



wwPDB X-ray Structure Validation Summary Report ⓘ

Nov 23, 2023 – 04:02 AM JST

PDB ID : 8GN1
Title : Crystal structure of DBBQ-bound photosystem II complex
Authors : Kamada, S.; Nakajima, Y.; Shen, J.-R.
Deposited on : 2022-08-22
Resolution : 2.10 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
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) : 2.36

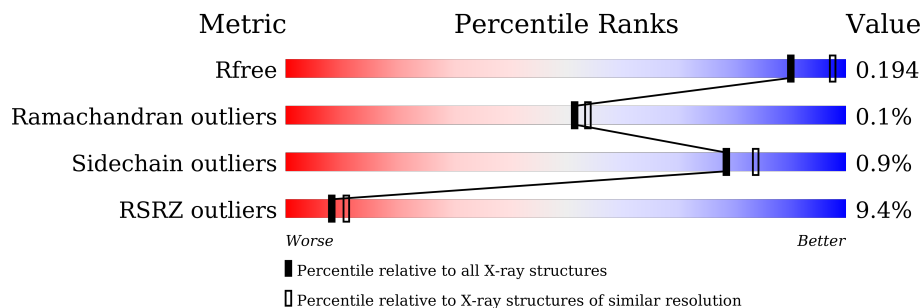
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.10 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	5197 (2.10-2.10)
Ramachandran outliers	138981	5647 (2.10-2.10)
Sidechain outliers	138945	5648 (2.10-2.10)
RSRZ outliers	127900	5083 (2.10-2.10)

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

Mol	Chain	Length	Quality of chain
1	A	344	2% 97%
1	a	344	10% 97%
2	B	505	9% 99%
2	b	505	11% 99%
3	C	455	7% 98%
3	c	455	7% 99%
4	D	342	2% 99%

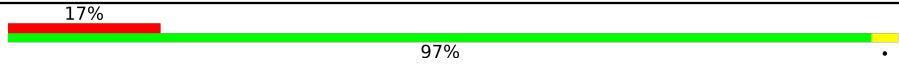
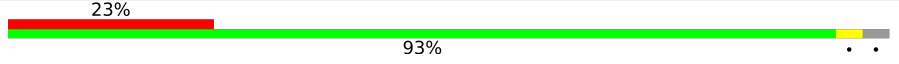
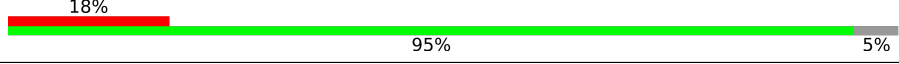
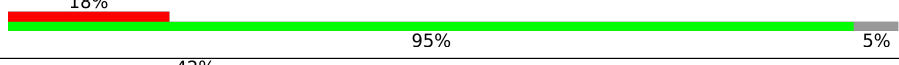
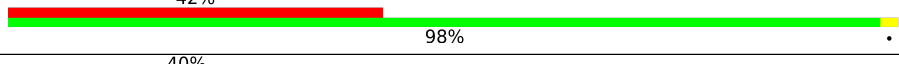
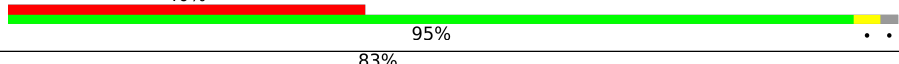
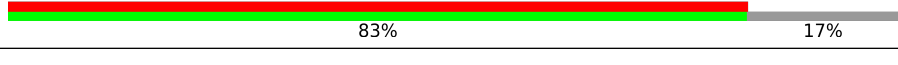
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Mol	Chain	Length	Quality of chain
4	d	342	4% 99%
5	E	83	18% 94%
5	e	83	16% 95%
6	F	44	9% 75%
6	f	44	5% 70%
7	H	63	5% 98%
7	h	63	17% 98%
8	I	38	16% 92%
8	i	38	13% 92%
9	J	40	90%
9	j	40	2% 98%
10	K	37	3% 97%
10	k	37	5% 100%
11	L	37	11% 100%
11	l	37	97%
12	M	36	3% 89%
12	m	36	6% 92%
13	O	244	14% 100%
13	o	244	14% 98%
14	T	32	3% 91%
14	t	32	6% 88%
15	U	104	% 92%
15	u	104	% 92%
16	V	137	6% 100%
16	v	137	10% 100%

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Mol	Chain	Length	Quality of chain
17	Y	30	
17	y	30	
18	X	40	
18	x	40	
19	Z	62	
19	z	62	
20	R	41	

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
24	CLA	A	405	X	-	-	-
24	CLA	A	409	X	-	-	-
24	CLA	B	602	X	-	-	-
24	CLA	B	603	X	-	-	-
24	CLA	B	604	X	-	-	-
24	CLA	B	605	X	-	-	-
24	CLA	B	606	X	-	-	-
24	CLA	B	607	X	-	-	-
24	CLA	B	608	X	-	-	-
24	CLA	B	610	X	-	-	-
24	CLA	B	611	X	-	-	-
24	CLA	B	612	X	-	-	-
24	CLA	B	613	X	-	-	-
24	CLA	B	614	X	-	-	-
24	CLA	B	615	X	-	-	-
24	CLA	B	616	X	-	-	-
24	CLA	B	617	X	-	-	-
24	CLA	C	502	X	-	-	-
24	CLA	C	503	X	-	-	-
24	CLA	C	505	X	-	-	-
24	CLA	C	506	X	-	-	-
24	CLA	C	507	X	-	-	-
24	CLA	C	508	X	-	-	-
24	CLA	C	509	X	-	-	-
24	CLA	C	510	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
24	CLA	C	511	X	-	-	-
24	CLA	C	512	X	-	-	-
24	CLA	C	513	X	-	-	-
24	CLA	C	514	X	-	-	-
24	CLA	D	404	X	-	-	-
24	CLA	D	405	X	-	-	-
24	CLA	a	2109	X	-	-	-
24	CLA	a	2113	X	-	-	-
24	CLA	b	604	X	-	-	-
24	CLA	b	605	X	-	-	-
24	CLA	b	606	X	-	-	-
24	CLA	b	607	X	-	-	-
24	CLA	b	608	X	-	-	-
24	CLA	b	609	X	-	-	-
24	CLA	b	610	X	-	-	-
24	CLA	b	612	X	-	-	-
24	CLA	b	613	X	-	-	-
24	CLA	b	614	X	-	-	-
24	CLA	b	615	X	-	-	-
24	CLA	b	616	X	-	-	-
24	CLA	b	617	X	-	-	-
24	CLA	b	618	X	-	-	-
24	CLA	b	619	X	-	-	-
24	CLA	c	504	X	-	-	-
24	CLA	c	505	X	-	-	-
24	CLA	c	506	X	-	-	-
24	CLA	c	507	X	-	-	-
24	CLA	c	508	X	-	-	-
24	CLA	c	509	X	-	-	-
24	CLA	c	510	X	-	-	-
24	CLA	c	511	X	-	-	-
24	CLA	c	512	X	-	-	-
24	CLA	c	514	X	-	-	-
24	CLA	c	515	X	-	-	-
24	CLA	d	401	X	-	-	-
24	CLA	d	404	X	-	-	-
24	CLA	d	405	X	-	-	-
29	LMT	A	420	-	-	-	X
29	LMT	a	2120	-	-	-	X
30	UNL	A	415	-	-	-	X
30	UNL	A	416	-	-	-	X
30	UNL	B	630	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
30	UNL	B	631	-	-	-	X
30	UNL	E	102	-	-	-	X
30	UNL	e	102	-	-	-	X
30	UNL	h	704	-	-	-	X
31	PL9	A	417	-	-	-	X
36	HTG	B	626	-	-	-	X
36	HTG	C	522	-	-	-	X
36	HTG	c	524	-	-	-	X
37	GOL	U	501	-	-	-	X

2 Entry composition [i](#)

There are 44 unique types of molecules in this entry. The entry contains 54282 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 Photosystem II protein D1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	334	2610	1713	428	454	15	0	3	0
1	a	334	2620	1717	431	457	15	0	3	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	279	PRO	ARG	conflict	UNP P51765
a	279	PRO	ARG	conflict	UNP P51765

- Molecule 2 is a protein called Photosystem II CP47 reaction center protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	505	3997	2623	667	694	13	0	5	0
2	b	503	3962	2601	660	688	13	0	8	0

