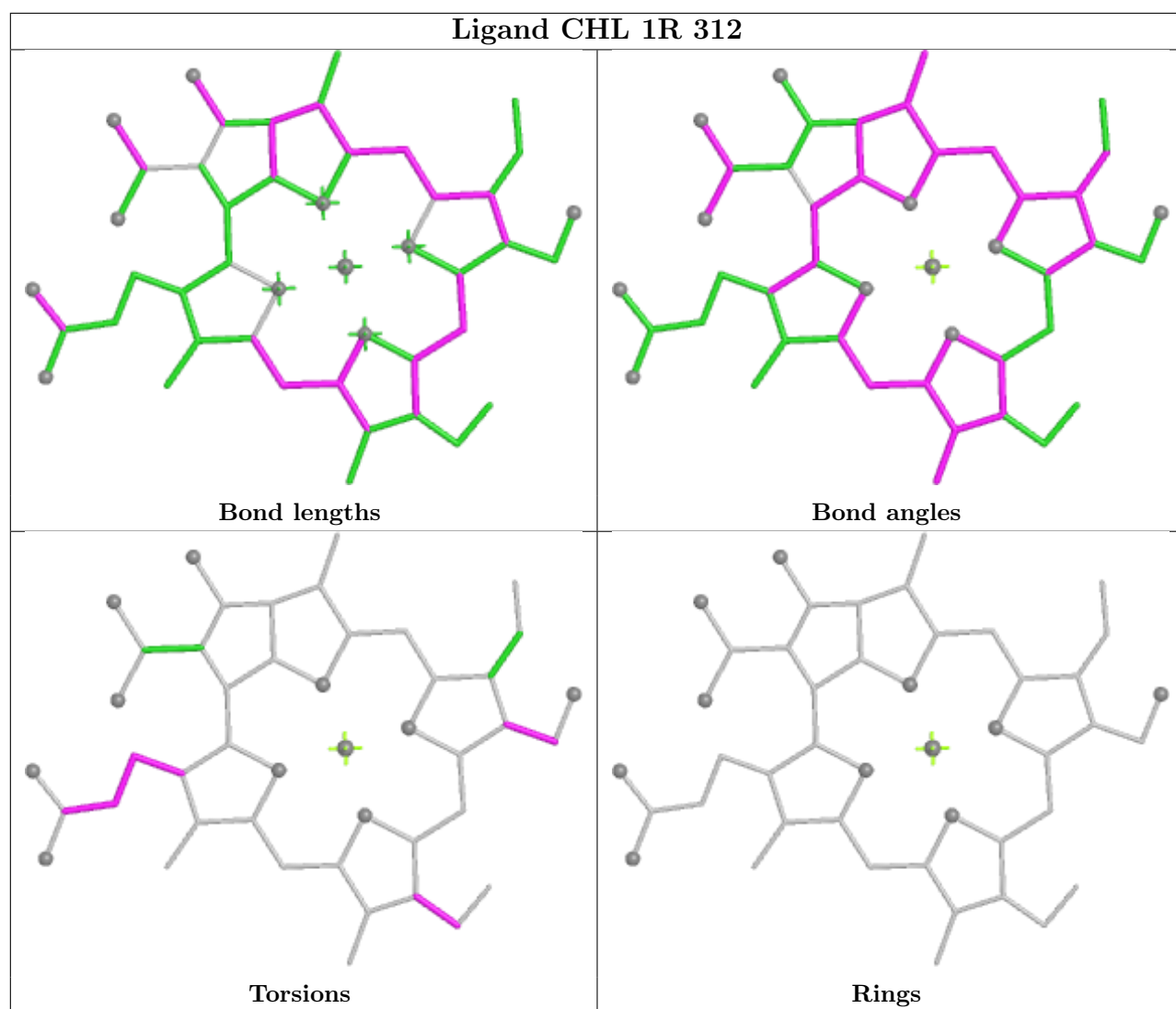
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	1R	301	CLA	6	0
6	02	606	CHL	3	0
5	01	311	CLA	1	0
5	04	306	CLA	1	0
6	03	302	CHL	1	0
6	03	311	CHL	1	0
5	03	309	CLA	1	0
9	04	313	BCR	5	0
6	03	304	CHL	1	0
6	1R	303	CHL	2	0
6	04	304	CHL	2	0
8	1R	316	LHG	3	0
5	01	310	CLA	2	0
6	04	303	CHL	3	0
10	1R	314	XAT	7	0
6	02	604	CHL	1	0
7	03	313	LUT	6	0
5	1R	308	CLA	2	0
6	01	302	CHL	1	0
6	01	306	CHL	8	0
6	02	603	CHL	1	0
6	01	304	CHL	3	0
5	01	308	CLA	9	0
5	03	306	CLA	1	0
7	1R	313	LUT	5	0
5	04	310	CLA	2	0
5	1R	307	CLA	2	0
5	03	310	CLA	1	0
5	1R	310	CLA	1	0
5	01	307	CLA	1	0
5	1R	306	CLA	3	0
7	01	314	LUT	2	0
8	03	314	LHG	2	0
5	04	309	CLA	1	0
6	1R	302	CHL	1	0
5	03	301	CLA	3	0
5	02	610	CLA	1	0
8	1R	315	LHG	1	0
7	01	315	LUT	8	0
6	04	302	CHL	2	0
5	02	608	CLA	1	0
5	04	314	CLA	1	0

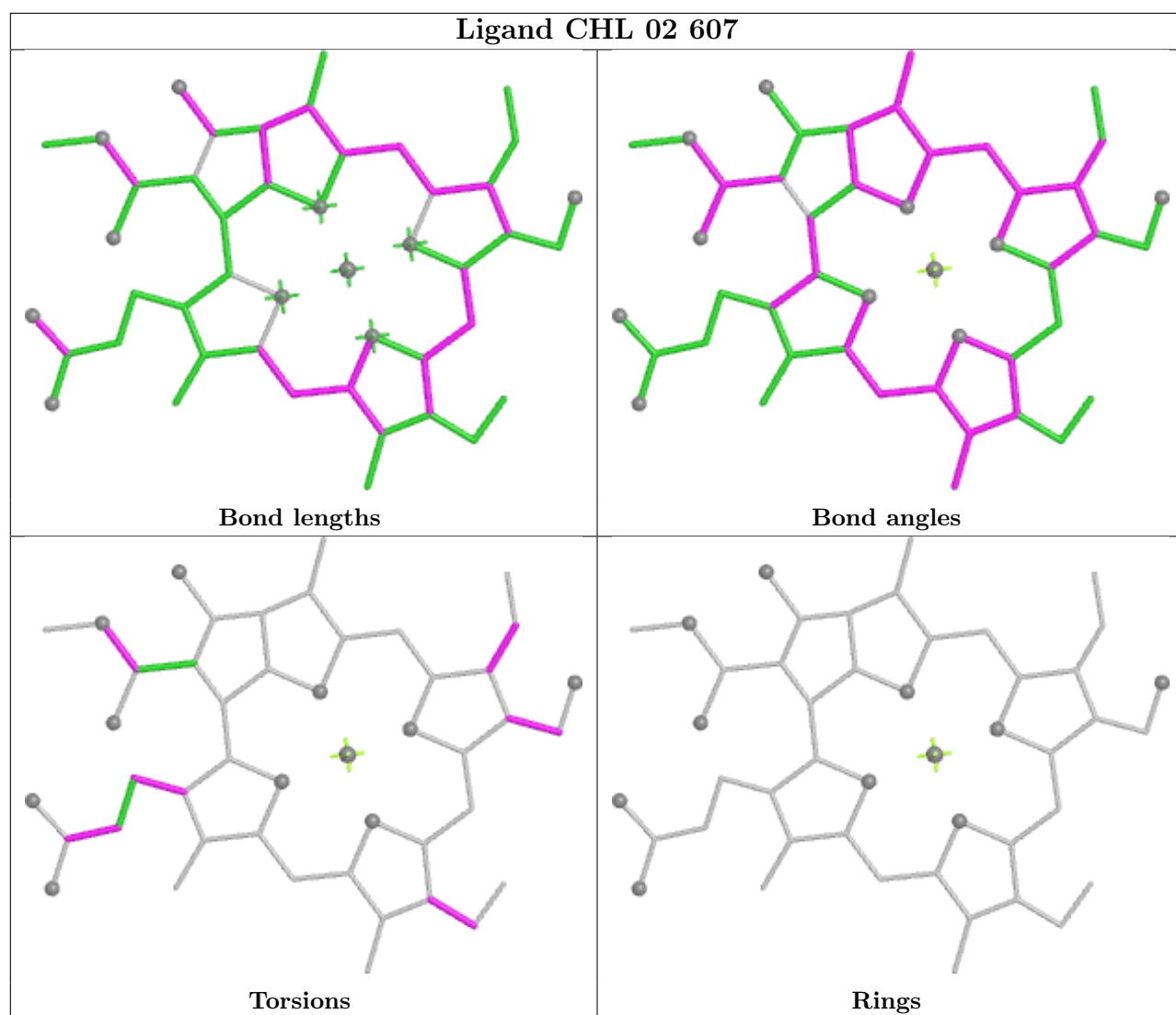
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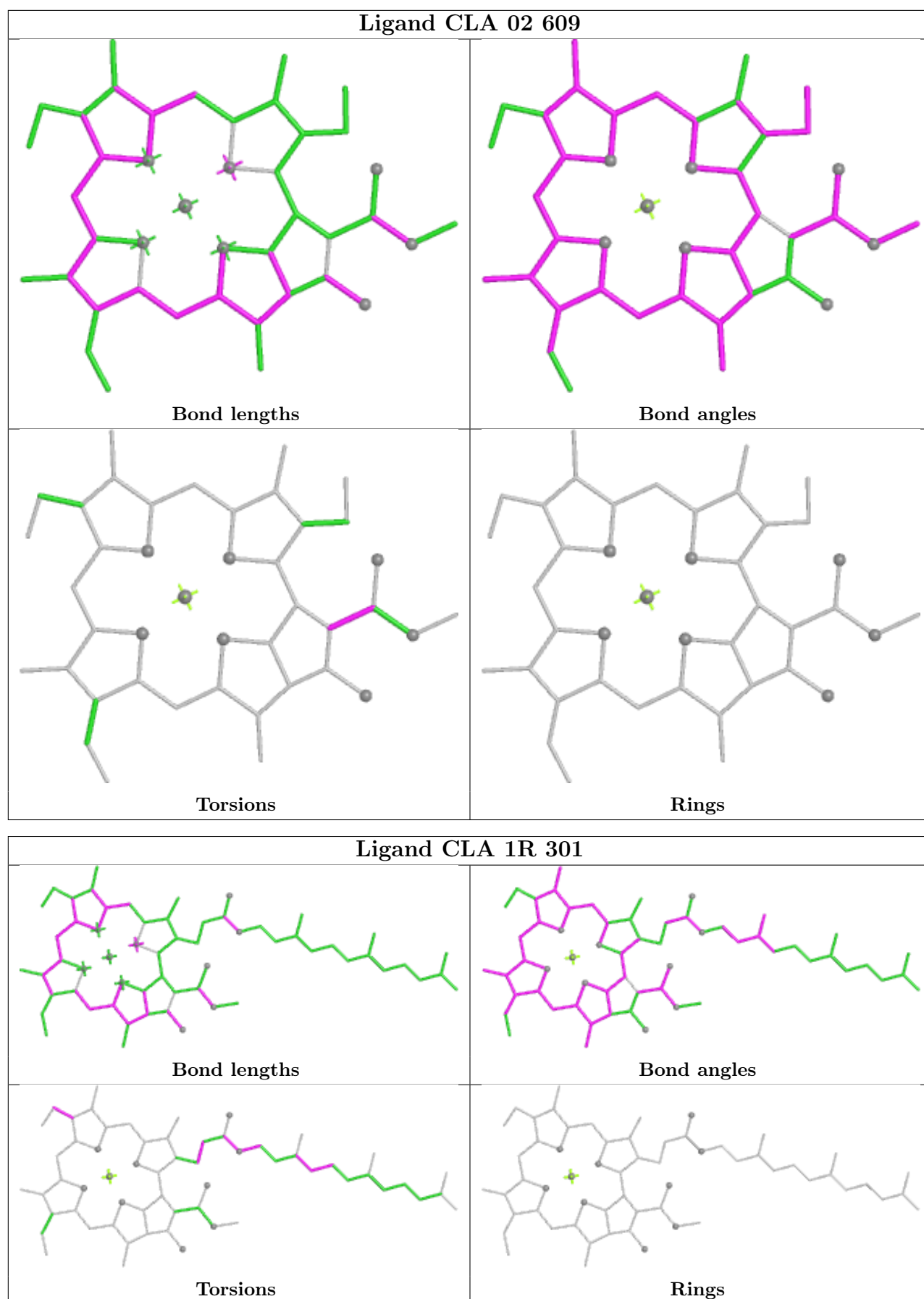
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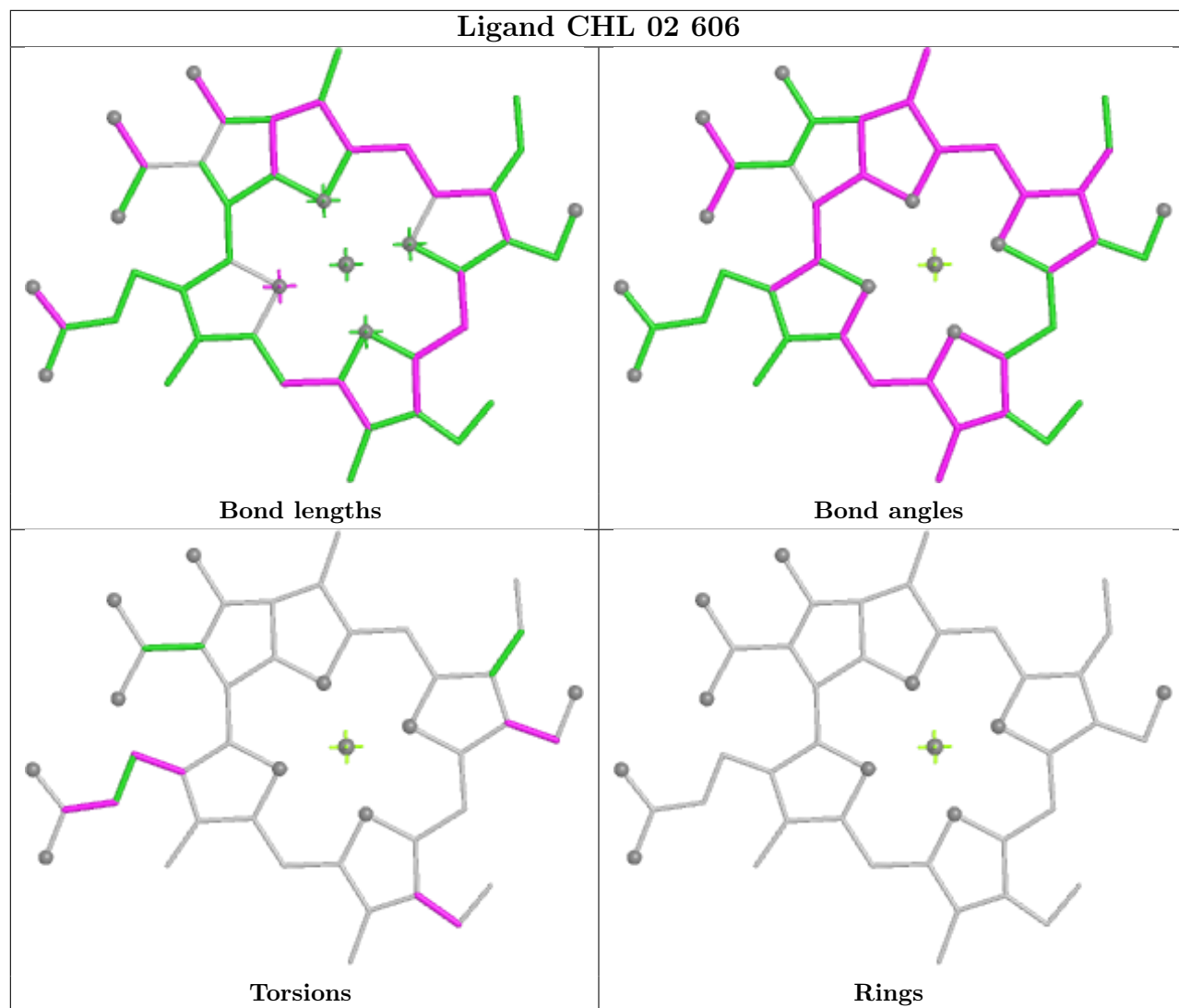
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	03	308	CLA	2	0
5	03	312	CLA	4	0
5	1R	305	CLA	3	0
6	03	303	CHL	1	0
5	01	309	CLA	1	0
6	03	305	CHL	1	0
5	01	301	CLA	6	0
8	01	316	LHG	4	0
5	02	602	CLA	1	0
6	02	605	CHL	1	0
5	02	613	CLA	1	0
5	01	312	CLA	2	0
5	1R	311	CLA	1	0
6	01	303	CHL	3	0
6	01	305	CHL	5	0
5	1R	309	CLA	1	0
5	02	614	CLA	2	0

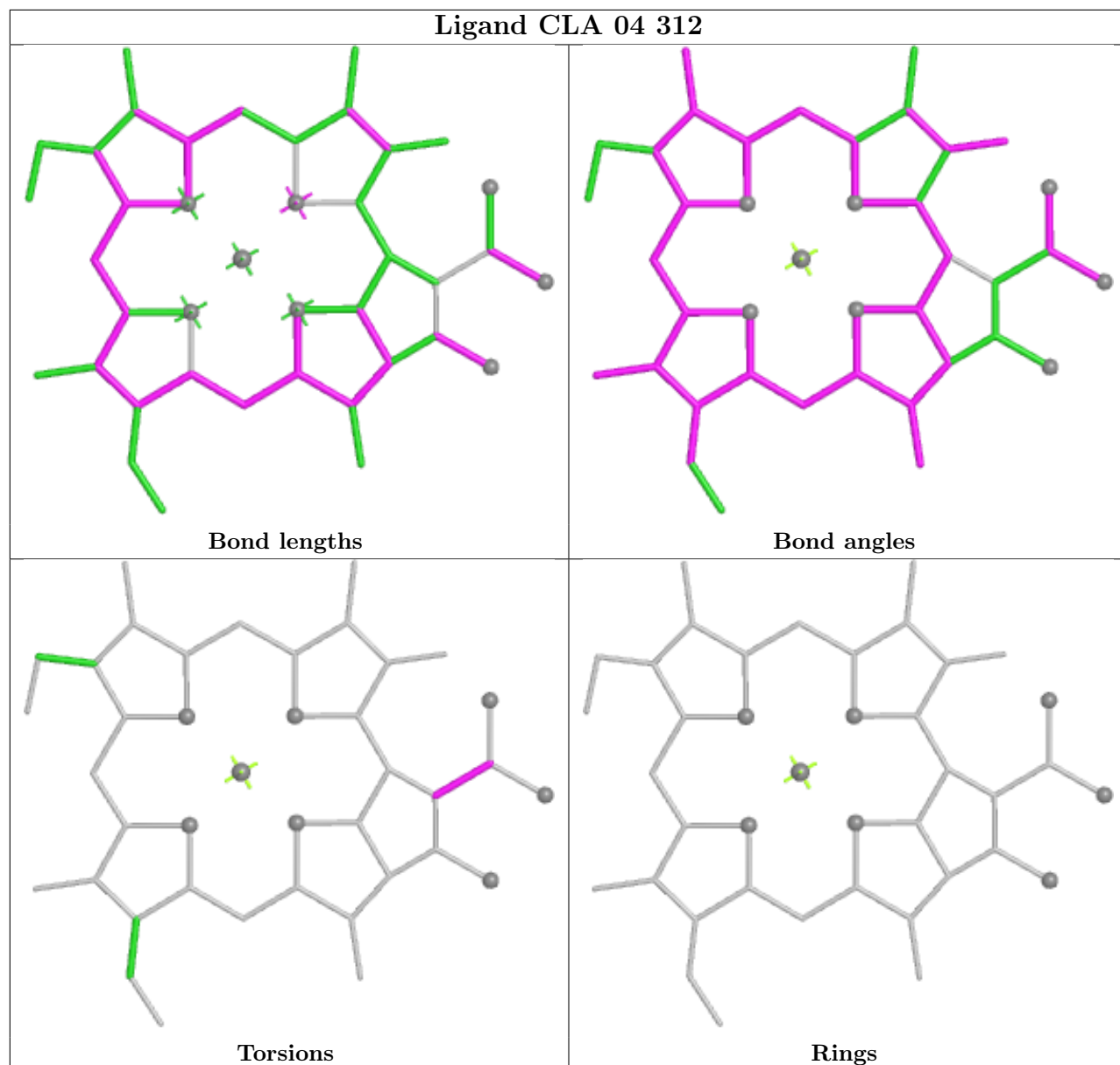
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

