



# wwPDB X-ray Structure Validation Summary Report ⓘ

May 16, 2020 – 06:51 pm BST

PDB ID : 5L8R  
Title : The structure of plant photosystem I super-complex at 2.6 angstrom resolution.  
Authors : Mazor, Y.; Borovikova, A.; Caspy, I.; Nelson, N.  
Deposited on : 2016-06-08  
Resolution : 2.60 Å(reported)

This is a wwPDB X-ray Structure Validation Summary Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.11  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.11

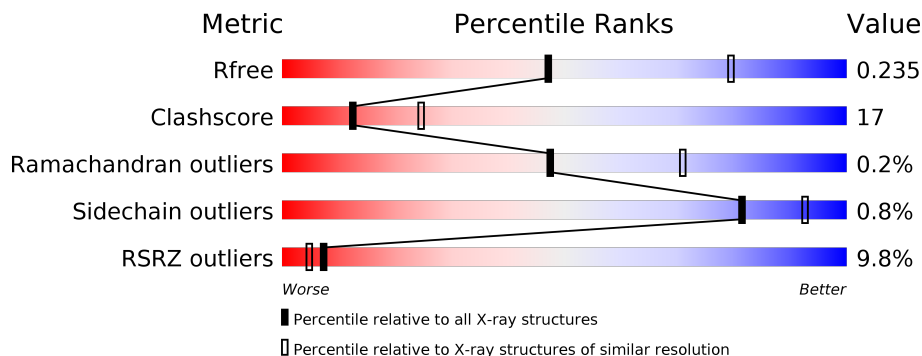
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.60 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	3163 (2.60-2.60)
Clashscore	141614	3518 (2.60-2.60)
Ramachandran outliers	138981	3455 (2.60-2.60)
Sidechain outliers	138945	3455 (2.60-2.60)
RSRZ outliers	127900	3104 (2.60-2.60)

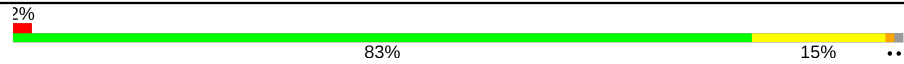
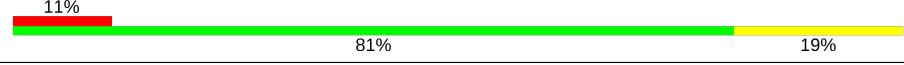
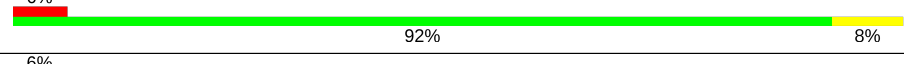


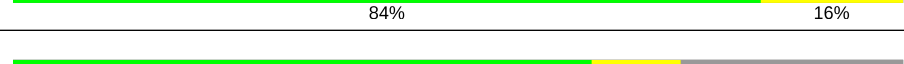
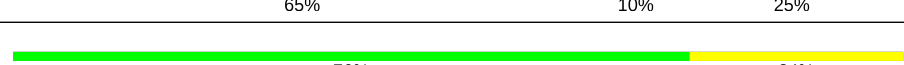
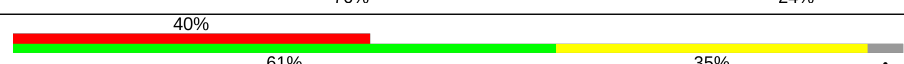
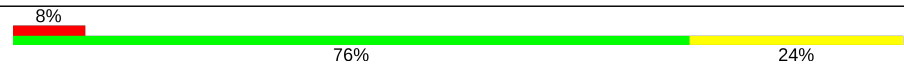

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1	193	<div style="display: flex; align-items: center;"> <div style="width: 30%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 70%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 29%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 1%; height: 10px; background-color: grey; margin-right: 5px;"></div> <div style="width: 1%; height: 10px; background-color: black; margin-right: 5px;"></div> </div>
2	2	269	<div style="display: flex; align-items: center;"> <div style="width: 10%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 56%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 22%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 23%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div>
3	3	275	<div style="display: flex; align-items: center;"> <div style="width: 12%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 60%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 20%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 20%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div>
4	4	198	<div style="display: flex; align-items: center;"> <div style="width: 12%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 74%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 26%; height: 10px; background-color: yellow; margin-right: 5px;"></div> </div>
5	A	758	<div style="display: flex; align-items: center;"> <div style="width: 7%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 78%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 20%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 1%; height: 10px; background-color: grey; margin-right: 5px;"></div> <div style="width: 1%; height: 10px; background-color: black; margin-right: 5px;"></div> </div>
6	B	734	<div style="display: flex; align-items: center;"> <div style="width: 4%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 79%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 20%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 1%; height: 10px; background-color: grey; margin-right: 5px;"></div> <div style="width: 1%; height: 10px; background-color: black; margin-right: 5px;"></div> </div>

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Mol	Chain	Length	Quality of chain
7	C	81	
8	D	143	
9	E	66	
10	F	154	
11	G	97	
12	H	88	
13	I	40	
14	J	42	
15	K	80	
16	L	157	

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
17	LUT	1	502	X	-	-	-
17	LUT	2	501	X	-	-	-
17	LUT	3	302	X	-	-	-
17	LUT	J	1109	X	-	-	-
18	BCR	2	503	-	-	-	X
18	BCR	3	304	-	-	-	X
18	BCR	K	1005	-	-	-	X
18	BCR	L	307	-	-	-	X
19	CLA	1	504	X	-	-	-
19	CLA	1	505	X	-	-	-
19	CLA	1	506	X	-	-	-
19	CLA	1	507	X	-	-	-
19	CLA	1	508	X	-	-	-
19	CLA	1	509	X	-	-	-
19	CLA	1	510	X	-	-	-
19	CLA	1	511	X	-	-	-
19	CLA	1	513	X	-	-	-
19	CLA	1	515	X	-	-	-
19	CLA	1	516	X	-	-	-
19	CLA	2	504	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
19	CLA	2	505	X	-	-	-
19	CLA	2	506	X	-	-	-
19	CLA	2	507	X	-	-	-
19	CLA	2	508	X	-	-	-
19	CLA	2	509	X	-	-	-
19	CLA	2	510	X	-	-	-
19	CLA	2	511	X	-	-	-
19	CLA	2	514	X	-	-	-
19	CLA	3	305	X	-	-	-
19	CLA	3	306	X	-	-	-
19	CLA	3	307	X	-	-	-
19	CLA	3	308	X	-	-	-
19	CLA	3	309	X	-	-	-
19	CLA	3	310	X	-	-	-
19	CLA	3	311	X	-	-	-
19	CLA	3	312	X	-	-	-
19	CLA	3	313	X	-	-	-
19	CLA	3	315	X	-	-	-
19	CLA	3	316	X	-	-	-
19	CLA	3	317	X	-	-	-
19	CLA	4	304	X	-	-	-
19	CLA	4	305	X	-	-	-
19	CLA	4	306	X	-	-	-
19	CLA	4	307	X	-	-	-
19	CLA	4	308	X	-	-	-
19	CLA	4	309	X	-	-	-
19	CLA	4	310	X	-	-	-
19	CLA	4	311	X	-	-	-
19	CLA	4	312	X	-	-	-
19	CLA	4	315	X	-	-	-
19	CLA	4	318	X	-	-	-
19	CLA	A	802	X	-	-	-
19	CLA	A	803	X	-	-	-
19	CLA	A	804	X	-	-	-
19	CLA	A	805	X	-	-	-
19	CLA	A	806	X	-	-	-
19	CLA	A	807	X	-	-	-
19	CLA	A	808	X	-	-	-
19	CLA	A	809	X	-	-	-
19	CLA	A	810	X	-	-	-
19	CLA	A	811	X	-	-	-
19	CLA	A	812	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
19	CLA	A	813	X	-	-	-
19	CLA	A	814	X	-	-	-
19	CLA	A	815	X	-	-	-
19	CLA	A	816	X	-	-	-
19	CLA	A	817	X	-	-	-
19	CLA	A	818	X	-	-	-
19	CLA	A	819	X	-	-	-
19	CLA	A	820	X	-	-	-
19	CLA	A	821	X	-	-	-
19	CLA	A	822	X	-	-	-
19	CLA	A	823	X	-	-	-
19	CLA	A	824	X	-	-	-
19	CLA	A	825	X	-	-	-
19	CLA	A	826	X	-	-	-
19	CLA	A	827	X	-	-	-
19	CLA	A	828	X	-	-	-
19	CLA	A	829	X	-	-	-
19	CLA	A	830	X	-	-	-
19	CLA	A	831	X	-	-	-
19	CLA	A	832	X	-	-	-
19	CLA	A	833	X	-	-	-
19	CLA	A	834	X	-	-	-
19	CLA	A	835	X	-	-	-
19	CLA	A	836	X	-	-	-
19	CLA	A	837	X	-	-	-
19	CLA	A	838	X	-	-	-
19	CLA	A	839	X	-	-	-
19	CLA	A	840	X	-	-	-
19	CLA	A	841	X	-	-	-
19	CLA	A	842	X	-	-	-
19	CLA	A	854	X	-	-	-
19	CLA	A	855	X	-	-	-
19	CLA	B	803	X	-	-	-
19	CLA	B	804	X	-	-	-
19	CLA	B	805	X	-	-	-
19	CLA	B	806	X	-	-	-
19	CLA	B	807	X	-	-	-
19	CLA	B	808	X	-	-	-
19	CLA	B	809	X	-	-	-
19	CLA	B	810	X	-	-	-
19	CLA	B	811	X	-	-	-
19	CLA	B	812	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
19	CLA	B	813	X	-	-	-
19	CLA	B	814	X	-	-	-
19	CLA	B	815	X	-	-	-
19	CLA	B	816	X	-	-	-
19	CLA	B	817	X	-	-	-
19	CLA	B	818	X	-	-	-
19	CLA	B	819	X	-	-	-
19	CLA	B	820	X	-	-	-
19	CLA	B	821	X	-	-	-
19	CLA	B	822	X	-	-	-
19	CLA	B	823	X	-	-	-
19	CLA	B	824	X	-	-	-
19	CLA	B	825	X	-	-	-
19	CLA	B	826	X	-	-	-
19	CLA	B	827	X	-	-	-
19	CLA	B	828	X	-	-	-
19	CLA	B	829	X	-	-	-
19	CLA	B	830	X	-	-	-
19	CLA	B	831	X	-	-	-
19	CLA	B	832	X	-	-	-
19	CLA	B	833	X	-	-	-
19	CLA	B	834	X	-	-	-
19	CLA	B	835	X	-	-	-
19	CLA	B	836	X	-	-	-
19	CLA	B	837	X	-	-	-
19	CLA	B	838	X	-	-	-
19	CLA	B	839	X	-	-	-
19	CLA	B	840	X	-	-	-
19	CLA	F	302	X	-	-	-
19	CLA	F	303	X	-	-	-
19	CLA	G	201	X	-	-	-
19	CLA	G	202	X	-	-	-
19	CLA	G	203	X	-	-	-
19	CLA	G	204	X	-	-	-
19	CLA	H	1000	X	-	-	-
19	CLA	J	1101	X	-	-	-
19	CLA	J	1102	X	-	-	-
19	CLA	J	1105	X	-	-	-
19	CLA	K	1001	X	-	-	-
19	CLA	K	1002	X	-	-	X
19	CLA	K	1003	X	-	-	-
19	CLA	K	1004	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
19	CLA	L	301	X	-	-	-
19	CLA	L	303	X	-	-	-
19	CLA	L	304	X	-	-	-
19	CLA	L	305	X	-	-	-
20	CHL	1	512	X	-	-	-
20	CHL	1	514	X	-	-	-
20	CHL	1	521	X	-	-	-
20	CHL	2	512	X	-	-	-
20	CHL	2	513	X	-	-	-
20	CHL	2	515	X	-	-	-
20	CHL	2	516	X	-	-	-
20	CHL	2	526	X	-	-	-
20	CHL	3	314	X	-	-	-
20	CHL	4	313	X	-	-	-
20	CHL	4	314	X	-	-	-
20	CHL	4	316	X	-	-	-
20	CHL	4	317	X	-	-	-
21	LHG	B	843	-	-	-	X
22	LMG	A	847	-	-	-	X
22	LMG	G	206	-	-	-	X
23	XAT	4	303	X	-	-	-
24	LMT	4	320	-	-	-	X
27	CL0	A	801	X	-	-	-
28	SF4	C	102	-	-	X	-

## 2 Entry composition [i](#)

There are 31 unique types of molecules in this entry. The entry contains 37583 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Lhca1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	1	193	1508	982	252	269	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	2	208	1620	1059	265	292	4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	3	221	1699	1114	277	303	5	0	0	0

- Molecule 4 is a protein called Chlorophyll a-b binding protein P4, chloroplastic.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	4	198	1559	1022	253	281	3	0	0	0

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
4	89	LYS	ARG	conflict	UNP Q9SQL2
4	128	ASP	ALA	conflict	UNP Q9SQL2
4	149	PHE	SER	conflict	UNP Q9SQL2

- Molecule 5 is a protein called Photosystem I P700 chlorophyll a apoprotein A1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	A	743	5858	3839	998	1003	18	0	0	0

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	117	ARG	GLY	conflict	UNP P05310
A	176	ALA	GLY	conflict	UNP P05310
A	194	VAL	ALA	conflict	UNP P05310
A	220	GLY	ARG	conflict	UNP P05310
A	371	ILE	VAL	conflict	UNP P05310
A	374	HIS	GLN	conflict	UNP P05310
A	378	ALA	SER	conflict	UNP P05310
A	390	GLY	ALA	conflict	UNP P05310
A	509	THR	ALA	conflict	UNP P05310
A	522	SER	ALA	conflict	UNP P05310
A	525	GLY	ASN	conflict	UNP P05310
A	608	ALA	SER	conflict	UNP P05310
A	627	SER	THR	conflict	UNP P05310
A	639	GLY	ALA	conflict	UNP P05310

- Molecule 6 is a protein called Photosystem I P700 chlorophyll a apoprotein A2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	B	733	5857	3848	998	997	14	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	C	80	612	379	107	115	11	0	0	0

- Molecule 8 is a protein called PsaD.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	D	143	1132	731	194	204	3	0	0	0

- Molecule 9 is a protein called Putative uncharacterized protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
9	E	66	528	336	93	99	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E	64	PRO	-	expression tag	UNP E1C9K6
E	65	PRO	-	expression tag	UNP E1C9K6
E	79	GLN	LYS	conflict	UNP E1C9K6
E	125	VAL	ILE	conflict	UNP E1C9K6
E	126	GLU	VAL	conflict	UNP E1C9K6
E	129	LYS	GLU	conflict	UNP E1C9K6

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	F	154	1213	786	210	215	2	0	0	0

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
F	80	ALA	SER	conflict	UNP A0A0M3KL12
F	87	ASP	GLU	conflict	UNP A0A0M3KL12
F	108	LEU	ILE	conflict	UNP A0A0M3KL12
F	111	PRO	ALA	conflict	UNP A0A0M3KL12
F	134	GLY	ALA	conflict	UNP A0A0M3KL12
F	188	ASP	GLU	conflict	UNP A0A0M3KL12
F	204	THR	SER	conflict	UNP A0A0M3KL12

- Molecule 11 is a protein called PsaG.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
11	G	97	757	492	125	140	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
12	H	88	673	442	106	125	0	0	0



There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
H	60	LEU	ILE	conflict	UNP A0A0M3KL10
H	79	ASN	SER	conflict	UNP A0A0M3KL10
H	80	SER	PRO	conflict	UNP A0A0M3KL10
H	116	ALA	THR	conflict	UNP A0A0M3KL10
H	126	LYS	VAL	conflict	UNP A0A0M3KL10
H	134	GLN	LYS	conflict	UNP A0A0M3KL10
H	139	LEU	-	expression tag	UNP A0A0M3KL10
H	140	GLY	-	expression tag	UNP A0A0M3KL10

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	I	30	232	159	37	35	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	J	42	338	231	51	55	1	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
J	32	PHE	LEU	conflict	UNP D5MAL3

- Molecule 15 is a protein called Photosystem I reaction center subunit X psaK.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
15	K	77	515	326	86	100	3	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
K	85	ALA	VAL	conflict	UNP E1C9L3

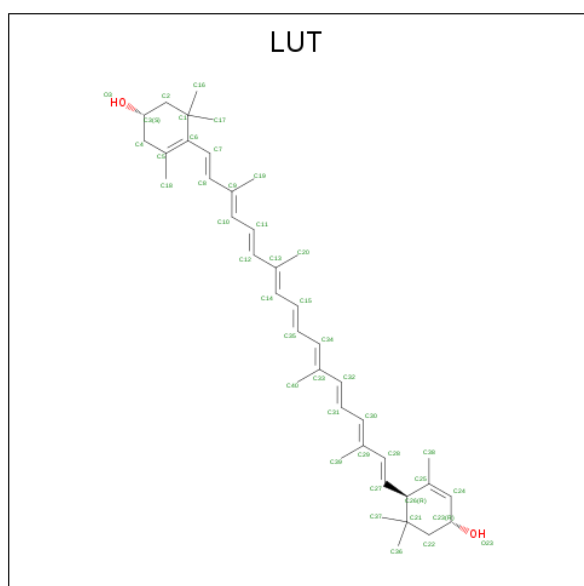
- Molecule 16 is a protein called Putative uncharacterized protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	L	157	Total	C	N	O	S	0	0	0
			1174	772	189	212	1			

There are 9 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
L	57	VAL	ILE	conflict	UNP E1C9L1
L	79	VAL	ILE	conflict	UNP E1C9L1
L	88	GLY	ALA	conflict	UNP E1C9L1
L	94	ASN	SER	conflict	UNP E1C9L1
L	108	PHE	TYR	conflict	UNP E1C9L1
L	143	ILE	LEU	conflict	UNP E1C9L1
L	157	ASP	ALA	conflict	UNP E1C9L1
L	172	GLN	GLU	conflict	UNP E1C9L1
L	201	PHE	TYR	conflict	UNP E1C9L1

- Molecule 17 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>).



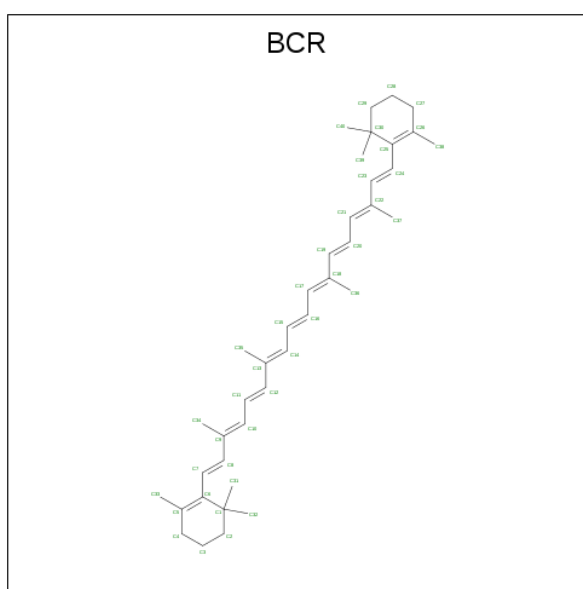
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
17	1	1	Total	C	O	0	0
			42	40	2		
17	1	1	Total	C	O	0	0
			42	40	2		
17	2	1	Total	C	O	0	0
			42	40	2		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
17	3	1	Total	C	O	0	0
			42	40	2		
17	3	1	Total	C	O	0	0
			42	40	2		
17	4	1	Total	C	O	0	0
			42	40	2		
17	J	1	Total	C	O	0	0
			42	40	2		

- Molecule 18 is BETA-CAROTENE (three-letter code: BCR) (formula: C<sub>40</sub>H<sub>56</sub>).



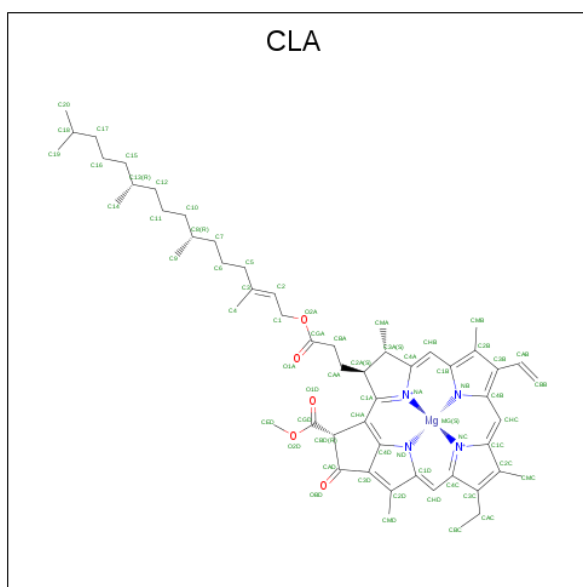
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
18	1	1	Total	C	0	0
			19	19		
18	2	1	Total	C	0	0
			40	40		
18	3	1	Total	C	0	0
			40	40		
18	3	1	Total	C	0	0
			40	40		
18	4	1	Total	C	0	0
			40	40		
18	A	1	Total	C	0	0
			40	40		
18	A	1	Total	C	0	0
			40	40		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	A	1	Total C 40 40	0	0
18	A	1	Total C 40 40	0	0
18	A	1	Total C 40 40	0	0
18	A	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	B	1	Total C 40 40	0	0
18	F	1	Total C 40 40	0	0
18	G	1	Total C 40 40	0	0
18	I	1	Total C 40 40	0	0
18	I	1	Total C 40 40	0	0
18	J	1	Total C 40 40	0	0
18	K	1	Total C 40 40	0	0
18	L	1	Total C 40 40	0	0
18	L	1	Total C 40 40	0	0
18	L	1	Total C 40 40	0	0

- Molecule 19 is CHLOROPHYLL A (three-letter code: CLA) (formula: C<sub>55</sub>H<sub>72</sub>MgN<sub>4</sub>O<sub>5</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
19	1	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
19	1	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			52	42	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
19	2	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	2	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			52	42	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			41	33	1	4	3		
19	3	1	Total	C	Mg	N	O	0	0
			48	38	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	3	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
19	4	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	4	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	Mg	N	O		
19	A	1	45	35	1	4	5	0	0
19	A	1	46	36	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	56	46	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	50	40	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	60	50	1	4	5	0	0
19	A	1	60	50	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	55	45	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	65	55	1	4	5	0	0
19	A	1	55	45	1	4	5	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
19	A	1	Total	C	Mg	N	O	0	0
			51	41	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	Mg	N	O		
19	B	1	65	55	1	4	5	0	0
19	B	1	55	45	1	4	5	0	0
19	B	1	60	50	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	46	36	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	55	45	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	65	55	1	4	5	0	0
19	B	1	60	50	1	4	5	0	0
19	B	1	58	48	1	4	5	0	0
19	B	1	60	50	1	4	5	0	0
19	B	1	55	45	1	4	5	0	0
19	B	1	55	45	1	4	5	0	0

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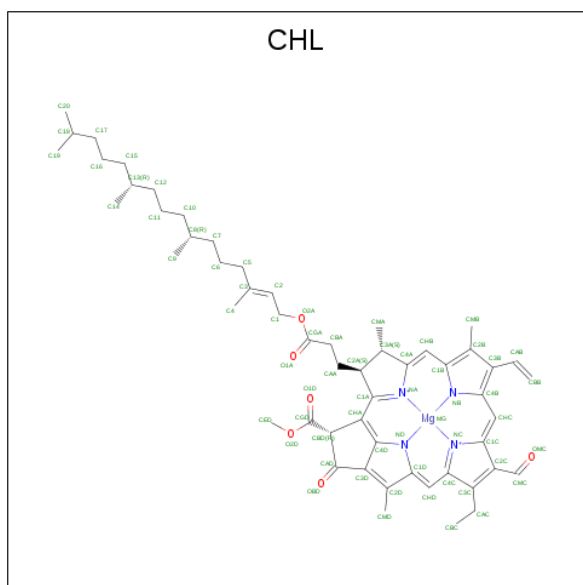
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	F	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	F	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	G	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	G	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	G	1	Total	C	Mg	N	O	0	0
			46	36	1	4	5		
19	G	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	H	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	J	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	J	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
19	J	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	K	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
19	K	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	K	1	Total	C	Mg	N		0	0
			27	22	1	4			
19	K	1	Total	C	Mg	N		0	0
			27	22	1	4			
19	L	1	Total	C	Mg	N	O	0	0
			55	45	1	4	5		
19	L	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
19	L	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
19	L	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		

- Molecule 20 is CHLOROPHYLL B (three-letter code: CHL) (formula:  $C_{55}H_{70}MgN_4O_6$ ).



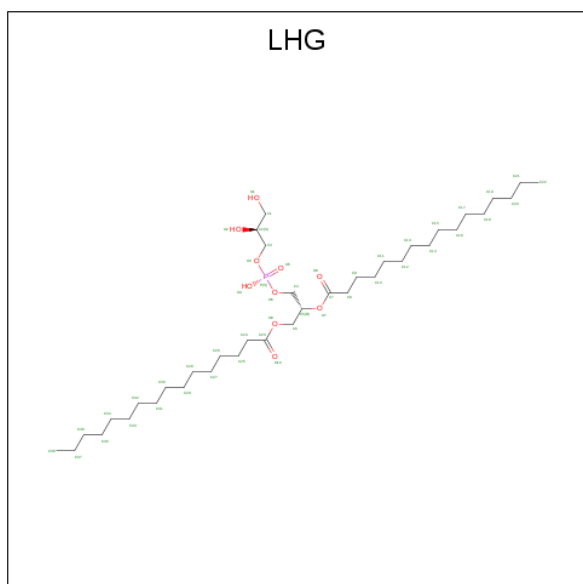
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
20	1	1	Total	C	Mg	N	O	0	0
			47	36	1	4	6		
20	1	1	Total	C	Mg	N	O	0	0
			61	50	1	4	6		
20	1	1	Total	C	Mg	N	O	0	0
			56	45	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			47	36	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			48	37	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			46	35	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			56	45	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			66	55	1	4	6		
20	3	1	Total	C	Mg	N	O	0	0
			47	36	1	4	6		

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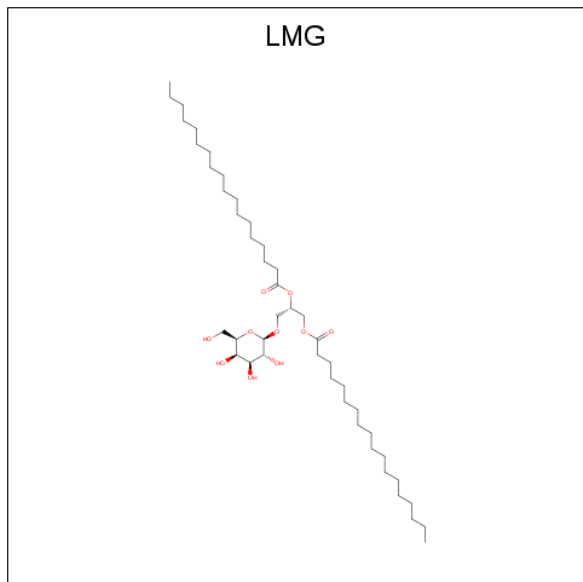
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
20	4	1	Total	C	Mg	N	O	0	0
			47	36	1	4	6		
20	4	1	Total	C	Mg	N	O	0	0
			51	40	1	4	6		
20	4	1	Total	C	Mg	N	O	0	0
			61	50	1	4	6		
20	4	1	Total	C	Mg	N	O	0	0
			43	34	1	4	4		

- Molecule 21 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula:  $C_{38}H_{75}O_{10}P$ ).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
21	1	1	Total	C	O	P	0	0
			49	38	10	1		
21	1	1	Total	C	O	P	0	0
			42	31	10	1		
21	2	1	Total	C	O	P	0	0
			35	24	10	1		
21	A	1	Total	C	O	P	0	0
			40	29	10	1		
21	A	1	Total	C	O	P	0	0
			49	38	10	1		
21	B	1	Total	C	O	P	0	0
			21	10	10	1		
21	B	1	Total	C	O	P	0	0
			49	38	10	1		

- Molecule 22 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: C<sub>45</sub>H<sub>86</sub>O<sub>10</sub>).



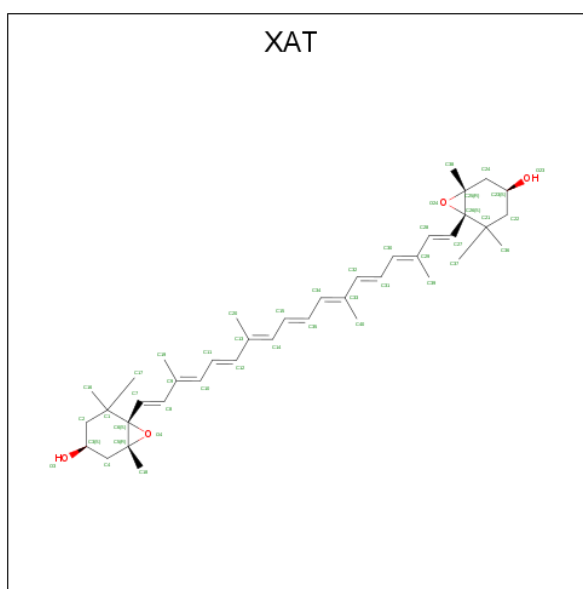
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
22	1	1	Total	C	O	0	0
			46	36	10		
22	1	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			25	15	10		
22	2	1	Total	C	O	0	0
			36	26	10		
22	2	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			13	7	6		
22	4	1	Total	C	O	0	0
			13	7	6		
22	4	1	Total	C	O	0	0
			45	35	10		
22	A	1	Total	C	O	0	0
			50	40	10		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
22	B	1	Total	C	O	0	0
			35	25	10		
22	B	1	Total	C	O	0	0
			33	23	10		
22	F	1	Total	C	O	0	0
			47	37	10		
22	F	1	Total	C	O	0	0
			36	26	10		
22	G	1	Total	C	O	0	0
			50	40	10		
22	G	1	Total	C	O	0	0
			25	15	10		
22	J	1	Total	C	O	0	0
			30	20	10		
22	J	1	Total	C	O	0	0
			34	24	10		

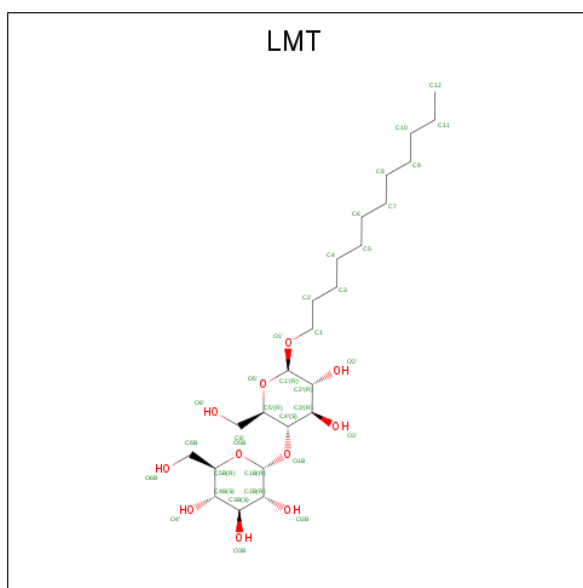
- Molecule 23 is (3S,5R,6S,3'S,5'R,6'S)-5,6,5',6'-DIEPOXY-5,6,5',6'-TETRAHYDRO-BETA ,BETA-CAROTENE-3,3'-DIOL (three-letter code: XAT) (formula: C<sub>40</sub>H<sub>56</sub>O<sub>4</sub>).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
23	2	1	Total	C	O	0	0
			44	40	4		
23	4	1	Total	C	O	0	0
			44	40	4		

- Molecule 24 is DODECYL-BETA-D-MALTOSE (three-letter code: LMT) (formula:

C<sub>24</sub>H<sub>46</sub>O<sub>11</sub>).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	2	1	Total C O 35 24 11	0	0
24	3	1	Total C O 31 20 11	0	0
24	4	1	Total C O 35 24 11	0	0
24	A	1	Total C O 35 24 11	0	0
24	B	1	Total C O 35 24 11	0	0
24	B	1	Total C O 32 21 11	0	0
24	B	1	Total C O 31 20 11	0	0
24	G	1	Total C O 35 24 11	0	0
24	G	1	Total C O 31 20 11	0	0
24	J	1	Total C O 25 14 11	0	0

- Molecule 25 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	B	1	Total Ca 1 1	0	0

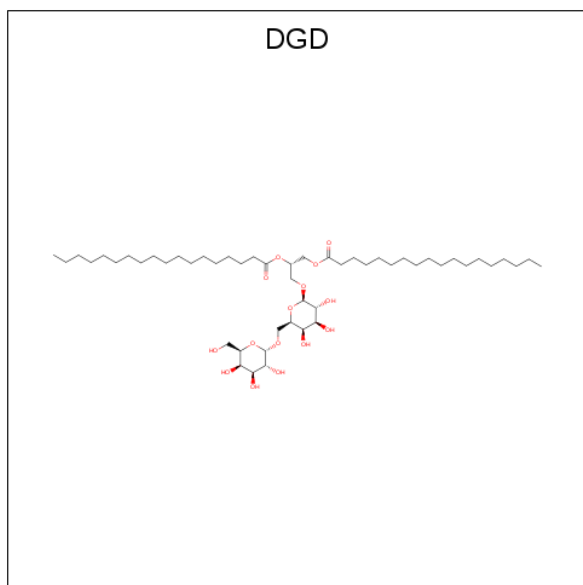
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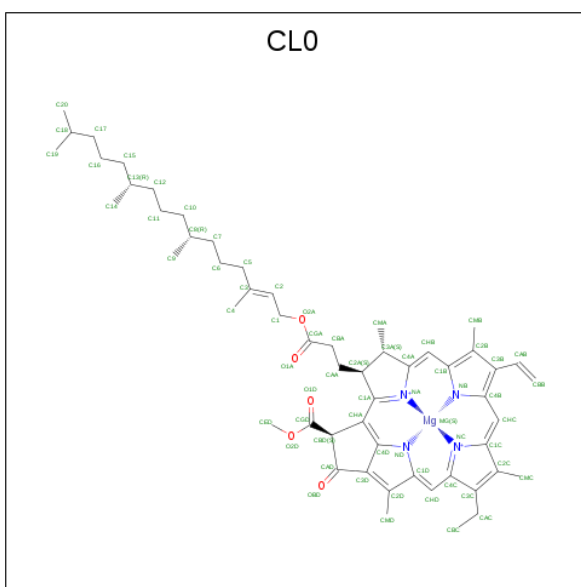
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
25	3	1	Total	Ca	0	0
			1	1		

- Molecule 26 is DIGALACTOSYL DIACYL GLYCEROL (DGD) (three-letter code: DGD) (formula:  $C_{51}H_{96}O_{15}$ ).



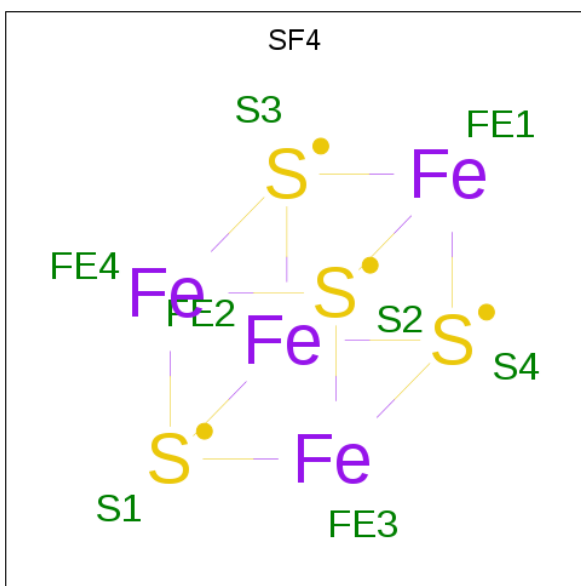
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
26	4	1	Total	C	O	0	0
			51	36	15		
26	B	1	Total	C	O	0	0
			41	26	15		
26	B	1	Total	C	O	0	0
			61	46	15		
26	G	1	Total	C	O	0	0
			47	32	15		
26	J	1	Total	C	O	0	0
			58	43	15		

- Molecule 27 is CHLOROPHYLL A ISOMER (three-letter code: CL0) (formula:  $C_{55}H_{72}MgN_4O_5$ ).



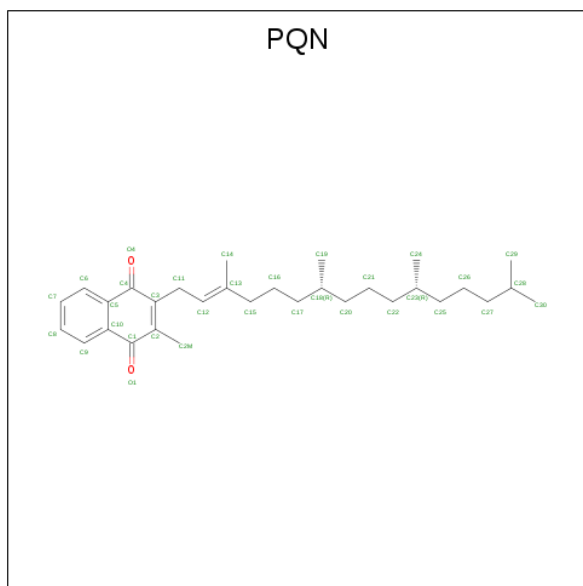
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
			Total	C	Mg	N			O
27	A	1	65	55	1	4	5	0	0

- Molecule 28 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe<sub>4</sub>S<sub>4</sub>).



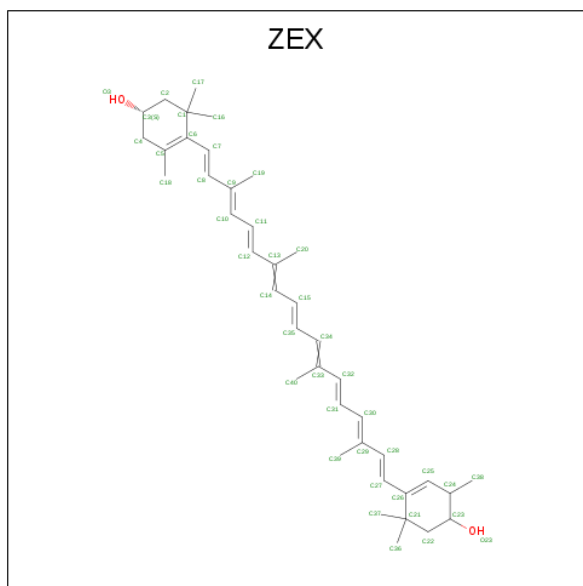
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	Fe	S		
28	A	1	8	4	4	0	0
28	C	1	8	4	4	0	0
28	C	1	8	4	4	0	0

- Molecule 29 is PHYLLOQUINONE (three-letter code: PQN) (formula:  $C_{31}H_{46}O_2$ ).



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

- Molecule 30 is (1R,2S)-4-{(1E,3E,5E,7E,9E,11E,13E,15E,17E)-18-[(4S)-4-hydroxy-2,6,6-trimethylcyclohex-1-en-1-yl]-3,7,12,16-tetramethyloctadeca-1,3,5,7,9,11,13,15,17-nonaen-1-yl}-2,5,5-trimethylcyclohex-3-en-1-ol (three-letter code: ZEX) (formula:  $C_{40}H_{56}O_2$ ).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
30	F	1	Total	C	O	0	0
			42	40	2		

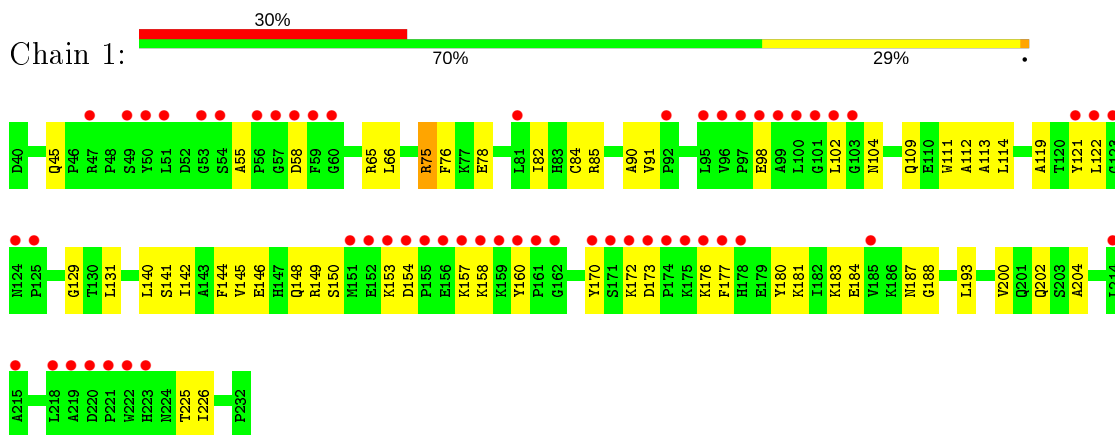
- Molecule 31 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
31	2	7	Total	O	0	0
			7	7		
31	3	3	Total	O	0	0
			3	3		
31	4	13	Total	O	0	0
			13	13		
31	A	49	Total	O	0	0
			49	49		
31	B	73	Total	O	0	0
			73	73		
31	C	19	Total	O	0	0
			19	19		
31	D	14	Total	O	0	0
			14	14		
31	E	10	Total	O	0	0
			10	10		
31	F	9	Total	O	0	0
			9	9		
31	G	3	Total	O	0	0
			3	3		
31	H	1	Total	O	0	0
			1	1		
31	J	4	Total	O	0	0
			4	4		
31	L	4	Total	O	0	0
			4	4		

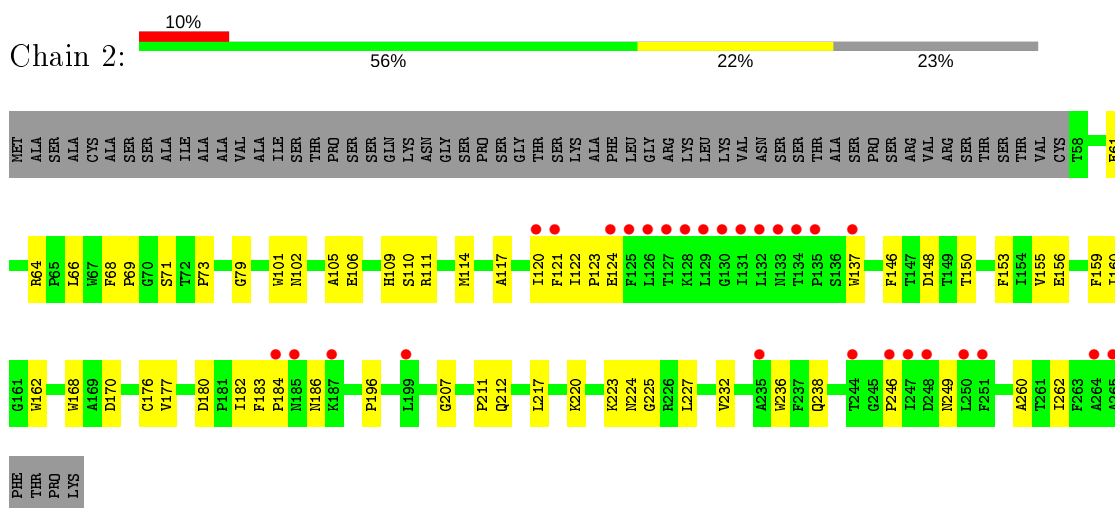
### 3 Residue-property plots [i](#)

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

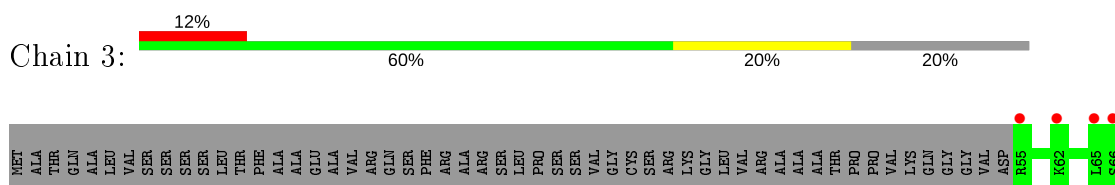
- Molecule 1: Lhca1

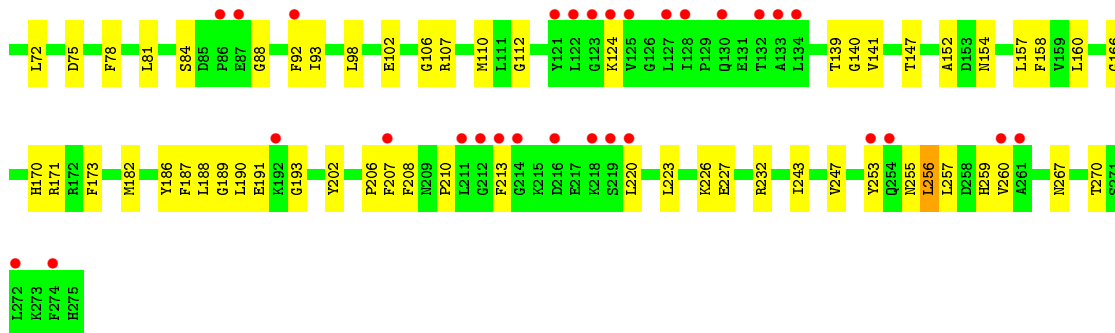


- Molecule 2: Chlorophyll a-b binding protein, chloroplastic

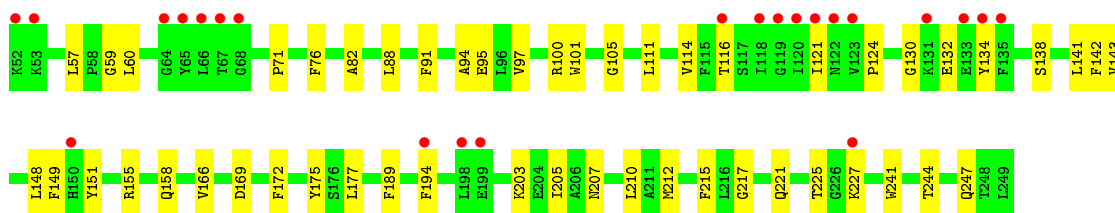
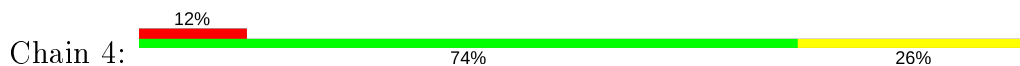


- Molecule 3: Chlorophyll a-b binding protein 3, chloroplastic

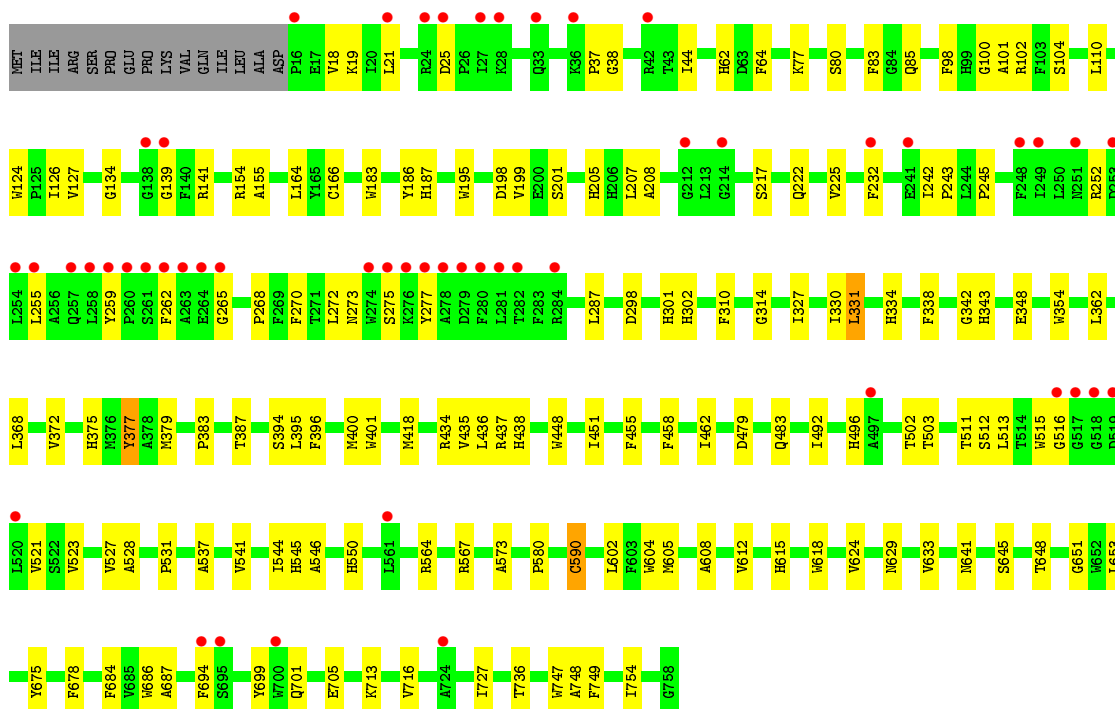
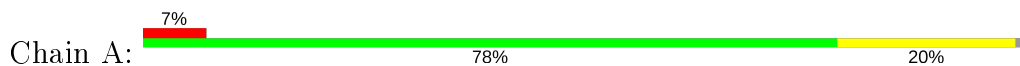




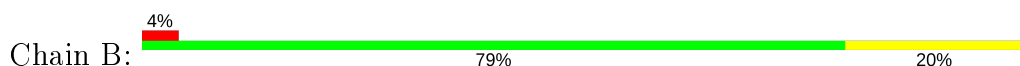
• Molecule 4: Chlorophyll a-b binding protein P4, chloroplastic

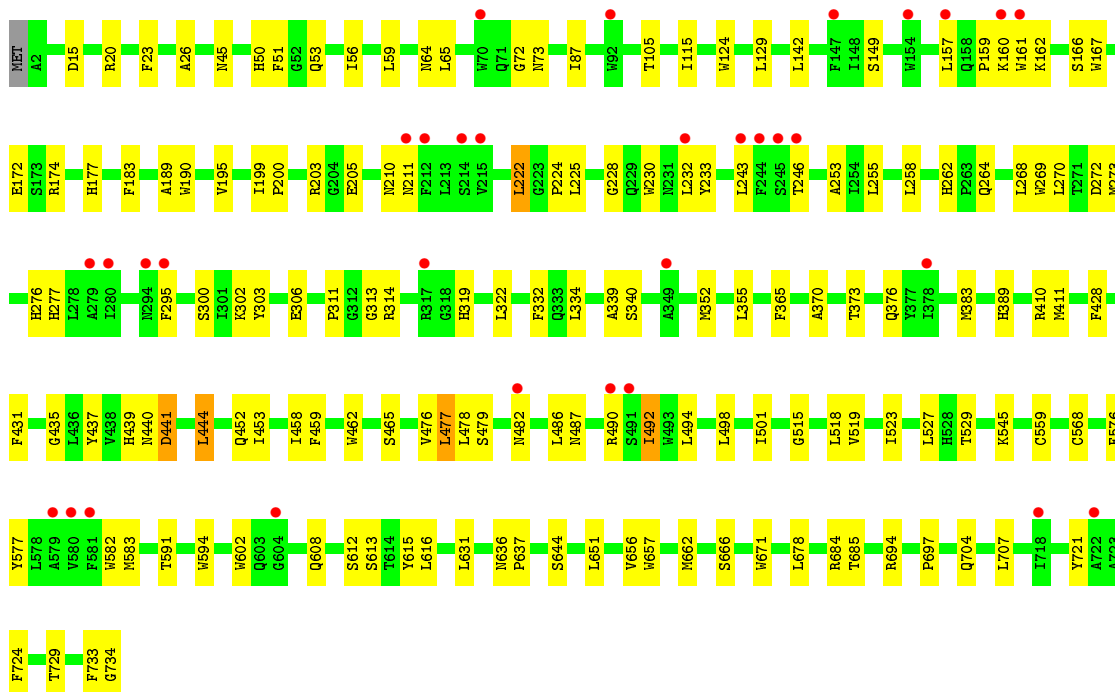


• Molecule 5: Photosystem I P700 chlorophyll a apoprotein A1

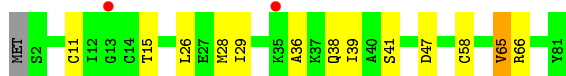
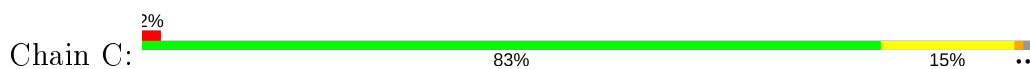


• Molecule 6: Photosystem I P700 chlorophyll a apoprotein A2

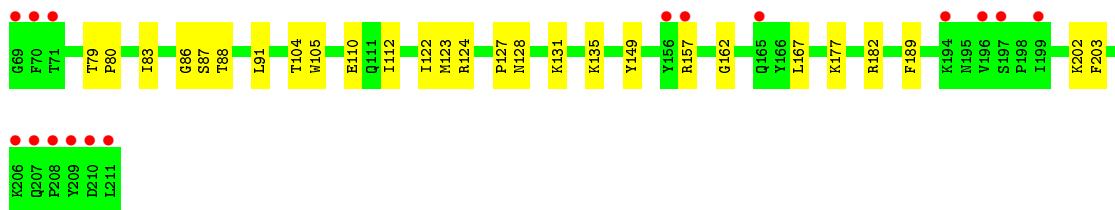
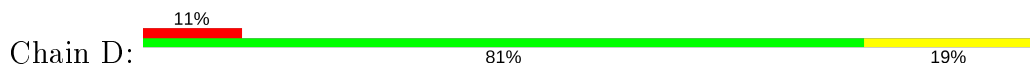




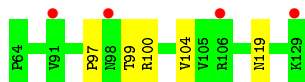
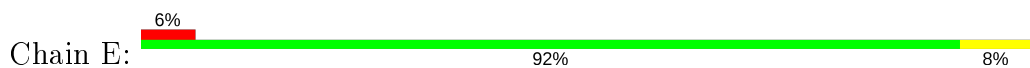
• Molecule 7: Photosystem I iron-sulfur center



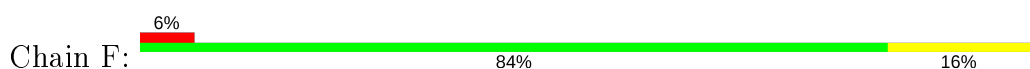
• Molecule 8: PsaD

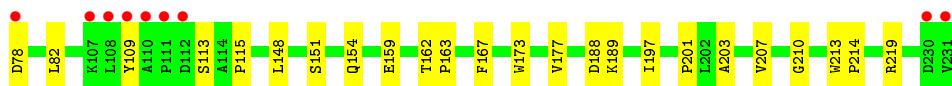


• Molecule 9: Putative uncharacterized protein

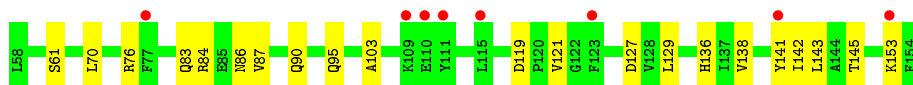
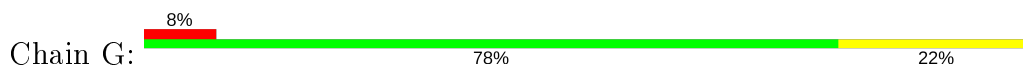


• Molecule 10: Photosystem I reaction center subunit III

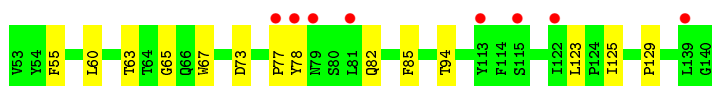
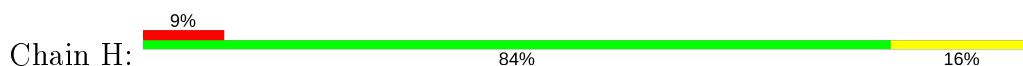




- Molecule 11: PsaG



- Molecule 12: Photosystem I reaction center subunit VI



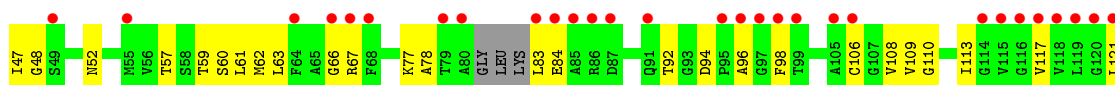
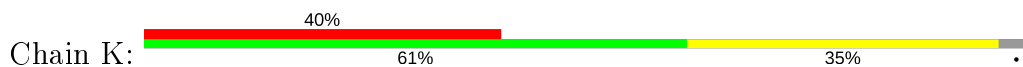
- Molecule 13: Photosystem I reaction center subunit VIII



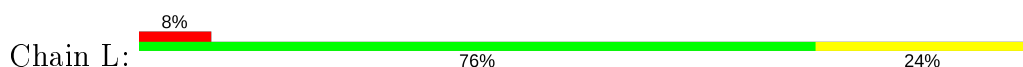
- Molecule 14: Photosystem I reaction center subunit IX



- Molecule 15: Photosystem I reaction center subunit X psaK



- Molecule 16: Putative uncharacterized protein







## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	189.61Å 200.99Å 212.94Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	39.91 – 2.60 49.66 – 2.60	Depositor EDS
% Data completeness (in resolution range)	99.7 (39.91-2.60) 93.4 (49.66-2.60)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.54 (at 2.61Å)	Xtrriage
Refinement program	PHENIX (1.10.1_2155: ???)	Depositor
R, $R_{free}$	0.210 , 0.232 0.212 , 0.235	Depositor DCC
$R_{free}$ test set	4925 reflections (1.98%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	60.7	Xtrriage
Anisotropy	0.292	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.27 , 69.7	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.28$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.92	EDS
Total number of atoms	37583	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	100.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.75% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup> Intensities estimated from amplitudes.

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

## 5 Model quality

### 5.1 Standard geometry

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

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	1	0.27	0/1558	0.40	0/2125
2	2	0.28	0/1679	0.44	0/2302
3	3	0.28	0/1753	0.43	0/2382
4	4	0.30	0/1608	0.41	0/2191
5	A	0.28	0/6057	0.44	0/8264
6	B	0.28	0/6069	0.44	0/8286
7	C	0.32	0/625	0.51	0/846
8	D	0.29	0/1163	0.48	0/1572
9	E	0.26	0/540	0.45	0/734
10	F	0.28	0/1241	0.43	0/1679
11	G	0.26	0/776	0.42	0/1054
12	H	0.27	0/693	0.44	0/942
13	I	0.27	0/238	0.41	0/324
14	J	0.39	0/349	0.48	0/476
15	K	0.25	0/520	0.45	0/707
16	L	0.27	0/1207	0.45	0/1651
All	All	0.28	0/26076	0.44	0/35535

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	1508	0	1489	60	0
2	2	1620	0	1557	55	0
3	3	1699	0	1648	62	0
4	4	1559	0	1527	49	0
5	A	5858	0	5719	148	0
6	B	5857	0	5653	140	0
7	C	612	0	592	8	0
8	D	1132	0	1141	19	0
9	E	528	0	528	3	0
10	F	1213	0	1241	19	0
11	G	757	0	743	20	0
12	H	673	0	667	13	0
13	I	232	0	253	2	0
14	J	338	0	345	16	0
15	K	515	0	513	26	0
16	L	1174	0	1183	35	0
17	1	84	0	110	12	0
17	2	42	0	55	8	0
17	3	84	0	110	19	0
17	4	42	0	55	3	0
17	J	42	0	55	8	0
18	1	19	0	24	4	0
18	2	40	0	55	13	0
18	3	80	0	109	11	0
18	4	40	0	55	9	0
18	A	240	0	329	21	0
18	B	280	0	384	28	0
18	F	40	0	55	1	0
18	G	40	0	55	3	0
18	I	80	0	110	12	0
18	J	40	0	55	4	0
18	K	40	0	55	7	0
18	L	120	0	165	8	0
19	1	608	0	563	58	0
19	2	512	0	479	38	0
19	3	623	0	526	63	0
19	4	631	0	599	61	0
19	A	2653	0	2772	246	0
19	B	2350	0	2461	202	0
19	F	130	0	144	12	0
19	G	231	0	225	24	0
19	H	60	0	59	4	0
19	J	160	0	143	27	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	K	159	0	96	13	0
19	L	215	0	185	11	0
20	1	164	0	134	24	0
20	2	263	0	210	31	0
20	3	47	0	30	9	0
20	4	202	0	150	21	0
21	1	91	0	131	17	0
21	2	35	0	40	9	0
21	A	89	0	127	10	0
21	B	70	0	86	8	0
22	1	59	0	76	3	0
22	2	126	0	117	9	0
22	4	58	0	71	4	0
22	A	50	0	73	3	0
22	B	68	0	76	6	0
22	F	83	0	109	10	0
22	G	75	0	90	6	0
22	J	64	0	68	3	0
23	2	44	0	56	4	0
23	4	44	0	56	10	0
24	2	35	0	46	0	0
24	3	31	0	34	1	0
24	4	35	0	45	3	0
24	A	35	0	46	3	0
24	B	98	0	114	9	0
24	G	66	0	80	5	0
24	J	25	0	23	1	0
25	3	1	0	0	0	0
25	B	1	0	0	0	0
26	4	51	0	60	6	0
26	B	102	0	123	14	0
26	G	47	0	52	1	0
26	J	58	0	77	6	0
27	A	65	0	72	8	0
28	A	8	0	0	1	0
28	C	16	0	0	2	0
29	A	33	0	46	4	0
29	B	33	0	46	8	0
30	F	42	0	56	6	0
31	2	7	0	0	0	0
31	3	3	0	0	0	0
31	4	13	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	A	49	0	0	1	0
31	B	73	0	0	2	0
31	C	19	0	0	0	0
31	D	14	0	0	0	0
31	E	10	0	0	0	0
31	F	9	0	0	2	0
31	G	3	0	0	1	0
31	H	1	0	0	0	0
31	J	4	0	0	0	0
31	L	4	0	0	1	0
All	All	37583	0	37507	1261	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 17.

The worst 5 of 1261 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)
17:4:302:LUT:H373	19:4:304:CLA:H11	1.35	1.07
19:A:832:CLA:HBB1	19:A:833:CLA:H2	1.48	0.95
17:3:301:LUT:H32	19:3:305:CLA:HBB1	1.45	0.94
19:B:823:CLA:HAB	19:B:830:CLA:HMD2	1.50	0.93
18:2:503:BCR:H17C	20:2:513:CHL:HMB3	1.55	0.88

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	1	191/193 (99%)	184 (96%)	6 (3%)	1 (0%)	29 52
2	2	206/269 (77%)	196 (95%)	9 (4%)	1 (0%)	29 52

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	3	219/275 (80%)	207 (94%)	12 (6%)	0	100	100
4	4	196/198 (99%)	194 (99%)	2 (1%)	0	100	100
5	A	741/758 (98%)	710 (96%)	30 (4%)	1 (0%)	51	75
6	B	731/734 (100%)	710 (97%)	18 (2%)	3 (0%)	34	57
7	C	78/81 (96%)	76 (97%)	2 (3%)	0	100	100
8	D	141/143 (99%)	135 (96%)	6 (4%)	0	100	100
9	E	64/66 (97%)	60 (94%)	4 (6%)	0	100	100
10	F	152/154 (99%)	149 (98%)	3 (2%)	0	100	100
11	G	95/97 (98%)	93 (98%)	2 (2%)	0	100	100
12	H	86/88 (98%)	81 (94%)	5 (6%)	0	100	100
13	I	28/40 (70%)	27 (96%)	1 (4%)	0	100	100
14	J	40/42 (95%)	37 (92%)	3 (8%)	0	100	100
15	K	73/80 (91%)	67 (92%)	6 (8%)	0	100	100
16	L	155/157 (99%)	149 (96%)	6 (4%)	0	100	100
All	All	3196/3375 (95%)	3075 (96%)	115 (4%)	6 (0%)	47	71

5 of 6 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1	172	LYS
6	B	222	LEU
6	B	559	CYS
2	2	260	ALA
6	B	492	ILE

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

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1	158/158 (100%)	156 (99%)	2 (1%)	69	86
2	2	167/216 (77%)	167 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	3	169/213 (79%)	168 (99%)	1 (1%)	86	95
4	4	164/164 (100%)	164 (100%)	0	100	100
5	A	604/618 (98%)	599 (99%)	5 (1%)	81	92
6	B	598/599 (100%)	589 (98%)	9 (2%)	65	83
7	C	69/70 (99%)	67 (97%)	2 (3%)	42	68
8	D	122/122 (100%)	122 (100%)	0	100	100
9	E	58/58 (100%)	58 (100%)	0	100	100
10	F	126/127 (99%)	126 (100%)	0	100	100
11	G	82/82 (100%)	80 (98%)	2 (2%)	49	74
12	H	71/71 (100%)	71 (100%)	0	100	100
13	I	26/36 (72%)	26 (100%)	0	100	100
14	J	35/35 (100%)	35 (100%)	0	100	100
15	K	51/58 (88%)	51 (100%)	0	100	100
16	L	124/124 (100%)	124 (100%)	0	100	100
All	All	2624/2751 (95%)	2603 (99%)	21 (1%)	81	92

5 of 21 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
6	B	332	PHE
6	B	444	LEU
7	C	65	VAL
6	B	157	LEU
7	C	66	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 26 such sidechains are listed below:

Mol	Chain	Res	Type
5	A	550	HIS
6	B	196	HIS
12	H	130	GLN
5	A	615	HIS
5	A	721	GLN



### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

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

Of 242 ligands modelled in this entry, 2 are monoatomic - leaving 240 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	840	31	59,73,73	1.24	5 (8%)	67,113,113	1.72	7 (10%)
19	CLA	3	308	-	59,73,73	1.28	6 (10%)	67,113,113	1.75	9 (13%)
19	CLA	4	309	-	44,58,73	1.45	7 (15%)	49,95,113	1.99	7 (14%)
26	DGD	B	801	-	42,42,67	0.61	0	56,56,81	1.16	6 (10%)
18	BCR	B	802	-	41,41,41	0.68	0	56,56,56	4.02	18 (32%)
19	CLA	A	838	-	59,73,73	1.30	7 (11%)	67,113,113	1.60	6 (8%)
18	BCR	A	849	-	41,41,41	0.63	0	56,56,56	3.28	16 (28%)
20	CHL	1	514	1	55,69,74	0.87	2 (3%)	58,108,114	1.35	11 (18%)
19	CLA	B	821	-	40,54,73	1.57	7 (17%)	44,90,113	1.87	5 (11%)
24	LMT	3	318	-	32,32,36	1.17	5 (15%)	43,43,47	1.19	5 (11%)
19	CLA	3	306	-	46,60,73	1.47	7 (15%)	51,97,113	1.81	6 (11%)
19	CLA	A	808	5	59,73,73	1.25	4 (6%)	67,113,113	1.74	5 (7%)
19	CLA	B	815	-	59,73,73	1.26	5 (8%)	67,113,113	1.76	6 (8%)
19	CLA	B	824	31	59,73,73	1.26	7 (11%)	67,113,113	1.84	9 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	L	304	-	54,68,73	1.33	5 (9%)	61,107,113	1.73	7 (11%)
19	CLA	A	821	-	59,73,73	1.26	5 (8%)	67,113,113	1.57	8 (11%)
20	CHL	2	516	2	50,64,74	0.92	3 (6%)	52,102,114	1.36	10 (19%)
18	BCR	4	301	-	41,41,41	0.65	0	56,56,56	3.34	15 (26%)
19	CLA	A	810	-	44,58,73	1.49	8 (18%)	49,95,113	1.87	4 (8%)
19	CLA	1	516	1	54,68,73	1.36	7 (12%)	61,107,113	1.71	7 (11%)
19	CLA	B	834	31	49,63,73	1.44	7 (14%)	55,101,113	1.64	6 (10%)
19	CLA	A	832	-	59,73,73	1.29	6 (10%)	67,113,113	1.58	5 (7%)
18	BCR	B	850	-	41,41,41	0.66	0	56,56,56	3.01	11 (19%)
19	CLA	A	805	-	59,73,73	1.30	7 (11%)	67,113,113	1.60	4 (5%)
19	CLA	B	808	-	59,73,73	1.30	7 (11%)	67,113,113	1.55	5 (7%)
19	CLA	A	804	-	59,73,73	1.27	8 (13%)	67,113,113	1.68	5 (7%)
19	CLA	B	833	-	54,68,73	1.30	5 (9%)	61,107,113	1.66	6 (9%)
19	CLA	J	1102	31	36,53,73	1.59	6 (16%)	39,89,113	1.94	5 (12%)
20	CHL	2	513	-	42,56,74	1.08	4 (9%)	42,92,114	1.35	8 (19%)
18	BCR	A	848	-	41,41,41	0.63	0	56,56,56	3.27	18 (32%)
20	CHL	1	512	-	41,55,74	1.02	3 (7%)	41,91,114	1.47	11 (26%)
18	BCR	2	503	-	41,41,41	0.86	0	56,56,56	3.25	14 (25%)
22	LMG	2	522	-	13,13,55	0.58	0	18,18,63	0.63	0
19	CLA	G	201	-	59,73,73	1.30	6 (10%)	67,113,113	1.69	8 (11%)
22	LMG	F	305	-	36,36,55	0.72	1 (2%)	44,44,63	1.10	2 (4%)
19	CLA	K	1002	-	54,68,73	1.36	8 (14%)	61,107,113	1.72	7 (11%)
19	CLA	2	510	21	54,68,73	1.33	6 (11%)	61,107,113	1.78	8 (13%)
19	CLA	B	830	-	59,73,73	1.27	7 (11%)	67,113,113	1.66	8 (11%)
19	CLA	3	315	3	44,58,73	1.45	4 (9%)	49,95,113	1.95	7 (14%)
19	CLA	G	204	31	59,73,73	1.28	9 (15%)	67,113,113	1.62	7 (10%)
22	LMG	2	525	-	13,13,55	0.62	0	18,18,63	0.70	0
18	BCR	I	102	-	41,41,41	0.65	0	56,56,56	3.13	13 (23%)
19	CLA	B	820	31	59,73,73	1.29	7 (11%)	67,113,113	1.57	8 (11%)
19	CLA	A	825	31	59,73,73	1.30	8 (13%)	67,113,113	1.80	12 (17%)
19	CLA	3	316	-	40,54,73	1.55	8 (20%)	44,90,113	1.89	6 (13%)
19	CLA	3	313	3	54,68,73	1.33	6 (11%)	61,107,113	1.74	7 (11%)
29	PQN	A	844	-	34,34,34	0.39	0	42,45,45	1.25	5 (11%)
19	CLA	2	508	-	49,63,73	1.37	6 (12%)	55,101,113	1.89	10 (18%)
19	CLA	B	826	-	59,73,73	1.27	6 (10%)	67,113,113	1.71	8 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	4	306	-	59,73,73	1.29	6 (10%)	67,113,113	1.66	8 (11%)
19	CLA	B	837	-	44,58,73	1.44	6 (13%)	49,95,113	1.81	7 (14%)
19	CLA	B	816	-	49,63,73	1.41	7 (14%)	55,101,113	1.83	5 (9%)
17	LUT	3	302	-	42,43,43	2.31	1 (2%)	51,60,60	1.61	13 (25%)
19	CLA	A	827	-	59,73,73	1.27	7 (11%)	67,113,113	1.66	7 (10%)
19	CLA	A	833	-	59,73,73	1.28	7 (11%)	67,113,113	1.65	8 (11%)
22	LMG	4	322	-	45,45,55	0.93	3 (6%)	53,53,63	1.08	4 (7%)
19	CLA	1	508	-	59,73,73	1.28	7 (11%)	67,113,113	1.74	9 (13%)
19	CLA	4	305	4	44,58,73	1.52	8 (18%)	49,95,113	1.94	10 (20%)
18	BCR	1	503	-	19,19,41	0.66	0	26,26,56	3.15	7 (26%)
28	SF4	C	101	7	0,12,12	0.00	-	-		
21	LHG	2	517	19	34,34,48	0.46	0	37,40,54	1.07	2 (5%)
20	CHL	2	515	-	37,54,74	1.05	2 (5%)	36,90,114	1.47	10 (27%)
19	CLA	B	817	-	54,68,73	1.36	7 (12%)	61,107,113	1.77	7 (11%)
19	CLA	A	839	-	59,73,73	1.26	5 (8%)	67,113,113	1.61	6 (8%)
21	LHG	A	845	19	39,39,48	0.42	0	42,45,54	1.25	4 (9%)
22	LMG	B	845	-	33,33,55	0.57	1 (3%)	41,41,63	1.24	5 (12%)
17	LUT	1	502	-	42,43,43	2.37	1 (2%)	51,60,60	1.81	9 (17%)
24	LMT	J	1107	-	26,26,36	1.34	5 (19%)	37,37,47	1.08	2 (5%)
19	CLA	3	312	-	42,56,73	1.53	8 (19%)	46,92,113	1.94	6 (13%)
24	LMT	B	846	-	36,36,36	1.14	6 (16%)	47,47,47	1.04	3 (6%)
17	LUT	4	302	-	42,43,43	2.46	1 (2%)	51,60,60	1.92	12 (23%)
18	BCR	K	1005	-	41,41,41	0.67	0	56,56,56	3.18	13 (23%)
20	CHL	4	314	31	45,59,74	1.13	4 (8%)	46,96,114	1.67	12 (26%)
19	CLA	4	310	-	54,68,73	1.37	8 (14%)	61,107,113	1.66	6 (9%)
19	CLA	A	854	31	59,73,73	1.24	6 (10%)	67,113,113	1.78	11 (16%)
24	LMT	B	847	-	33,33,36	1.22	5 (15%)	44,44,47	0.96	1 (2%)
19	CLA	4	315	4	59,73,73	1.27	6 (10%)	67,113,113	1.66	7 (10%)
19	CLA	A	823	-	54,68,73	1.38	8 (14%)	61,107,113	1.64	7 (11%)
19	CLA	B	823	-	49,63,73	1.41	7 (14%)	55,101,113	1.71	4 (7%)
19	CLA	L	305	31	44,58,73	1.52	9 (20%)	49,95,113	1.80	6 (12%)
19	CLA	A	822	-	54,68,73	1.37	7 (12%)	61,107,113	1.65	6 (9%)
22	LMG	2	520	-	13,13,55	0.59	0	18,18,63	0.87	1 (5%)
19	CLA	G	203	11	40,54,73	1.54	7 (17%)	44,90,113	1.85	7 (15%)
19	CLA	A	813	-	59,73,73	1.25	6 (10%)	67,113,113	1.67	7 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
22	LMG	2	519	-	36,36,55	0.66	1 (2%)	44,44,63	1.24	7 (15%)
18	BCR	F	306	-	41,41,41	0.65	0	56,56,56	3.05	8 (14%)
19	CLA	A	835	5	49,63,73	1.43	8 (16%)	55,101,113	1.75	7 (12%)
19	CLA	3	310	31	44,58,73	1.47	7 (15%)	49,95,113	2.11	4 (8%)
19	CLA	B	828	-	59,73,73	1.26	6 (10%)	67,113,113	1.65	5 (7%)
19	CLA	B	822	-	59,73,73	1.30	7 (11%)	67,113,113	1.69	8 (11%)
27	CL0	A	801	-	59,73,73	1.63	8 (13%)	67,113,113	2.05	11 (16%)
22	LMG	F	304	-	47,47,55	0.97	4 (8%)	55,55,63	1.09	2 (3%)
20	CHL	4	317	4	37,51,74	1.12	4 (10%)	36,86,114	1.60	9 (25%)
19	CLA	3	311	-	35,49,73	1.67	7 (20%)	38,84,113	1.91	7 (18%)
18	BCR	B	849	-	41,41,41	0.79	0	56,56,56	3.73	20 (35%)
19	CLA	B	806	-	59,73,73	1.27	6 (10%)	67,113,113	1.62	6 (8%)
19	CLA	B	839	-	59,73,73	1.31	6 (10%)	67,113,113	1.58	5 (7%)
19	CLA	B	836	-	59,73,73	1.27	6 (10%)	67,113,113	1.56	5 (7%)
19	CLA	A	830	-	59,73,73	1.26	7 (11%)	67,113,113	1.70	8 (11%)
19	CLA	B	840	21	59,73,73	1.29	6 (10%)	67,113,113	1.59	5 (7%)
19	CLA	A	814	-	59,73,73	1.28	8 (13%)	67,113,113	1.73	9 (13%)
19	CLA	B	810	6	59,73,73	1.26	5 (8%)	67,113,113	1.74	7 (10%)
19	CLA	G	202	-	49,63,73	1.43	8 (16%)	55,101,113	1.74	7 (12%)
19	CLA	B	825	31	59,73,73	1.26	5 (8%)	67,113,113	1.78	11 (16%)
19	CLA	1	504	1	59,73,73	1.27	6 (10%)	67,113,113	1.73	9 (13%)
21	LHG	A	853	-	48,48,48	0.40	0	51,54,54	1.04	3 (5%)
21	LHG	B	842	19	20,20,48	0.59	0	23,26,54	1.55	3 (13%)
20	CHL	1	521	1	50,64,74	0.94	4 (8%)	52,102,114	1.36	10 (19%)
19	CLA	A	806	5	59,73,73	1.26	6 (10%)	67,113,113	1.68	7 (10%)
19	CLA	4	308	4	54,68,73	1.31	4 (7%)	61,107,113	1.88	9 (14%)
29	PQN	B	841	-	34,34,34	0.37	0	42,45,45	1.14	3 (7%)
19	CLA	A	855	-	59,73,73	1.26	7 (11%)	67,113,113	1.67	6 (8%)
19	CLA	A	826	31	49,63,73	1.41	7 (14%)	55,101,113	1.78	7 (12%)
22	LMG	2	524	-	13,13,55	0.56	0	18,18,63	0.81	0
20	CHL	4	316	-	55,69,74	0.99	4 (7%)	58,108,114	1.27	10 (17%)
24	LMT	B	855	-	32,32,36	1.25	6 (18%)	43,43,47	0.97	2 (4%)
19	CLA	3	309	-	49,63,73	1.44	8 (16%)	55,101,113	1.83	8 (14%)
18	BCR	L	306	-	41,41,41	0.67	0	56,56,56	3.01	13 (23%)
26	DGD	4	319	-	52,52,67	0.73	2 (3%)	66,66,81	1.44	9 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
18	BCR	B	856	-	41,41,41	0.66	0	56,56,56	3.05	13 (23%)
22	LMG	G	206	-	50,50,55	1.05	4 (8%)	58,58,63	1.07	3 (5%)
19	CLA	B	819	-	59,73,73	1.26	6 (10%)	67,113,113	1.66	7 (10%)
28	SF4	A	843	5,6	0,12,12	0.00	-	-	-	-
19	CLA	J	1101	-	59,73,73	1.25	6 (10%)	67,113,113	1.81	11 (16%)
19	CLA	K	1004	-	23,35,73	2.73	8 (34%)	26,60,113	2.42	7 (26%)
19	CLA	A	802	-	59,73,73	1.22	5 (8%)	67,113,113	1.79	13 (19%)
19	CLA	1	515	-	36,53,73	1.66	8 (22%)	39,89,113	1.76	4 (10%)
23	XAT	4	303	-	39,47,47	0.64	0	54,74,74	2.45	13 (24%)
26	DGD	J	1106	-	59,59,67	0.92	4 (6%)	73,73,81	1.06	5 (6%)
22	LMG	2	518	-	25,25,55	0.59	0	33,33,63	1.13	3 (9%)
18	BCR	G	205	-	41,41,41	0.73	0	56,56,56	3.09	11 (19%)
18	BCR	3	303	-	41,41,41	0.65	0	56,56,56	3.22	12 (21%)
19	CLA	4	312	4	44,58,73	1.49	7 (15%)	49,95,113	1.88	9 (18%)
26	DGD	G	207	-	48,48,67	0.59	1 (2%)	62,62,81	1.07	3 (4%)
26	DGD	B	854	-	62,62,67	0.97	5 (8%)	76,76,81	1.00	3 (3%)
19	CLA	B	838	31	59,73,73	1.30	7 (11%)	67,113,113	1.58	6 (8%)
19	CLA	2	505	2	46,60,73	1.47	9 (19%)	51,97,113	1.82	6 (11%)
19	CLA	1	509	-	44,58,73	1.48	7 (15%)	49,95,113	1.91	9 (18%)
19	CLA	2	509	-	44,58,73	1.46	5 (11%)	49,95,113	1.82	7 (14%)
18	BCR	A	852	-	41,41,41	0.63	0	56,56,56	2.90	14 (25%)
19	CLA	A	828	-	59,73,73	1.26	6 (10%)	67,113,113	1.78	5 (7%)
19	CLA	B	831	-	54,68,73	1.33	6 (11%)	61,107,113	1.66	7 (11%)
19	CLA	3	305	-	49,63,73	1.41	6 (12%)	55,101,113	1.97	8 (14%)
19	CLA	1	513	-	59,73,73	1.28	7 (11%)	67,113,113	1.64	8 (11%)
24	LMT	G	208	-	36,36,36	1.15	5 (13%)	47,47,47	0.98	2 (4%)
19	CLA	A	834	-	59,73,73	1.27	6 (10%)	67,113,113	1.62	5 (7%)
19	CLA	K	1003	-	23,35,73	2.72	8 (34%)	26,60,113	2.52	8 (30%)
19	CLA	A	815	-	36,53,73	1.65	8 (22%)	39,89,113	1.86	7 (17%)
19	CLA	B	813	-	40,54,73	1.55	6 (15%)	44,90,113	1.91	7 (15%)
22	LMG	A	847	-	50,50,55	1.03	5 (10%)	58,58,63	0.98	2 (3%)
22	LMG	J	1103	-	30,30,55	0.51	0	38,38,63	1.08	2 (5%)
19	CLA	L	301	-	49,63,73	1.41	7 (14%)	55,101,113	1.83	7 (12%)
19	CLA	B	805	-	59,73,73	1.29	7 (11%)	67,113,113	1.61	4 (5%)
18	BCR	B	851	-	41,41,41	0.66	0	56,56,56	2.67	15 (26%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	812	-	49,63,73	1.43	7 (14%)	55,101,113	1.79	7 (12%)
19	CLA	F	303	10	59,73,73	1.29	6 (10%)	67,113,113	1.58	5 (7%)
18	BCR	J	1108	-	41,41,41	0.60	0	56,56,56	2.87	15 (26%)
22	LMG	4	321	-	13,13,55	0.57	0	18,18,63	0.68	0
19	CLA	3	307	-	49,63,73	1.43	7 (14%)	55,101,113	1.85	9 (16%)
23	XAT	2	502	-	39,47,47	0.62	0	54,74,74	1.72	11 (20%)
18	BCR	A	856	-	41,41,41	0.67	0	56,56,56	3.27	15 (26%)
19	CLA	4	304	4	54,68,73	1.34	6 (11%)	61,107,113	2.00	11 (18%)
19	CLA	B	804	-	59,73,73	1.27	5 (8%)	67,113,113	1.87	11 (16%)
18	BCR	L	307	-	41,41,41	0.69	0	56,56,56	3.34	11 (19%)
19	CLA	A	811	-	59,73,73	1.28	6 (10%)	67,113,113	1.70	6 (8%)
19	CLA	4	318	-	59,73,73	1.25	6 (10%)	67,113,113	1.67	6 (8%)
18	BCR	L	302	-	41,41,41	0.84	0	56,56,56	3.17	15 (26%)
19	CLA	1	506	-	49,63,73	1.40	7 (14%)	55,101,113	1.86	7 (12%)
19	CLA	A	841	-	59,73,73	1.32	6 (10%)	67,113,113	1.59	6 (8%)
24	LMT	G	209	-	32,32,36	1.23	6 (18%)	43,43,47	0.97	1 (2%)
28	SF4	C	102	7	0,12,12	0.00	-	-	-	-
19	CLA	F	302	-	59,73,73	1.31	6 (10%)	67,113,113	1.68	9 (13%)
22	LMG	B	844	-	35,35,55	0.74	1 (2%)	43,43,63	1.08	3 (6%)
18	BCR	3	304	-	41,41,41	0.69	0	56,56,56	3.40	14 (25%)
19	CLA	A	820	-	44,58,73	1.48	7 (15%)	49,95,113	1.89	7 (14%)
17	LUT	2	501	-	42,43,43	2.35	1 (2%)	51,60,60	1.78	9 (17%)
19	CLA	A	816	-	40,54,73	1.56	7 (17%)	44,90,113	1.86	4 (9%)
19	CLA	A	837	-	59,73,73	1.30	8 (13%)	67,113,113	1.58	5 (7%)
19	CLA	A	817	-	59,73,73	1.28	6 (10%)	67,113,113	1.58	5 (7%)
19	CLA	B	812	-	54,68,73	1.38	7 (12%)	61,107,113	1.54	4 (6%)
18	BCR	I	101	-	41,41,41	0.73	0	56,56,56	3.50	16 (28%)
19	CLA	B	807	6	59,73,73	1.26	6 (10%)	67,113,113	1.64	5 (7%)
19	CLA	1	510	-	40,54,73	1.54	5 (12%)	44,90,113	2.43	10 (22%)
17	LUT	1	501	-	42,43,43	2.39	1 (2%)	51,60,60	1.69	10 (19%)
19	CLA	A	836	-	45,59,73	1.46	6 (13%)	50,96,113	1.89	8 (16%)
19	CLA	B	818	-	59,73,73	1.30	8 (13%)	67,113,113	1.60	7 (10%)
20	CHL	2	512	-	41,55,74	1.16	4 (9%)	41,91,114	1.74	11 (26%)
21	LHG	1	520	-	41,41,48	0.45	0	44,47,54	1.15	4 (9%)
19	CLA	A	809	5	59,73,73	1.24	5 (8%)	67,113,113	1.74	9 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	824	-	59,73,73	1.29	7 (11%)	67,113,113	1.56	5 (7%)
19	CLA	2	506	-	59,73,73	1.29	7 (11%)	67,113,113	1.80	8 (11%)
20	CHL	3	314	-	41,55,74	1.06	4 (9%)	41,91,114	1.53	9 (21%)
22	LMG	G	210	-	25,25,55	0.54	0	33,33,63	1.29	4 (12%)
19	CLA	1	511	-	40,54,73	1.55	6 (15%)	44,90,113	1.77	5 (11%)
24	LMT	2	523	-	36,36,36	1.13	5 (13%)	47,47,47	1.00	2 (4%)
19	CLA	K	1001	-	36,53,73	1.64	6 (16%)	39,89,113	1.96	8 (20%)
19	CLA	1	507	1	59,73,73	1.27	6 (10%)	67,113,113	1.65	7 (10%)
18	BCR	B	852	-	41,41,41	0.61	0	56,56,56	2.95	14 (25%)
19	CLA	A	807	-	54,68,73	1.35	5 (9%)	61,107,113	1.75	6 (9%)
19	CLA	B	803	-	59,73,73	1.24	4 (6%)	67,113,113	1.68	5 (7%)
20	CHL	2	526	2	60,74,74	0.86	3 (5%)	64,114,114	1.23	11 (17%)
19	CLA	A	819	-	59,73,73	1.27	6 (10%)	67,113,113	1.63	8 (11%)
19	CLA	J	1105	-	44,58,73	1.46	4 (9%)	49,95,113	2.18	11 (22%)
24	LMT	A	846	-	36,36,36	1.14	5 (13%)	47,47,47	1.13	2 (4%)
17	LUT	J	1109	-	42,43,43	2.28	1 (2%)	51,60,60	1.94	9 (17%)
18	BCR	A	850	-	41,41,41	0.64	0	56,56,56	3.20	14 (25%)
30	ZEX	F	301	-	42,43,43	0.73	0	55,60,60	1.76	11 (20%)
19	CLA	B	827	-	59,73,73	1.26	8 (13%)	67,113,113	1.70	6 (8%)
19	CLA	B	832	-	52,66,73	1.36	5 (9%)	58,104,113	1.80	9 (15%)
24	LMT	4	320	-	36,36,36	1.15	4 (11%)	47,47,47	0.95	3 (6%)
19	CLA	B	814	-	59,73,73	1.27	7 (11%)	67,113,113	1.66	7 (10%)
19	CLA	2	507	2	59,73,73	1.27	5 (8%)	67,113,113	1.75	7 (10%)
19	CLA	L	303	16	44,58,73	1.48	7 (15%)	49,95,113	1.88	6 (12%)
21	LHG	B	843	-	48,48,48	0.40	0	51,54,54	1.01	2 (3%)
19	CLA	B	829	-	59,73,73	1.28	6 (10%)	67,113,113	1.70	9 (13%)
18	BCR	A	851	-	41,41,41	0.66	0	56,56,56	3.23	14 (25%)
19	CLA	2	514	2	49,63,73	1.39	7 (14%)	55,101,113	1.87	7 (12%)
18	BCR	B	853	-	41,41,41	0.63	0	56,56,56	3.06	13 (23%)
19	CLA	4	311	-	40,54,73	1.53	5 (12%)	44,90,113	1.87	5 (11%)
22	LMG	1	519	-	13,13,55	0.56	0	18,18,63	0.89	1 (5%)
22	LMG	2	521	-	13,13,55	0.59	0	18,18,63	0.75	0
19	CLA	2	511	-	44,58,73	1.49	7 (15%)	49,95,113	1.93	6 (12%)
22	LMG	1	518	-	46,46,55	0.92	3 (6%)	54,54,63	1.04	2 (3%)
17	LUT	3	301	-	42,43,43	2.41	1 (2%)	51,60,60	1.68	7 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	B	809	-	59,73,73	1.29	7 (11%)	67,113,113	1.59	6 (8%)
20	CHL	4	313	-	41,55,74	1.05	4 (9%)	41,91,114	1.48	11 (26%)
19	CLA	A	842	21	54,68,73	1.33	7 (12%)	61,107,113	1.75	6 (9%)
19	CLA	A	818	-	50,64,73	1.39	8 (16%)	56,102,113	1.77	7 (12%)
19	CLA	B	811	-	59,73,73	1.31	7 (11%)	67,113,113	1.63	8 (11%)
19	CLA	B	835	-	49,63,73	1.41	6 (12%)	55,101,113	1.67	5 (9%)
19	CLA	A	831	-	59,73,73	1.27	4 (6%)	67,113,113	1.69	9 (13%)
19	CLA	3	317	-	40,54,73	1.57	8 (20%)	44,90,113	1.74	4 (9%)
19	CLA	A	803	31	59,73,73	1.26	6 (10%)	67,113,113	1.73	7 (10%)
21	LHG	1	517	-	48,48,48	0.41	0	51,54,54	1.09	4 (7%)
22	LMG	J	1104	-	34,34,55	0.46	0	42,42,63	1.23	5 (11%)
19	CLA	1	505	1	40,54,73	1.57	8 (20%)	44,90,113	1.82	4 (9%)
19	CLA	4	307	4	54,68,73	1.32	5 (9%)	61,107,113	1.77	9 (14%)
19	CLA	H	1000	-	54,68,73	1.35	8 (14%)	61,107,113	1.75	7 (11%)
19	CLA	2	504	2	54,68,73	1.32	6 (11%)	61,107,113	1.83	7 (11%)
19	CLA	A	829	-	59,73,73	1.26	8 (13%)	67,113,113	1.64	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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	A	840	31	3/3/20/25	16/37/135/135	-
19	CLA	3	308	-	2/2/20/25	22/37/135/135	-
19	CLA	4	309	-	3/3/17/25	12/19/117/135	-
26	DGD	B	801	-	-	21/30/70/95	0/2/2/2
18	BCR	B	802	-	-	5/29/63/63	0/2/2/2
19	CLA	A	838	-	3/3/20/25	14/37/135/135	-
18	BCR	A	849	-	-	11/29/63/63	0/2/2/2
20	CHL	1	514	1	4/4/19/26	11/33/131/137	-
24	LMT	3	318	-	-	4/17/57/61	0/2/2/2
19	CLA	3	306	-	2/2/17/25	8/22/120/135	-
19	CLA	A	808	5	3/3/20/25	19/37/135/135	-
19	CLA	B	815	-	3/3/20/25	10/37/135/135	-
28	SF4	A	843	5,6	-	-	0/6/5/5

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	B	824	31	2/2/20/25	15/37/135/135	-
19	CLA	L	304	-	3/3/19/25	12/31/129/135	-
19	CLA	A	821	-	3/3/20/25	17/37/135/135	-
20	CHL	2	516	2	4/4/18/26	7/27/125/137	-
18	BCR	4	301	-	-	13/29/63/63	0/2/2/2
19	CLA	A	810	-	3/3/17/25	6/19/117/135	-
19	CLA	1	516	1	3/3/19/25	11/31/129/135	-
19	CLA	B	834	31	3/3/18/25	12/25/123/135	-
19	CLA	A	832	-	2/2/20/25	11/37/135/135	-
18	BCR	B	850	-	-	10/29/63/63	0/2/2/2
26	DGD	B	854	-	-	19/50/90/95	0/2/2/2
19	CLA	A	805	-	3/3/20/25	28/37/135/135	-
19	CLA	B	808	-	3/3/20/25	19/37/135/135	-
19	CLA	A	804	-	3/3/20/25	22/37/135/135	-
19	CLA	B	833	-	3/3/19/25	10/31/129/135	-
19	CLA	J	1102	31	3/3/16/25	3/11/111/135	-
20	CHL	2	513	-	3/3/16/26	1/18/116/137	-
18	BCR	A	848	-	-	10/29/63/63	0/2/2/2
20	CHL	1	512	-	3/3/16/26	3/17/115/137	-
24	LMT	G	209	-	-	13/17/57/61	0/2/2/2
20	CHL	2	512	-	3/3/16/26	2/17/115/137	-
17	LUT	2	501	-	1/1/12/27	5/29/67/67	0/2/2/2
19	CLA	G	201	-	3/3/20/25	20/37/135/135	-
22	LMG	F	305	-	-	10/31/51/70	0/1/1/1
19	CLA	K	1002	-	3/3/19/25	19/31/129/135	-
19	CLA	2	510	21	3/3/19/25	15/31/129/135	-
19	CLA	B	830	-	2/2/20/25	13/37/135/135	-
19	CLA	3	315	3	3/3/17/25	7/19/117/135	-
19	CLA	G	204	31	3/3/20/25	18/37/135/135	-
22	LMG	2	525	-	-	0/4/24/70	0/1/1/1
18	BCR	I	102	-	-	14/29/63/63	0/2/2/2
22	LMG	1	518	-	-	12/41/61/70	0/1/1/1
19	CLA	B	820	31	2/2/20/25	16/37/135/135	-
18	BCR	J	1108	-	-	9/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	A	825	31	2/2/20/25	14/37/135/135	-
19	CLA	3	316	-	2/2/16/25	11/15/113/135	-
19	CLA	3	313	3	3/3/19/25	16/31/129/135	-
29	PQN	A	844	-	-	7/23/43/43	0/2/2/2
19	CLA	2	508	-	3/3/18/25	7/25/123/135	-
19	CLA	B	826	-	3/3/20/25	6/37/135/135	-
19	CLA	4	306	-	3/3/20/25	16/37/135/135	-
19	CLA	B	837	-	2/2/17/25	5/19/117/135	-
19	CLA	B	816	-	3/3/18/25	8/25/123/135	-
17	LUT	3	302	-	1/1/12/27	8/29/67/67	0/2/2/2
19	CLA	A	827	-	3/3/20/25	16/37/135/135	-
19	CLA	A	833	-	3/3/20/25	20/37/135/135	-
22	LMG	4	322	-	-	13/40/60/70	0/1/1/1
19	CLA	1	508	-	2/2/20/25	22/37/135/135	-
19	CLA	4	305	4	2/2/17/25	6/19/117/135	-
18	BCR	B	852	-	-	11/29/63/63	0/2/2/2
18	BCR	1	503	-	-	7/11/28/63	0/1/1/2
28	SF4	C	101	7	-	-	0/6/5/5
21	LHG	2	517	19	-	15/39/39/53	-
20	CHL	2	515	-	3/3/16/26	3/13/113/137	-
19	CLA	B	817	-	3/3/19/25	8/31/129/135	-
19	CLA	A	839	-	3/3/20/25	14/37/135/135	-
21	LHG	A	845	19	-	27/44/44/53	-
22	LMG	B	845	-	-	13/28/48/70	0/1/1/1
17	LUT	1	502	-	1/1/12/27	9/29/67/67	0/2/2/2
24	LMT	J	1107	-	-	7/11/51/61	0/2/2/2
18	BCR	3	304	-	-	16/29/63/63	0/2/2/2
24	LMT	B	846	-	-	11/21/61/61	0/2/2/2
17	LUT	4	302	-	-	3/29/67/67	0/2/2/2
19	CLA	B	838	31	3/3/20/25	11/37/135/135	-
19	CLA	4	310	-	3/3/19/25	12/31/129/135	-
19	CLA	A	854	31	2/2/20/25	16/37/135/135	-
24	LMT	B	847	-	-	6/18/58/61	0/2/2/2
19	CLA	4	315	4	3/3/20/25	15/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	A	823	-	3/3/19/25	13/31/129/135	-
19	CLA	B	823	-	3/3/18/25	13/25/123/135	-
19	CLA	L	305	31	3/3/17/25	10/19/117/135	-
19	CLA	A	822	-	3/3/19/25	14/31/129/135	-
22	LMG	2	520	-	-	0/4/24/70	0/1/1/1
19	CLA	G	203	11	3/3/16/25	6/15/113/135	-
19	CLA	A	813	-	3/3/20/25	11/37/135/135	-
22	LMG	2	519	-	-	17/31/51/70	0/1/1/1
18	BCR	F	306	-	-	8/29/63/63	0/2/2/2
19	CLA	A	835	5	2/2/18/25	10/25/123/135	-
19	CLA	3	310	31	3/3/17/25	6/19/117/135	-
19	CLA	B	828	-	3/3/20/25	18/37/135/135	-
19	CLA	B	822	-	3/3/20/25	20/37/135/135	-
27	CL0	A	801	-	3/3/20/25	7/37/135/135	-
22	LMG	F	304	-	-	11/42/62/70	0/1/1/1
20	CHL	4	317	4	3/3/15/26	2/12/110/137	-
19	CLA	3	311	-	3/3/15/25	5/8/106/135	-
18	BCR	B	849	-	-	10/29/63/63	0/2/2/2
19	CLA	B	806	-	2/2/20/25	18/37/135/135	-
19	CLA	B	839	-	3/3/20/25	19/37/135/135	-
19	CLA	B	836	-	2/2/20/25	11/37/135/135	-
19	CLA	A	830	-	3/3/20/25	16/37/135/135	-
19	CLA	B	840	21	2/2/20/25	18/37/135/135	-
19	CLA	A	814	-	2/2/20/25	16/37/135/135	-
19	CLA	B	810	6	3/3/20/25	12/37/135/135	-
19	CLA	G	202	-	2/2/18/25	13/25/123/135	-
18	BCR	A	852	-	-	12/29/63/63	0/2/2/2
19	CLA	1	504	1	3/3/20/25	14/37/135/135	-
18	BCR	2	503	-	-	11/29/63/63	0/2/2/2
21	LHG	A	853	-	-	30/53/53/53	-
21	LHG	B	842	19	-	12/23/23/53	-
20	CHL	1	521	1	4/4/18/26	7/27/125/137	-
19	CLA	A	806	5	3/3/20/25	21/37/135/135	-
18	BCR	B	853	-	-	10/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	PQN	B	841	-	-	12/23/43/43	0/2/2/2
18	BCR	3	303	-	-	12/29/63/63	0/2/2/2
19	CLA	A	855	-	3/3/20/25	19/37/135/135	-
19	CLA	A	826	31	3/3/18/25	9/25/123/135	-
22	LMG	2	524	-	-	1/4/24/70	0/1/1/1
19	CLA	B	821	-	3/3/16/25	7/15/113/135	-
24	LMT	B	855	-	-	4/17/57/61	0/2/2/2
19	CLA	3	309	-	1/1/18/25	9/25/123/135	-
18	BCR	L	306	-	-	8/29/63/63	0/2/2/2
26	DGD	4	319	-	-	17/40/80/95	0/2/2/2
18	BCR	B	856	-	-	13/29/63/63	0/2/2/2
22	LMG	G	206	-	-	18/45/65/70	0/1/1/1
19	CLA	B	819	-	3/3/20/25	18/37/135/135	-
19	CLA	K	1004	-	3/3/8/25	-	-
19	CLA	J	1101	-	2/2/20/25	13/37/135/135	-
19	CLA	2	507	2	3/3/20/25	13/37/135/135	-
19	CLA	A	802	-	3/3/20/25	19/37/135/135	-
19	CLA	1	515	-	3/3/16/25	4/11/111/135	-
23	XAT	4	303	-	2/2/12/26	0/31/93/93	0/4/4/4
26	DGD	J	1106	-	-	14/47/87/95	0/2/2/2
22	LMG	2	518	-	-	6/20/40/70	0/1/1/1
18	BCR	G	205	-	-	11/29/63/63	0/2/2/2
20	CHL	4	314	31	3/3/17/26	4/21/119/137	-
19	CLA	4	312	4	2/2/17/25	6/19/117/135	-
26	DGD	G	207	-	-	10/36/76/95	0/2/2/2
19	CLA	A	834	-	2/2/20/25	17/37/135/135	-
18	BCR	K	1005	-	-	12/29/63/63	0/2/2/2
19	CLA	2	505	2	2/2/17/25	7/22/120/135	-
19	CLA	1	509	-	3/3/17/25	8/19/117/135	-
19	CLA	2	509	-	3/3/17/25	11/19/117/135	-
19	CLA	B	825	31	3/3/20/25	22/37/135/135	-
19	CLA	A	828	-	3/3/20/25	22/37/135/135	-
19	CLA	B	831	-	3/3/19/25	17/31/129/135	-
19	CLA	3	305	-	3/3/18/25	16/25/123/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	1	513	-	3/3/20/25	17/37/135/135	-
24	LMT	G	208	-	-	9/21/61/61	0/2/2/2
19	CLA	K	1003	-	2/2/8/25	-	-
19	CLA	A	815	-	3/3/16/25	6/11/111/135	-
19	CLA	B	813	-	3/3/16/25	3/15/113/135	-
22	LMG	A	847	-	-	15/45/65/70	0/1/1/1
22	LMG	J	1103	-	-	4/25/45/70	0/1/1/1
19	CLA	L	301	-	3/3/18/25	8/25/123/135	-
19	CLA	B	805	-	3/3/20/25	19/37/135/135	-
19	CLA	A	812	-	2/2/18/25	11/25/123/135	-
19	CLA	F	303	10	1/1/20/25	18/37/135/135	-
19	CLA	1	507	1	3/3/20/25	14/37/135/135	-
22	LMG	4	321	-	-	0/4/24/70	0/1/1/1
23	XAT	2	502	-	-	5/31/93/93	0/4/4/4
18	BCR	A	856	-	-	13/29/63/63	0/2/2/2
21	LHG	1	517	-	-	28/53/53/53	-
19	CLA	4	304	4	3/3/19/25	10/31/129/135	-
19	CLA	B	804	-	3/3/20/25	13/37/135/135	-
18	BCR	L	307	-	-	11/29/63/63	0/2/2/2
19	CLA	A	811	-	3/3/20/25	16/37/135/135	-
19	CLA	4	318	-	3/3/20/25	13/37/135/135	-
18	BCR	L	302	-	-	6/29/63/63	0/2/2/2
19	CLA	1	506	-	3/3/18/25	8/25/123/135	-
19	CLA	A	841	-	3/3/20/25	4/37/135/135	-
20	CHL	4	316	-	4/4/19/26	8/33/131/137	-
28	SF4	C	102	7	-	-	0/6/5/5
19	CLA	F	302	-	3/3/20/25	13/37/135/135	-
22	LMG	B	844	-	-	11/30/50/70	0/1/1/1
19	CLA	3	312	-	2/2/16/25	7/17/115/135	-
19	CLA	A	820	-	2/2/17/25	8/19/117/135	-
19	CLA	A	816	-	3/3/16/25	6/15/113/135	-
19	CLA	A	837	-	3/3/20/25	9/37/135/135	-
19	CLA	A	817	-	3/3/20/25	17/37/135/135	-
19	CLA	B	812	-	3/3/19/25	13/31/129/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	BCR	I	101	-	-	11/29/63/63	0/2/2/2
19	CLA	B	807	6	2/2/20/25	13/37/135/135	-
19	CLA	1	510	-	3/3/16/25	7/15/113/135	-
17	LUT	1	501	-	-	3/29/67/67	0/2/2/2
19	CLA	A	836	-	1/1/17/25	9/21/119/135	-
19	CLA	B	818	-	3/3/20/25	16/37/135/135	-
21	LHG	1	520	-	-	26/46/46/53	-
19	CLA	A	809	5	3/3/20/25	17/37/135/135	-
19	CLA	A	824	-	3/3/20/25	18/37/135/135	-
19	CLA	2	506	-	3/3/20/25	14/37/135/135	-
20	CHL	3	314	-	3/3/16/26	4/17/115/137	-
22	LMG	G	210	-	-	10/20/40/70	0/1/1/1
19	CLA	1	511	-	3/3/16/25	7/15/113/135	-
24	LMT	2	523	-	-	10/21/61/61	0/2/2/2
19	CLA	K	1001	-	3/3/16/25	8/11/111/135	-
19	CLA	B	809	-	3/3/20/25	10/37/135/135	-
19	CLA	A	807	-	3/3/19/25	17/31/129/135	-
19	CLA	B	803	-	3/3/20/25	8/37/135/135	-
20	CHL	2	526	2	4/4/20/26	10/39/137/137	-
19	CLA	A	819	-	3/3/20/25	16/37/135/135	-
18	BCR	A	850	-	-	5/29/63/63	0/2/2/2
19	CLA	J	1105	-	3/3/17/25	10/19/117/135	-
24	LMT	A	846	-	-	8/21/61/61	0/2/2/2
17	LUT	J	1109	-	1/1/12/27	6/29/67/67	0/2/2/2
19	CLA	A	842	21	3/3/19/25	13/31/129/135	-
30	ZEX	F	301	-	-	3/29/67/67	0/2/2/2
19	CLA	B	827	-	2/2/20/25	19/37/135/135	-
19	CLA	B	832	-	3/3/18/25	11/29/127/135	-
24	LMT	4	320	-	-	4/21/61/61	0/2/2/2
19	CLA	B	814	-	3/3/20/25	18/37/135/135	-
19	CLA	L	303	16	3/3/17/25	7/19/117/135	-
21	LHG	B	843	-	-	28/53/53/53	-
19	CLA	B	829	-	3/3/20/25	20/37/135/135	-
18	BCR	A	851	-	-	12/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	2	514	2	3/3/18/25	7/25/123/135	-
19	CLA	4	308	4	1/1/19/25	13/31/129/135	-
19	CLA	4	311	-	2/2/16/25	6/15/113/135	-
22	LMG	1	519	-	-	1/4/24/70	0/1/1/1
22	LMG	2	521	-	-	0/4/24/70	0/1/1/1
19	CLA	2	511	-	3/3/17/25	10/19/117/135	-
22	LMG	2	522	-	-	4/4/24/70	0/1/1/1
17	LUT	3	301	-	-	3/29/67/67	0/2/2/2
18	BCR	B	851	-	-	11/29/63/63	0/2/2/2
20	CHL	4	313	-	3/3/16/26	0/17/115/137	-
19	CLA	3	307	-	3/3/18/25	13/25/123/135	-
19	CLA	A	818	-	3/3/18/25	15/27/125/135	-
19	CLA	B	811	-	3/3/20/25	17/37/135/135	-
19	CLA	B	835	-	1/1/18/25	10/25/123/135	-
19	CLA	A	831	-	3/3/20/25	13/37/135/135	-
19	CLA	3	317	-	2/2/16/25	6/15/113/135	-
19	CLA	A	803	31	2/2/20/25	8/37/135/135	-
19	CLA	2	504	2	3/3/19/25	9/31/129/135	-
22	LMG	J	1104	-	-	12/29/49/70	0/1/1/1
19	CLA	1	505	1	1/1/16/25	6/15/113/135	-
19	CLA	4	307	4	3/3/19/25	13/31/129/135	-
19	CLA	H	1000	-	2/2/19/25	10/31/129/135	-
19	CLA	A	829	-	3/3/20/25	19/37/135/135	-

The worst 5 of 1074 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	4	302	LUT	C24-C25	14.95	1.51	1.33
17	3	301	LUT	C24-C25	14.77	1.51	1.33
17	1	501	LUT	C24-C25	14.56	1.51	1.33
17	1	502	LUT	C24-C25	14.52	1.51	1.33
17	2	501	LUT	C24-C25	14.34	1.51	1.33

The worst 5 of 1733 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	B	802	BCR	C16-C15-C14	18.74	161.87	123.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	I	101	BCR	C16-C15-C14	15.15	154.50	123.47
18	B	849	BCR	C21-C20-C19	14.35	168.01	123.22
18	3	304	BCR	C16-C15-C14	13.99	152.13	123.47
18	3	304	BCR	C21-C20-C19	13.99	166.87	123.22

5 of 435 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
19	A	840	CLA	NC
19	A	840	CLA	ND
19	A	840	CLA	NA
19	3	308	CLA	ND
19	3	308	CLA	NA

5 of 2681 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
19	A	840	CLA	C2-C1-O2A-CGA
19	A	840	CLA	CBD-CGD-O2D-CED
19	A	840	CLA	C2-C3-C5-C6
19	A	840	CLA	C4-C3-C5-C6
19	3	308	CLA	C2-C1-O2A-CGA

There are no ring outliers.

228 monomers are involved in 966 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	A	840	CLA	4	0
19	3	308	CLA	14	0
19	4	309	CLA	11	0
26	B	801	DGD	5	0
18	B	802	BCR	4	0
19	A	838	CLA	3	0
18	A	849	BCR	1	0
20	1	514	CHL	9	0
24	3	318	LMT	1	0
19	3	306	CLA	6	0
19	A	808	CLA	7	0
19	B	815	CLA	6	0
19	B	824	CLA	7	0
19	L	304	CLA	4	0
19	A	821	CLA	11	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
20	2	516	CHL	3	0
18	4	301	BCR	9	0
19	A	810	CLA	5	0
19	1	516	CLA	5	0
19	B	834	CLA	6	0
19	A	832	CLA	8	0
18	B	850	BCR	1	0
19	A	805	CLA	10	0
19	B	808	CLA	7	0
19	A	804	CLA	6	0
19	B	833	CLA	7	0
19	J	1102	CLA	5	0
20	2	513	CHL	6	0
18	A	848	BCR	1	0
20	1	512	CHL	7	0
18	2	503	BCR	13	0
19	G	201	CLA	8	0
22	F	305	LMG	2	0
19	K	1002	CLA	4	0
19	2	510	CLA	5	0
19	B	830	CLA	11	0
19	3	315	CLA	6	0
19	G	204	CLA	12	0
18	I	102	BCR	5	0
19	B	820	CLA	9	0
19	A	825	CLA	10	0
19	3	316	CLA	5	0
19	3	313	CLA	4	0
29	A	844	PQN	4	0
19	2	508	CLA	5	0
19	B	826	CLA	5	0
19	4	306	CLA	6	0
19	B	837	CLA	5	0
19	B	816	CLA	4	0
17	3	302	LUT	6	0
19	A	827	CLA	5	0
19	A	833	CLA	7	0
22	4	322	LMG	4	0
19	1	508	CLA	13	0
19	4	305	CLA	3	0
18	1	503	BCR	4	0
21	2	517	LHG	9	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
20	2	515	CHL	4	0
19	B	817	CLA	3	0
19	A	839	CLA	6	0
21	A	845	LHG	7	0
22	B	845	LMG	2	0
17	1	502	LUT	6	0
24	J	1107	LMT	1	0
24	B	846	LMT	3	0
17	4	302	LUT	3	0
18	K	1005	BCR	7	0
20	4	314	CHL	6	0
19	4	310	CLA	7	0
19	A	854	CLA	11	0
24	B	847	LMT	3	0
19	4	315	CLA	5	0
19	A	823	CLA	3	0
19	B	823	CLA	8	0
19	L	305	CLA	2	0
19	A	822	CLA	4	0
19	G	203	CLA	2	0
19	A	813	CLA	8	0
22	2	519	LMG	6	0
18	F	306	BCR	1	0
19	A	835	CLA	4	0
19	3	310	CLA	5	0
19	B	828	CLA	4	0
19	B	822	CLA	6	0
27	A	801	CLO	8	0
22	F	304	LMG	8	0
20	4	317	CHL	5	0
18	B	849	BCR	2	0
19	B	806	CLA	6	0
19	B	839	CLA	5	0
19	B	836	CLA	4	0
19	A	830	CLA	9	0
19	B	840	CLA	16	0
19	A	814	CLA	2	0
19	B	810	CLA	4	0
19	G	202	CLA	3	0
19	B	825	CLA	10	0
19	1	504	CLA	10	0
21	A	853	LHG	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	B	842	LHG	2	0
20	1	521	CHL	8	0
19	A	806	CLA	6	0
19	4	308	CLA	5	0
29	B	841	PQN	8	0
19	A	855	CLA	10	0
19	A	826	CLA	5	0
22	2	524	LMG	1	0
20	4	316	CHL	10	0
24	B	855	LMT	3	0
19	3	309	CLA	3	0
18	L	306	BCR	2	0
26	4	319	DGD	6	0
18	B	856	BCR	6	0
22	G	206	LMG	5	0
19	B	819	CLA	11	0
28	A	843	SF4	1	0
19	J	1101	CLA	13	0
19	K	1004	CLA	2	0
19	A	802	CLA	13	0
19	1	515	CLA	8	0
23	4	303	XAT	10	0
26	J	1106	DGD	6	0
22	2	518	LMG	2	0
18	G	205	BCR	3	0
18	3	303	BCR	7	0
19	4	312	CLA	4	0
26	G	207	DGD	1	0
26	B	854	DGD	9	0
19	B	838	CLA	9	0
19	2	505	CLA	4	0
19	1	509	CLA	3	0
19	2	509	CLA	2	0
18	A	852	BCR	6	0
19	A	828	CLA	9	0
19	B	831	CLA	5	0
19	3	305	CLA	20	0
19	1	513	CLA	2	0
24	G	208	LMT	4	0
19	A	834	CLA	6	0
19	K	1003	CLA	1	0
19	A	815	CLA	1	0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Clashes</b>	<b>Symm-Clashes</b>
19	B	813	CLA	2	0
22	A	847	LMG	3	0
22	J	1103	LMG	1	0
19	L	301	CLA	2	0
19	B	805	CLA	7	0
18	B	851	BCR	5	0
19	A	812	CLA	6	0
19	F	303	CLA	7	0
18	J	1108	BCR	4	0
19	3	307	CLA	6	0
23	2	502	XAT	4	0
18	A	856	BCR	3	0
19	4	304	CLA	6	0
19	B	804	CLA	4	0
18	L	307	BCR	2	0
19	A	811	CLA	12	0
19	4	318	CLA	9	0
18	L	302	BCR	4	0
19	A	841	CLA	8	0
24	G	209	LMT	1	0
28	C	102	SF4	2	0
19	F	302	CLA	5	0
22	B	844	LMG	4	0
18	3	304	BCR	4	0
19	A	820	CLA	1	0
17	2	501	LUT	8	0
19	A	816	CLA	1	0
19	A	837	CLA	6	0
19	A	817	CLA	3	0
19	B	812	CLA	7	0
18	I	101	BCR	7	0
19	B	807	CLA	3	0
19	1	510	CLA	8	0
17	1	501	LUT	6	0
19	A	836	CLA	6	0
19	B	818	CLA	7	0
20	2	512	CHL	9	0
21	1	520	LHG	10	0
19	A	809	CLA	9	0
19	A	824	CLA	15	0
19	2	506	CLA	5	0
20	3	314	CHL	9	0

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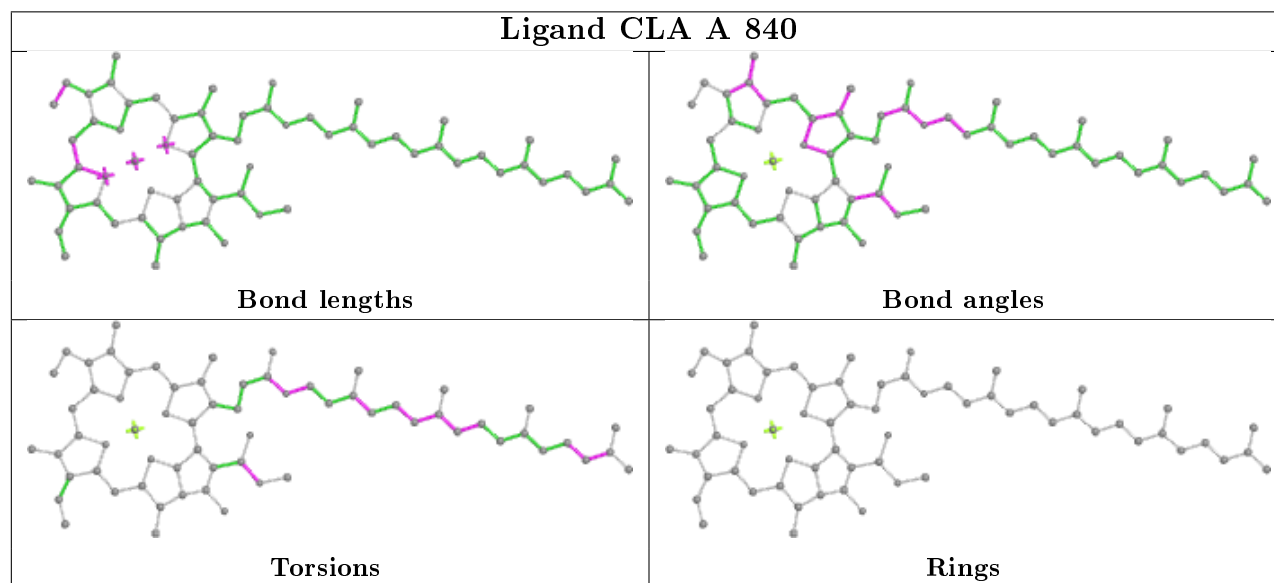
Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	G	210	LMG	1	0
19	1	511	CLA	1	0
19	K	1001	CLA	6	0
19	1	507	CLA	8	0
18	B	852	BCR	4	0
19	A	807	CLA	5	0
19	B	803	CLA	7	0
20	2	526	CHL	11	0
19	A	819	CLA	8	0
19	J	1105	CLA	9	0
24	A	846	LMT	3	0
17	J	1109	LUT	8	0
18	A	850	BCR	5	0
30	F	301	ZEX	6	0
19	B	827	CLA	4	0
19	B	832	CLA	7	0
24	4	320	LMT	3	0
19	B	814	CLA	5	0
19	2	507	CLA	6	0
19	L	303	CLA	3	0
21	B	843	LHG	6	0
19	B	829	CLA	9	0
18	A	851	BCR	5	0
19	2	514	CLA	3	0
18	B	853	BCR	6	0
19	4	311	CLA	2	0
19	2	511	CLA	4	0
22	1	518	LMG	3	0
17	3	301	LUT	13	0
19	B	809	CLA	7	0
20	4	313	CHL	2	0
19	A	842	CLA	9	0
19	A	818	CLA	11	0
19	B	811	CLA	5	0
19	B	835	CLA	5	0
19	A	831	CLA	6	0
19	3	317	CLA	5	0
19	A	803	CLA	6	0
21	1	517	LHG	7	0
22	J	1104	LMG	2	0
19	1	505	CLA	1	0
19	4	307	CLA	10	0

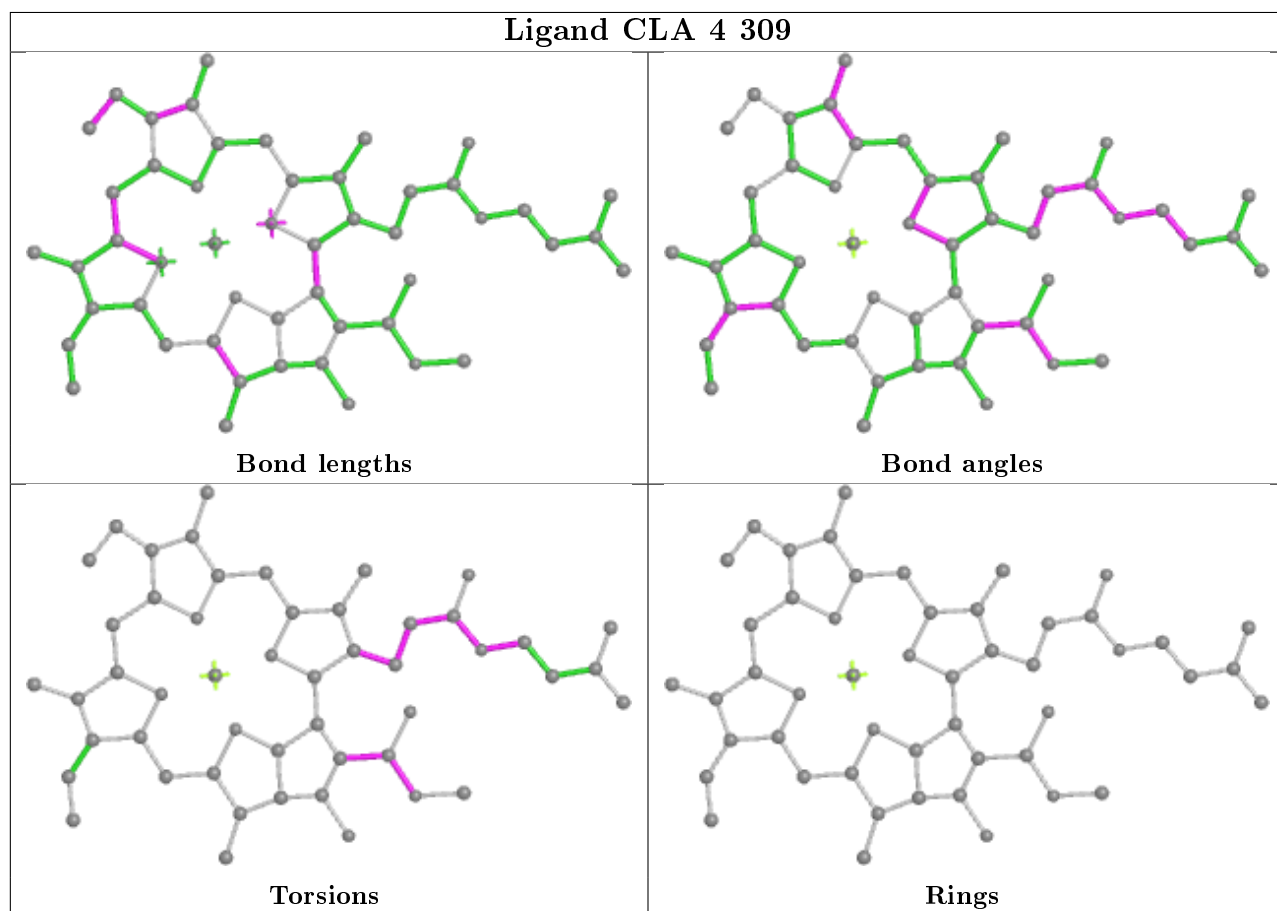
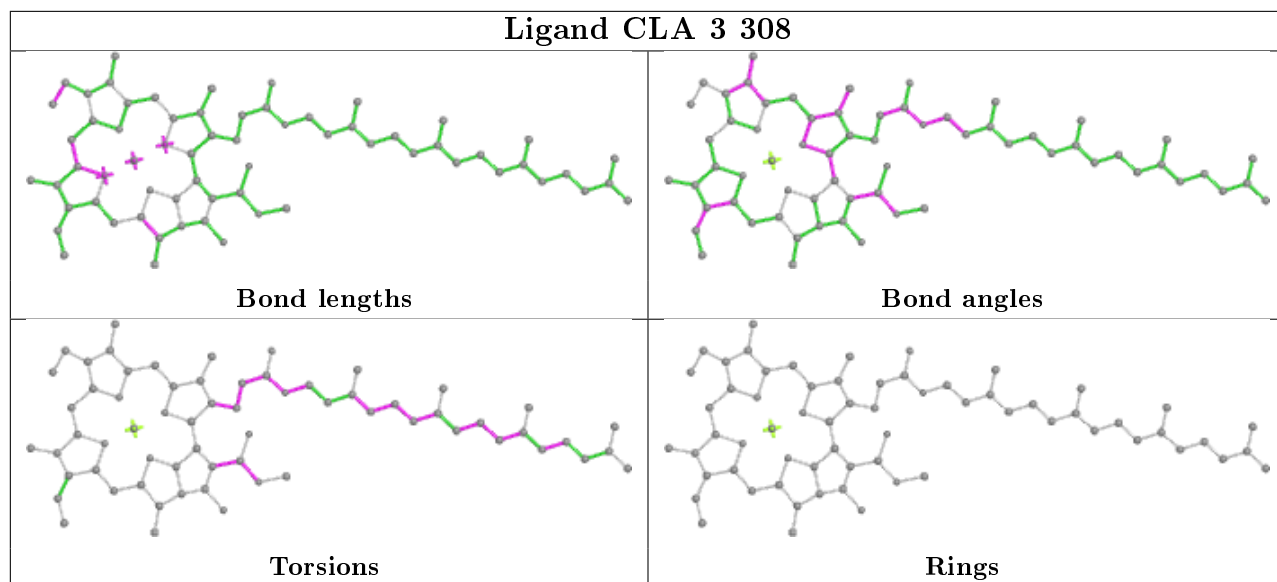
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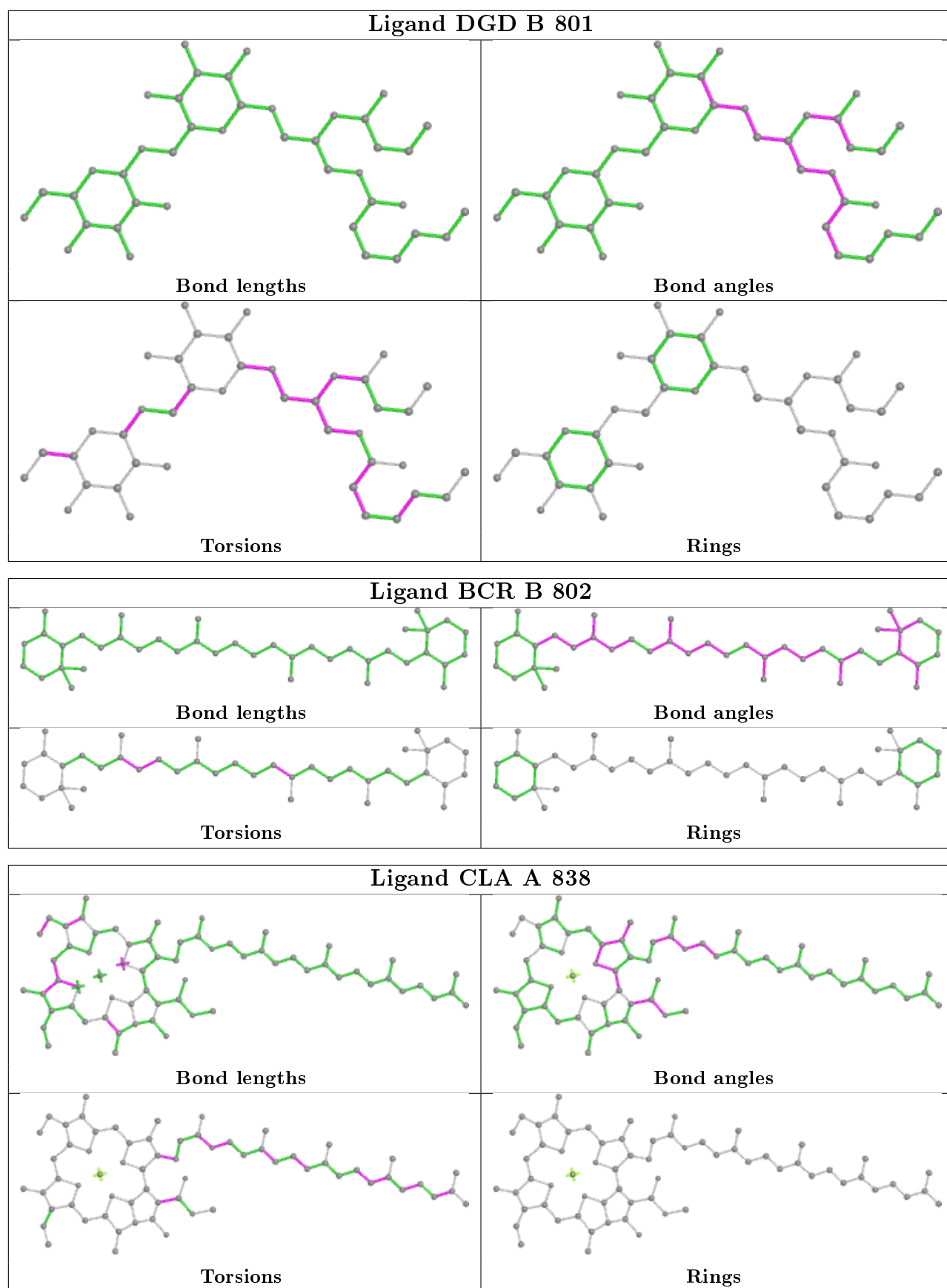
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	H	1000	CLA	4	0
19	2	504	CLA	7	0
19	A	829	CLA	5	0

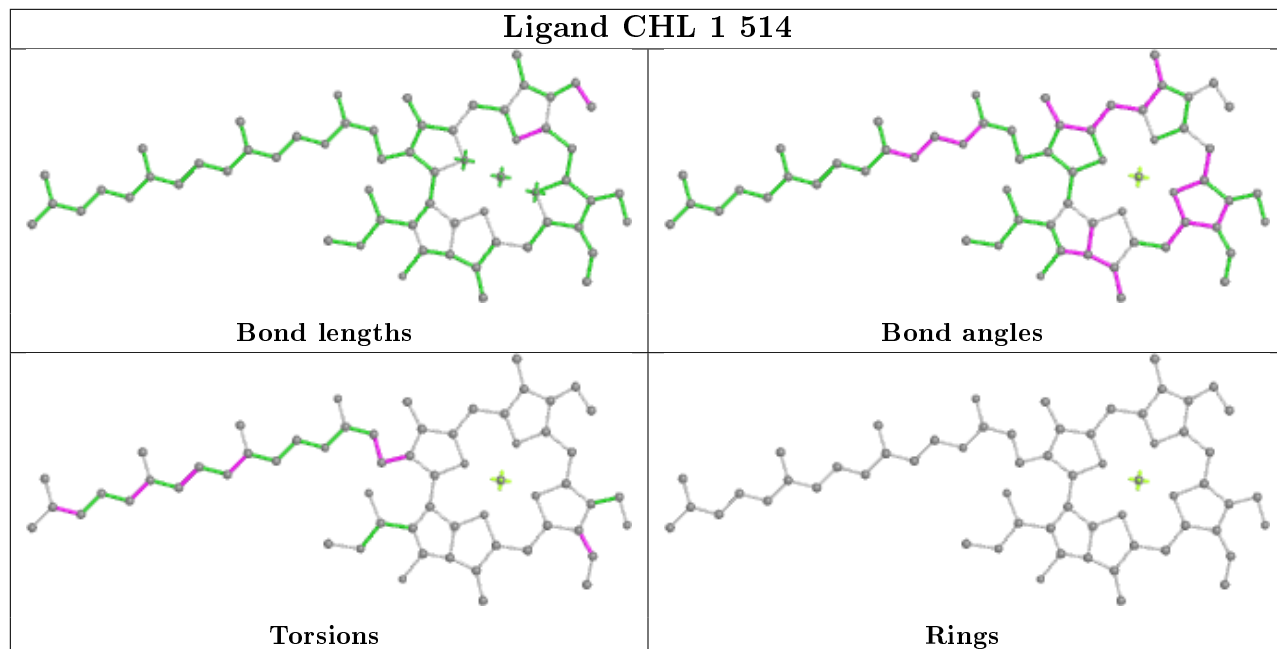
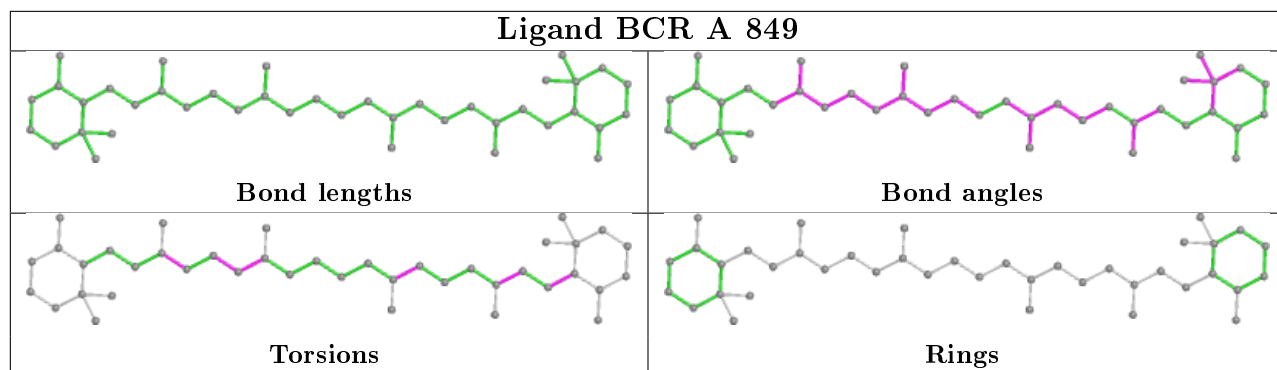
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

