



# wwPDB X-ray Structure Validation Summary Report ⓘ

Jun 22, 2024 – 08:36 PM EDT

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.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.37.1  
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) : 2.37.1

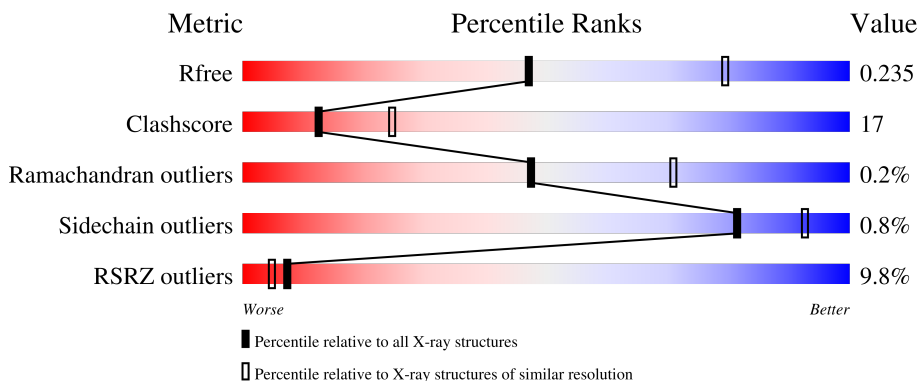
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 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)

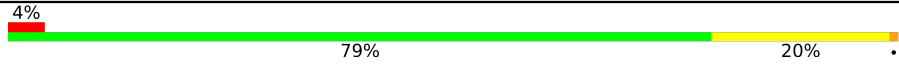
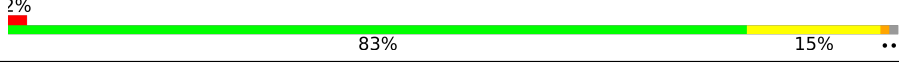

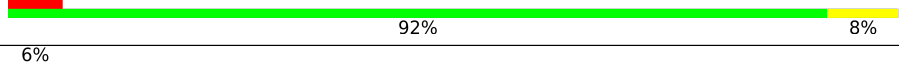

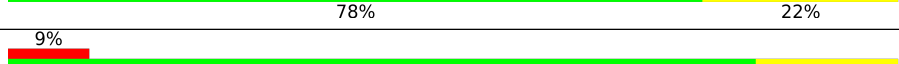

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria 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	 30% 70% 29%
2	2	269	 10% 56% 22% 23%
3	3	275	 12% 60% 20% 20%
4	4	198	 12% 74% 26%
5	A	758	 7% 78% 20%

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Mol	Chain	Length	Quality of chain
6	B	734	
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	506	X	-	-	-
19	CLA	1	507	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	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	309	X	-	-	-
19	CLA	4	310	X	-	-	-
19	CLA	4	311	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	813	X	-	-	-
19	CLA	A	814	X	-	-	-
19	CLA	A	815	X	-	-	-
19	CLA	A	816	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
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	835	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	-	-	-
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	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
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	831	X	-	-	-
19	CLA	B	832	X	-	-	-
19	CLA	B	833	X	-	-	-
19	CLA	B	834	X	-	-	-
19	CLA	B	836	X	-	-	-
19	CLA	B	837	X	-	-	-
19	CLA	B	838	X	-	-	-
19	CLA	B	839	X	-	-	-
19	CLA	F	302	X	-	-	-
19	CLA	G	201	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	-	-	-
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	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
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

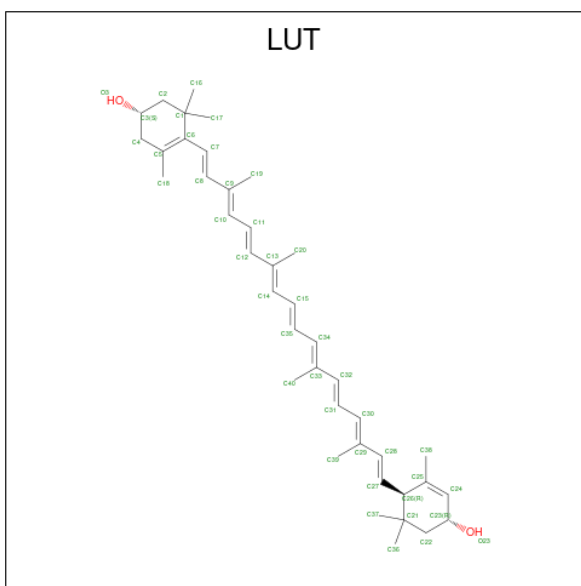
- Molecule 16 is a protein called Putative uncharacterized protein.

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>).



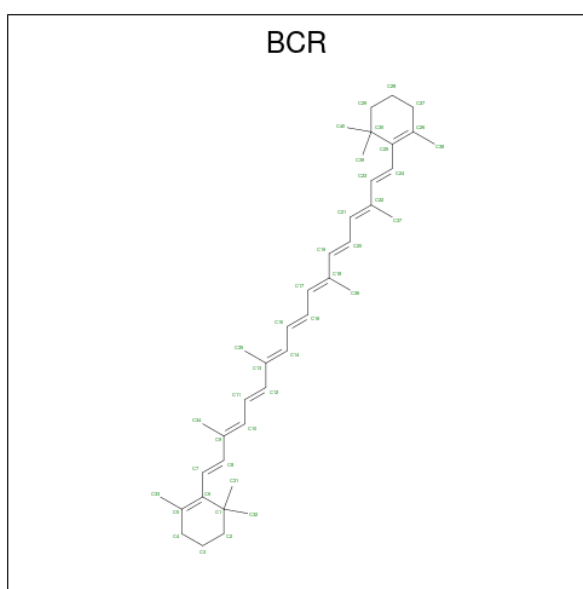
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
17	1	1	Total	C	O	0	0
			42	40	2		
17	1	1	Total	C	O	0	0
			42	40	2		
17	2	1	Total	C	O	0	0
			42	40	2		

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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>).



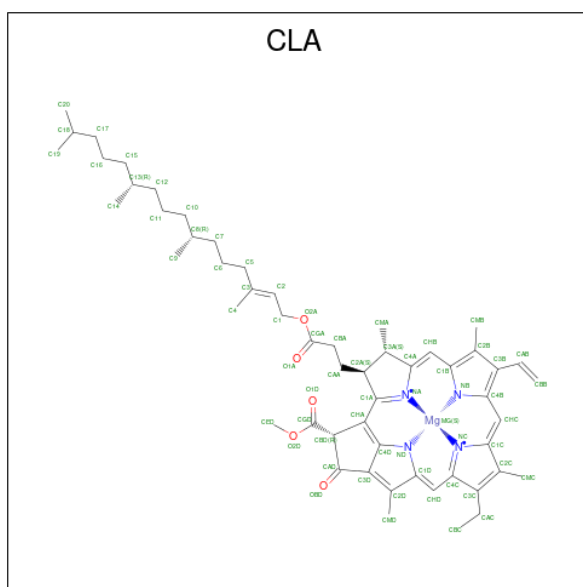
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
18	1	1	Total	C	0	0
			19	19		
18	2	1	Total	C	0	0
			40	40		
18	3	1	Total	C	0	0
			40	40		
18	3	1	Total	C	0	0
			40	40		
18	4	1	Total	C	0	0
			40	40		
18	A	1	Total	C	0	0
			40	40		
18	A	1	Total	C	0	0
			40	40		

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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	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
			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
19	A	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
19	A	1	Total	C	Mg	N	O	0	0
			46	36	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
			56	46	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
			60	50	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
			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		
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
			55	45	1	4	5		

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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
			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
			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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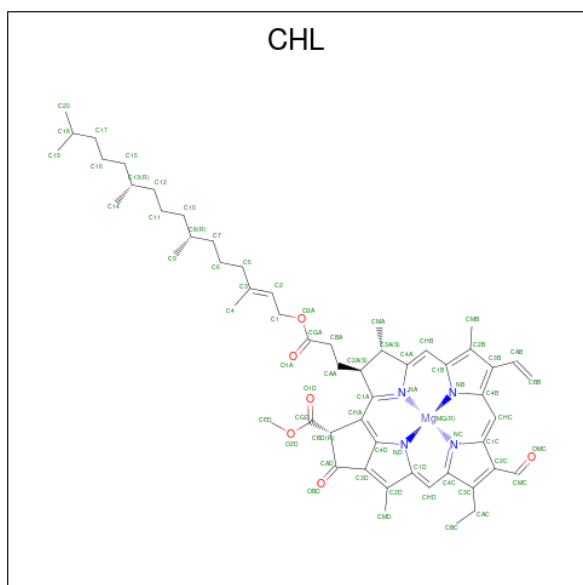
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
19	F	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
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:  $C_{55}H_{70}MgN_4O_6$ ).



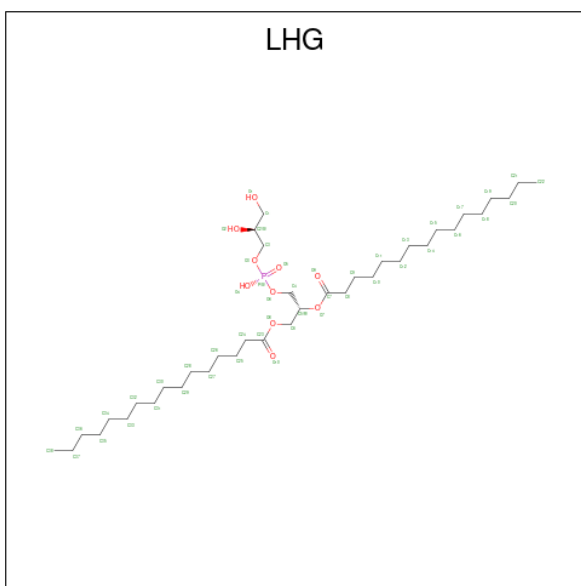
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
20	1	1	Total	C	Mg	N	O	0	0
			47	36	1	4	6		
20	1	1	Total	C	Mg	N	O	0	0
			61	50	1	4	6		
20	1	1	Total	C	Mg	N	O	0	0
			56	45	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			47	36	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			48	37	1	4	6		
20	2	1	Total	C	Mg	N	O	0	0
			46	35	1	4	6		
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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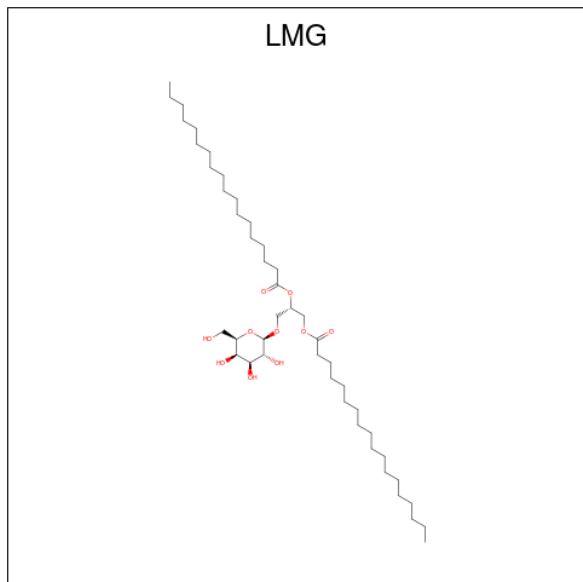
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
20	4	1	Total	C	Mg	N	O	0	0
			47	36	1	4	6		
20	4	1	Total	C	Mg	N	O	0	0
			51	40	1	4	6		
20	4	1	Total	C	Mg	N	O	0	0
			61	50	1	4	6		
20	4	1	Total	C	Mg	N	O	0	0
			43	34	1	4	4		

- Molecule 21 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: C<sub>38</sub>H<sub>75</sub>O<sub>10</sub>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>).



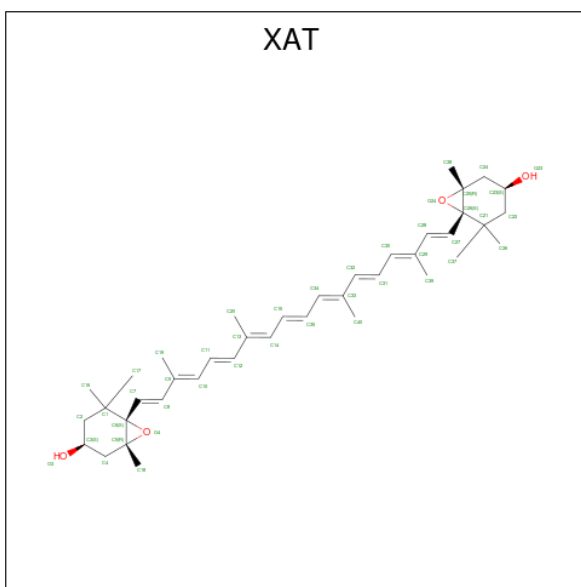
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
22	1	1	Total	C	O	0	0
			46	36	10		
22	1	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			25	15	10		
22	2	1	Total	C	O	0	0
			36	26	10		
22	2	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			13	7	6		
22	2	1	Total	C	O	0	0
			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		

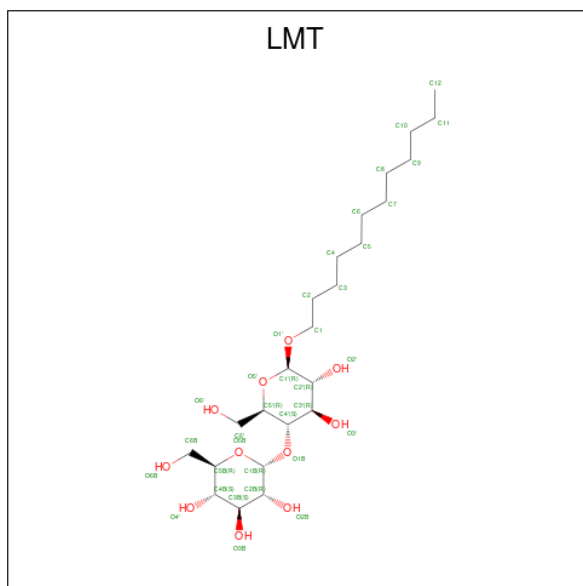
- Molecule 23 is (3S,5R,6S,3'S,5'R,6'S)-5,6,5',6'-DIEPOXY-5,6,5',6'- TETRAHYDRO-BETA ,BETA-CAROTENE-3,3'-DIOL (three-letter code: XAT) (formula: C<sub>40</sub>H<sub>56</sub>O<sub>4</sub>).



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	3	1	Total Ca 1 1	0	0

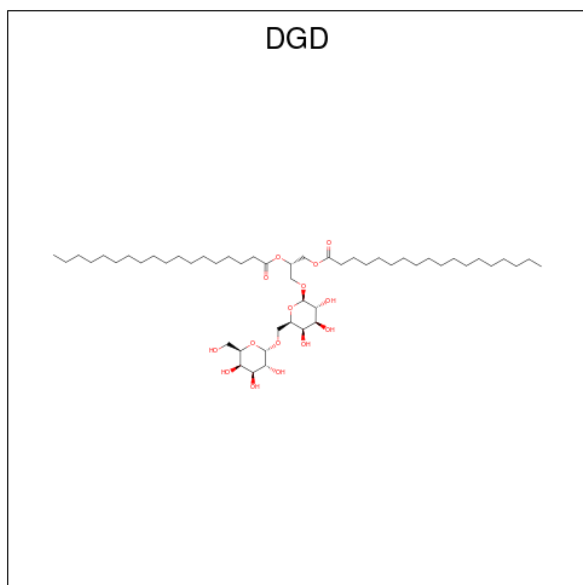
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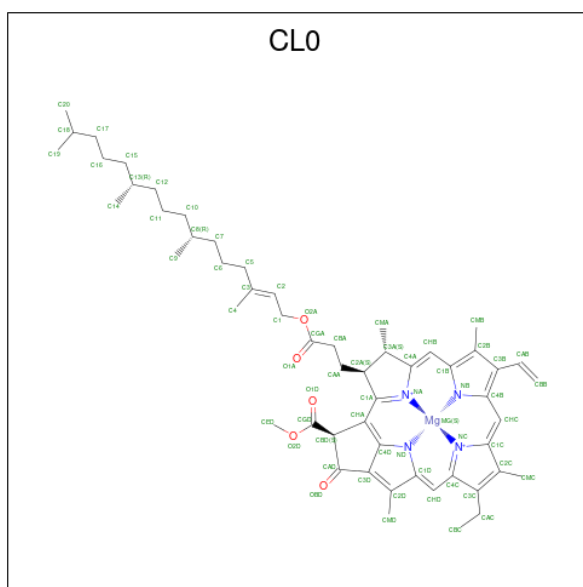
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
25	B	1	Total	Ca	0	0
			1	1		

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



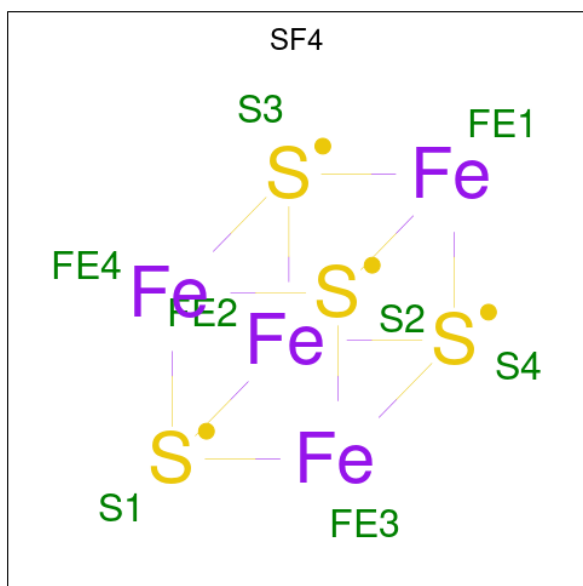
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
26	4	1	Total	C	O	0	0
			51	36	15		
26	B	1	Total	C	O	0	0
			41	26	15		
26	B	1	Total	C	O	0	0
			61	46	15		
26	G	1	Total	C	O	0	0
			47	32	15		
26	J	1	Total	C	O	0	0
			58	43	15		

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



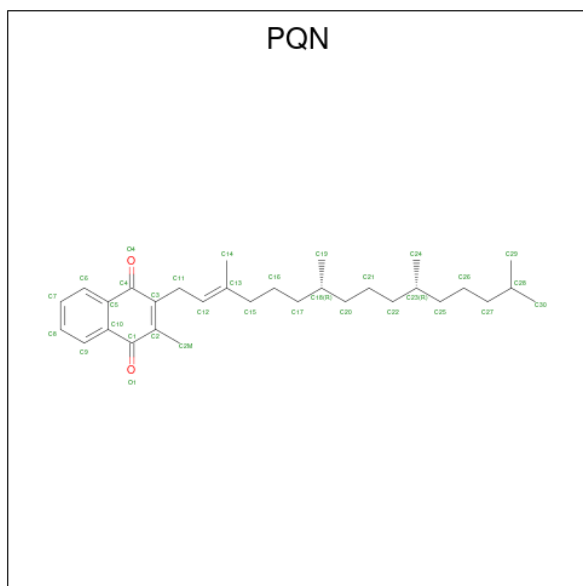
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
			Total	C	Mg	N			O
27	A	1	65	55	1	4	5	0	0

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



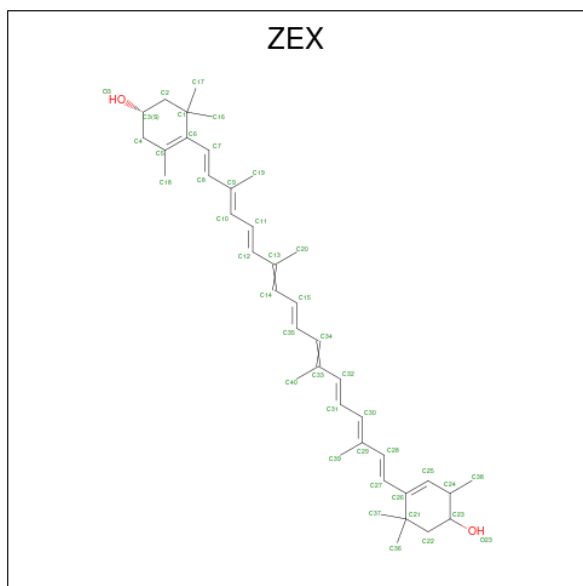
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	Fe	S		
28	A	1	8	4	4	0	0
28	C	1	8	4	4	0	0
28	C	1	8	4	4	0	0

- 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:  $C_{40}H_{56}O_2$ ).

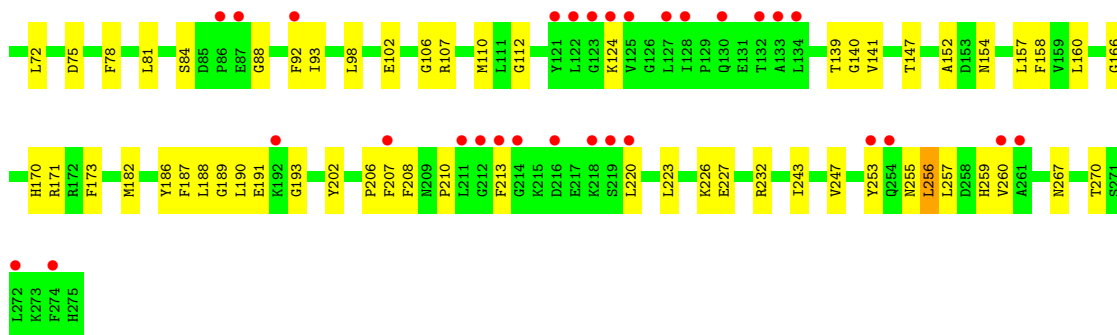


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
30	F	1	Total	C	O	0	0
			42	40	2		

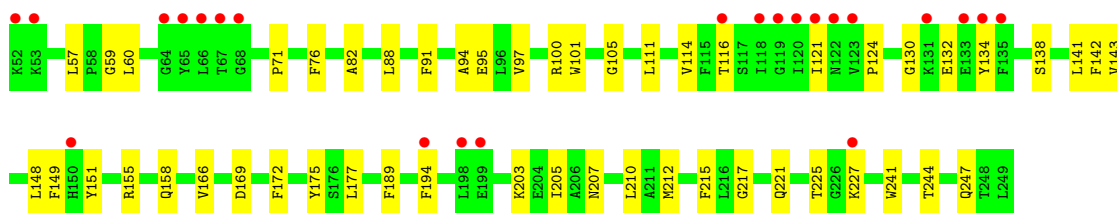
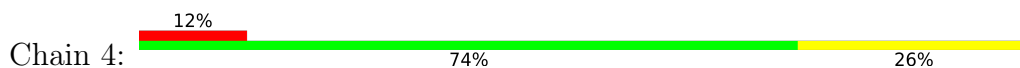
- Molecule 31 is water.

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		

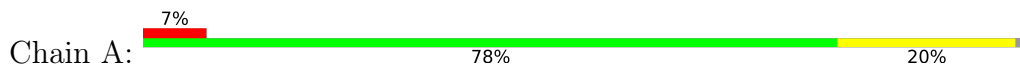




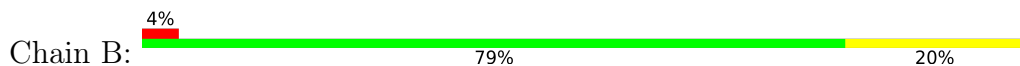
• Molecule 4: Chlorophyll a-b binding protein P4, chloroplastic

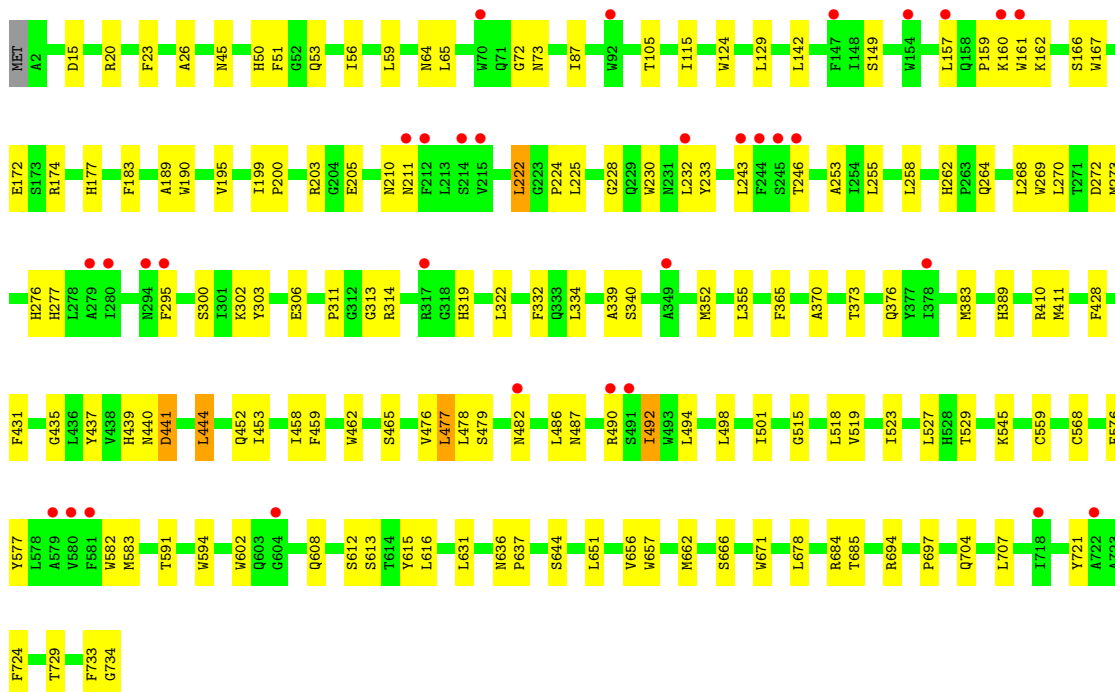


• Molecule 5: Photosystem I P700 chlorophyll a apoprotein A1

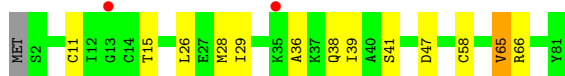
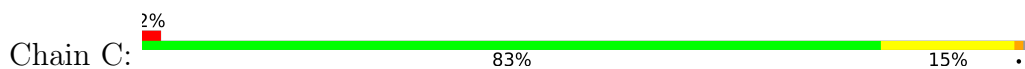


• Molecule 6: Photosystem I P700 chlorophyll a apoprotein A2

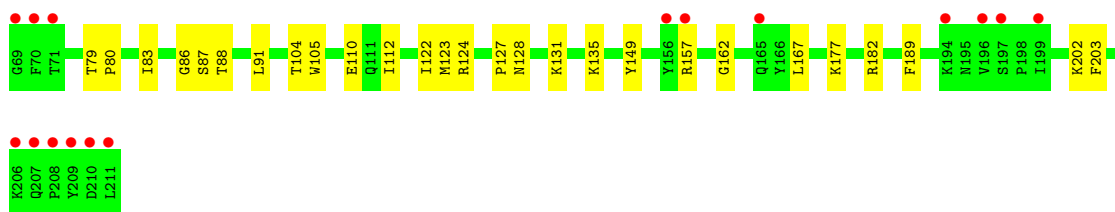
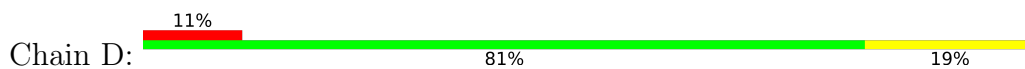




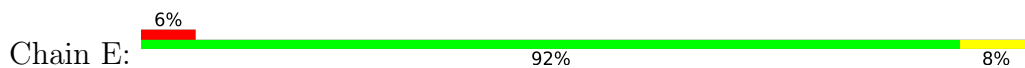
• Molecule 7: Photosystem I iron-sulfur center



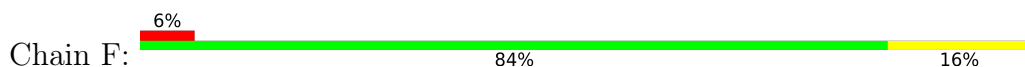
• Molecule 8: PsaD



• Molecule 9: Putative uncharacterized protein

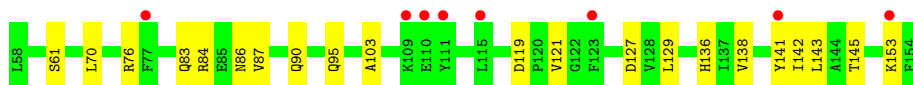
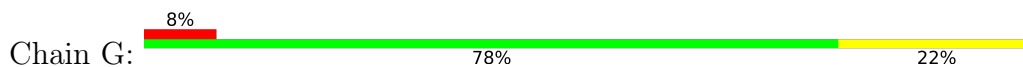


• Molecule 10: Photosystem I reaction center subunit III

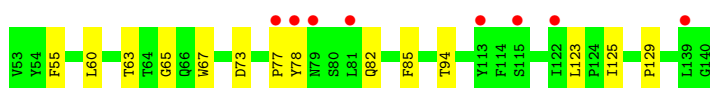
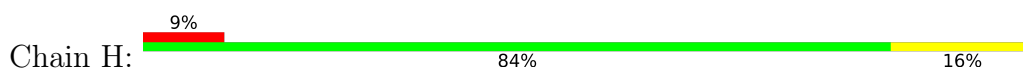




- Molecule 11: PsaG



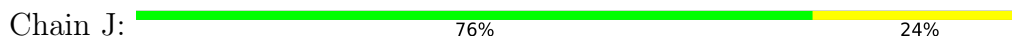
- Molecule 12: Photosystem I reaction center subunit VI



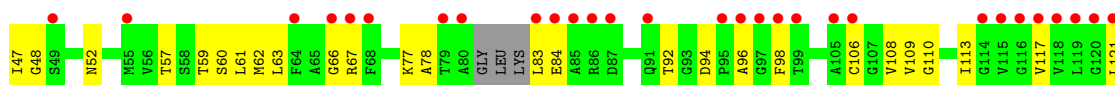
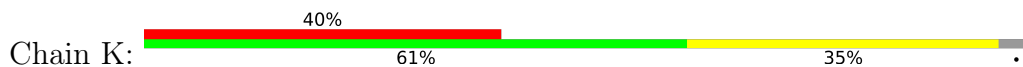
- Molecule 13: Photosystem I reaction center subunit VIII



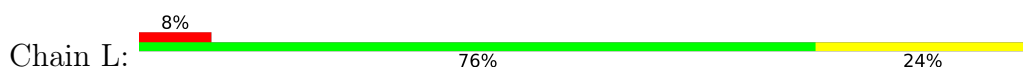
- Molecule 14: Photosystem I reaction center subunit IX



- 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: LUT, XAT, LMG, CL0, ZEX, BCR, LMT, DGD, LHG, CHL, SF4, CLA, CA, PQN

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	568	CYS
7	C	65	VAL
11	G	121	VAL
7	C	66	ARG
6	B	583	MET

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

Mol	Chain	Res	Type
6	B	196	HIS
6	B	452	GLN
12	H	130	GLN
6	B	350	GLN
6	B	467	HIS



### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no monosaccharides 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
21	LHG	A	845	19	39,39,48	0.42	0	42,45,54	1.25	4 (9%)
19	CLA	A	839	-	65,73,73	1.32	6 (9%)	76,113,113	1.73	11 (14%)
21	LHG	1	520	-	41,41,48	0.45	0	44,47,54	1.15	4 (9%)
19	CLA	1	510	-	46,54,73	1.62	7 (15%)	53,90,113	2.34	14 (26%)
18	BCR	J	1108	-	41,41,41	0.60	0	56,56,56	2.87	15 (26%)
18	BCR	3	304	-	41,41,41	0.69	0	56,56,56	3.40	14 (25%)
19	CLA	G	203	11	46,54,73	1.57	7 (15%)	53,90,113	2.02	12 (22%)
27	CL0	A	801	-	65,73,73	1.64	9 (13%)	76,113,113	2.16	16 (21%)
19	CLA	3	313	3	60,68,73	1.37	6 (10%)	70,107,113	1.89	14 (20%)
19	CLA	B	820	31	65,73,73	1.35	8 (12%)	76,113,113	1.70	12 (15%)
19	CLA	B	827	-	65,73,73	1.30	8 (12%)	76,113,113	1.86	13 (17%)
19	CLA	L	301	-	55,63,73	1.45	7 (12%)	64,101,113	1.99	14 (21%)
19	CLA	K	1004	-	29,35,73	2.60	10 (34%)	28,60,113	2.18	7 (25%)
19	CLA	4	312	4	50,58,73	1.52	7 (14%)	58,95,113	2.03	15 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	802	-	65,73,73	1.29	7 (10%)	76,113,113	1.86	18 (23%)
19	CLA	B	808	-	65,73,73	1.35	7 (10%)	76,113,113	1.75	12 (15%)
19	CLA	1	516	1	60,68,73	1.40	7 (11%)	70,107,113	1.89	14 (20%)
19	CLA	B	830	-	65,73,73	1.32	9 (13%)	76,113,113	1.82	14 (18%)
22	LMG	2	518	-	25,25,55	0.59	0	33,33,63	1.13	3 (9%)
22	LMG	B	844	-	35,35,55	0.74	1 (2%)	43,43,63	1.08	3 (6%)
19	CLA	1	509	-	50,58,73	1.50	7 (14%)	58,95,113	2.05	16 (27%)
19	CLA	B	804	-	65,73,73	1.34	6 (9%)	76,113,113	1.94	15 (19%)
19	CLA	A	815	-	45,53,73	1.61	8 (17%)	52,89,113	1.99	13 (25%)
24	LMT	J	1107	-	26,26,36	1.34	5 (19%)	37,37,47	1.08	2 (5%)
21	LHG	B	843	-	48,48,48	0.40	0	51,54,54	1.01	2 (3%)
19	CLA	A	810	-	50,58,73	1.52	8 (16%)	58,95,113	2.07	11 (18%)
19	CLA	A	832	-	65,73,73	1.34	6 (9%)	76,113,113	1.77	11 (14%)
19	CLA	2	514	2	55,63,73	1.44	7 (12%)	64,101,113	1.96	12 (18%)
19	CLA	4	311	-	46,54,73	1.57	6 (13%)	53,90,113	2.03	10 (18%)
19	CLA	A	806	5	65,73,73	1.31	6 (9%)	76,113,113	1.83	13 (17%)
19	CLA	B	807	6	65,73,73	1.32	6 (9%)	76,113,113	1.82	12 (15%)
24	LMT	4	320	-	36,36,36	1.15	4 (11%)	47,47,47	0.95	3 (6%)
29	PQN	B	841	-	34,34,34	0.37	0	42,45,45	1.14	3 (7%)
19	CLA	B	815	-	65,73,73	1.31	5 (7%)	76,113,113	1.87	12 (15%)
19	CLA	1	506	-	55,63,73	1.43	8 (14%)	64,101,113	1.99	12 (18%)
19	CLA	3	305	-	55,63,73	1.46	8 (14%)	64,101,113	2.07	14 (21%)
20	CHL	2	513	-	48,56,74	1.05	4 (8%)	51,92,114	1.35	8 (15%)
19	CLA	B	819	-	65,73,73	1.30	6 (9%)	76,113,113	1.86	14 (18%)
19	CLA	2	510	21	60,68,73	1.38	7 (11%)	70,107,113	1.90	14 (20%)
22	LMG	4	322	-	45,45,55	0.93	3 (6%)	53,53,63	1.08	4 (7%)
19	CLA	4	307	4	60,68,73	1.36	6 (10%)	70,107,113	1.96	16 (22%)
18	BCR	A	852	-	41,41,41	0.63	0	56,56,56	2.90	14 (25%)
19	CLA	3	307	-	55,63,73	1.45	7 (12%)	64,101,113	2.05	16 (25%)
19	CLA	G	202	-	55,63,73	1.46	8 (14%)	64,101,113	1.95	14 (21%)
19	CLA	A	831	-	65,73,73	1.33	5 (7%)	76,113,113	1.83	15 (19%)
19	CLA	B	803	-	65,73,73	1.30	5 (7%)	76,113,113	1.78	10 (13%)
26	DGD	J	1106	-	59,59,67	0.92	4 (6%)	73,73,81	1.06	5 (6%)
20	CHL	4	313	-	47,55,74	1.02	4 (8%)	50,91,114	1.48	11 (22%)
20	CHL	1	521	1	56,64,74	0.96	4 (7%)	61,102,114	1.28	8 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
22	LMG	2	521	-	13,13,55	0.59	0	18,18,63	0.75	0
19	CLA	A	812	-	55,63,73	1.46	7 (12%)	64,101,113	1.94	14 (21%)
19	CLA	A	805	-	65,73,73	1.34	7 (10%)	76,113,113	1.80	10 (13%)
19	CLA	4	310	-	60,68,73	1.40	9 (15%)	70,107,113	1.85	11 (15%)
19	CLA	B	835	-	55,63,73	1.44	7 (12%)	64,101,113	1.88	11 (17%)
22	LMG	2	525	-	13,13,55	0.62	0	18,18,63	0.70	0
20	CHL	4	314	31	51,59,74	1.09	4 (7%)	55,96,114	1.90	14 (25%)
17	LUT	J	1109	-	42,43,43	2.28	1 (2%)	51,60,60	1.94	9 (17%)
18	BCR	B	851	-	41,41,41	0.66	0	56,56,56	2.67	15 (26%)
19	CLA	B	816	-	55,63,73	1.45	8 (14%)	64,101,113	1.96	11 (17%)
19	CLA	B	839	-	65,73,73	1.34	6 (9%)	76,113,113	1.79	12 (15%)
19	CLA	B	840	21	65,73,73	1.32	6 (9%)	76,113,113	1.81	12 (15%)
19	CLA	1	507	1	65,73,73	1.32	7 (10%)	76,113,113	1.87	13 (17%)
18	BCR	A	856	-	41,41,41	0.67	0	56,56,56	3.27	15 (26%)
19	CLA	4	315	4	65,73,73	1.33	7 (10%)	76,113,113	1.83	14 (18%)
19	CLA	K	1001	-	45,53,73	1.59	7 (15%)	52,89,113	2.11	13 (25%)
19	CLA	K	1002	-	60,68,73	1.40	8 (13%)	70,107,113	1.90	14 (20%)
18	BCR	B	849	-	41,41,41	0.79	0	56,56,56	3.73	20 (35%)
18	BCR	K	1005	-	41,41,41	0.67	0	56,56,56	3.18	13 (23%)
19	CLA	3	308	-	65,73,73	1.32	6 (9%)	76,113,113	1.90	16 (21%)
19	CLA	B	809	-	65,73,73	1.34	8 (12%)	76,113,113	1.75	12 (15%)
20	CHL	2	515	-	46,54,74	1.00	2 (4%)	49,90,114	1.38	10 (20%)
18	BCR	A	850	-	41,41,41	0.64	0	56,56,56	3.20	14 (25%)
22	LMG	4	321	-	13,13,55	0.57	0	18,18,63	0.68	0
18	BCR	3	303	-	41,41,41	0.65	0	56,56,56	3.22	12 (21%)
19	CLA	A	829	-	65,73,73	1.30	8 (12%)	76,113,113	1.82	13 (17%)
19	CLA	A	833	-	65,73,73	1.32	7 (10%)	76,113,113	1.83	15 (19%)
22	LMG	G	210	-	25,25,55	0.54	0	33,33,63	1.29	4 (12%)
20	CHL	4	317	4	43,51,74	1.07	4 (9%)	45,86,114	1.72	12 (26%)
19	CLA	3	317	-	46,54,73	1.60	8 (17%)	53,90,113	1.97	11 (20%)
20	CHL	1	512	-	47,55,74	0.98	3 (6%)	50,91,114	1.57	12 (24%)
24	LMT	B	855	-	32,32,36	1.25	6 (18%)	43,43,47	0.97	2 (4%)
22	LMG	F	305	-	36,36,55	0.72	1 (2%)	44,44,63	1.10	2 (4%)
19	CLA	4	318	-	65,73,73	1.29	6 (9%)	76,113,113	1.86	13 (17%)
18	BCR	2	503	-	41,41,41	0.86	0	56,56,56	3.25	14 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	836	-	51,59,73	1.49	6 (11%)	59,96,113	2.05	15 (25%)
19	CLA	B	833	-	60,68,73	1.36	7 (11%)	70,107,113	1.86	12 (17%)
24	LMT	A	846	-	36,36,36	1.14	5 (13%)	47,47,47	1.13	2 (4%)
19	CLA	1	511	-	46,54,73	1.58	6 (13%)	53,90,113	1.98	11 (20%)
19	CLA	1	513	-	65,73,73	1.31	7 (10%)	76,113,113	1.84	14 (18%)
19	CLA	A	809	5	65,73,73	1.30	6 (9%)	76,113,113	1.87	15 (19%)
21	LHG	A	853	-	48,48,48	0.40	0	51,54,54	1.04	3 (5%)
19	CLA	A	808	5	65,73,73	1.30	5 (7%)	76,113,113	1.90	12 (15%)
19	CLA	A	842	21	60,68,73	1.36	7 (11%)	70,107,113	1.94	13 (18%)
19	CLA	A	840	31	65,73,73	1.28	6 (9%)	76,113,113	1.85	14 (18%)
24	LMT	B	846	-	36,36,36	1.14	6 (16%)	47,47,47	1.04	3 (6%)
19	CLA	G	204	31	65,73,73	1.31	9 (13%)	76,113,113	1.86	13 (17%)
22	LMG	A	847	-	50,50,55	1.03	5 (10%)	58,58,63	0.98	2 (3%)
19	CLA	2	511	-	50,58,73	1.52	7 (14%)	58,95,113	2.07	13 (22%)
19	CLA	J	1102	31	45,53,73	1.54	6 (13%)	52,89,113	2.10	11 (21%)
19	CLA	A	813	-	65,73,73	1.29	7 (10%)	76,113,113	1.88	14 (18%)
19	CLA	B	817	-	60,68,73	1.40	8 (13%)	70,107,113	1.93	13 (18%)
19	CLA	2	504	2	60,68,73	1.36	6 (10%)	70,107,113	2.00	14 (20%)
24	LMT	G	208	-	36,36,36	1.15	5 (13%)	47,47,47	0.98	2 (4%)
20	CHL	1	514	1	61,69,74	0.86	2 (3%)	67,108,114	1.36	11 (16%)
23	XAT	4	303	-	39,47,47	0.64	0	54,74,74	2.45	13 (24%)
19	CLA	B	810	6	65,73,73	1.31	6 (9%)	76,113,113	1.85	13 (17%)
24	LMT	2	523	-	36,36,36	1.13	5 (13%)	47,47,47	1.00	2 (4%)
18	BCR	1	503	-	19,19,41	0.66	0	26,26,56	3.15	7 (26%)
18	BCR	L	302	-	41,41,41	0.84	0	56,56,56	3.17	15 (26%)
19	CLA	A	837	-	65,73,73	1.34	8 (12%)	76,113,113	1.77	12 (15%)
21	LHG	2	517	19	34,34,48	0.46	0	37,40,54	1.07	2 (5%)
19	CLA	A	827	-	65,73,73	1.33	7 (10%)	76,113,113	1.84	14 (18%)
18	BCR	F	306	-	41,41,41	0.65	0	56,56,56	3.05	8 (14%)
19	CLA	B	811	-	65,73,73	1.36	8 (12%)	76,113,113	1.82	13 (17%)
19	CLA	L	305	31	50,58,73	1.54	9 (18%)	58,95,113	1.98	13 (22%)
18	BCR	B	852	-	41,41,41	0.61	0	56,56,56	2.95	14 (25%)
22	LMG	2	520	-	13,13,55	0.59	0	18,18,63	0.87	1 (5%)
28	SF4	A	843	6,5	0,12,12	-	-	-	-	-
26	DGD	B	854	-	62,62,67	0.97	5 (8%)	76,76,81	1.00	3 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	841	-	65,73,73	1.35	7 (10%)	76,113,113	1.76	12 (15%)
19	CLA	2	507	2	65,73,73	1.32	5 (7%)	76,113,113	1.92	14 (18%)
19	CLA	A	828	-	65,73,73	1.31	7 (10%)	76,113,113	1.90	11 (14%)
19	CLA	B	806	-	65,73,73	1.32	6 (9%)	76,113,113	1.80	12 (15%)
21	LHG	1	517	-	48,48,48	0.41	0	51,54,54	1.09	4 (7%)
22	LMG	1	518	-	46,46,55	0.92	3 (6%)	54,54,63	1.04	2 (3%)
22	LMG	J	1104	-	34,34,55	0.46	0	42,42,63	1.23	5 (11%)
26	DGD	G	207	-	48,48,67	0.59	1 (2%)	62,62,81	1.07	3 (4%)
19	CLA	B	826	-	65,73,73	1.34	8 (12%)	76,113,113	1.82	13 (17%)
26	DGD	B	801	-	42,42,67	0.61	0	56,56,81	1.16	6 (10%)
19	CLA	A	816	-	46,54,73	1.58	7 (15%)	53,90,113	2.04	11 (20%)
17	LUT	3	302	-	42,43,43	2.31	1 (2%)	51,60,60	1.61	13 (25%)
19	CLA	4	305	4	50,58,73	1.56	8 (16%)	58,95,113	2.08	16 (27%)
18	BCR	B	850	-	41,41,41	0.66	0	56,56,56	3.01	11 (19%)
18	BCR	A	851	-	41,41,41	0.66	0	56,56,56	3.23	14 (25%)
19	CLA	1	515	-	45,53,73	1.62	9 (20%)	52,89,113	1.88	10 (19%)
19	CLA	3	306	-	52,60,73	1.50	7 (13%)	60,97,113	1.99	13 (21%)
24	LMT	G	209	-	32,32,36	1.23	6 (18%)	43,43,47	0.97	1 (2%)
18	BCR	B	802	-	41,41,41	0.68	0	56,56,56	4.02	18 (32%)
19	CLA	A	823	-	60,68,73	1.41	8 (13%)	70,107,113	1.83	13 (18%)
19	CLA	A	838	-	65,73,73	1.34	7 (10%)	76,113,113	1.79	13 (17%)
19	CLA	A	811	-	65,73,73	1.32	7 (10%)	76,113,113	1.85	13 (17%)
19	CLA	B	831	-	60,68,73	1.37	7 (11%)	70,107,113	1.83	13 (18%)
19	CLA	B	832	-	58,66,73	1.38	6 (10%)	67,104,113	1.98	15 (22%)
18	BCR	I	101	-	41,41,41	0.73	0	56,56,56	3.50	16 (28%)
18	BCR	L	307	-	41,41,41	0.69	0	56,56,56	3.34	11 (19%)
19	CLA	A	834	-	65,73,73	1.31	6 (9%)	76,113,113	1.80	12 (15%)
19	CLA	2	505	2	52,60,73	1.50	9 (17%)	60,97,113	2.02	13 (21%)
19	CLA	A	830	-	65,73,73	1.31	7 (10%)	76,113,113	1.85	15 (19%)
18	BCR	4	301	-	41,41,41	0.65	0	56,56,56	3.34	15 (26%)
19	CLA	J	1101	-	65,73,73	1.31	6 (9%)	76,113,113	1.96	18 (23%)
19	CLA	B	818	-	65,73,73	1.35	9 (13%)	76,113,113	1.76	14 (18%)
19	CLA	A	804	-	65,73,73	1.31	8 (12%)	76,113,113	1.84	11 (14%)
20	CHL	2	526	2	66,74,74	0.86	3 (4%)	73,114,114	1.24	11 (15%)
19	CLA	A	855	-	65,73,73	1.30	8 (12%)	76,113,113	1.84	13 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	L	304	-	60,68,73	1.35	5 (8%)	70,107,113	1.94	13 (18%)
20	CHL	3	314	-	47,55,74	1.03	4 (8%)	50,91,114	1.67	12 (24%)
30	ZEX	F	301	-	42,43,43	0.73	0	55,60,60	1.76	11 (20%)
19	CLA	2	508	-	55,63,73	1.39	6 (10%)	64,101,113	2.06	16 (25%)
19	CLA	3	309	-	55,63,73	1.48	8 (14%)	64,101,113	1.98	15 (23%)
19	CLA	J	1105	-	50,58,73	1.50	6 (12%)	58,95,113	2.30	18 (31%)
17	LUT	3	301	-	42,43,43	2.41	1 (2%)	51,60,60	1.68	7 (13%)
19	CLA	A	807	-	60,68,73	1.40	6 (10%)	70,107,113	1.89	13 (18%)
19	CLA	B	828	-	65,73,73	1.29	7 (10%)	76,113,113	1.82	11 (14%)
18	BCR	I	102	-	41,41,41	0.65	0	56,56,56	3.13	13 (23%)
20	CHL	2	512	-	47,55,74	1.14	3 (6%)	50,91,114	1.83	13 (26%)
22	LMG	J	1103	-	30,30,55	0.51	0	38,38,63	1.08	2 (5%)
28	SF4	C	102	7	0,12,12	-	-	-	-	-
19	CLA	G	201	-	65,73,73	1.34	7 (10%)	76,113,113	1.88	15 (19%)
22	LMG	G	206	-	50,50,55	1.05	4 (8%)	58,58,63	1.07	3 (5%)
23	XAT	2	502	-	39,47,47	0.62	0	54,74,74	1.72	11 (20%)
18	BCR	B	853	-	41,41,41	0.63	0	56,56,56	3.06	13 (23%)
19	CLA	B	825	31	65,73,73	1.30	6 (9%)	76,113,113	1.93	17 (22%)
19	CLA	3	315	3	50,58,73	1.49	5 (10%)	58,95,113	2.08	13 (22%)
19	CLA	B	836	-	65,73,73	1.32	6 (9%)	76,113,113	1.76	12 (15%)
22	LMG	2	519	-	36,36,55	0.66	1 (2%)	44,44,63	1.24	7 (15%)
19	CLA	A	820	-	50,58,73	1.53	8 (16%)	58,95,113	2.01	12 (20%)
21	LHG	B	842	19	20,20,48	0.59	0	23,26,54	1.55	3 (13%)
19	CLA	A	818	-	56,64,73	1.44	9 (16%)	65,102,113	1.92	13 (20%)
19	CLA	4	304	4	60,68,73	1.38	6 (10%)	70,107,113	2.11	18 (25%)
19	CLA	1	505	1	46,54,73	1.58	8 (17%)	53,90,113	2.02	11 (20%)
17	LUT	1	501	-	42,43,43	2.39	1 (2%)	51,60,60	1.69	10 (19%)
19	CLA	A	825	31	65,73,73	1.36	8 (12%)	76,113,113	1.92	17 (22%)
29	PQN	A	844	-	34,34,34	0.39	0	42,45,45	1.25	5 (11%)
19	CLA	B	822	-	65,73,73	1.35	8 (12%)	76,113,113	1.81	13 (17%)
19	CLA	B	813	-	46,54,73	1.57	6 (13%)	53,90,113	2.08	14 (26%)
22	LMG	2	524	-	13,13,55	0.56	0	18,18,63	0.81	0
22	LMG	2	522	-	13,13,55	0.58	0	18,18,63	0.63	0
17	LUT	4	302	-	42,43,43	2.46	1 (2%)	51,60,60	1.92	12 (23%)
19	CLA	3	311	-	41,49,73	1.68	8 (19%)	47,84,113	2.10	13 (27%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	3	316	-	46,54,73	1.58	9 (19%)	53,90,113	2.07	13 (24%)
19	CLA	A	821	-	65,73,73	1.31	5 (7%)	76,113,113	1.73	15 (19%)
19	CLA	2	506	-	65,73,73	1.33	8 (12%)	76,113,113	1.92	14 (18%)
19	CLA	B	829	-	65,73,73	1.35	7 (10%)	76,113,113	1.80	14 (18%)
19	CLA	A	854	31	65,73,73	1.29	6 (9%)	76,113,113	1.88	16 (21%)
22	LMG	B	845	-	33,33,55	0.57	1 (3%)	41,41,63	1.24	5 (12%)
26	DGD	4	319	-	52,52,67	0.73	2 (3%)	66,66,81	1.44	9 (13%)
19	CLA	B	821	-	46,54,73	1.59	7 (15%)	53,90,113	2.02	11 (20%)
19	CLA	A	819	-	65,73,73	1.31	6 (9%)	76,113,113	1.81	14 (18%)
24	LMT	3	318	-	32,32,36	1.17	5 (15%)	43,43,47	1.19	5 (11%)
22	LMG	F	304	-	47,47,55	0.97	4 (8%)	55,55,63	1.09	2 (3%)
19	CLA	A	824	-	65,73,73	1.33	7 (10%)	76,113,113	1.75	12 (15%)
19	CLA	B	814	-	65,73,73	1.33	8 (12%)	76,113,113	1.82	13 (17%)
18	BCR	G	205	-	41,41,41	0.73	0	56,56,56	3.09	11 (19%)
18	BCR	A	849	-	41,41,41	0.63	0	56,56,56	3.28	16 (28%)
17	LUT	1	502	-	42,43,43	2.37	1 (2%)	51,60,60	1.81	9 (17%)
19	CLA	A	803	31	65,73,73	1.31	7 (10%)	76,113,113	1.87	13 (17%)
19	CLA	B	812	-	60,68,73	1.40	7 (11%)	70,107,113	1.78	11 (15%)
19	CLA	A	822	-	60,68,73	1.41	7 (11%)	70,107,113	1.86	13 (18%)
19	CLA	L	303	16	50,58,73	1.50	7 (14%)	58,95,113	2.04	12 (20%)
19	CLA	B	824	31	65,73,73	1.32	7 (10%)	76,113,113	1.97	14 (18%)
19	CLA	3	312	-	48,56,73	1.56	8 (16%)	55,92,113	2.10	13 (23%)
19	CLA	B	805	-	65,73,73	1.33	7 (10%)	76,113,113	1.78	11 (14%)
19	CLA	B	838	31	65,73,73	1.34	7 (10%)	76,113,113	1.81	13 (17%)
19	CLA	H	1000	-	60,68,73	1.39	8 (13%)	70,107,113	1.90	14 (20%)
22	LMG	1	519	-	13,13,55	0.56	0	18,18,63	0.89	1 (5%)
18	BCR	A	848	-	41,41,41	0.63	0	56,56,56	3.27	18 (32%)
28	SF4	C	101	7	0,12,12	-	-	-	-	-
19	CLA	A	835	5	55,63,73	1.47	8 (14%)	64,101,113	1.93	14 (21%)
19	CLA	3	310	31	50,58,73	1.50	7 (14%)	58,95,113	2.23	11 (18%)
19	CLA	1	508	-	65,73,73	1.33	8 (12%)	76,113,113	1.87	15 (19%)
24	LMT	B	847	-	33,33,36	1.22	5 (15%)	44,44,47	0.96	1 (2%)
19	CLA	A	826	31	55,63,73	1.44	7 (12%)	64,101,113	1.95	13 (20%)
20	CHL	4	316	-	61,69,74	0.98	4 (6%)	67,108,114	1.42	11 (16%)
18	BCR	B	856	-	41,41,41	0.66	0	56,56,56	3.05	13 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
19	CLA	A	814	-	65,73,73	1.33	8 (12%)	76,113,113	1.89	16 (21%)
19	CLA	4	308	4	60,68,73	1.35	5 (8%)	70,107,113	2.04	15 (21%)
19	CLA	F	303	10	65,73,73	1.32	6 (9%)	76,113,113	1.80	12 (15%)
19	CLA	B	823	-	55,63,73	1.45	8 (14%)	64,101,113	1.93	10 (15%)
19	CLA	4	306	-	65,73,73	1.34	7 (10%)	76,113,113	1.83	15 (19%)
19	CLA	A	817	-	65,73,73	1.33	6 (9%)	76,113,113	1.74	11 (14%)
18	BCR	L	306	-	41,41,41	0.67	0	56,56,56	3.01	13 (23%)
17	LUT	2	501	-	42,43,43	2.35	1 (2%)	51,60,60	1.78	9 (17%)
19	CLA	B	834	31	55,63,73	1.46	7 (12%)	64,101,113	1.87	13 (20%)
19	CLA	B	837	-	50,58,73	1.49	8 (16%)	58,95,113	1.98	14 (24%)
19	CLA	1	504	1	65,73,73	1.32	6 (9%)	76,113,113	1.88	16 (21%)
20	CHL	2	516	2	56,64,74	0.91	3 (5%)	61,102,114	1.34	10 (16%)
19	CLA	F	302	-	65,73,73	1.34	7 (10%)	76,113,113	1.84	15 (19%)
19	CLA	K	1003	-	29,35,73	2.60	10 (34%)	28,60,113	2.31	8 (28%)
19	CLA	2	509	-	50,58,73	1.49	5 (10%)	58,95,113	1.99	13 (22%)
19	CLA	4	309	-	50,58,73	1.48	7 (14%)	58,95,113	2.11	13 (22%)

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. <sup>1,2</sup> means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	LHG	A	845	19	-	27/44/44/53	-
19	CLA	A	839	-	1/1/15/20	14/37/115/115	-
21	LHG	1	520	-	-	26/46/46/53	-
19	CLA	1	510	-	1/1/11/20	7/15/93/115	-
18	BCR	J	1108	-	-	9/29/63/63	0/2/2/2
18	BCR	3	304	-	-	16/29/63/63	0/2/2/2
19	CLA	G	203	11	1/1/11/20	6/15/93/115	-
27	CL0	A	801	-	3/3/20/25	7/37/135/135	-
19	CLA	3	313	3	1/1/14/20	16/31/109/115	-
19	CLA	B	820	31	1/1/15/20	16/37/115/115	-
19	CLA	B	827	-	1/1/15/20	19/37/115/115	-
19	CLA	L	301	-	1/1/13/20	8/25/103/115	-
19	CLA	K	1004	-	1/1/5/20	-	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	4	312	4	-	6/19/97/115	-
19	CLA	A	802	-	1/1/15/20	19/37/115/115	-
19	CLA	B	808	-	1/1/15/20	19/37/115/115	-
19	CLA	1	516	1	1/1/14/20	11/31/109/115	-
19	CLA	B	830	-	-	13/37/115/115	-
22	LMG	2	518	-	-	6/20/40/70	0/1/1/1
22	LMG	B	844	-	-	11/30/50/70	0/1/1/1
19	CLA	1	509	-	1/1/12/20	8/19/97/115	-
19	CLA	B	804	-	1/1/15/20	13/37/115/115	-
19	CLA	A	815	-	1/1/11/20	7/13/91/115	-
24	LMT	J	1107	-	-	7/11/51/61	0/2/2/2
21	LHG	B	843	-	-	28/53/53/53	-
19	CLA	A	810	-	1/1/12/20	6/19/97/115	-
19	CLA	A	832	-	1/1/15/20	11/37/115/115	-
19	CLA	2	514	2	1/1/13/20	7/25/103/115	-
19	CLA	4	311	-	1/1/11/20	6/15/93/115	-
19	CLA	A	806	5	1/1/15/20	21/37/115/115	-
19	CLA	B	807	6	1/1/15/20	13/37/115/115	-
24	LMT	4	320	-	-	4/21/61/61	0/2/2/2
29	PQN	B	841	-	-	12/23/43/43	0/2/2/2
19	CLA	B	815	-	1/1/15/20	10/37/115/115	-
19	CLA	1	506	-	1/1/13/20	8/25/103/115	-
19	CLA	3	305	-	1/1/13/20	16/25/103/115	-
20	CHL	2	513	-	3/3/16/26	1/18/116/137	-
19	CLA	B	819	-	1/1/15/20	18/37/115/115	-
19	CLA	2	510	21	1/1/14/20	15/31/109/115	-
22	LMG	4	322	-	-	13/40/60/70	0/1/1/1
19	CLA	4	307	4	1/1/14/20	13/31/109/115	-
18	BCR	A	852	-	-	12/29/63/63	0/2/2/2
19	CLA	3	307	-	1/1/13/20	13/25/103/115	-
19	CLA	G	202	-	-	13/25/103/115	-
19	CLA	A	831	-	1/1/15/20	13/37/115/115	-
19	CLA	B	803	-	1/1/15/20	8/37/115/115	-
26	DGD	J	1106	-	-	14/47/87/95	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
20	CHL	4	313	-	3/3/16/26	0/17/115/137	-
20	CHL	1	521	1	4/4/18/26	7/27/125/137	-
22	LMG	2	521	-	-	0/4/24/70	0/1/1/1
19	CLA	A	812	-	-	11/25/103/115	-
19	CLA	A	805	-	1/1/15/20	28/37/115/115	-
19	CLA	4	310	-	1/1/14/20	12/31/109/115	-
19	CLA	B	835	-	-	10/25/103/115	-
22	LMG	2	525	-	-	0/4/24/70	0/1/1/1
20	CHL	4	314	31	3/3/17/26	4/21/119/137	-
17	LUT	J	1109	-	1/1/12/27	6/29/67/67	0/2/2/2
19	CLA	B	816	-	1/1/13/20	8/25/103/115	-
18	BCR	B	851	-	-	11/29/63/63	0/2/2/2
19	CLA	B	839	-	1/1/15/20	19/37/115/115	-
19	CLA	B	840	21	-	18/37/115/115	-
19	CLA	1	507	1	1/1/15/20	14/37/115/115	-
18	BCR	A	856	-	-	13/29/63/63	0/2/2/2
19	CLA	4	315	4	1/1/15/20	15/37/115/115	-
19	CLA	K	1001	-	1/1/11/20	10/13/91/115	-
19	CLA	K	1002	-	1/1/14/20	19/31/109/115	-
18	BCR	B	849	-	-	10/29/63/63	0/2/2/2
19	CLA	B	809	-	1/1/15/20	10/37/115/115	-
19	CLA	3	308	-	1/1/15/20	22/37/115/115	-
20	CHL	2	515	-	3/3/16/26	4/15/113/137	-
18	BCR	K	1005	-	-	12/29/63/63	0/2/2/2
18	BCR	A	850	-	-	5/29/63/63	0/2/2/2
22	LMG	4	321	-	-	0/4/24/70	0/1/1/1
18	BCR	3	303	-	-	12/29/63/63	0/2/2/2
19	CLA	A	829	-	1/1/15/20	19/37/115/115	-
19	CLA	A	833	-	1/1/15/20	20/37/115/115	-
22	LMG	G	210	-	-	10/20/40/70	0/1/1/1
20	CHL	4	317	4	3/3/15/26	2/12/110/137	-
19	CLA	3	317	-	1/1/11/20	6/15/93/115	-
20	CHL	1	512	-	3/3/16/26	3/17/115/137	-
24	LMT	B	855	-	-	4/17/57/61	0/2/2/2
22	LMG	F	305	-	-	10/31/51/70	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	4	318	-	1/1/15/20	13/37/115/115	-
18	BCR	2	503	-	-	11/29/63/63	0/2/2/2
19	CLA	A	836	-	-	9/21/99/115	-
19	CLA	B	833	-	1/1/14/20	10/31/109/115	-
24	LMT	A	846	-	-	8/21/61/61	0/2/2/2
19	CLA	1	511	-	1/1/11/20	7/15/93/115	-
19	CLA	1	513	-	1/1/15/20	17/37/115/115	-
19	CLA	A	809	5	1/1/15/20	17/37/115/115	-
21	LHG	A	853	-	-	30/53/53/53	-
19	CLA	A	808	5	1/1/15/20	19/37/115/115	-
19	CLA	A	842	21	1/1/14/20	13/31/109/115	-
19	CLA	A	840	31	1/1/15/20	16/37/115/115	-
24	LMT	B	846	-	-	11/21/61/61	0/2/2/2
19	CLA	G	204	31	1/1/15/20	18/37/115/115	-
22	LMG	A	847	-	-	15/45/65/70	0/1/1/1
19	CLA	2	511	-	1/1/12/20	10/19/97/115	-
19	CLA	J	1102	31	1/1/11/20	2/13/91/115	-
19	CLA	A	813	-	1/1/15/20	11/37/115/115	-
19	CLA	B	817	-	1/1/14/20	8/31/109/115	-
19	CLA	2	504	2	1/1/14/20	9/31/109/115	-
24	LMT	G	208	-	-	9/21/61/61	0/2/2/2
20	CHL	1	514	1	4/4/19/26	11/33/131/137	-
23	XAT	4	303	-	2/2/12/26	0/31/93/93	0/4/4/4
19	CLA	B	810	6	1/1/15/20	12/37/115/115	-
24	LMT	2	523	-	-	10/21/61/61	0/2/2/2
18	BCR	1	503	-	-	7/11/28/63	0/1/1/2
19	CLA	A	837	-	1/1/15/20	9/37/115/115	-
18	BCR	L	302	-	-	6/29/63/63	0/2/2/2
21	LHG	2	517	19	-	15/39/39/53	-
19	CLA	A	827	-	1/1/15/20	16/37/115/115	-
19	CLA	B	811	-	1/1/15/20	17/37/115/115	-
19	CLA	L	305	31	1/1/12/20	10/19/97/115	-
18	BCR	F	306	-	-	8/29/63/63	0/2/2/2
18	BCR	B	852	-	-	11/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	LMG	2	520	-	-	0/4/24/70	0/1/1/1
28	SF4	A	843	6,5	-	-	0/6/5/5
26	DGD	B	854	-	-	19/50/90/95	0/2/2/2
19	CLA	A	841	-	1/1/15/20	4/37/115/115	-
19	CLA	2	507	2	1/1/15/20	13/37/115/115	-
19	CLA	A	828	-	1/1/15/20	22/37/115/115	-
19	CLA	B	806	-	1/1/15/20	18/37/115/115	-
21	LHG	1	517	-	-	28/53/53/53	-
22	LMG	1	518	-	-	12/41/61/70	0/1/1/1
22	LMG	J	1104	-	-	12/29/49/70	0/1/1/1
26	DGD	G	207	-	-	10/36/76/95	0/2/2/2
19	CLA	B	826	-	1/1/15/20	6/37/115/115	-
26	DGD	B	801	-	-	21/30/70/95	0/2/2/2
19	CLA	A	816	-	1/1/11/20	6/15/93/115	-
17	LUT	3	302	-	1/1/12/27	8/29/67/67	0/2/2/2
19	CLA	4	305	4	1/1/12/20	6/19/97/115	-
18	BCR	B	850	-	-	10/29/63/63	0/2/2/2
19	CLA	1	515	-	1/1/11/20	6/13/91/115	-
18	BCR	A	851	-	-	12/29/63/63	0/2/2/2
19	CLA	3	306	-	1/1/12/20	8/22/100/115	-
24	LMT	G	209	-	-	13/17/57/61	0/2/2/2
19	CLA	A	823	-	1/1/14/20	13/31/109/115	-
19	CLA	A	838	-	1/1/15/20	14/37/115/115	-
19	CLA	B	831	-	1/1/14/20	17/31/109/115	-
19	CLA	A	811	-	1/1/15/20	16/37/115/115	-
18	BCR	B	802	-	-	5/29/63/63	0/2/2/2
19	CLA	B	832	-	1/1/13/20	11/29/107/115	-
18	BCR	I	101	-	-	11/29/63/63	0/2/2/2
18	BCR	L	307	-	-	11/29/63/63	0/2/2/2
19	CLA	A	834	-	-	17/37/115/115	-
19	CLA	2	505	2	1/1/12/20	7/22/100/115	-
19	CLA	A	830	-	1/1/15/20	16/37/115/115	-
19	CLA	J	1101	-	1/1/15/20	13/37/115/115	-
18	BCR	4	301	-	-	13/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	B	818	-	1/1/15/20	16/37/115/115	-
19	CLA	A	804	-	1/1/15/20	22/37/115/115	-
20	CHL	2	526	2	4/4/20/26	10/39/137/137	-
19	CLA	A	855	-	1/1/15/20	19/37/115/115	-
19	CLA	L	304	-	1/1/14/20	12/31/109/115	-
20	CHL	3	314	-	3/3/16/26	4/17/115/137	-
30	ZEX	F	301	-	-	3/29/67/67	0/2/2/2
19	CLA	2	508	-	1/1/13/20	7/25/103/115	-
19	CLA	J	1105	-	1/1/12/20	10/19/97/115	-
19	CLA	3	309	-	-	9/25/103/115	-
19	CLA	A	807	-	1/1/14/20	17/31/109/115	-
19	CLA	B	828	-	1/1/15/20	18/37/115/115	-
17	LUT	3	301	-	-	3/29/67/67	0/2/2/2
20	CHL	2	512	-	3/3/16/26	2/17/115/137	-
18	BCR	I	102	-	-	14/29/63/63	0/2/2/2
22	LMG	J	1103	-	-	4/25/45/70	0/1/1/1
28	SF4	C	102	7	-	-	0/6/5/5
19	CLA	G	201	-	1/1/15/20	20/37/115/115	-
22	LMG	G	206	-	-	18/45/65/70	0/1/1/1
23	XAT	2	502	-	-	5/31/93/93	0/4/4/4
18	BCR	B	853	-	-	10/29/63/63	0/2/2/2
19	CLA	B	825	31	1/1/15/20	22/37/115/115	-
19	CLA	3	315	3	1/1/12/20	7/19/97/115	-
19	CLA	B	836	-	1/1/15/20	11/37/115/115	-
22	LMG	2	519	-	-	17/31/51/70	0/1/1/1
19	CLA	A	820	-	1/1/12/20	8/19/97/115	-
21	LHG	B	842	19	-	12/23/23/53	-
19	CLA	A	818	-	1/1/13/20	15/27/105/115	-
19	CLA	4	304	4	1/1/14/20	10/31/109/115	-
19	CLA	1	505	1	-	6/15/93/115	-
17	LUT	1	501	-	-	3/29/67/67	0/2/2/2
19	CLA	A	825	31	1/1/15/20	14/37/115/115	-
29	PQN	A	844	-	-	7/23/43/43	0/2/2/2
19	CLA	B	822	-	1/1/15/20	20/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	B	813	-	1/1/11/20	3/15/93/115	-
22	LMG	2	524	-	-	1/4/24/70	0/1/1/1
22	LMG	2	522	-	-	4/4/24/70	0/1/1/1
19	CLA	B	829	-	1/1/15/20	20/37/115/115	-
19	CLA	3	311	-	1/1/10/20	5/8/86/115	-
19	CLA	3	316	-	1/1/11/20	11/15/93/115	-
19	CLA	A	821	-	1/1/15/20	17/37/115/115	-
19	CLA	2	506	-	1/1/15/20	14/37/115/115	-
17	LUT	4	302	-	-	3/29/67/67	0/2/2/2
19	CLA	A	854	31	1/1/15/20	16/37/115/115	-
22	LMG	B	845	-	-	13/28/48/70	0/1/1/1
26	DGD	4	319	-	-	17/40/80/95	0/2/2/2
19	CLA	B	821	-	1/1/11/20	7/15/93/115	-
19	CLA	A	819	-	1/1/15/20	16/37/115/115	-
24	LMT	3	318	-	-	4/17/57/61	0/2/2/2
22	LMG	F	304	-	-	11/42/62/70	0/1/1/1
19	CLA	A	824	-	1/1/15/20	18/37/115/115	-
19	CLA	B	814	-	1/1/15/20	18/37/115/115	-
18	BCR	G	205	-	-	11/29/63/63	0/2/2/2
17	LUT	1	502	-	1/1/12/27	9/29/67/67	0/2/2/2
19	CLA	A	803	31	1/1/15/20	8/37/115/115	-
19	CLA	B	812	-	1/1/14/20	13/31/109/115	-
18	BCR	A	849	-	-	11/29/63/63	0/2/2/2
19	CLA	A	822	-	1/1/14/20	14/31/109/115	-
19	CLA	L	303	16	1/1/12/20	7/19/97/115	-
19	CLA	B	824	31	1/1/15/20	15/37/115/115	-
19	CLA	3	312	-	1/1/11/20	7/17/95/115	-
19	CLA	B	805	-	1/1/15/20	19/37/115/115	-
19	CLA	B	838	31	1/1/15/20	11/37/115/115	-
19	CLA	H	1000	-	1/1/14/20	10/31/109/115	-
22	LMG	1	519	-	-	1/4/24/70	0/1/1/1
18	BCR	A	848	-	-	10/29/63/63	0/2/2/2
28	SF4	C	101	7	-	-	0/6/5/5
19	CLA	A	835	5	1/1/13/20	10/25/103/115	-
19	CLA	3	310	31	1/1/12/20	6/19/97/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	CLA	1	508	-	-	22/37/115/115	-
24	LMT	B	847	-	-	6/18/58/61	0/2/2/2
19	CLA	A	826	31	1/1/13/20	9/25/103/115	-
20	CHL	4	316	-	4/4/19/26	8/33/131/137	-
18	BCR	B	856	-	-	13/29/63/63	0/2/2/2
19	CLA	A	814	-	1/1/15/20	16/37/115/115	-
19	CLA	4	308	4	-	13/31/109/115	-
19	CLA	F	303	10	-	18/37/115/115	-
19	CLA	B	823	-	1/1/13/20	13/25/103/115	-
19	CLA	4	306	-	1/1/15/20	16/37/115/115	-
19	CLA	A	817	-	1/1/15/20	17/37/115/115	-
18	BCR	L	306	-	-	8/29/63/63	0/2/2/2
17	LUT	2	501	-	1/1/12/27	5/29/67/67	0/2/2/2
19	CLA	B	834	31	1/1/13/20	12/25/103/115	-
19	CLA	B	837	-	1/1/12/20	5/19/97/115	-
19	CLA	1	504	1	1/1/15/20	14/37/115/115	-
20	CHL	2	516	2	4/4/18/26	7/27/125/137	-
19	CLA	F	302	-	1/1/15/20	13/37/115/115	-
19	CLA	K	1003	-	1/1/5/20	-	-
19	CLA	2	509	-	1/1/12/20	11/19/97/115	-
19	CLA	4	309	-	1/1/12/20	12/19/97/115	-

The worst 5 of 1144 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 2633 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
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

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
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 182 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
17	1	502	LUT	C26
17	2	501	LUT	C26
17	3	302	LUT	C26
17	J	1109	LUT	C26
19	1	504	CLA	ND

5 of 2686 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
17	1	502	LUT	C21-C26-C27-C28
17	1	502	LUT	C27-C28-C29-C30
17	1	502	LUT	C27-C28-C29-C39
17	1	502	LUT	C31-C32-C33-C40
17	2	501	LUT	C1-C6-C7-C8

There are no ring outliers.

228 monomers are involved in 966 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	A	845	LHG	7	0
19	A	839	CLA	6	0
21	1	520	LHG	10	0
19	1	510	CLA	8	0
18	J	1108	BCR	4	0
18	3	304	BCR	4	0
19	G	203	CLA	2	0
27	A	801	CL0	8	0
19	3	313	CLA	4	0
19	B	820	CLA	9	0
19	B	827	CLA	4	0
19	L	301	CLA	2	0
19	K	1004	CLA	2	0
19	4	312	CLA	4	0
19	A	802	CLA	13	0
19	B	808	CLA	7	0
19	1	516	CLA	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	B	830	CLA	11	0
22	2	518	LMG	2	0
22	B	844	LMG	4	0
19	1	509	CLA	3	0
19	B	804	CLA	4	0
19	A	815	CLA	1	0
24	J	1107	LMT	1	0
21	B	843	LHG	6	0
19	A	810	CLA	5	0
19	A	832	CLA	8	0
19	2	514	CLA	3	0
19	4	311	CLA	2	0
19	A	806	CLA	6	0
19	B	807	CLA	3	0
24	4	320	LMT	3	0
29	B	841	PQN	8	0
19	B	815	CLA	6	0
19	3	305	CLA	20	0
20	2	513	CHL	6	0
19	B	819	CLA	11	0
19	2	510	CLA	5	0
22	4	322	LMG	4	0
19	4	307	CLA	10	0
18	A	852	BCR	6	0
19	3	307	CLA	6	0
19	G	202	CLA	3	0
19	A	831	CLA	6	0
19	B	803	CLA	7	0
26	J	1106	DGD	6	0
20	4	313	CHL	2	0
20	1	521	CHL	8	0
19	A	812	CLA	6	0
19	A	805	CLA	10	0
19	4	310	CLA	7	0
19	B	835	CLA	5	0
20	4	314	CHL	6	0
17	J	1109	LUT	8	0
18	B	851	BCR	5	0
19	B	816	CLA	4	0
19	B	839	CLA	5	0
19	B	840	CLA	16	0
19	1	507	CLA	8	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
18	A	856	BCR	3	0
19	4	315	CLA	5	0
19	K	1001	CLA	6	0
19	K	1002	CLA	4	0
18	B	849	BCR	2	0
18	K	1005	BCR	7	0
19	3	308	CLA	14	0
19	B	809	CLA	7	0
20	2	515	CHL	4	0
18	A	850	BCR	5	0
18	3	303	BCR	7	0
19	A	829	CLA	5	0
19	A	833	CLA	7	0
22	G	210	LMG	1	0
20	4	317	CHL	5	0
19	3	317	CLA	5	0
20	1	512	CHL	7	0
24	B	855	LMT	3	0
22	F	305	LMG	2	0
19	4	318	CLA	9	0
18	2	503	BCR	13	0
19	A	836	CLA	6	0
19	B	833	CLA	7	0
24	A	846	LMT	3	0
19	1	511	CLA	1	0
19	1	513	CLA	2	0
19	A	809	CLA	9	0
21	A	853	LHG	3	0
19	A	808	CLA	7	0
19	A	842	CLA	9	0
19	A	840	CLA	4	0
24	B	846	LMT	3	0
19	G	204	CLA	12	0
22	A	847	LMG	3	0
19	2	511	CLA	4	0
19	J	1102	CLA	5	0
19	A	813	CLA	8	0
19	B	817	CLA	3	0
19	2	504	CLA	7	0
24	G	208	LMT	4	0
20	1	514	CHL	9	0
23	4	303	XAT	10	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	B	810	CLA	4	0
18	1	503	BCR	4	0
18	L	302	BCR	4	0
19	A	837	CLA	6	0
21	2	517	LHG	9	0
19	A	827	CLA	5	0
18	F	306	BCR	1	0
19	B	811	CLA	5	0
19	L	305	CLA	2	0
18	B	852	BCR	4	0
28	A	843	SF4	1	0
26	B	854	DGD	9	0
19	A	841	CLA	8	0
19	2	507	CLA	6	0
19	A	828	CLA	9	0
19	B	806	CLA	6	0
21	1	517	LHG	7	0
22	1	518	LMG	3	0
22	J	1104	LMG	2	0
26	G	207	DGD	1	0
19	B	826	CLA	5	0
26	B	801	DGD	5	0
19	A	816	CLA	1	0
17	3	302	LUT	6	0
19	4	305	CLA	3	0
18	B	850	BCR	1	0
18	A	851	BCR	5	0
19	1	515	CLA	8	0
19	3	306	CLA	6	0
24	G	209	LMT	1	0
18	B	802	BCR	4	0
19	A	823	CLA	3	0
19	A	838	CLA	3	0
19	A	811	CLA	12	0
19	B	831	CLA	5	0
19	B	832	CLA	7	0
18	I	101	BCR	7	0
18	L	307	BCR	2	0
19	A	834	CLA	6	0
19	2	505	CLA	4	0
19	A	830	CLA	9	0
18	4	301	BCR	9	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	J	1101	CLA	13	0
19	B	818	CLA	7	0
19	A	804	CLA	6	0
20	2	526	CHL	11	0
19	A	855	CLA	10	0
19	L	304	CLA	4	0
20	3	314	CHL	9	0
30	F	301	ZEX	6	0
19	2	508	CLA	5	0
19	3	309	CLA	3	0
19	J	1105	CLA	9	0
17	3	301	LUT	13	0
19	A	807	CLA	5	0
19	B	828	CLA	4	0
18	I	102	BCR	5	0
20	2	512	CHL	9	0
22	J	1103	LMG	1	0
28	C	102	SF4	2	0
19	G	201	CLA	8	0
22	G	206	LMG	5	0
23	2	502	XAT	4	0
18	B	853	BCR	6	0
19	B	825	CLA	10	0
19	3	315	CLA	6	0
19	B	836	CLA	4	0
22	2	519	LMG	6	0
19	A	820	CLA	1	0
21	B	842	LHG	2	0
19	A	818	CLA	11	0
19	4	304	CLA	6	0
19	1	505	CLA	1	0
17	1	501	LUT	6	0
19	A	825	CLA	10	0
29	A	844	PQN	4	0
19	B	822	CLA	6	0
19	B	813	CLA	2	0
22	2	524	LMG	1	0
17	4	302	LUT	3	0
19	3	316	CLA	5	0
19	A	821	CLA	11	0
19	2	506	CLA	5	0
19	B	829	CLA	9	0

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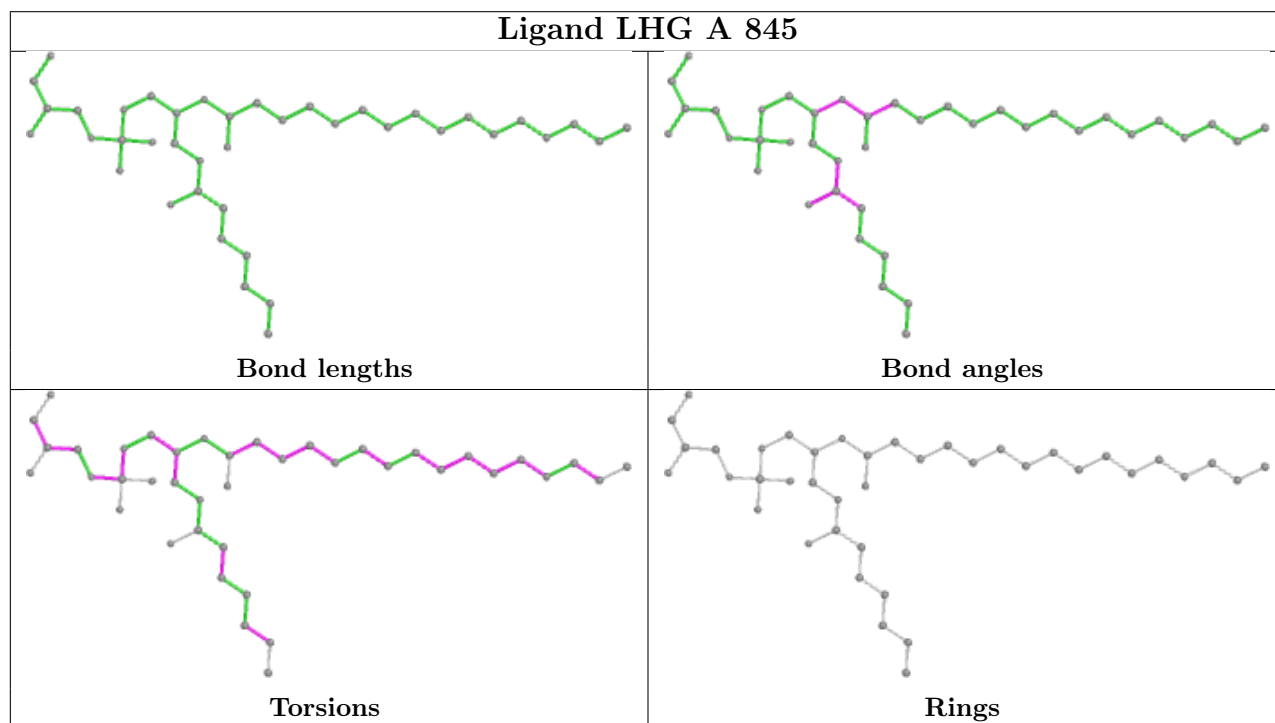
Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	A	854	CLA	11	0
22	B	845	LMG	2	0
26	4	319	DGD	6	0
19	A	819	CLA	8	0
24	3	318	LMT	1	0
22	F	304	LMG	8	0
19	A	824	CLA	15	0
19	B	814	CLA	5	0
18	G	205	BCR	3	0
18	A	849	BCR	1	0
17	1	502	LUT	6	0
19	A	803	CLA	6	0
19	B	812	CLA	7	0
19	A	822	CLA	4	0
19	L	303	CLA	3	0
19	B	824	CLA	7	0
19	B	805	CLA	7	0
19	B	838	CLA	9	0
19	H	1000	CLA	4	0
18	A	848	BCR	1	0
19	A	835	CLA	4	0
19	3	310	CLA	5	0
19	1	508	CLA	13	0
24	B	847	LMT	3	0
19	A	826	CLA	5	0
20	4	316	CHL	10	0
18	B	856	BCR	6	0
19	A	814	CLA	2	0
19	4	308	CLA	5	0
19	F	303	CLA	7	0
19	B	823	CLA	8	0
19	4	306	CLA	6	0
19	A	817	CLA	3	0
18	L	306	BCR	2	0
17	2	501	LUT	8	0
19	B	834	CLA	6	0
19	B	837	CLA	5	0
19	1	504	CLA	10	0
20	2	516	CHL	3	0
19	F	302	CLA	5	0
19	K	1003	CLA	1	0
19	2	509	CLA	2	0

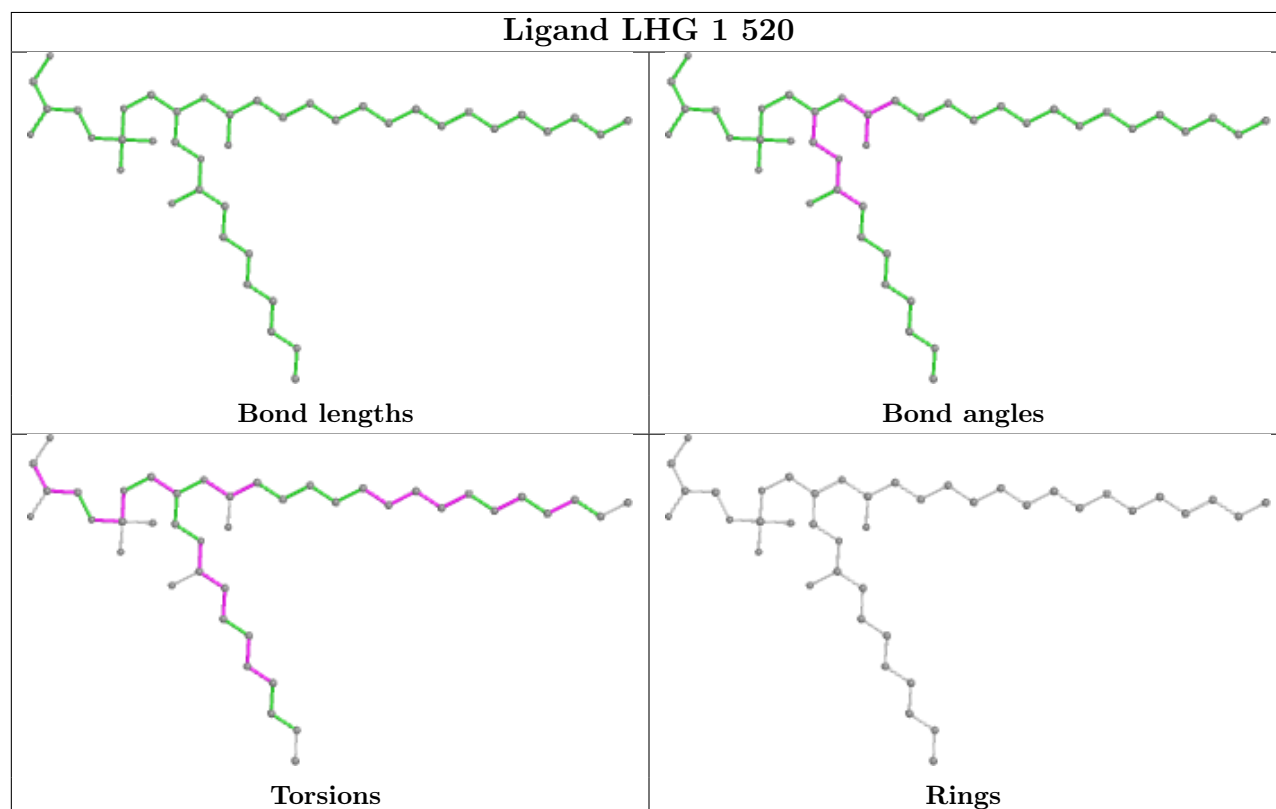
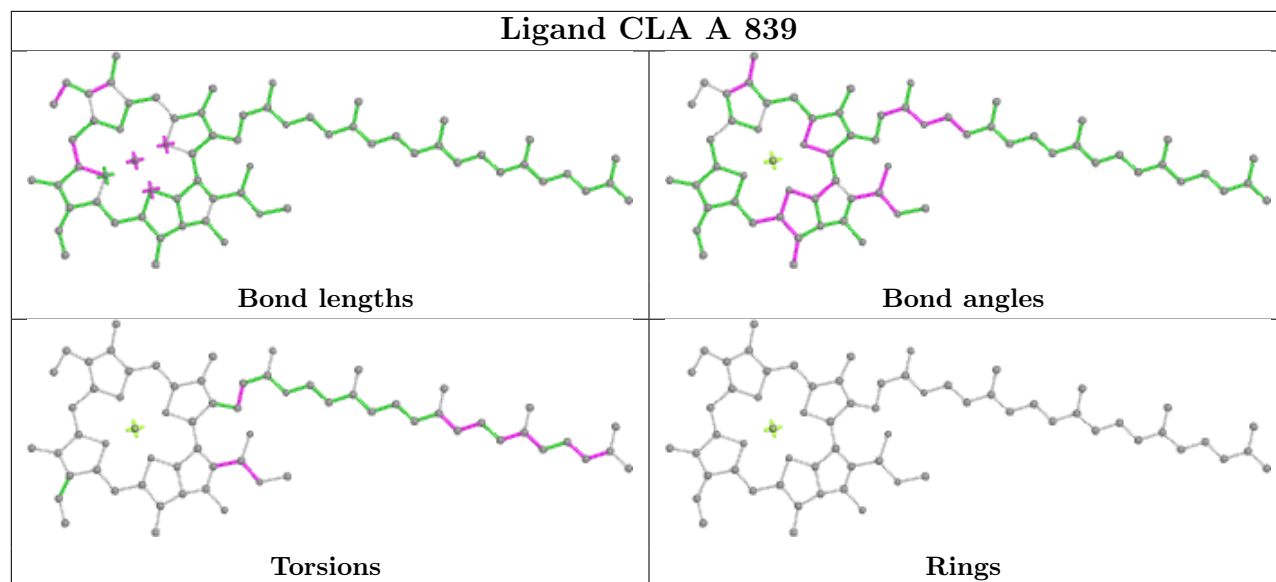
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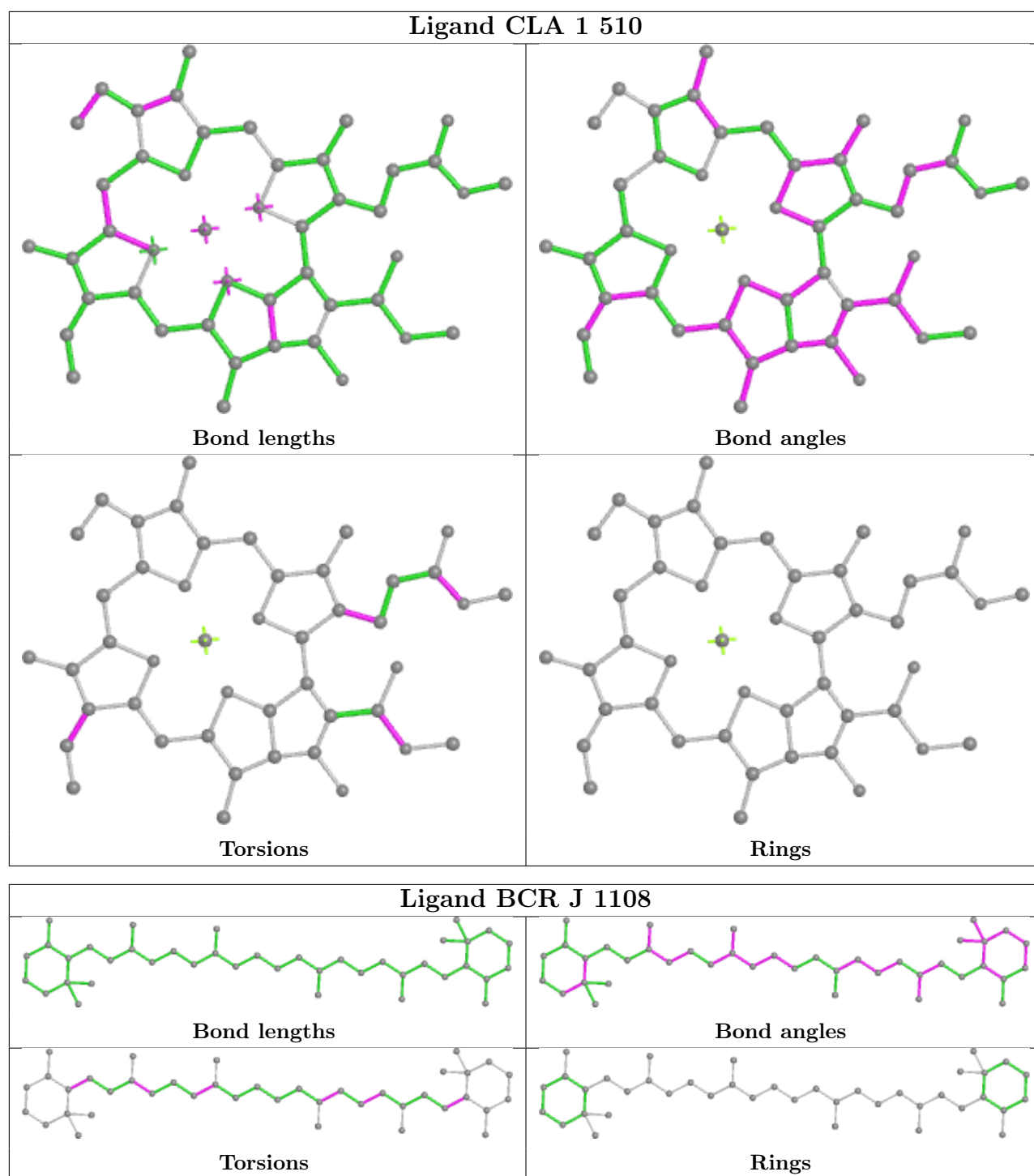
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	4	309	CLA	11	0

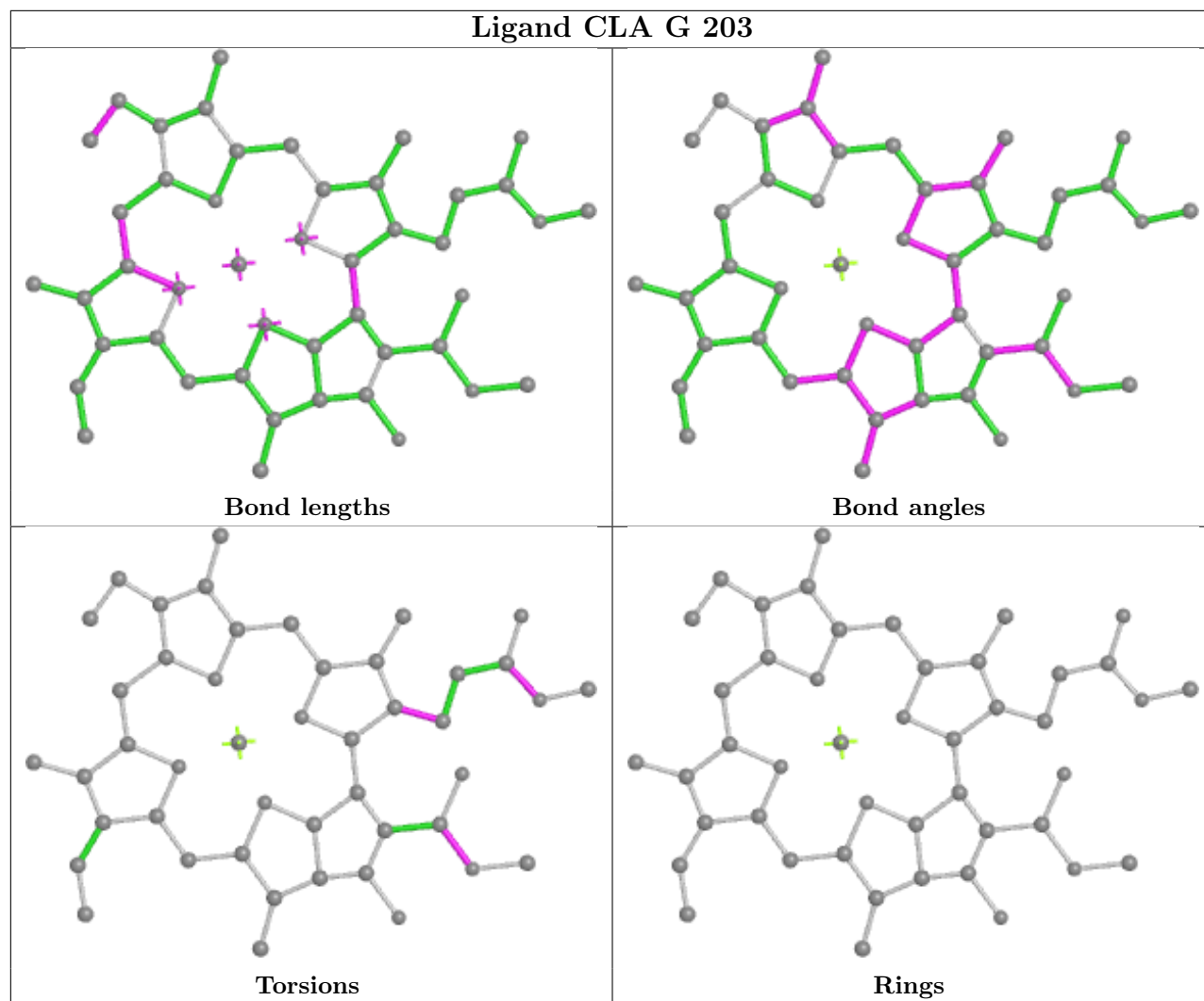
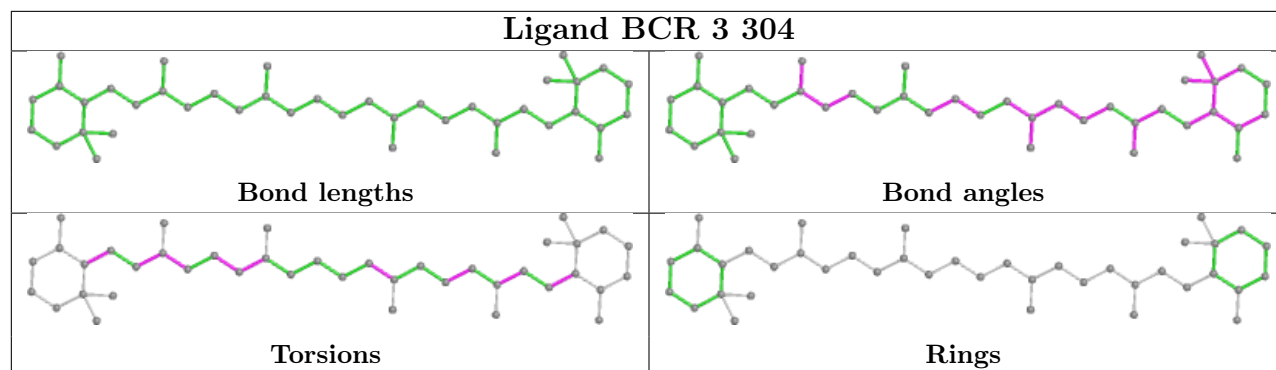
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

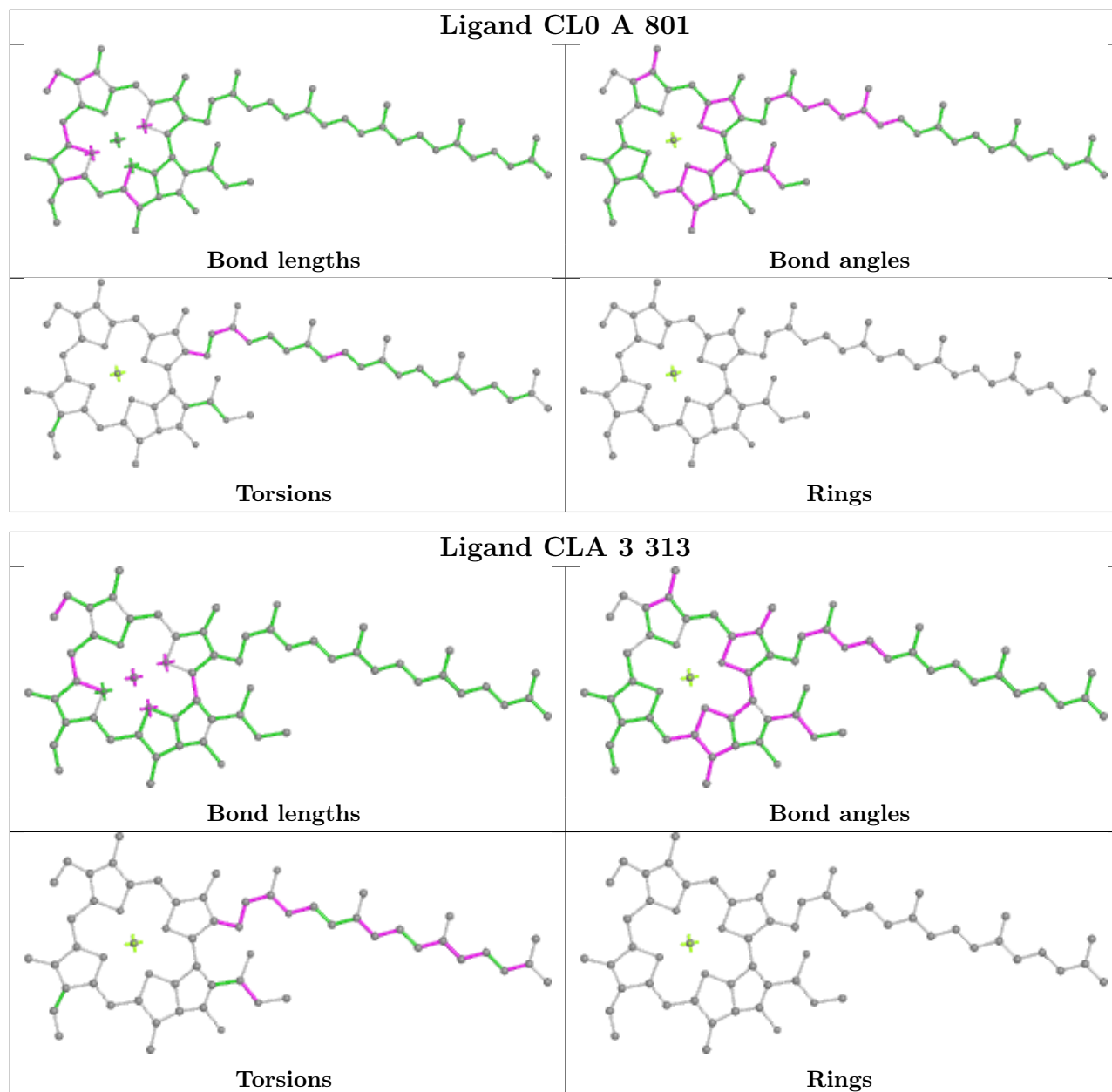


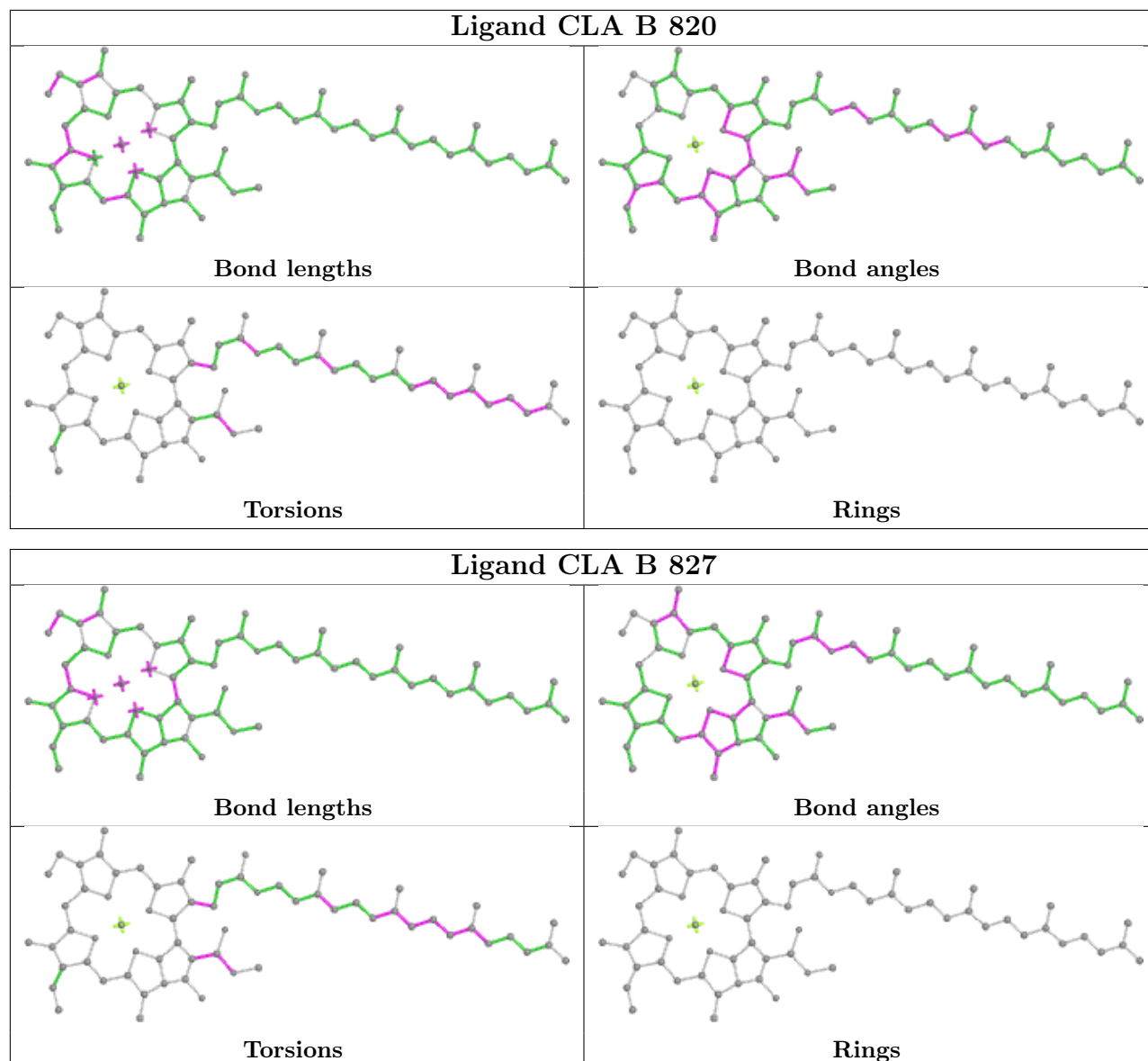


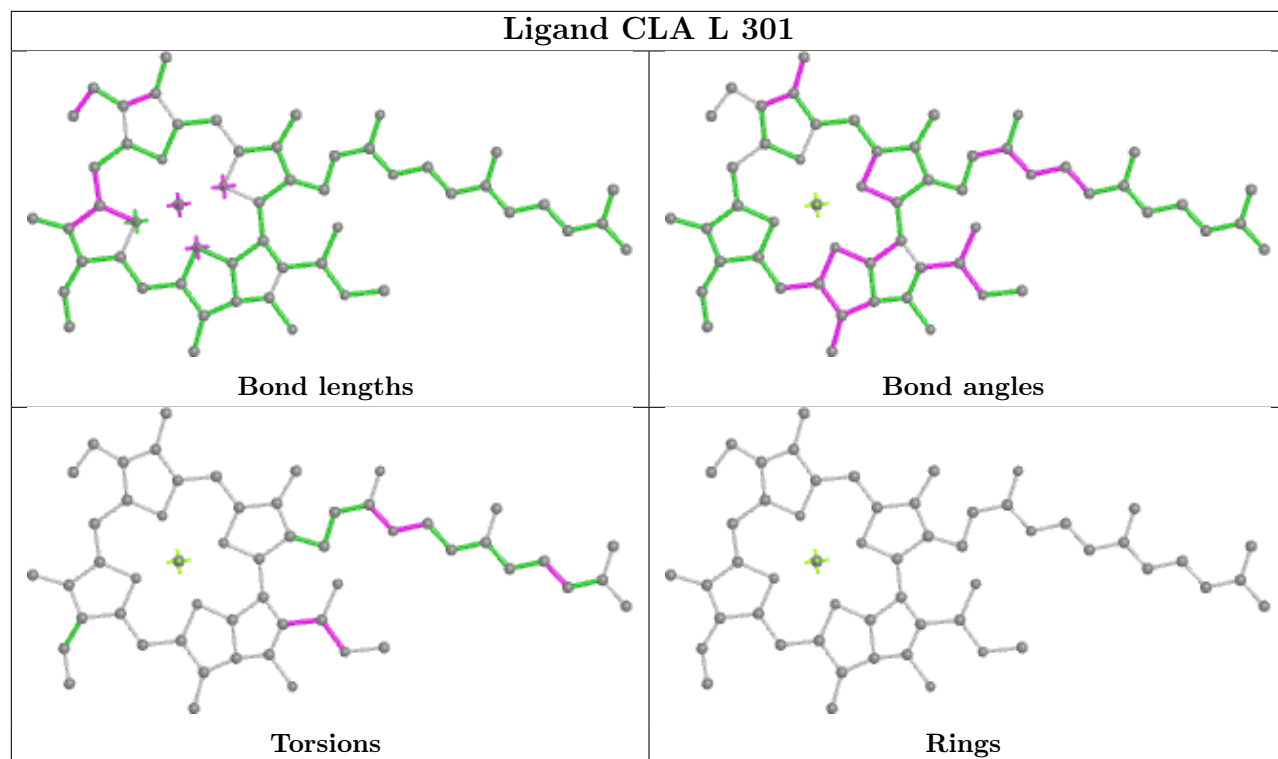


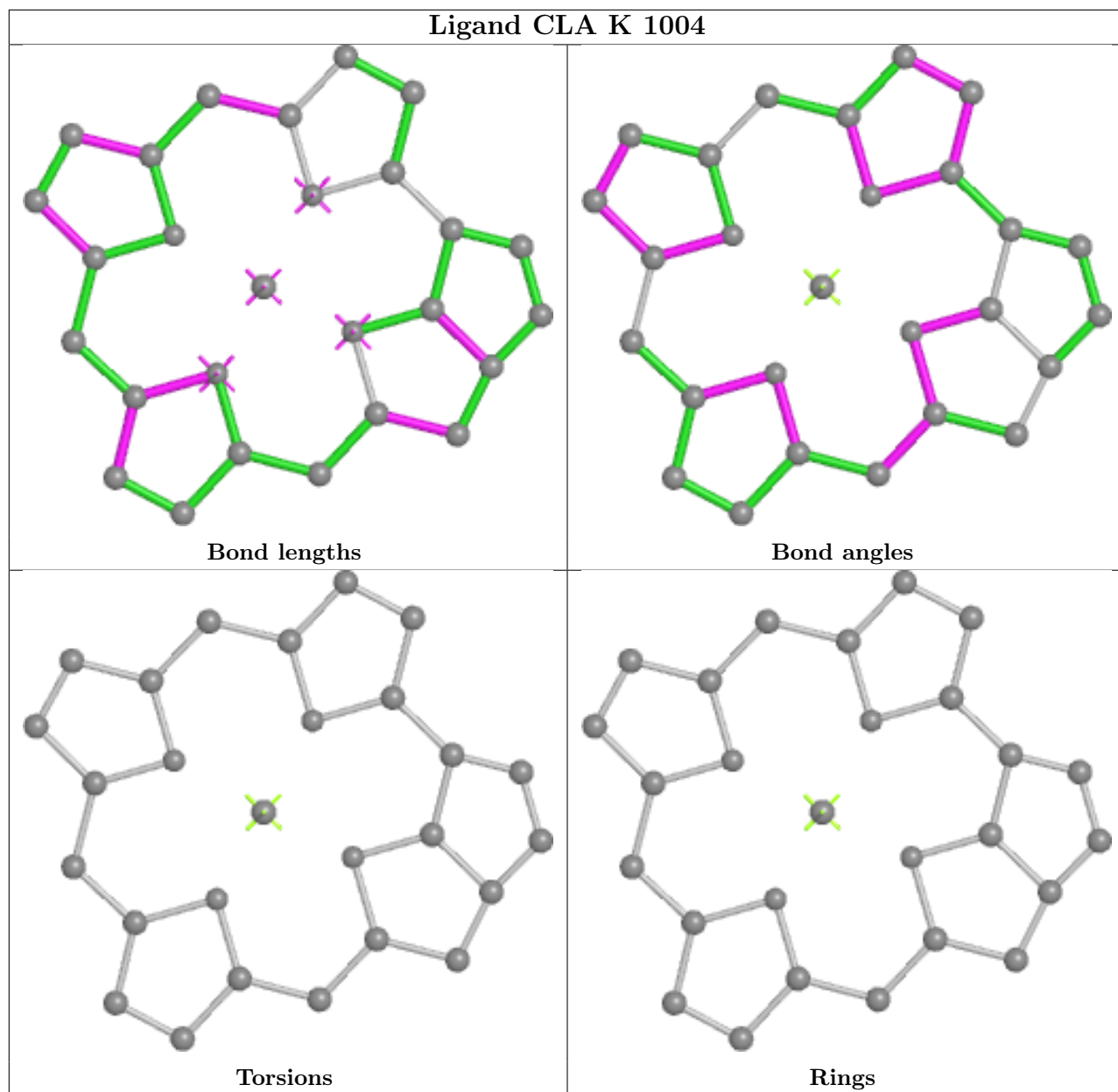


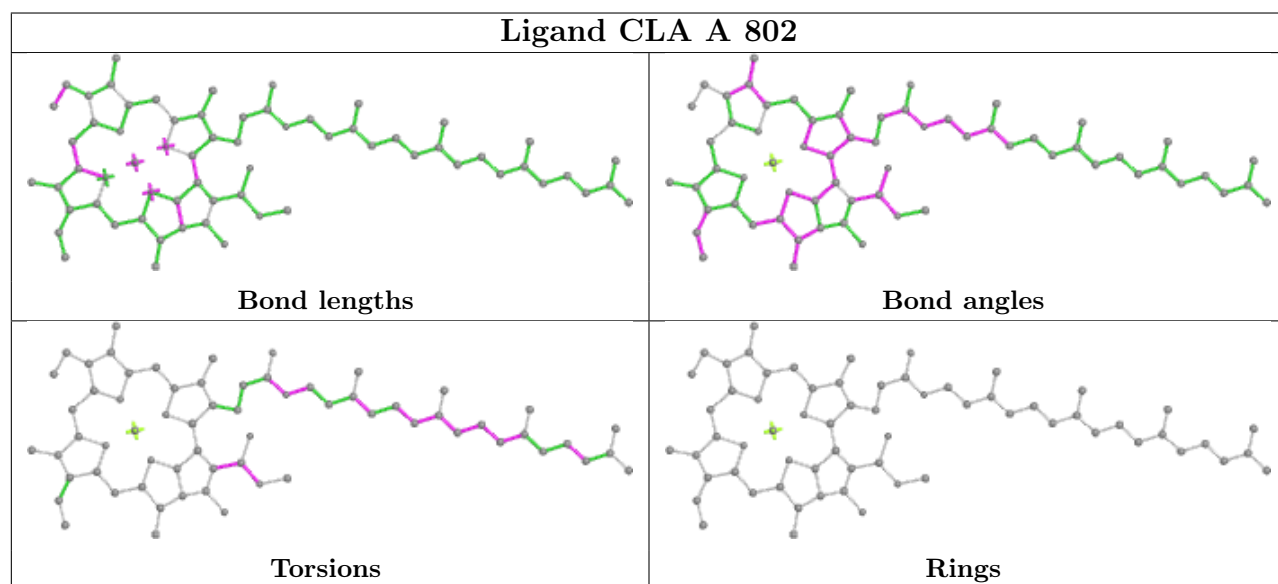
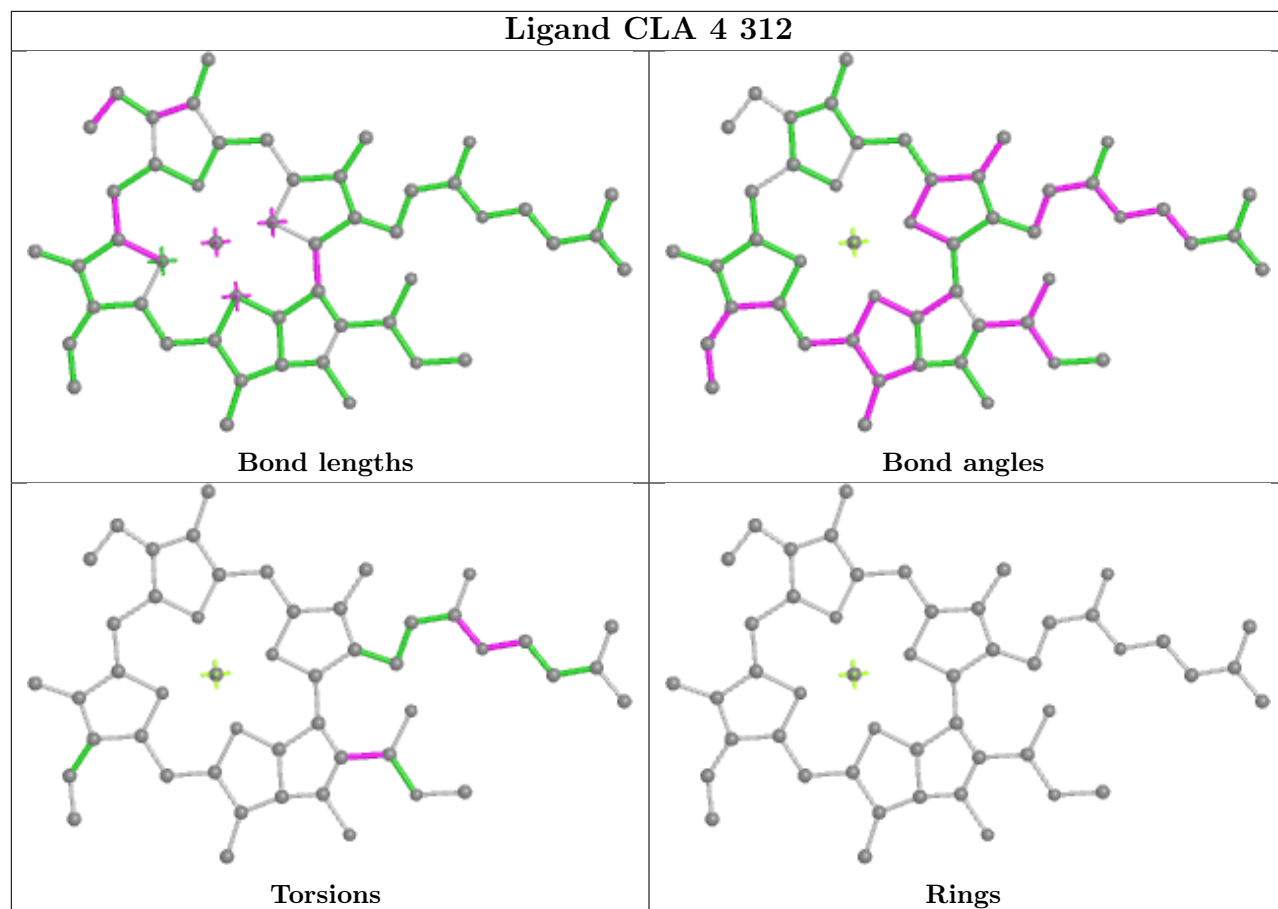


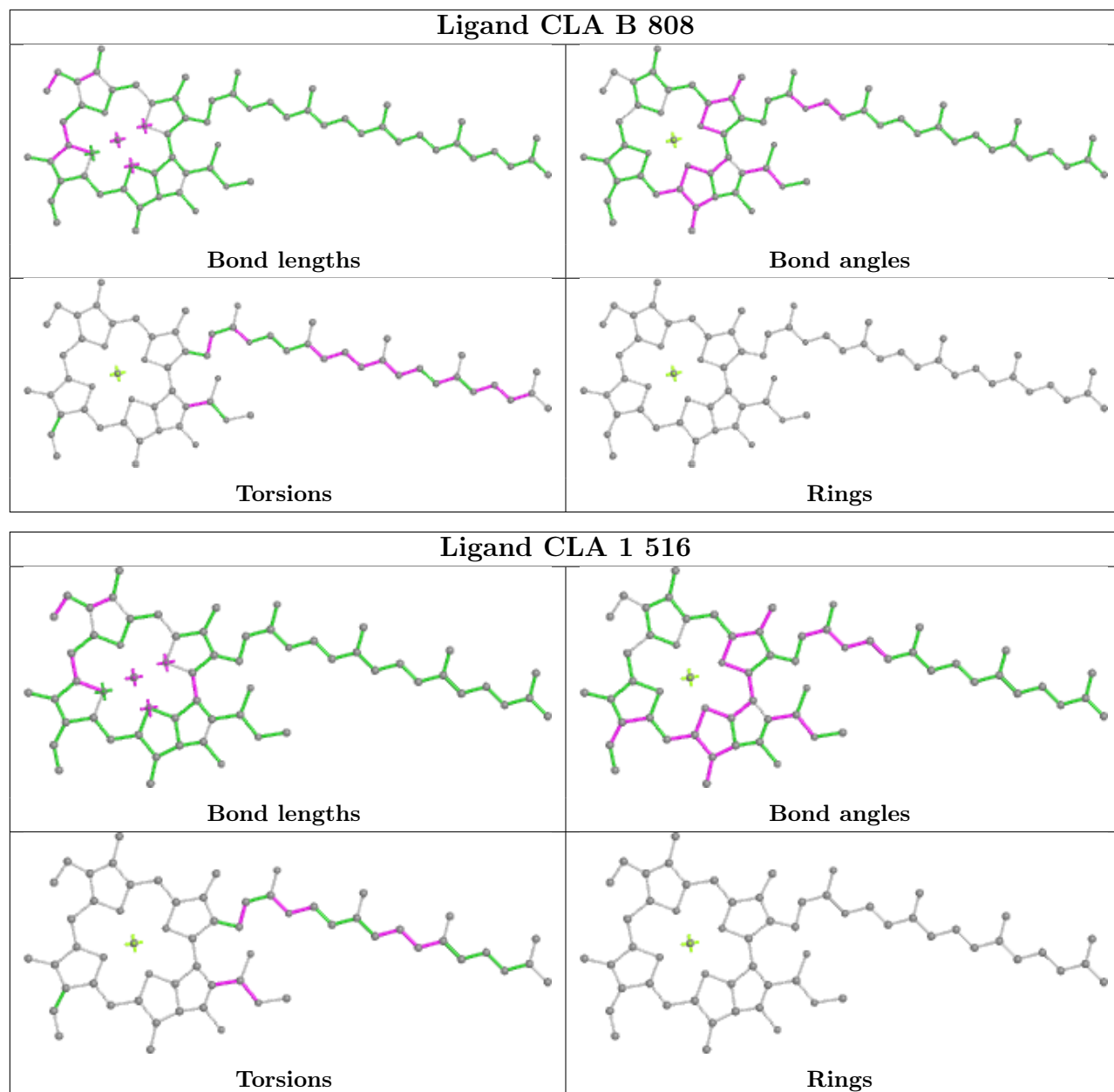


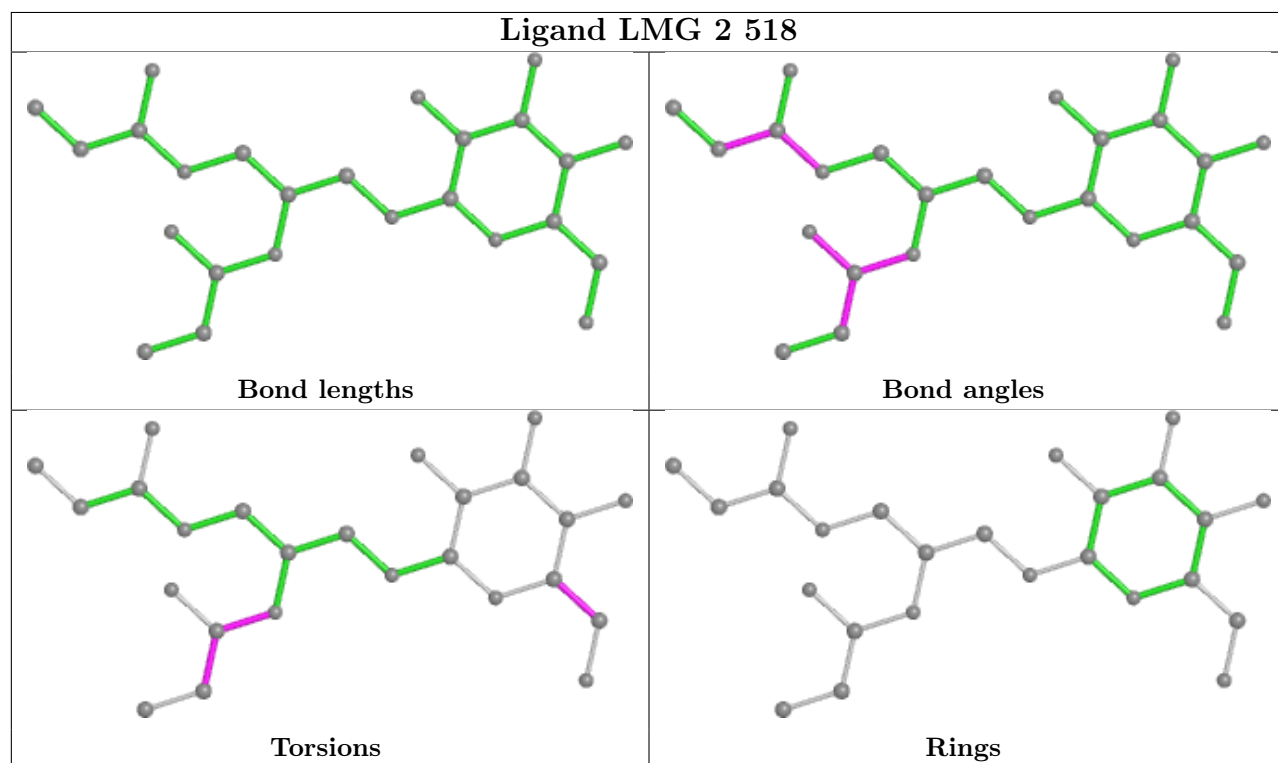
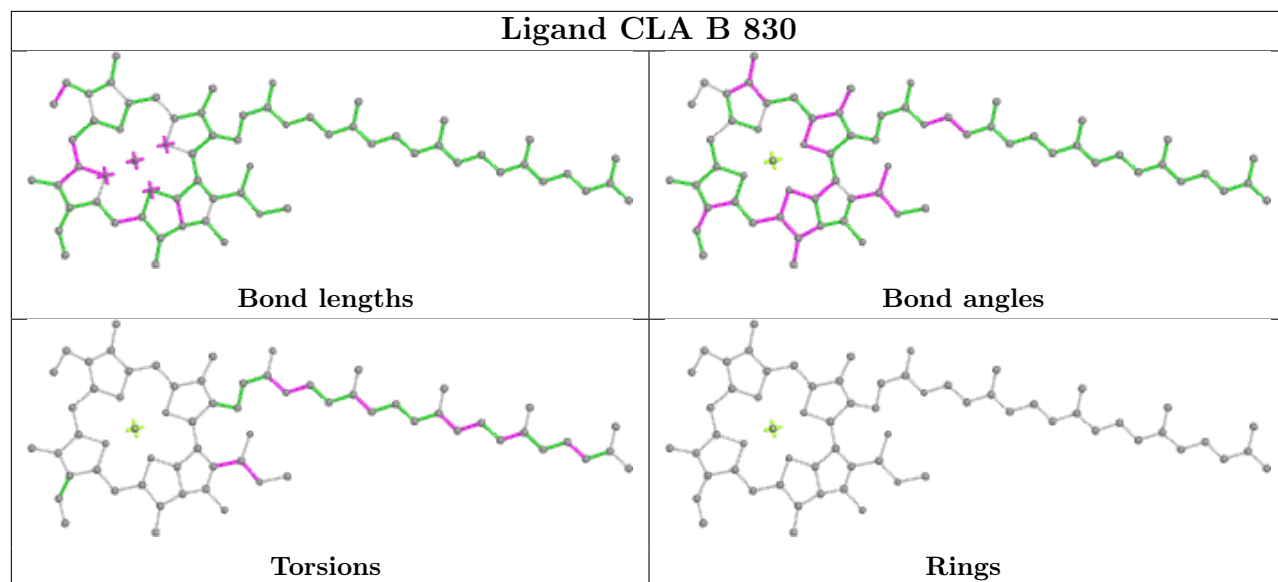




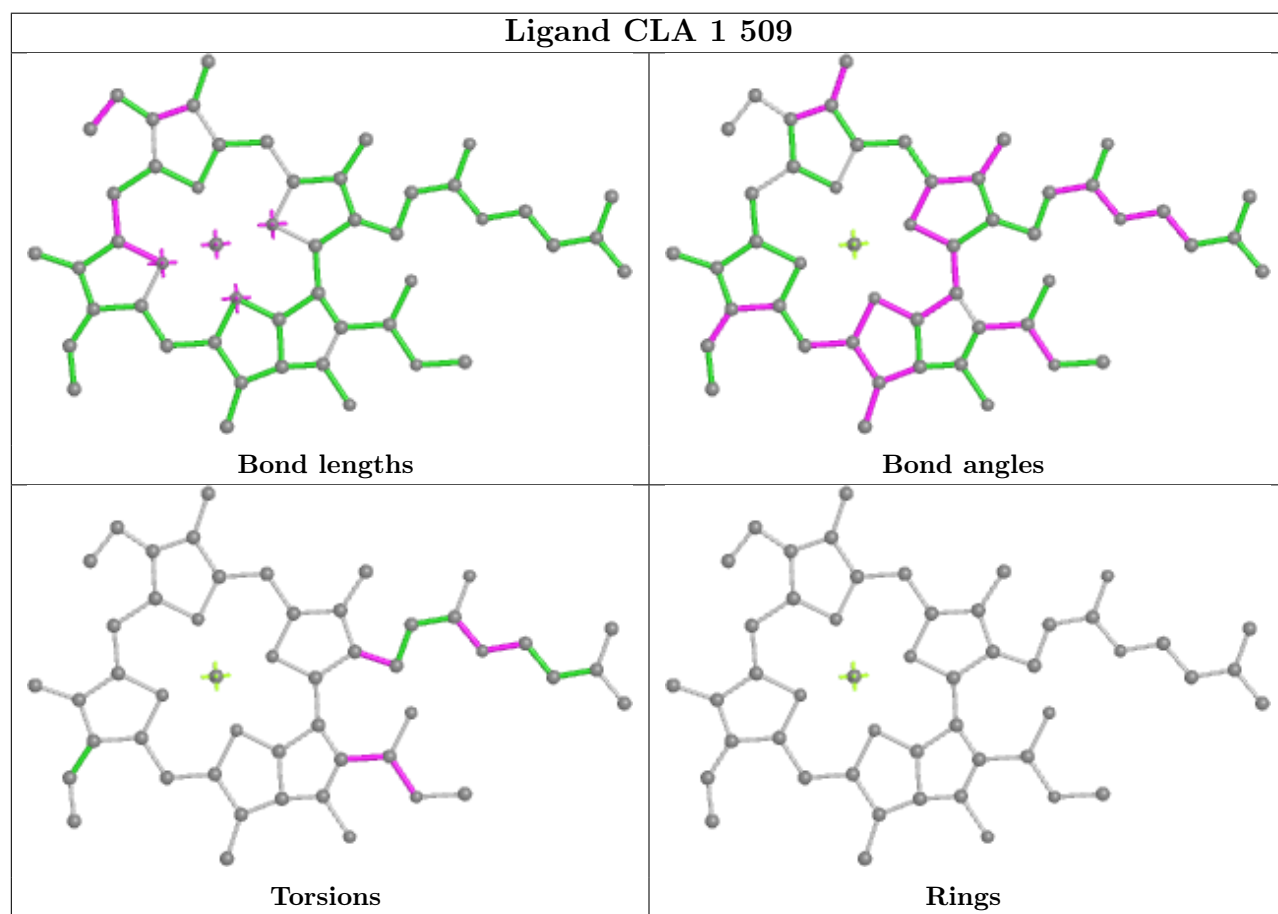
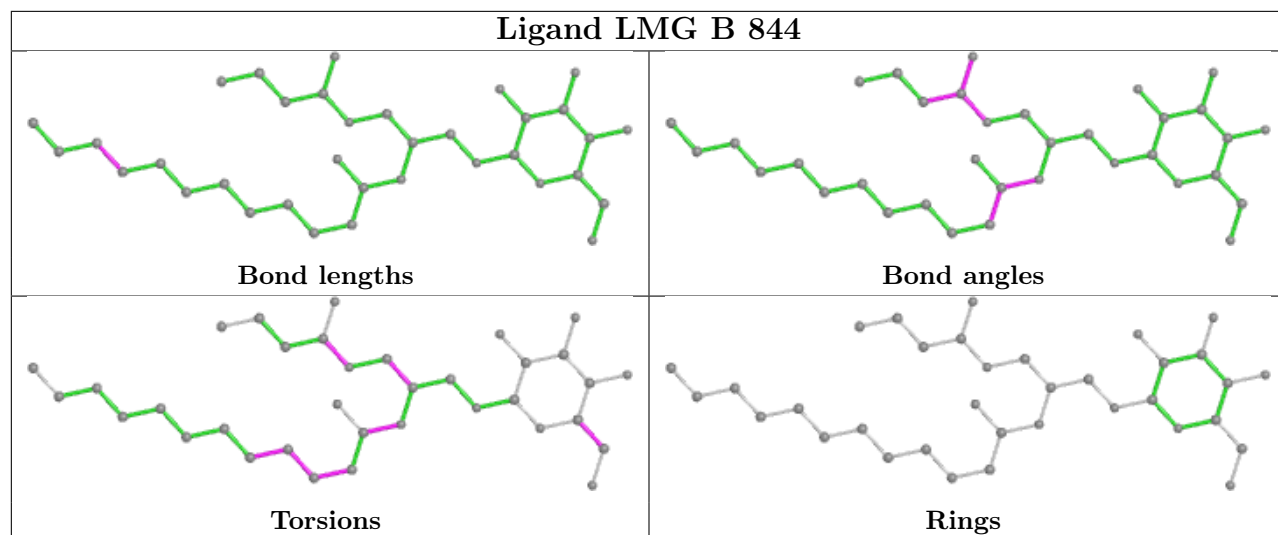


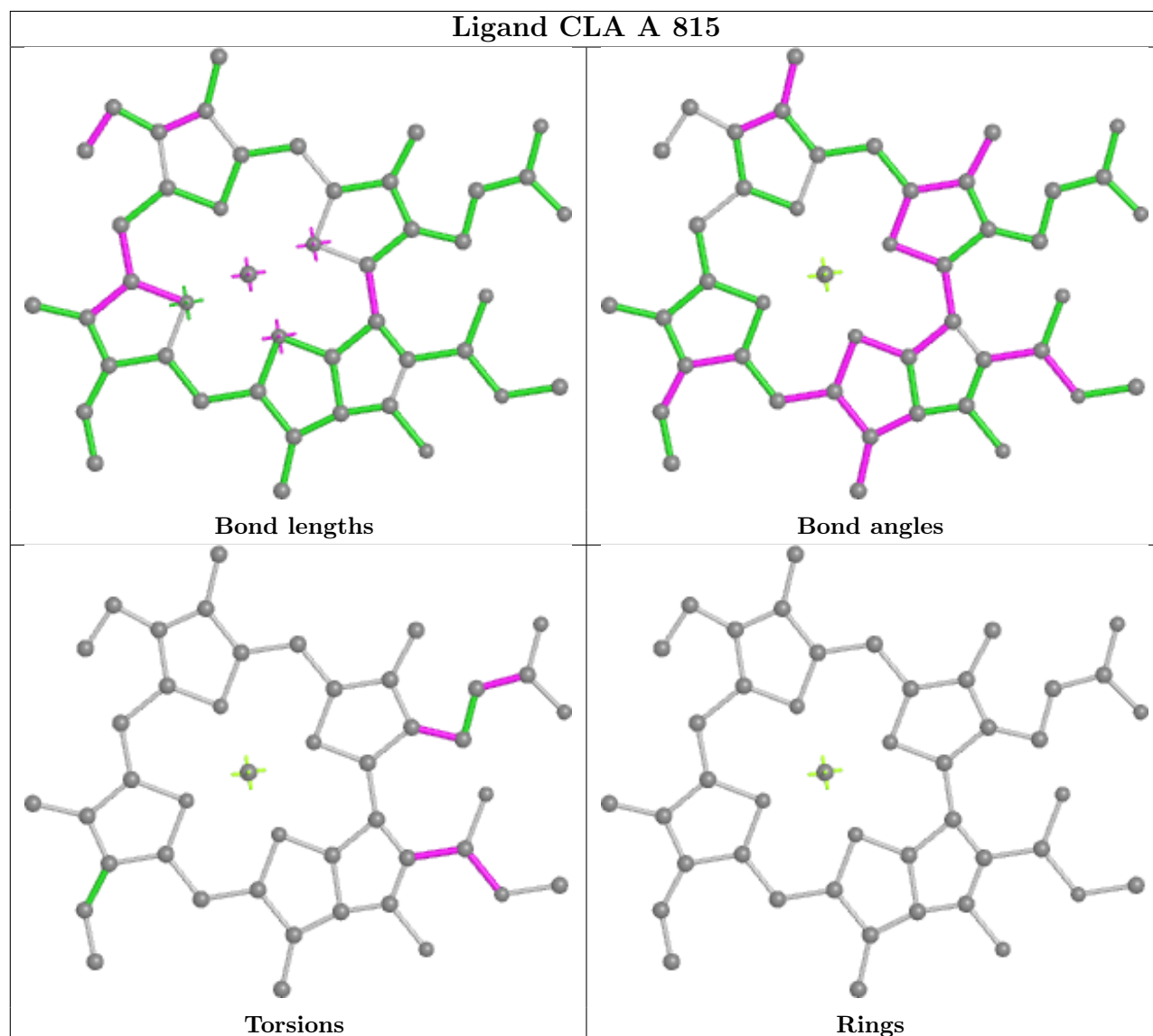
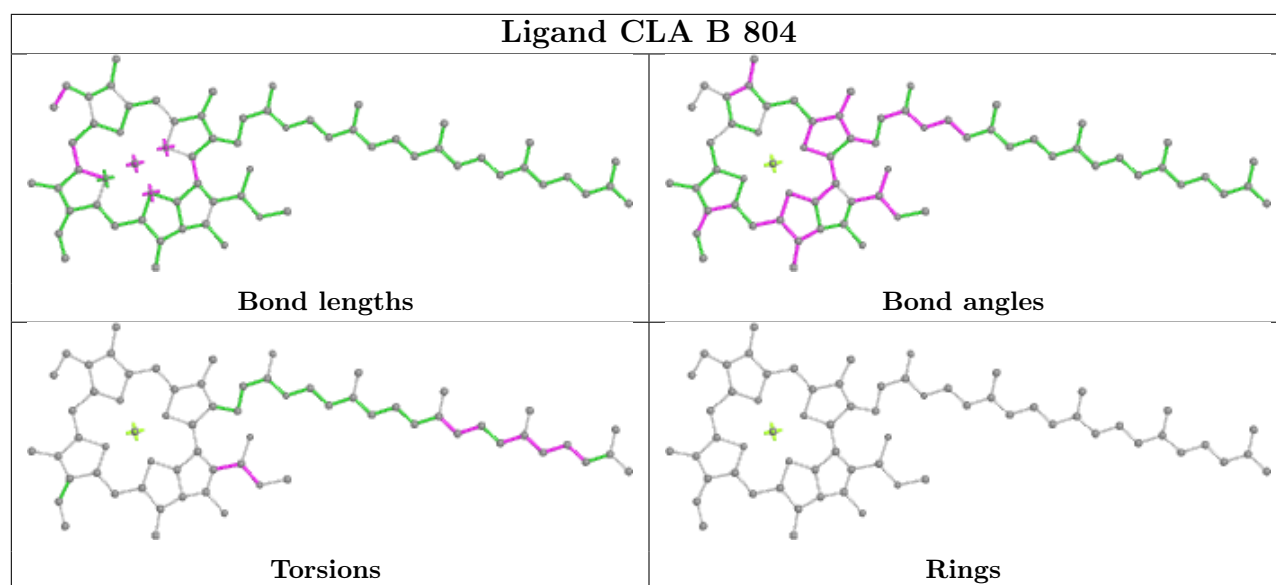