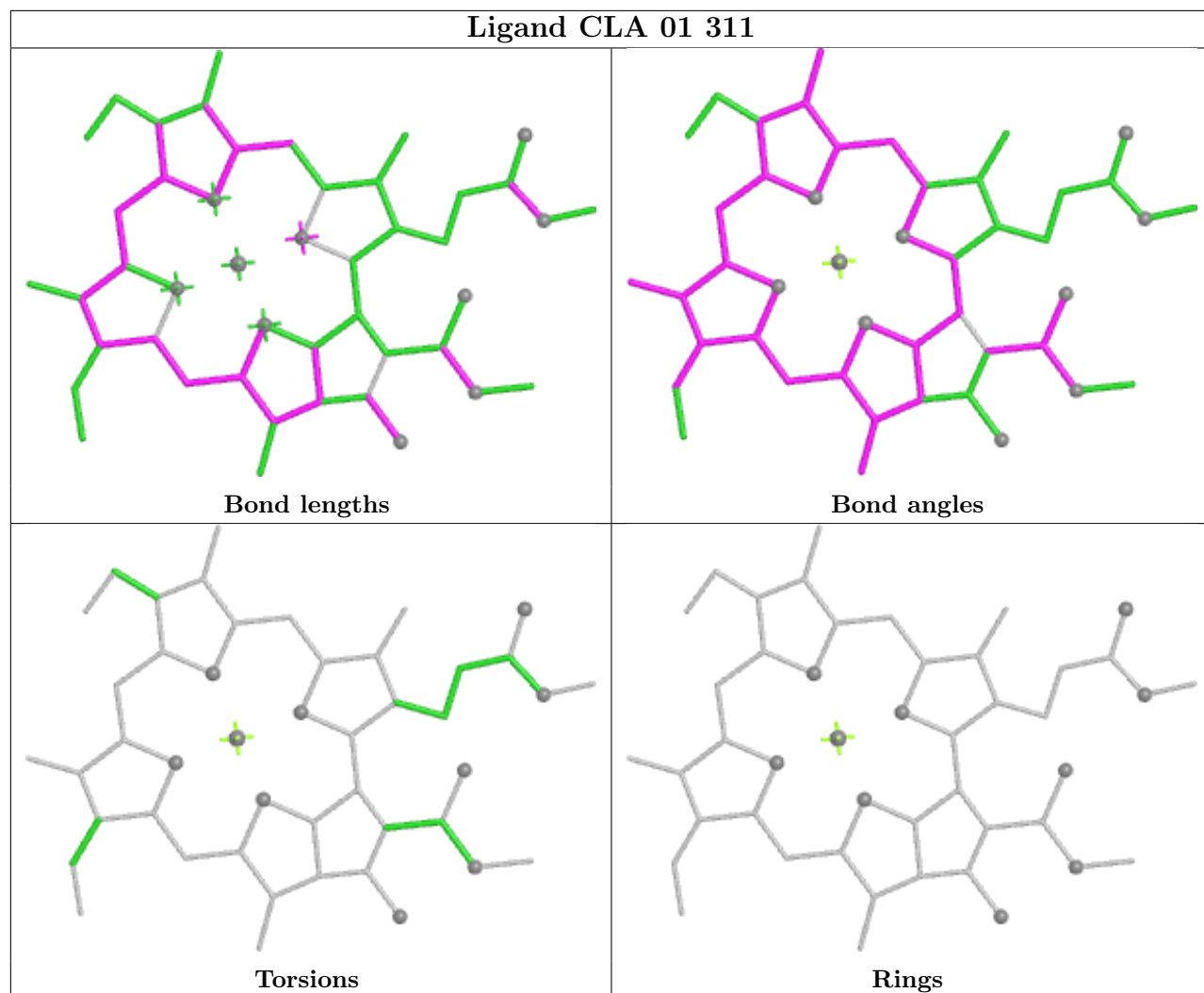


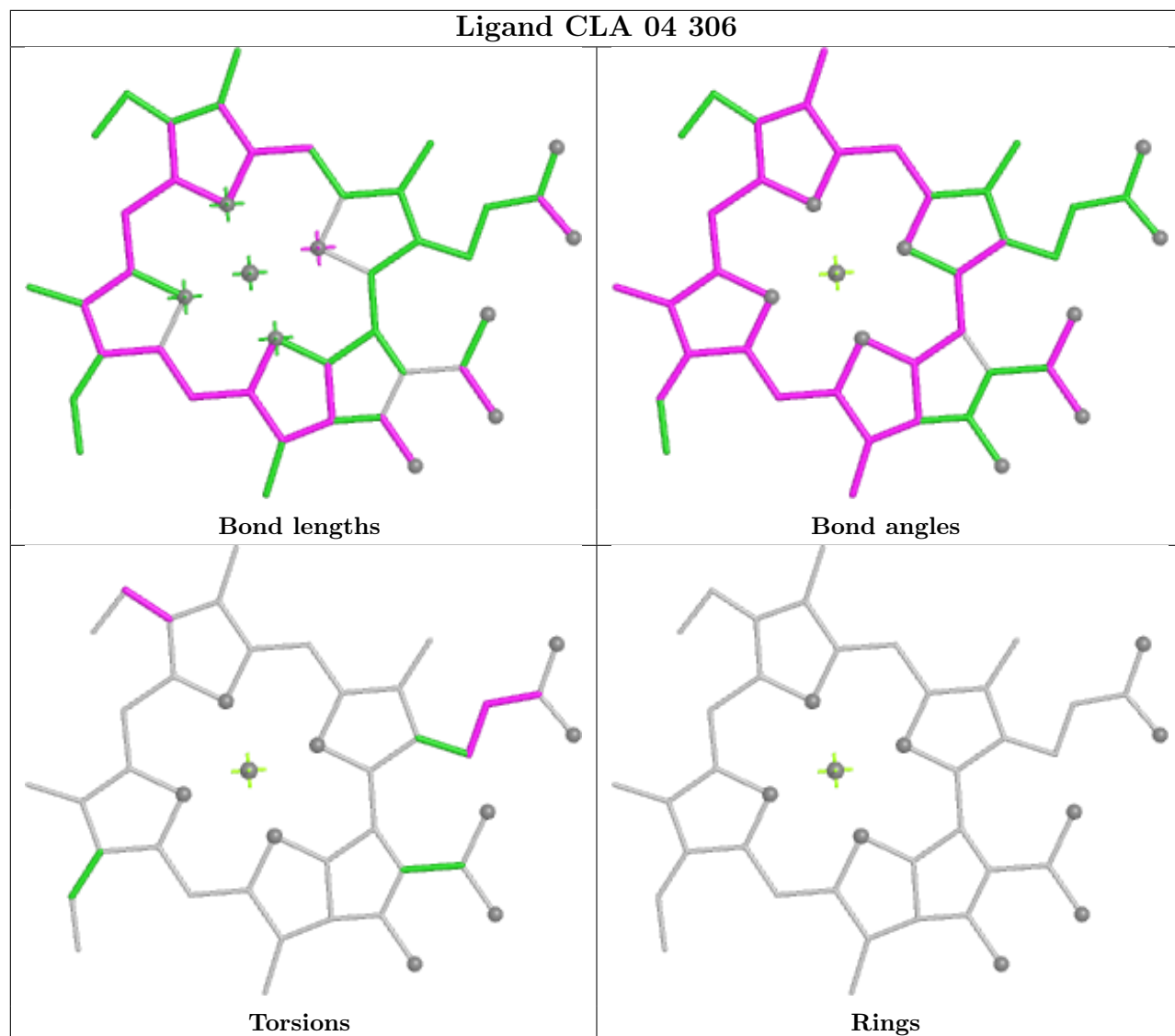


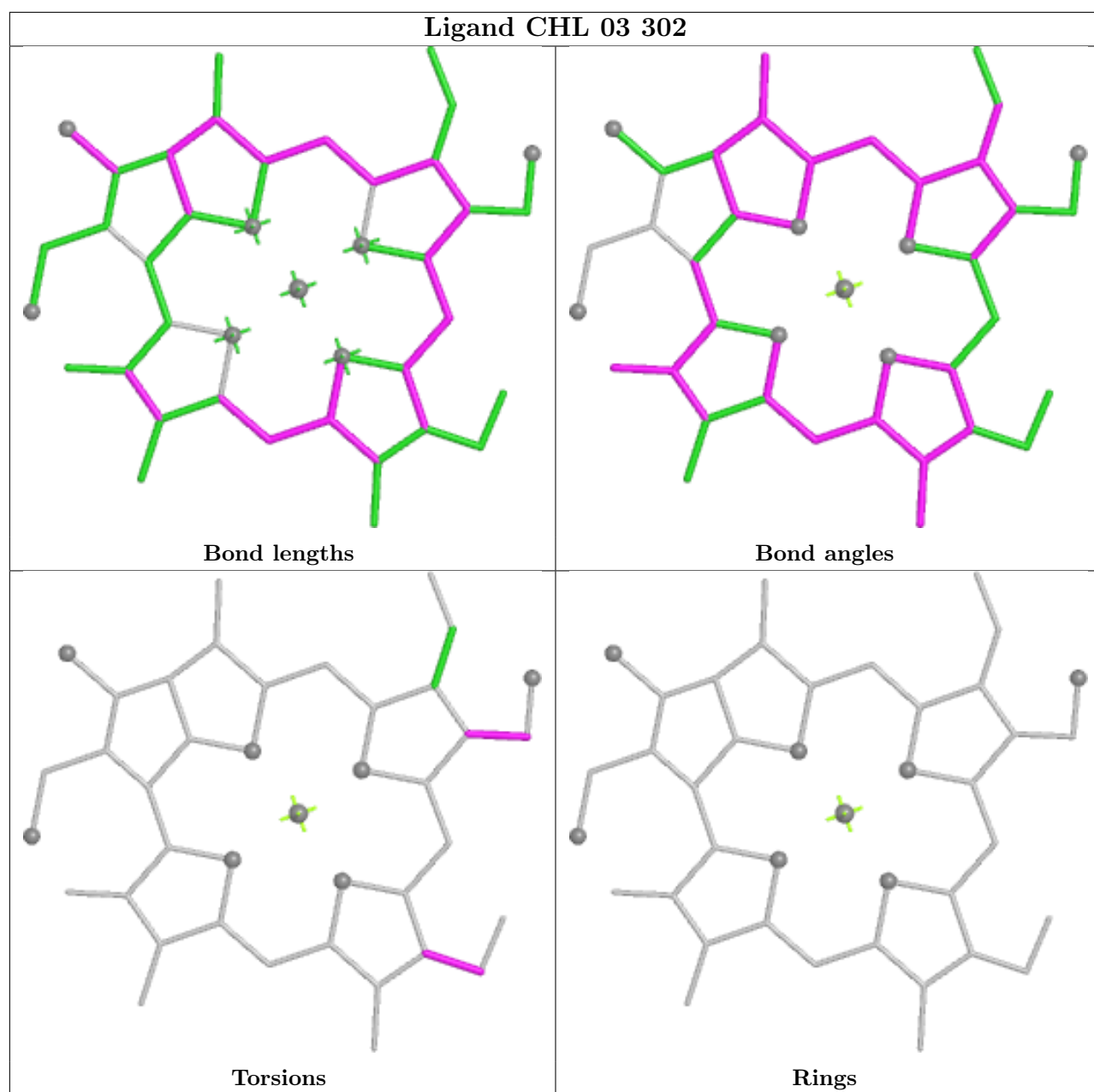


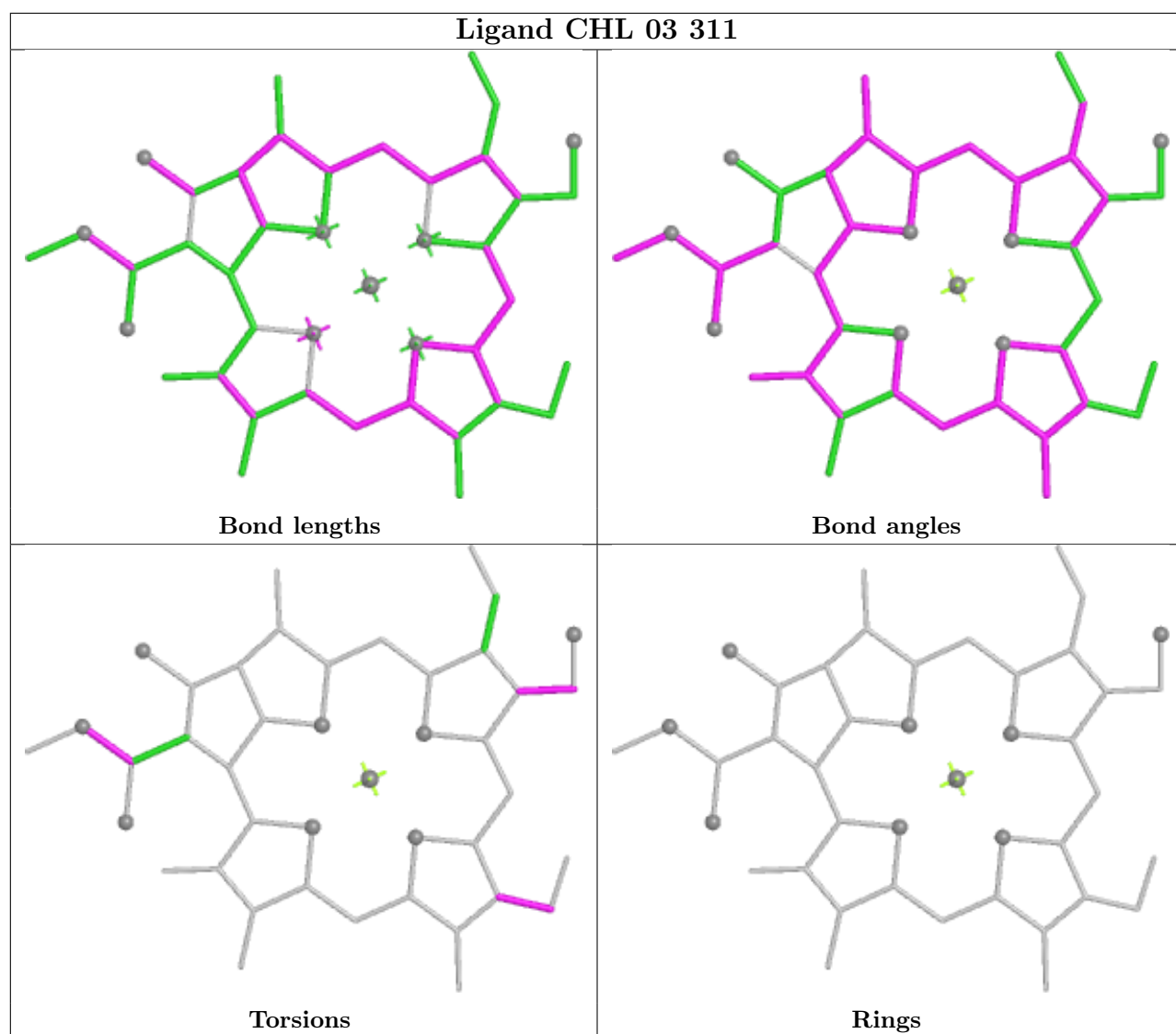


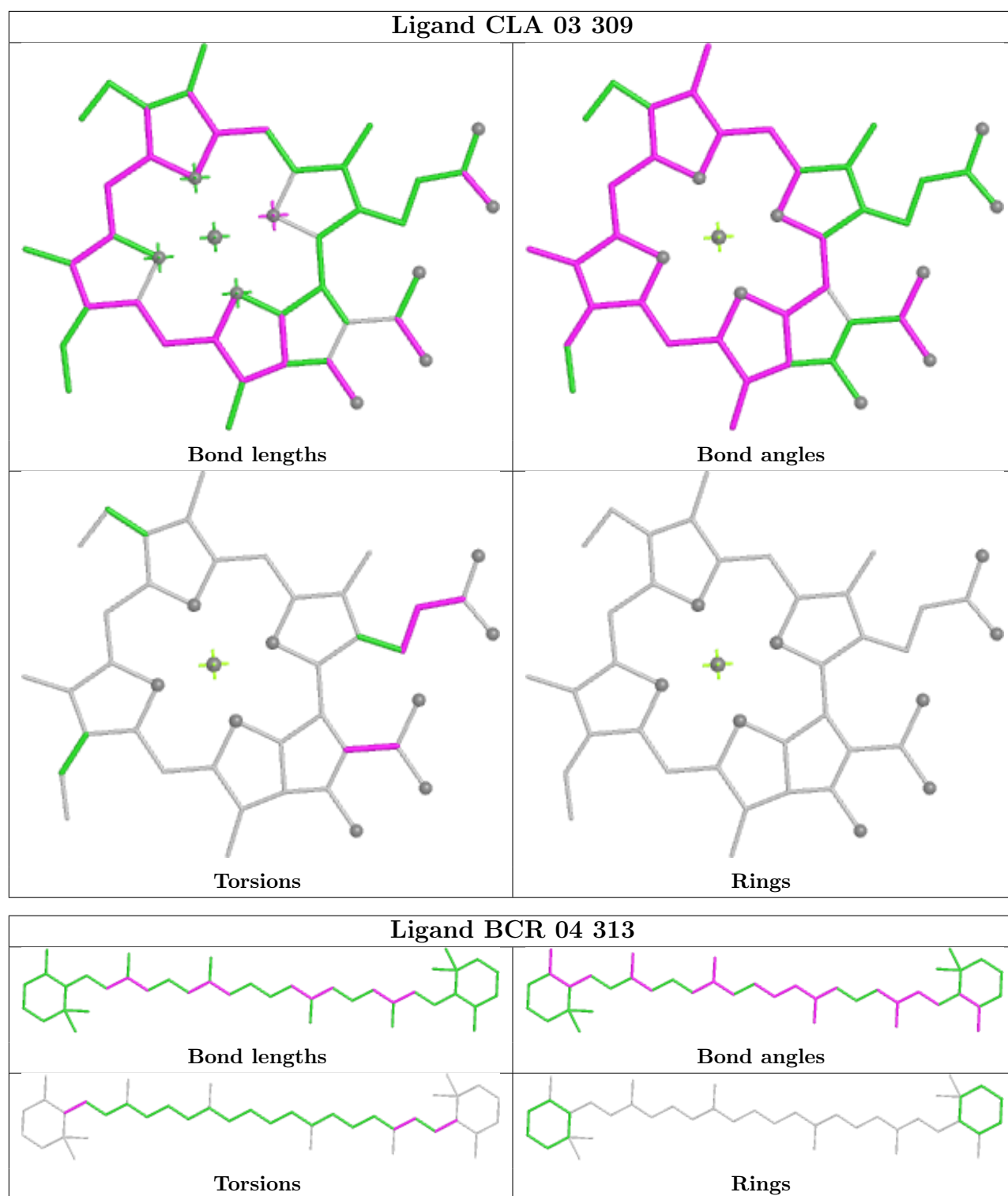


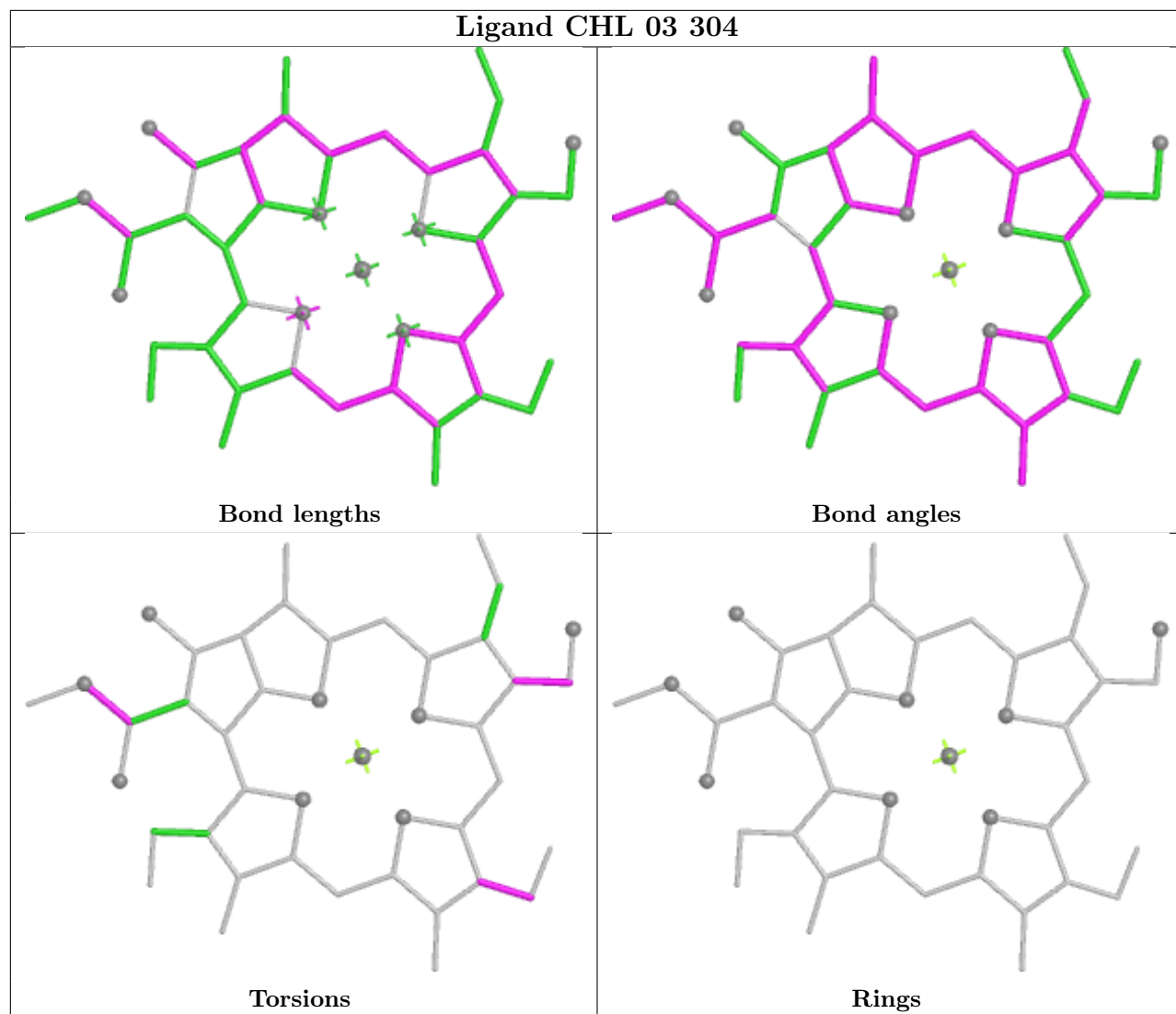


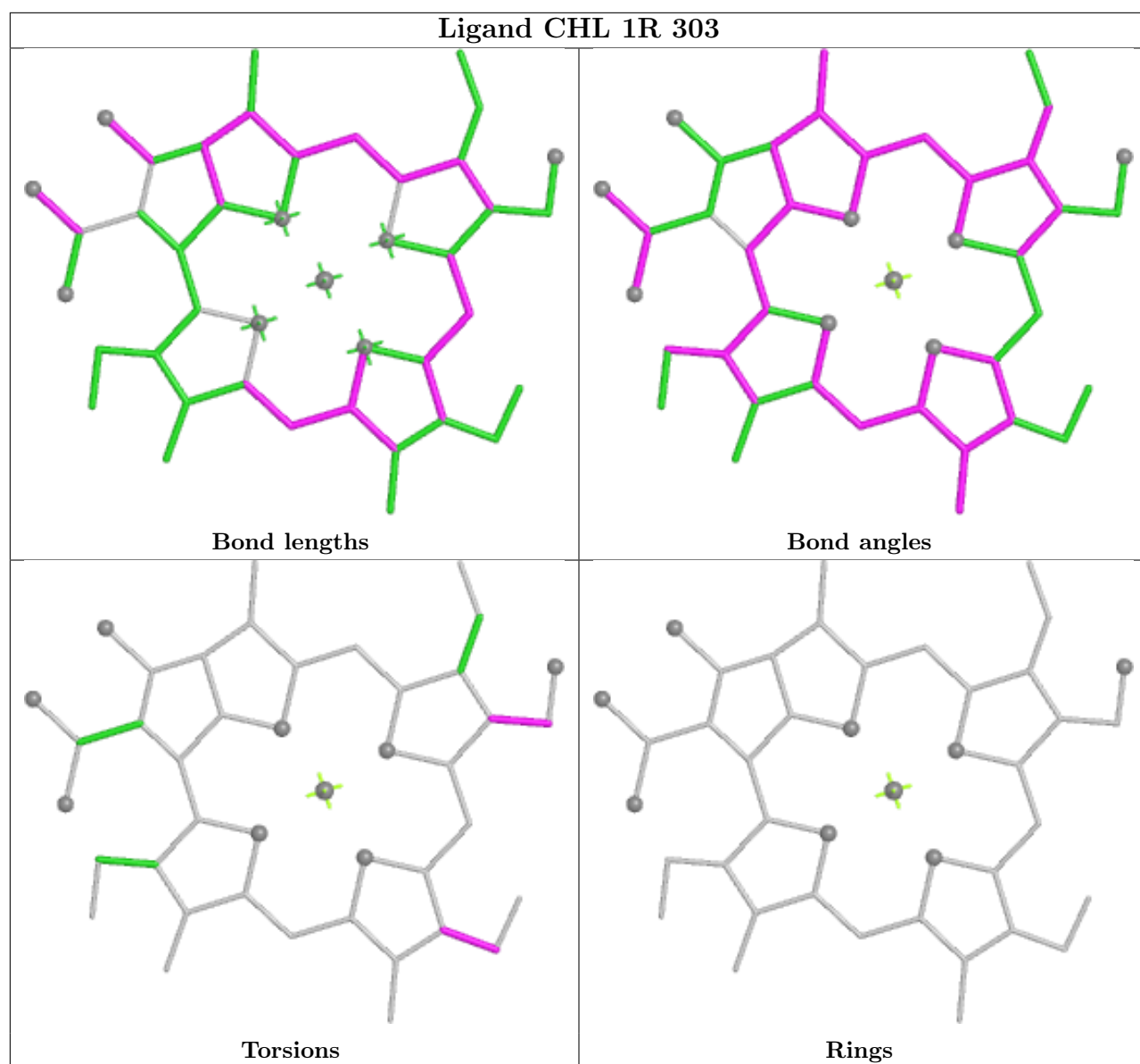


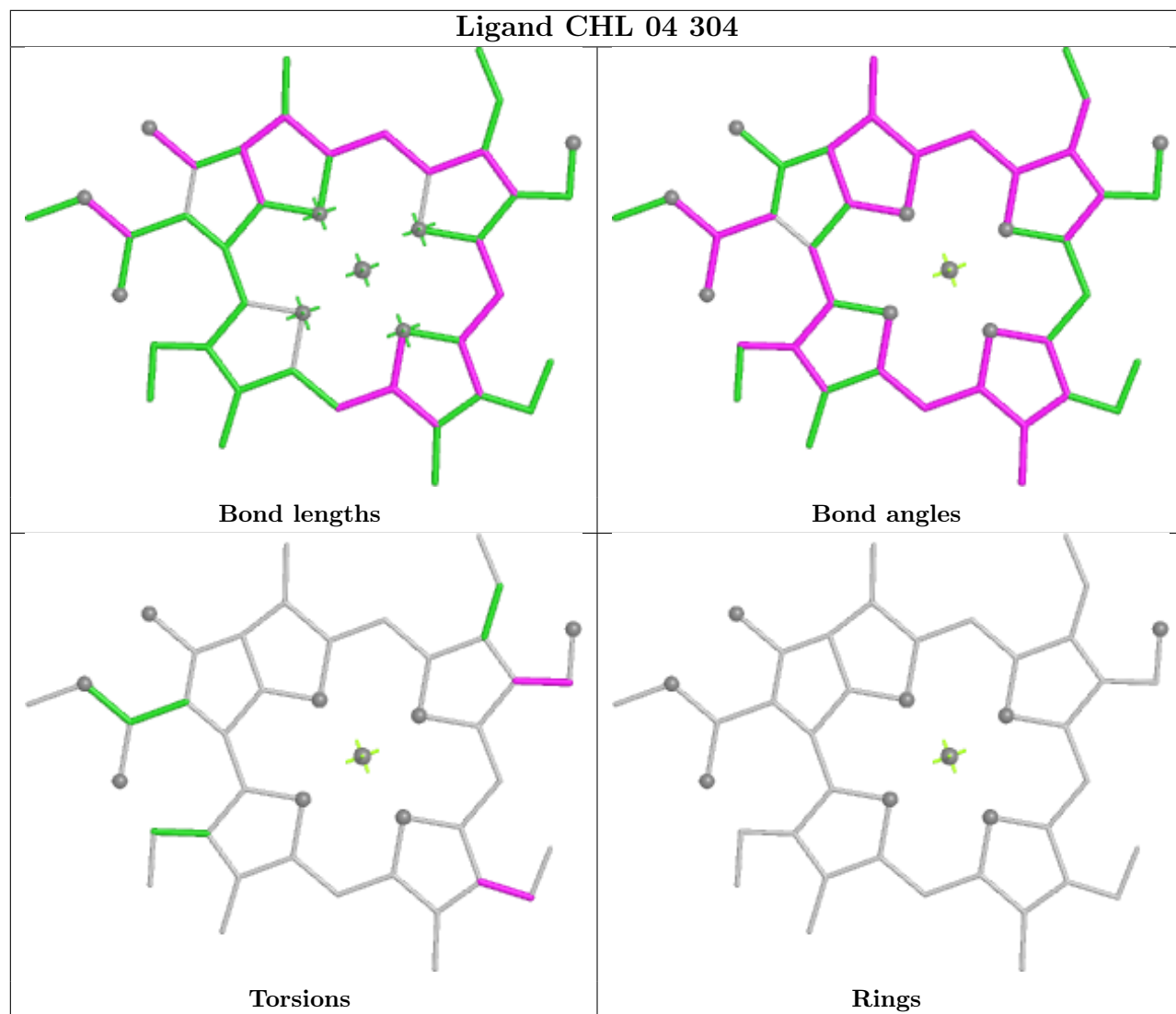


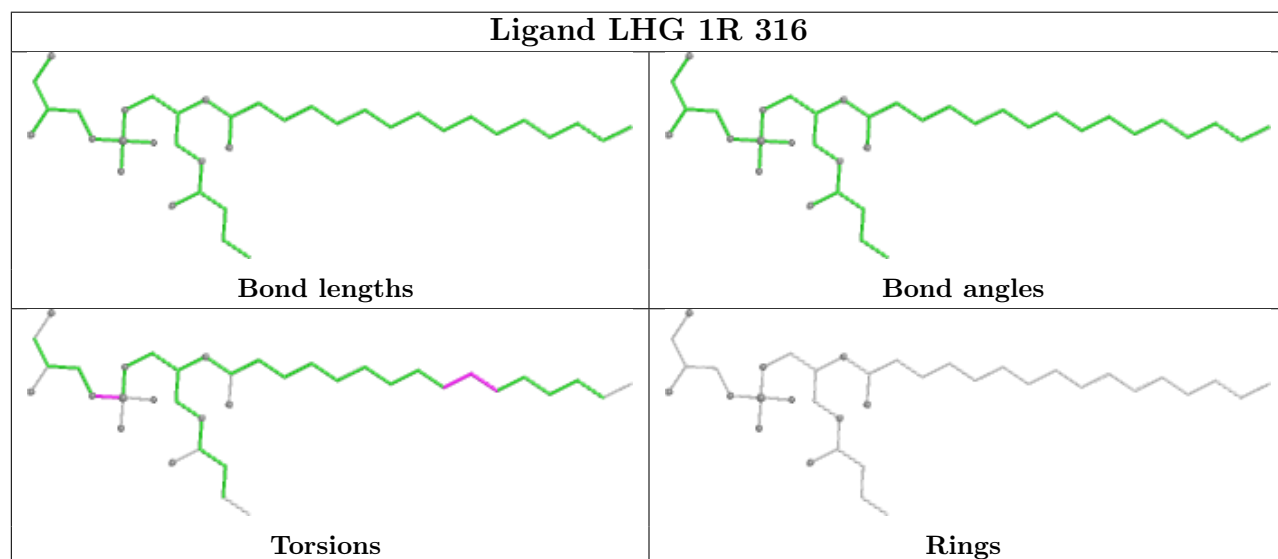
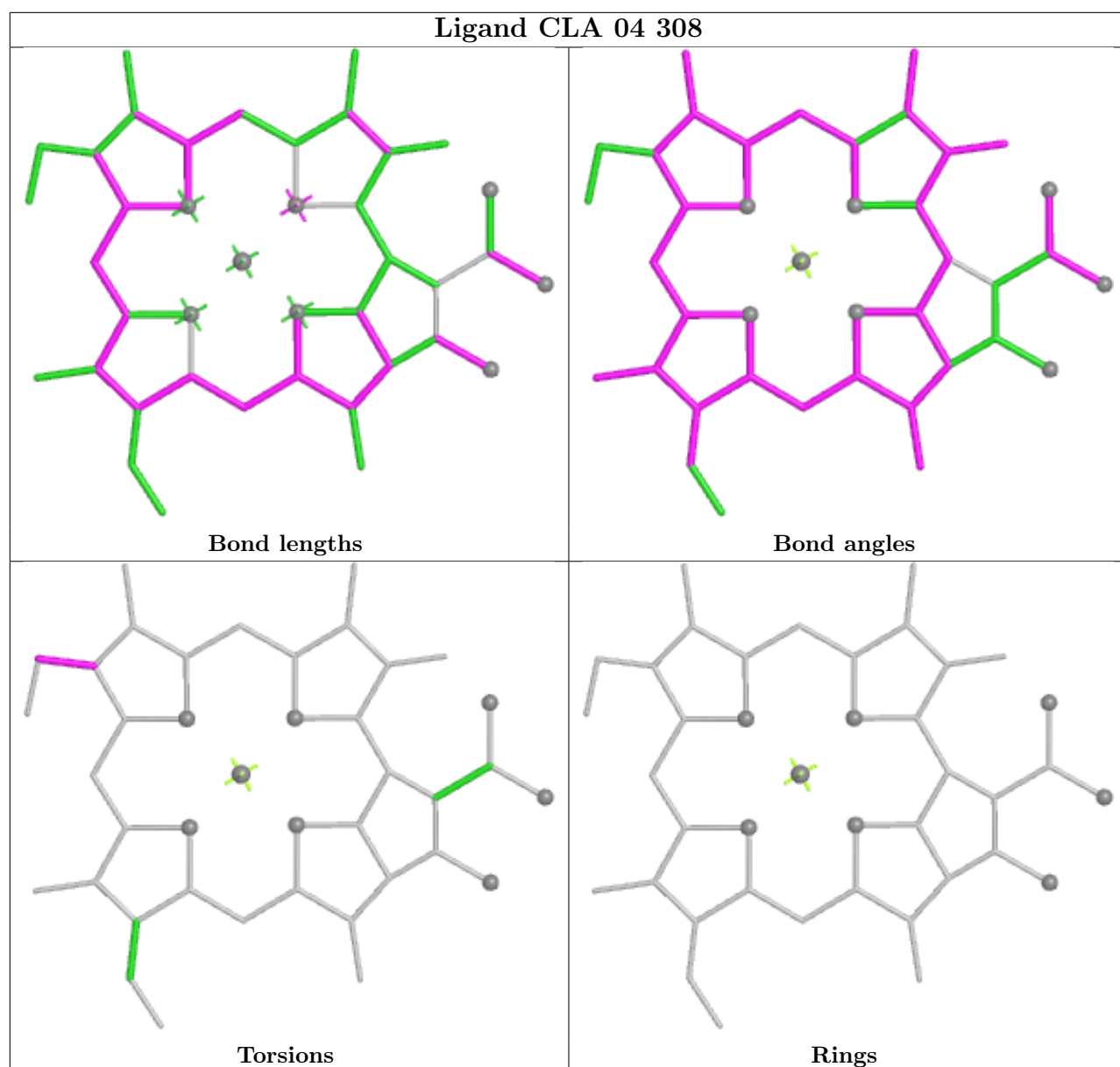