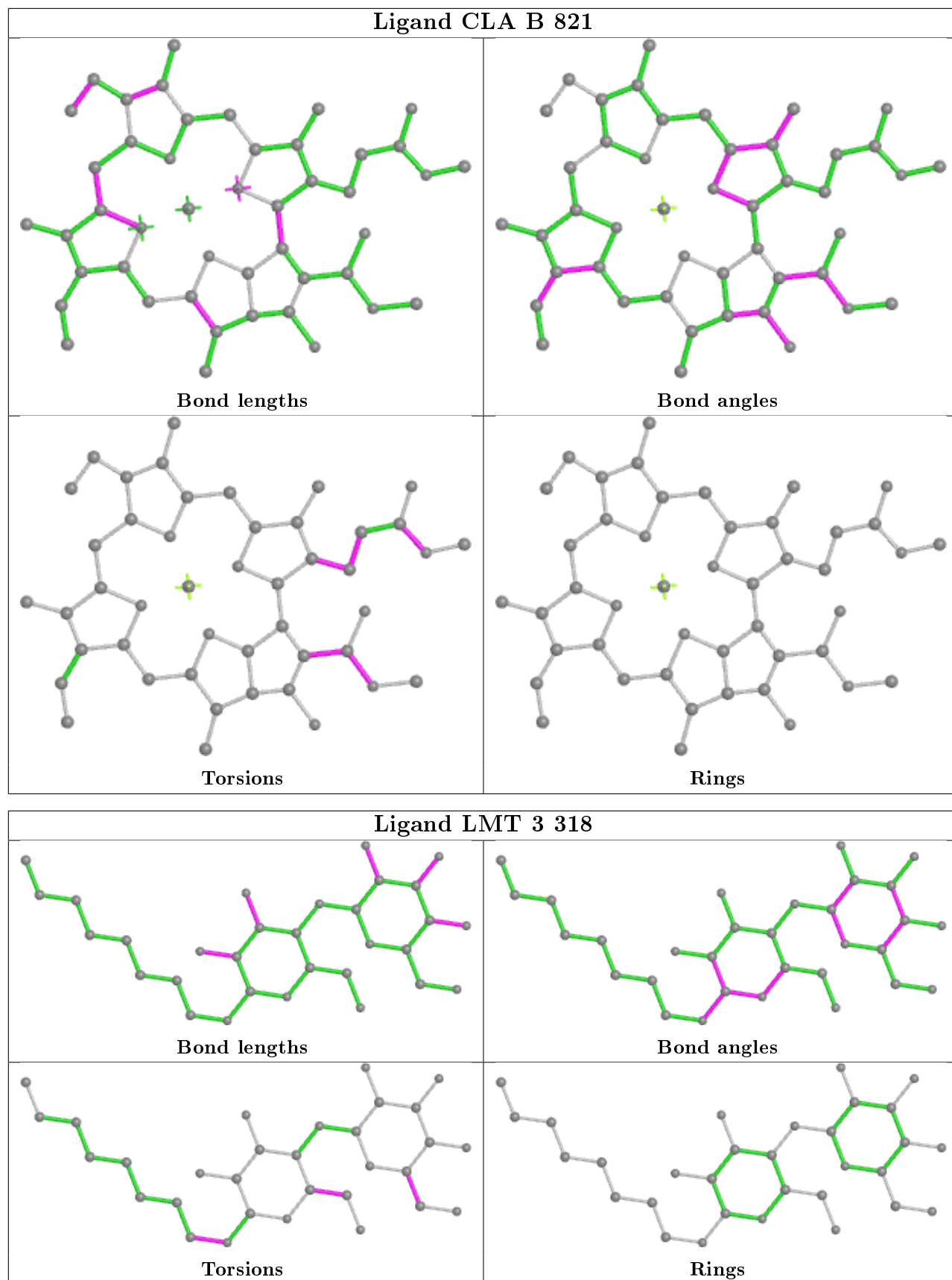


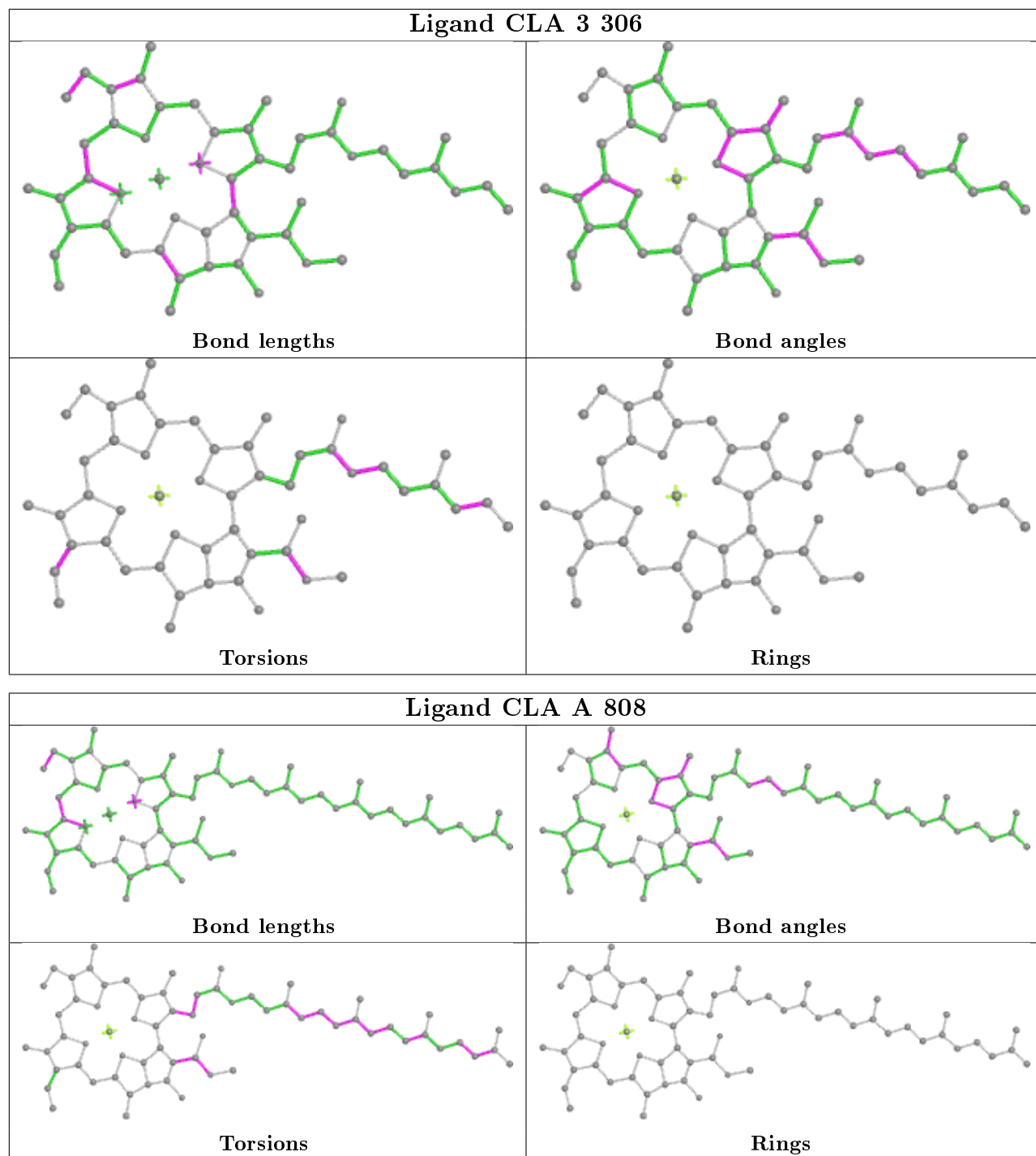


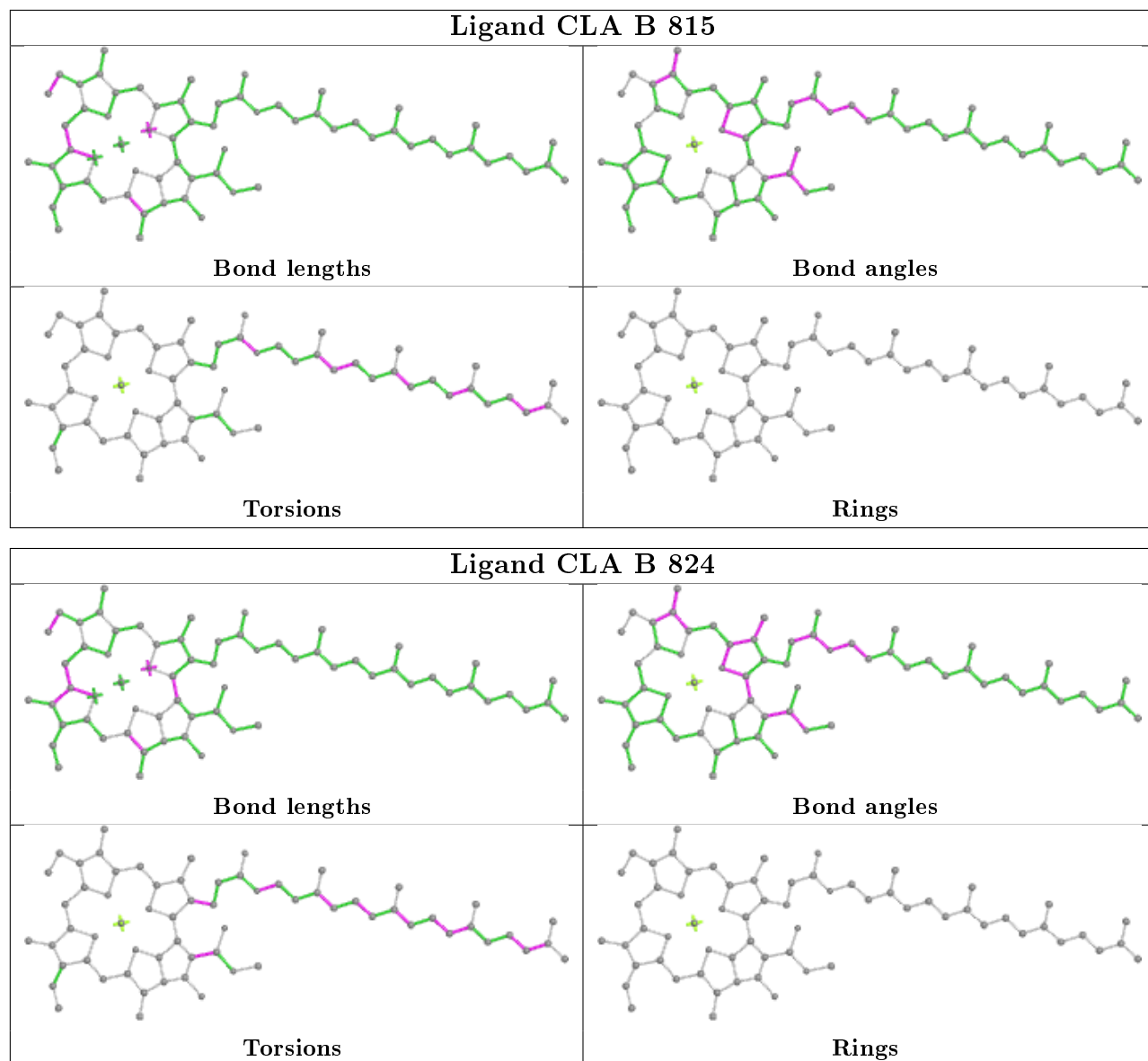


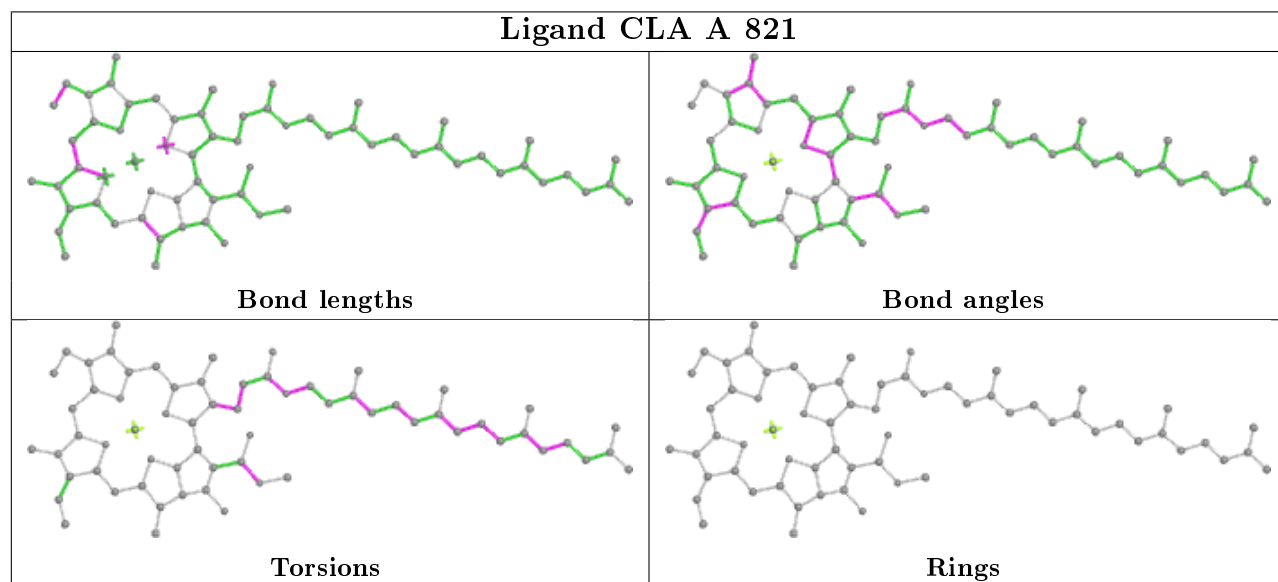
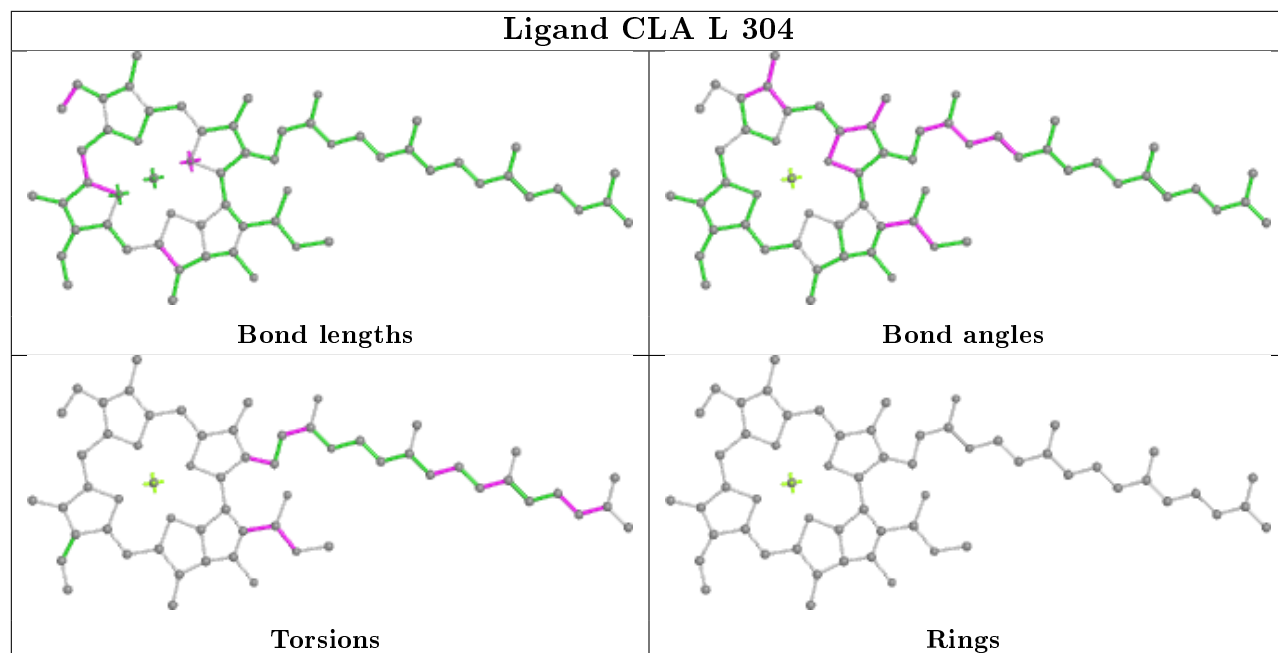


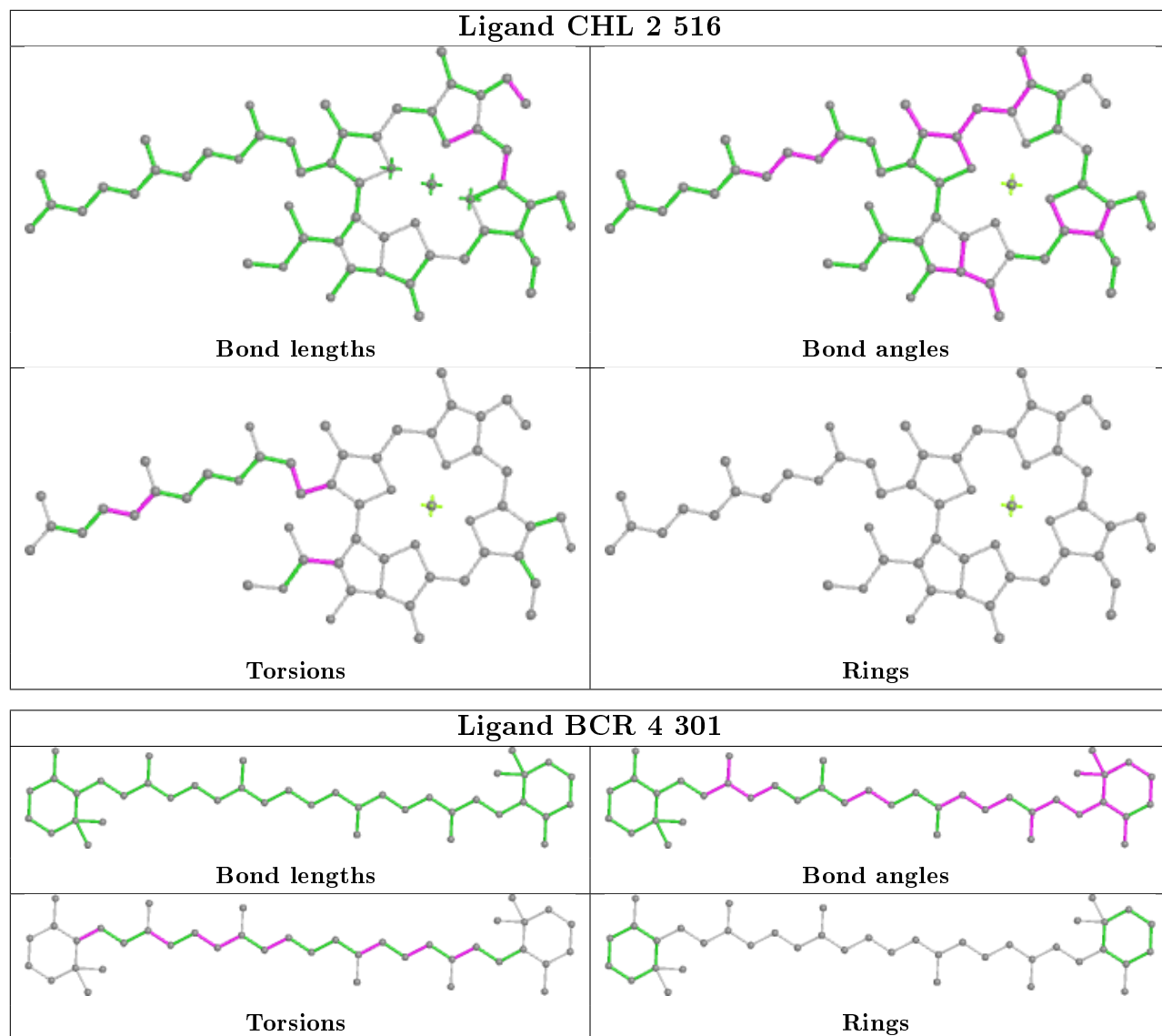


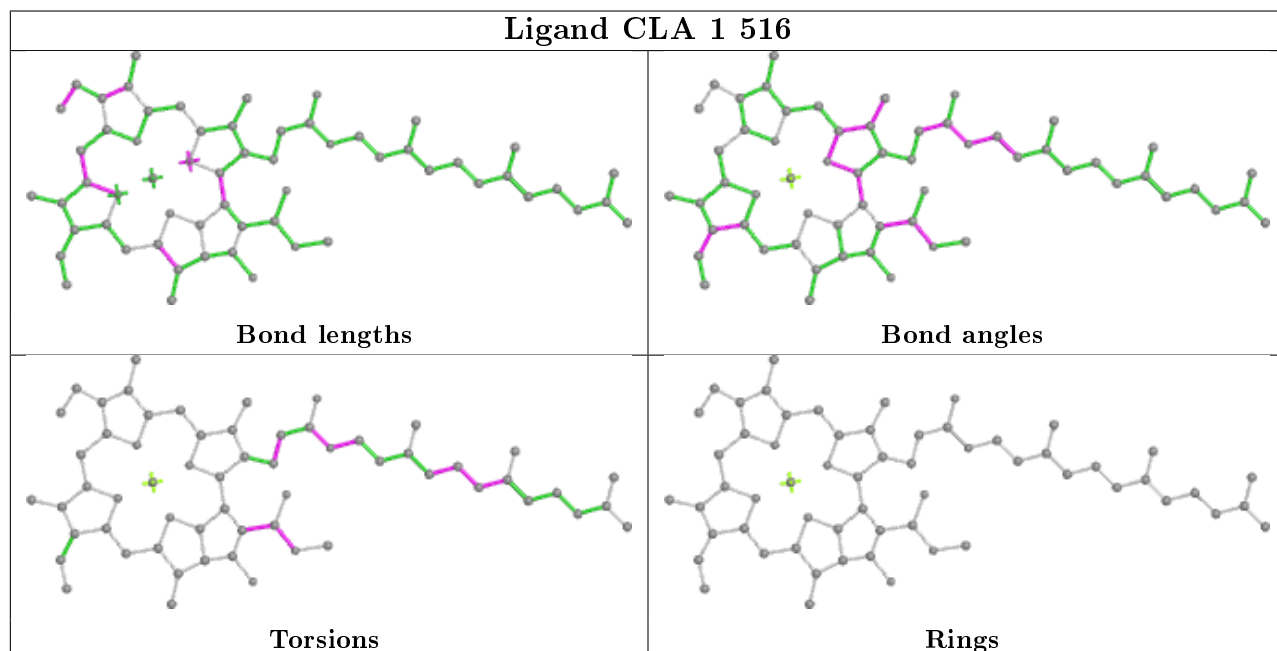
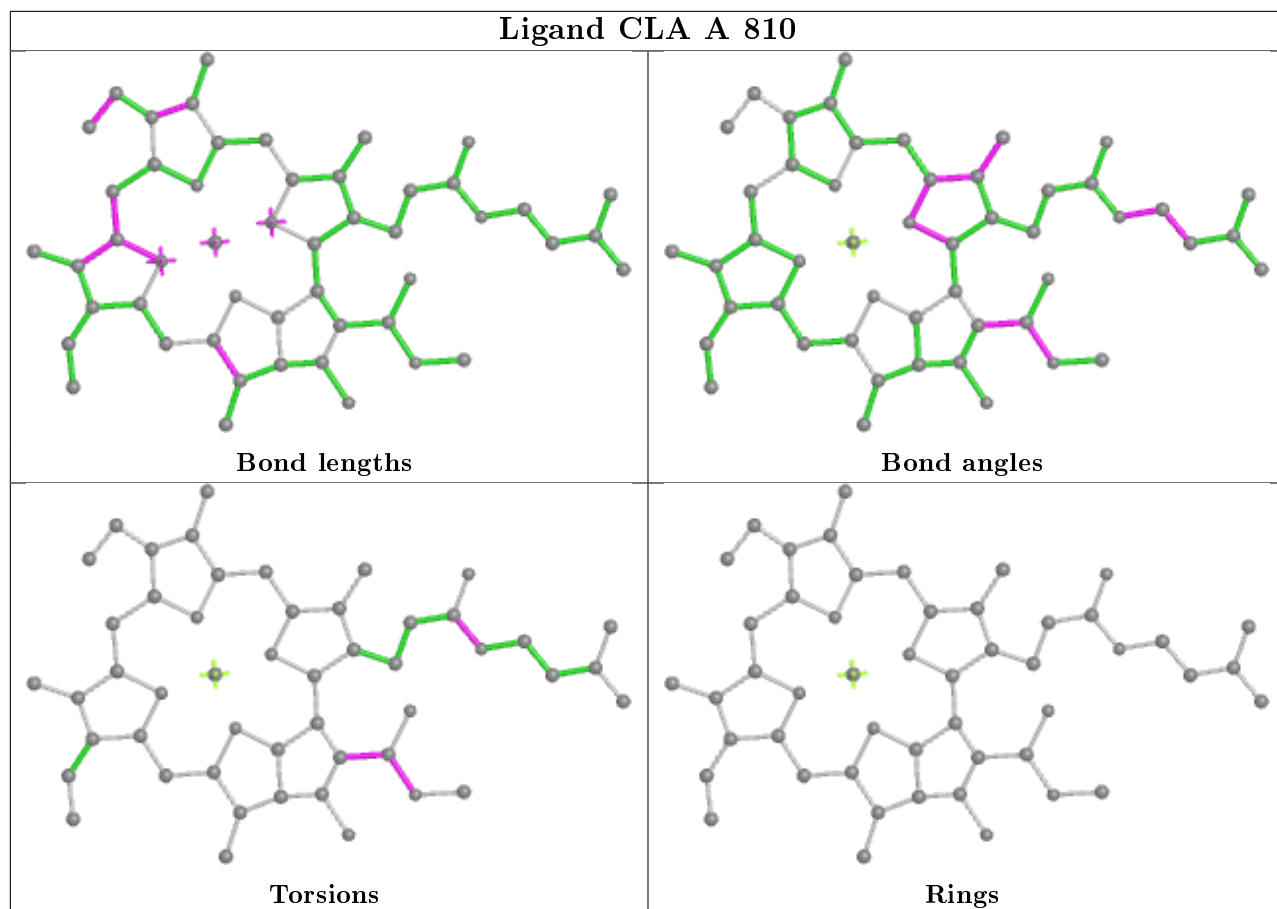


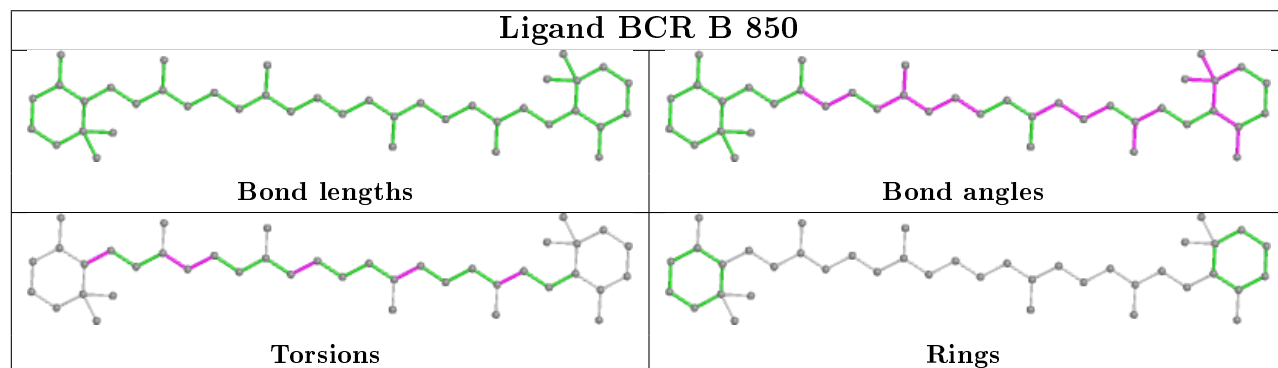
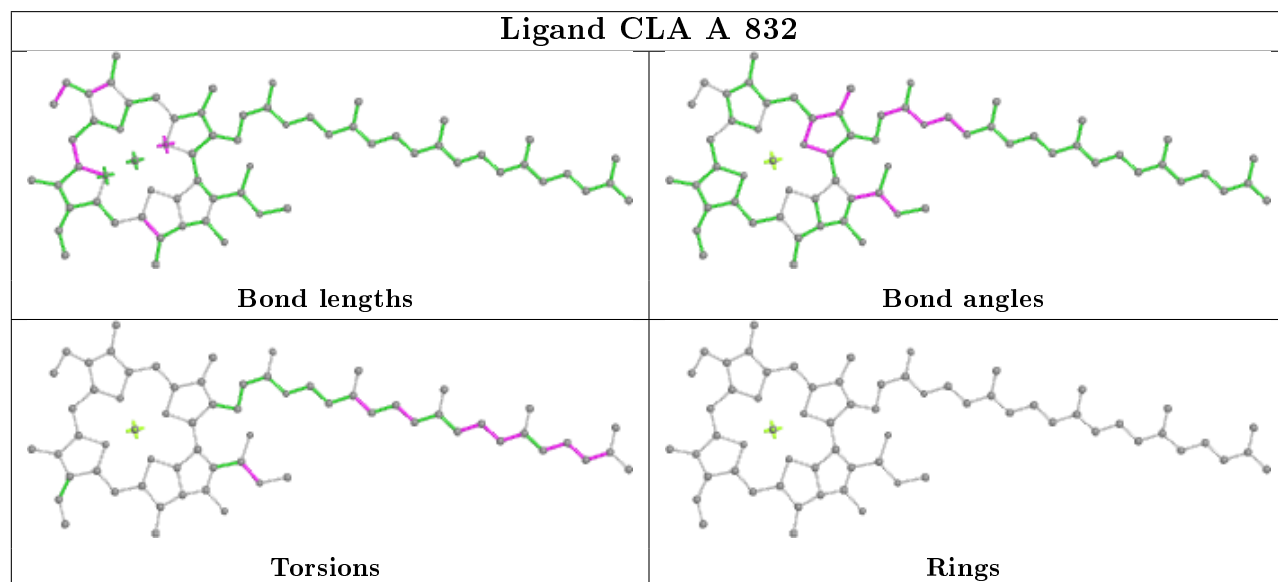
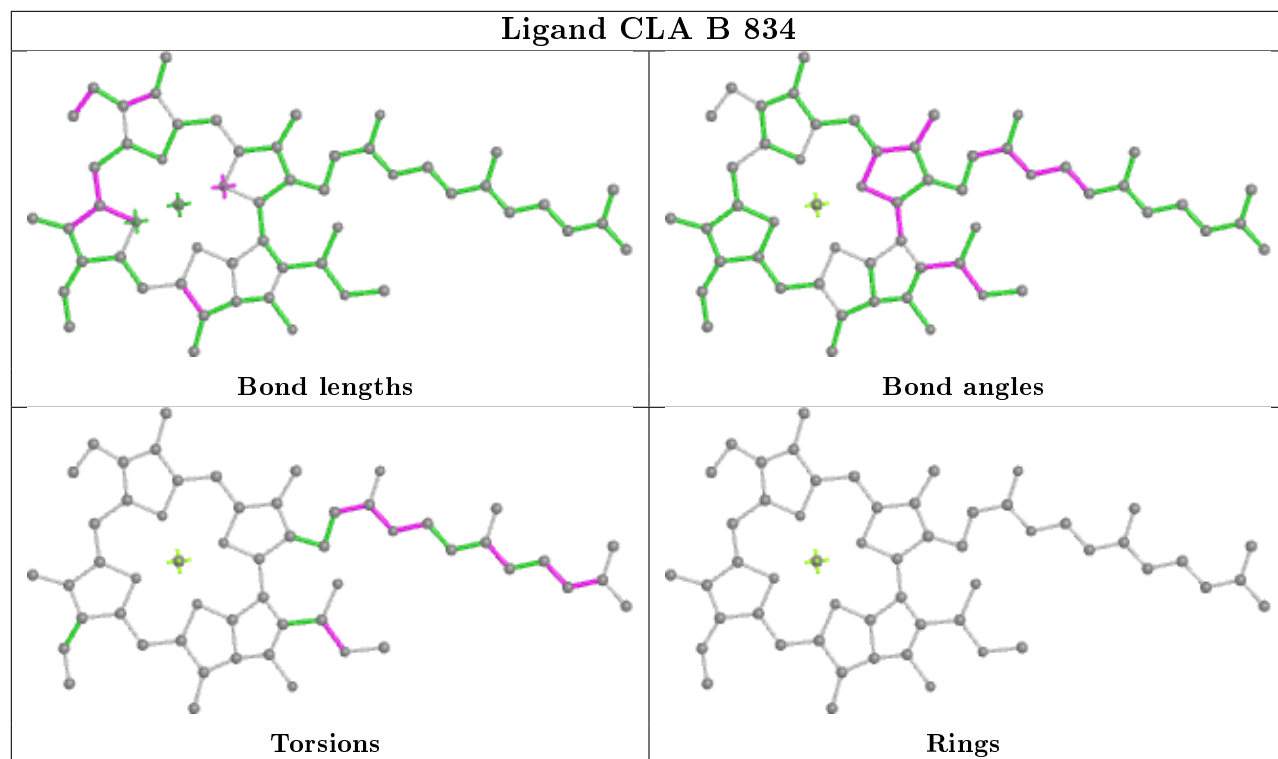




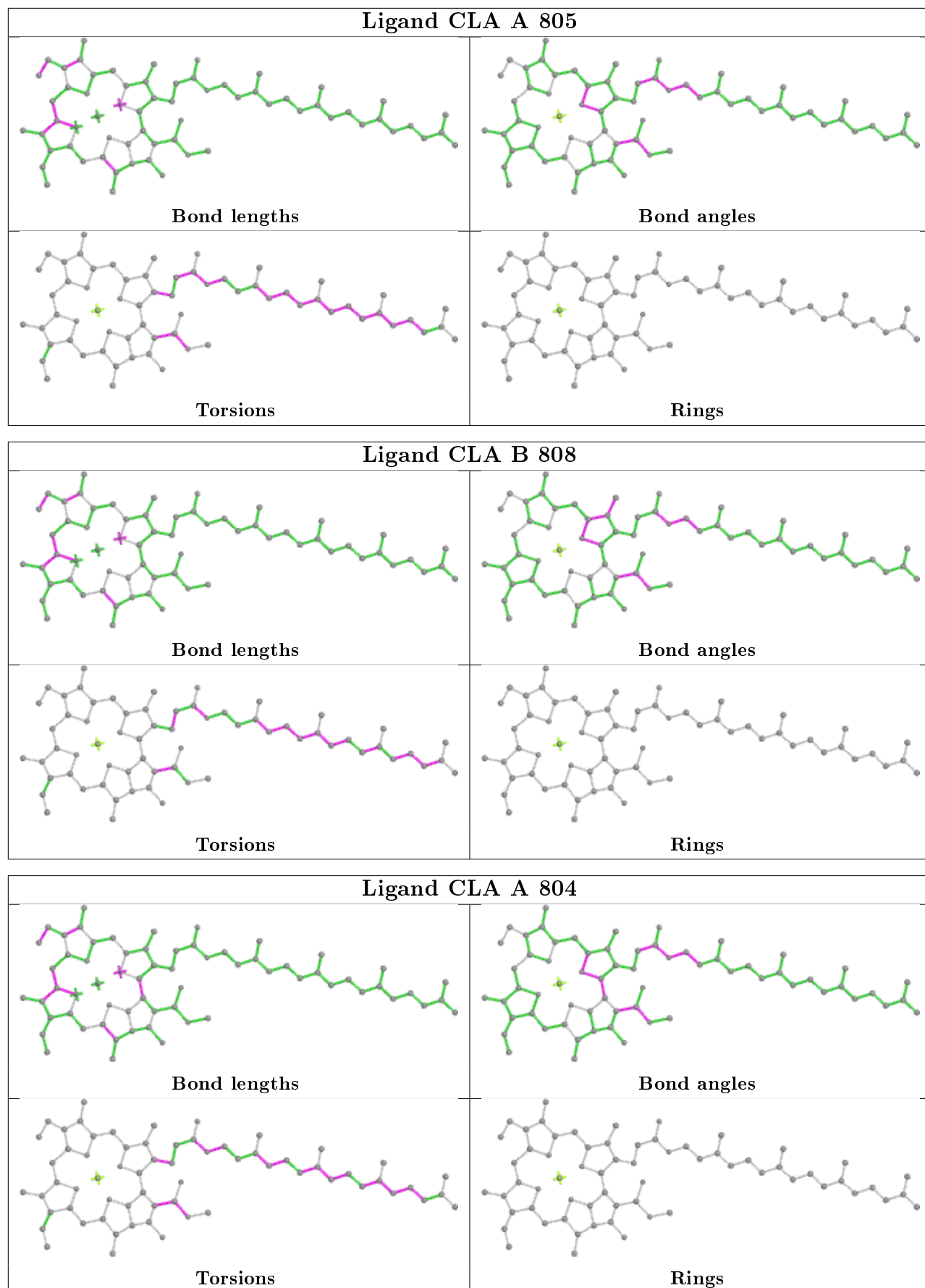


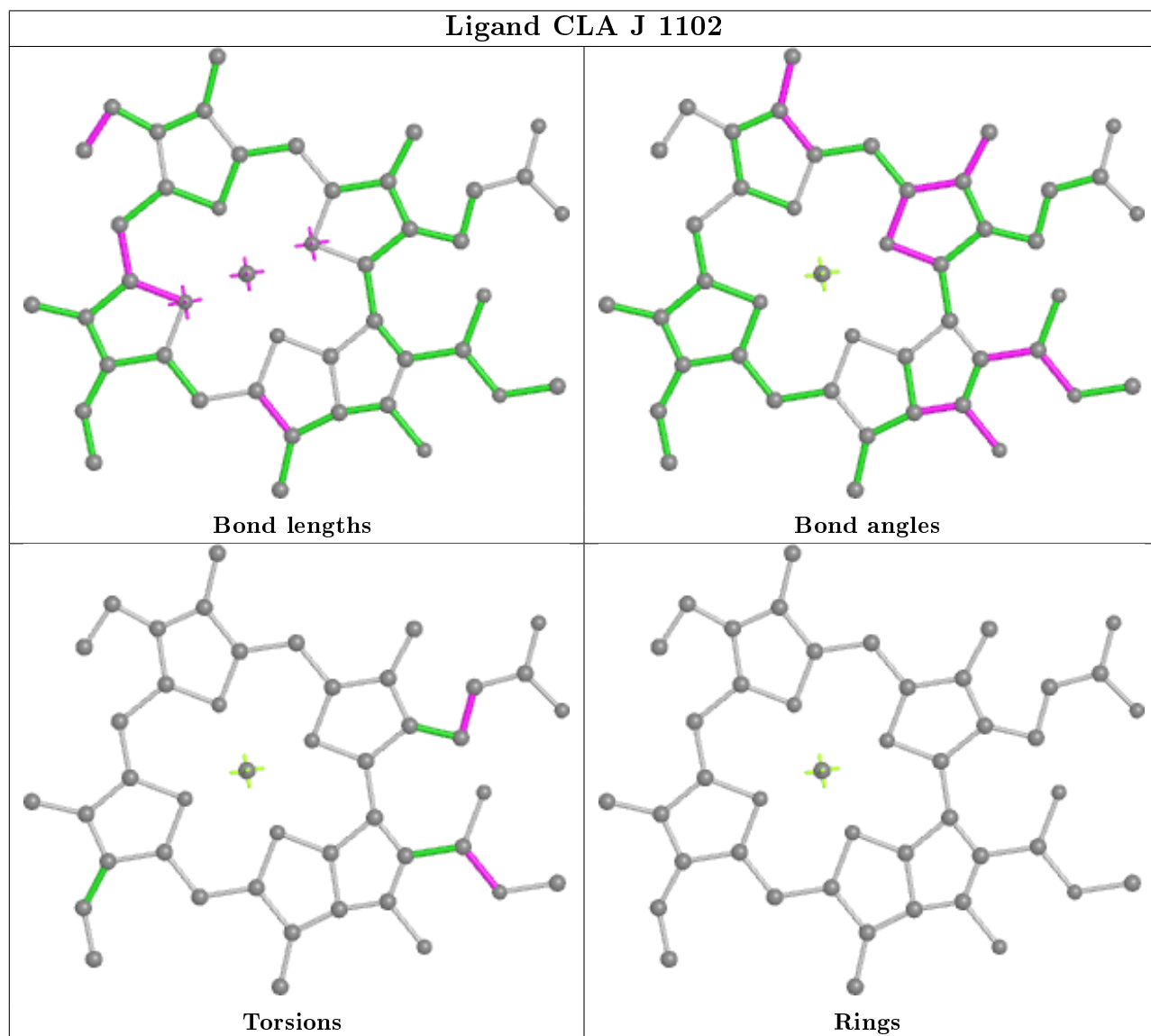
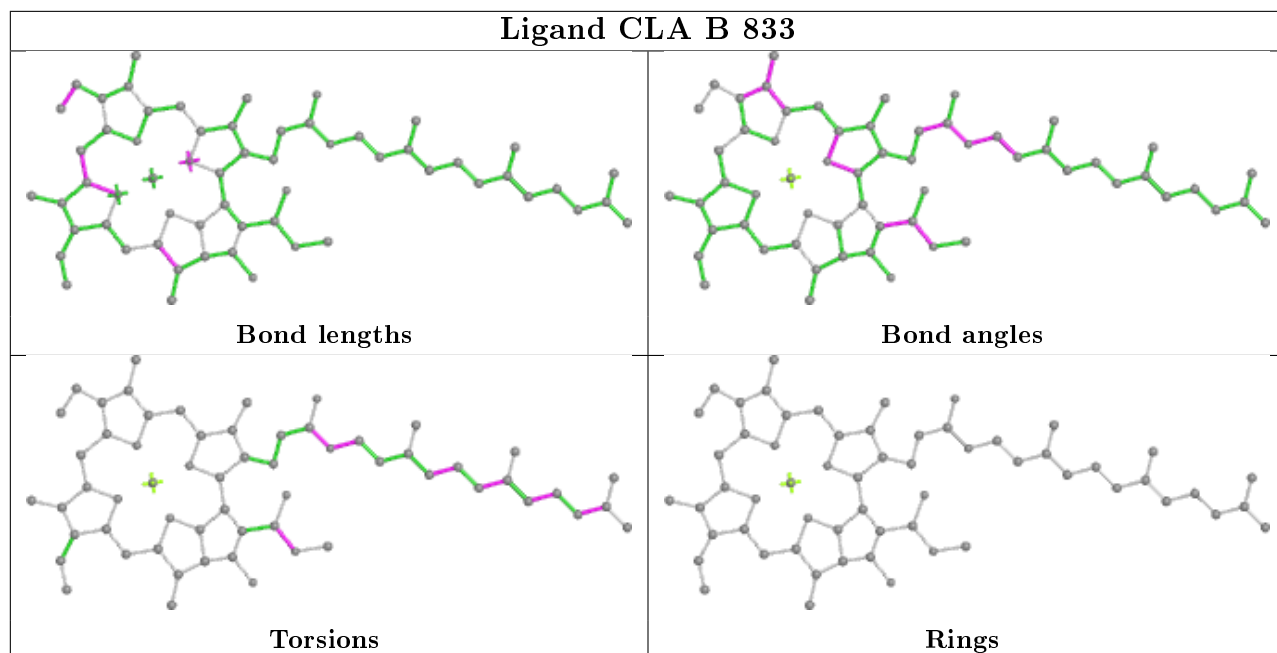


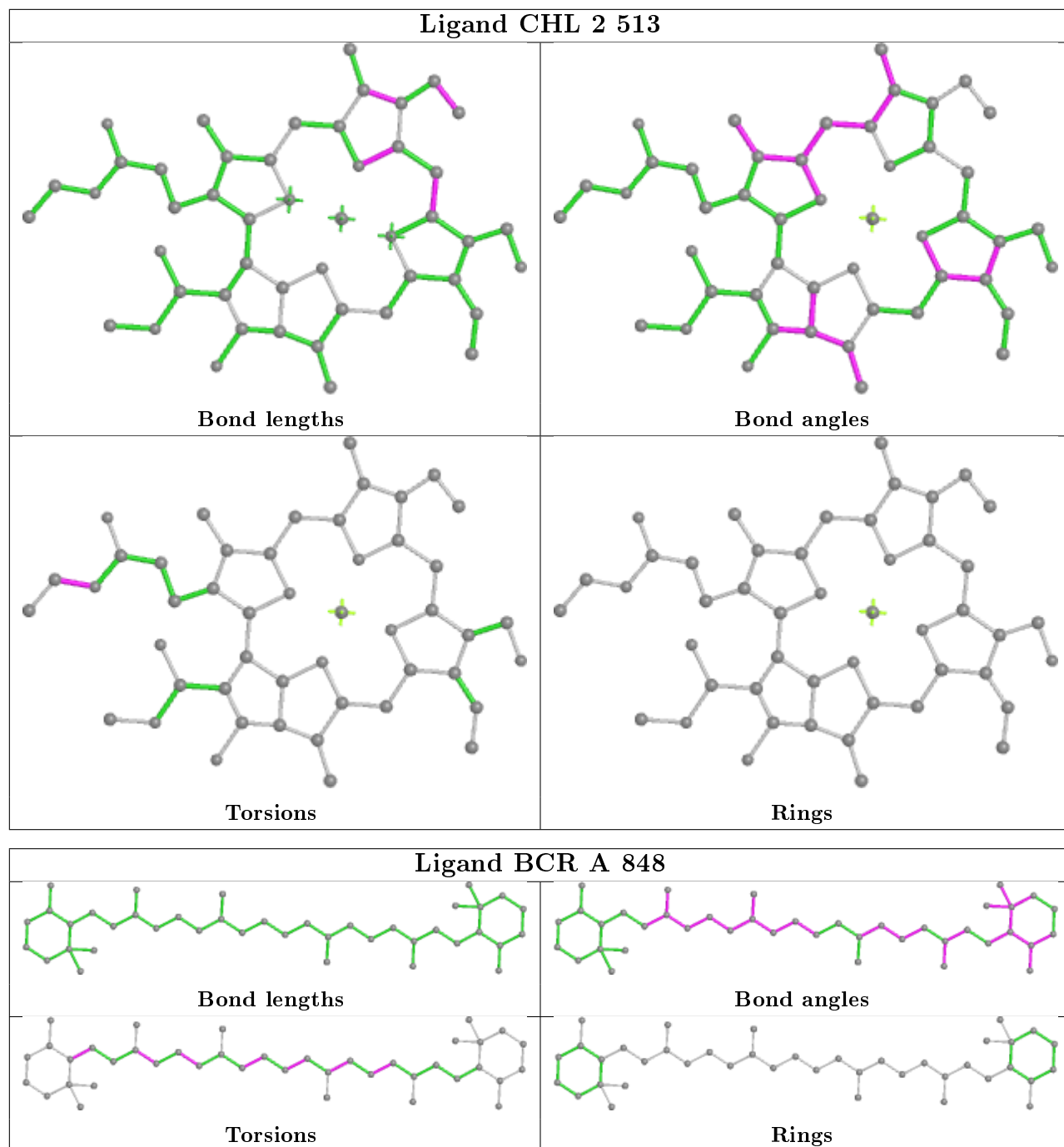


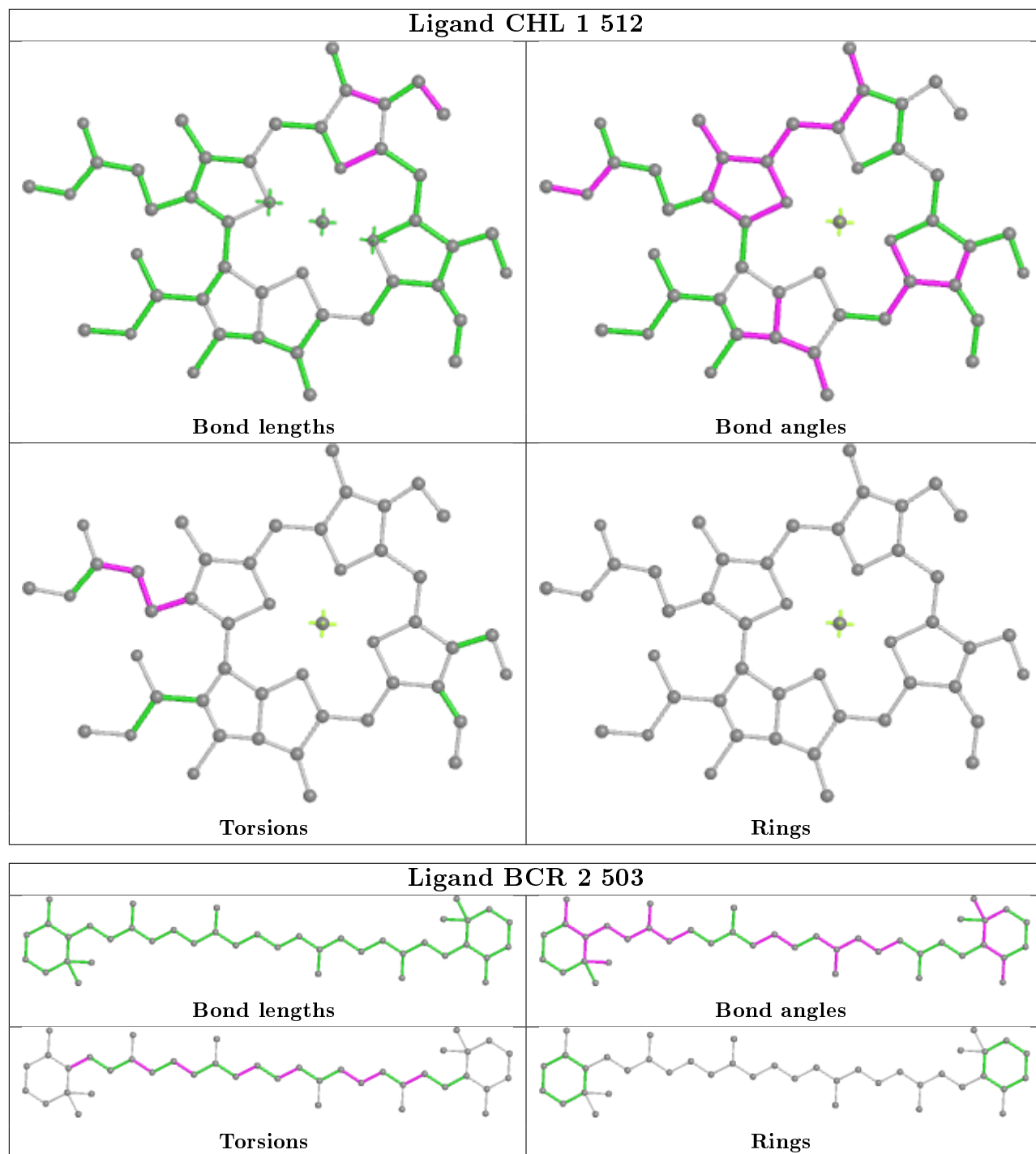


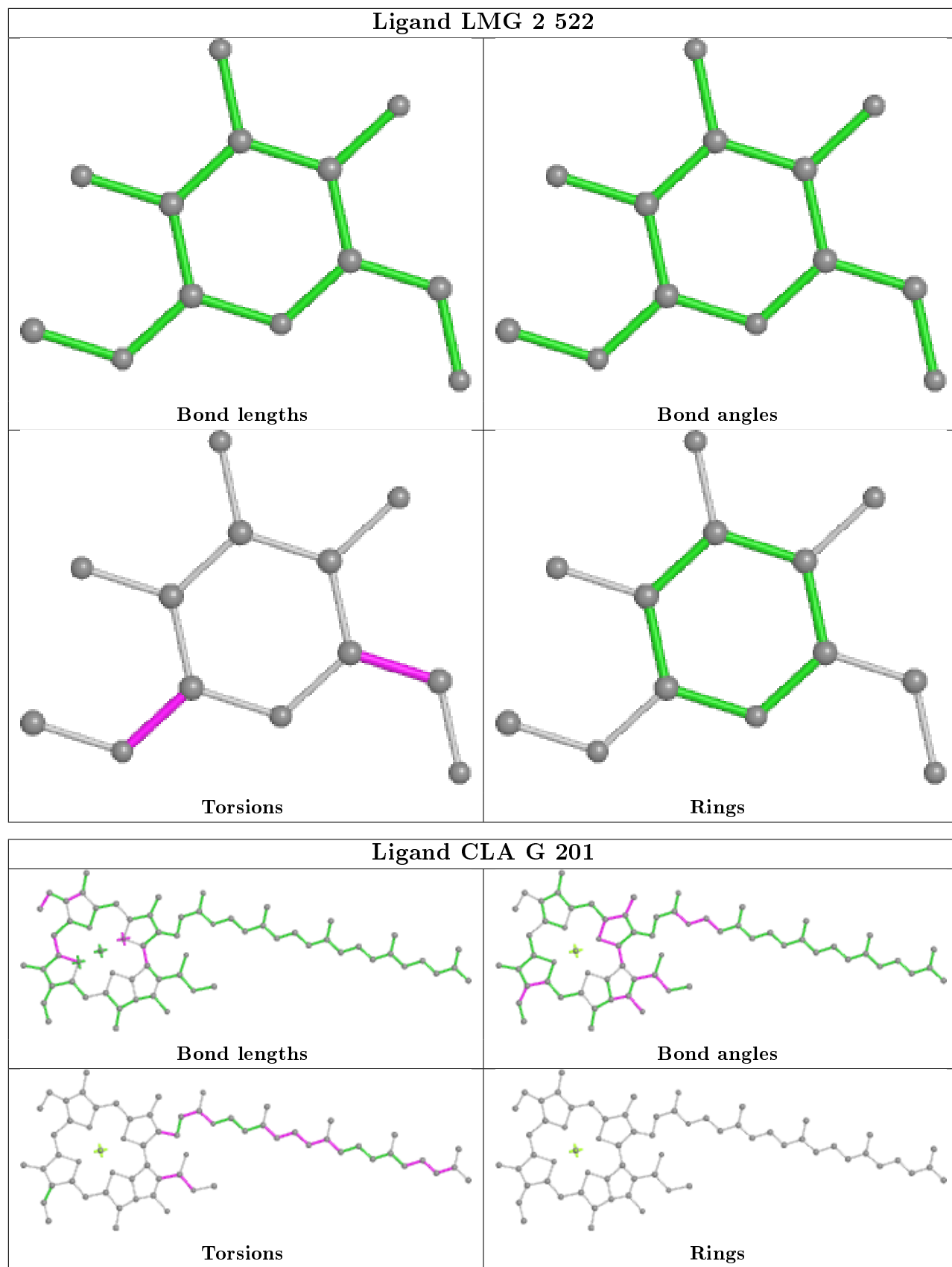


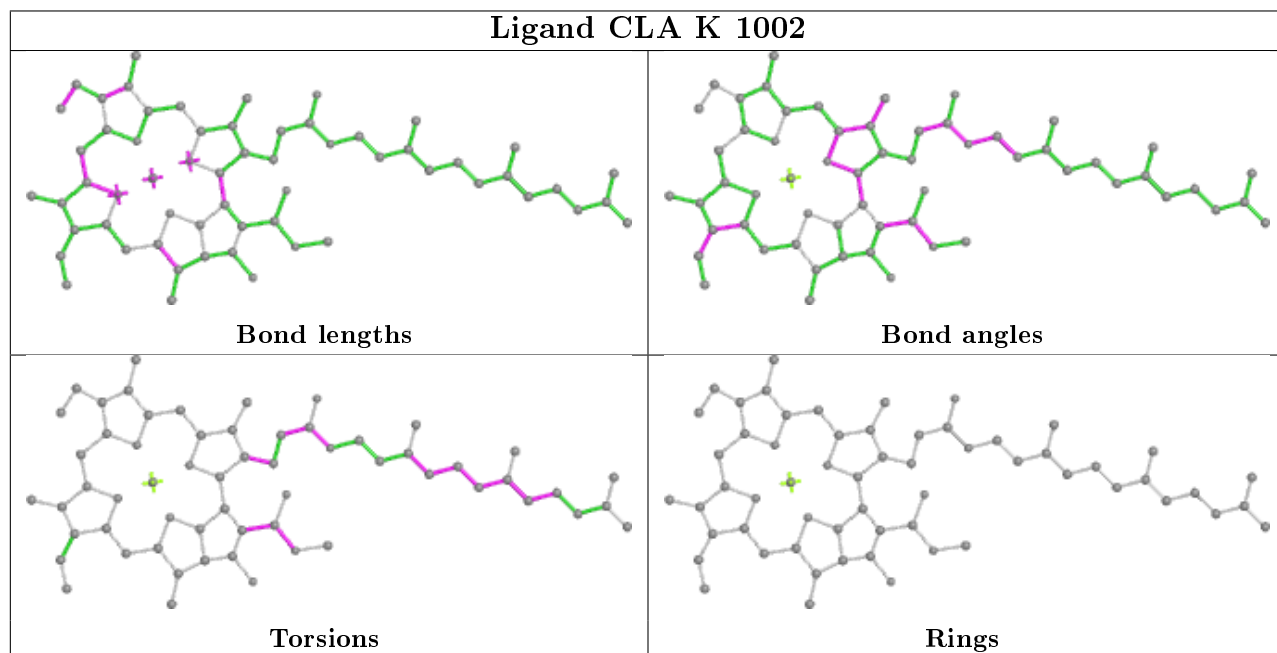
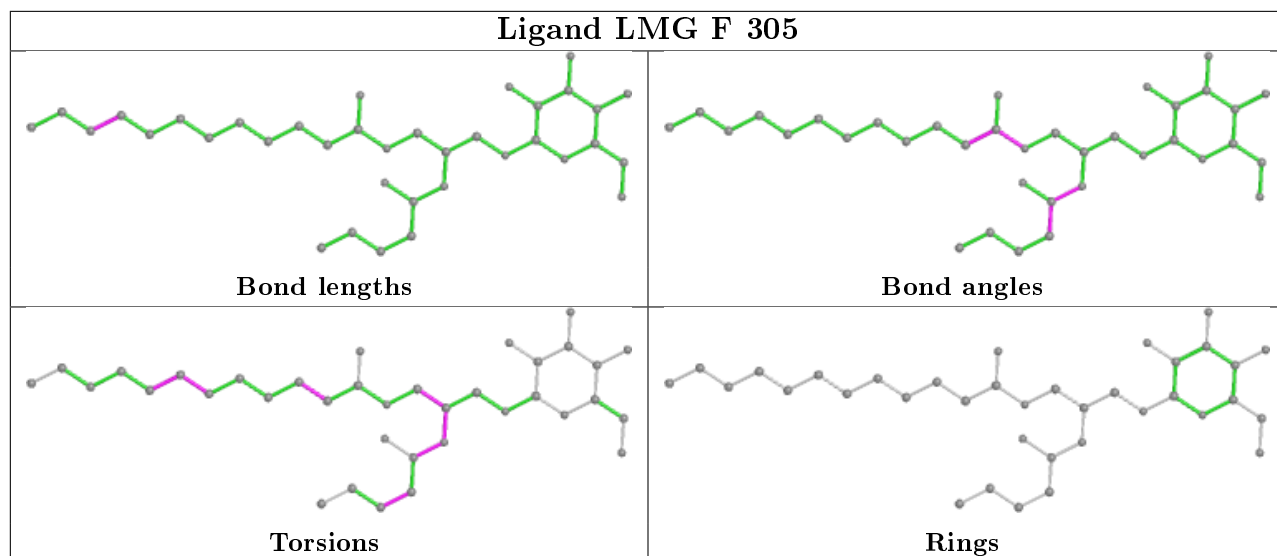


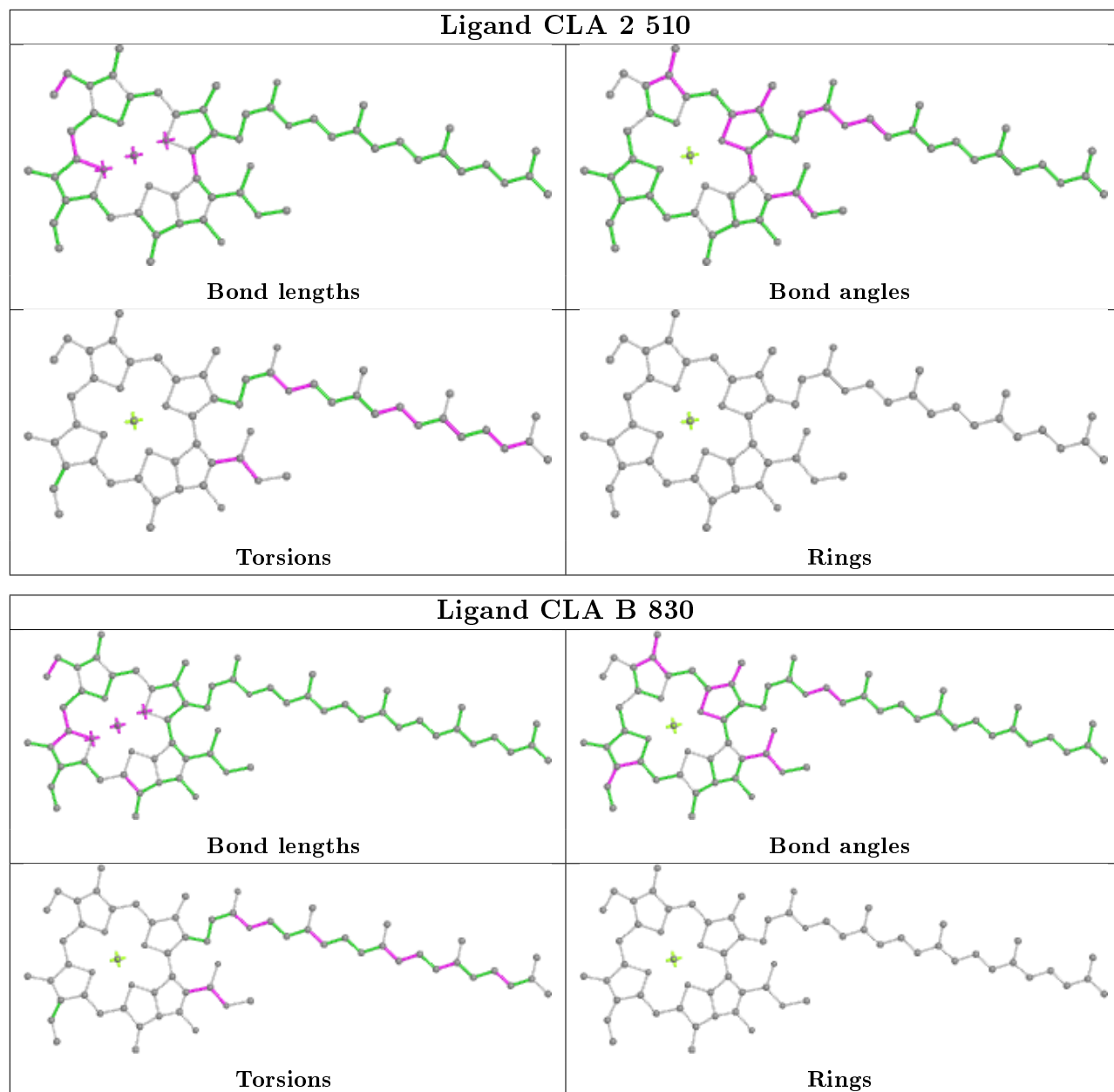


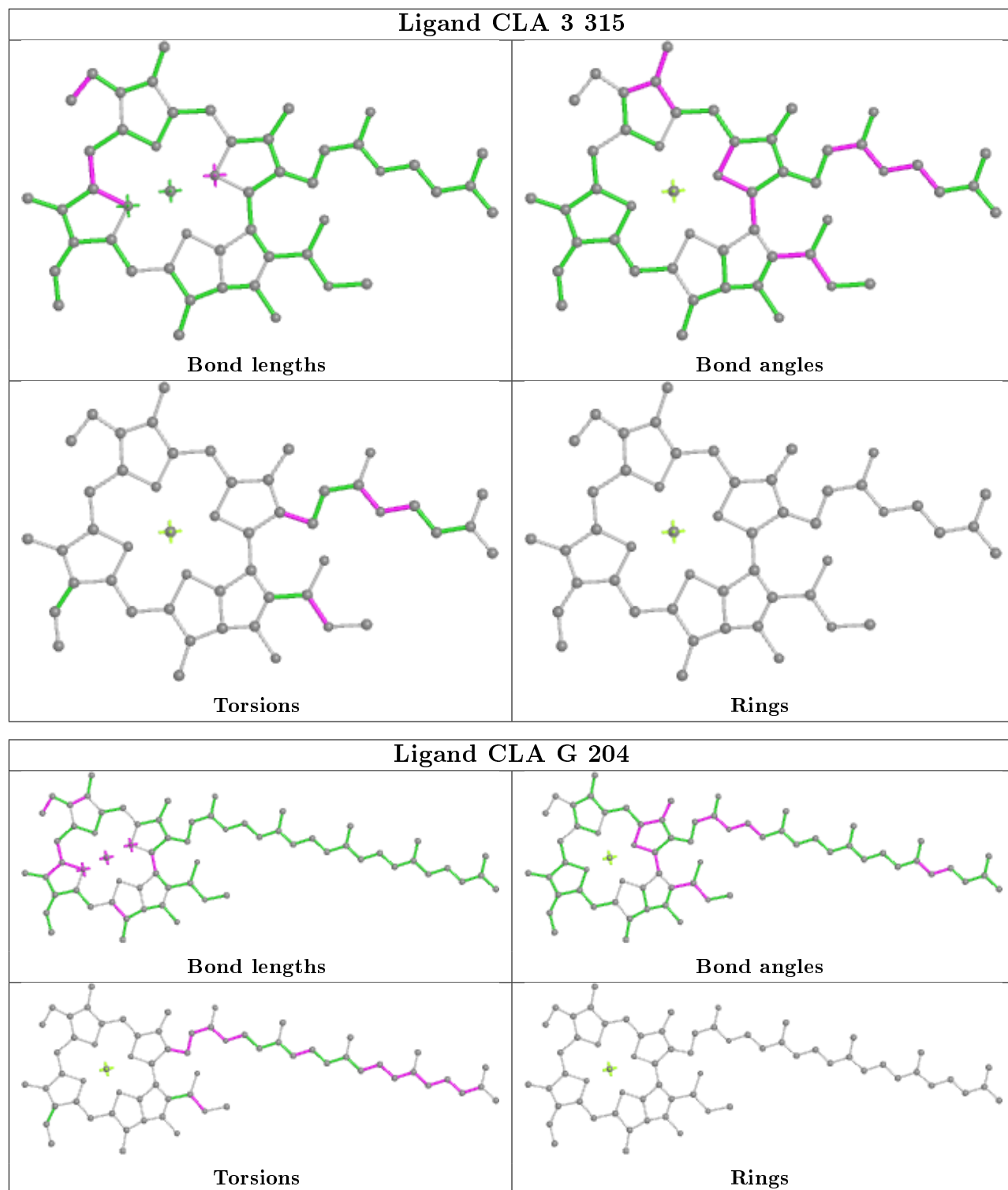




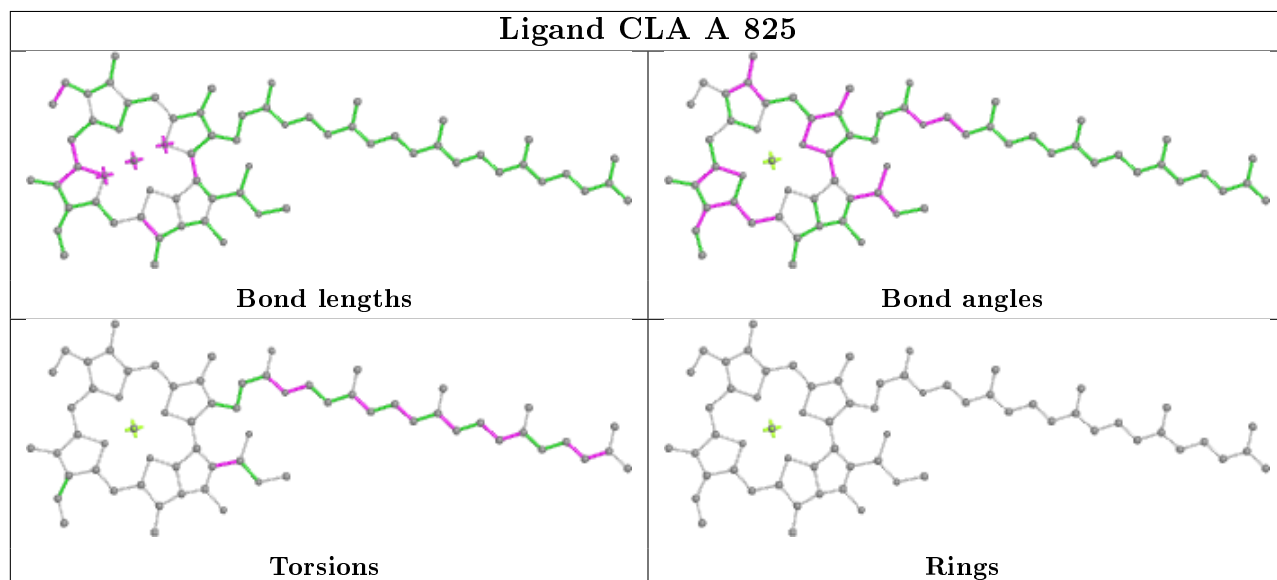
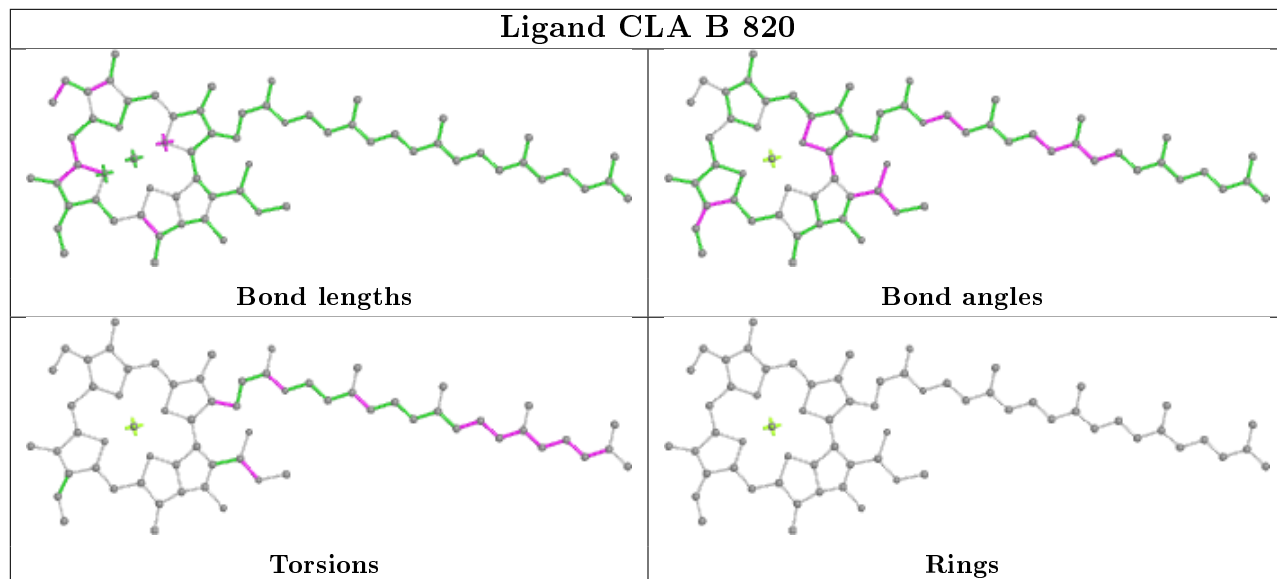
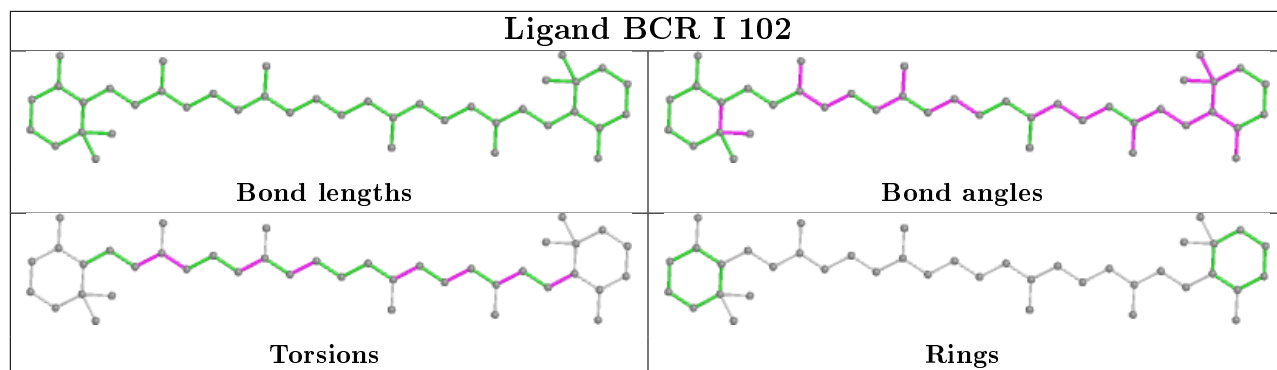




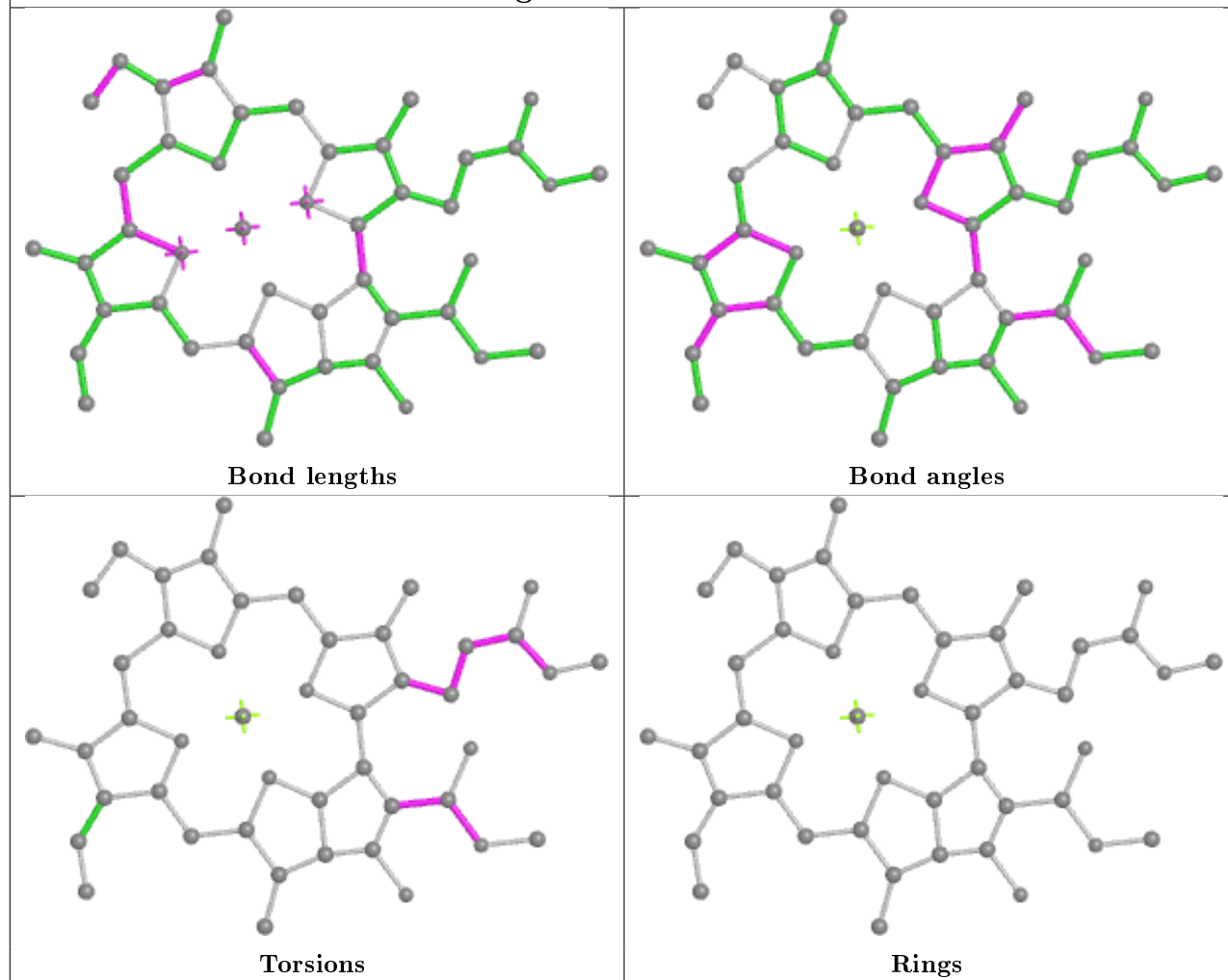




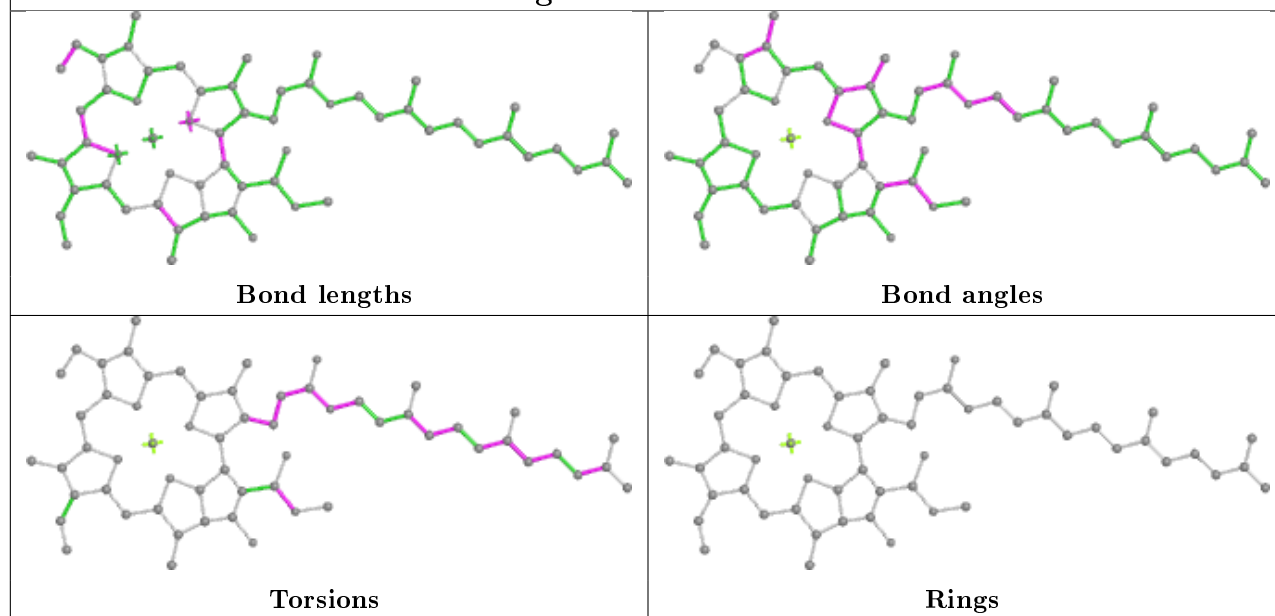


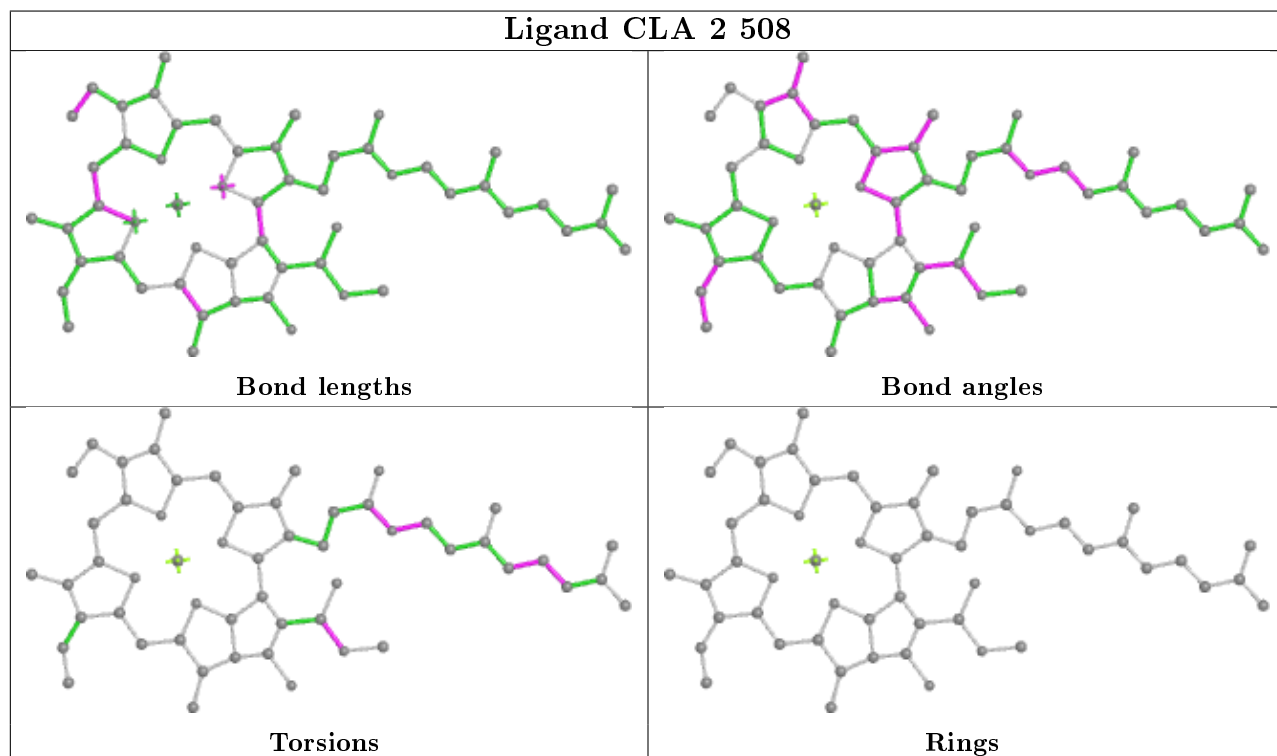
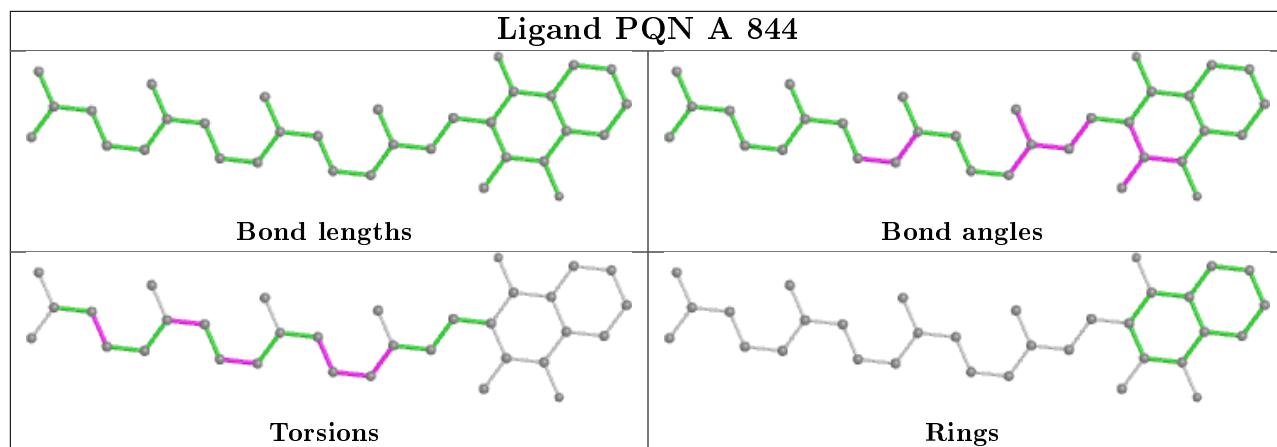


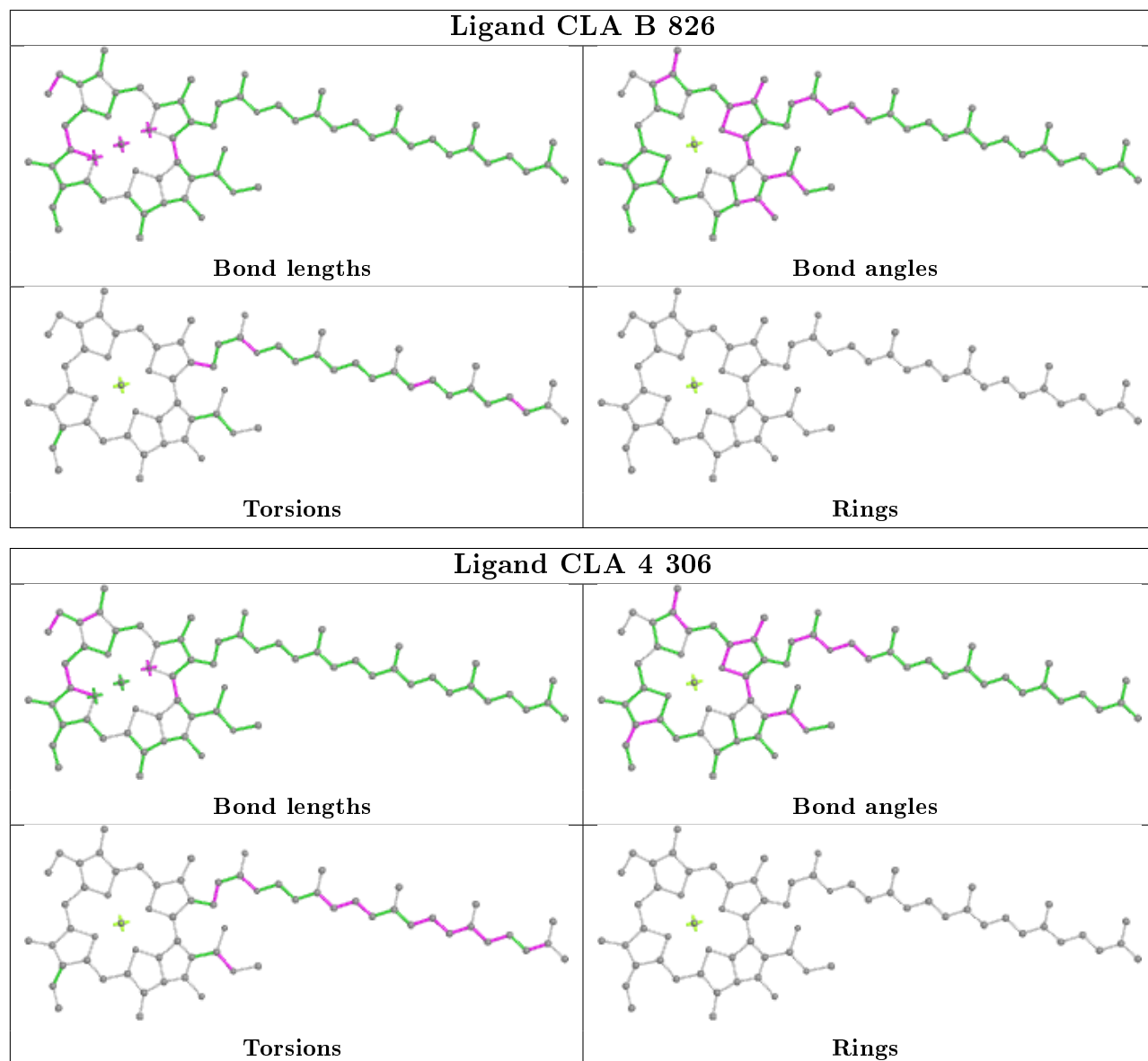
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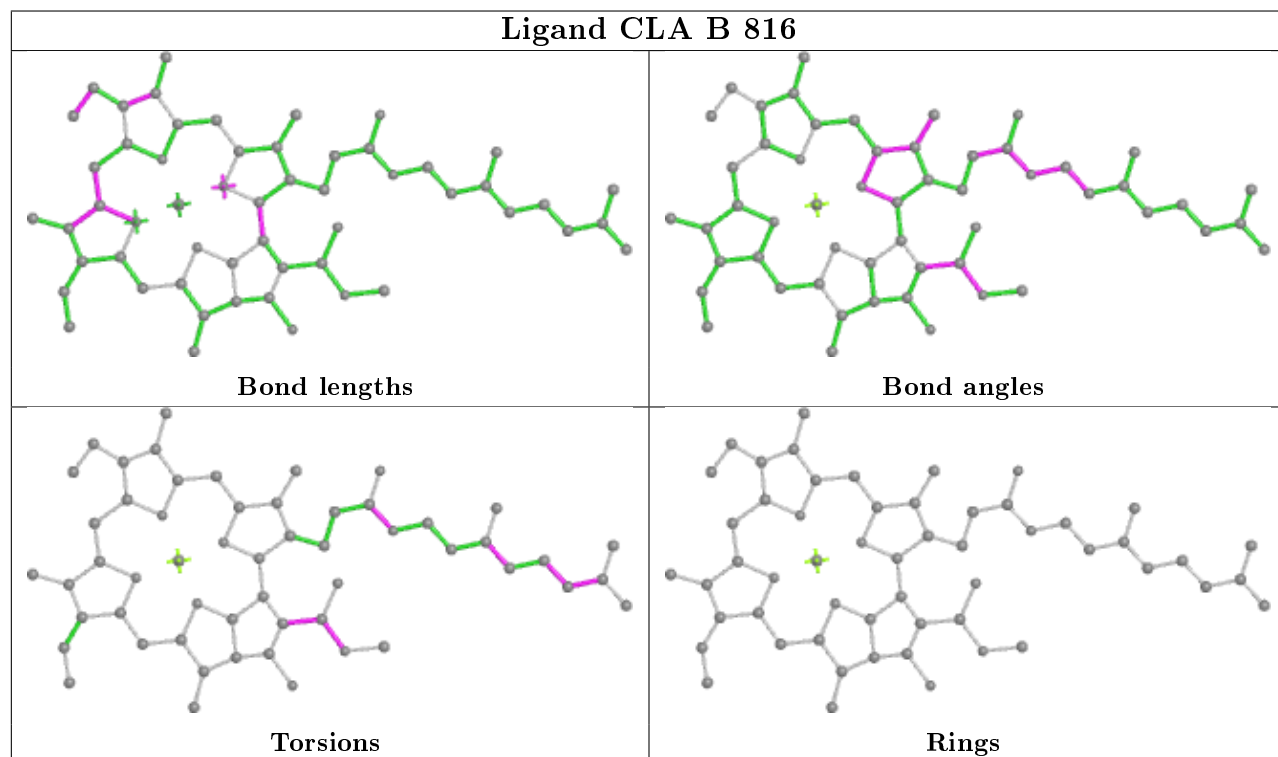
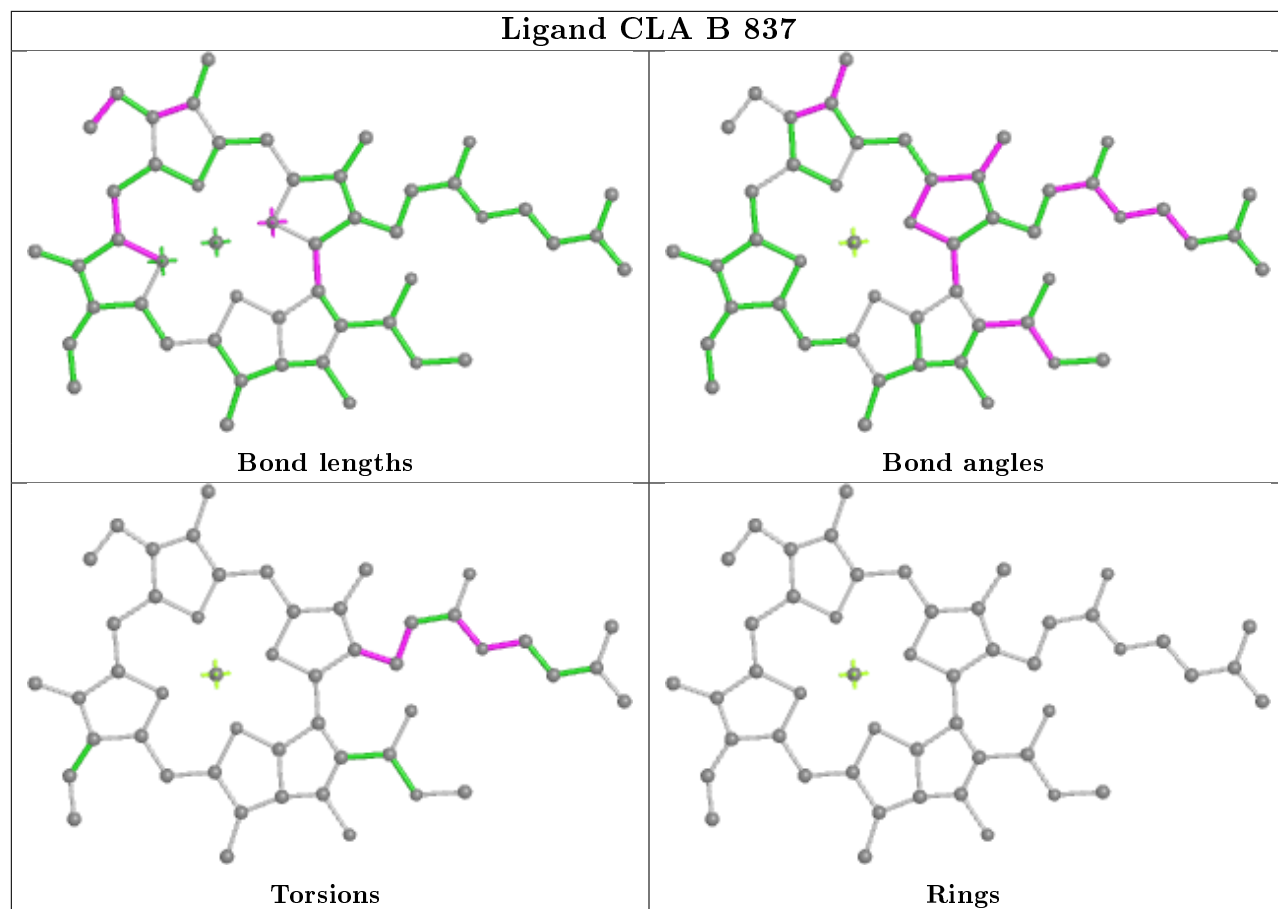


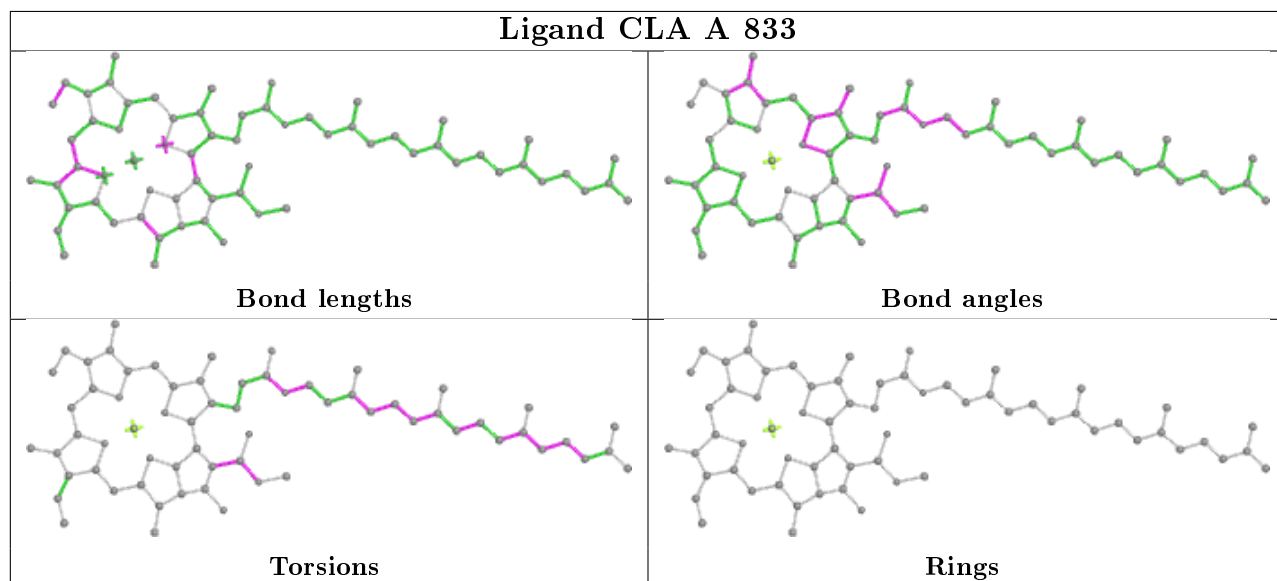
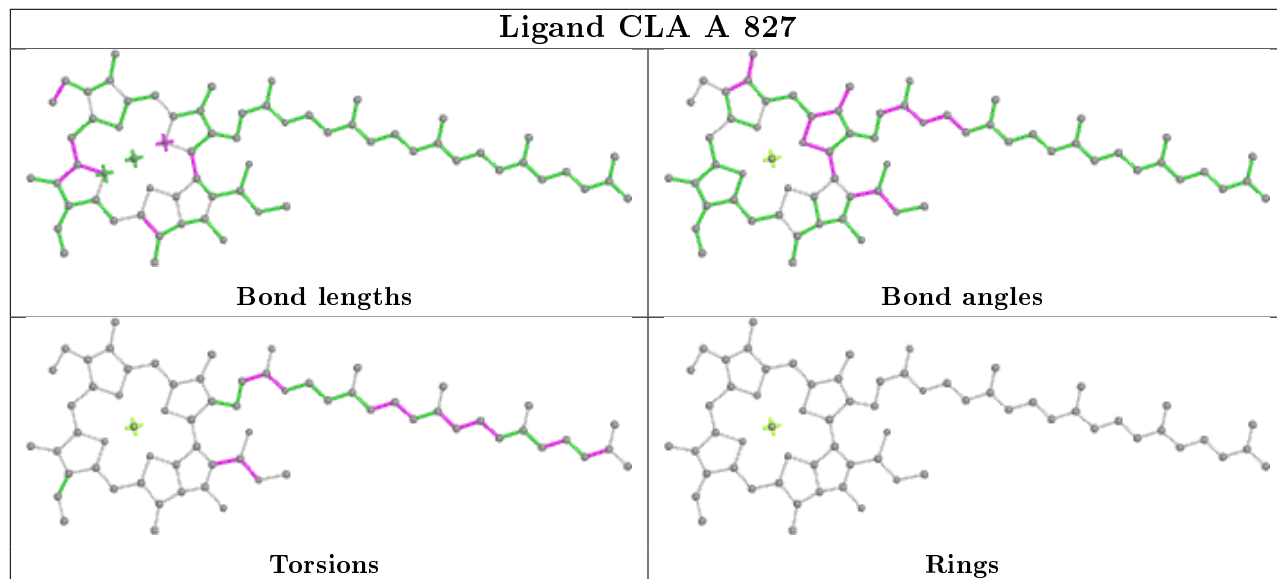
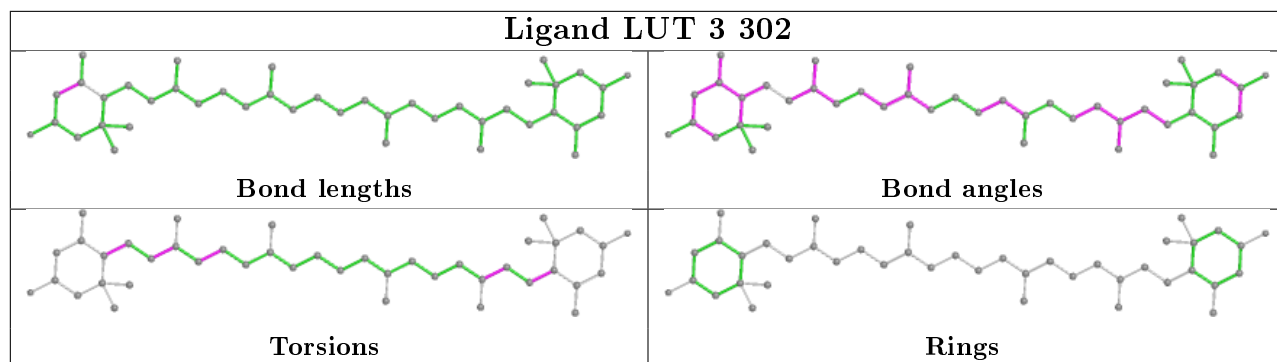
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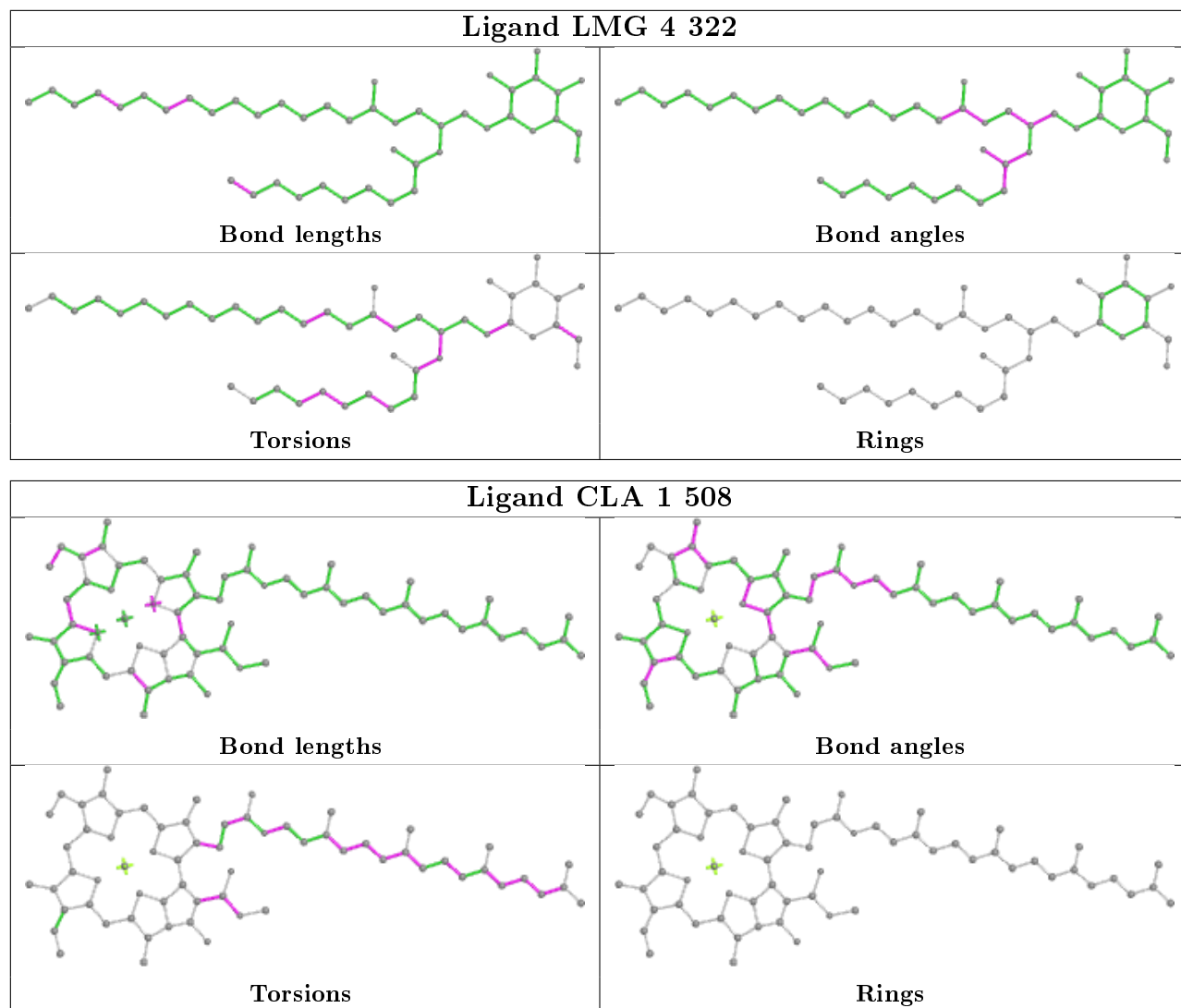


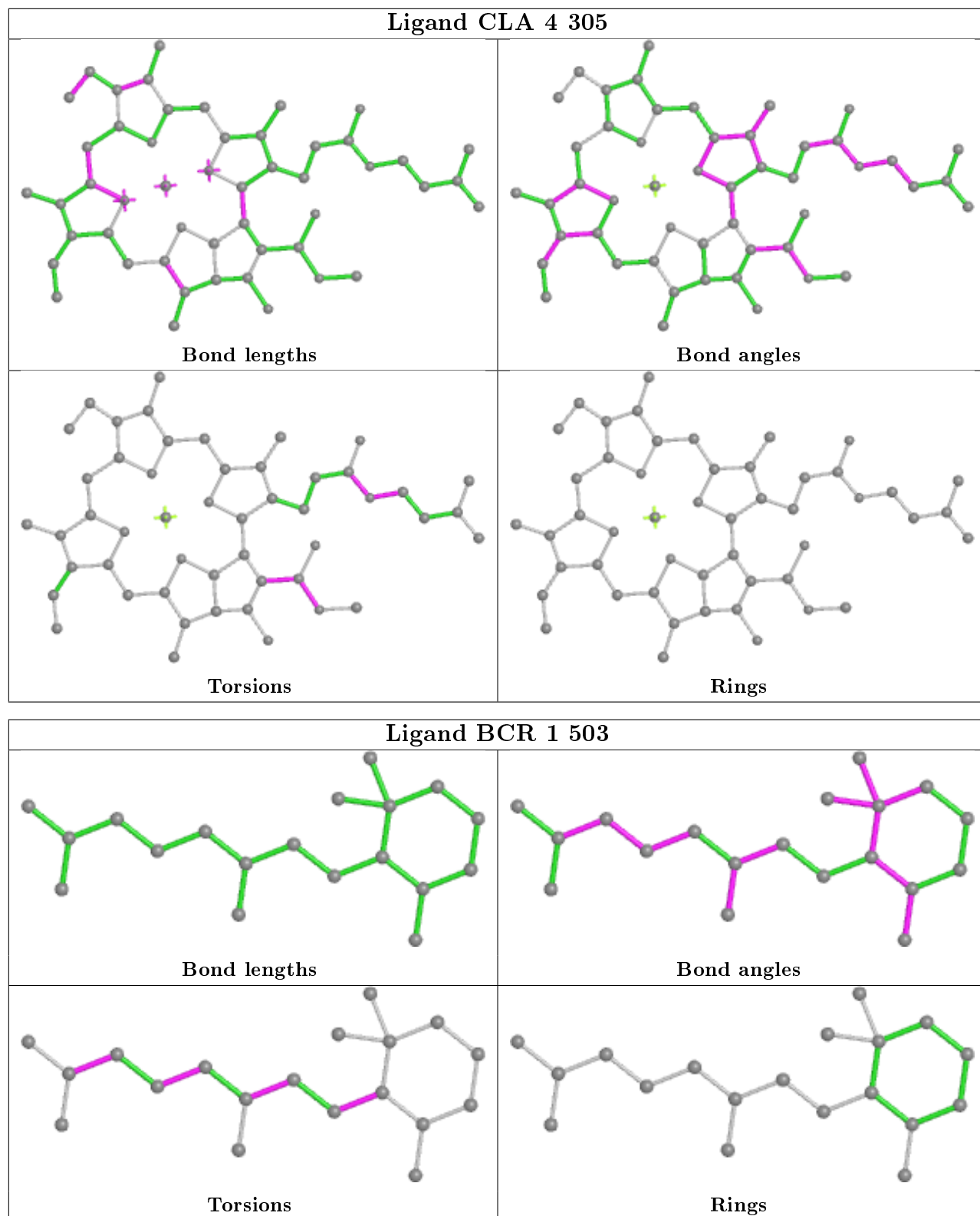




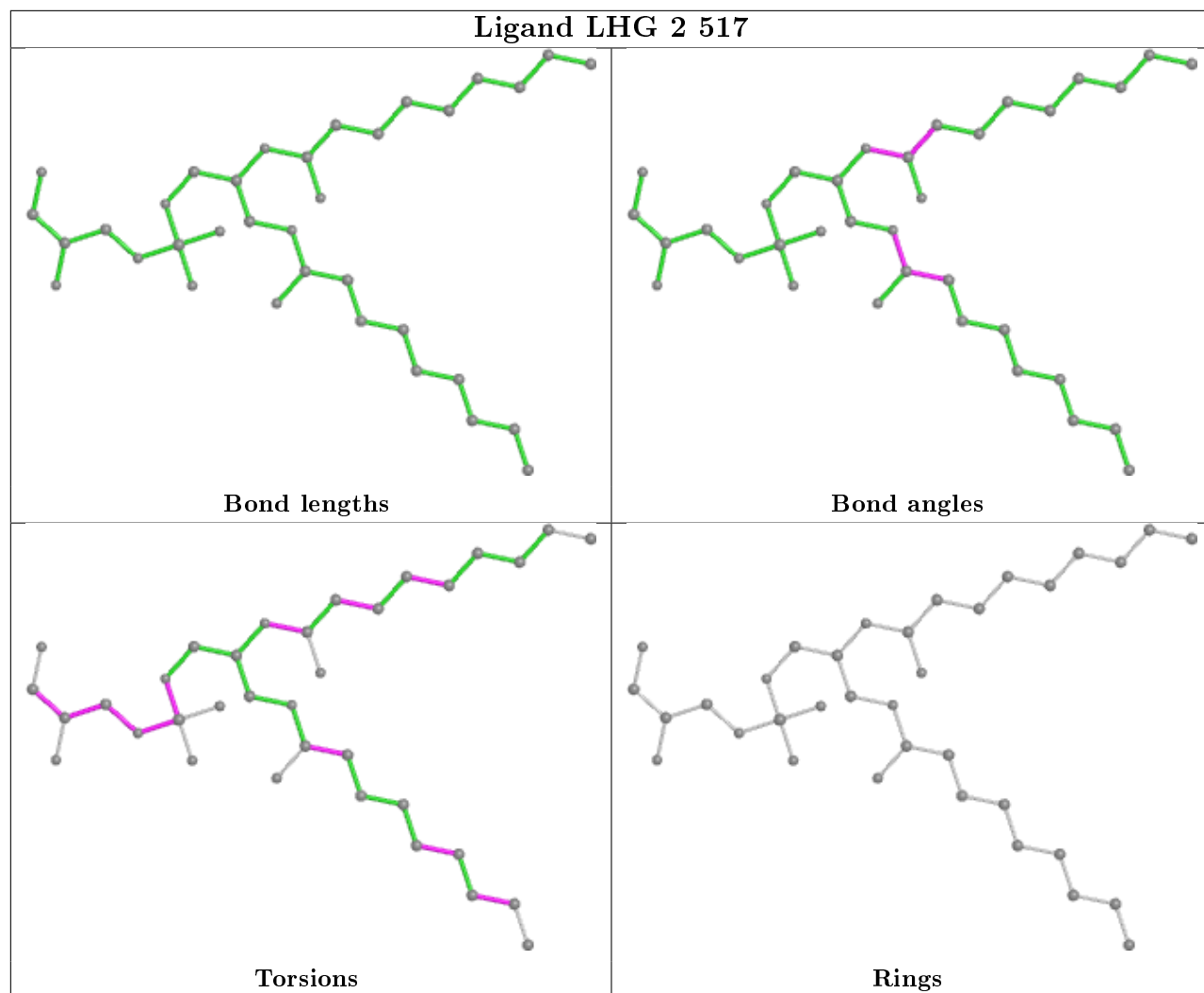


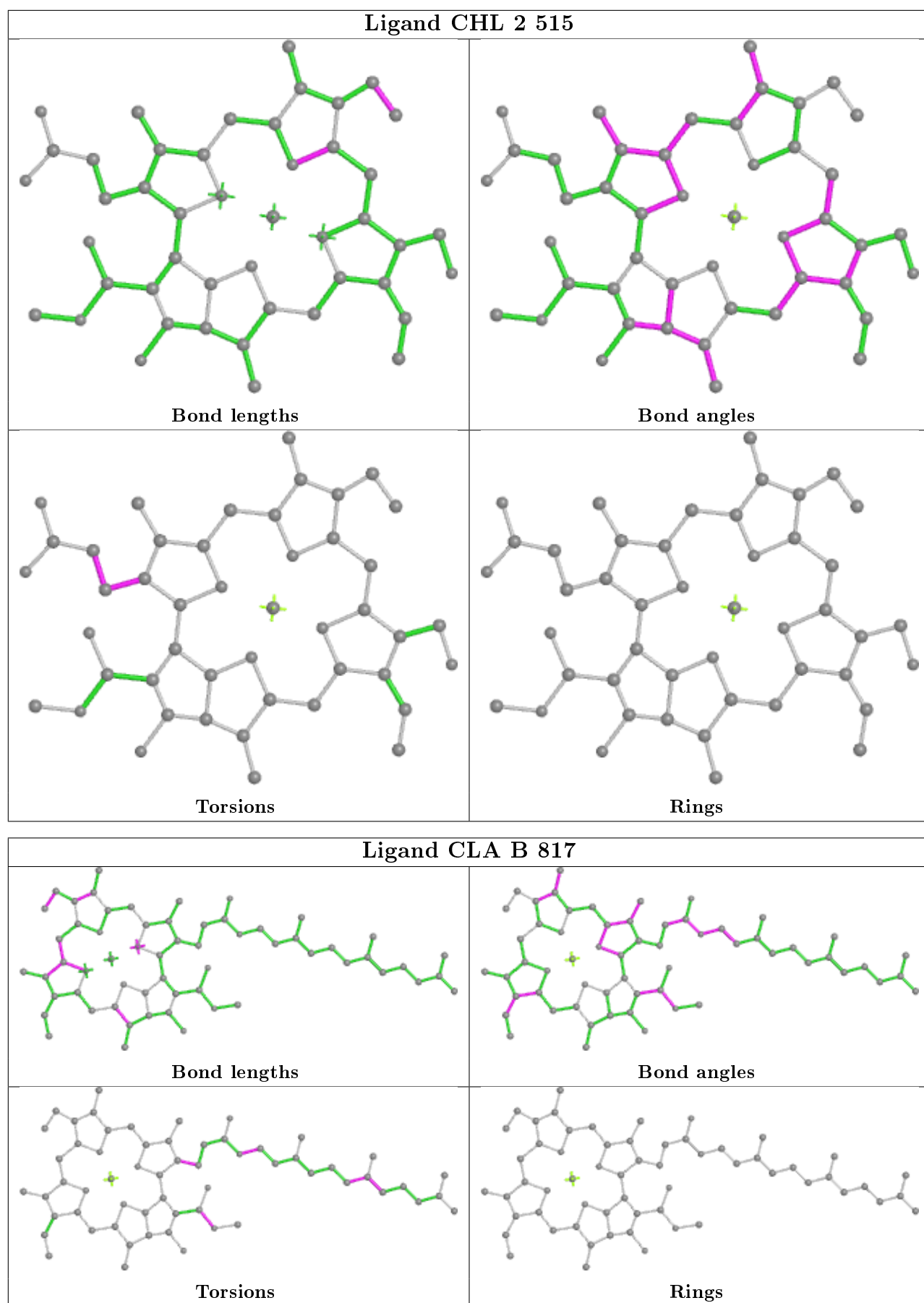


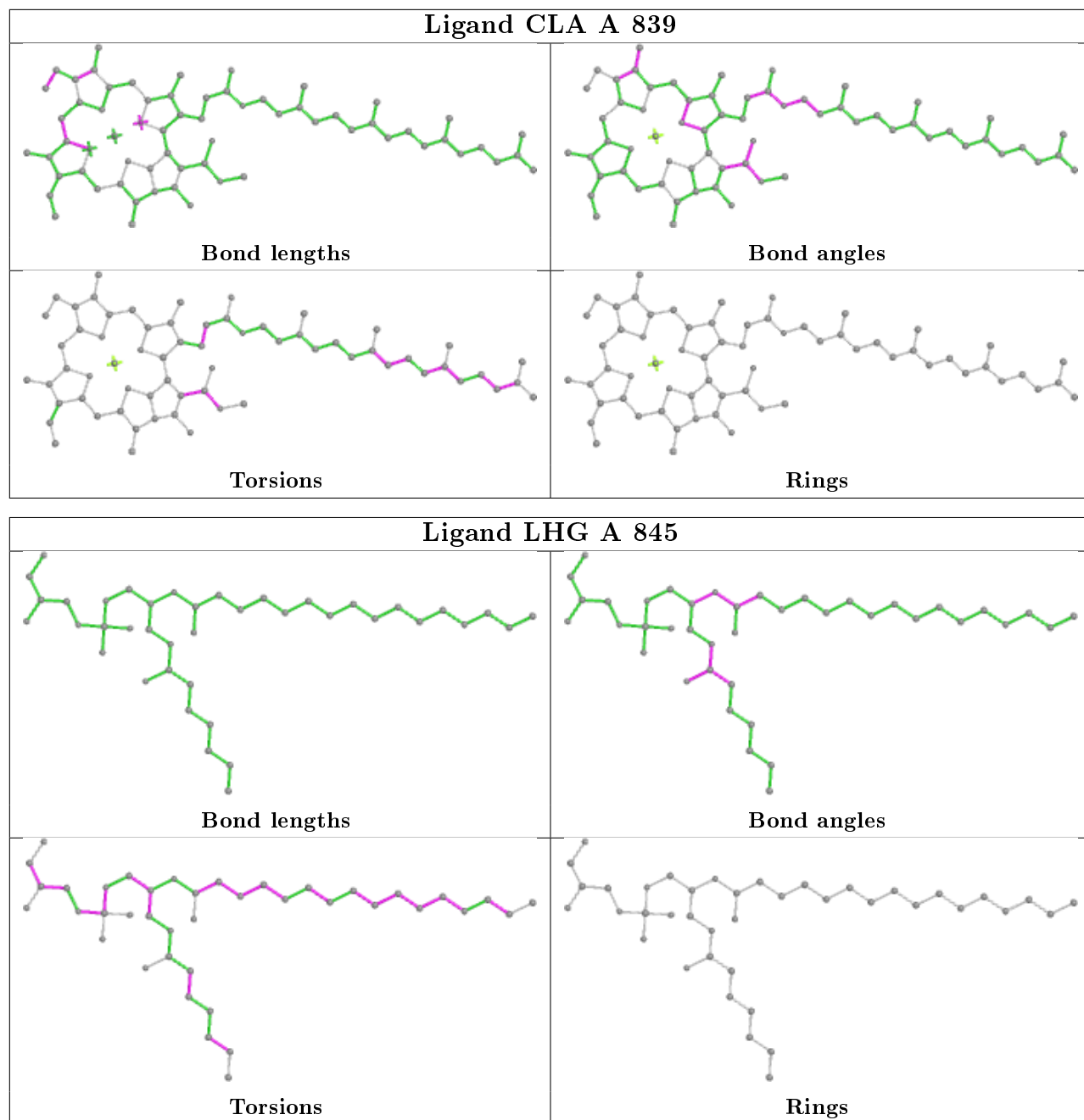


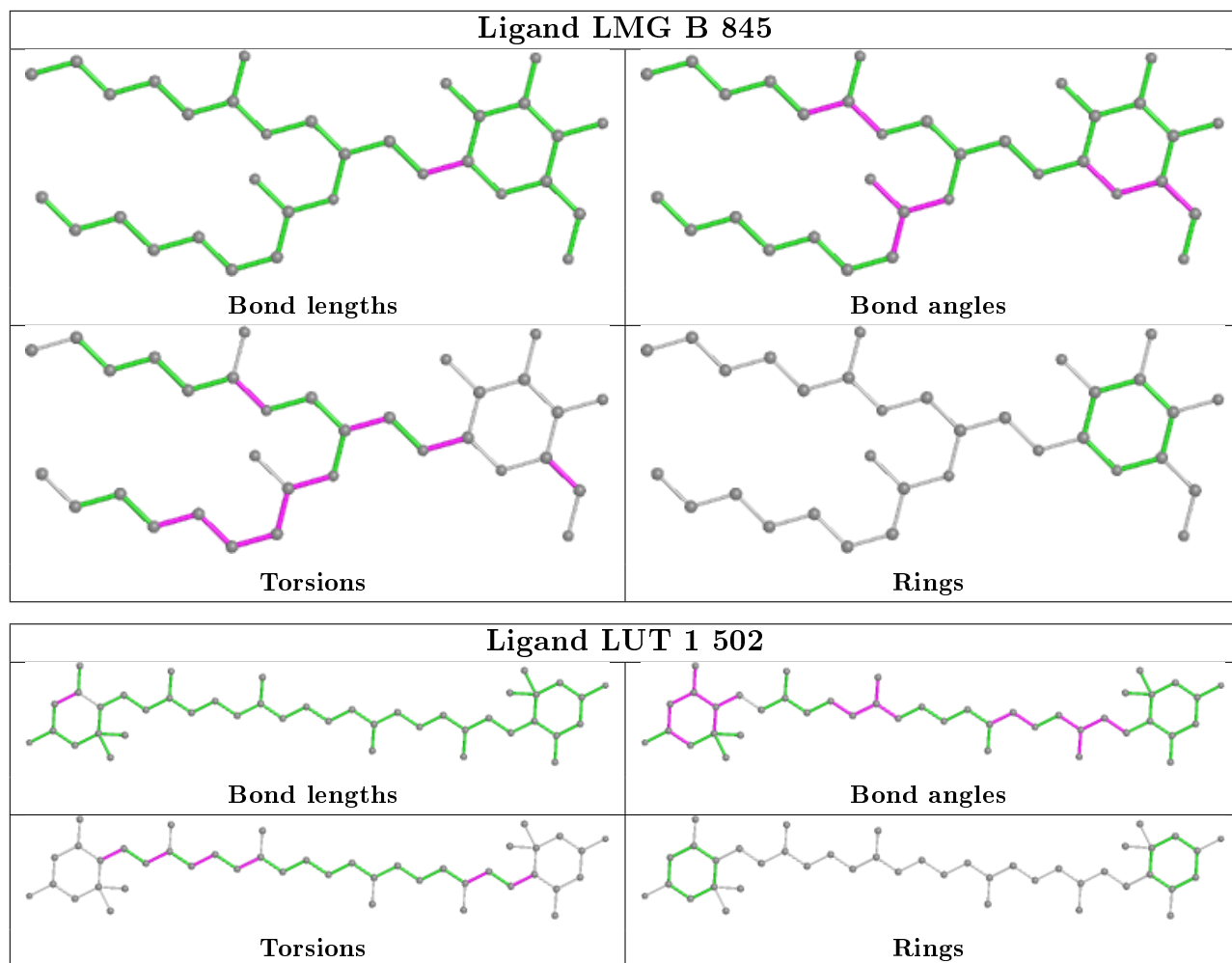


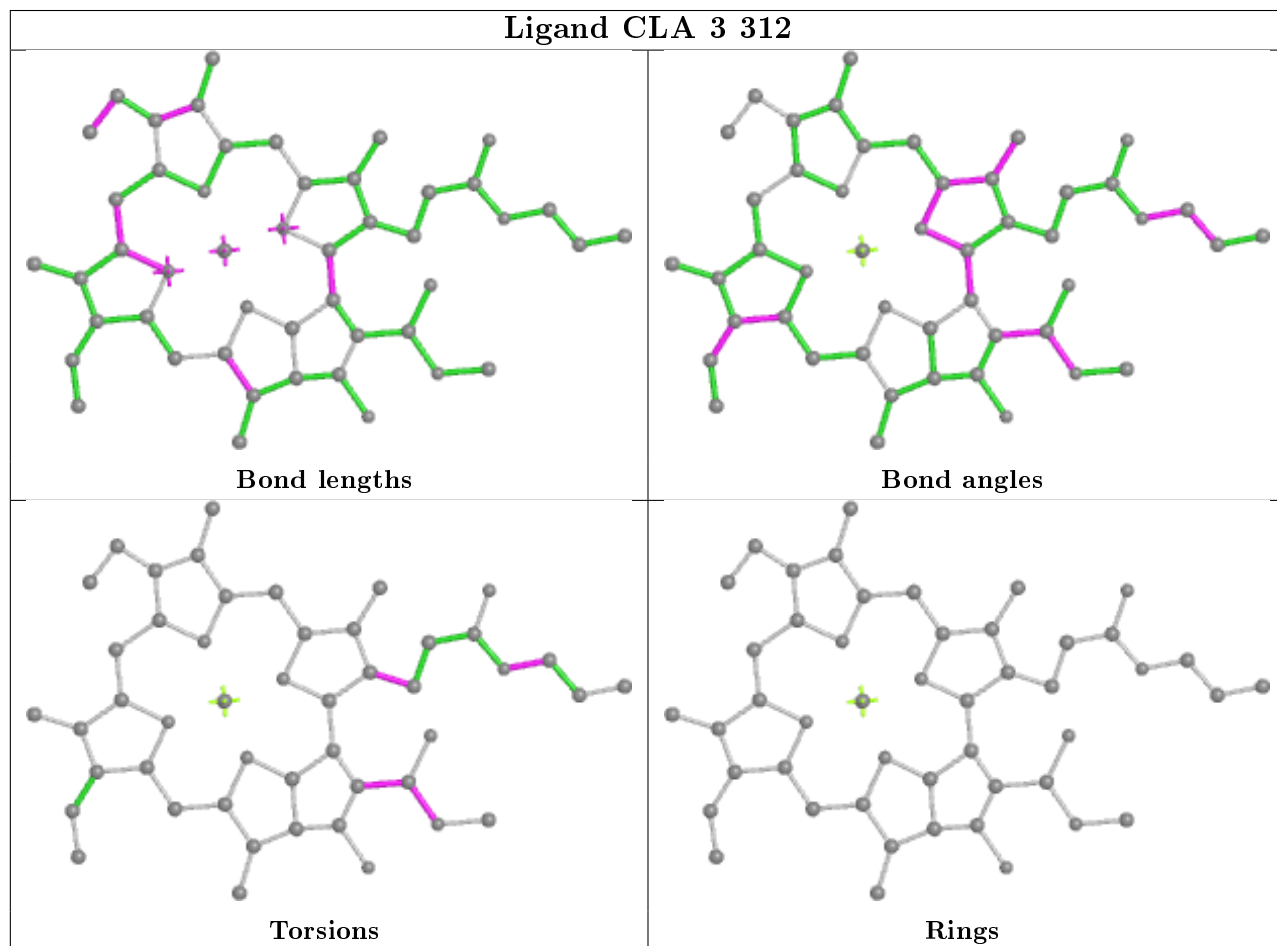
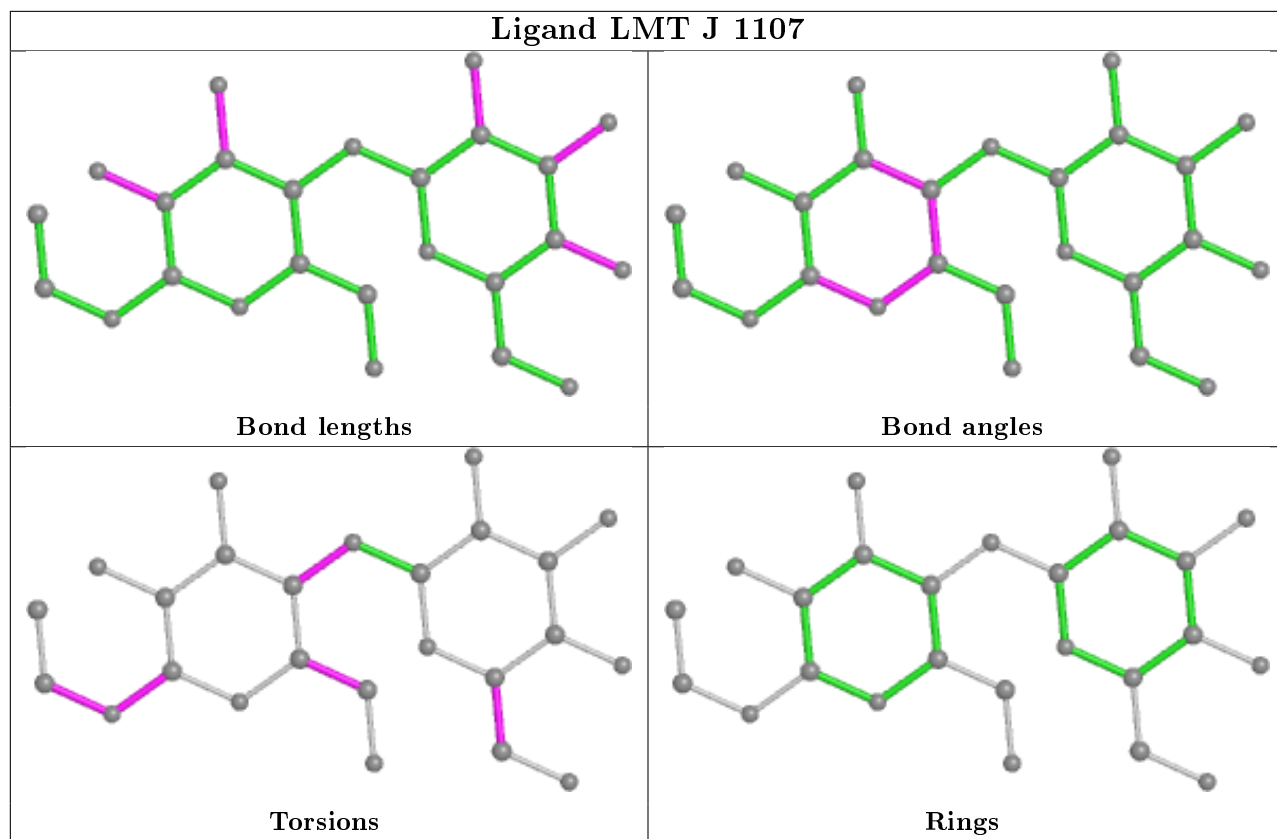


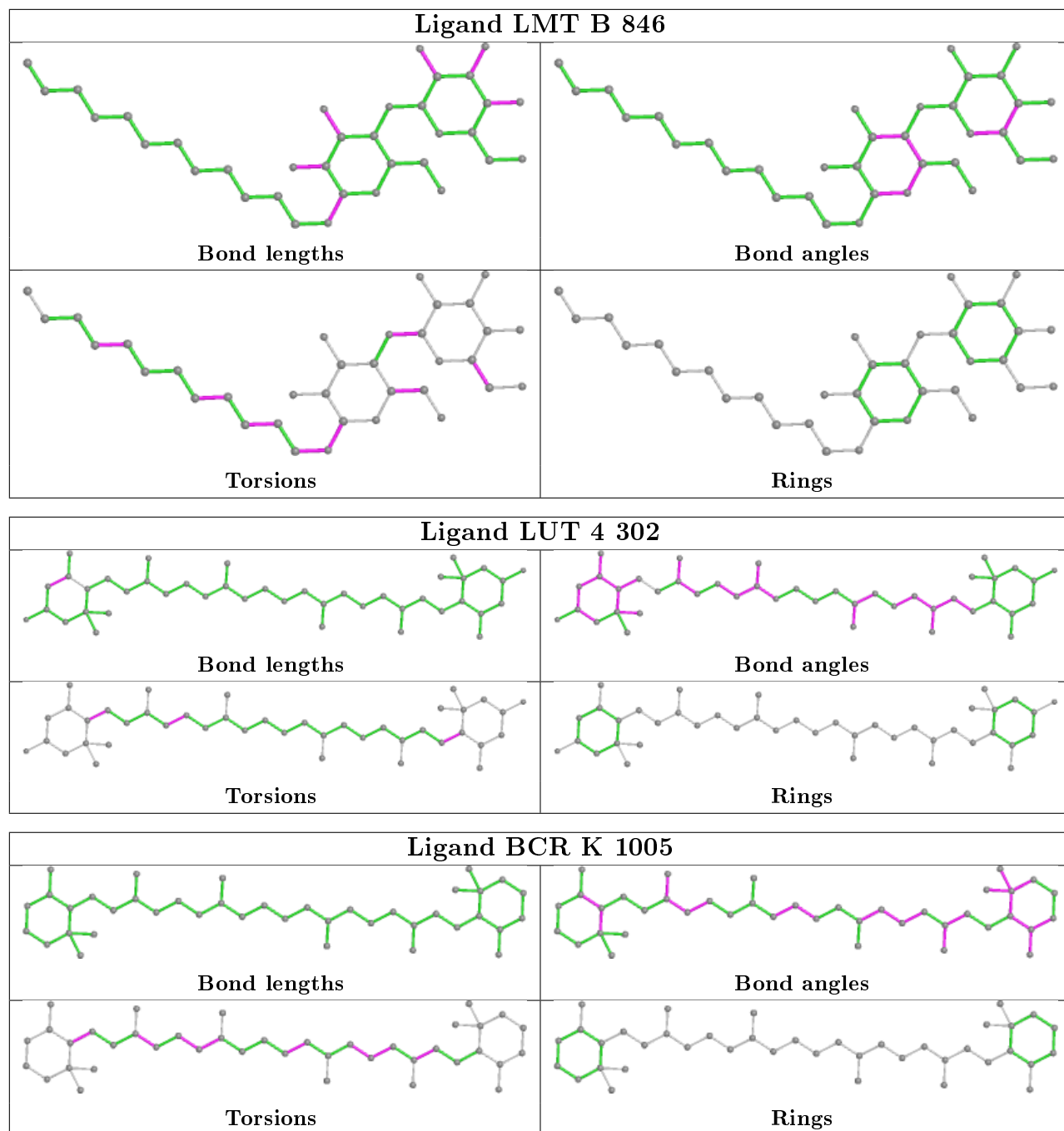


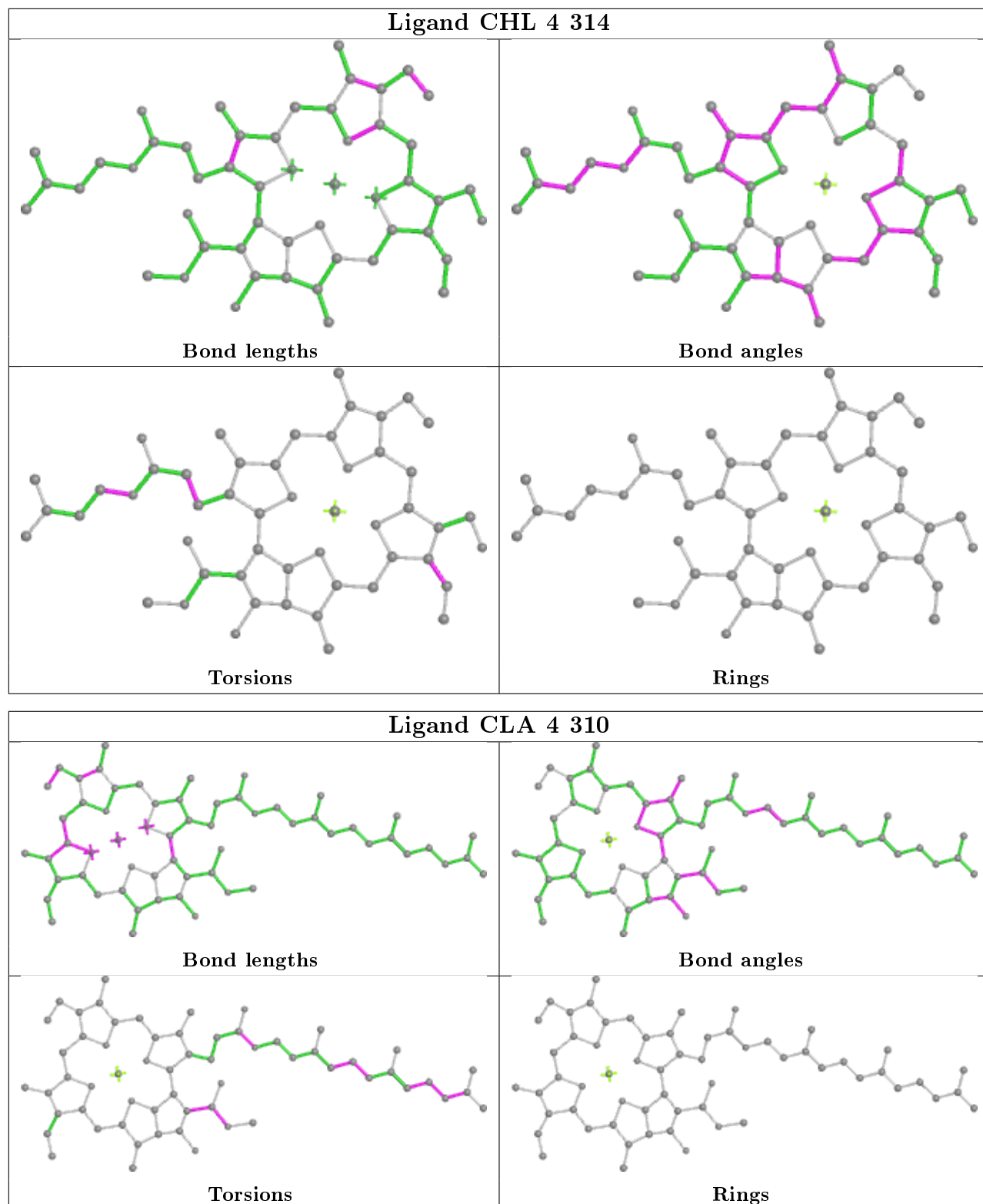


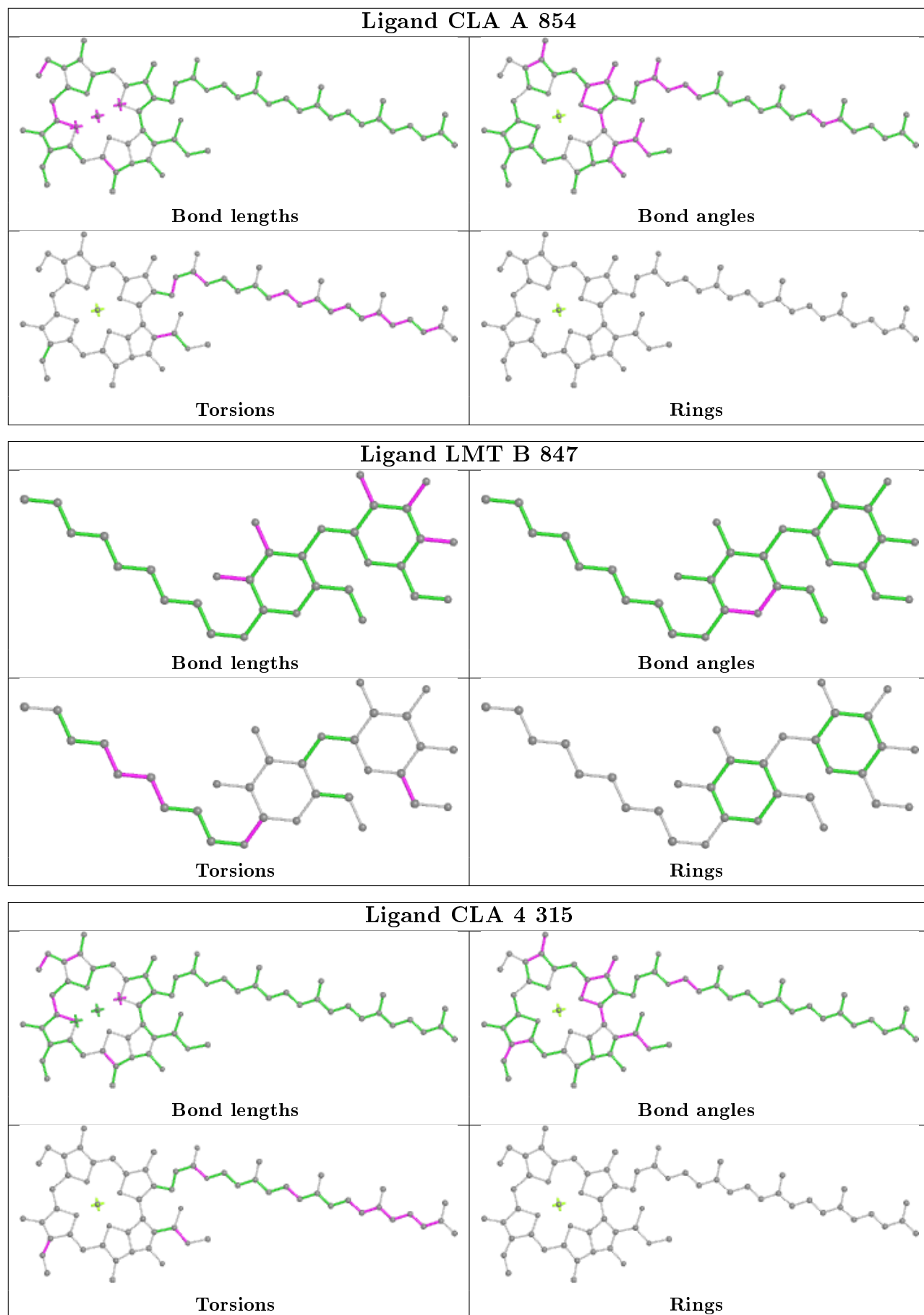




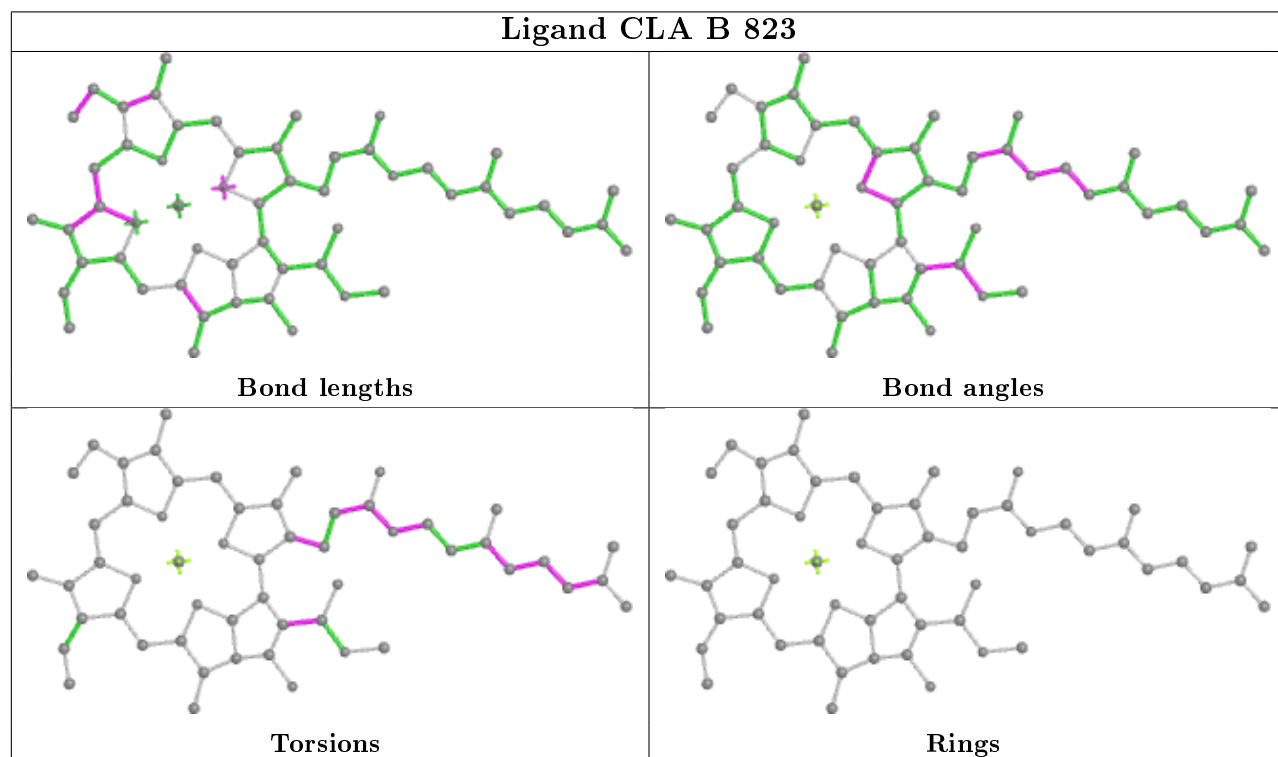
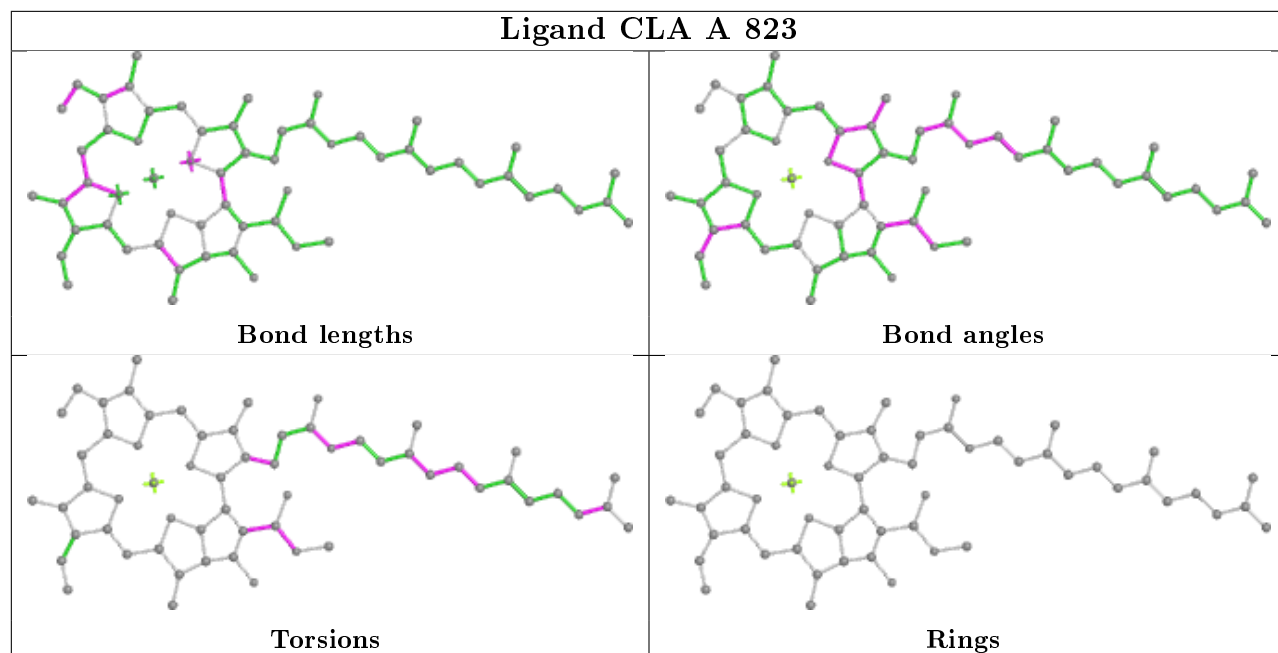