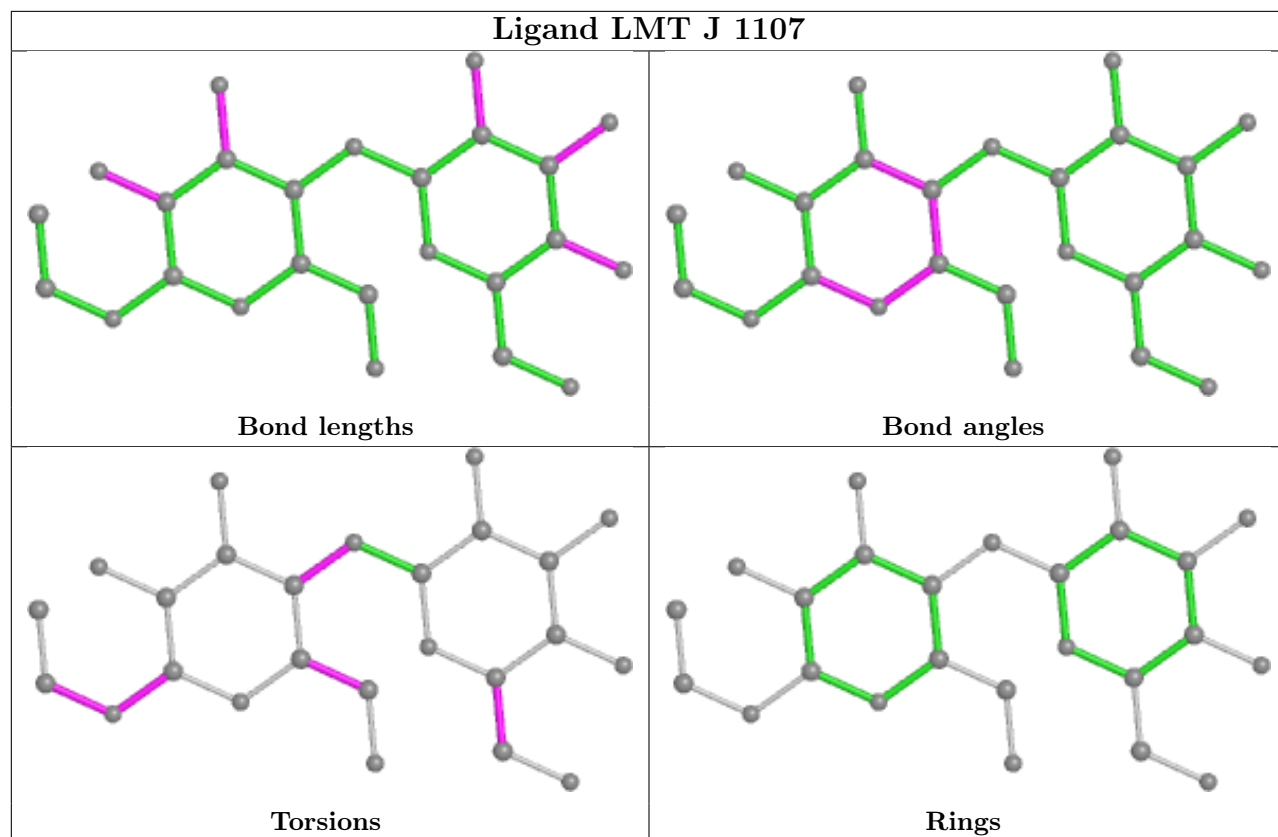


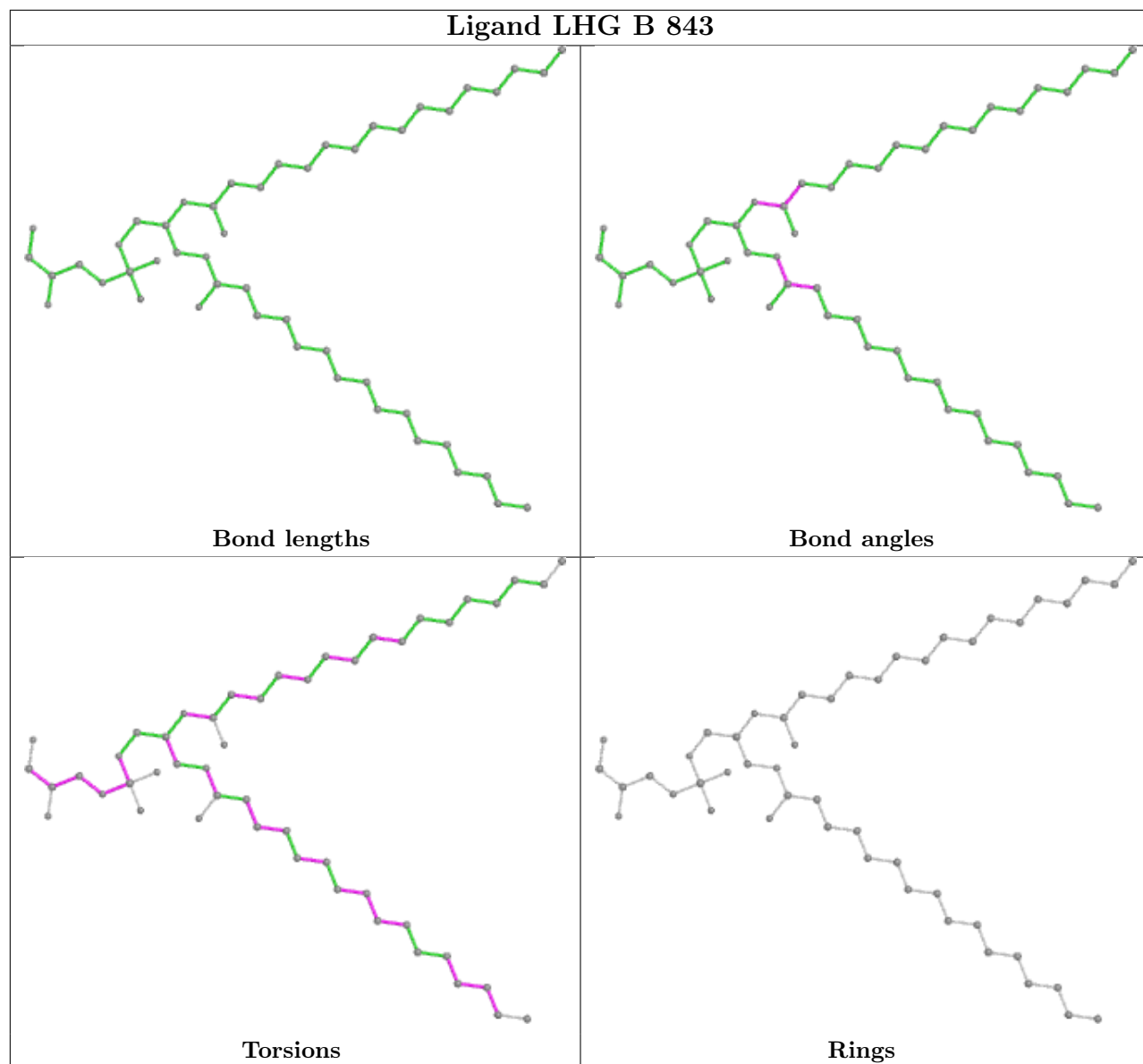


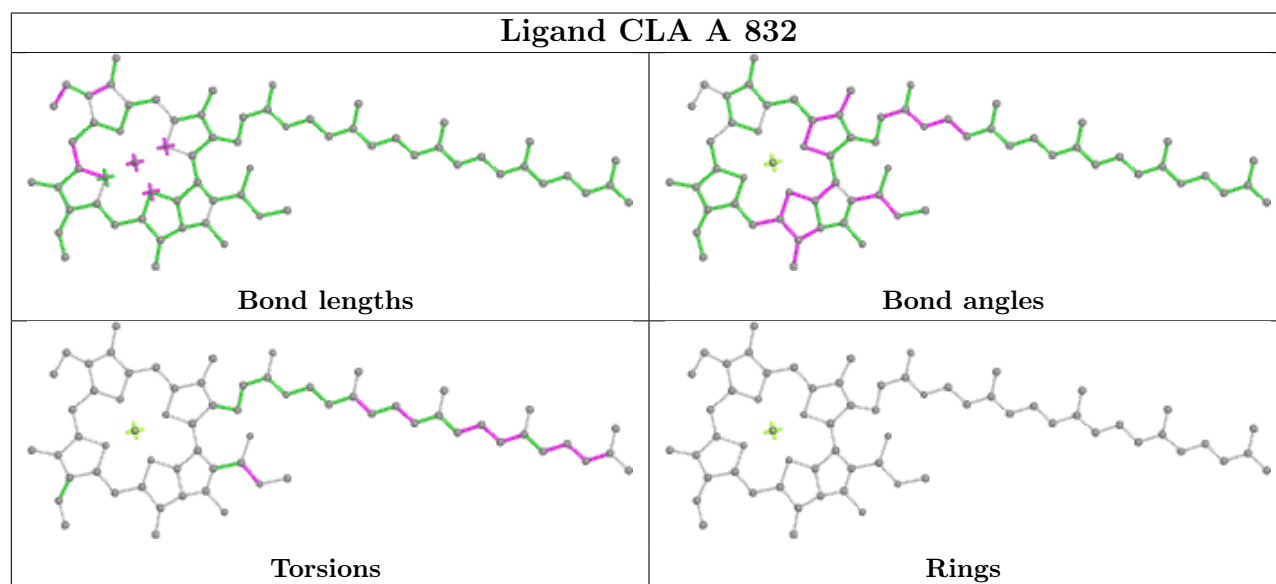
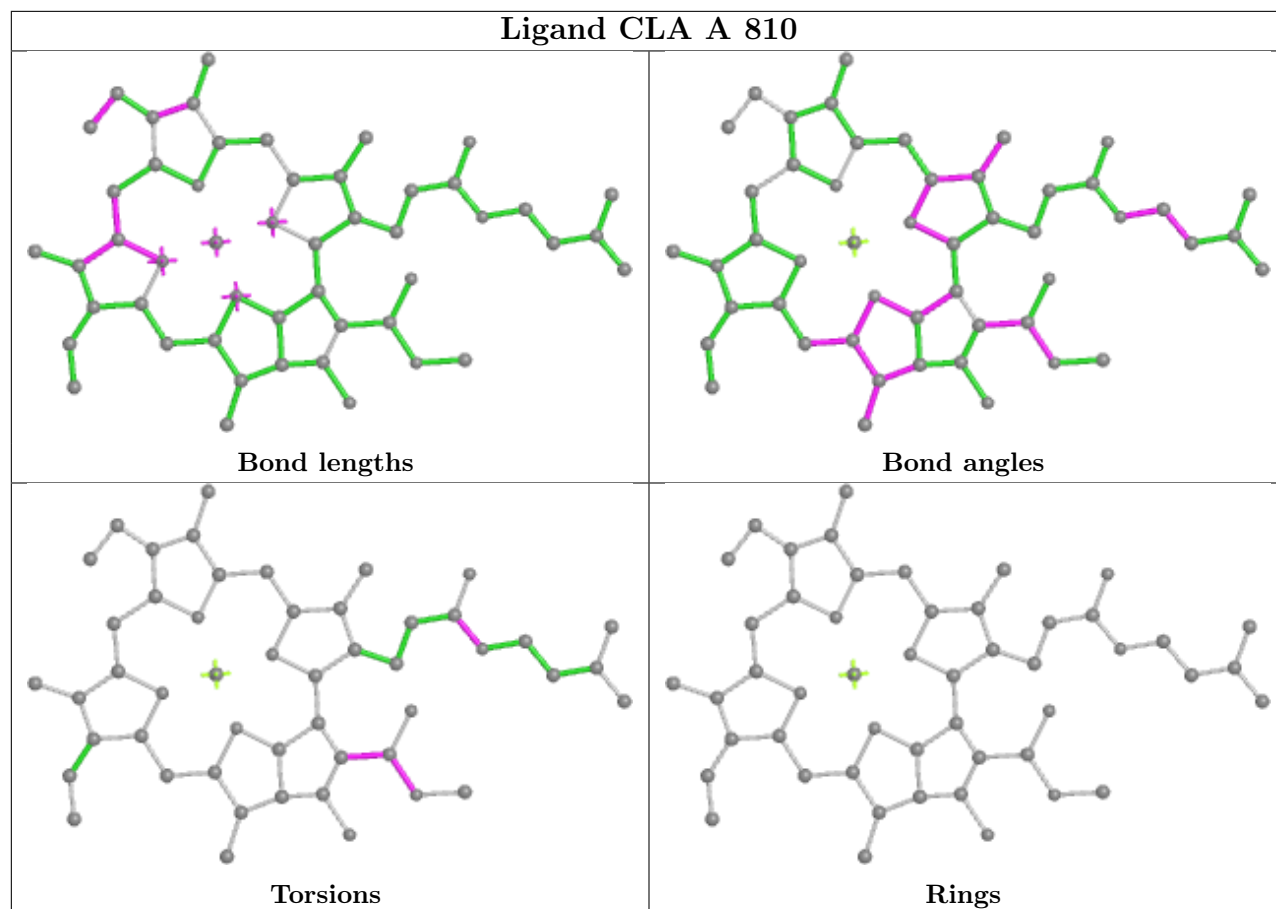


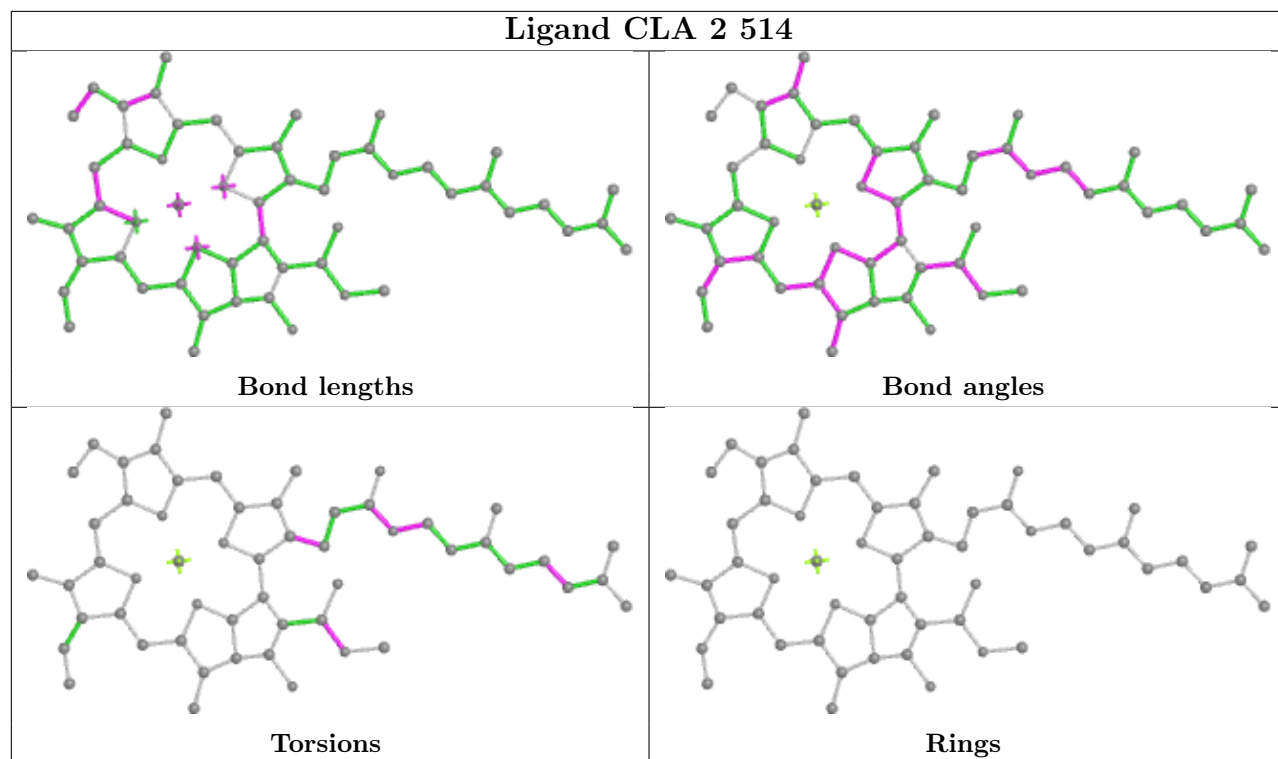


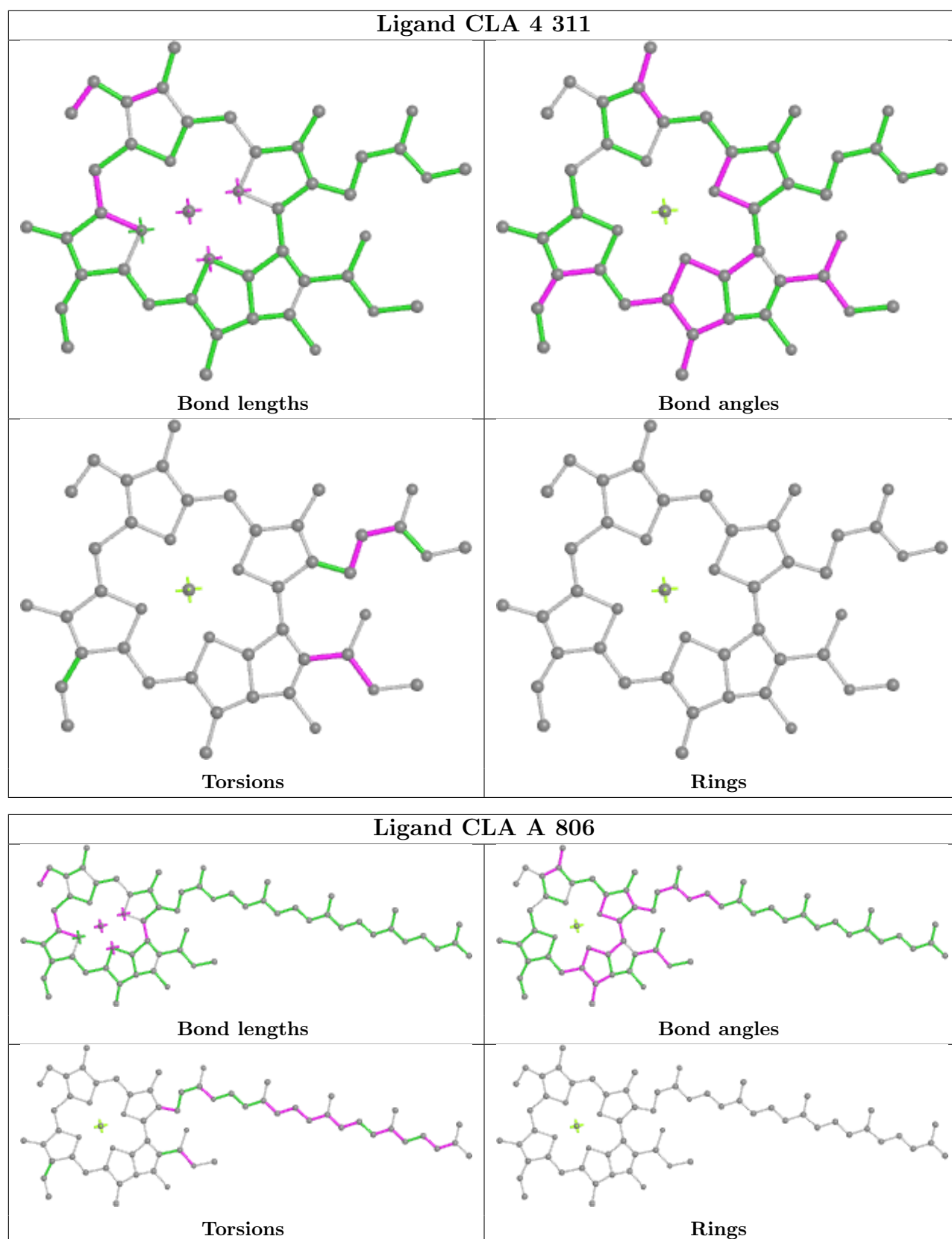


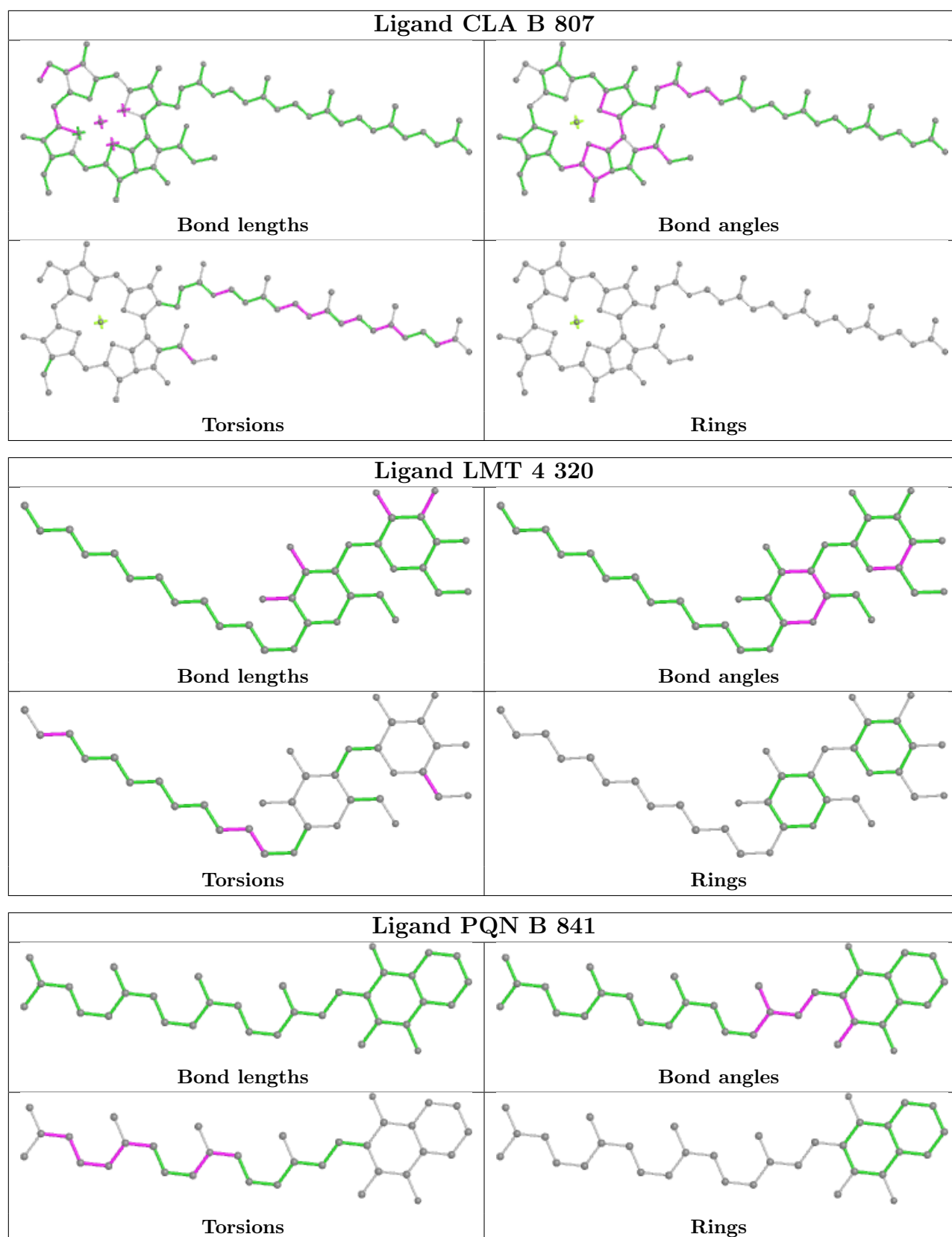




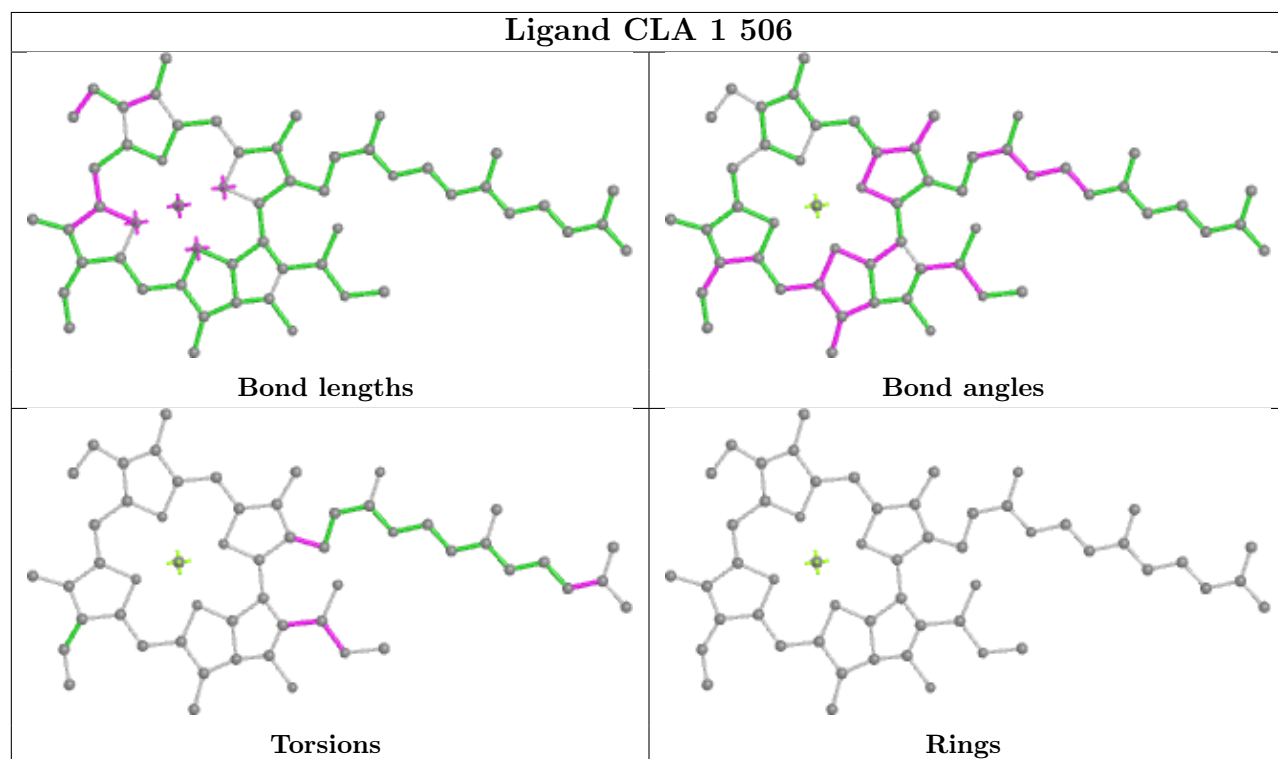
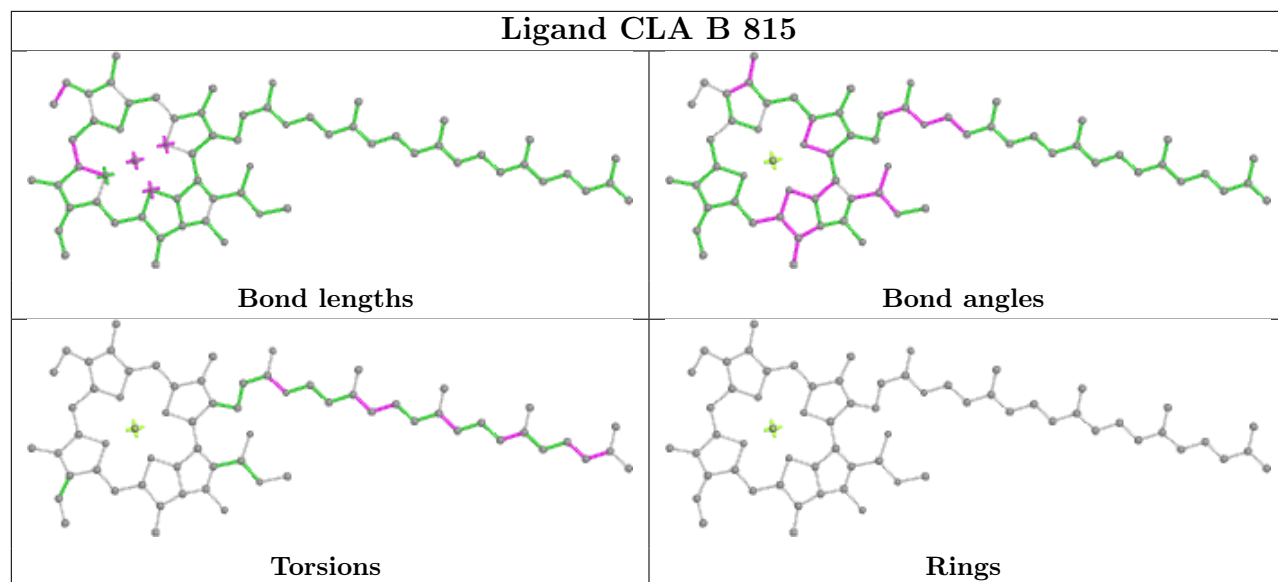




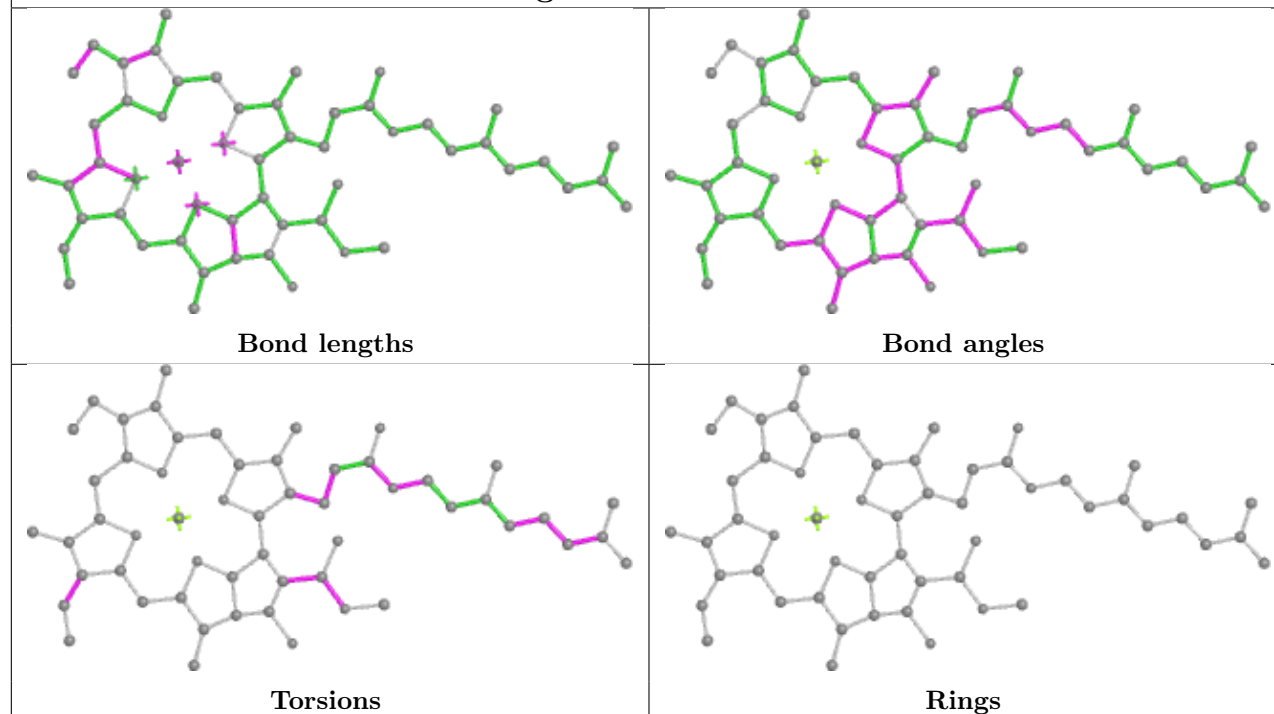




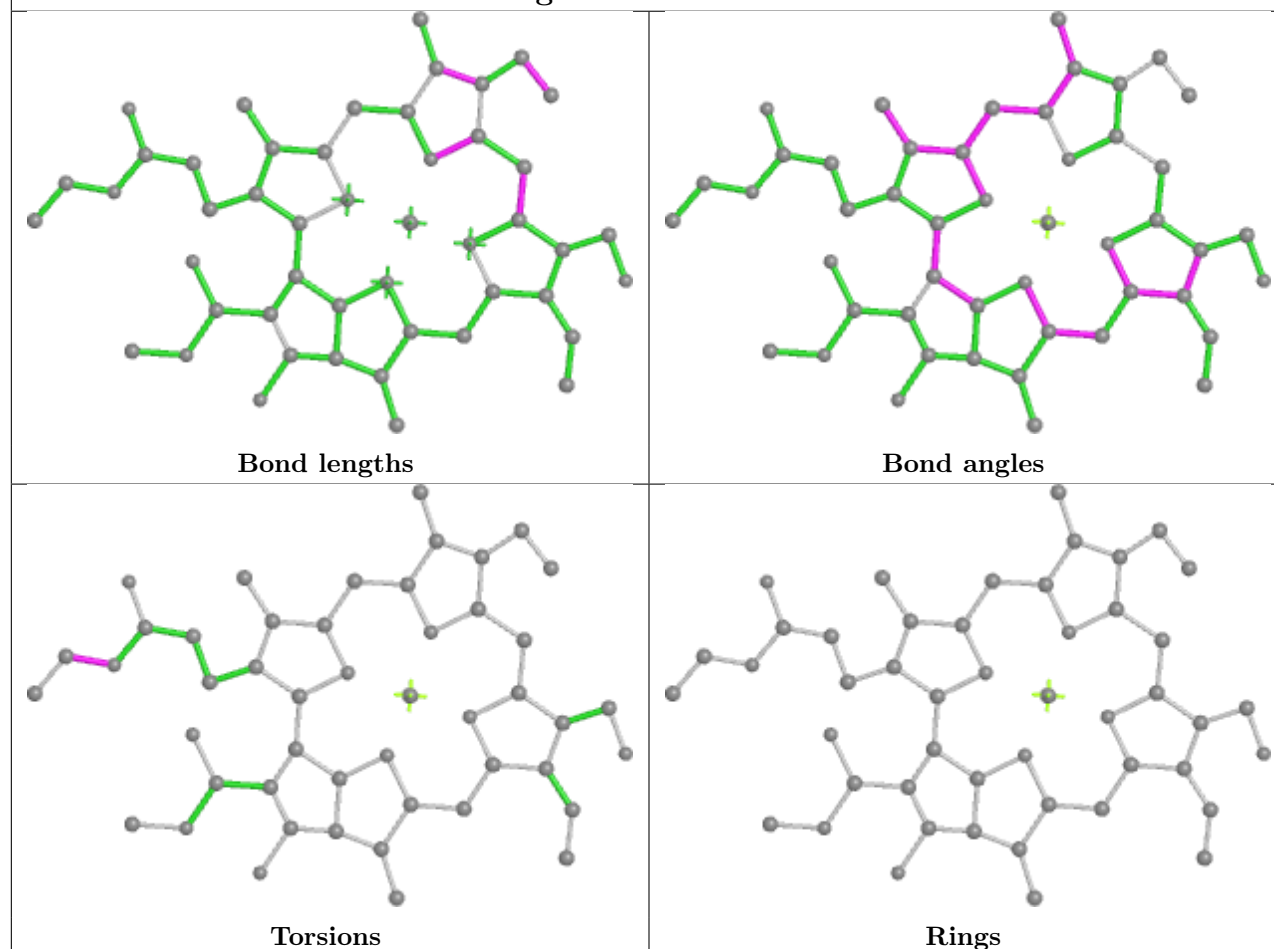


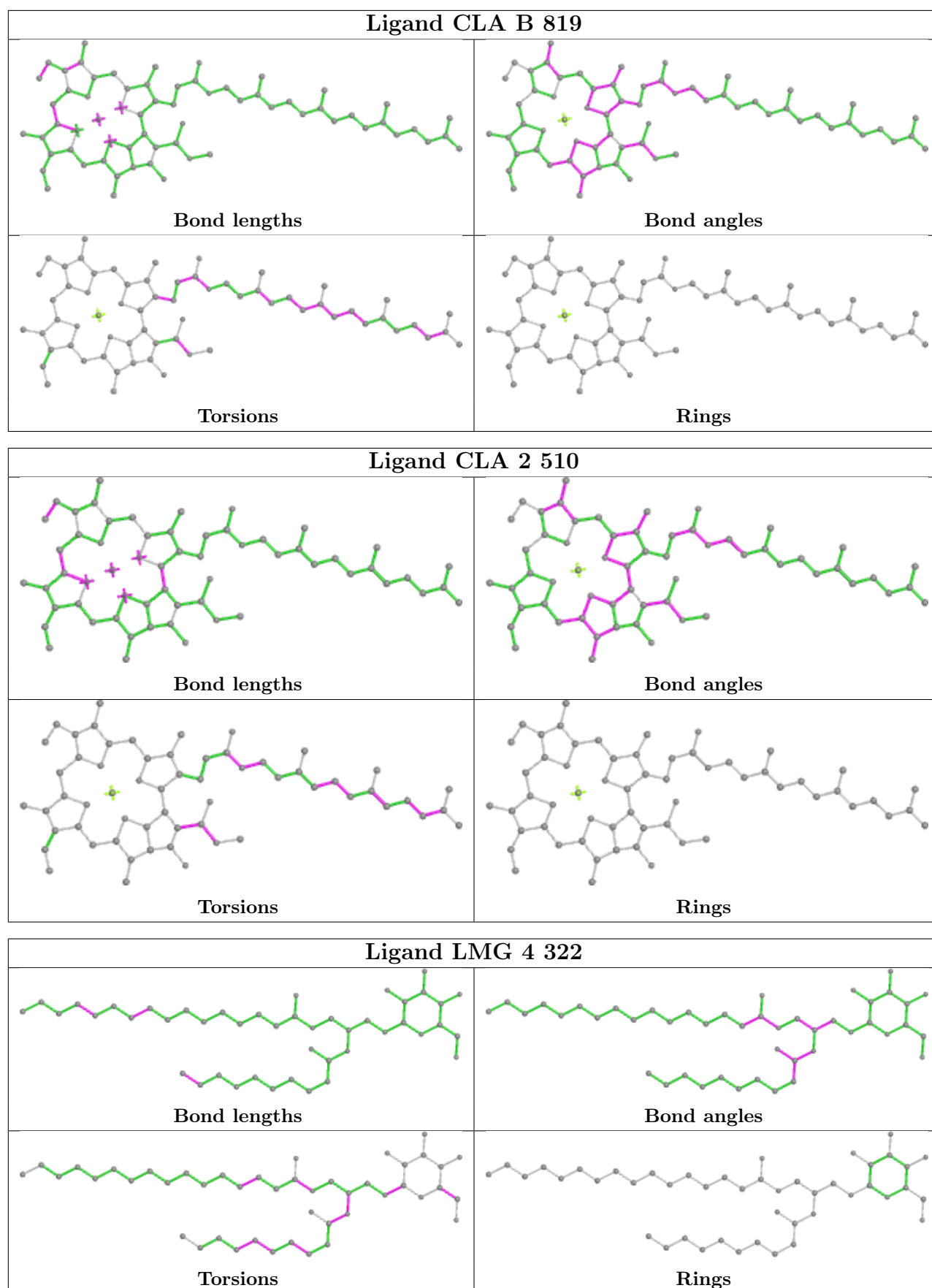


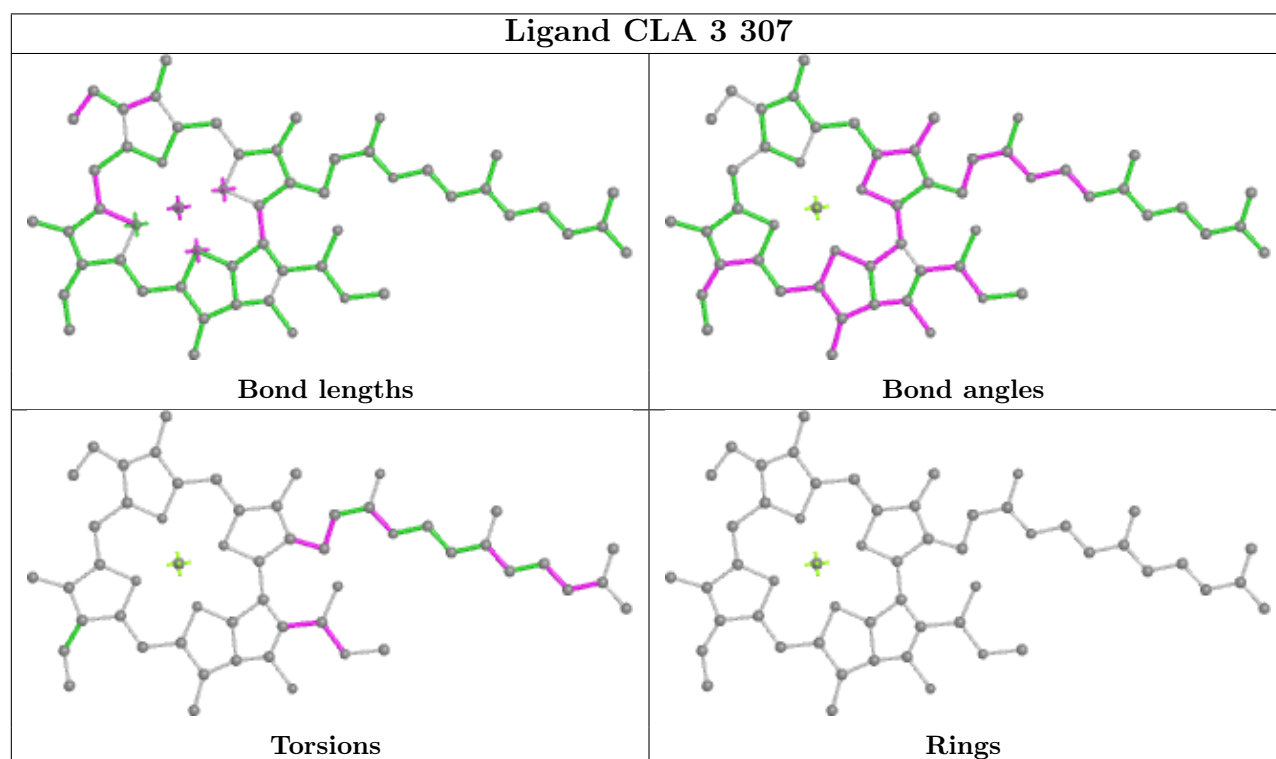
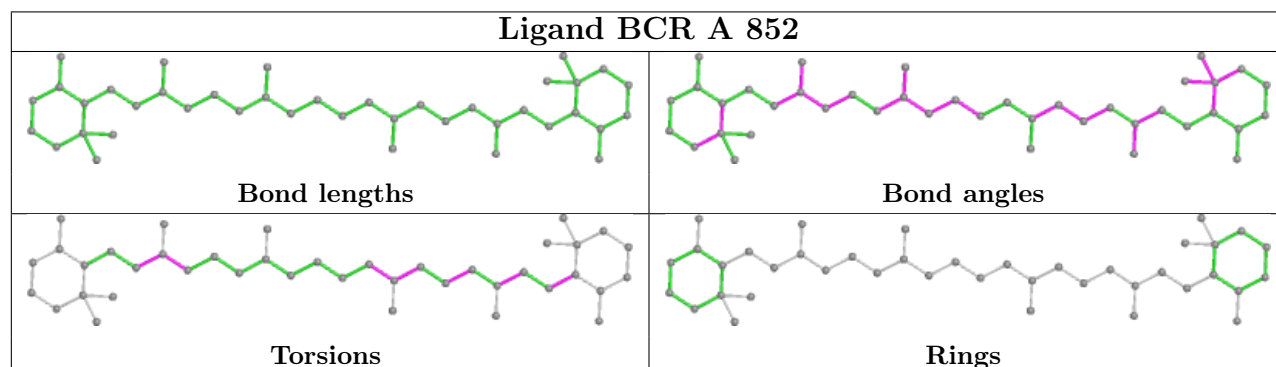
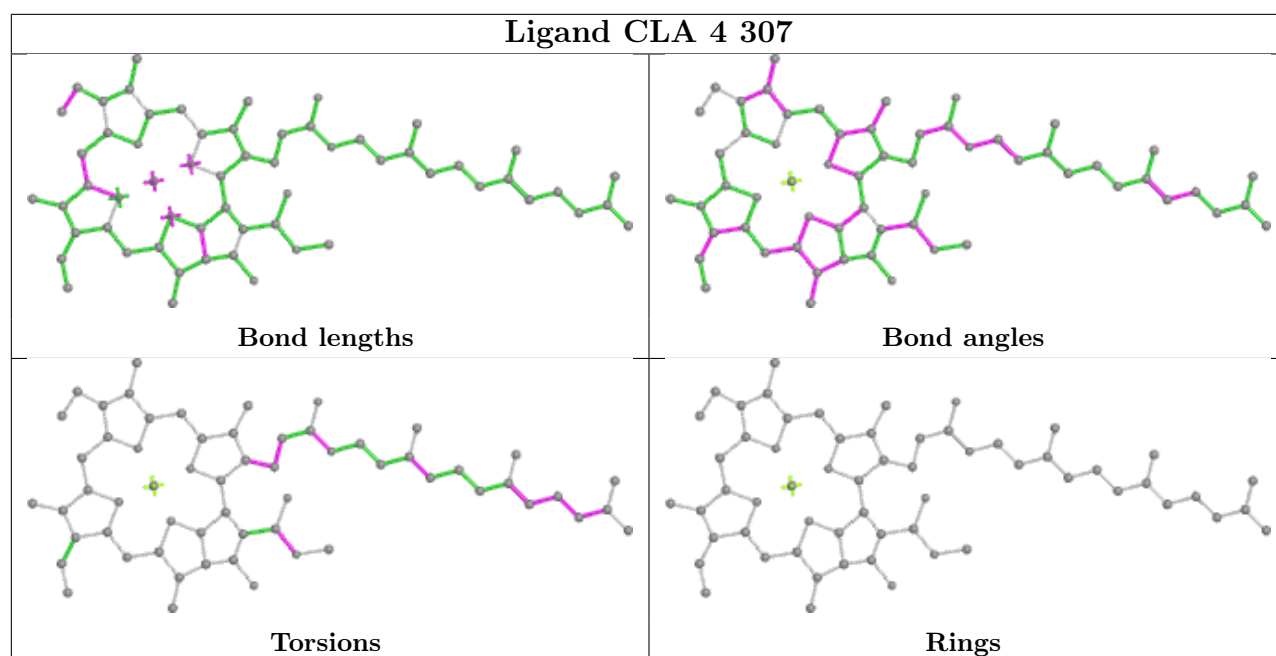
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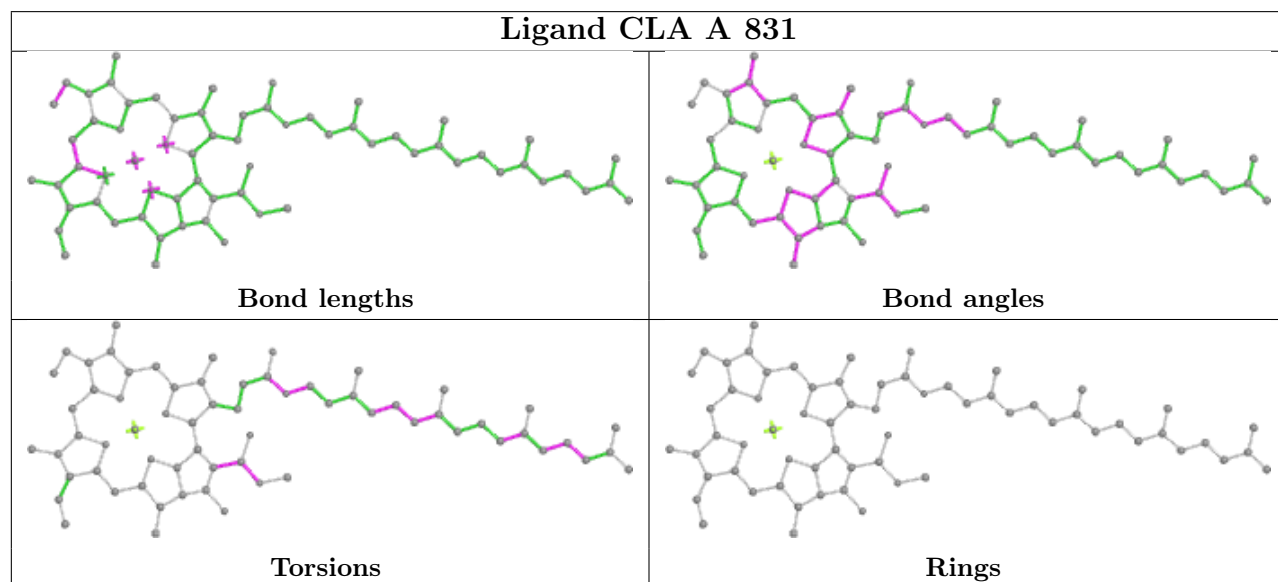
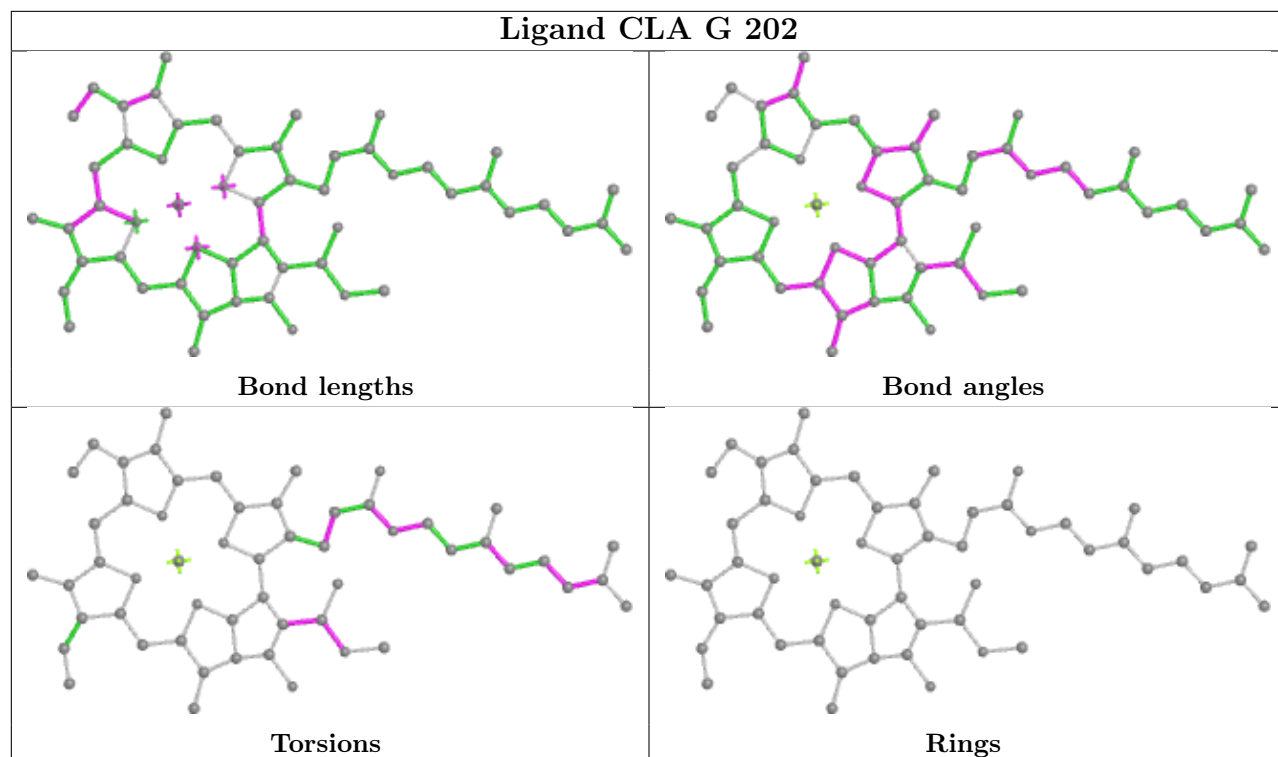


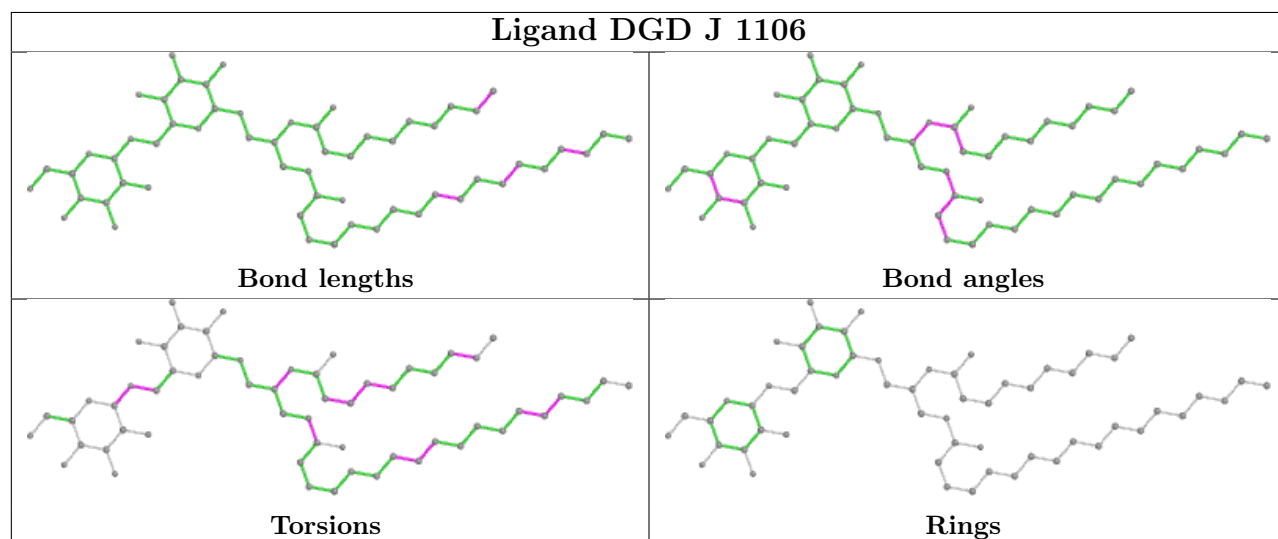
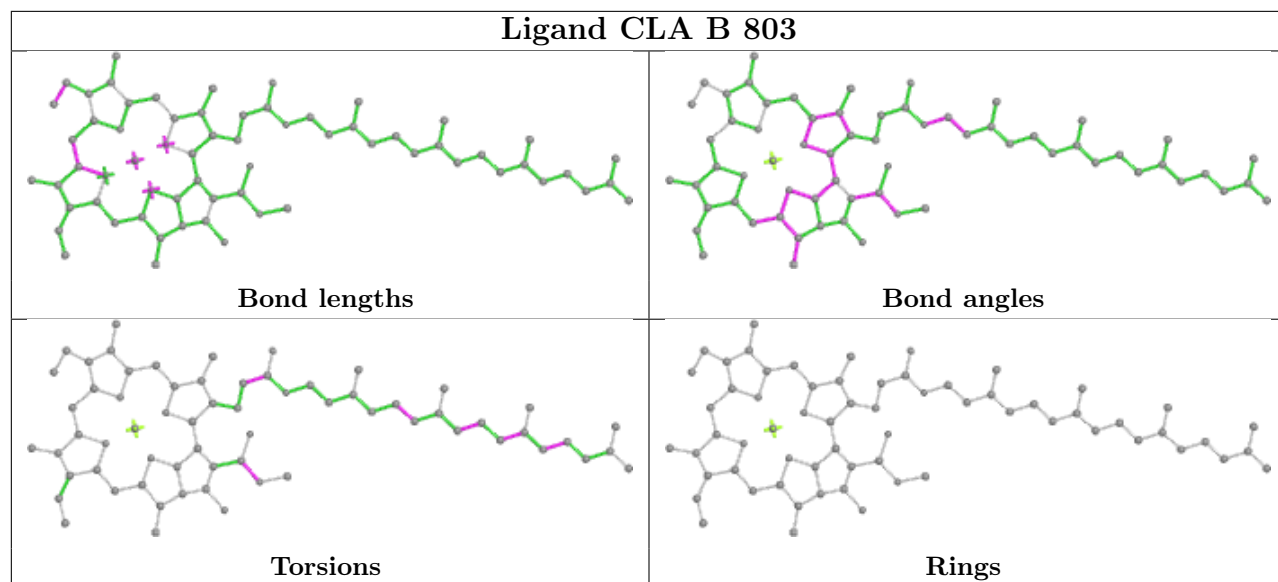
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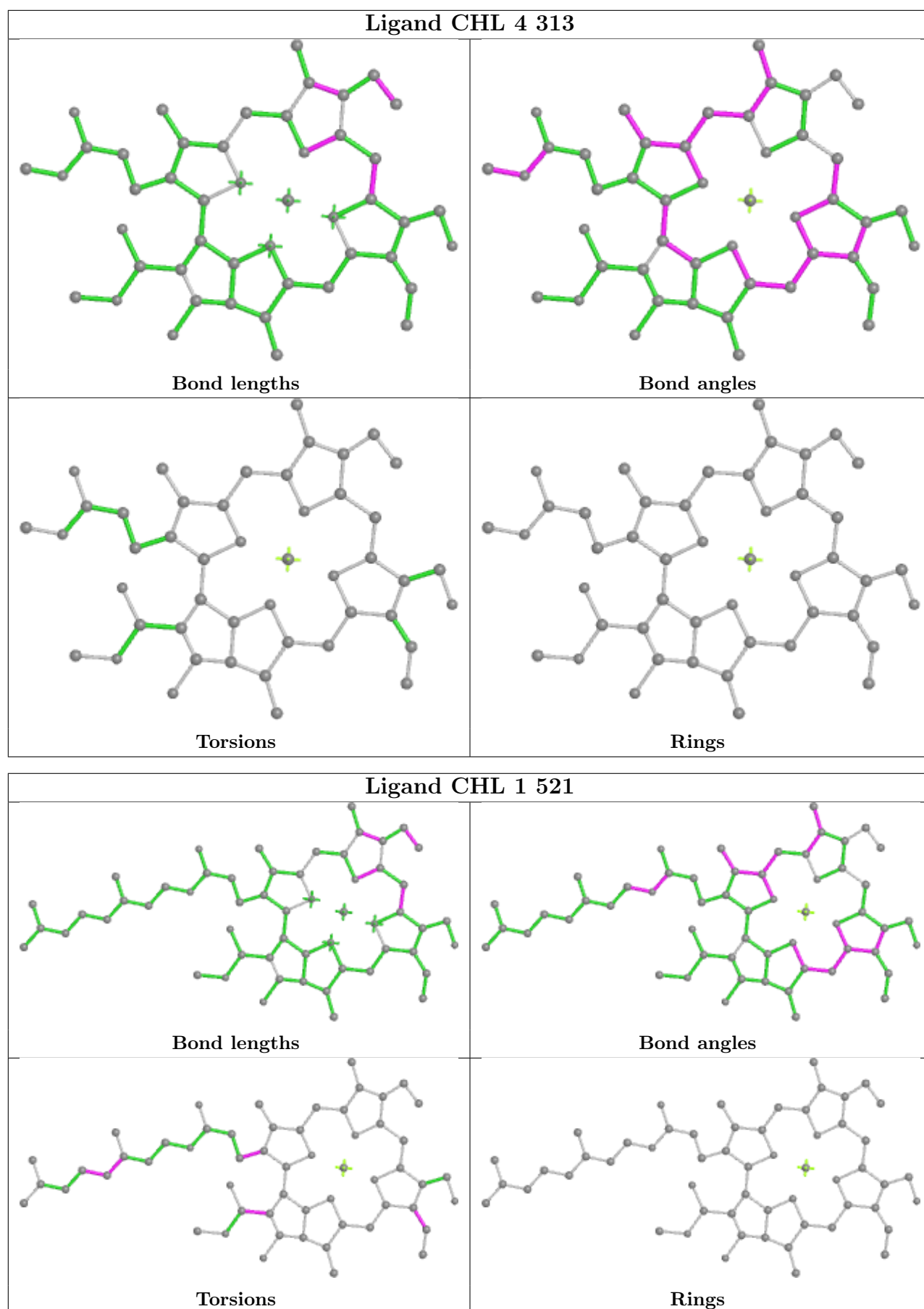


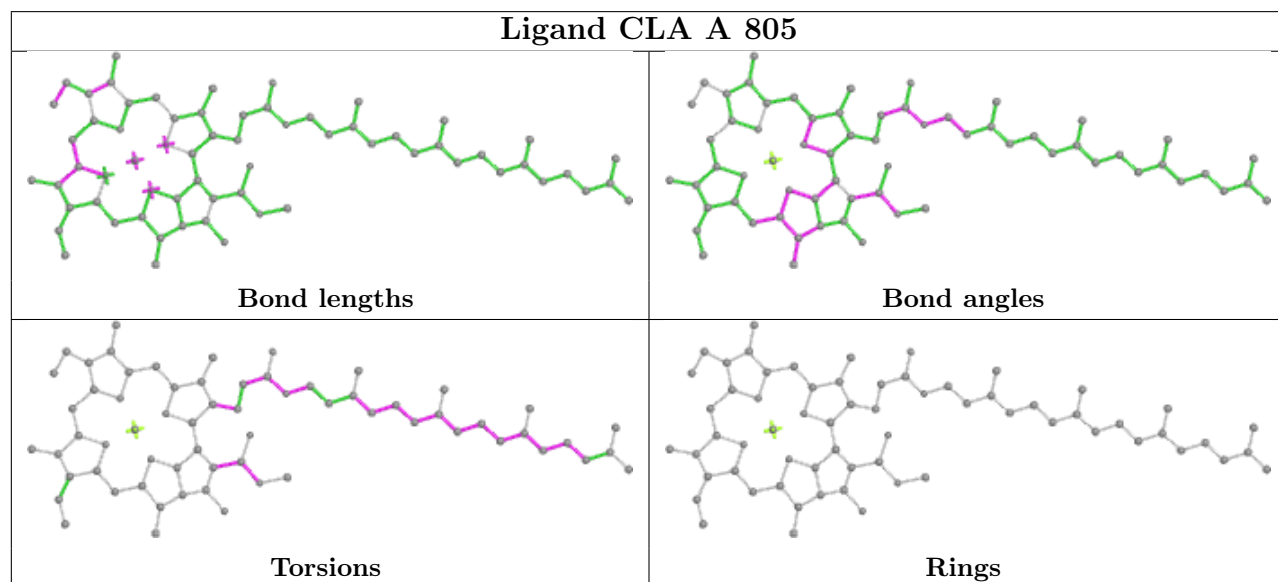
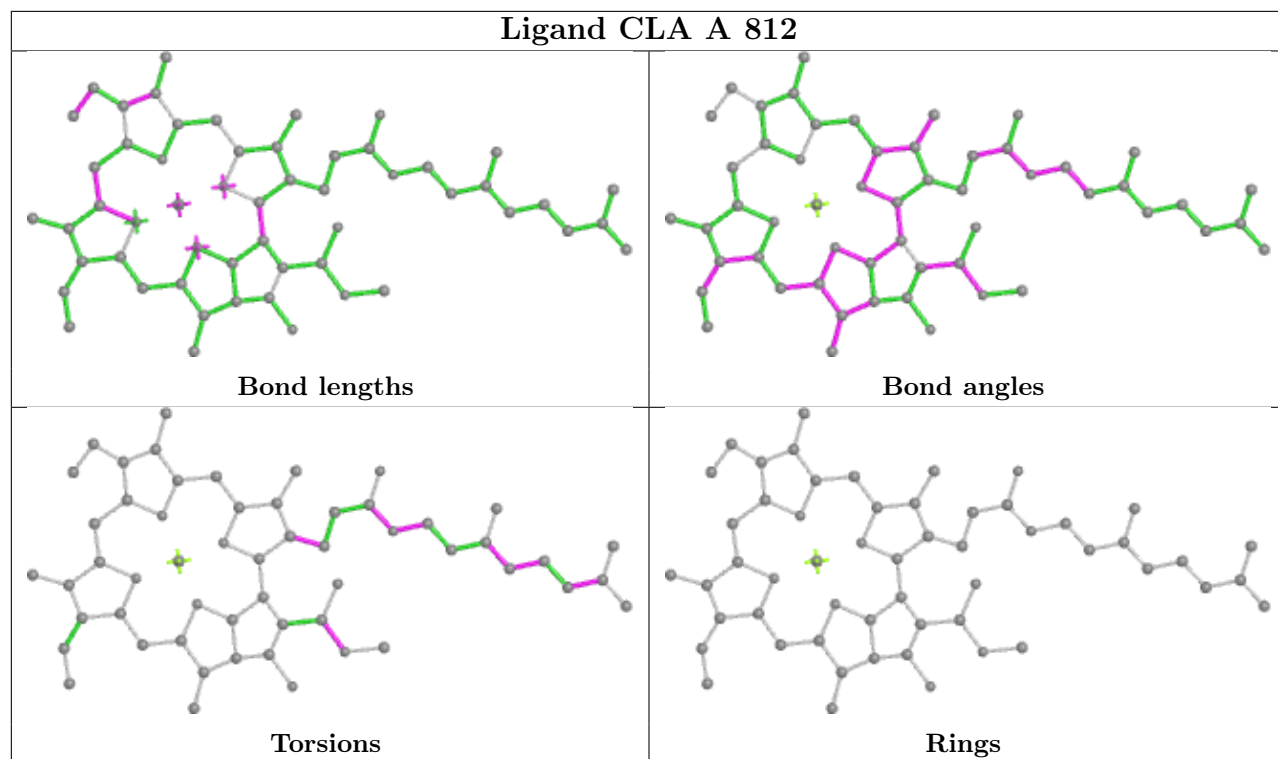




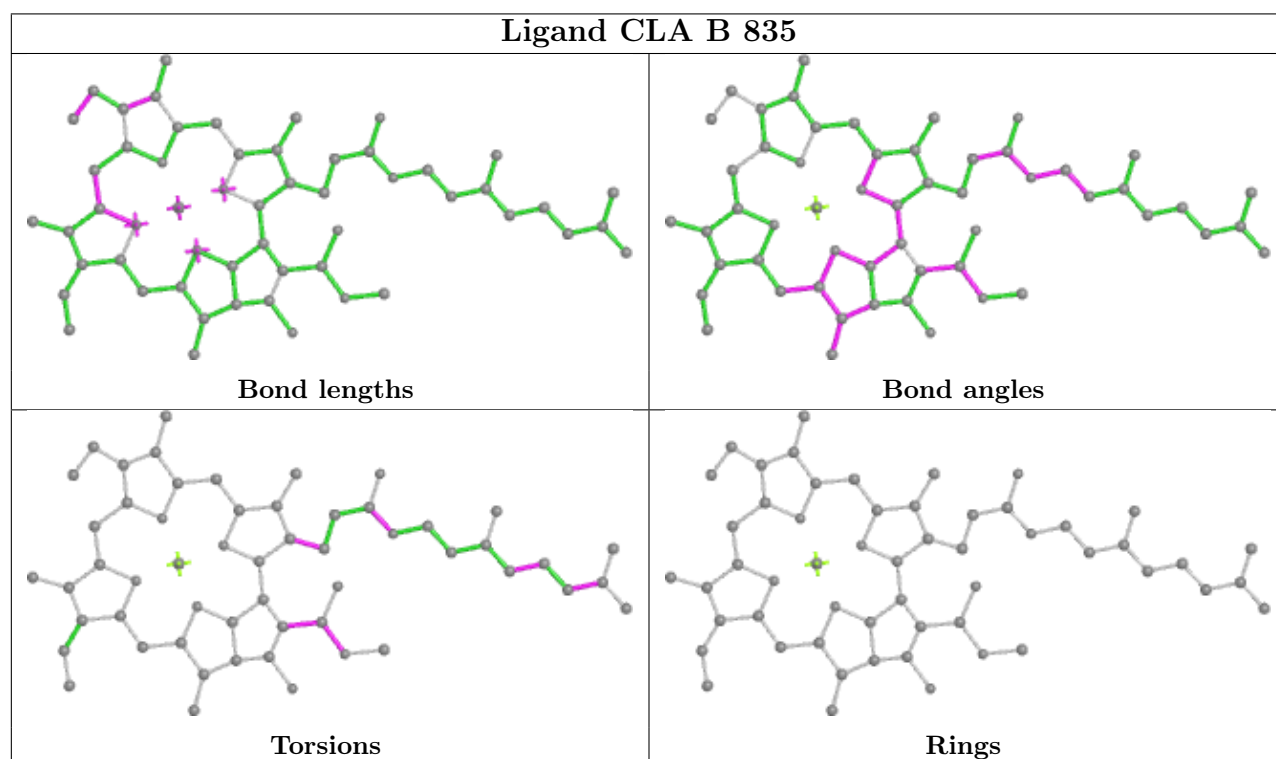
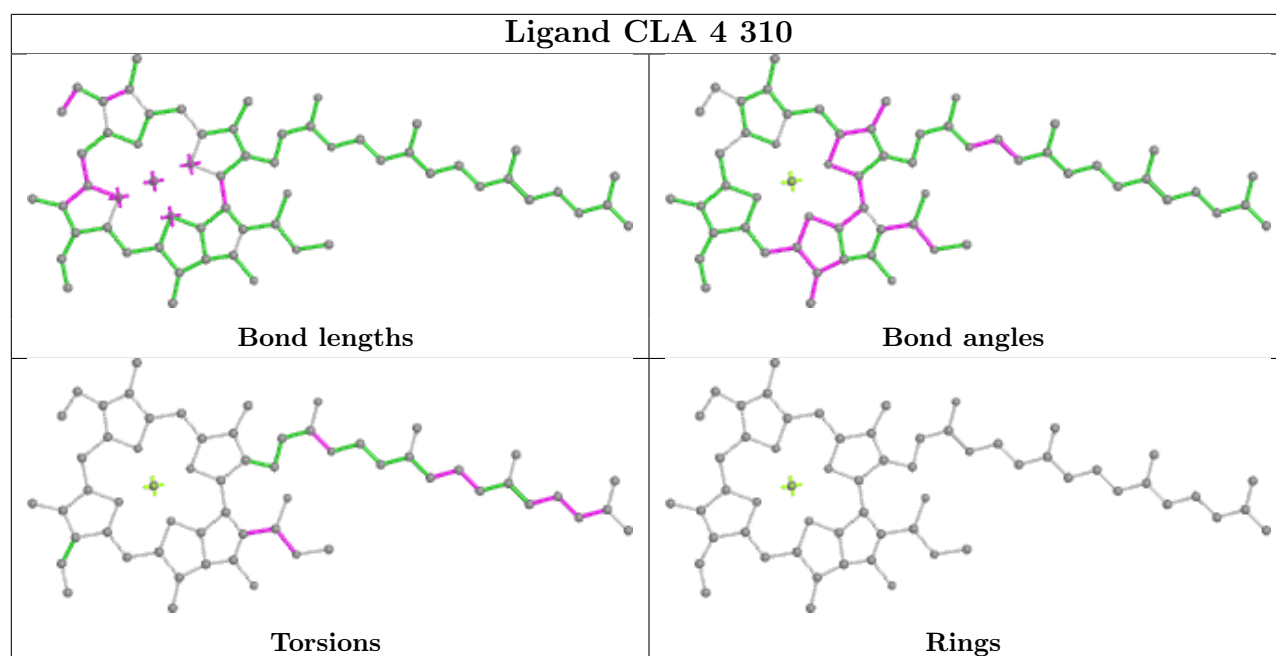


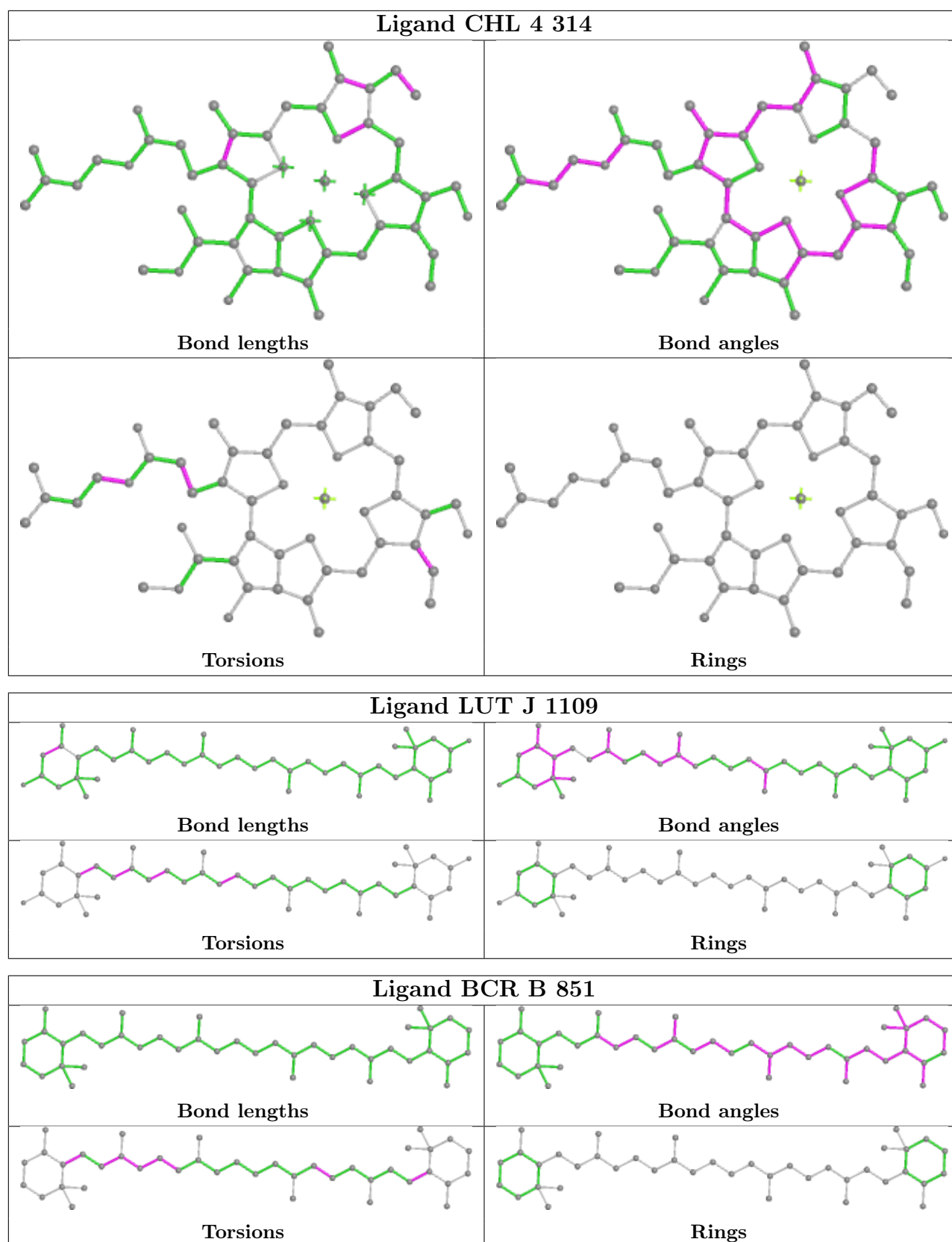


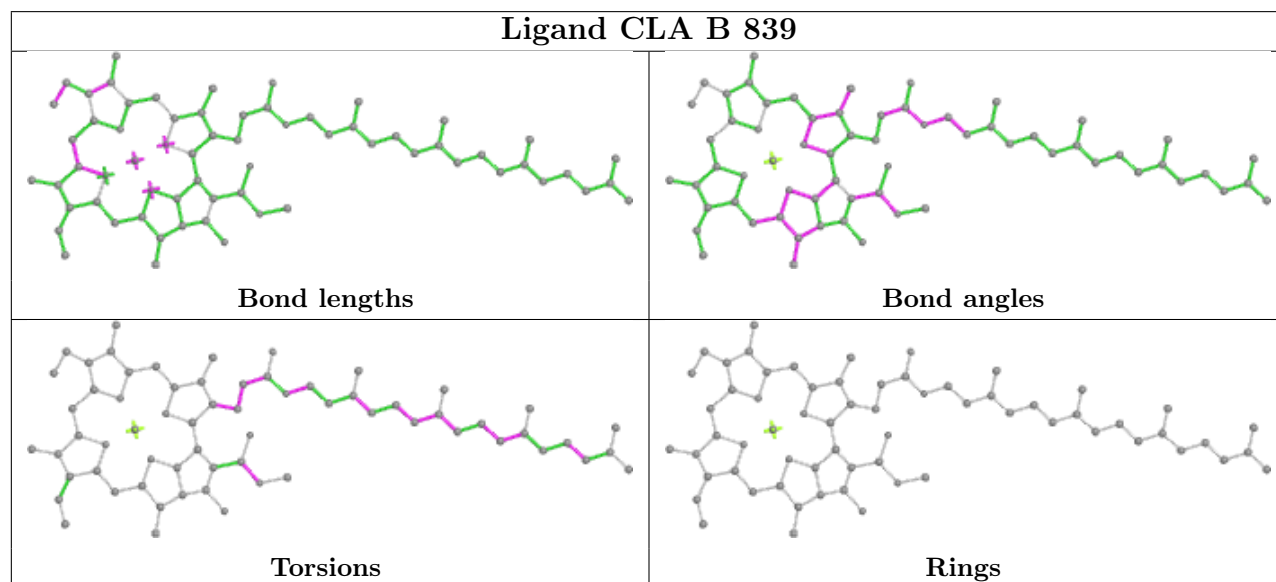
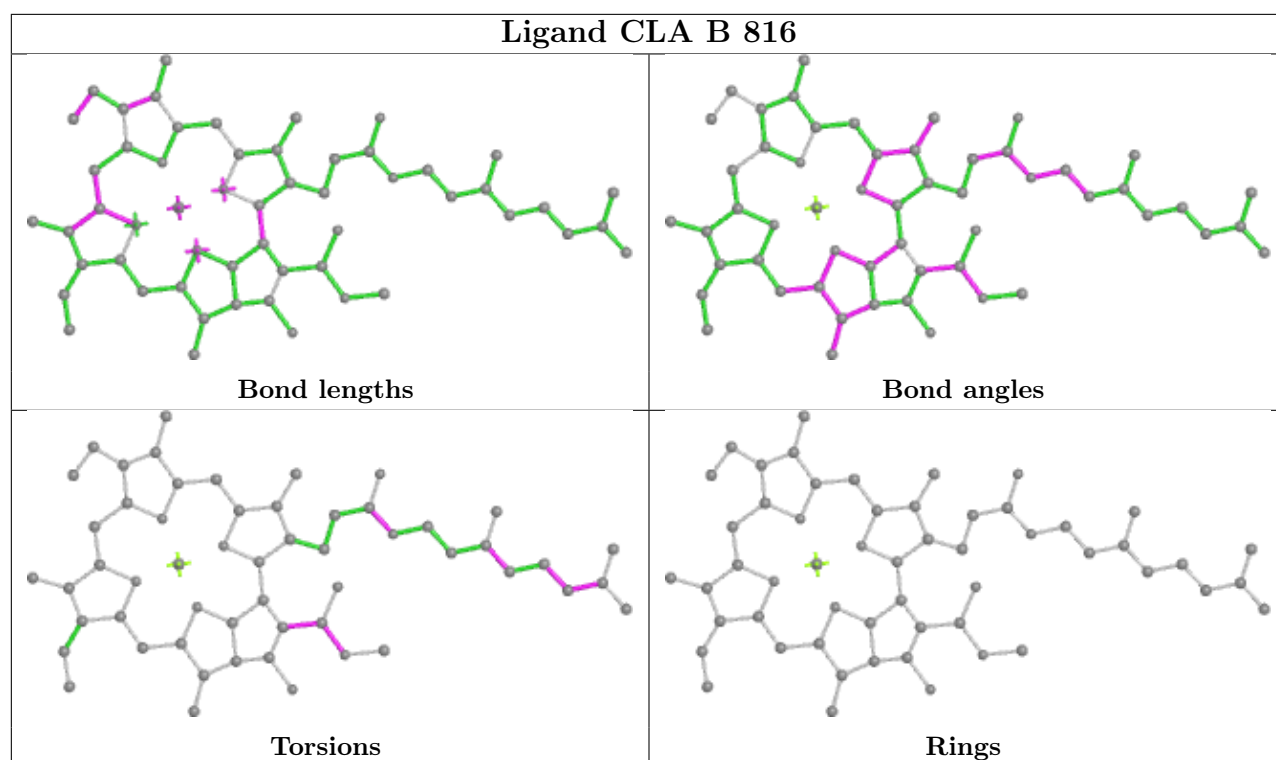


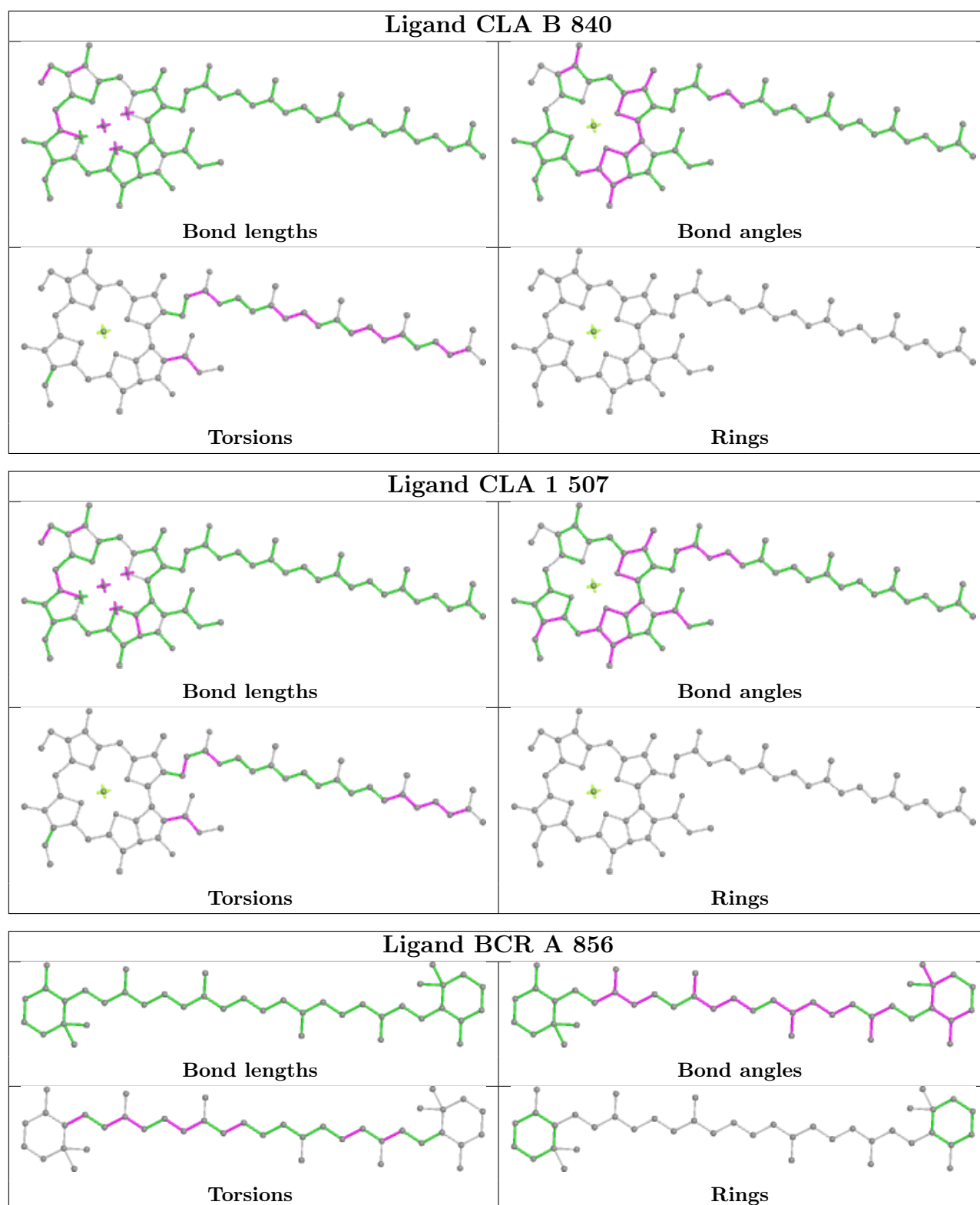


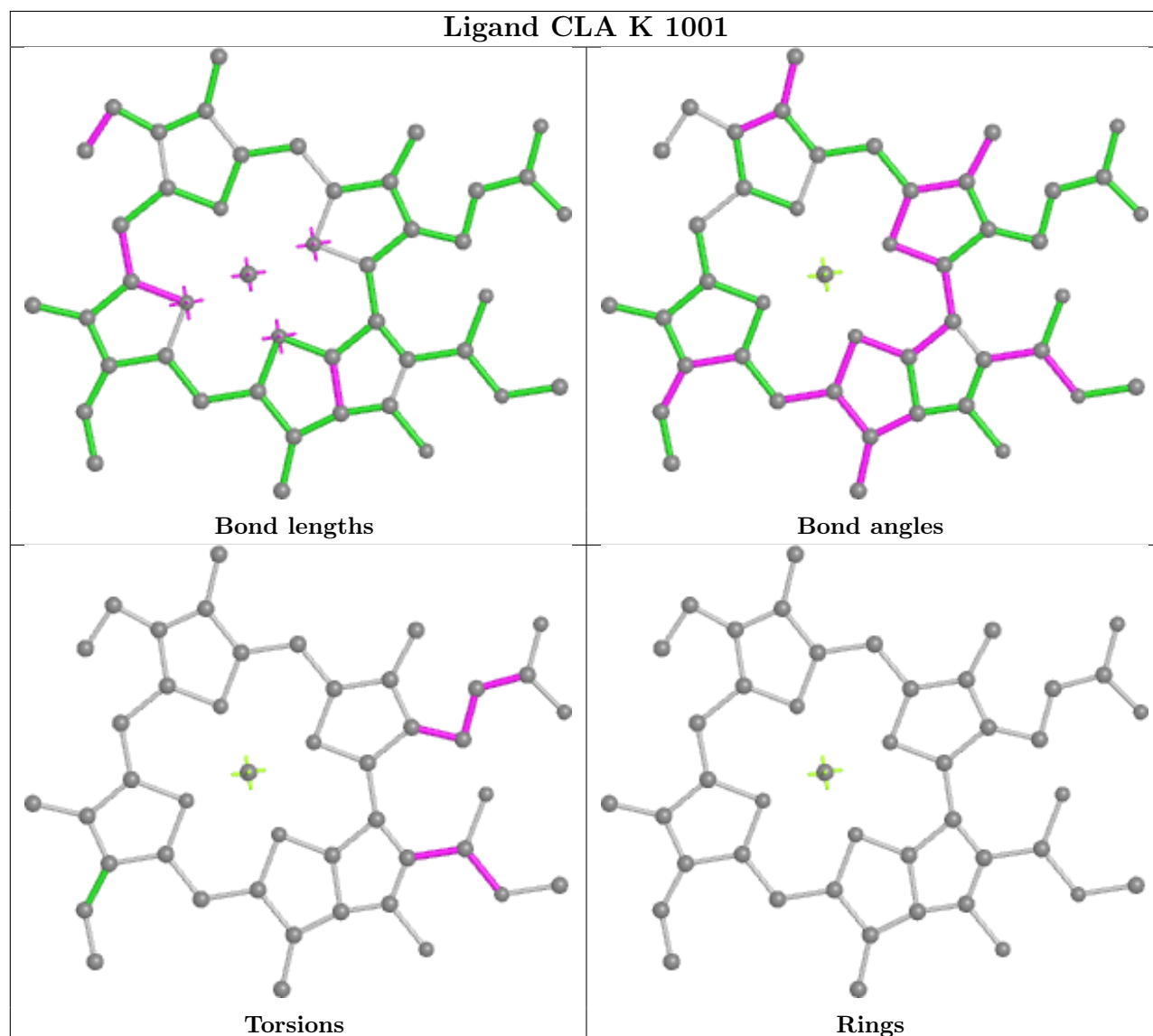
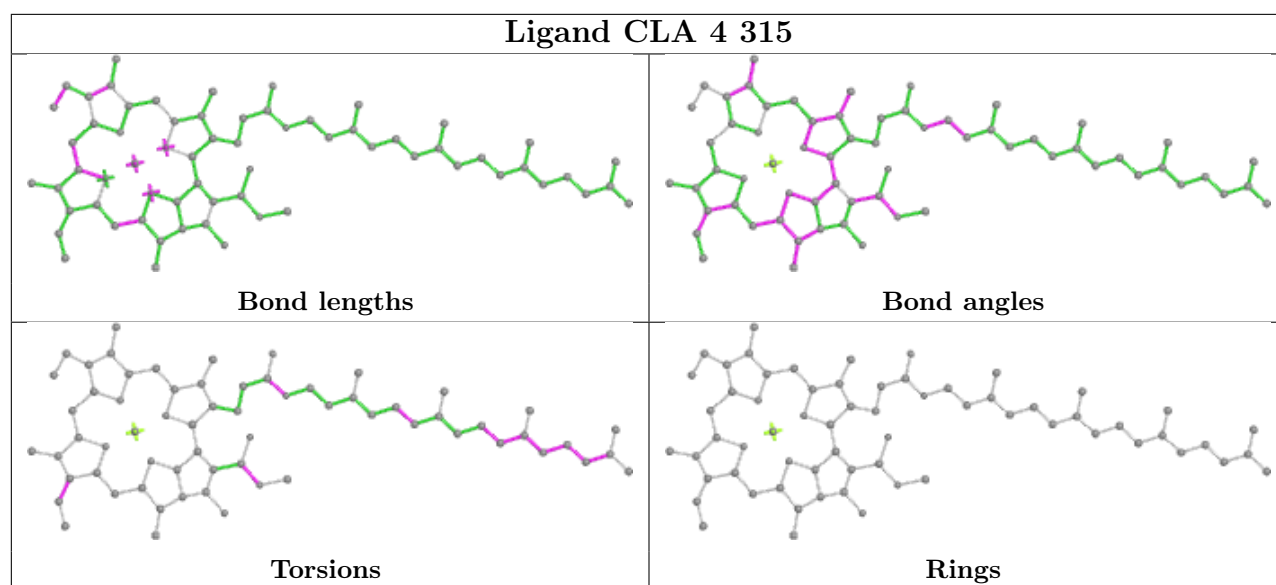


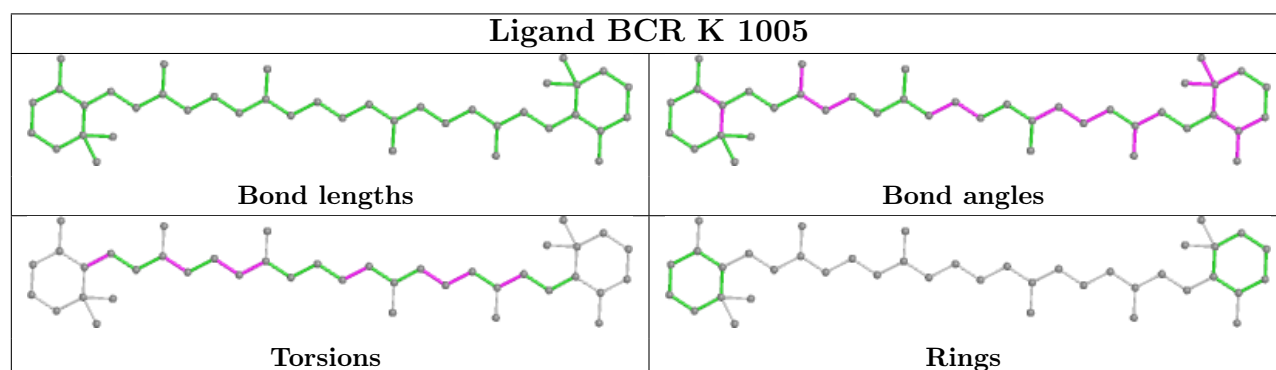
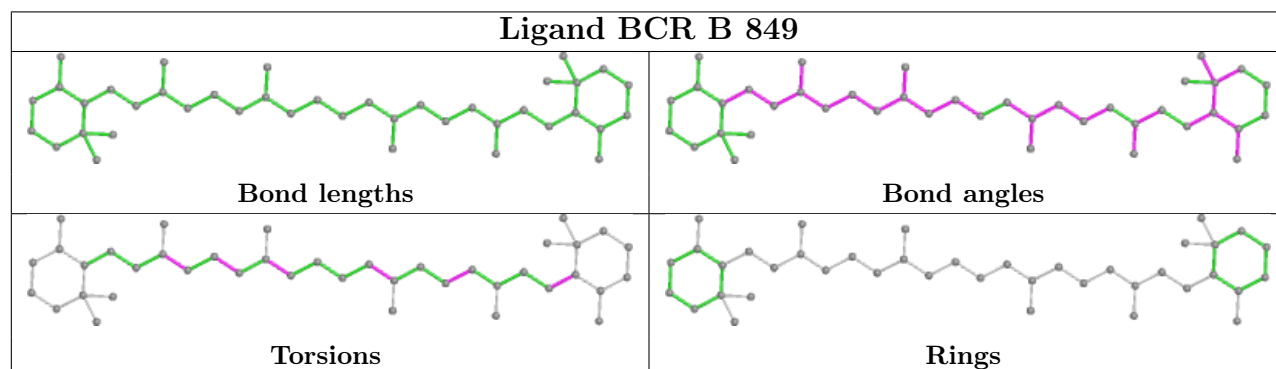
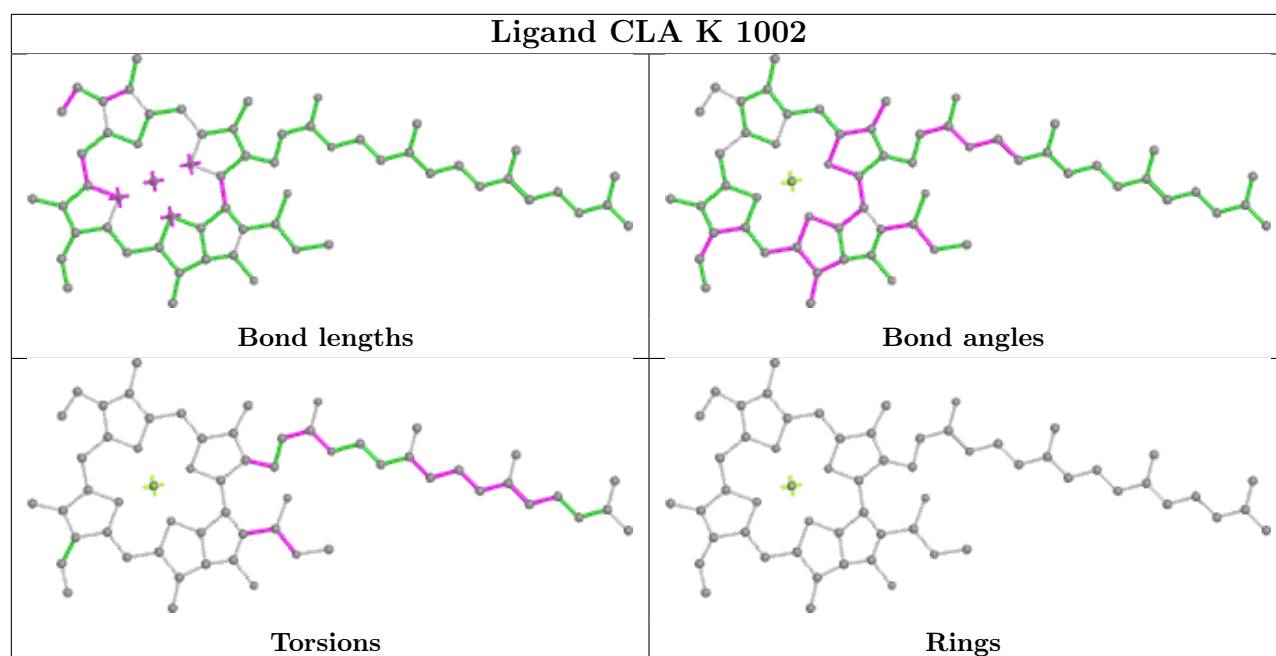


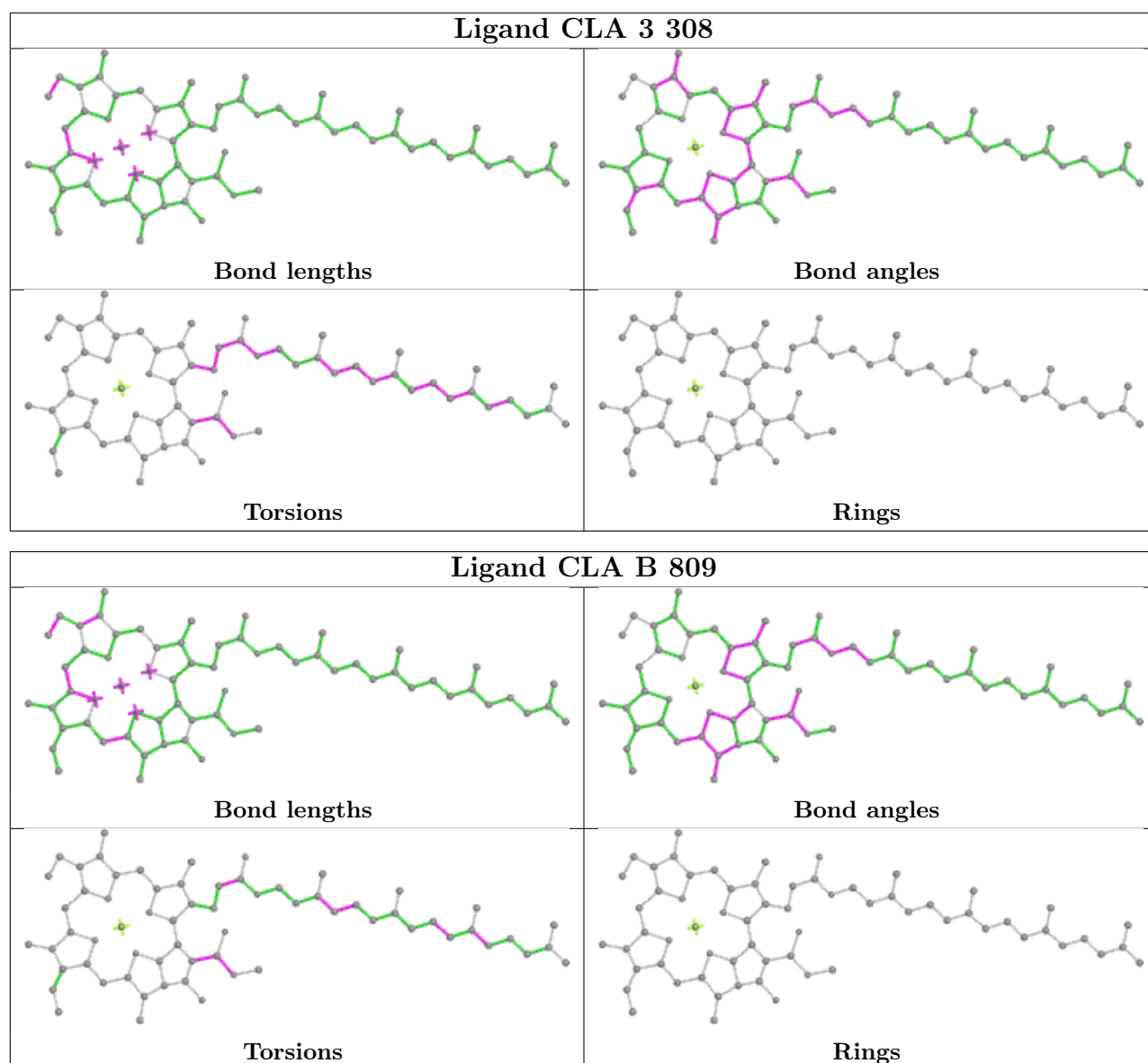


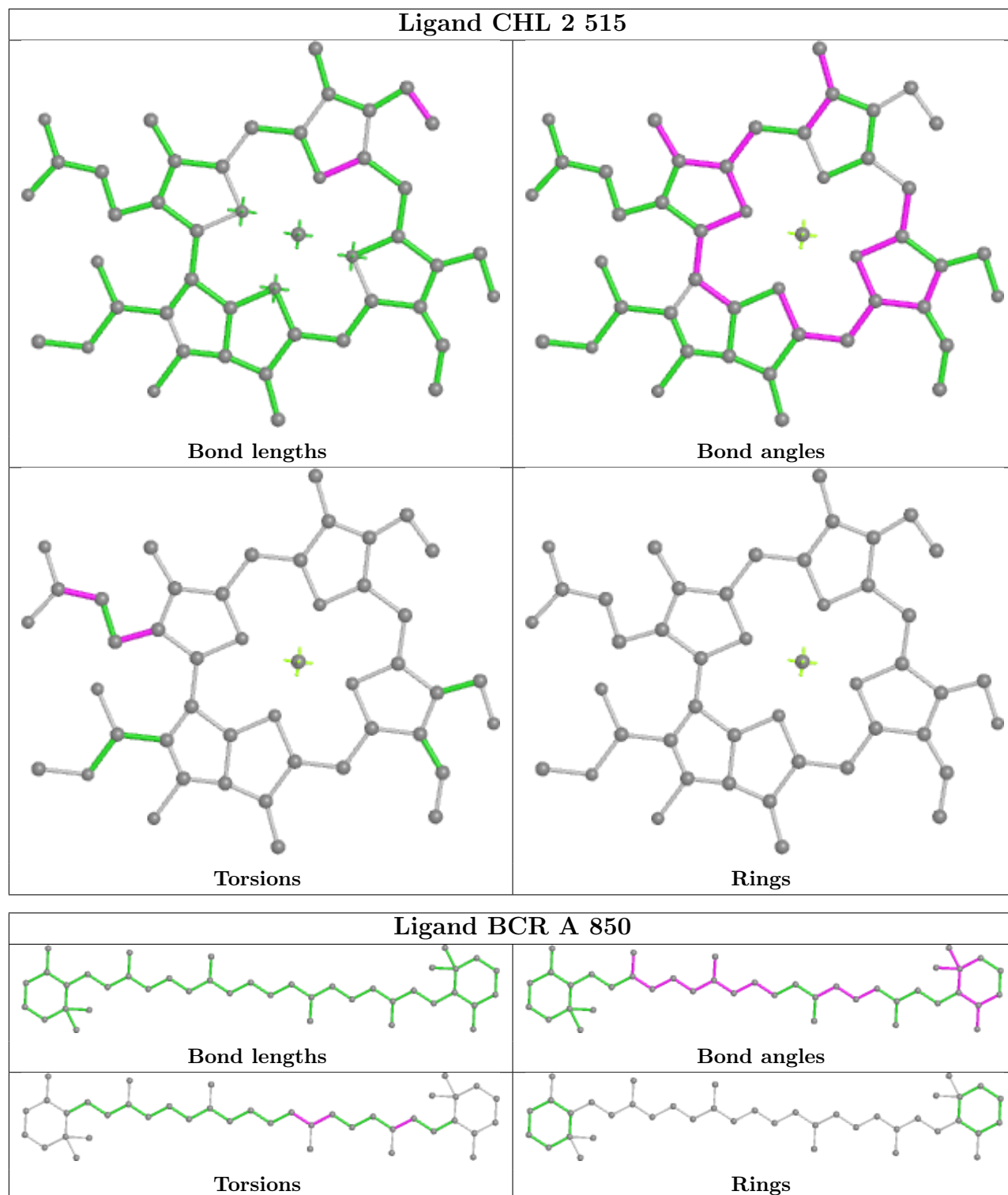




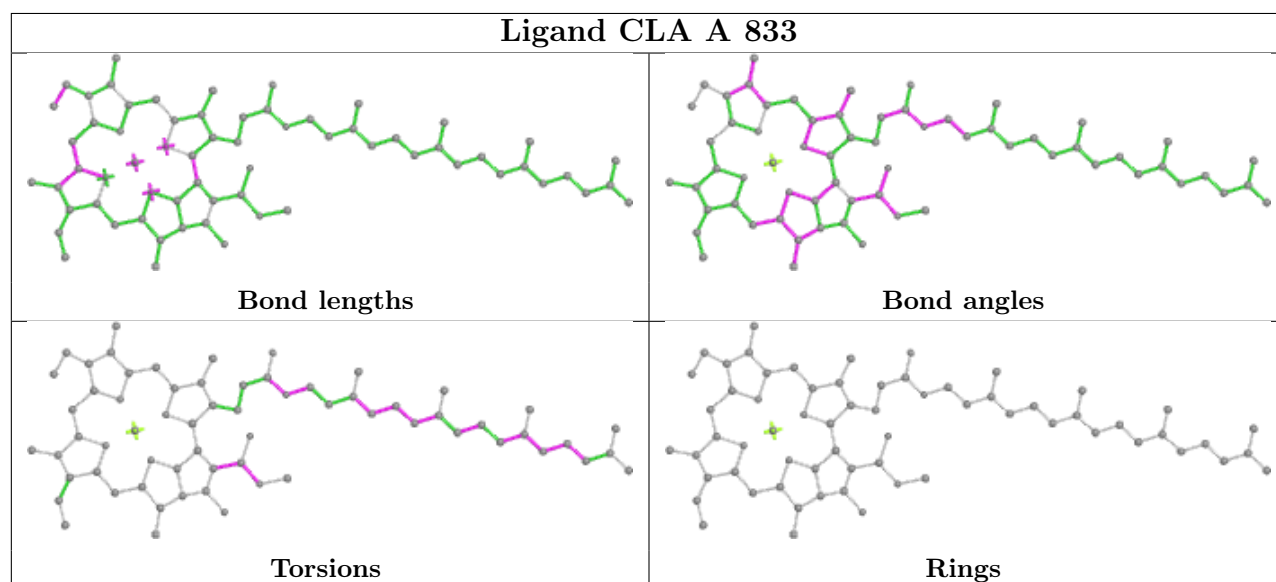
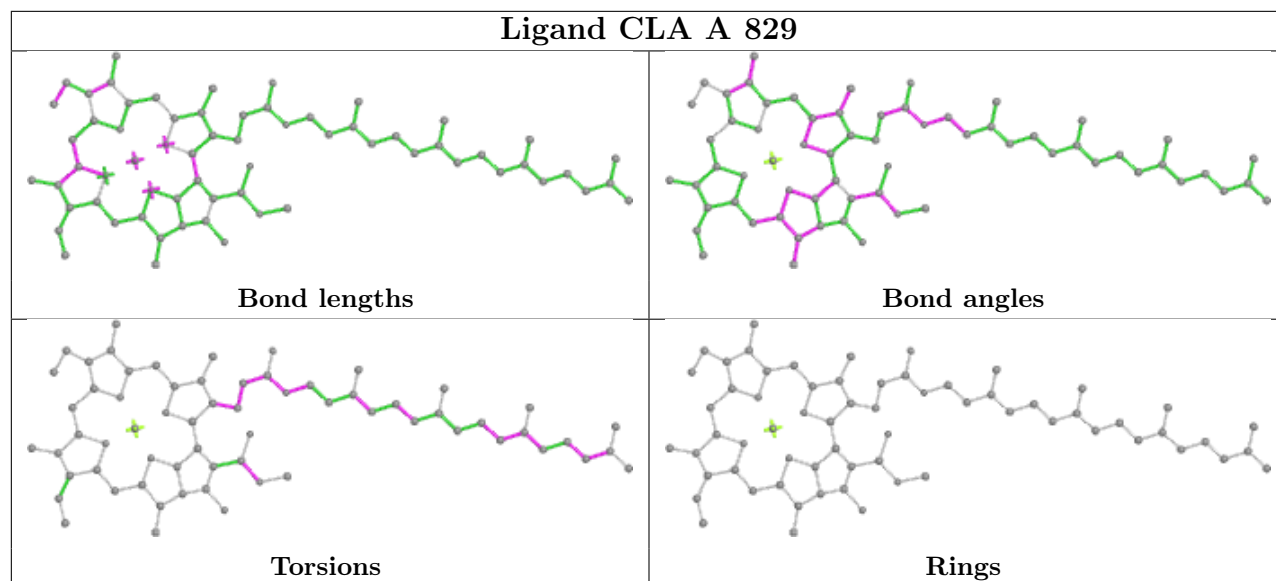
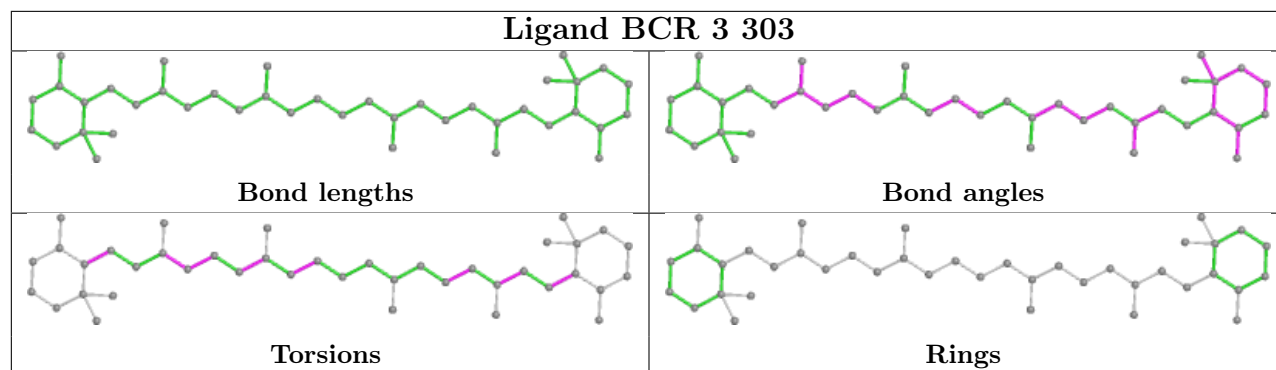


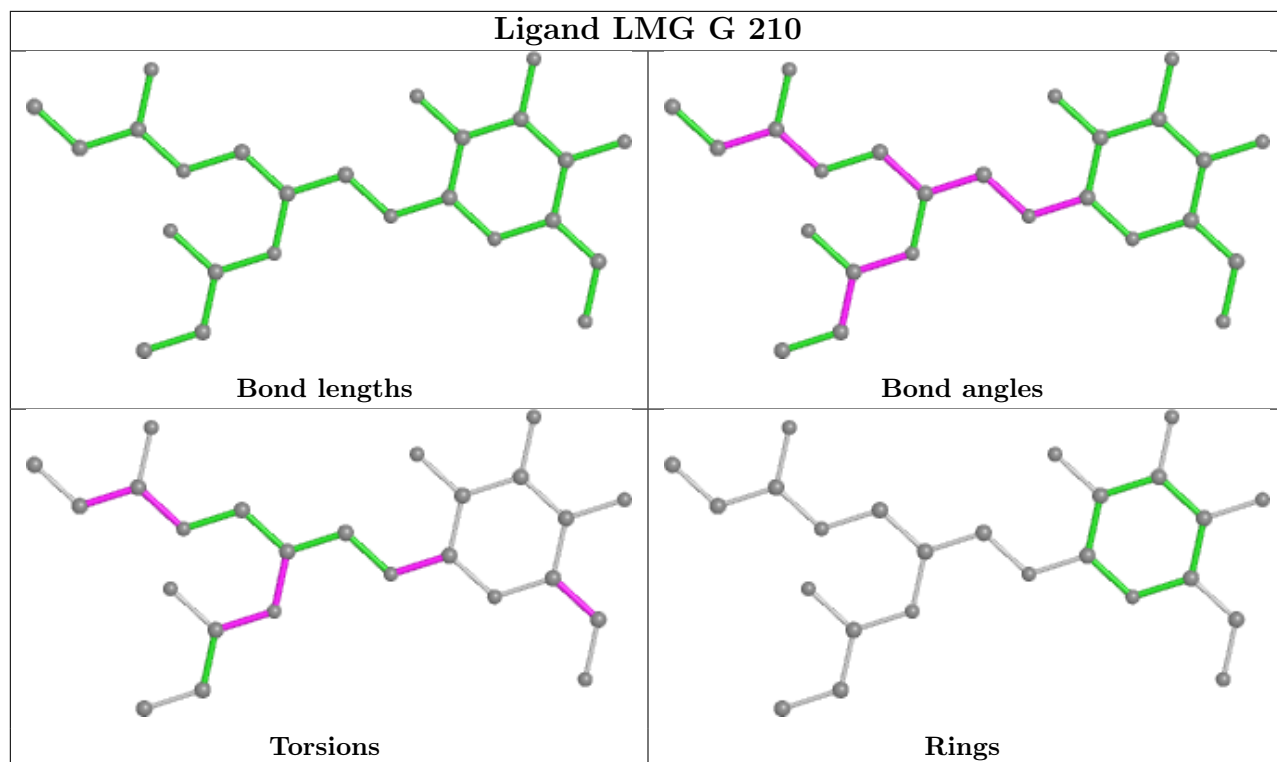


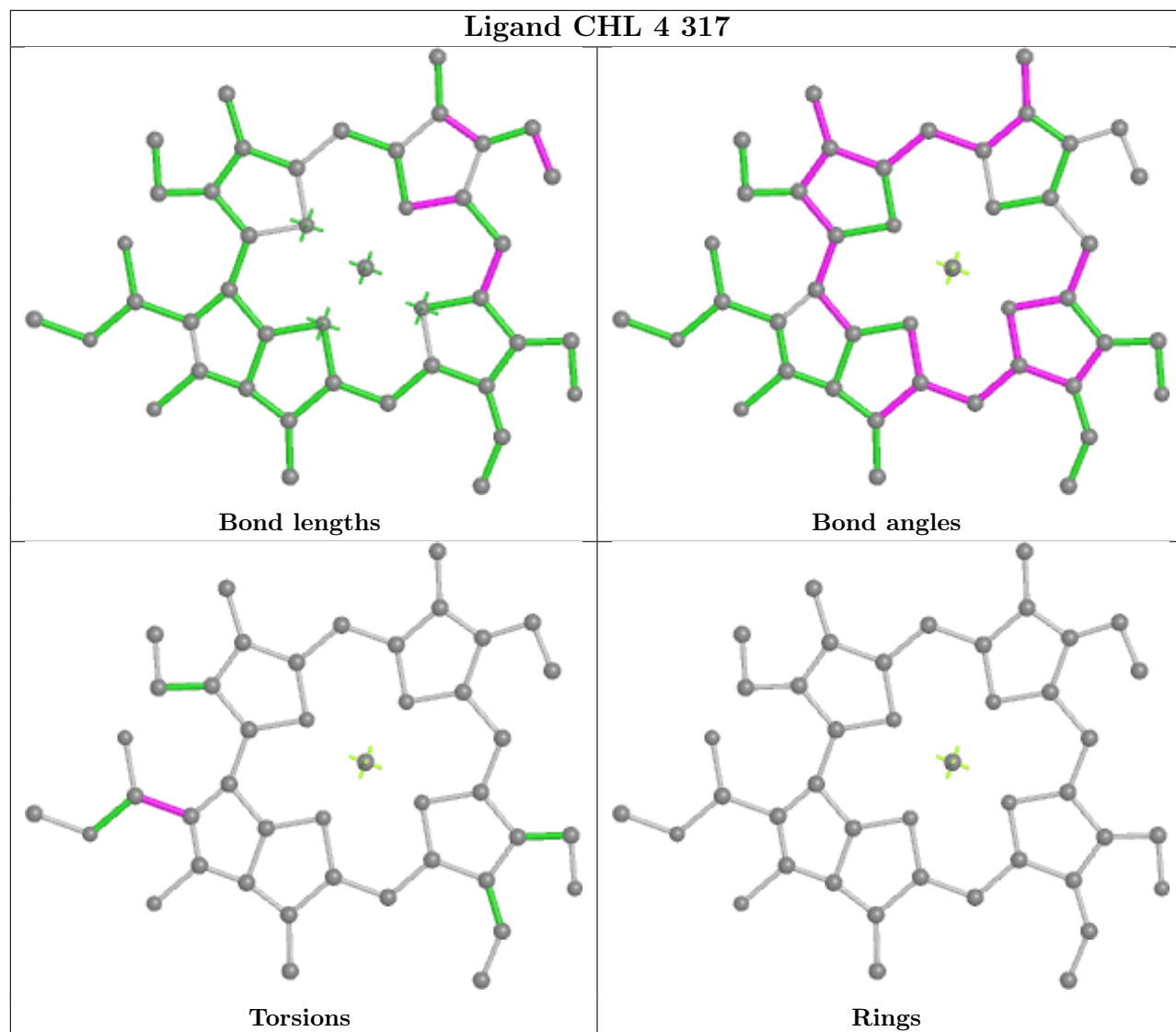




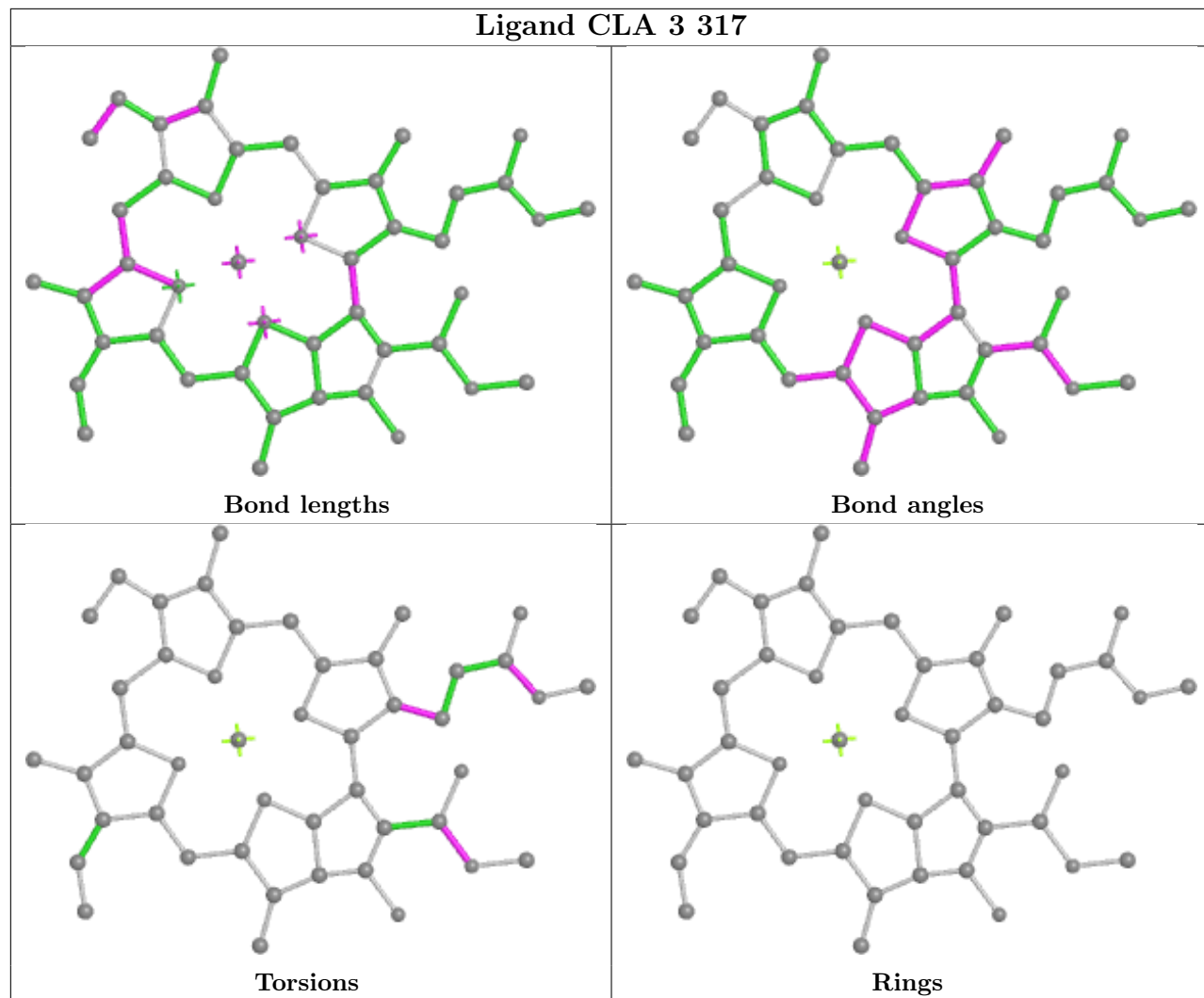


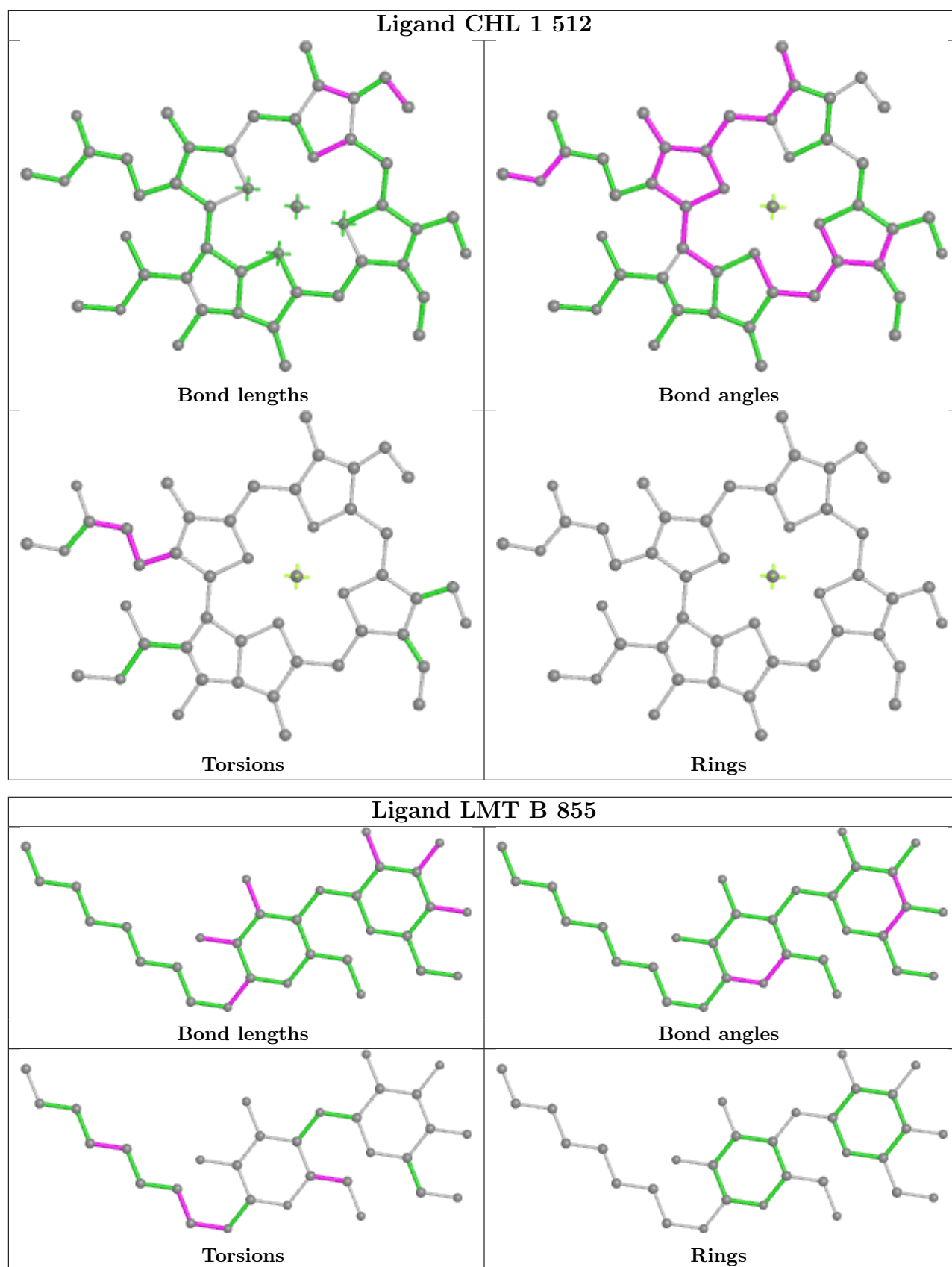


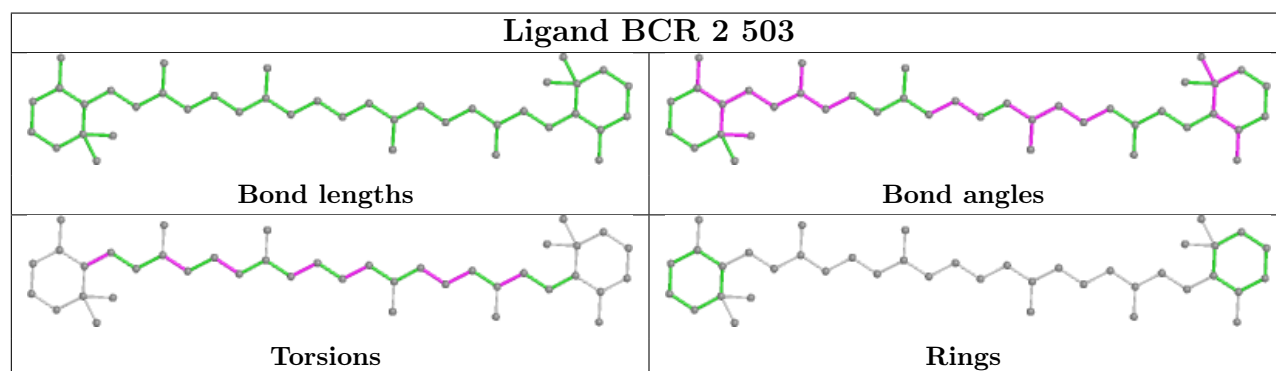
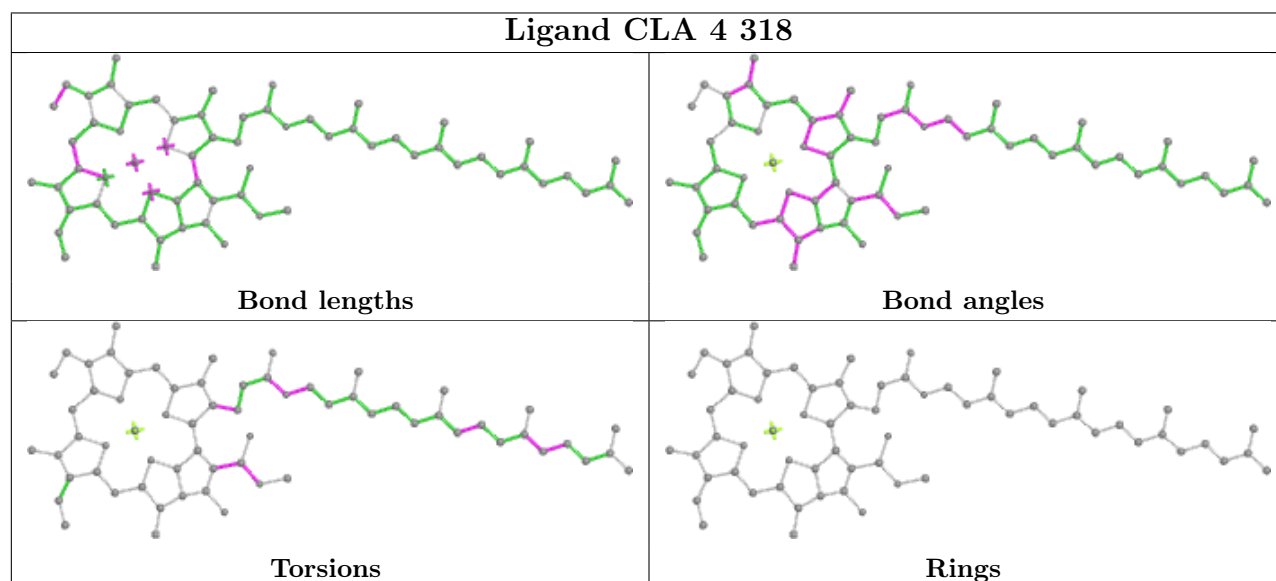
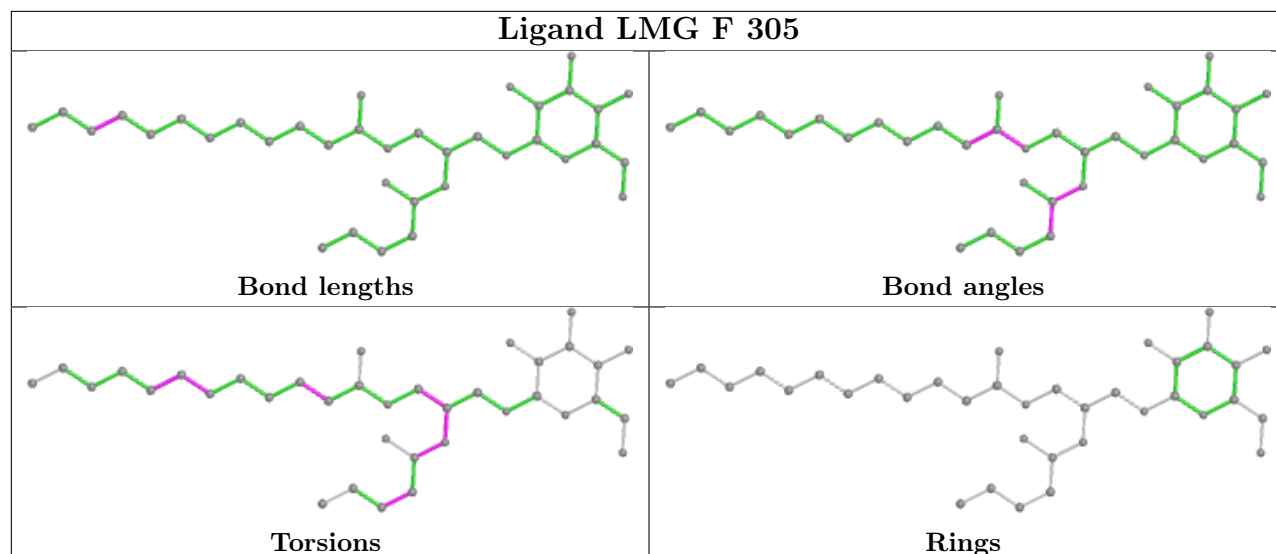


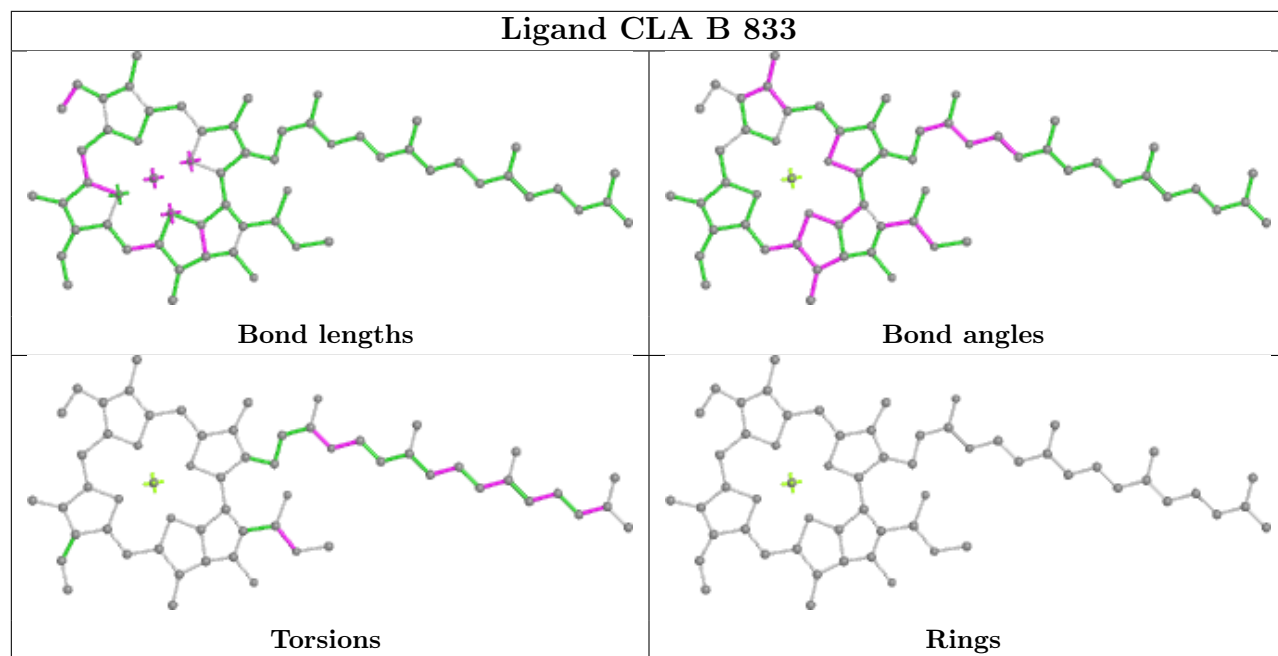
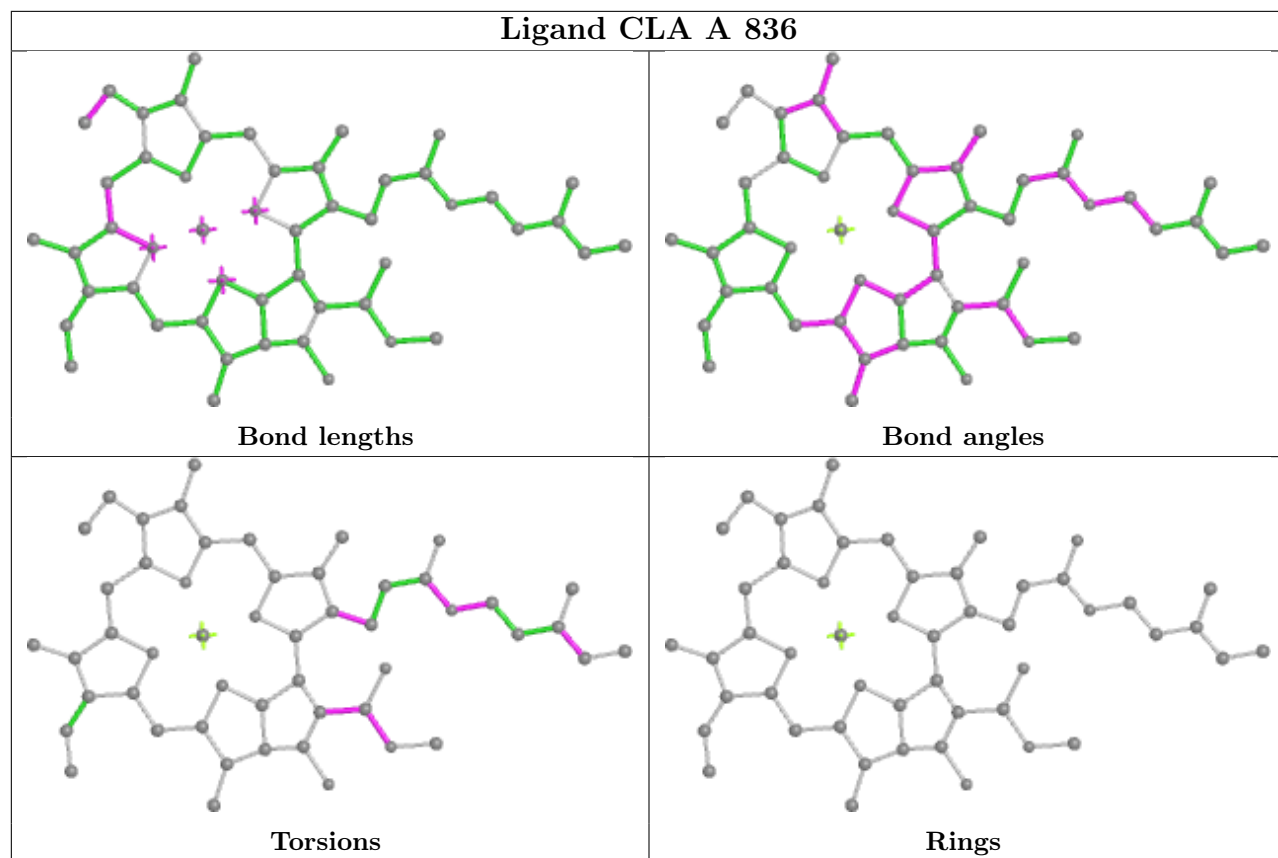