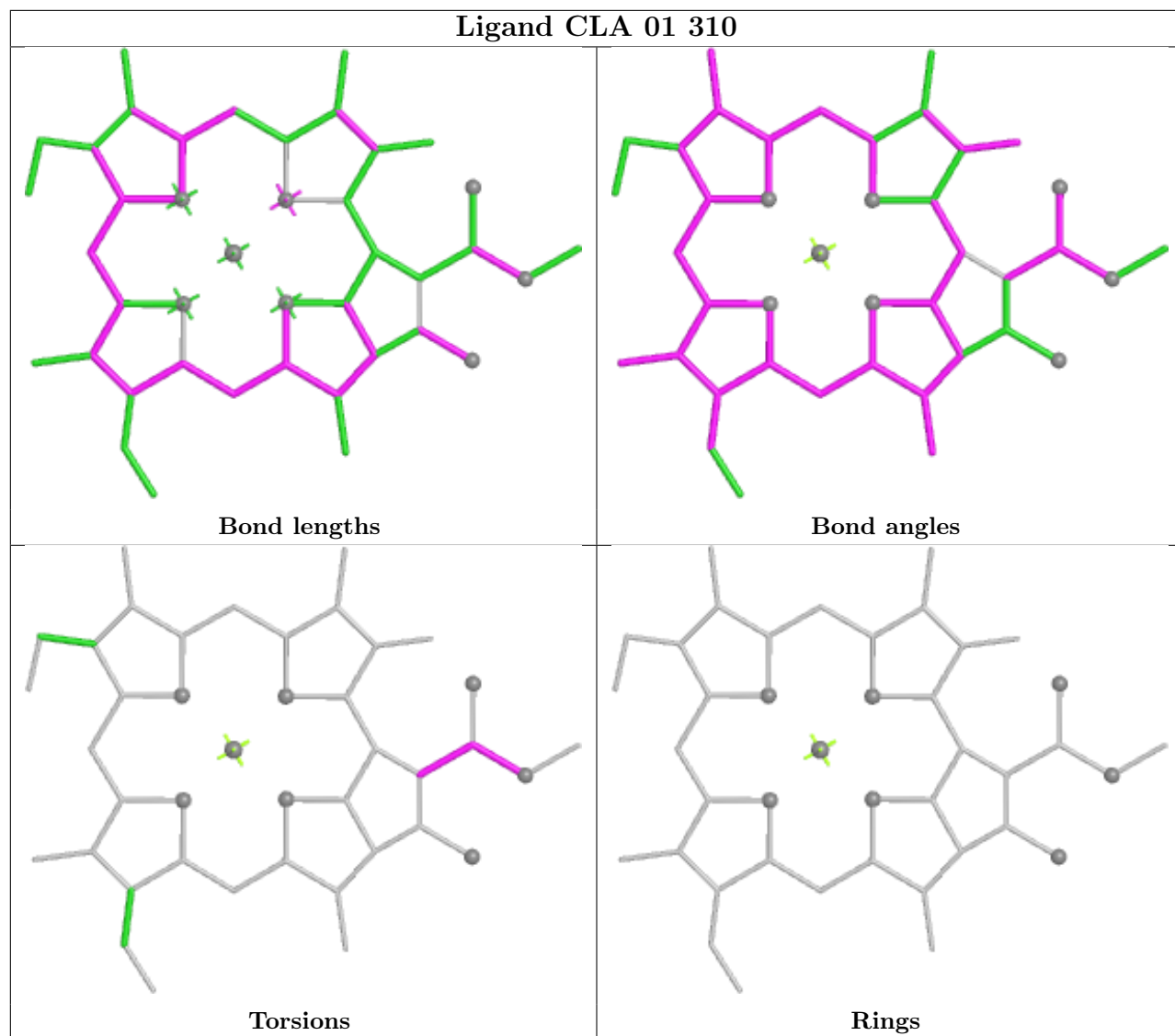


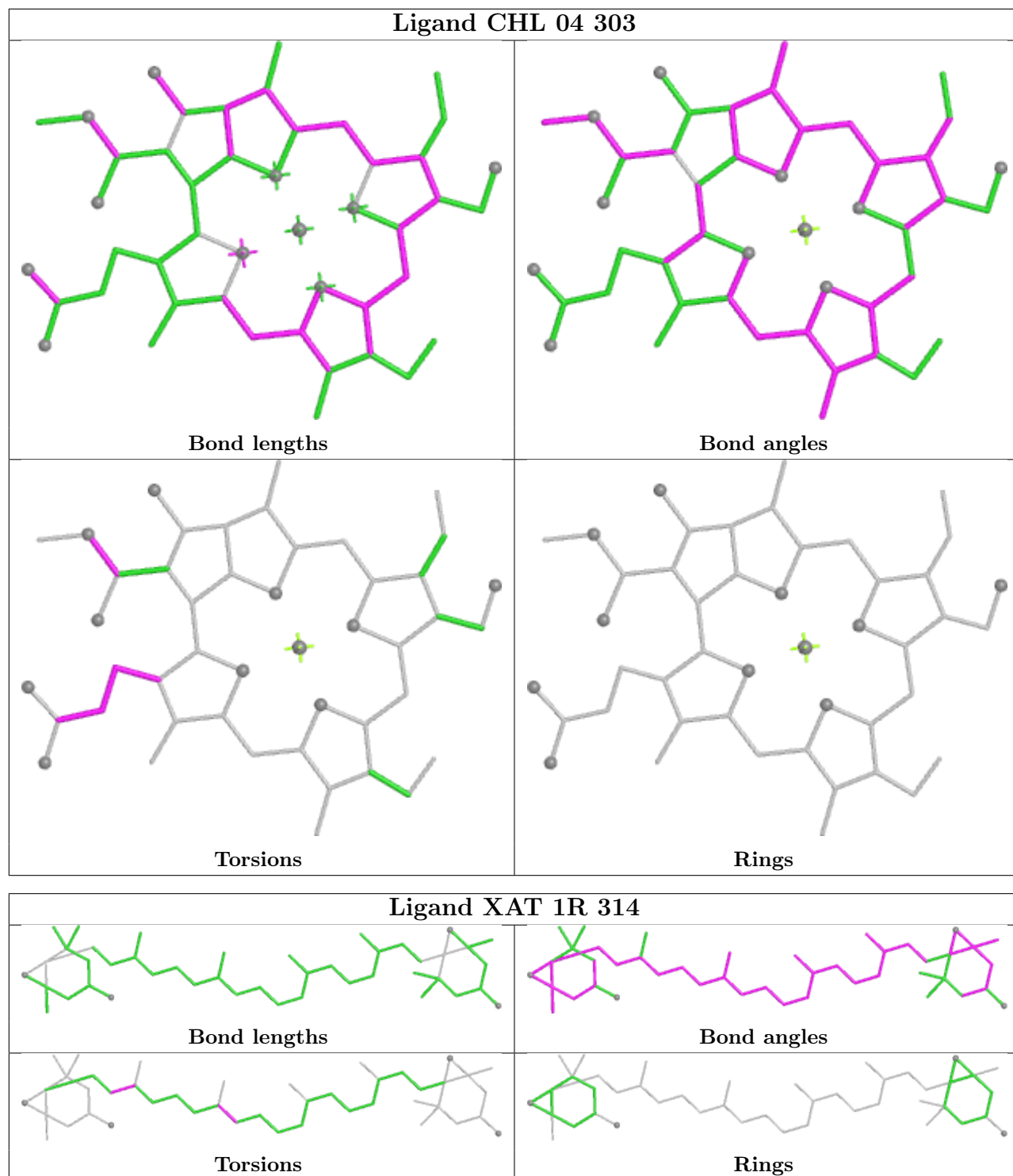


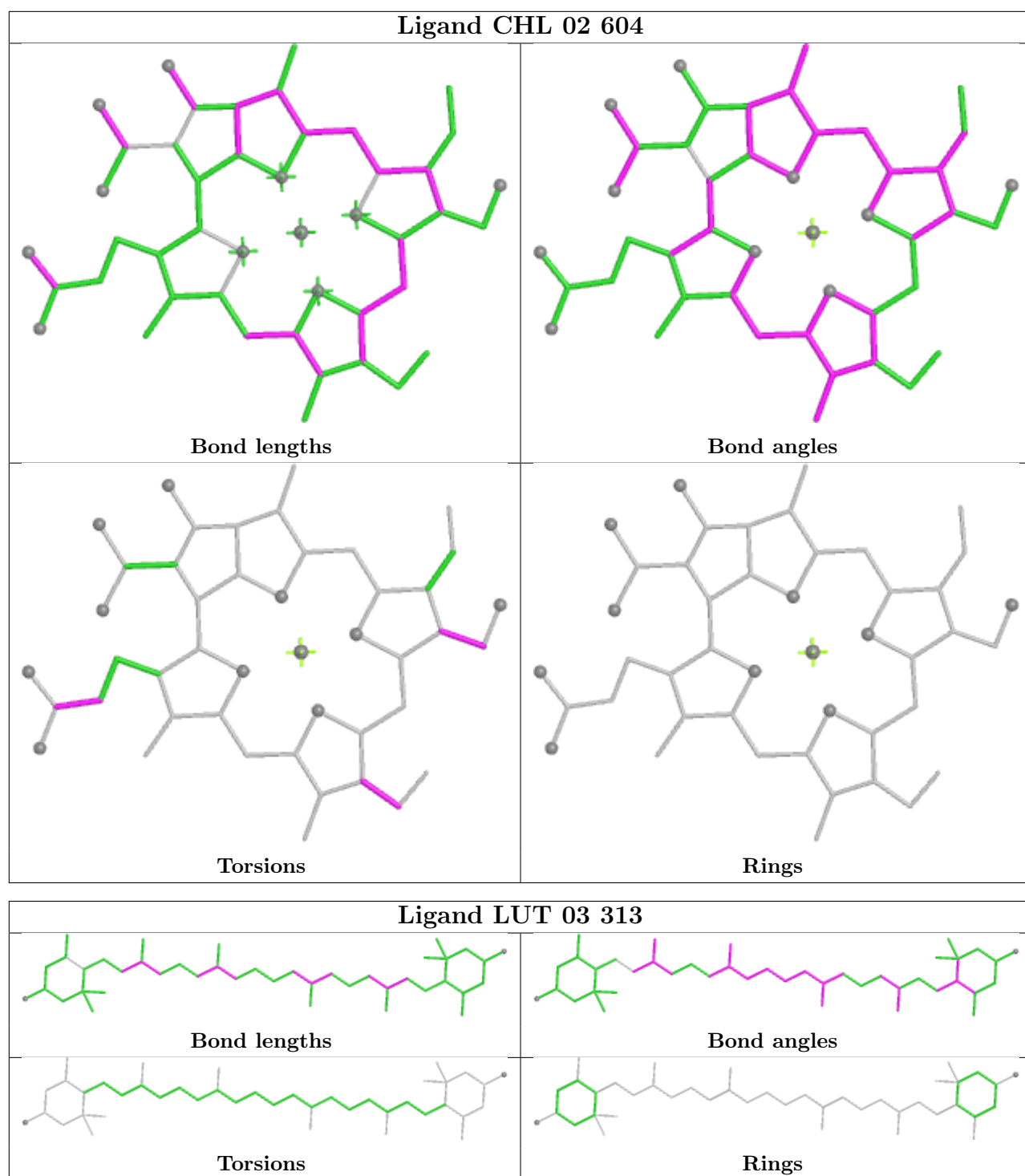


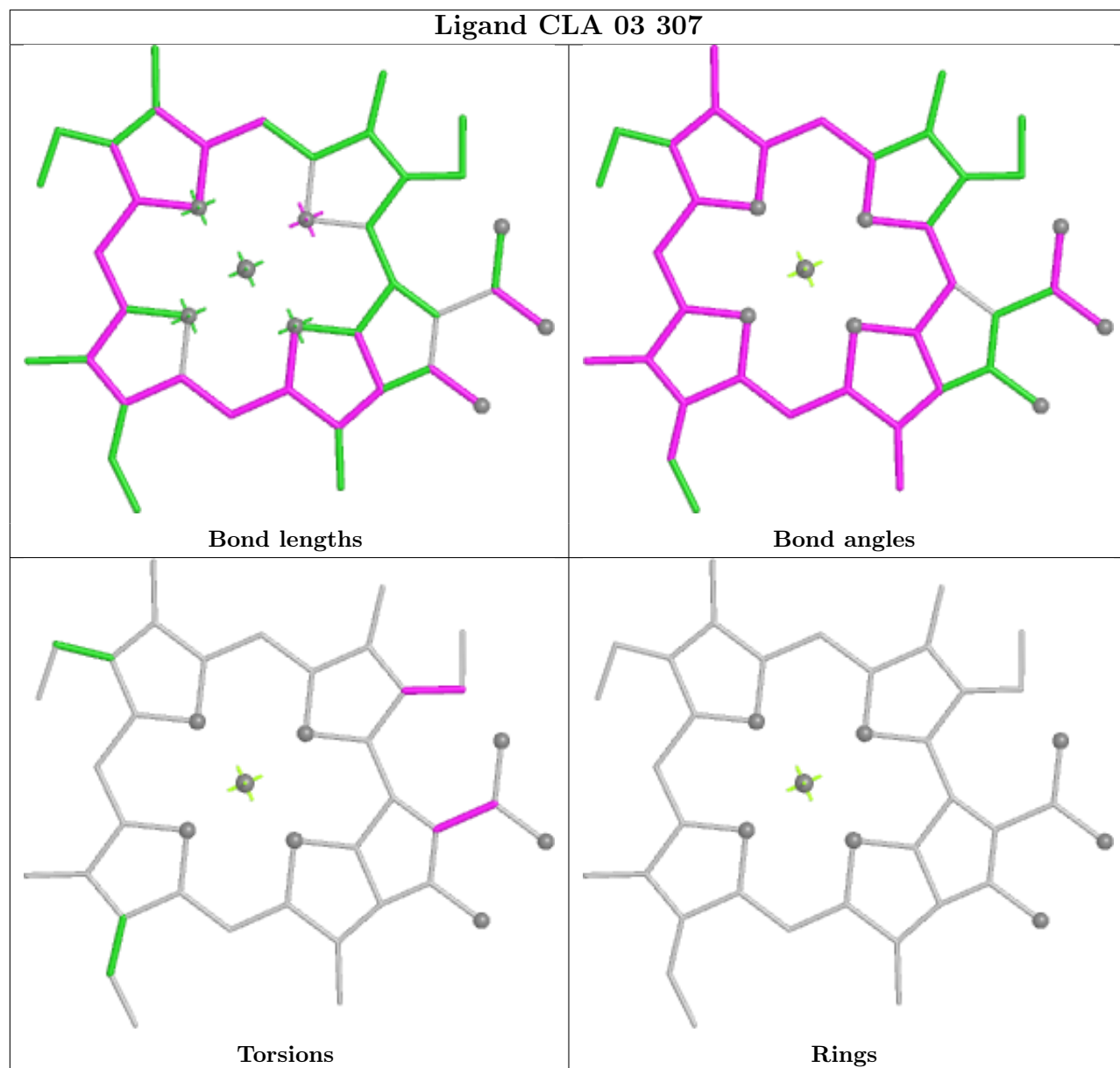


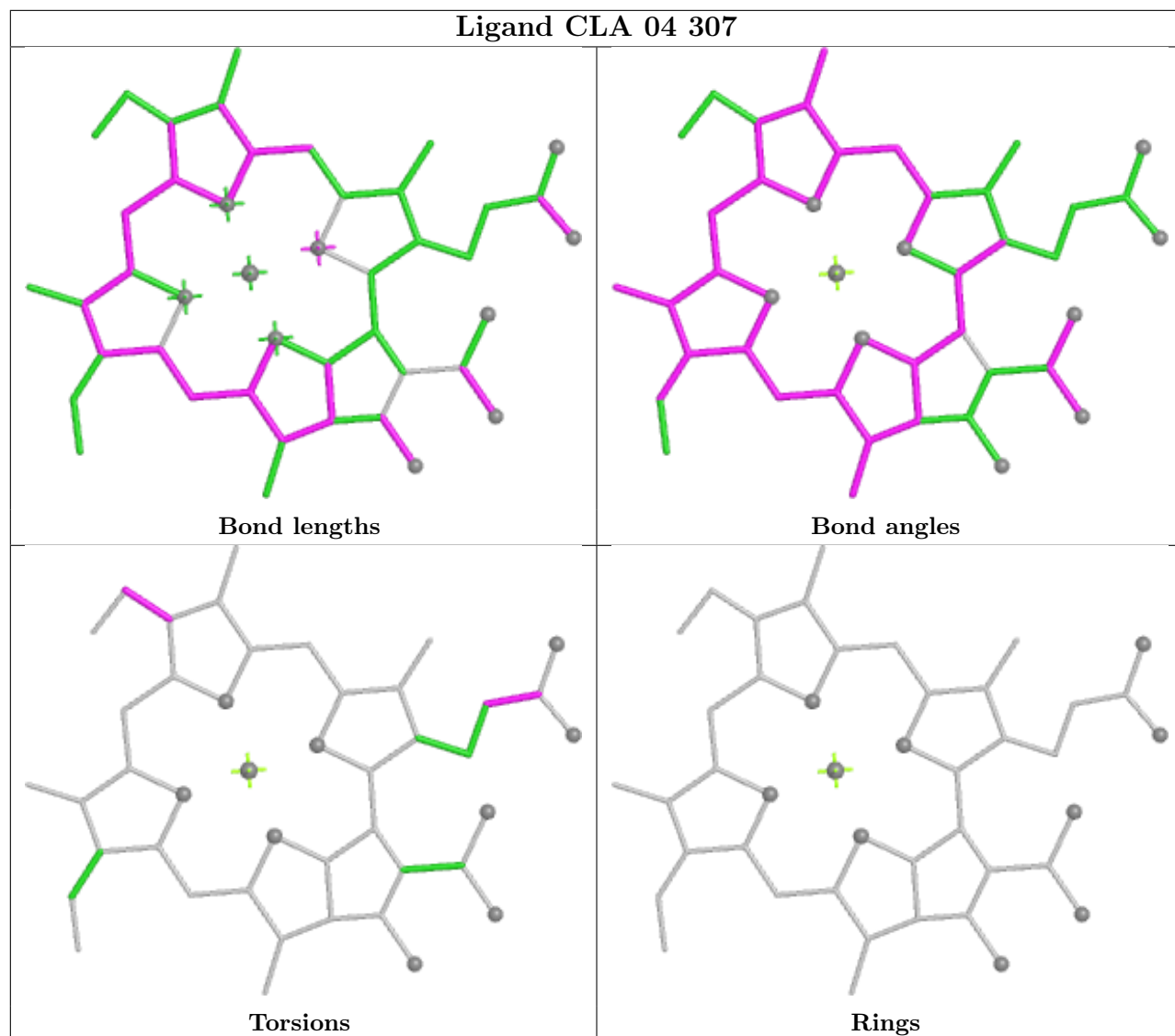




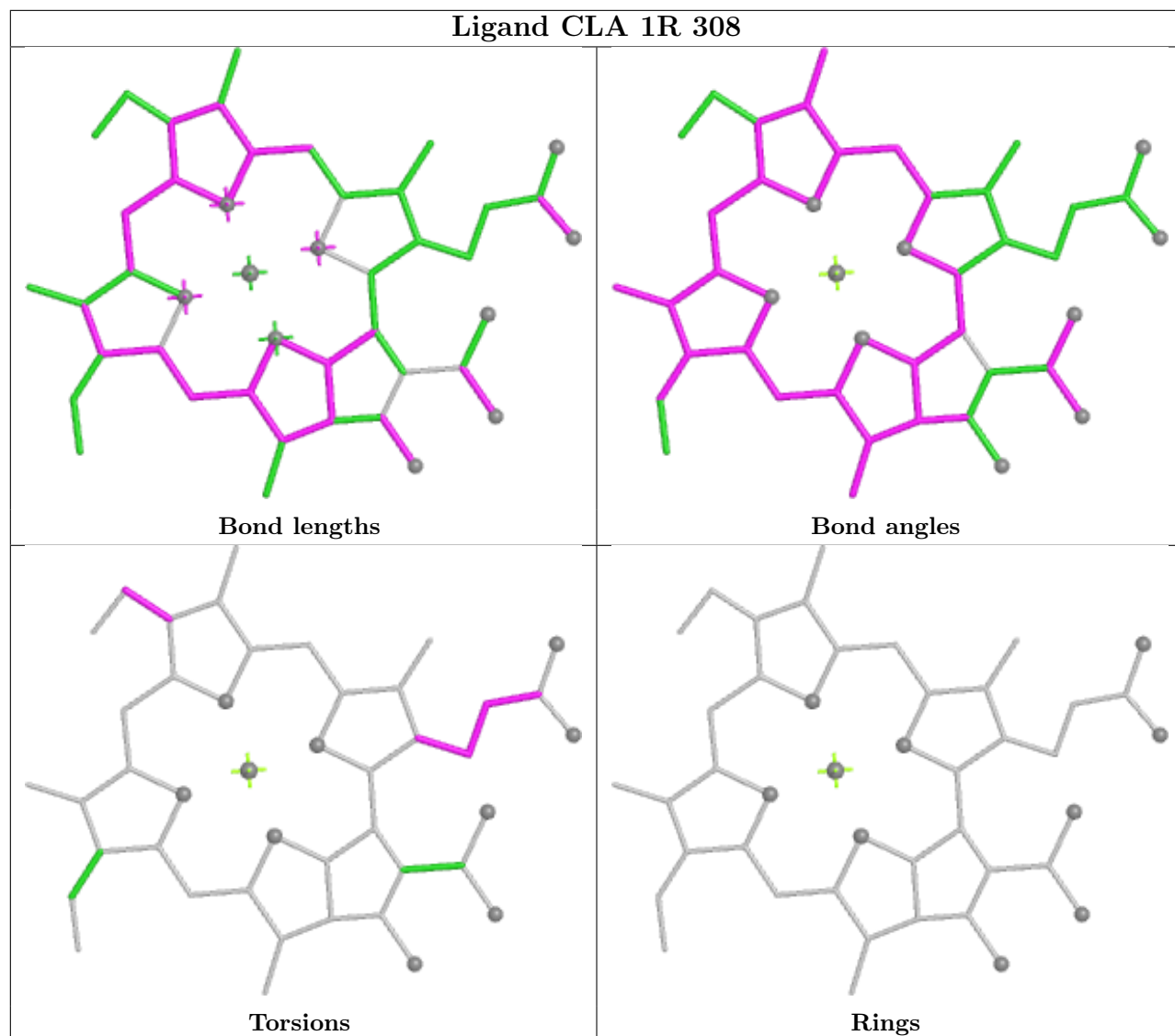


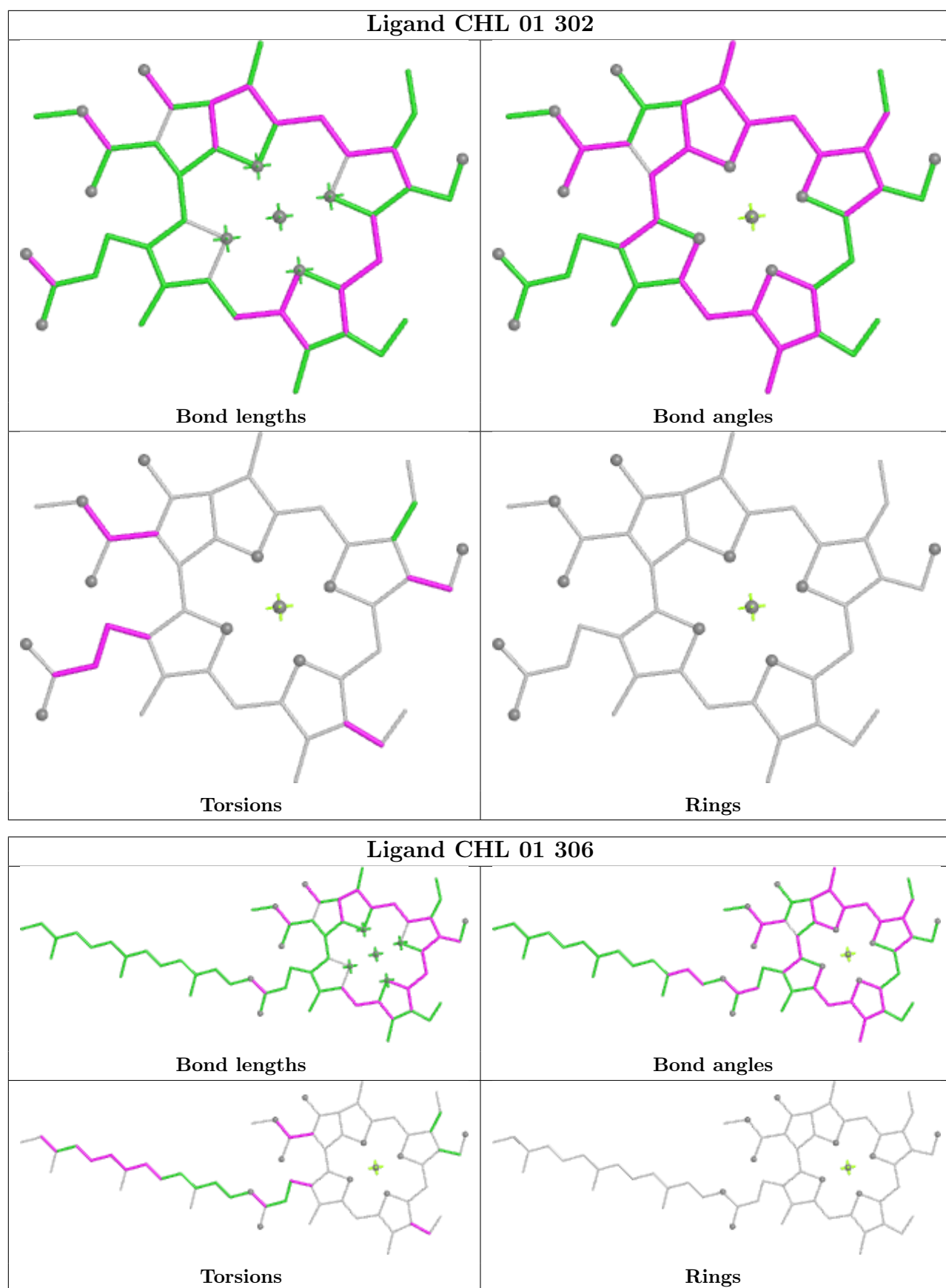


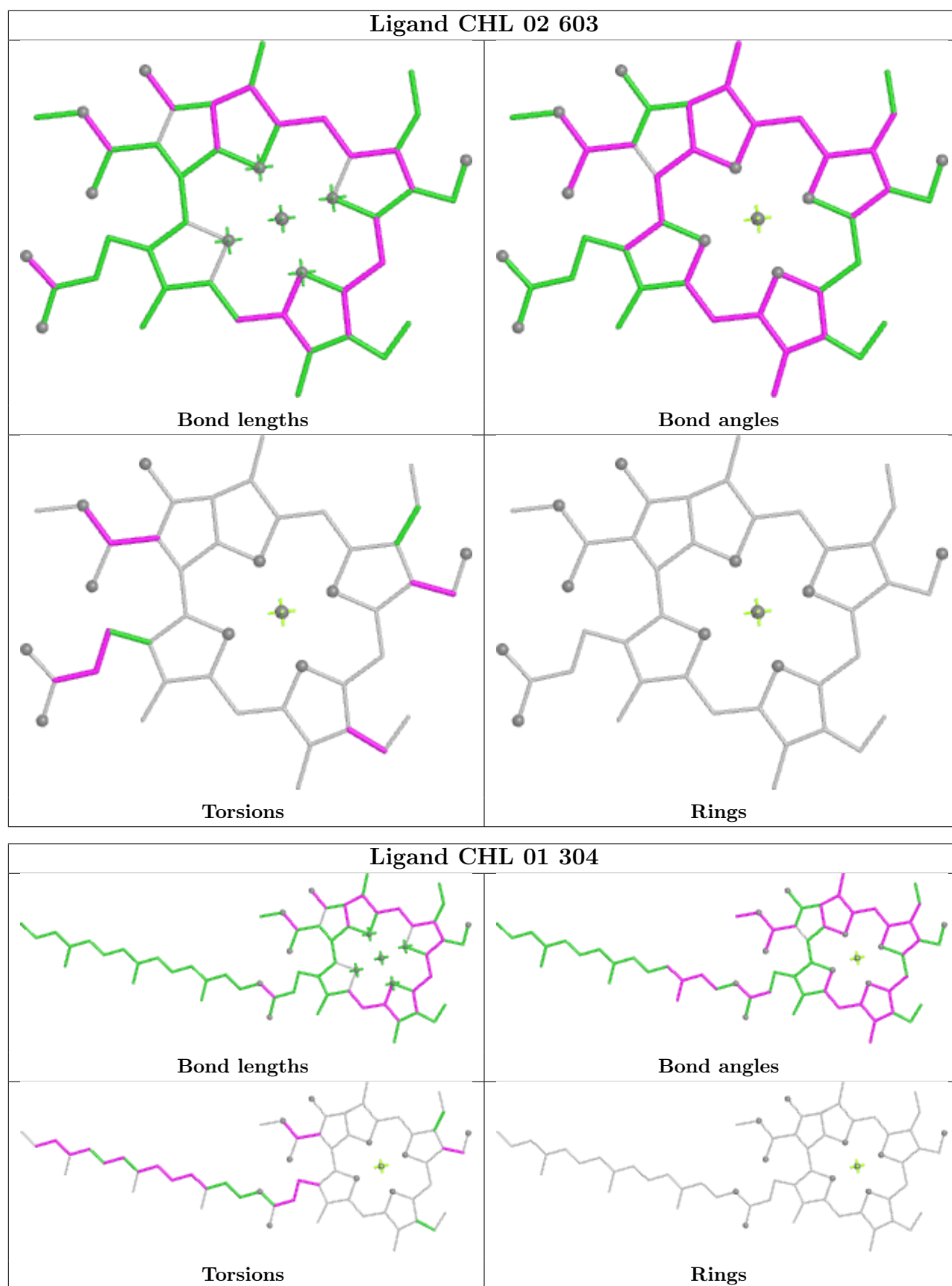


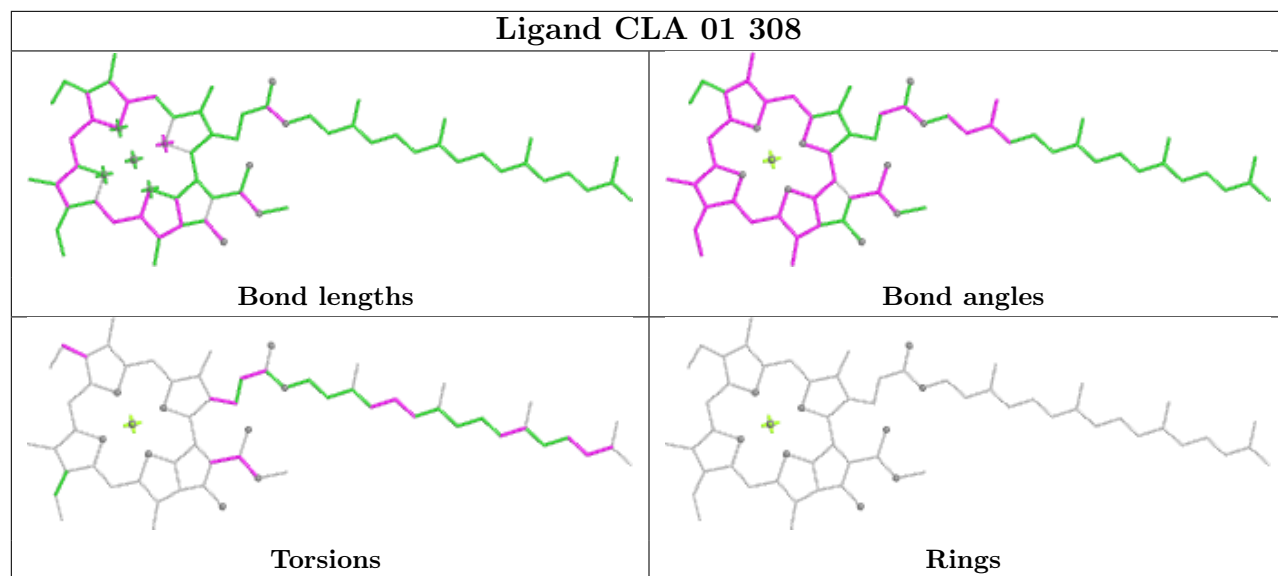


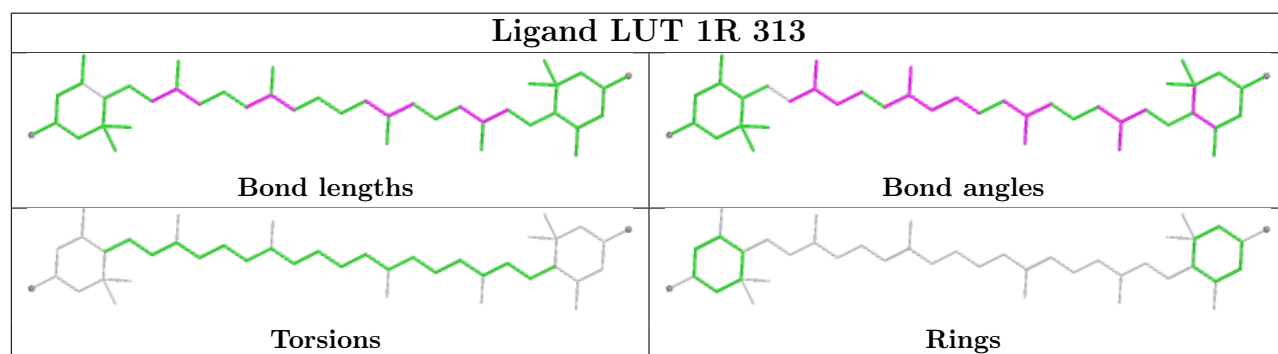
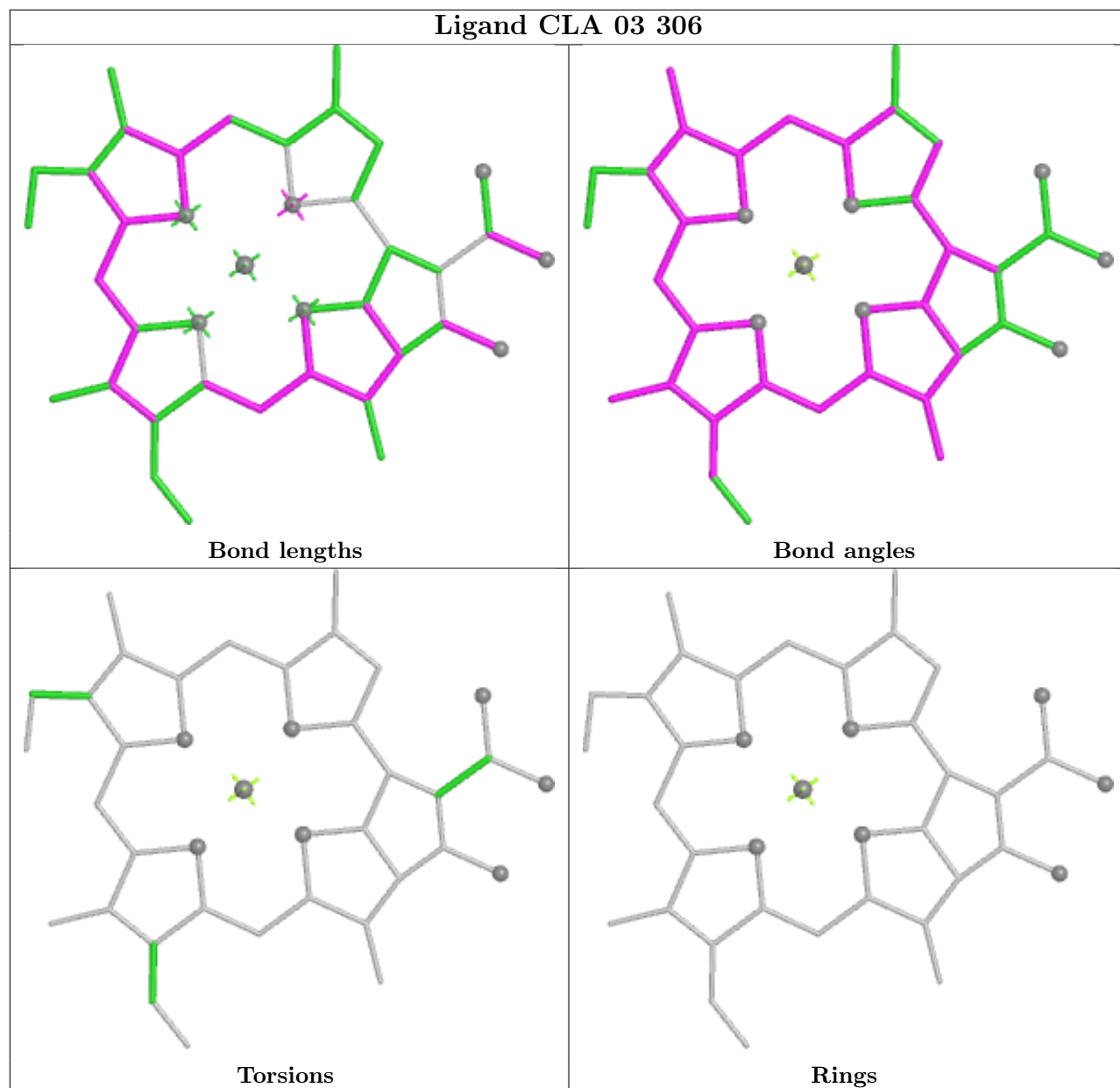
Ligand CLA 1R 308