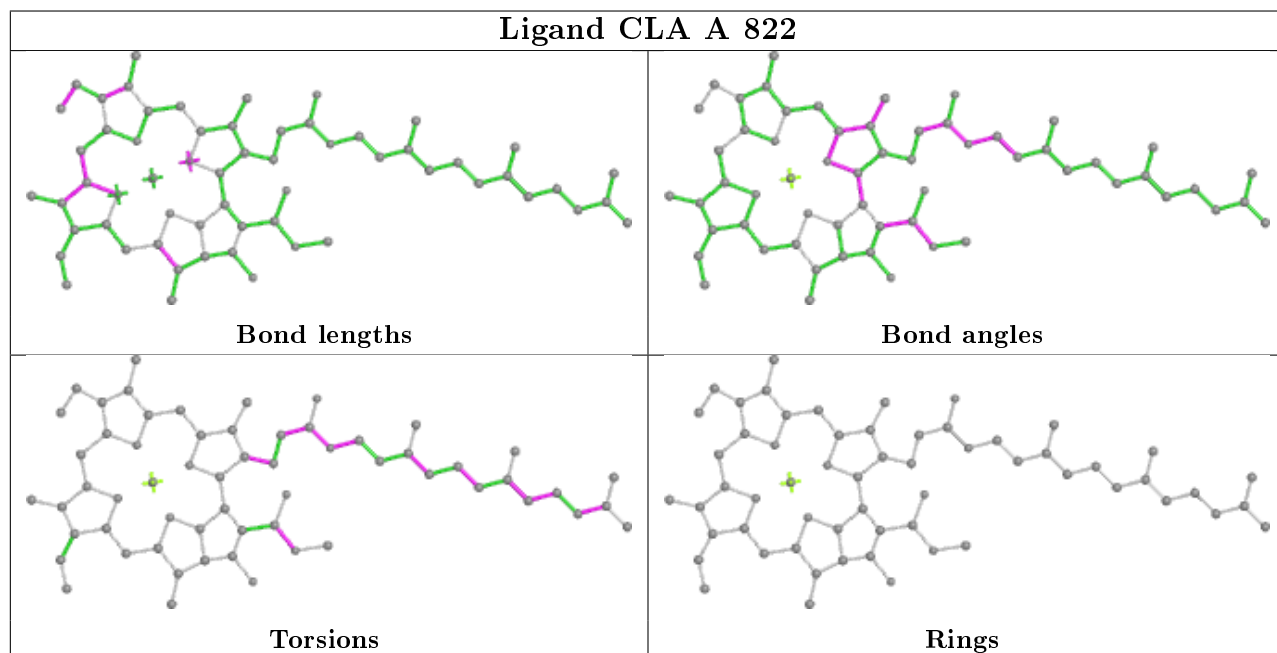
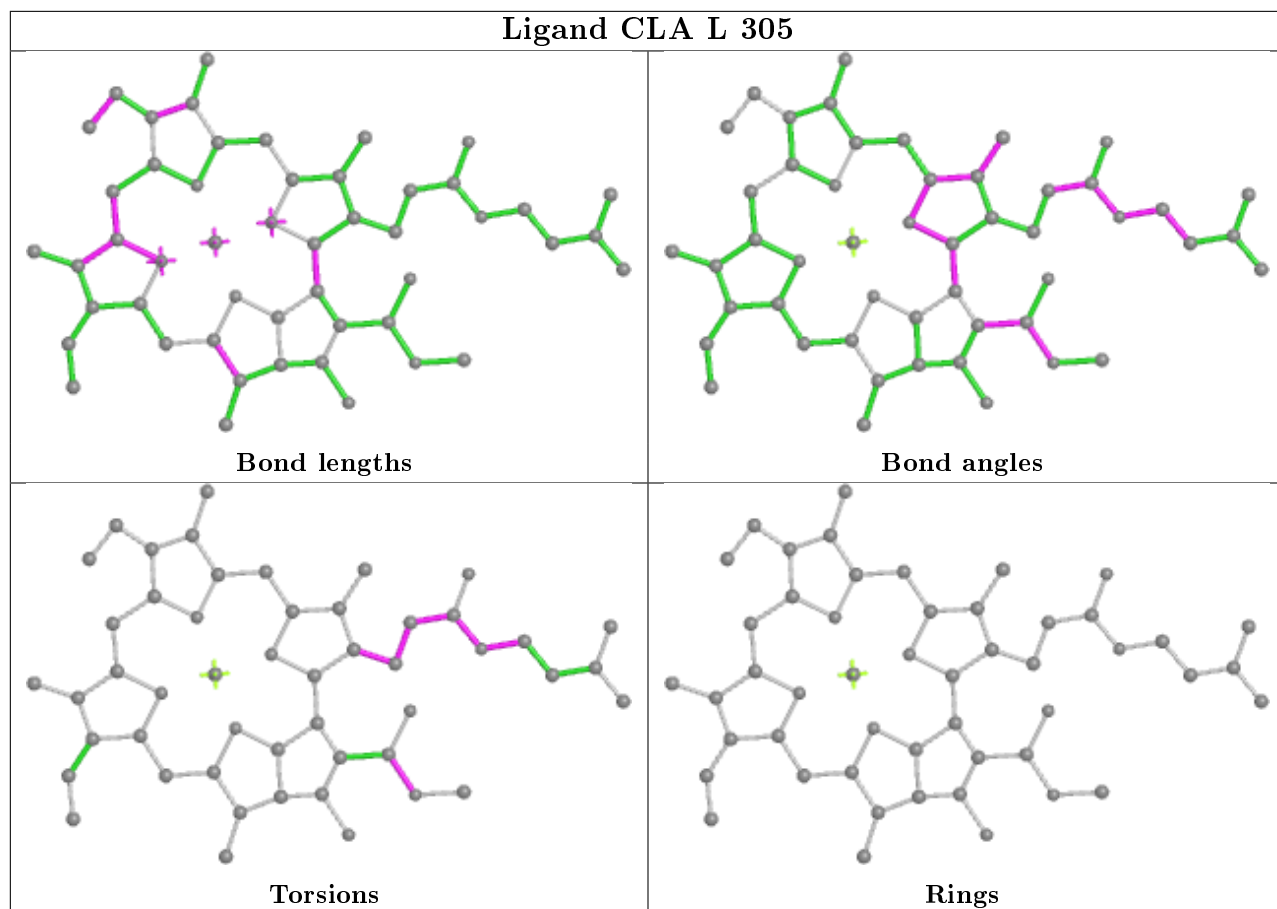


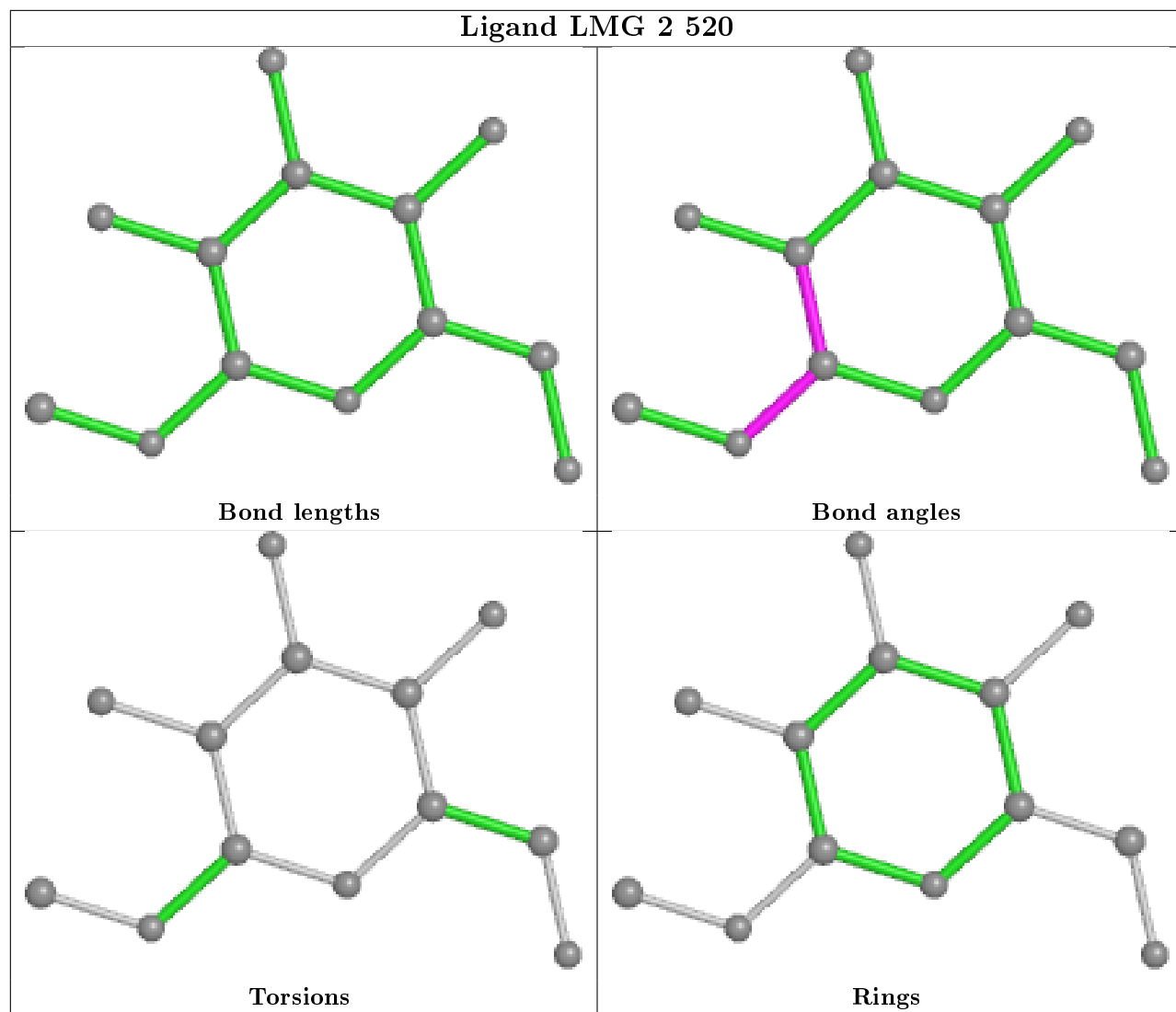


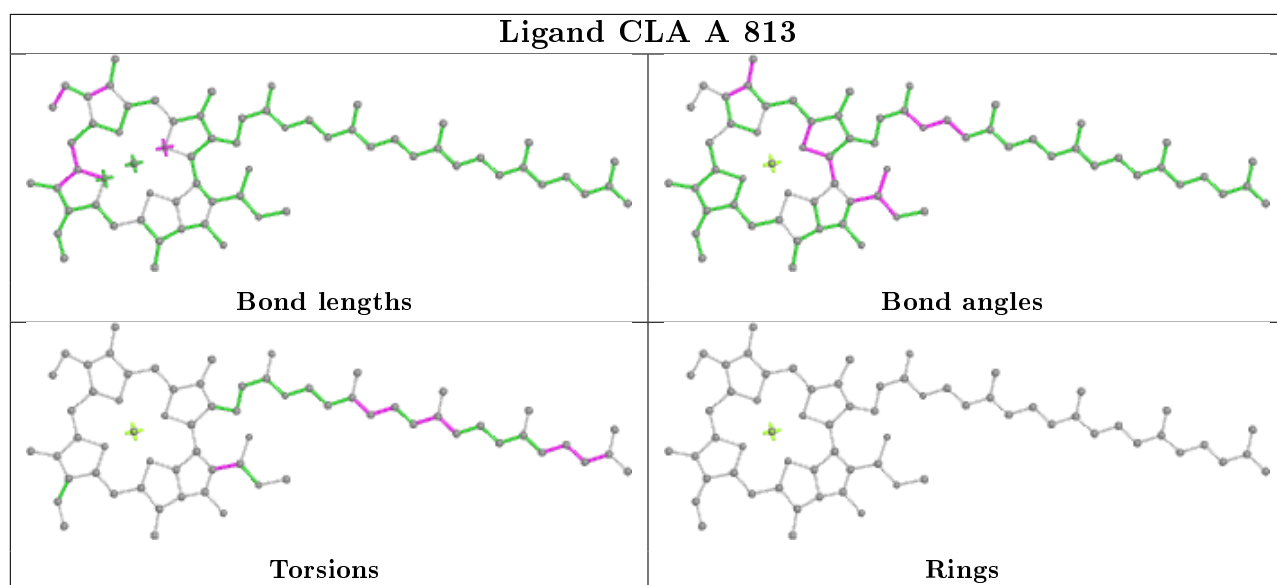
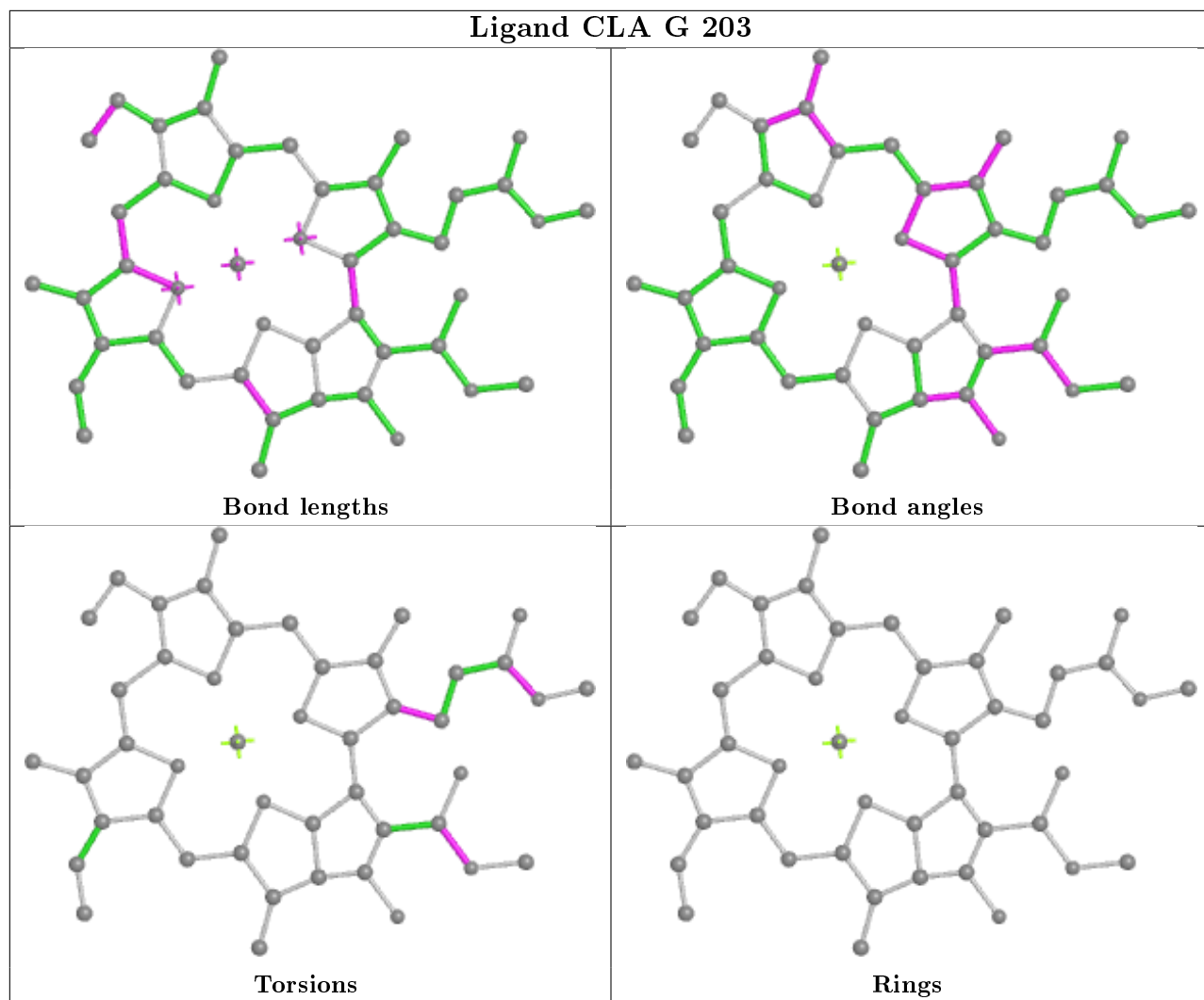


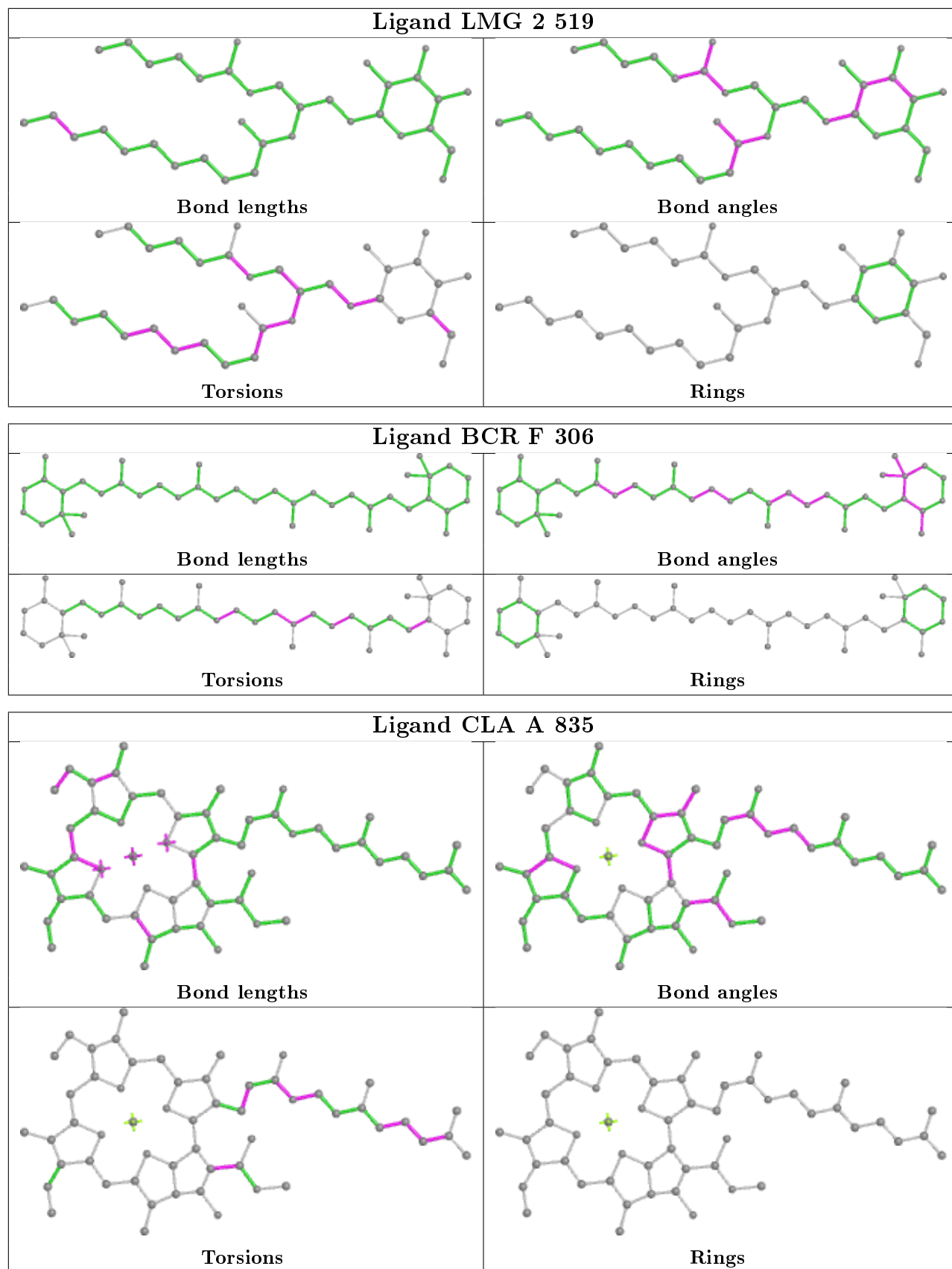


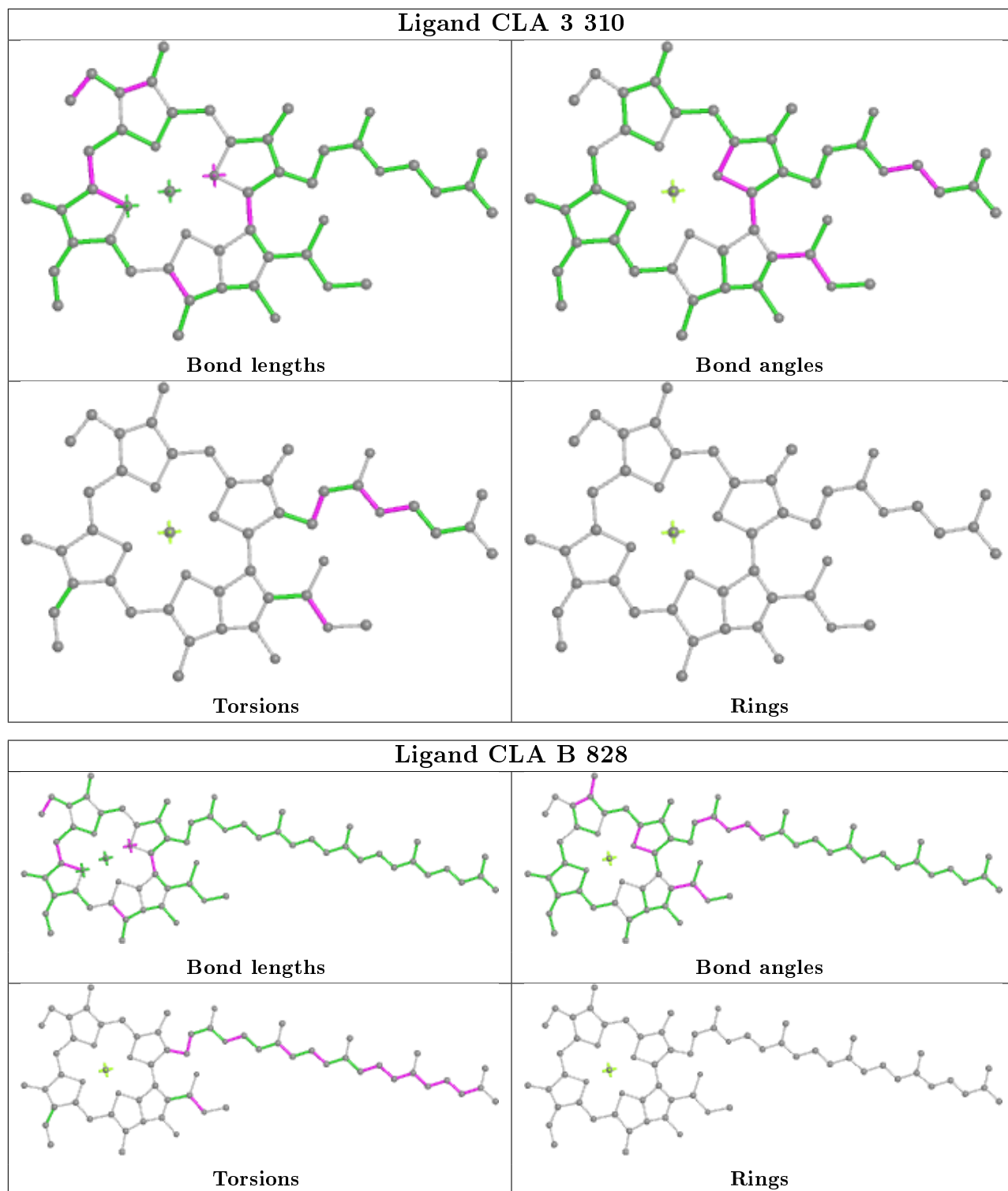


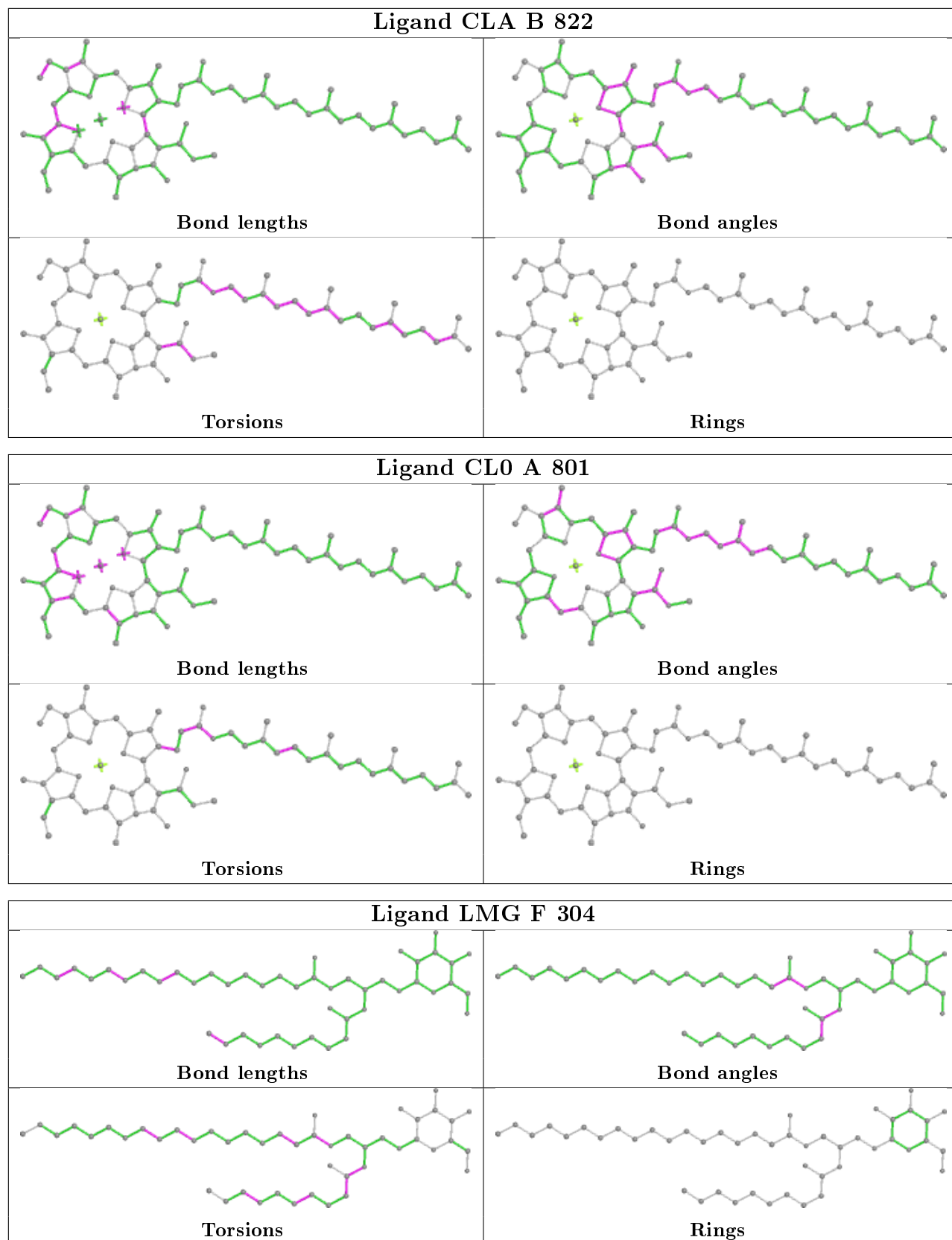


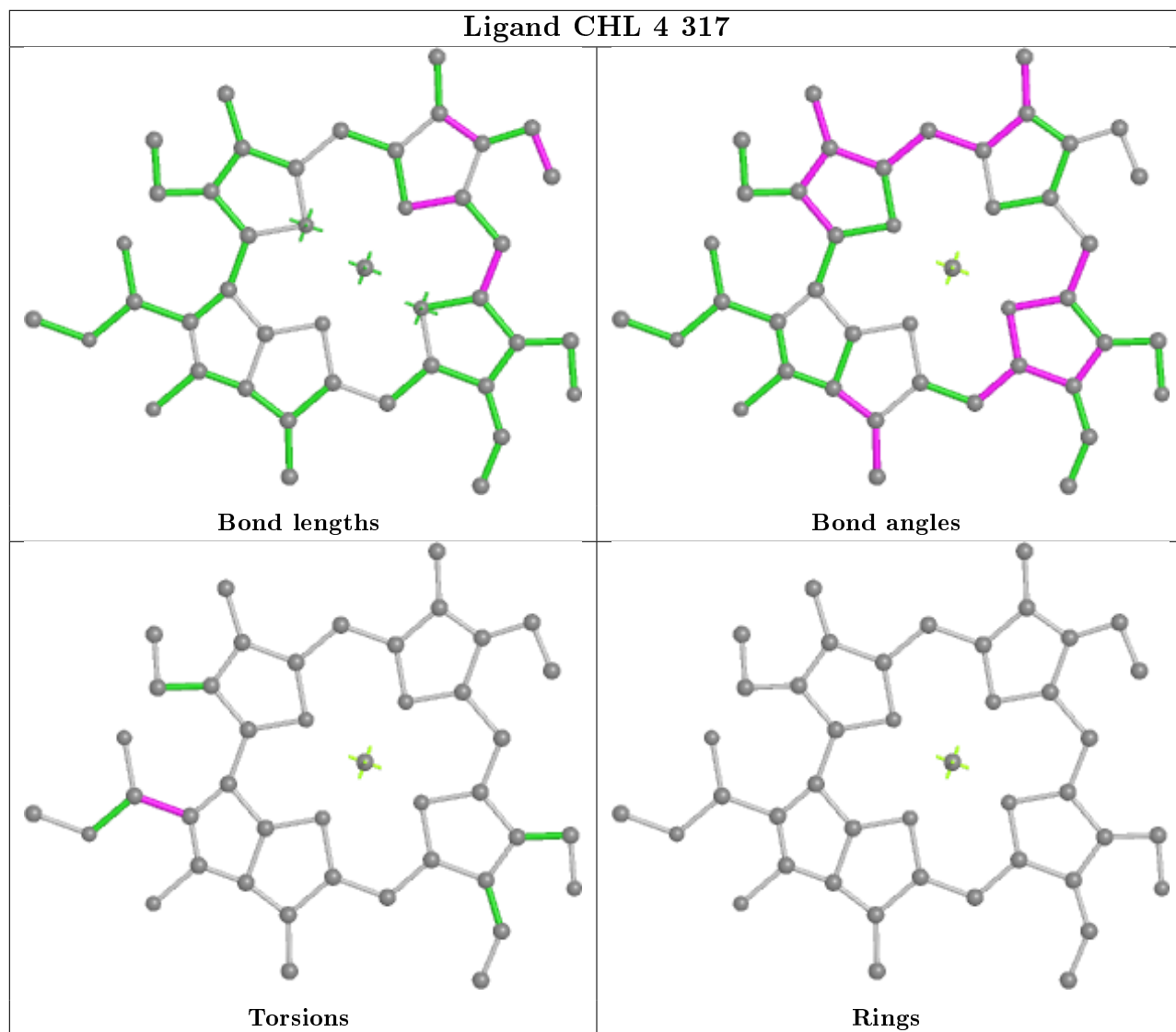




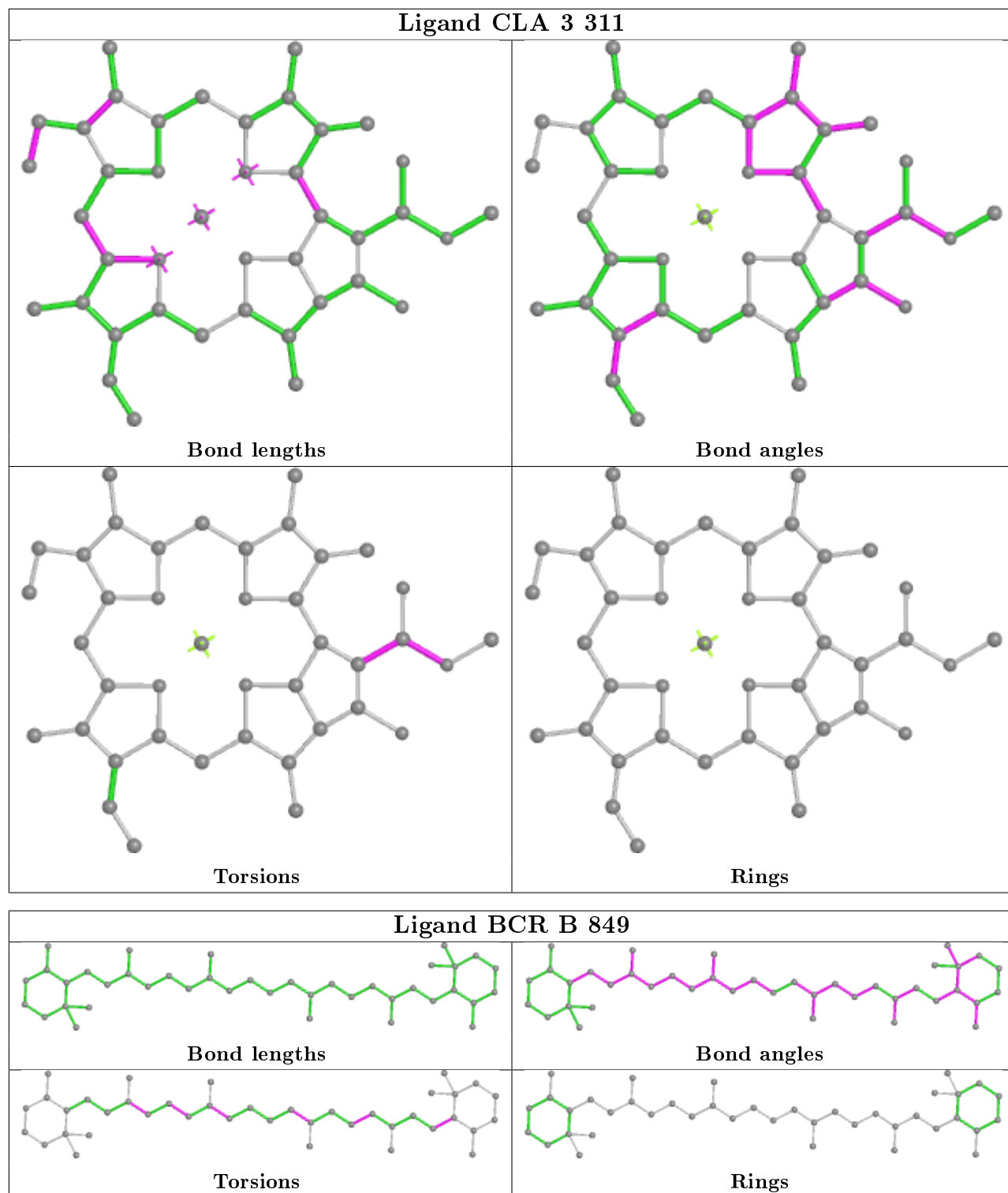


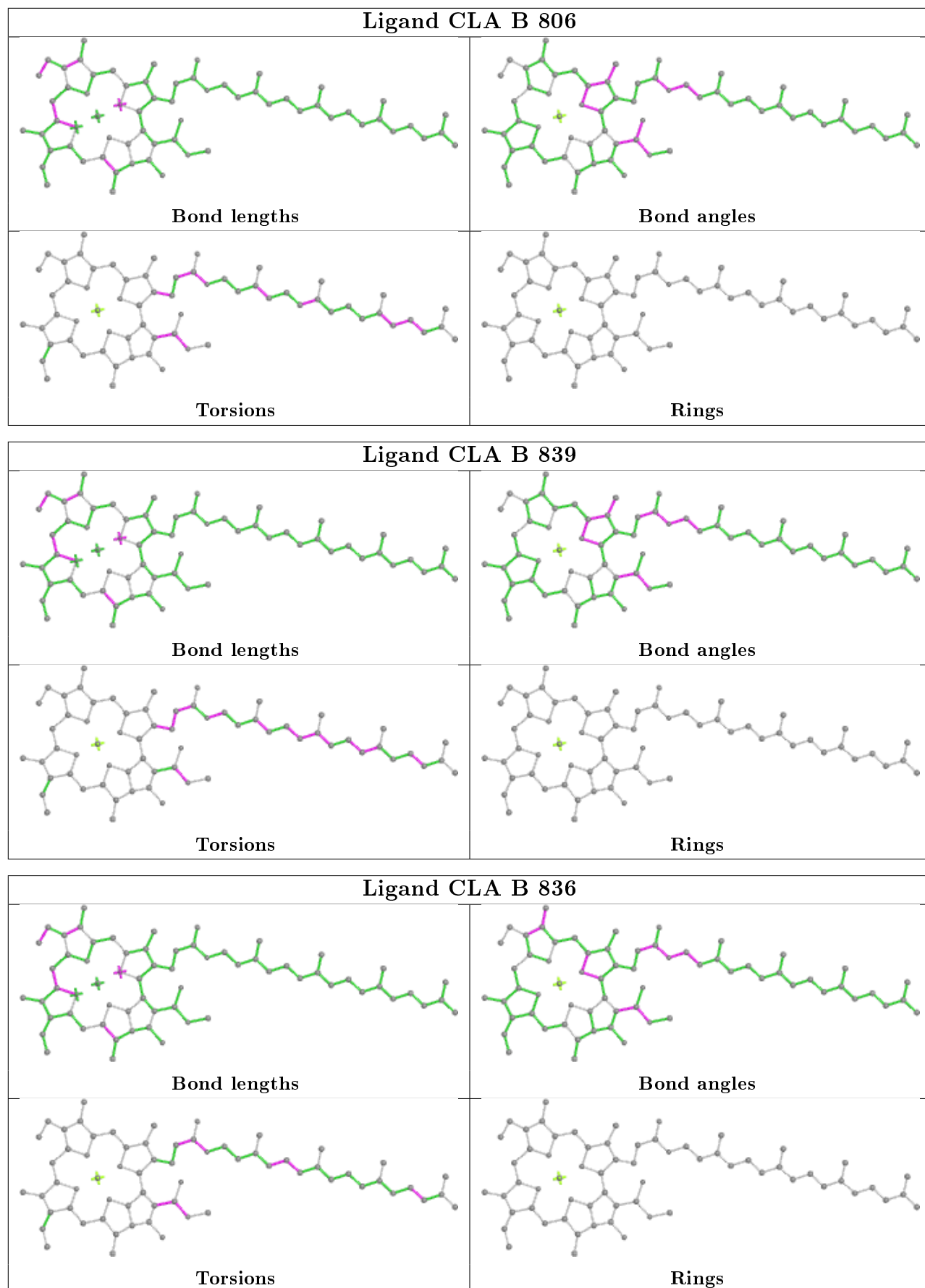


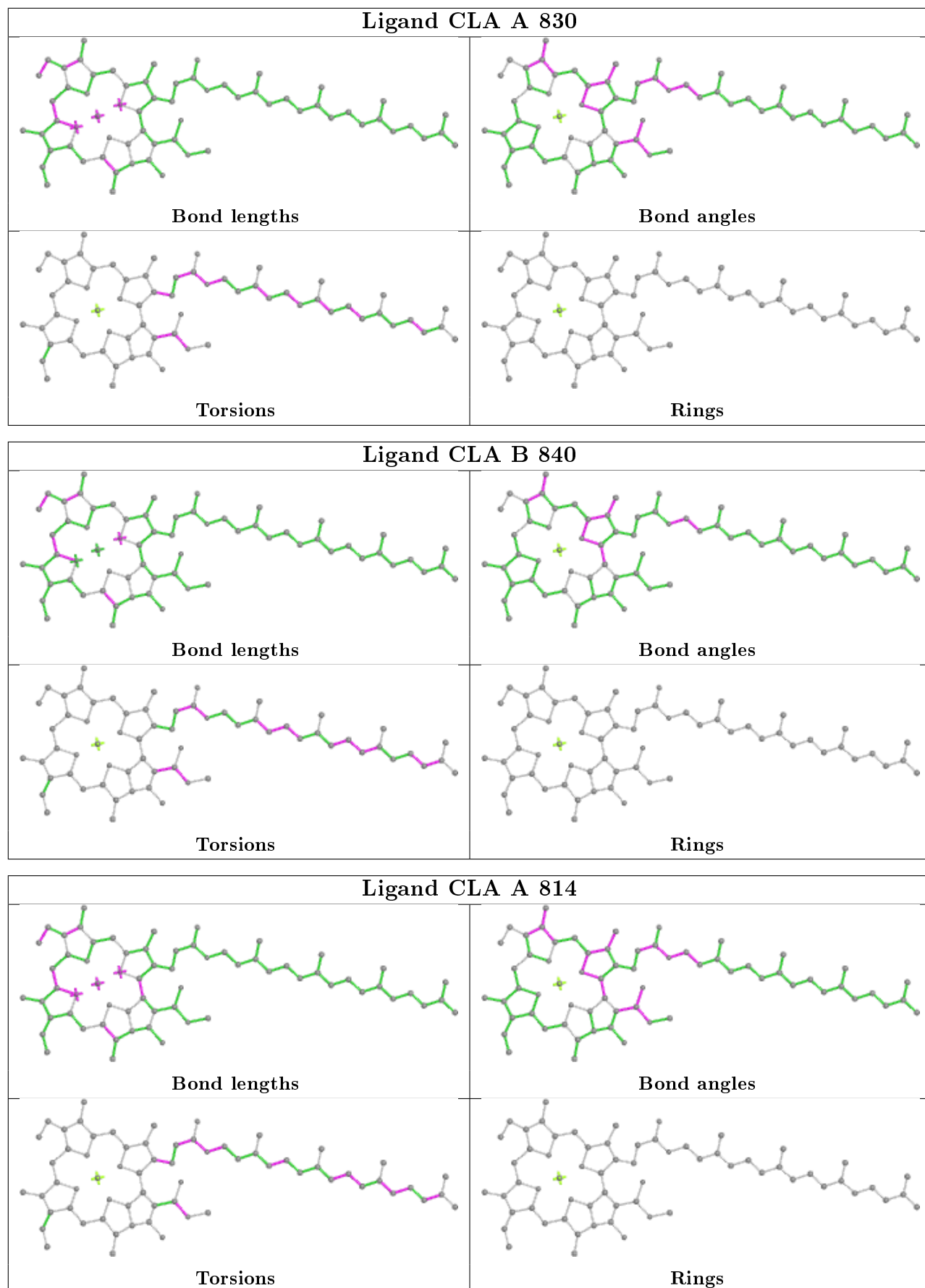


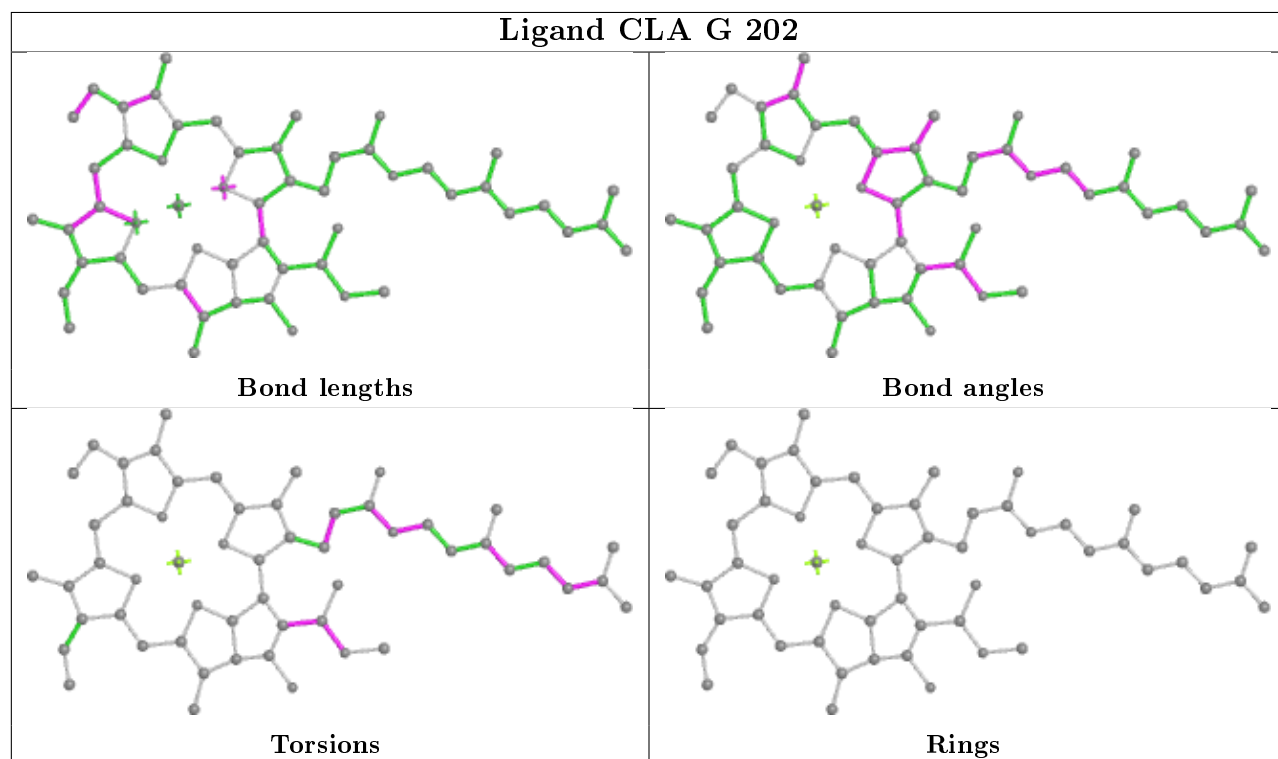
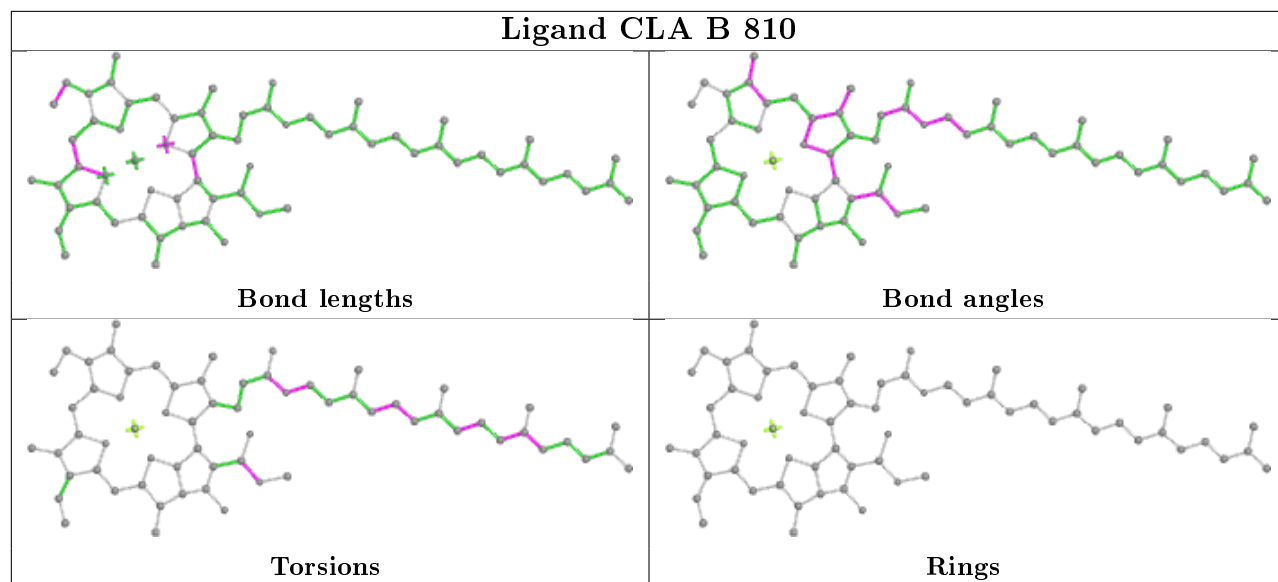


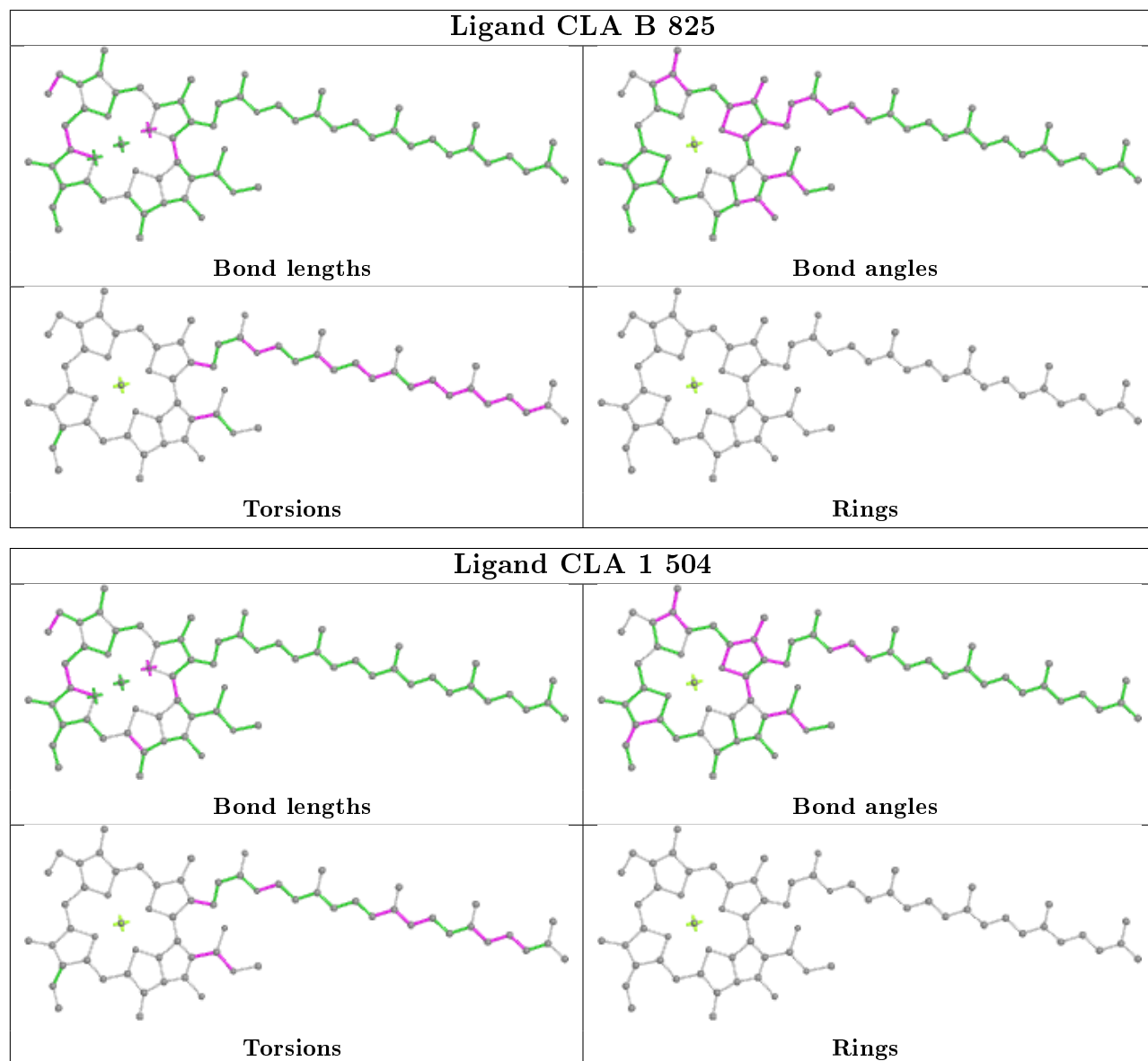


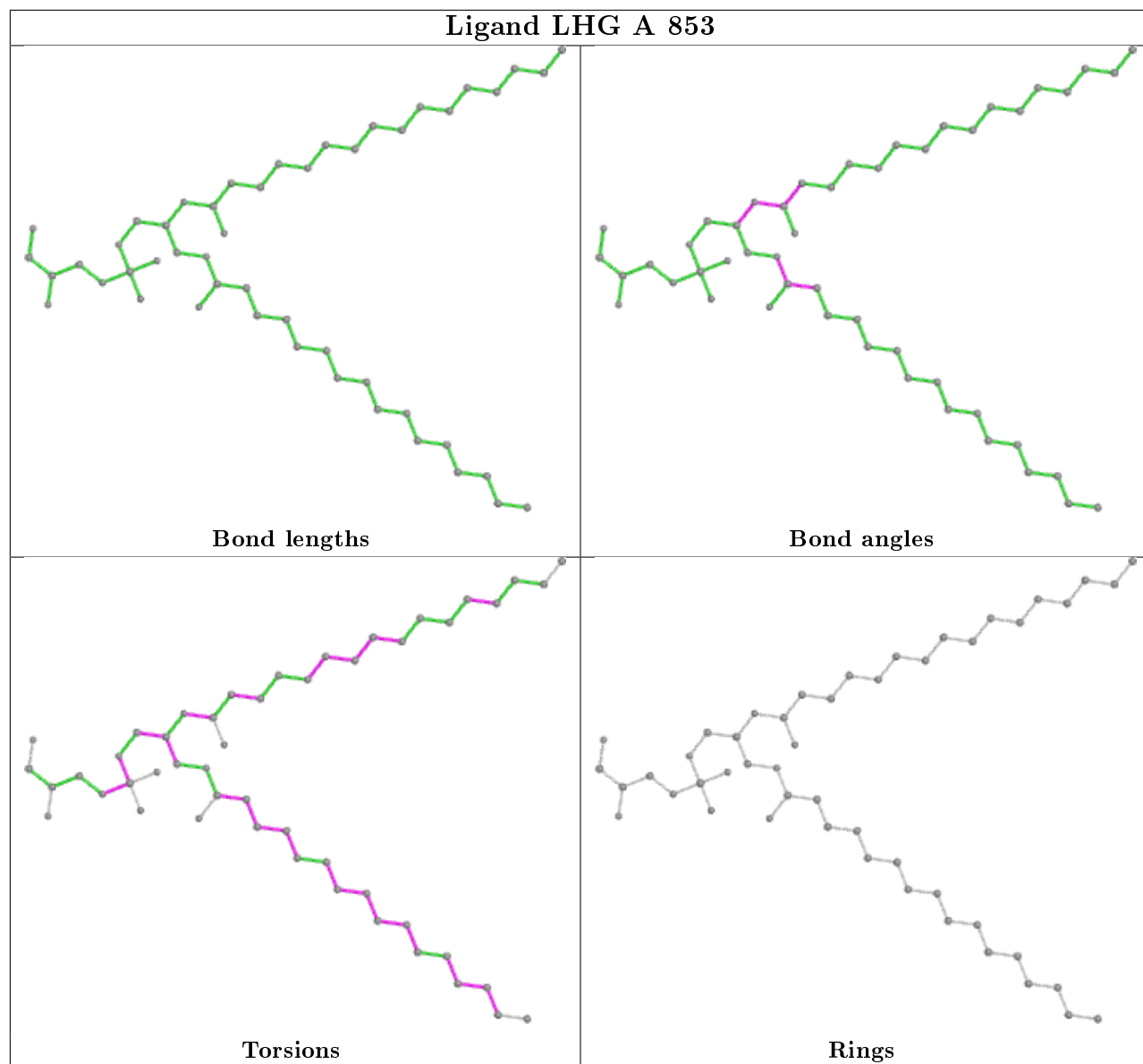


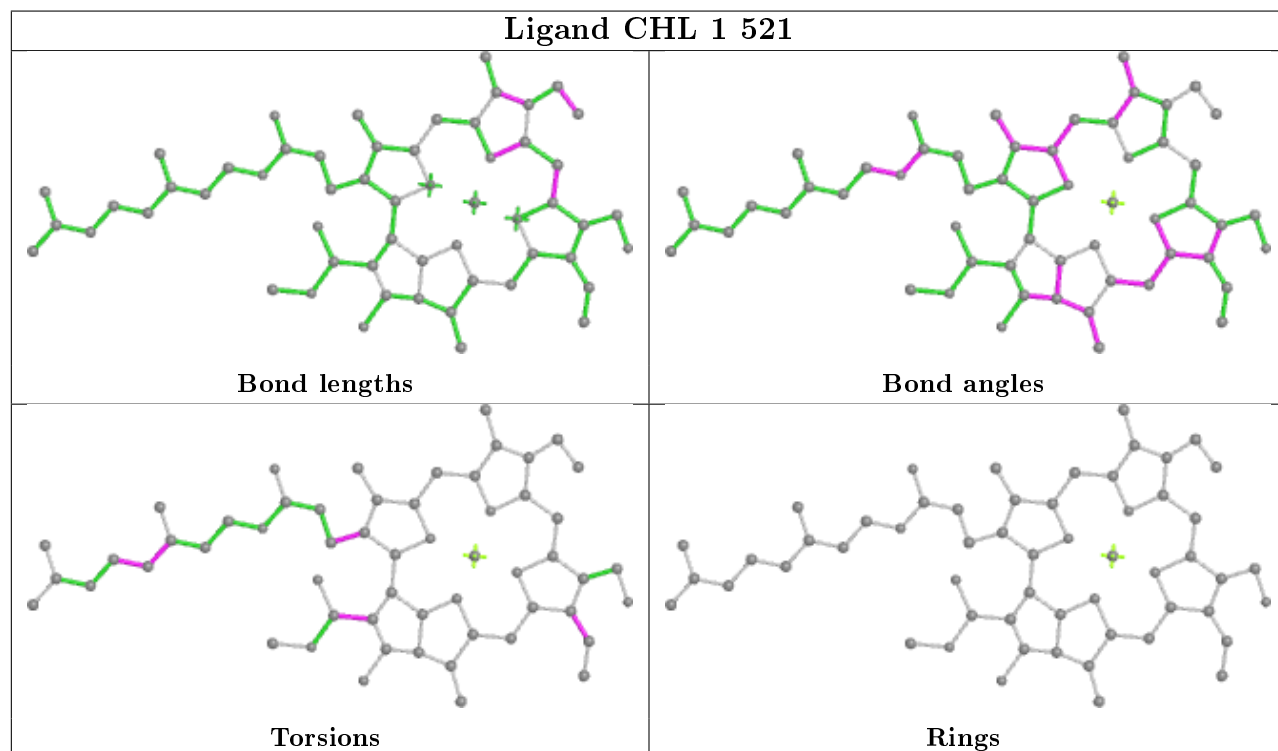
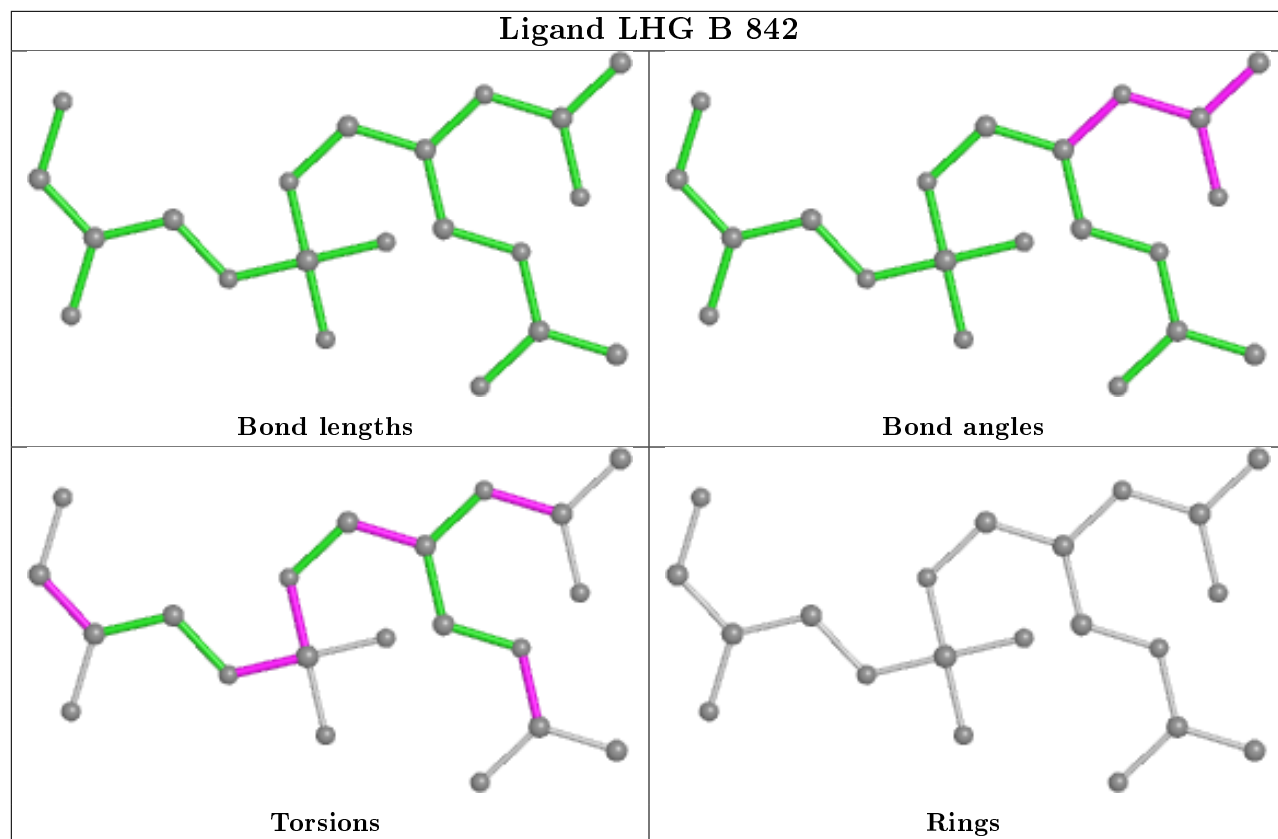


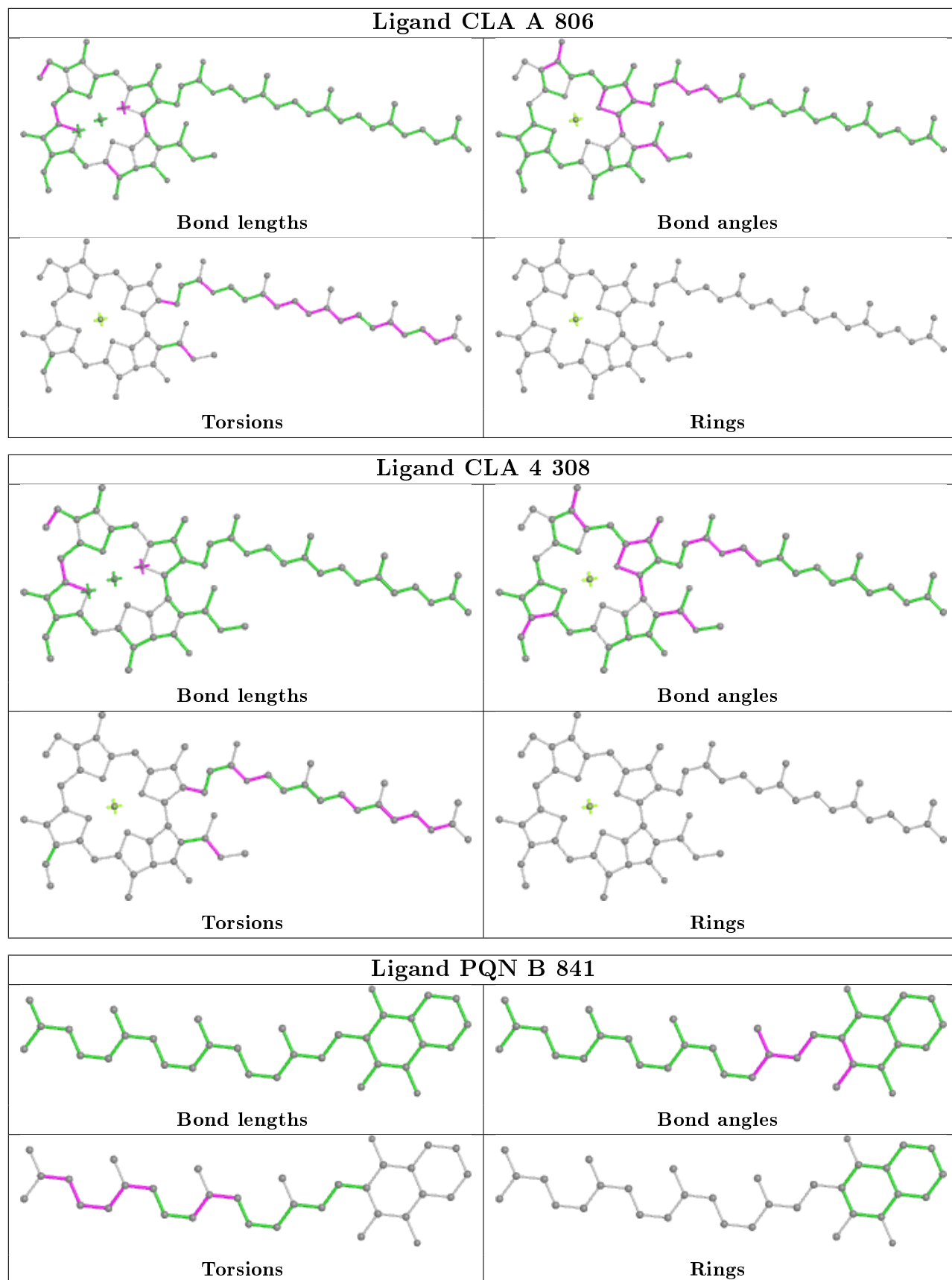




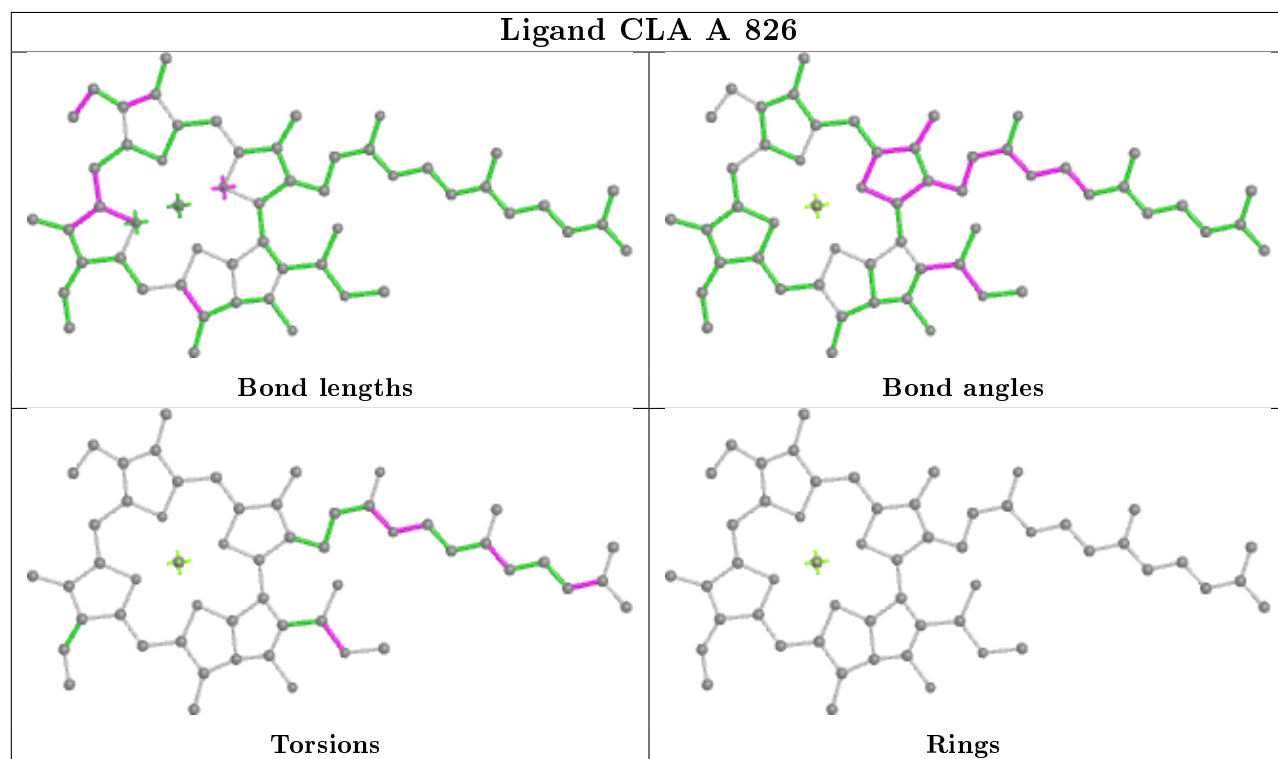
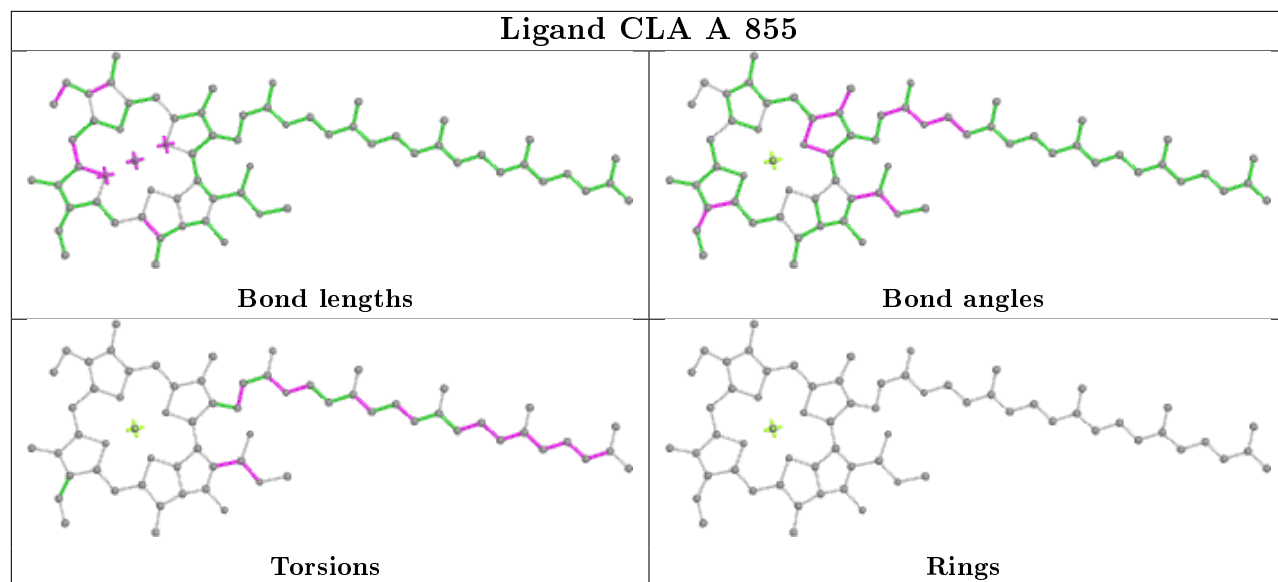


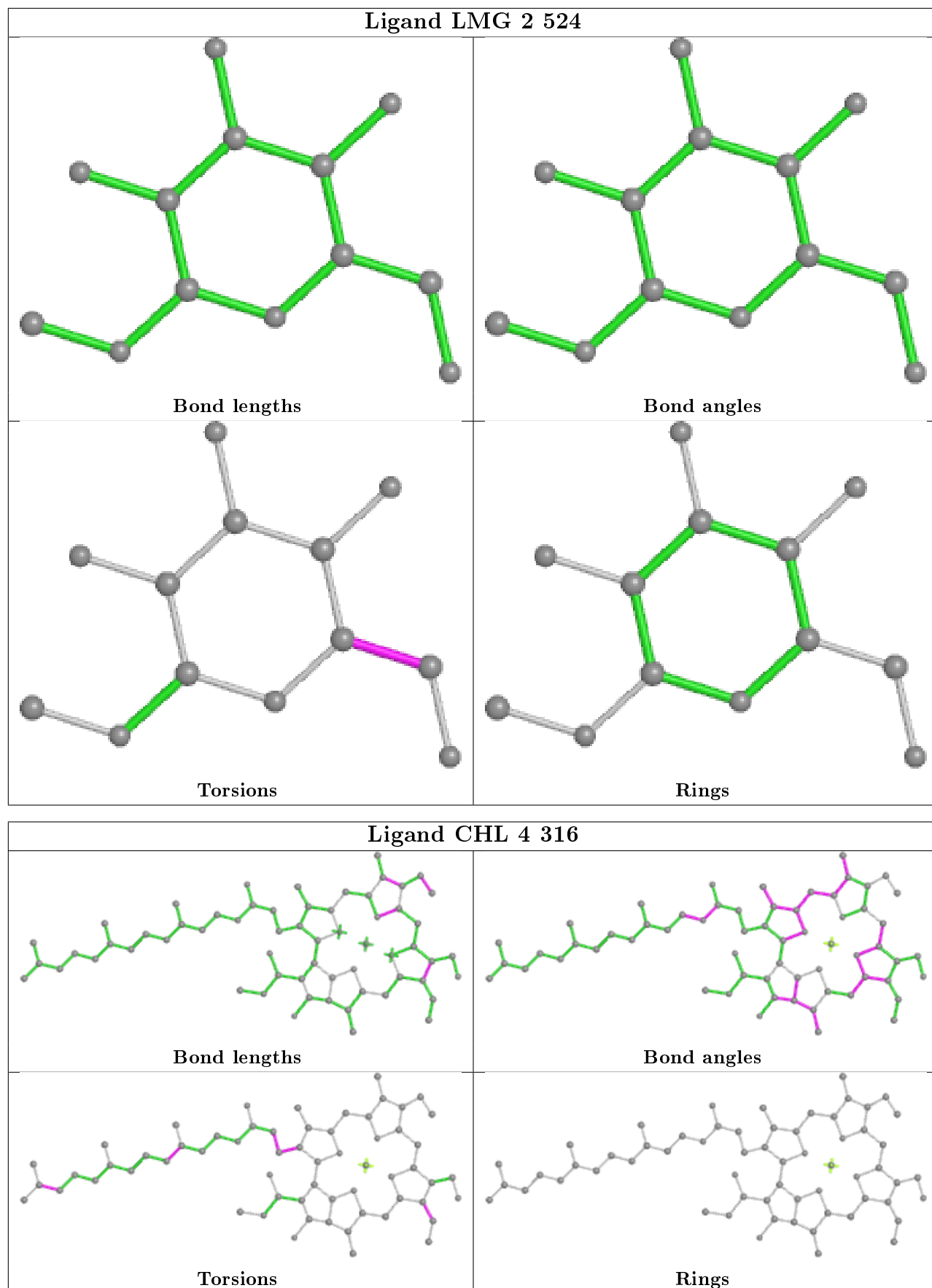


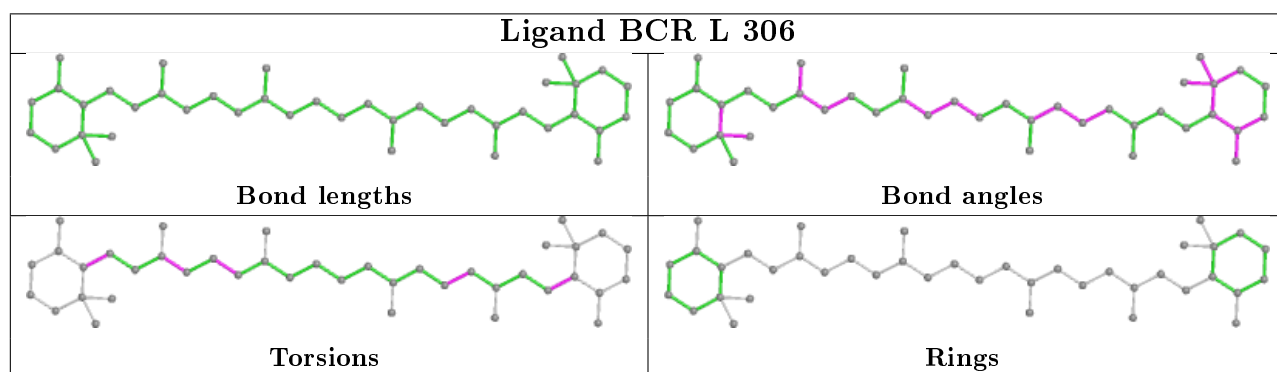
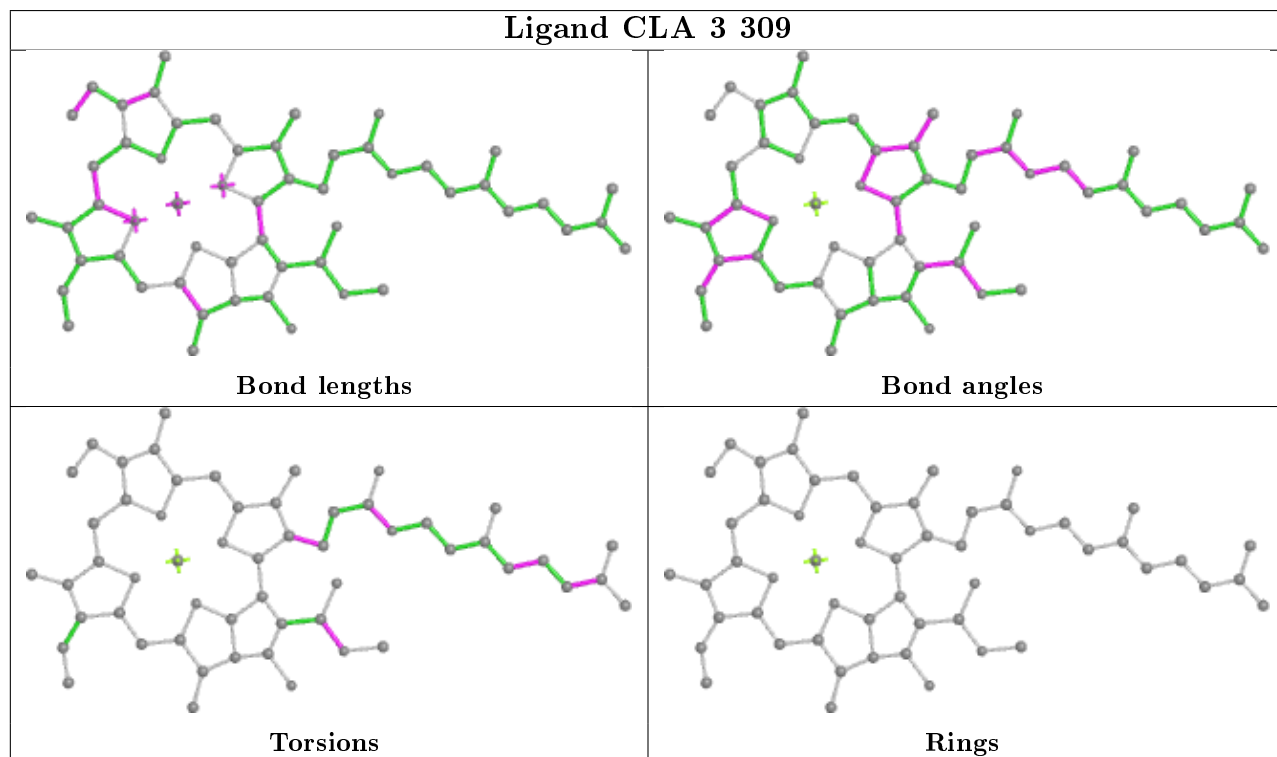
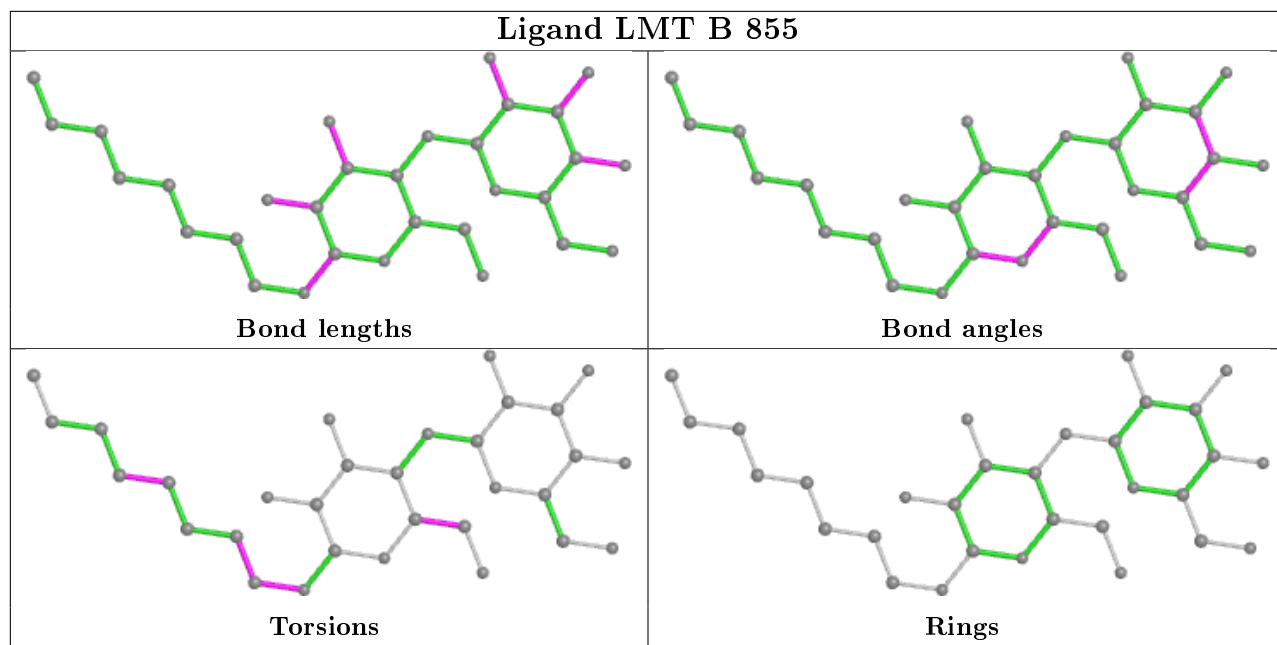


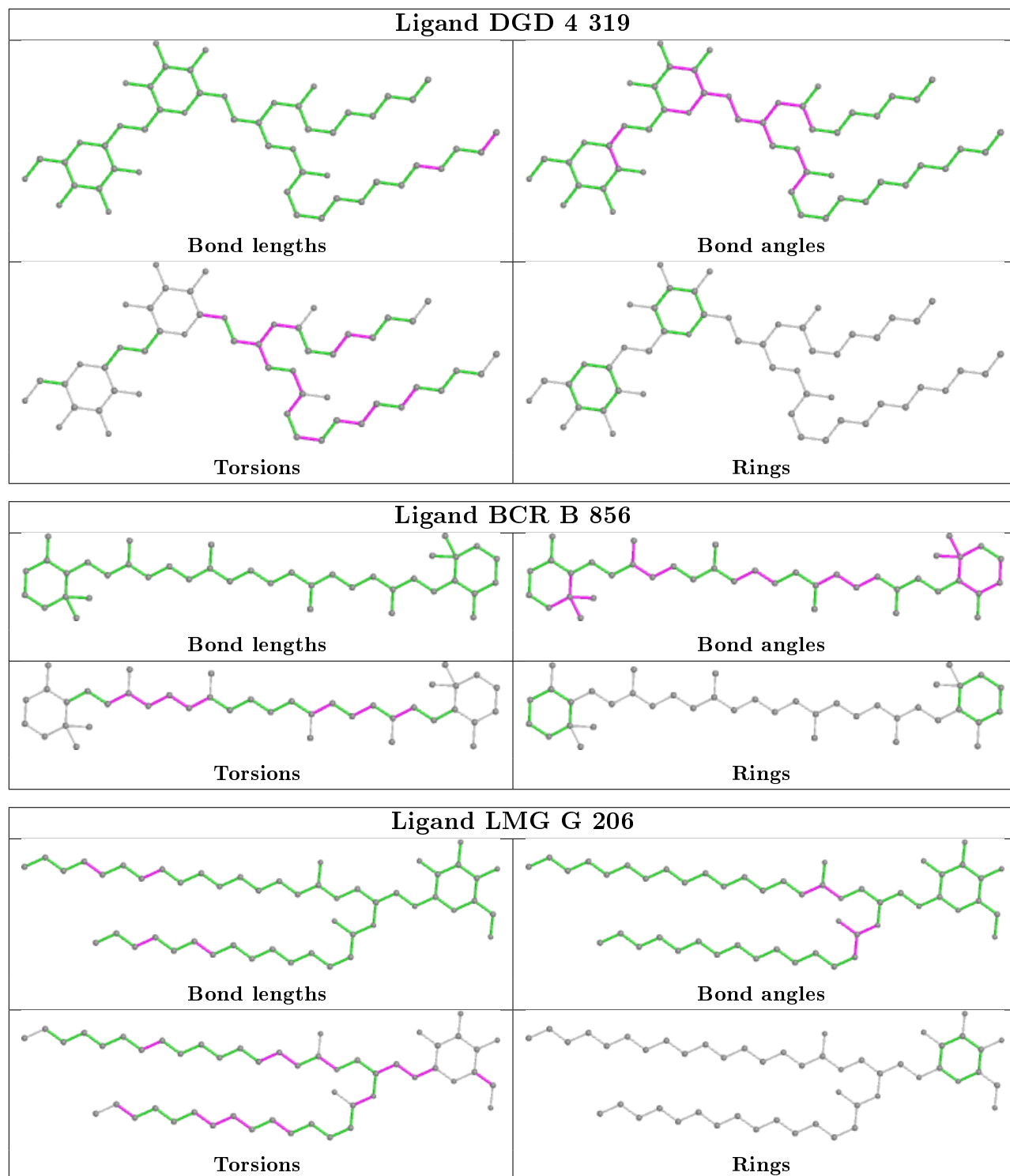


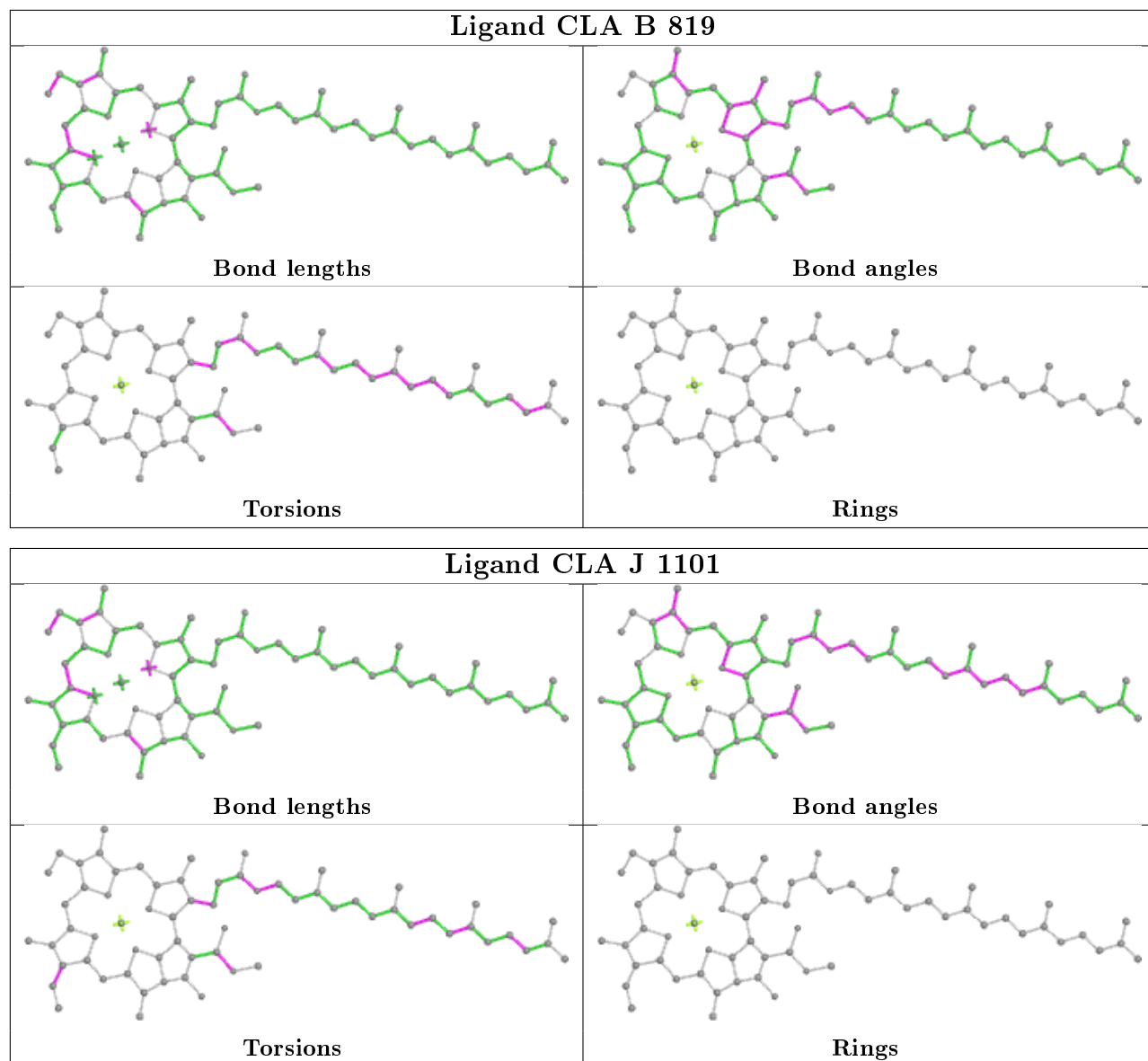


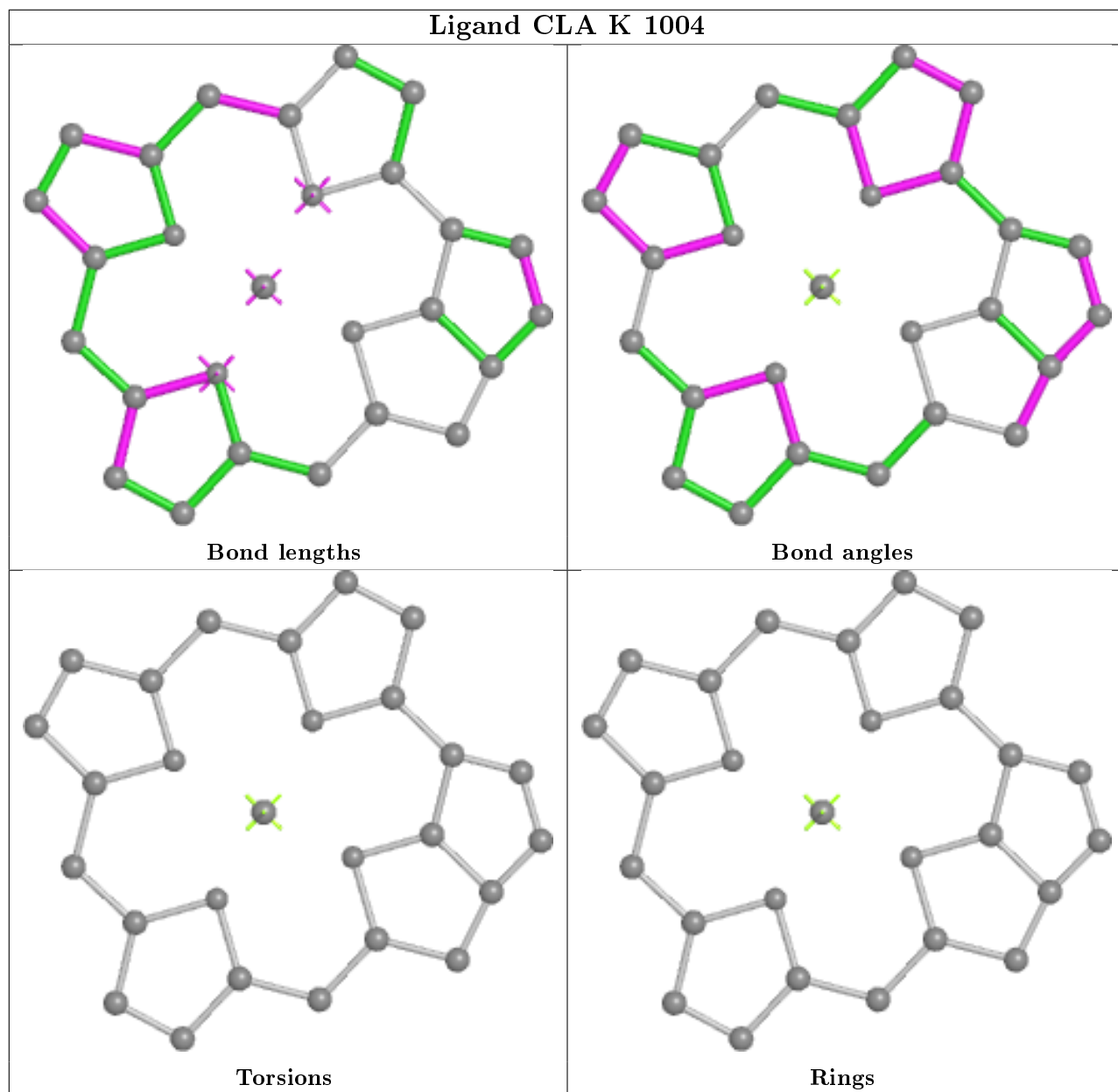


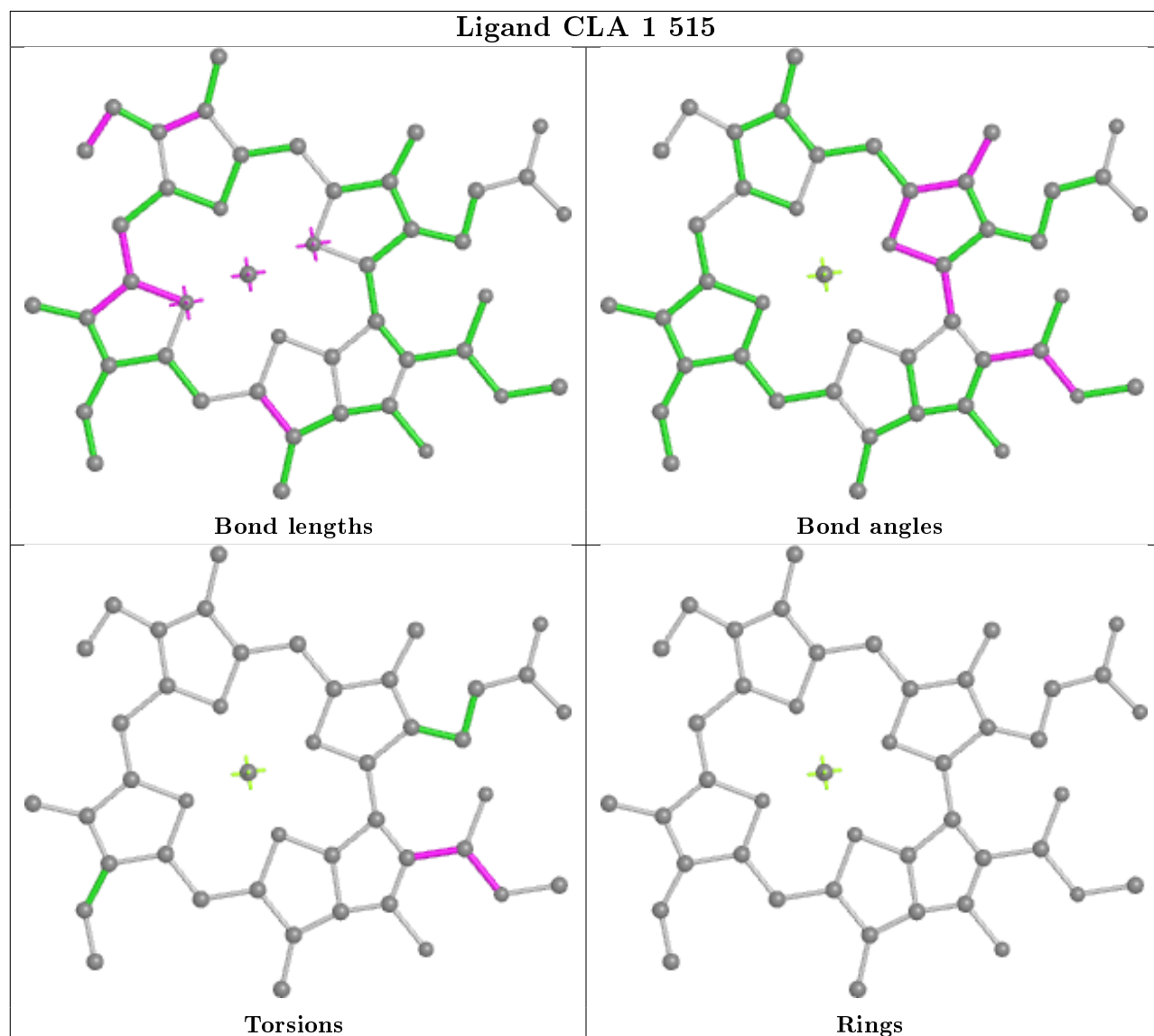
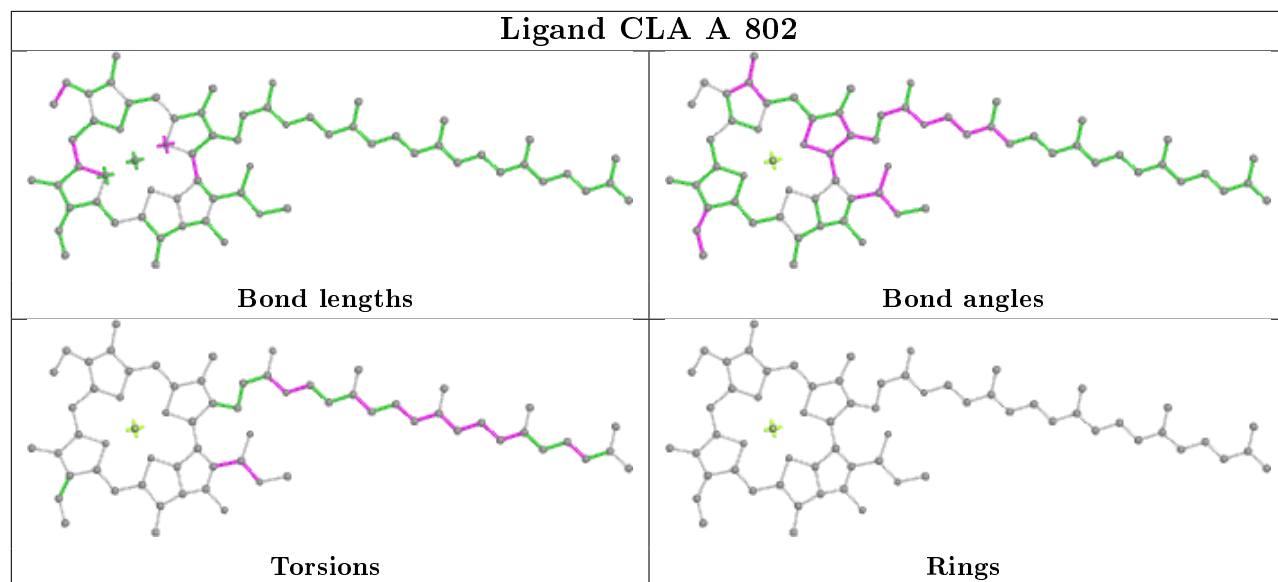


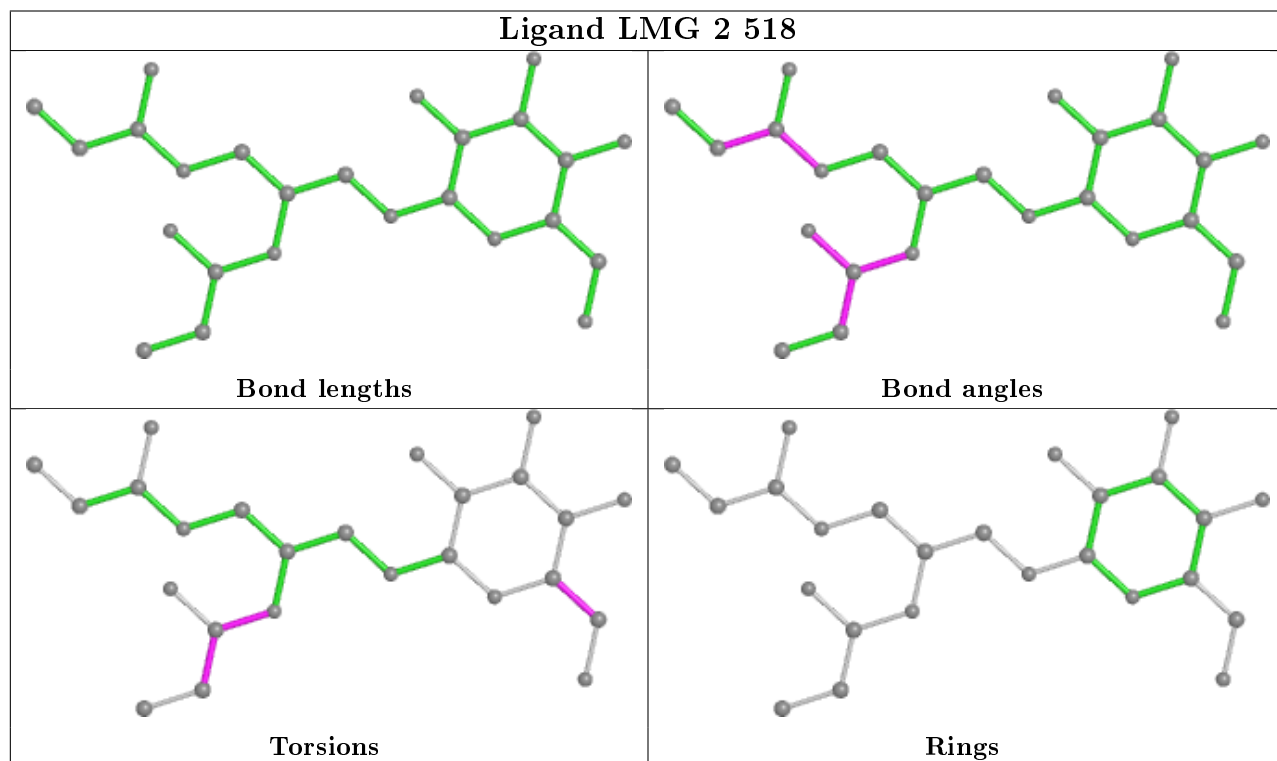
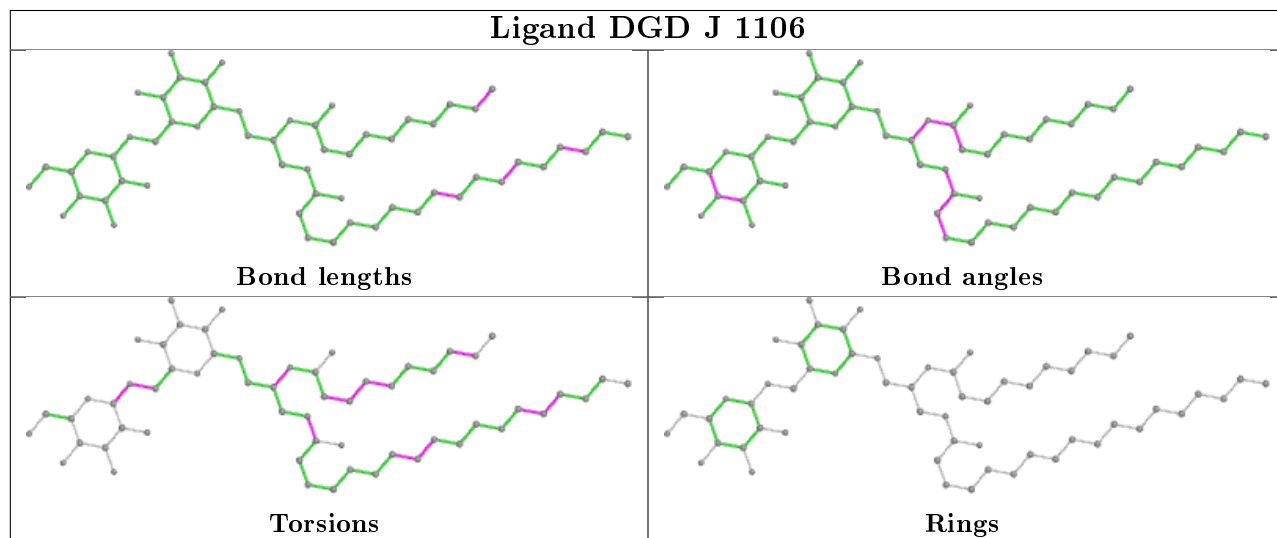
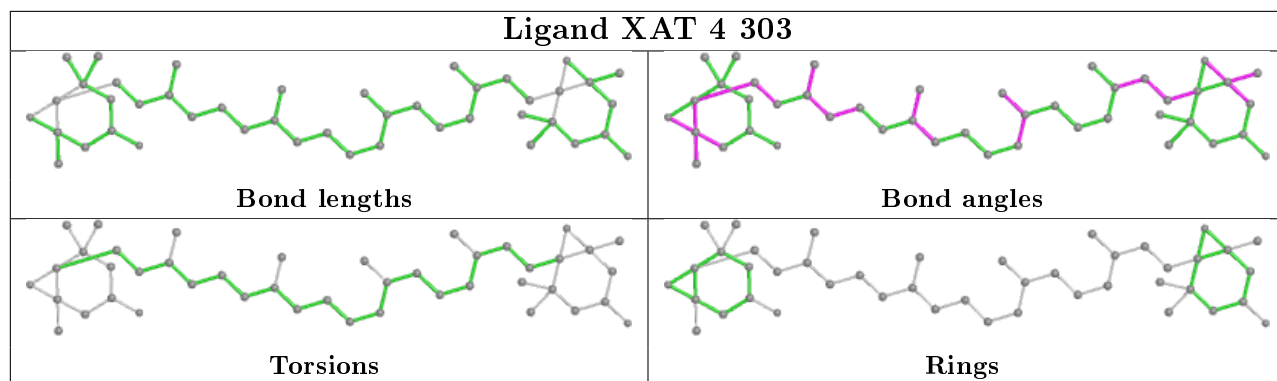




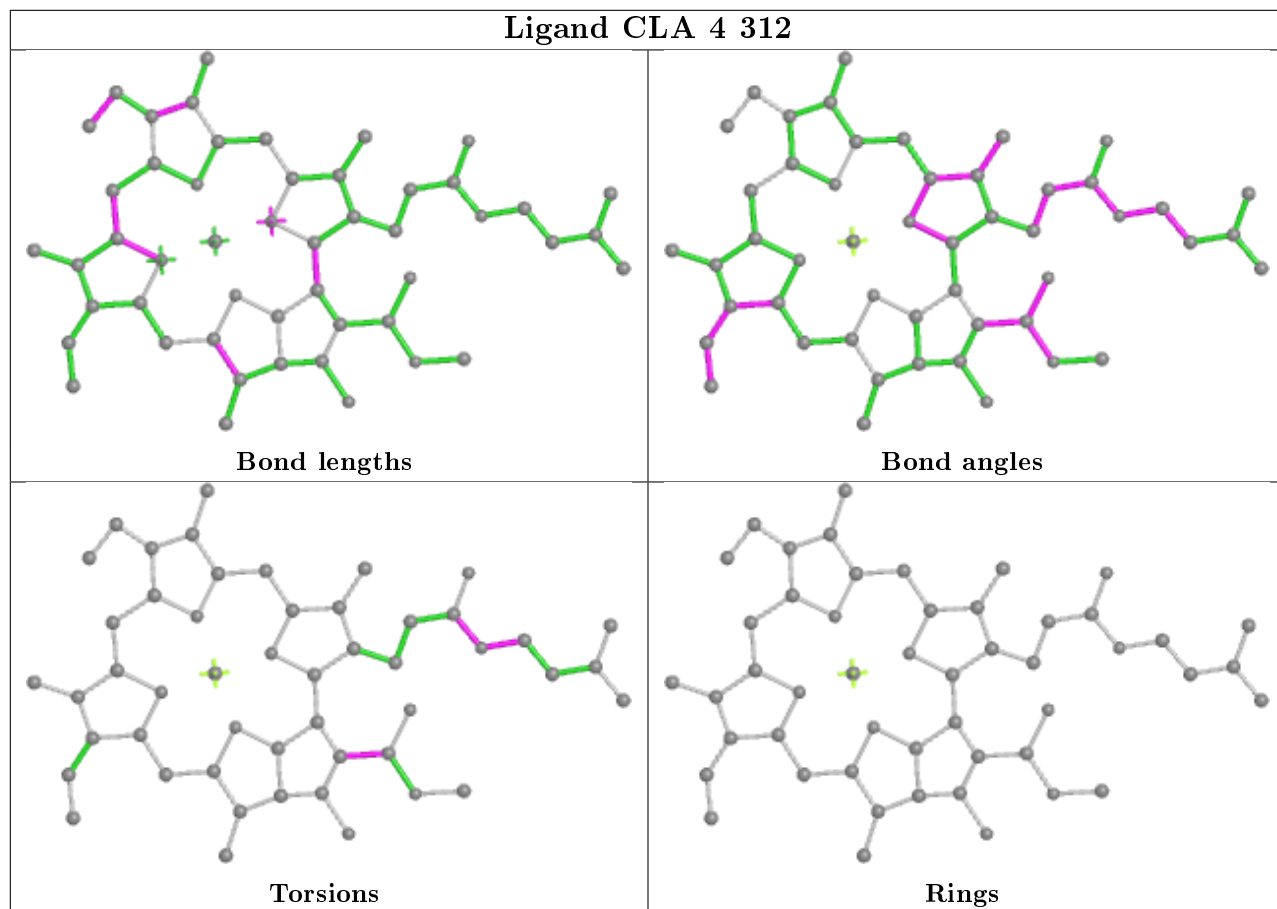
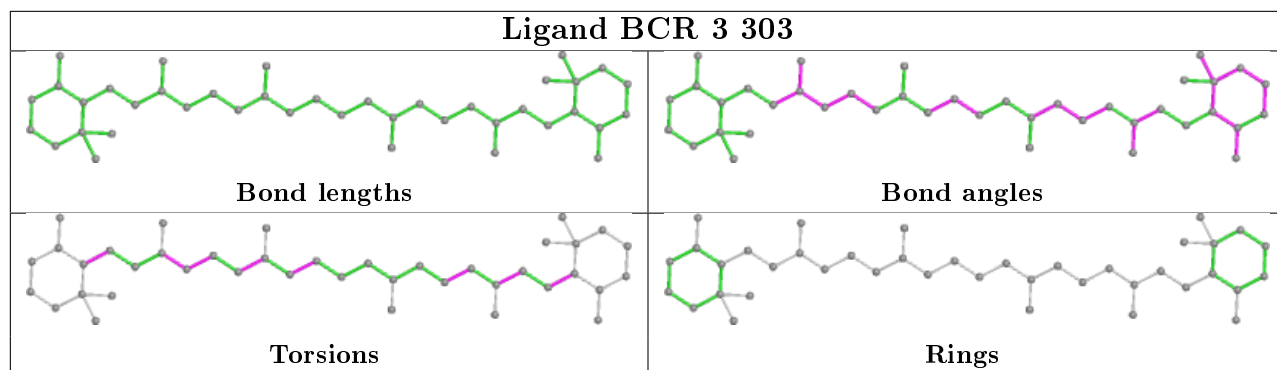
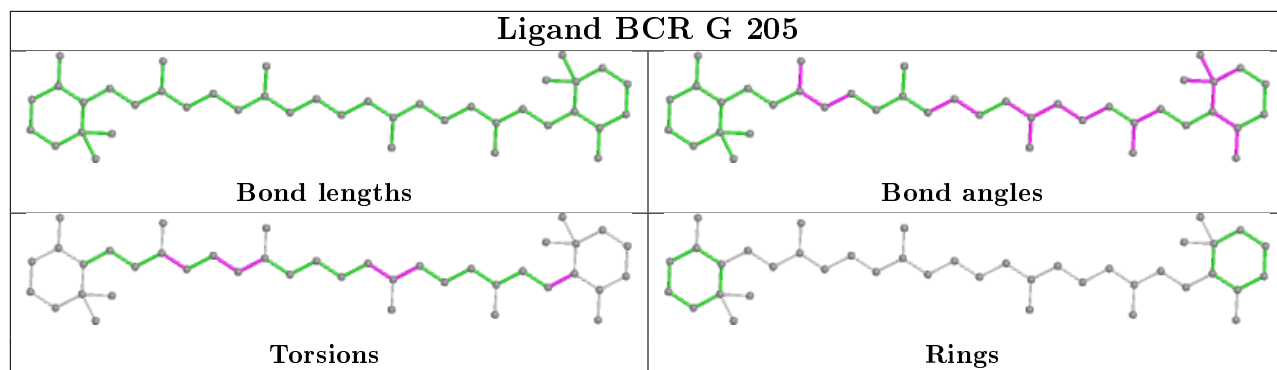


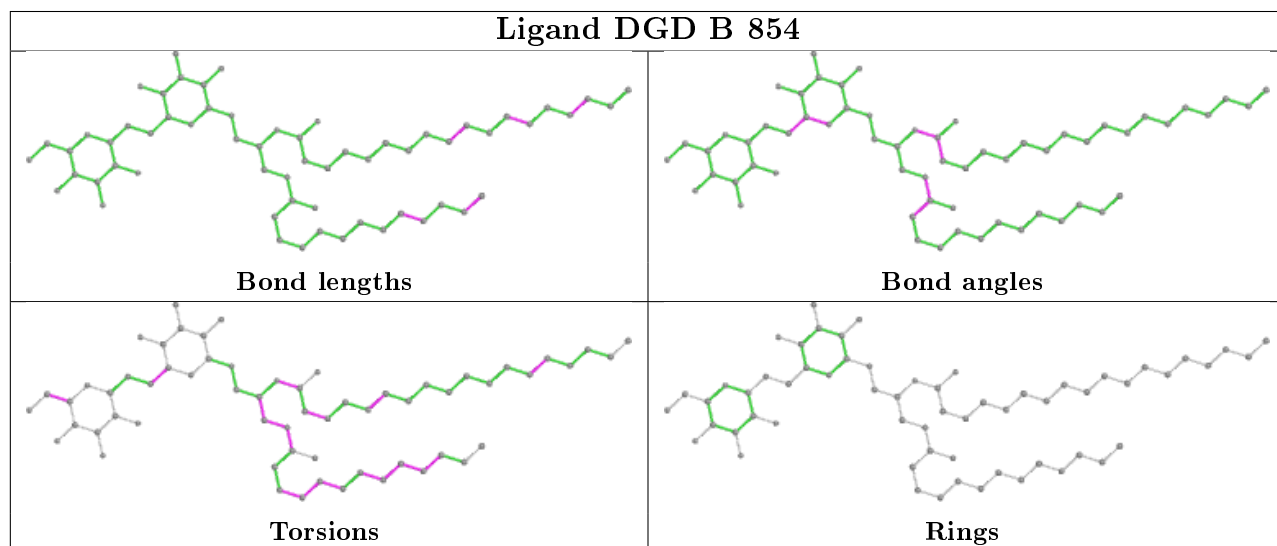
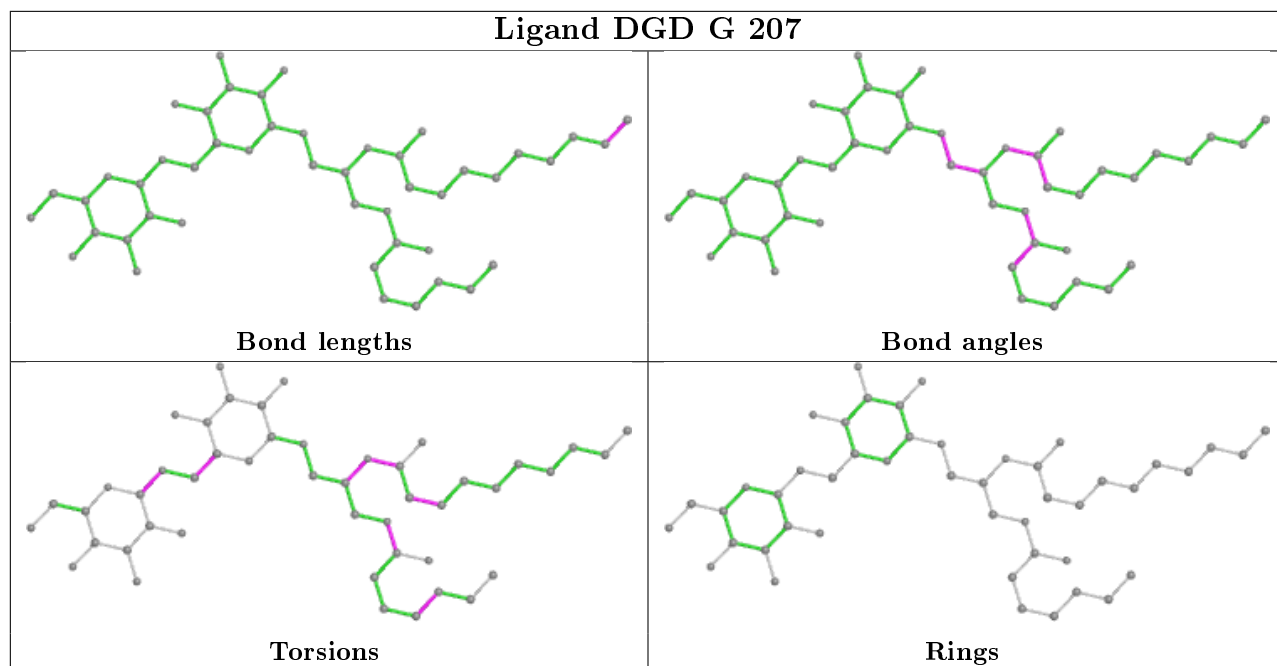


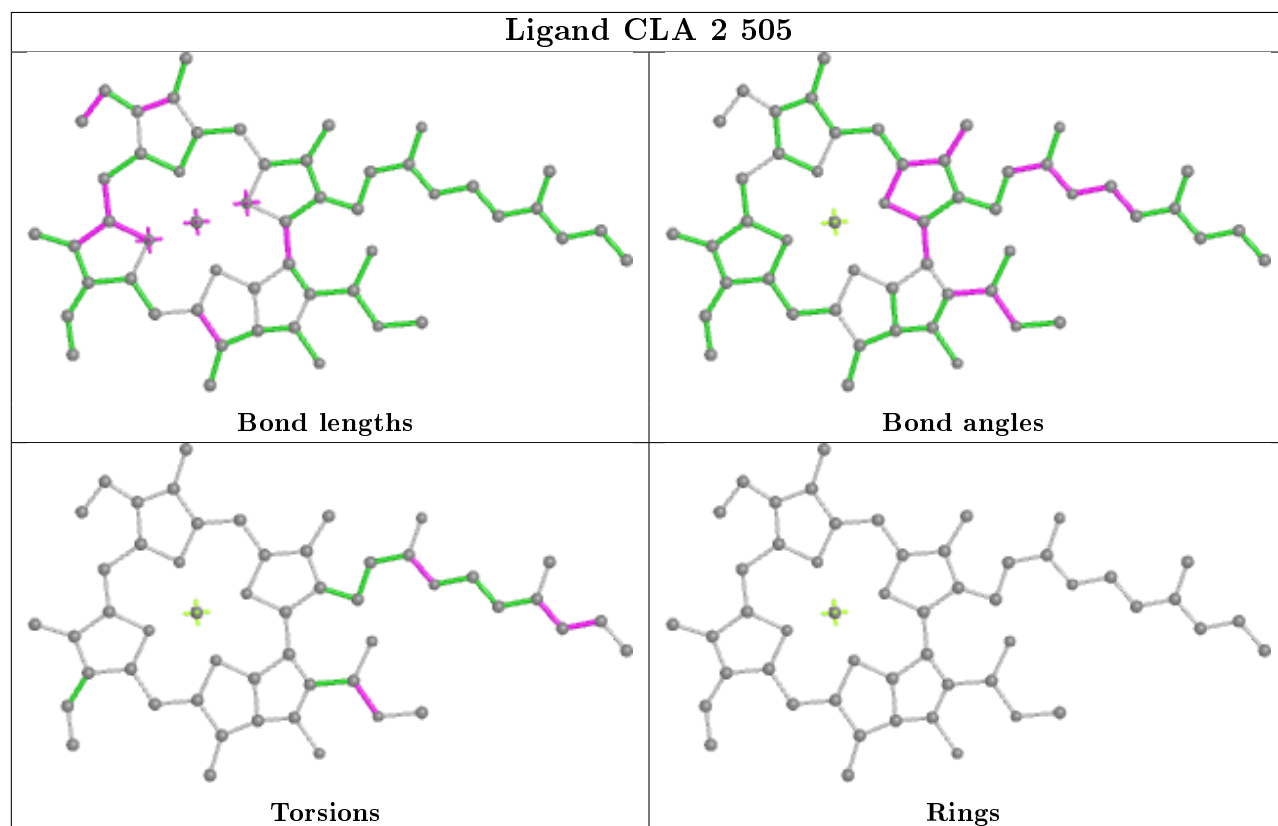
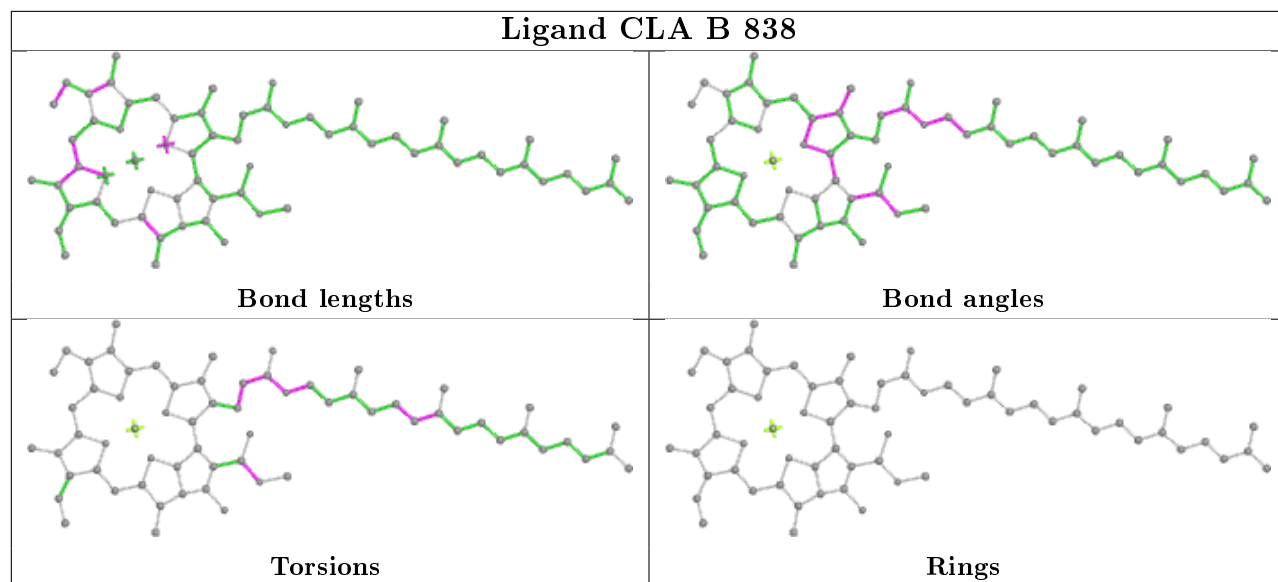


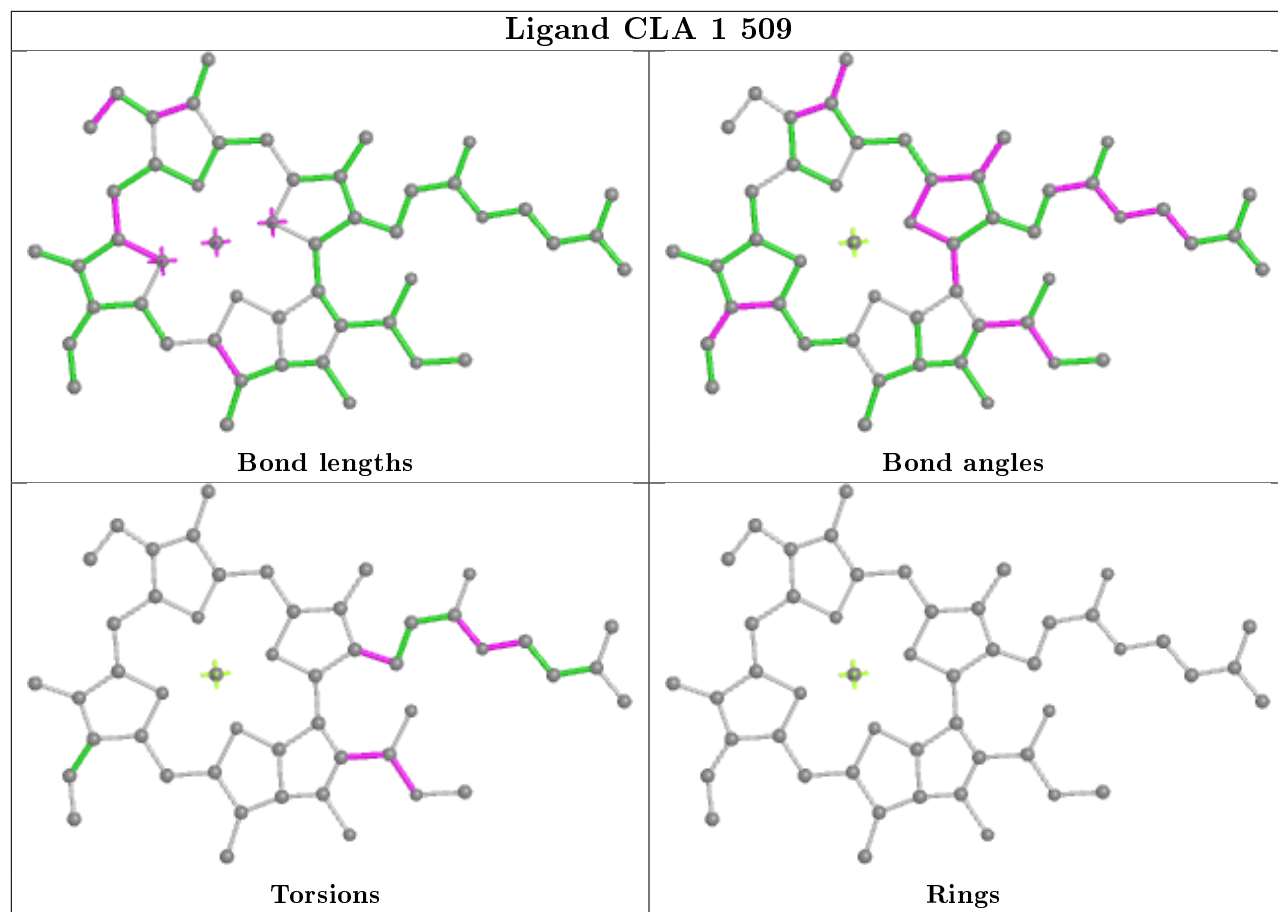


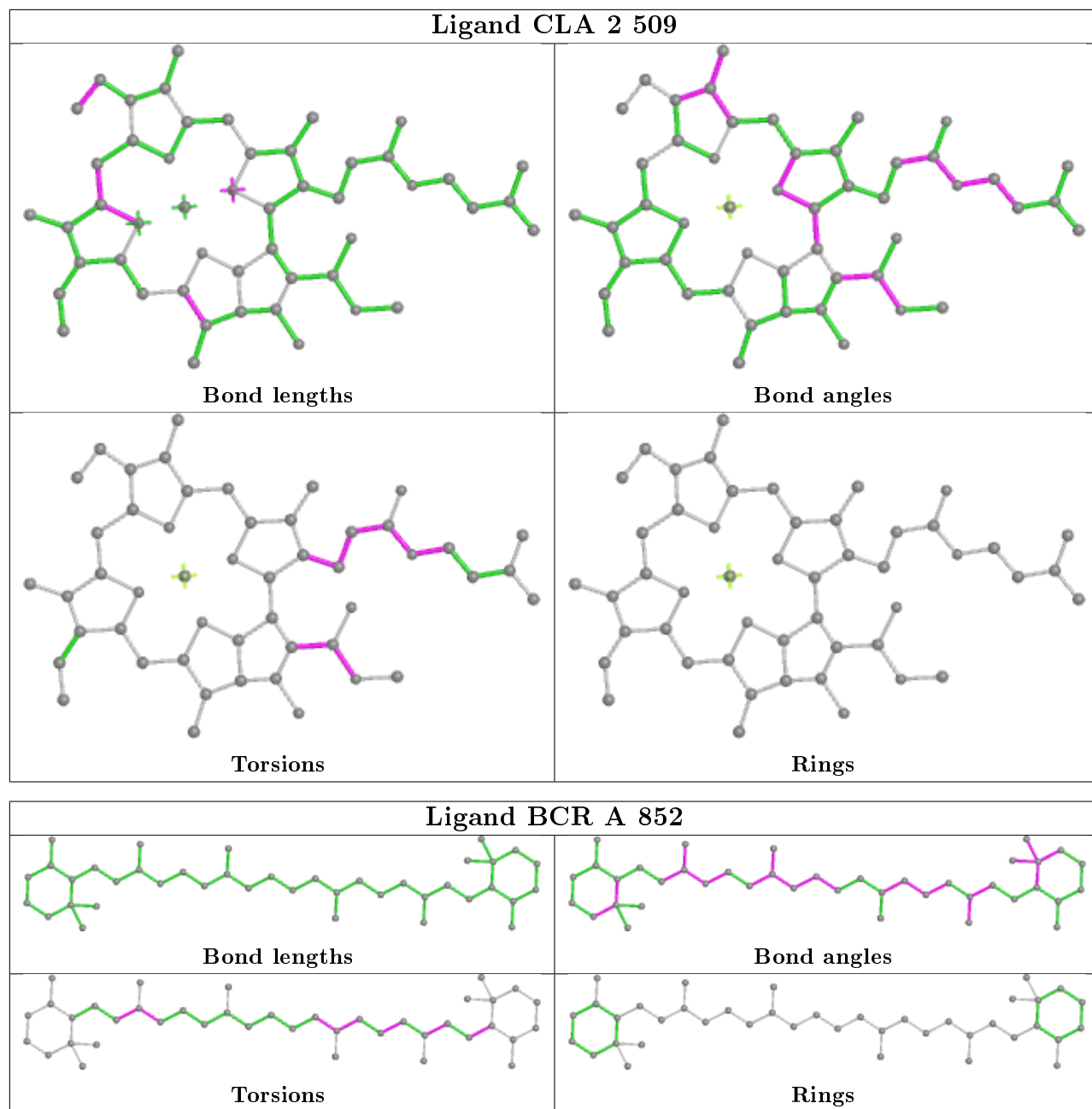


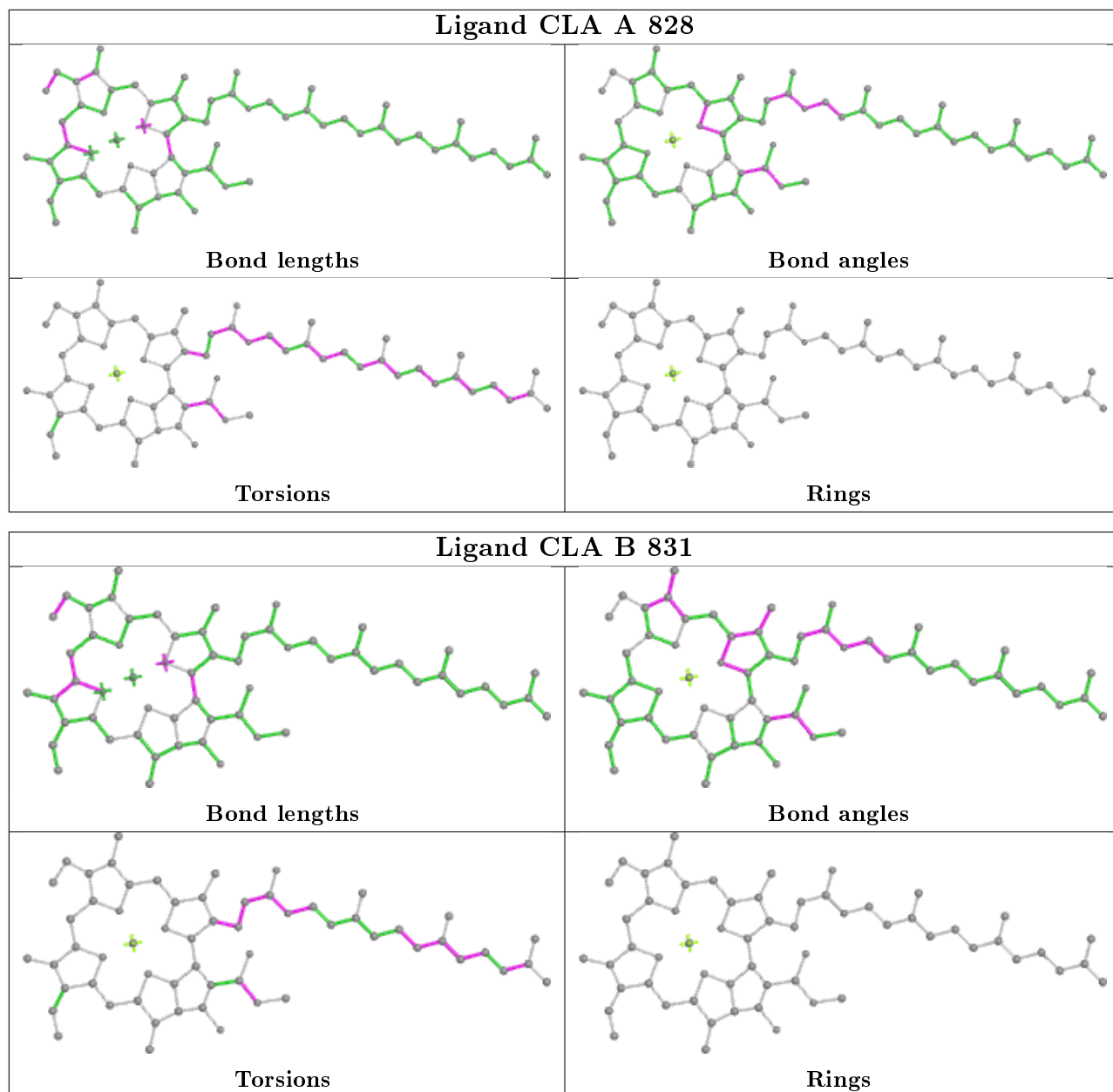




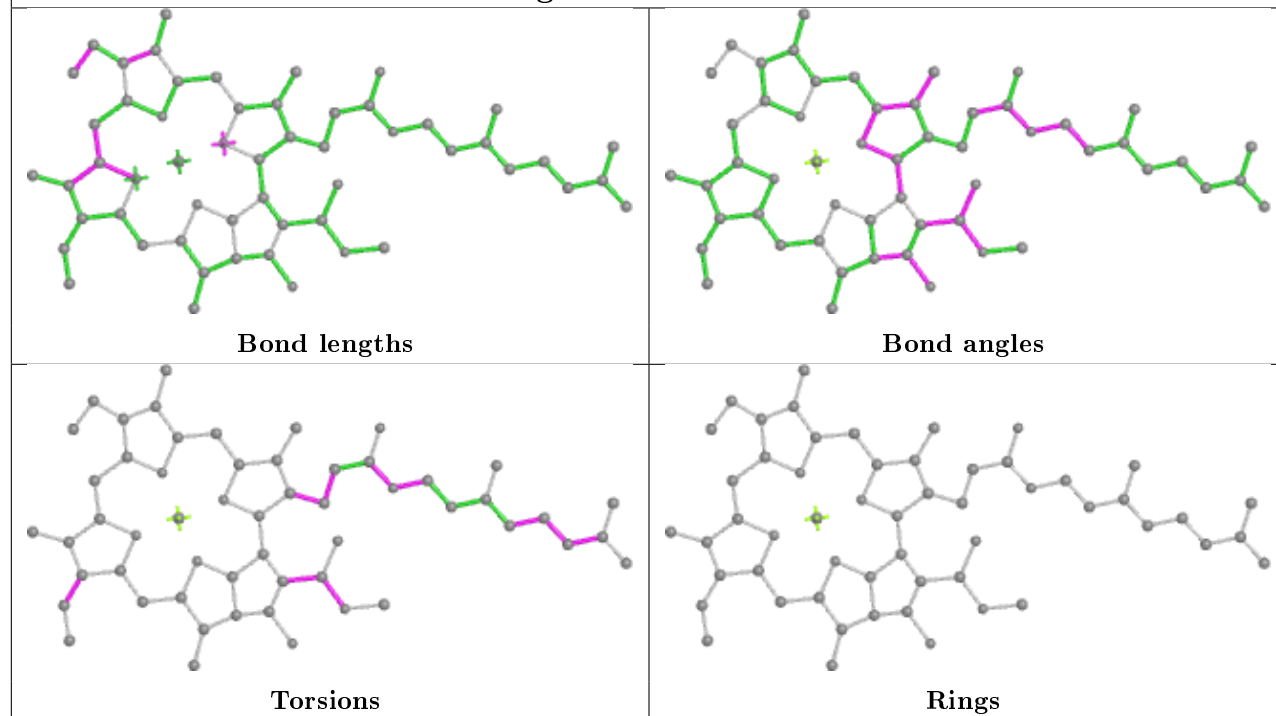




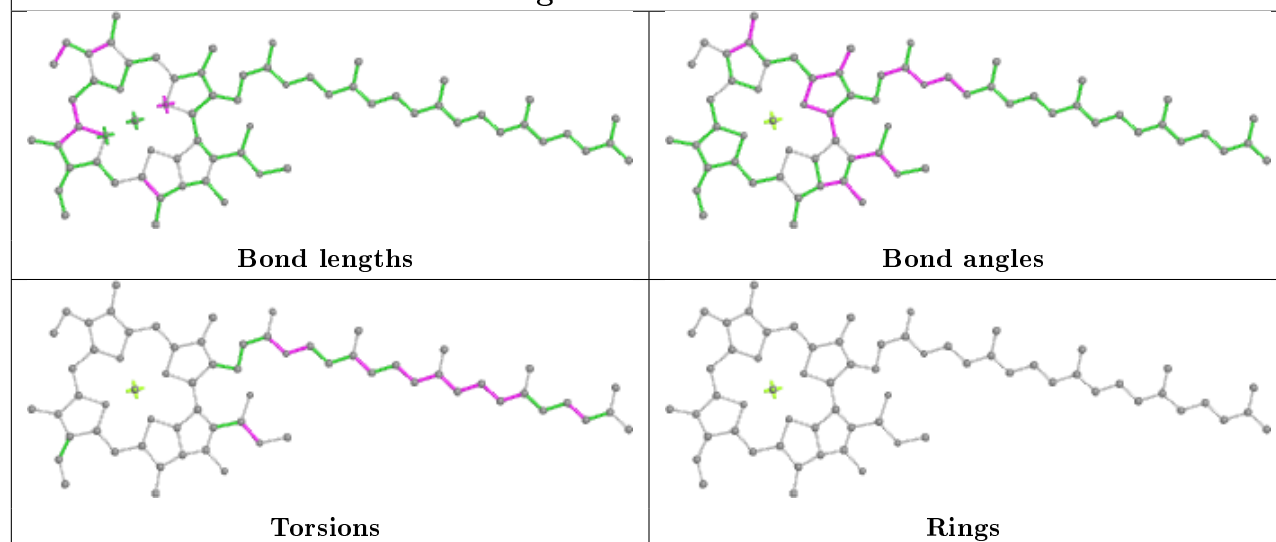


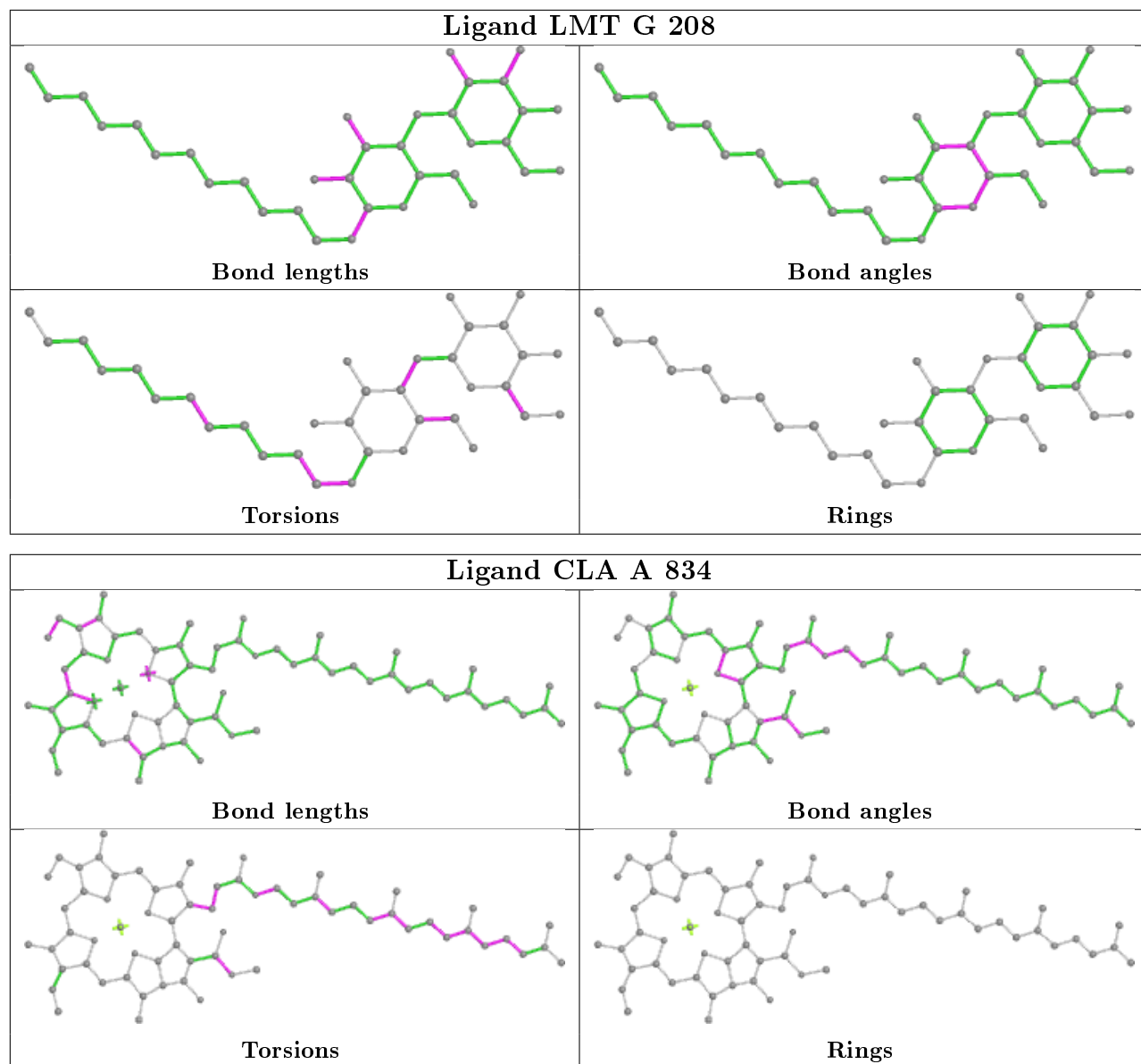


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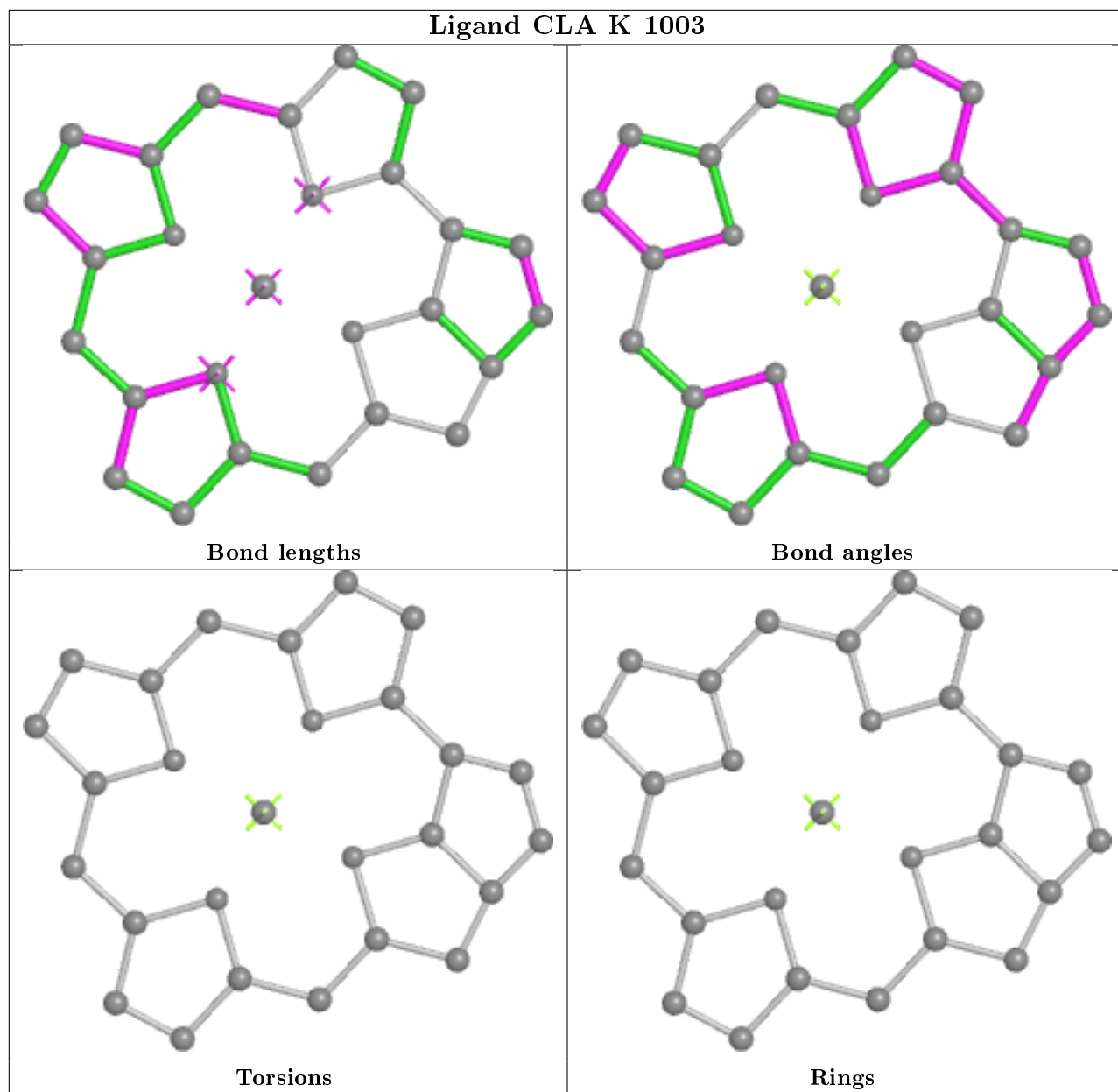