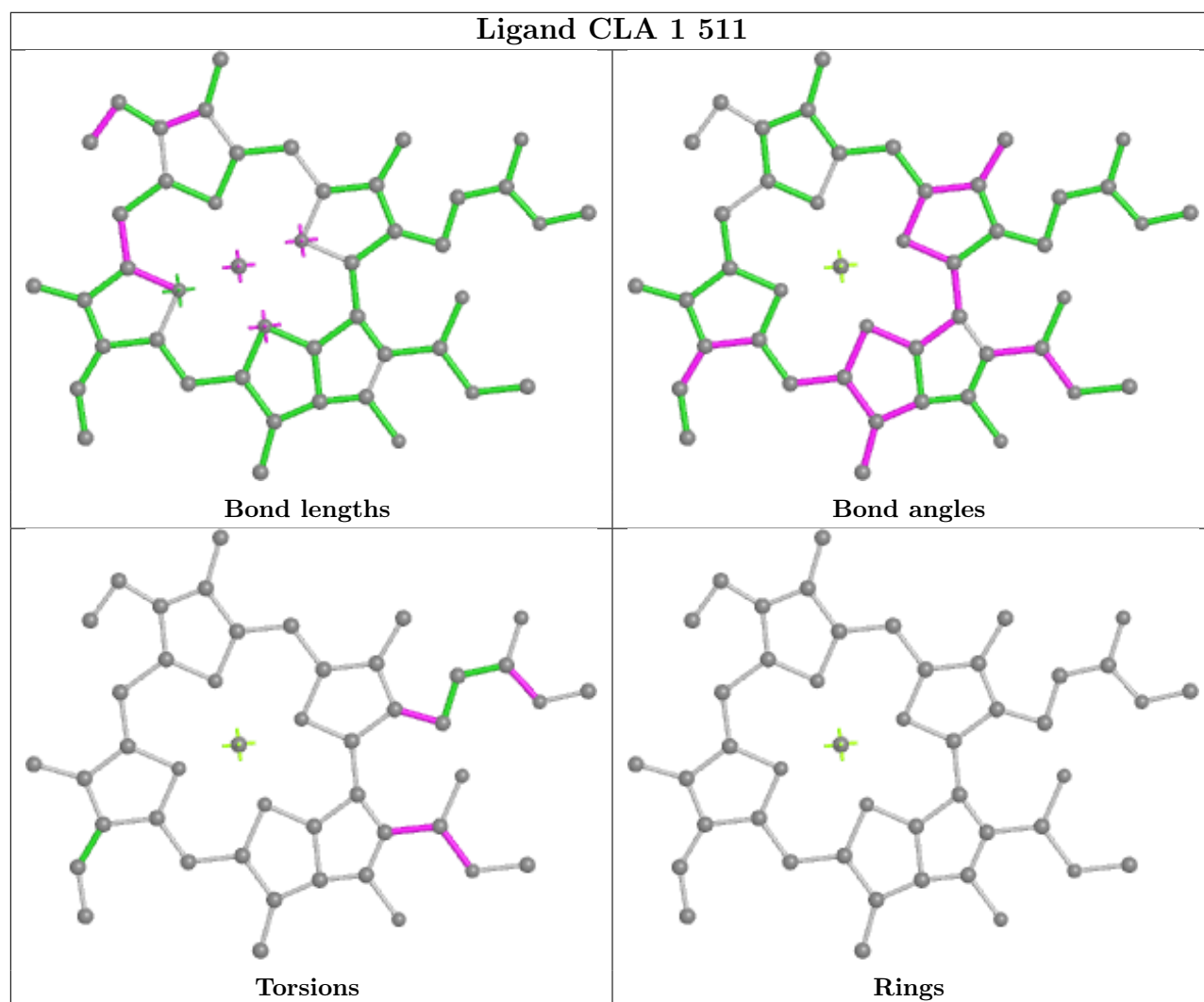
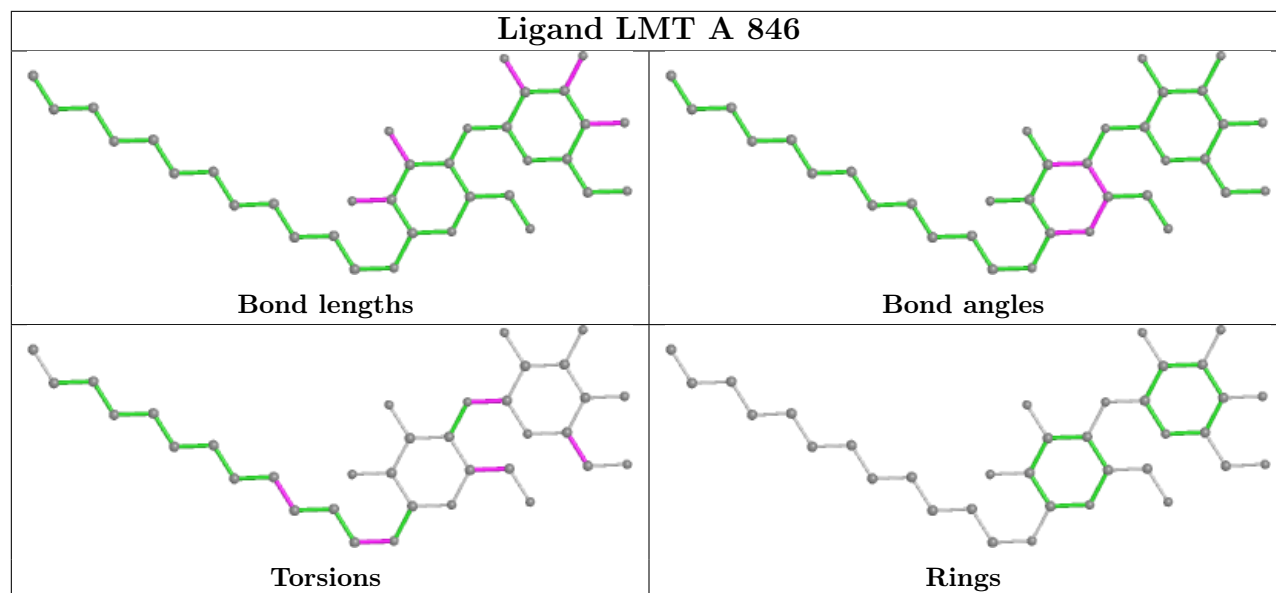
## Ligand CLA 3 317



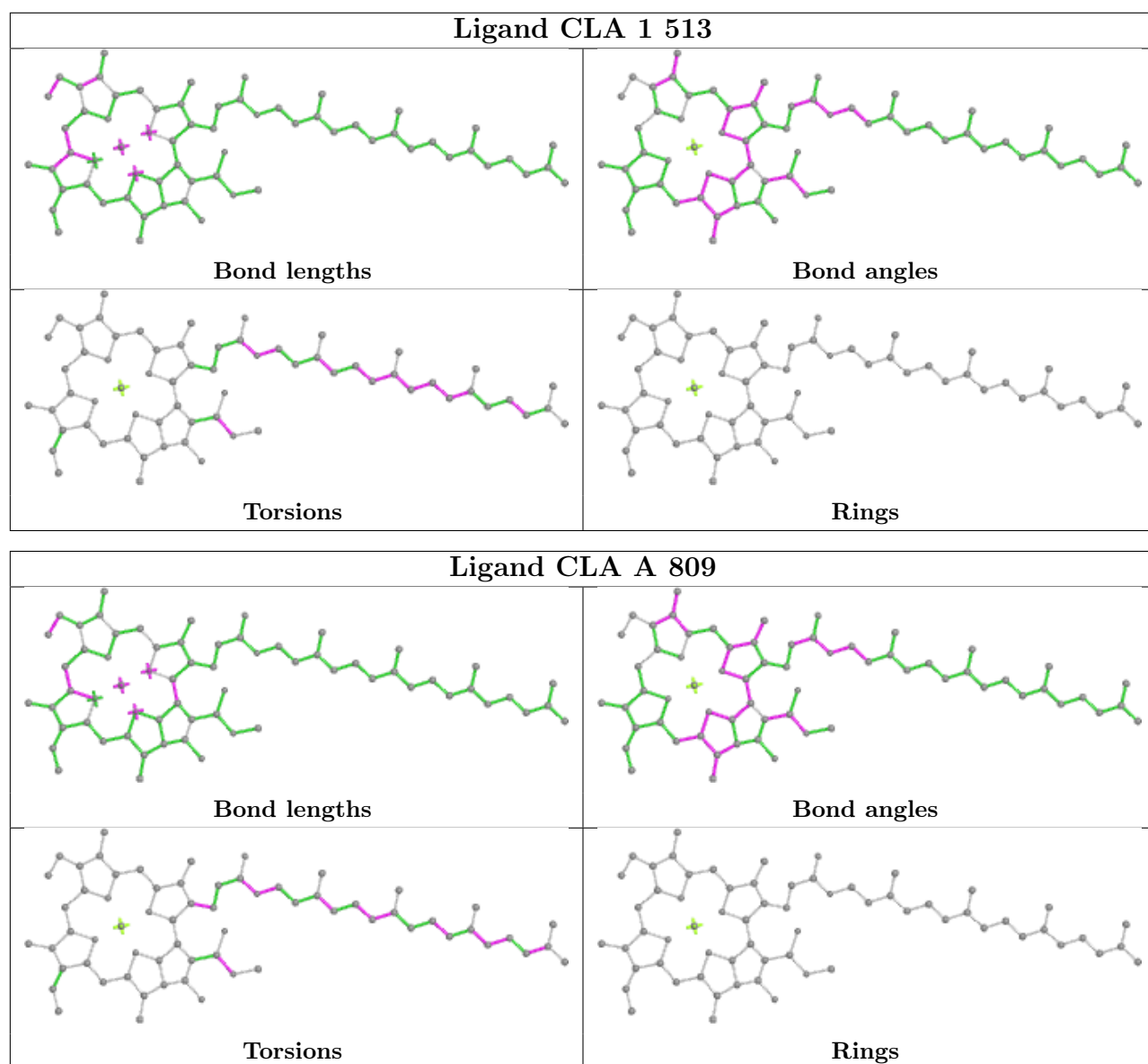


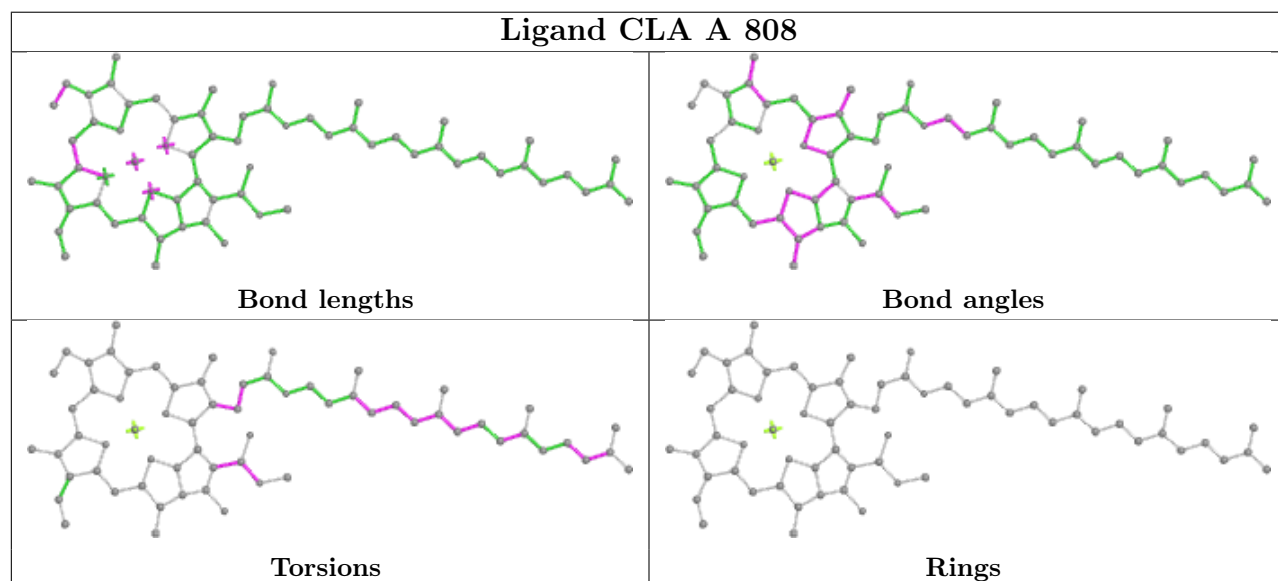
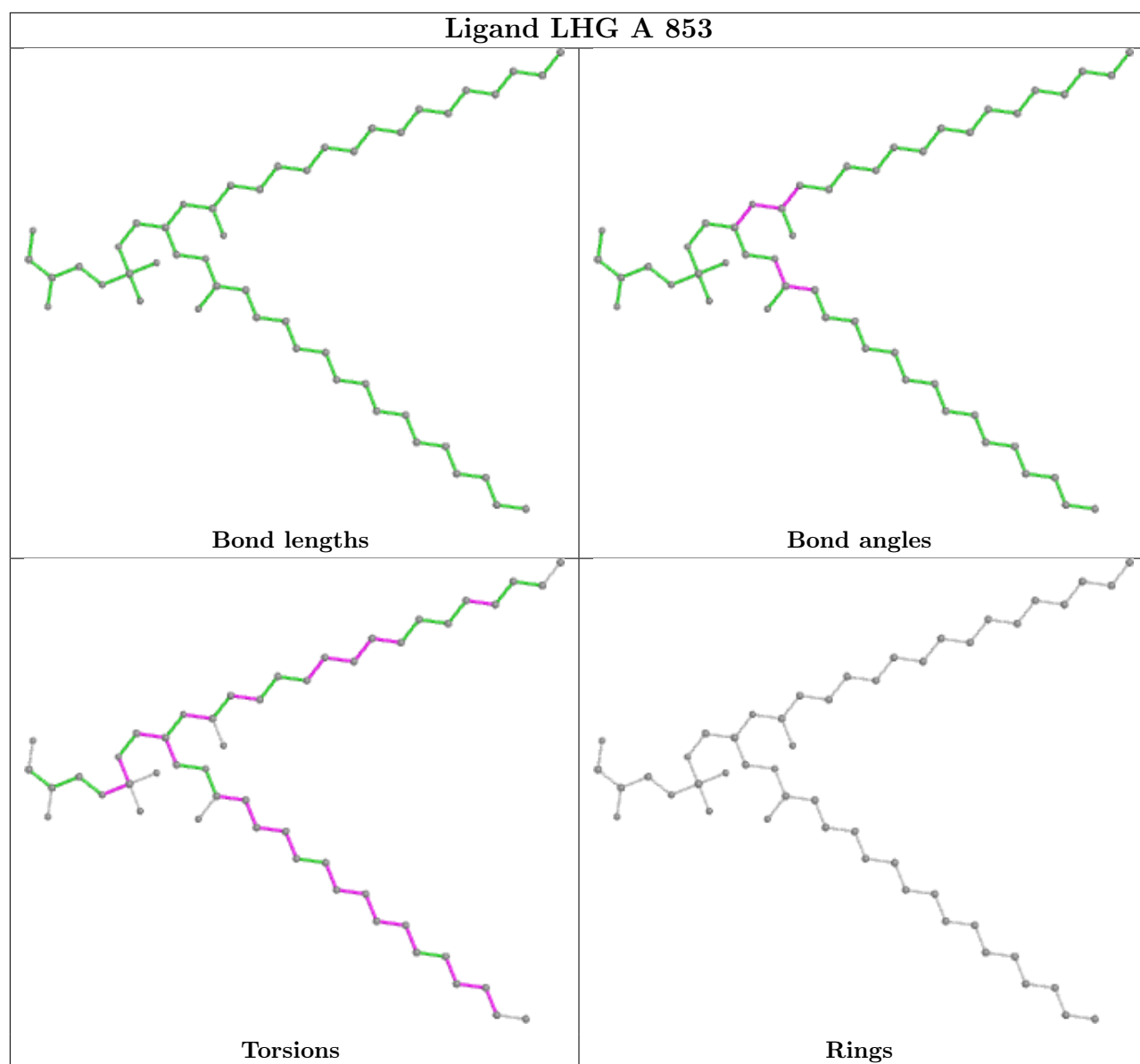


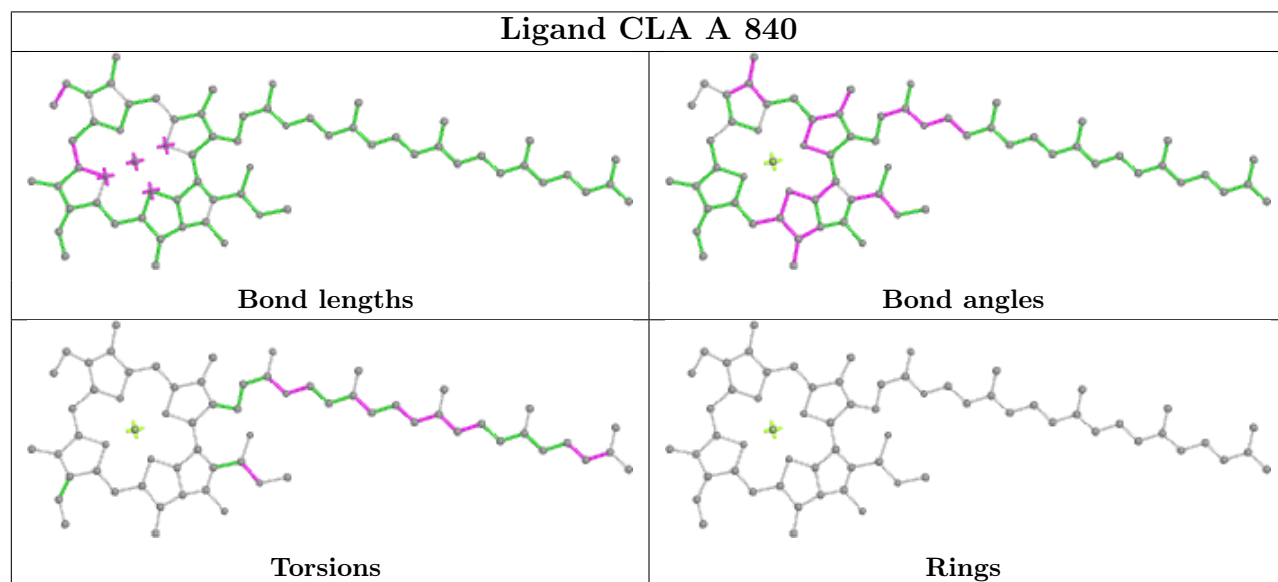
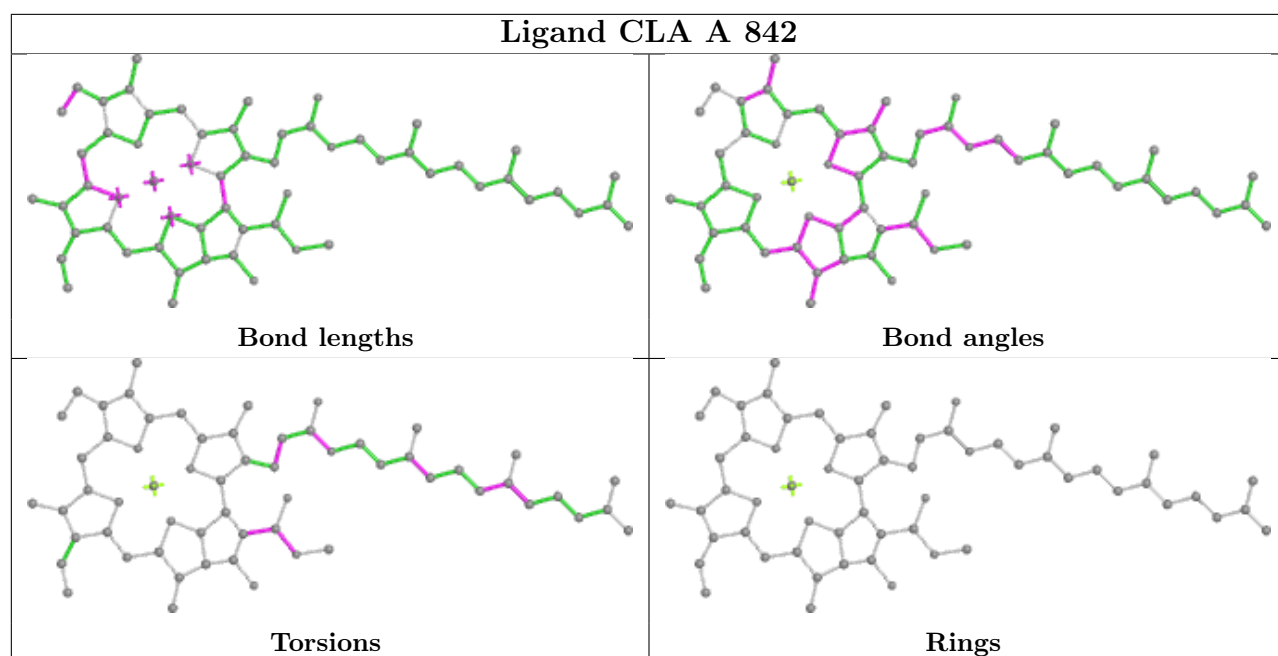


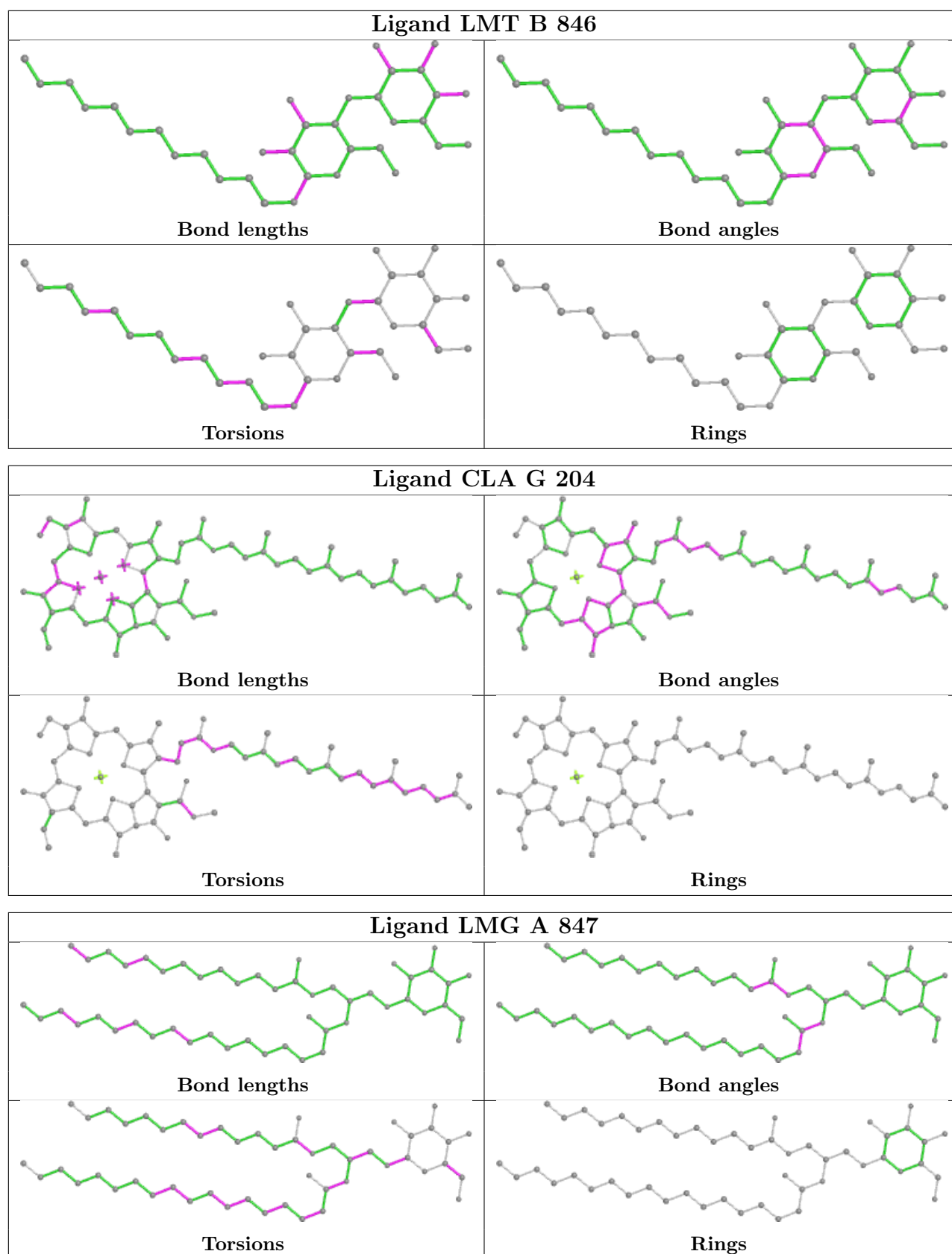


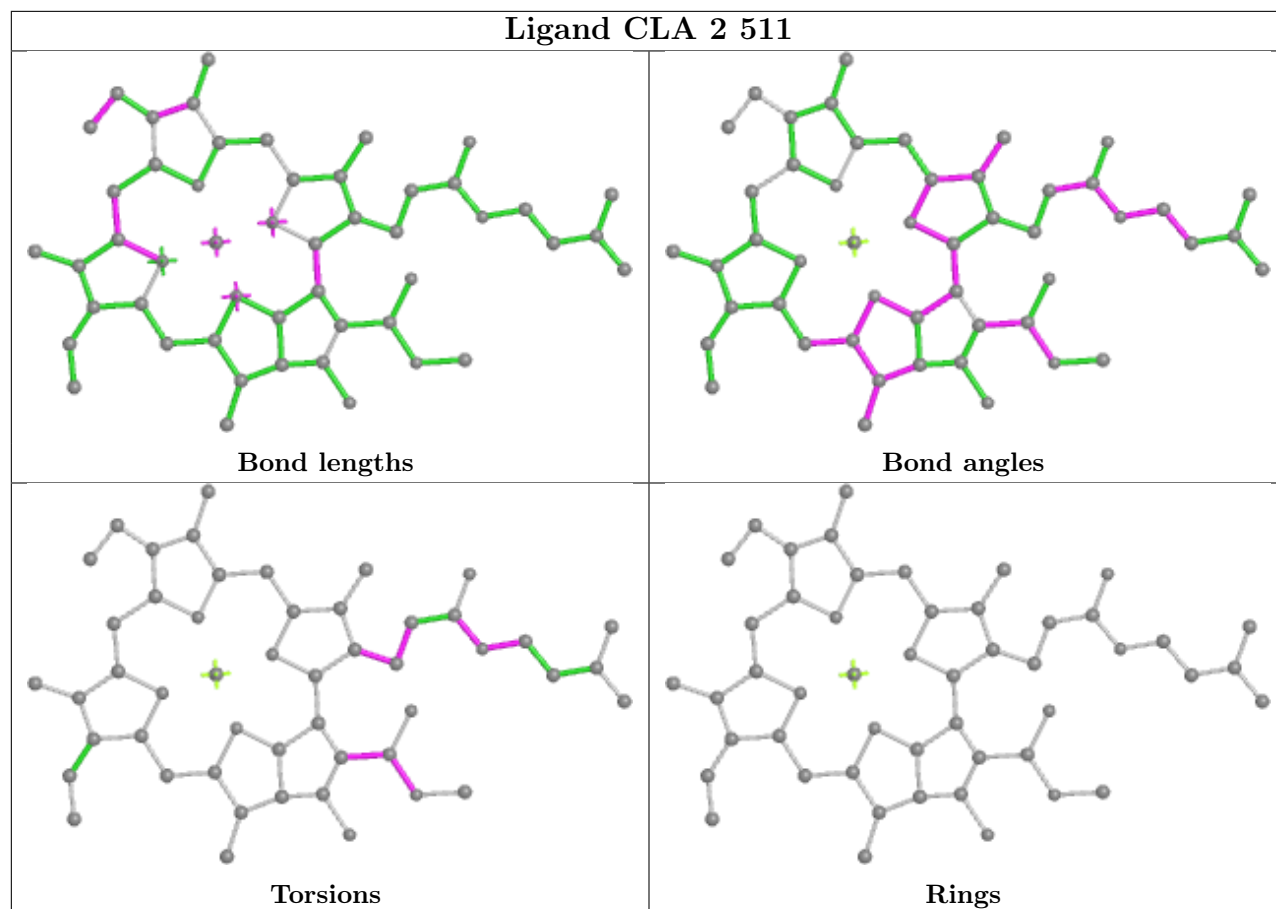


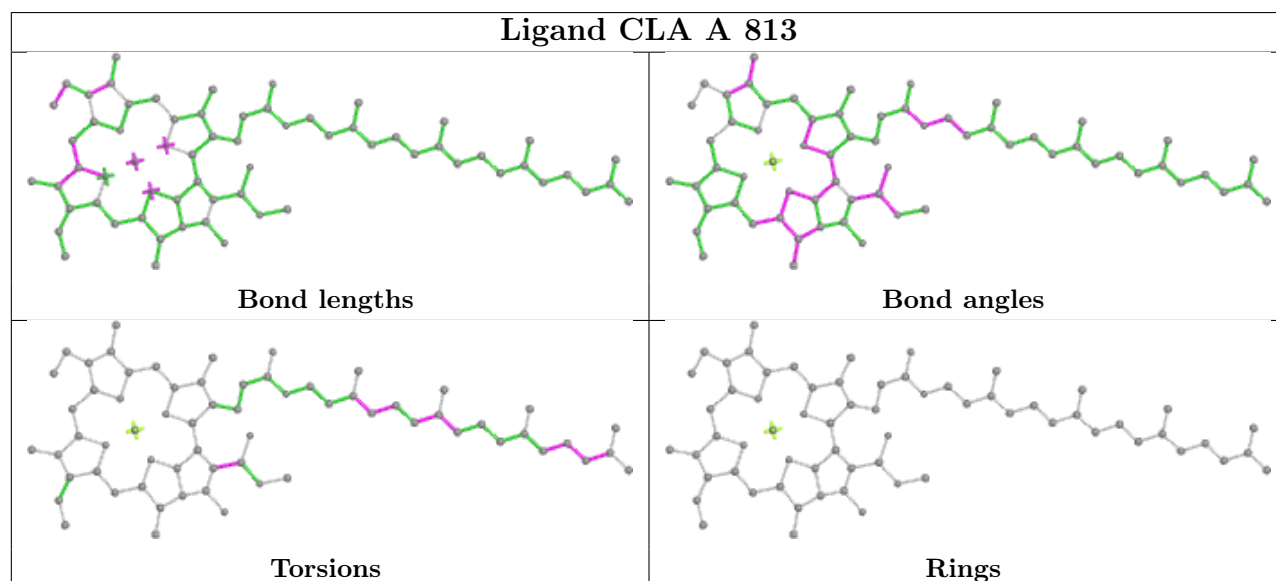
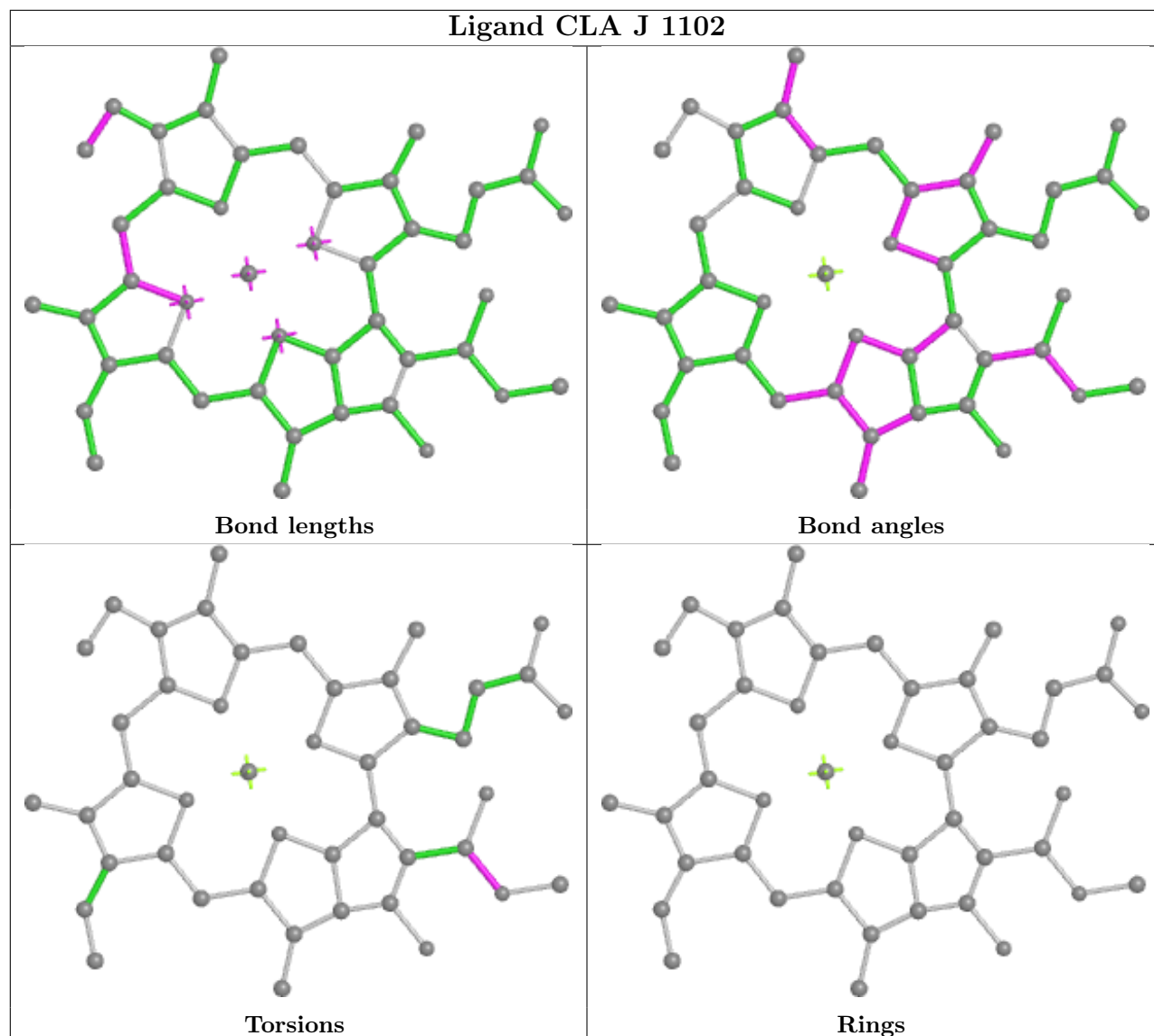


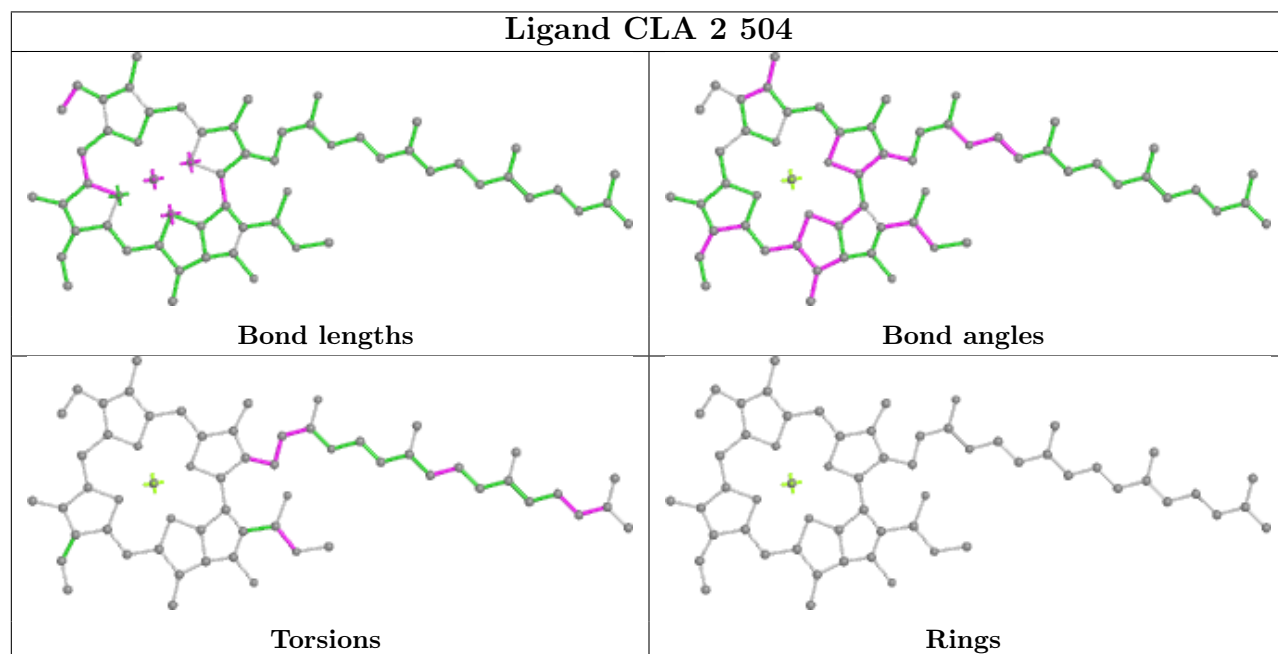
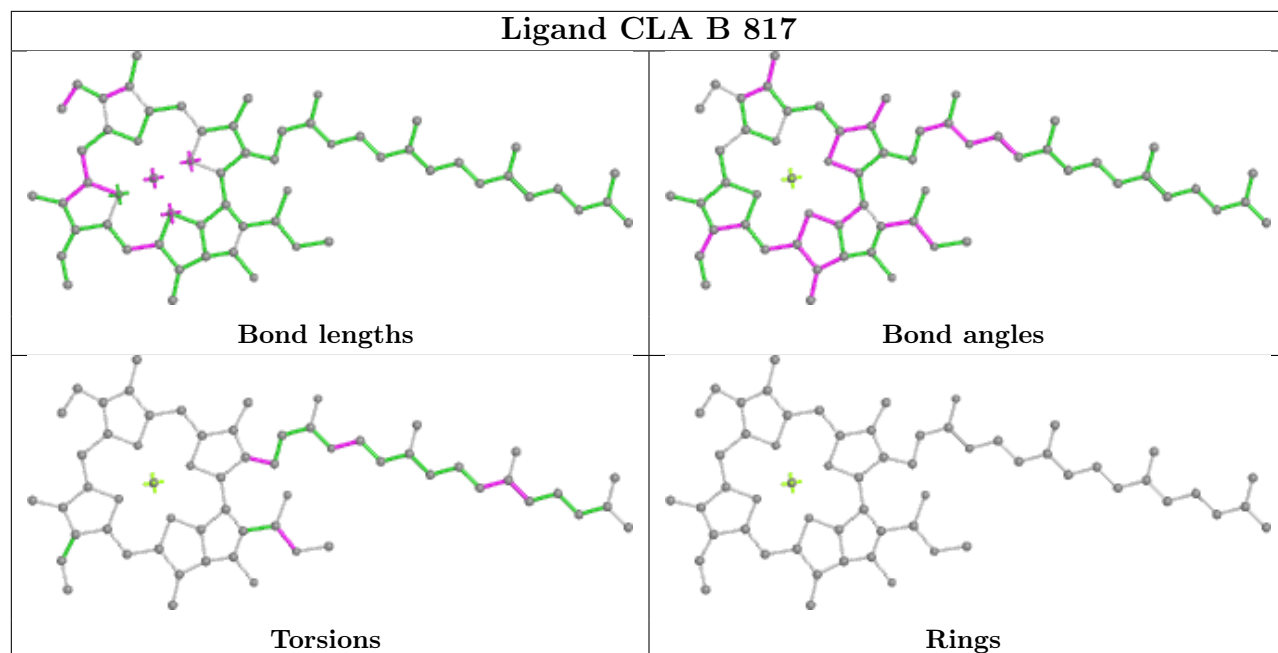


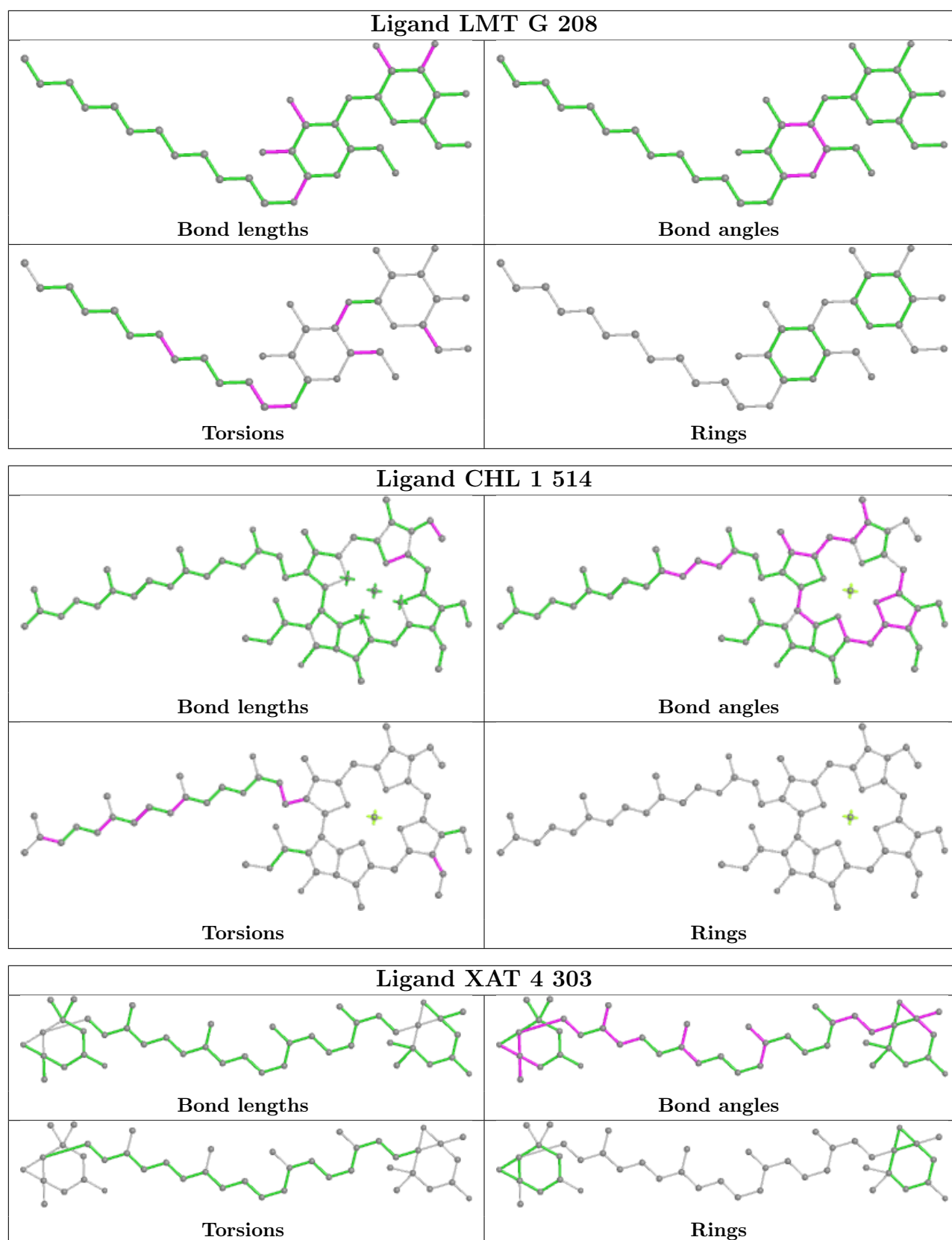




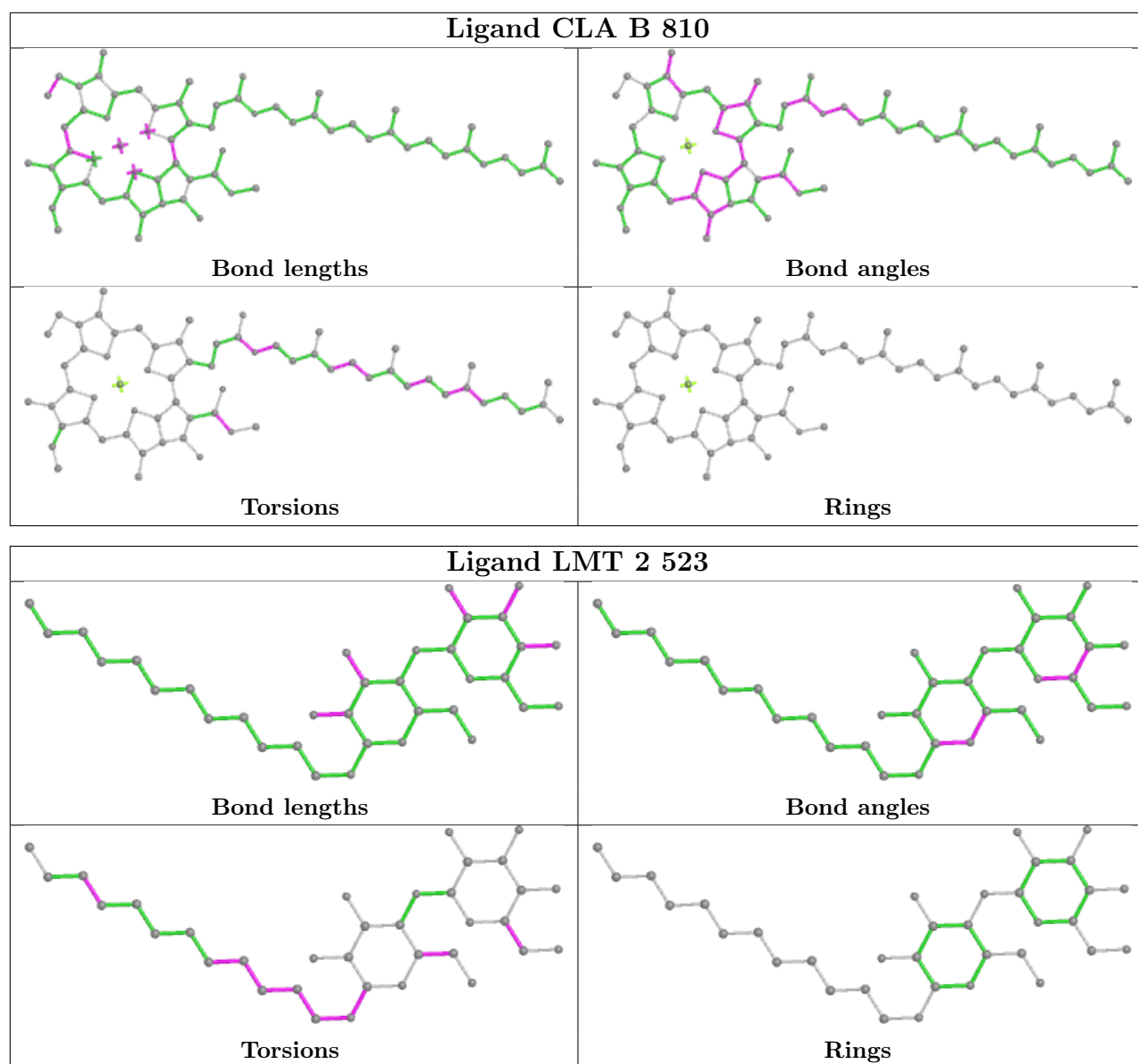


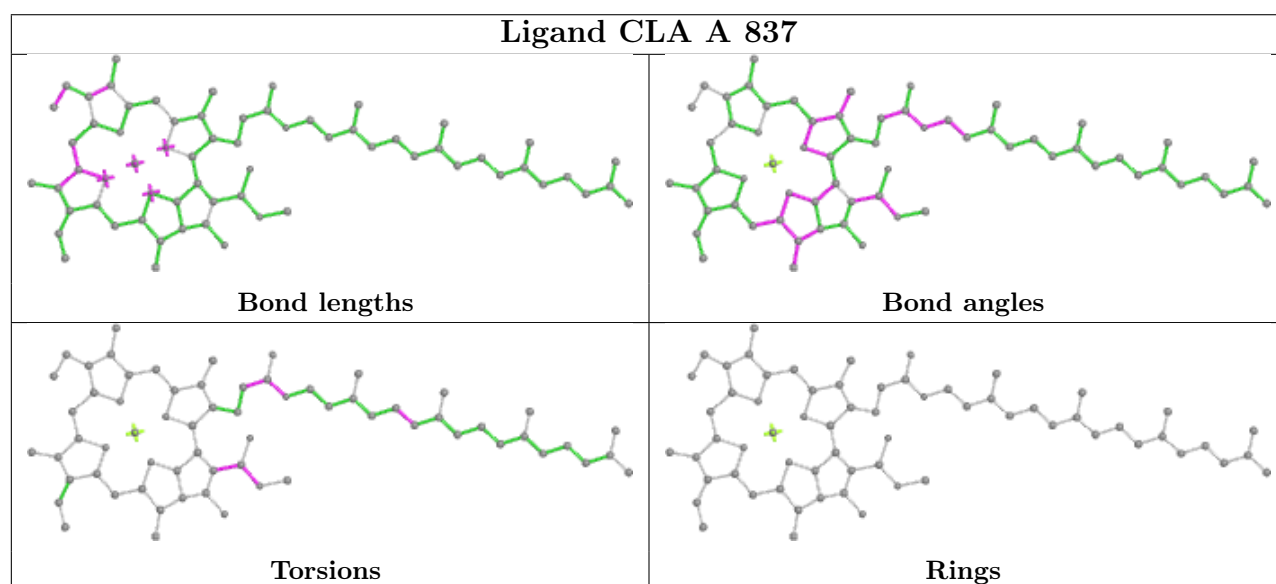
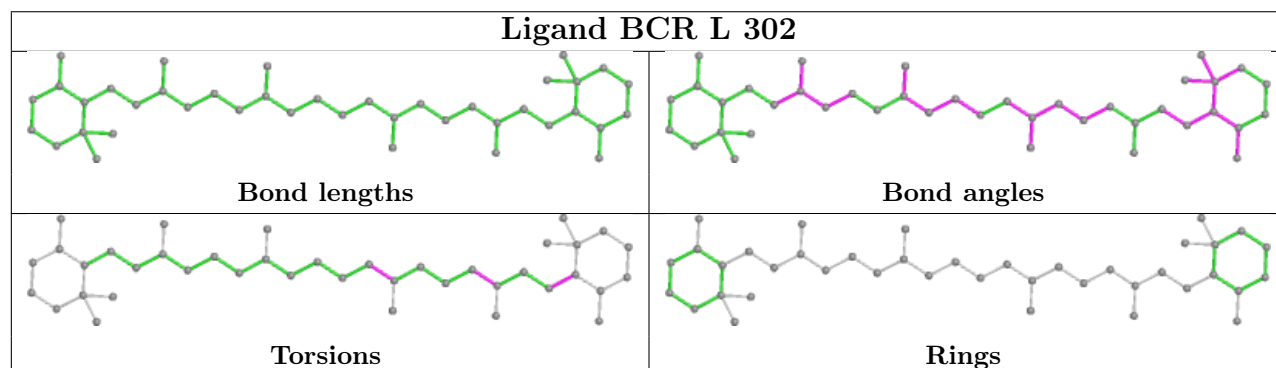
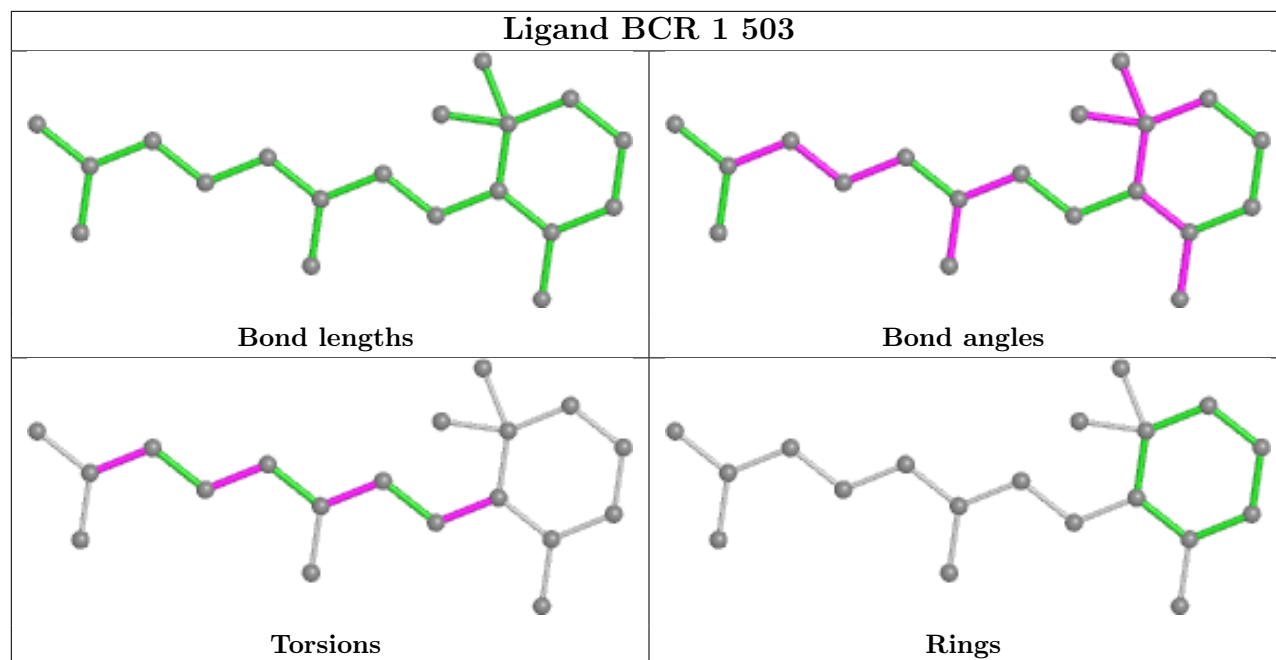


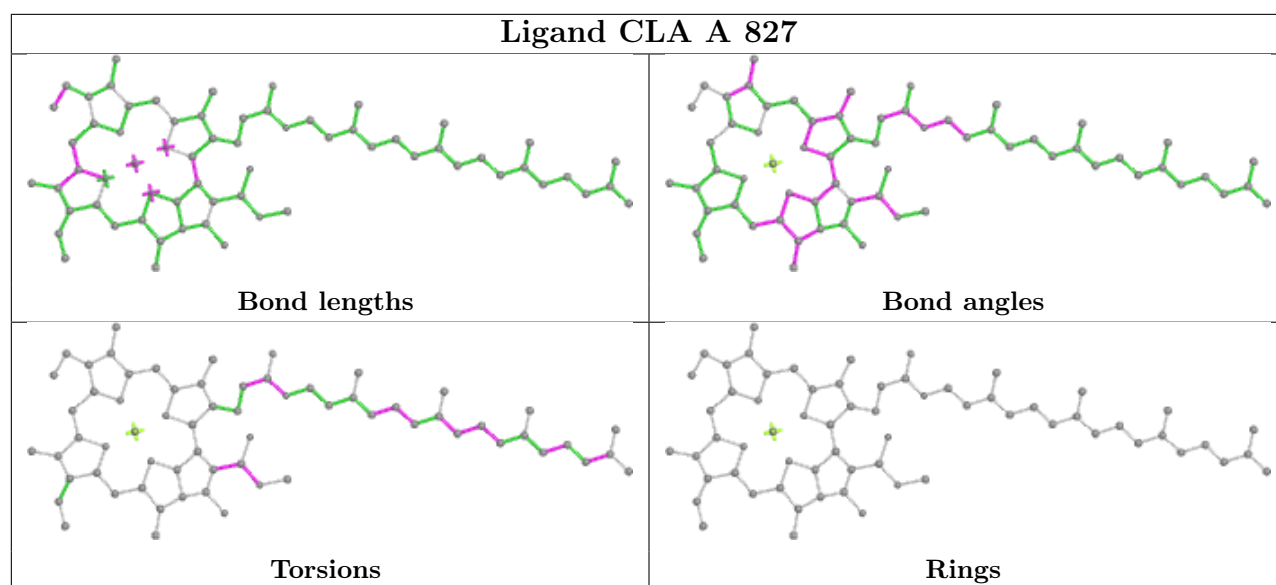
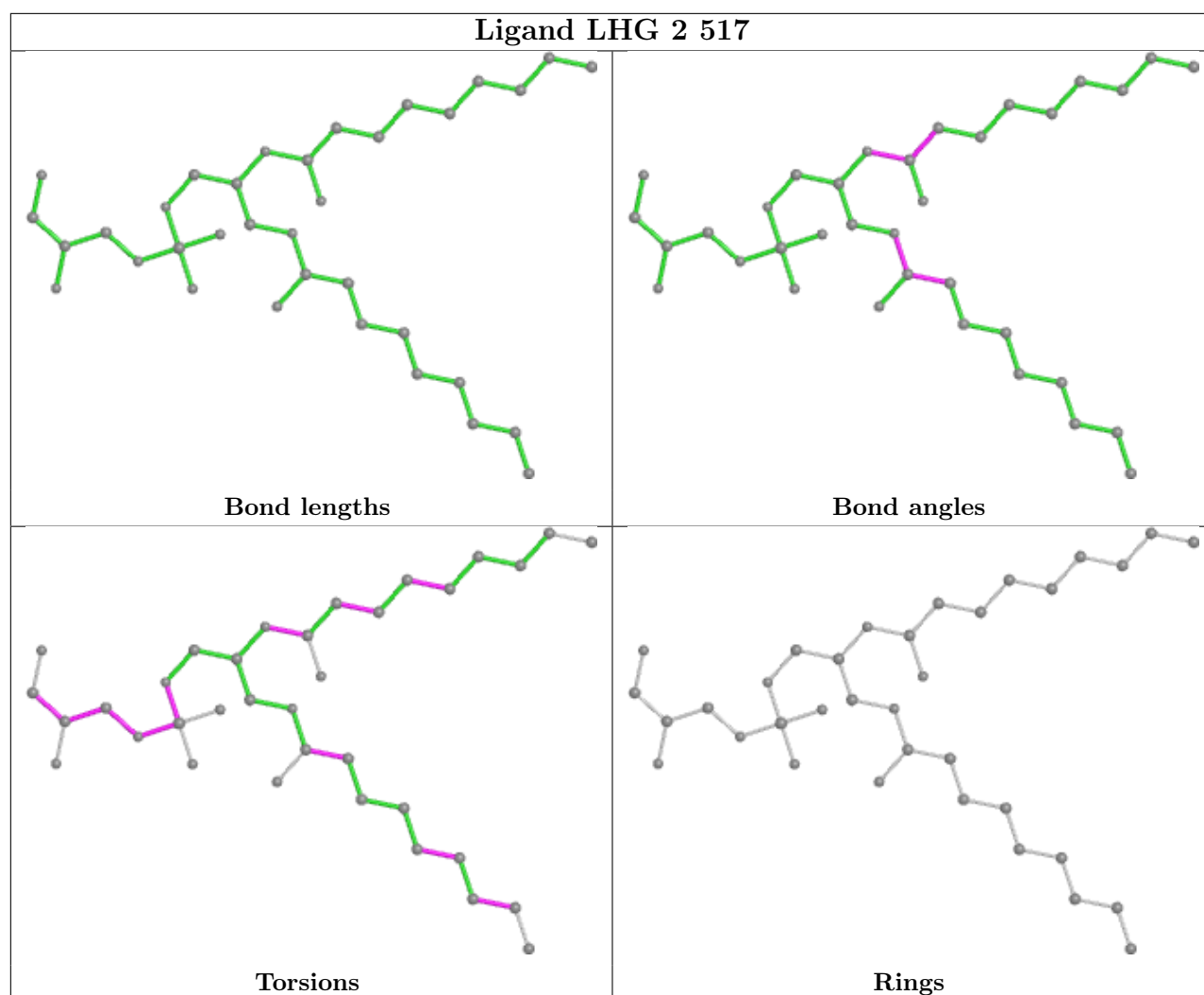


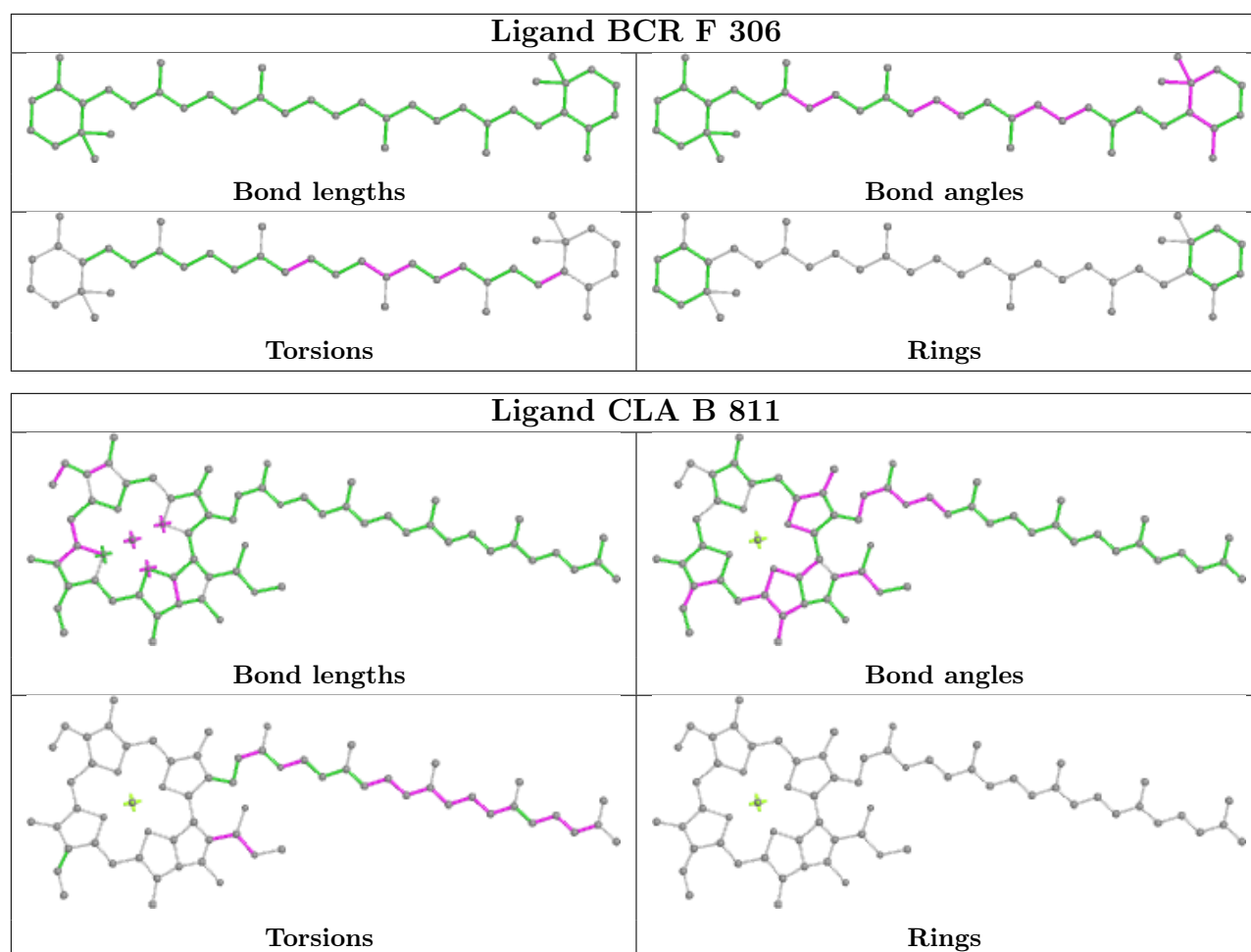


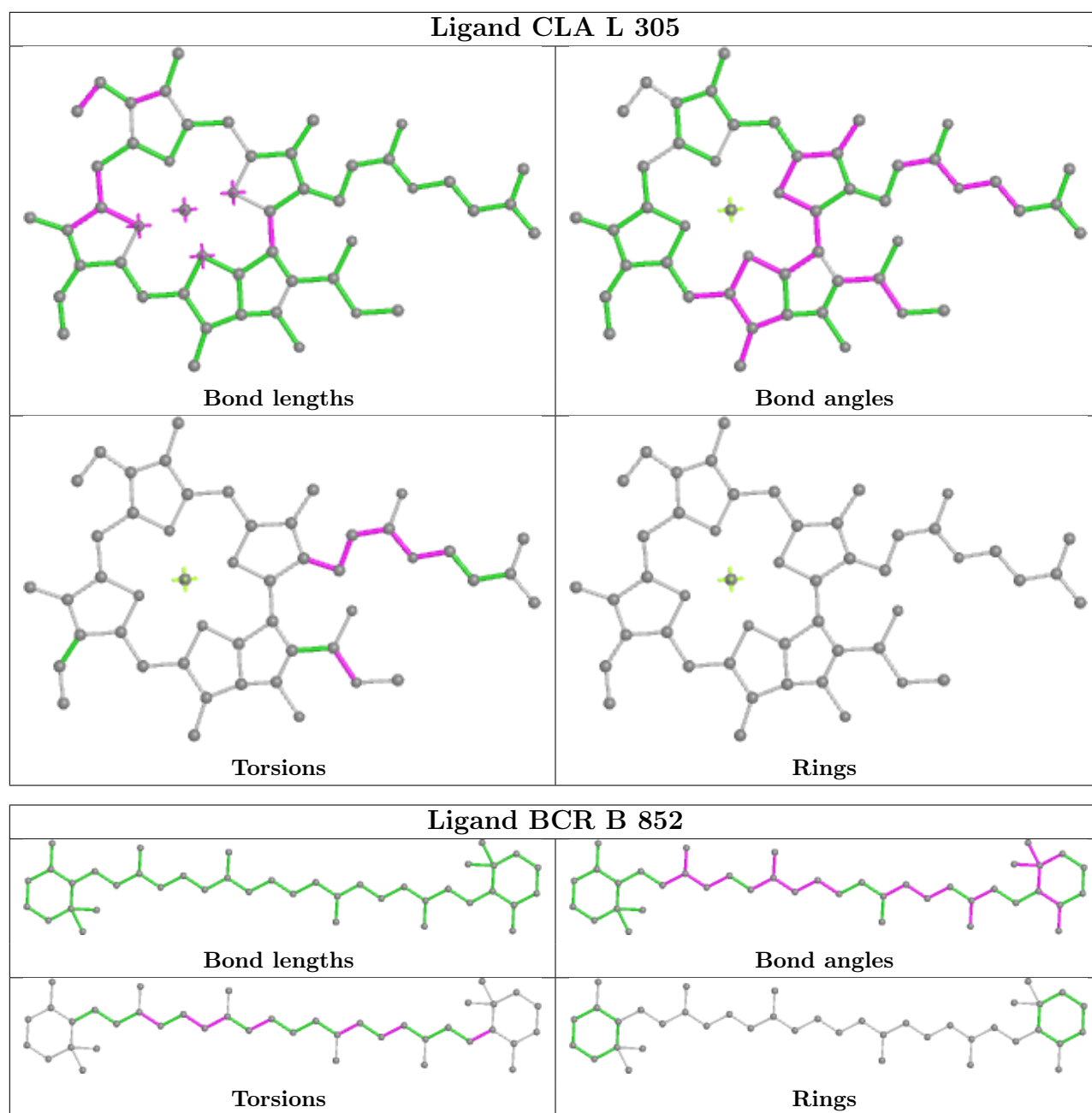


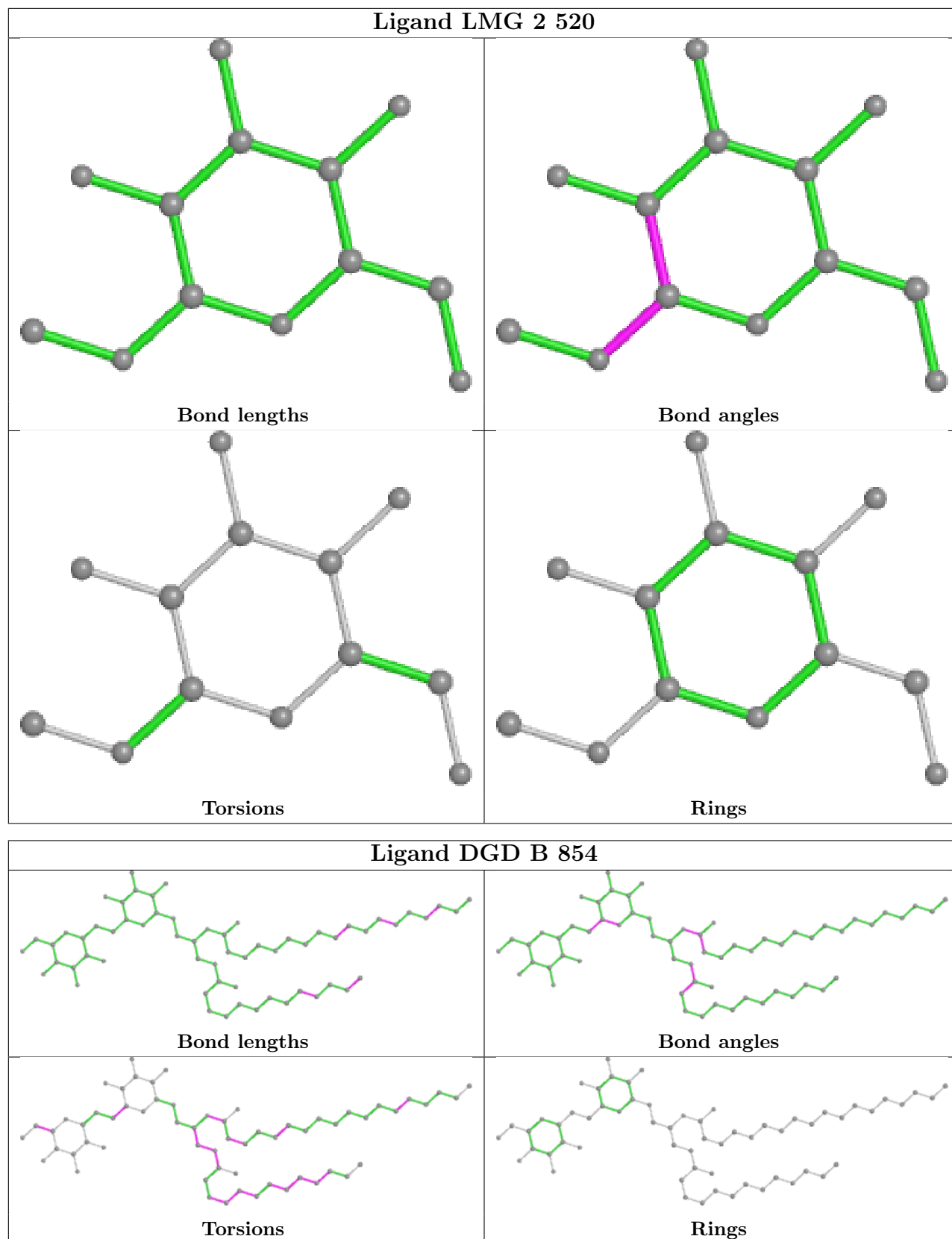


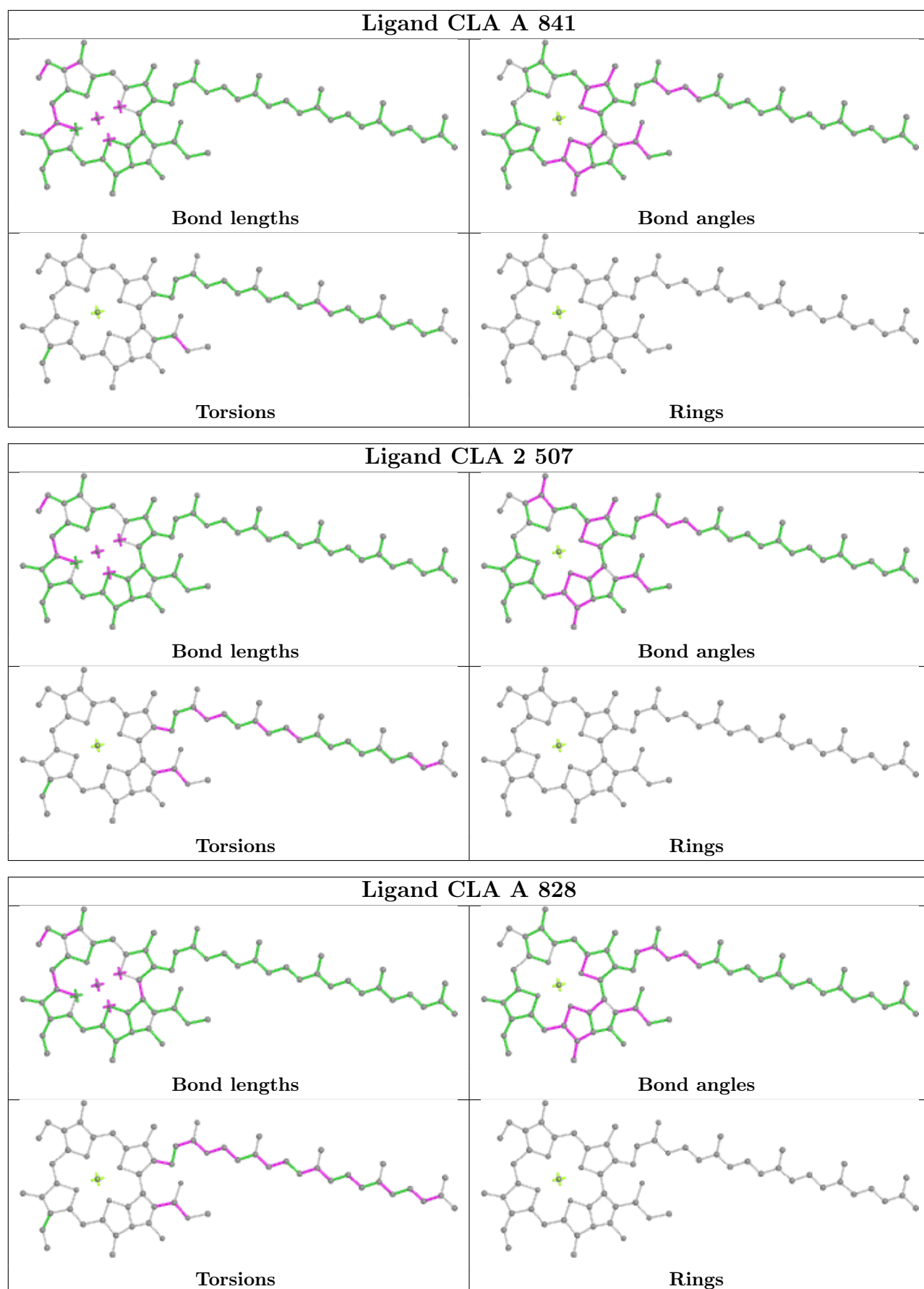


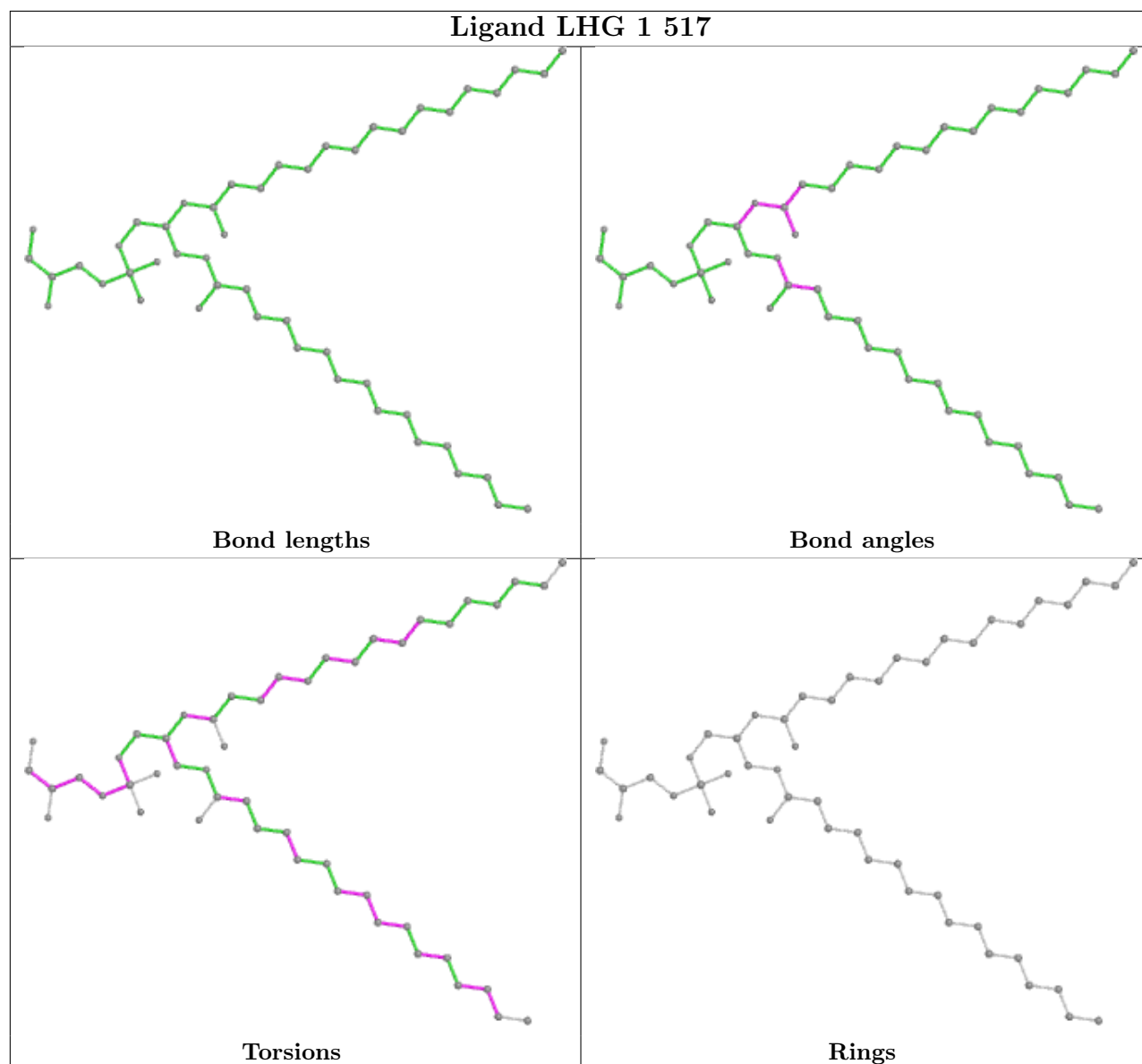
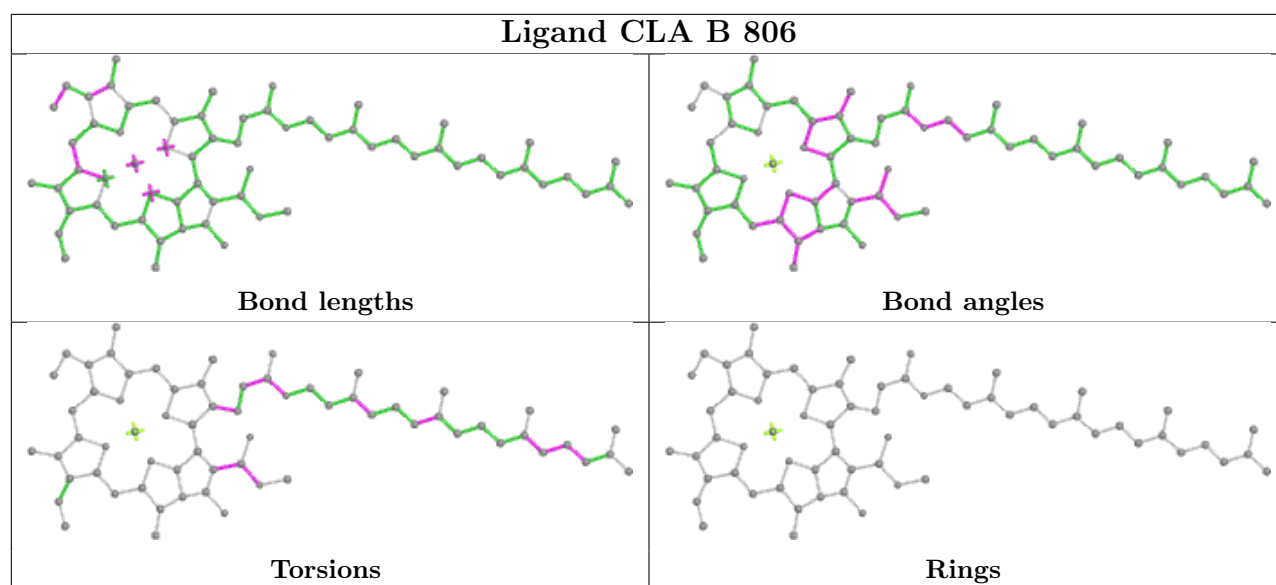




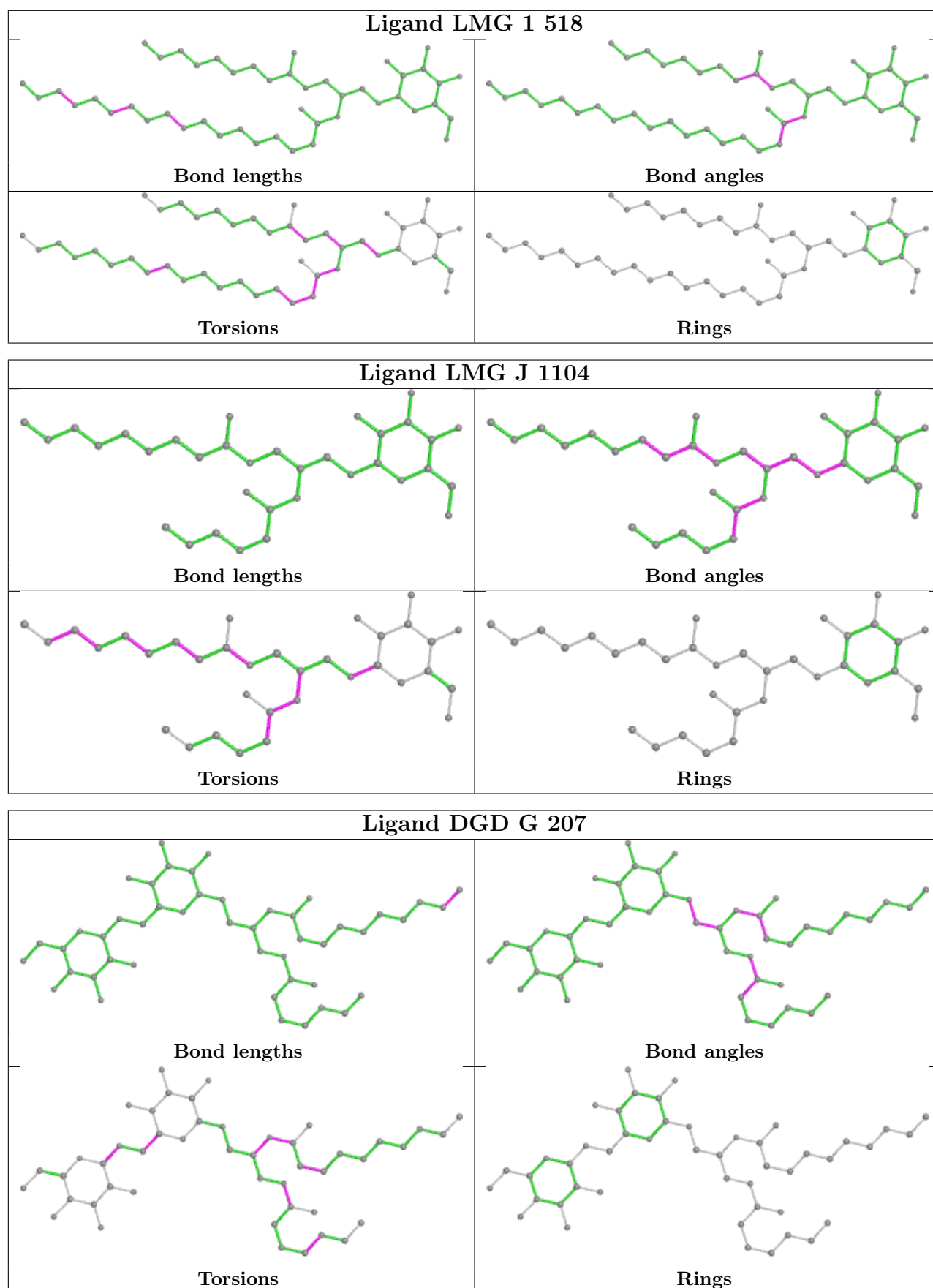


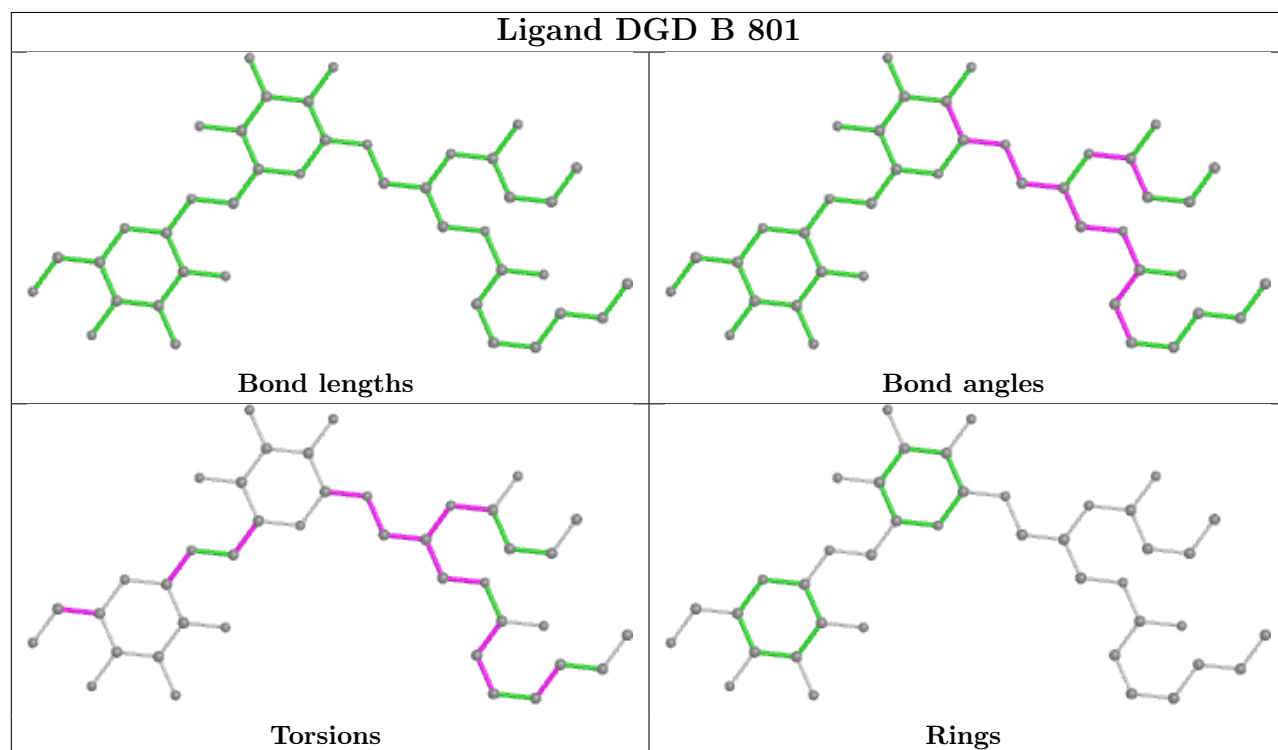
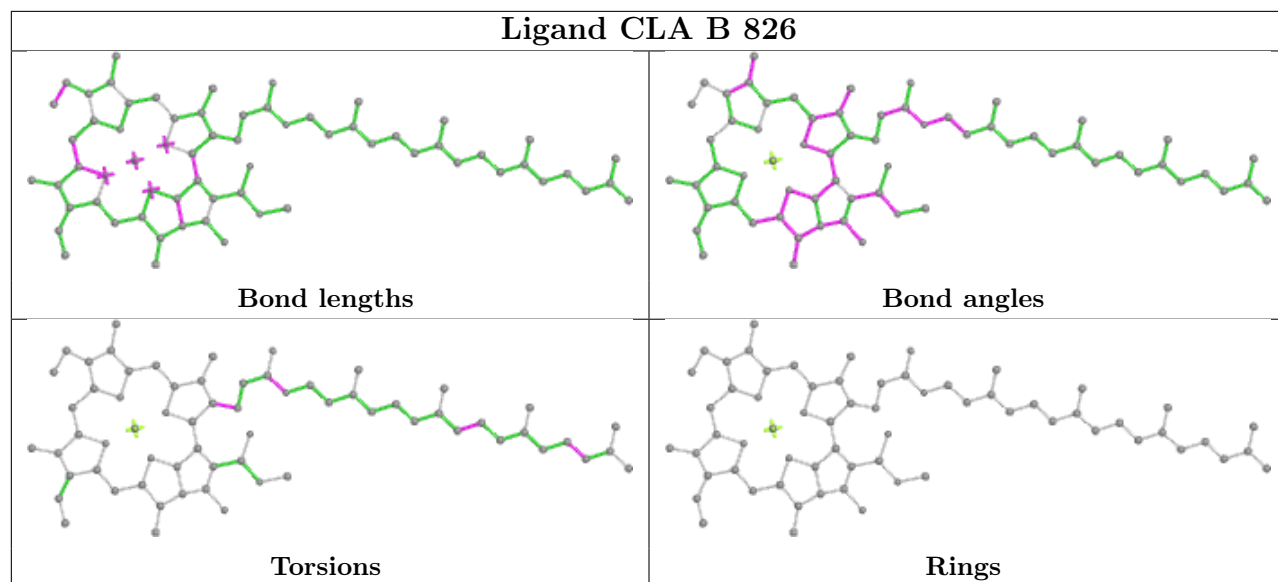


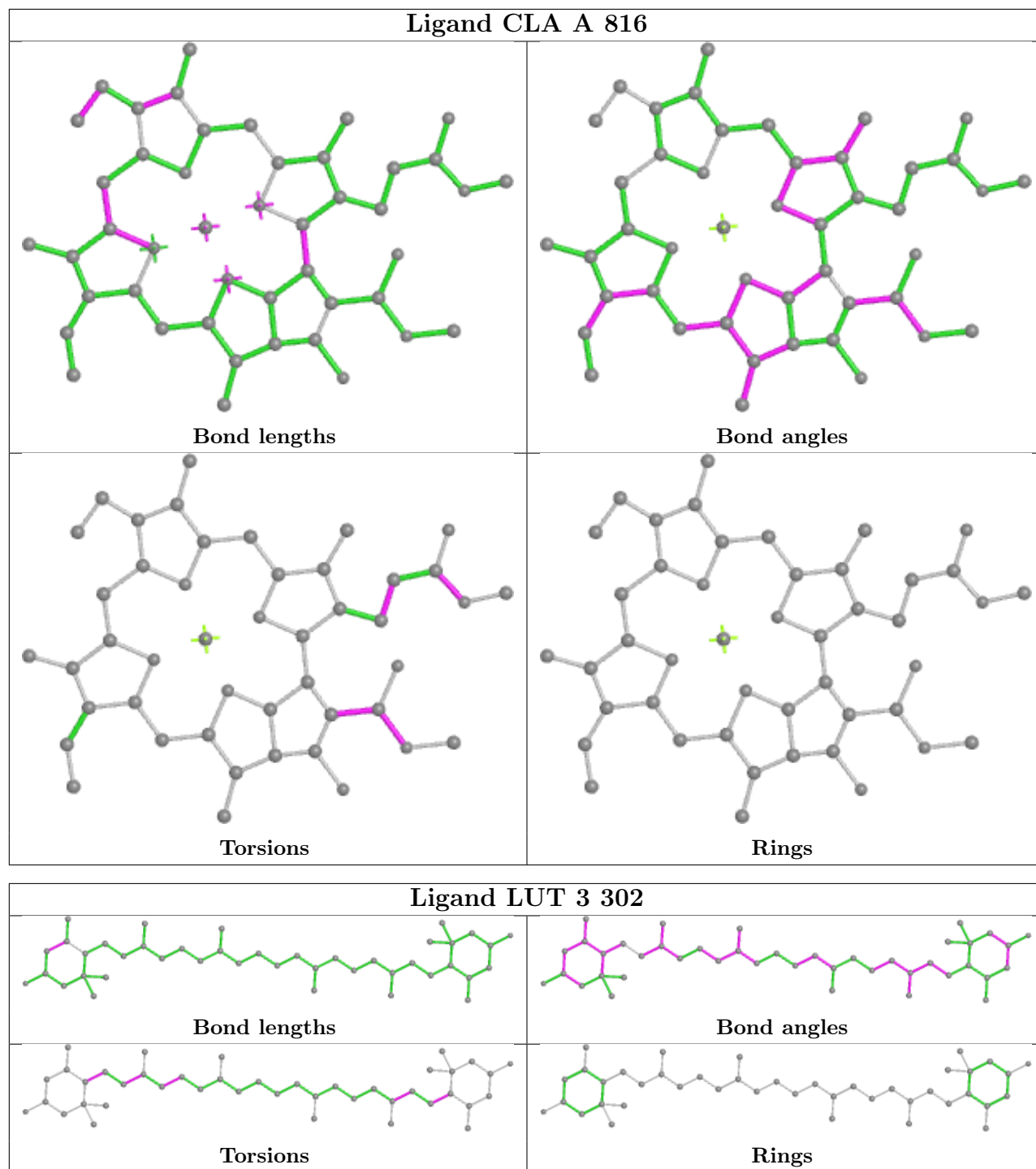


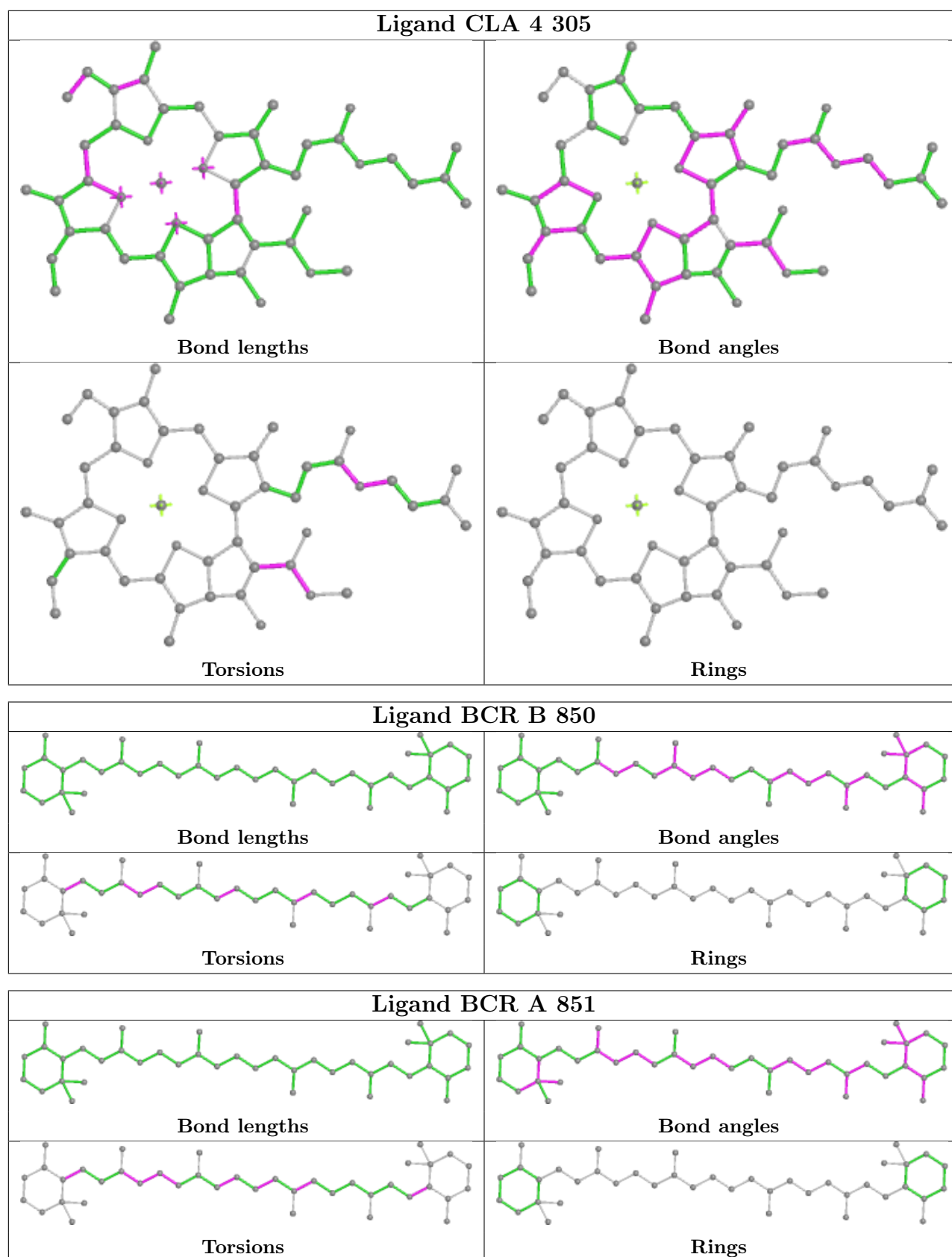


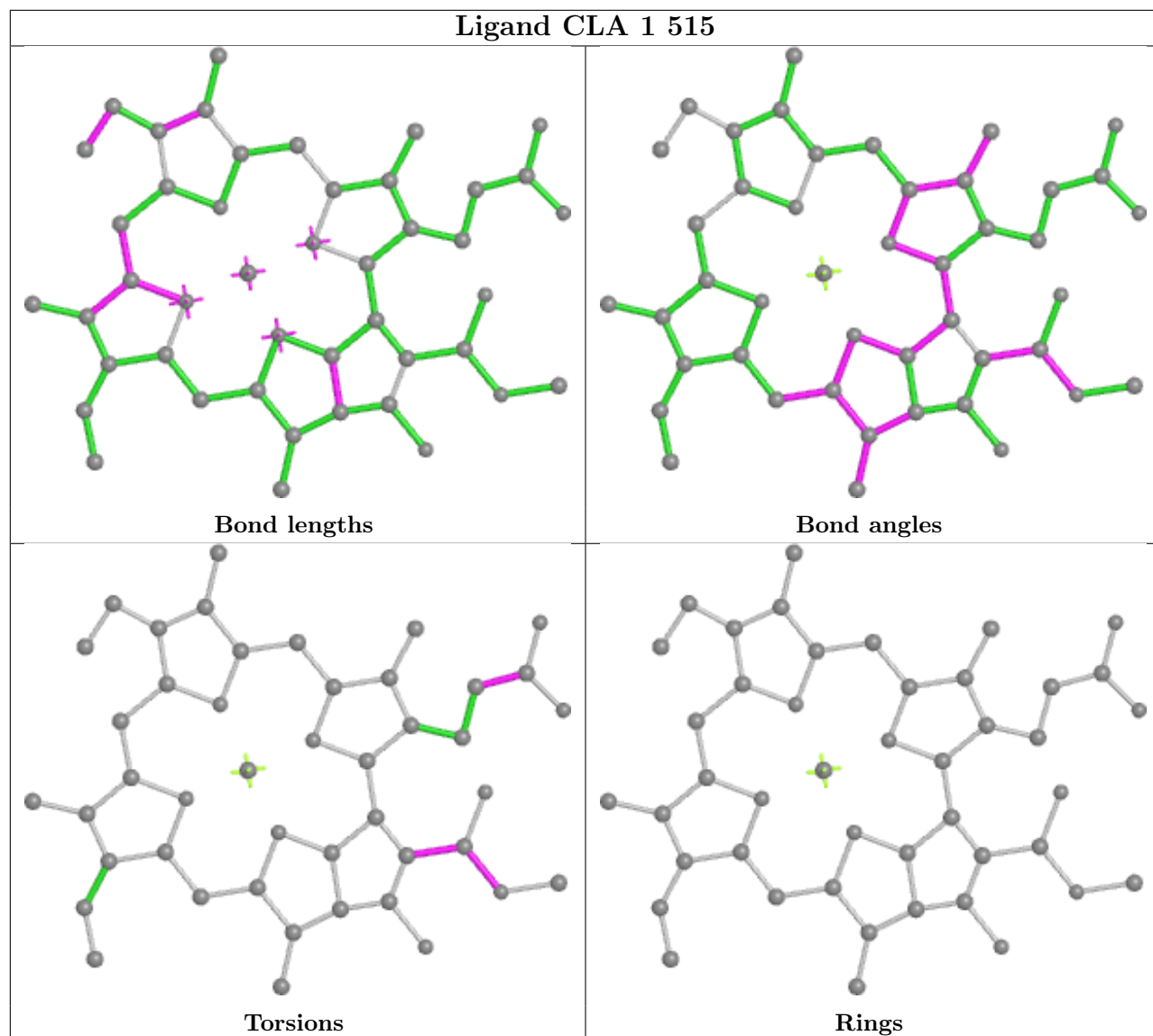


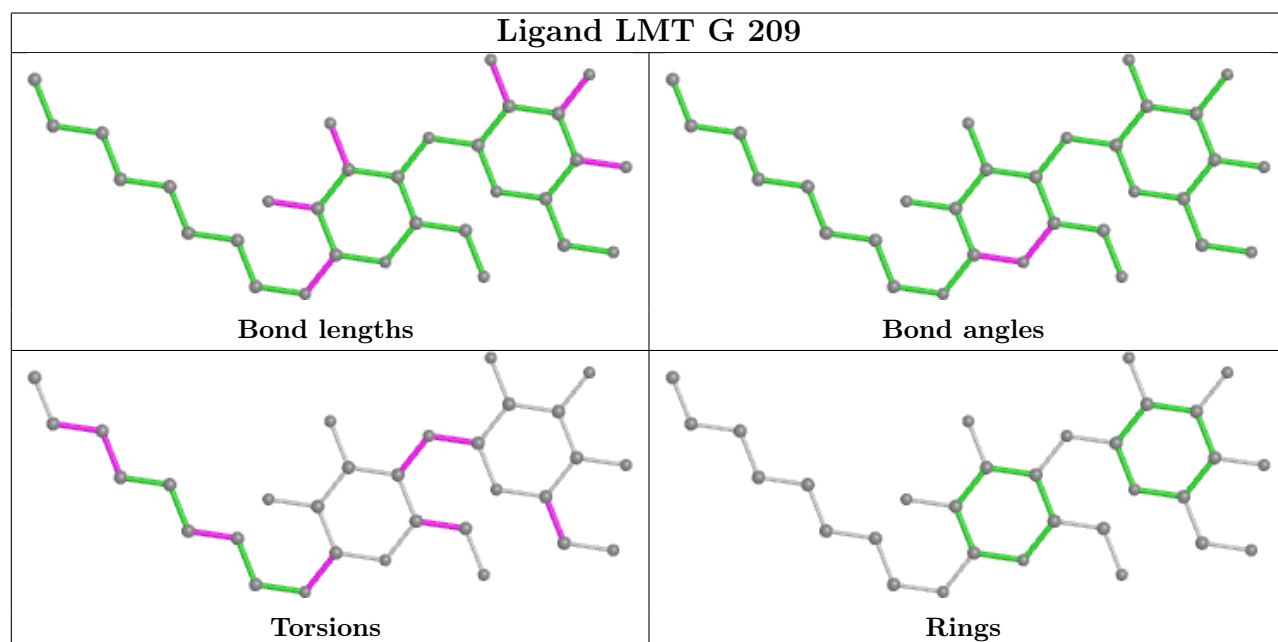
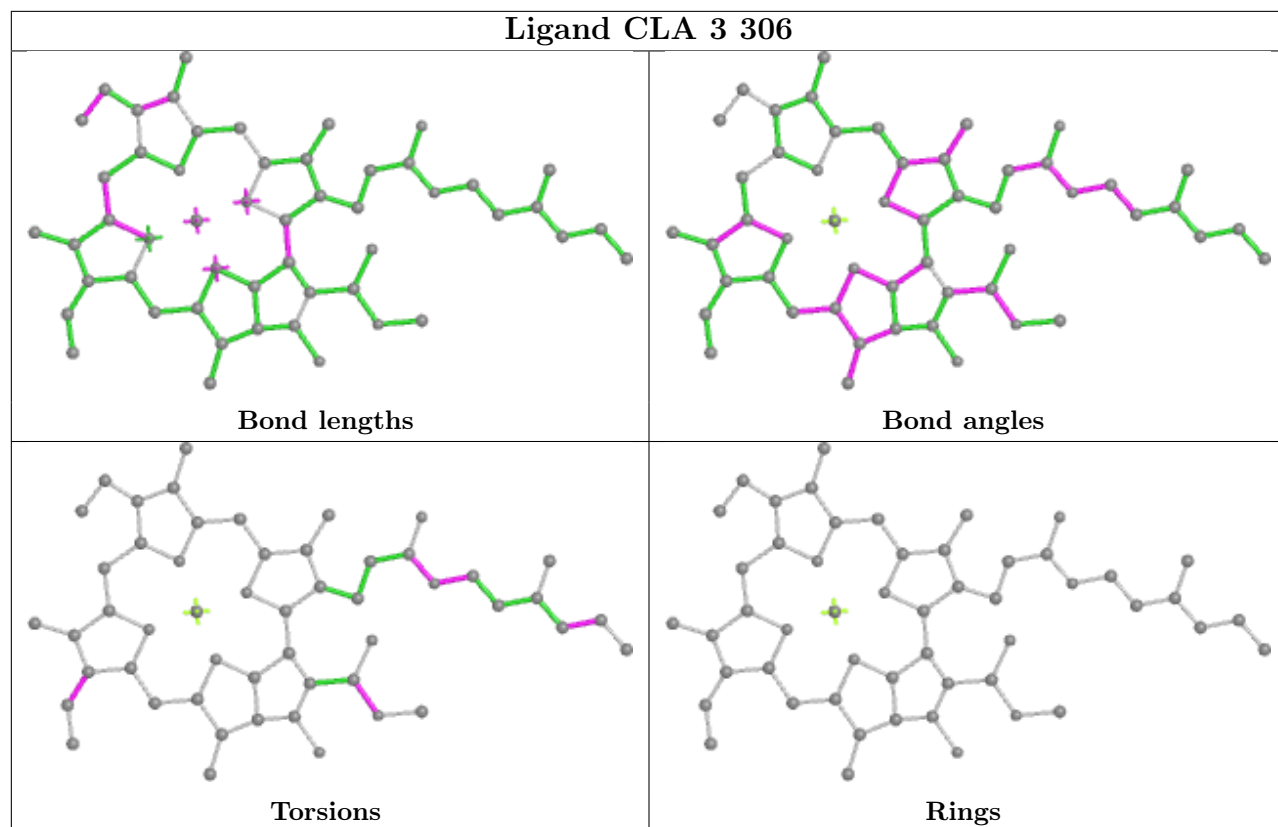


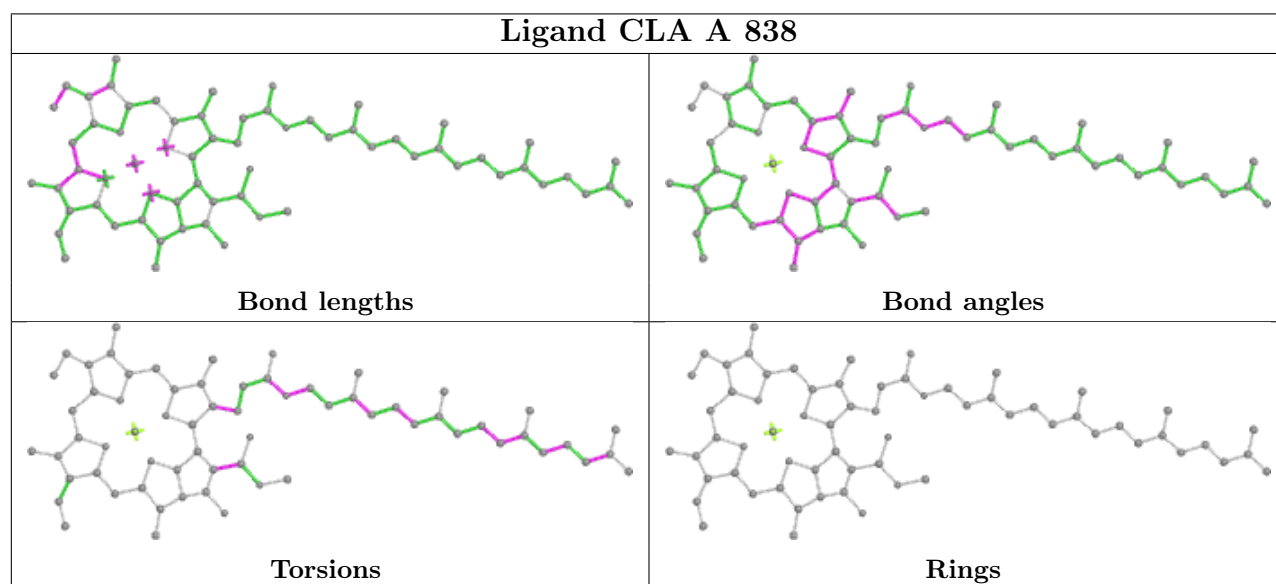
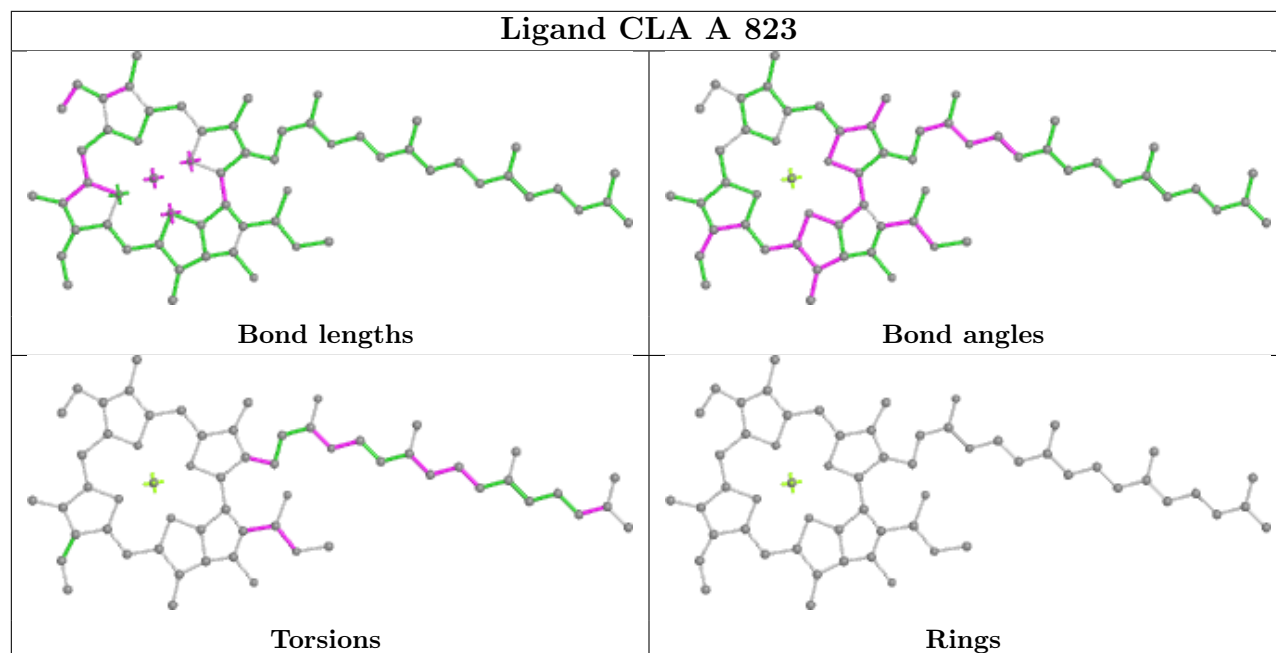
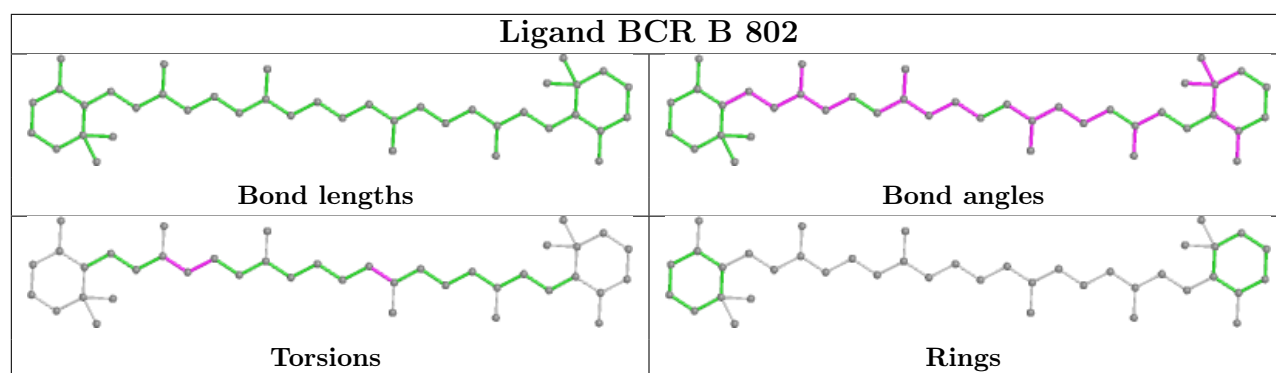


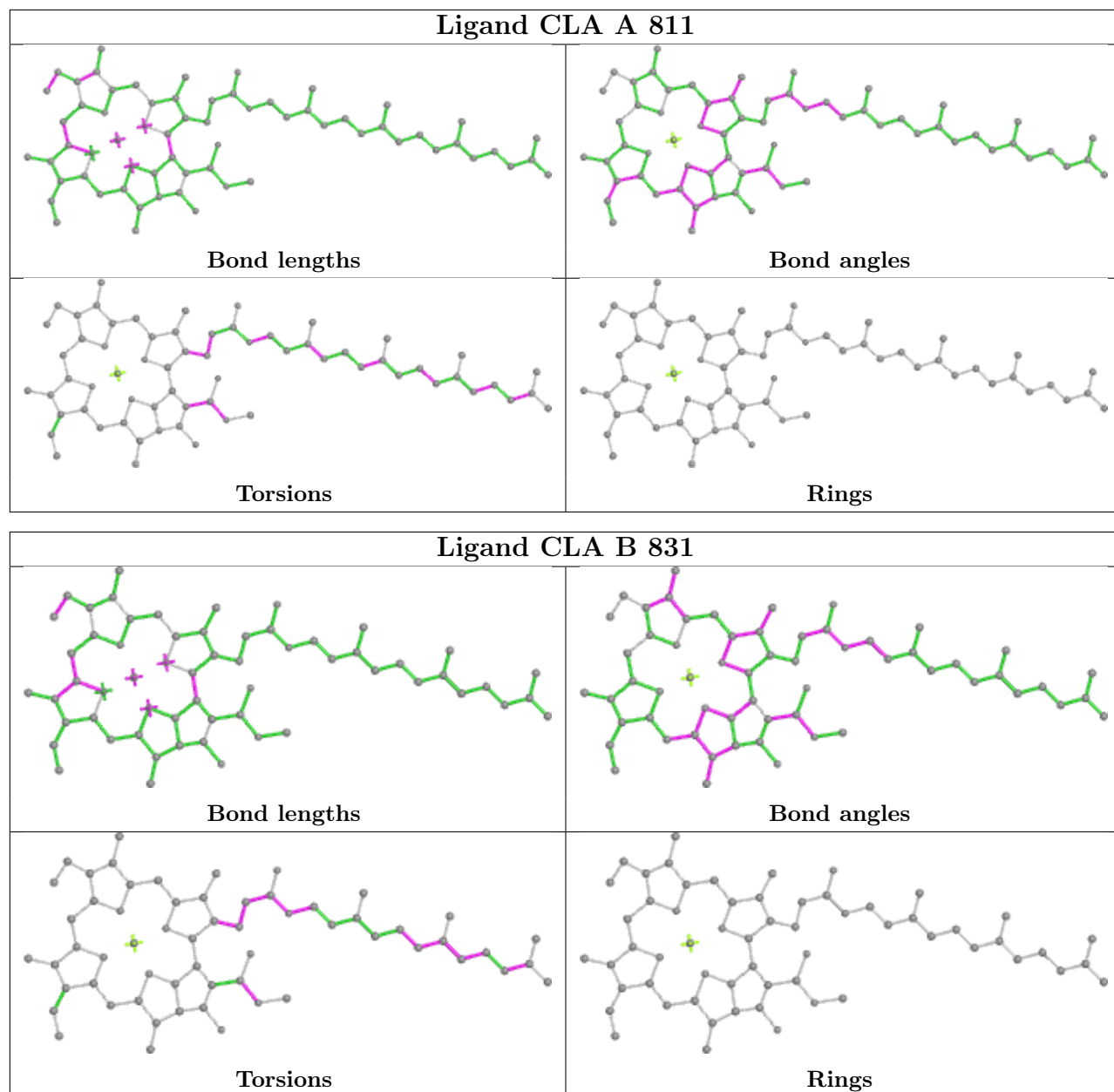




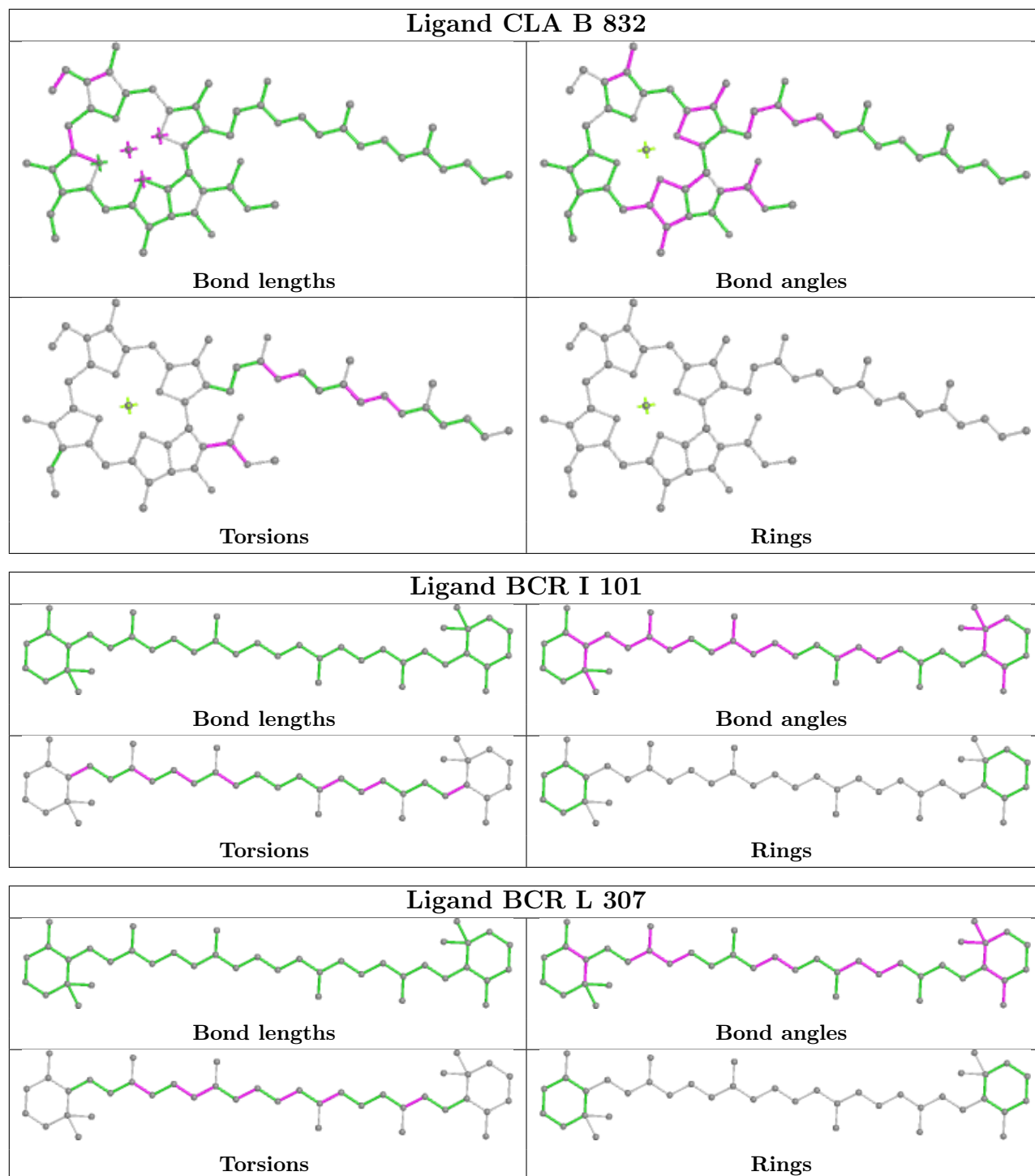


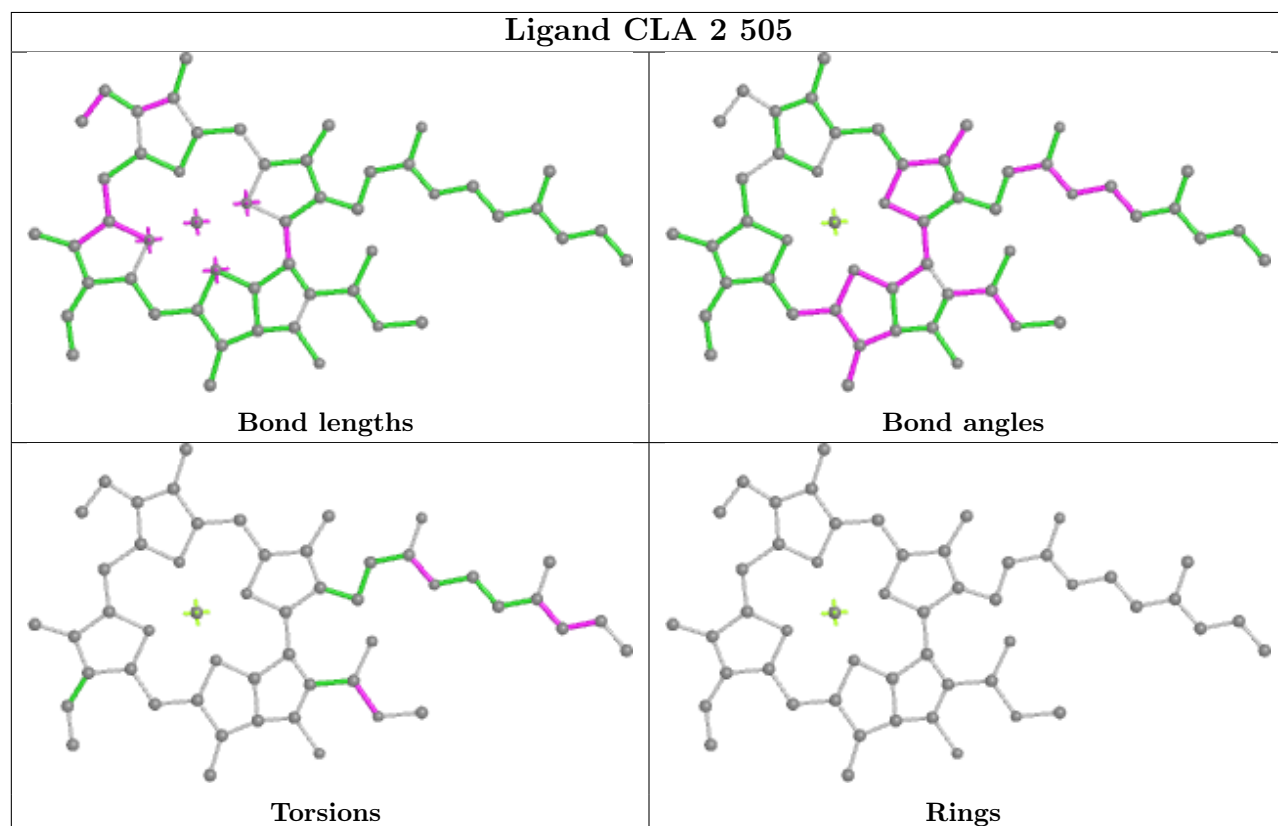
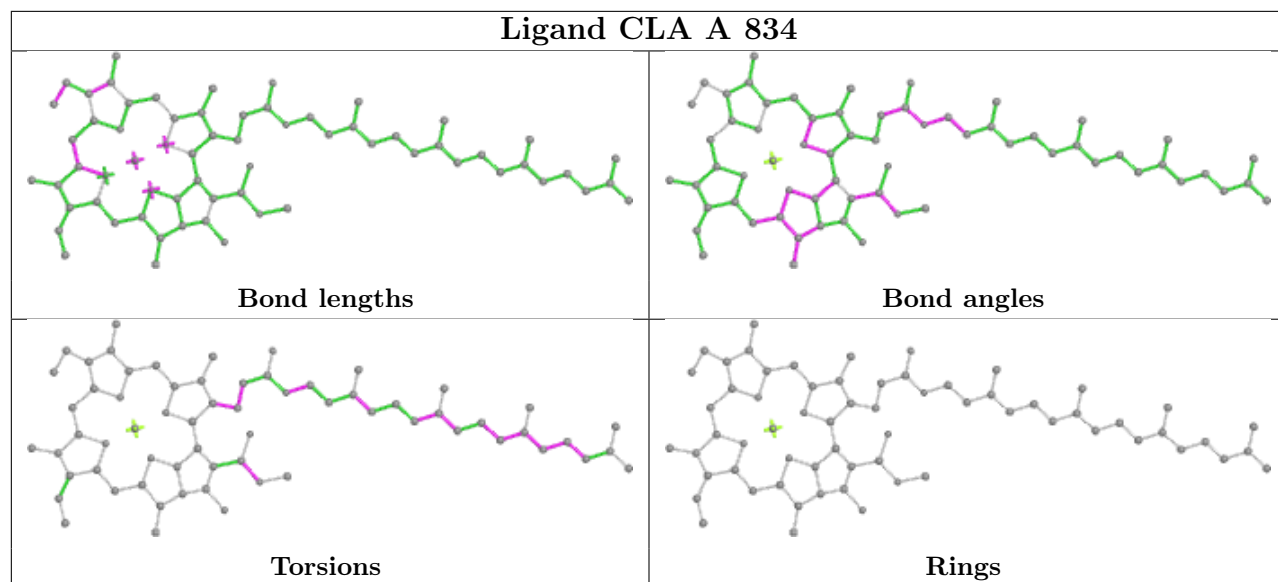


