



## Full wwPDB EM Validation Report ⓘ

Nov 27, 2022 – 06:45 PM EST

PDB ID : 7KUX  
EMDB ID : EMD-23040  
Title : The Structure of the moss PSI-LHCI reveals the evolution of the LHCI antenna  
Authors : Riddle, R.; Gorski, C.; Toporik, H.; Dobson, Z.; Da, Z.; Williams, D.; Mazor, Y.  
Deposited on : 2020-11-25  
Resolution : 2.80 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.2

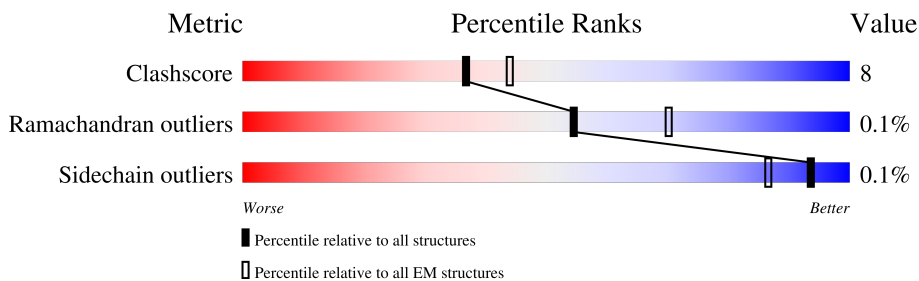
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 2.80 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	742	
2	B	732	
3	1	192	
4	2	203	
5	3	218	
6	4	203	
7	C	80	
8	D	142	

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Mol	Chain	Length	Quality of chain
9	E	63	
10	F	160	
11	G	91	
12	H	87	
13	I	34	
14	J	41	
15	K	81	
16	L	160	
17	M	30	

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
18	CL0	A	1011	X	-	-	-
19	CLA	1	602	X	-	-	-
19	CLA	1	603	X	-	-	-
19	CLA	1	604	X	-	-	-
19	CLA	1	606	X	-	-	-
19	CLA	1	608	X	-	-	-
19	CLA	1	609	X	-	-	-
19	CLA	1	610	X	-	-	-
19	CLA	1	612	X	-	-	-
19	CLA	1	613	X	-	-	-
19	CLA	1	614	X	-	-	-
19	CLA	1	615	X	-	-	-
19	CLA	2	603	X	-	-	-
19	CLA	2	604	X	-	-	-
19	CLA	2	609	X	-	-	-
19	CLA	2	610	X	-	-	-
19	CLA	2	612	X	-	-	-
19	CLA	2	613	X	-	-	-
19	CLA	2	614	X	-	-	-
19	CLA	3	602	X	-	-	-
19	CLA	3	604	X	-	-	-
19	CLA	3	605	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
19	CLA	3	606	X	-	-	-
19	CLA	3	607	X	-	-	-
19	CLA	3	609	X	-	-	-
19	CLA	3	610	X	-	-	-
19	CLA	3	611	X	-	-	-
19	CLA	3	612	X	-	-	-
19	CLA	3	613	X	-	-	-
19	CLA	3	614	X	-	-	-
19	CLA	3	617	X	-	-	-
19	CLA	4	601	X	-	-	-
19	CLA	4	602	X	-	-	-
19	CLA	4	603	X	-	-	-
19	CLA	4	604	X	-	-	-
19	CLA	4	609	X	-	-	-
19	CLA	4	610	X	-	-	-
19	CLA	4	612	X	-	-	-
19	CLA	4	613	X	-	-	-
19	CLA	4	614	X	-	-	-
19	CLA	A	1022	X	-	-	-
19	CLA	A	1101	X	-	-	-
19	CLA	A	1103	X	-	-	-
19	CLA	A	1105	X	-	-	-
19	CLA	A	1106	X	-	-	-
19	CLA	A	1108	X	-	-	-
19	CLA	A	1109	X	-	-	-
19	CLA	A	1110	X	-	-	-
19	CLA	A	1114	X	-	-	-
19	CLA	A	1116	X	-	-	-
19	CLA	A	1117	X	-	-	-
19	CLA	A	1119	X	-	-	-
19	CLA	A	1121	X	-	-	-
19	CLA	A	1122	X	-	-	-
19	CLA	A	1125	X	-	-	-
19	CLA	A	1131	X	-	-	-
19	CLA	A	1132	X	-	-	-
19	CLA	A	1136	X	-	-	-
19	CLA	A	1137	X	-	-	-
19	CLA	A	1138	X	-	-	-
19	CLA	A	1139	X	-	-	-
19	CLA	A	1801	X	-	-	-
19	CLA	B	1012	X	-	-	-
19	CLA	B	1021	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
19	CLA	B	1201	X	-	-	-
19	CLA	B	1202	X	-	-	-
19	CLA	B	1203	X	-	-	-
19	CLA	B	1204	X	-	-	-
19	CLA	B	1205	X	-	-	-
19	CLA	B	1208	X	-	-	-
19	CLA	B	1210	X	-	-	-
19	CLA	B	1211	X	-	-	-
19	CLA	B	1215	X	-	-	-
19	CLA	B	1216	X	-	-	-
19	CLA	B	1220	X	-	-	-
19	CLA	B	1222	X	-	-	-
19	CLA	B	1223	X	-	-	-
19	CLA	B	1224	X	-	-	-
19	CLA	B	1226	X	-	-	-
19	CLA	B	1228	X	-	-	-
19	CLA	B	1229	X	-	-	-
19	CLA	B	1230	X	-	-	-
19	CLA	B	1232	X	-	-	-
19	CLA	B	1234	X	-	-	-
19	CLA	B	1235	X	-	-	-
19	CLA	B	1237	X	-	-	-
19	CLA	B	1238	X	-	-	-
19	CLA	B	1240	X	-	-	-
19	CLA	F	301	X	-	-	-
19	CLA	F	302	X	-	-	-
19	CLA	F	303	X	-	-	-
19	CLA	G	201	X	-	-	-
19	CLA	G	202	X	-	-	-
19	CLA	H	200	X	-	-	-
19	CLA	J	102	X	-	-	-
19	CLA	K	201	X	-	-	-
19	CLA	K	202	X	-	-	-
19	CLA	K	203	X	-	-	-
19	CLA	K	204	X	-	-	-
19	CLA	L	303	X	-	-	-
27	CHL	1	601	X	-	-	-
27	CHL	1	607	X	-	-	-
27	CHL	2	601	X	-	-	-
27	CHL	2	602	X	-	-	-
27	CHL	2	606	X	-	-	-
27	CHL	2	607	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
27	CHL	2	608	X	-	-	-
27	CHL	2	611	X	-	-	-
27	CHL	2	615	X	-	-	-
27	CHL	3	608	X	-	-	-
27	CHL	4	606	X	-	-	-
27	CHL	4	607	X	-	-	-
27	CHL	4	608	X	-	-	-
27	CHL	4	615	X	-	-	-
28	LUT	2	623	X	-	-	-
28	LUT	4	623	X	-	-	-

## 2 Entry composition

There are 29 unique types of molecules in this entry. The entry contains 35803 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 Photosystem I P700 chlorophyll a apoprotein A1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	742	5837	3827	993	998	19	0	0

- Molecule 2 is a protein called Photosystem I P700 chlorophyll a apoprotein A2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	732	5845	3836	995	998	16	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	1	192	1473	961	247	264	1	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	2	203	1567	1021	262	280	4	0	0

- Molecule 5 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	3	218	1678	1099	272	300	7	0	0

- Molecule 6 is a protein called Chlorophyll a-b binding protein, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	4	203	1574	1024	264	281	5	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	C	80	596	365	103	117	11	0	0

- Molecule 8 is a protein called PsaD.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	D	142	1109	711	195	200	3	0	0

- Molecule 9 is a protein called PsaE.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
9	E	63	500	317	89	94	0	0

- Molecule 10 is a protein called PSI-F.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	F	160	1239	801	215	220	3	0	0

- Molecule 11 is a protein called PSI-G.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
11	G	91	689	444	119	126	0	0

- Molecule 12 is a protein called PsaH.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	H	87	659	418	114	126	1	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	I	34	266	181	35	48	2	0	0

- Molecule 14 is a protein called Photosystem I reaction center subunit IX.



Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	J	41	325	222	48	54	1	0	0

- Molecule 15 is a protein called PsaK.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	K	81	561	352	97	108	4	0	0

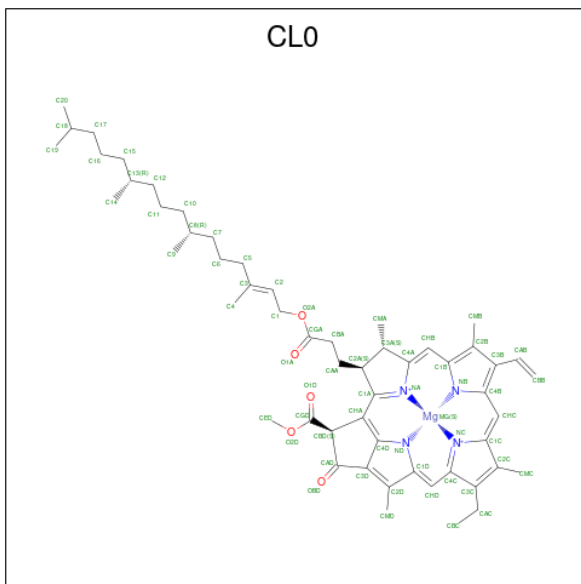
- Molecule 16 is a protein called PSI subunit V.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	L	160	1171	771	188	210	2	0	0

- Molecule 17 is a protein called Photosystem I reaction center subunit XII.

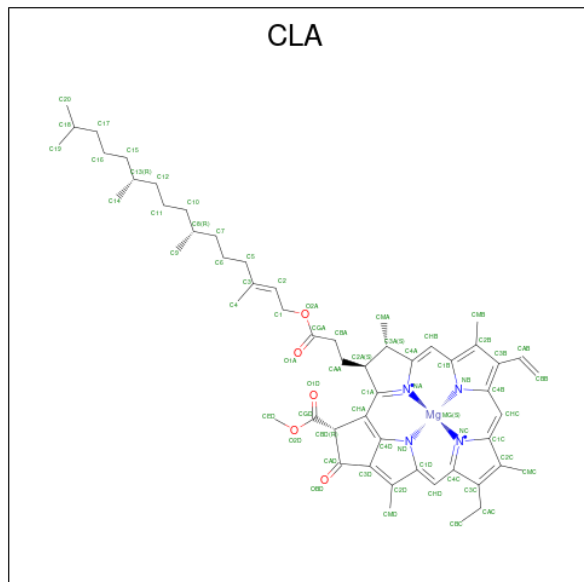
Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
17	M	30	223	146	36	41	0	0

- Molecule 18 is CHLOROPHYLL A ISOMER (three-letter code: CL0) (formula: C<sub>55</sub>H<sub>72</sub>MgN<sub>4</sub>O<sub>5</sub>) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
18	A	1	65	55	1	4	5	0

- Molecule 19 is CHLOROPHYLL A (three-letter code: CLA) (formula:  $C_{55}H_{72}MgN_4O_5$ ) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	
19	A	1	Total	C	Mg	N	O	0
			2384	1954	43	172	215	

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0
19	A	1	Total 2384	C 1954	Mg 43	N 172	O 215	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	A	1	2384	1954	43	172	215	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0
19	B	1	Total 2177	C 1777	Mg 40	N 160	O 200	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	B	1	2177	1777	40	160	200	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	1	1	614	494	12	48	60	0
19	2	1	378	308	7	28	35	0

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Mol	Chain	Residues	Atoms					AltConf
19	2	1	Total	C	Mg	N	O	0
			378	308	7	28	35	
19	2	1	Total	C	Mg	N	O	0
			378	308	7	28	35	
19	2	1	Total	C	Mg	N	O	0
			378	308	7	28	35	
19	2	1	Total	C	Mg	N	O	0
			378	308	7	28	35	
19	2	1	Total	C	Mg	N	O	0
			378	308	7	28	35	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	3	1	Total	C	Mg	N	O	0
			648	525	13	52	58	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	

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Mol	Chain	Residues	Atoms					AltConf
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	4	1	Total	C	Mg	N	O	0
			527	427	10	40	50	
19	F	1	Total	C	Mg	N	O	0
			118	93	3	12	10	
19	F	1	Total	C	Mg	N	O	0
			118	93	3	12	10	
19	F	1	Total	C	Mg	N	O	0
			118	93	3	12	10	
19	G	1	Total	C	Mg	N	O	0
			151	121	3	12	15	
19	G	1	Total	C	Mg	N	O	0
			151	121	3	12	15	
19	G	1	Total	C	Mg	N	O	0
			151	121	3	12	15	
19	H	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
19	I	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
19	J	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
19	K	1	Total	C	Mg	N	O	0
			173	138	4	16	15	
19	K	1	Total	C	Mg	N	O	0
			173	138	4	16	15	
19	K	1	Total	C	Mg	N	O	0
			173	138	4	16	15	
19	K	1	Total	C	Mg	N	O	0
			173	138	4	16	15	

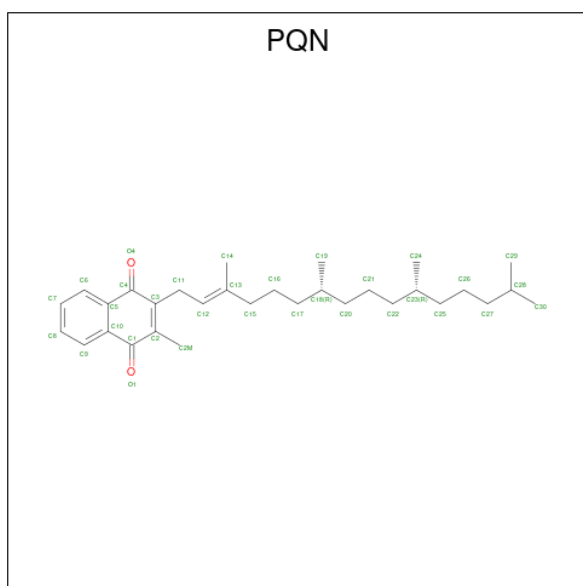
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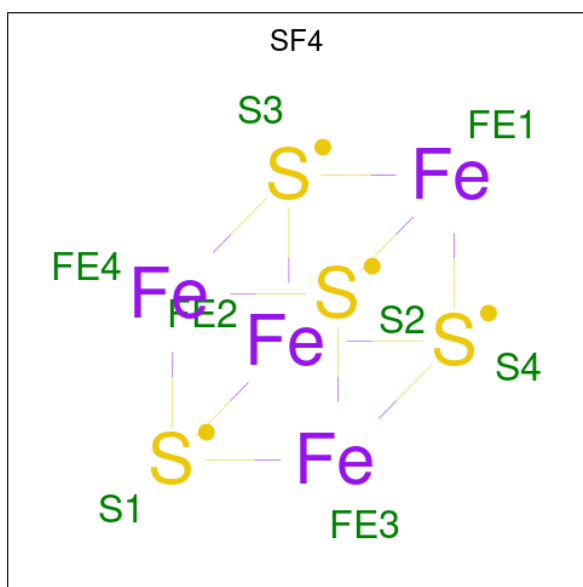
Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
19	L	1	Total 155	C 125	Mg 3	N 12	O 15	0
19	L	1	Total 155	C 125	Mg 3	N 12	O 15	0
19	L	1	Total 155	C 125	Mg 3	N 12	O 15	0

- Molecule 20 is PHYLLOQUINONE (three-letter code: PQN) (formula:  $C_{31}H_{46}O_2$ ) (labeled as "Ligand of Interest" by depositor).



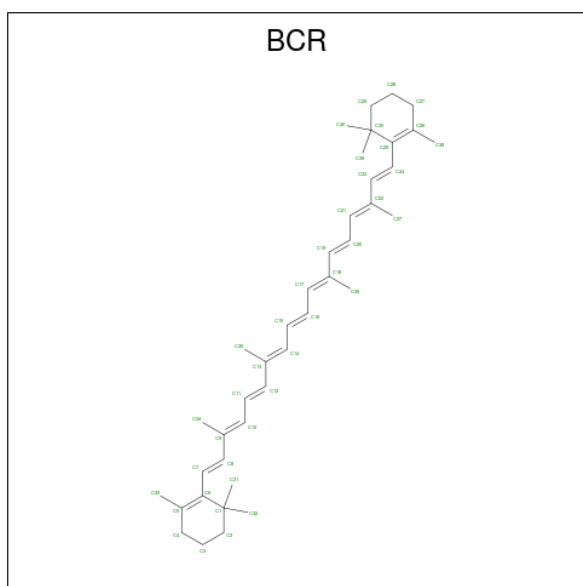
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
20	A	1	Total 33	C 31	O 2	0
20	B	1	Total 33	C 31	O 2	0

- Molecule 21 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula:  $Fe_4S_4$ ) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
21	A	1	Total Fe S 8 4 4	0
21	C	1	Total Fe S 16 8 8	0
21	C	1	Total Fe S 16 8 8	0

- Molecule 22 is BETA-CAROTENE (three-letter code: BCR) (formula:  $C_{40}H_{56}$ ) (labeled as "Ligand of Interest" by depositor).



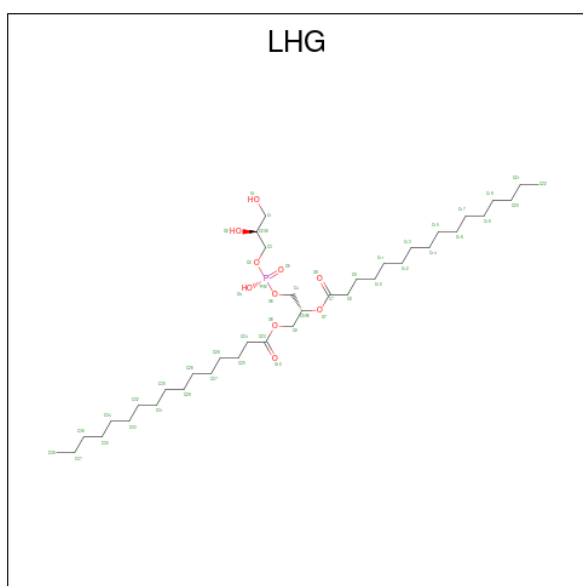
Mol	Chain	Residues	Atoms	AltConf
22	A	1	Total C 240 240	0
22	A	1	Total C 240 240	0
22	A	1	Total C 240 240	0
22	A	1	Total C 240 240	0
22	A	1	Total C 240 240	0
22	A	1	Total C 240 240	0
22	B	1	Total C 280 280	0
22	B	1	Total C 280 280	0
22	B	1	Total C 280 280	0
22	B	1	Total C 280 280	0
22	B	1	Total C 280 280	0
22	B	1	Total C 280 280	0
22	B	1	Total C 280 280	0
22	B	1	Total C 280 280	0
22	1	1	Total C 25 25	0
22	3	1	Total C 80 80	0
22	3	1	Total C 80 80	0
22	F	1	Total C 40 40	0
22	G	1	Total C 40 40	0
22	I	1	Total C 80 80	0
22	I	1	Total C 80 80	0
22	J	1	Total C 80 80	0
22	J	1	Total C 80 80	0

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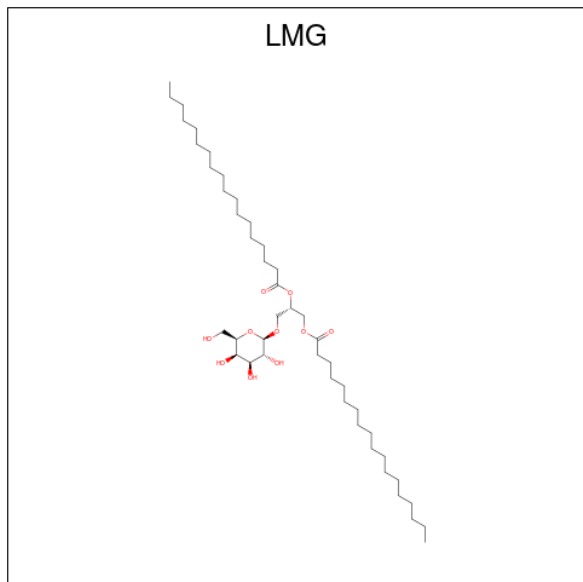
Mol	Chain	Residues	Atoms		AltConf
22	K	1	Total	C	0
			40	40	
22	L	1	Total	C	0
			80	80	
22	L	1	Total	C	0
			80	80	
22	M	1	Total	C	0
			40	40	

- Molecule 23 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula:  $C_{38}H_{75}O_{10}P$ ) (labeled as "Ligand of Interest" by depositor).



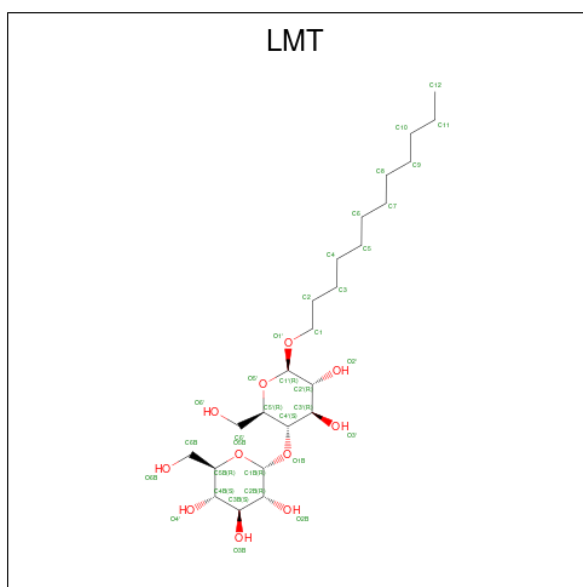
Mol	Chain	Residues	Atoms				AltConf
23	A	1	Total	C	O	P	0
			80	58	20	2	
23	A	1	Total	C	O	P	0
			80	58	20	2	
23	B	1	Total	C	O	P	0
			35	24	10	1	
23	1	1	Total	C	O	P	0
			37	26	10	1	
23	2	1	Total	C	O	P	0
			32	21	10	1	
23	3	1	Total	C	O	P	0
			34	23	10	1	
23	4	1	Total	C	O	P	0
			38	27	10	1	

- Molecule 24 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula:  $C_{45}H_{86}O_{10}$ ) (labeled as "Ligand of Interest" by depositor).



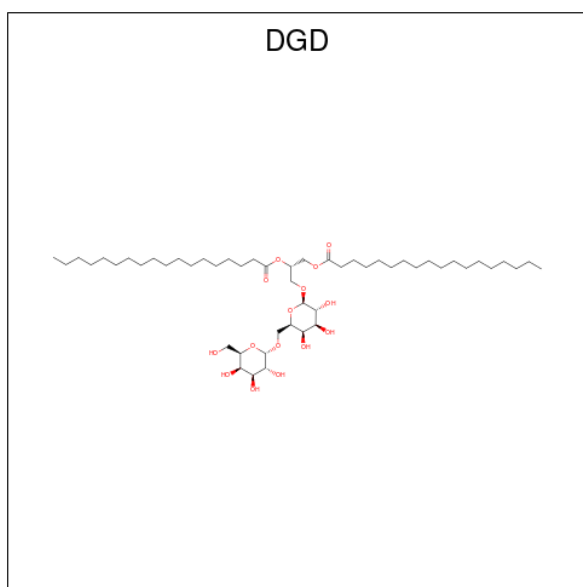
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
24	A	1	34	24	10	0
24	2	1	36	26	10	0
24	J	1	75	55	20	0
24	J	1	75	55	20	0

- Molecule 25 is DODECYL-BETA-D-MALTOSE (three-letter code: LMT) (formula:  $C_{24}H_{46}O_{11}$ ) (labeled as "Ligand of Interest" by depositor).



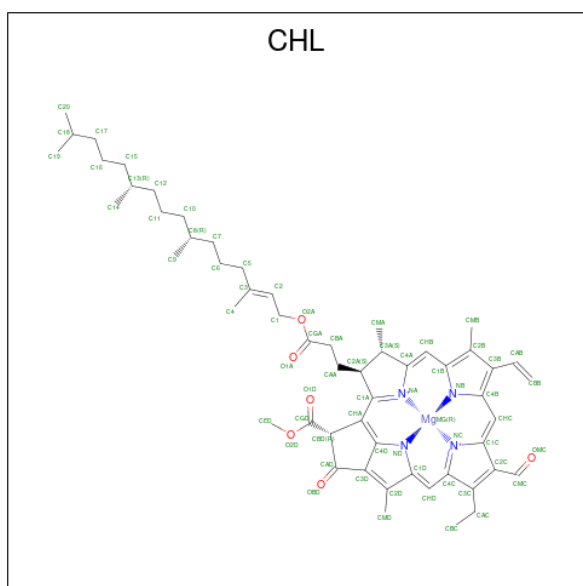
Mol	Chain	Residues	Atoms			AltConf
25	A	1	Total	C	O	0
			33	22	11	
25	B	1	Total	C	O	0
			31	20	11	
25	1	1	Total	C	O	0
			35	24	11	
25	4	1	Total	C	O	0
			35	24	11	
25	G	1	Total	C	O	0
			66	44	22	
25	G	1	Total	C	O	0
			66	44	22	

- Molecule 26 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula:  $C_{51}H_{96}O_{15}$ ) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
26	B	1	61	46	15	0

- Molecule 27 is CHLOROPHYLL B (three-letter code: CHL) (formula:  $C_{55}H_{70}MgN_4O_6$ ) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
27	1	1	103	81	2	8	12	0
27	1	1	103	81	2	8	12	0

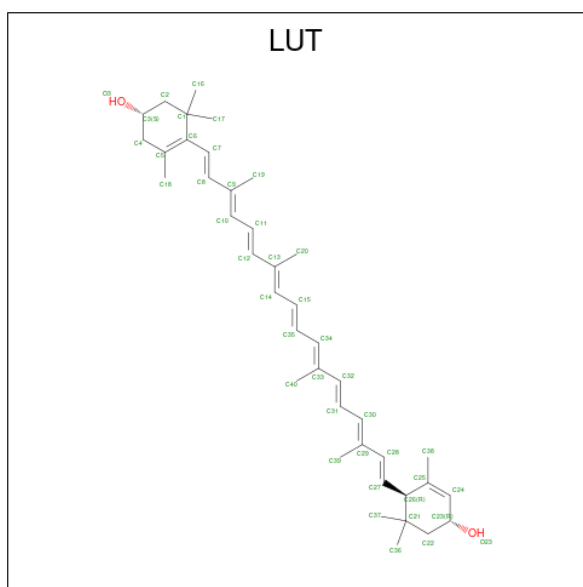
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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	2	1	Total 366	C 289	Mg 7	N 28	O 42	0
27	3	1	Total 47	C 36	Mg 1	N 4	O 6	0
27	4	1	Total 188	C 146	Mg 4	N 16	O 22	0
27	4	1	Total 188	C 146	Mg 4	N 16	O 22	0
27	4	1	Total 188	C 146	Mg 4	N 16	O 22	0
27	4	1	Total 188	C 146	Mg 4	N 16	O 22	0

- Molecule 28 is (3R,3'R,6S)-4,5-DIDEHYDRO-5,6-DIHYDRO-BETA,BETA-CAROTENE-3,3'-DIOL (three-letter code: LUT) (formula: C<sub>40</sub>H<sub>56</sub>O<sub>2</sub>) (labeled as "Ligand of Interest" by depositor).





Mol	Chain	Residues	Atoms			AltConf
28	1	1	Total	C	O	0
			84	80	4	
28	1	1	Total	C	O	0
			84	80	4	
28	2	1	Total	C	O	0
			126	120	6	
28	2	1	Total	C	O	0
			126	120	6	
28	2	1	Total	C	O	0
			126	120	6	
28	3	1	Total	C	O	0
			84	80	4	
28	3	1	Total	C	O	0
			84	80	4	
28	4	1	Total	C	O	0
			126	120	6	
28	4	1	Total	C	O	0
			126	120	6	
28	4	1	Total	C	O	0
			126	120	6	

- Molecule 29 is water.

Mol	Chain	Residues	Atoms		AltConf
29	A	15	Total	O	0
			15	15	
29	B	23	Total	O	0
			23	23	

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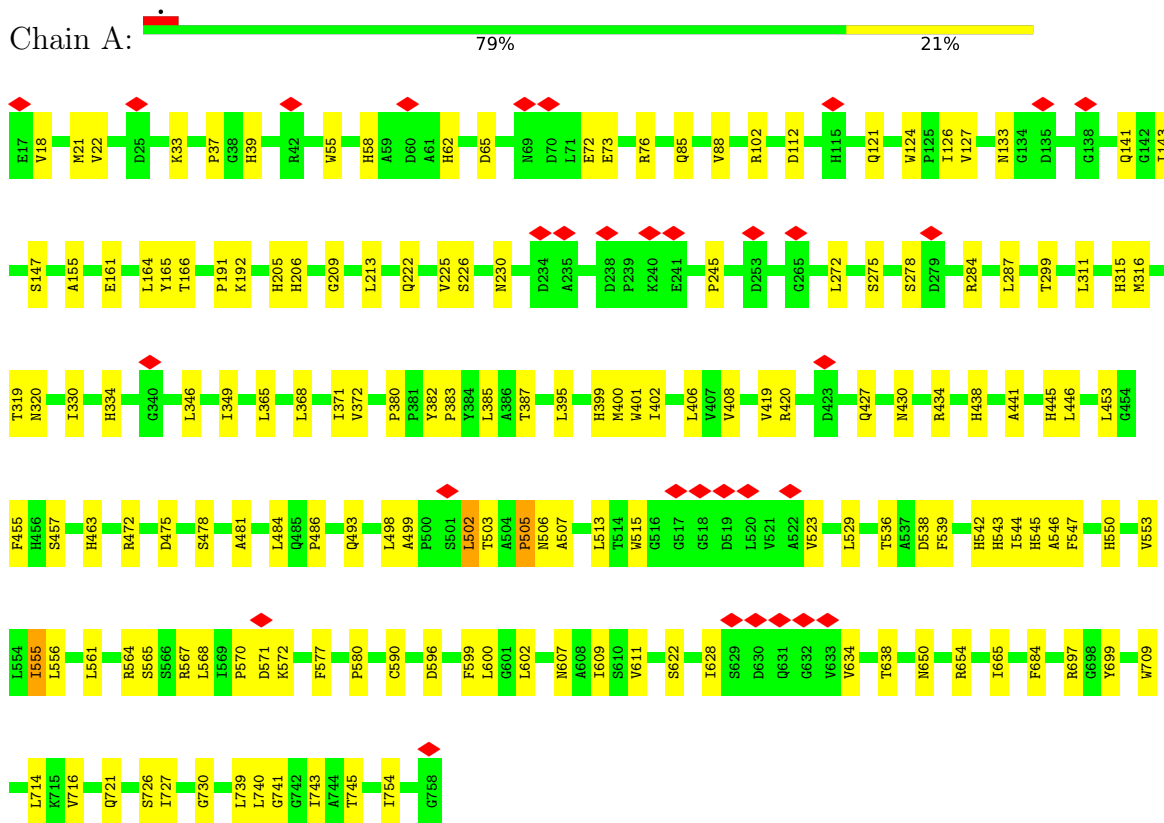
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Mol	Chain	Residues	Atoms	AltConf
29	3	1	Total O 1 1	0
29	4	1	Total O 1 1	0
29	C	2	Total O 2 2	0
29	D	1	Total O 1 1	0
29	F	1	Total O 1 1	0
29	G	1	Total O 1 1	0

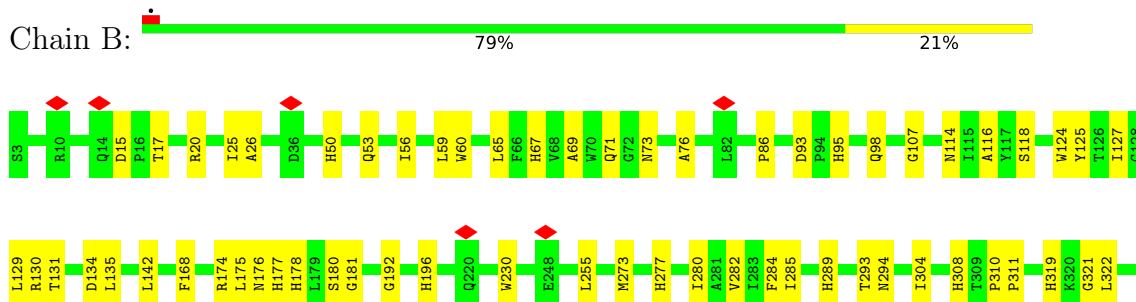
### 3 Residue-property plots

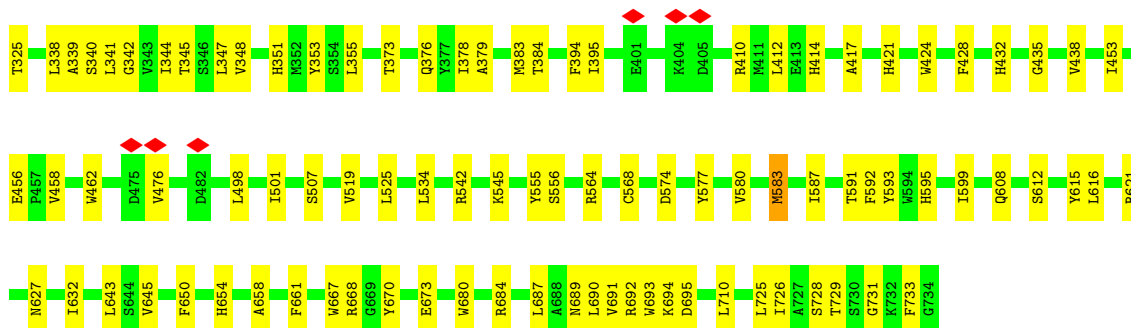
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

- Molecule 1: Photosystem I P700 chlorophyll a apoprotein A1

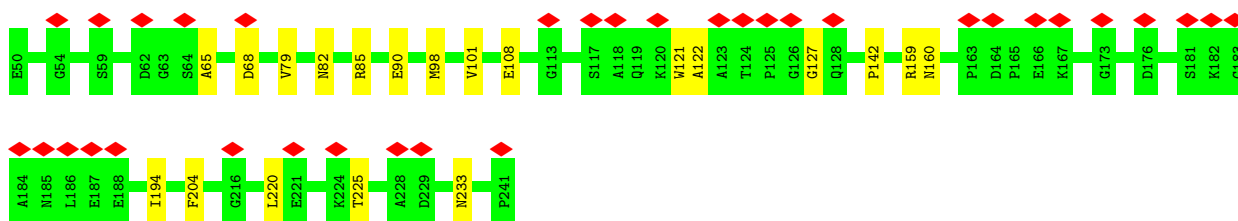
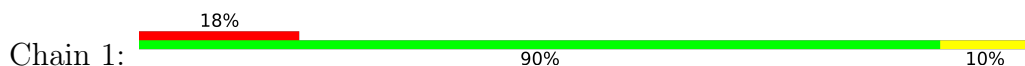


- Molecule 2: Photosystem I P700 chlorophyll a apoprotein A2

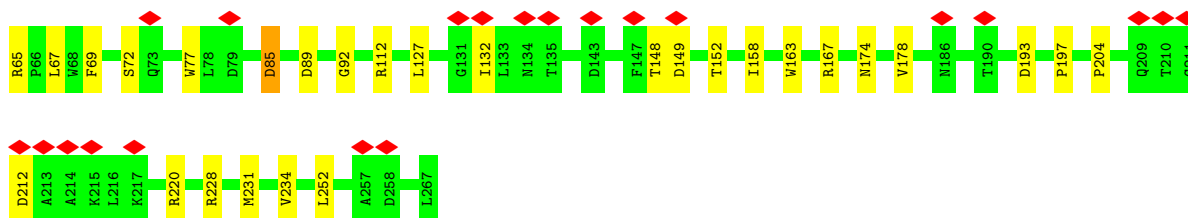
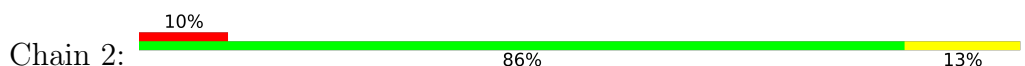




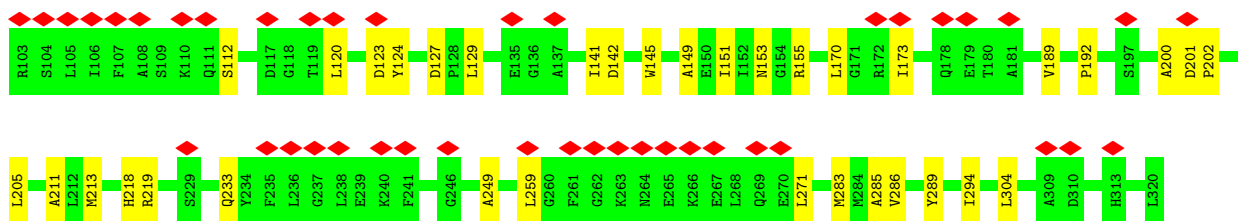
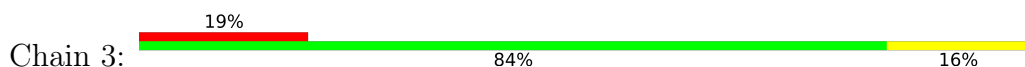
• Molecule 3: Chlorophyll a-b binding protein, chloroplastic



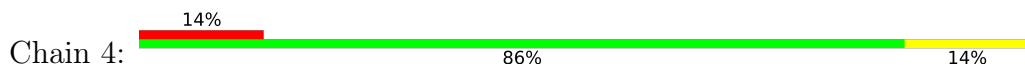
• Molecule 4: Chlorophyll a-b binding protein, chloroplastic

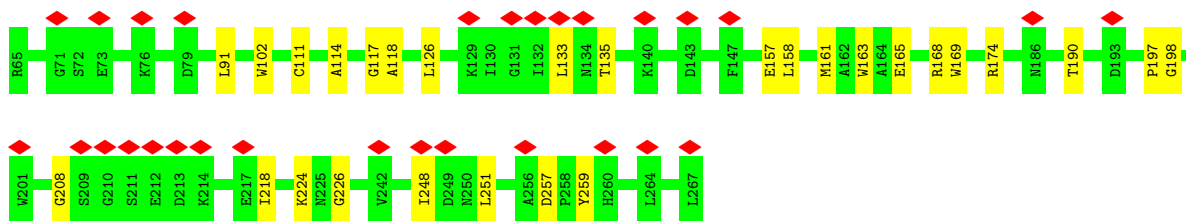


• Molecule 5: Chlorophyll a-b binding protein, chloroplastic

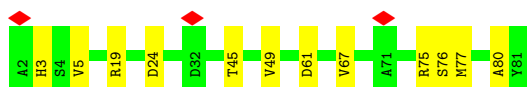
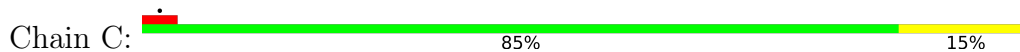


• Molecule 6: Chlorophyll a-b binding protein, chloroplastic

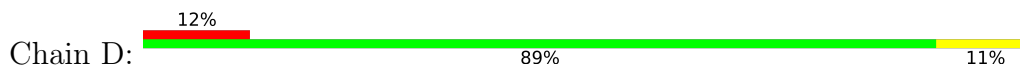




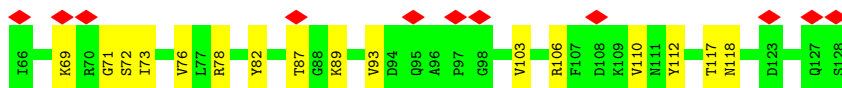
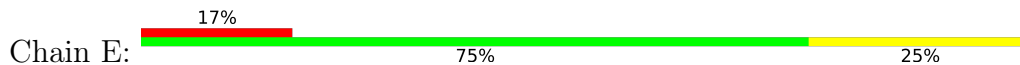
- Molecule 7: Photosystem I iron-sulfur center



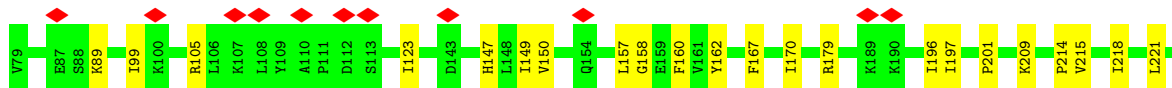
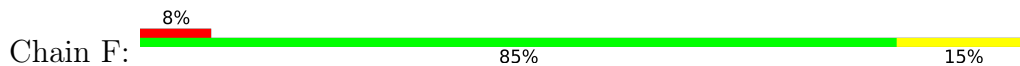
- Molecule 8: PsaD



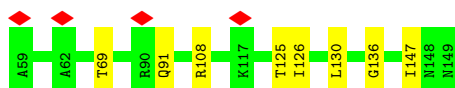
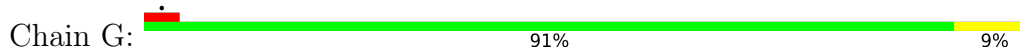
- Molecule 9: PsaE



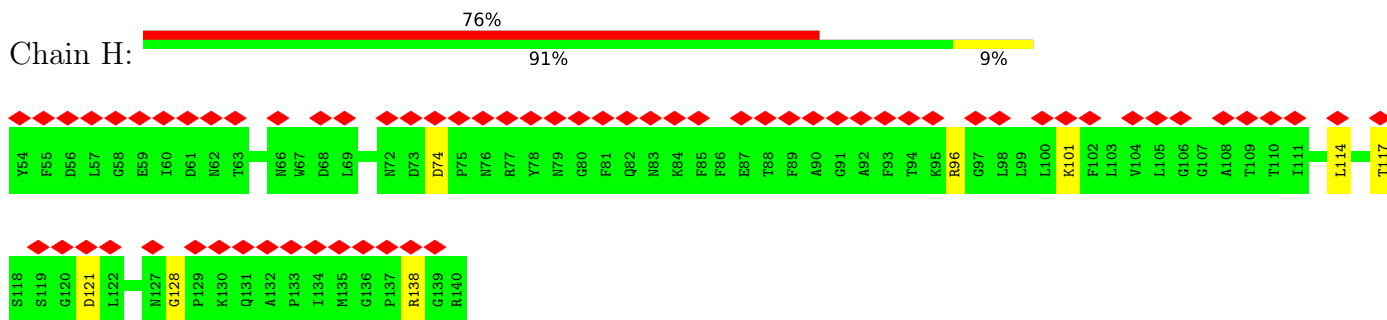
- Molecule 10: PSI-F



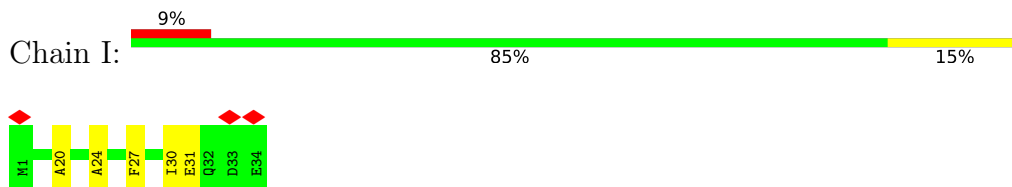
- Molecule 11: PSI-G



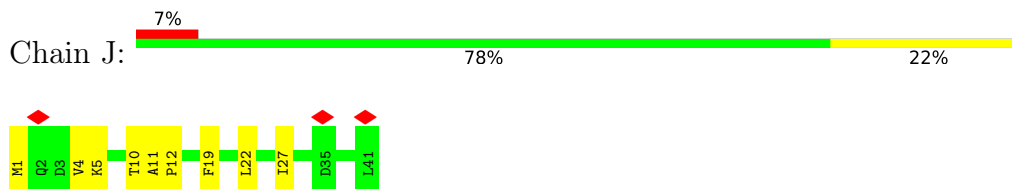
- Molecule 12: PsaH



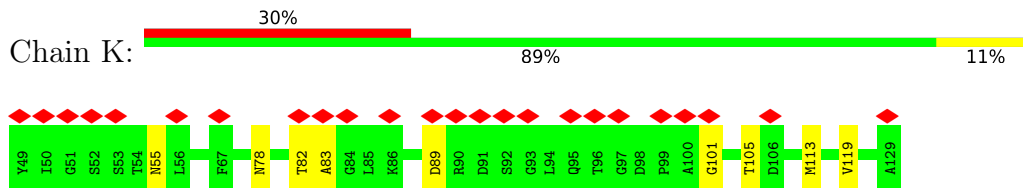
- Molecule 13: Photosystem I reaction center subunit VIII



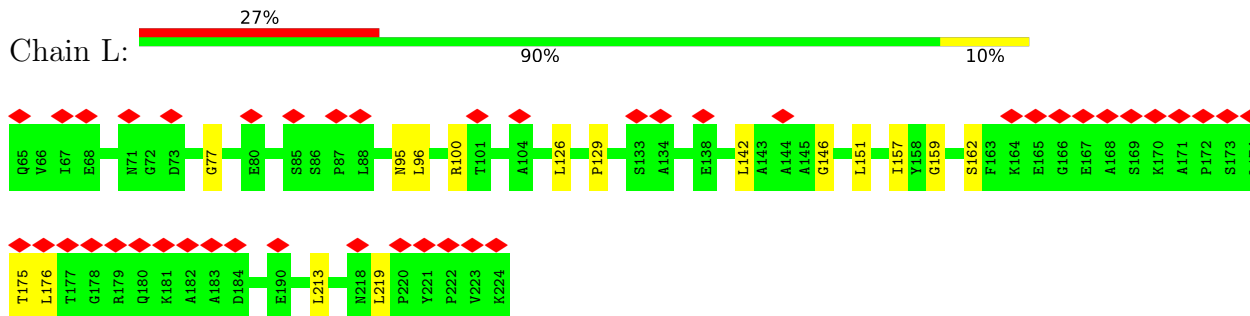
- Molecule 14: Photosystem I reaction center subunit IX



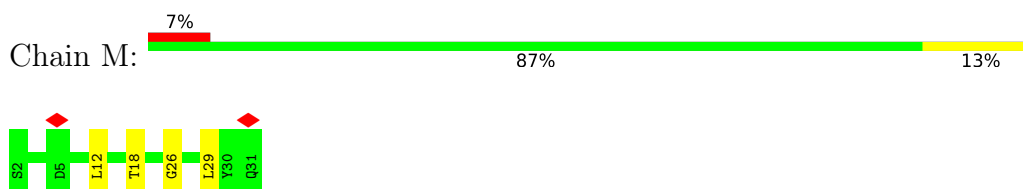
- Molecule 15: PsaK



- Molecule 16: PSI subunit V



- Molecule 17: Photosystem I reaction center subunit XII



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	114608	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	1.6	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	4.882	Depositor
Minimum map value	-3.405	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.144	Depositor
Recommended contour level	0.5	Depositor
Map size (Å)	291.2, 291.2, 291.2	wwPDB
Map dimensions	280, 280, 280	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.0400001, 1.0400001, 1.0400001	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: LHG, PQN, CLA, DGD, SF4, CHL, LMT, LMG, LUT, BCR, CL0

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.35	1/6032 (0.0%)	0.61	3/8227 (0.0%)
2	B	0.35	0/6059	0.62	5/8267 (0.1%)
3	1	0.31	0/1522	0.52	0/2081
4	2	0.27	0/1618	0.51	1/2218 (0.0%)
5	3	0.29	0/1729	0.55	0/2349
6	4	0.30	0/1623	0.57	0/2219
7	C	0.30	0/606	0.56	0/821
8	D	0.28	0/1136	0.54	0/1538
9	E	0.30	0/511	0.46	0/694
10	F	0.32	0/1265	0.59	1/1710 (0.1%)
11	G	0.27	0/704	0.44	0/960
12	H	0.29	0/673	0.58	1/909 (0.1%)
13	I	0.30	0/273	0.69	0/373
14	J	0.28	0/334	0.50	0/457
15	K	0.25	0/567	0.48	0/768
16	L	0.30	0/1202	0.58	0/1645
17	M	0.24	0/224	0.41	0/302
All	All	0.32	1/26078 (0.0%)	0.58	11/35538 (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
2	B	0	1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	499	ALA	C-N	5.58	1.44	1.34



All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	498	LEU	CA-CB-CG	8.99	135.98	115.30
1	A	502	LEU	CA-CB-CG	8.33	134.46	115.30
10	F	157	LEU	CA-CB-CG	7.59	132.75	115.30
4	2	85	ASP	CB-CG-OD1	7.11	124.70	118.30
2	B	583	MET	CG-SD-CE	5.91	109.65	100.20
1	A	555	ILE	CG1-CB-CG2	-5.81	98.61	111.40
2	B	690	LEU	CA-CB-CG	5.76	128.56	115.30
2	B	726	ILE	CG1-CB-CG2	-5.52	99.27	111.40
2	B	725	LEU	CA-CB-CG	5.47	127.87	115.30
12	H	74	ASP	CB-CG-OD1	5.37	123.13	118.30
2	B	347	LEU	CA-CB-CG	5.10	127.04	115.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	B	667	TRP	Peptide

## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5837	0	5725	120	0
2	B	5845	0	5618	117	0
3	1	1473	0	1448	17	0
4	2	1567	0	1527	21	0
5	3	1678	0	1638	31	0
6	4	1574	0	1549	22	0
7	C	596	0	573	9	0
8	D	1109	0	1111	12	0
9	E	500	0	494	10	0
10	F	1239	0	1288	21	0
11	G	689	0	681	6	0
12	H	659	0	636	6	0
13	I	266	0	274	6	0
14	J	325	0	341	8	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	K	561	0	574	7	0
16	L	1171	0	1186	14	0
17	M	223	0	244	4	0
18	A	65	0	72	6	0
19	1	614	0	508	10	0
19	2	378	0	334	5	0
19	3	648	0	530	16	0
19	4	527	0	448	9	0
19	A	2384	0	2226	103	0
19	B	2177	0	1998	106	0
19	F	118	0	69	4	0
19	G	151	0	121	1	0
19	H	45	0	33	2	0
19	I	65	0	72	7	0
19	J	45	0	33	0	0
19	K	173	0	118	3	0
19	L	155	0	131	9	0
20	A	33	0	46	2	0
20	B	33	0	46	5	0
21	A	8	0	0	0	0
21	C	16	0	0	0	0
22	1	25	0	33	0	0
22	3	80	0	112	5	0
22	A	240	0	336	8	0
22	B	280	0	392	28	0
22	F	40	0	56	2	0
22	G	40	0	56	4	0
22	I	80	0	112	5	0
22	J	80	0	112	4	0
22	K	40	0	56	1	0
22	L	80	0	112	7	0
22	M	40	0	56	5	0
23	1	37	0	44	1	0
23	2	32	0	34	2	0
23	3	34	0	38	1	0
23	4	38	0	46	2	0
23	A	80	0	106	4	0
23	B	35	0	40	0	0
24	2	36	0	42	0	0
24	A	34	0	38	2	0
24	J	75	0	90	4	0
25	1	35	0	46	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	4	35	0	45	3	0
25	A	33	0	39	1	0
25	B	31	0	35	0	0
25	G	66	0	80	3	0
26	B	61	0	83	5	0
27	1	103	0	78	3	0
27	2	366	0	290	11	0
27	3	47	0	31	3	0
27	4	188	0	128	1	0
28	1	84	0	112	8	0
28	2	126	0	165	10	0
28	3	84	0	110	9	0
28	4	126	0	166	7	0
29	3	1	0	0	0	0
29	4	1	0	0	0	0
29	A	15	0	0	0	0
29	B	23	0	0	0	0
29	C	2	0	0	0	0
29	D	1	0	0	0	0
29	F	1	0	0	0	0
29	G	1	0	0	0	0
All	All	35803	0	35011	590	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 8.

All (590) 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)
19:A:1134:CLA:H2A	19:A:1134:CLA:HED3	1.63	0.80
19:4:601:CLA:HBB2	19:4:602:CLA:HHD	1.64	0.79
19:3:610:CLA:HAB	28:3:620:LUT:H32	1.67	0.75
19:4:610:CLA:HAB	28:4:620:LUT:H32	1.69	0.75
1:A:209:GLY:HA3	19:A:1111:CLA:HBB1	1.71	0.72
19:1:603:CLA:H11	19:1:603:CLA:H2A	1.72	0.71
19:A:1106:CLA:HAB	19:A:1126:CLA:H102	1.72	0.69
1:A:743:ILE:HG23	19:A:1126:CLA:HAB	1.75	0.69
19:B:1208:CLA:HBB2	19:B:1210:CLA:HMA3	1.74	0.68
19:K:204:CLA:H3A	22:K:301:BCR:H363	1.74	0.67
19:A:1124:CLA:H2	19:A:1133:CLA:HBB2	1.78	0.66
19:B:1201:CLA:H3A	17:M:29:LEU:HD13	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:251:LEU:HB2	28:4:620:LUT:H22	1.76	0.66
4:2:158:ILE:HG23	19:2:609:CLA:HBB2	1.78	0.65
19:1:602:CLA:HHD	27:1:601:CHL:HBB2	1.78	0.65
4:2:234:VAL:HG11	28:2:621:LUT:H10	1.79	0.65
2:B:180:SER:HB3	19:B:1217:CLA:HAC2	1.78	0.64
19:B:1204:CLA:HMB3	19:B:1205:CLA:H3A	1.78	0.64
19:H:200:CLA:HBB2	22:L:420:BCR:H311	1.78	0.64
19:A:1114:CLA:HHD	5:3:192:PRO:HG3	1.79	0.63
5:3:286:VAL:HG11	28:3:621:LUT:H12	1.81	0.63
2:B:181:GLY:HA3	19:B:1210:CLA:HBB1	1.81	0.63
1:A:85:GLN:HG2	19:A:1103:CLA:H3A	1.81	0.63
19:A:1130:CLA:H43	19:L:302:CLA:H43	1.82	0.62
1:A:133:ASN:HB3	1:A:141:GLN:HB3	1.81	0.62
2:B:348:VAL:HG21	19:B:1225:CLA:HHD	1.81	0.61
1:A:455:PHE:HB3	19:A:1132:CLA:HBB2	1.81	0.61
2:B:355:LEU:HD13	19:B:1214:CLA:HAA1	1.82	0.61
5:3:304:LEU:HB2	28:3:620:LUT:H22	1.83	0.61
1:A:371:ILE:HD13	19:A:1124:CLA:HED3	1.83	0.61
19:A:1131:CLA:H92	22:B:4017:BCR:H362	1.83	0.61
1:A:453:LEU:HB3	1:A:547:PHE:HB2	1.83	0.60
8:D:103:ILE:HD13	8:D:141:LEU:HD23	1.83	0.60
19:A:1105:CLA:HMB3	19:A:1106:CLA:H3A	1.83	0.60
19:A:1139:CLA:HMC2	22:B:4014:BCR:H381	1.82	0.60
14:J:12:PRO:HB2	22:J:213:BCR:H391	1.83	0.60
2:B:595:HIS:HE2	2:B:729:THR:HG1	1.47	0.60
6:4:251:LEU:HD13	28:4:620:LUT:H163	1.83	0.60
1:A:147:SER:HA	19:A:1126:CLA:HMA2	1.84	0.60
2:B:545:LYS:HD2	9:E:82:TYR:HA	1.83	0.60
19:A:1110:CLA:H11	5:3:129:LEU:HD23	1.83	0.60
19:A:1137:CLA:HMC2	19:A:5005:CLA:HBB2	1.84	0.60
19:B:1209:CLA:HHC	19:B:1217:CLA:HBC2	1.83	0.59
2:B:342:GLY:HA3	2:B:383:MET:HG2	1.84	0.59
2:B:15:ASP:HB3	2:B:20:ARG:HB2	1.84	0.59
2:B:192:GLY:O	2:B:196:HIS:HB2	2.02	0.59
19:A:1104:CLA:H151	19:A:1127:CLA:HBB2	1.84	0.59
19:3:604:CLA:HMC1	22:3:624:BCR:H21C	1.83	0.59
2:B:687:LEU:HB2	22:I:120:BCR:H282	1.84	0.58
9:E:71:GLY:HA2	9:E:89:LYS:HE2	1.84	0.58
19:B:1239:CLA:HAA1	26:B:5002:DGD:HAW2	1.85	0.58
3:1:142:PRO:HG3	11:G:147:ILE:HD11	1.85	0.58
19:3:610:CLA:H61	28:3:620:LUT:H30	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:A:1118:CLA:HAA2	15:K:105:THR:HG23	1.85	0.58
2:B:353:TYR:O	2:B:507:SER:OG	2.22	0.58
2:B:376:GLN:HG3	2:B:587:ILE:HD12	1.86	0.58
6:4:197:PRO:HB3	27:4:608:CHL:HBC2	1.86	0.58
19:4:603:CLA:H93	25:4:631:LMT:H91	1.85	0.57
1:A:126:ILE:HG23	1:A:127:VAL:HG22	1.86	0.57
19:B:1215:CLA:HMD2	19:B:1225:CLA:H93	1.87	0.57
2:B:168:PHE:O	2:B:174:ARG:NH1	2.37	0.57
7:C:24:ASP:HB2	8:D:139:LEU:HD21	1.87	0.57
2:B:689:ASN:O	2:B:692:ARG:NH1	2.38	0.57
19:3:606:CLA:HMB1	19:3:609:CLA:HBC2	1.87	0.57
12:H:114:LEU:HA	12:H:117:THR:HG22	1.87	0.56
1:A:402:ILE:HD12	19:A:1104:CLA:H143	1.85	0.56
1:A:739:LEU:O	1:A:743:ILE:HB	2.04	0.56
19:B:1210:CLA:H151	19:B:1225:CLA:HMD2	1.87	0.56
2:B:56:ILE:HD11	22:M:4021:BCR:HC7	1.87	0.56
2:B:595:HIS:O	2:B:599:ILE:HB	2.05	0.56
19:B:1237:CLA:H162	16:L:151:LEU:HD11	1.86	0.56
6:4:91:LEU:HA	10:F:209:LYS:HG2	1.87	0.56
1:A:546:ALA:HB2	19:A:1136:CLA:HMA1	1.87	0.56
1:A:441:ALA:O	1:A:445:HIS:ND1	2.35	0.56
2:B:178:HIS:HB3	19:B:1221:CLA:HED3	1.87	0.56
19:B:1220:CLA:HAB	19:B:1227:CLA:HHD	1.87	0.56
2:B:273:MET:O	2:B:277:HIS:ND1	2.39	0.56
19:B:1208:CLA:HBA2	25:G:401:LMT:H42	1.88	0.56
22:A:4011:BCR:H362	19:B:1012:CLA:H51	1.88	0.55
19:A:1108:CLA:H2A	19:A:1108:CLA:HED3	1.89	0.55
19:A:1117:CLA:H193	19:A:1125:CLA:HAA1	1.87	0.55
19:B:1203:CLA:HMD3	19:B:1205:CLA:H201	1.88	0.55
1:A:272:LEU:HD11	15:K:119:VAL:HG22	1.88	0.55
2:B:394:PHE:O	2:B:542:ARG:NH1	2.39	0.55
19:F:301:CLA:HBB1	14:J:22:LEU:HD21	1.88	0.55
5:3:304:LEU:HD22	28:3:620:LUT:H172	1.88	0.55
1:A:446:LEU:HD21	1:A:553:VAL:HG12	1.88	0.55
1:A:502:LEU:HD12	1:A:503:THR:HG23	1.88	0.55
2:B:50:HIS:HE1	19:B:1202:CLA:H171	1.71	0.55
3:1:160:ASN:ND2	25:1:631:LMT:O2'	2.39	0.55
8:D:135:LYS:HE3	8:D:167:LEU:HD13	1.88	0.54
7:C:61:ASP:O	9:E:118:ASN:ND2	2.40	0.54
1:A:401:TRP:HB3	19:A:1126:CLA:HMC3	1.89	0.54
4:2:112:ARG:NH2	27:2:608:CHL:OBD	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:3:189:VAL:HG21	28:3:621:LUT:H22	1.88	0.54
1:A:287:LEU:HD21	1:A:380:PRO:HD2	1.90	0.54
1:A:427:GLN:OE1	1:A:430:ASN:ND2	2.41	0.54
1:A:607:ASN:HD21	18:A:1011:CL0:H65	1.72	0.54
19:A:1022:CLA:HBD	2:B:654:HIS:HB3	1.89	0.54
2:B:627:ASN:HB3	2:B:728:SER:HB2	1.89	0.54
19:A:1122:CLA:H122	19:A:1137:CLA:HAA2	1.90	0.54
1:A:226:SER:O	1:A:230:ASN:HB2	2.08	0.54
1:A:371:ILE:HG21	19:A:1117:CLA:H201	1.90	0.54
19:A:1022:CLA:H122	22:B:4017:BCR:H12C	1.90	0.54
3:1:160:ASN:HB3	25:1:631:LMT:H1'	1.90	0.54
6:4:158:LEU:HA	6:4:161:MET:HB2	1.89	0.54
2:B:417:ALA:O	2:B:421:HIS:ND1	2.40	0.54
1:A:743:ILE:HG21	19:A:1126:CLA:HMC2	1.90	0.53
5:3:170:LEU:HD23	5:3:173:ILE:HD11	1.89	0.53
1:A:121:GLN:NE2	19:A:1107:CLA:OBD	2.39	0.53
5:3:142:ASP:OD1	5:3:142:ASP:N	2.42	0.53
1:A:478:SER:HB2	1:A:481:ALA:H	1.74	0.53
19:B:1238:CLA:H191	13:I:20:ALA:HB2	1.90	0.53
1:A:346:LEU:HD21	19:A:1122:CLA:HBC3	1.90	0.53
1:A:472:ARG:NH2	19:A:1132:CLA:O1D	2.42	0.53
1:A:486:PRO:HG3	1:A:539:PHE:HB2	1.91	0.53
1:A:85:GLN:HB2	19:A:1103:CLA:HMB2	1.89	0.53
19:A:1116:CLA:HED2	19:A:1117:CLA:H3A	1.90	0.53
2:B:114:ASN:ND2	19:B:1206:CLA:OBD	2.42	0.53
2:B:525:LEU:HD21	19:B:1012:CLA:HBB1	1.90	0.53
10:F:99:ILE:HD12	10:F:123:ILE:HG23	1.91	0.53
22:A:4001:BCR:H23C	15:K:113:MET:HG2	1.90	0.53
2:B:73:ASN:HB2	2:B:76:ALA:HB3	1.91	0.53
2:B:658:ALA:O	2:B:661:PHE:HB2	2.09	0.53
1:A:408:VAL:HG22	1:A:556:LEU:HD11	1.91	0.53
19:A:1102:CLA:HAA1	19:A:1109:CLA:H2	1.89	0.53
1:A:33:LYS:HD2	19:A:1109:CLA:H2A	1.91	0.53
1:A:58:HIS:HB2	23:A:5001:LHG:H102	1.91	0.52
2:B:384:THR:HG22	2:B:534:LEU:HD11	1.90	0.52
4:2:65:ARG:NH2	4:2:85:ASP:OD1	2.43	0.52
19:2:610:CLA:HAB	28:2:620:LUT:H10	1.90	0.52
2:B:435:GLY:HA3	19:B:1230:CLA:HAB	1.91	0.52
5:3:304:LEU:HD13	28:3:620:LUT:H163	1.92	0.52
15:K:55:ASN:ND2	19:K:204:CLA:OBD	2.42	0.52
1:A:628:ILE:HG12	1:A:634:VAL:HG22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:A:5002:LMG:H111	4:2:92:GLY:HA3	1.91	0.52
19:B:1237:CLA:H152	22:I:120:BCR:H16C	1.91	0.52
8:D:134:ARG:HB2	8:D:137:GLN:HG3	1.91	0.52
3:1:108:GLU:HB3	3:1:220:LEU:HD12	1.92	0.52
5:3:153:ASN:ND2	19:3:609:CLA:OBD	2.43	0.52
1:A:206:HIS:ND1	19:A:8895:CLA:OBD	2.42	0.52
2:B:395:ILE:HD13	2:B:555:TYR:HA	1.92	0.52
19:B:1220:CLA:H3A	19:B:1240:CLA:HED3	1.92	0.52
4:2:193:ASP:OD2	4:2:220:ARG:NH1	2.42	0.52
1:A:18:VAL:O	1:A:320:ASN:ND2	2.43	0.52
1:A:567:ARG:NH2	8:D:88:THR:O	2.42	0.52
19:A:1128:CLA:HMD2	23:A:5001:LHG:H281	1.90	0.52
3:1:79:VAL:HB	3:1:82:ASN:HB2	1.91	0.52
19:3:613:CLA:HBB	28:3:620:LUT:H162	1.92	0.52
16:L:213:LEU:HD22	16:L:219:LEU:HD11	1.92	0.52
3:1:101:VAL:HG11	28:1:620:LUT:H12	1.90	0.52
1:A:513:LEU:HD12	1:A:529:LEU:HB2	1.92	0.52
2:B:694:LYS:NZ	13:I:31:GLU:O	2.42	0.52
19:B:1237:CLA:HBA1	22:I:120:BCR:H23C	1.91	0.52
4:2:197:PRO:HB3	27:2:608:CHL:HBC2	1.92	0.51
19:A:1132:CLA:H162	19:L:302:CLA:HMB2	1.91	0.51
2:B:340:SER:HB3	19:B:1221:CLA:H42	1.91	0.51
22:B:4014:BCR:H332	22:J:212:BCR:HC32	1.93	0.51
16:L:126:LEU:HD12	19:L:303:CLA:HMB3	1.92	0.51
1:A:602:LEU:HB3	1:A:739:LEU:HD11	1.91	0.51
19:B:1225:CLA:H51	22:B:4005:BCR:H23C	1.91	0.51
2:B:282:VAL:HG21	19:B:1213:CLA:HAB	1.93	0.51
6:4:91:LEU:HD22	10:F:209:LYS:HA	1.92	0.51
10:F:158:GLY:HA2	10:F:162:TYR:HB2	1.91	0.51
18:A:1011:CL0:H46	19:A:1022:CLA:HED2	1.92	0.51
3:1:122:ALA:HB3	27:1:607:CHL:HMD3	1.93	0.51
6:4:208:GLY:HA3	19:4:610:CLA:HED3	1.93	0.51
1:A:406:LEU:HD21	19:A:1104:CLA:H142	1.93	0.51
19:A:1127:CLA:H12	22:A:4003:BCR:H392	1.92	0.51
1:A:316:MET:HA	19:A:1120:CLA:HHD	1.92	0.51
6:4:163:TRP:CG	28:4:623:LUT:H32	2.46	0.51
19:A:1022:CLA:HBA2	19:A:1022:CLA:HED3	1.92	0.51
23:2:630:LHG:H271	27:2:601:CHL:HBB1	1.93	0.51
2:B:456:GLU:OE1	10:F:147:HIS:ND1	2.44	0.51
2:B:643:LEU:HD11	2:B:731:GLY:HA3	1.93	0.51
5:3:201:ASP:OD1	5:3:201:ASP:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:568:LEU:O	8:D:134:ARG:NH1	2.43	0.50
10:F:170:ILE:HG23	19:F:301:CLA:HAA1	1.93	0.50
19:G:202:CLA:HMB3	22:G:311:BCR:H10C	1.93	0.50
19:A:1138:CLA:H51	22:B:4014:BCR:H19C	1.93	0.50
2:B:60:TRP:NE1	19:B:1224:CLA:OBD	2.43	0.50
1:A:740:LEU:HD22	19:A:1140:CLA:HMA1	1.92	0.50
6:4:165:GLU:OE1	6:4:168:ARG:NH2	2.39	0.50
1:A:699:TYR:OH	19:A:1013:CLA:OBD	2.27	0.50
1:A:387:THR:HG21	1:A:523:VAL:HB	1.93	0.50
2:B:556:SER:HB3	26:B:5002:DGD:HD2	1.94	0.50
2:B:17:THR:HG21	7:C:77:MET:HG2	1.94	0.50
20:B:2002:PQN:H142	22:B:4017:BCR:H271	1.93	0.50
5:3:285:ALA:O	5:3:289:TYR:N	2.44	0.50
13:I:24:ALA:HB1	16:L:157:ILE:HG21	1.92	0.50
1:A:726:SER:O	1:A:730:GLY:N	2.39	0.50
19:A:1022:CLA:H101	19:B:1023:CLA:H122	1.94	0.50
2:B:98:GLN:NE2	12:H:128:GLY:O	2.45	0.50
27:2:601:CHL:H11	5:3:211:ALA:HA	1.94	0.50
19:A:1122:CLA:HHB	19:A:1801:CLA:HAB	1.94	0.49
2:B:341:LEU:O	2:B:345:THR:OG1	2.28	0.49
19:B:1023:CLA:H121	22:B:4017:BCR:H363	1.94	0.49
1:A:382:TYR:HB2	1:A:385:LEU:HD13	1.95	0.49
1:A:400:MET:HB3	1:A:609:ILE:HG23	1.94	0.49
19:A:1128:CLA:H172	19:A:1140:CLA:H3A	1.93	0.49
2:B:417:ALA:HB1	19:B:1227:CLA:HMB3	1.94	0.49
2:B:615:TYR:OH	2:B:621:ARG:NH2	2.45	0.49
1:A:697:ARG:H	2:B:568:CYS:HB2	1.77	0.49
1:A:419:VAL:HG21	1:A:577:PHE:HB2	1.93	0.49
2:B:284:PHE:HE1	19:B:1216:CLA:HHC	1.76	0.49
2:B:670:TYR:OH	19:B:1023:CLA:OBD	2.25	0.49
3:1:121:TRP:HB2	3:1:127:GLY:HA3	1.93	0.49
8:D:175:PRO:HA	8:D:182:ARG:HH12	1.76	0.49
1:A:73:GLU:OE2	1:A:76:ARG:NH1	2.45	0.49
19:B:1225:CLA:H8	22:B:4005:BCR:H21C	1.94	0.49
15:K:89:ASP:OD1	15:K:89:ASP:N	2.46	0.49
19:A:1108:CLA:HAA1	5:3:141:ILE:HG13	1.94	0.49
2:B:694:LYS:HD2	16:L:162:SER:HA	1.94	0.49
4:2:148:THR:HG23	6:4:259:TYR:HB3	1.93	0.49
19:2:610:CLA:H13	28:2:620:LUT:H203	1.94	0.49
1:A:564:ARG:HH21	8:D:114:GLU:HG3	1.78	0.49
19:A:1140:CLA:HMC1	22:B:4014:BCR:H373	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:B:1238:CLA:HMC2	22:B:4017:BCR:H381	1.95	0.49
19:B:1216:CLA:HBB1	19:B:1221:CLA:H52	1.95	0.49
2:B:53:GLN:HB2	19:B:1202:CLA:HMB2	1.95	0.49
2:B:410:ARG:O	2:B:414:HIS:ND1	2.41	0.48
19:B:1221:CLA:HBB1	19:B:1223:CLA:H102	1.95	0.48
15:K:78:ASN:ND2	15:K:101:GLY:O	2.46	0.48
19:2:613:CLA:HMC2	19:2:613:CLA:H92	1.95	0.48
5:3:124:TYR:HB2	19:3:602:CLA:HMD1	1.95	0.48
2:B:118:SER:HA	19:B:1224:CLA:HMA2	1.95	0.48
2:B:308:HIS:HA	19:B:1240:CLA:HMD1	1.94	0.48
19:B:1228:CLA:H11	22:F:416:BCR:H353	1.95	0.48
22:I:118:BCR:H402	22:I:120:BCR:H353	1.95	0.48
1:A:721:GLN:NE2	9:E:110:VAL:O	2.37	0.48
3:1:65:ALA:HB3	3:1:68:ASP:HB2	1.94	0.48
3:1:101:VAL:HG11	28:1:620:LUT:H10	1.95	0.48
4:2:67:LEU:O	5:3:233:GLN:NE2	2.39	0.48
5:3:202:PRO:HA	5:3:205:LEU:HB2	1.94	0.48
14:J:1:MET:HB3	14:J:5:LYS:HE2	1.96	0.48
1:A:124:TRP:HE1	25:A:5004:LMT:H6D	1.79	0.48
19:A:1108:CLA:HBB2	19:A:1111:CLA:HMA3	1.95	0.48
2:B:124:TRP:HA	2:B:127:ILE:HG12	1.94	0.48
1:A:484:LEU:HB2	1:A:536:THR:HG23	1.95	0.48
1:A:546:ALA:O	1:A:550:HIS:ND1	2.46	0.48
2:B:519:VAL:HG21	2:B:593:TYR:HB2	1.95	0.48
2:B:680:TRP:NE1	16:L:77:GLY:O	2.42	0.48
5:3:259:LEU:HD13	28:3:620:LUT:H222	1.95	0.48
4:2:212:ASP:OD1	4:2:212:ASP:N	2.44	0.48
1:A:330:ILE:O	1:A:334:HIS:ND1	2.42	0.48
4:2:231:MET:HB2	27:2:602:CHL:HMC	1.95	0.48
1:A:463:HIS:NE2	1:A:475:ASP:O	2.47	0.48
2:B:69:ALA:HB2	2:B:135:LEU:HB2	1.96	0.48
3:1:159:ARG:HH12	19:1:609:CLA:HED1	1.79	0.48
8:D:114:GLU:O	8:D:144:ARG:NH1	2.46	0.47
17:M:12:LEU:HB3	22:M:4021:BCR:H21C	1.96	0.47
1:A:55:TRP:HE3	23:A:5001:LHG:H101	1.80	0.47
27:1:607:CHL:HHC	27:1:607:CHL:HBB1	1.97	0.47
13:I:30:ILE:HG13	13:I:31:GLU:HG2	1.95	0.47
19:A:1110:CLA:HAC2	19:A:1111:CLA:H151	1.96	0.47
19:A:1113:CLA:HAA2	5:3:294:ILE:HG22	1.97	0.47
19:B:1239:CLA:HAC1	20:B:2002:PQN:H202	1.97	0.47
1:A:346:LEU:HD23	19:A:1122:CLA:HMD3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:538:ASP:O	1:A:542:HIS:ND1	2.36	0.47
22:B:4014:BCR:H321	10:F:167:PHE:HB2	1.96	0.47
1:A:222:GLN:HA	1:A:226:SER:HB2	1.97	0.47
1:A:299:THR:HG23	19:A:1117:CLA:HMA3	1.97	0.47
4:2:127:LEU:HB3	4:2:132:ILE:HB	1.97	0.47
19:A:1138:CLA:HBB1	19:A:1139:CLA:HMD1	1.96	0.47
2:B:592:PHE:HE2	19:B:1021:CLA:H62	1.78	0.47
1:A:39:HIS:NE2	19:A:1102:CLA:O1D	2.45	0.47
1:A:166:THR:HG21	19:A:1114:CLA:H3A	1.96	0.47
1:A:213:LEU:HD21	19:A:1118:CLA:HMC1	1.96	0.47
2:B:65:LEU:HD11	22:B:4006:BCR:H271	1.97	0.47
2:B:645:VAL:HG21	19:B:1206:CLA:HMD2	1.96	0.47
2:B:684:ARG:NE	16:L:77:GLY:O	2.47	0.47
3:1:225:THR:O	3:1:233:ASN:ND2	2.42	0.47
4:2:167:ARG:NH1	4:2:178:VAL:O	2.47	0.47
19:A:1101:CLA:HAB	22:J:213:BCR:H281	1.96	0.47
28:2:620:LUT:H15	28:2:620:LUT:H201	1.73	0.47
19:B:1208:CLA:HBD	25:G:401:LMT:H1'	1.97	0.47
23:2:630:LHG:HC81	22:3:623:BCR:H313	1.97	0.47
9:E:76:VAL:HG12	9:E:78:ARG:H	1.80	0.47
1:A:741:GLY:O	1:A:745:THR:OG1	2.29	0.47
1:A:21:MET:HB3	1:A:192:LYS:HE3	1.96	0.46
2:B:50:HIS:ND1	19:B:1210:CLA:OBD	2.41	0.46
9:E:106:ARG:NH1	9:E:117:THR:OG1	2.48	0.46
19:L:302:CLA:HMB3	19:L:303:CLA:HBC2	1.97	0.46
1:A:133:ASN:O	10:F:105:ARG:NH2	2.48	0.46
1:A:493:GLN:HG3	1:A:515:TRP:HE3	1.80	0.46
2:B:339:ALA:HB2	22:B:4010:BCR:H372	1.98	0.46
19:A:1130:CLA:H91	19:A:1136:CLA:H201	1.97	0.46
2:B:321:GLY:O	2:B:325:THR:OG1	2.34	0.46
19:B:1213:CLA:HBB2	22:G:311:BCR:H282	1.98	0.46
16:L:95:ASN:O	16:L:100:ARG:NH1	2.48	0.46
19:A:1111:CLA:H121	19:A:1111:CLA:H161	1.77	0.46
2:B:373:THR:HG23	2:B:591:THR:HG21	1.97	0.46
19:B:1202:CLA:H93	19:B:1210:CLA:H2	1.97	0.46
19:L:302:CLA:H3A	19:L:302:CLA:HBA2	1.67	0.46
19:B:1223:CLA:H152	22:B:4010:BCR:H17C	1.96	0.46
22:B:4014:BCR:H11C	10:F:167:PHE:HE1	1.80	0.46
1:A:126:ILE:HG12	14:J:27:ILE:HG23	1.97	0.46
19:3:609:CLA:HBA2	19:3:609:CLA:H3A	1.78	0.46
19:L:303:CLA:HAC1	22:L:420:BCR:H373	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:434:ARG:O	1:A:438:HIS:ND1	2.42	0.46
2:B:73:ASN:ND2	2:B:107:GLY:O	2.49	0.46
3:1:90:GLU:HG2	3:1:194:ILE:HD11	1.98	0.46
1:A:127:VAL:HB	19:B:1230:CLA:HMD1	1.98	0.46
2:B:545:LYS:HE3	10:F:234:THR:HG22	1.98	0.46
19:B:1202:CLA:HBA1	19:B:1202:CLA:H3A	1.76	0.46
22:L:419:BCR:H20C	22:L:419:BCR:H361	1.79	0.46
1:A:709:TRP:HH2	19:B:1228:CLA:HED3	1.81	0.45
1:A:65:ASP:HB2	1:A:420:ARG:HH21	1.82	0.45
1:A:155:ALA:HB2	1:A:383:PRO:HD2	1.99	0.45
2:B:304:ILE:O	2:B:308:HIS:ND1	2.47	0.45
2:B:338:LEU:HG	19:B:1202:CLA:HED1	1.98	0.45
4:2:69:PHE:HD2	4:2:72:SER:HB3	1.82	0.45
27:2:602:CHL:HHD	27:2:601:CHL:HBB2	1.98	0.45
19:I:121:CLA:H93	16:L:142:LEU:HB3	1.97	0.45
1:A:650:ASN:O	1:A:654:ARG:HB3	2.16	0.45
24:A:5002:LMG:H151	14:J:4:VAL:HG21	1.97	0.45
2:B:412:LEU:HB3	10:F:238:ARG:HD2	1.99	0.45
2:B:424:TRP:CE2	19:B:1228:CLA:HAB	2.51	0.45
19:B:1232:CLA:HBA1	19:B:1232:CLA:H3A	1.73	0.45
19:B:1237:CLA:HMC2	19:B:1238:CLA:H11	1.97	0.45
11:G:69:THR:HA	11:G:136:GLY:HA3	1.98	0.45
19:A:1115:CLA:HBC2	19:A:1116:CLA:HMC2	1.99	0.45
19:B:1204:CLA:HHB	19:B:1205:CLA:HHB	1.99	0.45
19:B:1224:CLA:H3A	19:B:1224:CLA:HBA2	1.73	0.45
19:B:1225:CLA:H61	22:B:4006:BCR:H392	1.98	0.45
19:1:603:CLA:H41	19:1:603:CLA:H62	1.63	0.45
6:4:190:THR:N	6:4:198:GLY:O	2.49	0.45
2:B:177:HIS:CG	19:B:1210:CLA:HMC2	2.52	0.45
2:B:255:LEU:HD11	19:B:1212:CLA:HBC1	1.98	0.45
5:3:120:LEU:HB2	5:3:123:ASP:HB2	1.99	0.45
19:L:302:CLA:HMD3	22:L:419:BCR:H271	1.97	0.45
2:B:691:VAL:HG11	19:B:1237:CLA:HAB	1.99	0.45
19:B:1226:CLA:H2	26:B:5002:DGD:HB41	1.98	0.45
4:2:234:VAL:HG11	28:2:621:LUT:H12	1.99	0.45
19:F:301:CLA:HBA1	19:F:301:CLA:H3A	1.67	0.45
1:A:565:SER:HB2	1:A:570:PRO:HA	1.99	0.45
19:A:1131:CLA:HMC2	19:L:303:CLA:HBB2	1.99	0.45
20:A:2001:PQN:H162	22:B:4014:BCR:H382	1.99	0.45
2:B:344:ILE:HD13	19:B:1221:CLA:H43	1.99	0.45
2:B:733:PHE:HB3	12:H:138:ARG:HE	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:601:CHL:HED2	5:3:218:HIS:HB3	1.99	0.45
5:3:120:LEU:HD13	19:3:602:CLA:HED2	1.98	0.45
5:3:213:MET:HG3	19:3:609:CLA:HMC3	1.98	0.45
10:F:150:VAL:HG12	10:F:160:PHE:HB2	1.99	0.45
2:B:59:LEU:HD21	17:M:18:THR:HG21	1.98	0.45
22:B:4005:BCR:H15C	22:B:4005:BCR:H351	1.87	0.45
20:A:2001:PQN:H201	19:A:1138:CLA:HBC1	1.98	0.45
19:B:1235:CLA:HBB1	19:B:1236:CLA:HHD	1.99	0.45
19:4:602:CLA:HBC1	23:4:630:LHG:H112	1.99	0.45
1:A:222:GLN:NE2	19:A:1117:CLA:O1D	2.50	0.45
18:A:1011:CL0:H11	19:B:1021:CLA:HAA1	1.99	0.45
19:A:1119:CLA:H12	19:A:8895:CLA:HBB1	1.98	0.45
2:B:498:LEU:HA	2:B:501:ILE:HG22	1.98	0.45
2:B:616:LEU:HD21	19:B:1021:CLA:H162	1.99	0.45
1:A:37:PRO:HB3	19:A:1101:CLA:HAC1	2.00	0.44
2:B:438:VAL:HG13	19:B:1012:CLA:H62	1.99	0.44
19:B:1237:CLA:H41	19:B:1237:CLA:H61	1.80	0.44
1:A:112:ASP:OD1	1:A:112:ASP:N	2.49	0.44
2:B:695:ASP:OD1	2:B:695:ASP:N	2.49	0.44
19:B:1223:CLA:H141	19:B:1223:CLA:H161	1.83	0.44
22:B:4009:BCR:H371	22:B:4009:BCR:H24C	1.76	0.44
19:F:301:CLA:HMA2	24:J:301:LMG:H381	1.98	0.44
19:A:1116:CLA:H93	19:K:201:CLA:H91	2.00	0.44
19:A:1118:CLA:H71	23:3:630:LHG:H282	1.99	0.44
19:3:607:CLA:H141	19:3:617:CLA:HBB1	2.00	0.44
6:4:114:ALA:O	6:4:118:ALA:N	2.45	0.44
22:M:4021:BCR:H20C	22:M:4021:BCR:H361	1.86	0.44
18:A:1011:CL0:H53	18:A:1011:CL0:H61	1.75	0.44
2:B:608:GLN:O	2:B:612:SER:HB2	2.17	0.44
5:3:155:ARG:NH1	27:3:608:CHL:OBD	2.46	0.44
7:C:75:ARG:NH1	8:D:99:GLU:OE2	2.50	0.44
1:A:225:VAL:HG13	1:A:245:PRO:HB3	2.00	0.44
1:A:571:ASP:OD1	1:A:571:ASP:N	2.45	0.44
22:A:4007:BCR:H371	22:A:4007:BCR:H383	1.99	0.44
19:4:603:CLA:HED1	25:4:631:LMT:H92	1.99	0.44
19:4:603:CLA:H8	10:F:214:PRO:HB2	2.00	0.44
1:A:372:VAL:HG21	19:A:1127:CLA:HHD	2.00	0.44
19:A:1128:CLA:H202	19:A:1140:CLA:HBA1	1.99	0.44
22:3:624:BCR:H24C	22:3:624:BCR:H371	1.78	0.44
3:1:85:ARG:NH2	19:1:603:CLA:O1D	2.50	0.44
4:2:204:PRO:HD2	28:2:620:LUT:H3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:I:120:BCR:H20C	22:I:120:BCR:H361	1.83	0.44
1:A:319:THR:OG1	1:A:320:ASN:N	2.51	0.44
2:B:428:PHE:O	2:B:432:HIS:ND1	2.50	0.44
19:B:1223:CLA:C4B	19:B:1231:CLA:H3A	2.48	0.44
19:B:1238:CLA:H2A	13:I:27:PHE:CE1	2.53	0.44
4:2:252:LEU:HD22	28:2:620:LUT:H222	2.00	0.44
10:F:218:ILE:HA	10:F:221:LEU:HB3	2.00	0.44
2:B:131:THR:OG1	2:B:134:ASP:OD2	2.36	0.44
2:B:230:TRP:HB3	19:B:1213:CLA:H3A	1.99	0.44
20:B:2002:PQN:H141	20:B:2002:PQN:H161	1.80	0.44
5:3:219:ARG:HG3	27:3:608:CHL:HBB1	2.00	0.44
22:L:420:BCR:H15C	22:L:420:BCR:H351	1.87	0.44
5:3:112:SER:OG	5:3:127:ASP:O	2.33	0.43
1:A:88:VAL:HG21	19:A:1102:CLA:HBB1	2.01	0.43
19:A:1102:CLA:HAB	19:A:1104:CLA:HBD	2.00	0.43
2:B:462:TRP:HE1	2:B:476:VAL:HG21	1.83	0.43
19:B:1209:CLA:HMD2	25:G:401:LMT:H82	2.00	0.43
1:A:654:ARG:HA	2:B:632:ILE:HD12	2.01	0.43
19:A:1103:CLA:H2	19:A:1103:CLA:H62	1.67	0.43
19:A:1119:CLA:H101	22:A:4008:BCR:H10C	1.99	0.43
19:B:1204:CLA:H2A	19:B:1206:CLA:HED1	2.01	0.43
1:A:544:ILE:HG21	18:A:1011:CL0:H60	2.00	0.43
19:A:1022:CLA:H171	19:I:121:CLA:HMC2	2.00	0.43
19:B:1235:CLA:HBC2	24:J:301:LMG:H242	2.00	0.43
1:A:596:ASP:HA	1:A:599:PHE:HB3	2.00	0.43
2:B:293:THR:OG1	2:B:294:ASN:N	2.51	0.43
1:A:72:GLU:OE1	1:A:76:ARG:NH2	2.52	0.43
1:A:567:ARG:HD3	7:C:80:ALA:HB3	2.00	0.43
22:A:4008:BCR:H15C	22:A:4008:BCR:H351	1.79	0.43
2:B:458:VAL:HG11	10:F:149:ILE:HG23	2.01	0.43
19:B:1215:CLA:H41	19:B:1215:CLA:H62	1.79	0.43
2:B:25:ILE:HA	19:B:1201:CLA:HMD3	1.99	0.43
2:B:545:LYS:HD3	2:B:545:LYS:HA	1.79	0.43
22:B:4010:BCR:H361	22:B:4010:BCR:H20C	1.68	0.43
19:2:604:CLA:HMC2	28:2:623:LUT:H24	2.00	0.43
7:C:3:HIS:O	7:C:45:THR:OG1	2.37	0.43
2:B:142:LEU:HD11	22:B:4006:BCR:H24C	1.99	0.43
19:B:1023:CLA:H13	19:I:121:CLA:HBC1	1.99	0.43
20:B:2002:PQN:H222	22:B:4017:BCR:H17C	2.01	0.43
6:4:117:GLY:HA2	28:4:621:LUT:H181	1.99	0.43
22:G:311:BCR:H20C	22:G:311:BCR:H361	1.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:22:VAL:HA	1:A:191:PRO:HA	1.99	0.43
1:A:102:ARG:HH12	1:A:165:TYR:HB2	1.84	0.43
1:A:572:LYS:NZ	2:B:673:GLU:OE2	2.46	0.43
19:A:1127:CLA:H121	22:A:4003:BCR:H21C	2.01	0.43
2:B:564:ARG:HB3	9:E:112:TYR:HB2	2.00	0.43
2:B:580:VAL:HA	2:B:583:MET:HG3	2.01	0.43
23:1:630:LHG:H162	23:1:630:LHG:H132	1.87	0.43
28:2:620:LUT:H11	28:2:620:LUT:H191	1.85	0.43
27:2:601:CHL:H203	27:2:601:CHL:H162	1.84	0.43
19:A:1137:CLA:HBB1	19:A:5005:CLA:HAB	2.01	0.43
2:B:277:HIS:HA	2:B:280:ILE:HG12	2.01	0.43
15:K:82:THR:OG1	15:K:83:ALA:N	2.52	0.43
1:A:395:LEU:O	1:A:399:HIS:ND1	2.52	0.42
1:A:665:ILE:O	2:B:621:ARG:NH1	2.49	0.42
19:A:1022:CLA:HBB2	19:B:1023:CLA:HAA1	2.01	0.42
19:A:1116:CLA:HBA2	19:A:1116:CLA:H3A	1.83	0.42
19:A:8895:CLA:H2	19:A:8895:CLA:H62	1.74	0.42
19:B:1203:CLA:H201	19:B:1224:CLA:HMD3	2.00	0.42
19:B:1219:CLA:O2D	11:G:91:GLN:NE2	2.47	0.42
22:B:4010:BCR:H15C	22:B:4010:BCR:H351	1.77	0.42
4:2:77:TRP:NE1	4:2:89:ASP:OD2	2.50	0.42
19:A:1118:CLA:H41	19:A:1118:CLA:H62	1.85	0.42
19:A:1132:CLA:H151	19:A:1136:CLA:H202	2.01	0.42
19:B:1238:CLA:H142	19:B:1238:CLA:H112	1.88	0.42
4:2:149:ASP:HB3	4:2:152:THR:HG22	2.01	0.42
6:4:218:ILE:HG13	19:4:610:CLA:H3A	2.01	0.42
22:M:4021:BCR:H24C	22:M:4021:BCR:H371	1.84	0.42
19:1:602:CLA:H52	28:1:621:LUT:H8	2.01	0.42
27:2:601:CHL:H92	27:2:601:CHL:H61	1.93	0.42
5:3:200:ALA:HB3	5:3:205:LEU:HG	2.01	0.42
10:F:89:LYS:HA	10:F:89:LYS:HD3	1.88	0.42
19:H:200:CLA:HAB	22:L:420:BCR:H321	2.02	0.42
14:J:19:PHE:HA	14:J:22:LEU:HB3	2.00	0.42
18:A:1011:CL0:H62	19:A:1022:CLA:HMA1	2.01	0.42
2:B:53:GLN:HG2	19:B:1202:CLA:H3A	2.01	0.42
6:4:224:LYS:HZ1	23:4:630:LHG:P	2.42	0.42
19:I:121:CLA:H141	19:I:121:CLA:H162	1.73	0.42
19:A:1138:CLA:HED2	2:B:424:TRP:HB2	2.01	0.42
2:B:86:PRO:O	2:B:116:ALA:N	2.37	0.42
2:B:176:ASN:O	2:B:180:SER:HB2	2.19	0.42
19:B:1229:CLA:HBB2	19:B:1230:CLA:HBB	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:3:271:LEU:HD21	19:3:610:CLA:HBA2	2.01	0.42
1:A:457:SER:HB3	1:A:543:HIS:HB3	2.00	0.42
2:B:453:ILE:HG21	24:J:301:LMG:H191	2.02	0.42
19:B:1214:CLA:HBA2	19:B:1223:CLA:HBB2	2.01	0.42
28:1:621:LUT:H27	28:1:621:LUT:H30	1.83	0.42
5:3:283:MET:SD	19:3:602:CLA:HAB	2.59	0.42
19:3:613:CLA:H2	19:3:613:CLA:H61	1.75	0.42
6:4:157:GLU:O	6:4:161:MET:N	2.44	0.42
6:4:165:GLU:O	6:4:169:TRP:N	2.53	0.42
1:A:205:HIS:CG	19:A:1111:CLA:HMC2	2.55	0.42
2:B:26:ALA:HA	19:B:1226:CLA:H11	2.01	0.42
2:B:129:LEU:HD13	2:B:135:LEU:HD23	2.02	0.42
2:B:319:HIS:HB3	2:B:322:LEU:HD12	2.01	0.42
28:4:621:LUT:H401	28:4:621:LUT:H35	1.76	0.42
10:F:197:ILE:HG12	14:J:10:THR:HG22	2.00	0.42
23:A:5003:LHG:HC92	19:A:5005:CLA:HBA1	2.02	0.42
19:B:1201:CLA:H11	17:M:26:GLY:HA3	2.01	0.42
19:B:1237:CLA:H142	19:B:1238:CLA:H101	2.02	0.42
12:H:101:LYS:HA	12:H:101:LYS:HD3	1.78	0.42
1:A:365:LEU:HG	19:A:1127:CLA:HMC1	2.01	0.42
2:B:175:LEU:HD23	2:B:175:LEU:HA	1.93	0.42
19:3:610:CLA:HBA2	19:3:610:CLA:H3A	1.81	0.42
9:E:69:LYS:HB3	9:E:72:SER:HB3	2.01	0.42
9:E:73:ILE:HG23	9:E:87:THR:HG23	2.02	0.42
1:A:580:PRO:HB3	1:A:727:ILE:HB	2.02	0.42
19:A:1124:CLA:HAA2	19:A:1135:CLA:HMB3	2.02	0.42
2:B:67:HIS:ND1	2:B:71:GLN:OE1	2.45	0.42
2:B:93:ASP:OD2	2:B:95:HIS:ND1	2.39	0.42
2:B:285:ILE:O	2:B:289:HIS:ND1	2.48	0.42
19:B:1237:CLA:H122	19:B:1237:CLA:H8	1.87	0.42
27:2:601:CHL:H91	27:2:601:CHL:H112	1.83	0.42
7:C:5:VAL:HG22	7:C:67:VAL:HG13	2.01	0.42
8:D:116:PRO:HD3	8:D:141:LEU:HD13	2.02	0.42
16:L:96:LEU:HD23	19:L:301:CLA:HHC	2.02	0.42
19:A:1130:CLA:OBD	19:A:5005:CLA:H3A	2.20	0.41
19:A:1138:CLA:H52	19:A:1138:CLA:H11	1.85	0.41
1:A:561:LEU:HD23	1:A:561:LEU:HA	1.89	0.41
11:G:125:THR:OG1	11:G:126:ILE:N	2.53	0.41
1:A:622:SER:OG	1:A:638:THR:OG1	2.38	0.41
1:A:754:ILE:HD12	1:A:754:ILE:HA	1.95	0.41
19:A:1127:CLA:H172	19:A:1127:CLA:H13	1.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:574:ASP:HA	2:B:577:TYR:HB3	2.01	0.41
19:I:121:CLA:H122	16:L:146:GLY:HA2	2.02	0.41
19:A:1117:CLA:H122	19:A:1125:CLA:H92	2.02	0.41
19:A:1133:CLA:HHC	19:A:1133:CLA:HBB1	2.02	0.41
19:B:1217:CLA:HMB2	11:G:130:LEU:HD22	2.01	0.41
6:4:133:LEU:HB3	6:4:135:THR:HG23	2.02	0.41
1:A:590:CYS:HB2	2:B:668:ARG:H	1.86	0.41
19:A:1104:CLA:H112	19:A:1104:CLA:H72	1.90	0.41
22:B:4006:BCR:H20C	22:B:4006:BCR:H361	1.91	0.41
26:B:5002:DGD:HA42	26:B:5002:DGD:HA71	1.89	0.41
19:1:609:CLA:H61	19:1:609:CLA:H2	1.85	0.41
4:2:228:ARG:HG2	4:2:231:MET:HE2	2.01	0.41
5:3:145:TRP:O	5:3:149:ALA:N	2.50	0.41
10:F:201:PRO:HD3	24:J:302:LMG:HC91	2.01	0.41
16:L:175:THR:OG1	16:L:176:LEU:N	2.52	0.41
1:A:62:HIS:HB2	19:A:1128:CLA:HAA2	2.02	0.41
1:A:368:LEU:HD11	19:A:1117:CLA:H71	2.03	0.41
2:B:378:ILE:HG23	19:B:1203:CLA:H143	2.02	0.41
19:B:1206:CLA:H3A	19:I:121:CLA:CBB	2.51	0.41
19:1:603:CLA:HBC1	19:1:609:CLA:HAC1	2.02	0.41
6:4:126:LEU:HA	6:4:248:ILE:HG21	2.03	0.41
19:4:603:CLA:H61	10:F:215:VAL:HG22	2.02	0.41
22:G:311:BCR:H24C	22:G:311:BCR:H371	1.84	0.41
19:A:1103:CLA:H192	19:A:1111:CLA:H8	2.02	0.41
7:C:49:VAL:HA	7:C:76:SER:HA	2.03	0.41
1:A:684:PHE:HB2	19:B:1012:CLA:HBA1	2.02	0.41
1:A:716:VAL:HG23	10:F:179:ARG:HA	2.02	0.41
19:B:1012:CLA:H61	19:B:1012:CLA:H41	1.73	0.41
3:1:98:MET:HB2	19:1:610:CLA:HMC3	2.03	0.41
19:3:612:CLA:HBB2	22:3:624:BCR:H382	2.03	0.41
1:A:124:TRP:HB3	22:J:213:BCR:H323	2.03	0.41
1:A:161:GLU:HA	1:A:164:LEU:HD12	2.03	0.41
1:A:311:LEU:O	1:A:315:HIS:ND1	2.49	0.41
1:A:346:LEU:HA	1:A:349:ILE:HD12	2.03	0.41
1:A:545:HIS:HE1	1:A:611:VAL:HG12	1.86	0.41
1:A:555:ILE:HG21	1:A:600:LEU:HB2	2.02	0.41
1:A:714:LEU:HD13	22:F:416:BCR:H321	2.03	0.41
19:A:1128:CLA:H71	19:A:1128:CLA:H112	1.89	0.41
2:B:71:GLN:NE2	19:B:1204:CLA:O1D	2.45	0.41
2:B:310:PRO:HA	2:B:311:PRO:HD3	1.85	0.41
2:B:693:TRP:HE3	19:B:1238:CLA:HMD3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:B:2002:PQN:H251	20:B:2002:PQN:H212	1.91	0.41
19:1:606:CLA:HBA1	19:1:606:CLA:H3A	1.86	0.41
28:2:623:LUT:H31	28:2:623:LUT:H391	1.97	0.41
28:4:620:LUT:H27	28:4:620:LUT:H30	1.88	0.41
9:E:93:VAL:HG22	9:E:103:VAL:HG13	2.03	0.41
10:F:196:ILE:O	14:J:11:ALA:N	2.54	0.41
13:I:27:PHE:HA	13:I:30:ILE:HG12	2.02	0.41
1:A:121:GLN:HB3	1:A:143:ILE:HB	2.03	0.41
1:A:126:ILE:HG13	1:A:127:VAL:HG13	2.03	0.41
2:B:345:THR:HB	2:B:379:ALA:HB2	2.02	0.41
2:B:650:PHE:O	2:B:654:HIS:ND1	2.50	0.41
19:B:1208:CLA:HAA2	11:G:108:ARG:HD3	2.02	0.41
19:B:1217:CLA:HBA2	19:B:1217:CLA:H3A	1.62	0.41
3:1:204:PHE:CD2	28:1:621:LUT:H32	2.56	0.41
28:1:620:LUT:H35	28:1:620:LUT:H401	1.88	0.41
4:2:163:TRP:CD1	27:2:608:CHL:HAB	2.56	0.41
27:3:608:CHL:HMB2	22:3:624:BCR:HC7	2.02	0.41
6:4:257:ASP:N	6:4:257:ASP:OD1	2.54	0.41
7:C:19:ARG:HG2	8:D:176:GLU:HG2	2.03	0.41
19:I:121:CLA:H12	16:L:129:PRO:HG2	2.03	0.41
1:A:365:LEU:HD12	1:A:365:LEU:HA	1.93	0.40
19:A:1013:CLA:HAA1	19:B:1012:CLA:HBB2	2.03	0.40
2:B:580:VAL:HB	2:B:710:LEU:HD11	2.03	0.40
19:B:1203:CLA:H112	19:B:1203:CLA:H152	1.77	0.40
22:B:2004:BCR:H20C	22:B:2004:BCR:H361	1.84	0.40
12:H:121:ASP:N	12:H:121:ASP:OD1	2.48	0.40
2:B:125:TYR:O	2:B:130:ARG:NH1	2.40	0.40
2:B:351:HIS:HD1	19:B:1214:CLA:CAD	2.32	0.40
22:B:4009:BCR:H15C	22:B:4009:BCR:H351	1.90	0.40
28:1:621:LUT:H35	28:1:621:LUT:H401	1.91	0.40
6:4:102:TRP:HB2	25:4:631:LMT:H3B	2.02	0.40
12:H:96:ARG:NH1	16:L:159:GLY:O	2.54	0.40
1:A:505:PRO:O	1:A:507:ALA:N	2.53	0.40
1:A:515:TRP:HH2	19:A:1135:CLA:HED3	1.87	0.40
22:A:4007:BCR:H15C	22:A:4007:BCR:H351	1.87	0.40
22:M:4021:BCR:H15C	22:M:4021:BCR:H351	1.92	0.40
1:A:275:SER:O	1:A:278:SER:OG	2.37	0.40
19:B:1204:CLA:H3A	19:B:1205:CLA:HMB3	2.02	0.40
19:B:1223:CLA:H13	22:B:4010:BCR:H15C	2.03	0.40
19:B:1226:CLA:H41	26:B:5002:DGD:HA92	2.04	0.40
3:1:194:ILE:HD12	3:1:194:ILE:HA	1.96	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:1:621:LUT:H31	28:1:621:LUT:H391	1.93	0.40
5:3:151:ILE:HG21	5:3:249:ALA:HB1	2.02	0.40
6:4:111:CYS:HB3	6:4:226:GLY:HA3	2.04	0.40
22:L:419:BCR:H11C	22:L:419:BCR:H341	1.95	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	740/742 (100%)	699 (94%)	38 (5%)	3 (0%)	34	66
2	B	730/732 (100%)	708 (97%)	22 (3%)	0	100	100
3	1	190/192 (99%)	182 (96%)	8 (4%)	0	100	100
4	2	201/203 (99%)	198 (98%)	3 (2%)	0	100	100
5	3	216/218 (99%)	206 (95%)	10 (5%)	0	100	100
6	4	201/203 (99%)	197 (98%)	4 (2%)	0	100	100
7	C	78/80 (98%)	74 (95%)	4 (5%)	0	100	100
8	D	140/142 (99%)	136 (97%)	4 (3%)	0	100	100
9	E	61/63 (97%)	56 (92%)	5 (8%)	0	100	100
10	F	158/160 (99%)	153 (97%)	5 (3%)	0	100	100
11	G	89/91 (98%)	88 (99%)	1 (1%)	0	100	100
12	H	85/87 (98%)	82 (96%)	3 (4%)	0	100	100
13	I	32/34 (94%)	31 (97%)	1 (3%)	0	100	100
14	J	39/41 (95%)	39 (100%)	0	0	100	100
15	K	79/81 (98%)	78 (99%)	1 (1%)	0	100	100
16	L	158/160 (99%)	149 (94%)	9 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	M	28/30 (93%)	28 (100%)	0	0	100	100
All	All	3225/3259 (99%)	3104 (96%)	118 (4%)	3 (0%)	54	81

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	506	ASN
1	A	505	PRO
1	A	284	ARG

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	603/603 (100%)	603 (100%)	0	100	100
2	B	595/595 (100%)	595 (100%)	0	100	100
3	1	148/148 (100%)	148 (100%)	0	100	100
4	2	160/160 (100%)	159 (99%)	1 (1%)	86	96
5	3	169/171 (99%)	169 (100%)	0	100	100
6	4	161/162 (99%)	160 (99%)	1 (1%)	86	96
7	C	67/67 (100%)	67 (100%)	0	100	100
8	D	114/115 (99%)	114 (100%)	0	100	100
9	E	55/55 (100%)	55 (100%)	0	100	100
10	F	130/131 (99%)	130 (100%)	0	100	100
11	G	72/72 (100%)	72 (100%)	0	100	100
12	H	66/68 (97%)	66 (100%)	0	100	100
13	I	30/30 (100%)	30 (100%)	0	100	100
14	J	35/35 (100%)	35 (100%)	0	100	100
15	K	57/58 (98%)	57 (100%)	0	100	100
16	L	116/118 (98%)	116 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	M	25/25 (100%)	25 (100%)	0	100	100
All	All	2603/2613 (100%)	2601 (100%)	2 (0%)	93	98

All (2) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	2	174	ASN
6	4	174	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
4	2	174	ASN
5	3	303	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

215 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
19	CLA	A	1136	-	65,73,73	1.48	6 (9%)	76,113,113	1.48	9 (11%)
19	CLA	A	1117	-	65,73,73	1.42	6 (9%)	76,113,113	1.68	14 (18%)
19	CLA	B	1228	-	49,57,73	1.67	6 (12%)	55,93,113	1.59	9 (16%)
19	CLA	B	1231	-	45,53,73	1.81	6 (13%)	52,89,113	1.63	9 (17%)
19	CLA	A	1108	-	45,53,73	1.68	7 (15%)	52,89,113	1.90	9 (17%)
22	BCR	B	4009	-	41,41,41	1.02	1 (2%)	56,56,56	1.53	10 (17%)
19	CLA	B	1225	-	65,73,73	1.43	7 (10%)	76,113,113	1.52	10 (13%)
27	CHL	3	608	-	47,55,74	2.15	13 (27%)	50,91,114	2.89	19 (38%)
28	LUT	2	621	-	42,43,43	2.30	1 (2%)	51,60,60	1.79	11 (21%)
24	LMG	J	301	-	49,49,55	0.81	0	57,57,63	1.27	4 (7%)
22	BCR	M	4021	-	41,41,41	1.00	2 (4%)	56,56,56	1.28	9 (16%)
19	CLA	B	1219	-	45,53,73	1.73	7 (15%)	52,89,113	1.88	10 (19%)
27	CHL	4	606	-	47,55,74	2.19	14 (29%)	50,91,114	2.89	19 (38%)
19	CLA	1	609	-	60,68,73	1.55	5 (8%)	70,107,113	1.65	9 (12%)
19	CLA	G	218	-	55,63,73	1.62	6 (10%)	64,101,113	1.42	7 (10%)
23	LHG	A	5003	-	30,30,48	0.77	1 (3%)	33,36,54	1.24	3 (9%)
19	CLA	1	602	-	60,68,73	1.49	7 (11%)	70,107,113	1.63	10 (14%)
19	CLA	1	608	-	50,58,73	1.66	6 (12%)	58,95,113	1.60	8 (13%)
28	LUT	2	620	-	42,43,43	2.37	1 (2%)	51,60,60	2.31	20 (39%)
19	CLA	B	1223	-	65,73,73	1.49	7 (10%)	76,113,113	1.55	9 (11%)
28	LUT	4	623	-	42,43,43	2.33	1 (2%)	51,60,60	1.92	10 (19%)
19	CLA	B	1023	-	61,69,73	1.47	8 (13%)	71,108,113	1.67	14 (19%)
19	CLA	2	613	-	65,73,73	1.48	6 (9%)	76,113,113	1.37	9 (11%)
19	CLA	A	1126	-	60,68,73	1.45	8 (13%)	70,107,113	1.96	16 (22%)
19	CLA	1	613	-	55,63,73	1.60	5 (9%)	64,101,113	1.46	8 (12%)
19	CLA	A	1801	-	50,58,73	1.67	7 (14%)	58,95,113	1.65	8 (13%)
19	CLA	B	1217	-	45,53,73	1.76	6 (13%)	52,89,113	1.51	7 (13%)
24	LMG	J	302	-	26,26,55	1.13	1 (3%)	34,34,63	1.15	4 (11%)
22	BCR	B	2004	-	41,41,41	1.06	2 (4%)	56,56,56	1.28	6 (10%)
19	CLA	A	1139	-	50,58,73	1.68	7 (14%)	58,95,113	1.60	7 (12%)
19	CLA	1	606	-	45,53,73	1.74	6 (13%)	52,89,113	1.75	10 (19%)
19	CLA	A	1134	-	45,53,73	1.72	6 (13%)	52,89,113	1.70	7 (13%)
19	CLA	4	601	-	50,58,73	1.70	6 (12%)	58,95,113	1.55	7 (12%)
22	BCR	1	623	-	25,25,41	1.03	2 (8%)	33,33,56	1.28	5 (15%)
23	LHG	3	630	-	33,33,48	0.74	0	36,39,54	1.27	4 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	1135	-	51,59,73	1.72	8 (15%)	59,96,113	1.53	10 (16%)
19	CLA	A	1022	-	65,73,73	1.50	8 (12%)	76,113,113	1.33	9 (11%)
24	LMG	A	5002	-	34,34,55	0.96	0	42,42,63	1.22	3 (7%)
19	CLA	2	603	-	46,54,73	1.71	6 (13%)	53,90,113	1.54	7 (13%)
19	CLA	B	1212	-	45,53,73	1.69	7 (15%)	52,89,113	1.80	8 (15%)
19	CLA	3	605	-	29,35,73	2.69	9 (31%)	28,60,113	1.77	7 (25%)
23	LHG	A	5001	-	48,48,48	0.66	1 (2%)	51,54,54	1.27	6 (11%)
19	CLA	A	1121	-	51,59,73	1.64	6 (11%)	59,96,113	1.67	9 (15%)
19	CLA	4	614	-	46,54,73	1.75	6 (13%)	53,90,113	1.55	8 (15%)
19	CLA	L	303	-	45,53,73	1.72	7 (15%)	52,89,113	1.82	8 (15%)
28	LUT	3	621	-	42,43,43	2.35	1 (2%)	51,60,60	2.09	11 (21%)
23	LHG	2	630	-	31,31,48	0.78	0	34,37,54	1.21	3 (8%)
19	CLA	3	602	-	60,68,73	1.51	6 (10%)	70,107,113	1.68	9 (12%)
19	CLA	A	1119	-	65,73,73	1.40	7 (10%)	76,113,113	1.57	11 (14%)
19	CLA	A	1137	-	45,53,73	1.82	6 (13%)	52,89,113	1.53	7 (13%)
28	LUT	2	623	-	42,43,43	2.44	1 (2%)	51,60,60	1.93	12 (23%)
19	CLA	4	604	-	50,58,73	1.64	5 (10%)	58,95,113	1.57	9 (15%)
19	CLA	A	1131	-	65,73,73	1.43	6 (9%)	76,113,113	1.34	9 (11%)
22	BCR	L	420	-	41,41,41	0.99	1 (2%)	56,56,56	1.47	10 (17%)
28	LUT	3	620	-	42,43,43	2.31	1 (2%)	51,60,60	1.75	6 (11%)
19	CLA	K	201	-	55,63,73	1.59	6 (10%)	64,101,113	1.47	6 (9%)
19	CLA	F	303	-	29,35,73	2.69	9 (31%)	28,60,113	1.74	6 (21%)
22	BCR	A	4007	-	41,41,41	1.12	1 (2%)	56,56,56	1.83	17 (30%)
19	CLA	3	613	-	55,63,73	1.62	6 (10%)	64,101,113	1.44	7 (10%)
22	BCR	B	4017	-	41,41,41	1.12	2 (4%)	56,56,56	1.25	5 (8%)
27	CHL	2	606	-	46,54,74	2.22	14 (30%)	49,90,114	2.91	18 (36%)
19	CLA	B	1221	-	54,62,73	1.61	7 (12%)	62,99,113	1.79	10 (16%)
27	CHL	2	608	-	48,56,74	2.11	13 (27%)	51,92,114	2.94	19 (37%)
27	CHL	2	611	-	56,64,74	2.02	14 (25%)	61,102,114	2.65	22 (36%)
19	CLA	A	1115	-	54,62,73	1.57	6 (11%)	62,99,113	1.56	12 (19%)
19	CLA	A	1114	-	45,53,73	1.72	6 (13%)	52,89,113	1.92	10 (19%)
19	CLA	A	1124	-	57,65,73	1.49	6 (10%)	66,103,113	1.48	7 (10%)
19	CLA	A	1132	-	65,73,73	1.39	7 (10%)	76,113,113	1.82	14 (18%)
28	LUT	1	620	-	42,43,43	2.62	2 (4%)	51,60,60	2.02	15 (29%)
19	CLA	A	1130	-	60,68,73	1.51	6 (10%)	70,107,113	1.49	13 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	B	1235	-	55,63,73	1.57	6 (10%)	64,101,113	1.48	7 (10%)
19	CLA	4	602	-	60,68,73	1.49	6 (10%)	70,107,113	1.55	7 (10%)
19	CLA	A	1118	-	55,63,73	1.66	6 (10%)	64,101,113	1.35	7 (10%)
19	CLA	B	1230	-	45,53,73	1.75	7 (15%)	52,89,113	1.53	9 (17%)
19	CLA	4	610	-	55,63,73	1.56	7 (12%)	64,101,113	1.72	9 (14%)
19	CLA	A	1113	-	45,53,73	1.76	5 (11%)	52,89,113	1.73	11 (21%)
19	CLA	1	604	-	50,58,73	1.66	6 (12%)	58,95,113	1.69	10 (17%)
23	LHG	1	630	-	36,36,48	0.68	0	39,42,54	1.23	4 (10%)
28	LUT	4	620	-	42,43,43	2.42	2 (4%)	51,60,60	2.05	10 (19%)
19	CLA	K	203	-	29,35,73	2.69	9 (31%)	28,60,113	1.72	6 (21%)
19	CLA	B	1236	-	47,55,73	1.70	6 (12%)	54,91,113	1.60	9 (16%)
19	CLA	3	617	-	46,54,73	1.73	6 (13%)	53,90,113	1.49	8 (15%)
19	CLA	4	613	-	55,63,73	1.60	6 (10%)	64,101,113	1.48	7 (10%)
19	CLA	F	301	-	45,53,73	1.74	6 (13%)	52,89,113	1.64	6 (11%)
19	CLA	A	1140	-	51,59,73	1.74	7 (13%)	59,96,113	1.54	10 (16%)
28	LUT	1	621	-	42,43,43	2.56	2 (4%)	51,60,60	1.93	10 (19%)
19	CLA	B	1213	-	55,63,73	1.50	7 (12%)	64,101,113	1.65	10 (15%)
21	SF4	A	3001	2,1	0,12,12	-	-	-	-	-
27	CHL	4	615	-	43,51,74	2.22	13 (30%)	45,86,114	3.03	18 (40%)
19	CLA	4	612	-	46,54,73	1.77	5 (10%)	53,90,113	1.45	8 (15%)
19	CLA	A	1105	-	50,58,73	1.62	6 (12%)	58,95,113	1.85	9 (15%)
22	BCR	A	4002	-	41,41,41	1.07	2 (4%)	56,56,56	1.19	5 (8%)
23	LHG	B	5101	-	34,34,48	0.74	1 (2%)	37,40,54	1.27	4 (10%)
19	CLA	4	609	-	55,63,73	1.55	6 (10%)	64,101,113	1.84	10 (15%)
19	CLA	1	615	-	46,54,73	1.78	6 (13%)	53,90,113	1.59	7 (13%)
19	CLA	B	1021	-	65,73,73	1.43	8 (12%)	76,113,113	1.41	10 (13%)
19	CLA	3	607	-	60,68,73	1.53	5 (8%)	70,107,113	1.38	7 (10%)
22	BCR	A	4001	-	41,41,41	1.05	2 (4%)	56,56,56	1.35	7 (12%)
19	CLA	2	604	-	50,58,73	1.68	6 (12%)	58,95,113	1.53	8 (13%)
19	CLA	A	1102	-	45,53,73	1.76	6 (13%)	52,89,113	1.57	9 (17%)
19	CLA	B	1211	-	56,64,73	1.55	6 (10%)	65,102,113	1.64	10 (15%)
22	BCR	J	212	-	41,41,41	1.09	2 (4%)	56,56,56	1.27	6 (10%)
19	CLA	B	1202	-	65,73,73	1.42	7 (10%)	76,113,113	1.63	9 (11%)
19	CLA	A	8895	-	65,73,73	1.48	7 (10%)	76,113,113	1.54	6 (7%)
19	CLA	1	603	-	55,63,73	1.58	6 (10%)	64,101,113	1.45	12 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	2	614	-	50,58,73	1.66	6 (12%)	58,95,113	1.64	9 (15%)
22	BCR	B	4010	-	41,41,41	1.11	1 (2%)	56,56,56	1.69	13 (23%)
19	CLA	A	1116	-	54,62,73	1.63	7 (12%)	62,99,113	1.47	9 (14%)
22	BCR	A	4011	-	41,41,41	1.04	2 (4%)	56,56,56	1.20	6 (10%)
27	CHL	1	601	-	56,64,74	1.97	13 (23%)	61,102,114	2.82	22 (36%)
19	CLA	1	614	-	46,54,73	1.74	6 (13%)	53,90,113	1.68	9 (16%)
22	BCR	G	311	-	41,41,41	0.99	1 (2%)	56,56,56	1.34	9 (16%)
25	LMT	B	5001	-	32,32,36	1.27	6 (18%)	43,43,47	0.95	0
19	CLA	B	1210	-	65,73,73	1.45	7 (10%)	76,113,113	1.67	10 (13%)
19	CLA	B	1237	-	65,73,73	1.55	8 (12%)	76,113,113	1.39	10 (13%)
22	BCR	B	4014	-	41,41,41	1.05	2 (4%)	56,56,56	1.39	8 (14%)
19	CLA	K	202	-	46,54,73	1.74	6 (13%)	53,90,113	1.56	7 (13%)
27	CHL	2	615	-	47,55,74	2.20	13 (27%)	50,91,114	2.87	19 (38%)
19	CLA	2	609	-	55,63,73	1.59	6 (10%)	64,101,113	1.78	9 (14%)
19	CLA	B	1209	-	45,53,73	1.82	6 (13%)	52,89,113	1.67	8 (15%)
27	CHL	4	607	-	47,55,74	2.21	13 (27%)	50,91,114	2.87	18 (36%)
22	BCR	I	120	-	41,41,41	1.06	2 (4%)	56,56,56	1.74	13 (23%)
18	CL0	A	1011	-	65,73,73	1.45	8 (12%)	76,113,113	1.41	7 (9%)
19	CLA	A	1013	-	56,64,73	1.49	8 (14%)	65,102,113	1.94	13 (20%)
19	CLA	B	1206	-	47,55,73	1.70	6 (12%)	54,91,113	1.68	7 (12%)
19	CLA	A	1128	-	65,73,73	1.57	7 (10%)	76,113,113	1.56	12 (15%)
22	BCR	I	118	-	41,41,41	1.04	2 (4%)	56,56,56	1.28	8 (14%)
22	BCR	K	301	-	41,41,41	1.03	1 (2%)	56,56,56	1.29	5 (8%)
25	LMT	A	5004	-	34,34,36	1.23	5 (14%)	45,45,47	1.03	1 (2%)
21	SF4	C	1002	7	0,12,12	-	-	-	-	-
19	CLA	A	1103	-	65,73,73	1.51	7 (10%)	76,113,113	1.32	7 (9%)
19	CLA	A	1138	-	60,68,73	1.50	6 (10%)	70,107,113	1.58	10 (14%)
27	CHL	2	602	-	56,64,74	2.04	14 (25%)	61,102,114	2.67	22 (36%)
19	CLA	1	611	-	46,54,73	1.77	6 (13%)	53,90,113	1.41	8 (15%)
19	CLA	A	1106	-	55,63,73	1.54	7 (12%)	64,101,113	1.76	7 (10%)
19	CLA	A	1112	-	45,53,73	1.77	7 (15%)	52,89,113	1.50	10 (19%)
19	CLA	L	302	-	60,68,73	1.53	6 (10%)	70,107,113	1.38	9 (12%)
19	CLA	L	301	-	50,58,73	1.69	6 (12%)	58,95,113	1.78	12 (20%)
19	CLA	B	1226	-	55,63,73	1.62	7 (12%)	64,101,113	1.97	10 (15%)
27	CHL	1	607	-	47,55,74	2.23	14 (29%)	50,91,114	2.97	21 (42%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
24	LMG	2	631	-	36,36,55	0.94	0	44,44,63	1.20	4 (9%)
19	CLA	A	1111	-	65,73,73	1.48	7 (10%)	76,113,113	1.50	8 (10%)
19	CLA	B	1234	-	51,59,73	1.62	7 (13%)	59,96,113	1.63	9 (15%)
19	CLA	3	611	-	41,49,73	1.86	6 (14%)	47,84,113	1.53	6 (12%)
19	CLA	A	1122	-	60,68,73	1.52	7 (11%)	70,107,113	1.50	8 (11%)
19	CLA	H	200	-	45,53,73	1.78	5 (11%)	52,89,113	1.53	9 (17%)
19	CLA	A	1107	-	45,53,73	1.79	6 (13%)	52,89,113	1.66	8 (15%)
19	CLA	3	614	-	48,56,73	1.72	5 (10%)	55,92,113	1.67	9 (16%)
19	CLA	3	603	-	55,63,73	1.65	7 (12%)	64,101,113	1.49	8 (12%)
19	CLA	A	1104	-	65,73,73	1.46	7 (10%)	76,113,113	1.38	10 (13%)
21	SF4	C	1003	7	0,12,12	-	-	-	-	-
28	LUT	4	621	-	42,43,43	2.41	2 (4%)	51,60,60	2.81	15 (29%)
19	CLA	B	1239	-	45,53,73	1.75	6 (13%)	52,89,113	1.66	8 (15%)
19	CLA	B	1240	-	65,73,73	1.49	7 (10%)	76,113,113	1.50	10 (13%)
19	CLA	1	610	-	55,63,73	1.60	7 (12%)	64,101,113	1.82	11 (17%)
27	CHL	2	607	-	47,55,74	2.20	13 (27%)	50,91,114	2.90	20 (40%)
19	CLA	F	302	-	46,54,73	1.75	6 (13%)	53,90,113	1.53	8 (15%)
19	CLA	A	1133	-	45,53,73	1.85	7 (15%)	52,89,113	1.36	6 (11%)
19	CLA	B	1215	-	60,68,73	1.49	7 (11%)	70,107,113	1.85	13 (18%)
25	LMT	G	402	-	32,32,36	1.27	5 (15%)	43,43,47	0.90	0
22	BCR	L	419	-	41,41,41	1.00	1 (2%)	56,56,56	1.55	13 (23%)
23	LHG	4	630	-	37,37,48	0.83	2 (5%)	40,43,54	1.23	3 (7%)
27	CHL	2	601	-	66,74,74	1.85	13 (19%)	73,114,114	2.56	22 (30%)
26	DGD	B	5002	-	62,62,67	0.98	3 (4%)	76,76,81	1.27	8 (10%)
22	BCR	F	416	-	41,41,41	1.03	1 (2%)	56,56,56	1.34	10 (17%)
25	LMT	1	631	-	36,36,36	1.18	5 (13%)	47,47,47	0.96	2 (4%)
19	CLA	4	603	-	55,63,73	1.57	6 (10%)	64,101,113	1.46	9 (14%)
19	CLA	4	611	-	55,63,73	1.60	6 (10%)	64,101,113	1.57	10 (15%)
22	BCR	J	213	-	41,41,41	1.04	2 (4%)	56,56,56	1.34	7 (12%)
22	BCR	3	623	-	41,41,41	1.05	2 (4%)	56,56,56	1.23	7 (12%)
19	CLA	3	609	-	60,68,73	1.51	6 (10%)	70,107,113	1.44	8 (11%)
19	CLA	A	1110	-	55,63,73	1.61	6 (10%)	64,101,113	1.59	9 (14%)
19	CLA	A	1127	-	65,73,73	1.44	7 (10%)	76,113,113	1.75	11 (14%)
19	CLA	2	612	-	52,60,73	1.66	6 (11%)	60,97,113	1.54	9 (15%)
19	CLA	G	202	-	46,54,73	1.73	5 (10%)	53,90,113	1.50	6 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
25	LMT	G	401	-	36,36,36	1.18	5 (13%)	47,47,47	1.03	1 (2%)
25	LMT	4	631	-	36,36,36	1.21	5 (13%)	47,47,47	0.94	0
19	CLA	3	606	-	46,54,73	1.76	7 (15%)	53,90,113	1.46	6 (11%)
19	CLA	1	612	-	46,54,73	1.75	5 (10%)	53,90,113	1.45	9 (16%)
19	CLA	B	1203	-	65,73,73	1.42	7 (10%)	76,113,113	1.47	10 (13%)
22	BCR	A	4008	-	41,41,41	1.04	1 (2%)	56,56,56	1.81	14 (25%)
19	CLA	A	1120	-	45,53,73	1.72	6 (13%)	52,89,113	1.57	6 (11%)
19	CLA	A	1101	-	50,58,73	1.66	7 (14%)	58,95,113	1.59	9 (15%)
19	CLA	A	1109	-	65,73,73	1.44	7 (10%)	76,113,113	1.40	9 (11%)
22	BCR	3	624	-	41,41,41	0.99	2 (4%)	56,56,56	1.33	9 (16%)
19	CLA	B	1229	-	55,63,73	1.67	7 (12%)	64,101,113	1.45	7 (10%)
20	PQN	A	2001	-	34,34,34	0.40	0	42,45,45	1.04	1 (2%)
22	BCR	B	4005	-	41,41,41	1.04	2 (4%)	56,56,56	1.19	5 (8%)
19	CLA	A	1125	-	60,68,73	1.54	8 (13%)	70,107,113	1.92	13 (18%)
19	CLA	B	1222	-	46,54,73	1.69	6 (13%)	53,90,113	1.81	10 (18%)
19	CLA	B	1232	-	45,53,73	1.82	6 (13%)	52,89,113	1.95	11 (21%)
19	CLA	B	1012	-	55,63,73	1.62	7 (12%)	64,101,113	1.63	10 (15%)
19	CLA	B	1205	-	65,73,73	1.45	7 (10%)	76,113,113	1.53	11 (14%)
19	CLA	B	1224	-	61,69,73	1.51	8 (13%)	71,108,113	1.65	12 (16%)
19	CLA	I	121	-	65,73,73	1.43	7 (10%)	76,113,113	1.48	9 (11%)
20	PQN	B	2002	-	34,34,34	0.41	0	42,45,45	1.07	1 (2%)
19	CLA	B	1216	-	55,63,73	1.51	7 (12%)	64,101,113	1.76	12 (18%)
19	CLA	K	204	-	45,53,73	1.79	7 (15%)	52,89,113	1.66	11 (21%)
19	CLA	B	1204	-	61,69,73	1.48	5 (8%)	71,108,113	1.32	8 (11%)
19	CLA	B	1214	-	59,67,73	1.60	9 (15%)	68,105,113	1.59	11 (16%)
19	CLA	3	610	-	55,63,73	1.59	6 (10%)	64,101,113	1.43	8 (12%)
22	BCR	A	4003	-	41,41,41	1.02	1 (2%)	56,56,56	1.34	8 (14%)
27	CHL	4	608	-	51,59,74	2.10	14 (27%)	55,96,114	2.73	21 (38%)
22	BCR	B	4006	-	41,41,41	1.05	2 (4%)	56,56,56	1.20	6 (10%)
19	CLA	B	1201	-	50,58,73	1.67	6 (12%)	58,95,113	1.59	13 (22%)
19	CLA	G	201	-	50,58,73	1.70	6 (12%)	58,95,113	1.50	9 (15%)
19	CLA	B	1208	-	45,53,73	1.73	6 (13%)	52,89,113	1.69	11 (21%)
19	CLA	B	1227	-	45,53,73	1.78	8 (17%)	52,89,113	1.87	13 (25%)
19	CLA	3	604	-	50,58,73	1.70	6 (12%)	58,95,113	1.63	10 (17%)
19	CLA	J	102	-	45,53,73	1.78	6 (13%)	52,89,113	1.66	8 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	5005	-	50,58,73	1.65	6 (12%)	58,95,113	1.53	10 (17%)
19	CLA	3	612	-	45,53,73	1.79	5 (11%)	52,89,113	1.52	8 (15%)
19	CLA	B	1238	-	65,73,73	1.46	6 (9%)	76,113,113	1.40	10 (13%)
19	CLA	B	1220	-	45,53,73	1.72	7 (15%)	52,89,113	1.61	7 (13%)
19	CLA	2	610	-	60,68,73	1.51	6 (10%)	70,107,113	1.27	6 (8%)

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
19	CLA	A	1136	-	1/1/15/20	10/37/115/115	-
19	CLA	A	1117	-	1/1/15/20	12/37/115/115	-
19	CLA	B	1228	-	1/1/11/20	7/18/96/115	-
19	CLA	B	1231	-	-	6/13/91/115	-
19	CLA	A	1108	-	1/1/11/20	5/13/91/115	-
22	BCR	B	4009	-	-	3/29/63/63	0/2/2/2
19	CLA	B	1225	-	-	14/37/115/115	-
27	CHL	3	608	-	3/3/16/26	5/17/115/137	-
28	LUT	2	621	-	-	2/29/67/67	0/2/2/2
24	LMG	J	301	-	-	15/44/64/70	0/1/1/1
22	BCR	M	4021	-	-	7/29/63/63	0/2/2/2
19	CLA	B	1219	-	-	3/13/91/115	-
27	CHL	4	606	-	3/3/16/26	8/17/115/137	-
19	CLA	1	609	-	1/1/14/20	8/31/109/115	-
19	CLA	G	218	-	-	6/25/103/115	-
23	LHG	A	5003	-	-	13/35/35/53	-
19	CLA	1	602	-	1/1/14/20	2/31/109/115	-
19	CLA	1	608	-	1/1/12/20	3/19/97/115	-
28	LUT	2	620	-	-	7/29/67/67	0/2/2/2
19	CLA	B	1223	-	1/1/15/20	7/37/115/115	-
28	LUT	4	623	-	1/1/12/27	12/29/67/67	0/2/2/2
19	CLA	B	1023	-	-	8/33/111/115	-
19	CLA	2	613	-	1/1/15/20	13/37/115/115	-
19	CLA	A	1126	-	-	13/31/109/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	1	613	-	1/1/13/20	9/25/103/115	-
19	CLA	A	1801	-	1/1/12/20	8/19/97/115	-
19	CLA	B	1217	-	-	5/13/91/115	-
24	LMG	J	302	-	-	5/21/41/70	0/1/1/1
22	BCR	B	2004	-	-	14/29/63/63	0/2/2/2
19	CLA	A	1139	-	1/1/12/20	6/19/97/115	-
19	CLA	1	606	-	1/1/11/20	6/13/91/115	-
19	CLA	4	601	-	1/1/12/20	9/19/97/115	-
19	CLA	A	1134	-	-	7/13/91/115	-
22	BCR	1	623	-	-	5/18/35/63	0/1/1/2
23	LHG	3	630	-	-	12/38/38/53	-
19	CLA	A	1135	-	-	8/21/99/115	-
19	CLA	A	1022	-	1/1/15/20	9/37/115/115	-
24	LMG	A	5002	-	-	13/29/49/70	0/1/1/1
19	CLA	2	603	-	1/1/11/20	6/15/93/115	-
19	CLA	3	605	-	1/1/5/20	-	-
19	CLA	B	1212	-	-	1/13/91/115	-
23	LHG	A	5001	-	-	20/53/53/53	-
19	CLA	A	1121	-	1/1/12/20	7/21/99/115	-
19	CLA	4	614	-	1/1/11/20	7/15/93/115	-
19	CLA	L	303	-	1/1/11/20	7/13/91/115	-
28	LUT	3	621	-	-	8/29/67/67	0/2/2/2
23	LHG	2	630	-	-	10/36/36/53	-
19	CLA	3	602	-	1/1/14/20	6/31/109/115	-
19	CLA	A	1119	-	1/1/15/20	10/37/115/115	-
19	CLA	A	1137	-	1/1/11/20	7/13/91/115	-
28	LUT	2	623	-	1/1/12/27	9/29/67/67	0/2/2/2
19	CLA	4	604	-	1/1/12/20	6/19/97/115	-
19	CLA	A	1131	-	1/1/15/20	4/37/115/115	-
22	BCR	L	420	-	-	7/29/63/63	0/2/2/2
28	LUT	3	620	-	-	2/29/67/67	0/2/2/2
19	CLA	K	201	-	1/1/13/20	7/25/103/115	-
19	CLA	F	303	-	1/1/5/20	-	-
22	BCR	A	4007	-	-	8/29/63/63	0/2/2/2
19	CLA	3	613	-	1/1/13/20	10/25/103/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	CHL	2	606	-	3/3/16/26	7/15/113/137	-
27	CHL	2	608	-	3/3/16/26	9/18/116/137	-
19	CLA	B	1221	-	-	3/24/102/115	-
27	CHL	2	611	-	3/3/18/26	8/27/125/137	-
22	BCR	B	4017	-	-	17/29/63/63	0/2/2/2
19	CLA	A	1115	-	-	5/24/102/115	-
19	CLA	A	1114	-	1/1/11/20	6/13/91/115	-
19	CLA	A	1132	-	1/1/15/20	9/37/115/115	-
19	CLA	A	1124	-	-	11/28/106/115	-
28	LUT	1	620	-	-	5/29/67/67	0/2/2/2
19	CLA	B	1235	-	1/1/13/20	8/25/103/115	-
19	CLA	A	1130	-	-	8/31/109/115	-
19	CLA	4	602	-	1/1/14/20	2/31/109/115	-
19	CLA	A	1118	-	-	15/25/103/115	-
19	CLA	B	1230	-	1/1/11/20	7/13/91/115	-
19	CLA	4	610	-	1/1/13/20	6/25/103/115	-
19	CLA	1	604	-	1/1/12/20	4/19/97/115	-
19	CLA	A	1113	-	-	6/13/91/115	-
23	LHG	1	630	-	-	15/41/41/53	-
28	LUT	4	620	-	-	9/29/67/67	0/2/2/2
19	CLA	K	203	-	1/1/5/20	-	-
19	CLA	B	1236	-	-	3/16/94/115	-
19	CLA	3	617	-	1/1/11/20	7/15/93/115	-
19	CLA	4	613	-	1/1/13/20	9/25/103/115	-
19	CLA	F	301	-	1/1/11/20	3/13/91/115	-
19	CLA	A	1140	-	-	7/21/99/115	-
28	LUT	1	621	-	-	5/29/67/67	0/2/2/2
19	CLA	B	1213	-	-	7/25/103/115	-
27	CHL	4	615	-	3/3/15/26	2/12/110/137	-
21	SF4	A	3001	2,1	-	-	0/6/5/5
19	CLA	4	612	-	1/1/11/20	6/15/93/115	-
19	CLA	A	1105	-	1/1/12/20	1/19/97/115	-
22	BCR	A	4002	-	-	9/29/63/63	0/2/2/2
23	LHG	B	5101	-	-	9/39/39/53	-
19	CLA	4	609	-	1/1/13/20	9/25/103/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	1	615	-	1/1/11/20	8/15/93/115	-
19	CLA	B	1021	-	1/1/15/20	16/37/115/115	-
19	CLA	3	607	-	1/1/14/20	18/31/109/115	-
22	BCR	A	4001	-	-	15/29/63/63	0/2/2/2
19	CLA	2	604	-	1/1/12/20	4/19/97/115	-
19	CLA	A	1102	-	-	5/13/91/115	-
19	CLA	B	1211	-	1/1/13/20	13/27/105/115	-
22	BCR	J	212	-	-	14/29/63/63	0/2/2/2
19	CLA	B	1202	-	1/1/15/20	12/37/115/115	-
19	CLA	1	603	-	1/1/13/20	15/25/103/115	-
19	CLA	2	614	-	1/1/12/20	4/19/97/115	-
19	CLA	A	8895	-	-	10/37/115/115	-
22	BCR	B	4010	-	-	7/29/63/63	0/2/2/2
19	CLA	A	1116	-	1/1/12/20	7/24/102/115	-
22	BCR	A	4011	-	-	19/29/63/63	0/2/2/2
27	CHL	1	601	-	3/3/18/26	11/27/125/137	-
19	CLA	1	614	-	1/1/11/20	7/15/93/115	-
22	BCR	G	311	-	-	8/29/63/63	0/2/2/2
25	LMT	B	5001	-	-	5/17/57/61	0/2/2/2
19	CLA	B	1210	-	1/1/15/20	23/37/115/115	-
19	CLA	B	1237	-	1/1/15/20	11/37/115/115	-
22	BCR	B	4014	-	-	19/29/63/63	0/2/2/2
19	CLA	K	202	-	1/1/11/20	9/15/93/115	-
27	CHL	2	615	-	3/3/16/26	11/17/115/137	-
19	CLA	2	609	-	1/1/13/20	2/25/103/115	-
19	CLA	B	1209	-	-	4/13/91/115	-
27	CHL	4	607	-	3/3/16/26	7/17/115/137	-
22	BCR	I	120	-	-	14/29/63/63	0/2/2/2
18	CL0	A	1011	-	2/2/20/25	7/37/135/135	-
19	CLA	A	1013	-	-	3/27/105/115	-
19	CLA	B	1206	-	-	7/16/94/115	-
19	CLA	A	1128	-	-	12/37/115/115	-
22	BCR	I	118	-	-	12/29/63/63	0/2/2/2
22	BCR	K	301	-	-	14/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	LMT	A	5004	-	-	7/19/59/61	0/2/2/2
21	SF4	C	1002	7	-	-	0/6/5/5
19	CLA	A	1103	-	1/1/15/20	16/37/115/115	-
19	CLA	A	1138	-	1/1/14/20	8/31/109/115	-
27	CHL	2	602	-	3/3/18/26	14/27/125/137	-
19	CLA	1	611	-	-	6/15/93/115	-
19	CLA	A	1106	-	1/1/13/20	7/25/103/115	-
19	CLA	A	1112	-	-	4/13/91/115	-
19	CLA	L	302	-	-	12/31/109/115	-
19	CLA	L	301	-	-	8/19/97/115	-
19	CLA	B	1226	-	1/1/13/20	8/25/103/115	-
27	CHL	1	607	-	3/3/16/26	9/17/115/137	-
24	LMG	2	631	-	-	6/31/51/70	0/1/1/1
19	CLA	A	1111	-	-	15/37/115/115	-
19	CLA	B	1234	-	1/1/12/20	5/21/99/115	-
19	CLA	3	611	-	1/1/10/20	4/8/86/115	-
19	CLA	A	1122	-	1/1/14/20	13/31/109/115	-
19	CLA	H	200	-	1/1/11/20	6/13/91/115	-
19	CLA	A	1107	-	-	7/13/91/115	-
19	CLA	3	614	-	1/1/11/20	8/17/95/115	-
19	CLA	3	603	-	-	11/25/103/115	-
19	CLA	A	1104	-	-	16/37/115/115	-
28	LUT	4	621	-	-	4/29/67/67	0/2/2/2
21	SF4	C	1003	7	-	-	0/6/5/5
19	CLA	B	1239	-	-	5/13/91/115	-
19	CLA	B	1240	-	1/1/15/20	13/37/115/115	-
19	CLA	1	610	-	1/1/13/20	6/25/103/115	-
27	CHL	2	607	-	3/3/16/26	8/17/115/137	-
19	CLA	F	302	-	1/1/11/20	4/15/93/115	-
19	CLA	A	1133	-	-	7/13/91/115	-
19	CLA	B	1215	-	1/1/14/20	11/31/109/115	-
25	LMT	G	402	-	-	6/17/57/61	0/2/2/2
22	BCR	L	419	-	-	5/29/63/63	0/2/2/2
27	CHL	2	601	-	3/3/20/26	22/39/137/137	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	LHG	4	630	-	-	17/42/42/53	-
26	DGD	B	5002	-	-	18/50/90/95	0/2/2/2
22	BCR	F	416	-	-	17/29/63/63	0/2/2/2
25	LMT	1	631	-	-	8/21/61/61	0/2/2/2
19	CLA	4	603	-	1/1/13/20	12/25/103/115	-
19	CLA	4	611	-	-	7/25/103/115	-
22	BCR	J	213	-	-	8/29/63/63	0/2/2/2
22	BCR	3	623	-	-	14/29/63/63	0/2/2/2
19	CLA	3	609	-	1/1/14/20	11/31/109/115	-
19	CLA	A	1110	-	1/1/13/20	8/25/103/115	-
19	CLA	2	612	-	1/1/12/20	5/22/100/115	-
19	CLA	G	202	-	1/1/11/20	8/15/93/115	-
19	CLA	A	1127	-	-	20/37/115/115	-
25	LMT	G	401	-	-	5/21/61/61	0/2/2/2
25	LMT	4	631	-	-	4/21/61/61	0/2/2/2
19	CLA	3	606	-	1/1/11/20	8/15/93/115	-
19	CLA	1	612	-	1/1/11/20	6/15/93/115	-
19	CLA	B	1203	-	1/1/15/20	13/37/115/115	-
22	BCR	A	4008	-	-	11/29/63/63	0/2/2/2
19	CLA	A	1120	-	-	3/13/91/115	-
19	CLA	A	1101	-	1/1/12/20	9/19/97/115	-
19	CLA	A	1109	-	1/1/15/20	10/37/115/115	-
22	BCR	3	624	-	-	16/29/63/63	0/2/2/2
19	CLA	B	1229	-	1/1/13/20	9/25/103/115	-
20	PQN	A	2001	-	-	6/23/43/43	0/2/2/2
22	BCR	B	4005	-	-	8/29/63/63	0/2/2/2
19	CLA	A	1125	-	1/1/14/20	16/31/109/115	-
19	CLA	B	1222	-	1/1/11/20	6/15/93/115	-
19	CLA	B	1232	-	1/1/11/20	4/13/91/115	-
19	CLA	B	1012	-	1/1/13/20	15/25/103/115	-
19	CLA	B	1205	-	1/1/15/20	10/37/115/115	-
19	CLA	B	1224	-	1/1/14/20	11/33/111/115	-
19	CLA	I	121	-	-	13/37/115/115	-
20	PQN	B	2002	-	-	8/23/43/43	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	B	1216	-	1/1/13/20	7/25/103/115	-
19	CLA	K	204	-	1/1/11/20	6/13/91/115	-
19	CLA	B	1204	-	1/1/14/20	8/33/111/115	-
19	CLA	3	610	-	1/1/13/20	8/25/103/115	-
19	CLA	B	1214	-	-	9/30/108/115	-
22	BCR	A	4003	-	-	15/29/63/63	0/2/2/2
27	CHL	4	608	-	3/3/17/26	8/21/119/137	-
22	BCR	B	4006	-	-	12/29/63/63	0/2/2/2
19	CLA	B	1201	-	1/1/12/20	9/19/97/115	-
19	CLA	G	201	-	1/1/12/20	6/19/97/115	-
19	CLA	B	1208	-	1/1/11/20	2/13/91/115	-
19	CLA	B	1227	-	-	2/13/91/115	-
19	CLA	3	604	-	1/1/12/20	6/19/97/115	-
19	CLA	J	102	-	1/1/11/20	10/13/91/115	-
19	CLA	3	612	-	1/1/11/20	4/13/91/115	-
19	CLA	A	5005	-	-	4/19/97/115	-
19	CLA	B	1238	-	1/1/15/20	15/37/115/115	-
19	CLA	B	1220	-	1/1/11/20	6/13/91/115	-
19	CLA	2	610	-	1/1/14/20	9/31/109/115	-