- Molecule 3 is a protein called Photosystem II CP43 reaction center protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	451	3494	2286	585	610	13	0	2	0
3	c	455	3518	2303	589	613	13	0	0	0

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	19	ASN	-	expression tag	UNP D0VWR7
C	20	SER	-	expression tag	UNP D0VWR7

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Chain	Residue	Modelled	Actual	Comment	Reference
C	21	ILE	-	expression tag	UNP D0VWR7
C	22	PHE	-	expression tag	UNP D0VWR7
c	19	ASN	-	expression tag	UNP D0VWR7
c	20	SER	-	expression tag	UNP D0VWR7
c	21	ILE	-	expression tag	UNP D0VWR7
c	22	PHE	-	expression tag	UNP D0VWR7

- Molecule 4 is a protein called Photosystem II D2 protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	341	Total	C	N	O	S	0	2	0
			2726	1809	443	462	12			
4	d	342	Total	C	N	O	S	0	4	0
			2743	1819	447	464	13			

- Molecule 5 is a protein called Cytochrome b559 subunit alpha.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	80	Total	C	N	O	0	1	0
			649	425	103	121			
5	e	79	Total	C	N	O	0	0	0
			629	414	99	116			

- Molecule 6 is a protein called Cytochrome b559 subunit beta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	34	Total	C	N	O	S	0	0	0
			275	187	45	42	1			
6	f	32	Total	C	N	O	S	0	0	0
			257	175	43	38	1			

- Molecule 7 is a protein called Photosystem II reaction center protein H.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	H	63	Total	C	N	O	S	0	0	0
			498	333	80	83	2			
7	h	63	Total	C	N	O	S	0	0	0
			498	333	80	83	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	I	36	Total	C	N	O	S	0	0	0
			293	198	45	49	1			
8	i	36	Total	C	N	O	S	0	0	0
			296	200	46	49	1			

- Molecule 9 is a protein called Photosystem II reaction center protein J.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	J	36	Total	C	N	O	S	0	0	0
			251	171	37	42	1			
9	j	39	Total	C	N	O	S	0	0	0
			271	182	40	48	1			

- Molecule 10 is a protein called Photosystem II reaction center protein K.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	K	37	Total	C	N	O	0	1	0
			293	205	42	46			
10	k	37	Total	C	N	O	0	0	0
			286	198	42	46			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
K	33	LEU	PHE	conflict	UNP P19054
K	39	TRP	VAL	conflict	UNP P19054
k	33	LEU	PHE	conflict	UNP P19054
k	39	TRP	VAL	conflict	UNP P19054

- Molecule 11 is a protein called Photosystem II reaction center protein L.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
11	L	37	Total	C	N	O	0	1	0
			298	202	45	51			
11	l	36	Total	C	N	O	0	2	0
			301	204	47	50			

- Molecule 12 is a protein called Photosystem II reaction center protein M.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	M	33	Total	C	N	O	S	0	1	0
			261	176	37	47	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	m	34	Total	C	N	O	S	0	1	0
			270	182	39	48	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
M	8	LEU	PHE	conflict	UNP P12312
m	8	LEU	PHE	conflict	UNP P12312

- Molecule 13 is a protein called Photosystem II manganese-stabilizing polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	O	244	Total	C	N	O	S	0	2	0
			1864	1167	313	379	5			
13	o	243	Total	C	N	O	S	0	3	0
			1865	1169	311	379	6			

- Molecule 14 is a protein called Photosystem II reaction center protein T.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	T	30	Total	C	N	O	S	0	0	0
			256	180	36	38	2			
14	t	30	Total	C	N	O	S	0	0	0
			256	180	36	38	2			

- Molecule 15 is a protein called Photosystem II 12 kDa extrinsic protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	U	97	Total	C	N	O	0	1	0
			778	494	132	152			
15	u	97	Total	C	N	O	0	0	0
			774	491	129	154			

- Molecule 16 is a protein called Cytochrome c-550.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	V	137	Total	C	N	O	S	0	1	0
			1059	675	177	203	4			
16	v	137	Total	C	N	O	S	0	0	0
			1052	666	174	208	4			

- Molecule 17 is a protein called Photosystem II reaction center protein Ycf12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Y	30	Total	C	N	O	S	0	0	0
			220	146	35	36	3			
17	y	29	Total	C	N	O	S	0	0	0
			212	139	37	33	3			

- Molecule 18 is a protein called Photosystem II reaction center protein X.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	X	38	Total	C	N	O		0	0	0
			275	185	44	46				
18	x	38	Total	C	N	O		0	1	0
			278	188	44	46				

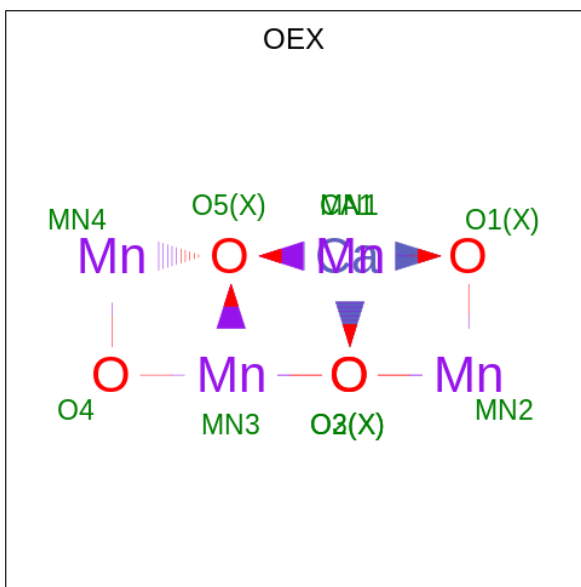
- Molecule 19 is a protein called Photosystem II reaction center protein Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	Z	62	Total	C	N	O	S	0	0	0
			458	315	67	74	2			
19	z	61	Total	C	N	O	S	0	0	0
			453	309	70	72	2			

- Molecule 20 is a protein called Photosystem II protein Y.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	R	34	Total	C	N	O		0	0	0
			207	133	39	35				

- Molecule 21 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: CaMn_4O_5).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	Ca	Mn	O		
21	A	1	10	1	4	5	0	0
21	a	1	10	1	4	5	0	0

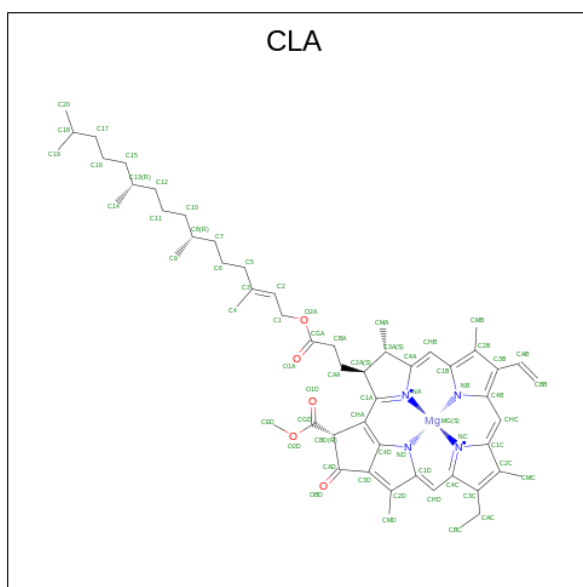
- Molecule 22 is FE (II) ION (three-letter code: FE2) (formula: Fe) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Fe		
22	A	1	1	1	0	0
22	a	1	1	1	0	0

- Molecule 23 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Cl		
23	A	2	2	2	0	0
23	a	2	2	2	0	0

- Molecule 24 is CHLOROPHYLL A (three-letter code: CLA) (formula: C₅₅H₇₂MgN₄O₅).