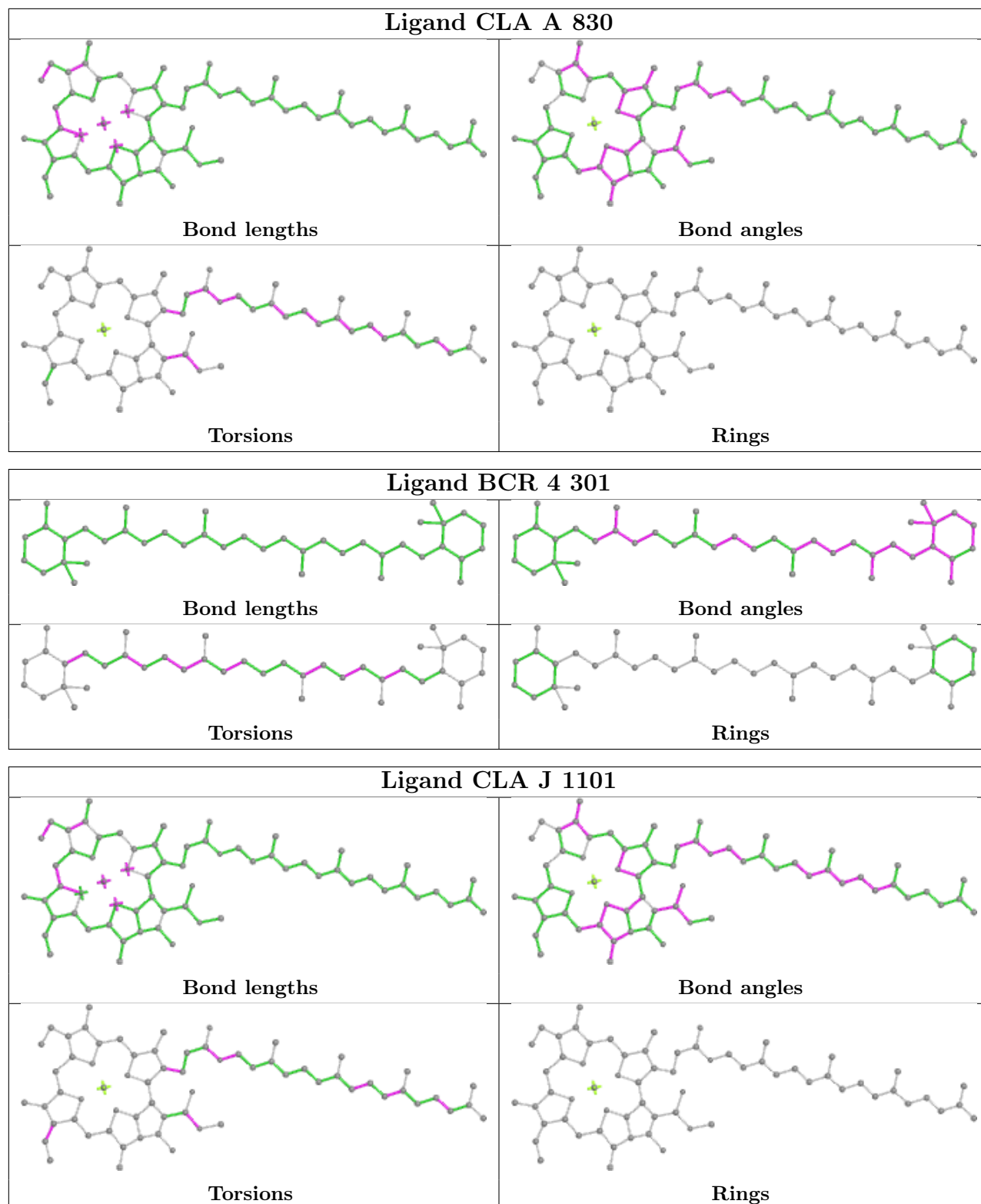


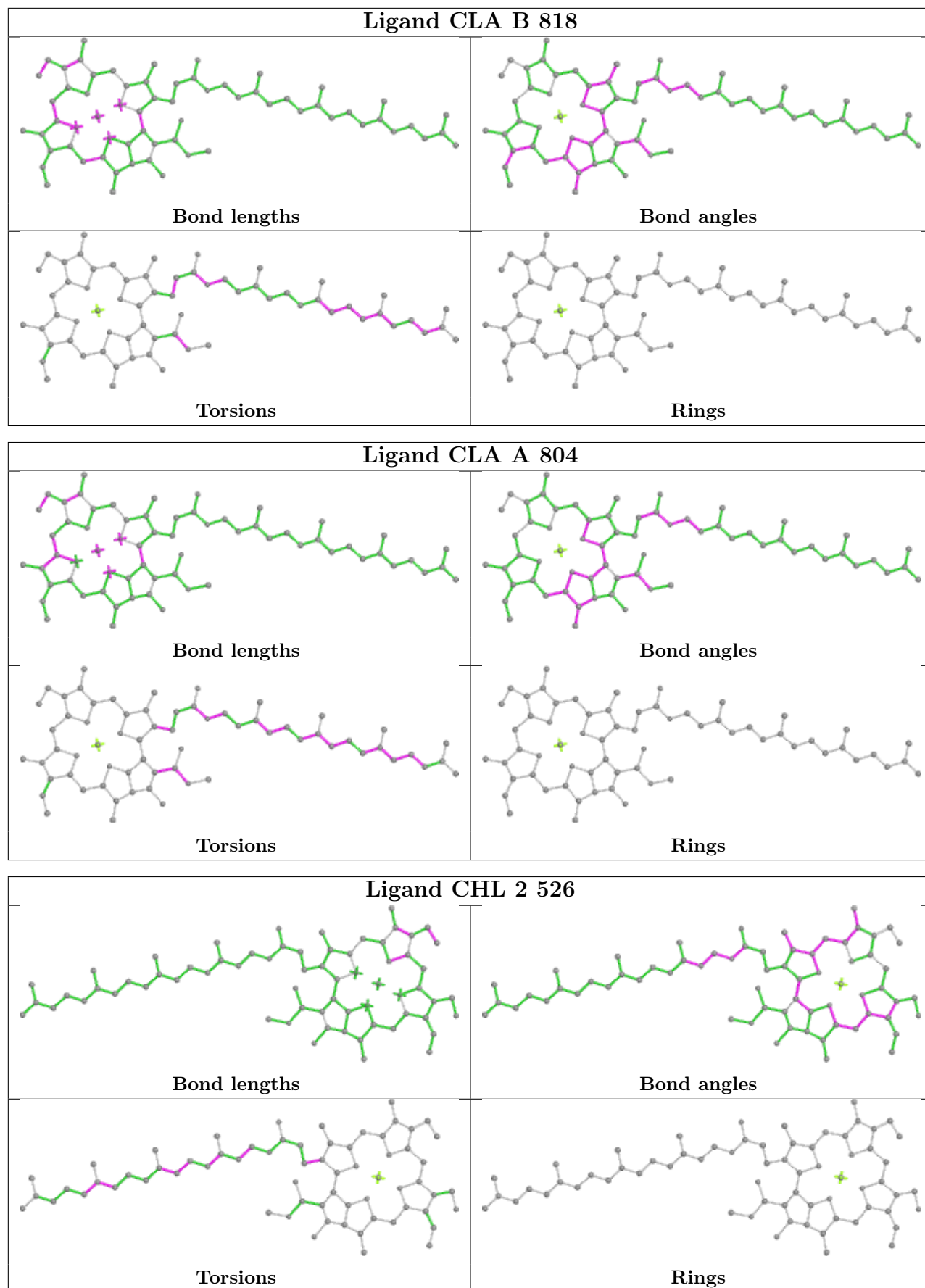


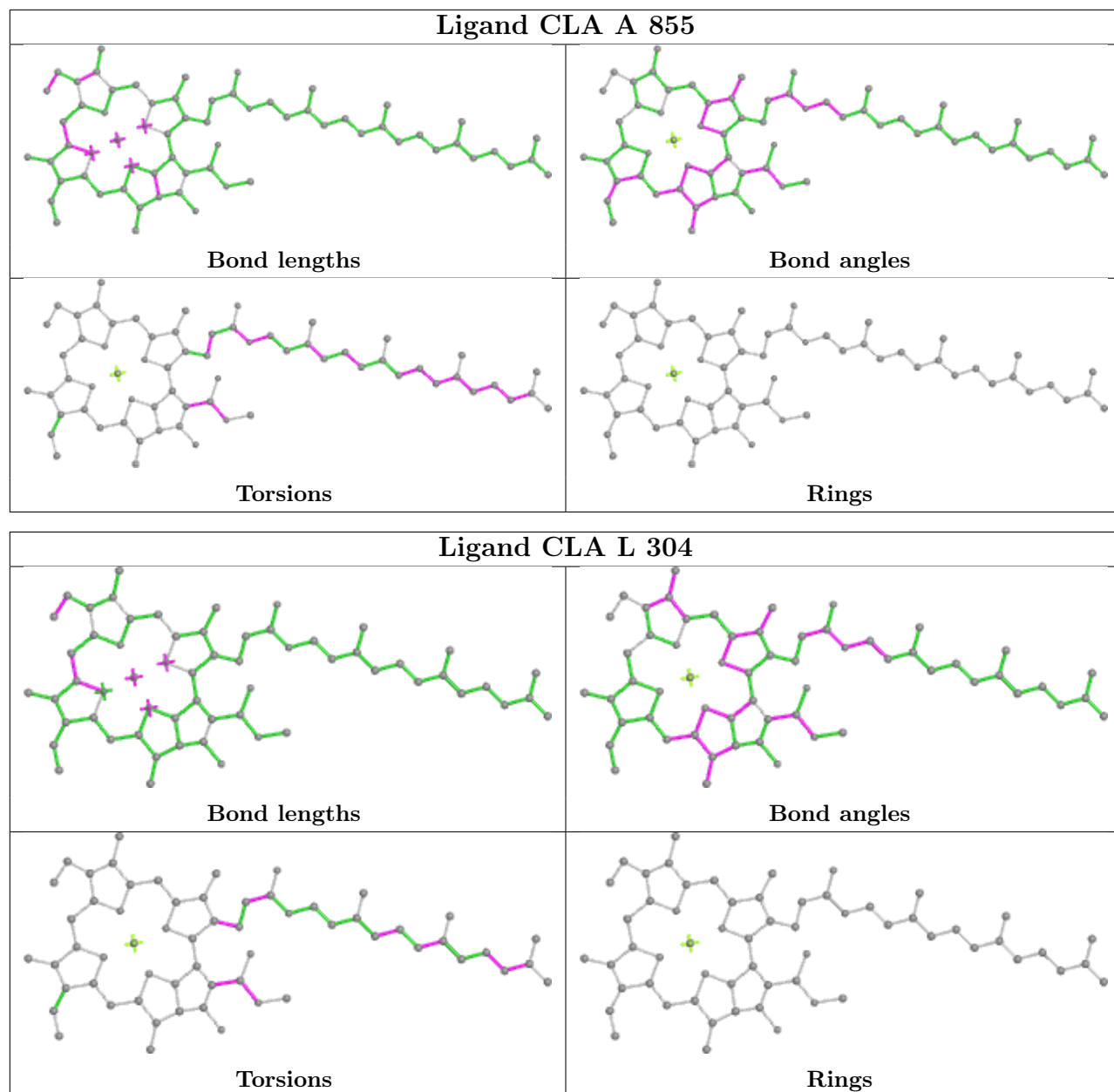


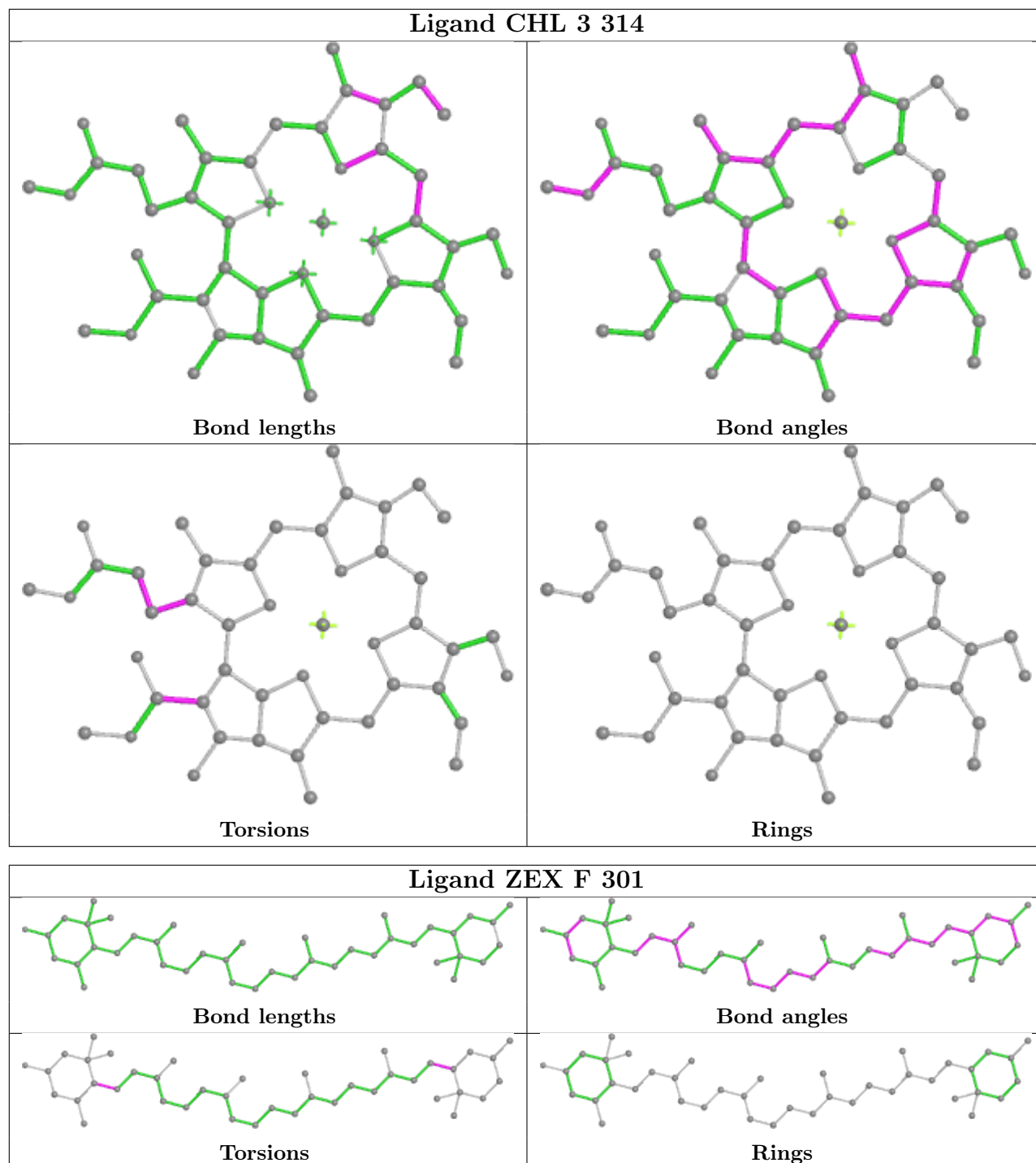




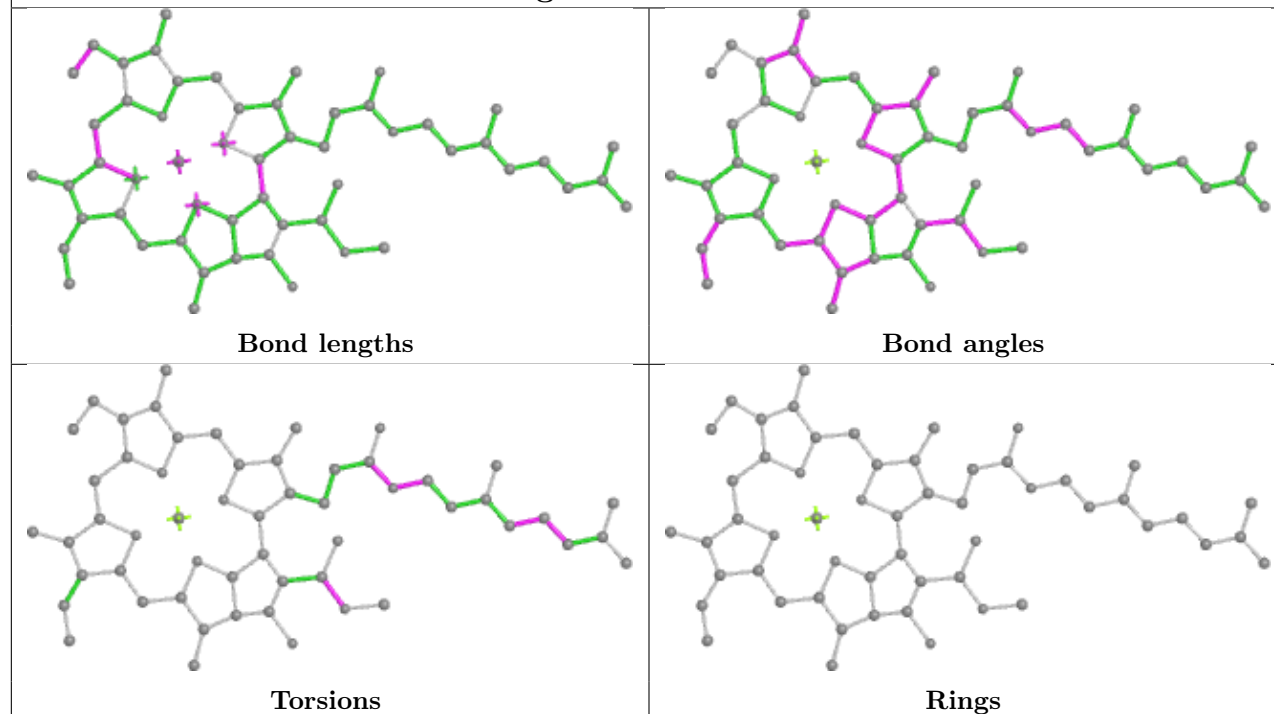




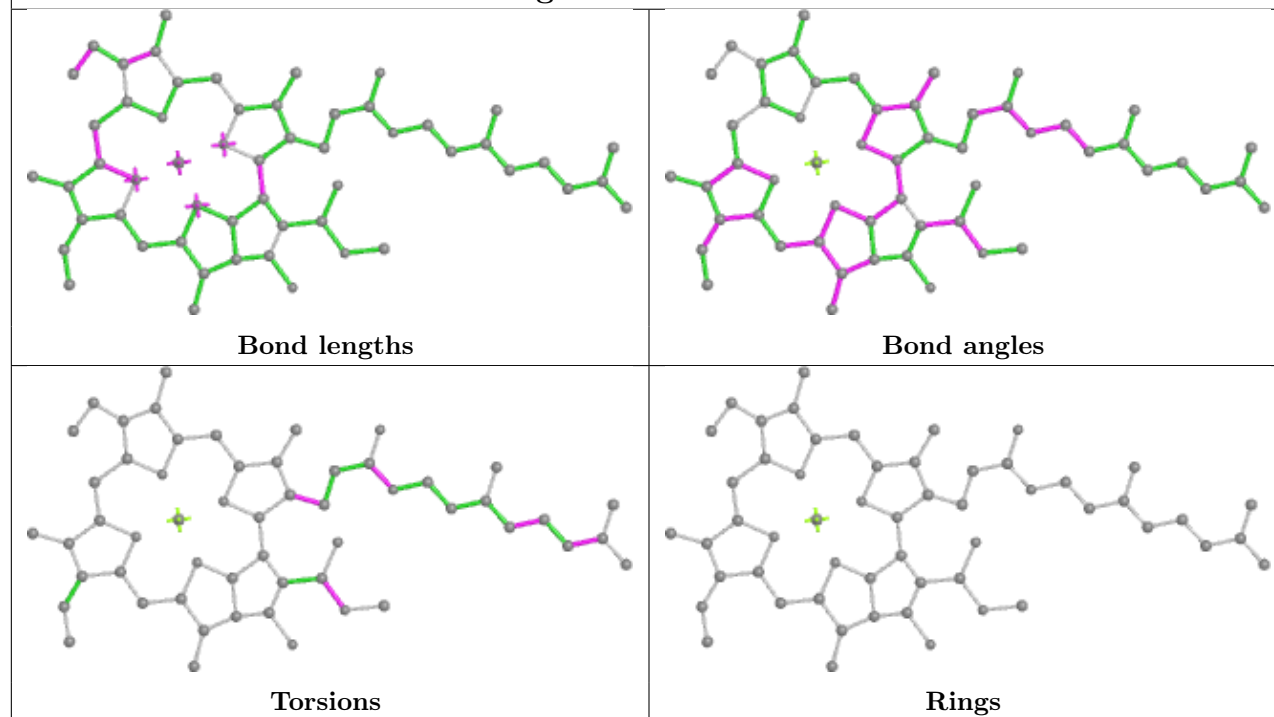


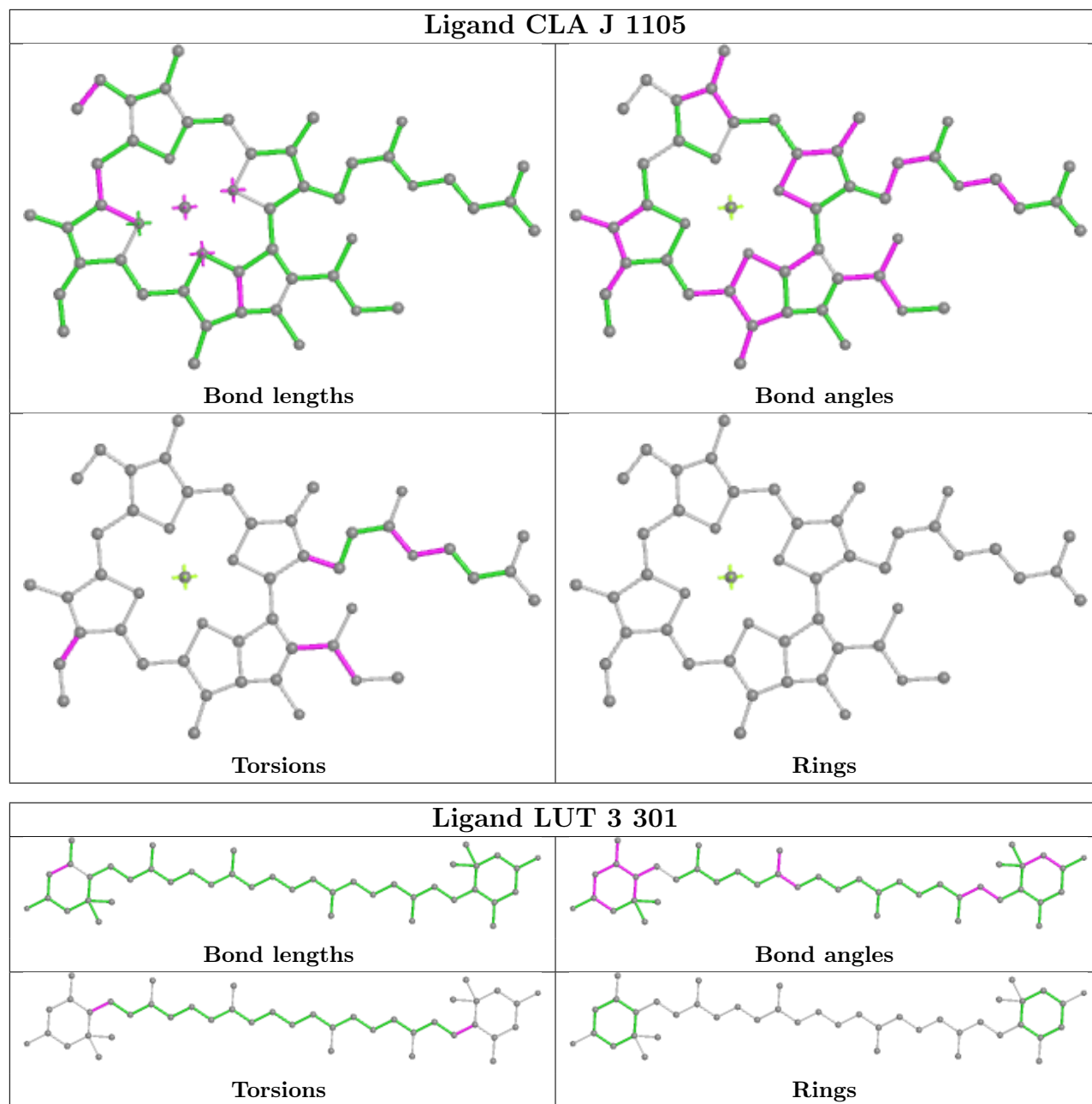


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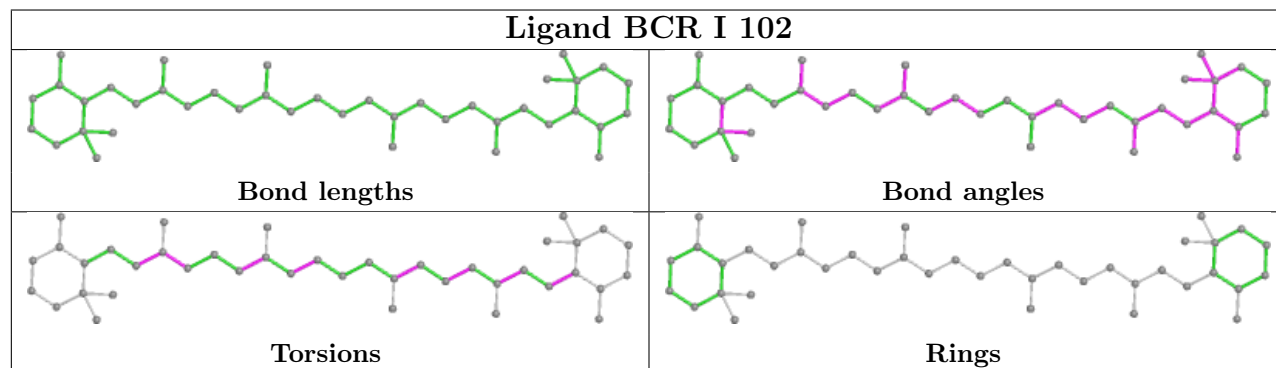
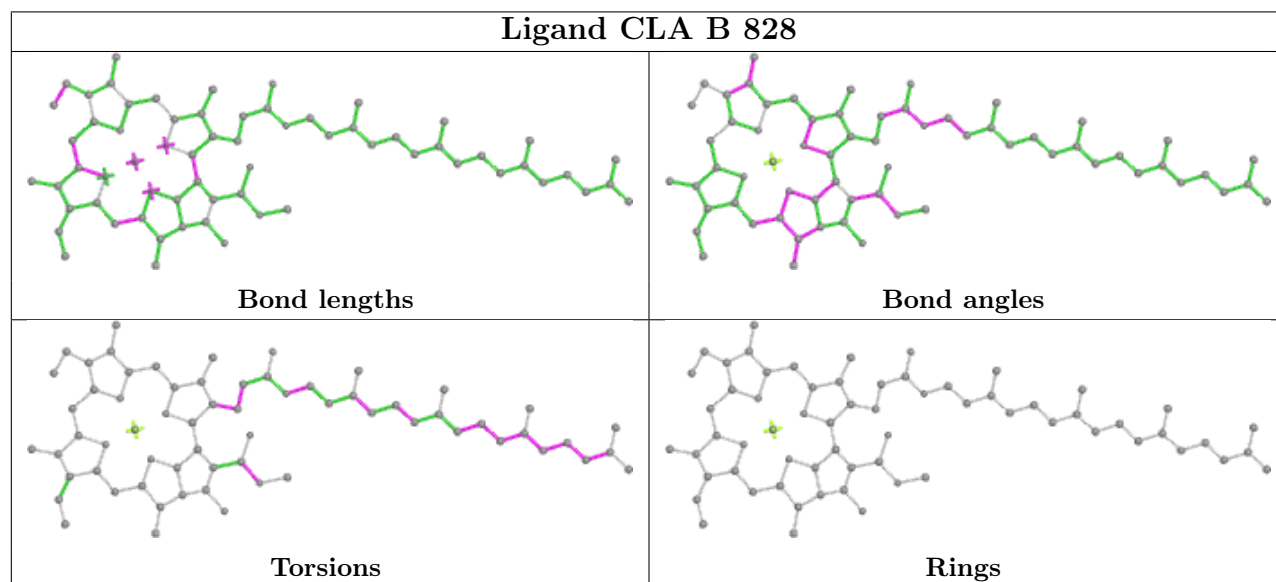
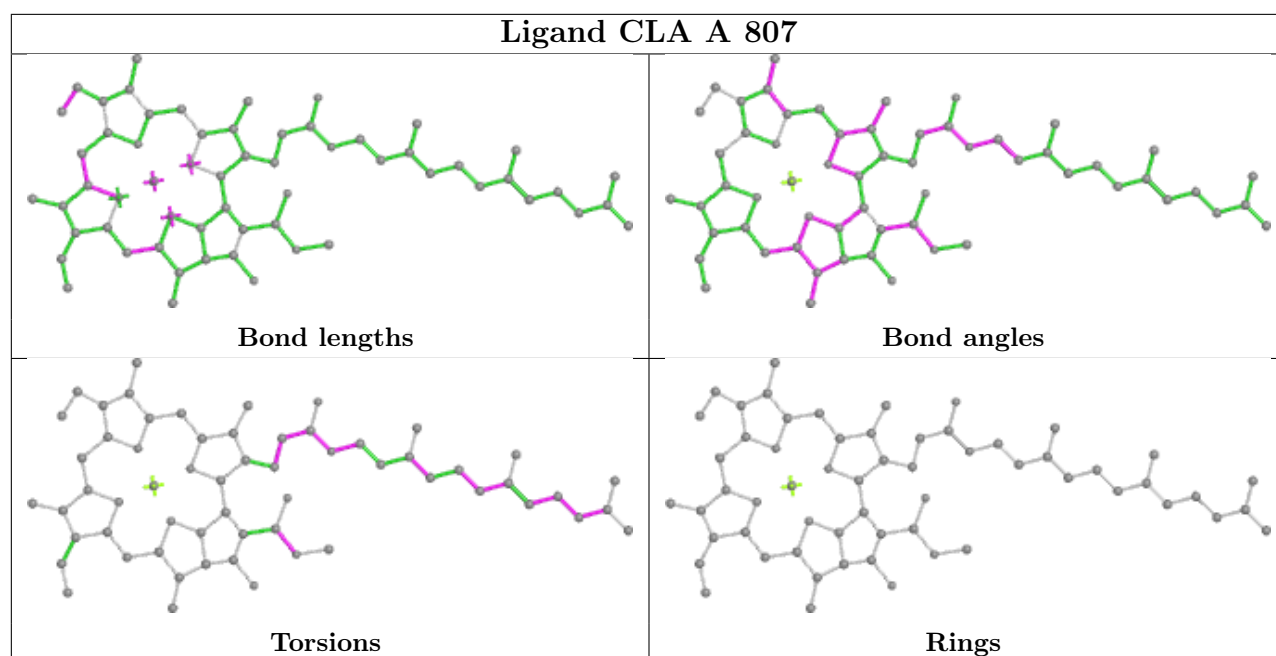


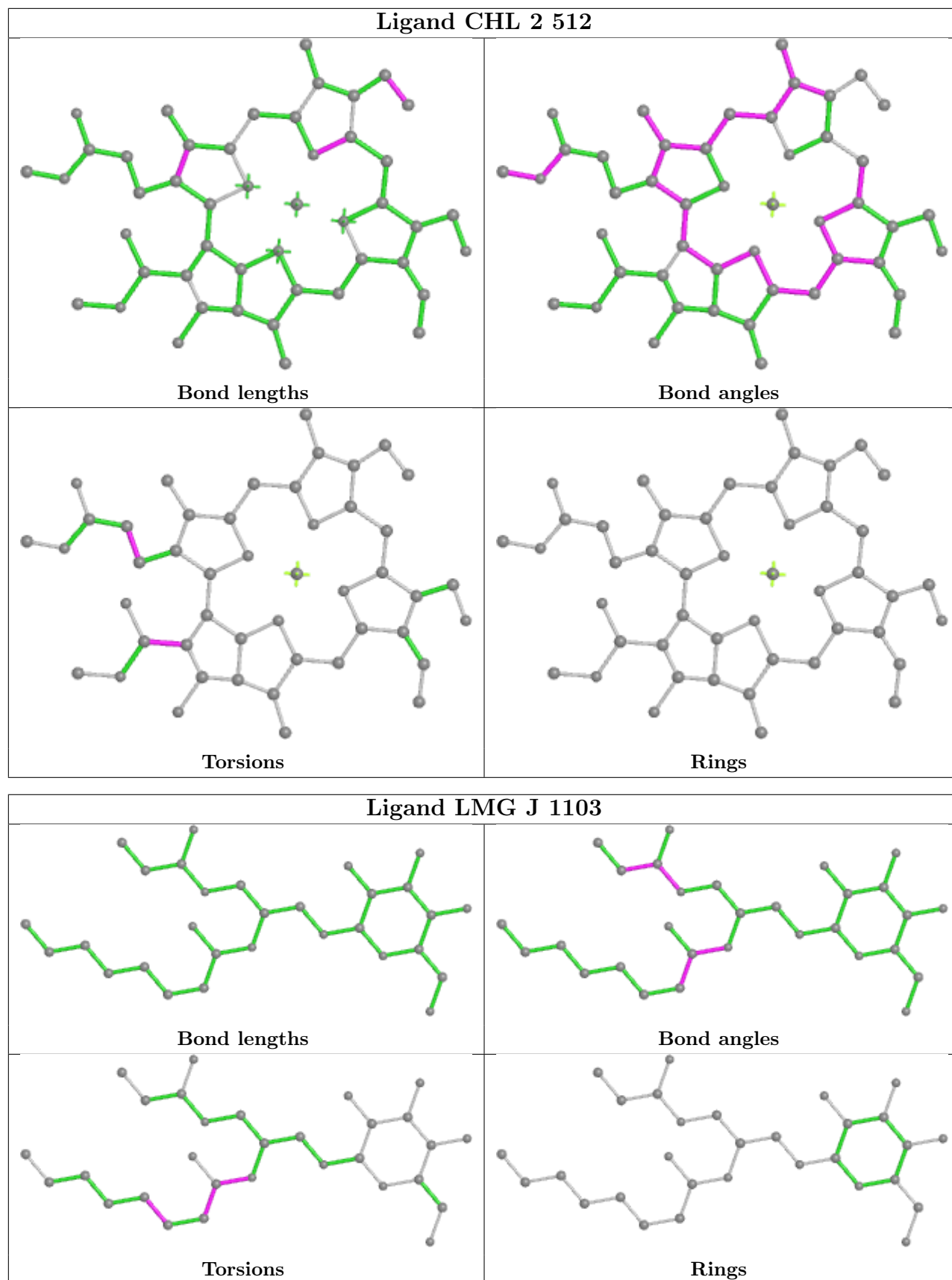
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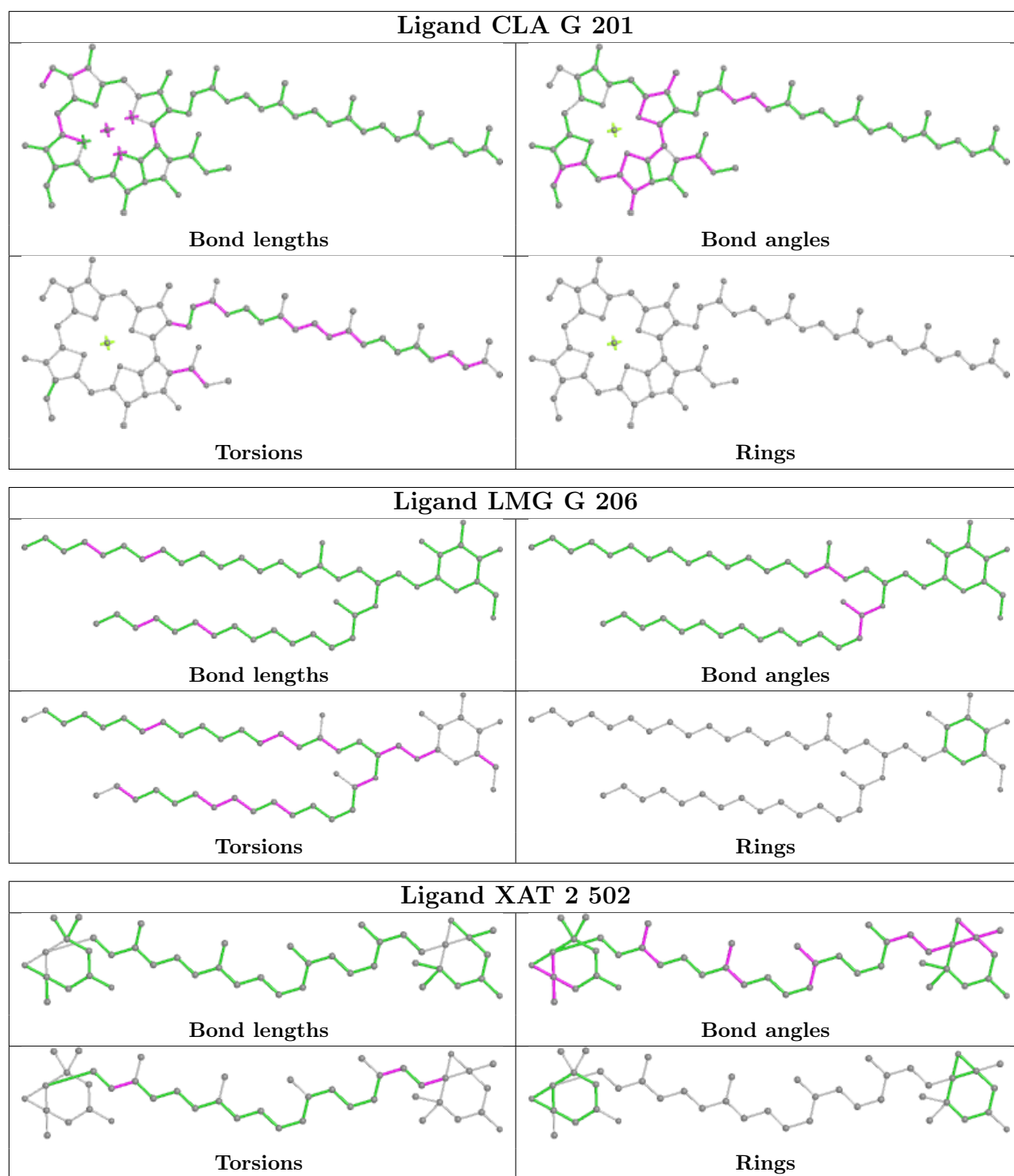


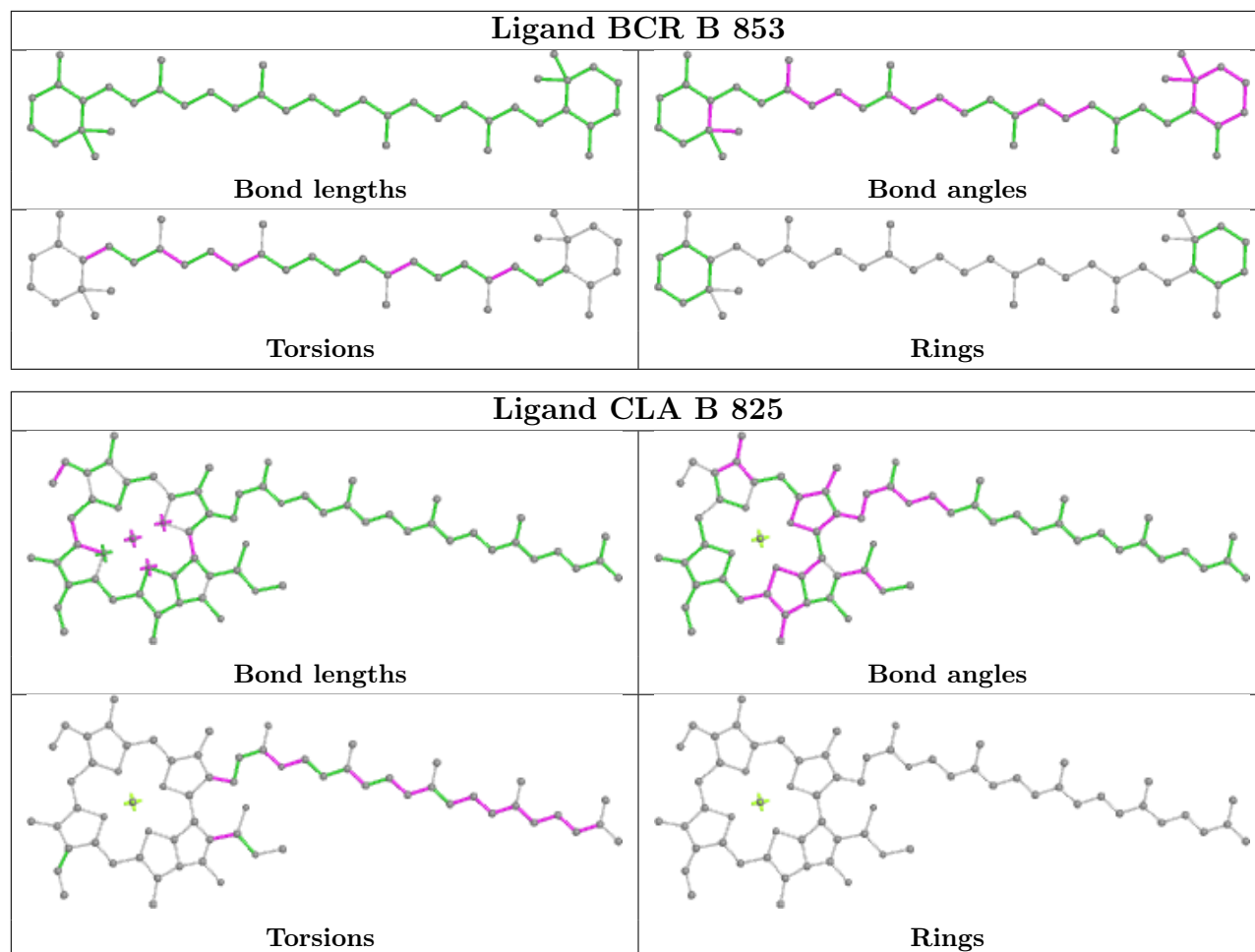


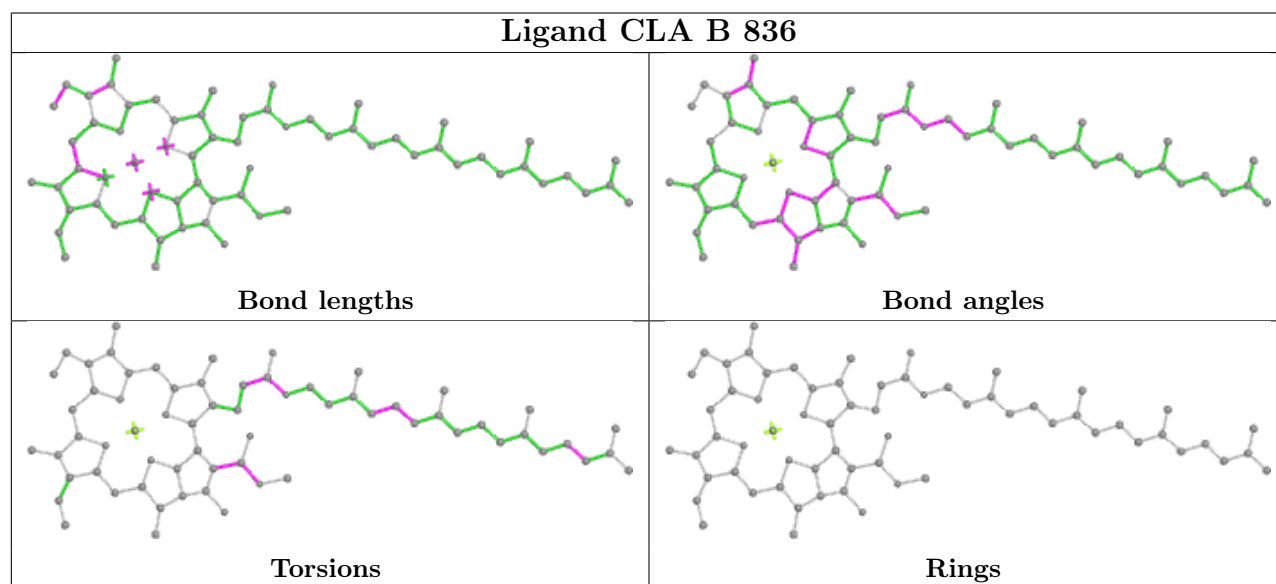
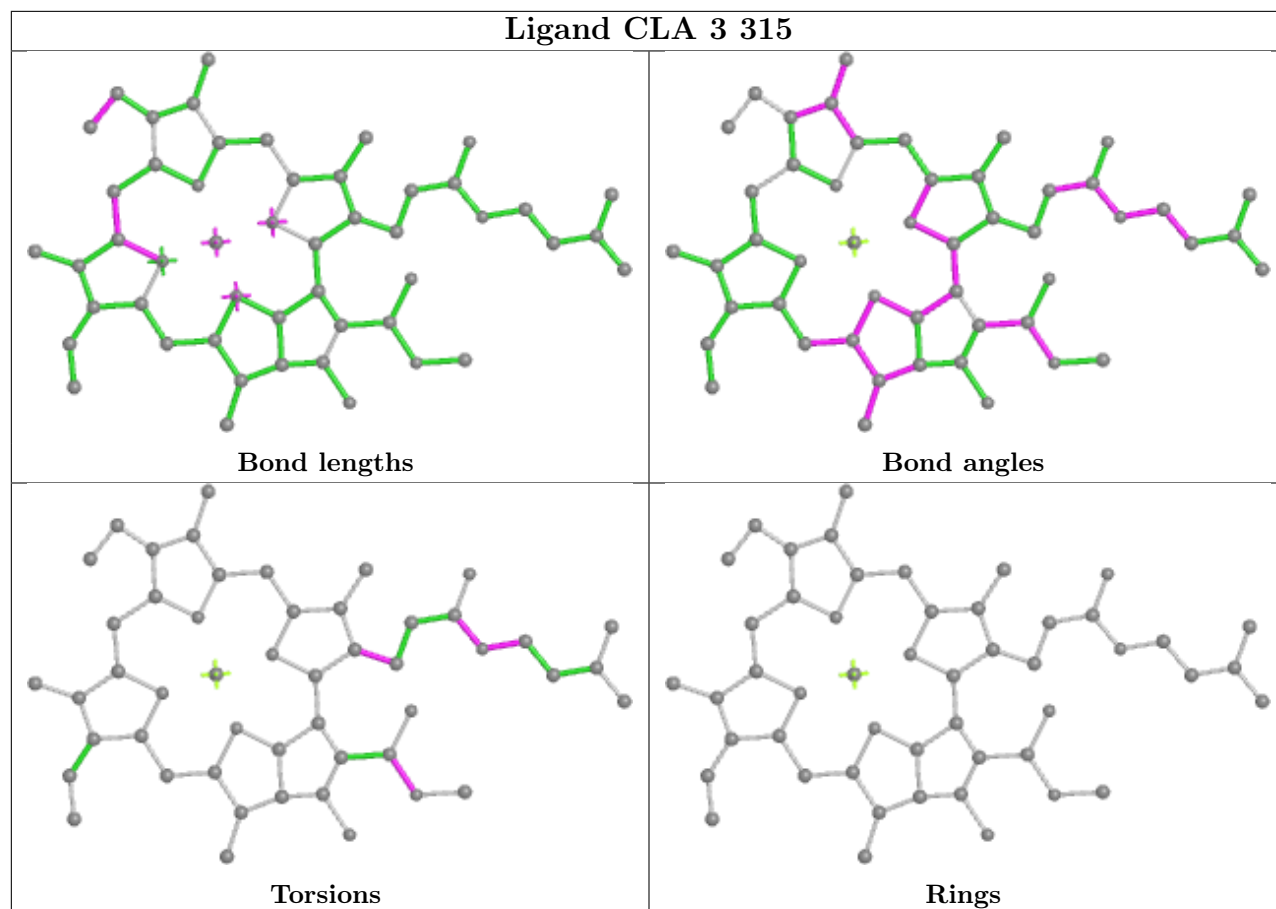


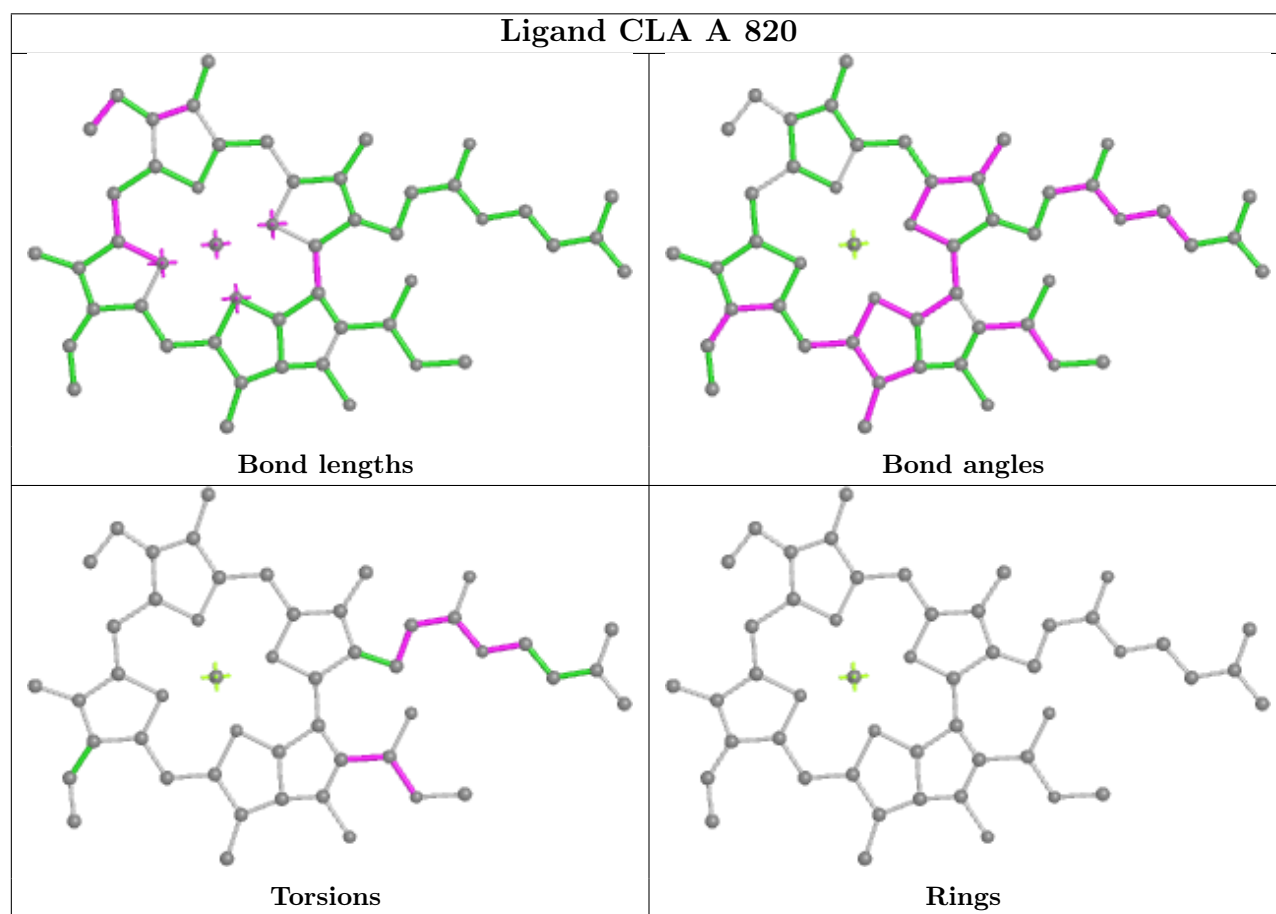
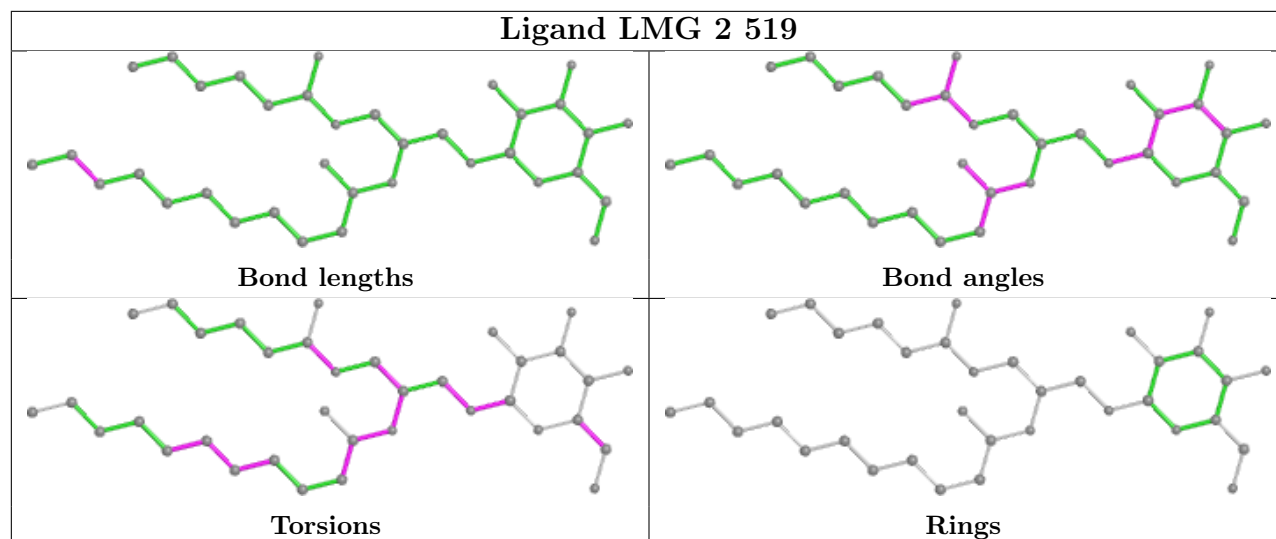


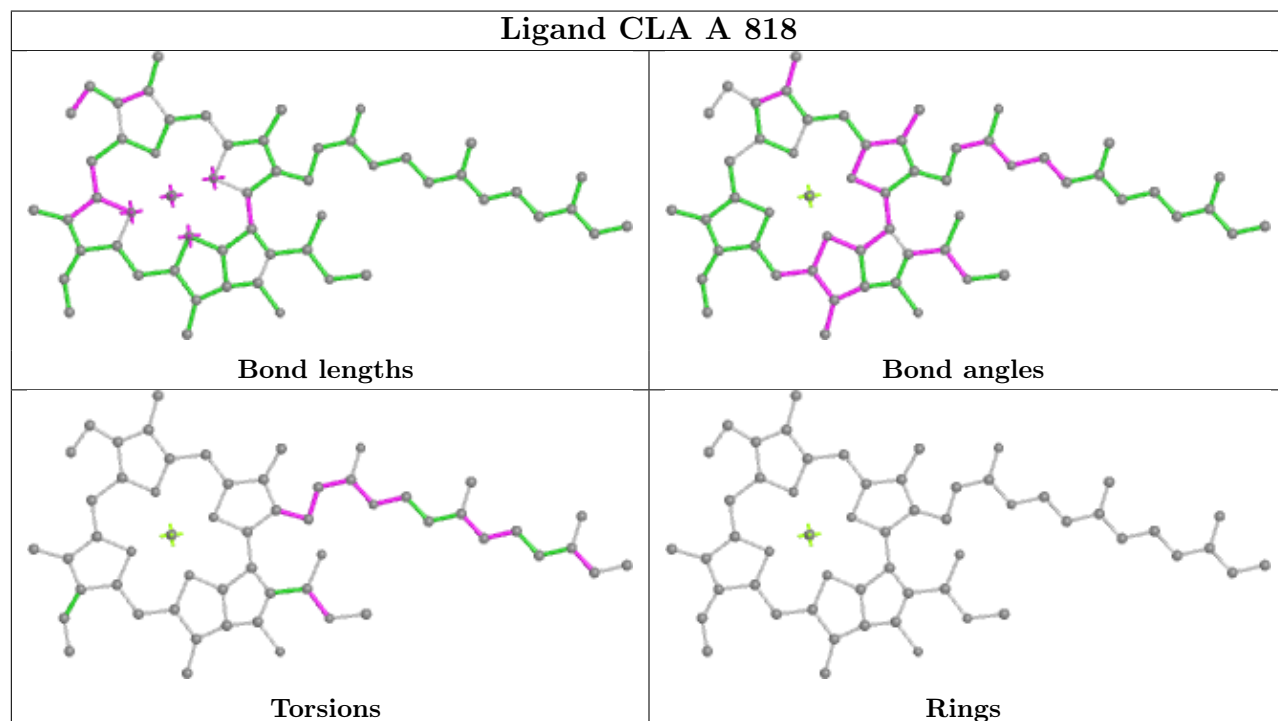
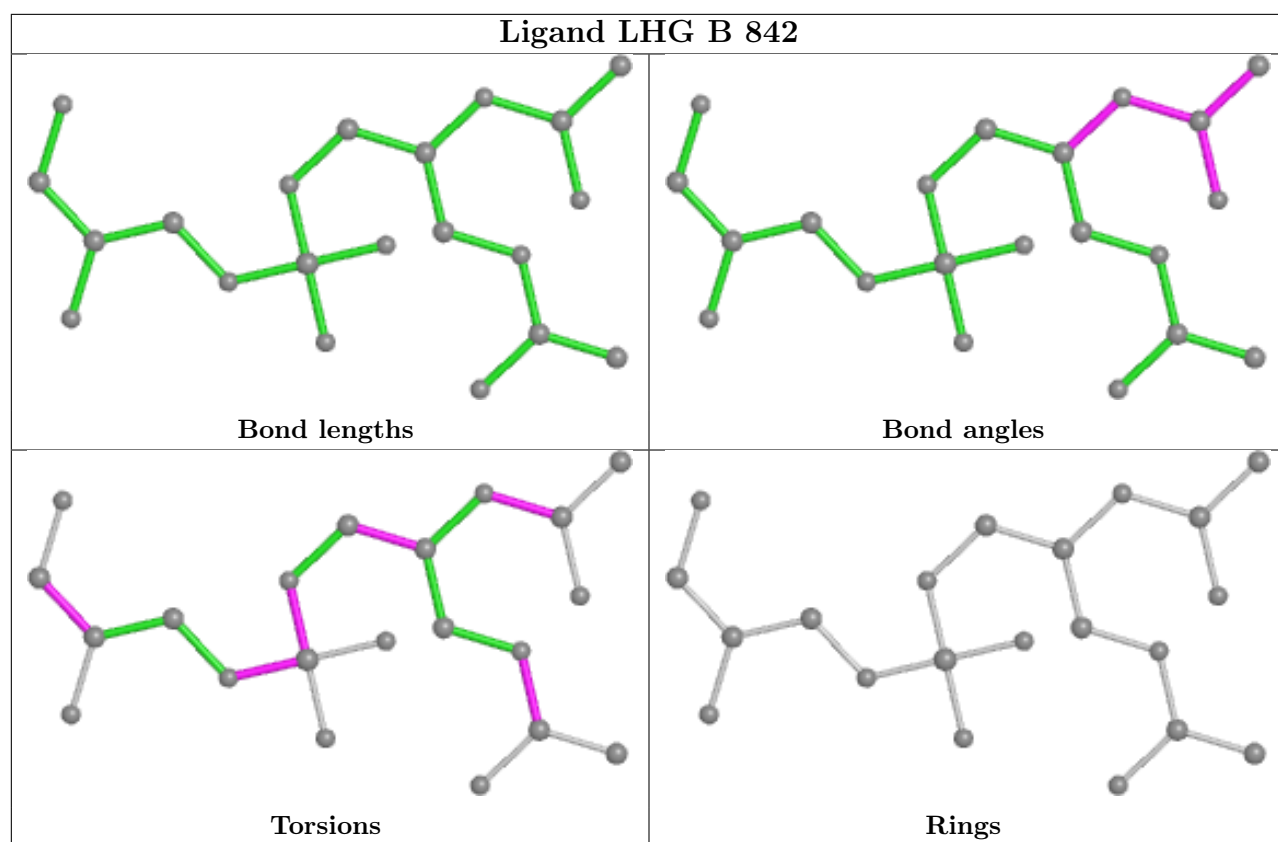


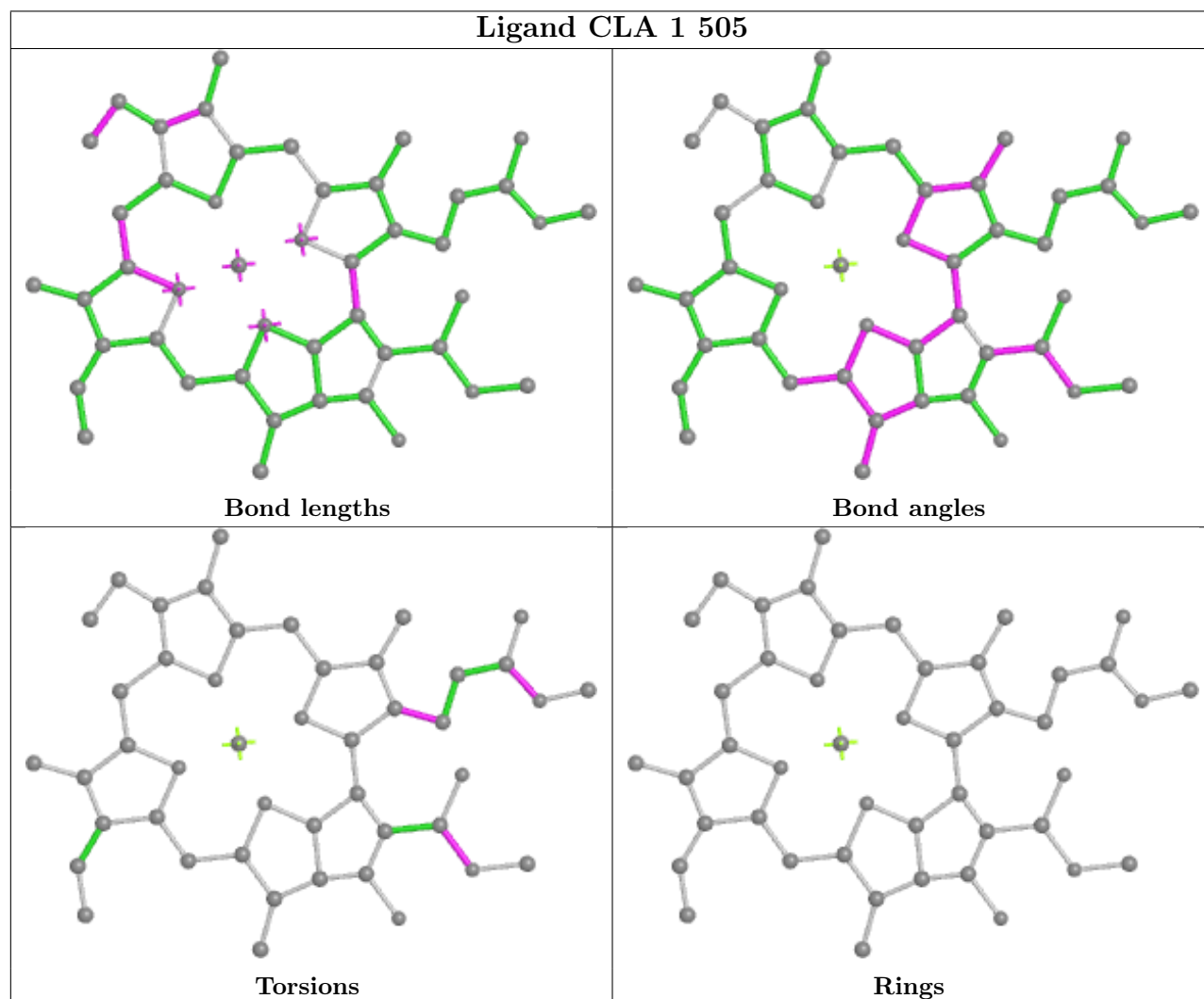
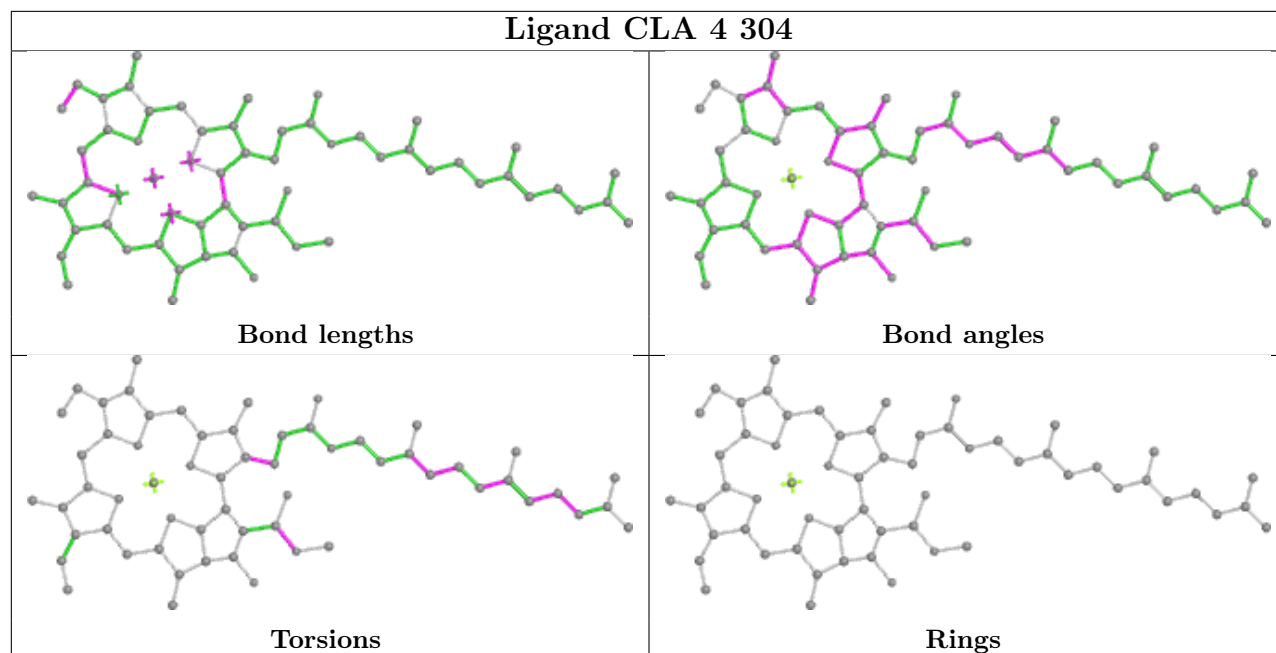




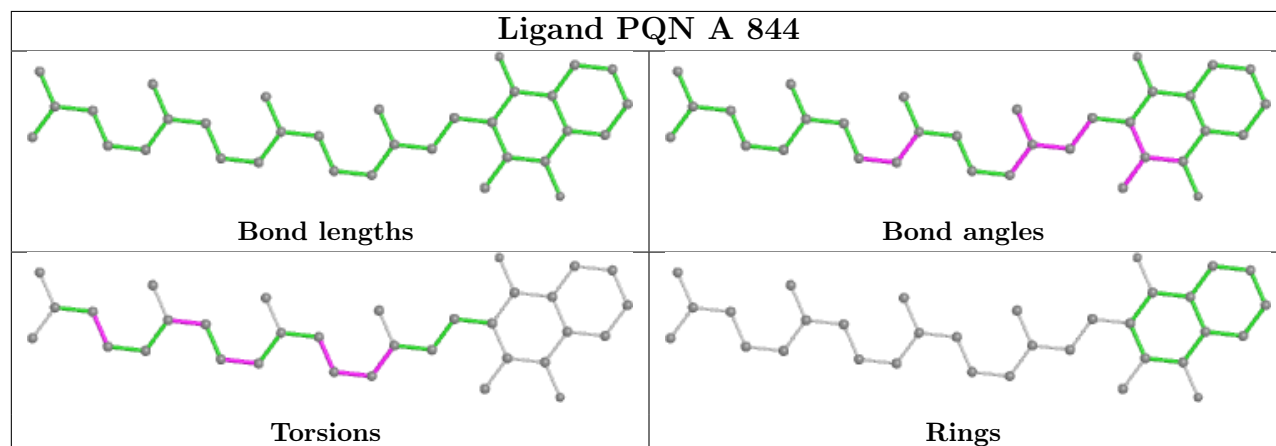
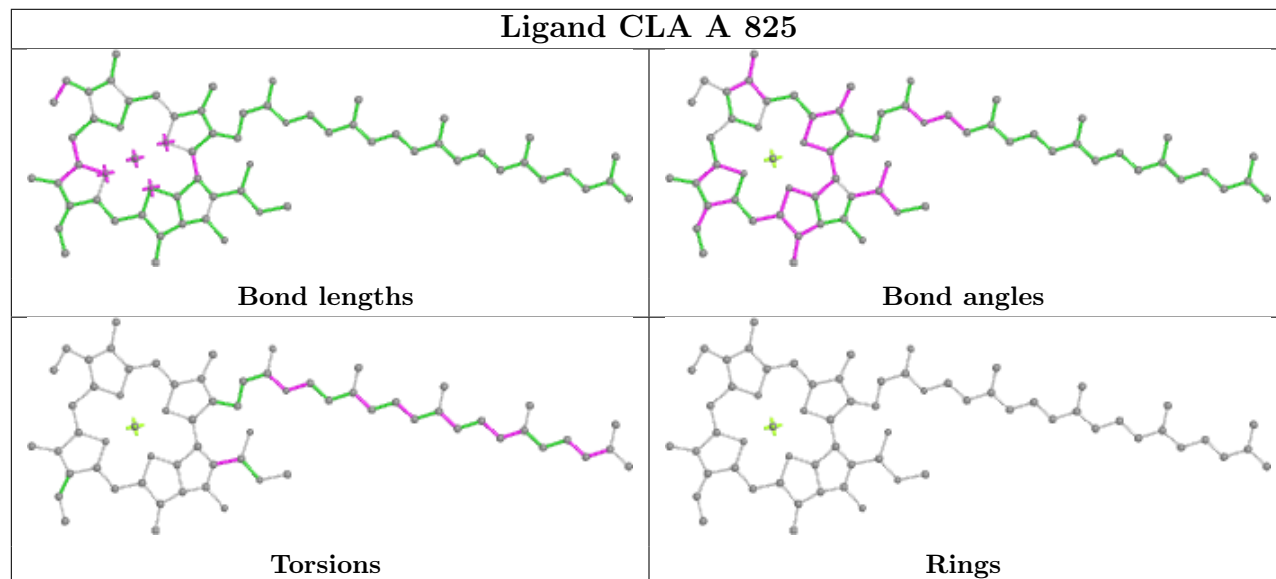
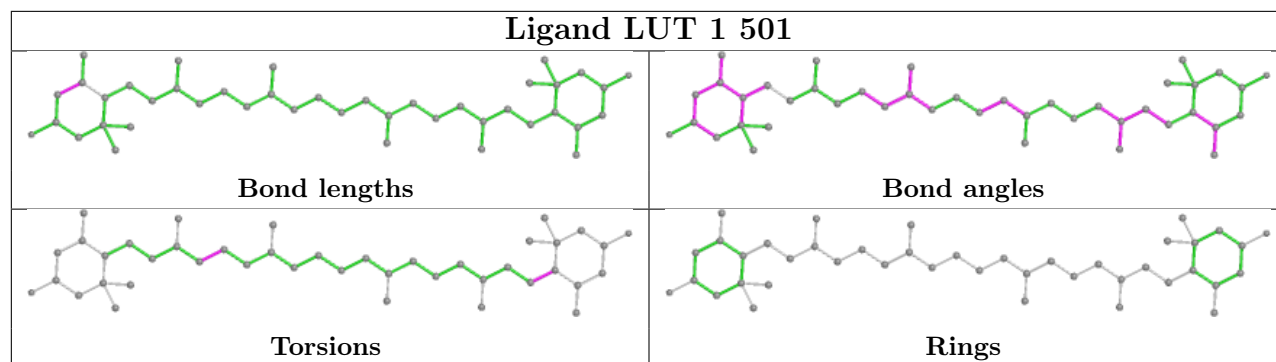


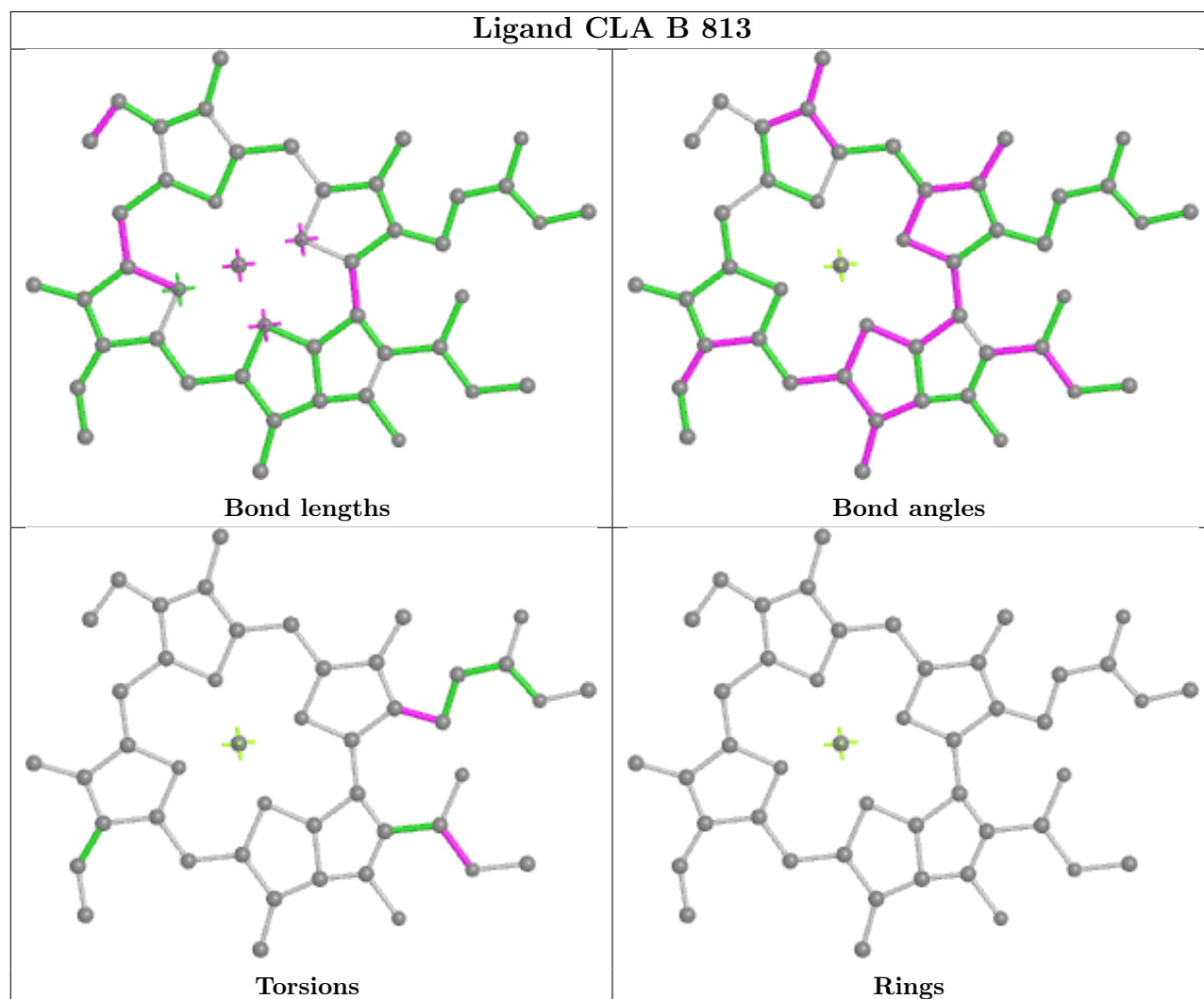
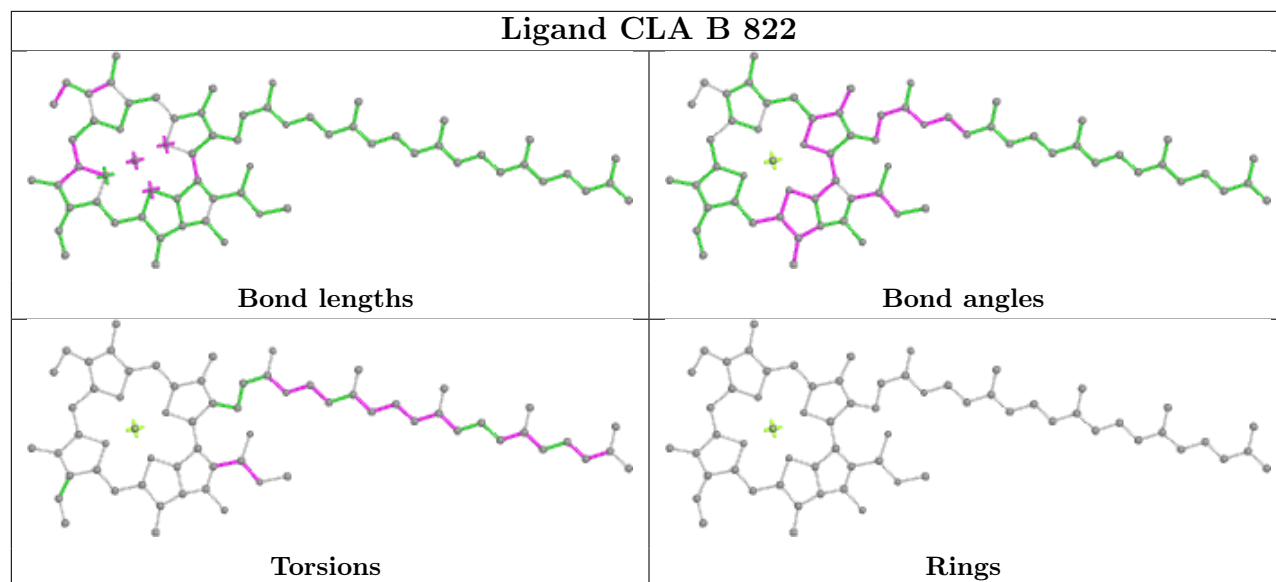


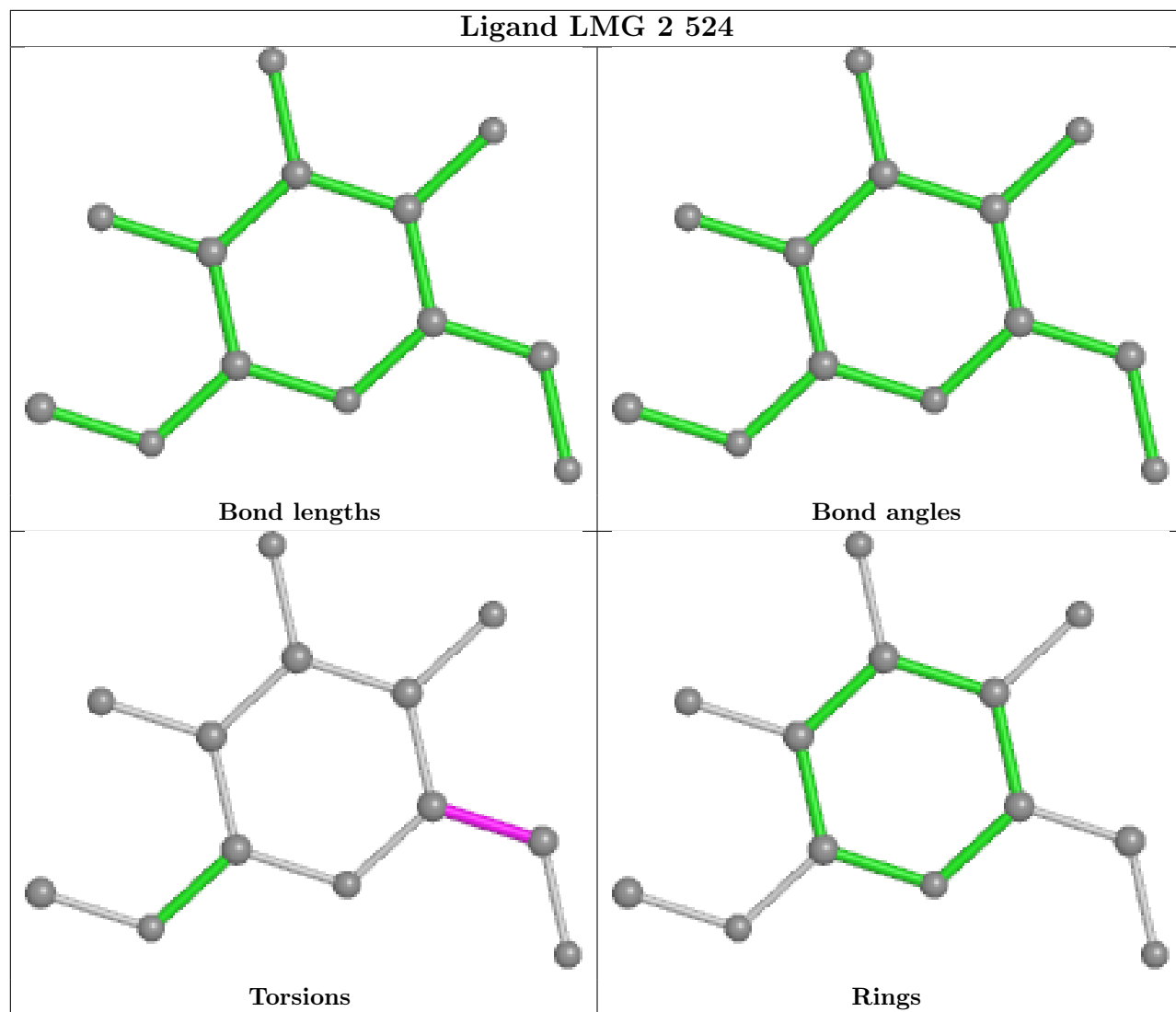


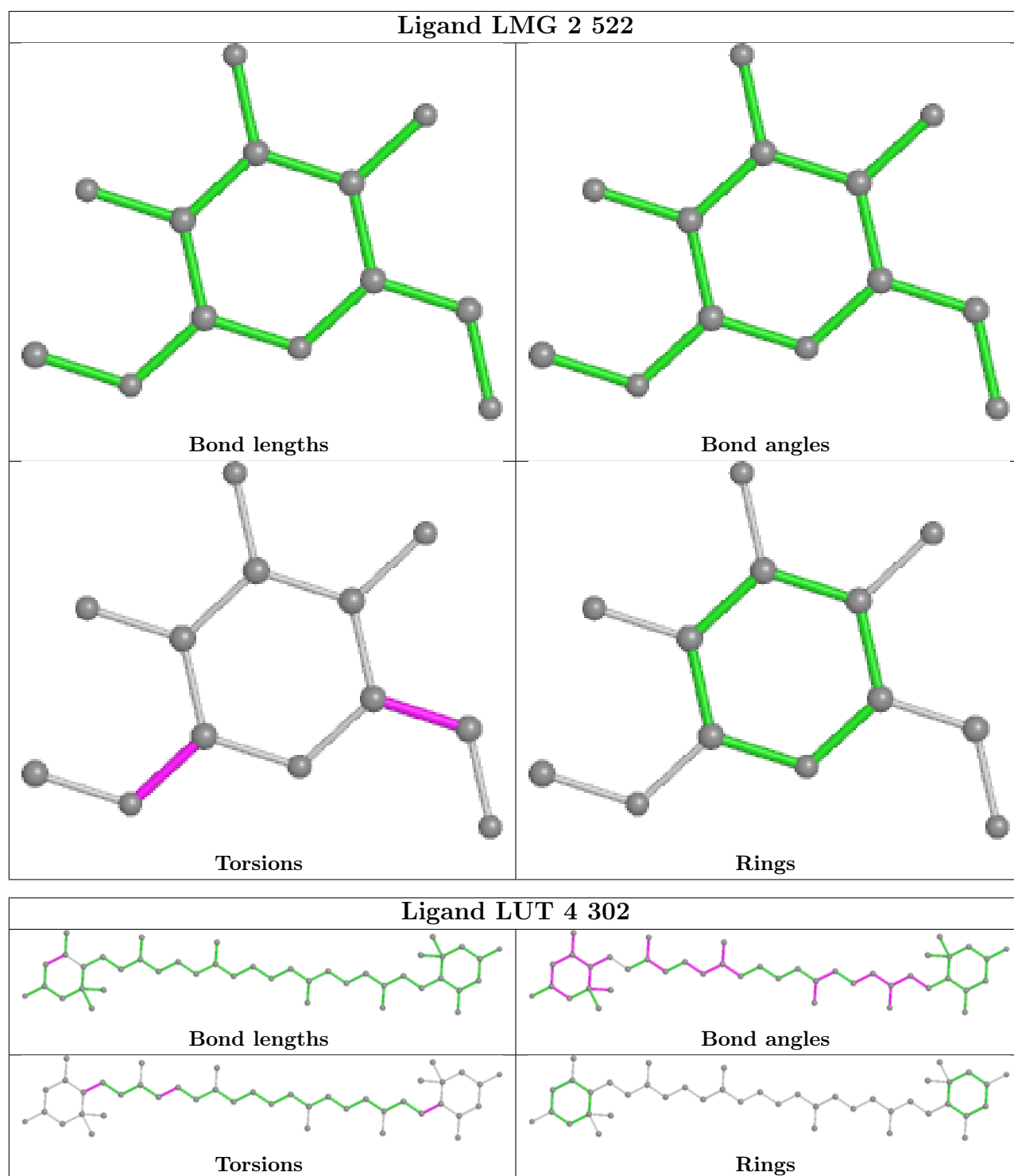


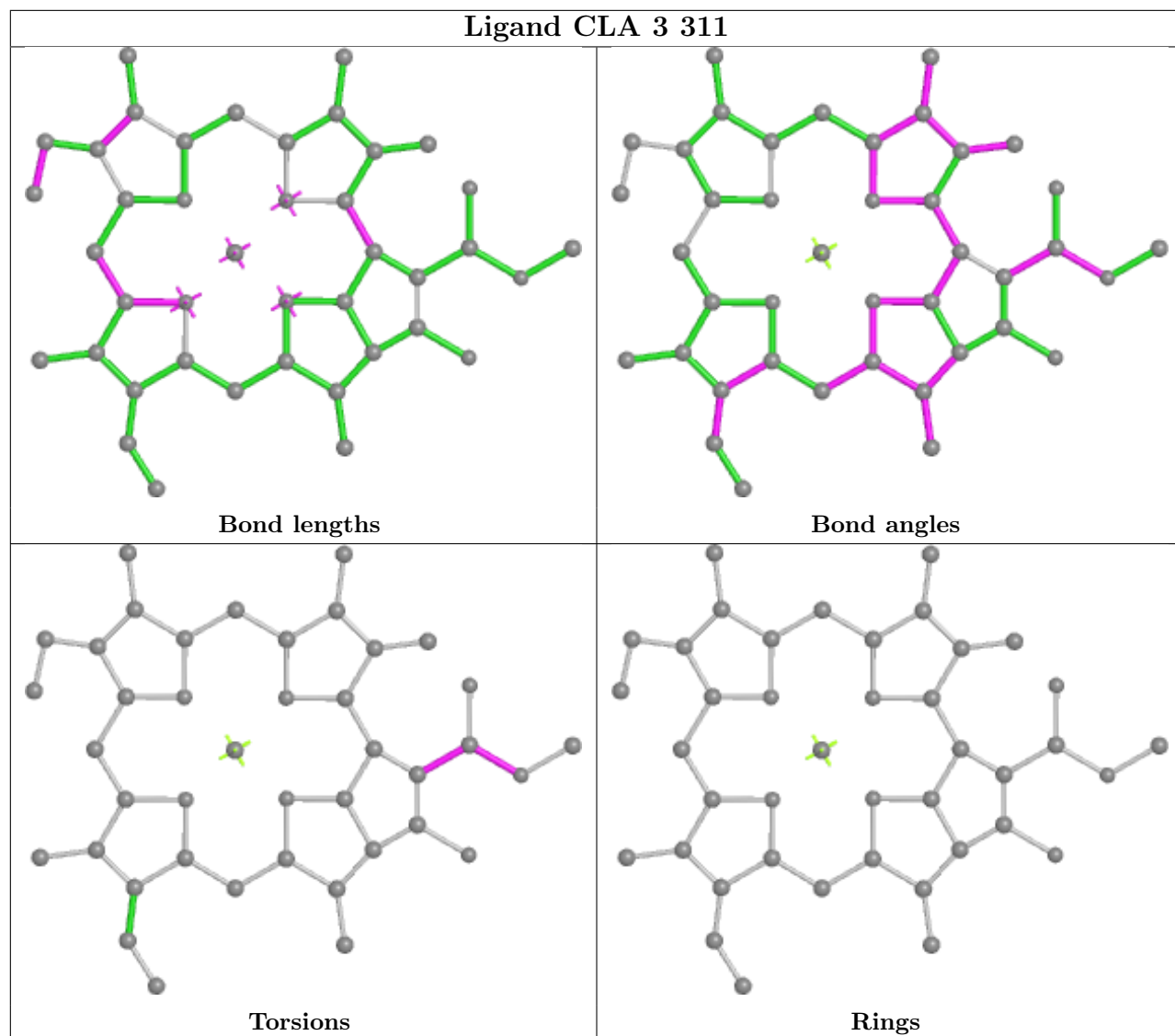




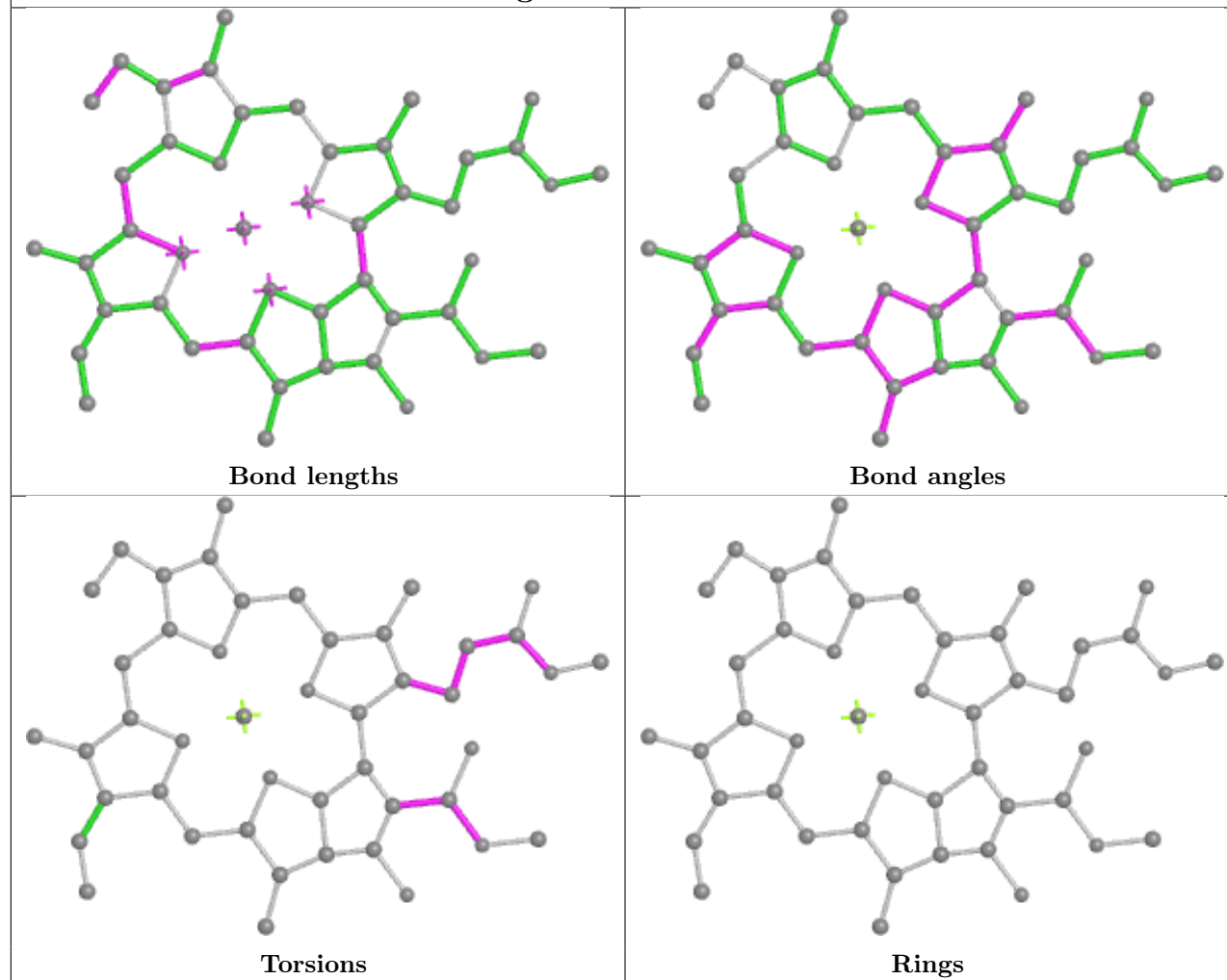




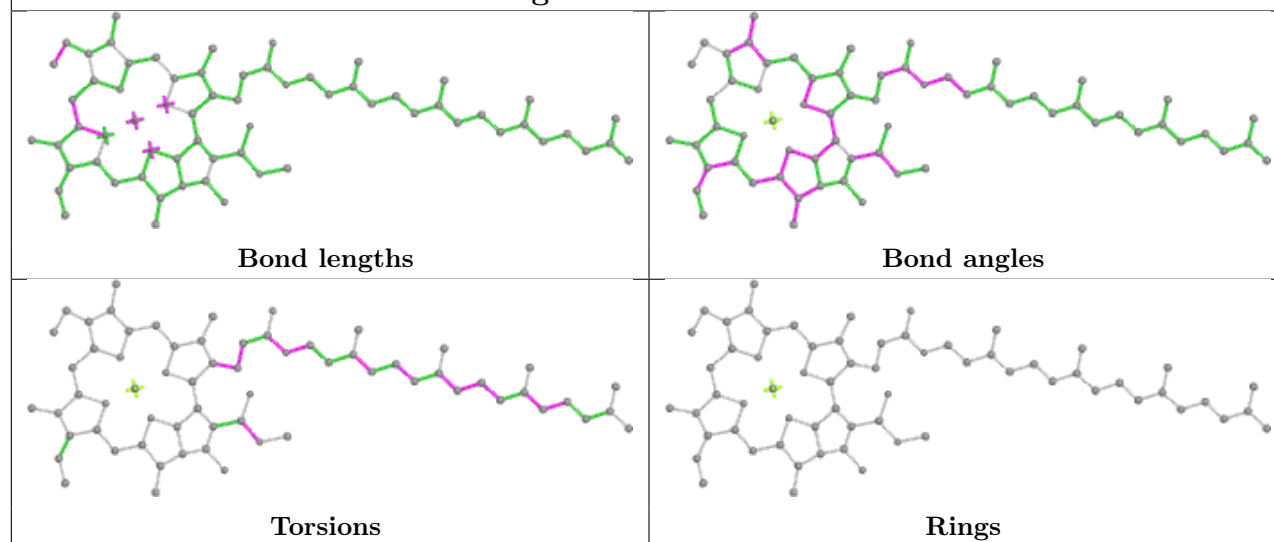


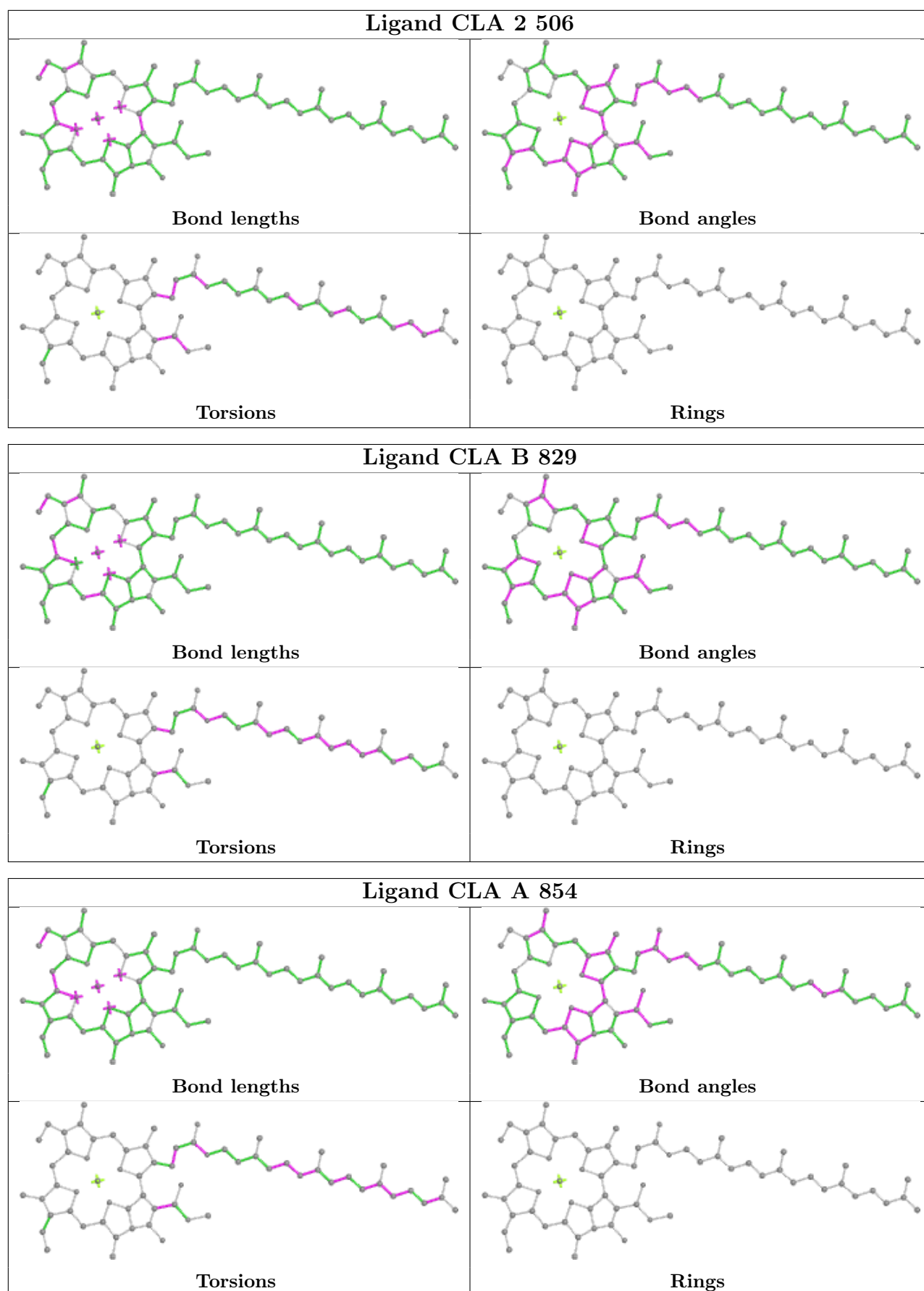


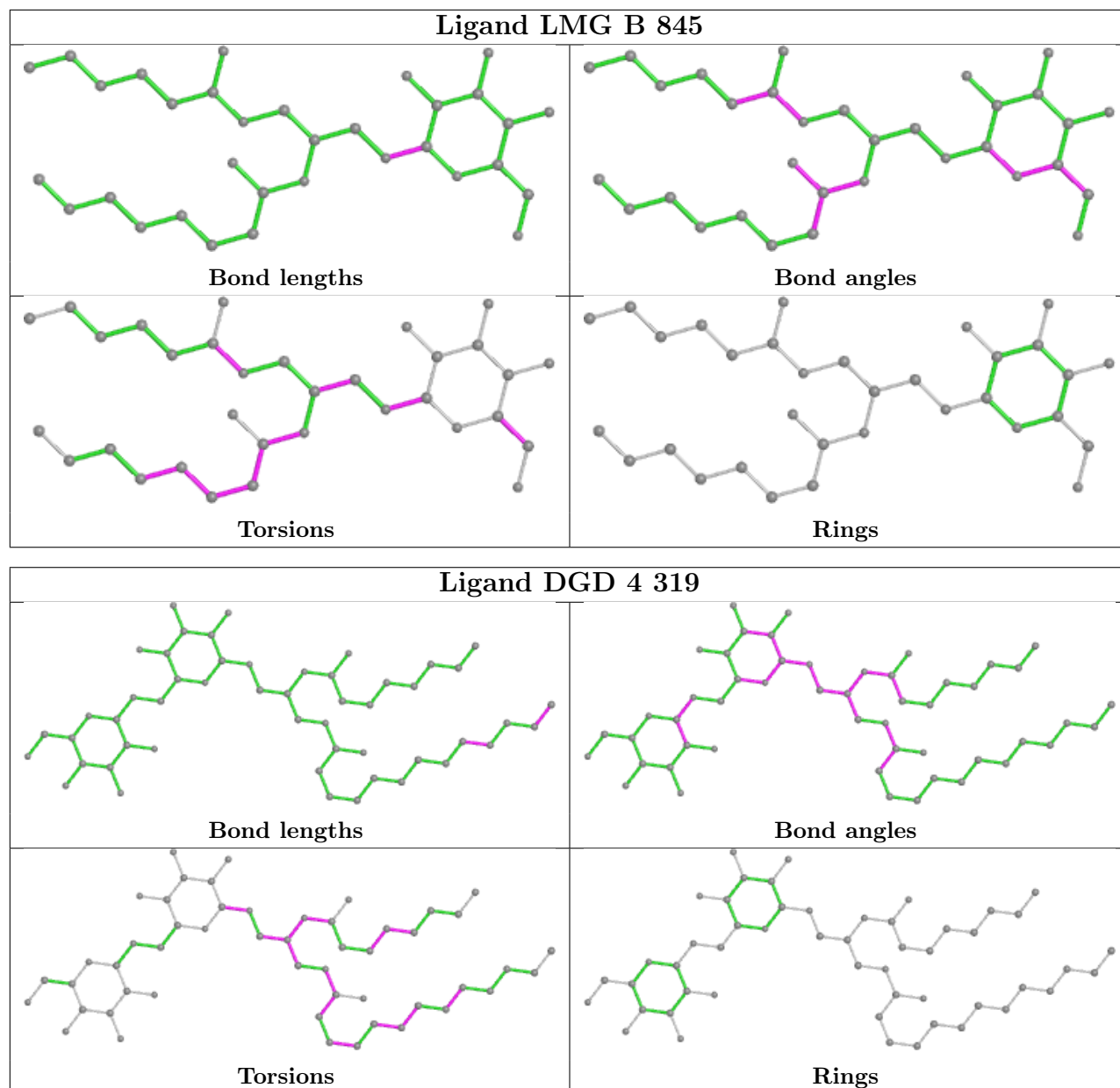
## Ligand CLA 3 316



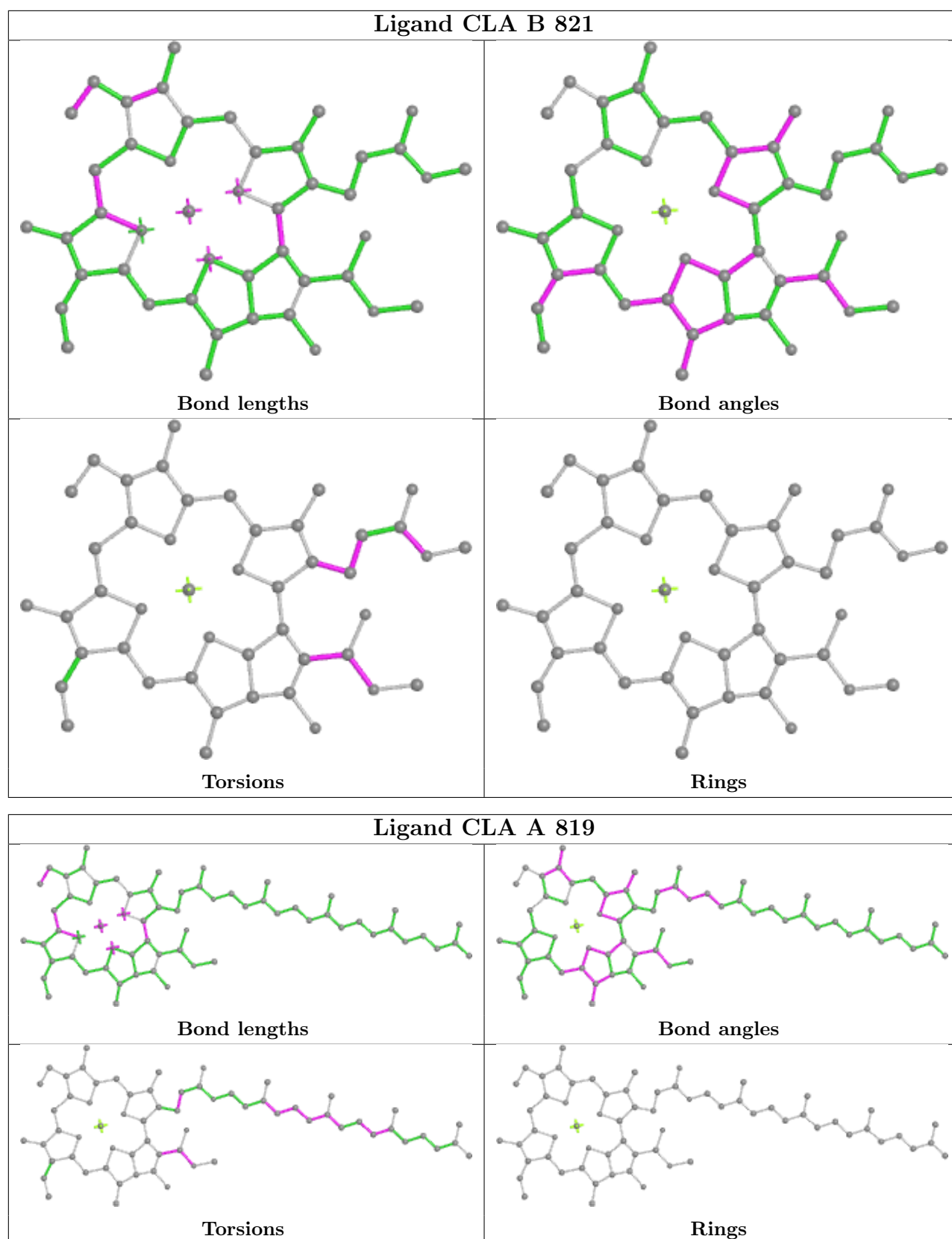
## Ligand CLA A 821

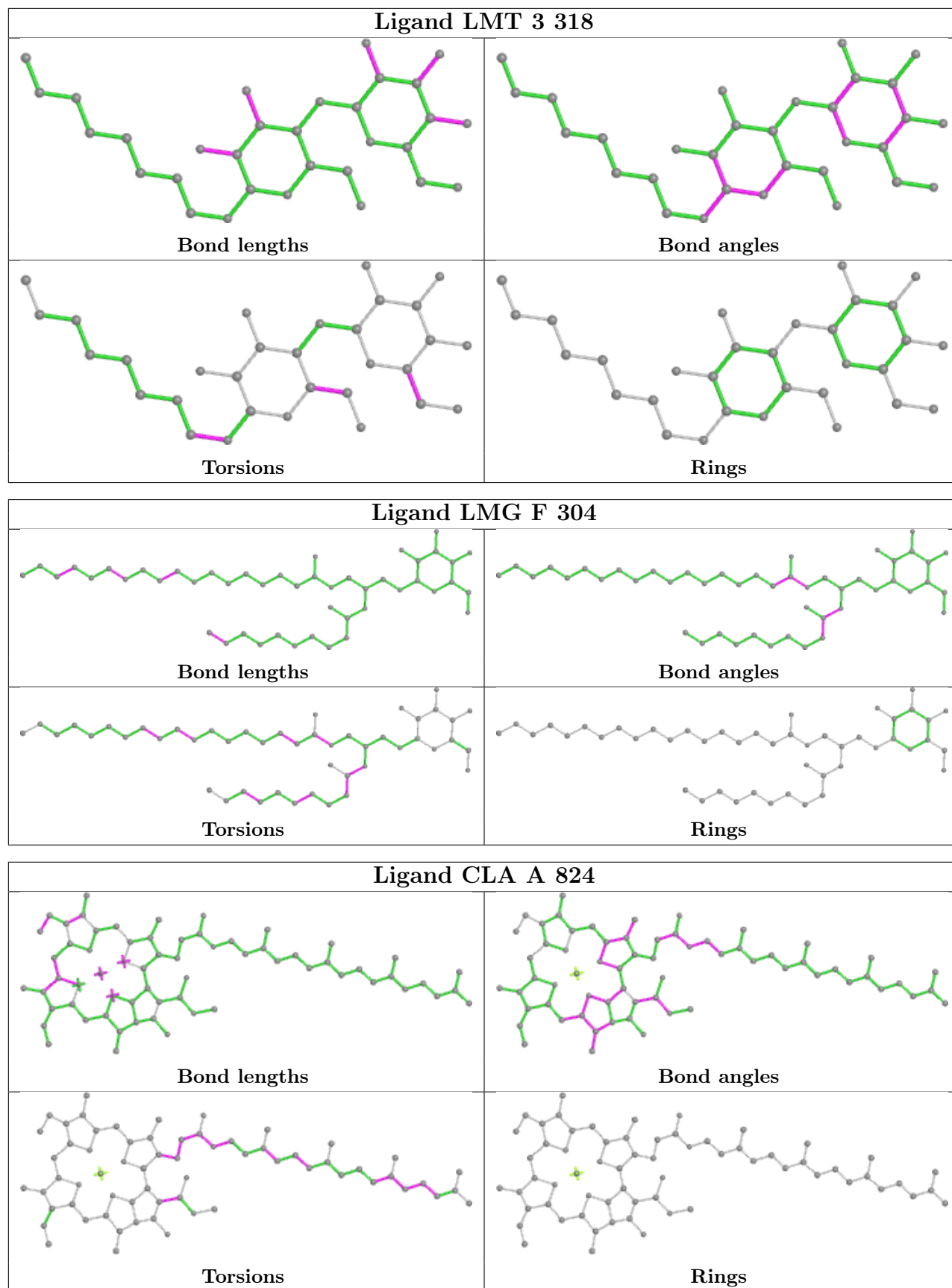


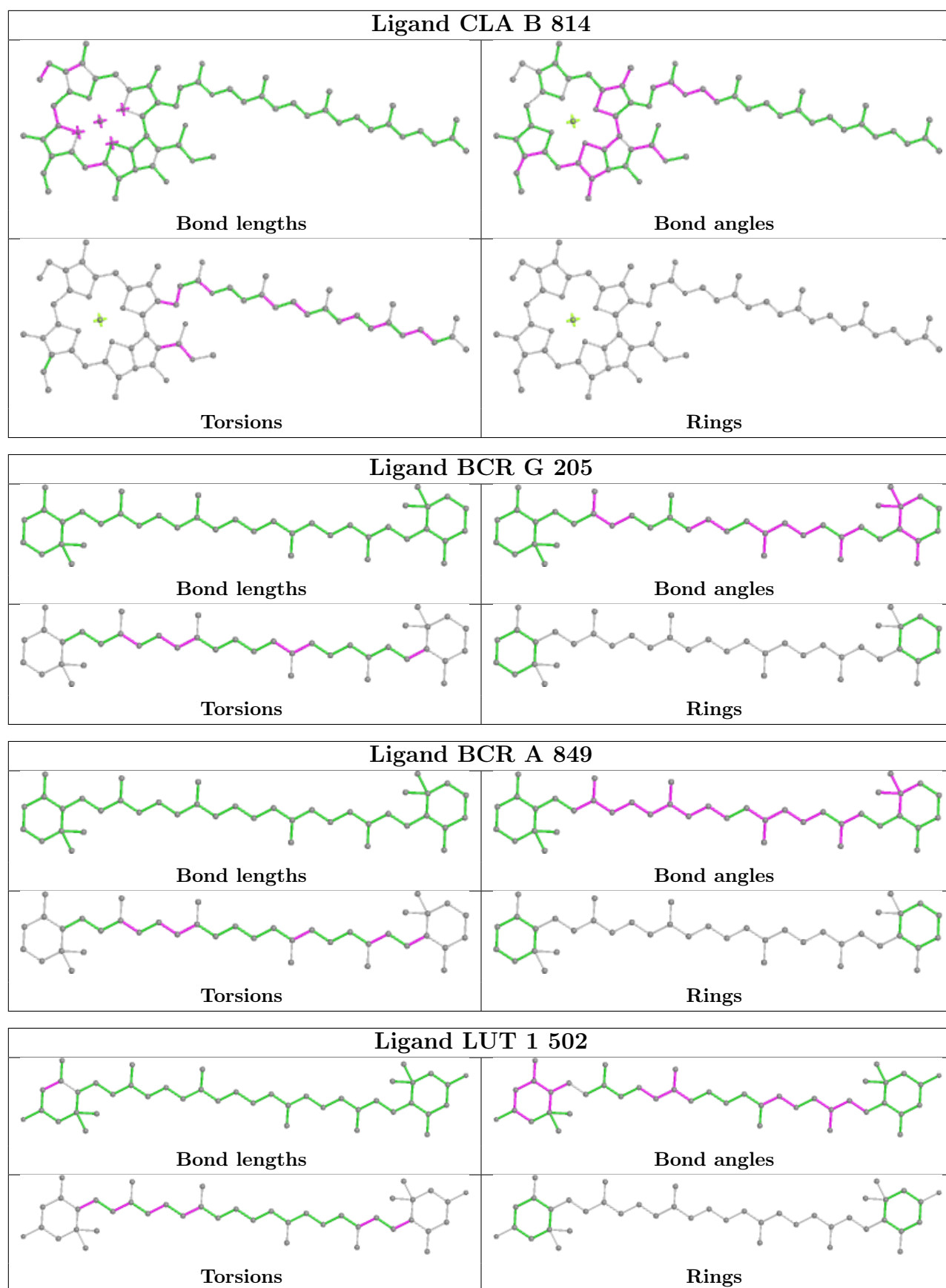


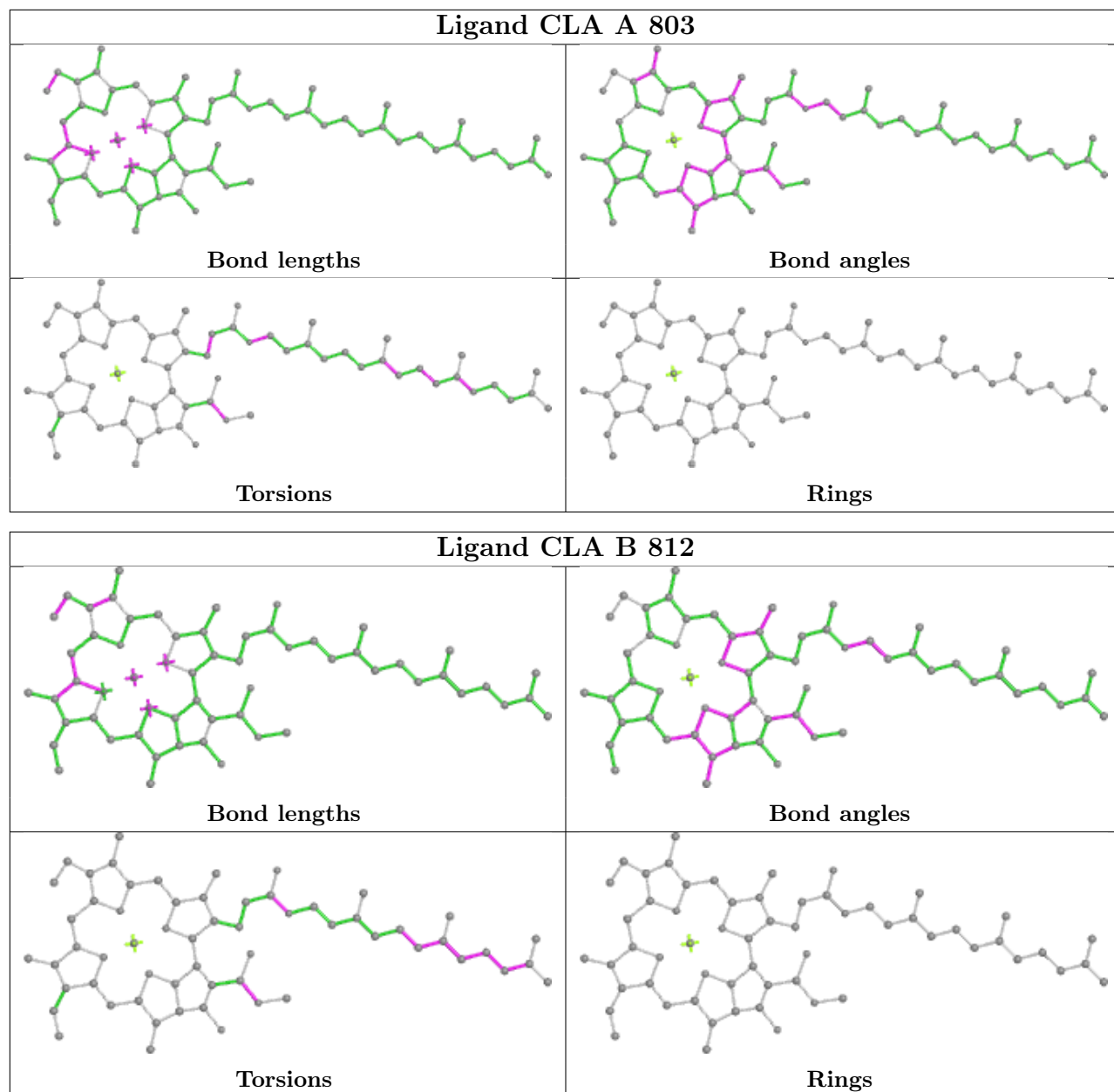


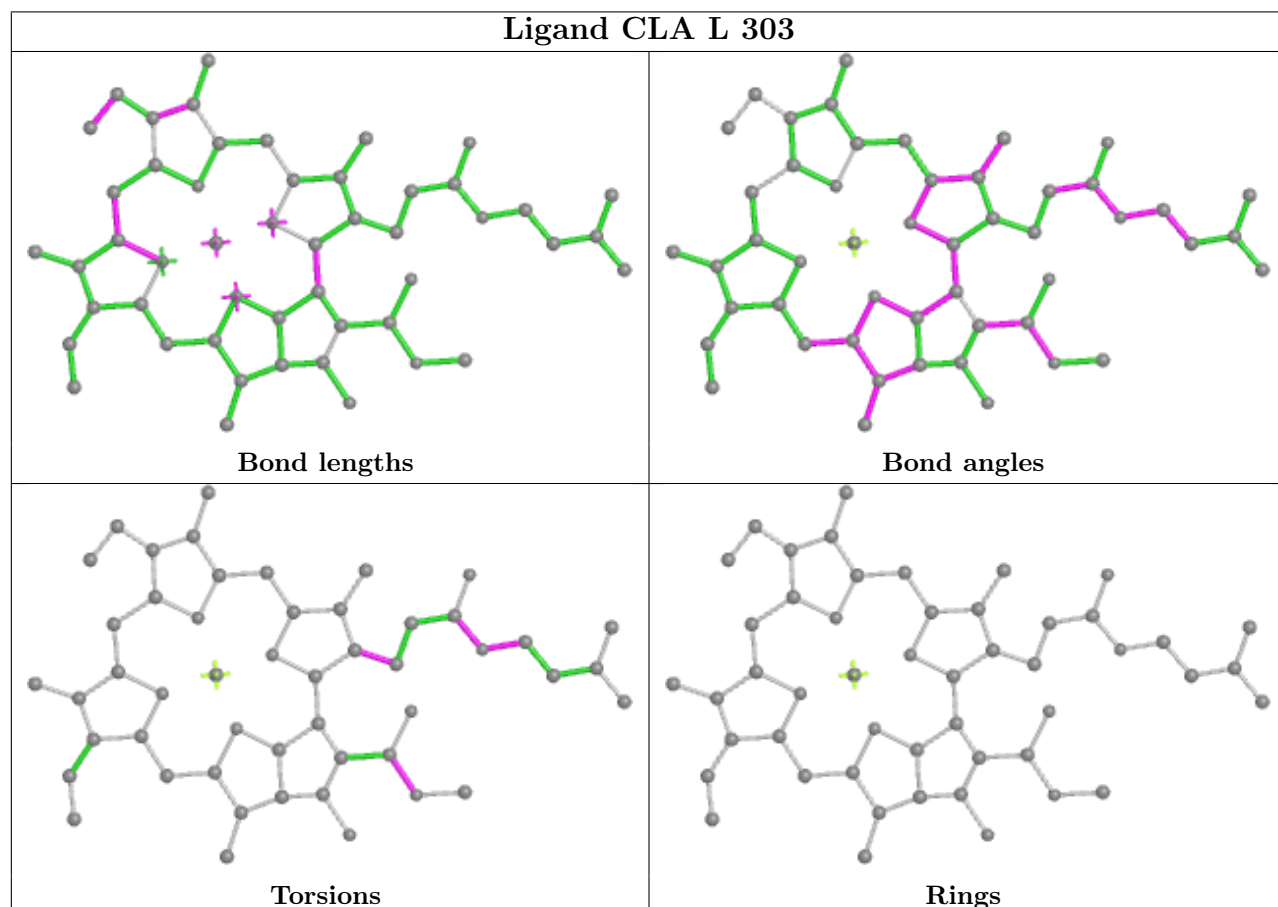
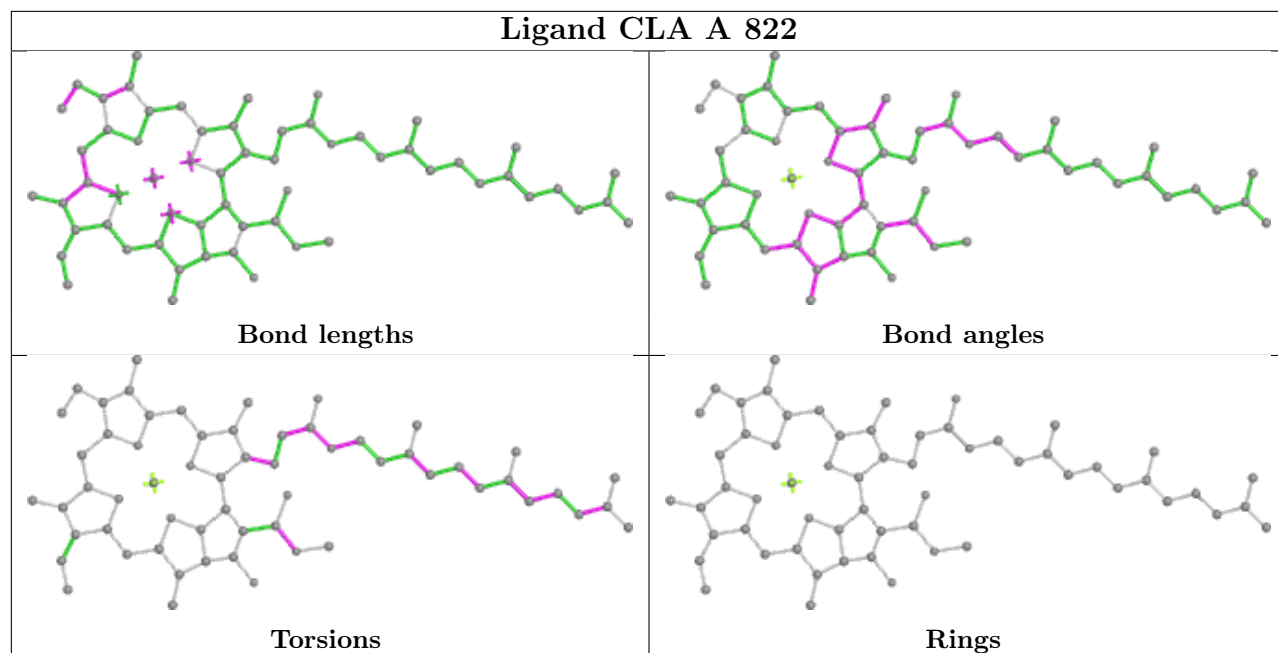


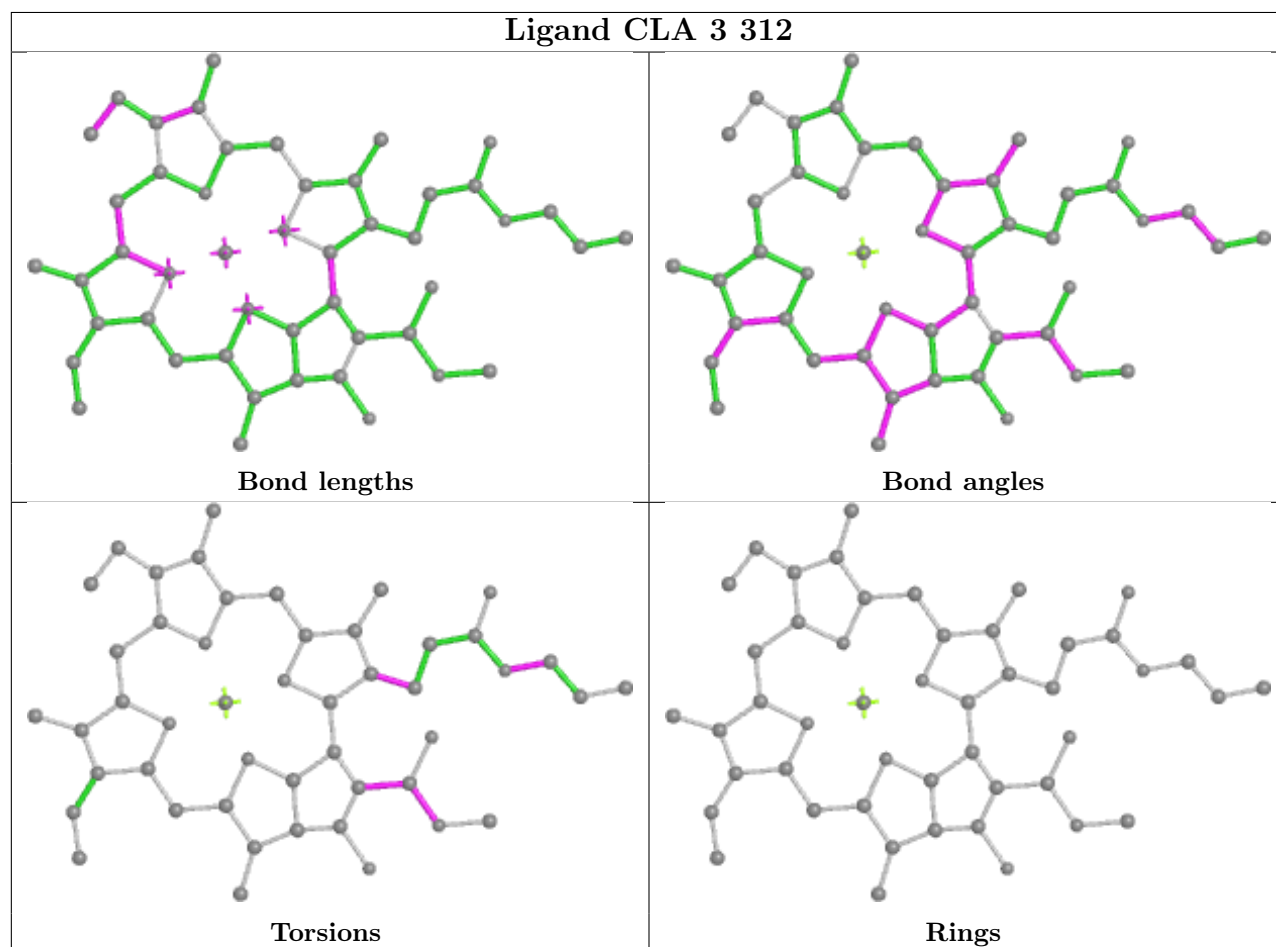
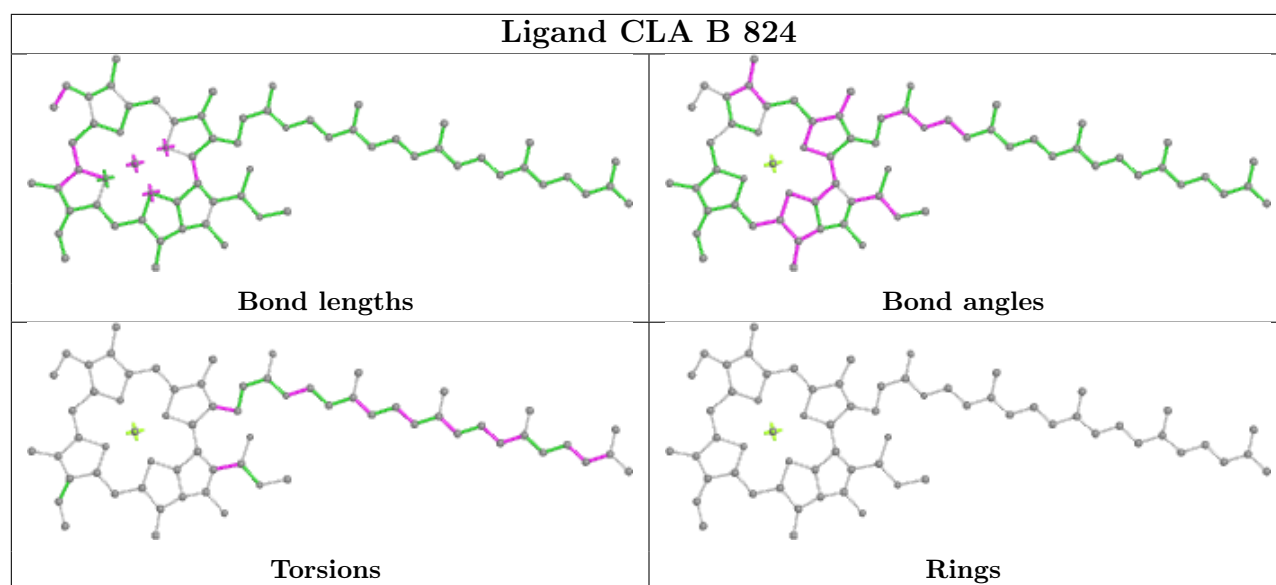


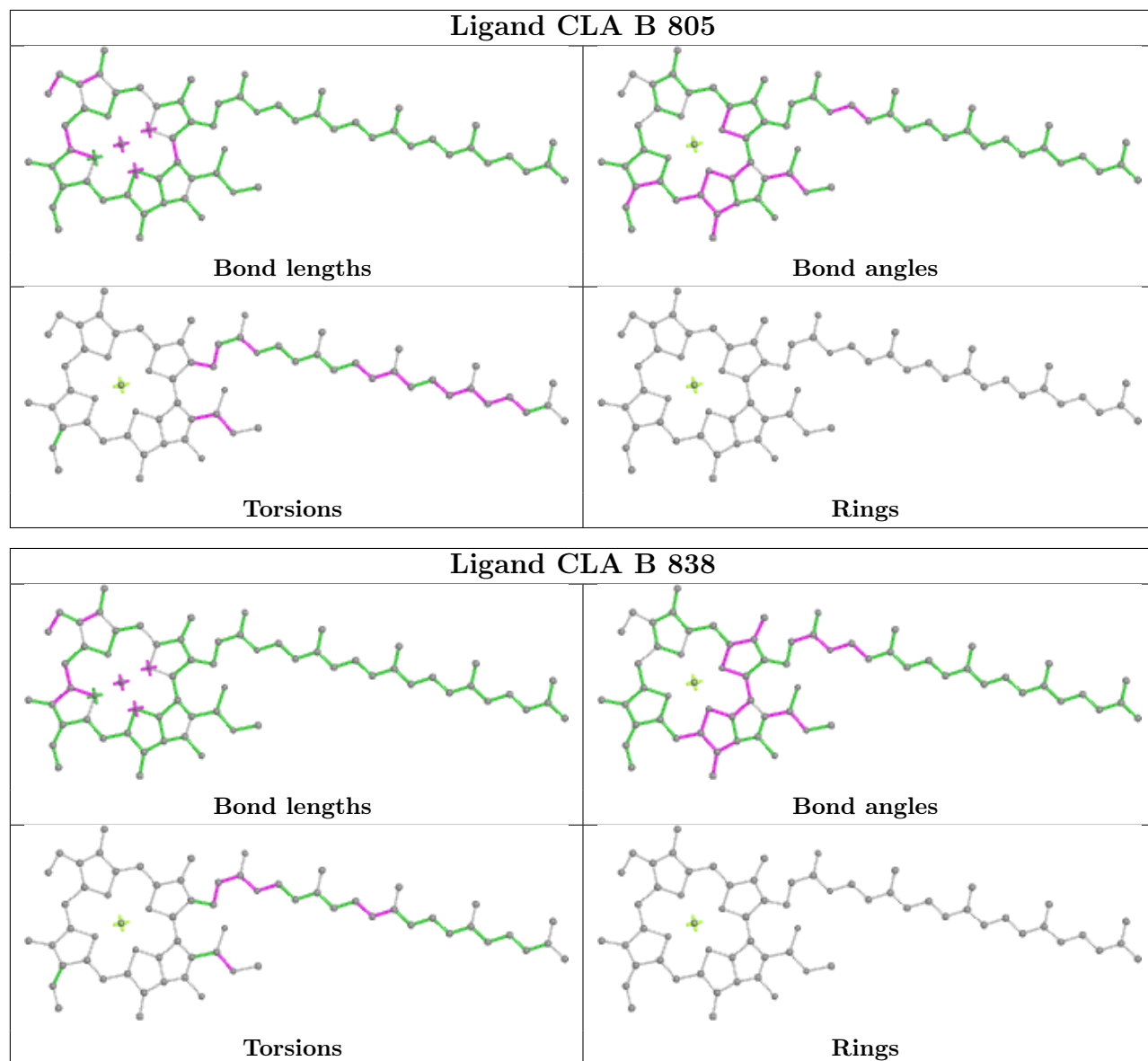


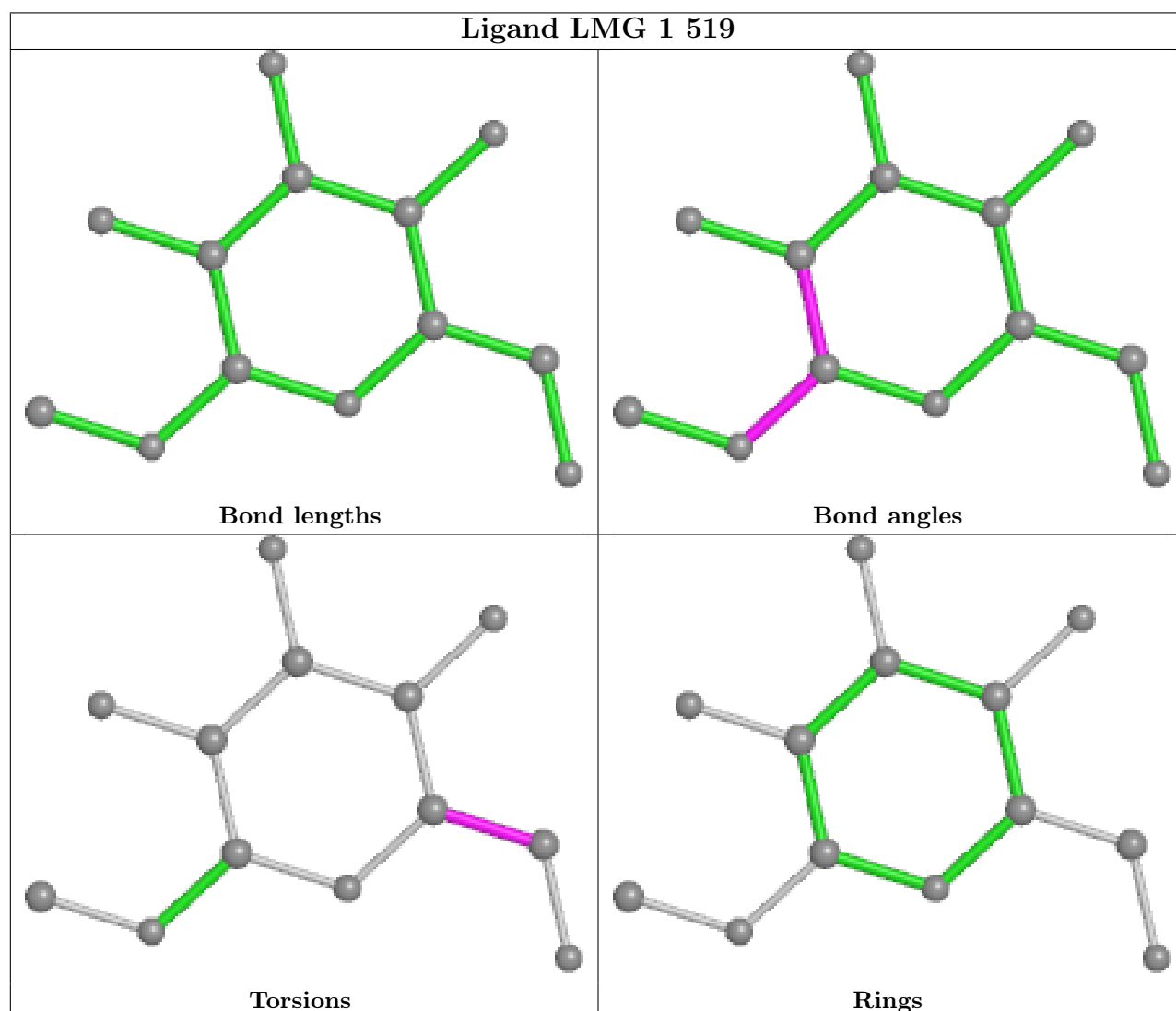
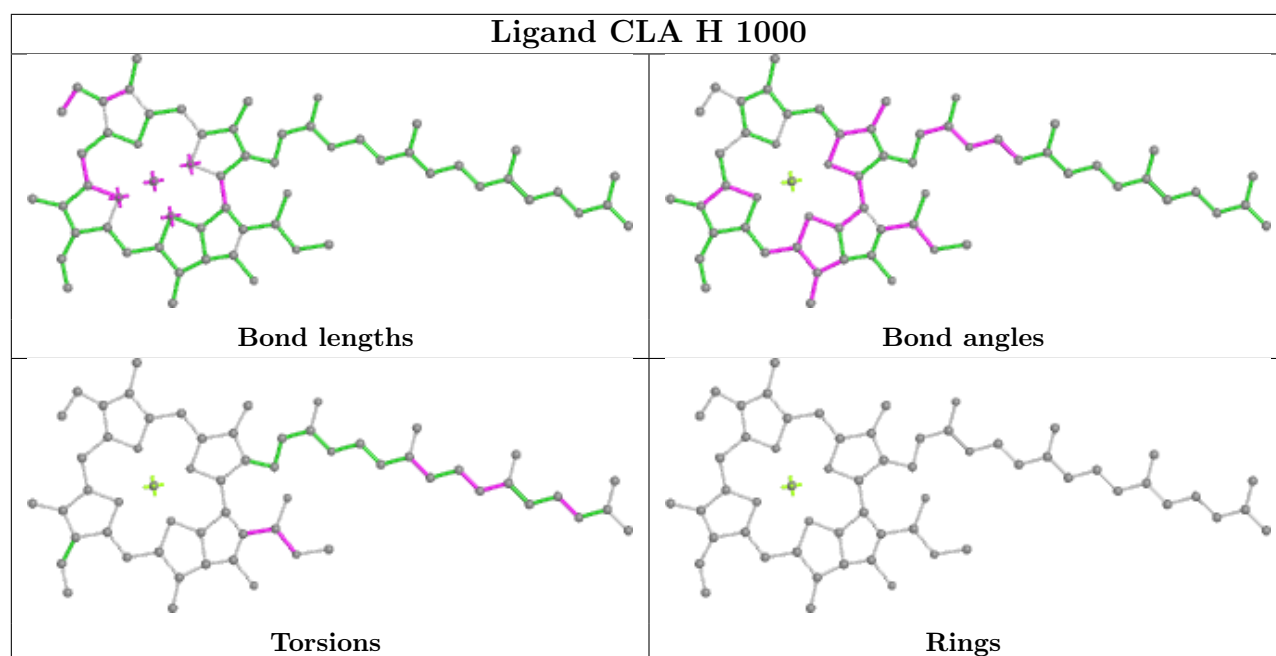




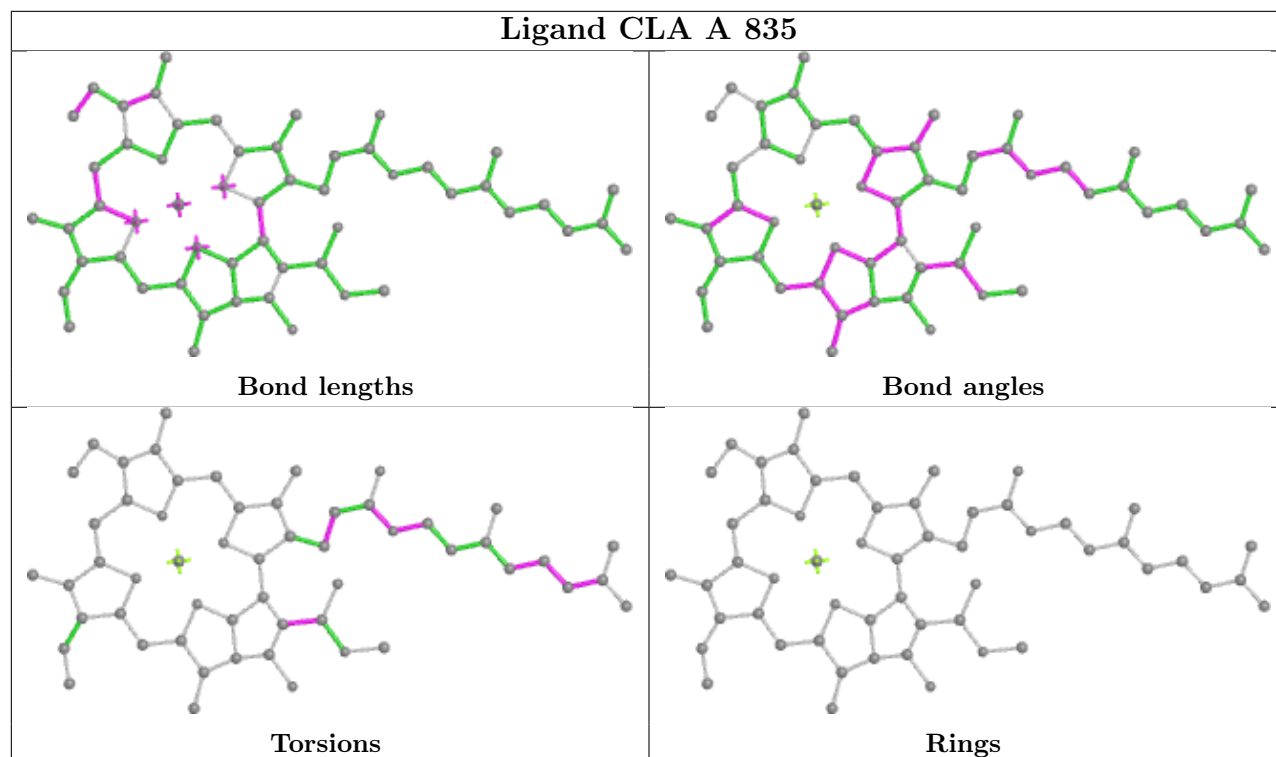
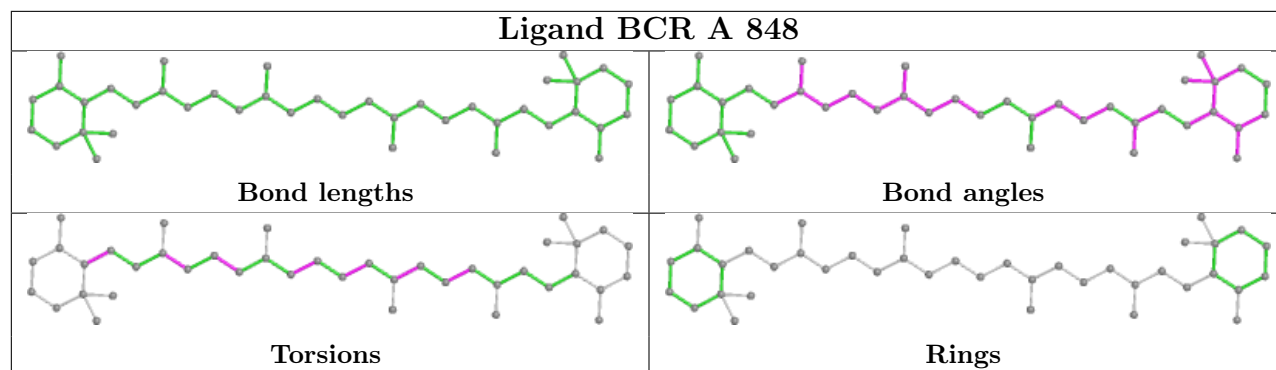


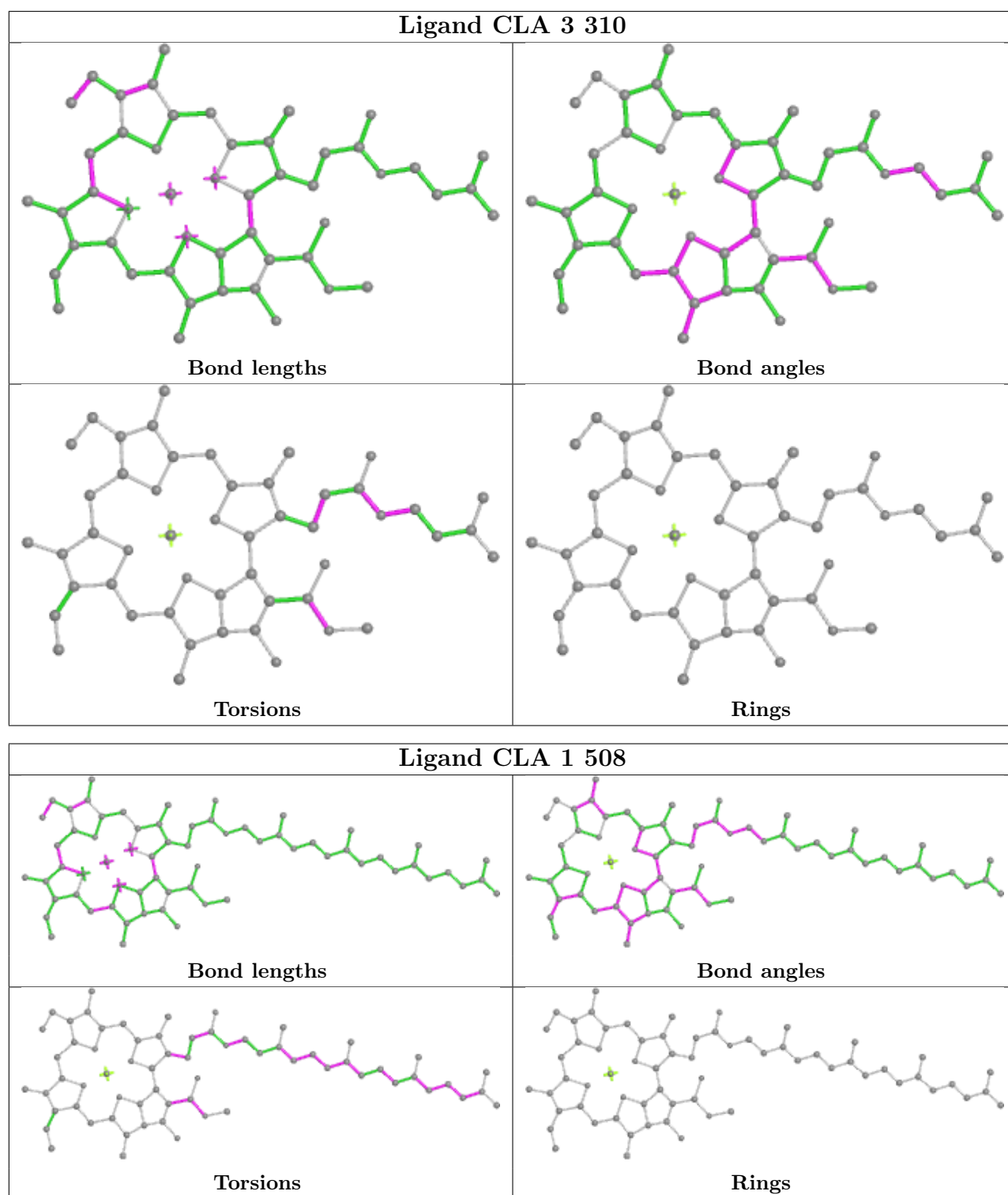


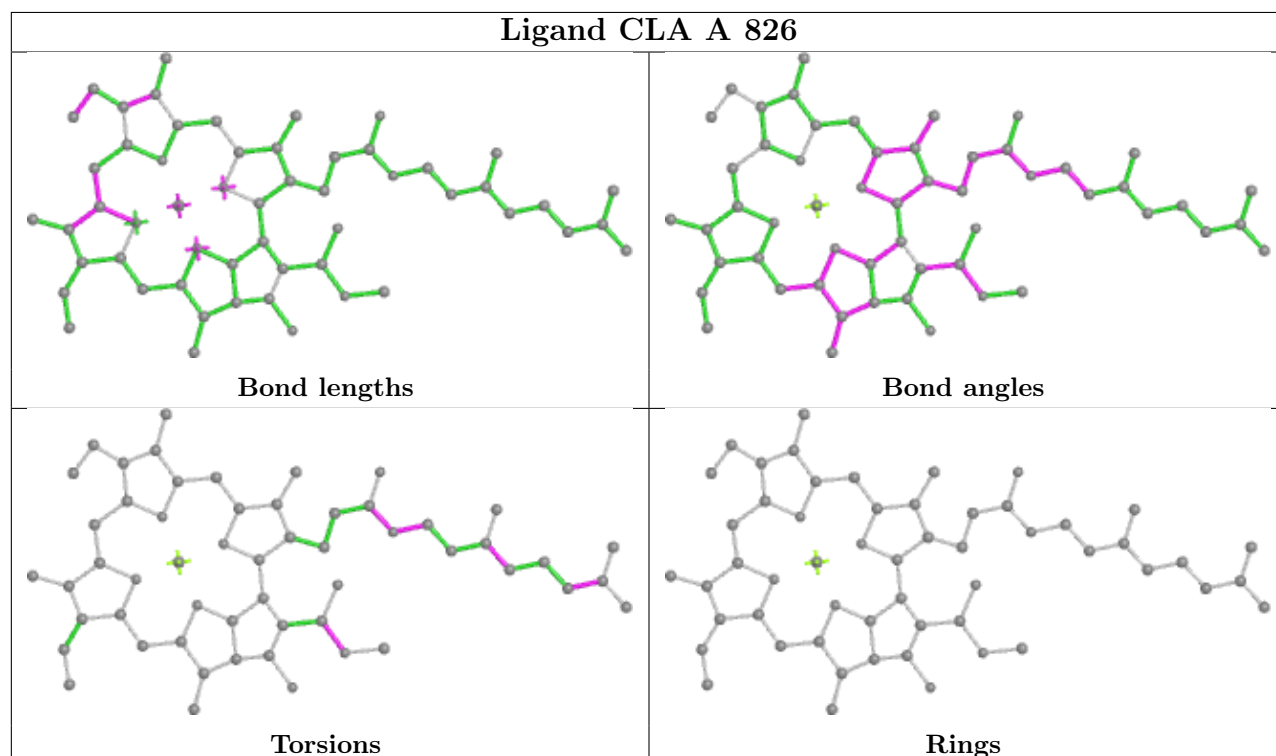
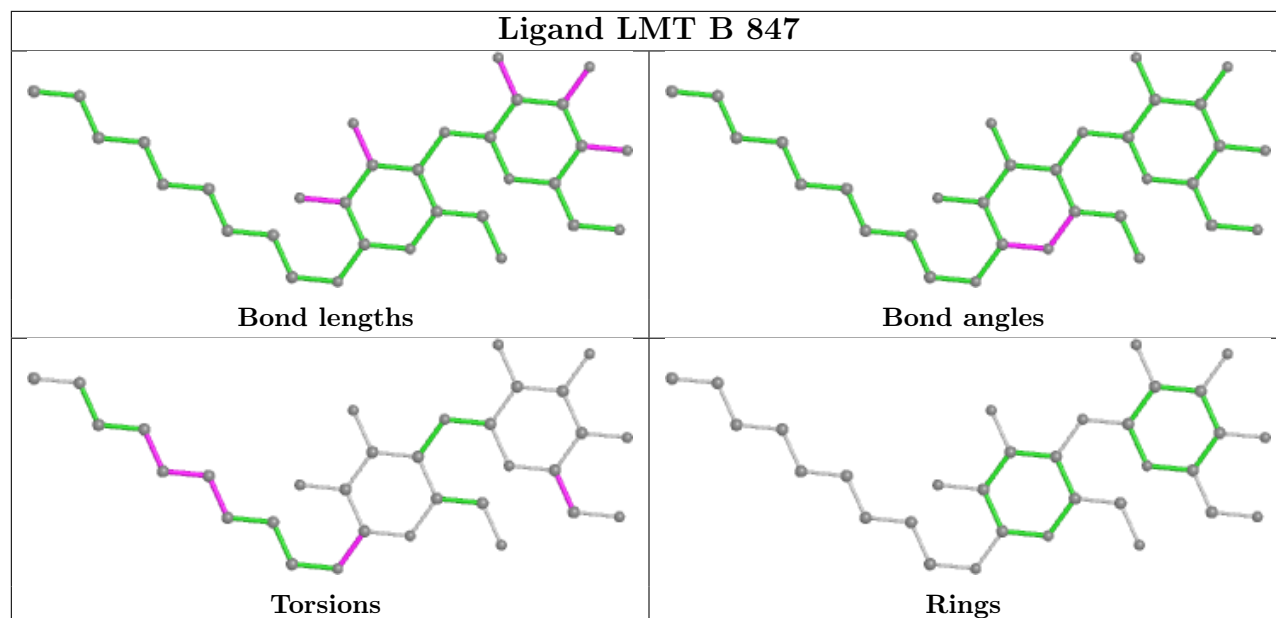