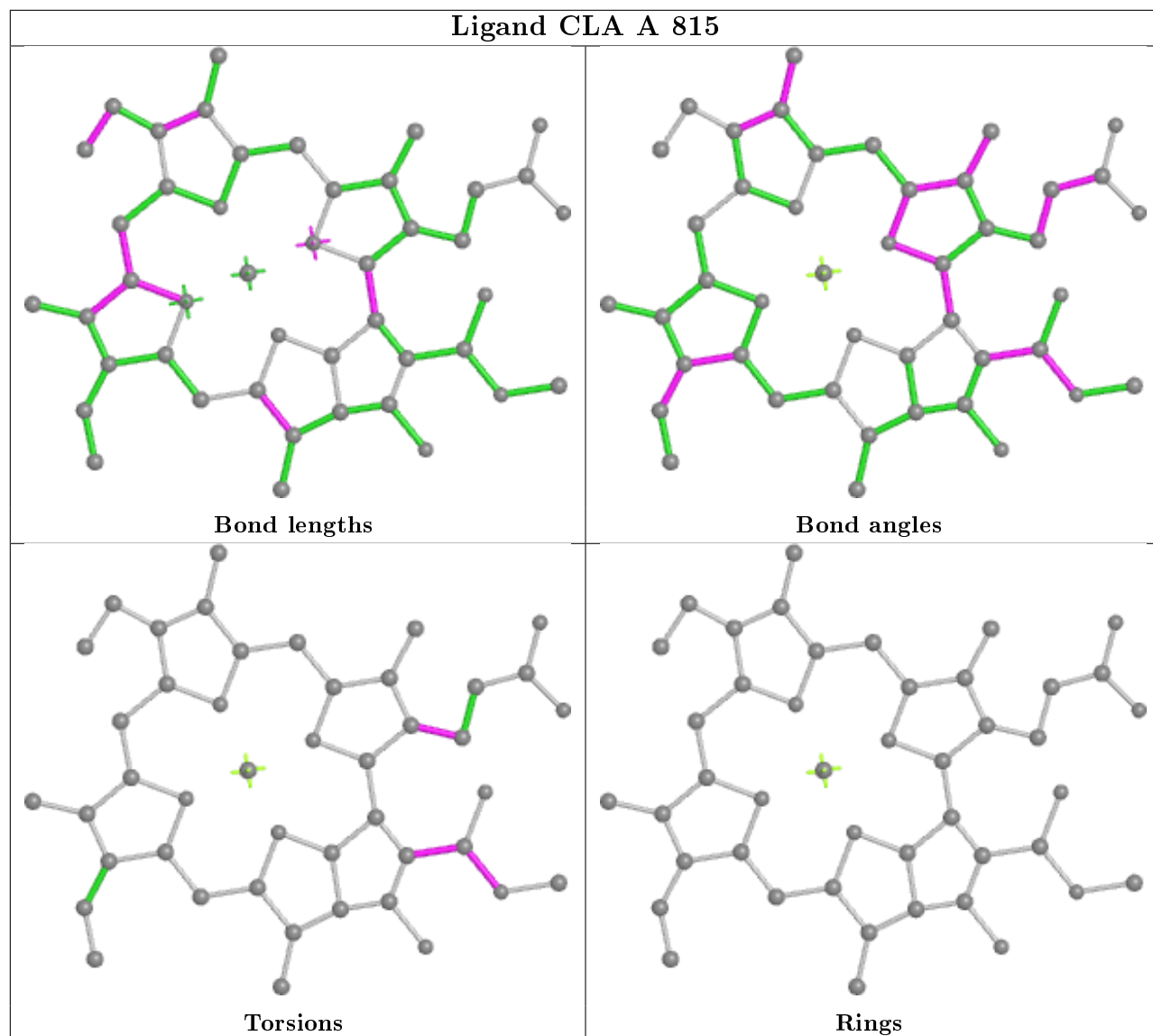
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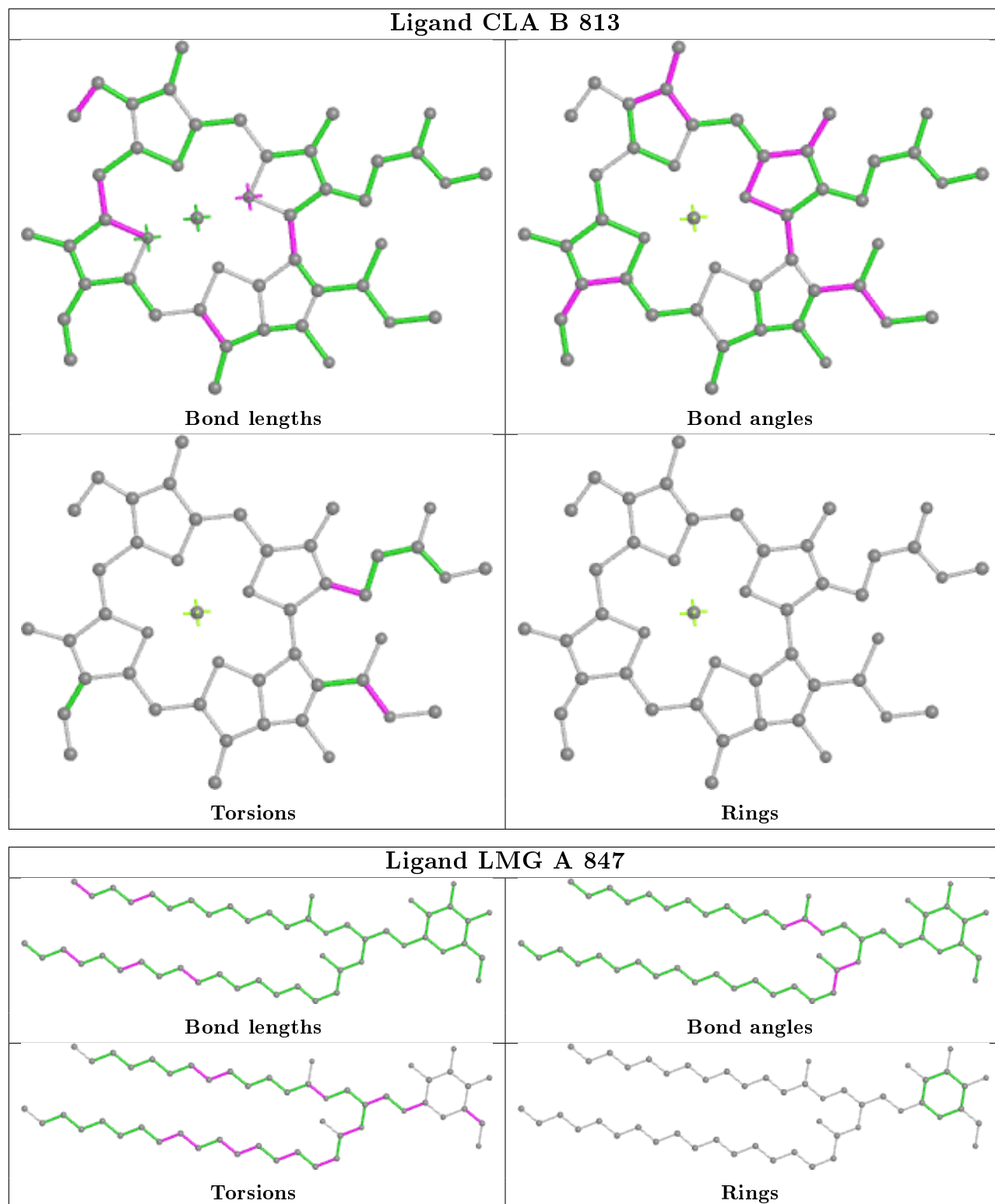


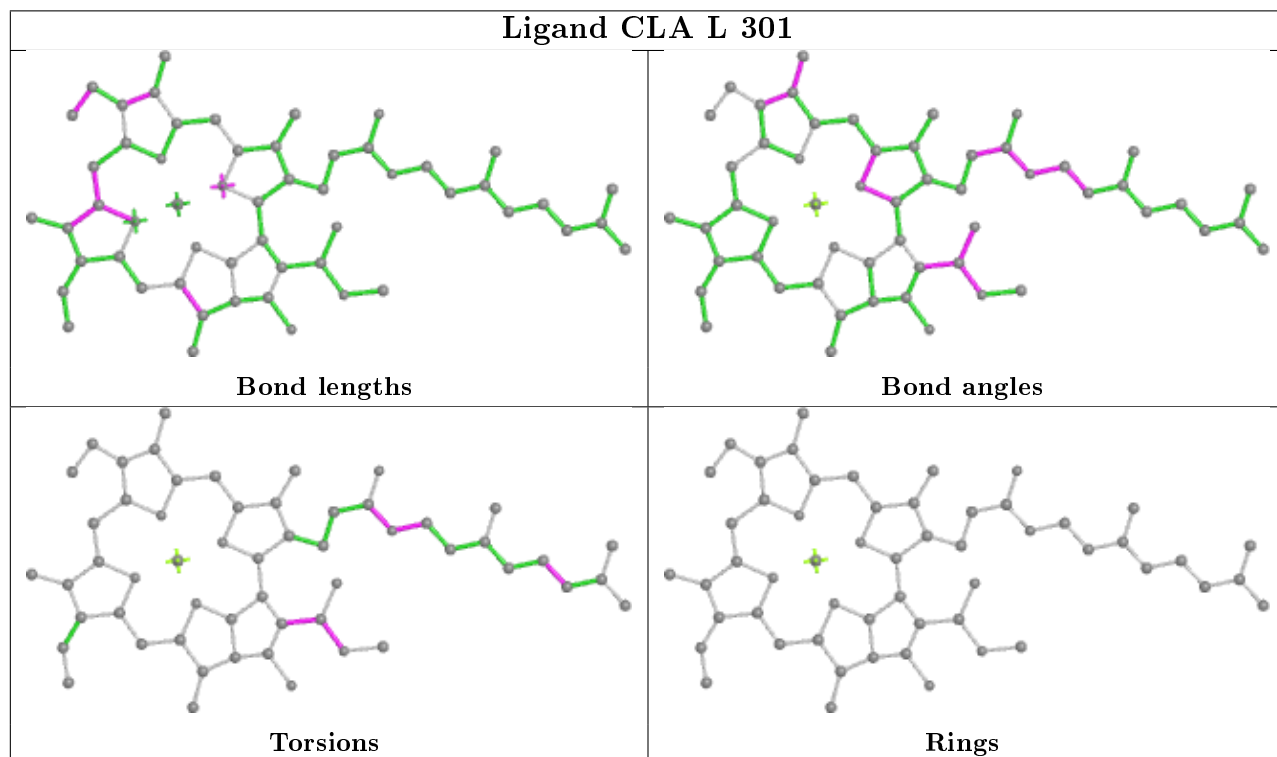
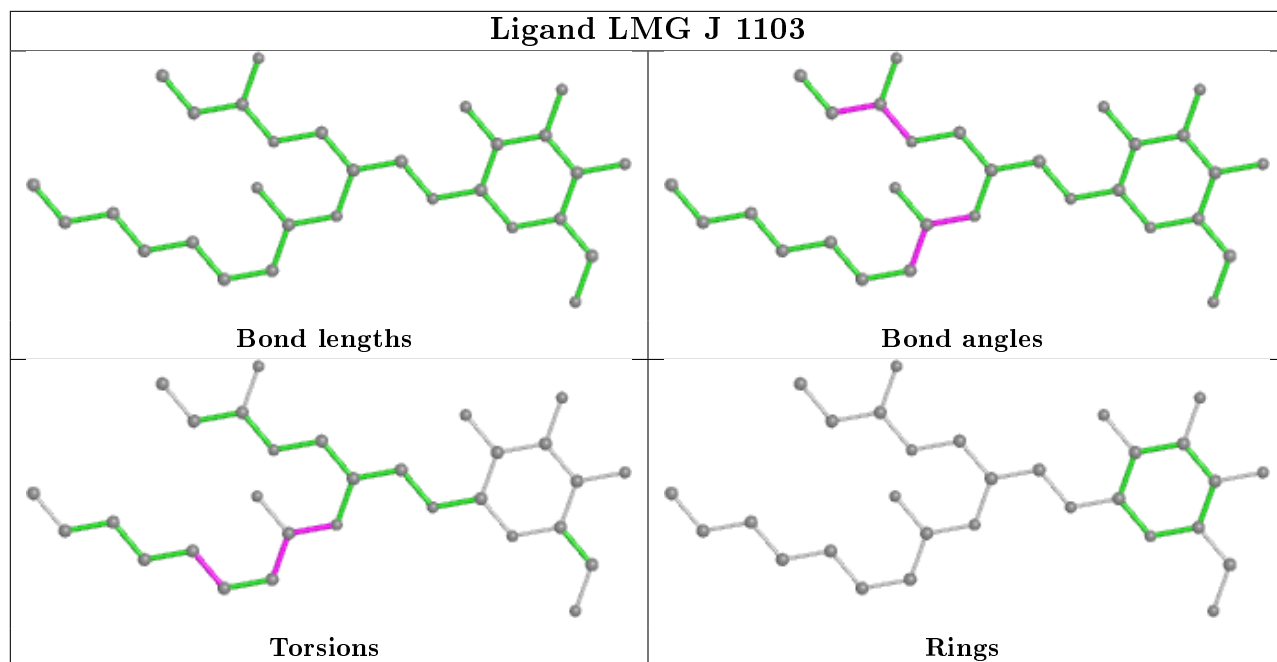


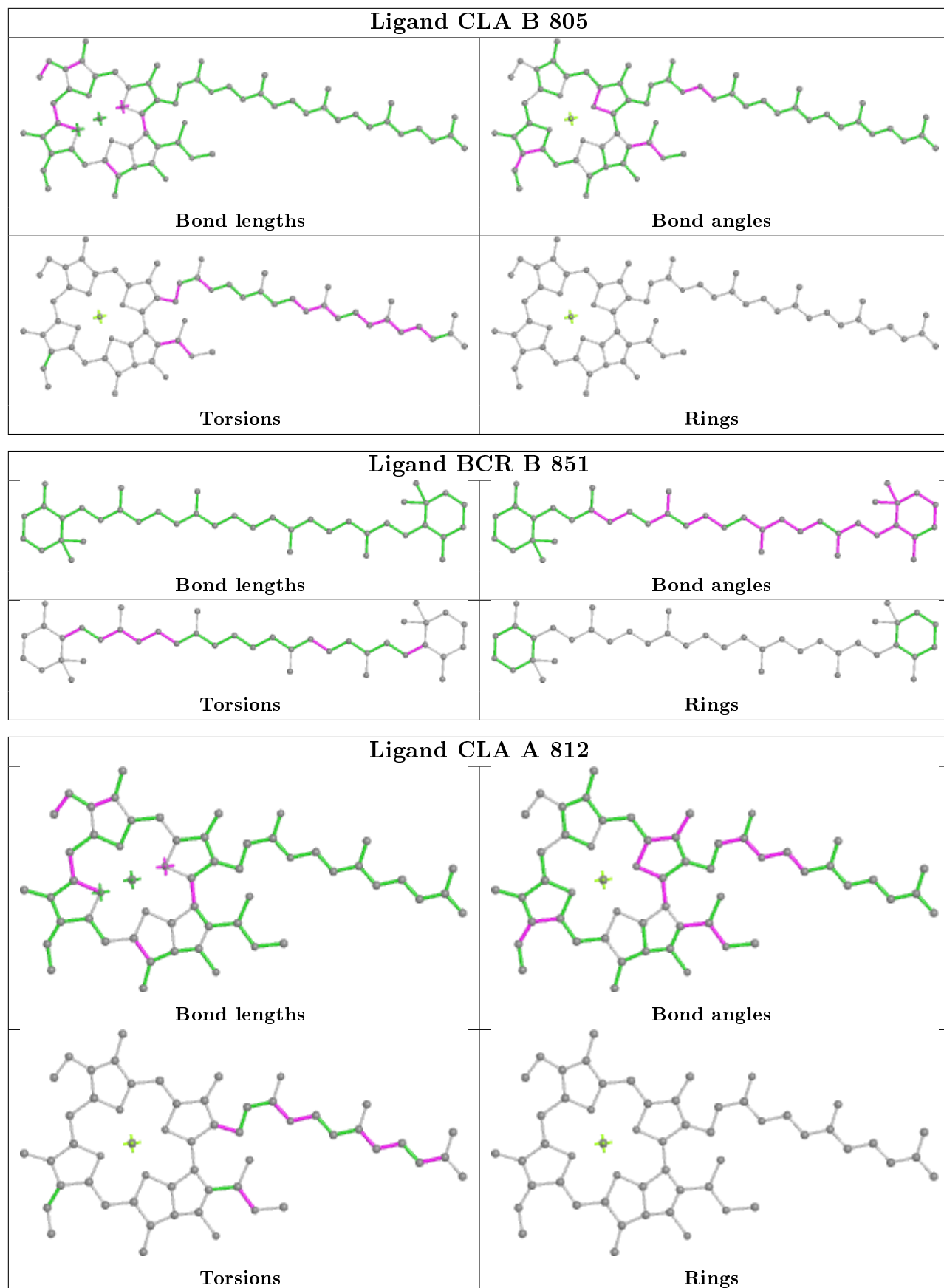


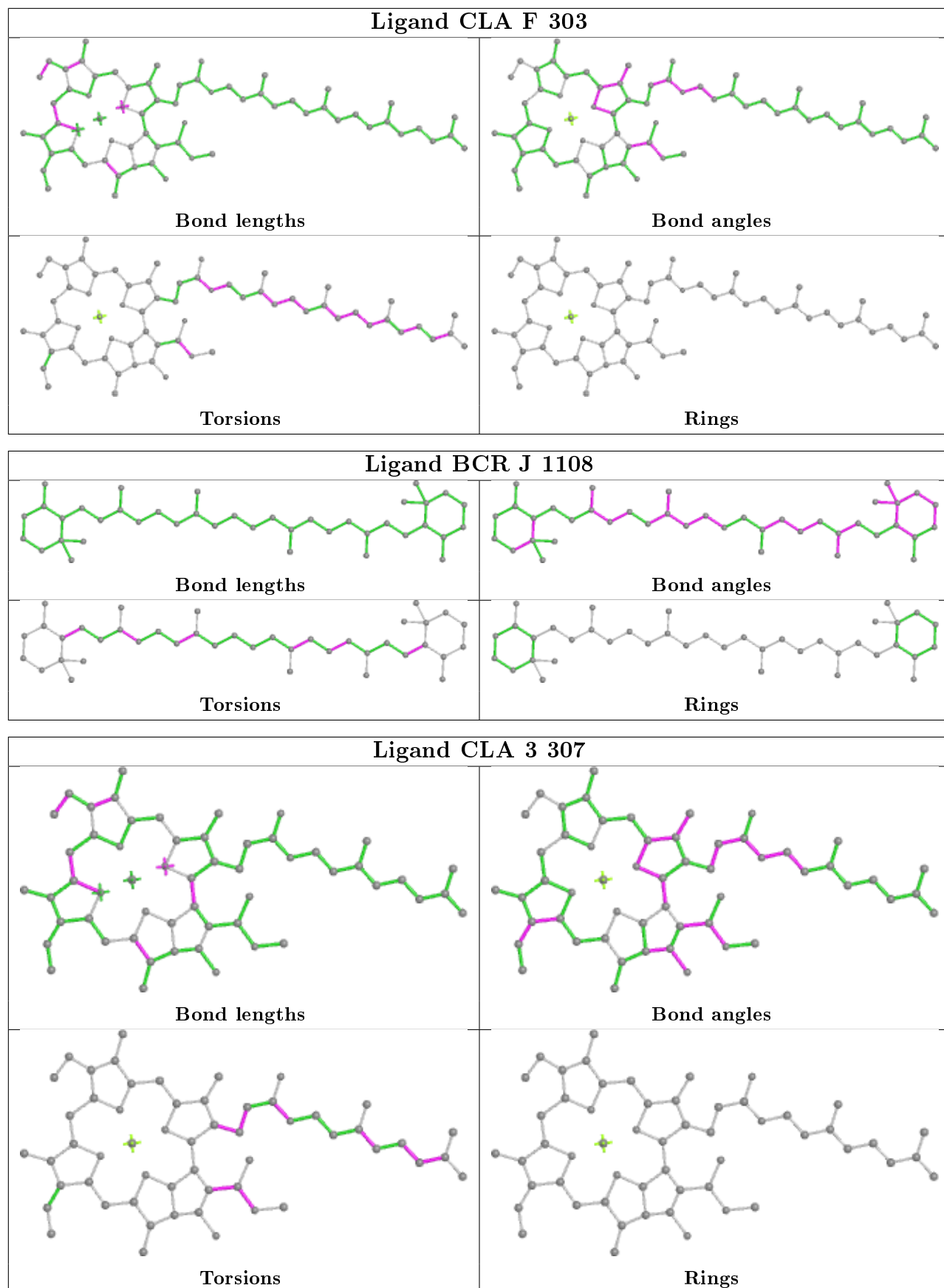


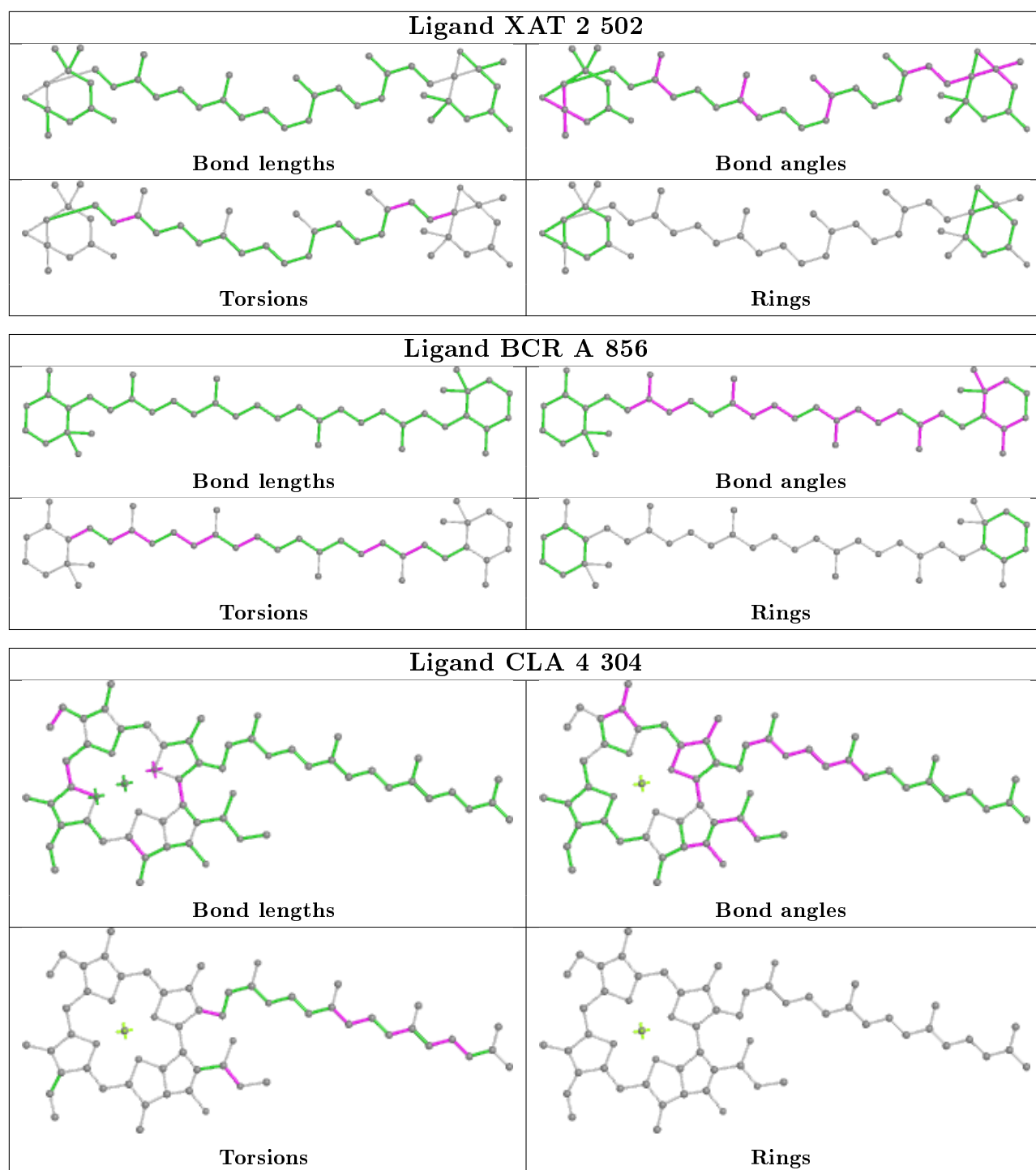


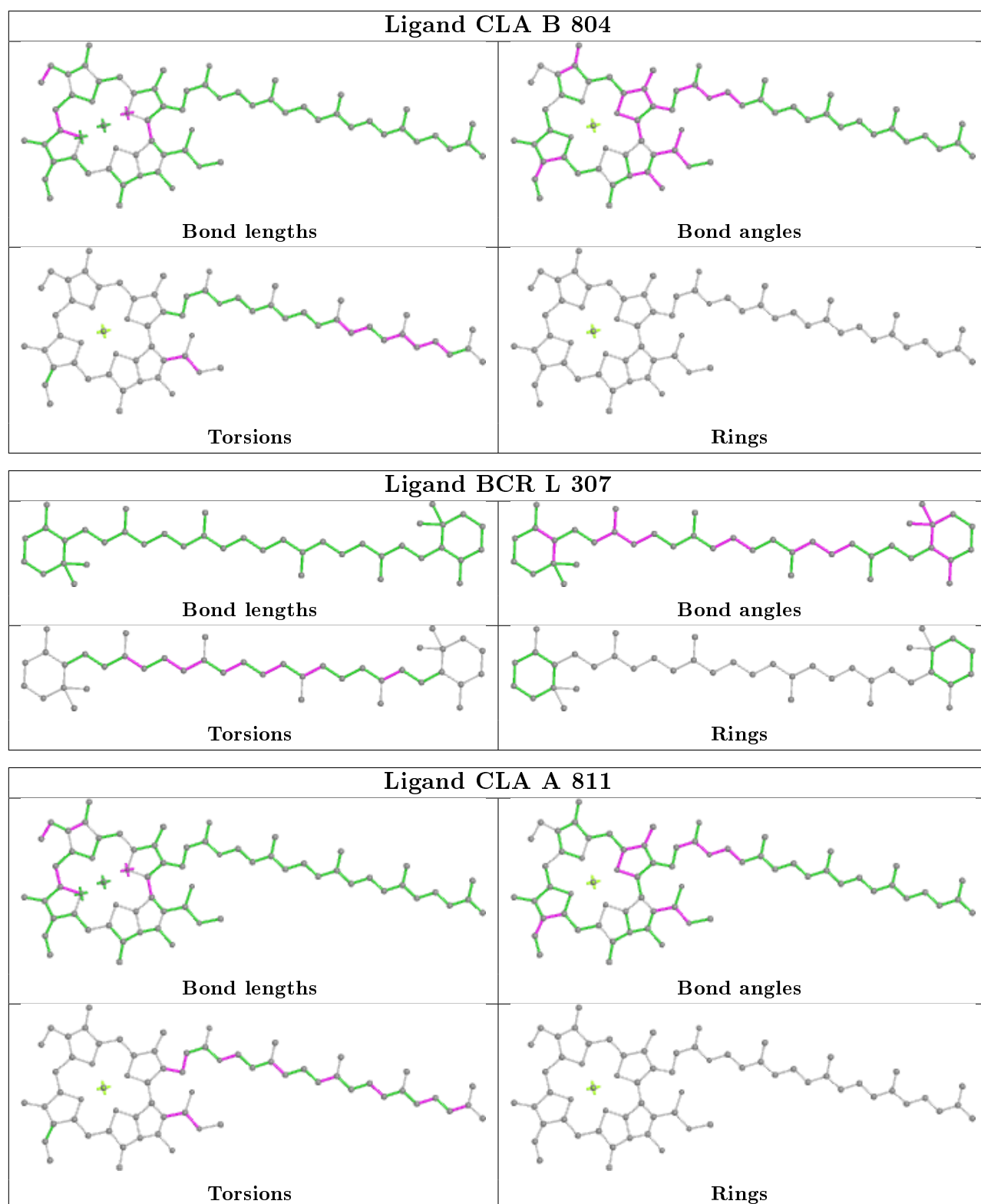




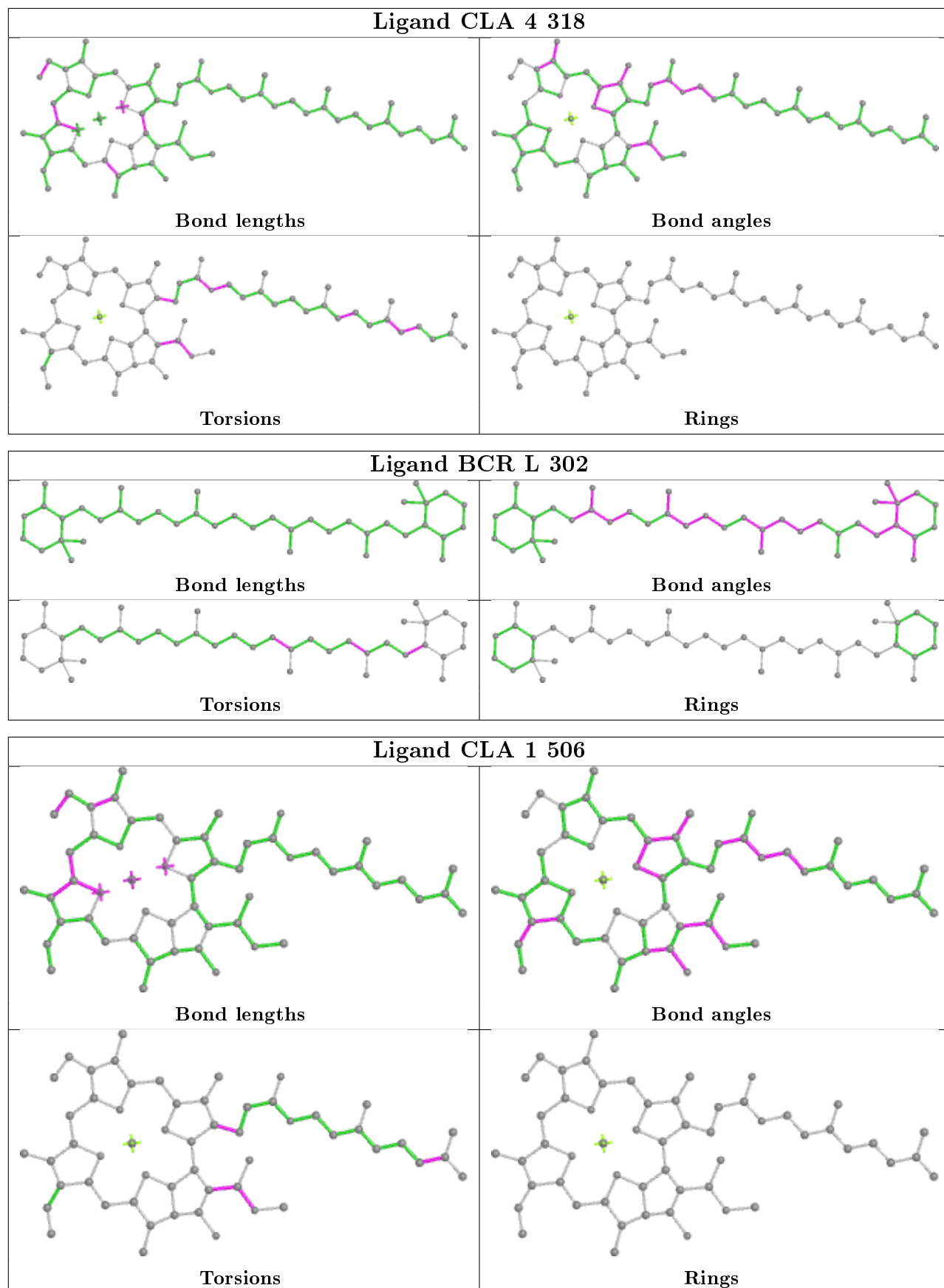


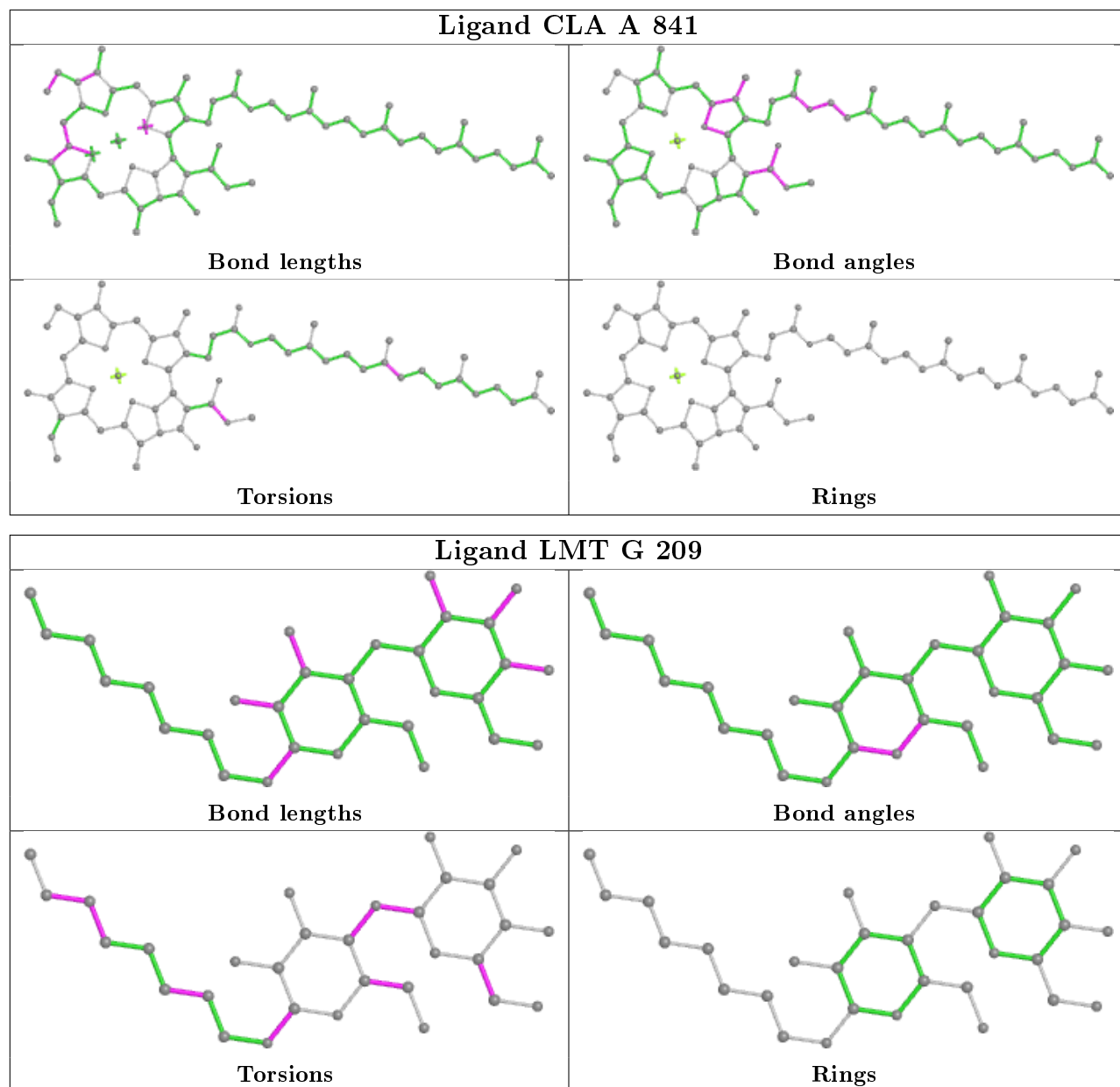


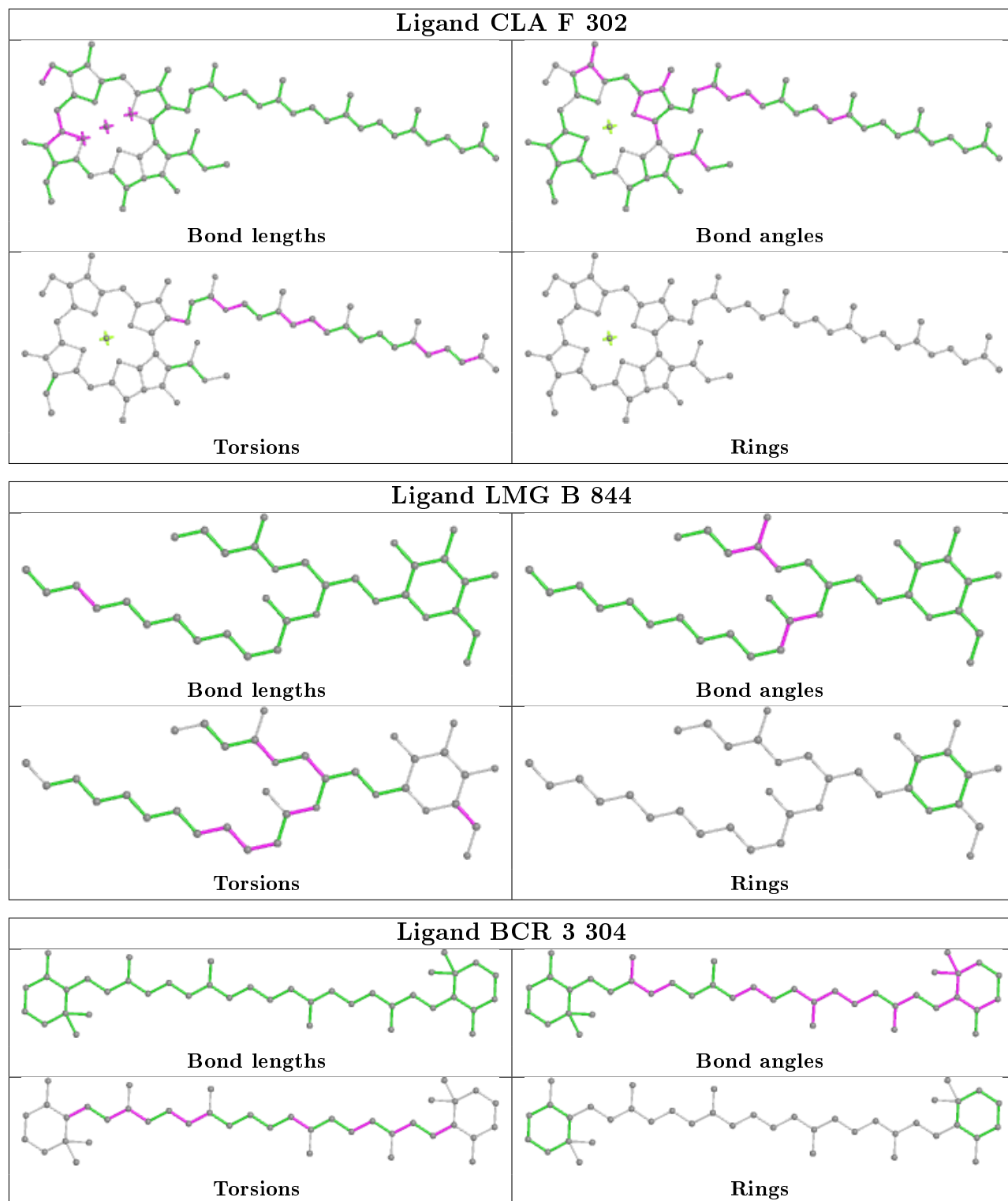


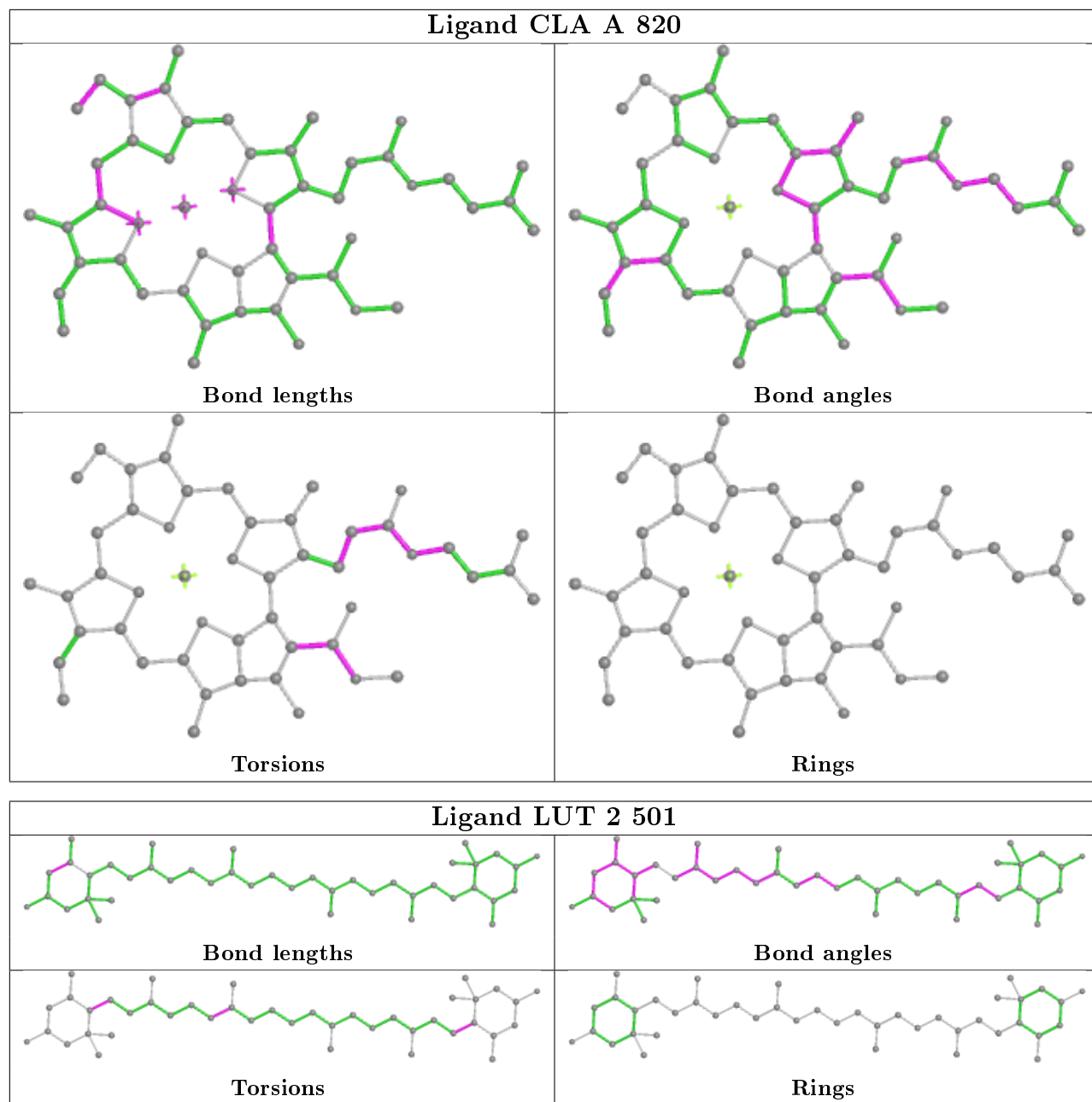


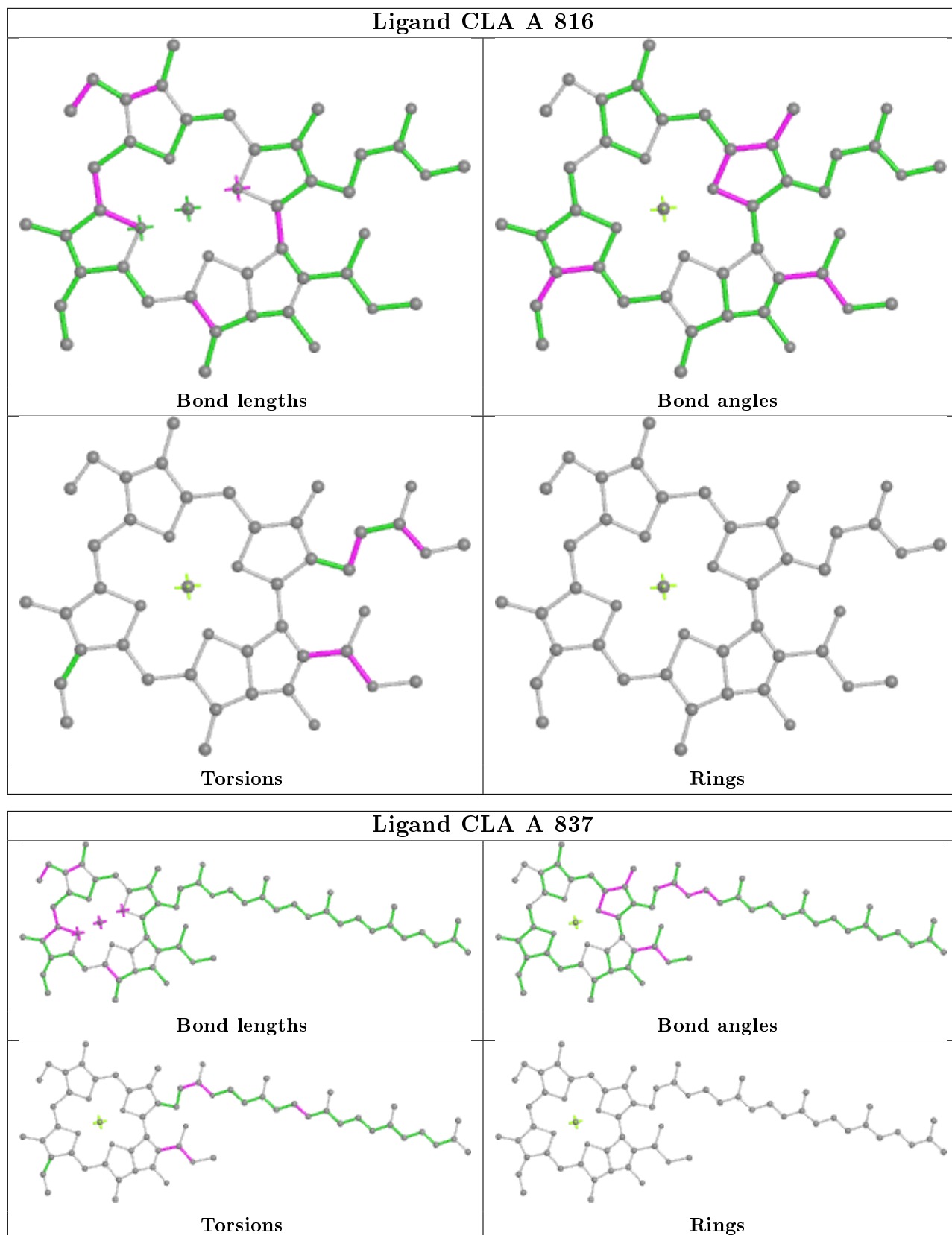


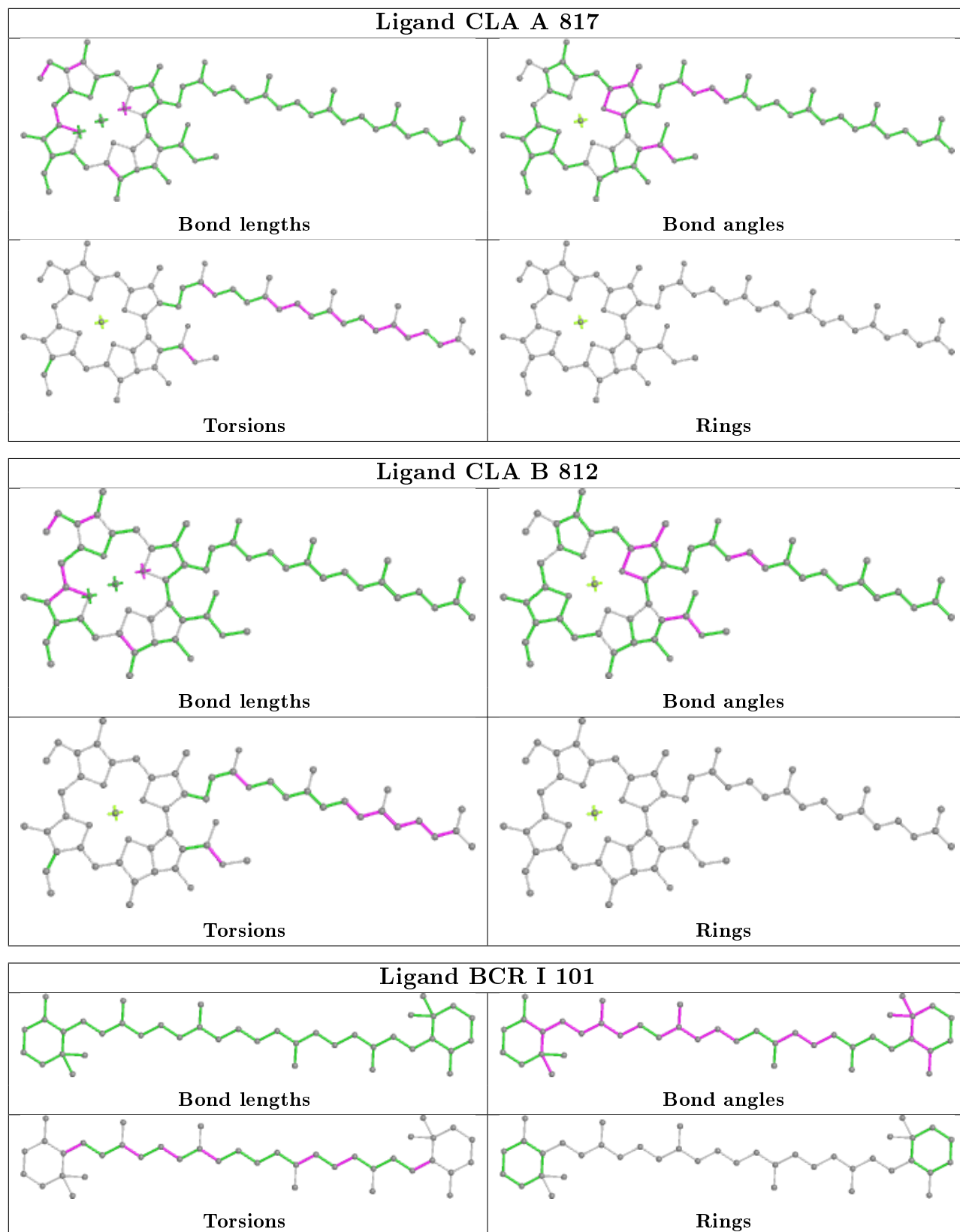


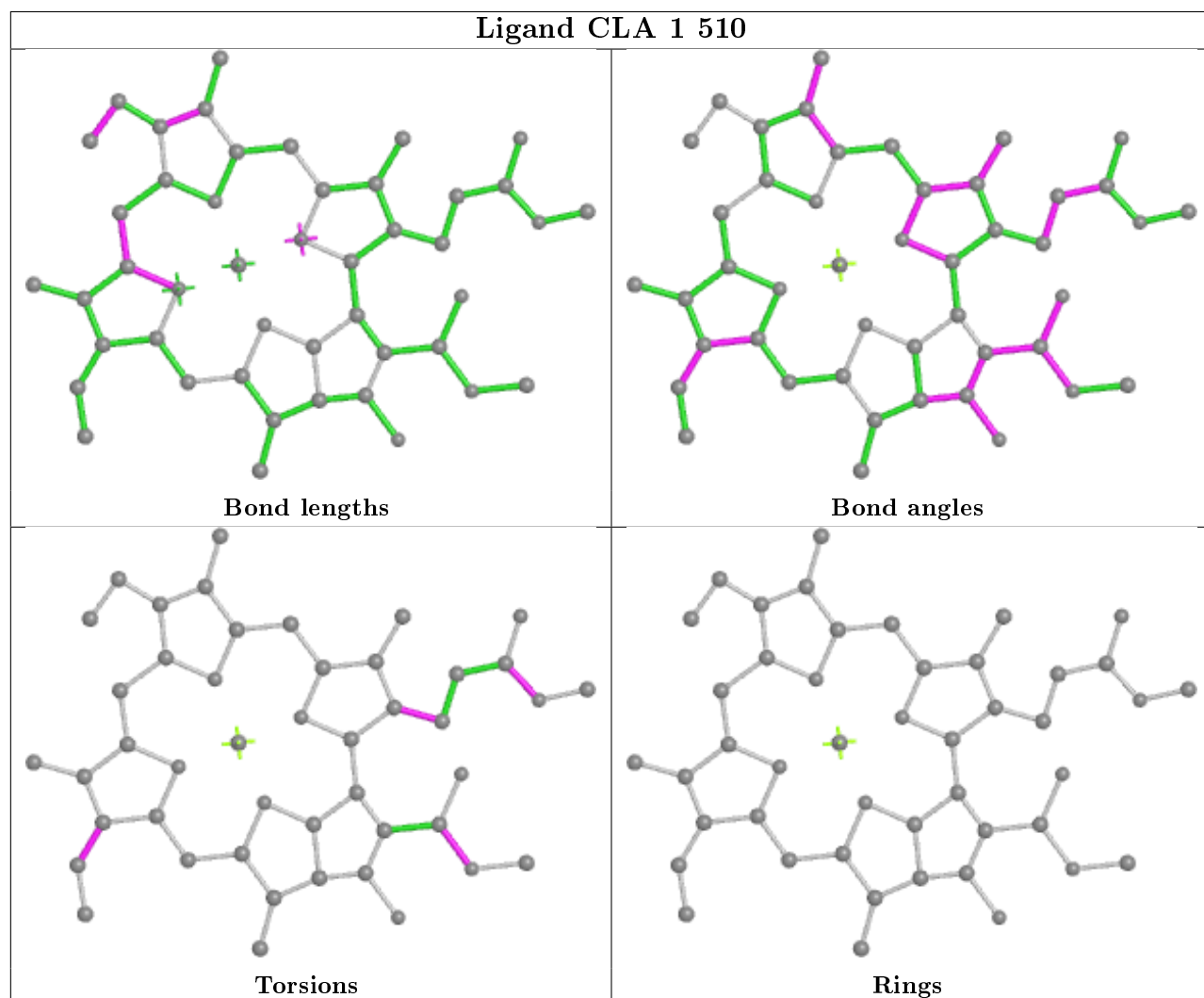
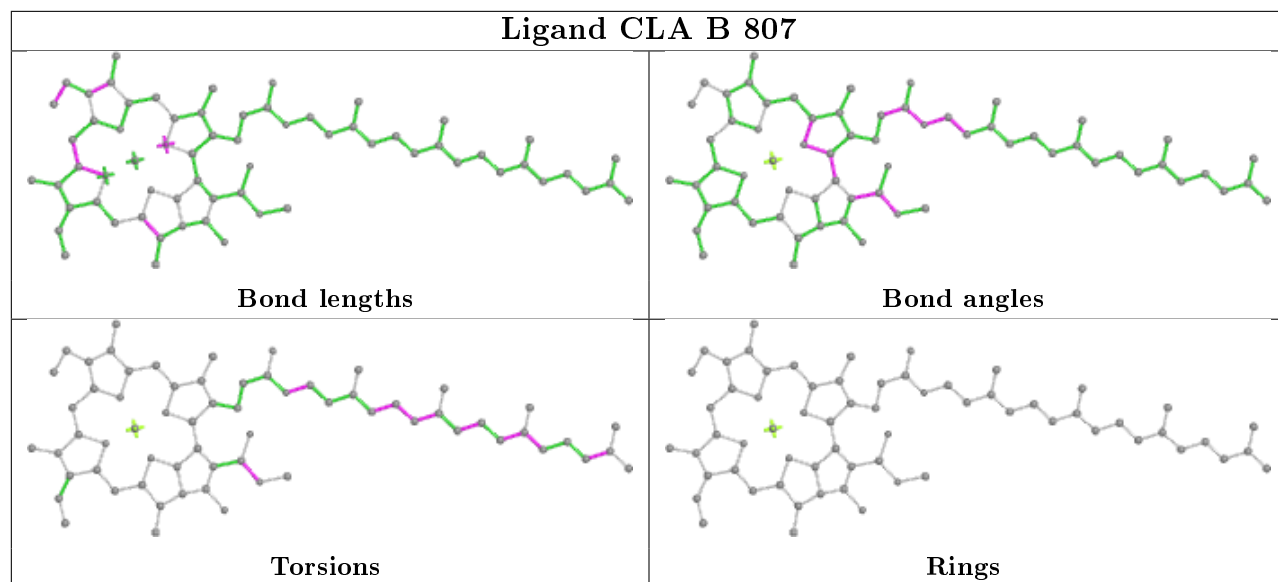


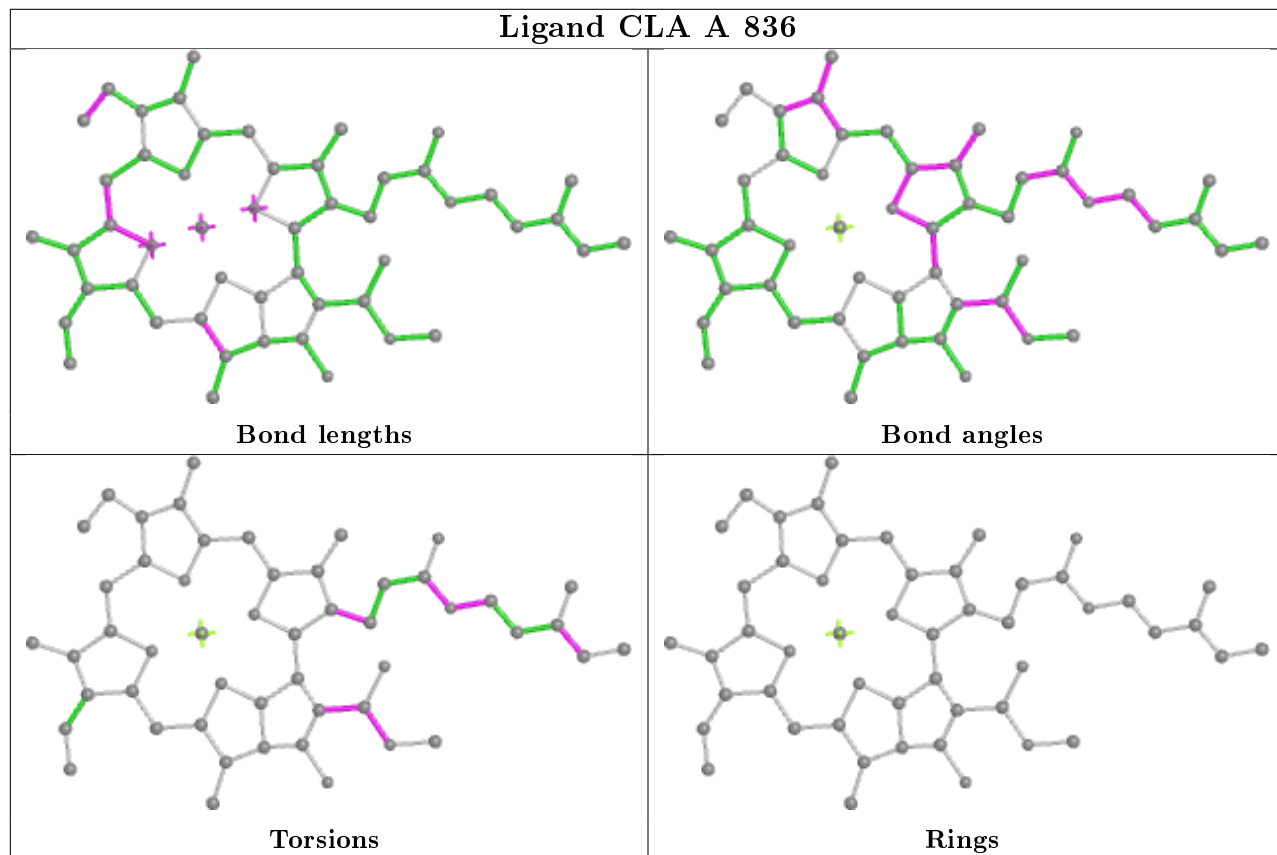
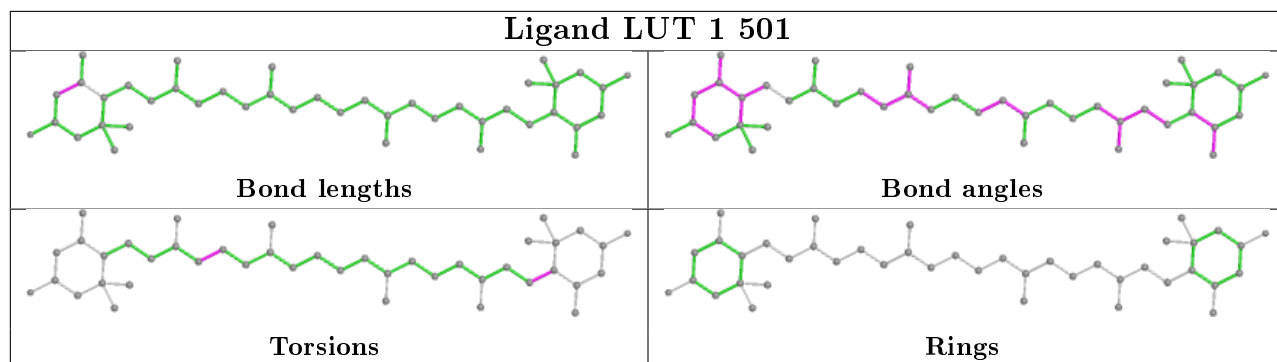




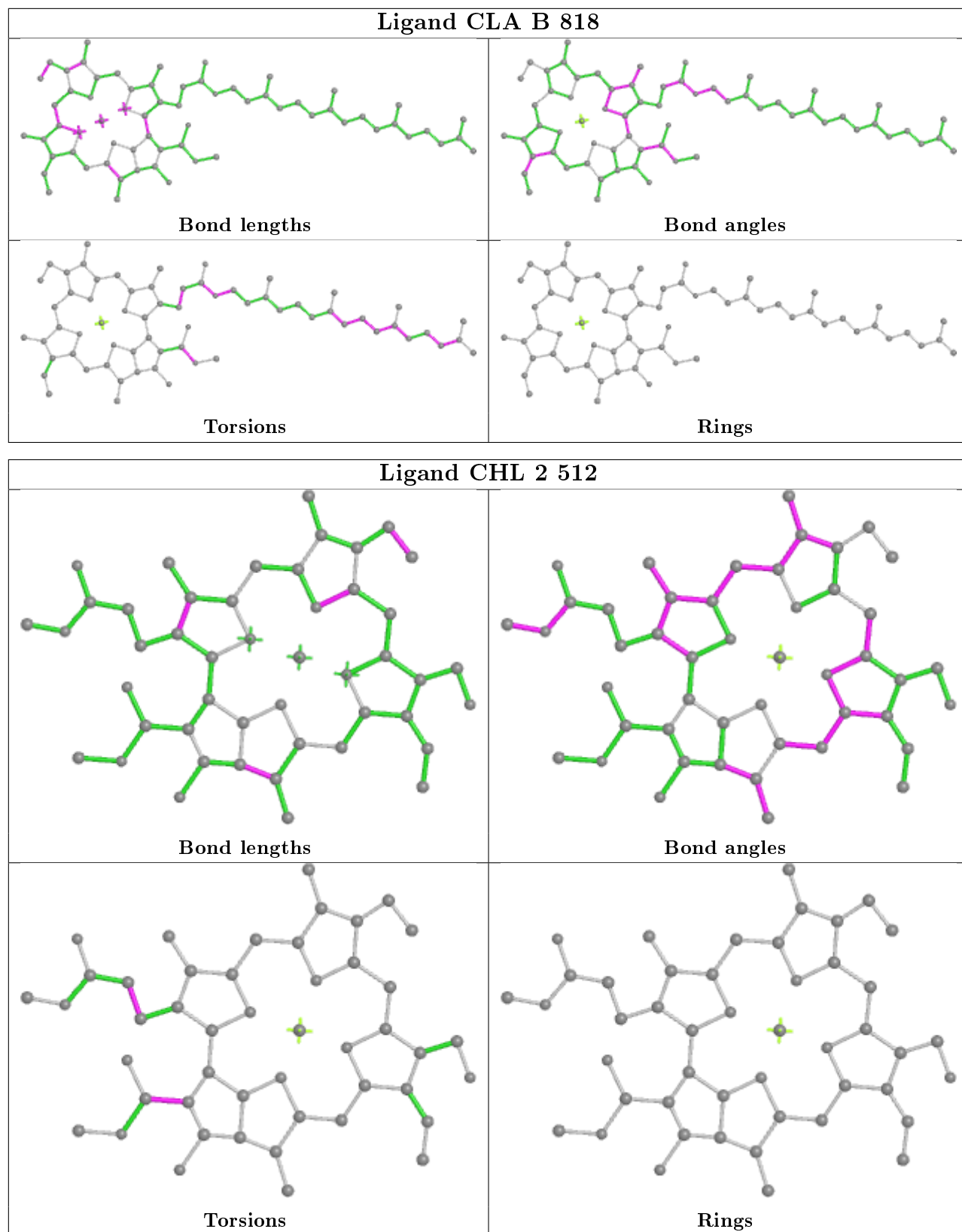


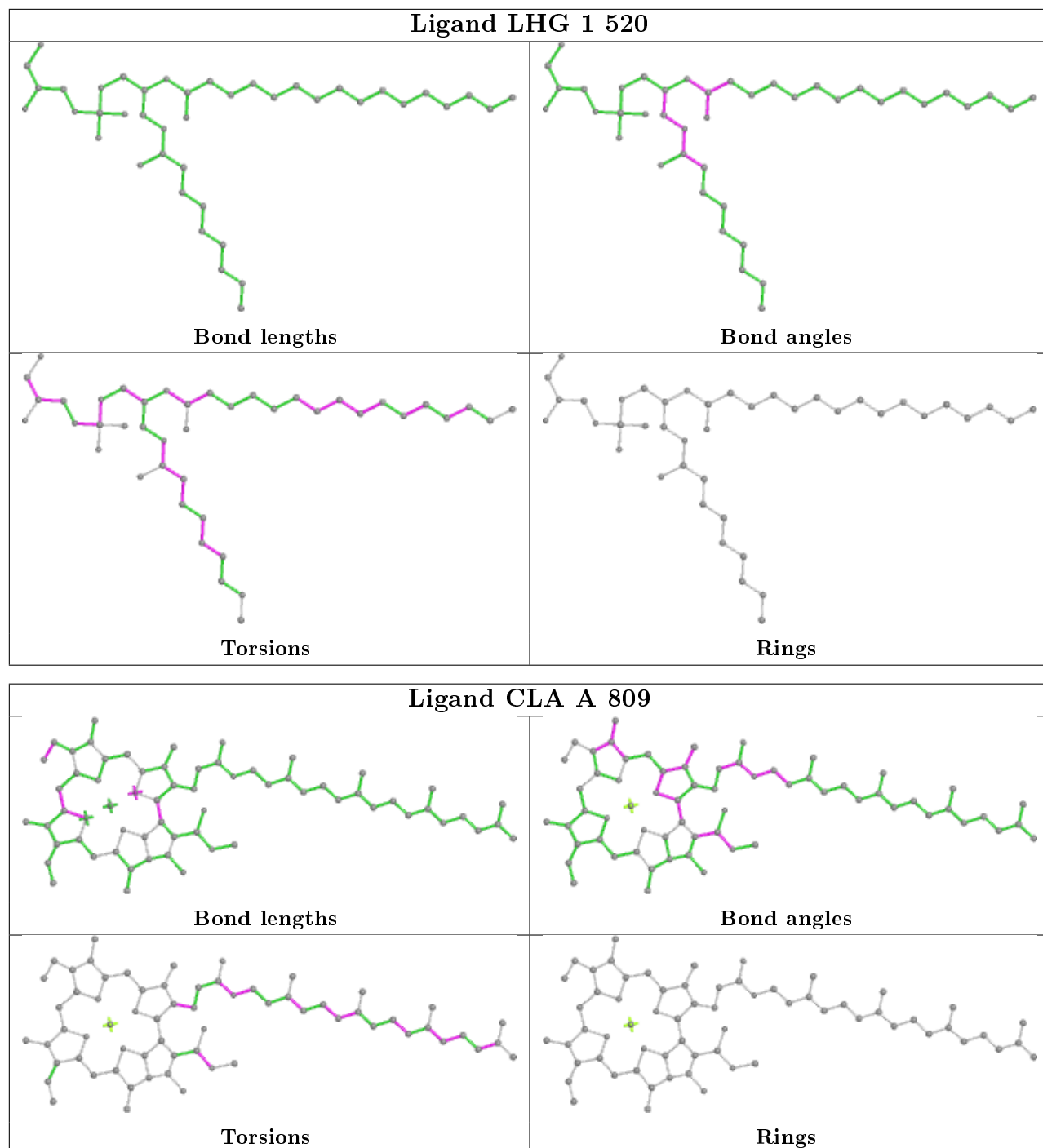


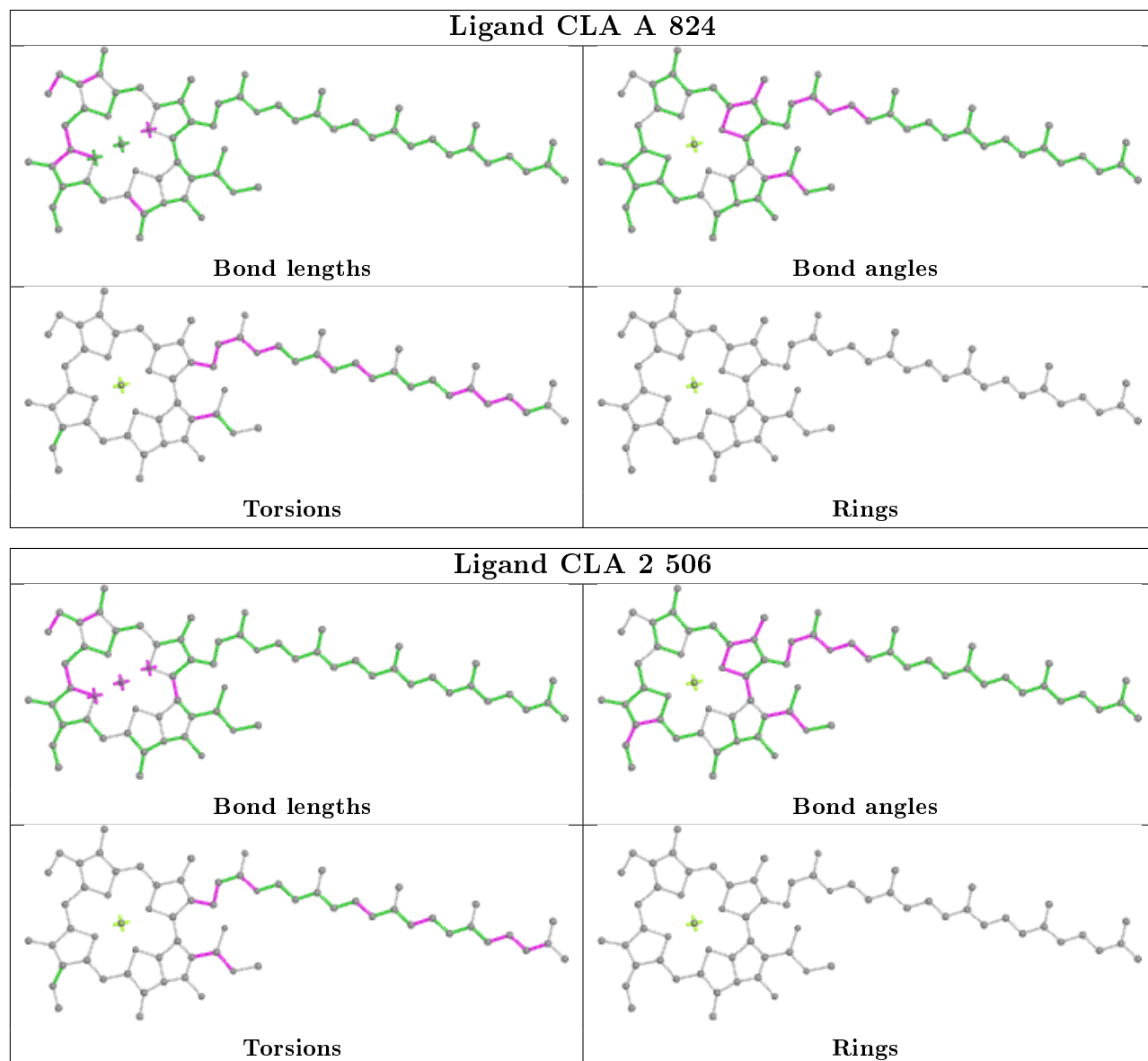


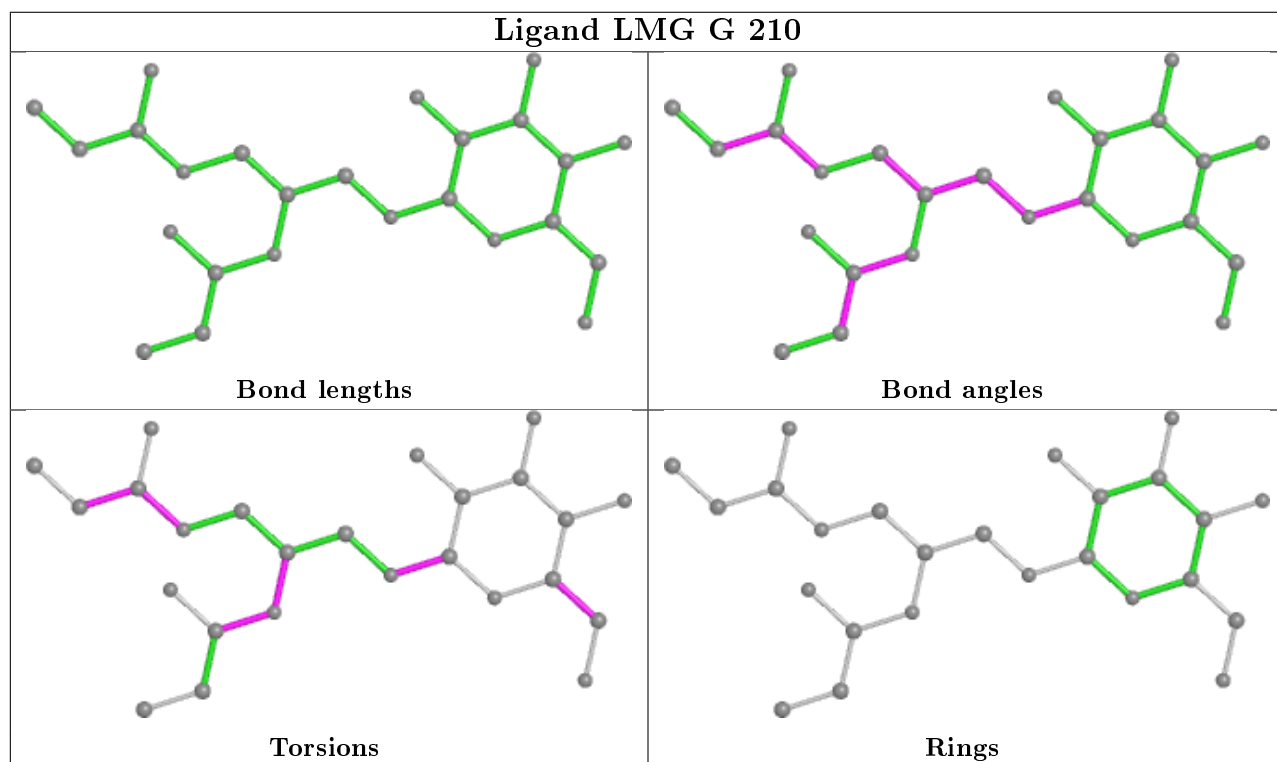
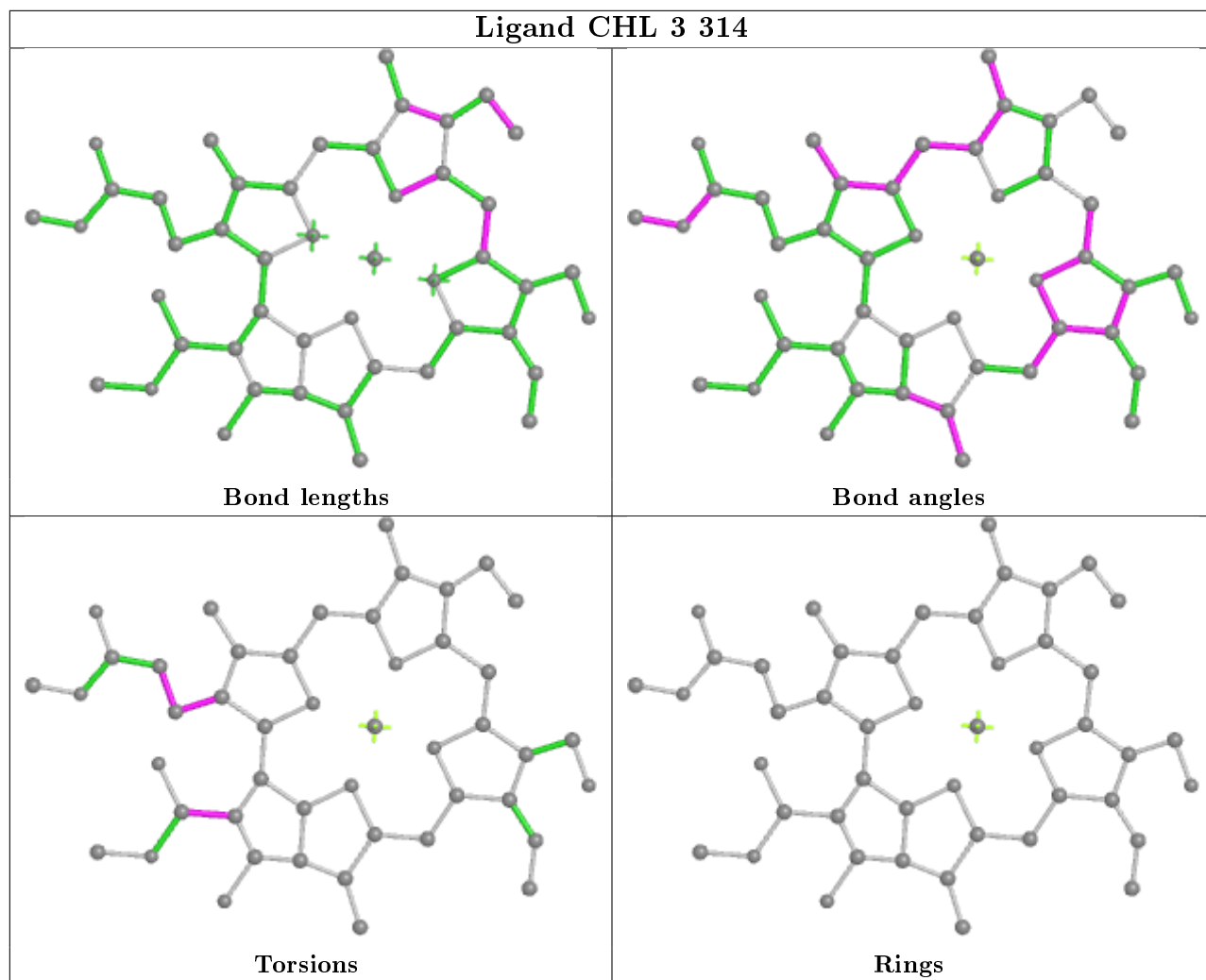


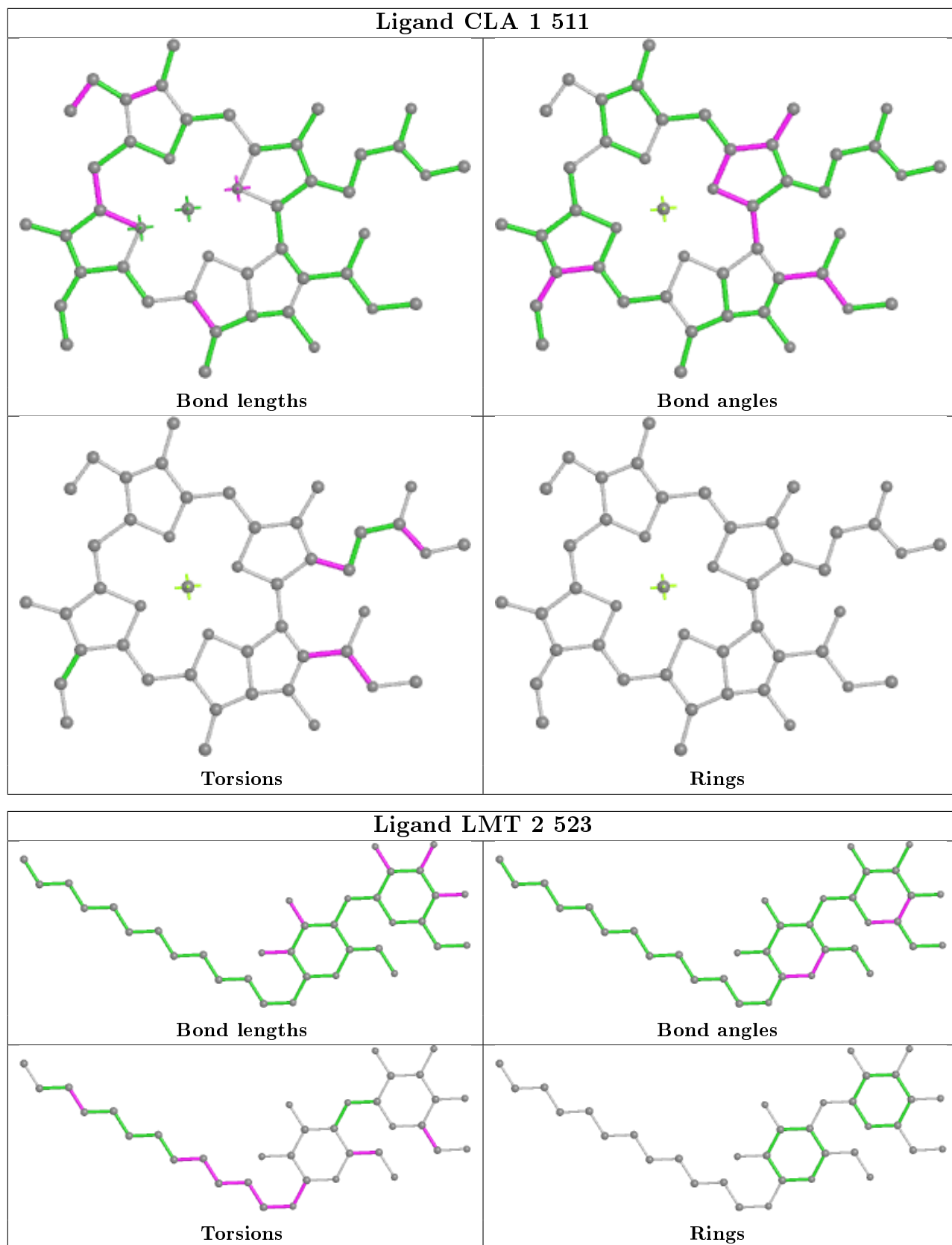


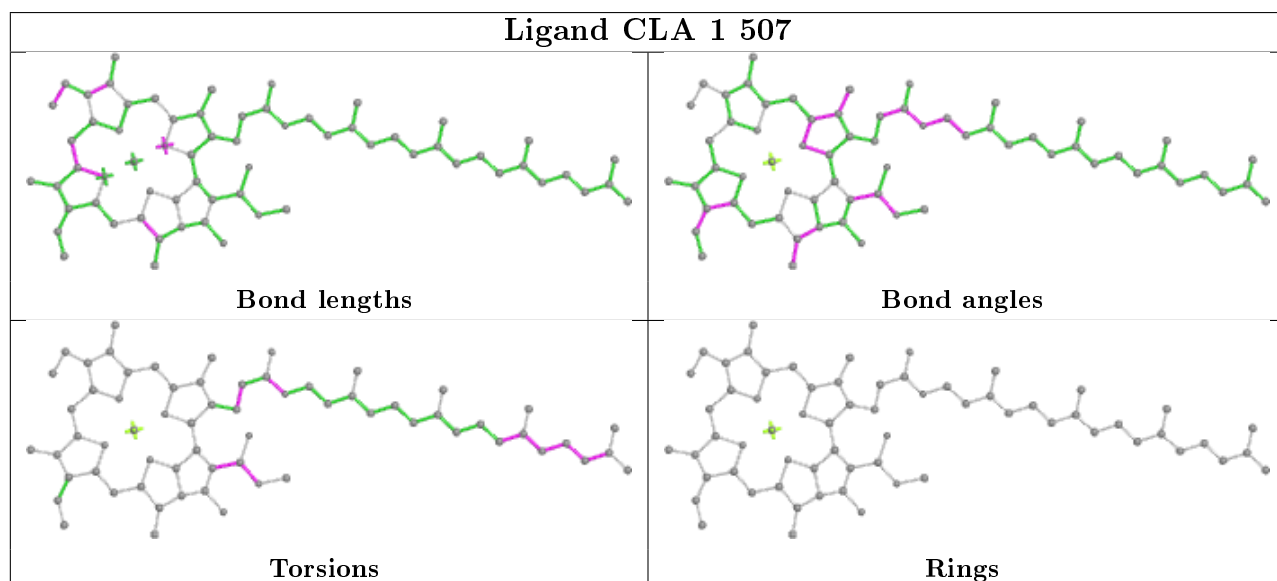
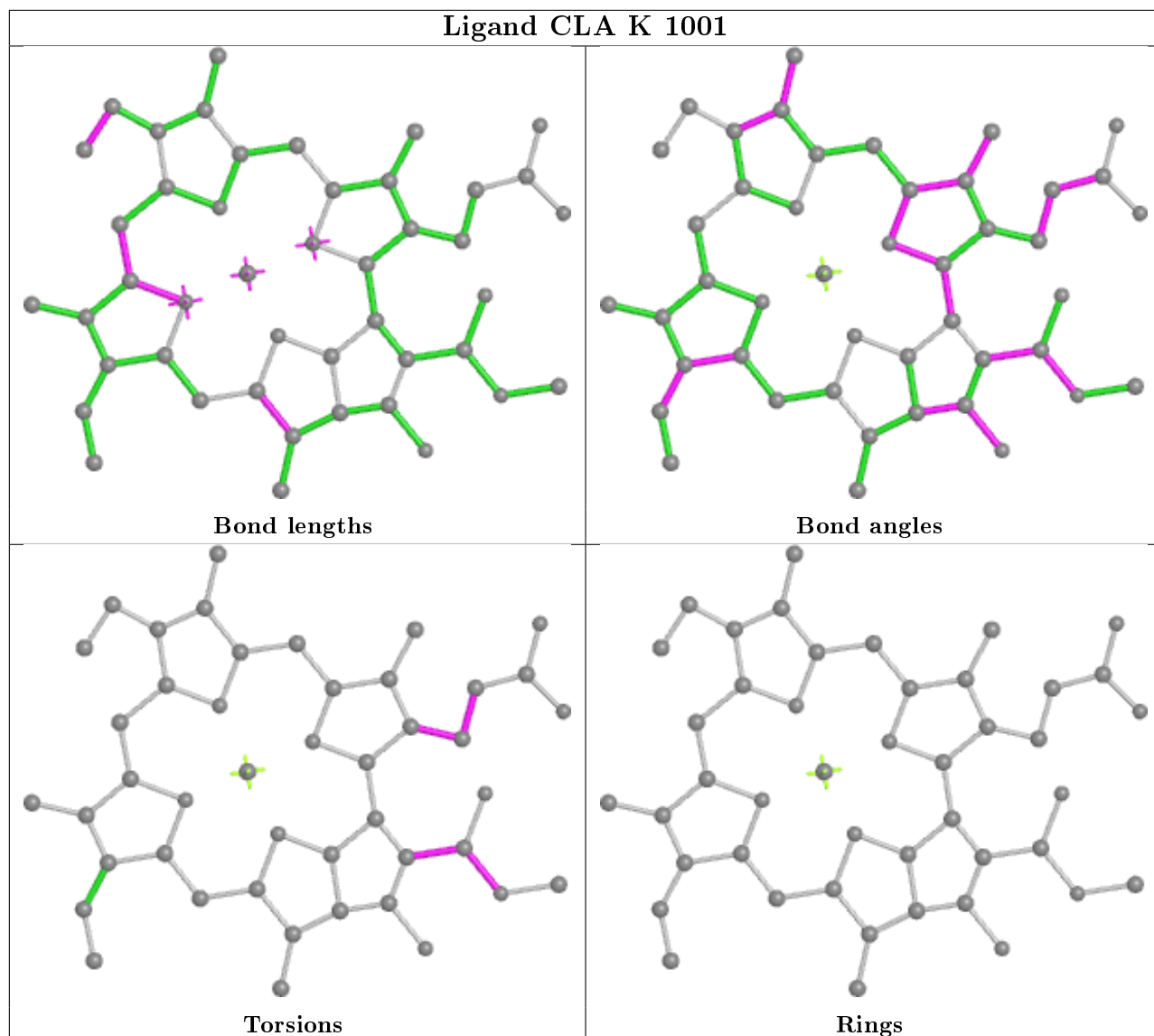


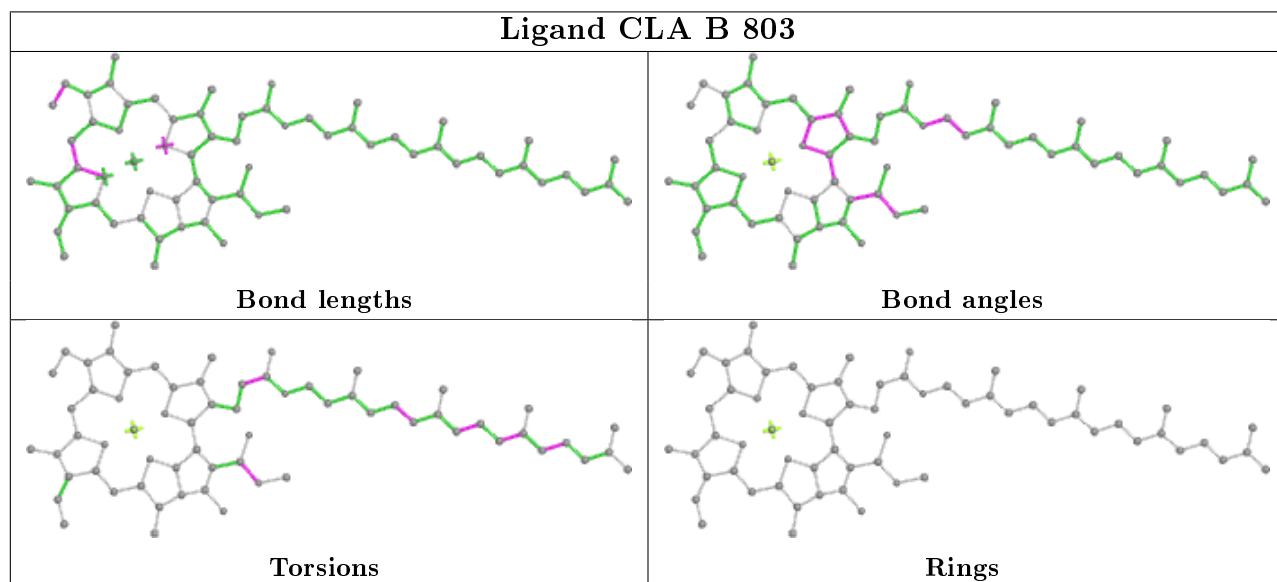
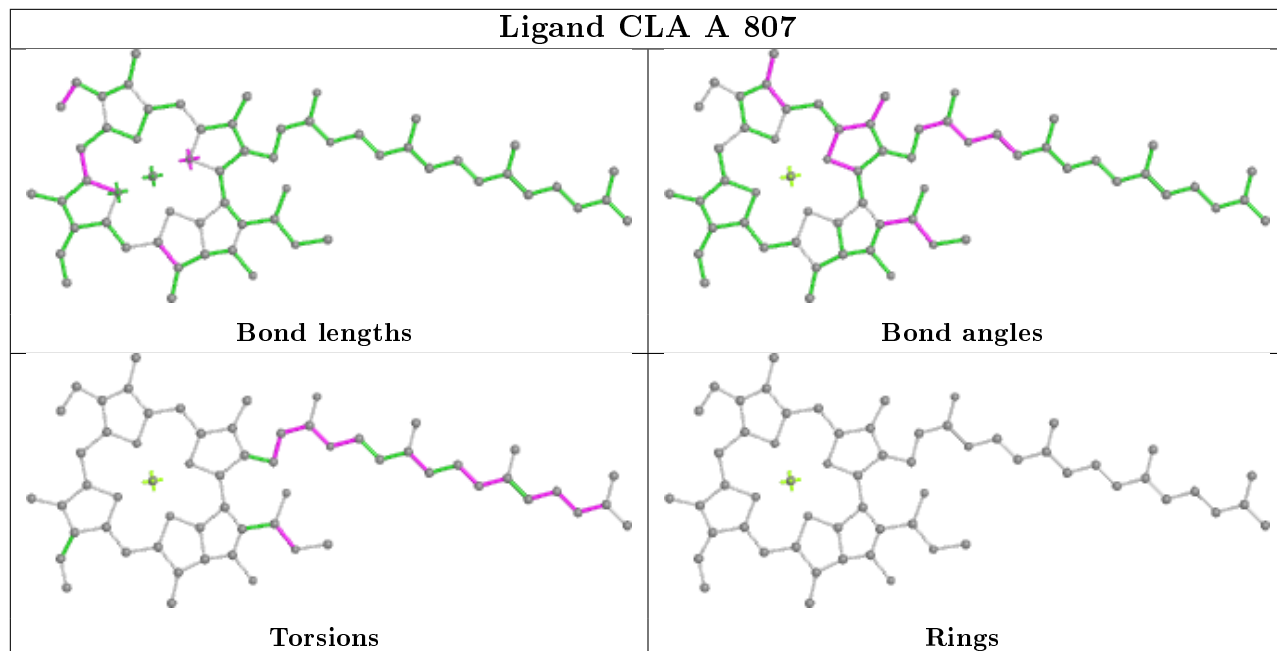
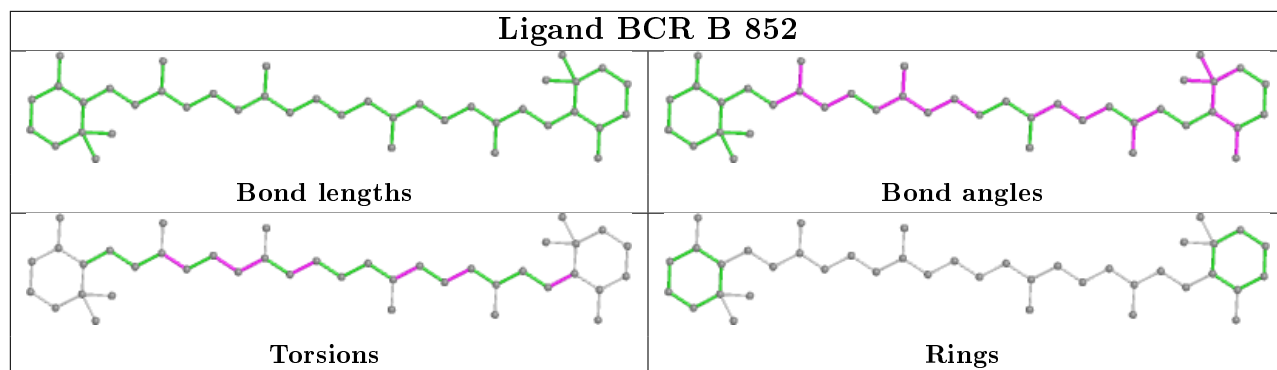


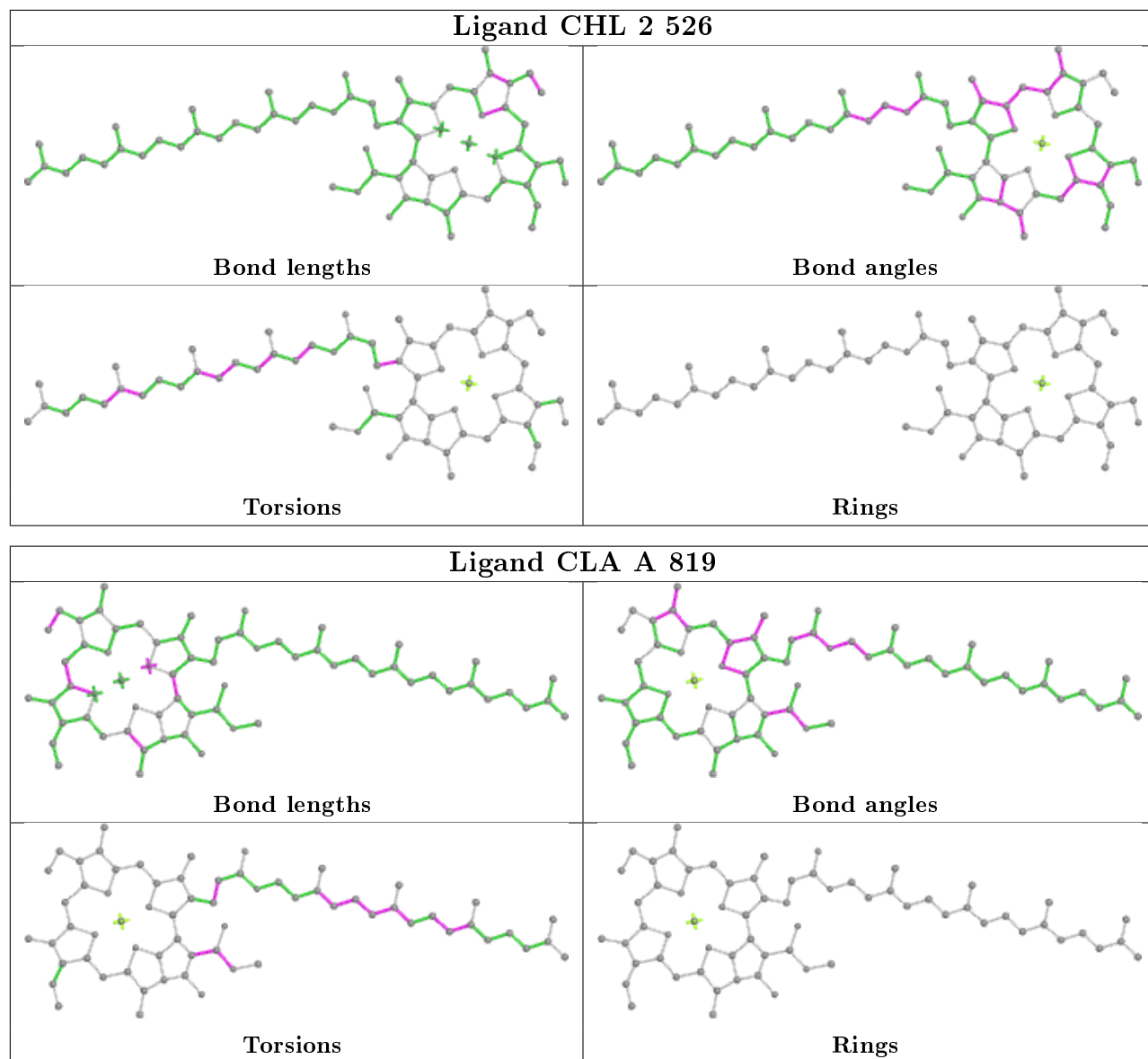




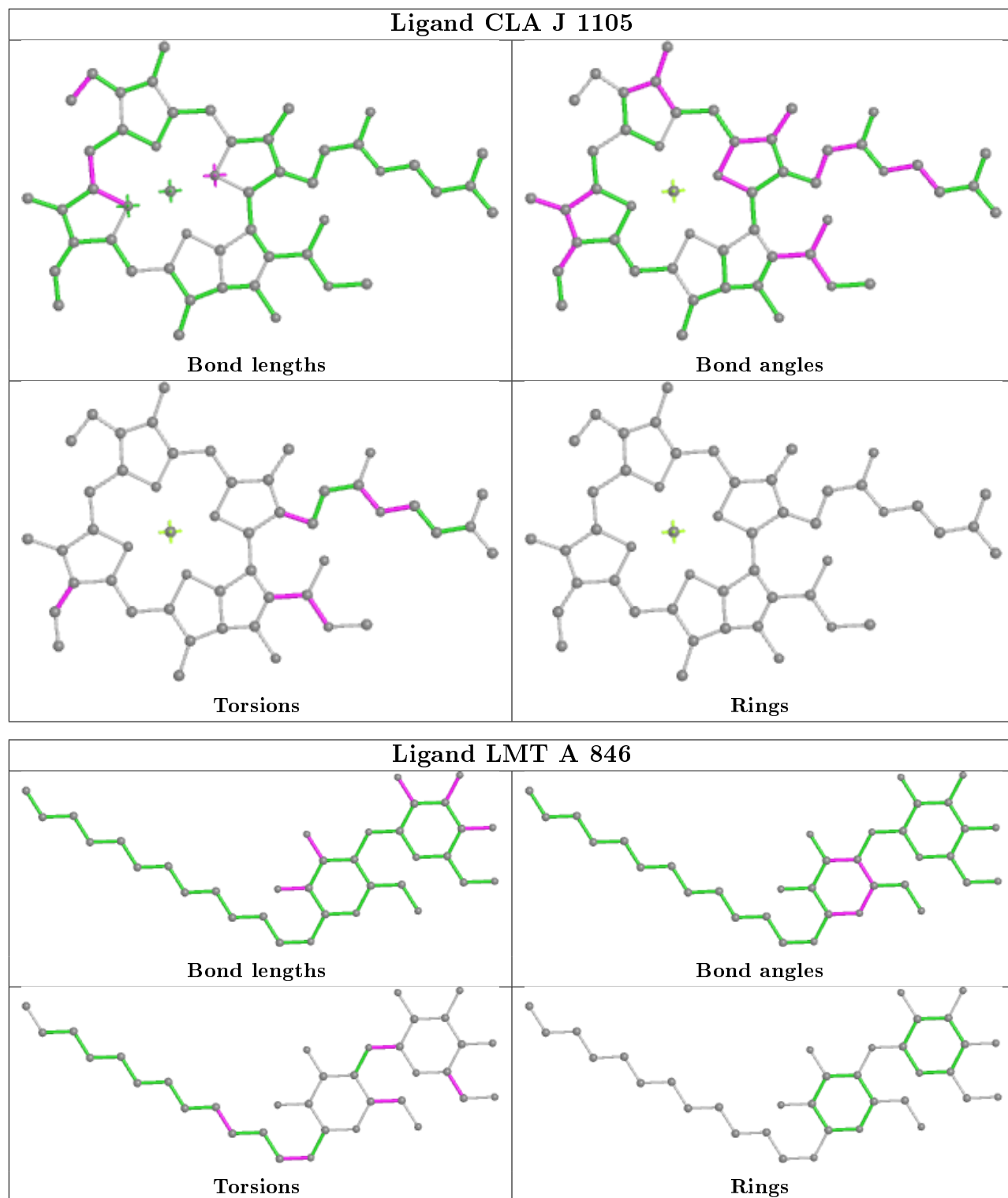


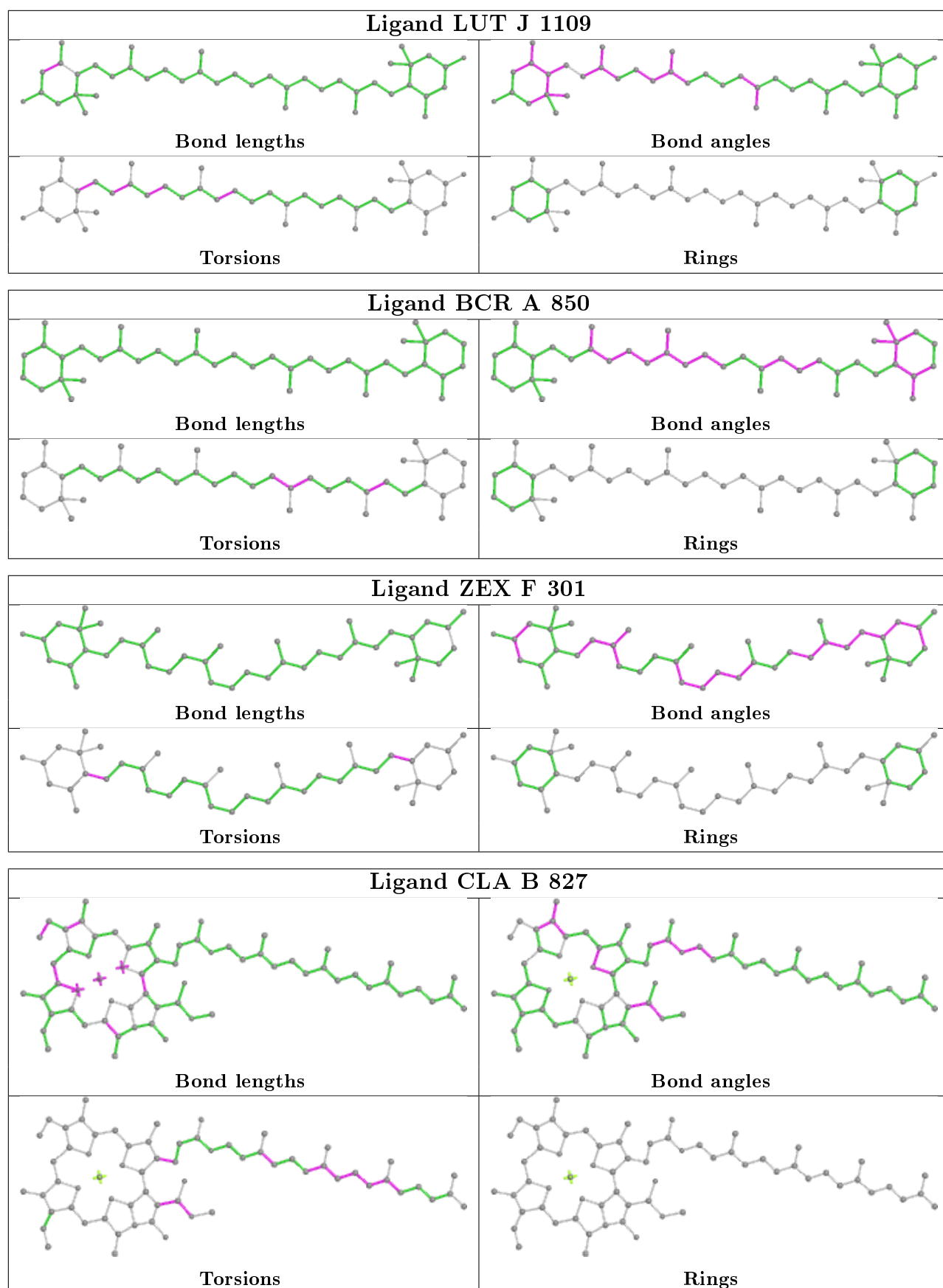


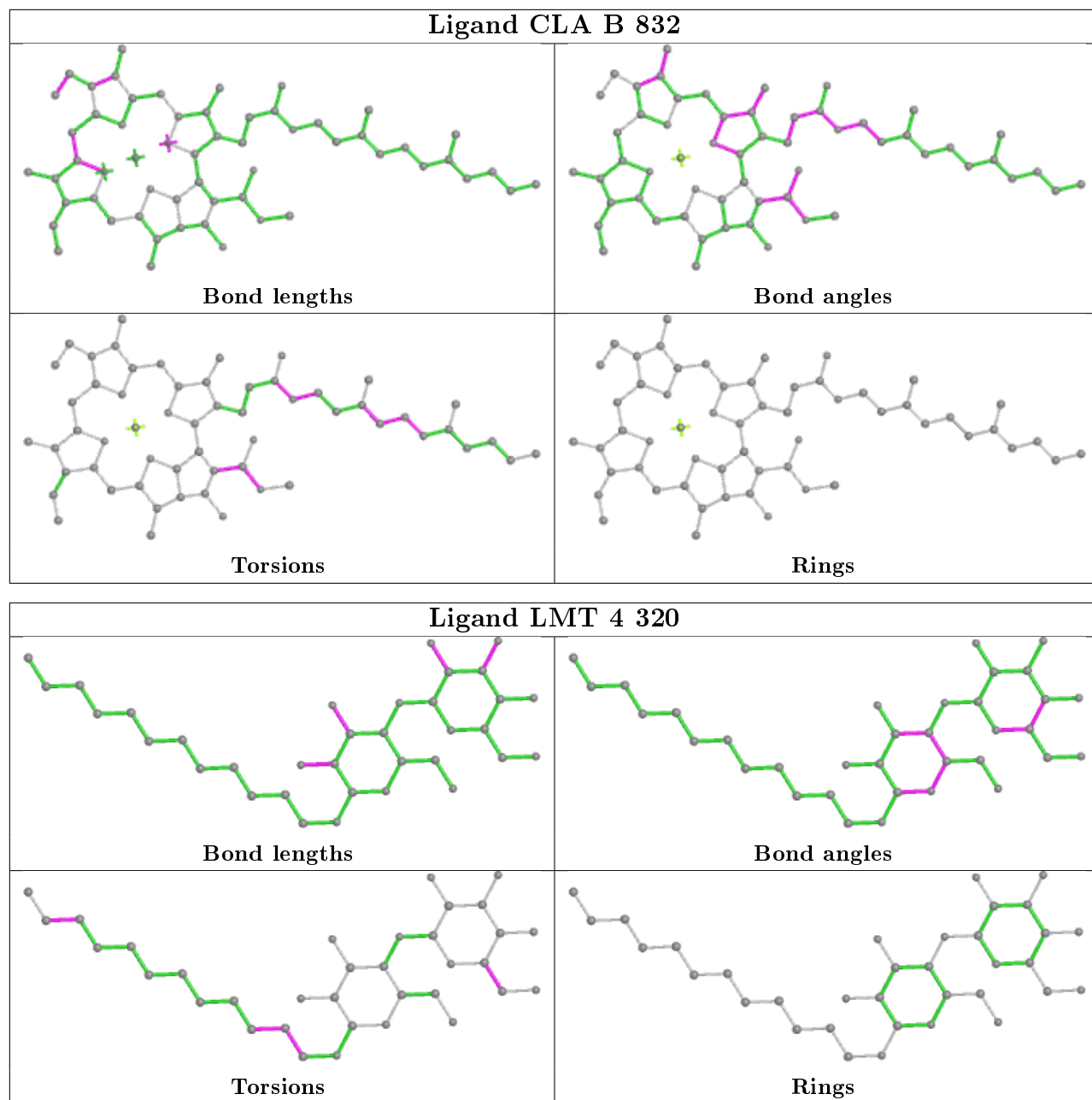


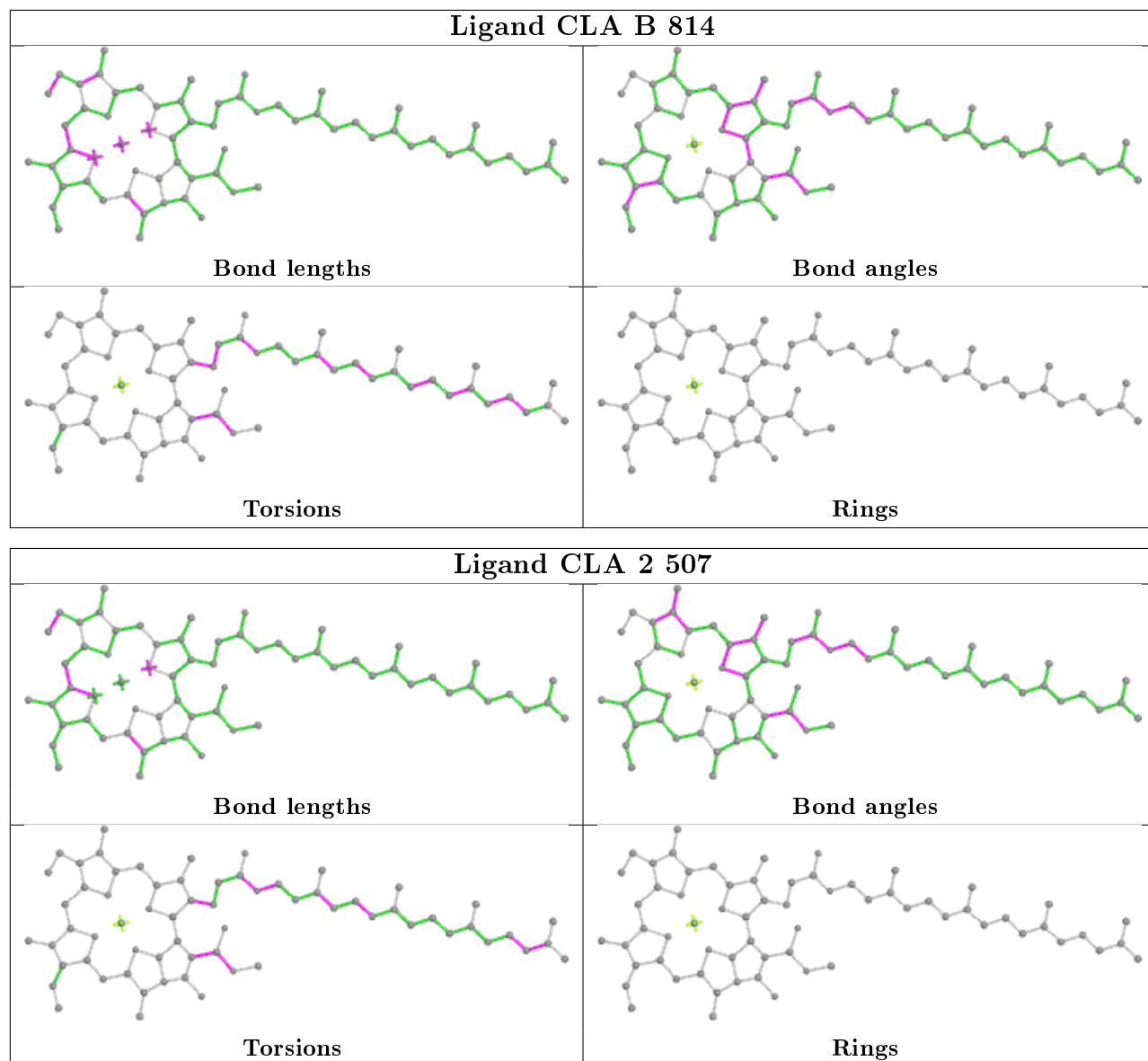


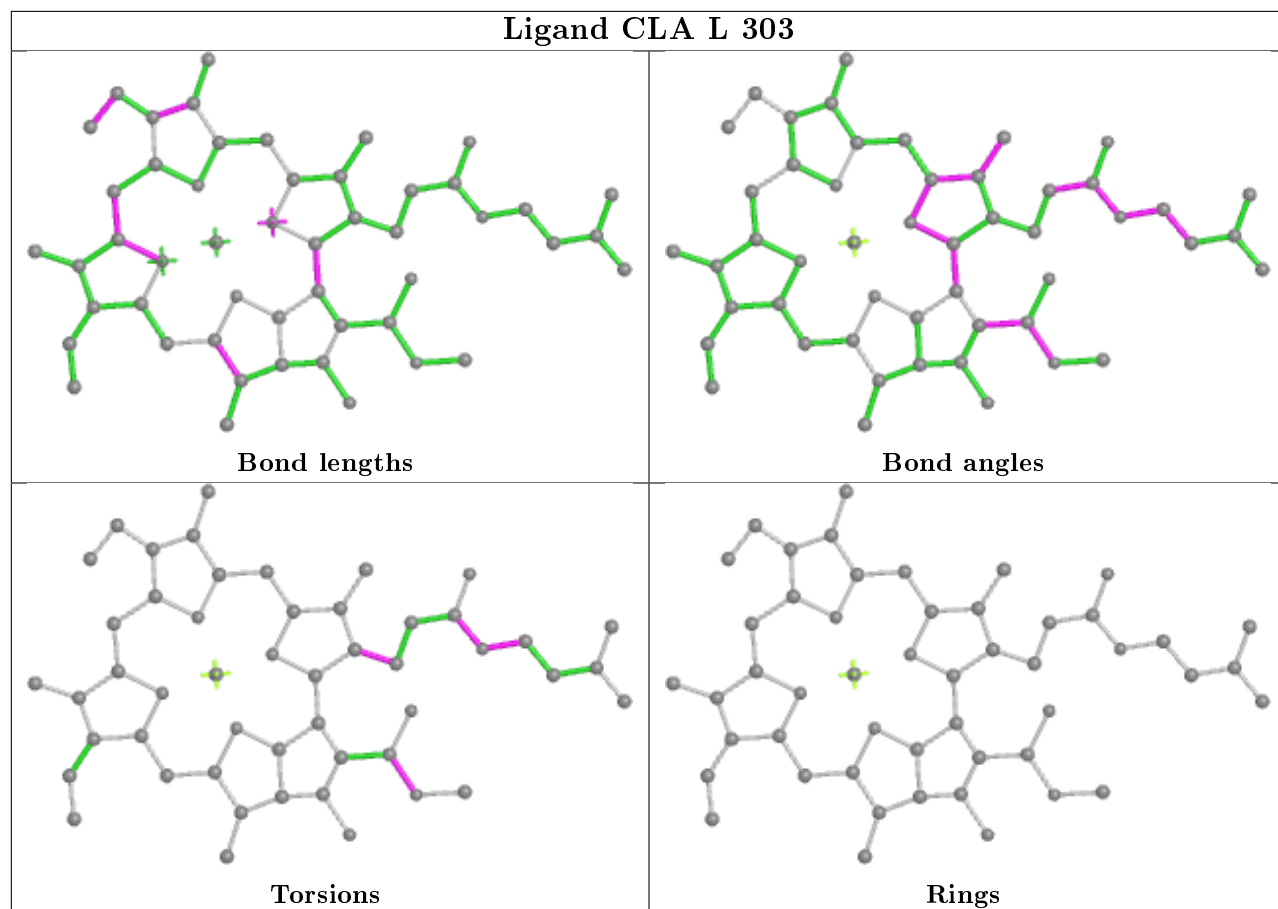


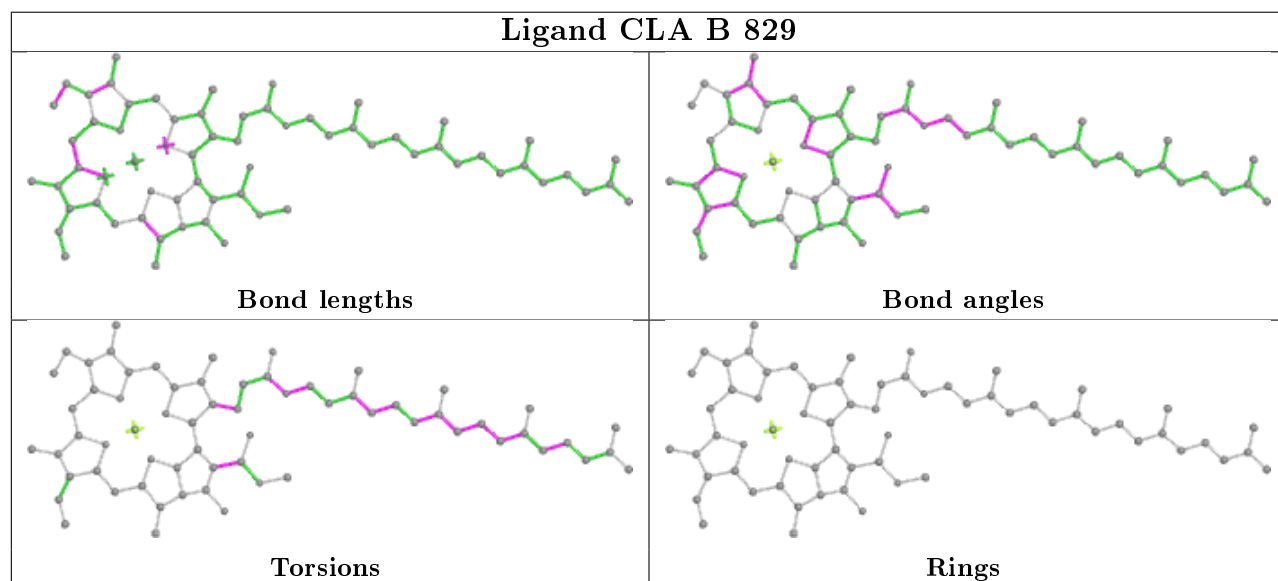
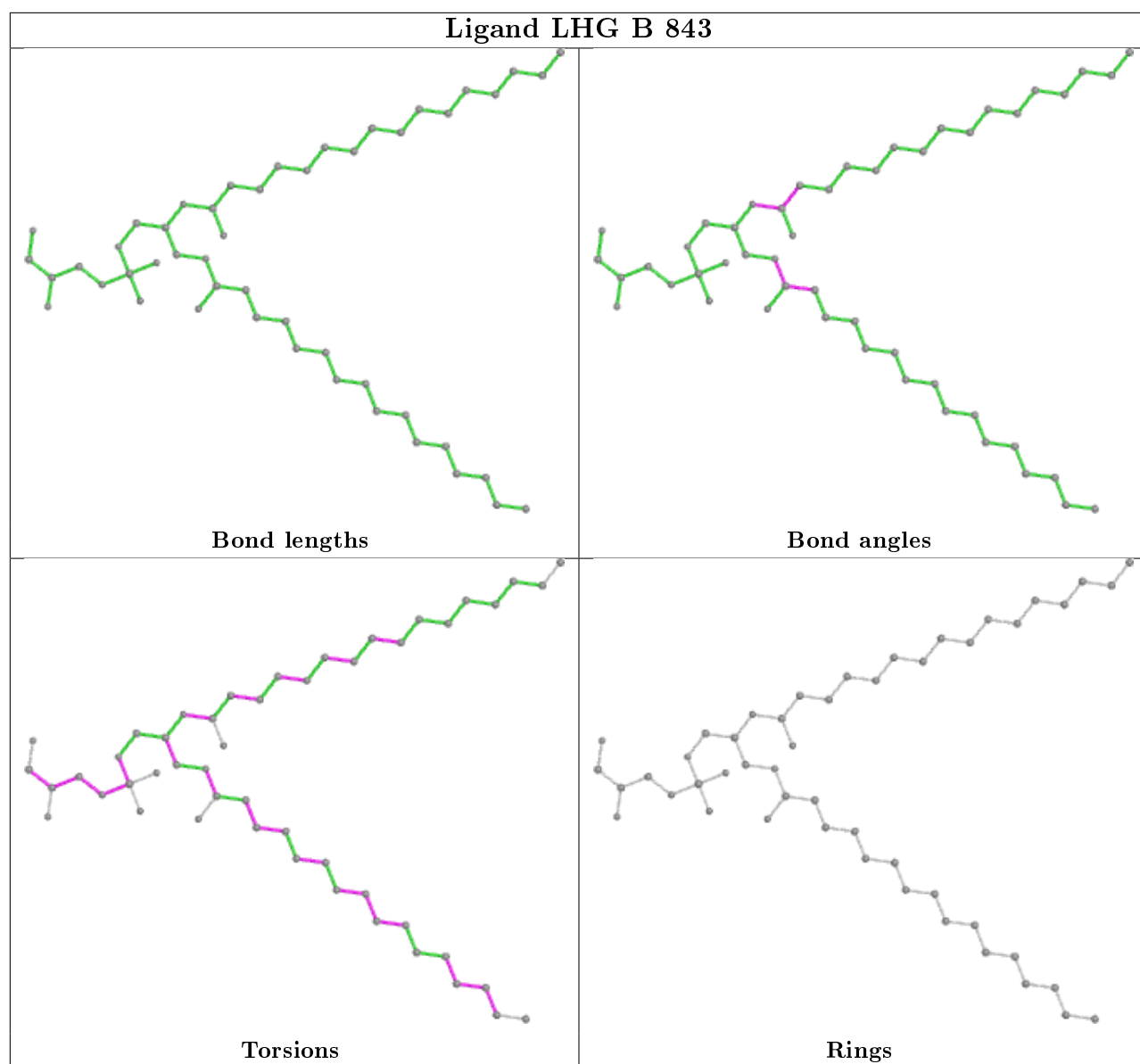


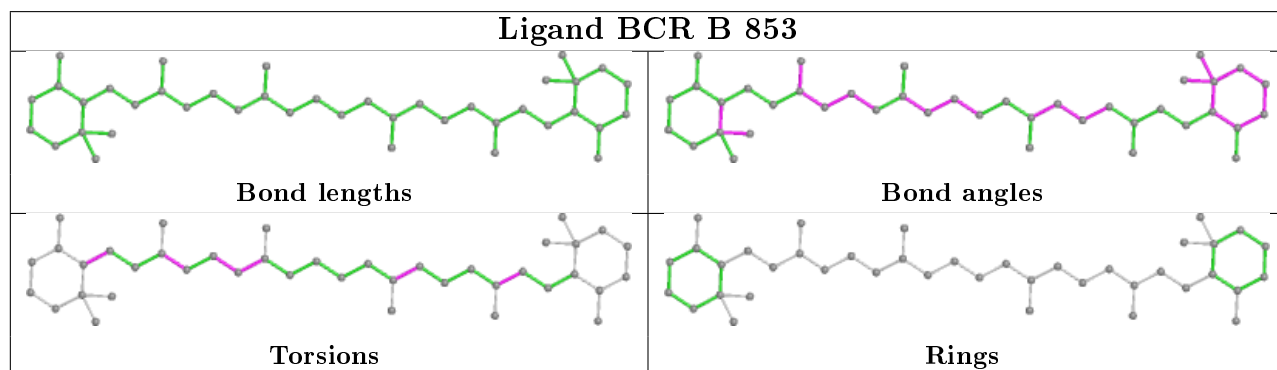
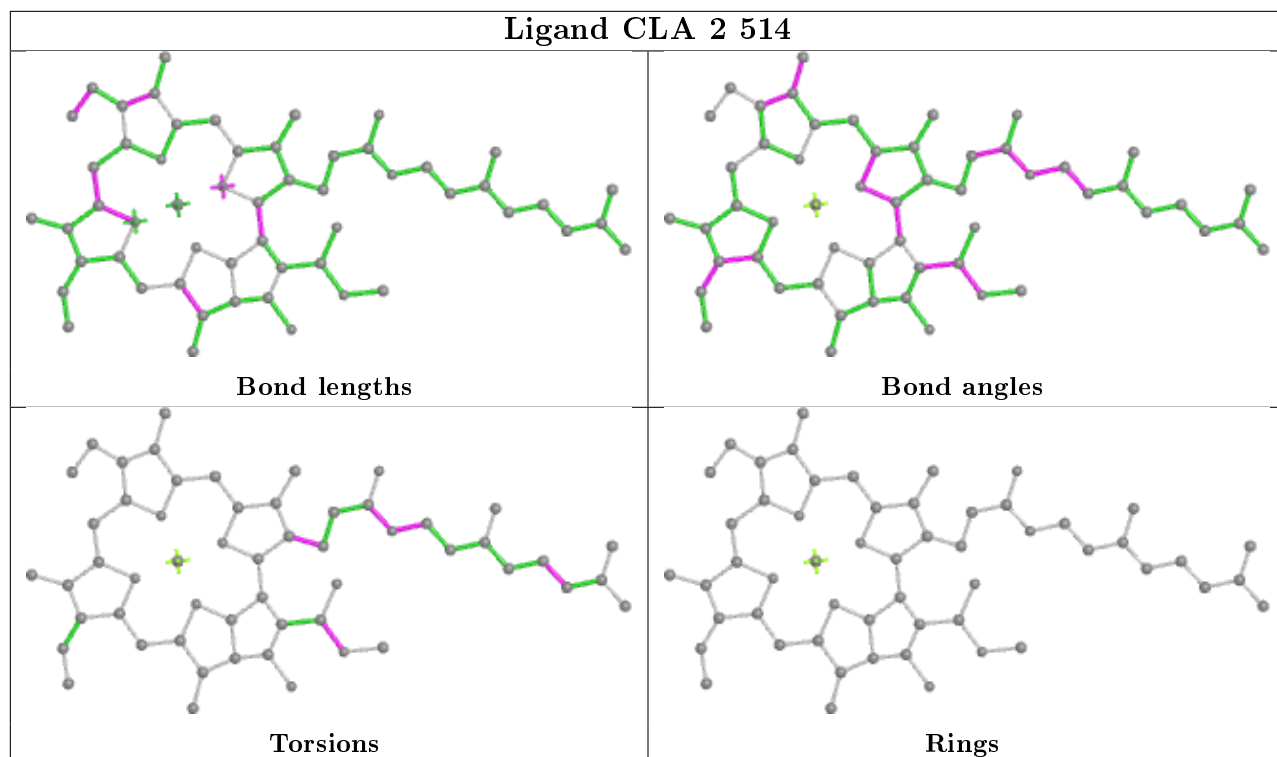
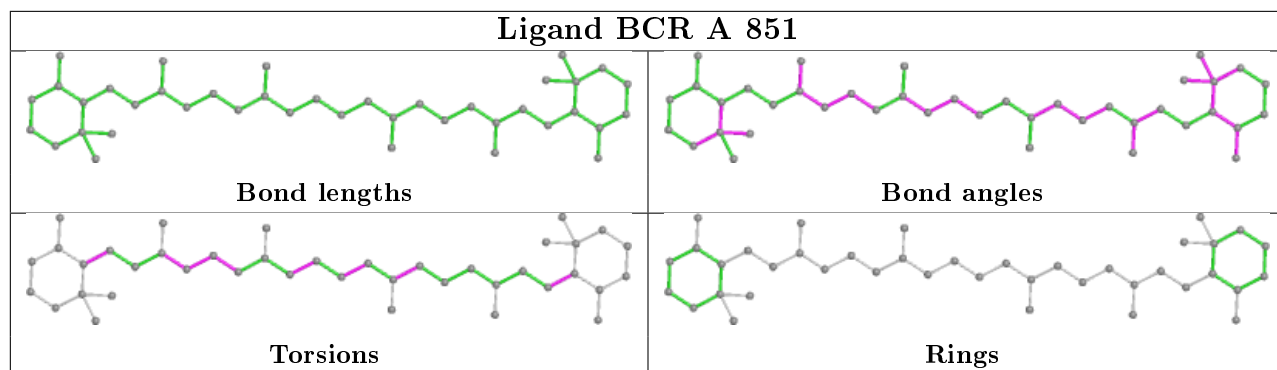