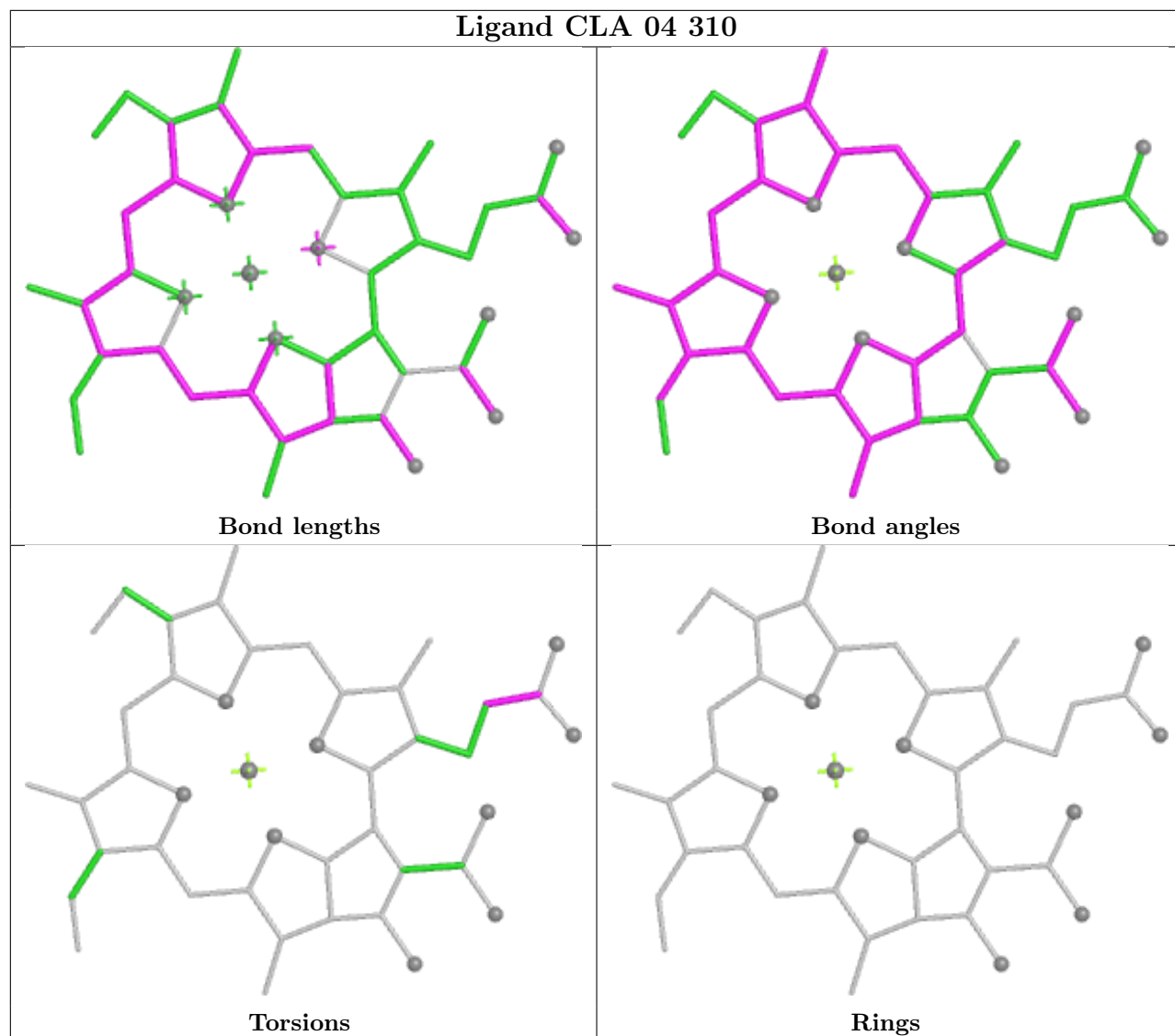


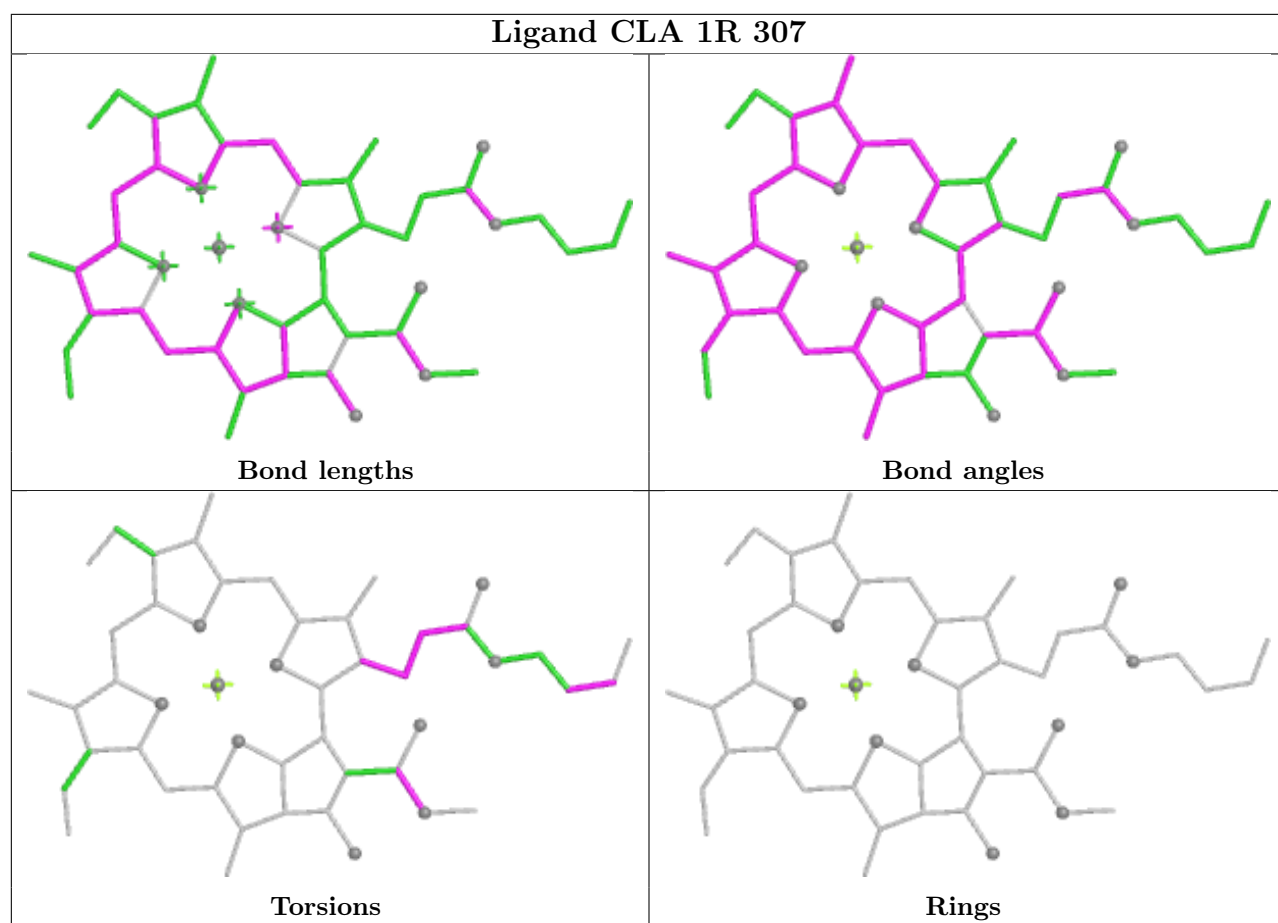


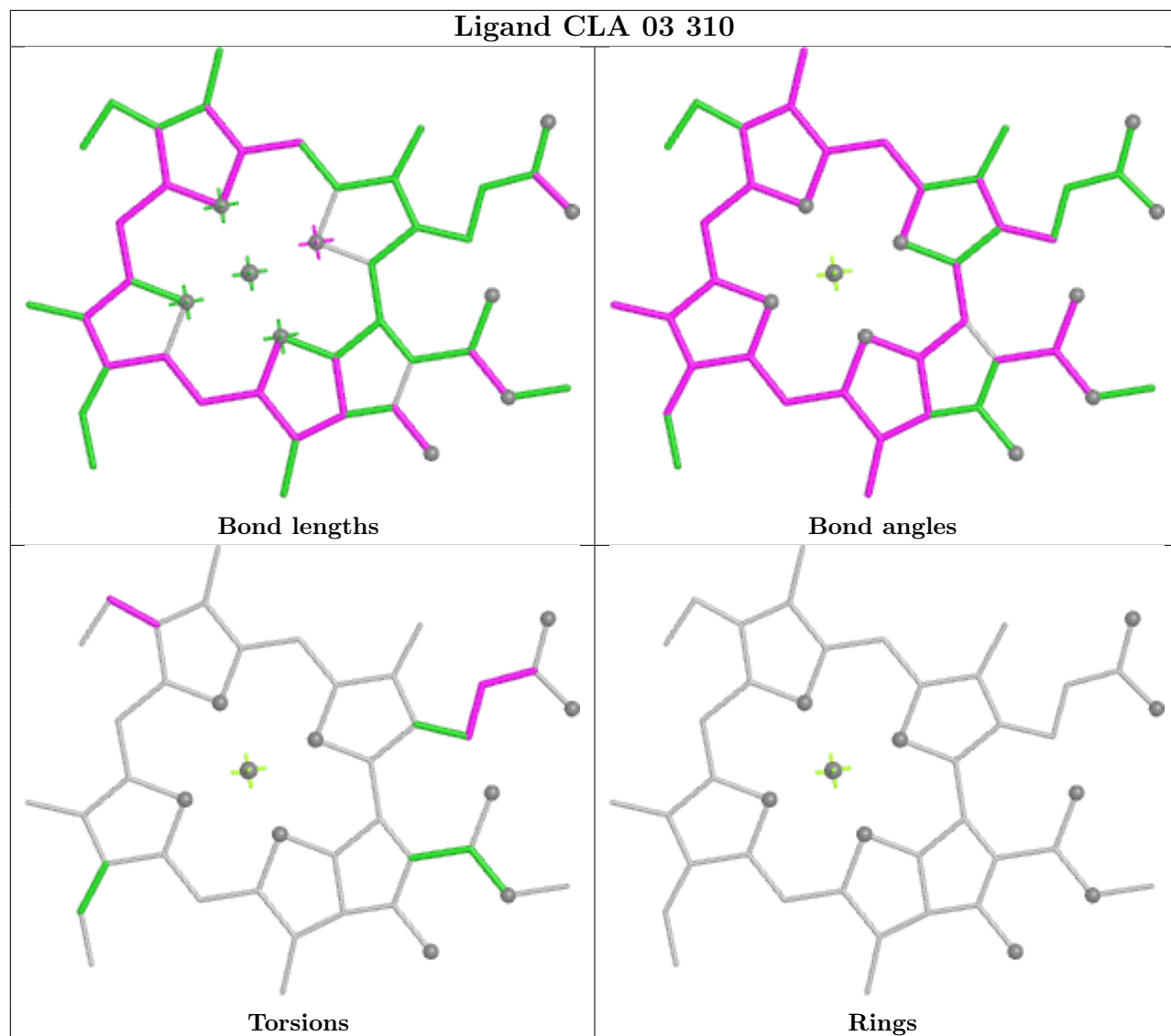




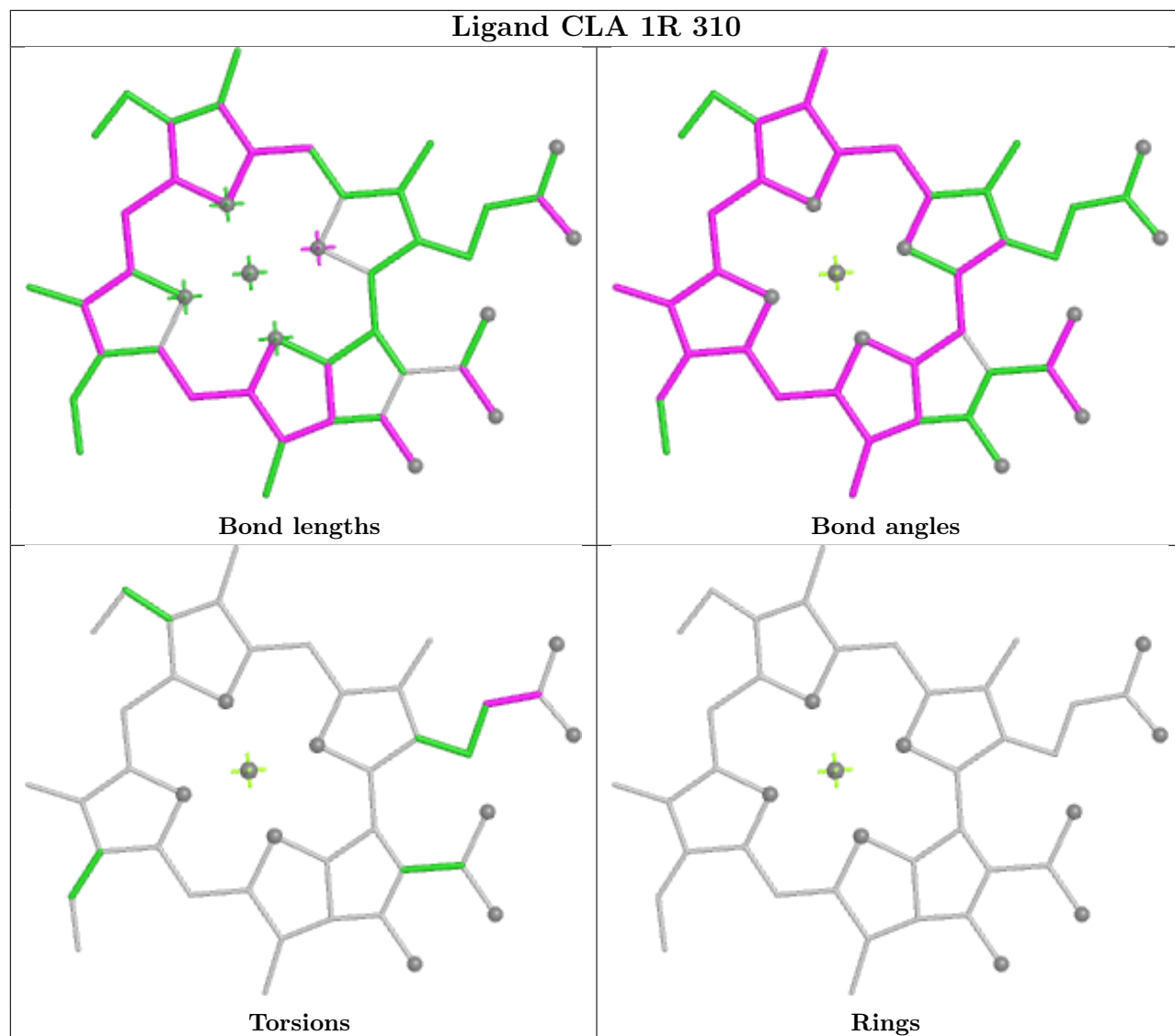


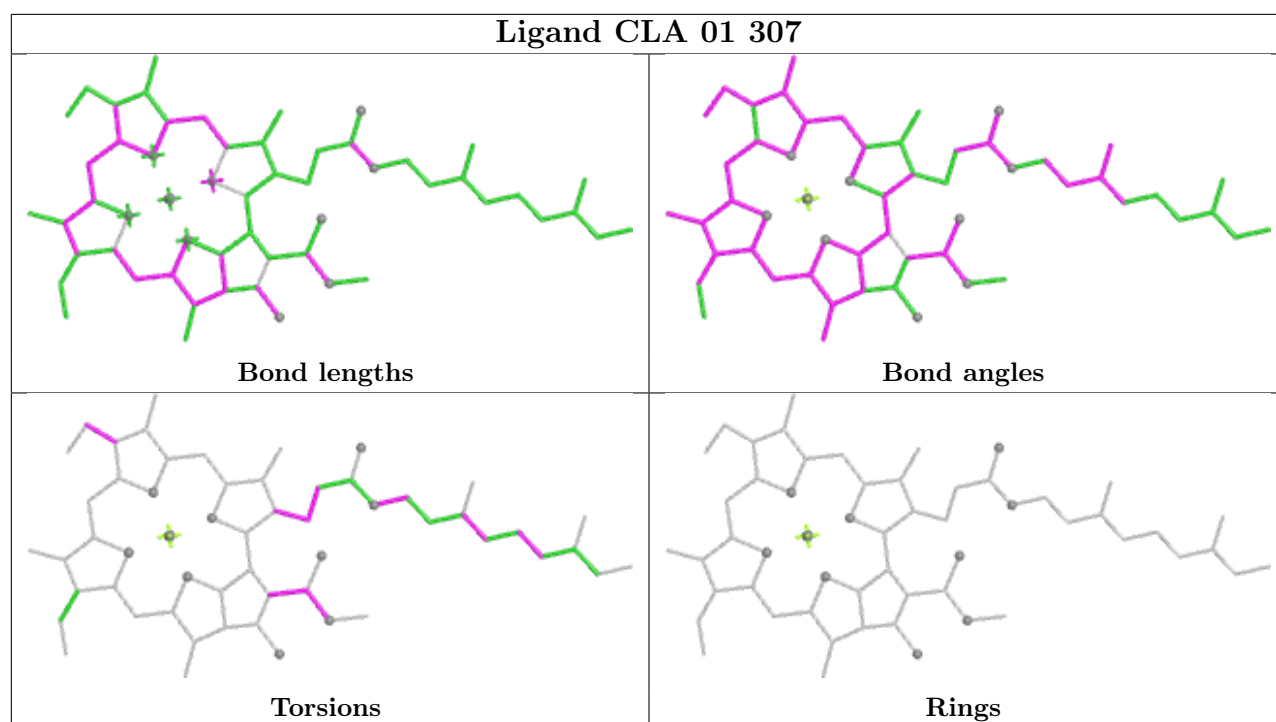


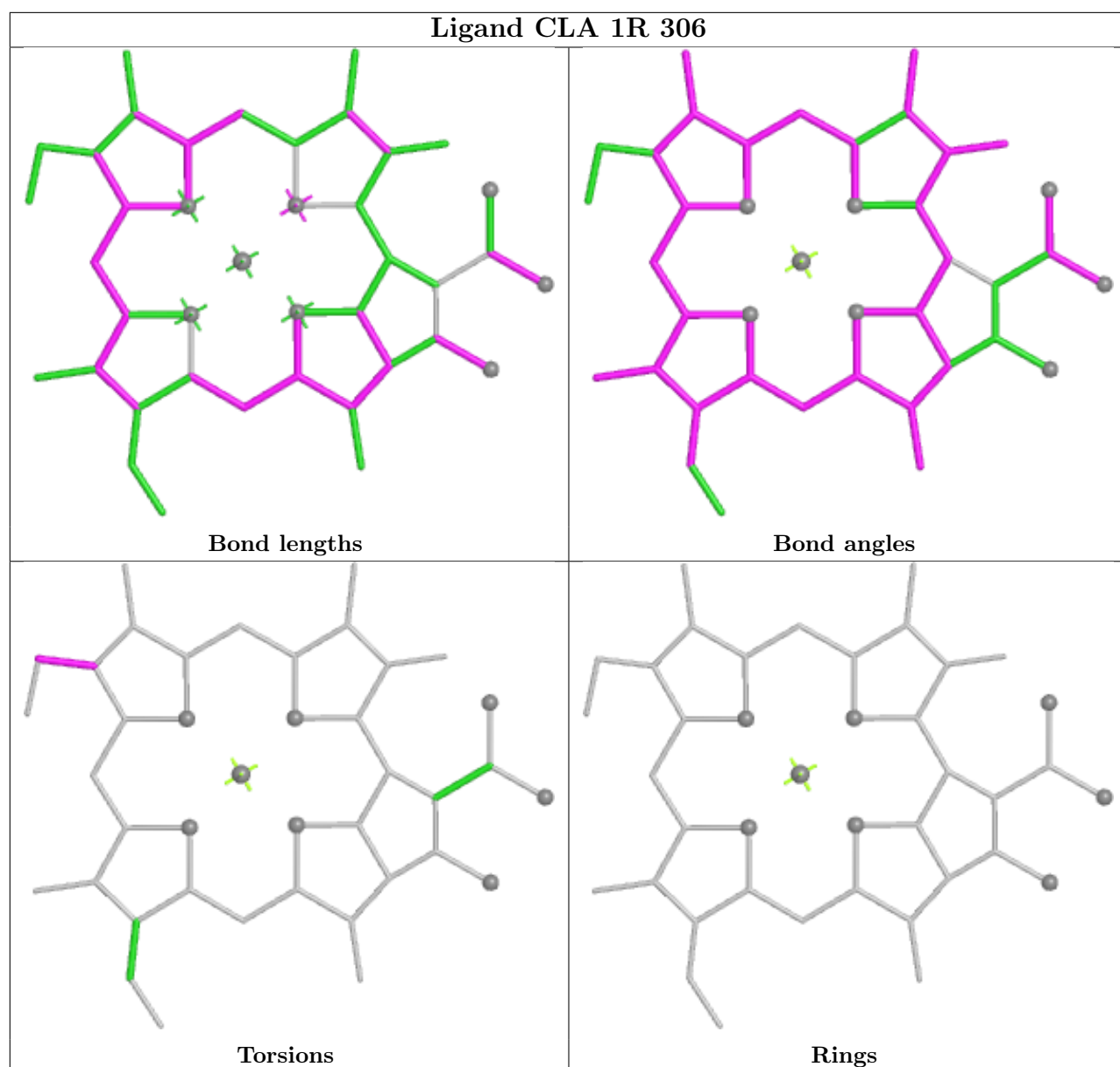


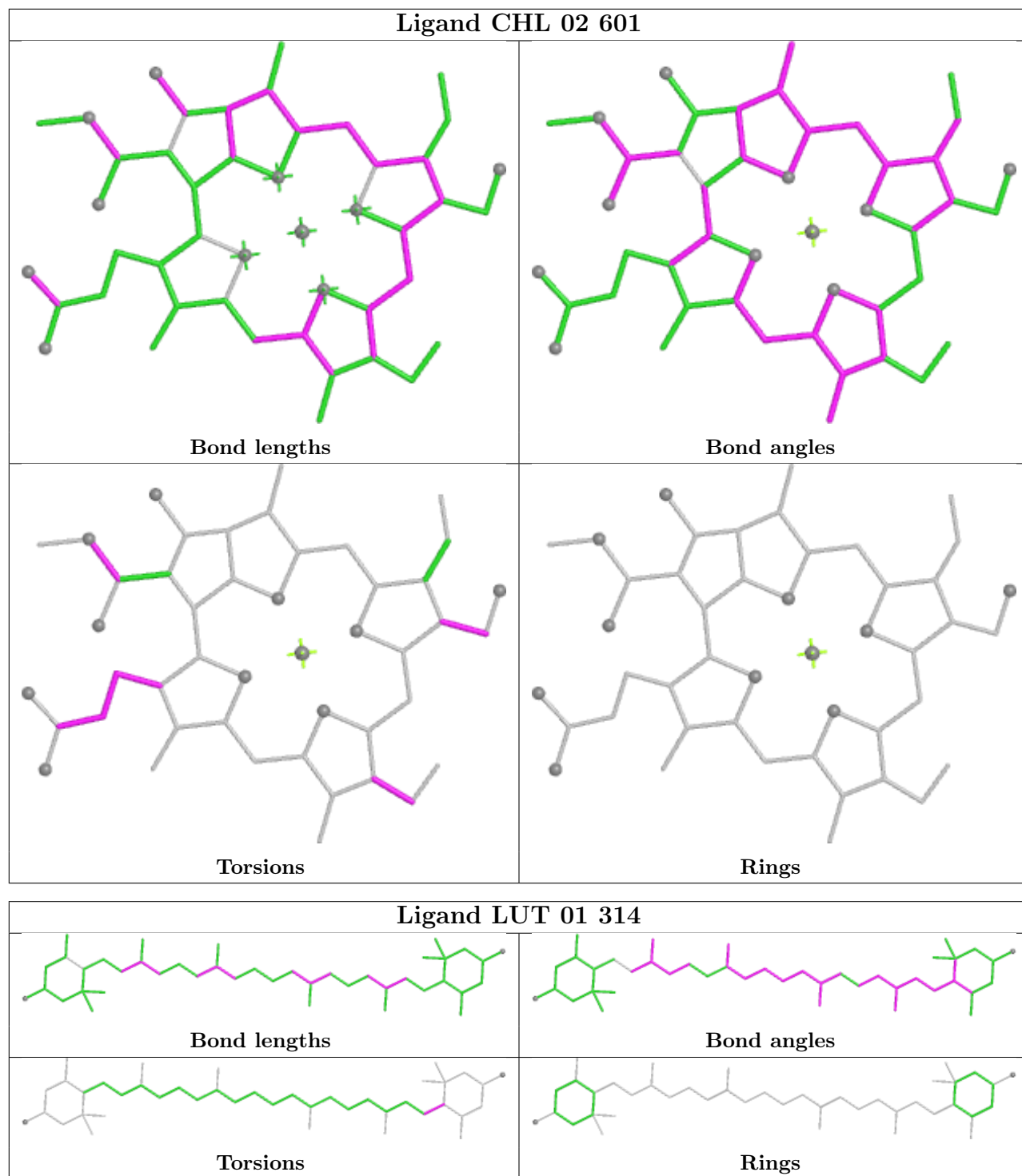


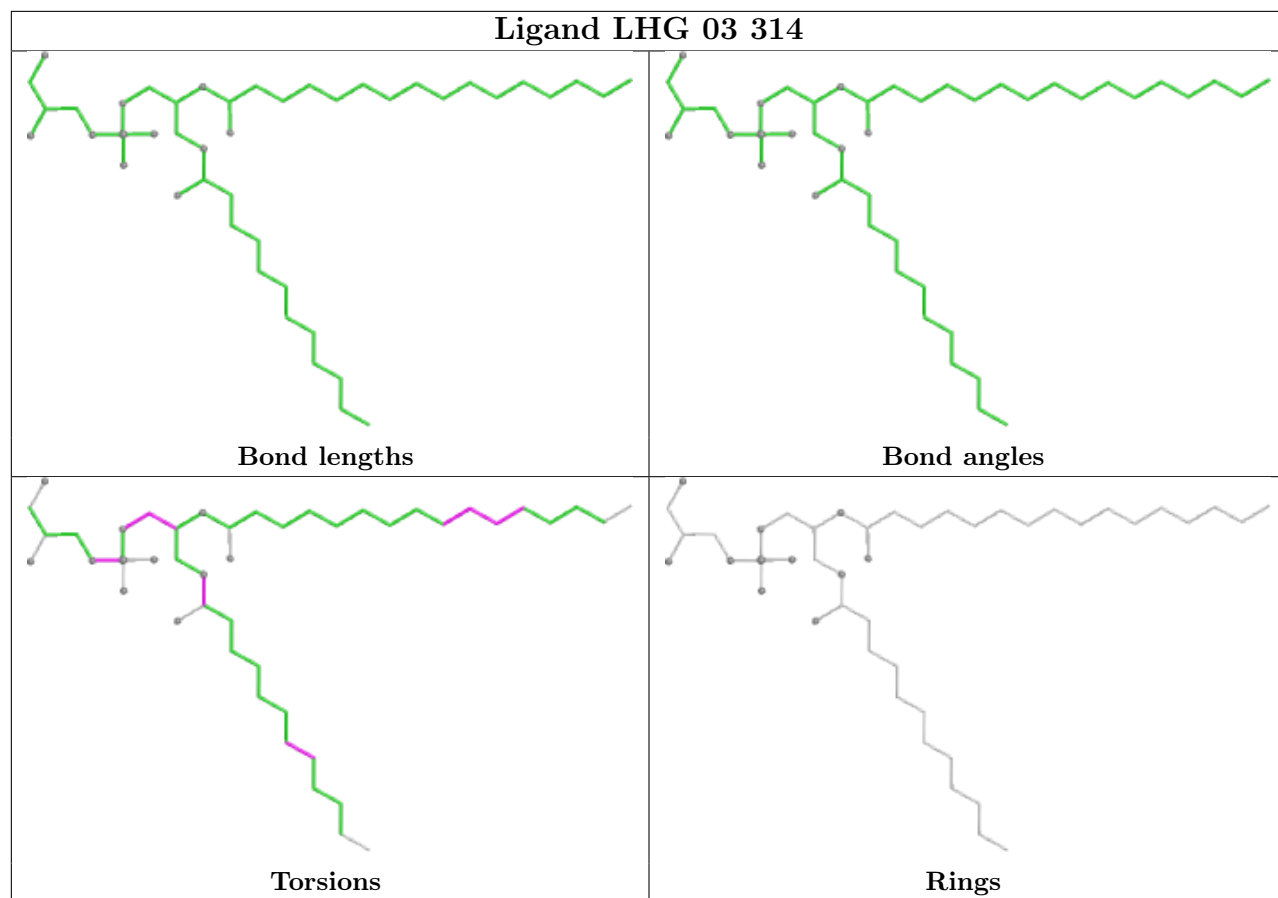
Ligand CLA 1R 310

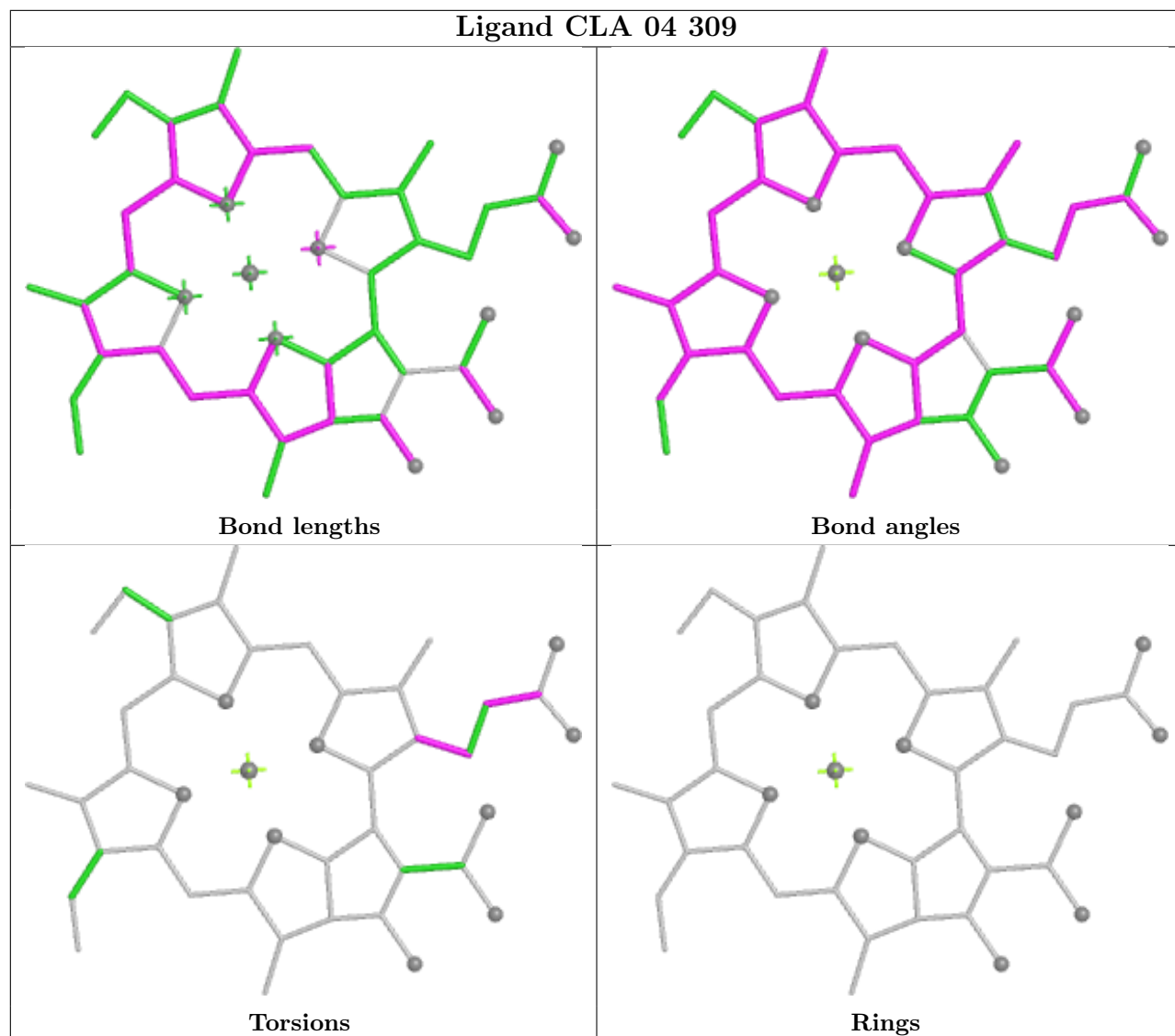


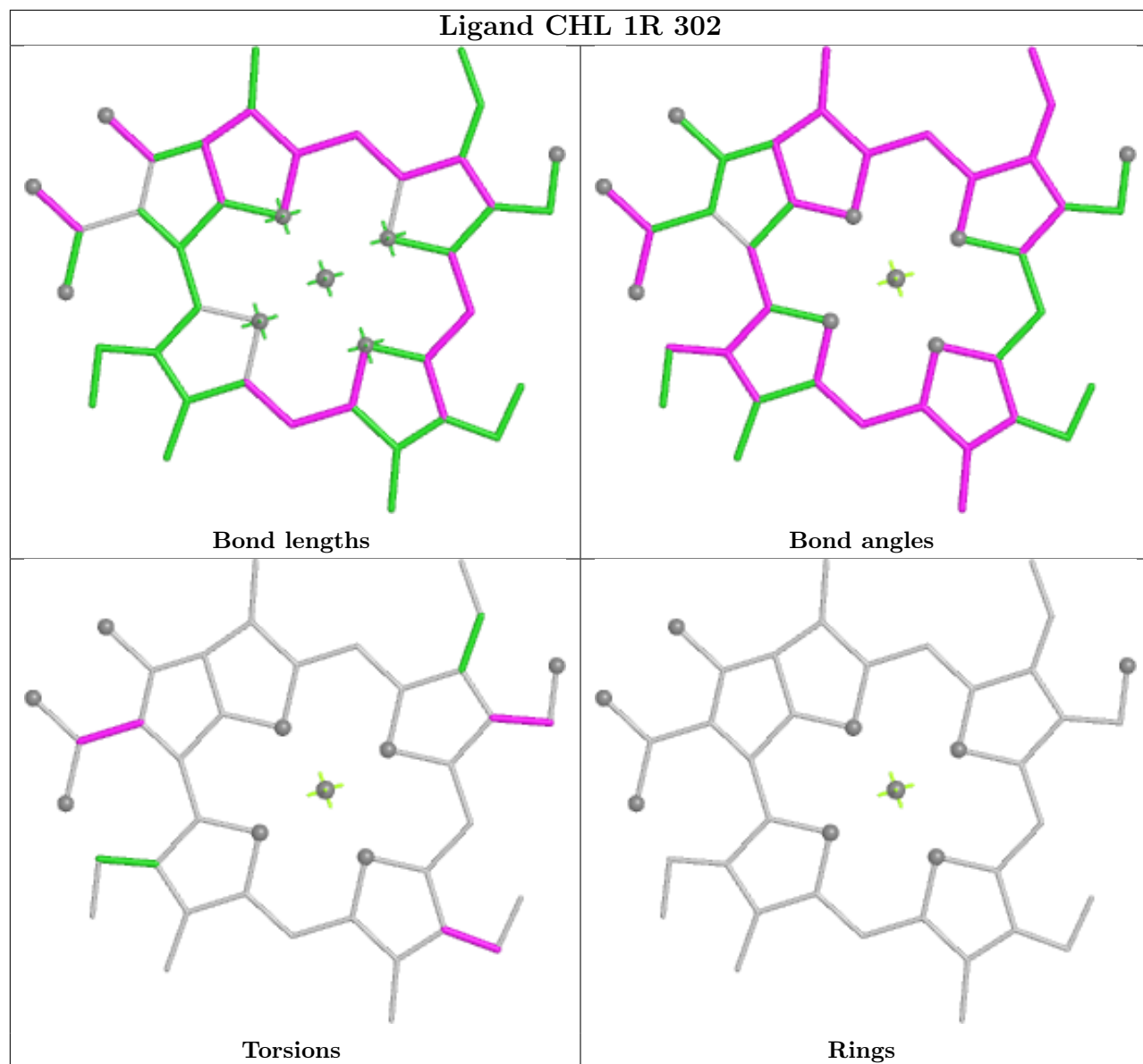


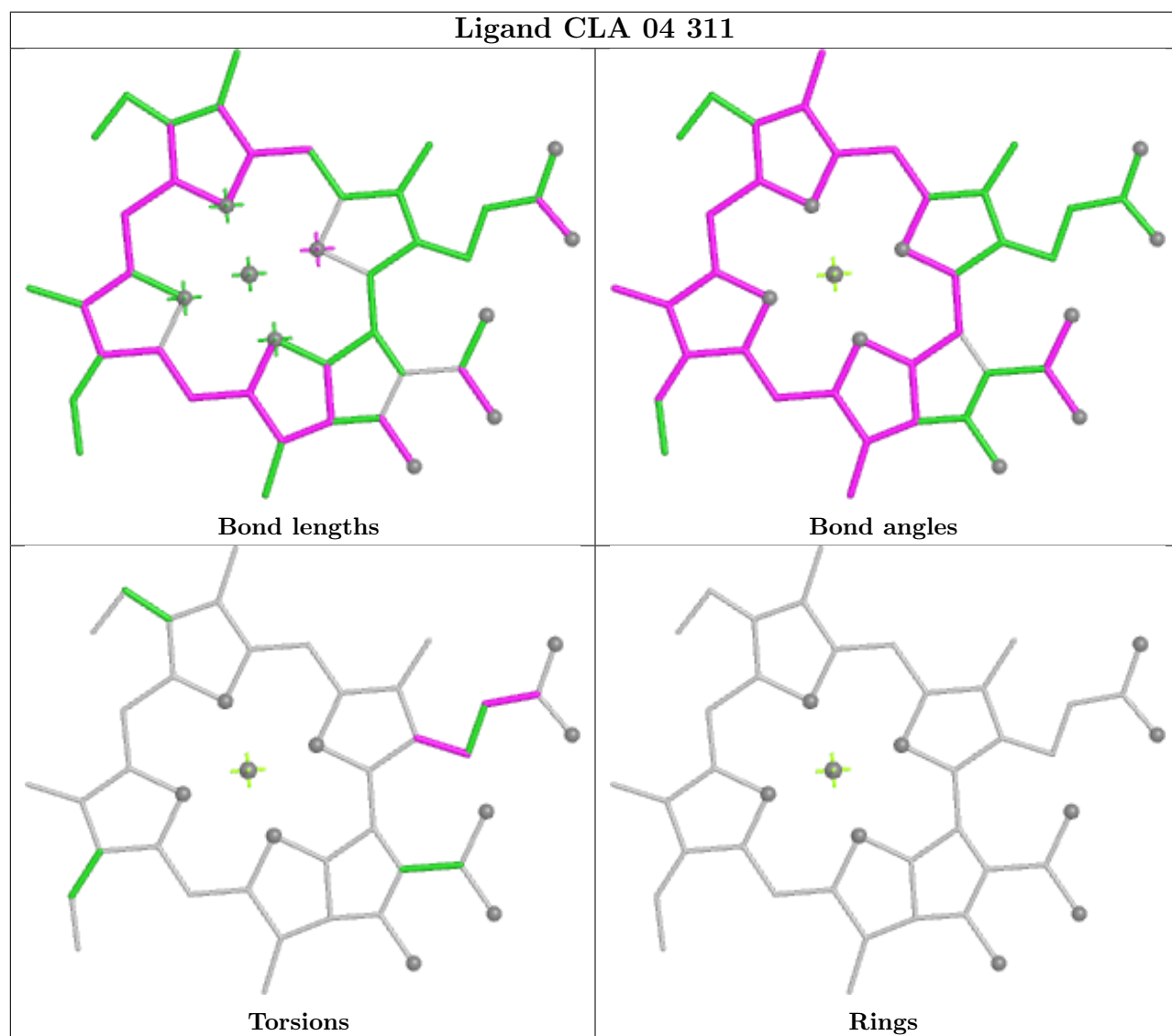
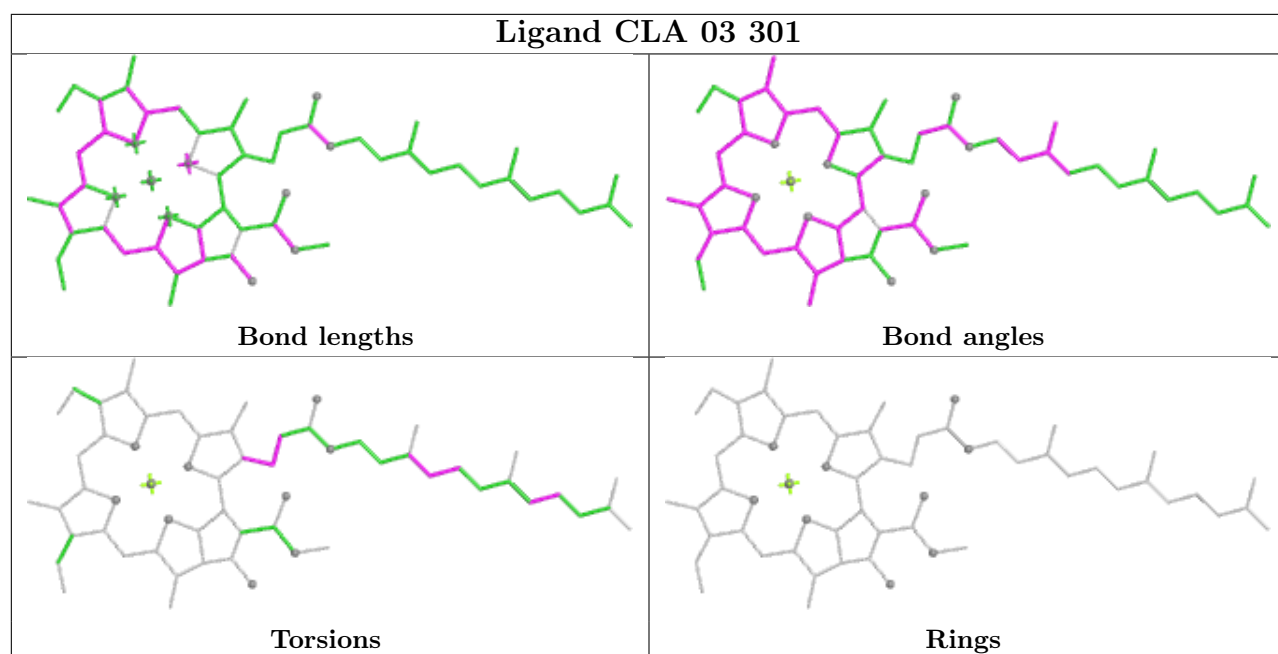