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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	C	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	D	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	D	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	D	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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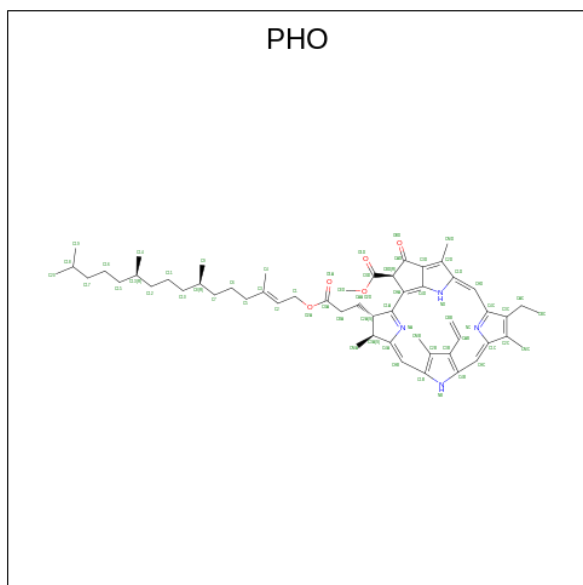
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	a	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	a	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	a	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	b	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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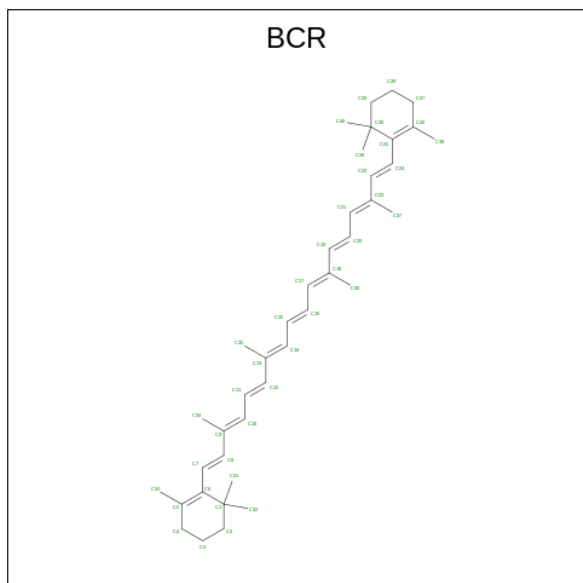
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
24	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

- Molecule 25 is PHEOPHYTIN A (three-letter code: PHO) (formula: C₅₅H₇₄N₄O₅).



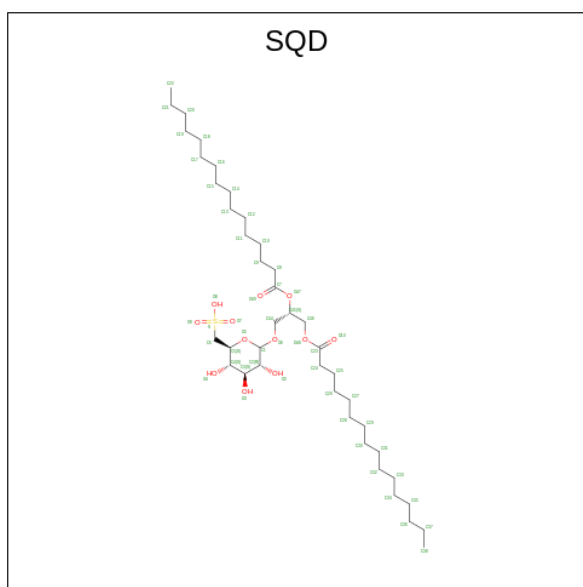
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
			Total	C	N	O			
25	A	1	Total	64	55	4	5	0	0
25	A	1	Total	64	55	4	5	0	0
25	a	1	Total	64	55	4	5	0	0
25	a	1	Total	64	55	4	5	0	0

- Molecule 26 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



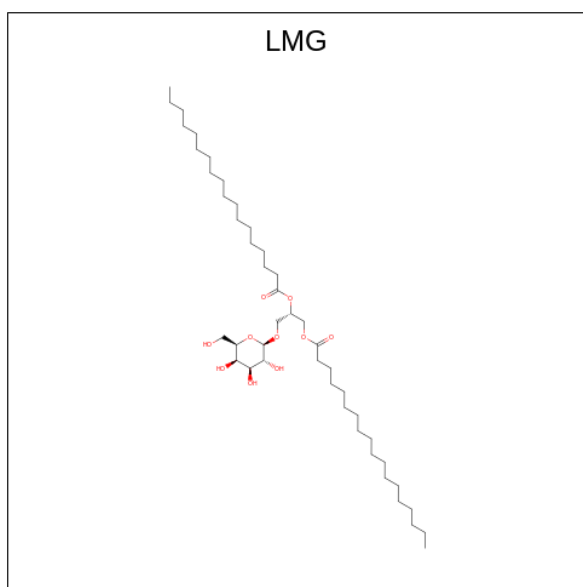
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	A	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	C	1	Total C 40 40	0	0
26	C	1	Total C 40 40	0	0
26	D	1	Total C 40 40	0	0
26	K	1	Total C 40 40	0	0
26	T	1	Total C 40 40	0	0
26	Y	1	Total C 40 40	0	0
26	a	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0
26	c	1	Total C 40 40	0	0
26	c	1	Total C 40 40	0	0
26	c	1	Total C 40 40	0	0
26	d	1	Total C 40 40	0	0
26	k	1	Total C 40 40	0	0
26	t	1	Total C 40 40	0	0

- Molecule 27 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: C₄₁H₇₈O₁₂S).



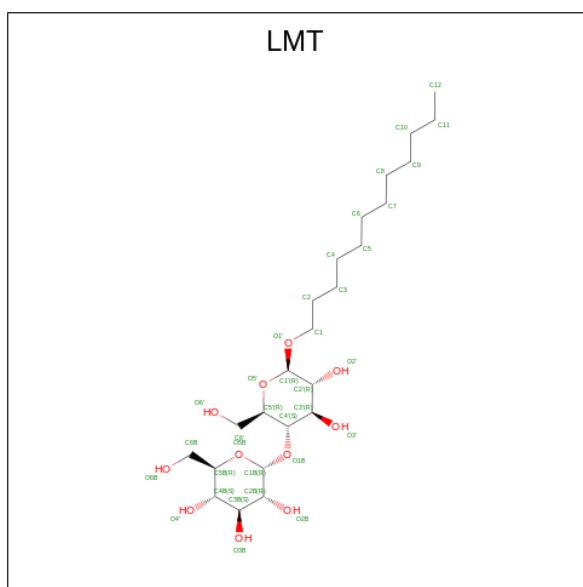
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	O	S		
27	A	1	49	36	12	1	0	0
27	A	1	54	41	12	1	0	0
27	B	1	54	41	12	1	0	0
27	F	1	45	32	12	1	0	0
27	L	1	54	41	12	1	0	0
27	a	1	53	40	12	1	0	0
27	a	1	47	34	12	1	0	0
27	f	1	37	27	9	1	0	0

- Molecule 28 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: C₄₅H₈₆O₁₀).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
28	A	1	Total	C	O	0	0
			51	41	10		
28	B	1	Total	C	O	0	0
			51	41	10		
28	C	1	Total	C	O	0	0
			51	41	10		
28	C	1	Total	C	O	0	0
			48	38	10		
28	D	1	Total	C	O	0	0
			44	34	10		
28	b	1	Total	C	O	0	0
			51	41	10		
28	c	1	Total	C	O	0	0
			49	39	10		
28	c	1	Total	C	O	0	0
			48	38	10		
28	d	1	Total	C	O	0	0
			48	38	10		
28	i	1	Total	C	O	0	0
			51	41	10		

- Molecule 29 is DODECYL-BETA-D-MALTOSE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
29	A	1	Total	C	O	0	0
			34	23	11		
29	A	1	Total	C	O	0	0
			35	24	11		
29	B	1	Total	C	O	0	0
			35	24	11		
29	B	1	Total	C	O	0	0
			35	24	11		
29	B	1	Total	C	O	0	0
			24	18	6		
29	E	1	Total	C	O	0	0
			24	18	6		
29	I	1	Total	C	O	0	0
			24	18	6		
29	J	1	Total	C	O	0	0
			24	18	6		
29	M	1	Total	C	O	0	0
			35	24	11		
29	T	1	Total	C	O	0	0
			24	18	6		
29	Z	1	Total	C	O	0	0
			35	24	11		
29	a	1	Total	C	O	0	0
			35	24	11		
29	a	1	Total	C	O	0	0
			35	24	11		
29	b	1	Total	C	O	0	0
			25	19	6		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
29	f	1	Total	C	O	0	0
			24	18	6		
29	i	1	Total	C	O	0	0
			24	18	6		
29	j	1	Total	C	O	0	0
			23	17	6		
29	m	1	Total	C	O	0	0
			35	24	11		
29	m	1	Total	C	O	0	0
			35	24	11		
29	z	1	Total	C	O	0	0
			33	22	11		

- Molecule 30 is UNKNOWN LIGAND (three-letter code: UNL) (formula:).