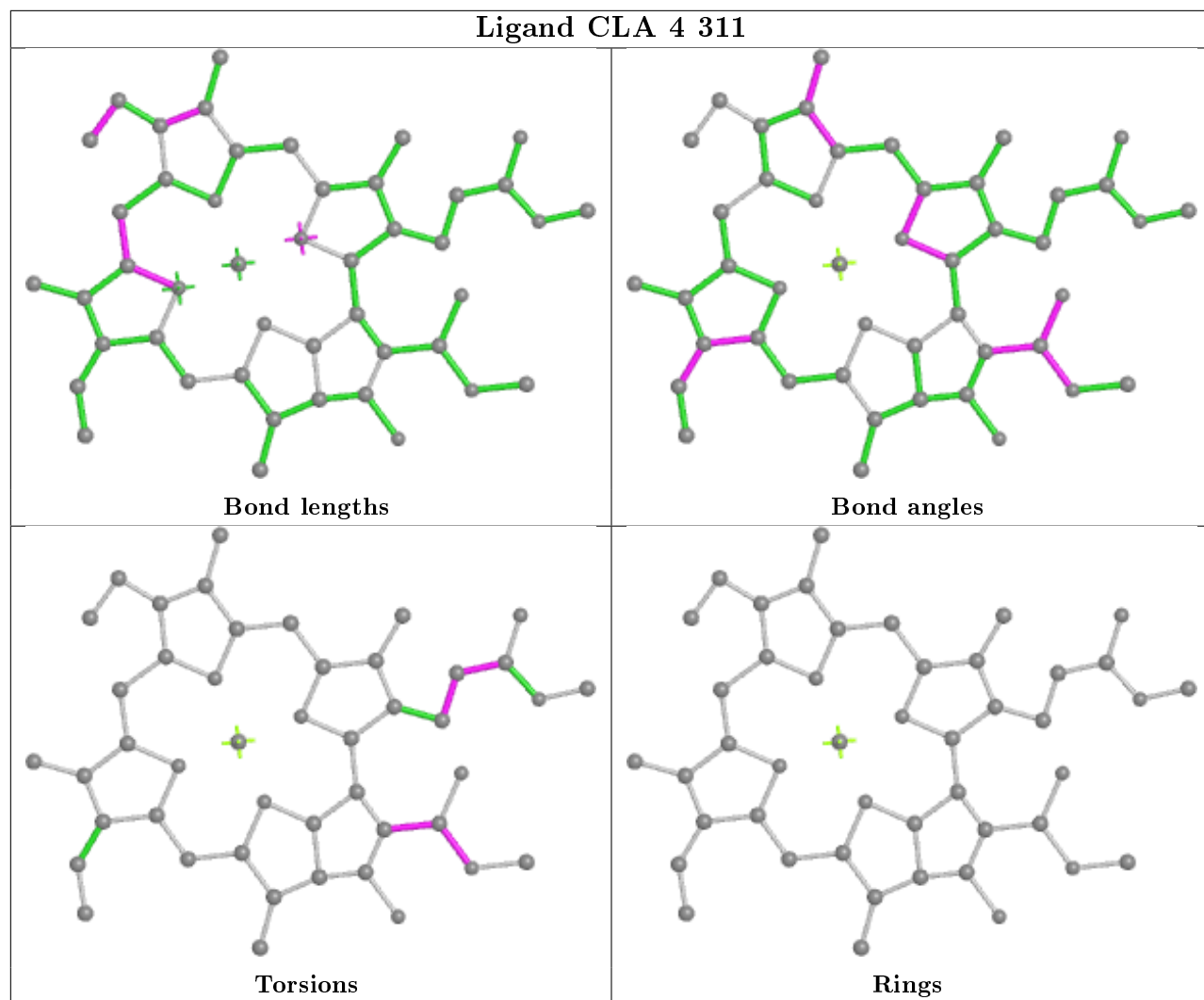




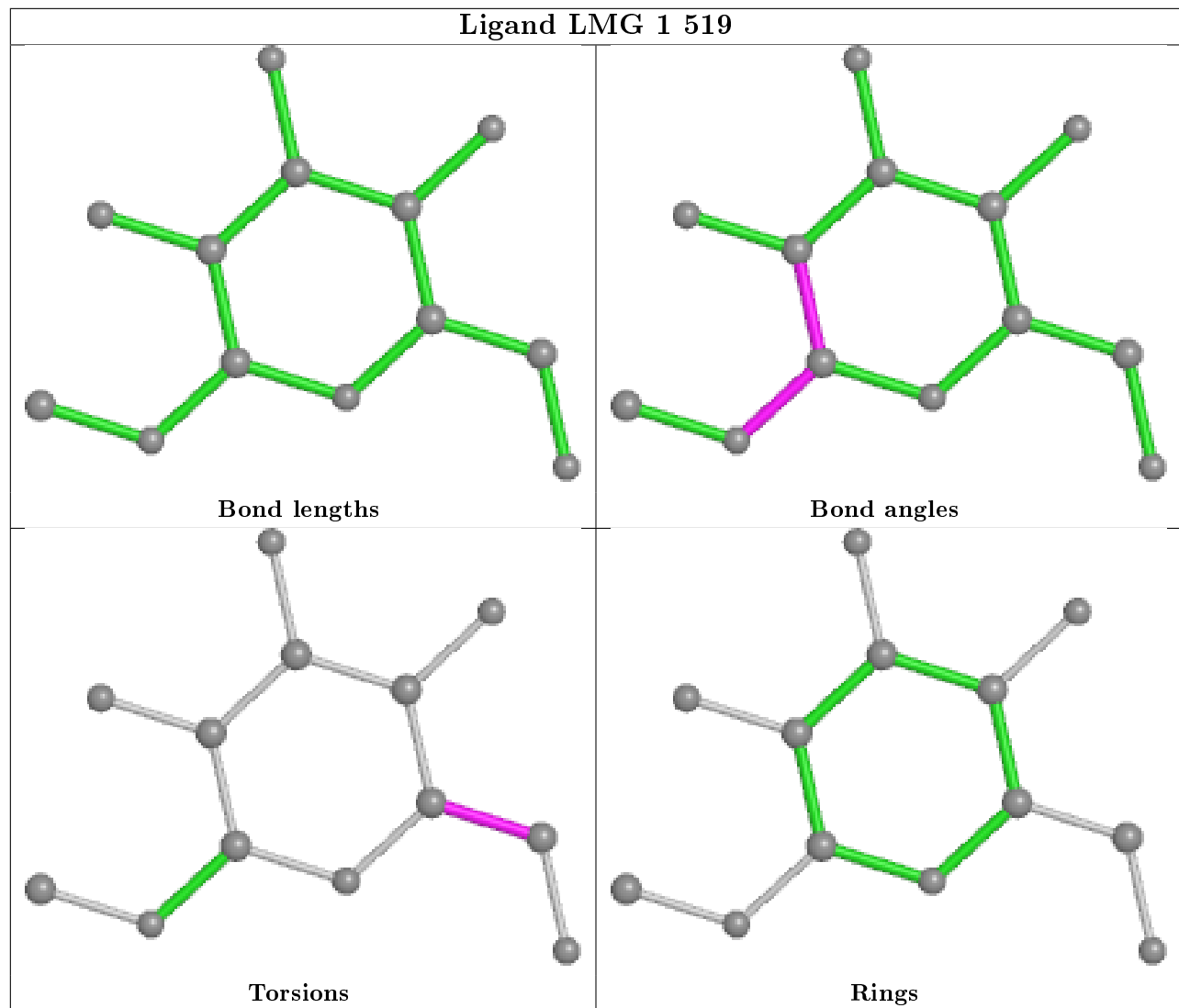


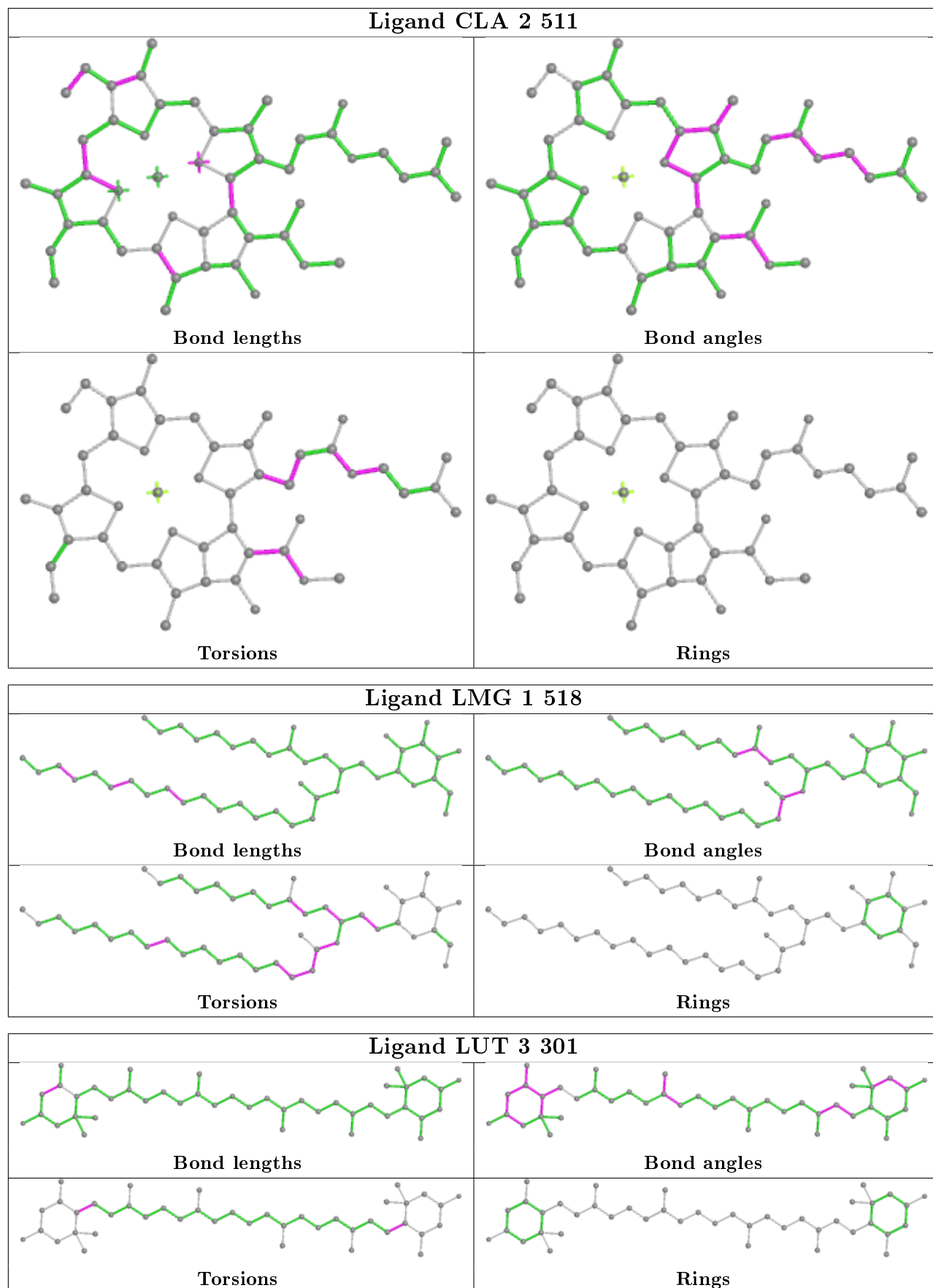


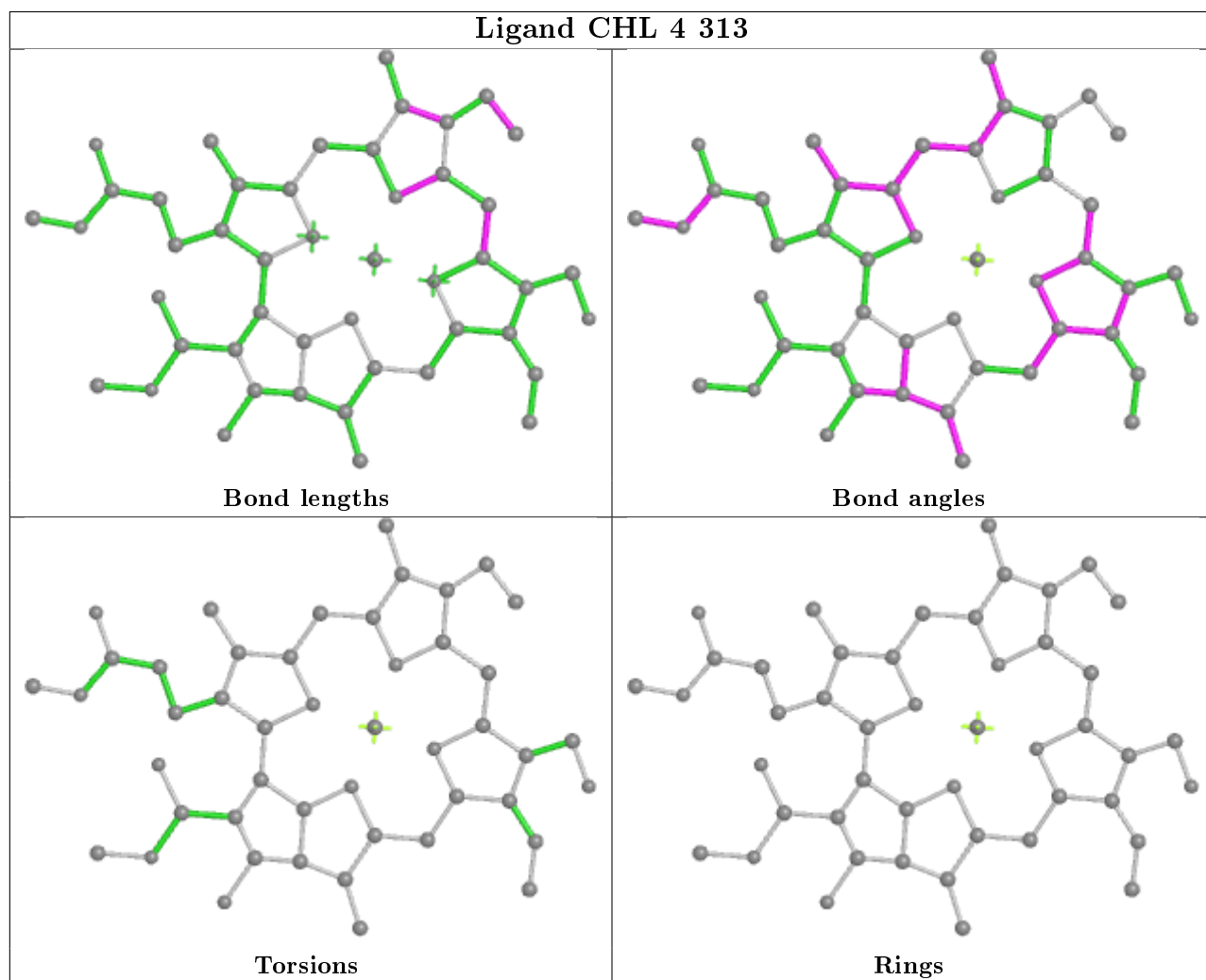
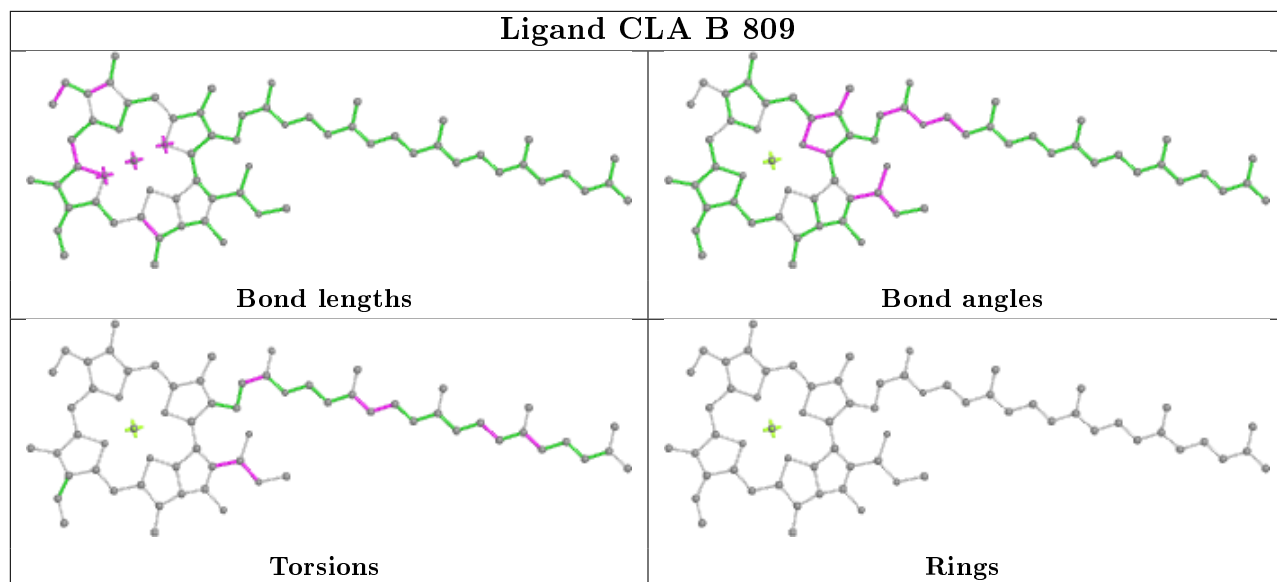


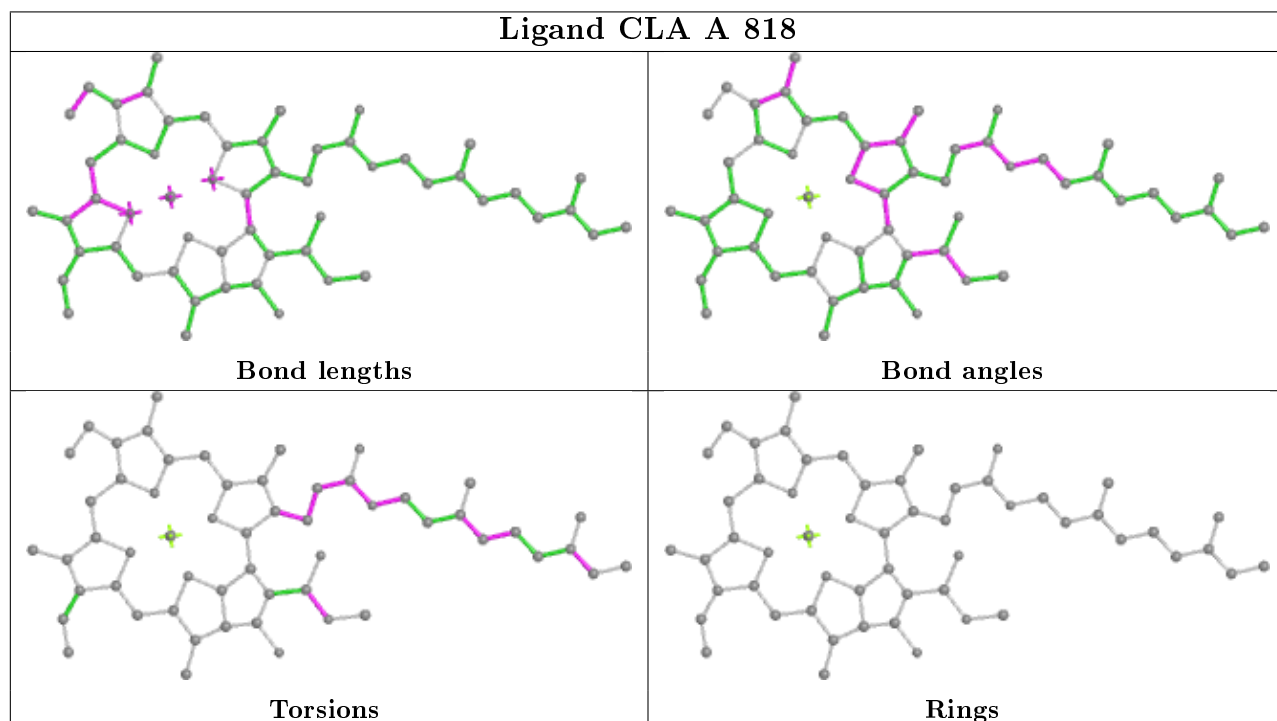
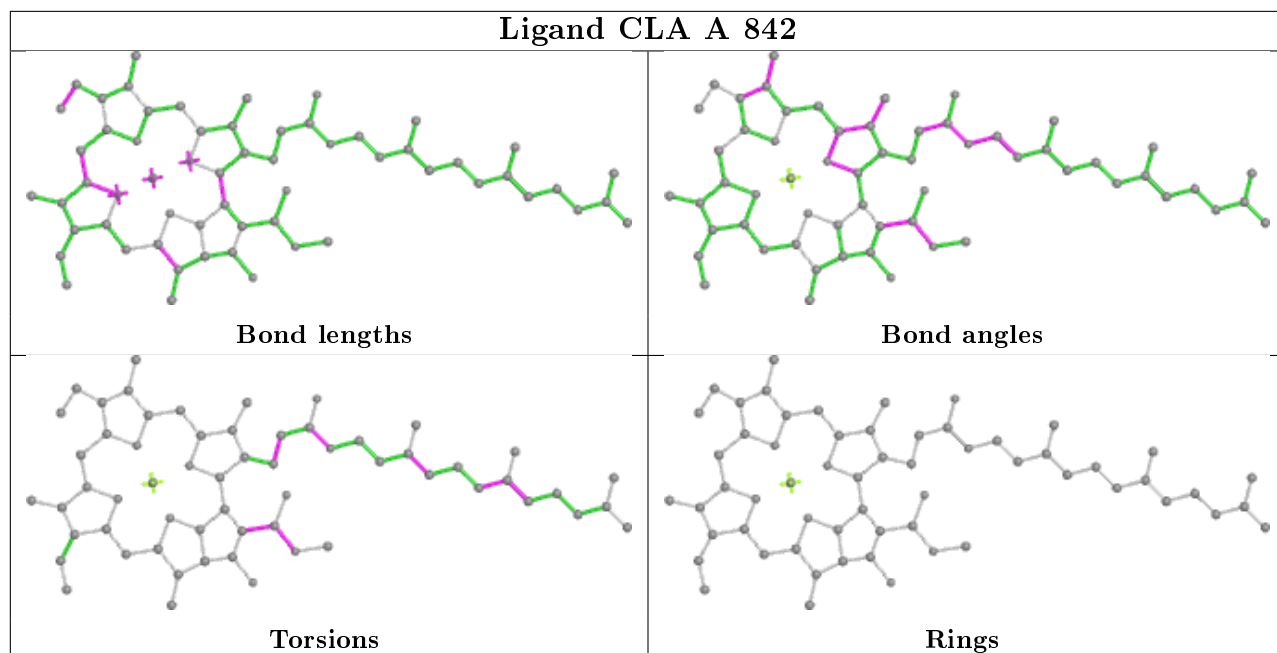


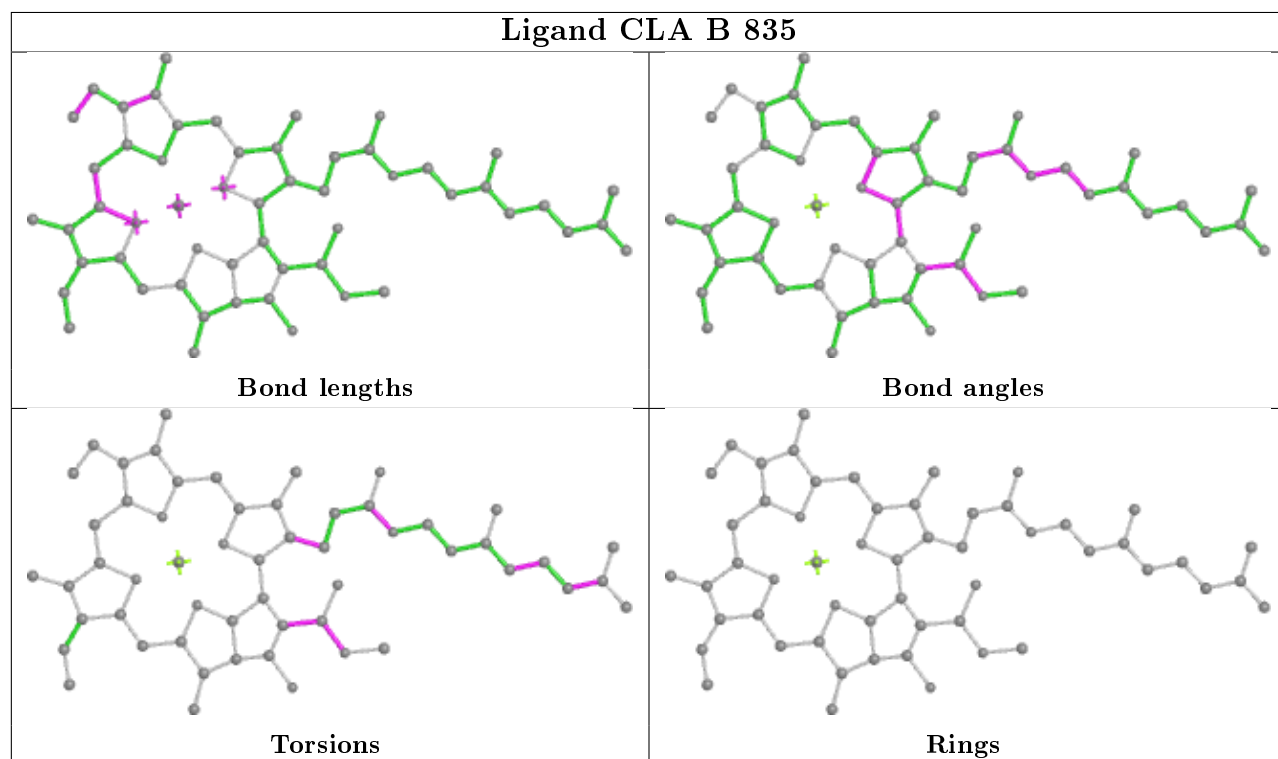
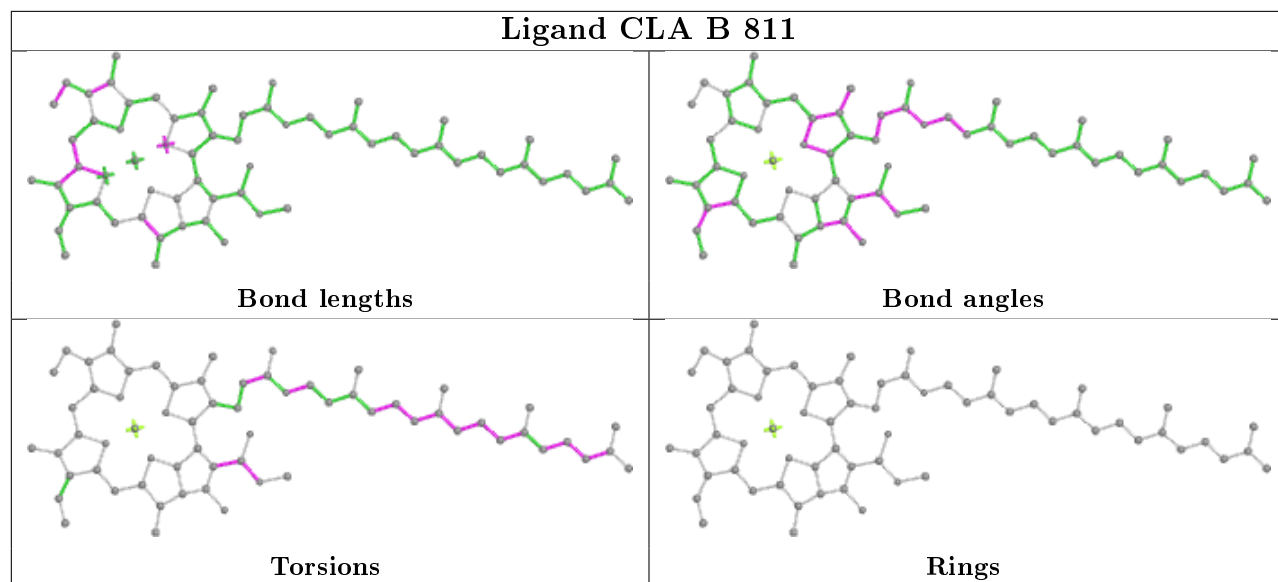


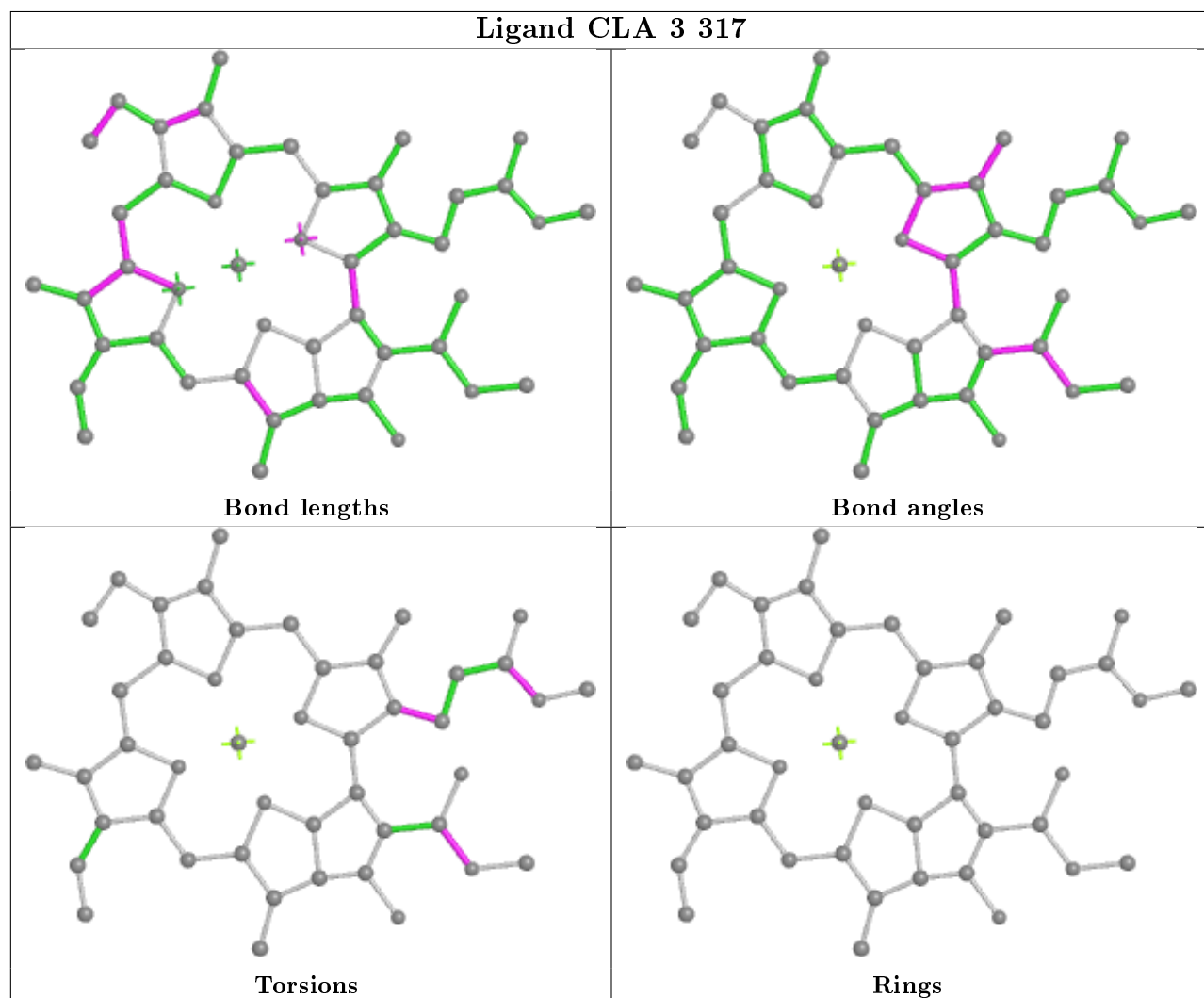
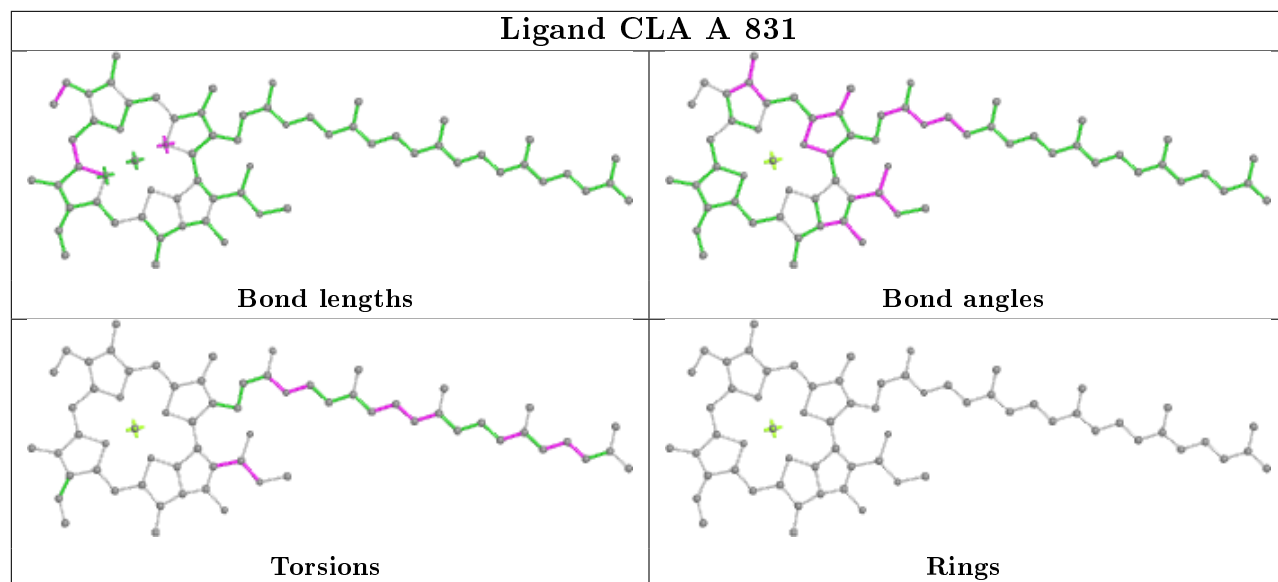


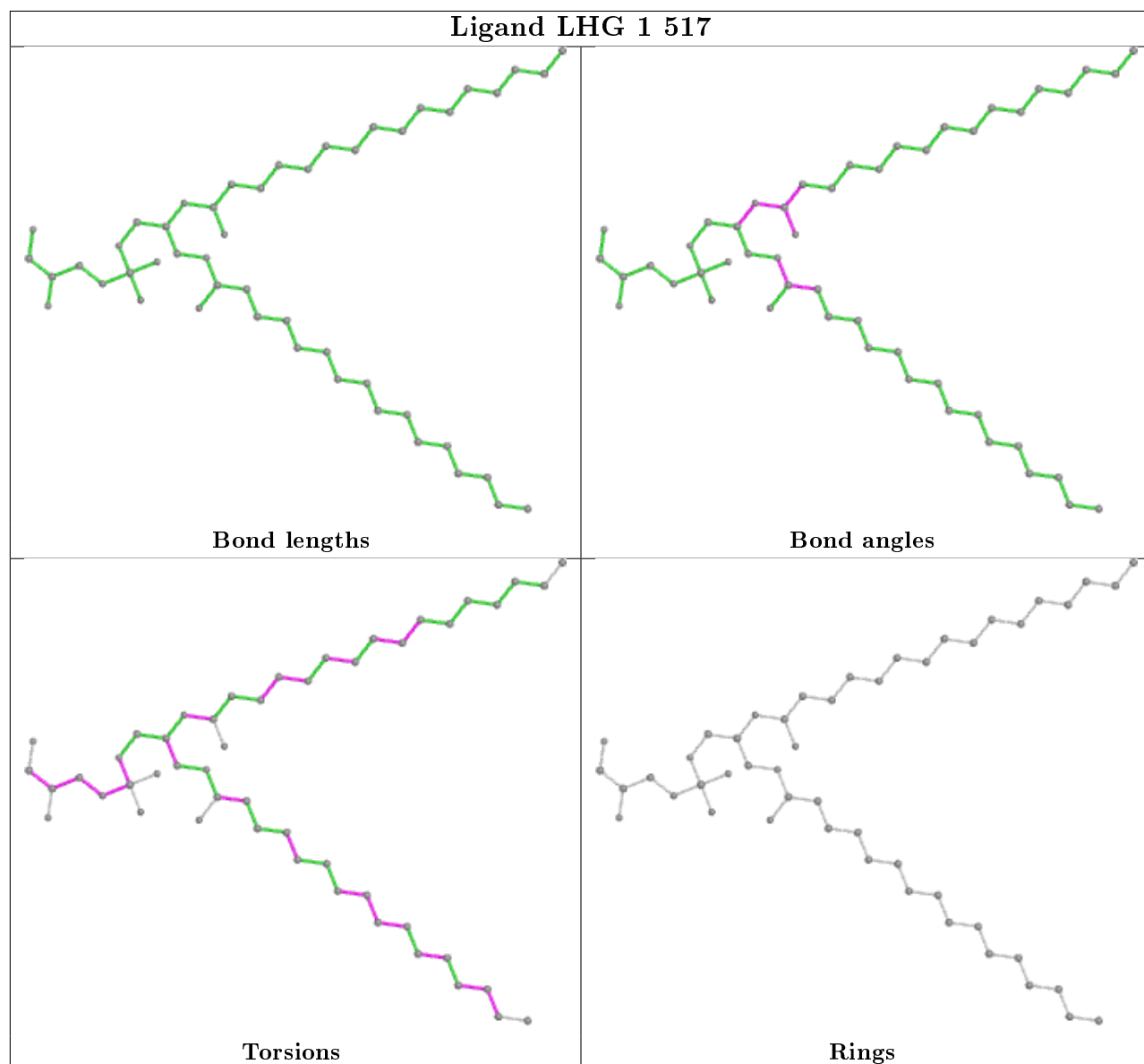
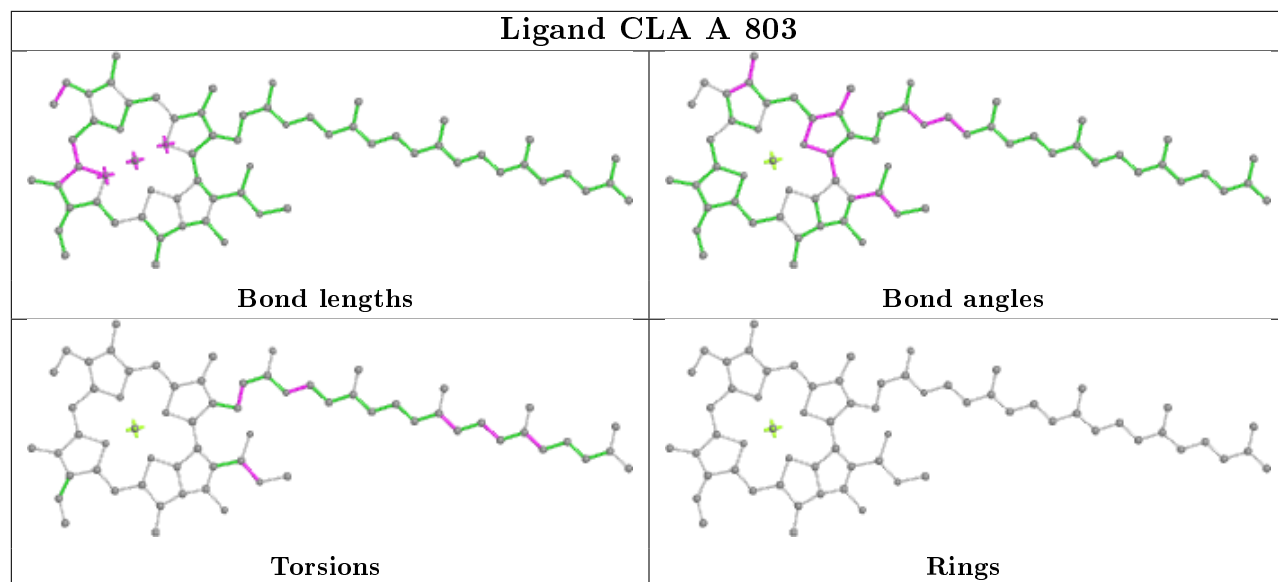


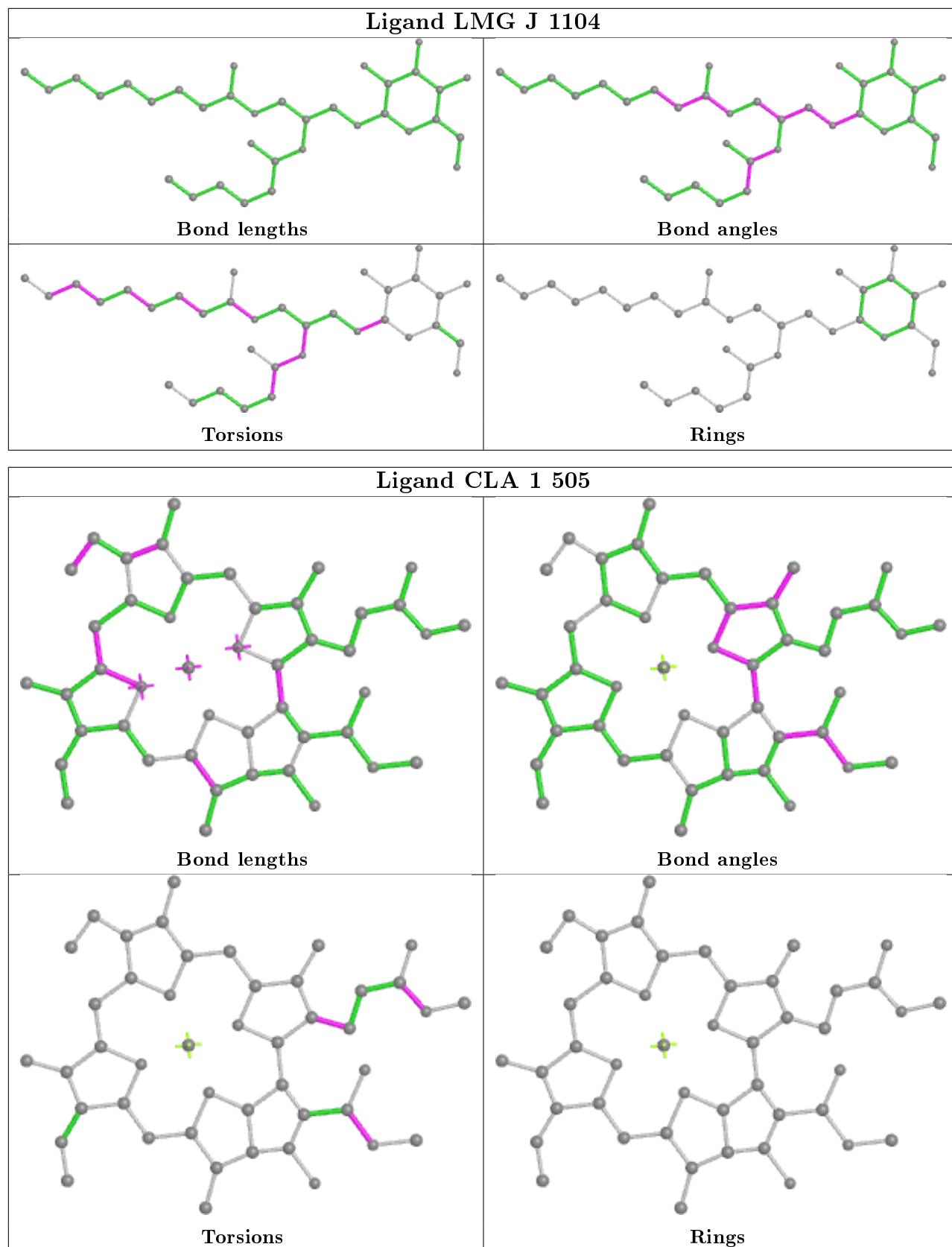




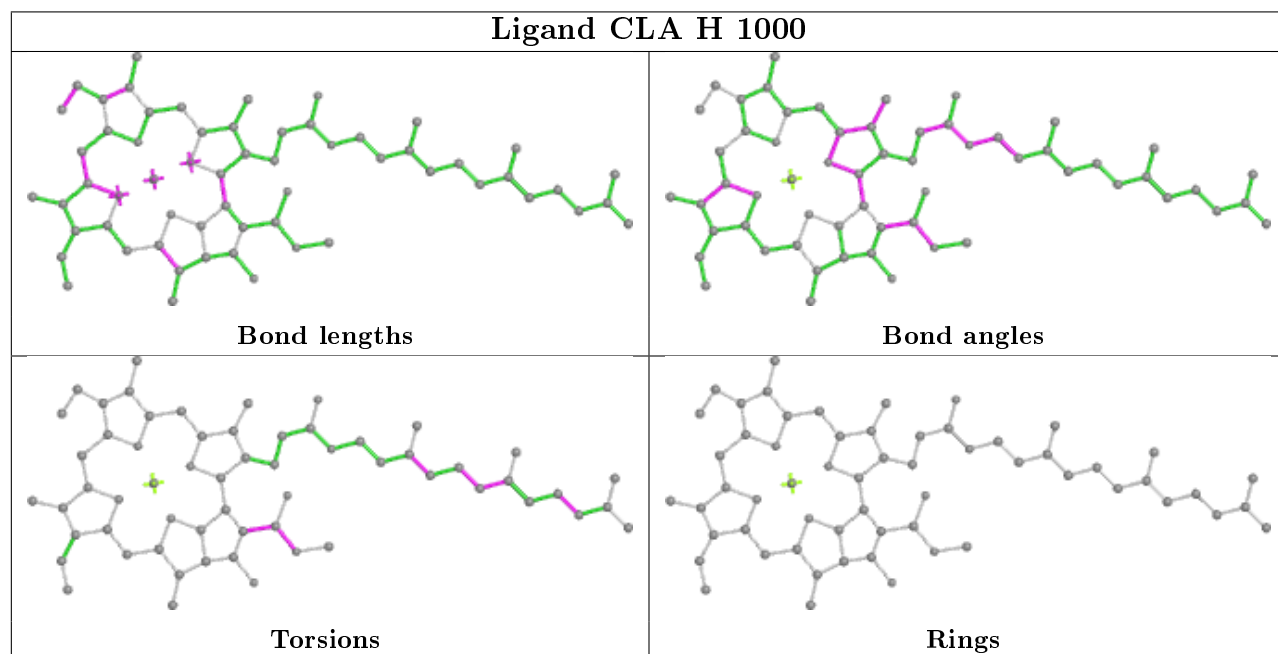
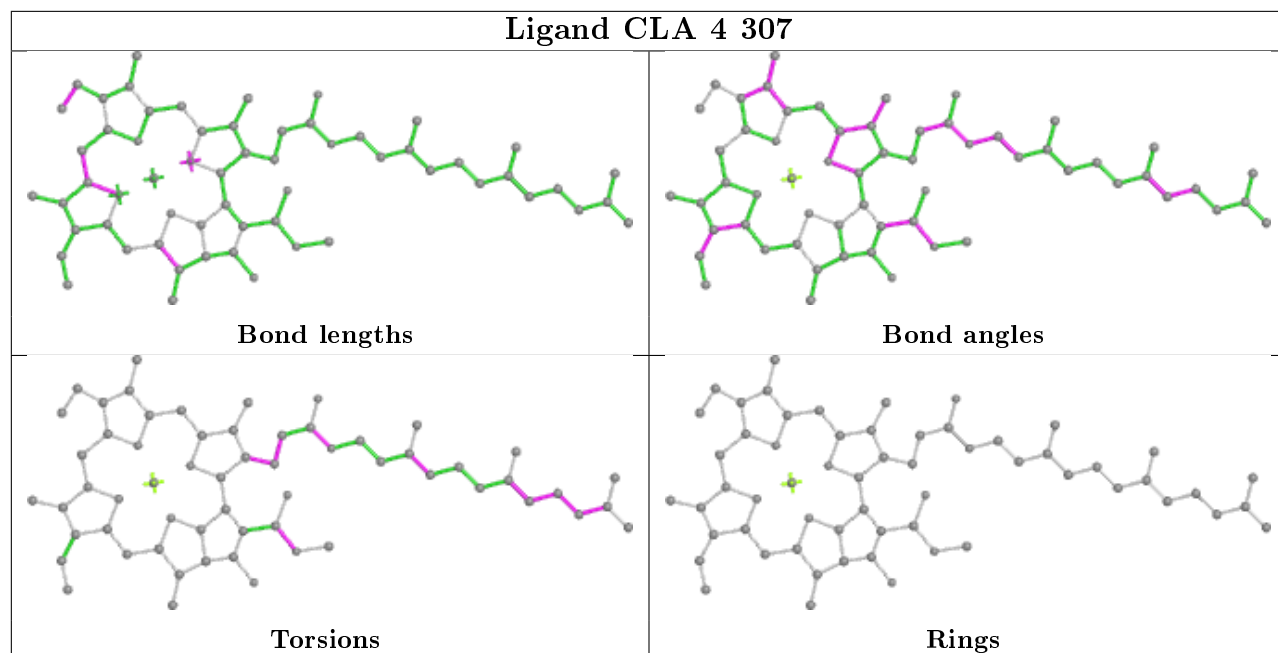


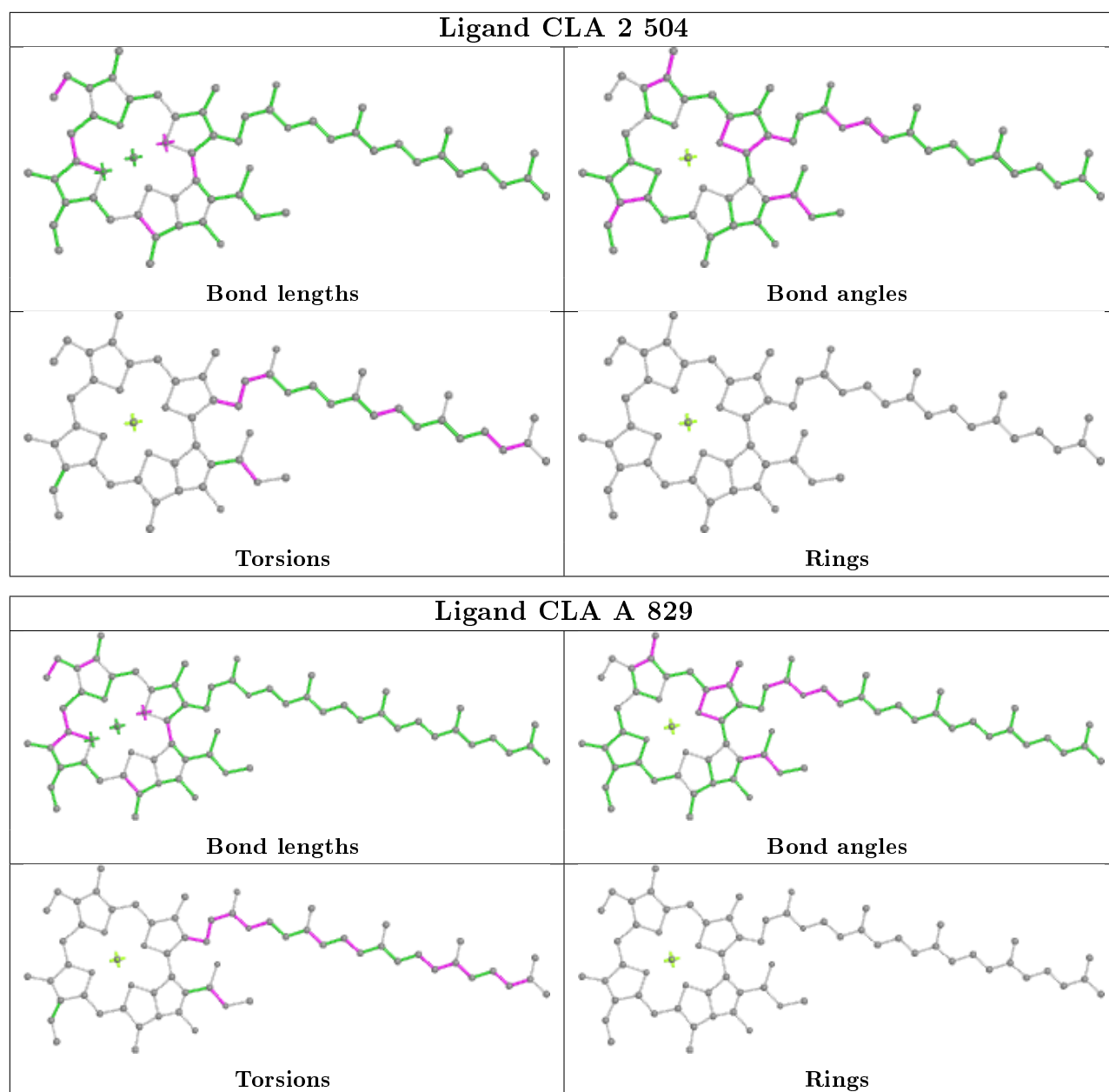












## 5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

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

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

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ > 2	OWAB(Å <sup>2</sup> )	Q < 0.9
1	1	193/193 (100%)	1.22	57 (29%) 0 0	86, 127, 178, 218	0
2	2	208/269 (77%)	0.26	28 (13%) 3 1	82, 113, 154, 201	0
3	3	221/275 (80%)	0.51	34 (15%) 2 1	101, 148, 202, 253	0
4	4	198/198 (100%)	0.25	23 (11%) 4 3	73, 107, 149, 196	0
5	A	743/758 (98%)	0.31	51 (6%) 16 12	47, 79, 137, 192	0
6	B	733/734 (99%)	0.07	32 (4%) 34 27	49, 76, 116, 160	0
7	C	80/81 (98%)	0.04	2 (2%) 57 51	55, 66, 89, 121	0
8	D	143/143 (100%)	0.14	16 (11%) 5 3	60, 77, 107, 153	0
9	E	66/66 (100%)	0.07	4 (6%) 21 16	51, 81, 122, 147	0
10	F	154/154 (100%)	0.04	9 (5%) 23 17	54, 76, 116, 168	0
11	G	97/97 (100%)	0.16	8 (8%) 11 8	76, 113, 151, 161	0
12	H	88/88 (100%)	0.26	8 (9%) 9 6	80, 112, 146, 178	0
13	I	30/40 (75%)	-0.11	0 100 100	76, 99, 136, 138	0
14	J	42/42 (100%)	-0.46	0 100 100	57, 69, 96, 145	0
15	K	77/80 (96%)	1.92	32 (41%) 0 0	131, 168, 192, 218	0
16	L	157/157 (100%)	0.08	12 (7%) 13 10	77, 105, 151, 209	0
All	All	3230/3375 (95%)	0.29	316 (9%) 7 5	47, 94, 164, 253	0

The worst 5 of 316 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1	103	GLY	12.3
5	A	278	ALA	11.8
1	1	219	ALA	10.8
5	A	279	ASP	9.8
5	A	259	TYR	9.3

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
26	DGD	B	801	41/66	0.35	0.24	170,200,207,208	0
22	LMG	B	845	33/55	0.48	0.26	107,163,172,176	0
22	LMG	2	520	13/55	0.55	0.25	101,133,145,149	0
24	LMT	J	1107	25/35	0.58	0.22	174,178,183,184	0
21	LHG	1	520	42/49	0.61	0.38	86,136,161,165	0
22	LMG	A	847	50/55	0.62	0.45	133,155,181,184	0
22	LMG	G	210	25/55	0.62	0.28	145,173,190,195	0
24	LMT	4	320	35/35	0.62	0.54	98,133,152,158	0
26	DGD	G	207	47/66	0.63	0.38	162,204,212,214	0
21	LHG	B	843	49/49	0.65	0.43	104,125,175,186	0
18	BCR	K	1005	40/40	0.66	0.41	145,157,181,184	0
24	LMT	2	523	35/35	0.66	0.27	182,208,216,216	0
19	CLA	K	1001	45/65	0.67	0.31	148,174,184,185	0
22	LMG	1	518	46/55	0.67	0.32	81,129,140,144	0
24	LMT	3	318	31/35	0.70	0.33	127,164,183,187	0
22	LMG	F	305	36/55	0.70	0.32	124,141,152,159	0
19	CLA	K	1004	27/65	0.70	0.27	166,177,185,190	0
22	LMG	2	522	13/55	0.73	0.18	166,181,188,190	0
22	LMG	G	206	50/55	0.73	0.43	123,149,163,164	0
22	LMG	4	321	13/55	0.73	0.27	159,168,171,172	0
18	BCR	G	205	40/40	0.74	0.29	93,120,154,157	0
22	LMG	B	844	35/55	0.74	0.21	59,114,124,125	0
24	LMT	G	209	31/35	0.74	0.37	136,187,203,205	0
24	LMT	A	846	35/35	0.74	0.28	90,128,143,148	0
19	CLA	K	1002	60/65	0.75	0.48	119,151,162,167	0
22	LMG	2	521	13/55	0.75	0.23	120,140,149,150	0
17	LUT	3	302	42/42	0.76	0.29	120,141,154,161	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
22	LMG	2	519	36/55	0.76	0.20	108,148,158,160	0
24	LMT	B	847	32/35	0.76	0.28	103,134,152,153	0
18	BCR	B	850	40/40	0.78	0.37	69,89,130,131	0
18	BCR	3	304	40/40	0.78	0.89	144,156,180,182	0
18	BCR	2	503	40/40	0.78	0.63	134,153,166,170	0
18	BCR	L	307	40/40	0.78	0.51	126,138,165,167	0
22	LMG	2	525	13/55	0.79	0.16	100,129,143,143	0
22	LMG	2	524	13/55	0.79	0.23	143,153,159,162	0
18	BCR	B	851	40/40	0.80	0.29	84,110,134,137	0
19	CLA	3	311	41/65	0.80	0.25	184,202,209,211	0
19	CLA	K	1003	27/65	0.81	0.27	189,198,202,205	0
17	LUT	3	301	42/42	0.81	0.58	146,159,165,171	0
19	CLA	L	305	50/65	0.82	0.31	88,104,132,135	0
22	LMG	1	519	13/55	0.83	0.14	131,138,144,147	0
19	CLA	3	312	48/65	0.83	0.39	176,192,204,209	0
22	LMG	J	1104	34/55	0.83	0.24	97,129,137,141	0
24	LMT	G	208	35/35	0.83	0.26	101,158,170,173	0
18	BCR	3	303	40/40	0.84	0.26	115,133,145,150	0
19	CLA	3	307	55/65	0.84	0.18	154,177,191,198	0
19	CLA	1	510	46/65	0.85	0.17	105,140,169,174	0
22	LMG	4	322	45/55	0.85	0.25	87,126,133,138	0
19	CLA	B	816	55/65	0.85	0.17	92,110,131,141	0
24	LMT	B	846	35/35	0.85	0.59	153,194,203,209	0
19	CLA	J	1105	50/65	0.86	0.16	113,150,159,164	0
19	CLA	4	309	50/65	0.86	0.30	109,120,137,143	0
20	CHL	4	316	61/66	0.87	0.21	104,118,136,142	0
20	CHL	4	317	43/66	0.87	0.17	116,136,152,161	0
19	CLA	1	511	46/65	0.87	0.26	99,129,147,160	0
18	BCR	A	851	40/40	0.87	0.28	63,90,106,108	0
18	BCR	A	850	40/40	0.88	0.24	61,78,127,129	0
19	CLA	1	513	65/65	0.88	0.24	129,151,169,170	0
23	XAT	2	502	44/44	0.88	0.27	82,99,114,118	0
21	LHG	1	517	49/49	0.88	0.18	96,108,141,145	0
26	DGD	B	854	61/66	0.88	0.23	53,79,99,120	0
19	CLA	H	1000	60/65	0.88	0.32	124,150,167,178	0
19	CLA	3	305	55/65	0.88	0.34	154,168,178,185	0
19	CLA	A	817	65/65	0.89	0.22	104,135,150,154	0
18	BCR	A	856	40/40	0.89	0.26	137,144,158,161	0
19	CLA	1	508	65/65	0.89	0.24	89,115,123,137	0
19	CLA	1	515	45/65	0.89	0.19	149,166,184,188	0
19	CLA	L	303	50/65	0.89	0.28	105,127,146,157	0
23	XAT	4	303	44/44	0.89	0.20	72,92,116,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
19	CLA	1	507	65/65	0.89	0.21	77,101,114,120	0
19	CLA	3	310	50/65	0.89	0.24	135,159,166,168	0
19	CLA	3	306	52/65	0.90	0.32	152,181,190,195	0
19	CLA	G	204	65/65	0.90	0.23	91,119,134,140	0
24	LMT	B	855	31/35	0.90	0.17	117,141,151,154	0
25	CA	3	319	1/1	0.90	0.07	118,118,118,118	0
22	LMG	2	518	25/55	0.90	0.19	110,121,138,142	0
18	BCR	L	306	40/40	0.90	0.29	99,119,127,132	0
26	DGD	4	319	51/66	0.90	0.19	97,112,143,149	0
19	CLA	A	813	65/65	0.90	0.23	67,89,108,109	0
19	CLA	1	509	50/65	0.90	0.22	130,145,153,162	0
18	BCR	B	849	40/40	0.90	0.28	90,98,109,114	0
18	BCR	A	849	40/40	0.91	0.31	69,91,119,124	0
30	ZEX	F	301	42/42	0.91	0.27	84,105,116,122	0
19	CLA	A	835	55/65	0.91	0.27	107,124,142,152	0
19	CLA	A	820	50/65	0.91	0.23	88,110,136,137	0
18	BCR	4	301	40/40	0.91	0.23	105,124,131,136	0
19	CLA	1	516	60/65	0.91	0.17	79,105,143,146	0
19	CLA	A	812	55/65	0.91	0.24	80,104,117,123	0
20	CHL	1	514	61/66	0.91	0.21	114,131,139,162	0
19	CLA	3	308	65/65	0.91	0.18	118,129,139,143	0
19	CLA	A	814	65/65	0.91	0.21	89,113,129,135	0
19	CLA	B	817	60/65	0.91	0.22	87,97,110,129	0
19	CLA	A	842	60/65	0.91	0.24	94,119,157,159	0
19	CLA	A	818	56/65	0.91	0.23	79,107,125,133	0
19	CLA	A	831	65/65	0.91	0.21	66,93,128,132	0
19	CLA	3	309	55/65	0.91	0.23	97,123,131,135	0
17	LUT	1	502	42/42	0.91	0.27	79,114,132,135	0
17	LUT	J	1109	42/42	0.91	0.16	62,88,104,109	0
26	DGD	J	1106	58/66	0.92	0.20	52,80,117,120	0
20	CHL	1	521	56/66	0.92	0.19	100,112,123,126	0
18	BCR	B	856	40/40	0.92	0.21	42,57,69,76	0
19	CLA	A	815	45/65	0.92	0.20	108,124,153,163	0
19	CLA	4	310	60/65	0.92	0.23	104,115,132,138	0
28	SF4	C	102	8/8	0.92	0.22	67,106,137,151	0
20	CHL	2	526	66/66	0.92	0.24	97,120,138,144	0
22	LMG	J	1103	30/55	0.92	0.21	72,82,102,102	0
20	CHL	2	516	56/66	0.92	0.17	102,129,157,164	0
20	CHL	1	512	47/66	0.92	0.23	108,140,147,152	0
19	CLA	B	811	65/65	0.92	0.19	71,95,111,114	0
18	BCR	B	852	40/40	0.92	0.23	50,66,83,89	0
17	LUT	2	501	42/42	0.92	0.31	108,118,128,134	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
17	LUT	1	501	42/42	0.92	0.30	105,125,144,146	0
19	CLA	B	814	65/65	0.92	0.20	71,80,87,92	0
19	CLA	4	318	65/65	0.93	0.29	87,106,128,131	0
18	BCR	A	848	40/40	0.93	0.27	75,105,142,143	0
19	CLA	1	506	55/65	0.93	0.16	89,115,132,141	0
19	CLA	A	804	65/65	0.93	0.19	49,65,110,119	0
19	CLA	B	833	60/65	0.93	0.18	59,75,106,107	0
19	CLA	B	827	65/65	0.93	0.34	54,77,98,103	0
22	LMG	F	304	47/55	0.93	0.17	89,102,119,134	0
17	LUT	4	302	42/42	0.93	0.20	90,106,118,128	0
19	CLA	G	201	65/65	0.93	0.20	75,90,116,123	0
19	CLA	A	838	65/65	0.93	0.23	63,80,126,130	0
19	CLA	A	816	46/65	0.93	0.17	109,126,142,148	0
19	CLA	B	805	65/65	0.93	0.21	80,93,126,135	0
19	CLA	B	812	60/65	0.93	0.22	79,100,117,126	0
19	CLA	B	840	65/65	0.93	0.16	52,80,91,102	0
19	CLA	2	510	60/65	0.93	0.20	108,128,143,151	0
19	CLA	B	818	65/65	0.93	0.30	66,82,104,109	0
20	CHL	4	313	47/66	0.93	0.17	80,110,137,147	0
18	BCR	1	503	19/40	0.93	0.17	121,134,143,146	0
19	CLA	B	815	65/65	0.93	0.20	84,97,119,123	0
28	SF4	A	843	8/8	0.93	0.28	45,78,104,173	0
18	BCR	I	102	40/40	0.93	0.23	70,86,109,113	0
19	CLA	4	304	60/65	0.93	0.20	99,113,137,139	0
19	CLA	A	825	65/65	0.93	0.20	64,79,85,89	0
19	CLA	A	811	65/65	0.93	0.18	56,73,87,108	0
19	CLA	4	306	65/65	0.94	0.19	74,105,121,130	0
19	CLA	B	830	65/65	0.94	0.18	50,63,97,110	0
19	CLA	3	315	50/65	0.94	0.20	109,125,133,147	0
19	CLA	A	827	65/65	0.94	0.19	69,87,107,114	0
19	CLA	B	804	65/65	0.94	0.24	48,62,82,85	0
18	BCR	L	302	40/40	0.94	0.19	77,84,97,97	0
19	CLA	A	821	65/65	0.94	0.22	60,86,95,101	0
19	CLA	A	805	65/65	0.94	0.20	54,71,89,93	0
19	CLA	A	834	65/65	0.94	0.17	79,98,117,132	0
19	CLA	G	202	55/65	0.94	0.18	109,131,152,153	0
19	CLA	2	509	50/65	0.94	0.26	99,120,140,143	0
19	CLA	B	831	60/65	0.94	0.16	48,59,97,100	0
19	CLA	1	504	65/65	0.94	0.22	118,136,149,153	0
19	CLA	B	810	65/65	0.94	0.17	70,84,102,108	0
19	CLA	4	305	50/65	0.94	0.19	107,126,138,142	0
18	BCR	B	853	40/40	0.94	0.20	50,64,74,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
19	CLA	A	826	55/65	0.94	0.21	59,71,96,109	0
19	CLA	B	808	65/65	0.94	0.18	73,91,117,121	0
19	CLA	2	511	50/65	0.94	0.19	112,133,142,146	0
19	CLA	A	823	60/65	0.94	0.17	106,123,152,160	0
21	LHG	2	517	35/49	0.94	0.18	116,124,130,132	0
20	CHL	2	515	46/66	0.94	0.18	113,121,131,142	0
18	BCR	J	1108	40/40	0.94	0.18	52,64,79,82	0
18	BCR	B	802	40/40	0.94	0.27	57,71,85,94	0
21	LHG	A	845	40/49	0.94	0.16	78,102,116,124	0
20	CHL	2	512	47/66	0.94	0.14	101,123,140,175	0
19	CLA	F	303	65/65	0.94	0.16	63,81,109,121	0
19	CLA	2	506	65/65	0.94	0.27	88,121,139,150	0
19	CLA	3	313	60/65	0.94	0.16	108,137,146,156	0
25	CA	B	848	1/1	0.94	0.06	83,83,83,83	0
19	CLA	B	839	65/65	0.95	0.25	54,70,104,119	0
19	CLA	A	822	60/65	0.95	0.19	94,114,155,161	0
19	CLA	A	833	65/65	0.95	0.18	67,85,101,113	0
19	CLA	G	203	46/65	0.95	0.25	125,139,150,154	0
19	CLA	4	308	60/65	0.95	0.22	64,85,96,102	0
19	CLA	A	830	65/65	0.95	0.21	46,58,72,78	0
19	CLA	A	837	65/65	0.95	0.17	69,88,110,121	0
19	CLA	B	825	65/65	0.95	0.21	48,64,93,98	0
19	CLA	L	304	60/65	0.95	0.16	79,93,113,122	0
18	BCR	I	101	40/40	0.95	0.24	72,86,105,107	0
19	CLA	2	514	55/65	0.95	0.21	81,94,116,121	0
19	CLA	4	312	50/65	0.95	0.17	79,91,116,121	0
19	CLA	4	311	46/65	0.95	0.20	109,121,132,139	0
21	LHG	B	842	21/49	0.95	0.12	69,92,102,116	0
19	CLA	A	836	51/65	0.95	0.25	66,82,95,110	0
18	BCR	F	306	40/40	0.95	0.16	48,64,72,77	0
19	CLA	B	838	65/65	0.95	0.22	58,75,94,115	0
20	CHL	4	314	51/66	0.95	0.23	89,114,129,133	0
19	CLA	B	824	65/65	0.95	0.22	59,69,90,93	0
20	CHL	3	314	47/66	0.95	0.18	134,140,156,163	0
18	BCR	A	852	40/40	0.95	0.25	45,55,71,75	0
19	CLA	A	828	65/65	0.95	0.24	53,67,78,88	0
19	CLA	B	828	65/65	0.95	0.26	60,71,91,103	0
19	CLA	A	854	65/65	0.95	0.22	44,57,76,89	0
19	CLA	3	317	46/65	0.95	0.18	91,105,132,138	0
19	CLA	B	834	55/65	0.95	0.20	66,88,118,124	0
19	CLA	1	505	46/65	0.95	0.17	111,135,149,157	0
19	CLA	4	307	60/65	0.95	0.16	73,86,97,99	0

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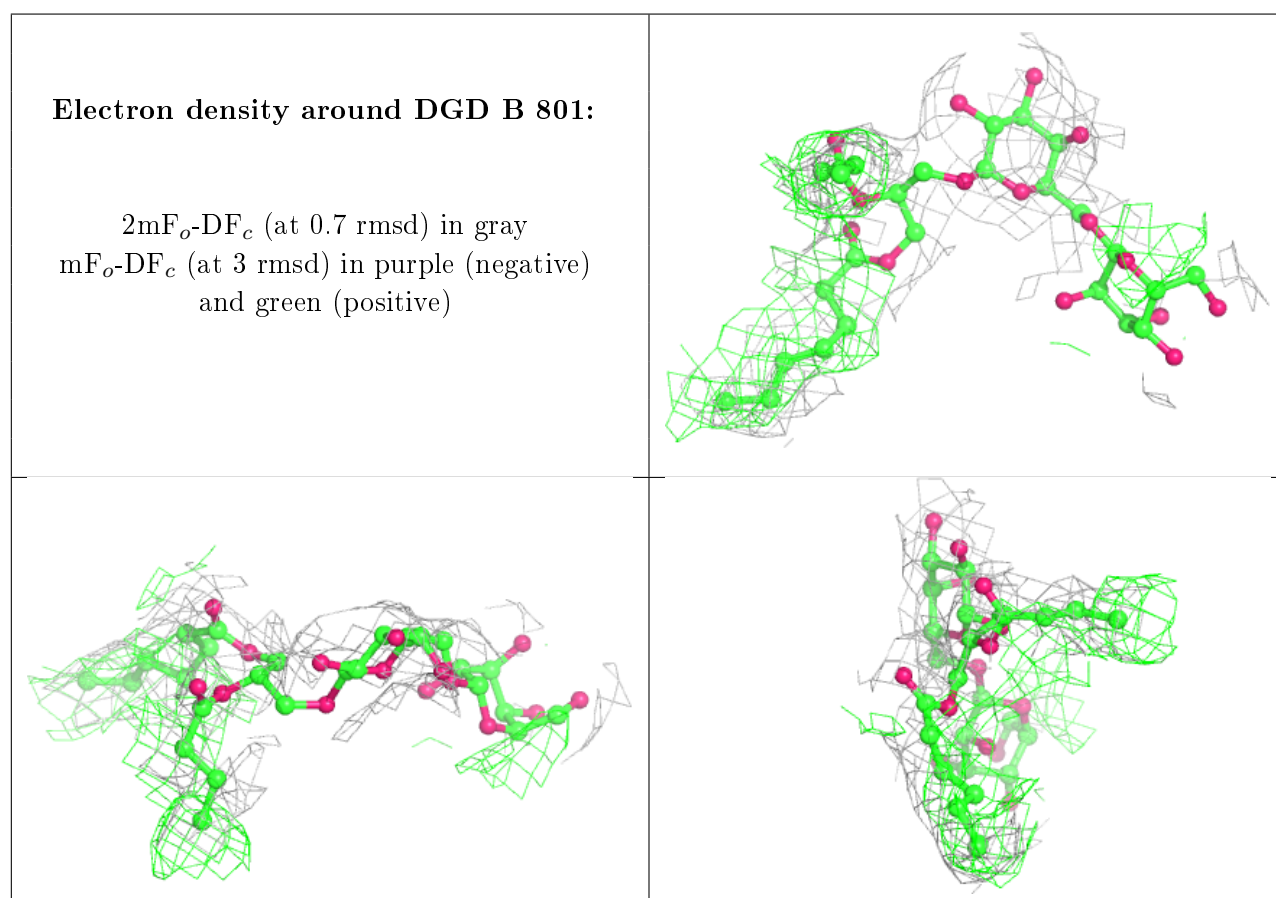
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
19	CLA	J	1102	45/65	0.95	0.15	52,65,80,89	0
19	CLA	3	316	46/65	0.95	0.12	142,149,159,163	0
19	CLA	A	829	65/65	0.95	0.33	60,75,86,95	0
19	CLA	B	821	46/65	0.96	0.21	86,100,118,122	0
19	CLA	2	505	52/65	0.96	0.13	116,134,141,144	0
19	CLA	A	808	65/65	0.96	0.22	54,65,82,91	0
19	CLA	B	807	65/65	0.96	0.22	54,72,82,95	0
19	CLA	B	836	65/65	0.96	0.16	48,61,68,73	0
19	CLA	B	823	55/65	0.96	0.16	54,74,98,105	0
19	CLA	B	829	65/65	0.96	0.20	50,67,92,100	0
19	CLA	A	840	65/65	0.96	0.17	43,58,88,96	0
19	CLA	B	820	65/65	0.96	0.24	61,78,98,105	0
19	CLA	B	822	65/65	0.96	0.18	70,89,119,127	0
19	CLA	L	301	55/65	0.96	0.19	74,85,116,125	0
19	CLA	A	809	65/65	0.96	0.17	51,65,99,102	0
19	CLA	A	824	65/65	0.96	0.21	67,85,106,124	0
19	CLA	2	507	65/65	0.96	0.18	78,91,100,102	0
27	CL0	A	801	65/65	0.96	0.19	48,59,71,80	0
19	CLA	2	508	55/65	0.96	0.18	74,87,111,116	0
19	CLA	B	813	46/65	0.96	0.17	84,95,120,135	0
19	CLA	A	810	50/65	0.96	0.20	78,96,106,121	0
19	CLA	F	302	65/65	0.96	0.17	45,60,75,80	0
19	CLA	B	809	65/65	0.96	0.20	66,82,95,126	0
19	CLA	A	807	60/65	0.96	0.15	67,88,115,118	0
19	CLA	B	835	55/65	0.96	0.16	54,68,96,100	0
19	CLA	B	803	65/65	0.96	0.20	46,59,68,71	0
19	CLA	B	837	50/65	0.96	0.20	48,58,81,100	0
19	CLA	A	803	65/65	0.96	0.20	49,64,79,83	0
19	CLA	2	504	60/65	0.96	0.18	99,111,133,136	0
19	CLA	A	806	65/65	0.96	0.20	52,61,79,86	0
19	CLA	A	819	65/65	0.96	0.31	77,88,99,104	0
29	PQN	B	841	33/33	0.96	0.21	49,64,82,85	0
19	CLA	A	855	65/65	0.96	0.23	63,77,98,107	0
19	CLA	4	315	65/65	0.96	0.24	74,96,118,123	0
19	CLA	B	806	65/65	0.96	0.18	58,72,82,99	0
19	CLA	A	839	65/65	0.97	0.17	44,53,62,70	0
19	CLA	B	819	65/65	0.97	0.27	69,76,96,101	0
19	CLA	B	832	58/65	0.97	0.12	48,60,76,78	0
19	CLA	A	841	65/65	0.97	0.23	44,57,65,67	0
29	PQN	A	844	33/33	0.97	0.24	42,54,68,74	0
19	CLA	J	1101	65/65	0.97	0.15	48,64,87,101	0
19	CLA	A	832	65/65	0.97	0.23	62,81,91,98	0

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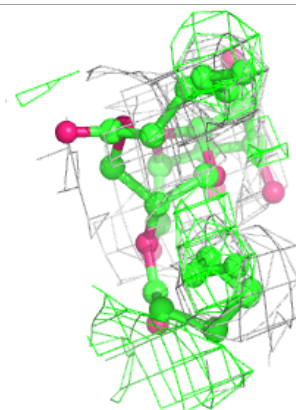
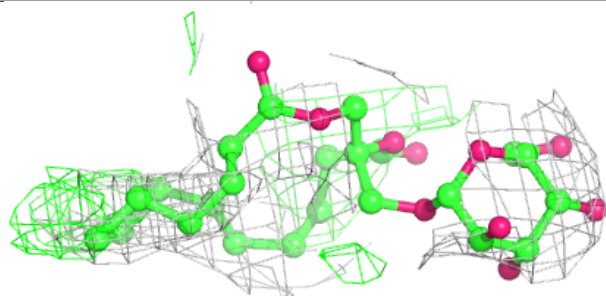
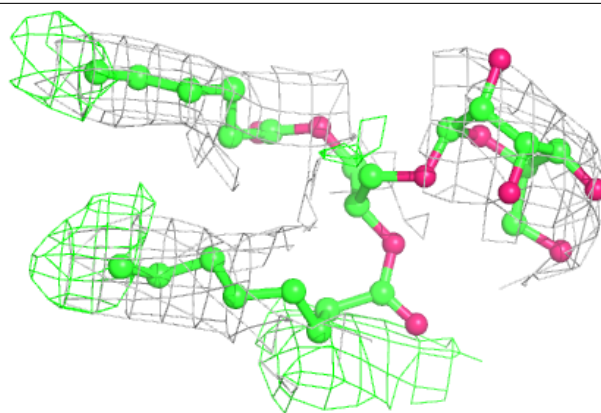
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
19	CLA	A	802	65/65	0.97	0.28	42,50,63,75	0
19	CLA	B	826	65/65	0.97	0.20	52,69,80,84	0
21	LHG	A	853	49/49	0.97	0.22	49,60,72,79	0
20	CHL	2	513	48/66	0.97	0.17	91,105,114,141	0
28	SF4	C	101	8/8	0.99	0.17	53,58,74,74	0

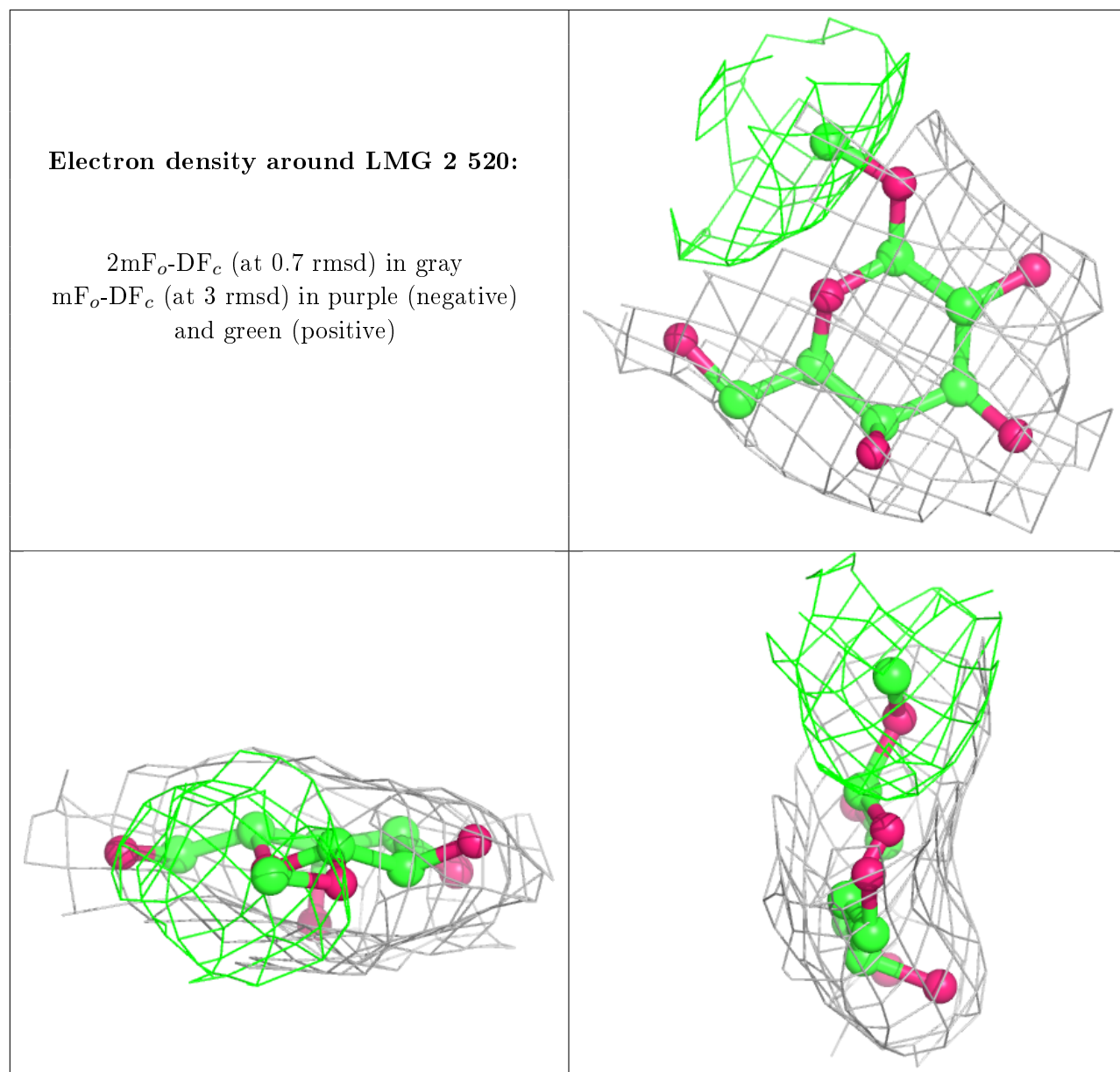
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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



**Electron density around LMG B 845:**

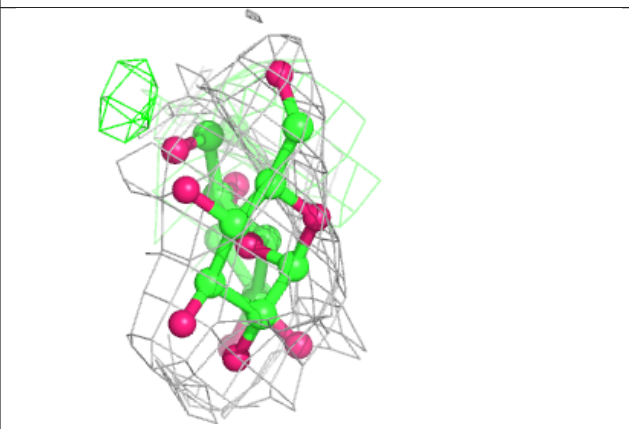
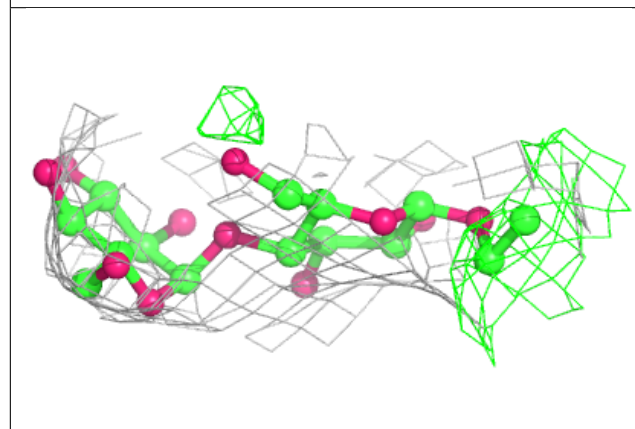
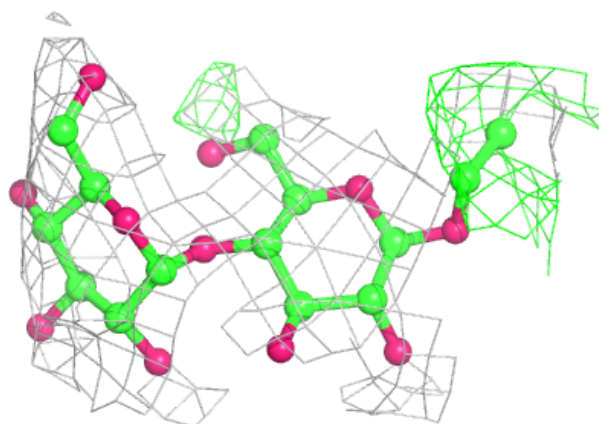
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



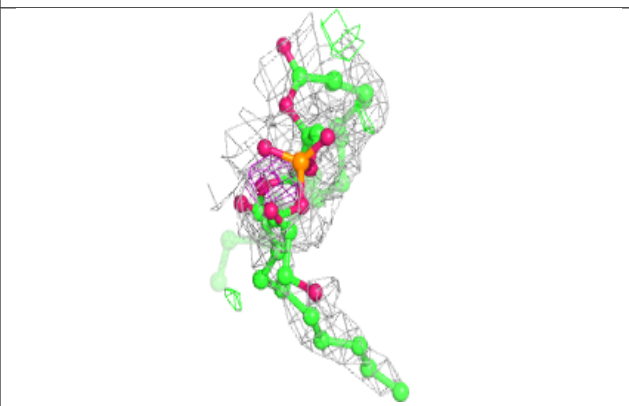
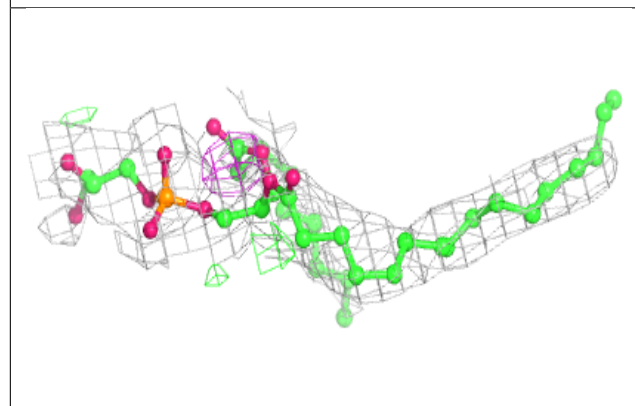
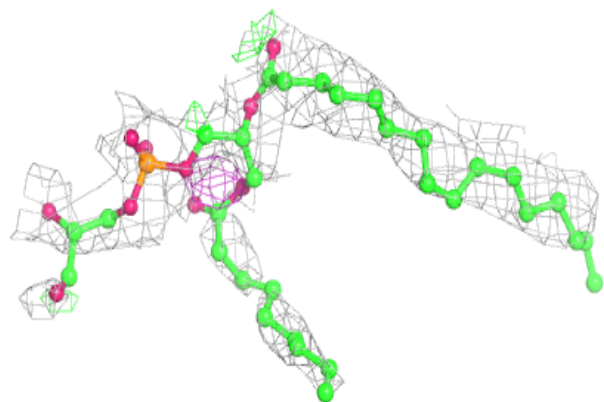


**Electron density around LMT J 1107:**

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

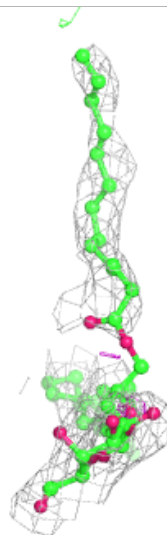
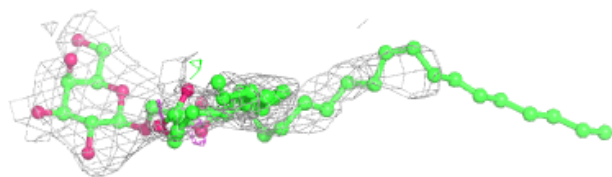
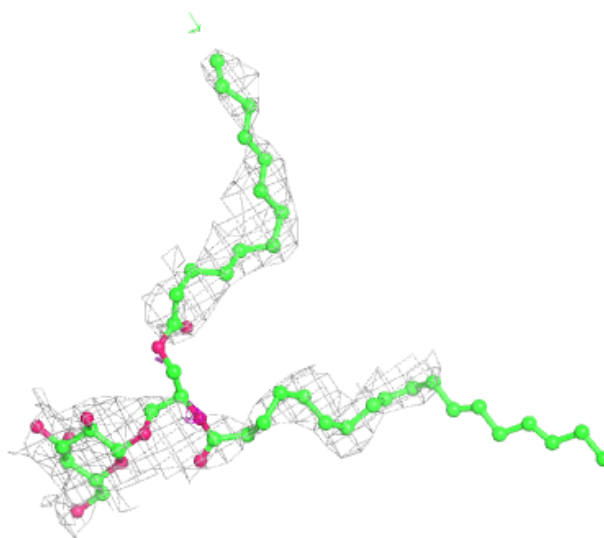
**Electron density around LHG 1 520:**

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



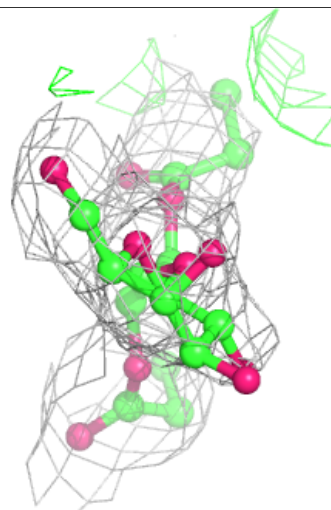
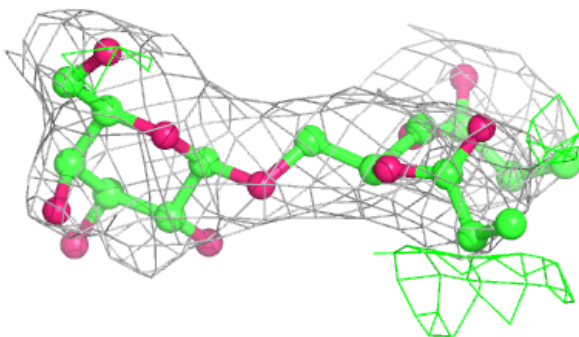
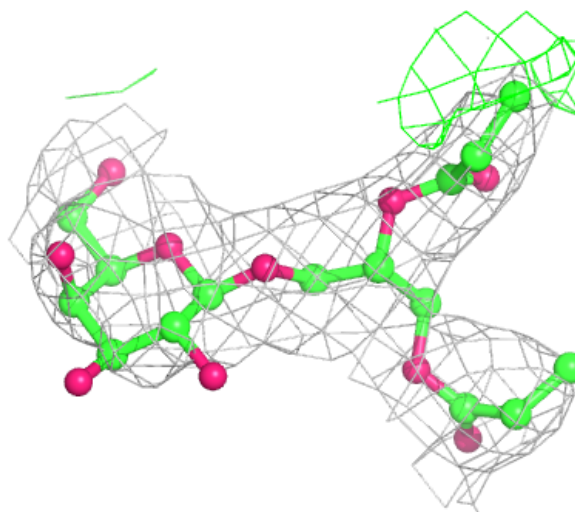
**Electron density around LMG A 847:**

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



**Electron density around LMG G 210:**

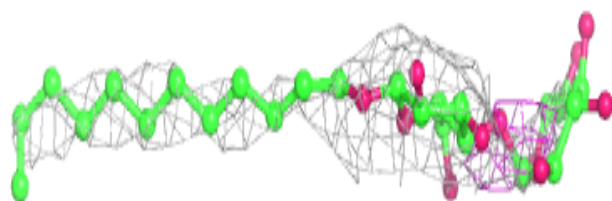
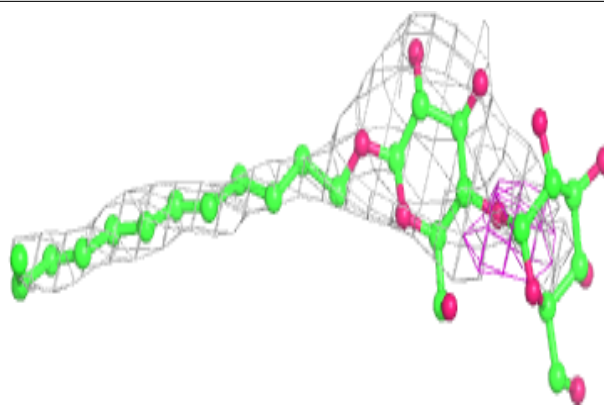
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



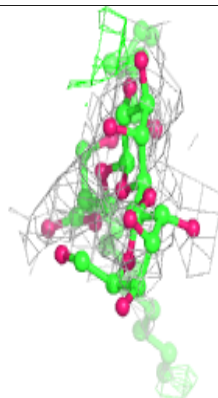
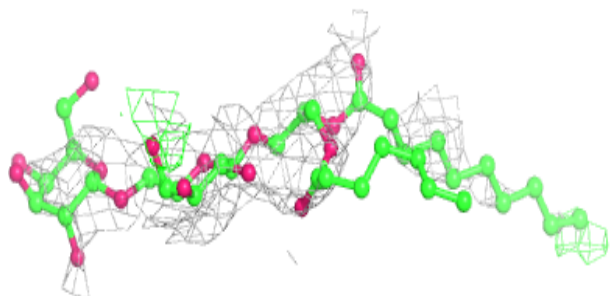
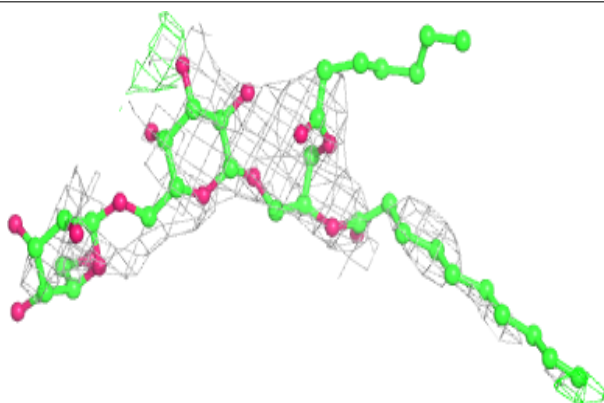


**Electron density around LMT 4 320:**

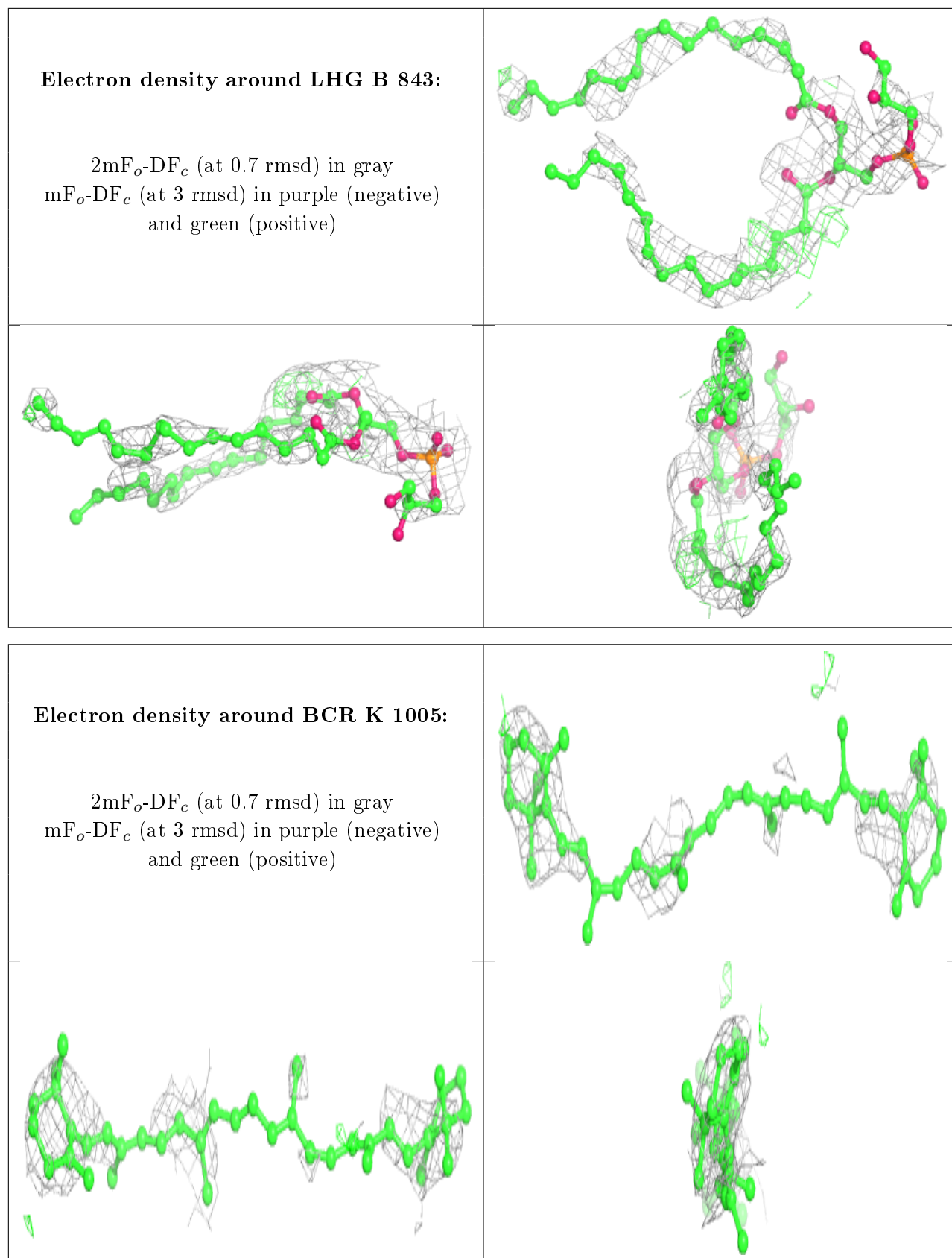
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around DGD G 207:**

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

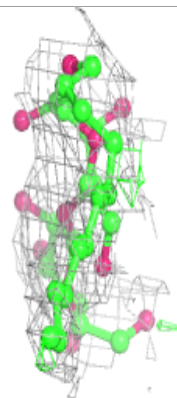
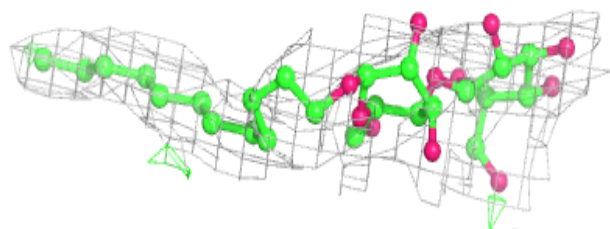
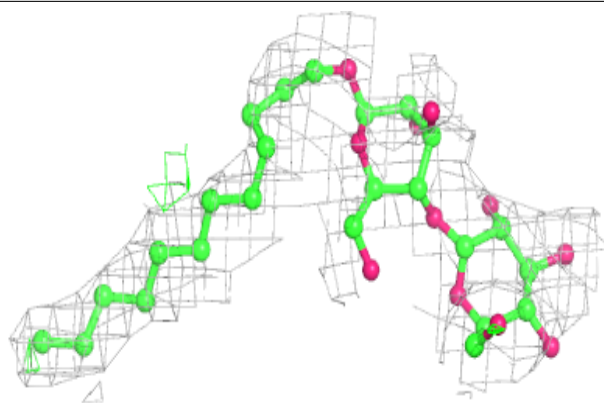






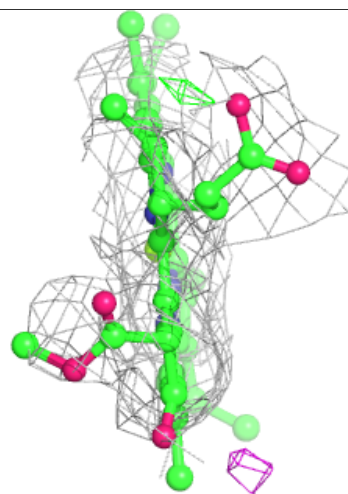
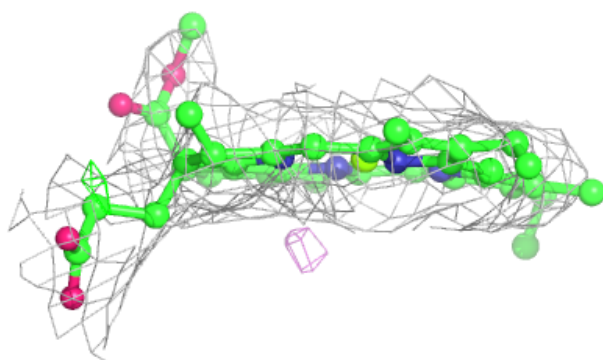
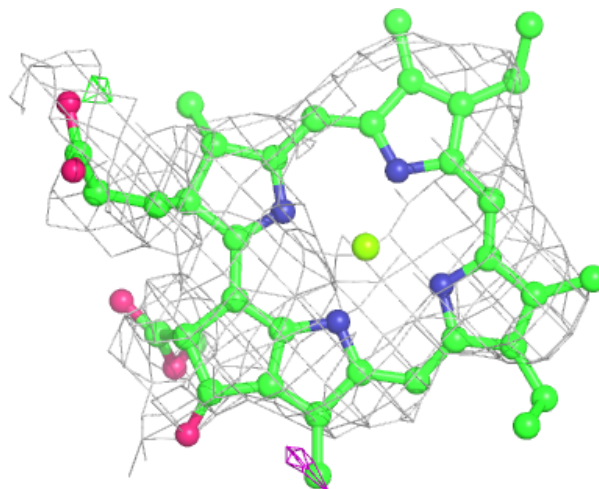
**Electron density around LMT 2 523:**

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



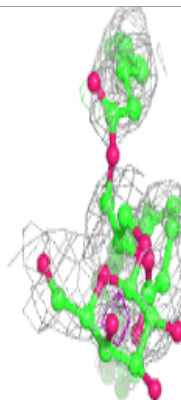
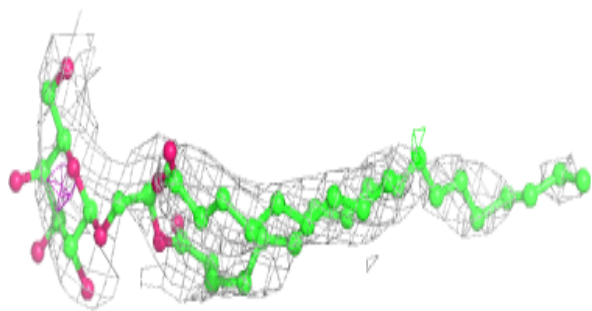
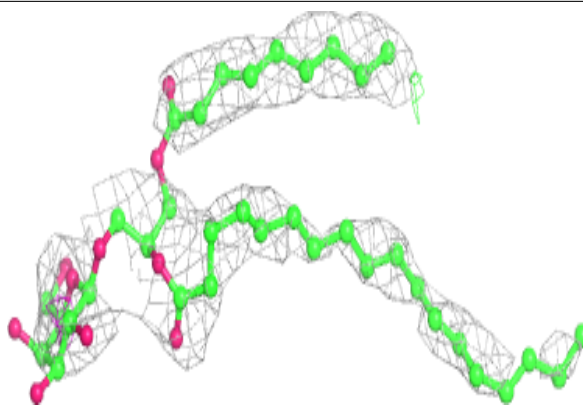
**Electron density around CLA K 1001:**

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

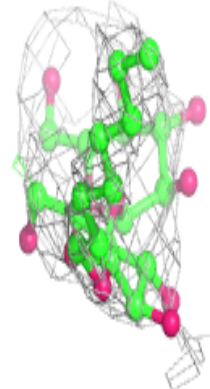
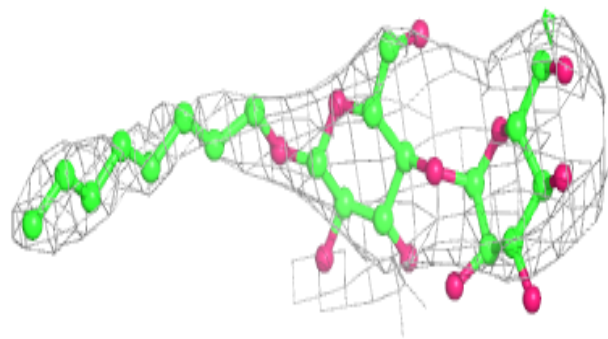
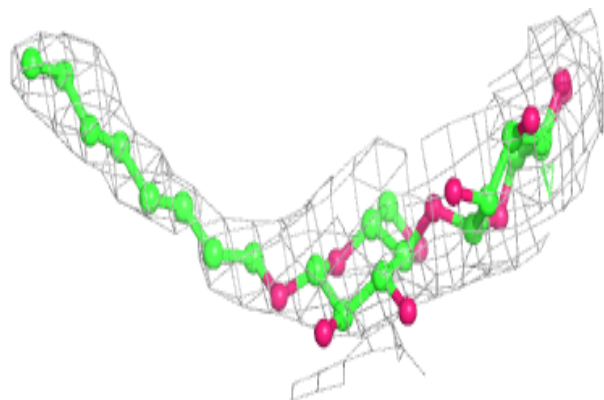


**Electron density around LMG 1 518:**

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

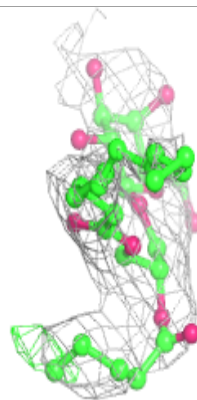
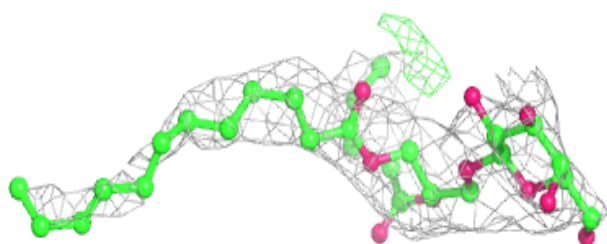
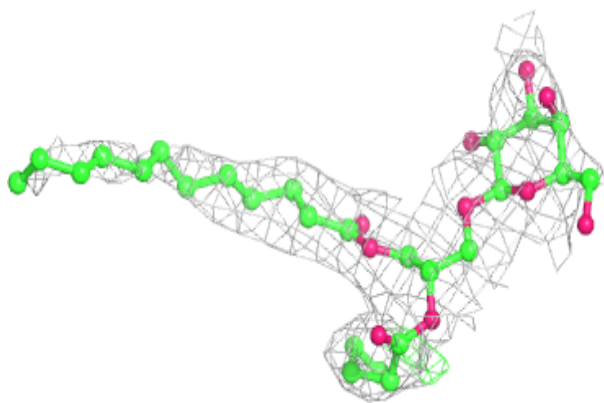
**Electron density around LMT 3 318:**

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

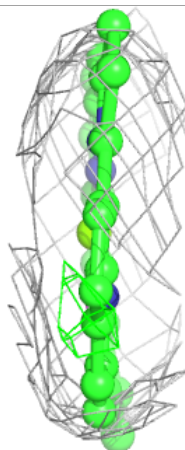
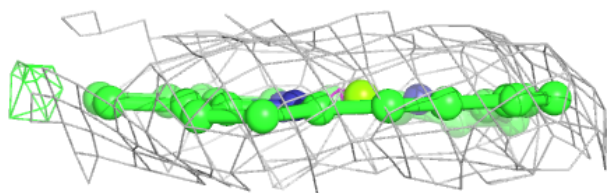
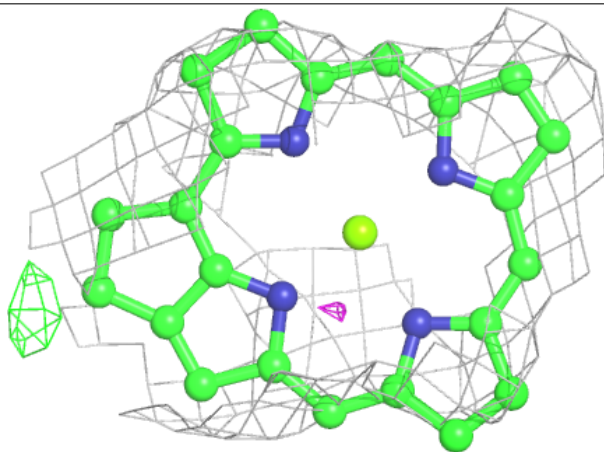


**Electron density around LMG F 305:**

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

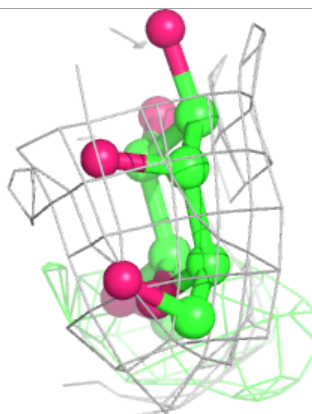
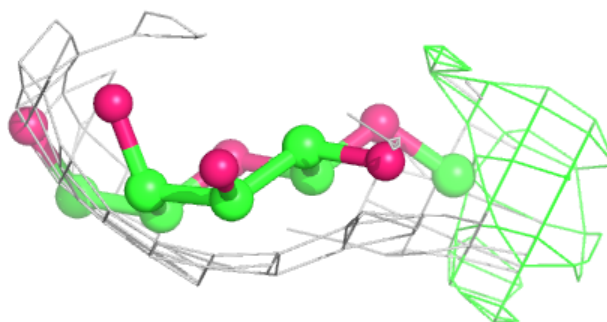
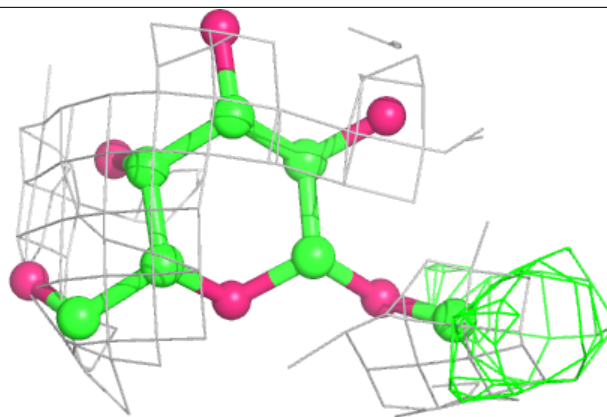
**Electron density around CLA K 1004:**

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

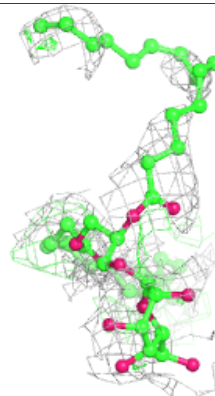
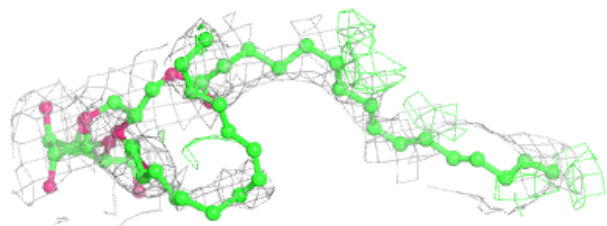
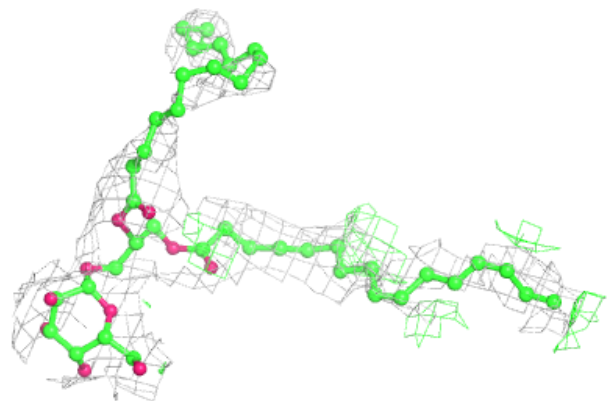


**Electron density around LMG 2 522:**

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

**Electron density around LMG G 206:**

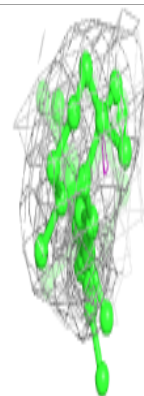
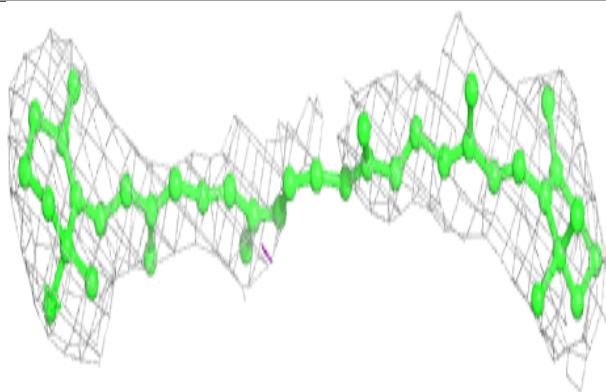
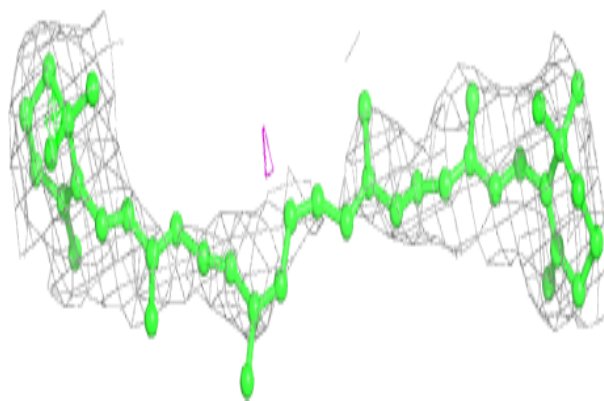
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



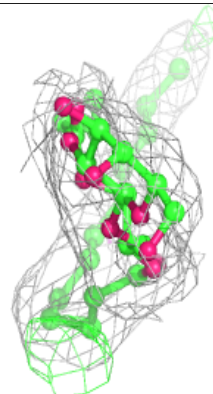
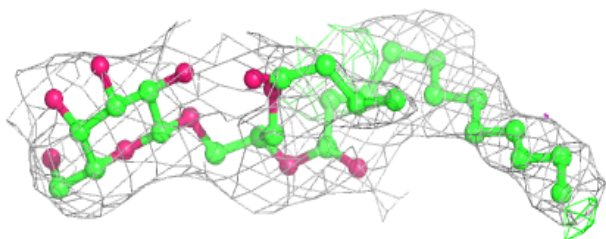
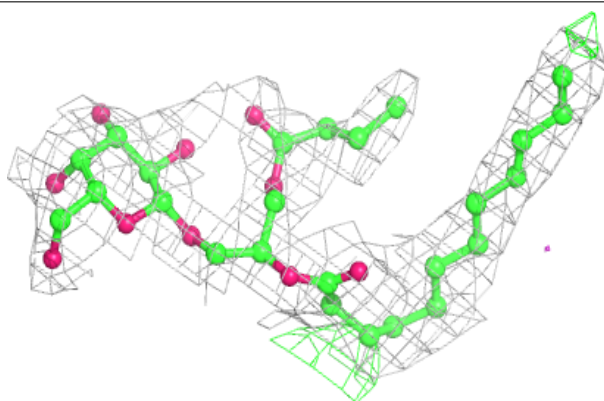


**Electron density around BCR G 205:**

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

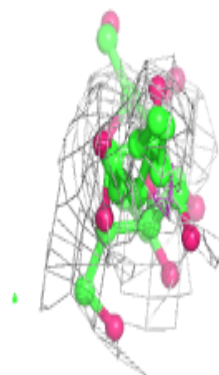
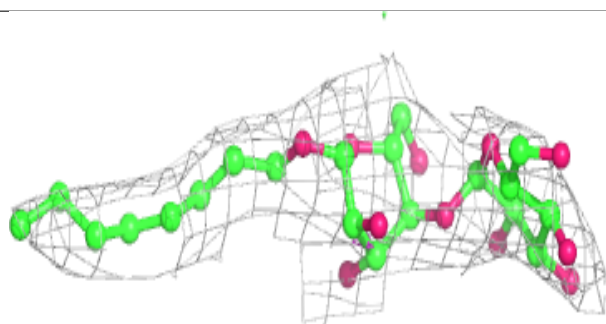
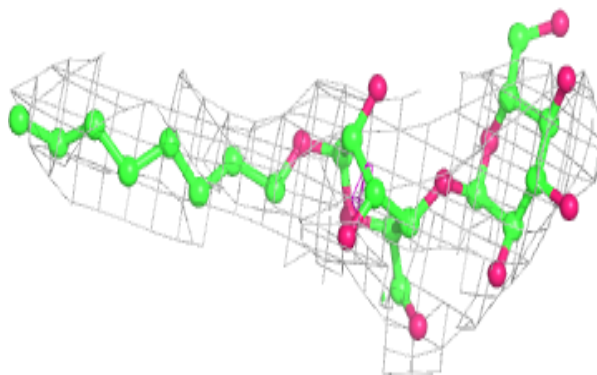
**Electron density around LMG B 844:**

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

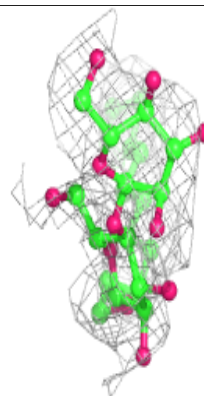
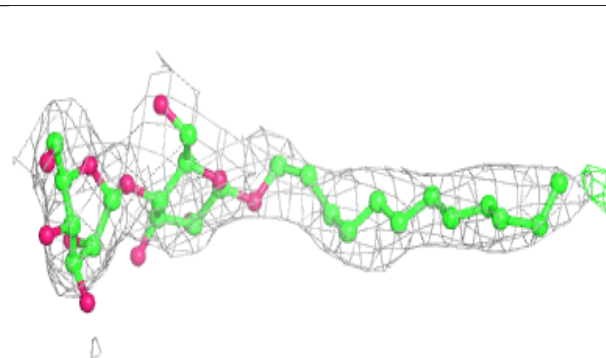
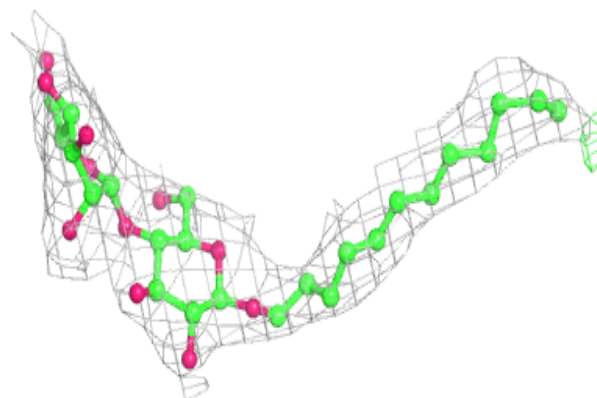


**Electron density around LMT G 209:**

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

**Electron density around LMT A 846:**

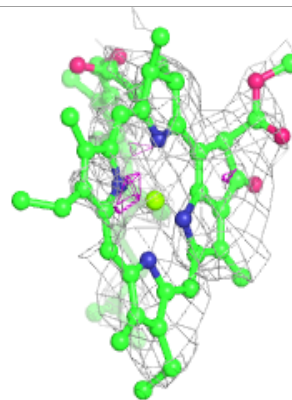
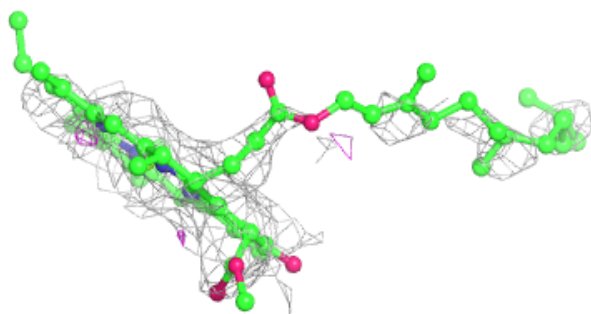
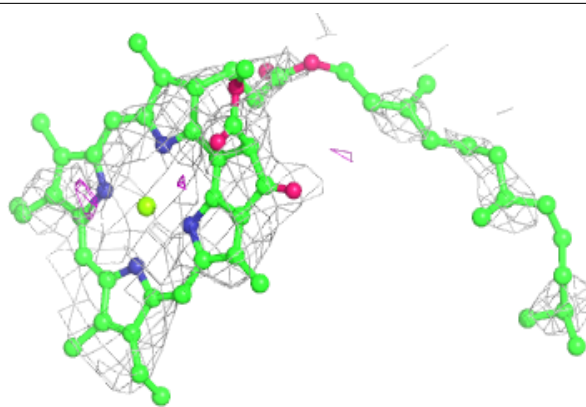
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



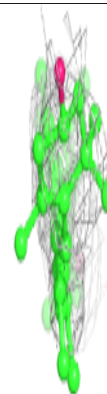
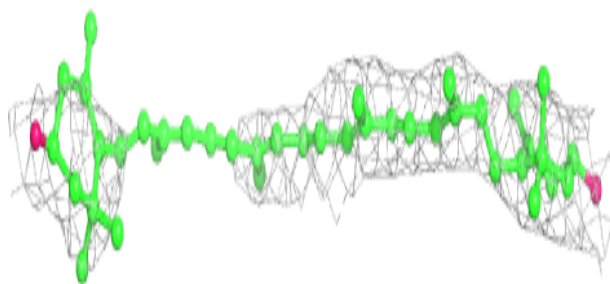
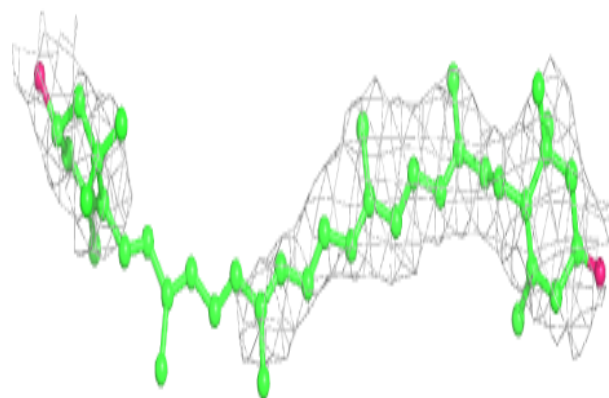


**Electron density around CLA K 1002:**

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

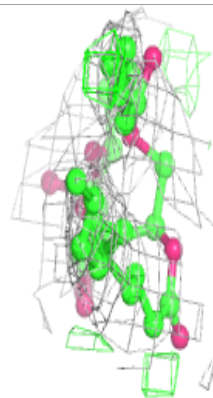
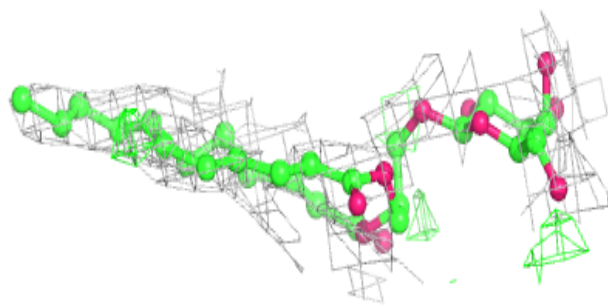
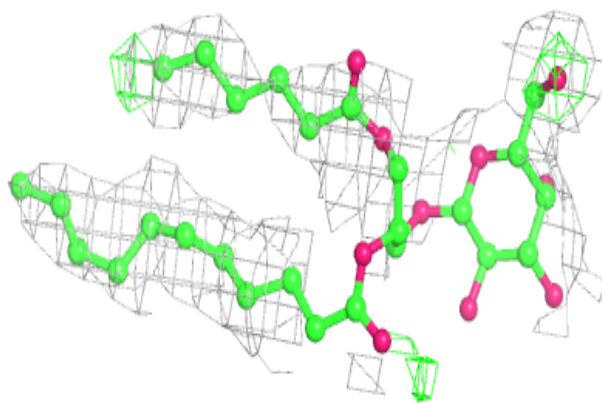
**Electron density around LUT 3 302:**

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

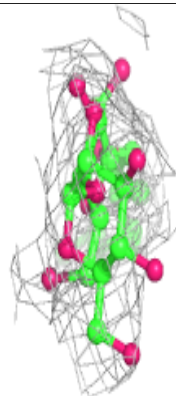
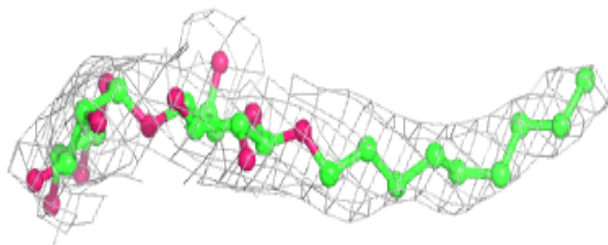
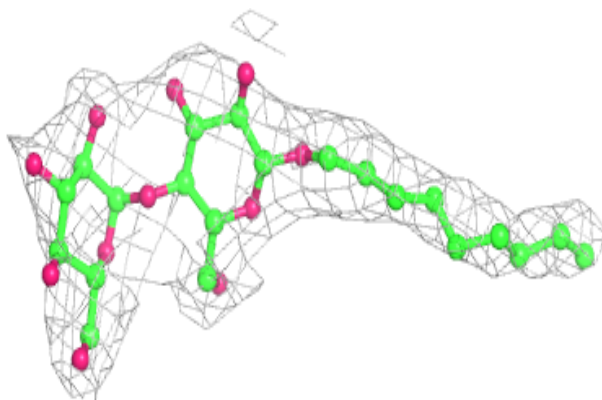


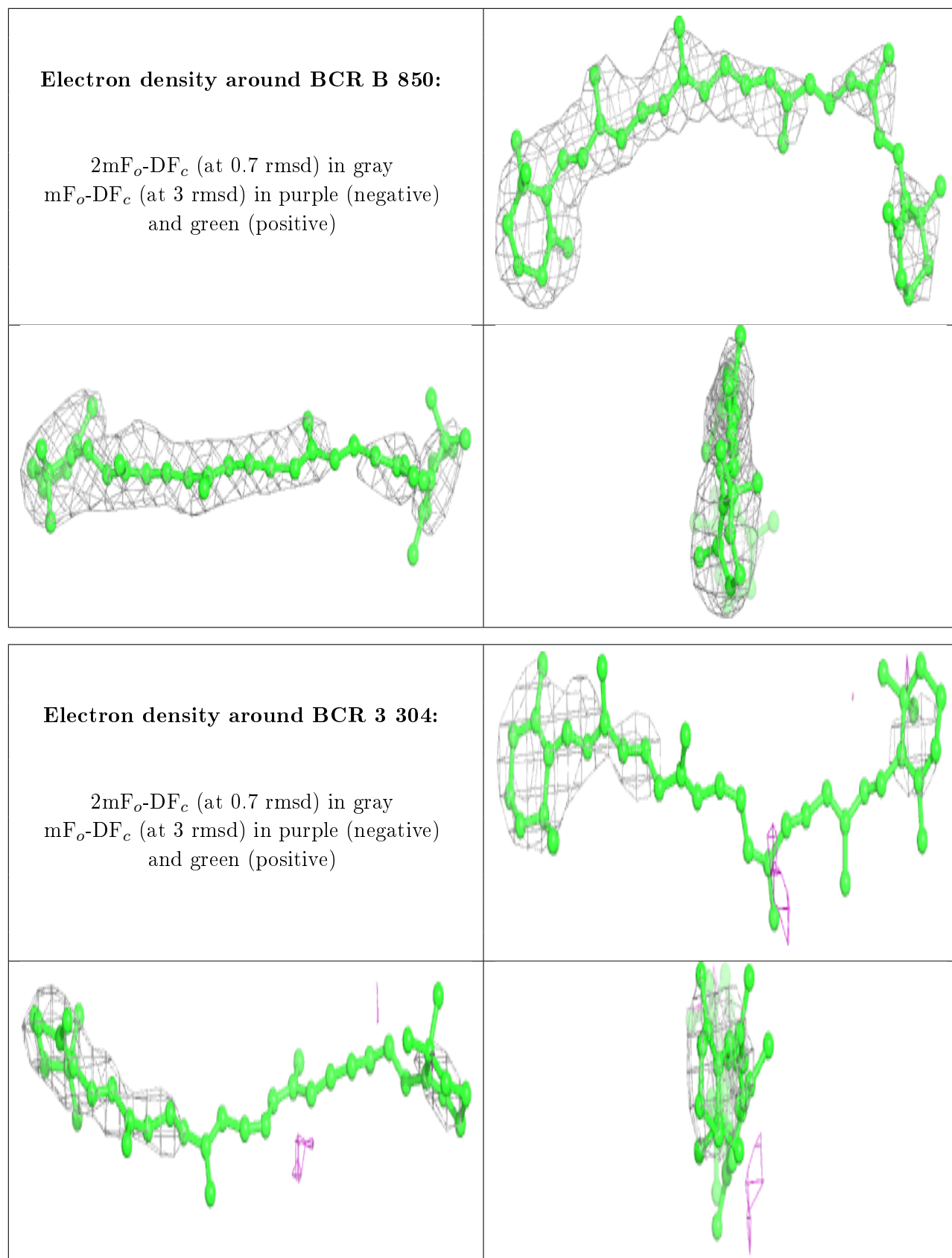
**Electron density around LMG 2 519:**

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

**Electron density around LMT B 847:**

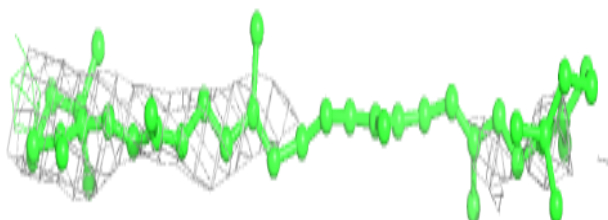
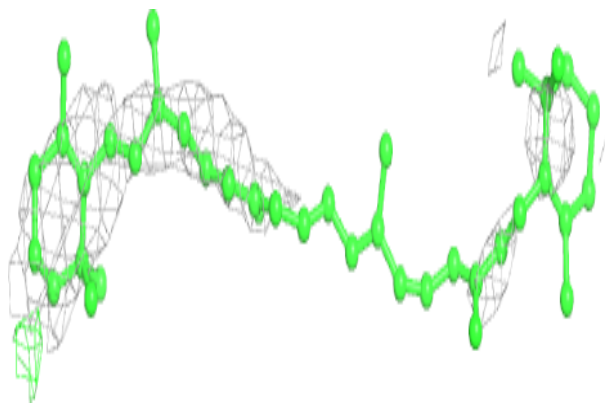
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



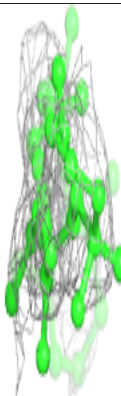
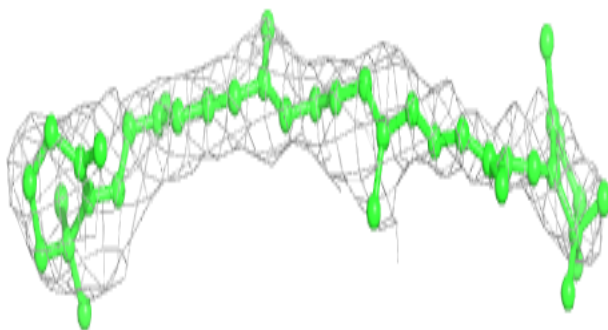
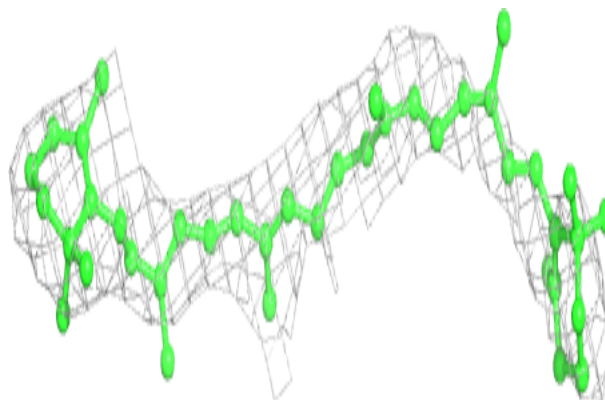


**Electron density around BCR 2 503:**

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

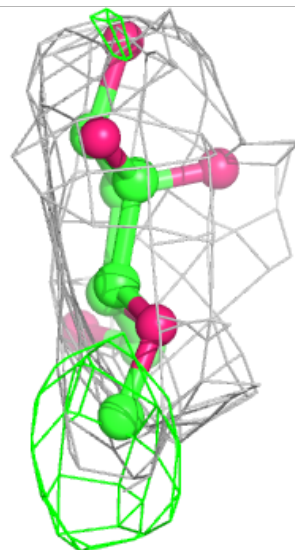
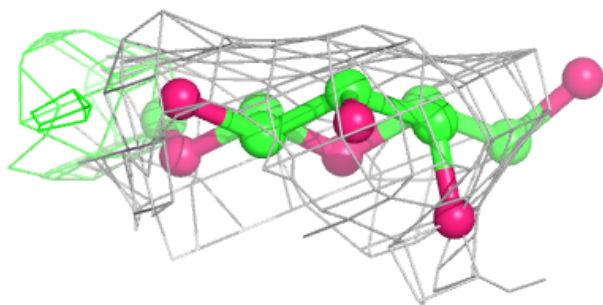
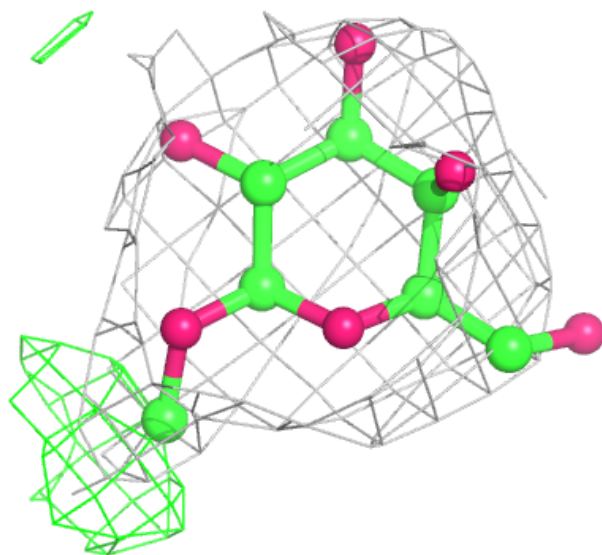
**Electron density around BCR L 307:**

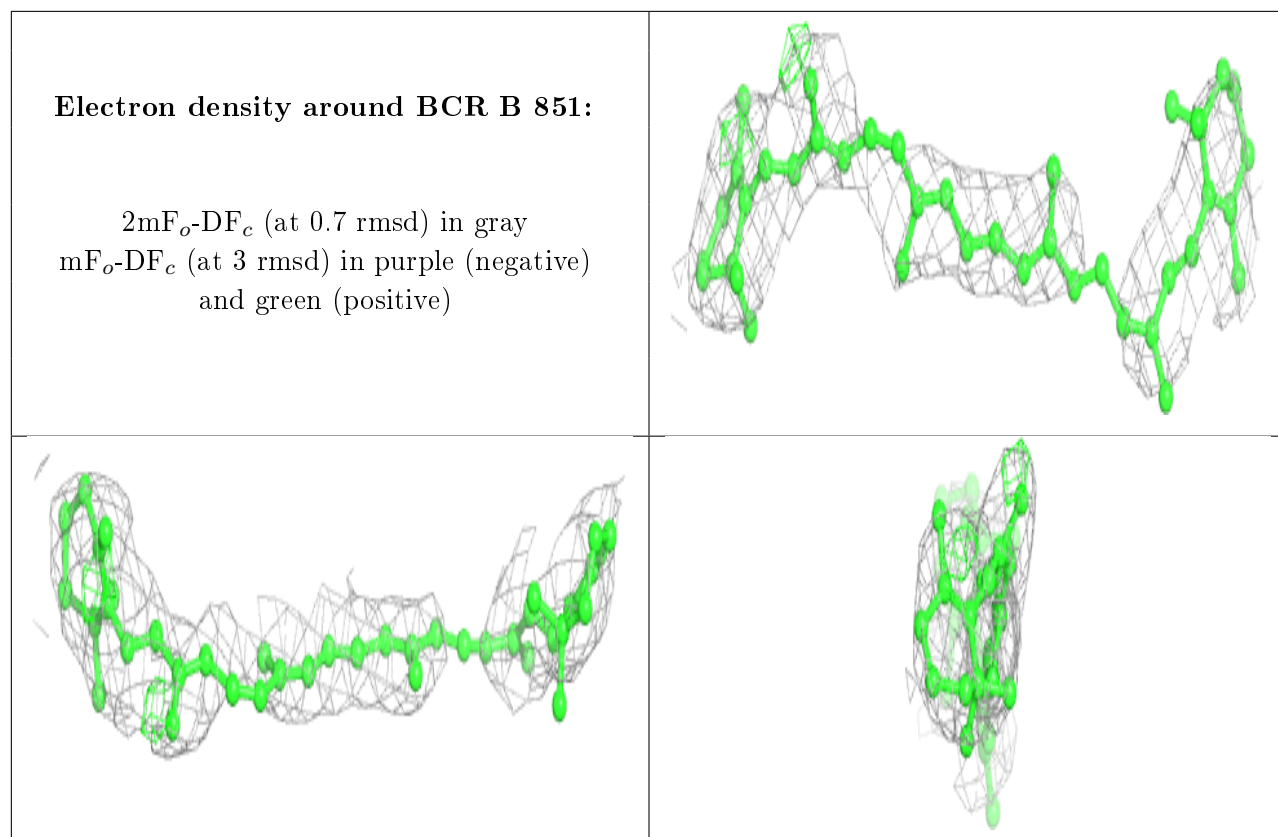
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around LMG 2 524:**

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

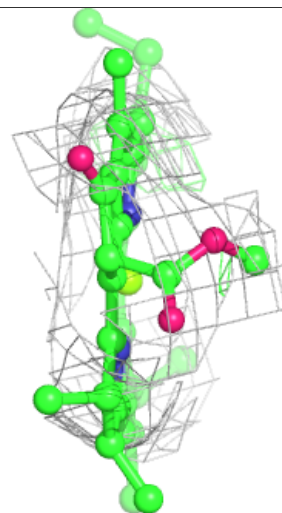
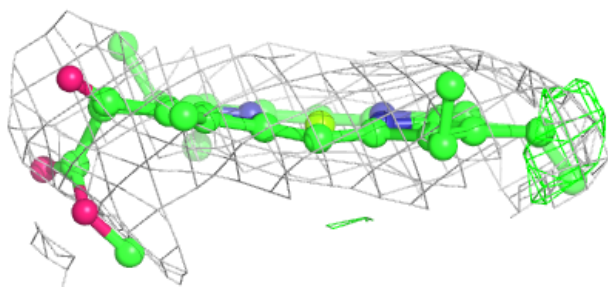
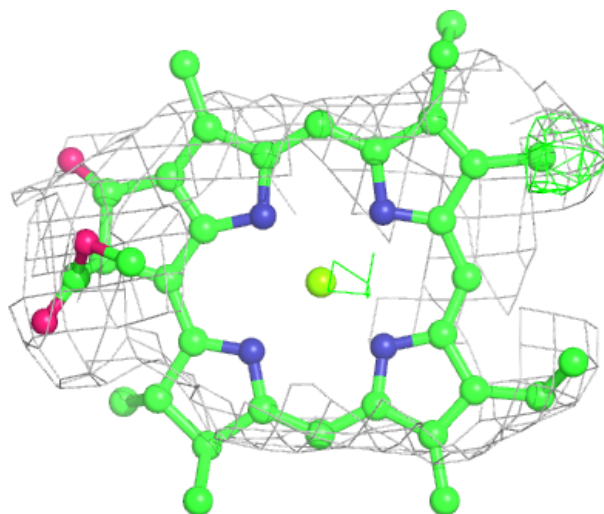