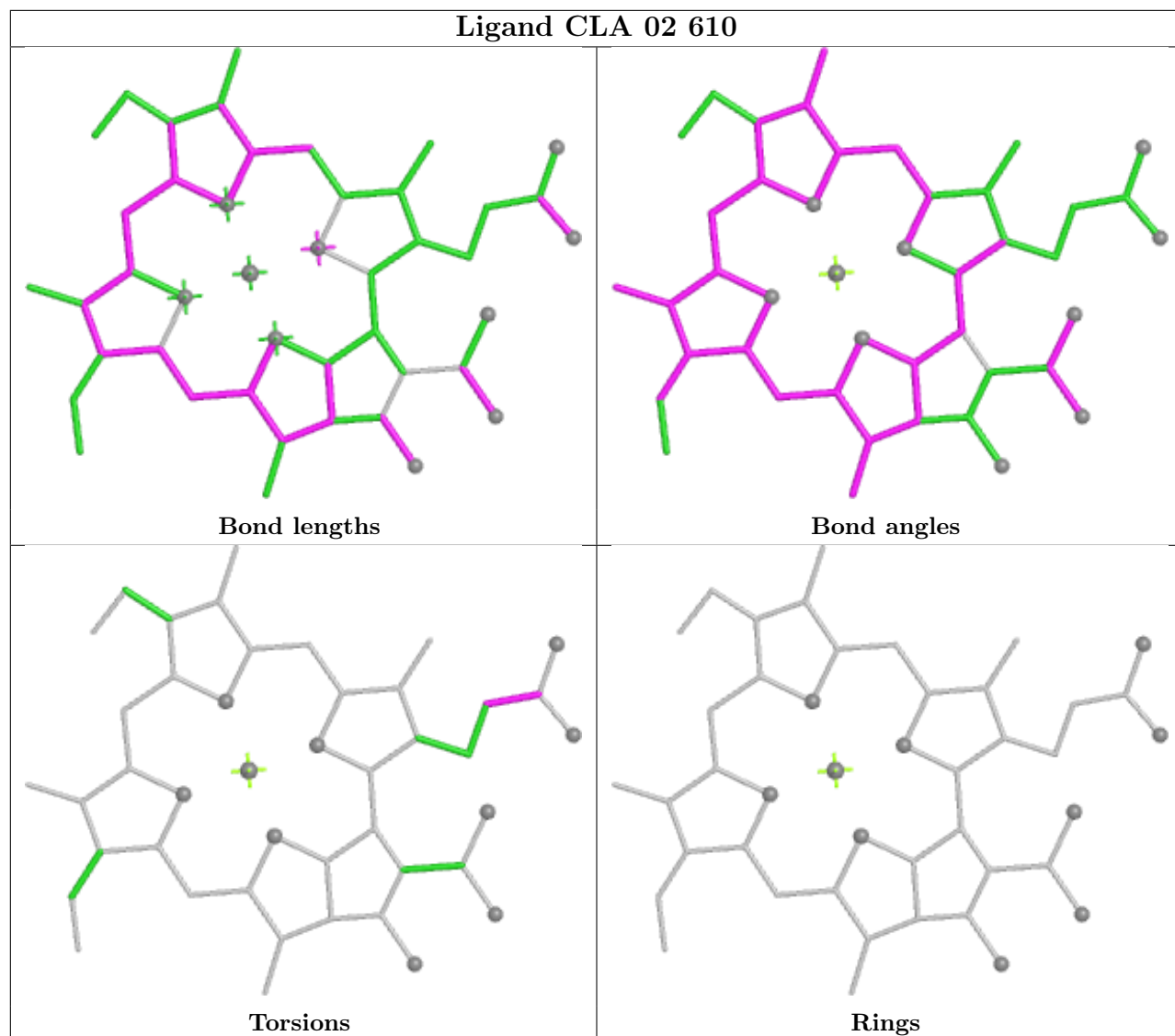


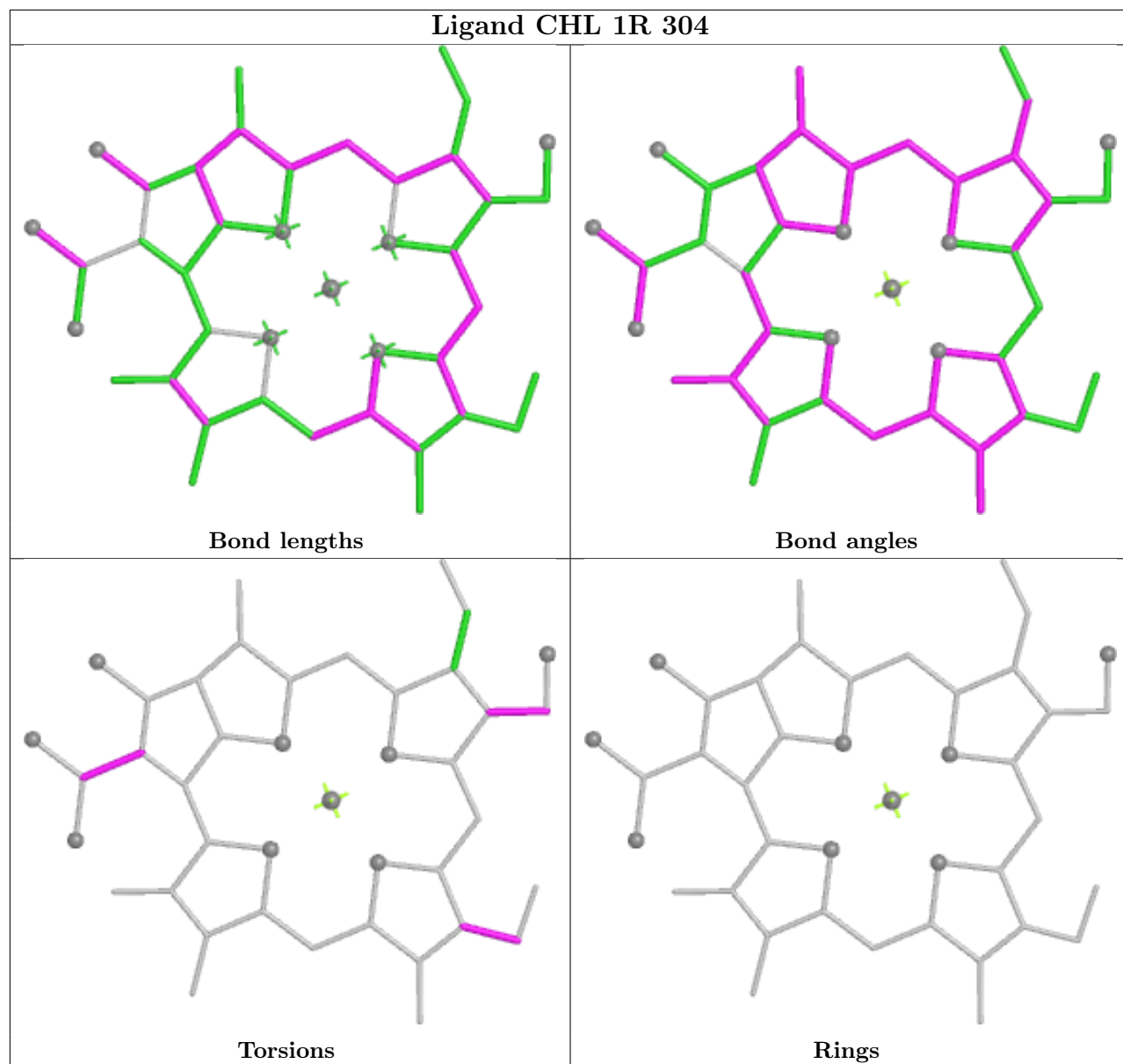


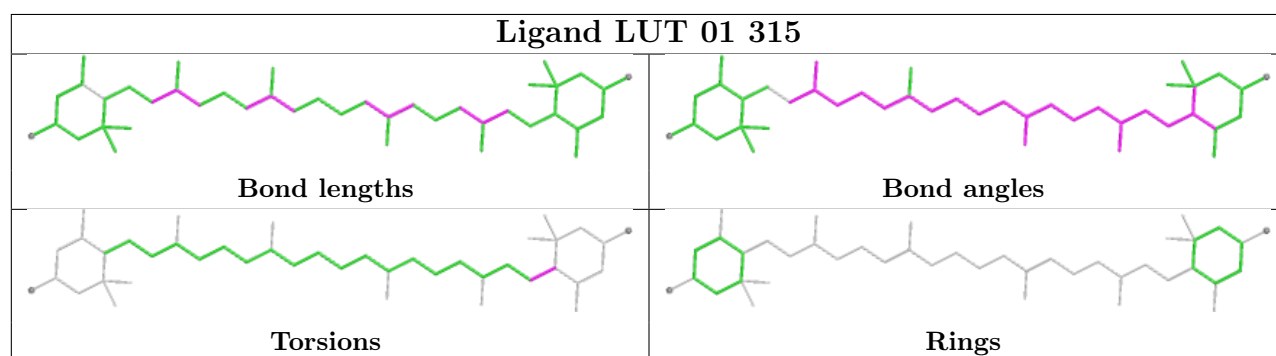
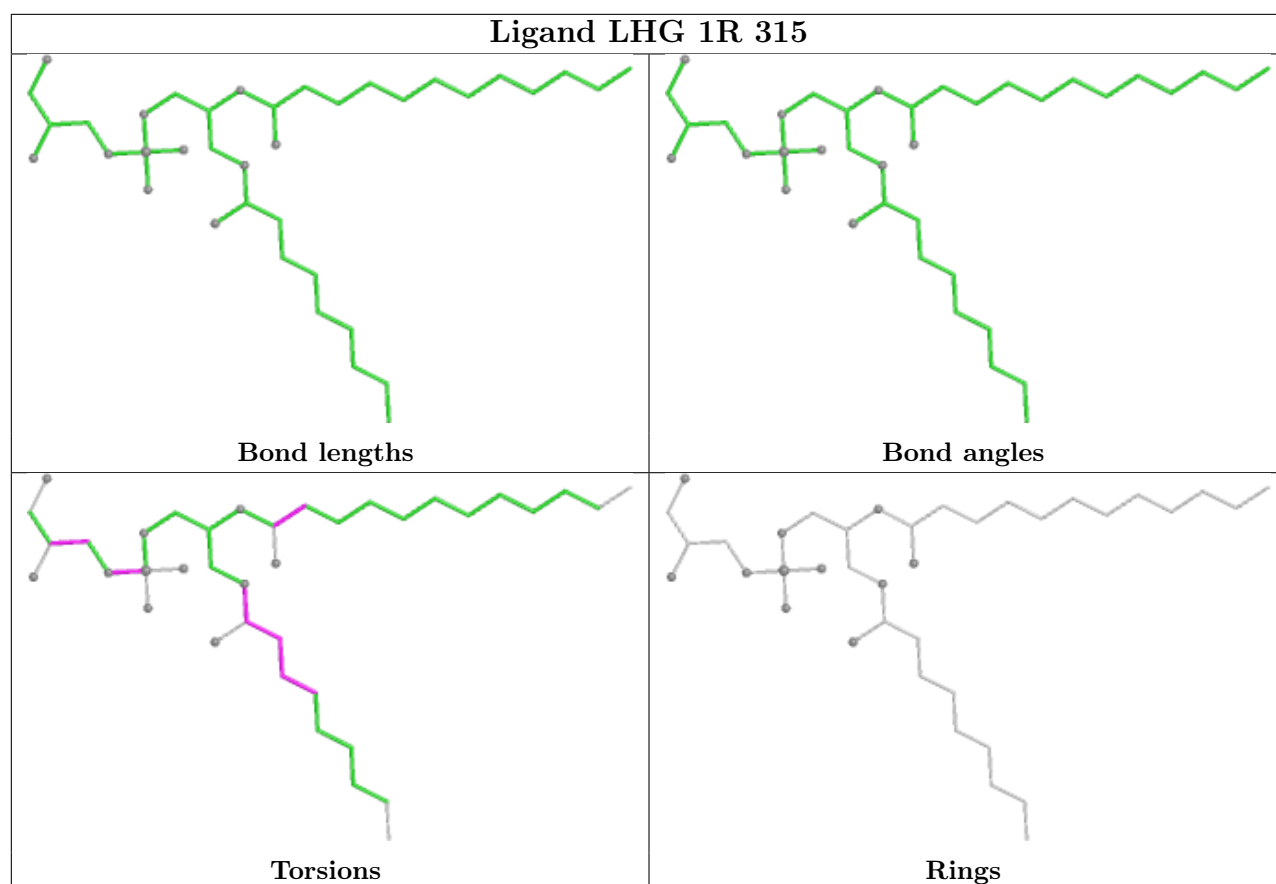