All (1204) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	1	620	LUT	C24-C25	15.99	1.53	1.33
28	1	621	LUT	C24-C25	15.52	1.52	1.33
28	2	623	LUT	C24-C25	15.07	1.51	1.33
28	4	620	LUT	C24-C25	14.76	1.51	1.33
28	2	620	LUT	C24-C25	14.53	1.51	1.33
28	3	621	LUT	C24-C25	14.42	1.51	1.33
28	4	621	LUT	C24-C25	14.25	1.50	1.33
28	4	623	LUT	C24-C25	14.17	1.50	1.33
28	3	620	LUT	C24-C25	14.14	1.50	1.33
28	2	621	LUT	C24-C25	14.08	1.50	1.33
19	A	1118	CLA	C4B-NB	8.25	1.42	1.35
19	A	1128	CLA	C4B-NB	8.02	1.42	1.35
19	B	1237	CLA	C4B-NB	8.02	1.42	1.35
19	A	1133	CLA	C4B-NB	7.96	1.42	1.35
19	A	1137	CLA	C4B-NB	7.91	1.42	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	B	1209	CLA	C4B-NB	7.88	1.42	1.35
19	B	1229	CLA	C4B-NB	7.82	1.42	1.35
19	A	1140	CLA	C4B-NB	7.79	1.42	1.35
19	1	615	CLA	C4B-NB	7.71	1.42	1.35
19	4	612	CLA	C4B-NB	7.65	1.42	1.35
19	3	611	CLA	C4B-NB	7.64	1.42	1.35
19	3	603	CLA	C4B-NB	7.63	1.42	1.35
19	B	1232	CLA	C4B-NB	7.63	1.42	1.35
19	K	203	CLA	C4B-NB	7.57	1.42	1.35
19	A	1103	CLA	C4B-NB	7.55	1.41	1.35
19	1	611	CLA	C4B-NB	7.54	1.41	1.35
19	G	201	CLA	C4B-NB	7.54	1.41	1.35
19	F	303	CLA	C4B-NB	7.53	1.41	1.35
19	K	204	CLA	C4B-NB	7.49	1.41	1.35
19	3	613	CLA	C4B-NB	7.49	1.41	1.35
19	3	612	CLA	C4B-NB	7.47	1.41	1.35
19	3	605	CLA	C4B-NB	7.47	1.41	1.35
19	A	1135	CLA	C4B-NB	7.47	1.41	1.35
19	B	1214	CLA	C4B-NB	7.42	1.41	1.35
19	B	1223	CLA	C4B-NB	7.42	1.41	1.35
19	1	609	CLA	C4B-NB	7.41	1.41	1.35
19	A	1107	CLA	C4B-NB	7.41	1.41	1.35
19	B	1231	CLA	C4B-NB	7.41	1.41	1.35
19	3	604	CLA	C4B-NB	7.41	1.41	1.35
19	1	612	CLA	C4B-NB	7.40	1.41	1.35
19	L	302	CLA	C4B-NB	7.40	1.41	1.35
19	B	1217	CLA	C4B-NB	7.40	1.41	1.35
19	J	102	CLA	C4B-NB	7.40	1.41	1.35
19	3	614	CLA	C4B-NB	7.39	1.41	1.35
19	A	1139	CLA	C4B-NB	7.39	1.41	1.35
19	3	606	CLA	C4B-NB	7.39	1.41	1.35
19	4	614	CLA	C4B-NB	7.38	1.41	1.35
19	2	612	CLA	C4B-NB	7.38	1.41	1.35
19	F	302	CLA	C4B-NB	7.37	1.41	1.35
19	4	601	CLA	C4B-NB	7.37	1.41	1.35
19	G	218	CLA	C4B-NB	7.37	1.41	1.35
19	A	1136	CLA	C4B-NB	7.35	1.41	1.35
19	3	610	CLA	C4B-NB	7.34	1.41	1.35
19	2	613	CLA	C4B-NB	7.34	1.41	1.35
19	2	604	CLA	C4B-NB	7.33	1.41	1.35
19	4	613	CLA	C4B-NB	7.33	1.41	1.35
19	K	202	CLA	C4B-NB	7.33	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1102	CLA	C4B-NB	7.32	1.41	1.35
19	1	613	CLA	C4B-NB	7.32	1.41	1.35
19	4	611	CLA	C4B-NB	7.32	1.41	1.35
19	3	607	CLA	C4B-NB	7.31	1.41	1.35
19	L	301	CLA	C4B-NB	7.31	1.41	1.35
19	A	1022	CLA	C4B-NB	7.31	1.41	1.35
19	1	610	CLA	C4B-NB	7.29	1.41	1.35
19	H	200	CLA	C4B-NB	7.28	1.41	1.35
19	1	614	CLA	C4B-NB	7.27	1.41	1.35
19	A	1116	CLA	C4B-NB	7.27	1.41	1.35
19	B	1228	CLA	C4B-NB	7.26	1.41	1.35
19	B	1240	CLA	C4B-NB	7.25	1.41	1.35
19	A	1801	CLA	C4B-NB	7.23	1.41	1.35
19	B	1236	CLA	C4B-NB	7.23	1.41	1.35
19	3	617	CLA	C4B-NB	7.22	1.41	1.35
19	A	8895	CLA	C4B-NB	7.22	1.41	1.35
19	B	1206	CLA	C4B-NB	7.21	1.41	1.35
19	2	614	CLA	C4B-NB	7.21	1.41	1.35
19	2	609	CLA	C4B-NB	7.19	1.41	1.35
19	A	1112	CLA	C4B-NB	7.18	1.41	1.35
19	A	1110	CLA	C4B-NB	7.17	1.41	1.35
19	B	1201	CLA	C4B-NB	7.17	1.41	1.35
19	A	1113	CLA	C4B-NB	7.17	1.41	1.35
19	B	1012	CLA	C4B-NB	7.16	1.41	1.35
19	G	202	CLA	C4B-NB	7.16	1.41	1.35
19	A	1125	CLA	C4B-NB	7.15	1.41	1.35
19	B	1221	CLA	C4B-NB	7.15	1.41	1.35
19	A	1101	CLA	C4B-NB	7.15	1.41	1.35
19	1	604	CLA	C4B-NB	7.14	1.41	1.35
19	A	1122	CLA	C4B-NB	7.13	1.41	1.35
19	A	1130	CLA	C4B-NB	7.11	1.41	1.35
19	B	1230	CLA	C4B-NB	7.10	1.41	1.35
19	B	1227	CLA	C4B-NB	7.10	1.41	1.35
19	1	608	CLA	C4B-NB	7.07	1.41	1.35
18	A	1011	CL0	C4B-NB	7.06	1.41	1.35
19	K	201	CLA	C4B-NB	7.06	1.41	1.35
19	A	1109	CLA	C4B-NB	7.06	1.41	1.35
19	1	603	CLA	C4B-NB	7.06	1.41	1.35
19	A	1104	CLA	C4B-NB	7.05	1.41	1.35
19	A	5005	CLA	C4B-NB	7.04	1.41	1.35
19	B	1239	CLA	C4B-NB	7.03	1.41	1.35
19	2	610	CLA	C4B-NB	7.03	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	B	1205	CLA	C4B-NB	7.03	1.41	1.35
19	A	1120	CLA	C4B-NB	7.02	1.41	1.35
19	2	603	CLA	C4B-NB	7.02	1.41	1.35
19	4	603	CLA	C4B-NB	7.02	1.41	1.35
19	4	604	CLA	C4B-NB	7.02	1.41	1.35
19	A	1121	CLA	C4B-NB	7.01	1.41	1.35
19	4	602	CLA	C4B-NB	6.99	1.41	1.35
19	3	602	CLA	C4B-NB	6.99	1.41	1.35
19	B	1222	CLA	C4B-NB	6.99	1.41	1.35
19	A	1111	CLA	C4B-NB	6.99	1.41	1.35
19	F	301	CLA	C4B-NB	6.99	1.41	1.35
19	A	1115	CLA	C4B-NB	6.97	1.41	1.35
19	1	606	CLA	C4B-NB	6.95	1.41	1.35
19	3	609	CLA	C4B-NB	6.95	1.41	1.35
19	B	1211	CLA	C4B-NB	6.93	1.41	1.35
19	B	1202	CLA	C4B-NB	6.93	1.41	1.35
19	B	1235	CLA	C4B-NB	6.93	1.41	1.35
19	B	1226	CLA	C4B-NB	6.91	1.41	1.35
19	B	1238	CLA	C4B-NB	6.90	1.41	1.35
19	A	1106	CLA	C4B-NB	6.90	1.41	1.35
19	A	1138	CLA	C4B-NB	6.89	1.41	1.35
19	B	1225	CLA	C4B-NB	6.89	1.41	1.35
19	4	610	CLA	C4B-NB	6.89	1.41	1.35
19	B	1224	CLA	C4B-NB	6.88	1.41	1.35
19	A	1134	CLA	C4B-NB	6.87	1.41	1.35
19	L	303	CLA	C4B-NB	6.86	1.41	1.35
19	B	1208	CLA	C4B-NB	6.85	1.41	1.35
19	1	602	CLA	C4B-NB	6.85	1.41	1.35
19	B	1204	CLA	C4B-NB	6.82	1.41	1.35
19	B	1219	CLA	C4B-NB	6.82	1.41	1.35
19	B	1210	CLA	C4B-NB	6.81	1.41	1.35
19	B	1215	CLA	C4B-NB	6.79	1.41	1.35
19	I	121	CLA	C4B-NB	6.79	1.41	1.35
19	4	609	CLA	C4B-NB	6.78	1.41	1.35
19	B	1021	CLA	C4B-NB	6.77	1.41	1.35
19	A	1105	CLA	C4B-NB	6.76	1.41	1.35
19	B	1234	CLA	C4B-NB	6.75	1.41	1.35
19	A	1131	CLA	C4B-NB	6.67	1.41	1.35
19	B	1220	CLA	C4B-NB	6.67	1.41	1.35
19	A	1127	CLA	C4B-NB	6.65	1.41	1.35
19	A	1124	CLA	C4B-NB	6.57	1.41	1.35
19	B	1212	CLA	C4B-NB	6.56	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1114	CLA	C4B-NB	6.54	1.41	1.35
19	A	1108	CLA	C4B-NB	6.52	1.41	1.35
19	B	1203	CLA	C4B-NB	6.51	1.41	1.35
19	B	1023	CLA	C4B-NB	6.51	1.41	1.35
19	A	1117	CLA	C4B-NB	6.50	1.41	1.35
19	A	1132	CLA	C4B-NB	6.47	1.41	1.35
19	A	1126	CLA	C4B-NB	6.45	1.41	1.35
19	B	1213	CLA	C4B-NB	6.44	1.41	1.35
19	A	1119	CLA	C4B-NB	6.40	1.40	1.35
19	A	1013	CLA	C4B-NB	6.27	1.40	1.35
19	B	1216	CLA	C4B-NB	5.97	1.40	1.35
19	K	203	CLA	C2B-C1B	5.51	1.49	1.39
19	3	605	CLA	C2B-C1B	5.50	1.49	1.39
19	F	303	CLA	C2B-C1B	5.49	1.49	1.39
19	K	203	CLA	C3B-C4B	5.47	1.49	1.39
19	3	605	CLA	C3B-C4B	5.46	1.49	1.39
19	F	303	CLA	C3B-C4B	5.45	1.49	1.39
27	4	615	CHL	O2D-CGD	5.21	1.45	1.33
27	4	606	CHL	O2D-CGD	5.19	1.45	1.33
19	K	203	CLA	CHB-C4A	5.18	1.38	1.34
27	2	606	CHL	O2D-CGD	5.18	1.45	1.33
27	2	607	CHL	O2D-CGD	5.17	1.45	1.33
19	3	605	CLA	CHB-C4A	5.16	1.38	1.34
27	2	615	CHL	O2D-CGD	5.16	1.45	1.33
19	F	303	CLA	CHB-C4A	5.15	1.38	1.34
27	4	607	CHL	O2D-CGD	5.15	1.45	1.33
27	1	607	CHL	O2D-CGD	5.14	1.45	1.33
27	3	608	CHL	O2D-CGD	5.12	1.45	1.33
27	2	602	CHL	O2D-CGD	5.11	1.45	1.33
27	2	611	CHL	O2D-CGD	5.09	1.45	1.33
27	2	608	CHL	O2D-CGD	5.08	1.45	1.33
27	4	608	CHL	O2D-CGD	5.07	1.45	1.33
27	2	601	CHL	O2D-CGD	5.03	1.45	1.33
27	2	608	CHL	CHC-C1C	4.95	1.47	1.35
27	4	608	CHL	CHC-C1C	4.92	1.47	1.35
27	1	601	CHL	O2D-CGD	4.91	1.45	1.33
27	2	602	CHL	CHC-C1C	4.87	1.47	1.35
27	2	606	CHL	CHC-C1C	4.86	1.47	1.35
27	4	606	CHL	CHC-C1C	4.85	1.47	1.35
27	4	615	CHL	CHC-C1C	4.76	1.47	1.35
27	4	607	CHL	CHC-C1C	4.75	1.47	1.35
27	2	607	CHL	CHC-C1C	4.74	1.47	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	2	611	CHL	CHC-C1C	4.73	1.47	1.35
27	1	607	CHL	CHC-C1C	4.72	1.47	1.35
27	2	601	CHL	CHC-C1C	4.71	1.47	1.35
27	2	608	CHL	C3D-C4D	-4.71	1.33	1.44
27	2	615	CHL	CHC-C1C	4.68	1.47	1.35
27	3	608	CHL	C3D-C4D	-4.61	1.33	1.44
27	1	607	CHL	C2C-C3C	4.61	1.46	1.36
27	3	608	CHL	CHC-C1C	4.59	1.46	1.35
27	4	615	CHL	C3B-C2B	4.59	1.46	1.40
27	1	601	CHL	CHC-C1C	4.57	1.46	1.35
27	2	615	CHL	C3B-C2B	4.55	1.46	1.40
27	4	608	CHL	C3D-C4D	-4.54	1.33	1.44
27	2	611	CHL	C3B-C2B	4.53	1.46	1.40
27	1	607	CHL	C3B-C2B	4.53	1.46	1.40
27	1	607	CHL	C3D-C4D	-4.53	1.33	1.44
27	2	607	CHL	C3B-C2B	4.51	1.46	1.40
27	2	611	CHL	C3D-C4D	-4.50	1.34	1.44
27	2	606	CHL	O2A-CGA	4.49	1.45	1.30
27	2	615	CHL	C3D-C4D	-4.49	1.34	1.44
27	1	601	CHL	C3B-C2B	4.49	1.46	1.40
27	2	602	CHL	O2A-CGA	4.48	1.46	1.33
27	4	607	CHL	C3D-C4D	-4.48	1.34	1.44
27	1	601	CHL	C3D-C4D	-4.46	1.34	1.44
27	4	607	CHL	C2C-C3C	4.46	1.46	1.36
27	2	601	CHL	C2C-C3C	4.46	1.46	1.36
27	4	606	CHL	C3B-C2B	4.46	1.46	1.40
27	2	607	CHL	C3D-C4D	-4.45	1.34	1.44
27	3	608	CHL	C3B-C2B	4.45	1.46	1.40
27	2	611	CHL	C2C-C3C	4.45	1.46	1.36
27	2	601	CHL	C3B-C2B	4.45	1.46	1.40
27	2	615	CHL	C2C-C3C	4.44	1.46	1.36
27	2	601	CHL	C3D-C4D	-4.43	1.34	1.44
27	4	615	CHL	C3D-C4D	-4.43	1.34	1.44
27	4	606	CHL	C3D-C4D	-4.42	1.34	1.44
27	2	606	CHL	C3D-C4D	-4.42	1.34	1.44
27	2	602	CHL	C2C-C3C	4.40	1.46	1.36
27	4	615	CHL	C2C-C3C	4.40	1.46	1.36
27	2	611	CHL	O2A-CGA	4.38	1.46	1.33
27	4	607	CHL	C3B-C2B	4.38	1.46	1.40
27	2	607	CHL	C2C-C3C	4.36	1.46	1.36
27	2	602	CHL	C3D-C4D	-4.35	1.34	1.44
27	4	608	CHL	C2C-C3C	4.32	1.46	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	2	602	CHL	C3B-C2B	4.29	1.46	1.40
27	2	608	CHL	O2A-CGA	4.29	1.45	1.33
27	2	606	CHL	C3B-C2B	4.27	1.46	1.40
27	2	607	CHL	CHD-C1D	4.27	1.46	1.38
27	4	607	CHL	CHD-C1D	4.26	1.46	1.38
27	2	601	CHL	O2A-CGA	4.25	1.45	1.33
27	4	608	CHL	O2A-CGA	4.25	1.45	1.33
27	2	608	CHL	C3B-C2B	4.24	1.46	1.40
27	3	608	CHL	C2C-C3C	4.23	1.45	1.36
27	1	601	CHL	O2A-CGA	4.22	1.45	1.33
27	2	608	CHL	C2C-C3C	4.21	1.45	1.36
27	1	607	CHL	CHD-C1D	4.18	1.46	1.38
27	4	606	CHL	C2C-C3C	4.17	1.45	1.36
27	4	608	CHL	CHD-C1D	4.16	1.46	1.38
27	2	606	CHL	C2C-C3C	4.15	1.45	1.36
27	4	606	CHL	CHD-C1D	4.14	1.46	1.38
27	4	615	CHL	CHD-C1D	4.14	1.46	1.38
27	2	602	CHL	CHD-C1D	4.12	1.46	1.38
27	2	615	CHL	CHD-C1D	4.10	1.46	1.38
27	4	608	CHL	C3B-C2B	4.08	1.46	1.40
27	1	601	CHL	C2C-C3C	4.08	1.45	1.36
27	2	606	CHL	CHD-C1D	4.08	1.46	1.38
19	G	218	CLA	C1D-ND	4.07	1.42	1.37
27	2	615	CHL	O2A-CGA	4.06	1.45	1.33
27	4	607	CHL	O2A-CGA	4.05	1.45	1.33
27	4	606	CHL	O2A-CGA	4.03	1.45	1.33
27	2	607	CHL	O2A-CGA	4.03	1.45	1.33
27	1	607	CHL	O2A-CGA	4.03	1.45	1.33
27	3	608	CHL	O2A-CGA	4.01	1.45	1.33
19	2	613	CLA	C1D-ND	4.01	1.42	1.37
27	2	611	CHL	CHD-C1D	4.00	1.46	1.38
19	A	1130	CLA	C1D-ND	4.00	1.42	1.37
19	A	1125	CLA	C4D-ND	-3.96	1.32	1.37
19	B	1217	CLA	C1D-ND	3.94	1.42	1.37
27	2	601	CHL	CHD-C1D	3.94	1.46	1.38
27	3	608	CHL	CHD-C1D	3.92	1.46	1.38
19	B	1240	CLA	C1D-ND	3.92	1.42	1.37
19	A	1133	CLA	C1D-ND	3.90	1.42	1.37
19	A	1107	CLA	C1D-ND	3.90	1.42	1.37
19	L	301	CLA	C1D-ND	3.89	1.42	1.37
19	1	606	CLA	C1D-ND	3.87	1.42	1.37
19	A	1101	CLA	C1D-ND	3.85	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	3	611	CLA	C1D-ND	3.85	1.42	1.37
19	B	1237	CLA	C1D-ND	3.84	1.42	1.37
19	4	601	CLA	C1D-ND	3.83	1.42	1.37
19	4	612	CLA	C1D-ND	3.83	1.42	1.37
19	B	1232	CLA	C1D-ND	3.82	1.42	1.37
27	2	607	CHL	CHD-C4C	3.82	1.48	1.39
19	3	614	CLA	C1D-ND	3.82	1.42	1.37
19	A	1113	CLA	C1D-ND	3.81	1.42	1.37
19	1	608	CLA	C1D-ND	3.81	1.42	1.37
27	1	607	CHL	CHD-C4C	3.80	1.47	1.39
19	1	610	CLA	C1D-ND	3.80	1.42	1.37
27	4	607	CHL	CHD-C4C	3.80	1.47	1.39
19	G	202	CLA	C1D-ND	3.80	1.42	1.37
19	A	1111	CLA	C1D-ND	3.78	1.42	1.37
27	2	607	CHL	OBD-CAD	3.78	1.29	1.22
19	H	200	CLA	C1D-ND	3.77	1.42	1.37
27	2	615	CHL	OBD-CAD	3.77	1.29	1.22
19	3	607	CLA	C1D-ND	3.77	1.42	1.37
19	3	612	CLA	C1D-ND	3.77	1.42	1.37
27	2	615	CHL	CHD-C4C	3.76	1.47	1.39
19	B	1209	CLA	C1D-ND	3.76	1.42	1.37
19	4	613	CLA	C1D-ND	3.76	1.42	1.37
19	L	302	CLA	C1D-ND	3.76	1.42	1.37
19	1	609	CLA	C1D-ND	3.76	1.42	1.37
19	L	303	CLA	C1D-ND	3.76	1.42	1.37
19	3	609	CLA	C1D-ND	3.76	1.42	1.37
19	3	617	CLA	C1D-ND	3.76	1.42	1.37
27	2	606	CHL	CHD-C4C	3.76	1.47	1.39
27	1	607	CHL	OBD-CAD	3.76	1.29	1.22
19	J	102	CLA	C1D-ND	3.75	1.42	1.37
19	B	1012	CLA	C1D-ND	3.75	1.42	1.37
19	3	603	CLA	C1D-ND	3.74	1.42	1.37
27	4	607	CHL	OBD-CAD	3.74	1.28	1.22
19	4	614	CLA	C1D-ND	3.73	1.42	1.37
27	4	615	CHL	CHD-C4C	3.72	1.47	1.39
19	1	615	CLA	C1D-ND	3.72	1.42	1.37
27	4	606	CHL	CHD-C4C	3.72	1.47	1.39
19	1	604	CLA	C1D-ND	3.71	1.42	1.37
27	2	602	CHL	CHD-C4C	3.71	1.47	1.39
19	1	611	CLA	C1D-ND	3.71	1.42	1.37
19	3	613	CLA	C1D-ND	3.71	1.42	1.37
19	A	1104	CLA	C1D-ND	3.71	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	K	201	CLA	C1D-ND	3.71	1.42	1.37
27	2	606	CHL	OBD-CAD	3.70	1.28	1.22
27	2	608	CHL	CHD-C1D	3.70	1.45	1.38
19	B	1239	CLA	C1D-ND	3.70	1.42	1.37
27	2	601	CHL	CHD-C4C	3.69	1.47	1.39
27	4	615	CHL	OBD-CAD	3.69	1.28	1.22
19	1	614	CLA	C1D-ND	3.69	1.42	1.37
19	2	610	CLA	C1D-ND	3.69	1.42	1.37
27	4	608	CHL	CHD-C4C	3.69	1.47	1.39
19	B	1223	CLA	C4D-ND	-3.69	1.32	1.37
19	B	1205	CLA	C1D-ND	3.68	1.42	1.37
19	3	606	CLA	C1D-ND	3.68	1.42	1.37
19	A	1122	CLA	C1D-ND	3.68	1.42	1.37
19	B	1231	CLA	C1D-ND	3.68	1.42	1.37
19	B	1202	CLA	C1D-ND	3.68	1.42	1.37
19	A	1103	CLA	C1D-ND	3.67	1.42	1.37
19	B	1208	CLA	C1D-ND	3.67	1.42	1.37
19	B	1212	CLA	C1D-ND	3.66	1.42	1.37
19	4	604	CLA	C1D-ND	3.66	1.42	1.37
27	1	601	CHL	CHD-C1D	3.66	1.45	1.38
19	B	1214	CLA	C1D-ND	3.65	1.42	1.37
19	A	1134	CLA	C1D-ND	3.65	1.42	1.37
27	2	601	CHL	OBD-CAD	3.65	1.28	1.22
19	G	201	CLA	C1D-ND	3.64	1.42	1.37
19	2	612	CLA	C1D-ND	3.64	1.42	1.37
19	A	1120	CLA	C1D-ND	3.64	1.42	1.37
19	3	610	CLA	C1D-ND	3.63	1.42	1.37
27	3	608	CHL	CHD-C4C	3.63	1.47	1.39
19	2	609	CLA	C1D-ND	3.62	1.42	1.37
19	B	1219	CLA	C1D-ND	3.62	1.42	1.37
19	K	204	CLA	C1D-ND	3.62	1.42	1.37
19	B	1023	CLA	C4D-ND	-3.62	1.32	1.37
19	K	202	CLA	C1D-ND	3.62	1.42	1.37
19	A	1131	CLA	C1D-ND	3.61	1.42	1.37
19	B	1227	CLA	C4D-ND	-3.61	1.32	1.37
19	A	1106	CLA	C1D-ND	3.61	1.42	1.37
19	1	603	CLA	C1D-ND	3.61	1.42	1.37
19	2	603	CLA	C1D-ND	3.61	1.42	1.37
27	4	606	CHL	OBD-CAD	3.61	1.28	1.22
27	2	611	CHL	CHD-C4C	3.60	1.47	1.39
19	B	1234	CLA	C1D-ND	3.60	1.42	1.37
27	4	608	CHL	OBD-CAD	3.60	1.28	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	2	604	CLA	C1D-ND	3.59	1.42	1.37
19	B	1220	CLA	C1D-ND	3.58	1.42	1.37
19	F	301	CLA	C1D-ND	3.58	1.42	1.37
19	B	1211	CLA	C1D-ND	3.58	1.42	1.37
19	A	1110	CLA	C1D-ND	3.57	1.42	1.37
19	3	604	CLA	C1D-ND	3.57	1.42	1.37
19	B	1206	CLA	C1D-ND	3.57	1.42	1.37
19	A	1118	CLA	C1D-ND	3.56	1.42	1.37
27	2	611	CHL	OBD-CAD	3.56	1.28	1.22
19	A	5005	CLA	C1D-ND	3.56	1.42	1.37
19	I	121	CLA	C1D-ND	3.56	1.42	1.37
19	A	1114	CLA	C1D-ND	3.55	1.42	1.37
19	A	1137	CLA	C1D-ND	3.55	1.42	1.37
19	A	1135	CLA	C1D-ND	3.54	1.42	1.37
19	B	1229	CLA	C1D-ND	3.54	1.42	1.37
19	2	614	CLA	C1D-ND	3.54	1.42	1.37
19	A	1115	CLA	C1D-ND	3.54	1.42	1.37
19	A	1126	CLA	CHC-C1C	3.53	1.44	1.35
27	2	602	CHL	OBD-CAD	3.53	1.28	1.22
19	A	1121	CLA	C1D-ND	3.52	1.42	1.37
19	F	302	CLA	C1D-ND	3.52	1.42	1.37
19	B	1201	CLA	C1D-ND	3.52	1.42	1.37
19	1	612	CLA	C1D-ND	3.52	1.42	1.37
19	A	1117	CLA	C1D-ND	3.51	1.42	1.37
19	B	1228	CLA	C1D-ND	3.51	1.42	1.37
19	3	605	CLA	C4B-CHC	-3.51	1.36	1.43
27	1	601	CHL	OBD-CAD	3.51	1.28	1.22
19	B	1012	CLA	CHC-C1C	3.50	1.43	1.35
19	B	1238	CLA	C1D-ND	3.50	1.42	1.37
19	A	1128	CLA	CMB-C2B	-3.50	1.44	1.51
19	K	203	CLA	C4B-CHC	-3.50	1.36	1.43
19	B	1236	CLA	C1D-ND	3.49	1.42	1.37
19	B	1203	CLA	C1D-ND	3.49	1.42	1.37
19	A	1013	CLA	C4D-ND	-3.49	1.32	1.37
19	A	1116	CLA	C4D-ND	-3.49	1.32	1.37
19	B	1204	CLA	C1D-ND	3.49	1.42	1.37
19	1	613	CLA	C1D-ND	3.48	1.42	1.37
19	A	1140	CLA	C4D-ND	-3.48	1.32	1.37
19	A	1124	CLA	C1D-ND	3.48	1.42	1.37
19	F	303	CLA	C4B-CHC	-3.48	1.36	1.43
19	A	1112	CLA	C1D-ND	3.48	1.42	1.37
19	4	603	CLA	C1D-ND	3.48	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1801	CLA	C1D-ND	3.48	1.42	1.37
28	4	621	LUT	C22-C21	3.48	1.59	1.54
19	3	602	CLA	CHC-C1C	3.48	1.43	1.35
27	1	601	CHL	CHD-C4C	3.47	1.47	1.39
19	A	1108	CLA	C1D-ND	3.46	1.42	1.37
19	A	1102	CLA	C1D-ND	3.46	1.42	1.37
19	B	1216	CLA	CHC-C1C	3.46	1.43	1.35
19	B	1216	CLA	C1D-ND	3.45	1.42	1.37
19	A	1119	CLA	C1D-ND	3.44	1.42	1.37
19	B	1222	CLA	C1D-ND	3.44	1.42	1.37
19	3	602	CLA	C1D-ND	3.44	1.42	1.37
19	4	611	CLA	C1D-ND	3.44	1.42	1.37
19	B	1235	CLA	C1D-ND	3.44	1.42	1.37
19	A	8895	CLA	C1D-ND	3.43	1.42	1.37
19	A	1111	CLA	C4D-ND	-3.43	1.33	1.37
19	A	1127	CLA	C4D-ND	-3.43	1.33	1.37
19	A	1136	CLA	C1D-ND	3.43	1.42	1.37
19	A	1128	CLA	C1D-ND	3.42	1.42	1.37
27	2	608	CHL	CHD-C4C	3.41	1.47	1.39
19	A	1140	CLA	C1D-ND	3.41	1.42	1.37
19	4	610	CLA	C1D-ND	3.40	1.42	1.37
19	B	1230	CLA	C1D-ND	3.40	1.42	1.37
19	1	602	CLA	C1D-ND	3.40	1.42	1.37
19	A	1022	CLA	C1D-ND	3.40	1.42	1.37
19	B	1215	CLA	C1D-ND	3.39	1.42	1.37
19	B	1224	CLA	C4D-ND	-3.39	1.33	1.37
19	A	1138	CLA	C1D-ND	3.37	1.41	1.37
19	4	609	CLA	C1D-ND	3.37	1.41	1.37
19	B	1226	CLA	CMB-C2B	-3.37	1.44	1.51
19	B	1224	CLA	CHC-C1C	3.37	1.43	1.35
19	A	1105	CLA	C1D-ND	3.37	1.41	1.37
19	B	1213	CLA	C1D-ND	3.37	1.41	1.37
19	B	1023	CLA	CHC-C1C	3.37	1.43	1.35
19	A	1116	CLA	C1D-ND	3.37	1.41	1.37
19	B	1229	CLA	C4D-ND	-3.36	1.33	1.37
19	B	1210	CLA	C1D-ND	3.35	1.41	1.37
19	B	1224	CLA	C1D-ND	3.35	1.41	1.37
19	B	1232	CLA	CHC-C1C	3.34	1.43	1.35
19	B	1210	CLA	CHC-C1C	3.34	1.43	1.35
19	4	602	CLA	C1D-ND	3.34	1.41	1.37
19	F	303	CLA	C2D-C1D	3.34	1.48	1.42
19	B	1225	CLA	C1D-ND	3.33	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1132	CLA	C4D-ND	-3.33	1.33	1.37
19	A	1126	CLA	C4D-ND	-3.33	1.33	1.37
19	A	1106	CLA	CHC-C1C	3.31	1.43	1.35
19	A	1127	CLA	CHC-C1C	3.31	1.43	1.35
19	B	1220	CLA	CHC-C1C	3.31	1.43	1.35
19	A	1139	CLA	CHC-C1C	3.29	1.43	1.35
19	A	1139	CLA	C1D-ND	3.29	1.41	1.37
19	B	1213	CLA	CHC-C1C	3.29	1.43	1.35
19	A	1105	CLA	CHC-C1C	3.28	1.43	1.35
19	1	614	CLA	CHC-C1C	3.28	1.43	1.35
19	3	605	CLA	C2D-C1D	3.28	1.48	1.42
19	B	1021	CLA	C4D-ND	-3.28	1.33	1.37
19	K	203	CLA	C2D-C1D	3.27	1.48	1.42
19	4	609	CLA	CHC-C1C	3.27	1.43	1.35
19	A	1132	CLA	CHC-C1C	3.27	1.43	1.35
19	B	1210	CLA	C4D-ND	-3.27	1.33	1.37
19	K	204	CLA	C4D-ND	-3.27	1.33	1.37
19	A	1109	CLA	CHC-C1C	3.26	1.43	1.35
19	A	1126	CLA	C1D-ND	3.26	1.41	1.37
19	A	1102	CLA	CHC-C1C	3.26	1.43	1.35
19	A	1124	CLA	CHC-C1C	3.26	1.43	1.35
19	4	614	CLA	CHC-C1C	3.26	1.43	1.35
19	A	1108	CLA	CHC-C1C	3.25	1.43	1.35
19	A	1109	CLA	C1D-ND	3.25	1.41	1.37
19	A	1113	CLA	CHC-C1C	3.25	1.43	1.35
19	A	1119	CLA	CHC-C1C	3.25	1.43	1.35
19	A	1013	CLA	CHC-C1C	3.24	1.43	1.35
19	4	611	CLA	CHC-C1C	3.24	1.43	1.35
19	A	1130	CLA	CHC-C1C	3.24	1.43	1.35
19	2	609	CLA	CHC-C1C	3.24	1.43	1.35
19	B	1221	CLA	CHC-C1C	3.24	1.43	1.35
19	A	1114	CLA	C4D-ND	-3.24	1.33	1.37
19	1	613	CLA	CHC-C1C	3.23	1.43	1.35
19	B	1211	CLA	CHC-C1C	3.23	1.43	1.35
19	B	1227	CLA	CHC-C1C	3.23	1.43	1.35
19	L	301	CLA	CHC-C1C	3.23	1.43	1.35
19	B	1222	CLA	CHC-C1C	3.23	1.43	1.35
19	4	602	CLA	CHC-C1C	3.23	1.43	1.35
19	1	615	CLA	CHC-C1C	3.23	1.43	1.35
19	A	1125	CLA	CHC-C1C	3.23	1.43	1.35
19	3	614	CLA	CHC-C1C	3.22	1.43	1.35
19	1	612	CLA	CHC-C1C	3.22	1.43	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	3	609	CLA	CHC-C1C	3.22	1.43	1.35
19	F	302	CLA	CHC-C1C	3.22	1.43	1.35
19	B	1236	CLA	C4D-ND	-3.22	1.33	1.37
19	L	303	CLA	C4D-ND	-3.22	1.33	1.37
19	B	1228	CLA	CHC-C1C	3.22	1.43	1.35
19	A	1127	CLA	C1D-ND	3.22	1.41	1.37
19	B	1234	CLA	C4D-ND	-3.22	1.33	1.37
19	4	604	CLA	CHC-C1C	3.22	1.43	1.35
19	B	1214	CLA	C4D-ND	-3.21	1.33	1.37
19	B	1230	CLA	CHC-C1C	3.21	1.43	1.35
19	B	1230	CLA	C4D-ND	-3.21	1.33	1.37
19	G	201	CLA	CHC-C1C	3.21	1.43	1.35
19	A	1135	CLA	C4D-ND	-3.21	1.33	1.37
19	K	201	CLA	CHC-C1C	3.21	1.43	1.35
28	1	621	LUT	C23-C24	3.21	1.54	1.50
19	B	1236	CLA	CHC-C1C	3.21	1.43	1.35
19	A	1104	CLA	CHC-C1C	3.21	1.43	1.35
19	2	612	CLA	CHC-C1C	3.20	1.43	1.35
19	H	200	CLA	CHC-C1C	3.20	1.43	1.35
19	A	1117	CLA	C4D-ND	-3.20	1.33	1.37
19	B	1238	CLA	CHC-C1C	3.19	1.43	1.35
19	A	1121	CLA	CHC-C1C	3.19	1.43	1.35
19	1	610	CLA	CHC-C1C	3.19	1.43	1.35
27	3	608	CHL	OBD-CAD	3.19	1.28	1.22
19	A	1132	CLA	C1D-ND	3.19	1.41	1.37
19	4	601	CLA	C4D-ND	-3.19	1.33	1.37
19	A	1138	CLA	CHC-C1C	3.19	1.43	1.35
19	A	1111	CLA	CHC-C1C	3.19	1.43	1.35
19	G	202	CLA	CHC-C1C	3.19	1.43	1.35
19	4	610	CLA	CHC-C1C	3.19	1.43	1.35
28	1	620	LUT	C23-C24	3.18	1.54	1.50
19	B	1239	CLA	C4D-ND	-3.18	1.33	1.37
19	3	613	CLA	CHC-C1C	3.18	1.43	1.35
19	3	602	CLA	C4D-ND	-3.18	1.33	1.37
19	B	1212	CLA	CHC-C1C	3.18	1.43	1.35
19	1	602	CLA	CHC-C1C	3.18	1.43	1.35
19	A	1137	CLA	CHC-C1C	3.18	1.43	1.35
19	B	1221	CLA	C1D-ND	3.18	1.41	1.37
19	B	1202	CLA	CHC-C1C	3.17	1.43	1.35
19	A	1115	CLA	CHC-C1C	3.17	1.43	1.35
19	K	204	CLA	CHC-C1C	3.17	1.43	1.35
19	2	614	CLA	CHC-C1C	3.17	1.43	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1103	CLA	CHC-C1C	3.17	1.43	1.35
19	A	8895	CLA	C4D-ND	-3.17	1.33	1.37
19	3	610	CLA	CHC-C1C	3.17	1.43	1.35
19	A	1110	CLA	CHC-C1C	3.17	1.43	1.35
19	2	603	CLA	CHC-C1C	3.17	1.43	1.35
19	B	1209	CLA	CHC-C1C	3.16	1.43	1.35
19	3	617	CLA	CHC-C1C	3.16	1.43	1.35
19	3	607	CLA	CHC-C1C	3.16	1.43	1.35
19	B	1234	CLA	CHC-C1C	3.16	1.43	1.35
19	B	1240	CLA	CHC-C1C	3.16	1.43	1.35
19	A	1101	CLA	CHC-C1C	3.16	1.43	1.35
19	B	1235	CLA	CHC-C1C	3.16	1.43	1.35
19	B	1208	CLA	CHC-C1C	3.15	1.43	1.35
19	K	202	CLA	CHC-C1C	3.15	1.43	1.35
19	A	1136	CLA	CHC-C1C	3.15	1.43	1.35
19	A	8895	CLA	CHC-C1C	3.15	1.43	1.35
19	B	1223	CLA	C1D-ND	3.15	1.41	1.37
19	A	1124	CLA	C4D-ND	-3.15	1.33	1.37
19	B	1215	CLA	C4D-ND	-3.15	1.33	1.37
19	A	1125	CLA	C1D-ND	3.15	1.41	1.37
19	F	301	CLA	CHC-C1C	3.15	1.43	1.35
19	B	1227	CLA	C1D-ND	3.15	1.41	1.37
19	B	1204	CLA	C4D-ND	-3.15	1.33	1.37
19	4	602	CLA	C4D-ND	-3.14	1.33	1.37
19	A	1801	CLA	CHC-C1C	3.14	1.43	1.35
19	B	1021	CLA	CHC-C1C	3.14	1.43	1.35
19	4	613	CLA	CHC-C1C	3.14	1.43	1.35
19	1	602	CLA	C4D-ND	-3.14	1.33	1.37
19	A	1128	CLA	C4D-ND	-3.14	1.33	1.37
19	G	218	CLA	CHC-C1C	3.14	1.43	1.35
18	A	1011	CL0	CHC-C1C	3.14	1.43	1.35
19	4	603	CLA	C4D-ND	-3.14	1.33	1.37
19	B	1206	CLA	CHC-C1C	3.14	1.43	1.35
19	B	1235	CLA	C4D-ND	-3.14	1.33	1.37
19	B	1219	CLA	CHC-C1C	3.14	1.43	1.35
19	B	1229	CLA	CHC-C1C	3.14	1.43	1.35
19	2	604	CLA	CHC-C1C	3.13	1.43	1.35
19	3	604	CLA	CHC-C1C	3.13	1.43	1.35
19	F	302	CLA	C4D-ND	-3.13	1.33	1.37
19	A	5005	CLA	CHC-C1C	3.13	1.43	1.35
19	3	611	CLA	CHC-C1C	3.13	1.43	1.35
19	A	1136	CLA	C4D-ND	-3.13	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	B	1206	CLA	C4D-ND	-3.13	1.33	1.37
19	2	603	CLA	C4D-ND	-3.13	1.33	1.37
19	B	1215	CLA	CHC-C1C	3.13	1.43	1.35
19	A	1112	CLA	C4D-ND	-3.12	1.33	1.37
19	B	1240	CLA	C4D-ND	-3.12	1.33	1.37
19	A	1120	CLA	CHC-C1C	3.12	1.43	1.35
19	A	1131	CLA	C4D-ND	-3.12	1.33	1.37
19	B	1219	CLA	C4D-ND	-3.12	1.33	1.37
19	3	612	CLA	CHC-C1C	3.12	1.43	1.35
19	4	603	CLA	CHC-C1C	3.12	1.43	1.35
19	1	609	CLA	CHC-C1C	3.12	1.43	1.35
19	A	1135	CLA	CHC-C1C	3.12	1.43	1.35
19	4	612	CLA	CHC-C1C	3.11	1.43	1.35
19	B	1203	CLA	C4D-ND	-3.11	1.33	1.37
19	A	1116	CLA	CHC-C1C	3.11	1.42	1.35
19	B	1205	CLA	CHC-C1C	3.11	1.42	1.35
19	A	1112	CLA	CHC-C1C	3.11	1.42	1.35
19	A	1102	CLA	C4D-ND	-3.10	1.33	1.37
19	B	1226	CLA	C1D-ND	3.10	1.41	1.37
19	A	1131	CLA	CHC-C1C	3.10	1.42	1.35
19	1	604	CLA	CHC-C1C	3.10	1.42	1.35
19	B	1231	CLA	CHC-C1C	3.10	1.42	1.35
19	1	604	CLA	C4D-ND	-3.10	1.33	1.37
22	B	4017	BCR	C30-C25	-3.09	1.49	1.53
19	B	1222	CLA	C4D-ND	-3.09	1.33	1.37
19	2	610	CLA	CHC-C1C	3.09	1.42	1.35
19	A	1119	CLA	C4D-ND	-3.09	1.33	1.37
19	J	102	CLA	CHC-C1C	3.09	1.42	1.35
19	B	1021	CLA	C1D-ND	3.09	1.41	1.37
19	A	1140	CLA	CHC-C1C	3.09	1.42	1.35
19	K	201	CLA	C4D-ND	-3.09	1.33	1.37
19	B	1223	CLA	CHC-C1C	3.08	1.42	1.35
19	3	606	CLA	CHC-C1C	3.08	1.42	1.35
19	1	611	CLA	CHC-C1C	3.08	1.42	1.35
19	A	1108	CLA	C4D-ND	-3.08	1.33	1.37
19	B	1213	CLA	C4D-ND	-3.07	1.33	1.37
19	H	200	CLA	C4D-ND	-3.07	1.33	1.37
19	3	603	CLA	CHC-C1C	3.07	1.42	1.35
19	F	301	CLA	C4D-ND	-3.07	1.33	1.37
19	1	614	CLA	C4D-ND	-3.07	1.33	1.37
19	2	613	CLA	CHC-C1C	3.07	1.42	1.35
19	B	1204	CLA	CHC-C1C	3.06	1.42	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	2	608	CHL	OBD-CAD	3.06	1.27	1.22
19	B	1214	CLA	CHC-C1C	3.06	1.42	1.35
19	B	1226	CLA	C4D-ND	-3.06	1.33	1.37
19	I	121	CLA	CHC-C1C	3.06	1.42	1.35
19	A	1139	CLA	C4D-ND	-3.06	1.33	1.37
19	B	1201	CLA	CHC-C1C	3.06	1.42	1.35
19	B	1231	CLA	C4D-ND	-3.06	1.33	1.37
19	A	1105	CLA	C4D-ND	-3.05	1.33	1.37
19	B	1208	CLA	C4D-ND	-3.05	1.33	1.37
19	B	1221	CLA	C4D-ND	-3.05	1.33	1.37
19	A	1121	CLA	C4D-ND	-3.05	1.33	1.37
19	3	603	CLA	C4D-ND	-3.05	1.33	1.37
19	1	606	CLA	C4D-ND	-3.04	1.33	1.37
19	A	1134	CLA	C4D-ND	-3.04	1.33	1.37
19	1	603	CLA	CHC-C1C	3.04	1.42	1.35
19	L	303	CLA	CHC-C1C	3.04	1.42	1.35
19	B	1217	CLA	CHC-C1C	3.04	1.42	1.35
19	A	1022	CLA	C4D-ND	-3.04	1.33	1.37
19	A	1138	CLA	C4D-ND	-3.03	1.33	1.37
19	1	608	CLA	CHC-C1C	3.03	1.42	1.35
19	1	613	CLA	C4D-ND	-3.03	1.33	1.37
18	A	1011	CL0	C1D-ND	3.02	1.41	1.37
19	B	1023	CLA	CMC-C2C	-3.02	1.44	1.50
19	B	1237	CLA	C4D-ND	-3.02	1.33	1.37
19	B	1225	CLA	CHC-C1C	3.02	1.42	1.35
19	2	612	CLA	C4D-ND	-3.02	1.33	1.37
19	A	1104	CLA	C4D-ND	-3.02	1.33	1.37
19	3	606	CLA	C4D-ND	-3.02	1.33	1.37
19	3	617	CLA	C4D-ND	-3.02	1.33	1.37
19	B	1225	CLA	C4D-ND	-3.02	1.33	1.37
19	A	1134	CLA	CHC-C1C	3.01	1.42	1.35
19	A	1113	CLA	C4D-ND	-3.01	1.33	1.37
18	A	1011	CL0	C4D-ND	-3.01	1.33	1.37
19	A	1107	CLA	C4D-ND	-3.00	1.33	1.37
27	2	602	CHL	C3D-C2D	3.00	1.47	1.39
19	G	202	CLA	C4D-ND	-3.00	1.33	1.37
19	1	612	CLA	C4D-ND	-3.00	1.33	1.37
19	A	1022	CLA	CHC-C1C	3.00	1.42	1.35
19	A	1107	CLA	CHC-C1C	3.00	1.42	1.35
19	B	1237	CLA	CHC-C1C	2.99	1.42	1.35
19	I	121	CLA	C4D-ND	-2.99	1.33	1.37
19	1	603	CLA	C4D-ND	-2.99	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	B	1203	CLA	CHC-C1C	2.99	1.42	1.35
19	2	609	CLA	C4D-ND	-2.99	1.33	1.37
19	3	609	CLA	C4D-ND	-2.99	1.33	1.37
19	B	1212	CLA	C4D-ND	-2.98	1.33	1.37
19	3	610	CLA	C4D-ND	-2.98	1.33	1.37
19	A	1122	CLA	CHC-C1C	2.98	1.42	1.35
19	2	610	CLA	C4D-ND	-2.98	1.33	1.37
19	2	614	CLA	C4D-ND	-2.98	1.33	1.37
19	A	1110	CLA	C4D-ND	-2.98	1.33	1.37
19	G	201	CLA	C4D-ND	-2.97	1.33	1.37
19	A	1117	CLA	CHC-C1C	2.97	1.42	1.35
19	B	1211	CLA	C4D-ND	-2.97	1.33	1.37
19	B	1202	CLA	C4D-ND	-2.97	1.33	1.37
19	B	1216	CLA	C4D-ND	-2.96	1.33	1.37
19	B	1226	CLA	CHC-C1C	2.96	1.42	1.35
19	A	1137	CLA	C4D-ND	-2.95	1.33	1.37
19	B	1201	CLA	C4D-ND	-2.95	1.33	1.37
19	B	1205	CLA	C4D-ND	-2.95	1.33	1.37
19	B	1228	CLA	C4D-ND	-2.95	1.33	1.37
19	1	606	CLA	CHC-C1C	2.95	1.42	1.35
19	J	102	CLA	C4D-ND	-2.94	1.33	1.37
19	L	302	CLA	CHC-C1C	2.94	1.42	1.35
19	K	202	CLA	C4D-ND	-2.94	1.33	1.37
19	A	1109	CLA	C4D-ND	-2.93	1.33	1.37
19	F	303	CLA	C4D-ND	-2.93	1.33	1.37
19	4	611	CLA	C4D-ND	-2.93	1.33	1.37
19	A	1103	CLA	C4D-ND	-2.93	1.33	1.37
19	A	1115	CLA	C4D-ND	-2.93	1.33	1.37
19	A	1122	CLA	C4D-ND	-2.92	1.33	1.37
19	B	1209	CLA	C4D-ND	-2.92	1.33	1.37
19	B	1239	CLA	CMB-C2B	-2.92	1.45	1.51
19	3	612	CLA	C4D-ND	-2.92	1.33	1.37
19	A	1133	CLA	C4D-ND	-2.91	1.33	1.37
19	3	604	CLA	C4D-ND	-2.91	1.33	1.37
19	1	608	CLA	C4D-ND	-2.91	1.33	1.37
19	1	615	CLA	C4D-ND	-2.90	1.33	1.37
22	I	120	BCR	C1-C6	-2.90	1.49	1.53
19	3	607	CLA	C4D-ND	-2.90	1.33	1.37
22	A	4007	BCR	C1-C6	-2.89	1.49	1.53
19	A	5005	CLA	C4D-ND	-2.89	1.33	1.37
19	4	601	CLA	CHC-C1C	2.89	1.42	1.35
19	A	1128	CLA	CHC-C1C	2.89	1.42	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	3	614	CLA	C4D-ND	-2.89	1.33	1.37
19	A	1022	CLA	CMB-C2B	-2.89	1.45	1.51
19	A	1101	CLA	C4D-ND	-2.89	1.33	1.37
22	J	212	BCR	C1-C6	-2.89	1.49	1.53
19	B	1220	CLA	C4D-ND	-2.88	1.33	1.37
19	4	613	CLA	C4D-ND	-2.88	1.33	1.37
19	A	1118	CLA	CHC-C1C	2.88	1.42	1.35
19	4	614	CLA	C4D-ND	-2.88	1.33	1.37
19	3	605	CLA	C4D-ND	-2.87	1.33	1.37
19	4	604	CLA	C4D-ND	-2.86	1.33	1.37
19	B	1232	CLA	CMB-C2B	-2.86	1.45	1.51
19	1	611	CLA	C4D-ND	-2.86	1.33	1.37
19	B	1226	CLA	CMD-C2D	-2.86	1.44	1.50
19	3	611	CLA	C4D-ND	-2.86	1.33	1.37
27	2	615	CHL	C3D-C2D	2.85	1.46	1.39
19	B	1238	CLA	C4D-ND	-2.85	1.33	1.37
19	B	1214	CLA	CMB-C2B	-2.85	1.45	1.51
19	4	612	CLA	C4D-ND	-2.84	1.33	1.37
27	4	607	CHL	C3D-C2D	2.84	1.46	1.39
19	B	1215	CLA	CMB-C2B	-2.83	1.45	1.51
27	4	615	CHL	C3D-C2D	2.83	1.46	1.39
27	1	607	CHL	C1D-C2D	2.83	1.50	1.45
19	4	610	CLA	C4D-ND	-2.82	1.33	1.37
22	J	212	BCR	C30-C25	-2.82	1.49	1.53
19	A	1801	CLA	C4D-ND	-2.82	1.33	1.37
19	G	218	CLA	C4D-ND	-2.82	1.33	1.37
19	A	1118	CLA	C4D-ND	-2.82	1.33	1.37
23	4	630	LHG	O7-C7	2.82	1.42	1.34
19	2	604	CLA	C4D-ND	-2.82	1.33	1.37
19	4	609	CLA	C4D-ND	-2.81	1.33	1.37
19	3	613	CLA	C4D-ND	-2.81	1.33	1.37
19	B	1235	CLA	CMB-C2B	-2.81	1.45	1.51
22	3	623	BCR	C1-C6	-2.81	1.49	1.53
19	A	1114	CLA	CMB-C2B	-2.81	1.45	1.51
19	B	1227	CLA	CMB-C2B	-2.80	1.45	1.51
19	3	604	CLA	CMB-C2B	-2.80	1.45	1.51
19	A	1133	CLA	CHC-C1C	2.79	1.42	1.35
19	L	301	CLA	CMB-C2B	-2.79	1.45	1.51
19	L	301	CLA	C4D-ND	-2.79	1.33	1.37
27	2	606	CHL	C1D-C2D	2.79	1.50	1.45
19	2	613	CLA	C4D-ND	-2.78	1.33	1.37
19	A	1106	CLA	C4D-ND	-2.78	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	2	606	CHL	C3D-C2D	2.78	1.46	1.39
27	4	607	CHL	C1D-C2D	2.77	1.50	1.45
19	A	1130	CLA	C4D-ND	-2.77	1.33	1.37
19	1	609	CLA	C4D-ND	-2.76	1.33	1.37
27	4	606	CHL	C3D-C2D	2.76	1.46	1.39
27	2	611	CHL	C3D-C2D	2.76	1.46	1.39
22	K	301	BCR	C1-C6	-2.75	1.50	1.53
19	A	1120	CLA	C4D-ND	-2.75	1.33	1.37
19	A	1133	CLA	CMB-C2B	-2.75	1.45	1.51
19	K	203	CLA	C4D-ND	-2.73	1.33	1.37
27	1	607	CHL	C3D-C2D	2.73	1.46	1.39
19	A	1114	CLA	CHC-C1C	2.73	1.42	1.35
27	2	607	CHL	C1D-C2D	2.73	1.50	1.45
25	G	402	LMT	O3'-C3'	-2.71	1.36	1.43
19	B	1023	CLA	C1D-ND	2.71	1.41	1.37
19	A	1013	CLA	CMB-C2B	-2.71	1.46	1.51
19	1	610	CLA	C4D-ND	-2.71	1.34	1.37
19	A	1801	CLA	CMB-C2B	-2.70	1.46	1.51
22	B	4005	BCR	C1-C6	-2.70	1.50	1.53
22	F	416	BCR	C1-C6	-2.70	1.50	1.53
27	4	606	CHL	C1D-C2D	2.70	1.50	1.45
27	2	607	CHL	C3D-C2D	2.70	1.46	1.39
19	1	603	CLA	CMB-C2B	-2.69	1.46	1.51
27	2	615	CHL	C1D-C2D	2.69	1.50	1.45
19	A	1136	CLA	CMB-C2B	-2.69	1.46	1.51
25	4	631	LMT	O3'-C3'	-2.69	1.36	1.43
19	B	1225	CLA	CMD-C2D	-2.68	1.45	1.50
19	B	1219	CLA	CMB-C2B	-2.68	1.46	1.51
19	A	1116	CLA	CMB-C2B	-2.68	1.46	1.51
19	B	1012	CLA	C4D-ND	-2.68	1.34	1.37
22	B	4006	BCR	C1-C6	-2.68	1.50	1.53
27	1	601	CHL	C3D-C2D	2.68	1.46	1.39
27	4	615	CHL	C1D-C2D	2.67	1.50	1.45
22	B	2004	BCR	C1-C6	-2.67	1.50	1.53
27	2	601	CHL	C3D-C2D	2.67	1.46	1.39
19	A	1138	CLA	CMB-C2B	-2.67	1.46	1.51
22	A	4002	BCR	C30-C25	-2.66	1.50	1.53
19	B	1232	CLA	C4D-ND	-2.66	1.34	1.37
18	A	1011	CL0	CMB-C2B	-2.66	1.46	1.51
22	A	4001	BCR	C1-C6	-2.66	1.50	1.53
19	B	1217	CLA	C4D-ND	-2.65	1.34	1.37
22	1	623	BCR	C30-C25	-2.65	1.50	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	B	1237	CLA	CMB-C2B	-2.65	1.46	1.51
19	L	302	CLA	C4D-ND	-2.64	1.34	1.37
19	A	1119	CLA	CMB-C2B	-2.64	1.46	1.51
19	B	1221	CLA	CMD-C2D	-2.64	1.45	1.50
19	B	1216	CLA	CMB-C2B	-2.64	1.46	1.51
22	A	4003	BCR	C1-C6	-2.64	1.50	1.53
19	A	1117	CLA	CMB-C2B	-2.63	1.46	1.51
19	A	1111	CLA	CMB-C2B	-2.63	1.46	1.51
22	B	4006	BCR	C30-C25	-2.63	1.50	1.53
19	B	1239	CLA	CHC-C1C	2.63	1.41	1.35
19	A	5005	CLA	CMB-C2B	-2.62	1.46	1.51
19	B	1238	CLA	CMB-C2B	-2.62	1.46	1.51
27	4	608	CHL	C3D-C2D	2.62	1.46	1.39
19	A	1103	CLA	CMB-C2B	-2.62	1.46	1.51
19	A	1122	CLA	CMB-C2B	-2.62	1.46	1.51
19	B	1234	CLA	CMB-C2B	-2.62	1.46	1.51
19	B	1206	CLA	CMB-C2B	-2.61	1.46	1.51
19	F	301	CLA	CMB-C2B	-2.61	1.46	1.51
22	3	623	BCR	C30-C25	-2.61	1.50	1.53
22	I	118	BCR	C30-C25	-2.60	1.50	1.53
27	2	601	CHL	C1D-C2D	2.60	1.50	1.45
25	B	5001	LMT	O3'-C3'	-2.59	1.36	1.43
22	A	4011	BCR	C30-C25	-2.59	1.50	1.53
19	A	1139	CLA	CMB-C2B	-2.59	1.46	1.51
19	B	1229	CLA	CMB-C2B	-2.59	1.46	1.51
19	B	1224	CLA	CMB-C2B	-2.59	1.46	1.51
19	B	1231	CLA	CMB-C2B	-2.58	1.46	1.51
25	A	5004	LMT	O3'-C3'	-2.58	1.36	1.43
25	1	631	LMT	O3'-C3'	-2.58	1.36	1.43
27	3	608	CHL	C3D-C2D	2.58	1.46	1.39
19	3	605	CLA	CAD-C3D	-2.57	1.45	1.50
27	3	608	CHL	C1D-C2D	2.57	1.50	1.45
25	G	401	LMT	O3'-C3'	-2.56	1.36	1.43
19	B	1205	CLA	CMC-C2C	-2.56	1.45	1.50
22	A	4002	BCR	C1-C6	-2.56	1.50	1.53
19	2	604	CLA	CMB-C2B	-2.55	1.46	1.51
19	A	1140	CLA	CMB-C2B	-2.55	1.46	1.51
27	2	602	CHL	C1D-C2D	2.55	1.50	1.45
19	B	1204	CLA	CMB-C2B	-2.55	1.46	1.51
19	A	1134	CLA	CMB-C2B	-2.55	1.46	1.51
19	B	1205	CLA	CMB-C2B	-2.55	1.46	1.51
22	B	4017	BCR	C1-C6	-2.54	1.50	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1135	CLA	CMB-C2B	-2.54	1.46	1.51
27	4	608	CHL	C1D-C2D	2.53	1.50	1.45
19	K	203	CLA	CAD-C3D	-2.52	1.45	1.50
19	A	8895	CLA	CMB-C2B	-2.52	1.46	1.51
19	A	1121	CLA	CMB-C2B	-2.52	1.46	1.51
19	A	1105	CLA	CMB-C2B	-2.52	1.46	1.51
19	3	609	CLA	CMB-C2B	-2.51	1.46	1.51
19	A	1103	CLA	CMC-C2C	-2.51	1.45	1.50
18	A	1011	CL0	CMD-C2D	-2.51	1.45	1.50
22	L	420	BCR	C1-C6	-2.50	1.50	1.53
19	A	1109	CLA	CMB-C2B	-2.50	1.46	1.51
22	J	213	BCR	C1-C6	-2.50	1.50	1.53
19	4	610	CLA	CMB-C2B	-2.50	1.46	1.51
19	A	1107	CLA	CMB-C2B	-2.50	1.46	1.51
19	F	303	CLA	CAD-C3D	-2.50	1.45	1.50
19	A	1120	CLA	CMB-C2B	-2.50	1.46	1.51
19	A	1118	CLA	CMB-C2B	-2.50	1.46	1.51
19	3	603	CLA	CMB-C2B	-2.50	1.46	1.51
19	A	1112	CLA	CMB-C2B	-2.50	1.46	1.51
19	3	606	CLA	CMB-C2B	-2.49	1.46	1.51
19	F	302	CLA	CMB-C2B	-2.49	1.46	1.51
19	A	1101	CLA	CMB-C2B	-2.49	1.46	1.51
19	1	612	CLA	CMB-C2B	-2.48	1.46	1.51
27	2	608	CHL	C3D-C2D	2.48	1.45	1.39
25	A	5004	LMT	O2B-C2B	-2.47	1.37	1.43
19	A	1137	CLA	CMB-C2B	-2.47	1.46	1.51
19	1	609	CLA	CMB-C2B	-2.47	1.46	1.51
19	B	1209	CLA	CMB-C2B	-2.46	1.46	1.51
19	K	202	CLA	CMB-C2B	-2.46	1.46	1.51
25	4	631	LMT	O2B-C2B	-2.46	1.37	1.43
19	J	102	CLA	CMB-C2B	-2.46	1.46	1.51
19	1	614	CLA	CMB-C2B	-2.45	1.46	1.51
19	3	613	CLA	CMB-C2B	-2.45	1.46	1.51
19	A	1104	CLA	CMB-C2B	-2.45	1.46	1.51
19	4	611	CLA	CMB-C2B	-2.44	1.46	1.51
19	4	612	CLA	CMB-C2B	-2.44	1.46	1.51
19	A	1106	CLA	CMB-C2B	-2.44	1.46	1.51
19	4	601	CLA	CMB-C2B	-2.44	1.46	1.51
19	G	218	CLA	CMB-C2B	-2.44	1.46	1.51
19	K	204	CLA	CMB-C2B	-2.44	1.46	1.51
22	A	4008	BCR	C1-C6	-2.44	1.50	1.53
19	B	1225	CLA	CMB-C2B	-2.44	1.46	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	B	1212	CLA	CMB-C2B	-2.44	1.46	1.51
19	2	613	CLA	CMB-C2B	-2.44	1.46	1.51
28	4	620	LUT	C23-C24	2.43	1.53	1.50
19	L	302	CLA	CMB-C2B	-2.43	1.46	1.51
19	A	1110	CLA	CMB-C2B	-2.43	1.46	1.51
19	A	1131	CLA	CMB-C2B	-2.43	1.46	1.51
19	1	611	CLA	CMB-C2B	-2.43	1.46	1.51
19	4	604	CLA	CMB-C2B	-2.43	1.46	1.51
19	3	611	CLA	CMB-C2B	-2.43	1.46	1.51
19	4	614	CLA	CMB-C2B	-2.43	1.46	1.51
19	A	1102	CLA	CMB-C2B	-2.42	1.46	1.51
19	A	1127	CLA	CMB-C2B	-2.42	1.46	1.51
19	2	603	CLA	CMB-C2B	-2.42	1.46	1.51
19	B	1208	CLA	CMB-C2B	-2.42	1.46	1.51
19	B	1212	CLA	CMC-C2C	-2.42	1.45	1.50
19	4	603	CLA	CMB-C2B	-2.42	1.46	1.51
27	4	607	CHL	C4C-C3C	2.41	1.49	1.45
19	B	1201	CLA	CMB-C2B	-2.41	1.46	1.51
19	3	610	CLA	CMB-C2B	-2.41	1.46	1.51
25	4	631	LMT	O2'-C2'	-2.41	1.37	1.43
19	1	613	CLA	CMB-C2B	-2.41	1.46	1.51
19	B	1238	CLA	CMD-C2D	-2.41	1.45	1.50
19	A	1109	CLA	CMD-C2D	-2.41	1.45	1.50
19	2	614	CLA	CMB-C2B	-2.41	1.46	1.51
19	4	609	CLA	CMB-C2B	-2.40	1.46	1.51
19	B	1021	CLA	CMD-C2D	-2.40	1.45	1.50
19	B	1228	CLA	CMB-C2B	-2.40	1.46	1.51
19	B	1217	CLA	CMB-C2B	-2.40	1.46	1.51
19	B	1240	CLA	CMB-C2B	-2.40	1.46	1.51
19	3	612	CLA	CMB-C2B	-2.40	1.46	1.51
19	1	604	CLA	CMB-C2B	-2.40	1.46	1.51
19	B	1236	CLA	CMB-C2B	-2.40	1.46	1.51
19	3	607	CLA	CMB-C2B	-2.40	1.46	1.51
25	1	631	LMT	O2'-C2'	-2.39	1.37	1.43
19	B	1021	CLA	CMB-C2B	-2.39	1.46	1.51
19	1	606	CLA	CMB-C2B	-2.39	1.46	1.51
19	A	1013	CLA	CMD-C2D	-2.39	1.45	1.50
19	4	613	CLA	CMB-C2B	-2.39	1.46	1.51
19	G	201	CLA	CMB-C2B	-2.39	1.46	1.51
19	2	609	CLA	CMB-C2B	-2.39	1.46	1.51
27	1	601	CHL	C4C-C3C	2.39	1.49	1.45
19	H	200	CLA	CMB-C2B	-2.39	1.46	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	2	610	CLA	CMB-C2B	-2.38	1.46	1.51
25	B	5001	LMT	O2B-C2B	-2.38	1.37	1.43
25	1	631	LMT	O2B-C2B	-2.38	1.37	1.43
19	2	612	CLA	CMB-C2B	-2.38	1.46	1.51
19	B	1203	CLA	CMB-C2B	-2.38	1.46	1.51
19	A	1113	CLA	CMB-C2B	-2.38	1.46	1.51
19	3	614	CLA	CMB-C2B	-2.38	1.46	1.51
19	1	610	CLA	CMB-C2B	-2.37	1.46	1.51
19	G	202	CLA	CMB-C2B	-2.37	1.46	1.51
27	2	607	CHL	C4C-C3C	2.37	1.49	1.45
19	B	1221	CLA	CMB-C2B	-2.37	1.46	1.51
19	I	121	CLA	CMD-C2D	-2.37	1.45	1.50
19	1	615	CLA	CMB-C2B	-2.37	1.46	1.51
19	A	1140	CLA	CMD-C2D	-2.37	1.45	1.50
19	4	602	CLA	CMB-C2B	-2.37	1.46	1.51
19	B	1202	CLA	CMB-C2B	-2.36	1.46	1.51
25	G	401	LMT	O2'-C2'	-2.36	1.37	1.43
23	A	5001	LHG	O7-C5	-2.36	1.40	1.46
19	B	1023	CLA	CMB-C2B	-2.36	1.46	1.51
22	3	624	BCR	C1-C6	-2.36	1.50	1.53
19	B	1021	CLA	CMC-C2C	-2.36	1.45	1.50
19	1	608	CLA	CMB-C2B	-2.36	1.46	1.51
19	A	1126	CLA	CMC-C2C	-2.36	1.45	1.50
19	L	303	CLA	CMB-C2B	-2.36	1.46	1.51
25	G	402	LMT	O2B-C2B	-2.35	1.37	1.43
22	L	419	BCR	C1-C6	-2.35	1.50	1.53
19	A	1108	CLA	CMB-C2B	-2.35	1.46	1.51
25	A	5004	LMT	O2'-C2'	-2.35	1.37	1.43
19	K	201	CLA	CMB-C2B	-2.35	1.46	1.51
22	B	4014	BCR	C30-C25	-2.35	1.50	1.53
19	B	1223	CLA	CMB-C2B	-2.35	1.46	1.51
25	B	5001	LMT	O2'-C2'	-2.34	1.37	1.43
25	G	401	LMT	O2B-C2B	-2.34	1.37	1.43
25	G	402	LMT	O2'-C2'	-2.34	1.37	1.43
19	B	1219	CLA	CMD-C2D	-2.34	1.45	1.50
19	B	1226	CLA	MG-ND	-2.34	2.01	2.05
19	1	602	CLA	CMD-C2D	-2.33	1.45	1.50
19	B	1211	CLA	CMB-C2B	-2.33	1.46	1.51
19	B	1230	CLA	CMB-C2B	-2.33	1.46	1.51
19	3	617	CLA	CMB-C2B	-2.33	1.46	1.51
25	4	631	LMT	O3B-C3B	-2.33	1.37	1.43
19	B	1222	CLA	CMD-C2D	-2.33	1.45	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	2	608	CHL	C1D-C2D	2.33	1.49	1.45
19	B	1210	CLA	CMC-C2C	-2.32	1.45	1.50
19	A	1022	CLA	CMD-C2D	-2.32	1.45	1.50
19	B	1220	CLA	CMB-C2B	-2.32	1.46	1.51
19	A	1013	CLA	MG-ND	-2.32	2.01	2.05
19	A	1127	CLA	CMD-C2D	-2.32	1.45	1.50
25	G	402	LMT	O3B-C3B	-2.31	1.37	1.43
25	A	5004	LMT	O3B-C3B	-2.31	1.37	1.43
19	A	8895	CLA	CMD-C2D	-2.31	1.45	1.50
19	B	1231	CLA	CMD-C2D	-2.31	1.45	1.50
19	A	1125	CLA	CMB-C2B	-2.31	1.46	1.51
19	B	1222	CLA	CMB-C2B	-2.31	1.46	1.51
19	3	602	CLA	CMB-C2B	-2.31	1.46	1.51
19	A	1118	CLA	CMD-C2D	-2.30	1.45	1.50
25	B	5001	LMT	O3B-C3B	-2.30	1.37	1.43
19	B	1220	CLA	CMD-C2D	-2.30	1.45	1.50
19	A	1127	CLA	MG-ND	-2.30	2.01	2.05
25	1	631	LMT	O3B-C3B	-2.30	1.37	1.43
19	B	1210	CLA	CMD-C2D	-2.30	1.45	1.50
19	B	1224	CLA	CMC-C2C	-2.29	1.46	1.50
27	1	607	CHL	C4C-C3C	2.28	1.49	1.45
19	A	1125	CLA	MG-ND	-2.28	2.01	2.05
19	B	1023	CLA	MG-ND	-2.28	2.01	2.05
19	A	1022	CLA	C3B-CAB	-2.28	1.43	1.47
19	I	121	CLA	CMB-C2B	-2.28	1.46	1.51
22	M	4021	BCR	C1-C6	-2.28	1.50	1.53
19	A	1115	CLA	CMB-C2B	-2.28	1.46	1.51
25	G	401	LMT	O3B-C3B	-2.28	1.37	1.43
19	A	1013	CLA	CMC-C2C	-2.28	1.46	1.50
27	1	601	CHL	C1D-C2D	2.27	1.49	1.45
19	A	1104	CLA	CMD-C2D	-2.27	1.46	1.50
19	1	602	CLA	CMB-C2B	-2.27	1.46	1.51
19	A	1130	CLA	CMB-C2B	-2.27	1.46	1.51
19	B	1210	CLA	CMB-C2B	-2.26	1.46	1.51
19	A	1121	CLA	CMD-C2D	-2.26	1.46	1.50
27	4	606	CHL	C4B-CHC	2.26	1.47	1.41
19	A	1124	CLA	CMB-C2B	-2.26	1.46	1.51
19	1	610	CLA	C1B-NB	2.26	1.37	1.35
19	A	1013	CLA	C1D-ND	2.26	1.40	1.37
19	B	1012	CLA	CMB-C2B	-2.25	1.47	1.51
19	A	5005	CLA	CMD-C2D	-2.25	1.46	1.50
26	B	5002	DGD	C3G-C2G	2.25	1.57	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	2	608	CHL	C4B-CHC	2.25	1.47	1.41
19	1	602	CLA	CMC-C2C	-2.25	1.46	1.50
19	A	1101	CLA	CMC-C2C	-2.25	1.46	1.50
19	A	1128	CLA	CMD-C2D	-2.25	1.46	1.50
25	B	5001	LMT	O4'-C4B	-2.25	1.37	1.43
19	B	1012	CLA	CMC-C2C	-2.24	1.46	1.50
27	2	611	CHL	C1D-C2D	2.23	1.49	1.45
22	B	2004	BCR	C30-C25	-2.23	1.50	1.53
19	B	1213	CLA	CMB-C2B	-2.23	1.47	1.51
19	A	1116	CLA	CMD-C2D	-2.22	1.46	1.50
19	B	1217	CLA	CMD-C2D	-2.22	1.46	1.50
19	A	1126	CLA	CMB-C2B	-2.22	1.47	1.51
27	2	606	CHL	C4B-CHC	2.22	1.47	1.41
25	4	631	LMT	O4'-C4B	-2.22	1.37	1.43
27	4	615	CHL	C4C-C3C	2.22	1.48	1.45
19	A	1125	CLA	CMD-C2D	-2.22	1.46	1.50
19	3	603	CLA	CMC-C2C	-2.21	1.46	1.50
19	B	1229	CLA	C3B-C2B	-2.21	1.37	1.40
22	J	213	BCR	C30-C25	-2.21	1.50	1.53
19	B	1223	CLA	CMC-C2C	-2.20	1.46	1.50
19	B	1202	CLA	CMD-C2D	-2.20	1.46	1.50
19	B	1227	CLA	MG-ND	-2.20	2.01	2.05
27	4	615	CHL	C2C-C1C	2.20	1.49	1.44
27	1	607	CHL	C4B-CHC	2.20	1.47	1.41
19	B	1201	CLA	CMD-C2D	-2.20	1.46	1.50
19	B	1227	CLA	CMD-C2D	-2.20	1.46	1.50
27	4	608	CHL	C2C-C1C	2.20	1.49	1.44
27	4	606	CHL	C4C-C3C	2.20	1.48	1.45
27	2	606	CHL	C2C-C1C	2.20	1.49	1.44
19	B	1214	CLA	C3B-C2B	-2.19	1.37	1.40
19	B	1023	CLA	CMD-C2D	-2.19	1.46	1.50
19	A	1111	CLA	CMC-C2C	-2.19	1.46	1.50
22	B	4005	BCR	C30-C25	-2.19	1.50	1.53
27	2	601	CHL	C4B-CHC	2.19	1.47	1.41
22	A	4001	BCR	C30-C25	-2.19	1.50	1.53
19	A	1139	CLA	CMD-C2D	-2.19	1.46	1.50
19	B	1216	CLA	CMD-C2D	-2.19	1.46	1.50
27	1	601	CHL	C4B-CHC	2.19	1.47	1.41
19	A	1133	CLA	CMD-C2D	-2.18	1.46	1.50
27	3	608	CHL	C4B-CHC	2.18	1.47	1.41
19	B	1225	CLA	CMC-C2C	-2.18	1.46	1.50
19	A	1126	CLA	CMD-C2D	-2.18	1.46	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	B	1012	CLA	CMD-C2D	-2.17	1.46	1.50
27	2	611	CHL	C4C-C3C	2.17	1.48	1.45
19	B	1216	CLA	MG-ND	-2.17	2.01	2.05
27	2	611	CHL	C4B-CHC	2.17	1.47	1.41
19	G	218	CLA	CMD-C2D	-2.17	1.46	1.50
27	4	608	CHL	C4C-C3C	2.17	1.48	1.45
19	A	1132	CLA	CMB-C2B	-2.16	1.47	1.51
19	4	611	CLA	CMD-C2D	-2.16	1.46	1.50
19	A	1104	CLA	CMC-C2C	-2.16	1.46	1.50
19	B	1234	CLA	CMC-C2C	-2.16	1.46	1.50
19	B	1230	CLA	CMC-C2C	-2.16	1.46	1.50
22	B	4009	BCR	C30-C25	-2.16	1.50	1.53
19	4	610	CLA	CMD-C2D	-2.15	1.46	1.50
19	B	1240	CLA	CMD-C2D	-2.15	1.46	1.50
19	B	1220	CLA	CMC-C2C	-2.15	1.46	1.50
19	K	203	CLA	C3C-C2C	2.15	1.40	1.35
19	A	1106	CLA	CMD-C2D	-2.15	1.46	1.50
19	A	1135	CLA	C3B-C2B	-2.14	1.37	1.40
19	A	1134	CLA	CMD-C2D	-2.14	1.46	1.50
25	G	402	LMT	O4'-C4B	-2.14	1.37	1.43
19	B	1211	CLA	CMD-C2D	-2.14	1.46	1.50
19	A	1133	CLA	C3B-C2B	-2.14	1.37	1.40
18	A	1011	CL0	CMC-C2C	-2.14	1.46	1.50
19	B	1206	CLA	CMD-C2D	-2.13	1.46	1.50
27	4	608	CHL	C4B-CHC	2.13	1.46	1.41
19	A	1120	CLA	CMD-C2D	-2.13	1.46	1.50
19	A	1124	CLA	CMD-C2D	-2.13	1.46	1.50
19	F	303	CLA	C3C-C2C	2.13	1.40	1.35
19	A	1022	CLA	C3B-C2B	-2.13	1.37	1.40
27	3	608	CHL	C2C-C1C	2.13	1.49	1.44
19	B	1224	CLA	MG-ND	-2.12	2.01	2.05
19	3	605	CLA	C3C-C2C	2.12	1.40	1.35
27	2	607	CHL	C4B-CHC	2.12	1.46	1.41
27	2	608	CHL	C2C-C1C	2.12	1.49	1.44
22	B	4014	BCR	C1-C6	-2.12	1.50	1.53
22	B	4010	BCR	C30-C25	-2.12	1.50	1.53
19	B	1205	CLA	CMD-C2D	-2.12	1.46	1.50
19	B	1235	CLA	CMD-C2D	-2.12	1.46	1.50
26	B	5002	DGD	C3D-C2D	2.12	1.57	1.52
19	A	1131	CLA	CMD-C2D	-2.12	1.46	1.50
23	B	5101	LHG	O7-C5	-2.11	1.41	1.46
19	A	1114	CLA	CMD-C2D	-2.11	1.46	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1135	CLA	C3B-CAB	-2.11	1.43	1.47
19	3	606	CLA	CMC-C2C	-2.11	1.46	1.50
27	2	611	CHL	C1D-ND	-2.11	1.35	1.37
19	A	1801	CLA	CMD-C2D	-2.11	1.46	1.50
25	A	5004	LMT	O4'-C4B	-2.11	1.38	1.43
19	B	1224	CLA	CMD-C2D	-2.11	1.46	1.50
19	B	1021	CLA	MG-ND	-2.11	2.01	2.05
27	4	615	CHL	C4B-CHC	2.11	1.46	1.41
22	G	311	BCR	C30-C25	-2.10	1.50	1.53
19	A	1112	CLA	CMD-C2D	-2.10	1.46	1.50
27	2	615	CHL	C4B-CHC	2.10	1.46	1.41
19	2	613	CLA	CMD-C2D	-2.10	1.46	1.50
19	B	1215	CLA	CMC-C2C	-2.10	1.46	1.50
19	B	1239	CLA	CMD-C2D	-2.10	1.46	1.50
19	A	1122	CLA	CMC-C2C	-2.10	1.46	1.50
19	1	603	CLA	CMD-C2D	-2.10	1.46	1.50
24	J	302	LMG	C4-C5	2.10	1.57	1.53
19	B	1202	CLA	CMC-C2C	-2.10	1.46	1.50
27	4	607	CHL	C4B-CHC	2.10	1.46	1.41
19	G	201	CLA	CMD-C2D	-2.10	1.46	1.50
25	1	631	LMT	O4'-C4B	-2.09	1.38	1.43
22	I	118	BCR	C1-C6	-2.09	1.50	1.53
27	2	602	CHL	C4C-C3C	2.09	1.48	1.45
19	A	1108	CLA	CMC-C2C	-2.09	1.46	1.50
19	4	613	CLA	CMD-C2D	-2.09	1.46	1.50
19	A	1101	CLA	CMD-C2D	-2.09	1.46	1.50
27	2	601	CHL	C4C-C3C	2.09	1.48	1.45
19	4	609	CLA	CMD-C2D	-2.09	1.46	1.50
27	2	606	CHL	C4C-C3C	2.09	1.48	1.45
19	B	1203	CLA	CMD-C2D	-2.09	1.46	1.50
19	A	1136	CLA	CMD-C2D	-2.08	1.46	1.50
19	B	1230	CLA	CMD-C2D	-2.08	1.46	1.50
19	1	611	CLA	CMD-C2D	-2.08	1.46	1.50
19	B	1212	CLA	CMD-C2D	-2.08	1.46	1.50
19	B	1227	CLA	CMC-C2C	-2.08	1.46	1.50
23	4	630	LHG	P-O6	2.08	1.67	1.59
19	A	1128	CLA	MG-ND	-2.08	2.01	2.05
19	A	1126	CLA	MG-ND	-2.08	2.01	2.05
19	3	613	CLA	CMD-C2D	-2.08	1.46	1.50
19	A	1111	CLA	CMD-C2D	-2.08	1.46	1.50
27	2	602	CHL	C4B-CHC	2.08	1.46	1.41
19	B	1237	CLA	CMD-C2D	-2.07	1.46	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1139	CLA	CMC-C2C	-2.07	1.46	1.50
19	3	602	CLA	CMD-C2D	-2.07	1.46	1.50
19	B	1234	CLA	CMD-C2D	-2.07	1.46	1.50
22	A	4011	BCR	C1-C6	-2.07	1.50	1.53
22	I	120	BCR	C33-C5	-2.07	1.47	1.50
19	3	606	CLA	CMD-C2D	-2.07	1.46	1.50
19	B	1203	CLA	CMC-C2C	-2.07	1.46	1.50
19	B	1237	CLA	C3B-C2B	-2.07	1.37	1.40
25	G	401	LMT	O4'-C4B	-2.07	1.38	1.43
19	A	1115	CLA	CMD-C2D	-2.07	1.46	1.50
19	1	610	CLA	CMC-C2C	-2.06	1.46	1.50
19	A	1103	CLA	CMD-C2D	-2.06	1.46	1.50
19	A	1105	CLA	CMD-C2D	-2.06	1.46	1.50
19	A	1106	CLA	CMC-C2C	-2.06	1.46	1.50
19	A	1110	CLA	CMD-C2D	-2.06	1.46	1.50
19	F	301	CLA	CMD-C2D	-2.06	1.46	1.50
19	1	606	CLA	CMD-C2D	-2.06	1.46	1.50
19	3	604	CLA	CMD-C2D	-2.06	1.46	1.50
19	B	1223	CLA	CMD-C2D	-2.06	1.46	1.50
19	K	204	CLA	CMC-C2C	-2.06	1.46	1.50
19	3	611	CLA	CMD-C2D	-2.06	1.46	1.50
19	A	1107	CLA	CMD-C2D	-2.06	1.46	1.50
19	B	1215	CLA	CMD-C2D	-2.05	1.46	1.50
27	1	607	CHL	C2C-C1C	2.05	1.49	1.44
19	A	1125	CLA	C3C-C2C	2.05	1.41	1.36
26	B	5002	DGD	C4E-C3E	2.05	1.57	1.52
19	B	1214	CLA	CMC-C2C	-2.05	1.46	1.50
19	B	1237	CLA	CMC-C2C	-2.05	1.46	1.50
19	B	1213	CLA	CMD-C2D	-2.05	1.46	1.50
19	B	1240	CLA	CMC-C2C	-2.05	1.46	1.50
25	B	5001	LMT	O1'-C1'	-2.05	1.36	1.40
19	A	1138	CLA	CMD-C2D	-2.05	1.46	1.50
19	A	1109	CLA	MG-ND	-2.05	2.01	2.05
19	I	121	CLA	CMC-C2C	-2.05	1.46	1.50
19	A	1137	CLA	CMD-C2D	-2.05	1.46	1.50
19	1	608	CLA	CMD-C2D	-2.04	1.46	1.50
19	A	1102	CLA	CMC-C2C	-2.04	1.46	1.50
27	4	606	CHL	C2C-C1C	2.04	1.49	1.44
22	1	623	BCR	C12-C13	-2.04	1.44	1.50
19	2	609	CLA	CMD-C2D	-2.04	1.46	1.50
22	M	4021	BCR	C30-C25	-2.04	1.51	1.53
19	B	1214	CLA	MG-ND	-2.04	2.01	2.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	2	603	CLA	CMD-C2D	-2.04	1.46	1.50
19	A	1119	CLA	CMC-C2C	-2.04	1.46	1.50
19	4	601	CLA	CMD-C2D	-2.04	1.46	1.50
19	B	1219	CLA	MG-ND	-2.03	2.01	2.05
19	B	1221	CLA	MG-ND	-2.03	2.01	2.05
19	B	1236	CLA	CMD-C2D	-2.03	1.46	1.50
19	B	1209	CLA	CMD-C2D	-2.03	1.46	1.50
19	4	603	CLA	CMD-C2D	-2.03	1.46	1.50
18	A	1011	CL0	MG-ND	-2.03	2.01	2.05
19	2	610	CLA	CMD-C2D	-2.03	1.46	1.50
19	A	1116	CLA	MG-ND	-2.03	2.01	2.05
19	J	102	CLA	CMD-C2D	-2.03	1.46	1.50
19	K	204	CLA	CMD-C2D	-2.03	1.46	1.50
19	B	1213	CLA	CMC-C2C	-2.03	1.46	1.50
19	2	604	CLA	CMD-C2D	-2.03	1.46	1.50
19	A	8895	CLA	MG-ND	-2.03	2.01	2.05
19	3	617	CLA	CMD-C2D	-2.03	1.46	1.50
19	F	302	CLA	CMD-C2D	-2.03	1.46	1.50
19	3	609	CLA	CMD-C2D	-2.03	1.46	1.50
19	4	614	CLA	CMD-C2D	-2.03	1.46	1.50
19	A	1119	CLA	CMD-C2D	-2.02	1.46	1.50
19	A	1132	CLA	CMD-C2D	-2.02	1.46	1.50
19	1	614	CLA	CMD-C2D	-2.02	1.46	1.50
19	B	1208	CLA	CMD-C2D	-2.02	1.46	1.50
19	A	1130	CLA	CMD-C2D	-2.02	1.46	1.50
19	B	1232	CLA	CMD-C2D	-2.02	1.46	1.50
19	B	1228	CLA	CMC-C2C	-2.02	1.46	1.50
22	3	624	BCR	C30-C25	-2.02	1.51	1.53
19	A	1135	CLA	CMD-C2D	-2.02	1.46	1.50
19	A	1117	CLA	CMD-C2D	-2.01	1.46	1.50
19	3	610	CLA	CMD-C2D	-2.01	1.46	1.50
19	L	303	CLA	CMC-C2C	-2.01	1.46	1.50
27	2	615	CHL	C4C-C3C	2.01	1.48	1.45
19	L	301	CLA	CMD-C2D	-2.01	1.46	1.50
27	2	602	CHL	C2C-C1C	2.01	1.48	1.44
23	A	5003	LHG	O7-C5	-2.01	1.41	1.46
19	K	202	CLA	CMD-C2D	-2.01	1.46	1.50
19	A	1108	CLA	CMD-C2D	-2.01	1.46	1.50
19	2	612	CLA	CMD-C2D	-2.01	1.46	1.50
19	B	1229	CLA	CMD-C2D	-2.01	1.46	1.50
19	2	614	CLA	CMD-C2D	-2.01	1.46	1.50
19	L	302	CLA	CMD-C2D	-2.01	1.46	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	A	1132	CLA	CMC-C2C	-2.01	1.46	1.50
19	1	604	CLA	CMD-C2D	-2.01	1.46	1.50
19	L	303	CLA	CMD-C2D	-2.01	1.46	1.50
19	4	610	CLA	MG-ND	-2.01	2.01	2.05
19	A	1122	CLA	CMD-C2D	-2.01	1.46	1.50
19	1	615	CLA	CMD-C2D	-2.01	1.46	1.50
19	4	602	CLA	CMD-C2D	-2.01	1.46	1.50
19	A	1801	CLA	CMC-C2C	-2.00	1.46	1.50
19	3	603	CLA	CMD-C2D	-2.00	1.46	1.50
19	K	201	CLA	CMC-C2C	-2.00	1.46	1.50
19	A	1140	CLA	CMC-C2C	-2.00	1.46	1.50
19	A	1112	CLA	CMC-C2C	-2.00	1.46	1.50
19	B	1214	CLA	CMD-C2D	-2.00	1.46	1.50