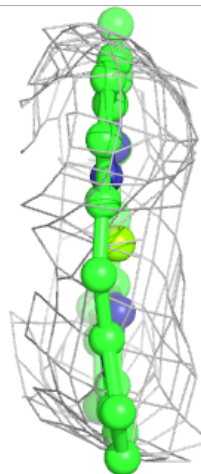
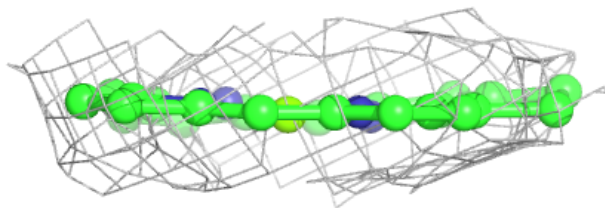
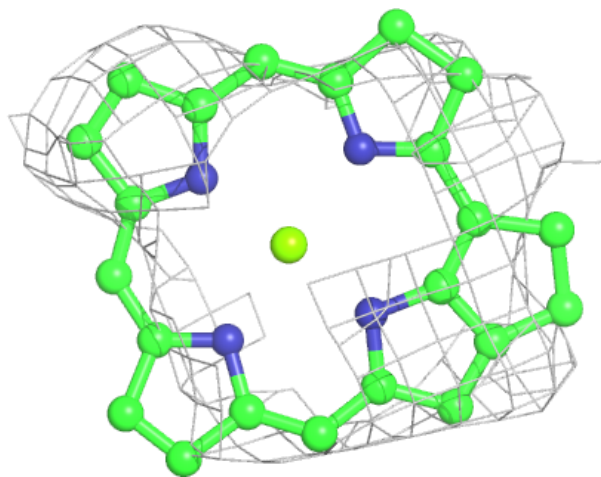
**Electron density around CLA 3 311:**

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



**Electron density around CLA K 1003:**

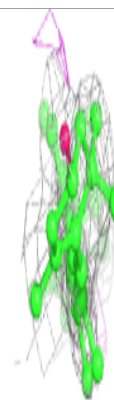
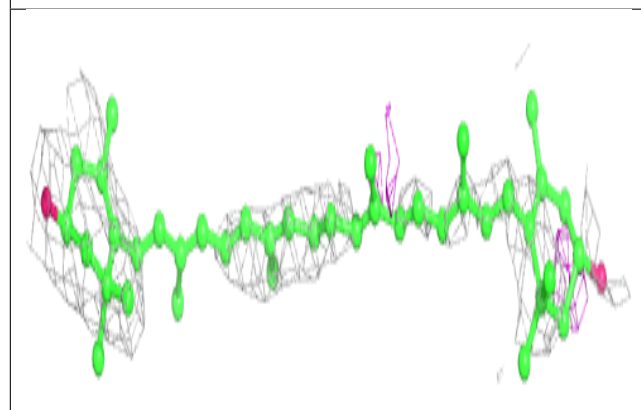
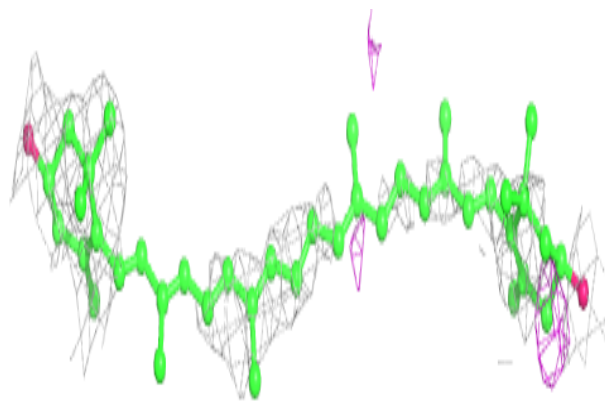
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





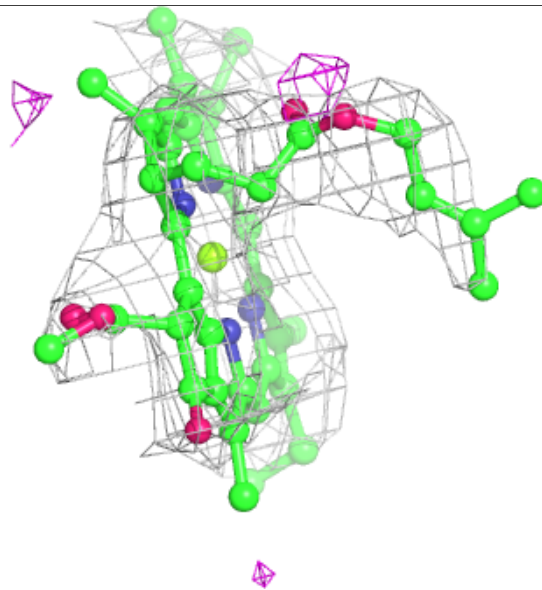
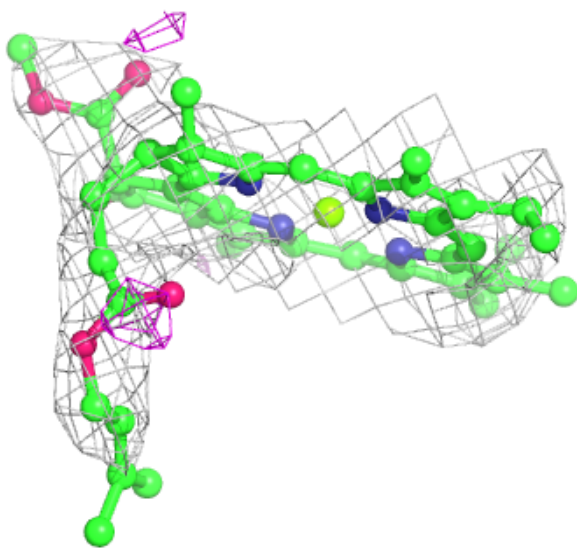
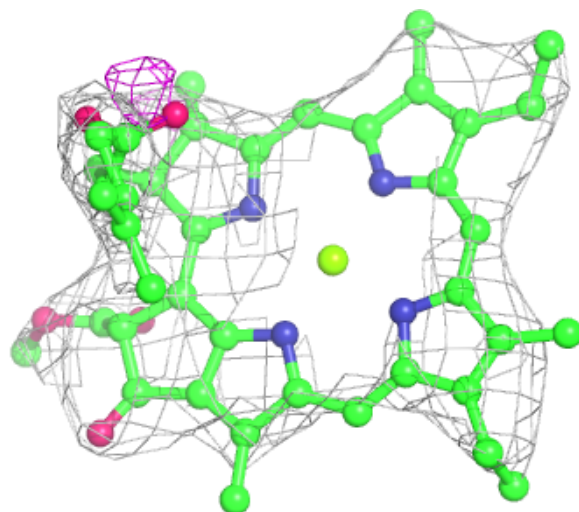
**Electron density around LUT 3 301:**

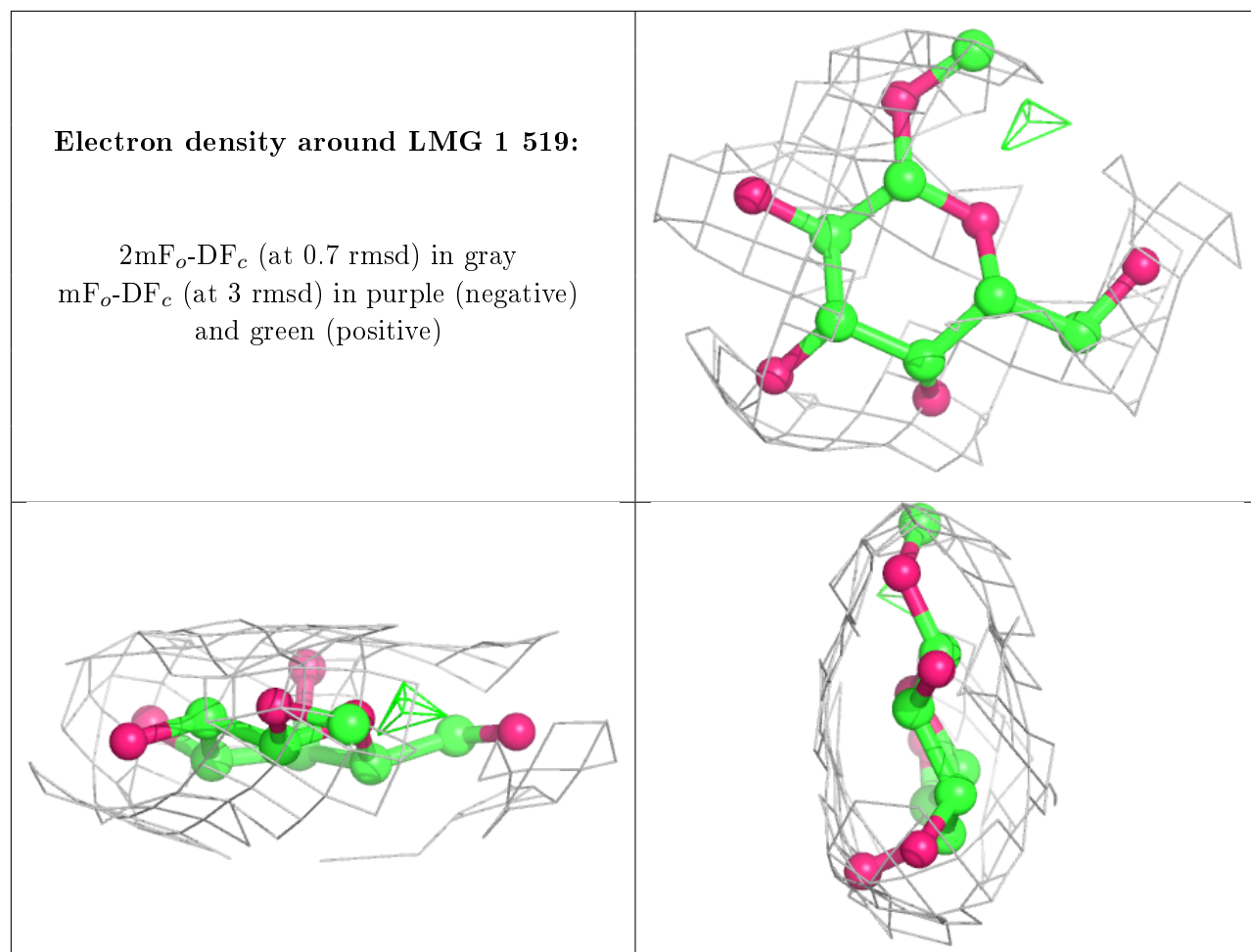
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA L 305:**

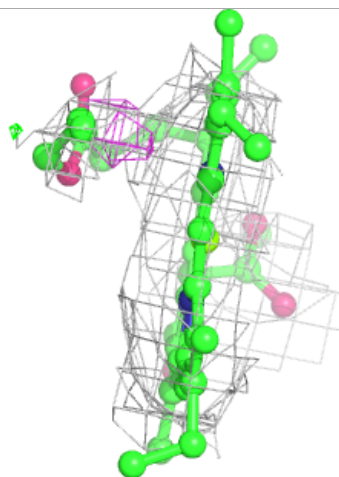
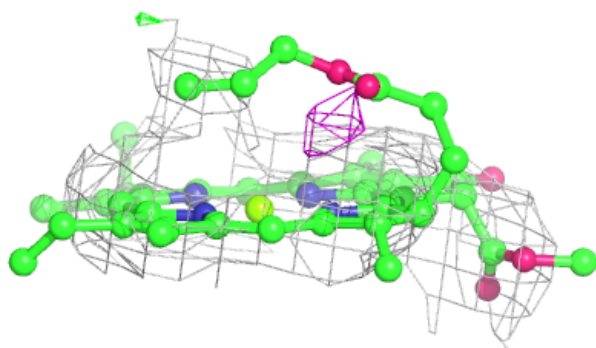
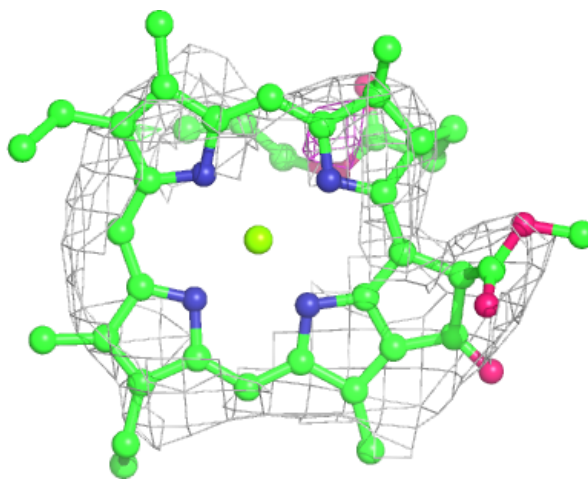
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





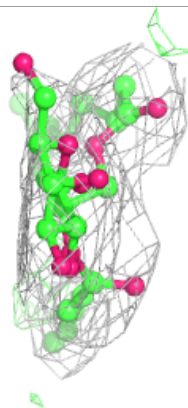
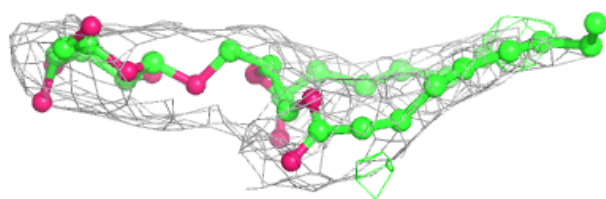
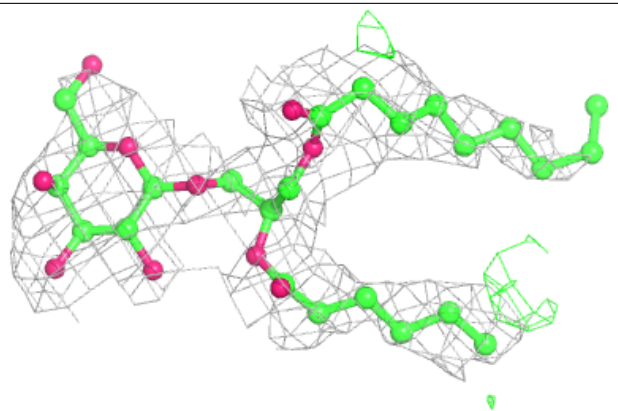
**Electron density around CLA 3 312:**

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

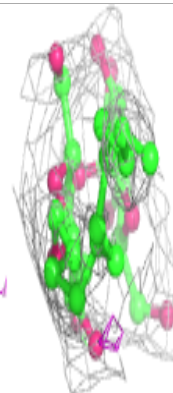
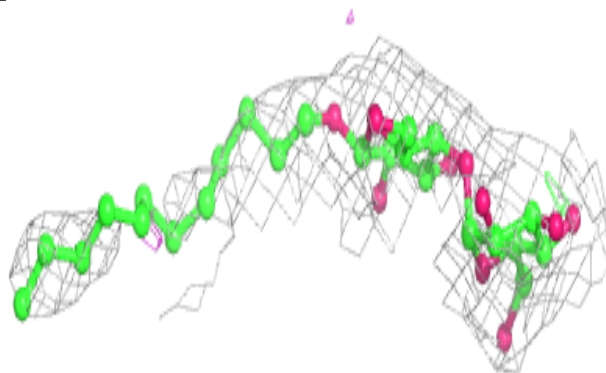
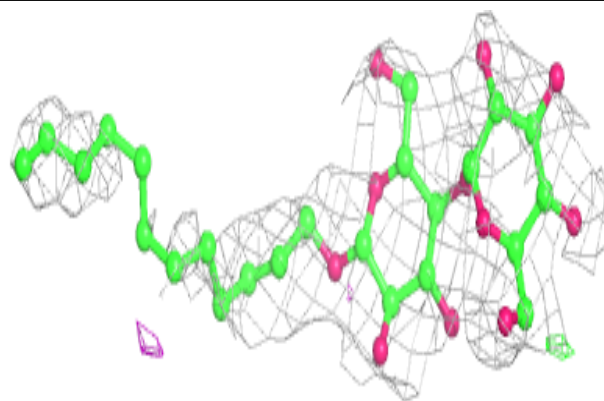


**Electron density around LMG J 1104:**

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

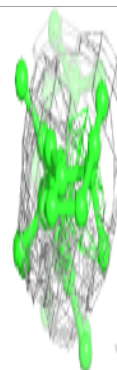
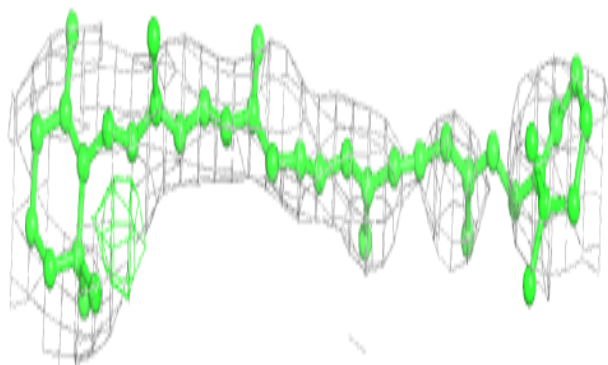
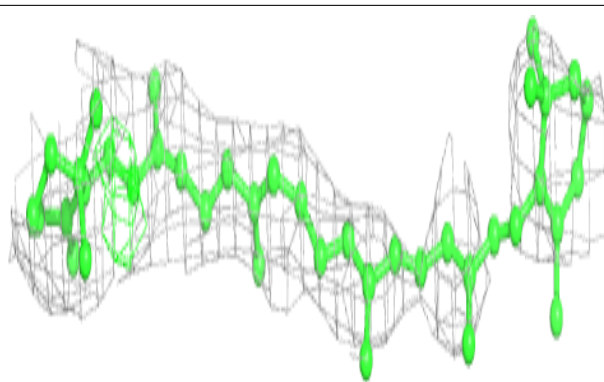
**Electron density around LMT G 208:**

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

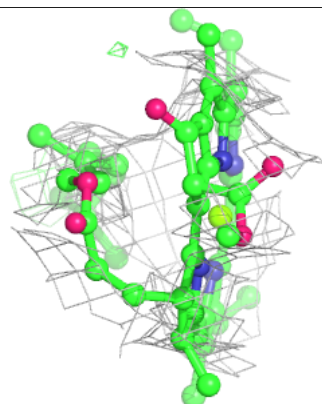
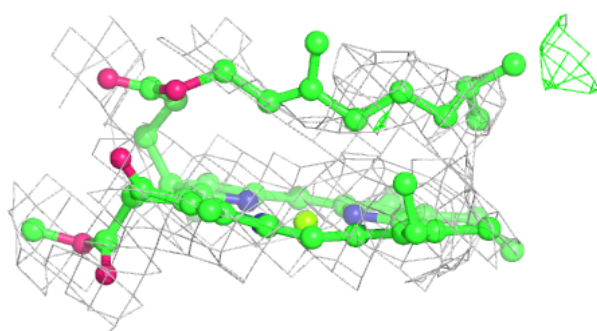
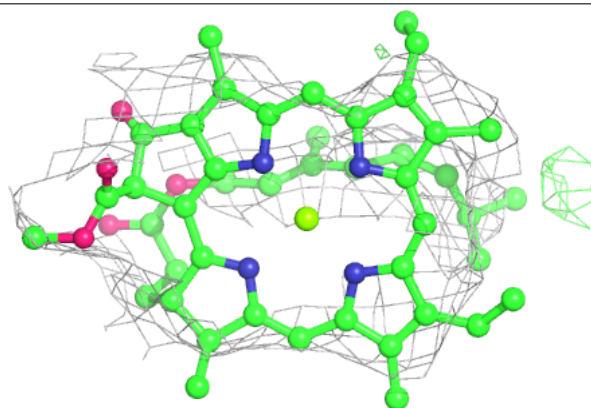


**Electron density around BCR 3 303:**

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

**Electron density around CLA 3 307:**

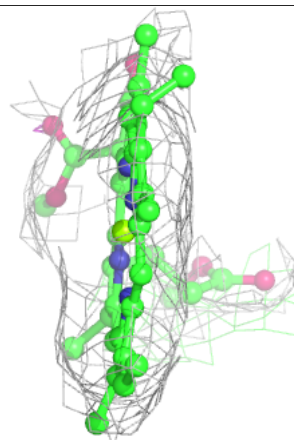
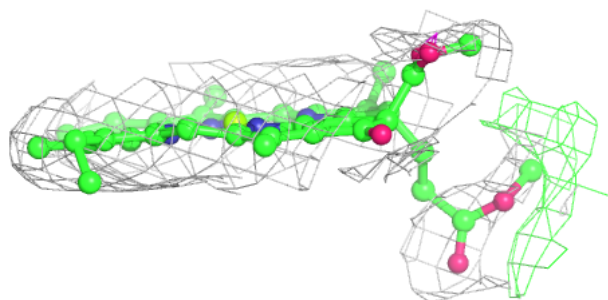
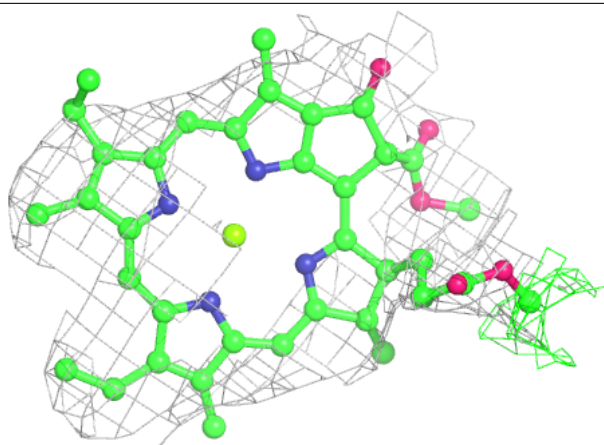
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



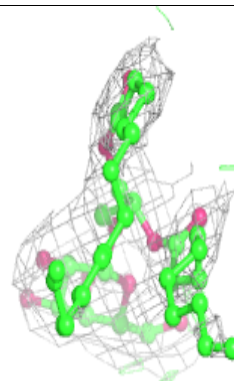
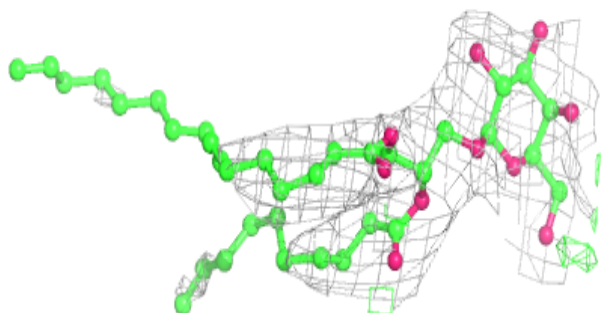
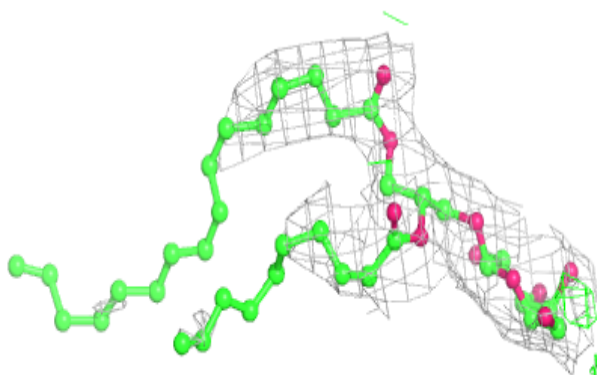


**Electron density around CLA 1 510:**

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

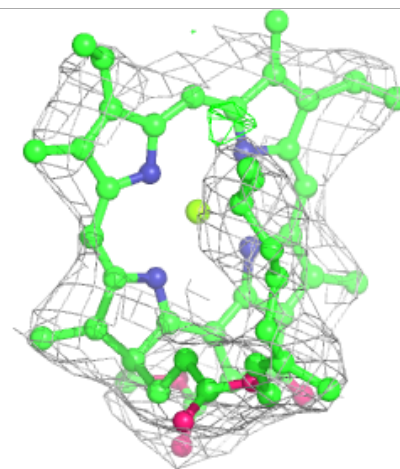
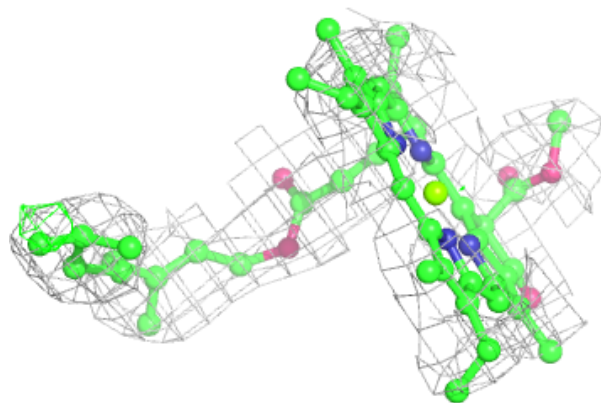
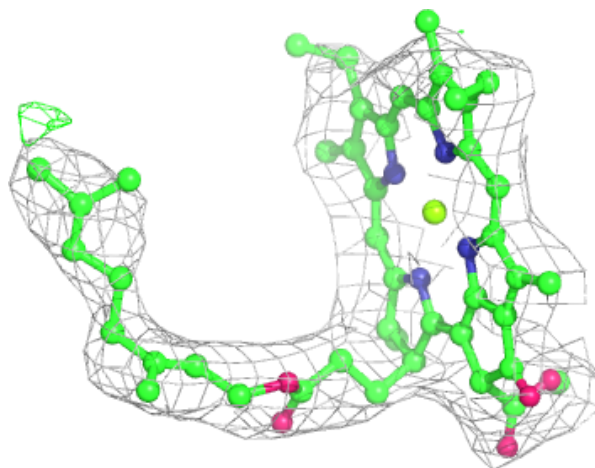
**Electron density around LMG 4 322:**

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

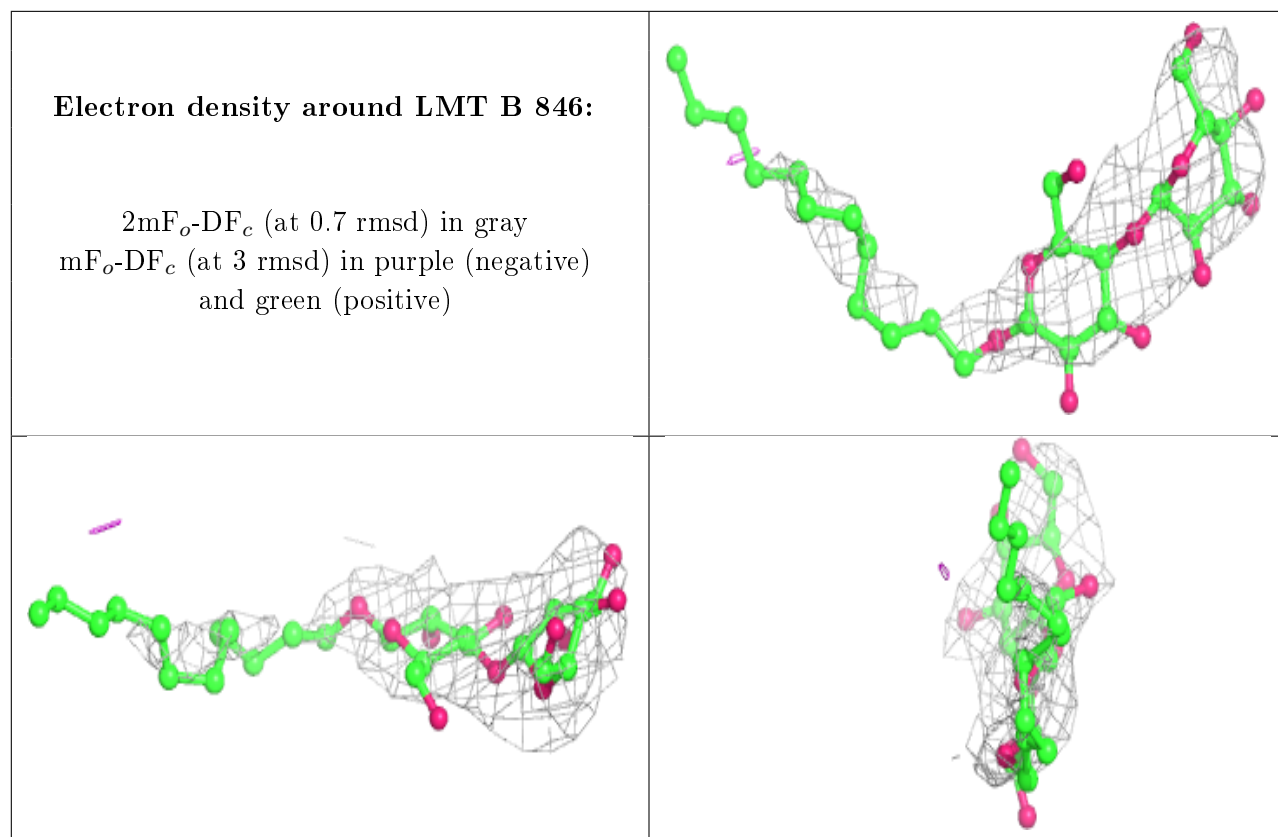


**Electron density around CLA B 816:**

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

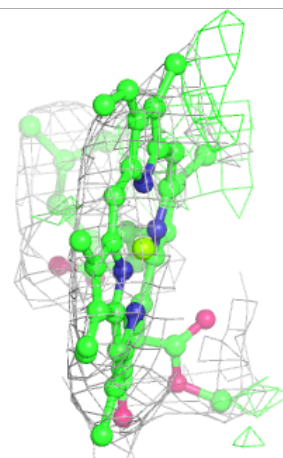
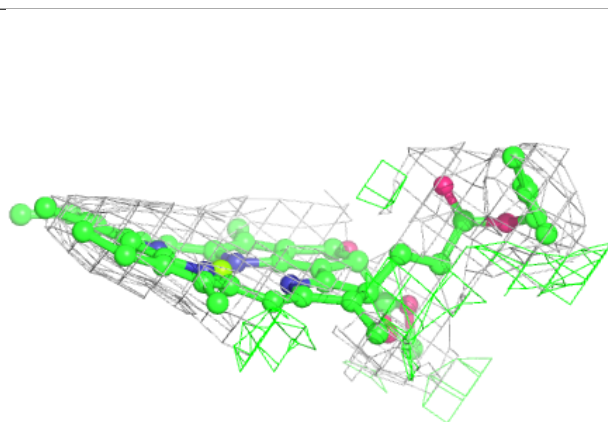
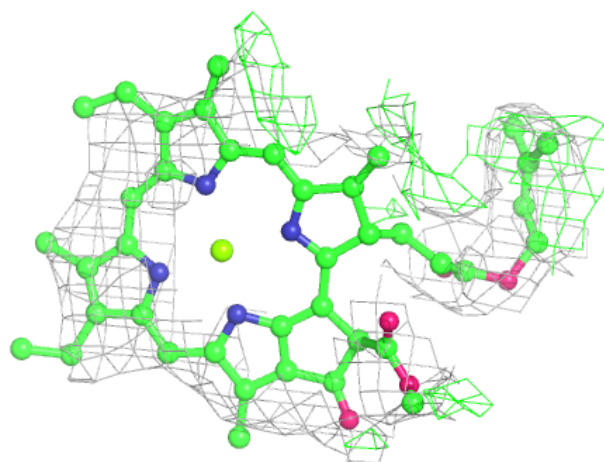






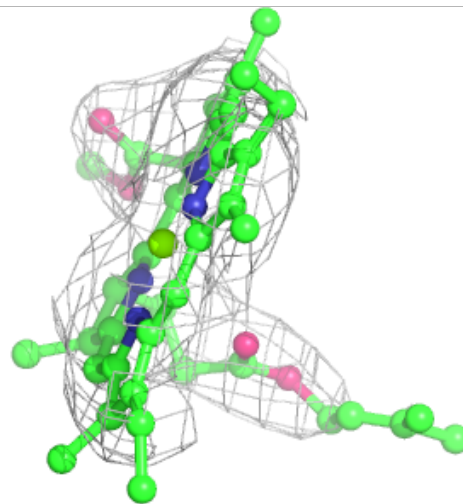
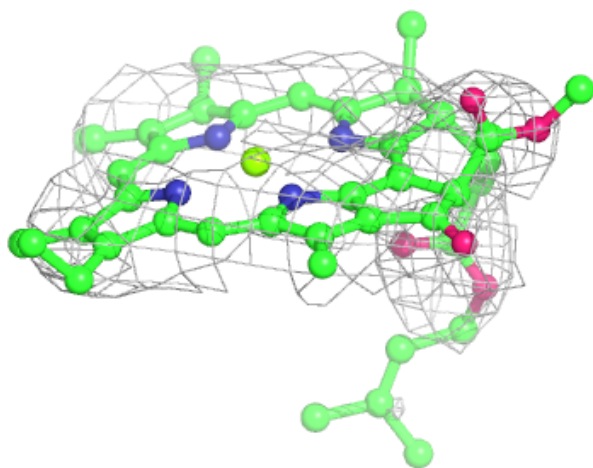
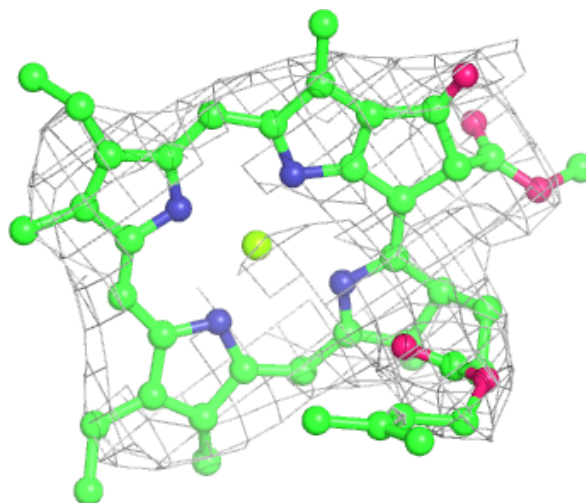
**Electron density around CLA J 1105:**

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



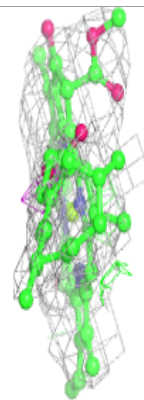
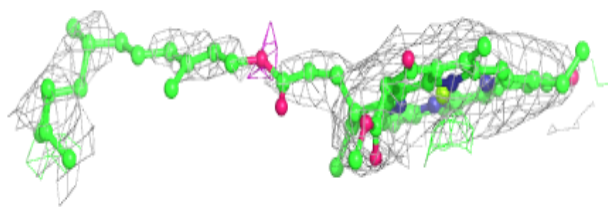
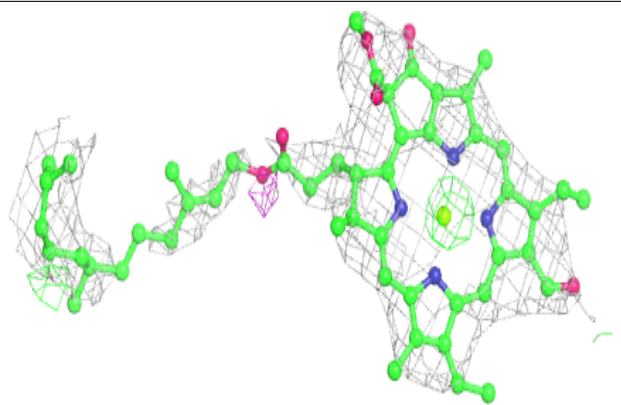
**Electron density around CLA 4 309:**

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



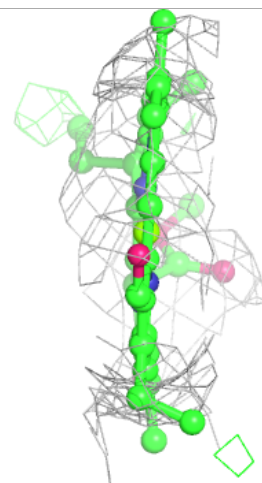
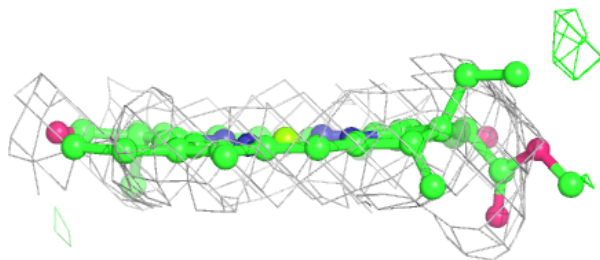
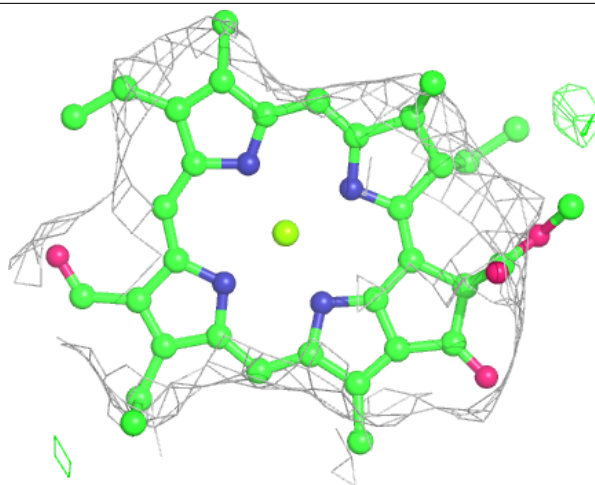
**Electron density around CHL 4 316:**

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



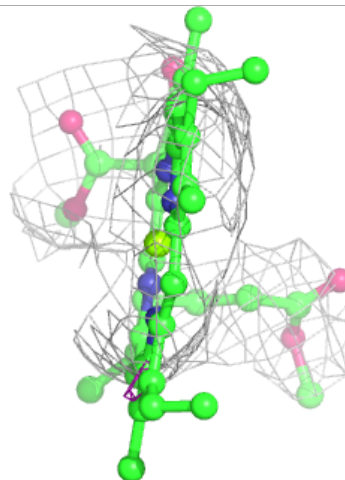
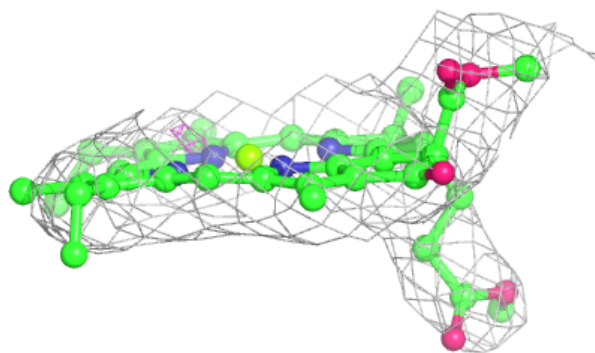
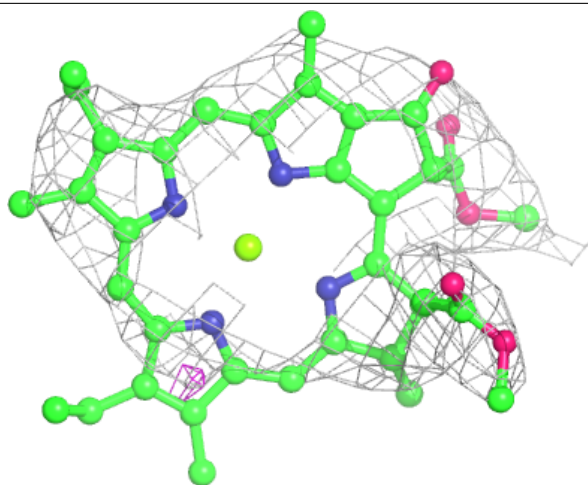
**Electron density around CHL 4 317:**

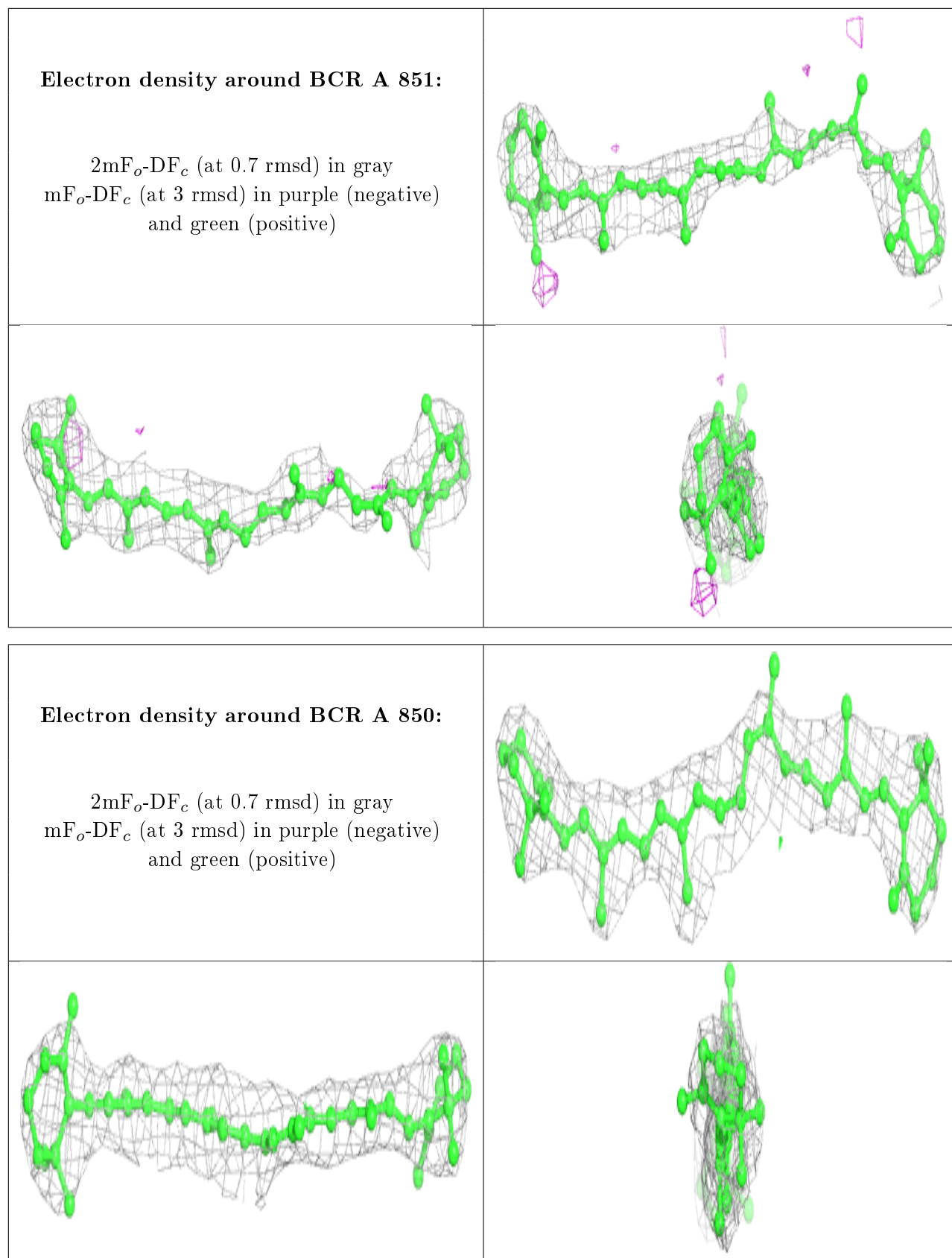
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA 1 511:**

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

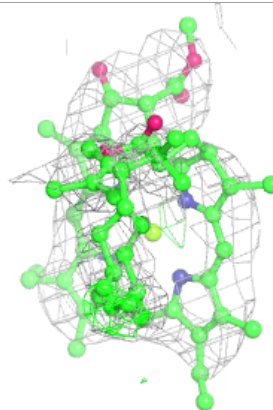
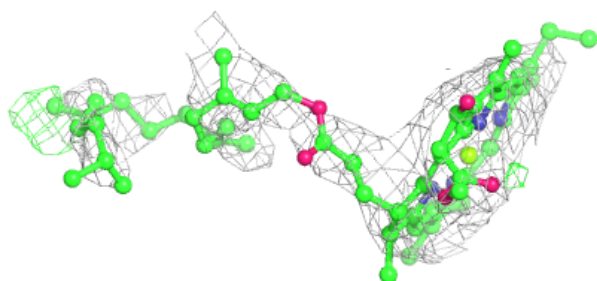
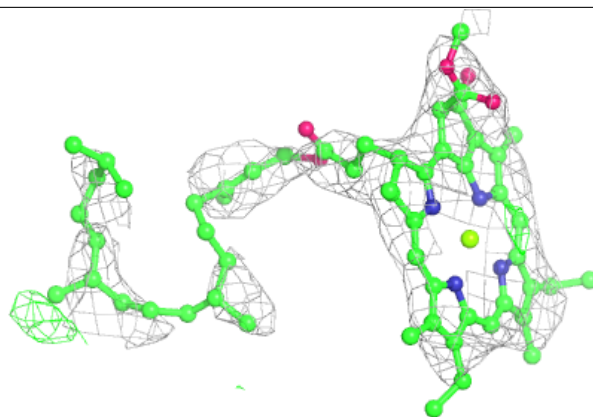




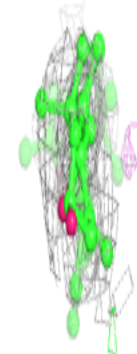
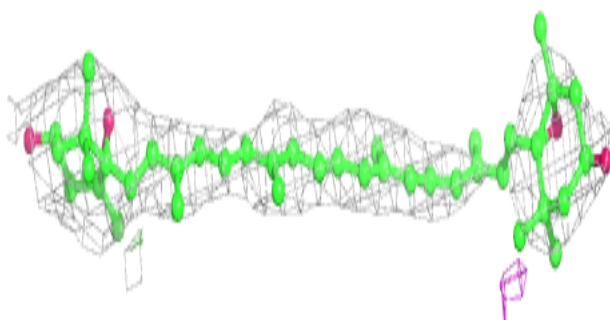
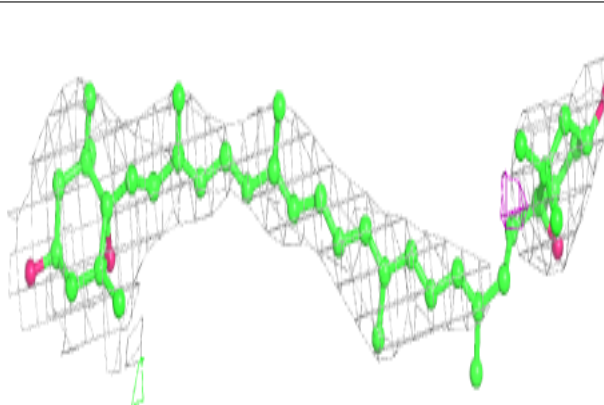


**Electron density around CLA 1 513:**

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

**Electron density around XAT 2 502:**

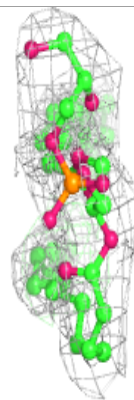
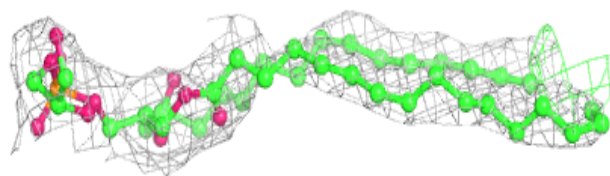
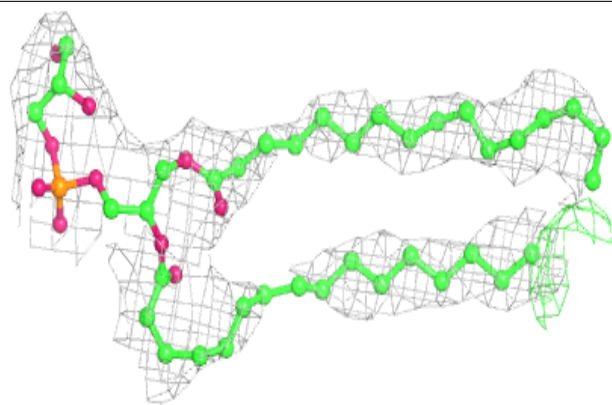
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



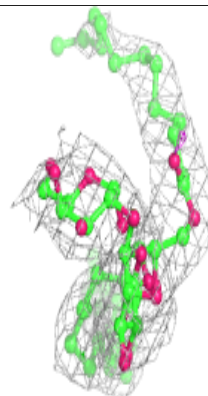
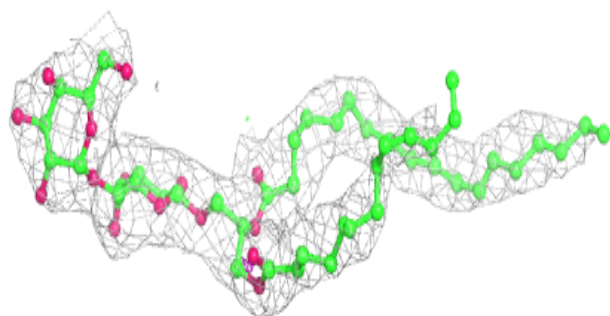
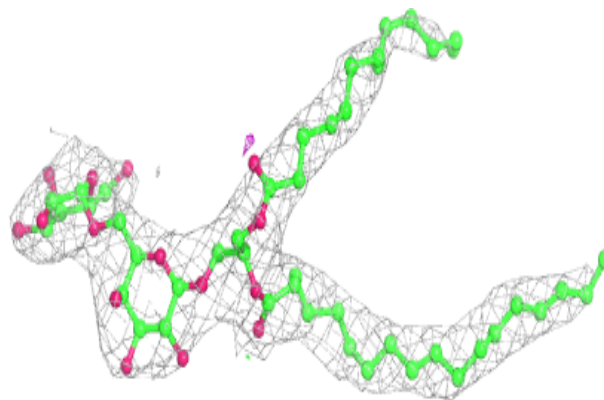


**Electron density around LHG 1 517:**

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

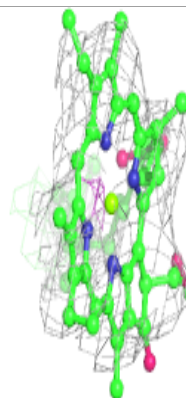
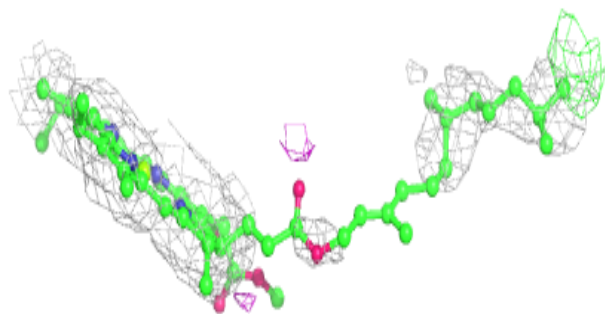
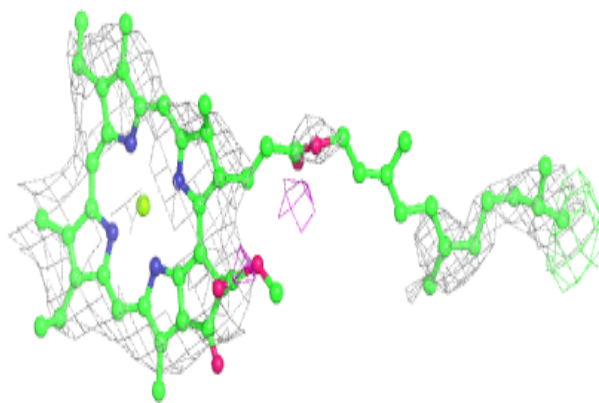
**Electron density around DGD B 854:**

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

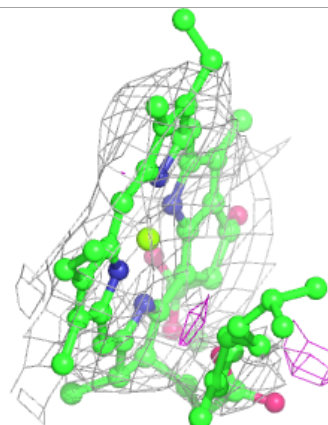
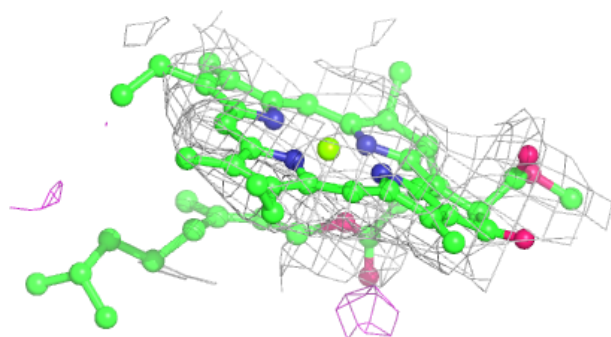
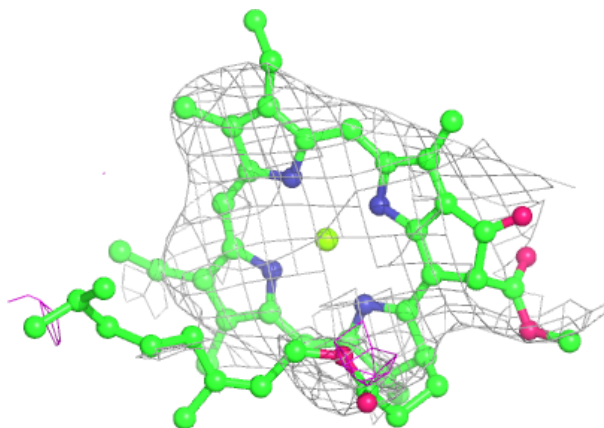


**Electron density around CLA H 1000:**

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

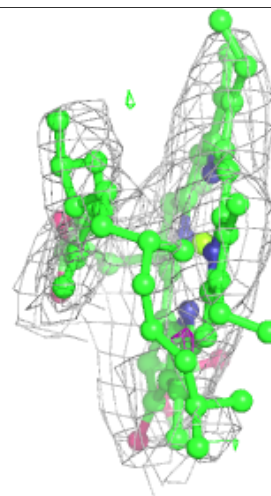
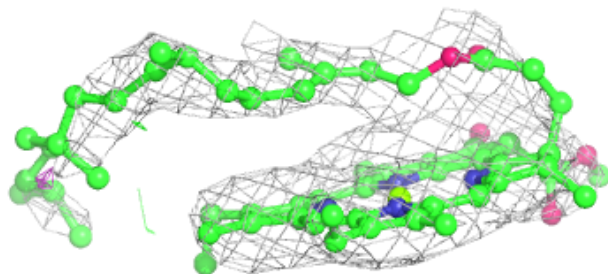
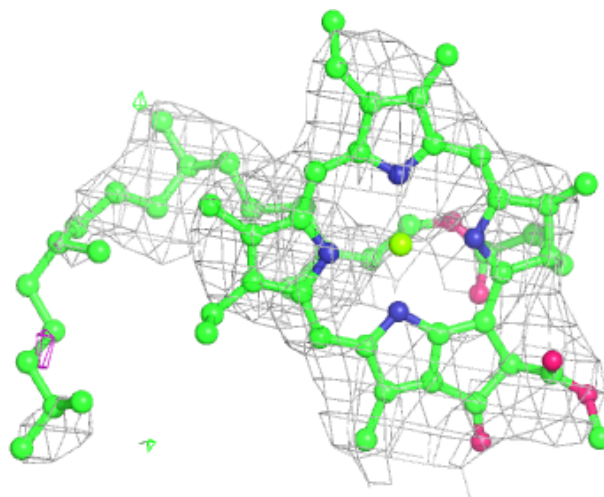
**Electron density around CLA 3 305:**

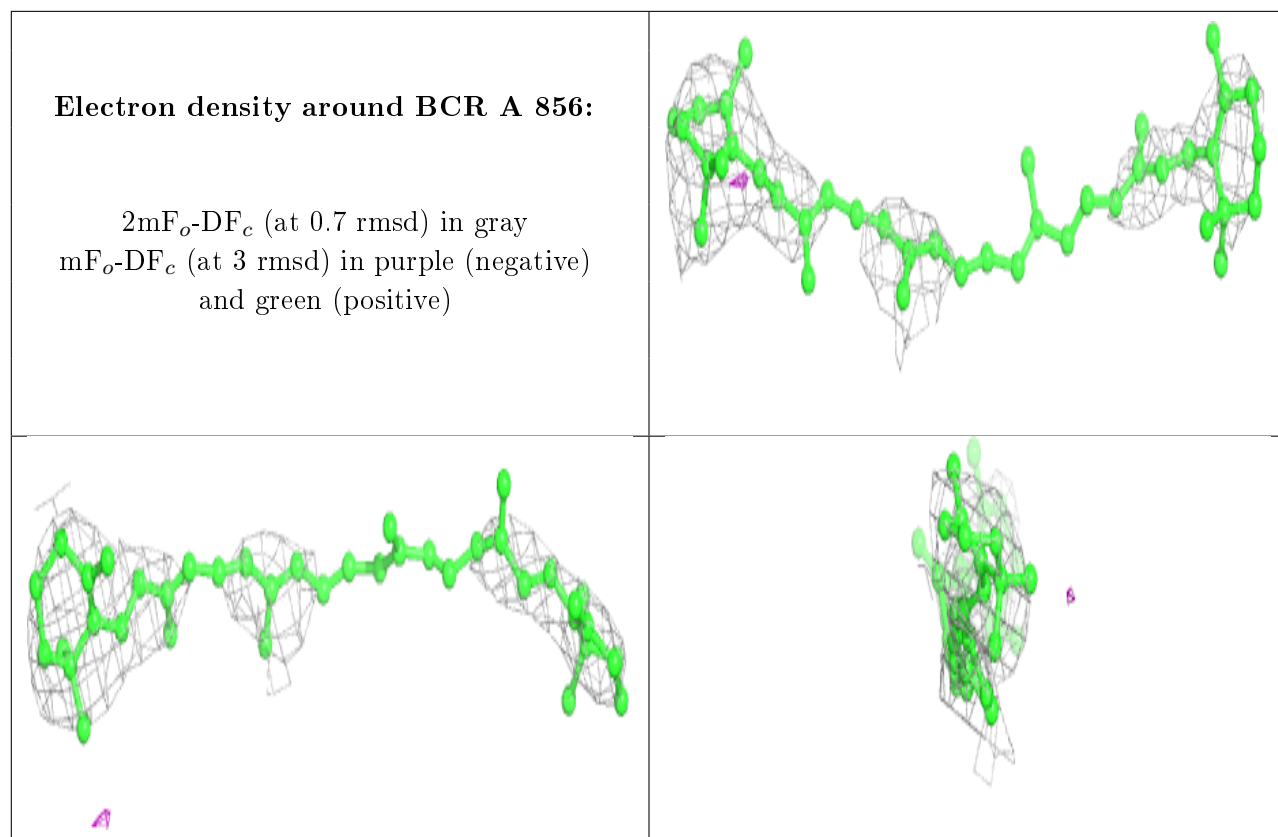
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA A 817:**

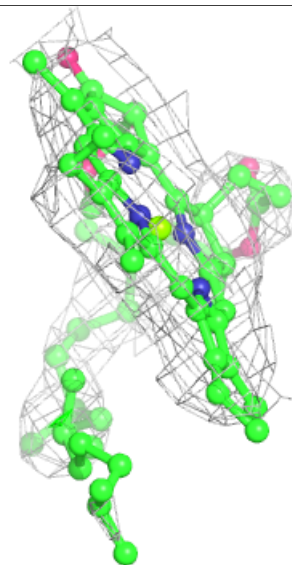
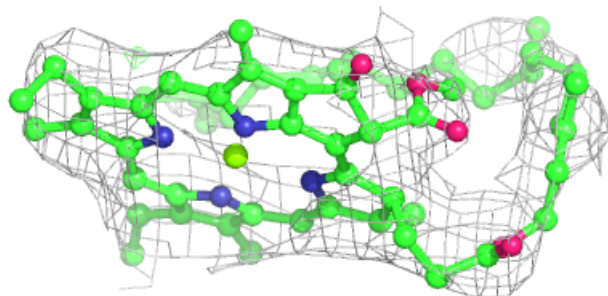
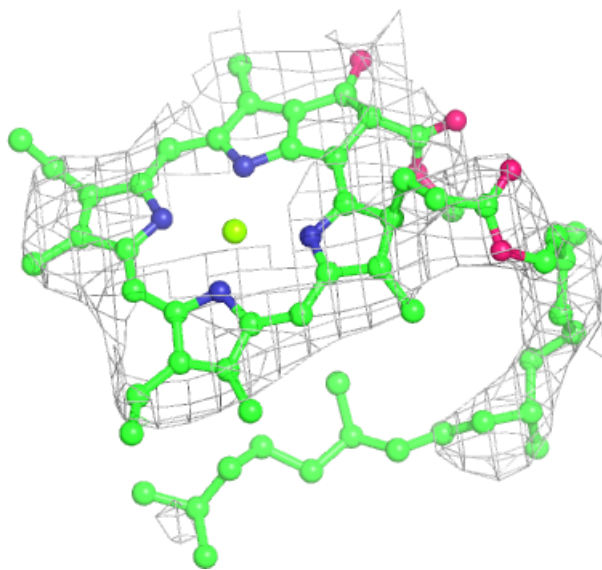
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





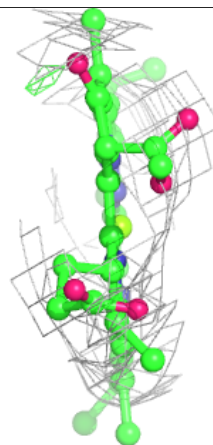
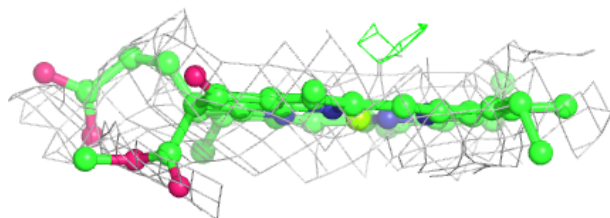
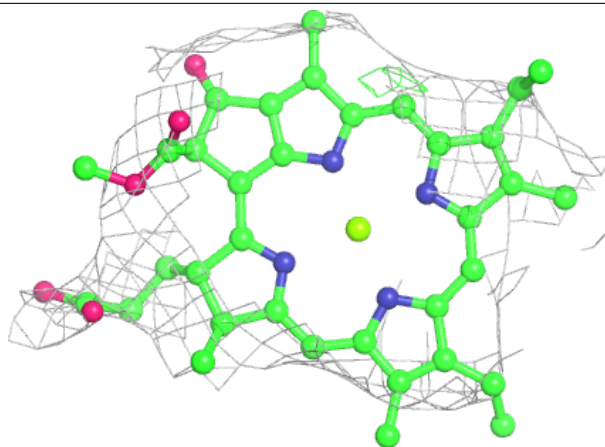
**Electron density around CLA 1 508:**

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



**Electron density around CLA 1 515:**

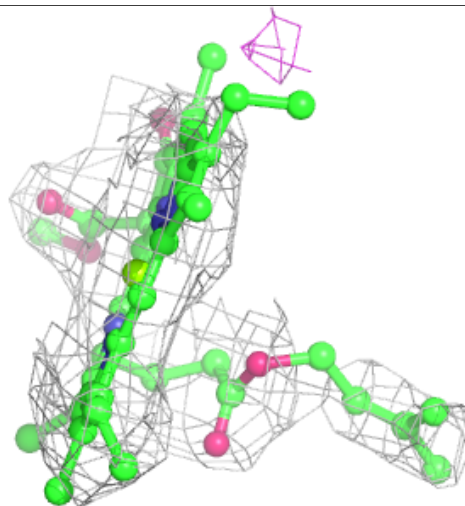
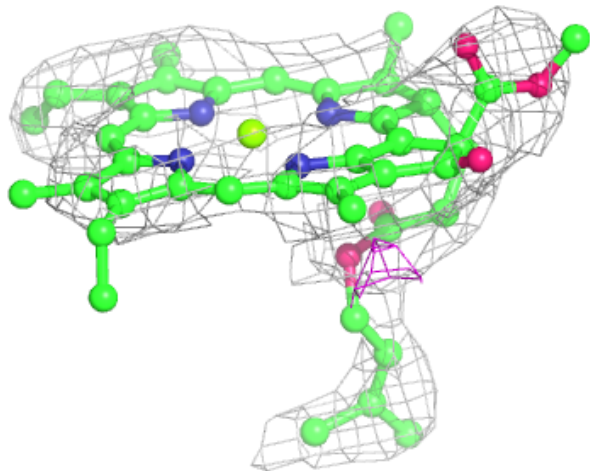
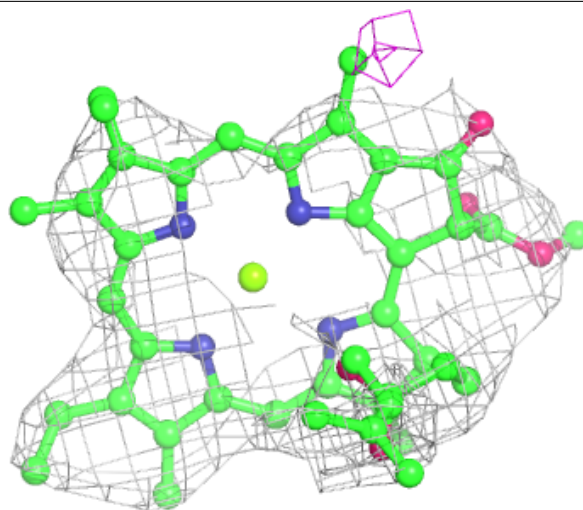
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





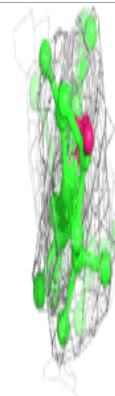
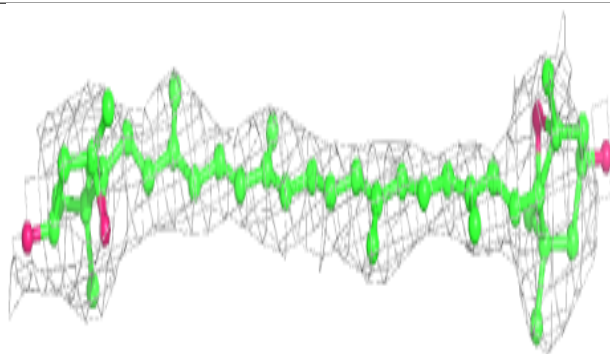
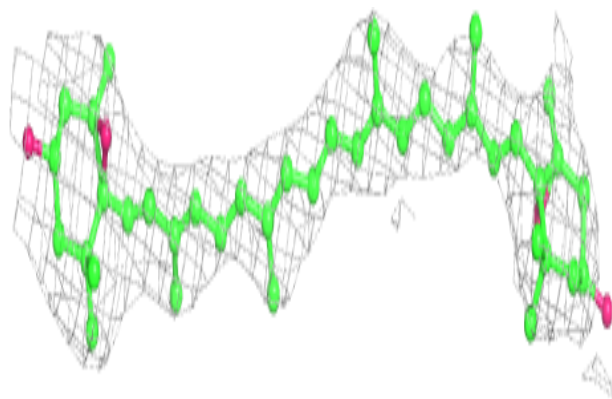
**Electron density around CLA L 303:**

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

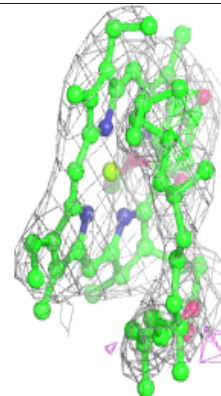
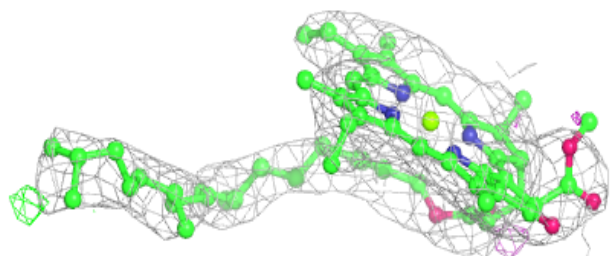
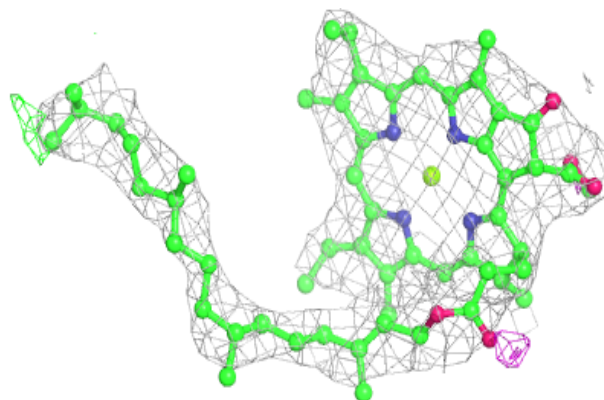


**Electron density around XAT 4 303:**

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

**Electron density around CLA 1 507:**

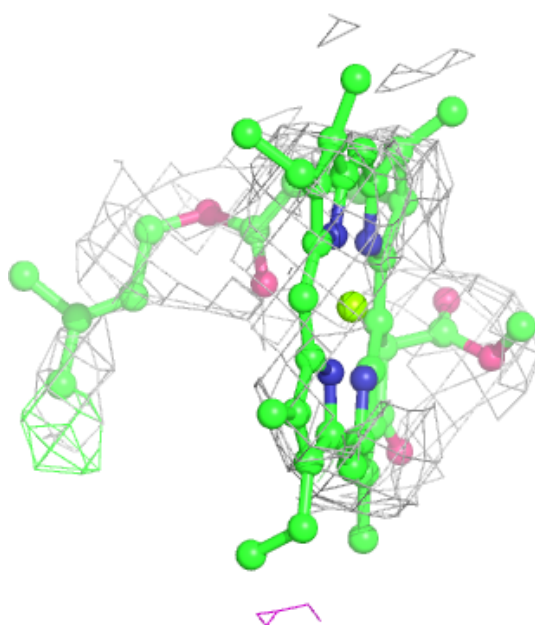
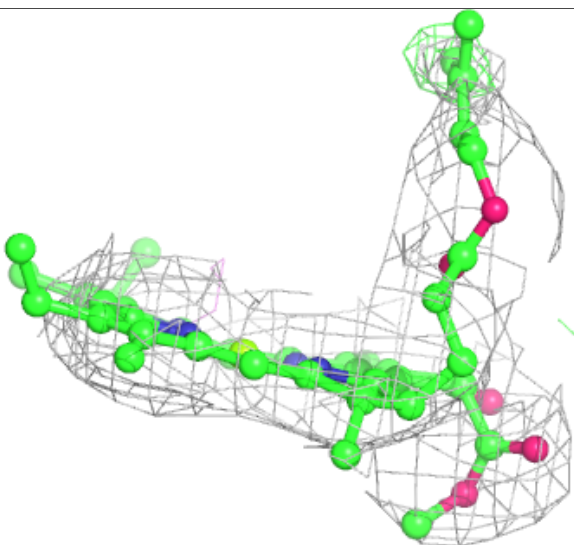
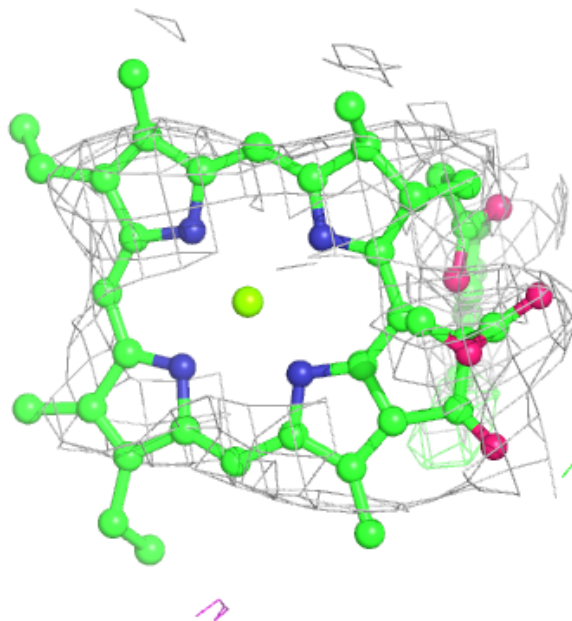
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





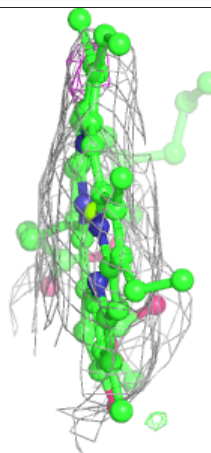
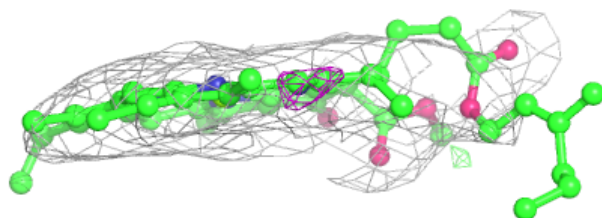
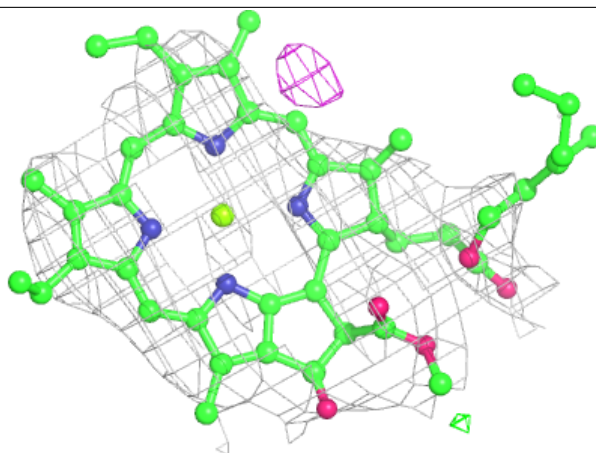
**Electron density around CLA 3 310:**

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

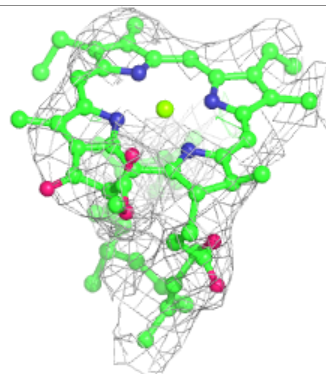
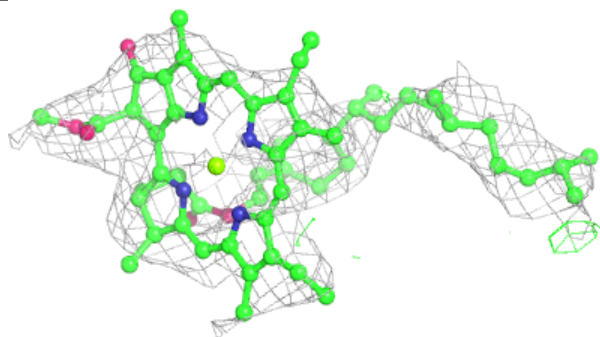
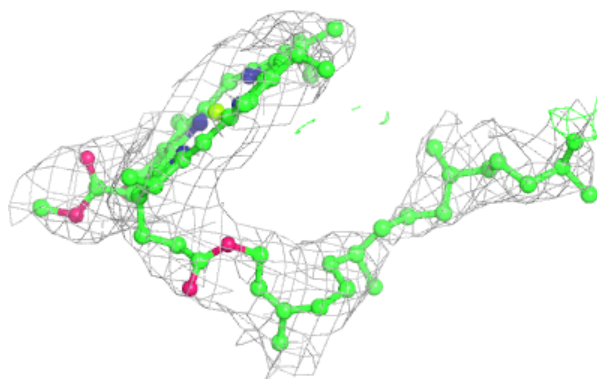


**Electron density around CLA 3 306:**

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

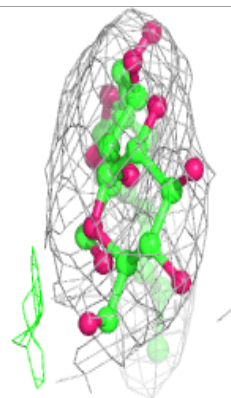
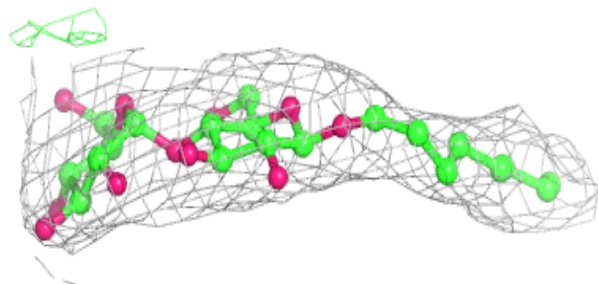
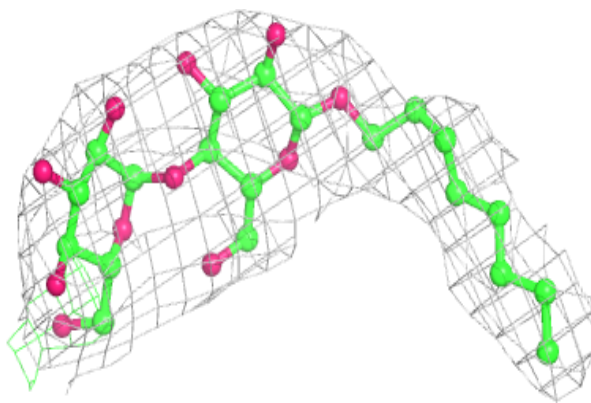
**Electron density around CLA G 204:**

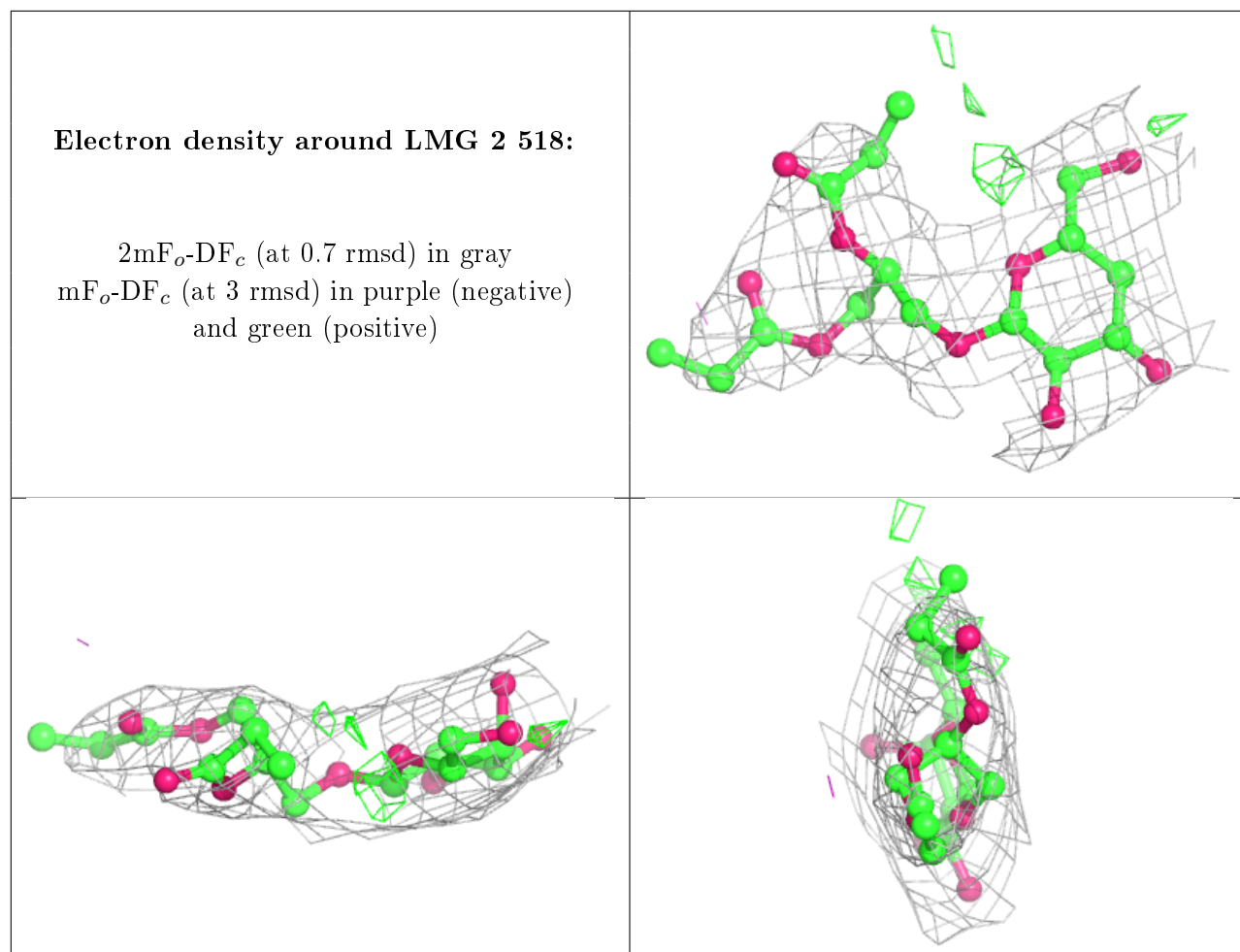
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around LMT B 855:**

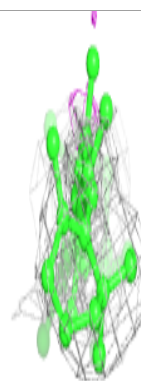
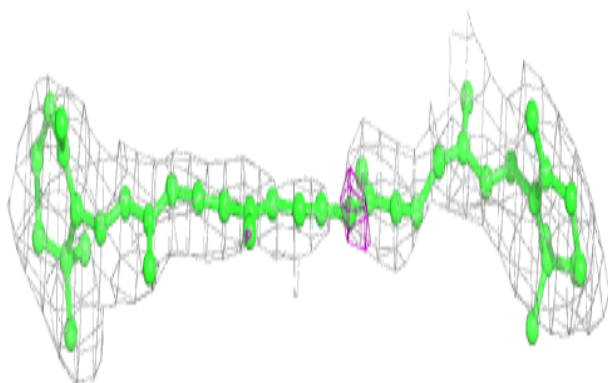
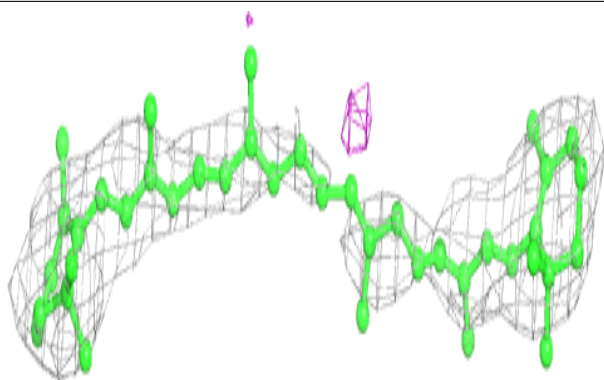
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



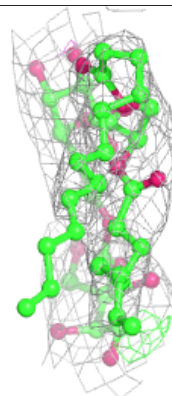
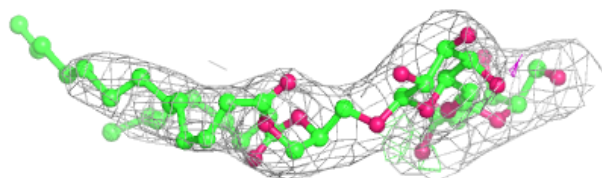
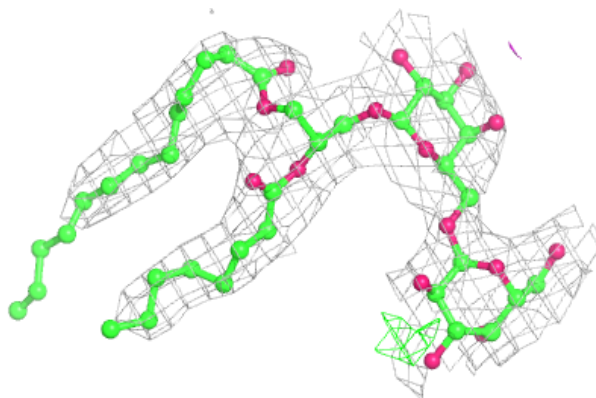


**Electron density around BCR L 306:**

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

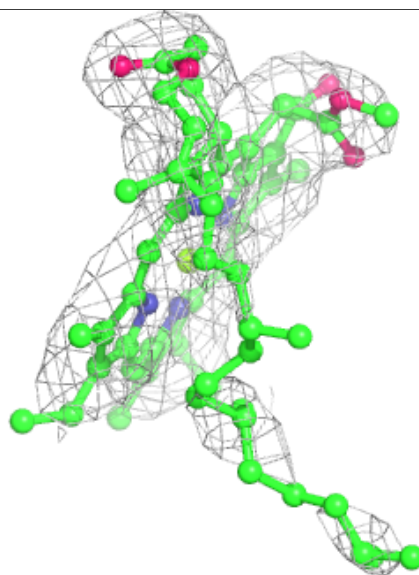
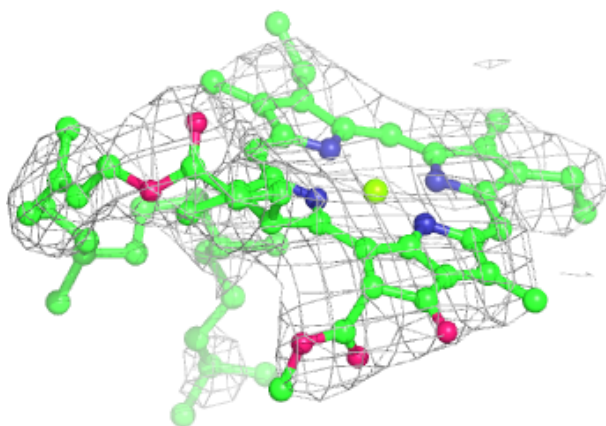
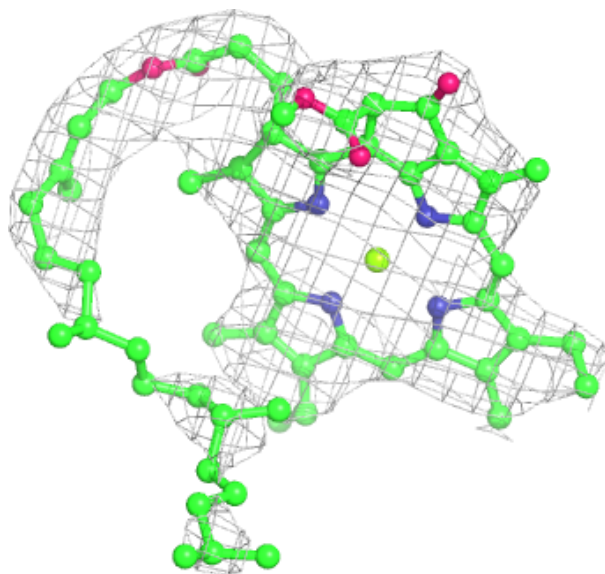
**Electron density around DGD 4 319:**

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



**Electron density around CLA A 813:**

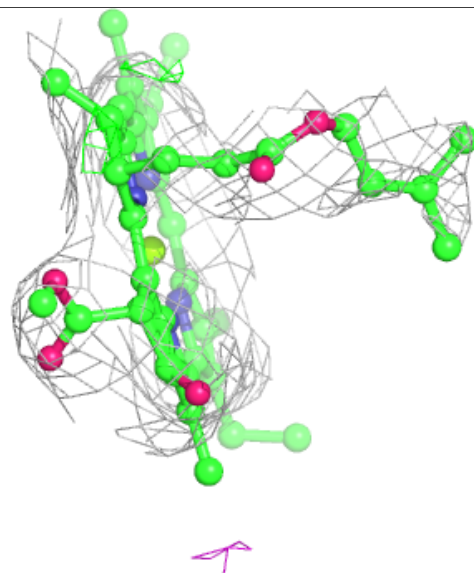
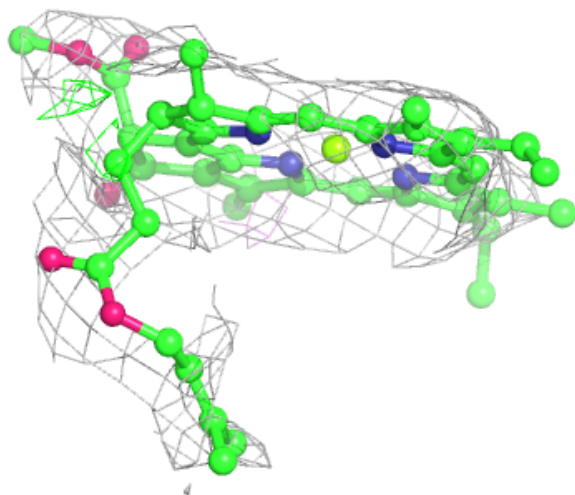
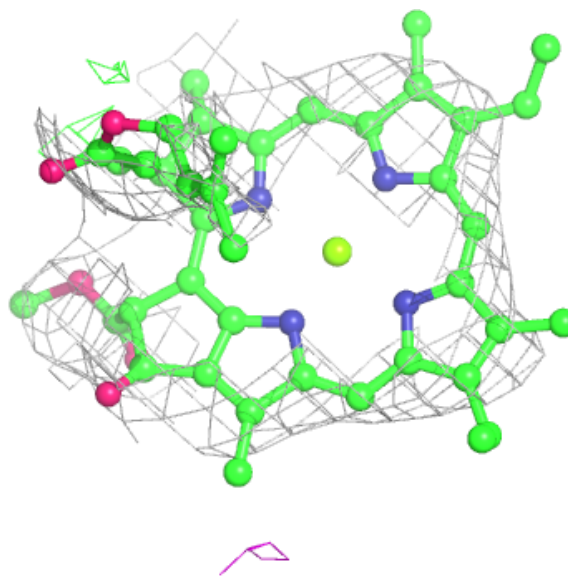
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

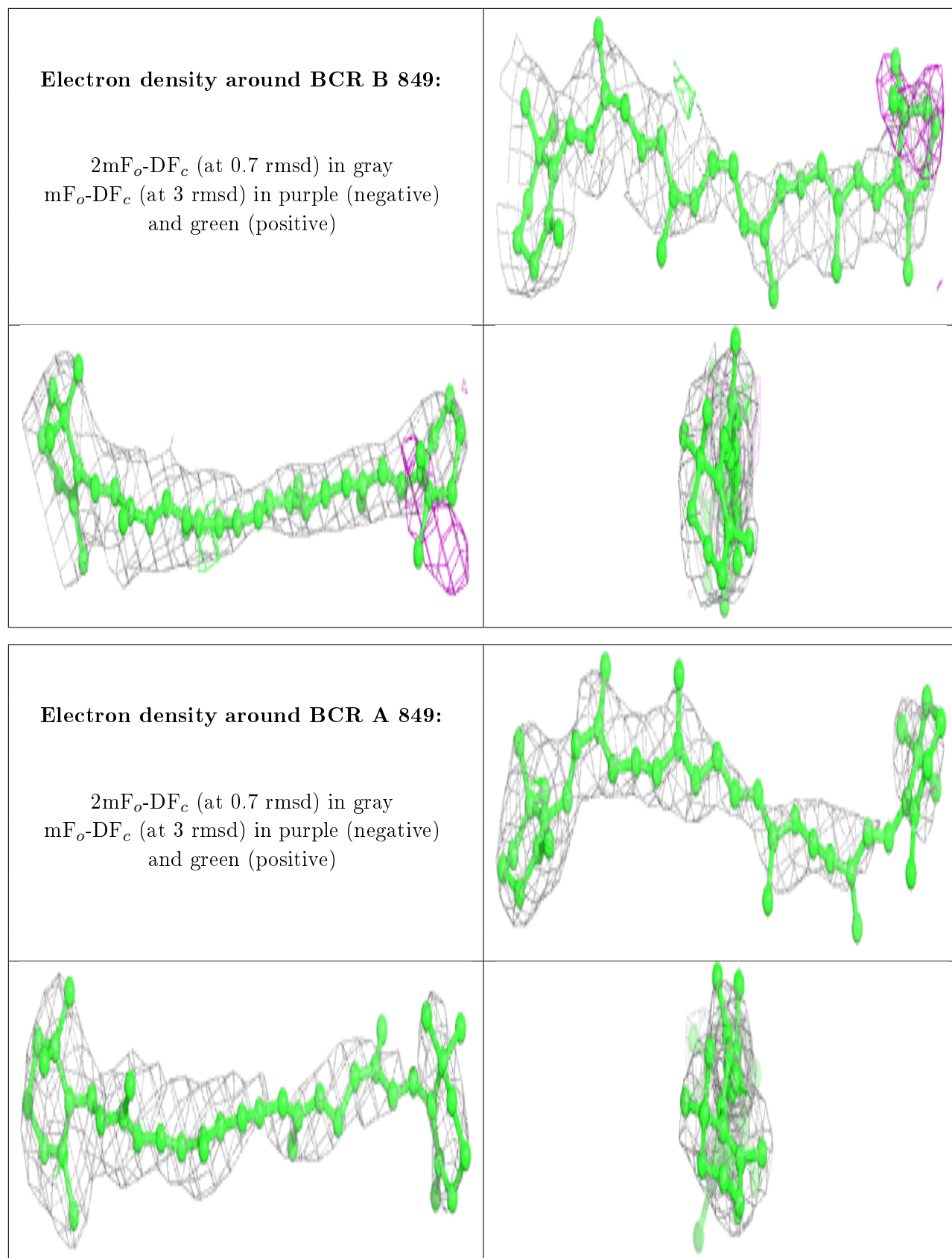




**Electron density around CLA 1 509:**

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

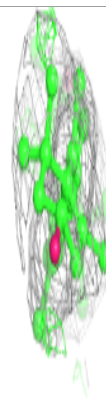
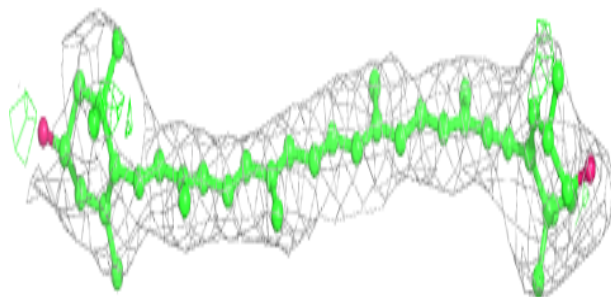
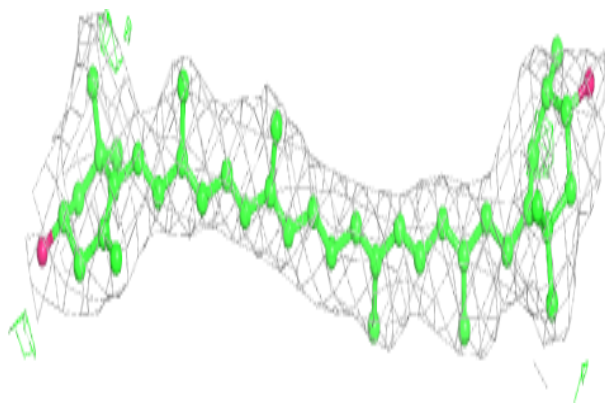






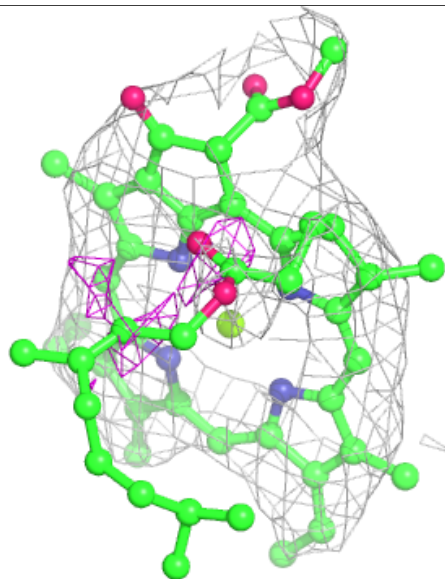
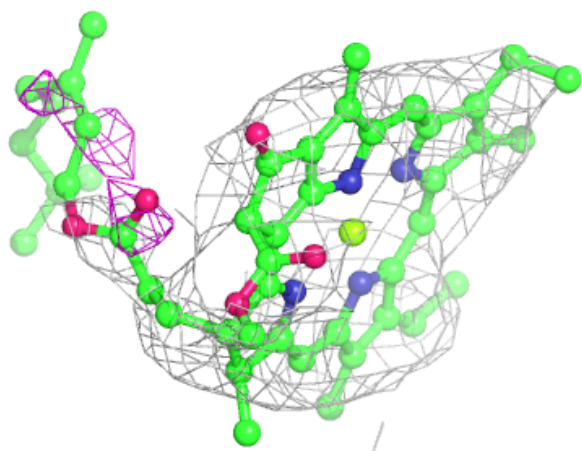
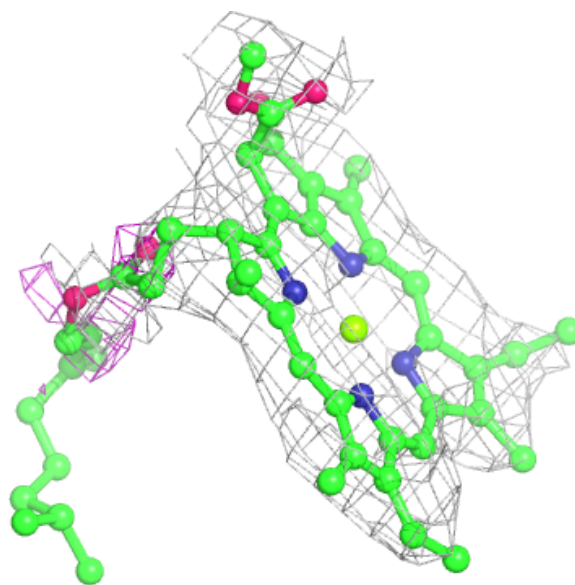
**Electron density around ZEX F 301:**

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



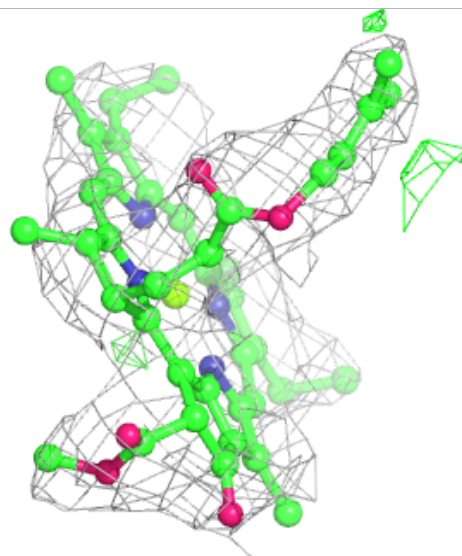
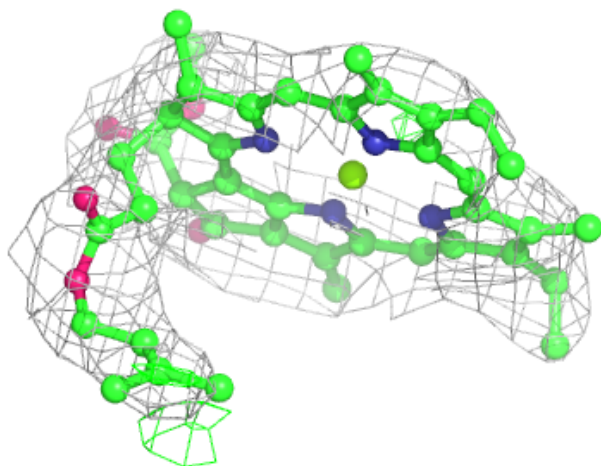
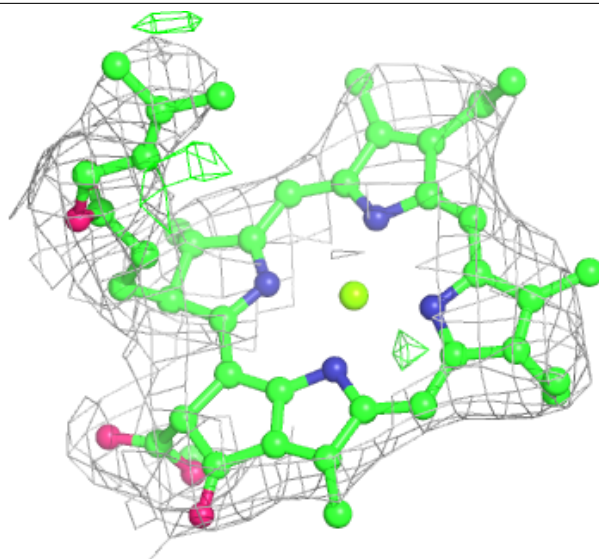
**Electron density around CLA A 835:**

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



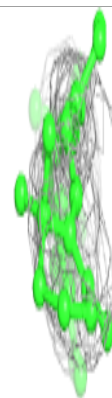
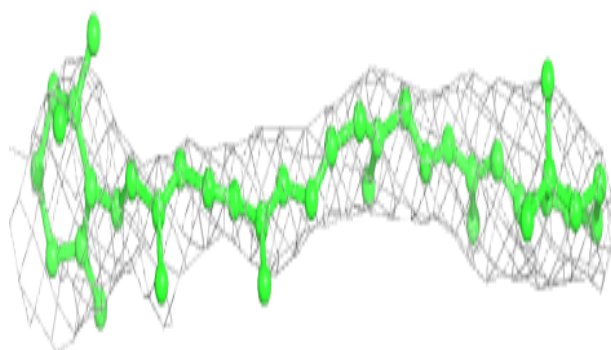
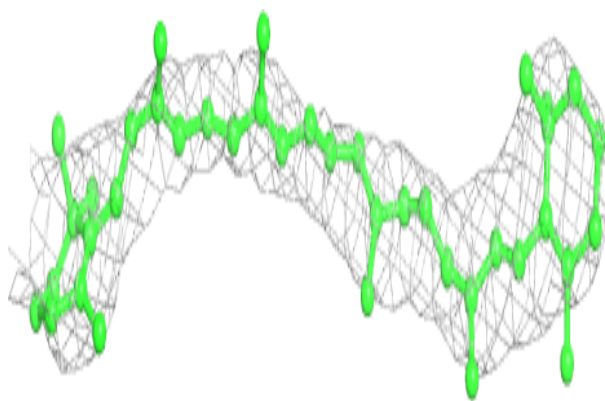
**Electron density around CLA A 820:**

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

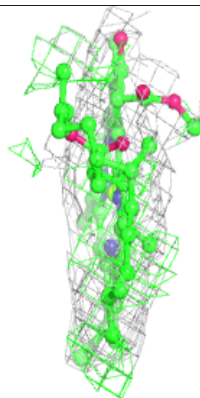
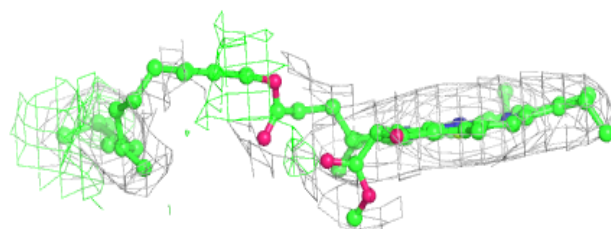
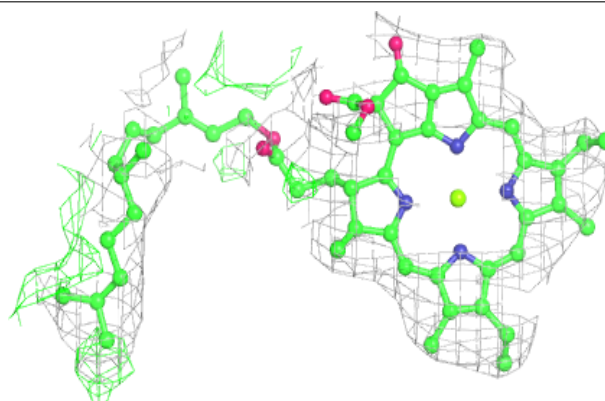


**Electron density around BCR 4 301:**

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

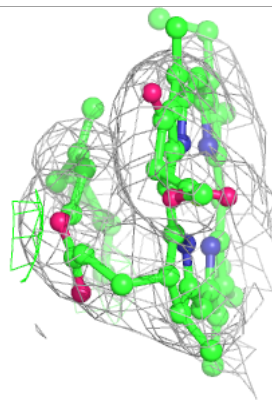
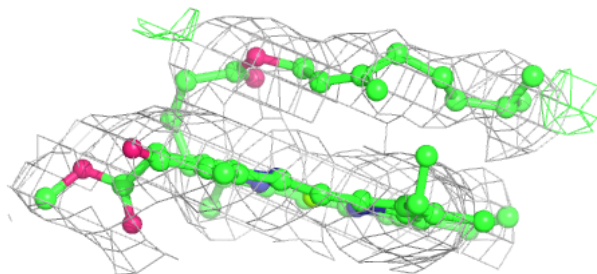
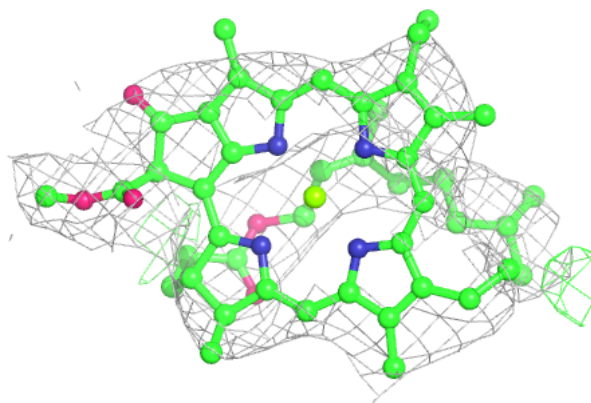
**Electron density around CLA 1 516:**

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

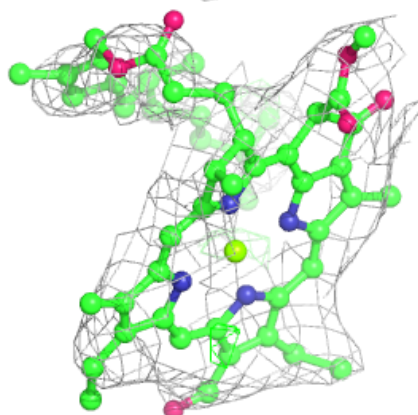
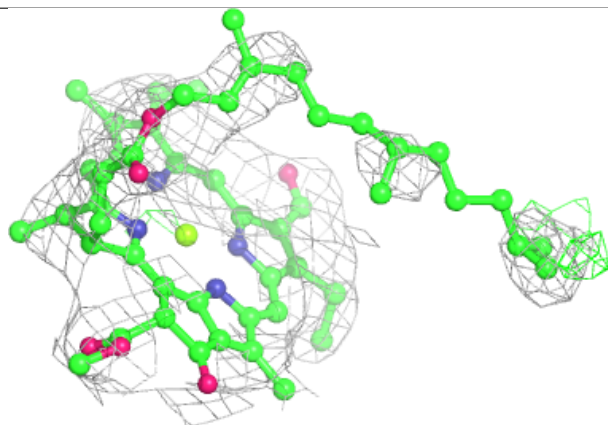
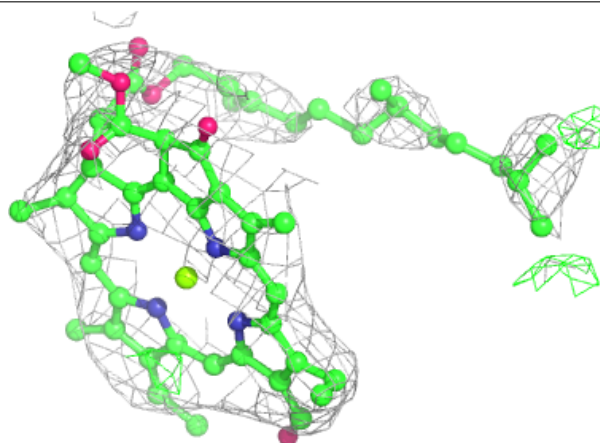


**Electron density around CLA A 812:**

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

**Electron density around CHL 1 514:**

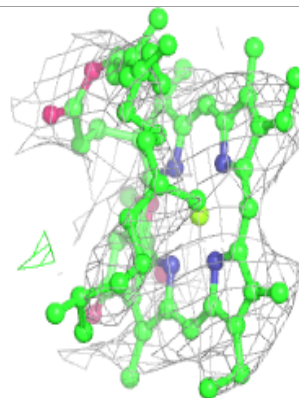
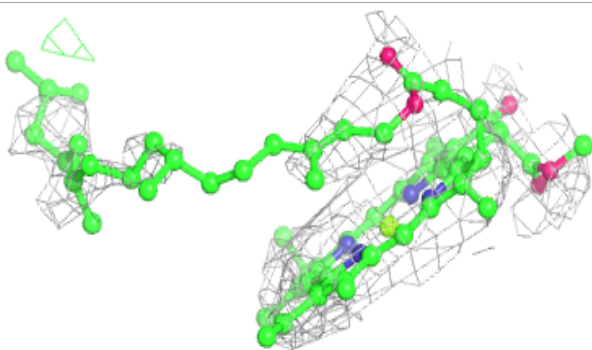
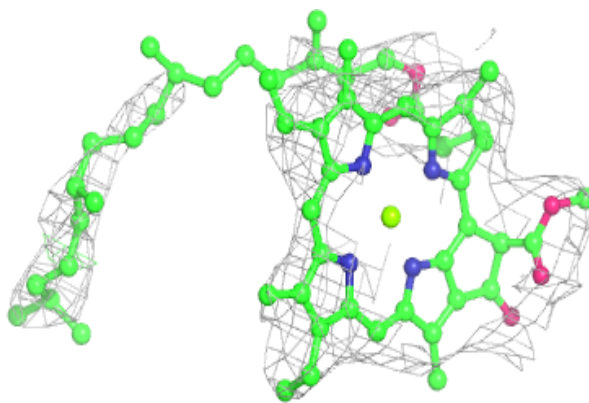
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



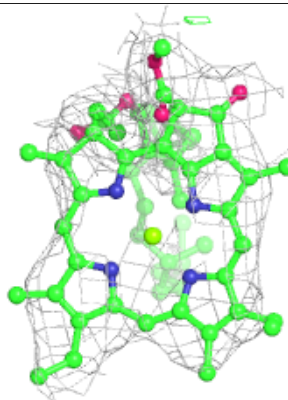
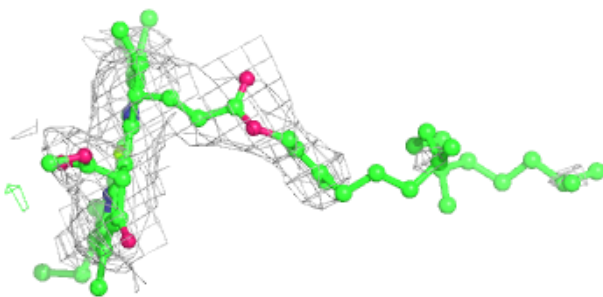
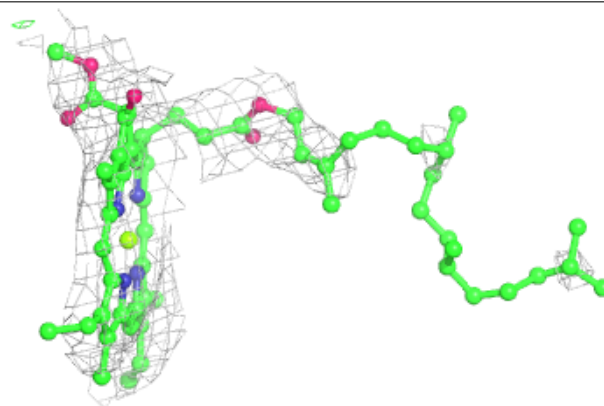


**Electron density around CLA 3 308:**

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

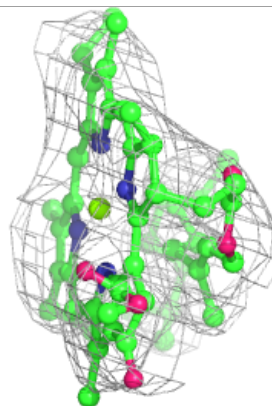
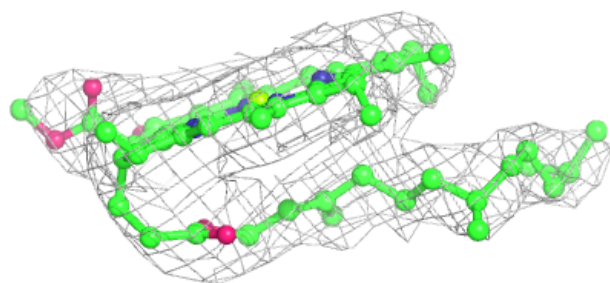
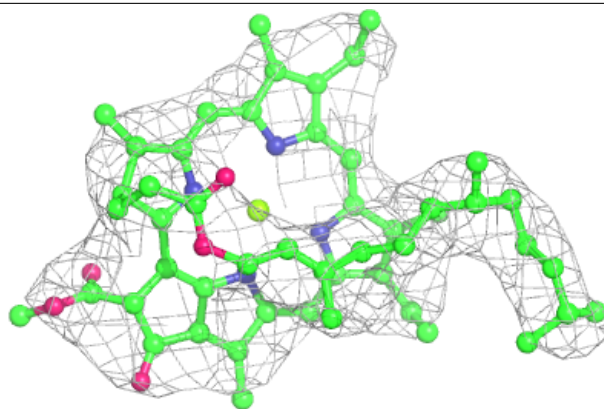
**Electron density around CLA A 814:**

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



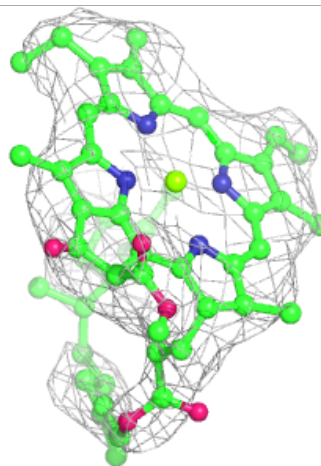
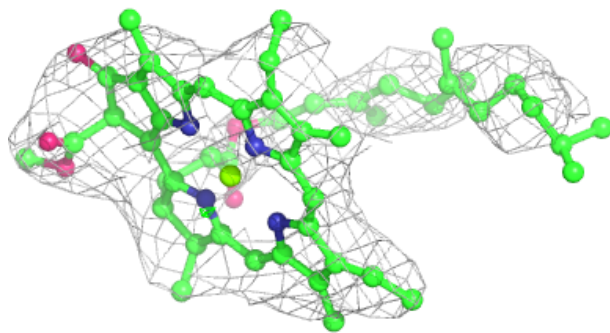
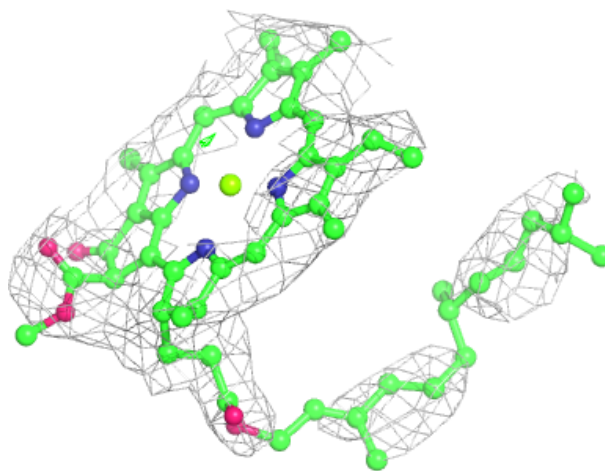
**Electron density around CLA B 817:**

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



**Electron density around CLA A 842:**

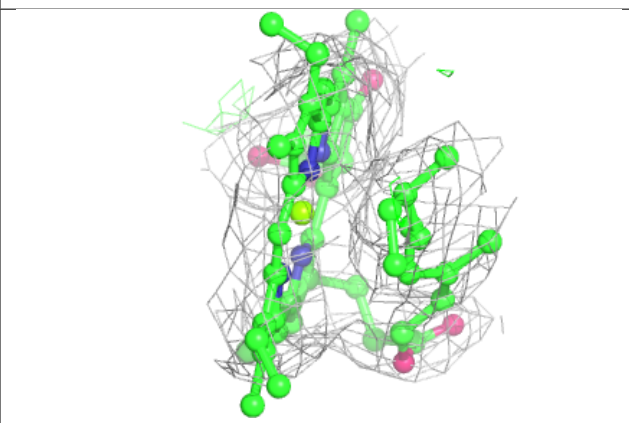
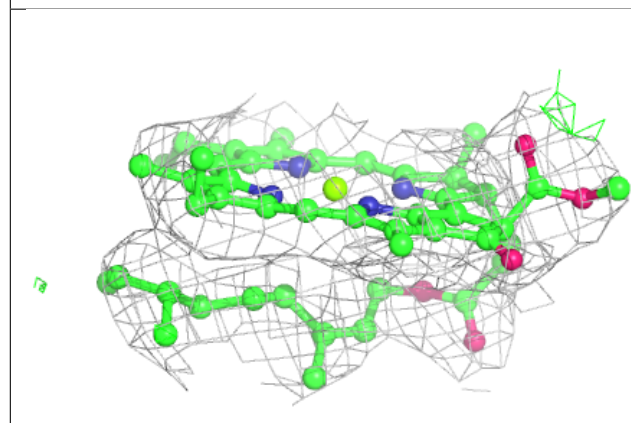
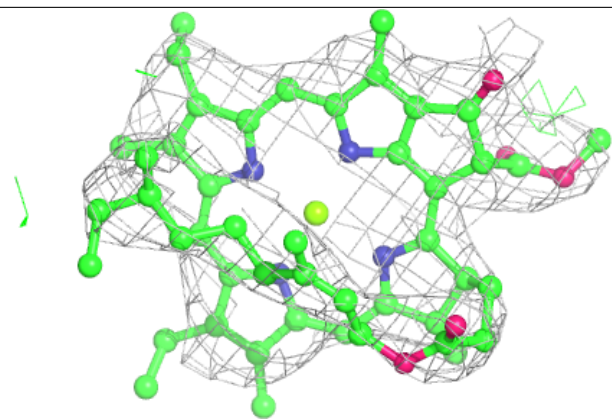
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



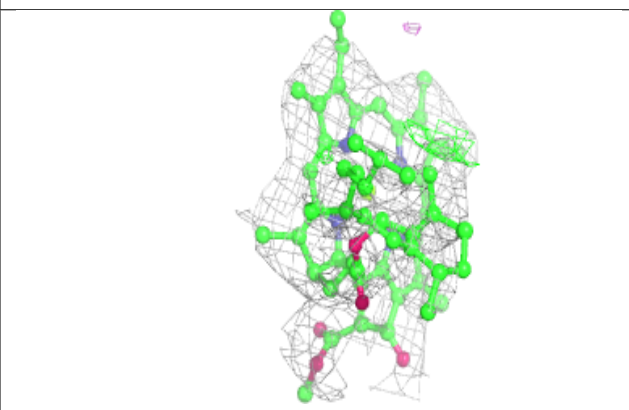
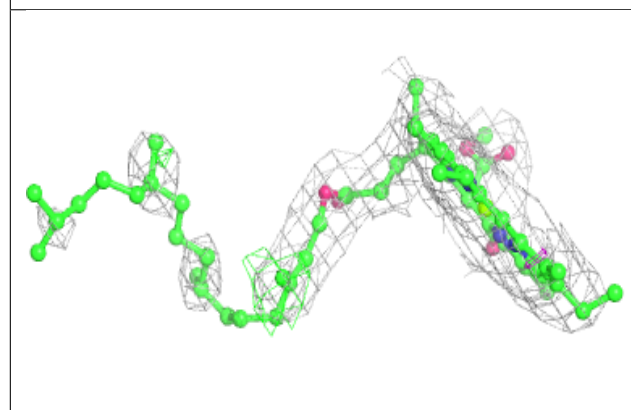
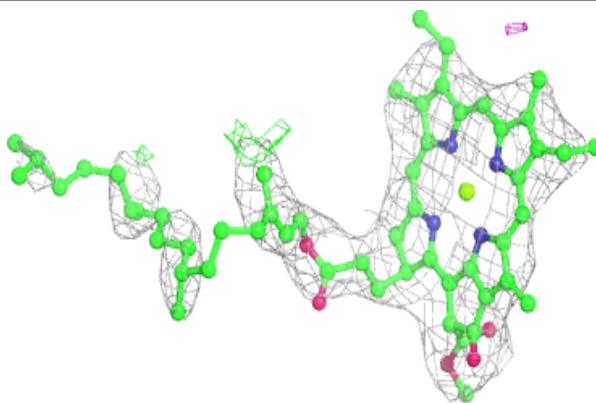


**Electron density around CLA A 818:**

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

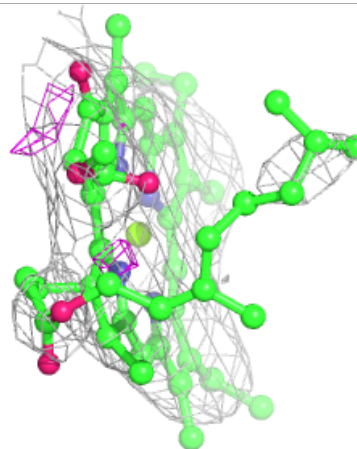
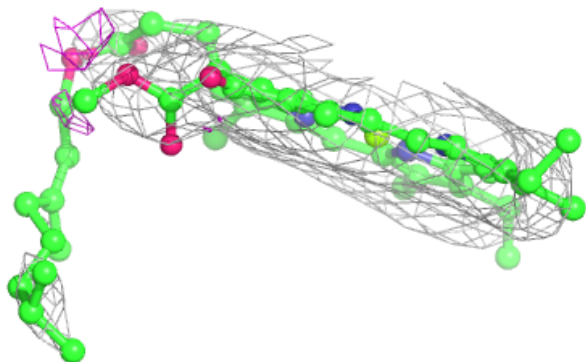
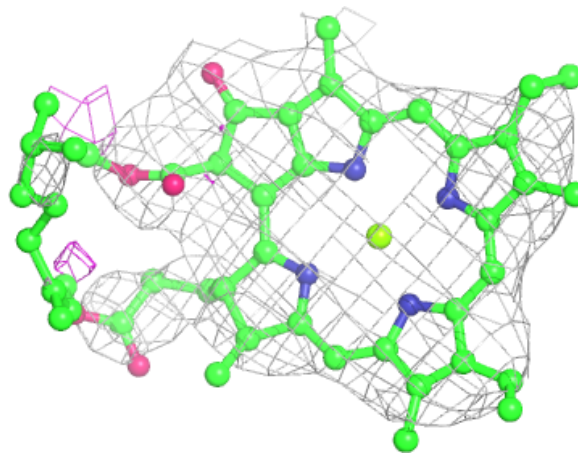
**Electron density around CLA A 831:**

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



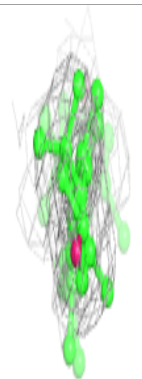
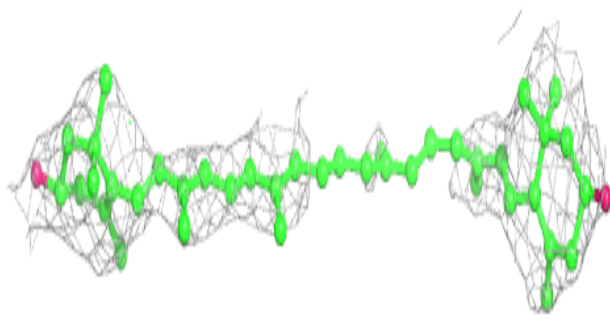
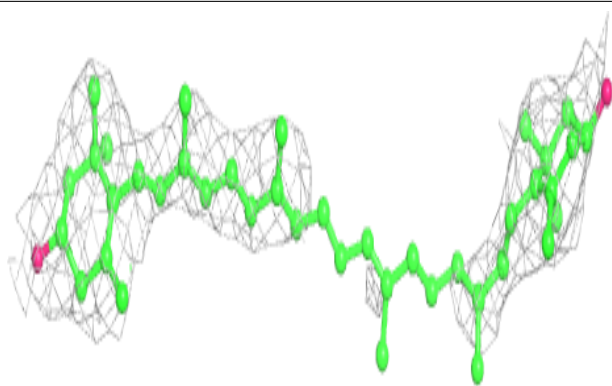
**Electron density around CLA 3 309:**

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

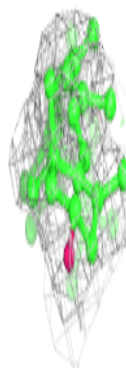
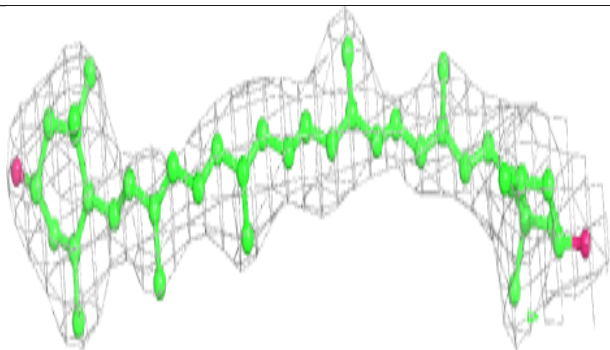
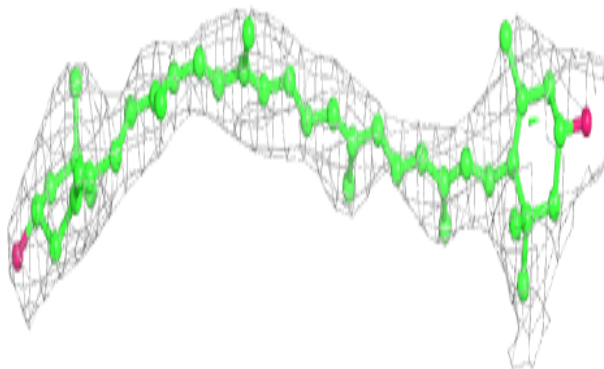


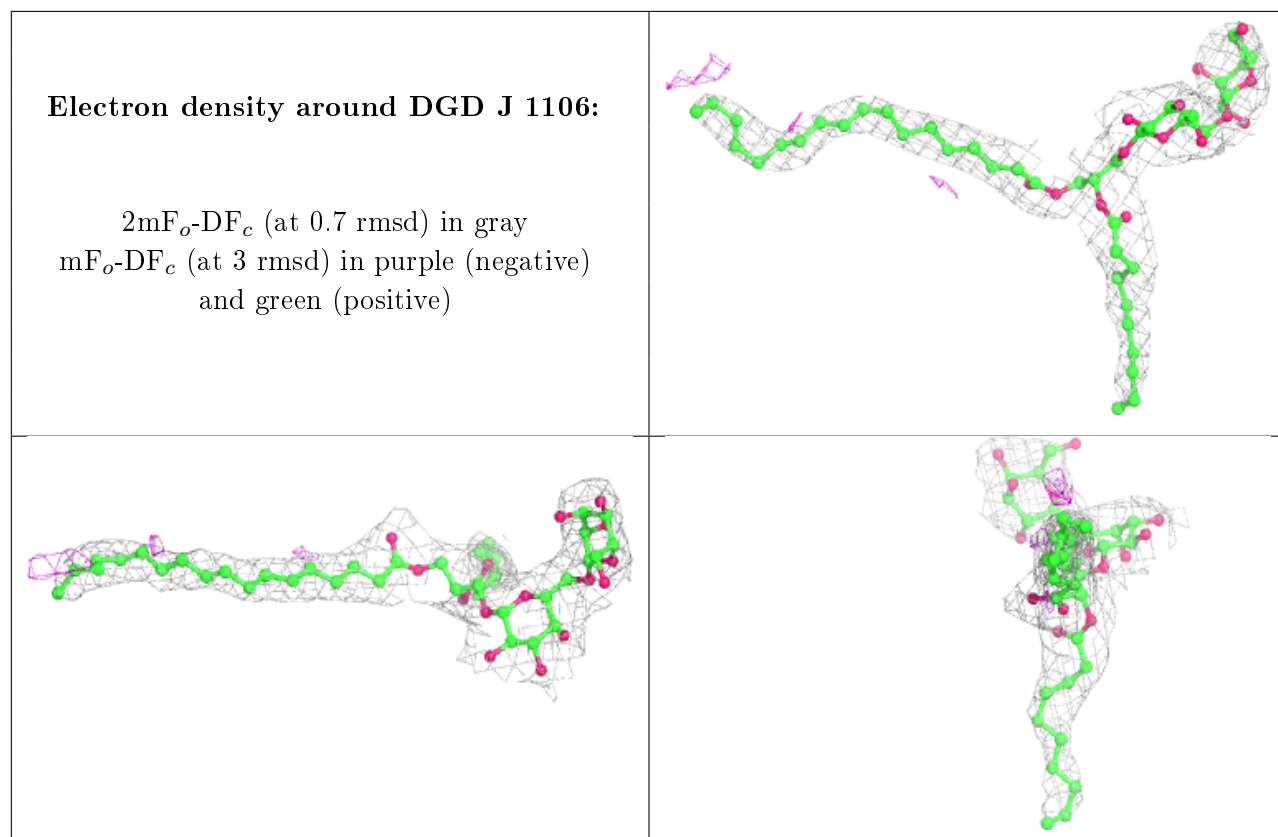
**Electron density around LUT 1 502:**

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

**Electron density around LUT J 1109:**

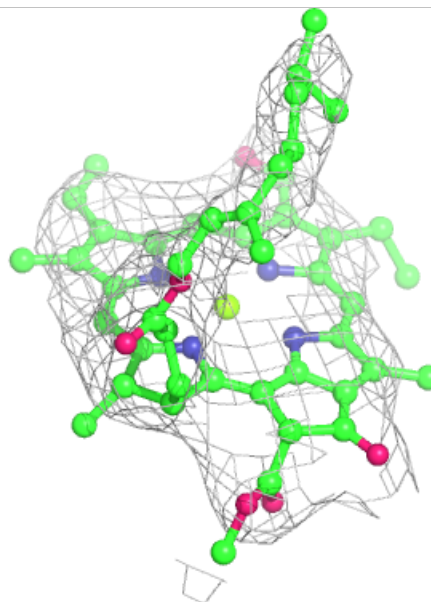
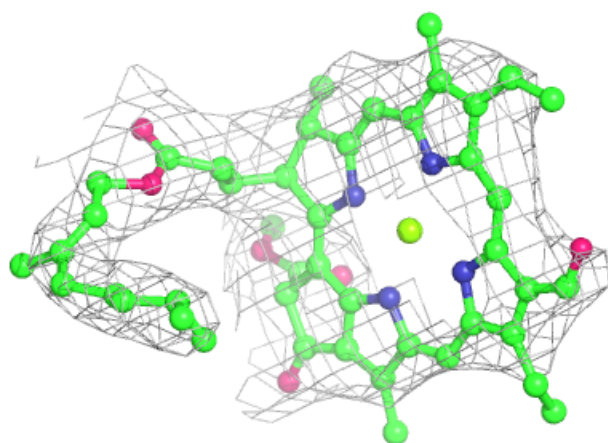
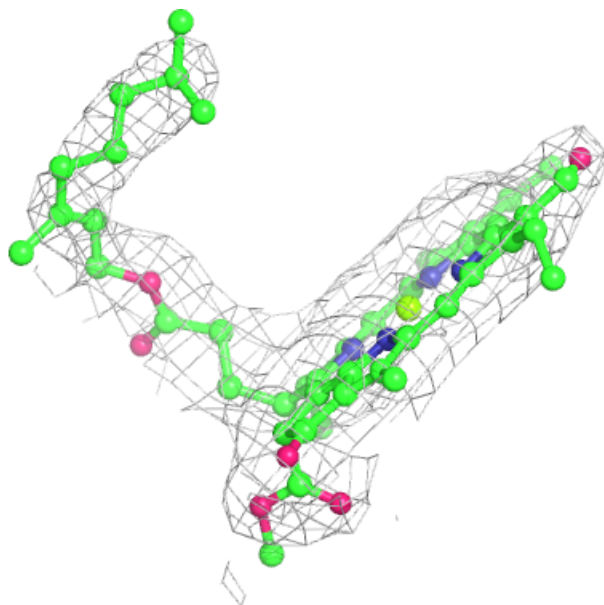
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

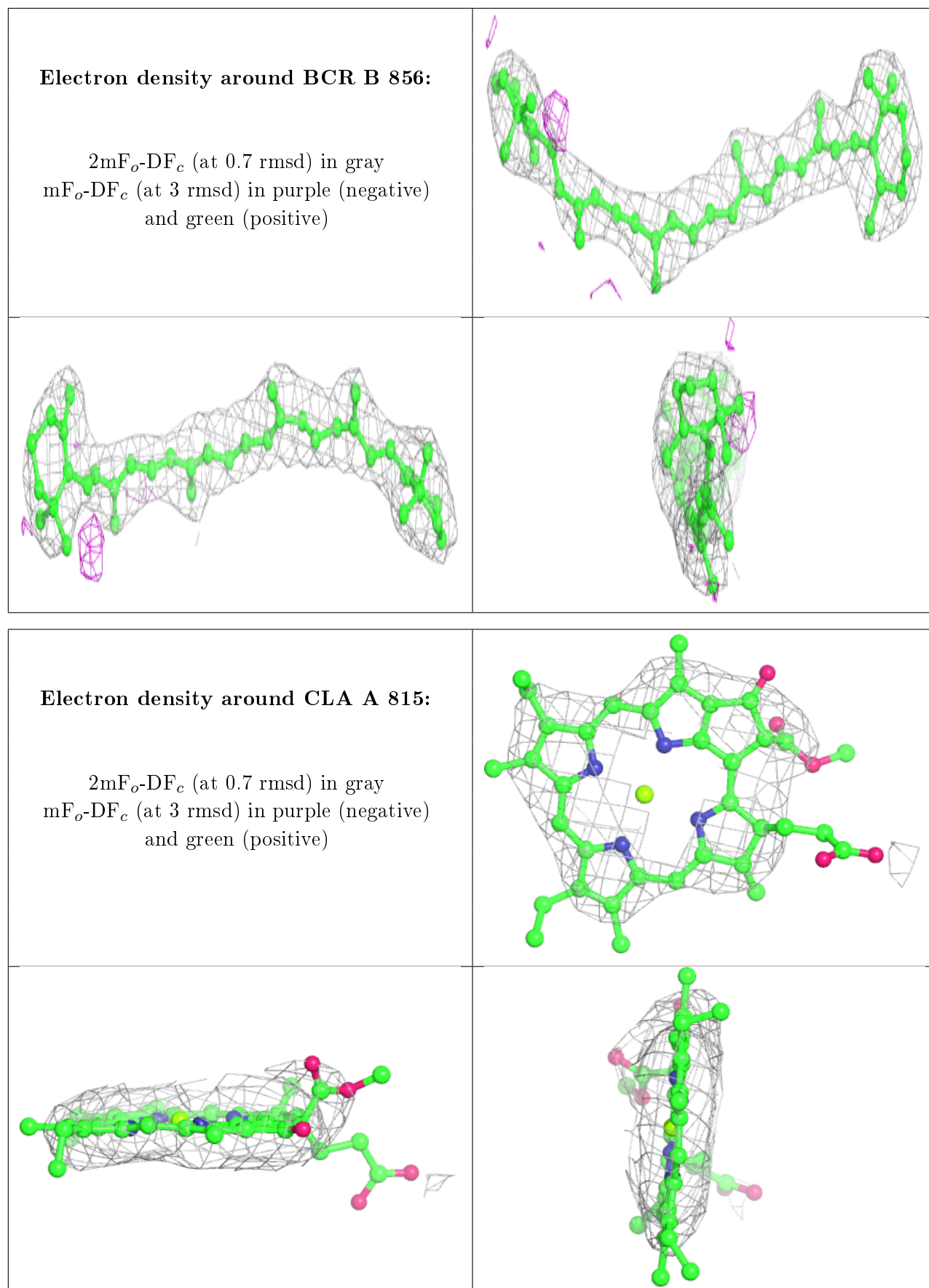




**Electron density around CHL 1 521:**

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

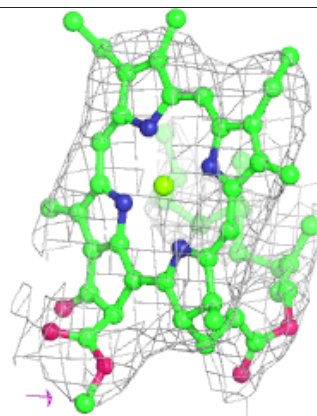
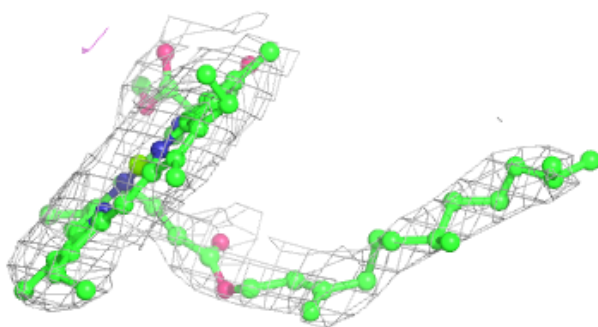
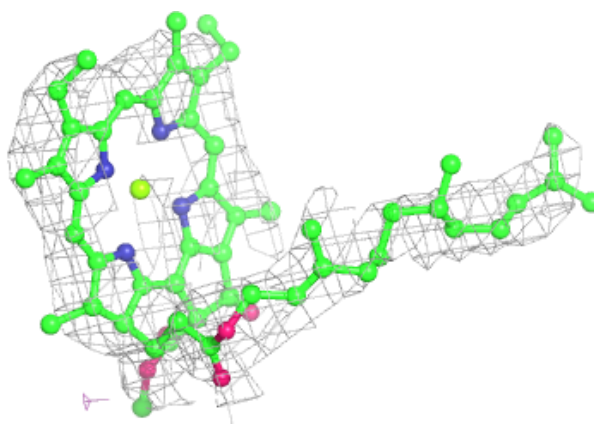




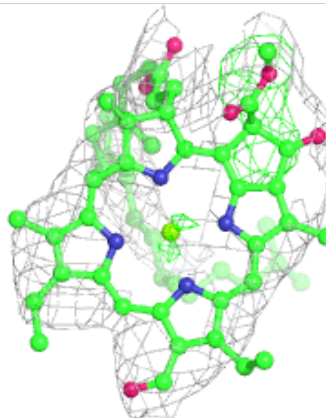
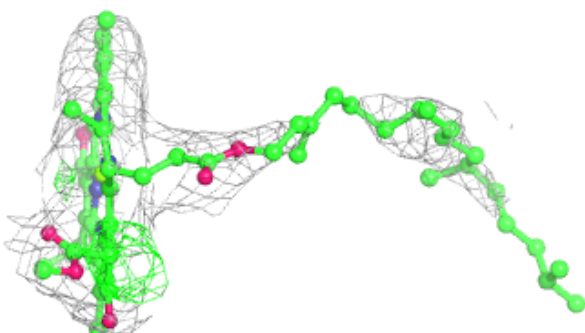
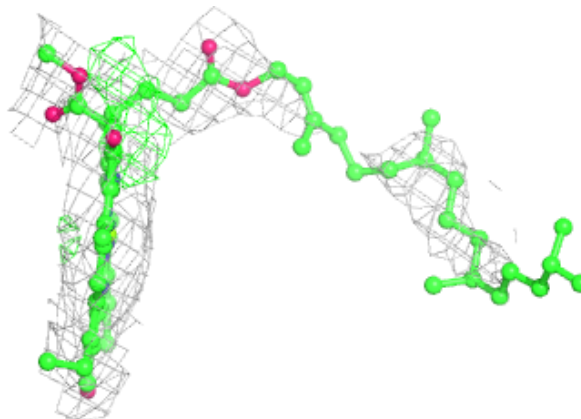