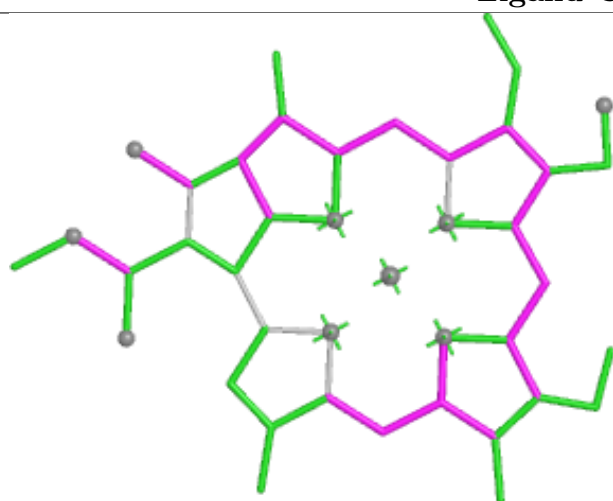




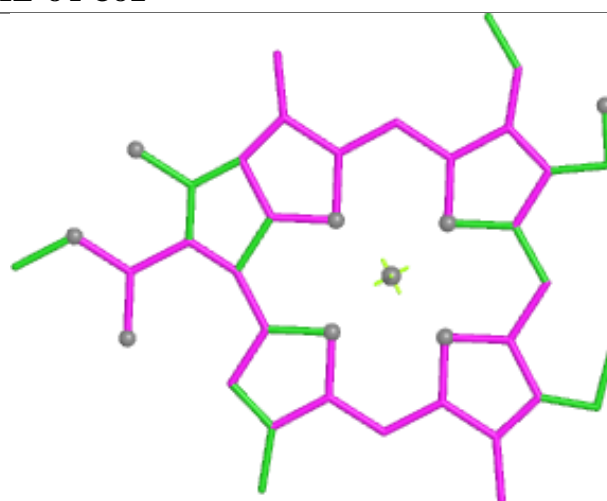




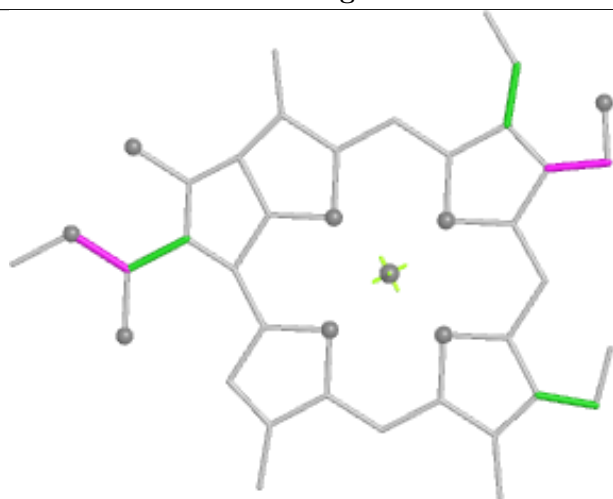
Ligand CHL 04 302



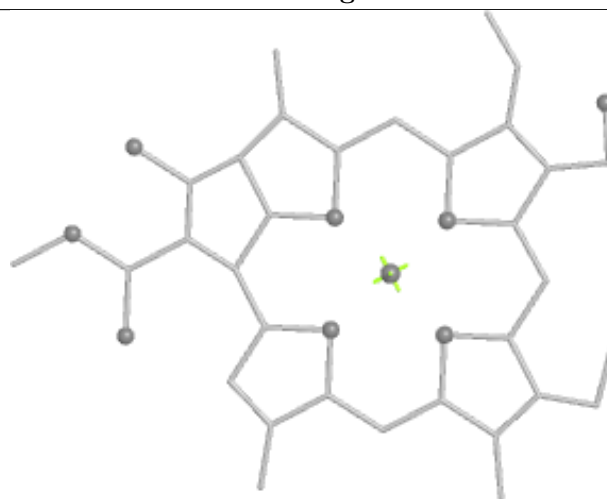
Bond lengths



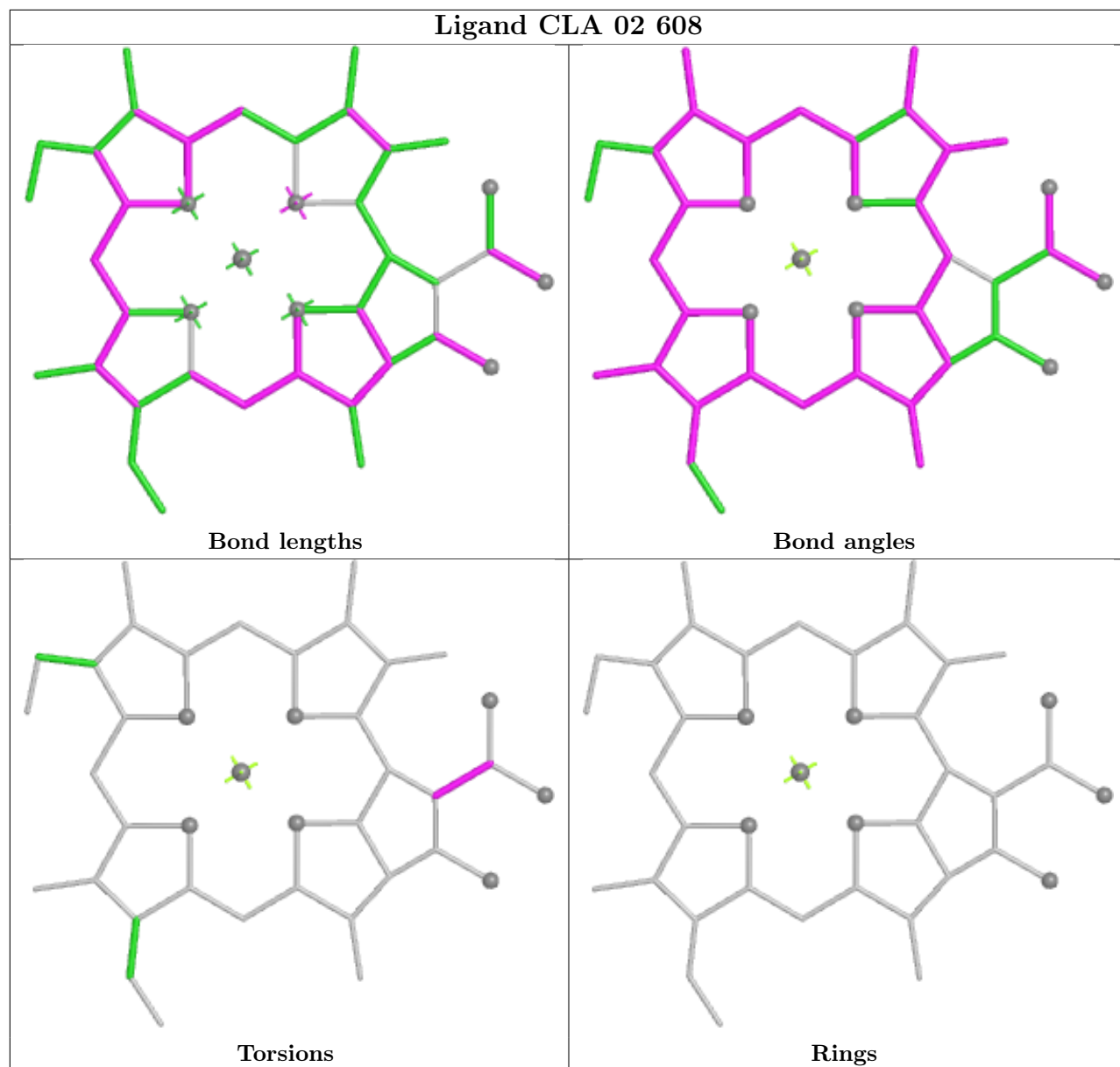
Bond angles

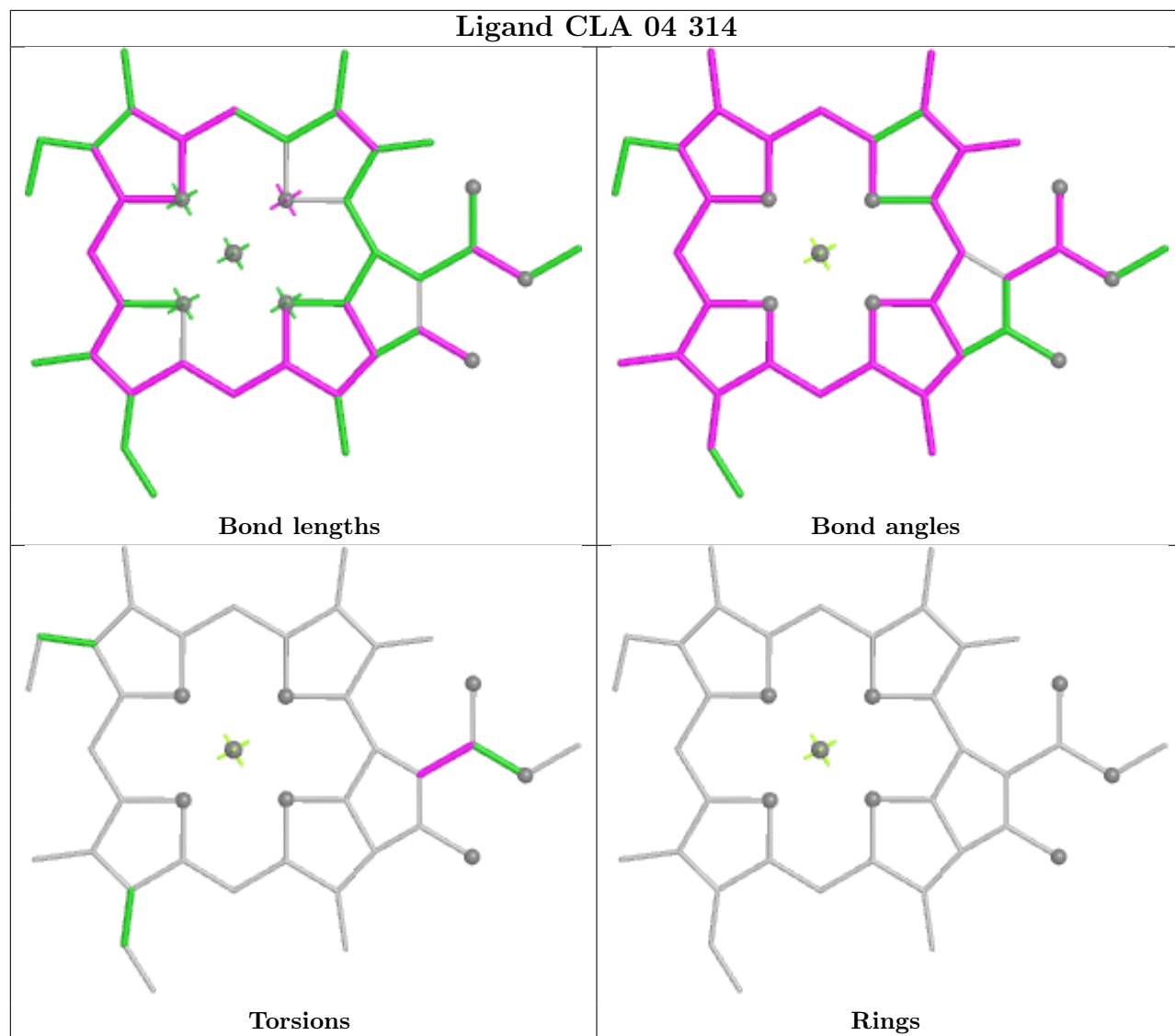


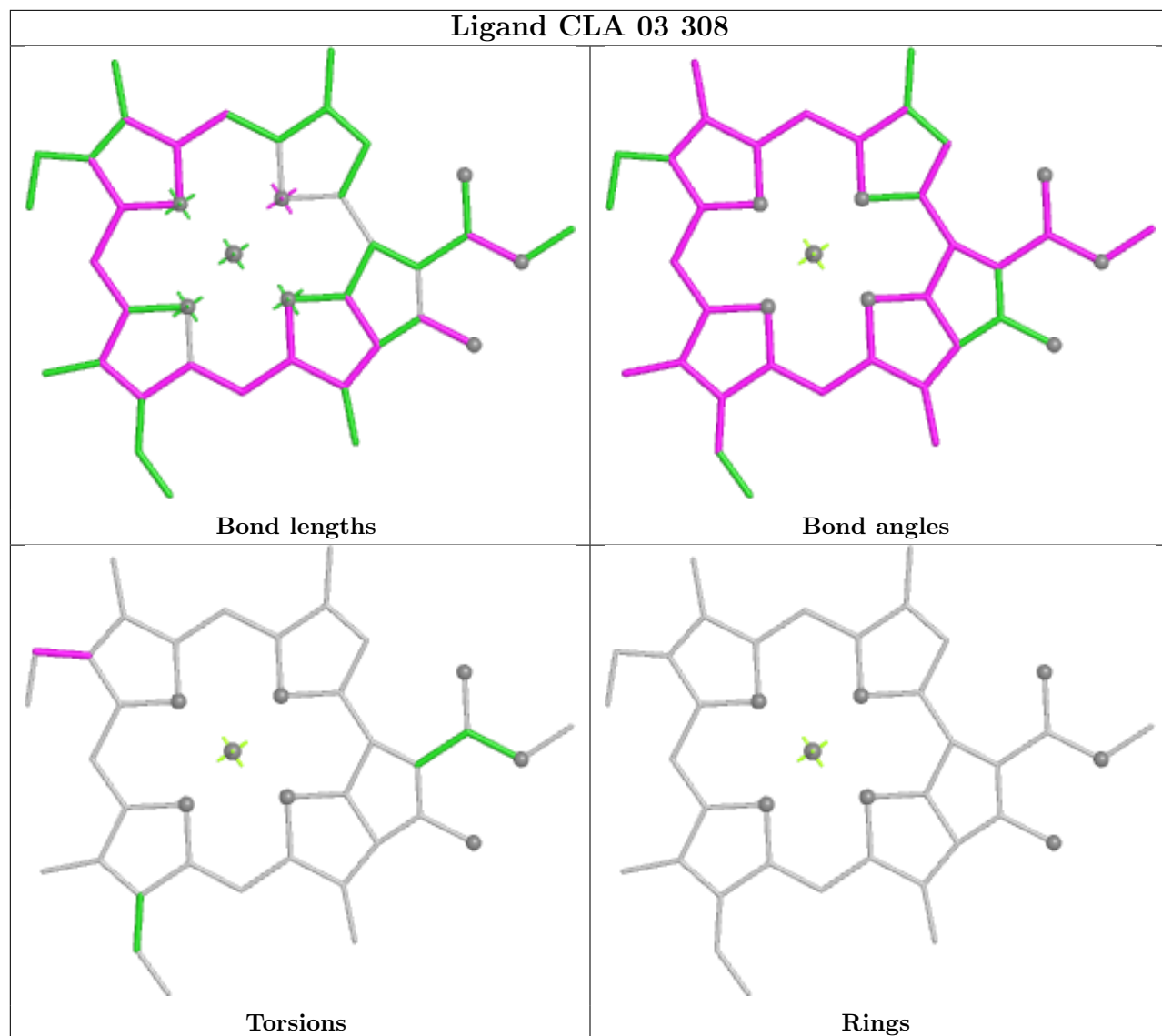
Torsions

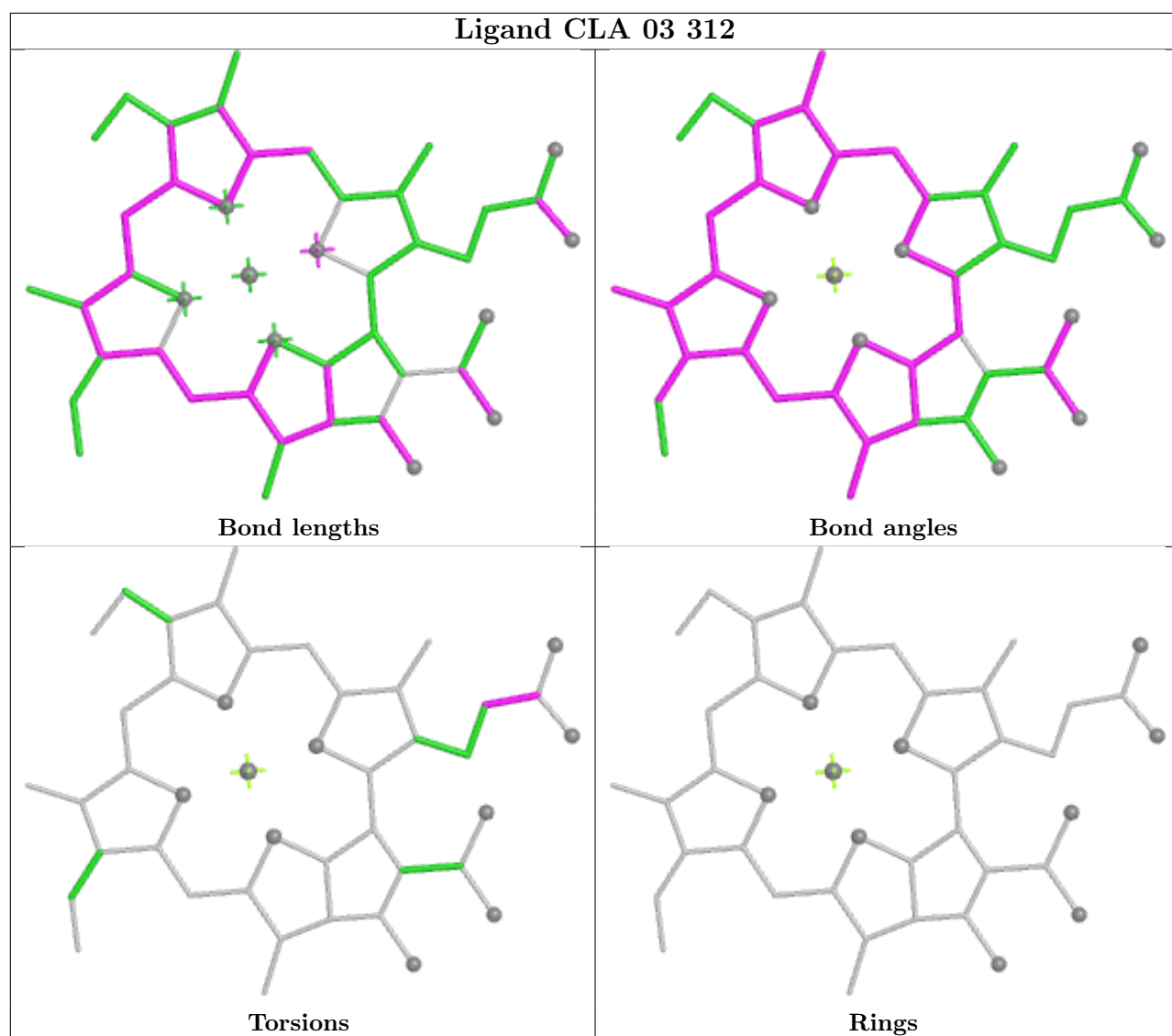


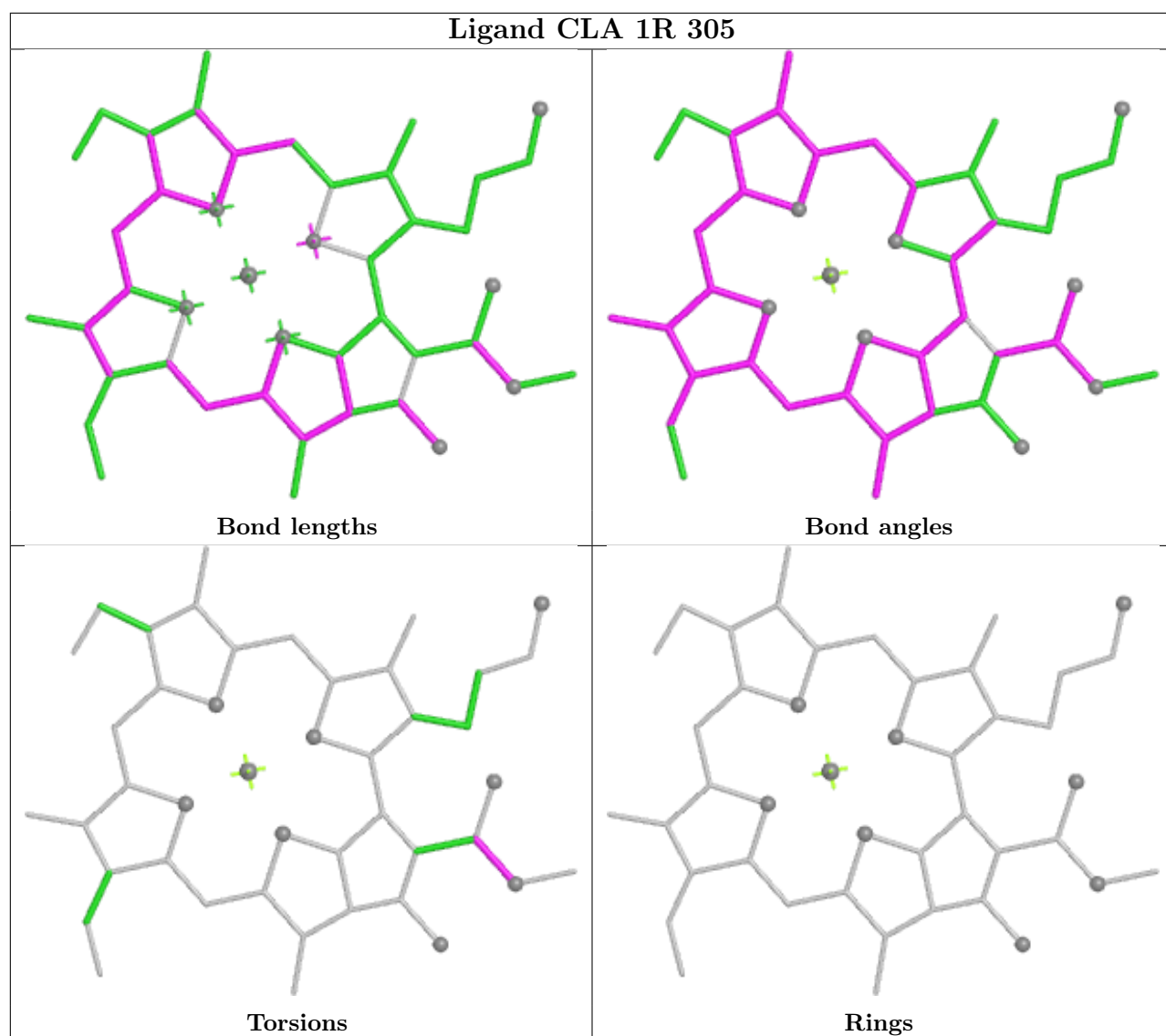
Rings

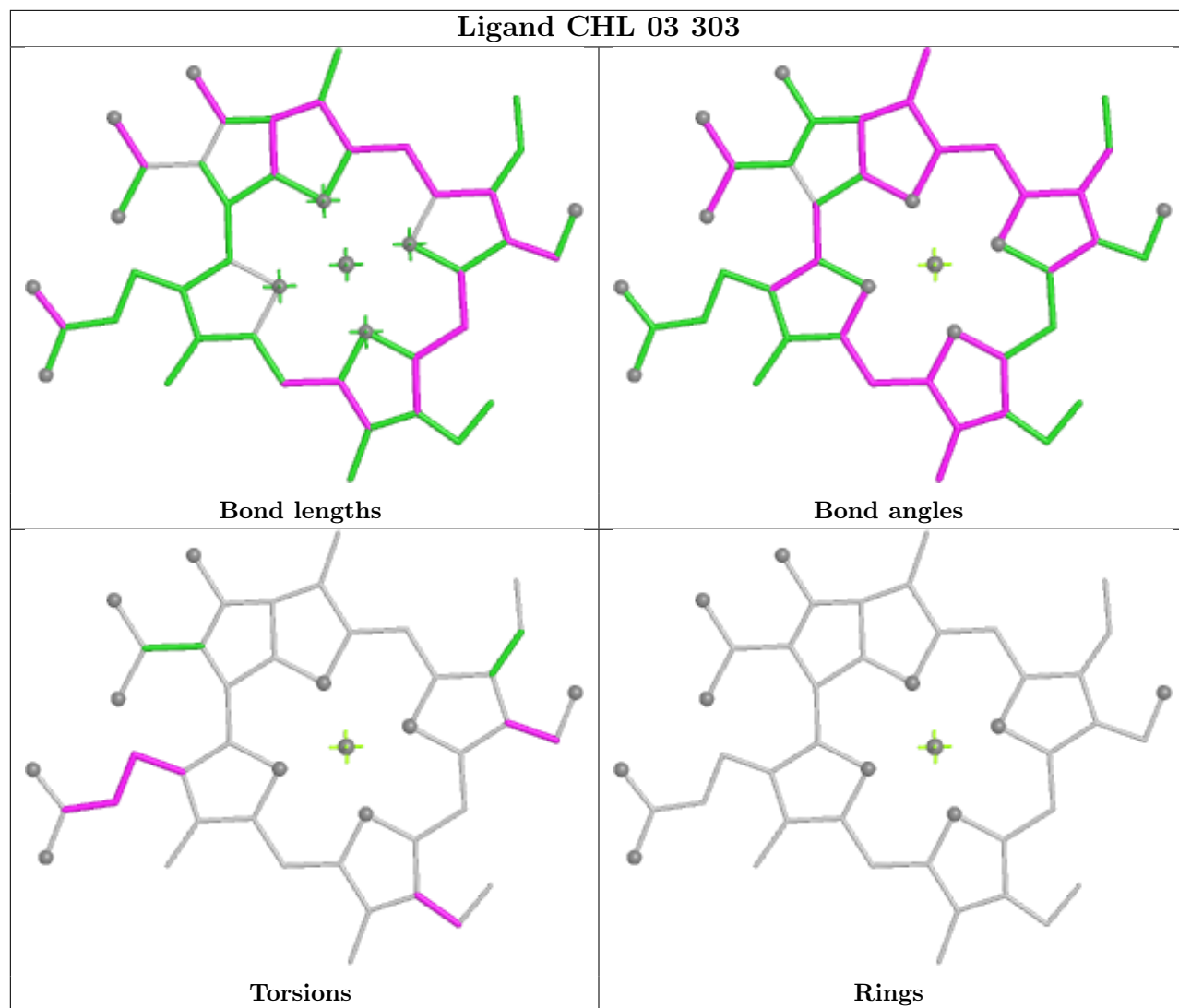


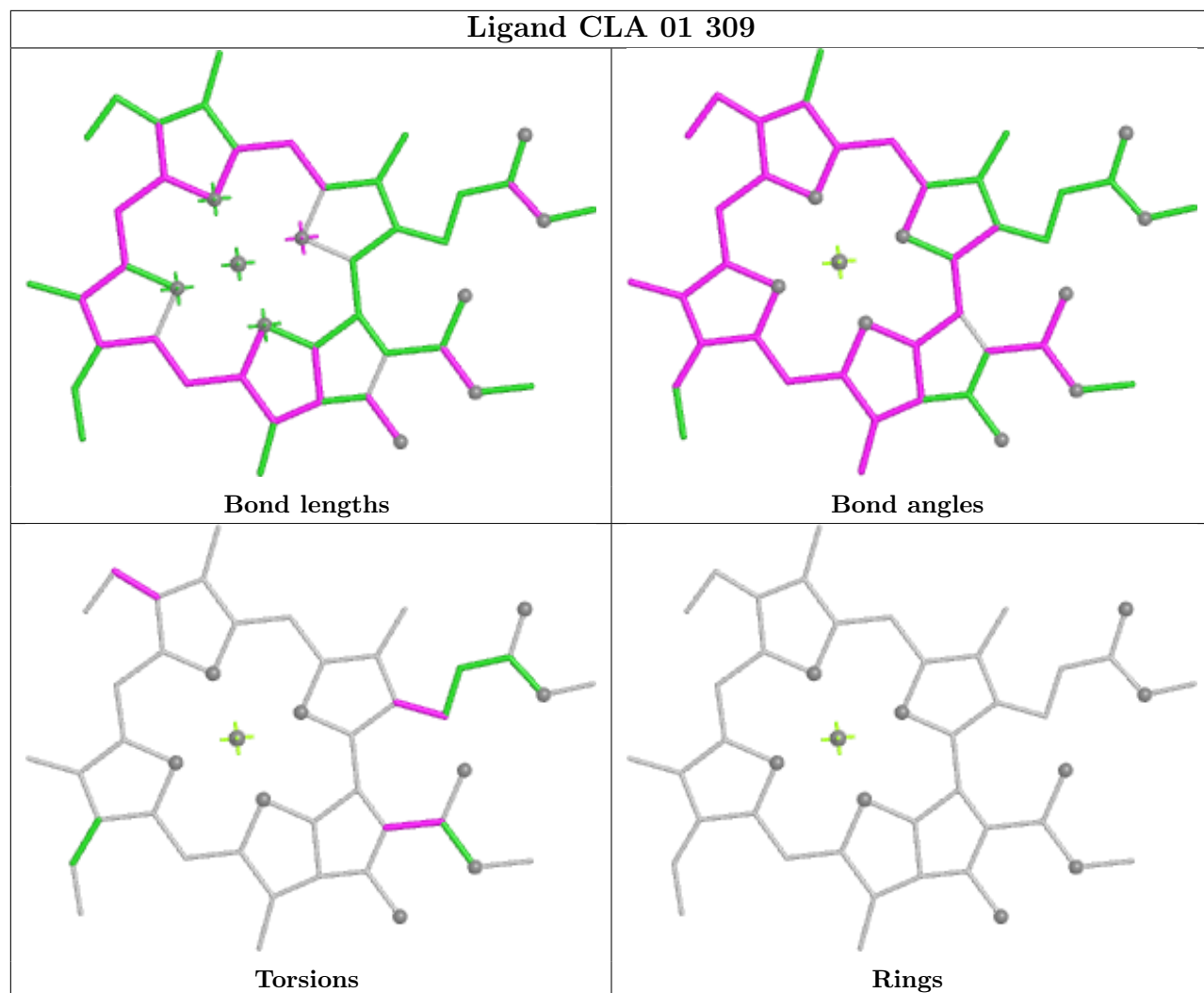


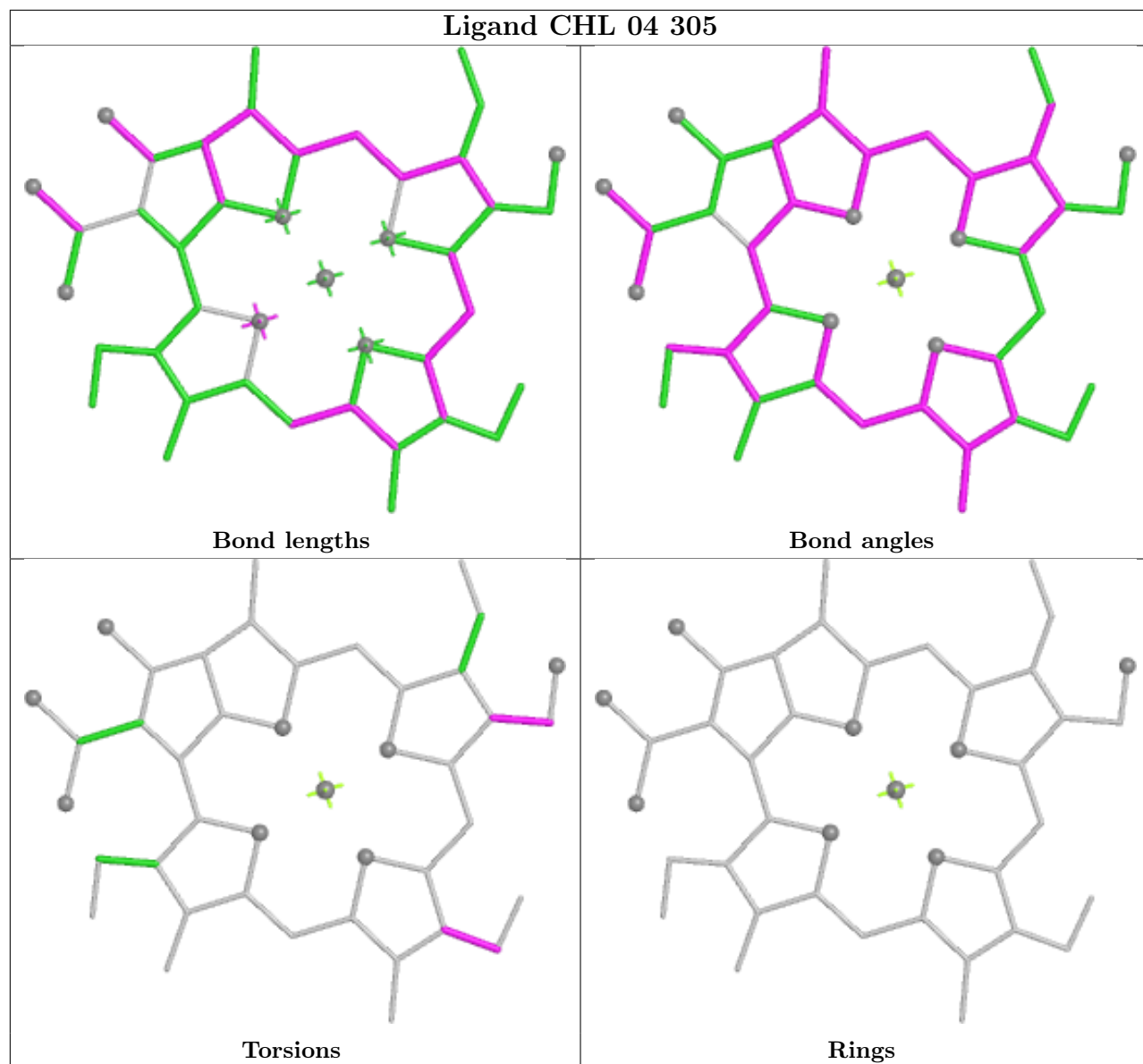


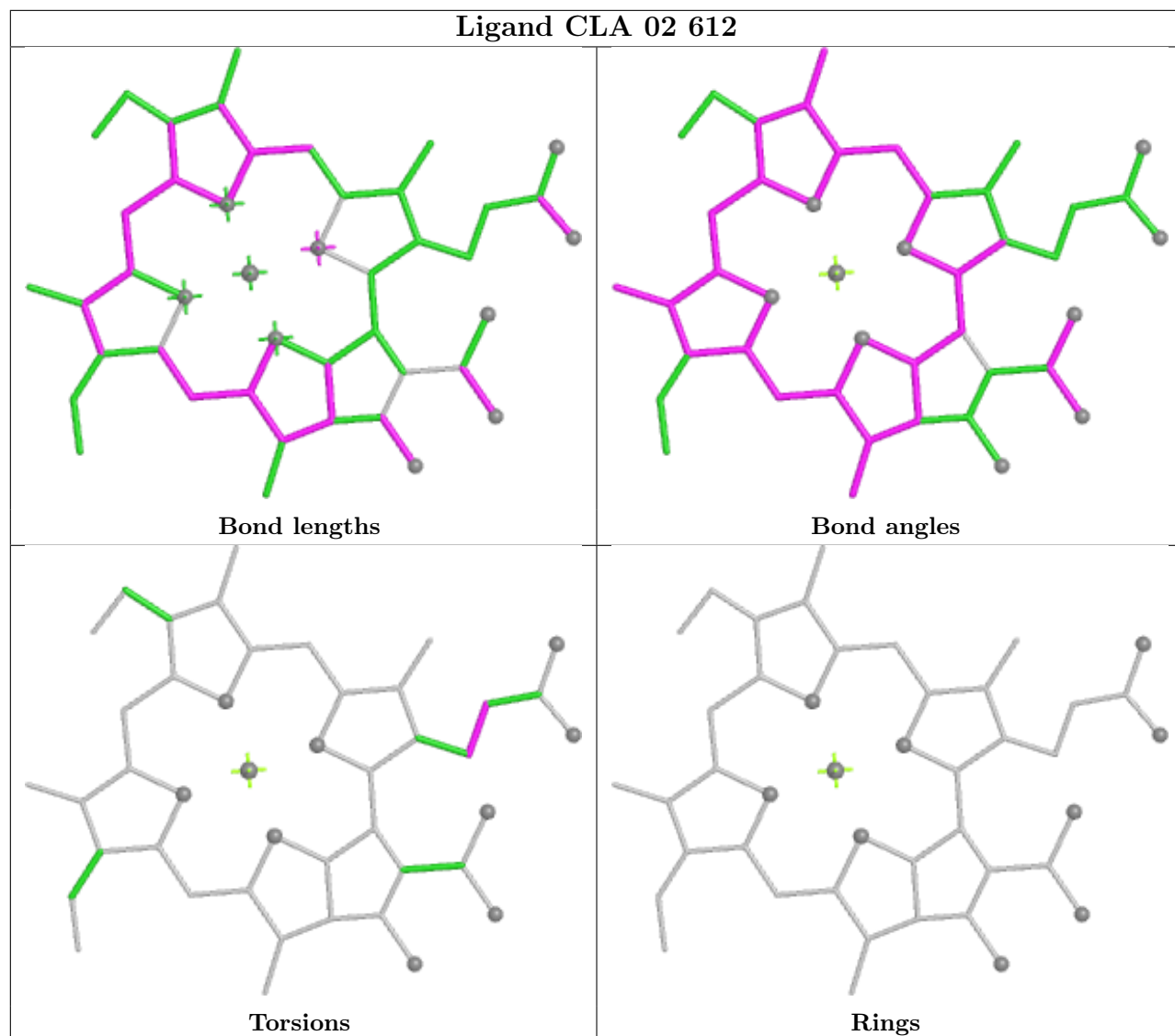


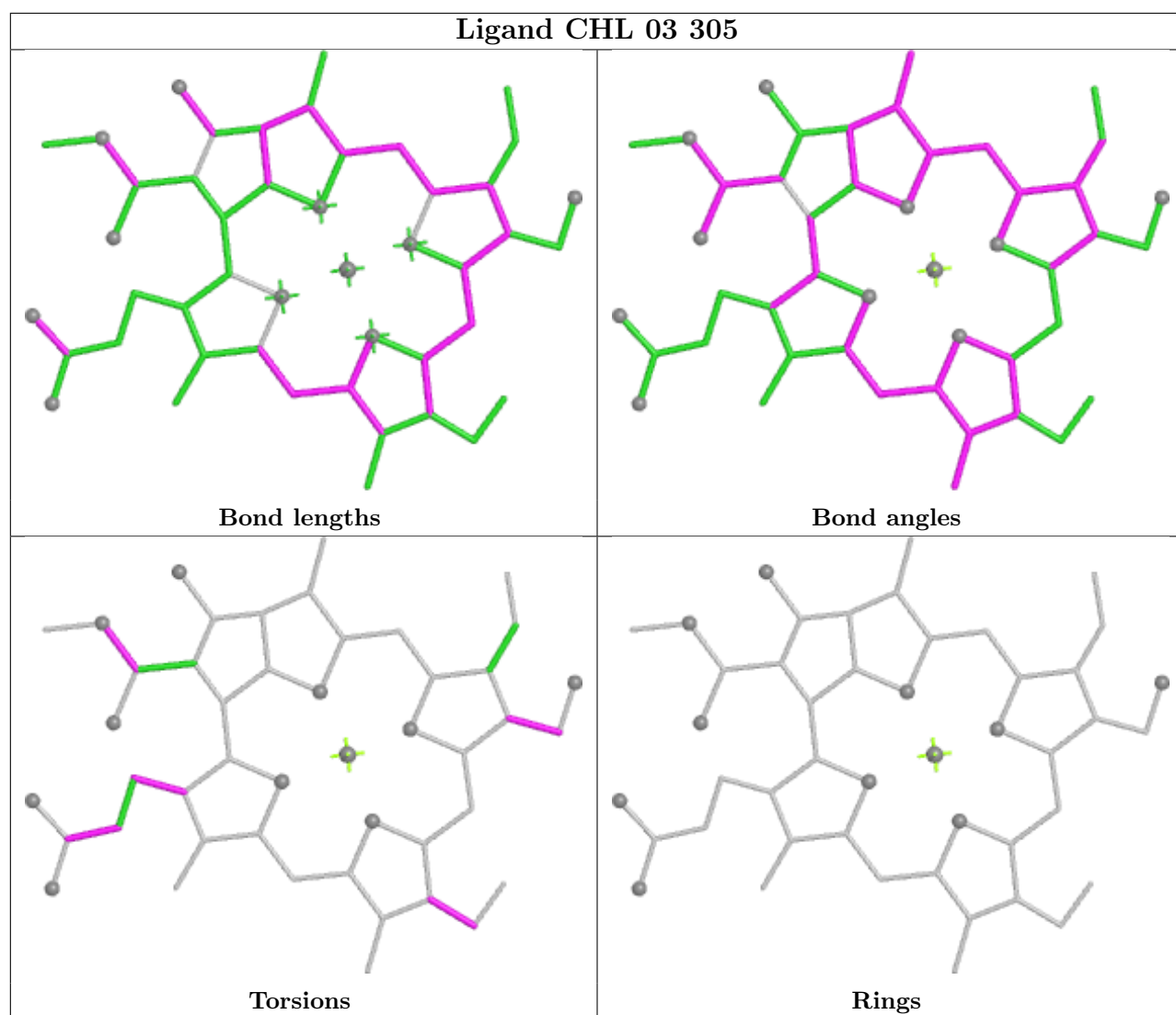


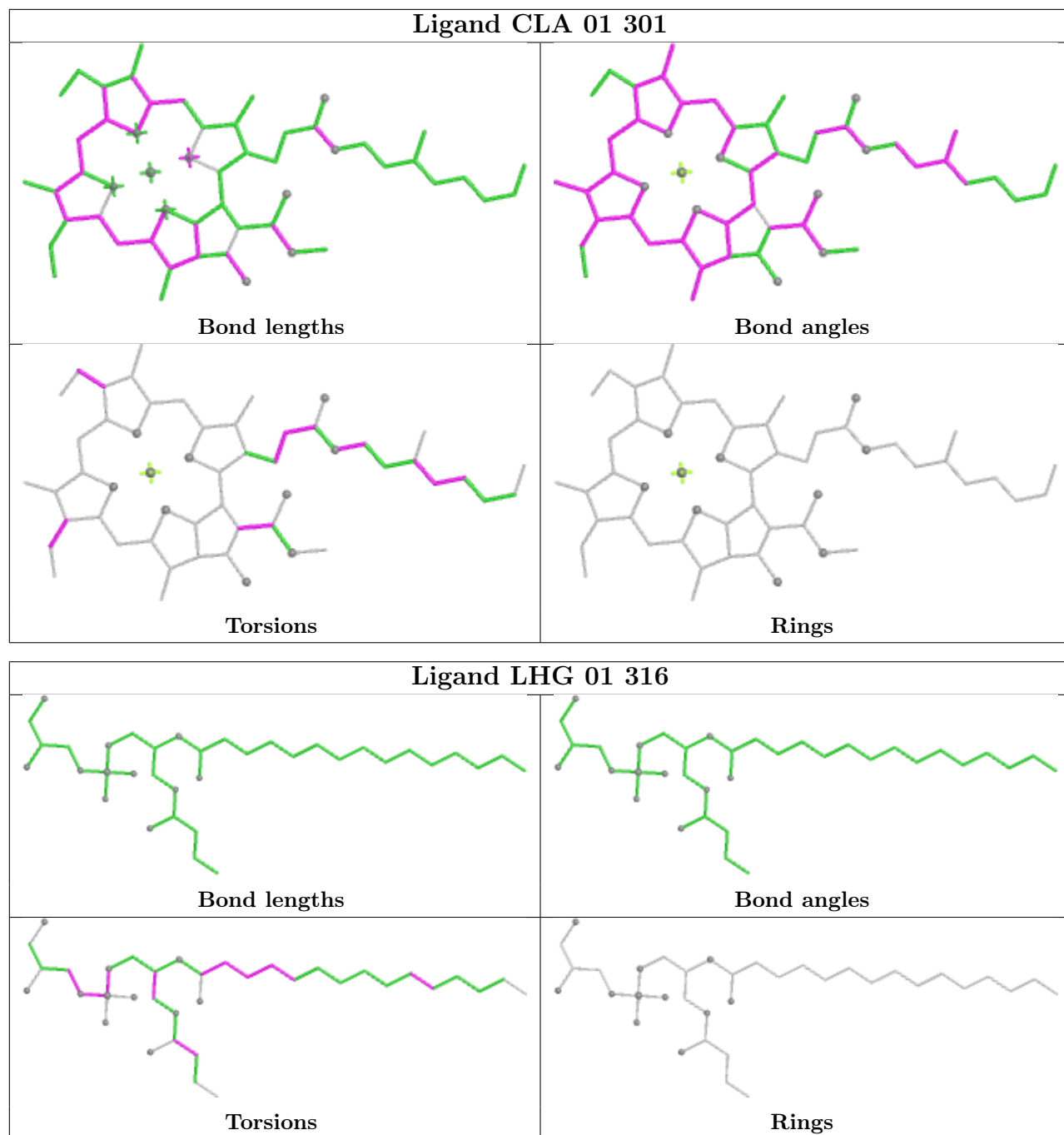


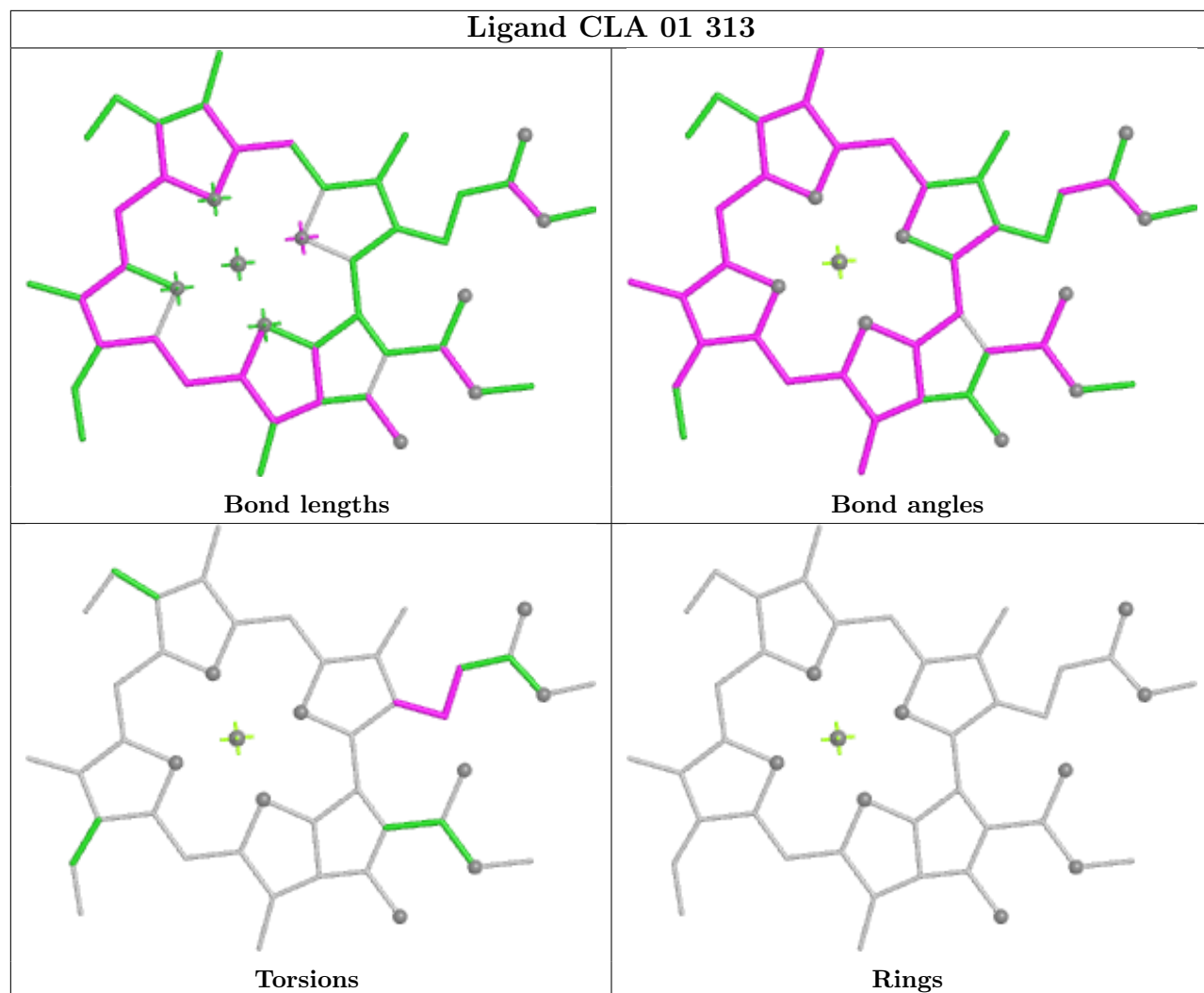


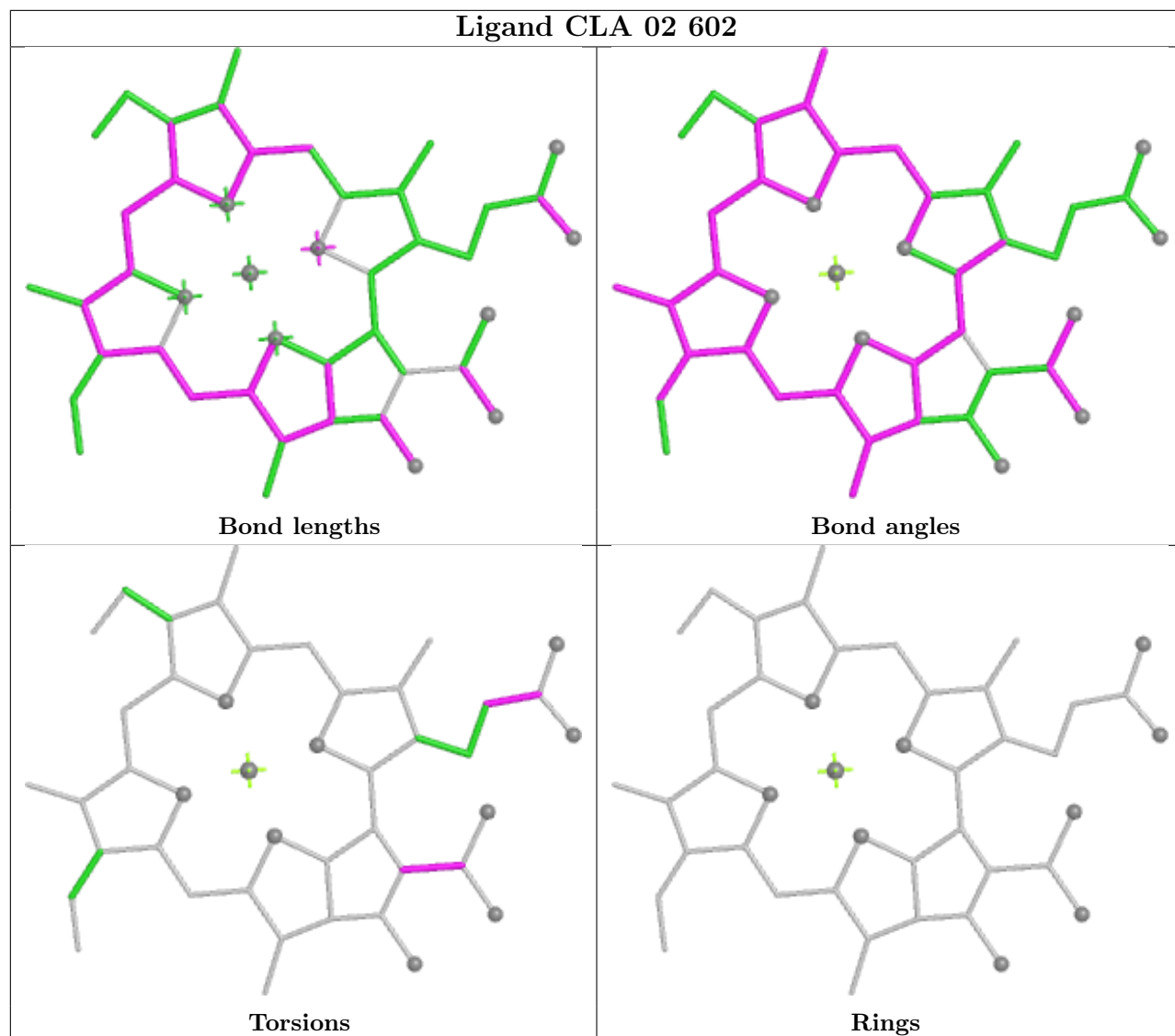


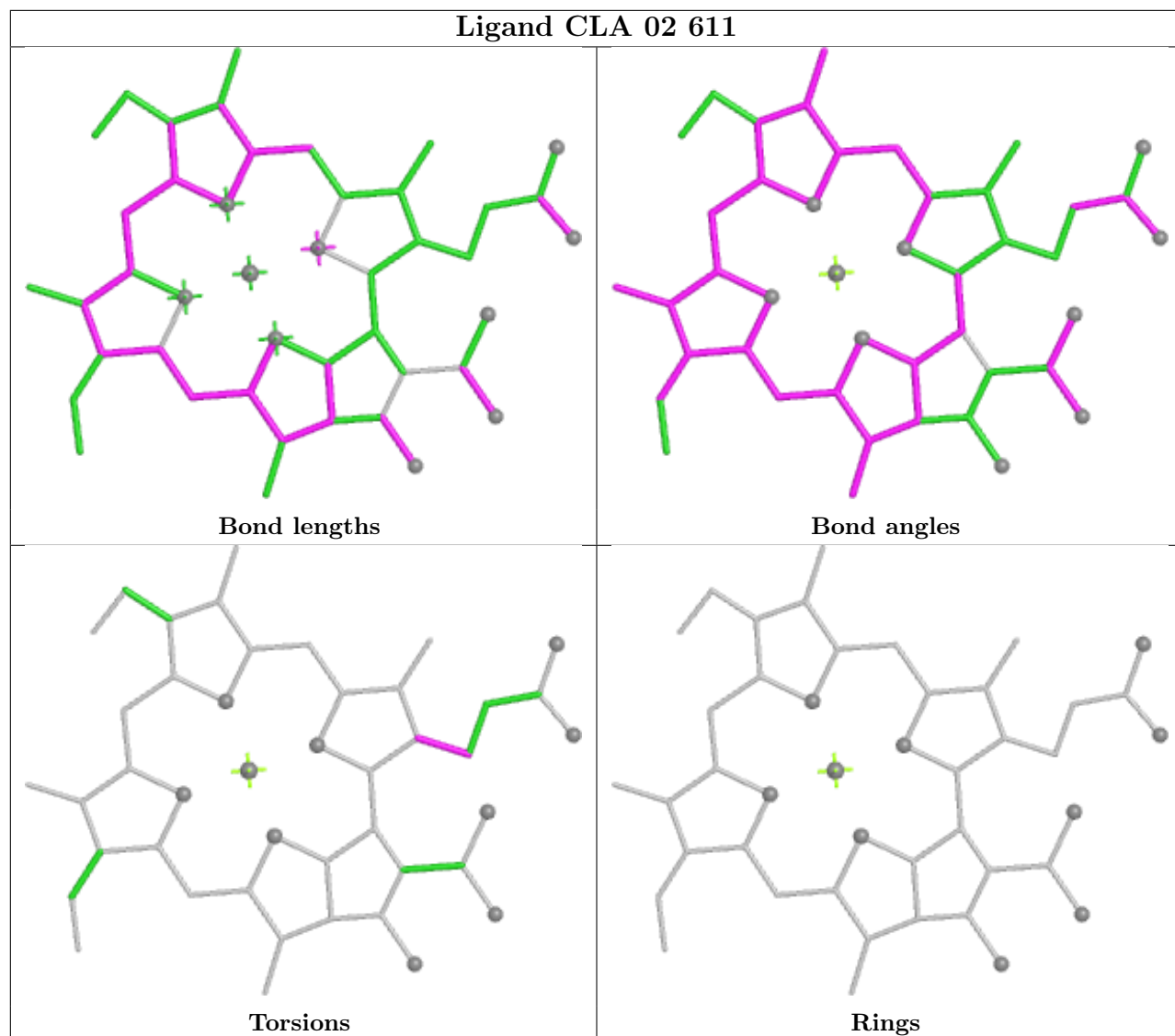


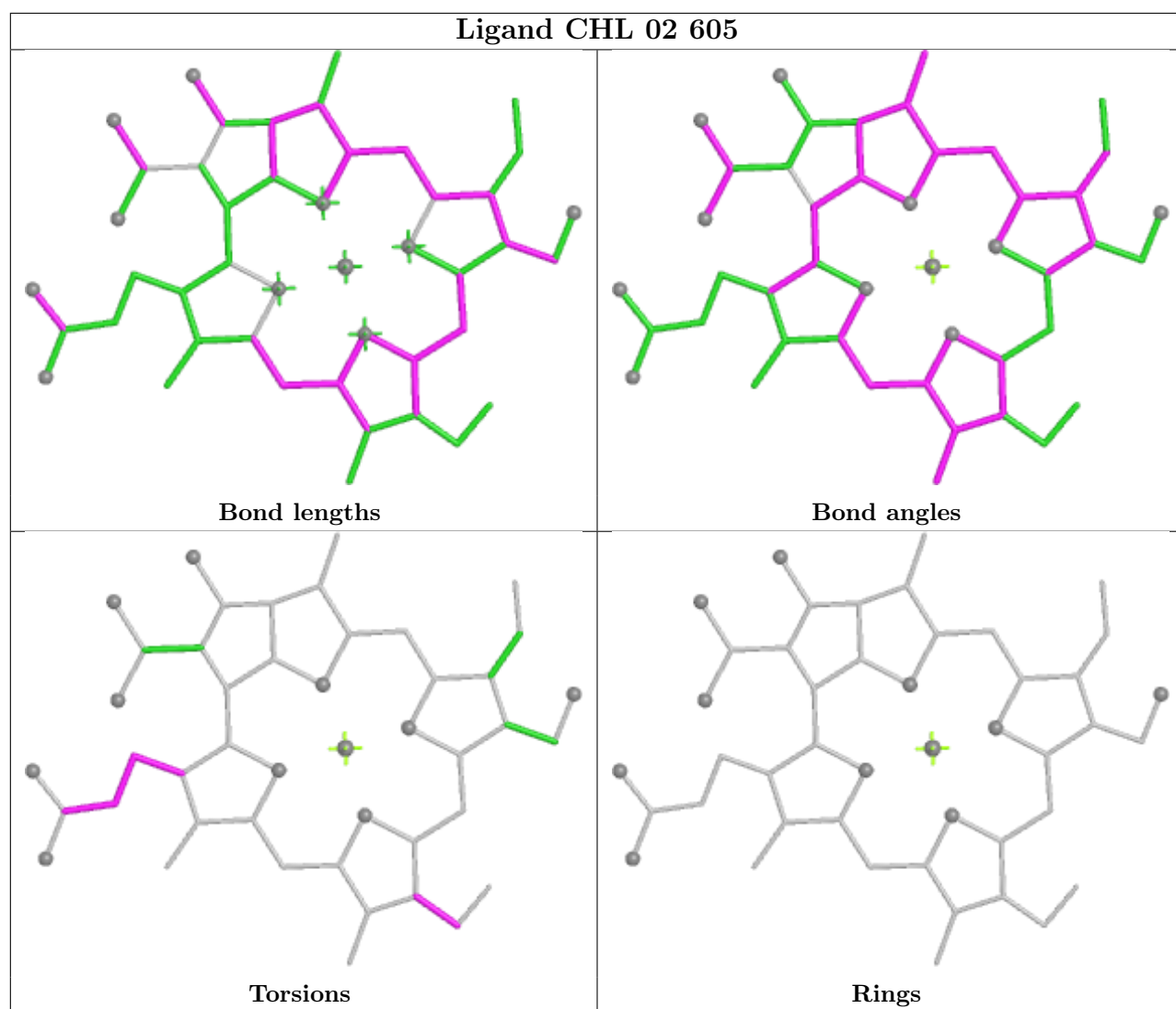


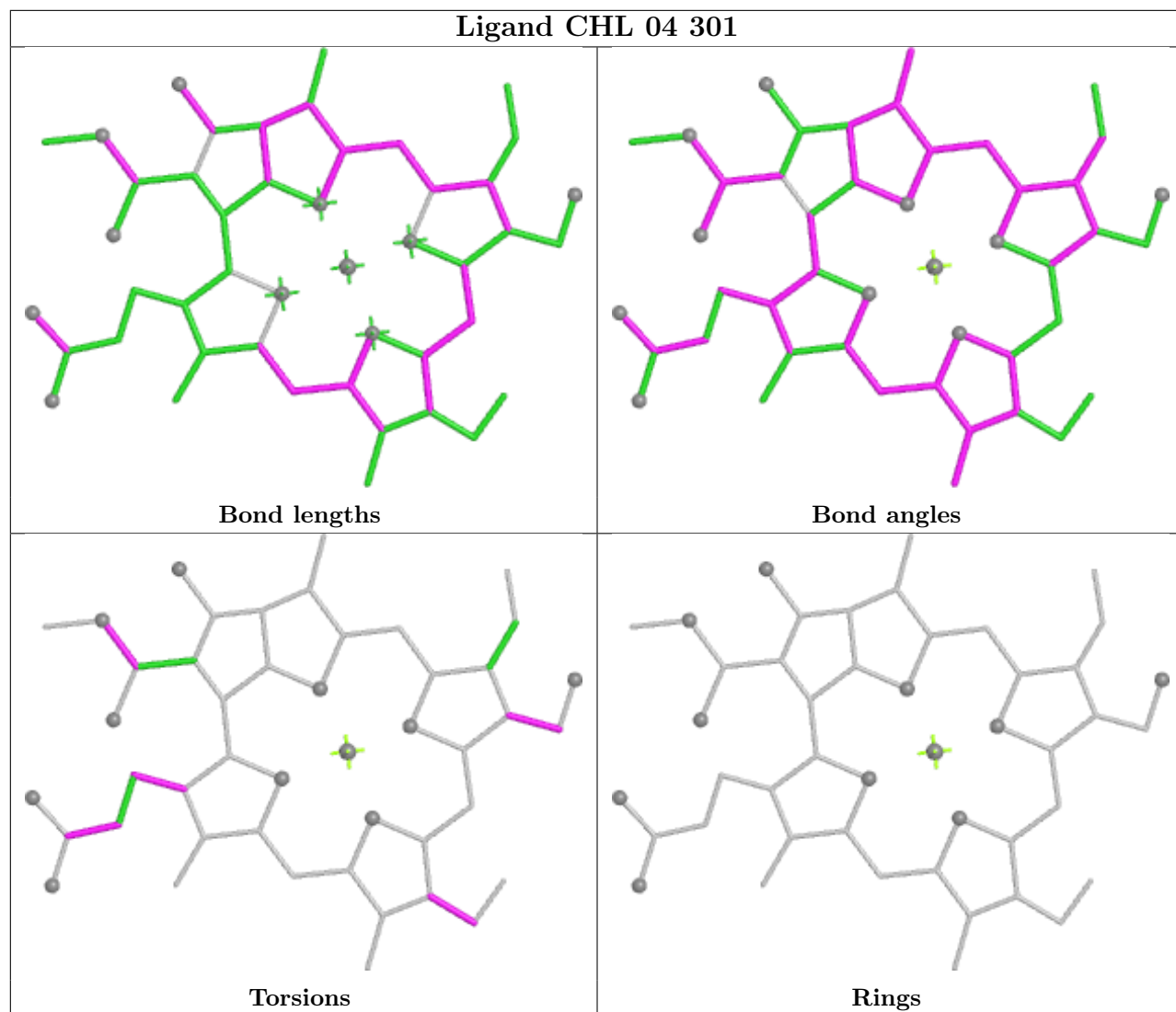


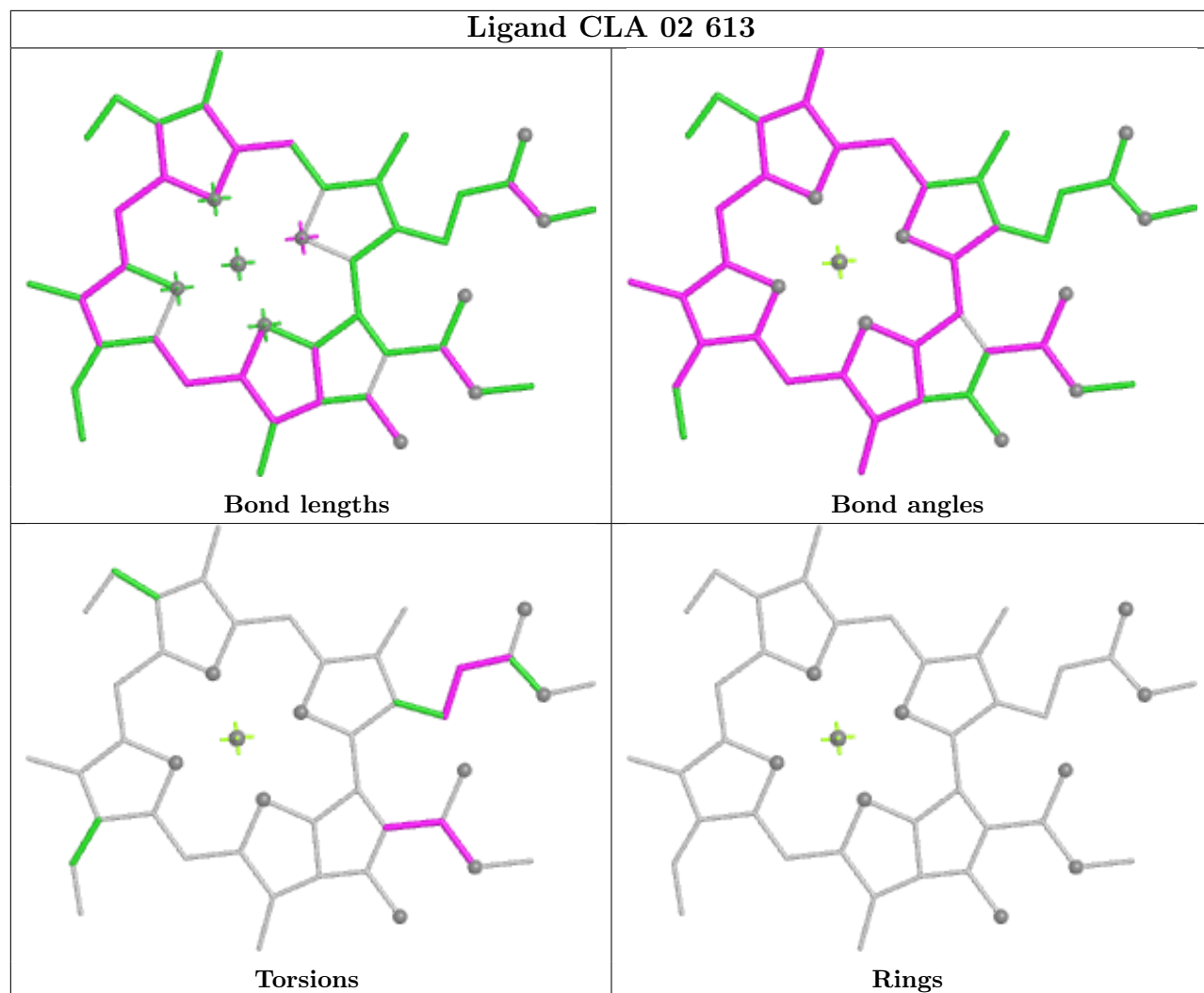


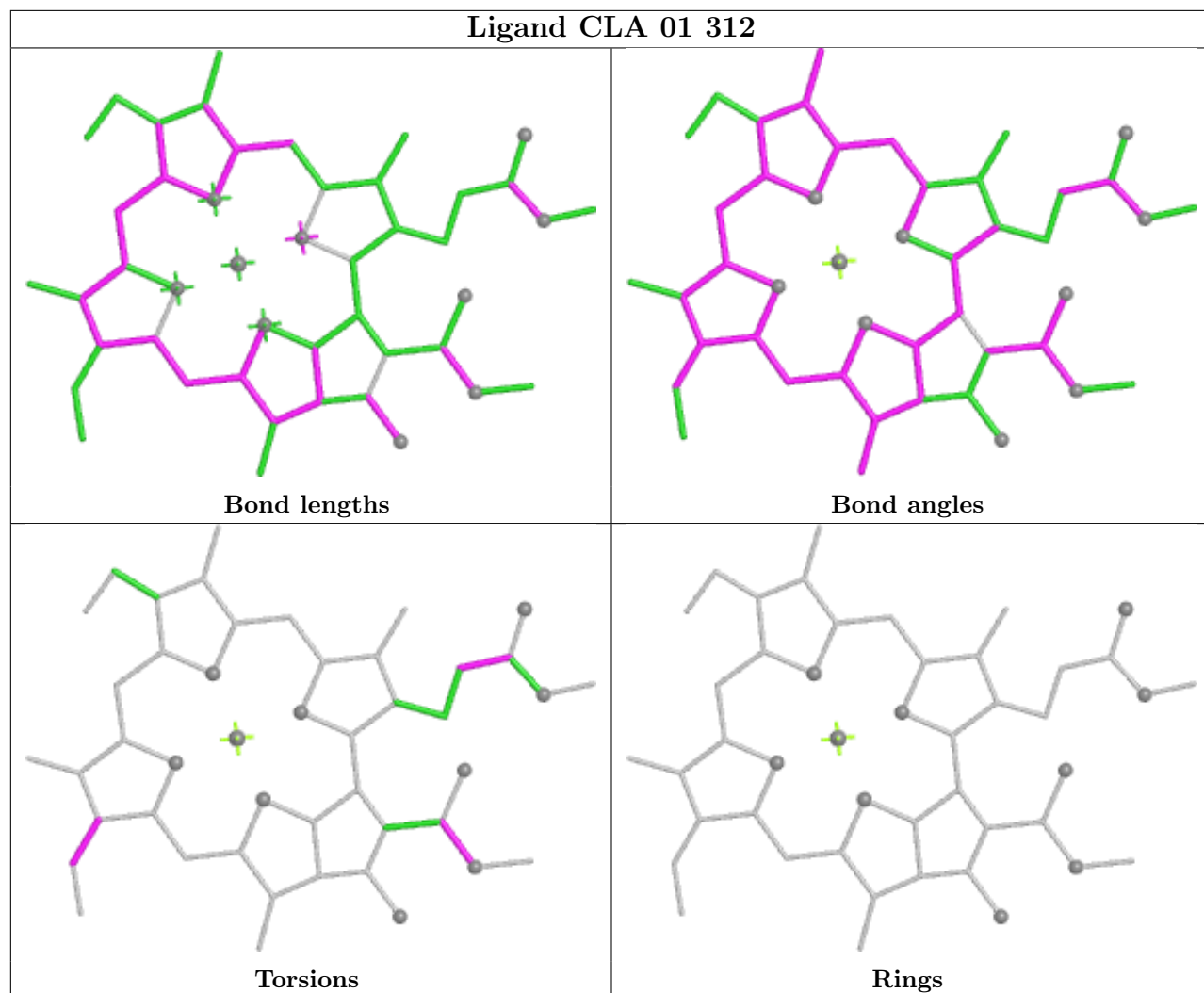




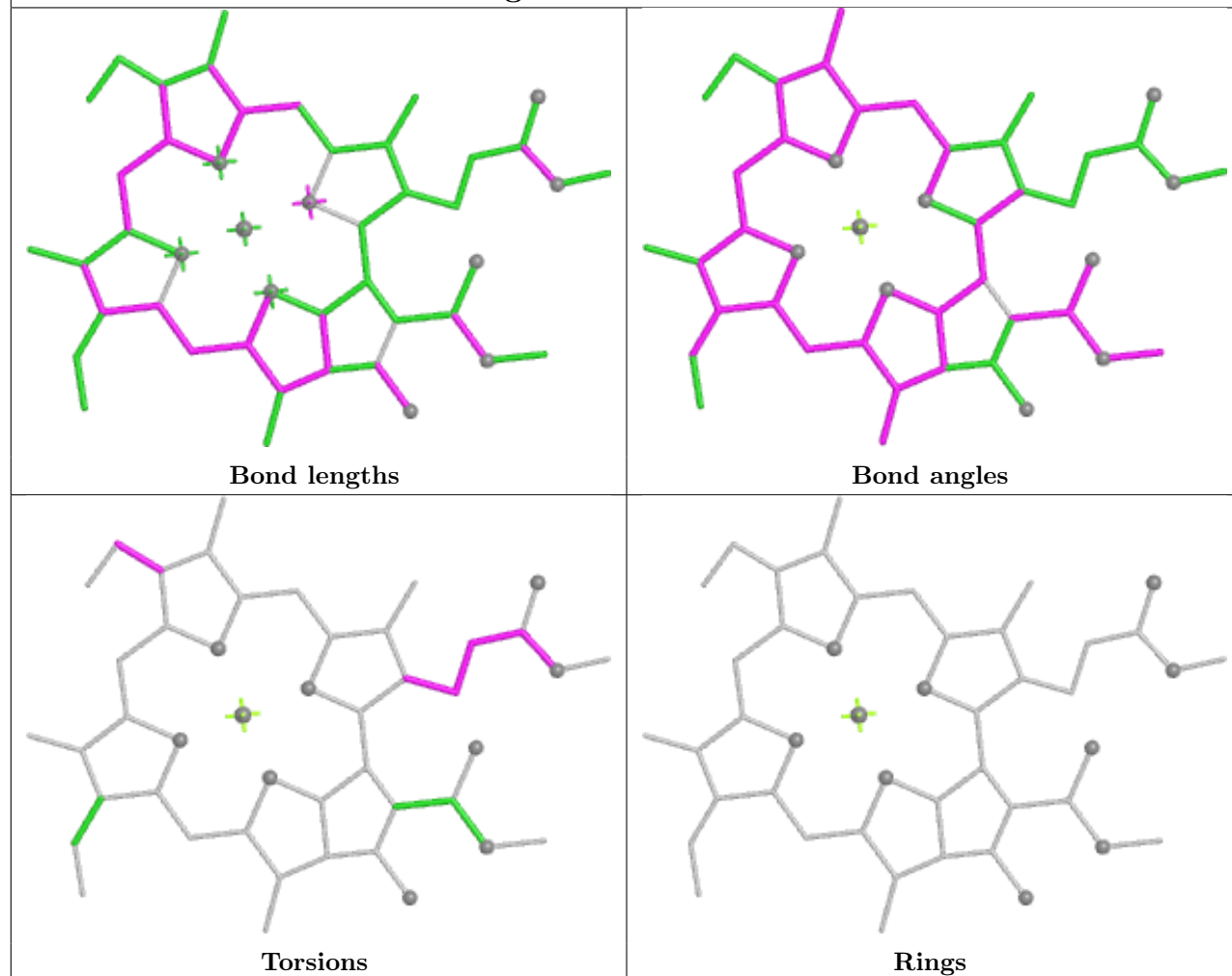