All (1963) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	2	609	CLA	C4A-NA-C1A	10.19	111.29	106.71
19	4	609	CLA	C4A-NA-C1A	9.93	111.17	106.71
19	1	609	CLA	C4A-NA-C1A	9.33	110.90	106.71
19	A	1106	CLA	C4A-NA-C1A	9.24	110.86	106.71
19	1	610	CLA	C4A-NA-C1A	9.21	110.84	106.71
28	4	621	LUT	C37-C21-C22	8.92	126.32	109.44
19	3	602	CLA	C4A-NA-C1A	8.76	110.65	106.71
27	3	608	CHL	CMD-C2D-C1D	8.73	140.09	124.71
19	4	610	CLA	C4A-NA-C1A	8.67	110.61	106.71
27	2	607	CHL	CMD-C2D-C1D	8.64	139.94	124.71
19	A	1127	CLA	C4A-NA-C1A	8.64	110.59	106.71
27	1	607	CHL	CMD-C2D-C1D	8.63	139.92	124.71
28	4	621	LUT	O23-C23-C22	-8.62	88.94	110.74
19	B	1226	CLA	CMB-C2B-C1B	-8.56	115.30	128.46
27	2	601	CHL	CMD-C2D-C1D	8.53	139.75	124.71
19	B	1216	CLA	CMB-C2B-C1B	-8.51	115.38	128.46
27	4	608	CHL	CMD-C2D-C1D	8.48	139.65	124.71
19	B	1232	CLA	C4A-NA-C1A	8.46	110.51	106.71
27	2	608	CHL	CMD-C2D-C1D	8.43	139.58	124.71
19	B	1215	CLA	C4A-NA-C1A	8.41	110.49	106.71
27	2	606	CHL	CMD-C2D-C1D	8.37	139.46	124.71
27	1	601	CHL	C2C-C3C-C4C	-8.32	100.56	106.49
27	4	606	CHL	CMD-C2D-C1D	8.27	139.28	124.71
27	2	608	CHL	C2C-C3C-C4C	-8.26	100.60	106.49
27	4	607	CHL	CMD-C2D-C1D	8.25	139.26	124.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	4	615	CHL	CMD-C2D-C1D	8.24	139.24	124.71
27	2	615	CHL	CMD-C2D-C1D	8.22	139.21	124.71
19	A	1125	CLA	C4A-NA-C1A	8.12	110.36	106.71
27	1	601	CHL	CMD-C2D-C1D	8.05	138.90	124.71
19	B	1221	CLA	C4A-NA-C1A	8.00	110.30	106.71
19	A	1105	CLA	C4A-NA-C1A	7.93	110.27	106.71
19	3	614	CLA	C4A-NA-C1A	7.91	110.26	106.71
19	1	602	CLA	C4A-NA-C1A	7.85	110.23	106.71
27	2	611	CHL	C2C-C3C-C4C	-7.79	100.94	106.49
27	2	602	CHL	C2C-C3C-C4C	-7.77	100.95	106.49
27	4	607	CHL	C2C-C3C-C4C	-7.76	100.96	106.49
27	2	601	CHL	C2C-C3C-C4C	-7.69	101.00	106.49
19	B	1205	CLA	C4A-NA-C1A	7.69	110.16	106.71
28	4	620	LUT	C22-C23-C24	-7.68	103.00	111.74
19	A	1114	CLA	C4A-NA-C1A	7.65	110.15	106.71
19	1	614	CLA	C4A-NA-C1A	7.65	110.15	106.71
19	A	1108	CLA	C4A-NA-C1A	7.65	110.14	106.71
19	A	1121	CLA	C4A-NA-C1A	7.64	110.14	106.71
19	L	303	CLA	C4A-NA-C1A	7.55	110.10	106.71
27	2	607	CHL	C2C-C3C-C4C	-7.51	101.14	106.49
19	B	1211	CLA	C4A-NA-C1A	7.48	110.07	106.71
27	1	607	CHL	C2C-C3C-C4C	-7.47	101.17	106.49
19	L	301	CLA	C4A-NA-C1A	7.46	110.06	106.71
27	4	608	CHL	C2C-C3C-C4C	-7.45	101.18	106.49
19	B	1240	CLA	C4A-NA-C1A	7.44	110.05	106.71
27	4	606	CHL	C2C-C3C-C4C	-7.43	101.19	106.49
27	2	611	CHL	CMD-C2D-C1D	7.41	137.78	124.71
19	B	1202	CLA	C4A-NA-C1A	7.40	110.03	106.71
27	2	602	CHL	CMD-C2D-C1D	7.39	137.73	124.71
19	A	1134	CLA	C4A-NA-C1A	7.36	110.01	106.71
19	A	1132	CLA	C4A-NA-C1A	7.34	110.00	106.71
19	A	1113	CLA	C4A-NA-C1A	7.28	109.98	106.71
19	A	1107	CLA	C4A-NA-C1A	7.26	109.97	106.71
27	4	615	CHL	C2C-C3C-C4C	-7.22	101.34	106.49
28	4	621	LUT	C38-C25-C24	-7.22	108.12	123.56
19	A	1110	CLA	C4A-NA-C1A	7.22	109.95	106.71
19	2	614	CLA	C4A-NA-C1A	7.17	109.93	106.71
19	A	1122	CLA	C4A-NA-C1A	7.17	109.93	106.71
19	B	1212	CLA	C4A-NA-C1A	7.10	109.90	106.71
19	J	102	CLA	C4A-NA-C1A	7.08	109.89	106.71
19	B	1219	CLA	CMB-C2B-C1B	-7.07	117.59	128.46
28	4	621	LUT	C36-C21-C22	-7.04	96.10	109.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1210	CLA	C4A-NA-C1A	7.04	109.87	106.71
19	A	1119	CLA	CMB-C2B-C1B	-7.04	117.65	128.46
19	A	8895	CLA	C4A-NA-C1A	7.00	109.85	106.71
19	B	1226	CLA	C2D-C1D-ND	-7.00	104.94	110.10
19	B	1209	CLA	C4A-NA-C1A	6.99	109.85	106.71
19	A	1126	CLA	C4A-NA-C1A	6.96	109.83	106.71
19	1	604	CLA	C4A-NA-C1A	6.95	109.83	106.71
19	4	601	CLA	C4A-NA-C1A	6.93	109.82	106.71
19	1	606	CLA	C4A-NA-C1A	6.91	109.81	106.71
19	A	1111	CLA	C4A-NA-C1A	6.90	109.81	106.71
19	A	1128	CLA	CMB-C2B-C1B	-6.89	117.88	128.46
27	2	606	CHL	C2C-C3C-C4C	-6.87	101.59	106.49
19	1	608	CLA	C4A-NA-C1A	6.85	109.79	106.71
19	3	603	CLA	C4A-NA-C1A	6.85	109.78	106.71
19	4	602	CLA	C4A-NA-C1A	6.85	109.78	106.71
19	A	1013	CLA	CMB-C2B-C1B	-6.84	117.95	128.46
19	A	1139	CLA	C4A-NA-C1A	6.83	109.78	106.71
19	A	1126	CLA	CMB-C2B-C1B	-6.82	117.98	128.46
19	B	1222	CLA	C4A-NA-C1A	6.76	109.74	106.71
19	3	607	CLA	C4A-NA-C1A	6.71	109.72	106.71
19	3	604	CLA	C4A-NA-C1A	6.68	109.71	106.71
27	3	608	CHL	C2C-C3C-C4C	-6.68	101.73	106.49
19	4	611	CLA	C4A-NA-C1A	6.67	109.70	106.71
19	B	1202	CLA	CMB-C2B-C1B	-6.64	118.26	128.46
19	A	1801	CLA	C4A-NA-C1A	6.63	109.69	106.71
19	A	1138	CLA	C4A-NA-C1A	6.62	109.68	106.71
27	2	615	CHL	C2C-C3C-C4C	-6.61	101.78	106.49
19	1	615	CLA	C4A-NA-C1A	6.57	109.66	106.71
19	4	613	CLA	C4A-NA-C1A	6.57	109.66	106.71
19	B	1208	CLA	C4A-NA-C1A	6.57	109.66	106.71
19	B	1229	CLA	C4A-NA-C1A	6.56	109.65	106.71
19	B	1206	CLA	CMB-C2B-C1B	-6.55	118.40	128.46
19	3	613	CLA	C4A-NA-C1A	6.50	109.63	106.71
19	F	301	CLA	C4A-NA-C1A	6.47	109.62	106.71
19	G	218	CLA	C4A-NA-C1A	6.45	109.60	106.71
19	B	1213	CLA	CMB-C2B-C1B	-6.43	118.58	128.46
19	G	201	CLA	C4A-NA-C1A	6.40	109.58	106.71
19	B	1239	CLA	CMB-C2B-C1B	-6.40	118.63	128.46
19	B	1215	CLA	CMB-C2B-C1B	-6.37	118.67	128.46
19	2	613	CLA	C4A-NA-C1A	6.34	109.56	106.71
19	A	1114	CLA	CMB-C2B-C1B	-6.32	118.75	128.46
19	B	1234	CLA	CMB-C2B-C1B	-6.28	118.81	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	2	611	CHL	O2D-CGD-CBD	6.28	122.43	111.27
28	4	623	LUT	C21-C26-C27	6.28	120.63	112.70
19	2	604	CLA	C4A-NA-C1A	6.25	109.51	106.71
18	A	1011	CL0	C4A-NA-C1A	6.23	109.51	106.71
19	B	1227	CLA	C4A-NA-C1A	6.21	109.50	106.71
19	B	1214	CLA	C4A-NA-C1A	6.21	109.50	106.71
19	B	1210	CLA	CMB-C2B-C1B	-6.17	118.97	128.46
19	3	605	CLA	C4A-NA-C1A	6.17	109.48	106.71
28	4	621	LUT	C37-C21-C36	-6.17	98.80	107.89
28	3	620	LUT	C21-C26-C27	6.14	120.46	112.70
19	1	610	CLA	CMB-C2B-C1B	-6.13	119.04	128.46
27	2	601	CHL	O2D-CGD-CBD	6.12	122.15	111.27
19	B	1228	CLA	C4A-NA-C1A	6.12	109.46	106.71
19	B	1224	CLA	CMB-C2B-C1B	-6.12	119.06	128.46
19	A	1103	CLA	C4A-NA-C1A	6.09	109.44	106.71
19	A	1101	CLA	C4A-NA-C1A	6.09	109.44	106.71
27	2	608	CHL	C3C-C4C-NC	6.08	117.39	110.57
19	F	303	CLA	C4A-NA-C1A	6.07	109.44	106.71
19	B	1012	CLA	CMB-C2B-C1B	-6.05	119.16	128.46
28	1	620	LUT	C38-C25-C24	-6.03	110.65	123.56
27	1	601	CHL	CAC-C3C-C4C	6.02	132.62	124.81
19	2	612	CLA	C4A-NA-C1A	6.02	109.41	106.71
19	B	1231	CLA	C4A-NA-C1A	6.01	109.41	106.71
19	K	203	CLA	C4A-NA-C1A	6.00	109.41	106.71
28	3	621	LUT	C21-C26-C27	5.92	120.18	112.70
19	A	1120	CLA	C4A-NA-C1A	5.90	109.36	106.71
27	1	607	CHL	CHD-C1D-ND	-5.89	119.04	124.45
19	B	1238	CLA	CMB-C2B-C1B	-5.88	119.42	128.46
27	2	611	CHL	C3C-C4C-NC	5.87	117.15	110.57
19	B	1237	CLA	C4A-NA-C1A	5.87	109.34	106.71
19	B	1227	CLA	CMB-C2B-C1B	-5.87	119.45	128.46
19	A	1135	CLA	C4A-NA-C1A	5.87	109.34	106.71
27	2	606	CHL	CHD-C1D-ND	-5.86	119.07	124.45
19	A	1130	CLA	CMB-C2B-C1B	-5.86	119.46	128.46
27	2	615	CHL	CHD-C1D-ND	-5.85	119.08	124.45
19	3	609	CLA	C4A-NA-C1A	5.85	109.33	106.71
28	2	621	LUT	C21-C26-C27	5.84	120.09	112.70
19	B	1206	CLA	C4A-NA-C1A	5.84	109.33	106.71
19	A	1117	CLA	C4A-NA-C1A	5.84	109.33	106.71
19	B	1232	CLA	CMB-C2B-C1B	-5.84	119.49	128.46
19	A	1105	CLA	CMB-C2B-C1B	-5.83	119.50	128.46
27	2	601	CHL	CHD-C1D-ND	-5.82	119.10	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	F	302	CLA	C4A-NA-C1A	5.81	109.32	106.71
19	B	1223	CLA	CMB-C2B-C1B	-5.81	119.54	128.46
19	B	1212	CLA	CMB-C2B-C1B	-5.79	119.56	128.46
19	A	1136	CLA	CMB-C2B-C1B	-5.77	119.60	128.46
27	2	607	CHL	CHD-C1D-ND	-5.76	119.17	124.45
19	L	303	CLA	CMB-C2B-C1B	-5.75	119.62	128.46
19	4	614	CLA	C4A-NA-C1A	5.75	109.29	106.71
19	B	1225	CLA	C4A-NA-C1A	5.74	109.29	106.71
28	2	621	LUT	C21-C26-C25	5.73	121.68	111.42
19	1	604	CLA	CMB-C2B-C1B	-5.73	119.66	128.46
19	4	604	CLA	CMB-C2B-C1B	-5.72	119.67	128.46
28	1	621	LUT	C38-C25-C24	-5.72	111.33	123.56
27	4	606	CHL	CHD-C1D-ND	-5.71	119.20	124.45
19	A	1801	CLA	CMB-C2B-C1B	-5.70	119.70	128.46
19	A	1117	CLA	CMB-C2B-C1B	-5.70	119.70	128.46
19	3	611	CLA	C4A-NA-C1A	5.70	109.27	106.71
19	G	202	CLA	C4A-NA-C1A	5.68	109.26	106.71
28	3	620	LUT	C21-C26-C25	5.67	121.57	111.42
19	I	121	CLA	CMB-C2B-C1B	-5.66	119.77	128.46
27	1	601	CHL	C3C-C4C-NC	5.66	116.92	110.57
19	A	1124	CLA	CMB-C2B-C1B	-5.65	119.78	128.46
19	1	602	CLA	CMB-C2B-C1B	-5.64	119.80	128.46
19	A	1109	CLA	C4A-NA-C1A	5.63	109.24	106.71
27	2	608	CHL	CHD-C4C-C3C	-5.63	116.56	124.84
19	L	301	CLA	CMB-C2B-C1B	-5.63	119.82	128.46
19	A	1108	CLA	CMB-C2B-C1B	-5.61	119.84	128.46
27	4	608	CHL	C3C-C4C-NC	5.60	116.86	110.57
19	B	1225	CLA	CMB-C2B-C1B	-5.60	119.86	128.46
22	A	4008	BCR	C40-C30-C25	5.60	119.38	110.30
27	4	615	CHL	CHD-C1D-ND	-5.59	119.31	124.45
28	3	621	LUT	C21-C26-C25	5.59	121.44	111.42
19	A	1104	CLA	C4A-NA-C1A	5.59	109.22	106.71
19	4	604	CLA	C4A-NA-C1A	5.58	109.21	106.71
19	A	1132	CLA	CMB-C2B-C1B	-5.57	119.90	128.46
19	A	1125	CLA	CMB-C2B-C1B	-5.57	119.90	128.46
19	B	1023	CLA	C4A-NA-C1A	5.57	109.21	106.71
28	2	620	LUT	C21-C26-C25	5.56	121.39	111.42
27	4	607	CHL	CHD-C1D-ND	-5.56	119.35	124.45
19	A	1116	CLA	CMB-C2B-C1B	-5.56	119.92	128.46
22	I	120	BCR	C40-C30-C25	5.54	119.28	110.30
19	3	606	CLA	C4A-NA-C1A	5.53	109.19	106.71
27	3	608	CHL	CHD-C1D-ND	-5.52	119.38	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	K	204	CLA	C4A-NA-C1A	5.51	109.18	106.71
27	4	608	CHL	CHD-C1D-ND	-5.50	119.40	124.45
27	4	615	CHL	C3C-C4C-NC	5.49	116.73	110.57
27	2	602	CHL	C3C-C4C-NC	5.49	116.72	110.57
27	2	601	CHL	C3C-C4C-NC	5.48	116.72	110.57
27	3	608	CHL	C3C-C4C-NC	5.47	116.70	110.57
22	A	4007	BCR	C40-C30-C25	5.46	119.16	110.30
19	A	1124	CLA	C4A-NA-C1A	5.45	109.16	106.71
27	4	606	CHL	C3C-C4C-NC	5.43	116.66	110.57
19	4	612	CLA	C4A-NA-C1A	5.42	109.14	106.71
27	1	607	CHL	C3C-C4C-NC	5.42	116.65	110.57
19	A	5005	CLA	CMB-C2B-C1B	-5.41	120.14	128.46
19	B	1219	CLA	C4A-NA-C1A	5.41	109.14	106.71
27	2	602	CHL	CHD-C1D-ND	-5.37	119.52	124.45
19	3	612	CLA	C4A-NA-C1A	5.37	109.12	106.71
28	2	620	LUT	C21-C26-C27	5.36	119.48	112.70
19	2	603	CLA	C4A-NA-C1A	5.35	109.11	106.71
19	A	1131	CLA	C4A-NA-C1A	5.34	109.11	106.71
27	1	601	CHL	O2D-CGD-CBD	5.34	120.75	111.27
28	2	620	LUT	C40-C33-C32	5.34	126.48	118.08
19	4	602	CLA	CMB-C2B-C1B	-5.34	120.26	128.46
19	A	1138	CLA	CMB-C2B-C1B	-5.33	120.27	128.46
19	B	1230	CLA	C4A-NA-C1A	5.33	109.10	106.71
19	1	606	CLA	CMB-C2B-C1B	-5.33	120.28	128.46
19	B	1203	CLA	CMB-C2B-C1B	-5.32	120.28	128.46
27	4	607	CHL	C3C-C4C-NC	5.31	116.53	110.57
19	A	1137	CLA	C4A-NA-C1A	5.28	109.08	106.71
27	1	601	CHL	C2D-C1D-ND	5.28	114.00	110.10
28	2	623	LUT	C21-C26-C27	5.28	119.37	112.70
27	2	607	CHL	C3C-C4C-NC	5.27	116.48	110.57
27	2	606	CHL	C3C-C4C-NC	5.26	116.47	110.57
19	B	1021	CLA	C4A-NA-C1A	5.26	109.07	106.71
27	2	615	CHL	C3C-C4C-NC	5.25	116.46	110.57
28	4	620	LUT	C38-C25-C24	-5.25	112.33	123.56
27	2	608	CHL	CHD-C1D-ND	-5.23	119.65	124.45
27	1	607	CHL	O2D-CGD-CBD	5.22	120.55	111.27
18	A	1011	CL0	CMB-C2B-C1B	-5.22	120.44	128.46
27	2	608	CHL	C3D-C2D-C1D	-5.22	98.71	105.83
19	B	1203	CLA	C4A-NA-C1A	5.20	109.05	106.71
27	1	601	CHL	C3D-C2D-C1D	-5.18	98.76	105.83
19	A	1133	CLA	CMB-C2B-C1B	-5.18	120.51	128.46
19	A	1132	CLA	CMB-C2B-C3B	5.17	134.34	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1211	CLA	CMB-C2B-C1B	-5.14	120.57	128.46
27	1	601	CHL	CHD-C1D-ND	-5.13	119.74	124.45
19	A	1127	CLA	CMB-C2B-C1B	-5.13	120.59	128.46
28	2	623	LUT	C21-C26-C25	5.12	120.58	111.42
27	3	608	CHL	C3D-C2D-C1D	-5.11	98.85	105.83
19	B	1235	CLA	CMB-C2B-C1B	-5.10	120.62	128.46
27	2	615	CHL	O2D-CGD-CBD	5.10	120.33	111.27
19	B	1236	CLA	C4A-NA-C1A	5.10	109.00	106.71
19	K	201	CLA	C4A-NA-C1A	5.10	109.00	106.71
27	2	606	CHL	O2D-CGD-CBD	5.08	120.30	111.27
19	B	1221	CLA	CMB-C2B-C1B	-5.05	120.70	128.46
27	4	606	CHL	O2D-CGD-CBD	5.04	120.22	111.27
19	A	1111	CLA	CMB-C2B-C1B	-5.03	120.74	128.46
28	1	621	LUT	O23-C23-C22	5.02	123.44	110.74
19	B	1217	CLA	CMB-C2B-C1B	-5.02	120.75	128.46
27	4	607	CHL	O2D-CGD-CBD	4.97	120.11	111.27
19	I	121	CLA	C4A-NA-C1A	4.96	108.94	106.71
19	B	1224	CLA	C4A-NA-C1A	4.96	108.94	106.71
27	2	602	CHL	O2D-CGD-CBD	4.95	120.06	111.27
27	2	601	CHL	C3D-C2D-C1D	-4.94	99.09	105.83
19	3	617	CLA	CMB-C2B-C1B	-4.93	120.88	128.46
19	3	617	CLA	C4A-NA-C1A	4.93	108.92	106.71
27	2	601	CHL	C2D-C1D-ND	4.93	113.74	110.10
19	K	202	CLA	CMB-C2B-C1B	-4.93	120.89	128.46
19	B	1023	CLA	CMB-C2B-C1B	-4.91	120.92	128.46
27	4	615	CHL	O2D-CGD-CBD	4.90	119.98	111.27
19	A	1106	CLA	CMB-C2B-C1B	-4.90	120.93	128.46
19	3	609	CLA	CMB-C2B-C1B	-4.90	120.94	128.46
27	2	602	CHL	C3D-C2D-C1D	-4.90	99.15	105.83
27	3	608	CHL	CHD-C4C-C3C	-4.89	117.65	124.84
19	A	8895	CLA	CMB-C2B-C1B	-4.88	120.96	128.46
19	B	1220	CLA	C4A-NA-C1A	4.88	108.90	106.71
19	A	1120	CLA	CMB-C2B-C1B	-4.88	120.97	128.46
19	A	1119	CLA	C4A-NA-C1A	4.87	108.90	106.71
19	B	1208	CLA	CMB-C2B-C1B	-4.86	120.99	128.46
19	A	1013	CLA	CHD-C1D-ND	-4.86	119.99	124.45
19	B	1224	CLA	C2D-C1D-ND	-4.85	106.53	110.10
27	4	615	CHL	C3D-C2D-C1D	-4.85	99.21	105.83
19	K	201	CLA	CMB-C2B-C1B	-4.85	121.00	128.46
27	2	615	CHL	C3D-C2D-C1D	-4.85	99.21	105.83
28	1	620	LUT	O23-C23-C22	4.85	123.01	110.74
19	3	604	CLA	CMB-C2B-C1B	-4.84	121.02	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	2	608	CHL	C2D-C1D-ND	4.83	113.66	110.10
27	2	606	CHL	C3D-C2D-C1D	-4.82	99.25	105.83
19	A	1102	CLA	C4A-NA-C1A	4.82	108.87	106.71
28	4	623	LUT	C21-C26-C25	4.82	120.05	111.42
19	1	613	CLA	C4A-NA-C1A	4.81	108.87	106.71
19	K	202	CLA	C4A-NA-C1A	4.80	108.86	106.71
27	4	606	CHL	C3D-C2D-C1D	-4.80	99.29	105.83
27	4	607	CHL	C3D-C2D-C1D	-4.80	99.29	105.83
27	2	602	CHL	C2D-C1D-ND	4.79	113.64	110.10
19	B	1238	CLA	C4A-NA-C1A	4.78	108.85	106.71
19	B	1222	CLA	CMB-C2B-C1B	-4.75	121.17	128.46
28	2	623	LUT	C22-C23-C24	-4.74	106.35	111.74
19	B	1222	CLA	CHD-C1D-ND	-4.74	120.10	124.45
27	2	611	CHL	CHD-C4C-C3C	-4.74	117.88	124.84
19	3	610	CLA	CMB-C2B-C1B	-4.73	121.19	128.46
19	H	200	CLA	C4A-NA-C1A	4.72	108.83	106.71
19	B	1204	CLA	CMB-C2B-C1B	-4.72	121.20	128.46
19	B	1217	CLA	C4A-NA-C1A	4.72	108.83	106.71
28	3	621	LUT	C40-C33-C32	4.72	125.51	118.08
19	A	1126	CLA	C4-C3-C5	4.71	123.20	115.27
27	3	608	CHL	C2D-C1D-ND	4.71	113.58	110.10
22	B	4010	BCR	C15-C16-C17	-4.71	113.83	123.47
19	B	1214	CLA	CMB-C2B-C1B	-4.70	121.24	128.46
19	A	1115	CLA	CMB-C2B-C1B	-4.70	121.24	128.46
27	2	607	CHL	C3D-C2D-C1D	-4.68	99.44	105.83
28	1	621	LUT	C21-C26-C27	4.68	118.62	112.70
19	1	608	CLA	CMB-C2B-C1B	-4.68	121.28	128.46
19	B	1227	CLA	CHD-C1D-ND	-4.67	120.16	124.45
19	L	302	CLA	C4A-NA-C1A	4.67	108.81	106.71
27	4	608	CHL	CHD-C4C-C3C	-4.67	117.98	124.84
19	B	1223	CLA	CMB-C2B-C3B	4.66	133.39	124.68
27	4	608	CHL	C3D-C2D-C1D	-4.65	99.48	105.83
27	2	606	CHL	CHD-C4C-C3C	-4.65	118.01	124.84
28	4	623	LUT	C7-C8-C9	-4.64	119.23	126.23
19	B	1012	CLA	C4A-NA-C1A	4.64	108.79	106.71
27	3	608	CHL	O2D-CGD-CBD	4.63	119.50	111.27
19	B	1220	CLA	CMB-C2B-C1B	-4.63	121.35	128.46
19	3	602	CLA	CMB-C2B-C1B	-4.63	121.35	128.46
27	2	602	CHL	CHD-C4C-C3C	-4.62	118.06	124.84
19	A	1134	CLA	CMB-C2B-C1B	-4.61	121.37	128.46
27	2	615	CHL	CHD-C4C-C3C	-4.61	118.07	124.84
19	3	612	CLA	CMB-C2B-C1B	-4.60	121.40	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	2	601	CHL	CHD-C4C-C3C	-4.60	118.08	124.84
27	4	615	CHL	CHD-C4C-C3C	-4.59	118.09	124.84
27	2	611	CHL	CHD-C1D-ND	-4.59	120.24	124.45
19	A	1102	CLA	CMB-C2B-C1B	-4.58	121.42	128.46
27	1	607	CHL	C3D-C2D-C1D	-4.58	99.57	105.83
19	A	1013	CLA	CMB-C2B-C3B	4.58	133.25	124.68
27	4	606	CHL	CHD-C4C-C3C	-4.58	118.11	124.84
27	2	607	CHL	O2D-CGD-CBD	4.56	119.38	111.27
19	B	1209	CLA	CMB-C2B-C1B	-4.56	121.46	128.46
19	G	202	CLA	CMB-C2B-C1B	-4.55	121.47	128.46
27	4	615	CHL	C2D-C1D-ND	4.54	113.45	110.10
19	1	603	CLA	CMB-C2B-C1B	-4.54	121.49	128.46
19	B	1021	CLA	CMB-C2B-C1B	-4.53	121.50	128.46
28	2	620	LUT	C22-C23-C24	-4.53	106.59	111.74
19	4	610	CLA	CMB-C2B-C1B	-4.52	121.51	128.46
19	2	604	CLA	CMB-C2B-C1B	-4.52	121.52	128.46
27	2	615	CHL	C2D-C1D-ND	4.49	113.42	110.10
19	A	1140	CLA	C2D-C1D-ND	-4.49	106.80	110.10
27	4	606	CHL	C2D-C1D-ND	4.46	113.39	110.10
27	2	606	CHL	C2D-C1D-ND	4.45	113.39	110.10
19	4	603	CLA	C4A-NA-C1A	4.44	108.70	106.71
27	1	607	CHL	CHD-C4C-C3C	-4.41	118.36	124.84
27	2	611	CHL	C3D-C2D-C1D	-4.41	99.82	105.83
19	4	603	CLA	CMB-C2B-C1B	-4.40	121.69	128.46
27	2	607	CHL	CHD-C4C-C3C	-4.40	118.37	124.84
19	4	613	CLA	CMB-C2B-C1B	-4.39	121.72	128.46
19	L	302	CLA	CMB-C2B-C1B	-4.39	121.72	128.46
22	L	419	BCR	C40-C30-C25	4.38	117.41	110.30
19	B	1023	CLA	CHD-C1D-ND	-4.38	120.43	124.45
19	A	1101	CLA	CMB-C2B-C1B	-4.38	121.73	128.46
19	A	1115	CLA	CMB-C2B-C3B	4.38	132.87	124.68
19	A	1139	CLA	CMB-C2B-C1B	-4.38	121.74	128.46
22	L	420	BCR	C40-C30-C25	4.37	117.39	110.30
19	A	1104	CLA	CMB-C2B-C1B	-4.36	121.76	128.46
28	2	620	LUT	C40-C33-C34	-4.36	116.81	122.92
19	A	1137	CLA	CMB-C2B-C1B	-4.36	121.76	128.46
27	2	602	CHL	CHB-C4A-NA	4.36	130.54	124.51
19	2	609	CLA	CMB-C2B-C1B	-4.36	121.77	128.46
19	A	1136	CLA	C4A-NA-C1A	4.33	108.65	106.71
19	A	1117	CLA	CMB-C2B-C3B	4.33	132.78	124.68
19	1	603	CLA	C4A-NA-C1A	4.32	108.65	106.71
19	B	1225	CLA	CMB-C2B-C3B	4.32	132.76	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	2	620	LUT	C7-C8-C9	-4.30	119.74	126.23
27	2	608	CHL	O2D-CGD-CBD	4.29	118.89	111.27
19	4	611	CLA	CMB-C2B-C1B	-4.28	121.88	128.46
22	B	4010	BCR	C38-C26-C27	-4.28	105.39	113.62
23	1	630	LHG	O4-P-O5	4.27	133.37	112.24
22	B	4009	BCR	C31-C1-C6	4.27	117.23	110.30
19	B	1219	CLA	C2D-C1D-ND	-4.26	106.96	110.10
19	H	200	CLA	CMB-C2B-C1B	-4.26	121.91	128.46
19	A	1013	CLA	O2D-CGD-O1D	-4.26	115.51	123.84
19	A	1125	CLA	CMB-C2B-C3B	4.26	132.64	124.68
27	2	607	CHL	C2D-C1D-ND	4.25	113.23	110.10
19	F	301	CLA	CMB-C2B-C1B	-4.25	121.94	128.46
27	4	607	CHL	CHD-C4C-C3C	-4.25	118.60	124.84
19	2	613	CLA	CMB-C2B-C1B	-4.24	121.94	128.46
28	1	621	LUT	C36-C21-C26	4.24	115.97	109.55
23	A	5001	LHG	O4-P-O5	4.24	133.19	112.24
28	4	620	LUT	C21-C26-C27	4.23	118.05	112.70
19	A	1118	CLA	CMB-C2B-C1B	-4.22	121.97	128.46
19	4	601	CLA	CMB-C2B-C1B	-4.22	121.97	128.46
27	1	607	CHL	CAA-C2A-C3A	-4.22	101.22	112.78
19	3	614	CLA	CMB-C2B-C1B	-4.22	121.98	128.46
19	4	609	CLA	CMB-C2B-C1B	-4.21	121.99	128.46
22	I	120	BCR	C7-C8-C9	-4.21	119.87	126.23
23	A	5003	LHG	O4-P-O5	4.21	133.07	112.24
27	4	607	CHL	C2D-C1D-ND	4.21	113.21	110.10
27	2	611	CHL	C2D-C1D-ND	4.21	113.21	110.10
19	B	1240	CLA	CMB-C2B-C1B	-4.20	122.01	128.46
19	A	8895	CLA	CAC-C3C-C4C	-4.20	119.36	124.81
19	B	1236	CLA	CHD-C1D-ND	-4.20	120.59	124.45
22	B	4010	BCR	C15-C14-C13	-4.19	121.33	127.31
27	4	615	CHL	CAA-C2A-C3A	-4.19	103.78	114.26
19	A	1127	CLA	C2D-C1D-ND	-4.19	107.02	110.10
19	1	615	CLA	CMB-C2B-C1B	-4.18	122.03	128.46
27	4	608	CHL	O2D-CGD-CBD	4.18	118.70	111.27
23	3	630	LHG	O4-P-O5	4.18	132.90	112.24
23	B	5101	LHG	O4-P-O5	4.17	132.88	112.24
19	B	1201	CLA	CMB-C2B-C1B	-4.17	122.05	128.46
27	4	606	CHL	CAC-C3C-C4C	4.16	130.20	124.81
19	B	1012	CLA	CMB-C2B-C3B	4.15	132.45	124.68
19	A	1116	CLA	C4A-NA-C1A	4.15	108.57	106.71
27	2	606	CHL	CAC-C3C-C4C	4.15	130.19	124.81
28	1	620	LUT	C36-C21-C26	4.14	115.81	109.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1113	CLA	CMB-C2B-C1B	-4.14	122.10	128.46
19	A	1140	CLA	CMB-C2B-C1B	-4.13	122.11	128.46
27	1	607	CHL	C2D-C1D-ND	4.13	113.15	110.10
19	2	614	CLA	CMB-C2B-C1B	-4.13	122.12	128.46
19	3	610	CLA	C4A-NA-C1A	4.12	108.56	106.71
27	2	601	CHL	C1D-ND-C4D	-4.12	103.41	106.33
27	1	601	CHL	CHD-C4C-C3C	-4.11	118.79	124.84
19	B	1228	CLA	CMB-C2B-C1B	-4.11	122.15	128.46
19	A	1111	CLA	CHD-C1D-ND	-4.09	120.69	124.45
23	2	630	LHG	O4-P-O5	4.09	132.46	112.24
19	A	1128	CLA	C4A-NA-C1A	4.08	108.54	106.71
19	B	1216	CLA	C1B-CHB-C4A	-4.08	122.03	130.12
19	A	1125	CLA	C2D-C1D-ND	-4.06	107.11	110.10
19	A	1022	CLA	CMB-C2B-C1B	-4.06	122.23	128.46
27	2	615	CHL	C3B-C4B-NB	4.06	114.45	109.21
19	A	1126	CLA	CMB-C2B-C3B	4.06	132.26	124.68
19	B	1201	CLA	C4A-NA-C1A	4.05	108.53	106.71
23	4	630	LHG	O4-P-O5	4.05	132.28	112.24
19	A	1121	CLA	CMB-C2B-C1B	-4.05	122.25	128.46
27	4	615	CHL	C3B-C4B-NB	4.04	114.44	109.21
19	B	1234	CLA	C4A-NA-C1A	4.04	108.52	106.71
19	1	612	CLA	C4A-NA-C1A	4.03	108.52	106.71
27	4	608	CHL	C2D-C1D-ND	4.02	113.07	110.10
27	4	607	CHL	C3B-C4B-NB	4.02	114.41	109.21
19	B	1213	CLA	CMB-C2B-C3B	4.01	132.19	124.68
27	2	607	CHL	C3B-C4B-NB	4.01	114.40	109.21
19	2	610	CLA	CMB-C2B-C1B	-4.01	122.30	128.46
19	2	612	CLA	CMB-C2B-C1B	-4.01	122.31	128.46
19	B	1202	CLA	CMB-C2B-C3B	4.00	132.17	124.68
19	A	1107	CLA	CMB-C2B-C1B	-3.99	122.33	128.46
19	B	1234	CLA	CMB-C2B-C3B	3.99	132.14	124.68
19	B	1235	CLA	C4A-NA-C1A	3.98	108.50	106.71
28	4	623	LUT	C40-C33-C32	3.98	124.35	118.08
19	A	1112	CLA	CMB-C2B-C1B	-3.98	122.35	128.46
22	A	4007	BCR	C2-C1-C6	3.98	116.60	110.48
28	3	621	LUT	C22-C23-C24	-3.98	107.22	111.74
19	A	1130	CLA	C4A-NA-C1A	3.97	108.49	106.71
28	1	620	LUT	C21-C26-C27	3.97	117.72	112.70
19	B	1223	CLA	C4A-NA-C1A	3.97	108.49	106.71
19	A	1118	CLA	C4A-NA-C1A	3.97	108.49	106.71
19	B	1204	CLA	C4A-NA-C1A	3.96	108.49	106.71
19	4	614	CLA	CMB-C2B-C1B	-3.96	122.37	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	1	621	LUT	C37-C21-C26	-3.96	103.55	109.55
28	2	623	LUT	C11-C12-C13	-3.95	115.31	126.42
19	B	1223	CLA	C2D-C1D-ND	-3.95	107.19	110.10
27	1	601	CHL	CHB-C4A-NA	3.95	129.97	124.51
19	B	1229	CLA	CMB-C2B-C1B	-3.95	122.39	128.46
28	4	620	LUT	C36-C21-C26	3.94	115.51	109.55
27	1	601	CHL	C3B-C4B-NB	3.93	114.30	109.21
27	1	607	CHL	C1D-ND-C4D	-3.93	103.54	106.33
19	A	1013	CLA	C4A-NA-C1A	3.93	108.47	106.71
19	A	1122	CLA	CMB-C2B-C1B	-3.92	122.44	128.46
27	1	601	CHL	C1D-ND-C4D	-3.91	103.56	106.33
19	B	1205	CLA	CMB-C2B-C1B	-3.91	122.46	128.46
27	1	607	CHL	C3B-C4B-NB	3.90	114.25	109.21
27	2	607	CHL	CAC-C3C-C4C	3.90	129.87	124.81
27	2	602	CHL	C3B-C4B-NB	3.89	114.23	109.21
19	B	1231	CLA	CMB-C2B-C1B	-3.88	122.50	128.46
27	2	601	CHL	C3B-C4B-NB	3.88	114.22	109.21
27	3	608	CHL	C3B-C4B-NB	3.88	114.22	109.21
28	2	620	LUT	C38-C25-C24	-3.88	115.26	123.56
19	A	1140	CLA	C4A-NA-C1A	3.87	108.45	106.71
19	B	1226	CLA	C4A-NA-C1A	3.87	108.45	106.71
19	B	1211	CLA	CMB-C2B-C3B	3.87	131.92	124.68
19	B	1214	CLA	C2D-C1D-ND	-3.86	107.26	110.10
22	J	213	BCR	C2-C1-C6	3.86	116.43	110.48
19	3	607	CLA	CMB-C2B-C1B	-3.86	122.53	128.46
19	A	1127	CLA	CMB-C2B-C3B	3.86	131.89	124.68
20	B	2002	PQN	C14-C13-C15	3.85	121.75	115.27
27	4	606	CHL	C3B-C4B-NB	3.85	114.18	109.21
19	I	121	CLA	CAC-C3C-C2C	-3.84	120.97	127.53
19	3	602	CLA	CMB-C2B-C3B	3.83	131.84	124.68
19	A	1132	CLA	C3C-C4C-NC	-3.82	106.29	110.57
19	A	1131	CLA	CMB-C2B-C1B	-3.82	122.60	128.46
19	4	610	CLA	CMB-C2B-C3B	3.81	131.81	124.68
19	A	1125	CLA	CHD-C1D-ND	-3.81	120.95	124.45
19	1	614	CLA	CMB-C2B-C1B	-3.81	122.61	128.46
27	2	611	CHL	C3B-C4B-NB	3.80	114.12	109.21
27	2	606	CHL	CAA-C2A-C3A	-3.80	102.38	112.78
28	2	623	LUT	C38-C25-C24	-3.79	115.45	123.56
27	2	606	CHL	C3B-C4B-NB	3.78	114.10	109.21
28	3	621	LUT	C7-C8-C9	-3.78	120.53	126.23
19	A	1105	CLA	CHD-C1D-ND	-3.78	120.98	124.45
27	2	615	CHL	CAA-C2A-C3A	-3.77	102.45	112.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	4	608	CHL	CAC-C3C-C4C	3.76	129.69	124.81
19	A	1013	CLA	CAA-CBA-CGA	-3.76	102.27	113.25
19	B	1023	CLA	C2D-C1D-ND	-3.74	107.35	110.10
28	3	621	LUT	C40-C33-C34	-3.74	117.69	122.92
19	A	1022	CLA	C4A-NA-C1A	3.73	108.38	106.71
27	2	601	CHL	CHB-C4A-NA	3.72	129.66	124.51
19	2	603	CLA	CMB-C2B-C1B	-3.72	122.74	128.46
19	B	1213	CLA	C4A-NA-C1A	3.72	108.38	106.71
27	2	607	CHL	C1D-ND-C4D	-3.72	103.69	106.33
27	3	608	CHL	C1D-ND-C4D	-3.71	103.70	106.33
27	2	615	CHL	C1D-ND-C4D	-3.71	103.70	106.33
27	4	606	CHL	C1D-ND-C4D	-3.71	103.70	106.33
19	J	102	CLA	CMB-C2B-C1B	-3.70	122.77	128.46
27	4	608	CHL	CHB-C4A-NA	3.70	129.63	124.51
27	2	606	CHL	C1D-ND-C4D	-3.70	103.70	106.33
19	A	1102	CLA	CMB-C2B-C3B	3.70	131.61	124.68
19	A	1128	CLA	CMB-C2B-C3B	3.70	131.60	124.68
27	4	607	CHL	CAC-C3C-C4C	3.68	129.59	124.81
22	A	4008	BCR	C15-C16-C17	-3.68	115.94	123.47
27	2	608	CHL	C1D-ND-C4D	-3.68	103.72	106.33
19	B	1223	CLA	CHD-C1D-ND	-3.68	121.08	124.45
19	A	1121	CLA	C2D-C1D-ND	-3.67	107.40	110.10
27	4	607	CHL	CHB-C4A-NA	3.67	129.59	124.51
19	3	610	CLA	CMB-C2B-C3B	3.67	131.54	124.68
19	L	302	CLA	CHD-C1D-ND	-3.67	121.08	124.45
27	2	607	CHL	CHB-C4A-NA	3.66	129.58	124.51
19	1	613	CLA	CHD-C1D-ND	-3.66	121.09	124.45
19	F	302	CLA	CMB-C2B-C1B	-3.66	122.83	128.46
27	2	615	CHL	CHB-C4A-NA	3.66	129.58	124.51
19	A	1128	CLA	C2D-C1D-ND	-3.66	107.41	110.10
27	4	615	CHL	C1D-ND-C4D	-3.66	103.74	106.33
19	A	1126	CLA	C2D-C1D-ND	-3.66	107.41	110.10
19	A	1109	CLA	CMB-C2B-C1B	-3.65	122.85	128.46
28	3	621	LUT	C2-C3-C4	-3.65	105.31	110.30
19	B	1236	CLA	CMB-C2B-C1B	-3.65	122.86	128.46
19	A	1108	CLA	C3C-C4C-NC	-3.64	106.49	110.57
28	3	621	LUT	C38-C25-C24	-3.63	115.80	123.56
19	B	1239	CLA	C4A-NA-C1A	3.63	108.34	106.71
28	3	620	LUT	C7-C8-C9	-3.62	120.77	126.23
19	A	1101	CLA	CHD-C1D-ND	-3.61	121.13	124.45
19	1	611	CLA	CMB-C2B-C1B	-3.61	122.92	128.46
19	1	613	CLA	CMB-C2B-C1B	-3.61	122.92	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	2	611	CHL	CHB-C4A-NA	3.61	129.50	124.51
19	A	1113	CLA	CMB-C2B-C3B	3.60	131.42	124.68
19	4	612	CLA	CMB-C2B-C1B	-3.60	122.93	128.46
27	4	608	CHL	C3B-C4B-NB	3.59	113.86	109.21
27	3	608	CHL	CHB-C4A-NA	3.58	129.46	124.51
22	A	4008	BCR	C15-C14-C13	-3.57	122.21	127.31
27	2	602	CHL	C1D-ND-C4D	-3.57	103.80	106.33
19	3	611	CLA	CMB-C2B-C1B	-3.57	122.98	128.46
19	A	1104	CLA	CMB-C2B-C3B	3.57	131.35	124.68
19	B	1215	CLA	C4-C3-C5	3.56	121.26	115.27
27	2	608	CHL	CHB-C4A-NA	3.56	129.44	124.51
27	4	615	CHL	CHB-C4A-NA	3.56	129.43	124.51
19	B	1213	CLA	CHD-C1D-ND	-3.56	121.19	124.45
19	B	1222	CLA	C2D-C1D-ND	-3.55	107.49	110.10
19	B	1214	CLA	CMB-C2B-C3B	3.55	131.31	124.68
19	K	204	CLA	CMB-C2B-C1B	-3.54	123.03	128.46
27	2	602	CHL	CAC-C3C-C4C	3.54	129.40	124.81
19	B	1201	CLA	CMB-C2B-C3B	3.53	131.29	124.68
22	B	4010	BCR	C38-C26-C25	3.53	128.49	124.53
19	G	201	CLA	CMB-C2B-C1B	-3.53	123.05	128.46
19	4	602	CLA	CMB-C2B-C3B	3.52	131.27	124.68
27	2	615	CHL	C1C-C2C-C3C	-3.52	104.32	107.11
27	4	615	CHL	CAC-C3C-C4C	3.51	129.36	124.81
27	3	608	CHL	C1C-C2C-C3C	-3.50	104.34	107.11
19	G	218	CLA	CMB-C2B-C1B	-3.50	123.09	128.46
19	B	1216	CLA	CHA-C1A-NA	-3.49	118.40	126.40
27	2	606	CHL	CHB-C4A-NA	3.49	129.34	124.51
19	A	1110	CLA	CMB-C2B-C1B	-3.48	123.12	128.46
19	A	1115	CLA	C4A-NA-C1A	3.48	108.27	106.71
19	A	1125	CLA	C3C-C4C-NC	-3.47	106.68	110.57
19	A	1013	CLA	C1B-CHB-C4A	-3.47	123.25	130.12
19	B	1237	CLA	CMB-C2B-C1B	-3.45	123.16	128.46
28	4	621	LUT	C40-C33-C34	-3.45	118.09	122.92
27	2	608	CHL	C3B-C4B-NB	3.44	113.66	109.21
19	B	1228	CLA	CMB-C2B-C3B	3.43	131.10	124.68
22	3	624	BCR	C2-C1-C6	3.42	115.75	110.48
19	1	612	CLA	CMB-C2B-C1B	-3.42	123.21	128.46
19	A	1112	CLA	C4A-NA-C1A	3.42	108.24	106.71
27	4	606	CHL	CHB-C4A-NA	3.41	129.23	124.51
28	4	623	LUT	C40-C33-C34	-3.41	118.14	122.92
19	A	1130	CLA	CMB-C2B-C3B	3.41	131.06	124.68
19	3	606	CLA	CMB-C2B-C1B	-3.40	123.24	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1106	CLA	CMB-C2B-C3B	3.40	131.04	124.68
19	4	611	CLA	C2D-C1D-ND	-3.40	107.60	110.10
19	A	1115	CLA	CHD-C1D-ND	-3.40	121.33	124.45
27	4	607	CHL	C1D-ND-C4D	-3.39	103.93	106.33
19	A	1132	CLA	CHD-C1D-ND	-3.39	121.34	124.45
19	A	1013	CLA	O2D-CGD-CBD	3.38	117.28	111.27
27	2	611	CHL	C1D-ND-C4D	-3.37	103.94	106.33
27	2	611	CHL	O2D-CGD-O1D	-3.37	117.24	123.84
19	3	613	CLA	CMB-C2B-C1B	-3.37	123.28	128.46
19	A	1109	CLA	C2D-C1D-ND	-3.37	107.62	110.10
19	A	1101	CLA	O2D-CGD-O1D	-3.37	117.26	123.84
26	B	5002	DGD	O5D-C6D-C5D	-3.36	102.82	109.05
19	B	1206	CLA	CMB-C2B-C3B	3.36	130.97	124.68
19	B	1219	CLA	CHD-C1D-ND	-3.36	121.37	124.45
19	A	1128	CLA	CHD-C1D-ND	-3.35	121.38	124.45
27	1	607	CHL	C3D-C4D-ND	3.35	115.65	110.24
19	B	1213	CLA	O2D-CGD-O1D	-3.34	117.30	123.84
19	3	603	CLA	CMB-C2B-C1B	-3.34	123.33	128.46
28	1	620	LUT	O23-C23-C24	3.33	118.06	110.53
28	1	620	LUT	C11-C10-C9	3.33	132.06	127.31
19	A	1022	CLA	C1B-CHB-C4A	-3.33	123.53	130.12
19	1	613	CLA	CMB-C2B-C3B	3.32	130.89	124.68
22	B	4014	BCR	C2-C1-C6	3.32	115.59	110.48
19	A	1132	CLA	C2D-C1D-ND	-3.32	107.66	110.10
19	A	1124	CLA	CMB-C2B-C3B	3.31	130.88	124.68
19	A	1108	CLA	CMB-C2B-C3B	3.31	130.87	124.68
19	A	1127	CLA	CHD-C1D-ND	-3.31	121.41	124.45
19	A	1013	CLA	C2D-C1D-ND	-3.31	107.67	110.10
19	3	609	CLA	CHD-C1D-ND	-3.30	121.42	124.45
19	B	1213	CLA	C1B-CHB-C4A	-3.30	123.59	130.12
22	A	4008	BCR	C23-C24-C25	3.29	136.45	127.20
19	L	303	CLA	CHD-C1D-ND	-3.29	121.43	124.45
22	B	4009	BCR	C38-C26-C27	-3.28	107.31	113.62
19	A	1117	CLA	C7-C6-C5	-3.28	104.45	113.36
19	B	1223	CLA	C1D-ND-C4D	-3.28	104.01	106.33
19	B	1235	CLA	CHD-C1D-ND	-3.27	121.44	124.45
19	B	1212	CLA	CMB-C2B-C3B	3.27	130.80	124.68
19	B	1021	CLA	O2D-CGD-O1D	-3.27	117.44	123.84
19	B	1221	CLA	C5-C3-C2	3.27	127.73	121.12
19	2	614	CLA	C2D-C1D-ND	-3.26	107.70	110.10
28	2	620	LUT	C31-C32-C33	3.26	135.58	126.42
19	A	5005	CLA	CHD-C1D-ND	-3.26	121.46	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	4	608	CHL	C1D-ND-C4D	-3.25	104.02	106.33
28	4	621	LUT	C32-C33-C34	3.25	123.93	118.94
19	A	1121	CLA	CHD-C1D-ND	-3.25	121.47	124.45
19	A	1102	CLA	C1B-CHB-C4A	-3.24	123.70	130.12
19	K	204	CLA	CHD-C1D-ND	-3.24	121.48	124.45
19	1	612	CLA	C2D-C1D-ND	-3.24	107.72	110.10
19	A	1105	CLA	CMB-C2B-C3B	3.24	130.74	124.68
19	B	1215	CLA	CHD-C1D-ND	-3.24	121.48	124.45
19	A	1140	CLA	C1D-ND-C4D	-3.24	104.04	106.33
19	2	610	CLA	CMB-C2B-C3B	3.23	130.73	124.68
19	1	609	CLA	CMB-C2B-C1B	-3.23	123.50	128.46
19	B	1220	CLA	C2D-C1D-ND	-3.23	107.72	110.10
19	A	1119	CLA	C1B-CHB-C4A	-3.23	123.72	130.12
19	A	1126	CLA	CHD-C1D-ND	-3.23	121.49	124.45
19	4	611	CLA	CHD-C1D-ND	-3.23	121.49	124.45
22	A	4007	BCR	C27-C26-C25	3.22	127.41	122.73
19	1	613	CLA	C2D-C1D-ND	-3.22	107.73	110.10
22	J	213	BCR	C15-C16-C17	-3.22	116.88	123.47
22	B	4014	BCR	C3-C4-C5	-3.22	108.33	114.08
22	B	4014	BCR	C11-C10-C9	-3.22	122.72	127.31
19	A	1101	CLA	CMB-C2B-C3B	3.21	130.69	124.68
19	A	1109	CLA	CMB-C2B-C3B	3.21	130.69	124.68
27	4	607	CHL	CMB-C2B-C3B	3.21	130.68	124.68
19	B	1023	CLA	CMB-C2B-C3B	3.20	130.67	124.68
19	A	5005	CLA	C4A-NA-C1A	3.20	108.15	106.71
19	B	1229	CLA	CHD-C1D-ND	-3.20	121.51	124.45
19	B	1239	CLA	C3C-C4C-NC	-3.20	106.99	110.57
19	B	1230	CLA	CHD-C1D-ND	-3.19	121.52	124.45
19	A	1116	CLA	C1B-CHB-C4A	-3.19	123.80	130.12
19	A	1131	CLA	O2D-CGD-O1D	-3.18	117.62	123.84
27	1	607	CHL	CHB-C4A-NA	3.18	128.90	124.51
28	2	621	LUT	C7-C8-C9	-3.18	121.44	126.23
19	B	1212	CLA	CHD-C1D-ND	-3.18	121.54	124.45
19	B	1203	CLA	CHD-C1D-ND	-3.17	121.54	124.45
19	1	610	CLA	O2D-CGD-O1D	-3.17	117.64	123.84
19	B	1210	CLA	CAC-C3C-C2C	-3.17	122.11	127.53
19	L	301	CLA	C3C-C4C-NC	-3.17	107.02	110.57
19	A	5005	CLA	O2D-CGD-O1D	-3.16	117.65	123.84
19	B	1235	CLA	CMB-C2B-C3B	3.16	130.59	124.68
19	4	610	CLA	C2D-C1D-ND	-3.16	107.78	110.10
19	A	1013	CLA	C3B-C4B-NB	-3.16	105.13	109.21
19	B	1206	CLA	CHD-C1D-ND	-3.16	121.55	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1117	CLA	CHD-C1D-ND	-3.15	121.56	124.45
27	2	601	CHL	CAC-C3C-C4C	3.15	128.90	124.81
19	B	1012	CLA	O2D-CGD-O1D	-3.15	117.68	123.84
19	A	1136	CLA	CHD-C1D-ND	-3.15	121.56	124.45
27	3	608	CHL	CAC-C3C-C4C	3.15	128.89	124.81
19	A	1138	CLA	O2D-CGD-O1D	-3.15	117.68	123.84
19	A	5005	CLA	C1B-CHB-C4A	-3.15	123.89	130.12
19	A	1139	CLA	O2D-CGD-O1D	-3.14	117.69	123.84
19	A	1135	CLA	CMB-C2B-C1B	-3.14	123.63	128.46
19	B	1216	CLA	C3B-C4B-NB	-3.14	105.16	109.21
28	2	620	LUT	C11-C12-C13	-3.14	117.61	126.42
28	2	621	LUT	C38-C25-C24	-3.14	116.85	123.56
27	1	601	CHL	C1-O2A-CGA	3.14	124.67	116.44
19	B	1210	CLA	CHD-C1D-ND	-3.13	121.57	124.45
19	2	603	CLA	CMB-C2B-C3B	3.13	130.54	124.68
27	2	611	CHL	CAC-C3C-C4C	3.13	128.87	124.81
19	1	603	CLA	O2D-CGD-O1D	-3.13	117.72	123.84
19	I	121	CLA	CMB-C2B-C3B	3.13	130.53	124.68
19	B	1023	CLA	O2D-CGD-O1D	-3.13	117.72	123.84
19	K	201	CLA	CHD-C1D-ND	-3.13	121.58	124.45
27	2	608	CHL	CAC-C3C-C4C	3.13	128.87	124.81
19	B	1236	CLA	O2D-CGD-O1D	-3.12	117.74	123.84
19	A	1117	CLA	O2D-CGD-O1D	-3.12	117.75	123.84
19	A	1124	CLA	C1B-CHB-C4A	-3.11	123.95	130.12
22	F	416	BCR	C11-C10-C9	-3.11	122.87	127.31
19	3	610	CLA	O2D-CGD-O1D	-3.11	117.76	123.84
28	2	620	LUT	C20-C13-C14	-3.10	118.58	122.92
19	F	302	CLA	CHD-C1D-ND	-3.09	121.61	124.45
27	1	607	CHL	CMD-C2D-C3D	-3.09	120.50	127.61
19	3	609	CLA	O2D-CGD-O1D	-3.09	117.80	123.84
19	A	1136	CLA	O2A-CGA-O1A	-3.09	115.80	123.59
19	B	1203	CLA	C3C-C4C-NC	-3.09	107.11	110.57
19	B	1214	CLA	C1B-CHB-C4A	-3.08	124.01	130.12
27	1	601	CHL	C4-C3-C5	3.08	120.46	115.27
19	4	603	CLA	CHD-C1D-ND	-3.08	121.62	124.45
19	1	602	CLA	CMB-C2B-C3B	3.08	130.44	124.68
19	B	1234	CLA	C1B-CHB-C4A	-3.08	124.02	130.12
22	A	4007	BCR	C23-C24-C25	3.07	135.82	127.20
22	I	118	BCR	C2-C1-C6	3.07	115.20	110.48
19	B	1226	CLA	C1B-CHB-C4A	-3.07	124.04	130.12
19	B	1221	CLA	O2D-CGD-O1D	-3.06	117.85	123.84
19	B	1226	CLA	C2A-C1A-CHA	3.06	129.21	123.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1224	CLA	O2D-CGD-CBD	3.06	116.71	111.27
19	A	1116	CLA	C2D-C1D-ND	-3.06	107.85	110.10
19	B	1221	CLA	C2D-C1D-ND	-3.06	107.85	110.10
28	4	621	LUT	O23-C23-C24	-3.05	103.63	110.53
19	A	1022	CLA	O2D-CGD-O1D	-3.05	117.87	123.84
19	A	1112	CLA	C2D-C1D-ND	-3.05	107.86	110.10
19	B	1231	CLA	C3C-C4C-NC	-3.04	107.16	110.57
19	B	1224	CLA	CMB-C2B-C3B	3.04	130.37	124.68
19	F	301	CLA	C1B-CHB-C4A	-3.04	124.09	130.12
27	2	607	CHL	CMD-C2D-C3D	-3.04	120.62	127.61
19	B	1240	CLA	CHD-C1D-ND	-3.04	121.66	124.45
27	2	615	CHL	C3D-C4D-ND	3.03	115.14	110.24
19	4	603	CLA	CMB-C2B-C3B	3.03	130.35	124.68
22	L	419	BCR	C15-C14-C13	-3.03	122.98	127.31
22	A	4008	BCR	C24-C23-C22	-3.03	121.66	126.23
27	2	608	CHL	CAA-C2A-C3A	-3.03	104.48	112.78
19	B	1021	CLA	CMB-C2B-C3B	3.03	130.34	124.68
19	B	1012	CLA	C1B-CHB-C4A	-3.03	124.12	130.12
19	B	1206	CLA	O2D-CGD-O1D	-3.03	117.92	123.84
19	A	1122	CLA	O2D-CGD-O1D	-3.03	117.92	123.84
27	2	606	CHL	C3D-C4D-ND	3.02	115.12	110.24
27	2	601	CHL	C3D-C4D-ND	3.02	115.12	110.24
19	B	1231	CLA	C2D-C1D-ND	-3.02	107.88	110.10
27	1	607	CHL	CAC-C3C-C4C	3.02	128.73	124.81
19	F	301	CLA	O2D-CGD-O1D	-3.02	117.94	123.84
19	B	1226	CLA	CHD-C1D-ND	-3.02	121.68	124.45
28	1	620	LUT	C15-C14-C13	3.02	131.62	127.31
19	A	1106	CLA	CHD-C1D-ND	-3.02	121.68	124.45
28	2	623	LUT	C8-C7-C6	3.02	135.68	127.20
19	B	1215	CLA	O2D-CGD-O1D	-3.02	117.94	123.84
19	1	611	CLA	C2D-C1D-ND	-3.01	107.88	110.10
19	A	1130	CLA	C1B-CHB-C4A	-3.01	124.15	130.12
19	A	1109	CLA	O2D-CGD-O1D	-3.01	117.95	123.84
27	2	607	CHL	C3D-C4D-ND	3.01	115.11	110.24
19	A	1112	CLA	O2D-CGD-O1D	-3.00	117.97	123.84
19	1	611	CLA	O2D-CGD-O1D	-3.00	117.97	123.84
27	2	607	CHL	CAA-C2A-C3A	-3.00	104.57	112.78
19	B	1208	CLA	CMB-C2B-C3B	2.99	130.28	124.68
19	3	606	CLA	O2D-CGD-O1D	-2.99	117.98	123.84
19	A	1134	CLA	O2D-CGD-O1D	-2.99	117.99	123.84
19	B	1215	CLA	CMB-C2B-C3B	2.99	130.27	124.68
19	A	1132	CLA	O2D-CGD-O1D	-2.99	117.99	123.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1	607	CHL	C1C-C2C-C3C	-2.99	104.74	107.11
19	K	202	CLA	CHD-C1D-ND	-2.99	121.71	124.45
22	B	2004	BCR	C15-C16-C17	-2.99	117.36	123.47
27	4	606	CHL	C3D-C4D-ND	2.99	115.07	110.24
19	4	611	CLA	O2D-CGD-O1D	-2.98	118.00	123.84
19	B	1222	CLA	O2D-CGD-O1D	-2.98	118.01	123.84
27	2	602	CHL	CMB-C2B-C3B	2.98	130.25	124.68
19	A	1119	CLA	O2D-CGD-O1D	-2.98	118.01	123.84
19	2	603	CLA	C1B-CHB-C4A	-2.98	124.22	130.12
19	A	1118	CLA	C1D-ND-C4D	-2.98	104.22	106.33
19	1	609	CLA	CMB-C2B-C3B	2.98	130.25	124.68
19	A	1126	CLA	C6-C5-C3	2.97	121.25	113.45
19	I	121	CLA	O2D-CGD-O1D	-2.97	118.03	123.84
28	1	621	LUT	C39-C29-C30	-2.97	118.76	122.92
27	4	615	CHL	C3D-C4D-ND	2.96	115.03	110.24
19	B	1227	CLA	C3B-C4B-NB	-2.96	105.38	109.21
19	B	1204	CLA	O2D-CGD-O1D	-2.96	118.05	123.84
19	H	200	CLA	CMB-C2B-C3B	2.96	130.22	124.68
19	A	1108	CLA	O2D-CGD-O1D	-2.96	118.06	123.84
19	B	1230	CLA	CMB-C2B-C1B	-2.96	123.92	128.46
19	2	614	CLA	O2D-CGD-O1D	-2.96	118.06	123.84
19	J	102	CLA	O2D-CGD-O1D	-2.96	118.06	123.84
19	3	604	CLA	C2D-C1D-ND	-2.95	107.93	110.10
19	A	1114	CLA	CHD-C1D-ND	-2.95	121.74	124.45
19	1	613	CLA	O2D-CGD-O1D	-2.95	118.07	123.84
19	A	1109	CLA	C3C-C4C-NC	-2.95	107.26	110.57
19	B	1208	CLA	O2D-CGD-O1D	-2.95	118.07	123.84
19	A	1109	CLA	C1B-CHB-C4A	-2.95	124.28	130.12
19	A	1105	CLA	C2D-C1D-ND	-2.94	107.94	110.10
27	2	602	CHL	C3D-C4D-ND	2.94	114.99	110.24
19	B	1230	CLA	O2D-CGD-O1D	-2.94	118.09	123.84
19	B	1219	CLA	C3C-C4C-NC	-2.94	107.28	110.57
22	J	212	BCR	C11-C10-C9	-2.94	123.12	127.31
19	A	1103	CLA	CMB-C2B-C1B	-2.94	123.95	128.46
19	3	602	CLA	CHA-C1A-NA	-2.94	119.68	126.40
19	4	602	CLA	CHD-C1D-ND	-2.93	121.76	124.45
22	A	4008	BCR	C27-C26-C25	2.93	126.99	122.73
19	B	1237	CLA	C1-O2A-CGA	2.93	124.14	116.44
19	G	218	CLA	O2D-CGD-O1D	-2.93	118.10	123.84
19	B	1240	CLA	C2D-C1D-ND	-2.93	107.94	110.10
27	4	608	CHL	CMD-C2D-C3D	-2.93	120.87	127.61
19	B	1227	CLA	C2D-C1D-ND	-2.93	107.94	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1211	CLA	O2D-CGD-O1D	-2.93	118.11	123.84
22	A	4001	BCR	C24-C23-C22	-2.93	121.81	126.23
19	2	610	CLA	C2D-C1D-ND	-2.93	107.95	110.10
19	2	604	CLA	O2D-CGD-O1D	-2.93	118.11	123.84
19	K	201	CLA	O2D-CGD-O1D	-2.93	118.11	123.84
22	A	4003	BCR	C40-C30-C25	2.93	115.05	110.30
28	1	620	LUT	C31-C32-C33	-2.92	118.20	126.42
22	A	4001	BCR	C15-C16-C17	-2.92	117.48	123.47
19	A	1104	CLA	O2D-CGD-O1D	-2.92	118.12	123.84
19	A	1139	CLA	CMB-C2B-C3B	2.92	130.15	124.68
19	A	1138	CLA	C1B-CHB-C4A	-2.92	124.33	130.12
19	1	608	CLA	O2D-CGD-O1D	-2.92	118.13	123.84
19	4	609	CLA	O2D-CGD-O1D	-2.92	118.14	123.84
27	4	607	CHL	C3D-C4D-ND	2.91	114.95	110.24
19	A	1119	CLA	O2A-C1-C2	-2.91	100.98	108.64
19	B	1240	CLA	O2D-CGD-O1D	-2.91	118.14	123.84
27	4	615	CHL	C1C-C2C-C3C	-2.91	104.80	107.11
19	B	1232	CLA	O2D-CGD-O1D	-2.91	118.14	123.84
19	F	302	CLA	O2D-CGD-O1D	-2.91	118.14	123.84
19	A	1135	CLA	C1B-CHB-C4A	-2.91	124.35	130.12
28	4	623	LUT	C38-C25-C24	-2.91	117.33	123.56
19	A	1138	CLA	CMB-C2B-C3B	2.91	130.12	124.68
19	A	1125	CLA	C6-C5-C3	2.91	121.09	113.45
19	3	611	CLA	O2D-CGD-O1D	-2.91	118.16	123.84
19	B	1224	CLA	CHD-C1D-ND	-2.91	121.78	124.45
22	B	4010	BCR	C11-C10-C9	-2.91	123.16	127.31
22	I	120	BCR	C24-C25-C26	-2.91	114.42	121.46
19	B	1220	CLA	C1B-CHB-C4A	-2.91	124.36	130.12
22	L	419	BCR	C27-C26-C25	2.91	126.95	122.73
19	L	303	CLA	O2D-CGD-O1D	-2.90	118.16	123.84
19	A	1116	CLA	CMB-C2B-C3B	2.90	130.11	124.68
19	I	121	CLA	C1B-CHB-C4A	-2.90	124.37	130.12
19	B	1220	CLA	CMB-C2B-C3B	2.90	130.10	124.68
20	A	2001	PQN	C14-C13-C15	2.90	120.14	115.27
19	4	614	CLA	O2D-CGD-O1D	-2.90	118.17	123.84
19	A	1112	CLA	C3C-C4C-NC	-2.90	107.32	110.57
19	B	1239	CLA	O2D-CGD-O1D	-2.89	118.18	123.84
22	A	4007	BCR	C1-C6-C5	-2.89	118.54	122.61
19	A	1130	CLA	CHD-C1D-ND	-2.89	121.80	124.45
19	2	610	CLA	O2D-CGD-O1D	-2.89	118.19	123.84
19	3	604	CLA	O2D-CGD-O1D	-2.89	118.19	123.84
22	A	4007	BCR	C33-C5-C6	2.89	127.77	124.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1013	CLA	CMD-C2D-C1D	-2.89	119.62	124.71
19	A	1125	CLA	O2D-CGD-O1D	-2.89	118.19	123.84
19	A	1111	CLA	C1B-CHB-C4A	-2.89	124.40	130.12
19	A	1126	CLA	C3C-C4C-NC	-2.89	107.33	110.57
19	B	1216	CLA	O2D-CGD-O1D	-2.89	118.20	123.84
19	3	614	CLA	O2D-CGD-O1D	-2.88	118.20	123.84
19	A	1110	CLA	CHD-C1D-ND	-2.88	121.81	124.45
27	2	611	CHL	C3D-C4D-ND	2.88	114.90	110.24
19	B	1220	CLA	CHD-C1D-ND	-2.88	121.81	124.45
19	B	1203	CLA	O2D-CGD-O1D	-2.88	118.21	123.84
22	B	4017	BCR	C15-C16-C17	-2.88	117.58	123.47
19	1	614	CLA	CHD-C1D-ND	-2.88	121.81	124.45
19	4	604	CLA	O2D-CGD-O1D	-2.88	118.21	123.84
22	K	301	BCR	C24-C23-C22	-2.88	121.89	126.23
19	A	1103	CLA	O2D-CGD-O1D	-2.87	118.22	123.84
19	B	1219	CLA	CMB-C2B-C3B	2.87	130.06	124.68
19	A	1130	CLA	O2D-CGD-O1D	-2.87	118.22	123.84
19	B	1202	CLA	O2D-CGD-O1D	-2.87	118.22	123.84
19	A	1135	CLA	O2D-CGD-O1D	-2.87	118.22	123.84
22	B	4009	BCR	C15-C16-C17	-2.87	117.59	123.47
19	B	1021	CLA	C1B-CHB-C4A	-2.87	124.43	130.12
19	H	200	CLA	O2D-CGD-O1D	-2.87	118.22	123.84
19	3	617	CLA	O2D-CGD-O1D	-2.87	118.23	123.84
19	A	1126	CLA	O2D-CGD-O1D	-2.87	118.23	123.84
19	B	1212	CLA	C1B-CHB-C4A	-2.87	124.44	130.12
19	B	1201	CLA	C1B-CHB-C4A	-2.87	124.44	130.12
19	B	1226	CLA	O2D-CGD-O1D	-2.86	118.24	123.84
19	2	603	CLA	O2D-CGD-O1D	-2.86	118.25	123.84
19	L	302	CLA	C1B-CHB-C4A	-2.86	124.45	130.12
19	B	1220	CLA	O2D-CGD-O1D	-2.86	118.25	123.84
19	A	1113	CLA	O2D-CGD-O1D	-2.86	118.26	123.84
19	A	1801	CLA	O2D-CGD-O1D	-2.85	118.26	123.84
24	A	5002	LMG	O1-C7-C8	-2.85	104.02	110.90
27	2	602	CHL	CAA-C2A-C3A	-2.85	104.97	112.78
27	3	608	CHL	CMD-C2D-C3D	-2.85	121.06	127.61
19	1	606	CLA	O2D-CGD-O1D	-2.85	118.27	123.84
19	A	1126	CLA	O2A-CGA-O1A	-2.85	116.40	123.59
19	4	610	CLA	O2D-CGD-O1D	-2.85	118.27	123.84
19	4	602	CLA	O2D-CGD-O1D	-2.85	118.27	123.84
19	3	603	CLA	O2D-CGD-O1D	-2.85	118.27	123.84
24	A	5002	LMG	O6-C1-O1	-2.85	103.23	109.97
19	A	1135	CLA	CMB-C2B-C3B	2.85	130.00	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	A	4008	BCR	C30-C25-C24	2.84	123.82	115.78
27	4	615	CHL	CMB-C2B-C3B	2.84	129.99	124.68
27	3	608	CHL	CAA-C2A-C3A	-2.84	105.00	112.78
19	3	612	CLA	O2D-CGD-O1D	-2.84	118.29	123.84
19	B	1205	CLA	O2D-CGD-O1D	-2.84	118.29	123.84
19	K	202	CLA	O2D-CGD-O1D	-2.84	118.29	123.84
19	A	1126	CLA	C1B-CHB-C4A	-2.84	124.50	130.12
28	1	621	LUT	O23-C23-C24	2.84	116.95	110.53
19	4	613	CLA	O2D-CGD-O1D	-2.84	118.29	123.84
19	4	604	CLA	CMB-C2B-C3B	2.84	129.99	124.68
19	A	1103	CLA	C1B-CHB-C4A	-2.84	124.50	130.12
19	4	610	CLA	C1B-CHB-C4A	-2.84	124.50	130.12
19	1	606	CLA	C2D-C1D-ND	-2.83	108.02	110.10
19	B	1225	CLA	C2D-C1D-ND	-2.83	108.02	110.10
19	4	603	CLA	C1B-CHB-C4A	-2.83	124.51	130.12
27	2	615	CHL	CAC-C3C-C4C	2.83	128.49	124.81
28	2	621	LUT	C11-C10-C9	2.83	131.35	127.31
19	4	609	CLA	C2D-C1D-ND	-2.83	108.02	110.10
19	1	612	CLA	CMB-C2B-C3B	2.83	129.97	124.68
19	K	204	CLA	C2C-C1C-NC	-2.83	107.32	109.97
19	1	615	CLA	O2D-CGD-O1D	-2.83	118.31	123.84
19	G	201	CLA	O2D-CGD-O1D	-2.83	118.31	123.84
19	A	1112	CLA	CMB-C2B-C3B	2.83	129.97	124.68
19	K	204	CLA	O2D-CGD-O1D	-2.82	118.31	123.84
19	B	1240	CLA	CMB-C2B-C3B	2.82	129.96	124.68
19	3	603	CLA	CMB-C2B-C3B	2.82	129.96	124.68
19	A	1110	CLA	O2D-CGD-O1D	-2.82	118.32	123.84
19	1	611	CLA	C1B-CHB-C4A	-2.82	124.53	130.12
22	M	4021	BCR	C31-C1-C6	2.82	114.88	110.30
19	B	1224	CLA	C3C-C4C-NC	-2.82	107.41	110.57
19	A	1133	CLA	C1B-CHB-C4A	-2.81	124.54	130.12
22	L	420	BCR	C33-C5-C4	-2.81	108.22	113.62
22	G	311	BCR	C15-C16-C17	-2.81	117.72	123.47
19	1	604	CLA	CMB-C2B-C3B	2.81	129.94	124.68
19	A	1107	CLA	O2D-CGD-O1D	-2.81	118.35	123.84
19	B	1232	CLA	CHD-C1D-ND	-2.81	121.88	124.45
27	1	601	CHL	CMB-C2B-C3B	2.81	129.93	124.68
19	A	1121	CLA	O2D-CGD-O1D	-2.81	118.35	123.84
27	2	601	CHL	CMD-C2D-C3D	-2.80	121.16	127.61
19	A	1105	CLA	O2D-CGD-O1D	-2.80	118.36	123.84
19	I	121	CLA	C2D-C1D-ND	-2.80	108.04	110.10
27	4	606	CHL	CAA-C2A-C3A	-2.80	105.11	112.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1114	CLA	O2D-CGD-O1D	-2.80	118.37	123.84
19	2	612	CLA	O2D-CGD-O1D	-2.80	118.37	123.84
19	B	1201	CLA	C2A-C1A-CHA	2.79	128.75	123.86
19	B	1230	CLA	C1B-CHB-C4A	-2.79	124.58	130.12
19	B	1219	CLA	O2D-CGD-O1D	-2.79	118.38	123.84
19	2	609	CLA	O2D-CGD-O1D	-2.79	118.38	123.84
19	G	202	CLA	O2D-CGD-O1D	-2.79	118.38	123.84
19	B	1226	CLA	C3C-C4C-NC	-2.79	107.44	110.57
22	A	4003	BCR	C27-C26-C25	2.79	126.78	122.73
19	B	1228	CLA	CHD-C1D-ND	-2.79	121.89	124.45
19	A	1139	CLA	CHD-C1D-ND	-2.79	121.89	124.45
22	I	120	BCR	C33-C5-C6	-2.79	121.39	124.53
19	A	1801	CLA	CMB-C2B-C3B	2.79	129.90	124.68
19	B	1234	CLA	O2D-CGD-O1D	-2.79	118.39	123.84
19	B	1229	CLA	CHA-C1A-NA	-2.79	120.01	126.40
19	2	613	CLA	O2D-CGD-O1D	-2.79	118.39	123.84
19	3	609	CLA	CMB-C2B-C3B	2.79	129.89	124.68
19	A	1106	CLA	C1B-CHB-C4A	-2.79	124.60	130.12
22	I	120	BCR	C27-C26-C25	2.79	126.78	122.73
19	B	1227	CLA	CMB-C2B-C3B	2.78	129.89	124.68
22	A	4007	BCR	C15-C16-C17	-2.78	117.77	123.47
19	4	602	CLA	C1B-CHB-C4A	-2.78	124.61	130.12
19	A	1113	CLA	C3C-C4C-NC	-2.78	107.45	110.57
22	L	420	BCR	C27-C26-C25	2.78	126.77	122.73
19	3	602	CLA	C2D-C1D-ND	-2.78	108.06	110.10
28	4	621	LUT	C31-C32-C33	-2.78	118.61	126.42
19	A	1128	CLA	O2D-CGD-O1D	-2.78	118.40	123.84
19	A	1111	CLA	O2D-CGD-O1D	-2.78	118.41	123.84
19	G	218	CLA	CMB-C2B-C3B	2.78	129.87	124.68
27	2	601	CHL	O2D-CGD-O1D	-2.78	118.41	123.84
19	4	614	CLA	C2D-C1D-ND	-2.77	108.06	110.10
19	A	1115	CLA	O2D-CGD-O1D	-2.77	118.41	123.84
28	4	620	LUT	C31-C32-C33	-2.77	118.62	126.42
19	A	1110	CLA	CMB-C2B-C3B	2.77	129.87	124.68
18	A	1011	CL0	CMB-C2B-C3B	2.77	129.87	124.68
18	A	1011	CL0	O2D-CGD-O1D	-2.77	118.42	123.84
19	B	1215	CLA	C1B-CHB-C4A	-2.77	124.63	130.12
19	1	604	CLA	O2D-CGD-O1D	-2.77	118.42	123.84
27	2	611	CHL	CMB-C2B-C3B	2.77	129.86	124.68
22	A	4001	BCR	C15-C14-C13	-2.77	123.36	127.31
19	B	1235	CLA	O2D-CGD-O1D	-2.77	118.42	123.84
23	1	630	LHG	C11-C10-C9	-2.77	100.36	114.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1135	CLA	CAC-C3C-C2C	-2.77	122.80	127.53
19	4	603	CLA	O2D-CGD-O1D	-2.77	118.43	123.84
22	A	4003	BCR	C30-C25-C26	-2.76	118.72	122.61
19	A	1132	CLA	C1B-CHB-C4A	-2.76	124.64	130.12
27	2	601	CHL	O2A-CGA-CBA	2.76	120.58	111.91
19	4	612	CLA	O2D-CGD-O1D	-2.76	118.43	123.84
19	K	202	CLA	CMB-C2B-C3B	2.76	129.85	124.68
19	B	1214	CLA	C3C-C4C-NC	-2.76	107.47	110.57
19	B	1222	CLA	CMD-C2D-C1D	-2.76	119.84	124.71
27	2	611	CHL	C1C-C2C-C3C	-2.76	104.92	107.11
22	A	4007	BCR	C38-C26-C27	-2.76	108.32	113.62
19	A	1140	CLA	O2D-CGD-O1D	-2.76	118.45	123.84
22	G	311	BCR	C28-C27-C26	-2.76	109.16	114.08
19	1	602	CLA	O2D-CGD-O1D	-2.76	118.45	123.84
19	B	1209	CLA	C3C-C4C-NC	-2.76	107.48	110.57
19	A	1110	CLA	C1B-CHB-C4A	-2.75	124.66	130.12
19	B	1216	CLA	CAC-C3C-C2C	-2.75	122.82	127.53
22	3	624	BCR	C15-C14-C13	-2.75	123.38	127.31
19	B	1224	CLA	C1B-CHB-C4A	-2.75	124.67	130.12
19	B	1228	CLA	O2D-CGD-O1D	-2.75	118.46	123.84
27	2	606	CHL	CMD-C2D-C3D	-2.75	121.29	127.61
27	4	608	CHL	C3D-C4D-ND	2.75	114.68	110.24
22	I	120	BCR	C30-C25-C24	2.74	123.54	115.78
22	L	420	BCR	C2-C1-C6	2.74	114.70	110.48
22	L	420	BCR	C1-C6-C5	-2.74	118.75	122.61
19	B	1023	CLA	C1D-ND-C4D	-2.74	104.39	106.33
22	K	301	BCR	C15-C16-C17	-2.74	117.86	123.47
19	3	607	CLA	CMB-C2B-C3B	2.74	129.81	124.68
19	B	1210	CLA	CMB-C2B-C3B	2.74	129.81	124.68
19	4	604	CLA	C1B-CHB-C4A	-2.74	124.69	130.12
19	A	1103	CLA	CHD-C1D-ND	-2.74	121.94	124.45
19	1	612	CLA	O2D-CGD-O1D	-2.74	118.48	123.84
19	3	607	CLA	O2D-CGD-O1D	-2.74	118.48	123.84
27	3	608	CHL	C3D-C4D-ND	2.74	114.67	110.24
22	A	4008	BCR	C24-C25-C26	-2.74	114.83	121.46
19	A	1106	CLA	O2D-CGD-O1D	-2.74	118.48	123.84
19	A	1115	CLA	C1B-CHB-C4A	-2.74	124.70	130.12
19	3	610	CLA	C2D-C1D-ND	-2.74	108.09	110.10
19	A	1118	CLA	O2D-CGD-O1D	-2.74	118.49	123.84
22	G	311	BCR	C31-C1-C6	2.73	114.73	110.30
19	A	1120	CLA	O2D-CGD-O1D	-2.73	118.49	123.84
27	2	607	CHL	CMB-C2B-C3B	2.73	129.79	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1	607	CHL	CBA-CAA-C2A	2.73	121.93	113.86
28	2	620	LUT	C35-C15-C14	2.73	129.07	123.47
19	K	203	CLA	C3A-C4A-CHB	-2.73	120.57	123.91
27	2	608	CHL	O2A-CGA-CBA	2.73	120.47	111.91
19	A	1112	CLA	C1B-CHB-C4A	-2.73	124.71	130.12
19	1	608	CLA	CHD-C1D-ND	-2.73	121.95	124.45
27	4	606	CHL	CMB-C2B-C3B	2.73	129.78	124.68
19	B	1210	CLA	O2D-CGD-O1D	-2.73	118.51	123.84
19	3	602	CLA	O2D-CGD-O1D	-2.73	118.51	123.84
22	I	120	BCR	C23-C24-C25	2.73	134.86	127.20
23	3	630	LHG	O8-C23-C24	2.73	120.46	111.91
28	3	621	LUT	C31-C32-C33	2.73	134.07	126.42
19	H	200	CLA	C2D-C1D-ND	-2.72	108.10	110.10
19	B	1021	CLA	CHD-C1D-ND	-2.72	121.95	124.45
19	3	602	CLA	CHD-C1D-ND	-2.72	121.95	124.45
19	1	603	CLA	C1B-CHB-C4A	-2.72	124.73	130.12
27	1	601	CHL	C3D-C4D-ND	2.72	114.64	110.24
22	A	4007	BCR	C15-C14-C13	-2.72	123.43	127.31
27	4	607	CHL	CAA-C2A-C3A	-2.72	105.34	112.78
19	4	609	CLA	C3C-C4C-NC	-2.72	107.52	110.57
22	3	624	BCR	C28-C27-C26	-2.72	109.23	114.08
19	B	1201	CLA	O2D-CGD-O1D	-2.72	118.53	123.84
19	4	614	CLA	C1B-CHB-C4A	-2.72	124.74	130.12
19	K	204	CLA	CMC-C2C-C1C	-2.72	120.90	125.04
19	B	1231	CLA	O2D-CGD-O1D	-2.71	118.53	123.84
28	1	620	LUT	C37-C21-C36	-2.71	103.90	107.89
19	B	1202	CLA	O2A-C1-C2	-2.71	101.51	108.64
27	2	602	CHL	O2A-CGA-CBA	2.71	120.41	111.91
19	A	8895	CLA	CMB-C2B-C3B	2.71	129.74	124.68
19	B	1204	CLA	C1B-CHB-C4A	-2.71	124.75	130.12
22	J	212	BCR	C27-C26-C25	2.70	126.66	122.73
19	2	603	CLA	C2D-C1D-ND	-2.70	108.11	110.10
28	4	620	LUT	C36-C21-C22	-2.70	104.32	109.44
19	1	614	CLA	C2D-C1D-ND	-2.70	108.11	110.10
24	2	631	LMG	O6-C1-O1	-2.70	103.58	109.97
22	I	120	BCR	C40-C30-C29	-2.70	98.11	108.91
19	A	1133	CLA	O2D-CGD-O1D	-2.70	118.56	123.84
19	B	1222	CLA	CMB-C2B-C3B	2.70	129.73	124.68
19	3	613	CLA	O2D-CGD-O1D	-2.70	118.56	123.84
19	A	1114	CLA	C2D-C1D-ND	-2.70	108.12	110.10
19	B	1234	CLA	CHA-C1A-NA	-2.70	120.22	126.40
22	A	4003	BCR	C38-C26-C27	-2.69	108.44	113.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1102	CLA	O2D-CGD-O1D	-2.69	118.57	123.84
19	A	1137	CLA	O2D-CGD-O1D	-2.69	118.57	123.84
22	B	4010	BCR	C24-C23-C22	-2.69	122.17	126.23
19	B	1228	CLA	C1B-CHB-C4A	-2.69	124.79	130.12
19	L	301	CLA	C2C-C1C-NC	-2.69	107.45	109.97
23	4	630	LHG	O8-C23-C24	2.69	120.35	111.91
28	1	620	LUT	C37-C21-C26	-2.69	105.47	109.55
19	1	611	CLA	C4A-NA-C1A	2.69	107.91	106.71
27	4	606	CHL	CMD-C2D-C3D	-2.69	121.43	127.61
19	3	612	CLA	CMB-C2B-C3B	2.68	129.70	124.68
19	B	1217	CLA	O2D-CGD-O1D	-2.68	118.59	123.84
19	B	1210	CLA	C1B-CHB-C4A	-2.68	124.81	130.12
19	A	1117	CLA	C2D-C1D-ND	-2.68	108.13	110.10
27	4	607	CHL	CMD-C2D-C3D	-2.68	121.45	127.61
19	A	1128	CLA	C3C-C4C-NC	-2.68	107.57	110.57
22	B	2004	BCR	C15-C14-C13	-2.67	123.50	127.31
19	B	1229	CLA	C1B-CHB-C4A	-2.67	124.83	130.12
19	K	203	CLA	C3B-C4B-NB	-2.67	107.76	110.11
19	K	201	CLA	C1B-CHB-C4A	-2.67	124.83	130.12
27	2	615	CHL	CMB-C2B-C3B	2.67	129.67	124.68
19	B	1209	CLA	O2D-CGD-O1D	-2.67	118.62	123.84
19	1	609	CLA	O2D-CGD-O1D	-2.67	118.62	123.84
19	B	1215	CLA	C3C-C4C-NC	-2.67	107.58	110.57
19	1	614	CLA	O2D-CGD-O1D	-2.66	118.63	123.84
19	L	301	CLA	O2D-CGD-O1D	-2.66	118.63	123.84
22	B	4017	BCR	C24-C23-C22	-2.66	122.21	126.23
19	A	1127	CLA	CHA-C1A-NA	-2.66	120.31	126.40
19	A	1118	CLA	CHD-C1D-ND	-2.66	122.01	124.45
19	A	1116	CLA	CHD-C1D-ND	-2.66	122.01	124.45
19	F	303	CLA	C3B-C4B-NB	-2.66	107.78	110.11
19	F	303	CLA	C3A-C4A-CHB	-2.65	120.66	123.91
19	B	1229	CLA	O2D-CGD-O1D	-2.65	118.65	123.84
22	L	419	BCR	C30-C25-C24	2.65	123.28	115.78
19	B	1239	CLA	CHD-C1D-ND	-2.65	122.02	124.45
19	B	1240	CLA	C1-O2A-CGA	2.65	123.39	116.44
19	A	1140	CLA	C3C-C4C-NC	-2.65	107.60	110.57
19	B	1217	CLA	C1B-CHB-C4A	-2.65	124.87	130.12
19	4	613	CLA	CMB-C2B-C3B	2.65	129.63	124.68
19	B	1224	CLA	O2D-CGD-O1D	-2.65	118.67	123.84
19	B	1235	CLA	C1B-CHB-C4A	-2.65	124.88	130.12
19	L	302	CLA	O2D-CGD-O1D	-2.64	118.67	123.84
27	4	608	CHL	CMB-C2B-C3B	2.64	129.62	124.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1230	CLA	CMB-C2B-C3B	2.64	129.62	124.68
19	K	201	CLA	CMB-C2B-C3B	2.64	129.62	124.68
19	4	609	CLA	C1B-CHB-C4A	-2.64	124.89	130.12
27	1	601	CHL	O2D-CGD-O1D	-2.64	118.68	123.84
19	1	602	CLA	CHD-C1D-ND	-2.64	122.03	124.45
19	B	1213	CLA	C3B-C4B-NB	-2.64	105.80	109.21
27	4	615	CHL	CMD-C2D-C3D	-2.64	121.55	127.61
22	I	120	BCR	C11-C10-C9	-2.63	123.55	127.31
19	A	5005	CLA	CMB-C2B-C3B	2.63	129.61	124.68
19	2	609	CLA	CHD-C1D-ND	-2.63	122.03	124.45
19	B	1201	CLA	C2D-C1D-ND	-2.63	108.16	110.10
19	4	609	CLA	CHD-C1D-ND	-2.63	122.03	124.45
19	3	604	CLA	C1B-CHB-C4A	-2.63	124.91	130.12
19	G	201	CLA	CMB-C2B-C3B	2.63	129.60	124.68
19	B	1236	CLA	C2D-C1D-ND	-2.63	108.17	110.10
28	2	620	LUT	C39-C29-C30	-2.63	119.24	122.92
19	B	1236	CLA	C1B-CHB-C4A	-2.63	124.91	130.12
22	B	4010	BCR	C32-C1-C6	2.63	114.56	110.30
19	3	606	CLA	CMB-C2B-C3B	2.63	129.59	124.68
19	B	1231	CLA	C1B-CHB-C4A	-2.63	124.92	130.12
19	K	202	CLA	CAC-C3C-C2C	-2.63	123.04	127.53
28	4	620	LUT	C15-C14-C13	2.63	131.06	127.31
28	4	620	LUT	C37-C21-C26	-2.63	105.57	109.55
19	3	614	CLA	C1B-CHB-C4A	-2.62	124.92	130.12
19	4	614	CLA	CHD-C1D-ND	-2.62	122.04	124.45
27	2	608	CHL	C3D-C4D-ND	2.62	114.48	110.24
27	2	615	CHL	CMD-C2D-C3D	-2.62	121.58	127.61
19	A	1136	CLA	O2D-CGD-O1D	-2.62	118.72	123.84
19	3	605	CLA	C3B-C4B-NB	-2.62	107.81	110.11
19	B	1227	CLA	O2D-CGD-O1D	-2.62	118.72	123.84
19	A	1119	CLA	CHD-C1D-ND	-2.62	122.05	124.45
19	B	1212	CLA	O2D-CGD-O1D	-2.62	118.72	123.84
27	1	601	CHL	O2A-CGA-CBA	2.61	120.11	111.91
19	K	204	CLA	C1C-C2C-C3C	-2.61	104.21	106.96
25	1	631	LMT	C3'-C4'-C5'	-2.61	104.93	110.93
19	A	1102	CLA	CHD-C1D-ND	-2.61	122.05	124.45
19	K	204	CLA	C3C-C4C-NC	-2.61	107.64	110.57
19	B	1023	CLA	C1B-CHB-C4A	-2.61	124.94	130.12
19	B	1232	CLA	CHA-C1A-NA	-2.61	120.42	126.40
19	B	1221	CLA	CMB-C2B-C3B	2.61	129.56	124.68
27	2	606	CHL	C1C-C2C-C3C	-2.61	105.04	107.11
19	3	605	CLA	C1C-NC-C4C	2.61	107.88	106.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1113	CLA	C1B-CHB-C4A	-2.61	124.95	130.12
19	B	1211	CLA	C2D-C1D-ND	-2.61	108.18	110.10
19	A	1124	CLA	C2D-C1D-ND	-2.60	108.19	110.10
19	B	1203	CLA	CMB-C2B-C3B	2.60	129.55	124.68
28	4	620	LUT	C40-C33-C34	-2.60	119.28	122.92
19	1	604	CLA	CHD-C1D-ND	-2.60	122.06	124.45
19	1	610	CLA	CHD-C1D-ND	-2.60	122.06	124.45
19	K	204	CLA	CMB-C2B-C3B	2.60	129.54	124.68
28	2	623	LUT	C19-C9-C10	-2.60	119.28	122.92
19	A	1138	CLA	C2D-C1D-ND	-2.60	108.19	110.10
19	2	609	CLA	CMB-C2B-C3B	2.60	129.54	124.68
19	3	610	CLA	CHD-C1D-ND	-2.60	122.07	124.45
19	2	612	CLA	CMB-C2B-C3B	2.60	129.53	124.68
19	3	611	CLA	CMB-C2B-C3B	2.60	129.53	124.68
19	G	218	CLA	C1B-CHB-C4A	-2.59	124.98	130.12
19	B	1222	CLA	C2A-C1A-CHA	2.59	128.39	123.86
19	3	617	CLA	CMB-C2B-C3B	2.59	129.53	124.68
19	A	1104	CLA	CHD-C1D-ND	-2.59	122.07	124.45
19	F	301	CLA	CMB-C2B-C3B	2.59	129.53	124.68
19	2	609	CLA	C2D-C1D-ND	-2.59	108.20	110.10
19	3	613	CLA	CMB-C2B-C3B	2.59	129.52	124.68
19	L	301	CLA	CMB-C2B-C3B	2.59	129.52	124.68
28	2	620	LUT	C15-C14-C13	-2.59	123.62	127.31
19	A	1105	CLA	C1B-CHB-C4A	-2.59	125.00	130.12
19	B	1217	CLA	CMB-C2B-C3B	2.58	129.51	124.68
19	A	1138	CLA	C3C-C4C-NC	-2.58	107.67	110.57
19	J	102	CLA	CMB-C2B-C3B	2.58	129.50	124.68
26	B	5002	DGD	CDB-CCB-CBB	-2.58	101.34	114.42
19	J	102	CLA	CHD-C1D-ND	-2.58	122.08	124.45
19	F	302	CLA	CMB-C2B-C3B	2.58	129.50	124.68
19	1	612	CLA	C1B-CHB-C4A	-2.57	125.02	130.12
27	2	601	CHL	CMB-C2B-C3B	2.57	129.49	124.68
19	4	603	CLA	C1-C2-C3	-2.57	121.60	126.04
19	B	1223	CLA	O2D-CGD-O1D	-2.57	118.81	123.84
23	A	5003	LHG	O8-C23-C24	2.57	119.97	111.91
19	B	1237	CLA	O2D-CGD-O1D	-2.57	118.82	123.84
27	2	608	CHL	CMD-C2D-C3D	-2.57	121.71	127.61
28	3	620	LUT	C38-C25-C24	-2.57	118.07	123.56
22	1	623	BCR	C15-C16-C17	-2.57	118.22	123.47
19	1	606	CLA	CHD-C1D-ND	-2.56	122.10	124.45
19	A	1117	CLA	C3C-C4C-NC	-2.56	107.70	110.57
19	2	612	CLA	C3C-C4C-NC	-2.56	107.70	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1108	CLA	C1B-CHB-C4A	-2.56	125.05	130.12
22	L	420	BCR	C15-C14-C13	-2.56	123.66	127.31
19	B	1232	CLA	C2A-C1A-CHA	2.56	128.33	123.86
22	K	301	BCR	C15-C14-C13	-2.56	123.66	127.31
27	2	608	CHL	CMB-C2B-C3B	2.56	129.46	124.68
27	2	611	CHL	C4D-CHA-C1A	-2.55	118.14	121.25
19	B	1205	CLA	C6-C5-C3	2.55	120.15	113.45
19	G	202	CLA	CMB-C2B-C3B	2.55	129.45	124.68
27	2	601	CHL	C1C-C2C-C3C	-2.55	105.09	107.11
19	A	1132	CLA	CHD-C1D-C2D	2.55	130.83	125.48
28	4	623	LUT	C15-C35-C34	-2.55	118.25	123.47
19	3	613	CLA	C1B-CHB-C4A	-2.55	125.07	130.12
27	2	611	CHL	O2A-CGA-CBA	2.55	119.90	111.91
22	1	623	BCR	C35-C13-C12	2.55	120.23	114.60
19	J	102	CLA	C2D-C1D-ND	-2.55	108.23	110.10
22	A	4007	BCR	C11-C10-C9	-2.55	123.67	127.31
19	A	1125	CLA	CAA-CBA-CGA	-2.55	105.81	113.25
22	B	4010	BCR	C7-C8-C9	-2.55	122.39	126.23
19	4	612	CLA	CMB-C2B-C3B	2.55	129.44	124.68
19	1	610	CLA	C6-C5-C3	2.54	120.13	113.45
19	1	611	CLA	CMB-C2B-C3B	2.54	129.44	124.68
19	4	604	CLA	CHD-C1D-ND	-2.54	122.12	124.45
22	L	419	BCR	C15-C16-C17	-2.54	118.27	123.47
19	1	610	CLA	C4-C3-C5	2.54	119.55	115.27
19	1	606	CLA	C1B-CHB-C4A	-2.54	125.09	130.12
19	4	601	CLA	O2D-CGD-O1D	-2.54	118.87	123.84
19	A	1108	CLA	CHD-C1D-ND	-2.54	122.12	124.45
19	2	604	CLA	C1B-CHB-C4A	-2.54	125.09	130.12
22	L	419	BCR	C2-C1-C6	2.54	114.39	110.48
19	A	1137	CLA	C2D-C1D-ND	-2.54	108.23	110.10
19	A	1137	CLA	C1B-CHB-C4A	-2.54	125.09	130.12
22	J	213	BCR	C29-C30-C25	2.54	114.38	110.48
19	G	201	CLA	C1B-CHB-C4A	-2.54	125.10	130.12
19	A	1137	CLA	CHD-C1D-ND	-2.53	122.12	124.45
22	B	4009	BCR	C27-C26-C25	2.53	126.41	122.73
27	3	608	CHL	CMB-C2B-C3B	2.53	129.42	124.68
22	A	4011	BCR	C1-C6-C5	-2.53	119.05	122.61
22	3	623	BCR	C27-C26-C25	2.53	126.40	122.73
19	3	603	CLA	CHB-C4A-NA	2.53	128.01	124.51
19	B	1201	CLA	CHD-C1D-ND	-2.53	122.13	124.45
19	3	614	CLA	CMB-C2B-C3B	2.53	129.41	124.68
19	2	612	CLA	CHD-C1D-ND	-2.53	122.13	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	1	615	CLA	CMB-C2B-C3B	2.53	129.41	124.68
19	2	612	CLA	C2D-C1D-ND	-2.53	108.24	110.10
19	A	1132	CLA	O2A-C1-C2	-2.52	102.00	108.64
19	B	1236	CLA	CMB-C2B-C3B	2.52	129.39	124.68
19	B	1237	CLA	CHD-C1D-ND	-2.52	122.14	124.45
19	B	1012	CLA	C3C-C4C-NC	-2.52	107.75	110.57
19	4	603	CLA	CHB-C4A-NA	2.52	127.99	124.51
19	A	1127	CLA	C3C-C4C-NC	-2.52	107.75	110.57
19	4	609	CLA	CMB-C2B-C3B	2.51	129.38	124.68
19	3	602	CLA	C1B-CHB-C4A	-2.51	125.15	130.12
25	G	401	LMT	C3'-C4'-C5'	-2.51	105.18	110.93
19	2	609	CLA	C1B-CHB-C4A	-2.51	125.15	130.12
19	2	614	CLA	CMB-C2B-C3B	2.50	129.36	124.68
19	B	1232	CLA	CMB-C2B-C3B	2.50	129.36	124.68
19	A	1104	CLA	C11-C12-C13	-2.50	107.83	115.92
19	B	1211	CLA	C1B-CHB-C4A	-2.50	125.17	130.12
19	A	8895	CLA	O2D-CGD-O1D	-2.50	118.95	123.84
19	H	200	CLA	C1B-CHB-C4A	-2.50	125.17	130.12
23	1	630	LHG	O8-C23-C24	2.50	119.75	111.91
27	2	601	CHL	C4-C3-C5	2.50	119.47	115.27
19	A	1801	CLA	C1B-CHB-C4A	-2.50	125.17	130.12
23	A	5001	LHG	O8-C23-C24	2.50	119.74	111.91
22	B	2004	BCR	C39-C30-C25	2.50	114.35	110.30
19	A	1138	CLA	CHD-C1D-ND	-2.50	122.16	124.45
22	A	4008	BCR	C31-C1-C6	2.49	114.34	110.30
22	1	623	BCR	C27-C26-C25	2.49	126.35	122.73
19	A	1101	CLA	C1B-CHB-C4A	-2.49	125.18	130.12
19	B	1203	CLA	CHB-C4A-NA	2.49	127.96	124.51
19	L	303	CLA	CHB-C4A-NA	2.49	127.96	124.51
28	2	620	LUT	C12-C13-C14	2.49	122.76	118.94
19	A	1124	CLA	O2D-CGD-O1D	-2.49	118.97	123.84
19	B	1238	CLA	C2D-C1D-ND	-2.49	108.27	110.10
27	4	608	CHL	C1C-C2C-C3C	-2.49	105.14	107.11
19	A	1110	CLA	C3C-C4C-NC	-2.49	107.78	110.57
19	A	1122	CLA	C3C-C4C-NC	-2.49	107.78	110.57
19	3	613	CLA	CHD-C1D-ND	-2.49	122.17	124.45
19	B	1204	CLA	CMB-C2B-C3B	2.49	129.33	124.68
19	2	613	CLA	CMB-C2B-C3B	2.49	129.33	124.68
23	A	5003	LHG	C11-C10-C9	-2.49	101.80	114.42
19	B	1214	CLA	O2D-CGD-O1D	-2.49	118.98	123.84
19	2	603	CLA	CHD-C1D-ND	-2.49	122.17	124.45
19	B	1214	CLA	C3B-C4B-NB	-2.49	106.00	109.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1216	CLA	C4A-NA-C1A	2.48	107.82	106.71
19	1	603	CLA	O2A-CGA-O1A	-2.48	117.32	123.59
19	4	601	CLA	CHD-C1D-ND	-2.48	122.17	124.45
19	A	1131	CLA	CMB-C2B-C3B	2.48	129.33	124.68
19	B	1214	CLA	CHA-C1A-NA	-2.48	120.71	126.40
19	A	1135	CLA	CHD-C1D-ND	-2.48	122.17	124.45
27	2	615	CHL	O2D-CGD-O1D	-2.48	118.99	123.84
19	A	1131	CLA	C1B-CHB-C4A	-2.48	125.21	130.12
19	H	200	CLA	CHD-C1D-ND	-2.48	122.18	124.45
19	1	612	CLA	CHB-C4A-NA	2.48	127.94	124.51
19	1	604	CLA	C2D-C1D-ND	-2.48	108.28	110.10
19	B	1208	CLA	C1B-CHB-C4A	-2.47	125.22	130.12
22	B	4006	BCR	C15-C16-C17	-2.47	118.41	123.47
19	1	608	CLA	C1B-CHB-C4A	-2.47	125.22	130.12
19	A	1107	CLA	C1B-CHB-C4A	-2.47	125.22	130.12
19	B	1203	CLA	C1B-CHB-C4A	-2.47	125.22	130.12
19	3	614	CLA	CHD-C1D-ND	-2.47	122.18	124.45
22	I	120	BCR	C38-C26-C27	-2.47	108.87	113.62
19	A	1136	CLA	C1B-CHB-C4A	-2.47	125.23	130.12
19	2	609	CLA	CHA-C1A-NA	-2.47	120.74	126.40
19	B	1023	CLA	CMD-C2D-C1D	-2.47	120.36	124.71
23	2	630	LHG	O8-C23-C24	2.47	119.65	111.91
19	3	605	CLA	C3A-C4A-CHB	-2.47	120.89	123.91
22	G	311	BCR	C24-C23-C22	-2.47	122.51	126.23
22	A	4008	BCR	C33-C5-C6	-2.47	121.76	124.53
28	2	620	LUT	C19-C9-C10	-2.47	119.47	122.92
27	2	601	CHL	O1D-CGD-CBD	-2.47	119.44	124.48
19	4	611	CLA	C3B-C4B-NB	-2.47	106.02	109.21
19	B	1221	CLA	O2A-C1-C2	2.46	115.11	108.64
19	L	301	CLA	C1B-CHB-C4A	-2.46	125.24	130.12
19	B	1235	CLA	C2D-C1D-ND	-2.46	108.29	110.10
28	1	621	LUT	C7-C8-C9	-2.46	122.51	126.23
28	4	621	LUT	C21-C26-C25	2.46	115.83	111.42
19	B	1238	CLA	CMB-C2B-C3B	2.46	129.28	124.68
22	I	118	BCR	C27-C26-C25	2.46	126.31	122.73
19	2	604	CLA	CHD-C1D-ND	-2.46	122.19	124.45
19	A	1127	CLA	C1B-CHB-C4A	-2.46	125.24	130.12
27	1	607	CHL	CMB-C2B-C3B	2.46	129.28	124.68
22	B	4009	BCR	C24-C23-C22	-2.46	122.52	126.23
19	A	1120	CLA	C1B-CHB-C4A	-2.46	125.25	130.12
19	B	1227	CLA	C1B-CHB-C4A	-2.46	125.25	130.12
22	A	4008	BCR	C40-C30-C29	-2.46	99.07	108.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	J	212	BCR	C16-C15-C14	-2.45	118.45	123.47
27	2	607	CHL	C1C-C2C-C3C	-2.45	105.17	107.11
19	A	1115	CLA	CAC-C3C-C2C	-2.45	123.33	127.53
19	B	1238	CLA	CHA-C1A-NA	-2.45	120.78	126.40
19	A	1140	CLA	CHD-C1D-ND	-2.45	122.20	124.45
28	3	621	LUT	C15-C14-C13	2.45	130.81	127.31
22	K	301	BCR	C7-C8-C9	-2.45	122.53	126.23
19	4	611	CLA	C1B-CHB-C4A	-2.45	125.27	130.12
19	1	614	CLA	C3C-C4C-NC	-2.45	107.83	110.57
19	1	609	CLA	C2D-C1D-ND	-2.45	108.30	110.10
19	B	1238	CLA	O2D-CGD-O1D	-2.45	119.06	123.84
19	4	602	CLA	CHA-C1A-NA	-2.44	120.80	126.40
19	3	610	CLA	C1B-CHB-C4A	-2.44	125.28	130.12
19	A	1801	CLA	CHD-C1D-ND	-2.44	122.21	124.45
19	2	610	CLA	C4A-NA-C1A	2.44	107.80	106.71
19	4	614	CLA	CMB-C2B-C3B	2.44	129.24	124.68
28	1	620	LUT	C40-C33-C34	-2.44	119.51	122.92
19	A	1110	CLA	C2D-C1D-ND	-2.44	108.31	110.10
19	A	1114	CLA	C1B-CHB-C4A	-2.44	125.29	130.12
19	I	121	CLA	CHD-C1D-ND	-2.43	122.22	124.45
28	4	623	LUT	C20-C13-C14	-2.43	119.51	122.92
19	A	1134	CLA	C3B-C4B-NB	-2.43	106.06	109.21
23	A	5001	LHG	C20-C19-C18	-2.43	102.08	114.42
19	2	614	CLA	CHD-C1D-ND	-2.43	122.22	124.45
19	G	218	CLA	CHD-C1D-ND	-2.43	122.22	124.45
23	B	5101	LHG	C11-C10-C9	-2.43	102.08	114.42
19	B	1215	CLA	C2D-C1D-ND	-2.43	108.31	110.10
19	L	302	CLA	CMB-C2B-C3B	2.43	129.22	124.68
27	2	611	CHL	C4-C3-C5	2.43	119.36	115.27
19	B	1203	CLA	O2A-CGA-O1A	-2.43	117.46	123.59
19	1	609	CLA	C3B-C4B-NB	-2.43	106.07	109.21
27	4	608	CHL	O2A-CGA-CBA	2.43	119.53	111.91
19	1	608	CLA	CMB-C2B-C3B	2.43	129.22	124.68
19	F	303	CLA	C1C-NC-C4C	2.43	107.80	106.71
19	1	614	CLA	CMB-C2B-C3B	2.43	129.22	124.68
22	B	4010	BCR	C20-C19-C18	-2.43	119.60	126.42
19	A	1125	CLA	C1B-CHB-C4A	-2.42	125.31	130.12
19	A	1126	CLA	C3B-C4B-NB	-2.42	106.08	109.21
19	A	1119	CLA	C3B-C4B-NB	-2.42	106.08	109.21
19	A	1134	CLA	C1B-CHB-C4A	-2.42	125.33	130.12
19	1	615	CLA	CHD-C1D-ND	-2.42	122.23	124.45
19	B	1211	CLA	CHD-C1D-ND	-2.42	122.23	124.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	2	606	CHL	O2D-CGD-O1D	-2.42	119.11	123.84
22	G	311	BCR	C2-C1-C6	2.42	114.20	110.48
22	B	4006	BCR	C27-C26-C25	2.42	126.24	122.73
22	J	213	BCR	C28-C27-C26	-2.42	109.76	114.08
19	A	5005	CLA	CHA-C1A-NA	-2.41	120.87	126.40
19	A	1133	CLA	CHD-C1D-ND	-2.41	122.23	124.45
19	B	1210	CLA	CAA-CBA-CGA	-2.41	106.20	113.25
22	A	4002	BCR	C27-C26-C25	2.41	126.23	122.73
22	B	4014	BCR	C15-C16-C17	-2.41	118.53	123.47
22	A	4007	BCR	C33-C5-C4	-2.41	108.99	113.62
19	A	1128	CLA	C1B-CHB-C4A	-2.41	125.34	130.12
19	F	301	CLA	CHD-C1D-ND	-2.41	122.24	124.45
28	4	621	LUT	C35-C15-C14	2.41	128.41	123.47
19	K	202	CLA	C1B-CHB-C4A	-2.41	125.35	130.12
19	1	615	CLA	C1B-CHB-C4A	-2.41	125.35	130.12
19	B	1234	CLA	C2D-C1D-ND	-2.41	108.33	110.10
22	A	4008	BCR	C38-C26-C27	-2.41	108.99	113.62
19	A	1116	CLA	O2D-CGD-O1D	-2.41	119.13	123.84
19	F	303	CLA	CHD-C1D-ND	-2.41	122.19	124.52
22	A	4007	BCR	C7-C6-C5	2.41	127.29	121.46
19	1	610	CLA	CMB-C2B-C3B	2.41	129.18	124.68
22	3	623	BCR	C11-C10-C9	-2.41	123.88	127.31
28	2	623	LUT	C39-C29-C30	-2.41	119.55	122.92
19	A	1120	CLA	CMB-C2B-C3B	2.40	129.18	124.68
19	1	609	CLA	CHD-C1D-ND	-2.40	122.25	124.45
19	1	603	CLA	C3B-C4B-NB	-2.40	106.11	109.21
19	B	1221	CLA	C4-C3-C5	-2.40	111.23	115.27
27	4	606	CHL	O2D-CGD-O1D	-2.40	119.14	123.84
27	2	606	CHL	CMB-C2B-C3B	2.40	129.17	124.68
19	1	606	CLA	CMB-C2B-C3B	2.40	129.16	124.68
19	1	610	CLA	O2A-CGA-O1A	-2.40	117.54	123.59
19	B	1240	CLA	C1B-CHB-C4A	-2.40	125.37	130.12
22	M	4021	BCR	C15-C16-C17	-2.40	118.57	123.47
19	4	609	CLA	CHA-C1A-NA	-2.40	120.91	126.40
19	B	1232	CLA	C1B-CHB-C4A	-2.40	125.37	130.12
19	1	612	CLA	CHD-C1D-ND	-2.40	122.25	124.45
26	B	5002	DGD	C3D-C4D-C5D	-2.39	105.97	110.24
18	A	1011	CL0	C1B-CHB-C4A	-2.39	125.38	130.12
19	3	609	CLA	C1B-CHB-C4A	-2.39	125.38	130.12
19	3	613	CLA	C2D-C1D-ND	-2.39	108.34	110.10
22	A	4007	BCR	C30-C25-C24	2.39	122.54	115.78
26	B	5002	DGD	O3G-C3G-C2G	-2.39	105.13	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1231	CLA	CHB-C4A-NA	2.39	127.81	124.51
19	4	610	CLA	CHA-C1A-NA	-2.39	120.93	126.40
19	A	1122	CLA	CHD-C1D-ND	-2.39	122.26	124.45
19	1	602	CLA	C3C-C4C-NC	-2.39	107.90	110.57
22	B	4010	BCR	C1-C6-C5	-2.39	119.25	122.61
22	B	4017	BCR	C27-C26-C25	2.38	126.19	122.73
19	1	610	CLA	CHA-C1A-NA	-2.38	120.94	126.40
23	3	630	LHG	C11-C10-C9	-2.38	102.33	114.42
19	B	1230	CLA	C4D-C3D-CAD	-2.38	105.29	108.10
19	1	614	CLA	C1B-CHB-C4A	-2.38	125.41	130.12
19	A	1111	CLA	CMB-C2B-C3B	2.38	129.13	124.68
19	1	603	CLA	CHA-C1A-NA	-2.38	120.96	126.40
19	B	1214	CLA	CHD-C1D-ND	-2.37	122.27	124.45
22	3	624	BCR	C3-C4-C5	-2.37	109.84	114.08
19	A	1107	CLA	CHB-C4A-NA	2.37	127.79	124.51
19	4	612	CLA	C2D-C1D-ND	-2.37	108.36	110.10
19	B	1238	CLA	CHD-C1D-ND	-2.37	122.28	124.45
19	A	1127	CLA	O2D-CGD-O1D	-2.37	119.21	123.84
19	A	1124	CLA	CHD-C1D-ND	-2.37	122.28	124.45
19	3	607	CLA	C1B-CHB-C4A	-2.37	125.43	130.12
19	B	1205	CLA	C1-C2-C3	-2.37	121.95	126.04
19	A	1136	CLA	C3B-C4B-NB	-2.37	106.15	109.21
19	K	204	CLA	C1B-CHB-C4A	-2.37	125.43	130.12
22	L	420	BCR	C7-C6-C5	2.37	127.19	121.46
19	A	1118	CLA	C1B-CHB-C4A	-2.36	125.43	130.12
19	4	612	CLA	CHD-C1D-ND	-2.36	122.28	124.45
22	B	4005	BCR	C38-C26-C27	-2.36	109.07	113.62
19	A	5005	CLA	O2D-CGD-CBD	2.36	115.47	111.27
19	3	606	CLA	CHD-C1D-ND	-2.36	122.28	124.45
19	A	1111	CLA	C2D-C1D-ND	-2.36	108.36	110.10
19	3	605	CLA	CHD-C1D-ND	-2.36	122.23	124.52
27	4	606	CHL	C1C-C2C-C3C	-2.36	105.24	107.11
19	A	1133	CLA	C3C-C4C-NC	-2.36	107.92	110.57
22	J	212	BCR	C15-C16-C17	-2.36	118.64	123.47
22	B	4010	BCR	C20-C21-C22	-2.36	123.94	127.31
19	A	5005	CLA	O2A-CGA-O1A	-2.36	117.64	123.59
22	L	419	BCR	C24-C25-C26	-2.36	115.75	121.46
19	B	1202	CLA	C3C-C4C-NC	-2.36	107.93	110.57
19	B	1202	CLA	CHA-C1A-NA	-2.36	121.00	126.40
27	4	607	CHL	O2D-CGD-O1D	-2.35	119.23	123.84
19	4	604	CLA	CHA-C1A-NA	-2.35	121.01	126.40
19	A	1139	CLA	C1B-CHB-C4A	-2.35	125.46	130.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	1	602	CLA	C2D-C1D-ND	-2.35	108.37	110.10
24	J	301	LMG	O3-C3-C2	-2.35	104.92	110.35
22	3	624	BCR	C11-C10-C9	-2.35	123.96	127.31
19	B	1023	CLA	CMD-C2D-C3D	2.35	133.02	127.61
19	B	1239	CLA	C1B-CHB-C4A	-2.35	125.47	130.12
19	3	611	CLA	C1B-CHB-C4A	-2.35	125.47	130.12
19	A	1121	CLA	C1B-CHB-C4A	-2.35	125.47	130.12
22	I	118	BCR	C3-C4-C5	-2.34	109.89	114.08
27	2	611	CHL	CAA-C2A-C3A	-2.34	106.36	112.78
19	A	1113	CLA	O2A-CGA-O1A	-2.34	117.46	123.30
19	B	1204	CLA	CHD-C1D-ND	-2.34	122.30	124.45
27	1	601	CHL	O2A-C1-C2	2.34	114.78	108.64
19	A	1103	CLA	CMB-C2B-C3B	2.34	129.05	124.68
19	A	1121	CLA	C3C-C4C-NC	-2.34	107.95	110.57
22	J	213	BCR	C24-C23-C22	-2.34	122.70	126.23
25	A	5004	LMT	O1B-C4'-C3'	2.34	113.49	107.28
19	B	1202	CLA	C1B-CHB-C4A	-2.33	125.50	130.12
19	B	1226	CLA	CMB-C2B-C3B	2.33	129.04	124.68
19	B	1232	CLA	C2D-C1D-ND	-2.33	108.39	110.10
22	3	624	BCR	C24-C23-C22	-2.33	122.71	126.23
28	2	620	LUT	C1-C6-C5	-2.33	119.33	122.61
22	I	120	BCR	C28-C27-C26	-2.33	109.92	114.08
22	B	4005	BCR	C24-C23-C22	-2.33	122.72	126.23
22	A	4011	BCR	C27-C26-C25	2.33	126.11	122.73
22	B	4009	BCR	C15-C14-C13	-2.33	123.99	127.31
19	1	602	CLA	C1B-CHB-C4A	-2.33	125.51	130.12
22	B	4010	BCR	C27-C26-C25	2.33	126.11	122.73
19	3	604	CLA	CMB-C2B-C3B	2.33	129.03	124.68
19	B	1230	CLA	C3C-C4C-NC	-2.33	107.96	110.57
23	4	630	LHG	C11-C10-C9	-2.32	102.62	114.42
22	J	213	BCR	C15-C14-C13	-2.32	123.99	127.31
19	1	603	CLA	CHD-C1D-ND	-2.32	122.32	124.45
27	2	602	CHL	C1C-C2C-C3C	-2.32	105.27	107.11
19	B	1223	CLA	C1B-CHB-C4A	-2.32	125.52	130.12
19	B	1227	CLA	CHA-C1A-NA	-2.32	121.08	126.40
19	B	1238	CLA	C3B-C4B-NB	-2.32	106.21	109.21
19	B	1201	CLA	CHB-C4A-NA	2.32	127.72	124.51
19	4	613	CLA	O2A-CGA-O1A	-2.32	117.74	123.59
28	1	621	LUT	C40-C33-C34	-2.32	119.67	122.92
22	F	416	BCR	C15-C16-C17	-2.32	118.73	123.47
19	A	1119	CLA	CMB-C2B-C3B	2.32	129.01	124.68
22	A	4001	BCR	C28-C27-C26	-2.32	109.94	114.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	L	420	BCR	C38-C26-C27	-2.31	109.17	113.62
19	3	612	CLA	CHD-C1D-ND	-2.31	122.33	124.45
19	1	609	CLA	C3C-C4C-NC	-2.31	107.98	110.57
19	1	613	CLA	C2A-C1A-CHA	2.31	127.90	123.86
19	A	1108	CLA	C2D-C1D-ND	-2.31	108.40	110.10
19	2	612	CLA	C1B-CHB-C4A	-2.31	125.54	130.12
27	4	615	CHL	O2D-CGD-O1D	-2.31	119.32	123.84
19	A	1131	CLA	C3B-C4B-NB	-2.31	106.22	109.21
27	4	607	CHL	C1C-C2C-C3C	-2.31	105.28	107.11
19	B	1236	CLA	C3C-C4C-NC	-2.31	107.98	110.57
28	3	621	LUT	C30-C31-C32	2.31	130.42	123.22
19	J	102	CLA	C1B-CHB-C4A	-2.31	125.55	130.12
27	2	601	CHL	CAA-C2A-C3A	-2.31	106.46	112.78
19	F	302	CLA	C1B-CHB-C4A	-2.31	125.55	130.12
28	2	620	LUT	C30-C31-C32	2.31	130.41	123.22
19	A	1132	CLA	CAC-C3C-C4C	-2.31	121.82	124.81
19	A	1126	CLA	CHA-C1A-NA	-2.30	121.12	126.40
24	J	301	LMG	C38-C37-C36	-2.30	102.73	114.42
19	1	608	CLA	C1-C2-C3	-2.30	123.02	126.75
22	B	4005	BCR	C27-C26-C25	2.30	126.08	122.73
24	2	631	LMG	O1-C7-C8	-2.30	105.34	110.90
22	G	311	BCR	C29-C30-C25	2.30	114.02	110.48
22	A	4011	BCR	C32-C1-C6	2.30	114.03	110.30
27	1	601	CHL	CMD-C2D-C3D	-2.30	122.32	127.61
19	3	617	CLA	C2D-C1D-ND	-2.30	108.41	110.10
19	2	604	CLA	CHB-C4A-NA	2.30	127.69	124.51
19	A	1114	CLA	CHA-C1A-NA	-2.30	121.14	126.40
19	G	202	CLA	C1B-CHB-C4A	-2.30	125.57	130.12
19	3	617	CLA	CHB-C4A-NA	2.30	127.69	124.51
19	B	1023	CLA	C3B-C4B-NB	-2.29	106.24	109.21
19	4	613	CLA	CHD-C1D-ND	-2.29	122.35	124.45
27	1	601	CHL	CAA-C2A-C3A	-2.29	106.50	112.78
19	A	1107	CLA	CMB-C2B-C3B	2.29	128.97	124.68
19	A	1022	CLA	C3B-C4B-NB	-2.29	106.25	109.21
19	2	612	CLA	O2A-CGA-O1A	-2.29	117.81	123.59
22	M	4021	BCR	C28-C27-C26	-2.29	109.98	114.08
19	A	1117	CLA	C1B-CHB-C4A	-2.29	125.58	130.12
19	2	614	CLA	C1B-CHB-C4A	-2.29	125.58	130.12
28	4	621	LUT	C35-C34-C33	-2.29	124.05	127.31
19	A	1104	CLA	C1B-CHB-C4A	-2.28	125.59	130.12
19	G	201	CLA	CHD-C1D-ND	-2.28	122.36	124.45
28	2	621	LUT	C2-C3-C4	-2.28	107.18	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	4	620	LUT	C11-C10-C9	2.28	130.57	127.31
24	J	301	LMG	O6-C1-O1	-2.28	104.57	109.97
19	A	1126	CLA	C2A-C1A-CHA	2.28	127.85	123.86
19	A	1105	CLA	CHA-C1A-NA	-2.28	121.18	126.40
19	A	1022	CLA	C3C-C4C-NC	-2.28	108.02	110.57
19	B	1205	CLA	CHD-C1D-ND	-2.28	122.36	124.45
22	I	118	BCR	C38-C26-C27	-2.27	109.25	113.62
22	I	118	BCR	C15-C16-C17	-2.27	118.81	123.47
19	A	1120	CLA	CHD-C1D-ND	-2.27	122.36	124.45
19	A	1127	CLA	O2A-CGA-O1A	-2.27	117.85	123.59
19	B	1208	CLA	C3B-C4B-NB	-2.27	106.27	109.21
19	B	1201	CLA	C3C-C4C-NC	-2.27	108.02	110.57
19	B	1202	CLA	O2A-CGA-O1A	-2.27	117.86	123.59
19	B	1208	CLA	CHB-C4A-NA	2.27	127.65	124.51
19	A	1107	CLA	CHA-C1A-NA	-2.27	121.20	126.40
19	A	1013	CLA	C3C-C4C-NC	-2.27	108.02	110.57
22	3	624	BCR	C29-C30-C25	2.27	113.98	110.48
19	4	601	CLA	CMB-C2B-C3B	2.27	128.93	124.68
19	G	202	CLA	CHD-C1D-ND	-2.27	122.37	124.45
19	4	612	CLA	C1B-CHB-C4A	-2.27	125.62	130.12
19	A	1116	CLA	O2A-CGA-O1A	-2.27	117.86	123.59
19	B	1209	CLA	C1B-CHB-C4A	-2.27	125.62	130.12
22	B	2004	BCR	C27-C26-C25	2.27	126.02	122.73
27	2	611	CHL	CMD-C2D-C3D	-2.27	122.40	127.61
19	B	1206	CLA	CHB-C4A-NA	2.27	127.65	124.51
19	B	1012	CLA	C2C-C1C-NC	-2.27	107.85	109.97
22	3	624	BCR	C7-C8-C9	-2.27	122.81	126.23
19	A	1140	CLA	C1B-CHB-C4A	-2.27	125.63	130.12
19	3	606	CLA	C1B-CHB-C4A	-2.27	125.63	130.12
22	A	4003	BCR	C15-C16-C17	-2.27	118.83	123.47
19	1	603	CLA	C4-C3-C5	2.26	119.08	115.27
23	A	5001	LHG	C27-C26-C25	-2.26	102.93	114.42
19	A	1130	CLA	CHA-C1A-NA	-2.26	121.21	126.40
19	A	1115	CLA	C2C-C1C-NC	-2.26	107.85	109.97
19	B	1205	CLA	C2C-C1C-NC	-2.26	107.85	109.97
23	2	630	LHG	C27-C26-C25	-2.26	102.94	114.42
19	B	1217	CLA	O2A-CGA-O1A	-2.26	117.66	123.30
19	1	612	CLA	C3C-C4C-NC	-2.26	108.04	110.57
19	B	1227	CLA	C3C-C4C-NC	-2.26	108.04	110.57
22	M	4021	BCR	C24-C23-C22	-2.26	122.82	126.23
22	B	4005	BCR	C15-C16-C17	-2.26	118.85	123.47
22	L	420	BCR	C15-C16-C17	-2.26	118.85	123.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1012	CLA	CAA-C2A-C3A	-2.26	106.60	112.78
19	B	1012	CLA	CHD-C1D-ND	-2.26	122.38	124.45
19	B	1231	CLA	CMB-C2B-C3B	2.26	128.90	124.68
19	A	1136	CLA	C7-C6-C5	-2.26	107.23	113.36
19	3	617	CLA	CHD-C1D-ND	-2.26	122.38	124.45
19	K	204	CLA	CHB-C4A-NA	2.25	127.63	124.51
22	I	118	BCR	C16-C15-C14	-2.25	118.86	123.47
27	1	607	CHL	O2D-CGD-O1D	-2.25	119.44	123.84
27	3	608	CHL	O2D-CGD-O1D	-2.25	119.44	123.84
19	3	604	CLA	CHA-C1A-NA	-2.25	121.24	126.40
23	B	5101	LHG	C27-C26-C25	-2.25	103.00	114.42
19	4	612	CLA	CHB-C4A-NA	2.25	127.62	124.51
25	1	631	LMT	O5B-C5B-C4B	2.25	113.78	109.69
22	B	4005	BCR	C15-C14-C13	-2.25	124.10	127.31
23	A	5001	LHG	C18-C17-C16	-2.25	103.01	114.42
19	A	1104	CLA	C3C-C4C-NC	-2.25	108.05	110.57
19	B	1205	CLA	O2A-CGA-O1A	-2.25	117.92	123.59
22	B	4009	BCR	C10-C11-C12	-2.24	116.21	123.22
27	2	602	CHL	O2D-CGD-O1D	-2.24	119.45	123.84
22	L	420	BCR	C24-C23-C22	-2.24	122.84	126.23
19	2	613	CLA	C3C-C4C-NC	-2.24	108.06	110.57
28	2	621	LUT	C20-C13-C12	2.24	121.61	118.08
28	2	621	LUT	C22-C23-C24	-2.24	109.19	111.74
19	4	601	CLA	CHA-C1A-NA	-2.24	121.27	126.40
19	A	1117	CLA	C16-C17-C18	-2.24	105.44	115.98
19	B	1201	CLA	C1C-C2C-C3C	-2.24	104.61	106.96
22	B	4006	BCR	C24-C23-C22	-2.23	122.86	126.23
19	2	604	CLA	CMB-C2B-C3B	2.23	128.86	124.68
19	A	5005	CLA	C3B-C4B-NB	-2.23	106.32	109.21
19	1	609	CLA	C1B-CHB-C4A	-2.23	125.69	130.12
28	2	623	LUT	C7-C8-C9	2.23	129.61	126.23
19	A	1117	CLA	CHD-C1D-C2D	2.23	130.16	125.48
22	A	4011	BCR	C24-C23-C22	-2.23	122.86	126.23
22	A	4007	BCR	C40-C30-C29	-2.23	99.98	108.91
22	L	419	BCR	C31-C1-C6	2.23	113.92	110.30
19	B	1205	CLA	CMD-C2D-C1D	-2.23	120.78	124.71
19	1	615	CLA	CHB-C4A-NA	2.23	127.59	124.51
23	B	5101	LHG	O8-C23-C24	2.23	118.90	111.91
19	B	1219	CLA	C1B-CHB-C4A	-2.23	125.70	130.12
28	1	621	LUT	C20-C13-C14	-2.23	119.80	122.92
19	A	1115	CLA	C2A-C1A-CHA	2.23	127.75	123.86
27	2	602	CHL	C4-C3-C5	2.23	119.02	115.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1135	CLA	C2D-C1D-ND	-2.23	108.46	110.10
19	A	1128	CLA	CMD-C2D-C1D	-2.23	120.79	124.71
19	1	606	CLA	CHB-C4A-NA	2.23	127.59	124.51
19	B	1237	CLA	C1B-CHB-C4A	-2.23	125.71	130.12
19	A	1119	CLA	CHA-C1A-NA	-2.22	121.31	126.40
22	F	416	BCR	C7-C8-C9	-2.22	122.88	126.23
19	B	1229	CLA	O2A-CGA-O1A	-2.22	117.98	123.59
19	B	1239	CLA	C1C-C2C-C3C	-2.22	104.62	106.96
19	B	1228	CLA	CHB-C4A-NA	2.22	127.59	124.51
19	B	1239	CLA	CHB-C4A-NA	2.22	127.58	124.51
19	A	1127	CLA	C1-C2-C3	-2.22	122.20	126.04
22	A	4003	BCR	C15-C14-C13	-2.22	124.14	127.31
19	A	1131	CLA	CHD-C1D-ND	-2.22	122.41	124.45
19	A	1116	CLA	C3B-C4B-NB	-2.22	106.34	109.21
19	A	1114	CLA	CMB-C2B-C3B	2.22	128.82	124.68
19	A	1126	CLA	C11-C10-C8	-2.22	108.76	115.92
28	2	623	LUT	C28-C29-C30	2.22	122.34	118.94
27	1	601	CHL	C4D-CHA-C1A	-2.22	118.55	121.25
27	2	602	CHL	CBA-CAA-C2A	2.22	120.40	113.86
19	L	302	CLA	C1-O2A-CGA	2.21	122.25	116.44
22	J	212	BCR	C24-C23-C22	-2.21	122.89	126.23
26	B	5002	DGD	CFB-CEB-CDB	-2.21	103.19	114.42
22	M	4021	BCR	C29-C30-C25	2.21	113.89	110.48
22	L	419	BCR	C40-C30-C29	-2.21	100.06	108.91
19	A	1131	CLA	C1-C2-C3	-2.21	122.22	126.04
22	F	416	BCR	C16-C15-C14	-2.21	118.95	123.47
19	B	1217	CLA	O1A-CGA-CBA	2.21	130.18	123.08
19	A	1130	CLA	C2A-C1A-CHA	2.21	127.72	123.86
28	2	620	LUT	C1-C6-C7	2.21	122.03	115.78
19	B	1223	CLA	CHA-C1A-NA	-2.21	121.34	126.40
19	A	1115	CLA	C3B-C4B-NB	-2.21	106.36	109.21
19	B	1231	CLA	CHD-C1D-ND	-2.21	122.42	124.45
22	3	623	BCR	C33-C5-C6	-2.21	122.05	124.53
19	3	614	CLA	CHA-C1A-NA	-2.21	121.34	126.40
19	3	610	CLA	CHB-C4A-NA	2.20	127.56	124.51
19	A	1113	CLA	CHA-C1A-NA	-2.20	121.35	126.40
22	A	4011	BCR	C2-C1-C6	2.20	113.87	110.48
19	B	1021	CLA	CMD-C2D-C1D	-2.20	120.83	124.71
19	A	1130	CLA	C2D-C1D-ND	-2.20	108.48	110.10
19	B	1224	CLA	C3B-C4B-NB	-2.20	106.36	109.21
22	A	4007	BCR	C37-C22-C23	2.20	121.55	118.08
27	2	602	CHL	C1-C2-C3	-2.20	122.24	126.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	B	4006	BCR	C29-C30-C25	2.20	113.87	110.48
19	B	1221	CLA	CHB-C4A-NA	2.20	127.55	124.51
19	3	607	CLA	CHD-C1D-ND	-2.20	122.43	124.45
26	B	5002	DGD	O6D-C1D-O3G	-2.20	104.77	109.97
27	1	607	CHL	O2A-CGA-CBA	2.20	120.92	112.23
19	F	302	CLA	C2D-C1D-ND	-2.20	108.48	110.10
22	G	311	BCR	C15-C14-C13	-2.20	124.17	127.31
19	L	303	CLA	CHA-C1A-NA	-2.20	121.37	126.40
19	3	603	CLA	CHD-C1D-ND	-2.20	122.44	124.45
19	F	302	CLA	CHB-C4A-NA	2.20	127.55	124.51
22	J	213	BCR	C3-C4-C5	-2.20	110.16	114.08
19	4	610	CLA	CHD-C1D-ND	-2.19	122.44	124.45
19	A	1114	CLA	CHB-C4A-NA	2.19	127.55	124.51
23	3	630	LHG	C27-C26-C25	-2.19	103.29	114.42
22	I	120	BCR	C16-C17-C18	-2.19	124.18	127.31
19	B	1238	CLA	C1B-CHB-C4A	-2.19	125.78	130.12
22	1	623	BCR	C24-C23-C22	-2.19	122.93	126.23
26	B	5002	DGD	O6E-C1E-O5D	-2.19	104.79	109.97
19	2	613	CLA	CHB-C4A-NA	2.19	127.54	124.51
24	A	5002	LMG	O3-C3-C2	-2.19	105.29	110.35
22	A	4008	BCR	C28-C27-C26	-2.19	110.17	114.08
22	B	4014	BCR	C29-C30-C25	2.19	113.85	110.48
19	A	1107	CLA	C3B-C4B-NB	-2.19	106.38	109.21
19	B	1209	CLA	CHD-C1D-ND	-2.19	122.44	124.45
19	B	1208	CLA	O2A-CGA-O1A	-2.19	117.85	123.30
19	B	1210	CLA	C1-C2-C3	-2.19	122.26	126.04
22	3	623	BCR	C7-C8-C9	-2.19	122.93	126.23
19	B	1213	CLA	O2A-C1-C2	-2.18	102.89	108.64
19	B	1212	CLA	CMC-C2C-C1C	-2.18	121.71	125.04
28	2	620	LUT	C18-C5-C4	2.18	118.40	114.36
28	4	621	LUT	C20-C13-C14	-2.18	119.86	122.92
19	4	611	CLA	CHA-C1A-NA	-2.18	121.40	126.40
27	1	607	CHL	O1D-CGD-CBD	-2.18	120.02	124.48
19	2	613	CLA	C1B-CHB-C4A	-2.18	125.79	130.12
19	A	1101	CLA	C2D-C1D-ND	-2.18	108.50	110.10
19	1	603	CLA	C2D-C1D-ND	-2.18	108.50	110.10
22	B	4009	BCR	C40-C30-C25	2.18	113.84	110.30
22	A	4007	BCR	C30-C25-C26	-2.18	119.54	122.61
19	B	1226	CLA	CHA-C1A-NA	-2.18	121.40	126.40
19	A	1119	CLA	O2A-CGA-O1A	-2.18	118.08	123.59
22	L	419	BCR	C23-C24-C25	2.18	133.33	127.20
19	A	1126	CLA	C2C-C1C-NC	-2.18	107.93	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	A	4002	BCR	C15-C16-C17	-2.18	119.00	123.47
19	B	1236	CLA	CHB-C4A-NA	2.18	127.53	124.51
19	4	613	CLA	C1B-CHB-C4A	-2.18	125.80	130.12
19	4	601	CLA	C1B-CHB-C4A	-2.18	125.80	130.12
19	L	303	CLA	CMB-C2B-C3B	2.18	128.75	124.68
22	A	4002	BCR	C24-C23-C22	-2.18	122.94	126.23
27	2	608	CHL	C4D-CHA-C1A	-2.18	118.60	121.25
19	3	617	CLA	C1B-CHB-C4A	-2.18	125.81	130.12
23	A	5001	LHG	C11-C10-C9	-2.18	103.38	114.42
19	B	1222	CLA	C1B-CHB-C4A	-2.18	125.81	130.12
19	L	301	CLA	C2D-C1D-ND	-2.18	108.50	110.10
19	K	203	CLA	CHD-C1D-ND	-2.18	122.41	124.52
22	B	4014	BCR	C15-C14-C13	-2.17	124.21	127.31
24	2	631	LMG	O3-C3-C2	-2.17	105.33	110.35
19	1	610	CLA	C1B-CHB-C4A	-2.17	125.81	130.12
19	B	1237	CLA	CHB-C4A-NA	2.17	127.52	124.51
19	1	613	CLA	C1B-CHB-C4A	-2.17	125.82	130.12
19	B	1227	CLA	CHD-C1D-C2D	2.17	130.03	125.48
19	A	1104	CLA	CHB-C4A-NA	2.17	127.51	124.51
19	1	604	CLA	O2A-CGA-O1A	-2.17	118.12	123.59
28	2	621	LUT	C3-C4-C5	-2.17	107.53	111.85
19	B	1211	CLA	CHB-C4A-NA	2.17	127.51	124.51
19	A	1140	CLA	C2C-C1C-NC	-2.17	107.94	109.97
19	2	614	CLA	O2D-CGD-CBD	2.17	115.12	111.27
19	L	303	CLA	O2A-CGA-O1A	-2.17	117.90	123.30
19	A	1122	CLA	C1B-CHB-C4A	-2.16	125.83	130.12
19	A	1102	CLA	CHB-C4A-NA	2.16	127.50	124.51
19	A	1138	CLA	C2A-C1A-CHA	2.16	127.64	123.86
19	2	614	CLA	CHB-C4A-NA	2.16	127.50	124.51
19	A	1134	CLA	O2A-CGA-O1A	-2.16	117.91	123.30
24	J	302	LMG	C1-C2-C3	-2.16	105.50	110.00
19	A	1112	CLA	O2A-CGA-O1A	-2.16	117.91	123.30
22	I	118	BCR	C31-C1-C6	2.16	113.80	110.30
19	A	1022	CLA	CHD-C1D-ND	-2.16	122.47	124.45
19	3	609	CLA	CHA-C1A-NA	-2.16	121.45	126.40
19	A	1125	CLA	C2A-C1A-CHA	2.16	127.63	123.86
19	B	1205	CLA	C11-C10-C8	-2.16	108.95	115.92
19	H	200	CLA	CHB-C4A-NA	2.16	127.49	124.51
19	2	604	CLA	CHA-C1A-NA	-2.15	121.47	126.40
22	B	4009	BCR	C7-C8-C9	-2.15	122.98	126.23
22	M	4021	BCR	C1-C6-C5	-2.15	119.58	122.61
22	F	416	BCR	C24-C23-C22	-2.15	122.98	126.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	1	606	CLA	O2A-CGA-O1A	-2.15	117.94	123.30
19	3	612	CLA	C1B-CHB-C4A	-2.15	125.86	130.12
22	A	4002	BCR	C15-C14-C13	-2.15	124.24	127.31
19	A	1122	CLA	O2A-CGA-O1A	-2.15	118.17	123.59
19	A	1115	CLA	CHB-C4A-NA	2.15	127.48	124.51
22	B	4009	BCR	C30-C25-C26	-2.15	119.59	122.61
19	A	1101	CLA	O2D-CGD-CBD	2.15	115.09	111.27
19	B	1215	CLA	C3B-C4B-NB	-2.15	106.43	109.21
19	A	1114	CLA	CHD-C1D-C2D	2.15	129.99	125.48
19	A	1132	CLA	CAA-CBA-CGA	-2.15	106.98	113.25
19	B	1209	CLA	O2A-CGA-O1A	-2.15	117.95	123.30
22	I	118	BCR	C30-C25-C26	-2.15	119.59	122.61
19	B	1232	CLA	C3C-C4C-NC	-2.15	108.16	110.57
19	B	1208	CLA	CHD-C1D-ND	-2.15	122.48	124.45
19	3	603	CLA	C1B-CHB-C4A	-2.15	125.86	130.12
19	1	610	CLA	O2D-CGD-CBD	2.15	115.08	111.27
19	L	302	CLA	C3C-C4C-NC	-2.14	108.17	110.57
19	B	1021	CLA	O2A-CGA-O1A	-2.14	118.18	123.59
19	B	1221	CLA	C3C-C4C-NC	-2.14	108.17	110.57
22	3	623	BCR	C15-C14-C13	-2.14	124.25	127.31
19	B	1201	CLA	O2A-CGA-O1A	-2.14	118.18	123.59
19	B	1225	CLA	CHD-C1D-ND	-2.14	122.49	124.45
19	B	1215	CLA	CHD-C1D-C2D	2.14	129.97	125.48
27	4	608	CHL	O2D-CGD-O1D	-2.14	119.65	123.84
28	4	621	LUT	C17-C1-C6	2.14	113.77	110.30
19	B	1216	CLA	C1-C2-C3	-2.14	122.34	126.04
19	4	609	CLA	O2D-CGD-CBD	2.14	115.07	111.27
19	4	611	CLA	CMB-C2B-C3B	2.14	128.68	124.68
19	3	605	CLA	CHB-C4A-NA	2.14	127.61	124.34
22	L	419	BCR	C38-C26-C27	-2.14	109.51	113.62
19	A	1102	CLA	O2A-CGA-O1A	-2.14	117.97	123.30
19	3	611	CLA	CHD-C1D-ND	-2.14	122.49	124.45
22	B	2004	BCR	C24-C23-C22	-2.14	123.01	126.23
22	J	212	BCR	C7-C8-C9	-2.14	123.01	126.23
19	B	1222	CLA	CHA-C1A-NA	-2.14	121.51	126.40
19	G	201	CLA	C2D-C1D-ND	-2.13	108.53	110.10
19	B	1219	CLA	C4D-C3D-CAD	-2.13	105.58	108.10
19	B	1224	CLA	O2A-CGA-O1A	-2.13	118.21	123.59
19	B	1210	CLA	C16-C17-C18	-2.13	105.94	115.98
19	A	1103	CLA	CHB-C4A-NA	2.13	127.46	124.51
28	2	621	LUT	C40-C33-C34	-2.13	119.94	122.92
28	2	623	LUT	C20-C13-C14	-2.13	119.94	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1130	CLA	C1D-ND-C4D	-2.13	104.82	106.33
22	B	4014	BCR	C16-C15-C14	-2.13	119.11	123.47
19	G	201	CLA	CHB-C4A-NA	2.13	127.46	124.51
19	A	1134	CLA	CHA-C1A-NA	-2.13	121.52	126.40
19	B	1211	CLA	C3C-C4C-NC	-2.13	108.18	110.57
19	3	612	CLA	C2D-C1D-ND	-2.13	108.54	110.10
19	B	1201	CLA	C1-C2-C3	-2.13	123.31	126.75
27	3	608	CHL	C4D-CHA-C1A	-2.13	118.66	121.25
24	J	302	LMG	O3-C3-C2	-2.12	105.44	110.35
19	A	1128	CLA	O2A-CGA-O1A	-2.12	118.23	123.59
22	L	419	BCR	C1-C6-C5	-2.12	119.63	122.61
19	L	301	CLA	CHB-C4A-NA	2.12	127.44	124.51
19	A	1131	CLA	O1D-CGD-CBD	2.12	128.82	124.48
19	3	604	CLA	CHB-C4A-NA	2.12	127.44	124.51
19	3	604	CLA	CHD-C1D-ND	-2.12	122.51	124.45
22	1	623	BCR	C15-C14-C13	-2.12	124.27	127.30
19	K	203	CLA	C1C-NC-C4C	2.12	107.66	106.71
19	A	1132	CLA	CHB-C4A-NA	2.12	127.44	124.51
19	B	1216	CLA	C2D-C1D-ND	-2.11	108.55	110.10
19	A	1137	CLA	CMB-C2B-C3B	2.11	128.63	124.68
19	B	1225	CLA	C1B-CHB-C4A	-2.11	125.93	130.12
19	L	301	CLA	CHA-C1A-NA	-2.11	121.56	126.40
19	A	1101	CLA	CHB-C4A-NA	2.11	127.43	124.51
19	1	604	CLA	C1-C2-C3	-2.11	123.34	126.75
24	J	301	LMG	O2-C2-C1	-2.11	104.92	110.05
19	B	1237	CLA	CBA-CAA-C2A	2.11	120.09	113.86
22	A	4003	BCR	C11-C10-C9	-2.11	124.30	127.31
19	B	1234	CLA	O2A-CGA-O1A	-2.11	118.27	123.59
22	B	4017	BCR	C16-C15-C14	-2.11	119.16	123.47
28	2	621	LUT	C19-C9-C8	2.11	121.40	118.08
19	G	218	CLA	CHA-C1A-NA	-2.11	121.57	126.40
27	2	608	CHL	O2D-CGD-O1D	-2.11	119.72	123.84
19	A	1102	CLA	C2D-C1D-ND	-2.11	108.55	110.10
19	1	602	CLA	CHA-C1A-NA	-2.11	121.58	126.40
19	A	1125	CLA	CHB-C4A-NA	2.11	127.42	124.51
19	A	1022	CLA	CMD-C2D-C1D	-2.11	121.00	124.71
19	B	1216	CLA	O2A-CGA-O1A	-2.10	118.28	123.59
19	A	1128	CLA	C1-C2-C3	-2.10	122.40	126.04
22	A	4001	BCR	C29-C30-C25	2.10	113.72	110.48
28	2	620	LUT	C28-C29-C30	2.10	122.17	118.94
19	A	1135	CLA	CHA-C1A-NA	-2.10	121.58	126.40
28	2	623	LUT	C40-C33-C34	-2.10	119.98	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	L	302	CLA	CAA-CBA-CGA	-2.10	107.11	113.25
28	1	620	LUT	C20-C13-C12	2.10	121.39	118.08
19	B	1205	CLA	CMB-C2B-C3B	2.10	128.61	124.68
19	3	612	CLA	CHB-C4A-NA	2.10	127.42	124.51
19	B	1224	CLA	CHA-C1A-NA	-2.10	121.59	126.40
19	A	1112	CLA	CHD-C1D-ND	-2.10	122.53	124.45
22	M	4021	BCR	C10-C11-C12	-2.10	116.67	123.22
19	F	303	CLA	CHB-C4A-NA	2.10	127.55	124.34
19	B	1228	CLA	C2D-C1D-ND	-2.10	108.56	110.10
19	3	607	CLA	O2A-CGA-O1A	-2.10	118.30	123.59
19	3	609	CLA	O2A-CGA-O1A	-2.10	118.30	123.59
19	2	613	CLA	CHD-C1D-ND	-2.10	122.53	124.45
22	I	120	BCR	C35-C13-C14	-2.10	119.99	122.92
19	A	1113	CLA	C2D-C1D-ND	-2.10	108.56	110.10
19	B	1023	CLA	C1-C2-C3	-2.09	122.42	126.04
19	1	606	CLA	O1A-CGA-CBA	2.09	129.81	123.08
19	B	1225	CLA	C3C-C4C-NC	-2.09	108.22	110.57
19	A	1104	CLA	O2A-CGA-O1A	-2.09	118.31	123.59
19	3	604	CLA	O2A-CGA-O1A	-2.09	118.31	123.59
19	1	611	CLA	CHD-C1D-ND	-2.09	122.53	124.45
19	A	1105	CLA	C3C-C4C-NC	-2.09	108.23	110.57
22	B	4017	BCR	C10-C11-C12	-2.09	116.69	123.22
22	A	4007	BCR	C20-C21-C22	-2.09	124.33	127.31
19	A	1112	CLA	C2A-C1A-CHA	2.09	127.51	123.86
22	F	416	BCR	C15-C14-C13	-2.09	124.33	127.31
19	B	1234	CLA	C3B-C4B-NB	-2.09	106.51	109.21
19	2	610	CLA	CHD-C1D-ND	-2.09	122.54	124.45
19	B	1228	CLA	C3C-C4C-NC	-2.09	108.23	110.57
19	1	611	CLA	C3C-C4C-NC	-2.08	108.23	110.57
22	A	4001	BCR	C11-C10-C9	-2.08	124.33	127.31
19	B	1208	CLA	CHA-C1A-NA	-2.08	121.63	126.40
27	2	602	CHL	O2A-C1-C2	2.08	114.11	108.64
18	A	1011	CL0	O2A-CGA-O1A	-2.08	118.34	123.59
19	A	1135	CLA	O2A-CGA-O1A	-2.08	118.34	123.59
19	A	1119	CLA	C4D-C3D-CAD	-2.08	105.64	108.10
19	A	1132	CLA	CMC-C2C-C1C	-2.08	121.87	125.04
19	B	1240	CLA	CHA-C1A-NA	-2.08	121.63	126.40
19	B	1021	CLA	CHB-C4A-NA	2.08	127.39	124.51
19	B	1225	CLA	C1-O2A-CGA	2.08	121.90	116.44
19	4	603	CLA	C2D-C1D-ND	-2.08	108.57	110.10
19	B	1213	CLA	O2D-CGD-CBD	2.08	114.96	111.27
19	1	602	CLA	CHB-C4A-NA	2.08	127.38	124.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	3	603	CLA	O2A-CGA-O1A	-2.08	118.35	123.59
19	3	614	CLA	C3C-C4C-NC	-2.08	108.24	110.57
19	A	1125	CLA	CAC-C3C-C4C	-2.07	122.12	124.81
22	3	623	BCR	C24-C23-C22	-2.07	123.11	126.23
27	4	608	CHL	C4D-C3D-CAD	2.07	110.53	108.10
19	B	1225	CLA	O2D-CGD-O1D	-2.07	119.79	123.84
22	B	4010	BCR	C33-C5-C4	-2.07	109.64	113.62
28	1	620	LUT	C39-C29-C30	-2.07	120.03	122.92
19	H	200	CLA	C3C-C4C-NC	-2.07	108.25	110.57
19	A	1121	CLA	O2A-CGA-O1A	-2.07	118.37	123.59
19	A	1140	CLA	O2D-CGD-CBD	2.07	114.94	111.27
27	4	608	CHL	C5-C3-C4	2.07	119.17	114.60
28	1	620	LUT	C22-C23-C24	2.07	114.09	111.74
19	B	1211	CLA	CHA-C1A-NA	-2.07	121.67	126.40
24	J	302	LMG	O6-C1-O1	-2.06	105.08	109.97
22	F	416	BCR	C40-C30-C25	2.06	113.65	110.30
19	B	1227	CLA	O2A-CGA-O1A	-2.06	118.16	123.30
19	B	1216	CLA	C4D-C3D-CAD	-2.06	105.66	108.10
19	B	1232	CLA	C3B-C4B-NB	-2.06	106.54	109.21
19	A	1013	CLA	CAA-C2A-C1A	-2.06	105.22	111.97
22	B	4014	BCR	C30-C25-C26	-2.06	119.71	122.61
22	B	4006	BCR	C38-C26-C27	-2.06	109.66	113.62
19	B	1208	CLA	C2D-C1D-ND	-2.06	108.59	110.10
19	B	1214	CLA	C4D-C3D-CAD	-2.06	105.67	108.10
19	A	1122	CLA	CMB-C2B-C3B	2.06	128.53	124.68
28	3	620	LUT	C20-C13-C12	2.06	121.32	118.08
19	A	1136	CLA	C3C-C4C-NC	-2.06	108.26	110.57
19	K	203	CLA	C2A-C1A-CHA	2.06	125.90	122.71
19	B	1204	CLA	CHB-C4A-NA	2.06	127.36	124.51
24	2	631	LMG	O2-C2-C1	-2.06	105.05	110.05
19	A	1133	CLA	CHB-C4A-NA	2.06	127.35	124.51
19	A	1110	CLA	O2A-CGA-O1A	-2.05	118.41	123.59
22	A	4002	BCR	C16-C15-C14	-2.05	119.27	123.47
22	A	4008	BCR	C11-C10-C9	-2.05	124.38	127.31
19	B	1206	CLA	C1B-CHB-C4A	-2.05	126.05	130.12
27	2	601	CHL	OMC-CMC-C2C	-2.05	121.05	125.69
19	B	1225	CLA	O2D-CGD-CBD	2.05	114.91	111.27
22	B	2004	BCR	C38-C26-C27	-2.05	109.68	113.62
19	A	1801	CLA	O2A-CGA-O1A	-2.05	118.42	123.59
19	2	609	CLA	O2A-CGA-O1A	-2.05	118.42	123.59
19	B	1238	CLA	O2A-CGA-O1A	-2.05	118.42	123.59
19	A	1117	CLA	O2D-CGD-CBD	2.05	114.91	111.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	B	1023	CLA	C4D-C3D-CAD	-2.05	105.68	108.10
19	1	603	CLA	C3C-C4C-NC	-2.05	108.28	110.57
19	L	301	CLA	C3B-C4B-NB	-2.05	106.56	109.21
19	1	614	CLA	CHA-C1A-NA	-2.05	121.71	126.40
19	B	1209	CLA	CMB-C2B-C3B	2.04	128.50	124.68
19	A	1111	CLA	C4D-C3D-CAD	-2.04	105.69	108.10
27	2	607	CHL	CED-O2D-CGD	2.04	120.56	115.94
19	B	1021	CLA	C2D-C1D-ND	-2.04	108.60	110.10
28	4	623	LUT	C31-C32-C33	2.04	132.15	126.42
22	F	416	BCR	C28-C27-C26	-2.04	110.43	114.08
19	B	1204	CLA	C2D-C1D-ND	-2.04	108.60	110.10
19	4	610	CLA	O2A-CGA-O1A	-2.04	118.44	123.59
28	4	621	LUT	C11-C10-C9	2.04	130.22	127.31
19	4	614	CLA	C3C-C4C-NC	-2.04	108.28	110.57
22	3	624	BCR	C15-C16-C17	-2.04	119.29	123.47
19	A	1108	CLA	CHB-C4A-NA	2.04	127.33	124.51
19	A	1113	CLA	CHD-C1D-ND	-2.04	122.58	124.45
19	B	1237	CLA	CHA-C1A-NA	-2.04	121.73	126.40
27	2	611	CHL	O1D-CGD-CBD	-2.04	120.31	124.48
19	A	1121	CLA	CMB-C2B-C3B	2.04	128.49	124.68
19	A	1117	CLA	C1-C2-C3	-2.04	122.52	126.04
19	A	1109	CLA	O2A-CGA-O1A	-2.04	118.45	123.59
19	1	604	CLA	CHA-C1A-NA	-2.04	121.73	126.40
19	B	1212	CLA	CHB-C4A-NA	2.04	127.33	124.51
19	A	1130	CLA	C4D-CHA-C1A	-2.04	118.77	121.25
19	4	604	CLA	O2A-CGA-O1A	-2.04	118.46	123.59
19	3	614	CLA	O2A-CGA-O1A	-2.03	118.46	123.59
27	4	606	CHL	O2A-CGA-CBA	2.03	120.27	112.23
19	B	1240	CLA	CHB-C4A-NA	2.03	127.32	124.51
19	B	1215	CLA	O2D-CGD-CBD	2.03	114.88	111.27
22	K	301	BCR	C29-C30-C25	2.03	113.61	110.48
19	A	8895	CLA	C1B-CHB-C4A	-2.03	126.09	130.12
19	A	1022	CLA	O2A-CGA-O1A	-2.03	118.47	123.59
19	B	1023	CLA	C2A-C1A-CHA	2.03	127.41	123.86
19	A	1118	CLA	CAA-CBA-CGA	-2.03	107.32	113.25
19	J	102	CLA	CHB-C4A-NA	2.03	127.32	124.51
19	B	1012	CLA	C2A-C1A-CHA	2.03	127.41	123.86
19	A	1139	CLA	CHB-C4A-NA	2.03	127.32	124.51
24	J	302	LMG	O2-C2-C1	-2.03	105.12	110.05
19	1	608	CLA	CHA-C1A-NA	-2.03	121.75	126.40
27	4	608	CHL	C4D-CHA-C1A	-2.03	118.78	121.25
22	3	623	BCR	C15-C16-C17	-2.03	119.32	123.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	A	1115	CLA	C2D-C1D-ND	-2.03	108.61	110.10
19	B	1219	CLA	CHA-C1A-NA	-2.03	121.76	126.40
22	B	4006	BCR	C33-C5-C6	-2.02	122.25	124.53
19	B	1230	CLA	O2A-CGA-O1A	-2.02	118.25	123.30
27	2	607	CHL	C4D-CHA-C1A	-2.02	118.79	121.25
19	A	1113	CLA	CHB-C4A-NA	2.02	127.31	124.51
19	B	1227	CLA	C4D-C3D-CAD	-2.02	105.71	108.10
28	3	620	LUT	C31-C32-C33	-2.02	120.74	126.42
22	A	4001	BCR	C20-C21-C22	-2.02	124.42	127.31
28	1	620	LUT	C19-C9-C8	2.02	121.26	118.08
19	B	1203	CLA	CAA-C2A-C3A	-2.02	107.25	112.78
19	2	613	CLA	C2A-C1A-CHA	2.02	127.39	123.86
19	A	1138	CLA	O2D-CGD-CBD	2.02	114.86	111.27
19	A	1109	CLA	C3B-C4B-NB	-2.02	106.60	109.21
19	B	1213	CLA	C4D-C3D-CAD	-2.02	105.72	108.10
18	A	1011	CL0	CMD-C2D-C1D	-2.02	121.16	124.71
19	L	301	CLA	O2A-CGA-O1A	-2.02	118.50	123.59
19	3	605	CLA	C2A-C1A-CHA	2.02	125.84	122.71
22	M	4021	BCR	C2-C1-C6	2.02	113.59	110.48
19	B	1216	CLA	C2C-C1C-NC	-2.02	108.08	109.97
19	A	1128	CLA	CHA-C1A-NA	-2.02	121.78	126.40
22	G	311	BCR	C1-C6-C5	-2.02	119.77	122.61
22	L	419	BCR	C24-C23-C22	-2.02	123.19	126.23
19	1	603	CLA	O2D-CGD-CBD	2.02	114.85	111.27
22	F	416	BCR	C27-C26-C25	2.02	125.66	122.73
19	A	1117	CLA	O2A-C1-C2	-2.02	103.34	108.64
22	A	4003	BCR	C16-C15-C14	-2.01	119.35	123.47
19	I	121	CLA	C3C-C4C-NC	-2.01	108.31	110.57
19	A	1130	CLA	C3C-C4C-NC	-2.01	108.31	110.57
27	2	607	CHL	O2D-CGD-O1D	-2.01	119.90	123.84
19	4	604	CLA	C1-C2-C3	-2.01	123.50	126.75
19	A	1801	CLA	C2D-C1D-ND	-2.01	108.62	110.10
28	4	623	LUT	C39-C29-C30	-2.01	120.11	122.92
19	A	1106	CLA	CHA-C1A-NA	-2.01	121.80	126.40
22	F	416	BCR	C35-C13-C14	-2.01	120.11	122.92
23	1	630	LHG	O8-C23-O10	-2.01	118.53	123.59
19	A	1130	CLA	O2A-C1-C2	-2.01	103.36	108.64
19	G	201	CLA	O2A-CGA-O1A	-2.01	118.53	123.59
19	1	604	CLA	C1B-CHB-C4A	-2.01	126.14	130.12
27	2	615	CHL	O2A-CGA-CBA	2.01	120.16	112.23
26	B	5002	DGD	C9B-C8B-C7B	-2.00	104.25	114.42
22	A	4011	BCR	C11-C10-C9	-2.00	124.45	127.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	M	4021	BCR	C16-C15-C14	-2.00	119.37	123.47
22	G	311	BCR	C11-C10-C9	-2.00	124.45	127.31
19	B	1237	CLA	C3C-C4C-NC	-2.00	108.33	110.57
19	4	611	CLA	C3C-C4C-NC	-2.00	108.33	110.57
19	B	1215	CLA	O2A-C1-C2	-2.00	103.38	108.64
19	3	602	CLA	CHD-C1D-C2D	2.00	129.68	125.48

All (145) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
18	A	1011	CL0	NA
18	A	1011	CL0	NC
19	A	1022	CLA	ND
19	A	1101	CLA	ND
19	A	1103	CLA	ND
19	A	1105	CLA	ND
19	A	1106	CLA	ND
19	A	1108	CLA	ND
19	A	1109	CLA	ND
19	A	1110	CLA	ND
19	A	1114	CLA	ND
19	A	1116	CLA	ND
19	A	1117	CLA	ND
19	A	1119	CLA	ND
19	A	1121	CLA	ND
19	A	1122	CLA	ND
19	A	1125	CLA	ND
19	A	1131	CLA	ND
19	A	1132	CLA	ND
19	A	1136	CLA	ND
19	A	1137	CLA	ND
19	A	1801	CLA	ND
19	A	1138	CLA	ND
19	A	1139	CLA	ND
19	B	1012	CLA	ND
19	B	1021	CLA	ND
19	B	1201	CLA	ND
19	B	1202	CLA	ND
19	B	1203	CLA	ND
19	B	1204	CLA	ND
19	B	1205	CLA	ND
19	B	1208	CLA	ND

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Atom</b>
19	B	1210	CLA	ND
19	B	1211	CLA	ND
19	B	1215	CLA	ND
19	B	1216	CLA	ND
19	B	1220	CLA	ND
19	B	1222	CLA	ND
19	B	1223	CLA	ND
19	B	1224	CLA	ND
19	B	1226	CLA	ND
19	B	1228	CLA	ND
19	B	1229	CLA	ND
19	B	1230	CLA	ND
19	B	1232	CLA	ND
19	B	1234	CLA	ND
19	B	1235	CLA	ND
19	B	1237	CLA	ND
19	B	1238	CLA	ND
19	B	1240	CLA	ND
19	1	602	CLA	ND
19	1	603	CLA	ND
19	1	604	CLA	ND
19	1	606	CLA	ND
19	1	608	CLA	ND
19	1	609	CLA	ND
19	1	610	CLA	ND
19	1	612	CLA	ND
19	1	613	CLA	ND
19	1	614	CLA	ND
19	1	615	CLA	ND
19	2	603	CLA	ND
19	2	604	CLA	ND
19	2	609	CLA	ND
19	2	610	CLA	ND
19	2	612	CLA	ND
19	2	613	CLA	ND
19	2	614	CLA	ND
19	3	602	CLA	ND
19	3	604	CLA	ND
19	3	605	CLA	ND
19	3	606	CLA	ND
19	3	607	CLA	ND
19	3	609	CLA	ND

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Atom</b>
19	3	610	CLA	ND
19	3	611	CLA	ND
19	3	612	CLA	ND
19	3	613	CLA	ND
19	3	614	CLA	ND
19	3	617	CLA	ND
19	4	601	CLA	ND
19	4	614	CLA	ND
19	4	602	CLA	ND
19	4	603	CLA	ND
19	4	604	CLA	ND
19	4	609	CLA	ND
19	4	610	CLA	ND
19	4	612	CLA	ND
19	4	613	CLA	ND
19	F	301	CLA	ND
19	F	302	CLA	ND
19	F	303	CLA	ND
19	G	201	CLA	ND
19	G	202	CLA	ND
19	H	200	CLA	ND
19	J	102	CLA	ND
19	K	201	CLA	ND
19	K	202	CLA	ND
19	K	203	CLA	ND
19	K	204	CLA	ND
19	L	303	CLA	ND
27	1	607	CHL	ND
27	1	607	CHL	NA
27	1	607	CHL	NC
27	1	601	CHL	ND
27	1	601	CHL	NA
27	1	601	CHL	NC
27	2	602	CHL	ND
27	2	602	CHL	NA
27	2	602	CHL	NC
27	2	606	CHL	ND
27	2	606	CHL	NA
27	2	606	CHL	NC
27	2	607	CHL	ND
27	2	607	CHL	NA
27	2	607	CHL	NC

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Mol	Chain	Res	Type	Atom
27	2	608	CHL	ND
27	2	608	CHL	NA
27	2	608	CHL	NC
27	2	611	CHL	ND
27	2	611	CHL	NA
27	2	611	CHL	NC
27	2	615	CHL	ND
27	2	615	CHL	NA
27	2	615	CHL	NC
27	2	601	CHL	ND
27	2	601	CHL	NA
27	2	601	CHL	NC
27	3	608	CHL	ND
27	3	608	CHL	NA
27	3	608	CHL	NC
27	4	606	CHL	ND
27	4	606	CHL	NA
27	4	606	CHL	NC
27	4	607	CHL	ND
27	4	607	CHL	NA
27	4	607	CHL	NC
27	4	608	CHL	ND
27	4	608	CHL	NA
27	4	608	CHL	NC
27	4	615	CHL	ND
27	4	615	CHL	NA
27	4	615	CHL	NC
28	2	623	LUT	C26
28	4	623	LUT	C26

All (1808) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
19	A	1013	CLA	CBD-CGD-O2D-CED
19	A	1022	CLA	C1A-C2A-CAA-CBA
19	A	1022	CLA	C3A-C2A-CAA-CBA
19	A	1102	CLA	C1A-C2A-CAA-CBA
19	A	1102	CLA	C3A-C2A-CAA-CBA
19	A	1103	CLA	C3A-C2A-CAA-CBA
19	A	1107	CLA	C1A-C2A-CAA-CBA
19	A	1109	CLA	C1A-C2A-CAA-CBA
19	A	1109	CLA	C3A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
19	A	1110	CLA	CBA-CGA-O2A-C1
19	A	1112	CLA	C1A-C2A-CAA-CBA
19	A	1112	CLA	C3A-C2A-CAA-CBA
19	A	1116	CLA	C3A-C2A-CAA-CBA
19	A	1117	CLA	CBD-CGD-O2D-CED
19	A	1119	CLA	C6-C7-C8-C9
19	A	1122	CLA	CHA-CBD-CGD-O1D
19	A	1122	CLA	CHA-CBD-CGD-O2D
19	A	1125	CLA	C1A-C2A-CAA-CBA
19	A	1125	CLA	C2A-CAA-CBA-CGA
19	A	1126	CLA	C1A-C2A-CAA-CBA
19	A	1126	CLA	CHA-CBD-CGD-O1D
19	A	1126	CLA	CHA-CBD-CGD-O2D
19	A	1126	CLA	CBD-CGD-O2D-CED
19	A	1128	CLA	C1A-C2A-CAA-CBA
19	A	1128	CLA	CHA-CBD-CGD-O2D
19	A	1130	CLA	C1A-C2A-CAA-CBA
19	A	1130	CLA	CHA-CBD-CGD-O1D
19	A	1132	CLA	CBD-CGD-O2D-CED
19	A	1135	CLA	C1A-C2A-CAA-CBA
19	A	1136	CLA	C11-C10-C8-C7
19	A	1137	CLA	C1A-C2A-CAA-CBA
19	A	1140	CLA	C2-C3-C5-C6
19	A	1140	CLA	C4-C3-C5-C6
19	A	1801	CLA	CBD-CGD-O2D-CED
19	A	1138	CLA	CBD-CGD-O2D-CED
19	A	1139	CLA	CHA-CBD-CGD-O1D
19	A	1139	CLA	CHA-CBD-CGD-O2D
19	B	1023	CLA	CBD-CGD-O2D-CED
19	B	1012	CLA	C1A-C2A-CAA-CBA
19	B	1012	CLA	CHA-CBD-CGD-O1D
19	B	1012	CLA	CHA-CBD-CGD-O2D
19	B	1012	CLA	CAD-CBD-CGD-O1D
19	B	1012	CLA	C2-C3-C5-C6
19	B	1012	CLA	C4-C3-C5-C6
19	B	1021	CLA	CBD-CGD-O2D-CED
19	B	1201	CLA	C1A-C2A-CAA-CBA
19	B	1201	CLA	C2A-CAA-CBA-CGA
19	B	1202	CLA	C1A-C2A-CAA-CBA
19	B	1202	CLA	C3A-C2A-CAA-CBA
19	B	1203	CLA	C1A-C2A-CAA-CBA
19	B	1205	CLA	CHA-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
19	B	1205	CLA	CHA-CBD-CGD-O2D
19	B	1211	CLA	CBD-CGD-O2D-CED
19	B	1216	CLA	C1A-C2A-CAA-CBA
19	B	1217	CLA	C1A-C2A-CAA-CBA
19	B	1217	CLA	C3A-C2A-CAA-CBA
19	B	1219	CLA	CBD-CGD-O2D-CED
19	B	1220	CLA	C1A-C2A-CAA-CBA
19	B	1220	CLA	C3A-C2A-CAA-CBA
19	B	1220	CLA	CHA-CBD-CGD-O1D
19	B	1220	CLA	CHA-CBD-CGD-O2D
19	B	1222	CLA	CBD-CGD-O2D-CED
19	B	1223	CLA	C1A-C2A-CAA-CBA
19	B	1223	CLA	C3A-C2A-CAA-CBA
19	B	1224	CLA	C1A-C2A-CAA-CBA
19	B	1225	CLA	C1A-C2A-CAA-CBA
19	B	1225	CLA	C3A-C2A-CAA-CBA
19	B	1226	CLA	C1A-C2A-CAA-CBA
19	B	1229	CLA	CBD-CGD-O2D-CED
19	B	1230	CLA	C1A-C2A-CAA-CBA
19	B	1230	CLA	C3A-C2A-CAA-CBA
19	B	1232	CLA	CBD-CGD-O2D-CED
19	B	1234	CLA	C2-C3-C5-C6
19	B	1237	CLA	C1A-C2A-CAA-CBA
19	B	1239	CLA	C1A-C2A-CAA-CBA
19	B	1240	CLA	CHA-CBD-CGD-O1D
19	B	1240	CLA	CHA-CBD-CGD-O2D
19	1	603	CLA	C1A-C2A-CAA-CBA
19	1	603	CLA	CHA-CBD-CGD-O1D
19	1	603	CLA	CHA-CBD-CGD-O2D
19	1	603	CLA	CBD-CGD-O2D-CED
19	1	603	CLA	C2-C3-C5-C6
19	1	603	CLA	C4-C3-C5-C6
19	1	604	CLA	CBD-CGD-O2D-CED
19	1	606	CLA	CBD-CGD-O2D-CED
19	1	613	CLA	C1A-C2A-CAA-CBA
19	1	613	CLA	CAD-CBD-CGD-O1D
19	1	613	CLA	CAD-CBD-CGD-O2D
19	1	615	CLA	C1A-C2A-CAA-CBA
19	1	615	CLA	C3A-C2A-CAA-CBA
19	2	603	CLA	CBD-CGD-O2D-CED
19	2	604	CLA	CBD-CGD-O2D-CED
19	2	610	CLA	C6-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
19	2	613	CLA	CHA-CBD-CGD-O1D
19	2	613	CLA	CHA-CBD-CGD-O2D
19	3	603	CLA	CBD-CGD-O2D-CED
19	3	604	CLA	CBD-CGD-O2D-CED
19	3	606	CLA	C1A-C2A-CAA-CBA
19	3	606	CLA	C3A-C2A-CAA-CBA
19	3	607	CLA	C1A-C2A-CAA-CBA
19	3	609	CLA	CBD-CGD-O2D-CED
19	3	610	CLA	C3A-C2A-CAA-CBA
19	3	611	CLA	CHA-CBD-CGD-O1D
19	3	611	CLA	CHA-CBD-CGD-O2D
19	3	612	CLA	CBD-CGD-O2D-CED
19	3	614	CLA	C1A-C2A-CAA-CBA
19	3	614	CLA	CBD-CGD-O2D-CED
19	4	614	CLA	CAD-CBD-CGD-O1D
19	4	614	CLA	CAD-CBD-CGD-O2D
19	4	603	CLA	CBD-CGD-O2D-CED
19	4	604	CLA	CBD-CGD-O2D-CED
19	F	301	CLA	CBD-CGD-O2D-CED
19	G	201	CLA	CBD-CGD-O2D-CED
19	G	202	CLA	C1A-C2A-CAA-CBA
19	H	200	CLA	CHA-CBD-CGD-O1D
19	H	200	CLA	CHA-CBD-CGD-O2D
19	H	200	CLA	CBD-CGD-O2D-CED
19	J	102	CLA	CHA-CBD-CGD-O1D
19	J	102	CLA	CHA-CBD-CGD-O2D
19	J	102	CLA	CAD-CBD-CGD-O1D
19	K	201	CLA	C1A-C2A-CAA-CBA
19	K	202	CLA	C1A-C2A-CAA-CBA
19	K	202	CLA	CBA-CGA-O2A-C1
19	K	204	CLA	C1A-C2A-CAA-CBA
19	L	301	CLA	CHA-CBD-CGD-O1D
19	L	301	CLA	CHA-CBD-CGD-O2D
19	L	302	CLA	C1A-C2A-CAA-CBA
19	L	302	CLA	C3A-C2A-CAA-CBA
19	L	303	CLA	C1A-C2A-CAA-CBA
19	L	303	CLA	CBD-CGD-O2D-CED
22	A	4001	BCR	C1-C6-C7-C8
22	A	4001	BCR	C7-C8-C9-C10
22	A	4001	BCR	C21-C22-C23-C24
22	A	4001	BCR	C37-C22-C23-C24
22	A	4002	BCR	C1-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
22	A	4002	BCR	C23-C24-C25-C30
22	A	4003	BCR	C7-C8-C9-C34
22	A	4003	BCR	C21-C22-C23-C24
22	A	4007	BCR	C22-C23-C24-C25
22	A	4007	BCR	C23-C24-C25-C26
22	A	4007	BCR	C23-C24-C25-C30
22	A	4008	BCR	C7-C8-C9-C10
22	A	4008	BCR	C7-C8-C9-C34
22	A	4008	BCR	C22-C23-C24-C25
22	A	4011	BCR	C7-C8-C9-C34
22	A	4011	BCR	C18-C19-C20-C21
22	A	4011	BCR	C20-C21-C22-C23
22	A	4011	BCR	C20-C21-C22-C37
22	A	4011	BCR	C22-C23-C24-C25
22	A	4011	BCR	C23-C24-C25-C30
22	B	2004	BCR	C1-C6-C7-C8
22	B	2004	BCR	C11-C12-C13-C14
22	B	2004	BCR	C37-C22-C23-C24
22	B	2004	BCR	C22-C23-C24-C25
22	B	4005	BCR	C1-C6-C7-C8
22	B	4006	BCR	C6-C7-C8-C9
22	B	4010	BCR	C6-C7-C8-C9
22	B	4010	BCR	C7-C8-C9-C10
22	B	4010	BCR	C7-C8-C9-C34
22	B	4010	BCR	C21-C22-C23-C24
22	B	4010	BCR	C37-C22-C23-C24
22	B	4017	BCR	C1-C6-C7-C8
22	B	4017	BCR	C10-C11-C12-C13
22	B	4017	BCR	C36-C18-C19-C20
22	B	4017	BCR	C18-C19-C20-C21
22	B	4017	BCR	C20-C21-C22-C23
22	B	4017	BCR	C20-C21-C22-C37
22	B	4017	BCR	C21-C22-C23-C24
22	B	4017	BCR	C22-C23-C24-C25
22	B	4014	BCR	C6-C7-C8-C9
22	B	4014	BCR	C9-C10-C11-C12
22	B	4014	BCR	C10-C11-C12-C13
22	B	4014	BCR	C11-C12-C13-C14
22	B	4014	BCR	C11-C12-C13-C35
22	B	4014	BCR	C14-C15-C16-C17
22	B	4014	BCR	C21-C22-C23-C24
22	3	623	BCR	C11-C10-C9-C8

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Mol	Chain	Res	Type	Atoms
22	3	623	BCR	C11-C12-C13-C14
22	3	623	BCR	C11-C12-C13-C35
22	3	623	BCR	C14-C15-C16-C17
22	3	623	BCR	C15-C16-C17-C18
22	3	623	BCR	C16-C17-C18-C36
22	3	624	BCR	C6-C7-C8-C9
22	3	624	BCR	C7-C8-C9-C34
22	3	624	BCR	C23-C24-C25-C30
22	F	416	BCR	C1-C6-C7-C8
22	F	416	BCR	C7-C8-C9-C10
22	F	416	BCR	C7-C8-C9-C34
22	F	416	BCR	C18-C19-C20-C21
22	F	416	BCR	C21-C22-C23-C24
22	F	416	BCR	C37-C22-C23-C24
22	F	416	BCR	C22-C23-C24-C25
22	G	311	BCR	C23-C24-C25-C30
22	I	118	BCR	C6-C7-C8-C9
22	I	118	BCR	C7-C8-C9-C10
22	I	118	BCR	C7-C8-C9-C34
22	I	118	BCR	C21-C22-C23-C24
22	I	120	BCR	C6-C7-C8-C9
22	I	120	BCR	C21-C22-C23-C24
22	I	120	BCR	C37-C22-C23-C24
22	J	212	BCR	C1-C6-C7-C8
22	J	212	BCR	C6-C7-C8-C9
22	J	212	BCR	C7-C8-C9-C10
22	J	212	BCR	C7-C8-C9-C34
22	J	212	BCR	C21-C22-C23-C24
22	J	212	BCR	C37-C22-C23-C24
22	J	213	BCR	C1-C6-C7-C8
22	J	213	BCR	C6-C7-C8-C9
22	J	213	BCR	C22-C23-C24-C25
22	K	301	BCR	C1-C6-C7-C8
22	K	301	BCR	C6-C7-C8-C9
22	K	301	BCR	C7-C8-C9-C34
22	K	301	BCR	C21-C22-C23-C24
22	L	419	BCR	C7-C8-C9-C10
22	L	419	BCR	C7-C8-C9-C34
22	L	419	BCR	C22-C23-C24-C25
22	L	420	BCR	C18-C19-C20-C21
22	L	420	BCR	C22-C23-C24-C25
22	M	4021	BCR	C6-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
22	M	4021	BCR	C23-C24-C25-C30
23	A	5001	LHG	C3-O3-P-O5
23	A	5003	LHG	O7-C5-C6-O8
23	B	5101	LHG	C3-O3-P-O5
23	1	630	LHG	O1-C1-C2-O2
23	1	630	LHG	O1-C1-C2-C3
23	1	630	LHG	C3-O3-P-O5
23	1	630	LHG	C4-O6-P-O5
23	3	630	LHG	O6-C4-C5-O7
23	4	630	LHG	C4-O6-P-O5
24	A	5002	LMG	C2-C1-O1-C7
24	A	5002	LMG	O6-C1-O1-C7
24	A	5002	LMG	O9-C10-O7-C8
24	A	5002	LMG	C11-C10-O7-C8
25	B	5001	LMT	C2-C1-O1'-C1'
25	G	401	LMT	C2-C1-O1'-C1'
26	B	5002	DGD	C2B-C1B-O2G-C2G
26	B	5002	DGD	O1B-C1B-O2G-C2G
26	B	5002	DGD	C2D-C1D-O3G-C3G
26	B	5002	DGD	O6D-C1D-O3G-C3G
27	1	607	CHL	C1A-C2A-CAA-CBA
27	1	607	CHL	C3C-C2C-CMC-OMC
27	2	602	CHL	C1A-C2A-CAA-CBA
27	2	602	CHL	C1C-C2C-CMC-OMC
27	2	602	CHL	C3C-C2C-CMC-OMC
27	2	606	CHL	C3A-C2A-CAA-CBA
27	2	607	CHL	C2A-CAA-CBA-CGA
27	2	607	CHL	C1C-C2C-CMC-OMC
27	2	607	CHL	C3C-C2C-CMC-OMC
27	2	608	CHL	C3C-C2C-CMC-OMC
27	2	611	CHL	C1C-C2C-CMC-OMC
27	2	611	CHL	C3C-C2C-CMC-OMC
27	2	611	CHL	CHA-CBD-CGD-O1D
27	2	611	CHL	CHA-CBD-CGD-O2D
27	2	615	CHL	CHA-CBD-CGD-O1D
27	2	615	CHL	CHA-CBD-CGD-O2D
27	2	601	CHL	C1C-C2C-CMC-OMC
27	2	601	CHL	C3C-C2C-CMC-OMC
27	3	608	CHL	CBD-CGD-O2D-CED
27	4	606	CHL	C3C-C2C-CMC-OMC
27	4	607	CHL	C1C-C2C-CMC-OMC
27	4	607	CHL	C3C-C2C-CMC-OMC