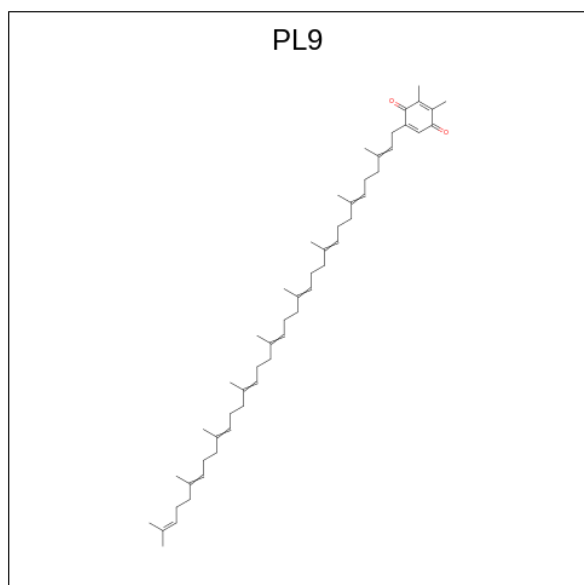
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
30	A	2	Total	C	O	0	0
			55	50	5		
30	B	5	Total	C	O	0	0
			74	68	6		
30	C	2	Total	C	O	0	0
			50	45	5		
30	D	3	Total	C	O	0	0
			65	60	5		
30	E	4	Total	C		0	0
			43	43			
30	I	2	Total	C		0	0
			29	29			
30	J	1	Total	C		0	0
			15	15			
30	M	1	Total	C	O	0	0
			15	13	2		
30	T	1	Total	C		0	0
			9	9			
30	Y	1	Total	C		0	0
			10	10			
30	X	1	Total	C	O	0	0
			18	16	2		
30	a	2	Total	C	O	0	0
			26	22	4		
30	b	4	Total	C	O	0	0
			56	52	4		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	c	2	Total C O 48 43 5	0	0
30	d	4	Total C O 82 75 7	0	0
30	e	1	Total C 15 15	0	0
30	h	2	Total C 23 23	0	0
30	i	2	Total C O 29 25 4	0	0
30	j	1	Total C 16 16	0	0
30	k	1	Total C 12 12	0	0
30	m	1	Total C 13 13	0	0
30	t	1	Total C 8 8	0	0

- Molecule 31 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula: C₅₃H₈₀O₂) (labeled as "Ligand of Interest" by depositor).



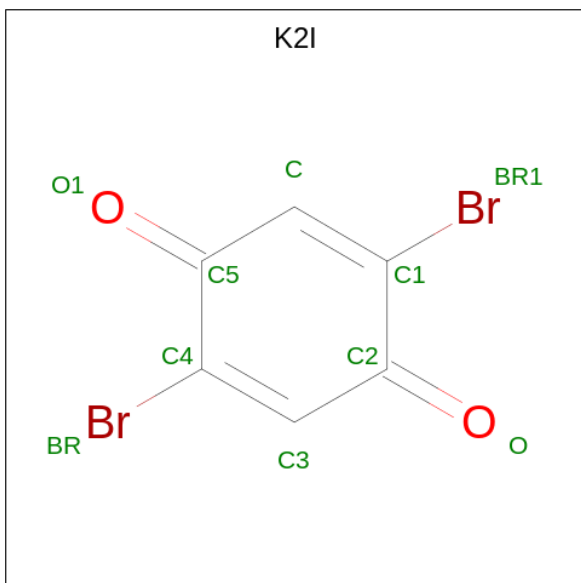
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	A	1	Total C 39 39	0	0

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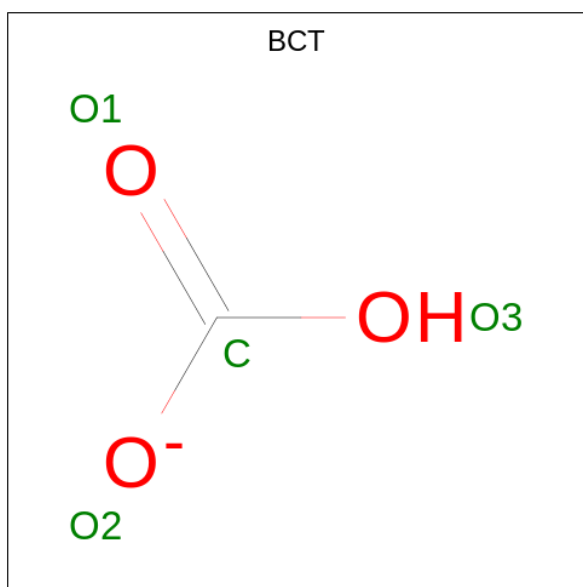
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	D	1	Total C O 55 53 2	0	0
31	d	1	Total C O 55 53 2	0	0
31	x	1	Total C 39 39	0	0

- Molecule 32 is 2,5-bis(bromanyl)cyclohexa-2,5-diene-1,4-dione (three-letter code: K2I) (formula: C₆H₂Br₂O₂) (labeled as "Ligand of Interest" by depositor).



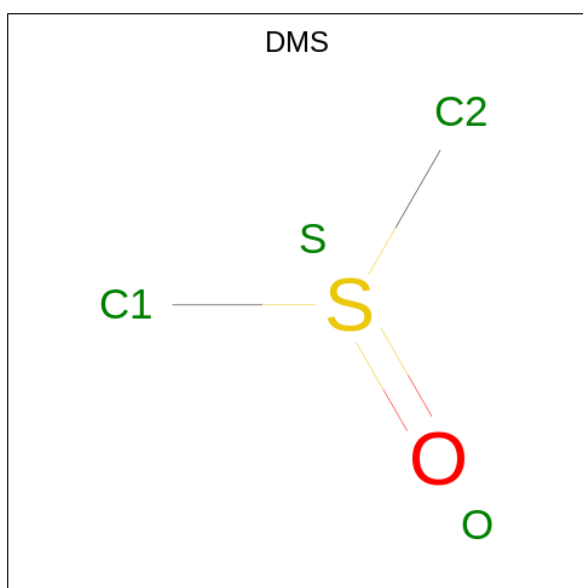
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
32	A	1	Total Br C O 20 4 12 4	0	1
32	A	1	Total Br C O 10 2 6 2	0	0
32	a	1	Total Br C O 20 4 12 4	0	1
32	a	1	Total Br C O 10 2 6 2	0	0

- Molecule 33 is BICARBONATE ION (three-letter code: BCT) (formula: CHO₃) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
33	A	1	Total	C	O	0	0
			4	1	3		
33	a	1	Total	C	O	0	0
			4	1	3		

- Molecule 34 is DIMETHYL SULFOXIDE (three-letter code: DMS) (formula: C₂H₆OS).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	A	1	Total	C	O	S	0	0
			4	2	1	1		
34	A	1	Total	C	O	S	0	0
			4	2	1	1		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	A	1	Total 4	C 2	O 1	S 1	0	0
34	A	1	Total 4	C 2	O 1	S 1	0	0
34	A	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	B	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	C	1	Total 4	C 2	O 1	S 1	0	0
34	D	1	Total 4	C 2	O 1	S 1	0	0
34	D	1	Total 4	C 2	O 1	S 1	0	0
34	D	1	Total 4	C 2	O 1	S 1	0	0
34	D	1	Total 4	C 2	O 1	S 1	0	0
34	D	1	Total 4	C 2	O 1	S 1	0	0
34	E	1	Total 4	C 2	O 1	S 1	0	0
34	E	1	Total 4	C 2	O 1	S 1	0	0
34	F	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	O	1	Total 4	C 2	O 1	S 1	0	0
34	T	1	Total 4	C 2	O 1	S 1	0	0
34	T	1	Total 4	C 2	O 1	S 1	0	0
34	T	1	Total 4	C 2	O 1	S 1	0	0
34	U	1	Total 4	C 2	O 1	S 1	0	0
34	V	1	Total 4	C 2	O 1	S 1	0	0
34	V	1	Total 4	C 2	O 1	S 1	0	0
34	V	1	Total 4	C 2	O 1	S 1	0	0
34	V	1	Total 4	C 2	O 1	S 1	0	0
34	V	1	Total 4	C 2	O 1	S 1	0	0
34	V	1	Total 4	C 2	O 1	S 1	0	0
34	V	1	Total 4	C 2	O 1	S 1	0	0
34	a	1	Total 4	C 2	O 1	S 1	0	0
34	a	1	Total 4	C 2	O 1	S 1	0	0
34	a	1	Total 4	C 2	O 1	S 1	0	0
34	a	1	Total 4	C 2	O 1	S 1	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	b	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	c	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	d	1	Total 4	C 2	O 1	S 1	0	0
34	e	1	Total 4	C 2	O 1	S 1	0	0
34	i	1	Total 4	C 2	O 1	S 1	0	0
34	j	1	Total 4	C 2	O 1	S 1	0	0
34	k	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0