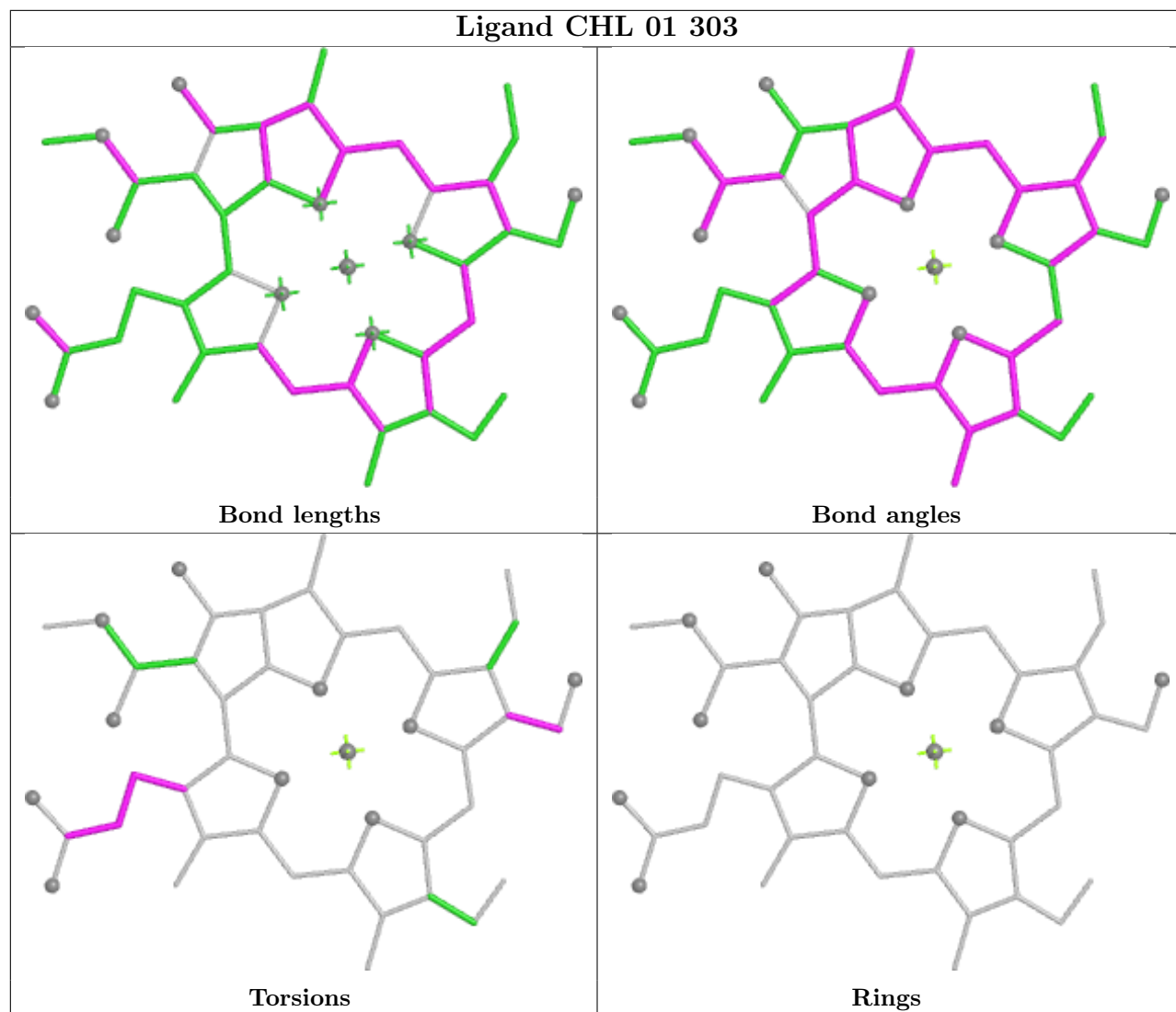


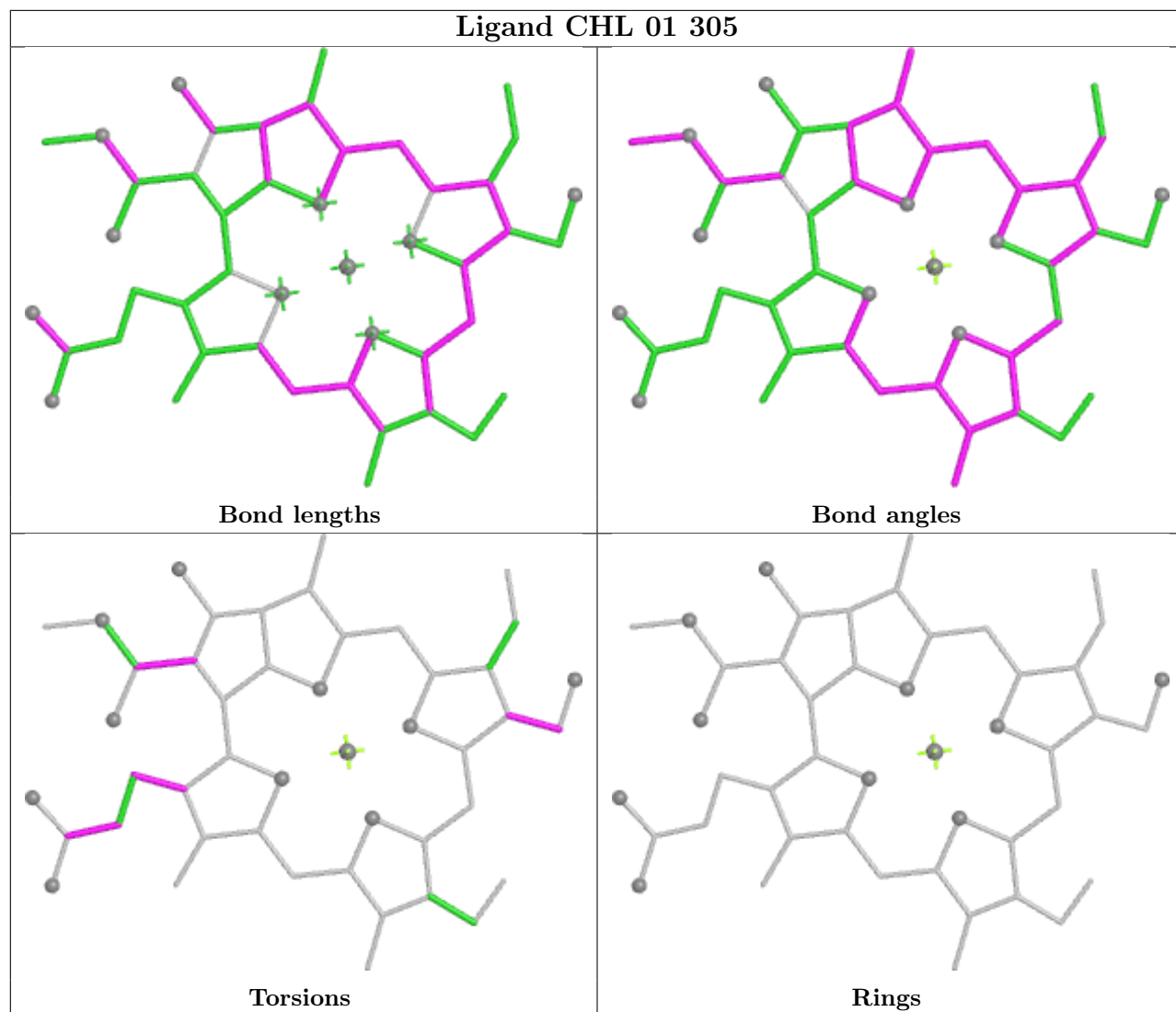


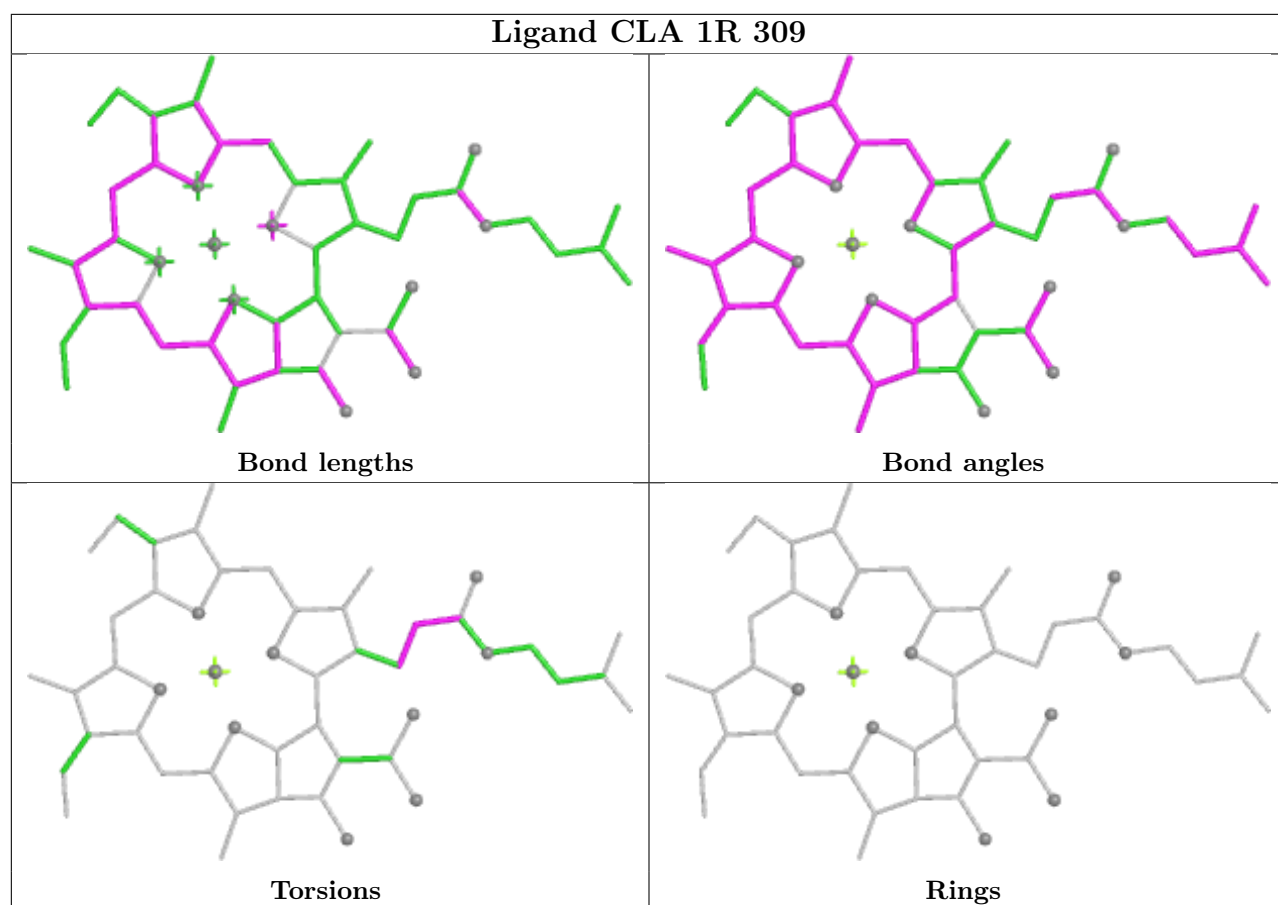


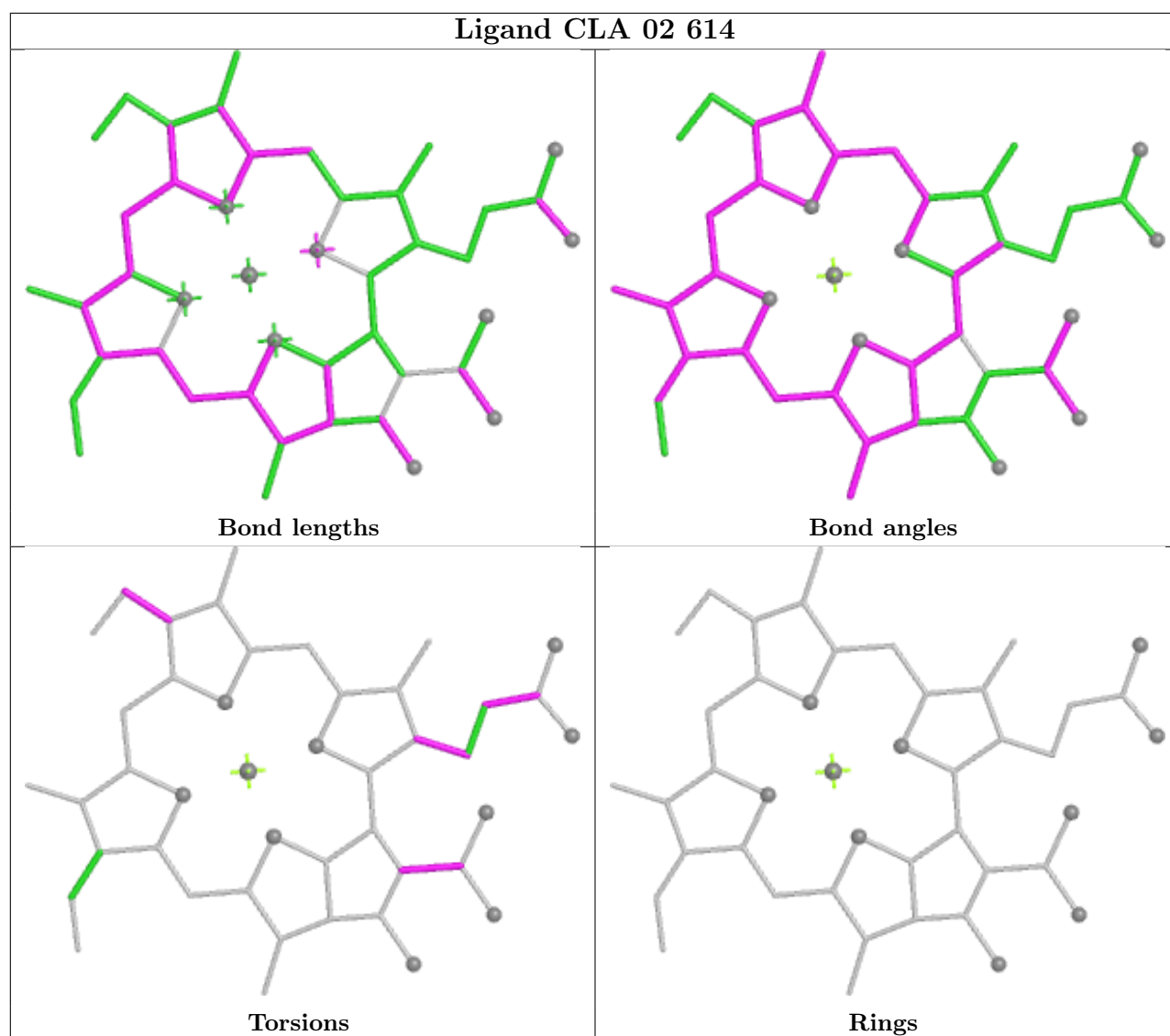
Ligand CLA 1R 311











5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-66951. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections [i](#)

6.1.1 Primary map



X

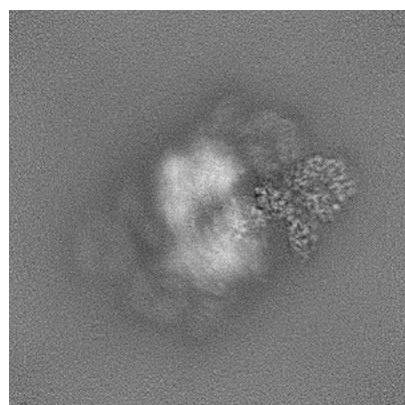


Y

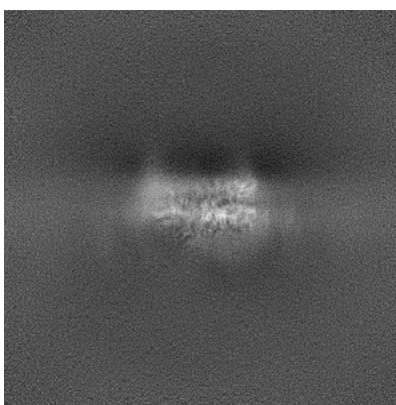


Z

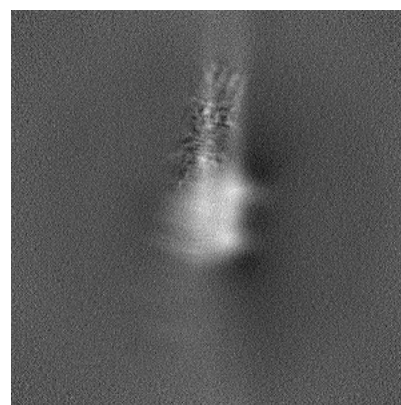
6.1.2 Raw map



X



Y

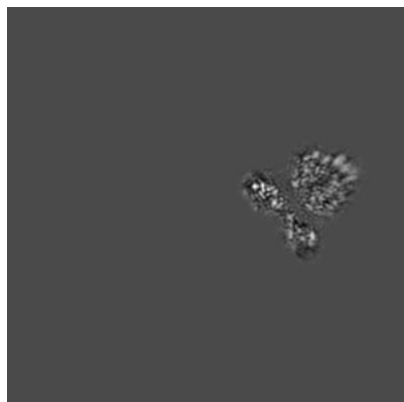


Z

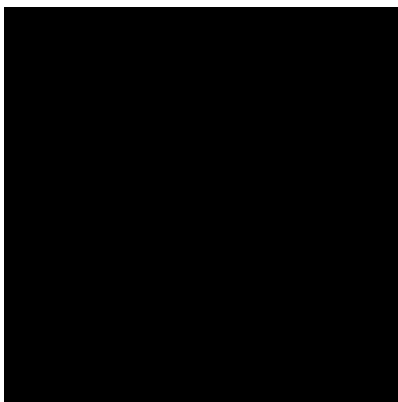
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

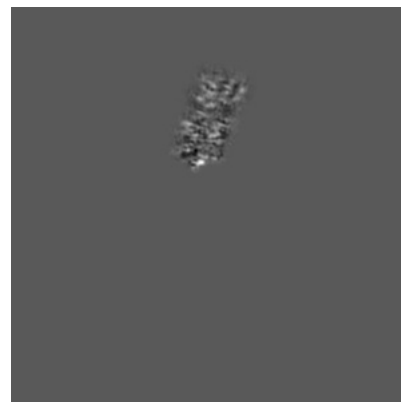
6.2.1 Primary map



X Index: 256

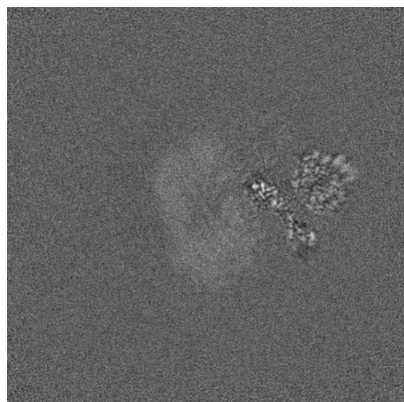


Y Index: 256

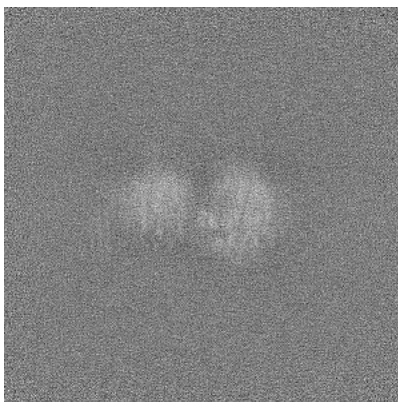


Z Index: 256

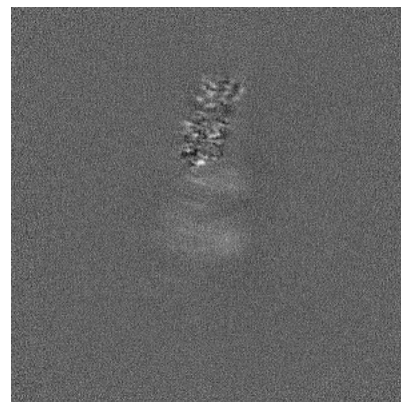
6.2.2 Raw map



X Index: 256



Y Index: 256

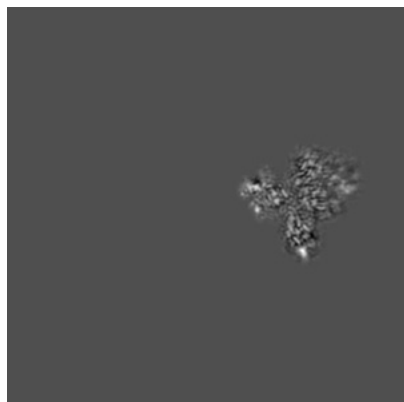


Z Index: 256

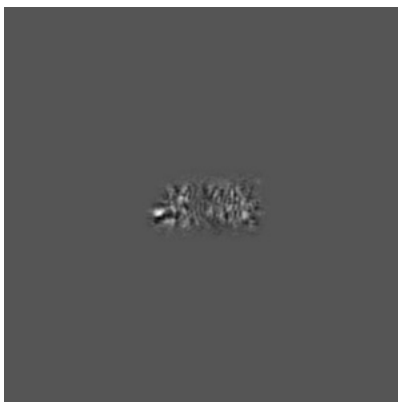
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 249