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Mol	Chain	Res	Type	Atoms
27	4	608	CHL	C1A-C2A-CAA-CBA
27	4	608	CHL	CBD-CGD-O2D-CED
28	1	620	LUT	C21-C26-C27-C28
28	1	620	LUT	C25-C26-C27-C28
28	1	621	LUT	C21-C26-C27-C28
28	1	621	LUT	C25-C26-C27-C28
28	1	621	LUT	C27-C28-C29-C30
28	1	621	LUT	C27-C28-C29-C39
28	2	620	LUT	C21-C26-C27-C28
28	2	621	LUT	C21-C26-C27-C28
28	2	621	LUT	C29-C30-C31-C32
28	2	623	LUT	C7-C8-C9-C10
28	2	623	LUT	C7-C8-C9-C19
28	2	623	LUT	C11-C12-C13-C14
28	2	623	LUT	C11-C12-C13-C20
28	2	623	LUT	C25-C26-C27-C28
28	3	620	LUT	C21-C26-C27-C28
28	3	621	LUT	C21-C26-C27-C28
28	3	621	LUT	C27-C28-C29-C30
28	3	621	LUT	C27-C28-C29-C39
28	3	621	LUT	C31-C32-C33-C34
28	3	621	LUT	C31-C32-C33-C40
28	4	620	LUT	C1-C6-C7-C8
28	4	620	LUT	C21-C26-C27-C28
28	4	620	LUT	C25-C26-C27-C28
28	4	620	LUT	C27-C28-C29-C30
28	4	621	LUT	C1-C6-C7-C8
28	4	621	LUT	C5-C6-C7-C8
28	4	623	LUT	C25-C26-C27-C28
28	4	623	LUT	C27-C28-C29-C30
28	4	623	LUT	C27-C28-C29-C39
19	A	1022	CLA	O1D-CGD-O2D-CED
19	A	1104	CLA	O1D-CGD-O2D-CED
19	A	1108	CLA	O1D-CGD-O2D-CED
19	A	1121	CLA	O1D-CGD-O2D-CED
19	A	1126	CLA	O1D-CGD-O2D-CED
19	A	1134	CLA	O1D-CGD-O2D-CED
19	A	1139	CLA	O1D-CGD-O2D-CED
19	B	1023	CLA	O1D-CGD-O2D-CED
19	B	1219	CLA	O1D-CGD-O2D-CED
19	B	1229	CLA	O1D-CGD-O2D-CED
19	B	1232	CLA	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
19	1	604	CLA	O1D-CGD-O2D-CED
19	3	612	CLA	O1D-CGD-O2D-CED
19	H	200	CLA	O1D-CGD-O2D-CED
19	L	303	CLA	O1D-CGD-O2D-CED
27	4	608	CHL	O1D-CGD-O2D-CED
19	A	1122	CLA	O1D-CGD-O2D-CED
19	1	606	CLA	O1D-CGD-O2D-CED
19	1	608	CLA	O1D-CGD-O2D-CED
19	1	613	CLA	O1D-CGD-O2D-CED
19	2	603	CLA	O1D-CGD-O2D-CED
19	3	614	CLA	O1D-CGD-O2D-CED
19	4	604	CLA	O1D-CGD-O2D-CED
19	K	204	CLA	O1D-CGD-O2D-CED
19	A	1022	CLA	CBD-CGD-O2D-CED
19	A	1103	CLA	CBD-CGD-O2D-CED
19	A	1104	CLA	CBD-CGD-O2D-CED
19	A	1108	CLA	CBD-CGD-O2D-CED
19	A	1109	CLA	CBD-CGD-O2D-CED
19	A	1112	CLA	CBD-CGD-O2D-CED
19	A	1121	CLA	CBD-CGD-O2D-CED
19	A	1122	CLA	CBD-CGD-O2D-CED
19	A	1131	CLA	CBD-CGD-O2D-CED
19	A	1134	CLA	CBD-CGD-O2D-CED
19	A	1139	CLA	CBD-CGD-O2D-CED
19	B	1206	CLA	CBD-CGD-O2D-CED
19	B	1235	CLA	CBD-CGD-O2D-CED
19	B	1239	CLA	CBD-CGD-O2D-CED
19	1	608	CLA	CBD-CGD-O2D-CED
19	1	610	CLA	CBD-CGD-O2D-CED
19	1	611	CLA	CBD-CGD-O2D-CED
19	1	613	CLA	CBD-CGD-O2D-CED
19	3	606	CLA	CBD-CGD-O2D-CED
19	4	614	CLA	CBD-CGD-O2D-CED
19	4	613	CLA	CBD-CGD-O2D-CED
19	F	302	CLA	CBD-CGD-O2D-CED
19	K	204	CLA	CBD-CGD-O2D-CED
27	2	608	CHL	CBD-CGD-O2D-CED
19	A	1110	CLA	O1A-CGA-O2A-C1
19	A	1131	CLA	O1D-CGD-O2D-CED
19	A	1138	CLA	O1D-CGD-O2D-CED
19	B	1021	CLA	O1D-CGD-O2D-CED
19	2	604	CLA	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
19	3	606	CLA	O1D-CGD-O2D-CED
19	4	614	CLA	O1D-CGD-O2D-CED
27	2	608	CHL	O1D-CGD-O2D-CED
19	1	614	CLA	CBA-CGA-O2A-C1
25	A	5004	LMT	C3'-C4'-O1B-C1B
19	A	1109	CLA	O1D-CGD-O2D-CED
19	A	1132	CLA	O1D-CGD-O2D-CED
19	A	1801	CLA	O1D-CGD-O2D-CED
19	B	1211	CLA	O1D-CGD-O2D-CED
19	B	1239	CLA	O1D-CGD-O2D-CED
19	3	604	CLA	O1D-CGD-O2D-CED
19	4	603	CLA	O1D-CGD-O2D-CED
19	F	301	CLA	O1D-CGD-O2D-CED
19	L	301	CLA	CBA-CGA-O2A-C1
23	3	630	LHG	C24-C23-O8-C6
19	A	1101	CLA	CBD-CGD-O2D-CED
19	A	1107	CLA	CBD-CGD-O2D-CED
19	A	1111	CLA	CBD-CGD-O2D-CED
19	A	1113	CLA	CBD-CGD-O2D-CED
19	A	1114	CLA	CBD-CGD-O2D-CED
19	B	1203	CLA	CBD-CGD-O2D-CED
19	B	1204	CLA	CBD-CGD-O2D-CED
19	B	1208	CLA	CBD-CGD-O2D-CED
19	B	1213	CLA	CBD-CGD-O2D-CED
19	B	1225	CLA	CBD-CGD-O2D-CED
19	B	1226	CLA	CBD-CGD-O2D-CED
19	B	1230	CLA	CBD-CGD-O2D-CED
19	3	610	CLA	CBD-CGD-O2D-CED
19	3	617	CLA	CBD-CGD-O2D-CED
19	4	611	CLA	CBD-CGD-O2D-CED
19	G	218	CLA	CBD-CGD-O2D-CED
19	G	202	CLA	CBD-CGD-O2D-CED
19	J	102	CLA	CBD-CGD-O2D-CED
19	K	201	CLA	CBD-CGD-O2D-CED
19	K	202	CLA	CBD-CGD-O2D-CED
27	4	607	CHL	CBD-CGD-O2D-CED
19	A	1118	CLA	O1A-CGA-O2A-C1
19	A	1121	CLA	O1A-CGA-O2A-C1
19	A	1138	CLA	O1A-CGA-O2A-C1
19	B	1012	CLA	O1A-CGA-O2A-C1
19	1	603	CLA	O1A-CGA-O2A-C1
19	2	609	CLA	O1A-CGA-O2A-C1

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Mol	Chain	Res	Type	Atoms
19	3	603	CLA	O1A-CGA-O2A-C1
19	4	603	CLA	O1A-CGA-O2A-C1
19	4	613	CLA	O1A-CGA-O2A-C1
19	L	301	CLA	O1A-CGA-O2A-C1
23	3	630	LHG	O10-C23-O8-C6
19	1	614	CLA	O1A-CGA-O2A-C1
19	K	202	CLA	O1A-CGA-O2A-C1
19	A	1013	CLA	O1D-CGD-O2D-CED
19	1	603	CLA	O1D-CGD-O2D-CED
19	3	603	CLA	O1D-CGD-O2D-CED
19	G	201	CLA	O1D-CGD-O2D-CED
19	A	1117	CLA	O1D-CGD-O2D-CED
19	3	609	CLA	O1D-CGD-O2D-CED
27	3	608	CHL	O1D-CGD-O2D-CED
19	A	1130	CLA	CBD-CGD-O2D-CED
19	B	1231	CLA	CBD-CGD-O2D-CED
19	2	610	CLA	CBD-CGD-O2D-CED
19	A	1103	CLA	O1D-CGD-O2D-CED
19	B	1222	CLA	O1D-CGD-O2D-CED
19	B	1222	CLA	CBA-CGA-O2A-C1
19	1	611	CLA	CBA-CGA-O2A-C1
19	3	617	CLA	CBA-CGA-O2A-C1
19	G	202	CLA	CBA-CGA-O2A-C1
19	4	612	CLA	O1A-CGA-O2A-C1
19	F	302	CLA	O1A-CGA-O2A-C1
19	A	1103	CLA	C3-C5-C6-C7
19	A	1124	CLA	C3-C5-C6-C7
19	A	1128	CLA	C3-C5-C6-C7
19	A	1138	CLA	C3-C5-C6-C7
19	B	1214	CLA	C3-C5-C6-C7
19	3	602	CLA	C3-C5-C6-C7
19	G	218	CLA	C3-C5-C6-C7
19	A	1121	CLA	CBA-CGA-O2A-C1
19	1	603	CLA	CBA-CGA-O2A-C1
19	2	609	CLA	CBA-CGA-O2A-C1
19	3	603	CLA	CBA-CGA-O2A-C1
19	3	614	CLA	CBA-CGA-O2A-C1
19	4	603	CLA	CBA-CGA-O2A-C1
19	4	613	CLA	CBA-CGA-O2A-C1
19	G	201	CLA	CBA-CGA-O2A-C1
19	A	1112	CLA	O1D-CGD-O2D-CED
19	1	615	CLA	CBD-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
19	3	611	CLA	CBD-CGD-O2D-CED
19	A	1122	CLA	O1A-CGA-O2A-C1
19	B	1222	CLA	O1A-CGA-O2A-C1
19	1	611	CLA	O1A-CGA-O2A-C1
19	4	612	CLA	CBA-CGA-O2A-C1
19	F	302	CLA	CBA-CGA-O2A-C1
19	B	1216	CLA	CBD-CGD-O2D-CED
19	2	613	CLA	CBD-CGD-O2D-CED
19	4	601	CLA	CBD-CGD-O2D-CED
19	A	1140	CLA	C2A-CAA-CBA-CGA
19	B	1214	CLA	C2A-CAA-CBA-CGA
19	B	1224	CLA	C2A-CAA-CBA-CGA
19	B	1237	CLA	C2A-CAA-CBA-CGA
19	B	1238	CLA	C2A-CAA-CBA-CGA
19	K	202	CLA	C2A-CAA-CBA-CGA
19	L	303	CLA	C2A-CAA-CBA-CGA
27	1	607	CHL	C2A-CAA-CBA-CGA
27	1	601	CHL	C2A-CAA-CBA-CGA
27	2	608	CHL	C2A-CAA-CBA-CGA
27	4	607	CHL	C2A-CAA-CBA-CGA
27	4	608	CHL	C2A-CAA-CBA-CGA
19	3	617	CLA	O1A-CGA-O2A-C1
19	G	202	CLA	O1A-CGA-O2A-C1
19	B	1229	CLA	C3-C5-C6-C7
19	2	610	CLA	C3-C5-C6-C7
19	3	607	CLA	C3-C5-C6-C7
19	A	1118	CLA	CBA-CGA-O2A-C1
19	A	1128	CLA	CBA-CGA-O2A-C1
19	A	1135	CLA	CBA-CGA-O2A-C1
19	A	1138	CLA	CBA-CGA-O2A-C1
19	B	1012	CLA	CBA-CGA-O2A-C1
19	B	1203	CLA	CBA-CGA-O2A-C1
19	B	1228	CLA	CBA-CGA-O2A-C1
19	3	604	CLA	CBA-CGA-O2A-C1
19	4	604	CLA	CBA-CGA-O2A-C1
19	1	610	CLA	O1D-CGD-O2D-CED
19	A	1133	CLA	CBD-CGD-O2D-CED
19	2	612	CLA	CBD-CGD-O2D-CED
19	1	611	CLA	O1D-CGD-O2D-CED
19	4	613	CLA	O1D-CGD-O2D-CED
19	B	1228	CLA	O1A-CGA-O2A-C1
19	3	604	CLA	O1A-CGA-O2A-C1

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Mol	Chain	Res	Type	Atoms
24	A	5002	LMG	O10-C28-O8-C9
19	B	1210	CLA	C2C-C3C-CAC-CBC
19	B	1216	CLA	C2C-C3C-CAC-CBC
19	A	1124	CLA	CBD-CGD-O2D-CED
19	B	1236	CLA	CBD-CGD-O2D-CED
19	1	612	CLA	CBD-CGD-O2D-CED
19	3	613	CLA	CBD-CGD-O2D-CED
19	4	612	CLA	CBD-CGD-O2D-CED
27	2	615	CHL	CBD-CGD-O2D-CED
27	4	615	CHL	CBD-CGD-O2D-CED
19	F	302	CLA	O1D-CGD-O2D-CED
23	4	630	LHG	O2-C2-C3-O3
18	A	1011	CL0	C3-C5-C6-C7
19	3	610	CLA	C3-C5-C6-C7
19	A	1122	CLA	CBA-CGA-O2A-C1
19	B	1229	CLA	CBA-CGA-O2A-C1
19	3	614	CLA	O1A-CGA-O2A-C1
19	G	201	CLA	O1A-CGA-O2A-C1
19	B	1235	CLA	O1D-CGD-O2D-CED
23	4	630	LHG	C8-C7-O7-C5
19	B	1206	CLA	O1D-CGD-O2D-CED
19	A	1116	CLA	CBD-CGD-O2D-CED
19	A	1119	CLA	CBD-CGD-O2D-CED
19	4	610	CLA	CBD-CGD-O2D-CED
27	2	607	CHL	CBD-CGD-O2D-CED
27	4	606	CHL	CBD-CGD-O2D-CED
19	2	613	CLA	C3-C5-C6-C7
25	G	402	LMT	O5'-C5'-C6'-O6'
23	4	630	LHG	O9-C7-O7-C5
19	A	1128	CLA	O1A-CGA-O2A-C1
19	A	1135	CLA	O1A-CGA-O2A-C1
24	J	301	LMG	O6-C5-C6-O5
19	B	1215	CLA	C4-C3-C5-C6
19	B	1215	CLA	C2-C3-C5-C6
19	A	1110	CLA	C2A-CAA-CBA-CGA
19	A	1121	CLA	C2A-CAA-CBA-CGA
27	2	602	CHL	C2A-CAA-CBA-CGA
19	B	1229	CLA	O1A-CGA-O2A-C1
19	4	604	CLA	O1A-CGA-O2A-C1
19	K	202	CLA	C2C-C3C-CAC-CBC
19	A	1127	CLA	CBA-CGA-O2A-C1
19	B	1021	CLA	CBA-CGA-O2A-C1

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Mol	Chain	Res	Type	Atoms
24	A	5002	LMG	C29-C28-O8-C9
19	B	1228	CLA	CBD-CGD-O2D-CED
25	G	401	LMT	O5'-C5'-C6'-O6'
19	B	1230	CLA	O1D-CGD-O2D-CED
19	G	202	CLA	O1D-CGD-O2D-CED
19	A	1115	CLA	C2C-C3C-CAC-CBC
19	L	302	CLA	C4C-C3C-CAC-CBC
19	A	1107	CLA	O1D-CGD-O2D-CED
19	A	1113	CLA	O1D-CGD-O2D-CED
19	B	1226	CLA	O1D-CGD-O2D-CED
19	G	218	CLA	O1D-CGD-O2D-CED
27	4	607	CHL	O1D-CGD-O2D-CED
19	A	1127	CLA	O1A-CGA-O2A-C1
19	B	1021	CLA	O1A-CGA-O2A-C1
19	B	1203	CLA	O1A-CGA-O2A-C1
19	G	218	CLA	O1A-CGA-O2A-C1
19	A	1106	CLA	C3-C5-C6-C7
19	3	609	CLA	C3-C5-C6-C7
19	A	1101	CLA	O1D-CGD-O2D-CED
18	A	1011	CL0	CBA-CGA-O2A-C1
19	A	1104	CLA	CBA-CGA-O2A-C1
19	A	1125	CLA	CBA-CGA-O2A-C1
19	A	1136	CLA	CBA-CGA-O2A-C1
19	B	1201	CLA	CBA-CGA-O2A-C1
19	B	1240	CLA	CBA-CGA-O2A-C1
19	1	604	CLA	CBA-CGA-O2A-C1
19	3	607	CLA	CBA-CGA-O2A-C1
19	G	218	CLA	CBA-CGA-O2A-C1
23	B	5101	LHG	C24-C23-O8-C6
23	1	630	LHG	C24-C23-O8-C6
19	A	1127	CLA	CBD-CGD-O2D-CED
24	J	301	LMG	C4-C5-C6-O5
22	L	420	BCR	C19-C20-C21-C22
19	A	1111	CLA	C8-C10-C11-C12
19	B	1210	CLA	C10-C11-C12-C13
25	A	5004	LMT	C2'-C1'-O1'-C1
25	G	402	LMT	C2'-C1'-O1'-C1
18	A	1011	CL0	O1A-CGA-O2A-C1
19	A	1104	CLA	O1A-CGA-O2A-C1
19	A	1125	CLA	O1A-CGA-O2A-C1
19	B	1201	CLA	O1A-CGA-O2A-C1
19	2	610	CLA	C4-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
19	B	1210	CLA	C11-C12-C13-C14
19	B	1214	CLA	C6-C7-C8-C9
19	B	1215	CLA	C6-C7-C8-C9
19	B	1223	CLA	C14-C13-C15-C16
19	B	1224	CLA	C6-C7-C8-C9
27	2	601	CHL	C6-C7-C8-C9
27	2	601	CHL	C11-C12-C13-C14
19	A	1111	CLA	O1D-CGD-O2D-CED
19	B	1204	CLA	O1D-CGD-O2D-CED
19	K	202	CLA	O1D-CGD-O2D-CED
19	L	302	CLA	C2A-CAA-CBA-CGA
27	3	608	CHL	C2A-CAA-CBA-CGA
22	A	4003	BCR	C37-C22-C23-C24
22	A	4008	BCR	C11-C12-C13-C35
22	A	4011	BCR	C37-C22-C23-C24
22	B	4005	BCR	C37-C22-C23-C24
22	B	4006	BCR	C7-C8-C9-C34
22	B	4014	BCR	C37-C22-C23-C24
22	1	623	BCR	C37-C22-C23-C24
22	I	118	BCR	C37-C22-C23-C24
22	K	301	BCR	C37-C22-C23-C24
28	1	620	LUT	C27-C28-C29-C39
28	4	620	LUT	C11-C12-C13-C20
28	4	620	LUT	C27-C28-C29-C39
28	4	623	LUT	C7-C8-C9-C19
28	4	623	LUT	C31-C32-C33-C40
22	A	4011	BCR	C21-C22-C23-C24
22	B	2004	BCR	C7-C8-C9-C10
22	B	4005	BCR	C21-C22-C23-C24
22	B	4006	BCR	C7-C8-C9-C10
22	B	4014	BCR	C7-C8-C9-C10
22	3	623	BCR	C21-C22-C23-C24
28	1	620	LUT	C27-C28-C29-C30
28	4	623	LUT	C7-C8-C9-C10
28	4	623	LUT	C31-C32-C33-C34
19	B	1213	CLA	O1D-CGD-O2D-CED
25	1	631	LMT	C4'-C5'-C6'-O6'
19	B	1240	CLA	O1A-CGA-O2A-C1
19	1	604	CLA	O1A-CGA-O2A-C1
19	B	1237	CLA	C5-C6-C7-C8
20	A	2001	PQN	C23-C25-C26-C27
19	4	611	CLA	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
19	1	615	CLA	CBA-CGA-O2A-C1
19	4	614	CLA	CBA-CGA-O2A-C1
25	4	631	LMT	C4B-C5B-C6B-O6B
25	G	402	LMT	C4'-C5'-C6'-O6'
19	B	1208	CLA	O1D-CGD-O2D-CED
19	J	102	CLA	O1D-CGD-O2D-CED
19	4	609	CLA	C3-C5-C6-C7
19	A	1801	CLA	CBA-CGA-O2A-C1
19	B	1214	CLA	CBA-CGA-O2A-C1
19	B	1238	CLA	C5-C6-C7-C8
27	2	601	CHL	C13-C15-C16-C17
23	B	5101	LHG	C23-C24-C25-C26
25	A	5004	LMT	C4'-C5'-C6'-O6'
22	3	624	BCR	C14-C15-C16-C17
19	2	610	CLA	C5-C6-C7-C8
19	2	613	CLA	C5-C6-C7-C8
20	B	2002	PQN	C20-C21-C22-C23
27	2	601	CHL	C15-C16-C17-C18
19	K	201	CLA	O1D-CGD-O2D-CED
19	B	1215	CLA	CBD-CGD-O2D-CED
19	B	1225	CLA	O1D-CGD-O2D-CED
19	A	1119	CLA	C15-C16-C17-C18
19	A	1127	CLA	C8-C10-C11-C12
19	B	1023	CLA	C10-C11-C12-C13
20	B	2002	PQN	C15-C16-C17-C18
27	2	601	CHL	C5-C6-C7-C8
19	A	1106	CLA	CBA-CGA-O2A-C1
19	3	610	CLA	O1D-CGD-O2D-CED
19	A	1118	CLA	C2-C1-O2A-CGA
19	B	1238	CLA	C10-C11-C12-C13
27	2	601	CHL	C8-C10-C11-C12
23	A	5003	LHG	C23-C24-C25-C26
19	3	614	CLA	O2A-C1-C2-C3
19	2	610	CLA	O1D-CGD-O2D-CED
19	A	1117	CLA	C12-C13-C15-C16
19	B	1021	CLA	C6-C7-C8-C10
19	2	613	CLA	C11-C10-C8-C7
19	3	607	CLA	O1A-CGA-O2A-C1
19	A	1114	CLA	O1D-CGD-O2D-CED
19	B	1203	CLA	O1D-CGD-O2D-CED
19	3	617	CLA	O1D-CGD-O2D-CED
19	B	1210	CLA	C15-C16-C17-C18

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Mol	Chain	Res	Type	Atoms
26	B	5002	DGD	O6E-C1E-O5D-C6D
19	B	1021	CLA	C5-C6-C7-C8
19	A	1135	CLA	C2C-C3C-CAC-CBC
22	A	4001	BCR	C10-C11-C12-C13
22	A	4001	BCR	C18-C19-C20-C21
22	A	4003	BCR	C18-C19-C20-C21
22	A	4008	BCR	C10-C11-C12-C13
22	B	2004	BCR	C10-C11-C12-C13
22	B	4014	BCR	C18-C19-C20-C21
22	3	624	BCR	C10-C11-C12-C13
22	J	212	BCR	C18-C19-C20-C21
22	K	301	BCR	C18-C19-C20-C21
19	A	1130	CLA	O1D-CGD-O2D-CED
19	A	8895	CLA	C3-C5-C6-C7
19	3	609	CLA	C8-C10-C11-C12
19	B	1231	CLA	O1D-CGD-O2D-CED
19	A	1801	CLA	O1A-CGA-O2A-C1
19	1	612	CLA	CBA-CGA-O2A-C1
19	2	603	CLA	CBA-CGA-O2A-C1
19	B	1215	CLA	C5-C6-C7-C8
19	B	1225	CLA	C15-C16-C17-C18
19	4	611	CLA	C5-C6-C7-C8
19	1	615	CLA	O1D-CGD-O2D-CED
19	3	611	CLA	O1D-CGD-O2D-CED
19	4	601	CLA	O1D-CGD-O2D-CED
25	B	5001	LMT	C4'-C5'-C6'-O6'
19	A	1106	CLA	O1A-CGA-O2A-C1
19	A	1136	CLA	O1A-CGA-O2A-C1
19	A	1127	CLA	C15-C16-C17-C18
19	A	1138	CLA	C5-C6-C7-C8
19	3	609	CLA	C10-C11-C12-C13
23	1	630	LHG	C3-O3-P-O6
23	2	630	LHG	C3-O3-P-O6
25	1	631	LMT	C4B-C5B-C6B-O6B
19	A	1103	CLA	CBA-CGA-O2A-C1
19	A	1124	CLA	CBA-CGA-O2A-C1
19	A	1126	CLA	CBA-CGA-O2A-C1
19	B	1237	CLA	CBA-CGA-O2A-C1
19	3	613	CLA	CBA-CGA-O2A-C1
27	2	606	CHL	CBD-CGD-O2D-CED
19	A	1111	CLA	C10-C11-C12-C13
23	4	630	LHG	C1-C2-C3-O3

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Mol	Chain	Res	Type	Atoms
19	3	607	CLA	C4-C3-C5-C6
20	B	2002	PQN	C14-C13-C15-C16
19	B	1203	CLA	C3-C5-C6-C7
19	B	1226	CLA	C3-C5-C6-C7
19	B	1201	CLA	CBD-CGD-O2D-CED
23	A	5001	LHG	C8-C7-O7-C5
19	B	1229	CLA	C5-C6-C7-C8
22	A	4002	BCR	C16-C17-C18-C36
22	A	4002	BCR	C20-C21-C22-C37
22	A	4003	BCR	C16-C17-C18-C36
22	A	4008	BCR	C20-C21-C22-C37
22	B	4017	BCR	C16-C17-C18-C36
22	B	4014	BCR	C35-C13-C14-C15
22	3	623	BCR	C11-C10-C9-C34
22	F	416	BCR	C20-C21-C22-C37
22	G	311	BCR	C20-C21-C22-C37
22	I	120	BCR	C11-C10-C9-C34
22	I	120	BCR	C35-C13-C14-C15
22	J	212	BCR	C16-C17-C18-C36
22	J	213	BCR	C20-C21-C22-C37
22	K	301	BCR	C11-C10-C9-C34
19	K	201	CLA	C2C-C3C-CAC-CBC
23	2	630	LHG	C26-C27-C28-C29
25	G	401	LMT	C4'-C5'-C6'-O6'
19	2	613	CLA	O1D-CGD-O2D-CED
26	B	5002	DGD	C2A-C1A-O1G-C1G
19	A	1133	CLA	O1D-CGD-O2D-CED
24	J	301	LMG	C18-C19-C20-C21
19	B	1216	CLA	O1D-CGD-O2D-CED
19	2	612	CLA	O1D-CGD-O2D-CED
22	A	4003	BCR	C11-C10-C9-C8
22	A	4003	BCR	C16-C17-C18-C19
22	A	4008	BCR	C20-C21-C22-C23
22	A	4011	BCR	C12-C13-C14-C15
22	B	4014	BCR	C11-C10-C9-C8
22	B	4014	BCR	C20-C21-C22-C23
22	3	623	BCR	C16-C17-C18-C19
22	3	624	BCR	C16-C17-C18-C19
22	I	118	BCR	C11-C10-C9-C8
22	I	118	BCR	C20-C21-C22-C23
22	I	120	BCR	C11-C10-C9-C8
22	I	120	BCR	C12-C13-C14-C15

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Mol	Chain	Res	Type	Atoms
22	J	212	BCR	C12-C13-C14-C15
22	J	212	BCR	C16-C17-C18-C19
22	J	213	BCR	C11-C10-C9-C8
22	K	301	BCR	C20-C21-C22-C23
26	B	5002	DGD	C2E-C1E-O5D-C6D
23	1	630	LHG	C12-C13-C14-C15
19	A	1118	CLA	C5-C6-C7-C8
19	B	1214	CLA	O1A-CGA-O2A-C1
19	B	1012	CLA	C6-C7-C8-C10
19	B	1213	CLA	C6-C7-C8-C10
19	1	603	CLA	C6-C7-C8-C9
19	3	603	CLA	C6-C7-C8-C9
19	4	612	CLA	O1D-CGD-O2D-CED
19	4	609	CLA	C4-C3-C5-C6
19	3	607	CLA	C2-C3-C5-C6
19	3	613	CLA	C2-C3-C5-C6
19	A	1103	CLA	C11-C12-C13-C14
19	A	1136	CLA	C11-C10-C8-C9
19	B	1202	CLA	C11-C10-C8-C9
19	B	1204	CLA	C6-C7-C8-C9
19	B	1238	CLA	C11-C10-C8-C9
23	3	630	LHG	C24-C25-C26-C27
19	A	1106	CLA	C2A-CAA-CBA-CGA
19	A	1114	CLA	C2A-CAA-CBA-CGA
19	A	1127	CLA	C2A-CAA-CBA-CGA
19	B	1225	CLA	C2A-CAA-CBA-CGA
19	2	610	CLA	C2A-CAA-CBA-CGA
19	3	607	CLA	C2A-CAA-CBA-CGA
19	3	613	CLA	C2A-CAA-CBA-CGA
27	2	615	CHL	C2A-CAA-CBA-CGA
19	A	1126	CLA	O1A-CGA-O2A-C1
22	A	4001	BCR	C7-C8-C9-C34
22	B	2004	BCR	C7-C8-C9-C34
22	B	4014	BCR	C7-C8-C9-C34
22	I	120	BCR	C7-C8-C9-C34
19	B	1224	CLA	C2C-C3C-CAC-CBC
23	A	5003	LHG	O1-C1-C2-C3
23	2	630	LHG	O1-C1-C2-C3
23	4	630	LHG	O1-C1-C2-C3
22	I	120	BCR	C7-C8-C9-C10
23	A	5003	LHG	C24-C25-C26-C27
19	3	613	CLA	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
27	4	615	CHL	O1D-CGD-O2D-CED
23	2	630	LHG	C27-C28-C29-C30
24	J	301	LMG	C16-C17-C18-C19
19	A	1111	CLA	C16-C17-C18-C19
19	3	602	CLA	C11-C12-C13-C14
19	3	603	CLA	C6-C7-C8-C10
19	L	302	CLA	C11-C12-C13-C15
27	1	601	CHL	C6-C7-C8-C9
19	B	1021	CLA	C8-C10-C11-C12
23	A	5001	LHG	C24-C25-C26-C27
27	2	607	CHL	CBA-CGA-O2A-C1
24	J	301	LMG	C34-C35-C36-C37
19	3	609	CLA	CBA-CGA-O2A-C1
19	1	612	CLA	O1D-CGD-O2D-CED
19	A	1101	CLA	C3A-C2A-CAA-CBA
19	A	1107	CLA	C3A-C2A-CAA-CBA
19	A	1111	CLA	C3A-C2A-CAA-CBA
19	A	1125	CLA	C3A-C2A-CAA-CBA
19	A	1128	CLA	C3A-C2A-CAA-CBA
19	A	1130	CLA	C3A-C2A-CAA-CBA
19	A	1135	CLA	C3A-C2A-CAA-CBA
19	A	5005	CLA	C3A-C2A-CAA-CBA
19	B	1012	CLA	C3A-C2A-CAA-CBA
19	B	1203	CLA	C3A-C2A-CAA-CBA
19	B	1210	CLA	C3A-C2A-CAA-CBA
19	B	1216	CLA	C3A-C2A-CAA-CBA
19	B	1234	CLA	C3A-C2A-CAA-CBA
19	B	1239	CLA	C3A-C2A-CAA-CBA
19	1	603	CLA	C3A-C2A-CAA-CBA
19	3	603	CLA	C3A-C2A-CAA-CBA
19	3	607	CLA	C3A-C2A-CAA-CBA
19	3	617	CLA	C3A-C2A-CAA-CBA
19	4	603	CLA	C3A-C2A-CAA-CBA
19	G	202	CLA	C3A-C2A-CAA-CBA
19	J	102	CLA	C3A-C2A-CAA-CBA
19	K	201	CLA	C3A-C2A-CAA-CBA
19	K	204	CLA	C3A-C2A-CAA-CBA
19	L	303	CLA	C3A-C2A-CAA-CBA
27	1	607	CHL	C3A-C2A-CAA-CBA
27	2	615	CHL	C3A-C2A-CAA-CBA
19	B	1236	CLA	O1D-CGD-O2D-CED
19	A	1111	CLA	C16-C17-C18-C20

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Mol	Chain	Res	Type	Atoms
19	B	1213	CLA	C6-C7-C8-C9
19	1	603	CLA	C6-C7-C8-C10
19	3	602	CLA	C11-C12-C13-C15
19	L	302	CLA	C11-C12-C13-C14
19	A	1124	CLA	O1D-CGD-O2D-CED
27	2	615	CHL	O1D-CGD-O2D-CED
23	A	5001	LHG	C27-C28-C29-C30
19	4	601	CLA	O2A-C1-C2-C3
22	A	4011	BCR	C14-C15-C16-C17
22	F	416	BCR	C14-C15-C16-C17
27	2	607	CHL	O1D-CGD-O2D-CED
19	B	1215	CLA	C3-C5-C6-C7
26	B	5002	DGD	C1B-C2B-C3B-C4B
19	3	613	CLA	O1A-CGA-O2A-C1
19	B	1235	CLA	C4-C3-C5-C6
19	3	613	CLA	C4-C3-C5-C6
19	B	1235	CLA	C2-C3-C5-C6
19	4	609	CLA	C2-C3-C5-C6
20	B	2002	PQN	C12-C13-C15-C16
19	A	1022	CLA	C4C-C3C-CAC-CBC
19	A	8895	CLA	C4C-C3C-CAC-CBC
19	1	613	CLA	C2A-CAA-CBA-CGA
19	4	613	CLA	C2A-CAA-CBA-CGA
19	A	1116	CLA	O1D-CGD-O2D-CED
19	A	1103	CLA	O1A-CGA-O2A-C1
23	1	630	LHG	C23-C24-C25-C26
24	2	631	LMG	C28-C29-C30-C31
19	B	1012	CLA	C6-C7-C8-C9
27	2	602	CHL	C5-C6-C7-C8
19	B	1238	CLA	CBA-CGA-O2A-C1
19	4	610	CLA	O1D-CGD-O2D-CED
19	L	301	CLA	C2-C1-O2A-CGA
25	4	631	LMT	O5B-C5B-C6B-O6B
19	B	1223	CLA	C13-C15-C16-C17
19	A	1124	CLA	O1A-CGA-O2A-C1
19	3	609	CLA	O1A-CGA-O2A-C1
26	B	5002	DGD	CAA-CBA-CCA-CDA
19	3	607	CLA	C11-C12-C13-C14
19	1	615	CLA	O1A-CGA-O2A-C1
22	A	4001	BCR	C5-C6-C7-C8
22	A	4001	BCR	C23-C24-C25-C26
22	A	4002	BCR	C5-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
22	A	4002	BCR	C23-C24-C25-C26
22	A	4003	BCR	C1-C6-C7-C8
22	A	4003	BCR	C5-C6-C7-C8
22	A	4008	BCR	C1-C6-C7-C8
22	A	4008	BCR	C5-C6-C7-C8
22	A	4008	BCR	C23-C24-C25-C26
22	A	4011	BCR	C23-C24-C25-C26
22	B	2004	BCR	C5-C6-C7-C8
22	B	4005	BCR	C5-C6-C7-C8
22	B	4006	BCR	C1-C6-C7-C8
22	B	4006	BCR	C5-C6-C7-C8
22	B	4009	BCR	C1-C6-C7-C8
22	B	4009	BCR	C5-C6-C7-C8
22	B	4017	BCR	C5-C6-C7-C8
22	B	4017	BCR	C23-C24-C25-C26
22	B	4017	BCR	C23-C24-C25-C30
22	B	4014	BCR	C5-C6-C7-C8
22	1	623	BCR	C23-C24-C25-C26
22	1	623	BCR	C23-C24-C25-C30
22	3	623	BCR	C1-C6-C7-C8
22	3	623	BCR	C5-C6-C7-C8
22	3	623	BCR	C23-C24-C25-C26
22	3	623	BCR	C23-C24-C25-C30
22	3	624	BCR	C1-C6-C7-C8
22	3	624	BCR	C5-C6-C7-C8
22	3	624	BCR	C23-C24-C25-C26
22	F	416	BCR	C5-C6-C7-C8
22	F	416	BCR	C23-C24-C25-C26
22	G	311	BCR	C23-C24-C25-C26
22	I	120	BCR	C1-C6-C7-C8
22	I	120	BCR	C5-C6-C7-C8
22	J	212	BCR	C5-C6-C7-C8
22	J	212	BCR	C23-C24-C25-C26
22	J	212	BCR	C23-C24-C25-C30
22	J	213	BCR	C5-C6-C7-C8
22	J	213	BCR	C23-C24-C25-C26
22	J	213	BCR	C23-C24-C25-C30
22	K	301	BCR	C5-C6-C7-C8
22	K	301	BCR	C23-C24-C25-C26
22	L	420	BCR	C23-C24-C25-C26
22	L	420	BCR	C23-C24-C25-C30
22	M	4021	BCR	C23-C24-C25-C26

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Mol	Chain	Res	Type	Atoms
28	2	623	LUT	C1-C6-C7-C8
28	2	623	LUT	C5-C6-C7-C8
28	4	620	LUT	C5-C6-C7-C8
24	J	301	LMG	C32-C33-C34-C35
19	A	1140	CLA	CBA-CGA-O2A-C1
19	1	610	CLA	CBA-CGA-O2A-C1
23	A	5003	LHG	C24-C23-O8-C6
19	B	1214	CLA	C5-C6-C7-C8
19	B	1210	CLA	CBD-CGD-O2D-CED
19	B	1238	CLA	C4-C3-C5-C6
19	A	1103	CLA	C6-C7-C8-C10
19	A	1103	CLA	C11-C12-C13-C15
19	A	1119	CLA	C12-C13-C15-C16
19	A	1124	CLA	C6-C7-C8-C10
19	A	1127	CLA	C6-C7-C8-C10
19	B	1202	CLA	C11-C10-C8-C7
19	B	1210	CLA	C11-C12-C13-C15
19	B	1214	CLA	C6-C7-C8-C10
19	B	1225	CLA	C11-C10-C8-C7
19	B	1237	CLA	C6-C7-C8-C10
19	B	1238	CLA	C11-C10-C8-C7
20	A	2001	PQN	C17-C18-C20-C21
22	A	4003	BCR	C19-C20-C21-C22
19	I	121	CLA	CBD-CGD-O2D-CED
19	B	1235	CLA	C6-C7-C8-C10
19	4	614	CLA	O1A-CGA-O2A-C1
19	B	1216	CLA	CBA-CGA-O2A-C1
19	A	1126	CLA	C2A-CAA-CBA-CGA
27	2	606	CHL	C2A-CAA-CBA-CGA
19	4	613	CLA	C5-C6-C7-C8
27	4	606	CHL	O1D-CGD-O2D-CED
19	1	603	CLA	C3-C5-C6-C7
19	B	1237	CLA	O1A-CGA-O2A-C1
19	B	1202	CLA	C16-C17-C18-C20
19	I	121	CLA	C16-C17-C18-C19
19	A	1119	CLA	O1D-CGD-O2D-CED
19	B	1228	CLA	O1D-CGD-O2D-CED
24	A	5002	LMG	C10-C11-C12-C13
23	A	5003	LHG	C8-C7-O7-C5
24	J	302	LMG	C11-C10-O7-C8
22	I	120	BCR	C18-C19-C20-C21
19	A	1106	CLA	C5-C6-C7-C8

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Mol	Chain	Res	Type	Atoms
19	B	1210	CLA	C13-C15-C16-C17
19	3	607	CLA	CBD-CGD-O2D-CED
19	B	1201	CLA	C4C-C3C-CAC-CBC
23	A	5001	LHG	O9-C7-O7-C5
23	A	5001	LHG	O7-C5-C6-O8
23	4	630	LHG	C11-C10-C9-C8
19	3	609	CLA	C11-C12-C13-C15
27	3	608	CHL	CBA-CGA-O2A-C1
19	B	1238	CLA	C2-C3-C5-C6
19	2	610	CLA	C2-C3-C5-C6
19	A	1117	CLA	C14-C13-C15-C16
19	A	1119	CLA	C14-C13-C15-C16
19	A	1122	CLA	C11-C10-C8-C9
19	A	1124	CLA	C6-C7-C8-C9
19	A	1124	CLA	C11-C10-C8-C9
19	A	1127	CLA	C6-C7-C8-C9
19	A	1127	CLA	C11-C12-C13-C14
19	A	1132	CLA	C14-C13-C15-C16
19	B	1237	CLA	C6-C7-C8-C9
19	2	613	CLA	C11-C10-C8-C9
20	A	2001	PQN	C19-C18-C20-C21
19	3	613	CLA	C3-C5-C6-C7
19	4	603	CLA	C2A-CAA-CBA-CGA
19	4	604	CLA	C2A-CAA-CBA-CGA
19	B	1202	CLA	C15-C16-C17-C18
22	A	4011	BCR	C7-C8-C9-C10
22	B	2004	BCR	C21-C22-C23-C24
19	A	1140	CLA	O1A-CGA-O2A-C1
19	B	1238	CLA	O1A-CGA-O2A-C1
19	A	1101	CLA	C1A-C2A-CAA-CBA
19	A	1103	CLA	C1A-C2A-CAA-CBA
19	A	1111	CLA	C1A-C2A-CAA-CBA
19	A	1116	CLA	C1A-C2A-CAA-CBA
19	A	1119	CLA	C1A-C2A-CAA-CBA
19	A	1132	CLA	C1A-C2A-CAA-CBA
19	A	1133	CLA	C1A-C2A-CAA-CBA
19	A	1134	CLA	C1A-C2A-CAA-CBA
19	A	5005	CLA	C1A-C2A-CAA-CBA
19	B	1209	CLA	C1A-C2A-CAA-CBA
19	B	1210	CLA	C1A-C2A-CAA-CBA
19	B	1212	CLA	C1A-C2A-CAA-CBA
19	B	1215	CLA	C1A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
19	B	1219	CLA	C1A-C2A-CAA-CBA
19	B	1228	CLA	C1A-C2A-CAA-CBA
19	B	1229	CLA	C1A-C2A-CAA-CBA
19	B	1231	CLA	C1A-C2A-CAA-CBA
19	B	1234	CLA	C1A-C2A-CAA-CBA
19	B	1236	CLA	C1A-C2A-CAA-CBA
19	2	604	CLA	C1A-C2A-CAA-CBA
19	3	603	CLA	C1A-C2A-CAA-CBA
19	3	604	CLA	C1A-C2A-CAA-CBA
19	3	610	CLA	C1A-C2A-CAA-CBA
19	3	617	CLA	C1A-C2A-CAA-CBA
19	4	601	CLA	C1A-C2A-CAA-CBA
19	4	603	CLA	C1A-C2A-CAA-CBA
19	4	604	CLA	C1A-C2A-CAA-CBA
19	4	609	CLA	C1A-C2A-CAA-CBA
19	4	611	CLA	C1A-C2A-CAA-CBA
19	J	102	CLA	C1A-C2A-CAA-CBA
19	L	301	CLA	C1A-C2A-CAA-CBA
27	2	606	CHL	C1A-C2A-CAA-CBA
27	2	607	CHL	C1A-C2A-CAA-CBA
27	2	608	CHL	C1A-C2A-CAA-CBA
27	2	615	CHL	C1A-C2A-CAA-CBA
19	A	1127	CLA	C16-C17-C18-C19
19	B	1235	CLA	C6-C7-C8-C9
19	B	1240	CLA	C16-C17-C18-C20
19	3	607	CLA	C11-C12-C13-C15
23	3	630	LHG	O9-C7-O7-C5
23	A	5001	LHG	C25-C26-C27-C28
23	A	5001	LHG	C31-C32-C33-C34
22	B	2004	BCR	C13-C14-C15-C16
19	L	302	CLA	C3-C5-C6-C7
19	B	1225	CLA	C2C-C3C-CAC-CBC
24	2	631	LMG	C29-C28-O8-C9
23	B	5101	LHG	O6-C4-C5-C6
27	4	606	CHL	CBA-CGA-O2A-C1
23	1	630	LHG	C7-C8-C9-C10
19	A	1127	CLA	C2C-C3C-CAC-CBC
27	1	601	CHL	C6-C7-C8-C10
25	A	5004	LMT	O5'-C5'-C6'-O6'
19	1	610	CLA	O1A-CGA-O2A-C1
19	B	1211	CLA	C2A-CAA-CBA-CGA
19	A	1127	CLA	C16-C17-C18-C20

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Mol	Chain	Res	Type	Atoms
25	1	631	LMT	O5'-C5'-C6'-O6'
19	A	1127	CLA	O1D-CGD-O2D-CED
19	4	613	CLA	C3-C5-C6-C7
23	A	5003	LHG	C4-C5-C6-O8
25	1	631	LMT	O5B-C5B-C6B-O6B
23	A	5001	LHG	C15-C16-C17-C18
27	2	615	CHL	CBA-CGA-O2A-C1
25	A	5004	LMT	O5'-C1'-O1'-C1
24	2	631	LMG	C30-C31-C32-C33
19	B	1210	CLA	CBA-CGA-O2A-C1
23	B	5101	LHG	O10-C23-O8-C6
23	2	630	LHG	C8-C7-O7-C5
27	1	607	CHL	CBA-CGA-O2A-C1
19	L	302	CLA	C5-C6-C7-C8
19	1	612	CLA	O1A-CGA-O2A-C1
19	2	603	CLA	O1A-CGA-O2A-C1
19	A	1127	CLA	C4-C3-C5-C6
19	A	1139	CLA	CBA-CGA-O2A-C1
26	B	5002	DGD	O1A-C1A-O1G-C1G
19	B	1210	CLA	C8-C10-C11-C12
19	A	1140	CLA	C2-C1-O2A-CGA
19	A	8895	CLA	C2-C1-O2A-CGA
24	J	302	LMG	O6-C5-C6-O5
19	3	609	CLA	C11-C12-C13-C14
19	B	1215	CLA	O1D-CGD-O2D-CED
23	2	630	LHG	C23-C24-C25-C26
22	A	4003	BCR	C20-C21-C22-C23
23	A	5003	LHG	O9-C7-O7-C5
24	J	301	LMG	C20-C21-C22-C23
19	A	1104	CLA	C6-C7-C8-C10
19	A	1104	CLA	C12-C13-C15-C16
19	A	1122	CLA	C11-C10-C8-C7
19	A	1124	CLA	C11-C10-C8-C7
19	A	1127	CLA	C2-C3-C5-C6
19	A	1127	CLA	C11-C12-C13-C15
19	A	1132	CLA	C12-C13-C15-C16
19	B	1203	CLA	C12-C13-C15-C16
19	B	1204	CLA	C6-C7-C8-C10
19	B	1210	CLA	C12-C13-C15-C16
19	B	1215	CLA	C6-C7-C8-C10
19	B	1224	CLA	C11-C12-C13-C15
20	B	2002	PQN	C21-C22-C23-C25

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Mol	Chain	Res	Type	Atoms
27	2	601	CHL	C11-C12-C13-C15
24	A	5002	LMG	C12-C13-C14-C15
24	2	631	LMG	C17-C18-C19-C20
19	A	1103	CLA	C6-C7-C8-C9
19	A	1104	CLA	C6-C7-C8-C9
19	A	1104	CLA	C14-C13-C15-C16
19	A	1136	CLA	C6-C7-C8-C9
19	A	8895	CLA	C14-C13-C15-C16
19	B	1021	CLA	C6-C7-C8-C9
19	B	1021	CLA	C11-C10-C8-C9
19	B	1021	CLA	C15-C16-C17-C18
19	A	1111	CLA	C2A-CAA-CBA-CGA
19	B	1215	CLA	C2A-CAA-CBA-CGA
19	A	1126	CLA	C2C-C3C-CAC-CBC
19	B	1223	CLA	C2C-C3C-CAC-CBC
27	2	606	CHL	O1D-CGD-O2D-CED
19	B	1240	CLA	C16-C17-C18-C19
23	A	5001	LHG	C35-C36-C37-C38
22	B	4017	BCR	C11-C12-C13-C14
22	1	623	BCR	C21-C22-C23-C24
22	K	301	BCR	C7-C8-C9-C10
28	4	620	LUT	C11-C12-C13-C14
19	B	1206	CLA	CBA-CGA-O2A-C1
19	A	1115	CLA	C6-C7-C8-C9
19	B	1238	CLA	C13-C15-C16-C17
22	B	4017	BCR	C6-C7-C8-C9
23	3	630	LHG	O6-C4-C5-C6
19	A	1104	CLA	C3-C5-C6-C7
24	J	301	LMG	C33-C34-C35-C36
23	A	5001	LHG	C26-C27-C28-C29
19	2	614	CLA	CBA-CGA-O2A-C1
19	B	1201	CLA	O1D-CGD-O2D-CED
19	B	1216	CLA	O1A-CGA-O2A-C1
27	2	611	CHL	C2A-CAA-CBA-CGA
19	A	1101	CLA	CBA-CGA-O2A-C1
27	2	608	CHL	CBA-CGA-O2A-C1
19	A	1133	CLA	C3A-C2A-CAA-CBA
19	A	1137	CLA	C3A-C2A-CAA-CBA
19	B	1224	CLA	C3A-C2A-CAA-CBA
27	2	602	CHL	C3A-C2A-CAA-CBA
27	4	608	CHL	C3A-C2A-CAA-CBA
22	B	4017	BCR	C9-C10-C11-C12

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Mol	Chain	Res	Type	Atoms
19	B	1202	CLA	CBA-CGA-O2A-C1
24	A	5002	LMG	C7-C8-C9-O8
19	B	1012	CLA	CBD-CGD-O2D-CED
27	1	601	CHL	O2A-C1-C2-C3
19	A	1120	CLA	CBD-CGD-O2D-CED
19	2	613	CLA	C4-C3-C5-C6
19	3	606	CLA	CBA-CGA-O2A-C1
27	2	615	CHL	C3C-C2C-CMC-OMC
23	1	630	LHG	O10-C23-O8-C6
23	A	5003	LHG	O1-C1-C2-O2
23	4	630	LHG	O1-C1-C2-O2
19	B	1225	CLA	CBA-CGA-O2A-C1
19	A	1139	CLA	O1A-CGA-O2A-C1
19	L	302	CLA	C2C-C3C-CAC-CBC
24	J	301	LMG	O7-C8-C9-O8
19	B	1202	CLA	C16-C17-C18-C19
19	1	609	CLA	C5-C6-C7-C8
19	A	1126	CLA	C2-C1-O2A-CGA
19	I	121	CLA	O1D-CGD-O2D-CED
19	A	1130	CLA	C6-C7-C8-C9
19	B	1205	CLA	C14-C13-C15-C16
19	B	1211	CLA	C6-C7-C8-C9
19	A	5005	CLA	CBA-CGA-O2A-C1
18	A	1011	CL0	C8-C10-C11-C12
19	1	609	CLA	C8-C10-C11-C12
19	B	1234	CLA	C4-C3-C5-C6
22	A	4001	BCR	C23-C24-C25-C30
22	A	4011	BCR	C5-C6-C7-C8
22	B	2004	BCR	C23-C24-C25-C26
22	B	2004	BCR	C23-C24-C25-C30
22	B	4005	BCR	C23-C24-C25-C26
22	B	4006	BCR	C23-C24-C25-C26
22	B	4010	BCR	C1-C6-C7-C8
22	B	4014	BCR	C1-C6-C7-C8
22	B	4014	BCR	C23-C24-C25-C26
22	F	416	BCR	C23-C24-C25-C30
22	G	311	BCR	C5-C6-C7-C8
22	I	118	BCR	C5-C6-C7-C8
22	I	118	BCR	C23-C24-C25-C26
22	I	118	BCR	C23-C24-C25-C30
22	K	301	BCR	C23-C24-C25-C30
19	B	1210	CLA	O1D-CGD-O2D-CED

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Mol	Chain	Res	Type	Atoms
19	B	1224	CLA	CAA-CBA-CGA-O2A
22	3	623	BCR	C37-C22-C23-C24
22	3	624	BCR	C7-C8-C9-C10
22	3	624	BCR	C11-C12-C13-C14
19	4	602	CLA	C10-C11-C12-C13
23	4	630	LHG	C7-C8-C9-C10
22	J	212	BCR	C14-C15-C16-C17
19	B	1210	CLA	O1A-CGA-O2A-C1
23	A	5001	LHG	O6-C4-C5-C6
19	A	1119	CLA	C6-C7-C8-C10
19	A	1125	CLA	C11-C10-C8-C7
19	A	1128	CLA	C12-C13-C15-C16
19	A	1136	CLA	C6-C7-C8-C10
19	A	1136	CLA	C11-C12-C13-C15
19	A	8895	CLA	C12-C13-C15-C16
19	B	1023	CLA	C11-C10-C8-C7
19	B	1021	CLA	C11-C10-C8-C7
19	2	610	CLA	C6-C7-C8-C10
20	A	2001	PQN	C21-C22-C23-C25
27	2	601	CHL	C12-C13-C15-C16
19	A	1136	CLA	C3-C5-C6-C7
19	A	1117	CLA	C15-C16-C17-C18
19	G	218	CLA	C5-C6-C7-C8
19	I	121	CLA	C16-C17-C18-C20
27	2	607	CHL	O1A-CGA-O2A-C1
27	1	601	CHL	CBA-CGA-O2A-C1
19	3	607	CLA	O1D-CGD-O2D-CED
19	B	1239	CLA	C4C-C3C-CAC-CBC
22	A	4001	BCR	C20-C21-C22-C37
22	A	4002	BCR	C35-C13-C14-C15
22	B	2004	BCR	C11-C10-C9-C34
22	1	623	BCR	C20-C21-C22-C37
22	3	624	BCR	C11-C10-C9-C34
22	3	624	BCR	C16-C17-C18-C36
22	G	311	BCR	C35-C13-C14-C15
22	K	301	BCR	C20-C21-C22-C37
19	I	121	CLA	CBA-CGA-O2A-C1
19	A	8895	CLA	C8-C10-C11-C12
19	A	1110	CLA	CAD-CBD-CGD-O2D
19	A	1116	CLA	CAD-CBD-CGD-O2D
19	A	1124	CLA	CAD-CBD-CGD-O2D
19	A	1132	CLA	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
19	A	1137	CLA	CAD-CBD-CGD-O2D
19	A	1138	CLA	CAD-CBD-CGD-O2D
19	B	1012	CLA	CAD-CBD-CGD-O2D
19	B	1211	CLA	CAD-CBD-CGD-O2D
19	B	1215	CLA	CAD-CBD-CGD-O2D
19	B	1221	CLA	CAD-CBD-CGD-O2D
19	B	1226	CLA	CAD-CBD-CGD-O2D
19	B	1231	CLA	CAD-CBD-CGD-O2D
19	1	606	CLA	CAD-CBD-CGD-O2D
19	3	609	CLA	CAD-CBD-CGD-O2D
19	3	617	CLA	CAD-CBD-CGD-O2D
19	I	121	CLA	CAD-CBD-CGD-O2D
19	J	102	CLA	CAD-CBD-CGD-O2D
19	K	202	CLA	CAD-CBD-CGD-O2D
26	B	5002	DGD	C3G-C2G-O2G-C1B
25	B	5001	LMT	O5'-C5'-C6'-O6'
25	G	402	LMT	O5B-C5B-C6B-O6B
19	3	603	CLA	C5-C6-C7-C8
22	G	311	BCR	C22-C23-C24-C25
19	B	1205	CLA	C4-C3-C5-C6
19	2	613	CLA	C16-C17-C18-C20
24	J	301	LMG	O6-C1-O1-C7
25	G	402	LMT	O5'-C1'-O1'-C1
24	J	301	LMG	C7-C8-C9-O8
19	A	5005	CLA	O1A-CGA-O2A-C1
23	A	5001	LHG	O6-C4-C5-O7
23	B	5101	LHG	O6-C4-C5-O7
19	B	1240	CLA	CAA-CBA-CGA-O2A
19	B	1023	CLA	C2A-CAA-CBA-CGA
19	A	1101	CLA	CHA-CBD-CGD-O1D
19	A	1101	CLA	CHA-CBD-CGD-O2D
19	A	1103	CLA	CHA-CBD-CGD-O1D
19	A	1103	CLA	CHA-CBD-CGD-O2D
19	A	1106	CLA	CHA-CBD-CGD-O1D
19	A	1106	CLA	CHA-CBD-CGD-O2D
19	A	1111	CLA	CHA-CBD-CGD-O1D
19	A	1113	CLA	CHA-CBD-CGD-O1D
19	A	1118	CLA	CHA-CBD-CGD-O1D
19	A	1118	CLA	CHA-CBD-CGD-O2D
19	A	1125	CLA	CHA-CBD-CGD-O1D
19	A	1125	CLA	CHA-CBD-CGD-O2D
19	A	1128	CLA	CHA-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
19	A	1130	CLA	CHA-CBD-CGD-O2D
19	A	1801	CLA	CHA-CBD-CGD-O1D
19	A	1801	CLA	CHA-CBD-CGD-O2D
19	B	1204	CLA	CHA-CBD-CGD-O1D
19	B	1210	CLA	CHA-CBD-CGD-O1D
19	B	1210	CLA	CHA-CBD-CGD-O2D
19	B	1222	CLA	CHA-CBD-CGD-O1D
19	B	1222	CLA	CHA-CBD-CGD-O2D
19	1	610	CLA	CHA-CBD-CGD-O1D
19	1	610	CLA	CHA-CBD-CGD-O2D
19	3	613	CLA	CHA-CBD-CGD-O1D
19	4	601	CLA	CHA-CBD-CGD-O1D
19	4	603	CLA	CHA-CBD-CGD-O1D
19	4	603	CLA	CHA-CBD-CGD-O2D
19	4	613	CLA	CHA-CBD-CGD-O1D
19	4	613	CLA	CHA-CBD-CGD-O2D
22	B	2004	BCR	C19-C20-C21-C22
27	1	601	CHL	CHA-CBD-CGD-O1D
27	1	601	CHL	CHA-CBD-CGD-O2D
27	2	602	CHL	C3-C5-C6-C7
19	B	1206	CLA	O1A-CGA-O2A-C1
19	2	614	CLA	O1A-CGA-O2A-C1
27	2	608	CHL	O1A-CGA-O2A-C1
22	F	416	BCR	C12-C13-C14-C15
22	F	416	BCR	C20-C21-C22-C23
24	A	5002	LMG	O7-C8-C9-O8
19	A	1104	CLA	C5-C6-C7-C8
19	B	1226	CLA	C5-C6-C7-C8
19	B	1202	CLA	O1A-CGA-O2A-C1
19	B	1225	CLA	O1A-CGA-O2A-C1
23	2	630	LHG	O1-C1-C2-O2
19	B	1211	CLA	C3-C5-C6-C7
19	B	1238	CLA	C3-C5-C6-C7
19	A	1101	CLA	O1A-CGA-O2A-C1
24	J	302	LMG	O9-C10-O7-C8
19	A	1122	CLA	C6-C7-C8-C9
19	I	121	CLA	C11-C10-C8-C9
20	A	2001	PQN	C21-C22-C23-C24
27	1	601	CHL	O1A-CGA-O2A-C1
19	A	1118	CLA	C6-C7-C8-C10
24	2	631	LMG	O6-C5-C6-O5
19	A	1113	CLA	C2A-CAA-CBA-CGA

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Mol	Chain	Res	Type	Atoms
26	B	5002	DGD	O6E-C5E-C6E-O5E
22	A	4007	BCR	C36-C18-C19-C20
22	L	420	BCR	C7-C8-C9-C34
23	A	5001	LHG	C29-C30-C31-C32
19	A	1108	CLA	C1A-C2A-CAA-CBA
19	A	1110	CLA	C1A-C2A-CAA-CBA
19	1	608	CLA	C1A-C2A-CAA-CBA
19	2	614	CLA	C1A-C2A-CAA-CBA
19	4	610	CLA	C1A-C2A-CAA-CBA
19	A	1104	CLA	C16-C17-C18-C19
19	A	1118	CLA	C6-C7-C8-C9
19	B	1214	CLA	C2-C1-O2A-CGA
19	A	1120	CLA	O1D-CGD-O2D-CED
19	1	603	CLA	C5-C6-C7-C8
23	1	630	LHG	C4-O6-P-O3
23	4	630	LHG	C4-O6-P-O3
23	3	630	LHG	C23-C24-C25-C26
27	2	601	CHL	C3-C5-C6-C7
19	I	121	CLA	O1A-CGA-O2A-C1
23	1	630	LHG	C3-O3-P-O4
23	2	630	LHG	C3-O3-P-O5
19	A	1127	CLA	C3-C5-C6-C7
25	G	402	LMT	C4B-C5B-C6B-O6B
19	4	609	CLA	C6-C7-C8-C9
19	A	1103	CLA	CAD-CBD-CGD-O1D
19	A	1111	CLA	CAD-CBD-CGD-O1D
19	A	1118	CLA	CAD-CBD-CGD-O1D
19	A	1122	CLA	CAD-CBD-CGD-O1D
19	A	1125	CLA	CAD-CBD-CGD-O1D
19	A	1131	CLA	CAD-CBD-CGD-O1D
19	A	1801	CLA	CAD-CBD-CGD-O1D
19	A	8895	CLA	CAD-CBD-CGD-O1D
19	B	1210	CLA	CAD-CBD-CGD-O1D
19	B	1240	CLA	CAD-CBD-CGD-O1D
19	2	614	CLA	CAD-CBD-CGD-O1D
19	3	606	CLA	CAD-CBD-CGD-O1D
19	3	614	CLA	CAD-CBD-CGD-O1D
19	4	601	CLA	CAD-CBD-CGD-O1D
19	4	603	CLA	CAD-CBD-CGD-O1D
19	L	301	CLA	CAD-CBD-CGD-O1D
27	1	601	CHL	CAD-CBD-CGD-O1D
19	A	1116	CLA	CAA-CBA-CGA-O2A

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Mol	Chain	Res	Type	Atoms
19	B	1203	CLA	C15-C16-C17-C18
20	B	2002	PQN	C25-C26-C27-C28
24	J	301	LMG	C30-C31-C32-C33
19	1	609	CLA	CBA-CGA-O2A-C1
19	2	612	CLA	CBA-CGA-O2A-C1
19	3	607	CLA	C5-C6-C7-C8
19	B	1204	CLA	C2C-C3C-CAC-CBC
18	A	1011	CL0	C12-C13-C15-C16
19	A	1022	CLA	C12-C13-C15-C16
19	A	1109	CLA	C6-C7-C8-C10
19	A	1122	CLA	C6-C7-C8-C10
19	B	1021	CLA	C11-C12-C13-C15
19	B	1225	CLA	C6-C7-C8-C10
19	B	1240	CLA	C11-C12-C13-C15
19	2	613	CLA	C2-C3-C5-C6
19	K	202	CLA	C3A-C2A-CAA-CBA
27	2	601	CHL	C6-C7-C8-C10
19	B	1205	CLA	C3-C5-C6-C7
22	A	4007	BCR	C19-C20-C21-C22
19	A	1022	CLA	C8-C10-C11-C12
19	A	1118	CLA	C2C-C3C-CAC-CBC
19	I	121	CLA	C2C-C3C-CAC-CBC
19	2	613	CLA	C2A-CAA-CBA-CGA
19	4	603	CLA	C6-C7-C8-C10
19	A	1126	CLA	C3-C5-C6-C7
23	A	5001	LHG	C4-C5-C6-O8
27	1	607	CHL	C1C-C2C-CMC-OMC
27	2	608	CHL	C1C-C2C-CMC-OMC
27	2	615	CHL	C1C-C2C-CMC-OMC
27	4	606	CHL	C1C-C2C-CMC-OMC
27	3	608	CHL	O1A-CGA-O2A-C1
19	A	1137	CLA	C2C-C3C-CAC-CBC
19	A	1132	CLA	C4C-C3C-CAC-CBC
22	A	4003	BCR	C14-C15-C16-C17
23	4	630	LHG	C28-C29-C30-C31
19	3	607	CLA	C10-C11-C12-C13
19	A	1118	CLA	C4-C3-C5-C6
19	L	302	CLA	C4-C3-C5-C6
23	A	5001	LHG	C18-C19-C20-C21
23	A	5001	LHG	C34-C35-C36-C37
19	A	1109	CLA	C11-C12-C13-C14
19	A	1125	CLA	C11-C10-C8-C9

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Mol	Chain	Res	Type	Atoms
19	A	1136	CLA	C11-C12-C13-C14
19	B	1023	CLA	C11-C10-C8-C9
19	B	1203	CLA	C14-C13-C15-C16
19	B	1225	CLA	C6-C7-C8-C9
22	K	301	BCR	C22-C23-C24-C25
19	2	613	CLA	C16-C17-C18-C19
19	1	609	CLA	O1A-CGA-O2A-C1
19	A	1103	CLA	CAA-CBA-CGA-O2A
27	4	606	CHL	CAA-CBA-CGA-O2A
27	4	606	CHL	O1A-CGA-O2A-C1
28	2	620	LUT	C30-C31-C32-C33
28	3	621	LUT	C30-C31-C32-C33
28	4	623	LUT	C30-C31-C32-C33
19	4	609	CLA	C4C-C3C-CAC-CBC
19	B	1229	CLA	C2C-C3C-CAC-CBC
22	B	4006	BCR	C11-C10-C9-C34
19	B	1228	CLA	C1-C2-C3-C4
19	A	1111	CLA	CAA-CBA-CGA-O2A
19	A	1138	CLA	C2A-CAA-CBA-CGA
19	4	601	CLA	C2A-CAA-CBA-CGA
19	B	1201	CLA	C2-C1-O2A-CGA
27	2	611	CHL	C2-C1-O2A-CGA
19	A	1801	CLA	C2C-C3C-CAC-CBC
23	B	5101	LHG	C24-C25-C26-C27
19	B	1202	CLA	CAA-CBA-CGA-O2A
19	B	1012	CLA	O1D-CGD-O2D-CED
19	2	612	CLA	C2C-C3C-CAC-CBC
23	2	630	LHG	C9-C10-C11-C12
27	2	615	CHL	O1A-CGA-O2A-C1
23	3	630	LHG	C9-C10-C11-C12
22	B	4005	BCR	C23-C24-C25-C30
22	B	4014	BCR	C23-C24-C25-C30
22	G	311	BCR	C1-C6-C7-C8
27	1	607	CHL	CAA-CBA-CGA-O2A
19	B	1217	CLA	C2C-C3C-CAC-CBC
19	3	603	CLA	C4C-C3C-CAC-CBC
23	4	630	LHG	C11-C12-C13-C14
24	J	301	LMG	C38-C39-C40-C41
20	B	2002	PQN	C13-C15-C16-C17
23	3	630	LHG	C8-C7-O7-C5
19	4	609	CLA	C2A-CAA-CBA-CGA
22	A	4002	BCR	C12-C13-C14-C15

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Mol	Chain	Res	Type	Atoms
27	2	601	CHL	C10-C11-C12-C13
23	A	5003	LHG	C3-O3-P-O6
23	4	630	LHG	C3-O3-P-O6
19	A	1124	CLA	C5-C6-C7-C8
19	A	1119	CLA	O1A-CGA-O2A-C1
19	B	1012	CLA	C2C-C3C-CAC-CBC
19	B	1023	CLA	C8-C10-C11-C12
19	A	1128	CLA	O1D-CGD-O2D-CED
19	B	1224	CLA	C4-C3-C5-C6
19	B	1205	CLA	C2-C3-C5-C6
19	B	1205	CLA	C12-C13-C15-C16
26	B	5002	DGD	C2A-C3A-C4A-C5A
19	A	1128	CLA	C14-C13-C15-C16
19	B	1210	CLA	C14-C13-C15-C16
19	B	1224	CLA	C11-C12-C13-C14
19	B	1240	CLA	C11-C10-C8-C9
22	A	4011	BCR	C13-C14-C15-C16
22	B	4009	BCR	C9-C10-C11-C12
22	B	4017	BCR	C19-C20-C21-C22
19	A	1115	CLA	O1D-CGD-O2D-CED
25	1	631	LMT	C2-C3-C4-C5
19	B	1021	CLA	C16-C17-C18-C20
19	4	609	CLA	C6-C7-C8-C10
27	4	608	CHL	CBA-CGA-O2A-C1
19	A	1132	CLA	C8-C10-C11-C12
19	A	1119	CLA	CBA-CGA-O2A-C1
27	1	607	CHL	O1A-CGA-O2A-C1
22	A	4002	BCR	C6-C7-C8-C9
19	A	1013	CLA	C2A-CAA-CBA-CGA
22	A	4001	BCR	C9-C10-C11-C12
22	A	4001	BCR	C15-C16-C17-C18
22	B	4014	BCR	C19-C20-C21-C22
22	3	624	BCR	C15-C16-C17-C18
22	F	416	BCR	C13-C14-C15-C16
22	L	419	BCR	C15-C16-C17-C18
28	3	620	LUT	C29-C30-C31-C32
19	A	1127	CLA	C13-C15-C16-C17
19	A	1130	CLA	C8-C10-C11-C12
27	4	607	CHL	CBA-CGA-O2A-C1
19	A	1110	CLA	C6-C7-C8-C10
19	4	610	CLA	C6-C7-C8-C10
24	J	301	LMG	C31-C32-C33-C34

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Mol	Chain	Res	Type	Atoms
19	A	1104	CLA	C15-C16-C17-C18
19	B	1203	CLA	C13-C15-C16-C17
19	B	1225	CLA	C13-C15-C16-C17
19	B	1211	CLA	C2C-C3C-CAC-CBC
19	A	1115	CLA	CBD-CGD-O2D-CED
19	B	1210	CLA	C2-C1-O2A-CGA
19	3	603	CLA	C2-C1-O2A-CGA
19	L	301	CLA	C4C-C3C-CAC-CBC
19	B	1021	CLA	C16-C17-C18-C19
19	A	1022	CLA	C2A-CAA-CBA-CGA
19	A	1104	CLA	C2A-CAA-CBA-CGA
19	A	1117	CLA	C2A-CAA-CBA-CGA
19	A	1133	CLA	C2A-CAA-CBA-CGA
19	B	1205	CLA	C2A-CAA-CBA-CGA
19	3	610	CLA	C2A-CAA-CBA-CGA
19	A	1128	CLA	CBD-CGD-O2D-CED
19	A	1103	CLA	C4C-C3C-CAC-CBC
19	A	1122	CLA	C3A-C2A-CAA-CBA
19	B	1206	CLA	C3A-C2A-CAA-CBA
19	B	1232	CLA	C3A-C2A-CAA-CBA
19	B	1237	CLA	C3A-C2A-CAA-CBA
19	1	614	CLA	C3A-C2A-CAA-CBA
19	4	609	CLA	C3A-C2A-CAA-CBA
27	2	601	CHL	C16-C17-C18-C20
19	B	1224	CLA	C2-C3-C5-C6
23	4	630	LHG	C10-C11-C12-C13
26	B	5002	DGD	O6D-C5D-C6D-O5D
19	3	606	CLA	O1A-CGA-O2A-C1
19	A	1131	CLA	C6-C7-C8-C9
19	A	8895	CLA	C6-C7-C8-C9
19	B	1205	CLA	C6-C7-C8-C9
19	L	302	CLA	C11-C10-C8-C9
27	2	601	CHL	C16-C17-C18-C19
25	G	401	LMT	C3-C4-C5-C6
19	B	1237	CLA	C8-C10-C11-C12
22	A	4011	BCR	C11-C10-C9-C34
22	A	4011	BCR	C16-C17-C18-C36
22	B	4005	BCR	C11-C10-C9-C34
22	F	416	BCR	C35-C13-C14-C15
22	I	120	BCR	C20-C21-C22-C37
28	2	620	LUT	C39-C29-C30-C31
28	2	620	LUT	C40-C33-C34-C35

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Mol	Chain	Res	Type	Atoms
28	3	621	LUT	C39-C29-C30-C31
28	4	621	LUT	C20-C13-C14-C15
28	4	623	LUT	C39-C29-C30-C31
19	4	603	CLA	C6-C7-C8-C9
19	I	121	CLA	O2A-C1-C2-C3
19	4	611	CLA	CBA-CGA-O2A-C1
25	1	631	LMT	O5'-C1'-O1'-C1
19	A	1107	CLA	CAA-CBA-CGA-O2A
22	A	4007	BCR	C7-C8-C9-C34
25	B	5001	LMT	O1'-C1-C2-C3
19	B	1211	CLA	C4-C3-C5-C6
19	A	1122	CLA	C1A-C2A-CAA-CBA
19	B	1238	CLA	C1A-C2A-CAA-CBA
19	1	602	CLA	C1A-C2A-CAA-CBA
19	1	614	CLA	C1A-C2A-CAA-CBA
19	1	606	CLA	C4C-C3C-CAC-CBC
19	A	1117	CLA	C16-C17-C18-C19
19	B	1224	CLA	C6-C7-C8-C10
19	3	607	CLA	C6-C7-C8-C10
19	B	1235	CLA	C3-C5-C6-C7
23	A	5003	LHG	O10-C23-O8-C6
28	1	621	LUT	C9-C10-C11-C12
28	4	623	LUT	C13-C14-C15-C35
27	4	608	CHL	O1A-CGA-O2A-C1
19	A	1101	CLA	C2A-CAA-CBA-CGA
19	B	1204	CLA	C2A-CAA-CBA-CGA
19	H	200	CLA	CAA-CBA-CGA-O1A
19	B	1228	CLA	O2A-C1-C2-C3
26	B	5002	DGD	C4D-C5D-C6D-O5D
19	A	1107	CLA	CAA-CBA-CGA-O1A
27	2	606	CHL	CAA-CBA-CGA-O1A
19	I	121	CLA	C3-C5-C6-C7
22	B	4005	BCR	C11-C10-C9-C8
22	B	4006	BCR	C11-C10-C9-C8
22	B	4006	BCR	C20-C21-C22-C23
22	3	624	BCR	C12-C13-C14-C15
22	I	120	BCR	C20-C21-C22-C23
28	2	620	LUT	C28-C29-C30-C31
28	2	620	LUT	C32-C33-C34-C35
28	3	621	LUT	C28-C29-C30-C31
28	4	621	LUT	C12-C13-C14-C15
28	4	623	LUT	C28-C29-C30-C31

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Mol	Chain	Res	Type	Atoms
19	B	1220	CLA	CAA-CBA-CGA-O2A
19	4	611	CLA	O1A-CGA-O2A-C1
23	A	5001	LHG	C13-C14-C15-C16
26	B	5002	DGD	C8A-C9A-CAA-CBA
28	2	623	LUT	C9-C10-C11-C12
28	2	623	LUT	C29-C30-C31-C32
28	4	620	LUT	C29-C30-C31-C32
19	A	1134	CLA	CAA-CBA-CGA-O2A
19	B	1220	CLA	CAA-CBA-CGA-O1A
19	A	1114	CLA	C4C-C3C-CAC-CBC
19	A	1125	CLA	C2-C1-O2A-CGA
27	1	601	CHL	C2-C1-O2A-CGA
27	2	602	CHL	C2-C1-O2A-CGA
27	4	608	CHL	C2-C1-O2A-CGA
19	A	1125	CLA	C4C-C3C-CAC-CBC
19	B	1206	CLA	C2-C1-O2A-CGA
19	1	613	CLA	CAA-CBA-CGA-O2A
19	A	1117	CLA	C11-C12-C13-C14
19	A	1134	CLA	CAA-CBA-CGA-O1A
19	B	1021	CLA	CAA-CBA-CGA-O2A
19	3	606	CLA	CAA-CBA-CGA-O2A
19	3	609	CLA	CAA-CBA-CGA-O2A
27	2	608	CHL	CAA-CBA-CGA-O2A
19	H	200	CLA	CAA-CBA-CGA-O2A
27	2	606	CHL	CAA-CBA-CGA-O2A
19	4	601	CLA	O1A-CGA-O2A-C1
22	A	4003	BCR	C23-C24-C25-C26
22	A	4003	BCR	C23-C24-C25-C30
22	A	4011	BCR	C1-C6-C7-C8
22	B	4006	BCR	C23-C24-C25-C30
22	I	118	BCR	C1-C6-C7-C8
22	M	4021	BCR	C5-C6-C7-C8
19	A	1133	CLA	CAA-CBA-CGA-O2A
19	2	612	CLA	O1A-CGA-O2A-C1
24	2	631	LMG	O10-C28-O8-C9
19	1	613	CLA	C4-C3-C5-C6
27	2	601	CHL	C4-C3-C5-C6
22	A	4008	BCR	C11-C12-C13-C14
22	I	118	BCR	C17-C18-C19-C20
20	A	2001	PQN	C25-C26-C27-C28
19	B	1211	CLA	C2-C3-C5-C6
19	1	613	CLA	C2-C3-C5-C6

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Mol	Chain	Res	Type	Atoms
19	L	302	CLA	C2-C3-C5-C6
19	B	1217	CLA	CAA-CBA-CGA-O2A
24	A	5002	LMG	C8-C7-O1-C1
26	B	5002	DGD	C5D-C6D-O5D-C1E
19	K	204	CLA	CAA-CBA-CGA-O2A
19	A	1110	CLA	C6-C7-C8-C9
19	4	610	CLA	C6-C7-C8-C9
27	2	602	CHL	C6-C7-C8-C9
19	B	1209	CLA	C2A-CAA-CBA-CGA
19	B	1221	CLA	C2A-CAA-CBA-CGA
23	A	5001	LHG	C30-C31-C32-C33
18	A	1011	CL0	CAA-CBA-CGA-O2A
23	2	630	LHG	O9-C7-O7-C5
19	A	1136	CLA	C15-C16-C17-C18
19	A	1104	CLA	C4-C3-C5-C6
19	A	1128	CLA	C4-C3-C5-C6
27	2	611	CHL	C4-C3-C5-C6
24	A	5002	LMG	C31-C32-C33-C34
19	B	1210	CLA	C6-C7-C8-C10
19	B	1211	CLA	C6-C7-C8-C10
23	A	5001	LHG	C11-C12-C13-C14
24	J	302	LMG	O8-C28-C29-C30
28	4	623	LUT	C29-C30-C31-C32
25	1	631	LMT	C2'-C1'-O1'-C1
24	J	302	LMG	C10-C11-C12-C13
24	J	301	LMG	O10-C28-O8-C9
19	A	1111	CLA	C3-C5-C6-C7
19	3	612	CLA	CAA-CBA-CGA-O2A
22	B	4006	BCR	C20-C21-C22-C37
22	B	4017	BCR	C11-C10-C9-C34
22	3	624	BCR	C35-C13-C14-C15
22	F	416	BCR	C11-C10-C9-C34
19	B	1023	CLA	C5-C6-C7-C8
23	4	630	LHG	C25-C26-C27-C28
19	A	1137	CLA	CAA-CBA-CGA-O2A
19	A	1118	CLA	C2-C3-C5-C6
27	2	601	CHL	C2-C3-C5-C6
23	1	630	LHG	C13-C14-C15-C16
19	A	1022	CLA	C14-C13-C15-C16
19	A	1109	CLA	C6-C7-C8-C9
19	B	1021	CLA	C11-C12-C13-C14
19	B	1238	CLA	C11-C12-C13-C14

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Mol	Chain	Res	Type	Atoms
19	B	1240	CLA	C11-C12-C13-C14
27	2	601	CHL	C14-C13-C15-C16
19	B	1210	CLA	C3-C5-C6-C7
19	A	1118	CLA	C3A-C2A-CAA-CBA
19	A	1126	CLA	C3A-C2A-CAA-CBA
19	3	614	CLA	C3A-C2A-CAA-CBA
23	3	630	LHG	O7-C7-C8-C9
19	A	1105	CLA	CAD-CBD-CGD-O2D
19	A	1140	CLA	CAD-CBD-CGD-O2D
19	B	1209	CLA	CAD-CBD-CGD-O2D
19	B	1213	CLA	CAD-CBD-CGD-O2D
19	B	1223	CLA	CAD-CBD-CGD-O2D
19	B	1227	CLA	CAD-CBD-CGD-O2D
19	B	1229	CLA	CAD-CBD-CGD-O2D
19	B	1230	CLA	CAD-CBD-CGD-O2D
19	B	1238	CLA	CAD-CBD-CGD-O2D
19	1	609	CLA	CAD-CBD-CGD-O2D
19	1	611	CLA	CAD-CBD-CGD-O2D
19	1	614	CLA	CAD-CBD-CGD-O2D
19	3	604	CLA	CAD-CBD-CGD-O2D
19	3	607	CLA	CAD-CBD-CGD-O2D
19	4	611	CLA	CAD-CBD-CGD-O2D
25	G	401	LMT	O5B-C1B-O1B-C4'
19	B	1211	CLA	O1A-CGA-O2A-C1
23	1	630	LHG	C27-C28-C29-C30
19	A	1125	CLA	C5-C6-C7-C8
19	B	1231	CLA	CAA-CBA-CGA-O2A
19	4	612	CLA	CAA-CBA-CGA-O2A
19	I	121	CLA	CAA-CBA-CGA-O2A
25	4	631	LMT	O5'-C5'-C6'-O6'
22	B	4006	BCR	C22-C23-C24-C25
25	A	5004	LMT	O1'-C1-C2-C3
19	B	1225	CLA	C4-C3-C5-C6
27	2	602	CHL	C4-C3-C5-C6
19	A	1109	CLA	CAA-CBA-CGA-O2A
19	B	1210	CLA	CAA-CBA-CGA-O2A
22	A	4007	BCR	C17-C18-C19-C20
22	L	420	BCR	C7-C8-C9-C10
19	A	1133	CLA	CAA-CBA-CGA-O1A
19	K	204	CLA	CAA-CBA-CGA-O1A
22	B	4010	BCR	C18-C19-C20-C21
19	B	1217	CLA	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
19	J	102	CLA	CAA-CBA-CGA-O2A
19	A	1125	CLA	O2A-C1-C2-C3
19	B	1203	CLA	O2A-C1-C2-C3
19	B	1214	CLA	O2A-C1-C2-C3
19	B	1221	CLA	O2A-C1-C2-C3
19	1	609	CLA	O2A-C1-C2-C3
19	B	1213	CLA	C5-C6-C7-C8
19	B	1231	CLA	CAA-CBA-CGA-O1A
19	3	612	CLA	CAA-CBA-CGA-O1A
19	J	102	CLA	CAA-CBA-CGA-O1A
25	A	5004	LMT	C5'-C4'-O1B-C1B
19	A	1102	CLA	CHA-CBD-CGD-O2D
19	A	1104	CLA	CHA-CBD-CGD-O1D
19	A	1104	CLA	CHA-CBD-CGD-O2D
19	A	1111	CLA	CHA-CBD-CGD-O2D
19	A	1113	CLA	CHA-CBD-CGD-O2D
19	A	1115	CLA	CHA-CBD-CGD-O1D
19	A	1127	CLA	CHA-CBD-CGD-O1D
19	A	1127	CLA	CHA-CBD-CGD-O2D
19	A	1134	CLA	CHA-CBD-CGD-O1D
19	A	1134	CLA	CHA-CBD-CGD-O2D
19	A	1135	CLA	CHA-CBD-CGD-O1D
19	A	1135	CLA	CHA-CBD-CGD-O2D
19	A	8895	CLA	CHA-CBD-CGD-O1D
19	B	1201	CLA	CHA-CBD-CGD-O1D
19	B	1202	CLA	CHA-CBD-CGD-O1D
19	B	1204	CLA	CHA-CBD-CGD-O2D
19	B	1211	CLA	CHA-CBD-CGD-O2D
19	B	1234	CLA	CHA-CBD-CGD-O1D
19	1	615	CLA	CHA-CBD-CGD-O1D
19	1	615	CLA	CHA-CBD-CGD-O2D
19	3	602	CLA	CHA-CBD-CGD-O1D
19	3	613	CLA	CHA-CBD-CGD-O2D
19	4	601	CLA	CHA-CBD-CGD-O2D
19	4	602	CLA	CHA-CBD-CGD-O1D
19	G	201	CLA	CHA-CBD-CGD-O1D
19	G	201	CLA	CHA-CBD-CGD-O2D
19	K	201	CLA	CHA-CBD-CGD-O1D
19	K	201	CLA	CHA-CBD-CGD-O2D
22	A	4001	BCR	C13-C14-C15-C16
27	1	607	CHL	CHA-CBD-CGD-O2D
27	2	602	CHL	CHA-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
27	2	602	CHL	CHA-CBD-CGD-O2D
27	2	601	CHL	CHA-CBD-CGD-O1D
27	2	601	CHL	CHA-CBD-CGD-O2D
19	2	603	CLA	CAA-CBA-CGA-O2A
19	1	609	CLA	C3-C5-C6-C7
22	A	4011	BCR	C11-C10-C9-C8
22	A	4011	BCR	C16-C17-C18-C19
19	A	1121	CLA	CAA-CBA-CGA-O2A
19	1	614	CLA	CAA-CBA-CGA-O2A
19	1	612	CLA	CAA-CBA-CGA-O2A
27	2	601	CHL	CAA-CBA-CGA-O2A
26	B	5002	DGD	C6A-C7A-C8A-C9A
19	B	1223	CLA	C12-C13-C15-C16
27	2	611	CHL	C2-C3-C5-C6
19	3	607	CLA	C6-C7-C8-C9
20	B	2002	PQN	C21-C22-C23-C24
19	A	1137	CLA	CAA-CBA-CGA-O1A
23	3	630	LHG	O9-C7-C8-C9
19	A	1117	CLA	C16-C17-C18-C20
19	L	303	CLA	CAA-CBA-CGA-O1A
28	1	620	LUT	C31-C32-C33-C40
19	B	1237	CLA	C16-C17-C18-C20
19	B	1237	CLA	C2C-C3C-CAC-CBC
27	2	602	CHL	CAA-CBA-CGA-O2A
19	A	1114	CLA	CAA-CBA-CGA-O2A
19	4	610	CLA	CBA-CGA-O2A-C1
23	4	630	LHG	C27-C28-C29-C30
19	A	1118	CLA	C1A-C2A-CAA-CBA
19	B	1206	CLA	C1A-C2A-CAA-CBA
19	B	1232	CLA	C1A-C2A-CAA-CBA
19	B	1240	CLA	C1A-C2A-CAA-CBA
19	4	614	CLA	C1A-C2A-CAA-CBA
27	4	606	CHL	C1A-C2A-CAA-CBA
19	B	1211	CLA	CBA-CGA-O2A-C1
19	2	603	CLA	CAA-CBA-CGA-O1A
19	I	121	CLA	CAA-CBA-CGA-O1A
19	A	1102	CLA	CAA-CBA-CGA-O2A
19	B	1227	CLA	CAA-CBA-CGA-O2A
19	B	1213	CLA	C2A-CAA-CBA-CGA
19	B	1235	CLA	C2A-CAA-CBA-CGA
19	A	1116	CLA	CAA-CBA-CGA-O1A
19	1	614	CLA	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
24	A	5002	LMG	O10-C28-C29-C30
22	A	4001	BCR	C6-C7-C8-C9
22	M	4021	BCR	C22-C23-C24-C25
23	A	5003	LHG	C3-O3-P-O5
23	3	630	LHG	C4-O6-P-O5
23	4	630	LHG	C3-O3-P-O5
19	A	1108	CLA	CAA-CBA-CGA-O2A
19	B	1230	CLA	CAA-CBA-CGA-O2A
22	L	419	BCR	C5-C6-C7-C8
22	M	4021	BCR	C1-C6-C7-C8
25	4	631	LMT	C6-C7-C8-C9
19	A	1109	CLA	CAA-CBA-CGA-O1A
19	A	1121	CLA	CAA-CBA-CGA-O1A
23	B	5101	LHG	O9-C7-C8-C9
19	G	202	CLA	CAA-CBA-CGA-O2A
19	B	1238	CLA	C16-C17-C18-C20
19	A	1107	CLA	C4C-C3C-CAC-CBC
19	3	602	CLA	C2A-CAA-CBA-CGA
19	1	606	CLA	CAA-CBA-CGA-O2A
19	A	8895	CLA	C15-C16-C17-C18
19	B	1240	CLA	CAA-CBA-CGA-O1A
27	2	601	CHL	CAA-CBA-CGA-O1A
19	2	604	CLA	C4C-C3C-CAC-CBC
19	A	1113	CLA	CAD-CBD-CGD-O1D
19	A	1137	CLA	CAD-CBD-CGD-O1D
19	B	1202	CLA	CAD-CBD-CGD-O1D
19	1	603	CLA	CAD-CBD-CGD-O1D
19	F	301	CLA	CAD-CBD-CGD-O1D
19	4	612	CLA	CAA-CBA-CGA-O1A
18	A	1011	CL0	C14-C13-C15-C16
19	1	602	CLA	C6-C7-C8-C9
19	A	1102	CLA	CAA-CBA-CGA-O1A
19	A	1120	CLA	CAA-CBA-CGA-O2A
19	A	1111	CLA	O1A-CGA-O2A-C1
25	B	5001	LMT	C1-C2-C3-C4
19	A	1110	CLA	CAA-CBA-CGA-O2A
19	B	1230	CLA	CAA-CBA-CGA-O1A
19	3	610	CLA	O1A-CGA-O2A-C1
19	A	1118	CLA	CAA-CBA-CGA-O2A
19	A	1125	CLA	CAA-CBA-CGA-O2A
19	A	1132	CLA	CAA-CBA-CGA-O2A
23	A	5003	LHG	O7-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
23	B	5101	LHG	O7-C7-C8-C9
19	3	602	CLA	C10-C11-C12-C13
19	B	1210	CLA	CAA-CBA-CGA-O1A
19	1	612	CLA	CAA-CBA-CGA-O1A
23	1	630	LHG	O10-C23-C24-C25
19	A	1109	CLA	C11-C12-C13-C15
19	A	1117	CLA	C11-C10-C8-C7
19	A	1117	CLA	C11-C12-C13-C15
19	A	1126	CLA	C6-C7-C8-C10
19	B	1203	CLA	C11-C12-C13-C15
19	B	1205	CLA	C6-C7-C8-C10
19	1	609	CLA	C6-C7-C8-C10
19	G	202	CLA	CAA-CBA-CGA-O1A
19	L	303	CLA	CAA-CBA-CGA-O2A
19	A	1135	CLA	CAA-CBA-CGA-O2A
19	B	1226	CLA	CAA-CBA-CGA-O2A
19	3	607	CLA	CAA-CBA-CGA-O2A
27	1	601	CHL	C3-C5-C6-C7
22	A	4003	BCR	C7-C8-C9-C10
22	A	4007	BCR	C7-C8-C9-C10
22	G	311	BCR	C21-C22-C23-C24
28	2	620	LUT	C27-C28-C29-C30
19	A	1125	CLA	CAA-CBA-CGA-O1A
19	A	1108	CLA	CAA-CBA-CGA-O1A
19	A	1114	CLA	CAA-CBA-CGA-O1A
22	M	4021	BCR	C19-C20-C21-C22
25	1	631	LMT	C2-C1-O1'-C1'
27	4	607	CHL	CAA-CBA-CGA-O2A
27	2	602	CHL	CAA-CBA-CGA-O1A
19	3	610	CLA	CBA-CGA-O2A-C1
19	1	606	CLA	CAA-CBA-CGA-O1A
19	1	611	CLA	CAA-CBA-CGA-O2A
19	B	1226	CLA	CAA-CBA-CGA-O1A
19	A	1117	CLA	C10-C11-C12-C13
19	B	1209	CLA	CAA-CBA-CGA-O2A

There are no ring outliers.

167 monomers are involved in 365 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	A	1136	CLA	3	0
19	A	1117	CLA	7	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	B	1228	CLA	3	0
19	B	1231	CLA	1	0
19	A	1108	CLA	3	0
22	B	4009	BCR	2	0
19	B	1225	CLA	6	0
27	3	608	CHL	3	0
28	2	621	LUT	2	0
24	J	301	LMG	3	0
22	M	4021	BCR	5	0
19	B	1219	CLA	1	0
19	1	609	CLA	3	0
23	A	5003	LHG	1	0
19	1	602	CLA	2	0
28	2	620	LUT	6	0
19	B	1223	CLA	6	0
28	4	623	LUT	1	0
19	B	1023	CLA	5	0
19	2	613	CLA	1	0
19	A	1126	CLA	5	0
19	A	1801	CLA	1	0
19	B	1217	CLA	4	0
24	J	302	LMG	1	0
22	B	2004	BCR	1	0
19	A	1139	CLA	2	0
19	1	606	CLA	1	0
19	A	1134	CLA	1	0
19	4	601	CLA	1	0
23	3	630	LHG	1	0
19	A	1135	CLA	2	0
19	A	1022	CLA	8	0
24	A	5002	LMG	2	0
19	B	1212	CLA	1	0
23	A	5001	LHG	3	0
19	L	303	CLA	4	0
28	3	621	LUT	2	0
23	2	630	LHG	2	0
19	3	602	CLA	3	0
19	A	1119	CLA	2	0
19	A	1137	CLA	3	0
28	2	623	LUT	2	0
19	A	1131	CLA	2	0
22	L	420	BCR	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
28	3	620	LUT	7	0
19	K	201	CLA	1	0
22	A	4007	BCR	2	0
19	3	613	CLA	2	0
22	B	4017	BCR	6	0
19	B	1221	CLA	5	0
27	2	608	CHL	3	0
19	A	1115	CLA	1	0
19	A	1114	CLA	2	0
19	A	1124	CLA	3	0
19	A	1132	CLA	4	0
28	1	620	LUT	3	0
19	A	1130	CLA	3	0
19	B	1235	CLA	2	0
19	4	602	CLA	2	0
19	A	1118	CLA	4	0
19	B	1230	CLA	3	0
19	4	610	CLA	3	0
19	A	1113	CLA	1	0
23	1	630	LHG	1	0
28	4	620	LUT	4	0
19	B	1236	CLA	1	0
19	3	617	CLA	1	0
19	F	301	CLA	4	0
19	A	1140	CLA	4	0
28	1	621	LUT	5	0
19	B	1213	CLA	3	0
19	A	1105	CLA	1	0
19	B	1021	CLA	3	0
19	3	607	CLA	1	0
22	A	4001	BCR	1	0
19	2	604	CLA	1	0
19	A	1102	CLA	4	0
22	J	212	BCR	1	0
19	B	1202	CLA	6	0
19	A	8895	CLA	3	0
19	1	603	CLA	4	0
22	B	4010	BCR	5	0
19	A	1116	CLA	4	0
22	A	4011	BCR	1	0
27	1	601	CHL	1	0
22	G	311	BCR	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	B	1210	CLA	6	0
19	B	1237	CLA	8	0
22	B	4014	BCR	7	0
19	2	609	CLA	1	0
19	B	1209	CLA	2	0
22	I	120	BCR	5	0
18	A	1011	CL0	6	0
19	A	1013	CLA	2	0
19	B	1206	CLA	4	0
19	A	1128	CLA	5	0
22	I	118	BCR	1	0
22	K	301	BCR	1	0
25	A	5004	LMT	1	0
19	A	1103	CLA	4	0
19	A	1138	CLA	5	0
27	2	602	CHL	2	0
19	A	1106	CLA	2	0
19	L	302	CLA	5	0
19	L	301	CLA	1	0
19	B	1226	CLA	3	0
27	1	607	CHL	2	0
19	A	1111	CLA	6	0
19	A	1122	CLA	4	0
19	H	200	CLA	2	0
19	A	1107	CLA	1	0
19	A	1104	CLA	5	0
28	4	621	LUT	2	0
19	B	1239	CLA	2	0
19	B	1240	CLA	2	0
19	1	610	CLA	1	0
19	A	1133	CLA	2	0
19	B	1215	CLA	2	0
22	L	419	BCR	3	0
23	4	630	LHG	2	0
27	2	601	CHL	7	0
26	B	5002	DGD	5	0
22	F	416	BCR	2	0
25	1	631	LMT	2	0
19	4	603	CLA	4	0
22	J	213	BCR	3	0
22	3	623	BCR	1	0
19	3	609	CLA	4	0

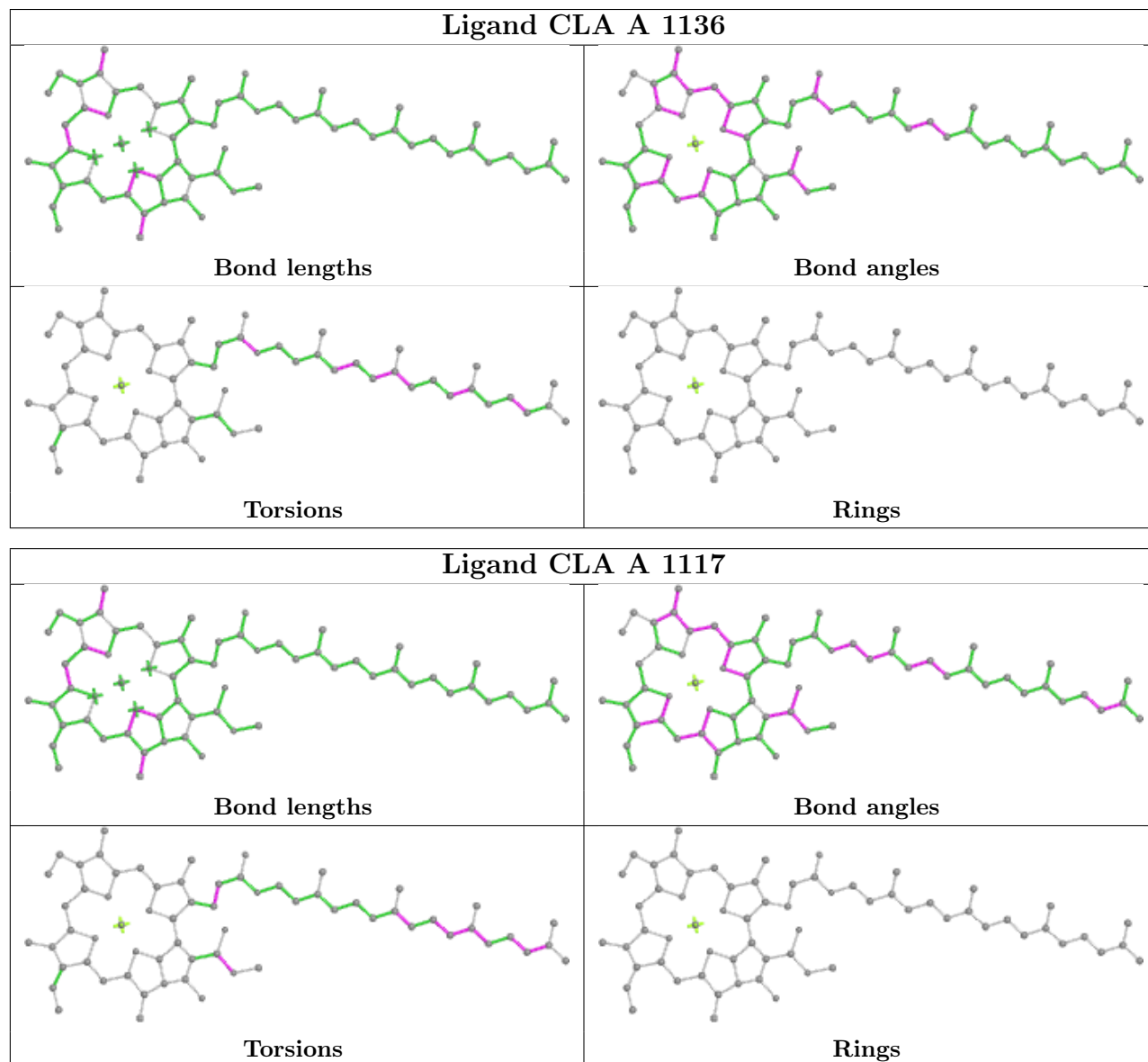
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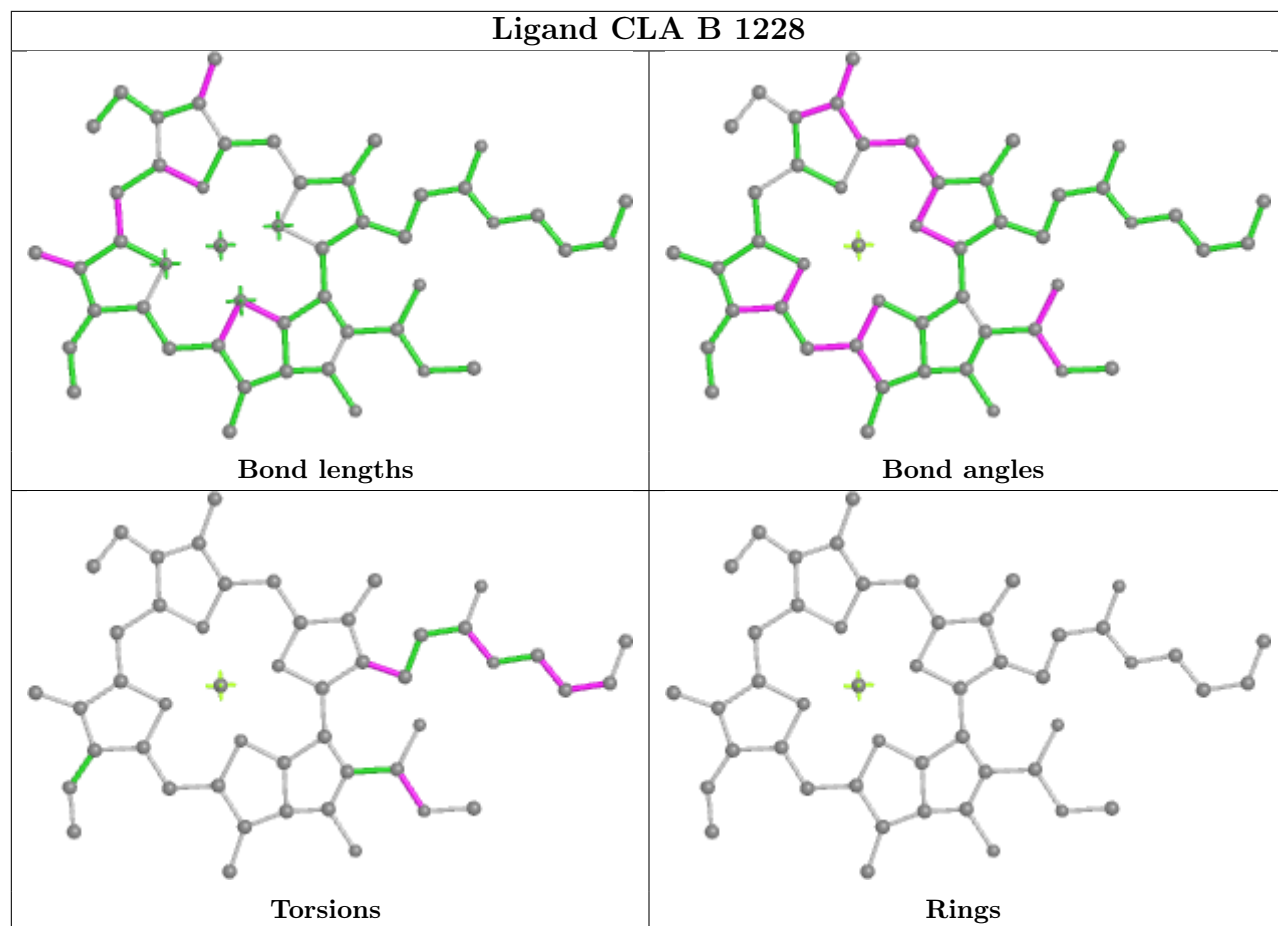
Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	A	1110	CLA	2	0
19	A	1127	CLA	6	0
19	G	202	CLA	1	0
25	G	401	LMT	3	0
25	4	631	LMT	3	0
19	3	606	CLA	1	0
19	B	1203	CLA	4	0
22	A	4008	BCR	2	0
19	A	1120	CLA	1	0
19	A	1101	CLA	2	0
19	A	1109	CLA	2	0
22	3	624	BCR	4	0
19	B	1229	CLA	1	0
20	A	2001	PQN	2	0
22	B	4005	BCR	3	0
19	A	1125	CLA	2	0
19	B	1232	CLA	1	0
19	B	1012	CLA	6	0
19	B	1205	CLA	4	0
19	B	1224	CLA	4	0
19	I	121	CLA	7	0
20	B	2002	PQN	5	0
19	B	1216	CLA	2	0
19	K	204	CLA	2	0
19	B	1204	CLA	5	0
19	B	1214	CLA	3	0
19	3	610	CLA	4	0
22	A	4003	BCR	2	0
27	4	608	CHL	1	0
22	B	4006	BCR	4	0
19	B	1201	CLA	3	0
19	B	1208	CLA	4	0
19	B	1227	CLA	2	0
19	3	604	CLA	1	0
19	A	5005	CLA	4	0
19	3	612	CLA	1	0
19	B	1238	CLA	7	0
19	B	1220	CLA	2	0
19	2	610	CLA	2	0

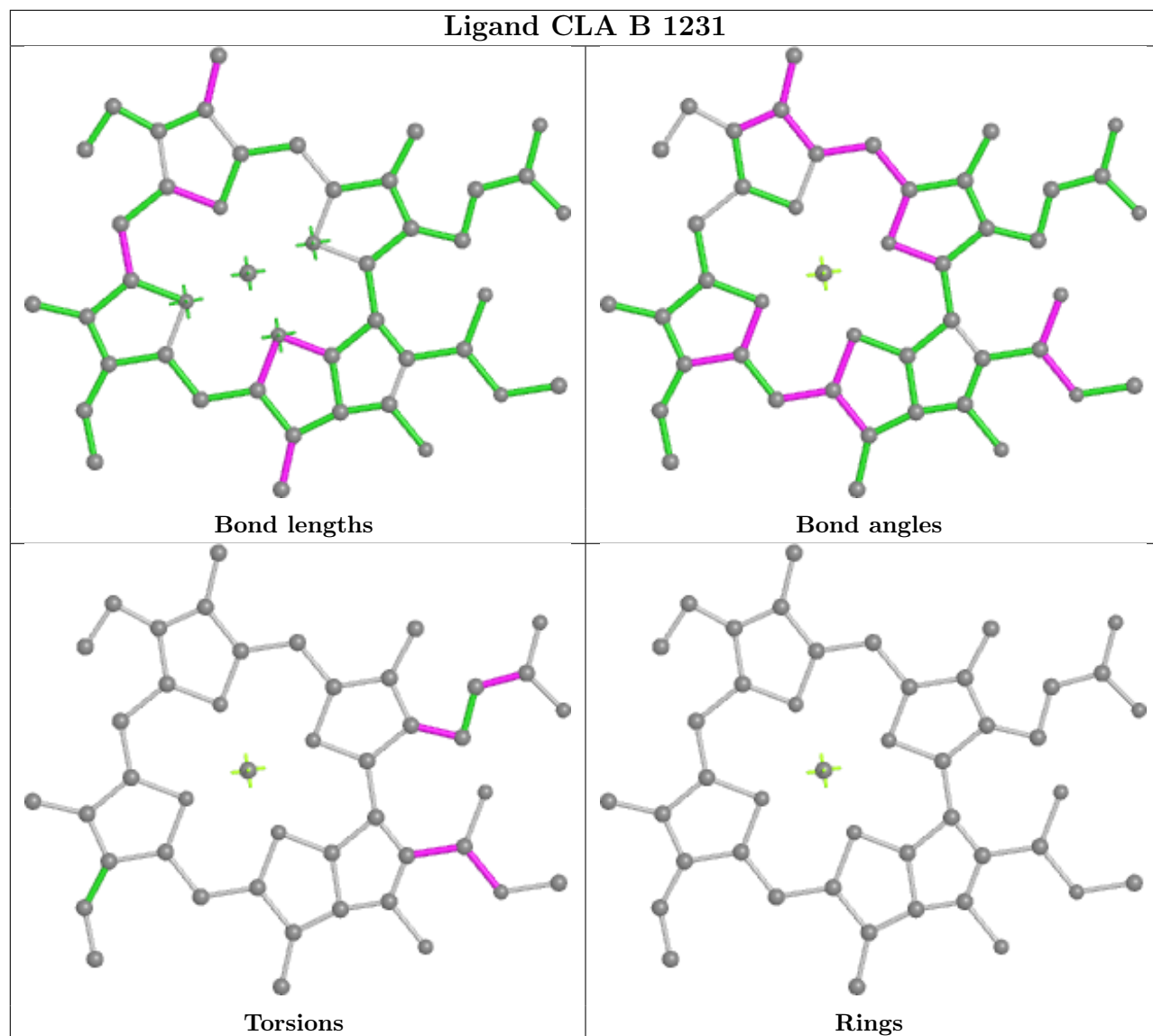
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will

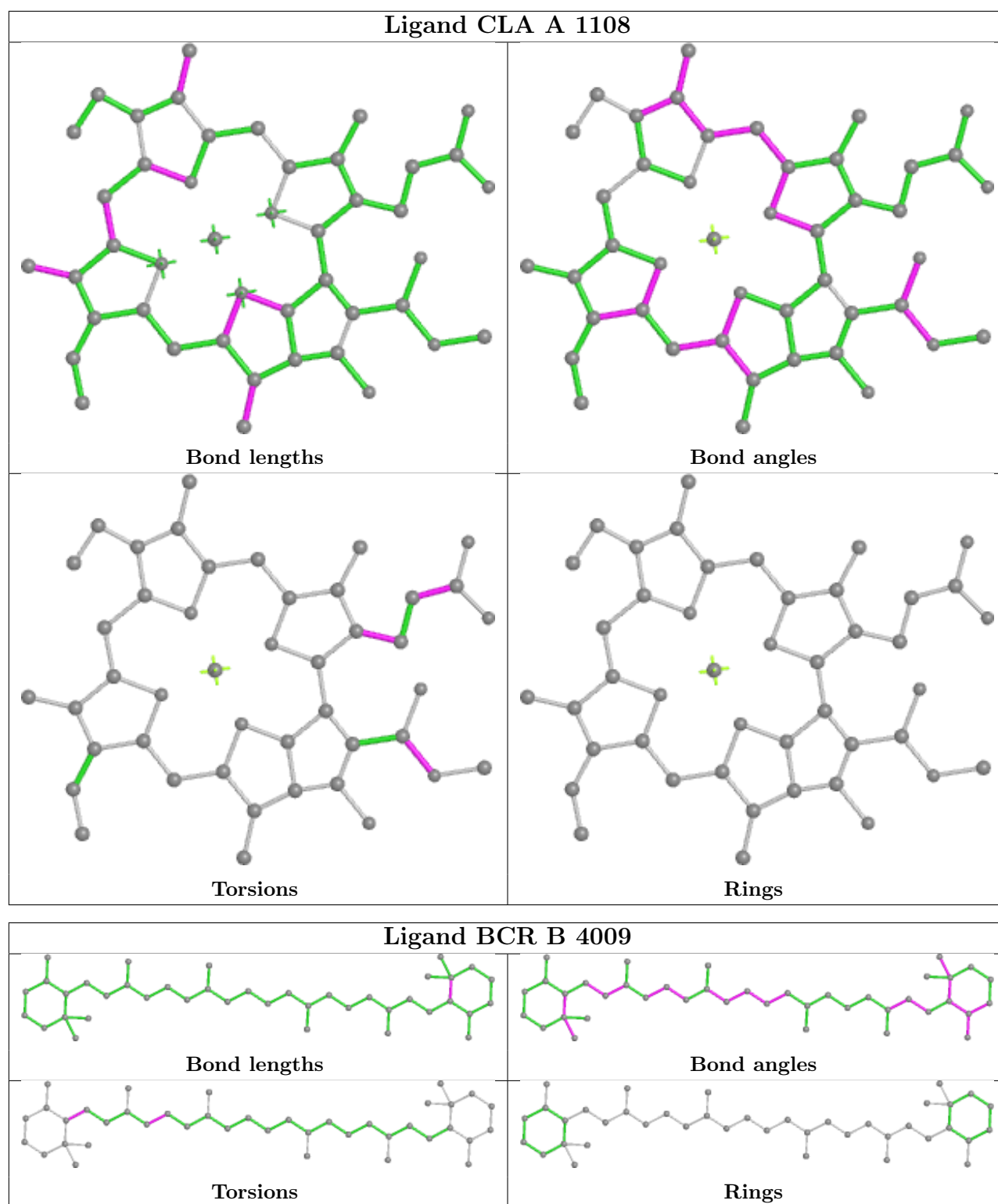
also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted 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.

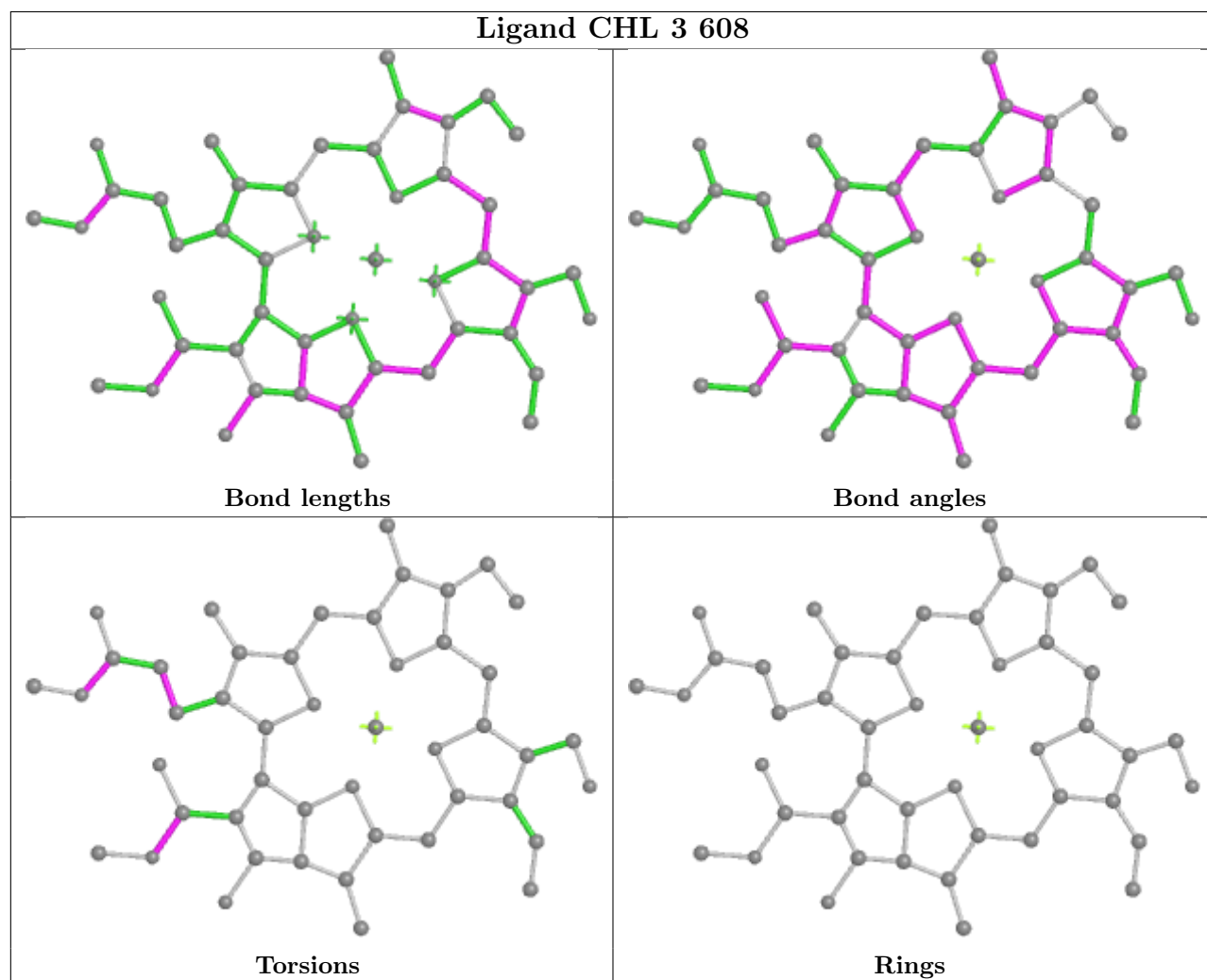
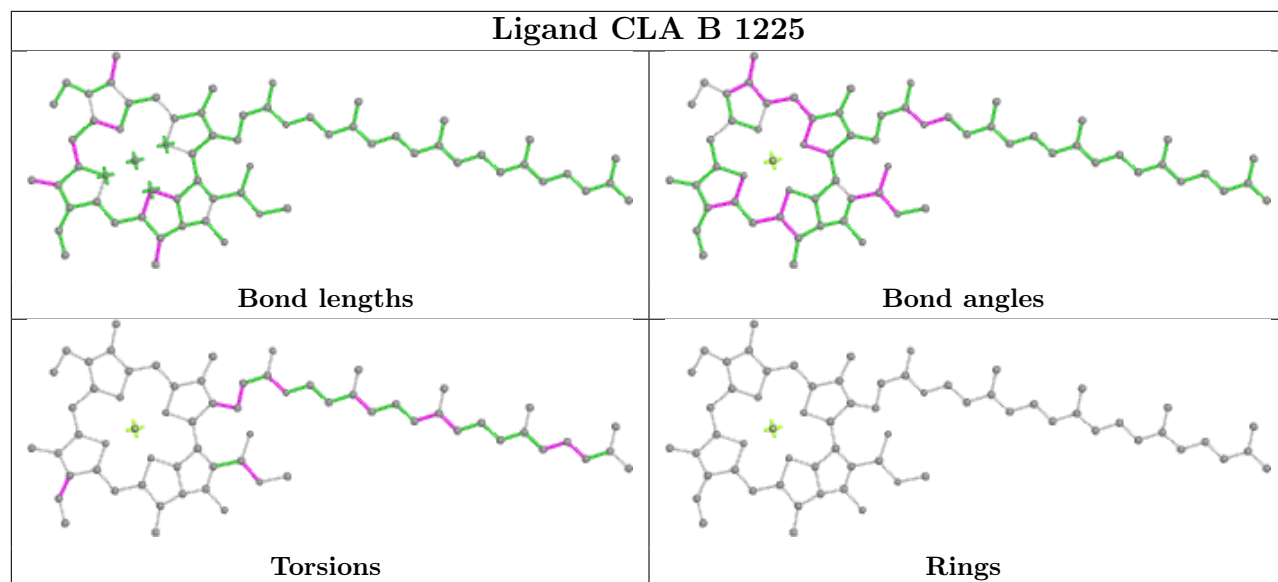


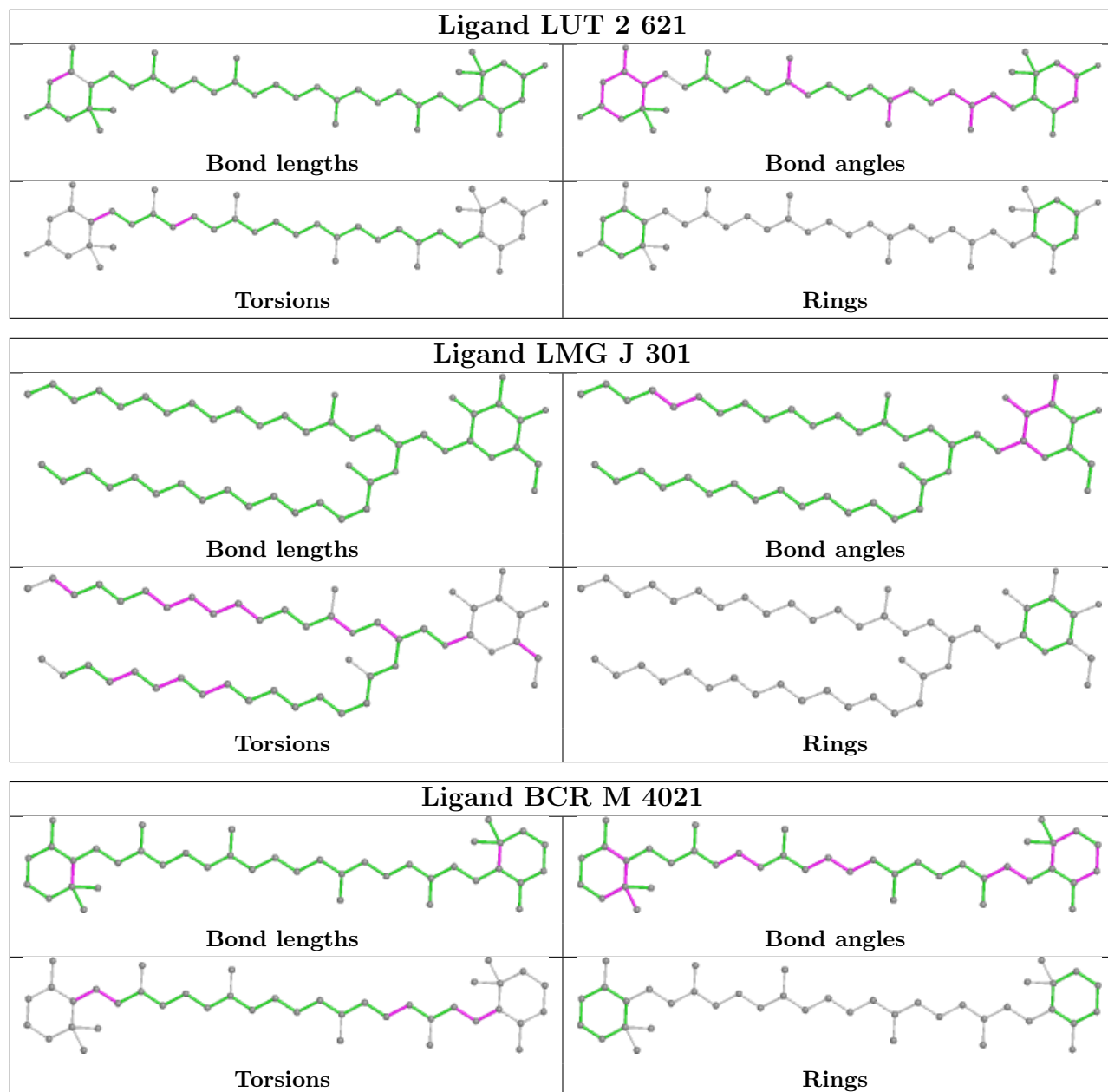


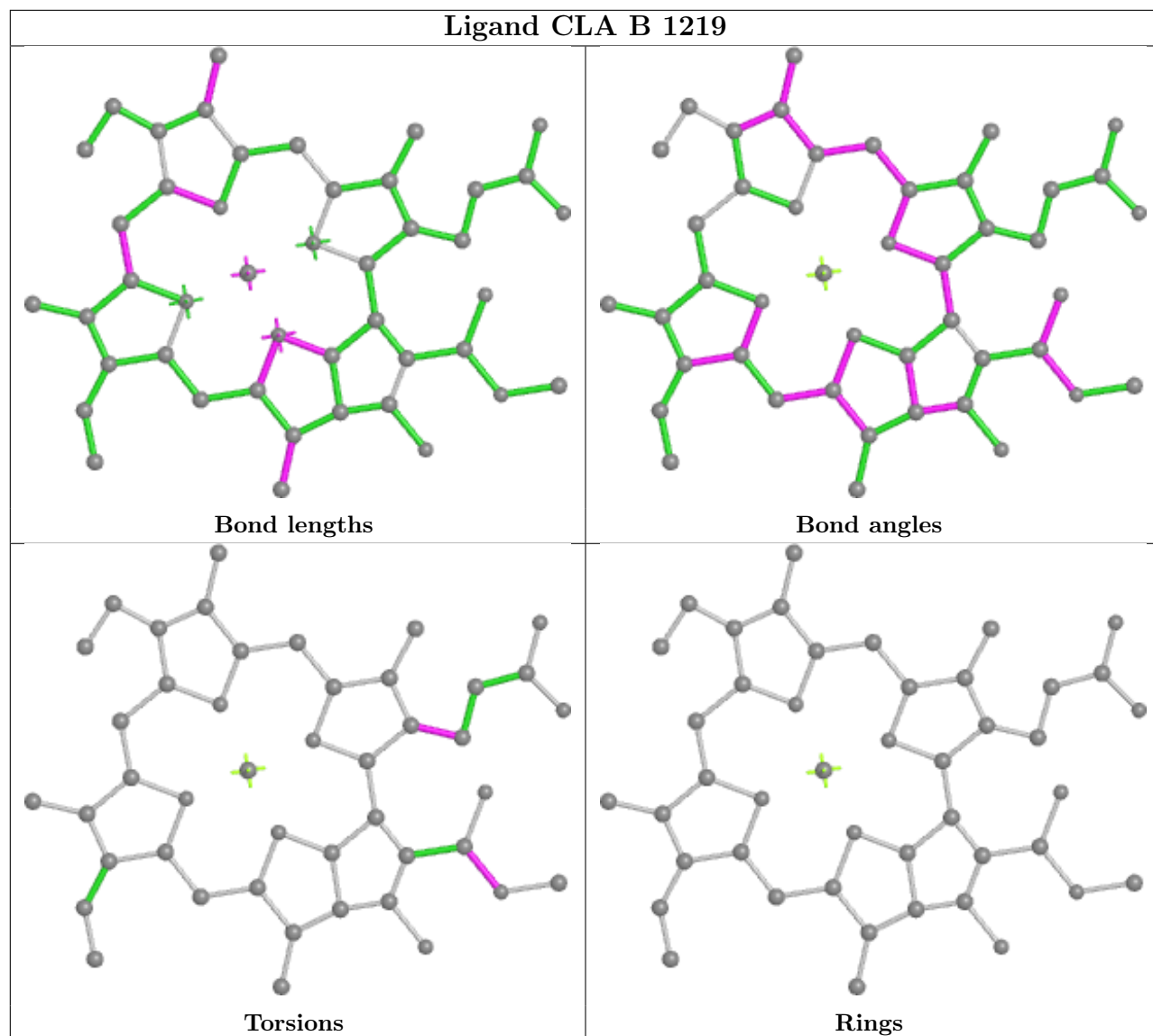


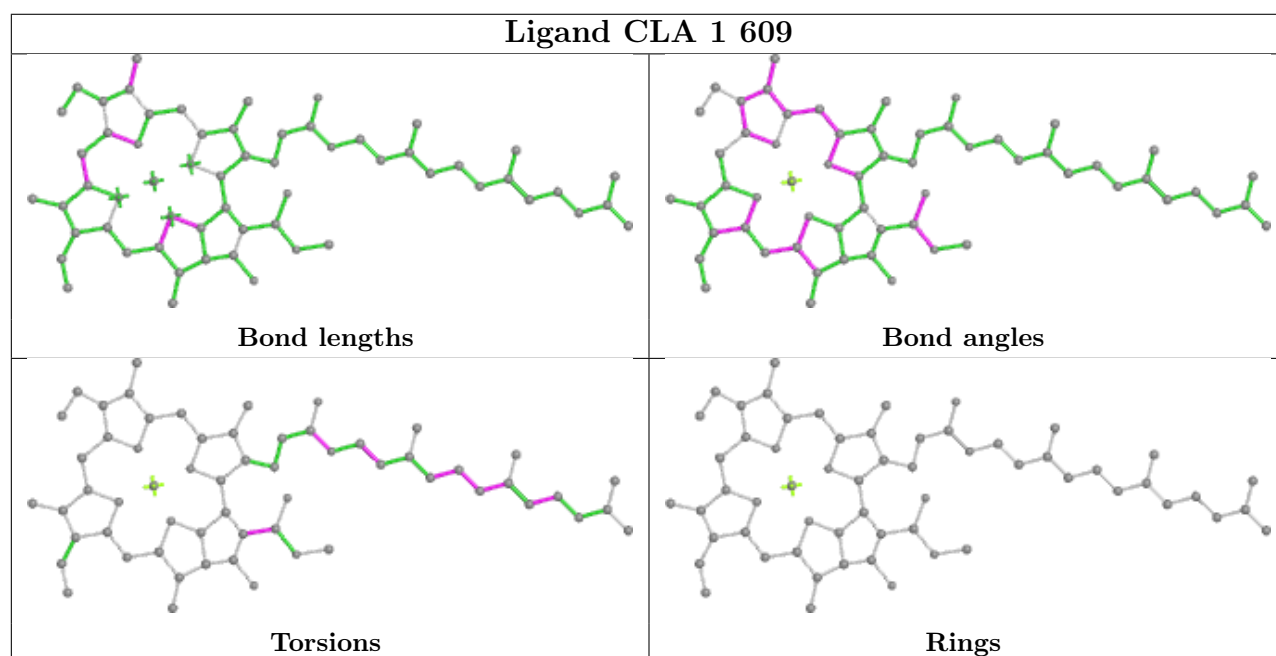
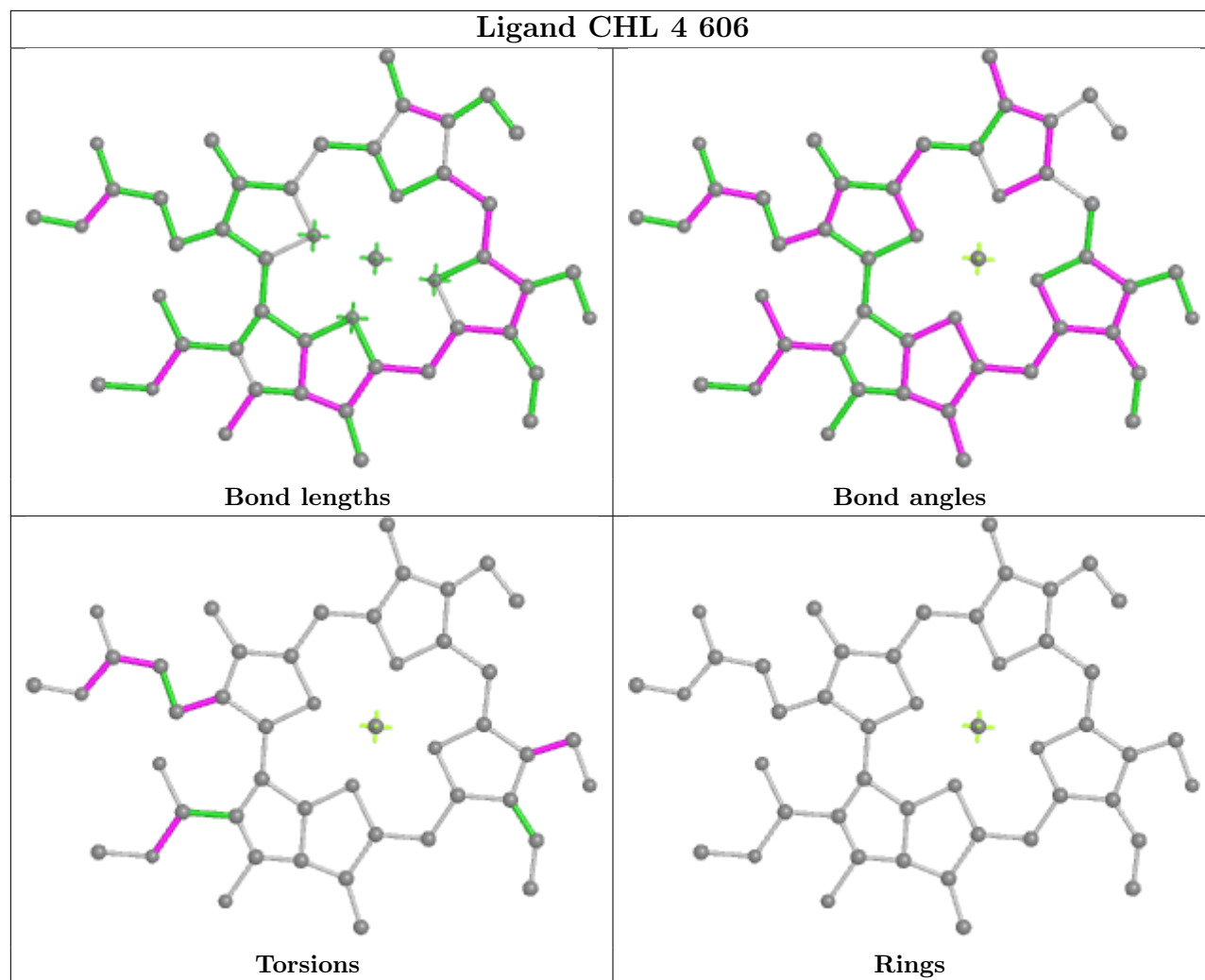