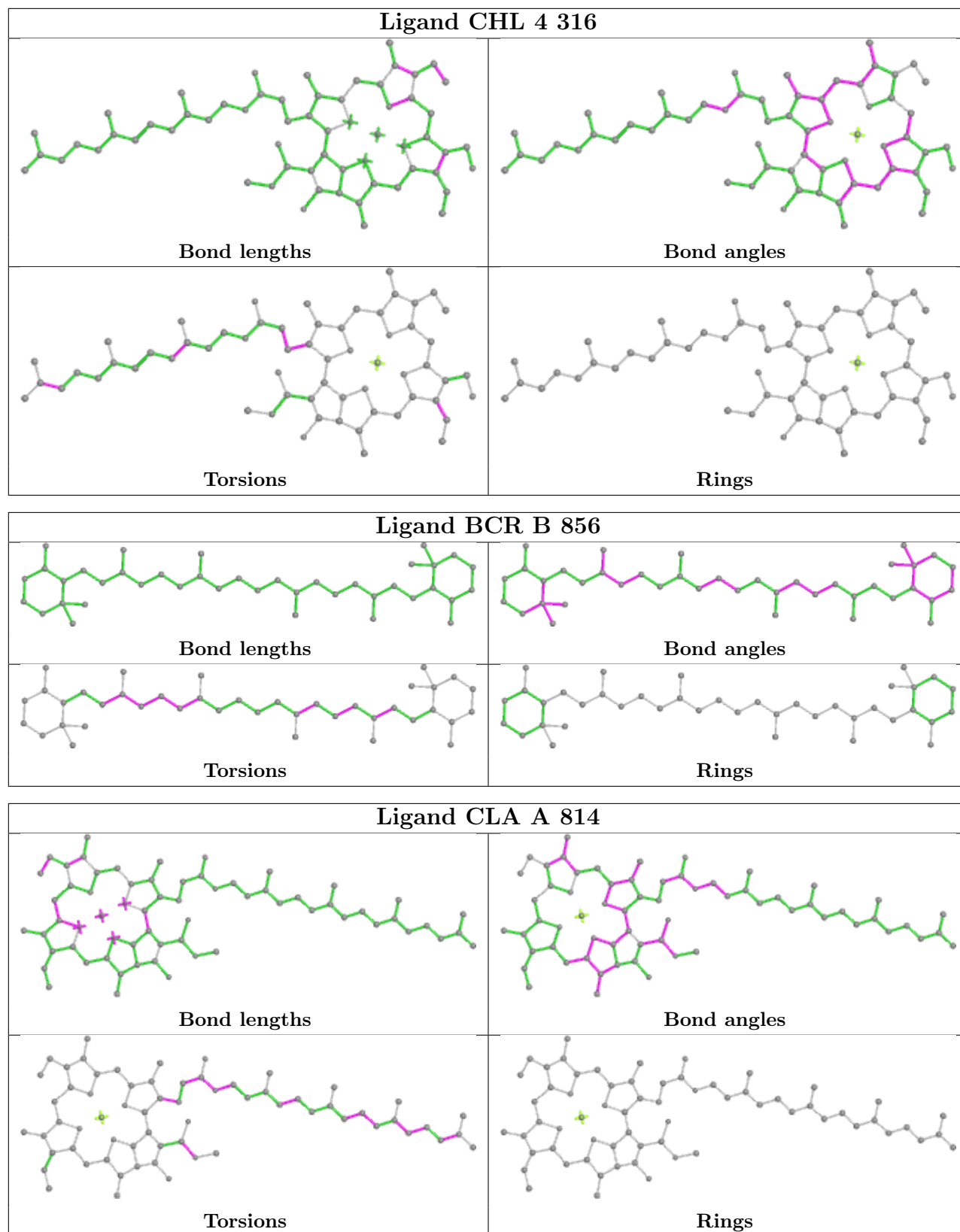


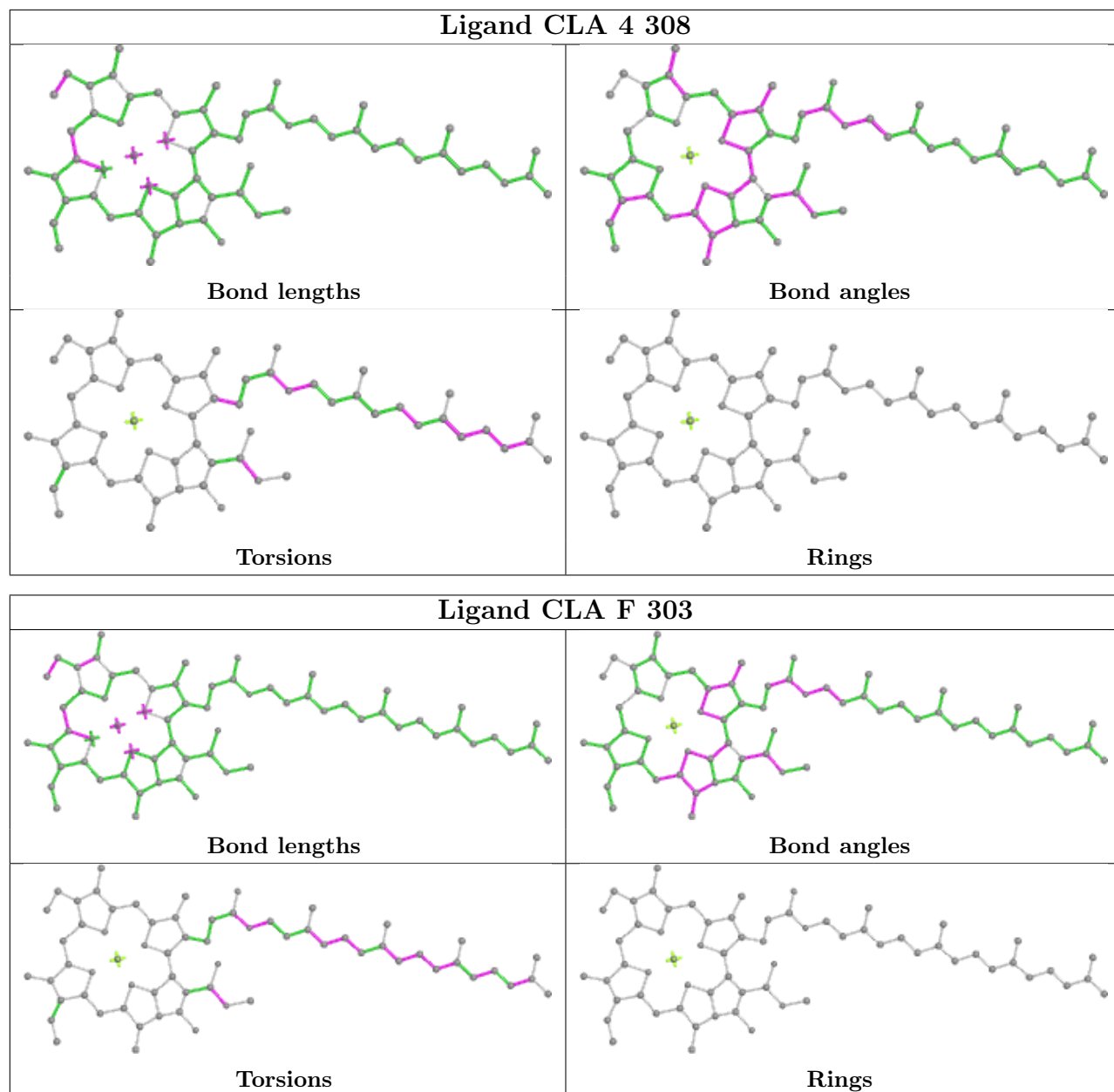


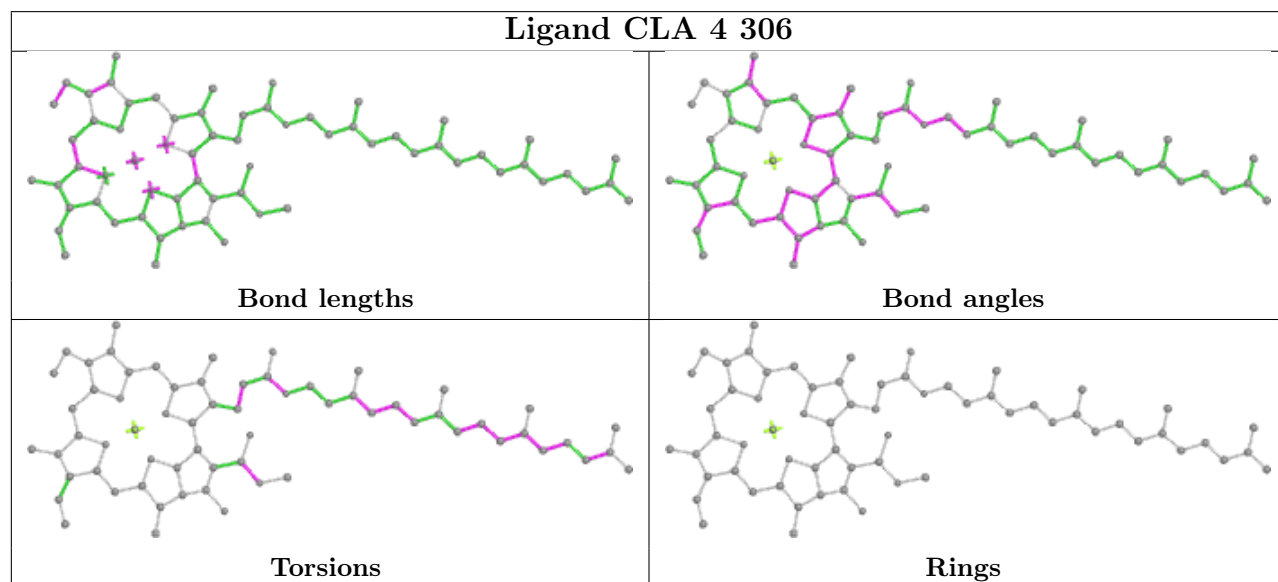
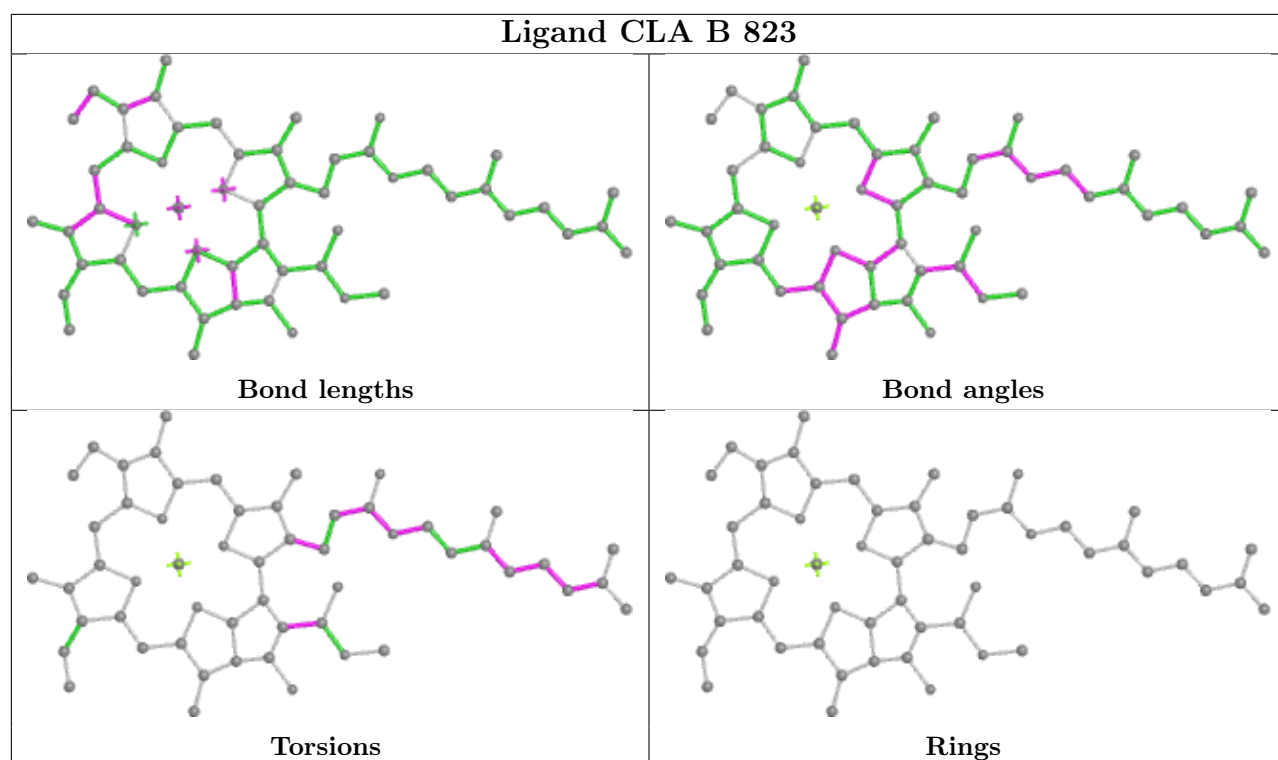


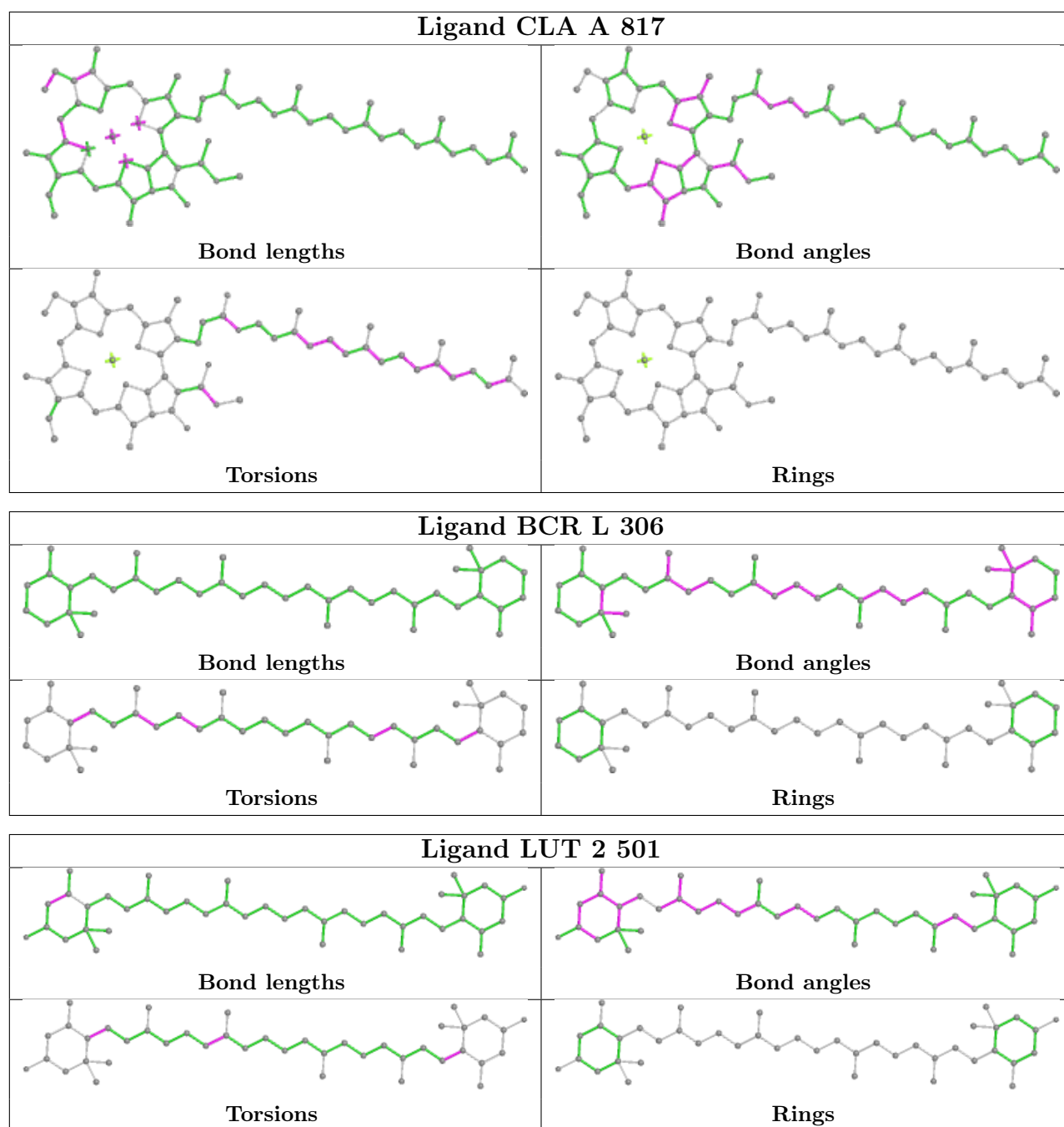


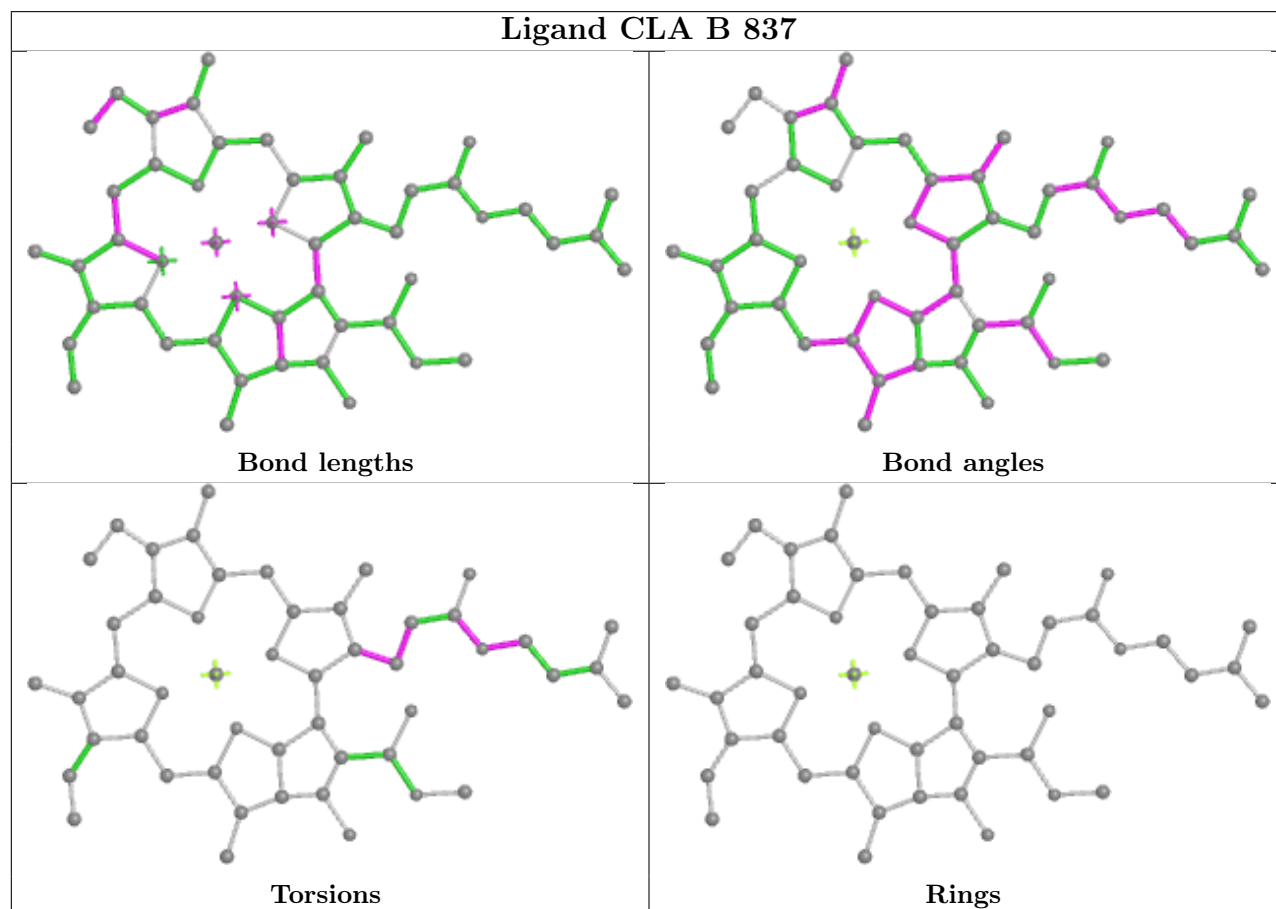
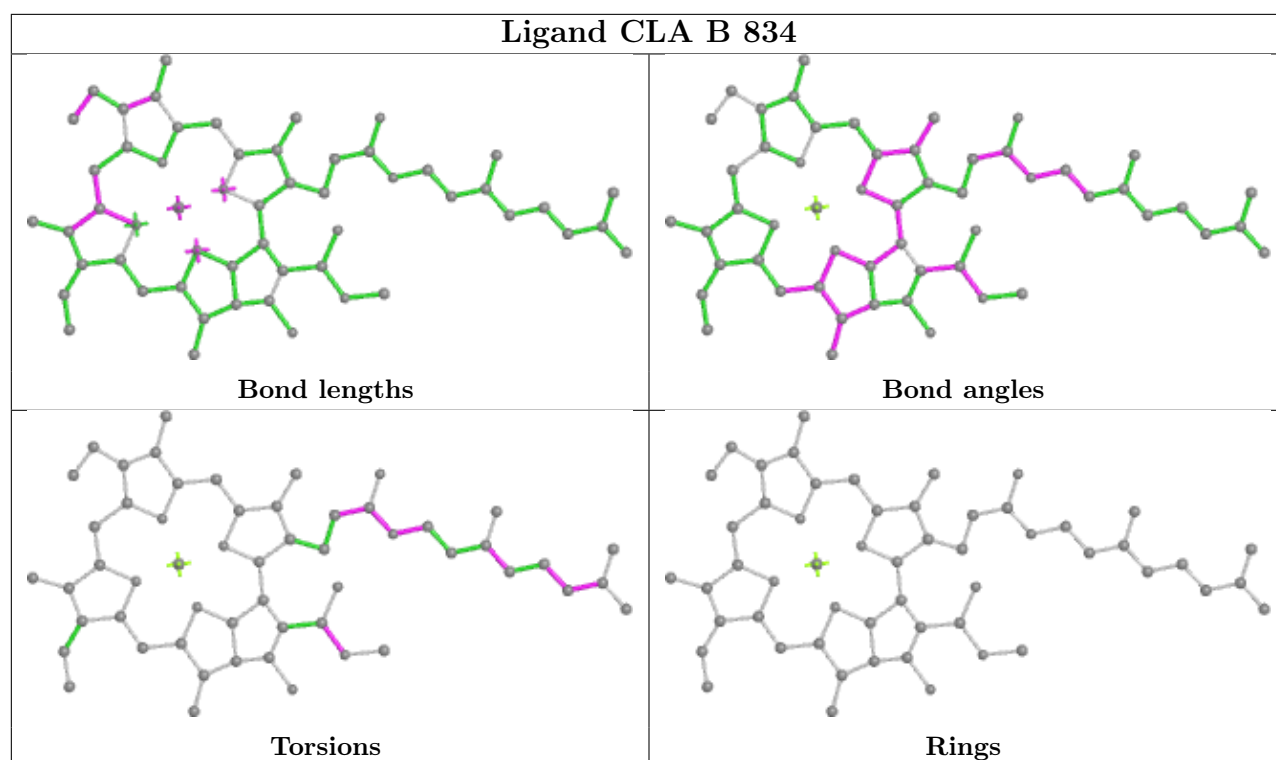




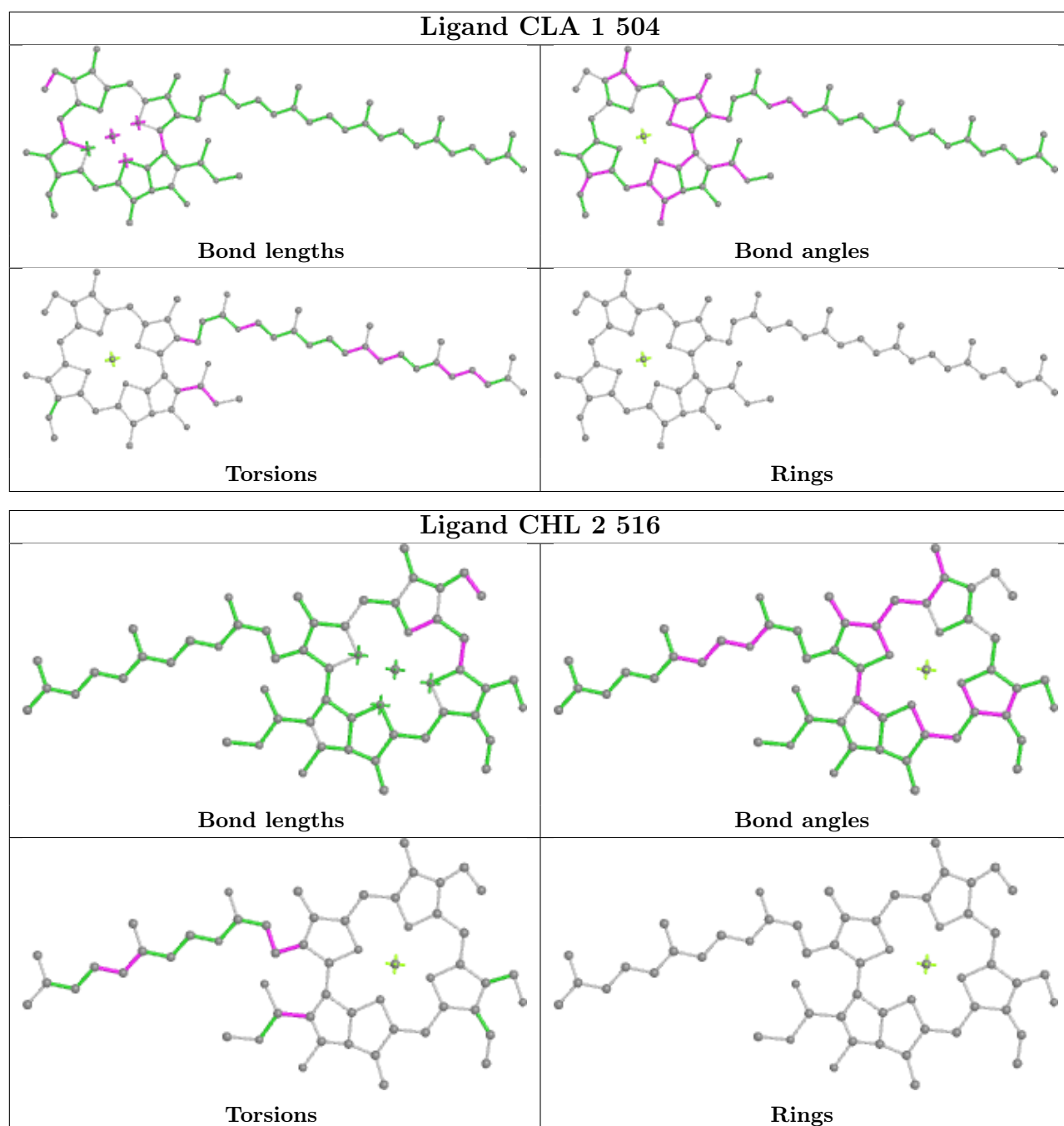


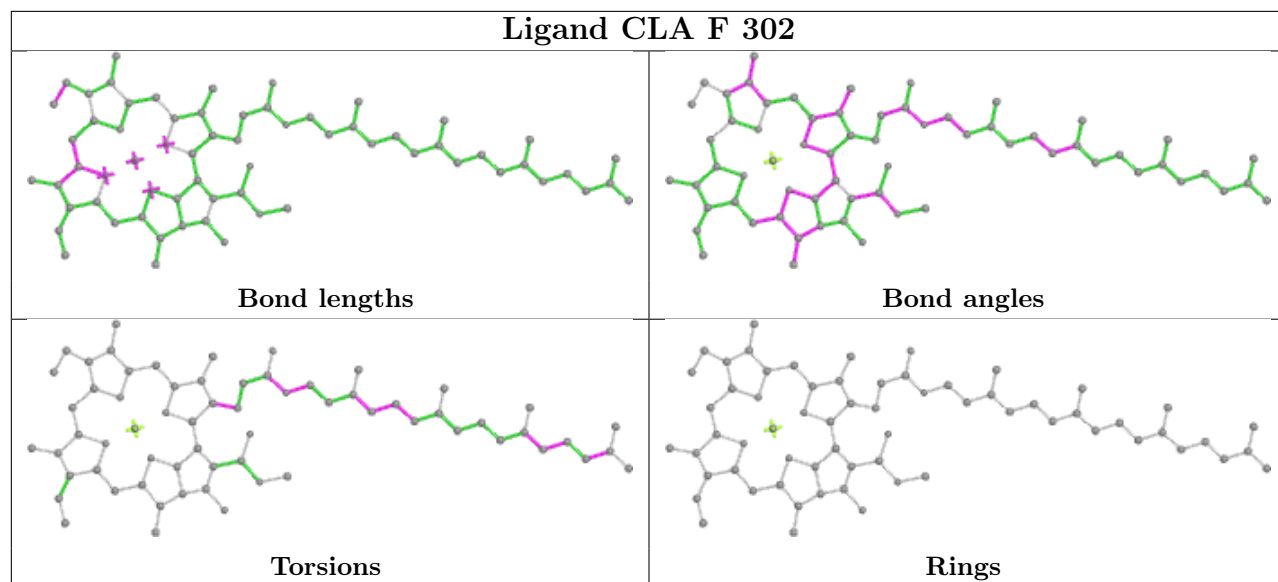


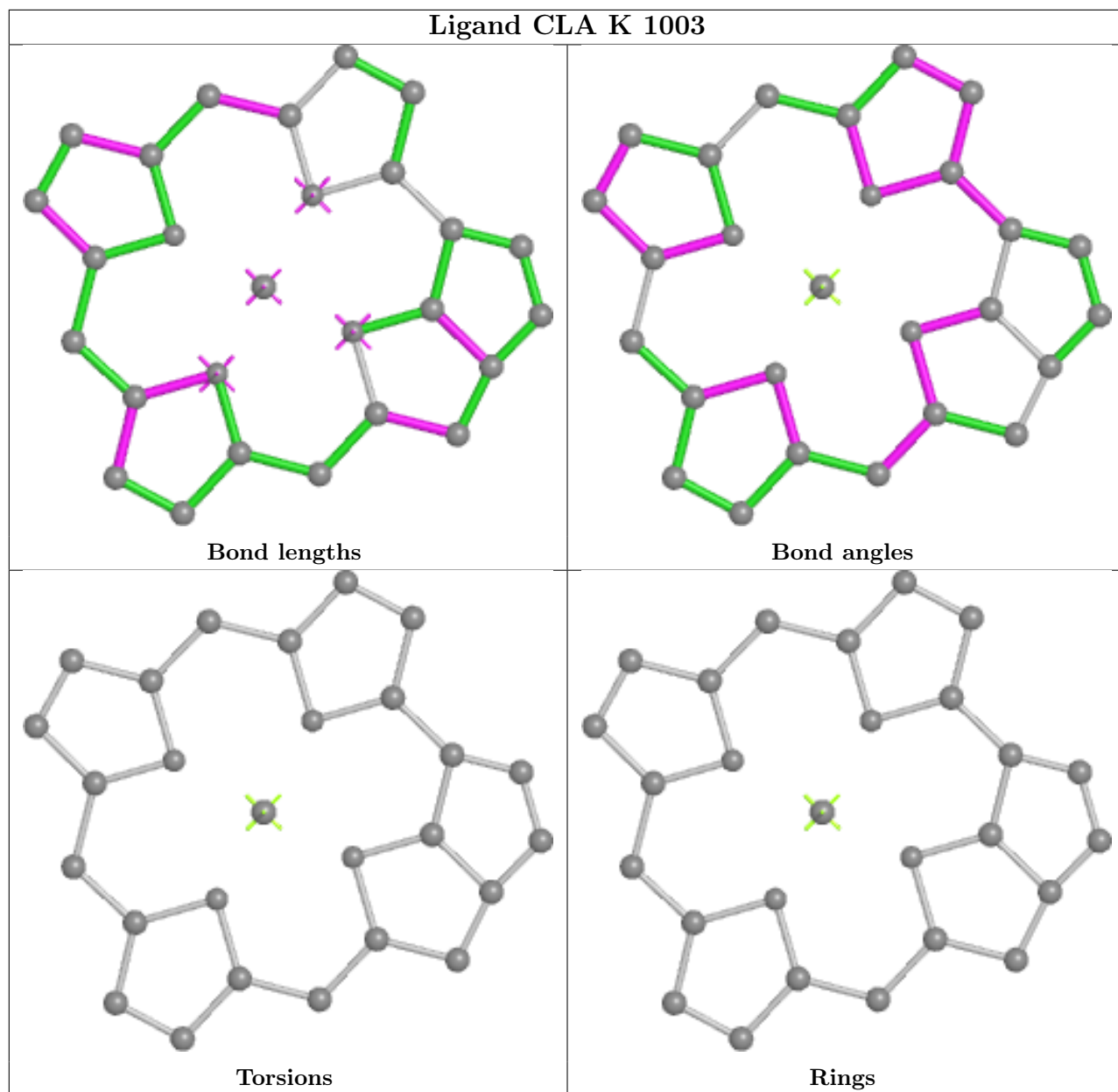


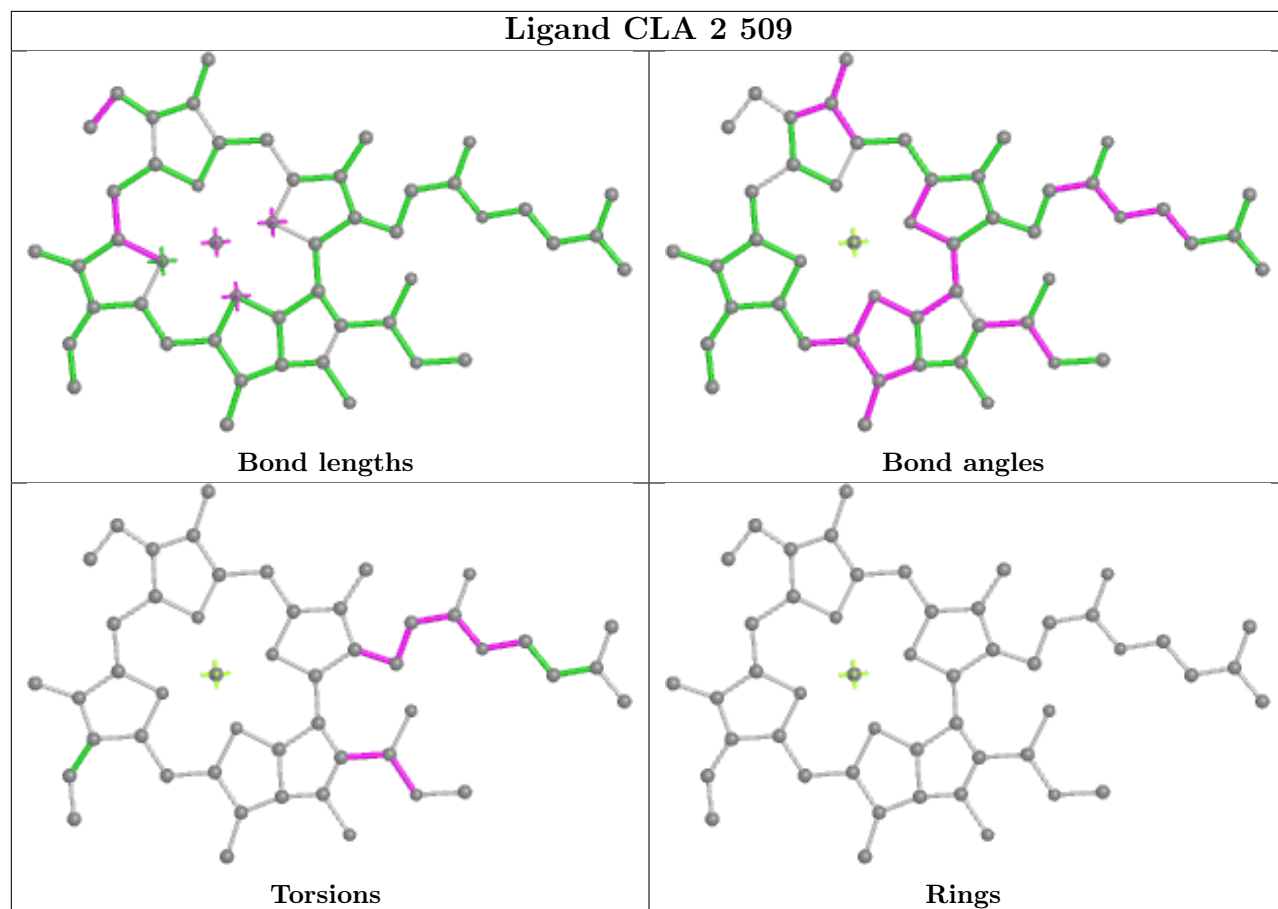


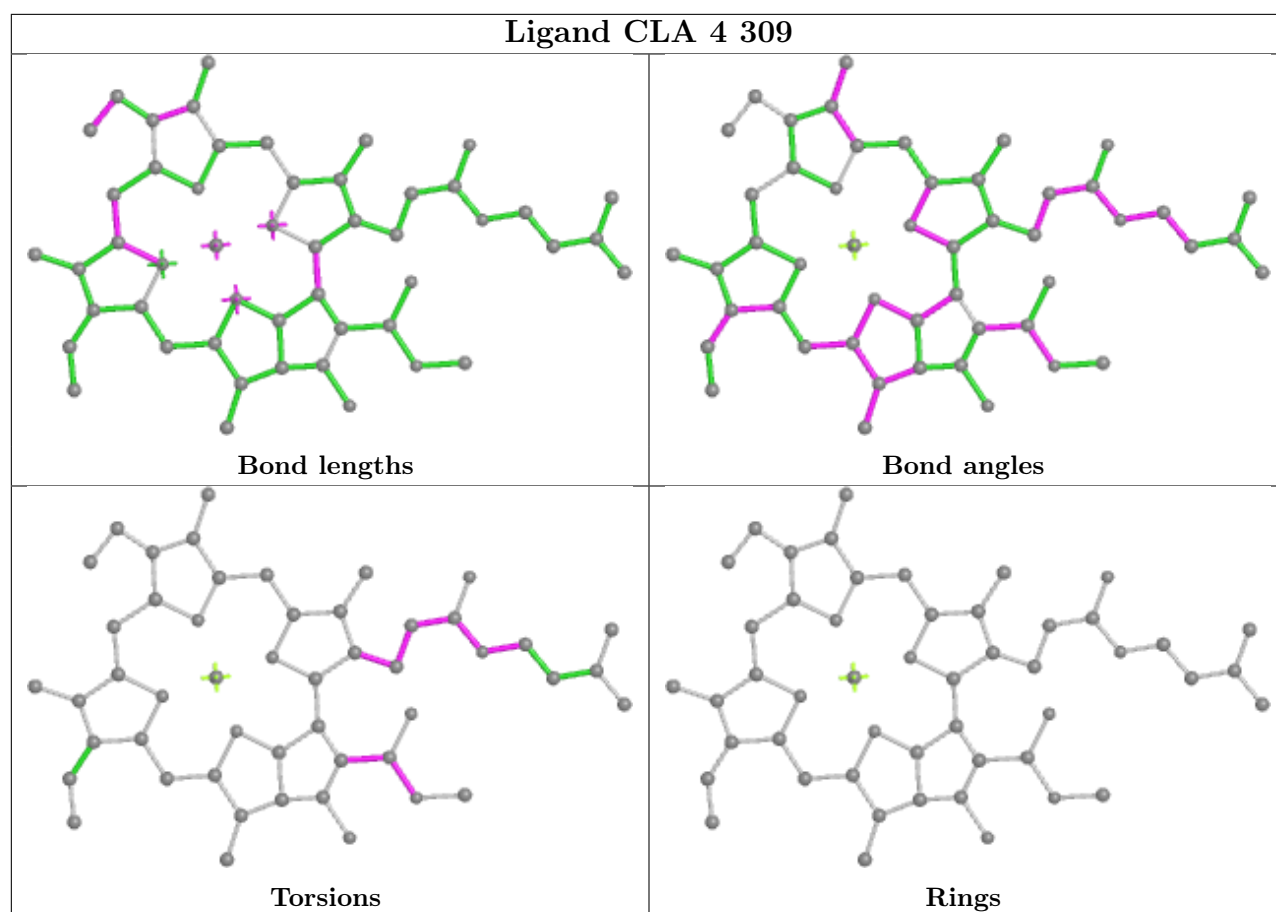












## 5.7 Other polymers [i](#)

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 monosaccharides in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
24	LMT	4	320	35/35	0.62	0.54	98,133,152,158	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
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
22	LMG	1	518	46/55	0.67	0.32	81,129,140,144	0
19	CLA	K	1001	45/65	0.67	0.31	148,174,184,185	0
22	LMG	F	305	36/55	0.70	0.32	124,141,152,159	0
24	LMT	3	318	31/35	0.70	0.33	127,164,183,187	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
24	LMT	G	209	31/35	0.74	0.37	136,187,203,205	0
22	LMG	B	844	35/55	0.74	0.21	59,114,124,125	0
18	BCR	G	205	40/40	0.74	0.29	93,120,154,157	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
22	LMG	2	519	36/55	0.76	0.20	108,148,158,160	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
24	LMT	B	847	32/35	0.76	0.28	103,134,152,153	0
17	LUT	3	302	42/42	0.76	0.29	120,141,154,161	0
18	BCR	3	304	40/40	0.78	0.89	144,156,180,182	0
18	BCR	L	307	40/40	0.78	0.51	126,138,165,167	0
18	BCR	B	850	40/40	0.78	0.37	69,89,130,131	0
18	BCR	2	503	40/40	0.78	0.63	134,153,166,170	0
22	LMG	2	524	13/55	0.79	0.23	143,153,159,162	0
22	LMG	2	525	13/55	0.79	0.16	100,129,143,143	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
17	LUT	3	301	42/42	0.81	0.58	146,159,165,171	0
19	CLA	K	1003	27/65	0.81	0.27	189,198,202,205	0
19	CLA	L	305	50/65	0.82	0.31	88,104,132,135	0
22	LMG	J	1104	34/55	0.83	0.24	97,129,137,141	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
24	LMT	G	208	35/35	0.83	0.26	101,158,170,173	0
19	CLA	3	307	55/65	0.84	0.18	154,177,191,198	0
18	BCR	3	303	40/40	0.84	0.26	115,133,145,150	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
22	LMG	4	322	45/55	0.85	0.25	87,126,133,138	0
19	CLA	1	510	46/65	0.85	0.17	105,140,169,174	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
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
19	CLA	3	305	55/65	0.88	0.34	154,168,178,185	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
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	310	50/65	0.89	0.24	135,159,166,168	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
23	XAT	4	303	44/44	0.89	0.20	72,92,116,128	0
18	BCR	A	856	40/40	0.89	0.26	137,144,158,161	0
19	CLA	A	817	65/65	0.89	0.22	104,135,150,154	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	L	303	50/65	0.89	0.28	105,127,146,157	0
18	BCR	B	849	40/40	0.90	0.28	90,98,109,114	0
24	LMT	B	855	31/35	0.90	0.17	117,141,151,154	0
19	CLA	G	204	65/65	0.90	0.23	91,119,134,140	0
19	CLA	3	306	52/65	0.90	0.32	152,181,190,195	0
19	CLA	1	509	50/65	0.90	0.22	130,145,153,162	0
25	CA	3	319	1/1	0.90	0.07	118,118,118,118	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
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
17	LUT	1	502	42/42	0.91	0.27	79,114,132,135	0
18	BCR	4	301	40/40	0.91	0.23	105,124,131,136	0
19	CLA	A	812	55/65	0.91	0.24	80,104,117,123	0
18	BCR	A	849	40/40	0.91	0.31	69,91,119,124	0
19	CLA	A	814	65/65	0.91	0.21	89,113,129,135	0
19	CLA	3	308	65/65	0.91	0.18	118,129,139,143	0
19	CLA	A	818	56/65	0.91	0.23	79,107,125,133	0
20	CHL	1	514	61/66	0.91	0.21	114,131,139,162	0
19	CLA	A	820	50/65	0.91	0.23	88,110,136,137	0
19	CLA	A	831	65/65	0.91	0.21	66,93,128,132	0
19	CLA	A	835	55/65	0.91	0.27	107,124,142,152	0
19	CLA	A	842	60/65	0.91	0.24	94,119,157,159	0
19	CLA	3	309	55/65	0.91	0.23	97,123,131,135	0
19	CLA	B	817	60/65	0.91	0.22	87,97,110,129	0
17	LUT	J	1109	42/42	0.91	0.16	62,88,104,109	0
19	CLA	1	516	60/65	0.91	0.17	79,105,143,146	0
30	ZEX	F	301	42/42	0.91	0.27	84,105,116,122	0
17	LUT	1	501	42/42	0.92	0.30	105,125,144,146	0
19	CLA	4	310	60/65	0.92	0.23	104,115,132,138	0
17	LUT	2	501	42/42	0.92	0.31	108,118,128,134	0
20	CHL	1	512	47/66	0.92	0.23	108,140,147,152	0
18	BCR	B	852	40/40	0.92	0.23	50,66,83,89	0
20	CHL	1	521	56/66	0.92	0.19	100,112,123,126	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	2	526	66/66	0.92	0.24	97,120,138,144	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	B	811	65/65	0.92	0.19	71,95,111,114	0
26	DGD	J	1106	58/66	0.92	0.20	52,80,117,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
28	SF4	C	102	8/8	0.92	0.22	67,106,137,151	0
19	CLA	B	814	65/65	0.92	0.20	71,80,87,92	0
20	CHL	4	313	47/66	0.93	0.17	80,110,137,147	0
17	LUT	4	302	42/42	0.93	0.20	90,106,118,128	0
19	CLA	1	506	55/65	0.93	0.16	89,115,132,141	0
19	CLA	B	818	65/65	0.93	0.30	66,82,104,109	0
19	CLA	B	827	65/65	0.93	0.34	54,77,98,103	0
19	CLA	B	833	60/65	0.93	0.18	59,75,106,107	0
19	CLA	B	840	65/65	0.93	0.16	52,80,91,102	0
19	CLA	G	201	65/65	0.93	0.20	75,90,116,123	0
19	CLA	A	816	46/65	0.93	0.17	109,126,142,148	0
19	CLA	4	304	60/65	0.93	0.20	99,113,137,139	0
18	BCR	I	102	40/40	0.93	0.23	70,86,109,113	0
18	BCR	1	503	19/40	0.93	0.17	121,134,143,146	0
19	CLA	A	825	65/65	0.93	0.20	64,79,85,89	0
19	CLA	4	318	65/65	0.93	0.29	87,106,128,131	0
19	CLA	A	804	65/65	0.93	0.19	49,65,110,119	0
19	CLA	A	838	65/65	0.93	0.23	63,80,126,130	0
19	CLA	A	811	65/65	0.93	0.18	56,73,87,108	0
19	CLA	B	805	65/65	0.93	0.21	80,93,126,135	0
18	BCR	A	848	40/40	0.93	0.27	75,105,142,143	0
19	CLA	B	812	60/65	0.93	0.22	79,100,117,126	0
22	LMG	F	304	47/55	0.93	0.17	89,102,119,134	0
28	SF4	A	843	8/8	0.93	0.28	45,78,104,173	0
19	CLA	2	510	60/65	0.93	0.20	108,128,143,151	0
19	CLA	B	815	65/65	0.93	0.20	84,97,119,123	0
19	CLA	1	504	65/65	0.94	0.22	118,136,149,153	0
19	CLA	B	808	65/65	0.94	0.18	73,91,117,121	0
19	CLA	B	810	65/65	0.94	0.17	70,84,102,108	0
19	CLA	2	511	50/65	0.94	0.19	112,133,142,146	0
19	CLA	3	313	60/65	0.94	0.16	108,137,146,156	0
20	CHL	2	512	47/66	0.94	0.14	101,123,140,175	0
20	CHL	2	515	46/66	0.94	0.18	113,121,131,142	0
19	CLA	3	315	50/65	0.94	0.20	109,125,133,147	0
18	BCR	B	853	40/40	0.94	0.20	50,64,74,78	0
19	CLA	4	305	50/65	0.94	0.19	107,126,138,142	0
19	CLA	4	306	65/65	0.94	0.19	74,105,121,130	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	B	830	65/65	0.94	0.18	50,63,97,110	0
21	LHG	2	517	35/49	0.94	0.18	116,124,130,132	0
21	LHG	A	845	40/49	0.94	0.16	78,102,116,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
19	CLA	B	831	60/65	0.94	0.16	48,59,97,100	0
19	CLA	A	823	60/65	0.94	0.17	106,123,152,160	0
18	BCR	B	802	40/40	0.94	0.27	57,71,85,94	0
19	CLA	F	303	65/65	0.94	0.16	63,81,109,121	0
19	CLA	A	826	55/65	0.94	0.21	59,71,96,109	0
25	CA	B	848	1/1	0.94	0.06	83,83,83,83	0
19	CLA	G	202	55/65	0.94	0.18	109,131,152,153	0
19	CLA	A	827	65/65	0.94	0.19	69,87,107,114	0
18	BCR	J	1108	40/40	0.94	0.18	52,64,79,82	0
19	CLA	A	834	65/65	0.94	0.17	79,98,117,132	0
19	CLA	2	506	65/65	0.94	0.27	88,121,139,150	0
19	CLA	A	805	65/65	0.94	0.20	54,71,89,93	0
19	CLA	2	509	50/65	0.94	0.26	99,120,140,143	0
19	CLA	B	804	65/65	0.94	0.24	48,62,82,85	0
19	CLA	L	304	60/65	0.95	0.16	79,93,113,122	0
19	CLA	A	829	65/65	0.95	0.33	60,75,86,95	0
19	CLA	A	830	65/65	0.95	0.21	46,58,72,78	0
19	CLA	4	308	60/65	0.95	0.22	64,85,96,102	0
19	CLA	B	824	65/65	0.95	0.22	59,69,90,93	0
19	CLA	B	825	65/65	0.95	0.21	48,64,93,98	0
19	CLA	A	833	65/65	0.95	0.18	67,85,101,113	0
19	CLA	B	828	65/65	0.95	0.26	60,71,91,103	0
18	BCR	A	852	40/40	0.95	0.25	45,55,71,75	0
20	CHL	3	314	47/66	0.95	0.18	134,140,156,163	0
19	CLA	2	514	55/65	0.95	0.21	81,94,116,121	0
20	CHL	4	314	51/66	0.95	0.23	89,114,129,133	0
19	CLA	A	836	51/65	0.95	0.25	66,82,95,110	0
19	CLA	B	834	55/65	0.95	0.20	66,88,118,124	0
19	CLA	B	838	65/65	0.95	0.22	58,75,94,115	0
19	CLA	B	839	65/65	0.95	0.25	54,70,104,119	0
19	CLA	A	837	65/65	0.95	0.17	69,88,110,121	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	4	312	50/65	0.95	0.17	79,91,116,121	0
19	CLA	A	854	65/65	0.95	0.22	44,57,76,89	0
19	CLA	G	203	46/65	0.95	0.25	125,139,150,154	0
19	CLA	3	316	46/65	0.95	0.12	142,149,159,163	0
19	CLA	3	317	46/65	0.95	0.18	91,105,132,138	0
19	CLA	J	1102	45/65	0.95	0.15	52,65,80,89	0
19	CLA	A	822	60/65	0.95	0.19	94,114,155,161	0
18	BCR	I	101	40/40	0.95	0.24	72,86,105,107	0
18	BCR	F	306	40/40	0.95	0.16	48,64,72,77	0

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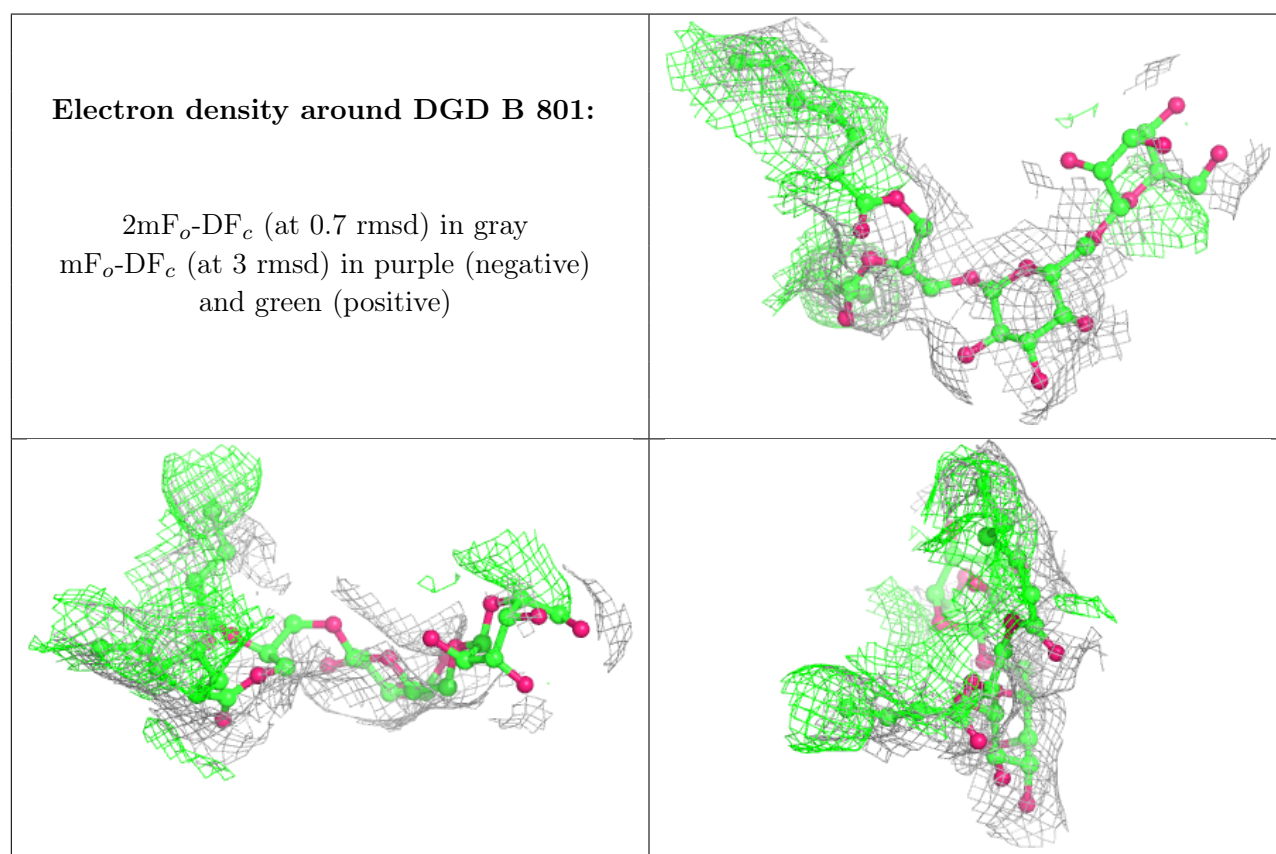
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
19	CLA	1	505	46/65	0.95	0.17	111,135,149,157	0
19	CLA	4	307	60/65	0.95	0.16	73,86,97,99	0
19	CLA	A	828	65/65	0.95	0.24	53,67,78,88	0
19	CLA	2	504	60/65	0.96	0.18	99,111,133,136	0
19	CLA	A	855	65/65	0.96	0.23	63,77,98,107	0
19	CLA	B	829	65/65	0.96	0.20	50,67,92,100	0
19	CLA	B	803	65/65	0.96	0.20	46,59,68,71	0
19	CLA	A	803	65/65	0.96	0.20	49,64,79,83	0
19	CLA	2	507	65/65	0.96	0.18	78,91,100,102	0
19	CLA	B	806	65/65	0.96	0.18	58,72,82,99	0
19	CLA	B	835	55/65	0.96	0.16	54,68,96,100	0
19	CLA	B	836	65/65	0.96	0.16	48,61,68,73	0
19	CLA	B	837	50/65	0.96	0.20	48,58,81,100	0
19	CLA	B	807	65/65	0.96	0.22	54,72,82,95	0
19	CLA	2	508	55/65	0.96	0.18	74,87,111,116	0
19	CLA	B	809	65/65	0.96	0.20	66,82,95,126	0
19	CLA	F	302	65/65	0.96	0.17	45,60,75,80	0
19	CLA	A	806	65/65	0.96	0.20	52,61,79,86	0
19	CLA	A	807	60/65	0.96	0.15	67,88,115,118	0
19	CLA	A	819	65/65	0.96	0.31	77,88,99,104	0
19	CLA	B	813	46/65	0.96	0.17	84,95,120,135	0
19	CLA	A	808	65/65	0.96	0.22	54,65,82,91	0
19	CLA	A	809	65/65	0.96	0.17	51,65,99,102	0
19	CLA	A	810	50/65	0.96	0.20	78,96,106,121	0
19	CLA	2	505	52/65	0.96	0.13	116,134,141,144	0
19	CLA	A	824	65/65	0.96	0.21	67,85,106,124	0
19	CLA	B	820	65/65	0.96	0.24	61,78,98,105	0
19	CLA	B	821	46/65	0.96	0.21	86,100,118,122	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
27	CL0	A	801	65/65	0.96	0.19	48,59,71,80	0
19	CLA	B	823	55/65	0.96	0.16	54,74,98,105	0
19	CLA	A	840	65/65	0.96	0.17	43,58,88,96	0
29	PQN	B	841	33/33	0.96	0.21	49,64,82,85	0
19	CLA	4	315	65/65	0.96	0.24	74,96,118,123	0
19	CLA	B	826	65/65	0.97	0.20	52,69,80,84	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
21	LHG	A	853	49/49	0.97	0.22	49,60,72,79	0
19	CLA	A	839	65/65	0.97	0.17	44,53,62,70	0
19	CLA	A	802	65/65	0.97	0.28	42,50,63,75	0
19	CLA	B	819	65/65	0.97	0.27	69,76,96,101	0

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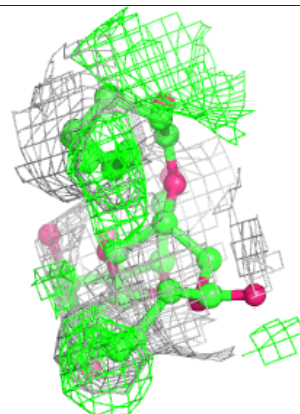
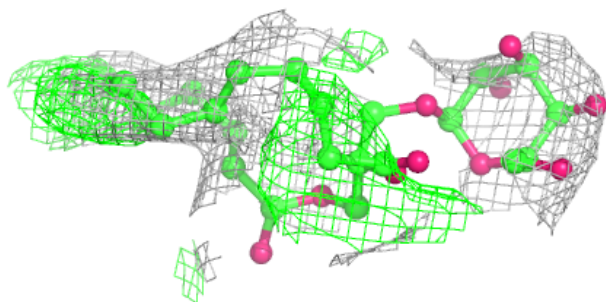
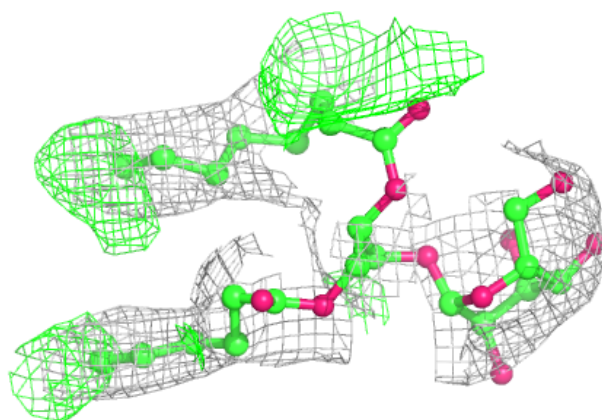
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
19	CLA	A	841	65/65	0.97	0.23	44,57,65,67	0
29	PQN	A	844	33/33	0.97	0.24	42,54,68,74	0
19	CLA	B	832	58/65	0.97	0.12	48,60,76,78	0
20	CHL	2	513	48/66	0.97	0.17	91,105,114,141	0
28	SF4	C	101	8/8	0.99	0.17	53,58,74,74	0

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:**

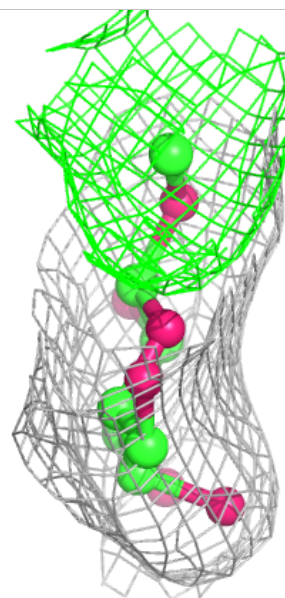
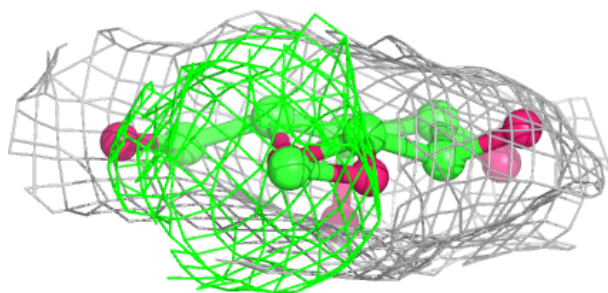
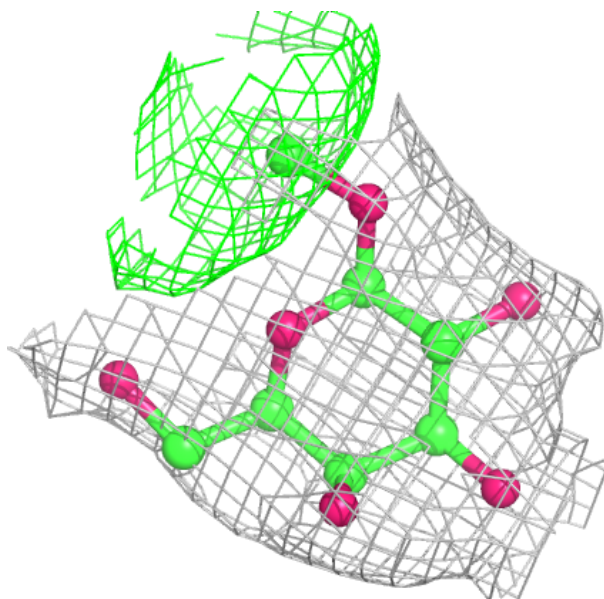
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





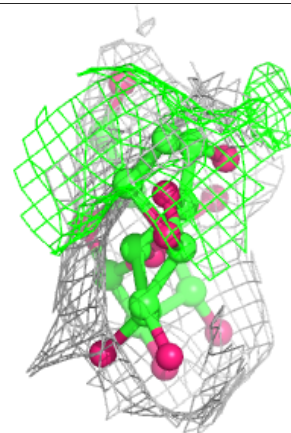
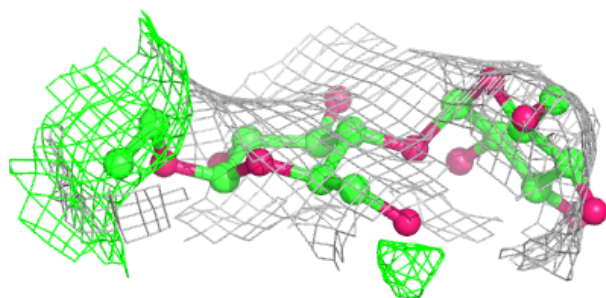
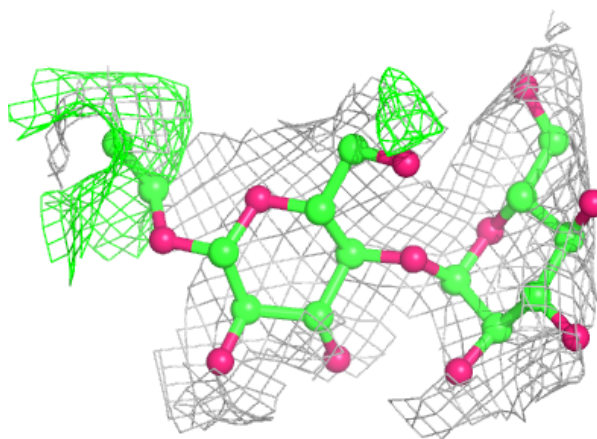
**Electron density around LMG 2 520:**

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

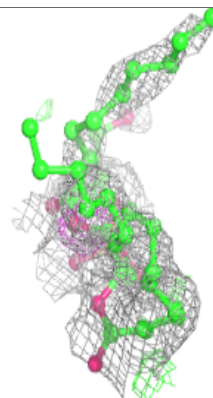
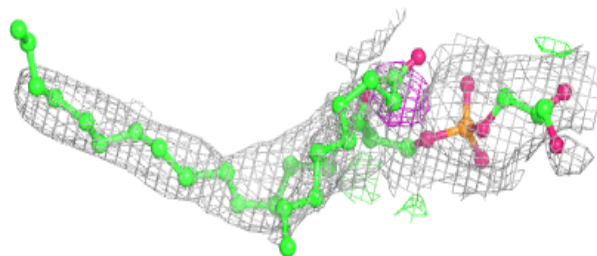
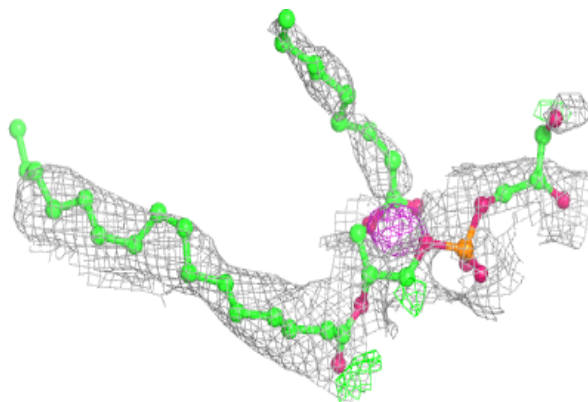


**Electron density around LMT J 1107:**

$2mF_o-DF_c$  (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:**

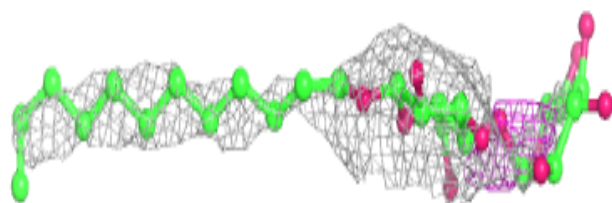
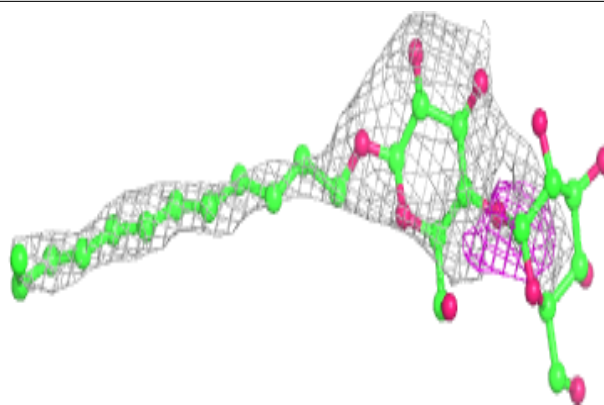
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





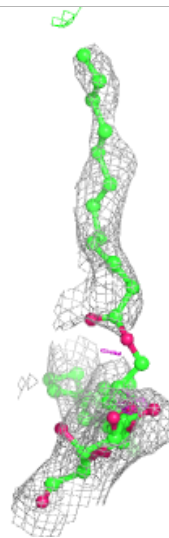
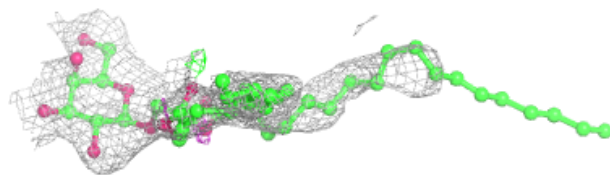
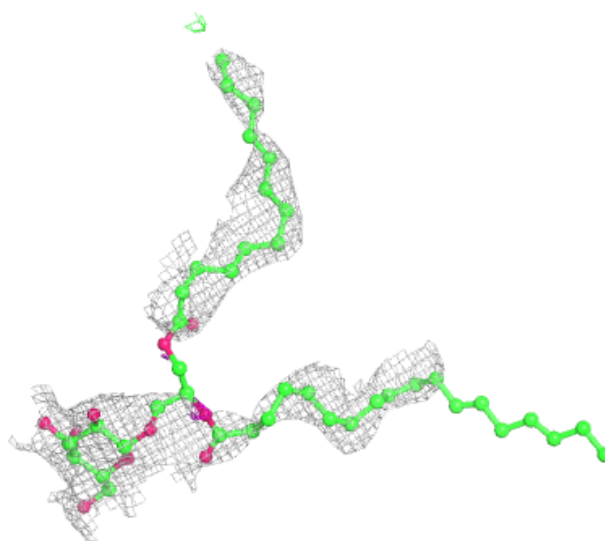
**Electron density around LMT 4 320:**

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



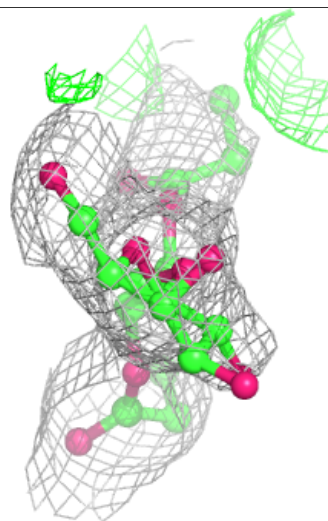
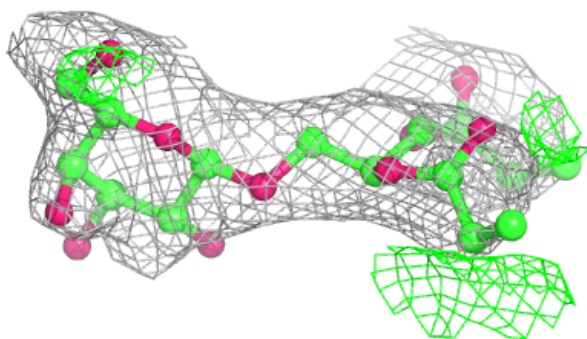
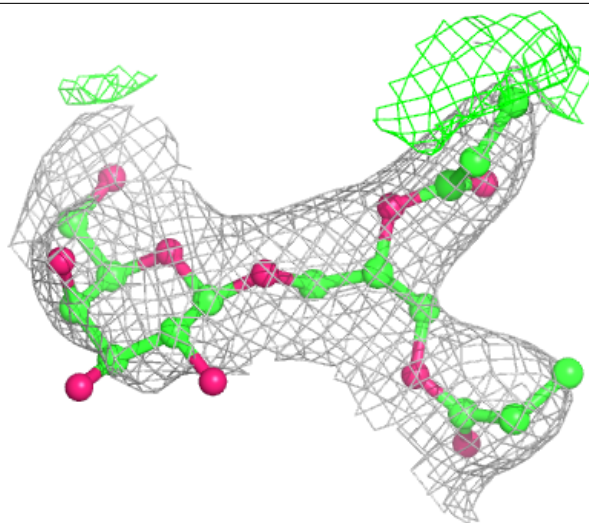
**Electron density around LMG A 847:**

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



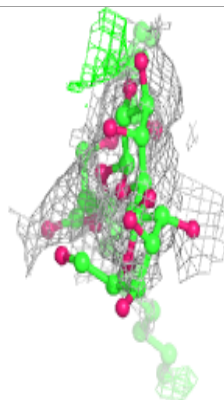
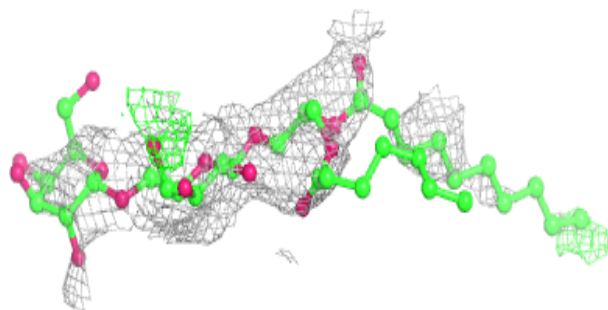
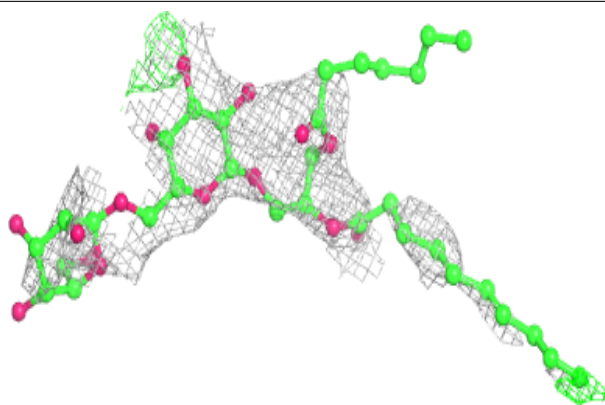
**Electron density around LMG G 210:**

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

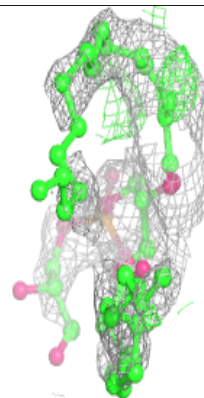
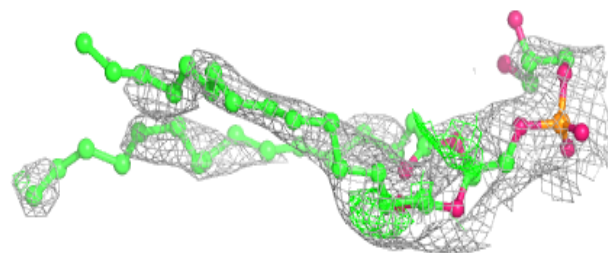
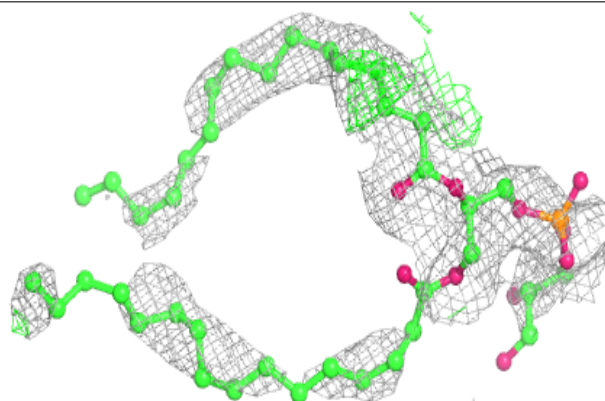


**Electron density around DGD G 207:**

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

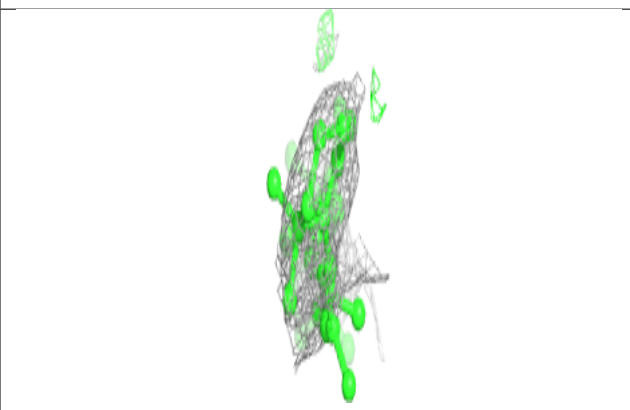
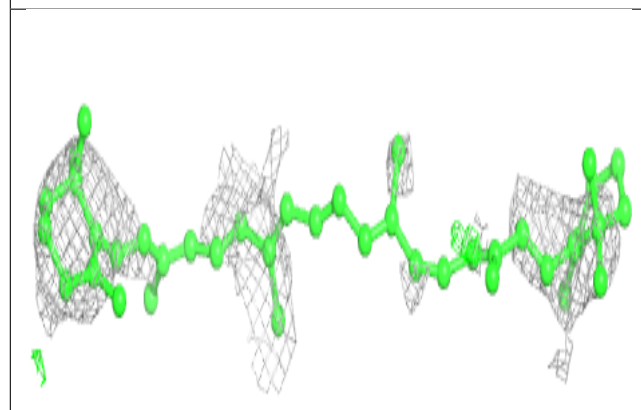
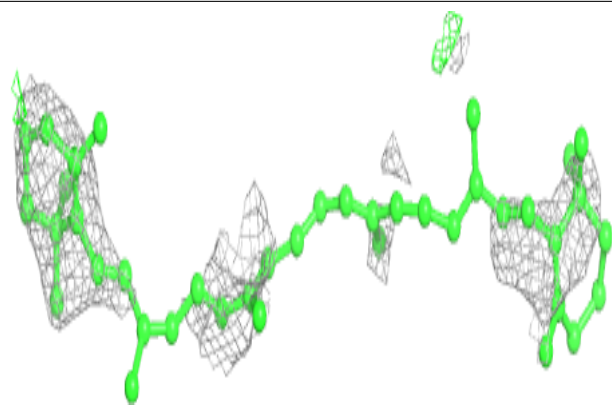
**Electron density around LHG B 843:**

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

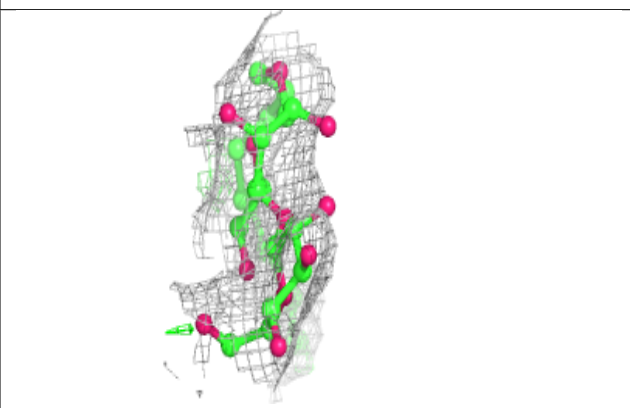
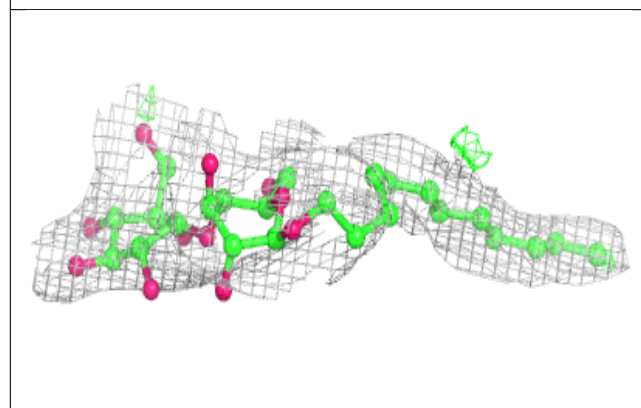
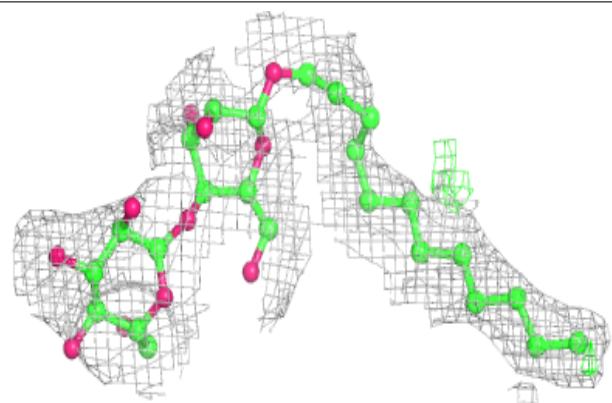


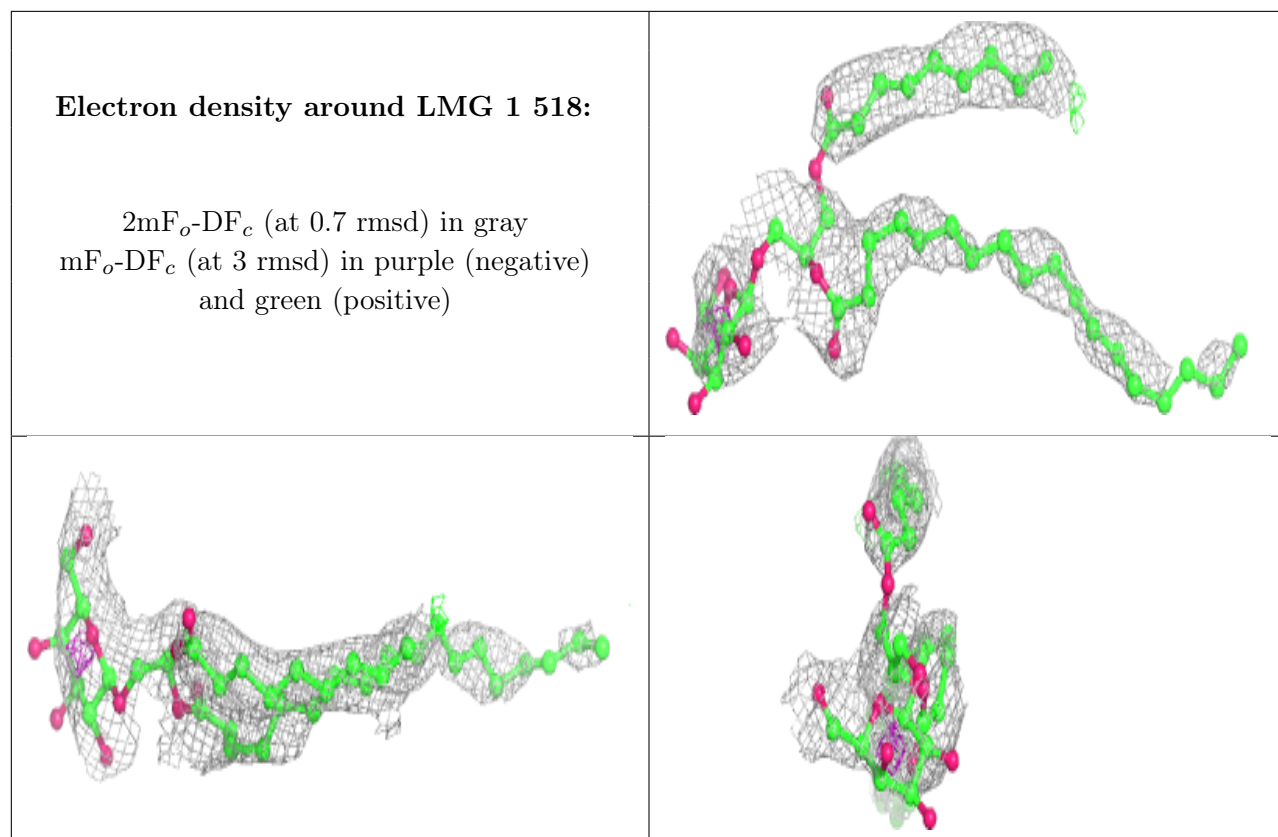
**Electron density around BCR K 1005:**

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

**Electron density around 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)

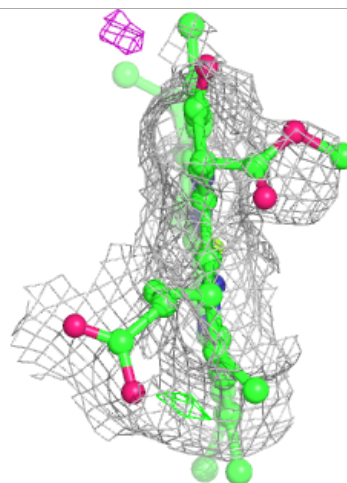
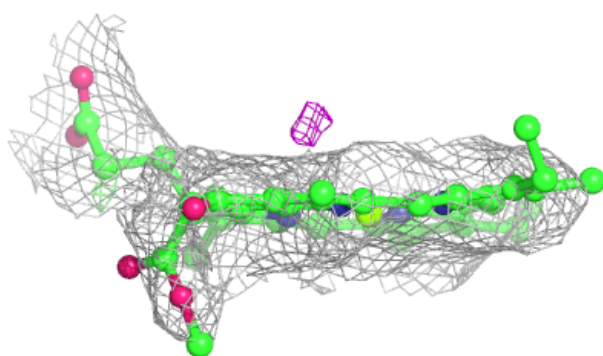
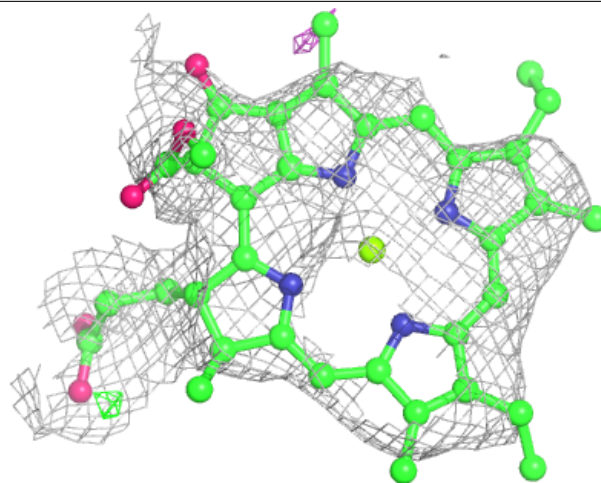






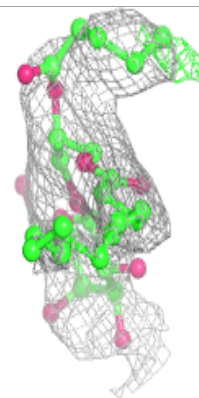
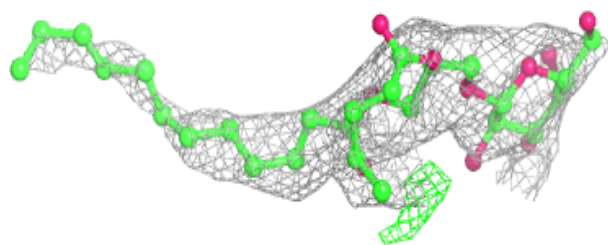
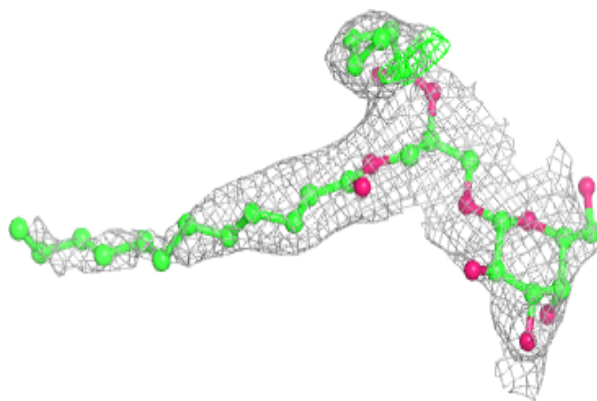
**Electron density around CLA K 1001:**

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

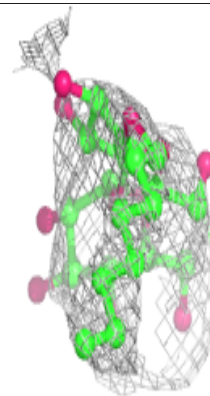
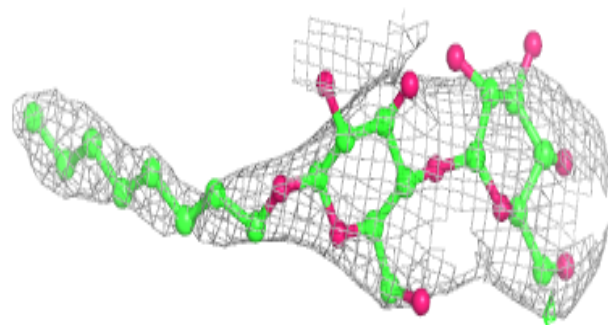
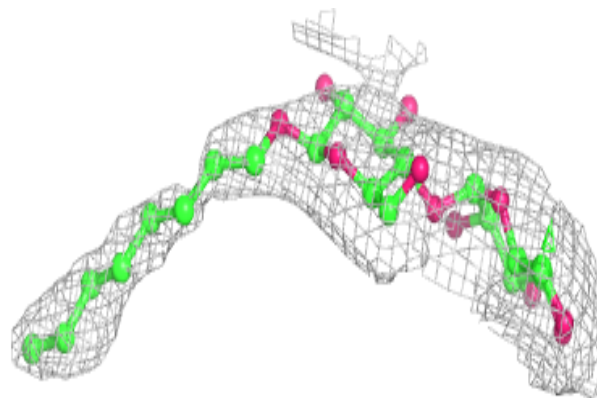


**Electron density around LMG F 305:**

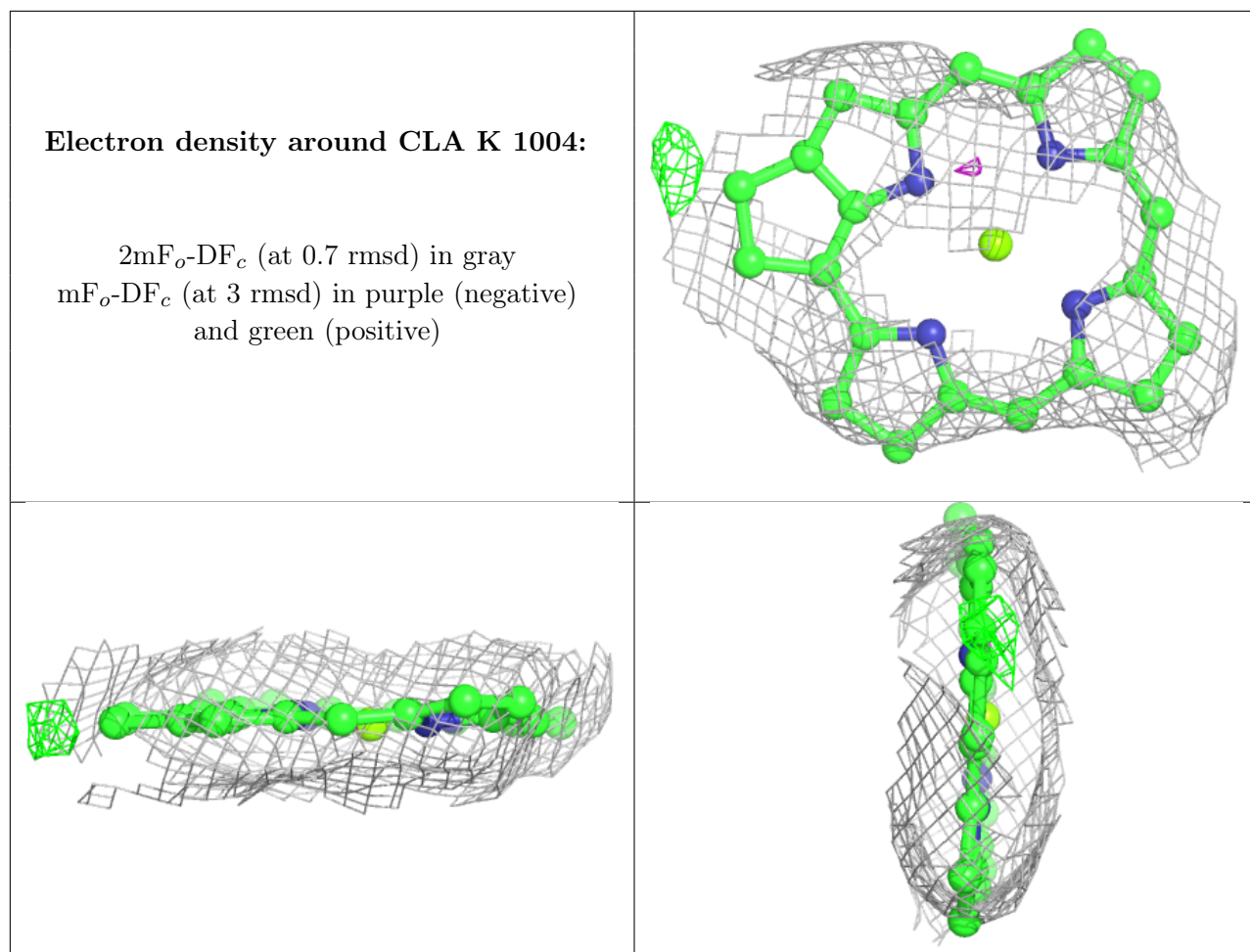
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around 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)

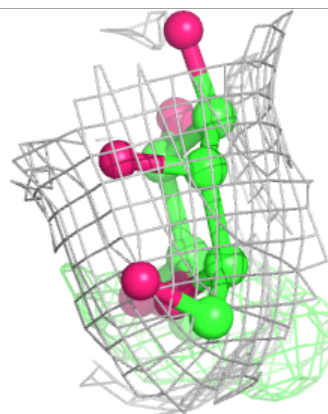
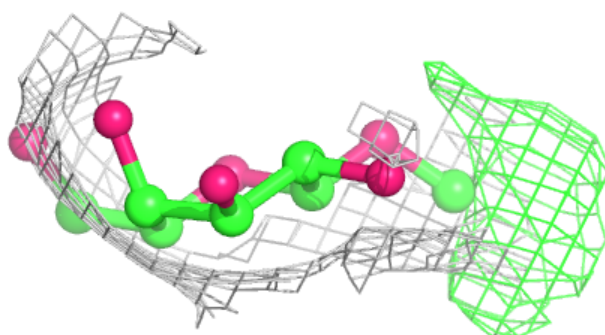
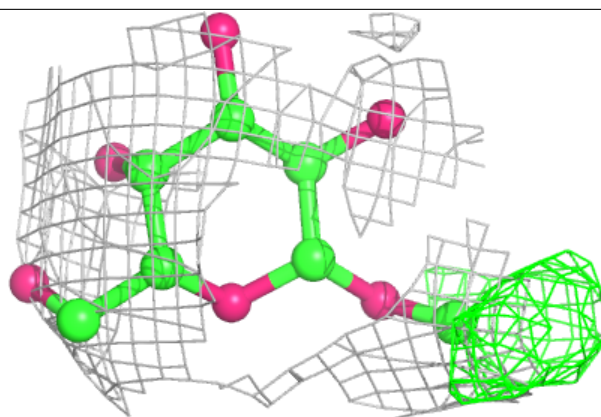




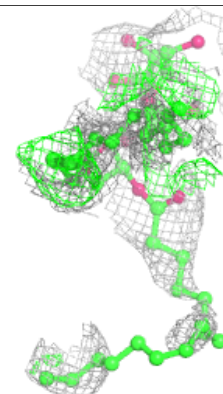
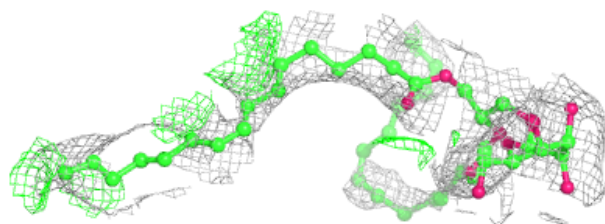
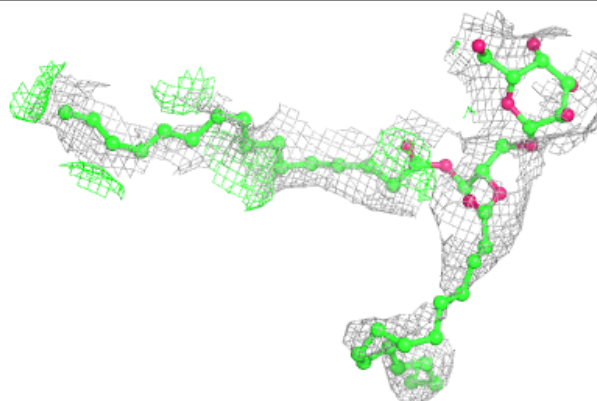


**Electron density around LMG 2 522:**

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

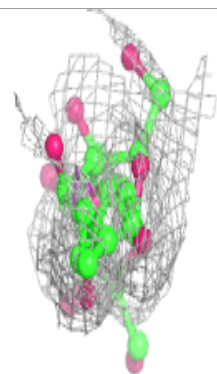
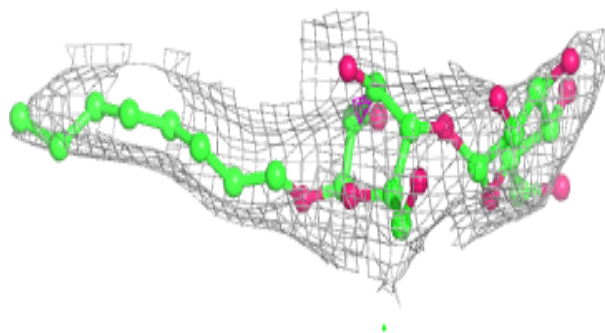
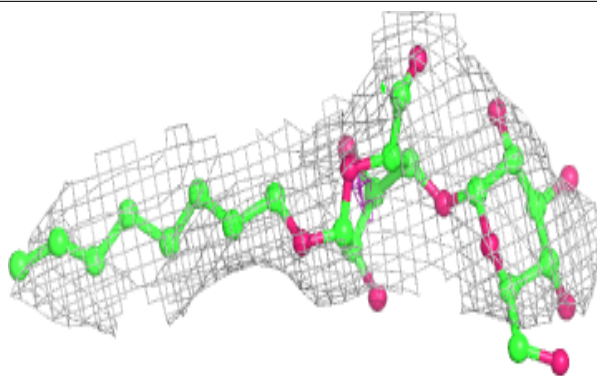
**Electron density around LMG G 206:**

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

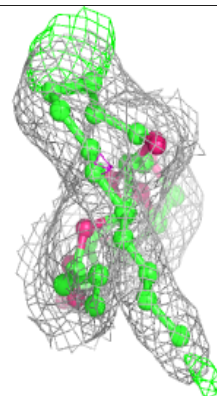
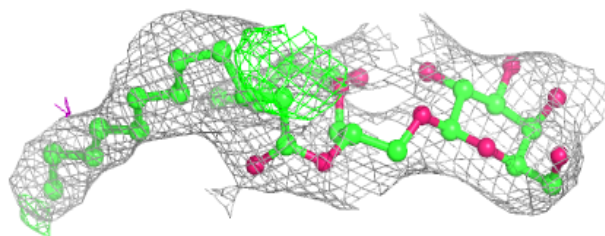
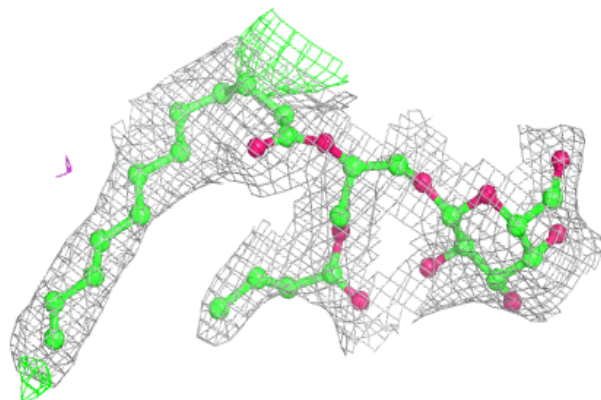


**Electron density around LMT G 209:**

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

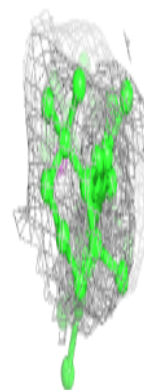
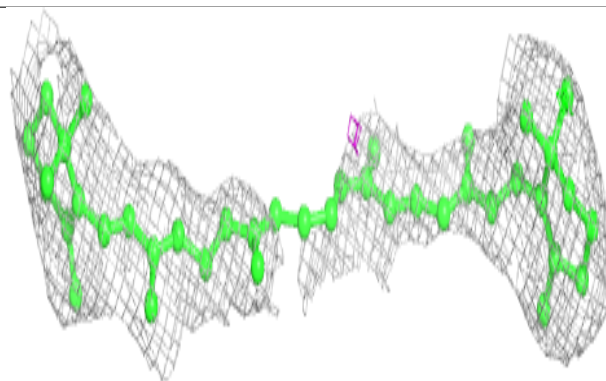
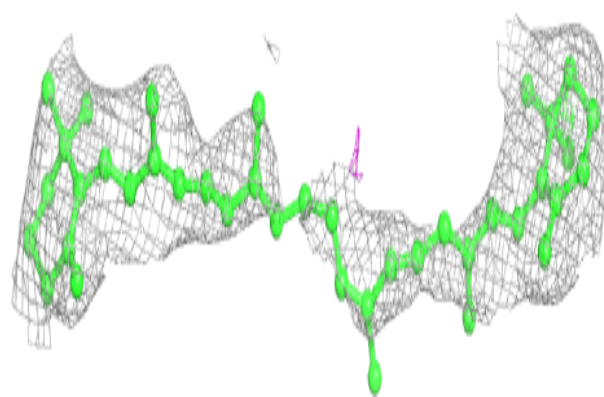
**Electron density around LMG B 844:**

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

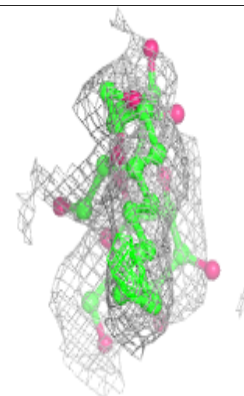
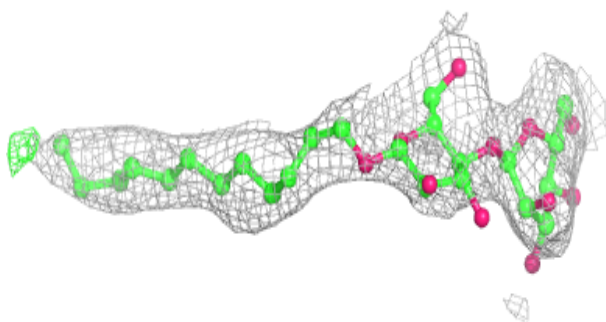
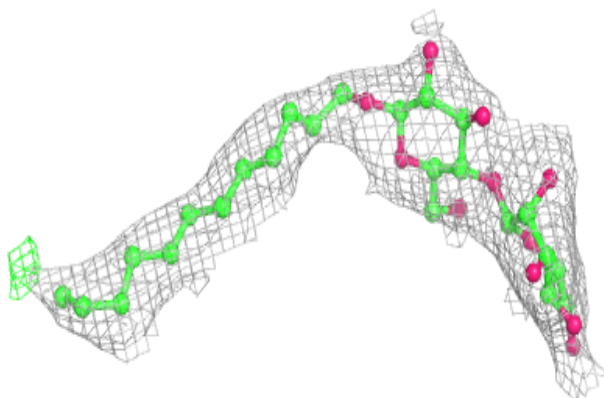


**Electron density around BCR G 205:**

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

**Electron density around LMT A 846:**

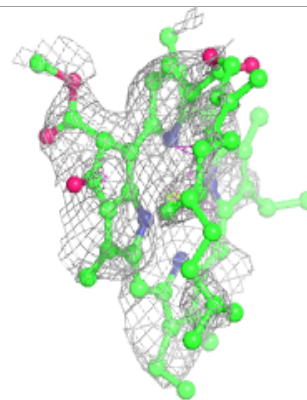
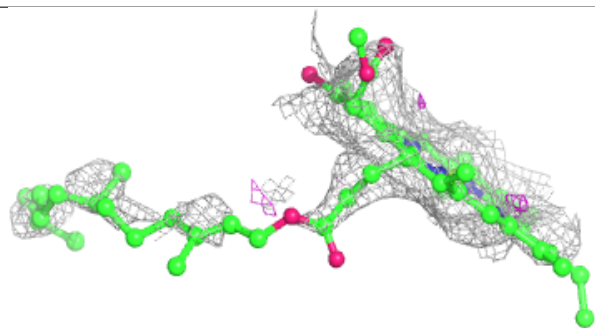
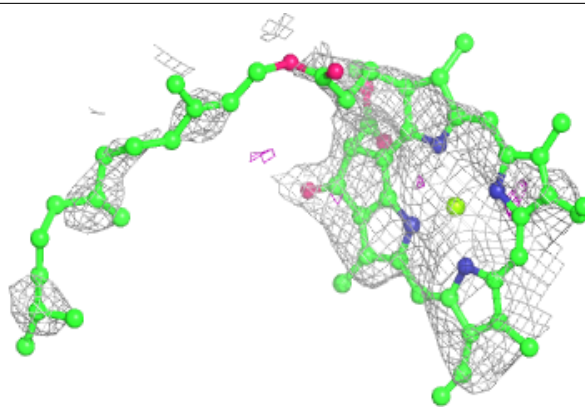
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



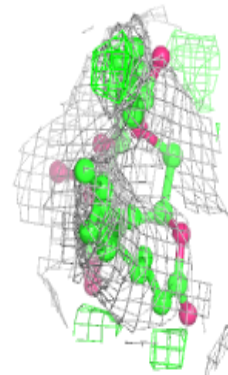
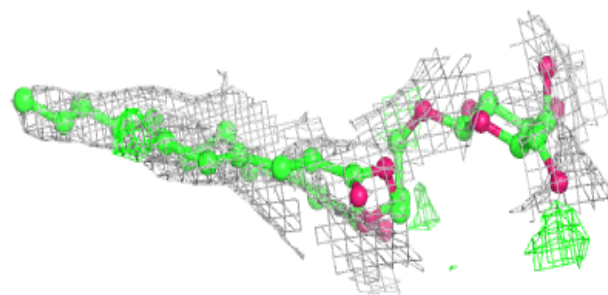
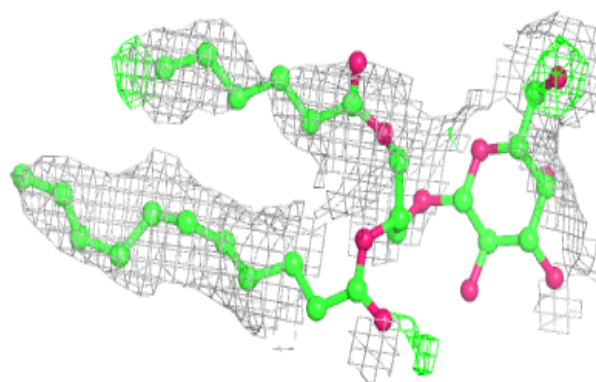


**Electron density around CLA K 1002:**

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

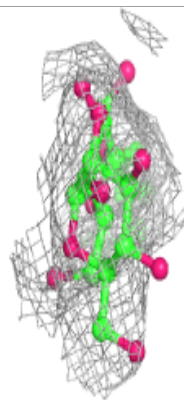
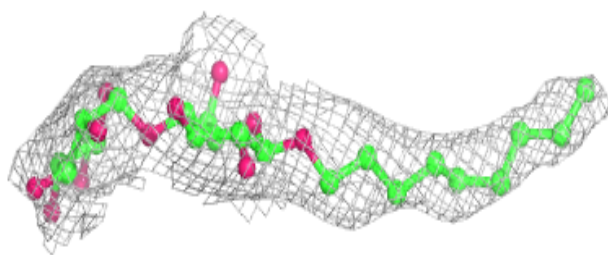
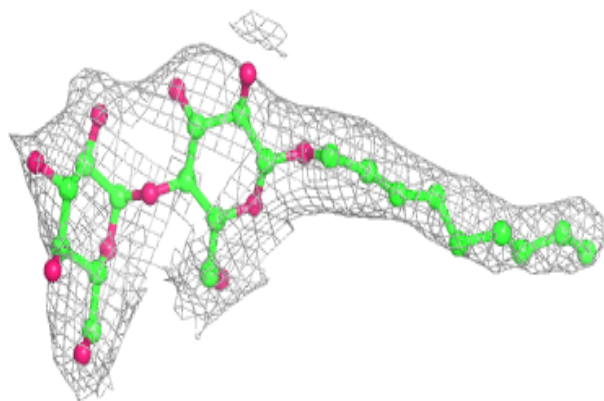
**Electron density around LMG 2 519:**

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

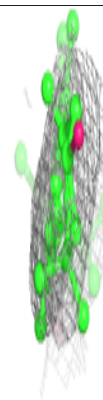
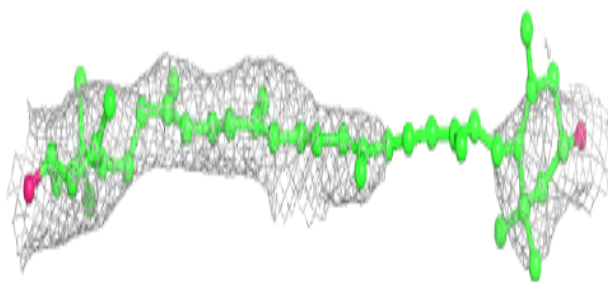
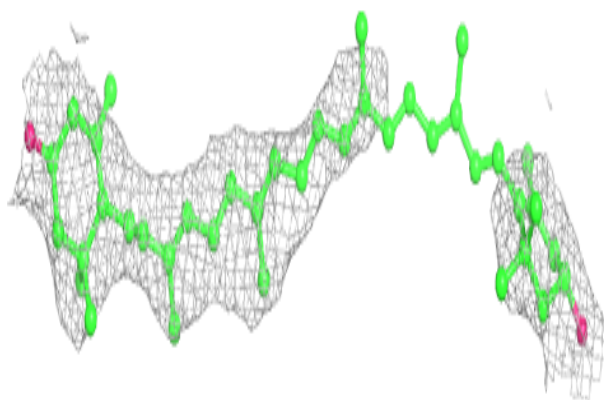


**Electron density around LMT B 847:**

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

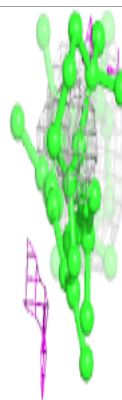
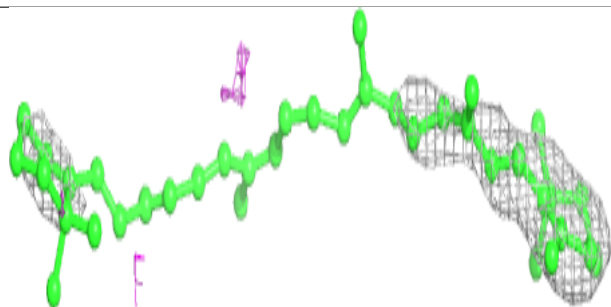
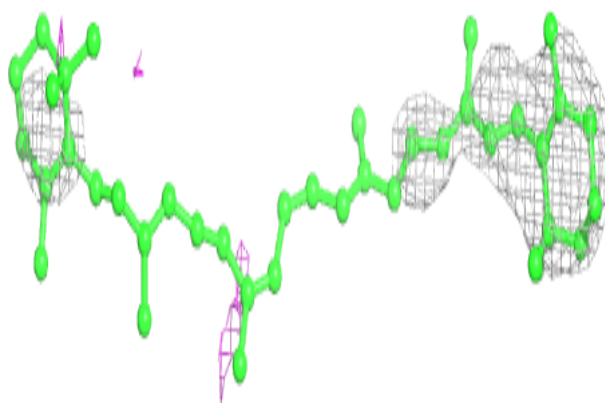
**Electron density around LUT 3 302:**

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

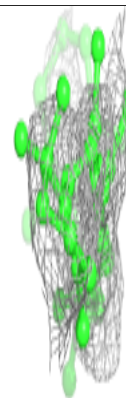
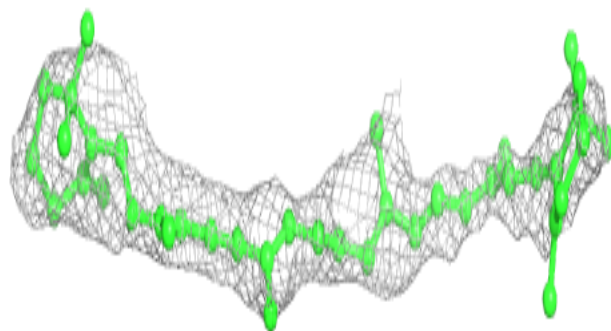
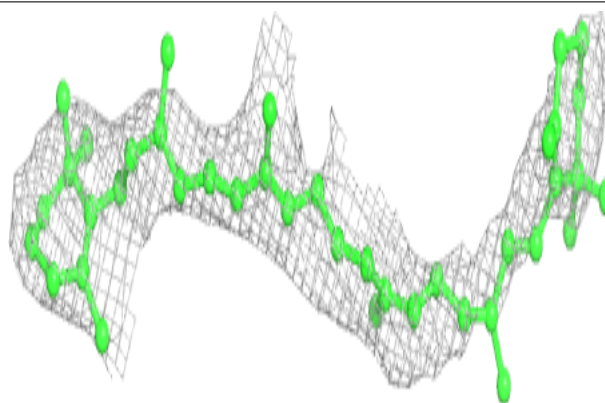


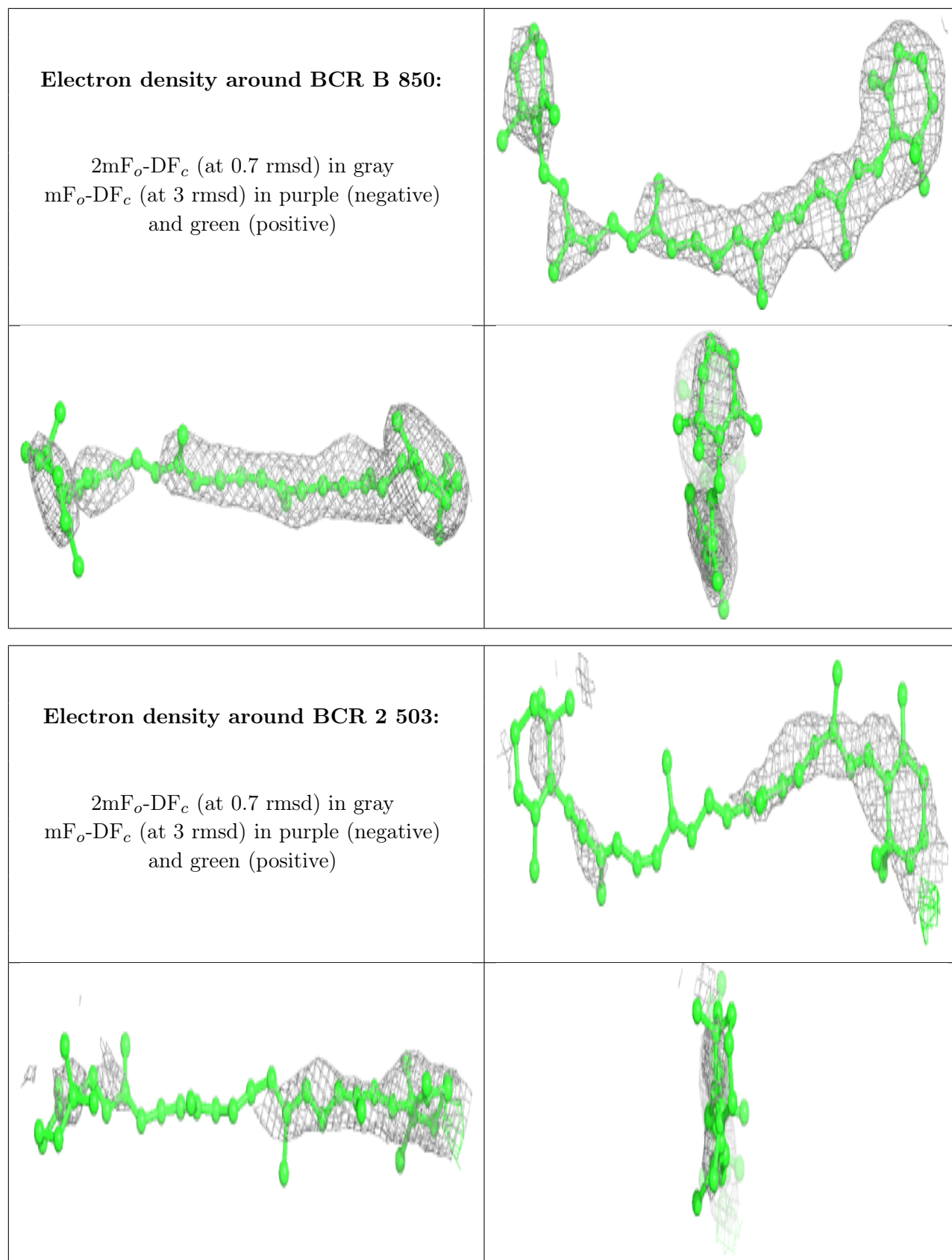
**Electron density around BCR 3 304:**

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

**Electron density around BCR 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)

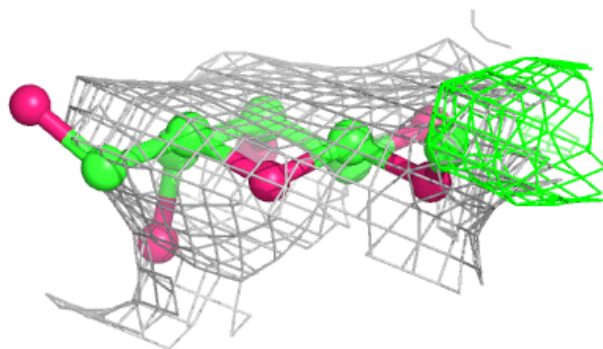
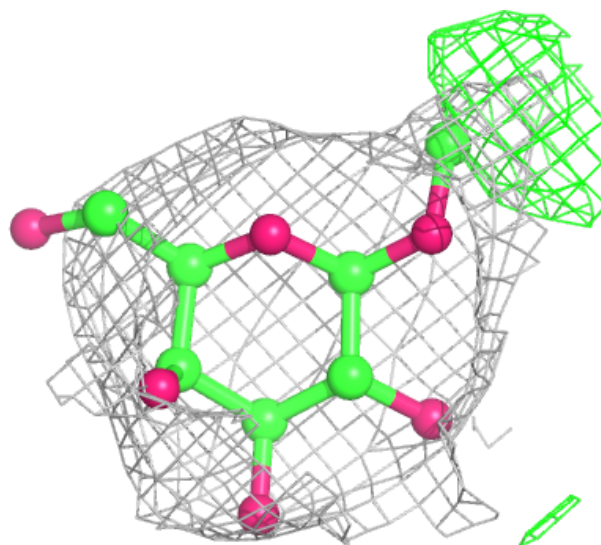


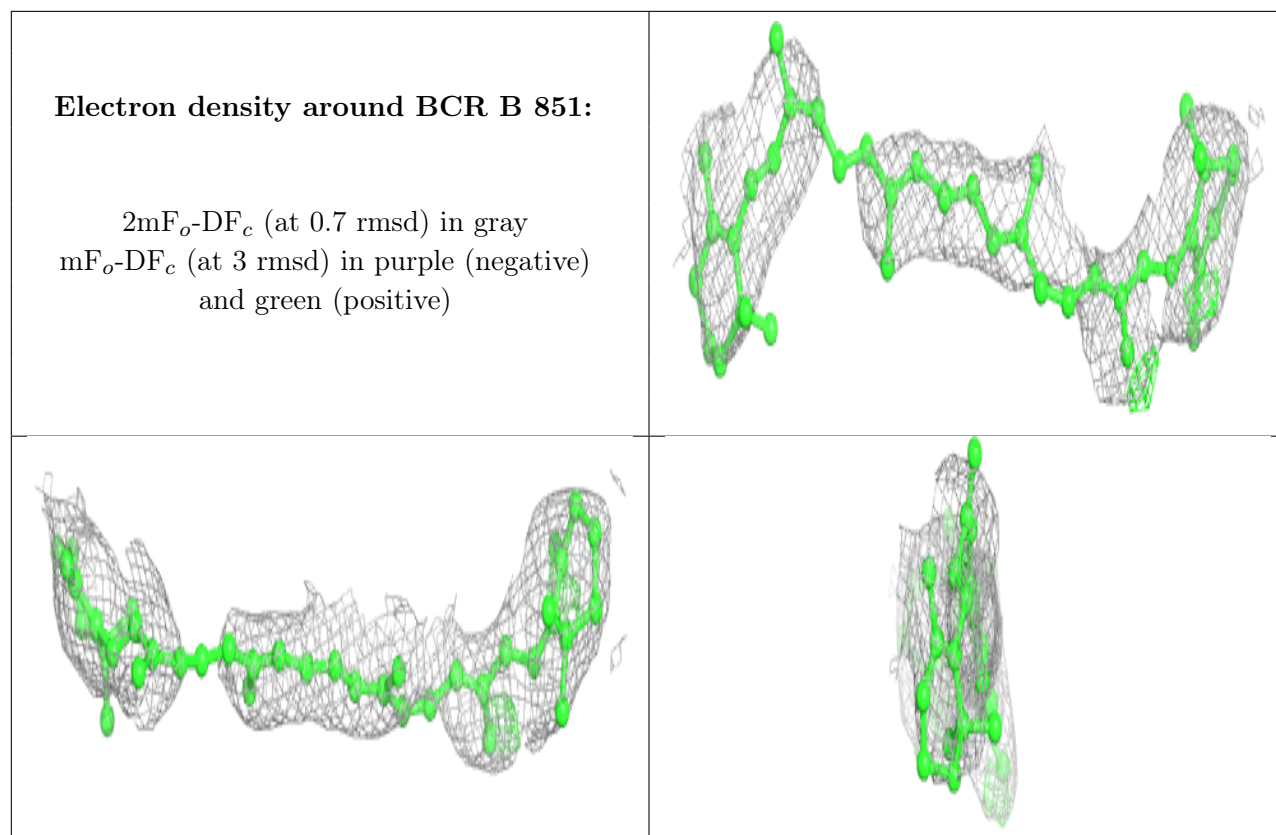




**Electron density around LMG 2 524:**

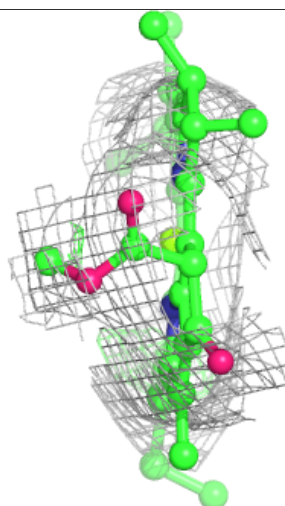
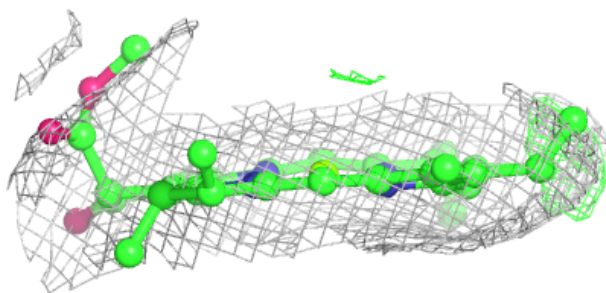
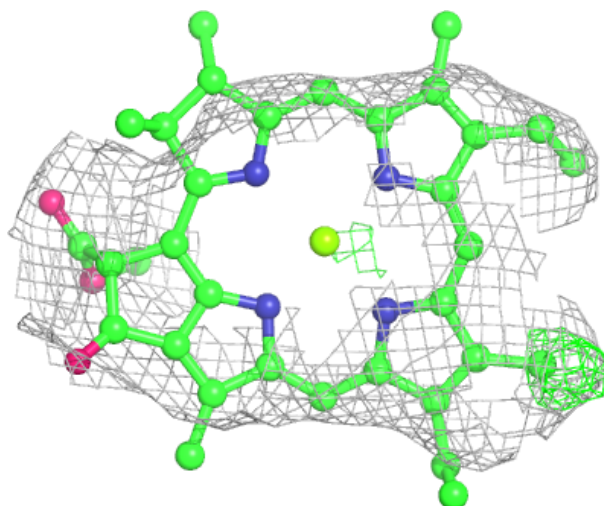
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





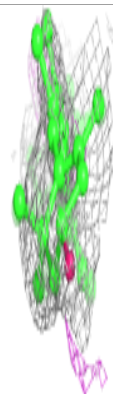
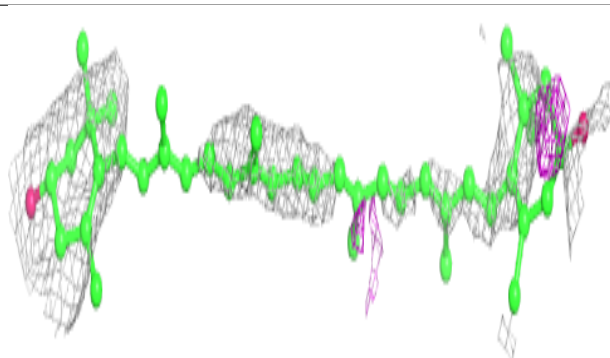
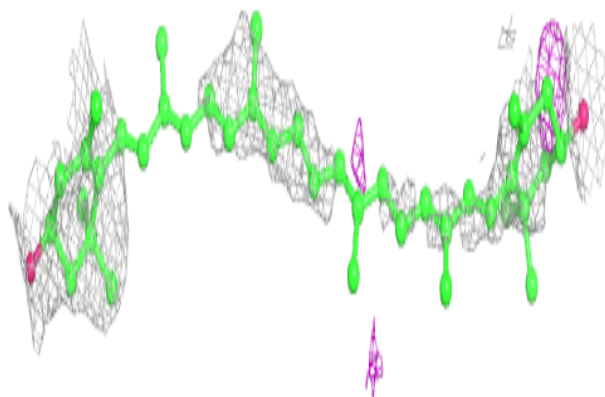
**Electron density around CLA 3 311:**

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



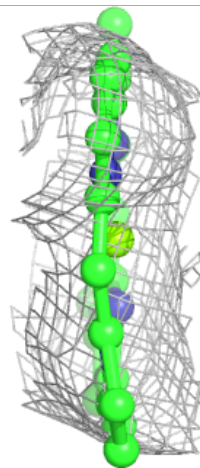
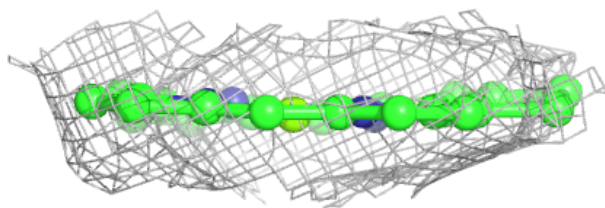
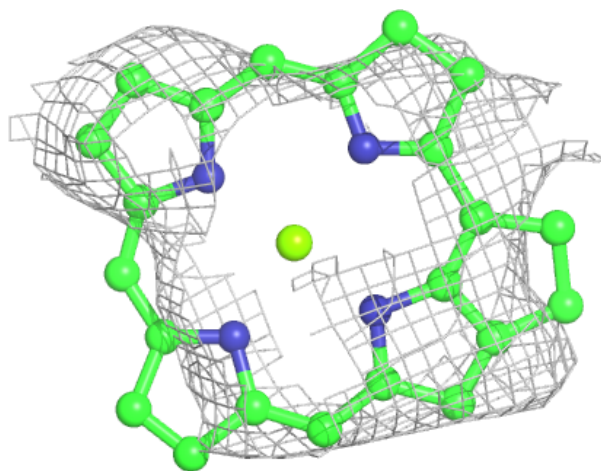
**Electron density around LUT 3 301:**

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



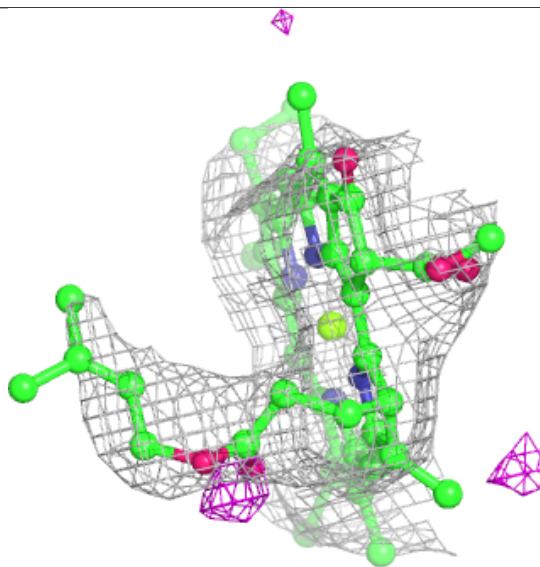
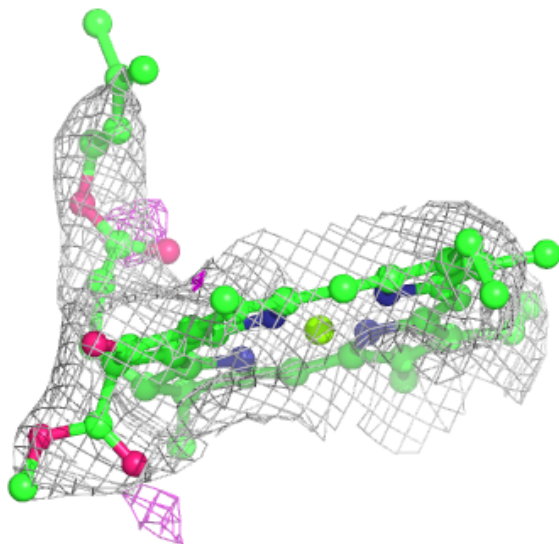
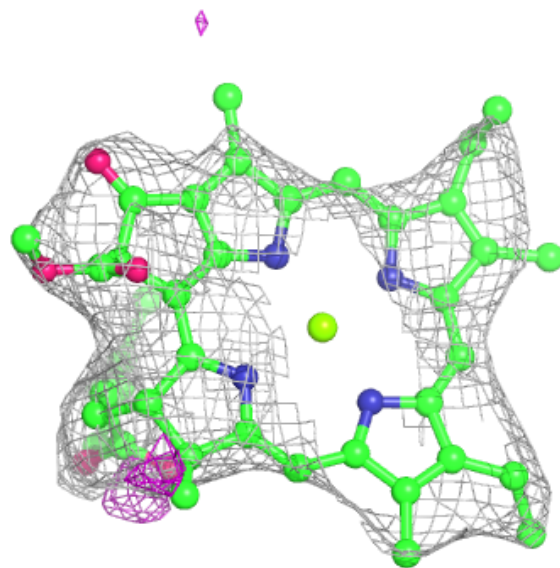
**Electron density around CLA K 1003:**

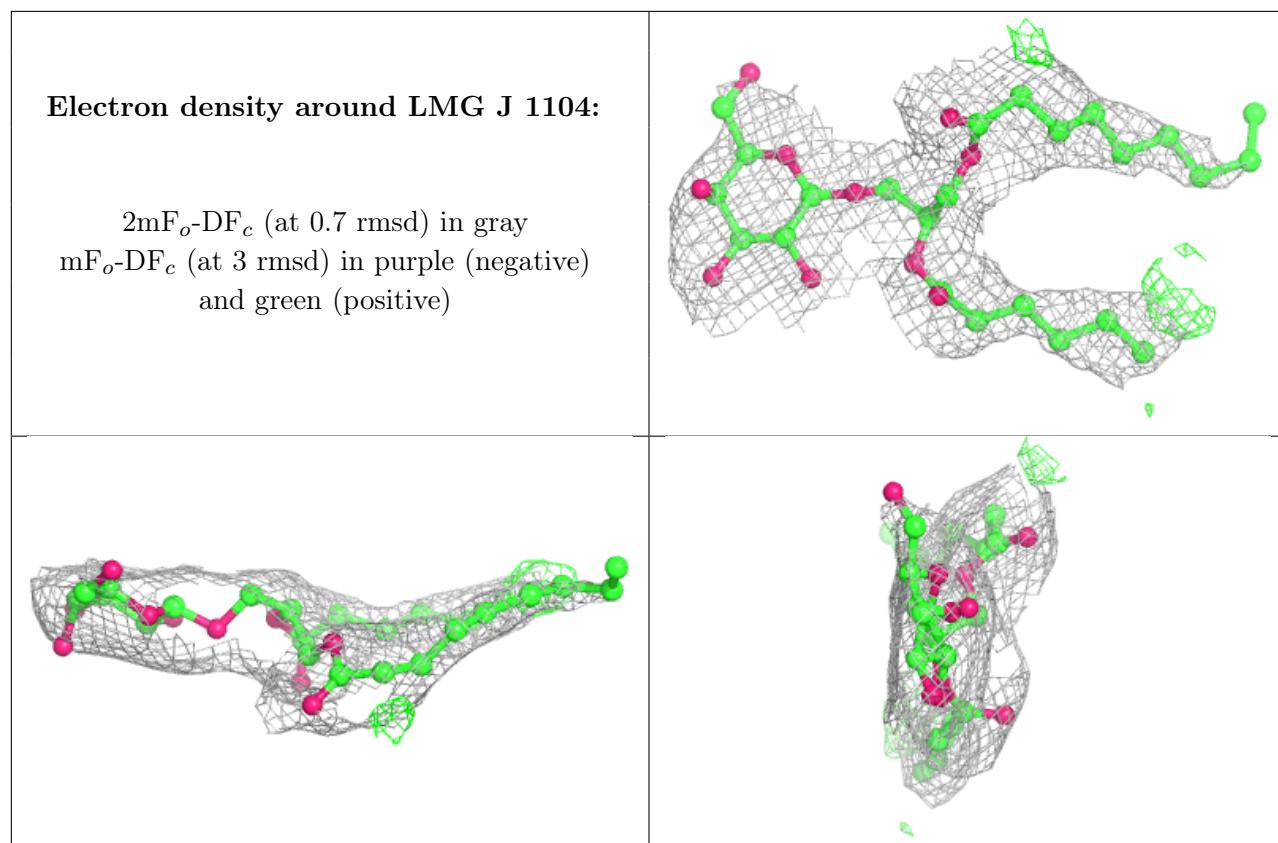
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around 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)

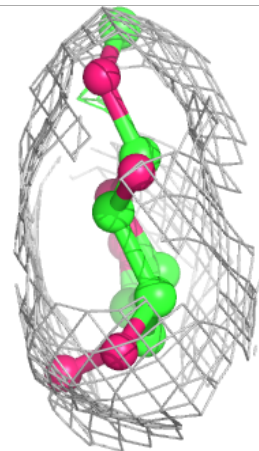
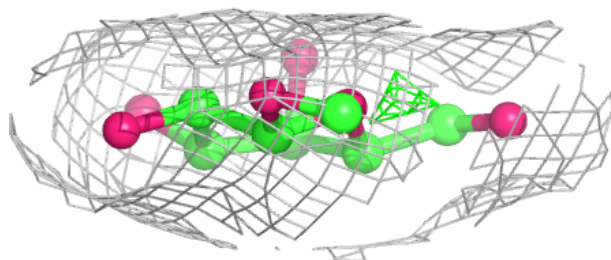
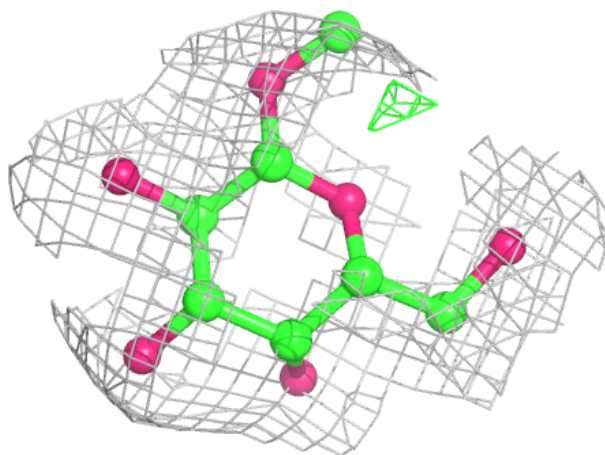