**Electron density around CLA 4 310:**

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

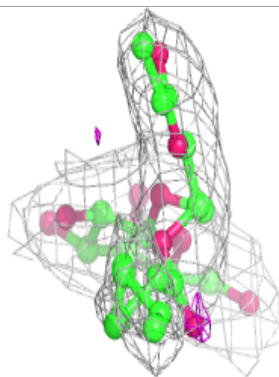
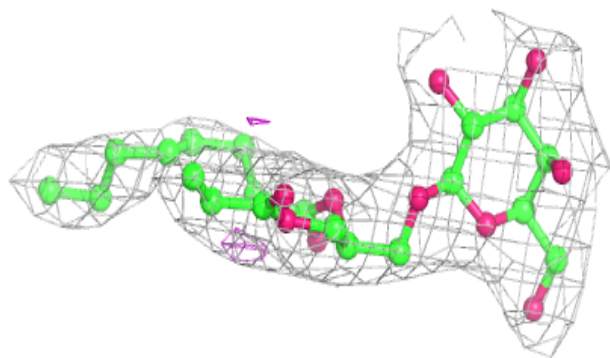
**Electron density around CHL 2 526:**

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

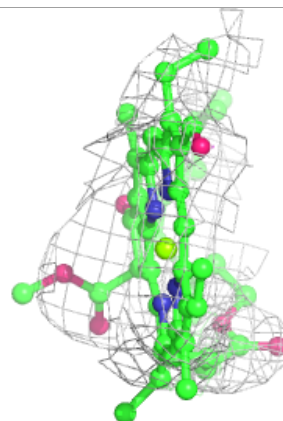
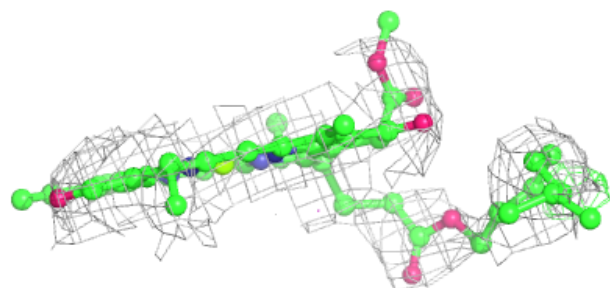
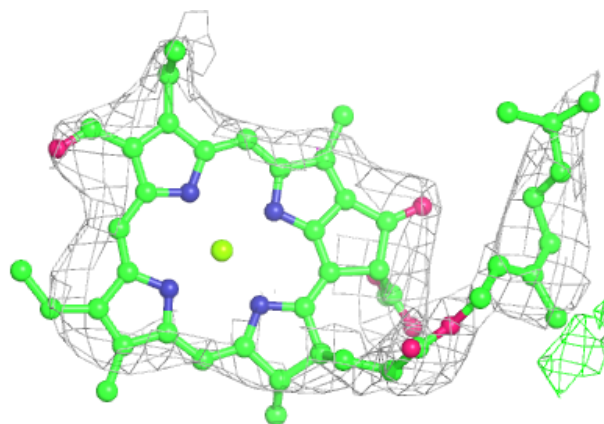


**Electron density around LMG J 1103:**

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

**Electron density around CHL 2 516:**

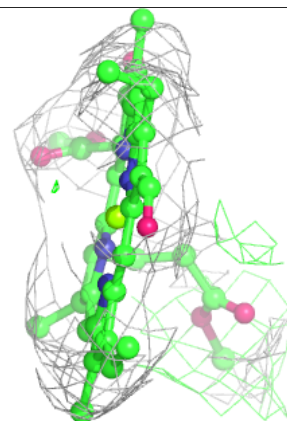
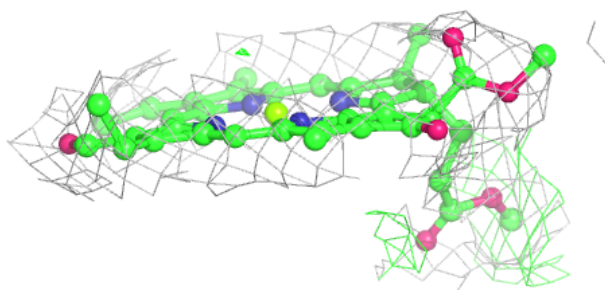
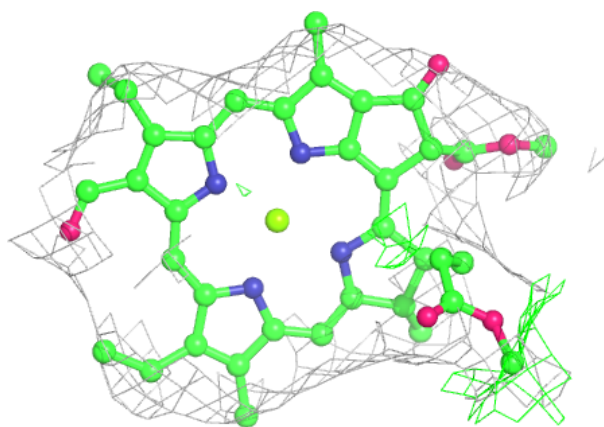
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





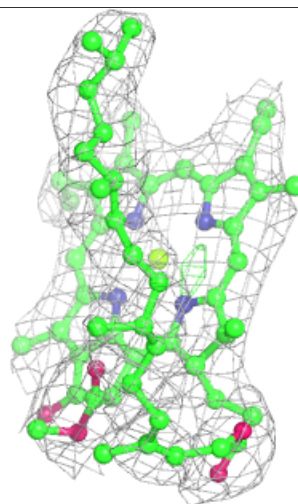
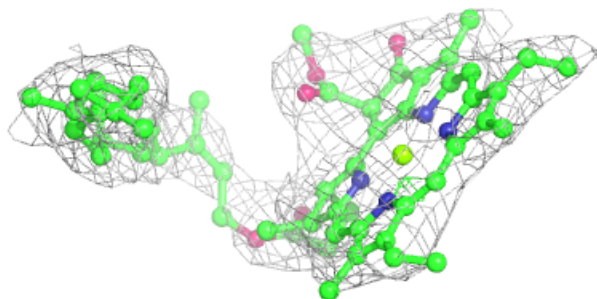
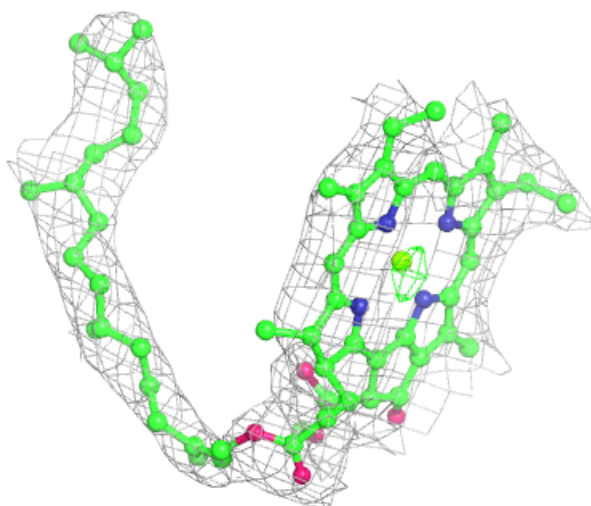
**Electron density around CHL 1 512:**

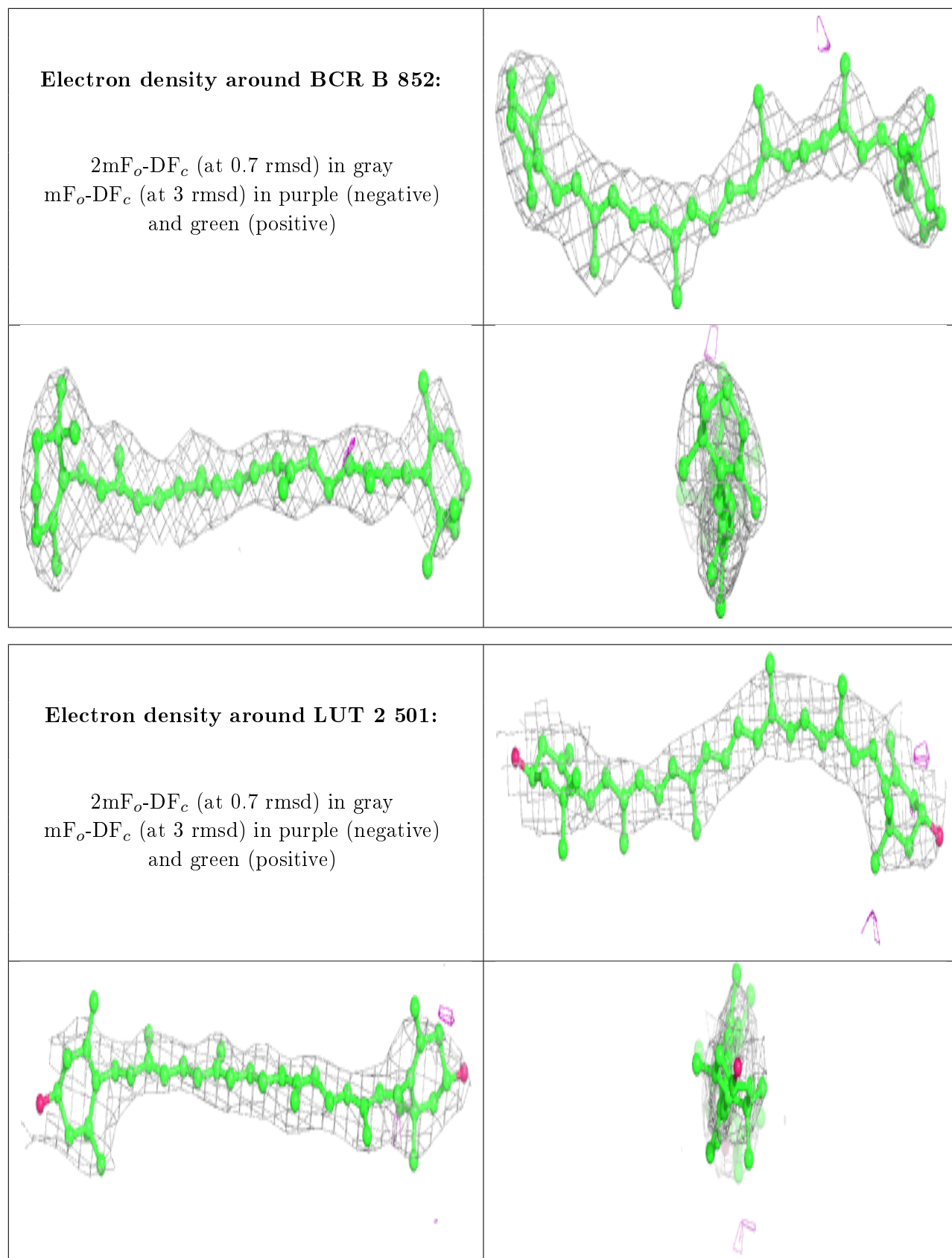
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA B 811:**

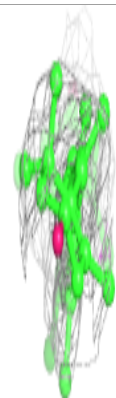
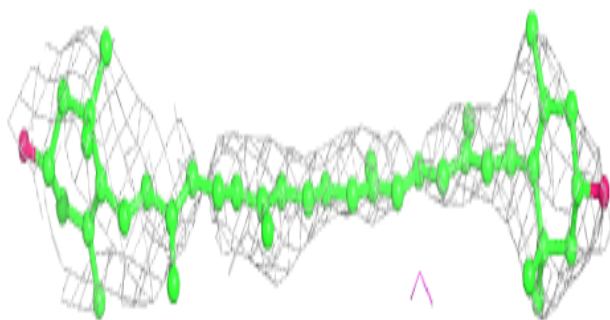
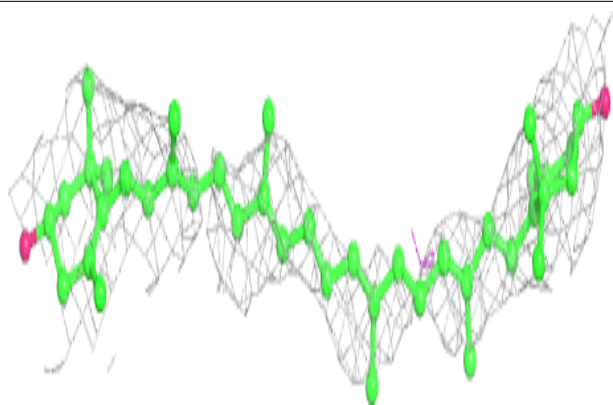
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



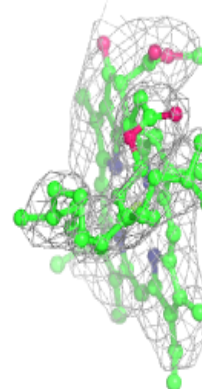
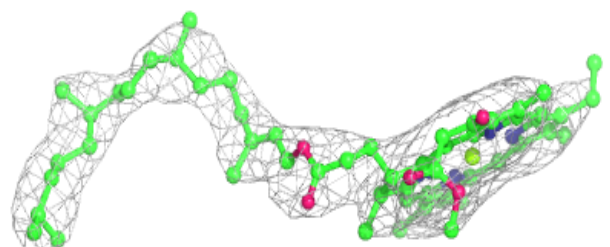
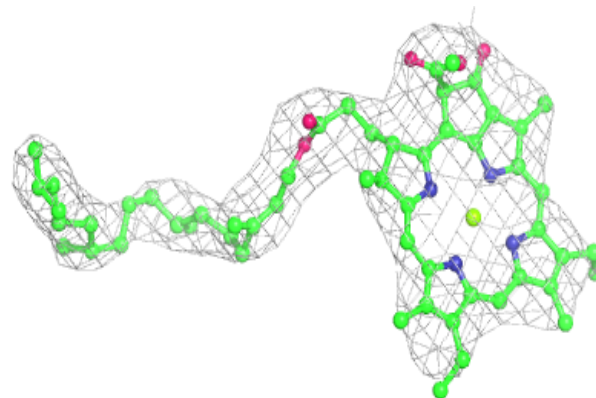


**Electron density around LUT 1 501:**

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

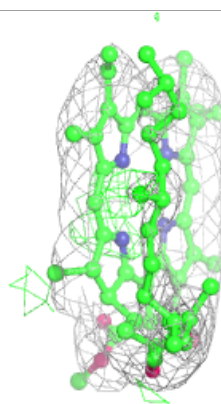
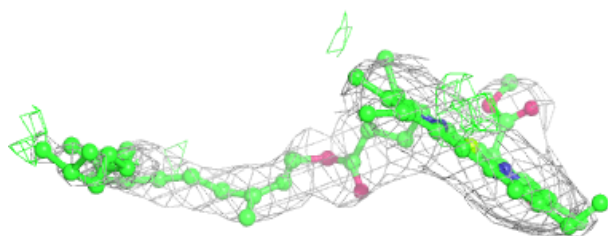
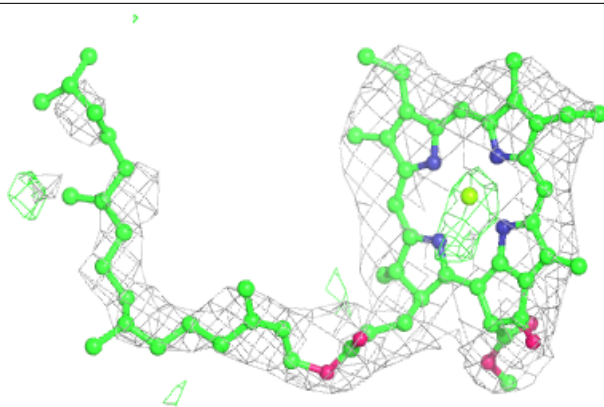
**Electron density around CLA B 814:**

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

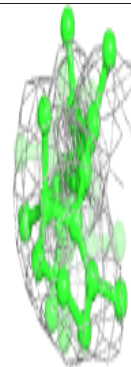
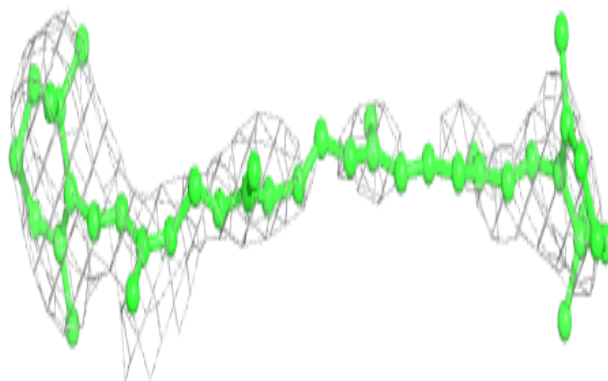
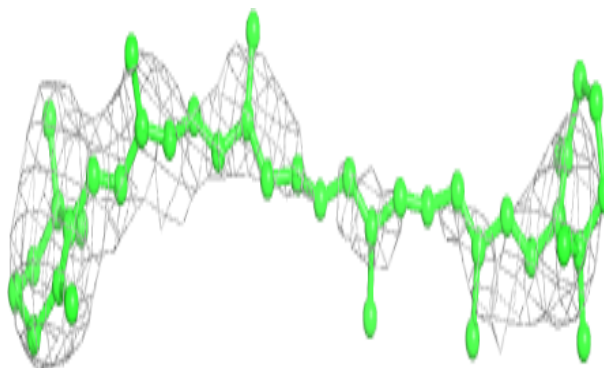


**Electron density around CLA 4 318:**

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

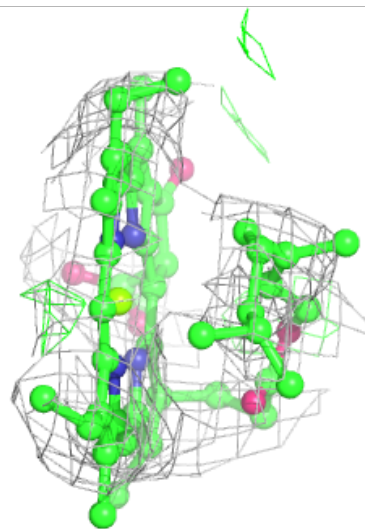
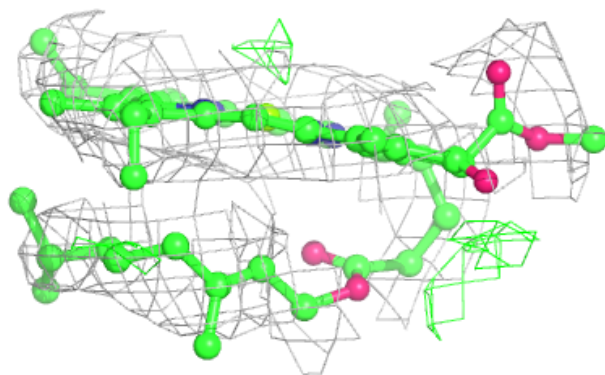
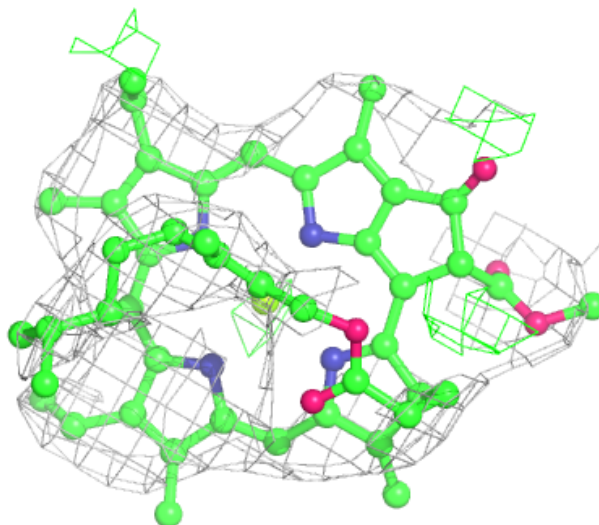
**Electron density around BCR A 848:**

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

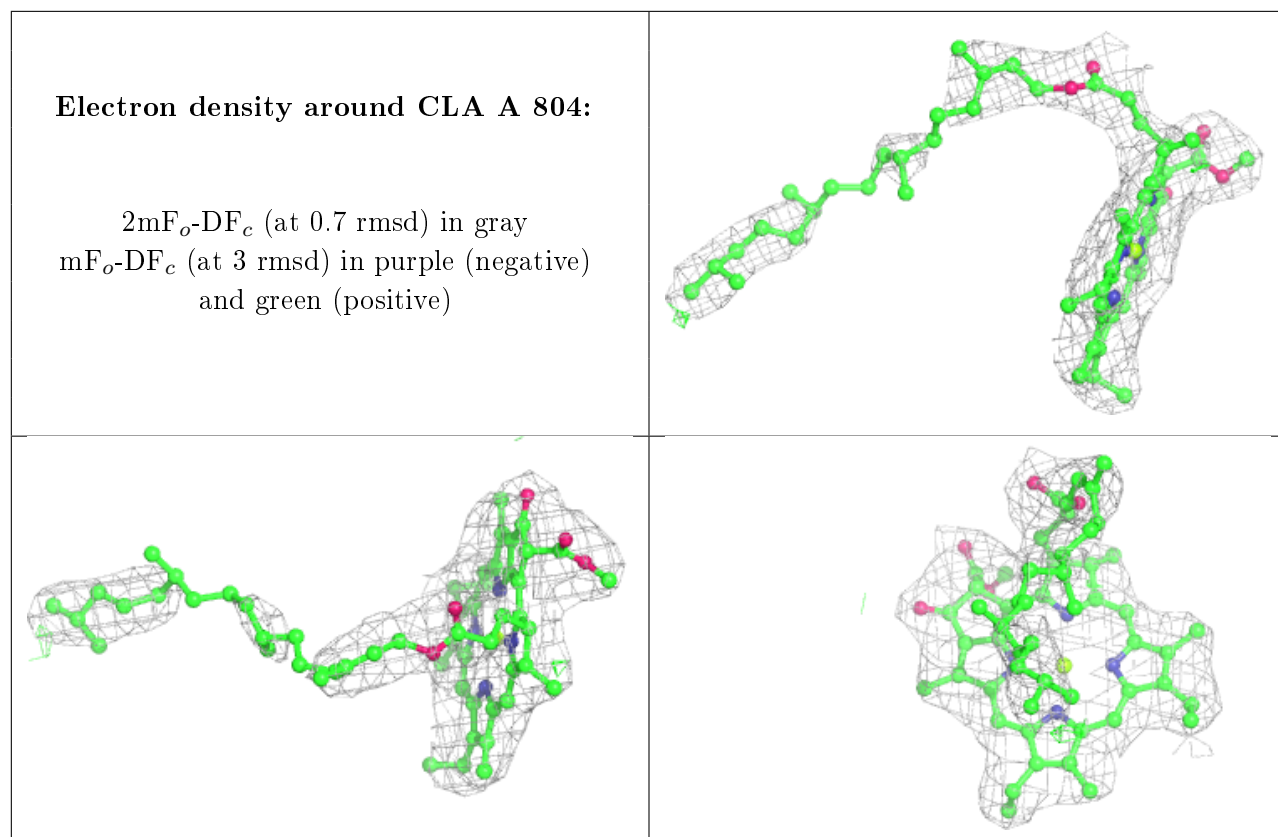


**Electron density around CLA 1 506:**

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

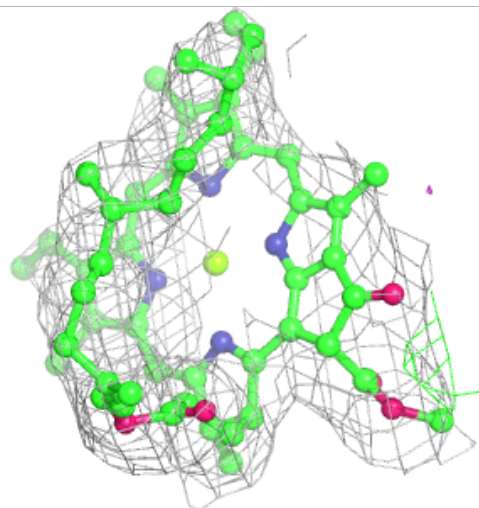
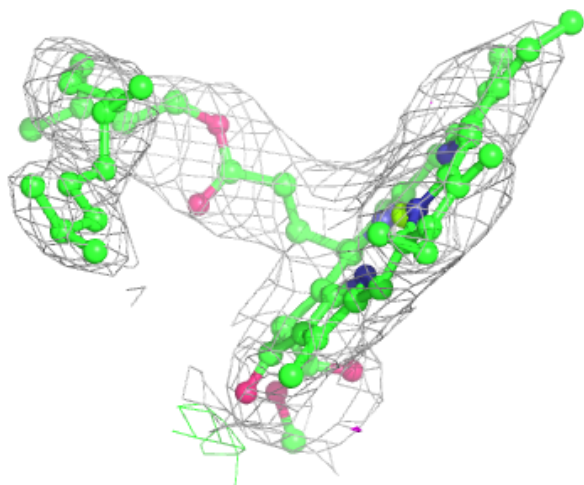
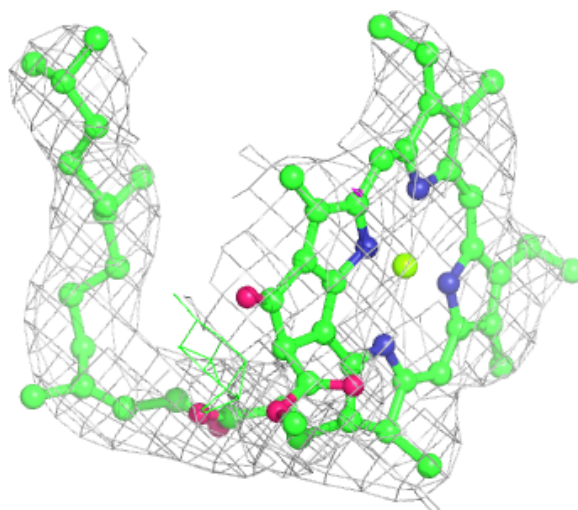






**Electron density around CLA B 833:**

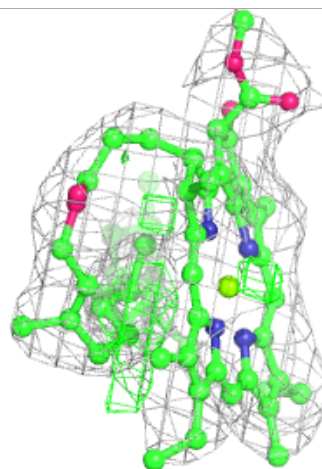
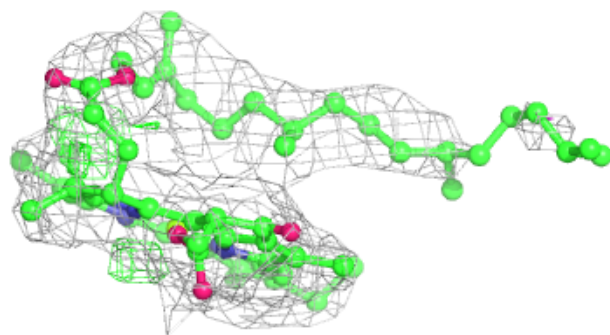
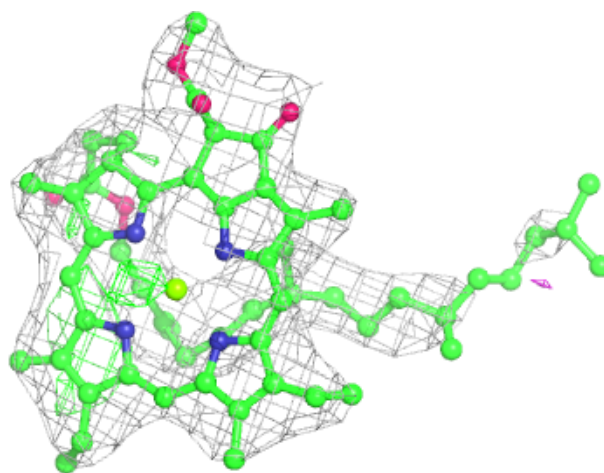
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





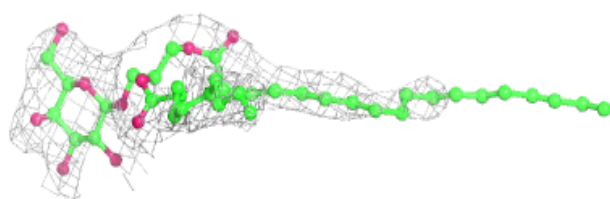
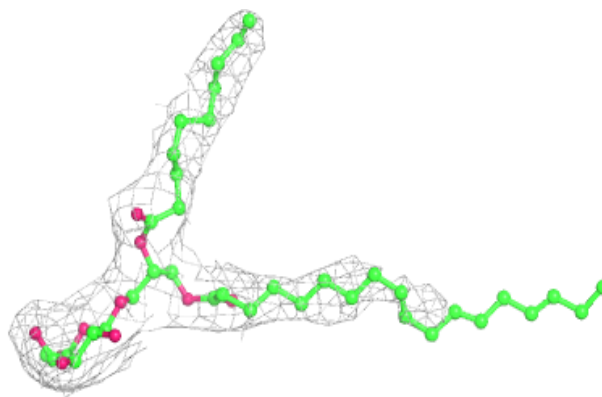
**Electron density around CLA B 827:**

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

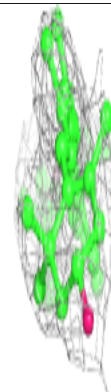
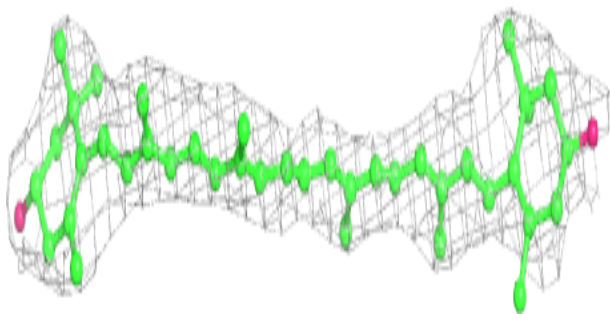
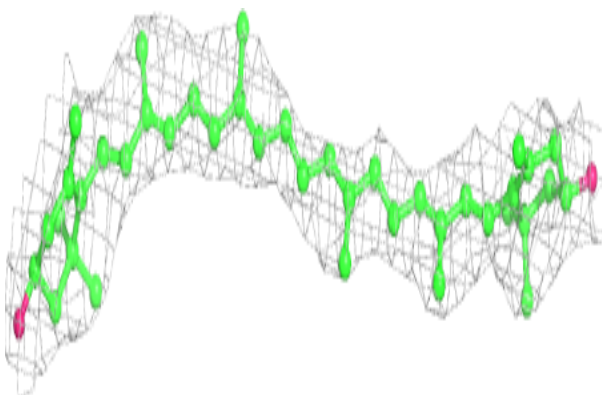


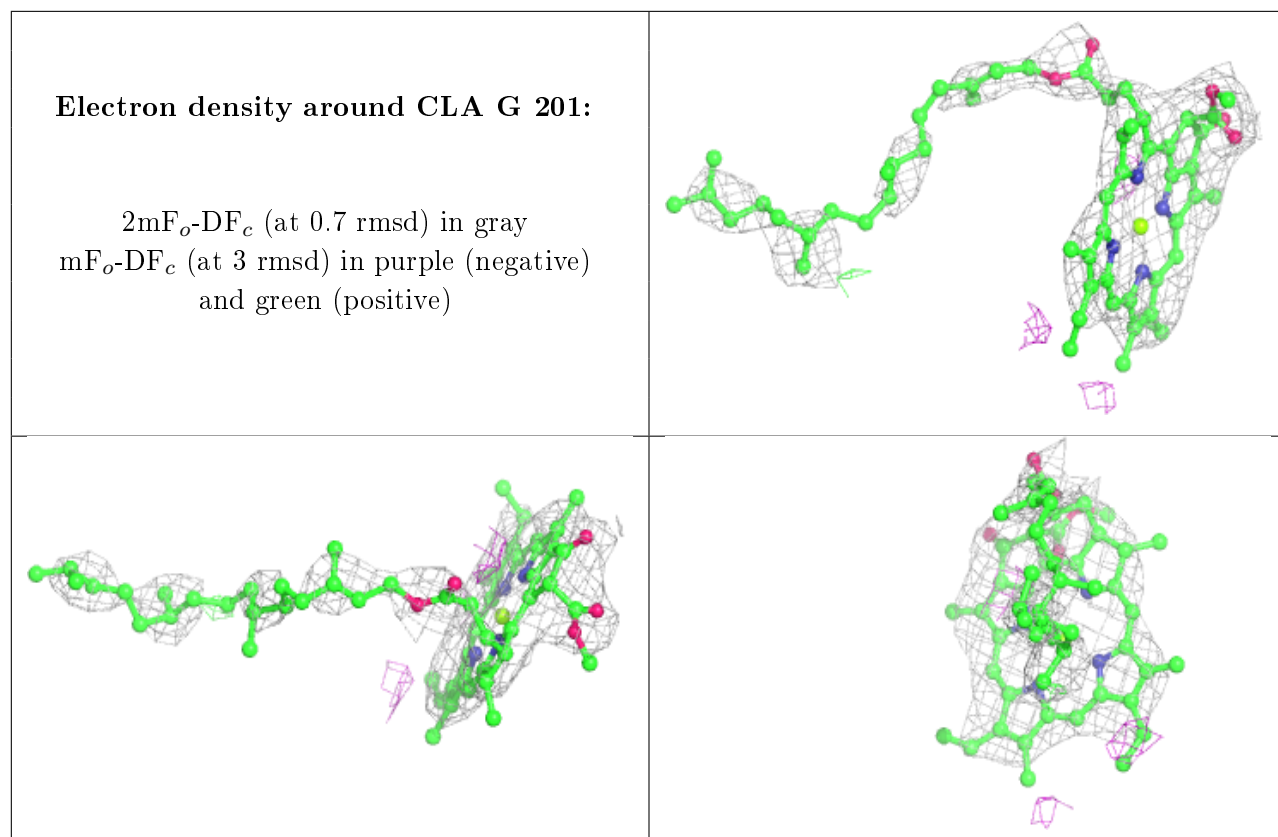
**Electron density around LMG F 304:**

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

**Electron density around LUT 4 302:**

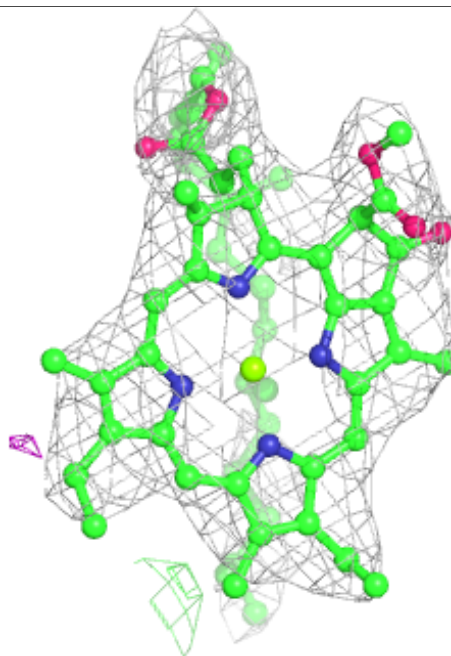
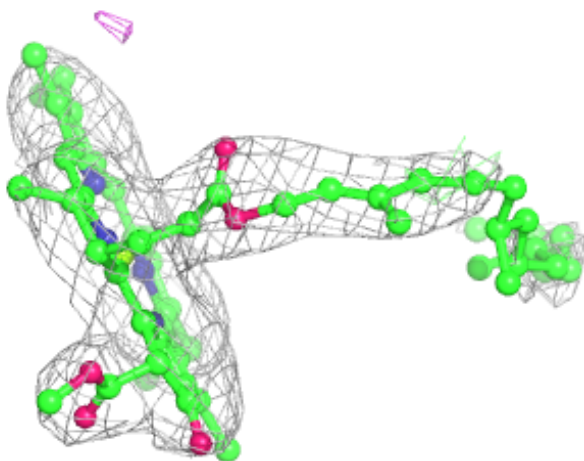
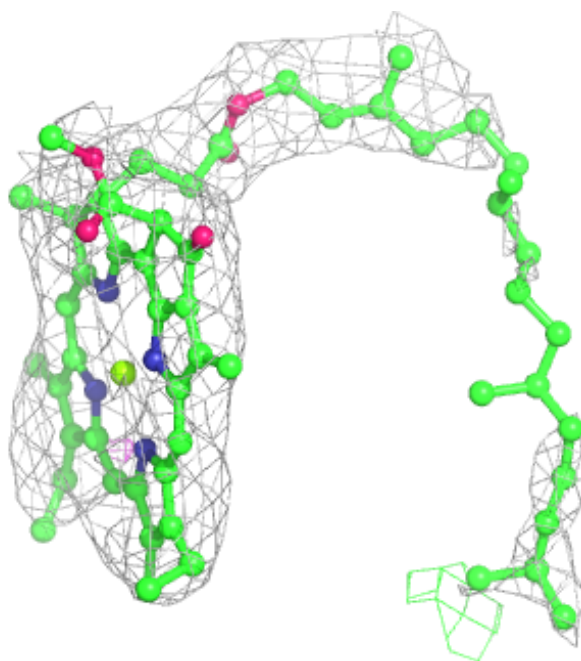
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

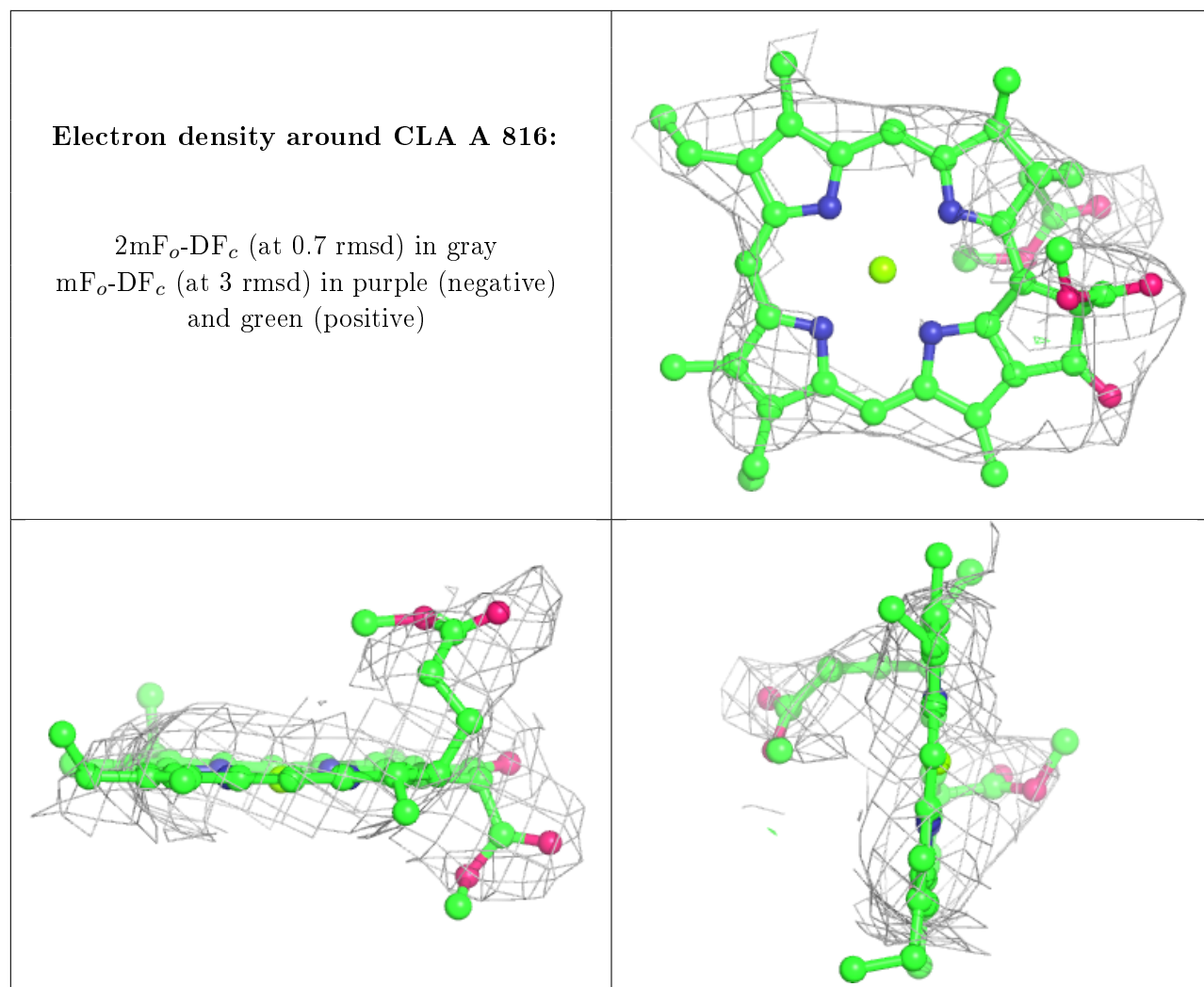


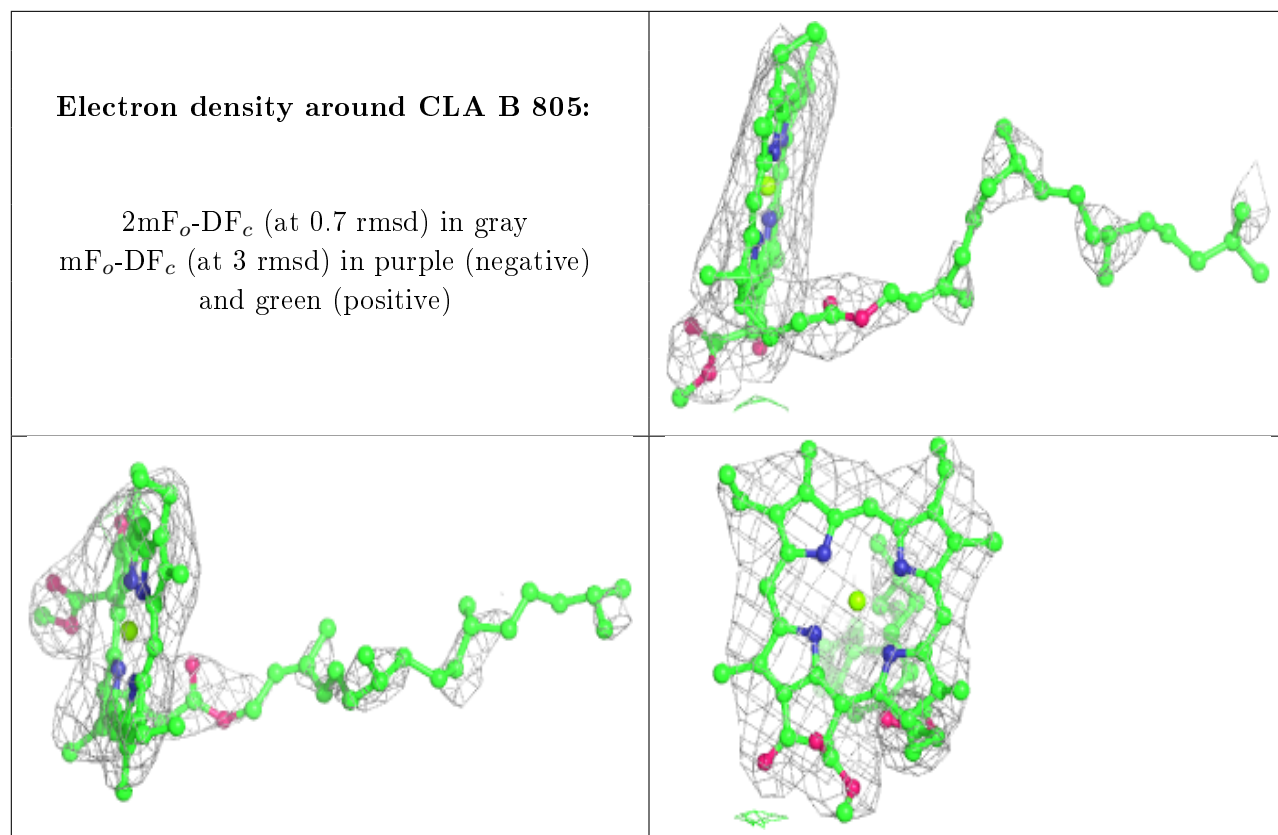


**Electron density around CLA A 838:**

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

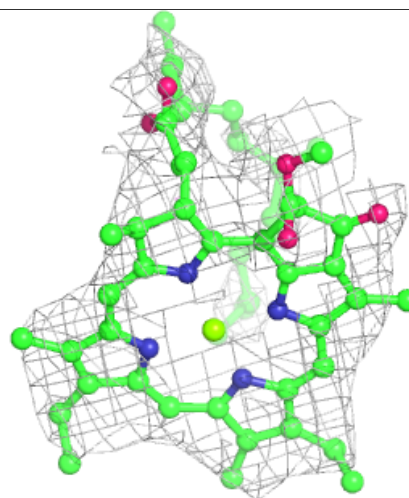
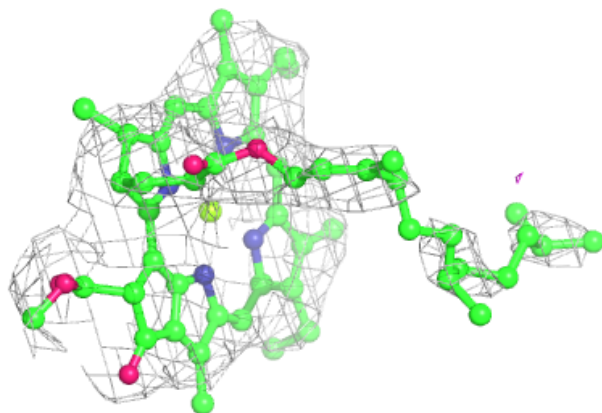
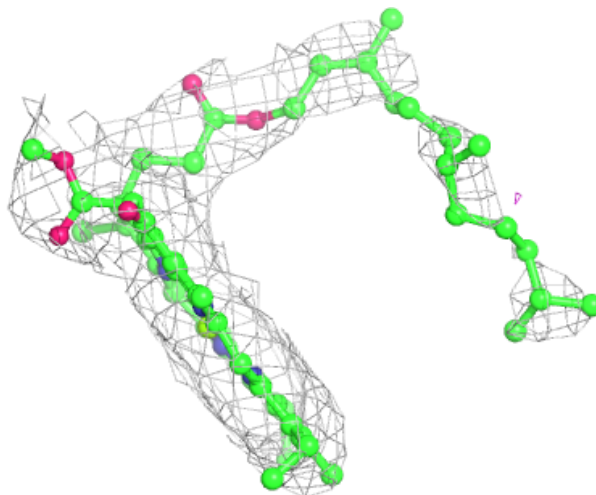






**Electron density around CLA B 812:**

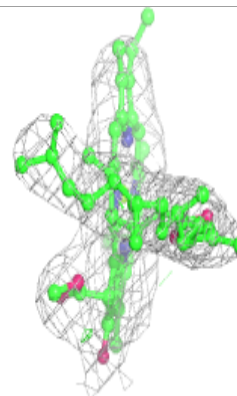
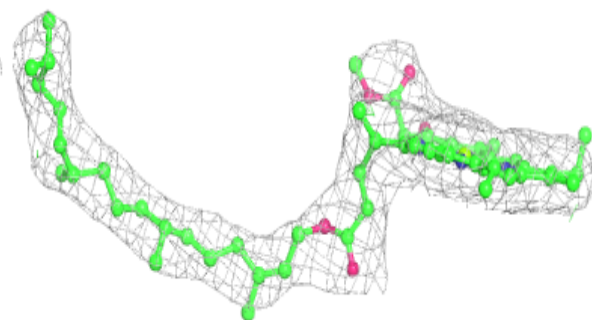
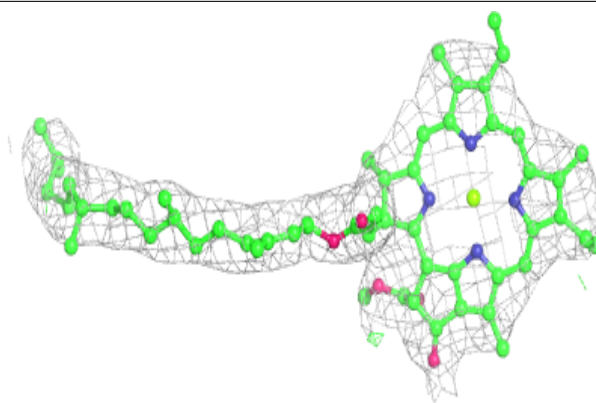
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CLA B 840:**

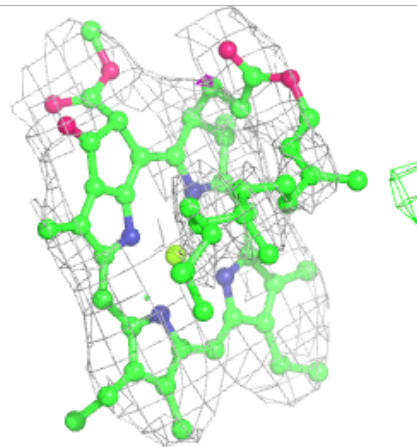
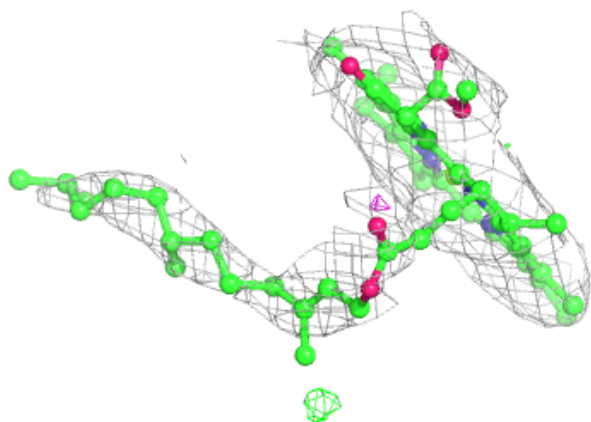
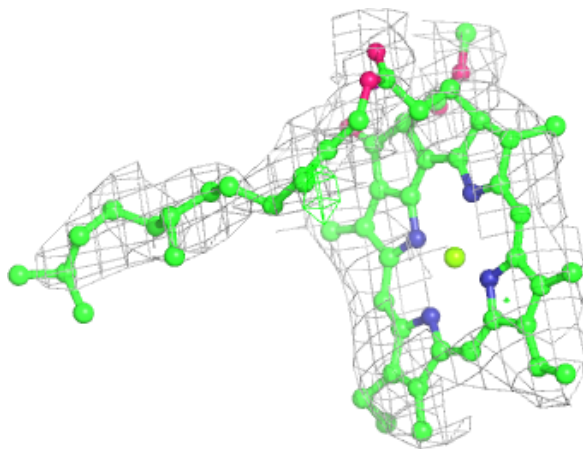
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





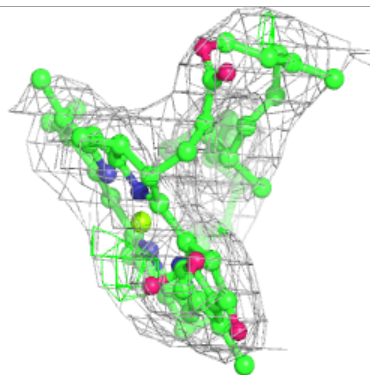
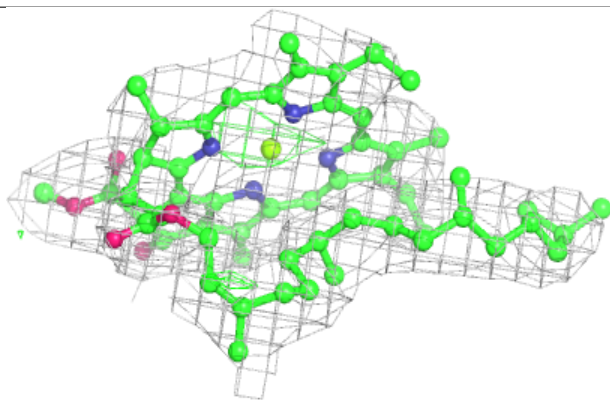
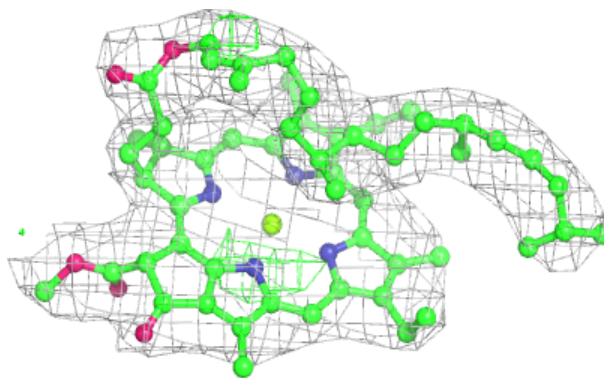
**Electron density around CLA 2 510:**

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

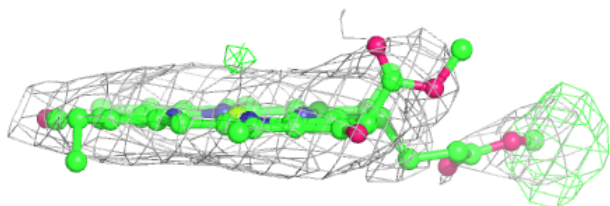
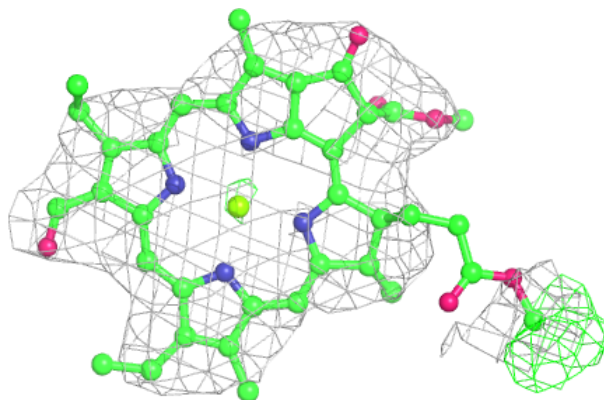


**Electron density around CLA B 818:**

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

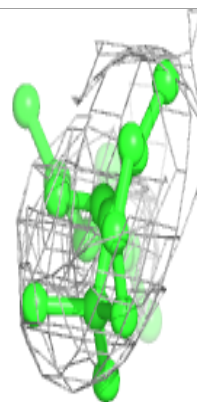
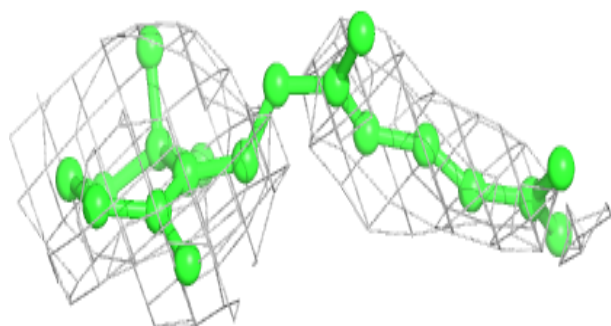
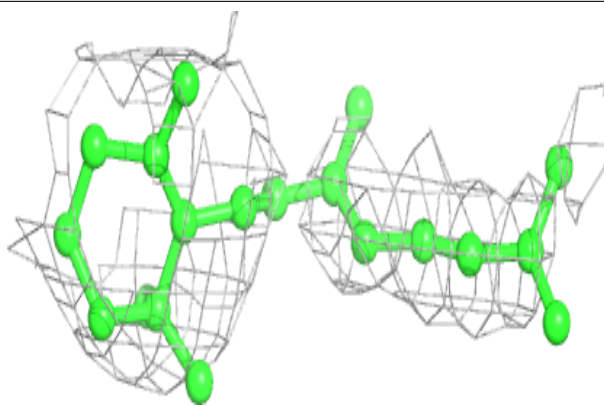
**Electron density around CHL 4 313:**

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

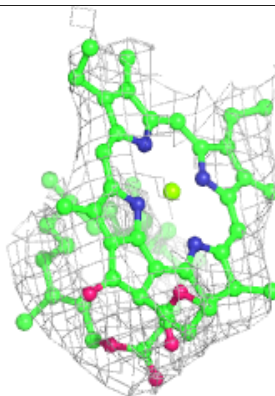
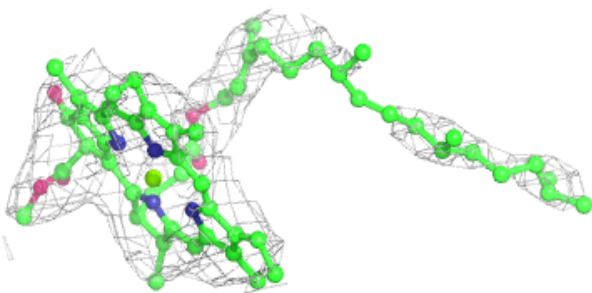
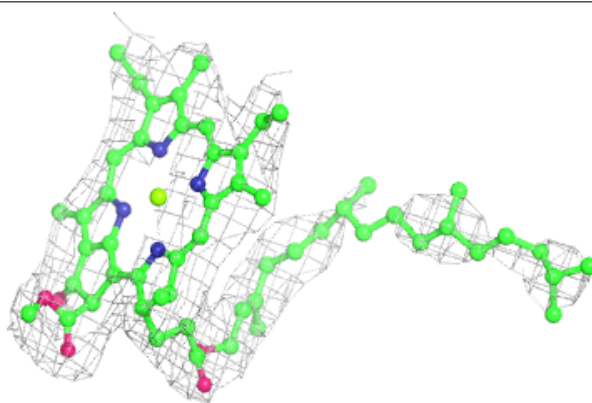


**Electron density around BCR 1 503:**

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

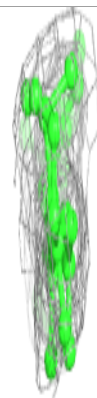
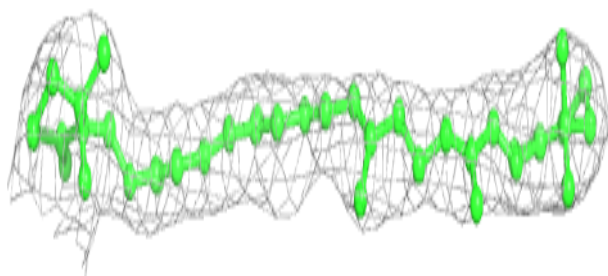
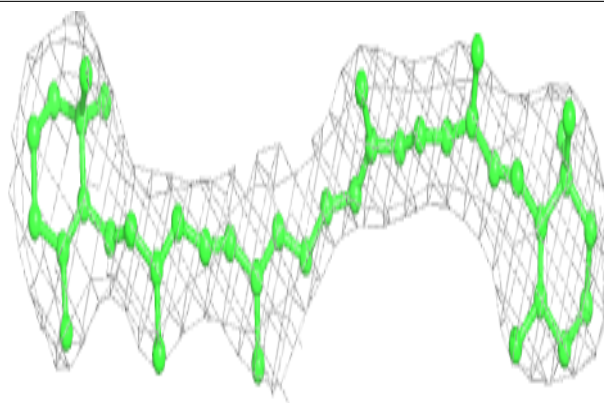
**Electron density around CLA B 815:**

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

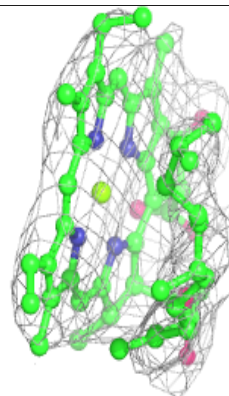
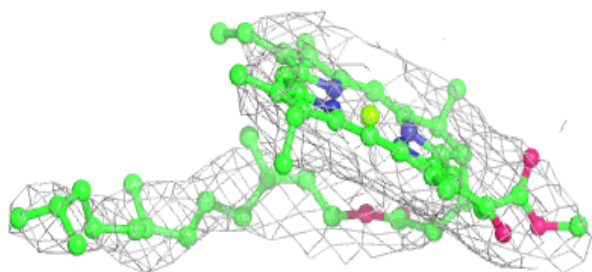
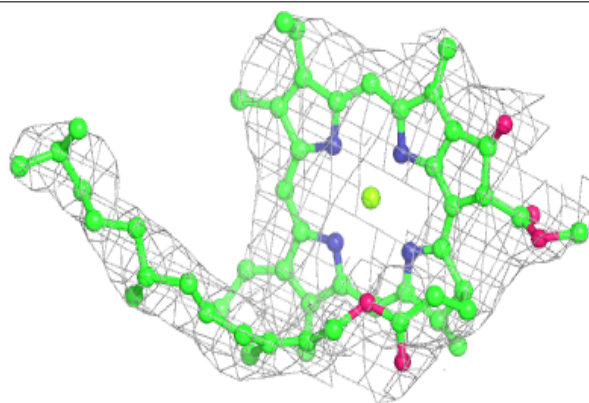


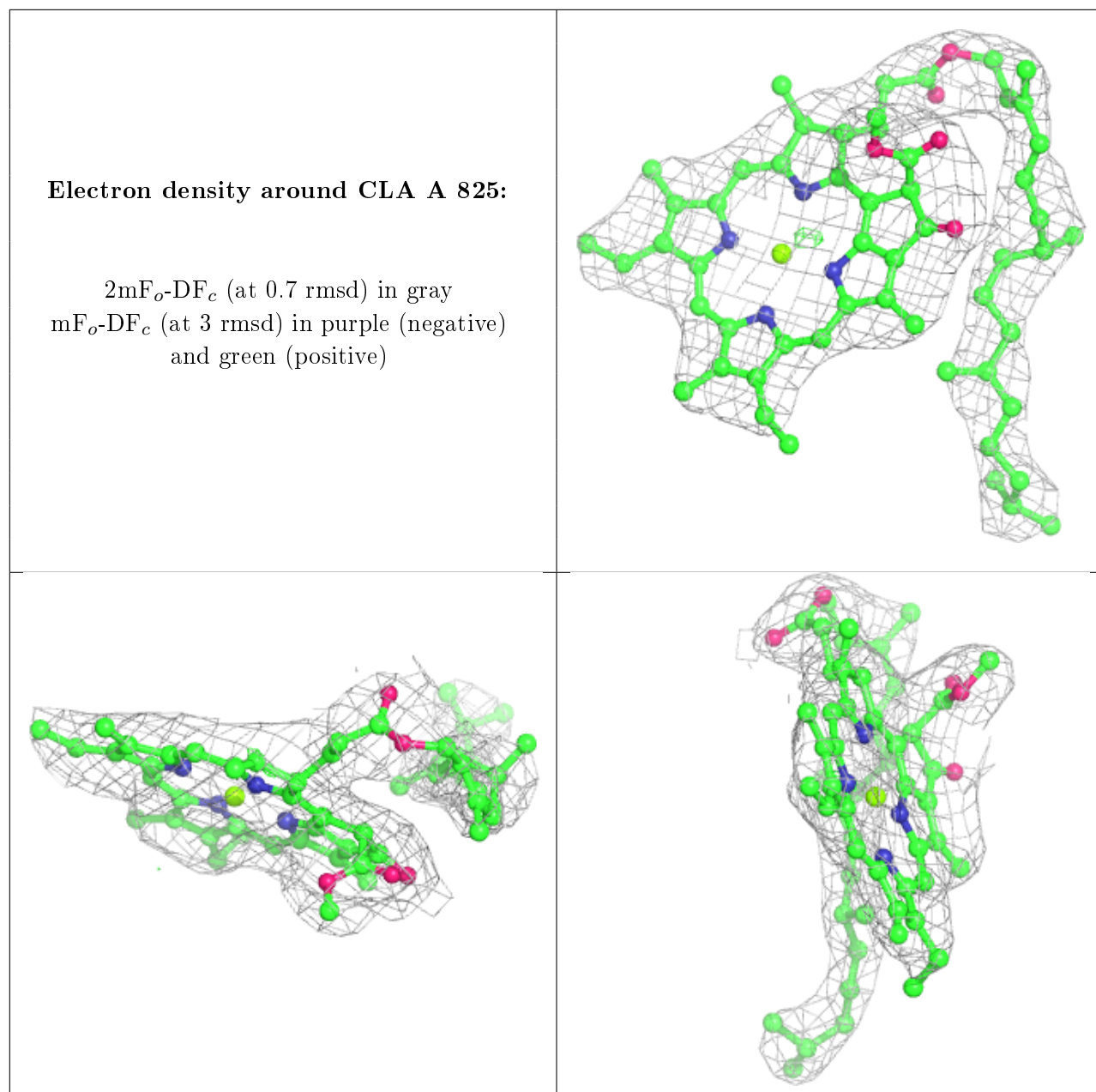
**Electron density around BCR I 102:**

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

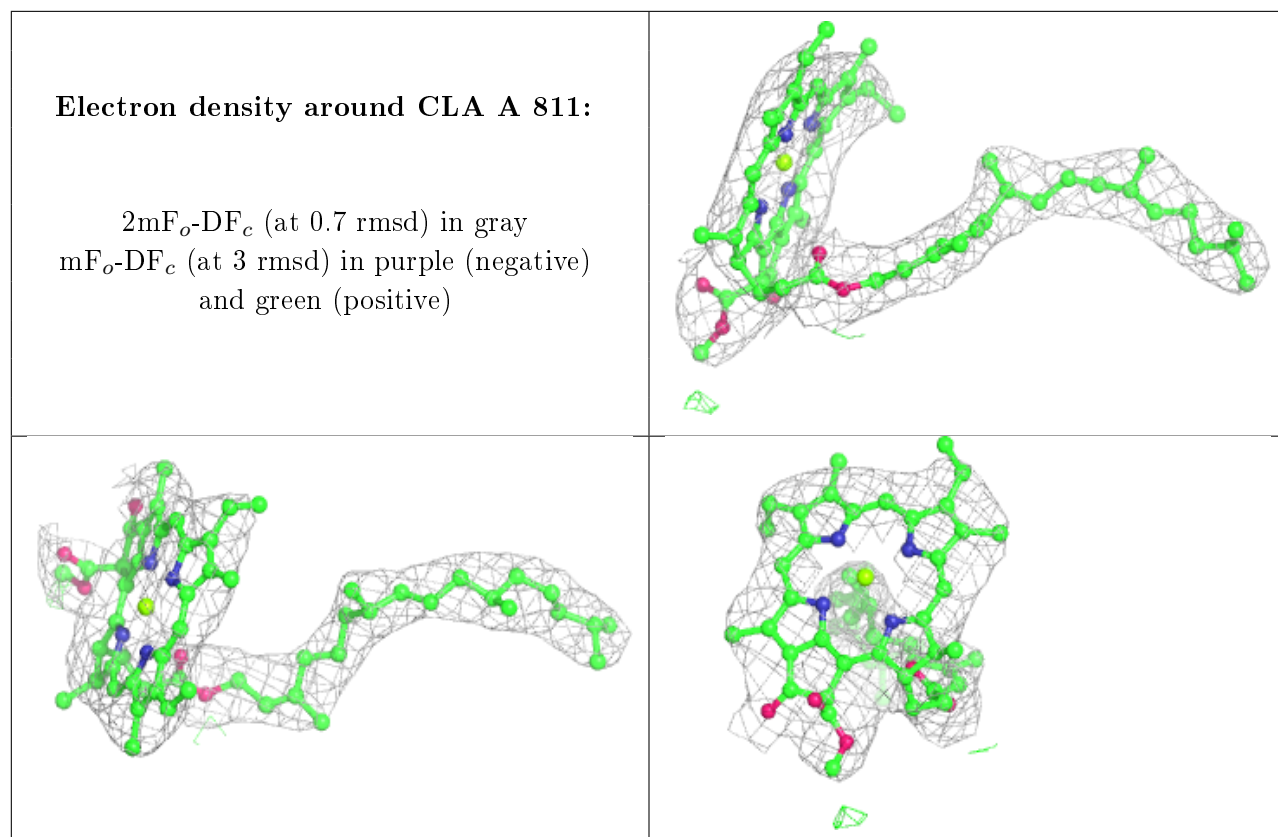
**Electron density around CLA 4 304:**

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



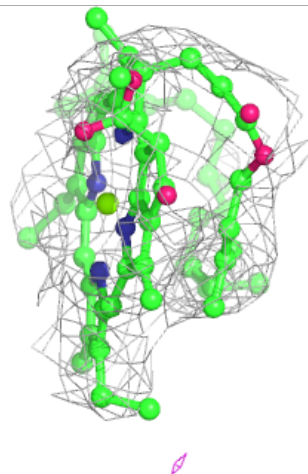
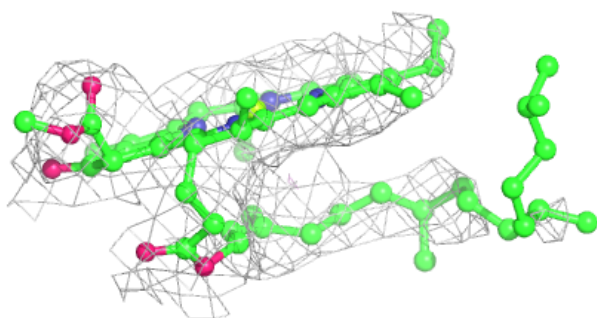
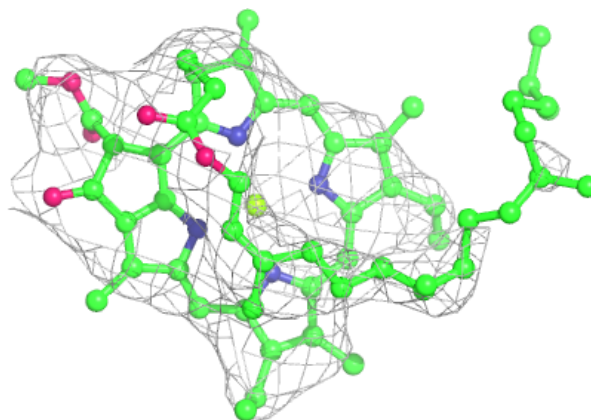






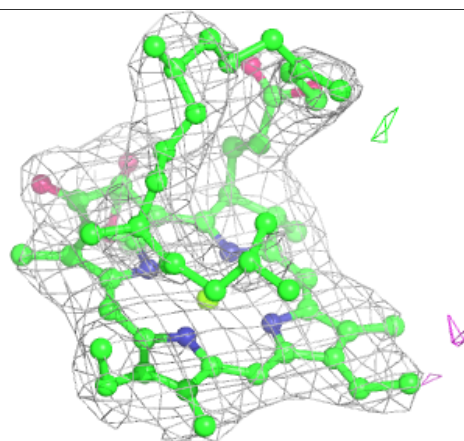
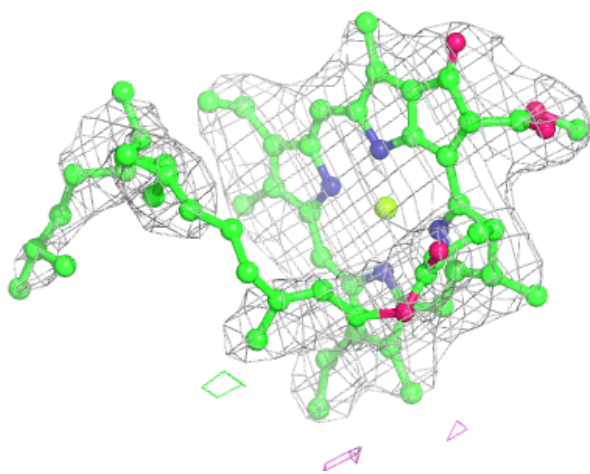
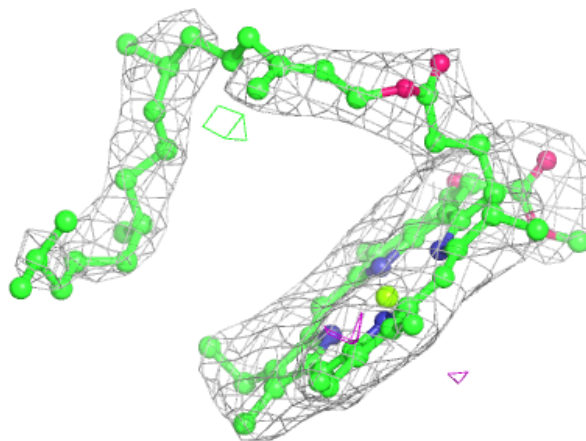
**Electron density around CLA 4 306:**

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



**Electron density around CLA B 830:**

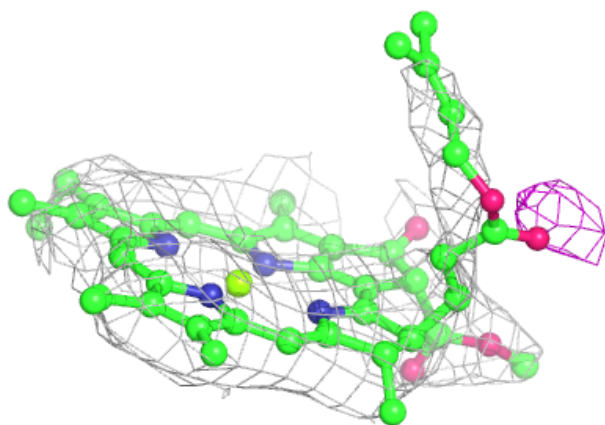
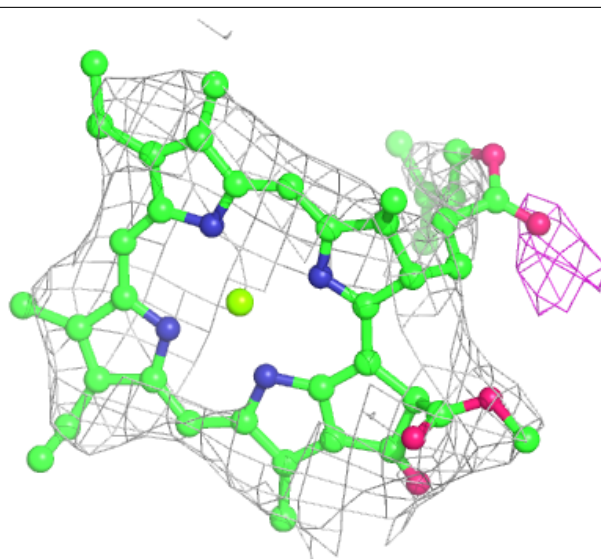
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





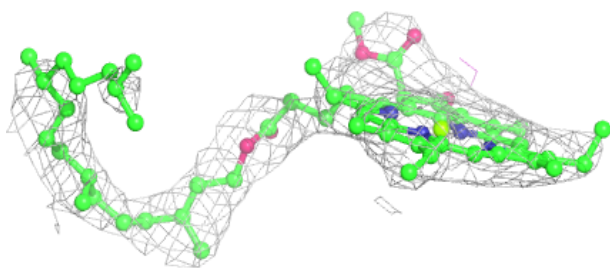
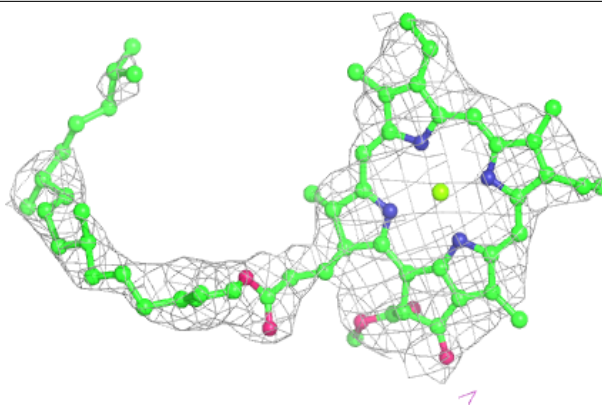
**Electron density around CLA 3 315:**

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

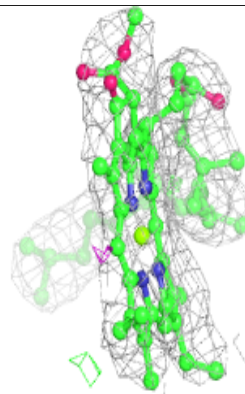
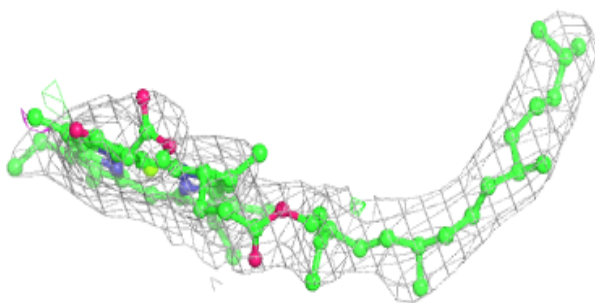
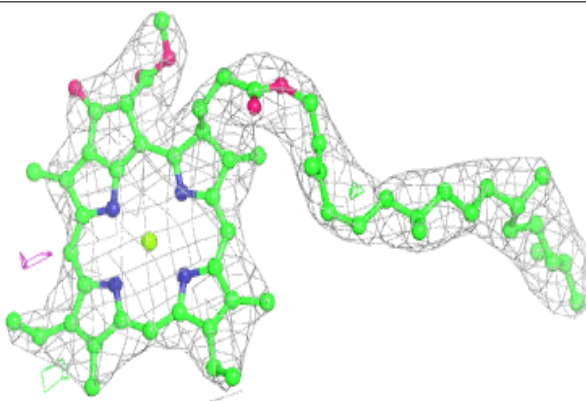


**Electron density around CLA A 827:**

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

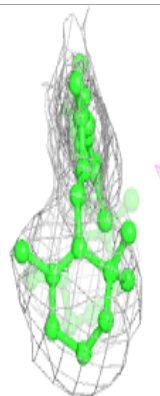
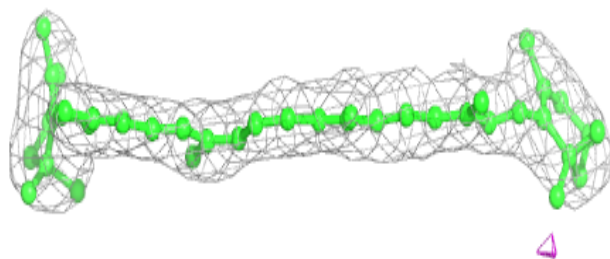
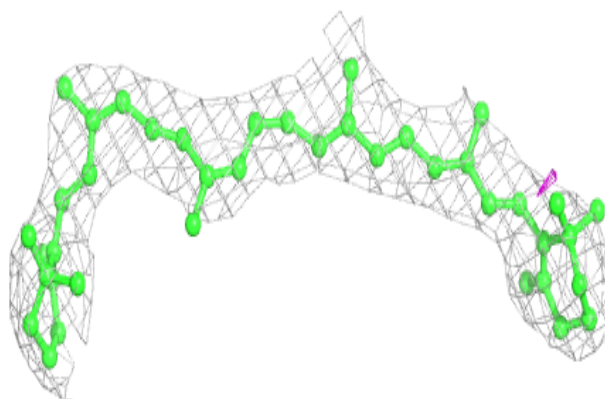
**Electron density around CLA B 804:**

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

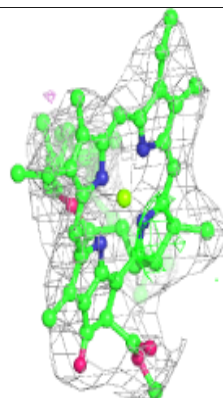
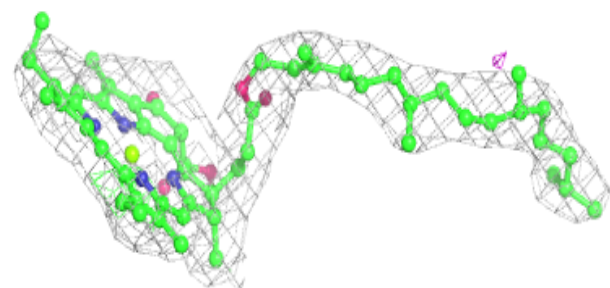
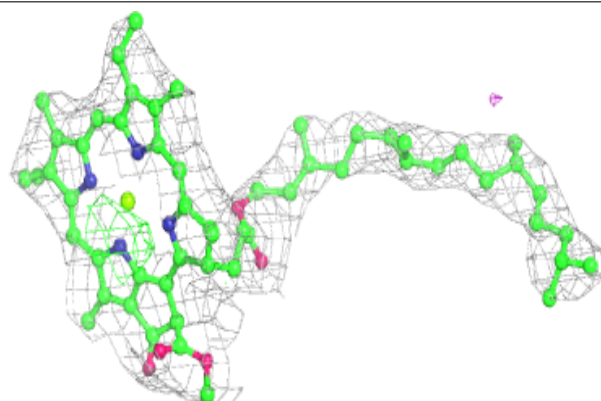


**Electron density around BCR L 302:**

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

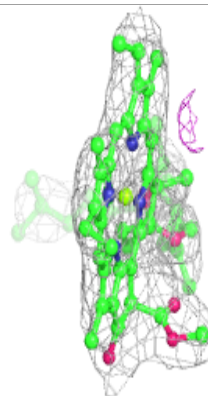
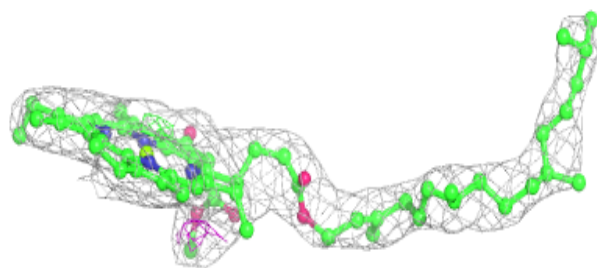
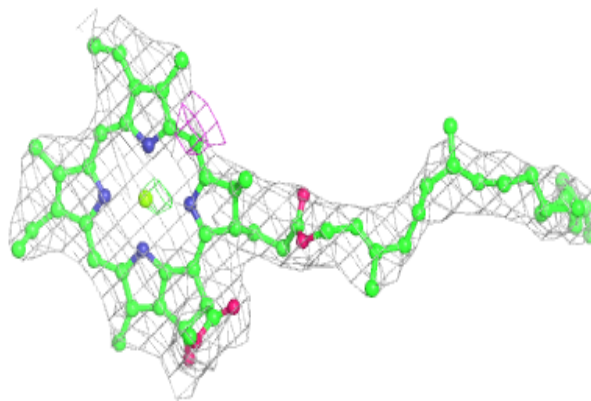
**Electron density around CLA A 821:**

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

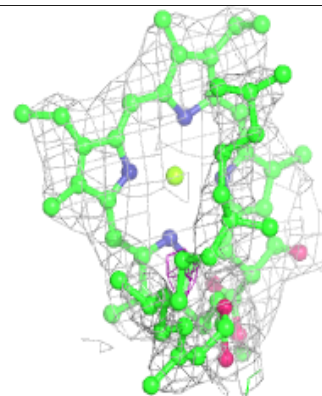
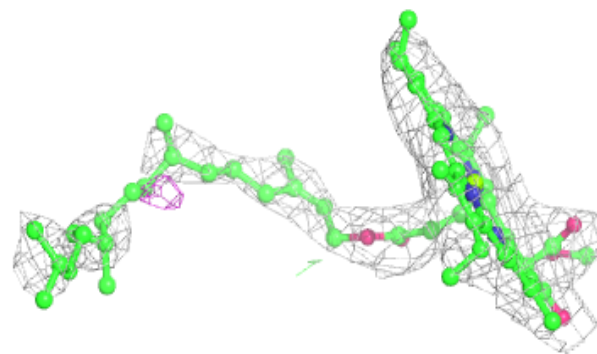
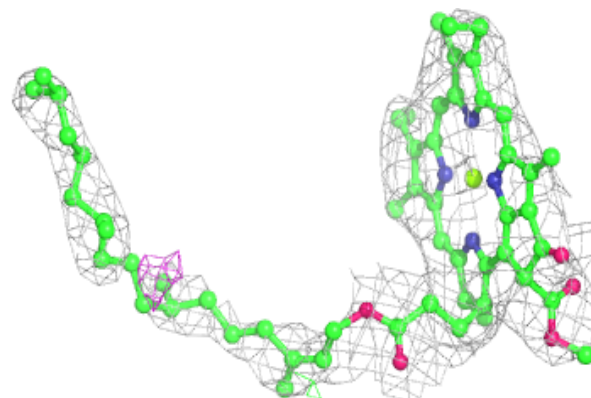


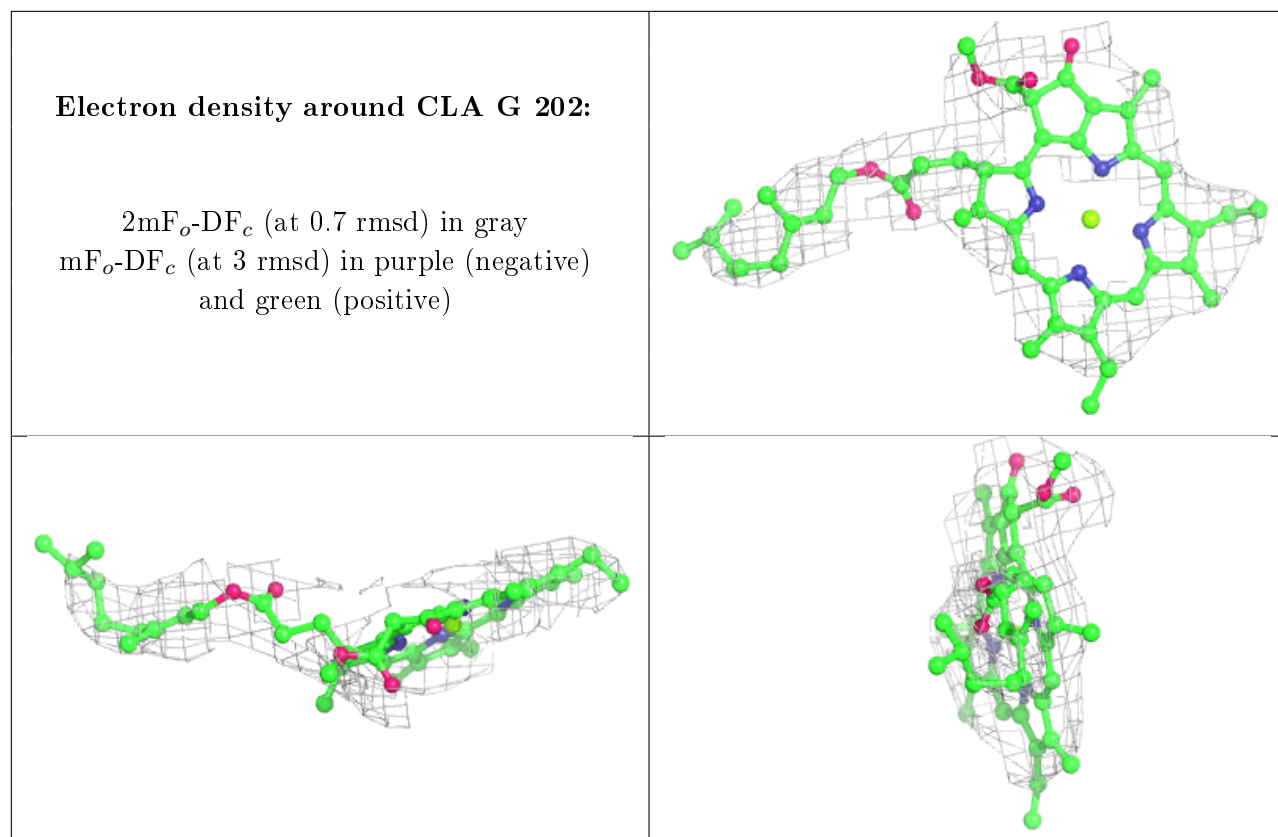
**Electron density around CLA A 805:**

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

**Electron density around CLA A 834:**

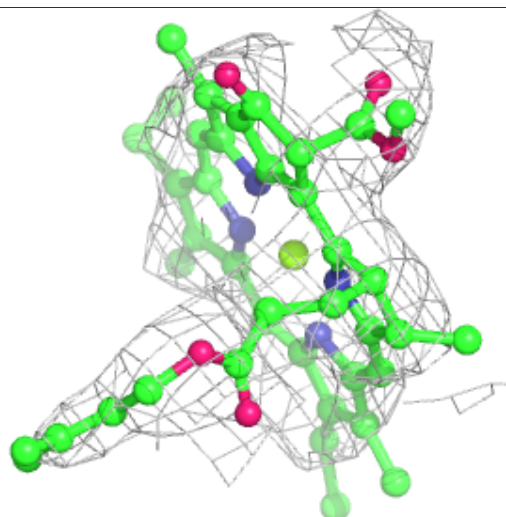
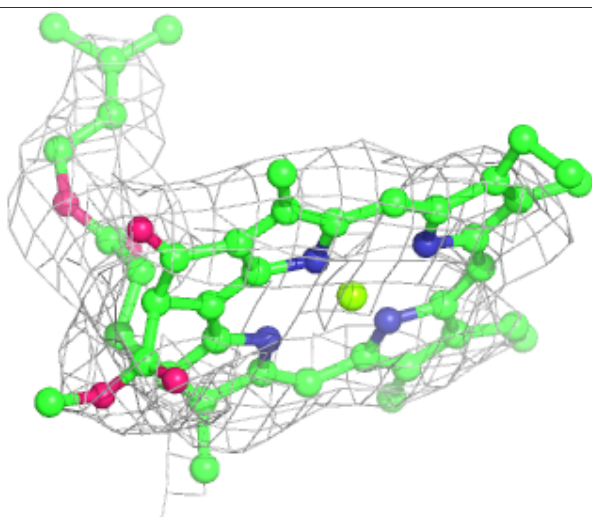
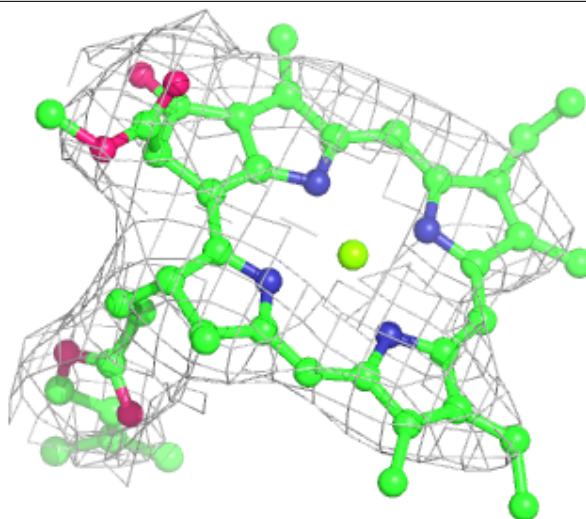
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CLA 2 509:**

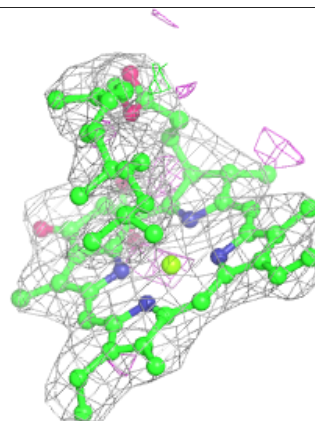
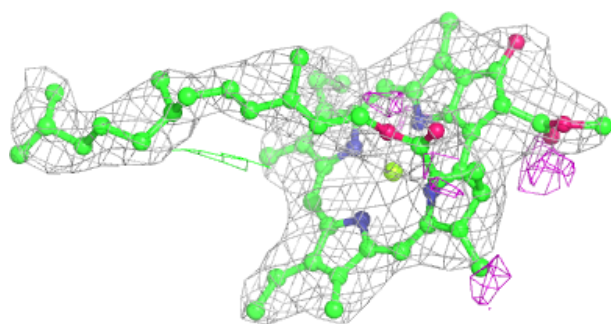
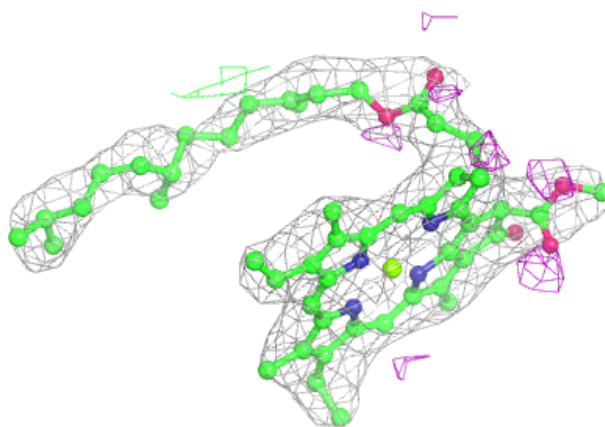
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



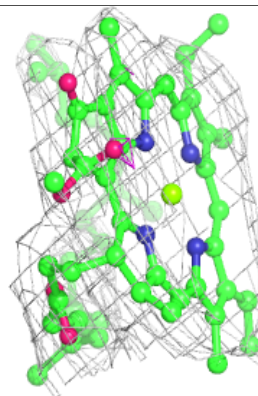
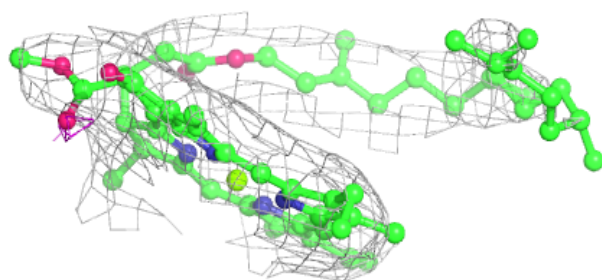
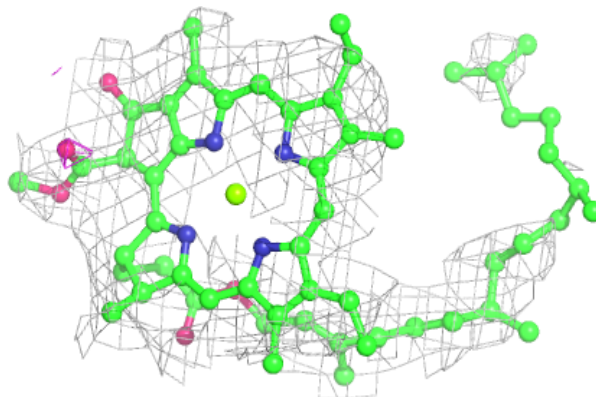


**Electron density around CLA B 831:**

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

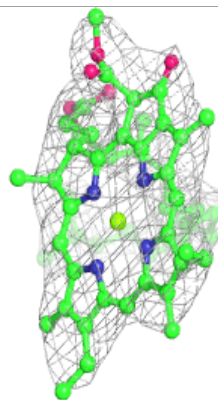
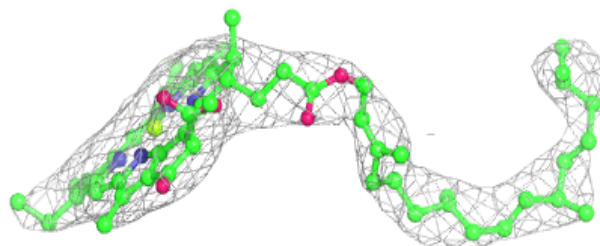
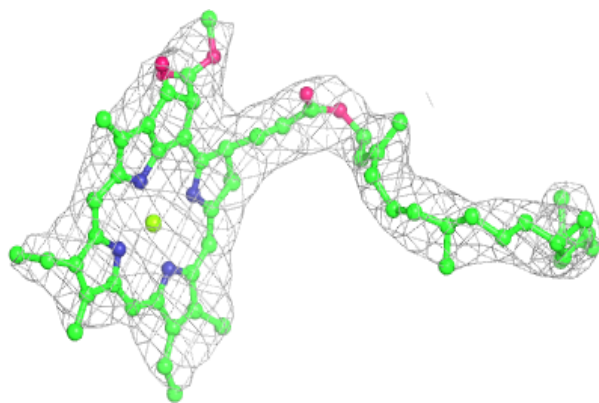
**Electron density around CLA 1 504:**

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

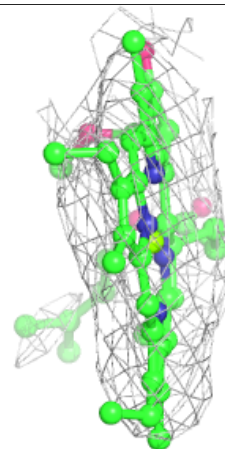
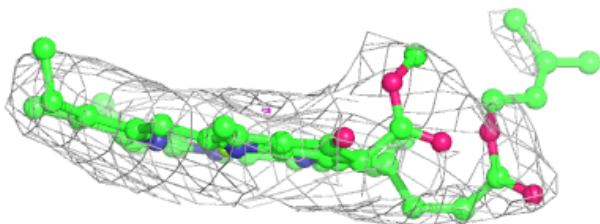
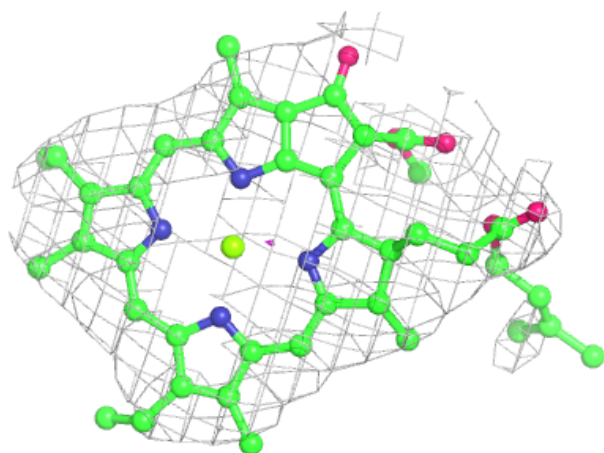


**Electron density around CLA B 810:**

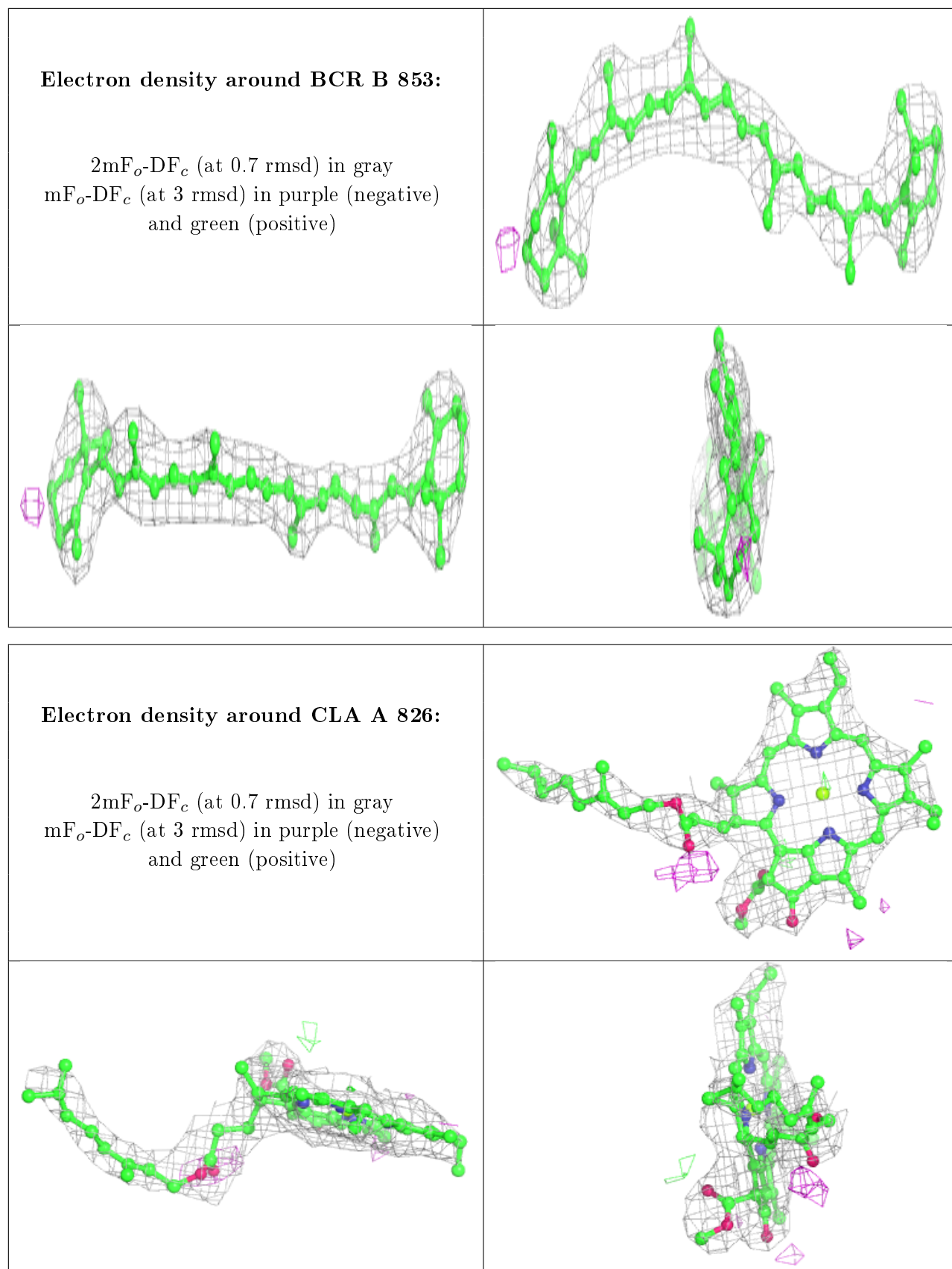
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around CLA 4 305:**

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

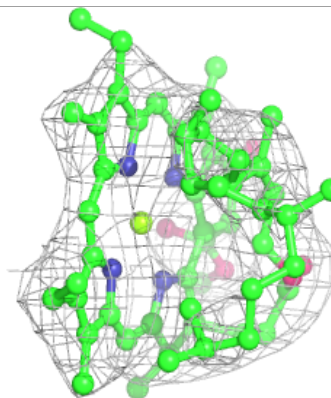
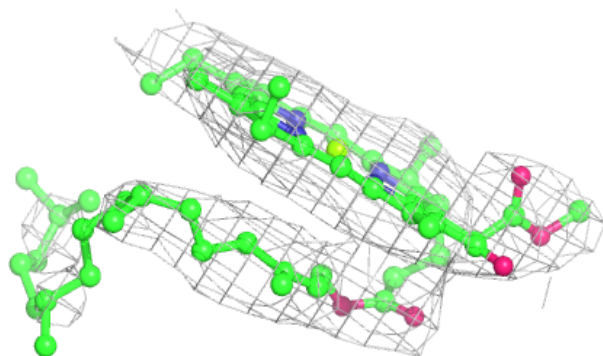
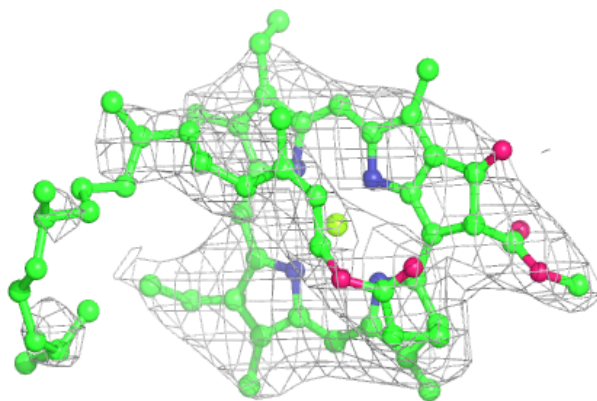






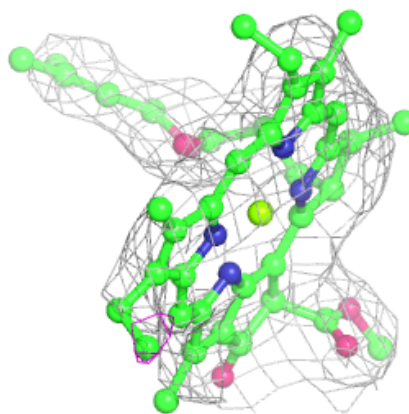
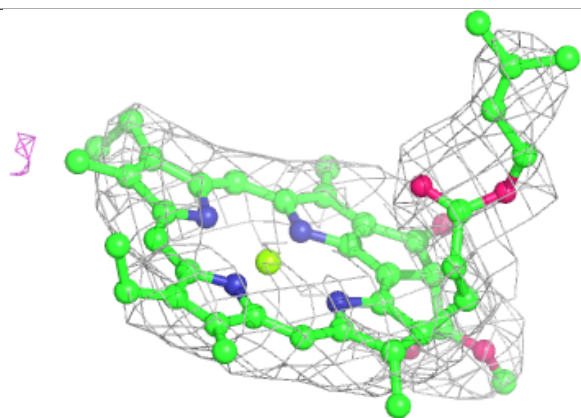
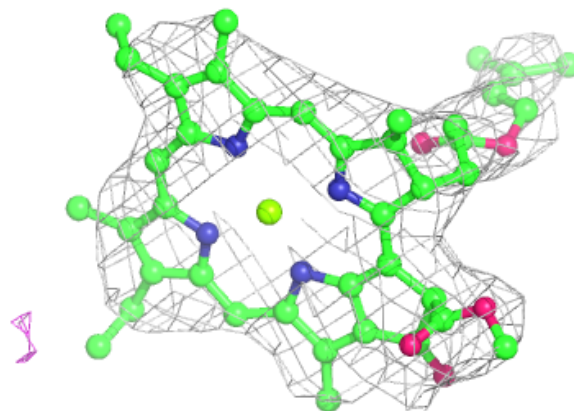
**Electron density around CLA B 808:**

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



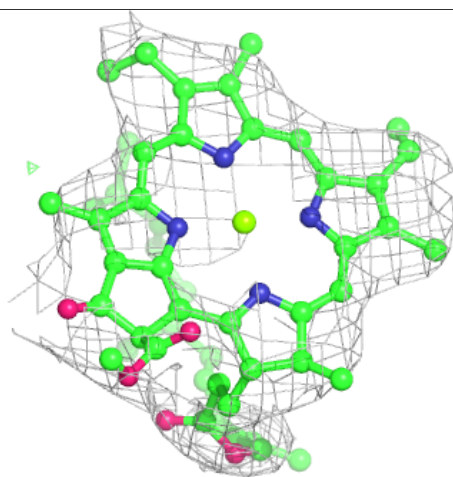
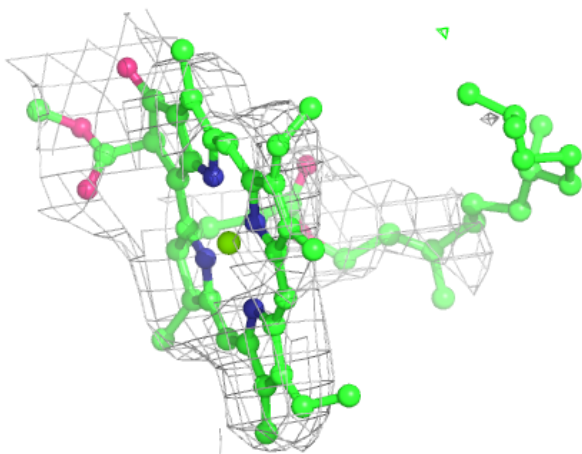
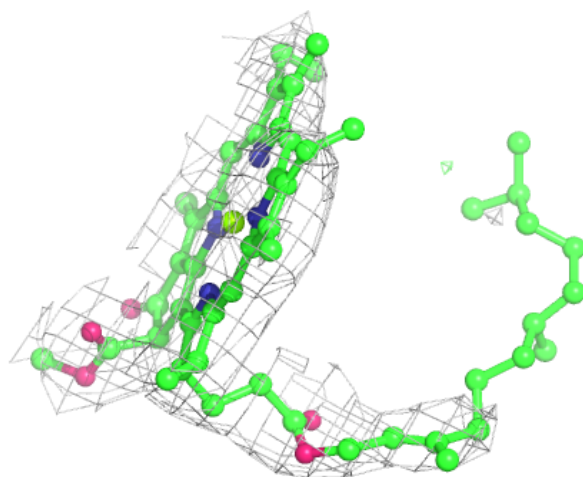
**Electron density around CLA 2 511:**

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



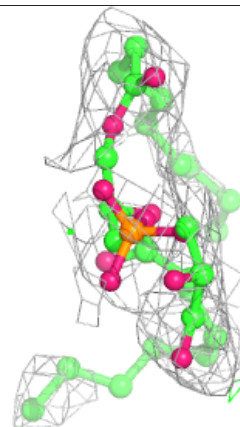
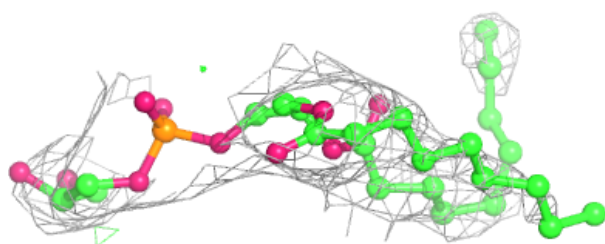
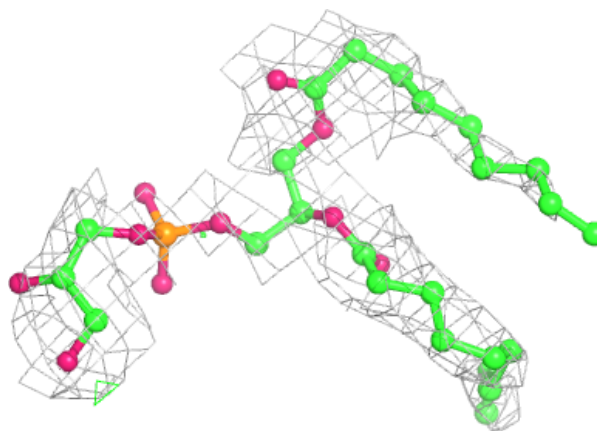
**Electron density around CLA A 823:**

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



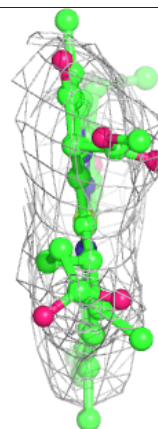
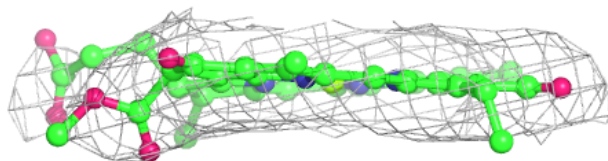
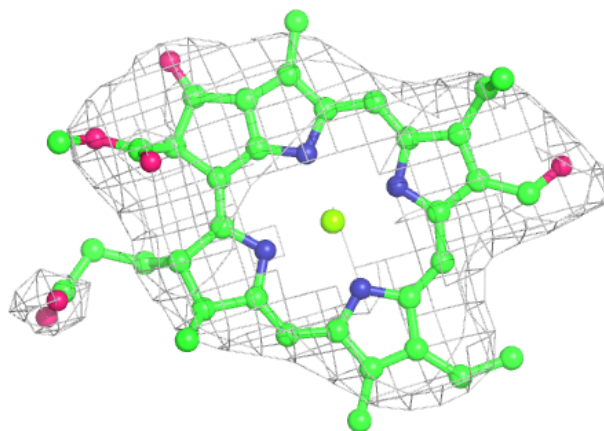
**Electron density around LHG 2 517:**

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

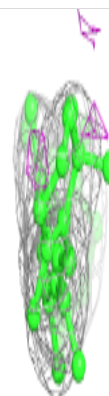
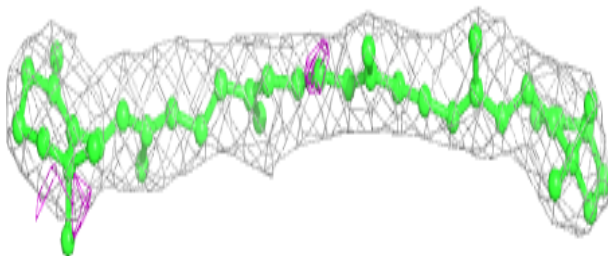
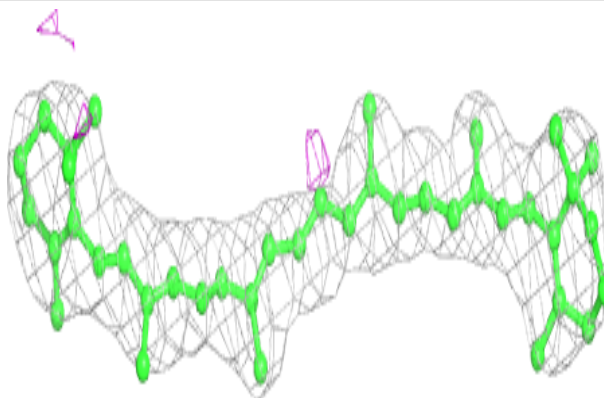


**Electron density around CHL 2 515:**

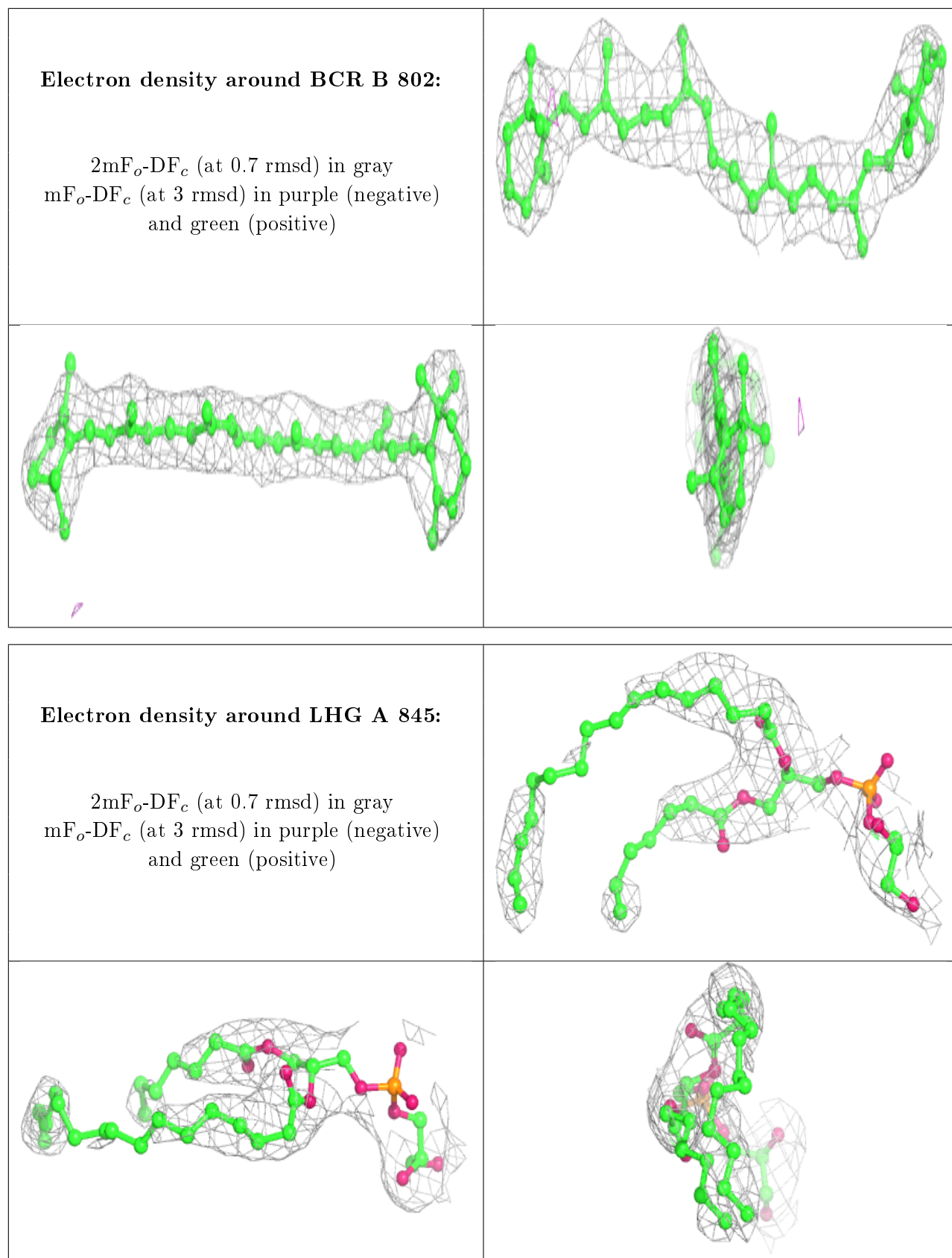
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around BCR J 1108:**

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

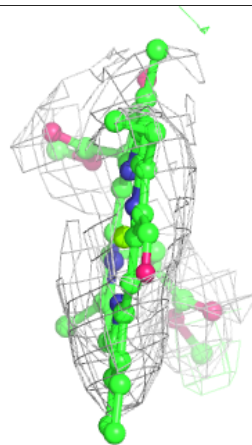
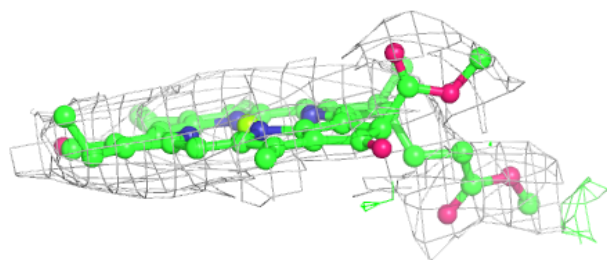
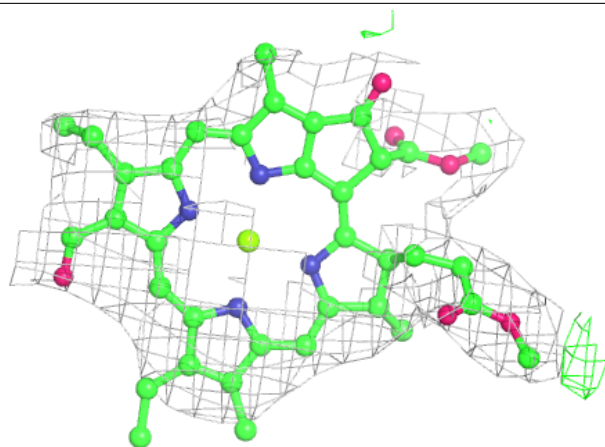




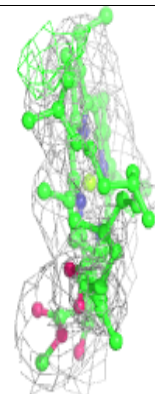
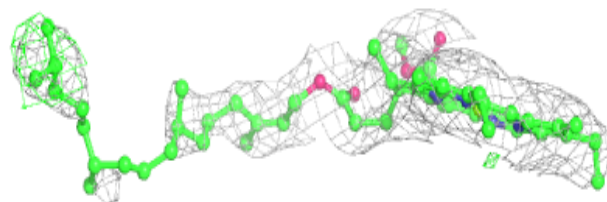
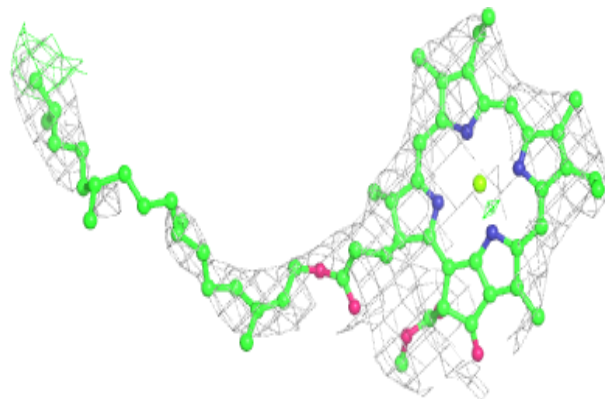


**Electron density around CHL 2 512:**

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

**Electron density around CLA F 303:**

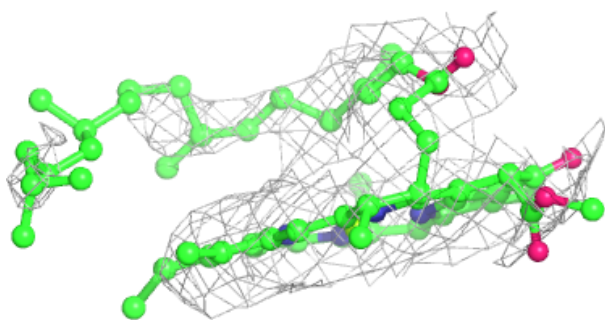
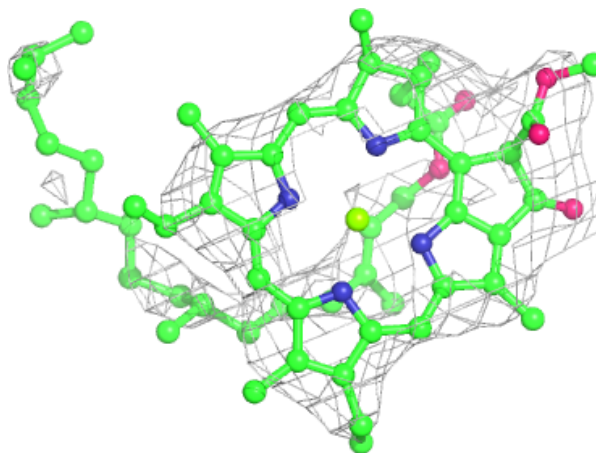
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





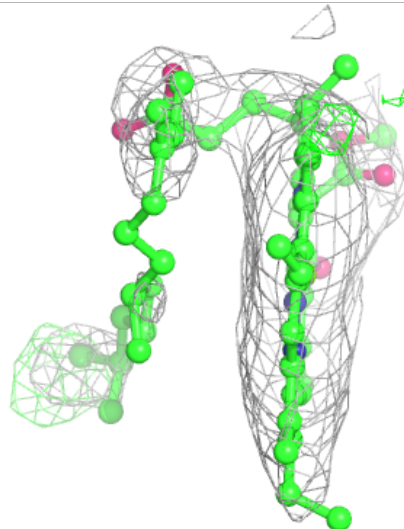
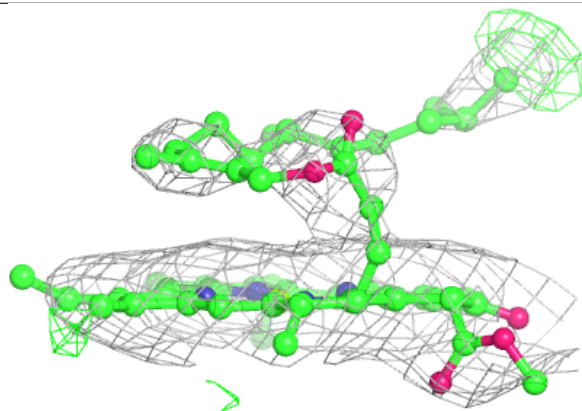
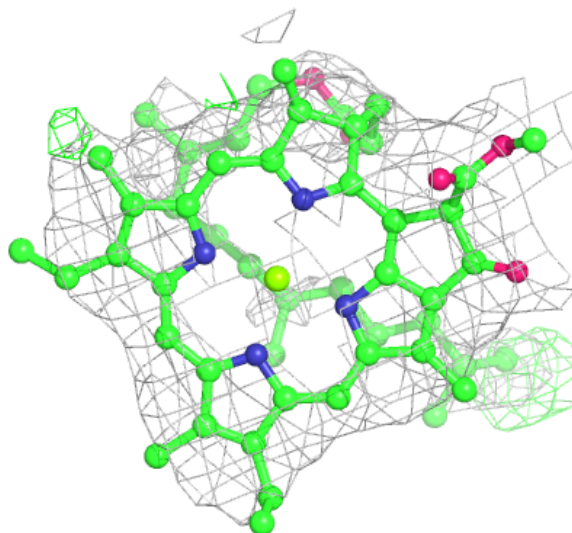
**Electron density around CLA 2 506:**

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



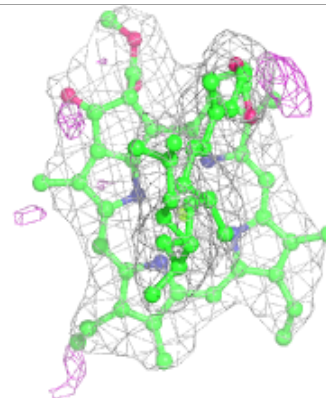
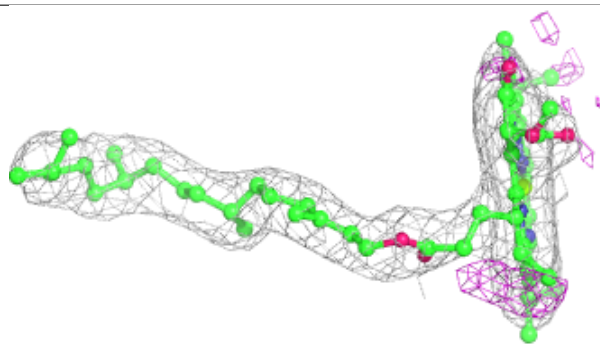
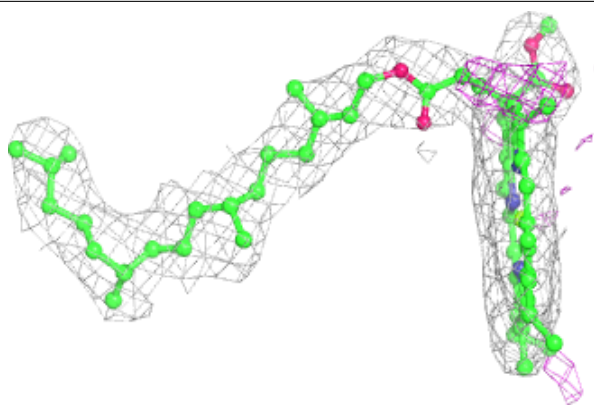
**Electron density around CLA 3 313:**

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

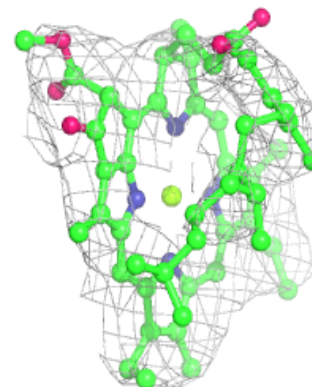
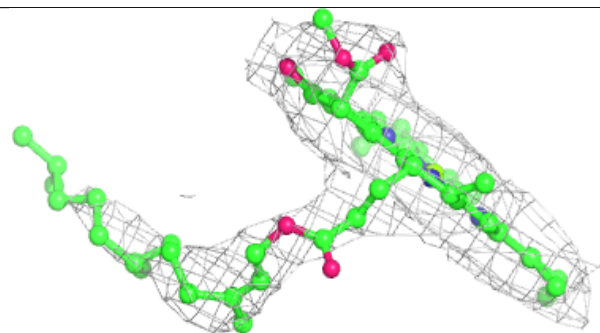
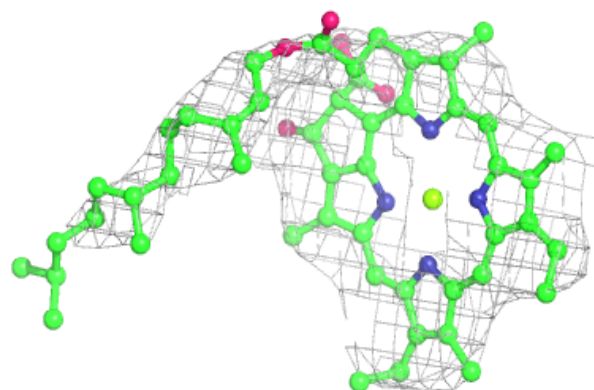


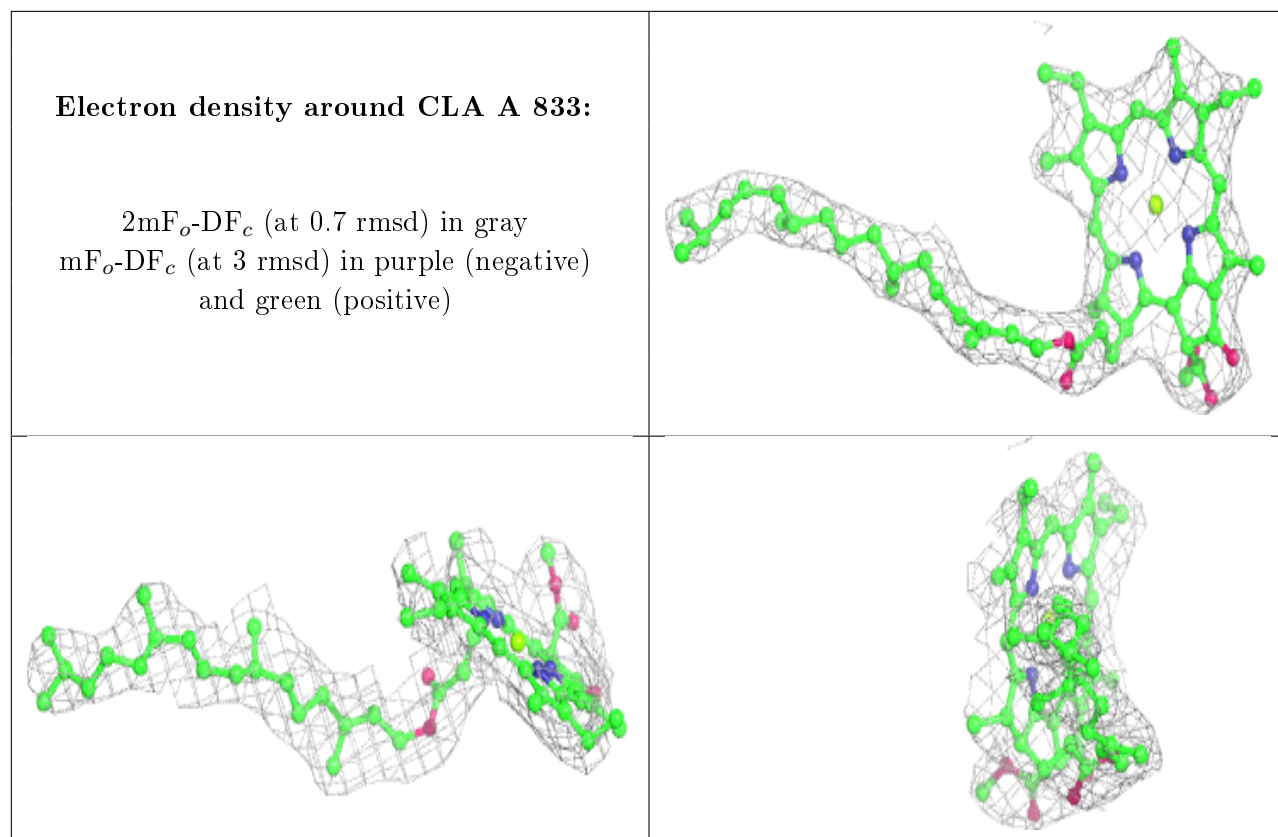
**Electron density around CLA B 839:**

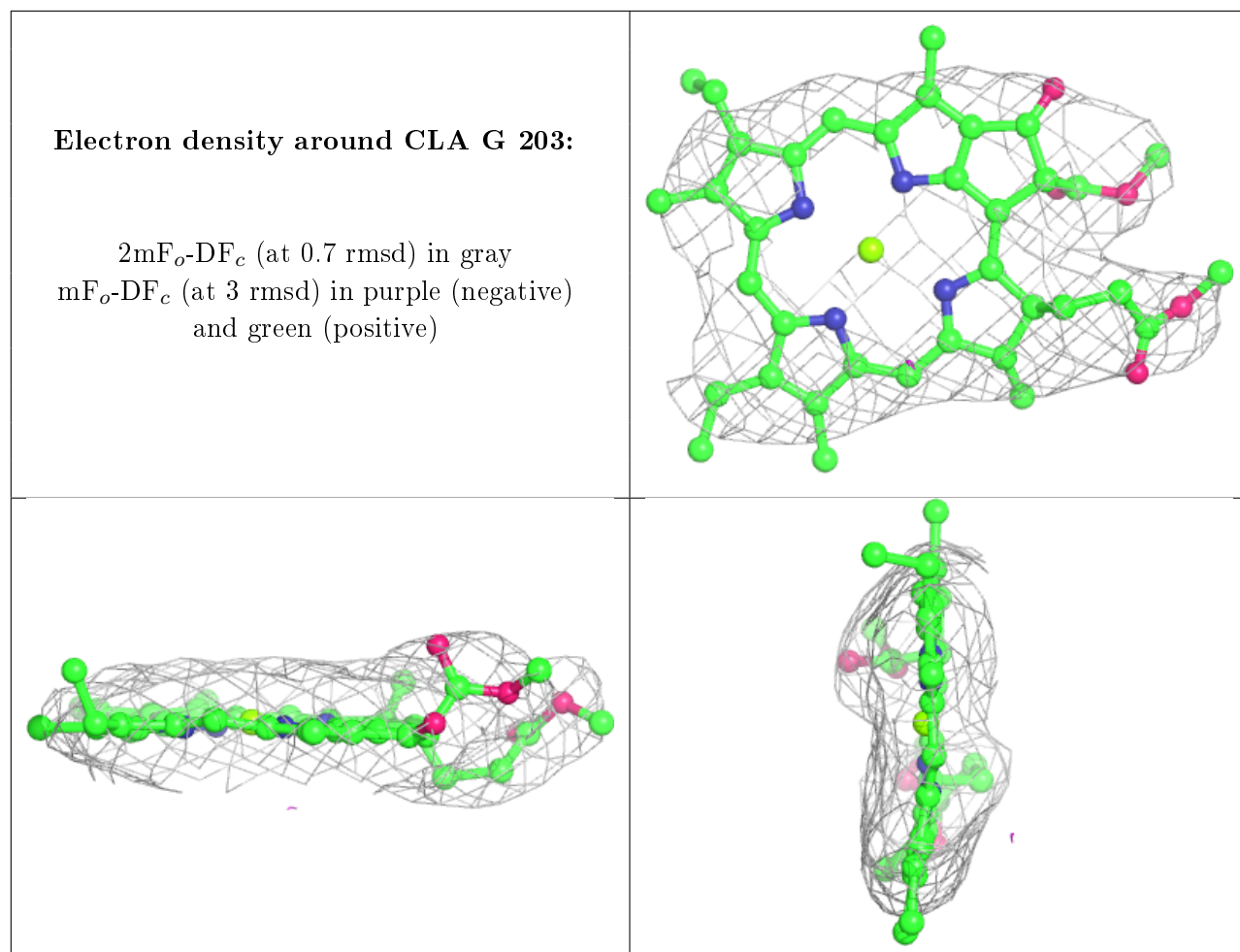
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around CLA A 822:**

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

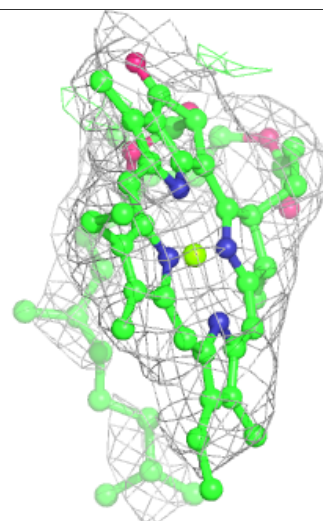
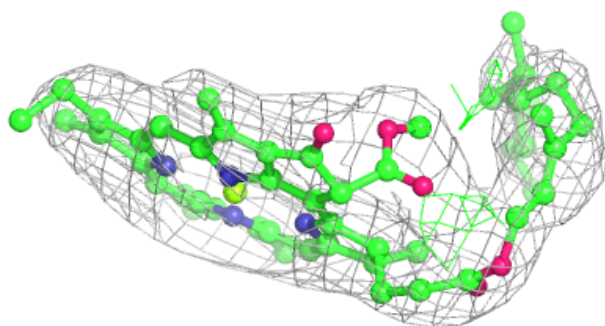
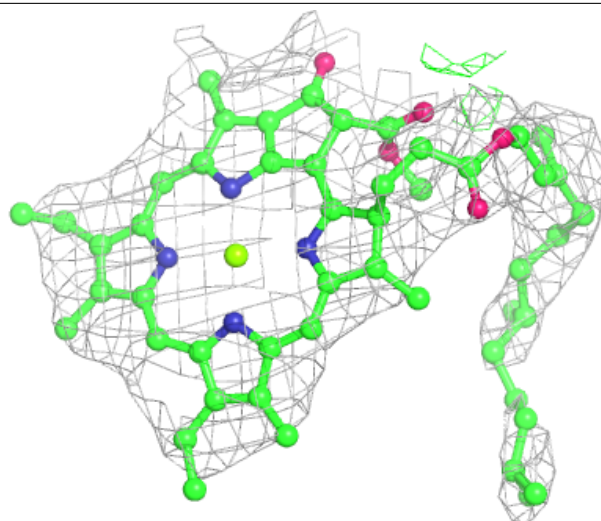






**Electron density around CLA 4 308:**

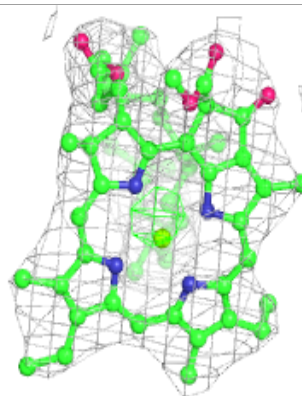
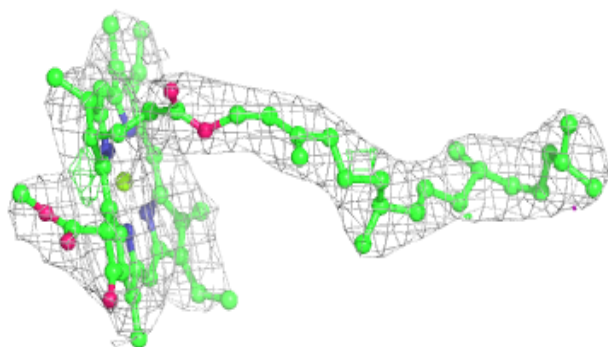
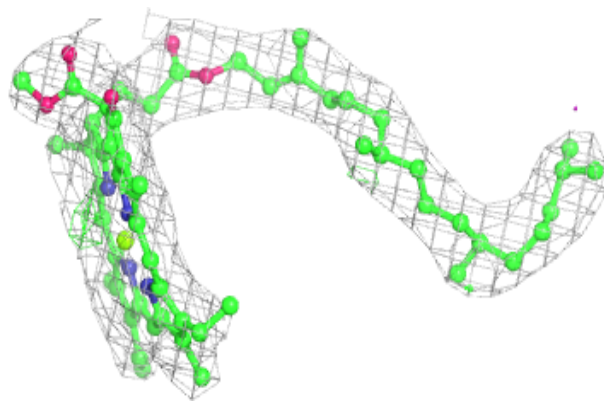
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