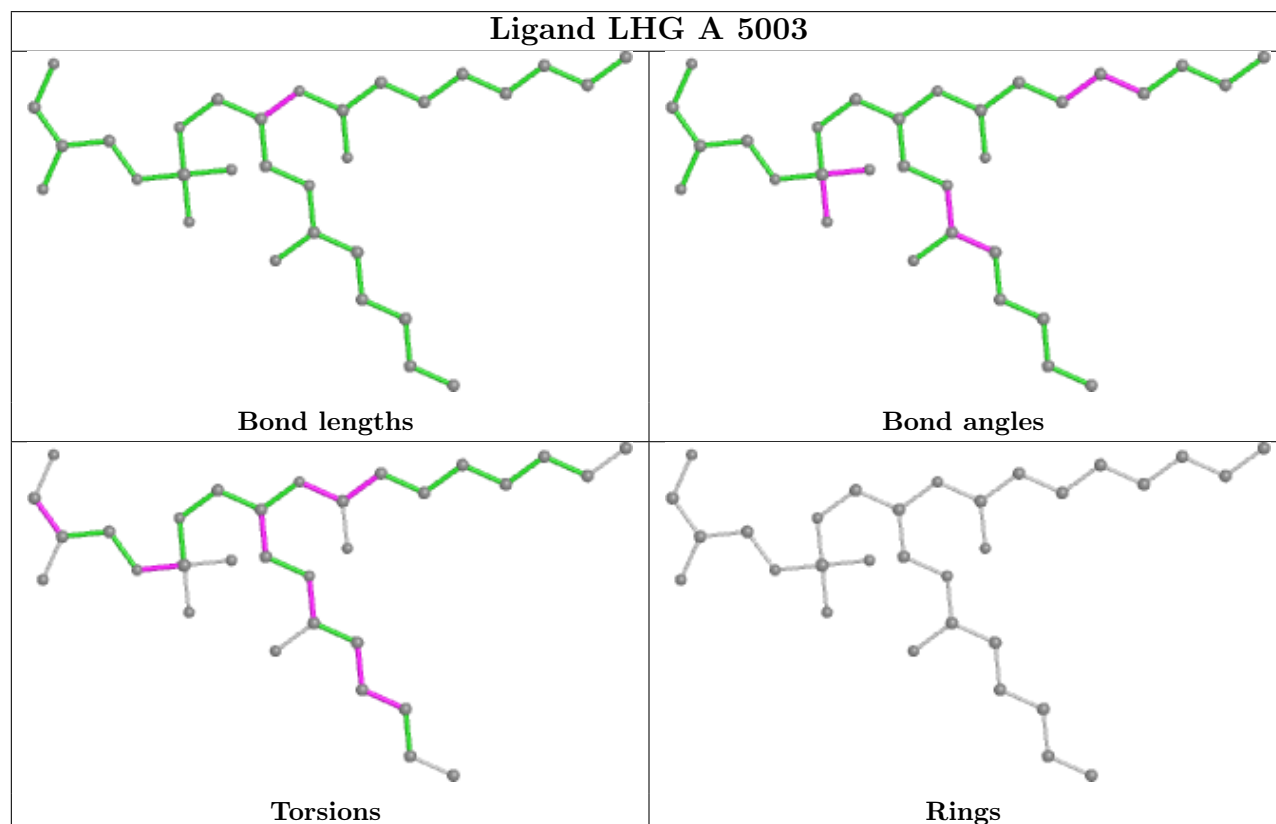
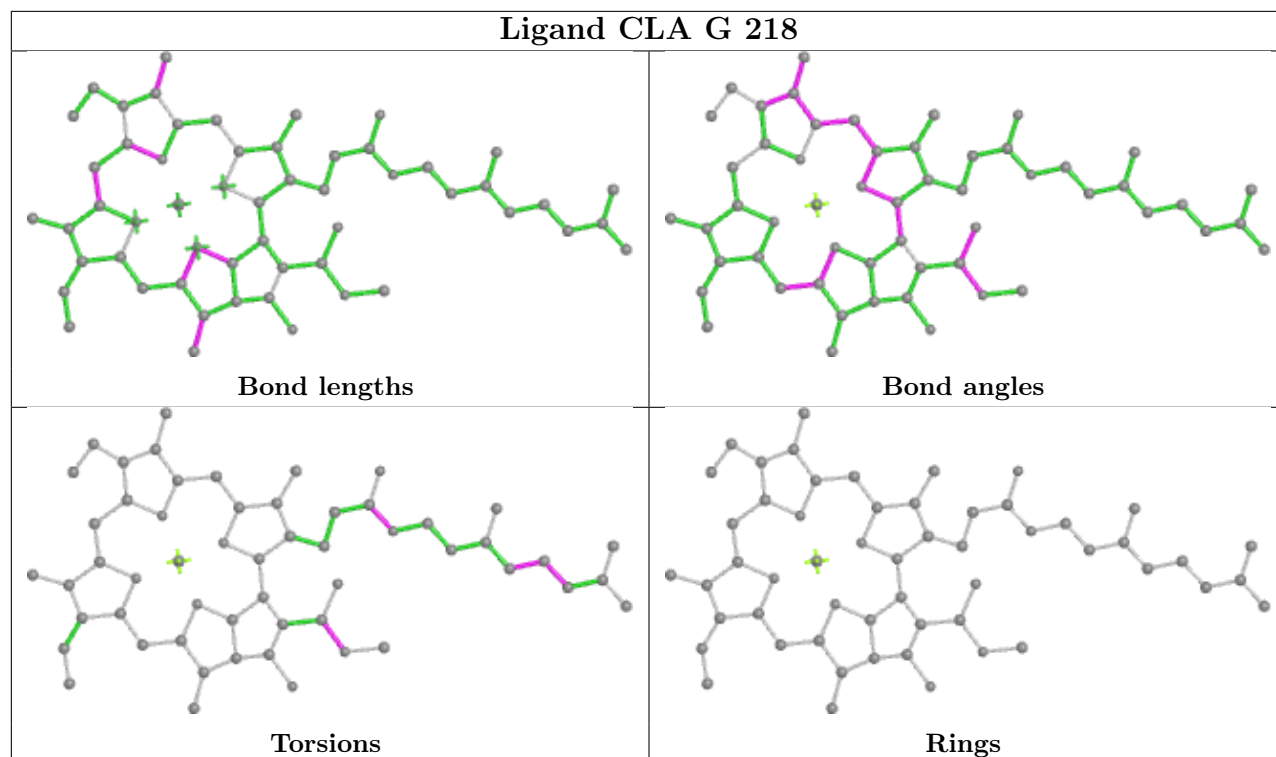




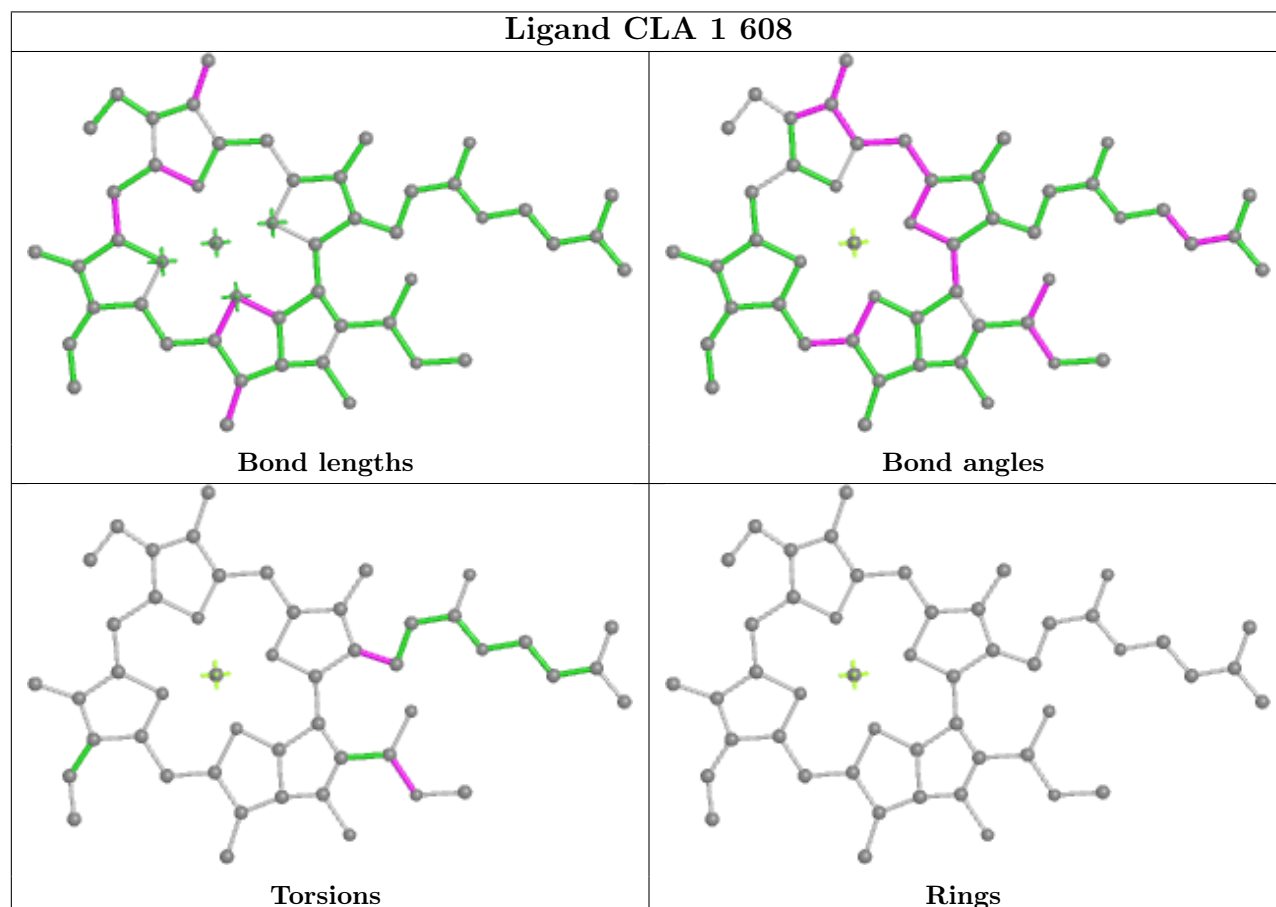
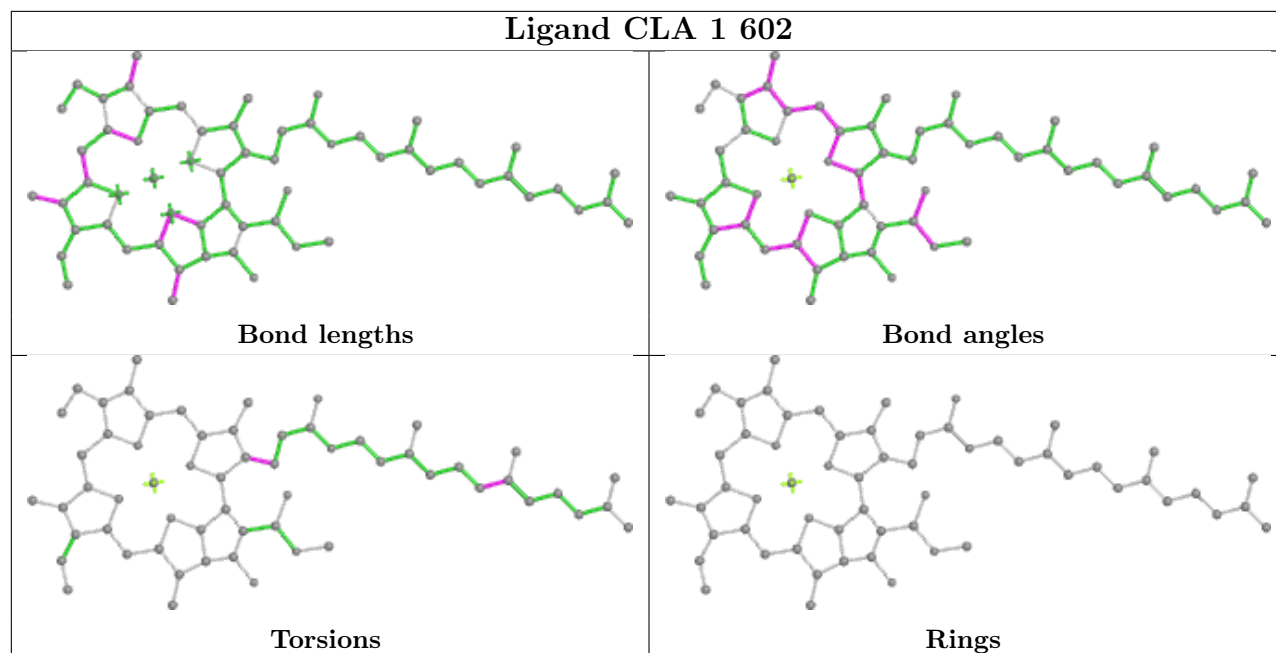


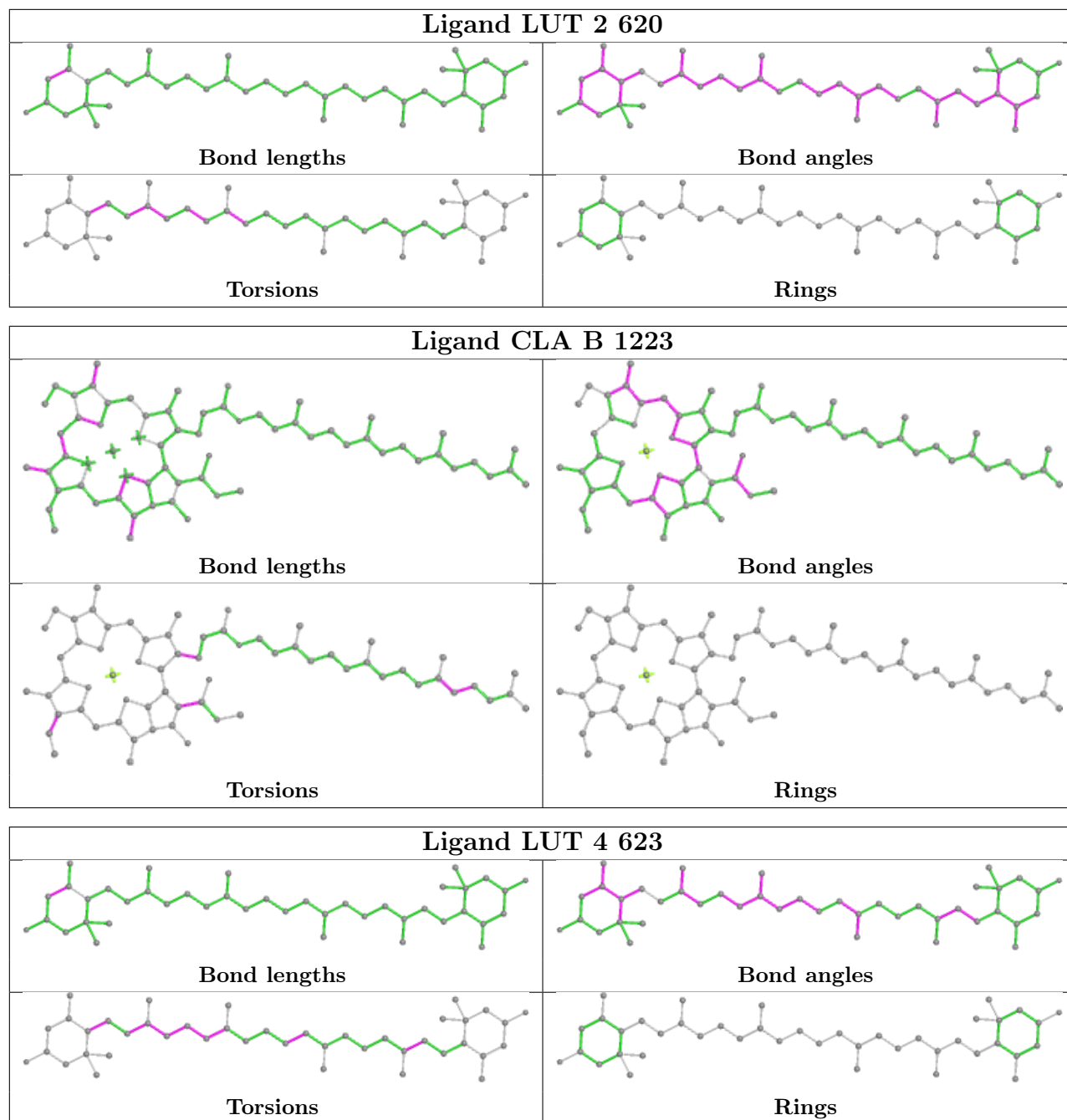


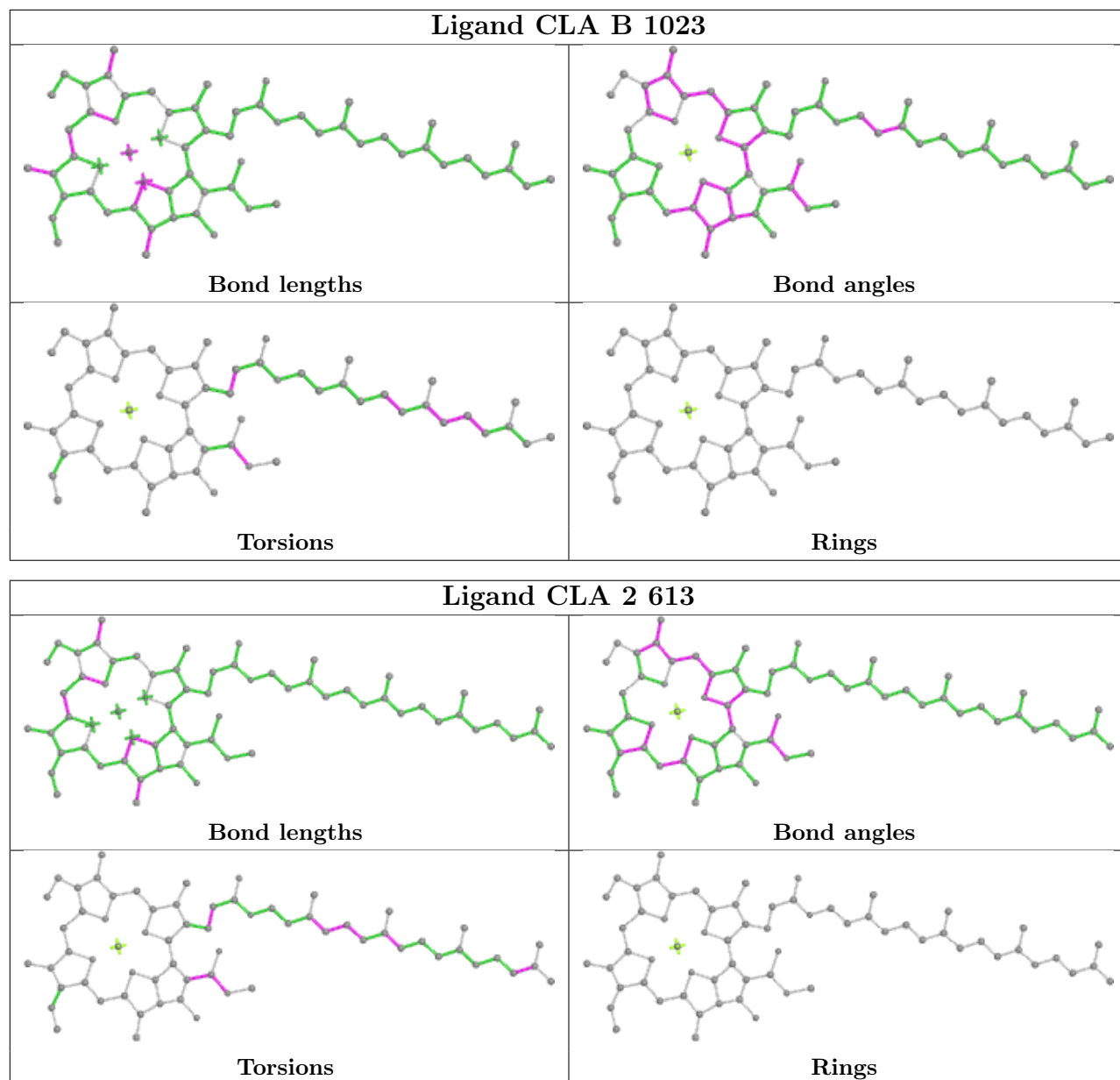


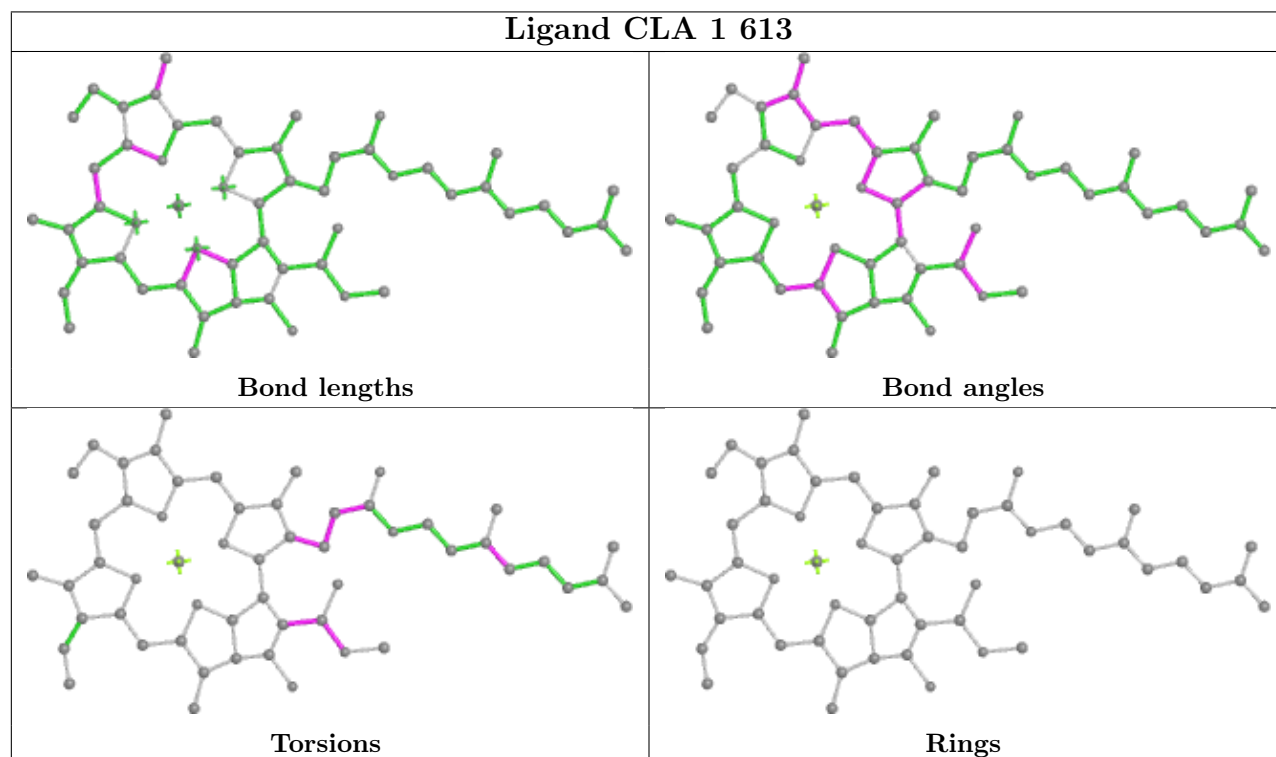
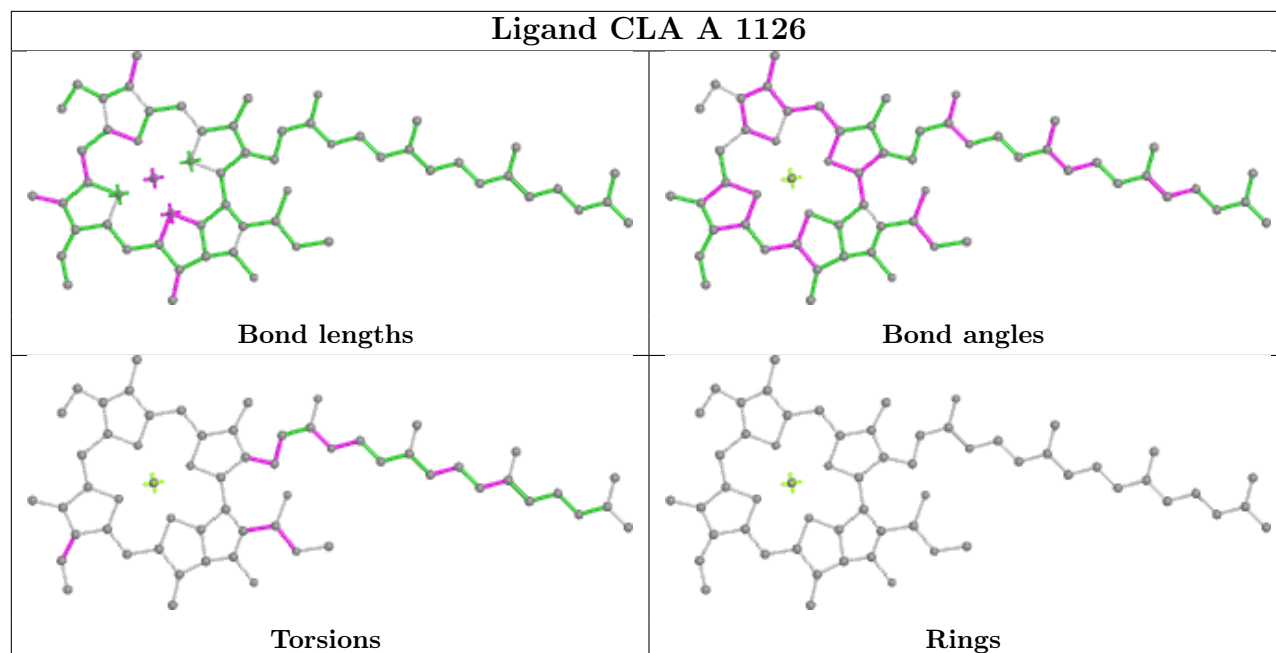


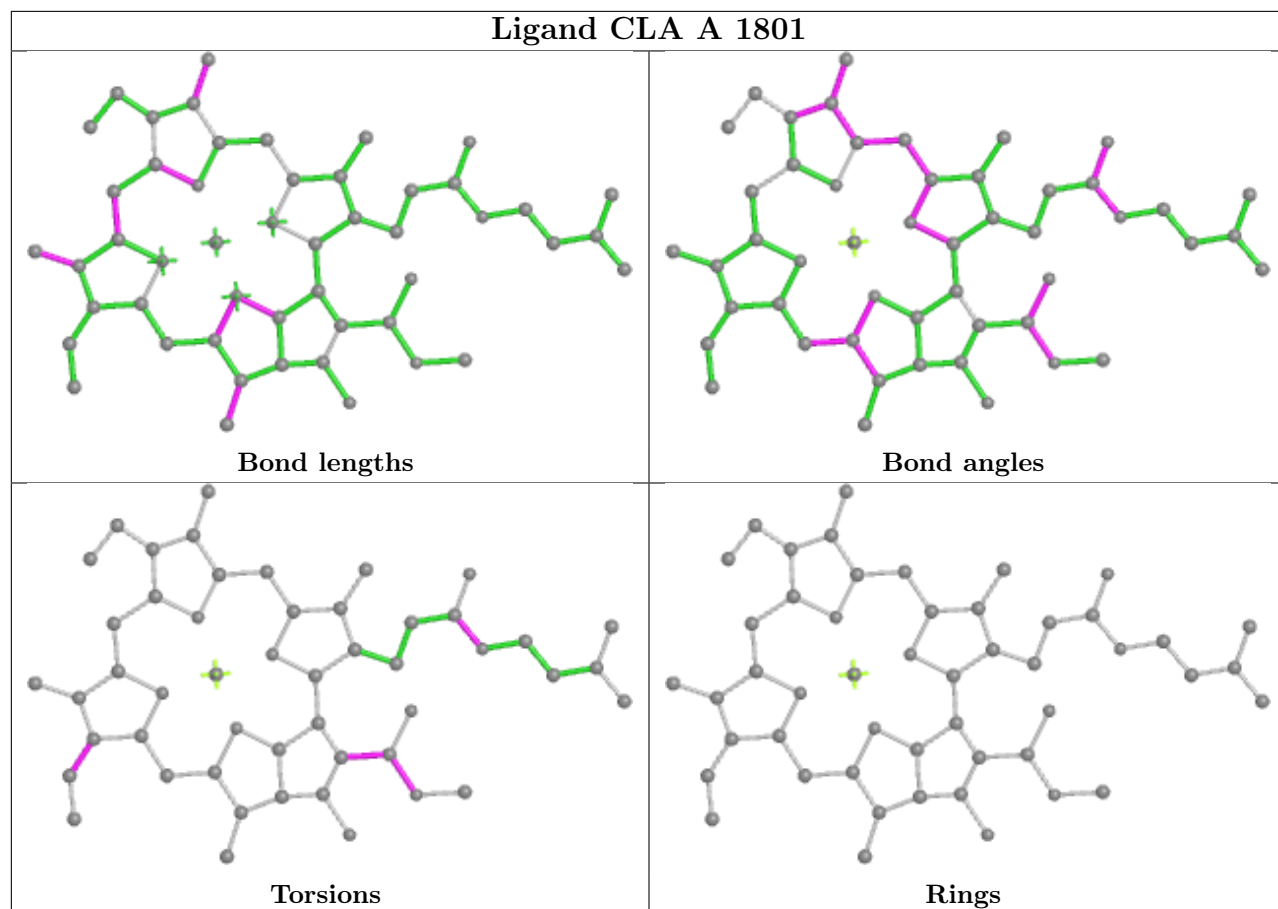


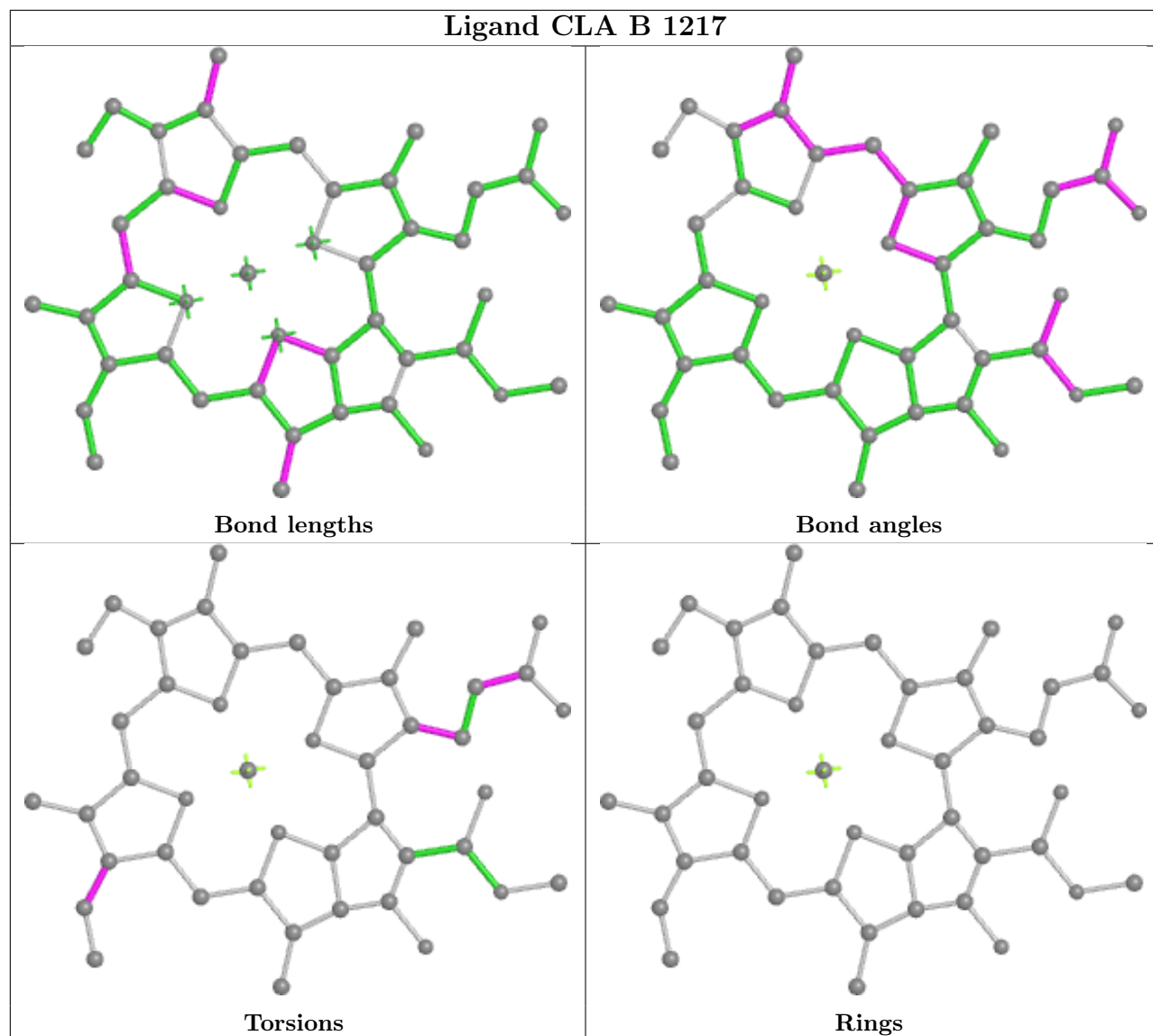


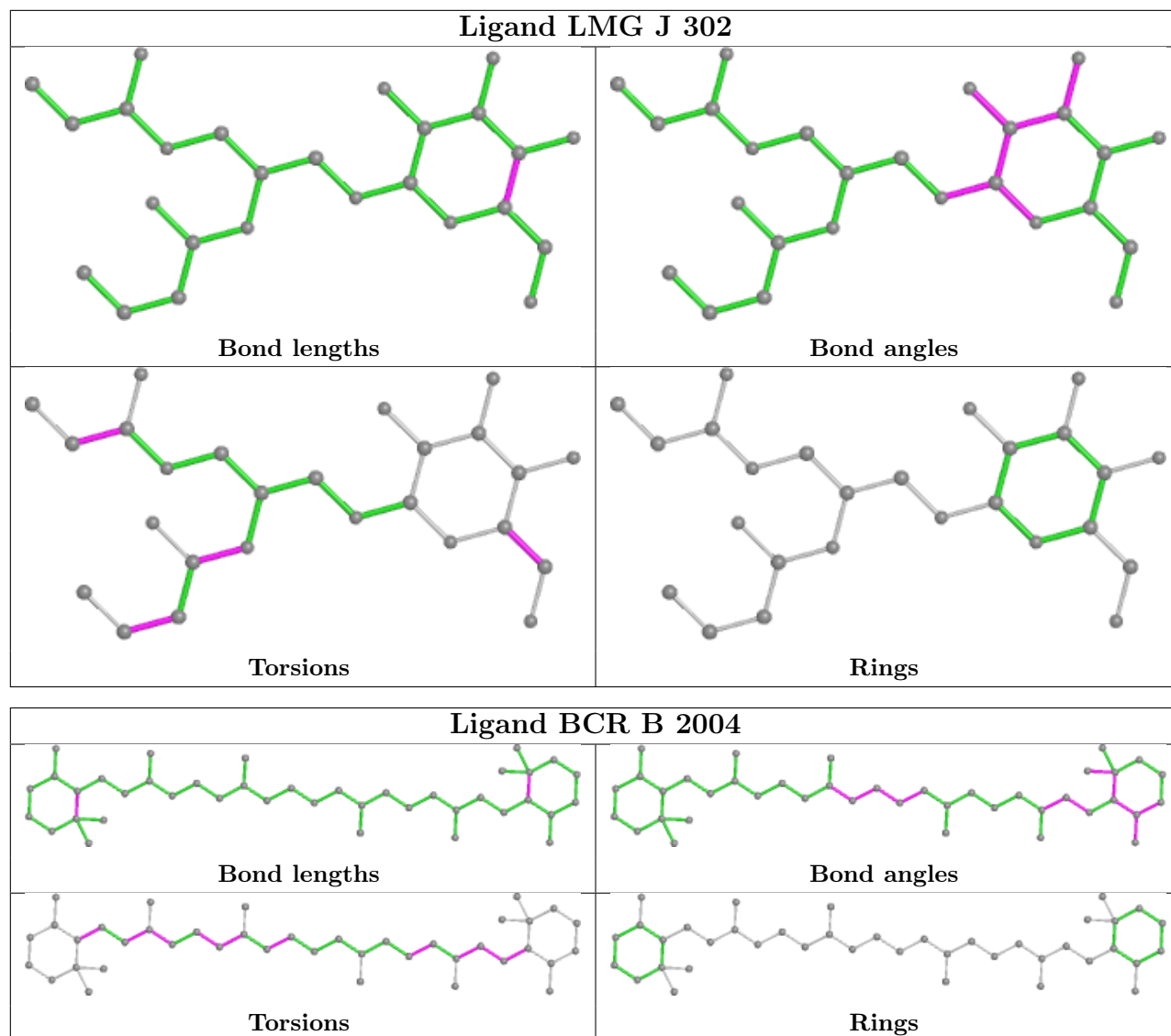


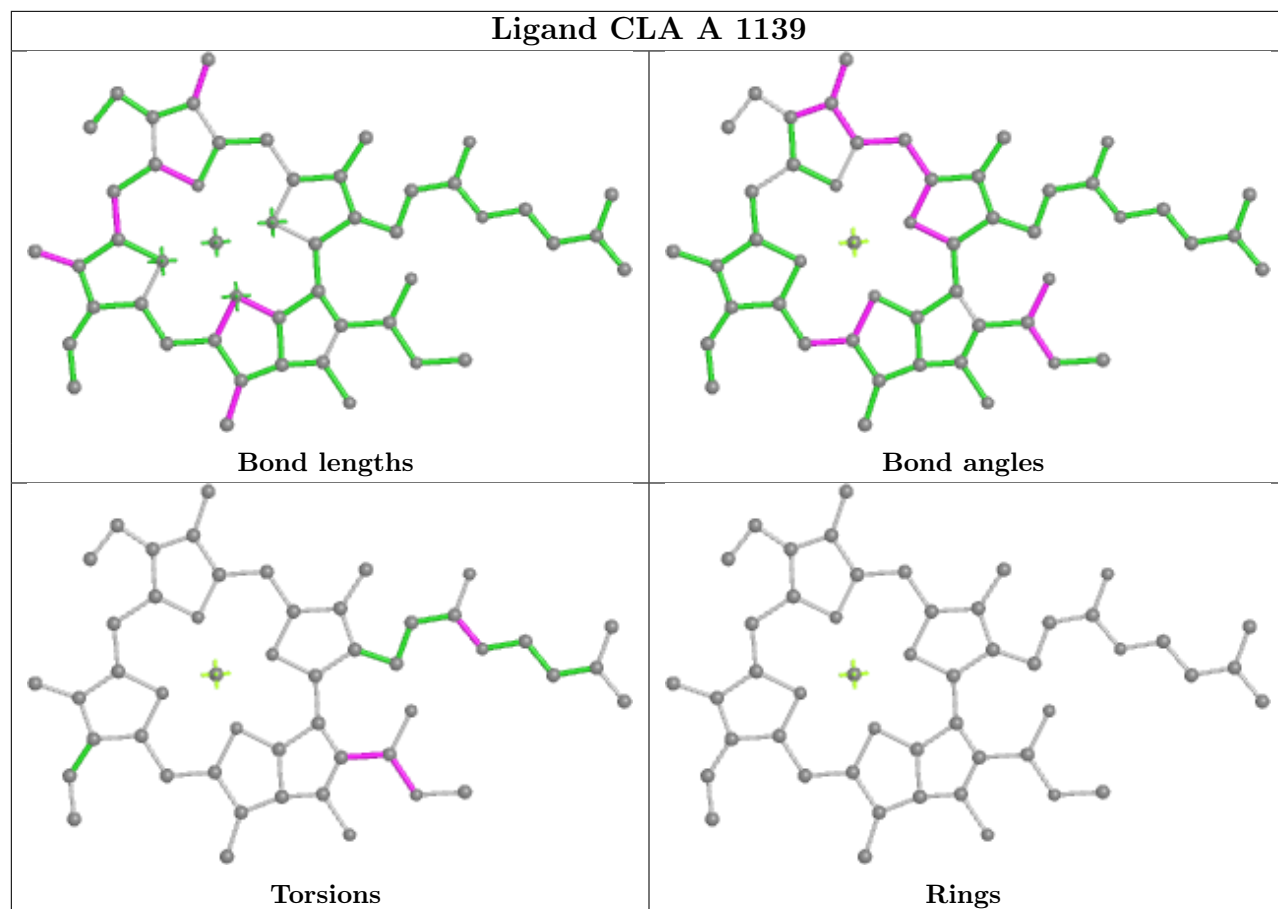




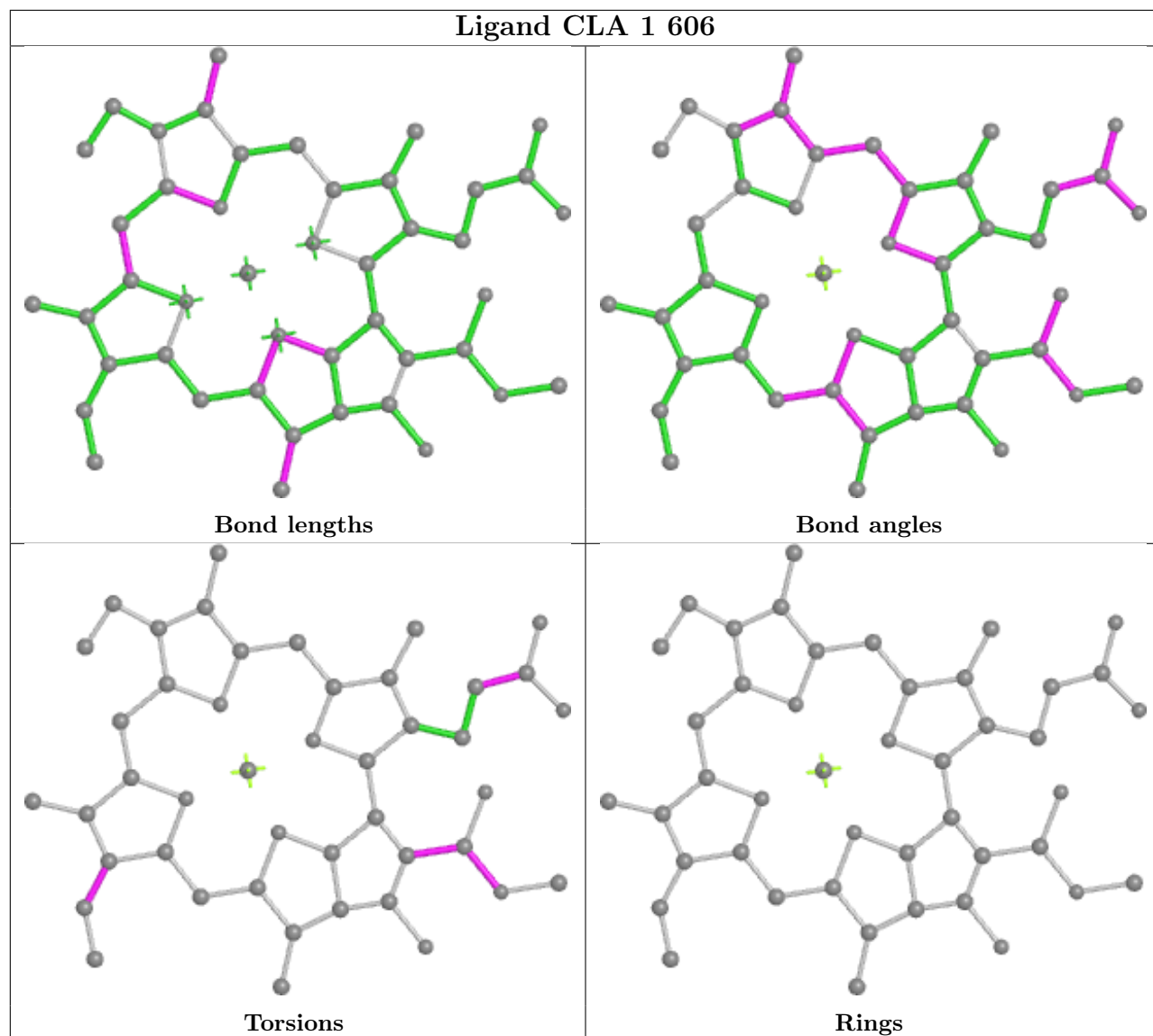


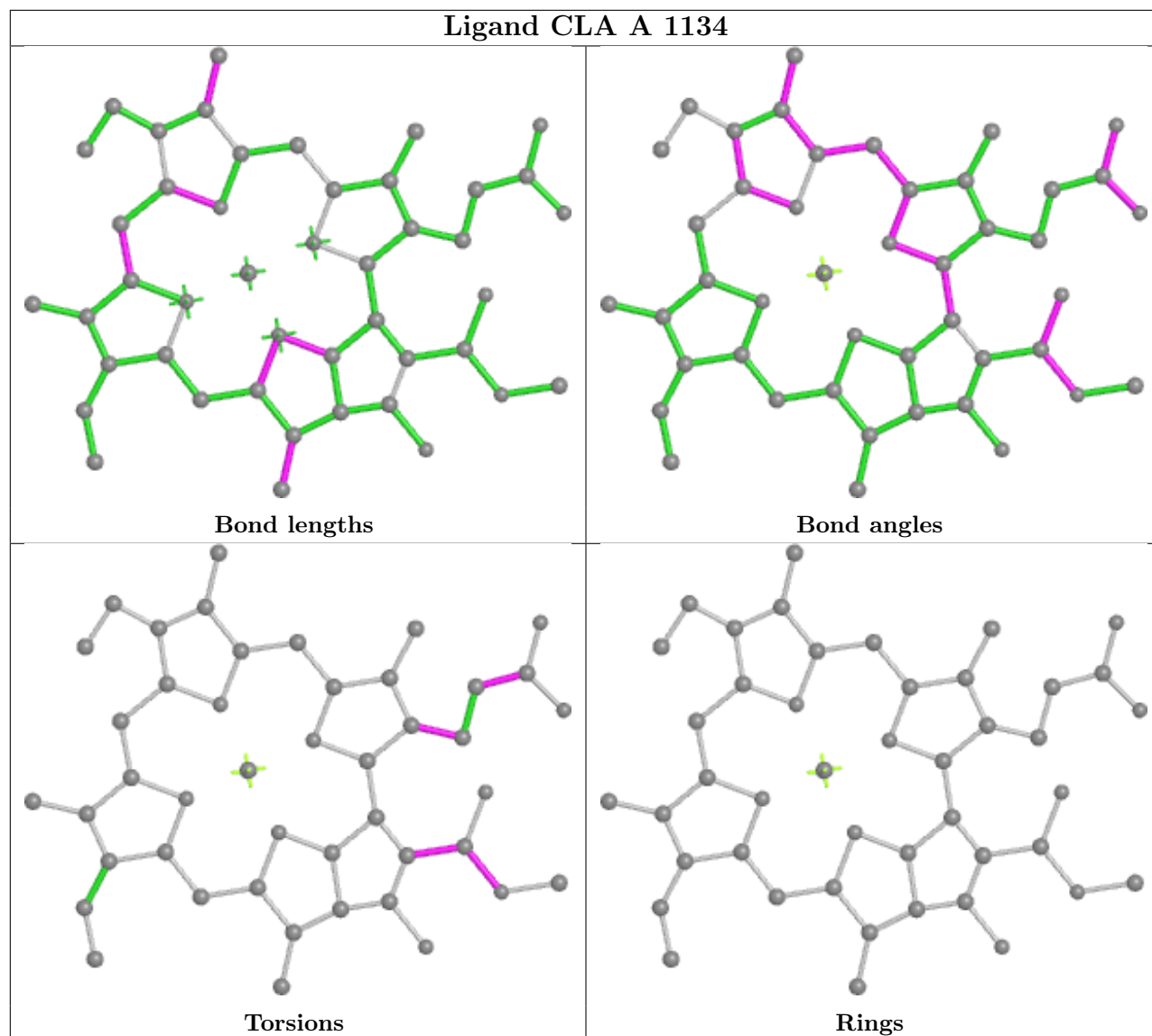


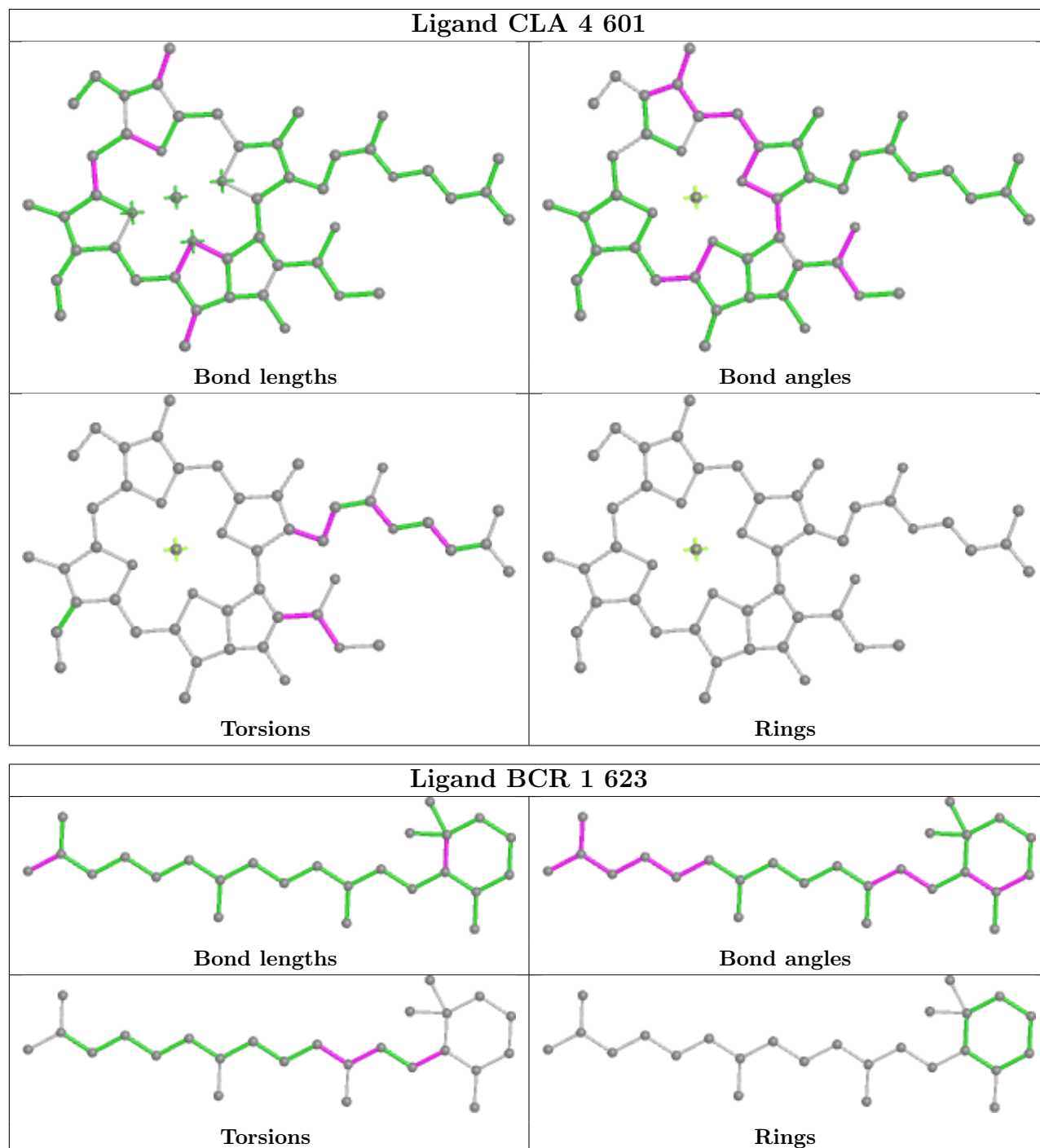


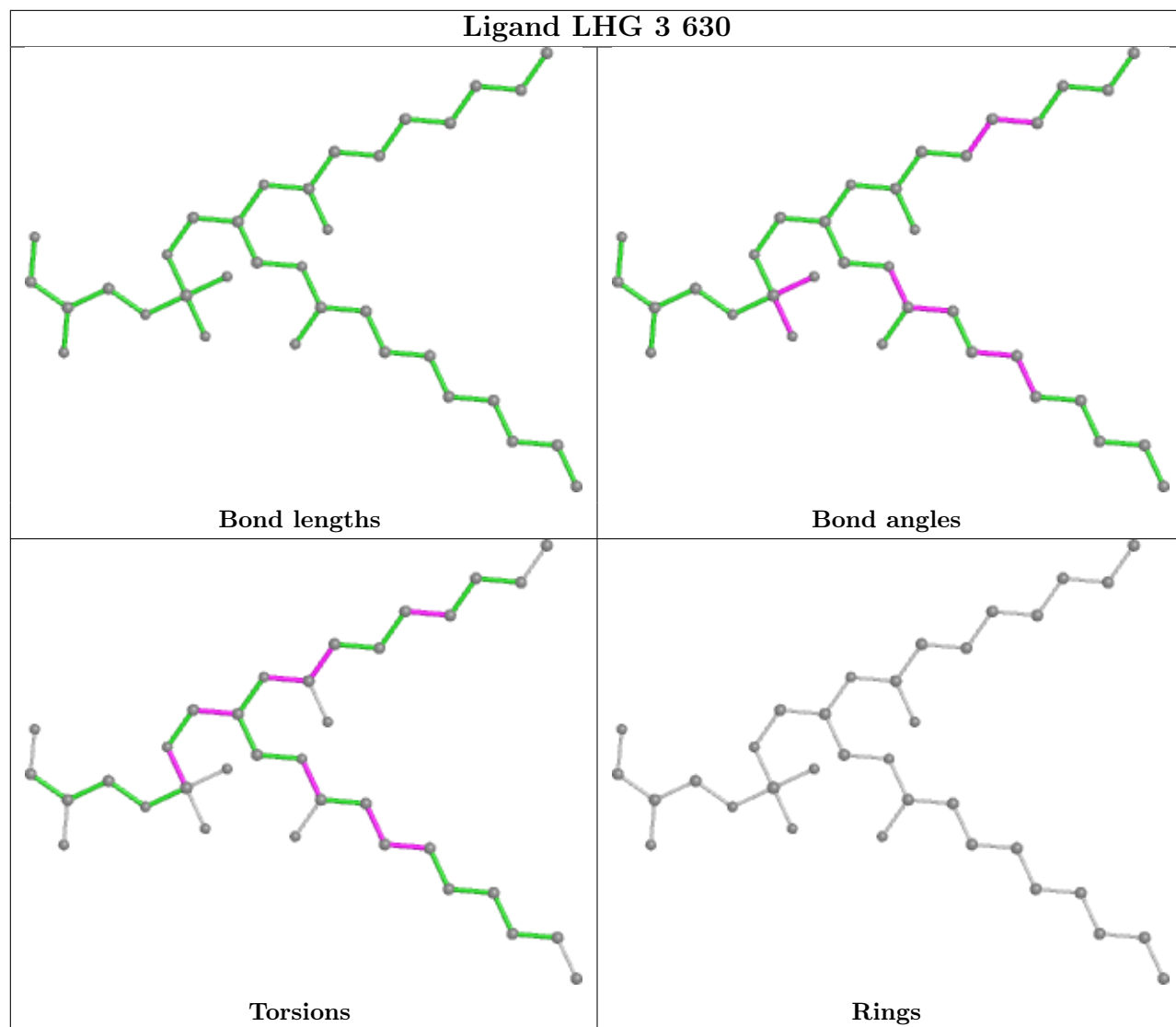


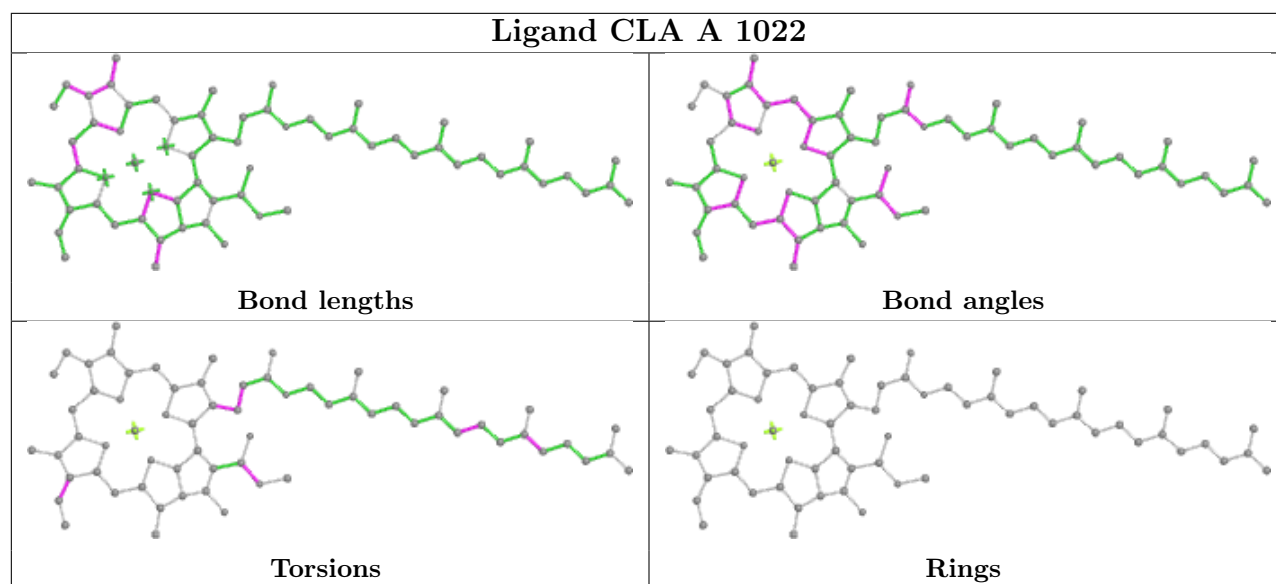
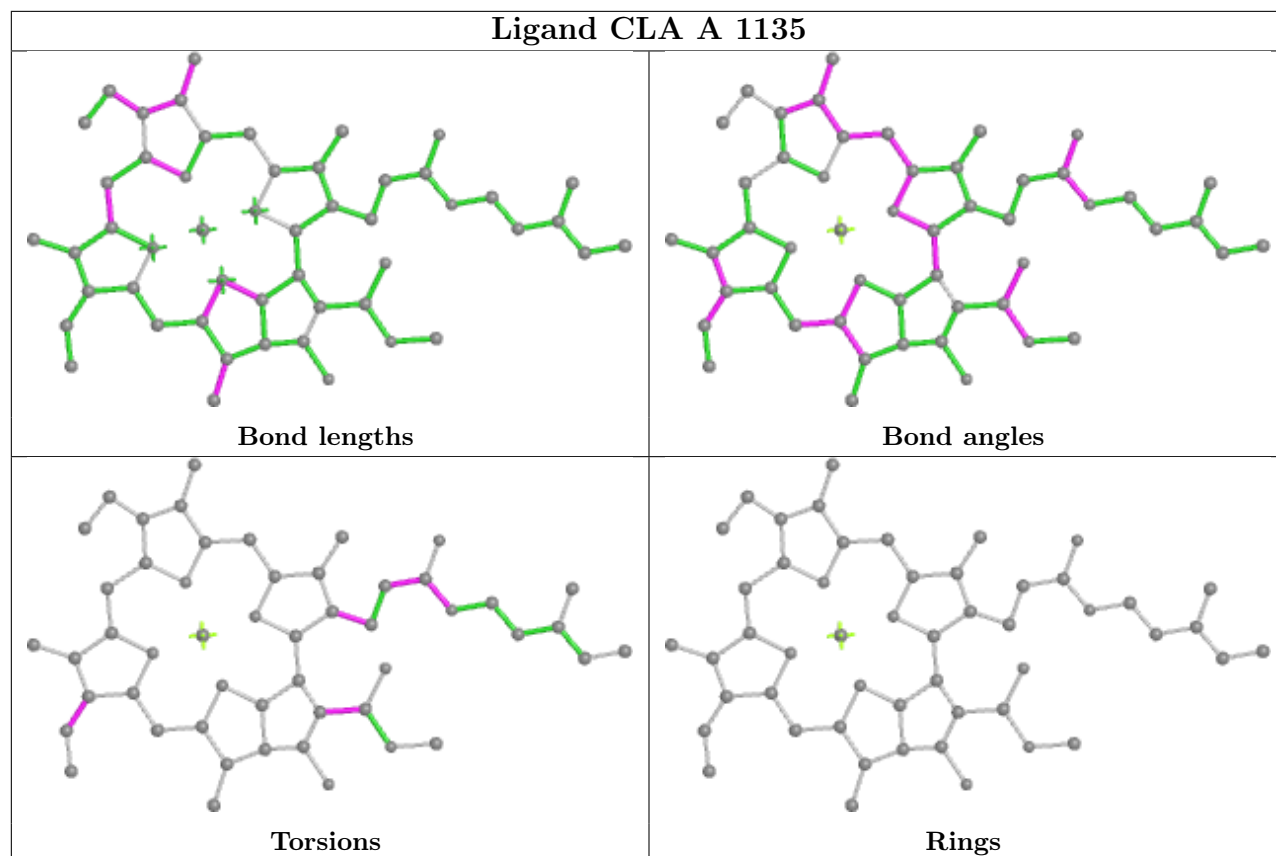


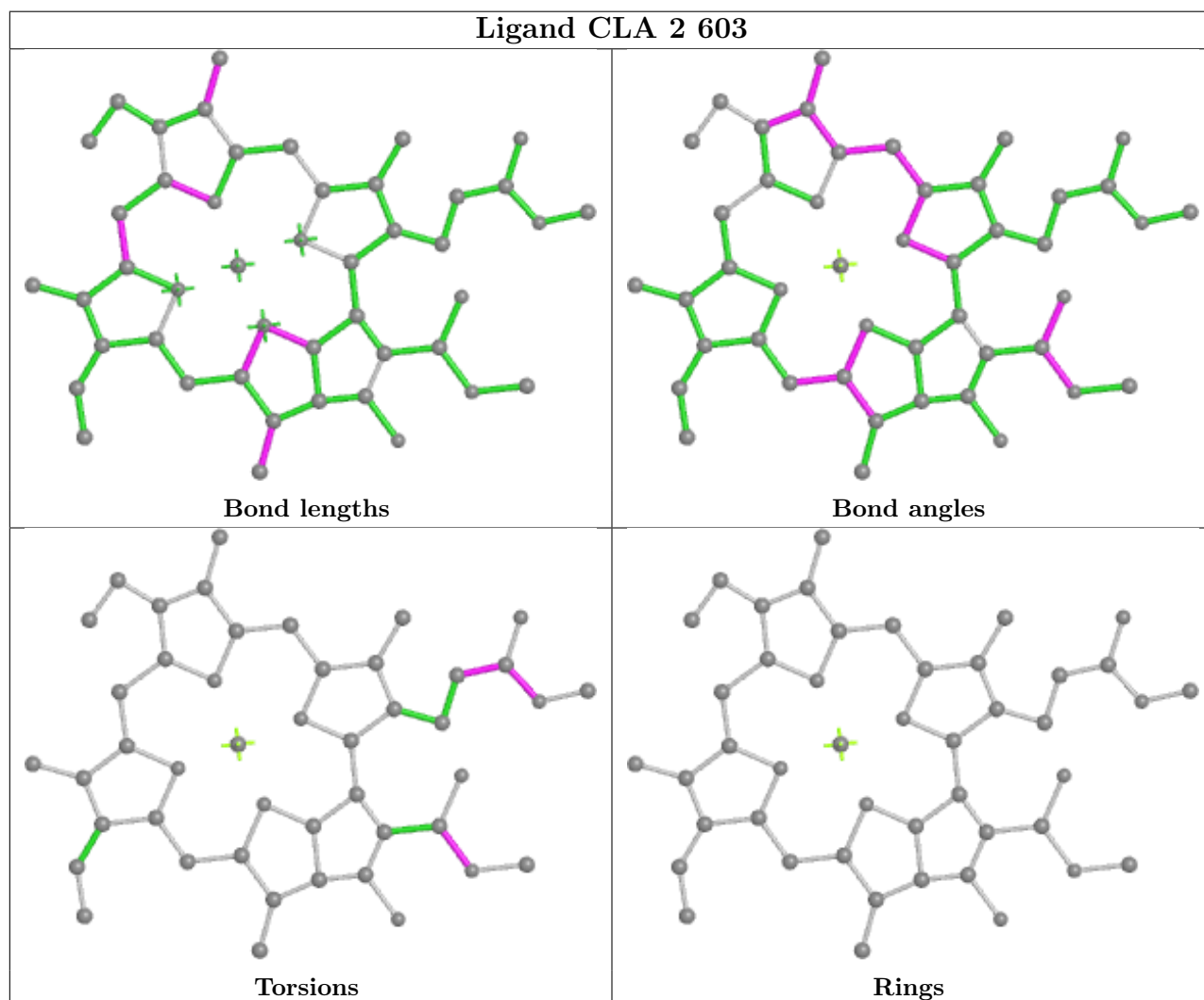
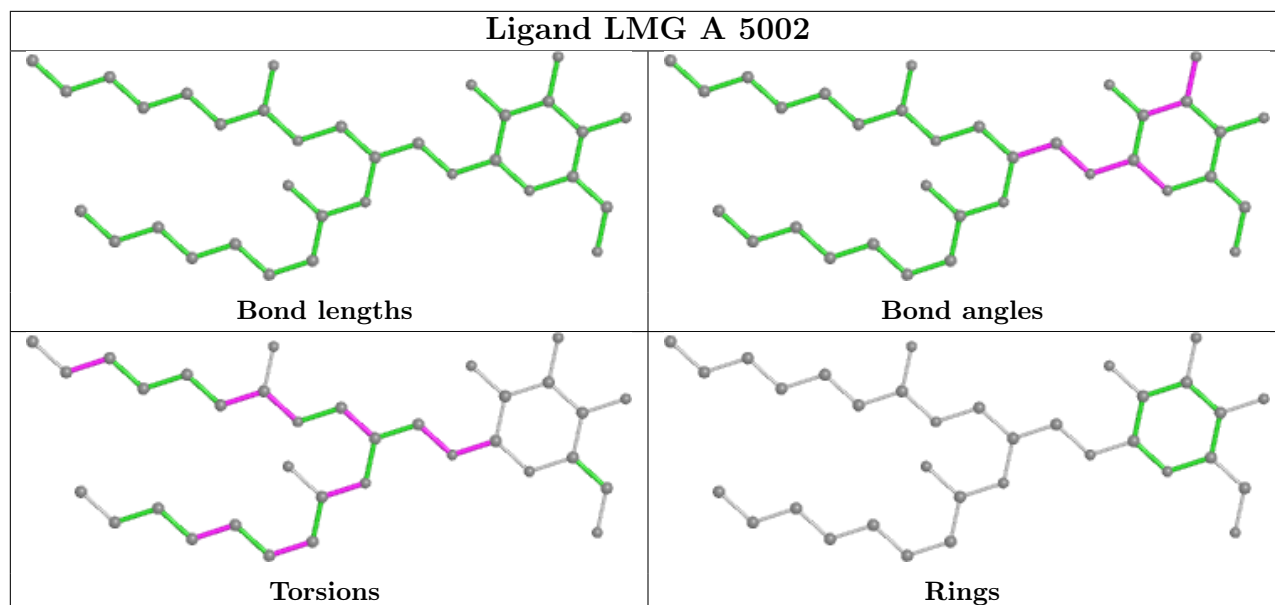


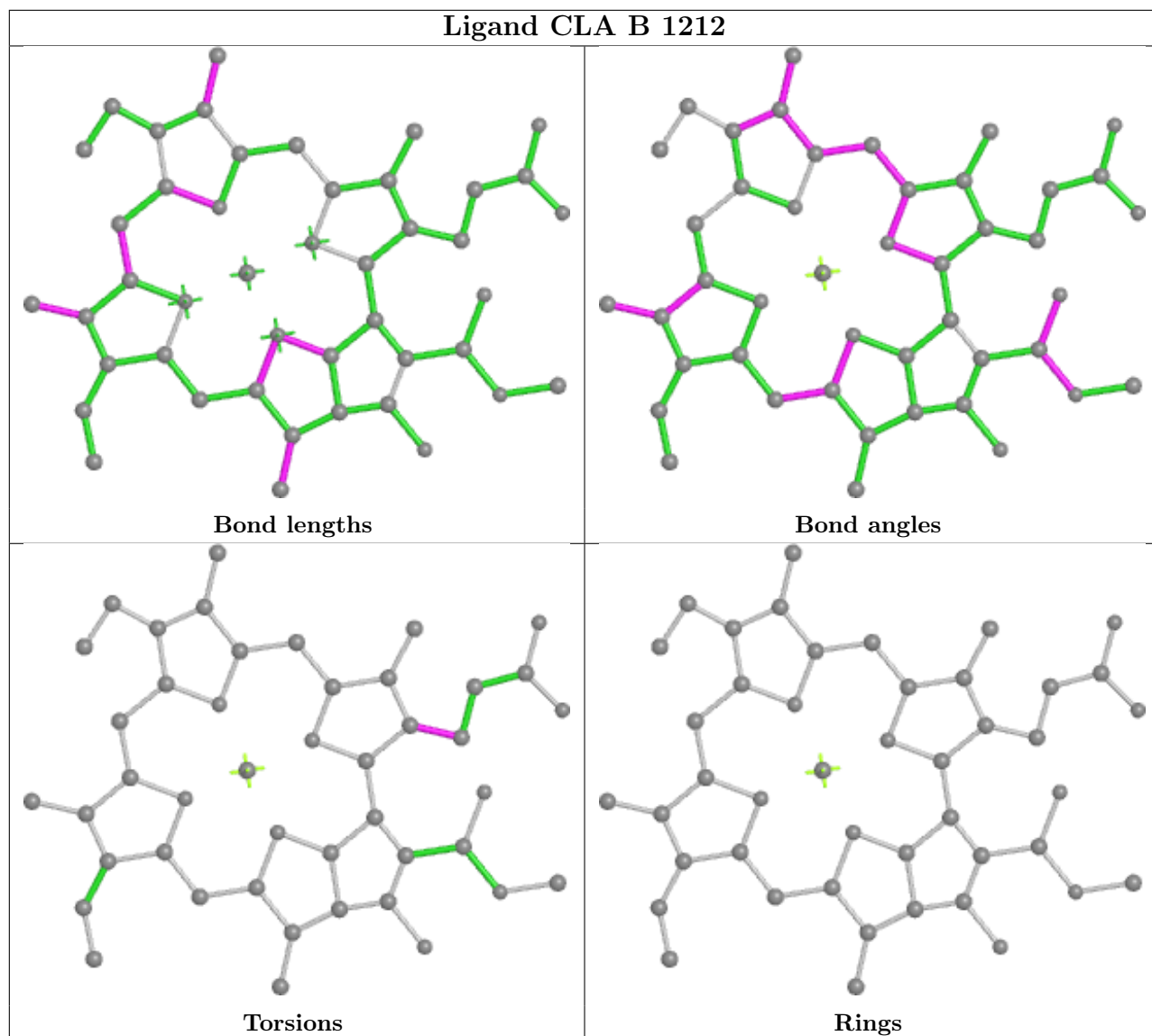


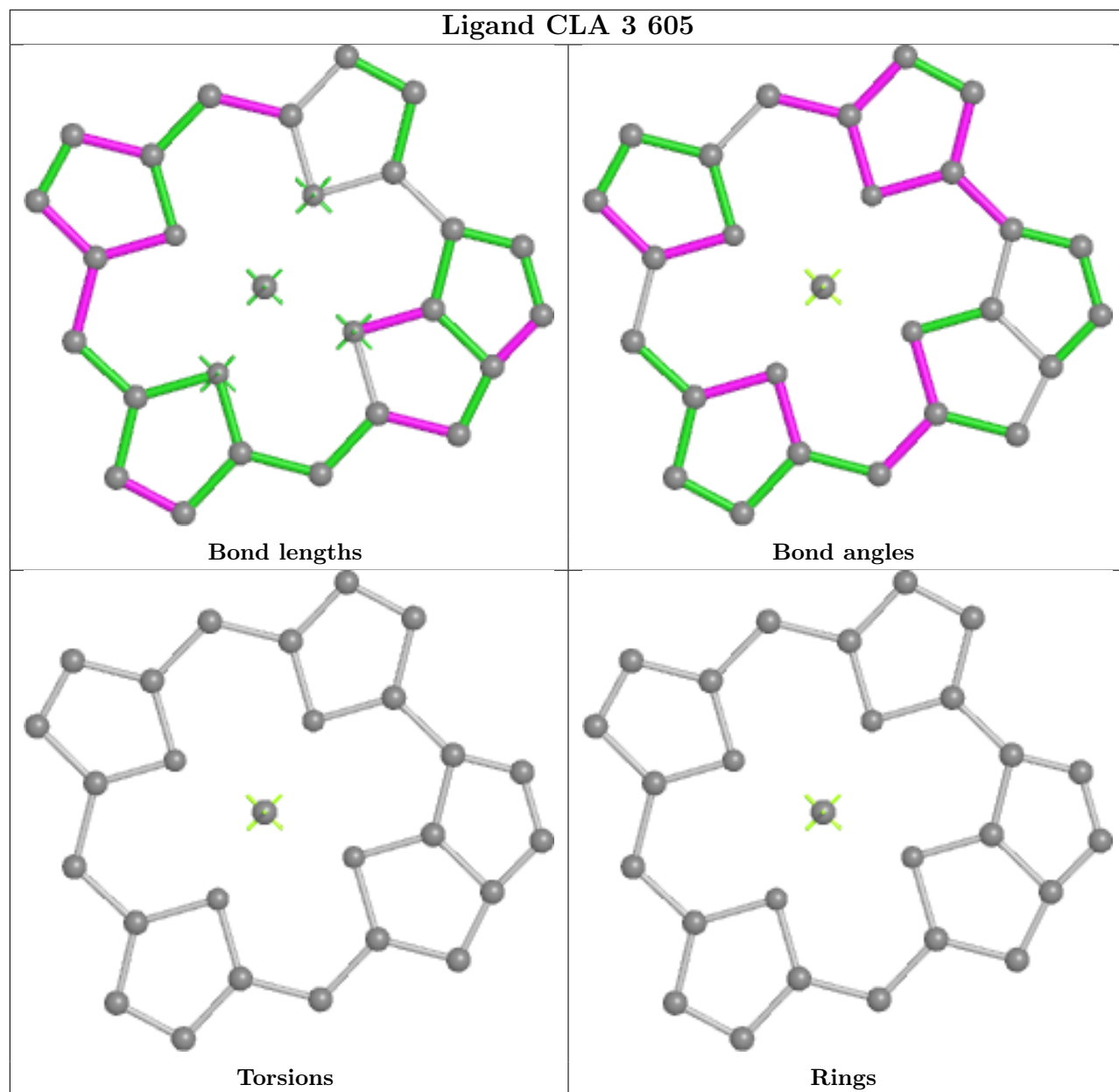




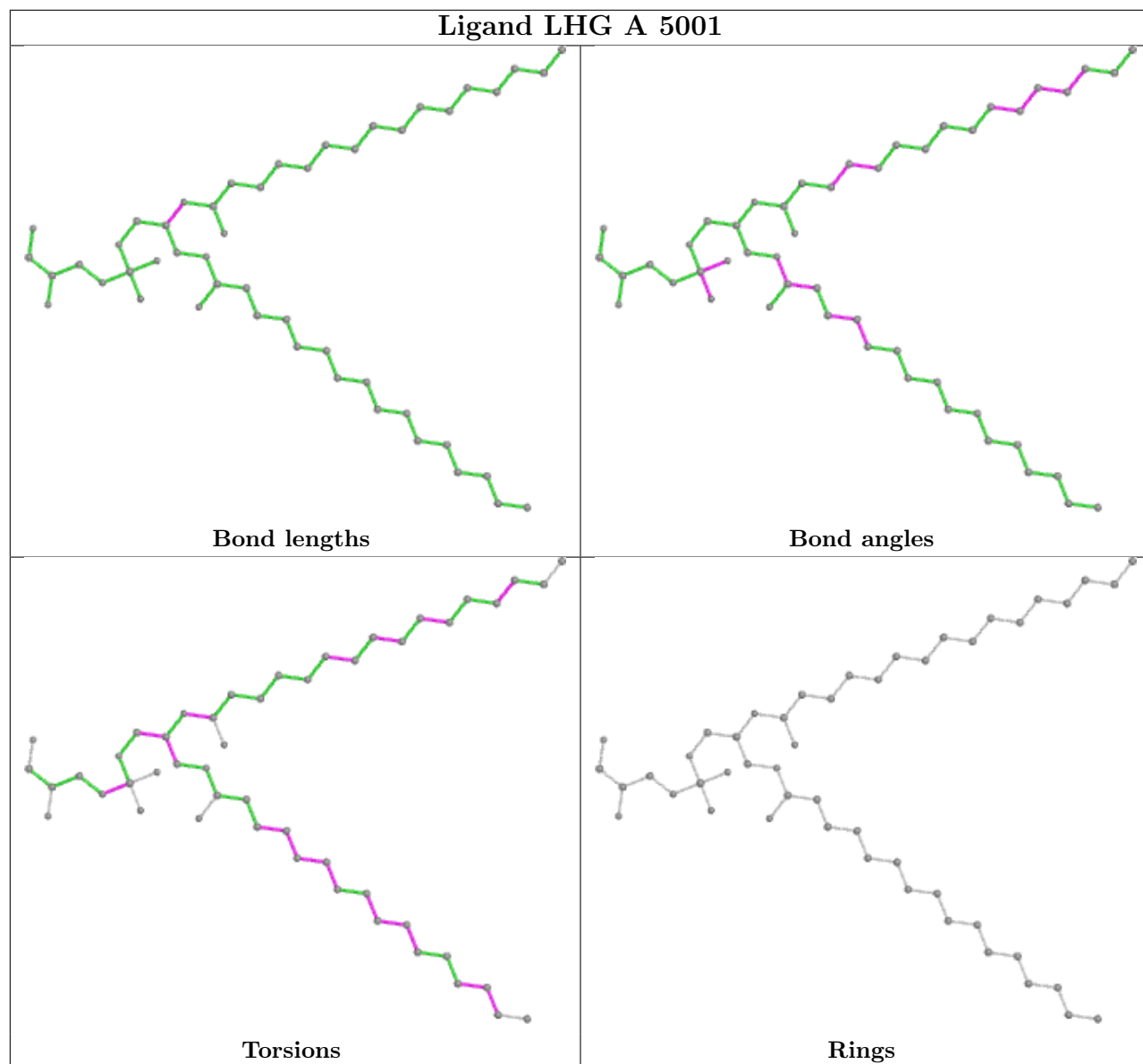


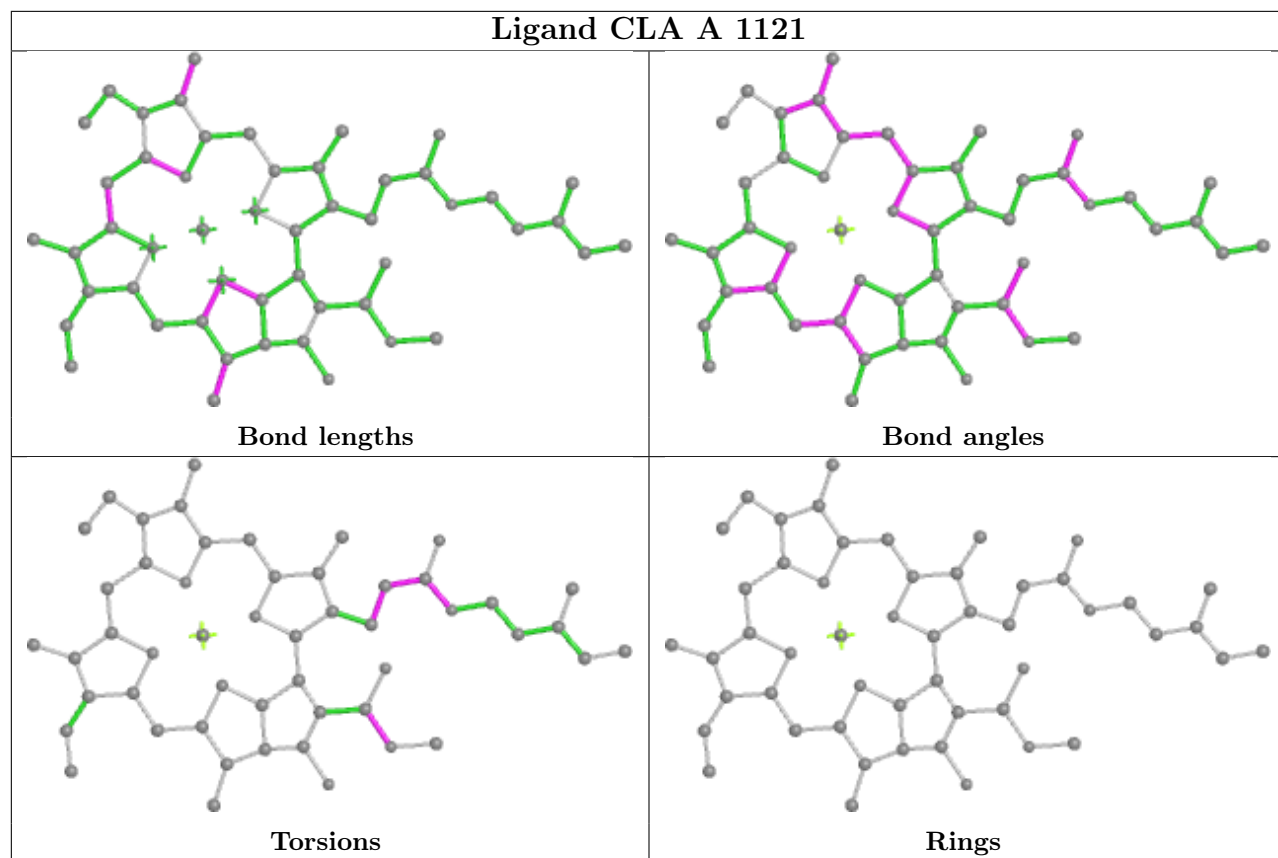


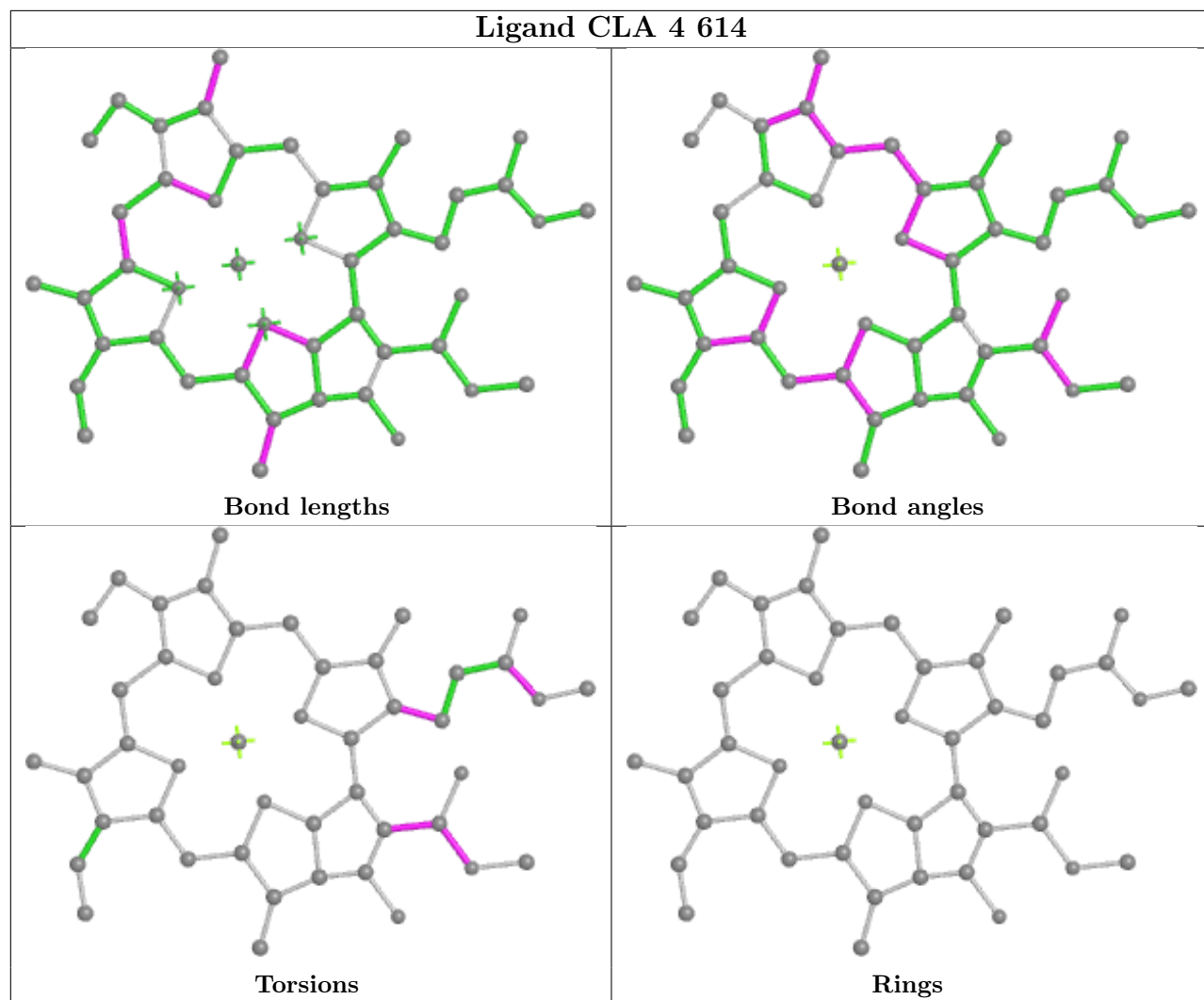


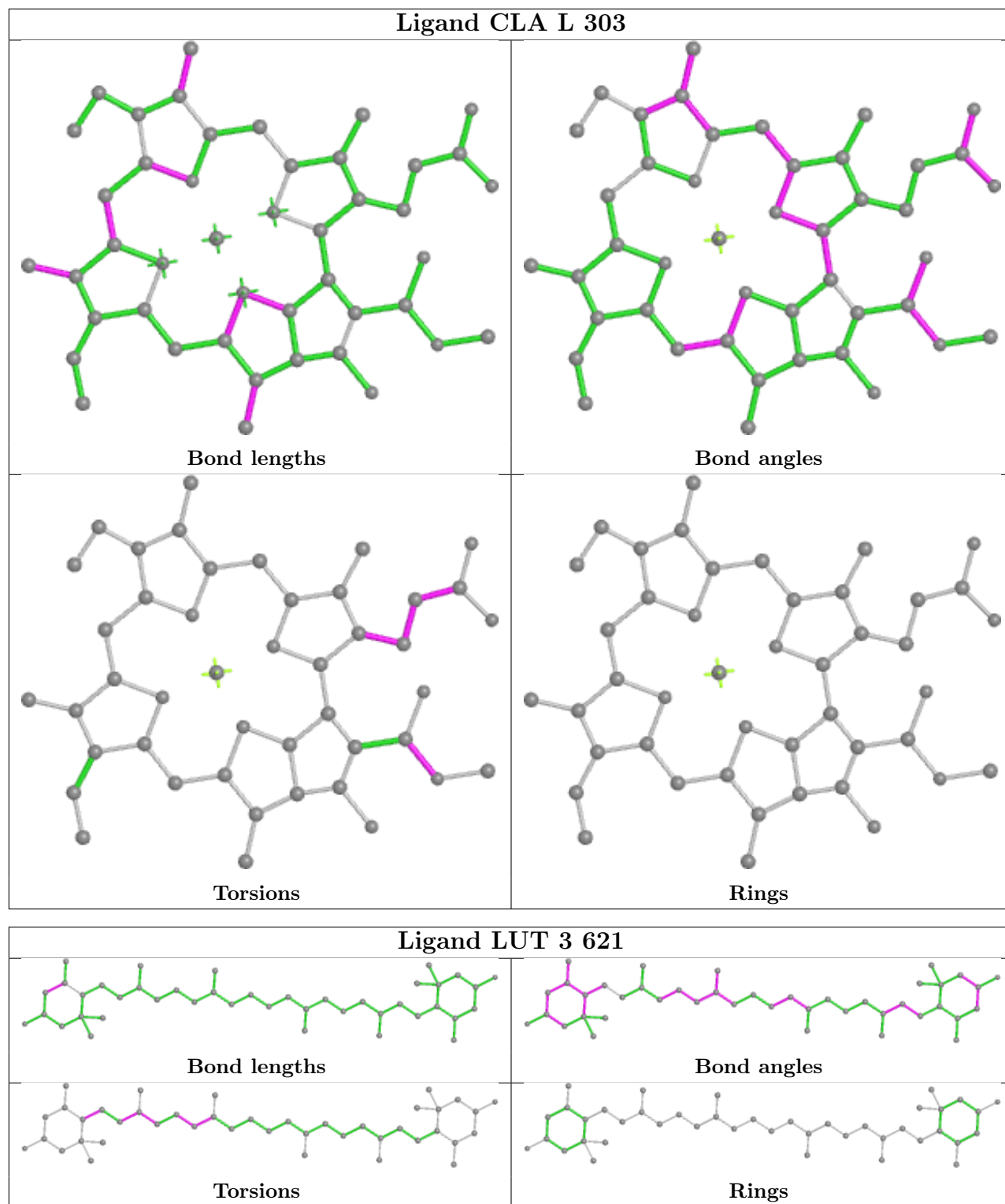


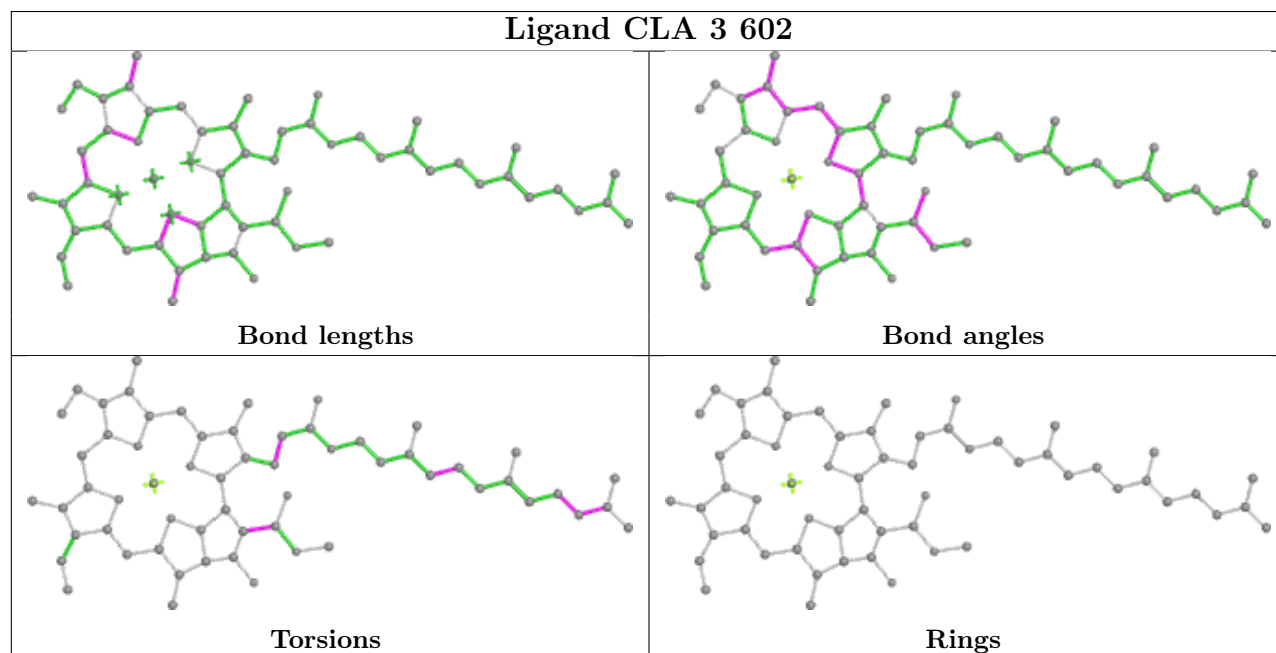
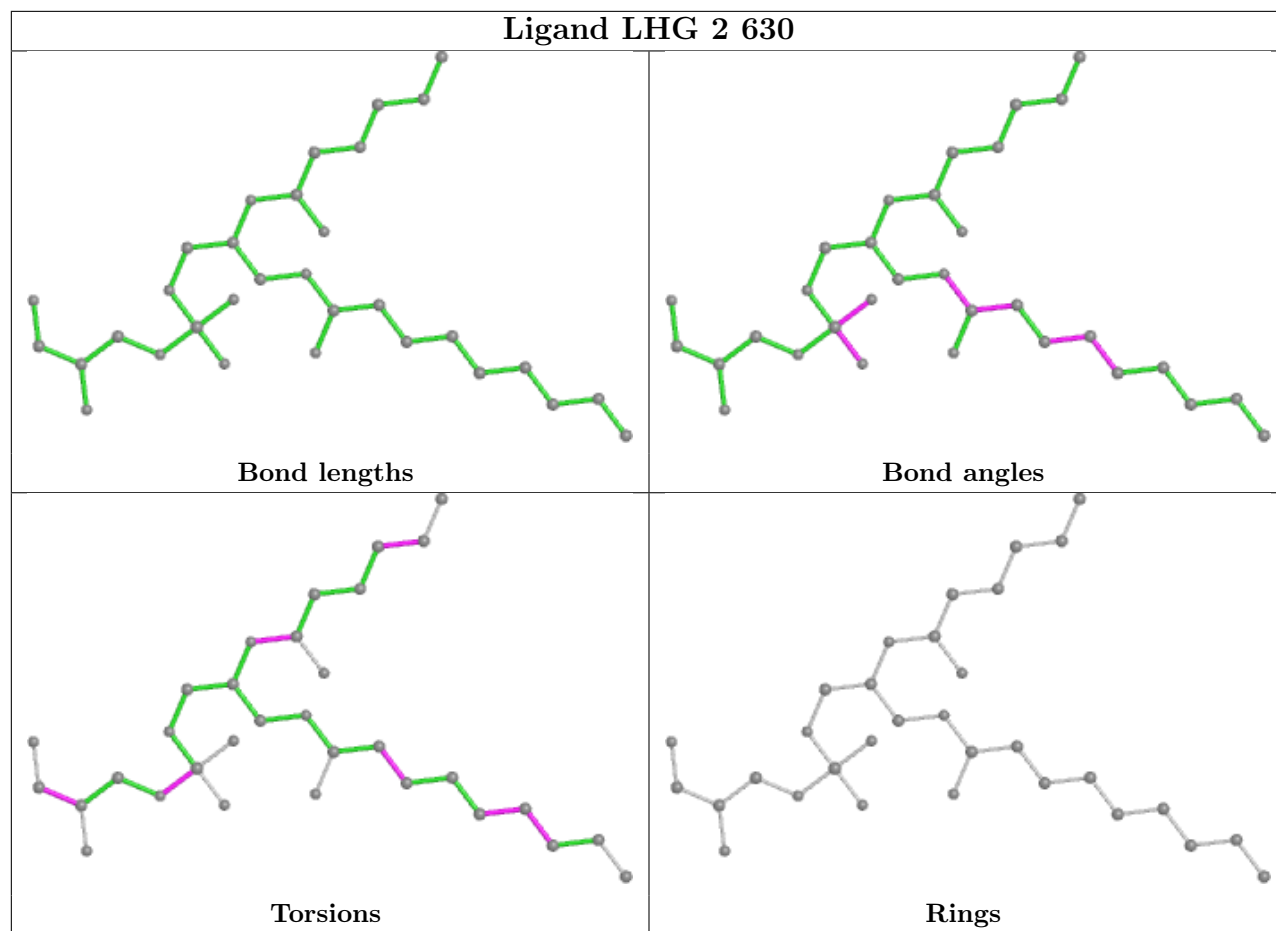


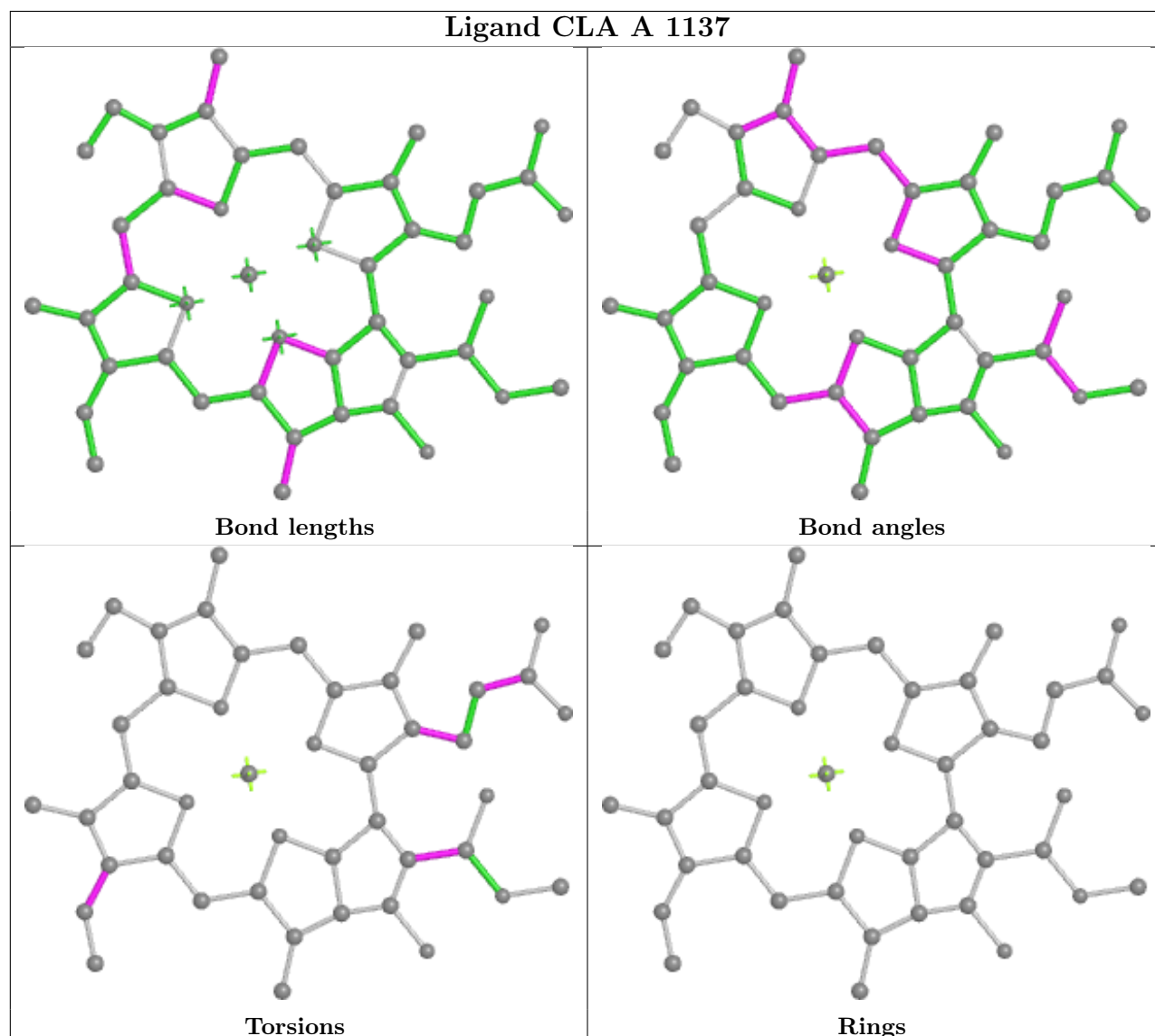
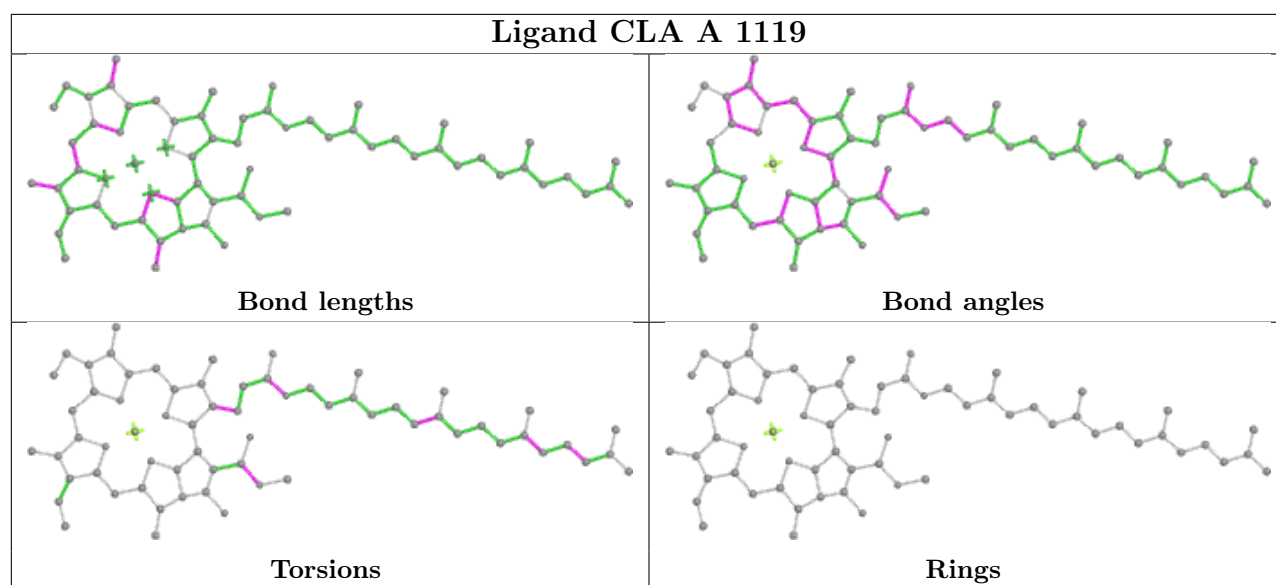


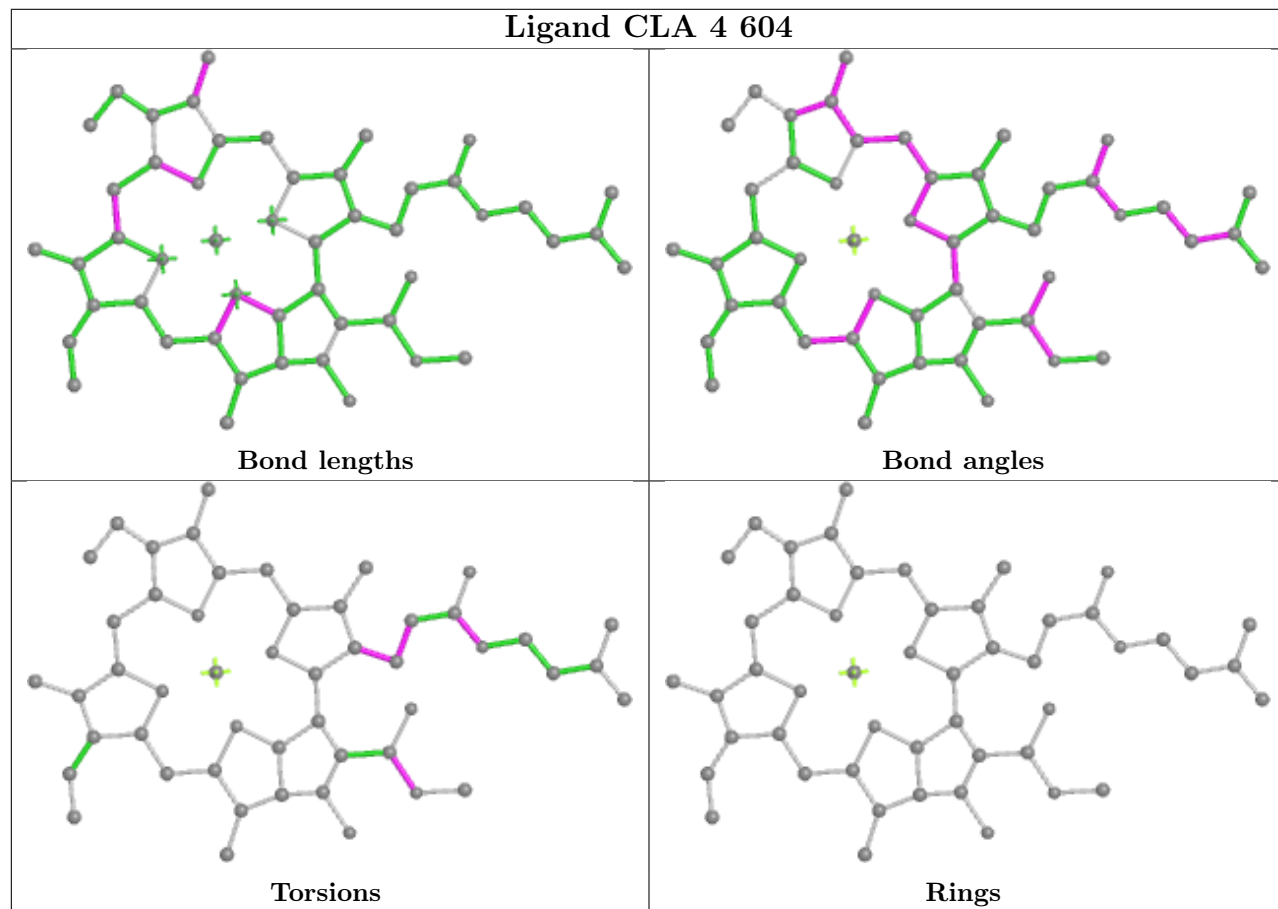
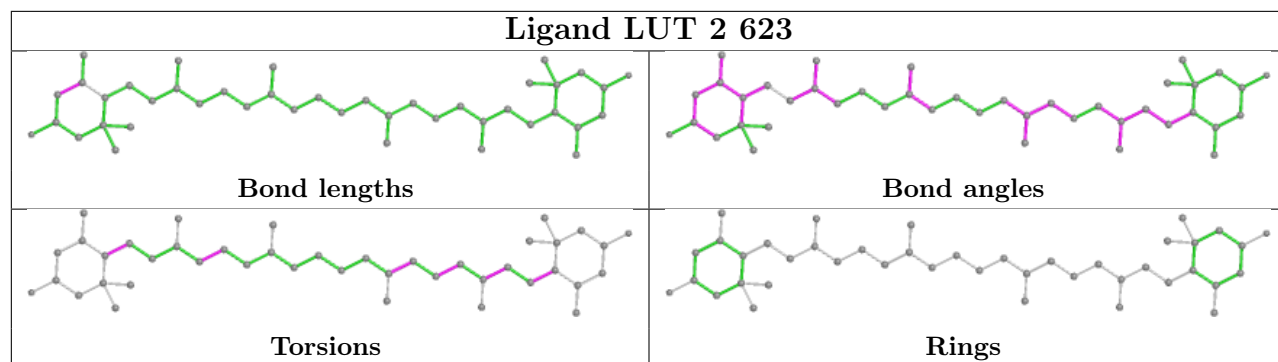


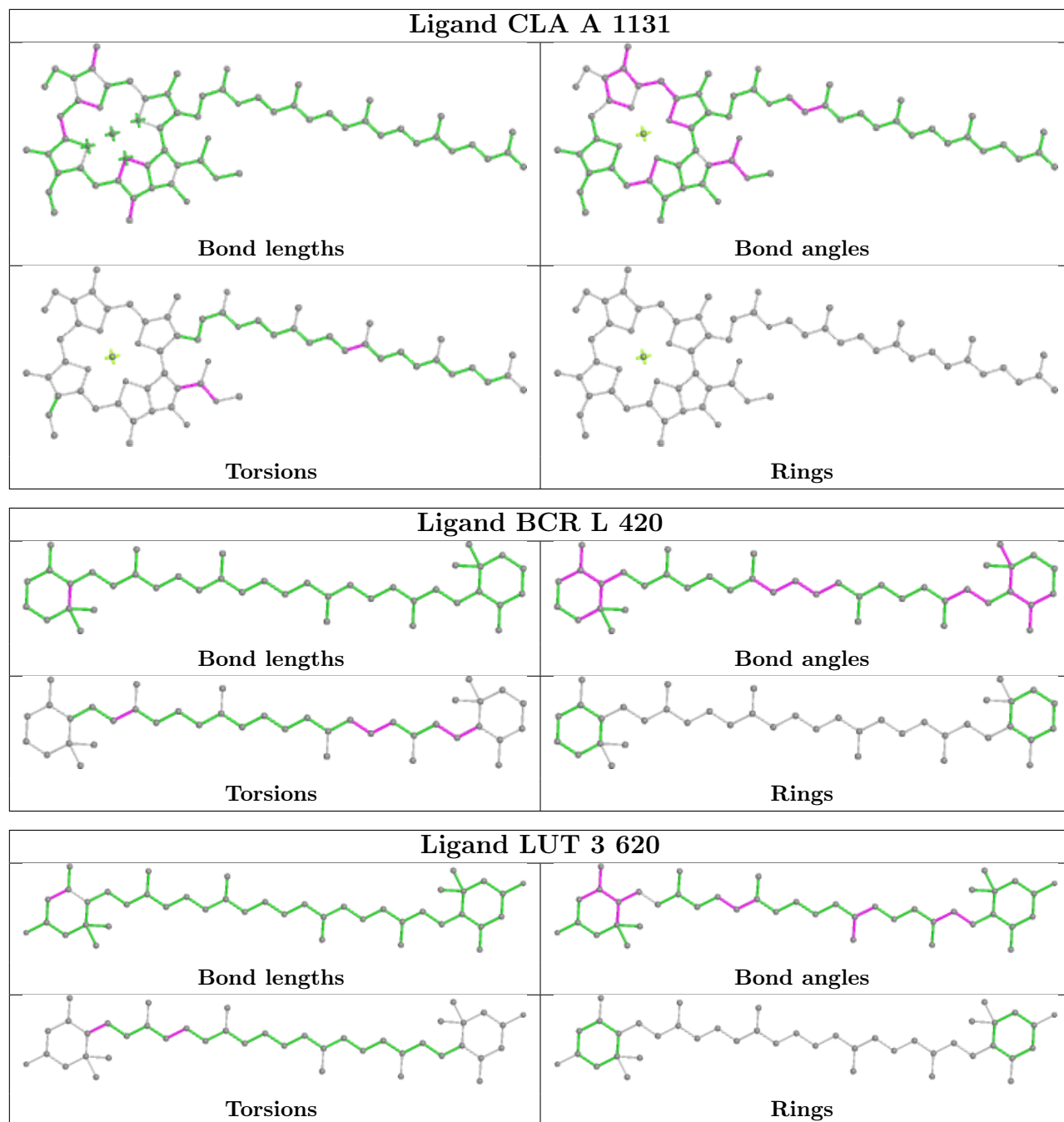




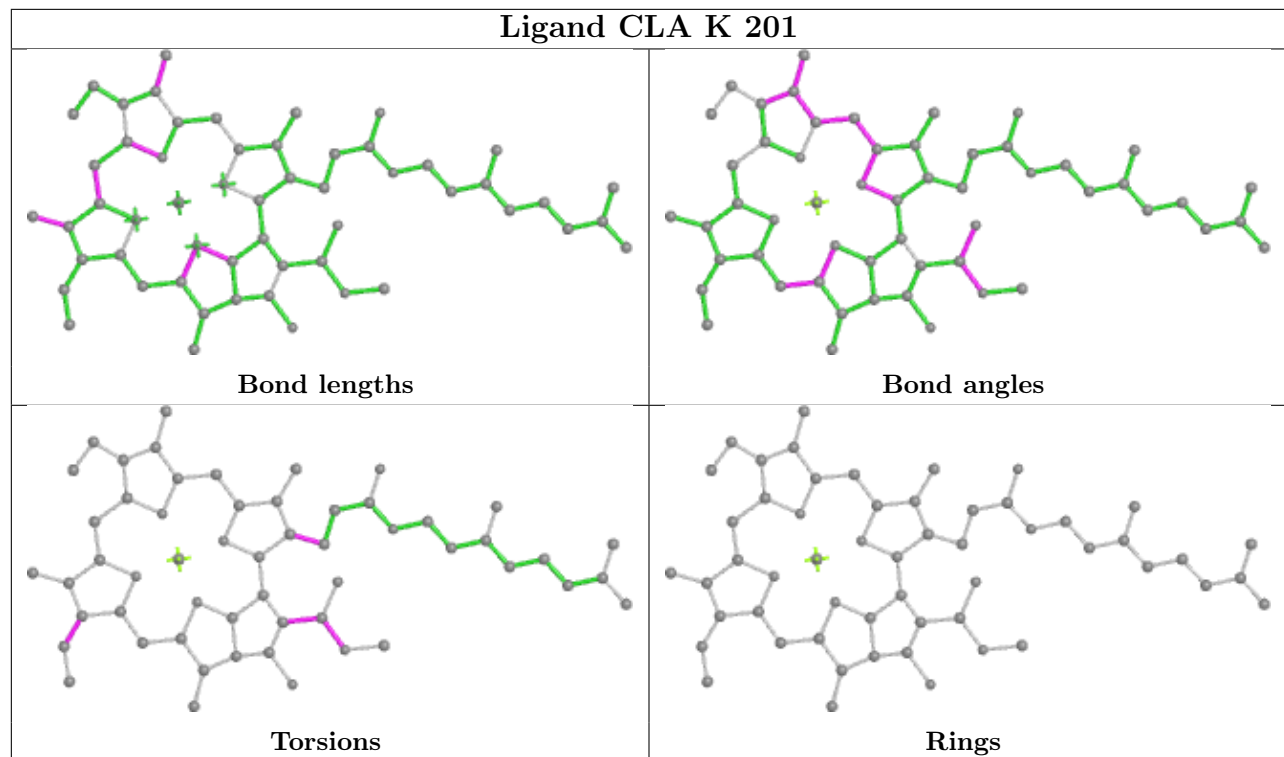


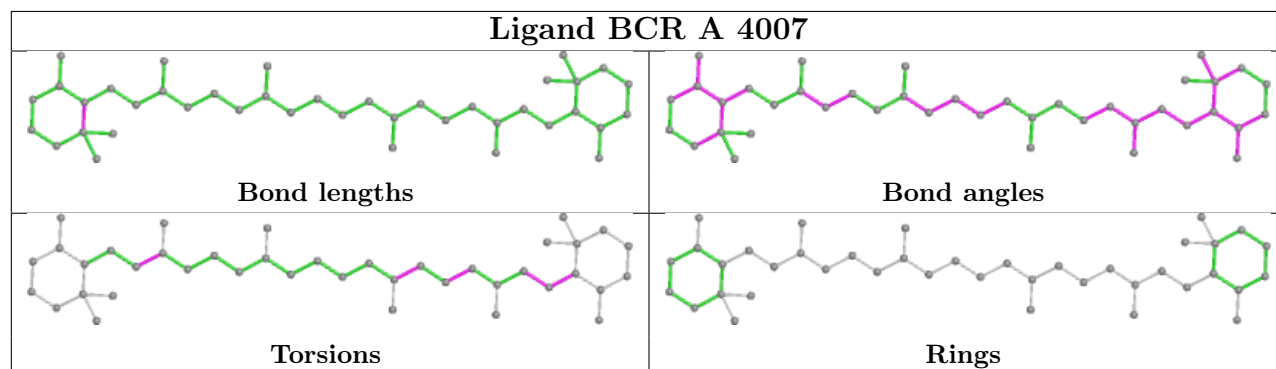
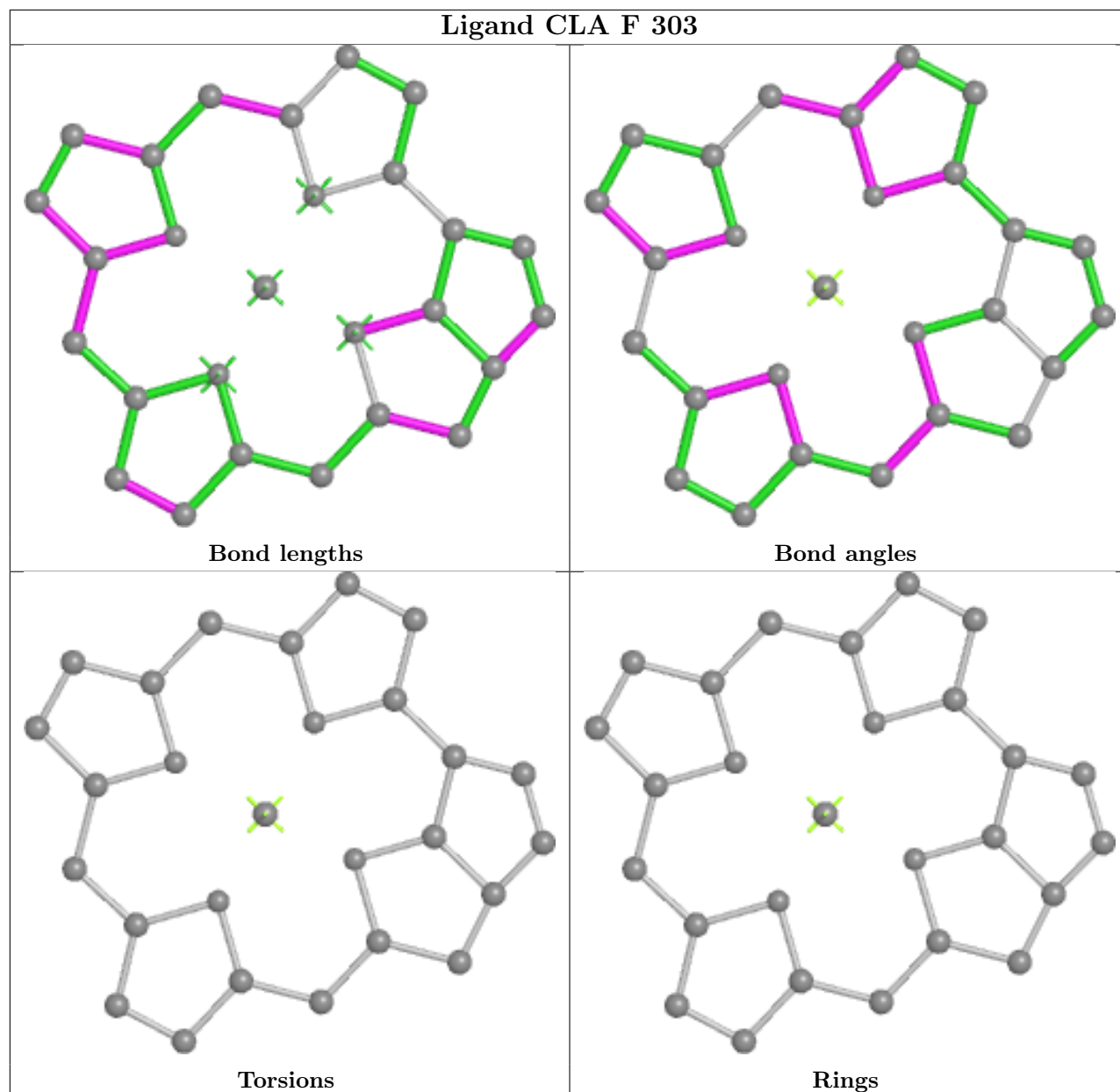


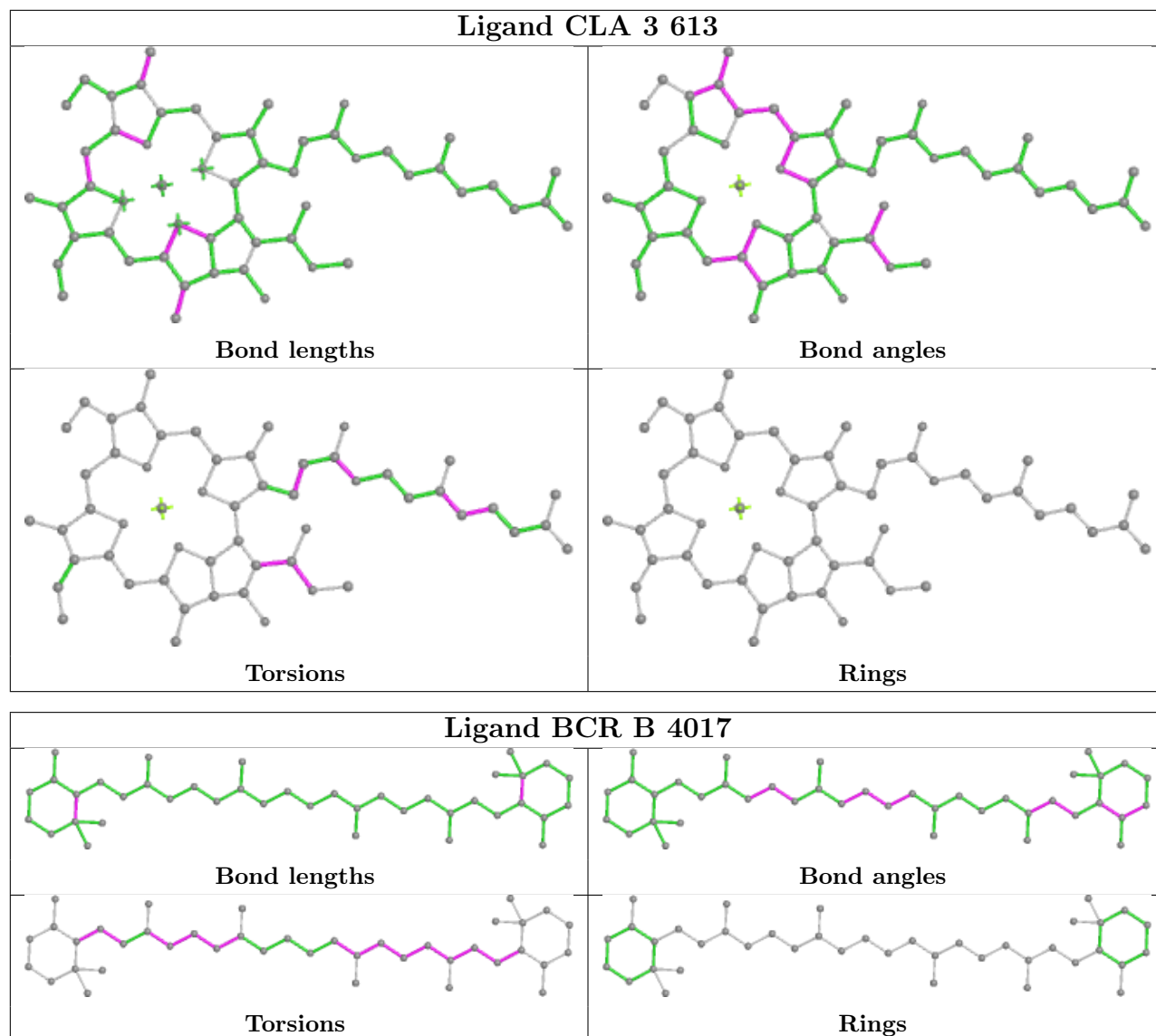


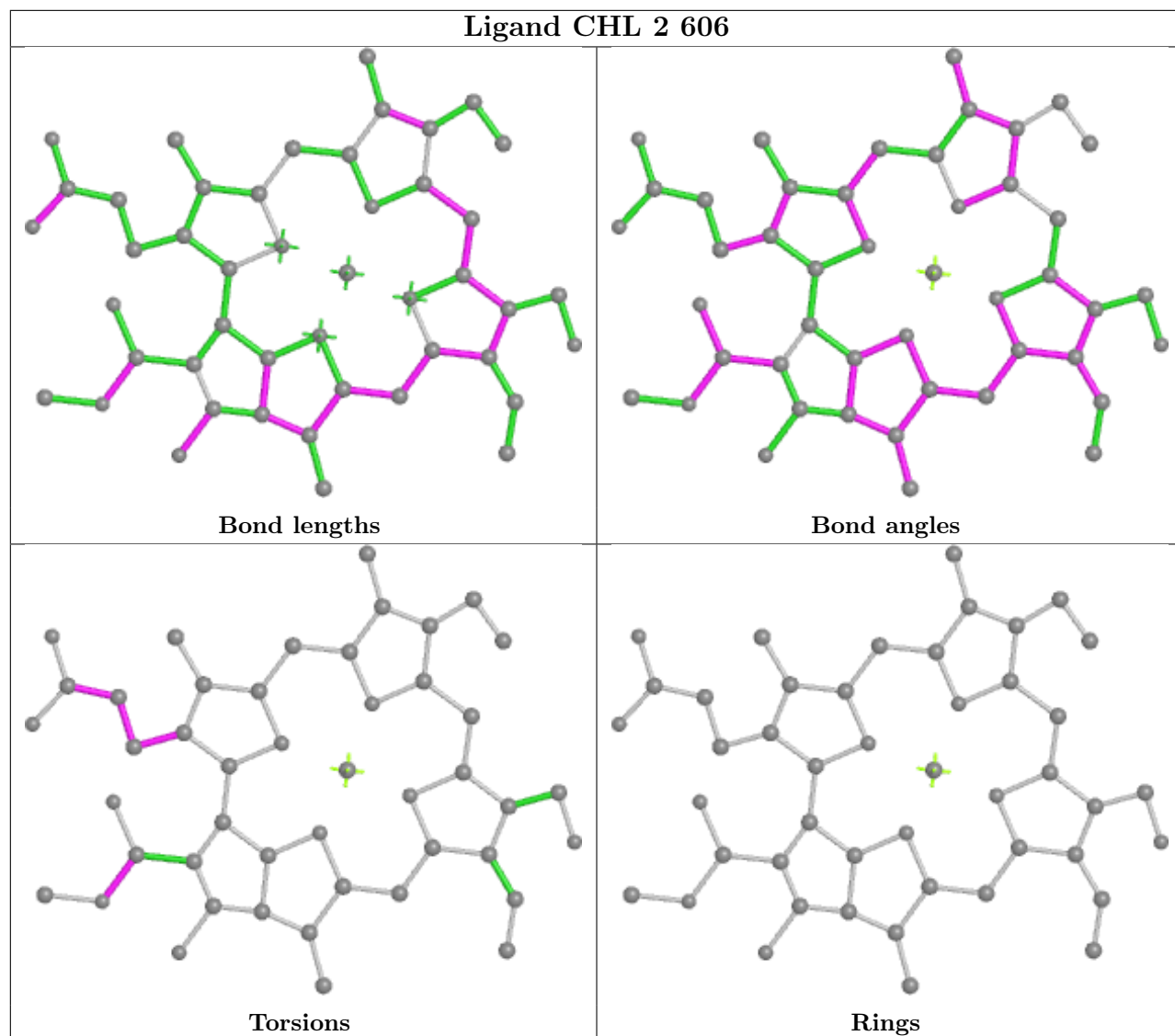


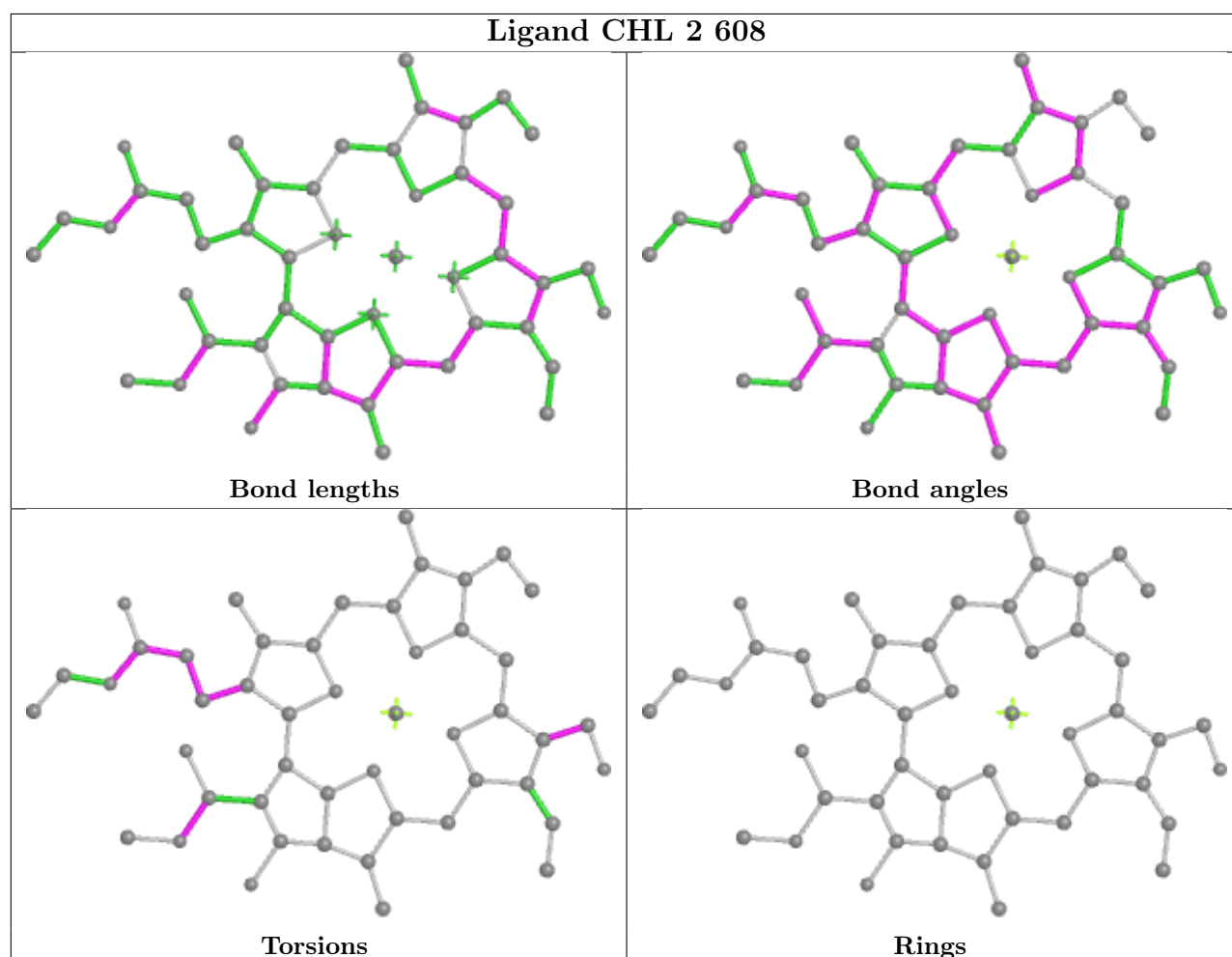
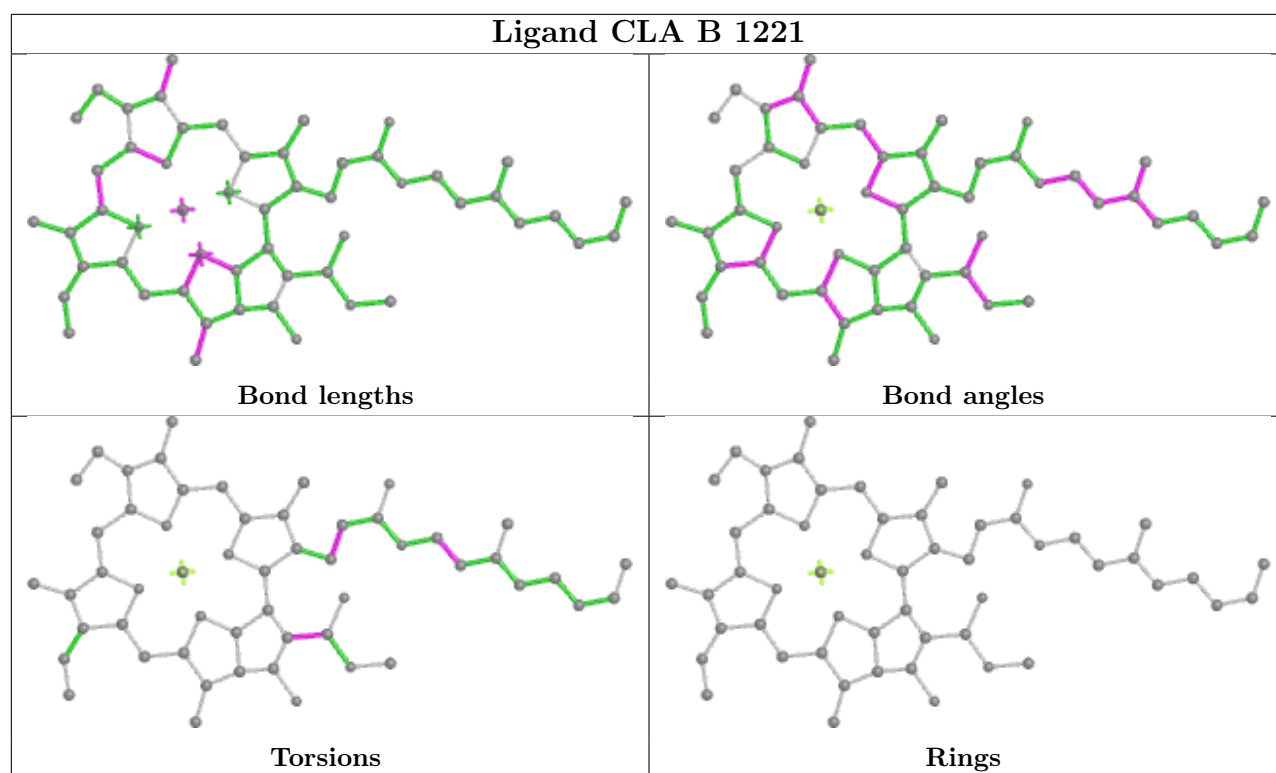


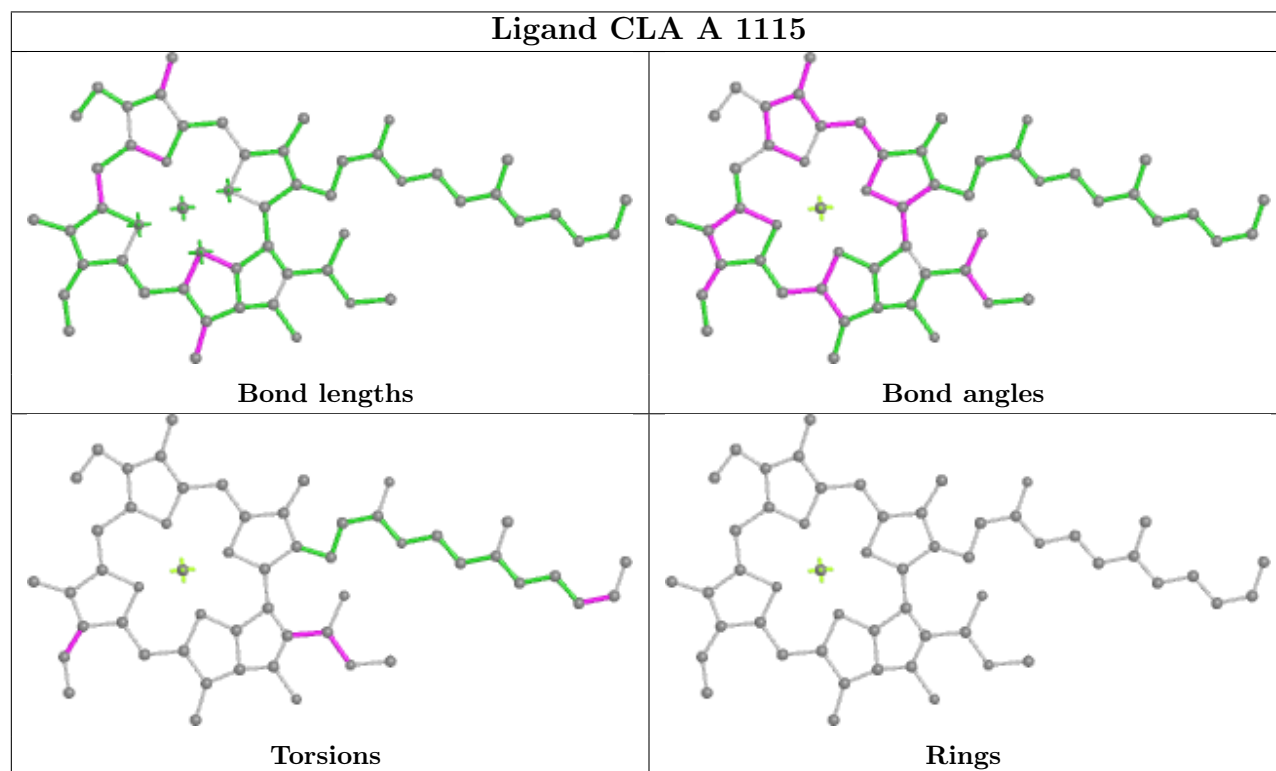
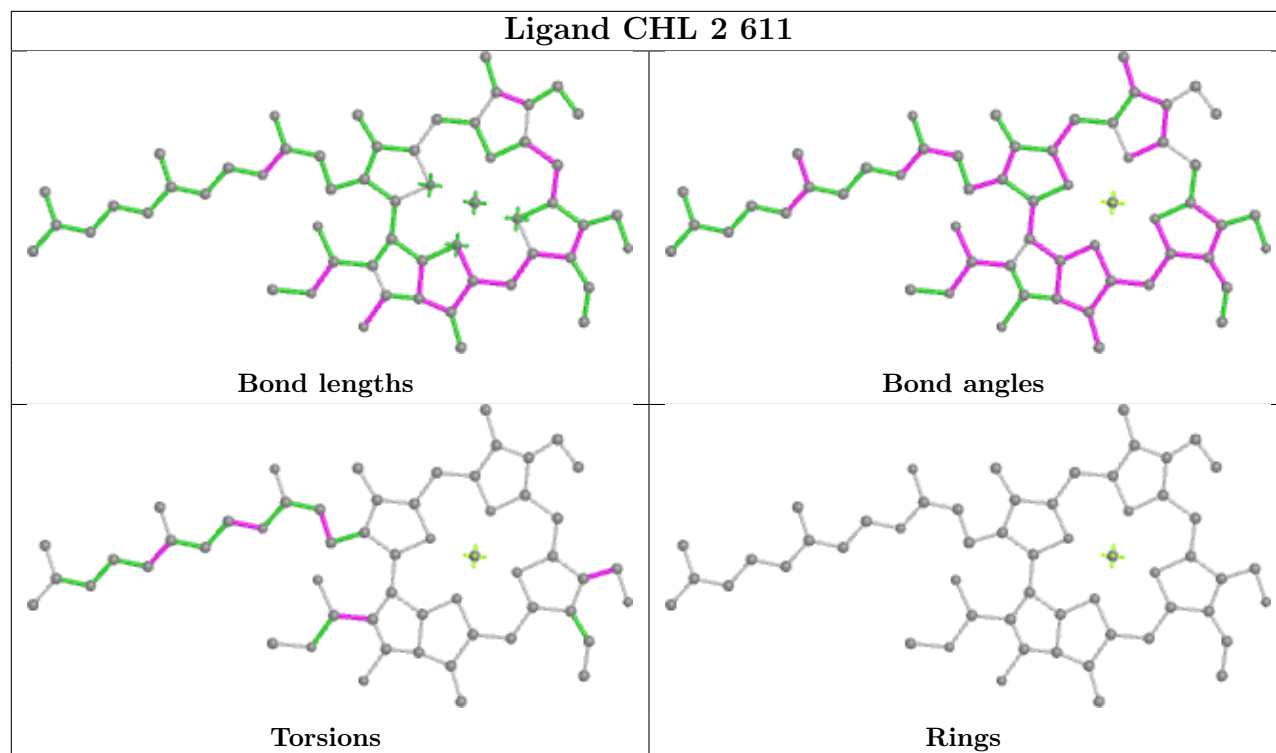