**Electron density around LMG 1 519:**

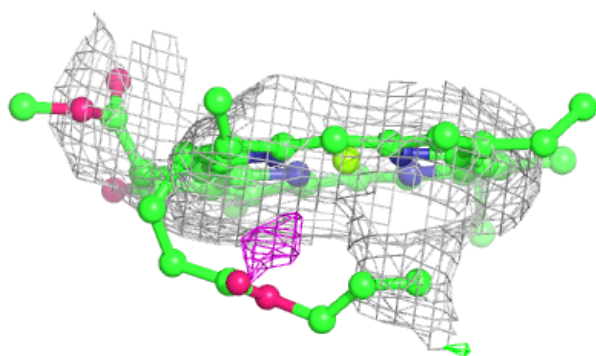
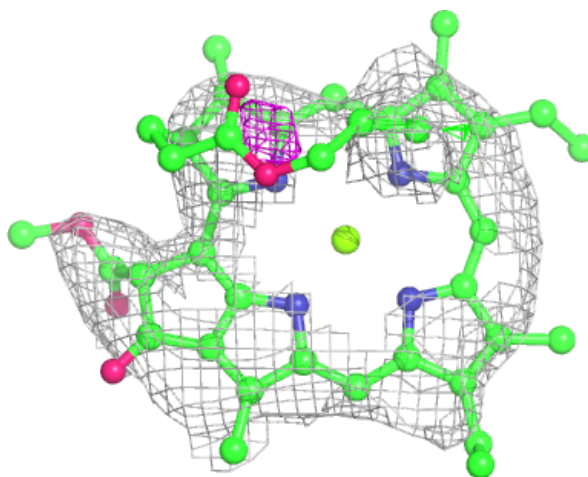
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





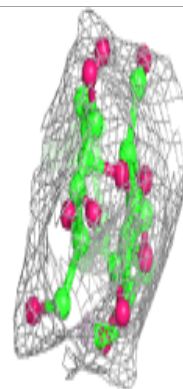
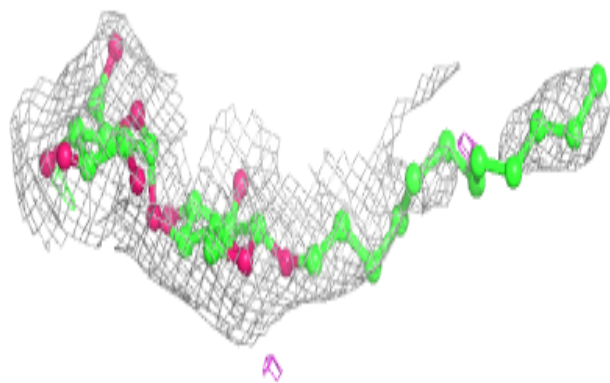
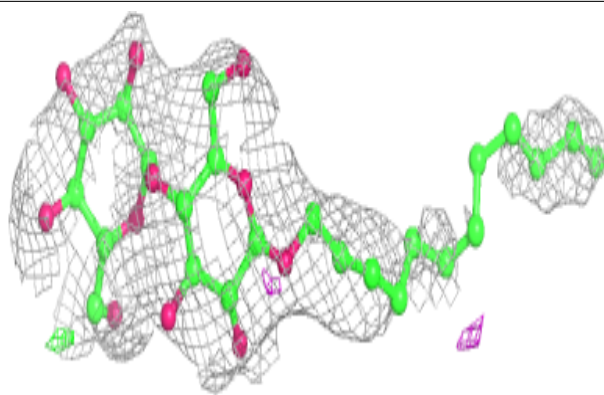
**Electron density around CLA 3 312:**

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

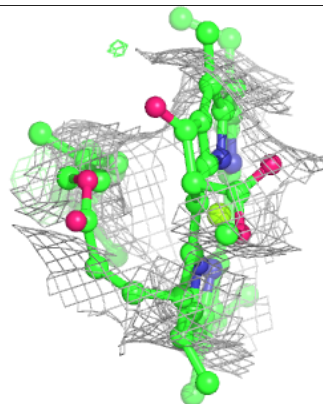
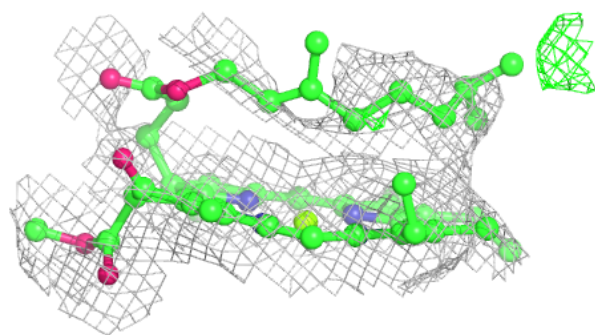
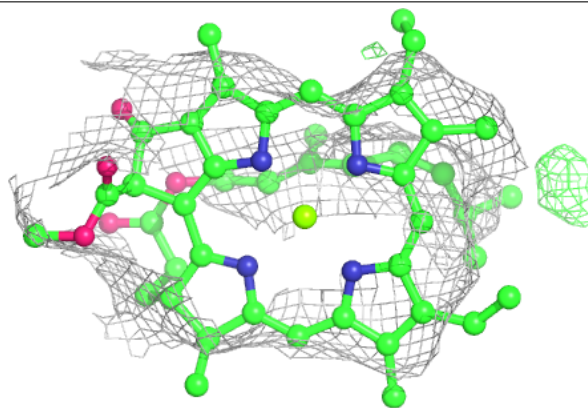


**Electron density around LMT G 208:**

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

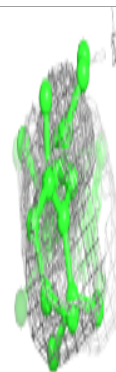
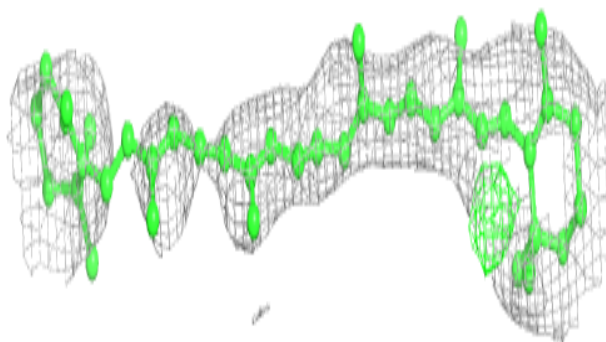
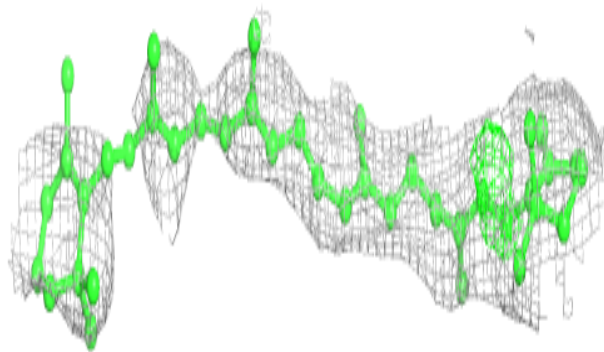
**Electron density around CLA 3 307:**

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



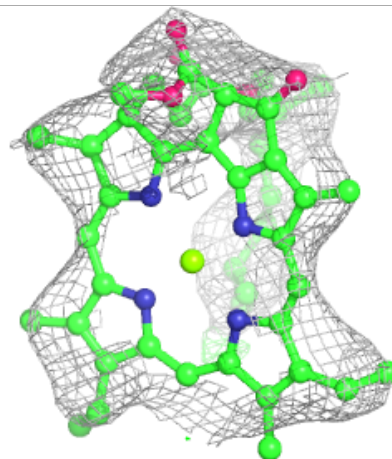
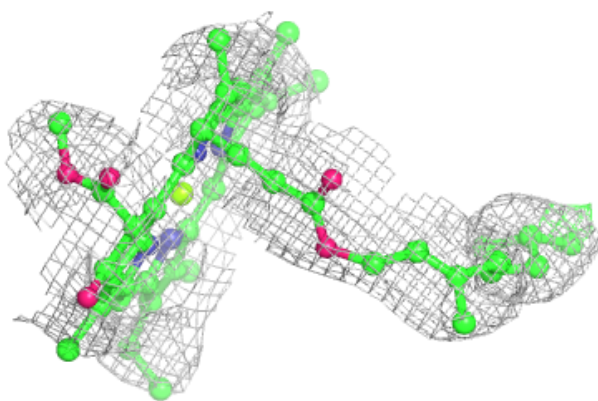
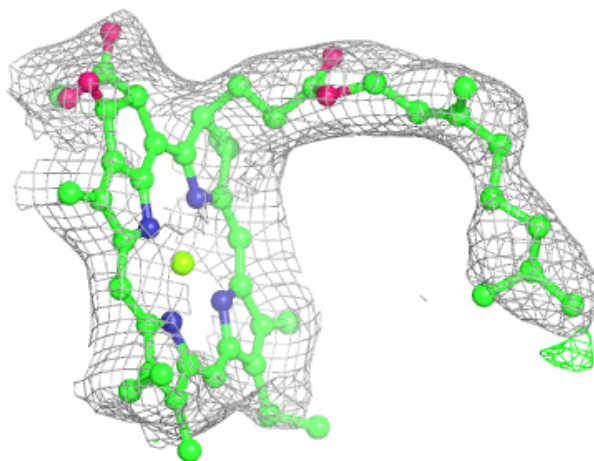
**Electron density around BCR 3 303:**

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



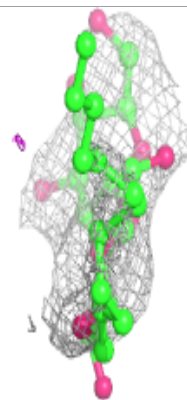
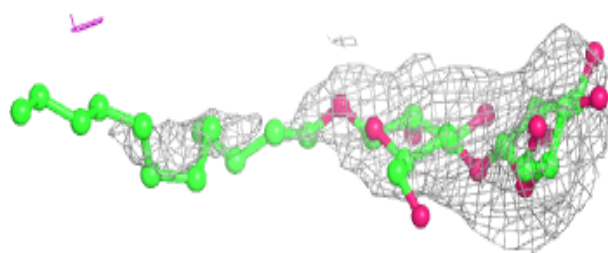
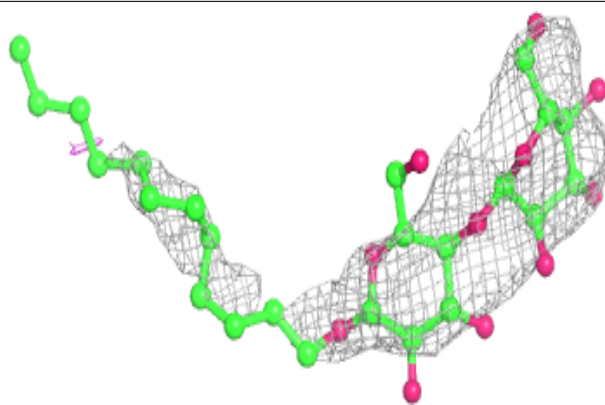
**Electron density around CLA B 816:**

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

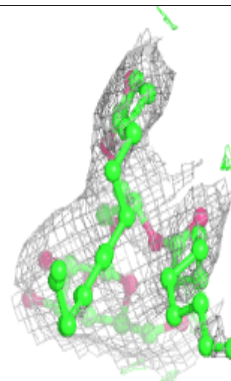
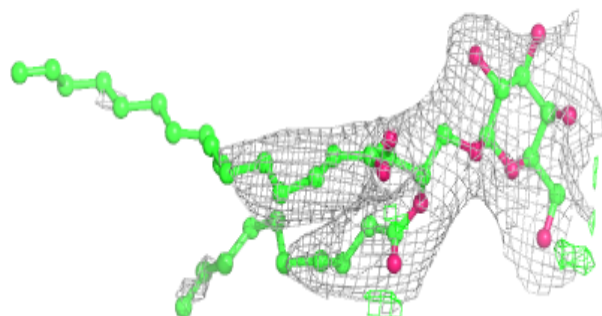
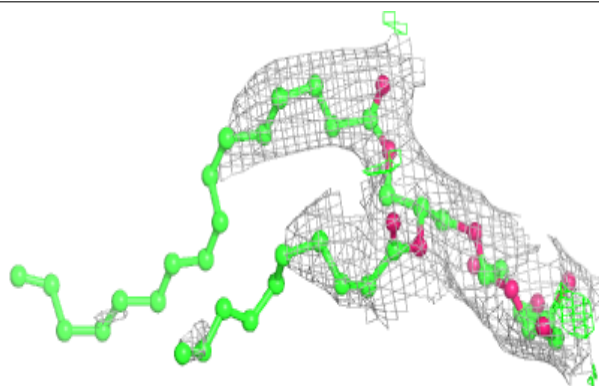


**Electron density around LMT B 846:**

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

**Electron density around LMG 4 322:**

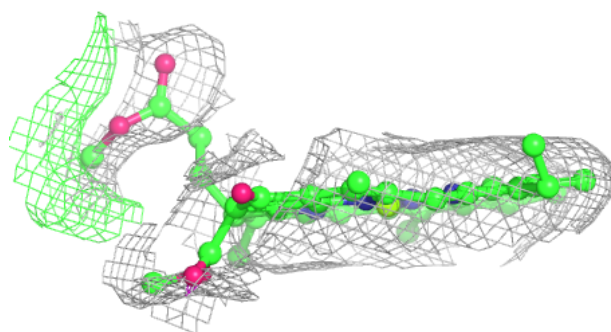
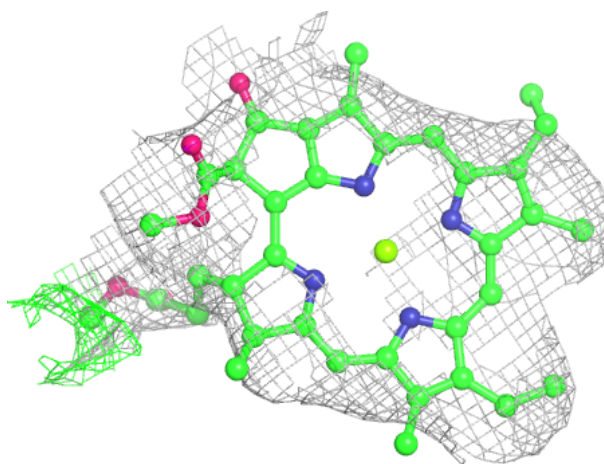
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





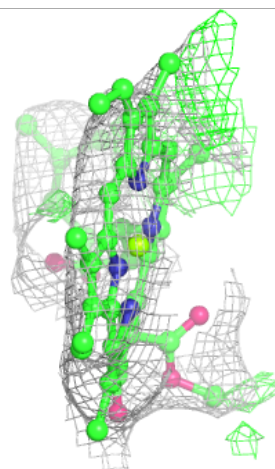
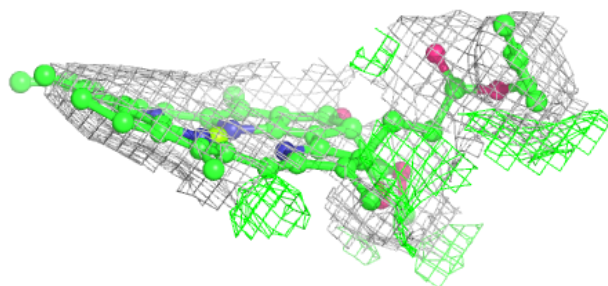
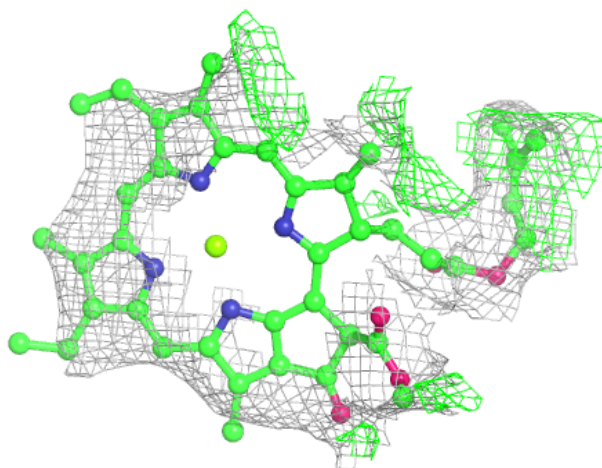
**Electron density around CLA 1 510:**

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



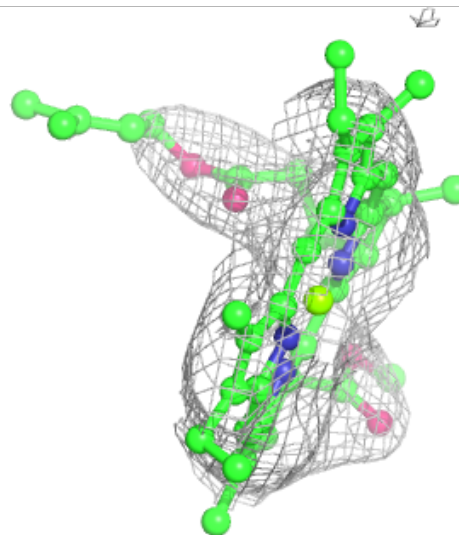
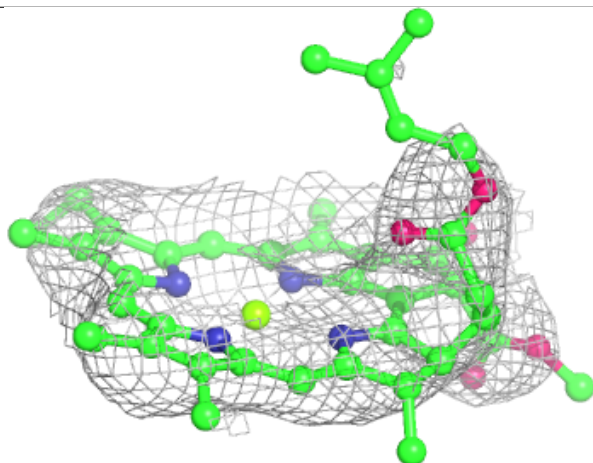
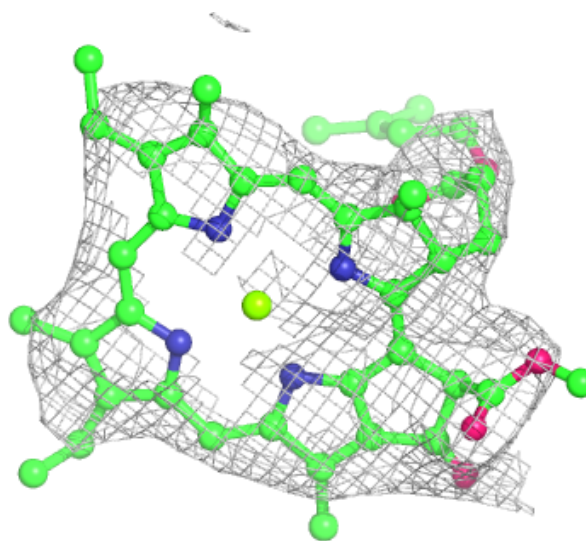
**Electron density around CLA J 1105:**

$2mF_o-DF_c$  (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:**

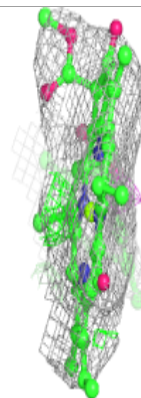
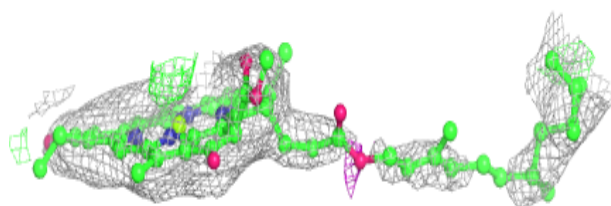
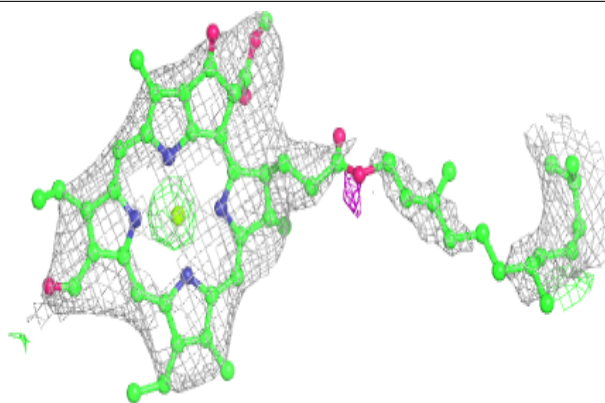
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





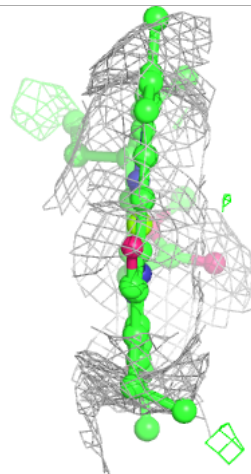
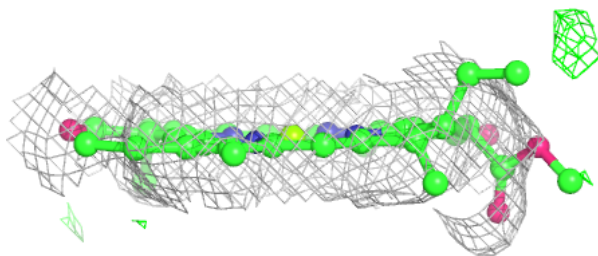
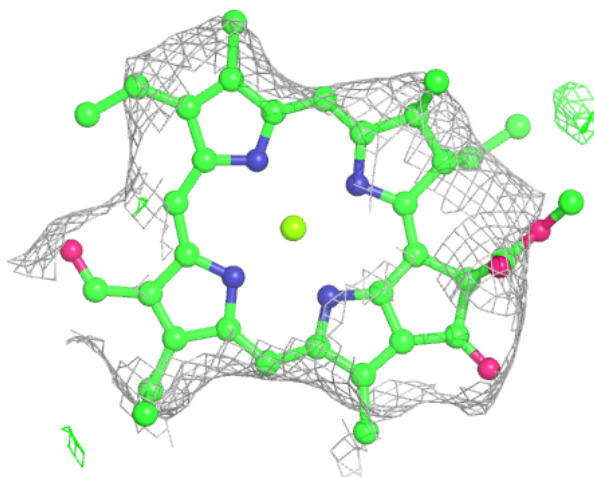
**Electron density around CHL 4 316:**

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



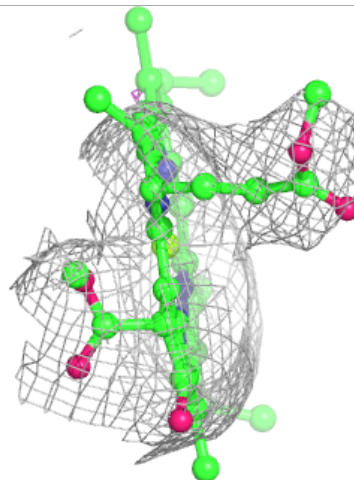
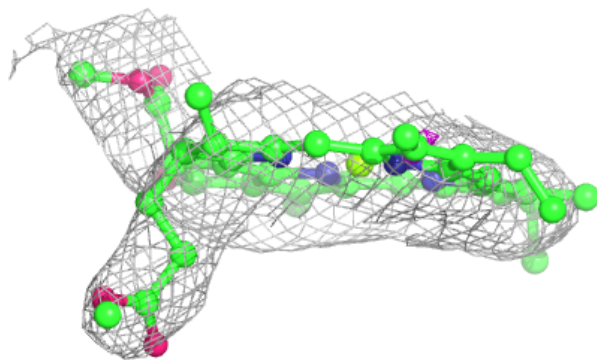
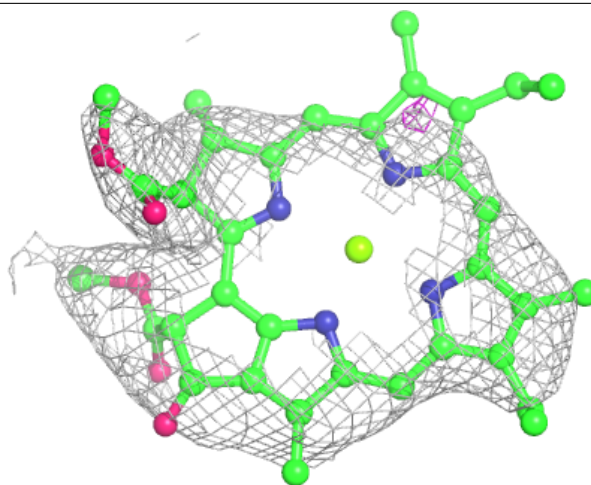
**Electron density around CHL 4 317:**

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



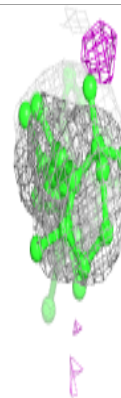
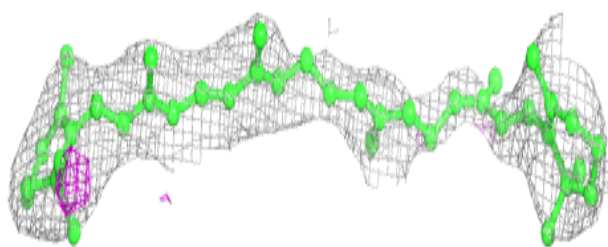
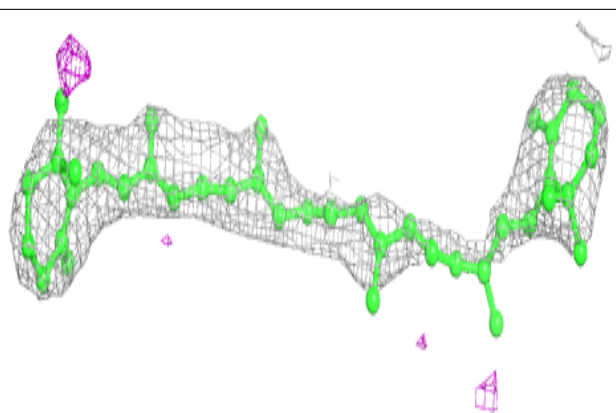
**Electron density around CLA 1 511:**

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

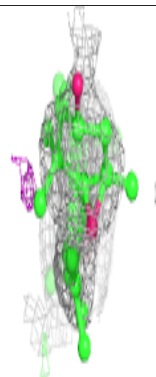
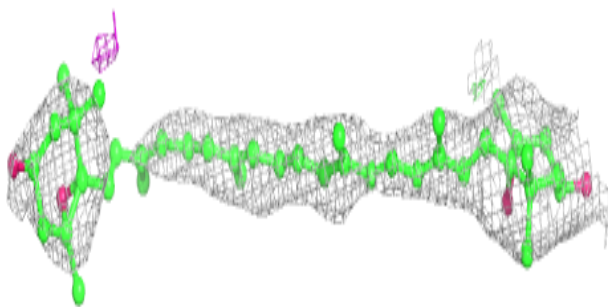
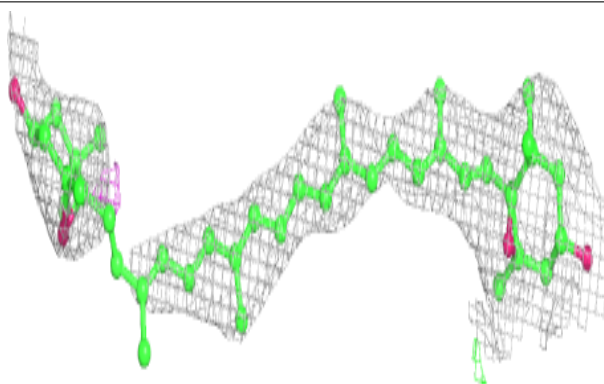


**Electron density around BCR A 851:**

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

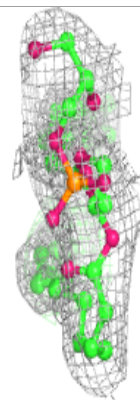
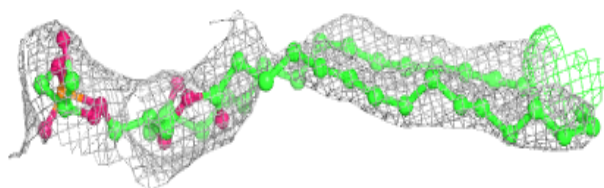
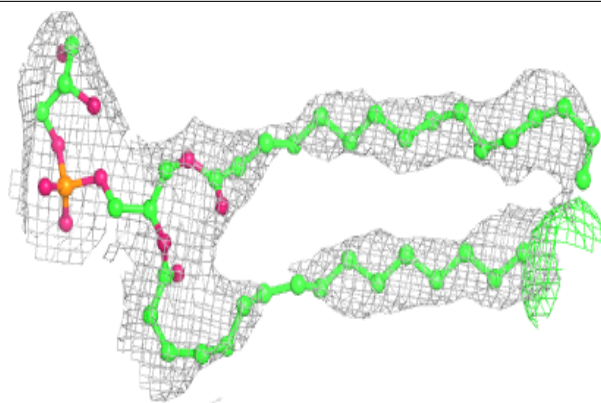
**Electron density around XAT 2 502:**

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

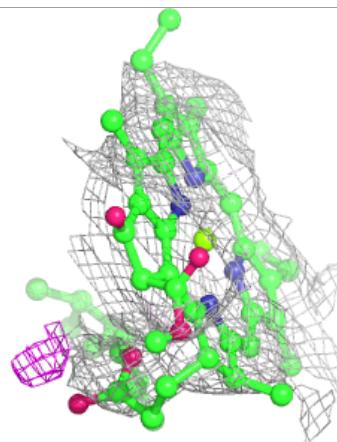
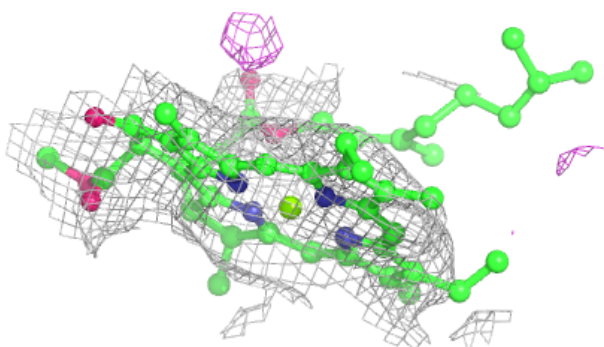
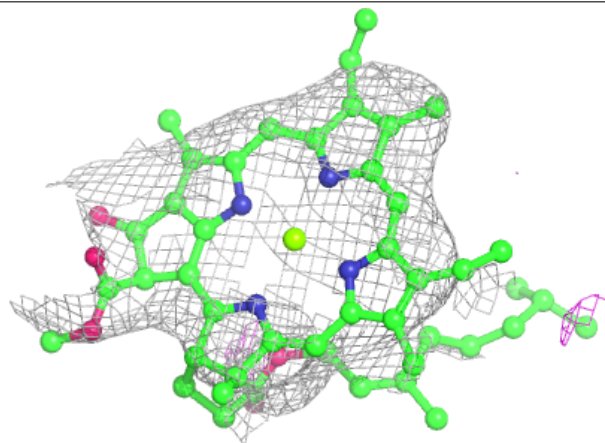


**Electron density around LHG 1 517:**

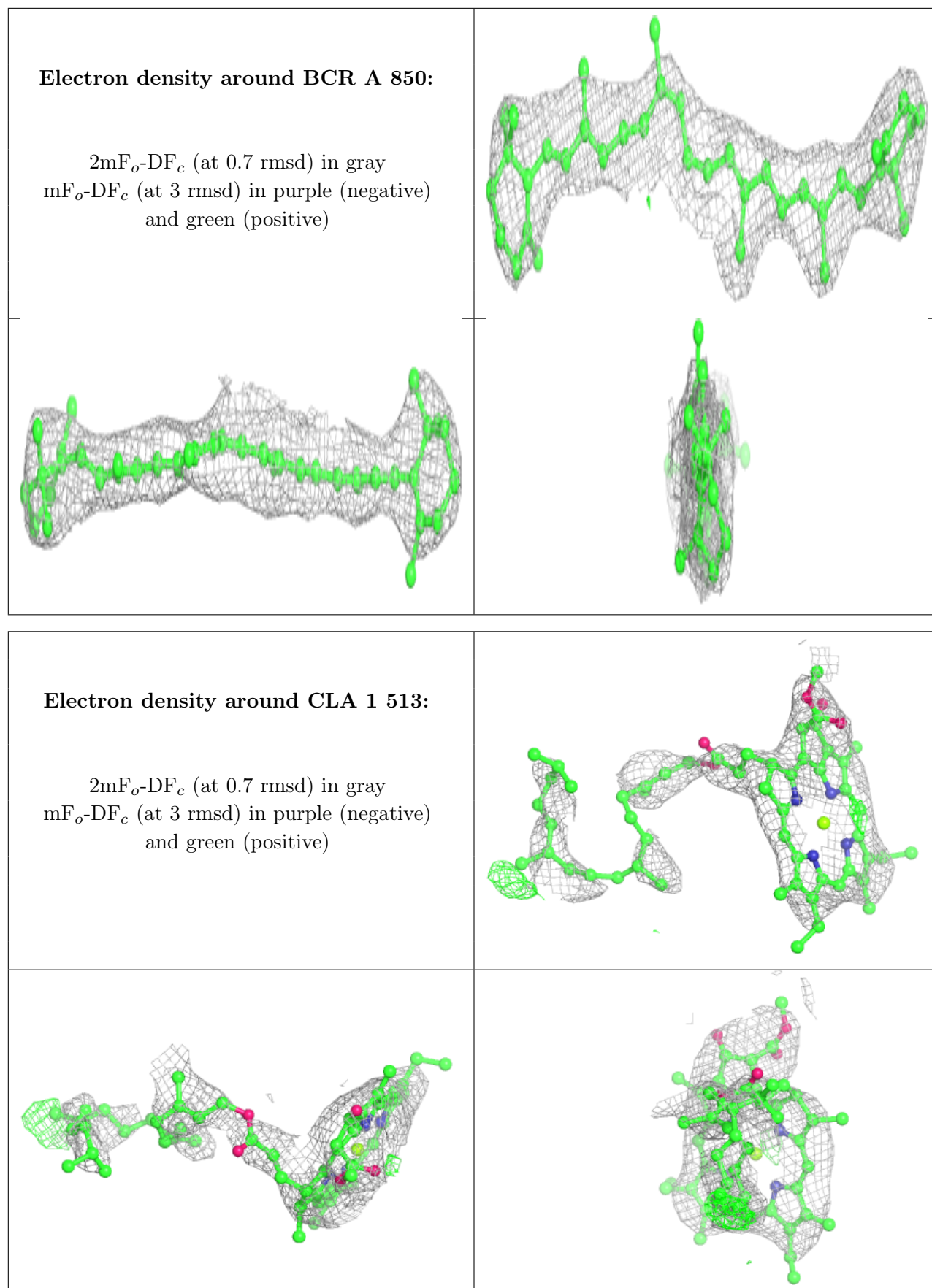
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around 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)

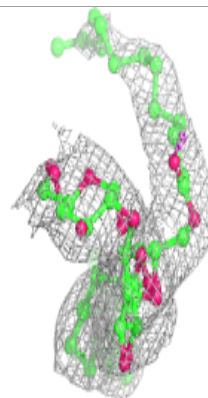
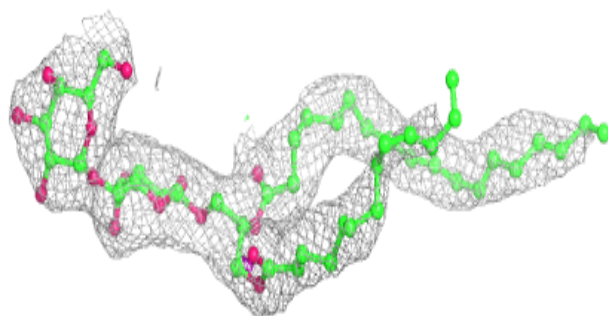
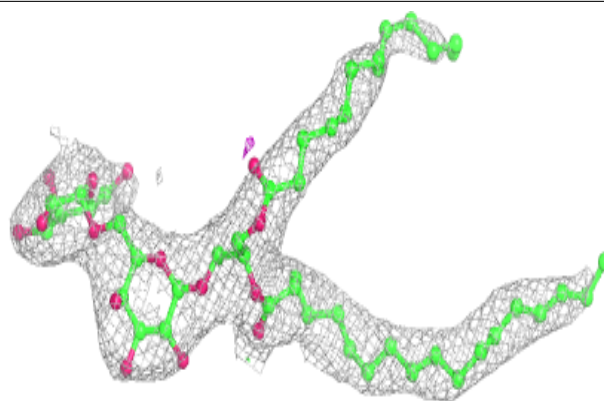




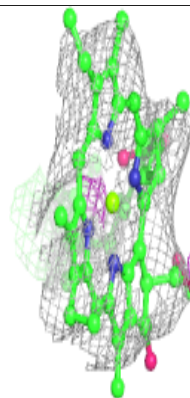
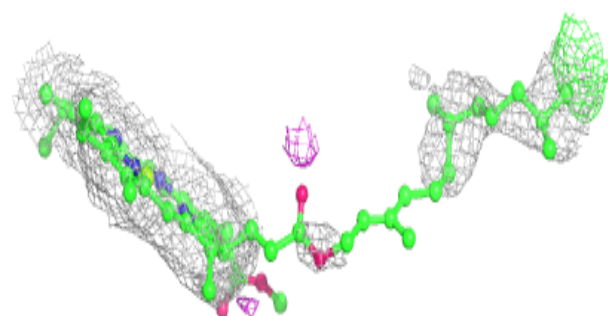
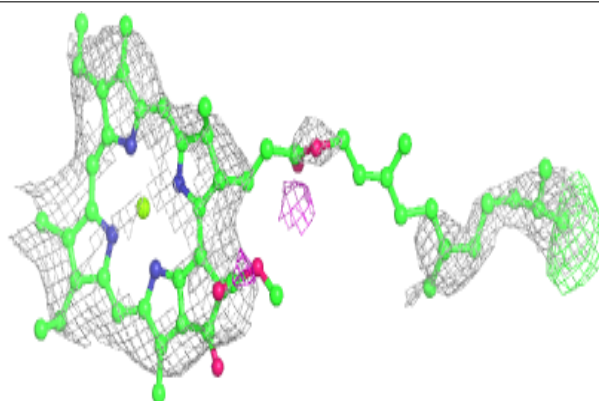


**Electron density around DGD B 854:**

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

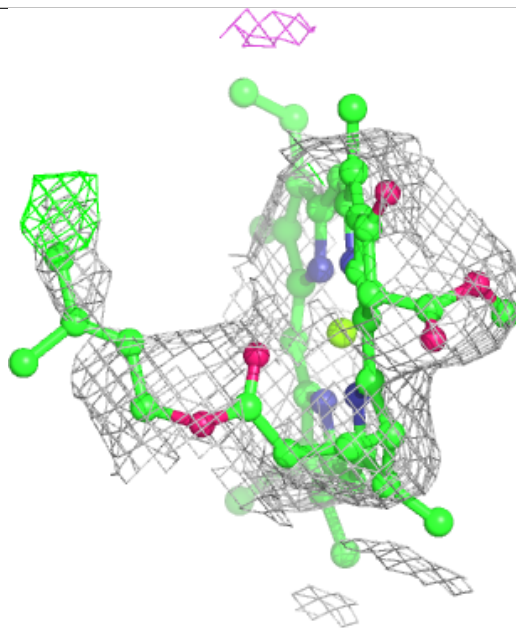
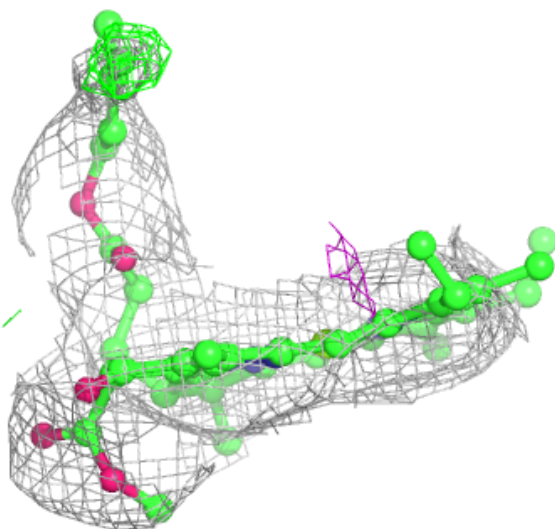
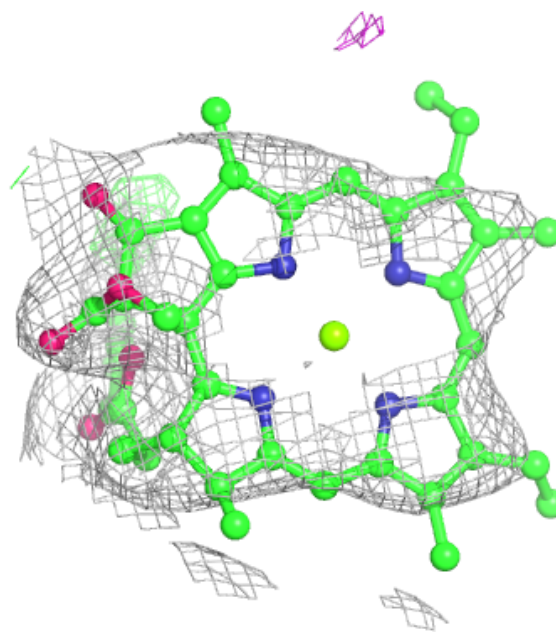
**Electron density around CLA H 1000:**

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



**Electron density around CLA 3 310:**

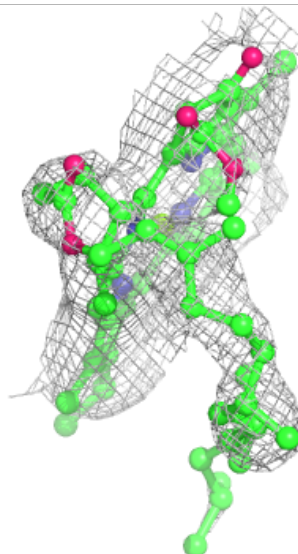
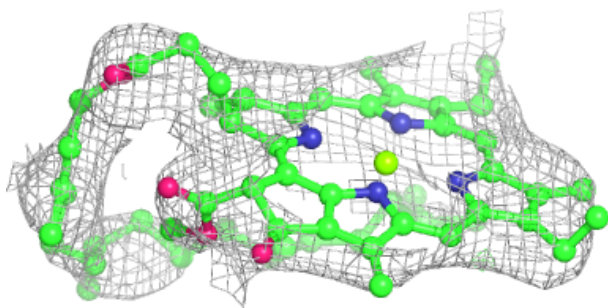
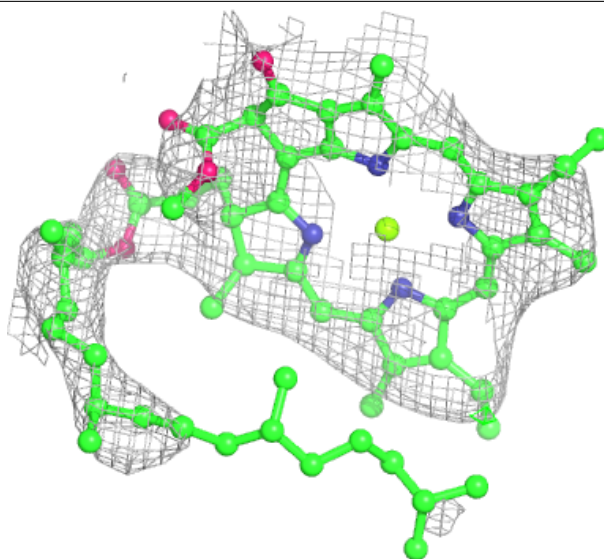
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





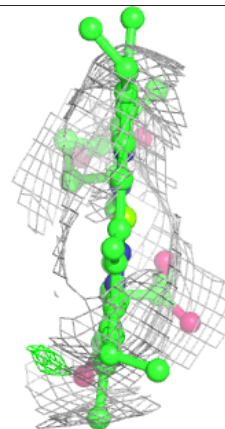
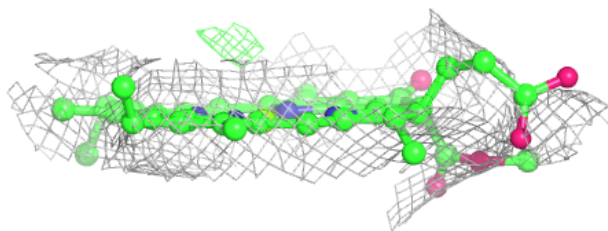
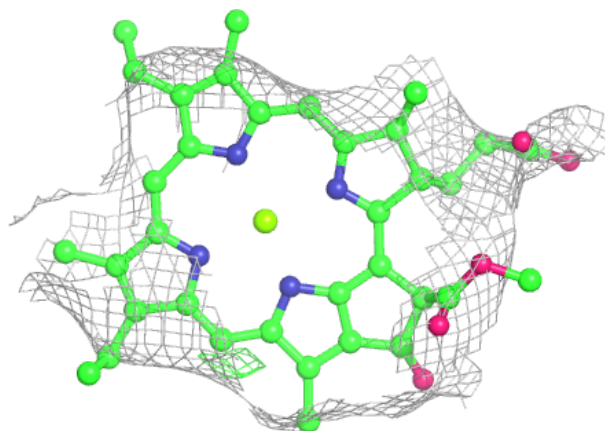
**Electron density around CLA 1 508:**

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

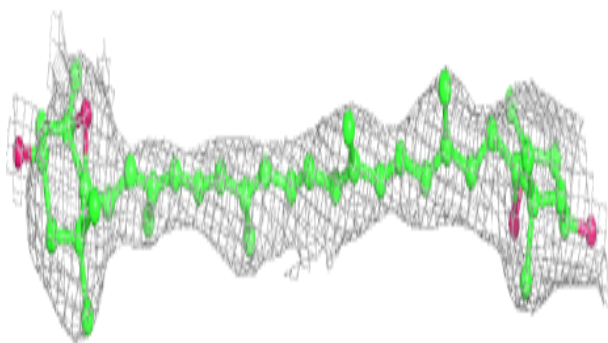
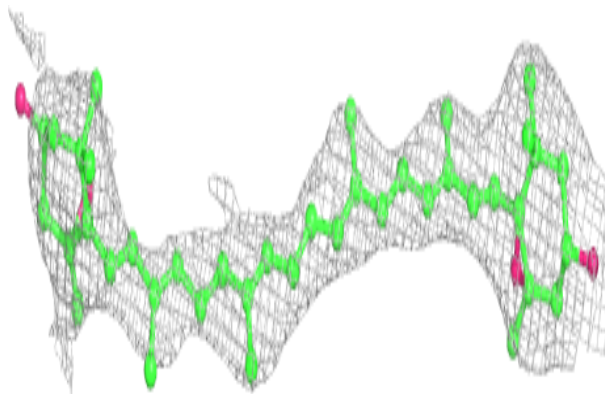


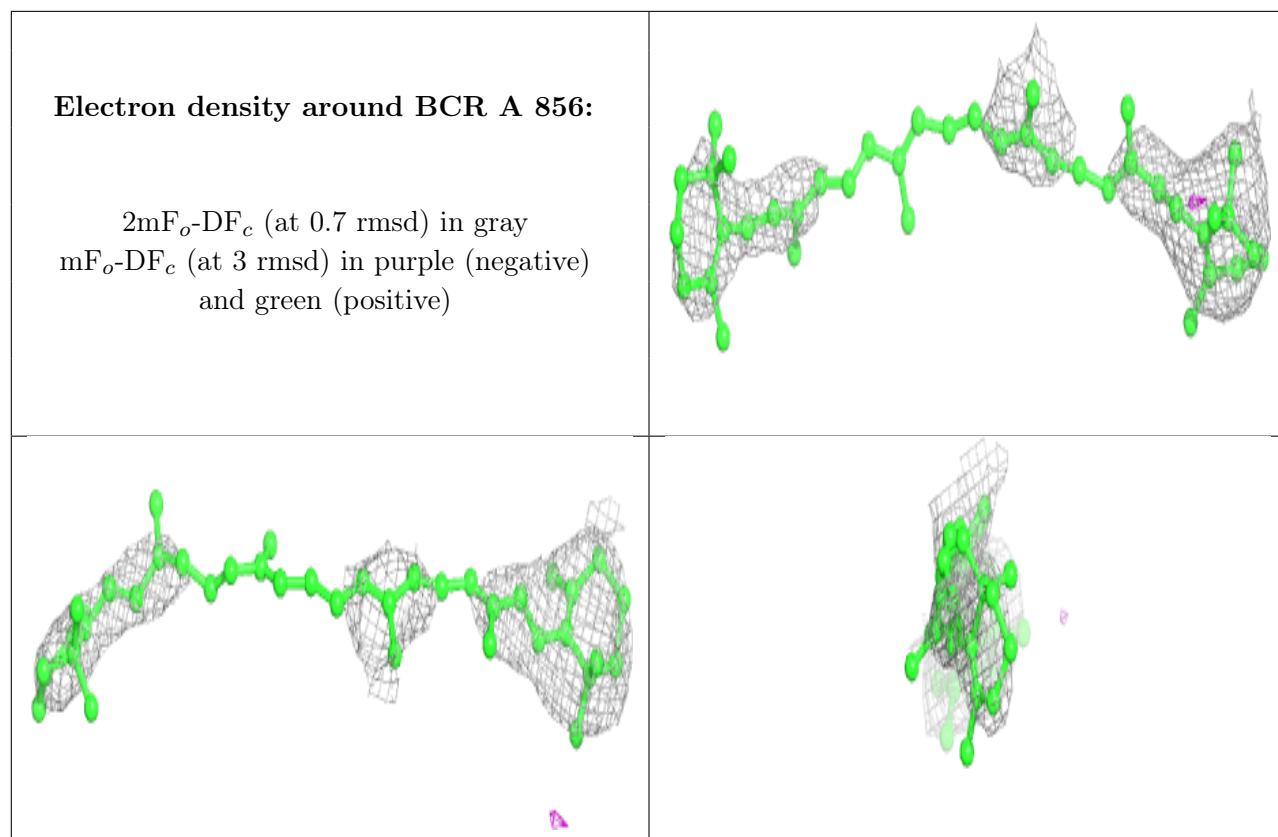
**Electron density around CLA 1 515:**

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

**Electron density around XAT 4 303:**

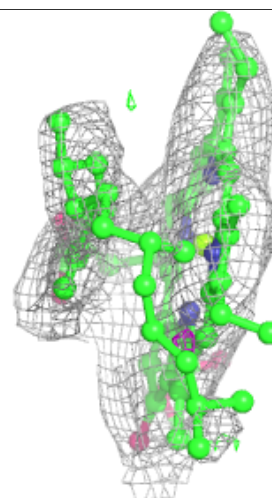
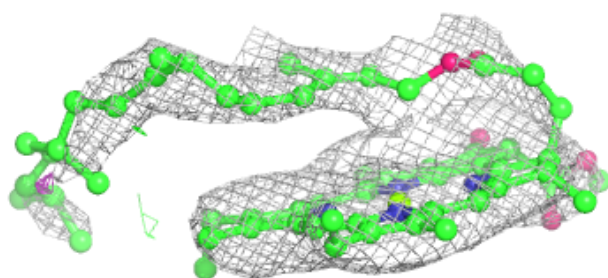
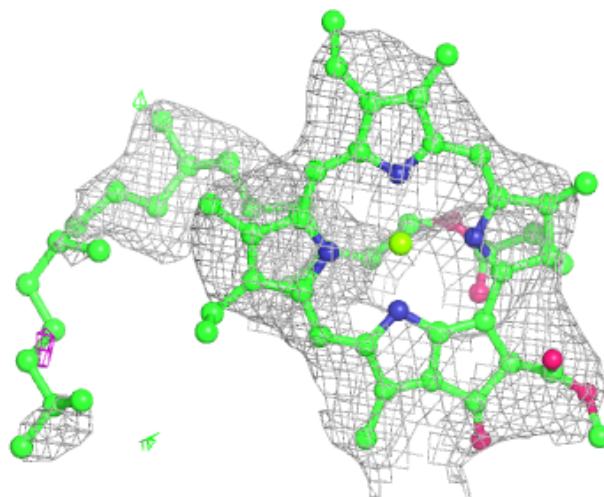
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





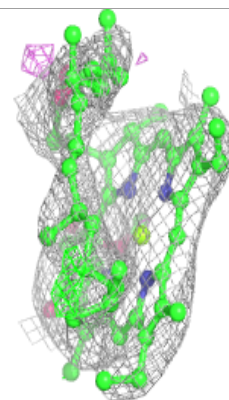
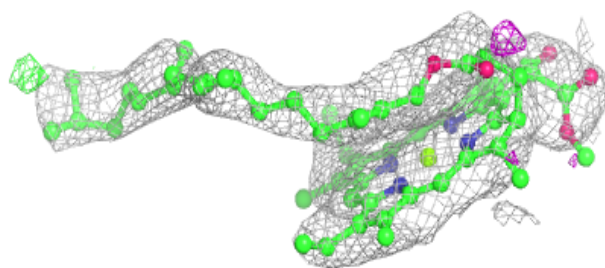
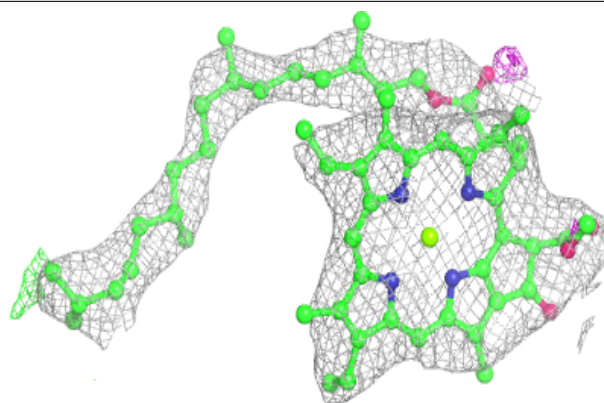
**Electron density around CLA A 817:**

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



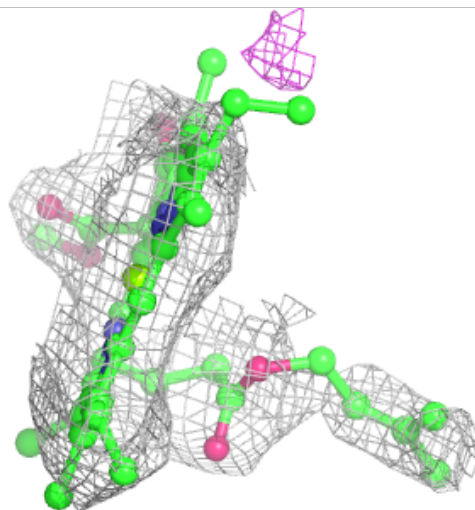
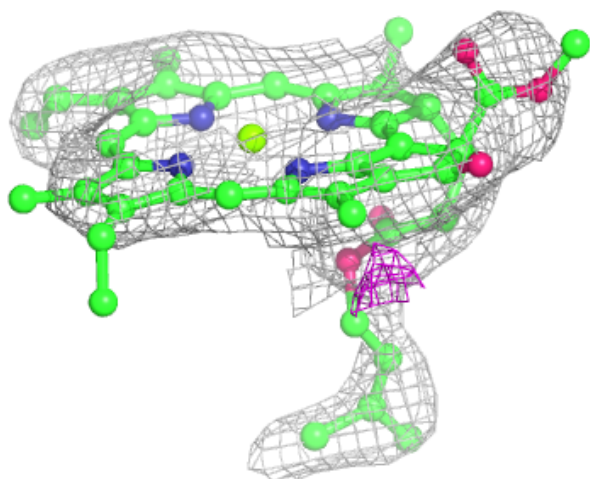
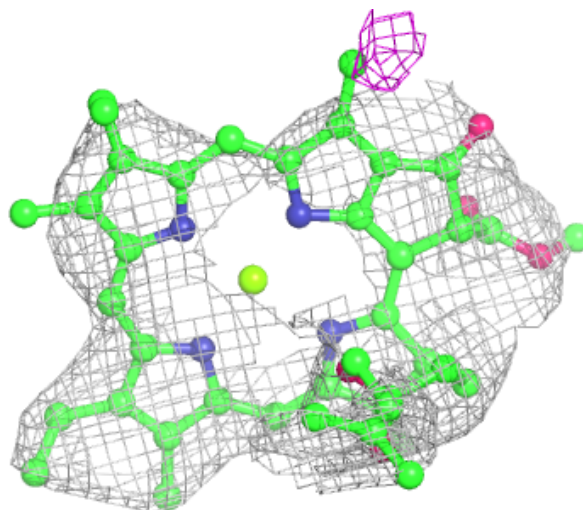
**Electron density around CLA 1 507:**

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

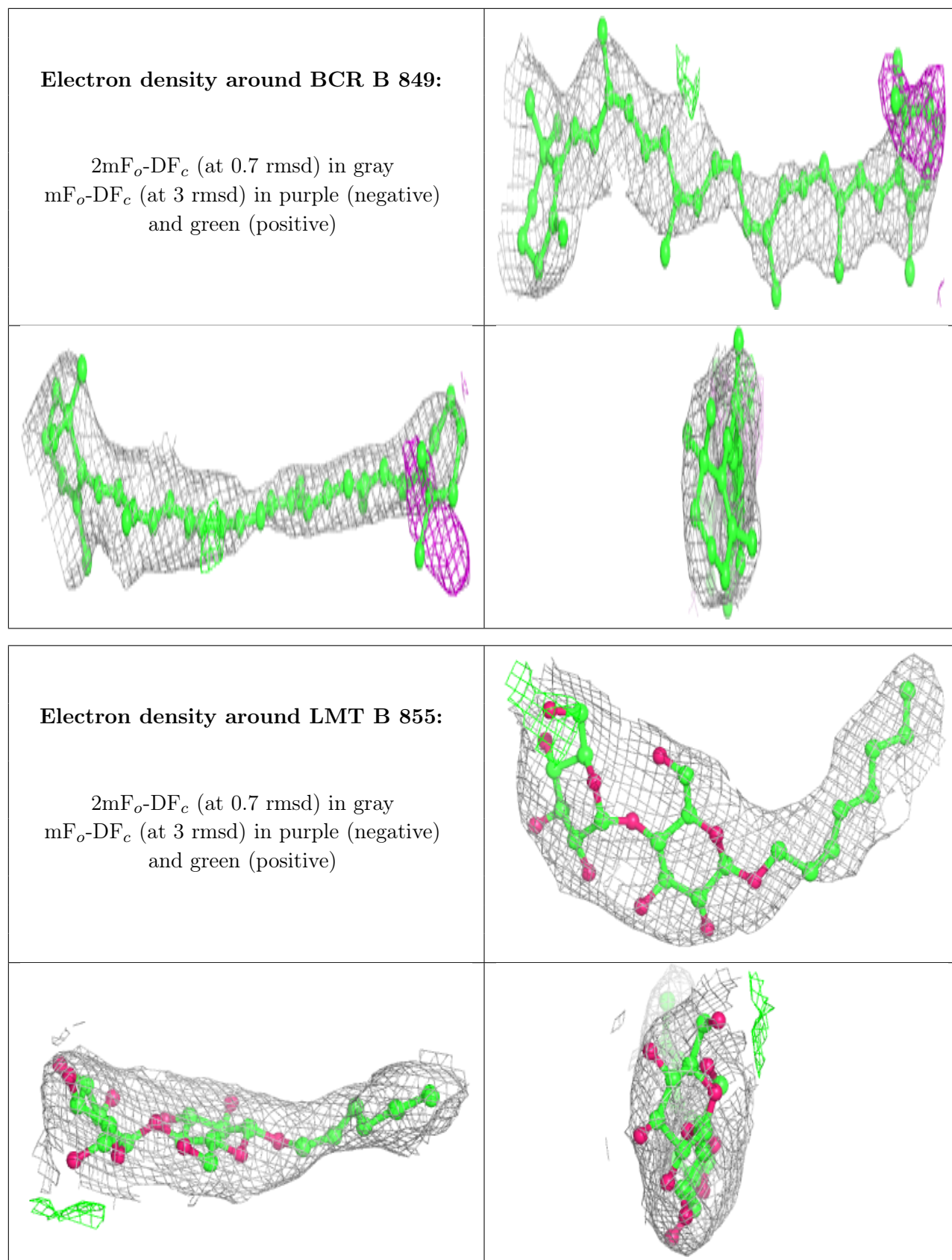


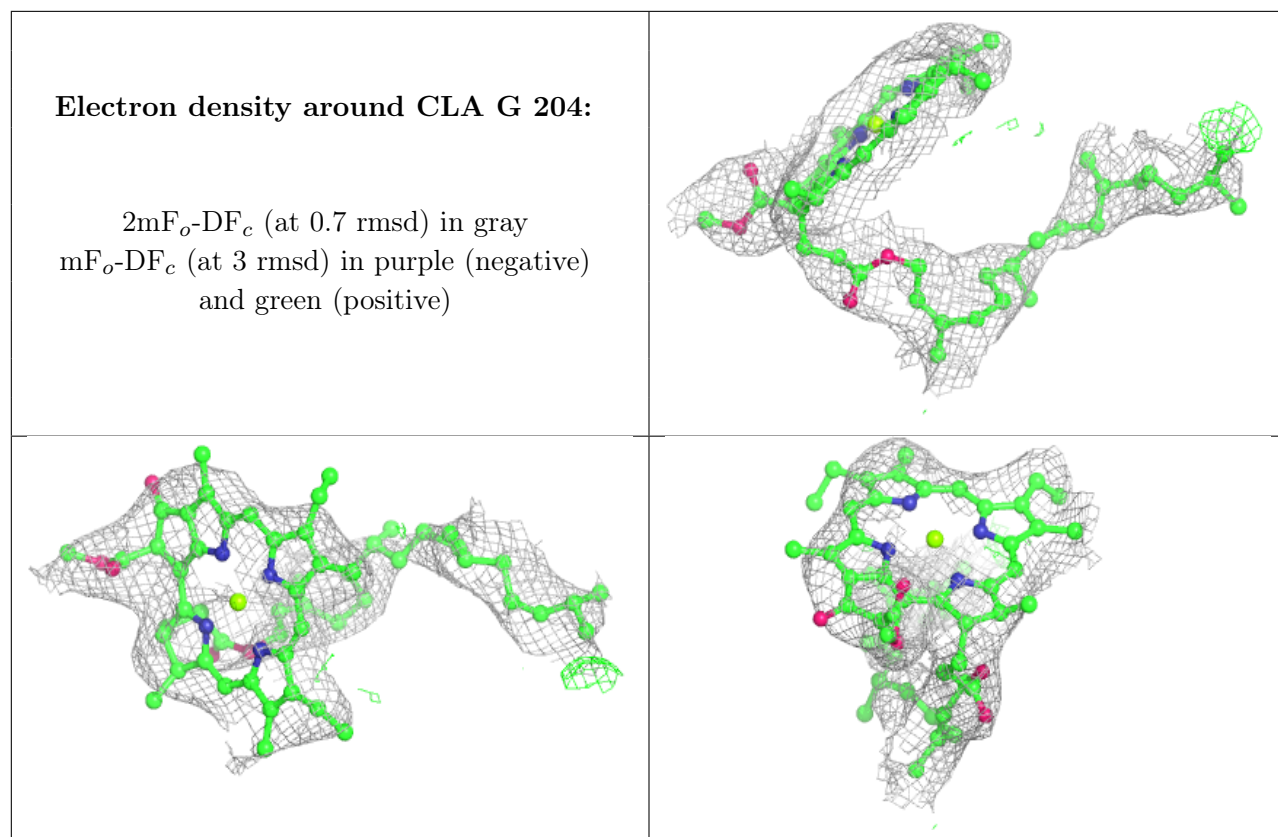
**Electron density around CLA L 303:**

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





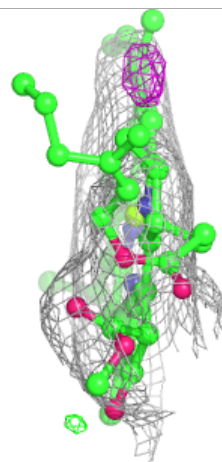
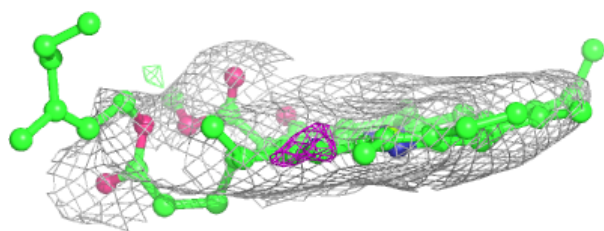
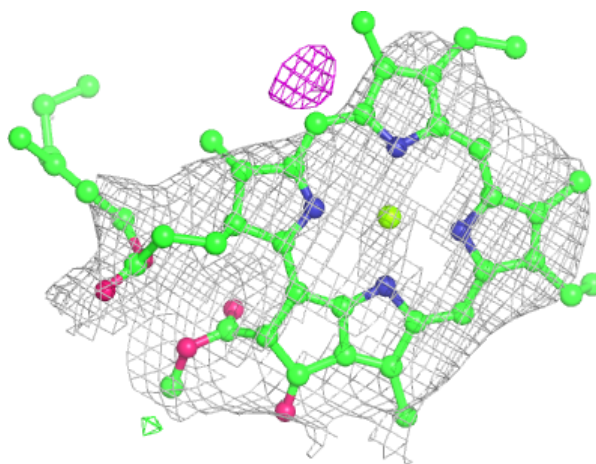






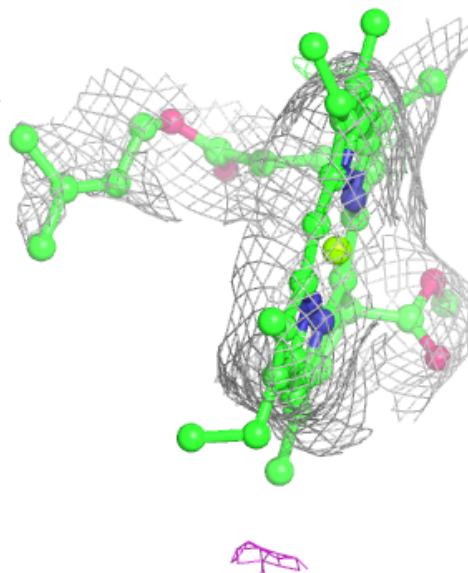
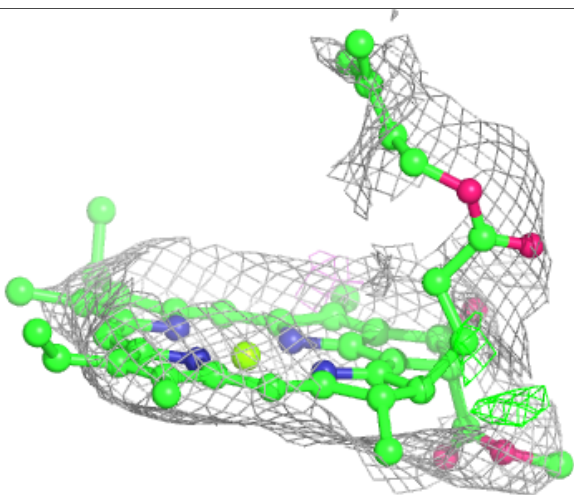
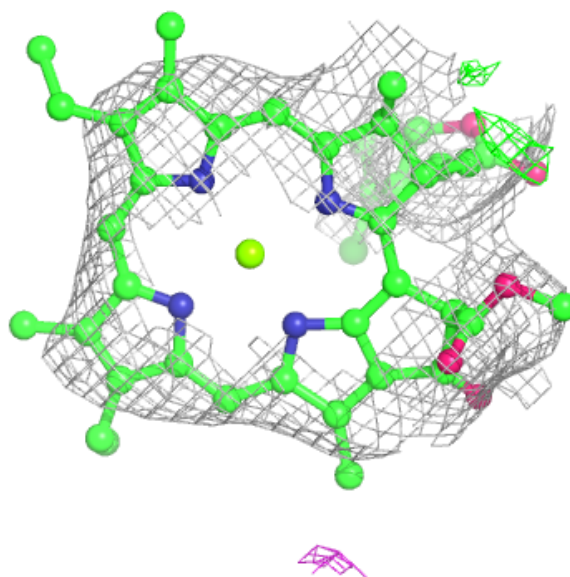
**Electron density around CLA 3 306:**

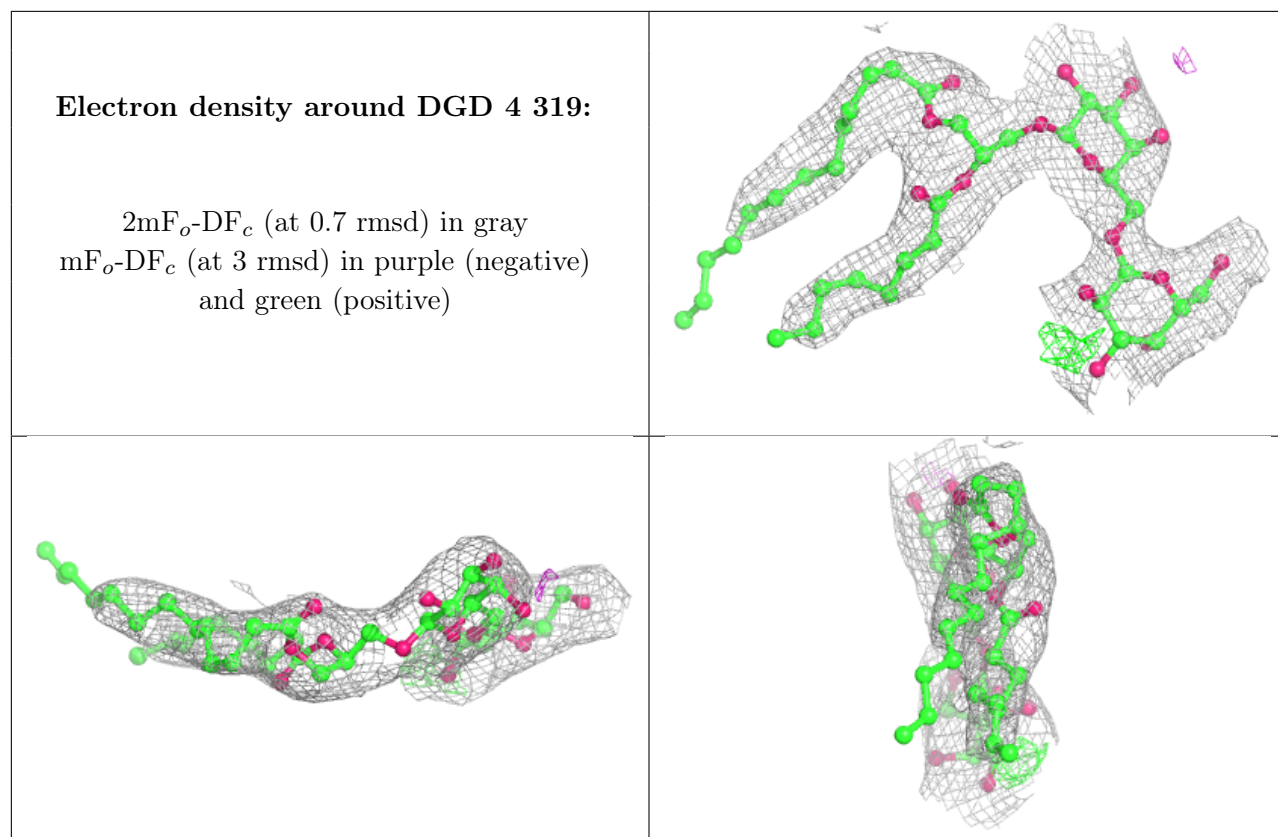
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA 1 509:**

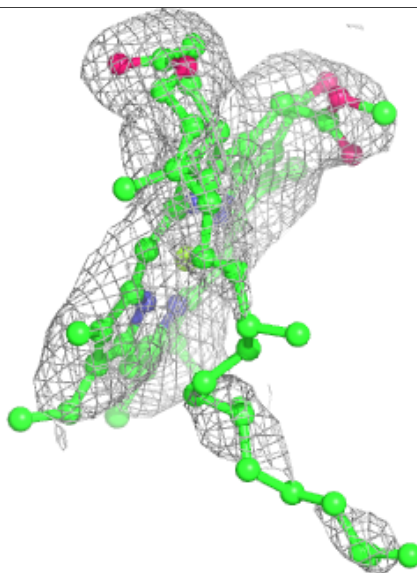
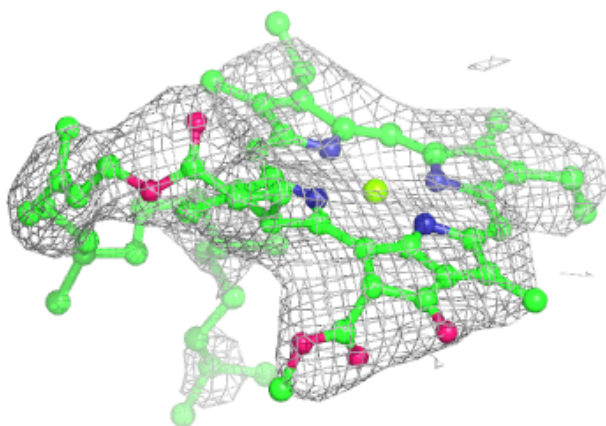
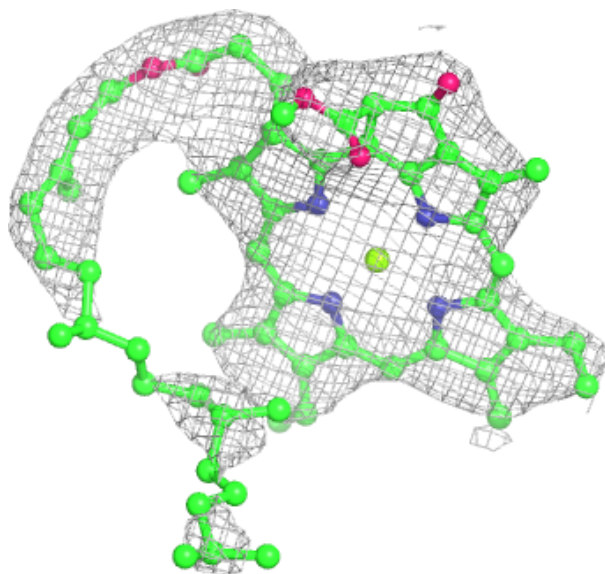
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

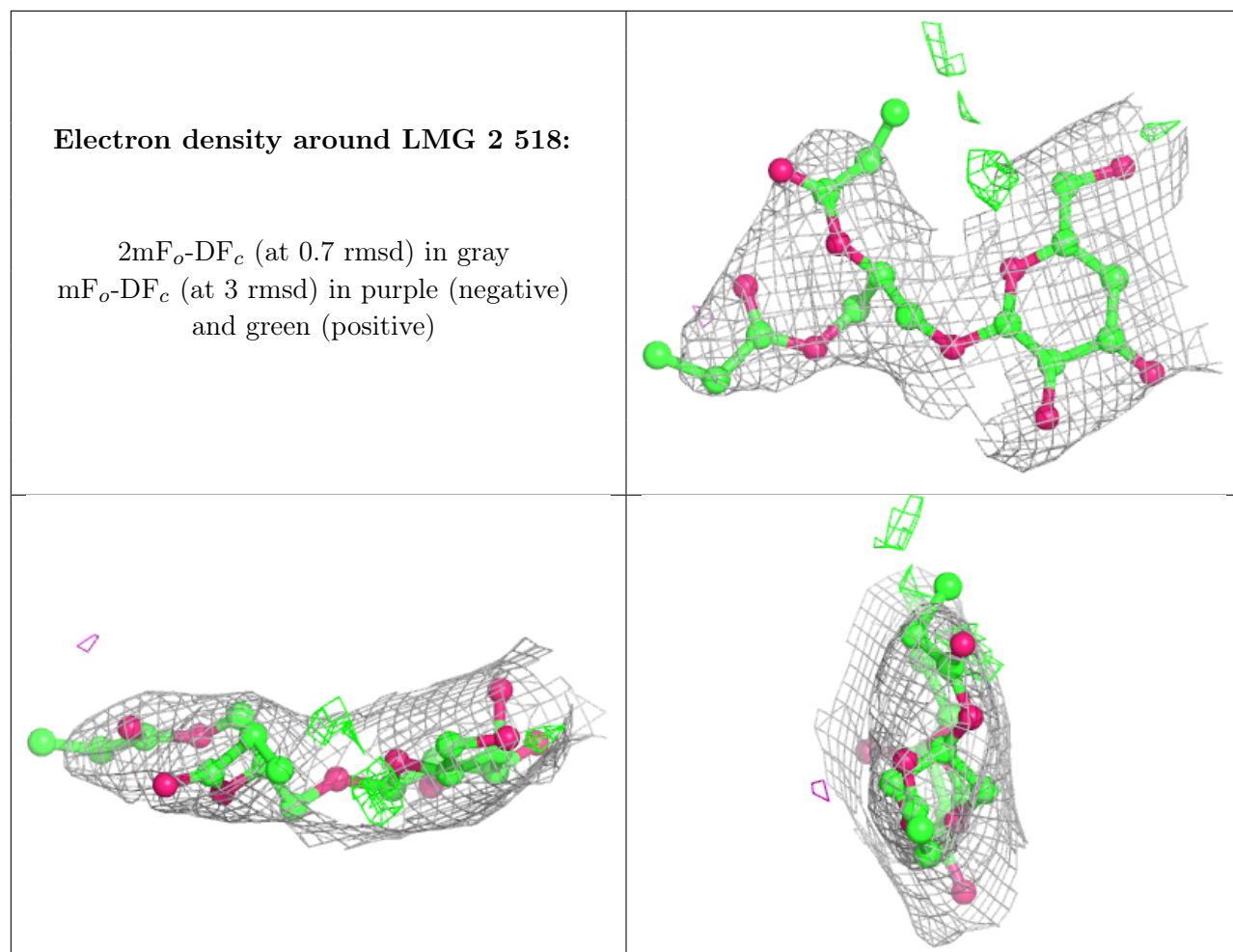




**Electron density around CLA A 813:**

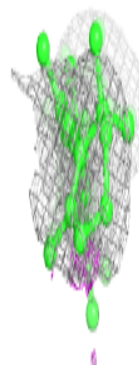
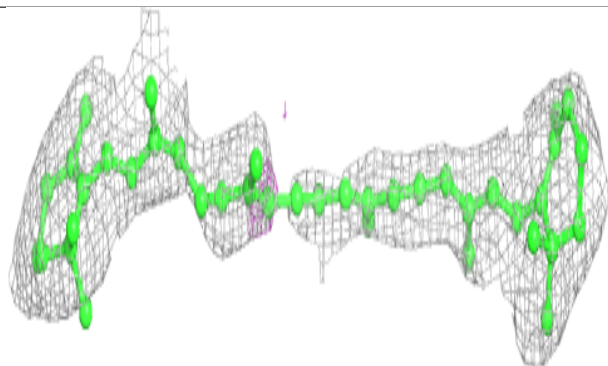
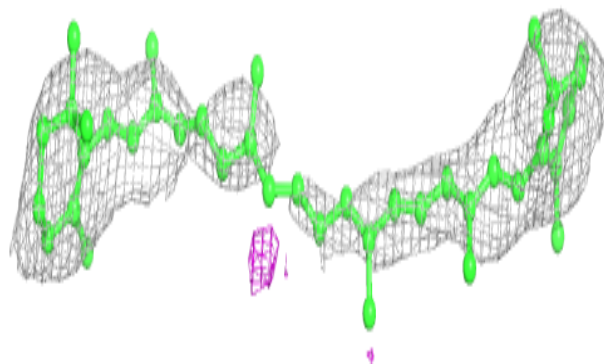
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



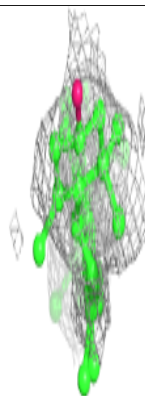
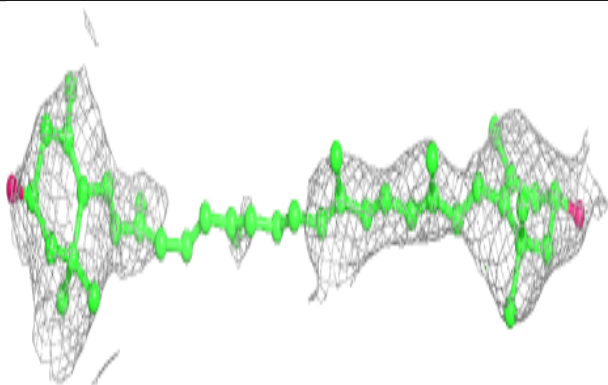
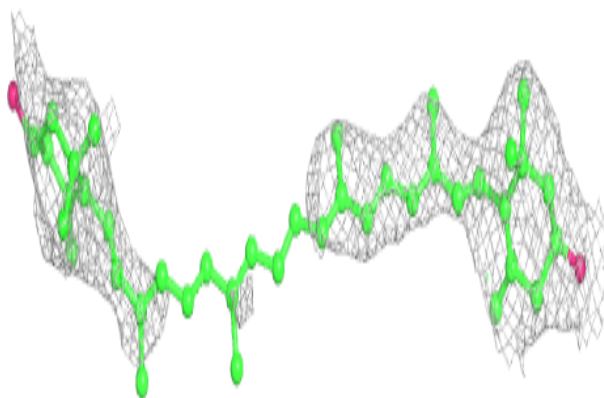


**Electron density around BCR L 306:**

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

**Electron density around LUT 1 502:**

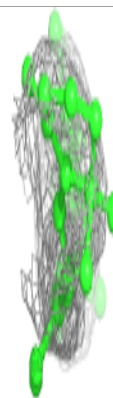
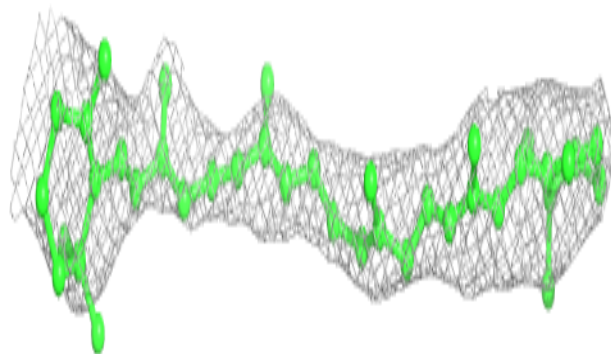
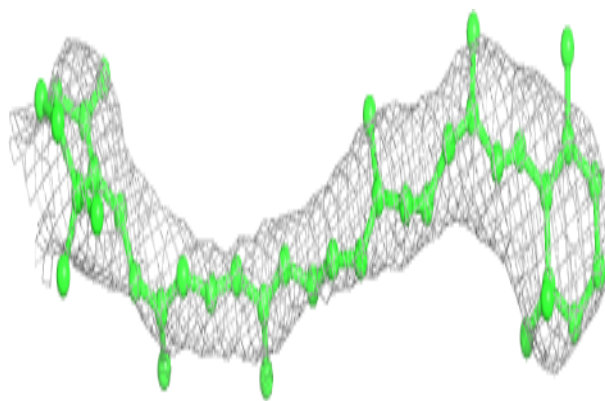
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



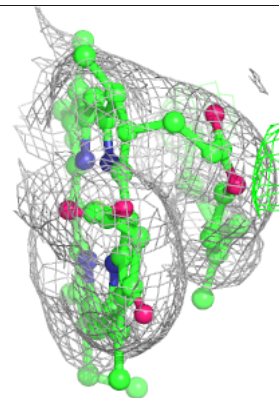
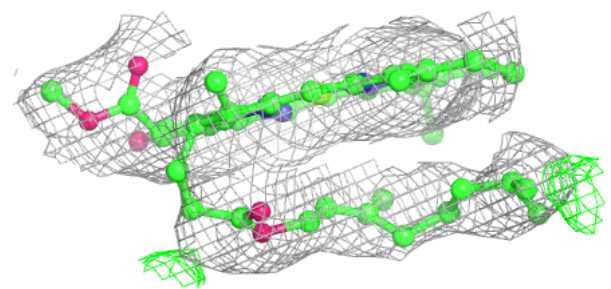
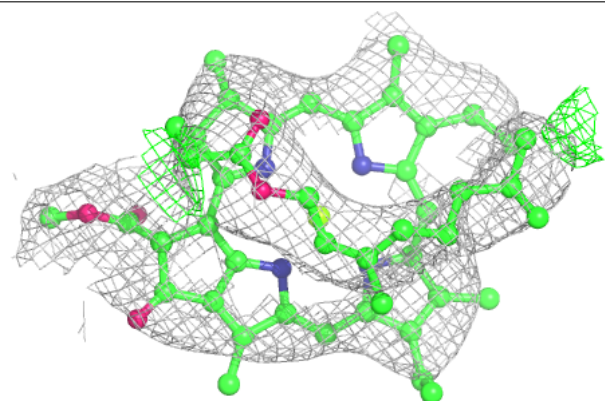


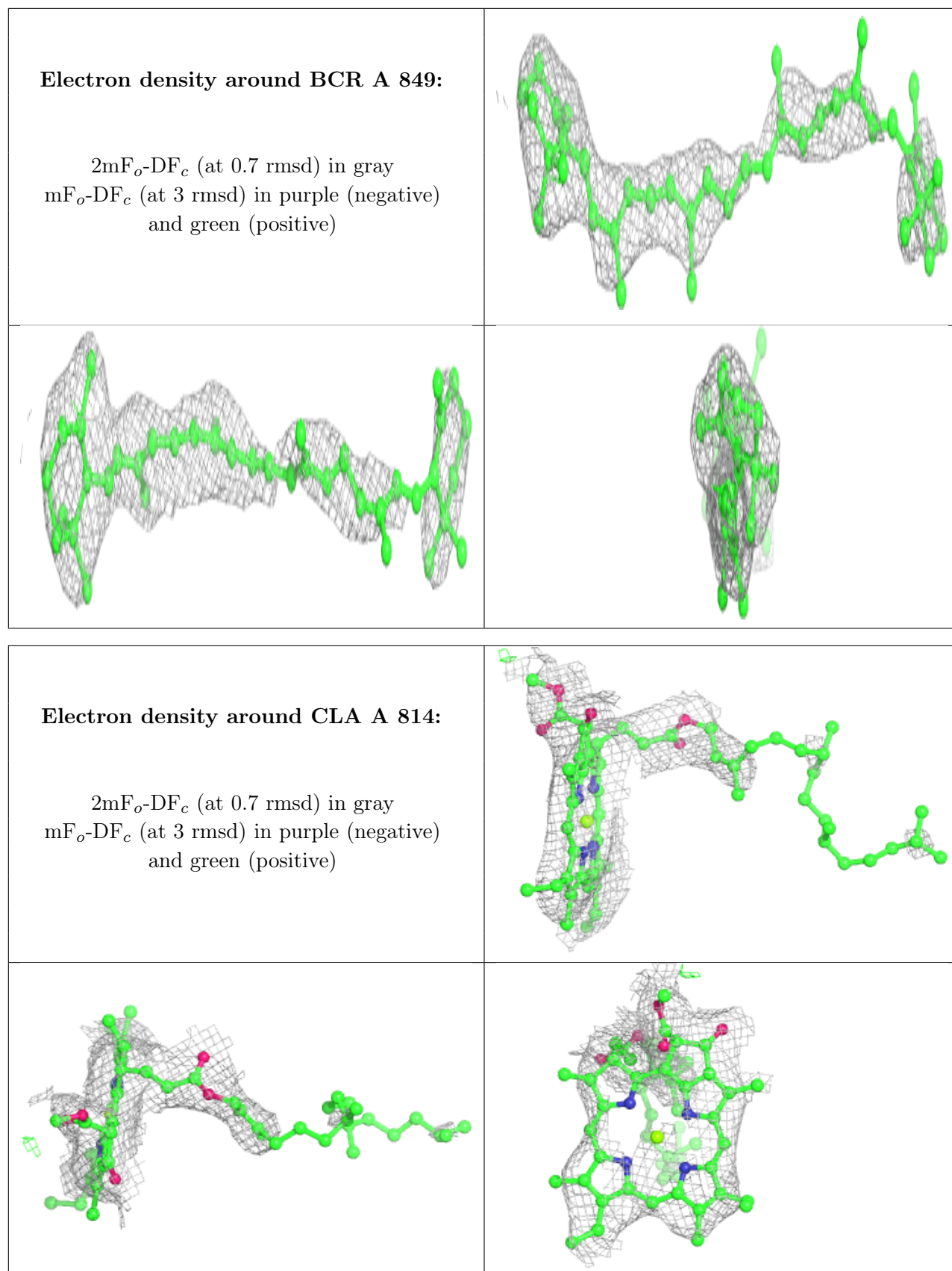
**Electron density around BCR 4 301:**

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

**Electron density around CLA 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)

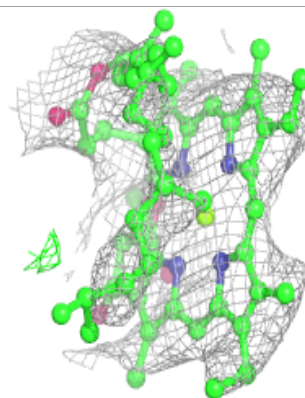
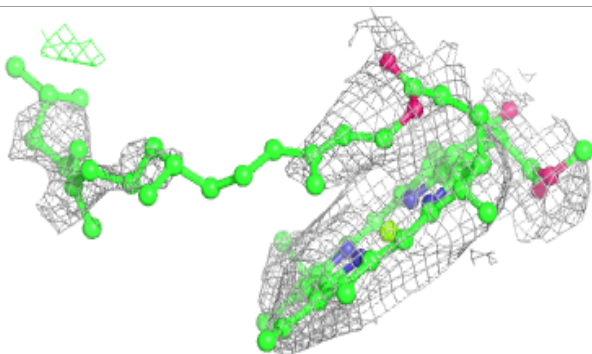
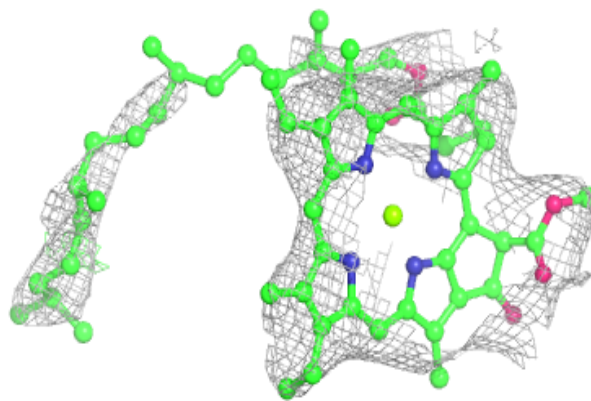




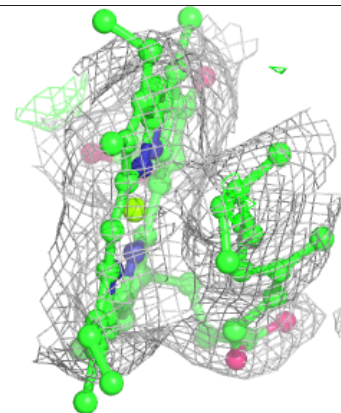
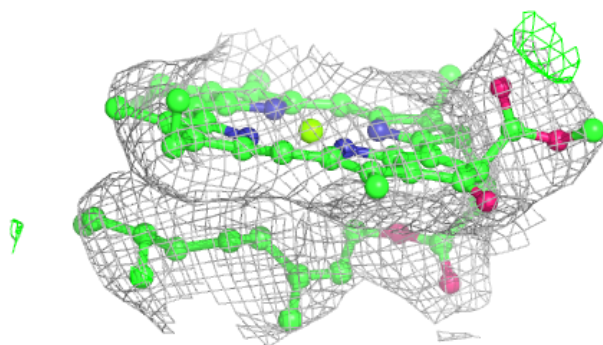
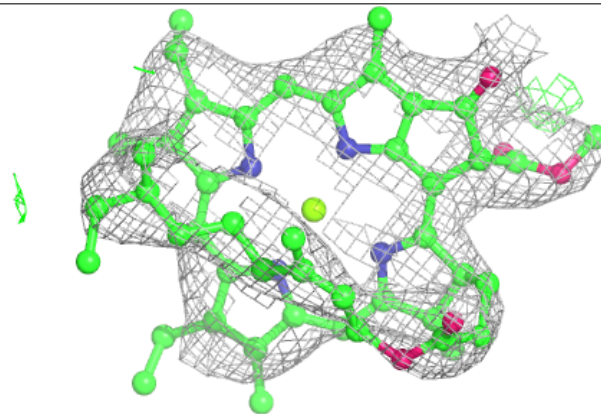


**Electron density around CLA 3 308:**

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

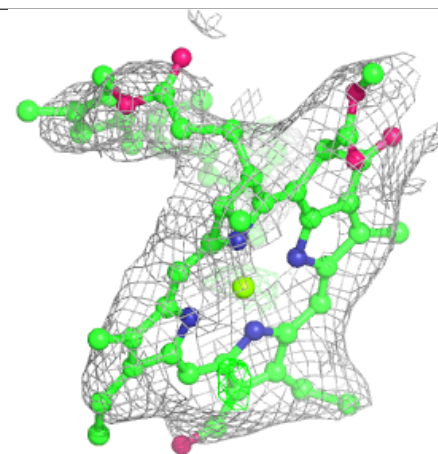
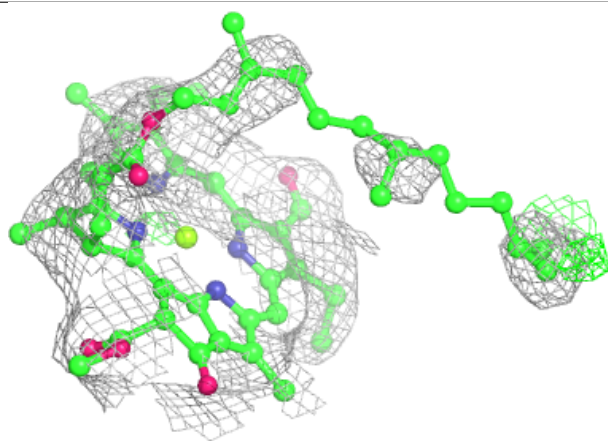
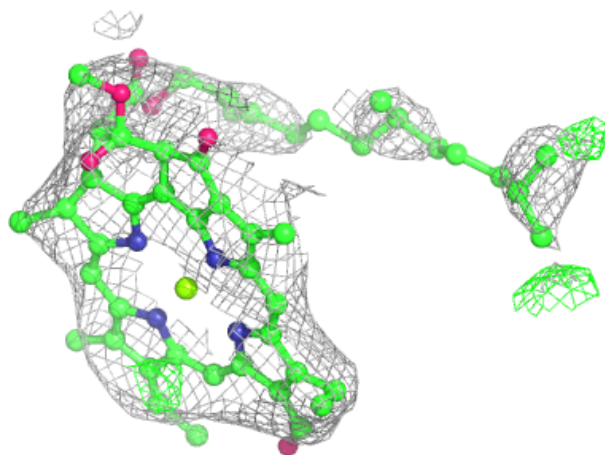
**Electron density around CLA A 818:**

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



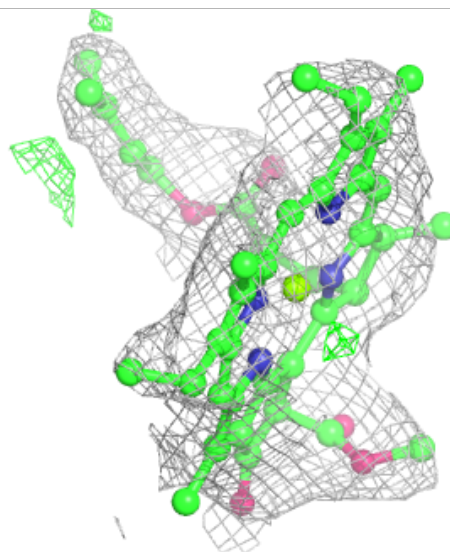
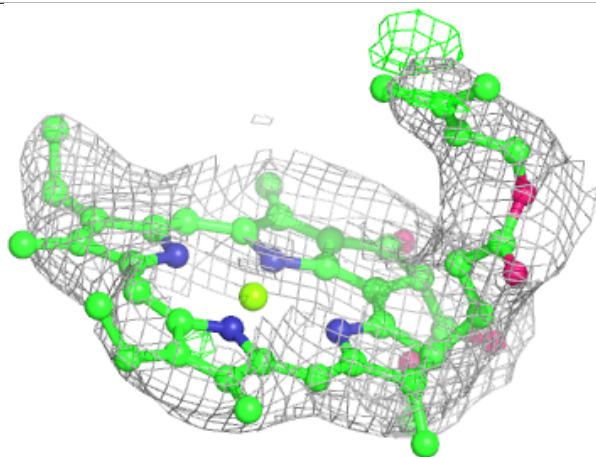
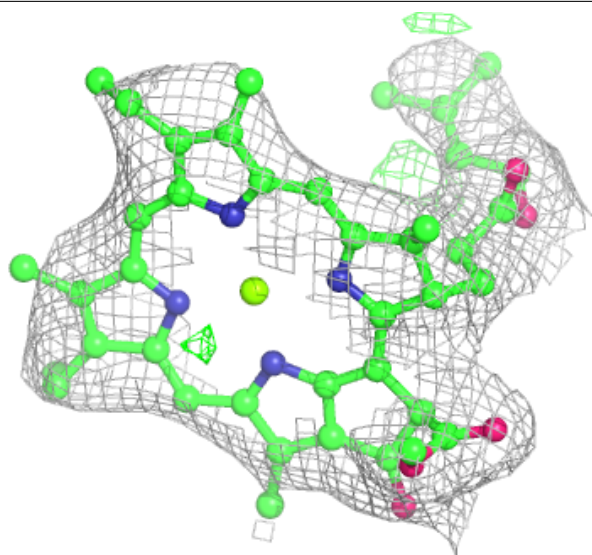
**Electron density around CHL 1 514:**

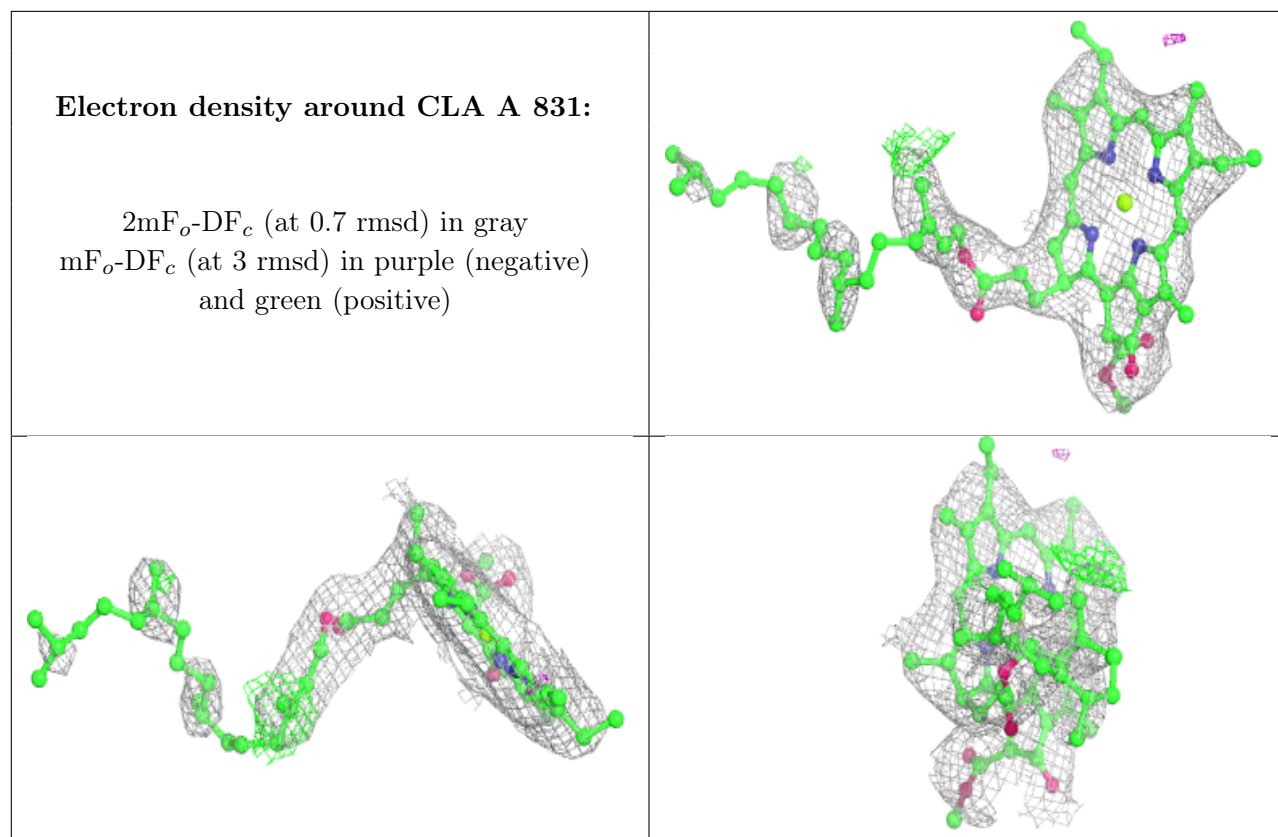
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA A 820:**

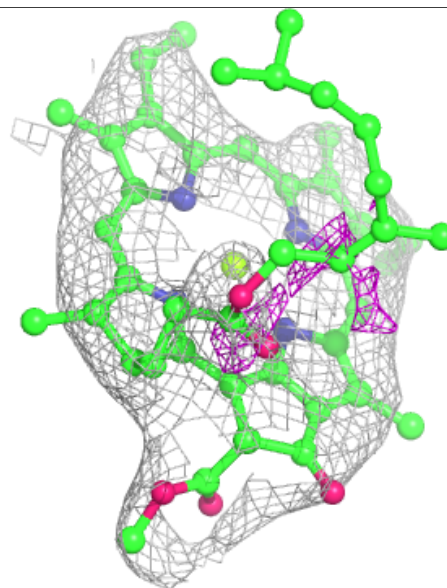
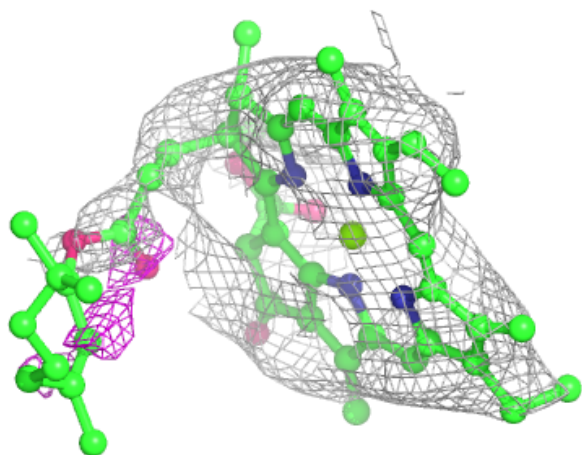
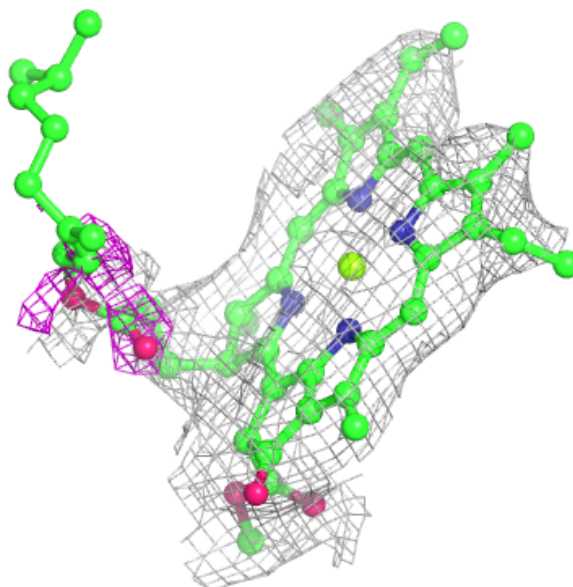
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CLA A 835:**

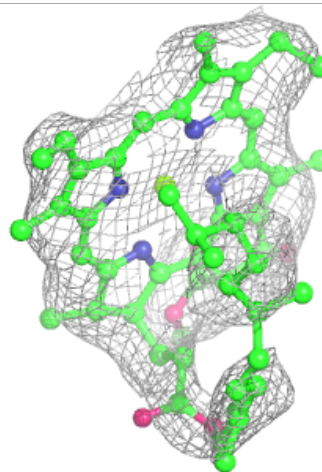
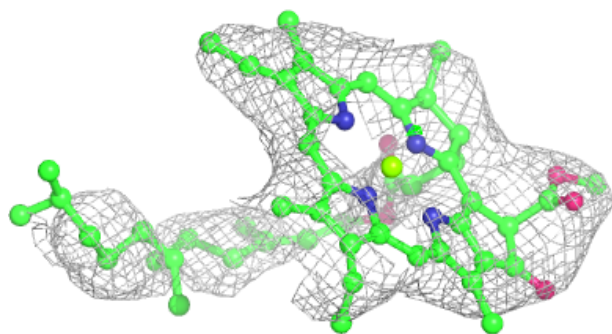
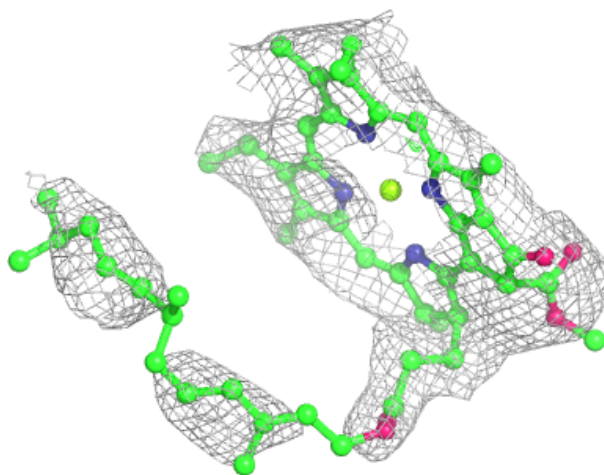
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





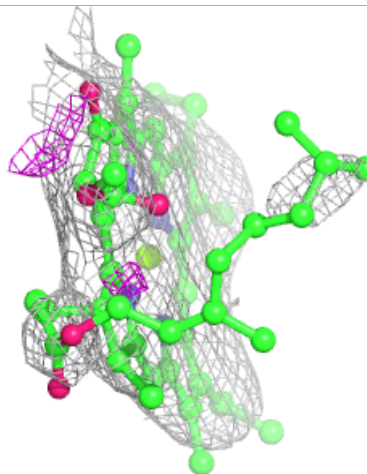
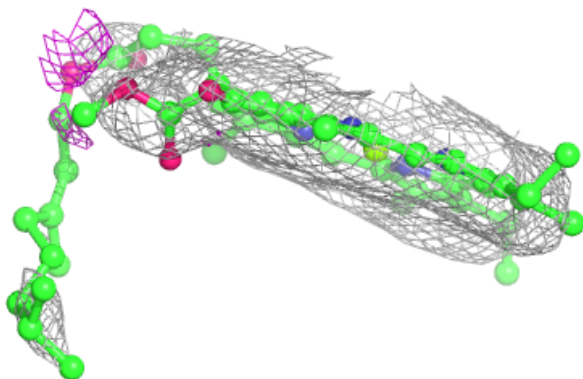
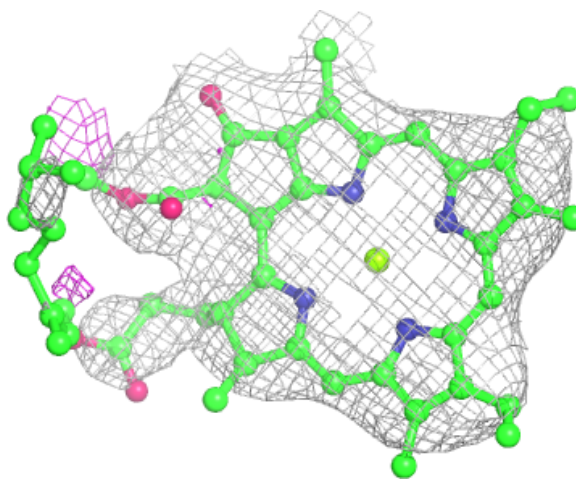
**Electron density around CLA A 842:**

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



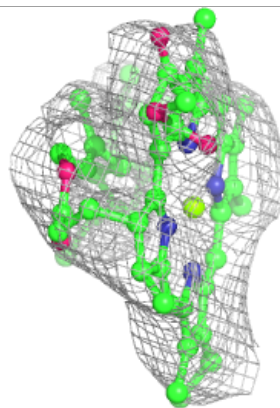
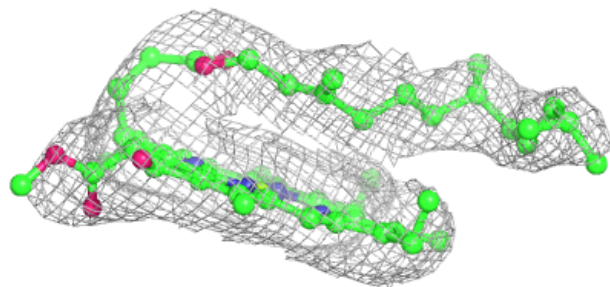
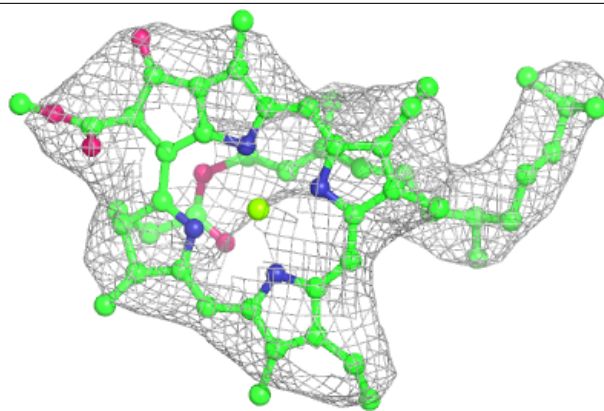
**Electron density around CLA 3 309:**

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

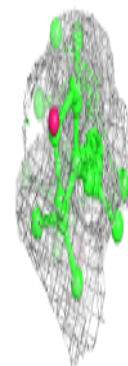
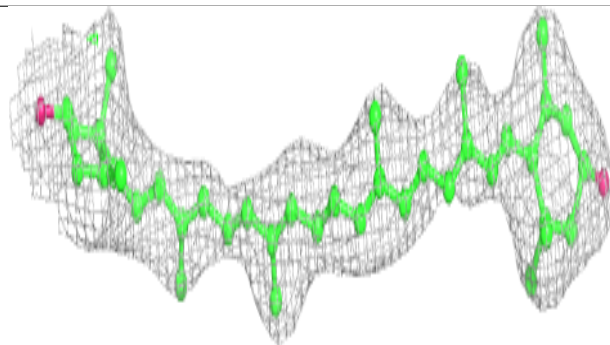
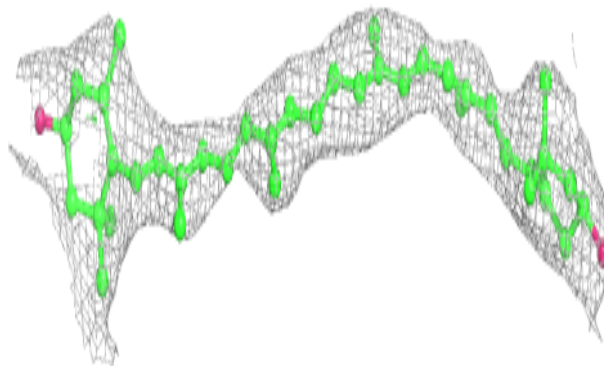


**Electron density around CLA B 817:**

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

**Electron density around LUT J 1109:**

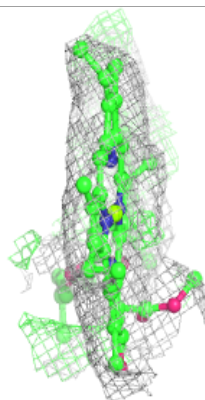
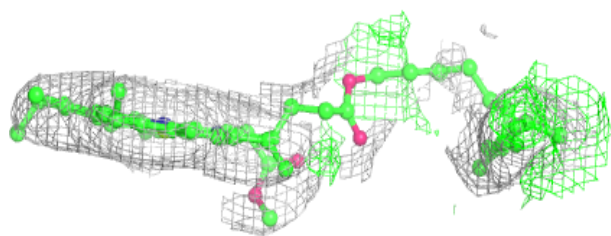
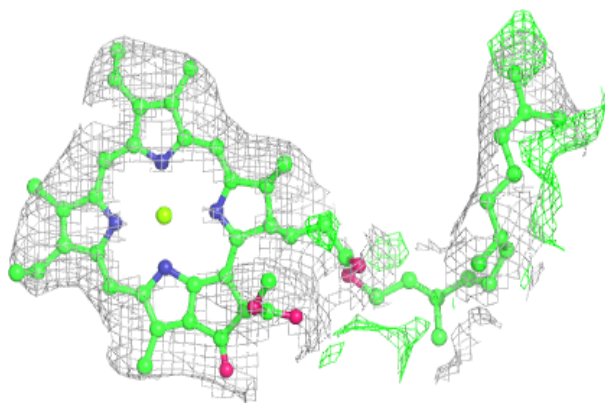
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



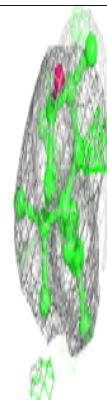
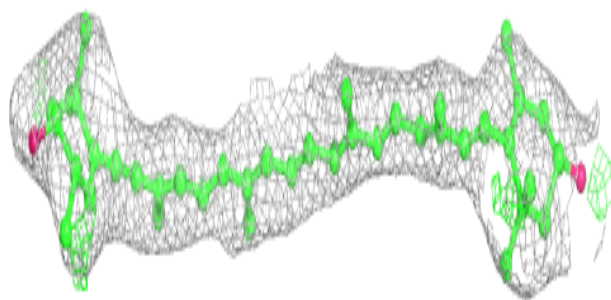
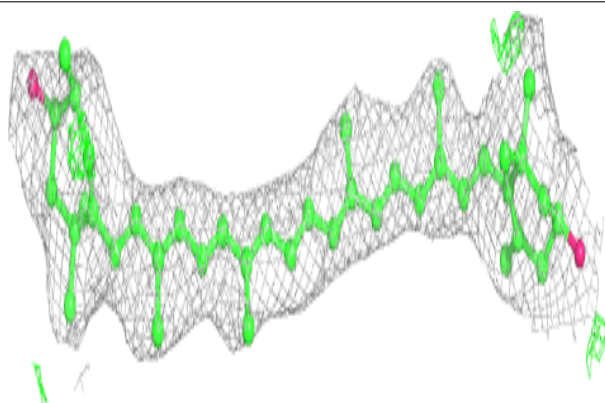


**Electron density around CLA 1 516:**

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

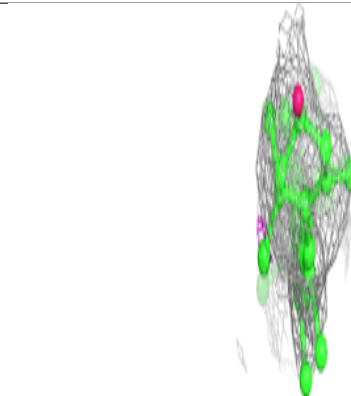
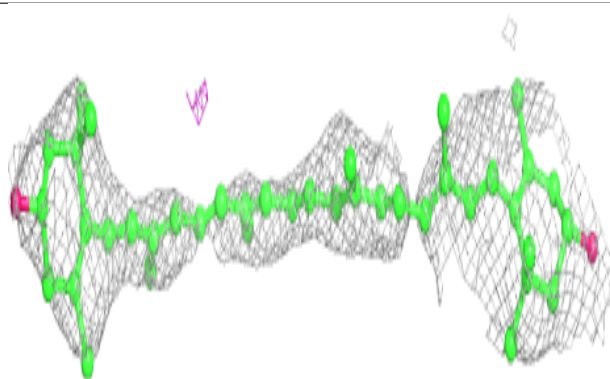
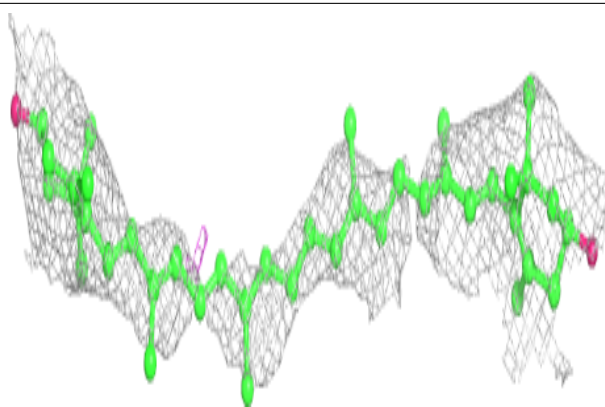
**Electron density around ZEX F 301:**

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

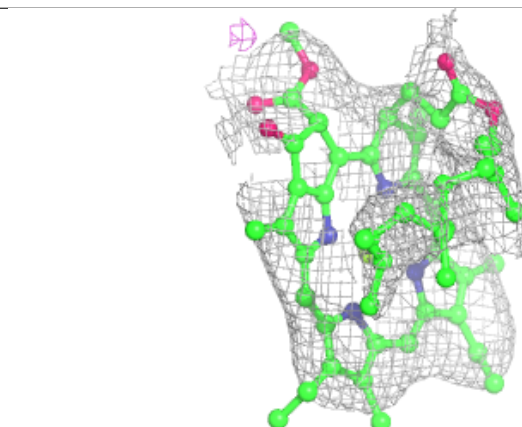
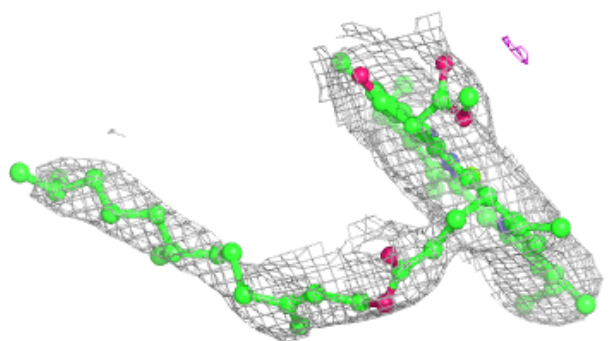
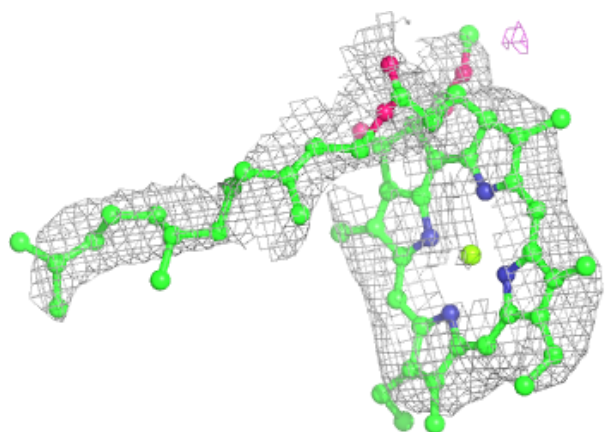


**Electron density around LUT 1 501:**

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

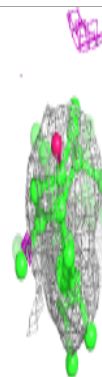
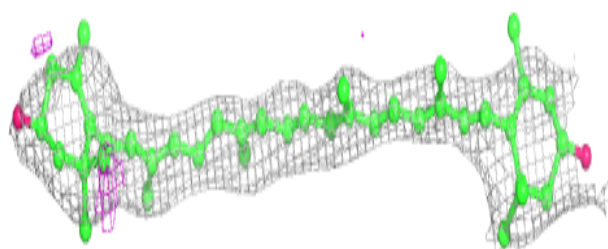
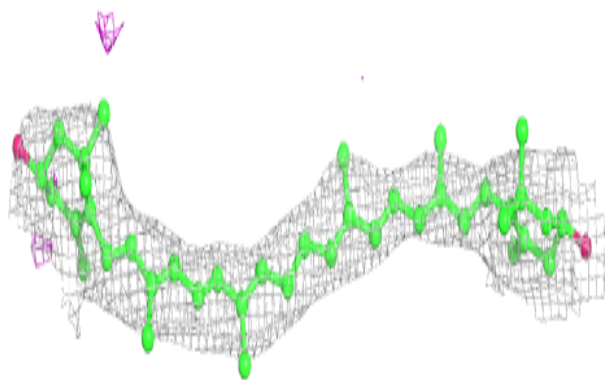
**Electron density around CLA 4 310:**

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

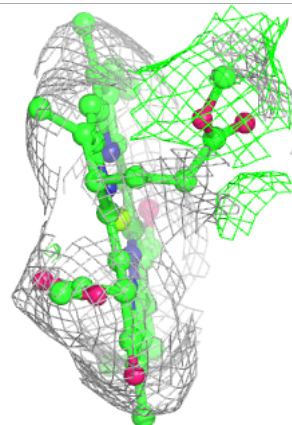
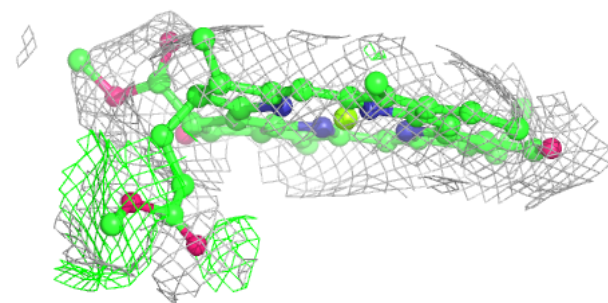
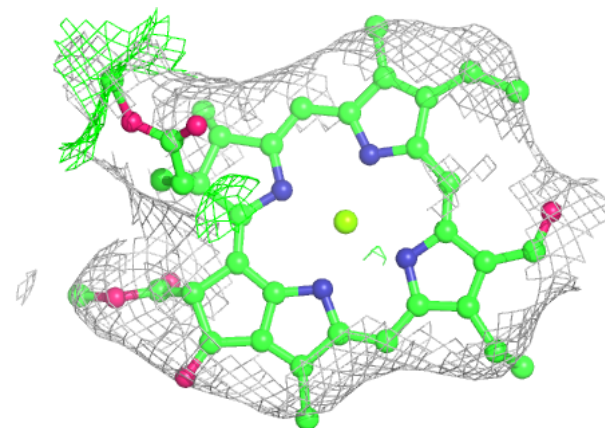


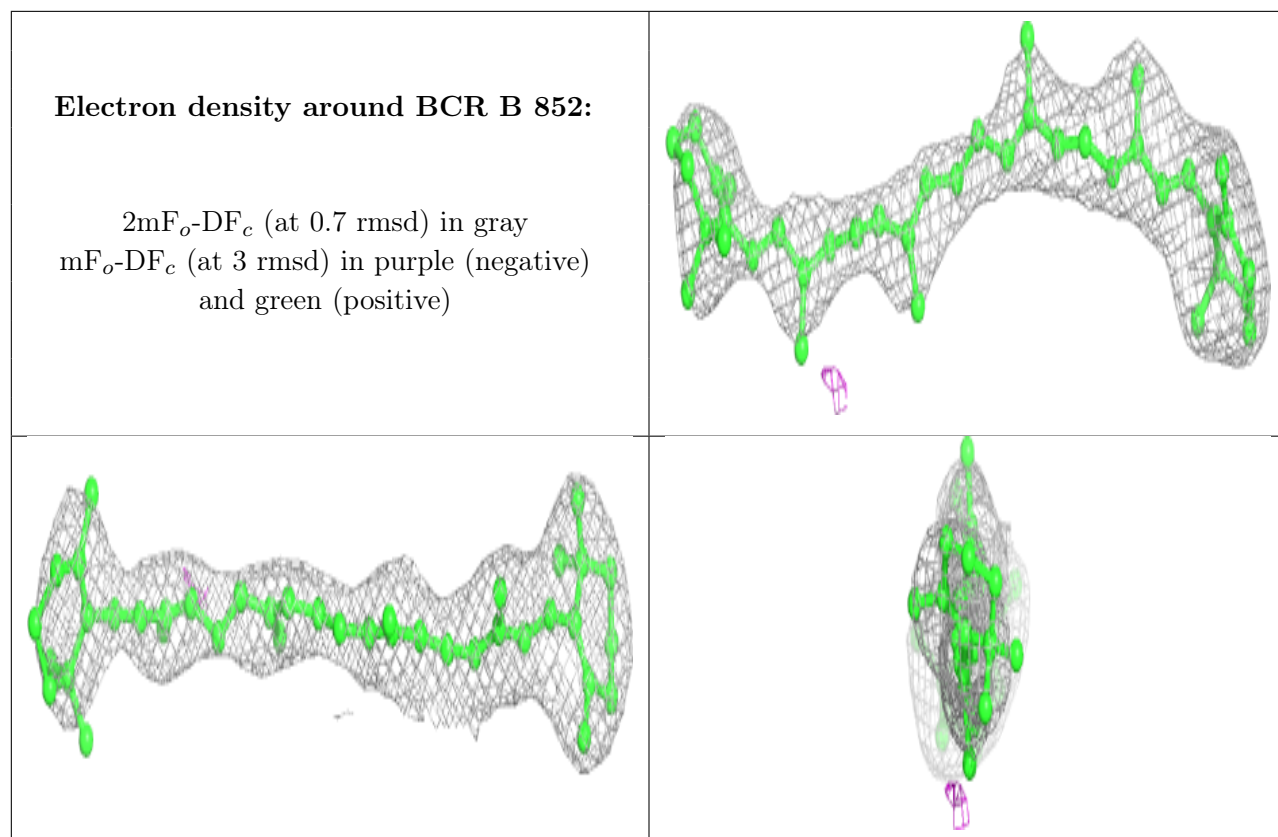
**Electron density around LUT 2 501:**

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

**Electron density around CHL 1 512:**

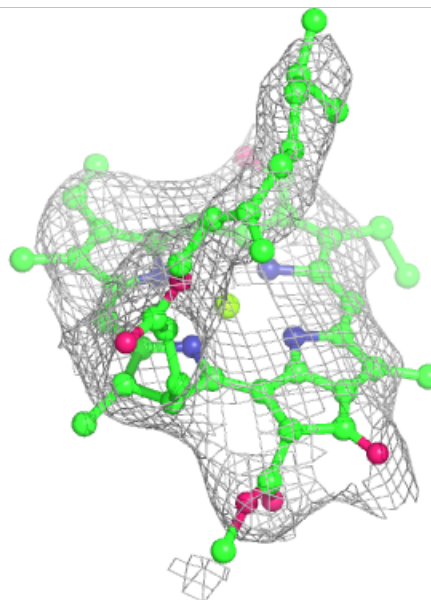
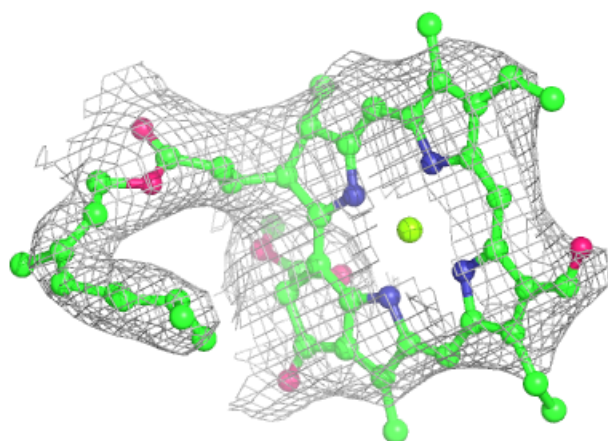
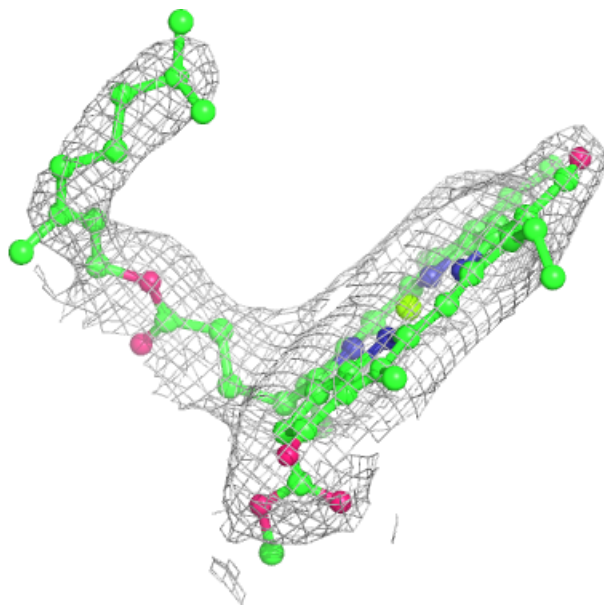
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CHL 1 521:**

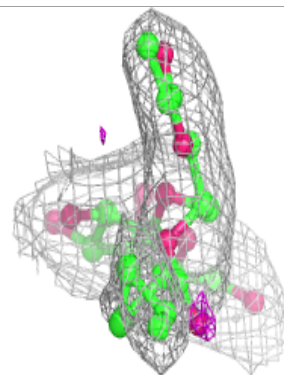
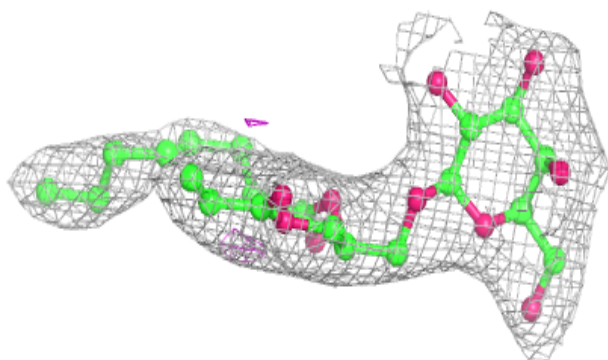
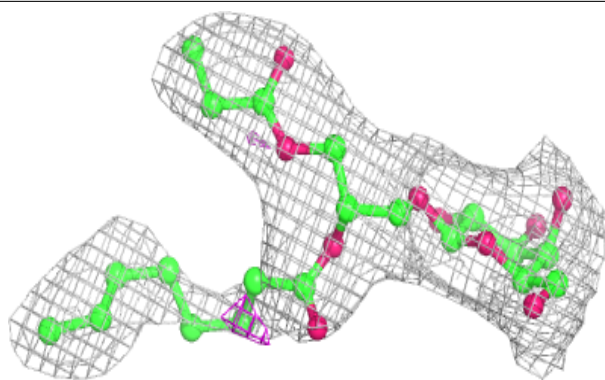
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



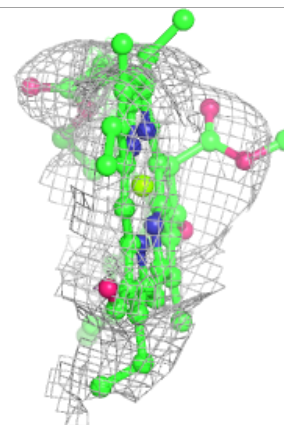
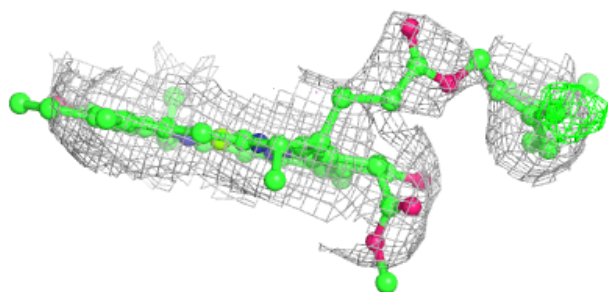
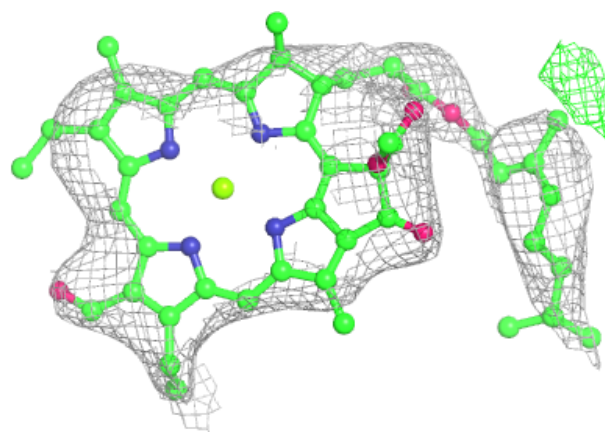


**Electron density around LMG J 1103:**

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

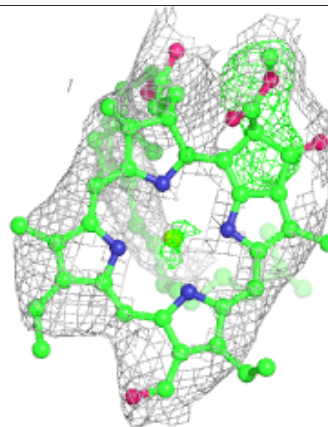
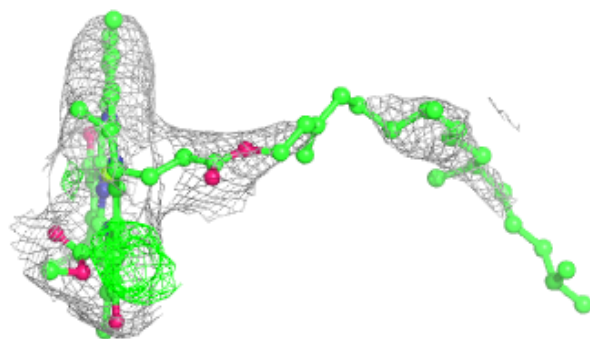
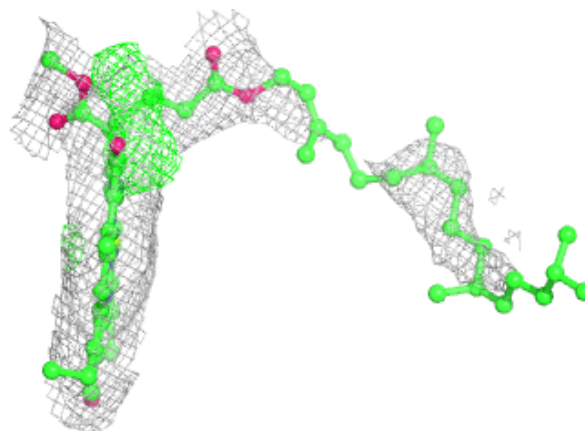
**Electron density around CHL 2 516:**

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

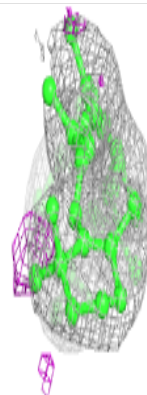
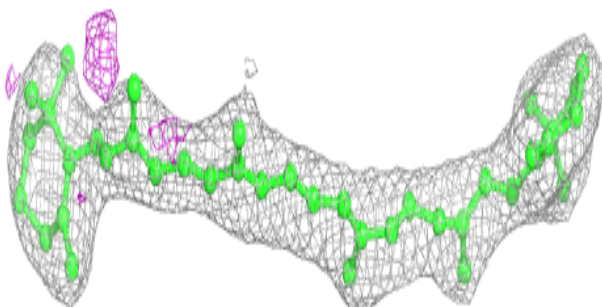
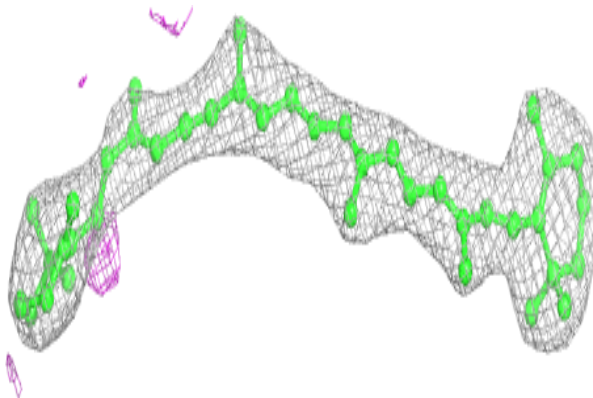


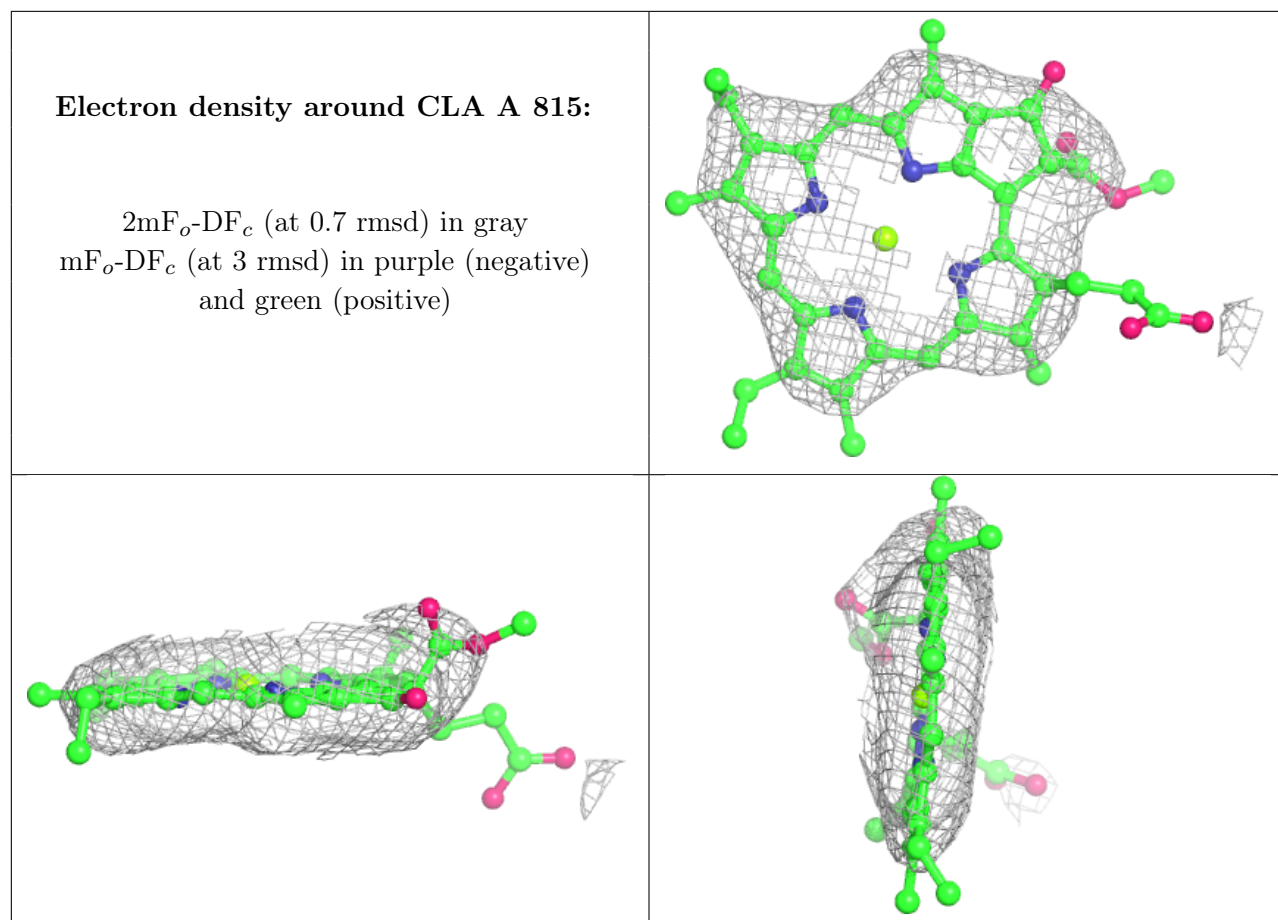
**Electron density around CHL 2 526:**

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

**Electron density around BCR B 856:**

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

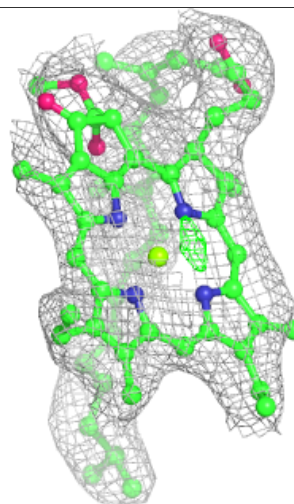
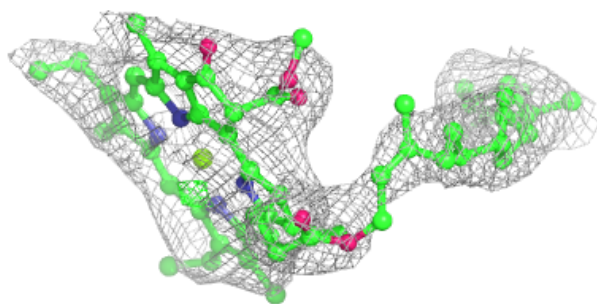
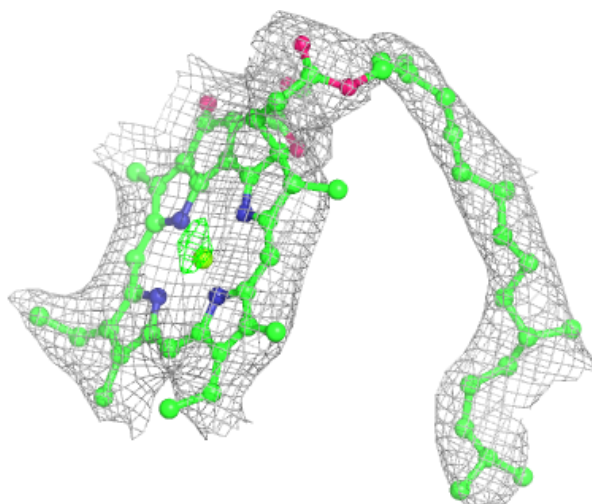