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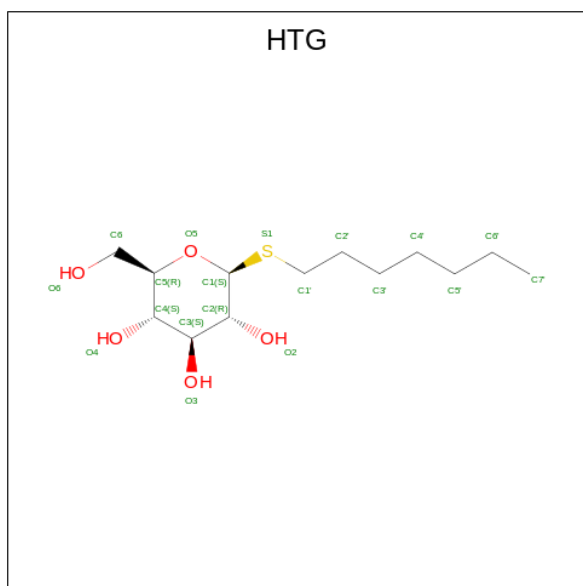
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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	o	1	Total 4	C 2	O 1	S 1	0	0
34	t	1	Total 4	C 2	O 1	S 1	0	0
34	u	1	Total 4	C 2	O 1	S 1	0	0
34	u	1	Total 4	C 2	O 1	S 1	0	0
34	u	1	Total 4	C 2	O 1	S 1	0	0
34	u	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	v	1	Total 4	C 2	O 1	S 1	0	0
34	x	1	Total 4	C 2	O 1	S 1	0	0
34	z	1	Total 4	C 2	O 1	S 1	0	0

- Molecule 35 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	B	1	Total Ca 1 1	0	0
35	O	1	Total Ca 1 1	0	0
35	b	1	Total Ca 1 1	0	0
35	c	1	Total Ca 1 1	0	0
35	o	1	Total Ca 1 1	0	0

- Molecule 36 is heptyl 1-thio-beta-D-glucopyranoside (three-letter code: HTG) (formula: C₁₃H₂₆O₅S).



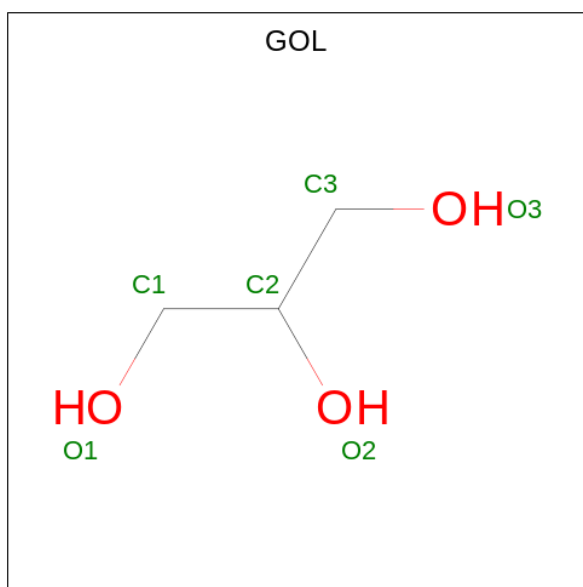
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	B	1	Total C O S 19 13 5 1	0	0
36	B	1	Total C O S 38 26 10 2	0	1
36	B	1	Total C O S 19 13 5 1	0	0
36	B	1	Total C O S 19 13 5 1	0	0
36	B	1	Total C O S 19 13 5 1	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
36	C	1	Total	C	O	S	0	0
			19	13	5	1		
36	C	1	Total	C	O	S	0	0
			19	13	5	1		
36	D	1	Total	C	O	S	0	0
			19	13	5	1		
36	I	1	Total	C	O	S	0	0
			19	13	5	1		
36	O	1	Total	C	O	S	0	0
			19	13	5	1		
36	V	1	Total	C	O	S	0	0
			19	13	5	1		
36	b	1	Total	C	O	S	0	0
			19	13	5	1		
36	b	1	Total	C	O	S	0	0
			19	13	5	1		
36	b	1	Total	C	O	S	0	0
			19	13	5	1		
36	b	1	Total	C	O	S	0	0
			19	13	5	1		
36	c	1	Total	C	O	S	0	0
			19	13	5	1		
36	c	1	Total	C	O	S	0	0
			19	13	5	1		
36	c	1	Total	C	O	S	0	0
			19	13	5	1		
36	d	1	Total	C	O	S	0	0
			19	13	5	1		
36	d	1	Total	C	O	S	0	0
			19	13	5	1		
36	i	1	Total	C	O	S	0	0
			19	13	5	1		

- Molecule 37 is GLYCEROL (three-letter code: GOL) (formula: C₃H₈O₃).



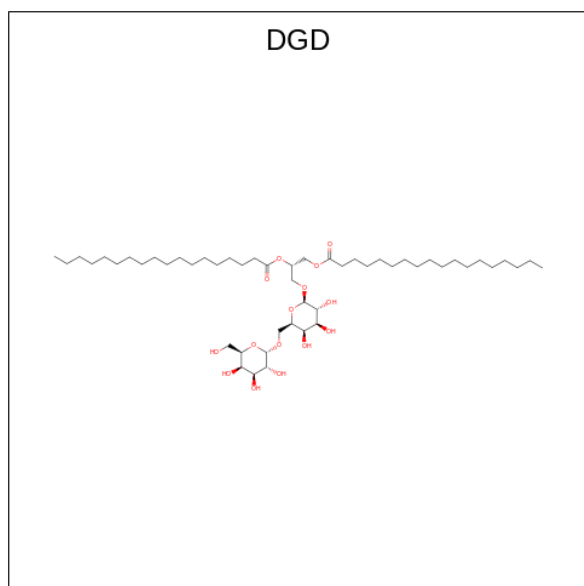
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	B	1	Total C O 6 3 3	0	0
37	B	1	Total C O 6 3 3	0	0
37	C	1	Total C O 6 3 3	0	0
37	C	1	Total C O 6 3 3	0	0
37	D	1	Total C O 6 3 3	0	0
37	H	1	Total C O 6 3 3	0	0
37	O	1	Total C O 6 3 3	0	0
37	U	1	Total C O 6 3 3	0	0
37	U	1	Total C O 6 3 3	0	0
37	V	1	Total C O 6 3 3	0	0
37	Z	1	Total C O 6 3 3	0	0
37	a	1	Total C O 6 3 3	0	0
37	b	1	Total C O 6 3 3	0	0
37	c	1	Total C O 6 3 3	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
37	d	1	Total	C	O	0	0
			6	3	3		
37	k	1	Total	C	O	0	0
			6	3	3		
37	o	1	Total	C	O	0	0
			6	3	3		
37	o	1	Total	C	O	0	0
			6	3	3		
37	v	1	Total	C	O	0	0
			6	3	3		
37	v	1	Total	C	O	0	0
			6	3	3		
37	v	1	Total	C	O	0	0
			6	3	3		

- Molecule 38 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



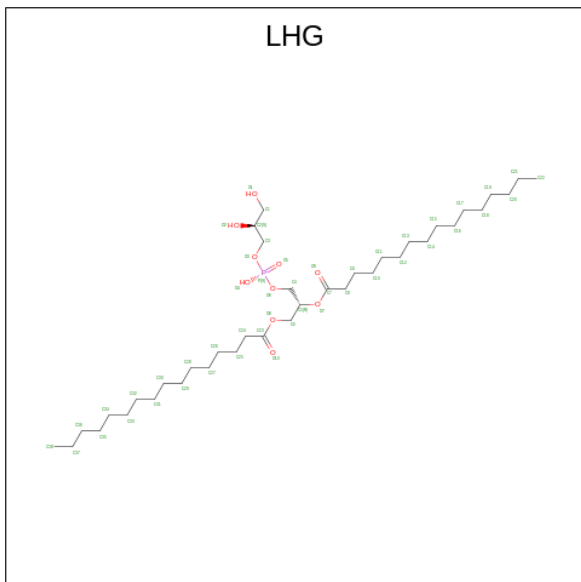
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
38	C	1	Total	C	O	0	0
			62	47	15		
38	C	1	Total	C	O	0	0
			62	47	15		
38	C	1	Total	C	O	0	0
			62	47	15		
38	D	1	Total	C	O	0	0
			46	35	11		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
38	H	1	Total	C	O	0	0
			62	47	15		
38	c	1	Total	C	O	0	0
			62	47	15		
38	c	1	Total	C	O	0	0
			62	47	15		
38	c	1	Total	C	O	0	0
			62	47	15		
38	h	1	Total	C	O	0	0
			62	47	15		

- Molecule 39 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: C₃₈H₇₅O₁₀P).