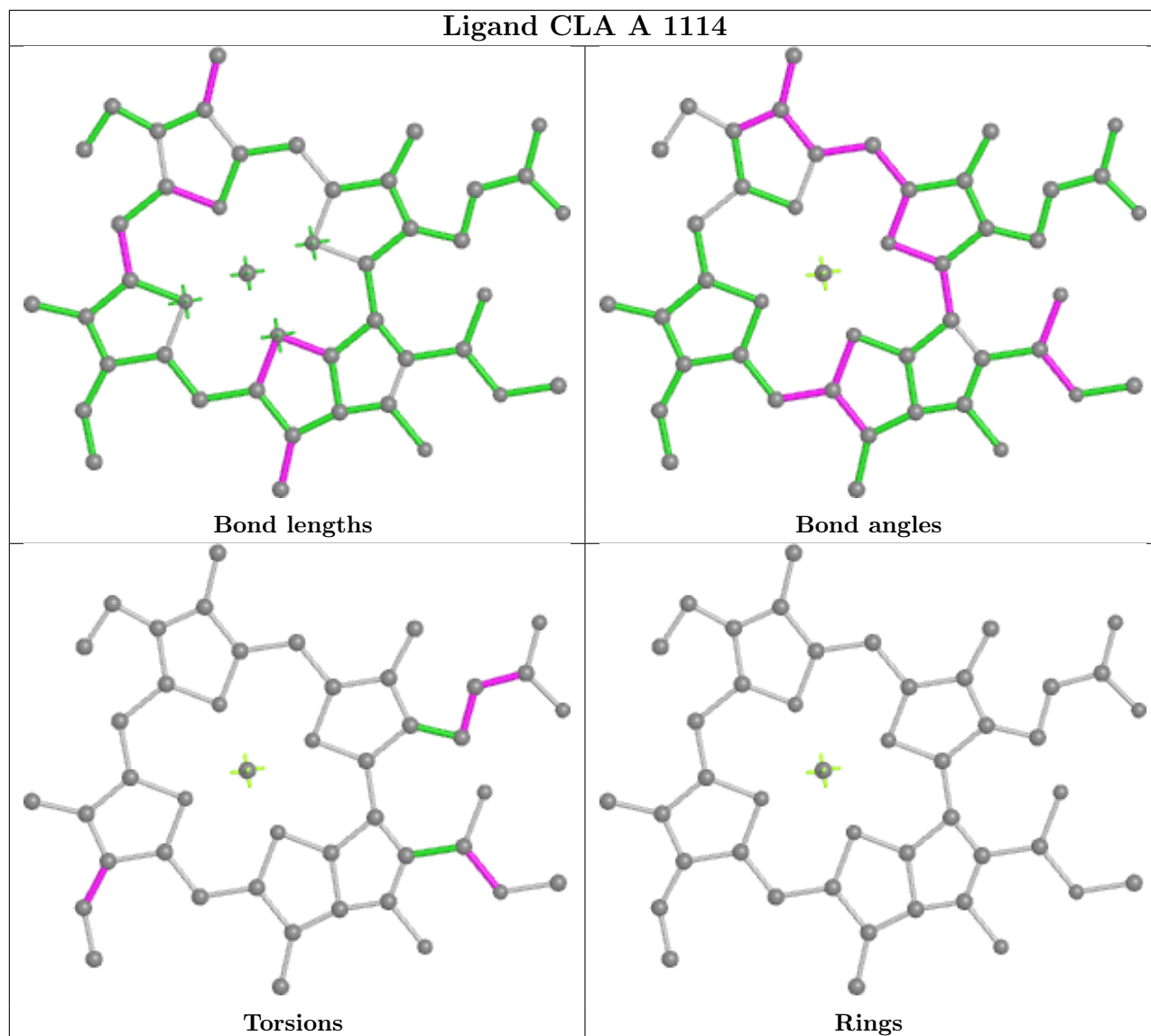


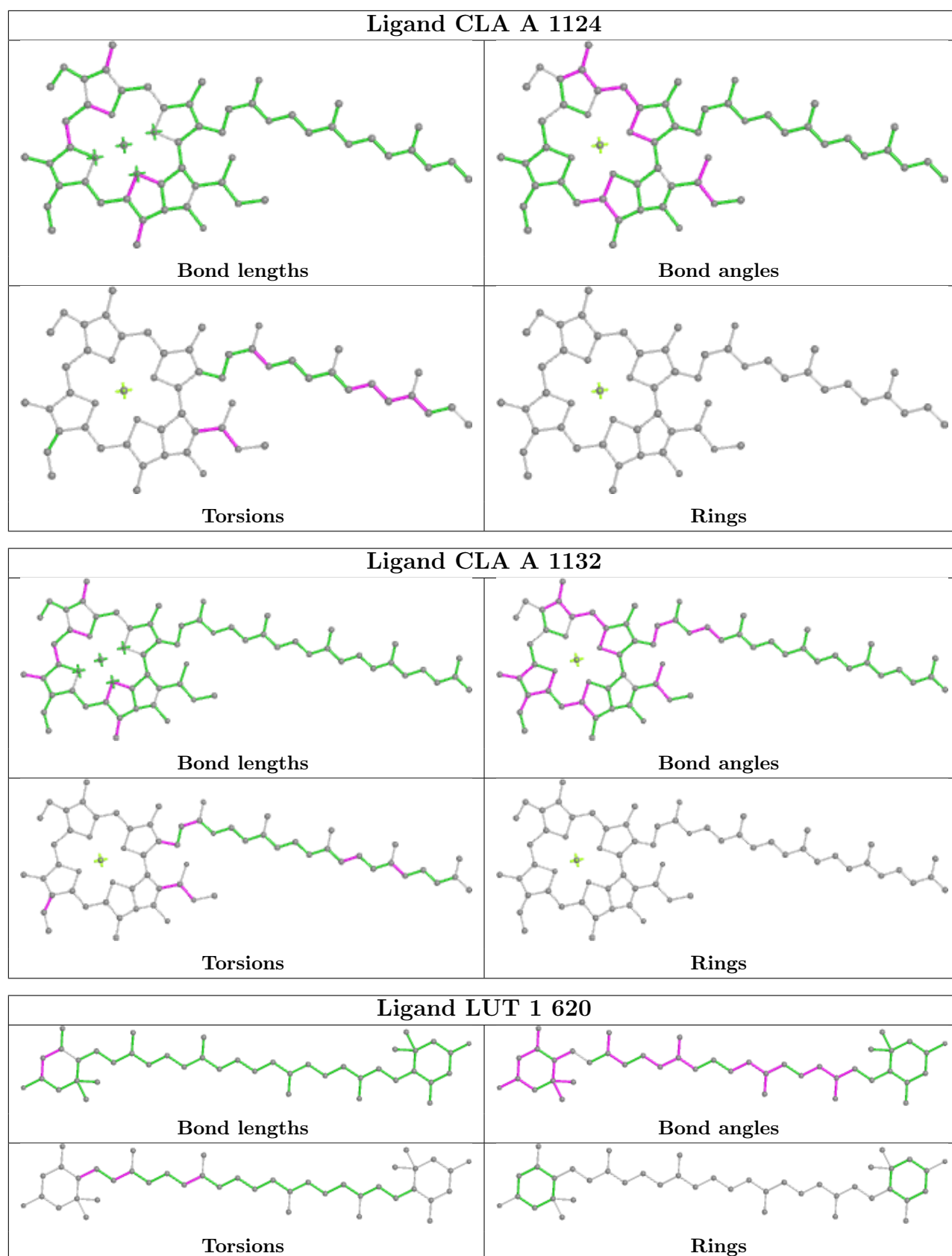




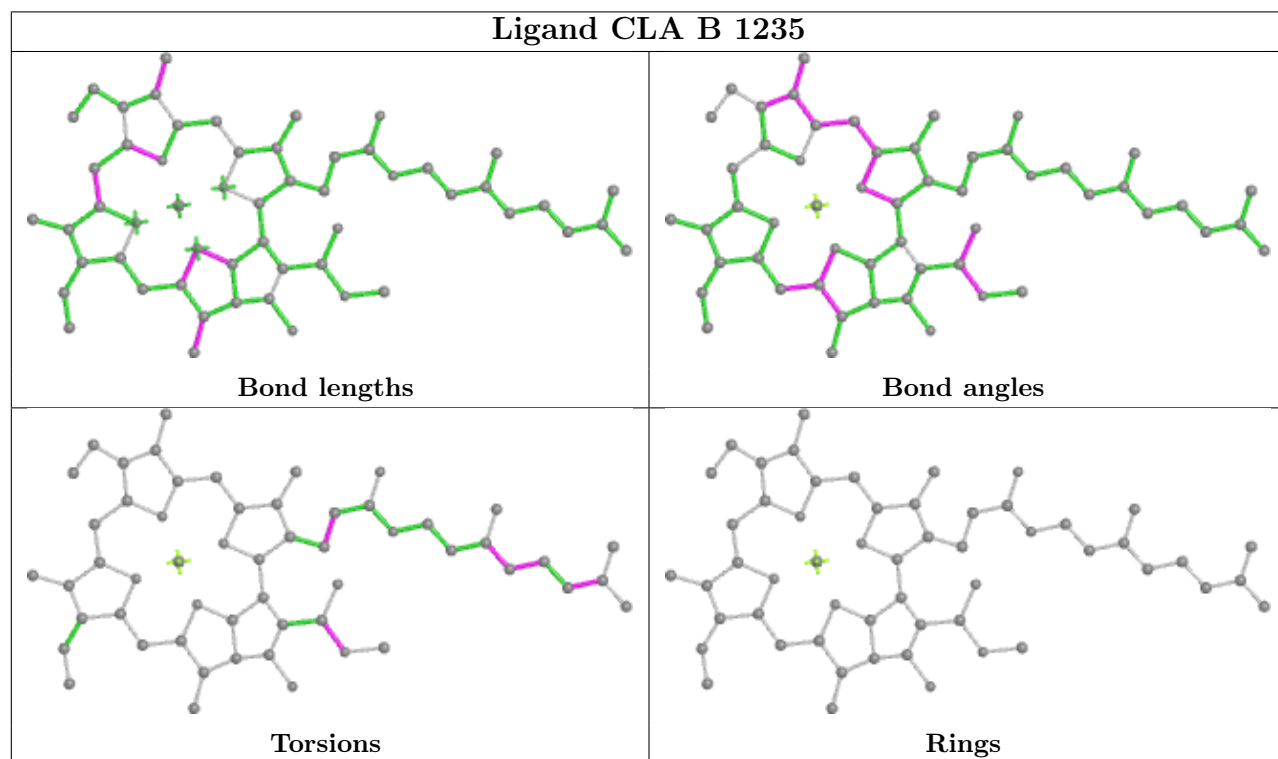
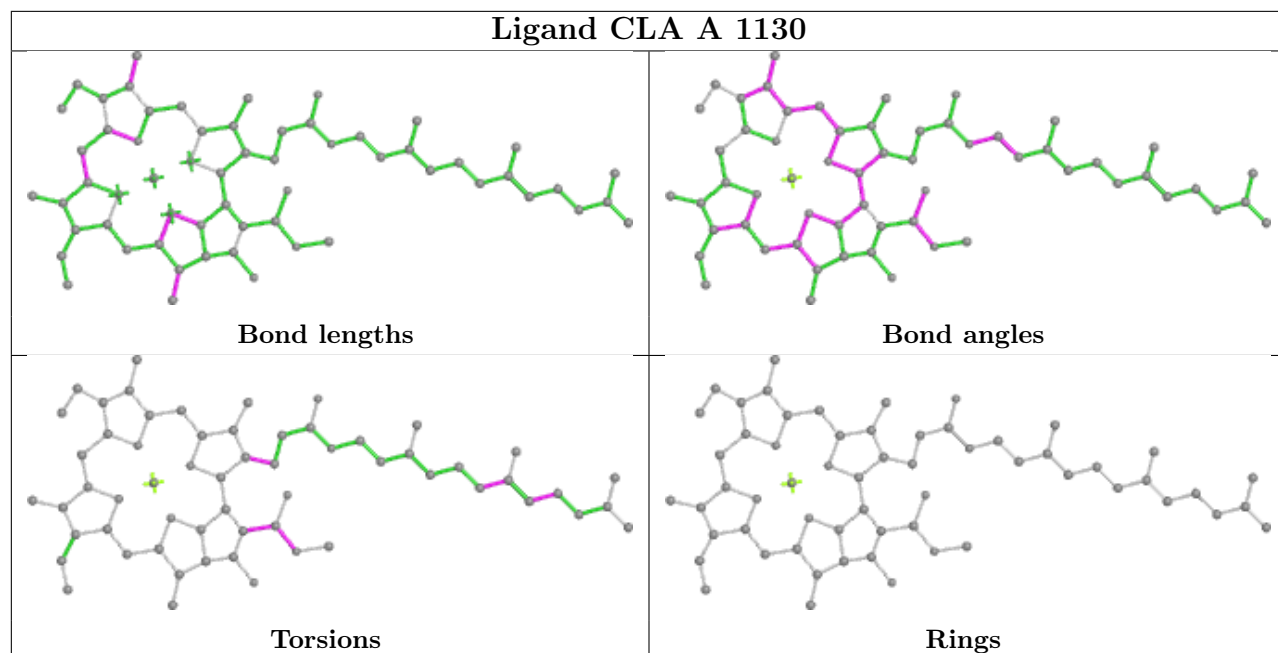


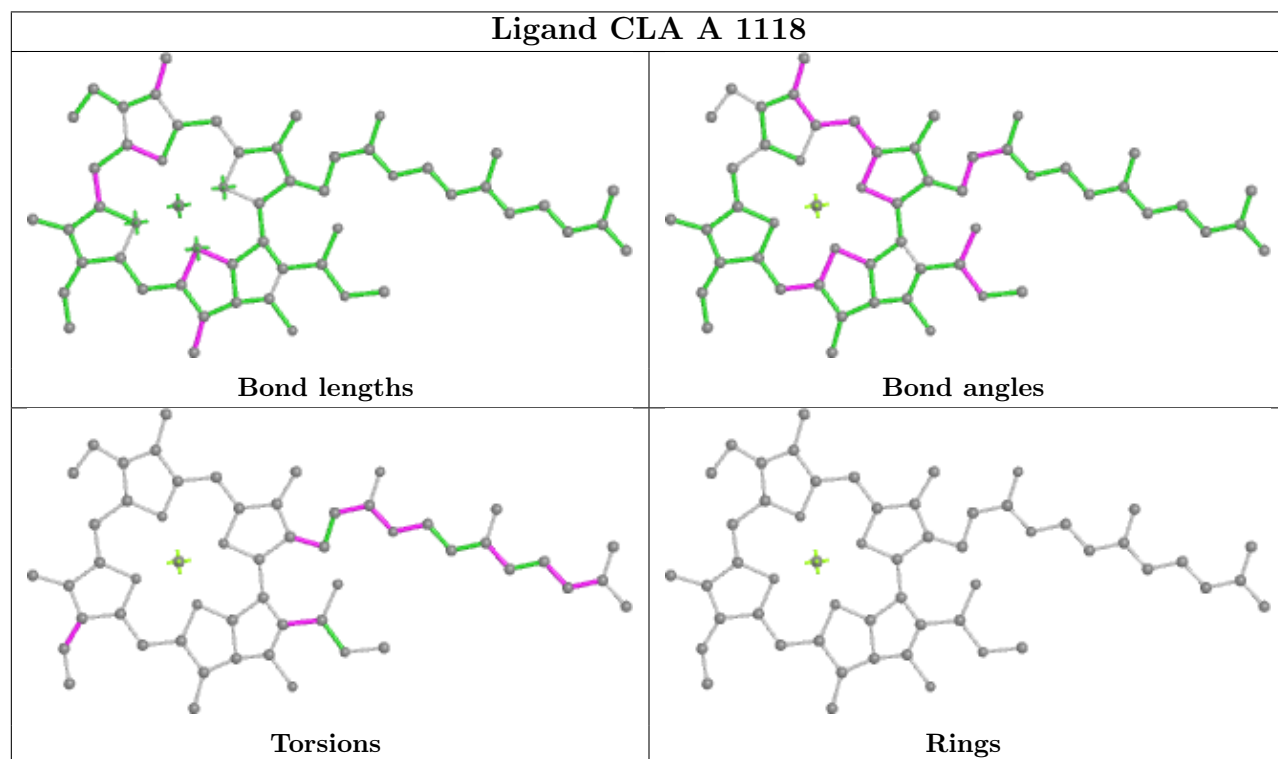
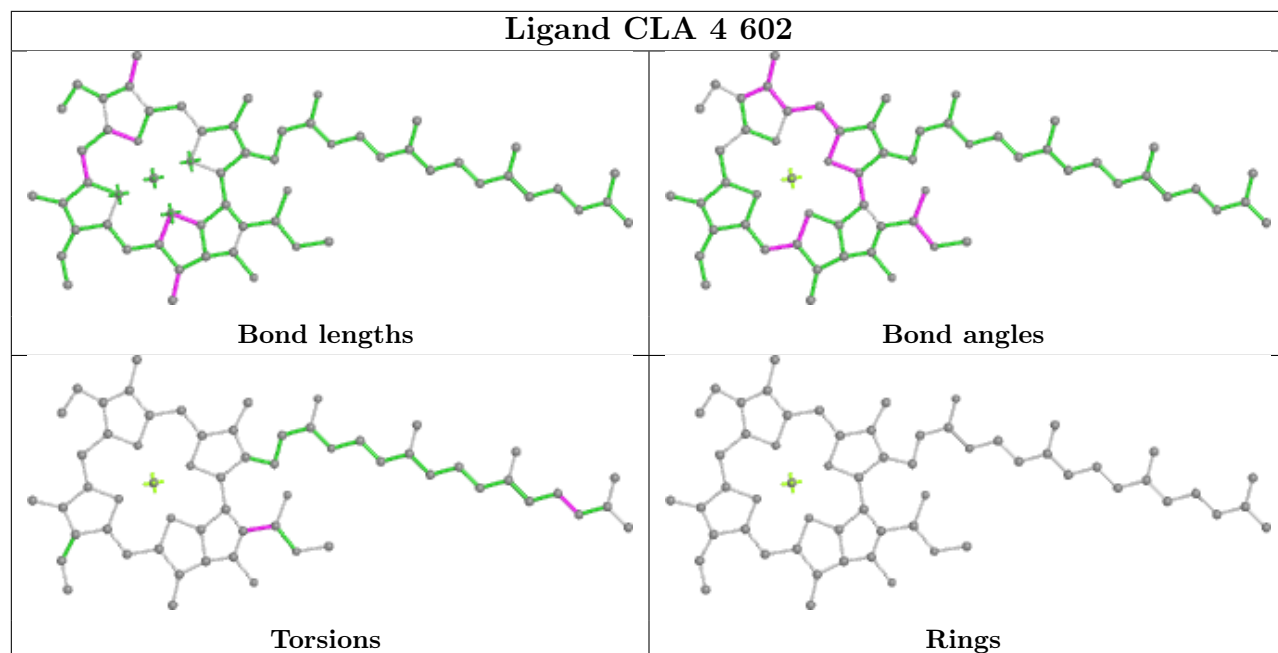


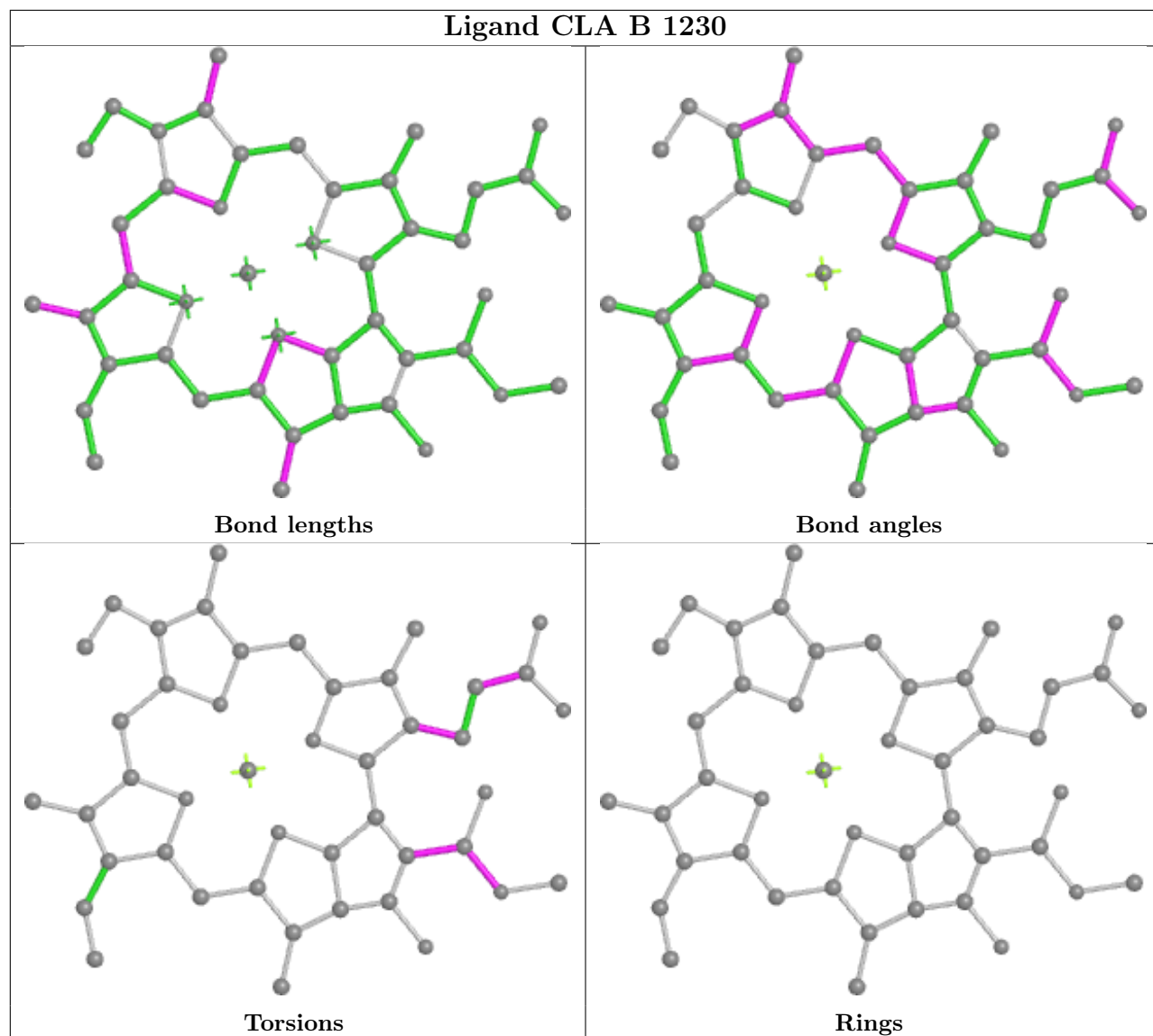


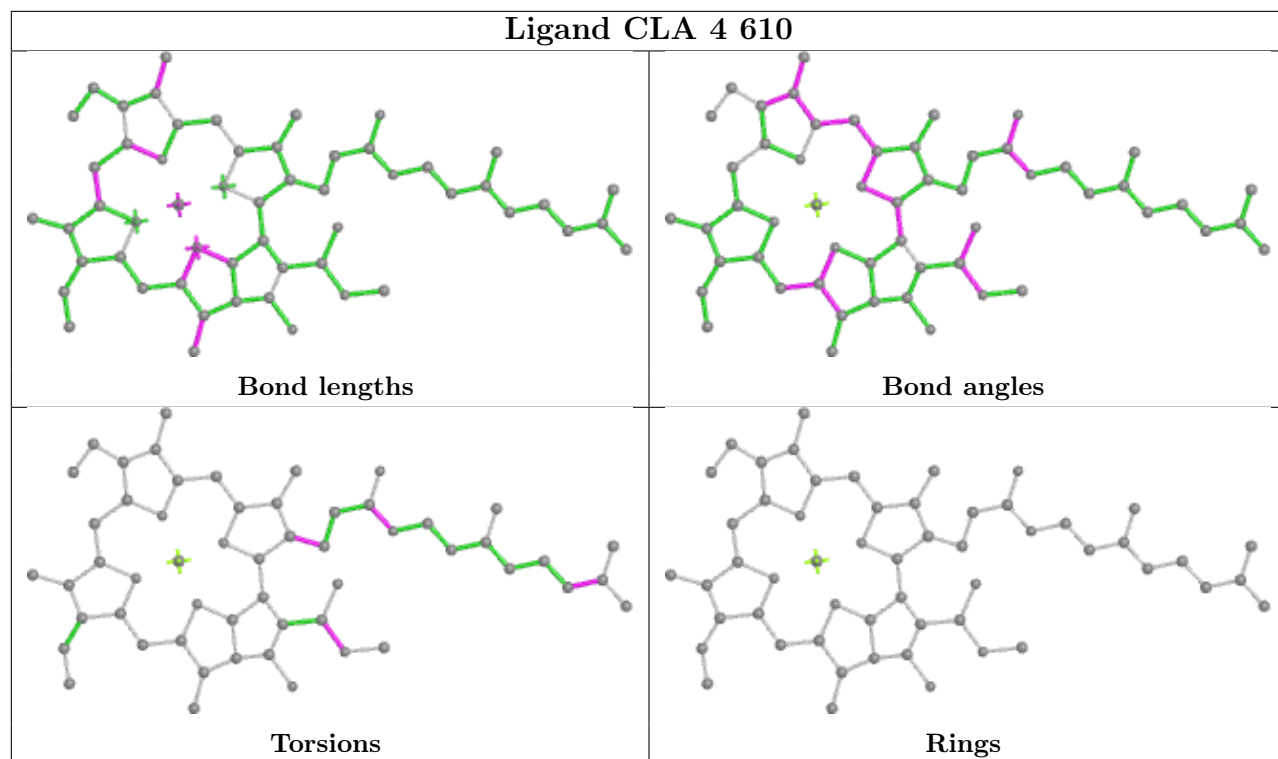


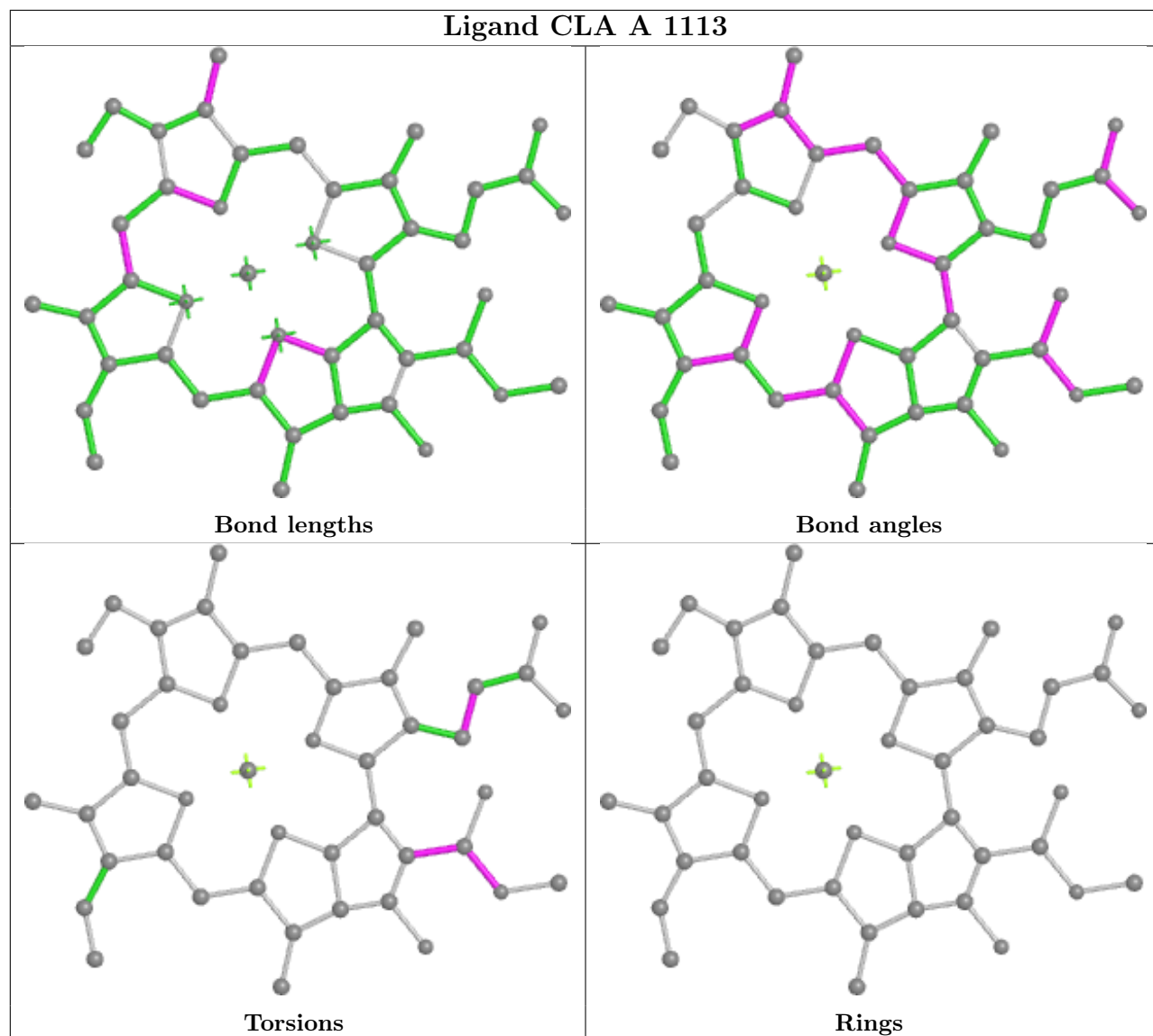


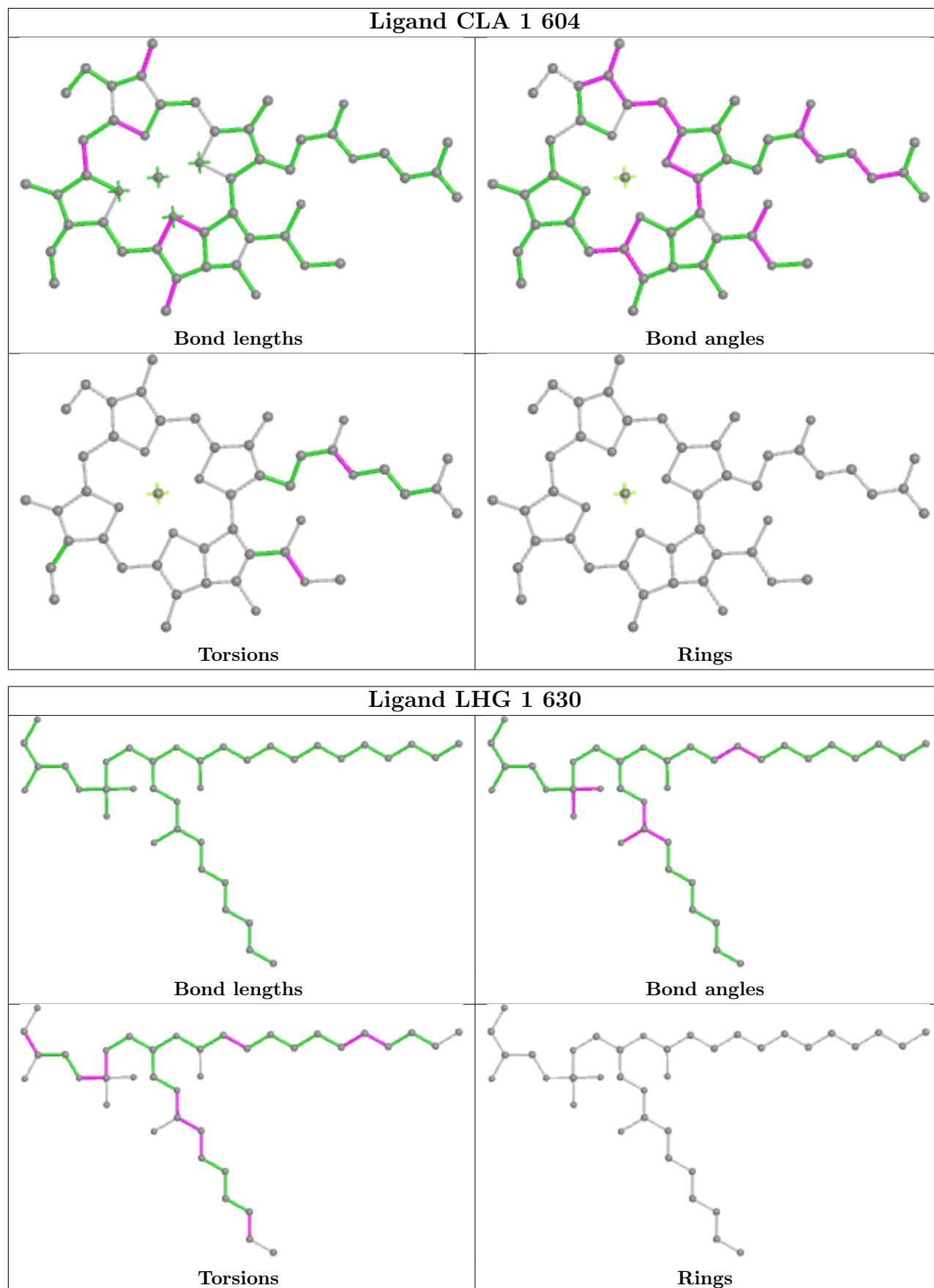


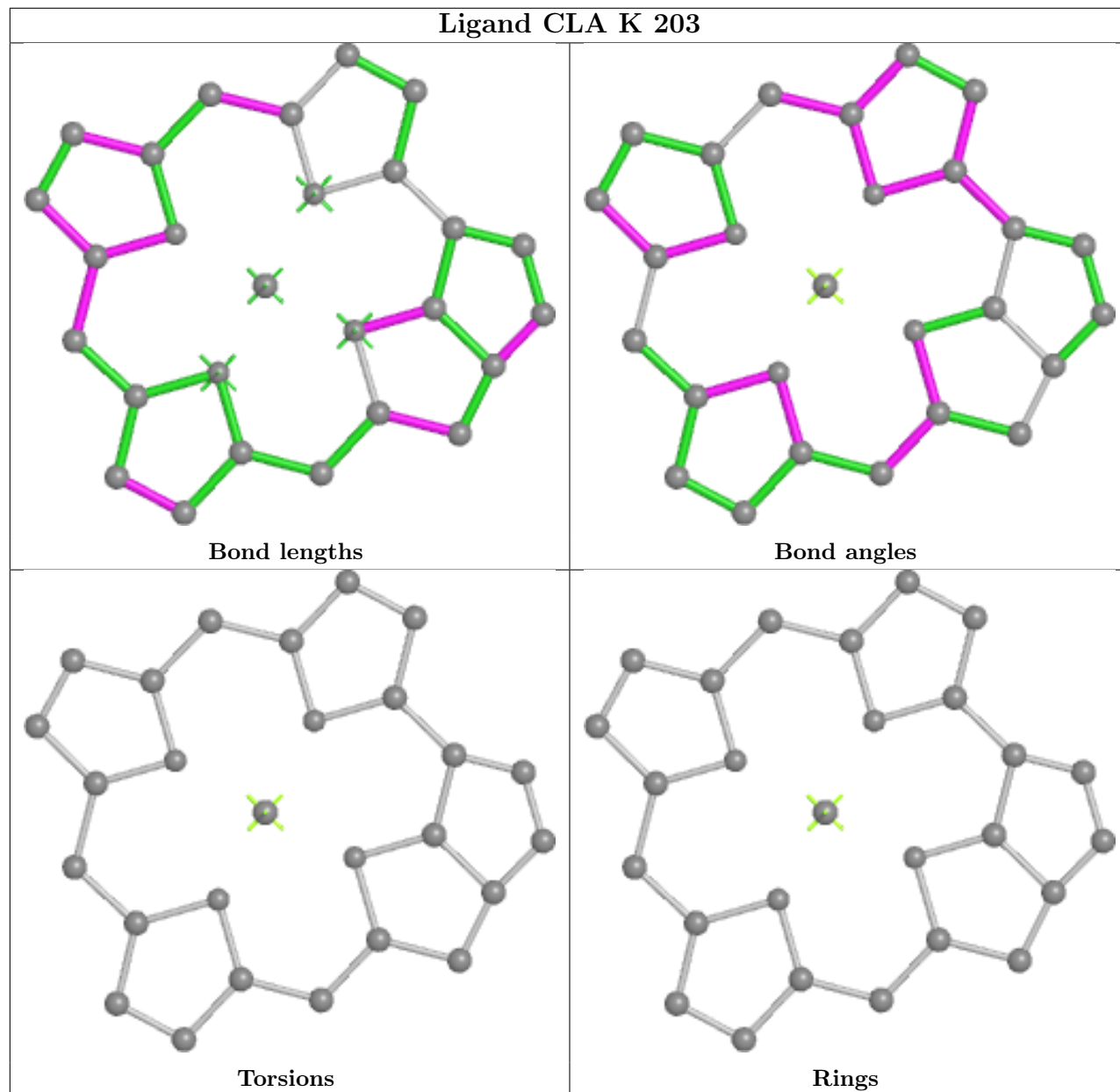
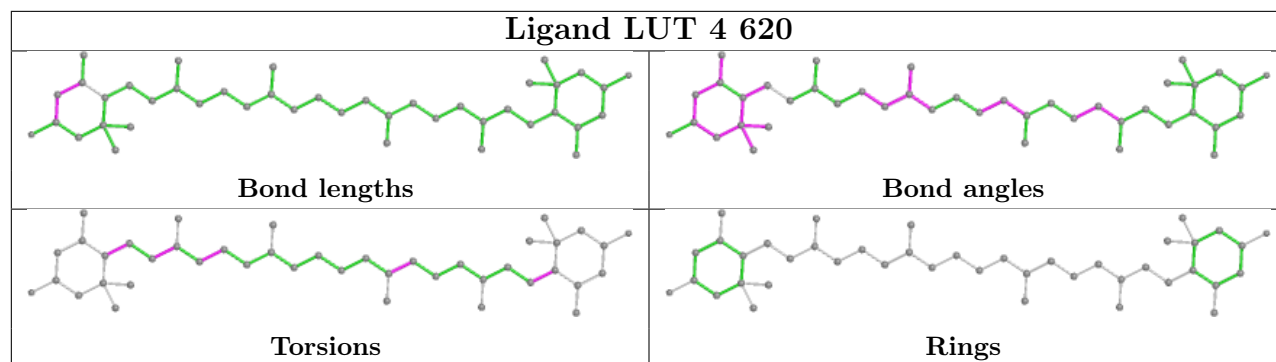


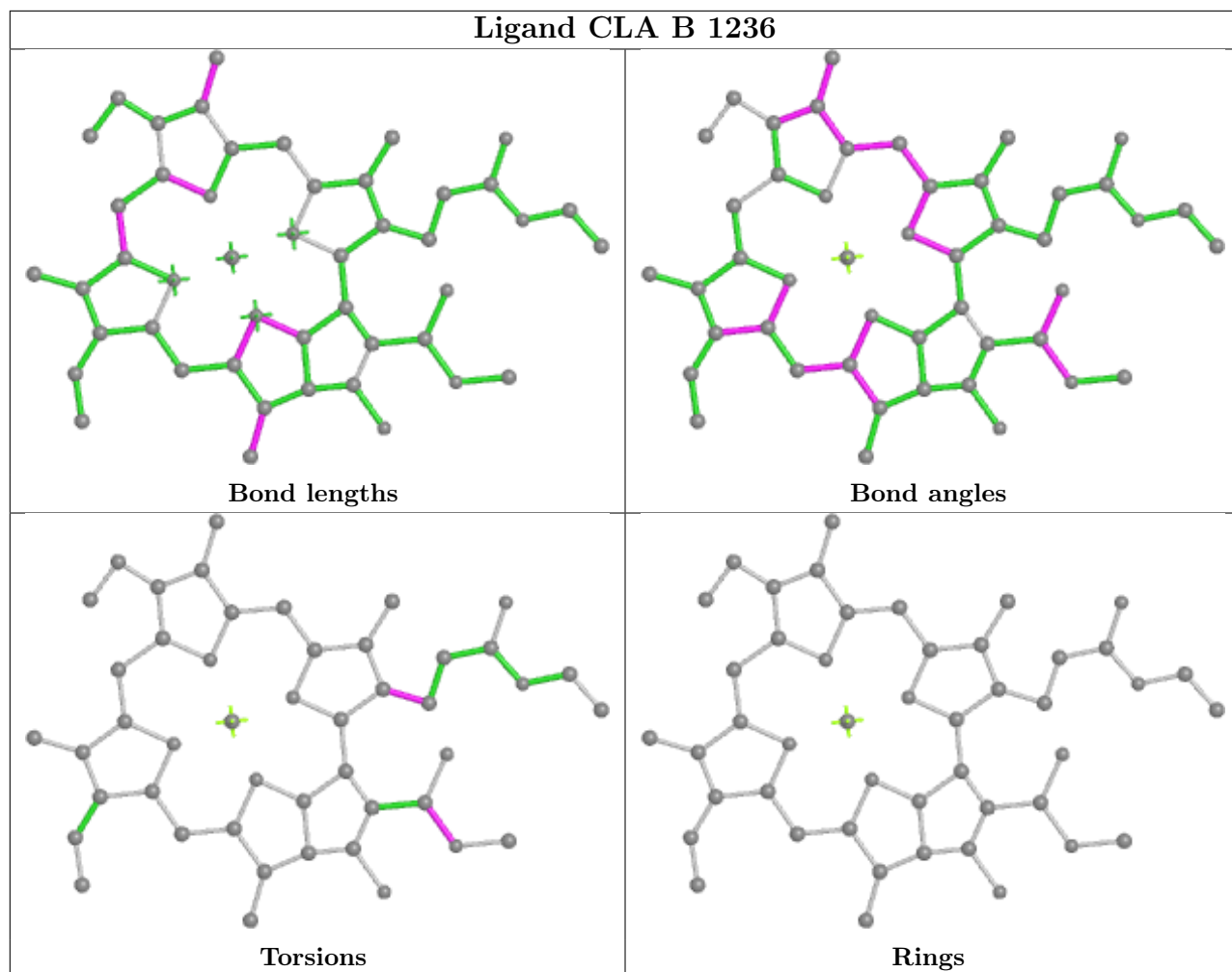




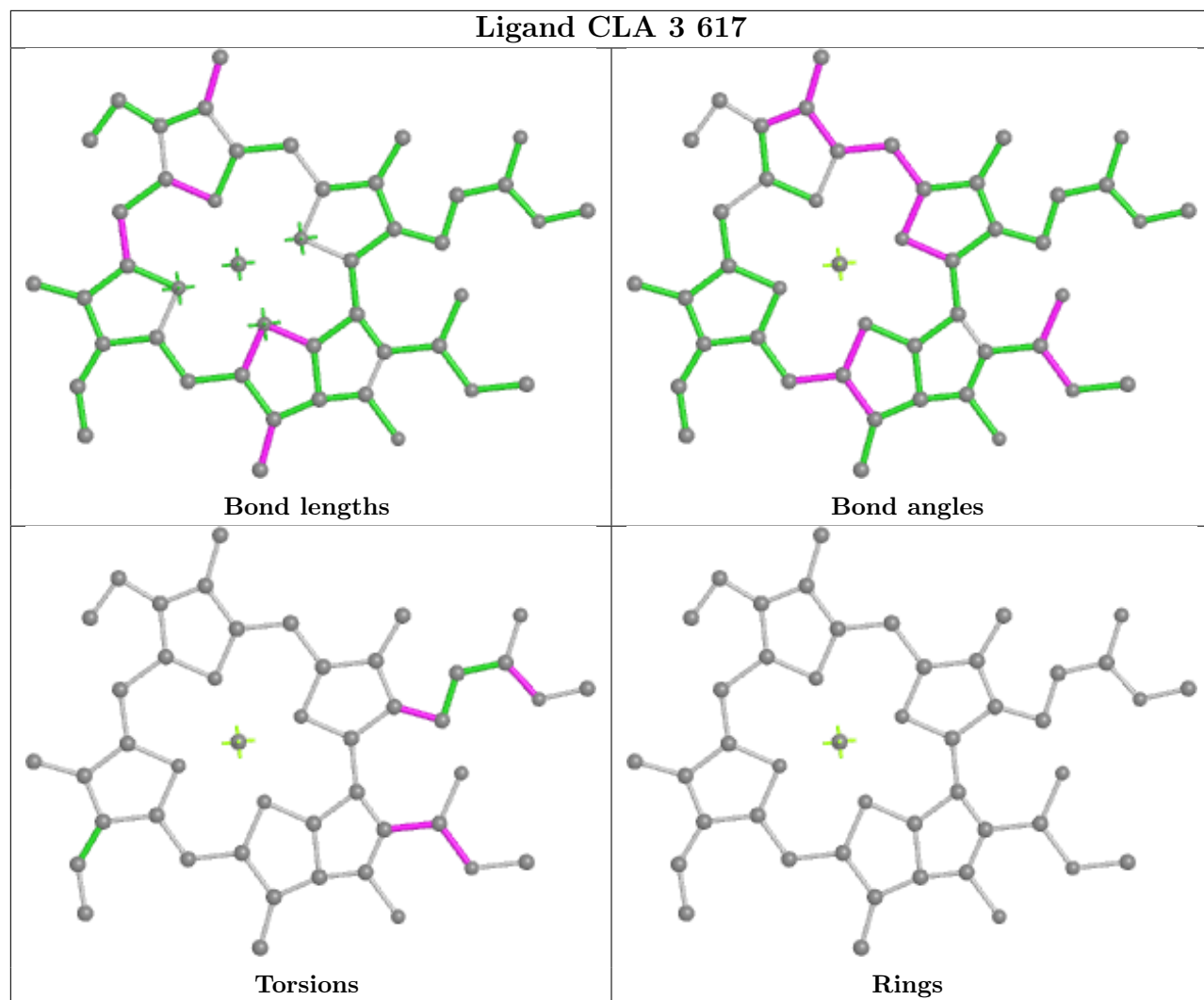


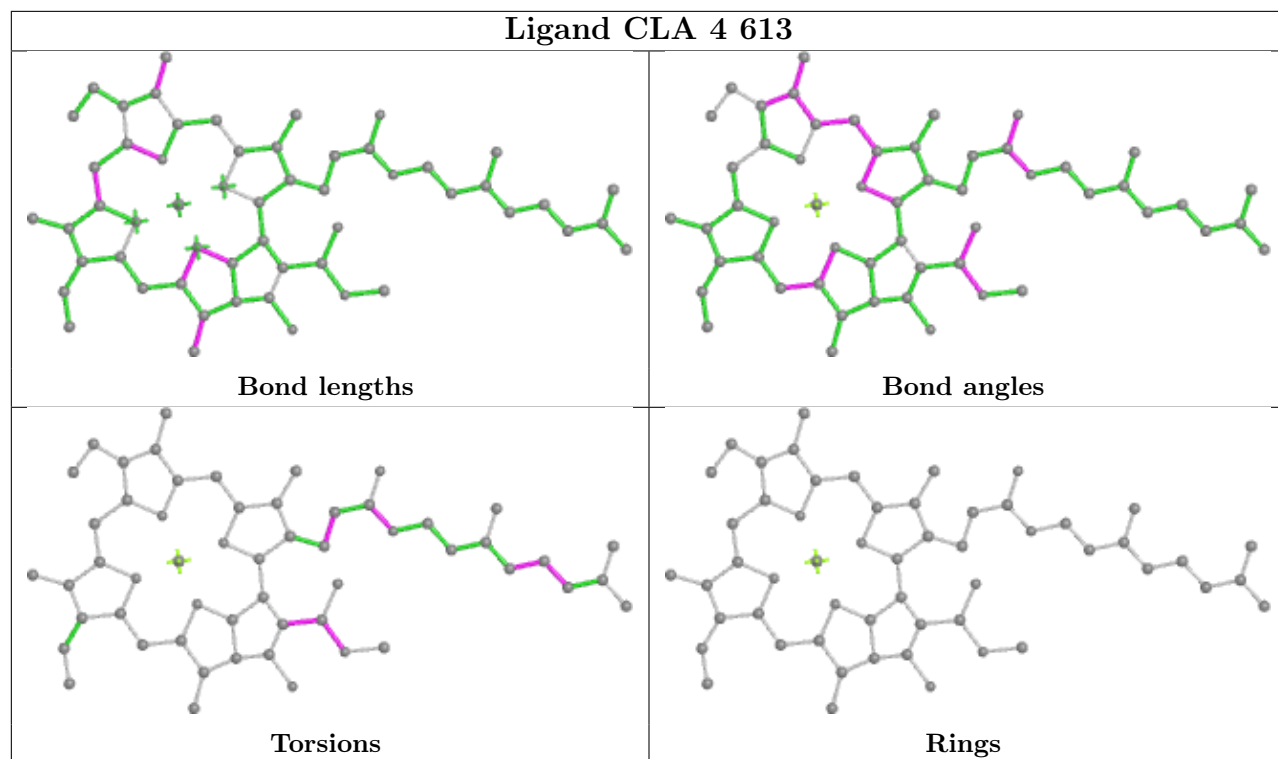


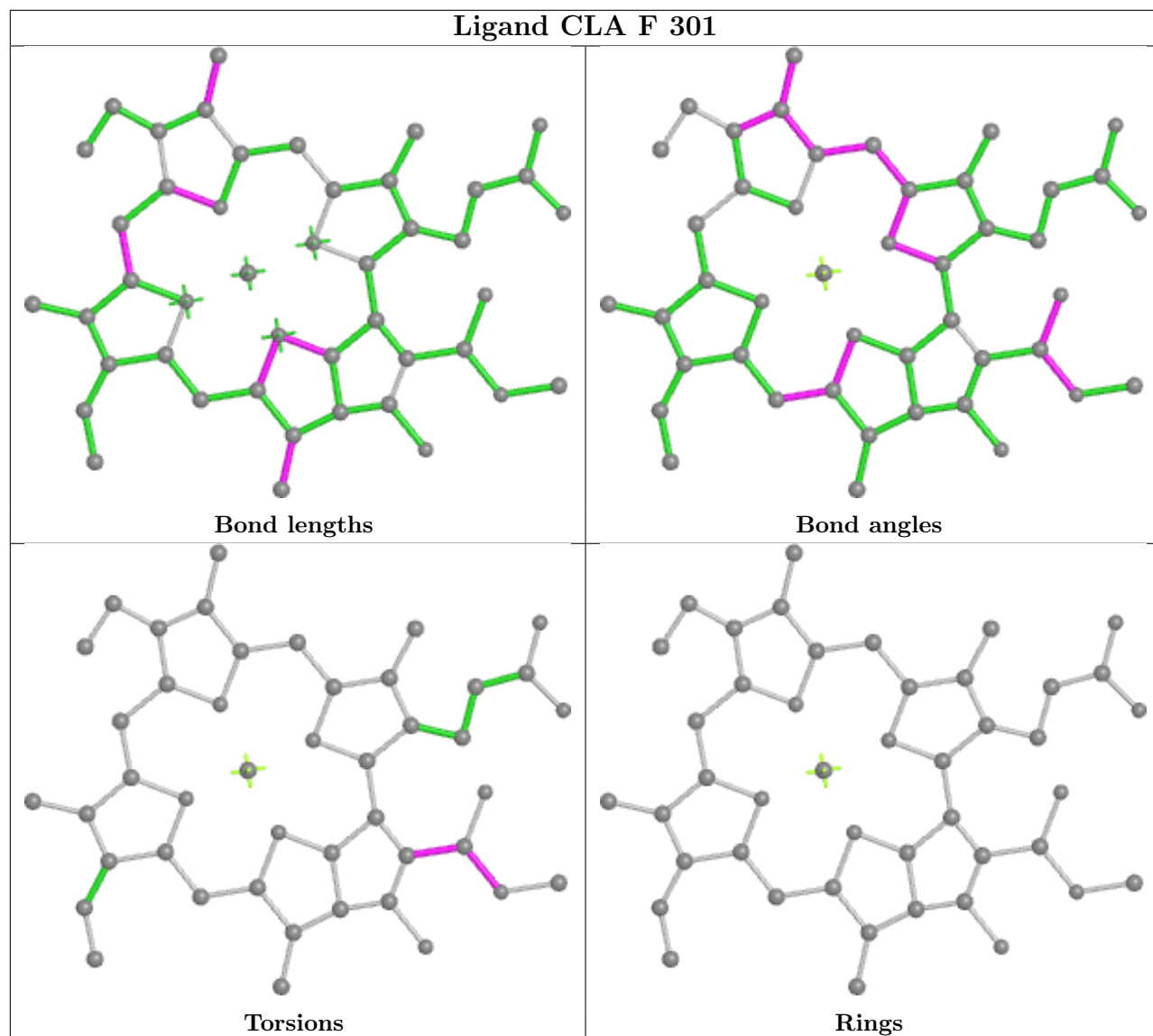


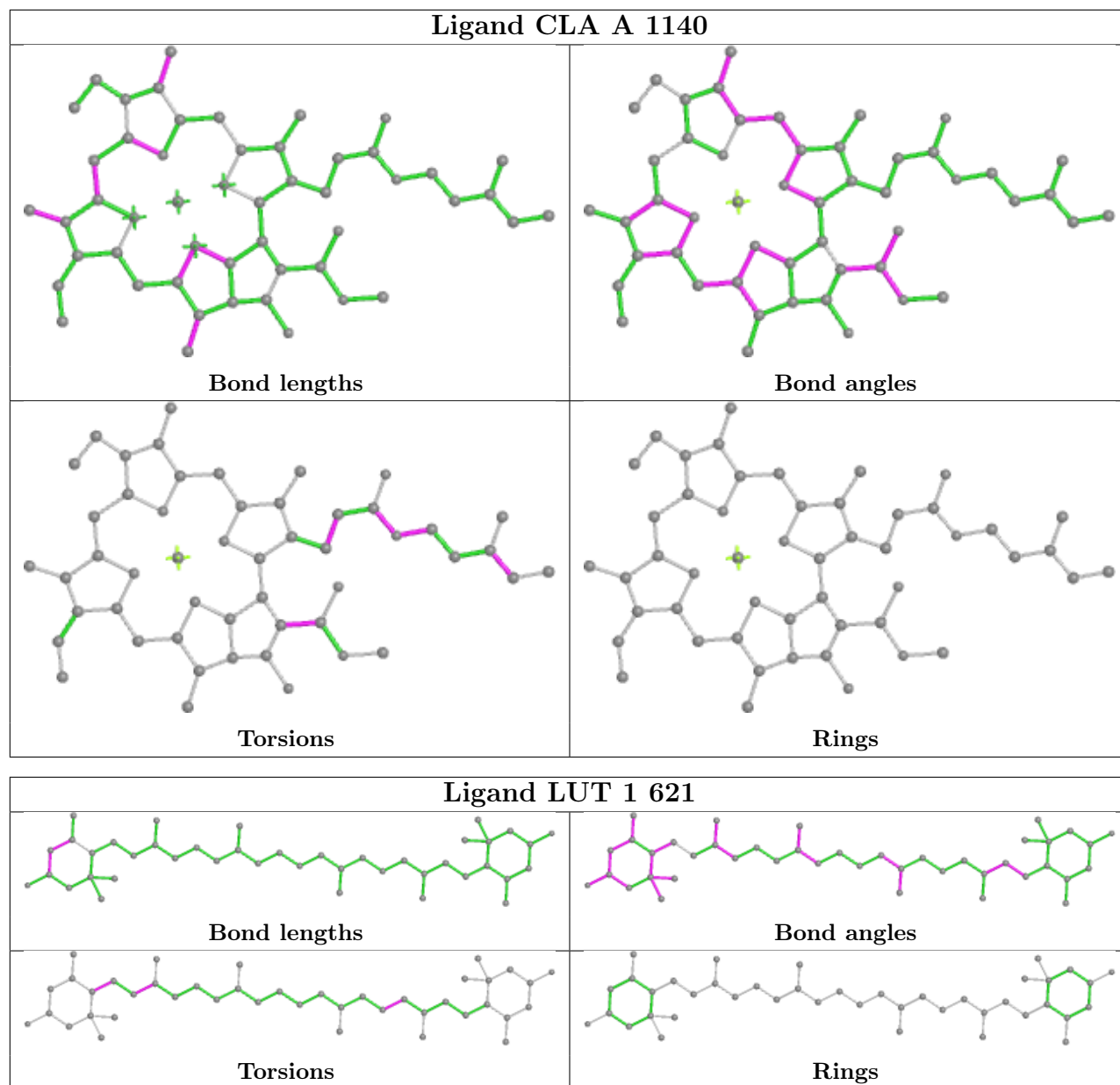


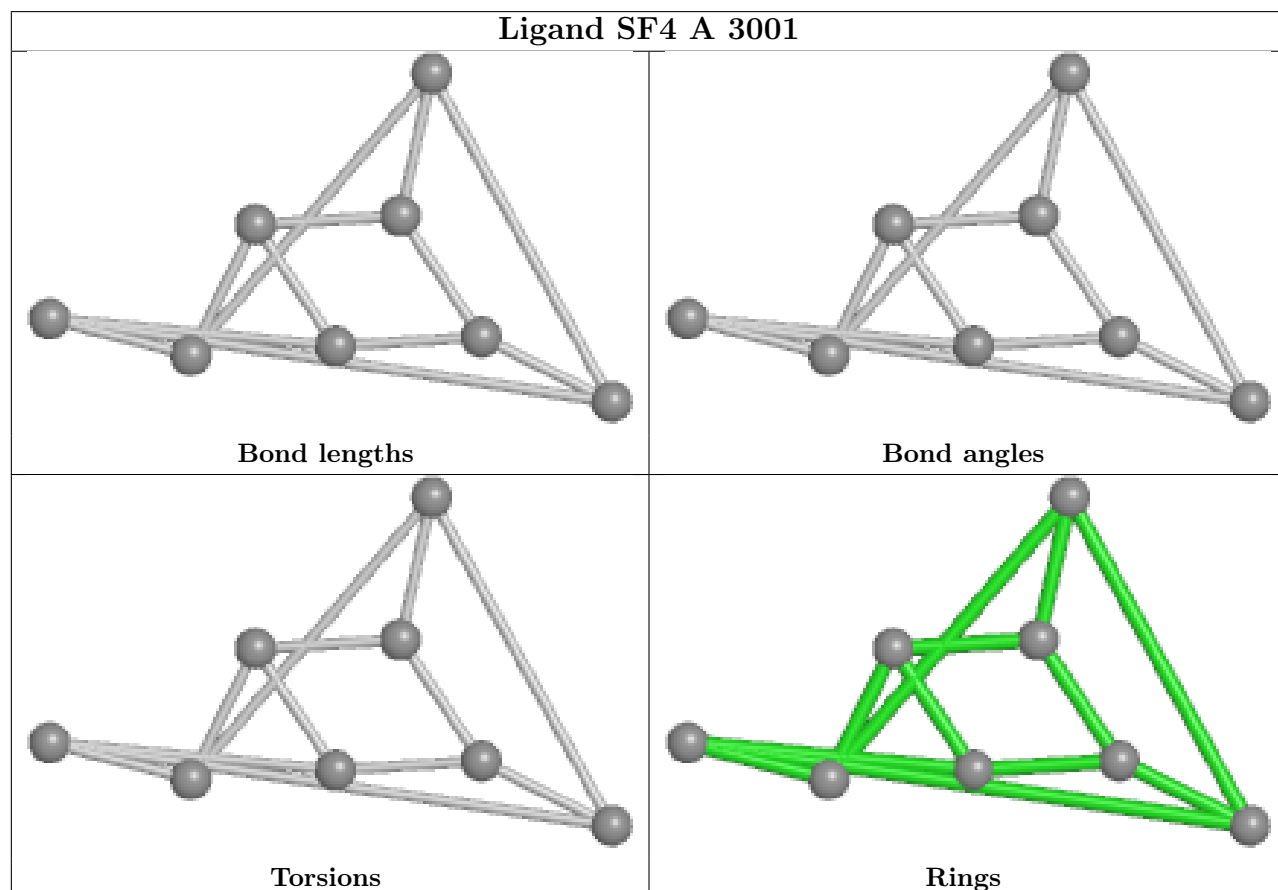
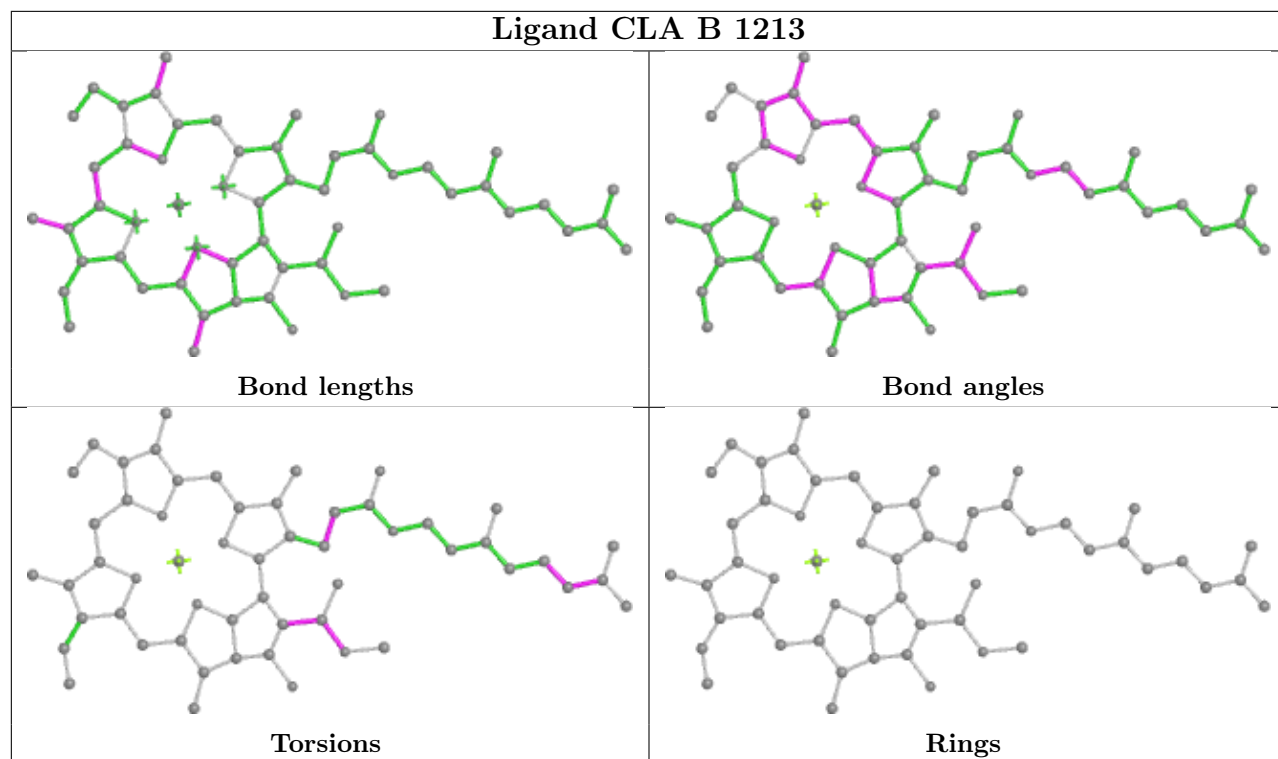


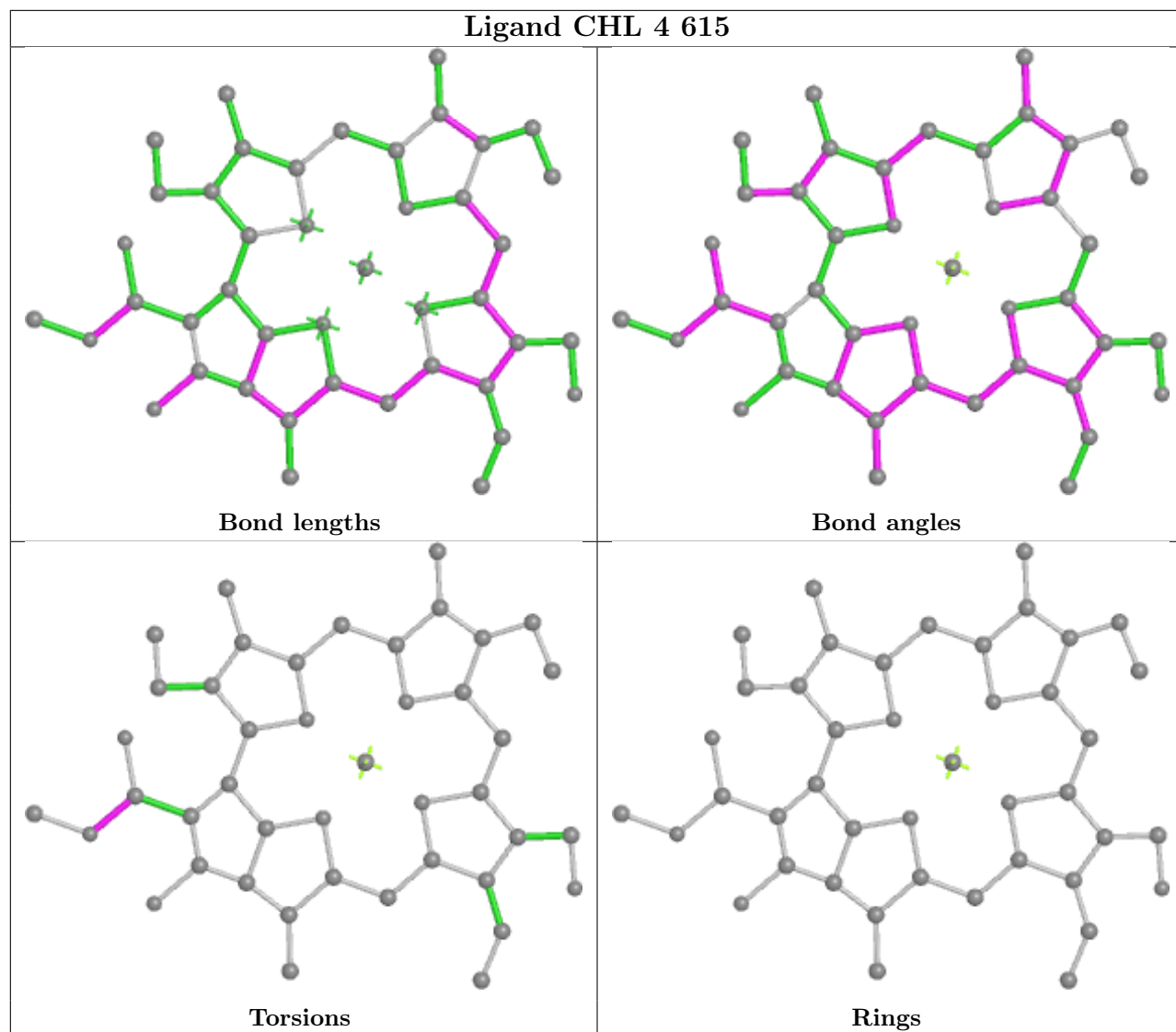


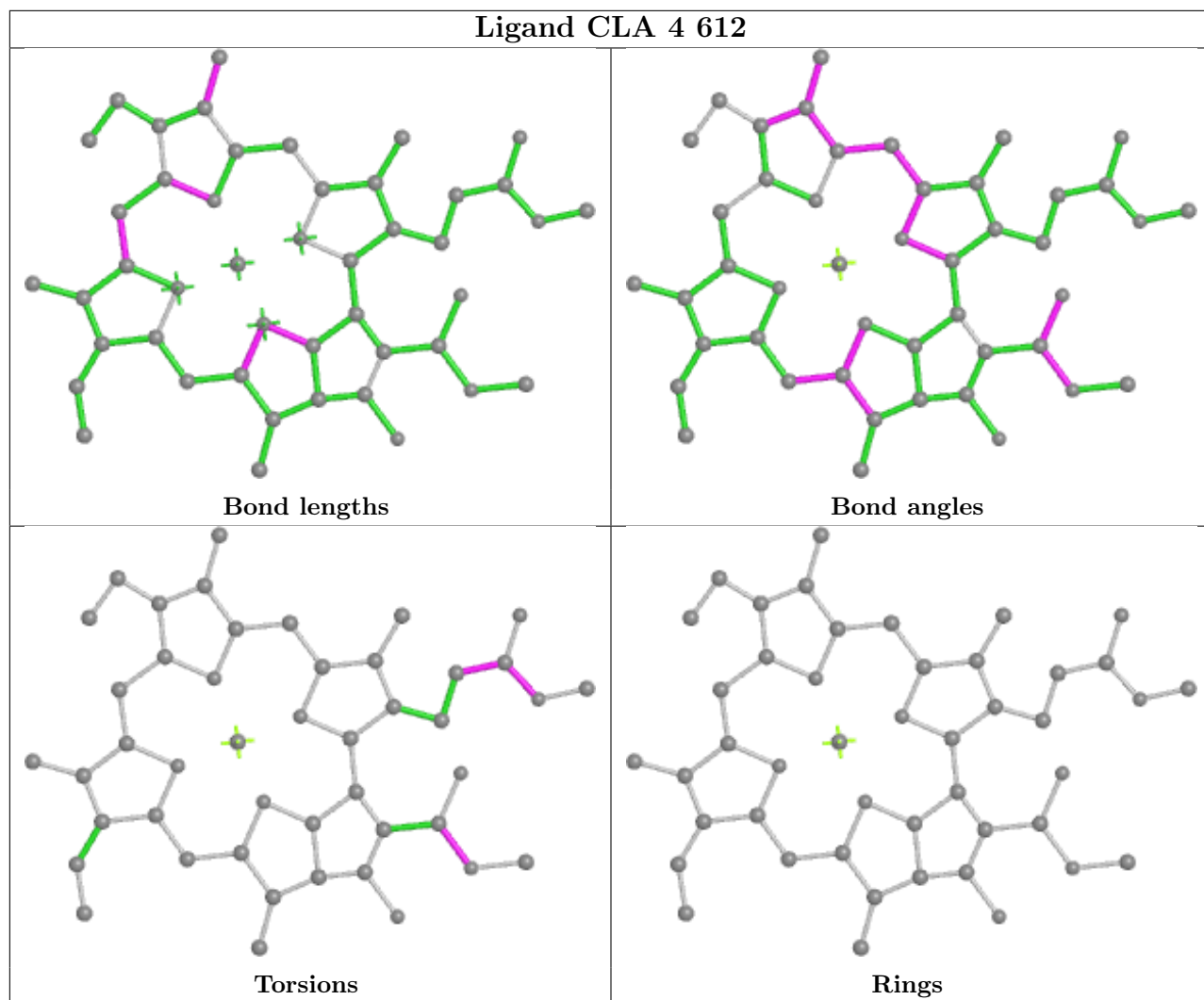


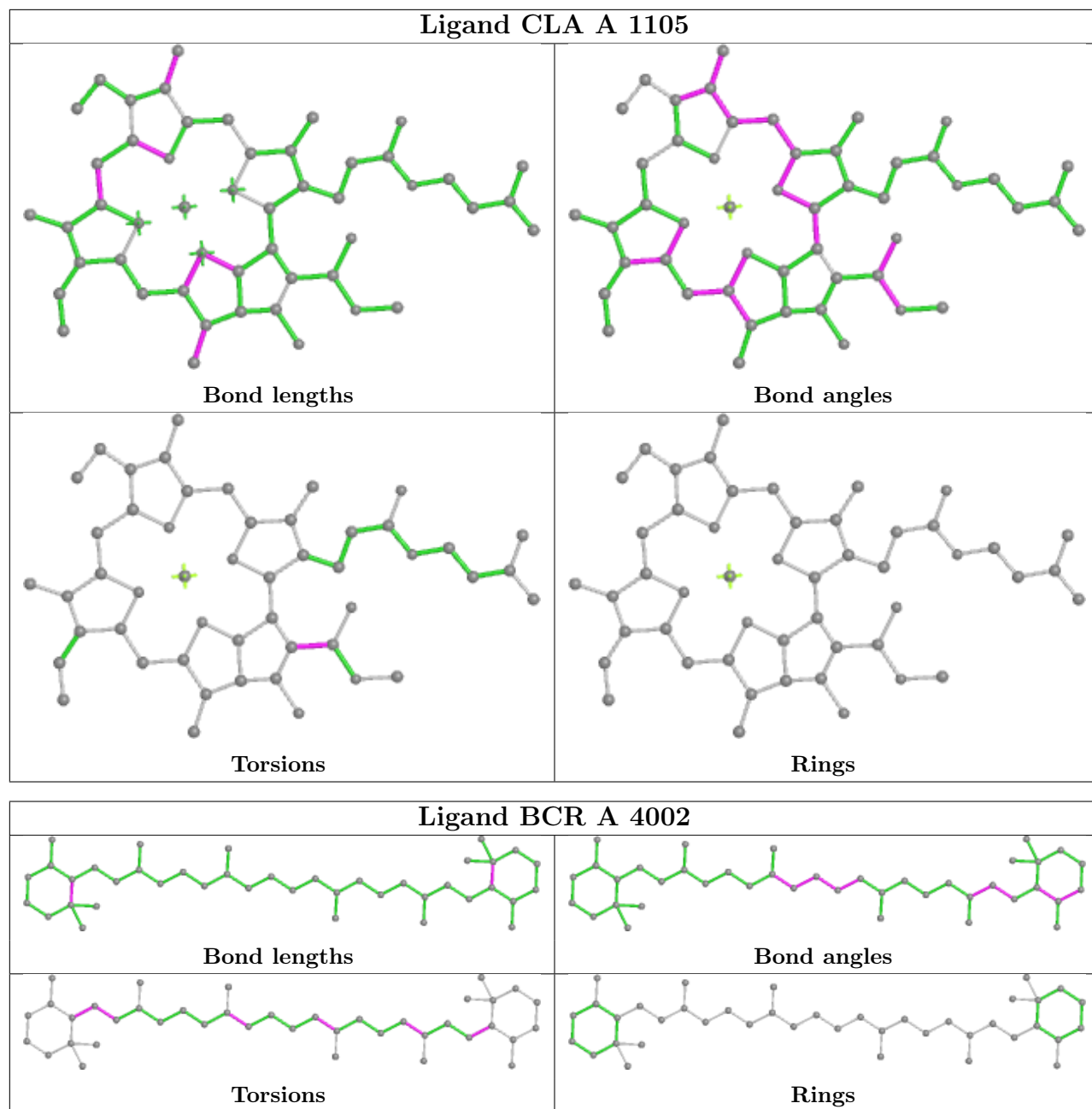




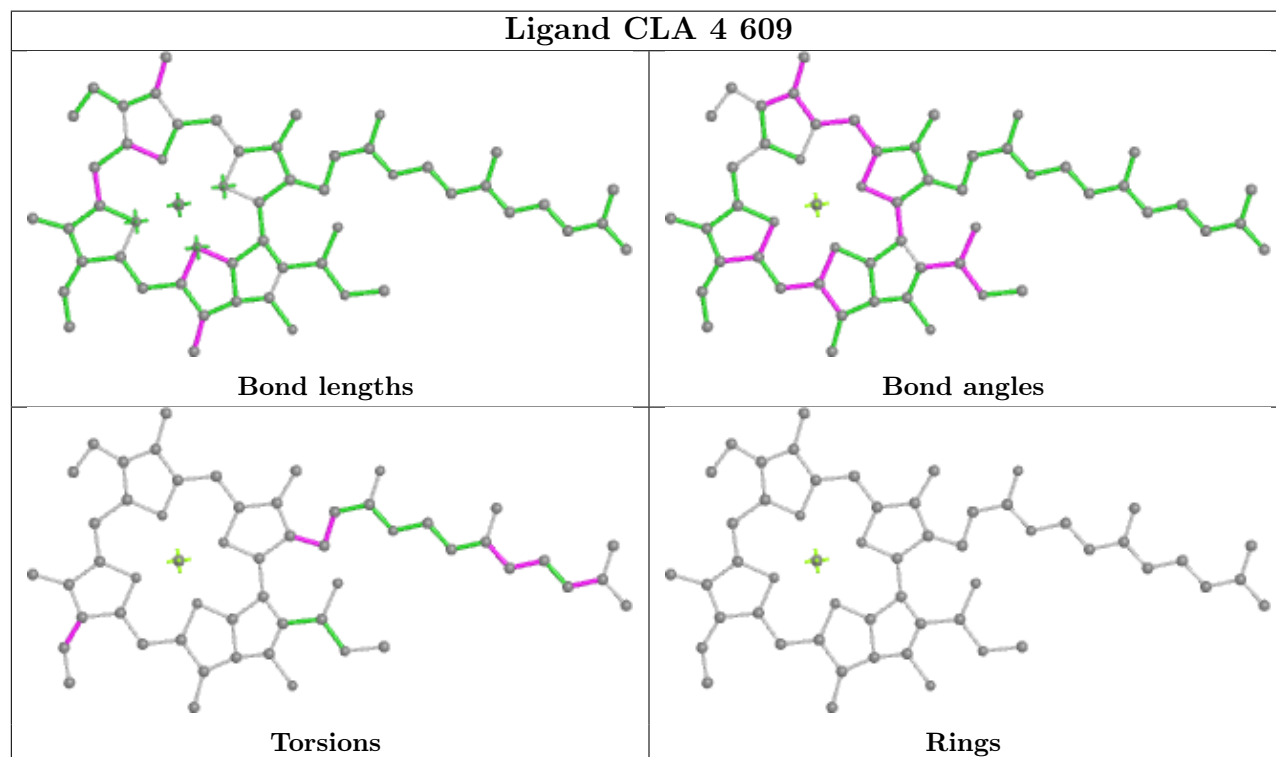
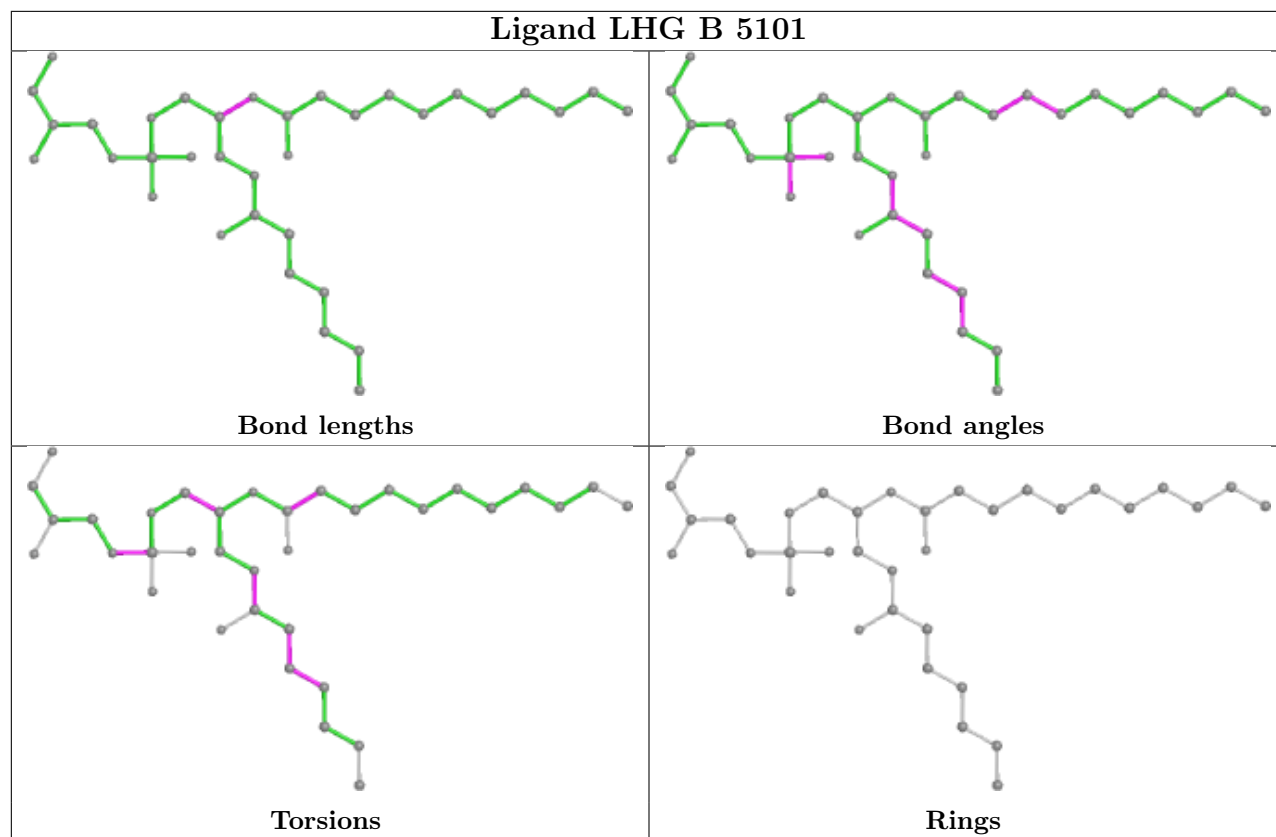


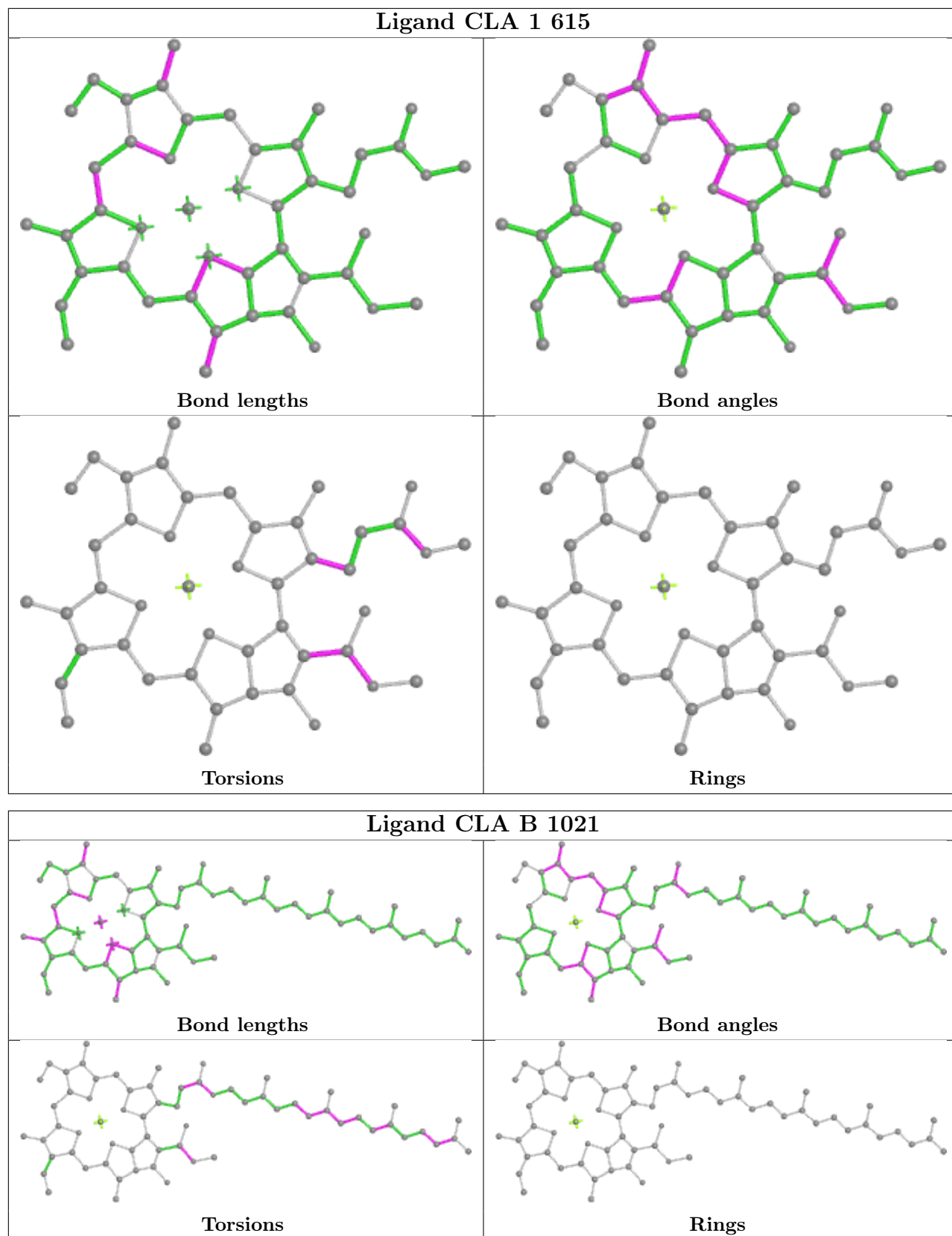


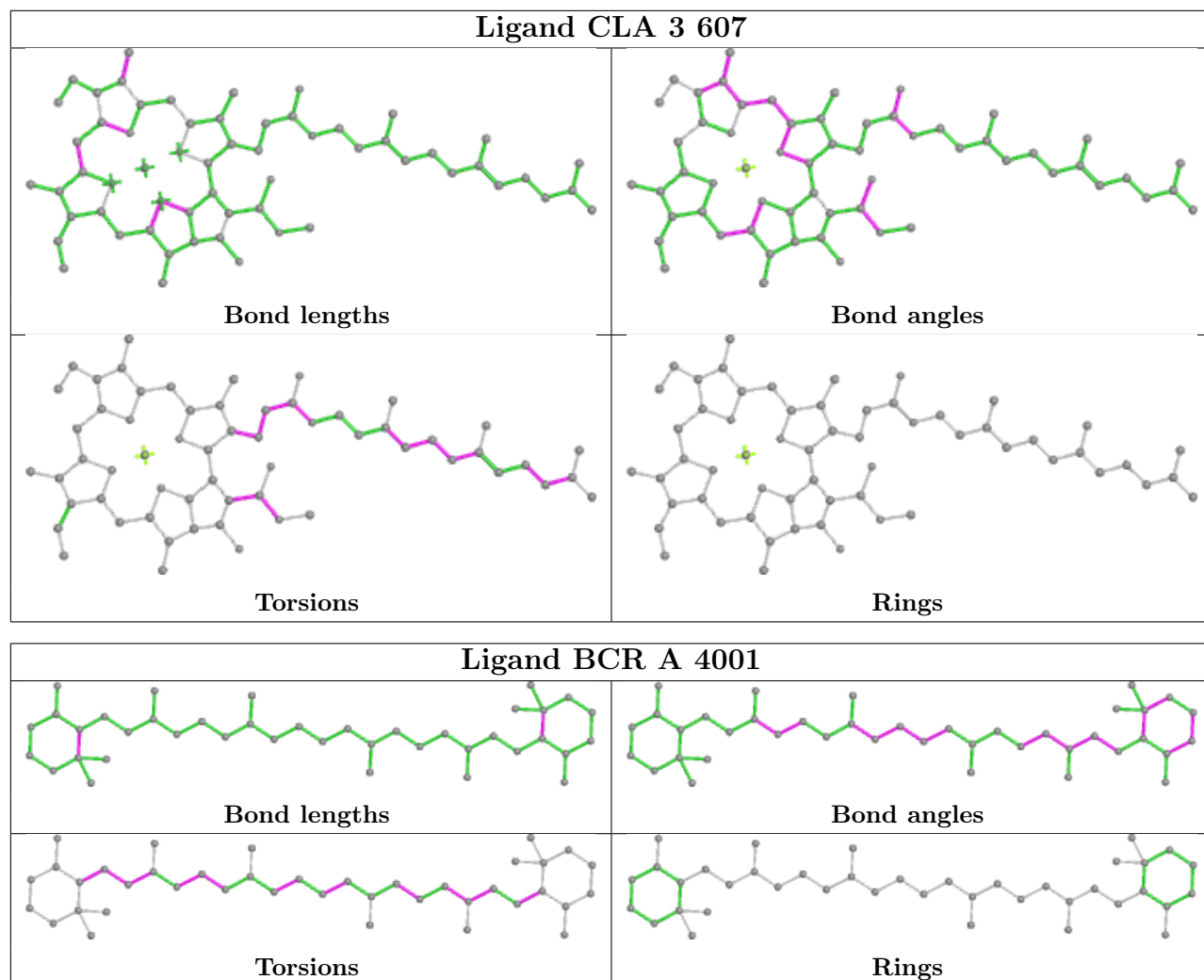


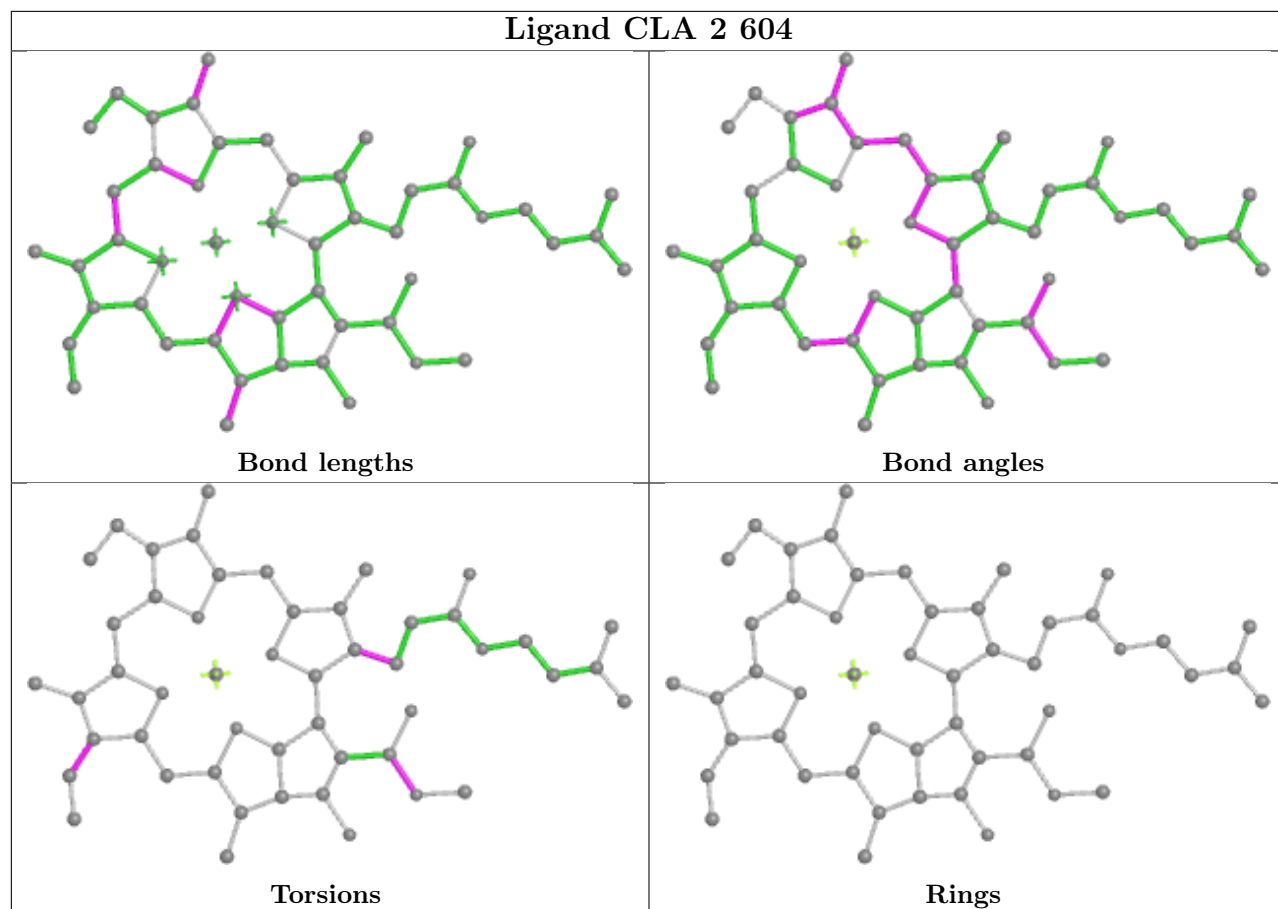


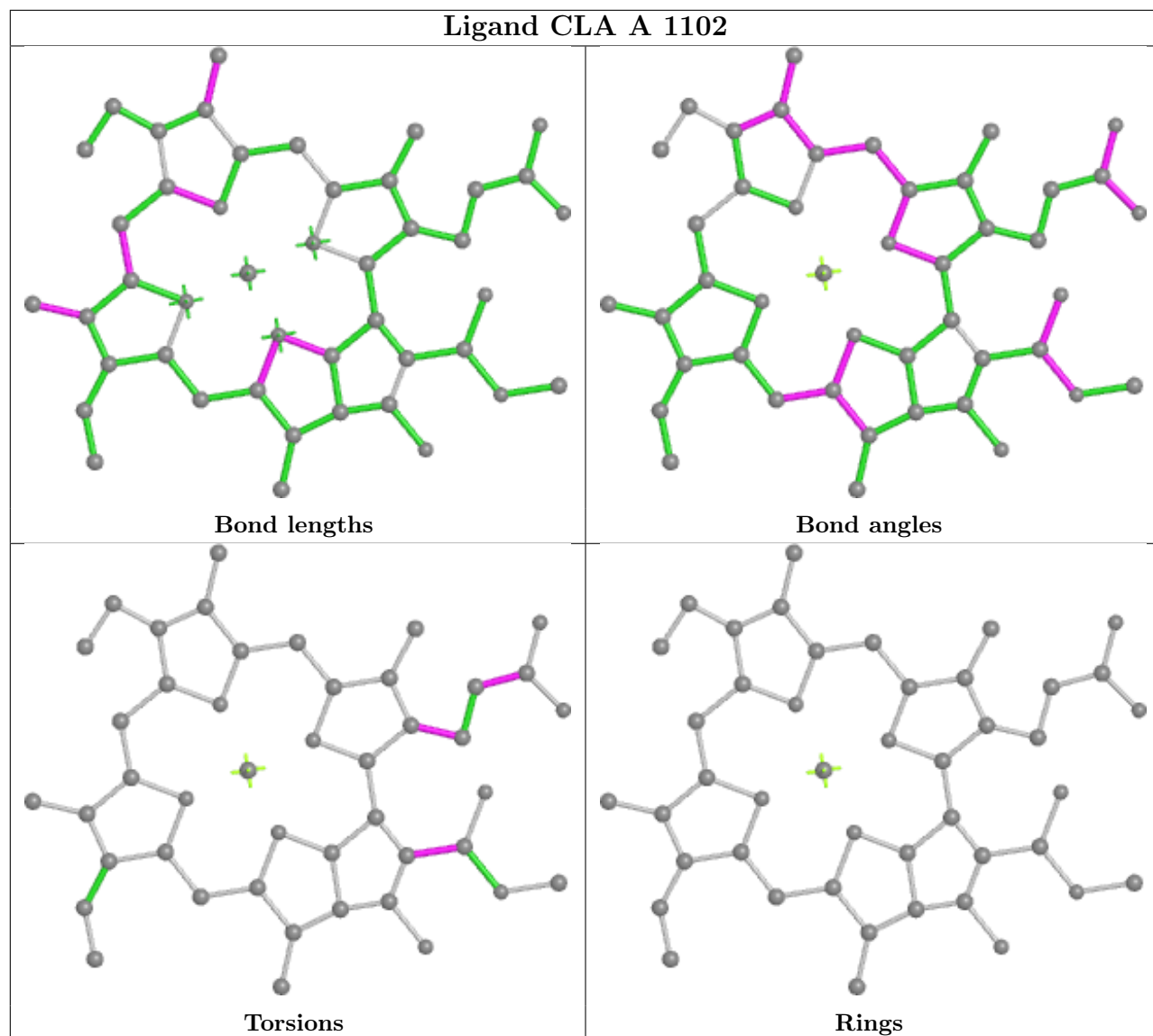


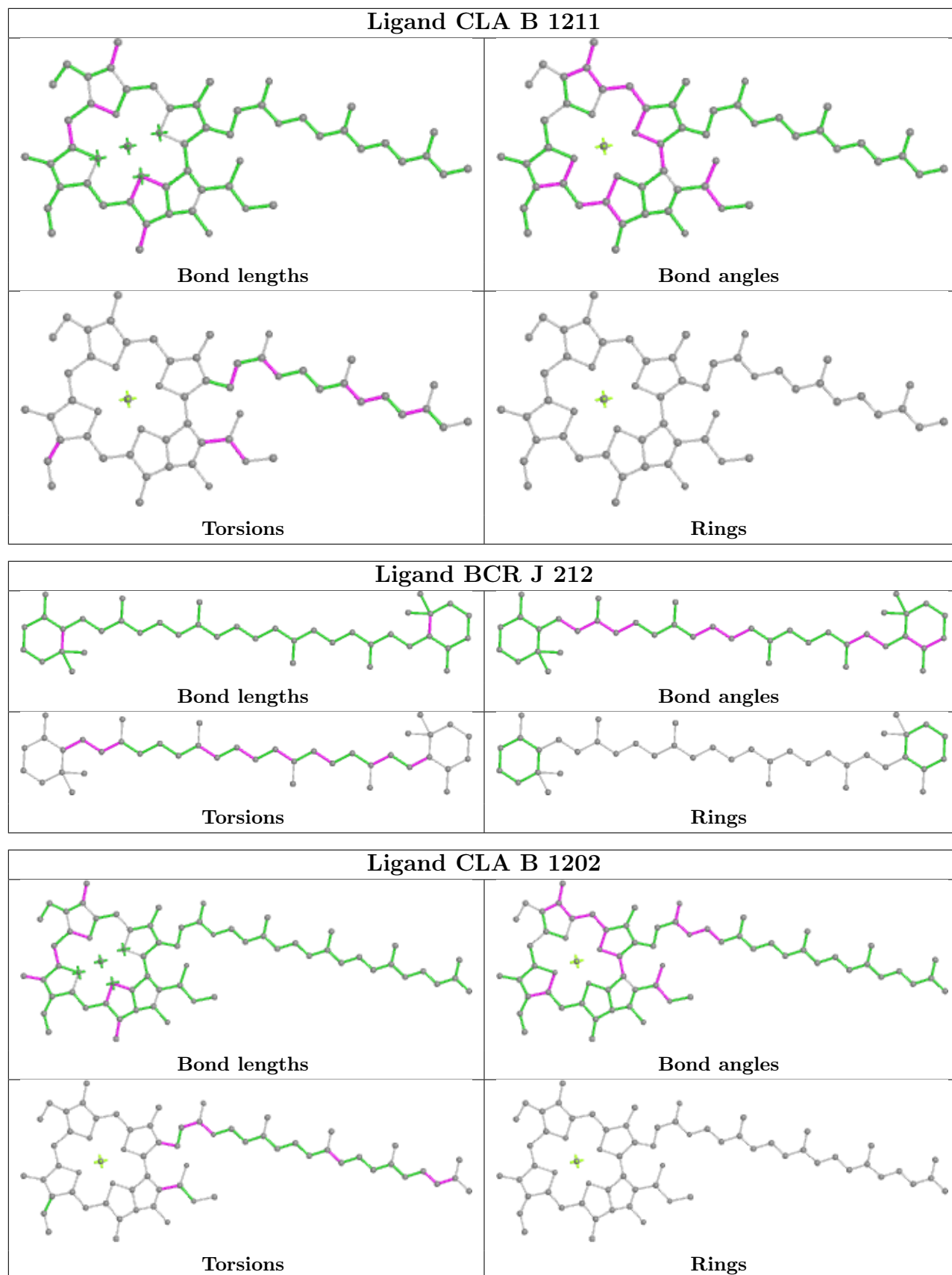


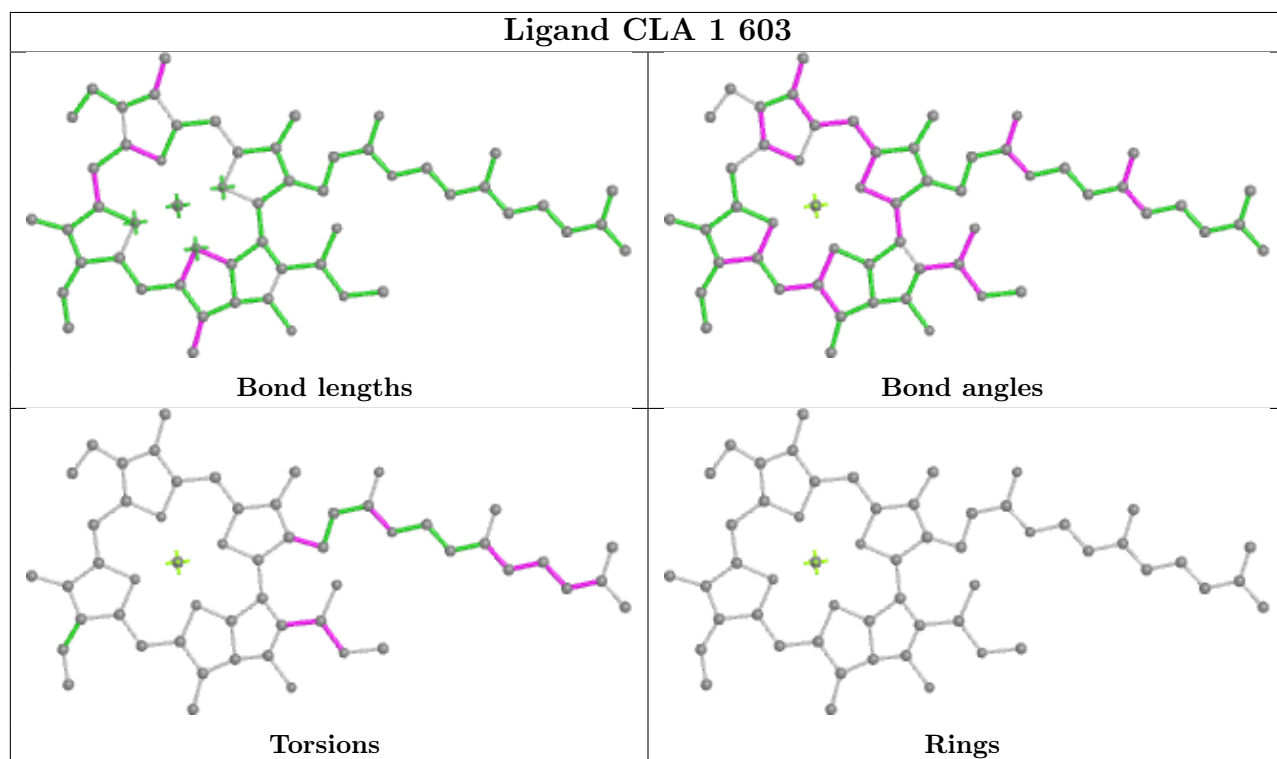
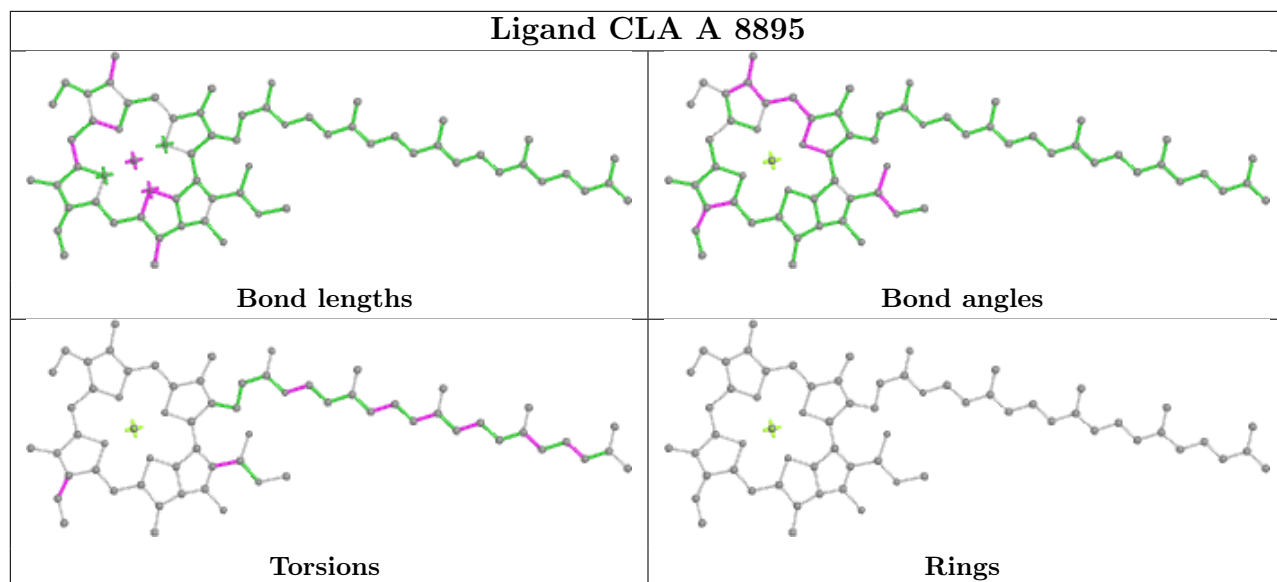


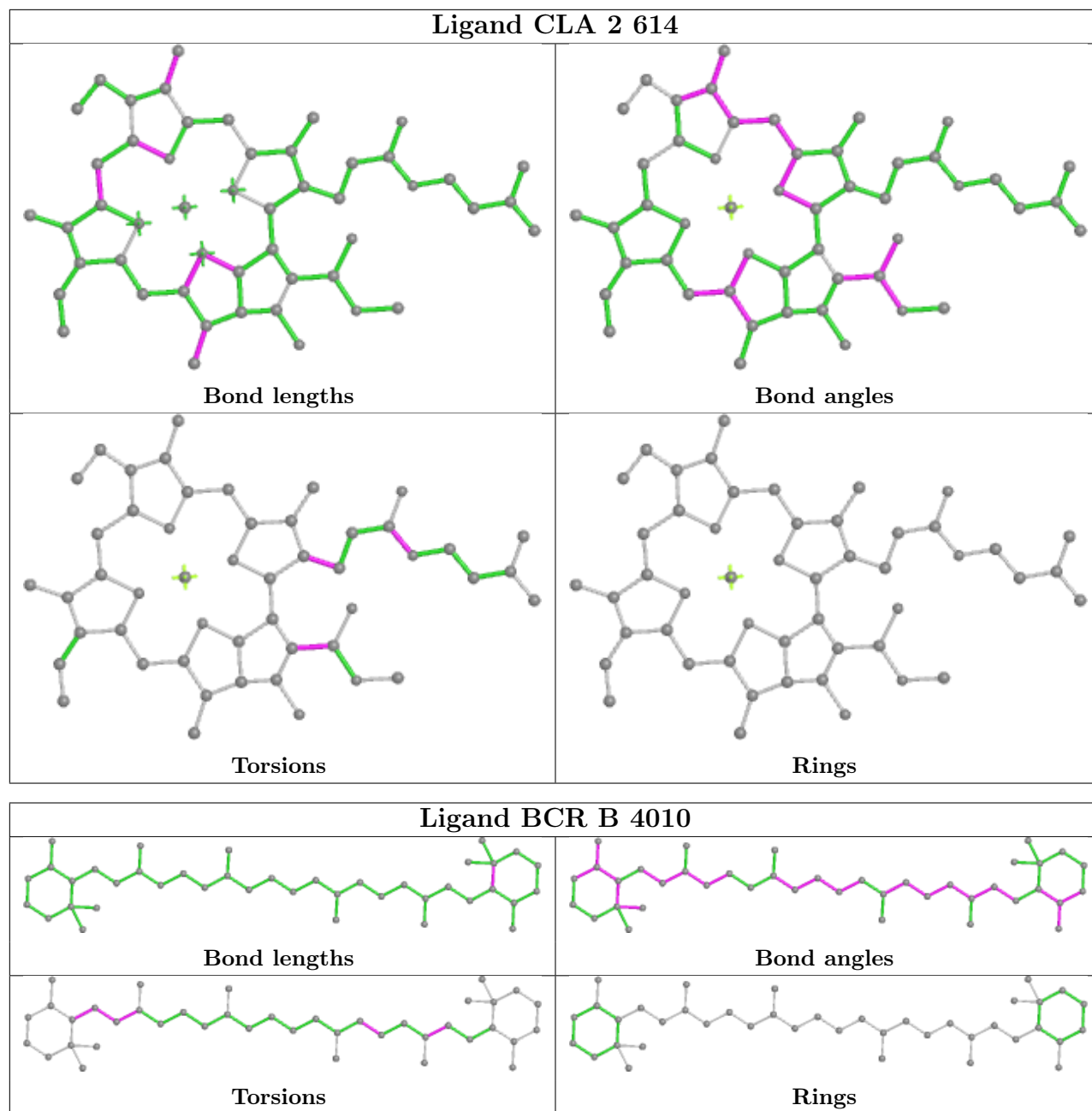




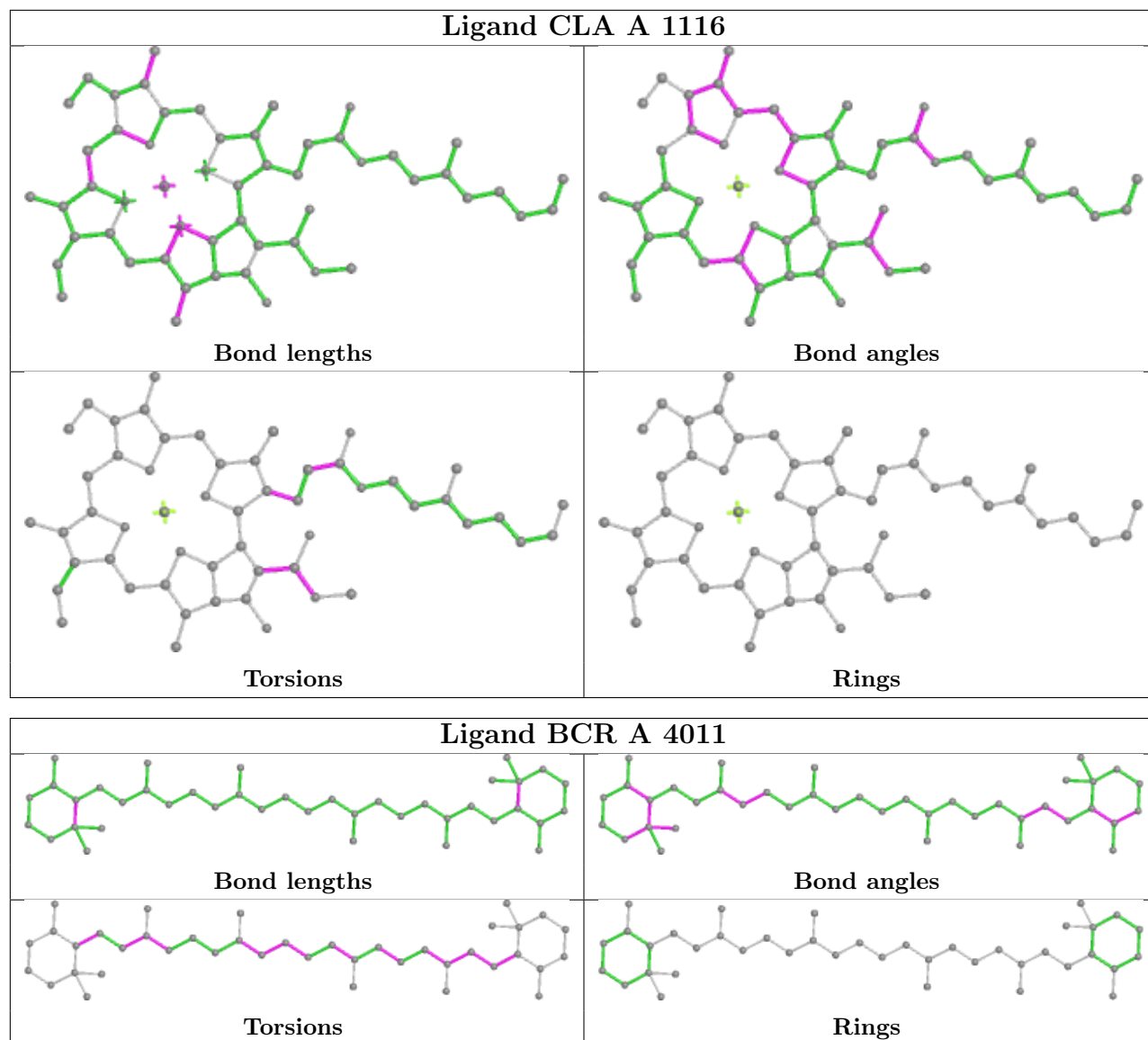


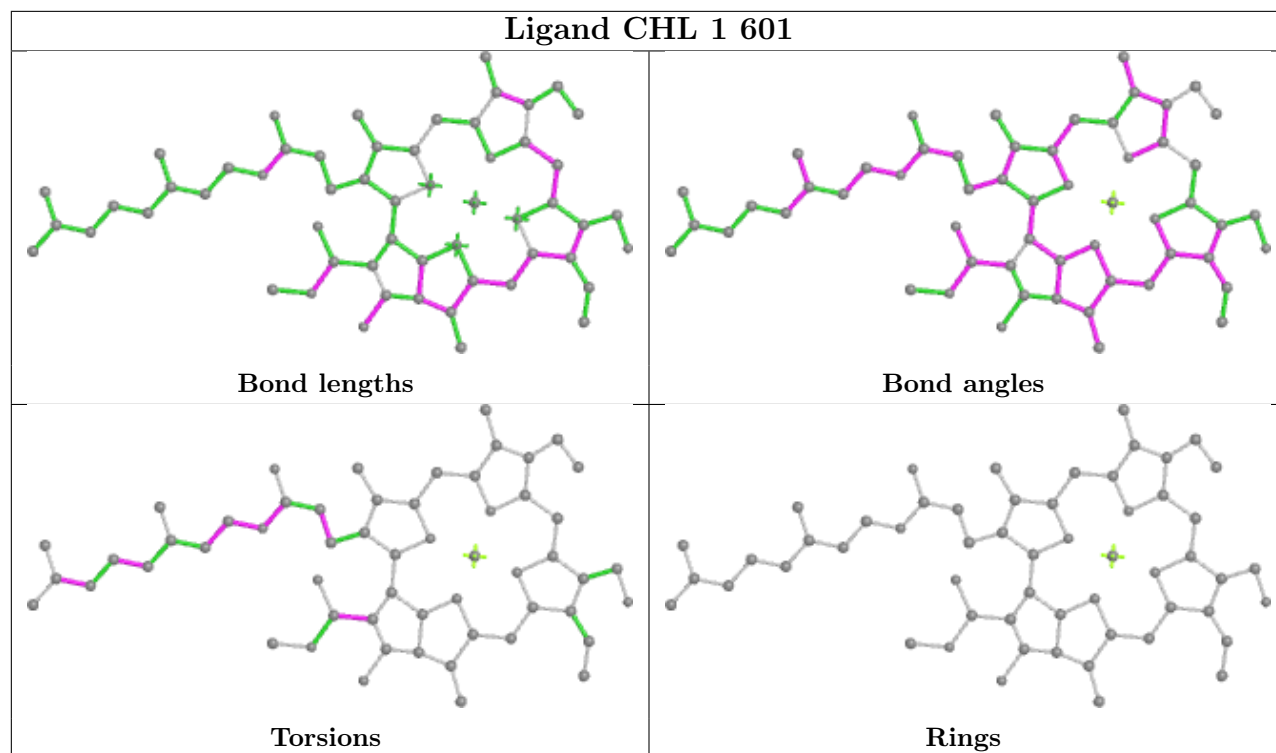


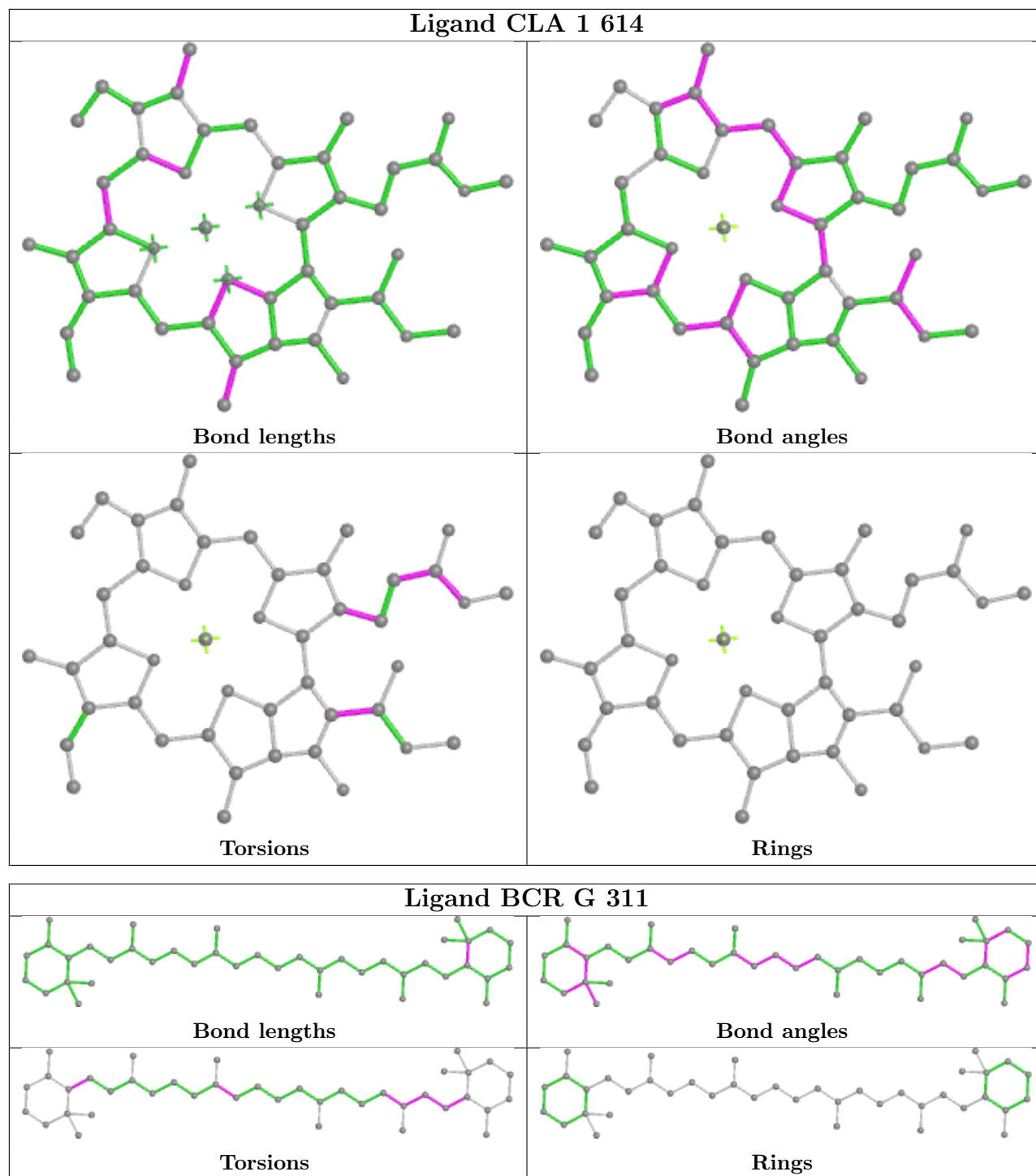


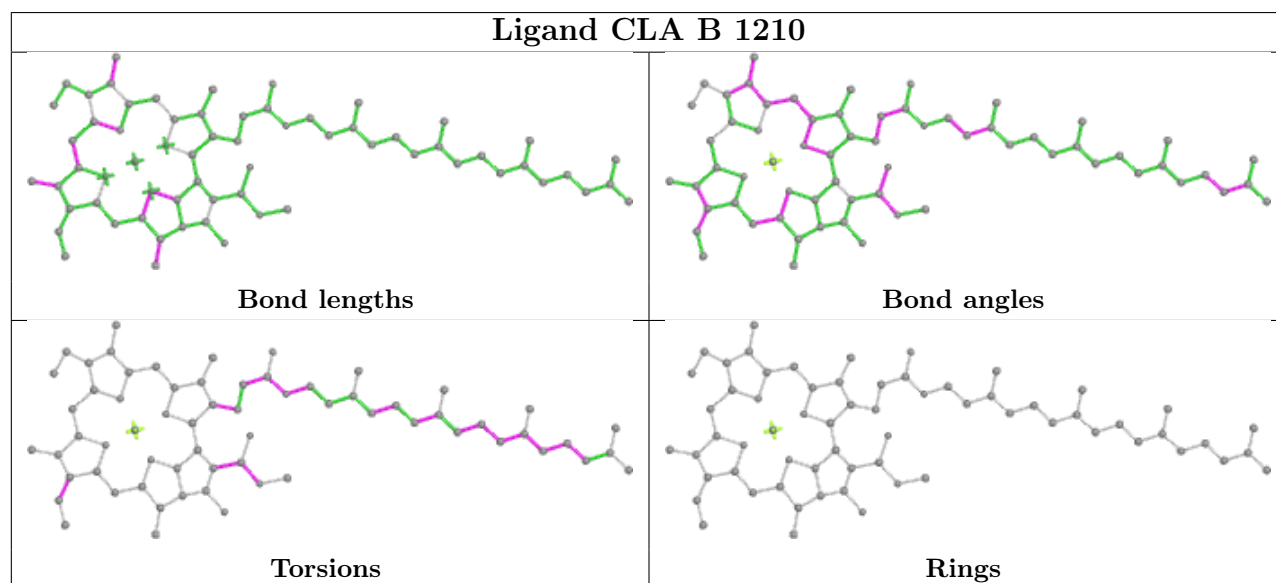
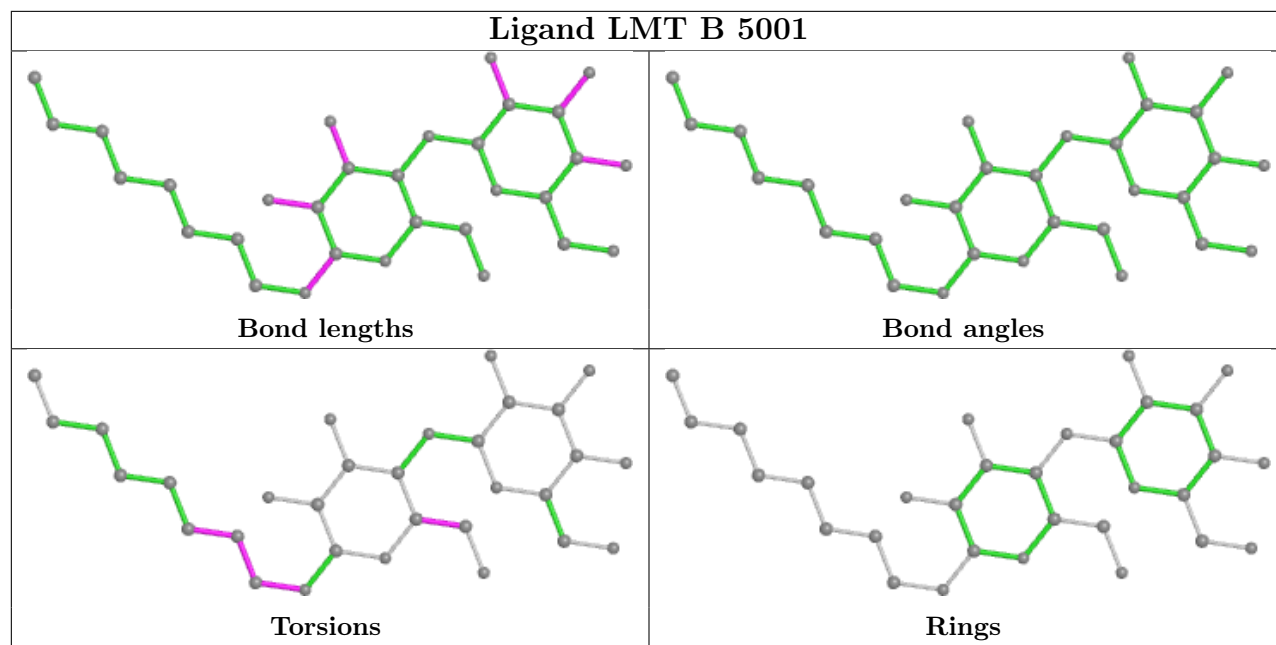


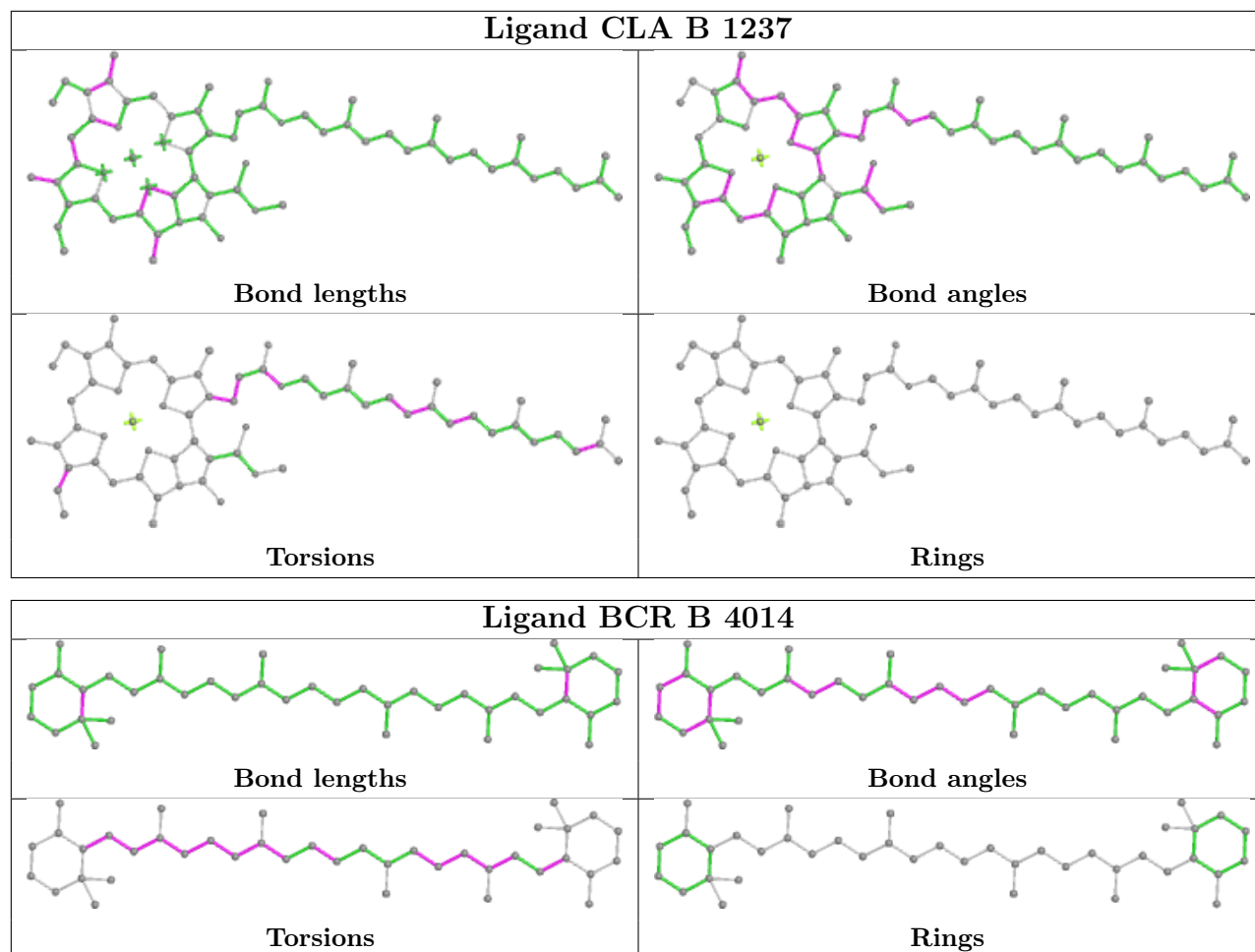


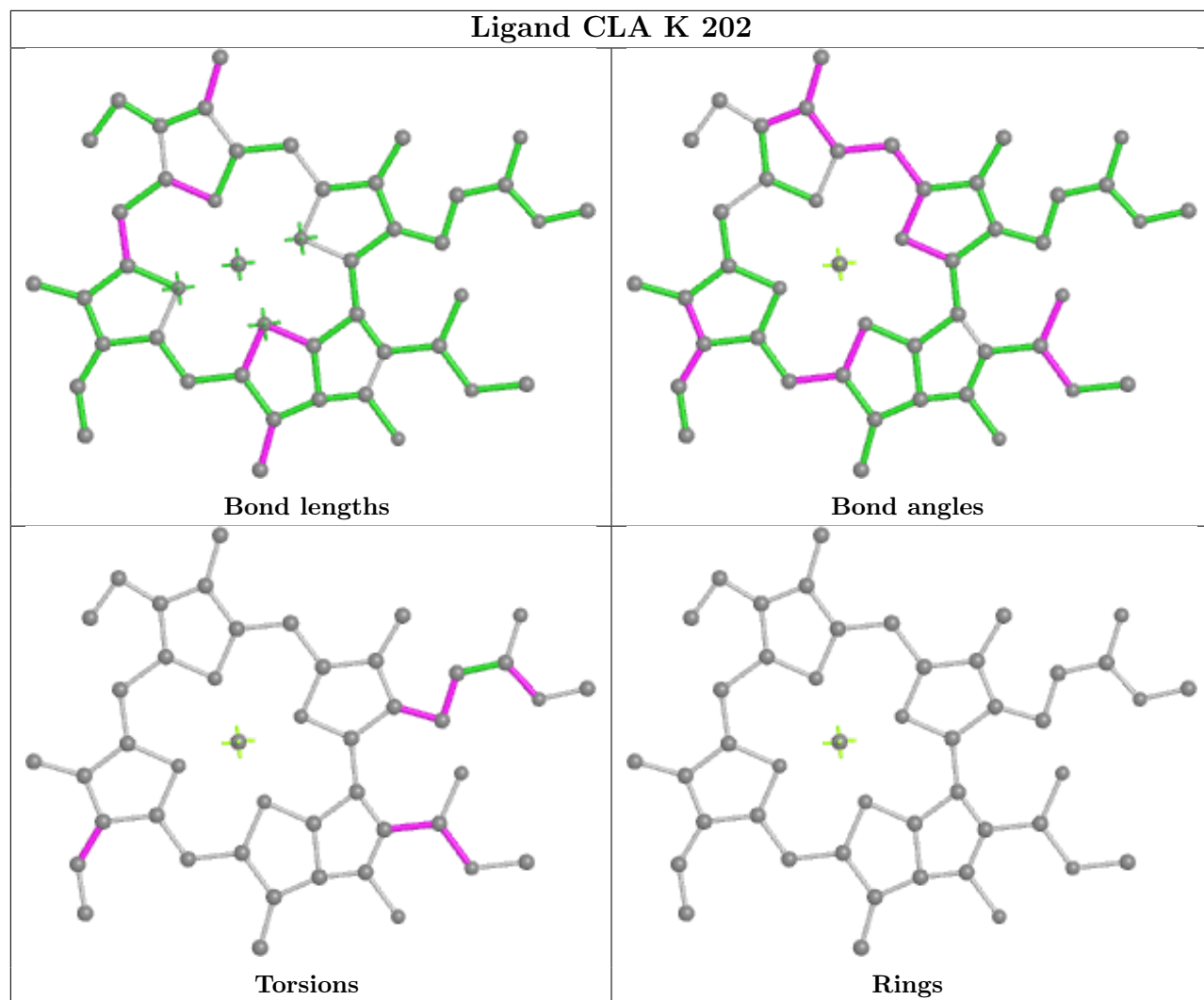


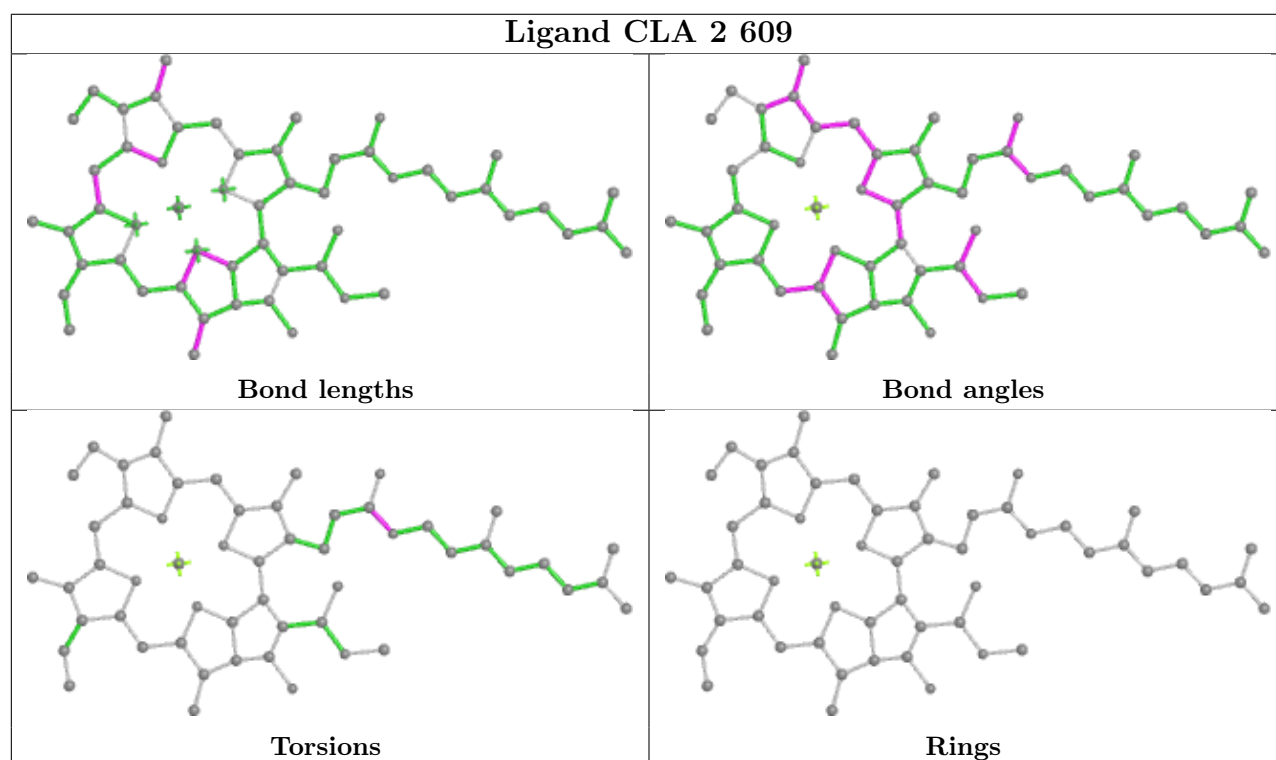
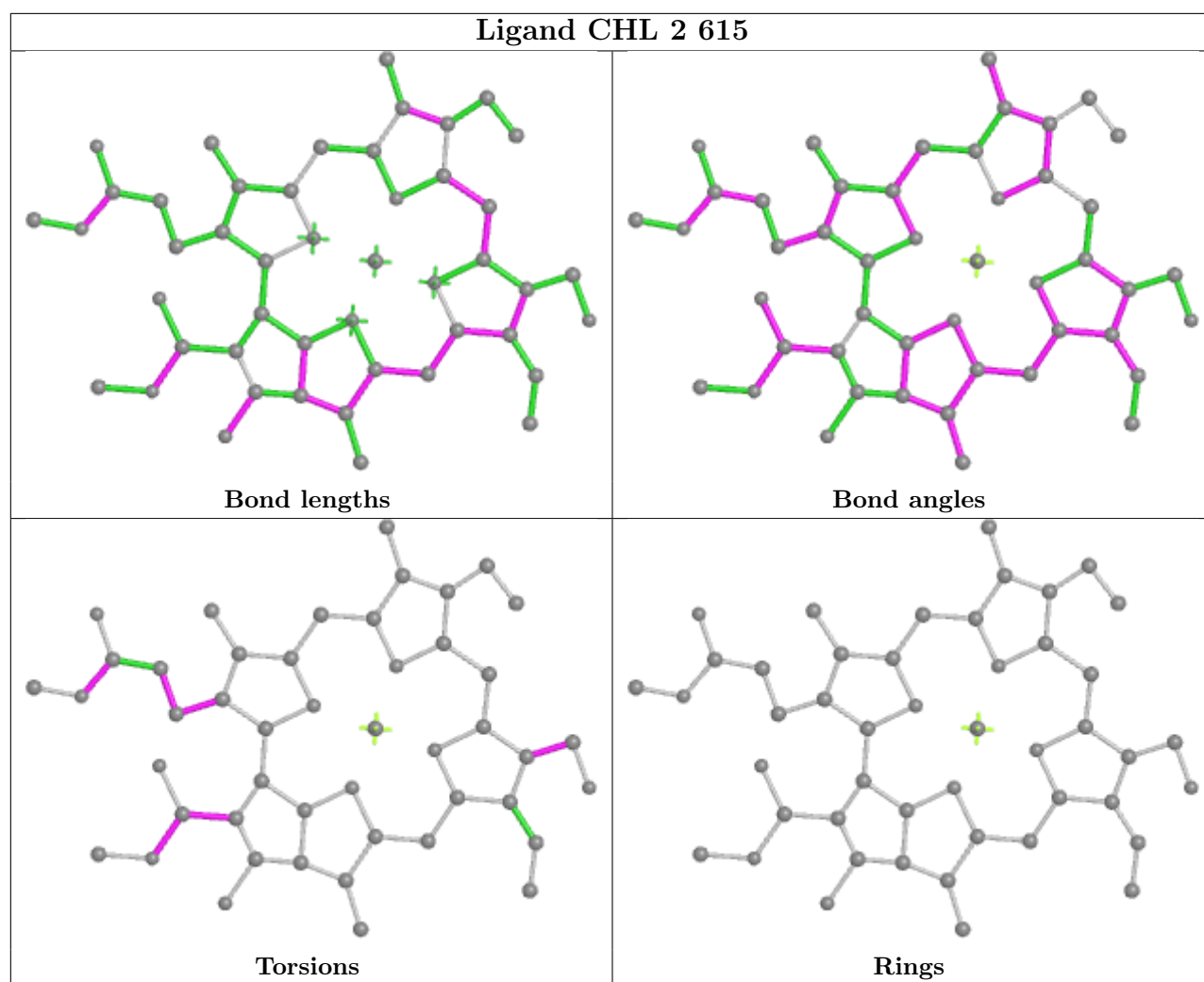