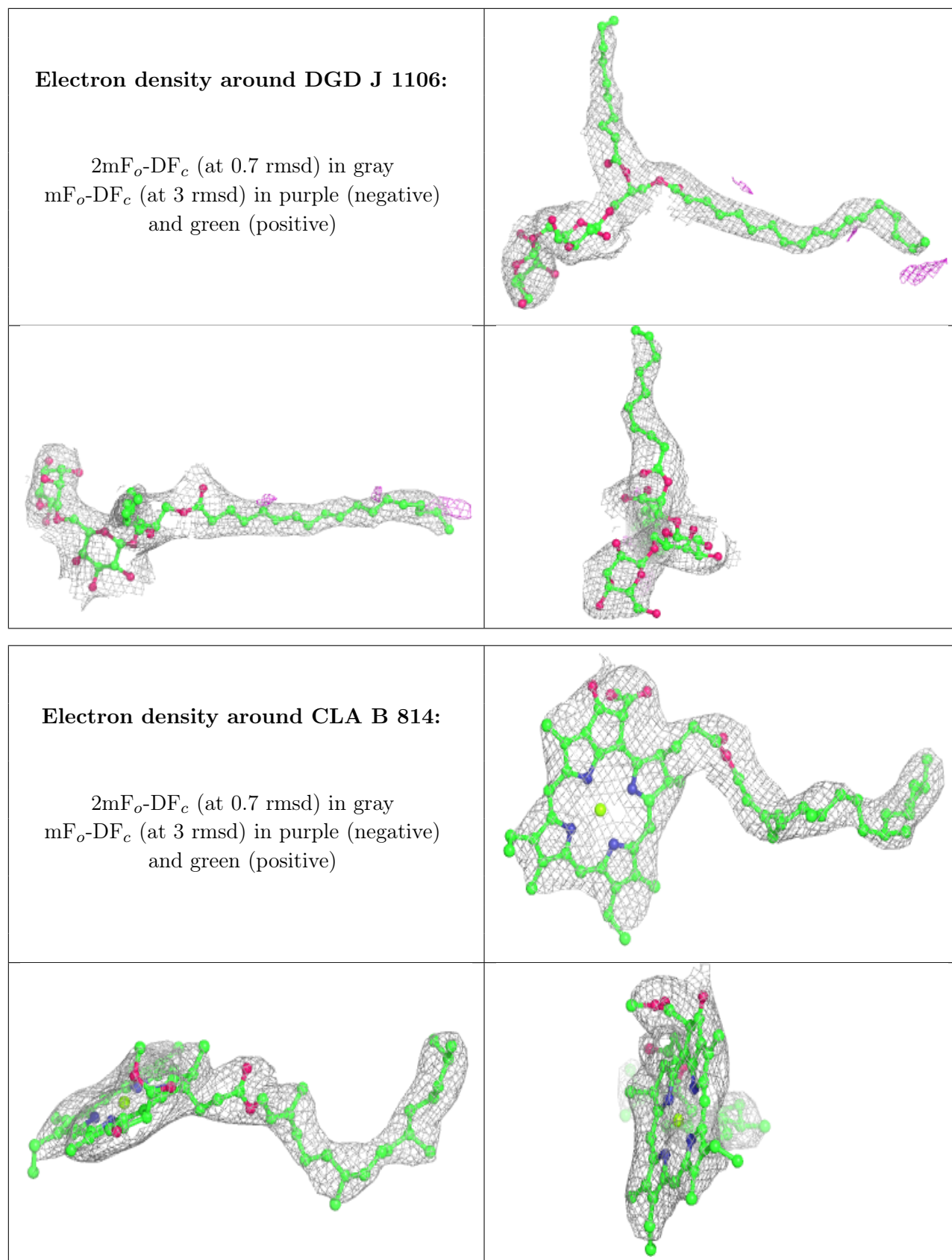




**Electron density around CLA B 811:**

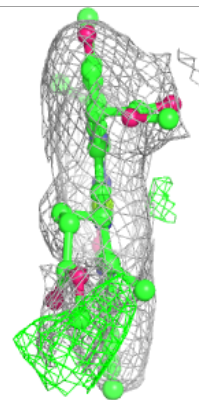
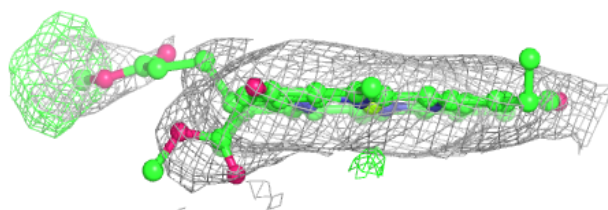
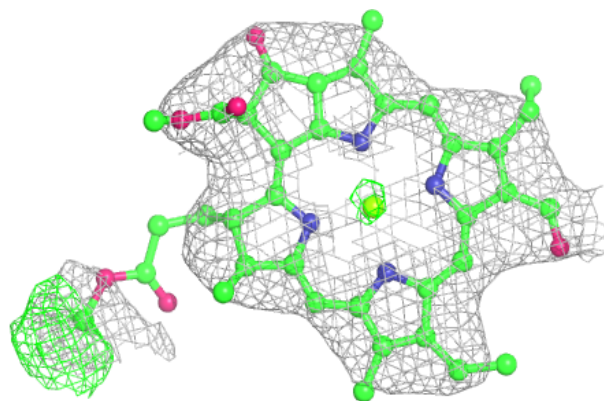
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



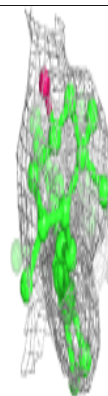
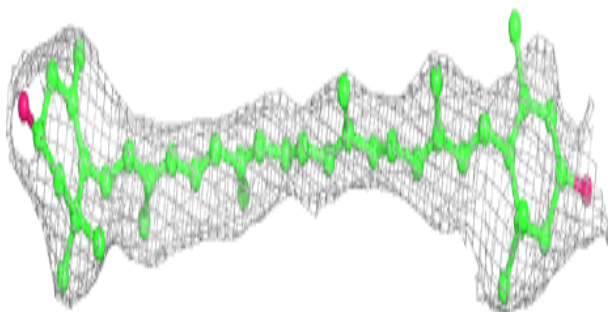
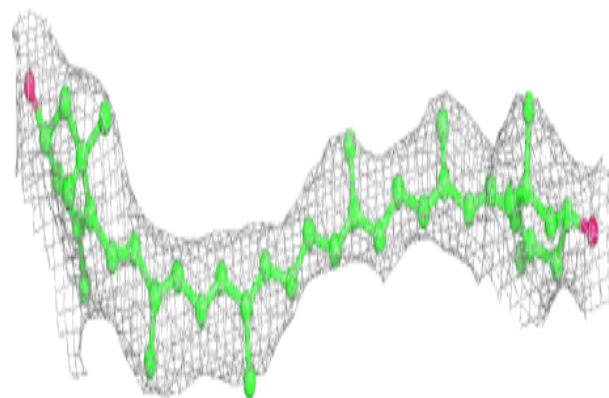


**Electron density around CHL 4 313:**

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

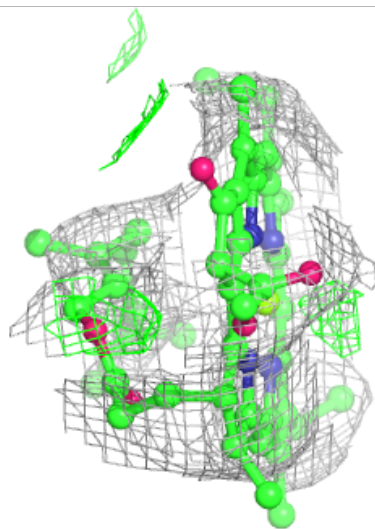
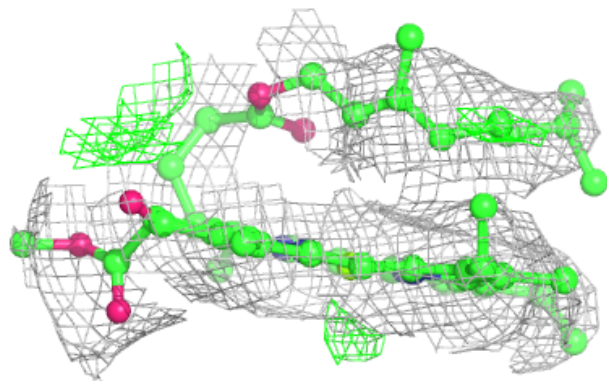
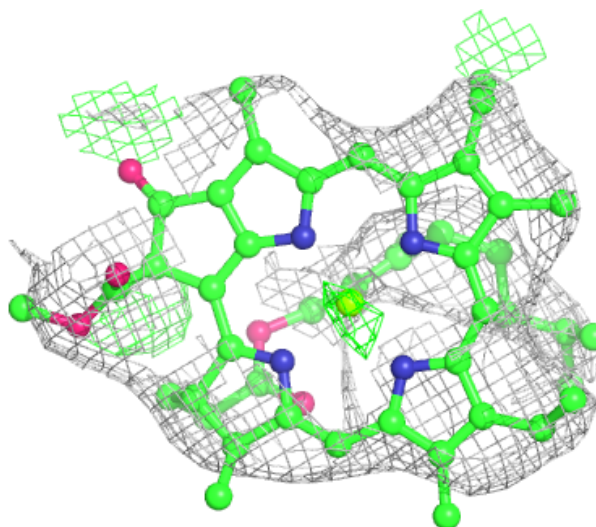
**Electron density around LUT 4 302:**

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



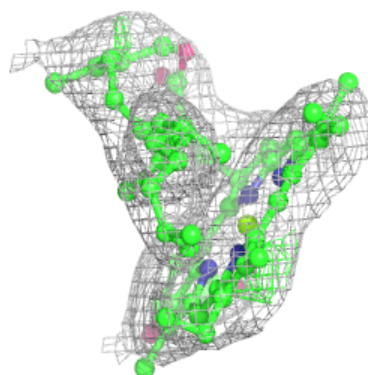
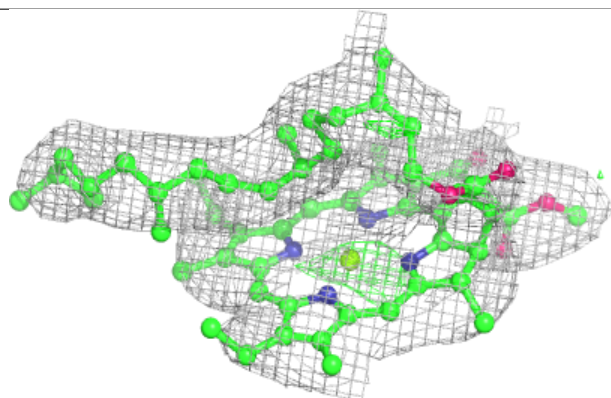
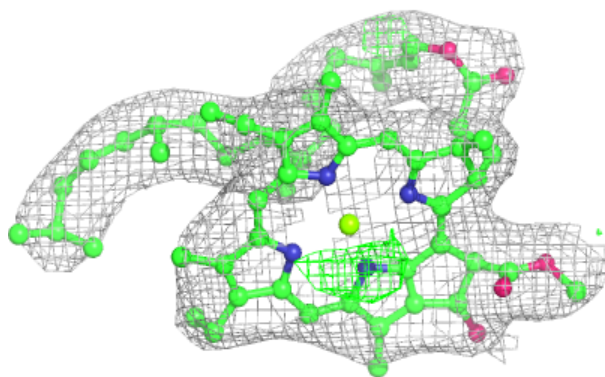
**Electron density around CLA 1 506:**

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



**Electron density around CLA B 818:**

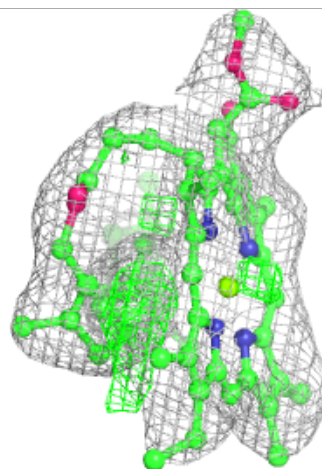
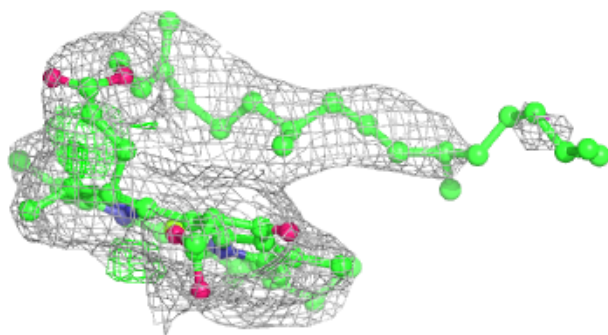
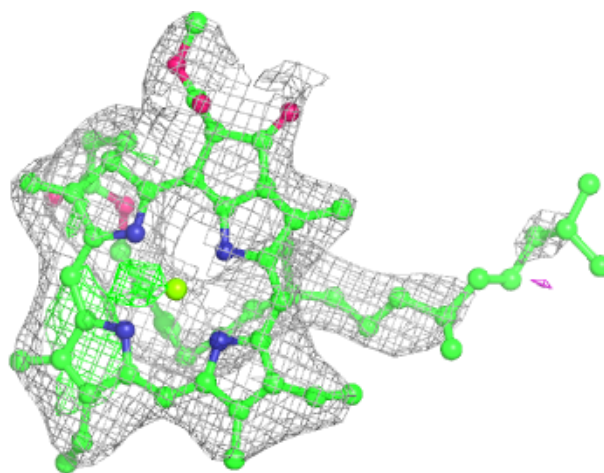
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





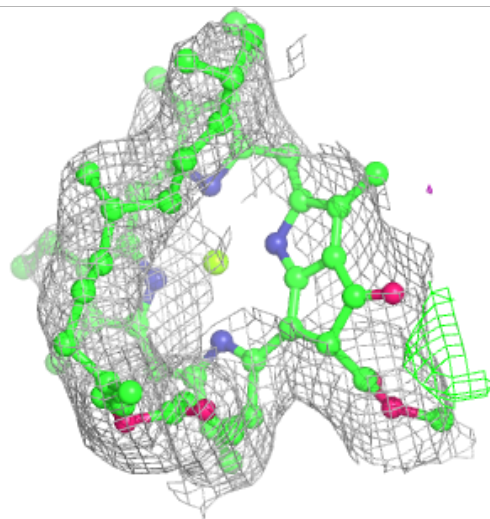
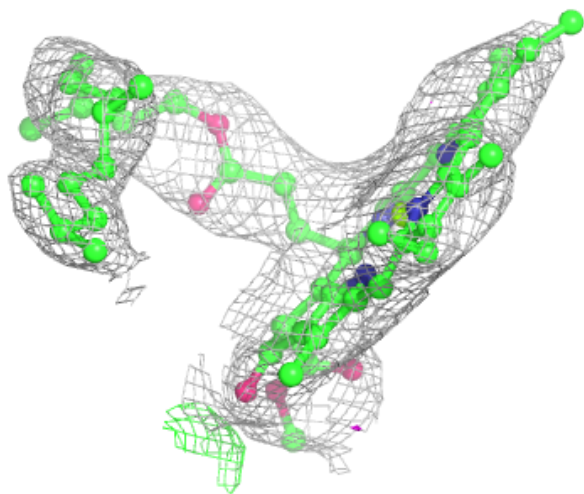
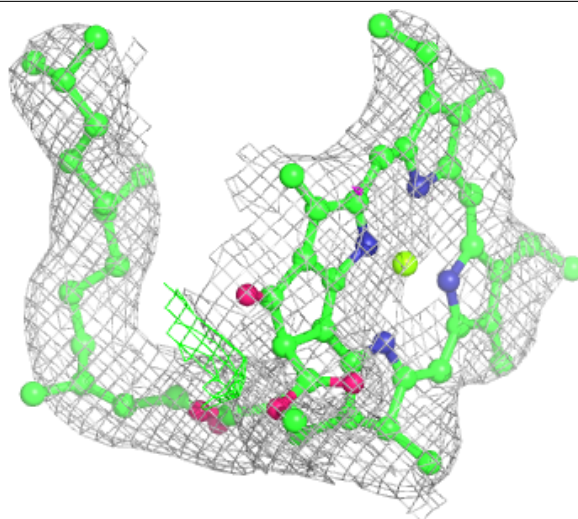
**Electron density around CLA B 827:**

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



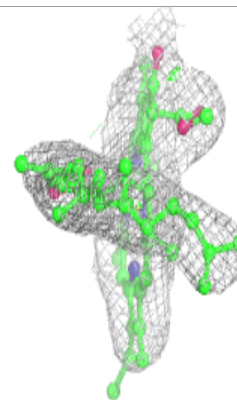
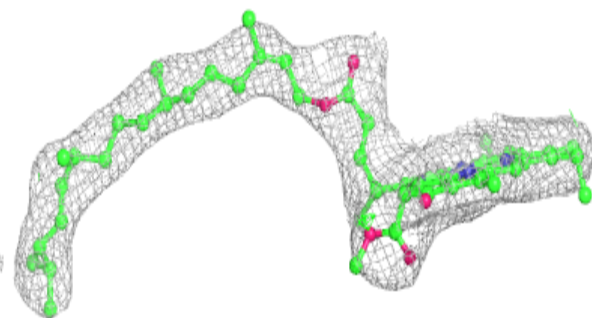
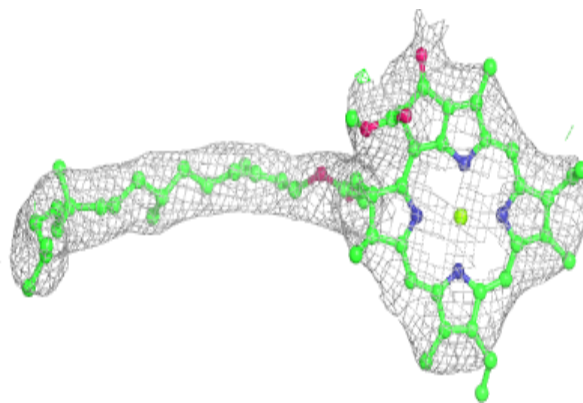
**Electron density around CLA B 833:**

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

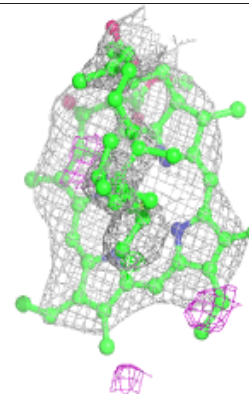
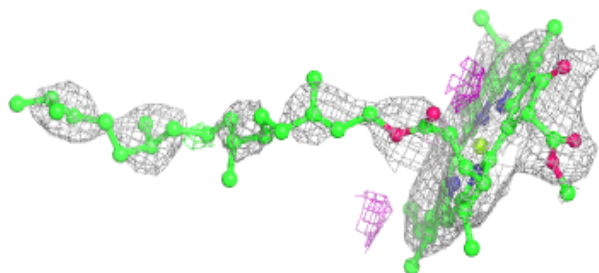
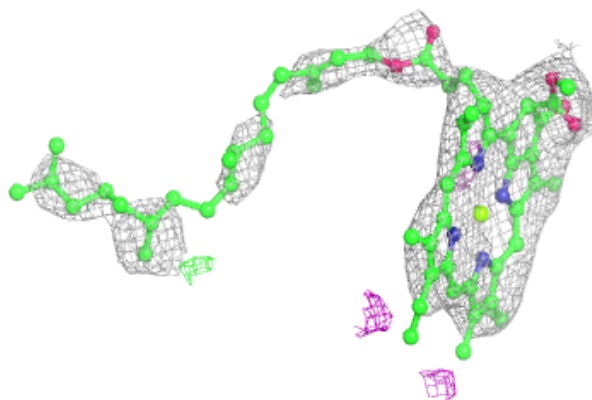


**Electron density around CLA B 840:**

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

**Electron density around CLA G 201:**

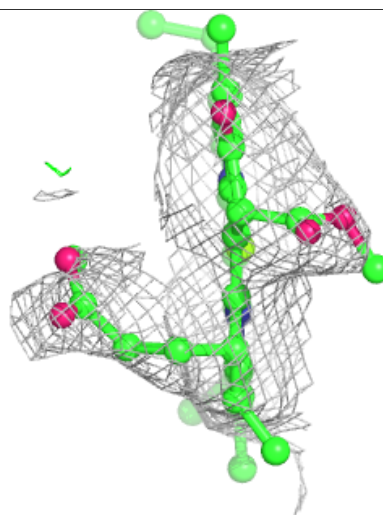
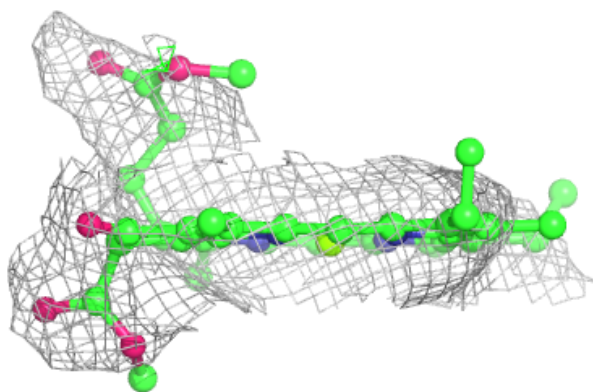
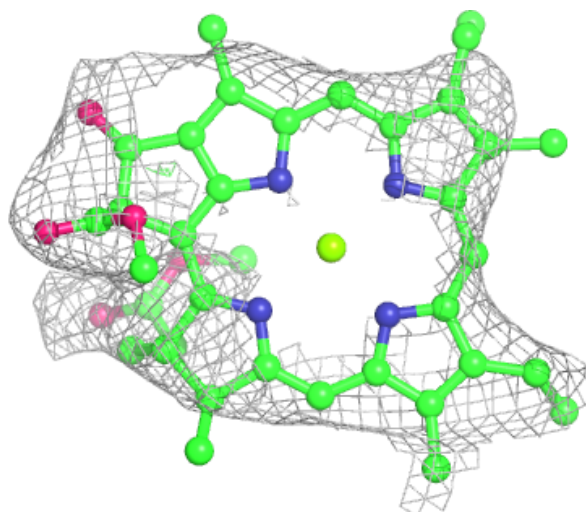
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





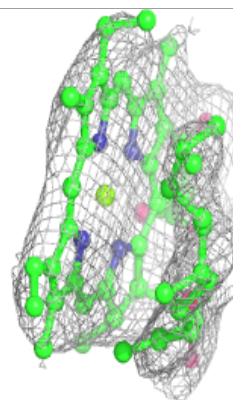
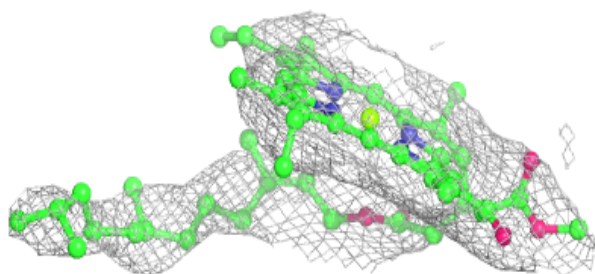
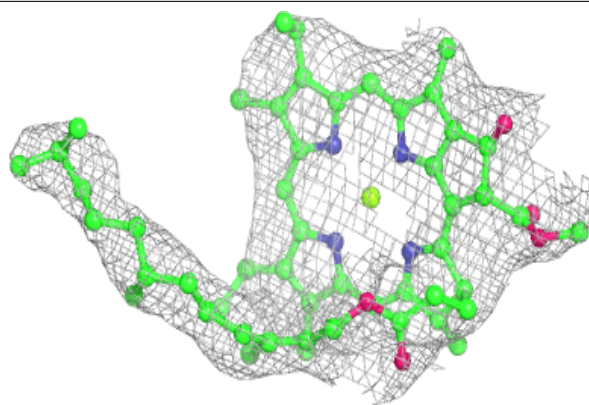
**Electron density around CLA A 816:**

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

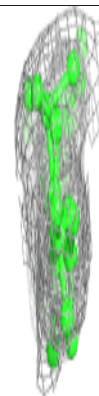
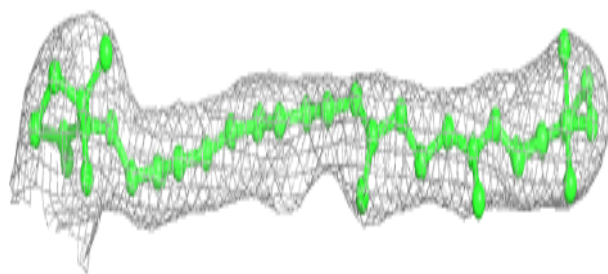
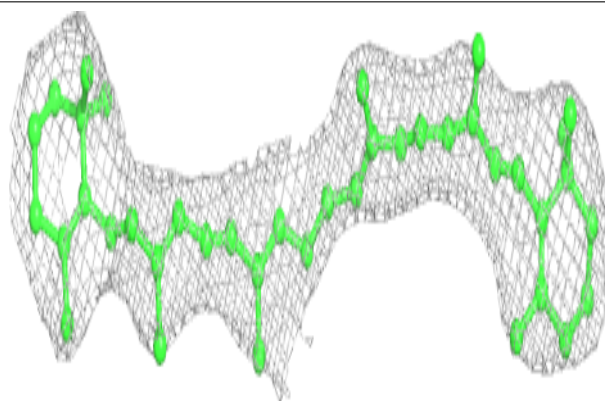


**Electron density around CLA 4 304:**

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

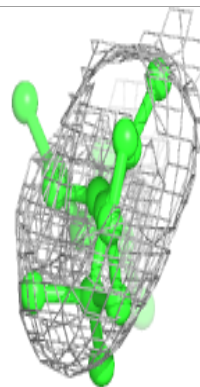
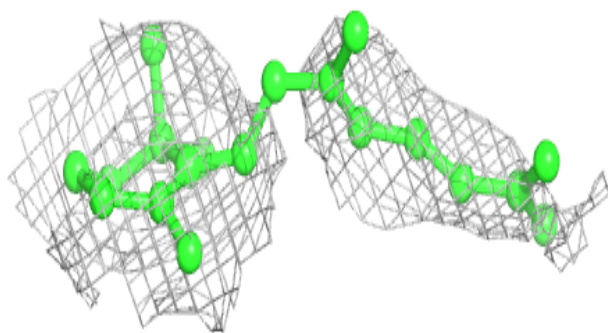
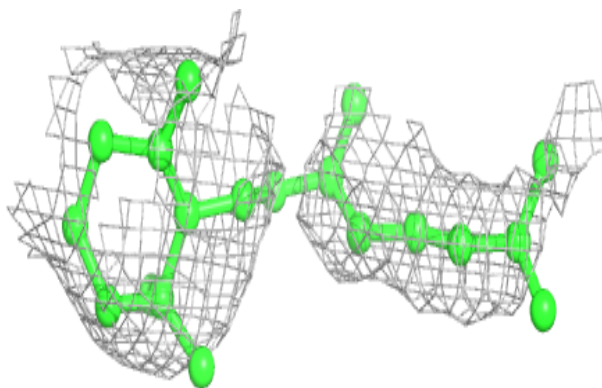
**Electron density around BCR I 102:**

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



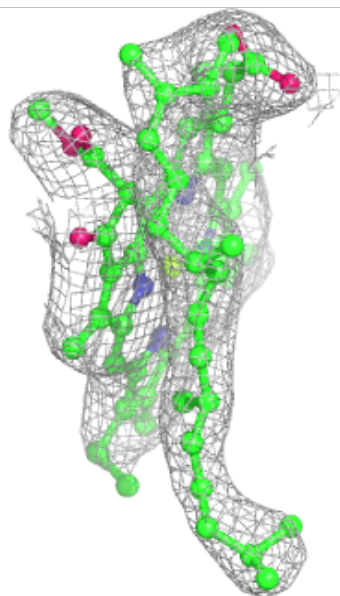
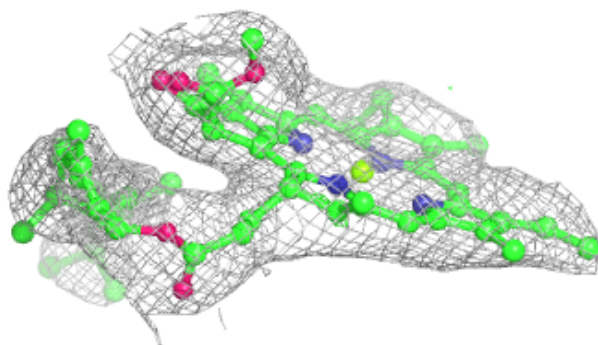
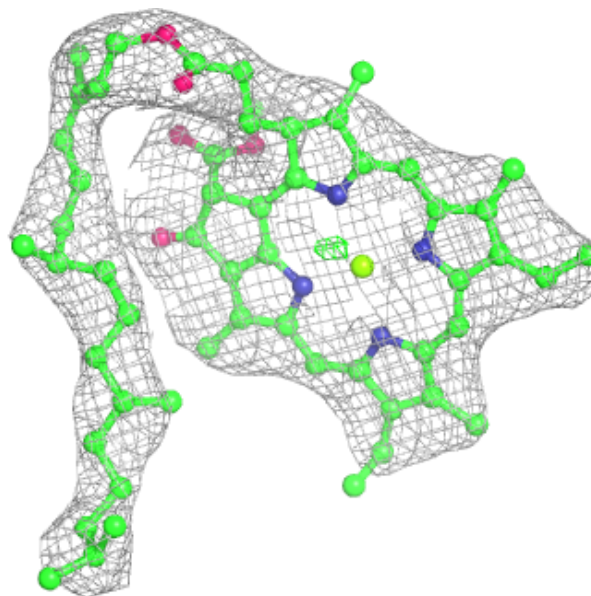
**Electron density around BCR 1 503:**

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



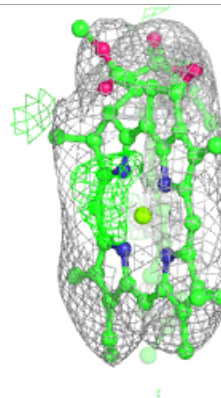
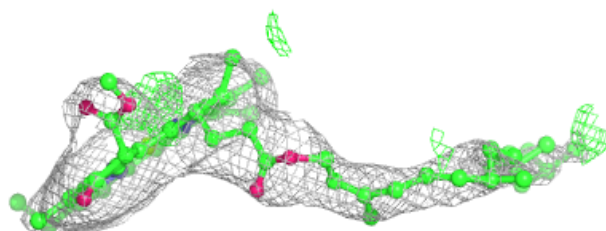
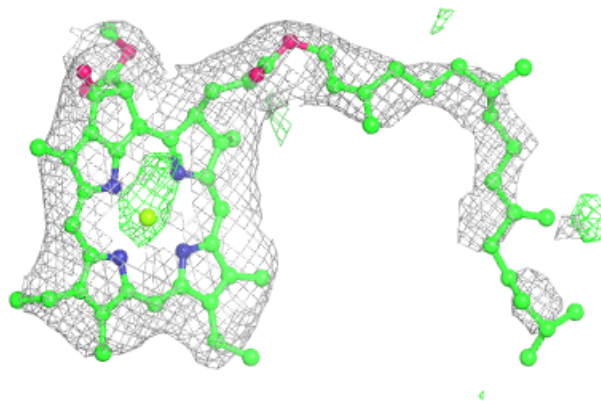
**Electron density around CLA A 825:**

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

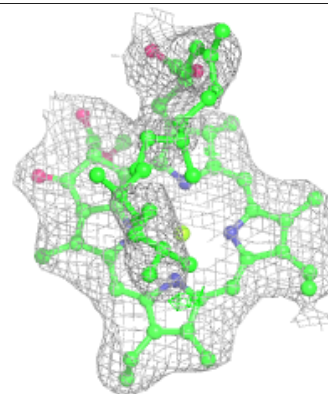
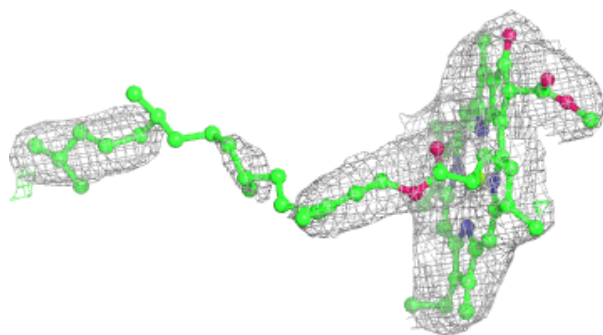
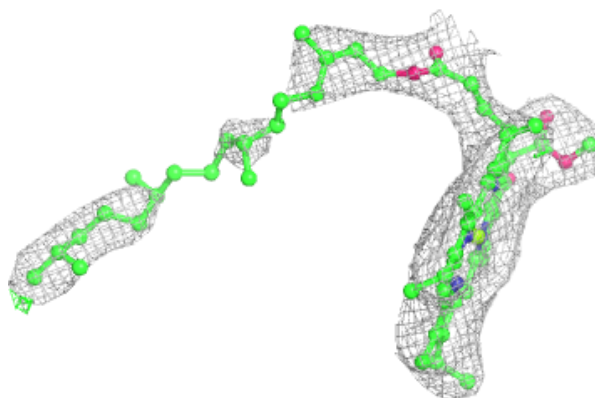


**Electron density around CLA 4 318:**

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

**Electron density around CLA A 804:**

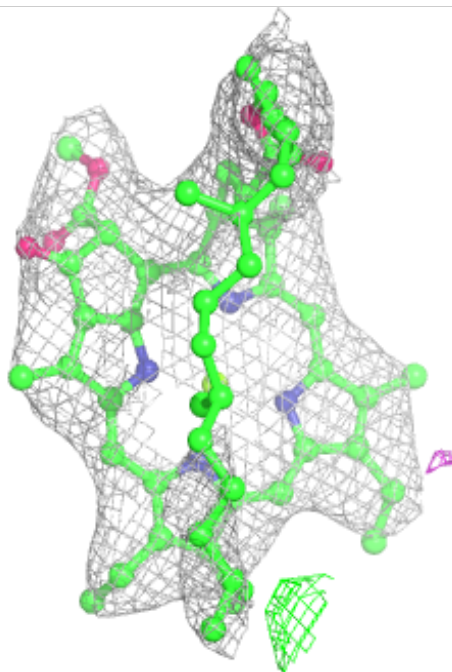
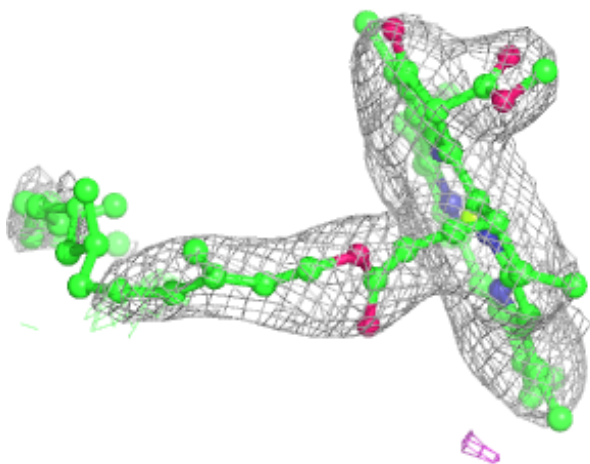
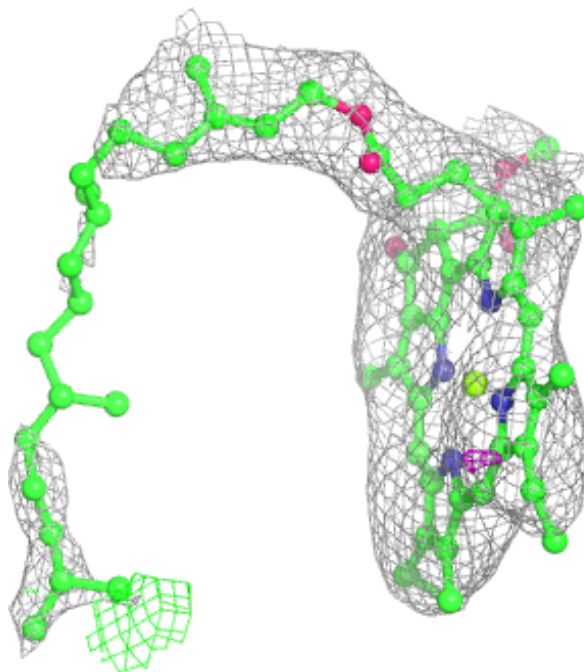
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





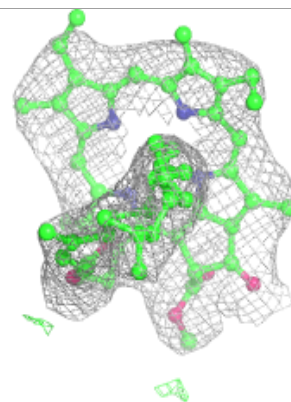
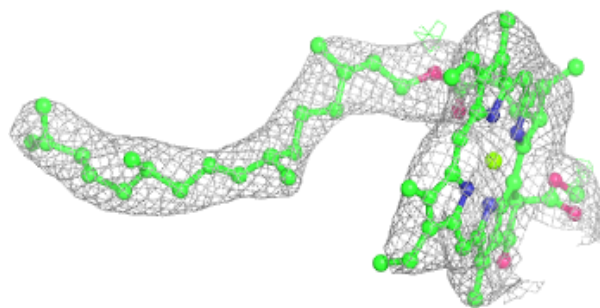
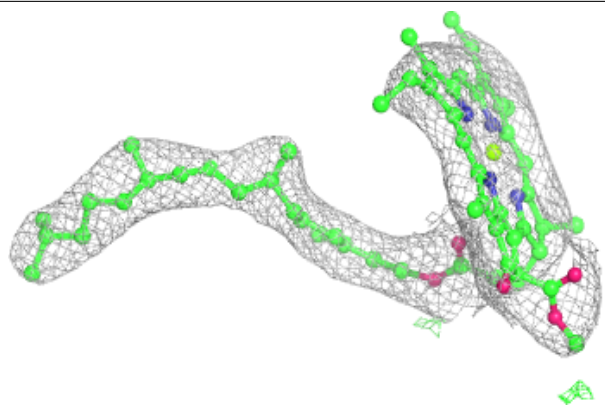
**Electron density around CLA A 838:**

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

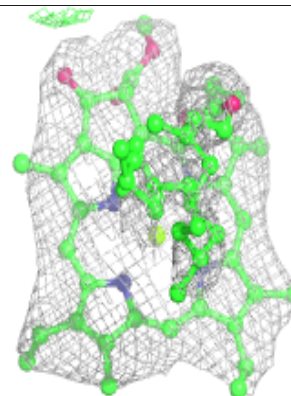
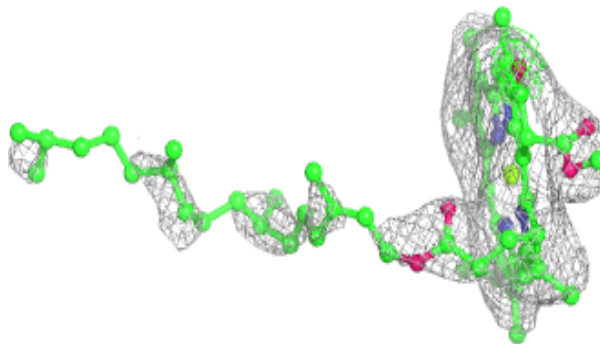
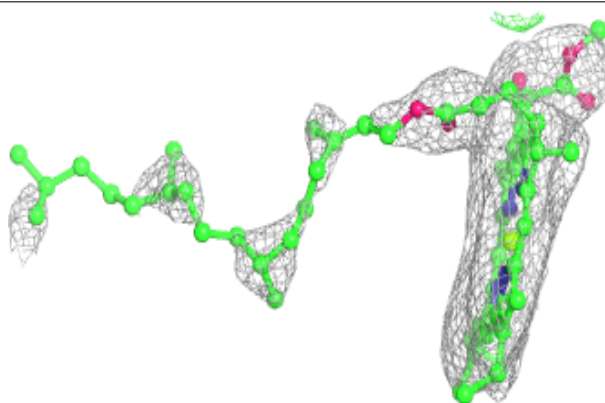


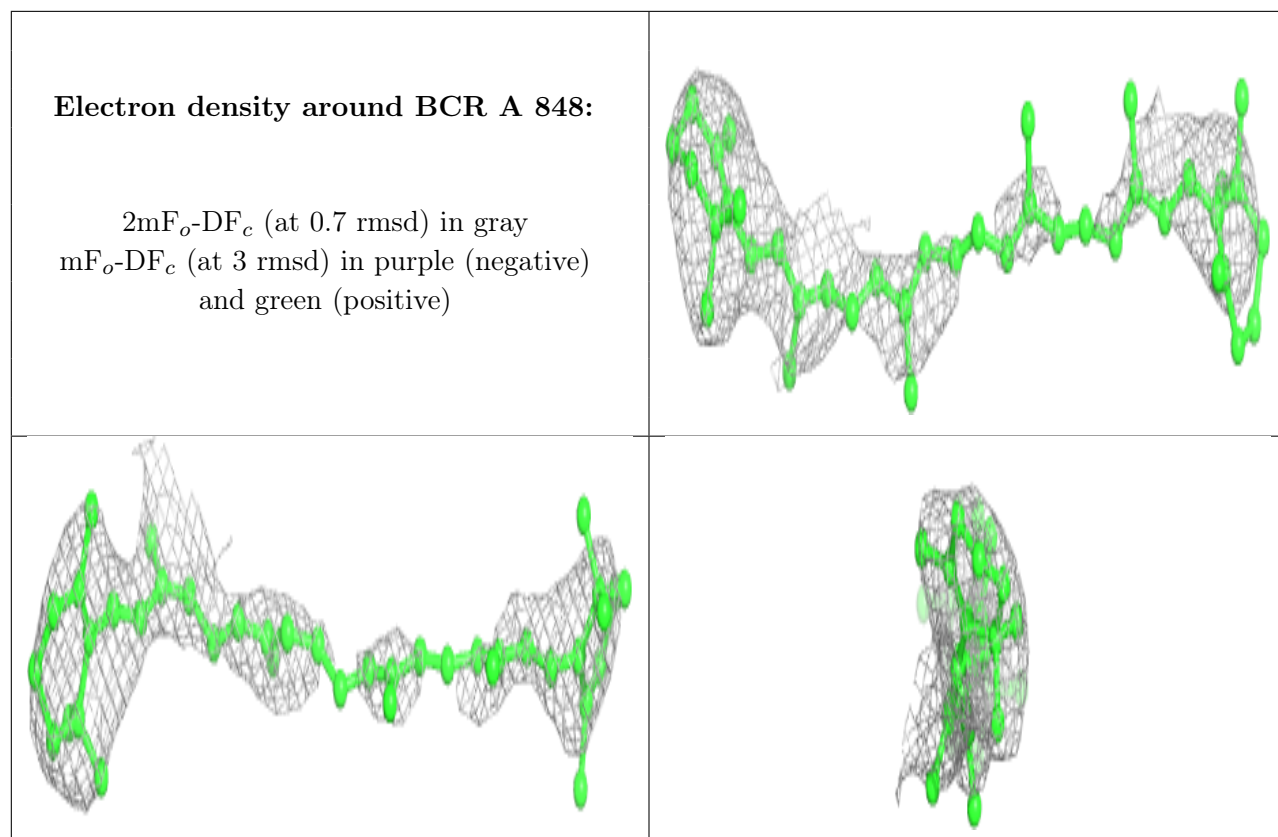
**Electron density around CLA A 811:**

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

**Electron density around CLA B 805:**

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

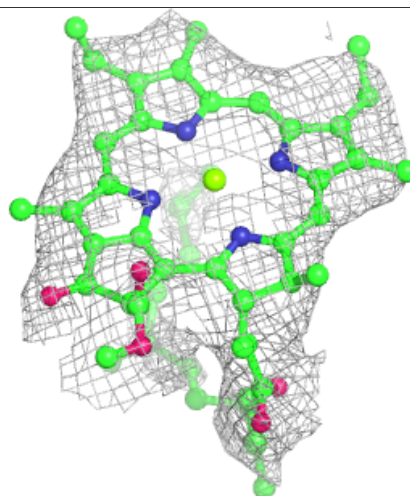
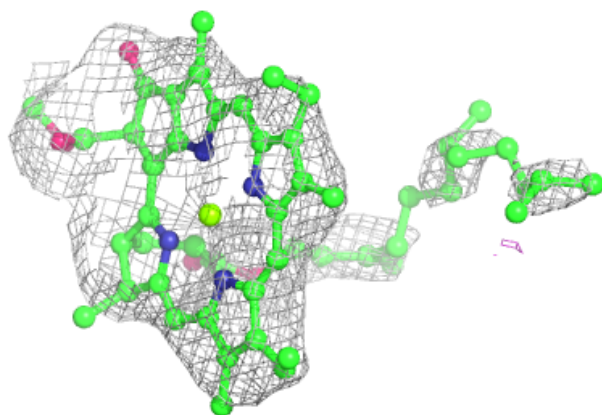
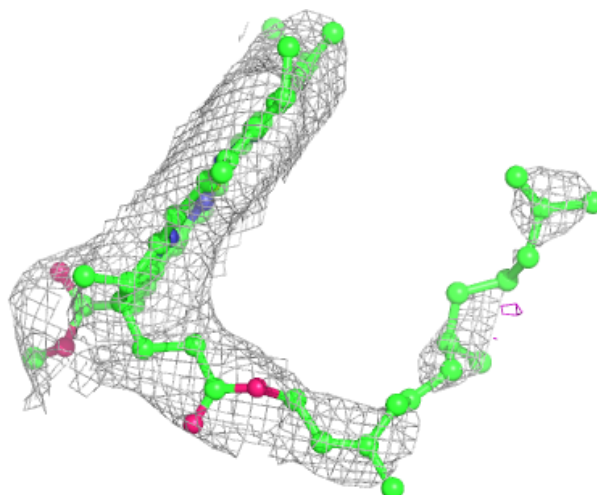


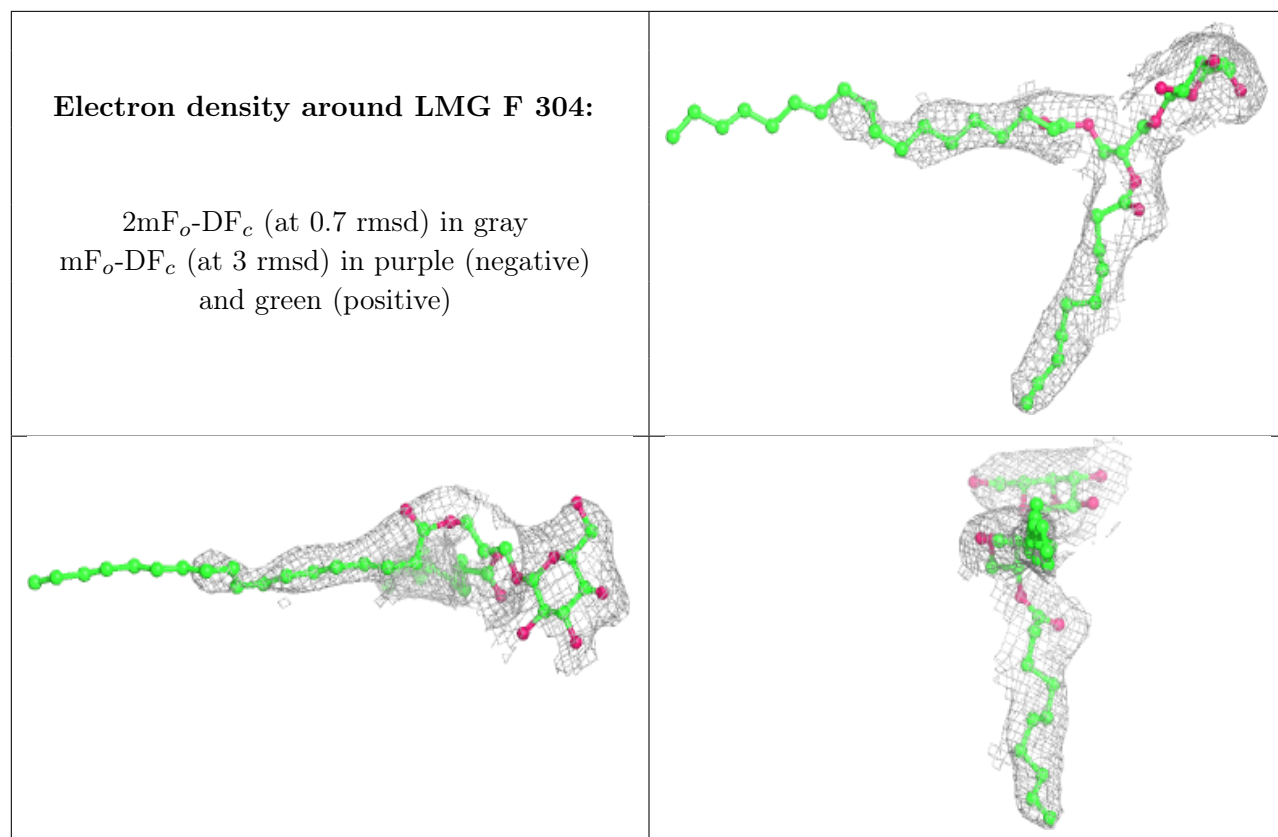




**Electron density around CLA B 812:**

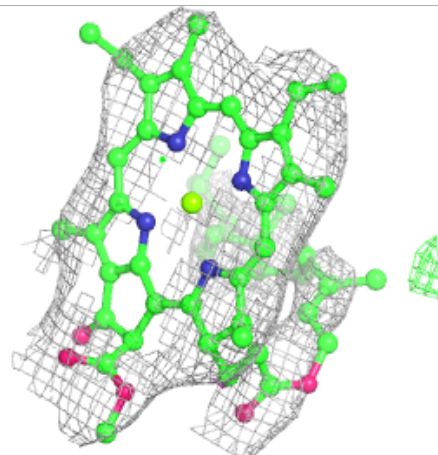
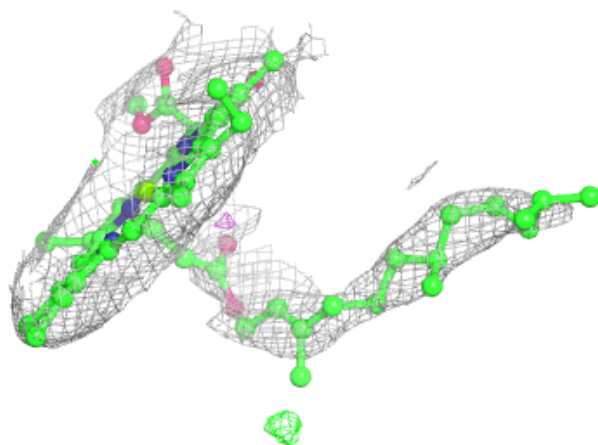
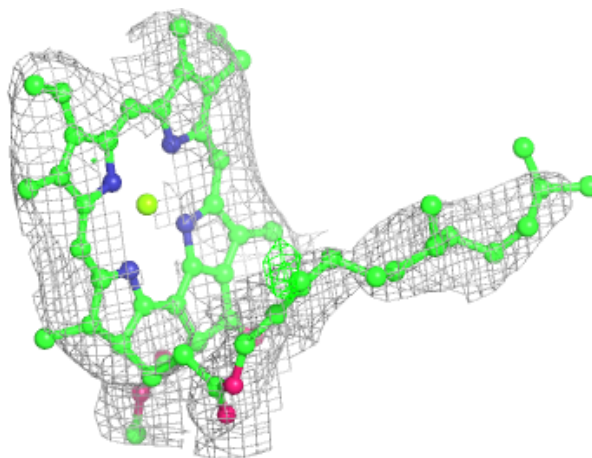
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





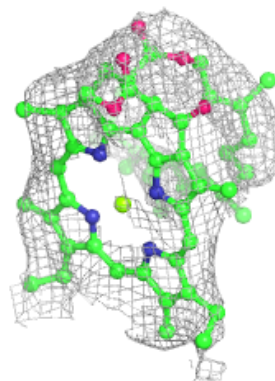
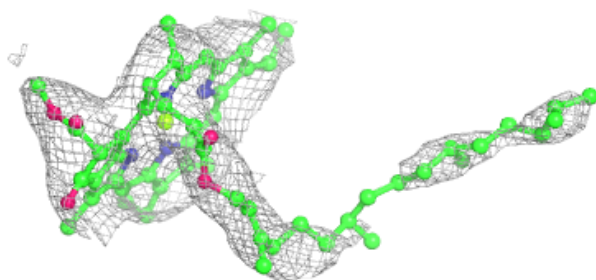
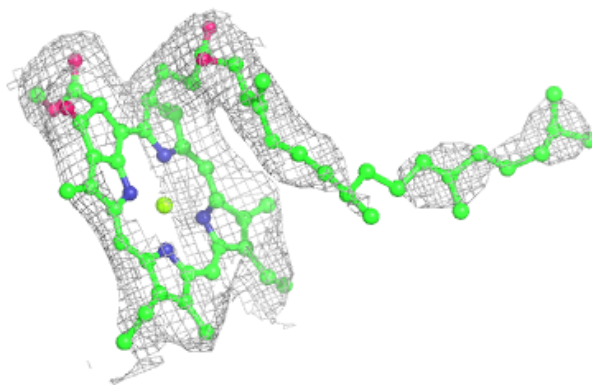
**Electron density around CLA 2 510:**

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

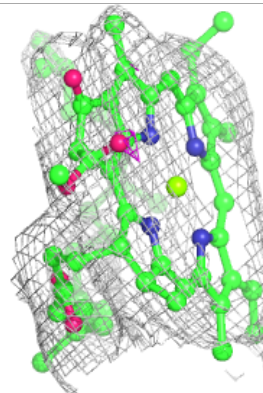
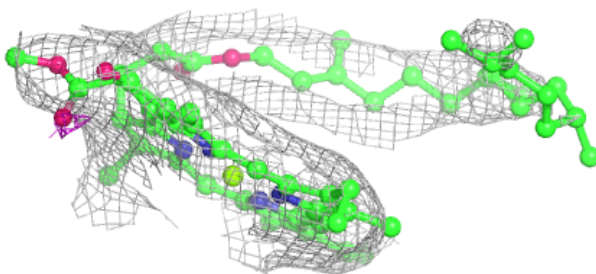
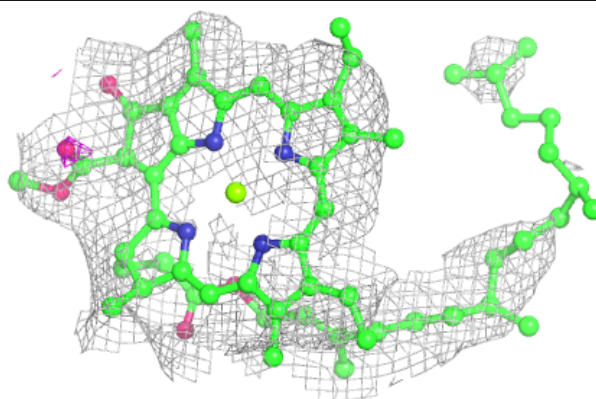


**Electron density around CLA B 815:**

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

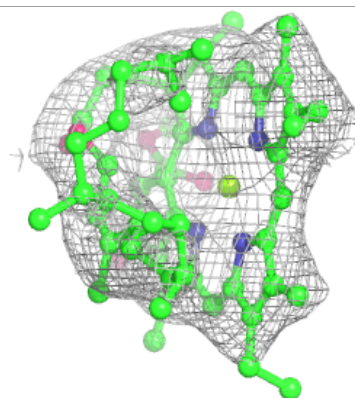
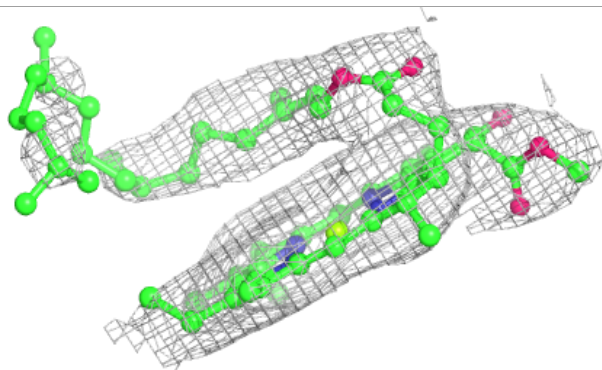
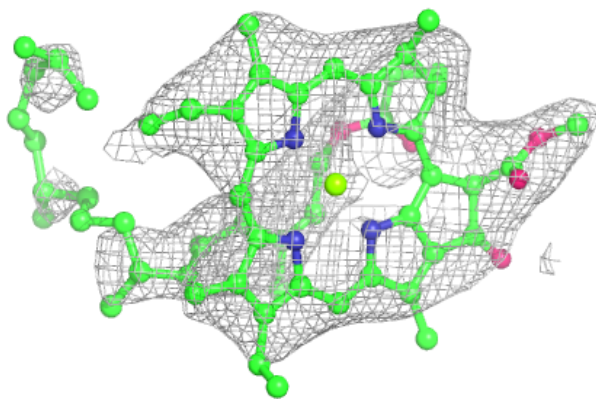
**Electron density around CLA 1 504:**

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

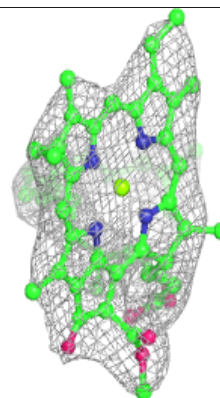
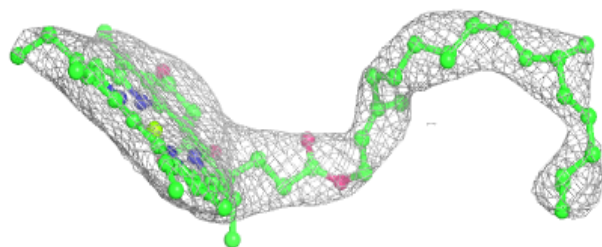
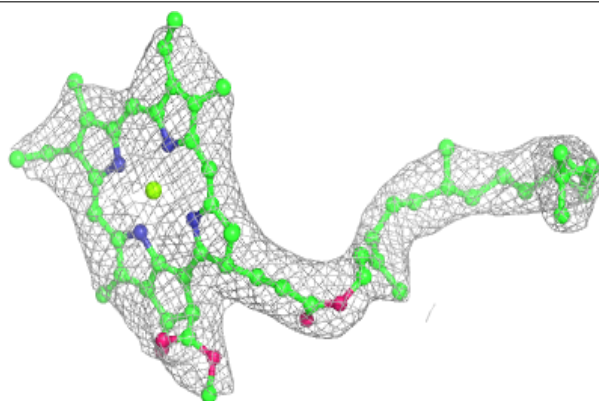


**Electron density around CLA B 808:**

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

**Electron density around CLA B 810:**

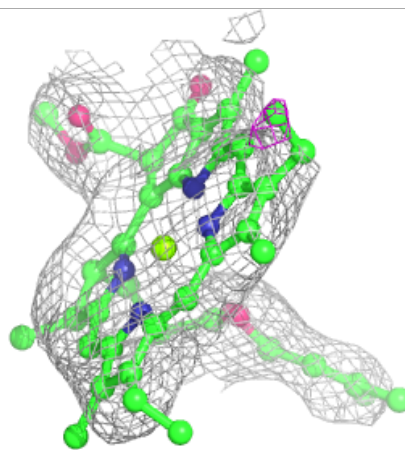
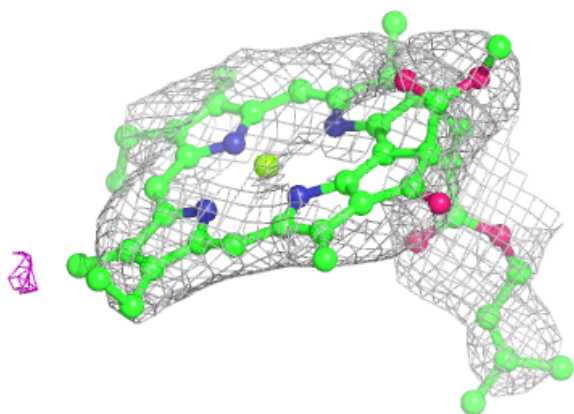
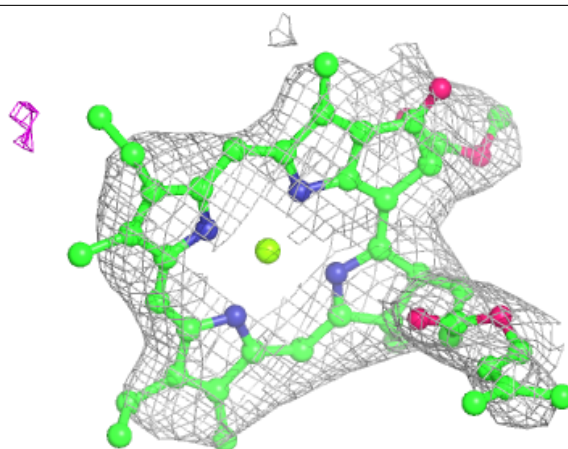
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





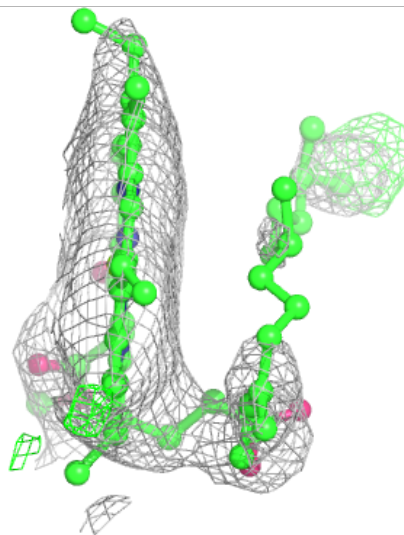
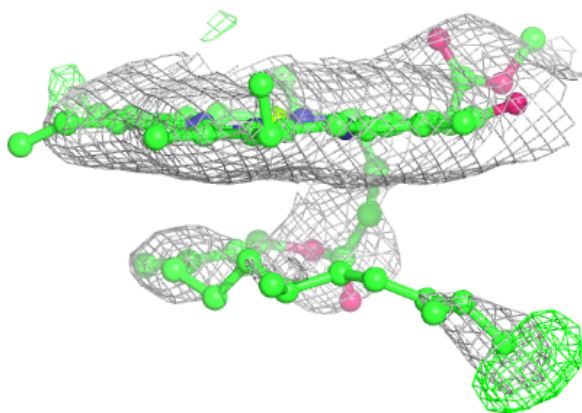
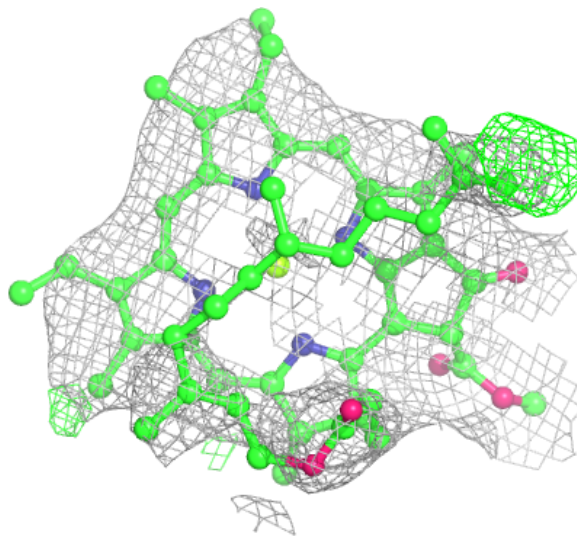
**Electron density around CLA 2 511:**

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



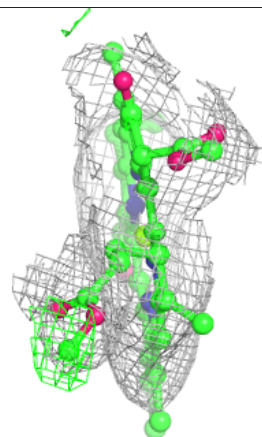
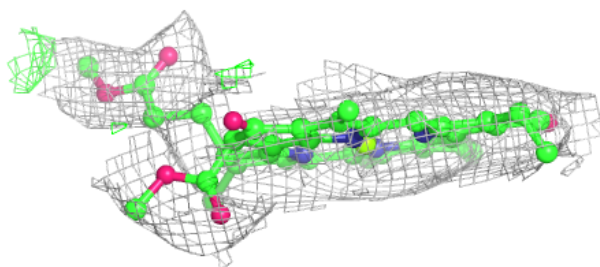
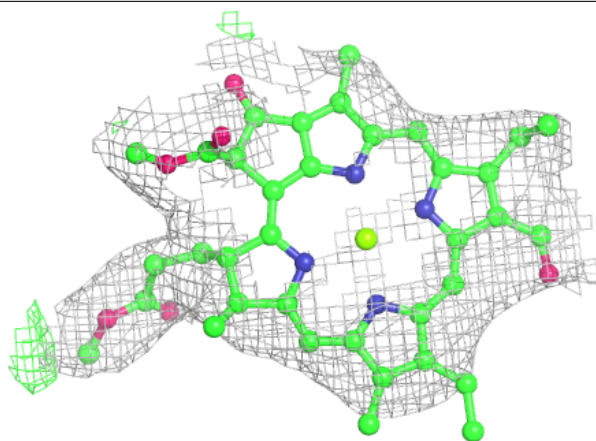
**Electron density around CLA 3 313:**

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



**Electron density around CHL 2 512:**

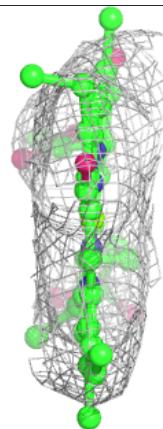
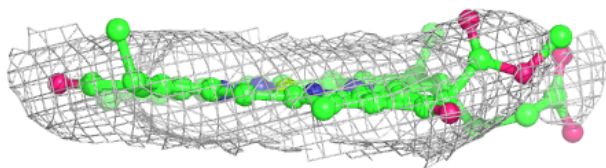
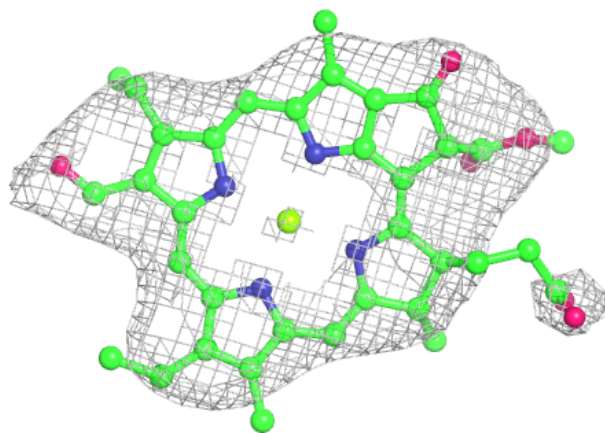
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





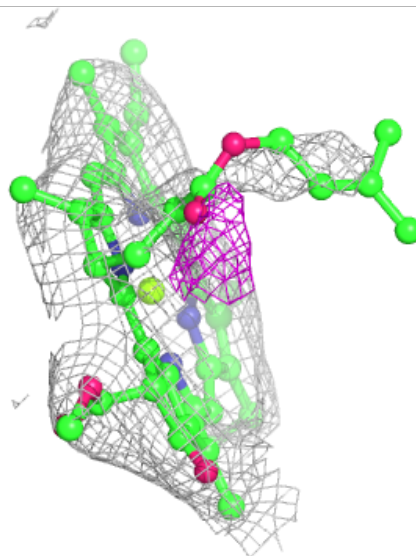
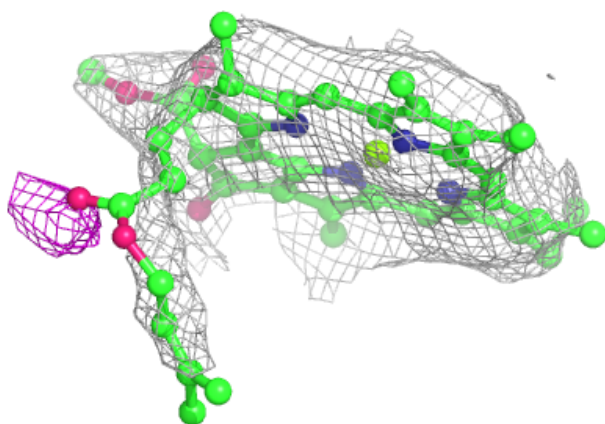
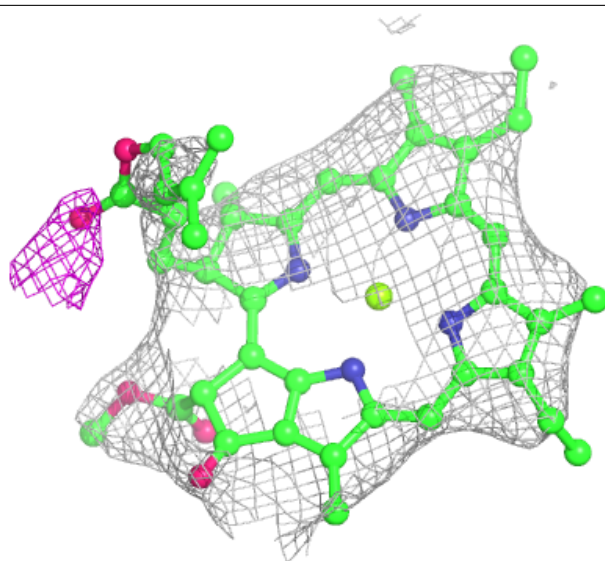
**Electron density around CHL 2 515:**

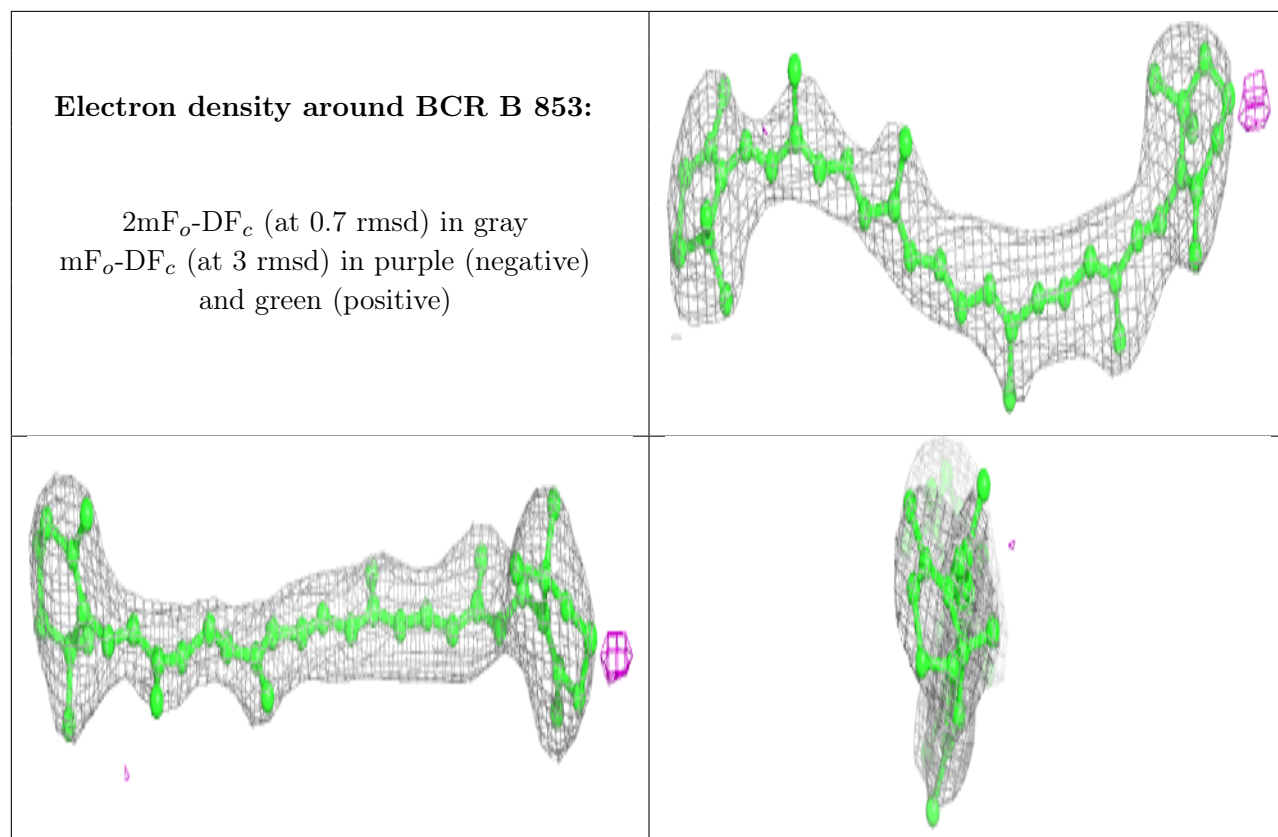
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA 3 315:**

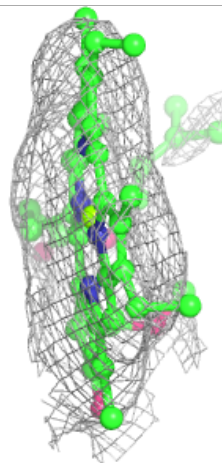
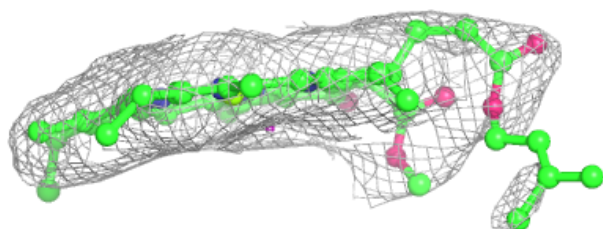
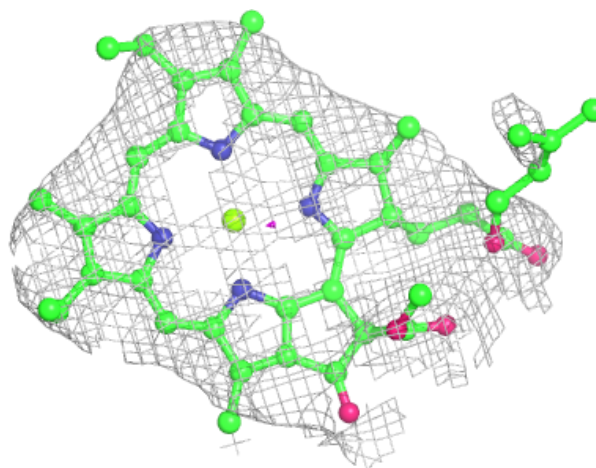
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





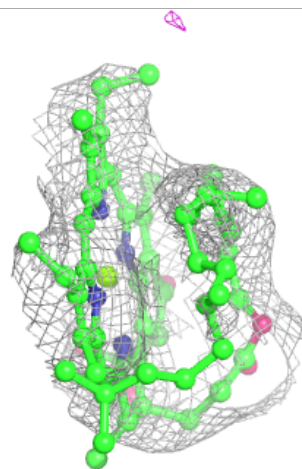
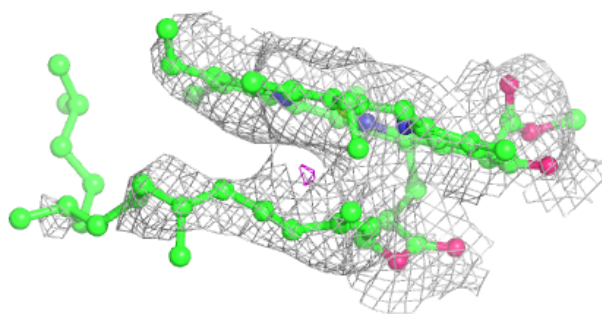
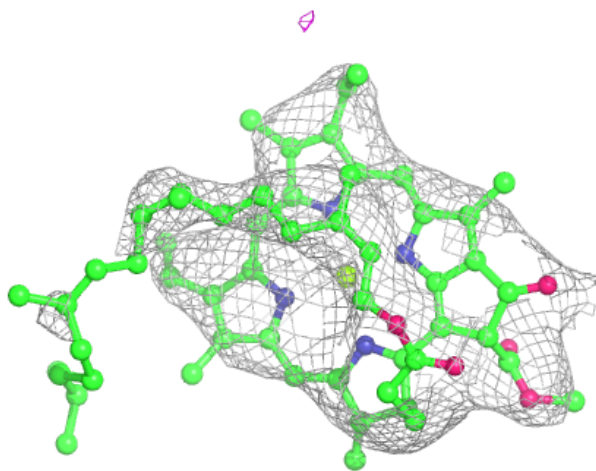
**Electron density around CLA 4 305:**

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



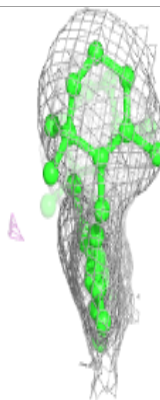
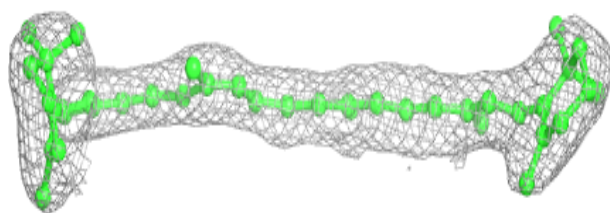
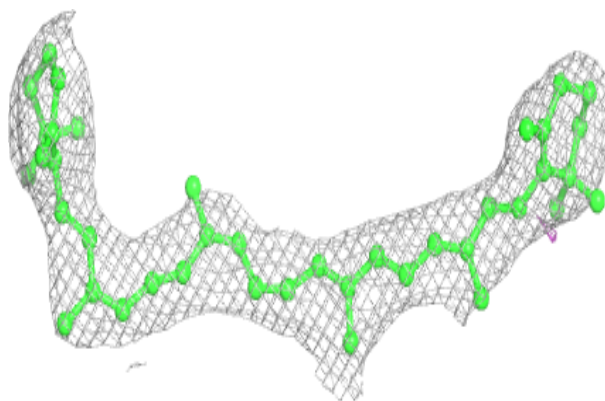
**Electron density around CLA 4 306:**

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

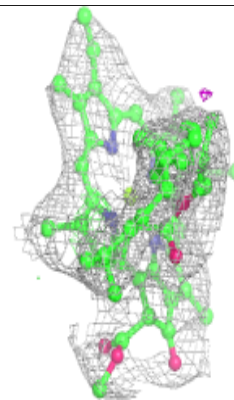
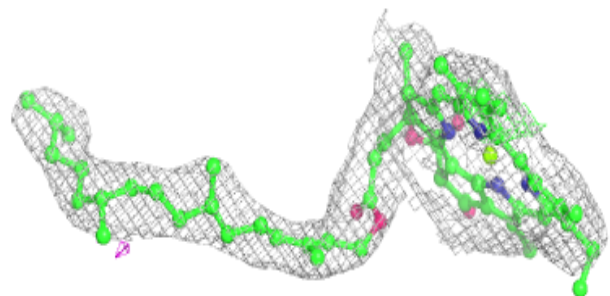
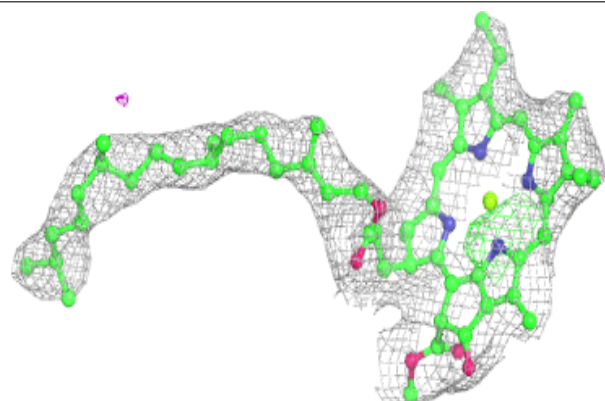


**Electron density around BCR L 302:**

$2mF_o-DF_c$  (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:**

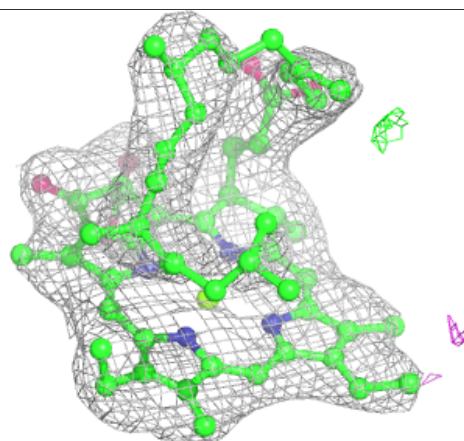
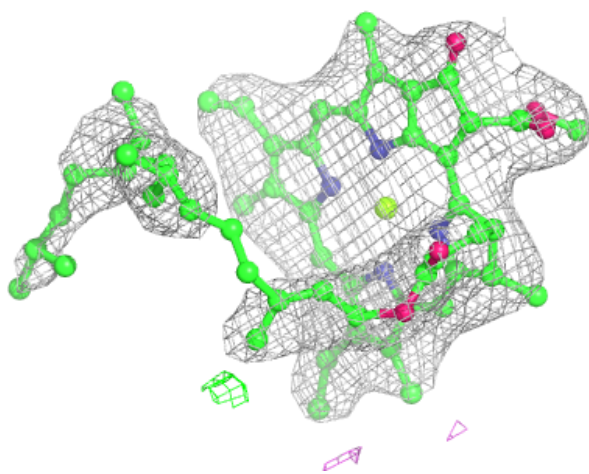
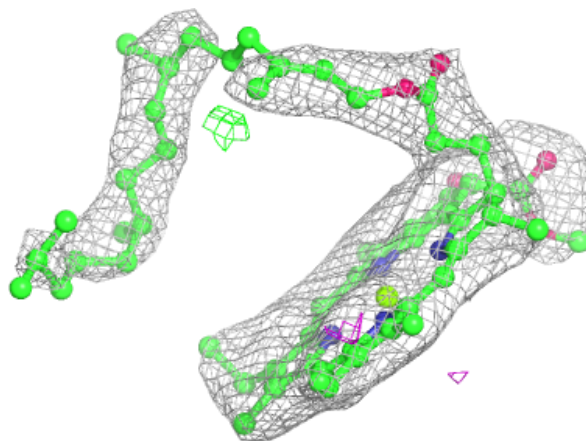
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





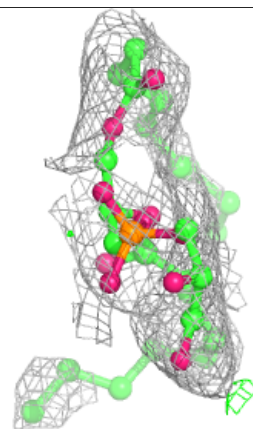
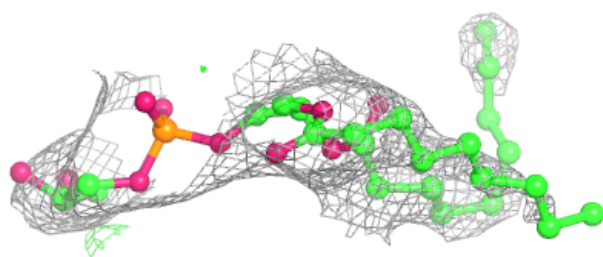
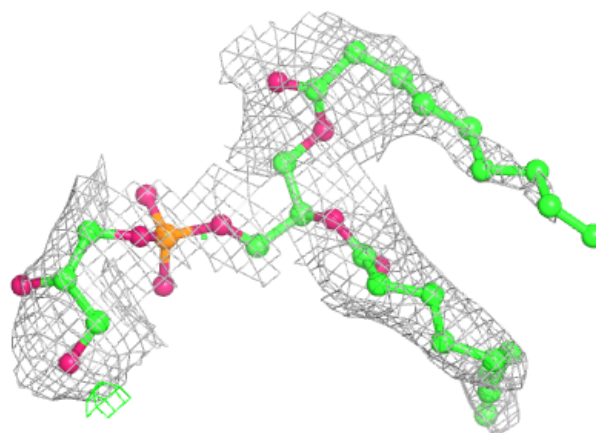
**Electron density around CLA B 830:**

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

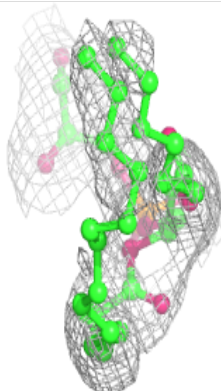
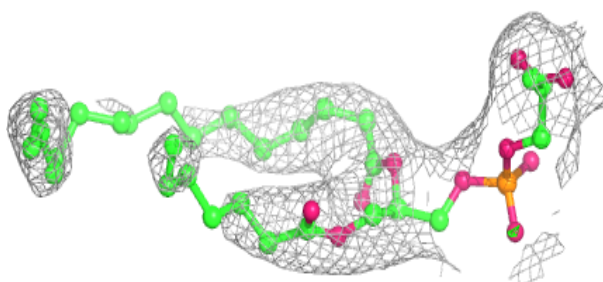
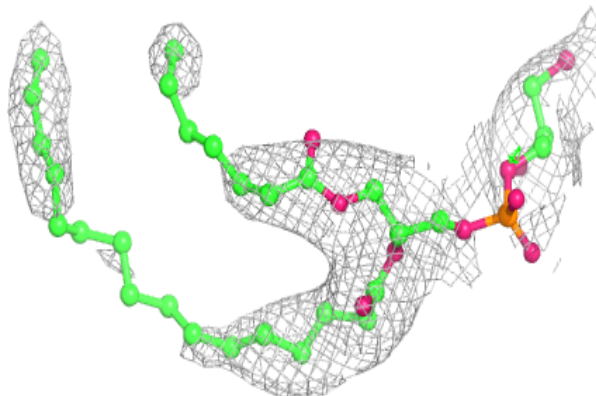


**Electron density around LHG 2 517:**

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

**Electron density around LHG A 845:**

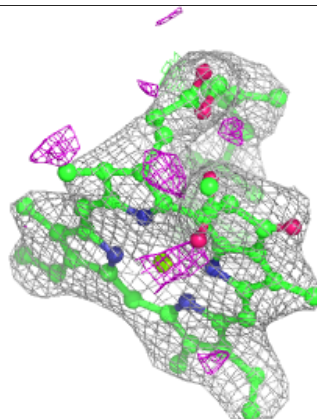
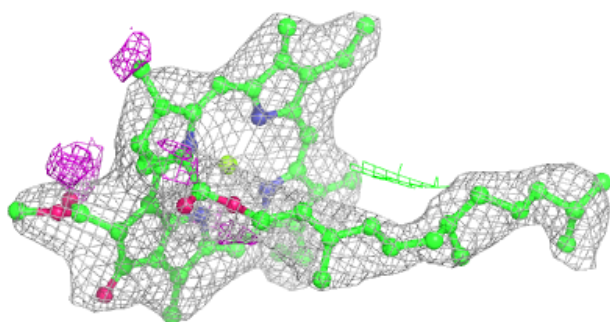
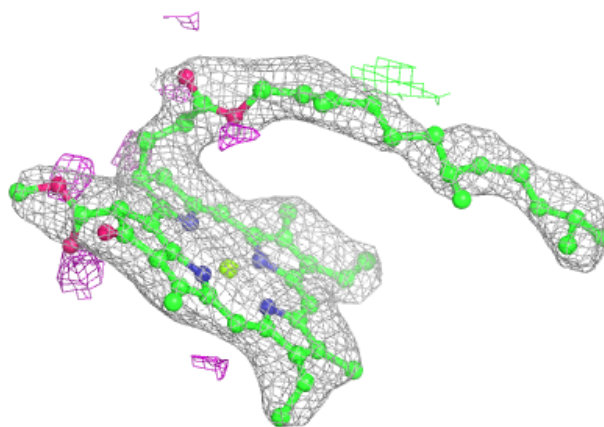
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





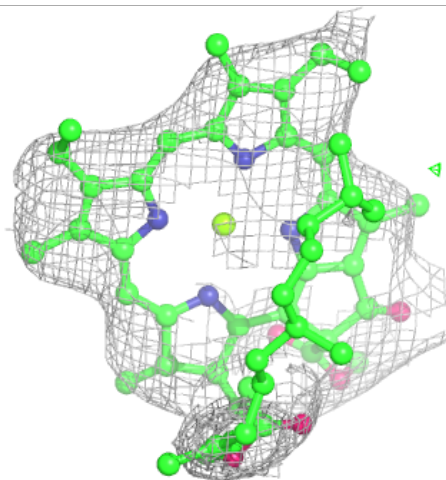
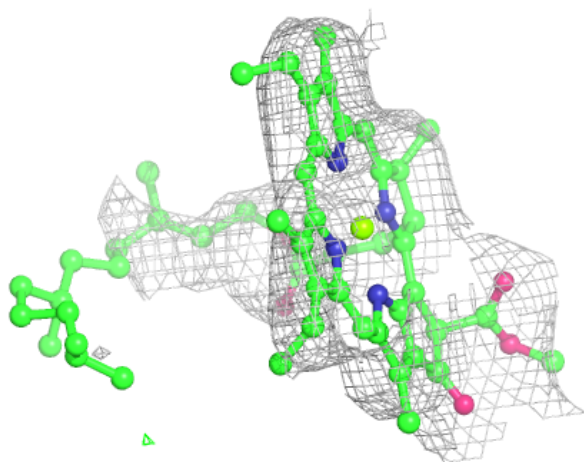
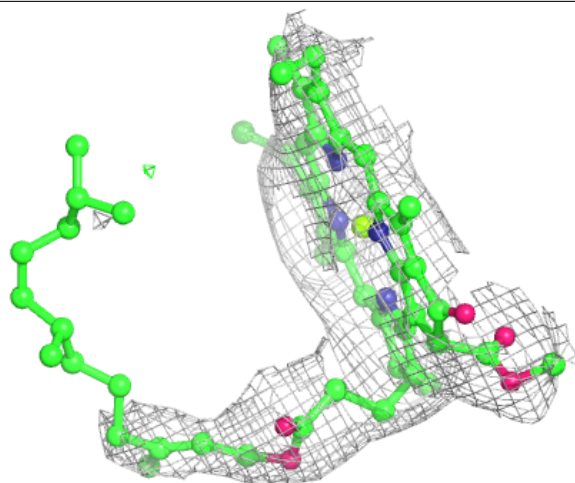
**Electron density around CLA B 831:**

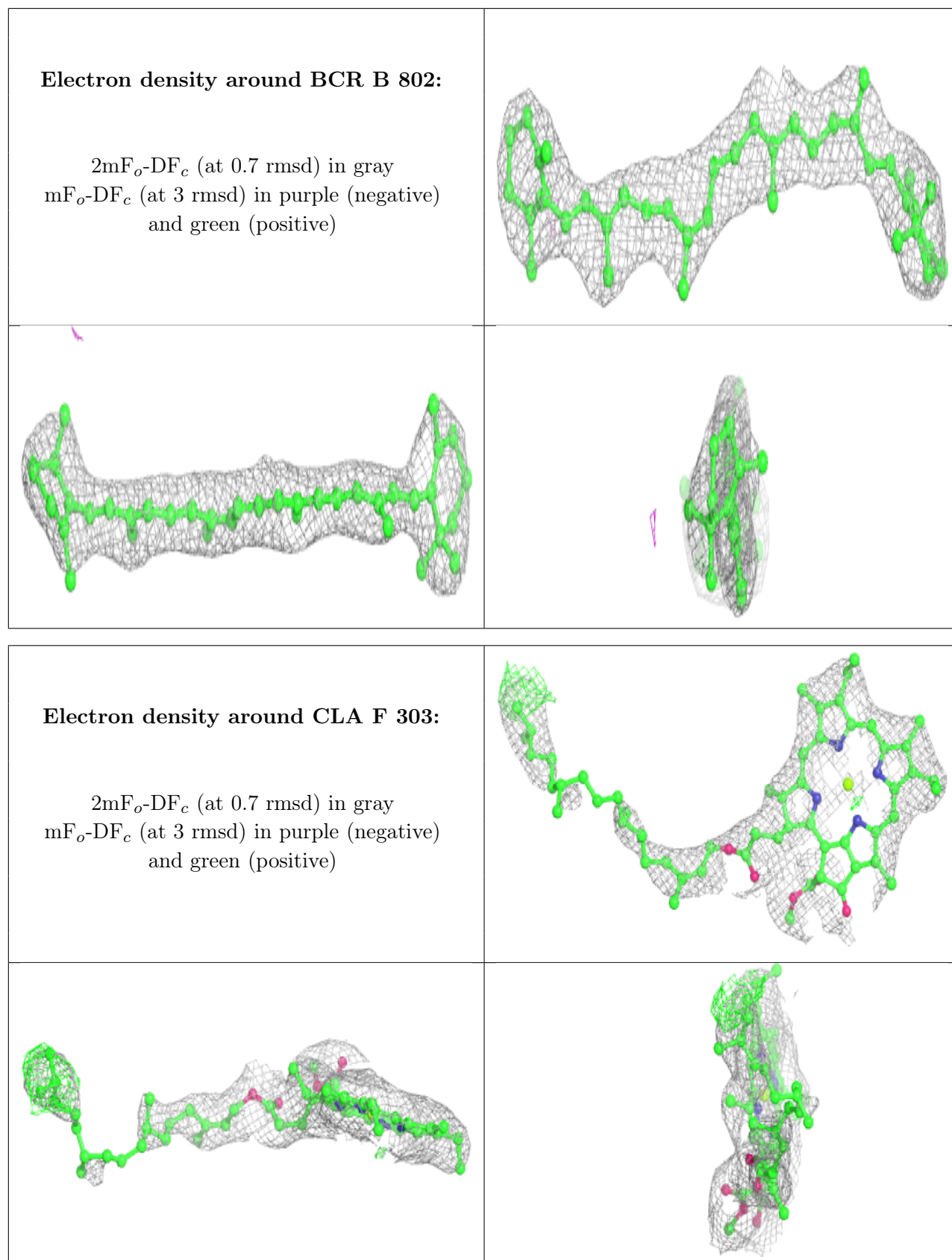
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA A 823:**

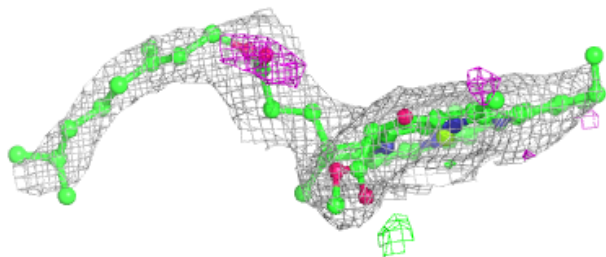
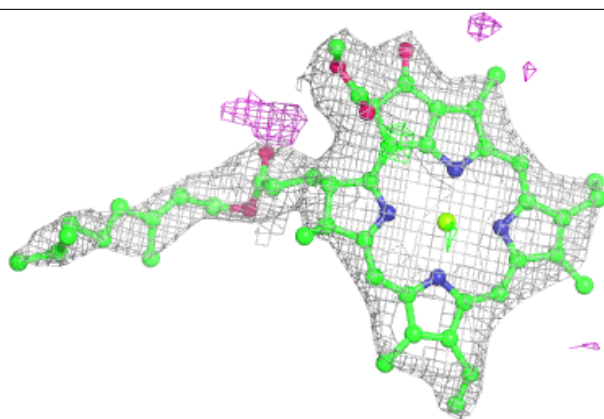
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



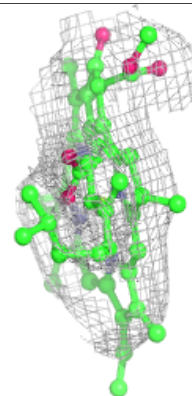
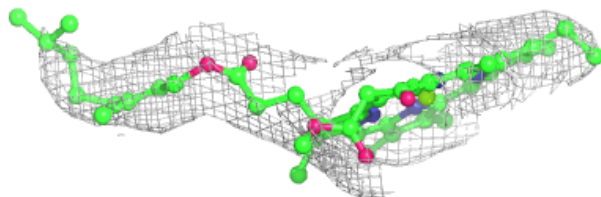
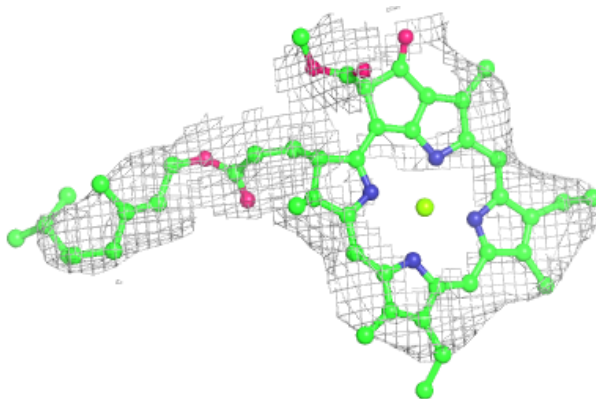


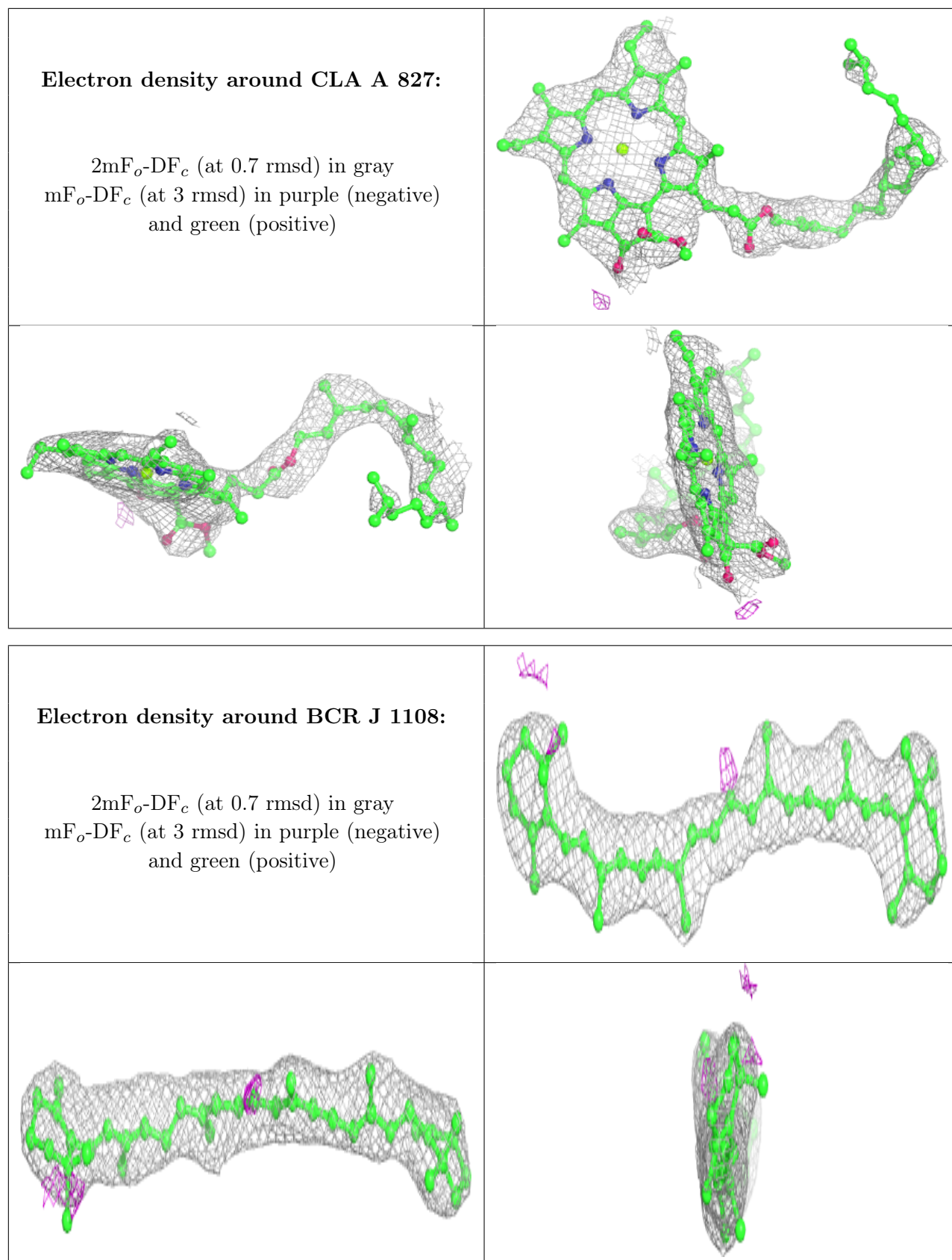
**Electron density around CLA A 826:**

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

**Electron density around CLA G 202:**

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

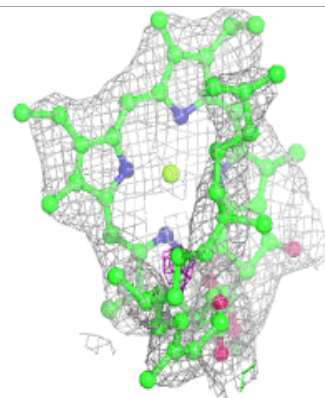
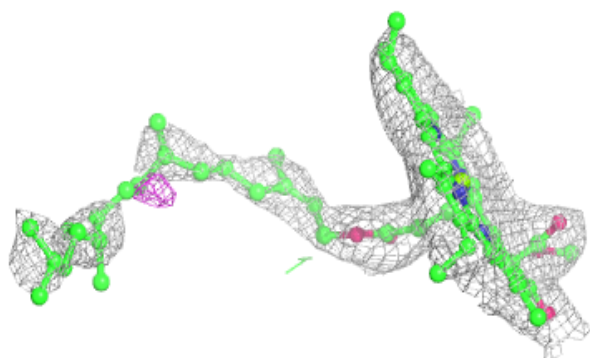
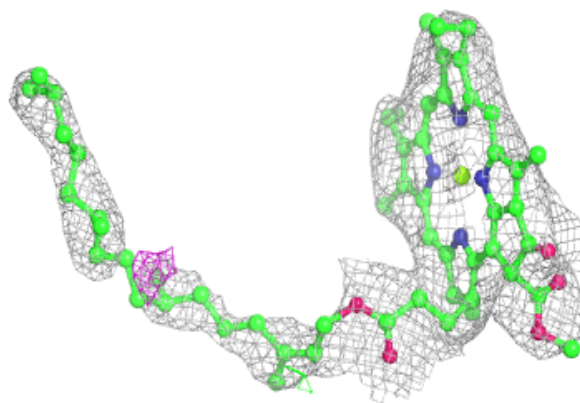




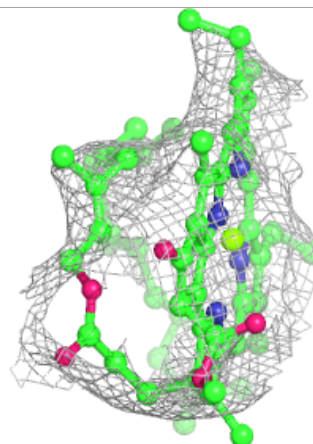
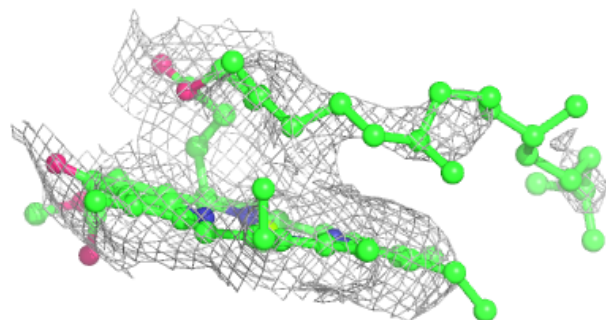
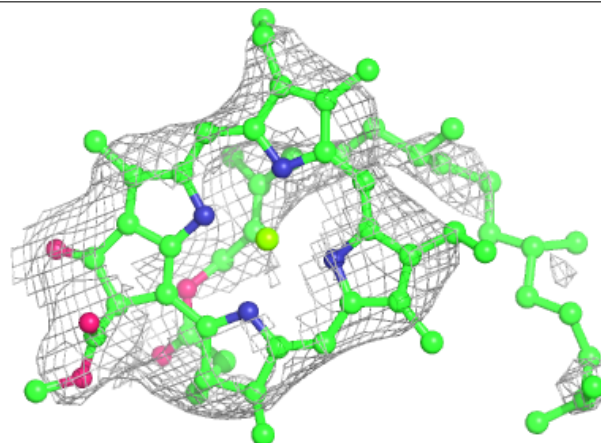


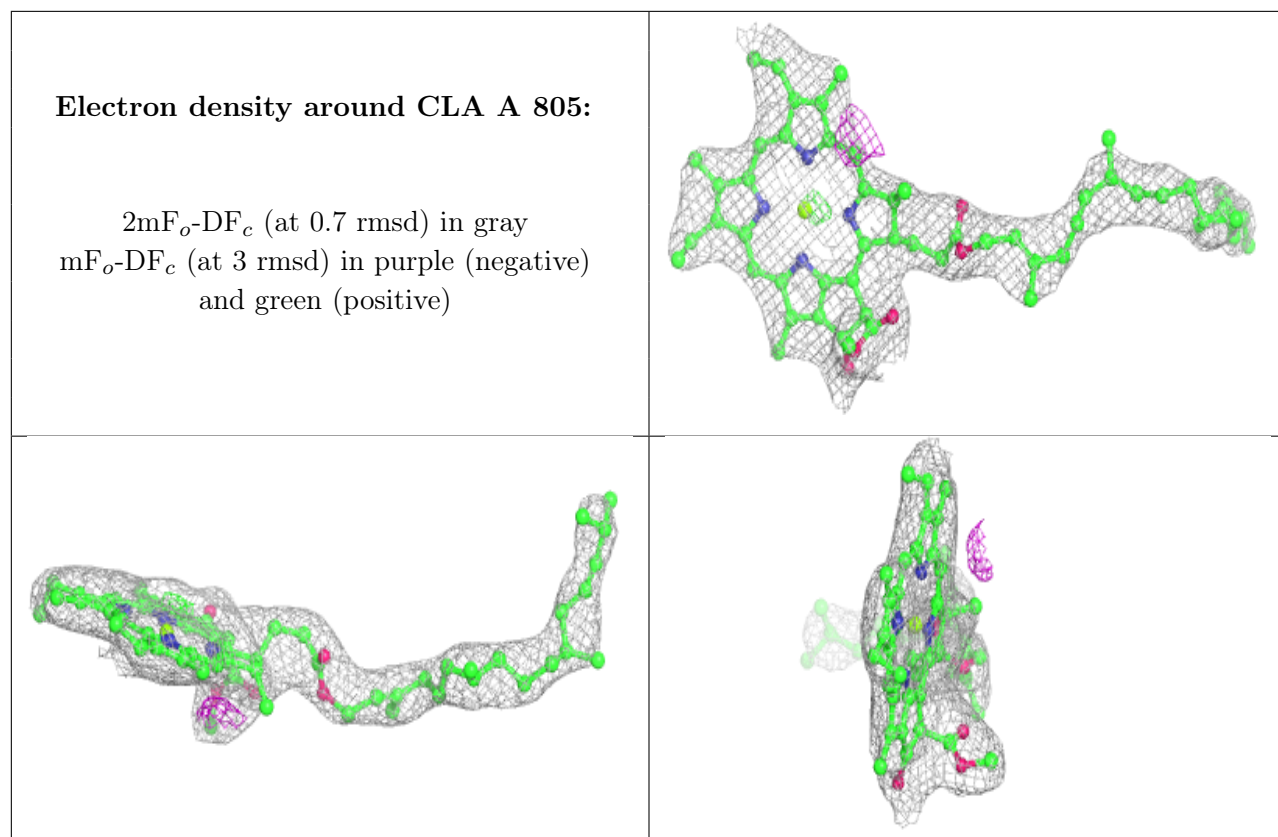
**Electron density around CLA A 834:**

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

**Electron density around CLA 2 506:**

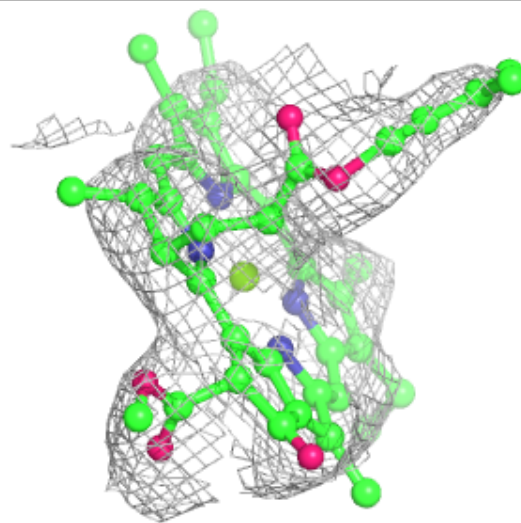
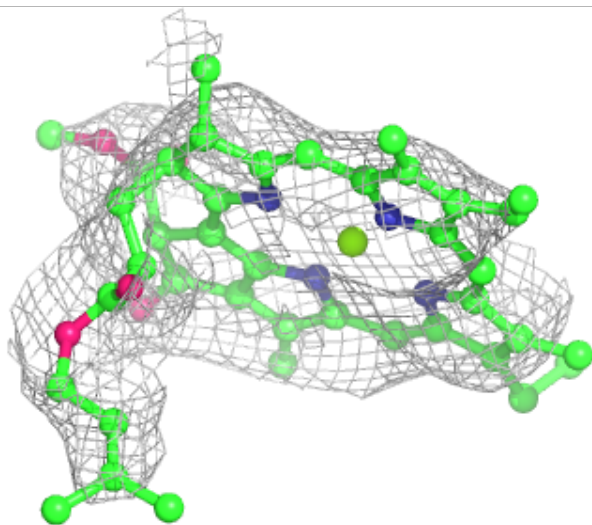
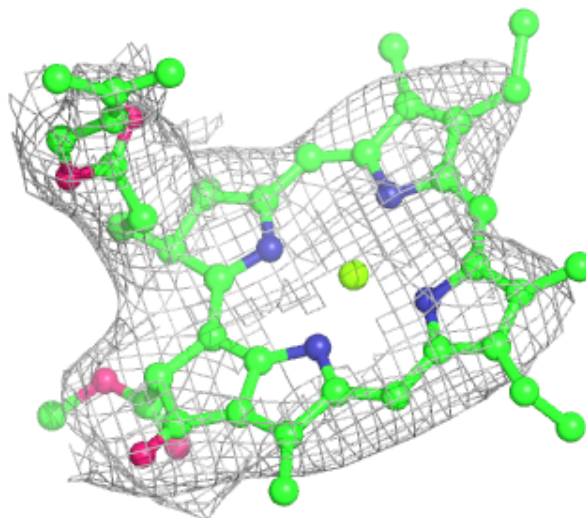
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CLA 2 509:**

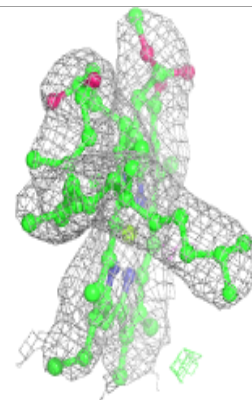
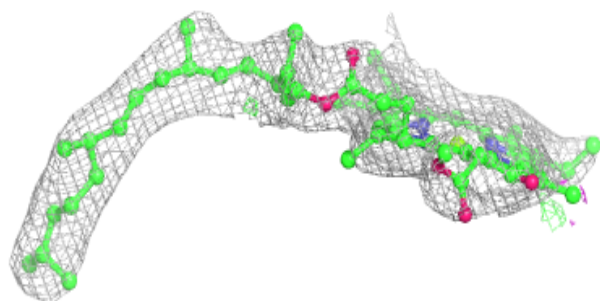
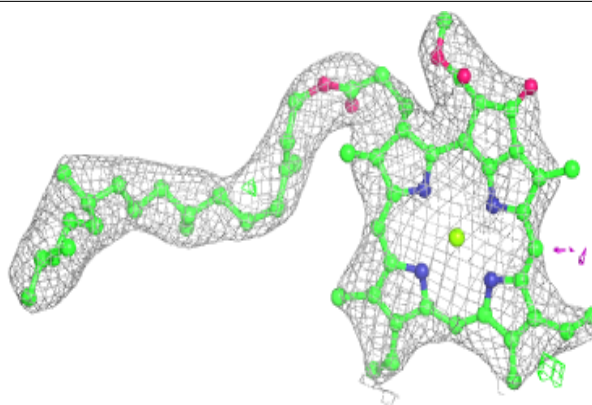
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



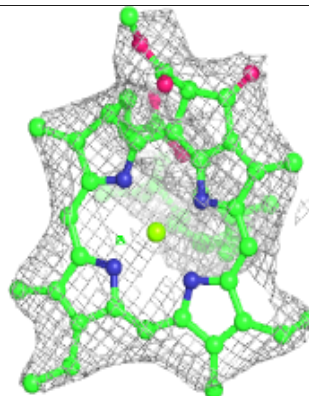
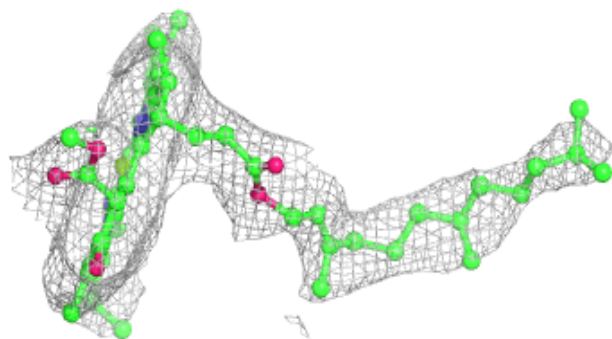
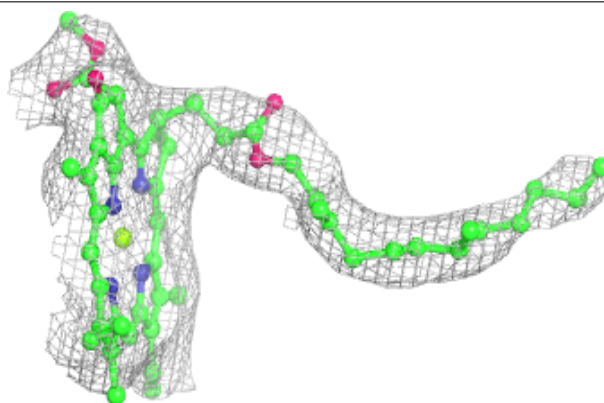


**Electron density around CLA B 804:**

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

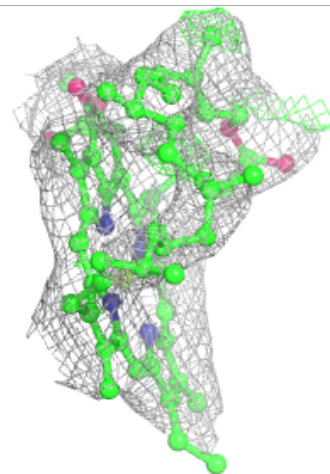
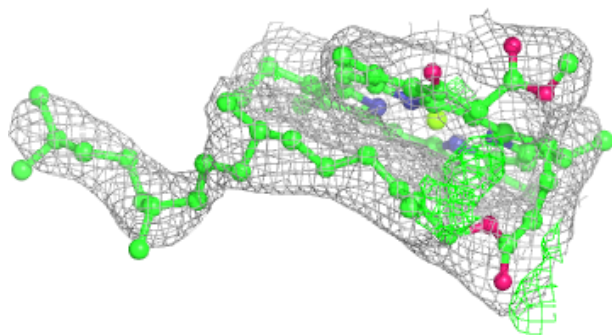
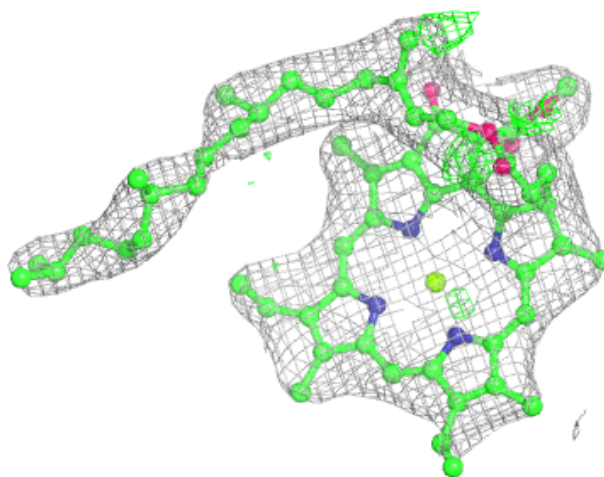
**Electron density around CLA L 304:**

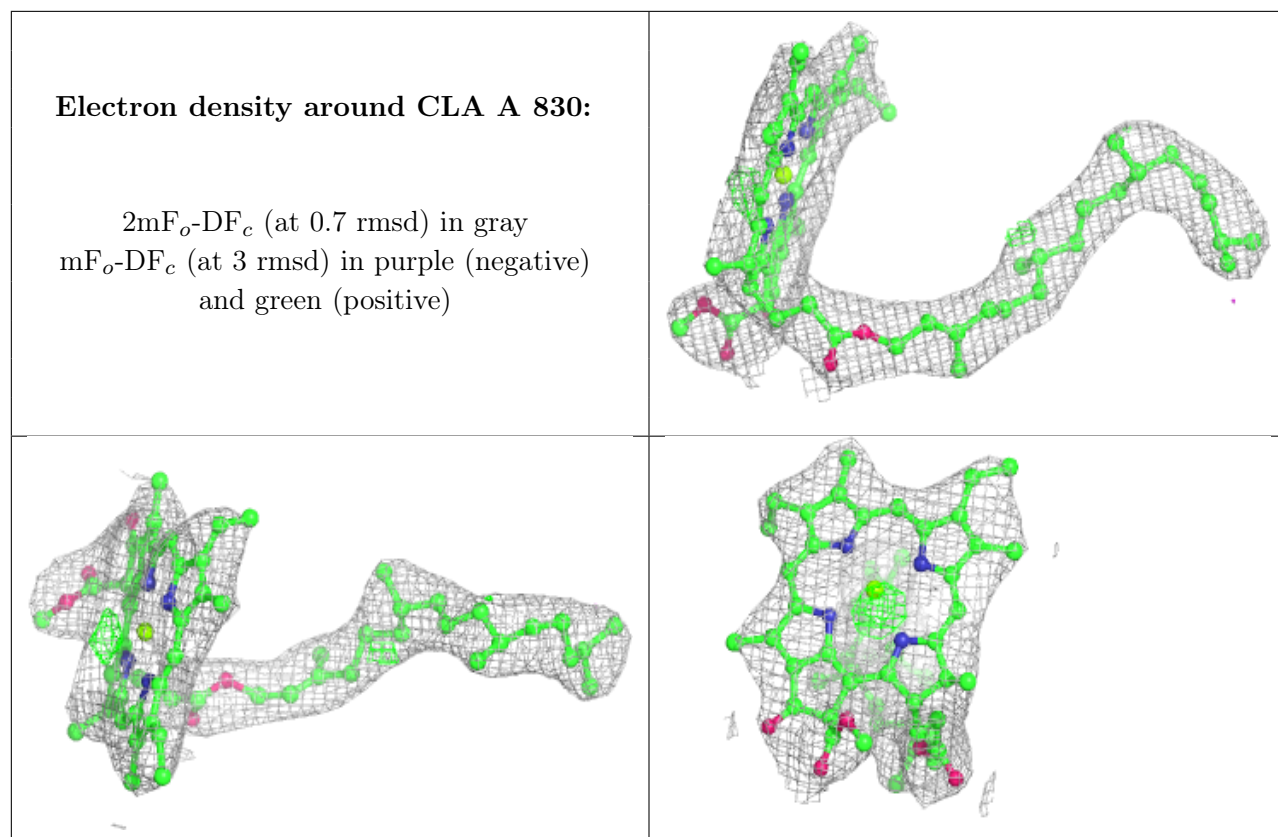
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA A 829:**

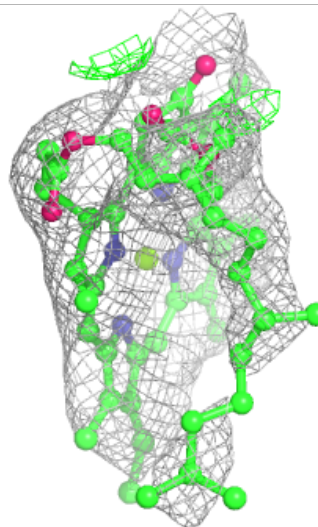
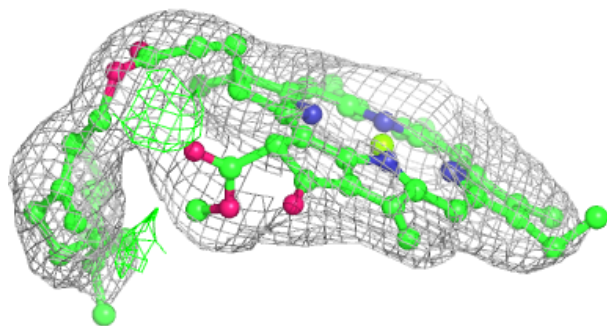
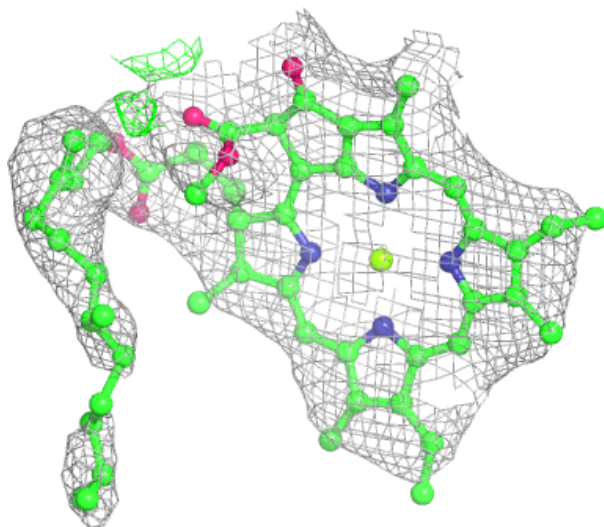
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





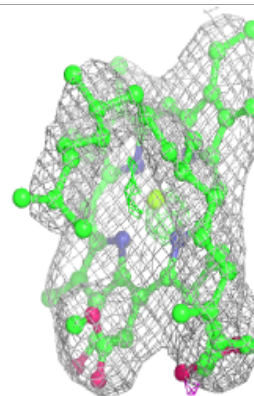
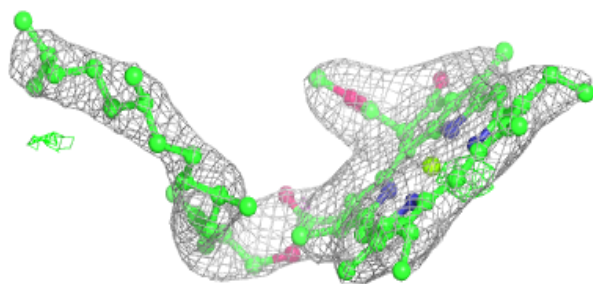
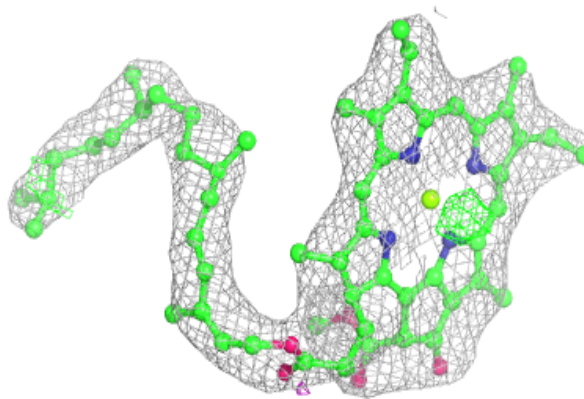
**Electron density around CLA 4 308:**

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

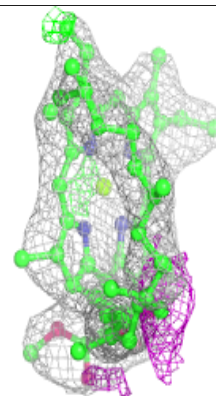
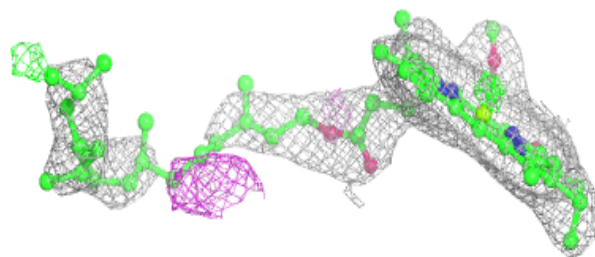
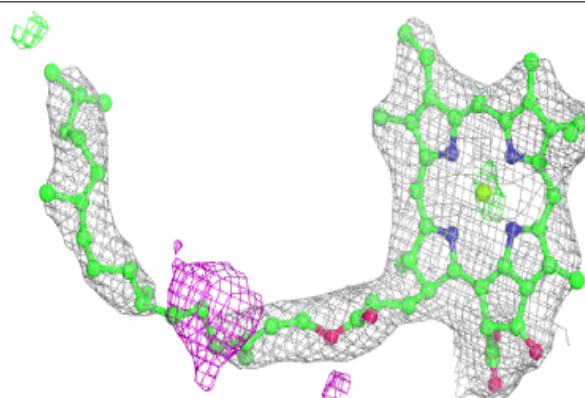


**Electron density around CLA B 824:**

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

**Electron density around CLA B 825:**

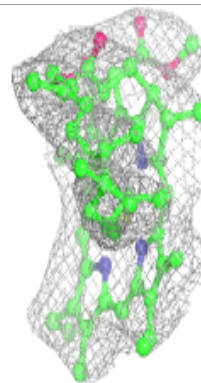
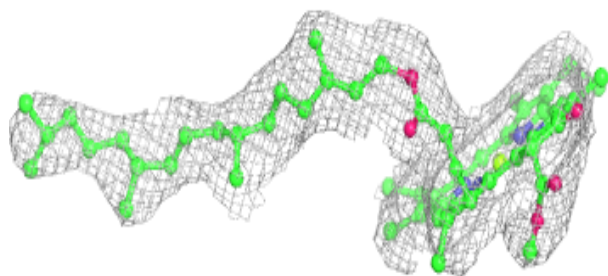
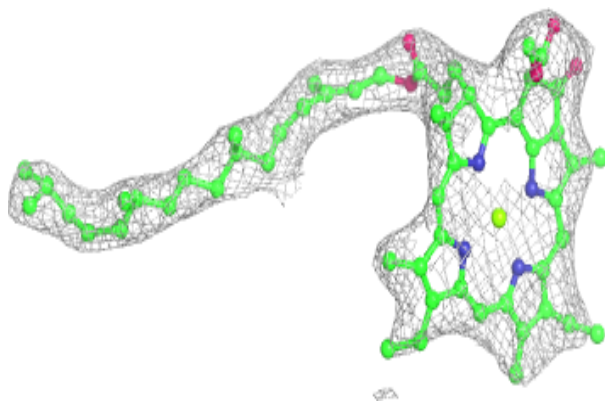
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



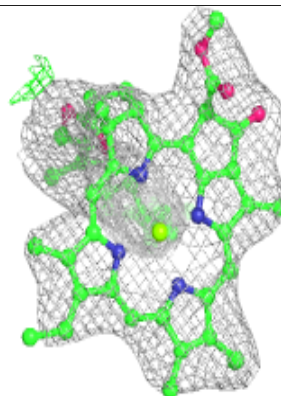
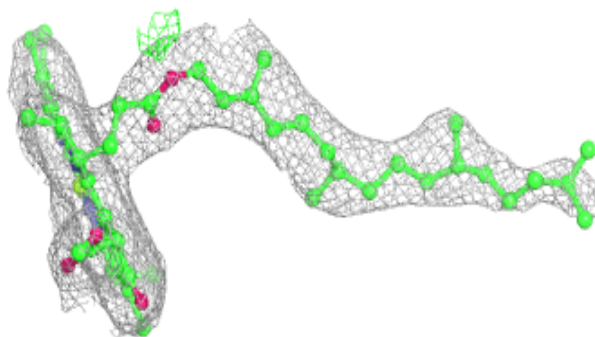
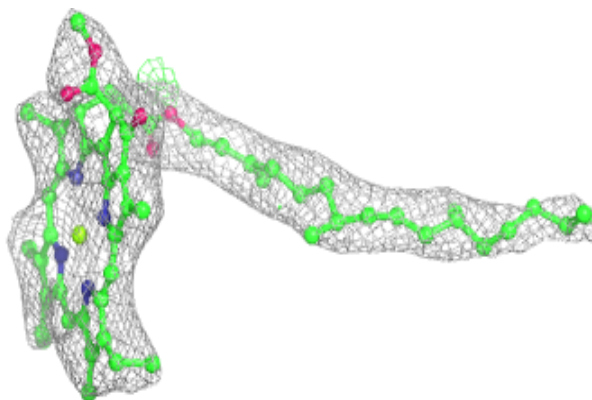


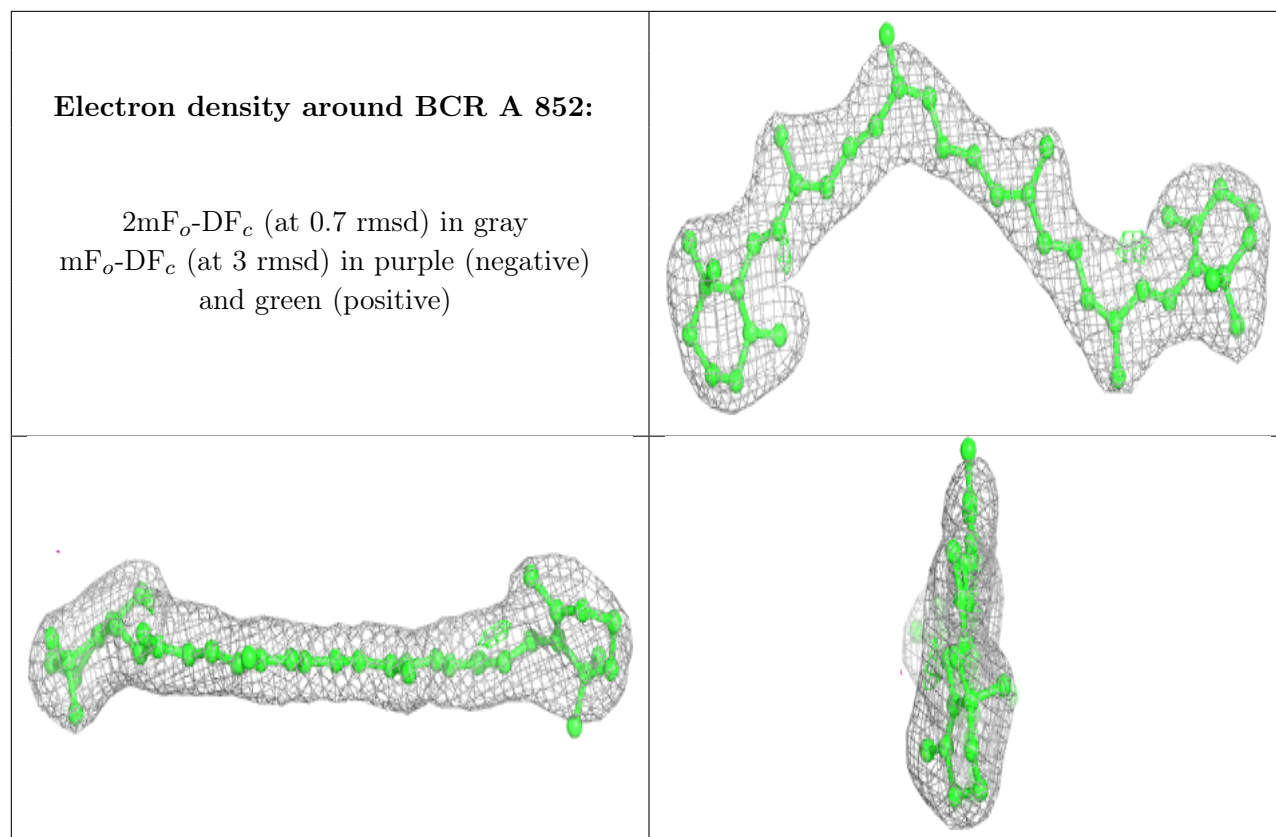
**Electron density around CLA A 833:**

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

**Electron density around CLA B 828:**

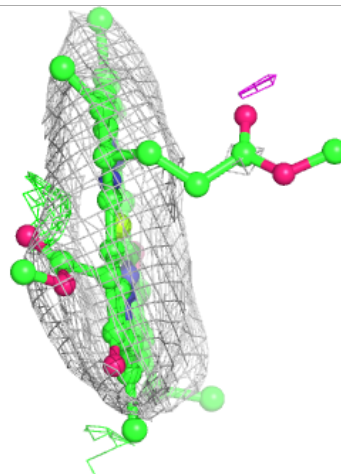
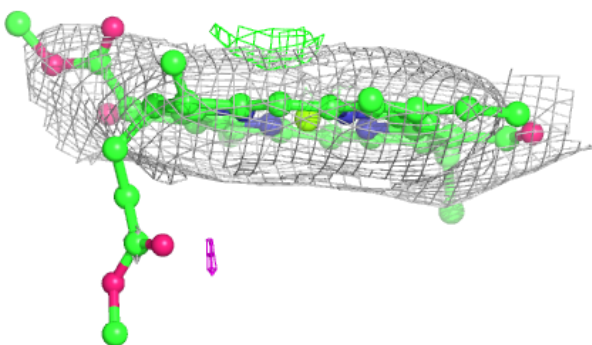
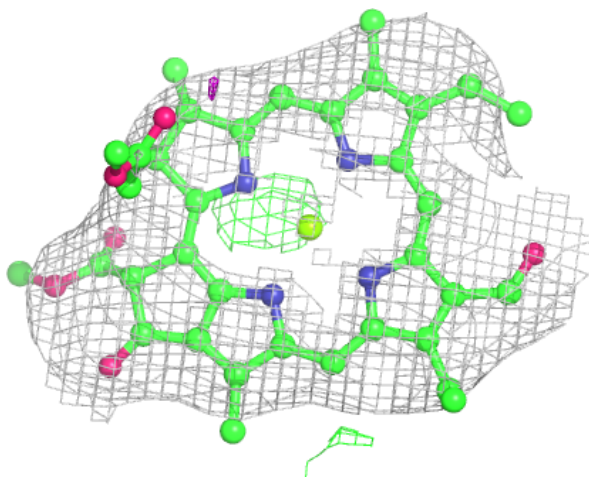
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CHL 3 314:**

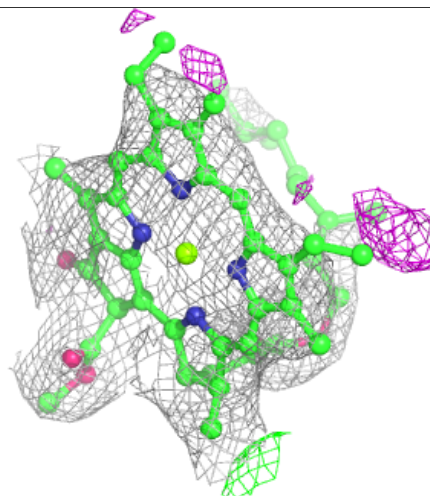
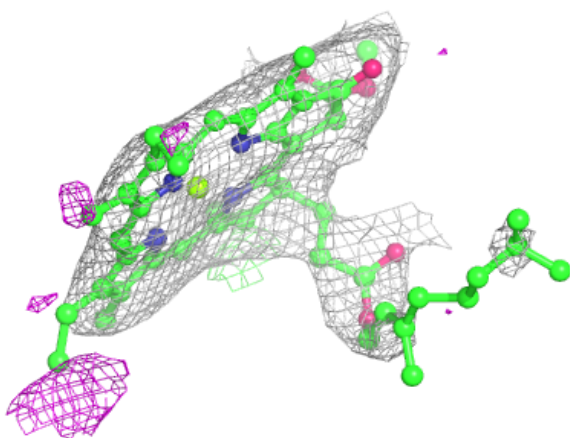
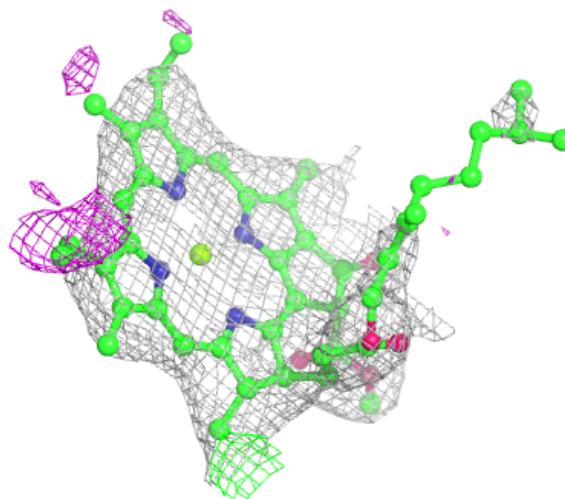
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