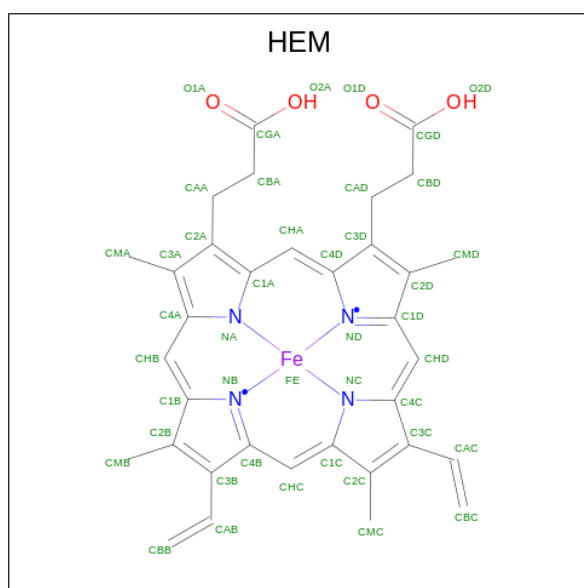
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
39	D	1	Total	C	O	P	0	0
			49	38	10	1		
39	D	1	Total	C	O	P	0	0
			49	38	10	1		
39	D	1	Total	C	O	P	0	0
			44	33	10	1		
39	E	1	Total	C	O	P	0	0
			49	38	10	1		
39	L	1	Total	C	O	P	0	0
			49	38	10	1		
39	d	1	Total	C	O	P	0	0
			49	38	10	1		

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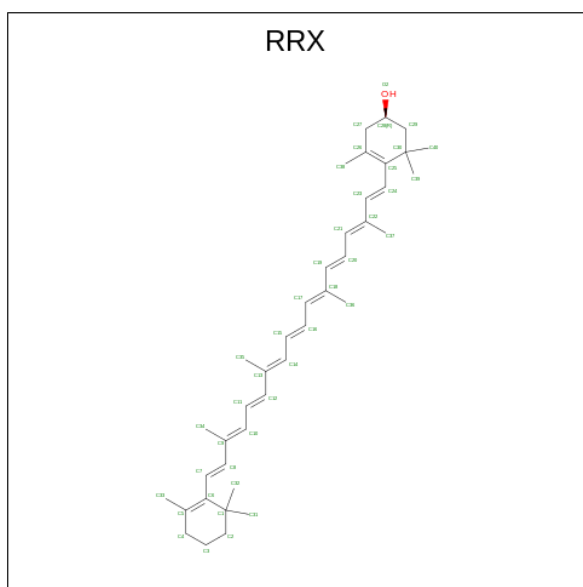
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
39	d	1	Total	C	O	P	0	0
			49	38	10	1		
39	d	1	Total	C	O	P	0	0
			36	25	10	1		
39	e	1	Total	C	O	P	0	0
			32	22	9	1		
39	l	1	Total	C	O	P	0	0
			49	38	10	1		

- Molecule 40 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
40	F	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		
40	e	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

- Molecule 41 is (3R)-beta,beta-caroten-3-ol (three-letter code: RRX) (formula: $C_{40}H_{56}O$).

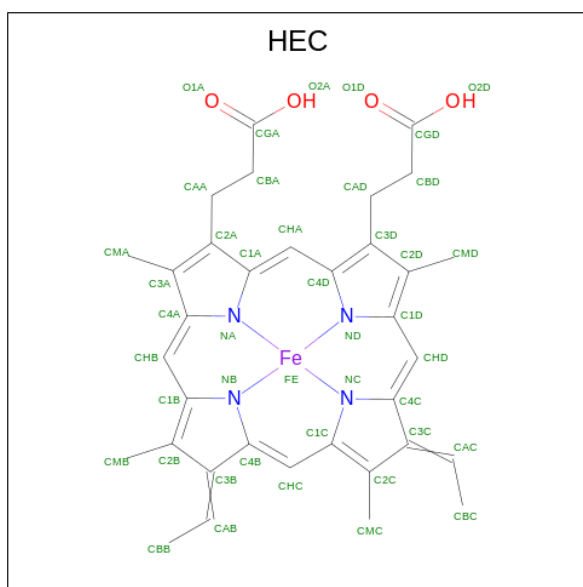


Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
41	H	1	Total	C O	0	0
			41	40 1		
41	h	1	Total	C O	0	0
			41	40 1		

- Molecule 42 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
42	J	1	Total	Mg	0	0
			1	1		
42	j	1	Total	Mg	0	0
			1	1		

- Molecule 43 is HEME C (three-letter code: HEC) (formula: C₃₄H₃₄FeN₄O₄).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
43	V	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		
43	v	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

- Molecule 44 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
44	A	142	Total	O	0	0
			142	142		
44	B	291	Total	O	0	0
			291	291		
44	C	231	Total	O	0	0
			231	231		
44	D	140	Total	O	0	2
			142	142		
44	E	34	Total	O	0	0
			34	34		
44	F	6	Total	O	0	0
			6	6		
44	H	47	Total	O	0	0
			47	47		
44	I	11	Total	O	0	0
			11	11		
44	J	13	Total	O	0	0
			13	13		
44	K	12	Total	O	0	0
			12	12		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
44	L	19	Total O 19 19	0	0
44	M	6	Total O 6 6	0	0
44	O	148	Total O 148 148	0	0
44	T	13	Total O 13 13	0	0
44	U	80	Total O 80 80	0	0
44	V	121	Total O 121 121	0	0
44	Y	5	Total O 5 5	0	0
44	X	14	Total O 14 14	0	0
44	Z	1	Total O 1 1	0	0
44	a	135	Total O 135 135	0	0
44	b	265	Total O 268 268	0	3
44	c	229	Total O 229 229	0	0
44	d	135	Total O 135 135	0	0
44	e	23	Total O 23 23	0	0
44	f	9	Total O 9 9	0	0
44	h	32	Total O 32 32	0	0
44	i	12	Total O 12 12	0	0
44	j	15	Total O 15 15	0	0
44	k	8	Total O 8 8	0	0
44	l	13	Total O 14 14	0	1
44	m	9	Total O 9 9	0	0

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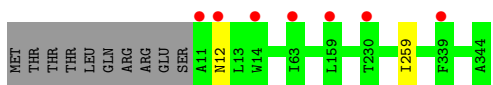
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
44	o	130	Total O 131 131	0	1
44	t	11	Total O 11 11	0	0
44	u	90	Total O 91 91	0	1
44	v	98	Total O 100 100	0	2
44	y	8	Total O 8 8	0	0
44	x	12	Total O 12 12	0	0
44	z	4	Total O 4 4	0	0
44	R	1	Total O 1 1	0	0

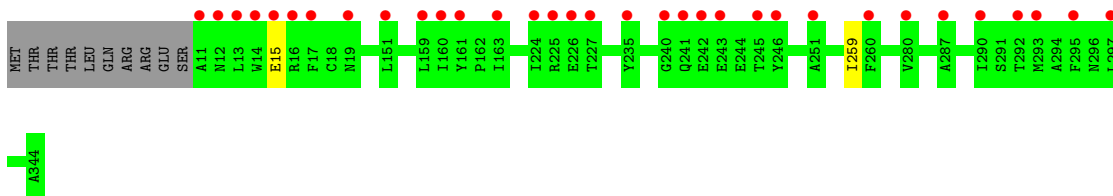
3 Residue-property plots [i](#)