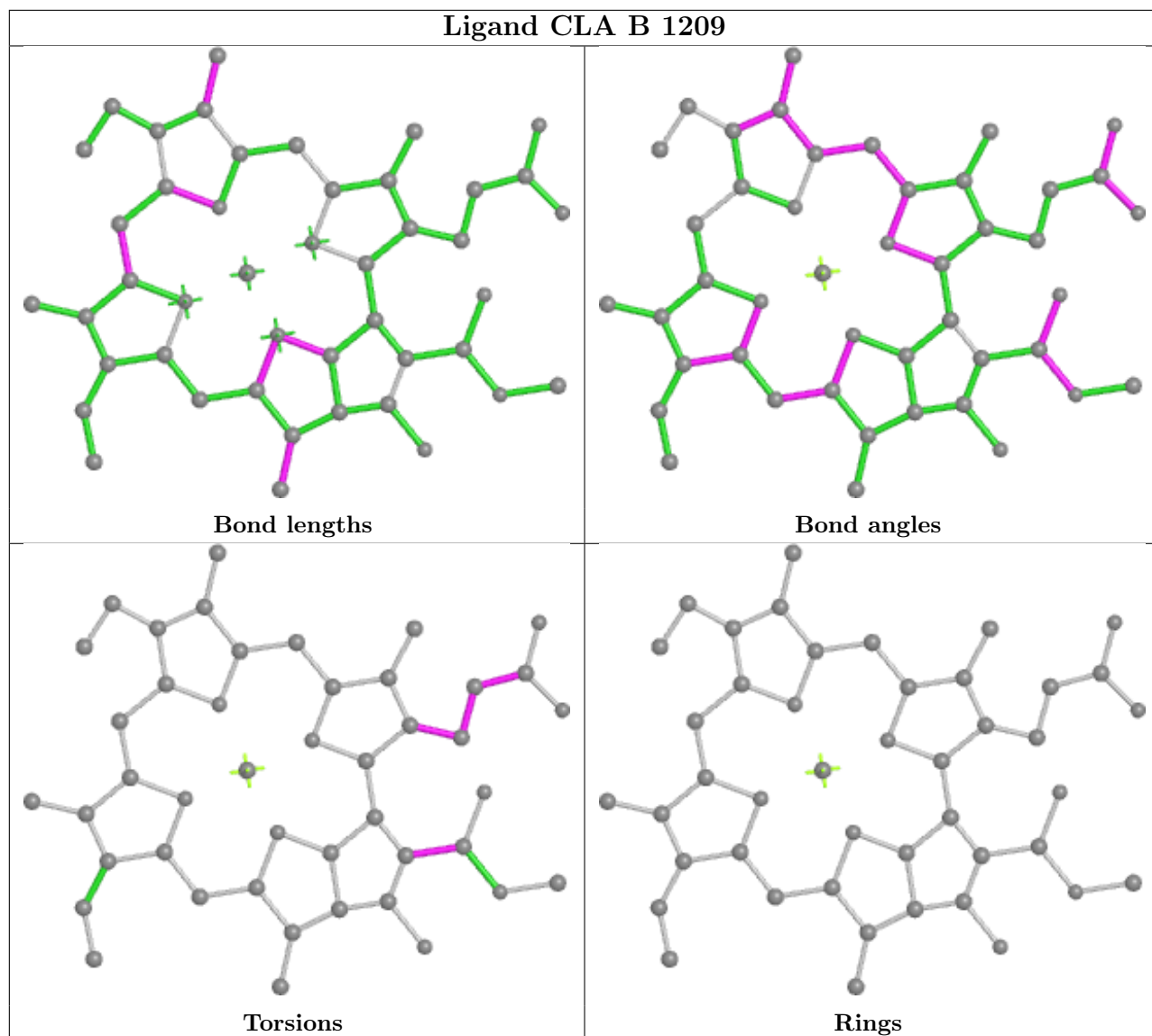




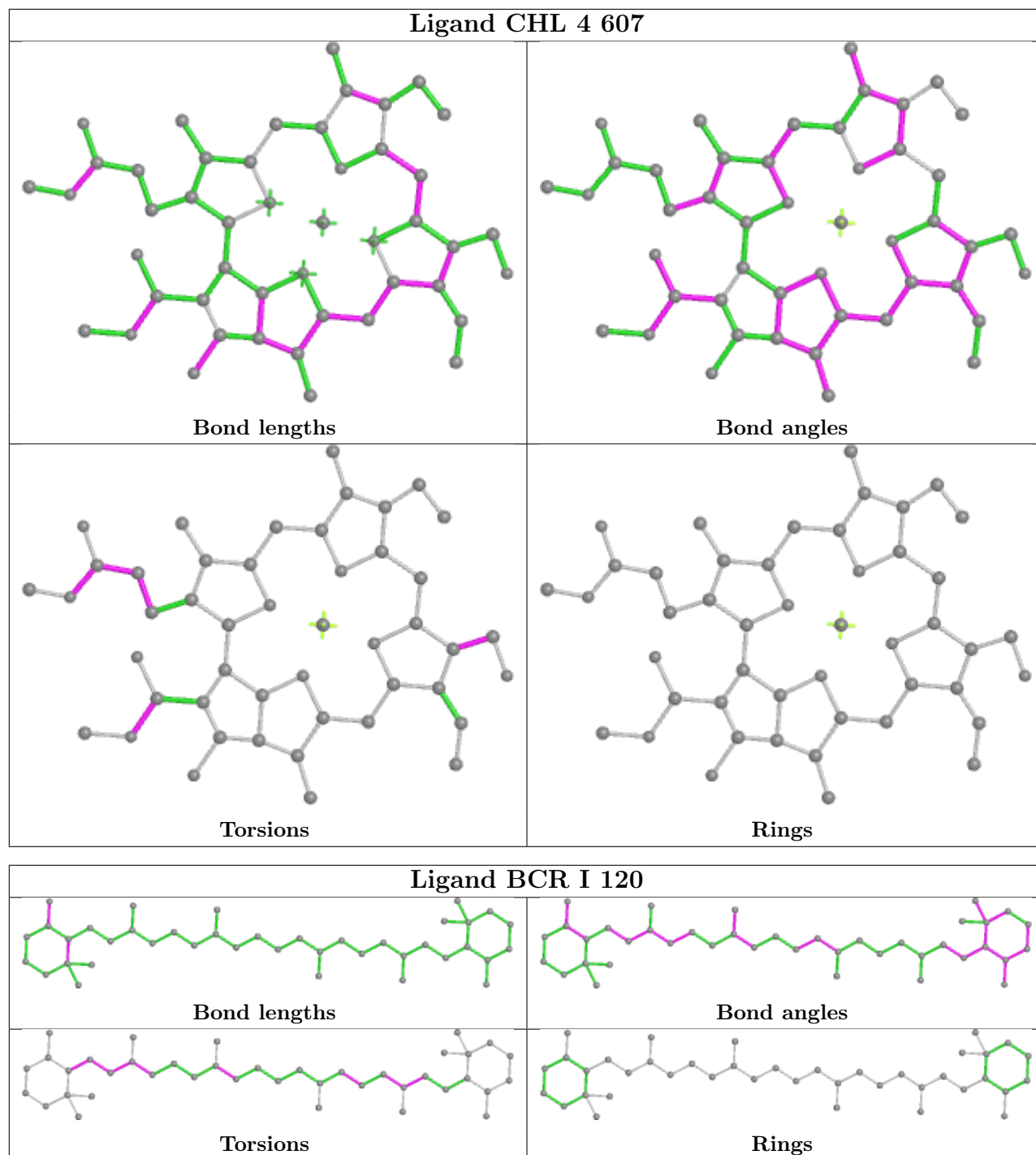


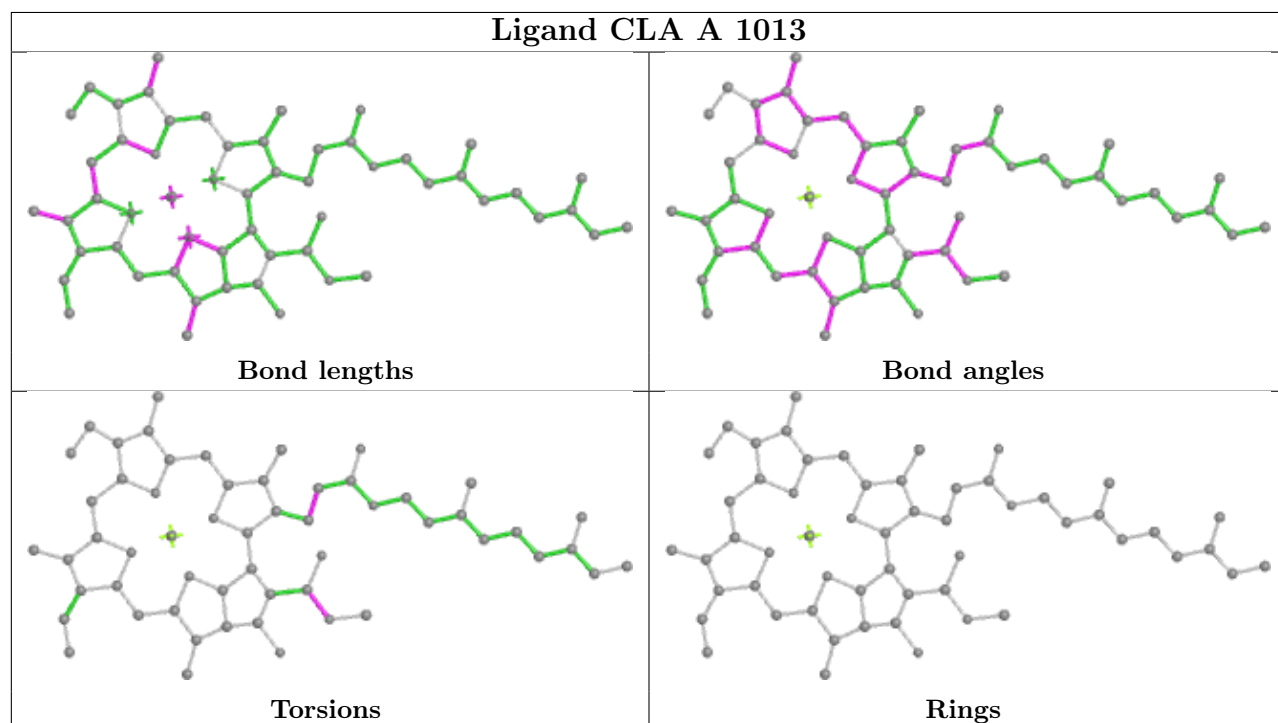
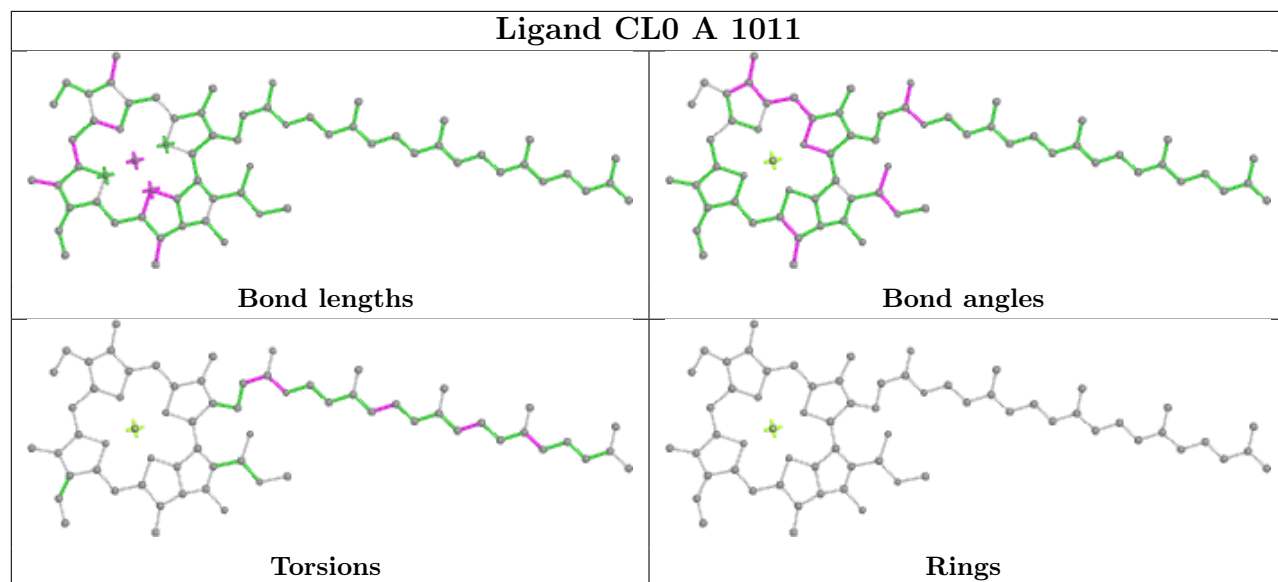


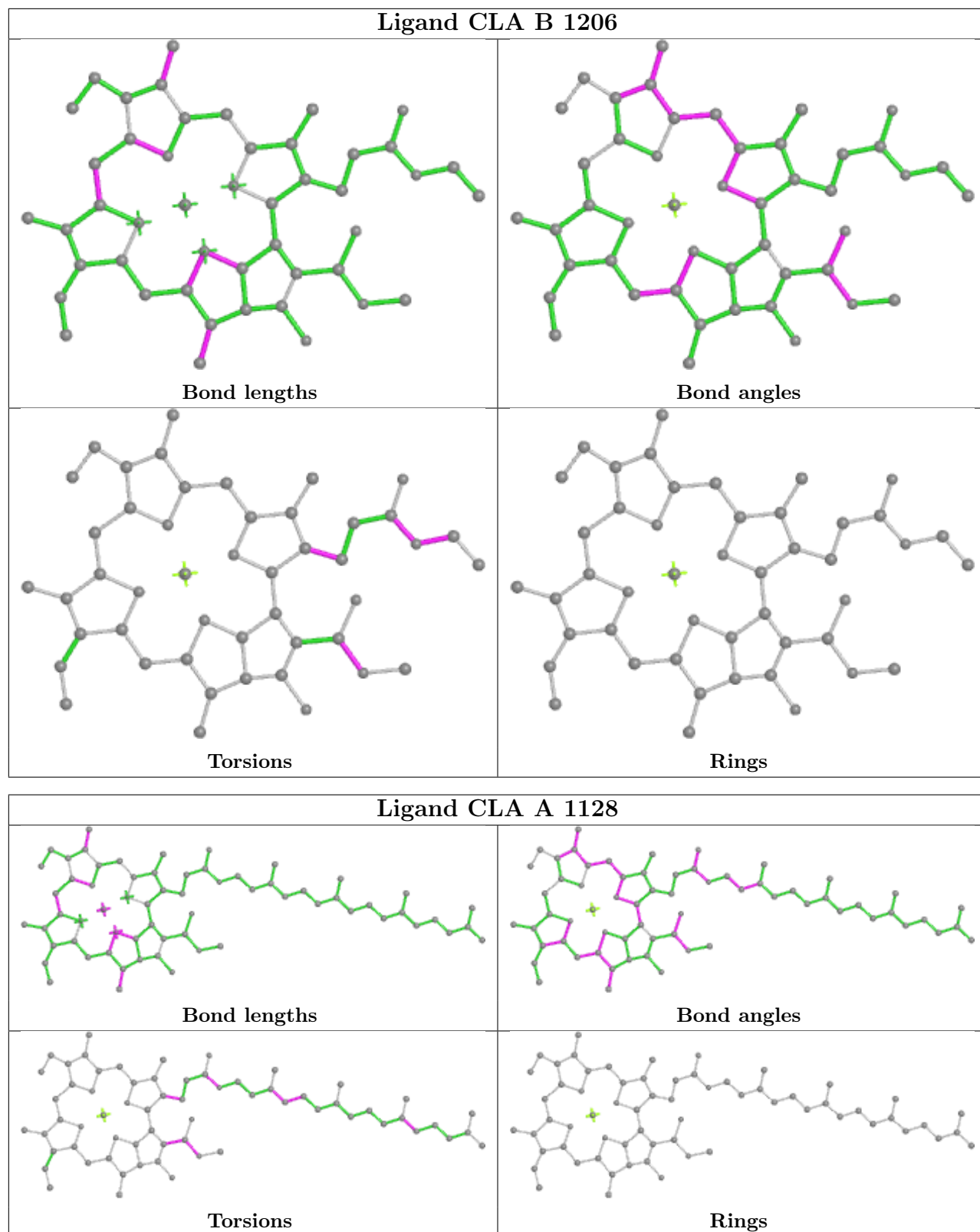


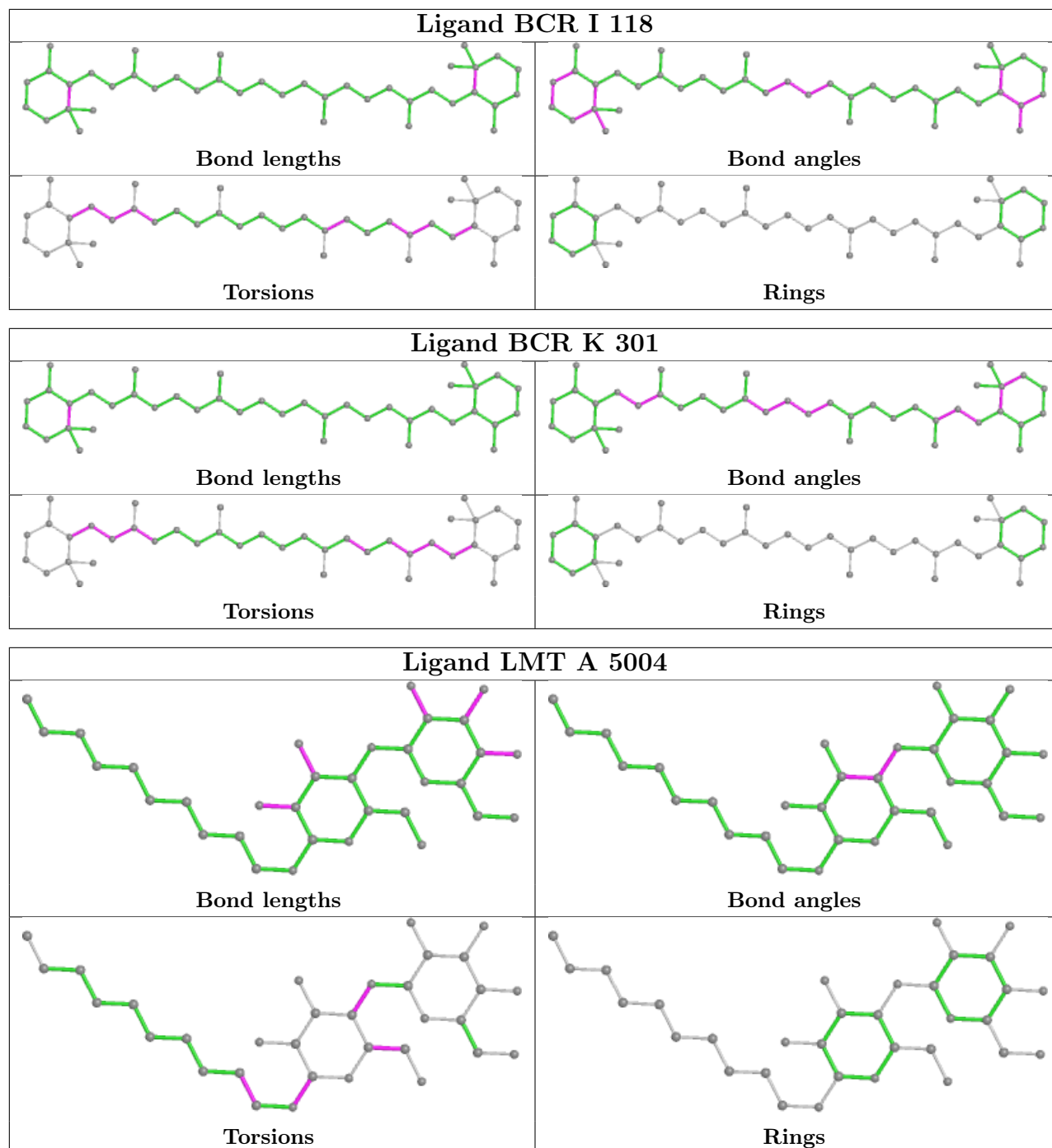


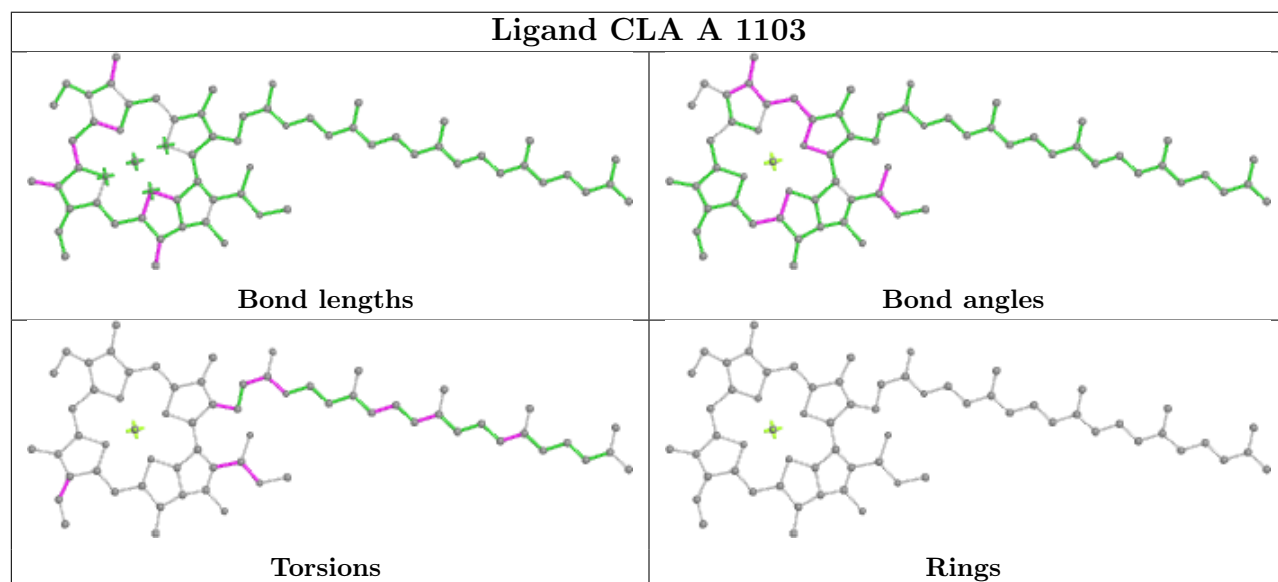
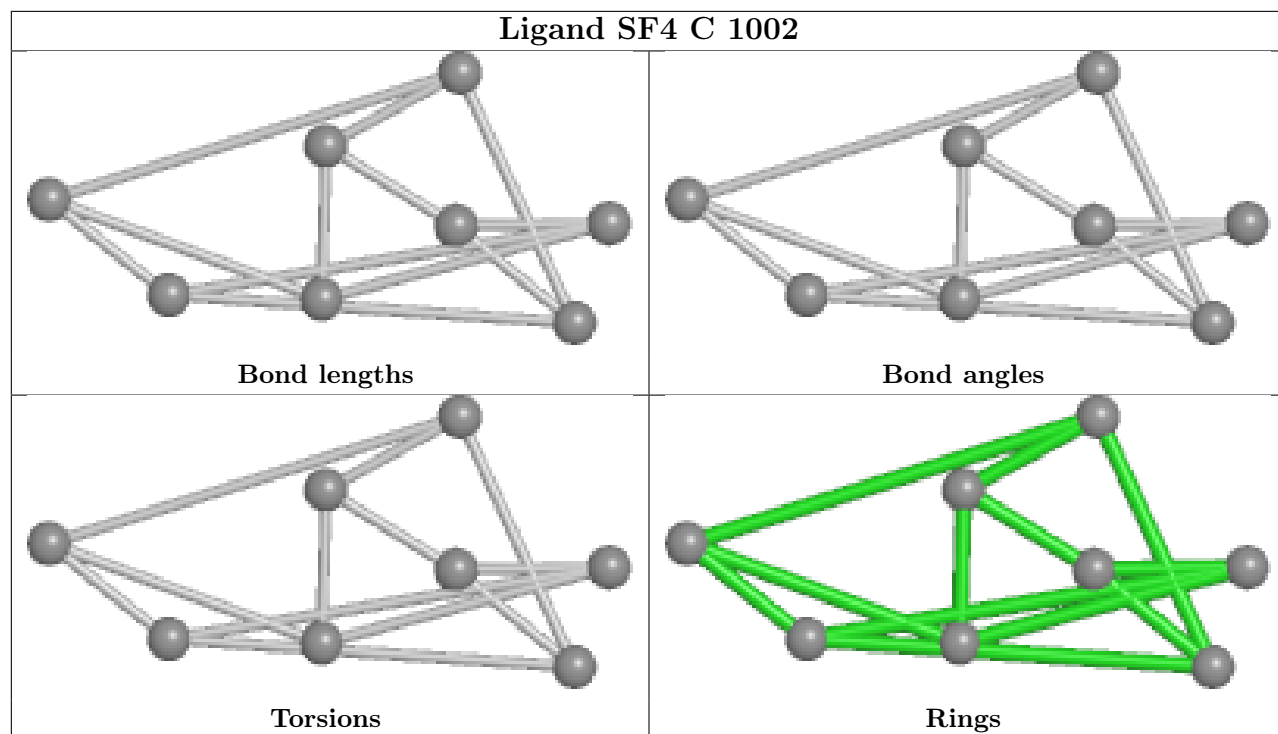


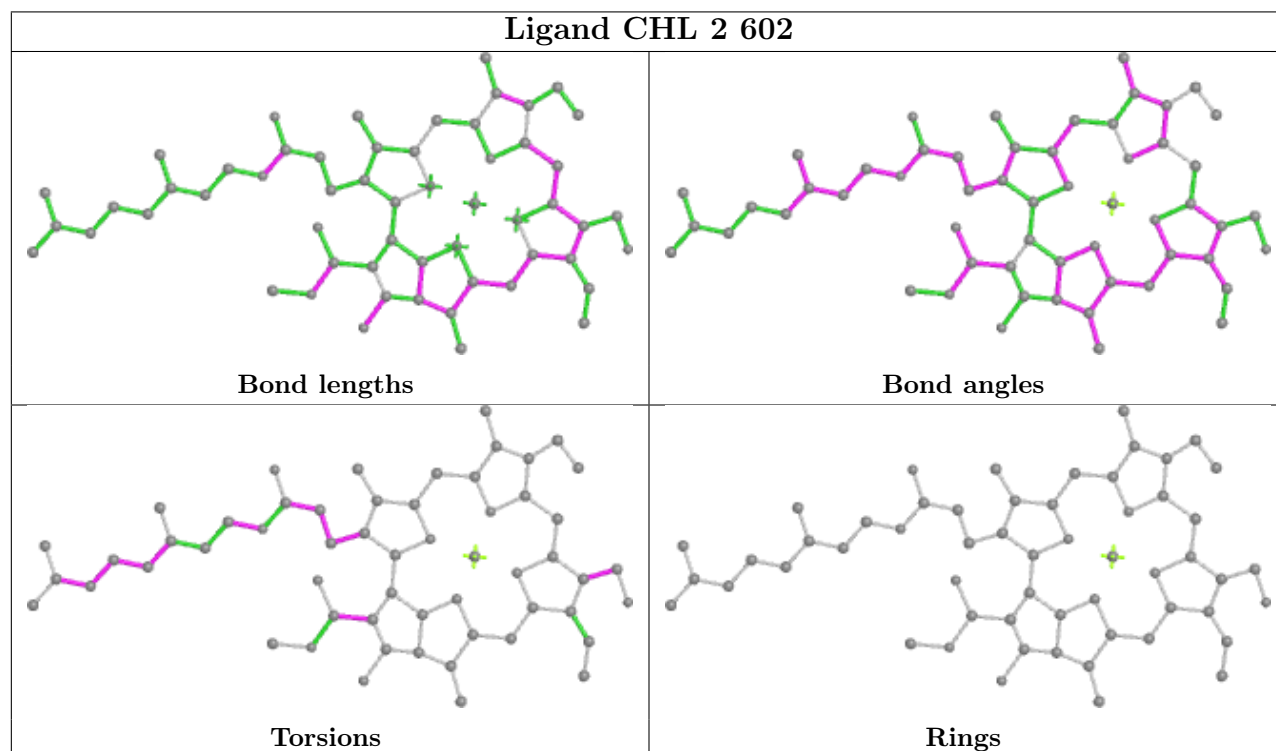
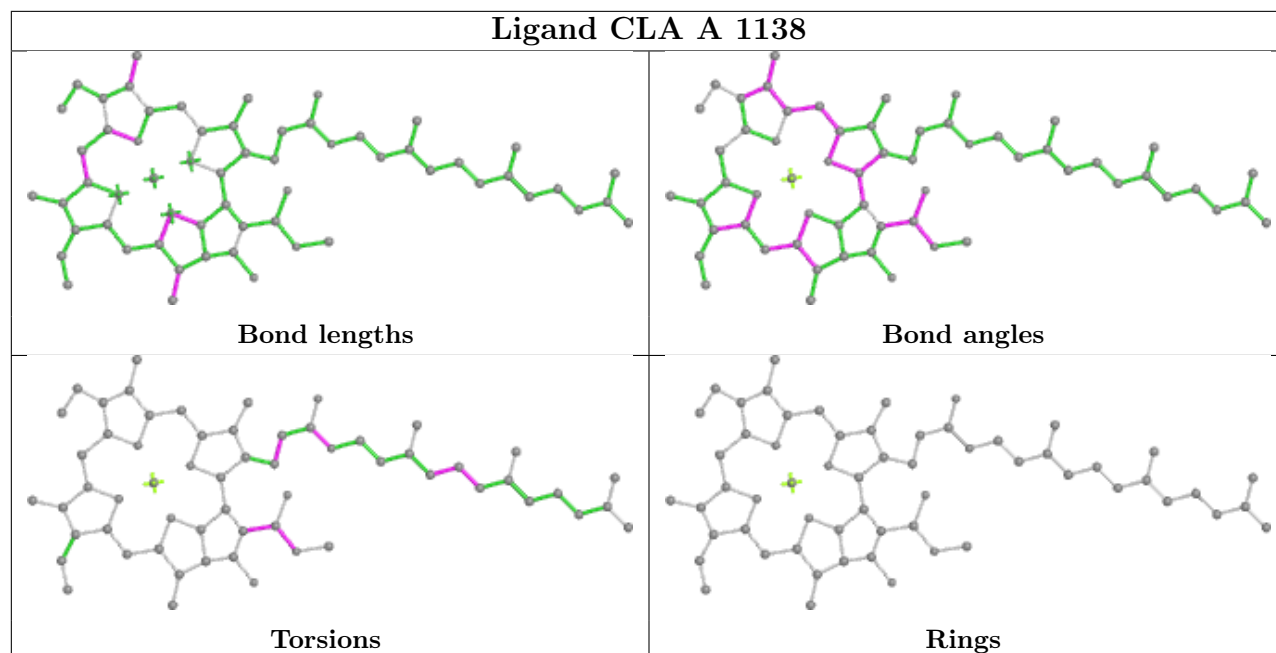


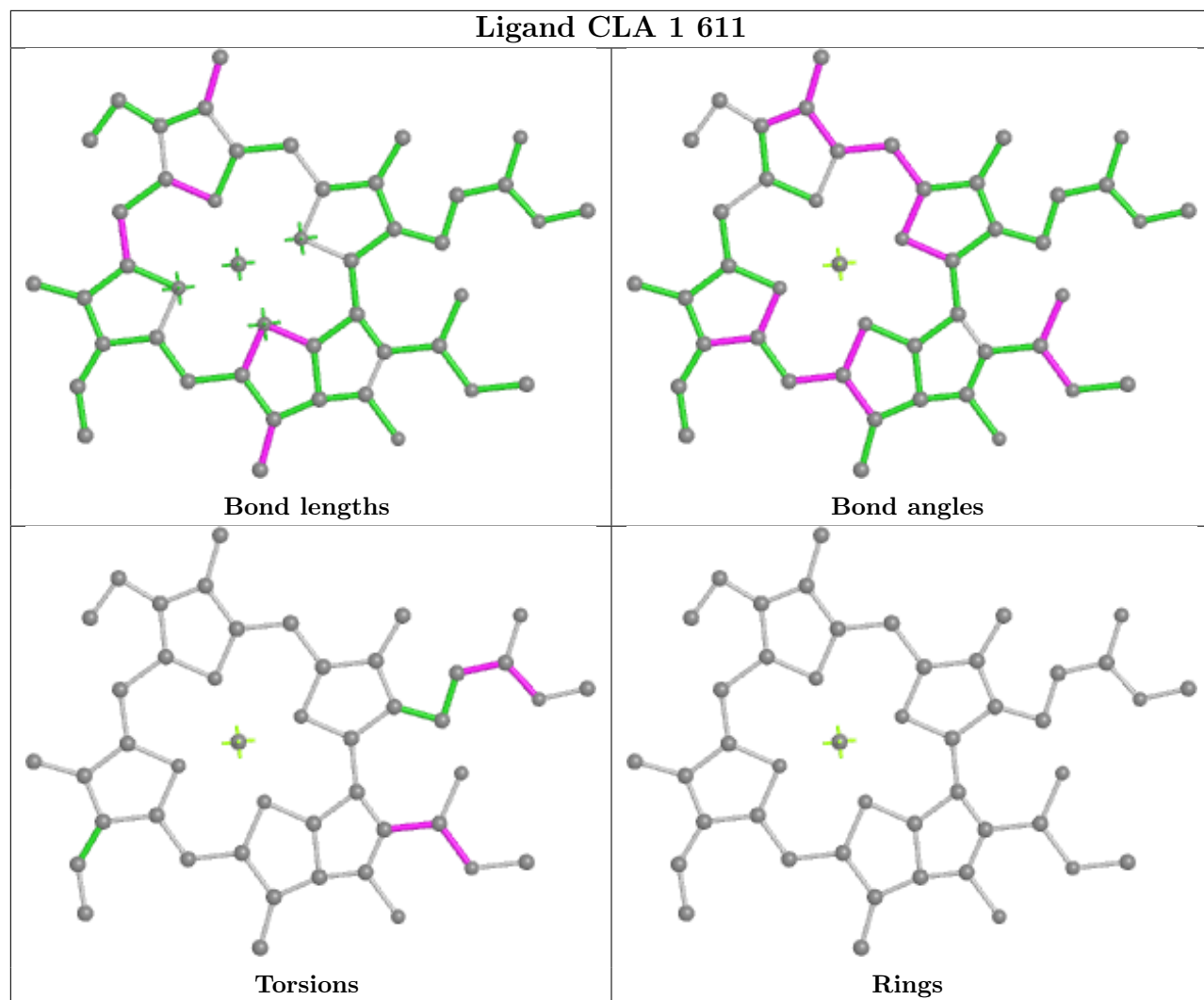


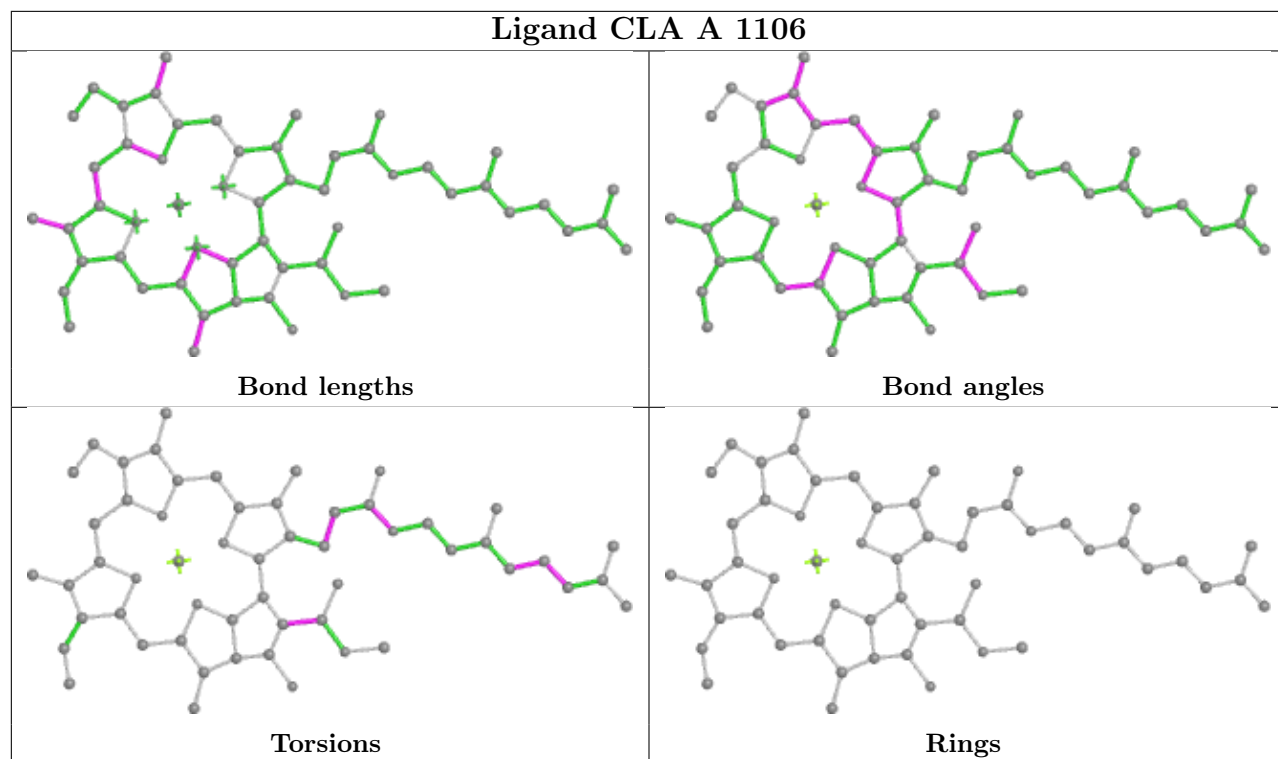




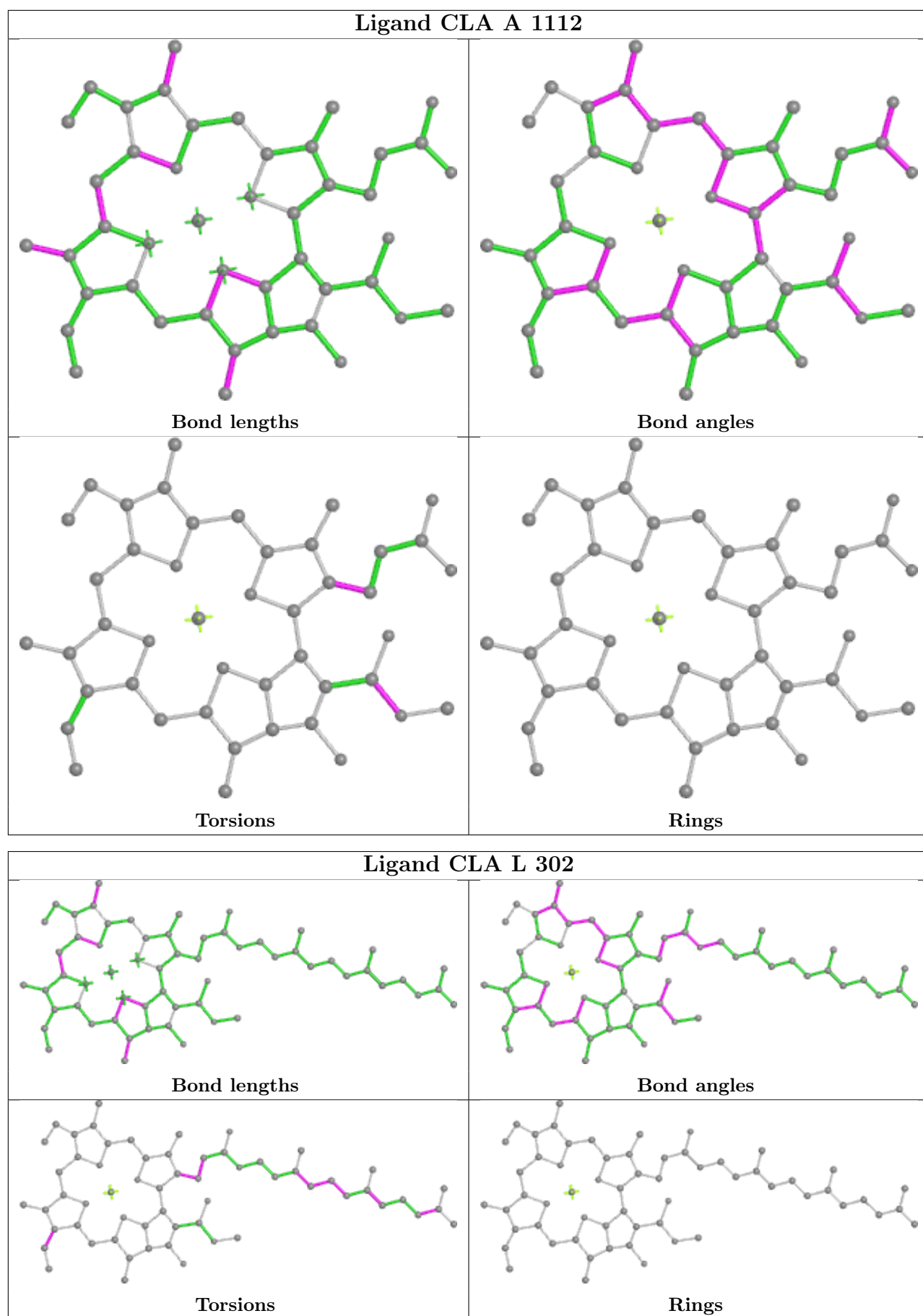


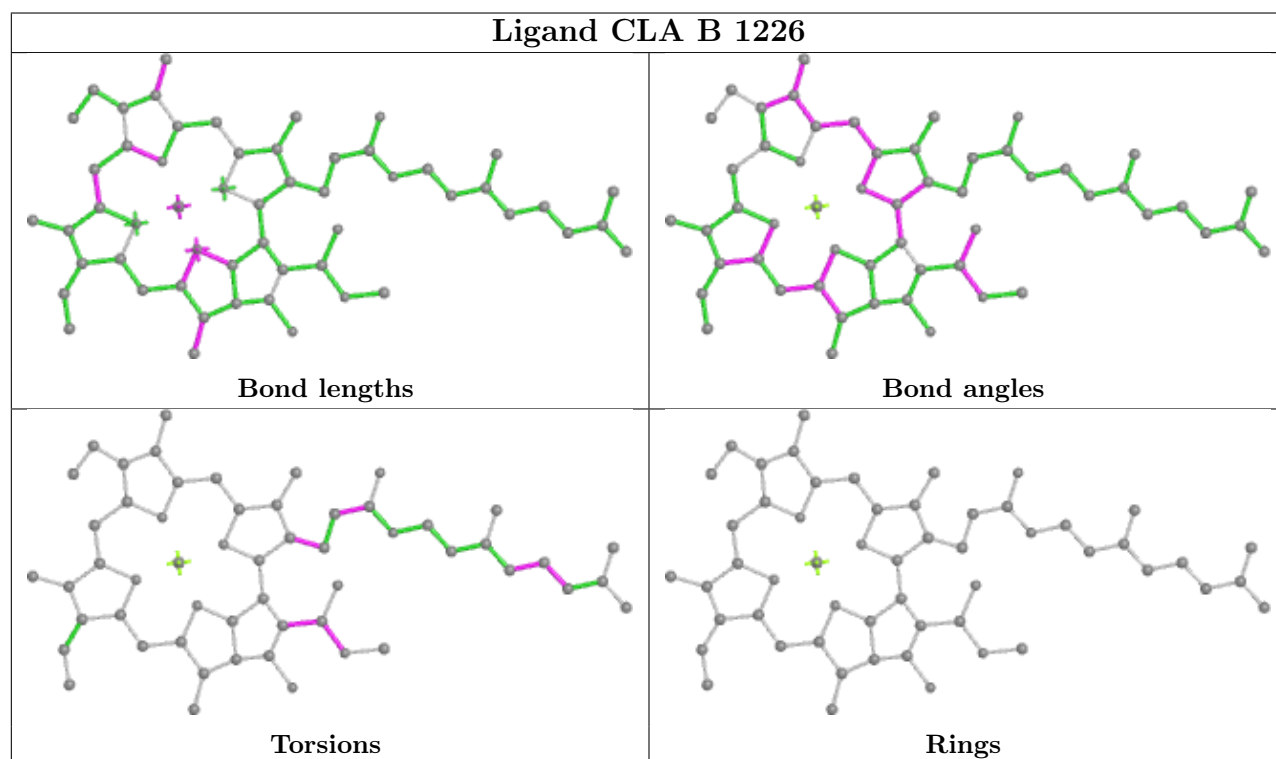
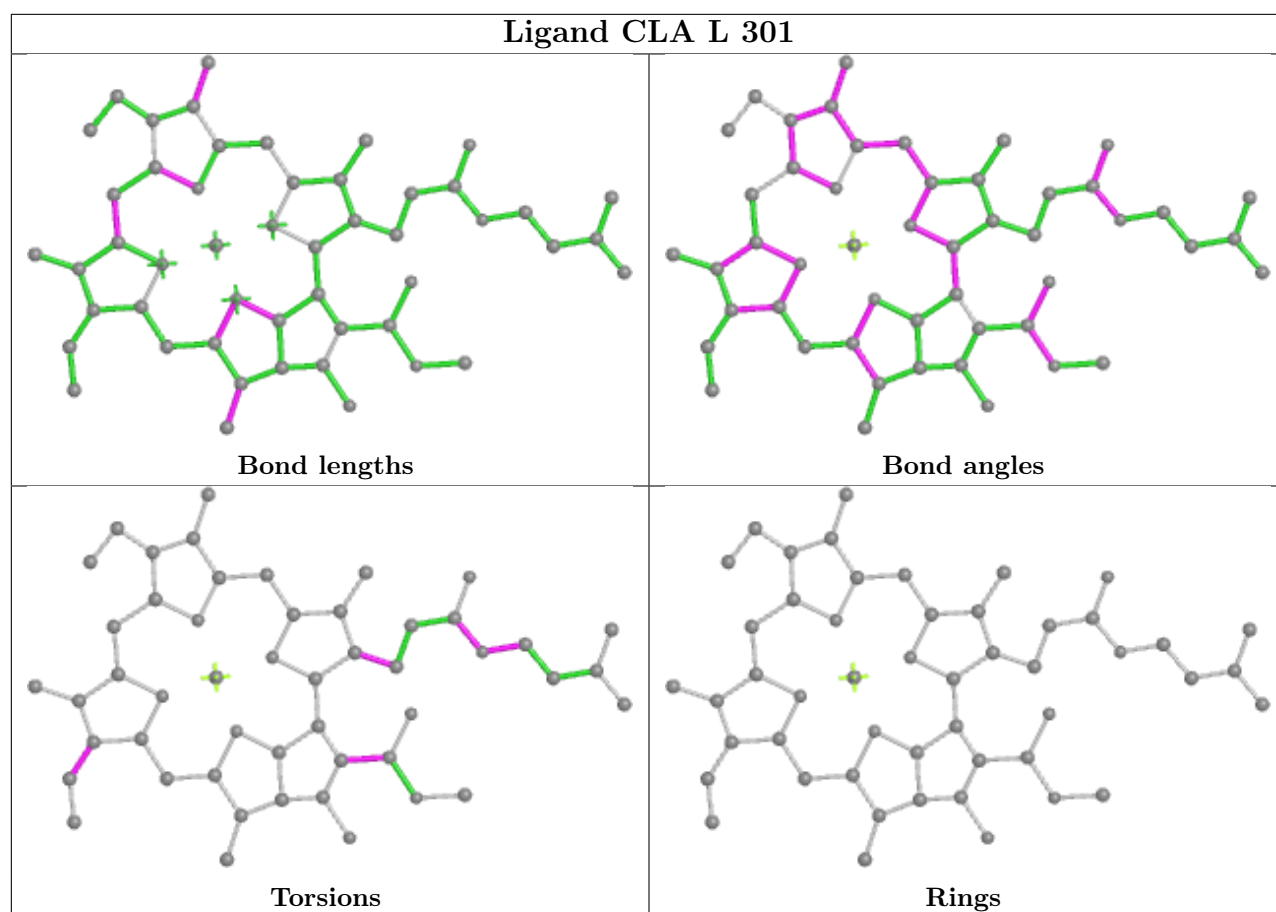


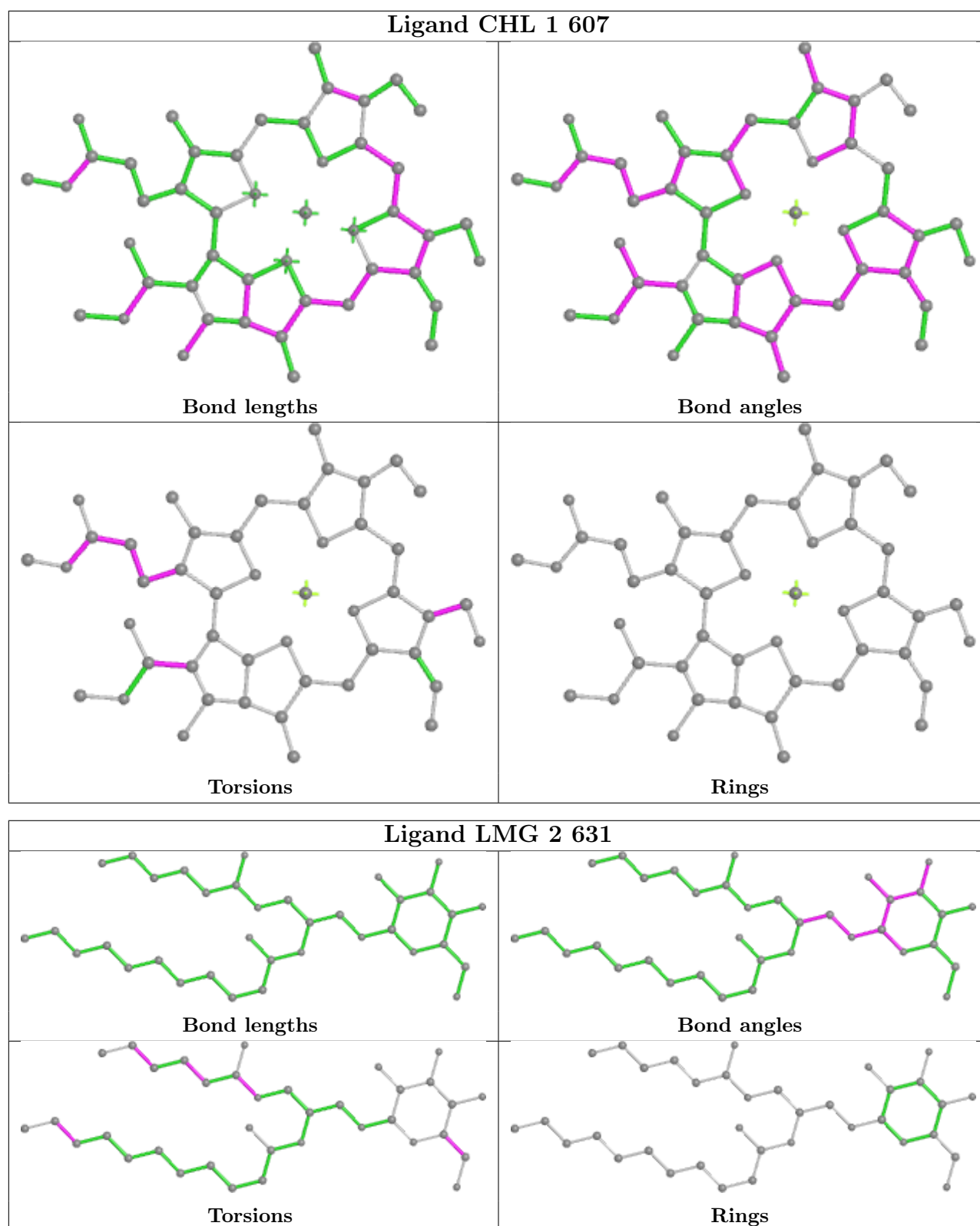


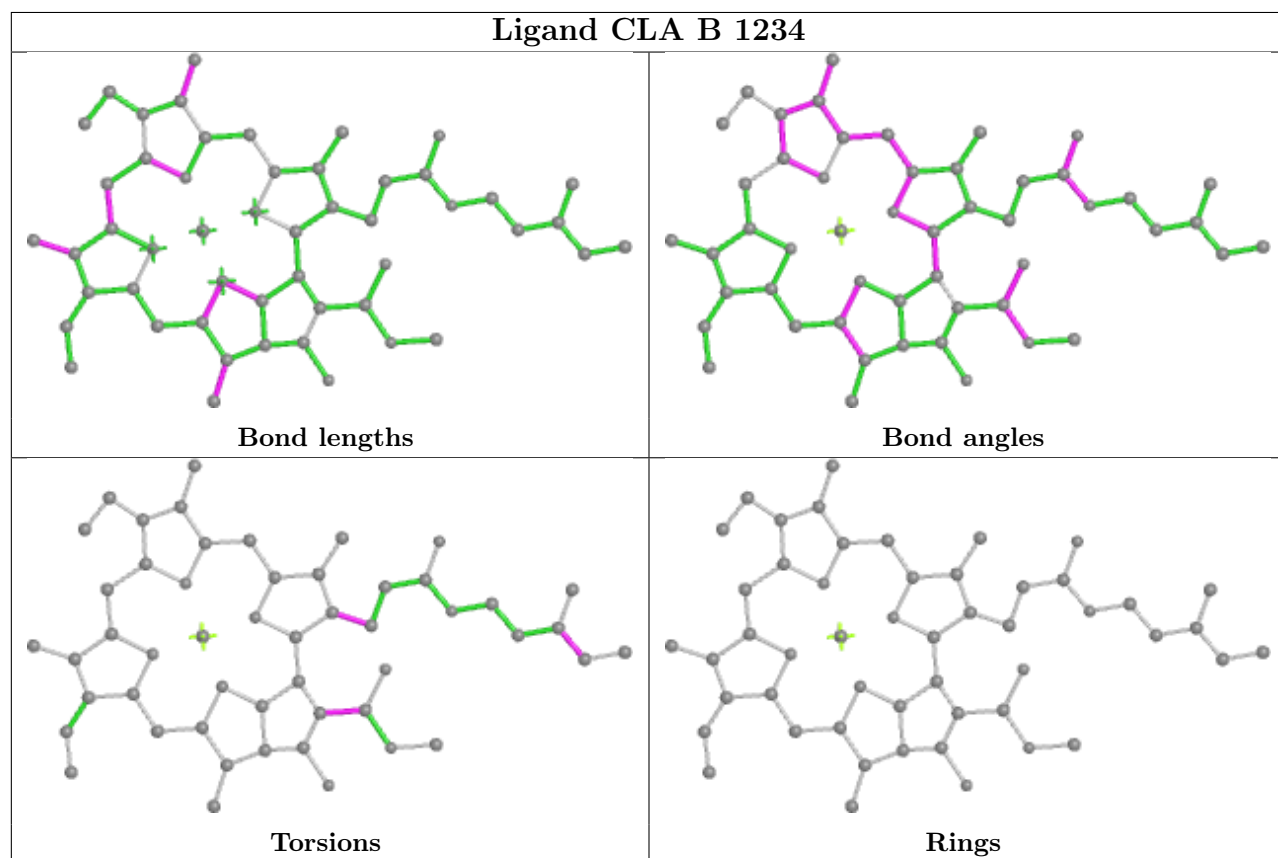
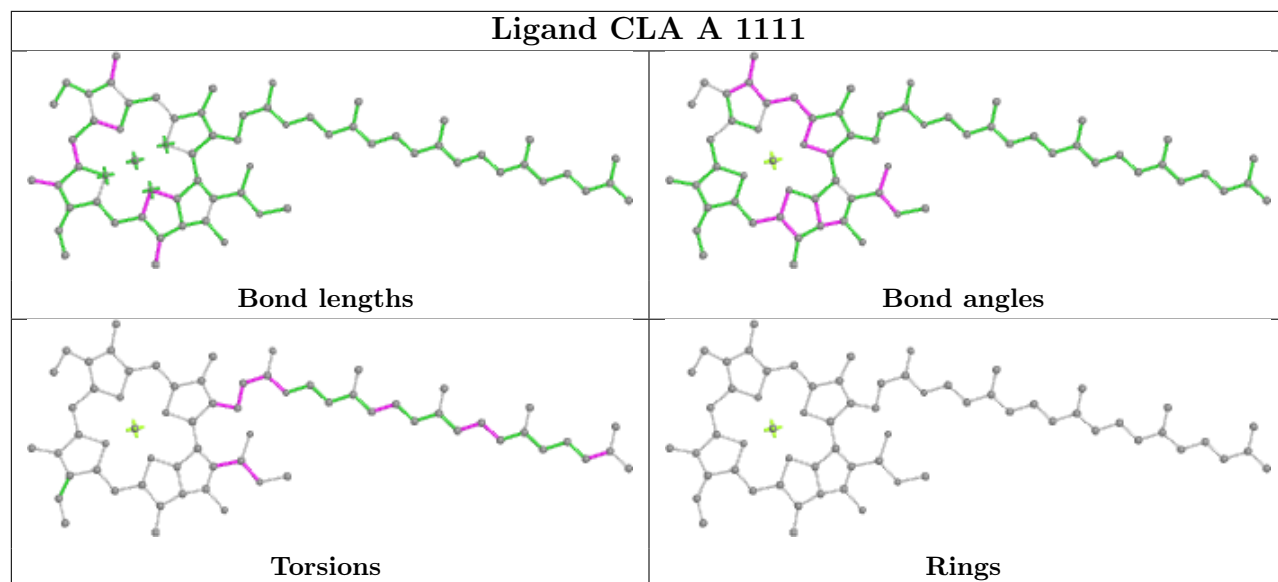


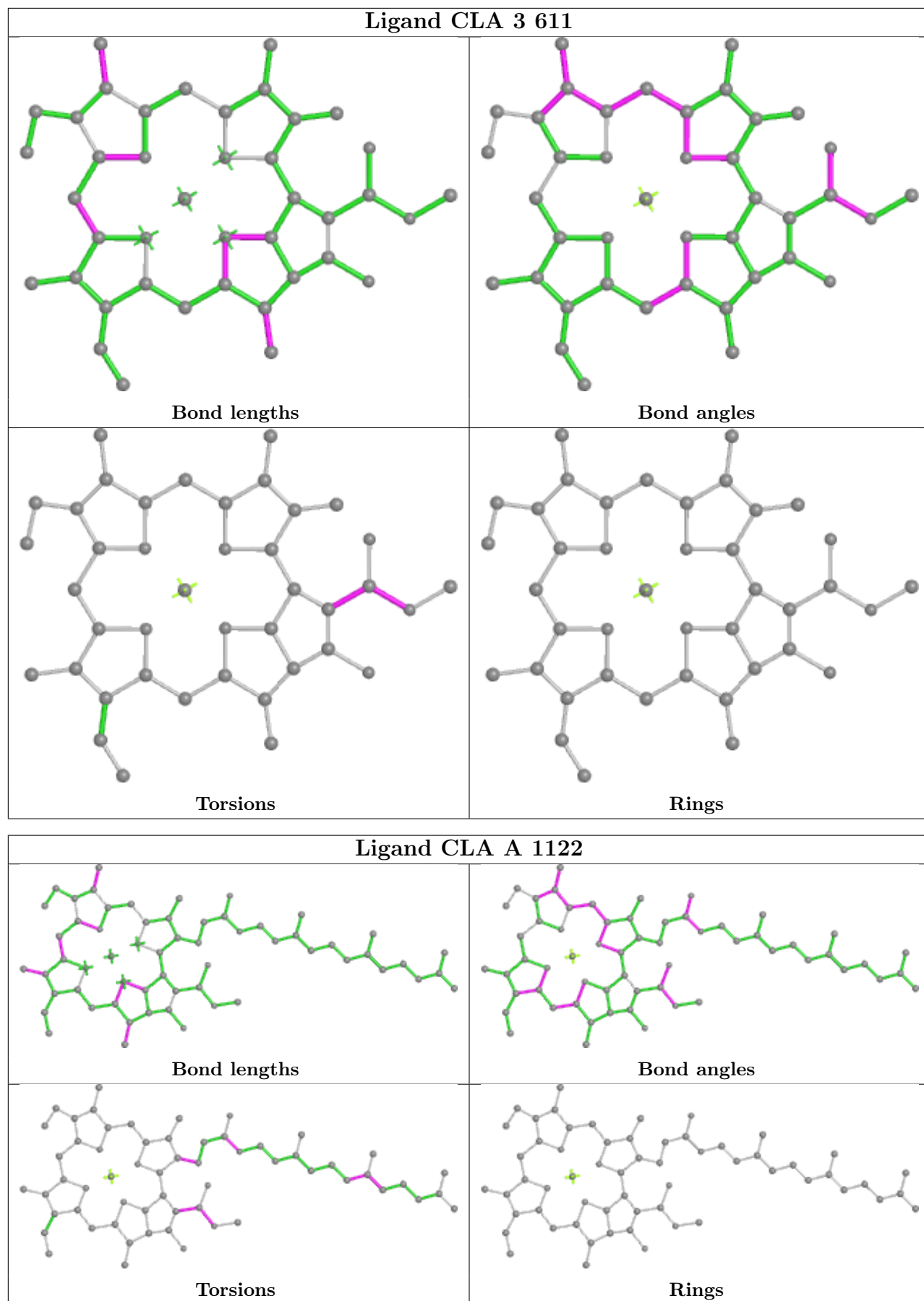


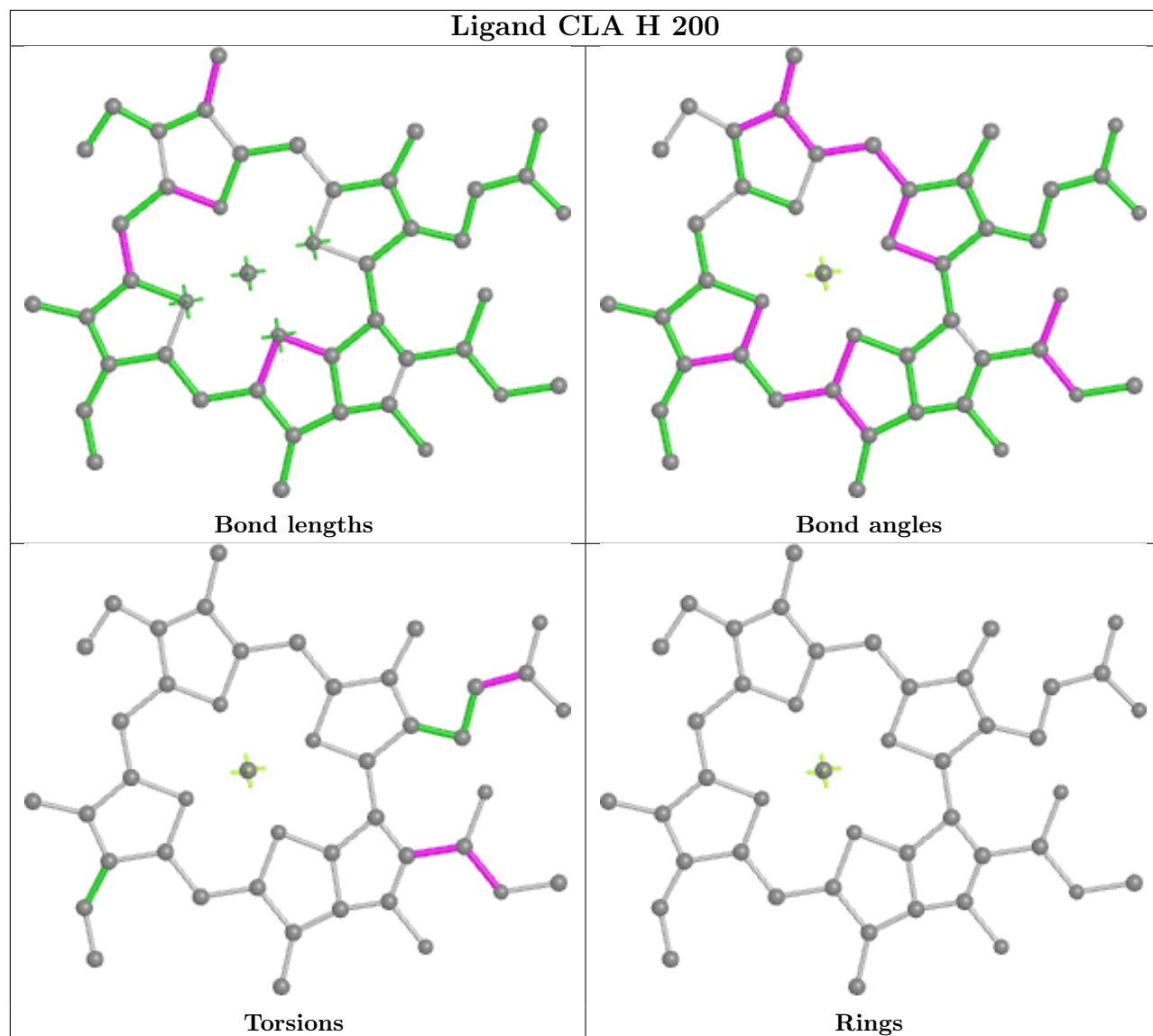


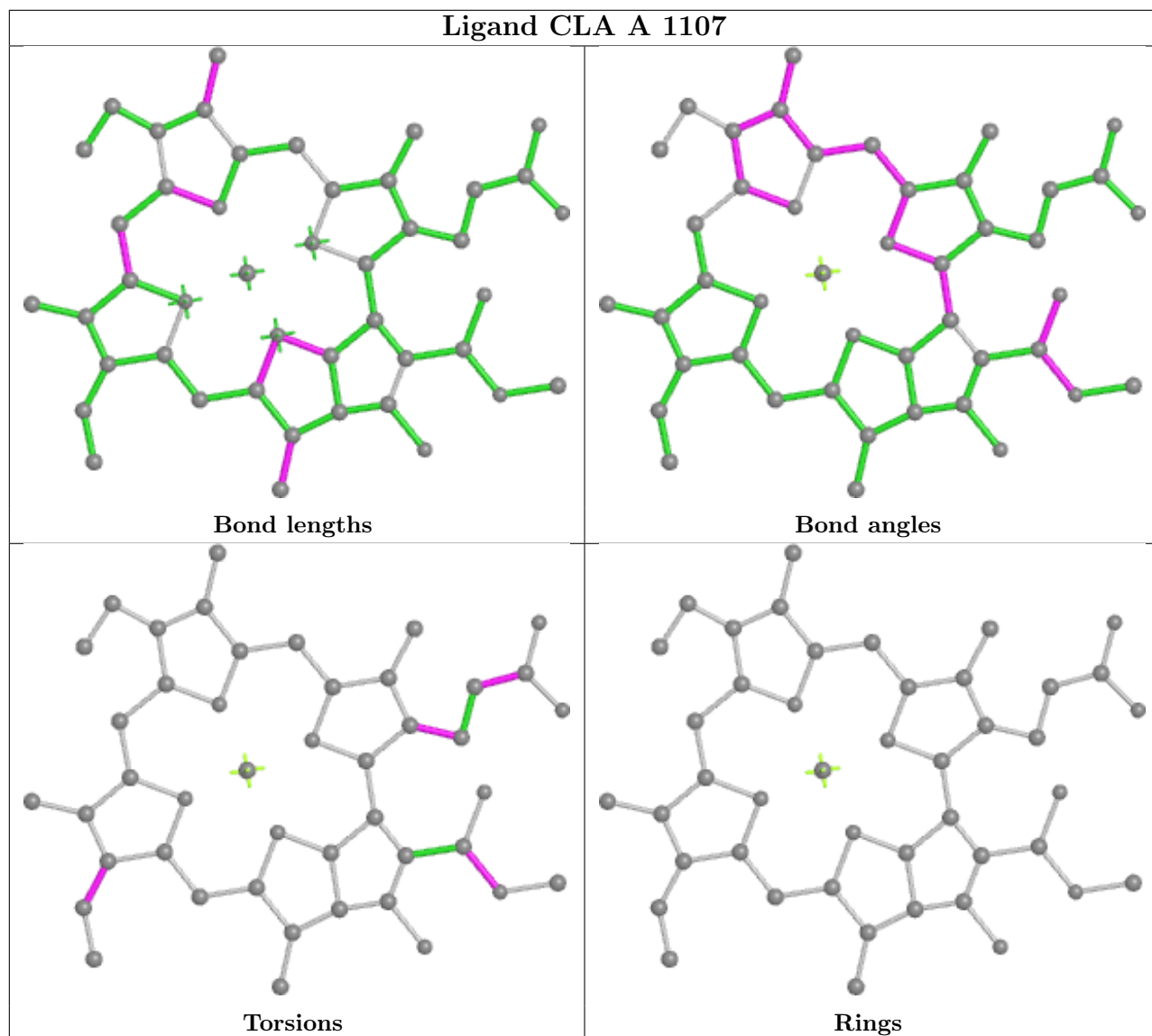




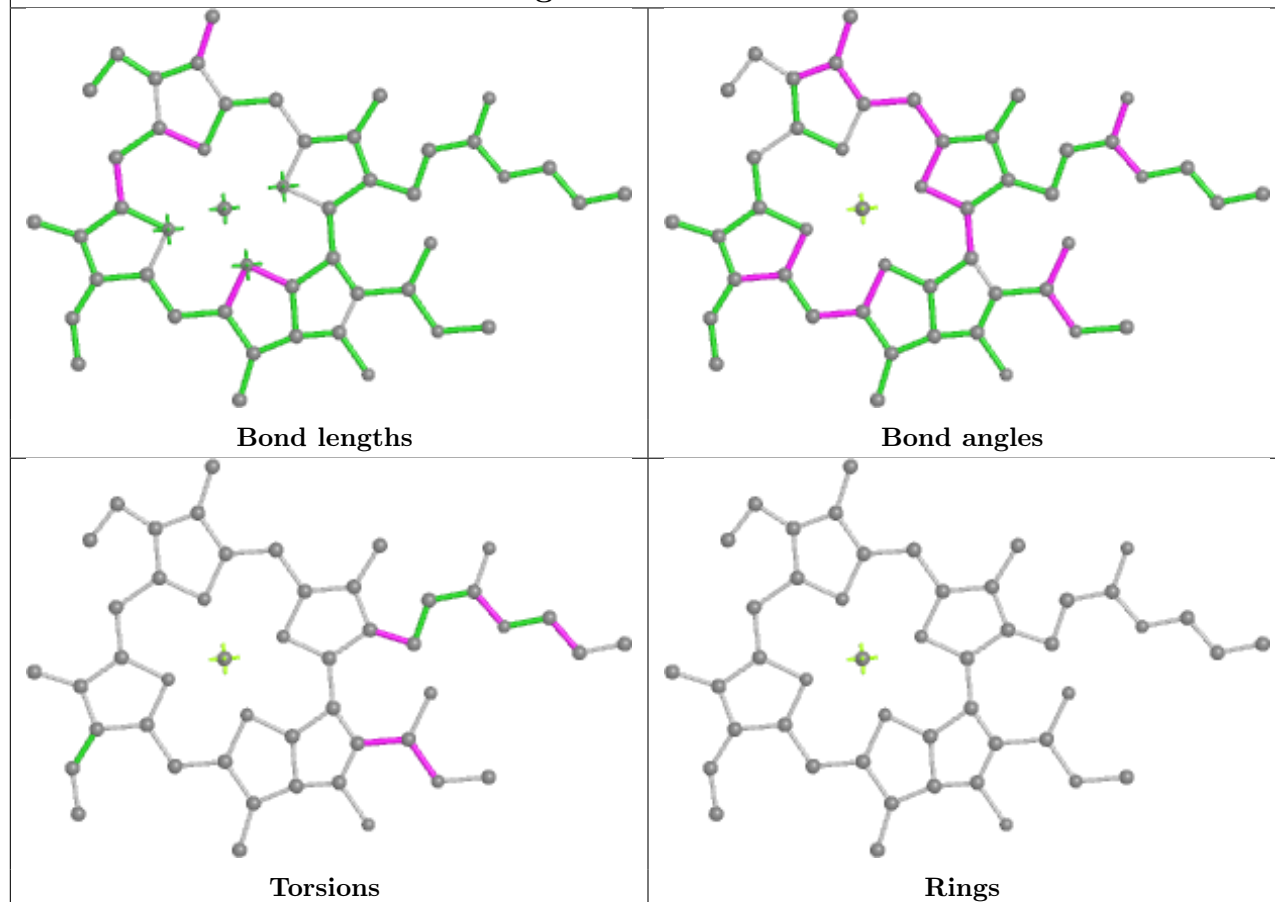




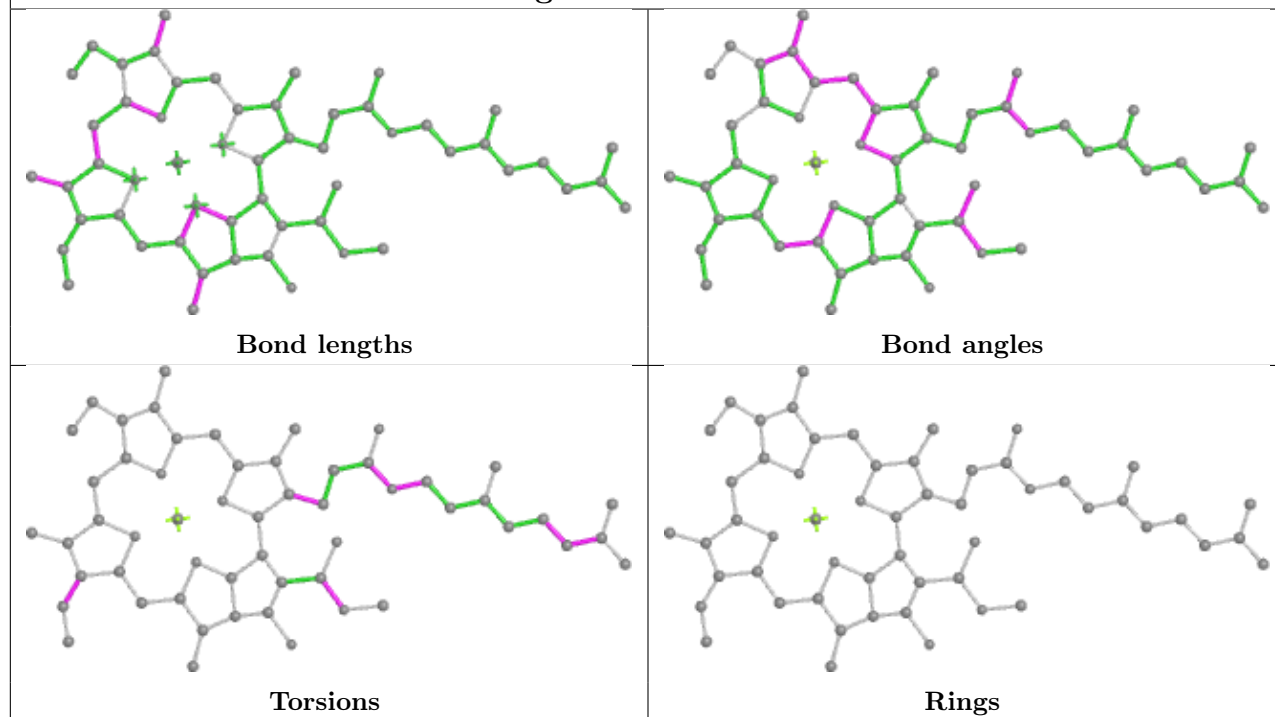




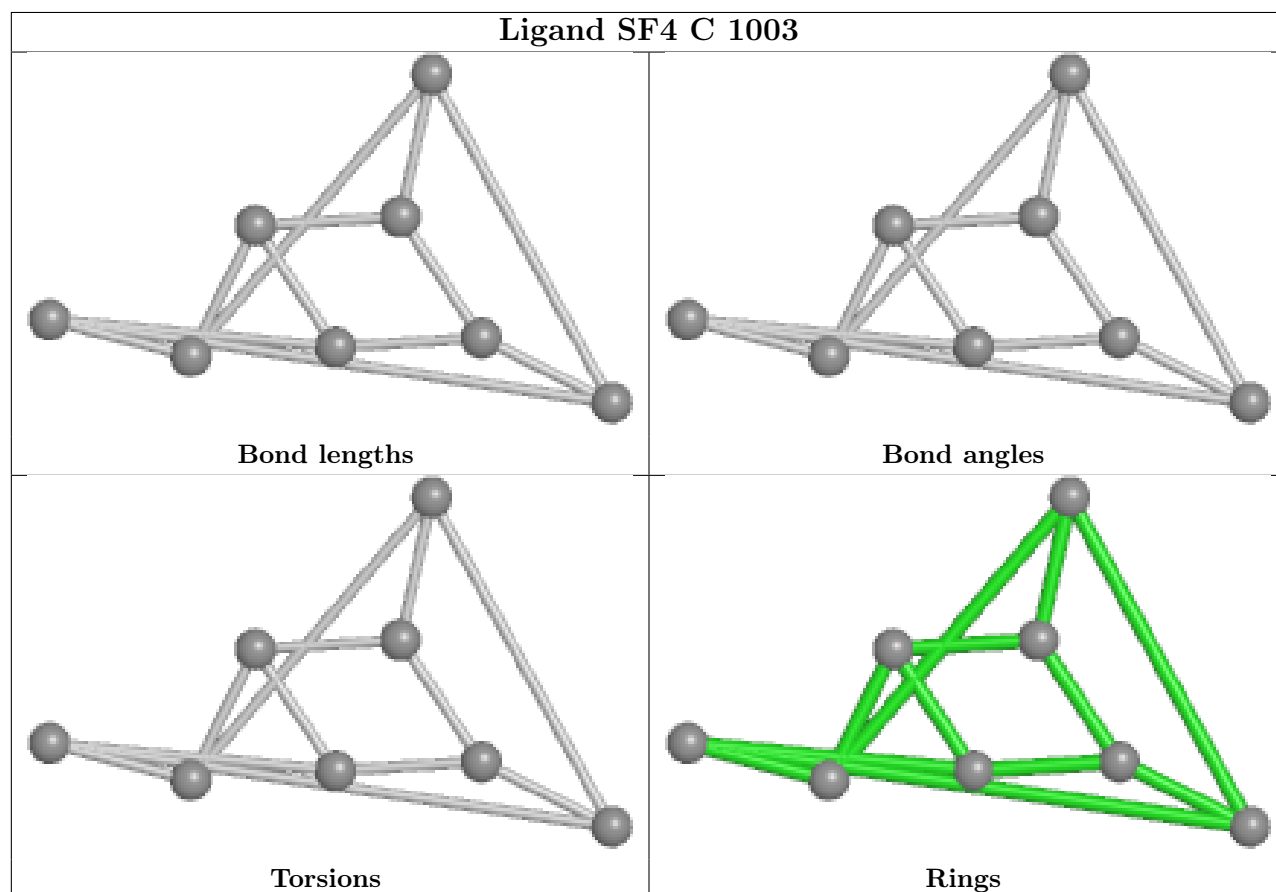
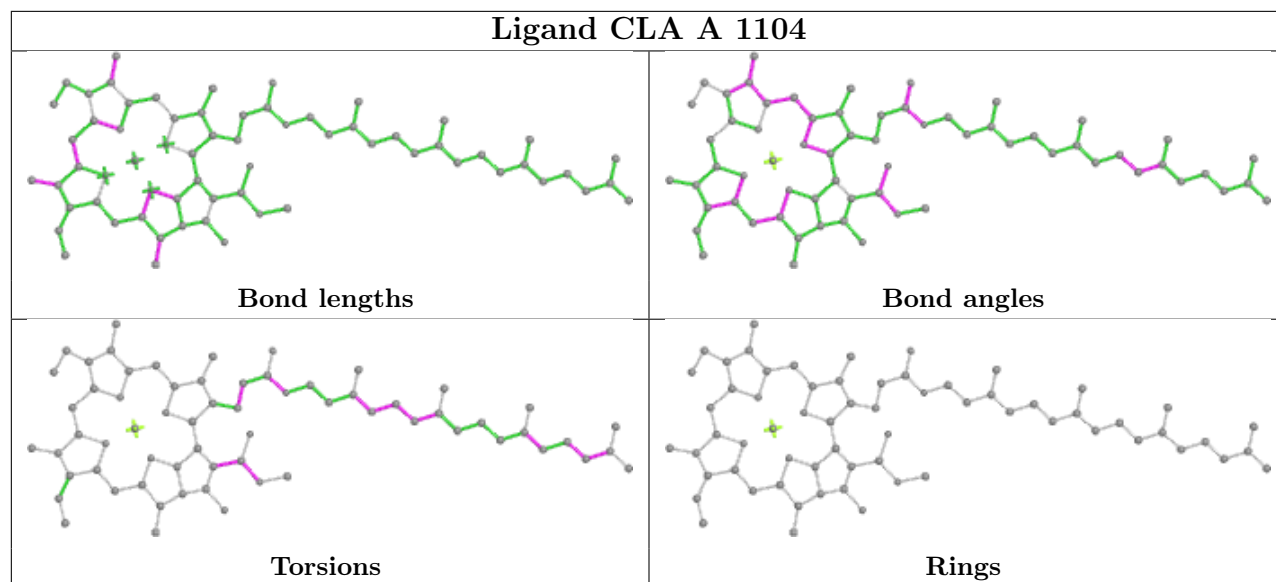
## Ligand CLA 3 614

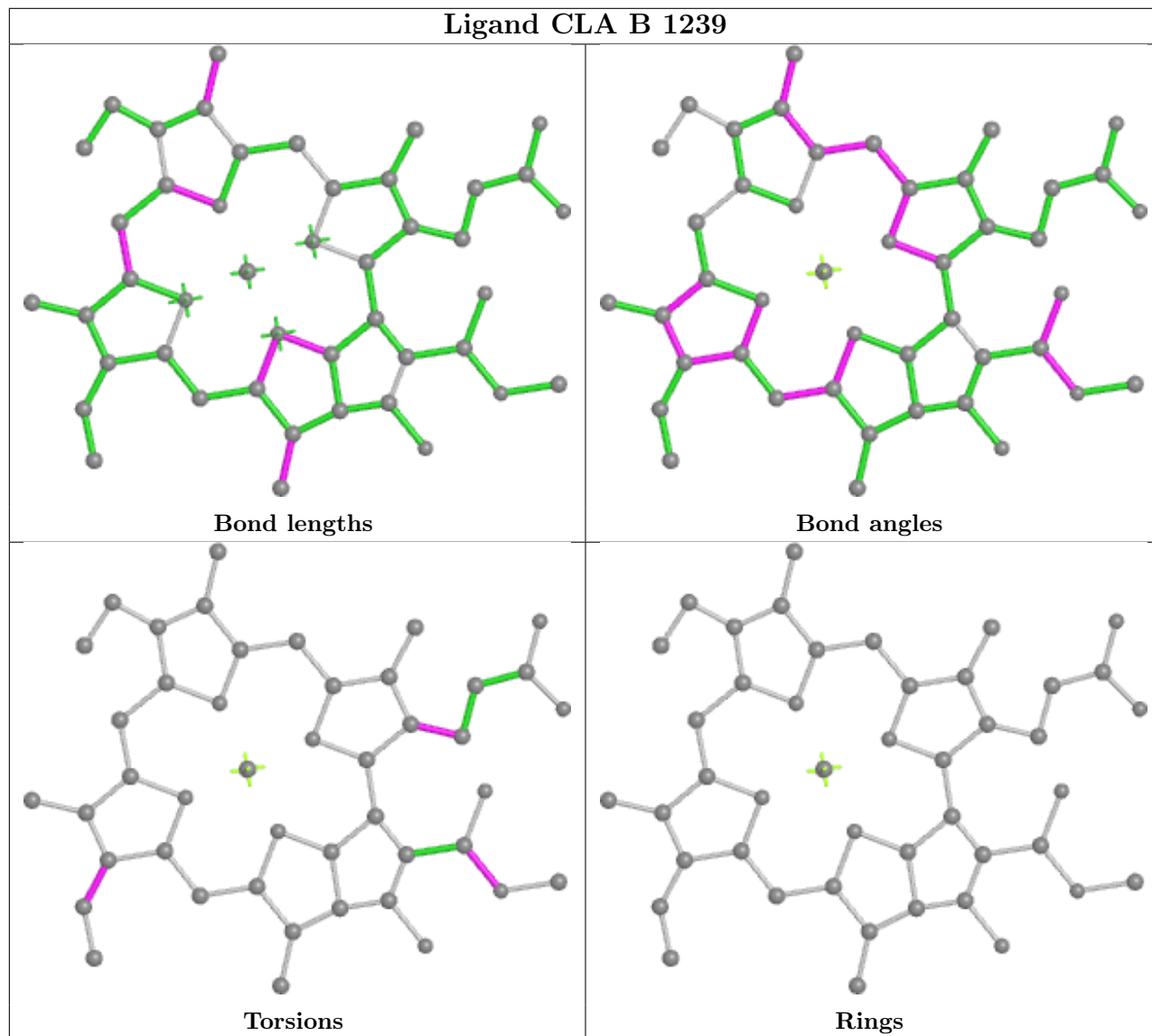
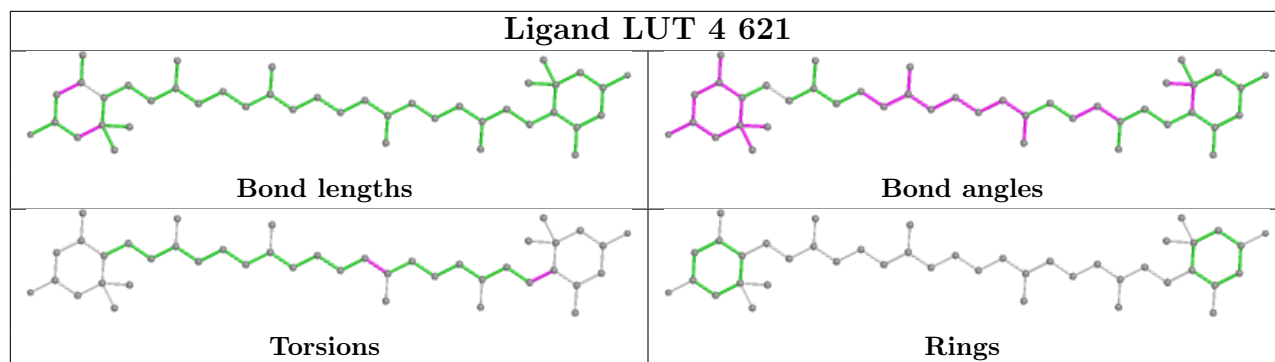


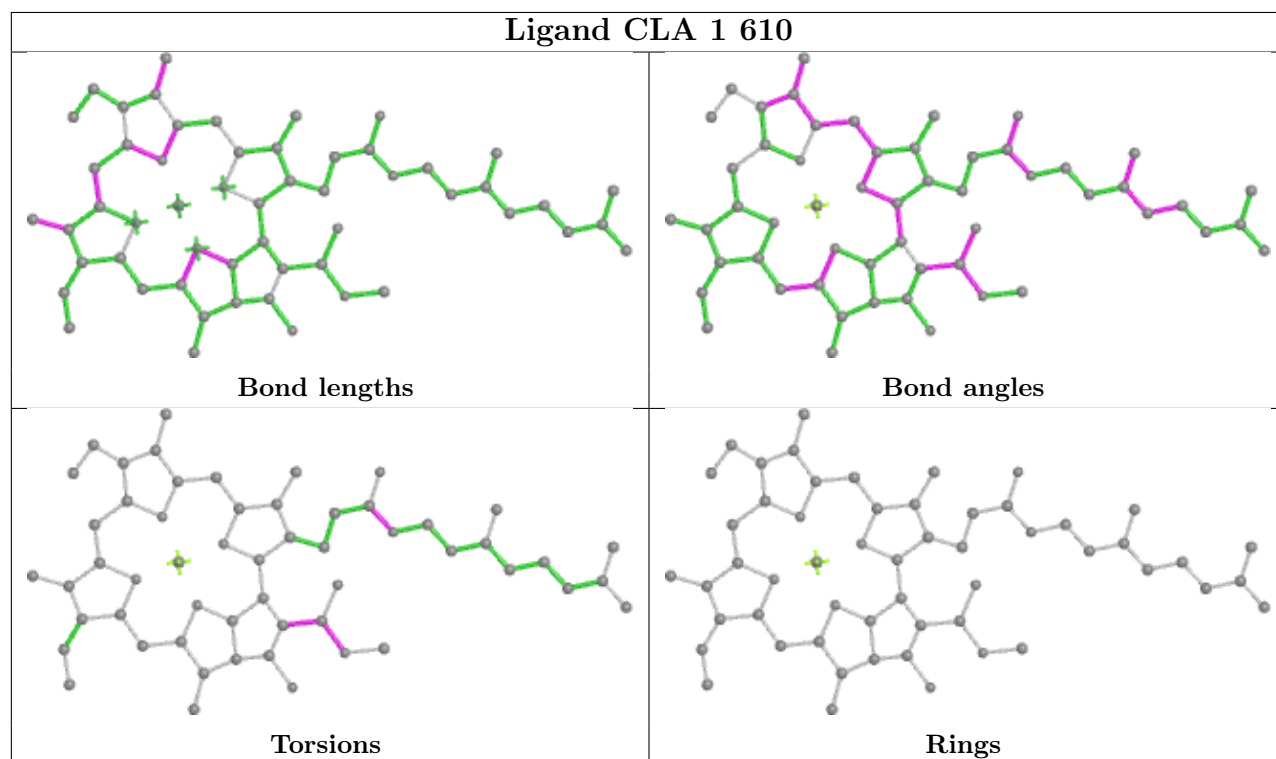
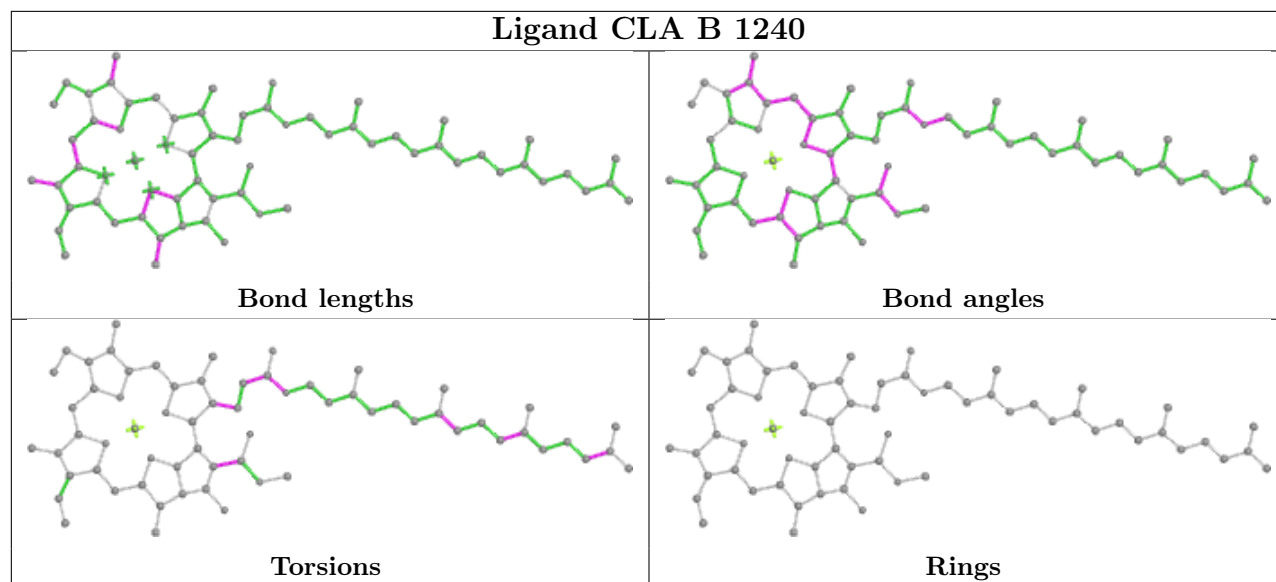
## Ligand CLA 3 603

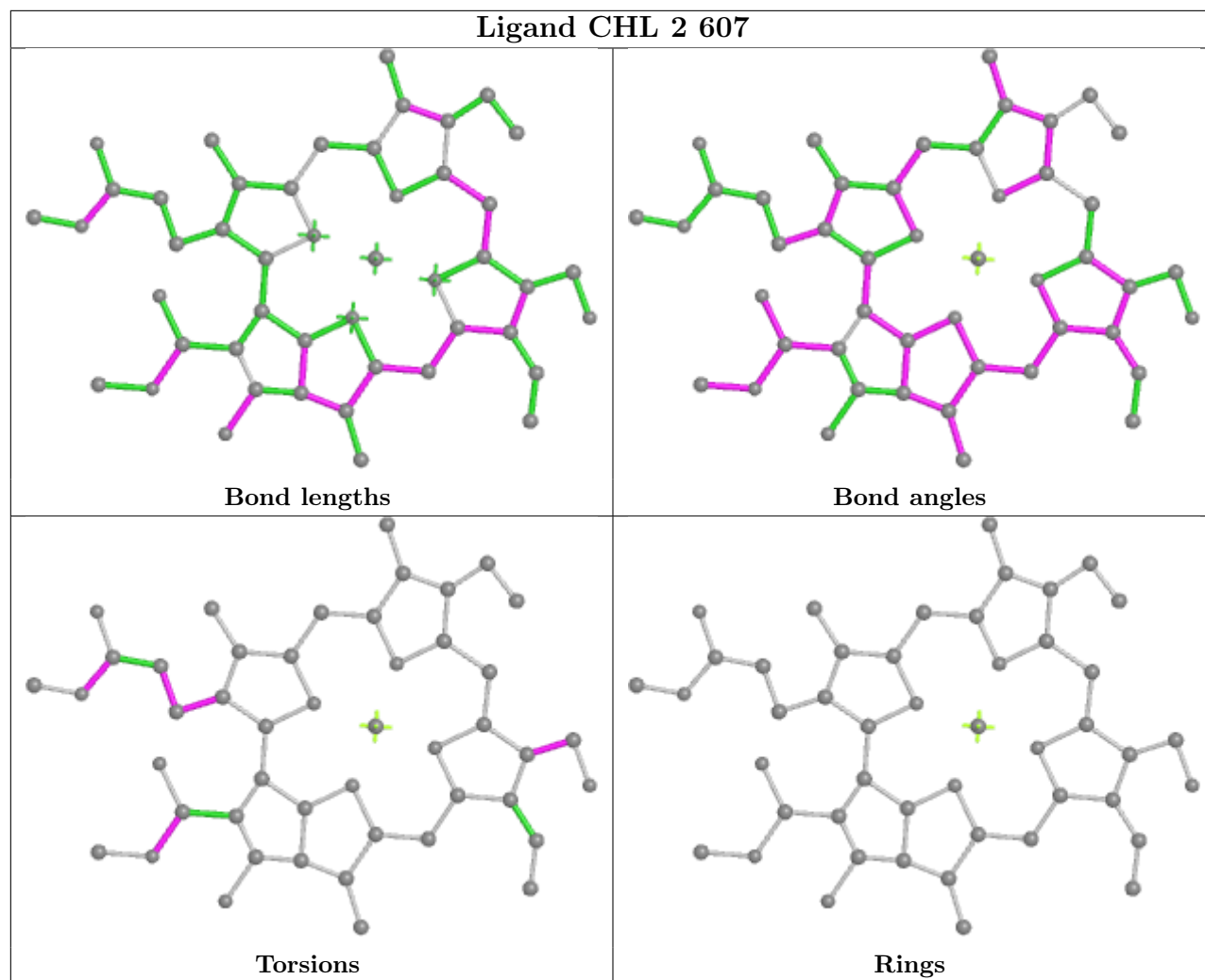


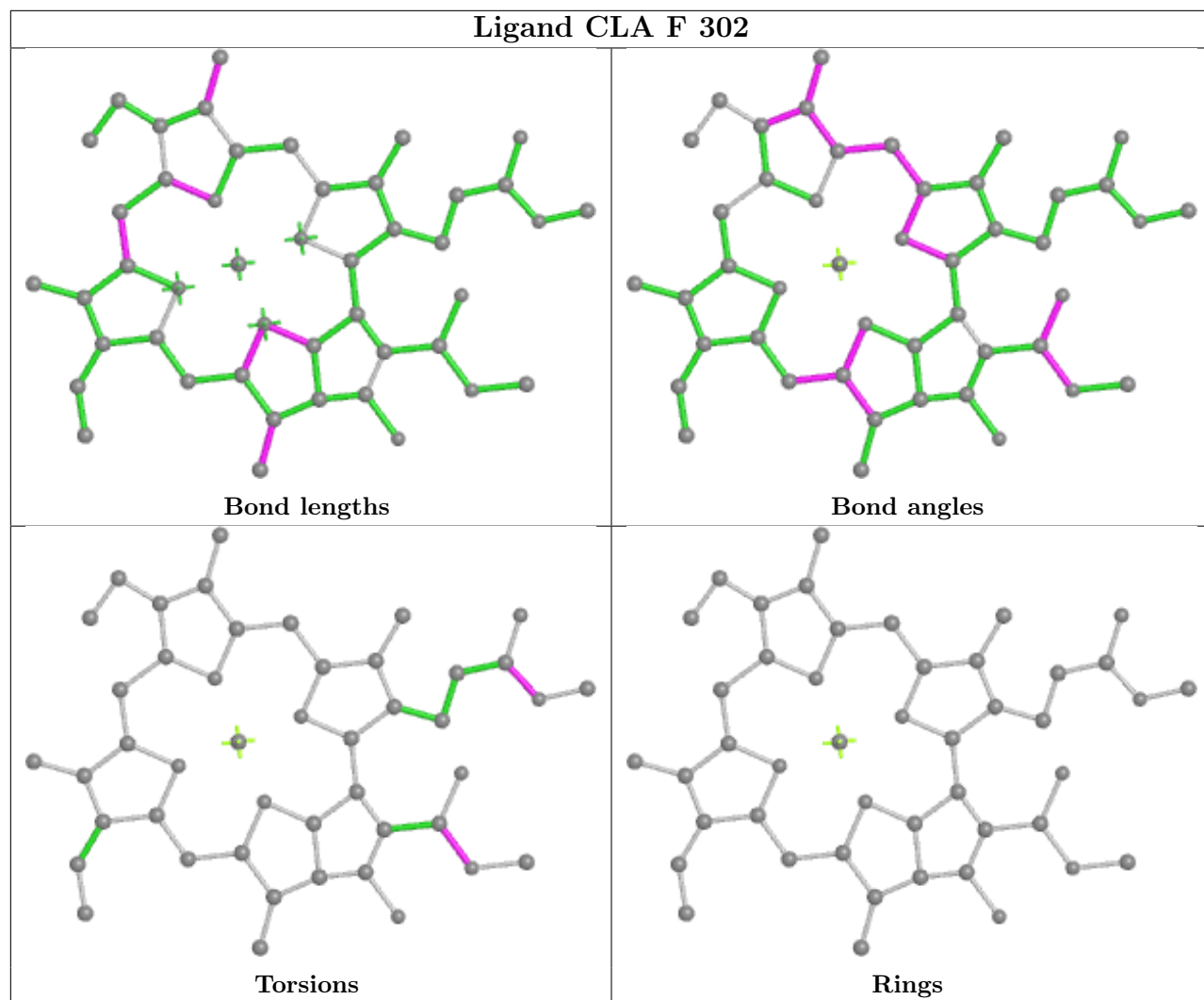


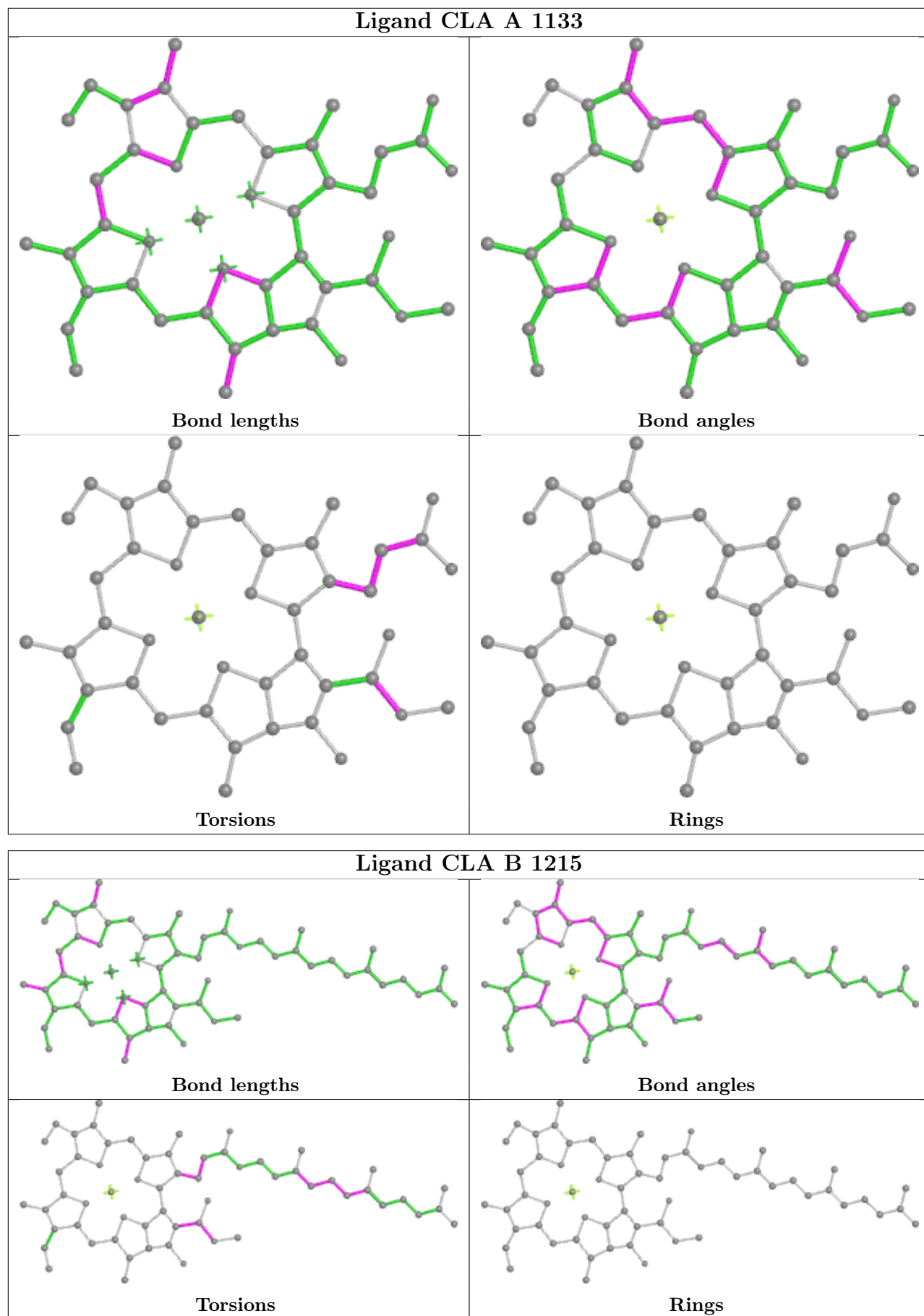


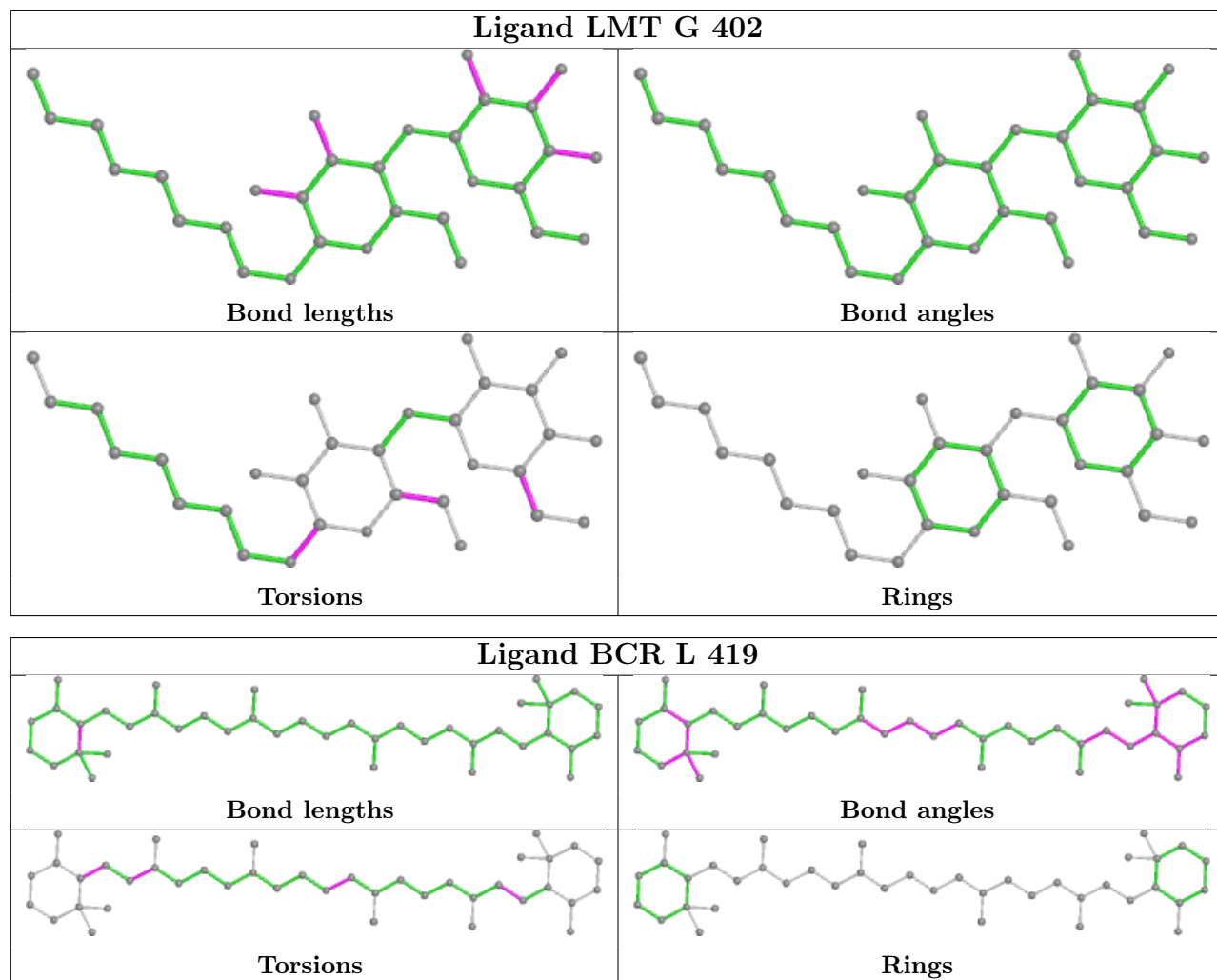


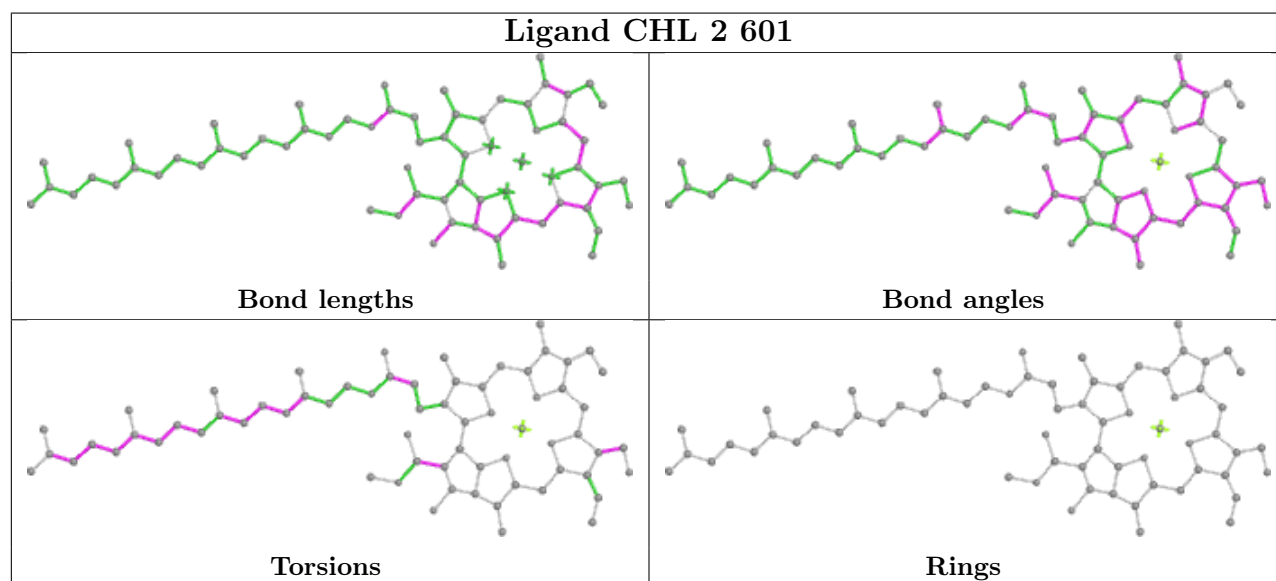
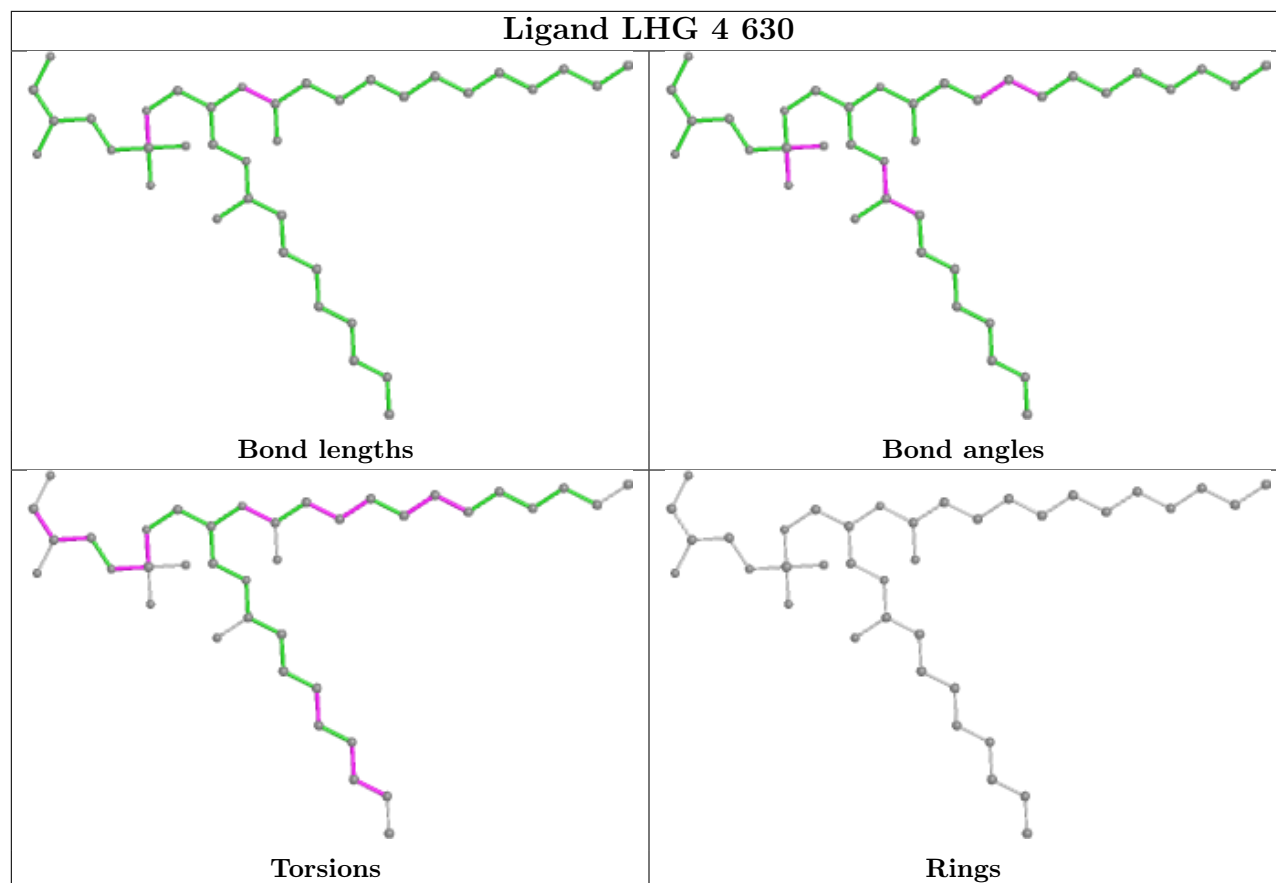




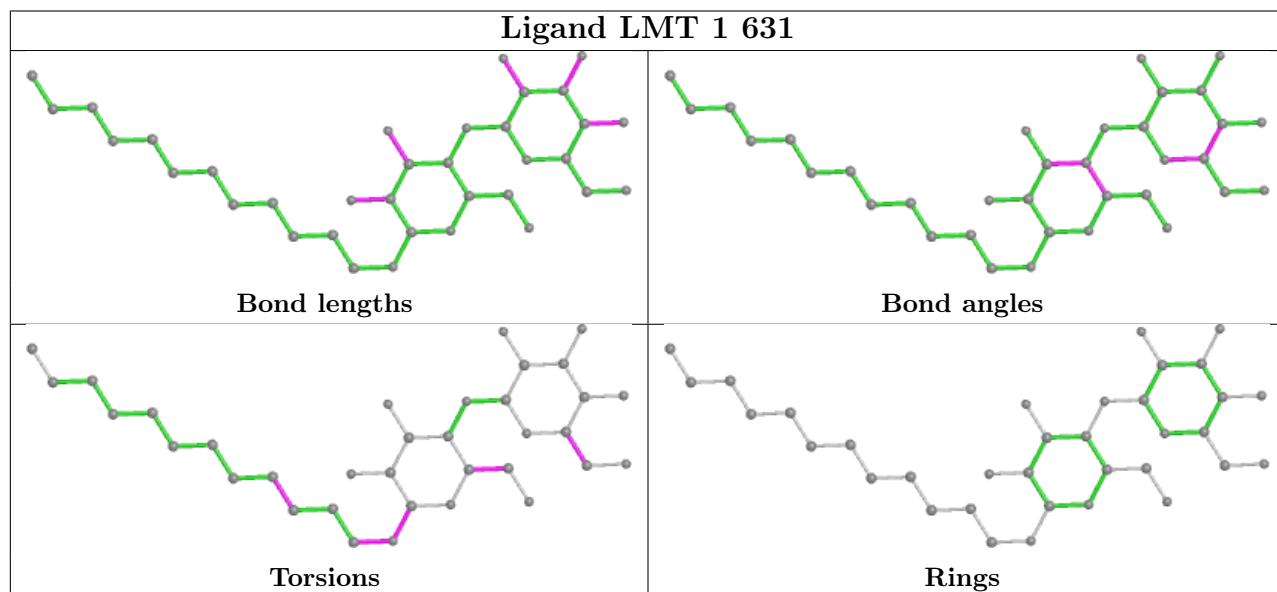
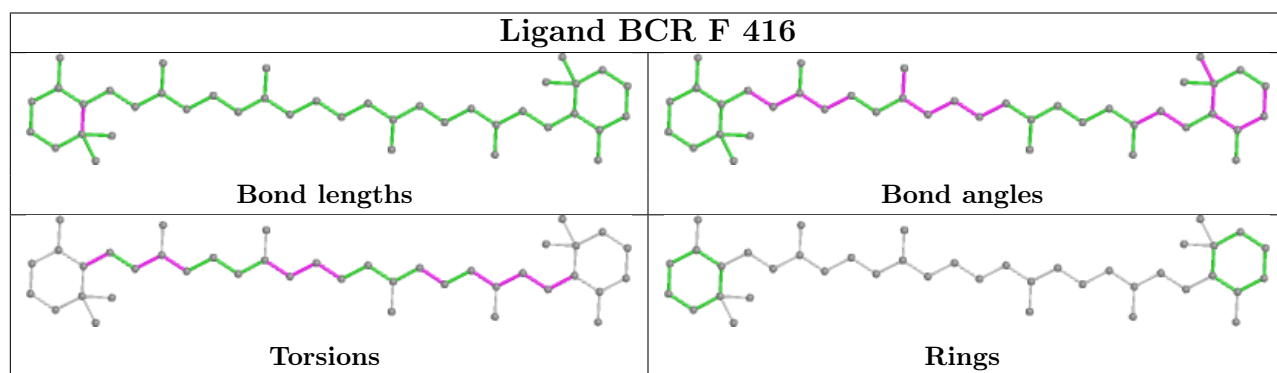
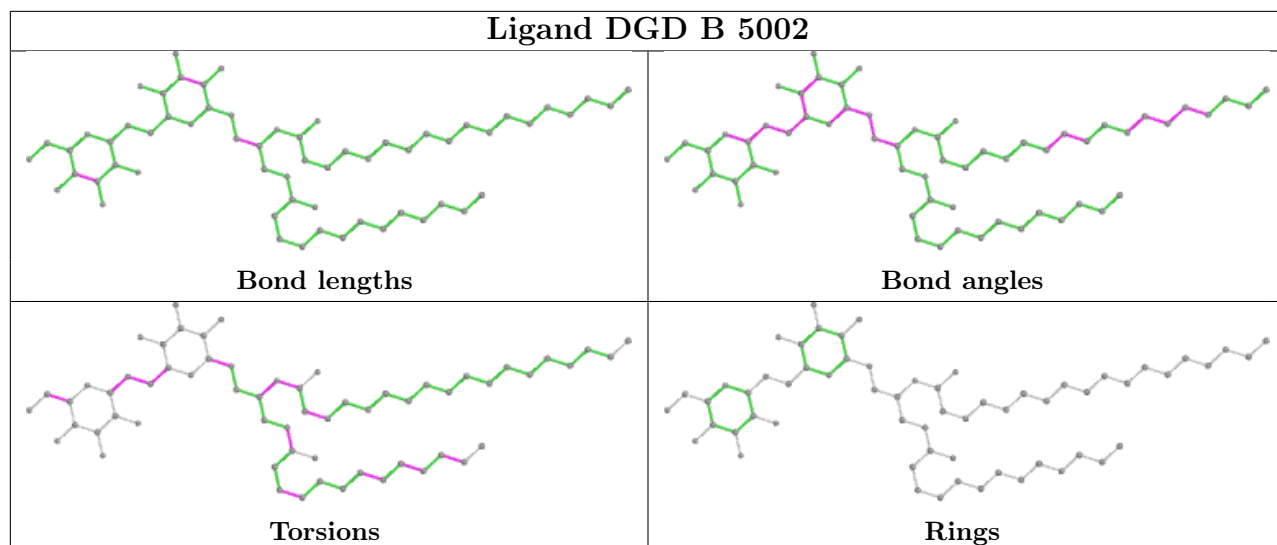


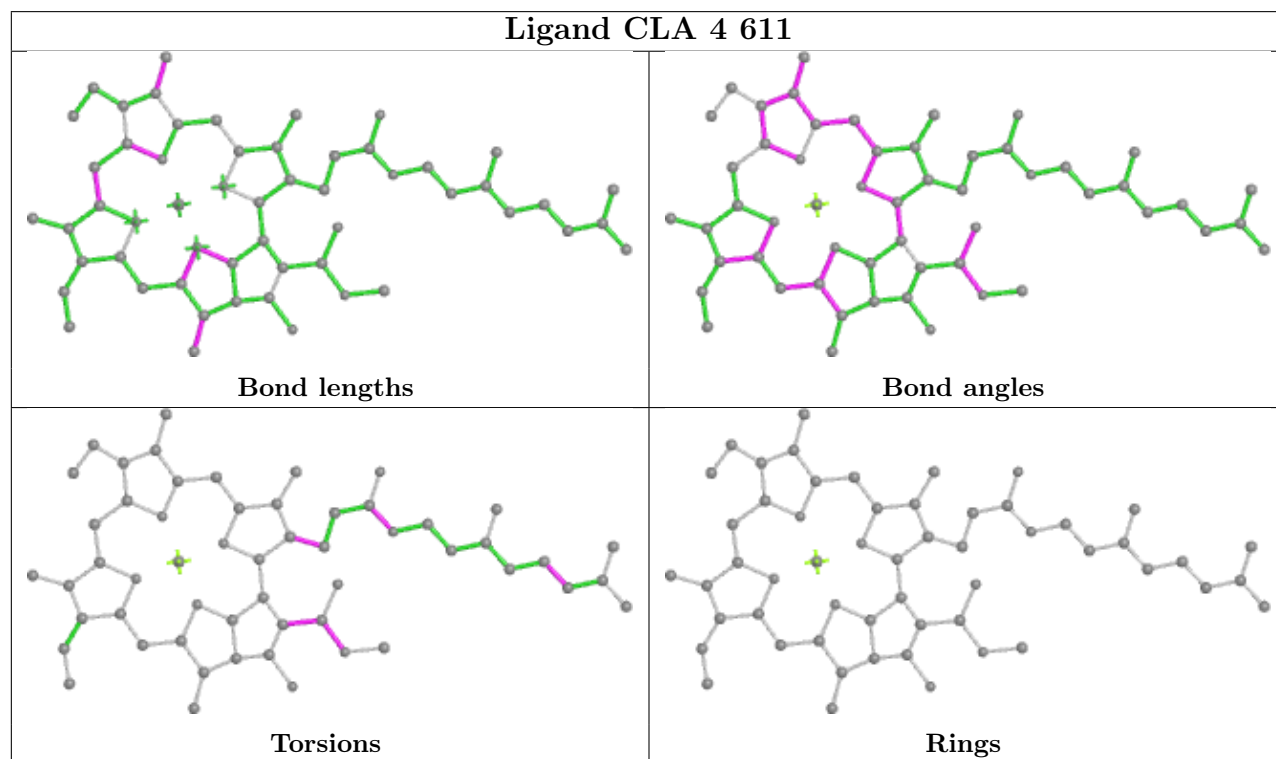
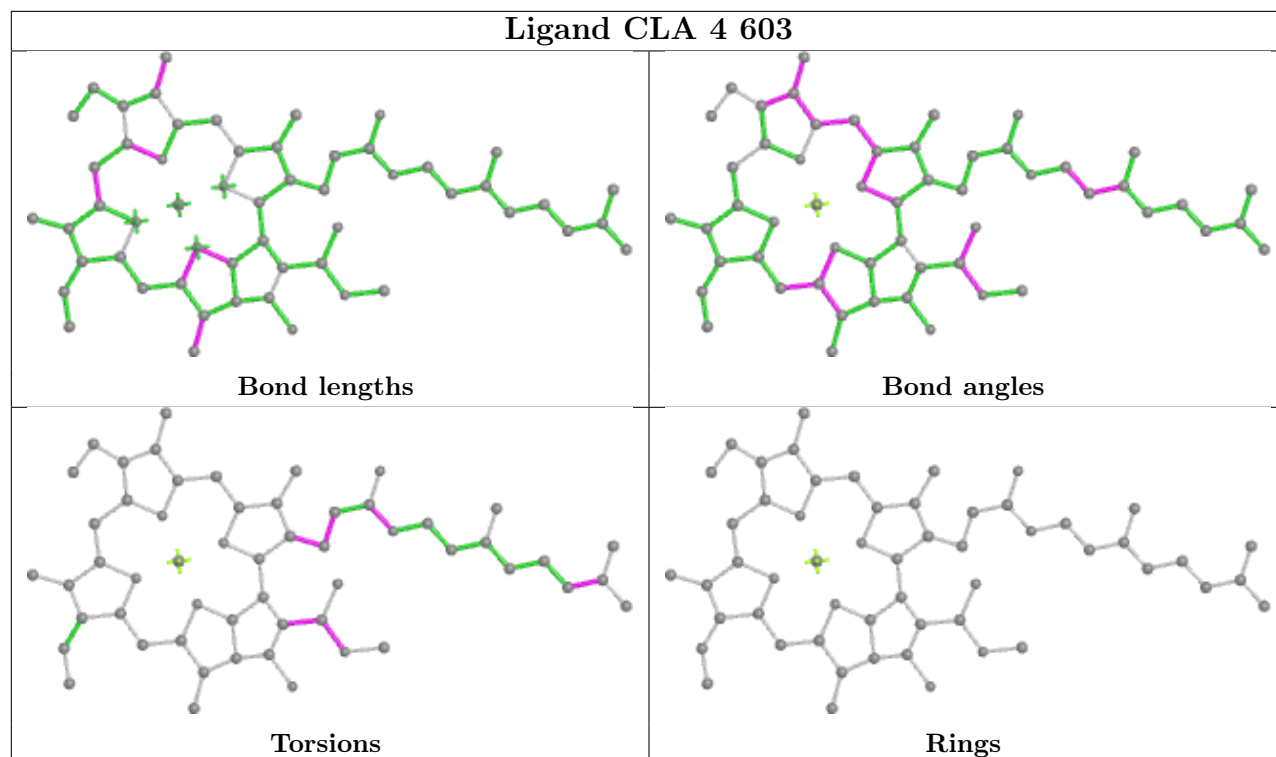


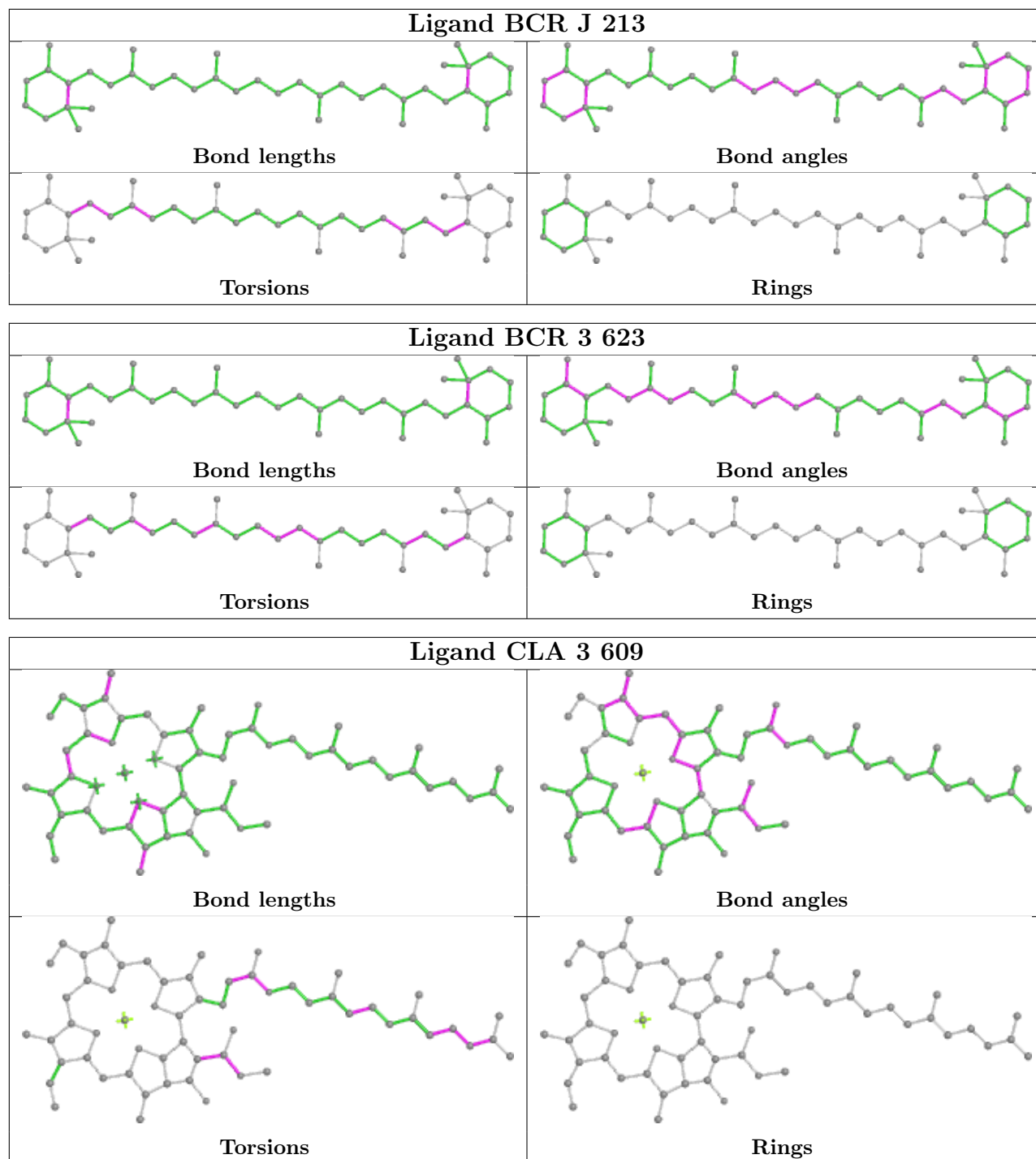


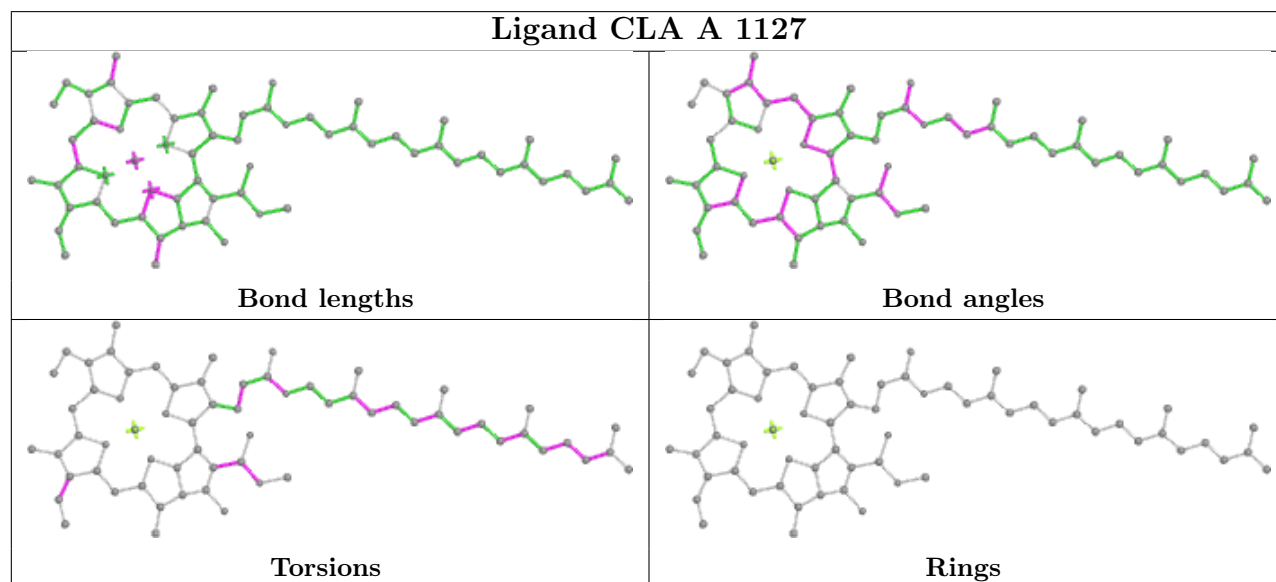
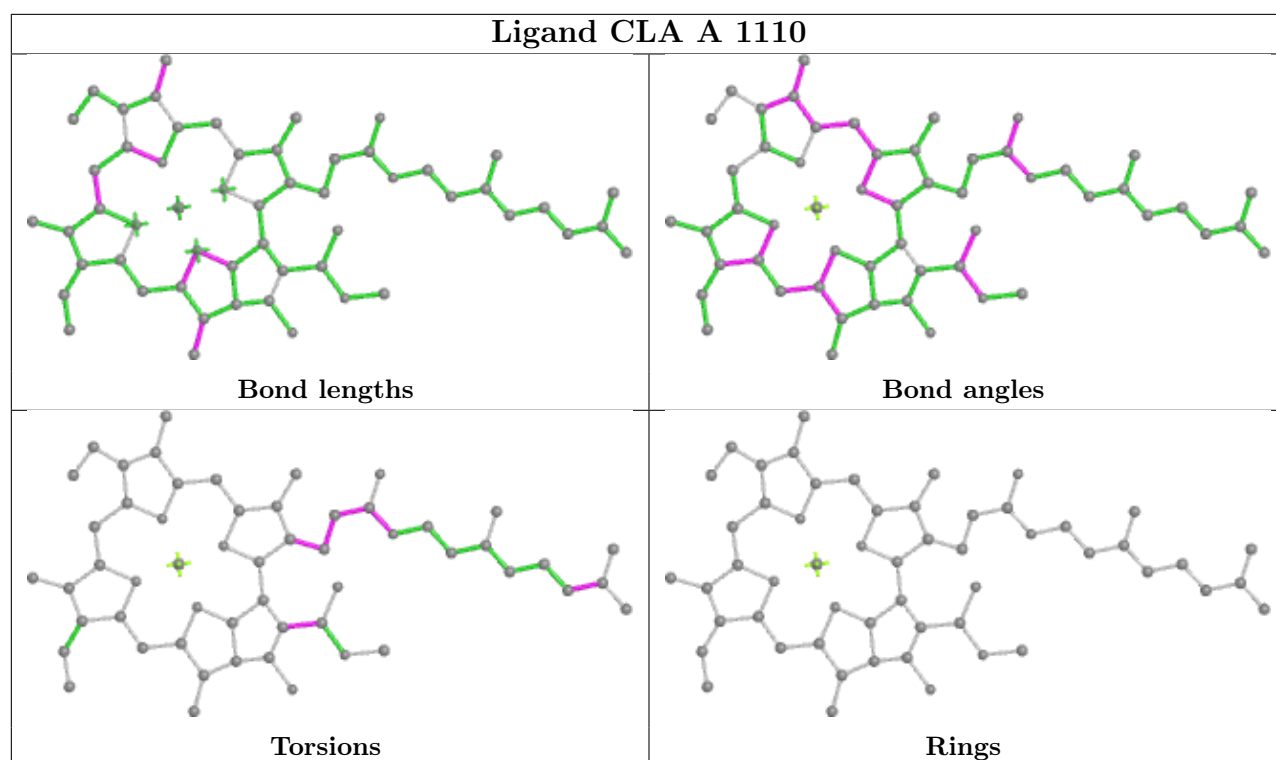