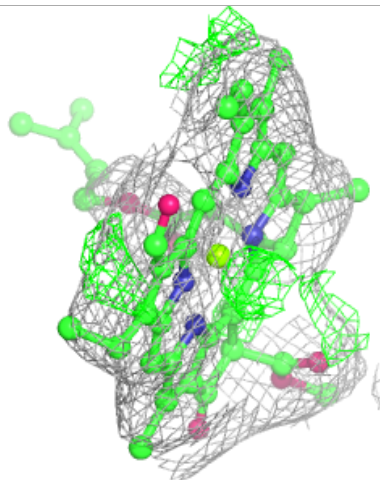
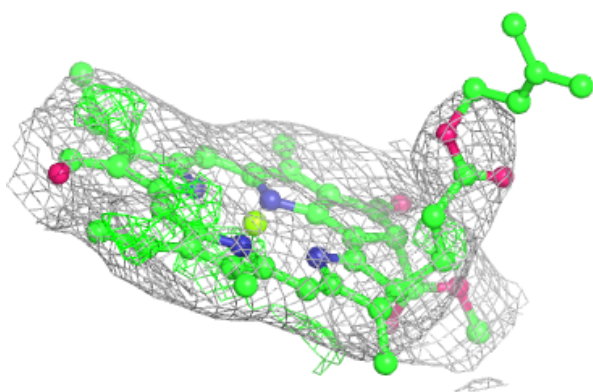
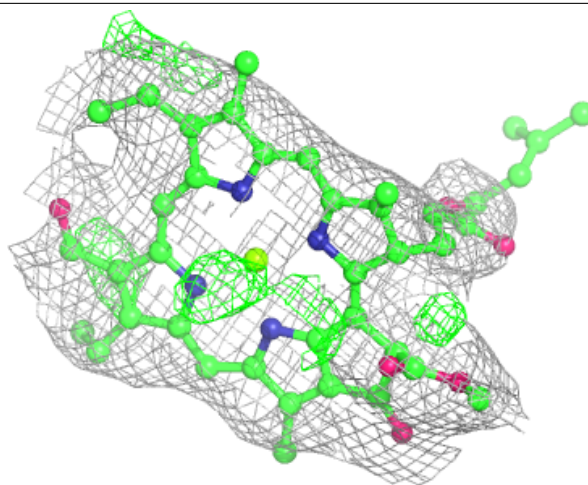
**Electron density around CLA 2 514:**

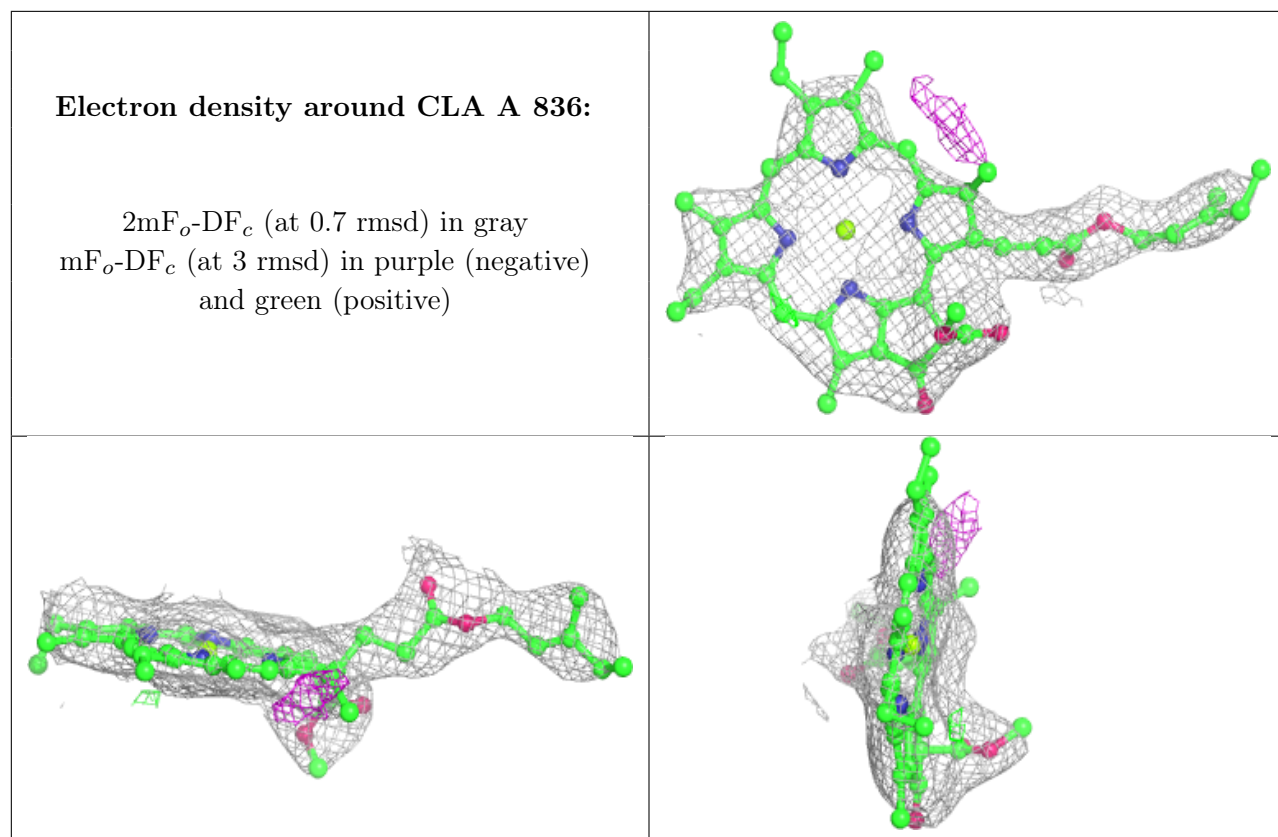
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CHL 4 314:**

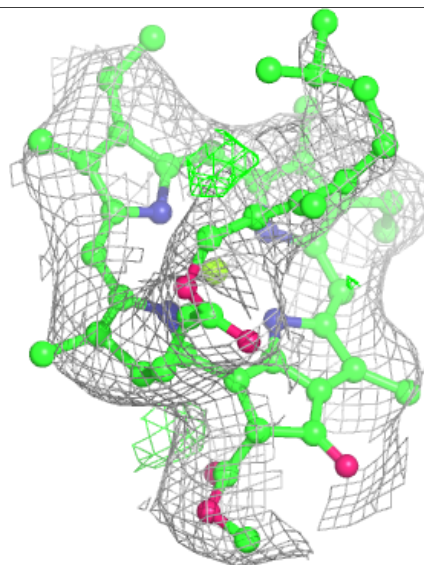
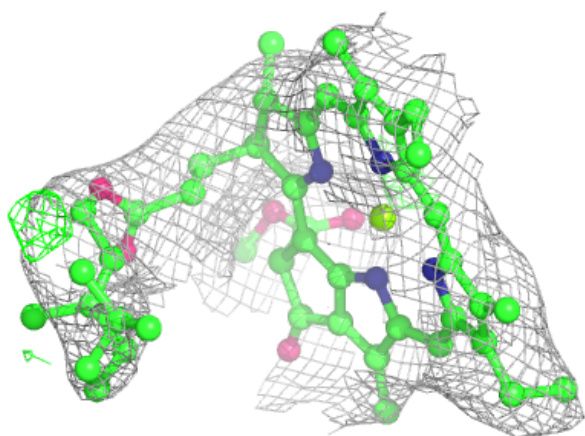
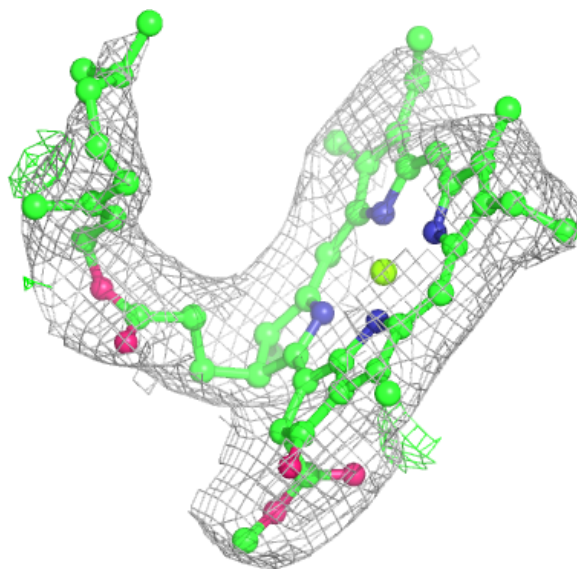
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





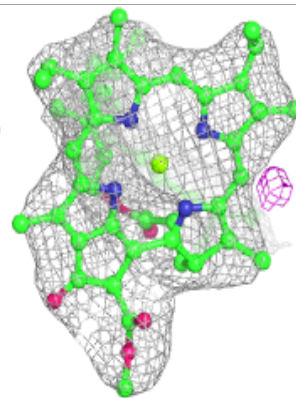
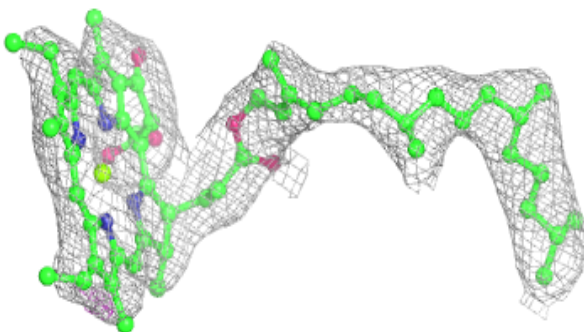
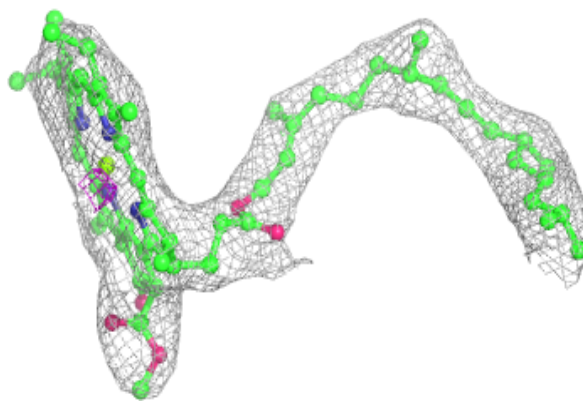
**Electron density around CLA B 834:**

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

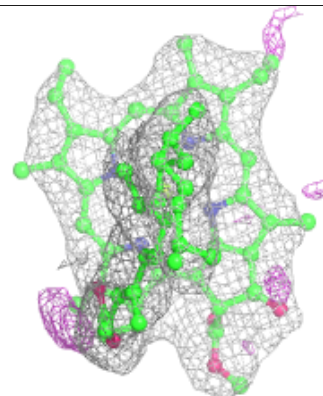
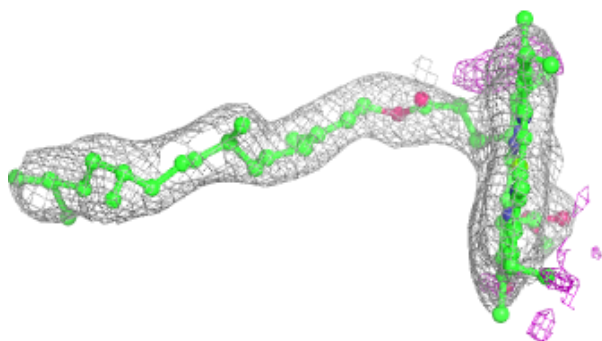
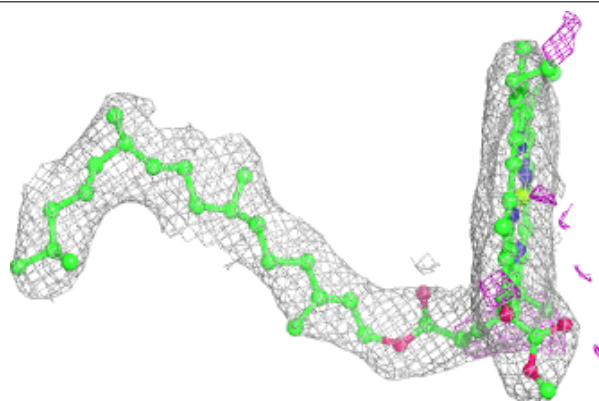


**Electron density around CLA B 838:**

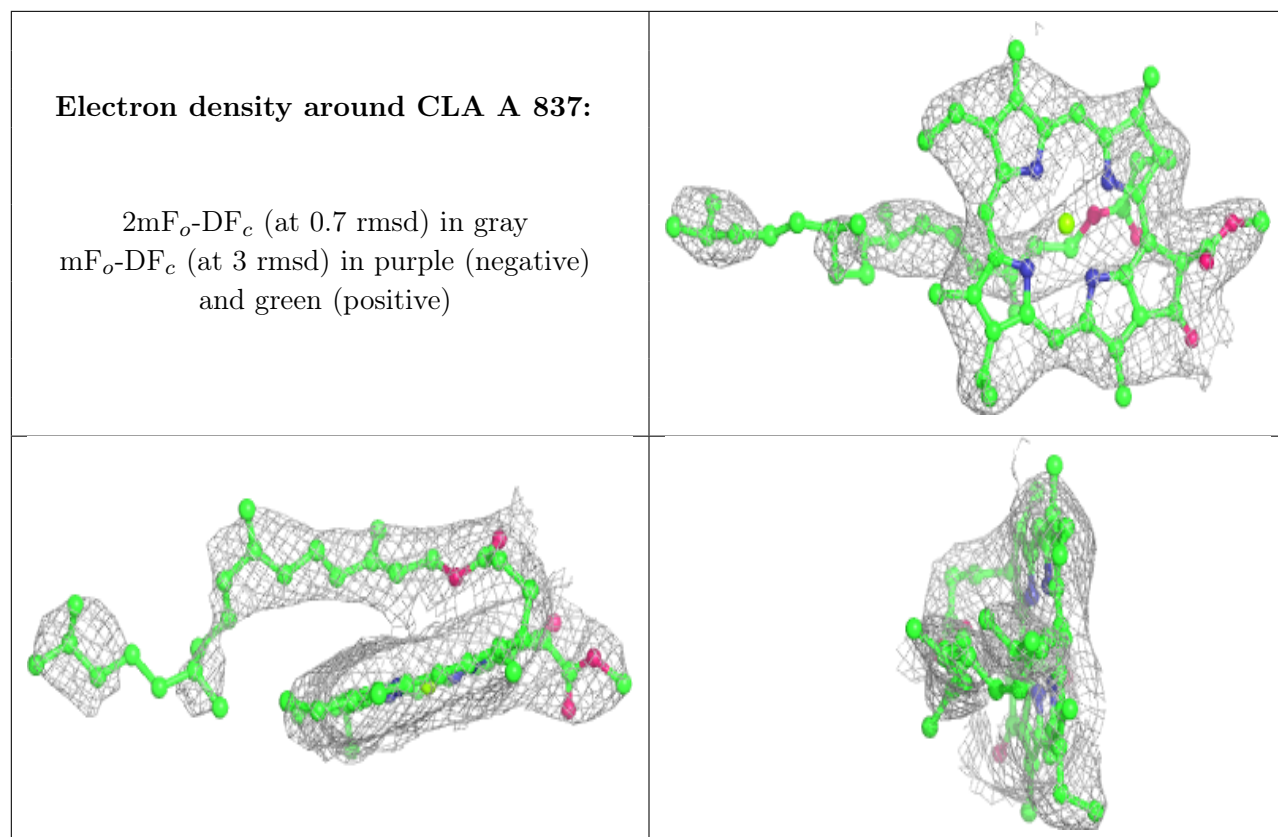
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around 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)

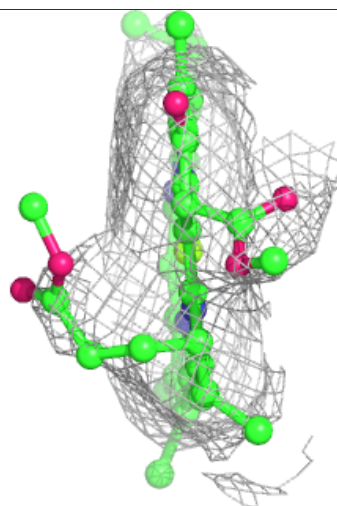
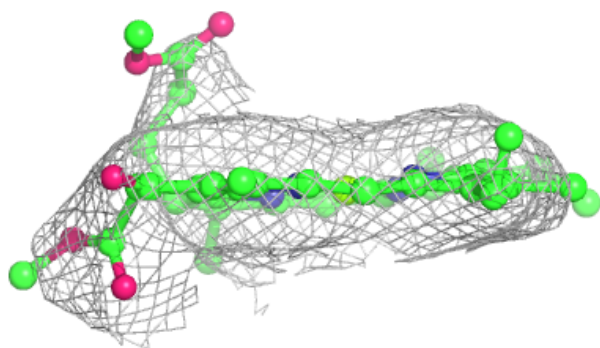
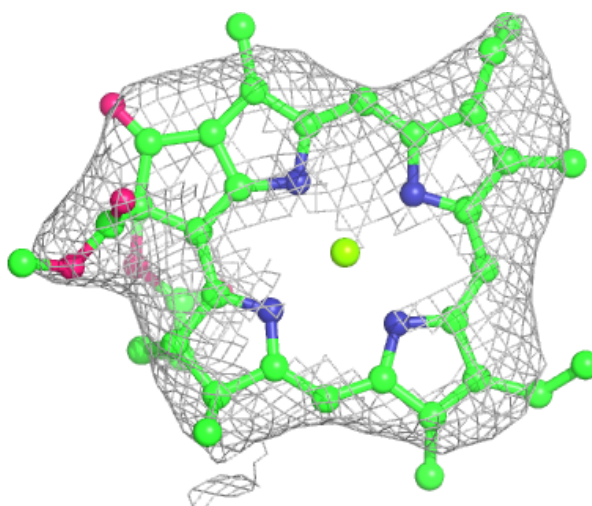


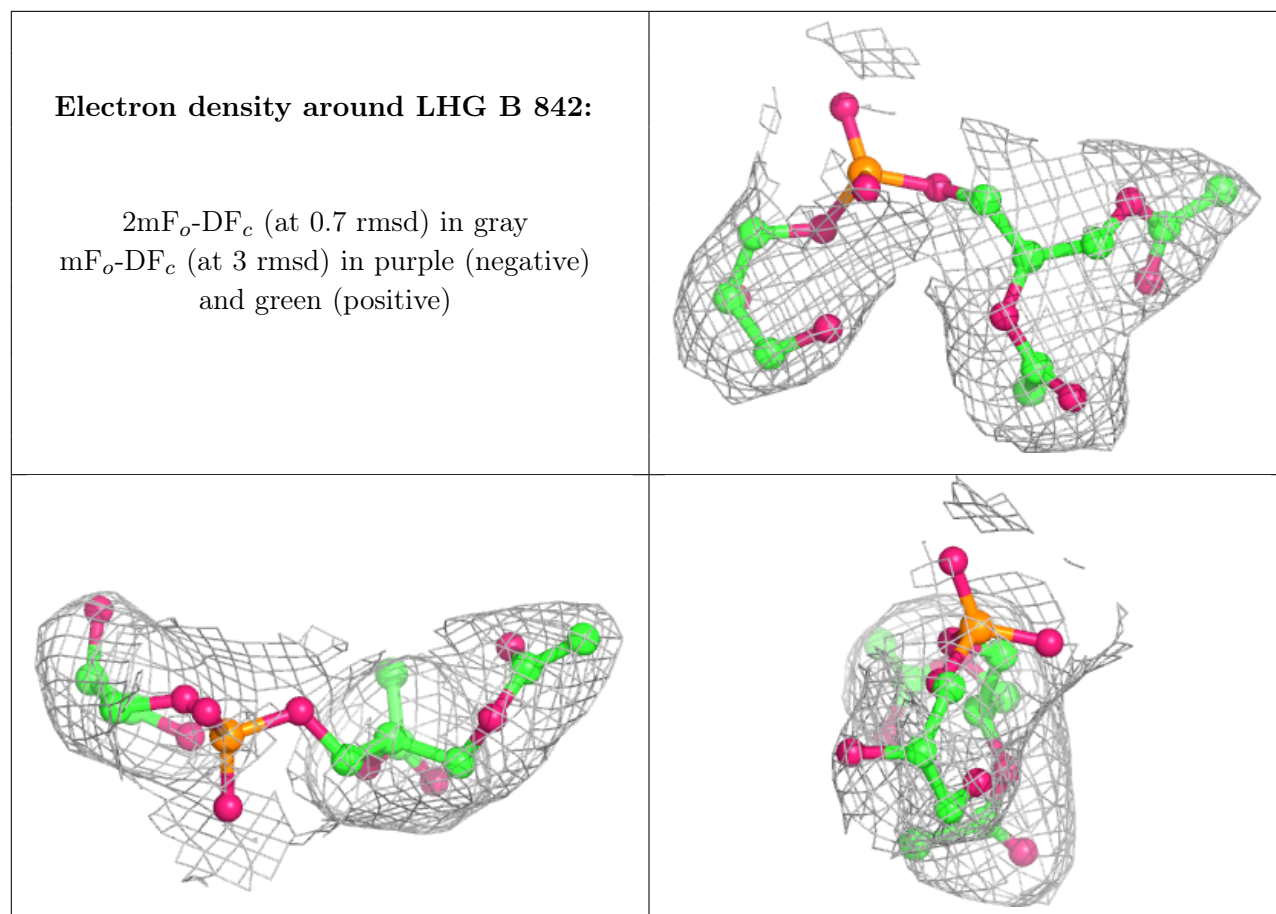




**Electron density around CLA 4 311:**

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

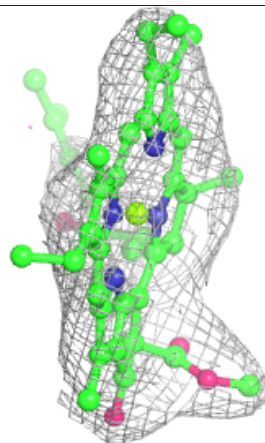
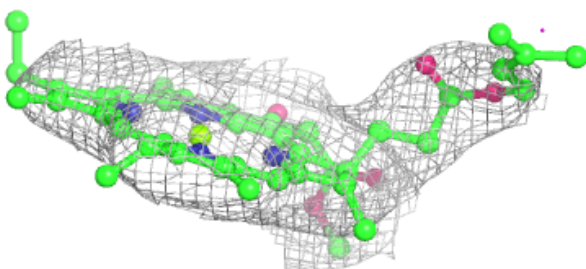
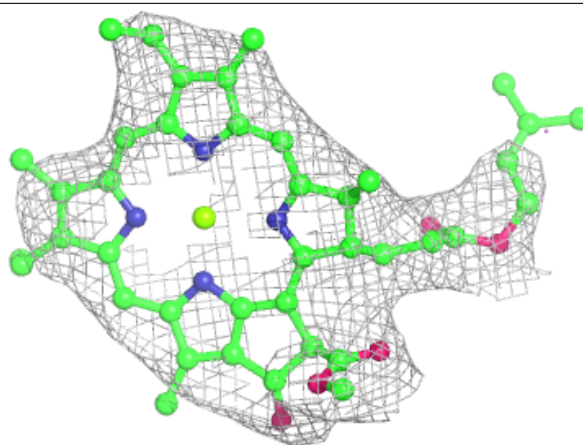




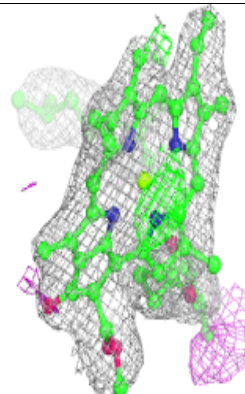
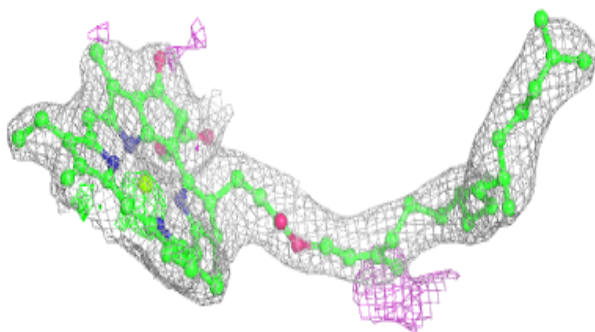
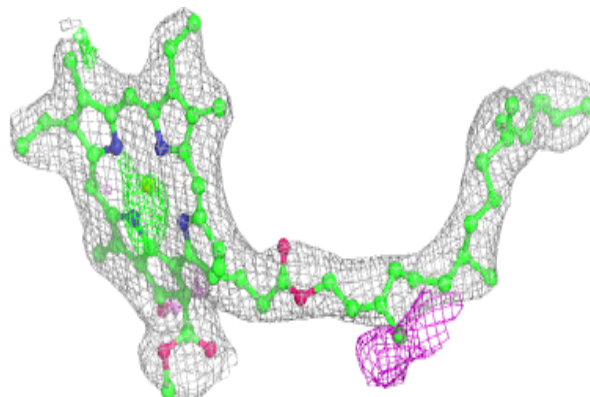


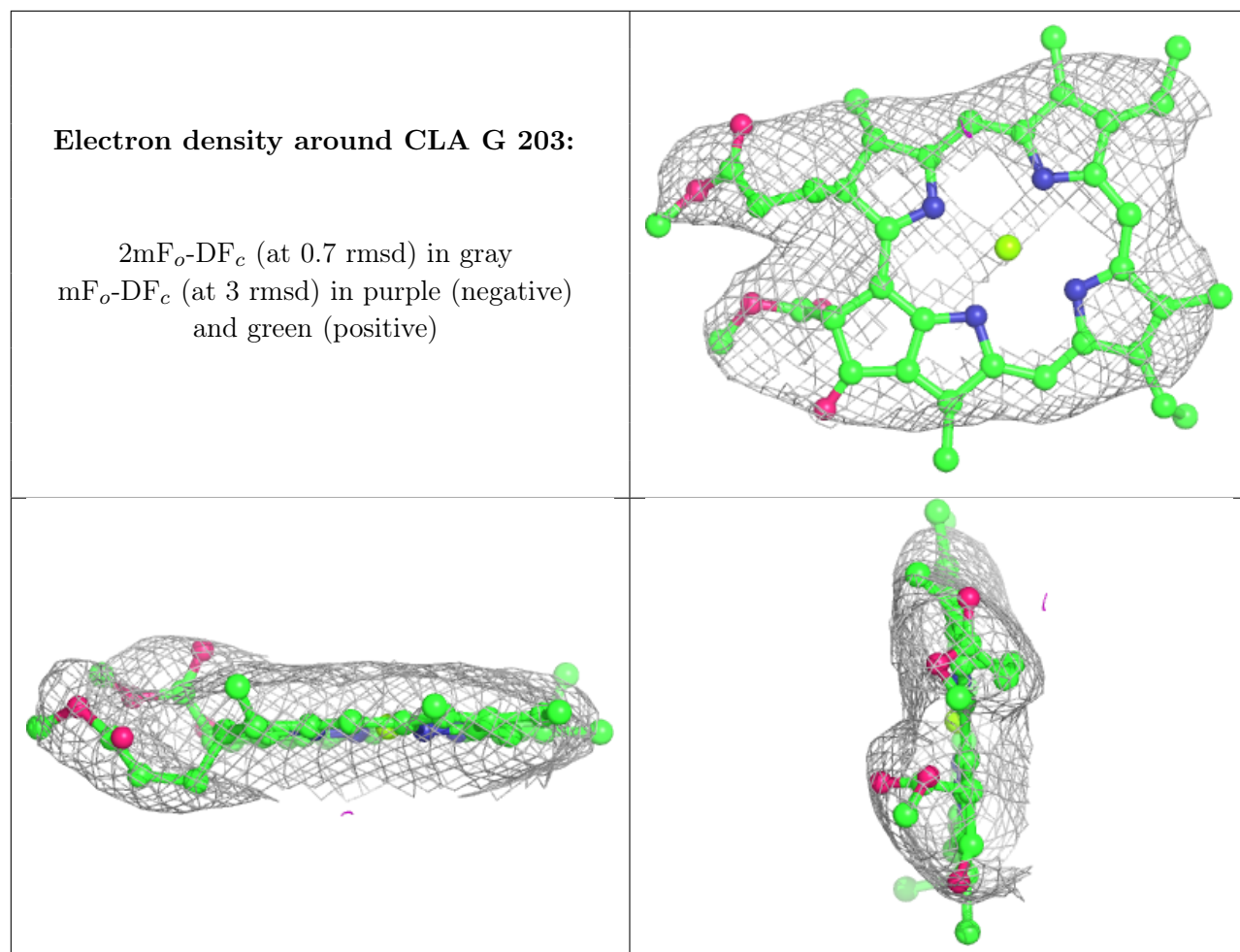
**Electron density around CLA 4 312:**

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

**Electron density around CLA A 854:**

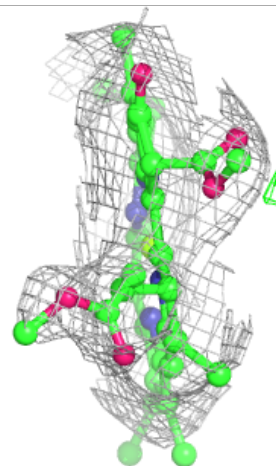
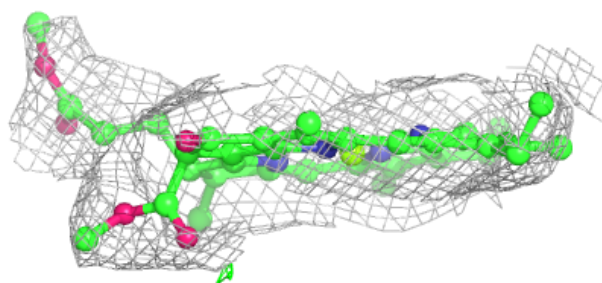
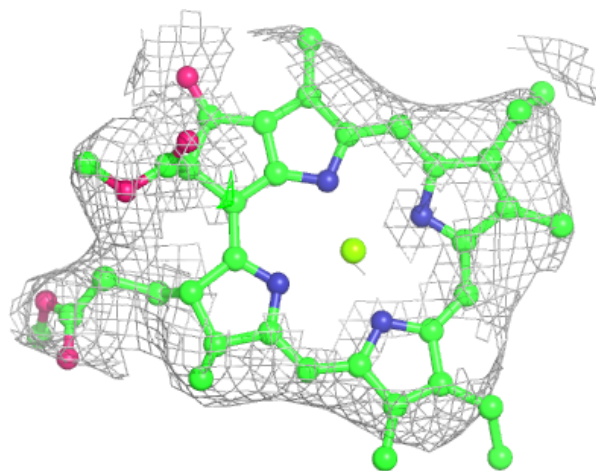
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





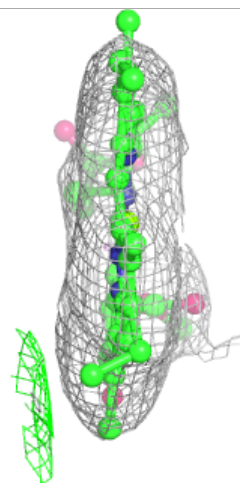
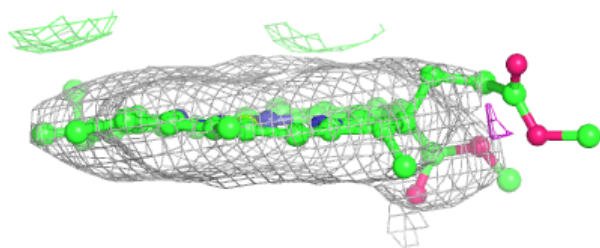
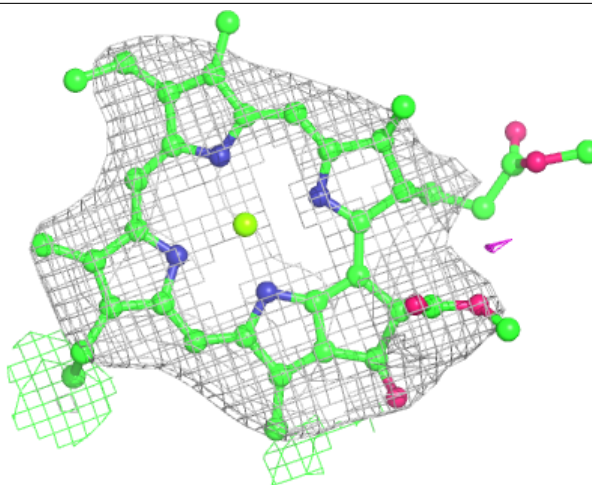
**Electron density around CLA 3 316:**

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



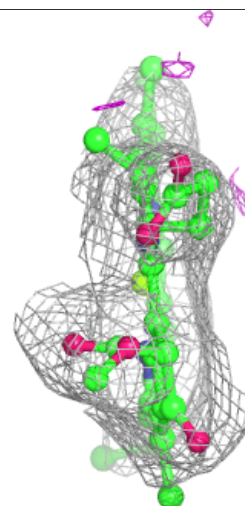
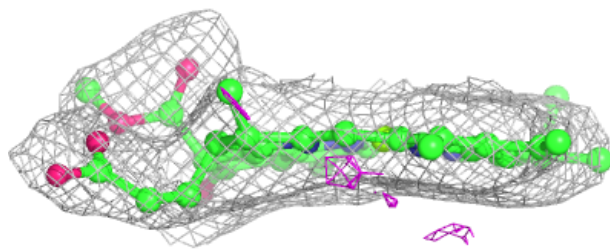
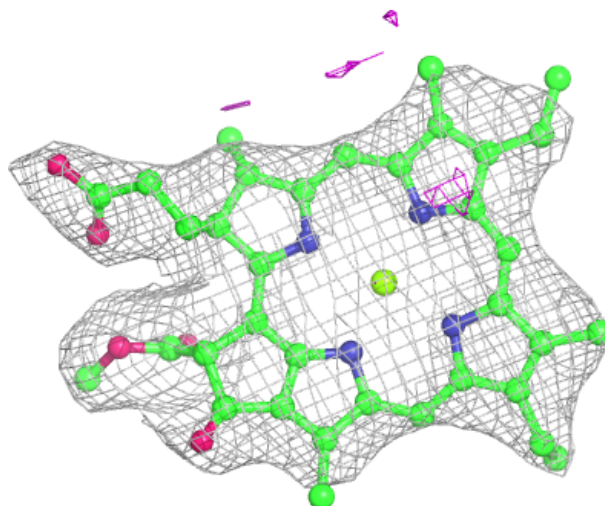
**Electron density around CLA 3 317:**

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



**Electron density around CLA J 1102:**

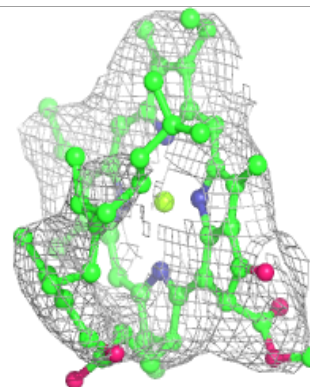
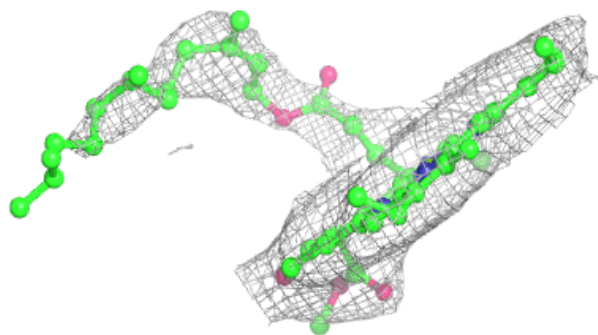
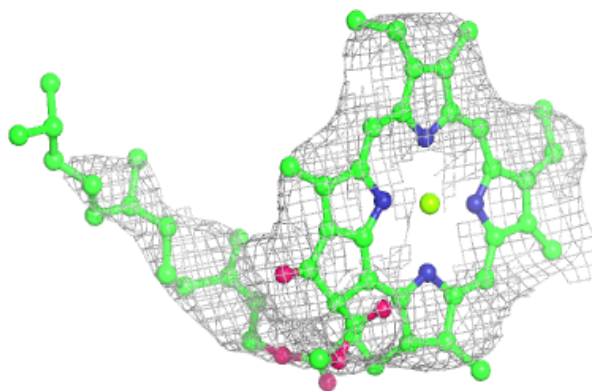
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



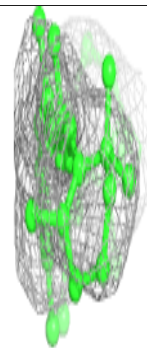
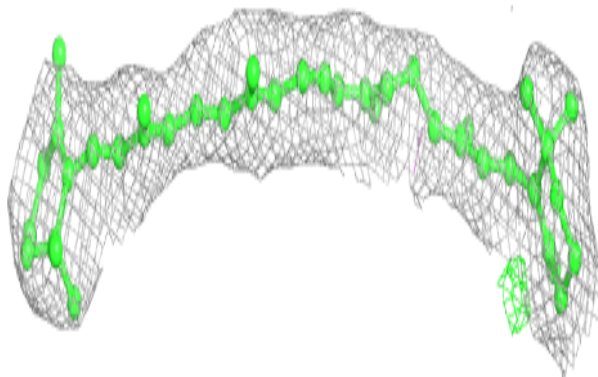
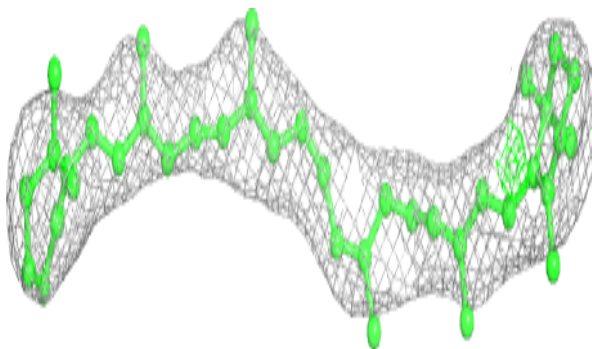


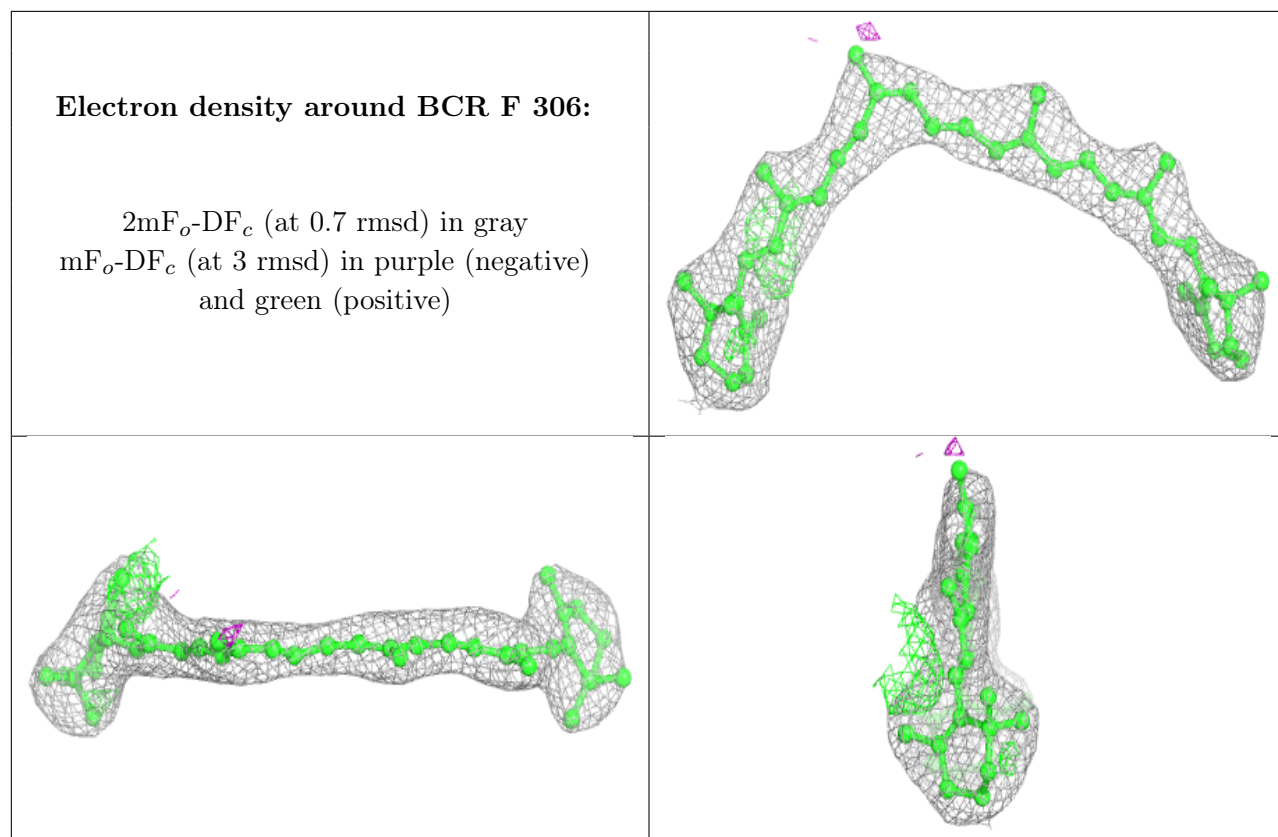
**Electron density around CLA A 822:**

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

**Electron density around BCR I 101:**

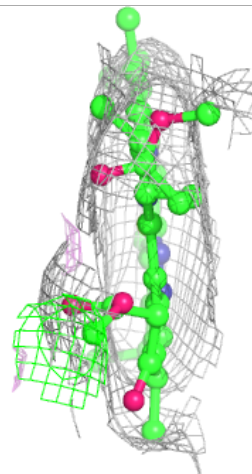
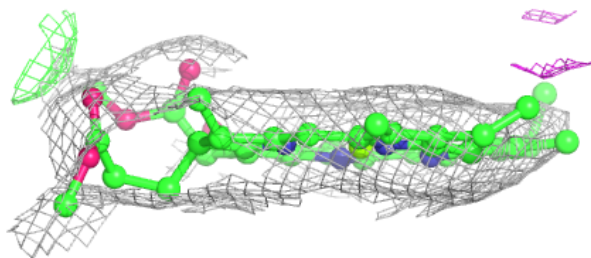
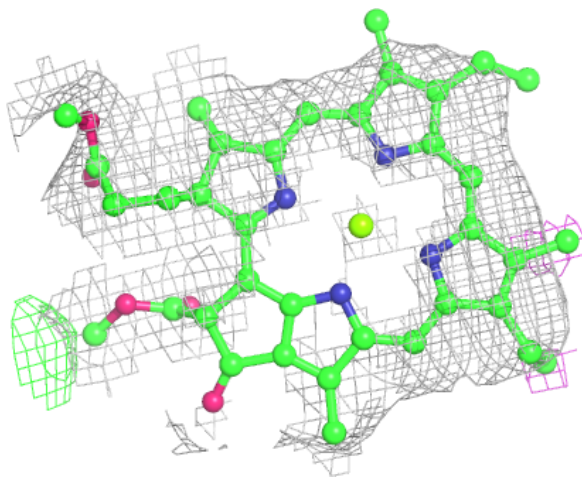
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around CLA 1 505:**

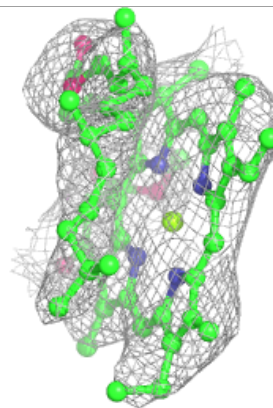
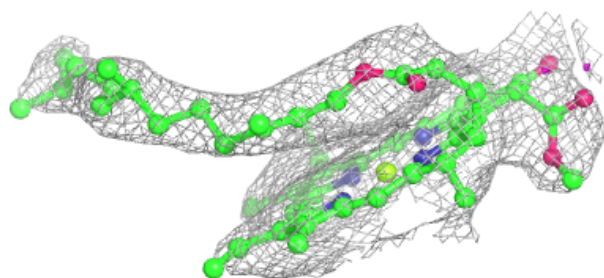
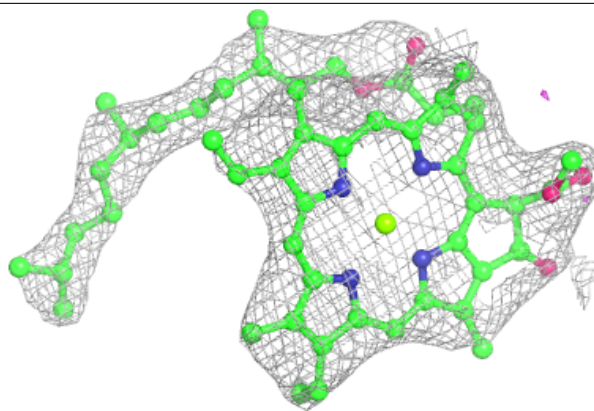
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



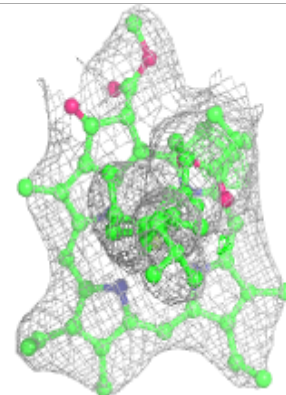
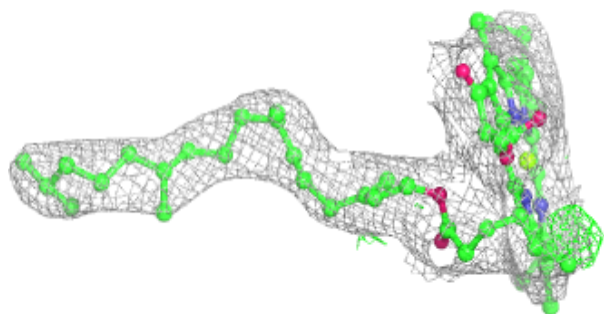
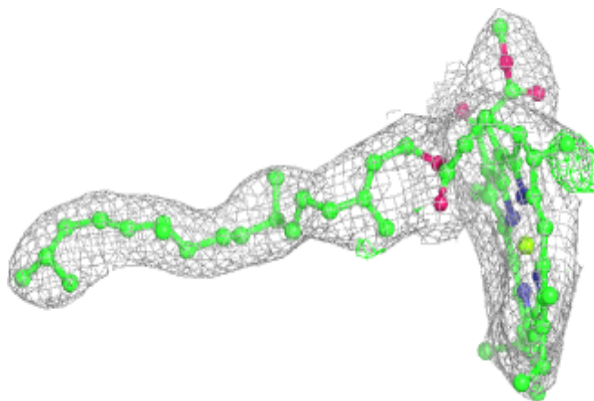


**Electron density around CLA 4 307:**

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

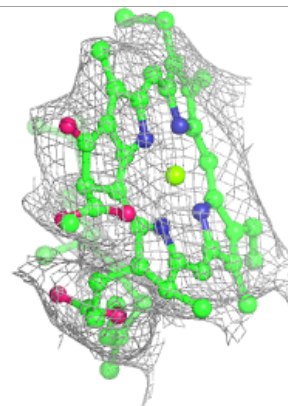
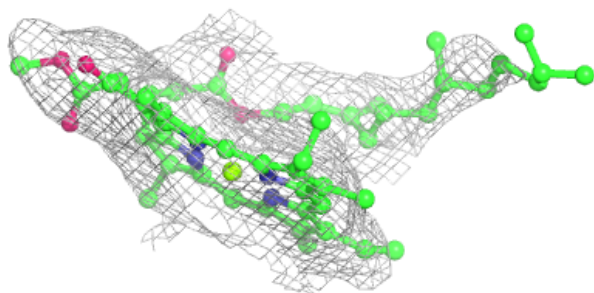
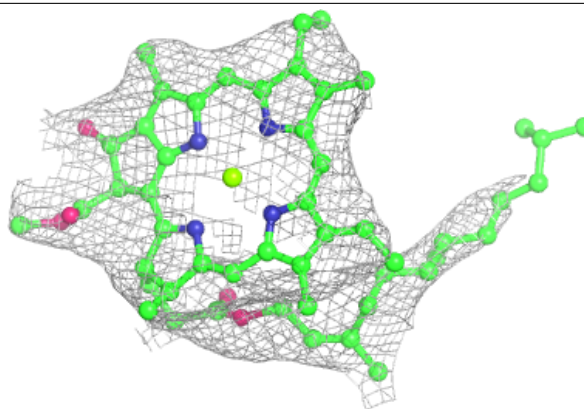
**Electron density around CLA A 828:**

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

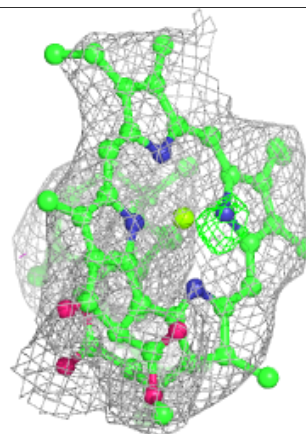
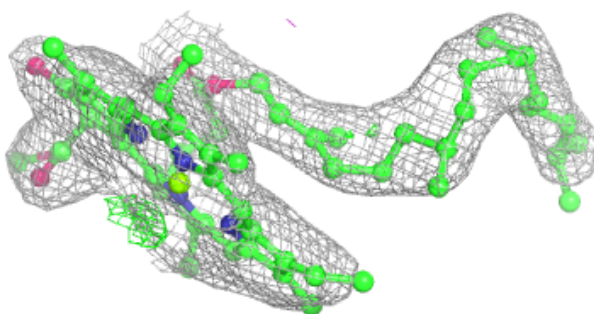
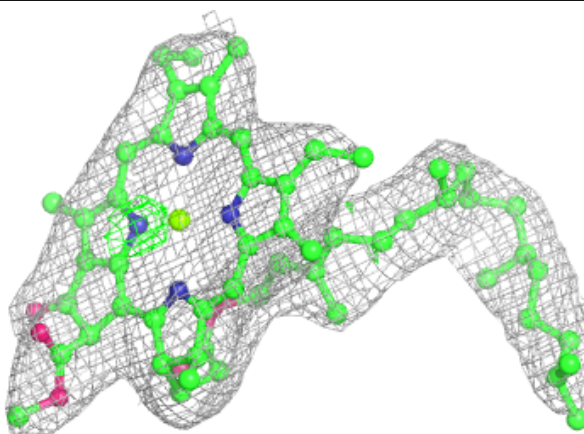


**Electron density around CLA 2 504:**

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

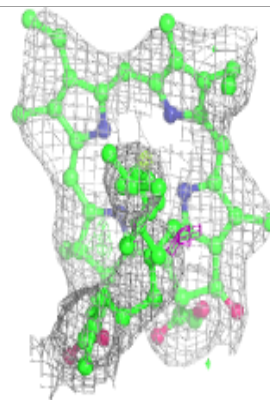
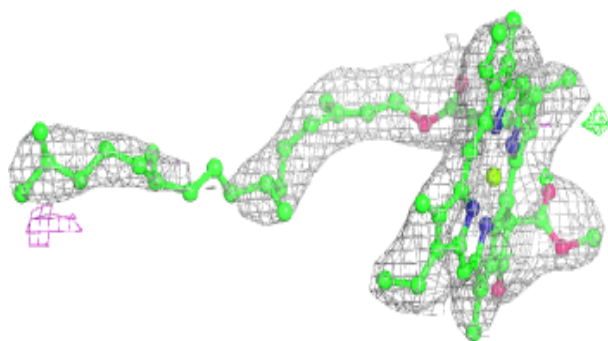
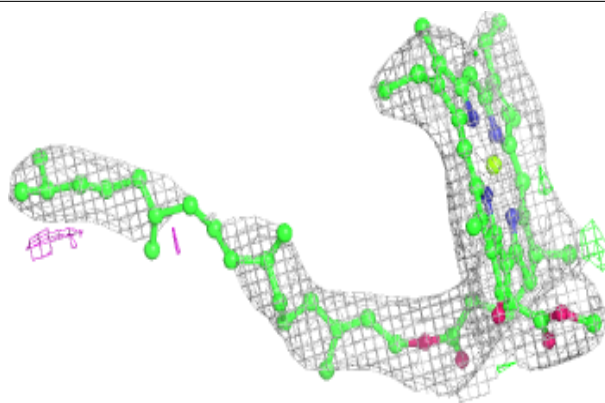
**Electron density around CLA A 855:**

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

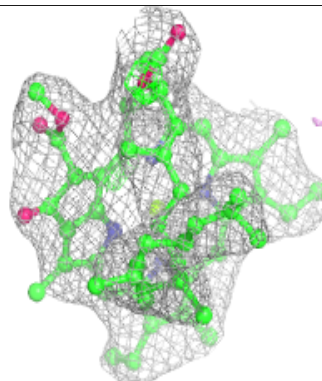
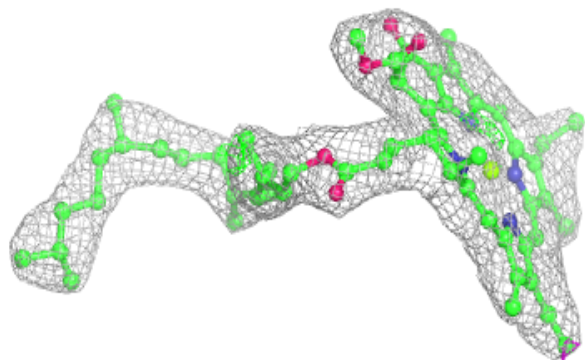
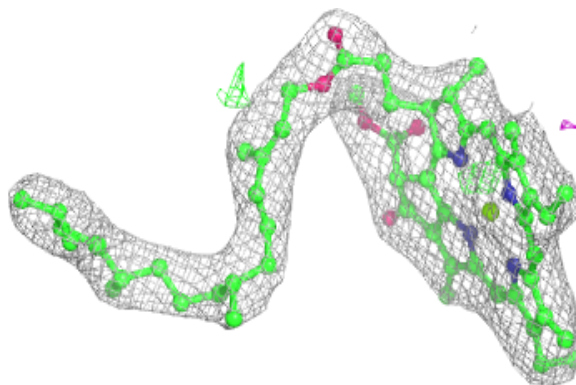


**Electron density around CLA B 829:**

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

**Electron density around CLA B 803:**

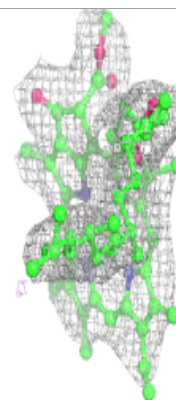
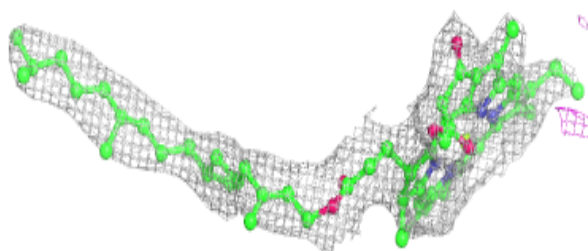
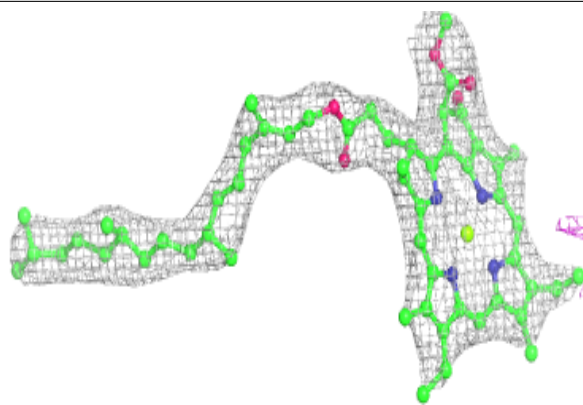
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



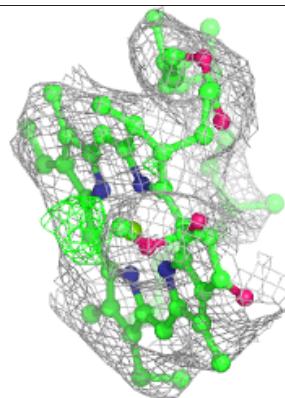
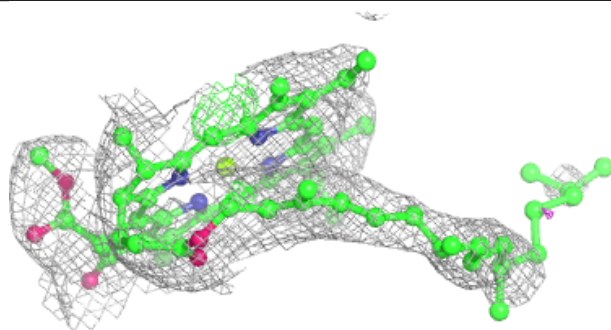
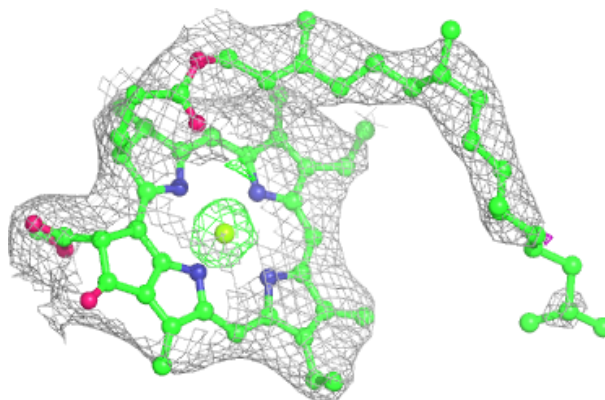


**Electron density around CLA A 803:**

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

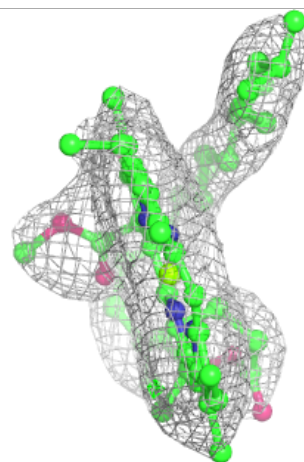
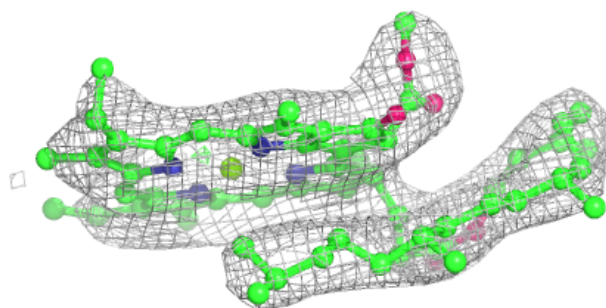
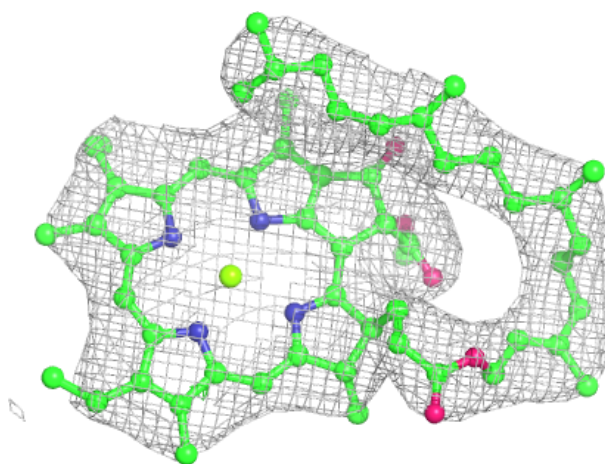
**Electron density around CLA 2 507:**

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



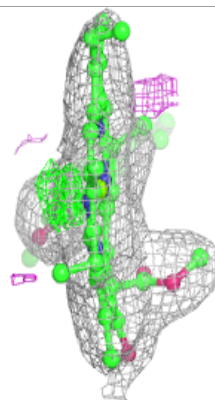
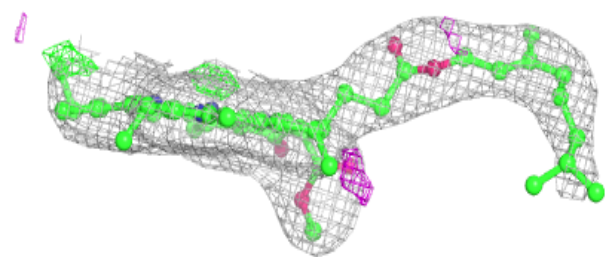
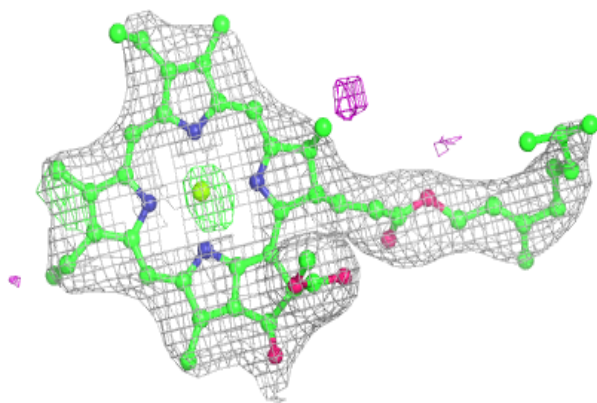
**Electron density around CLA B 806:**

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

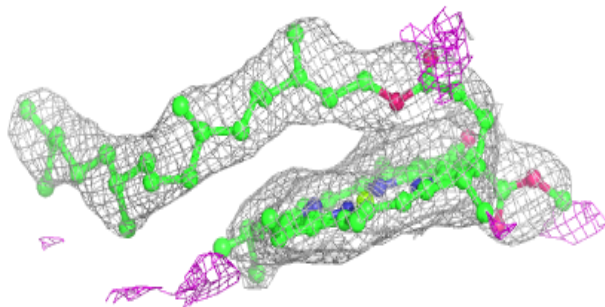
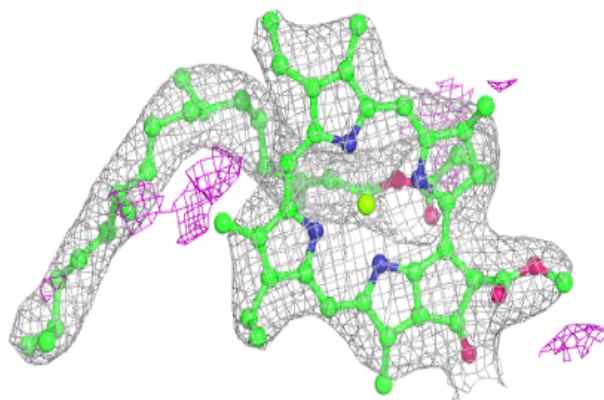


**Electron density around CLA B 835:**

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

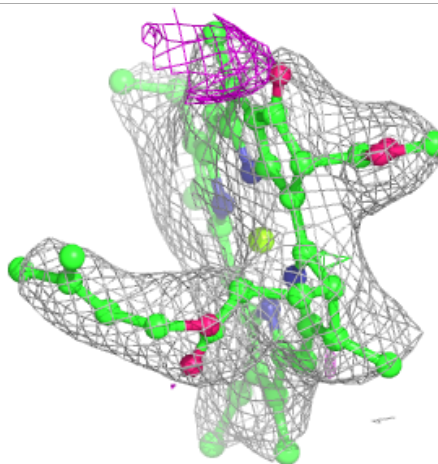
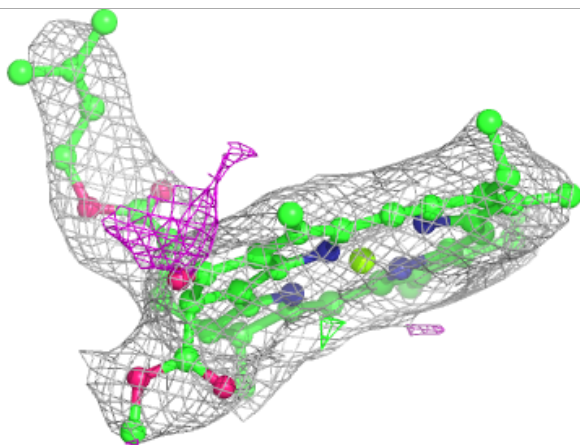
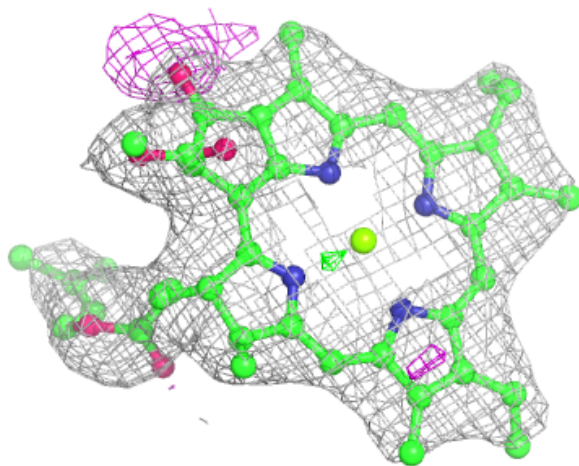
**Electron density around CLA B 836:**

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



**Electron density around CLA B 837:**

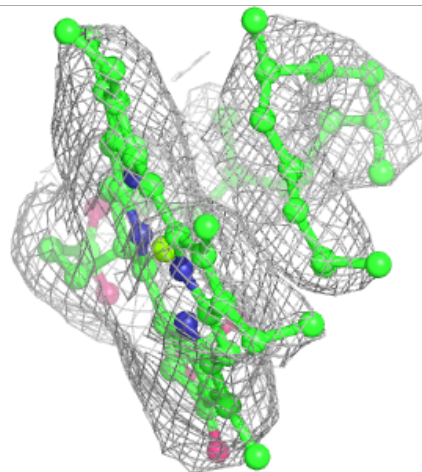
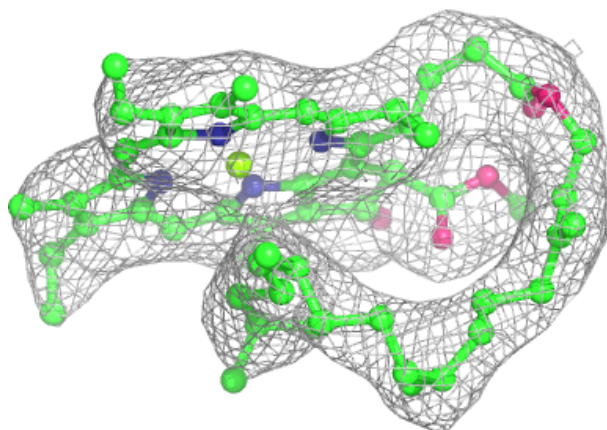
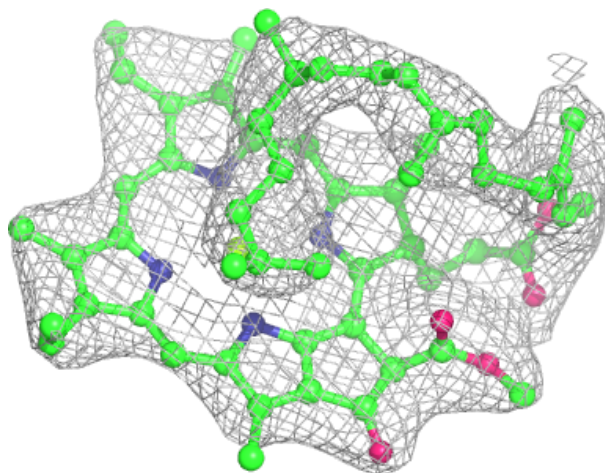
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





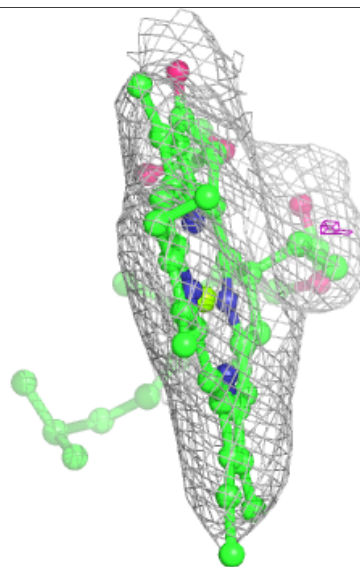
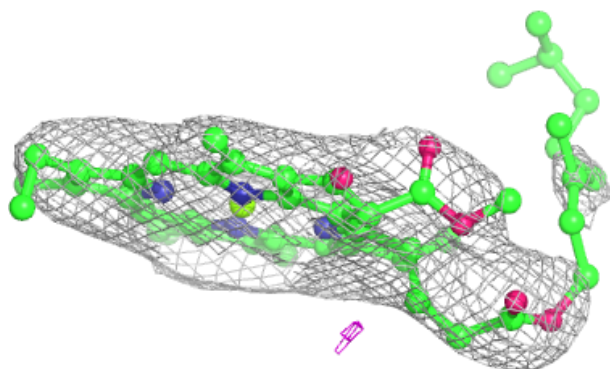
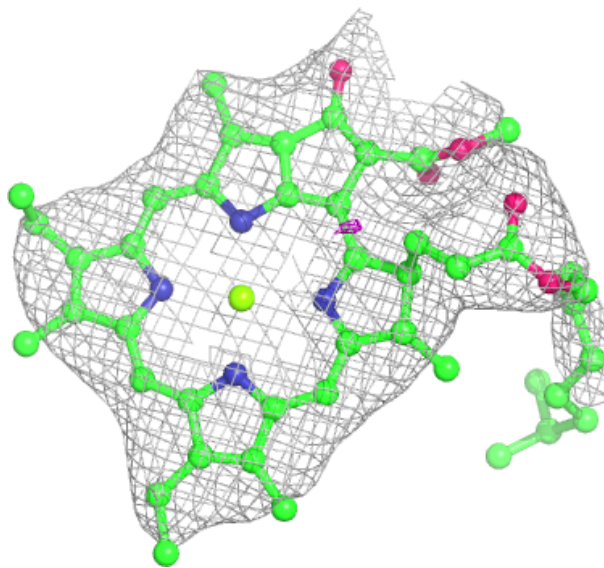
**Electron density around CLA B 807:**

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



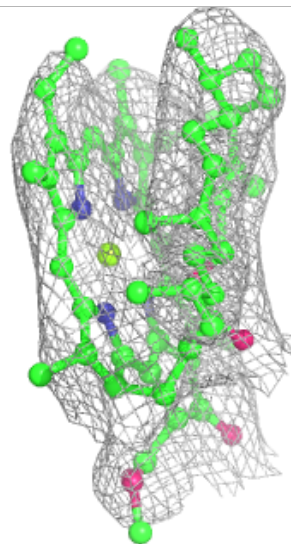
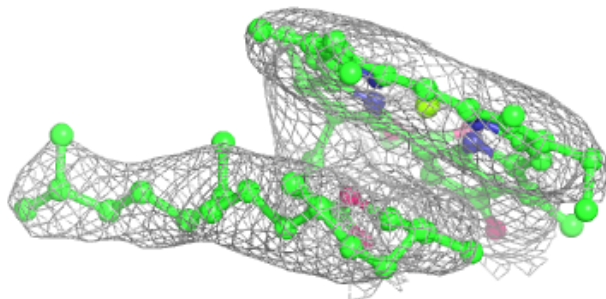
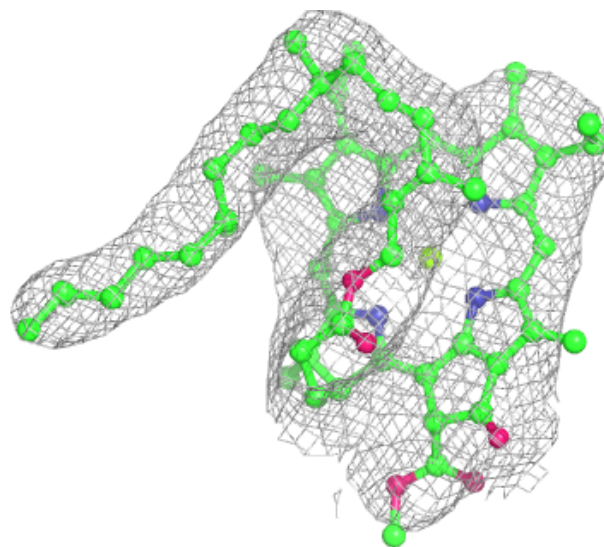
**Electron density around CLA 2 508:**

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



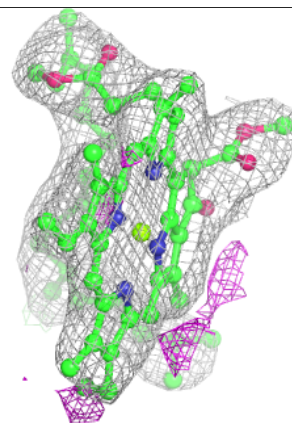
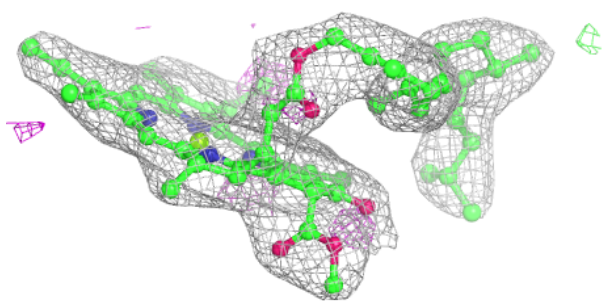
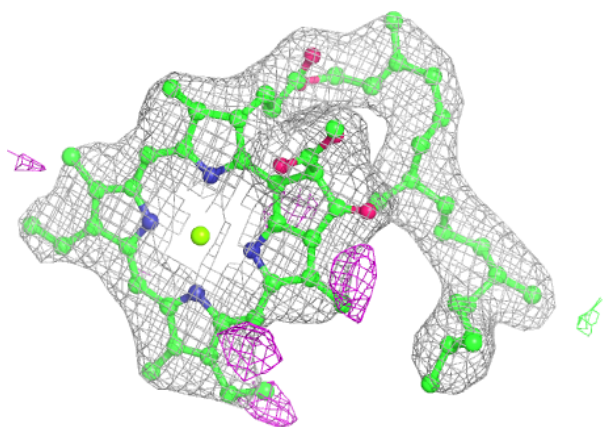
**Electron density around CLA B 809:**

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



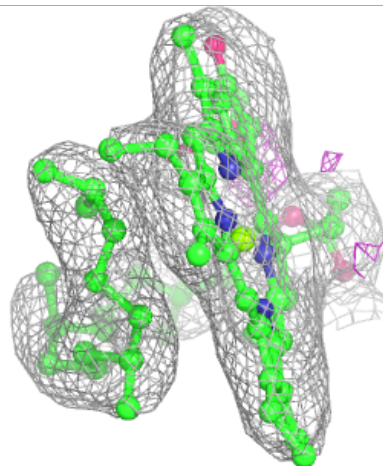
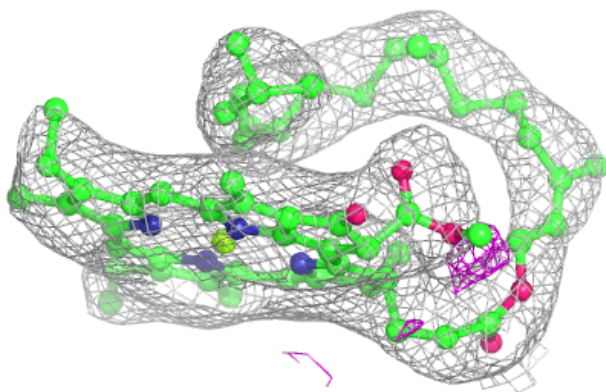
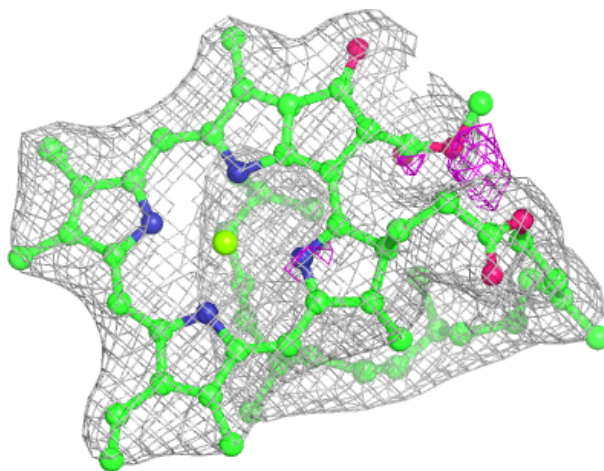
**Electron density around CLA F 302:**

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

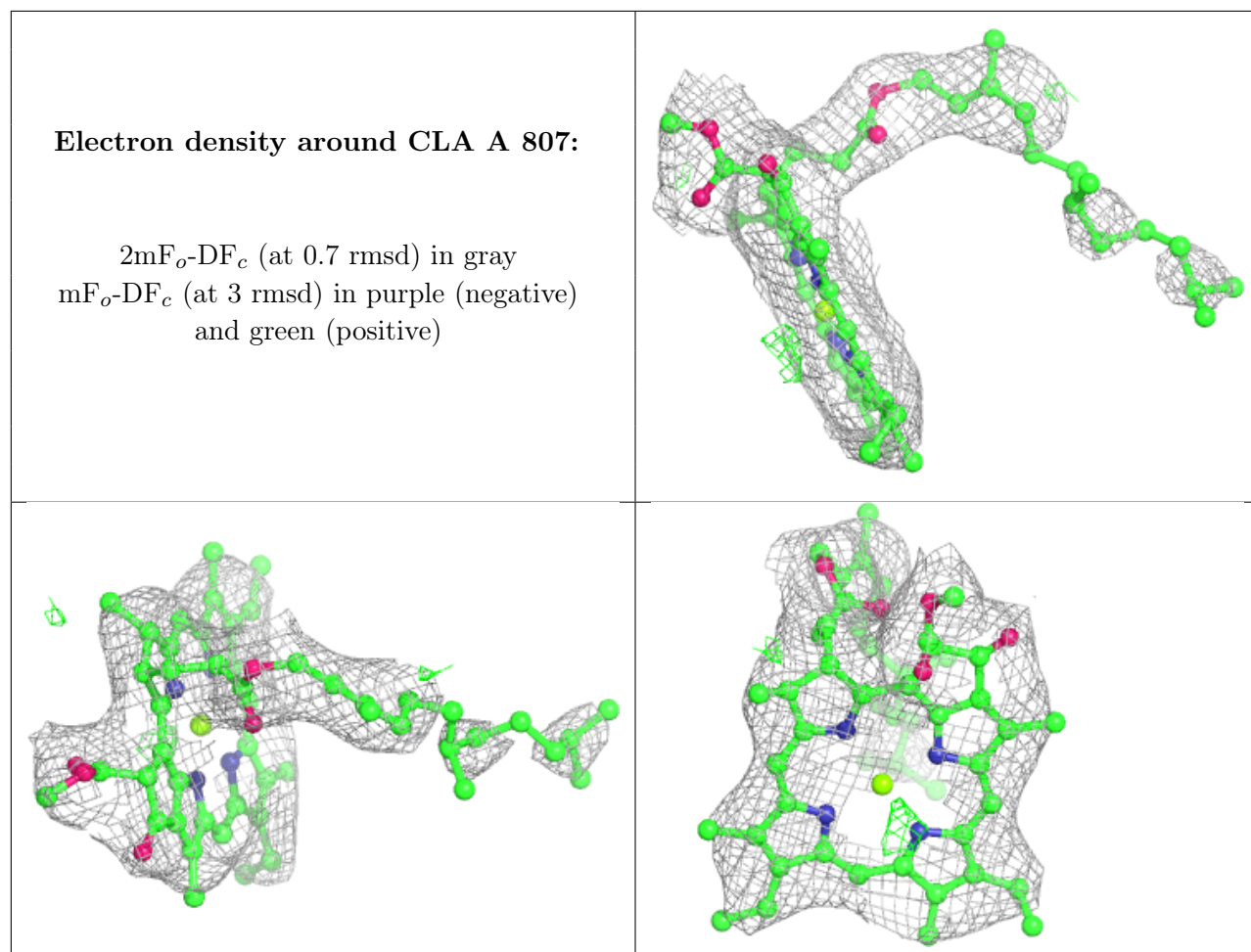


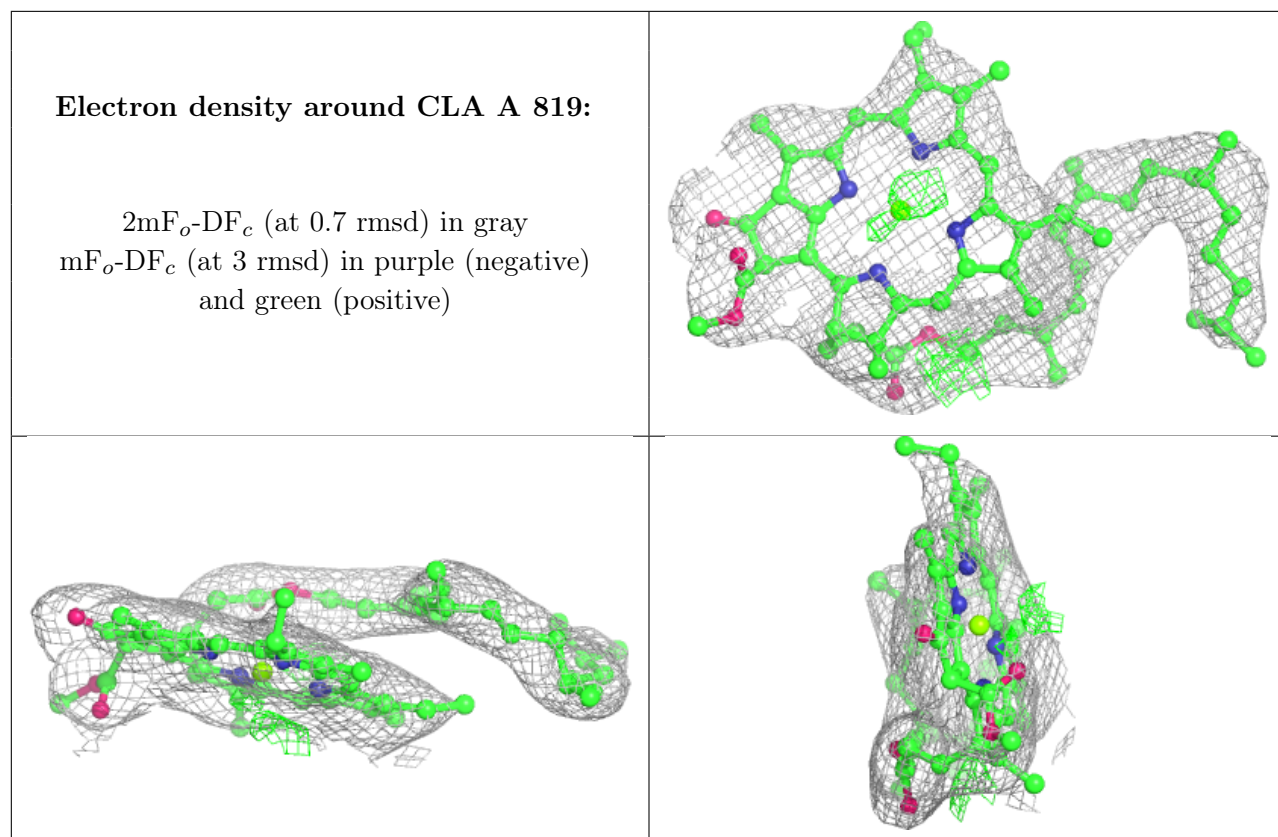
**Electron density around CLA A 806:**

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





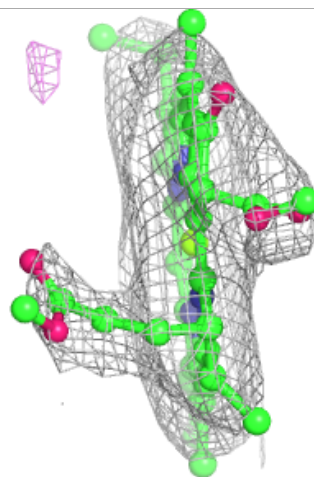
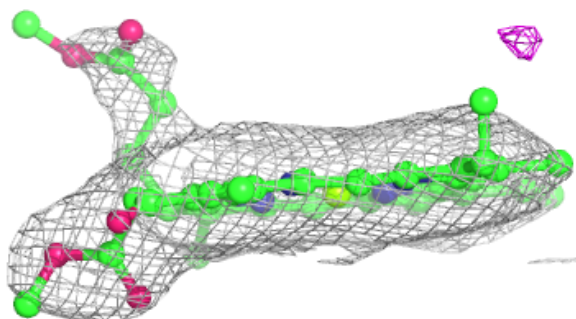
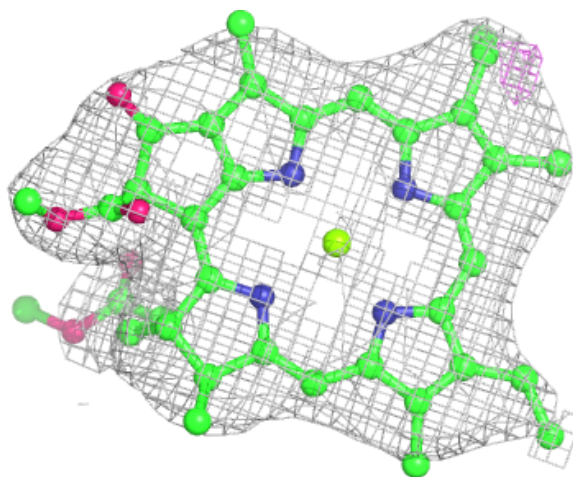






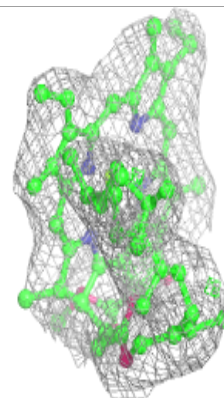
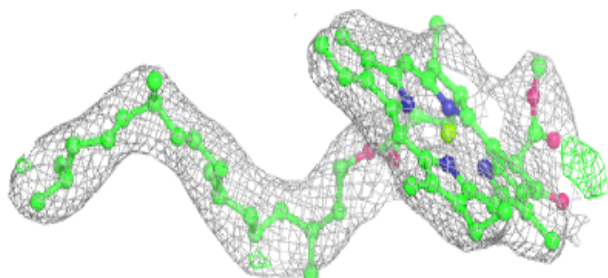
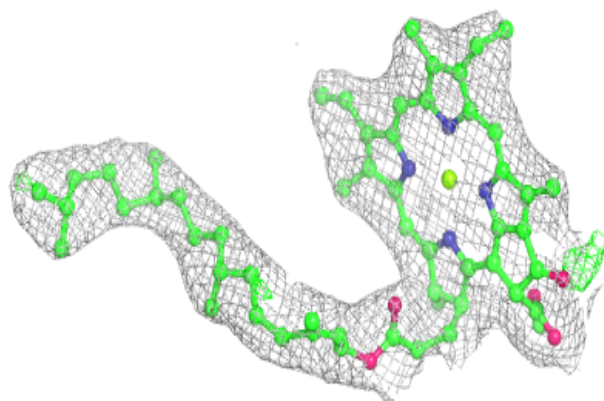
**Electron density around CLA B 813:**

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

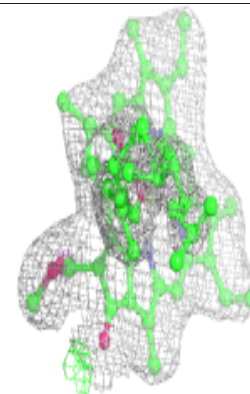
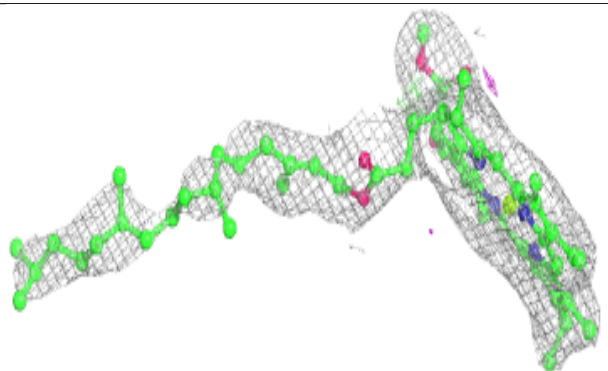
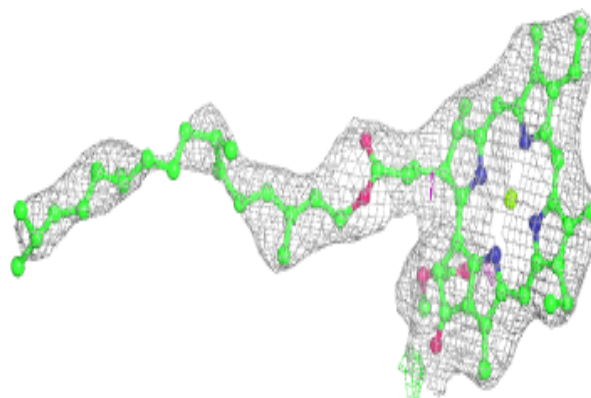


**Electron density around CLA A 808:**

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

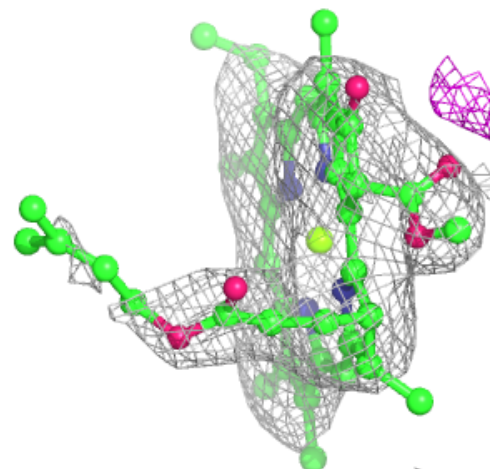
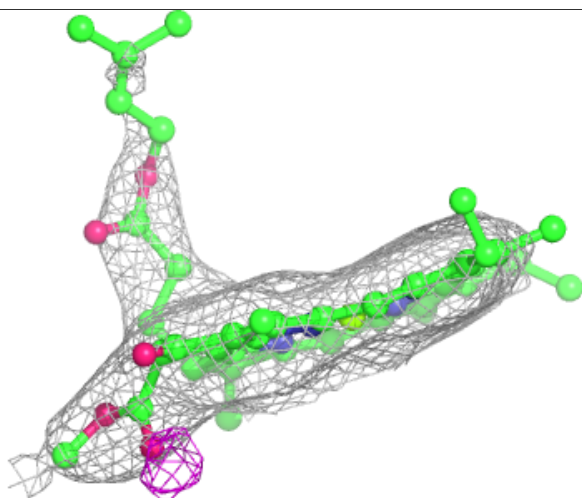
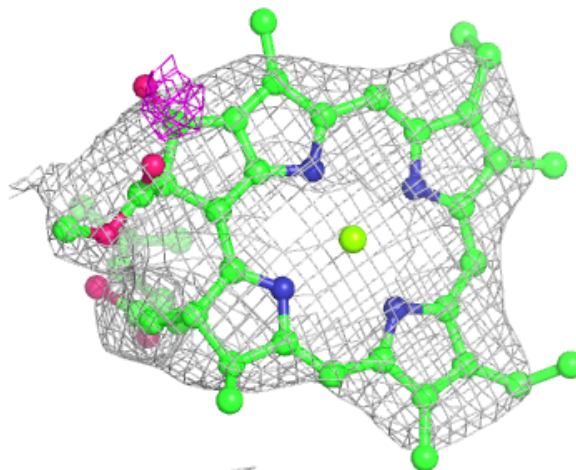
**Electron density around CLA A 809:**

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



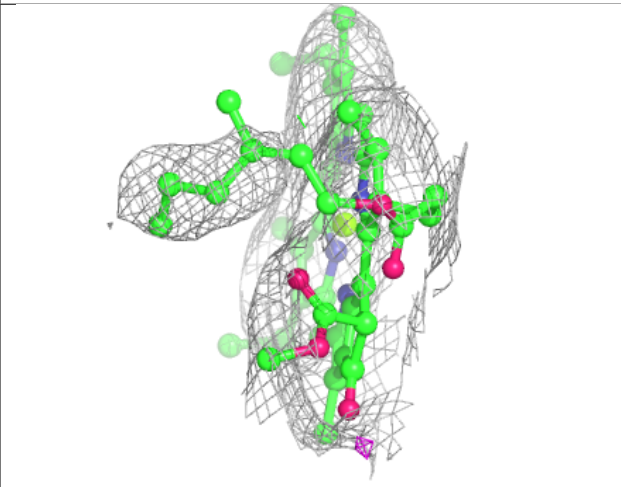
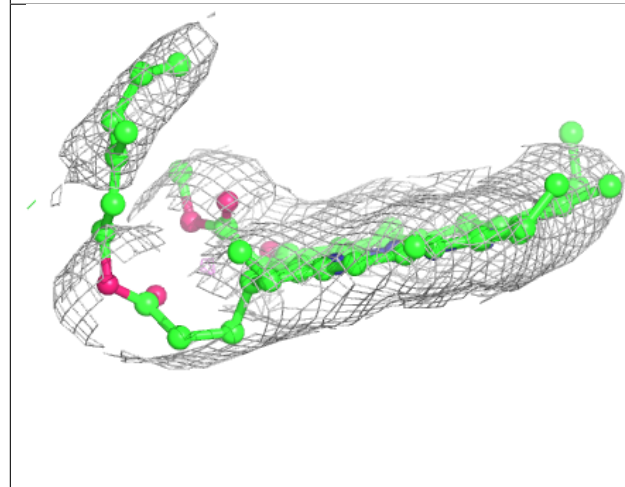
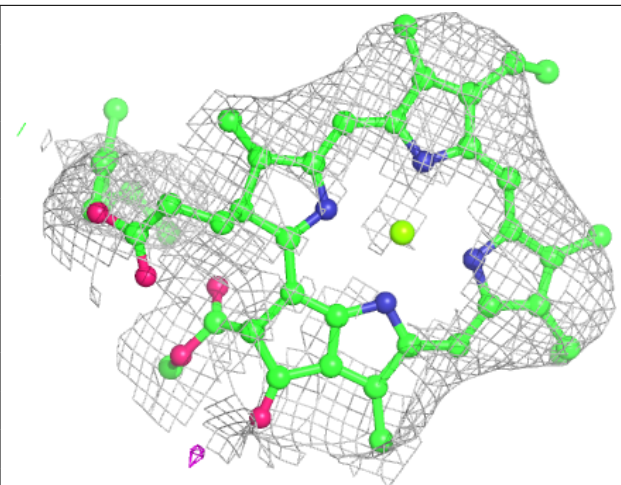
**Electron density around CLA A 810:**

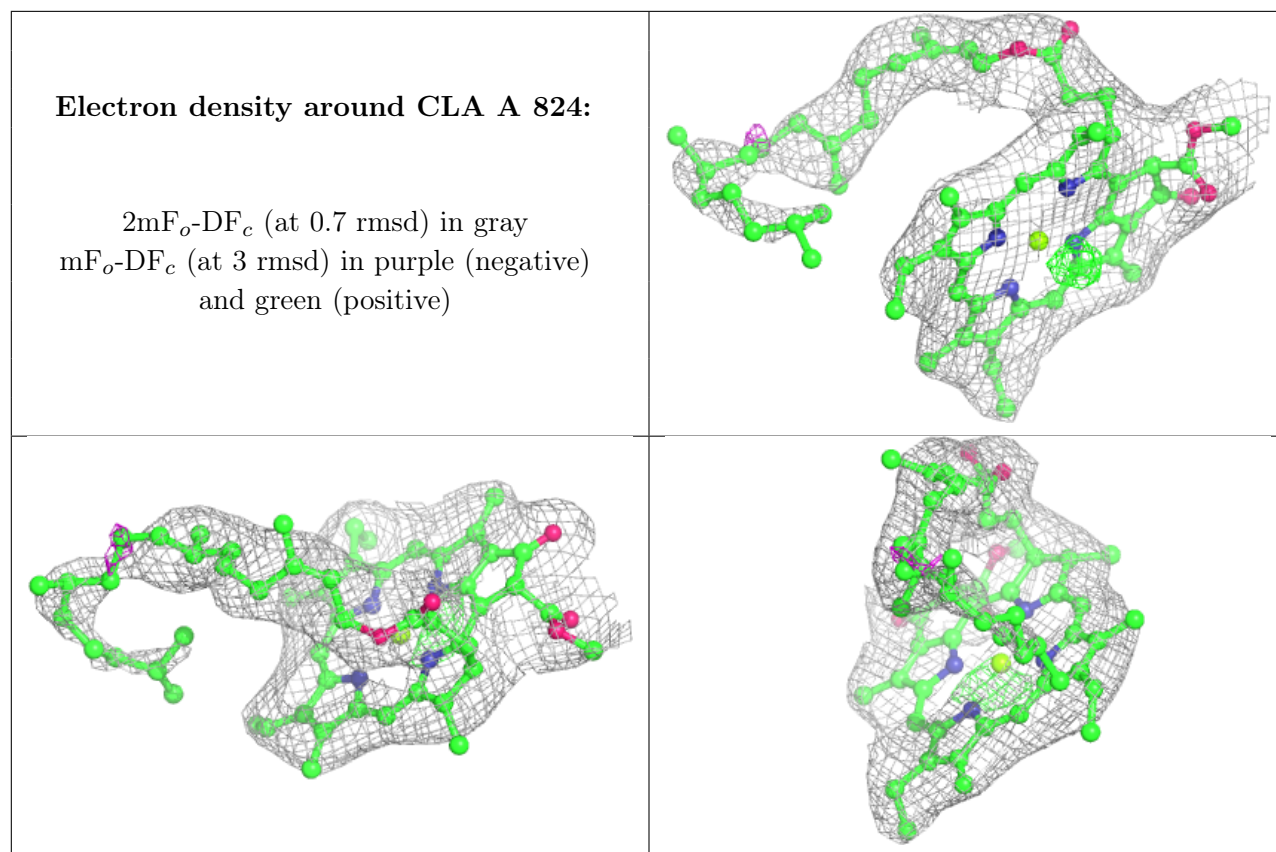
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



**Electron density around CLA 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)

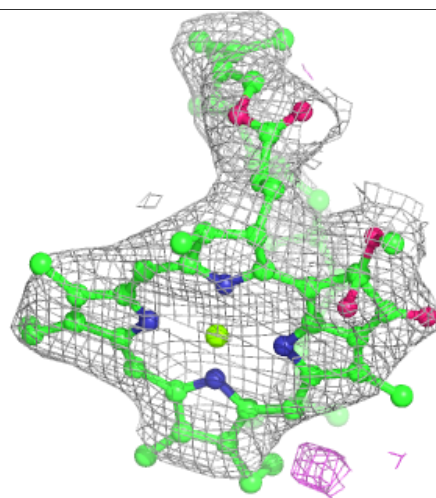
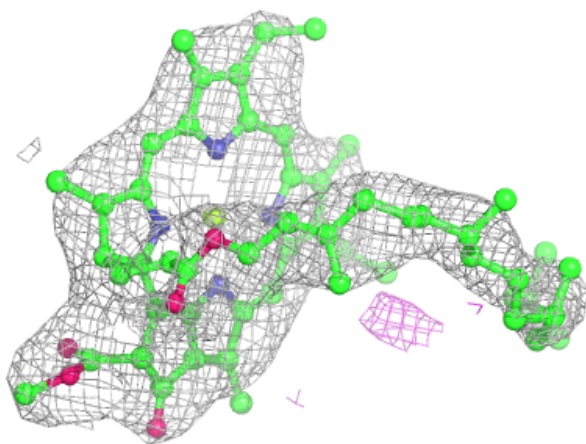
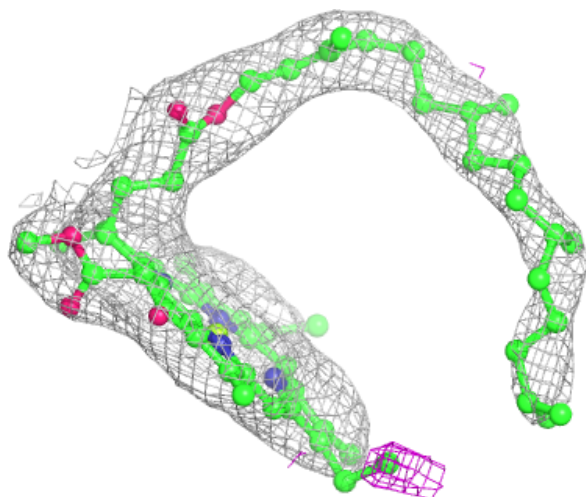






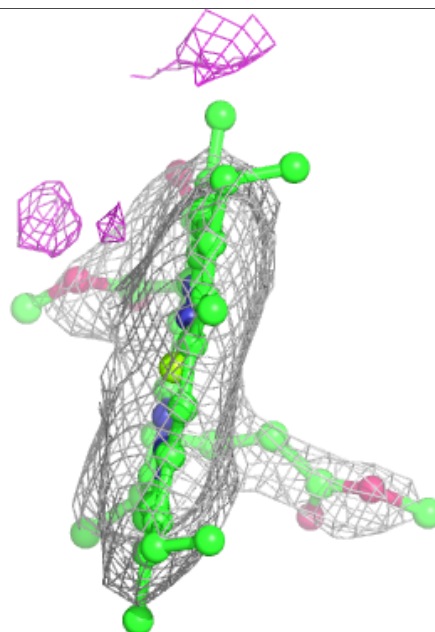
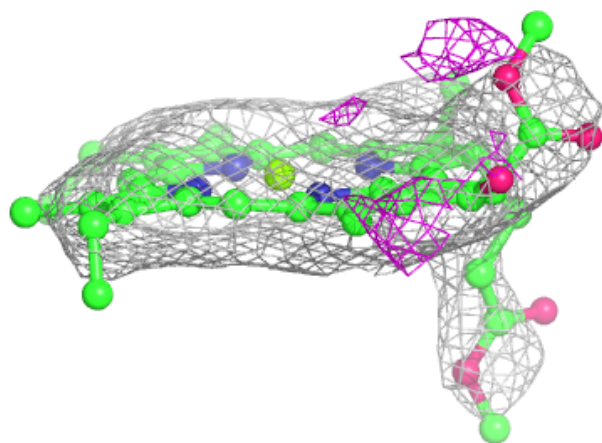
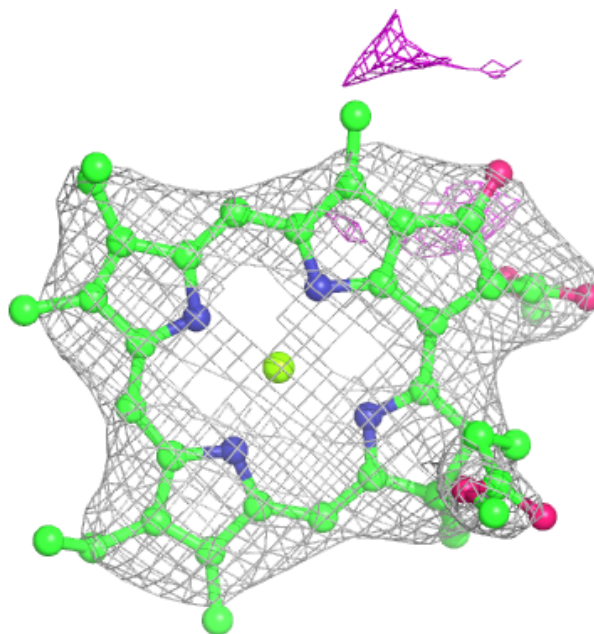
**Electron density around CLA B 820:**

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

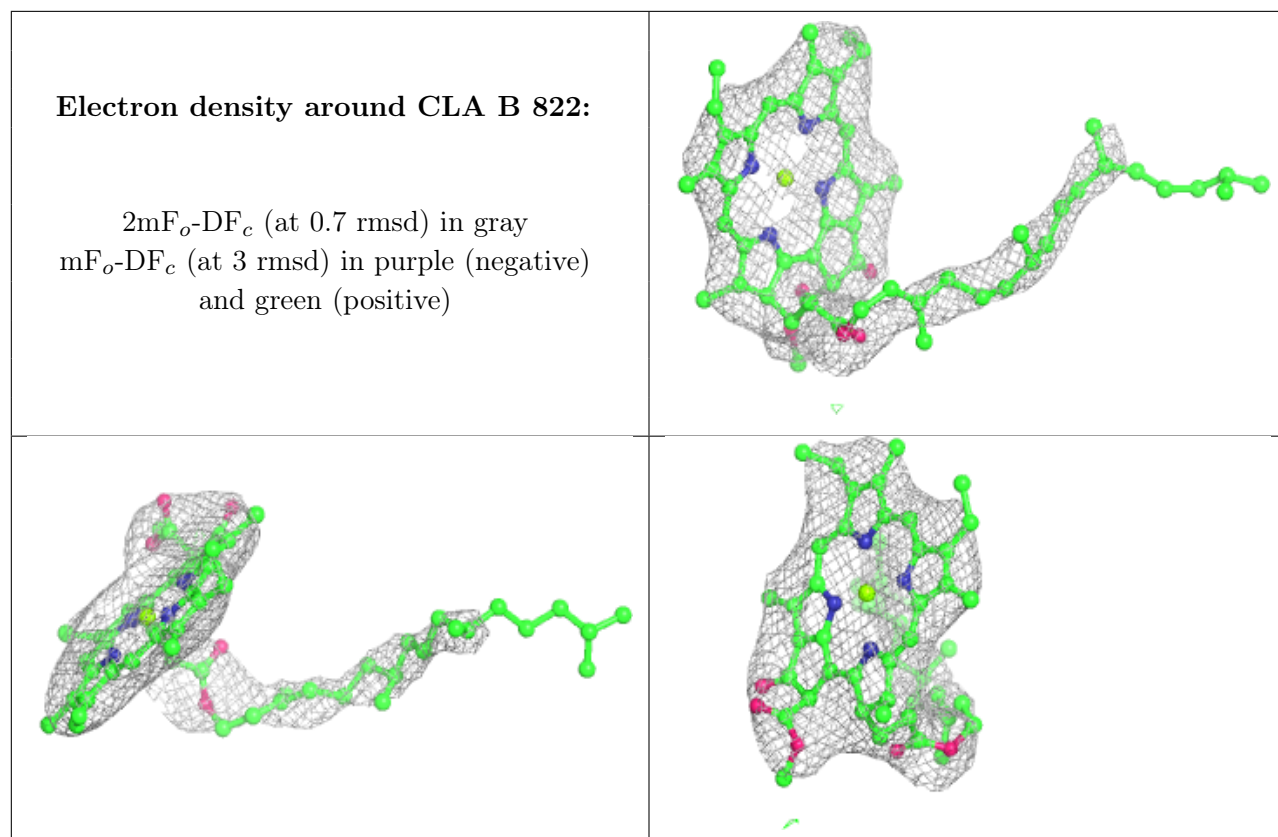


**Electron density around CLA B 821:**

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

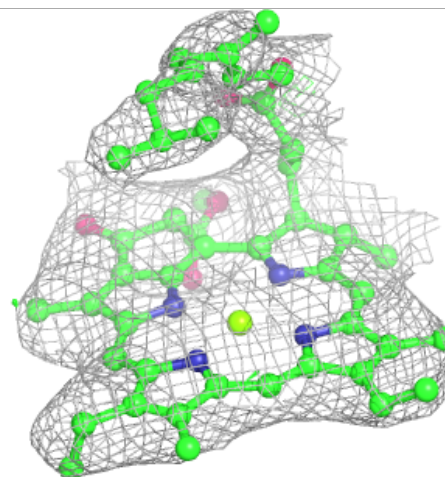
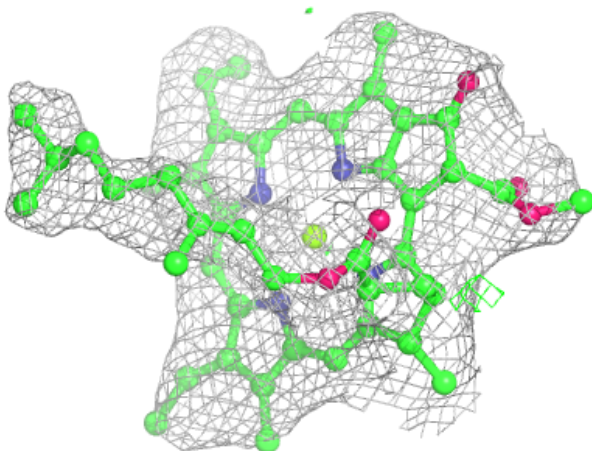
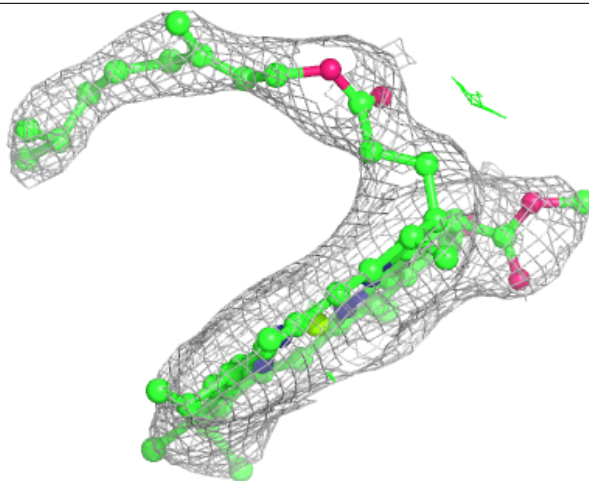






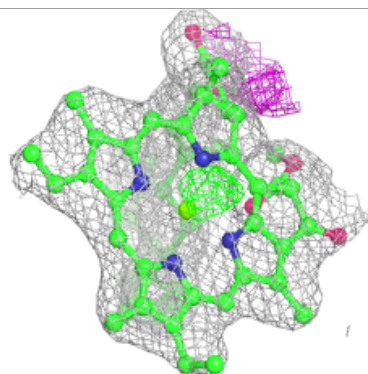
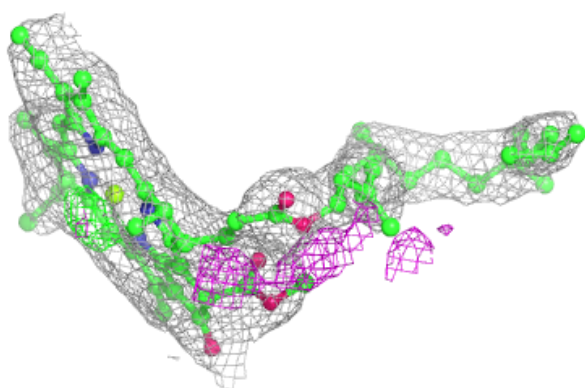
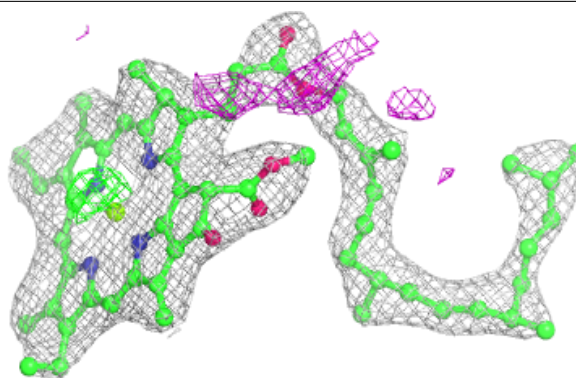
**Electron density around CLA L 301:**

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

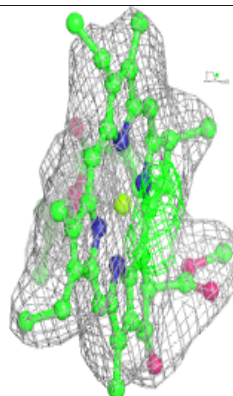
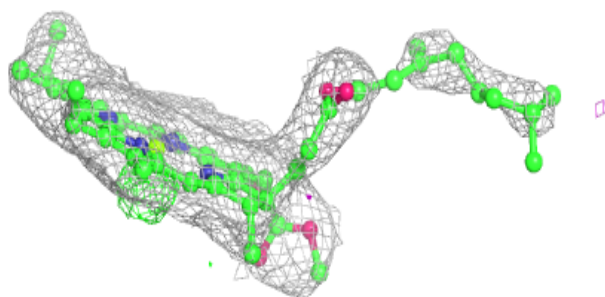
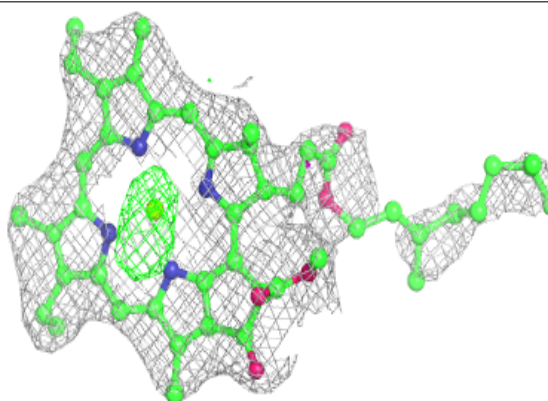


**Electron density around CL0 A 801:**

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

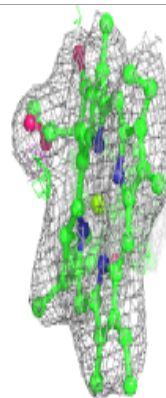
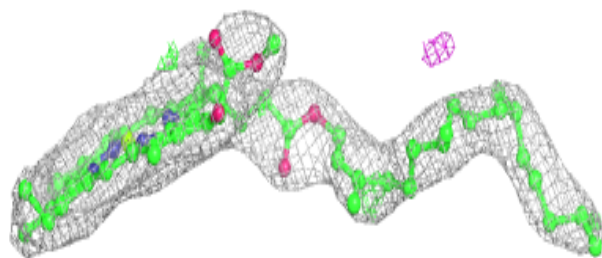
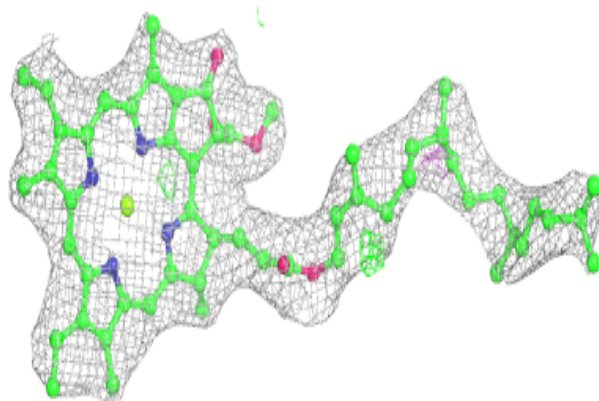
**Electron density around CLA B 823:**

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

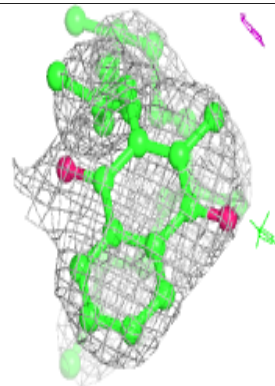
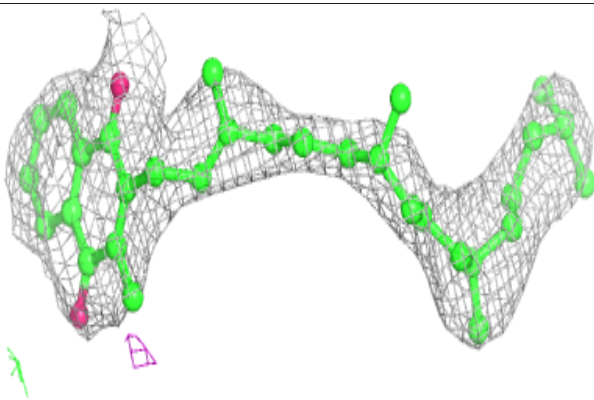
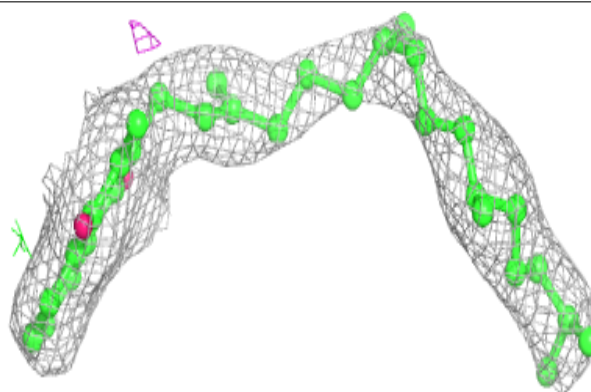


**Electron density around CLA A 840:**

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

**Electron density around PQN B 841:**

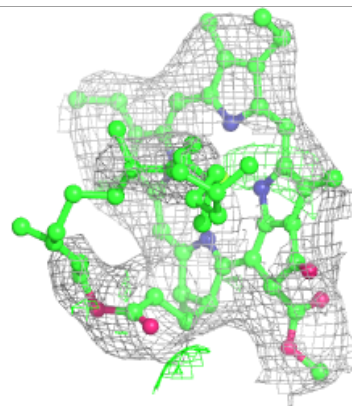
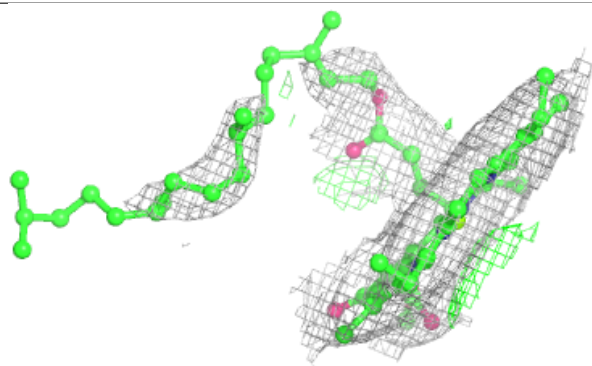
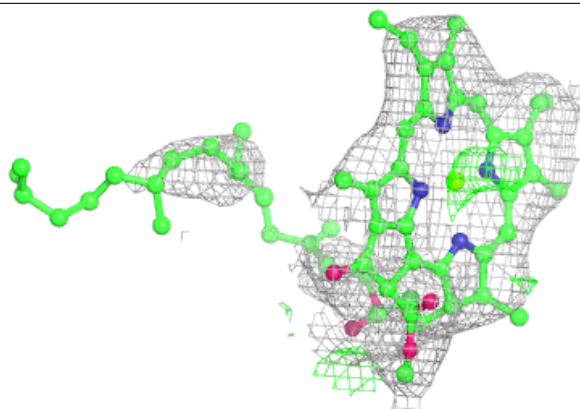
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



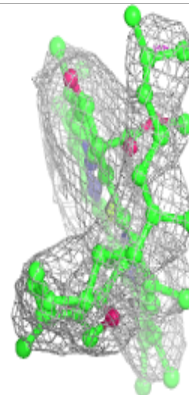
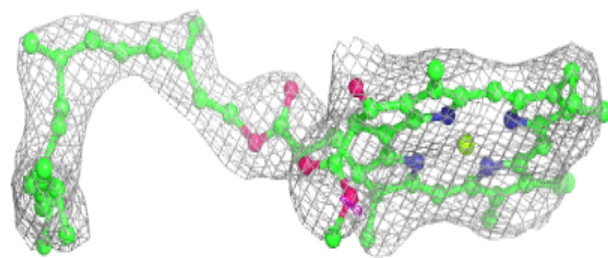
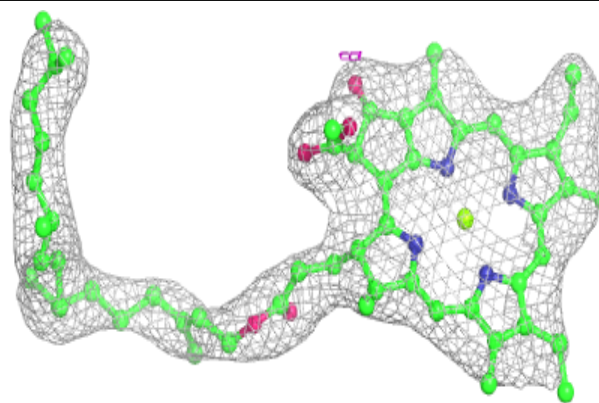


**Electron density around CLA 4 315:**

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

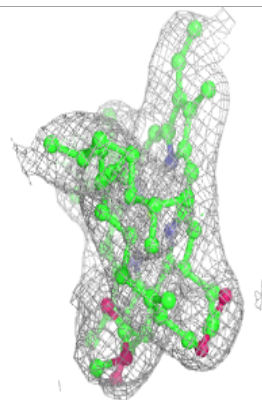
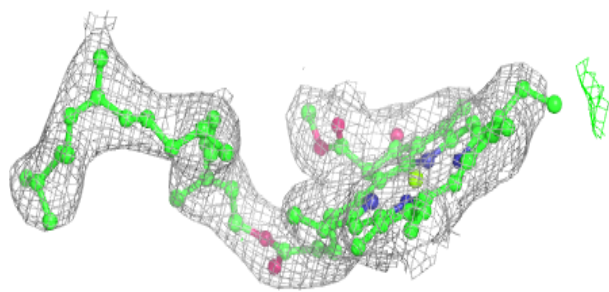
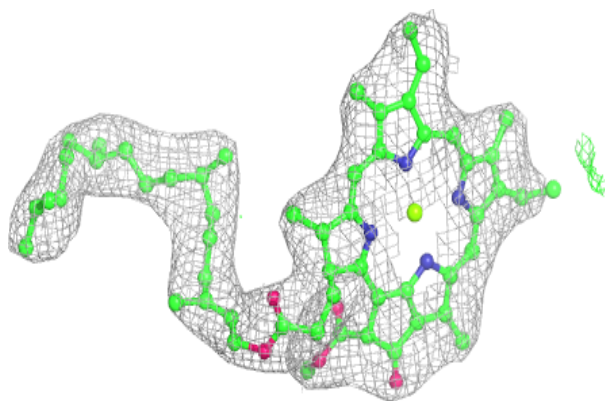
**Electron density around CLA B 826:**

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

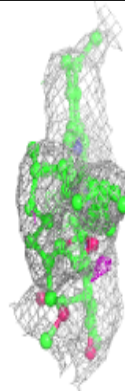
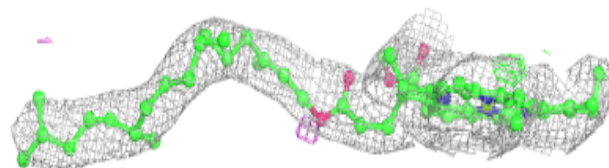
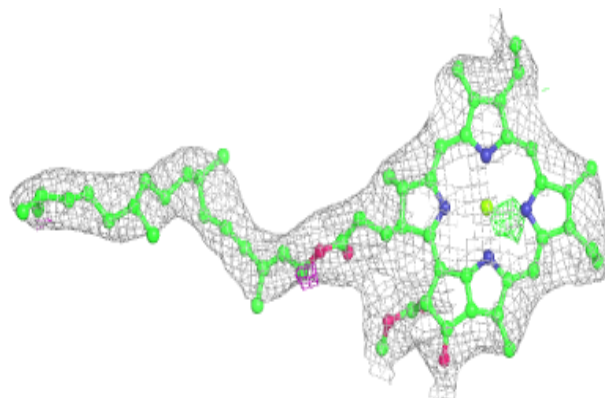


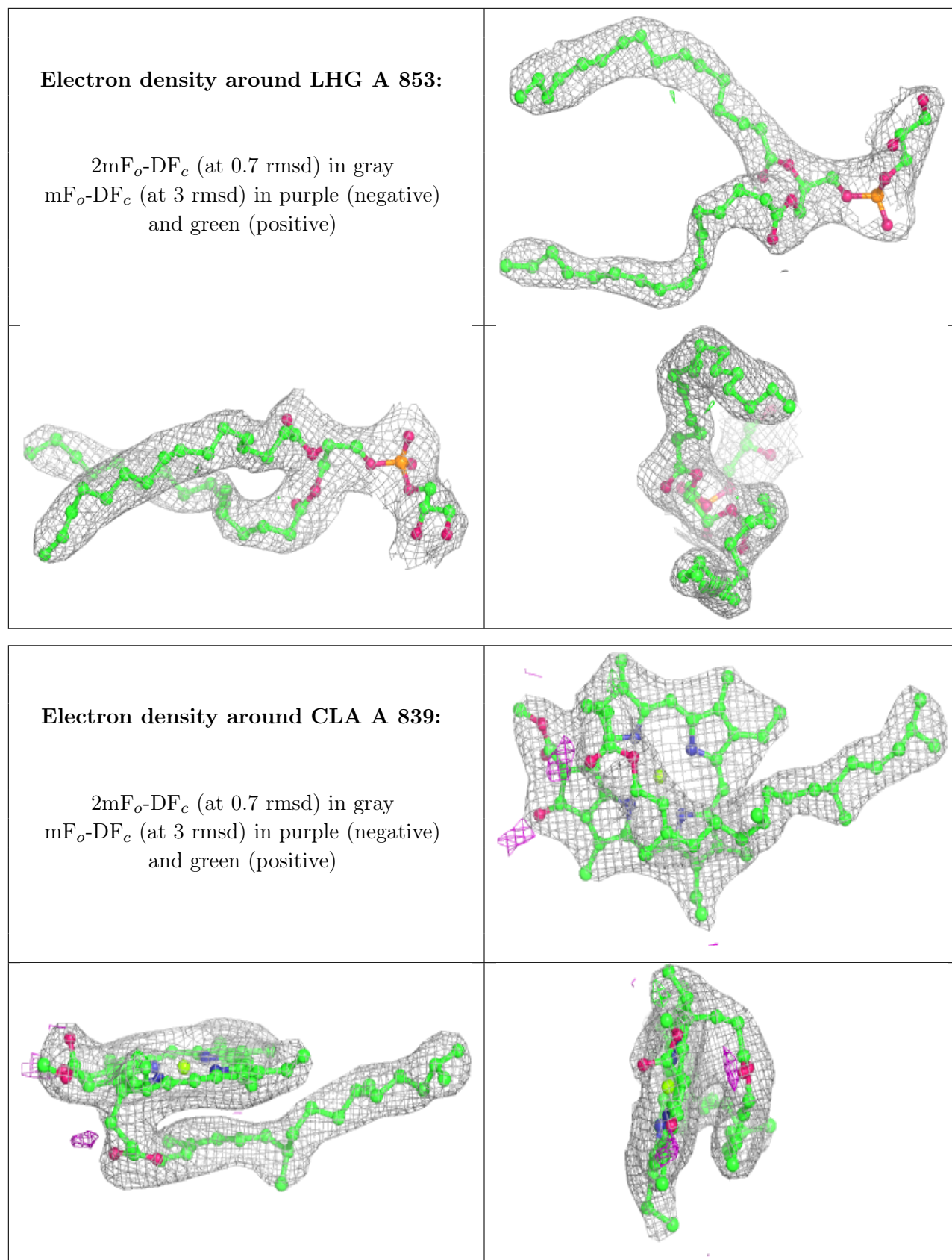
**Electron density around CLA J 1101:**

$2mF_o-DF_c$  (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)

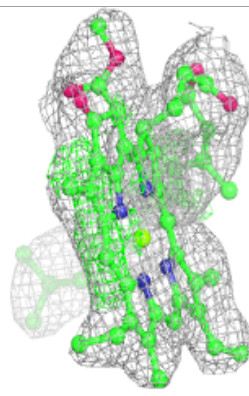
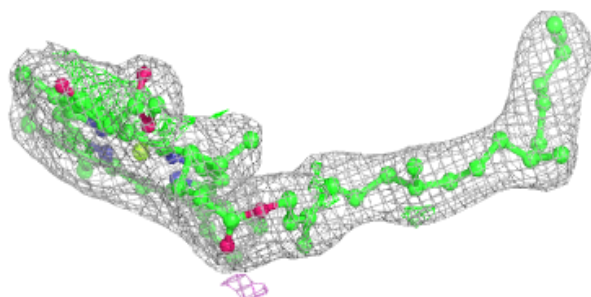
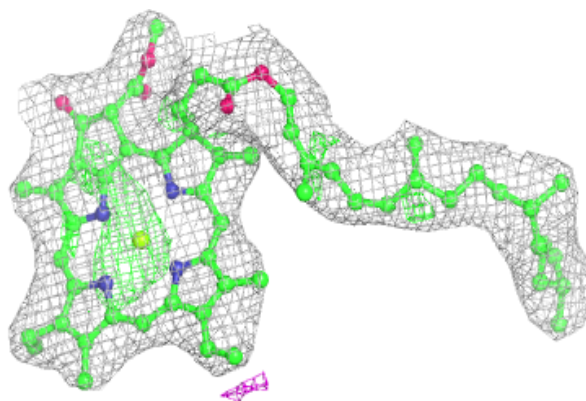




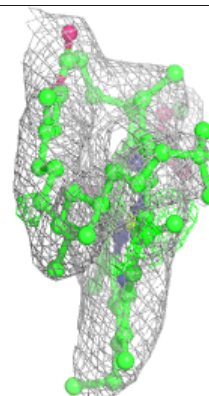
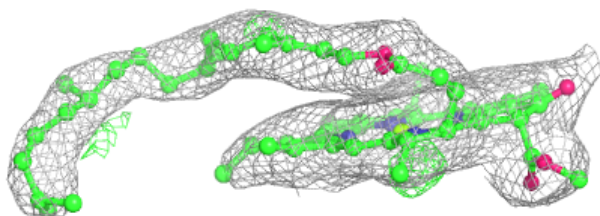
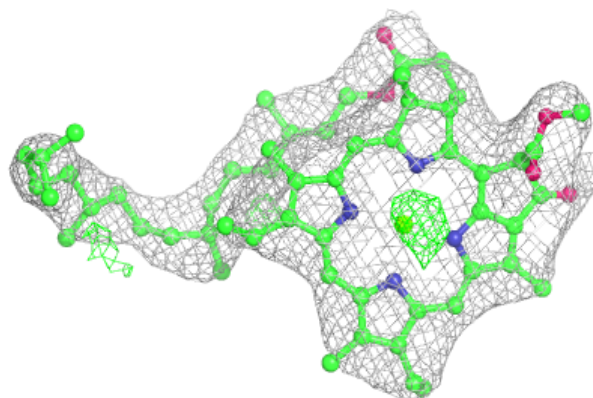


**Electron density around CLA A 802:**

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

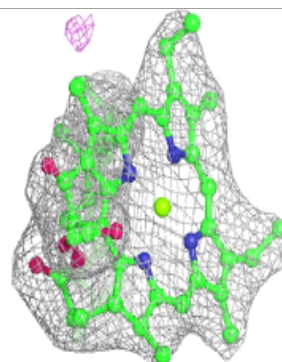
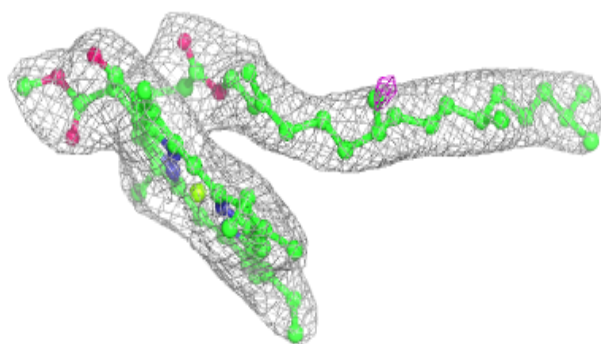
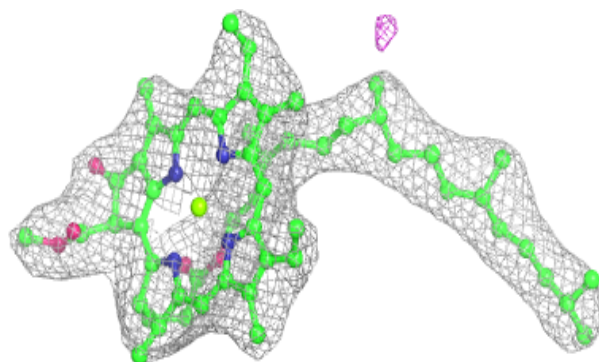
**Electron density around CLA B 819:**

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

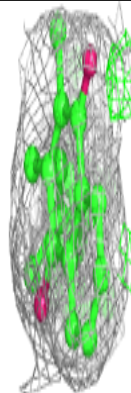
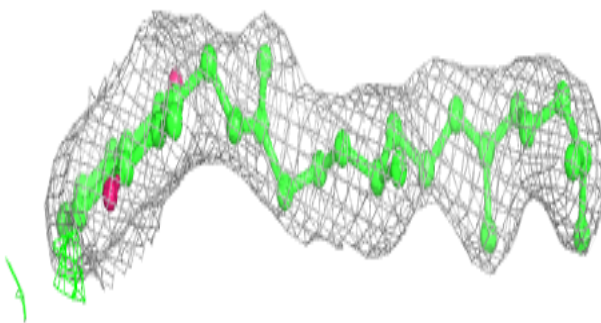
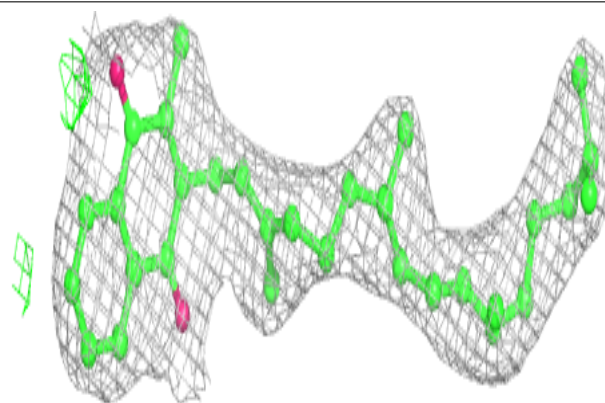


**Electron density around CLA A 841:**

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

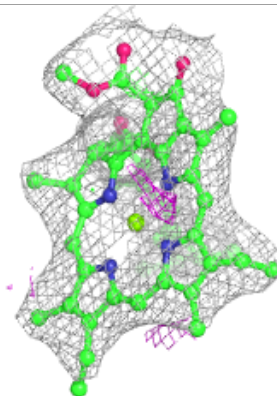
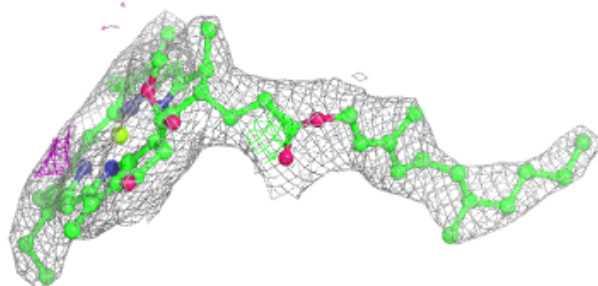
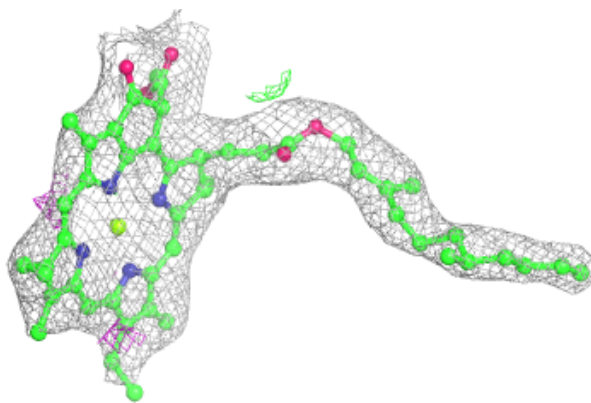
**Electron density around PQN A 844:**

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

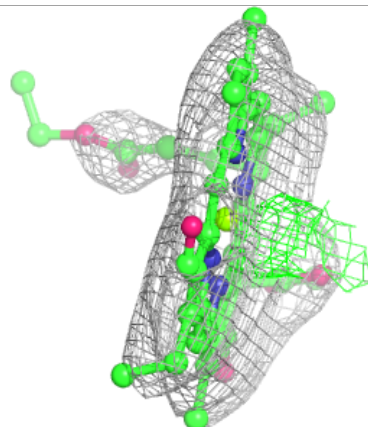
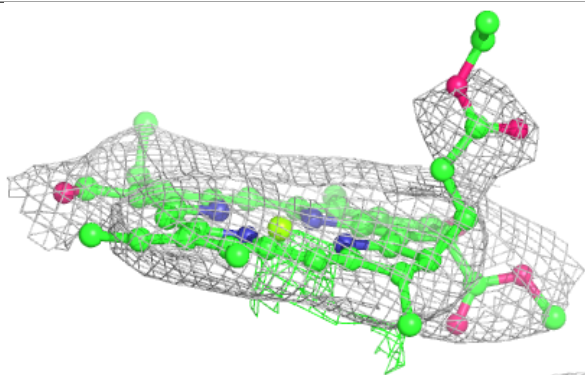
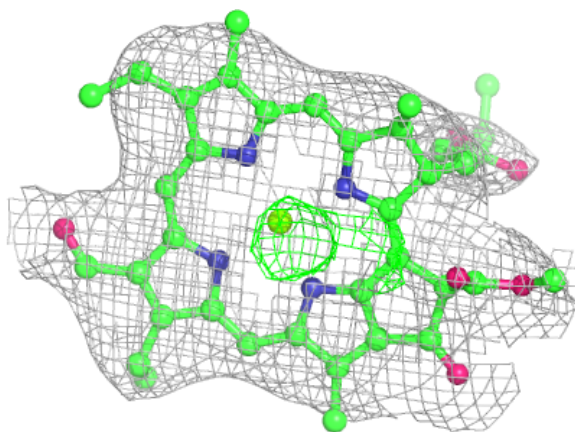


**Electron density around CLA B 832:**

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

**Electron density around CHL 2 513:**

$2mF_o-DF_c$  (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.