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

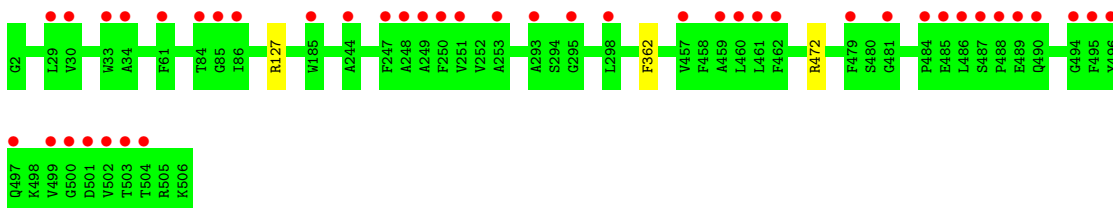
- Molecule 1: Photosystem II protein D1



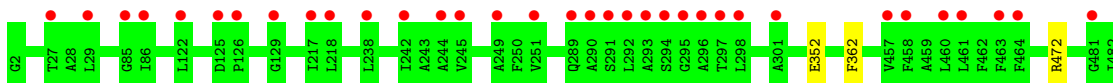
- Molecule 1: Photosystem II protein D1

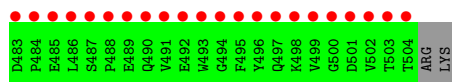


- Molecule 2: Photosystem II CP47 reaction center protein

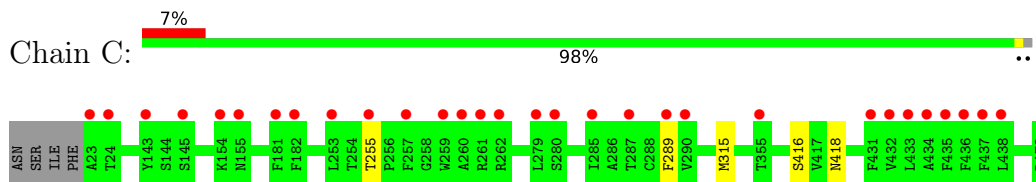


- Molecule 2: Photosystem II CP47 reaction center protein

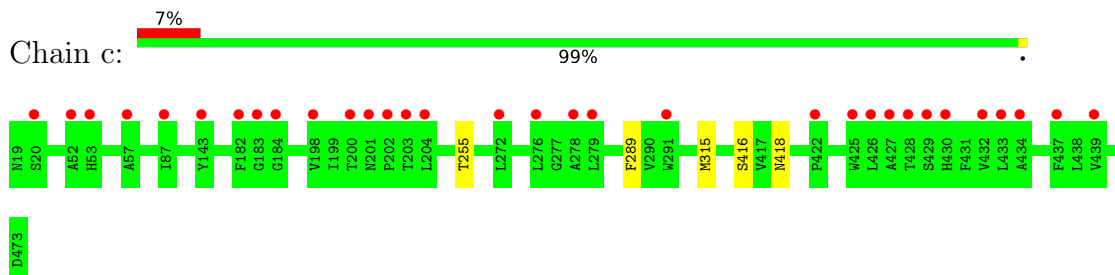




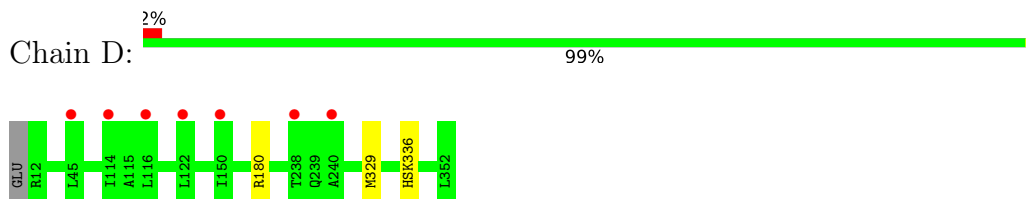
- Molecule 3: Photosystem II CP43 reaction center protein



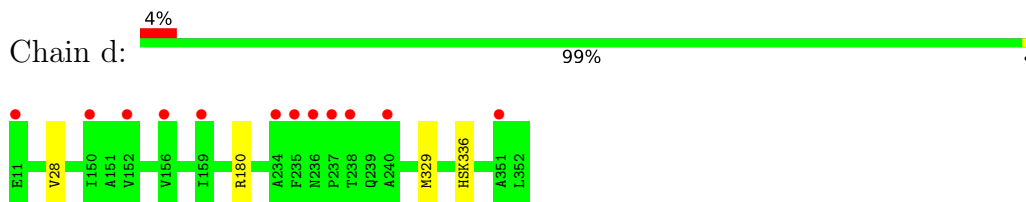
- Molecule 3: Photosystem II CP43 reaction center protein



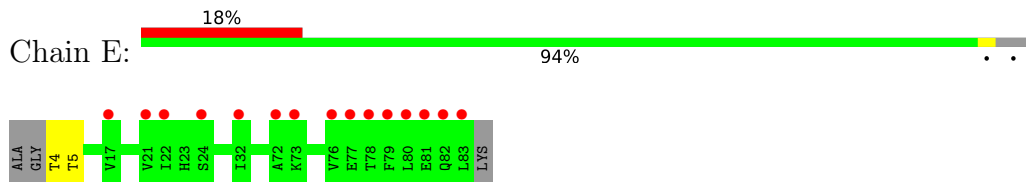
- Molecule 4: Photosystem II D2 protein



- Molecule 4: Photosystem II D2 protein

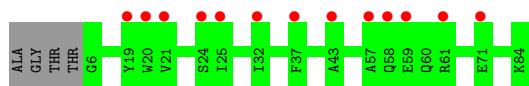


- Molecule 5: Cytochrome b559 subunit alpha

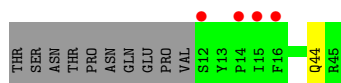
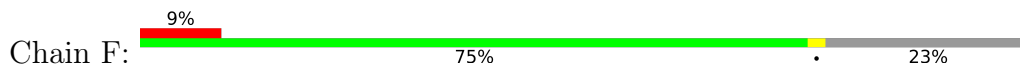


- Molecule 5: Cytochrome b559 subunit alpha

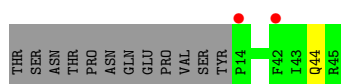




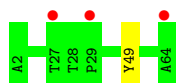
- Molecule 6: Cytochrome b559 subunit beta



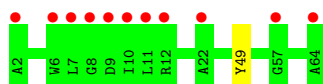
- Molecule 6: Cytochrome b559 subunit beta



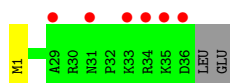
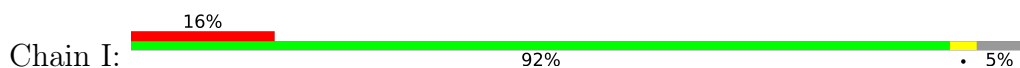
- Molecule 7: Photosystem II reaction center protein H



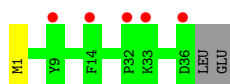
- Molecule 7: Photosystem II reaction center protein H




- Molecule 8: Photosystem II reaction center protein I



- Molecule 8: Photosystem II reaction center protein I



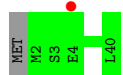
- Molecule 9: Photosystem II reaction center protein J

Chain J:  90% 10%



- Molecule 9: Photosystem II reaction center protein J

Chain j:  2% 98%



- Molecule 10: Photosystem II reaction center protein K

Chain K:  3% 97%



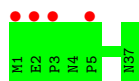
- Molecule 10: Photosystem II reaction center protein K

Chain k:  5% 100%



- Molecule 11: Photosystem II reaction center protein L

Chain L:  11% 100%

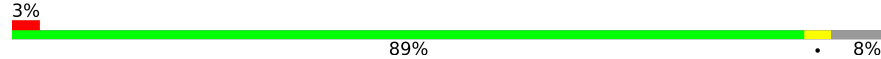


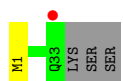
- Molecule 11: Photosystem II reaction center protein L