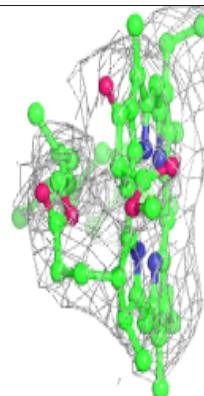
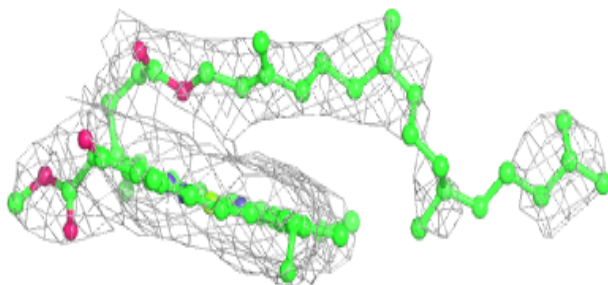
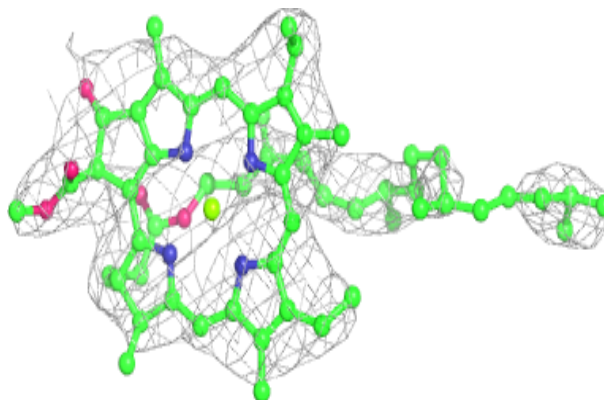


**Electron density around CLA A 830:**

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

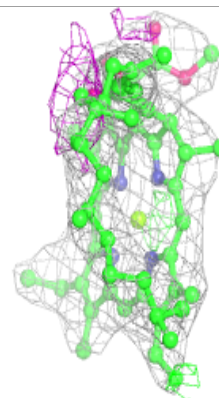
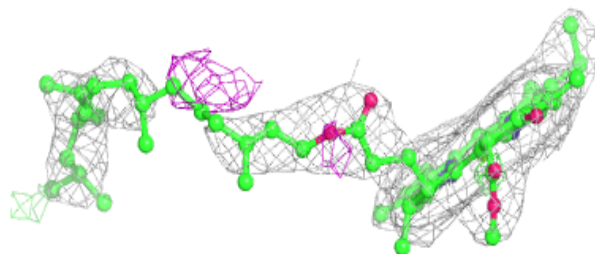
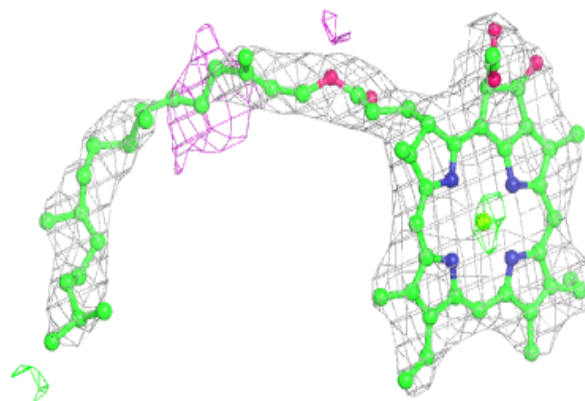
**Electron density around CLA A 837:**

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

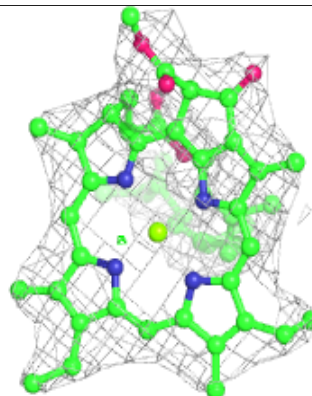
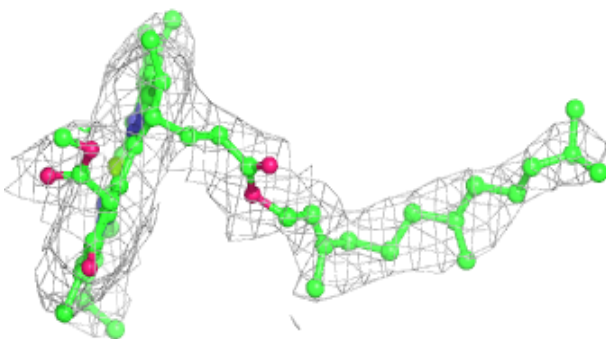
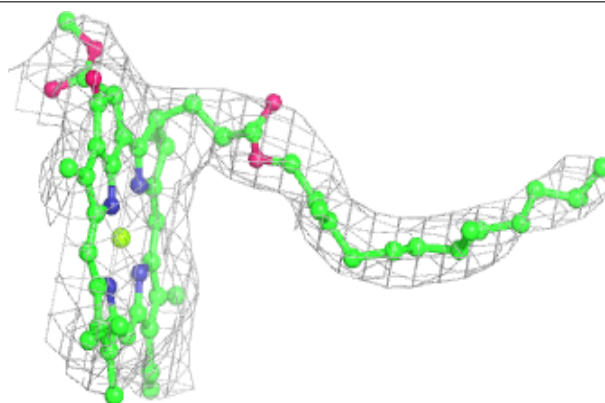


**Electron density around CLA B 825:**

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

**Electron density around CLA L 304:**

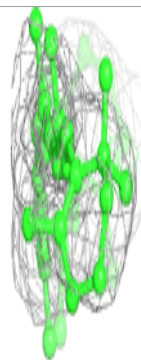
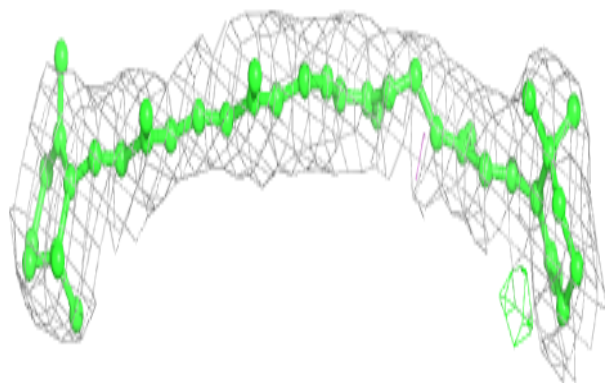
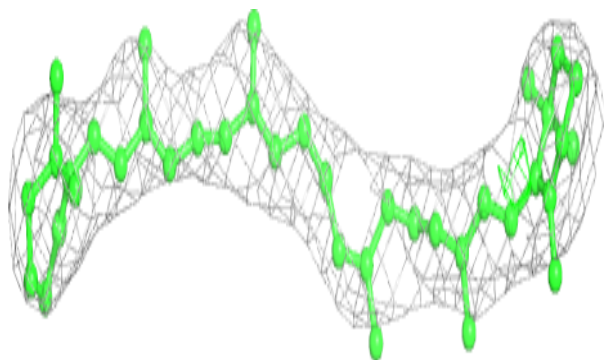
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





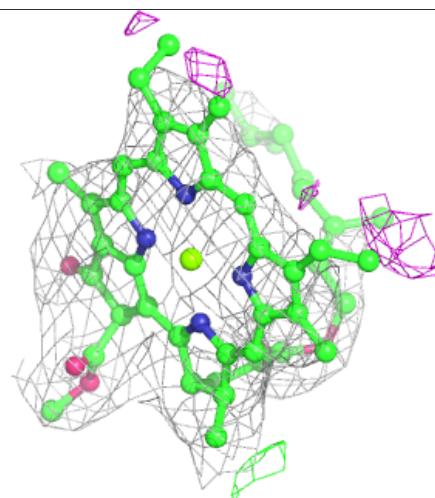
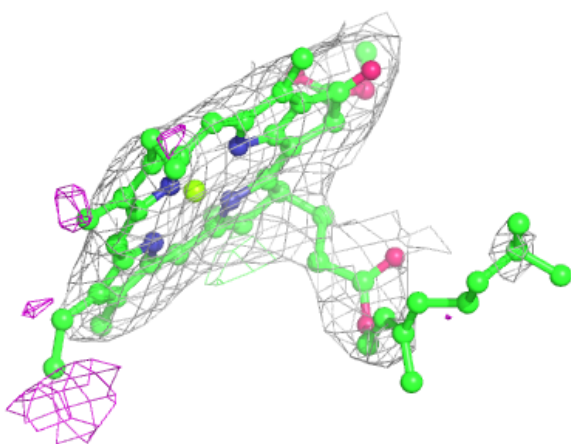
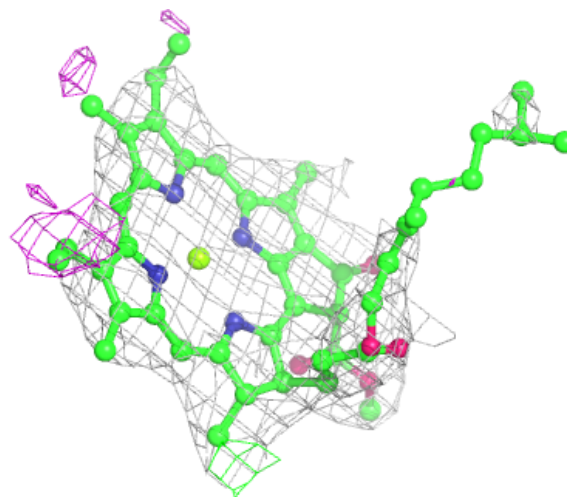
**Electron density around BCR I 101:**

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



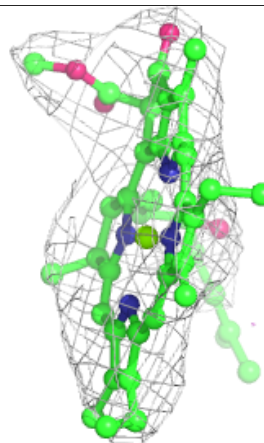
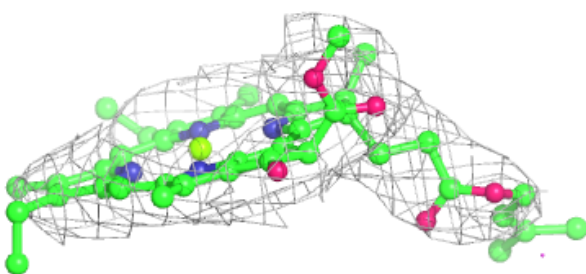
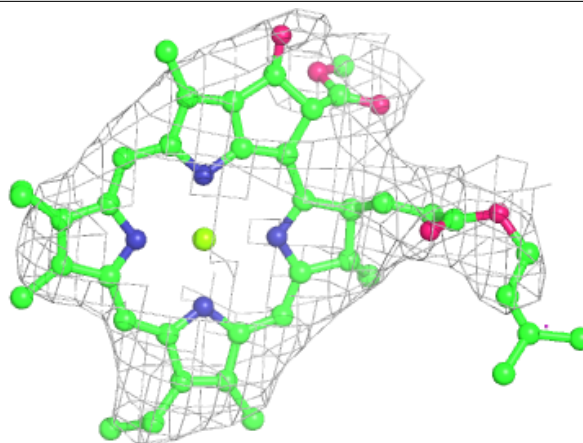
**Electron density around CLA 2 514:**

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



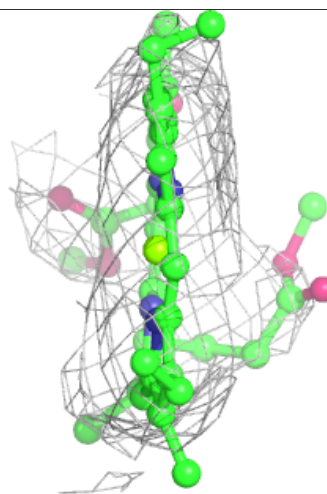
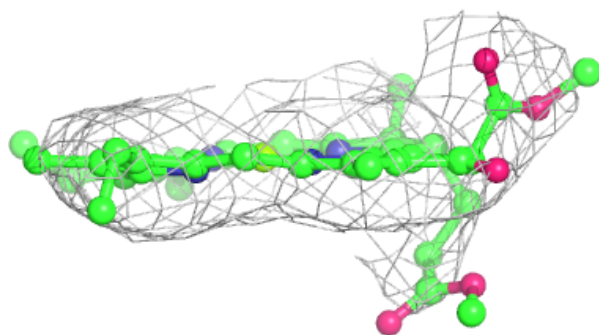
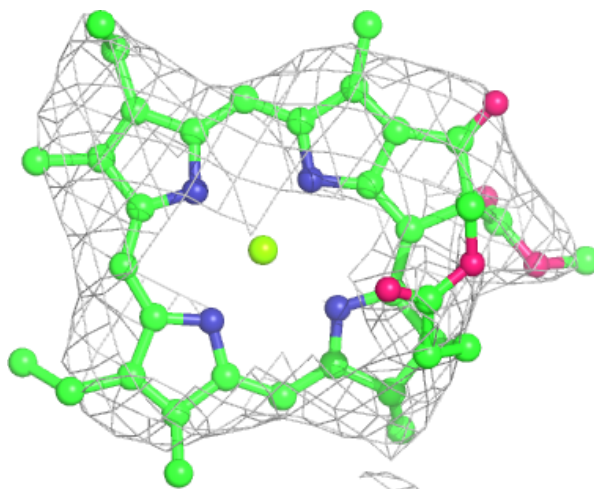
**Electron density around CLA 4 312:**

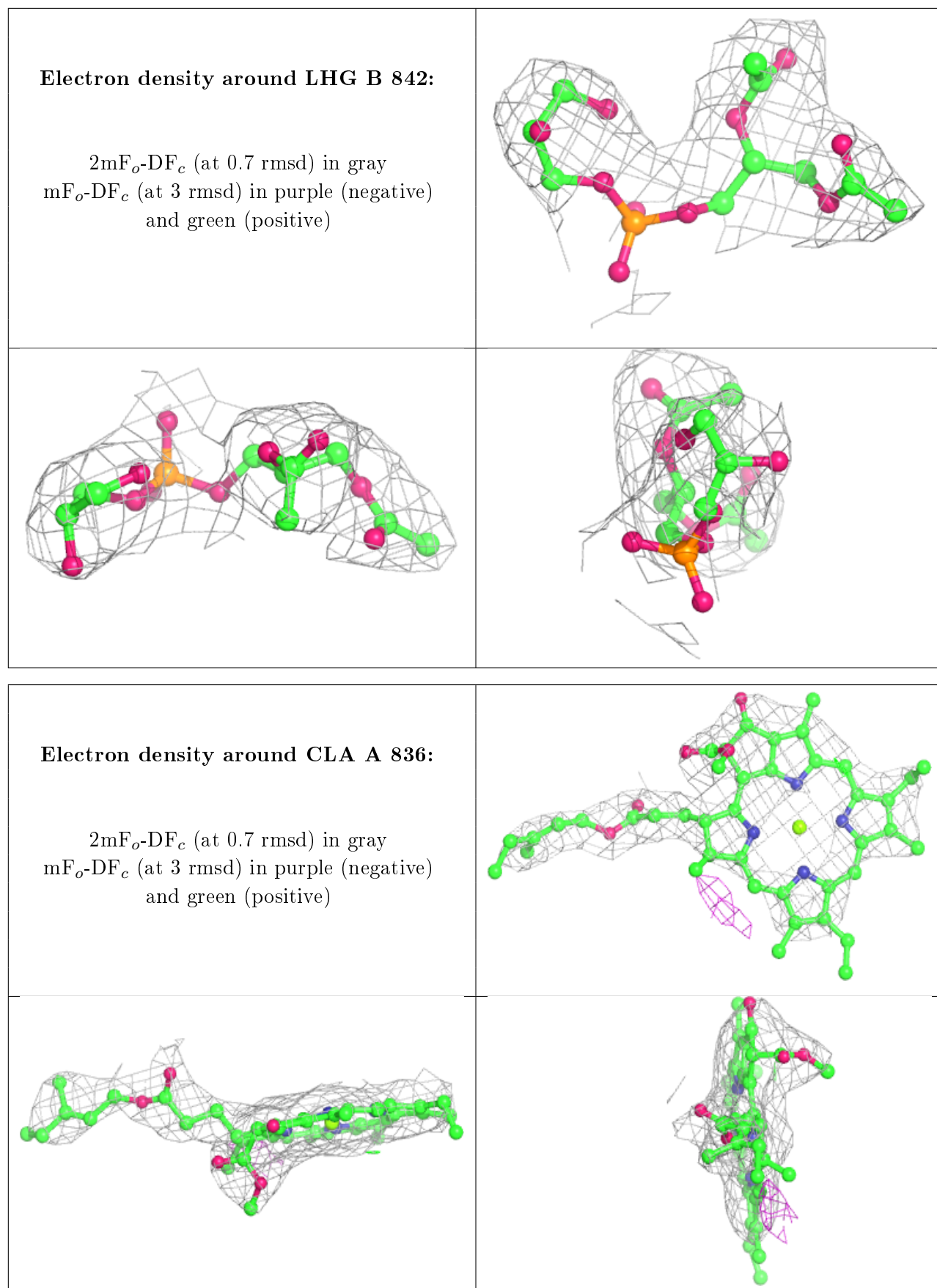
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA 4 311:**

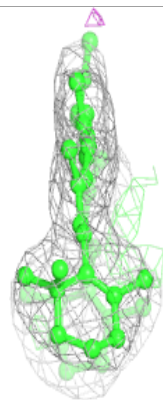
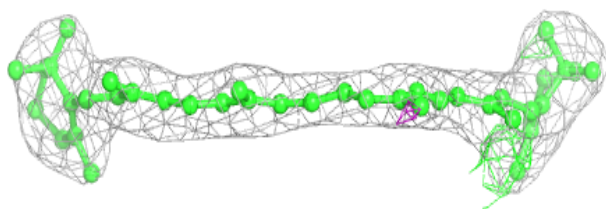
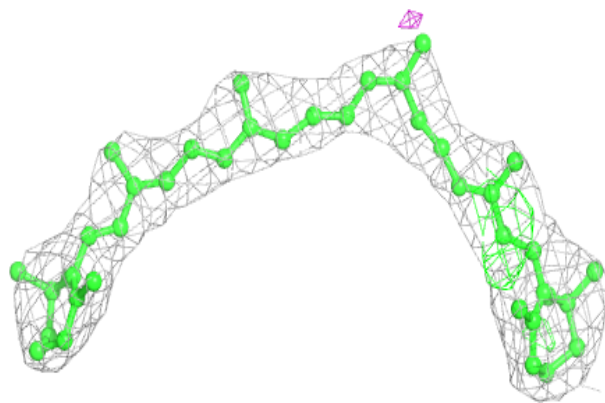
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



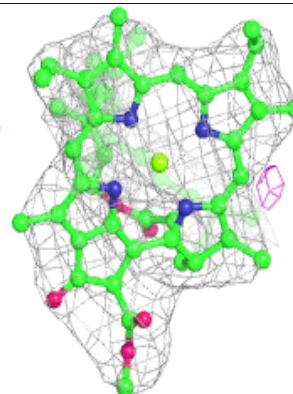
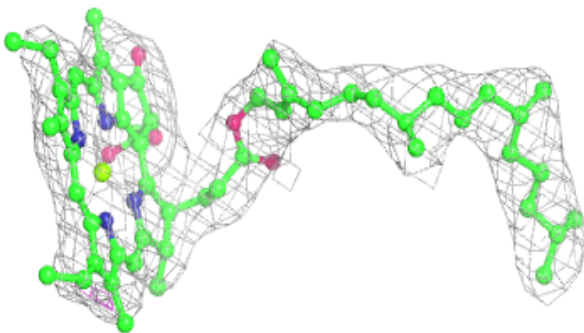
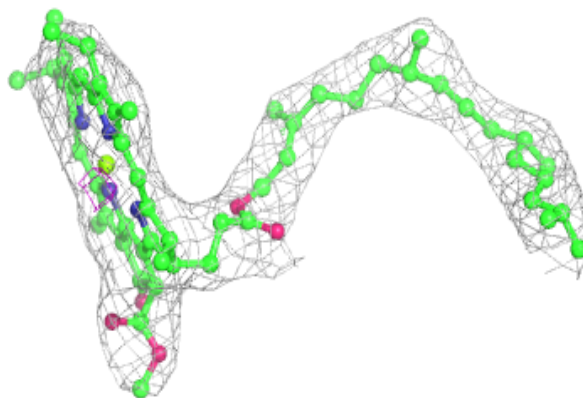


**Electron density around BCR F 306:**

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

**Electron density around CLA B 838:**

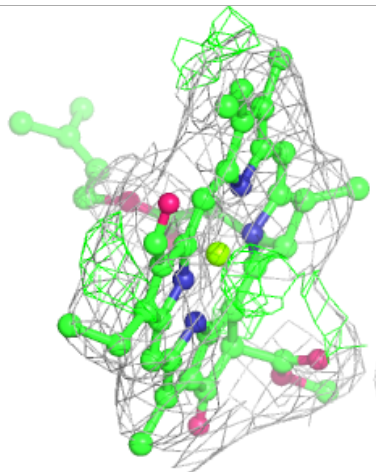
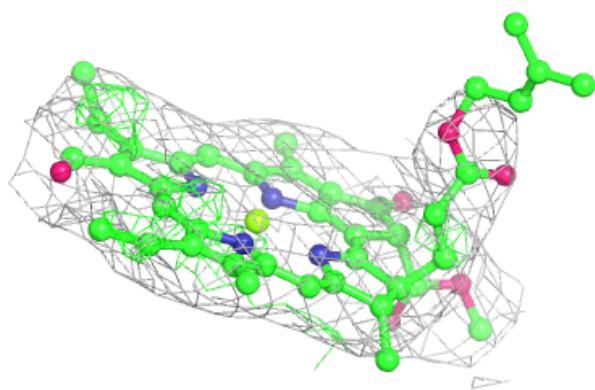
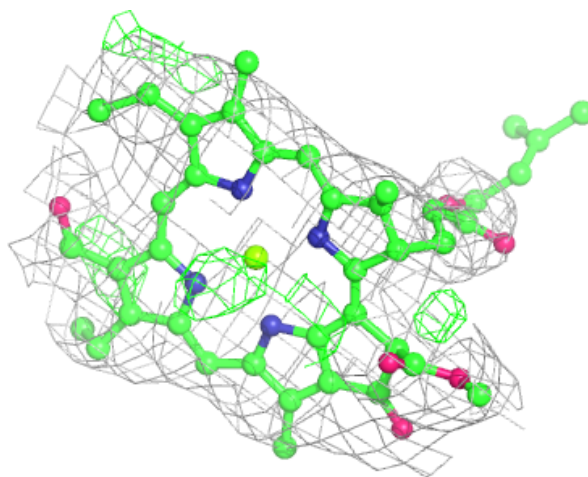
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





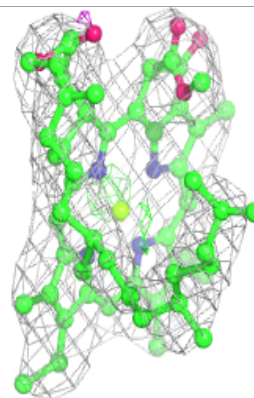
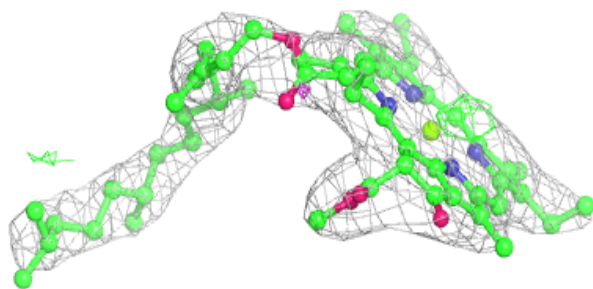
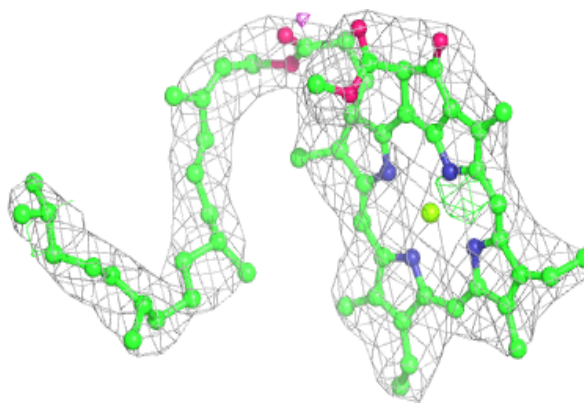
**Electron density around CHL 4 314:**

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



**Electron density around CLA B 824:**

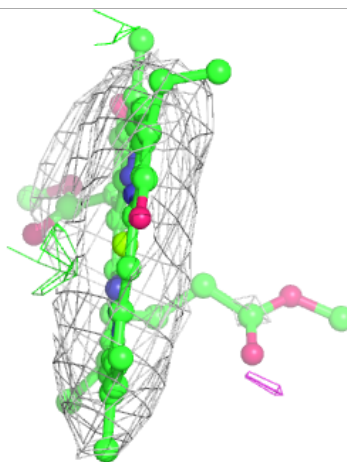
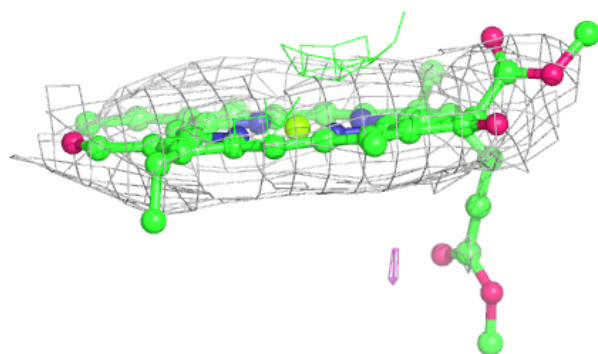
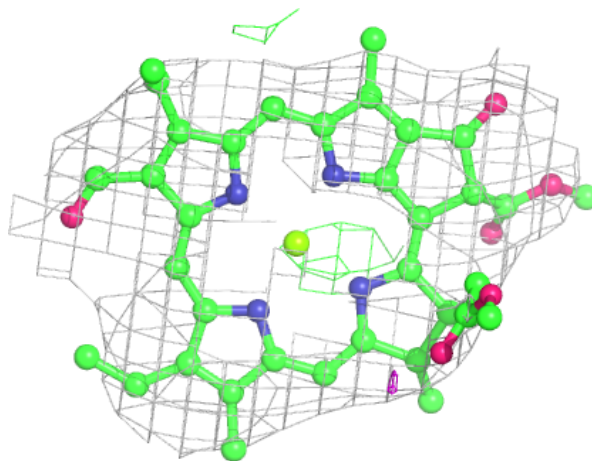
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

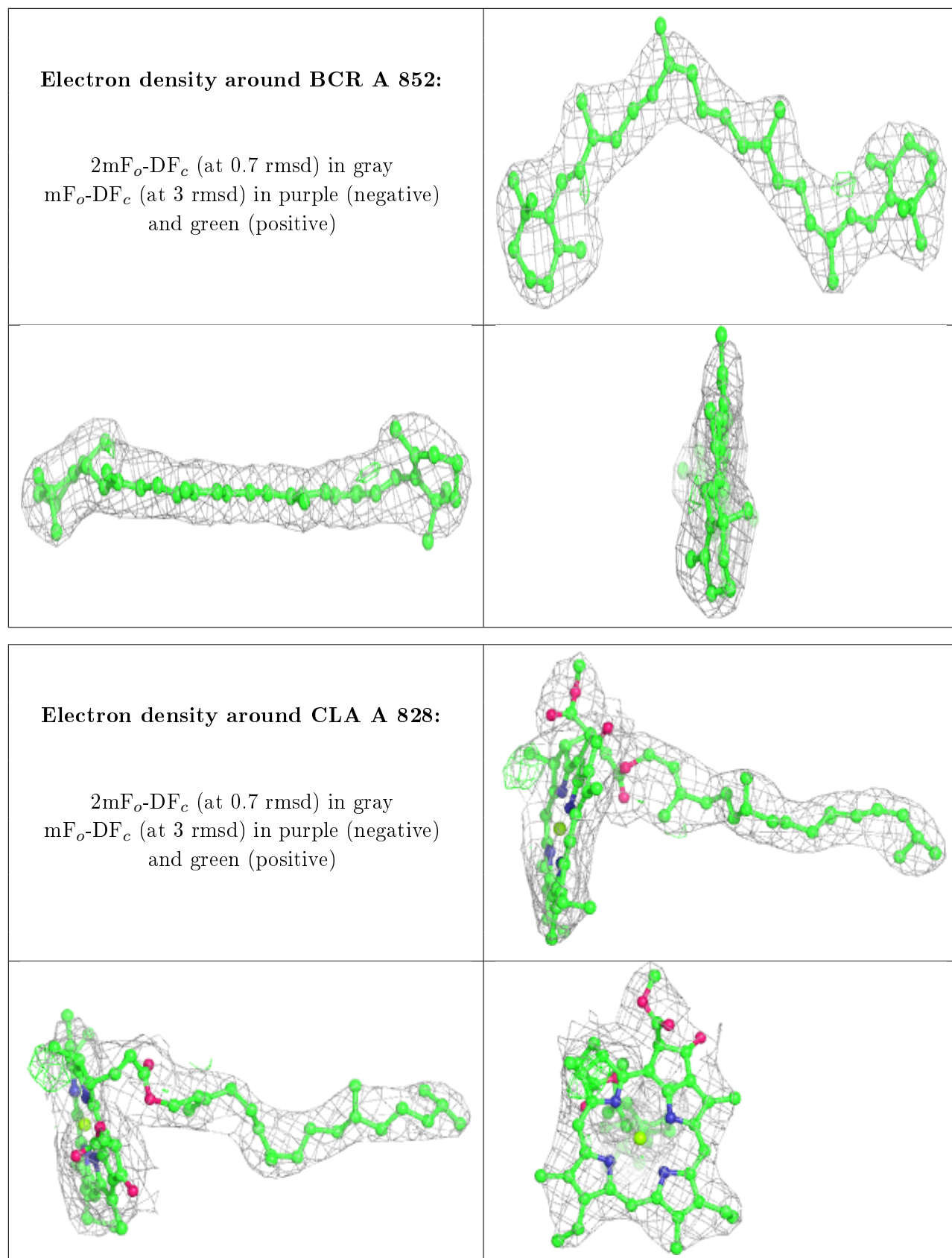




**Electron density around CHL 3 314:**

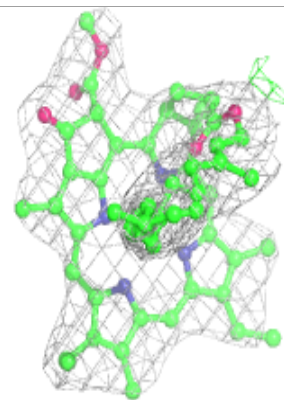
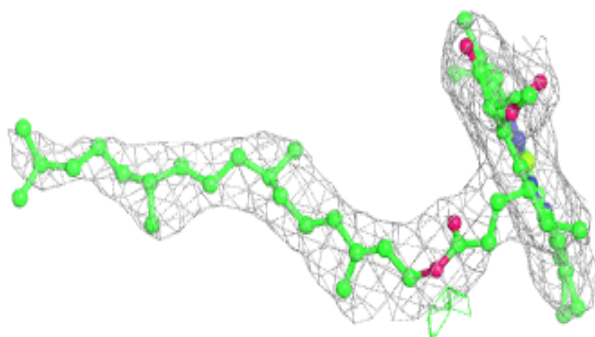
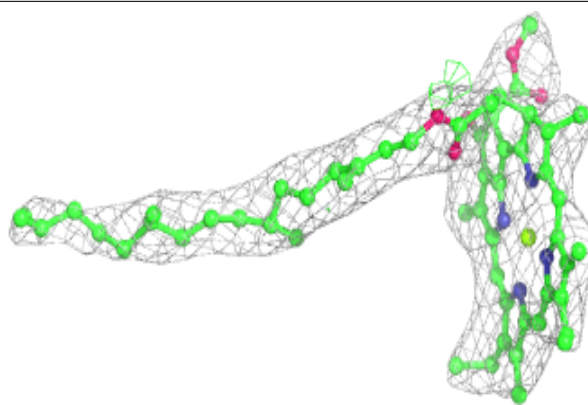
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



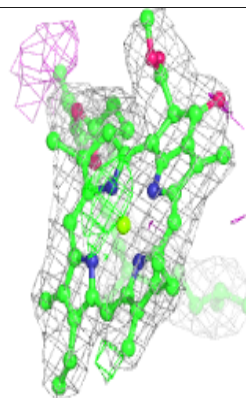
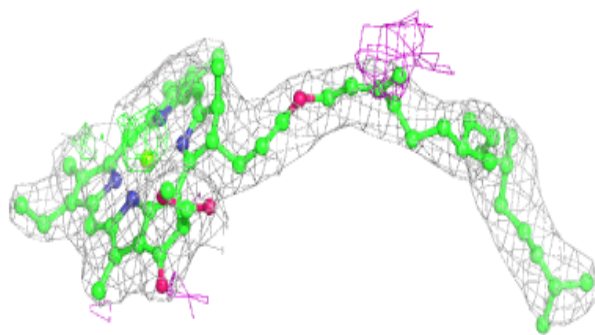
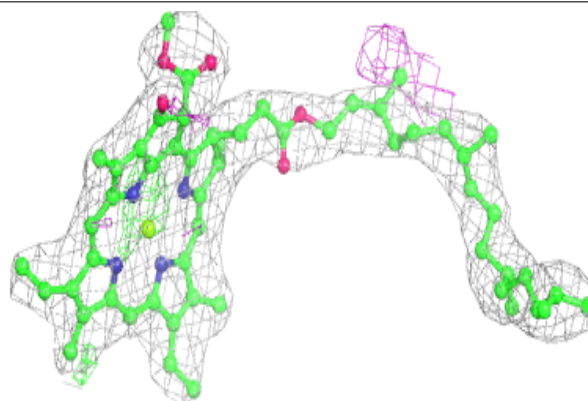


**Electron density around CLA B 828:**

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

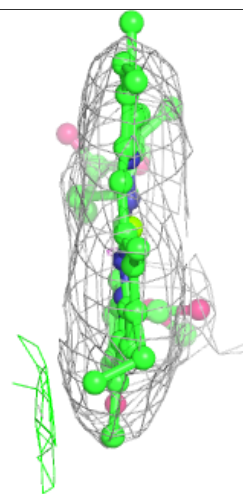
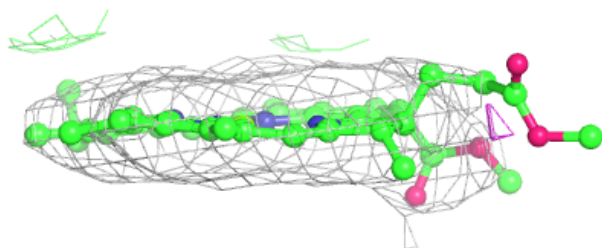
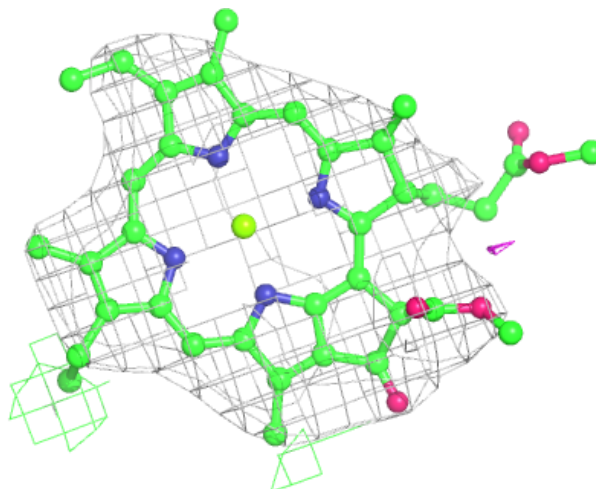
**Electron density around CLA A 854:**

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



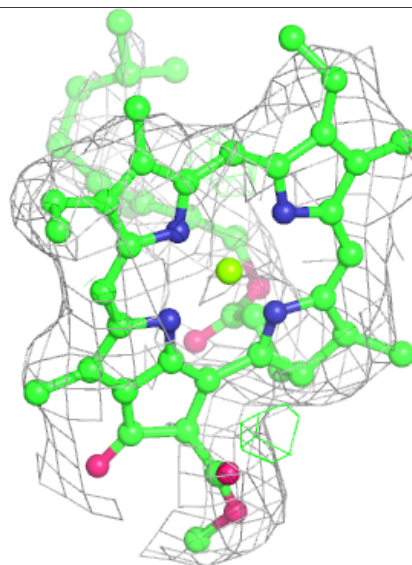
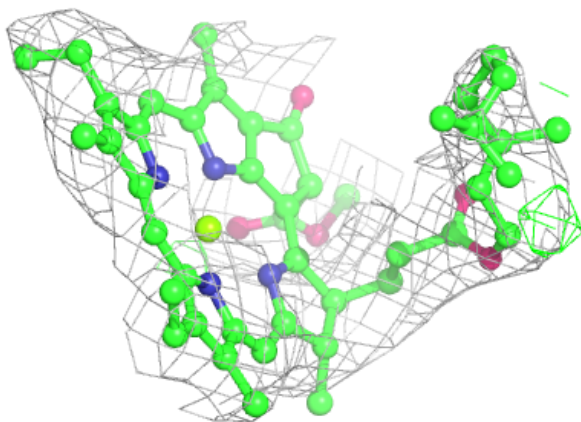
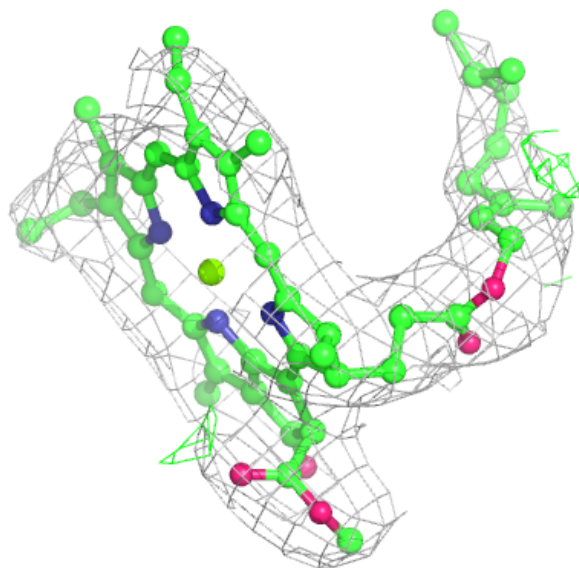
**Electron density around CLA 3 317:**

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



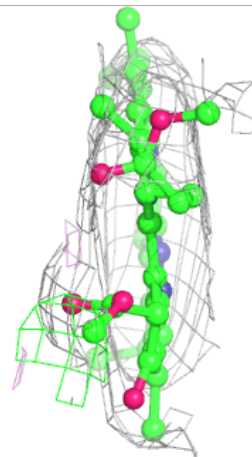
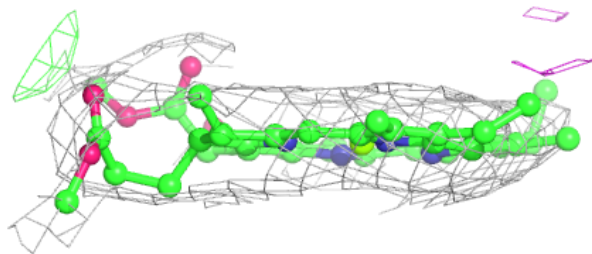
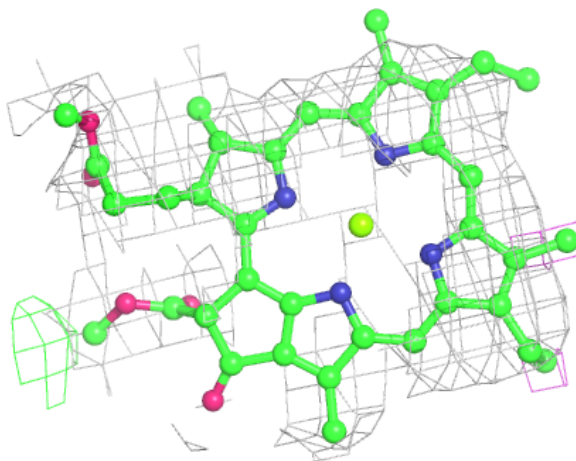
**Electron density around CLA B 834:**

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



**Electron density around CLA 1 505:**

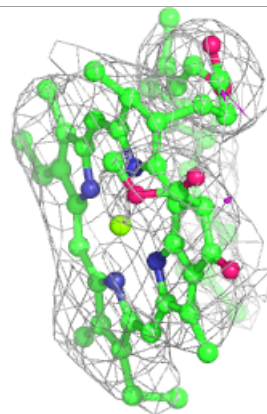
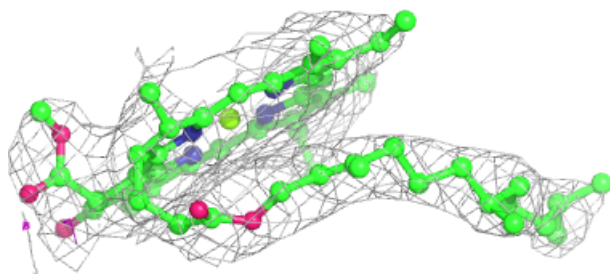
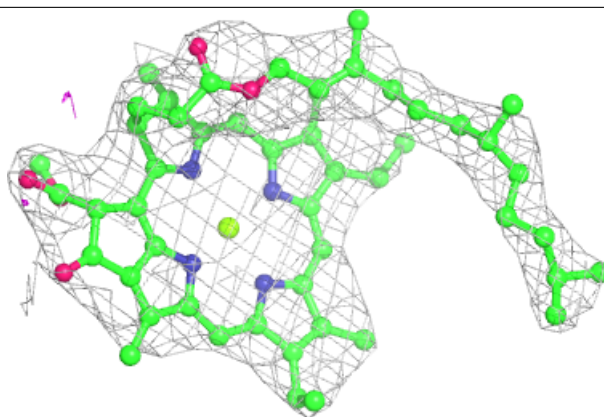
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





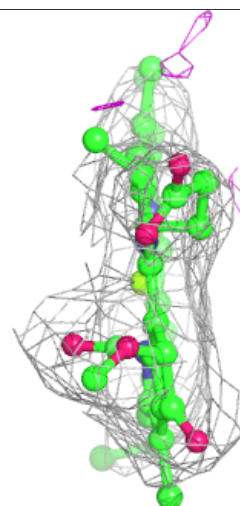
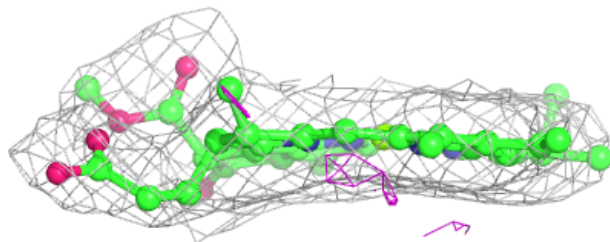
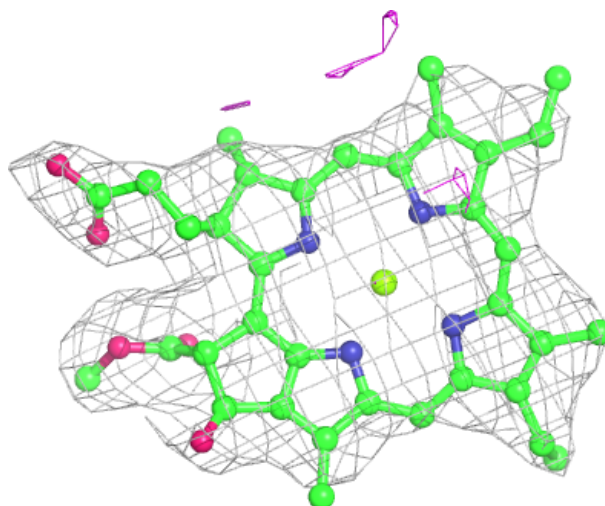
**Electron density around CLA 4 307:**

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



**Electron density around CLA J 1102:**

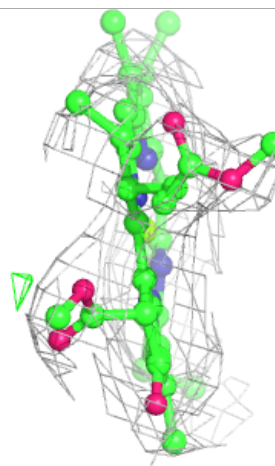
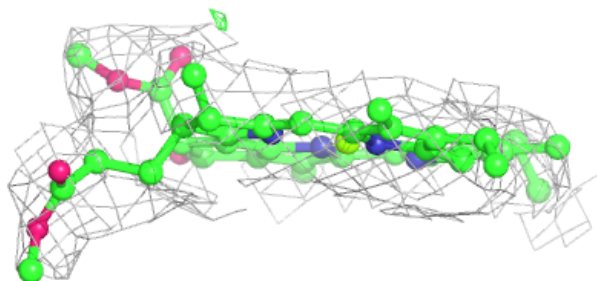
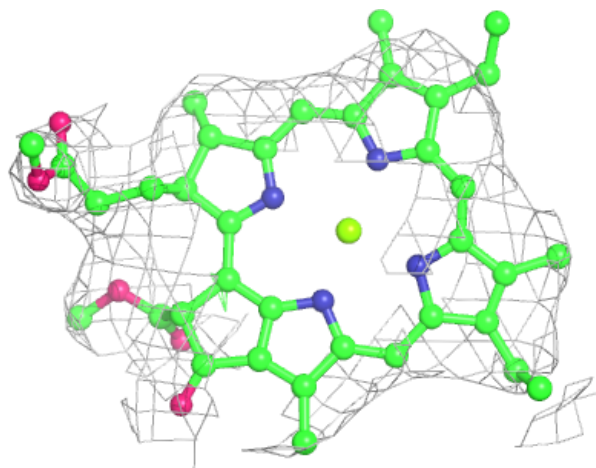
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

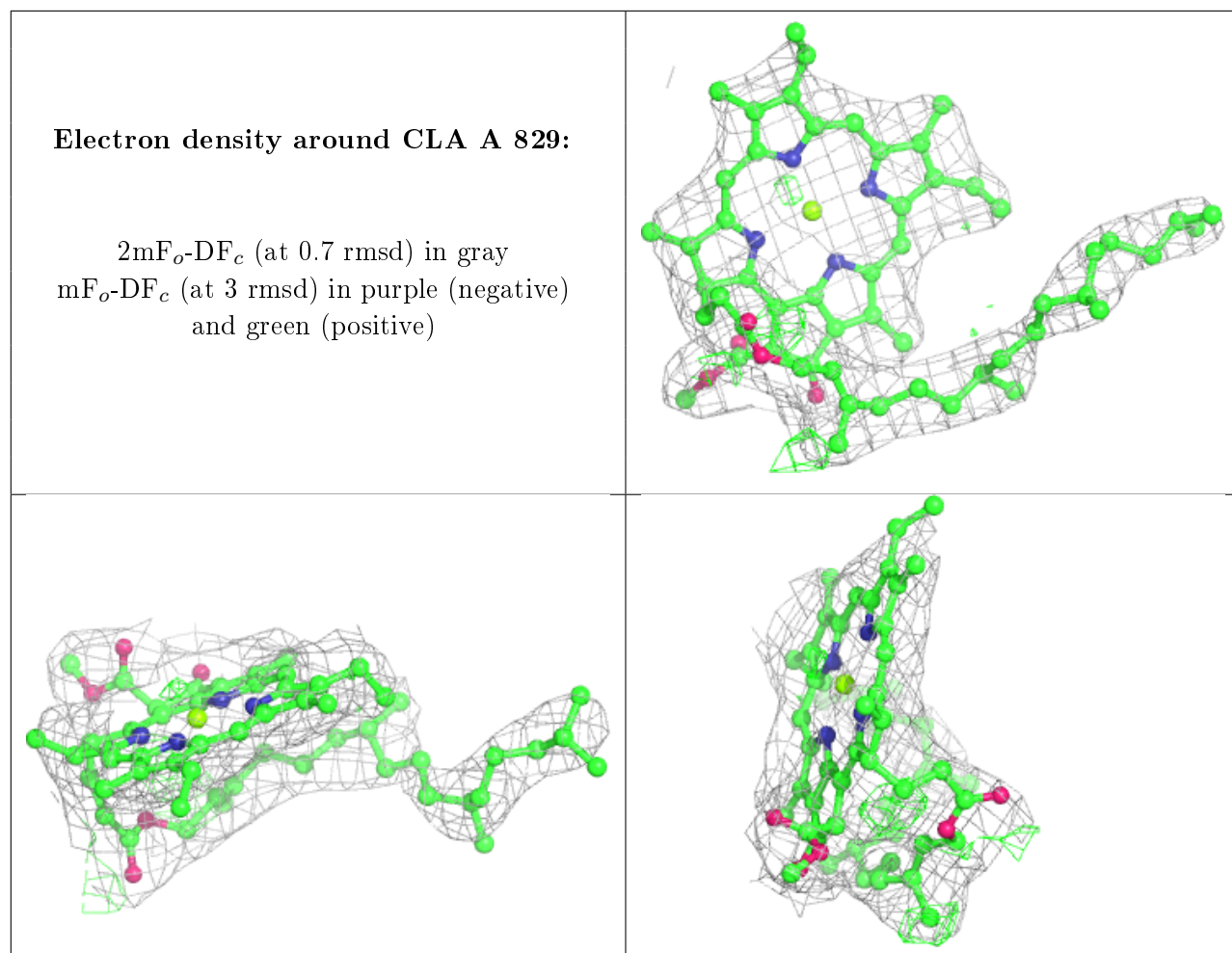




**Electron density around CLA 3 316:**

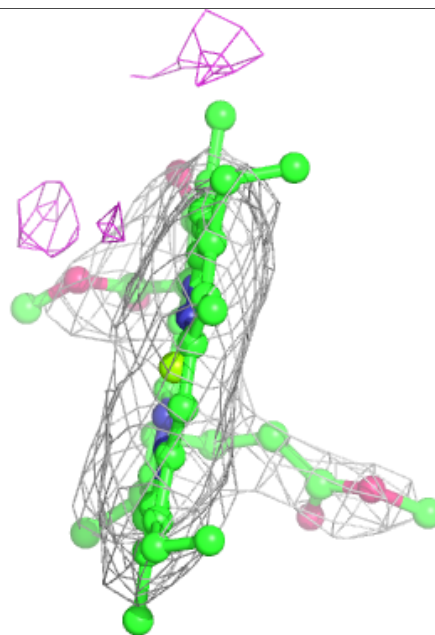
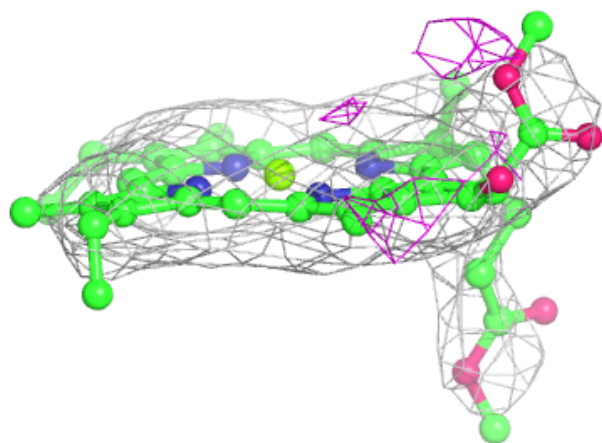
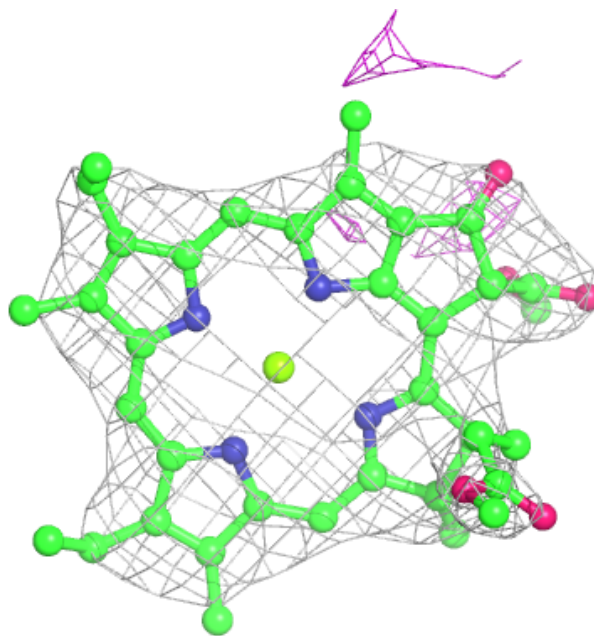
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





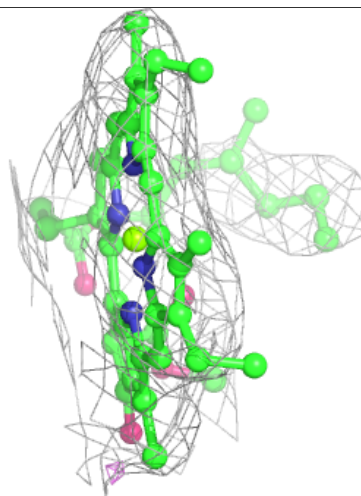
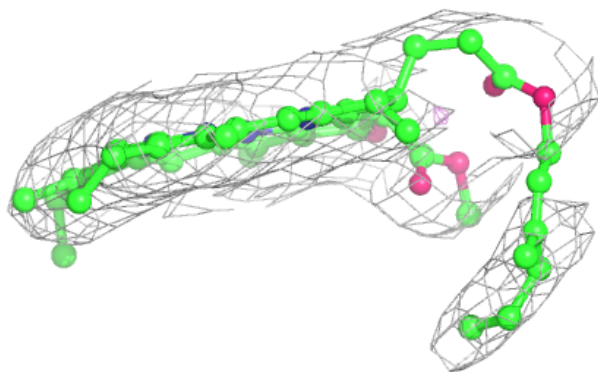
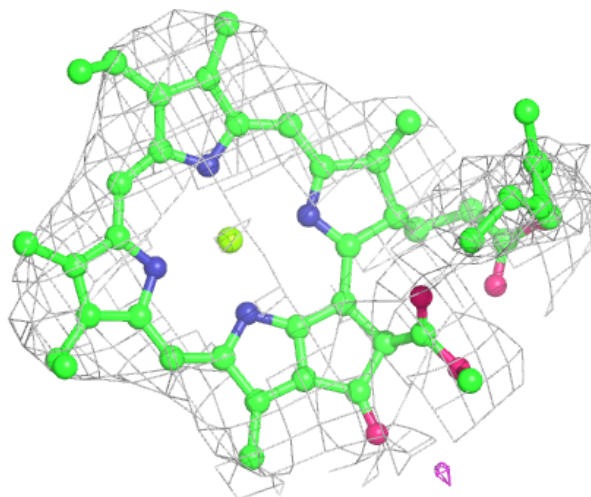
**Electron density around CLA B 821:**

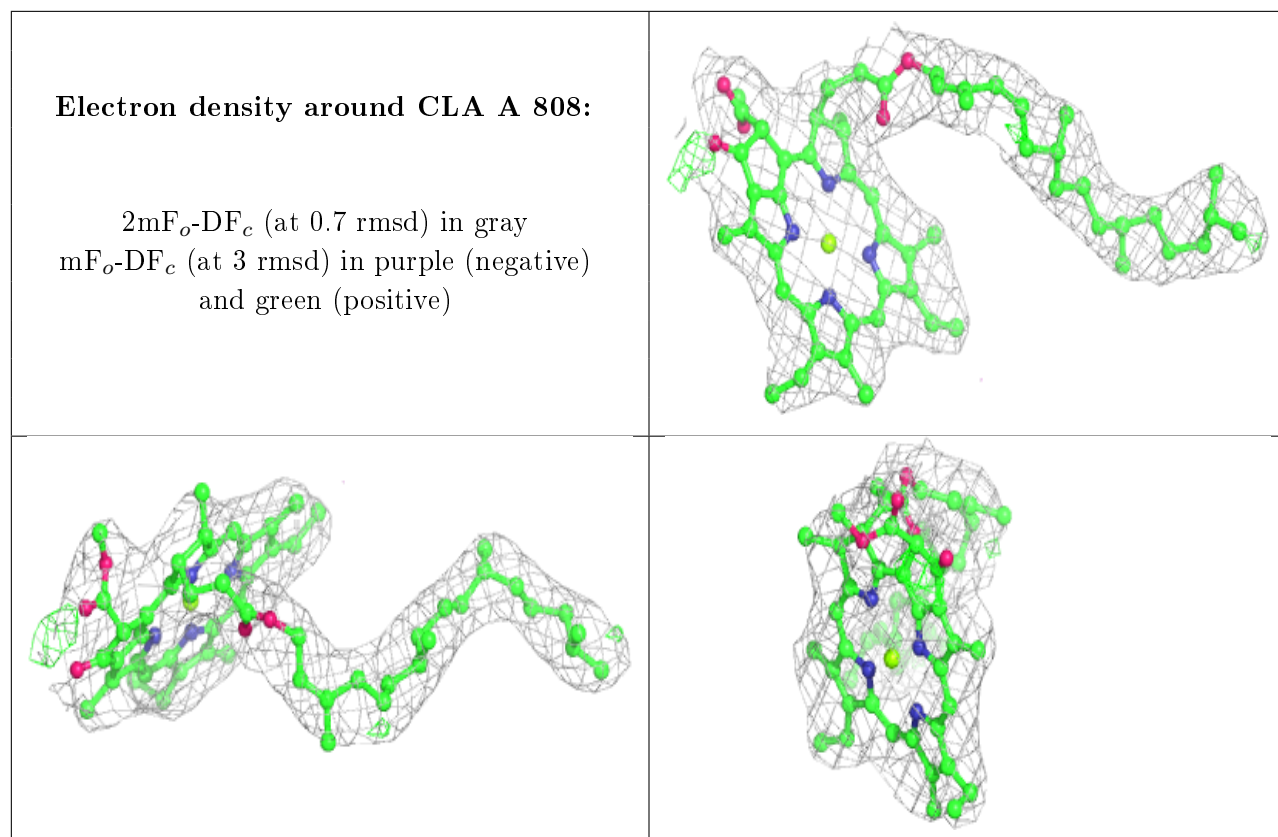
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA 2 505:**

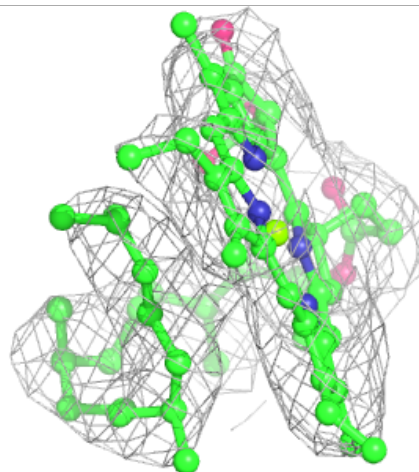
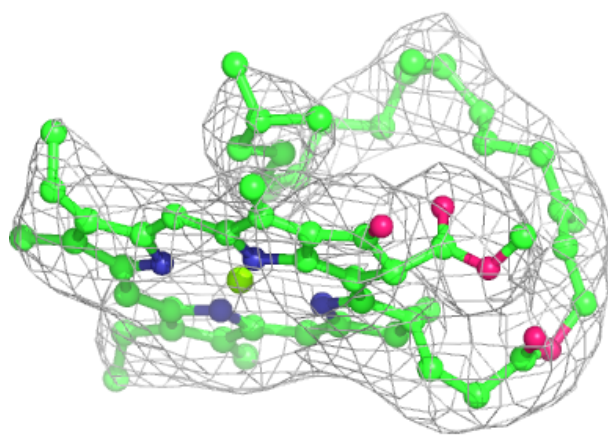
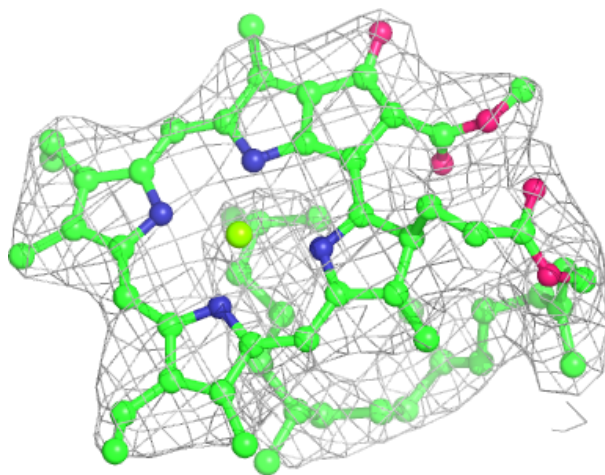
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CLA B 807:**

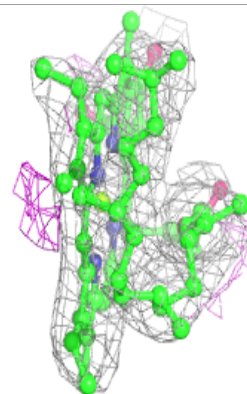
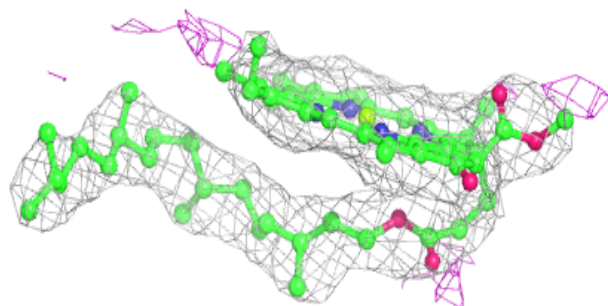
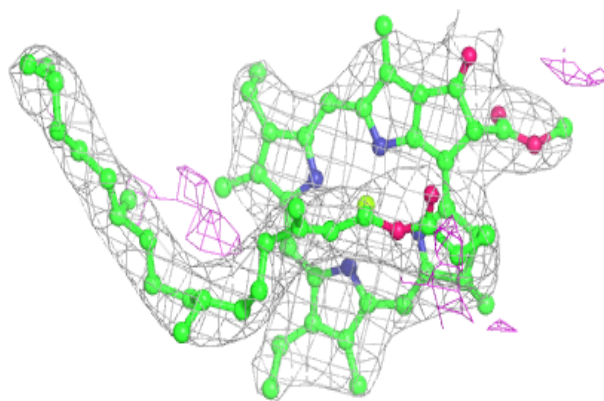
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



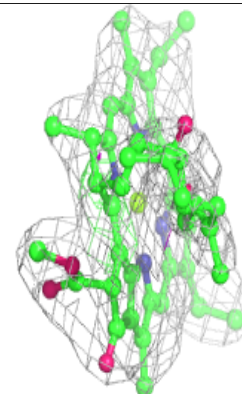
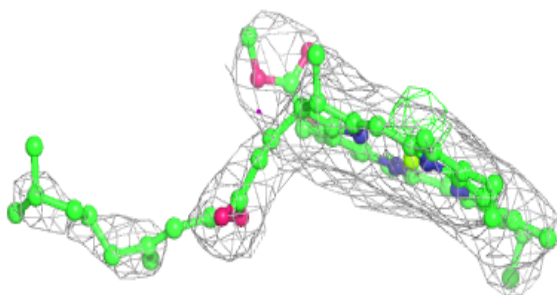
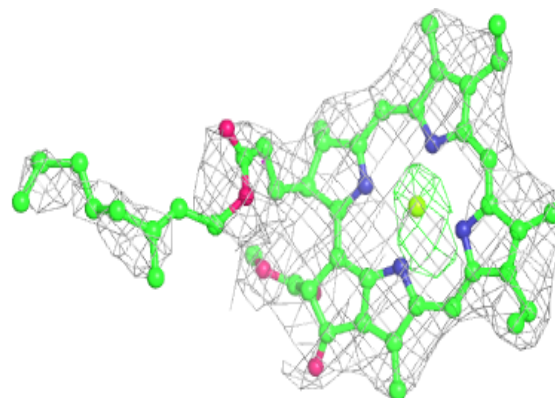


**Electron density around CLA B 836:**

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

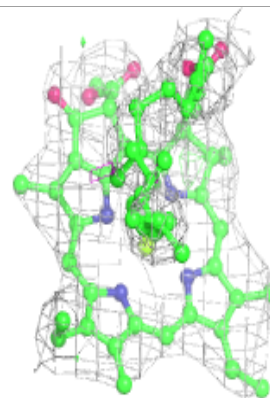
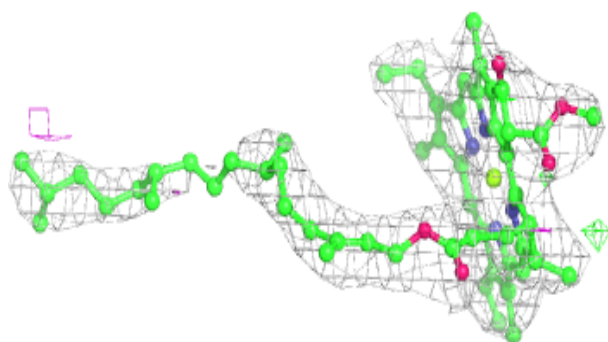
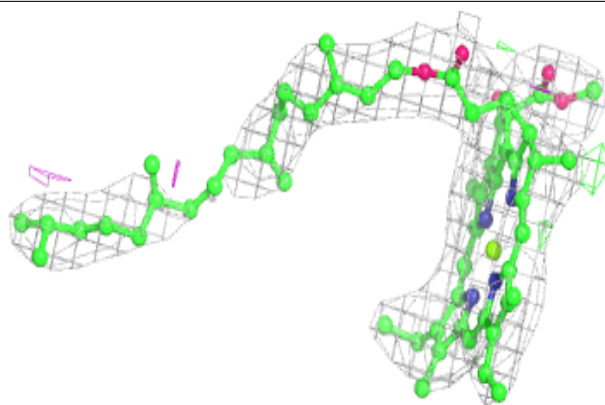
**Electron density around CLA B 823:**

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

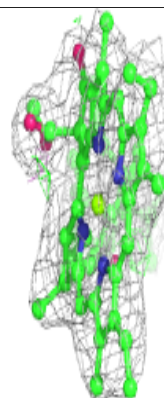
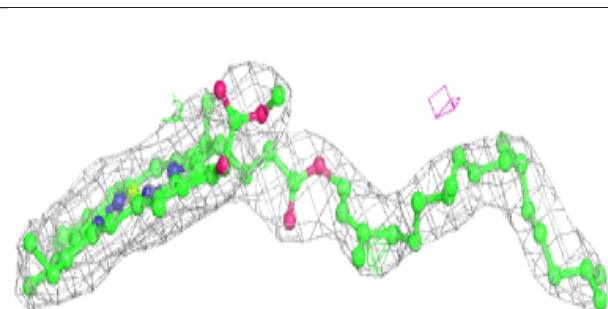
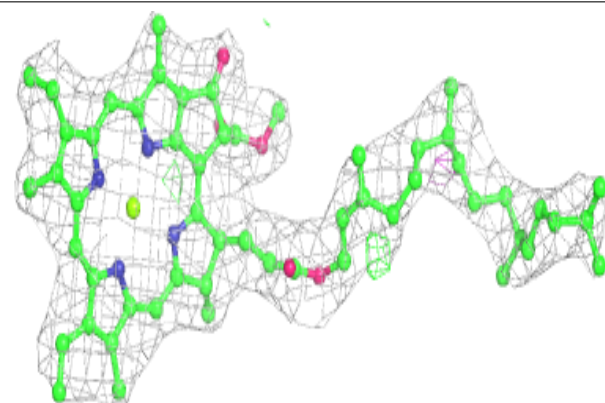


**Electron density around CLA B 829:**

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

**Electron density around CLA A 840:**

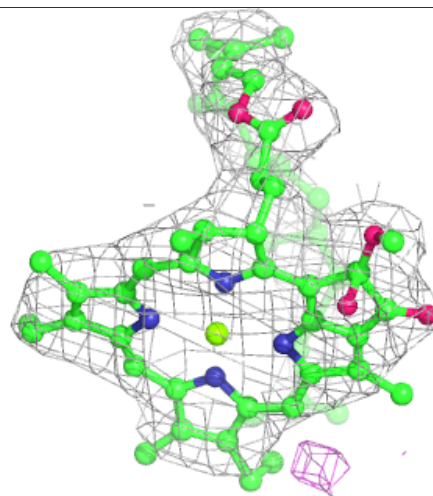
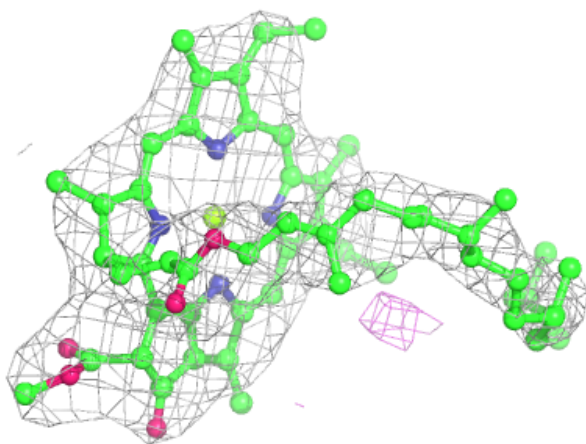
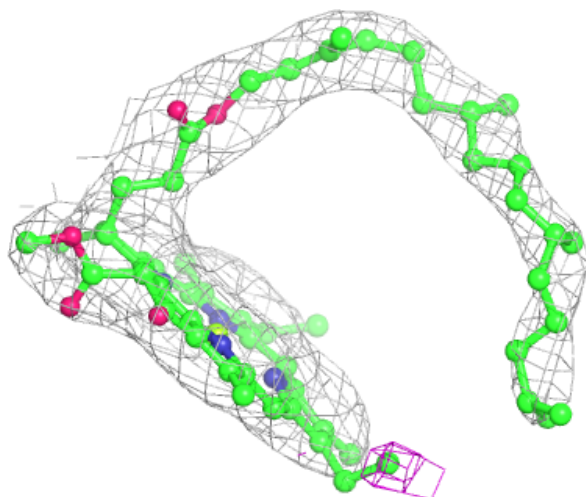
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

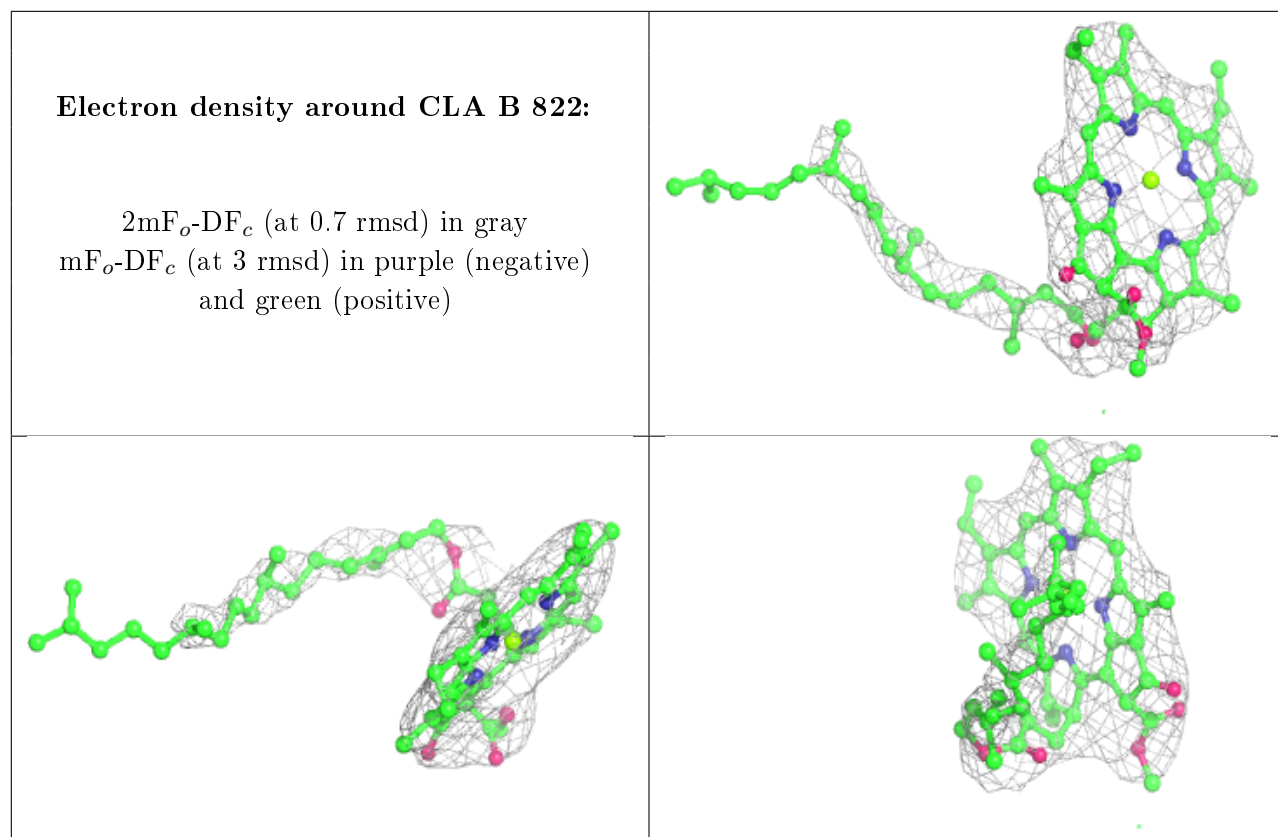




**Electron density around CLA B 820:**

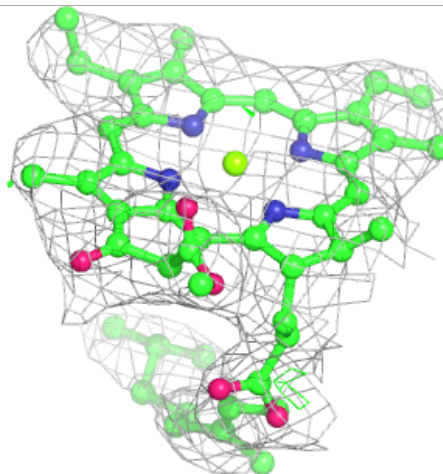
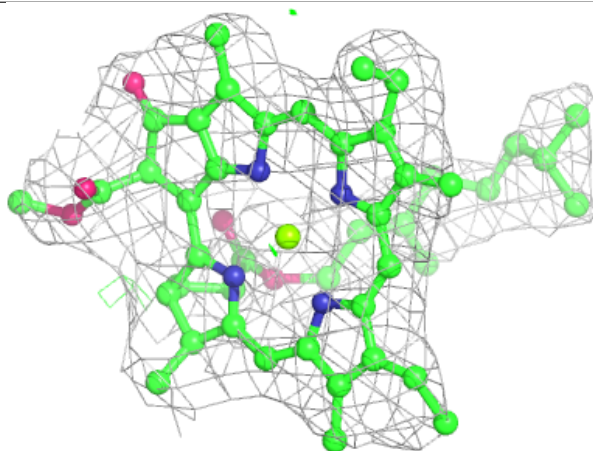
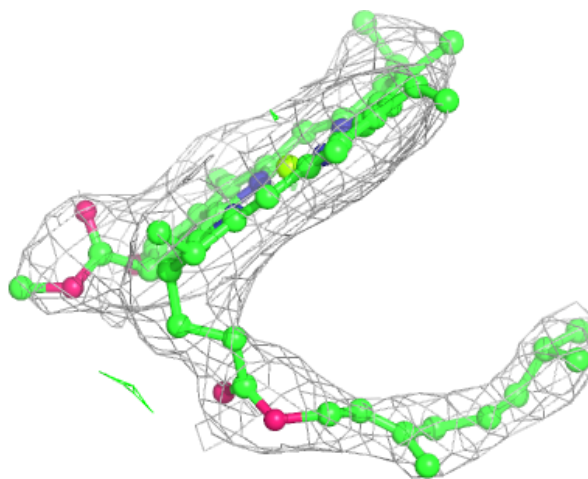
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





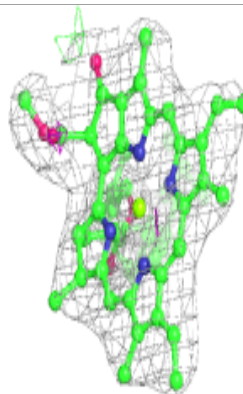
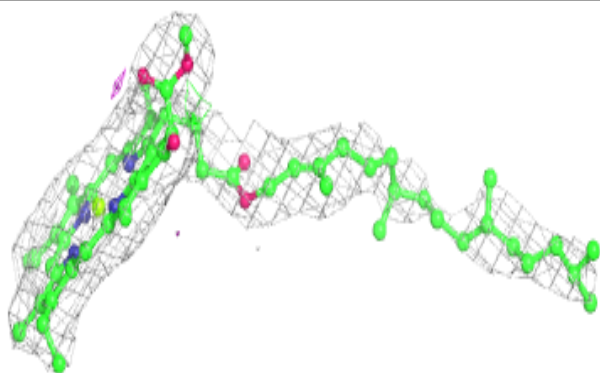
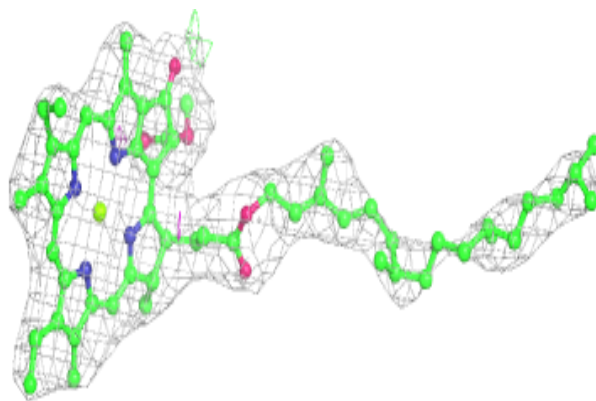
**Electron density around CLA L 301:**

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

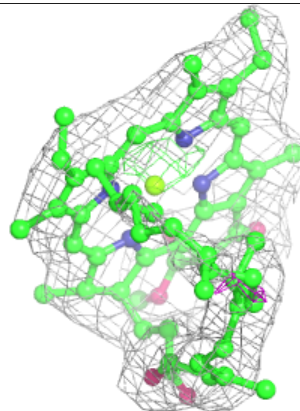
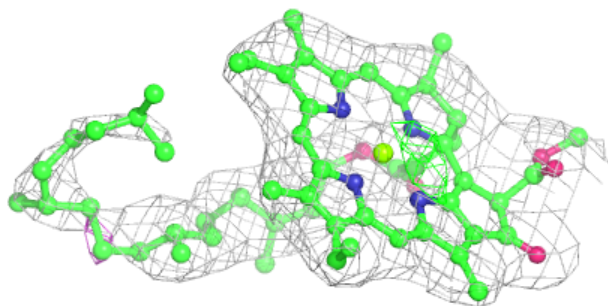
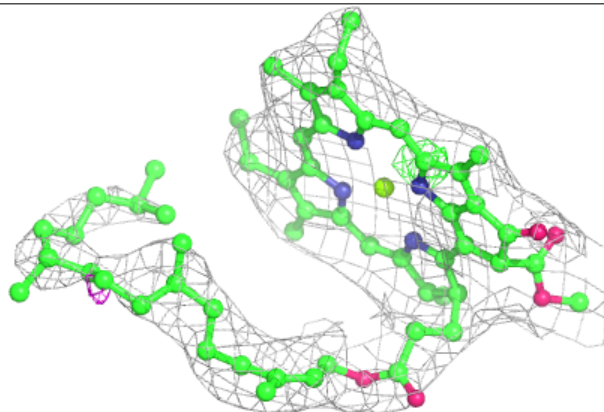


**Electron density around CLA A 809:**

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

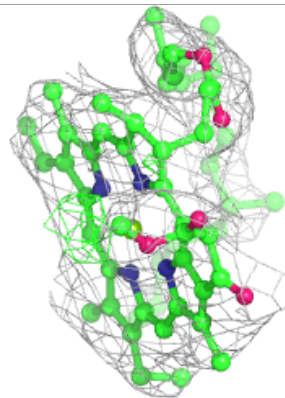
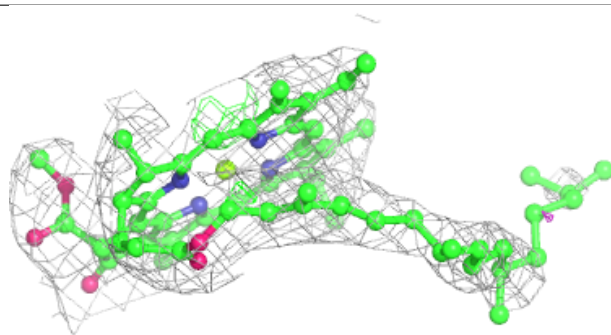
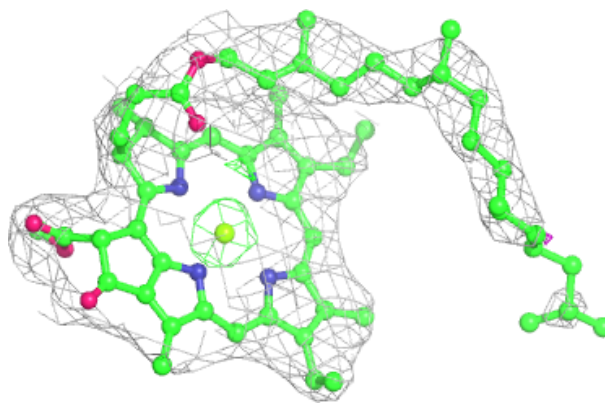
**Electron density around CLA A 824:**

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

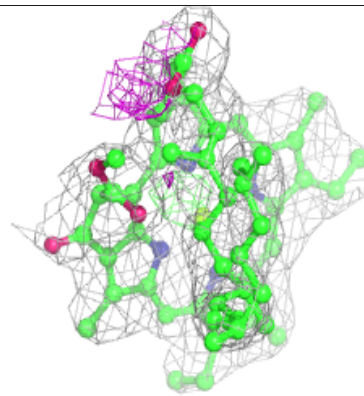
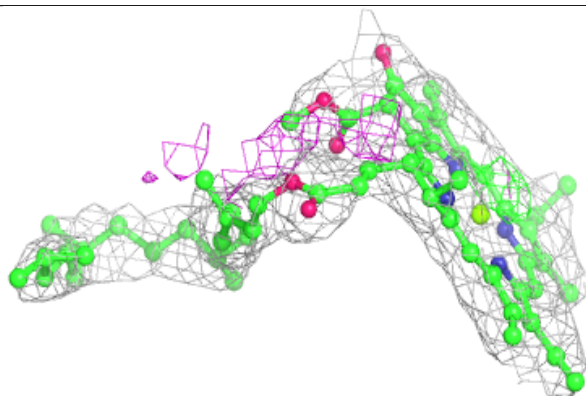
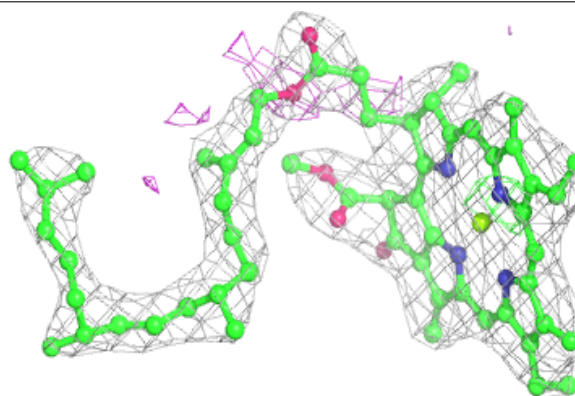


**Electron density around CLA 2 507:**

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

**Electron density around CL0 A 801:**

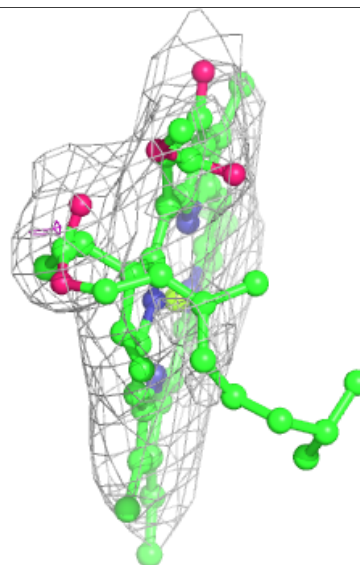
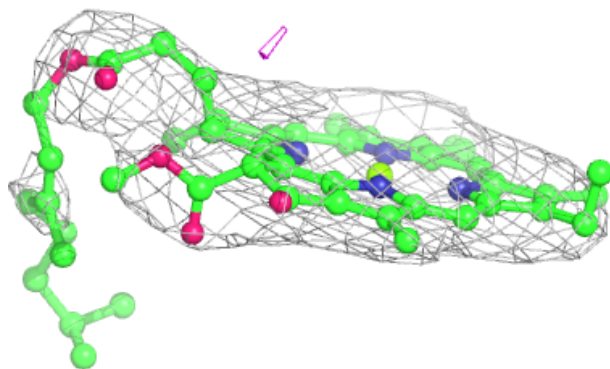
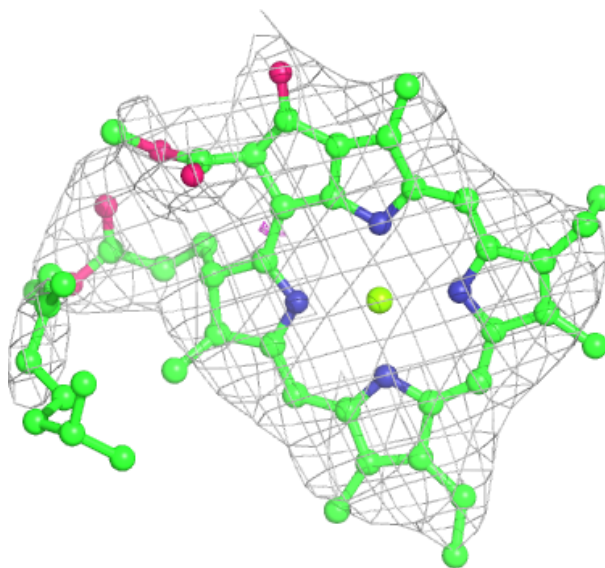
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





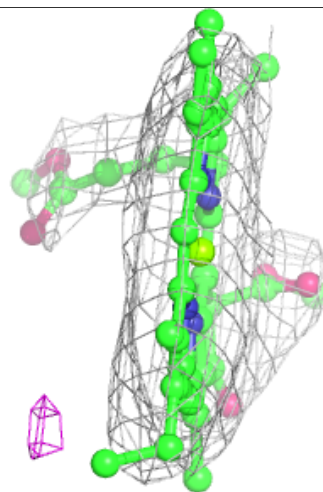
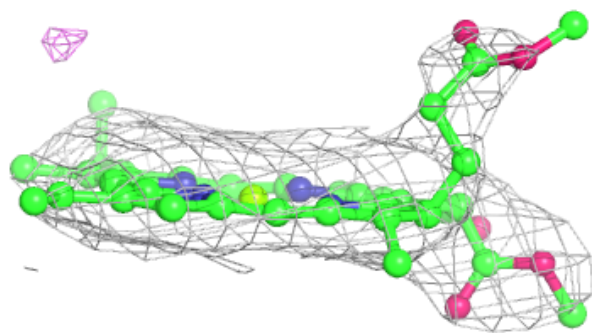
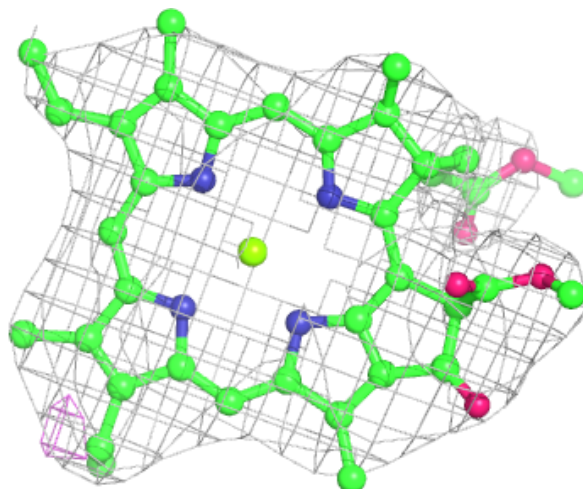
**Electron density around CLA 2 508:**

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



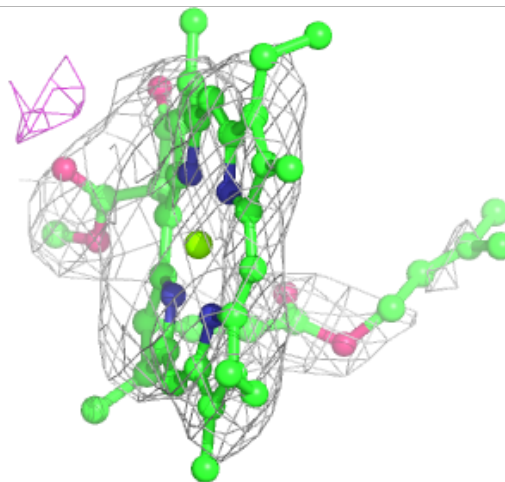
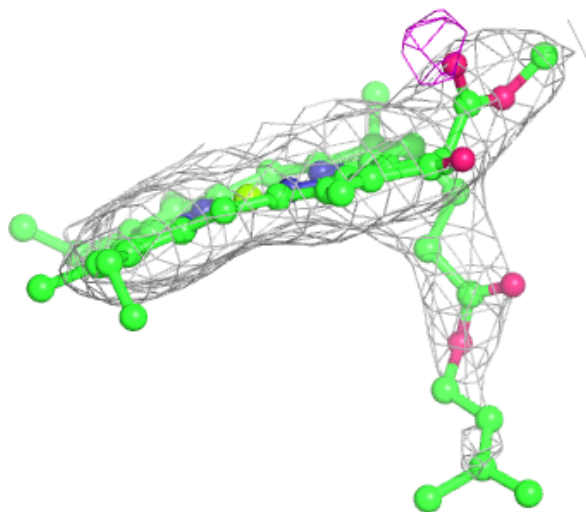
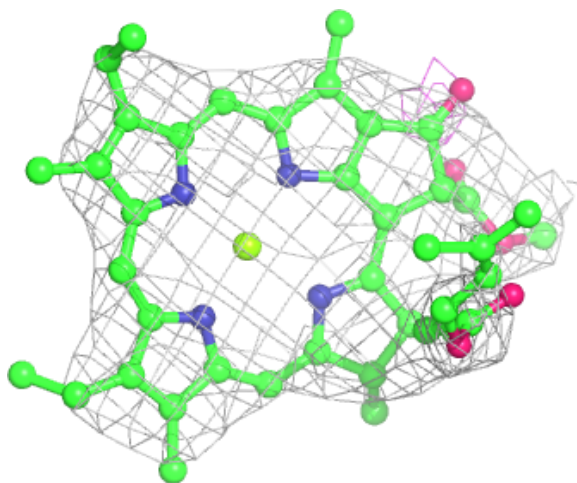
**Electron density around CLA B 813:**

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



**Electron density around CLA A 810:**

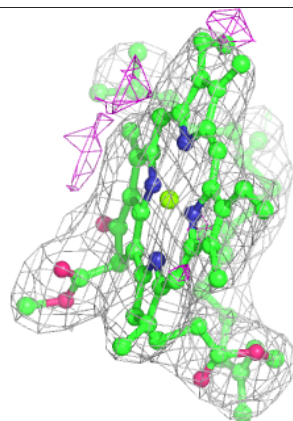
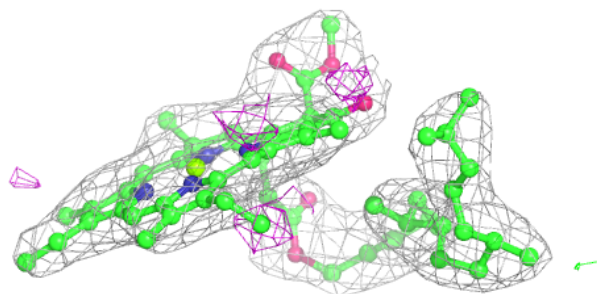
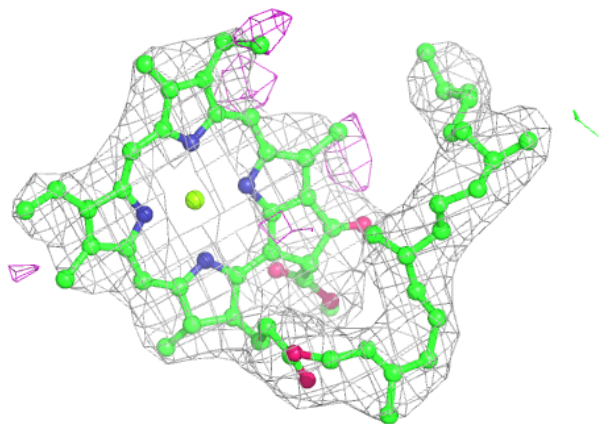
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





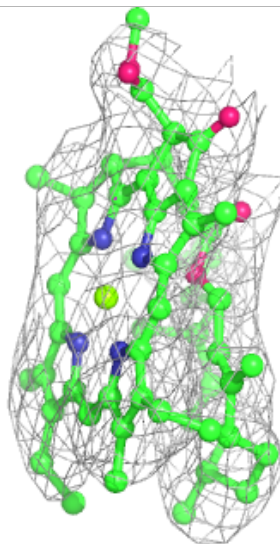
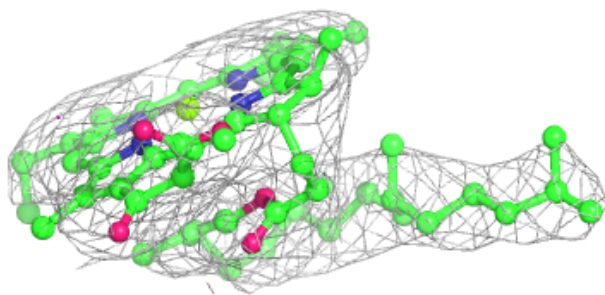
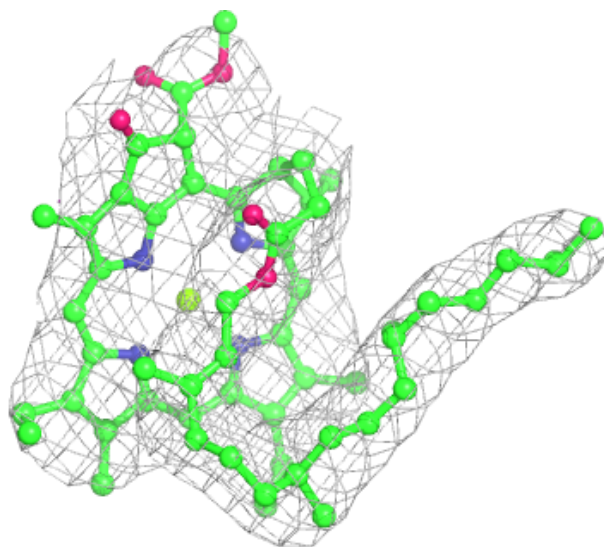
**Electron density around CLA F 302:**

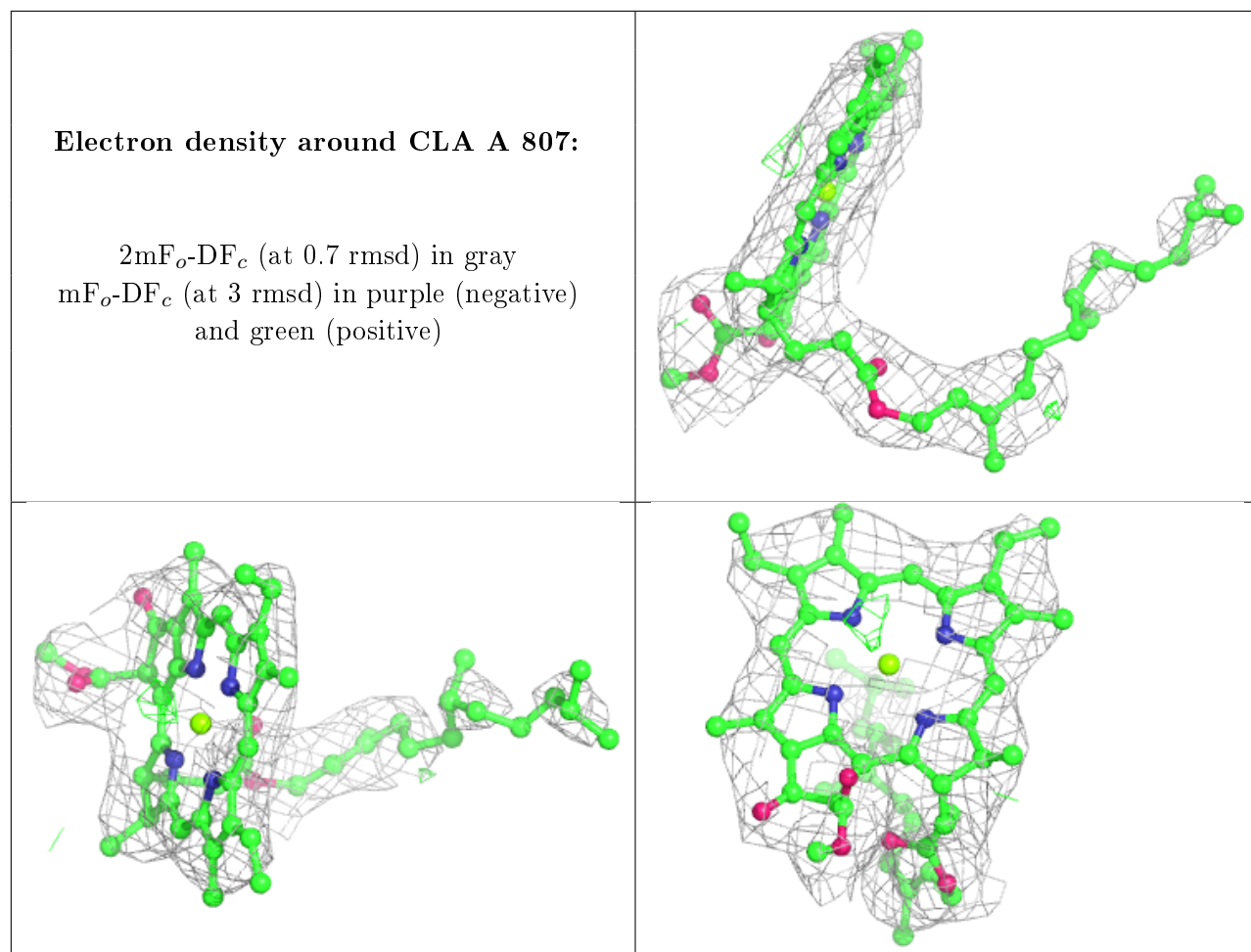
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA B 809:**

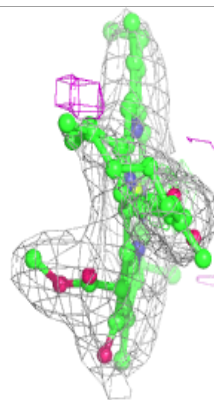
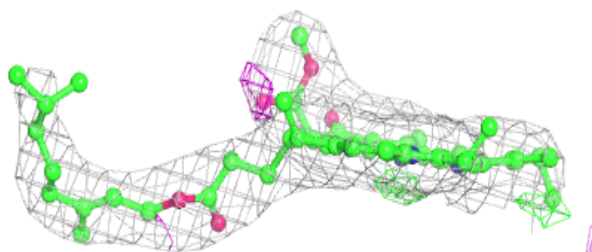
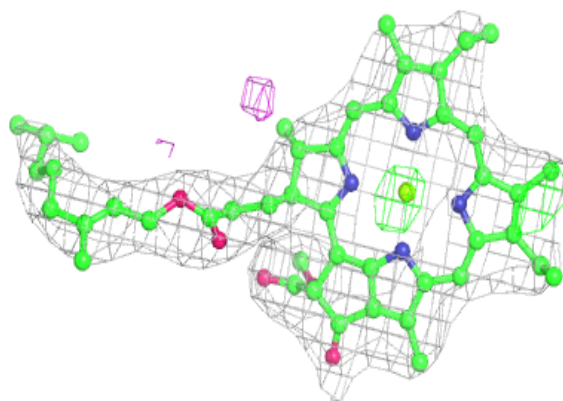
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



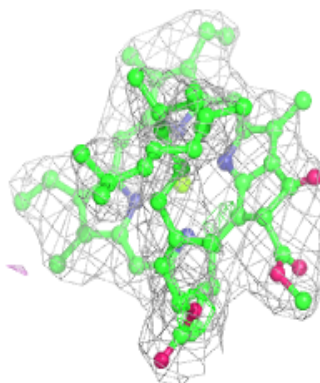
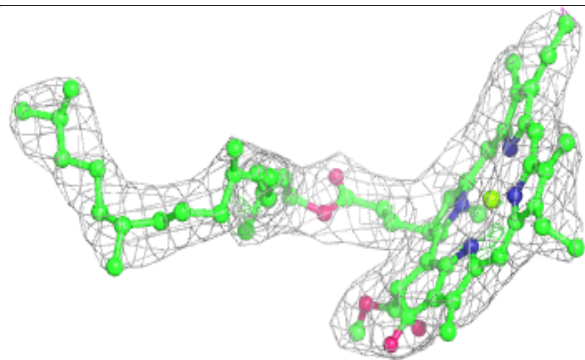
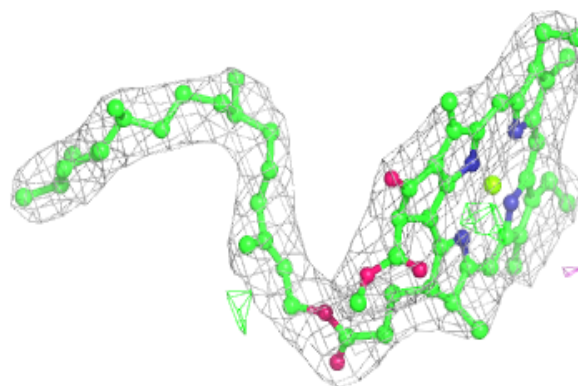


**Electron density around CLA B 835:**

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

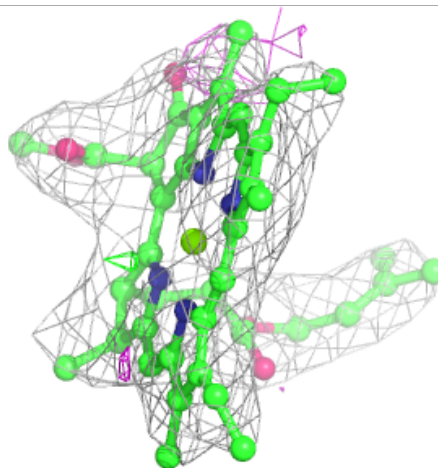
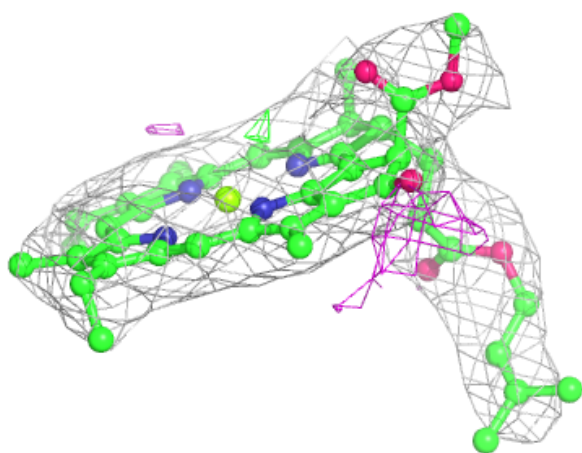
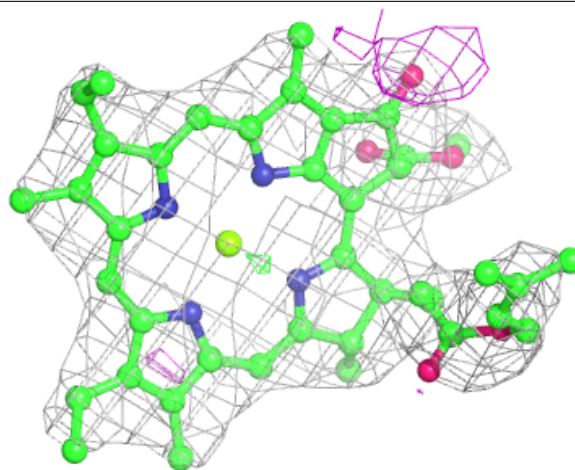
**Electron density around CLA B 803:**

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



**Electron density around CLA B 837:**

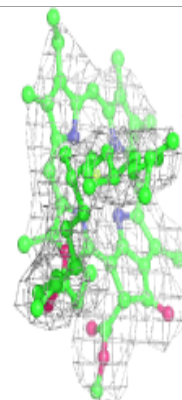
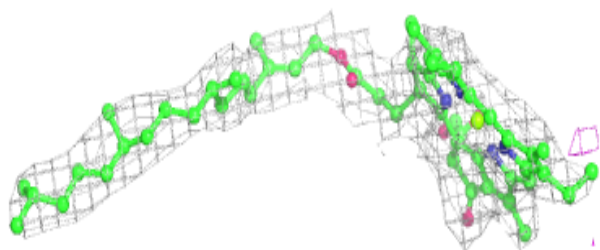
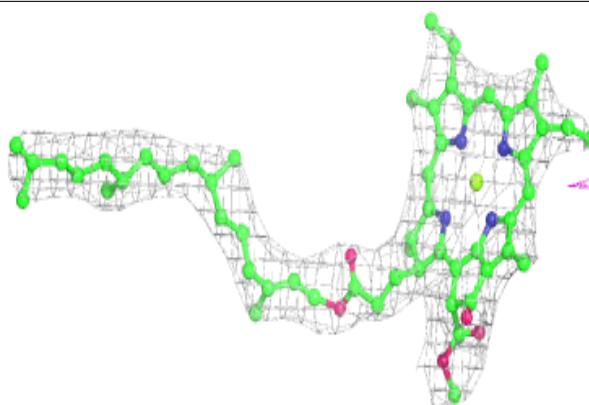
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



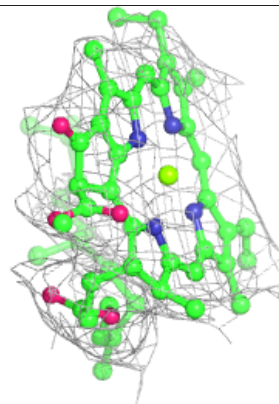
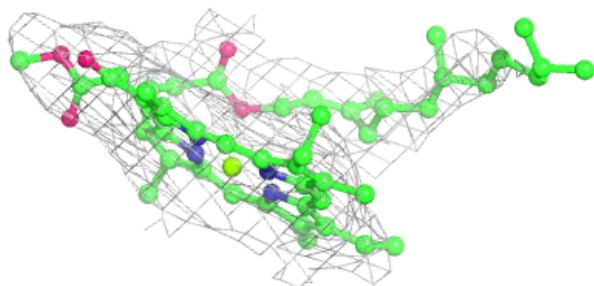
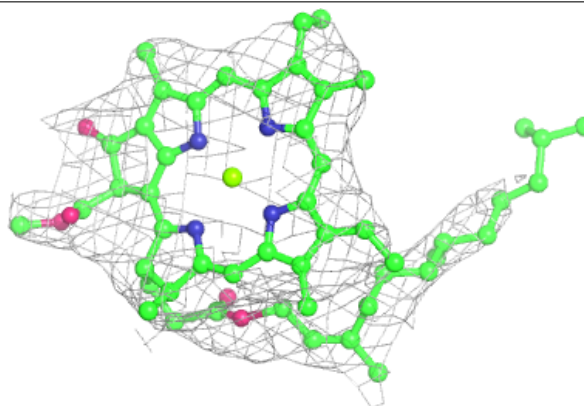


**Electron density around CLA A 803:**

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

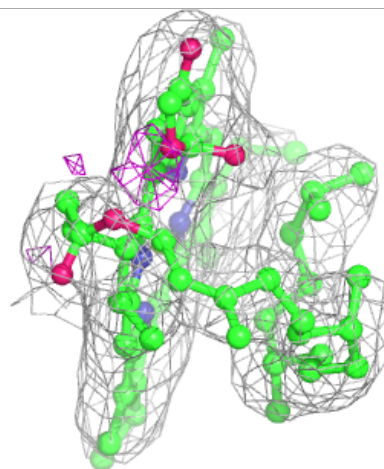
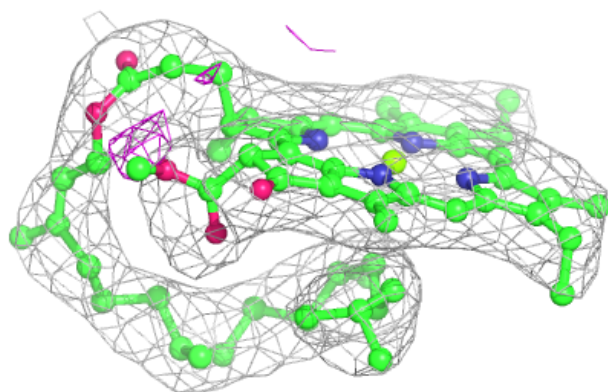
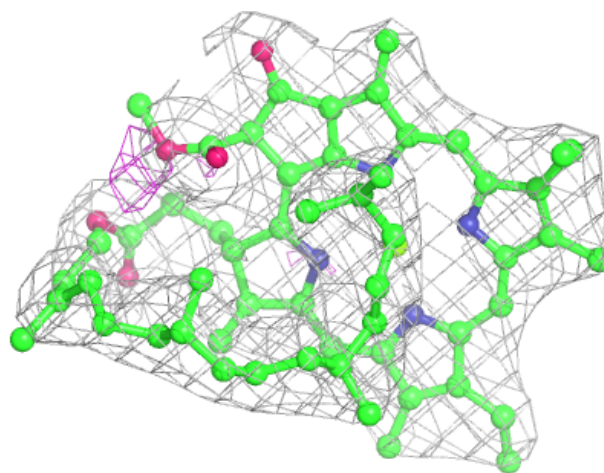
**Electron density around CLA 2 504:**

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



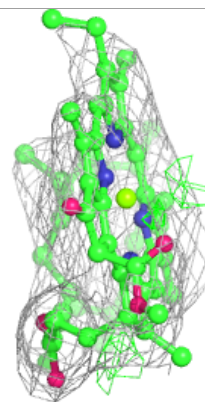
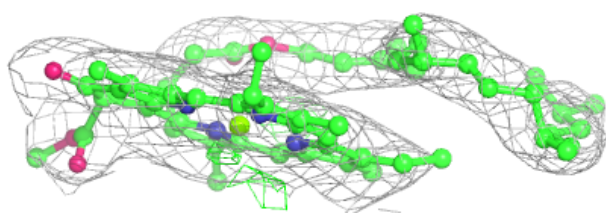
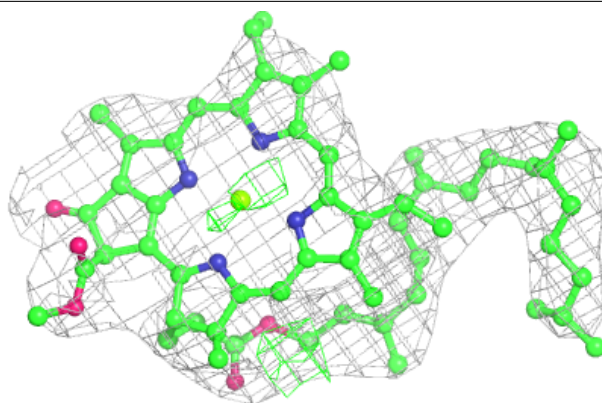
**Electron density around CLA A 806:**

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

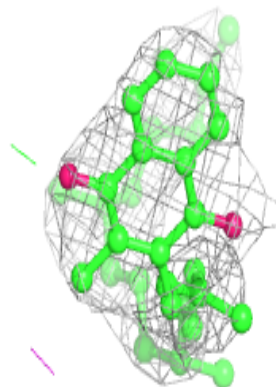
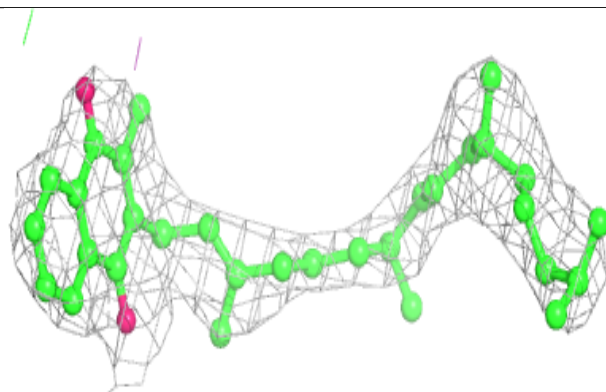
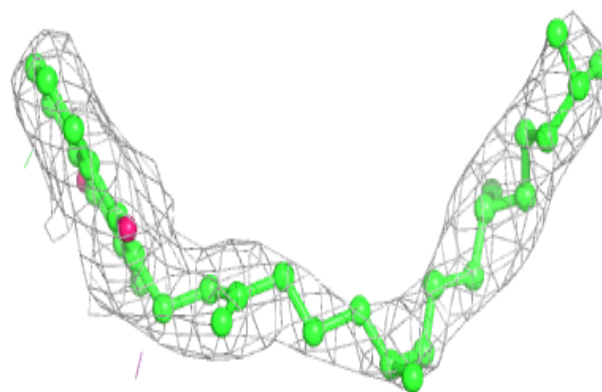


**Electron density around CLA A 819:**

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

**Electron density around PQN B 841:**

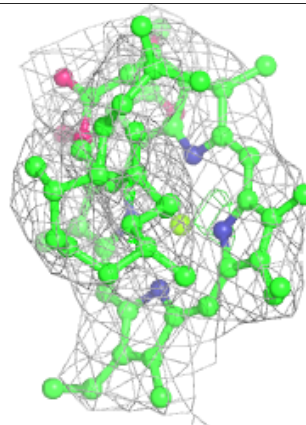
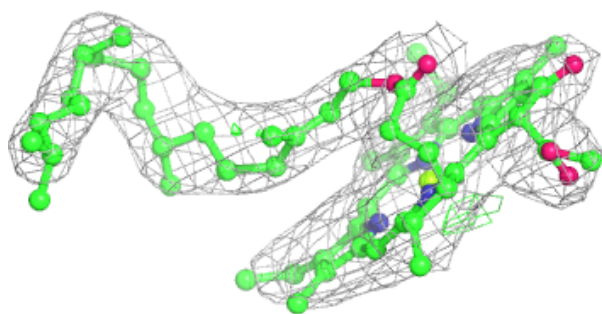
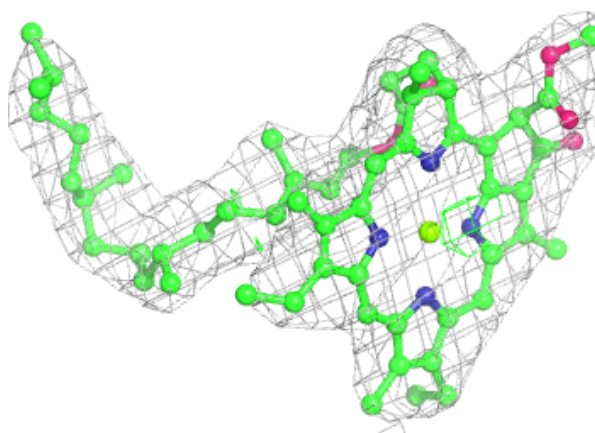
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



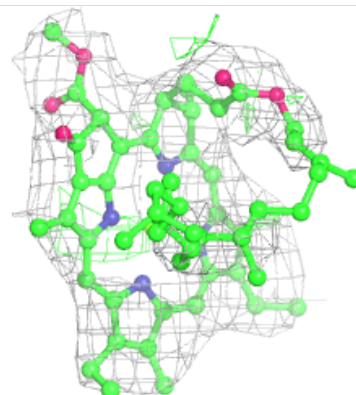
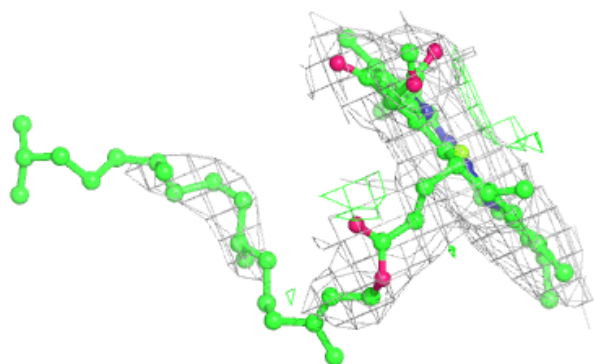
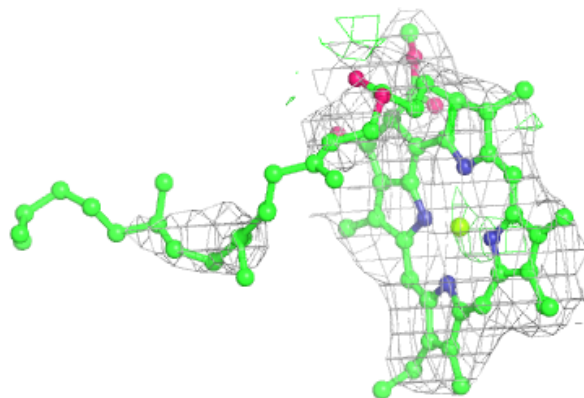


**Electron density around CLA A 855:**

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

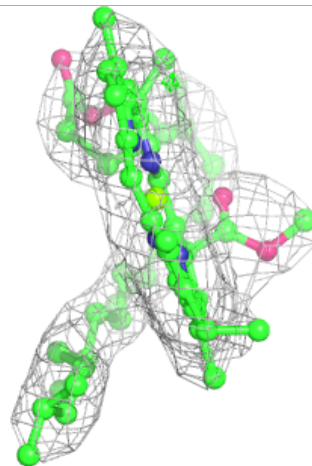
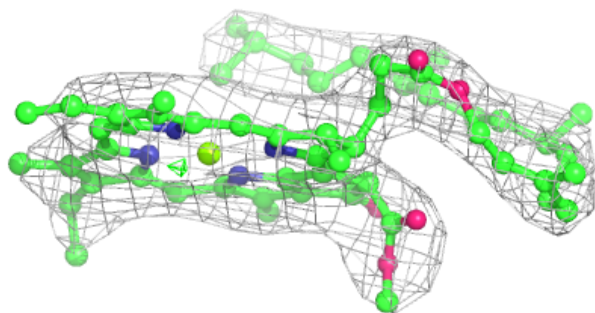
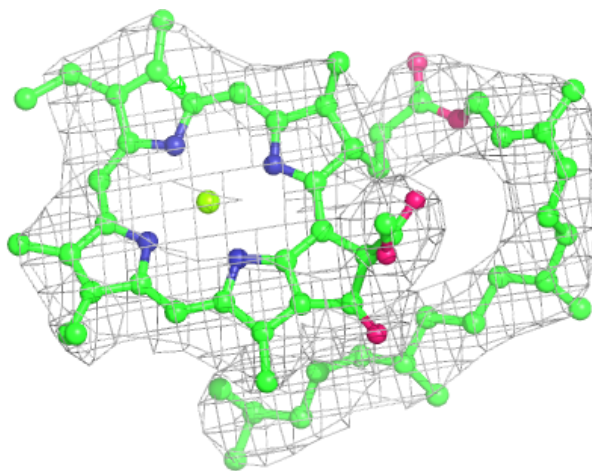
**Electron density around CLA 4 315:**

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



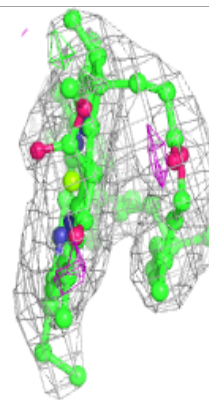
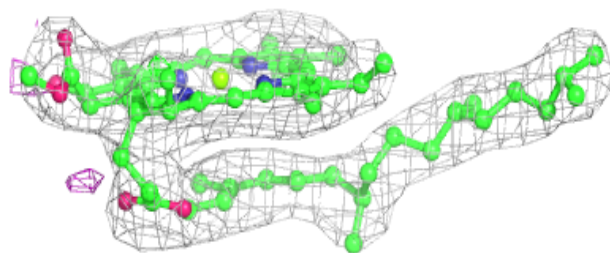
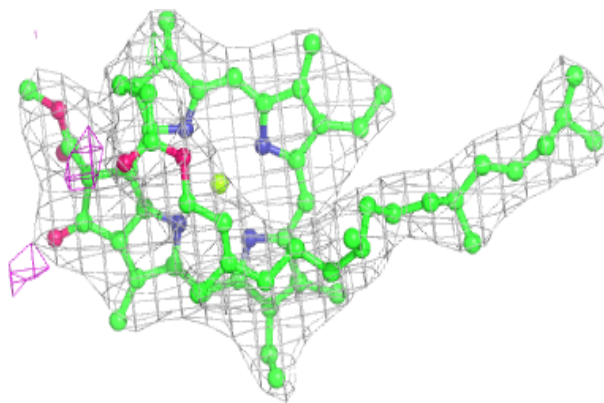
**Electron density around CLA B 806:**

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

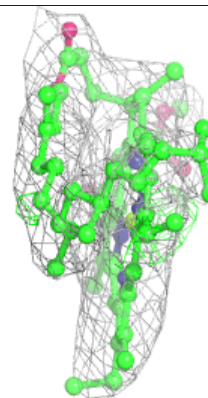
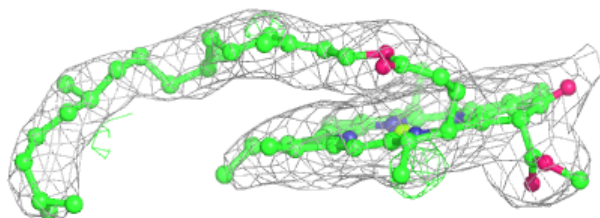
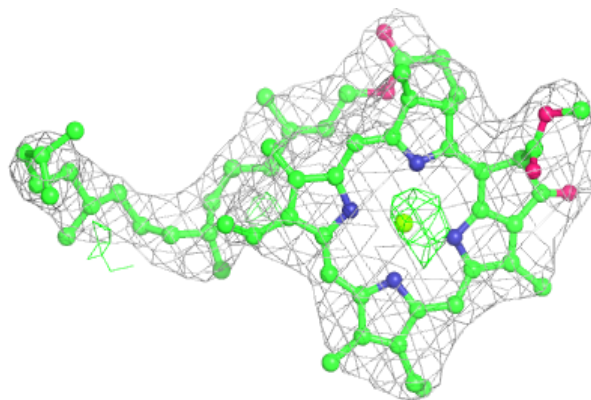


**Electron density around CLA A 839:**

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

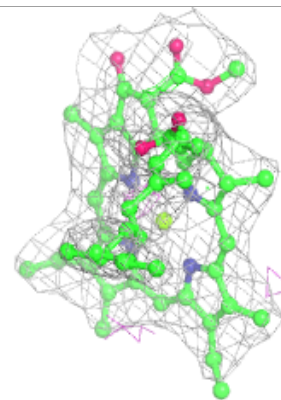
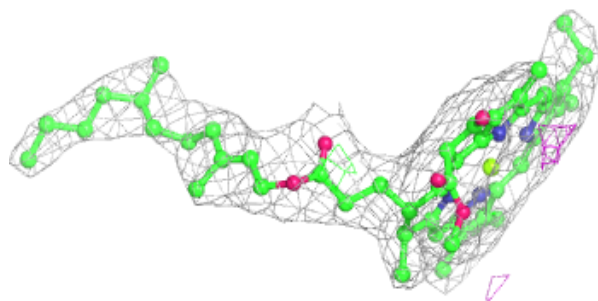
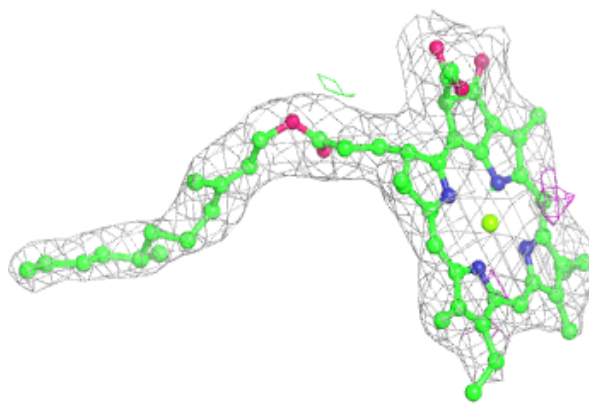
**Electron density around CLA B 819:**

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

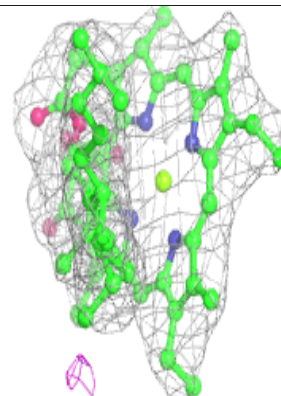
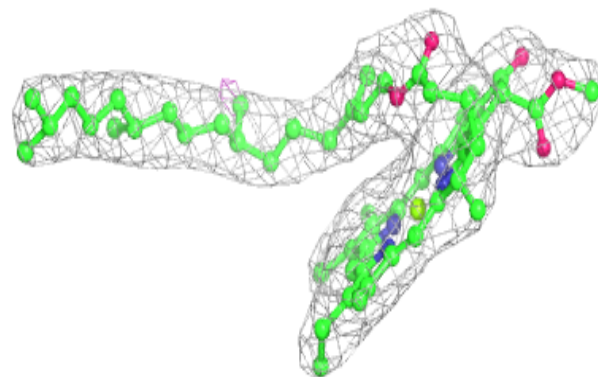
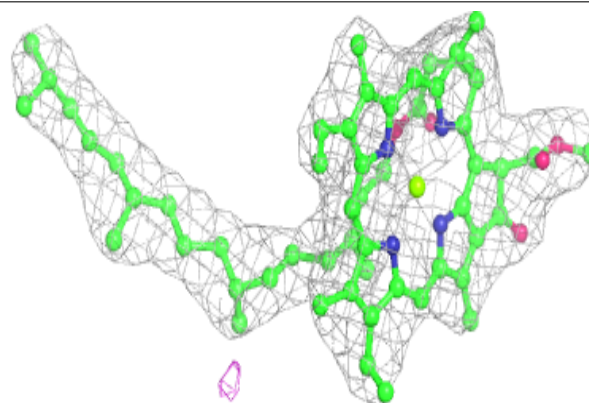


**Electron density around CLA B 832:**

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

**Electron density around CLA A 841:**

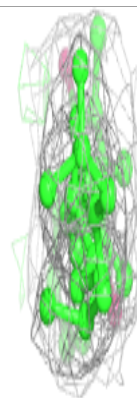
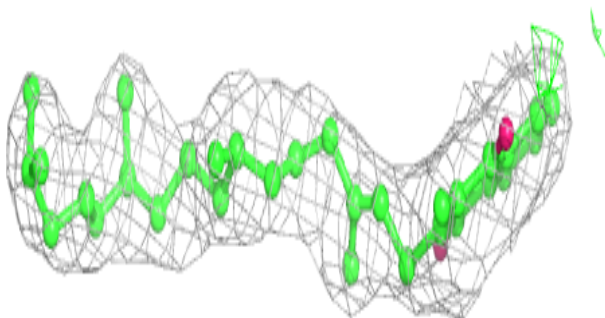
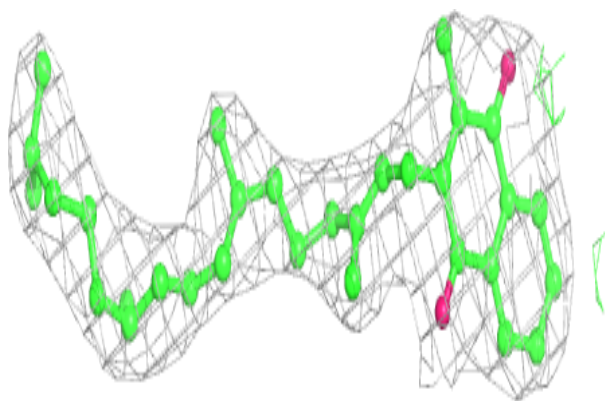
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



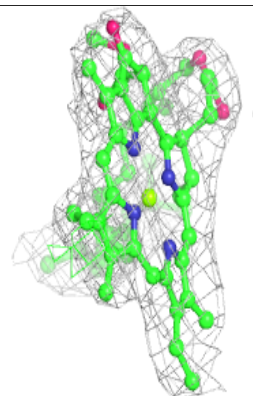
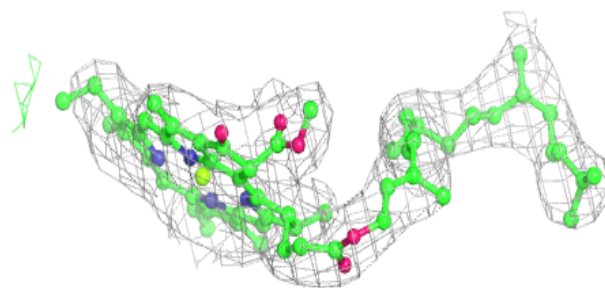
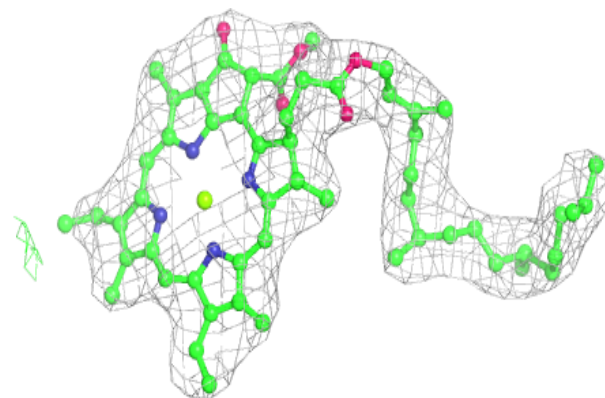


**Electron density around PQN A 844:**

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

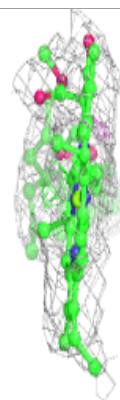
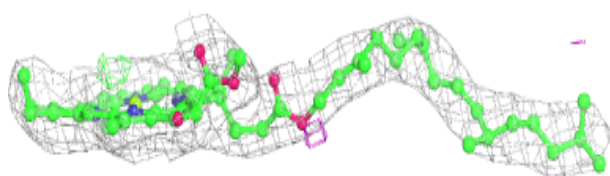
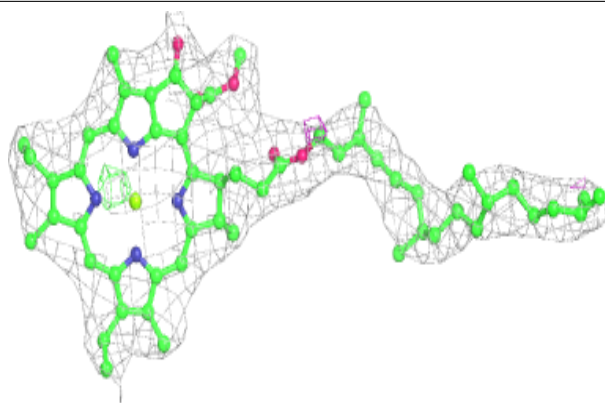
**Electron density around CLA J 1101:**

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

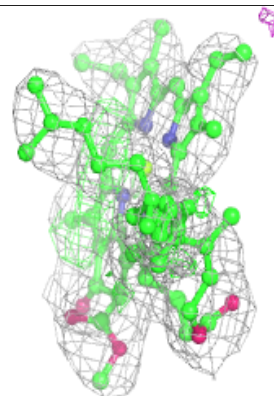
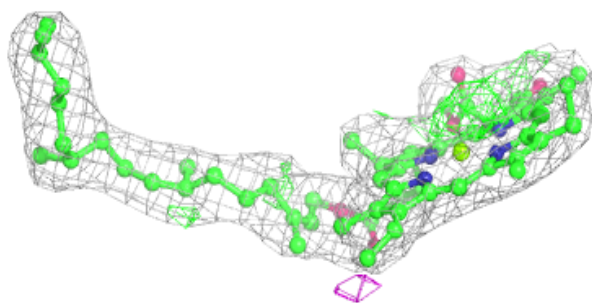
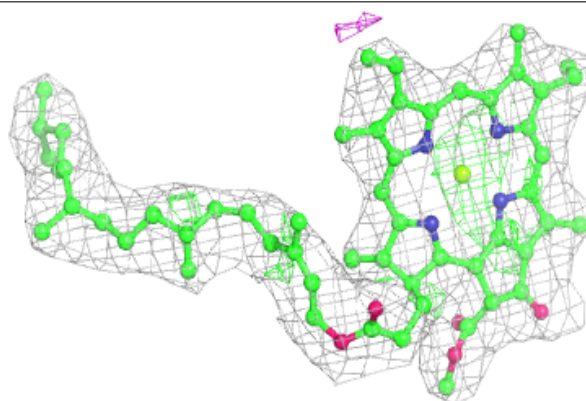


**Electron density around CLA A 832:**

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

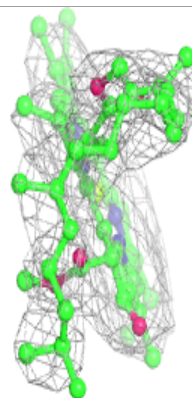
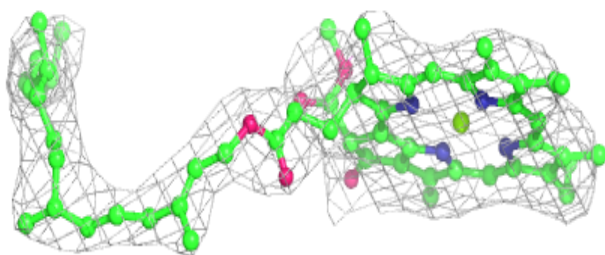
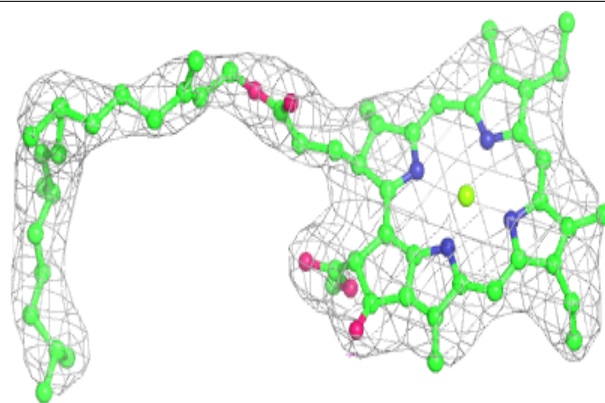
**Electron density around CLA A 802:**

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

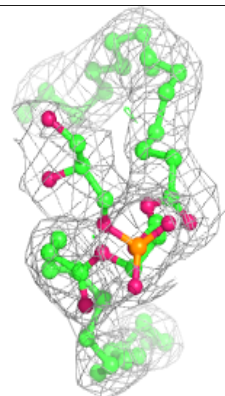
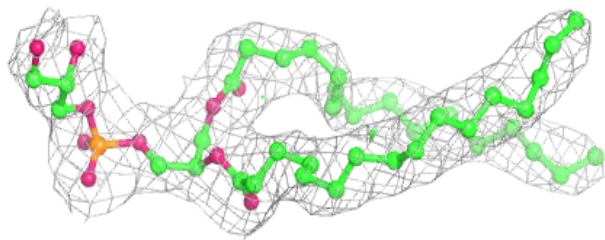
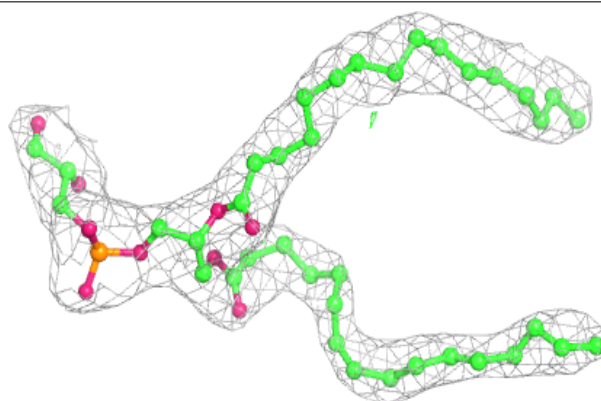


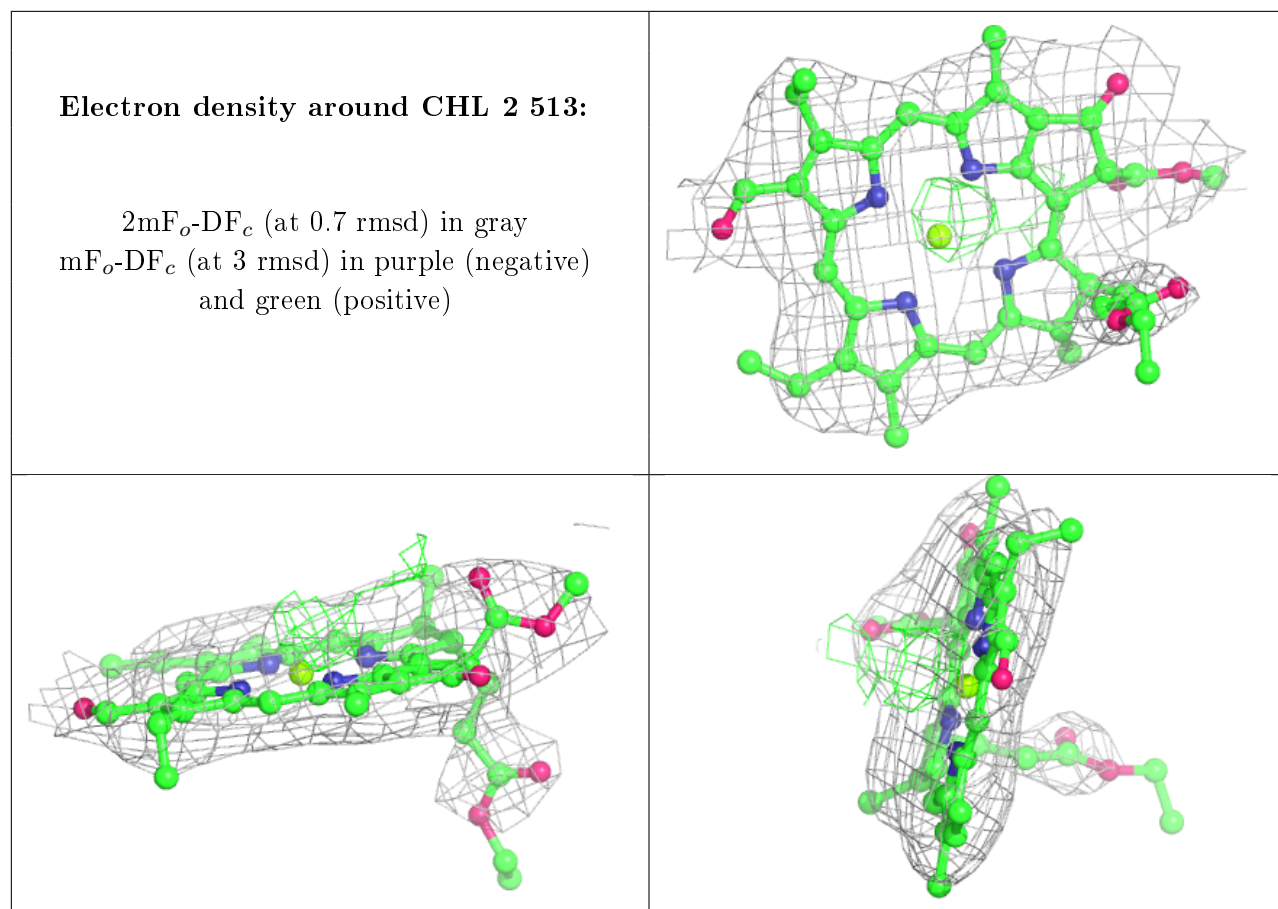
**Electron density around CLA B 826:**

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

**Electron density around LHG A 853:**

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





## 6.5 Other polymers [i](#)

There are no such residues in this entry.