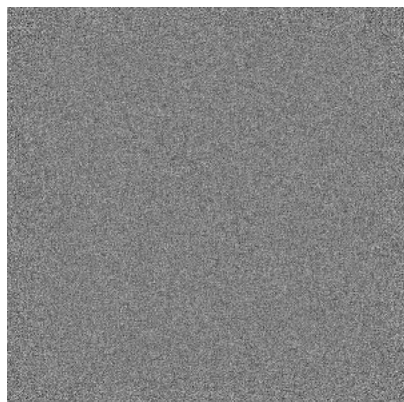


Y Index: 379

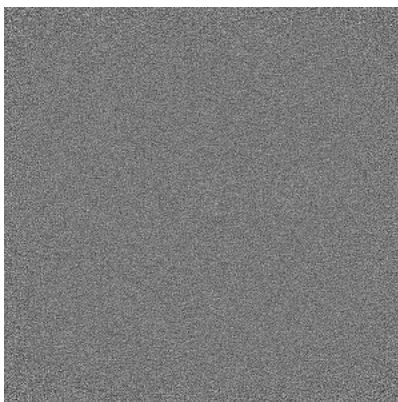


Z Index: 281

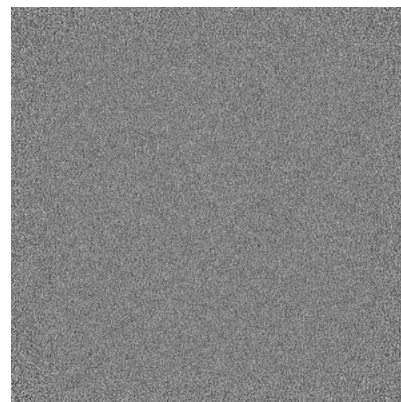
6.3.2 Raw map



X Index: 0



Y Index: 0

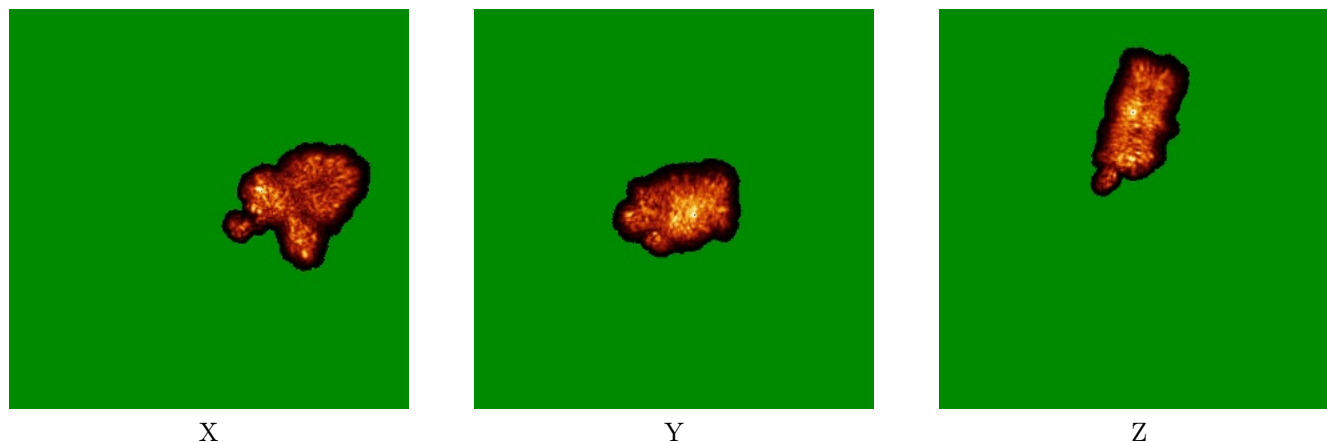


Z Index: 0

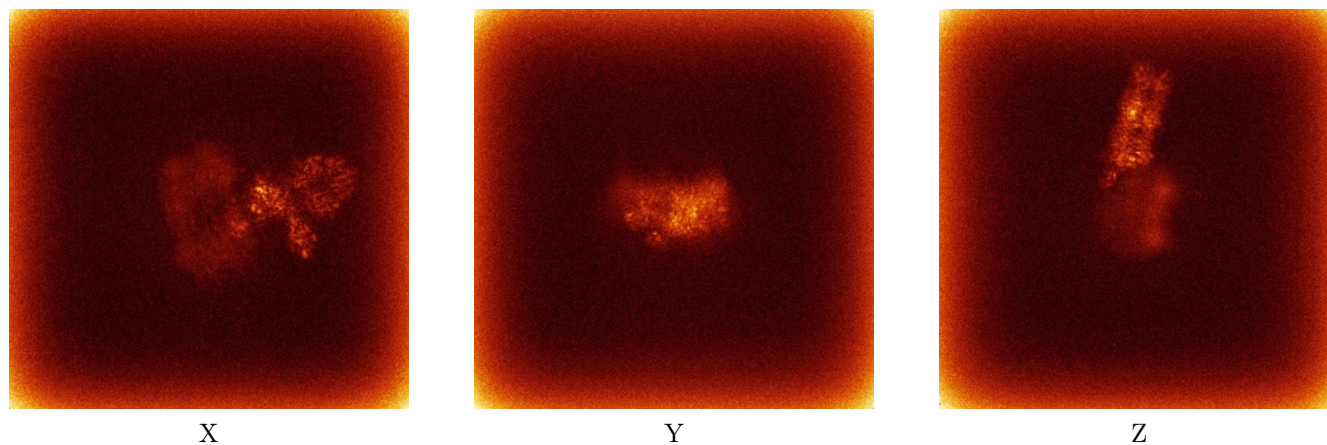
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



6.4.2 Raw map



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

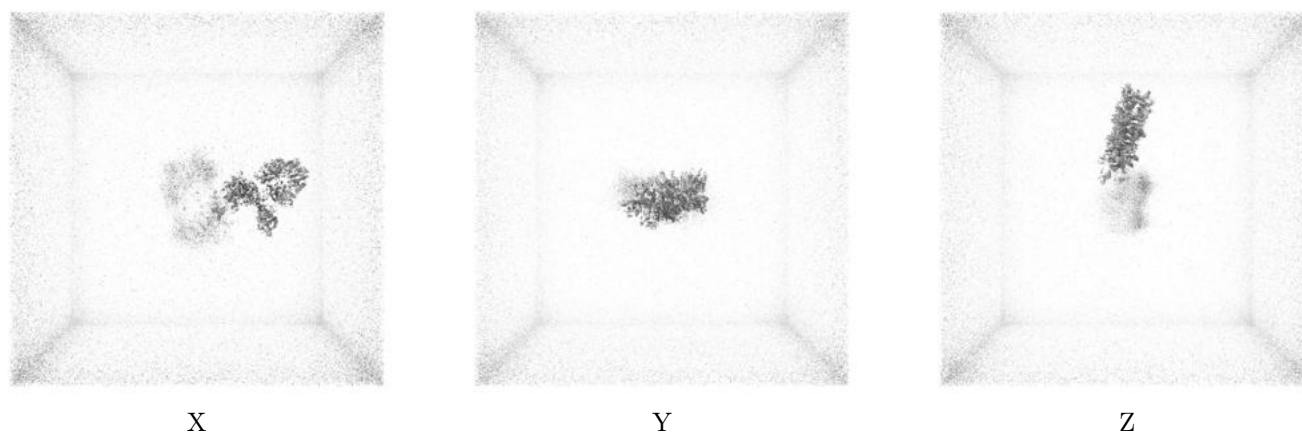
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.008. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



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

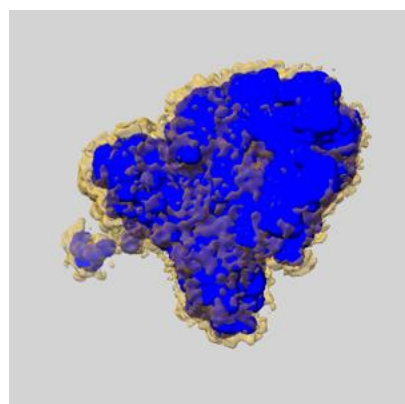
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

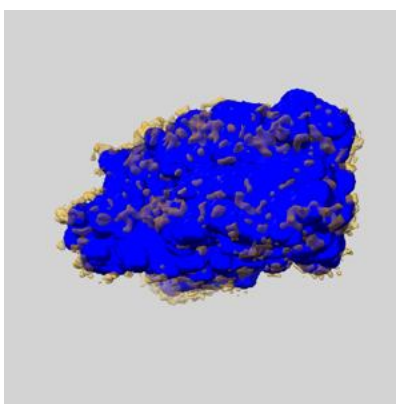
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

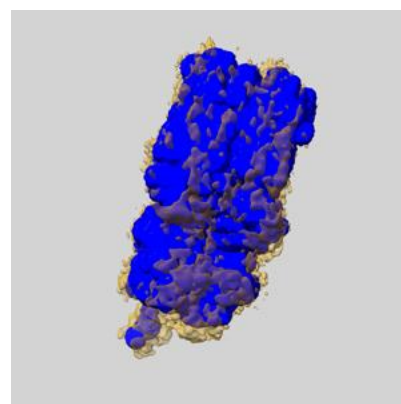
6.6.1 emd_66951_msk_1.map [i](#)



X



Y

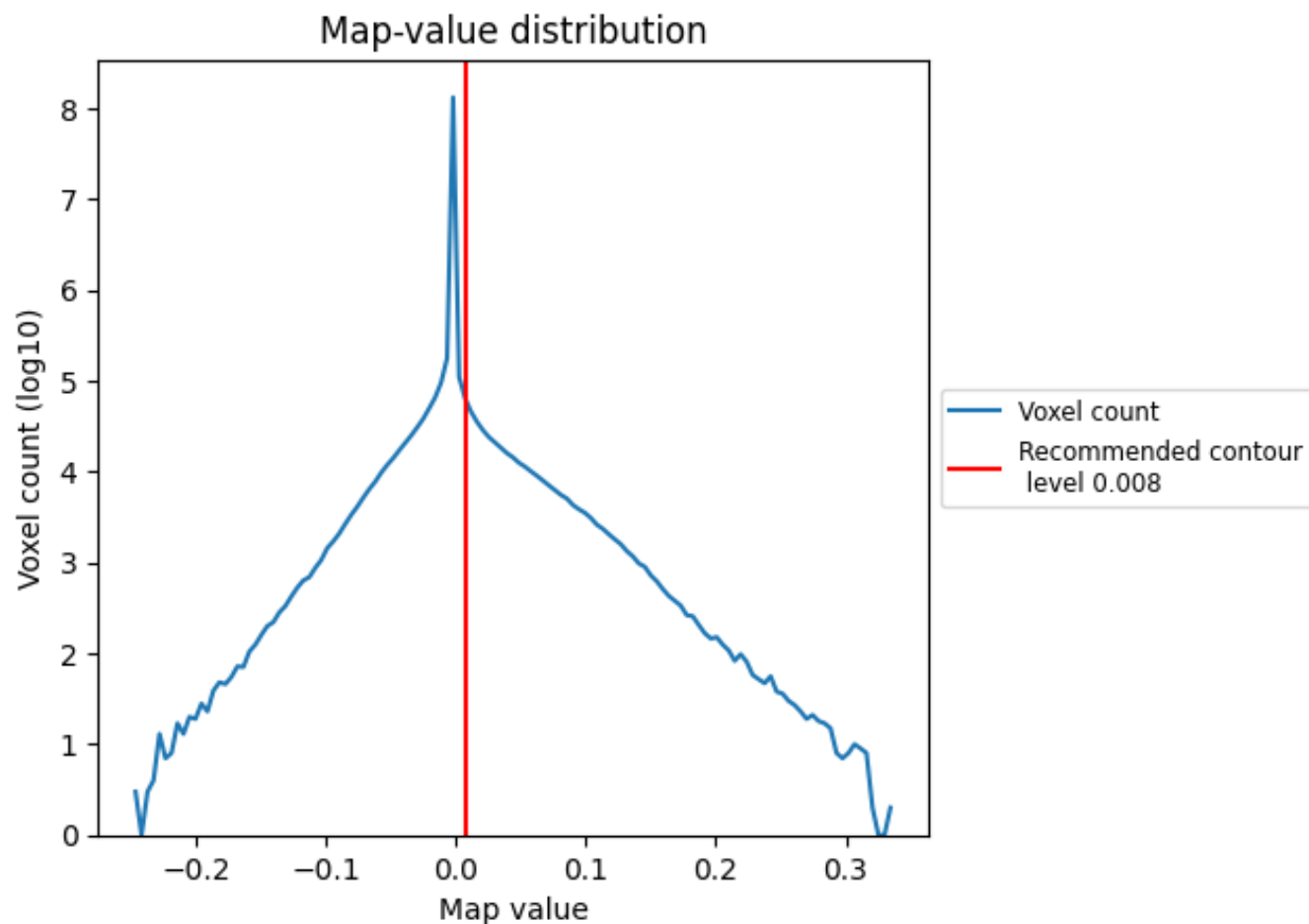


Z

7 Map analysis [i](#)

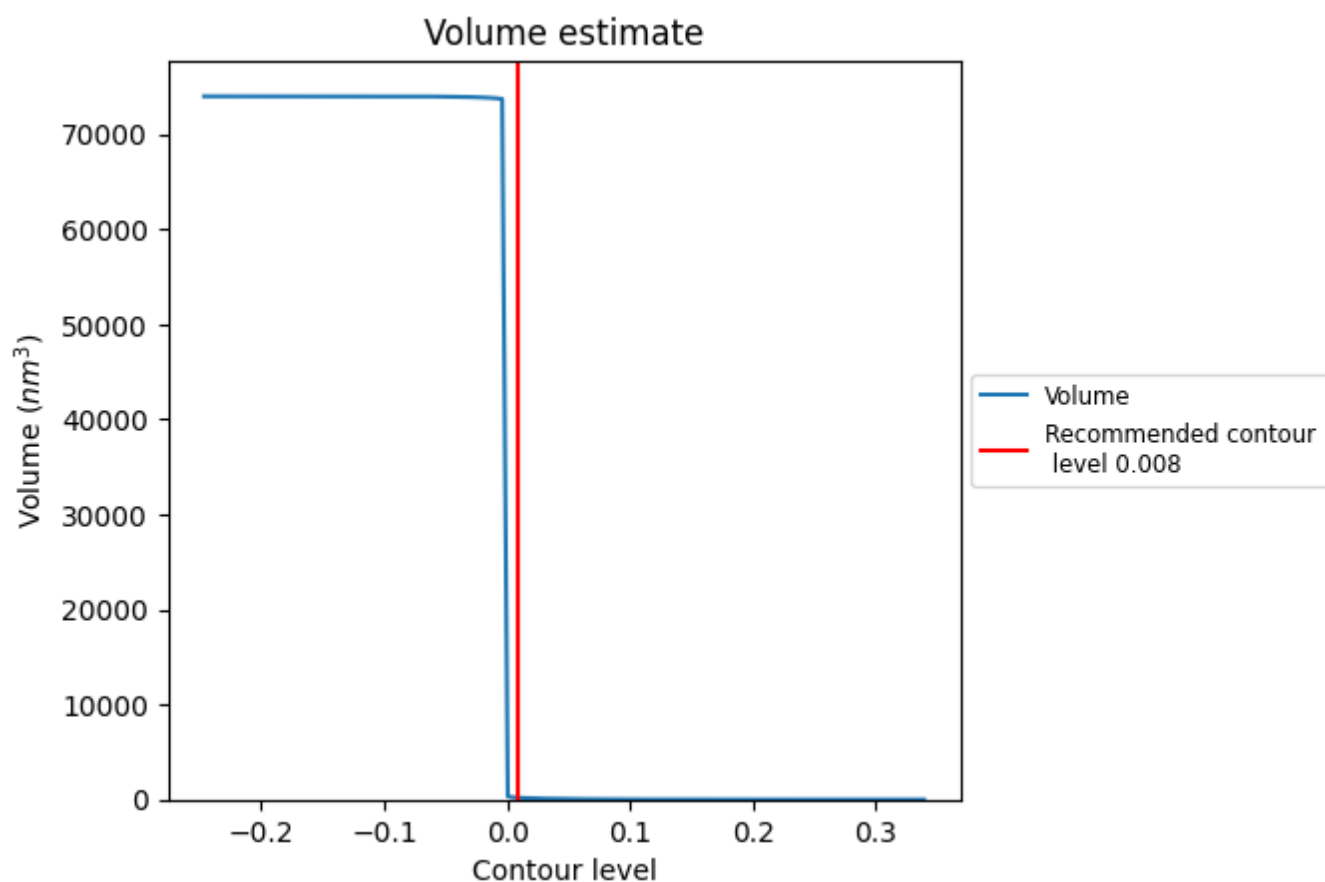
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

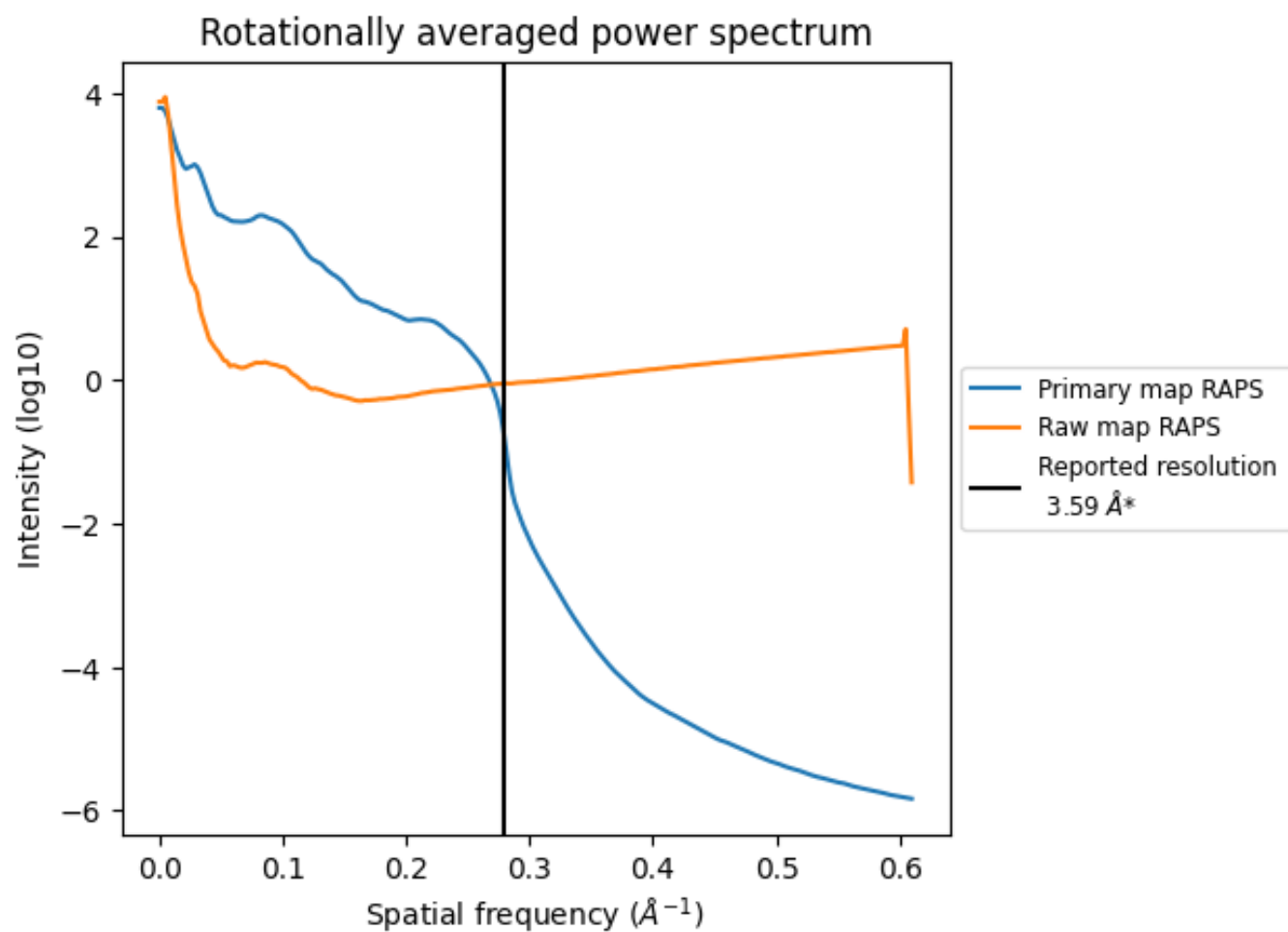
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 203 nm^3 ; this corresponds to an approximate mass of 183 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

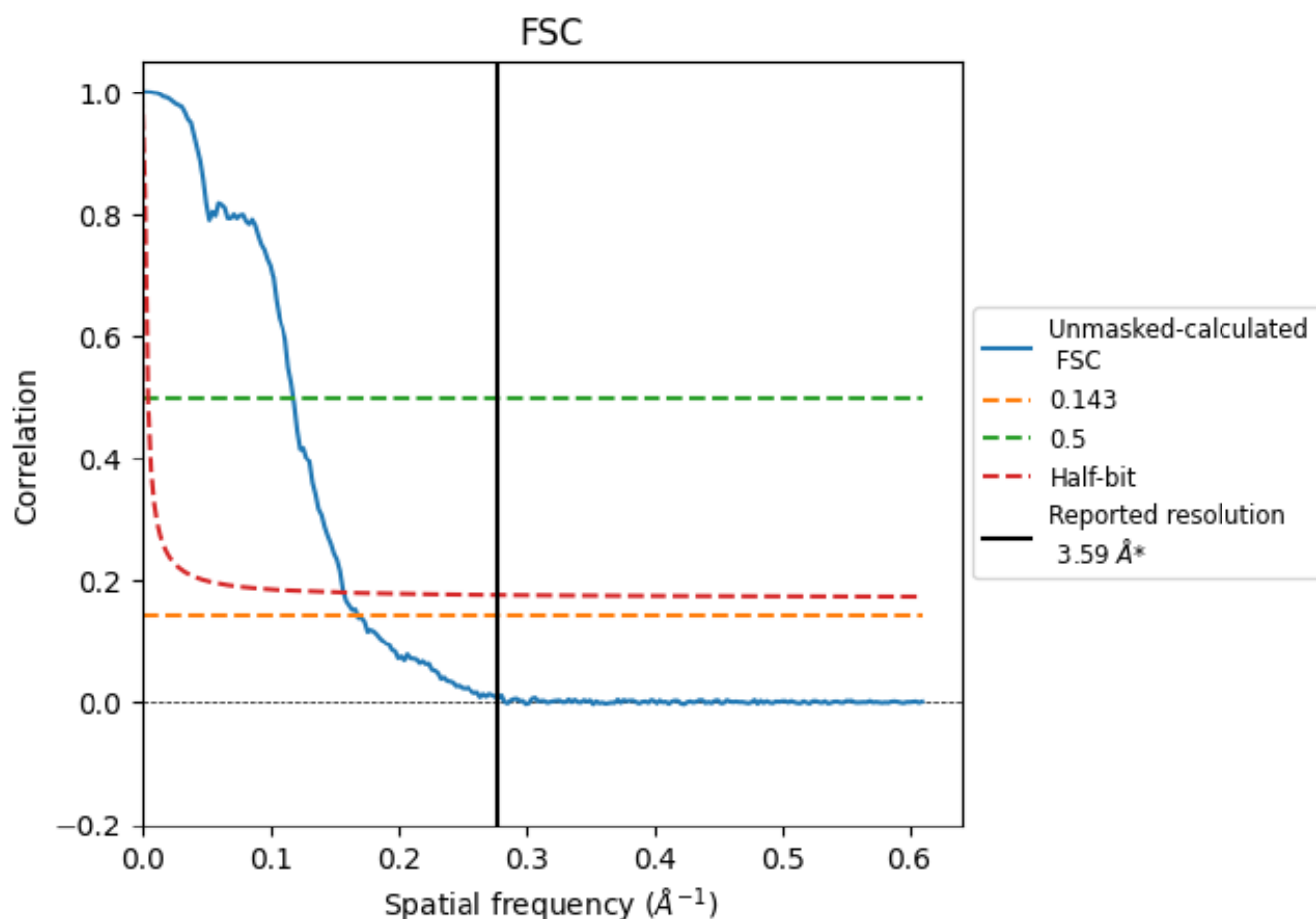


*Reported resolution corresponds to spatial frequency of 0.279 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.279 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

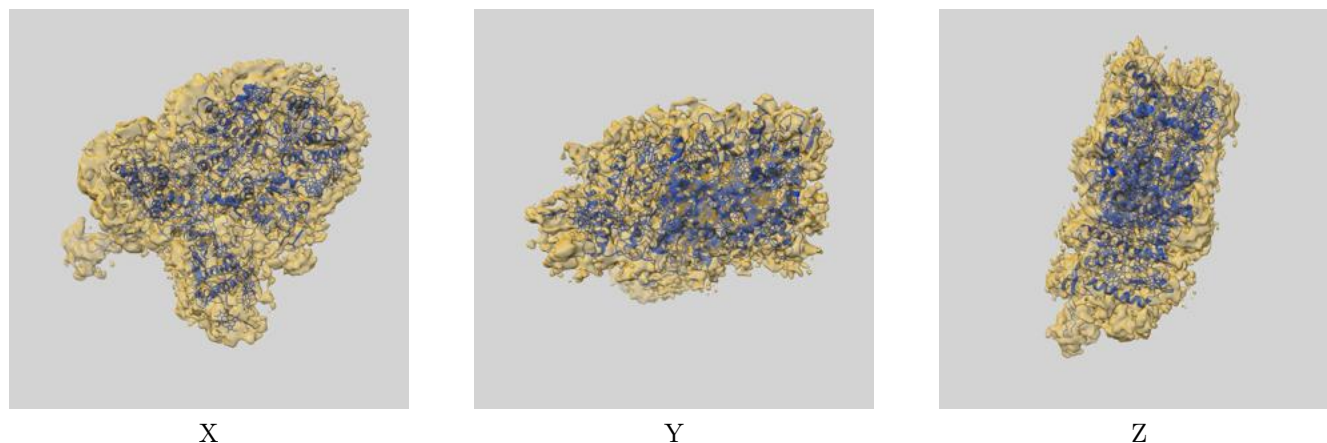
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.59	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	5.94	8.45	6.35

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 5.94 differs from the reported value 3.59 by more than 10 %

9 Map-model fit [i](#)

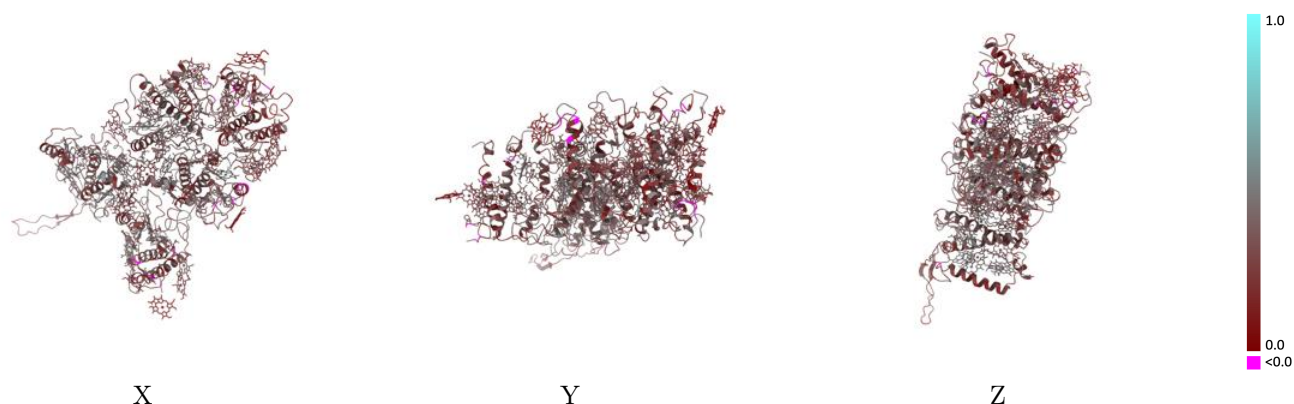
This section contains information regarding the fit between EMDB map EMD-66951 and PDB model 9XK8. Per-residue inclusion information can be found in [section 3](#) on [page 12](#).

9.1 Map-model overlay [i](#)



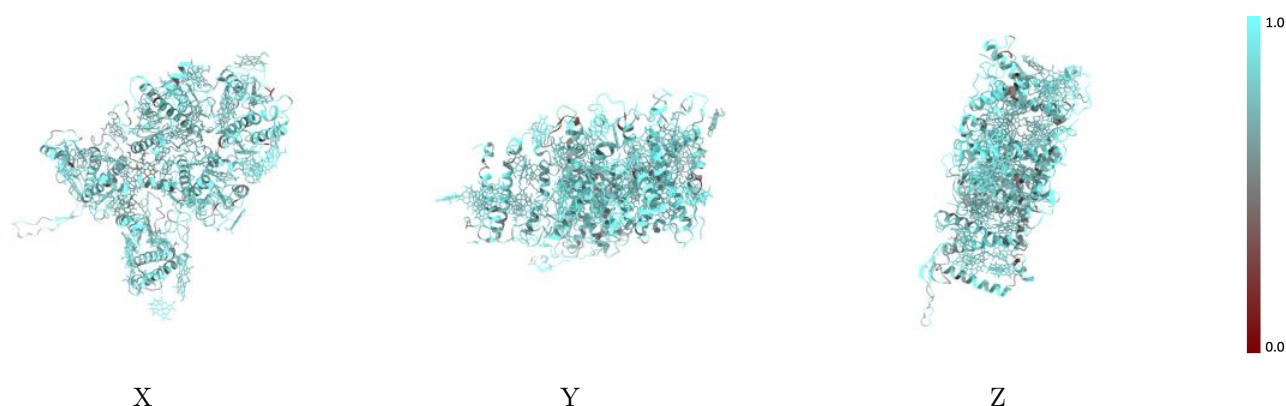
The images above show the 3D surface view of the map at the recommended contour level 0.008 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



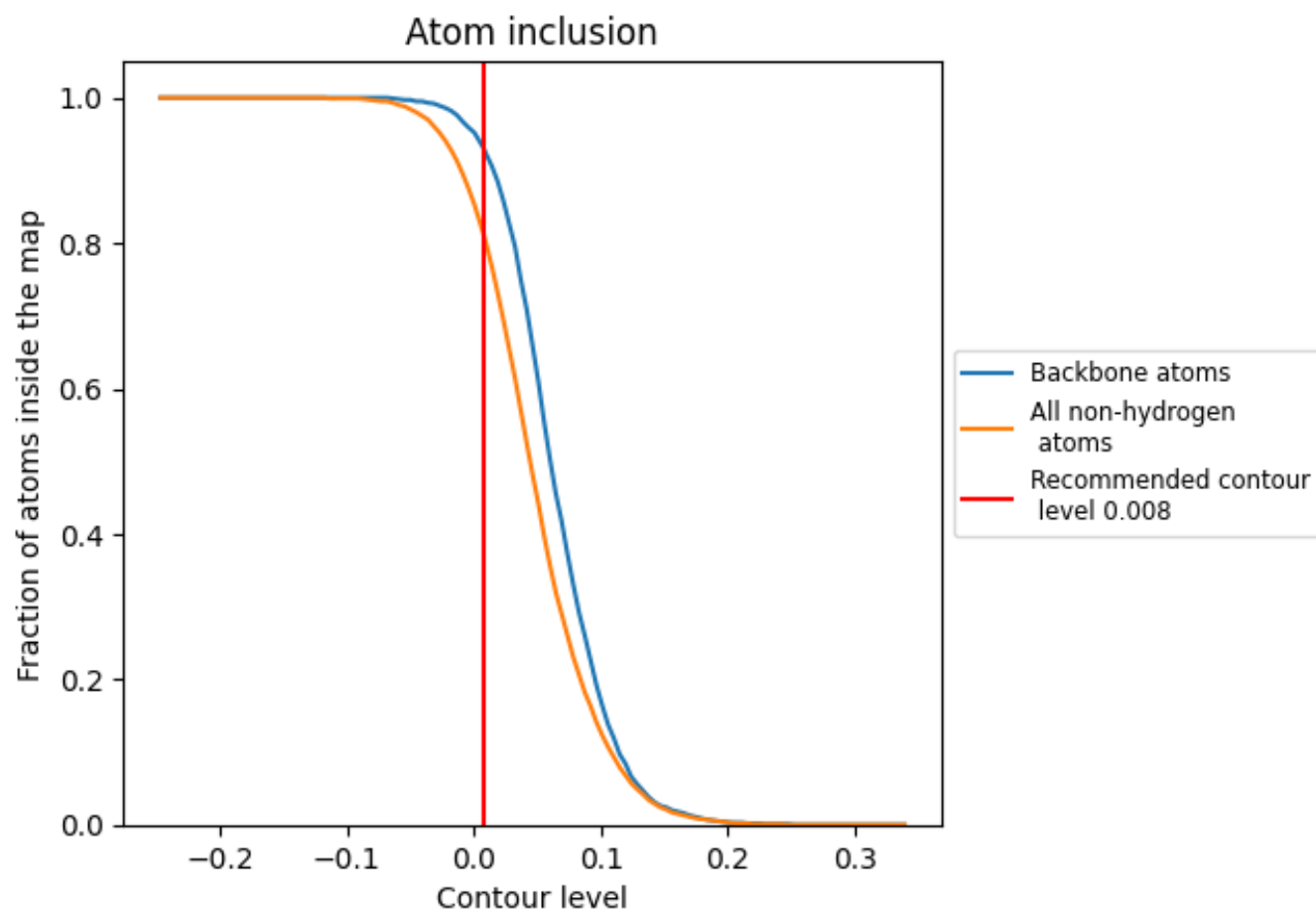
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.008).

9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 81% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.008) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8110	0.3100
01	0.8170	0.3210
02	0.8320	0.2650
03	0.8260	0.3250
04	0.7970	0.2960
1R	0.7870	0.3380