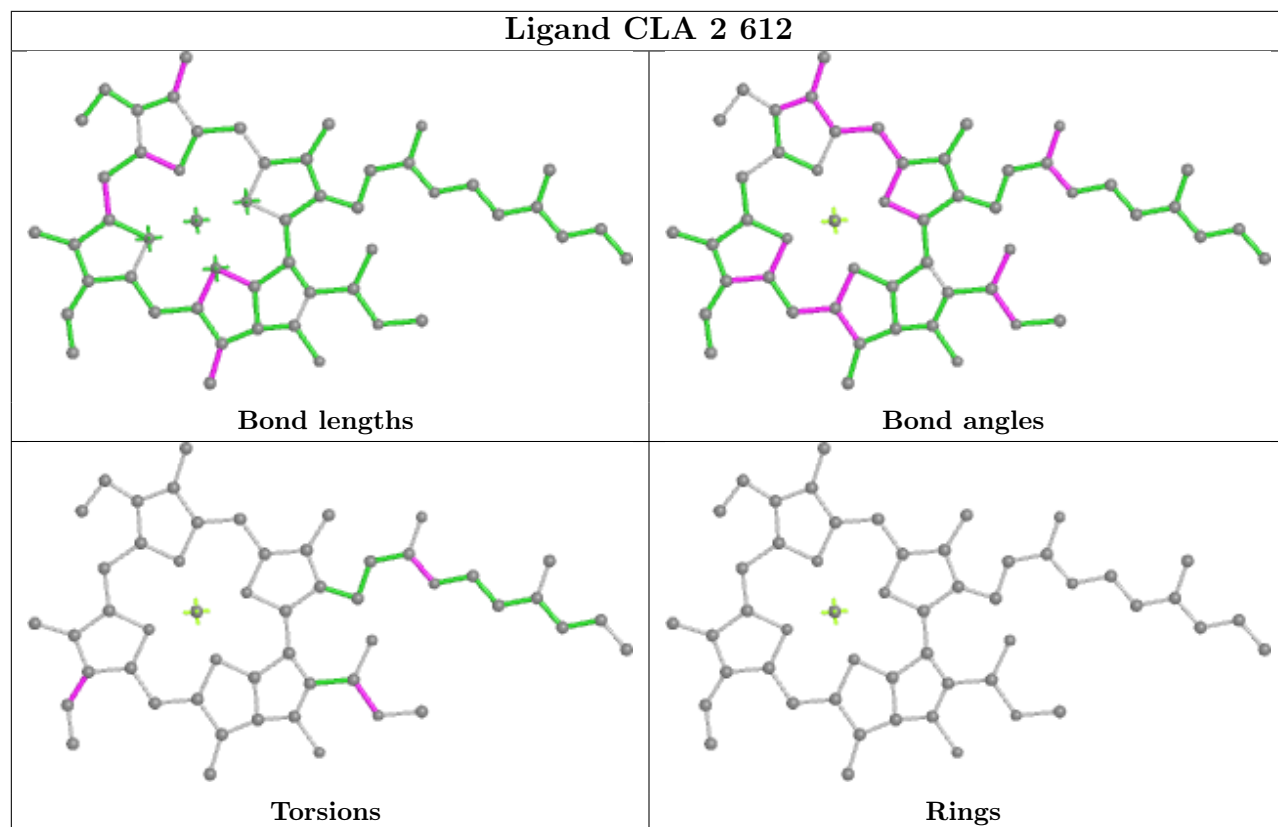


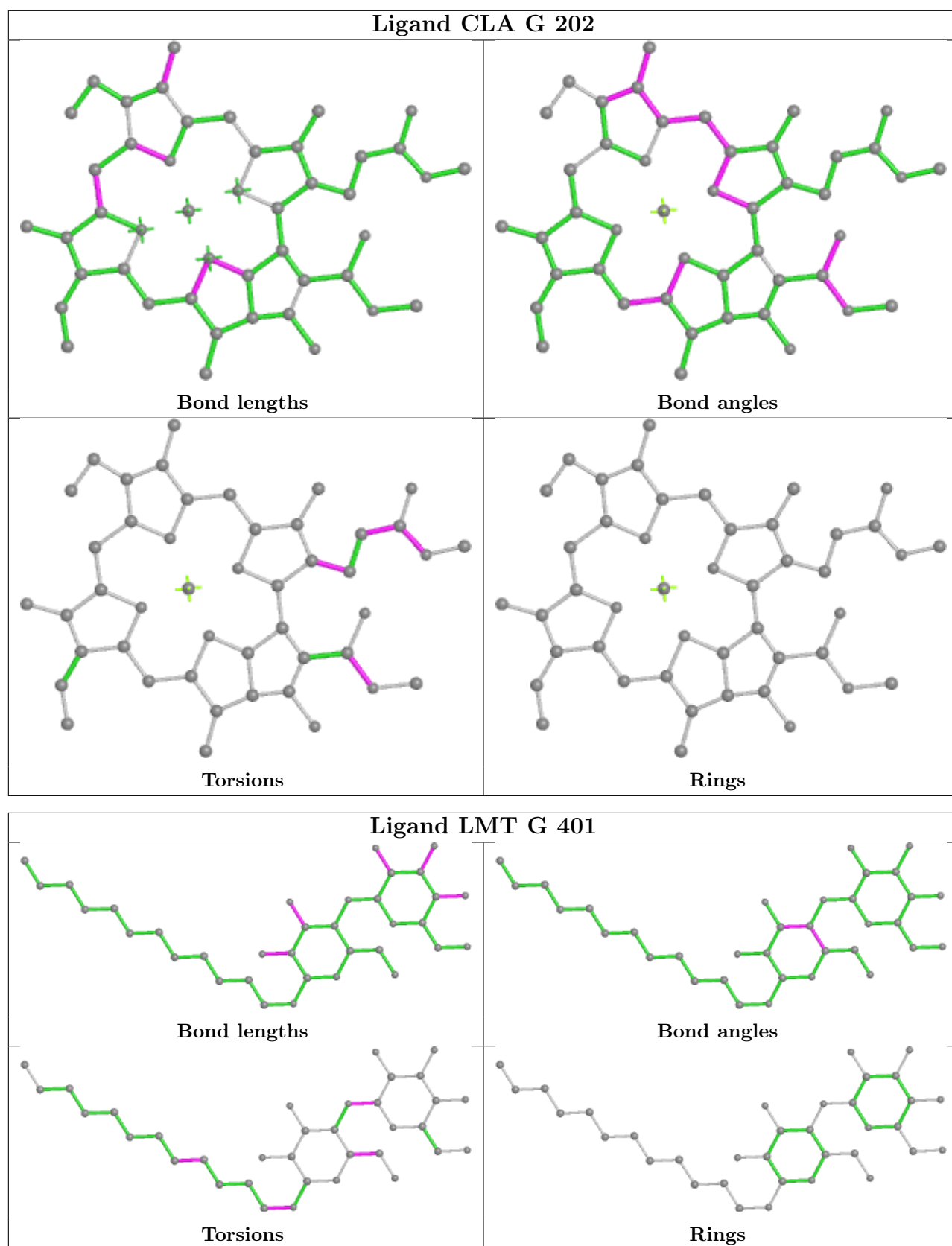


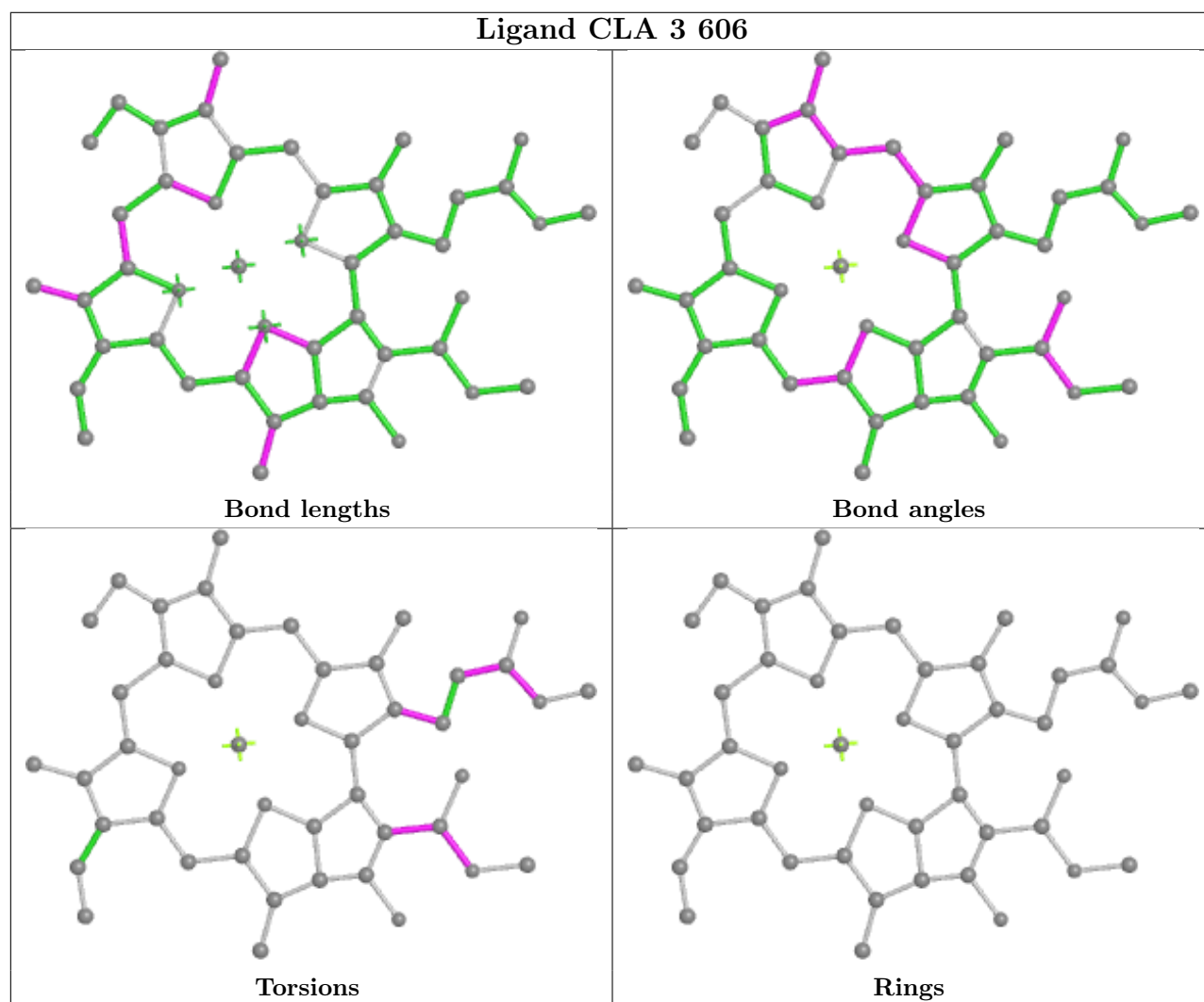
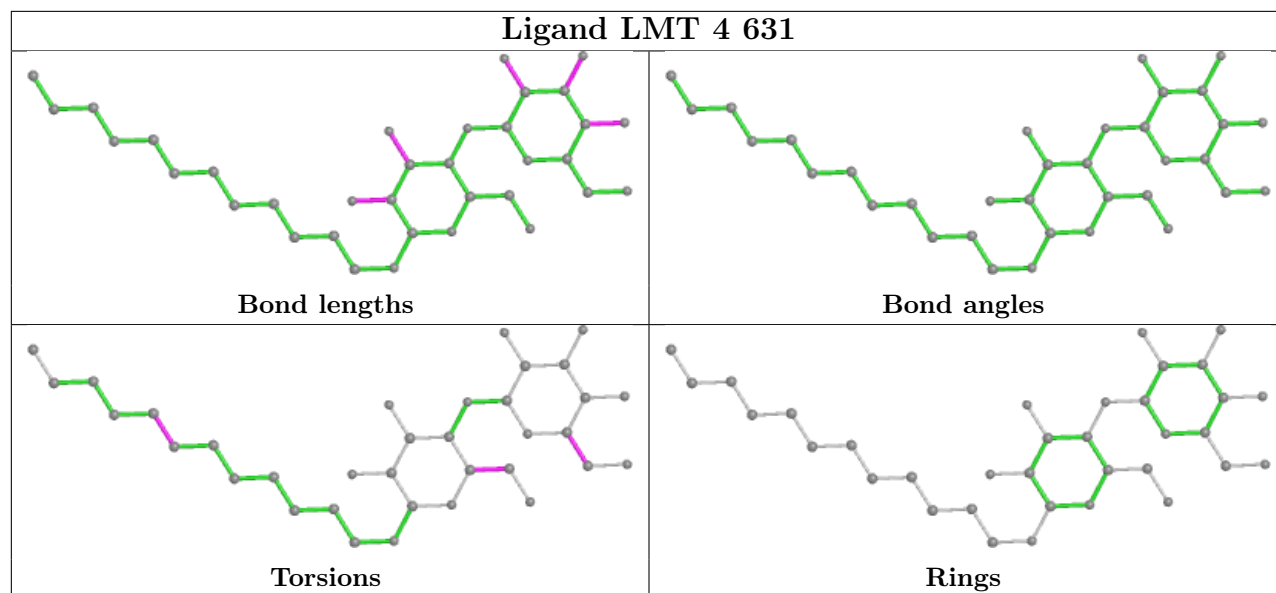




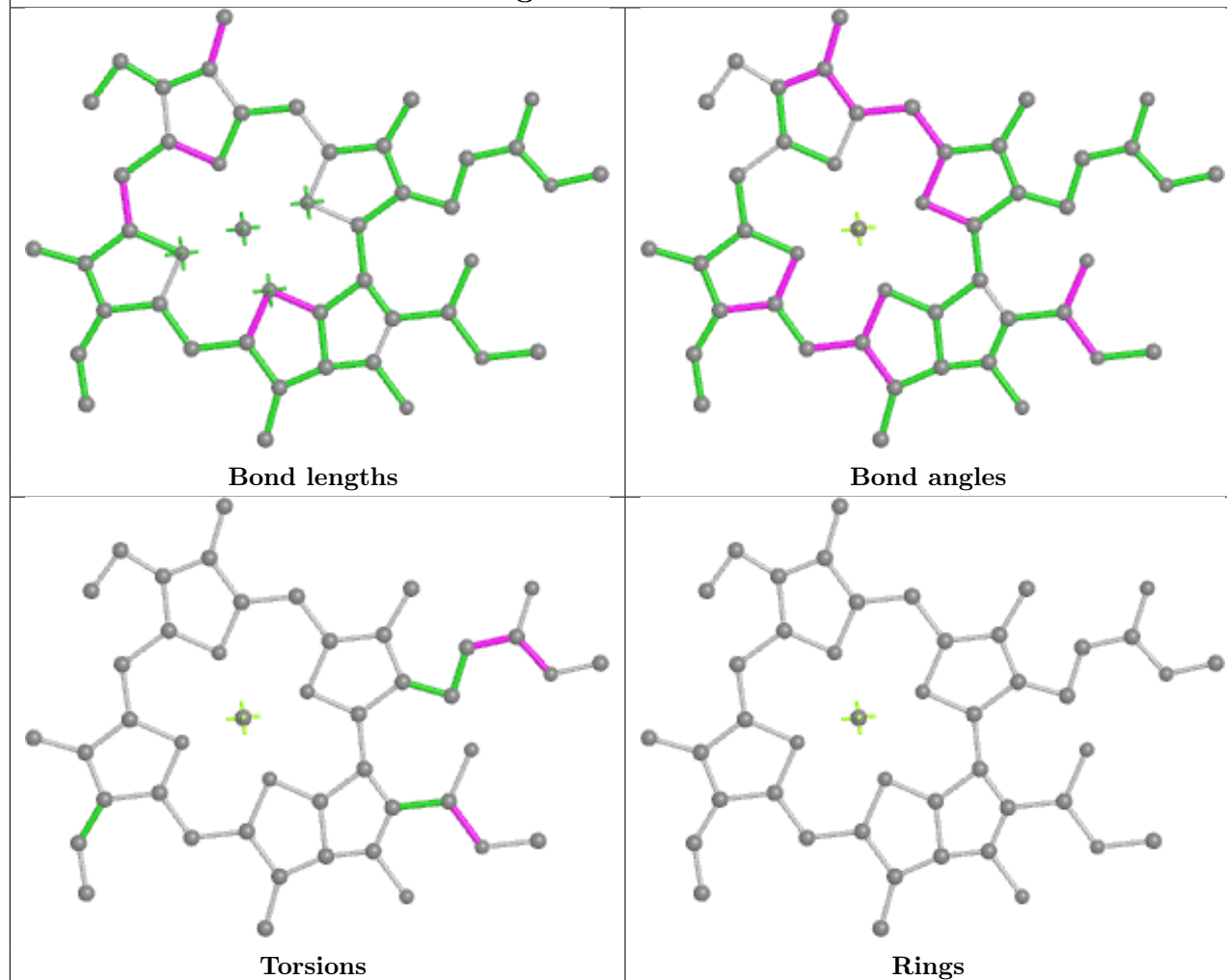




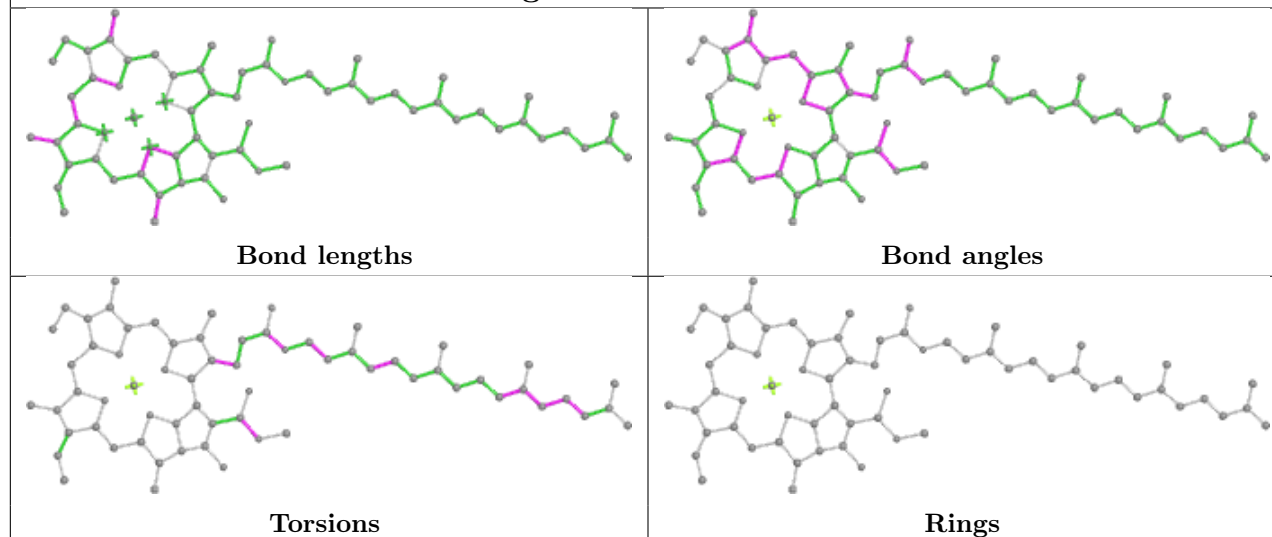




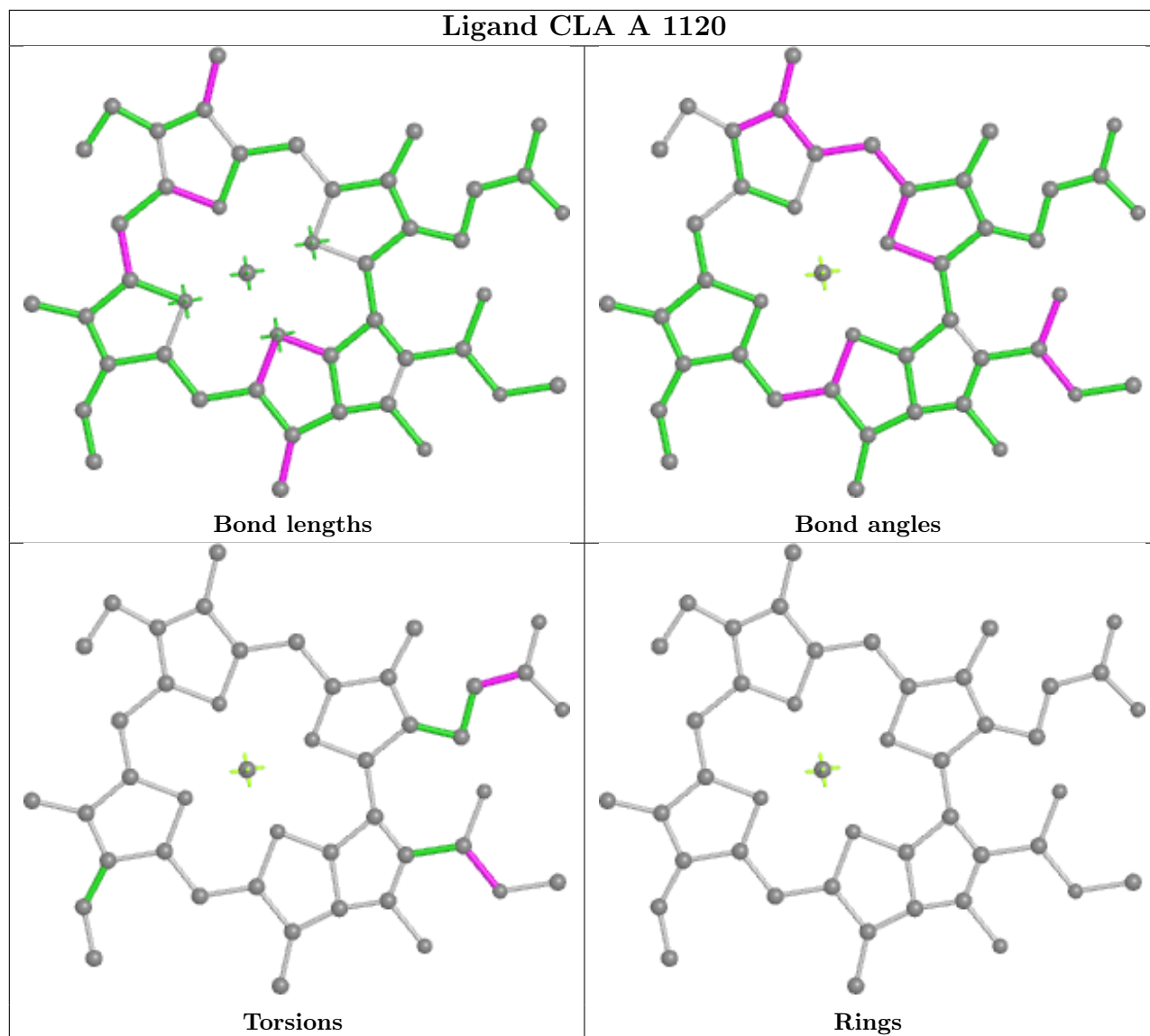
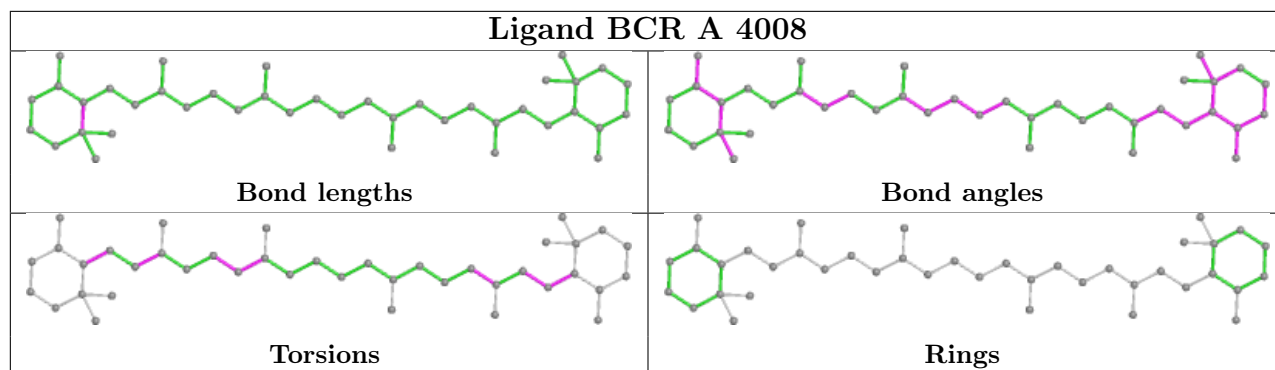
## Ligand CLA 1 612

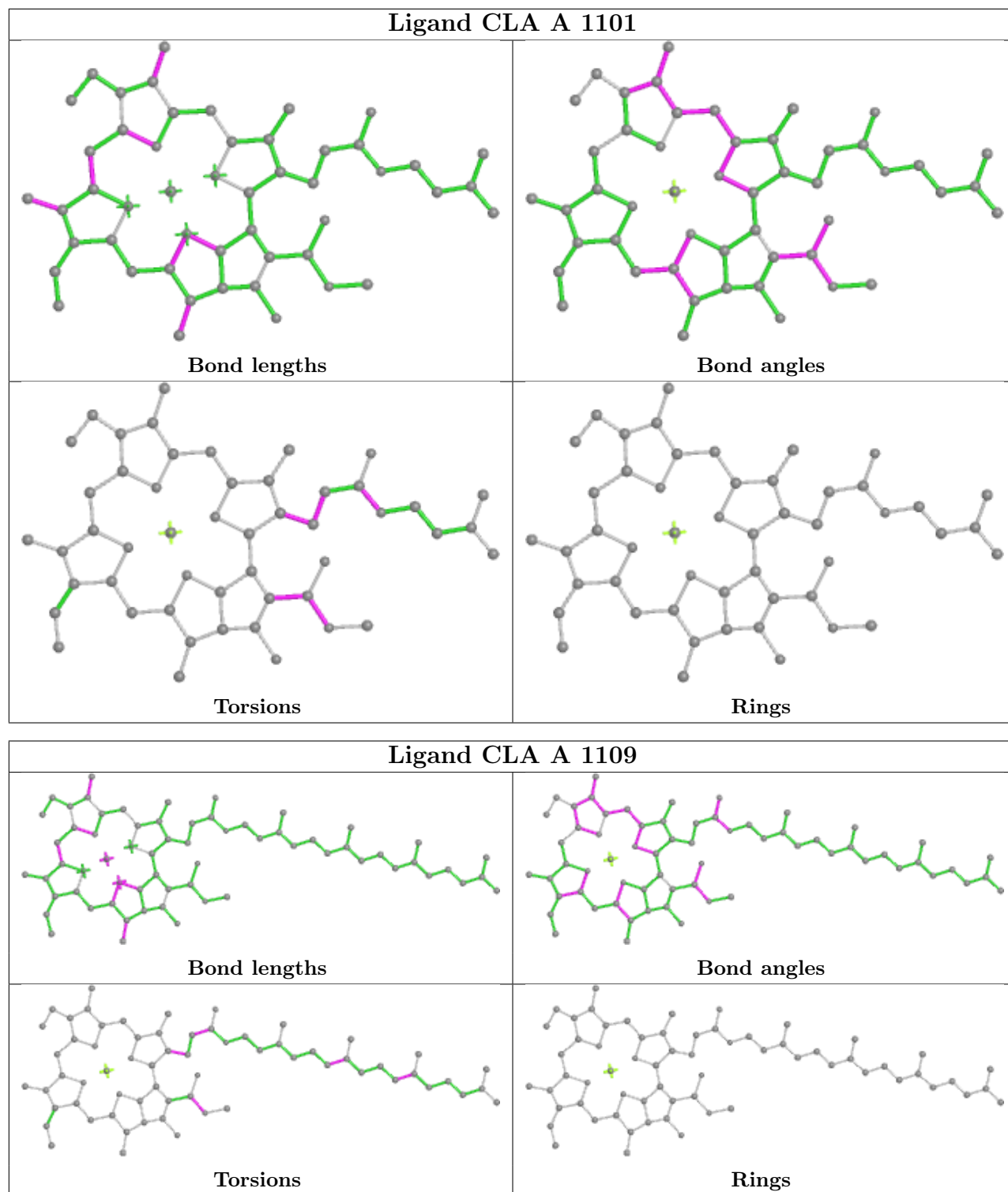


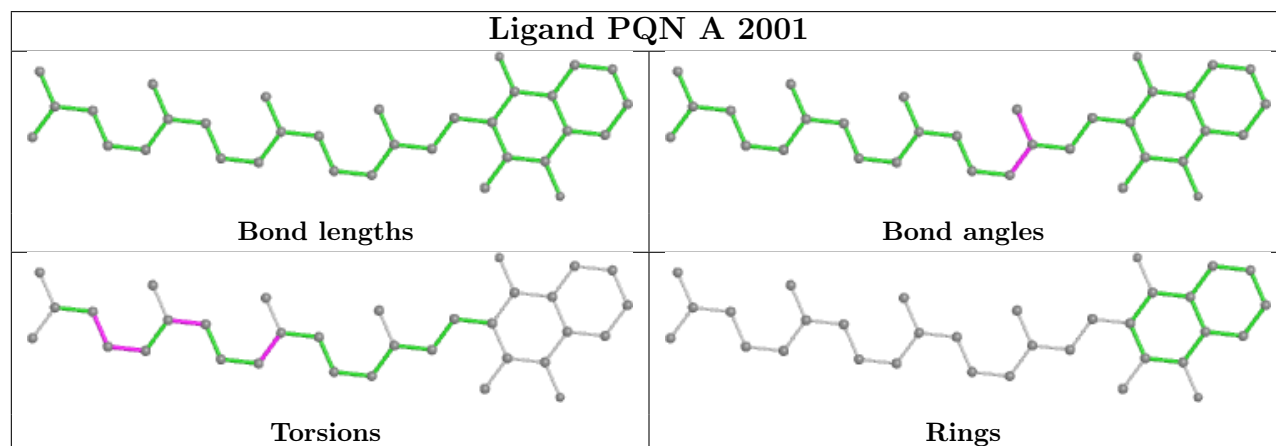
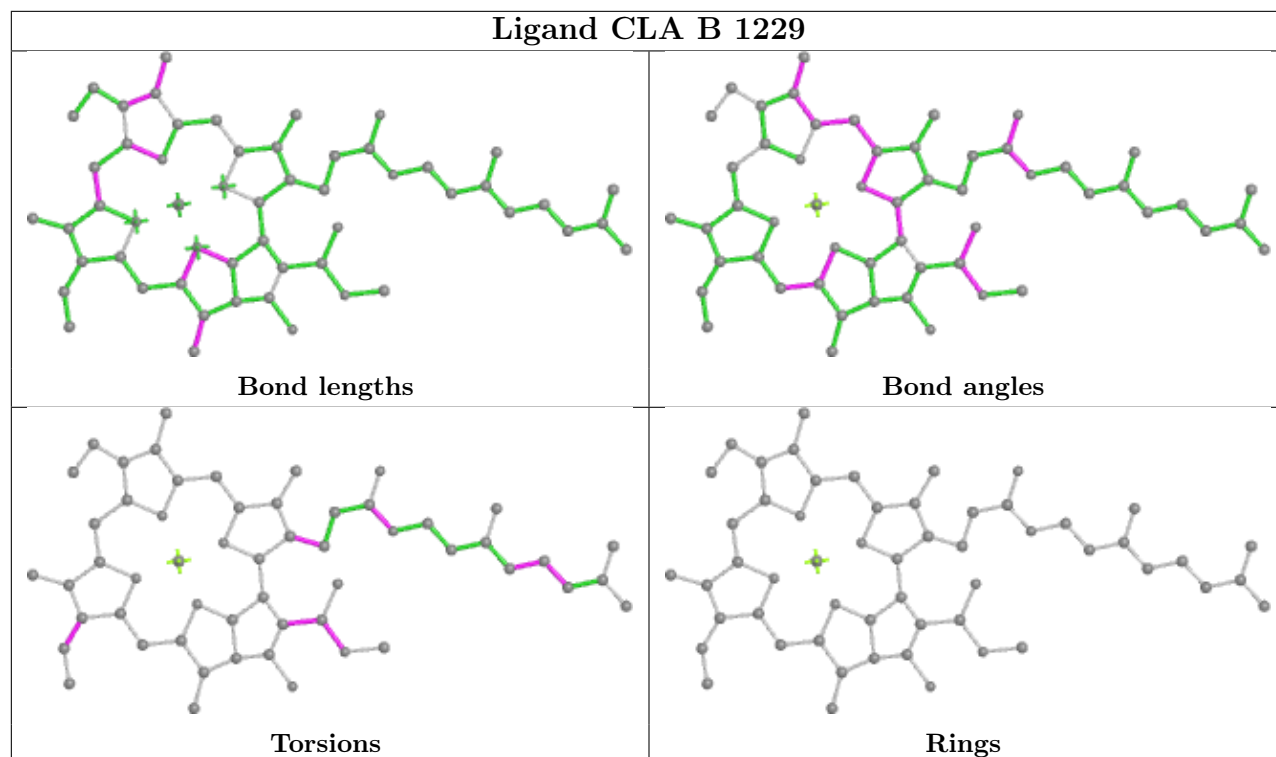
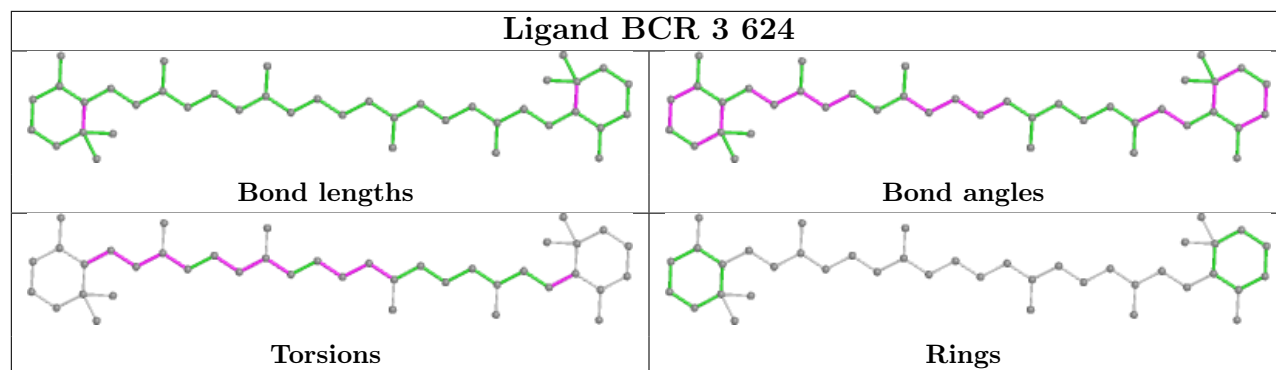
## Ligand CLA B 1203

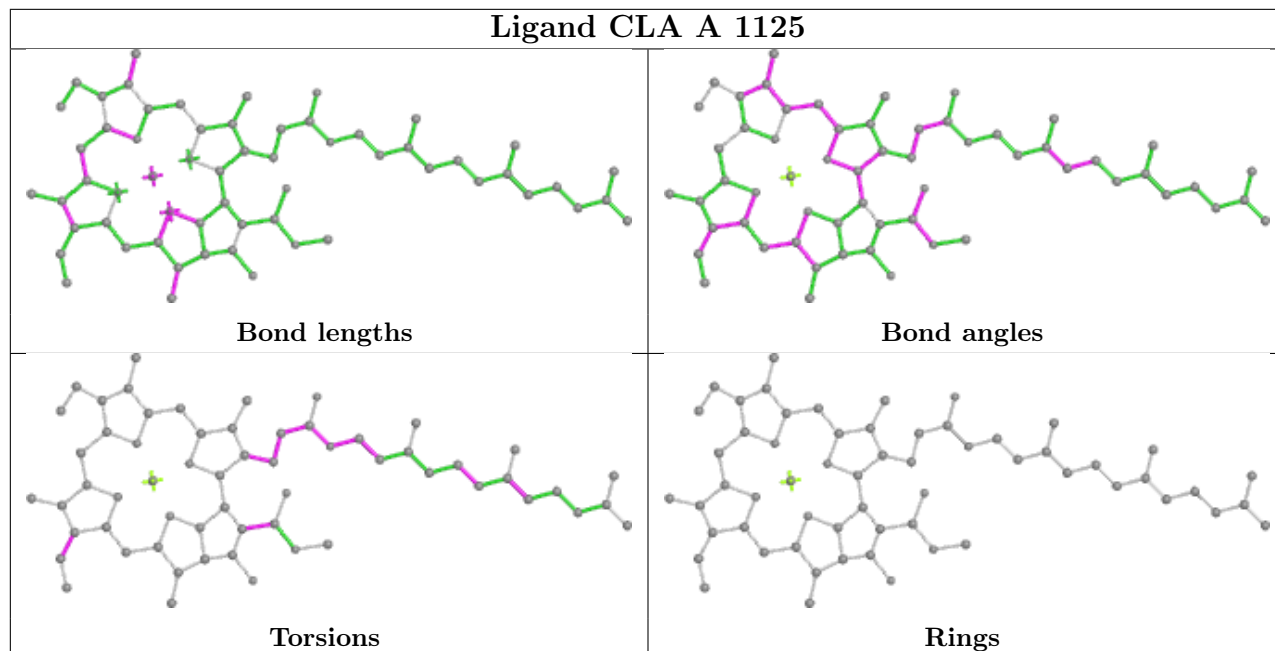
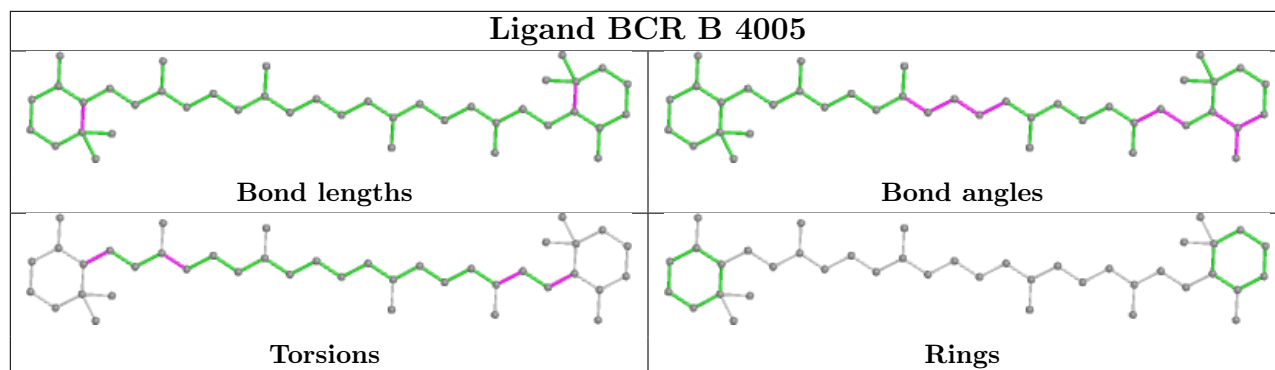


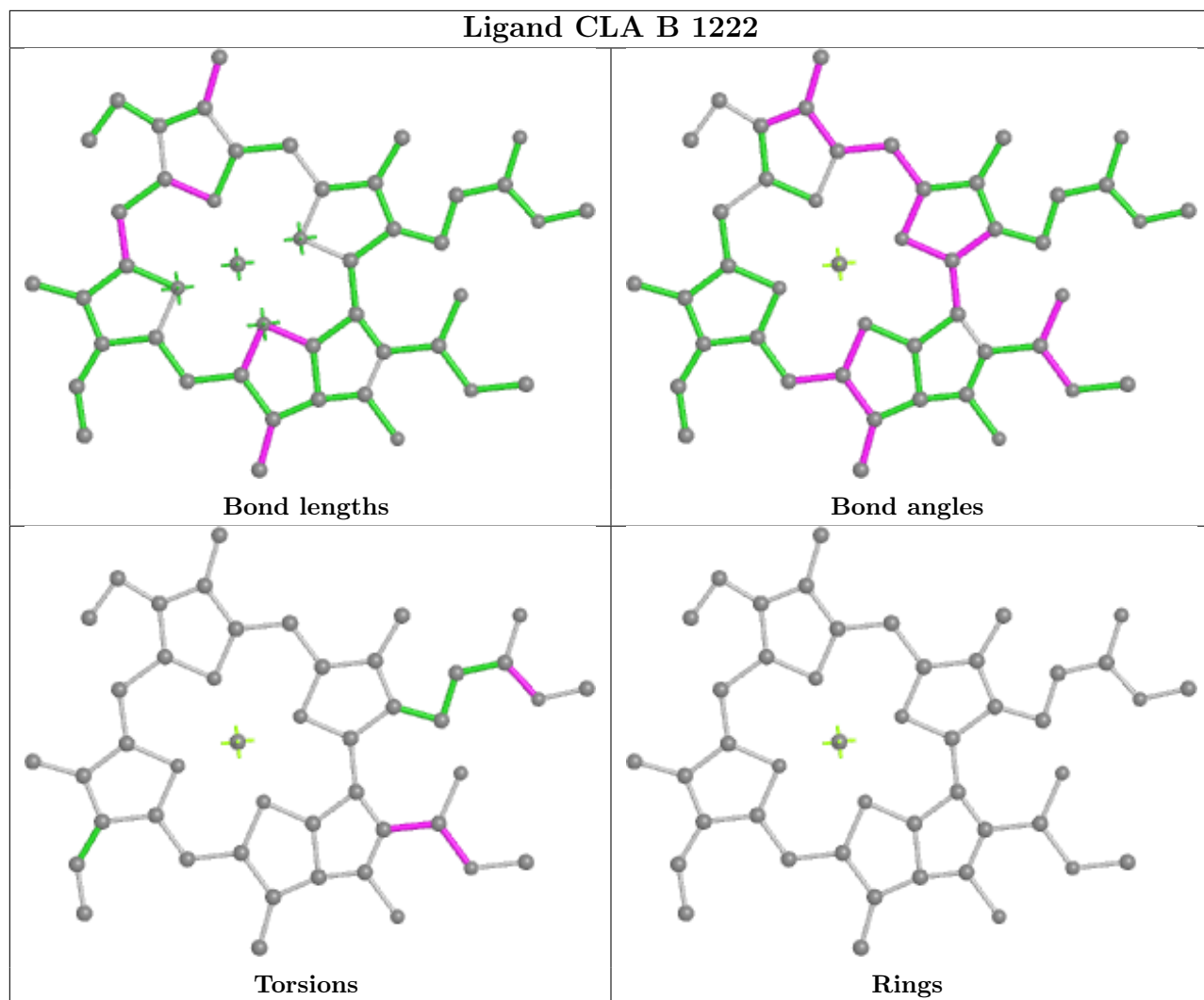


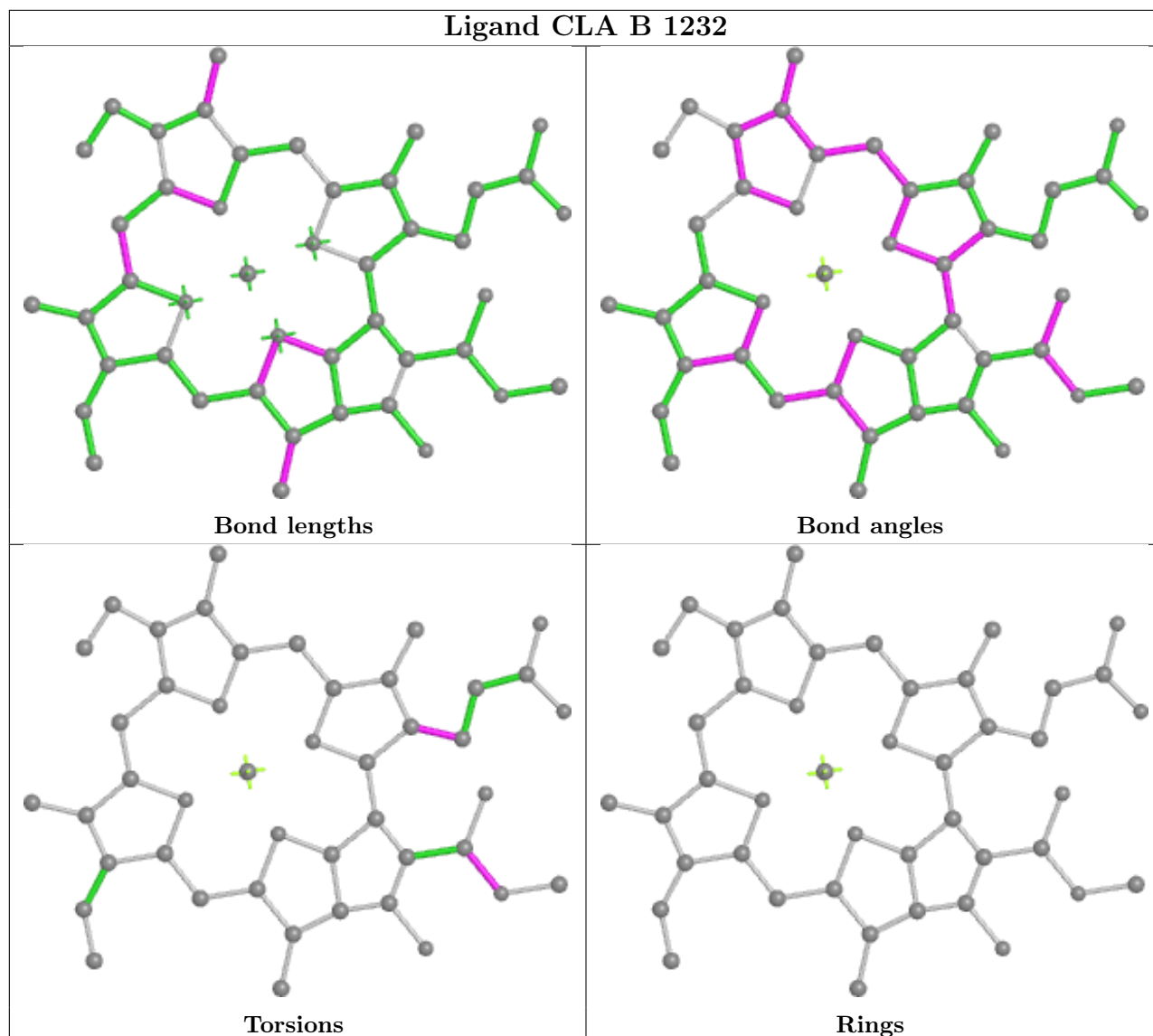


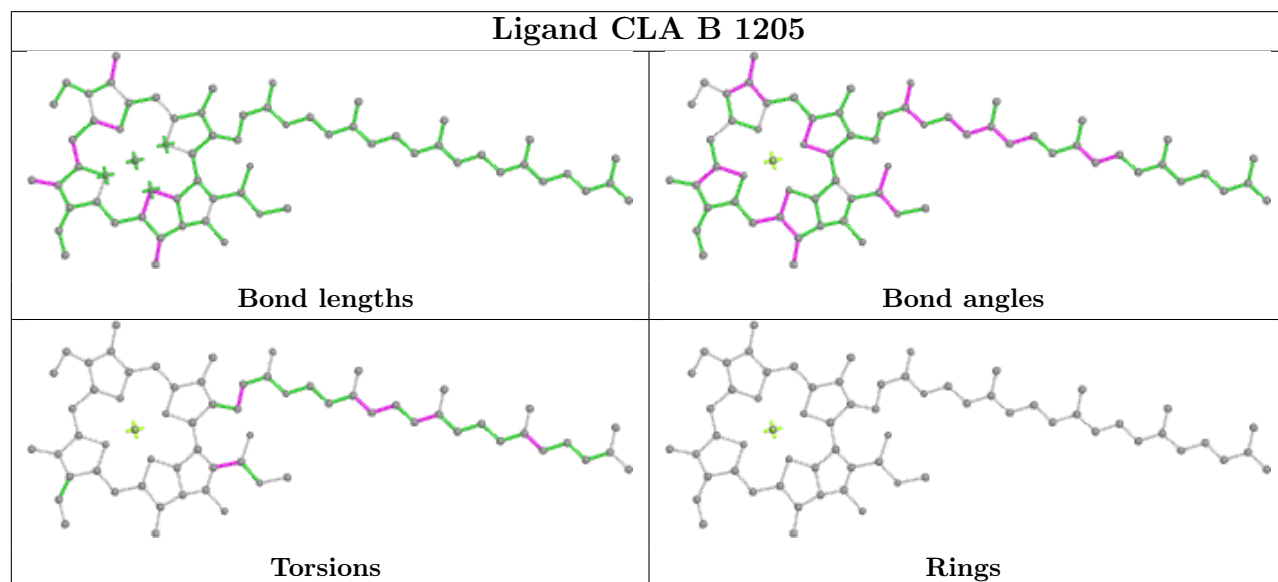
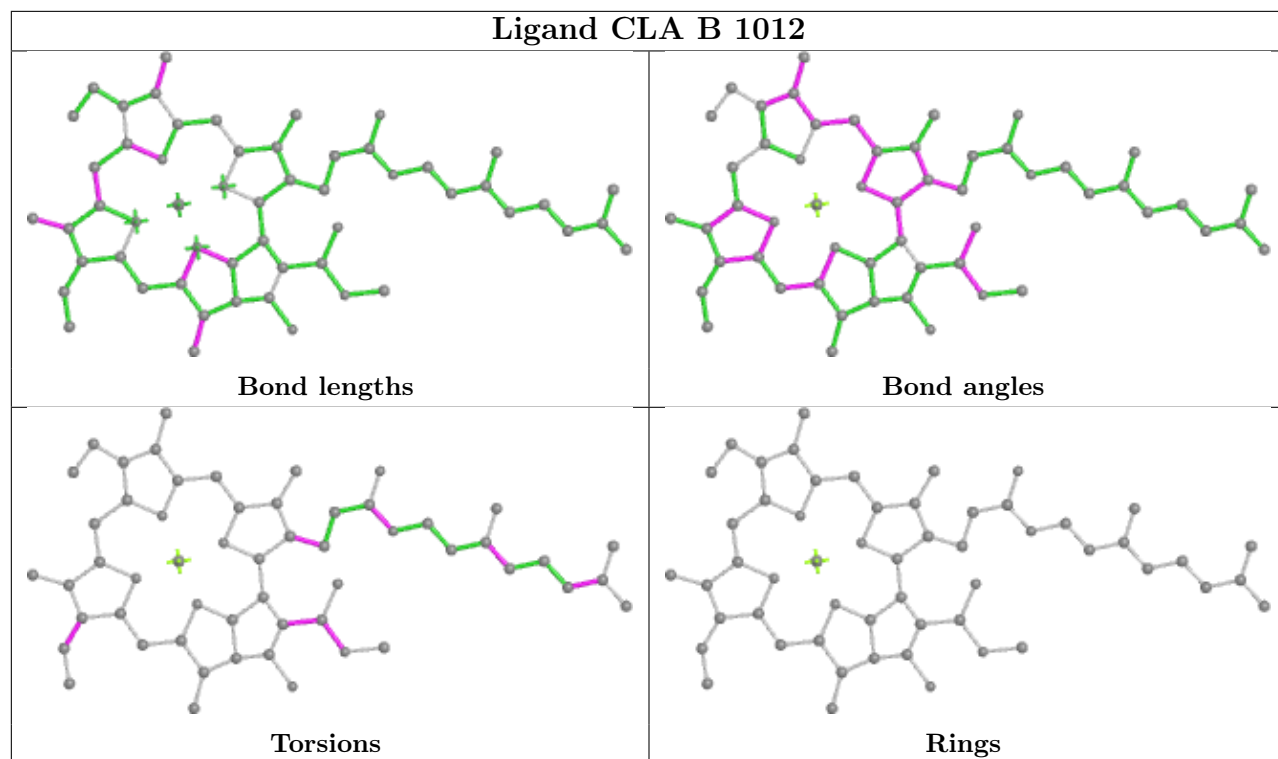


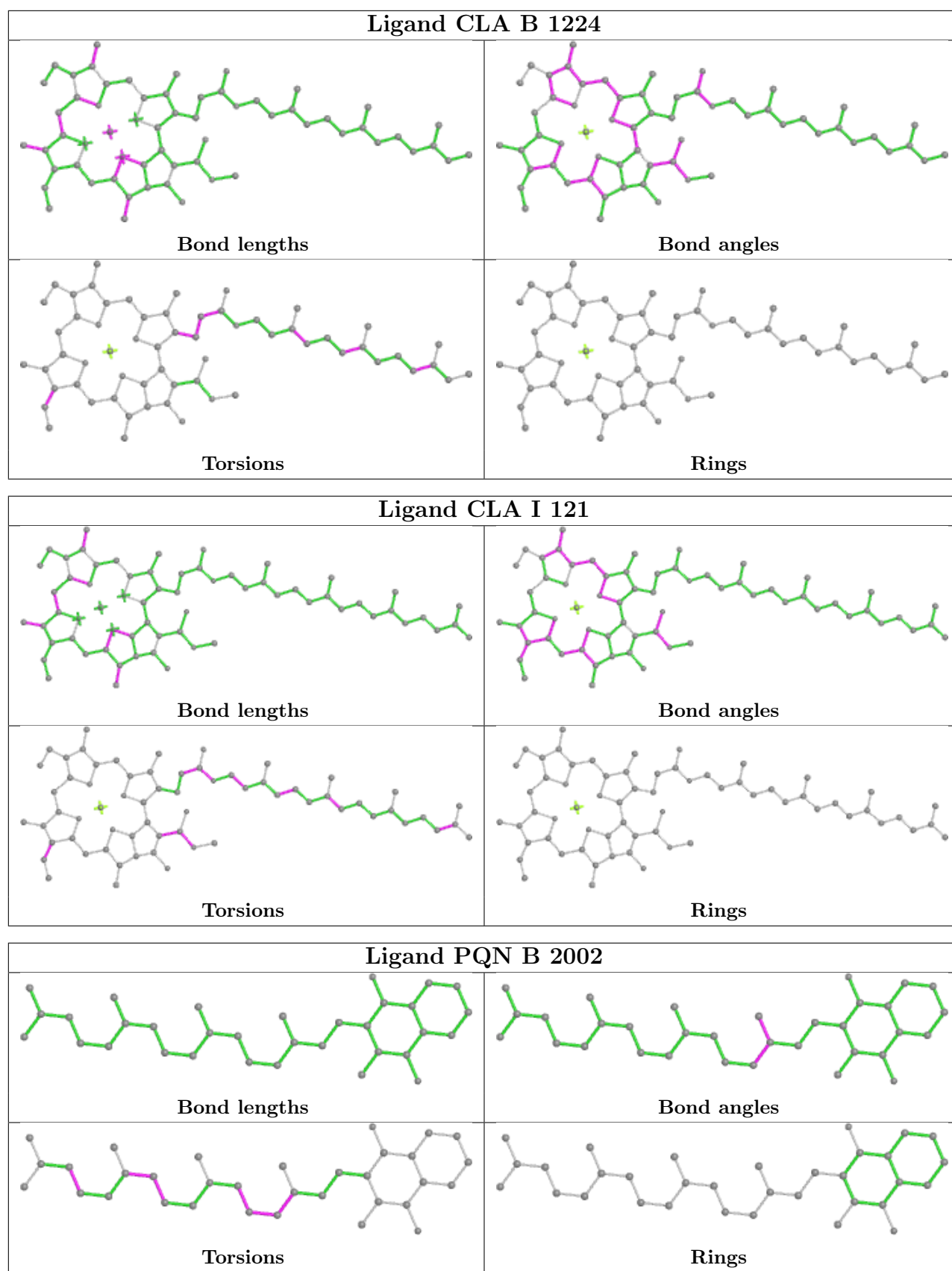




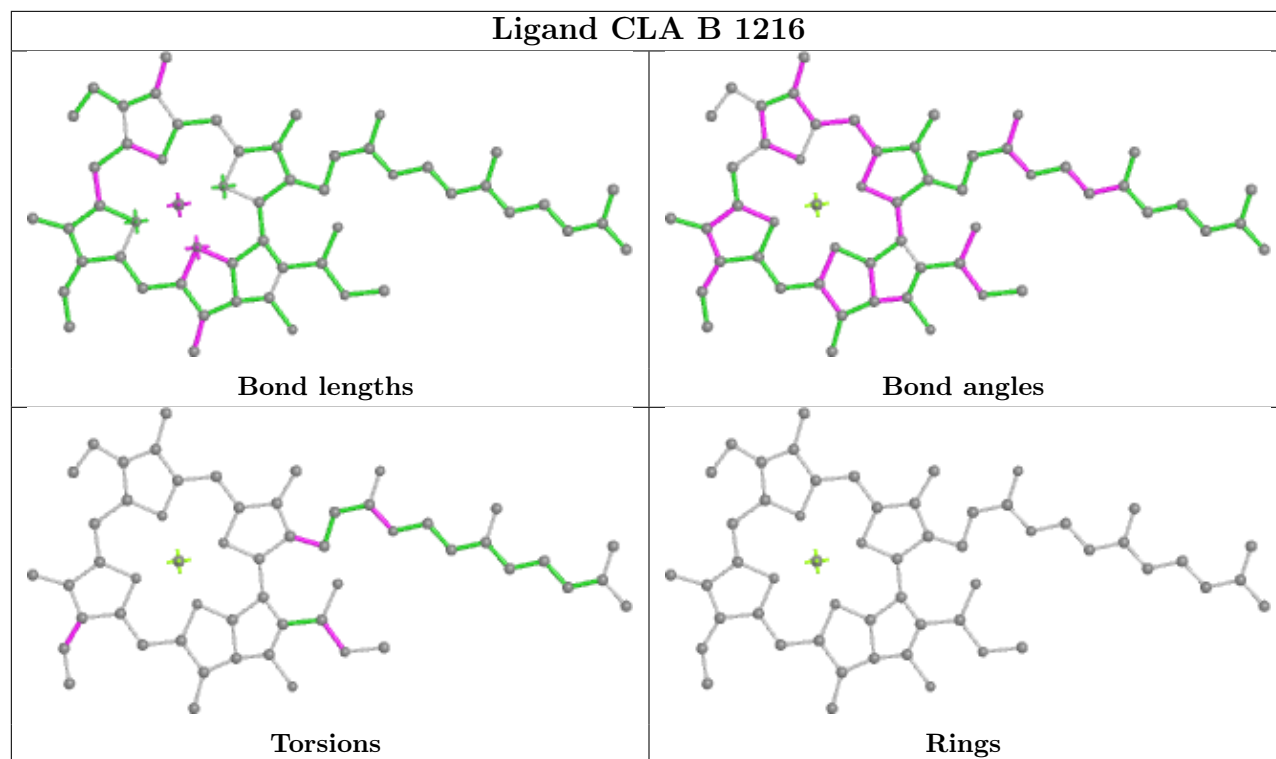


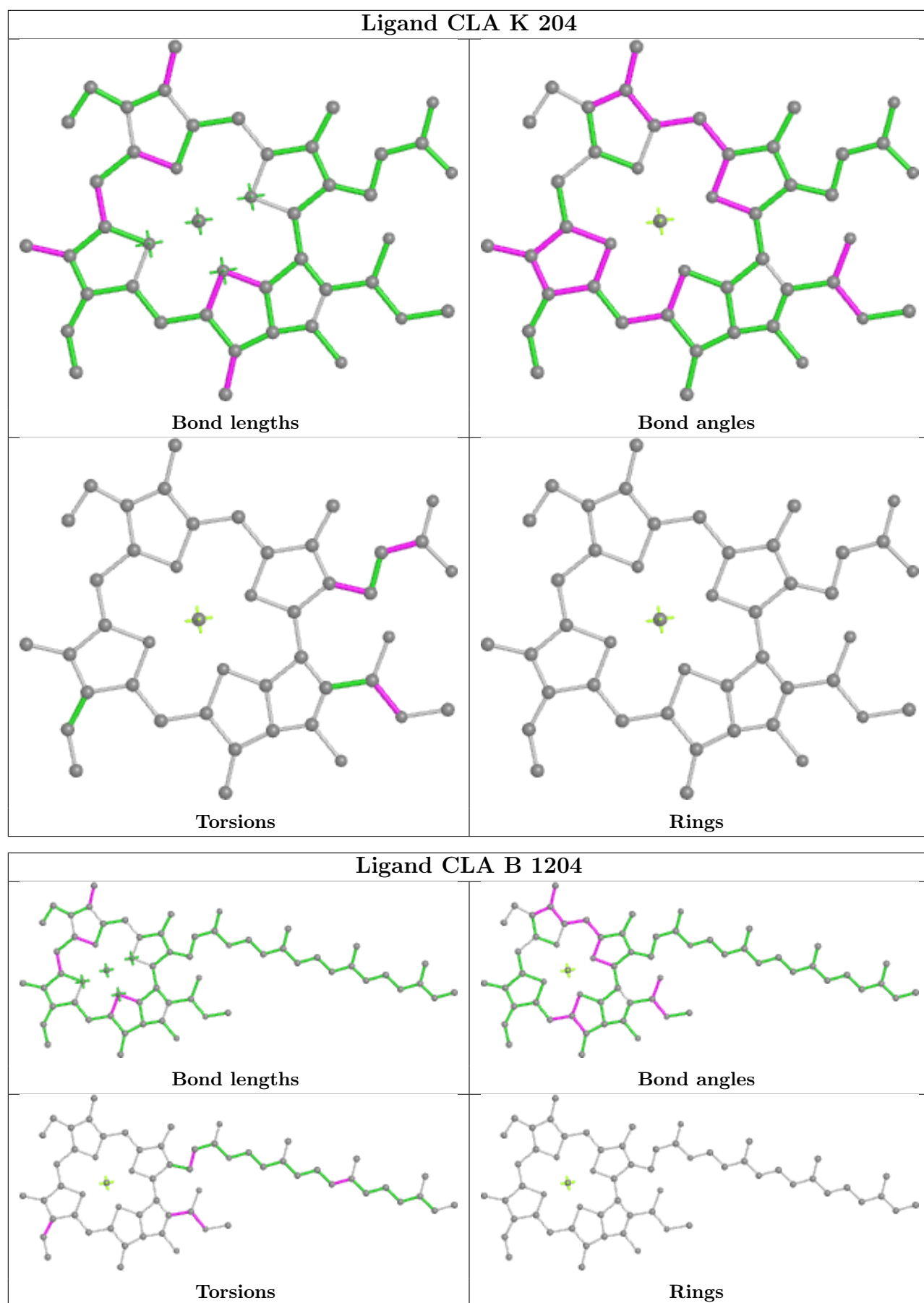


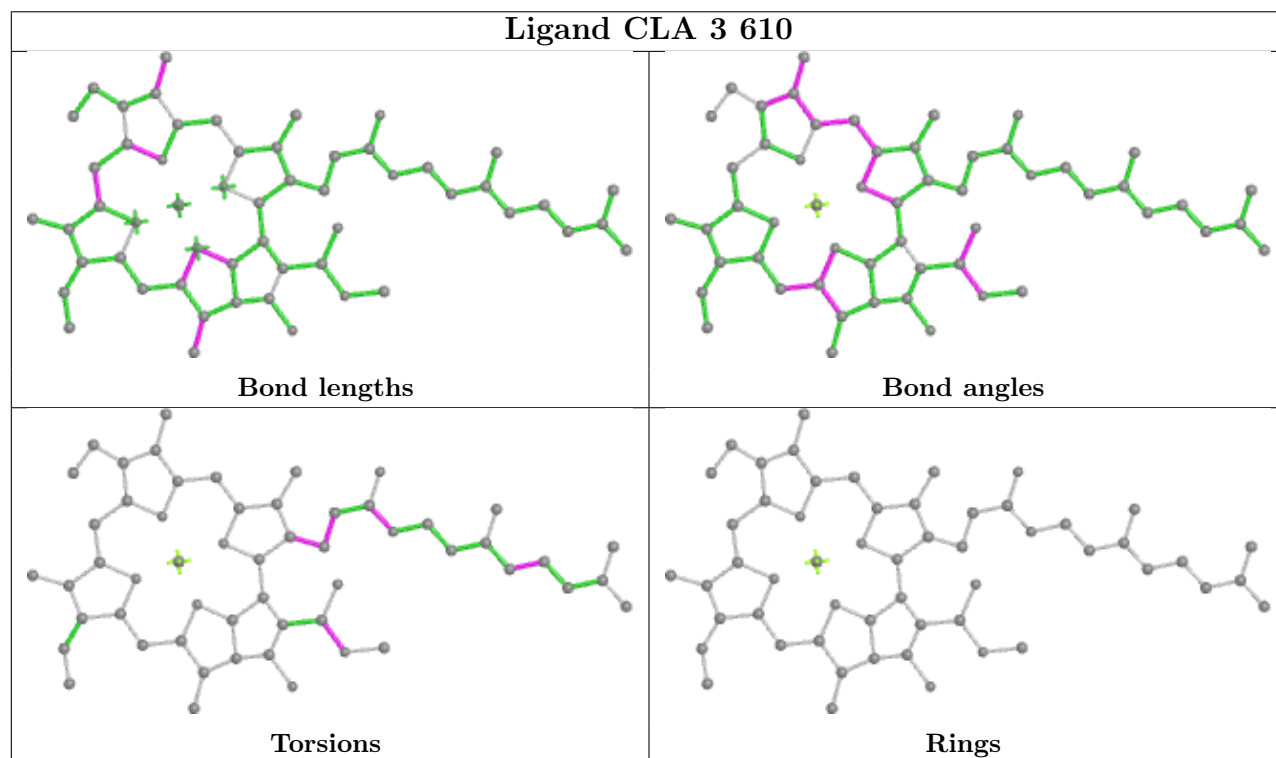
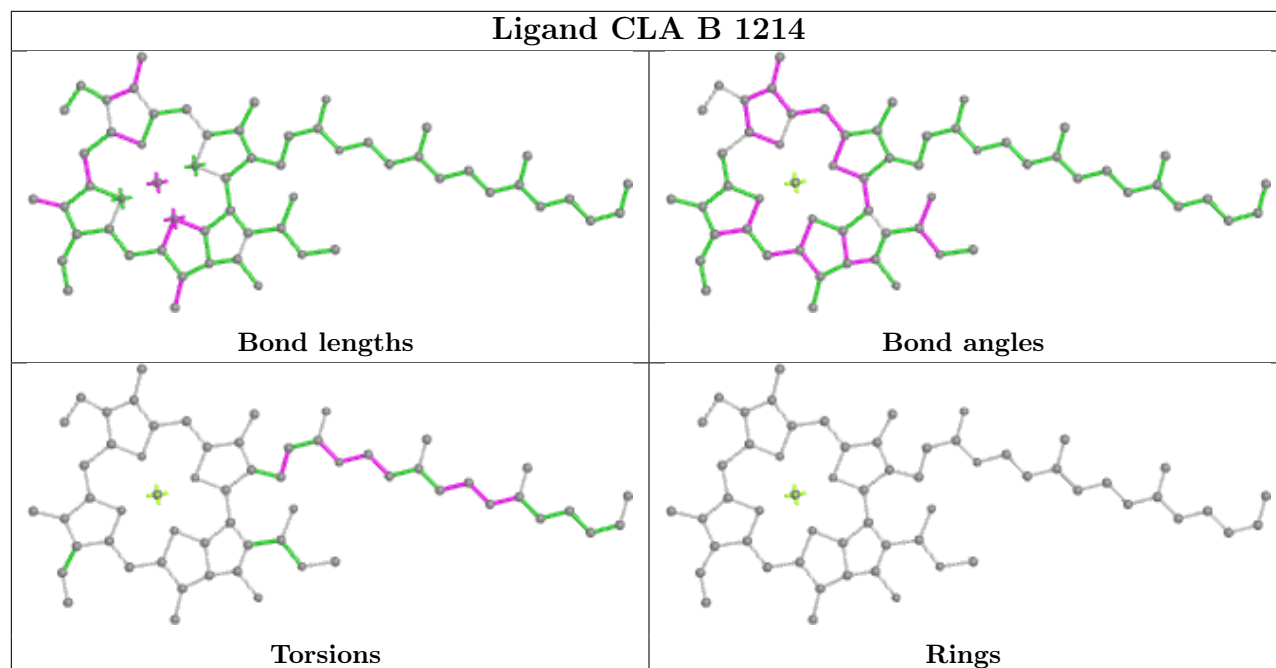


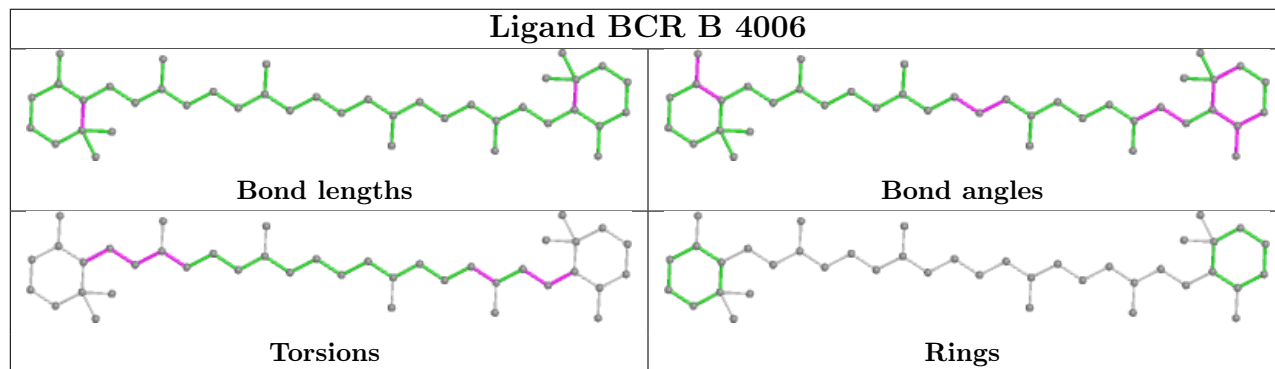
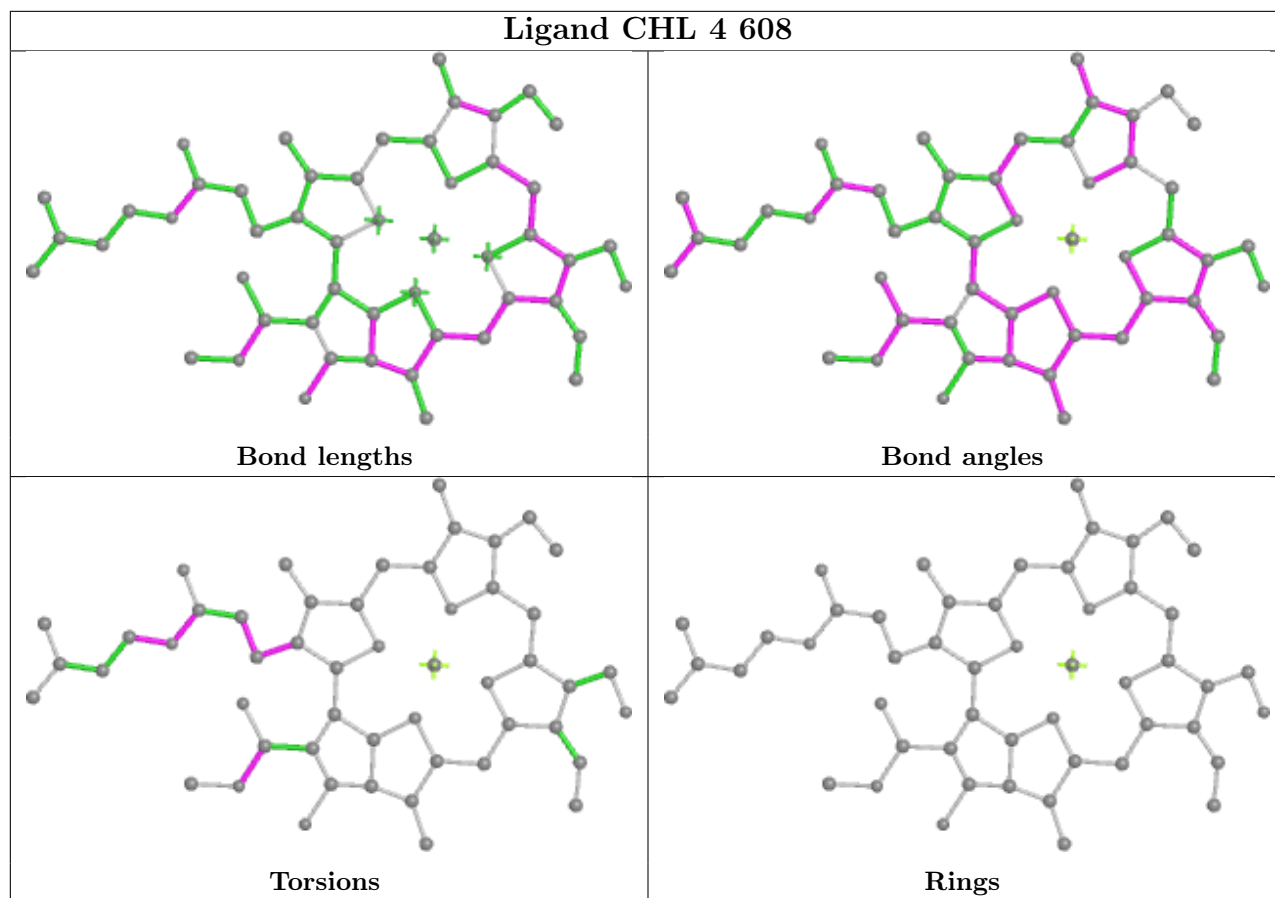
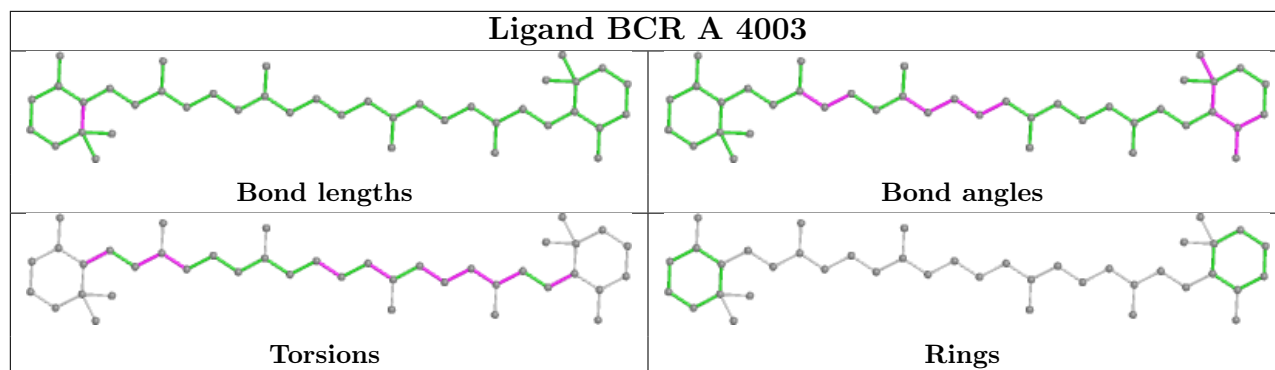


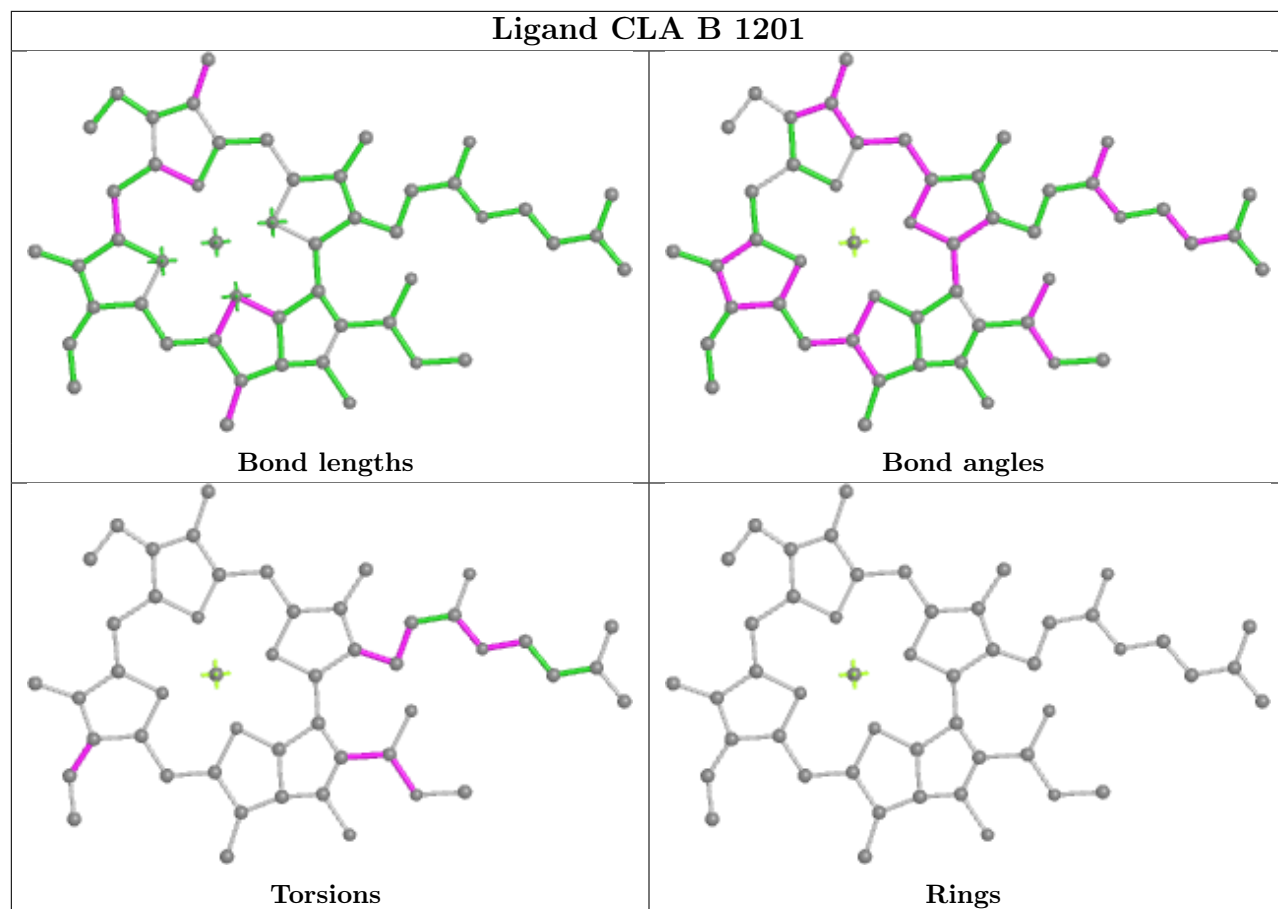


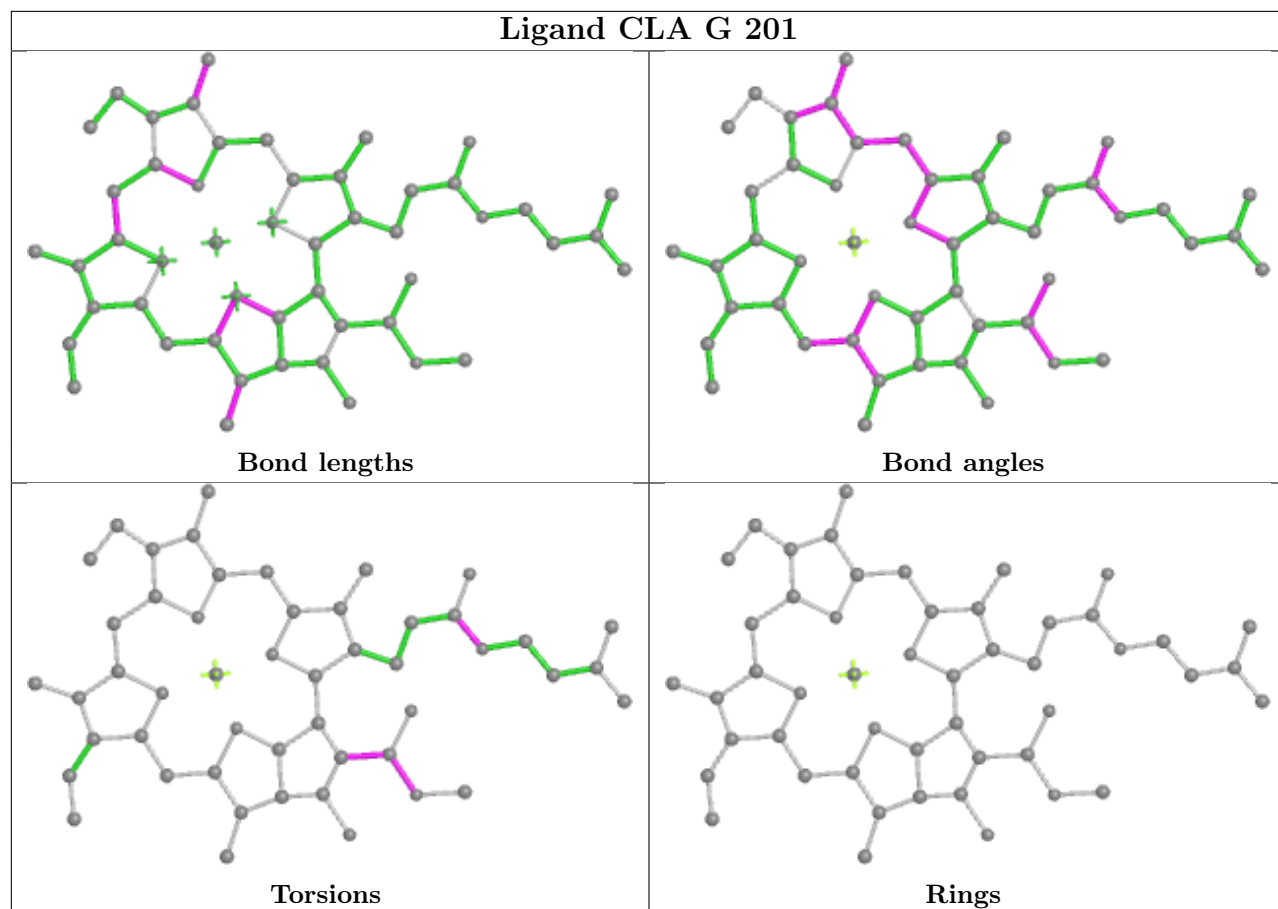


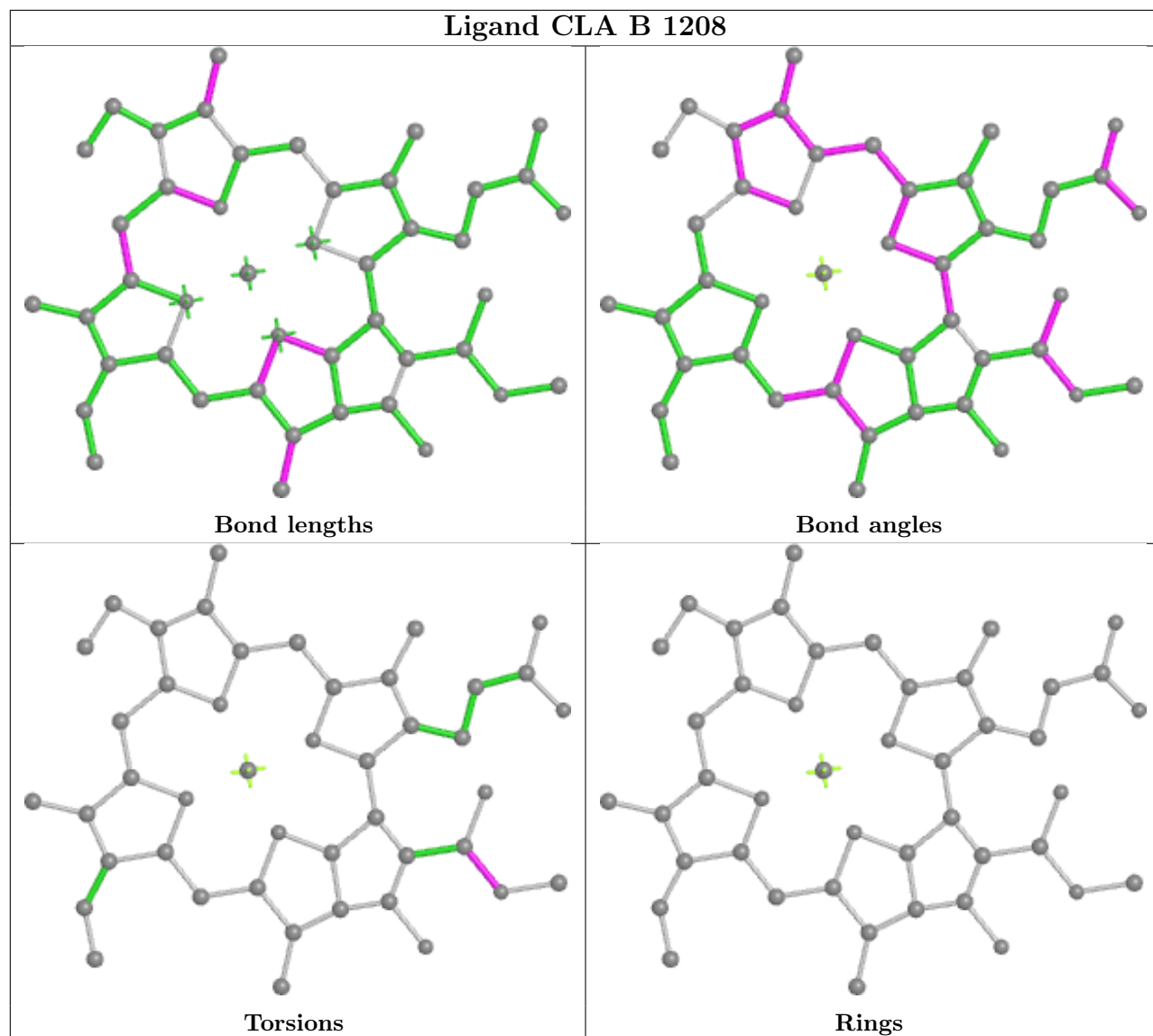


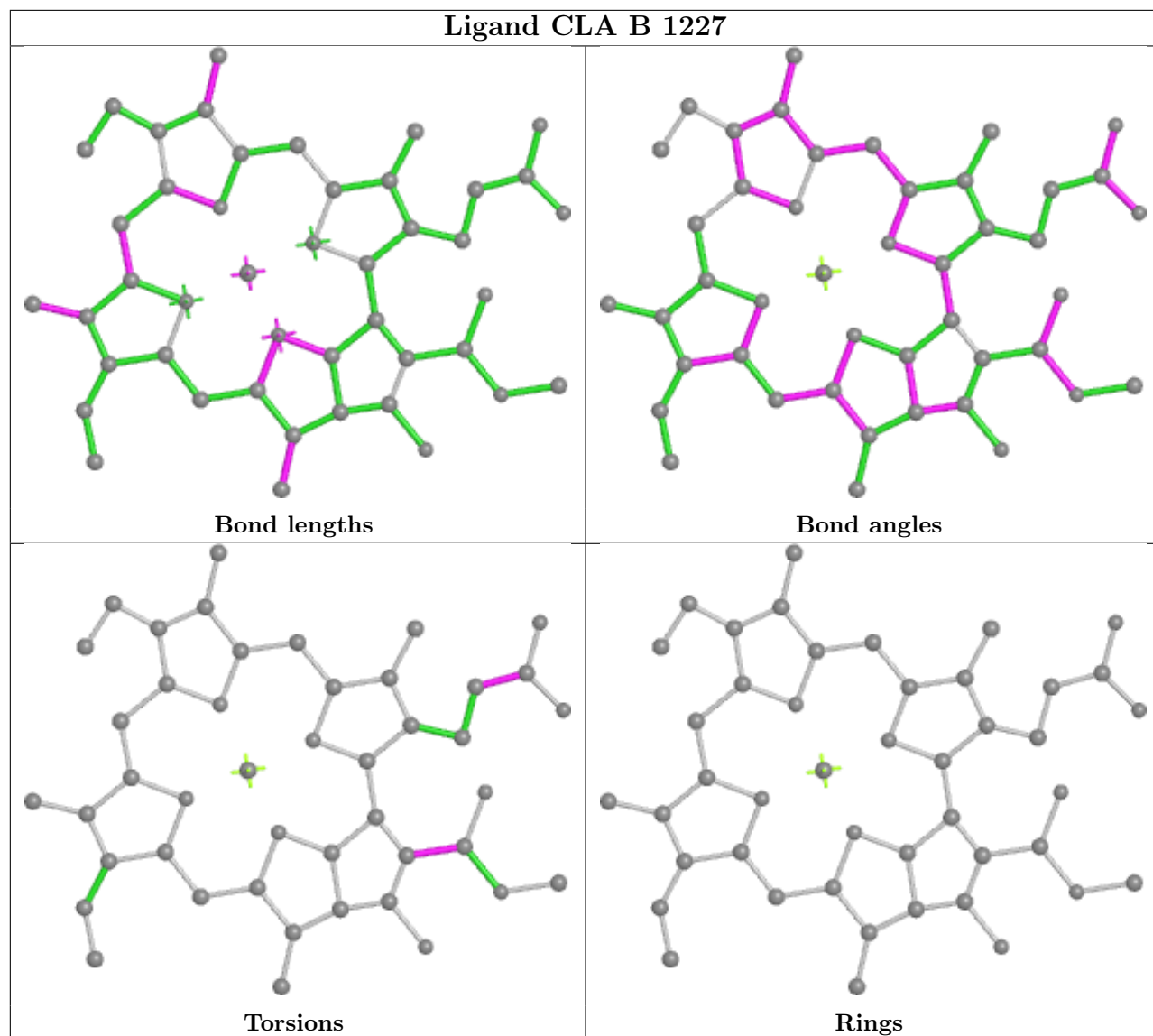




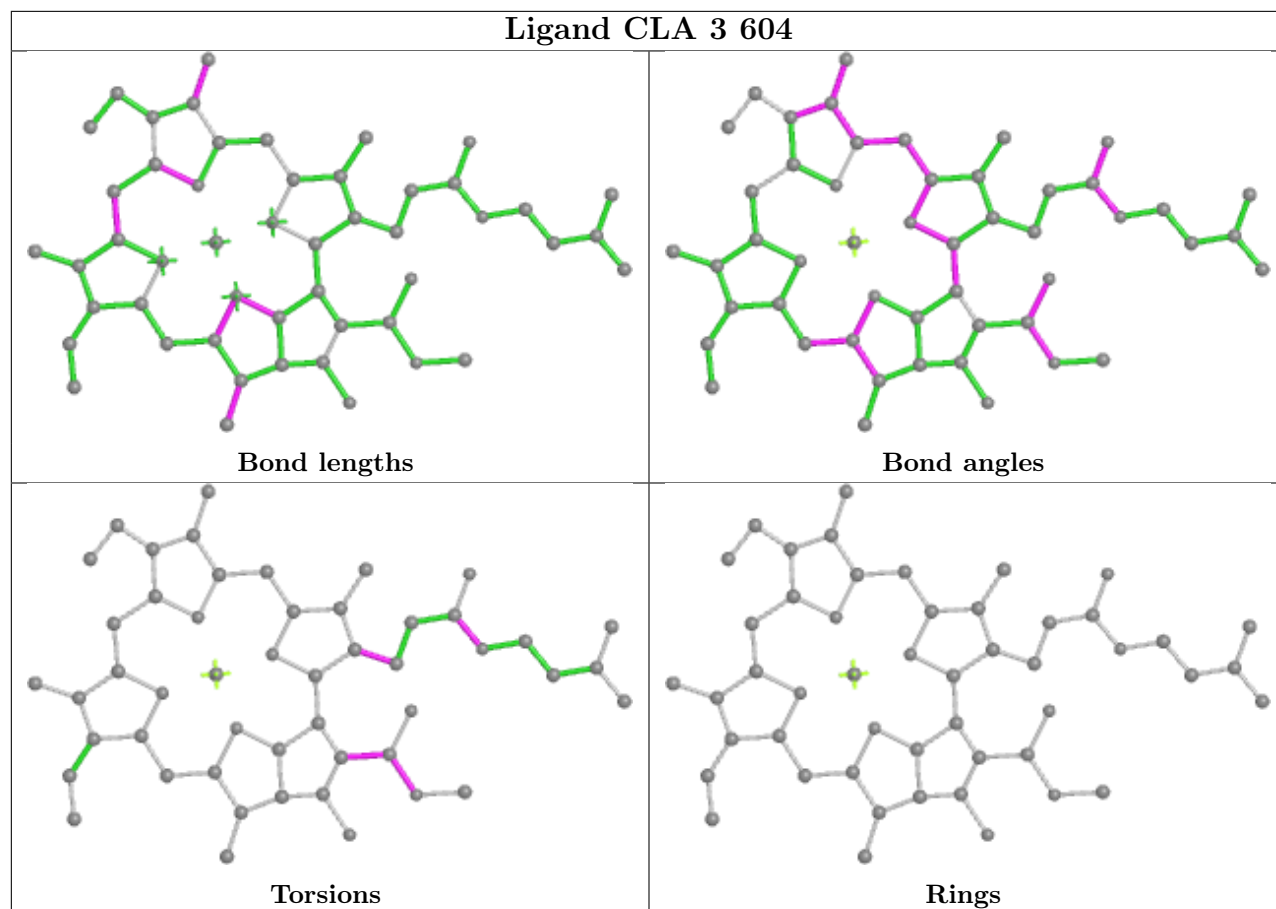


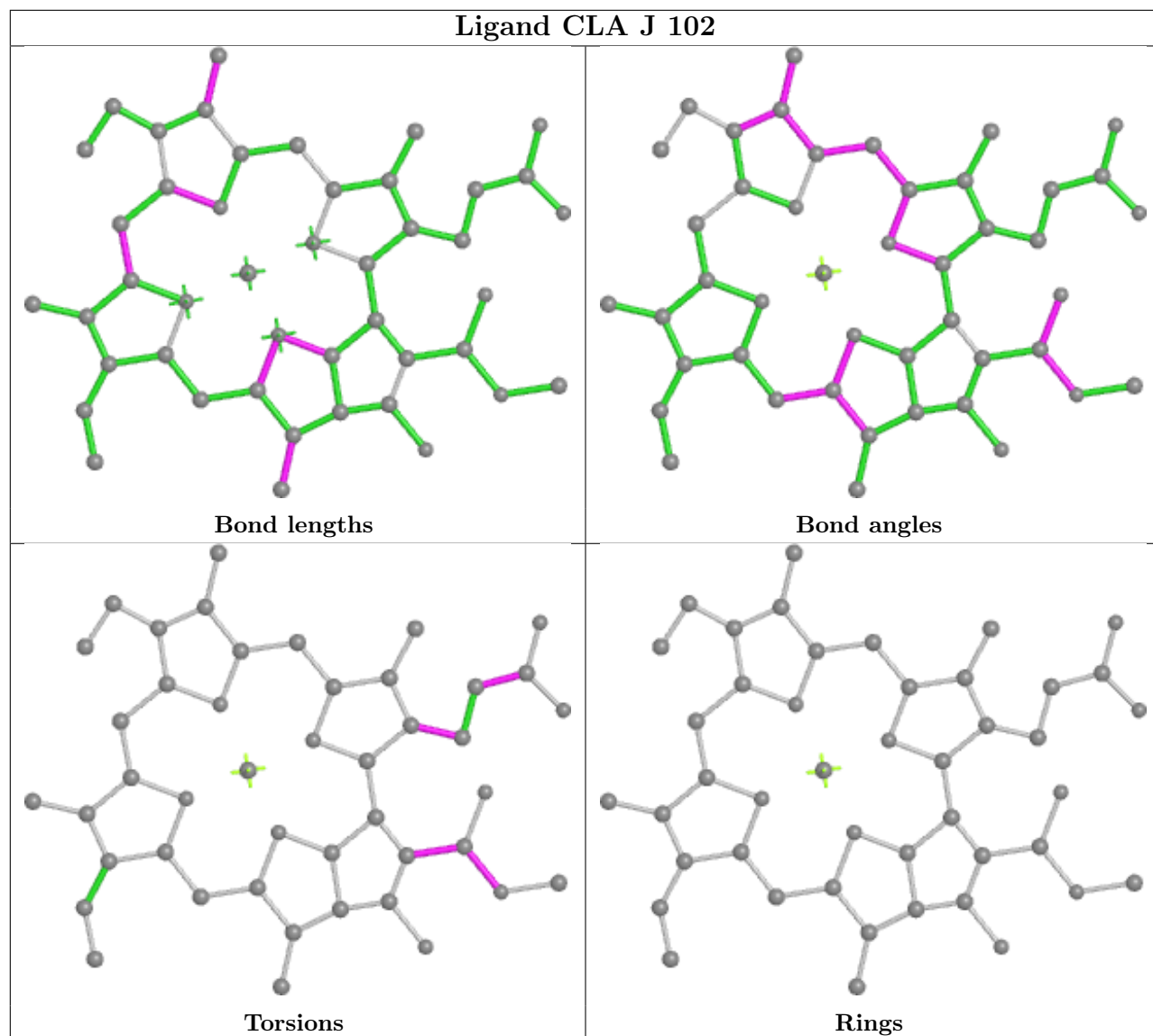


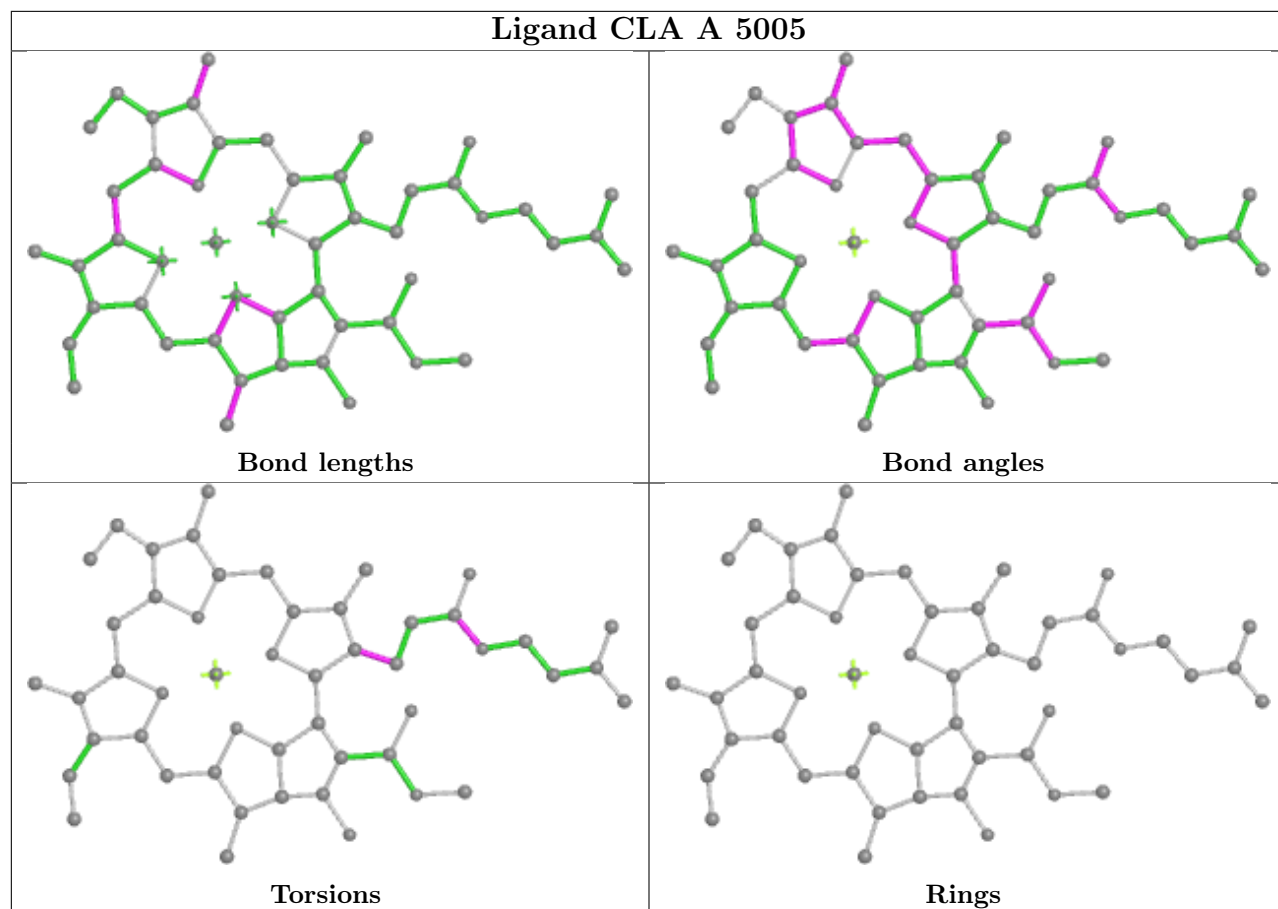


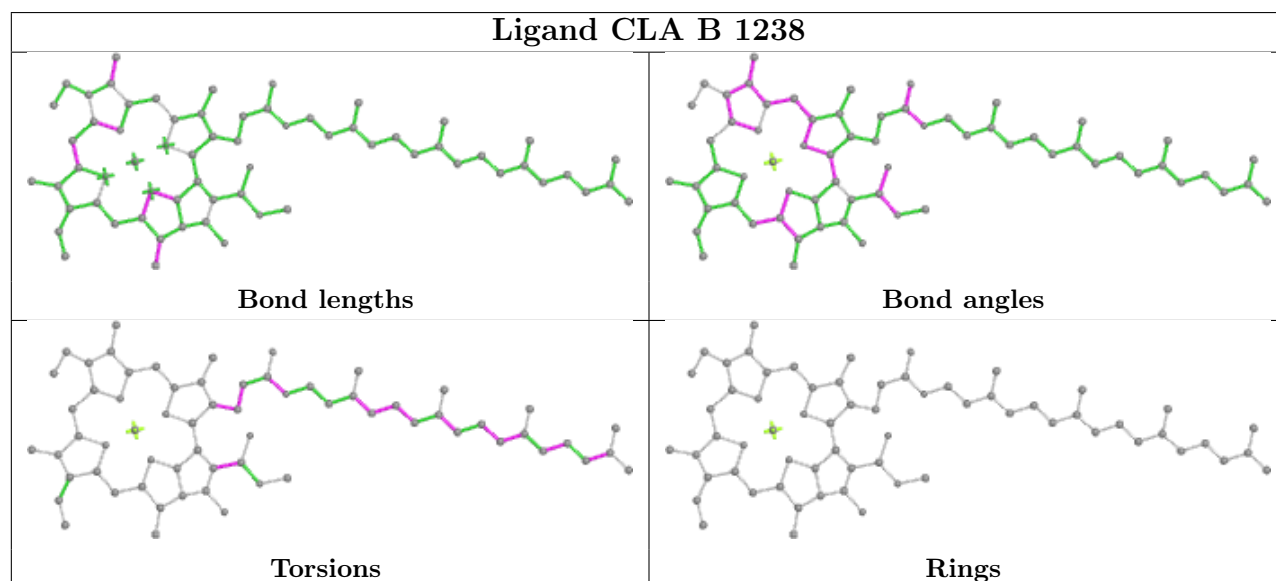
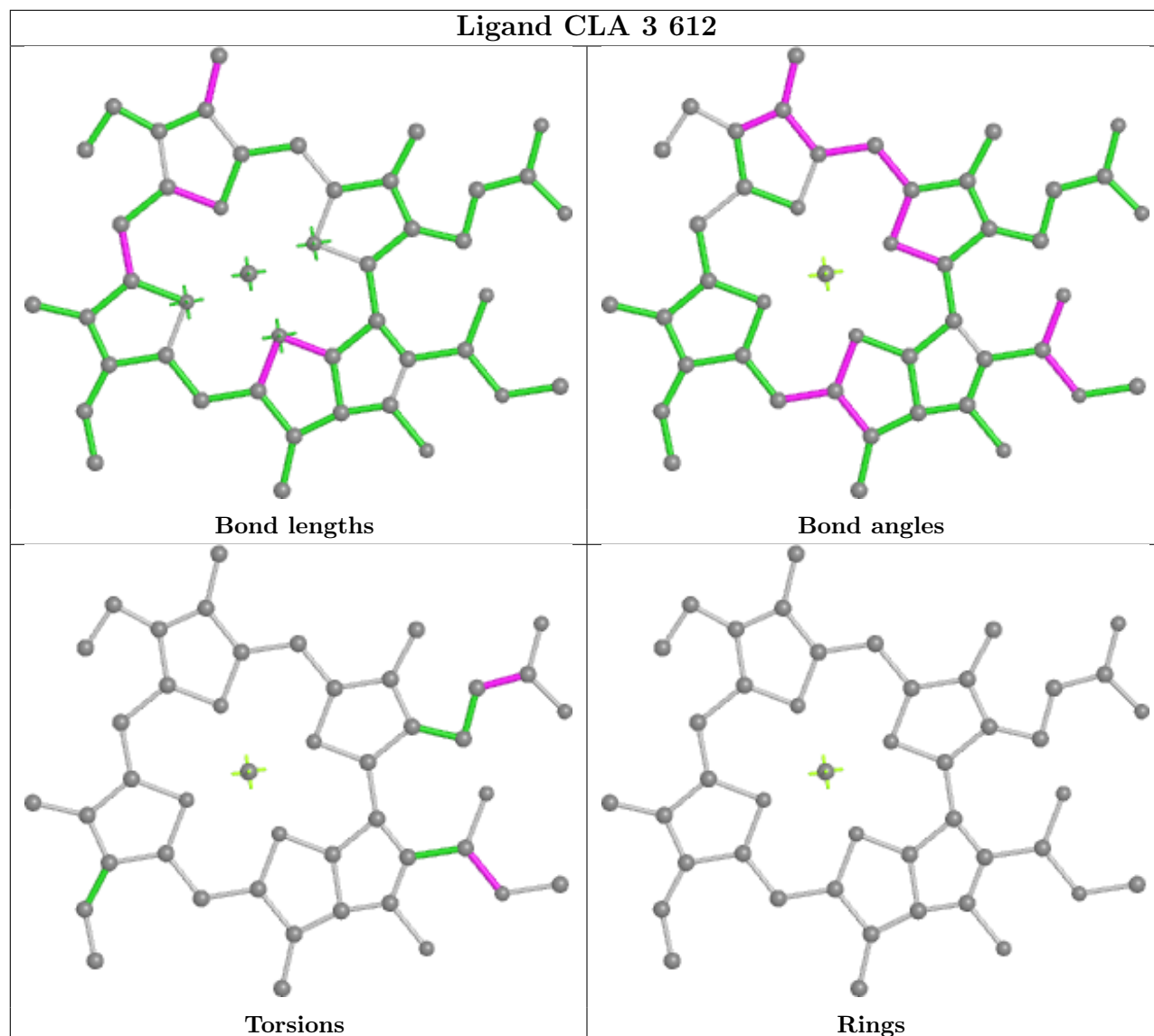


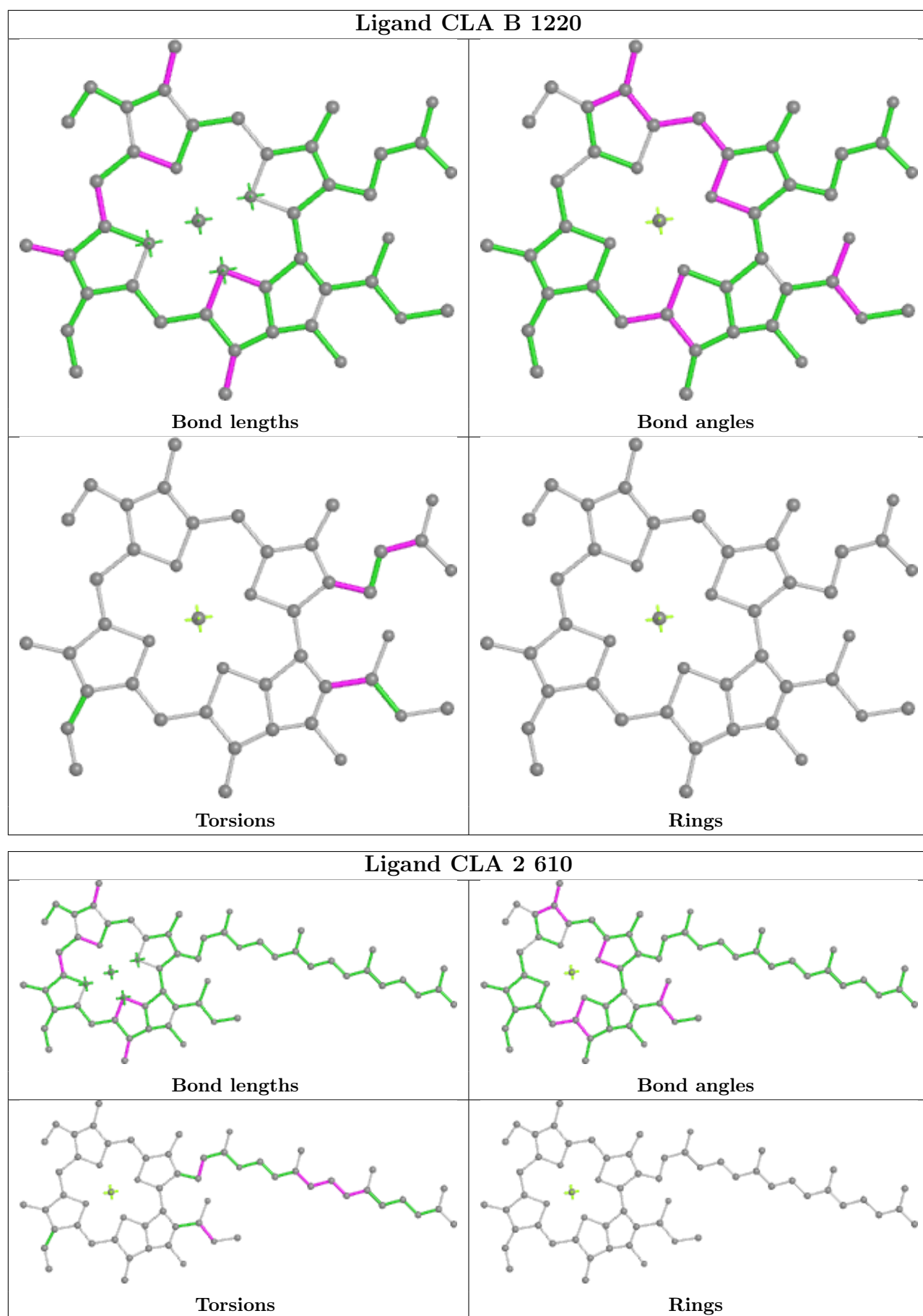












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

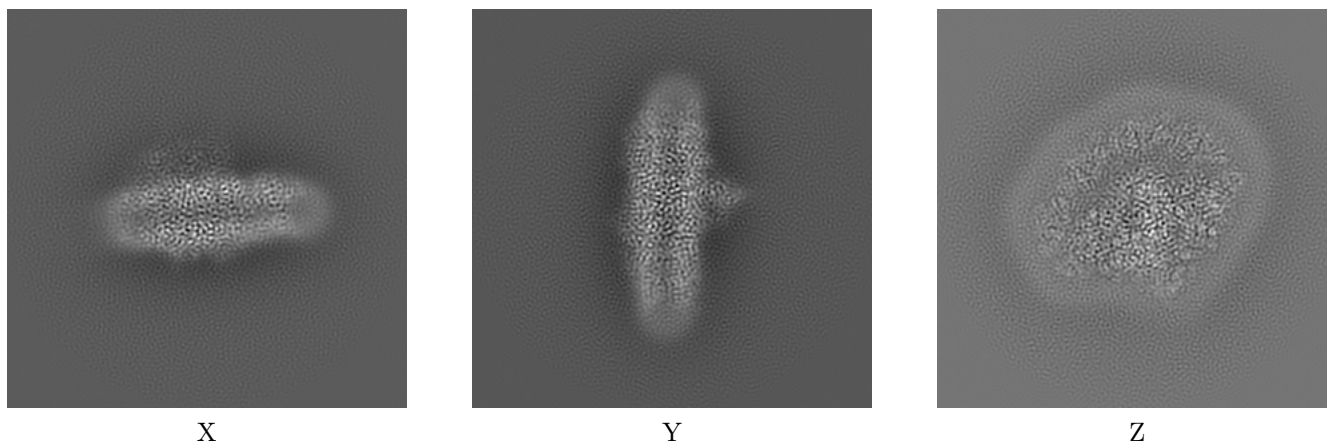
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-23040. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

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

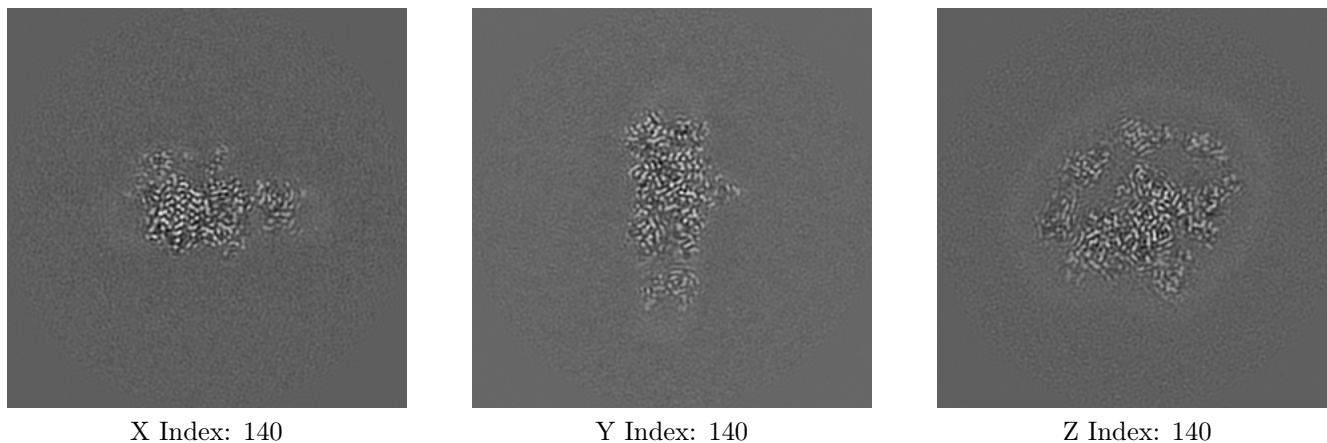
#### 6.1.1 Primary map



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

### 6.2 Central slices [i](#)

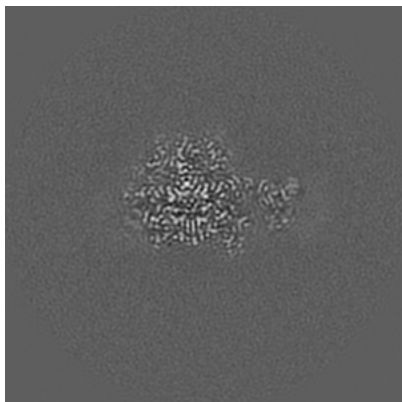
#### 6.2.1 Primary map



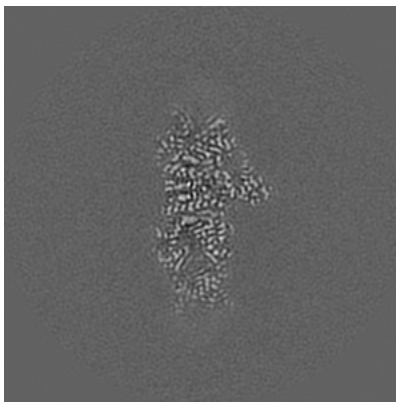
The images above show central slices of the map in three orthogonal directions.

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

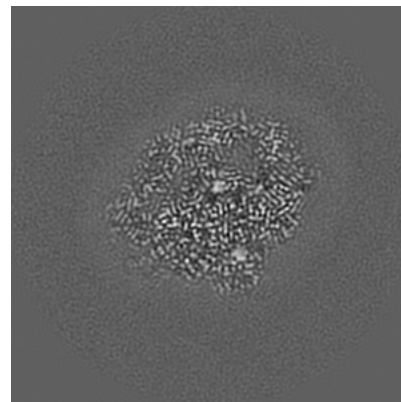
### 6.3.1 Primary map



X Index: 150



Y Index: 129



Z Index: 148

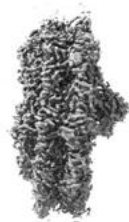
The images above show the largest variance slices of the map in three orthogonal directions.

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

### 6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.



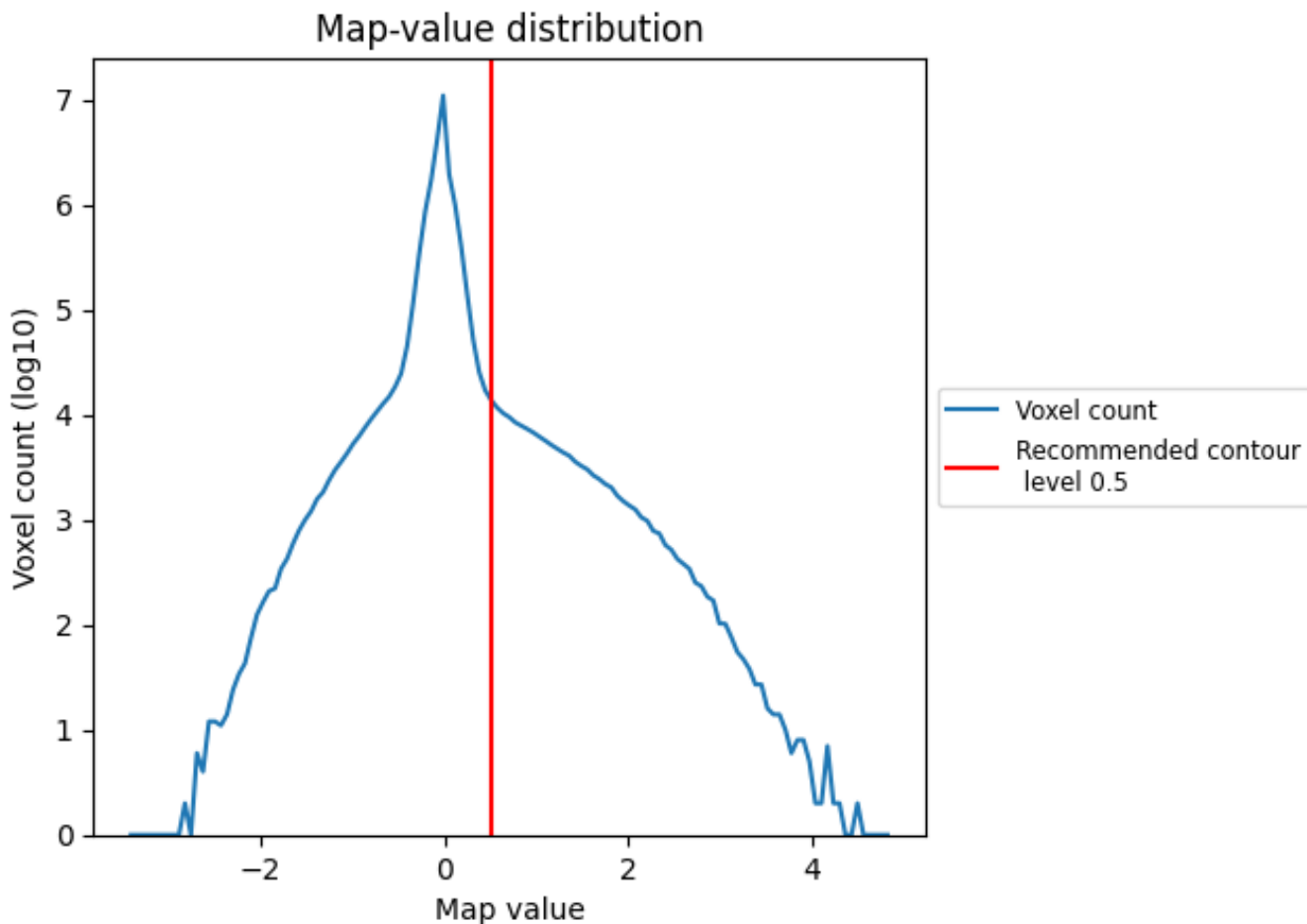
## 6.5 Mask visualisation

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

## 7 Map analysis [i](#)

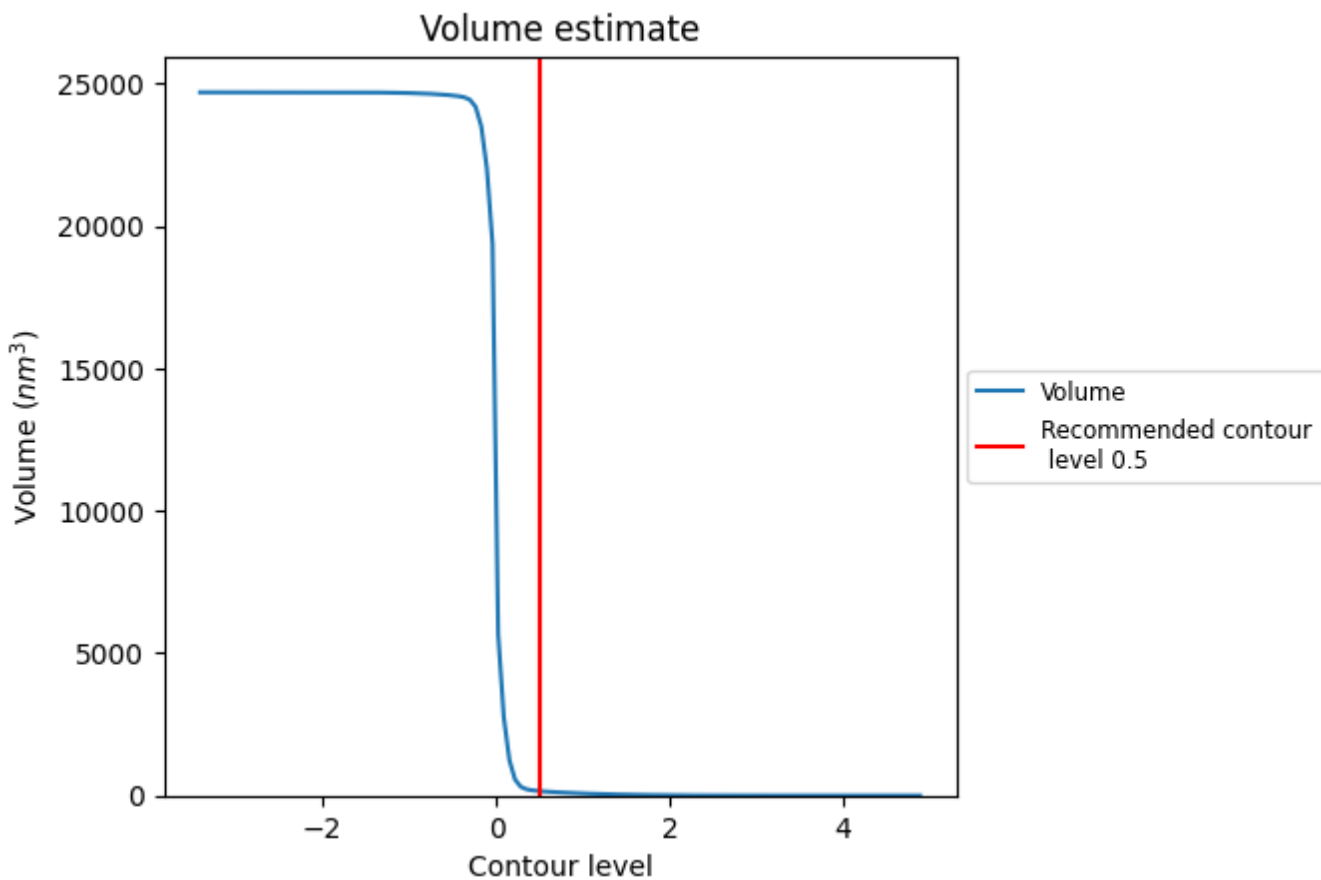
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

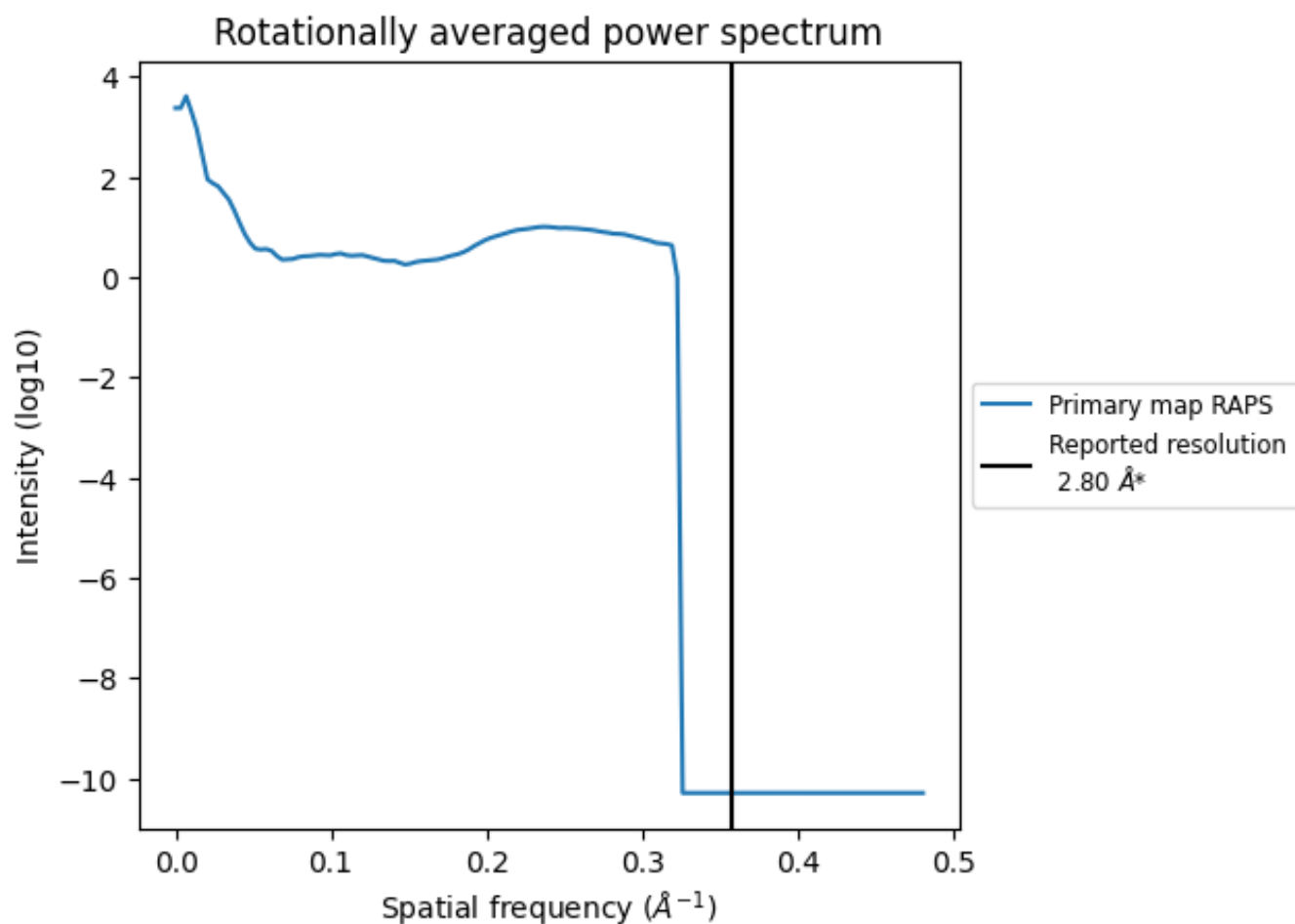
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 158  $\text{nm}^3$ ; this corresponds to an approximate mass of 143 kDa.

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

### 7.3 Rotationally averaged power spectrum [\(i\)](#)



\*Reported resolution corresponds to spatial frequency of  $0.357 \text{\AA}^{-1}$

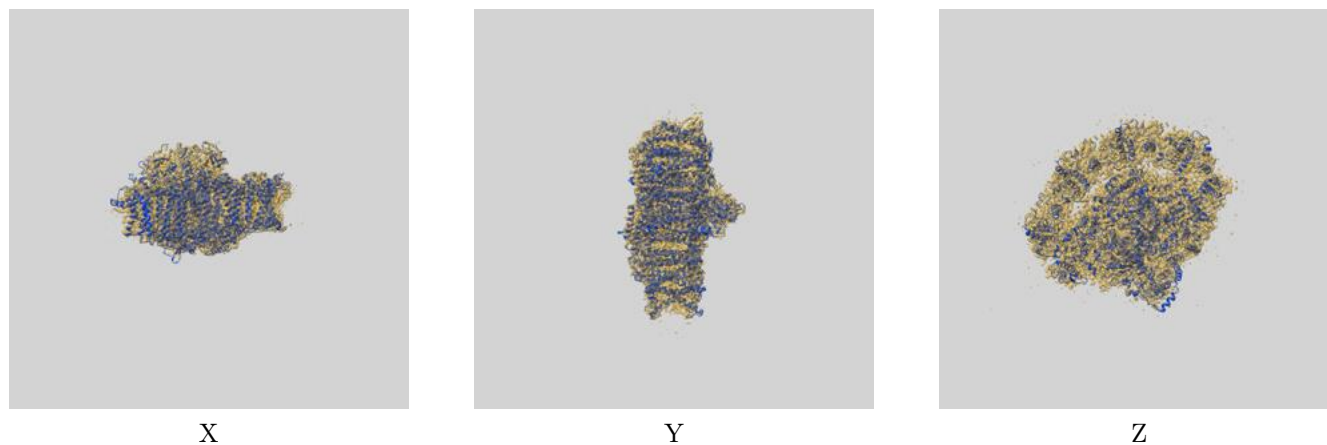
## 8 Fourier-Shell correlation

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

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

This section contains information regarding the fit between EMDB map EMD-23040 and PDB model 7KUX. Per-residue inclusion information can be found in section [3](#) on page [27](#).

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



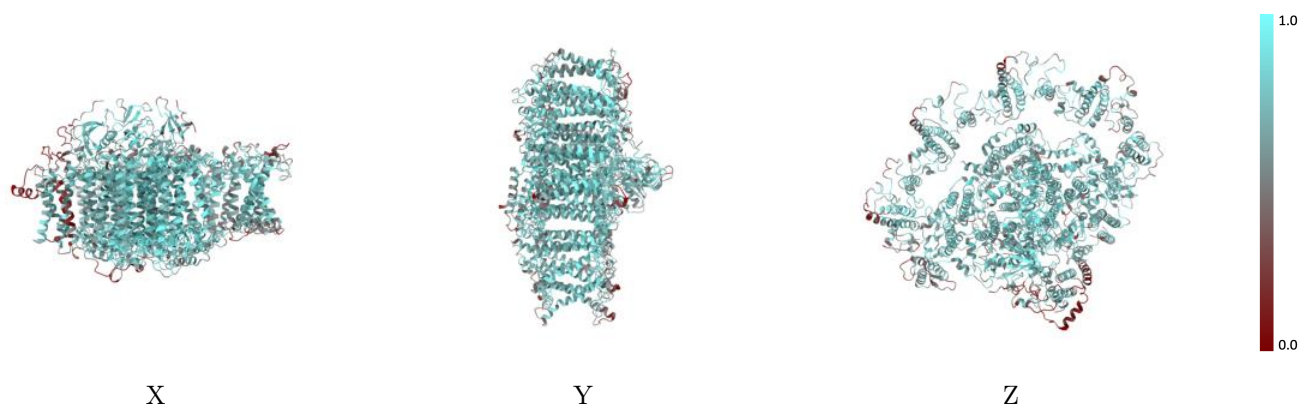
The images above show the 3D surface view of the map at the recommended contour level 0.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



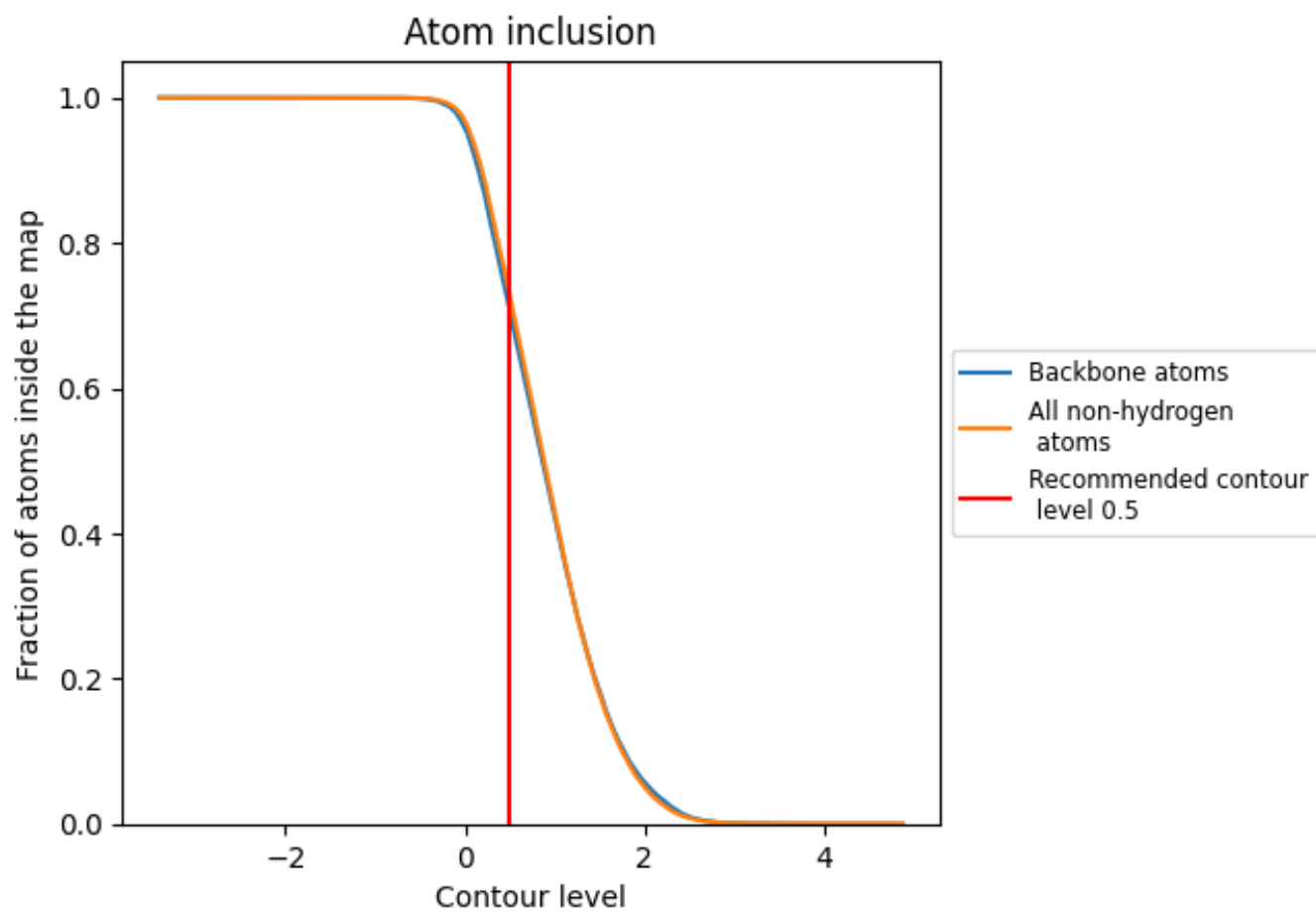
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.5).

## 9.4 Atom inclusion [i](#)







































At the recommended contour level, 71% of all backbone atoms, 73% 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 (0.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7278	 0.5460
1	 0.6715	 0.5260
2	 0.6574	 0.5240
3	 0.6497	 0.5290
4	 0.6707	 0.5180
A	 0.8053	 0.5680
B	 0.8170	 0.5730
C	 0.8060	 0.5680
D	 0.6759	 0.5320
E	 0.6969	 0.5370
F	 0.7071	 0.5490
G	 0.6659	 0.5370
H	 0.2460	 0.3980
I	 0.7037	 0.5450
J	 0.7582	 0.5580
K	 0.5539	 0.5000
L	 0.5938	 0.5040
M	 0.6308	 0.5120