Chain l:  97%

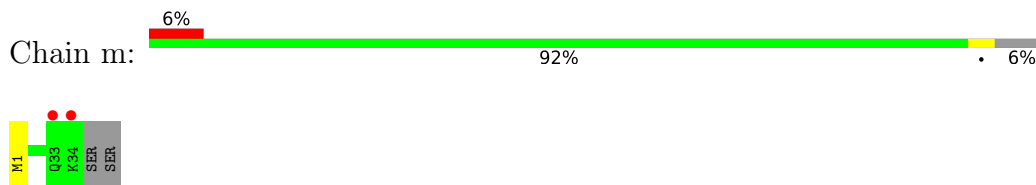


- Molecule 12: Photosystem II reaction center protein M

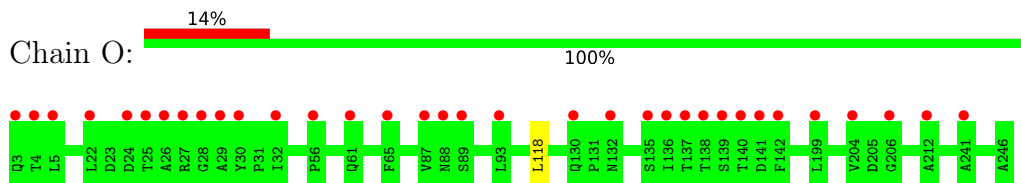
Chain M:  3% 89% 8%



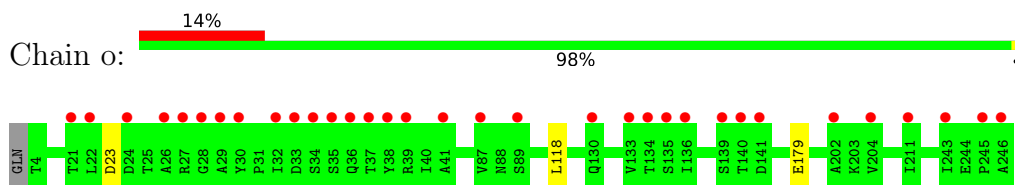
- Molecule 12: Photosystem II reaction center protein M



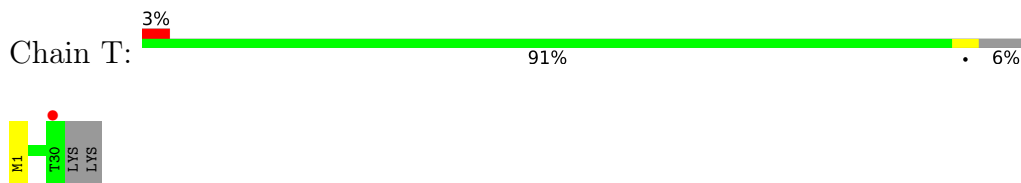
- Molecule 13: Photosystem II manganese-stabilizing polypeptide



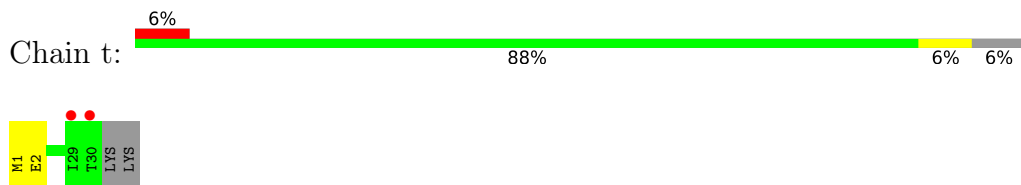
- Molecule 13: Photosystem II manganese-stabilizing polypeptide



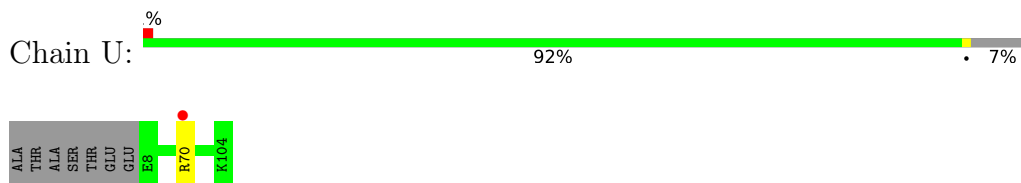
- Molecule 14: Photosystem II reaction center protein T



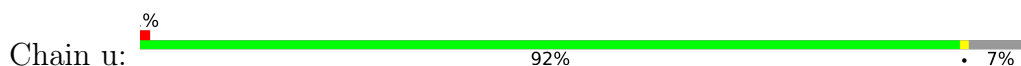
- Molecule 14: Photosystem II reaction center protein T

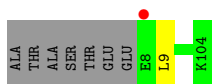


- Molecule 15: Photosystem II 12 kDa extrinsic protein

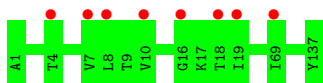


- Molecule 15: Photosystem II 12 kDa extrinsic protein

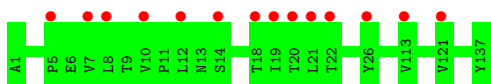




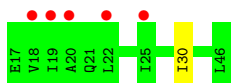
- Molecule 16: Cytochrome c-550



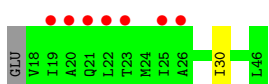
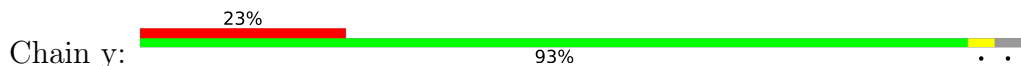
- Molecule 16: Cytochrome c-550



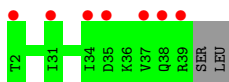
- Molecule 17: Photosystem II reaction center protein Ycf12



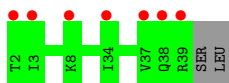
- Molecule 17: Photosystem II reaction center protein Ycf12



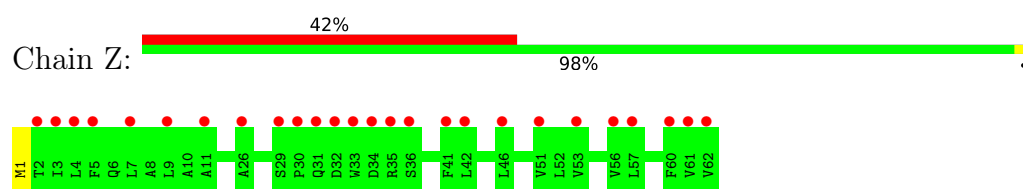
- Molecule 18: Photosystem II reaction center protein X



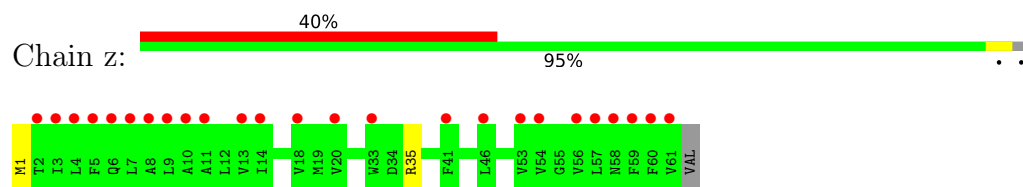
- Molecule 18: Photosystem II reaction center protein X



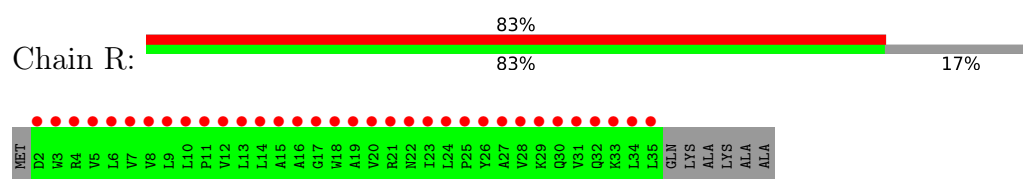
- Molecule 19: Photosystem II reaction center protein Z



- Molecule 19: Photosystem II reaction center protein Z



- Molecule 20: Photosystem II protein Y



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	122.19Å 228.46Å 286.63Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.02 – 2.10 49.02 – 2.00	Depositor EDS
% Data completeness (in resolution range)	99.2 (49.02-2.10) 85.3 (49.02-2.00)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.46 (at 2.00Å)	Xtrriage
Refinement program	REFMAC 5.8.0258, PHENIX 1.17.1_3660	Depositor
R, R_{free}	0.157 , 0.191 0.163 , 0.194	Depositor DCC
R_{free} test set	22959 reflections (4.31%)	wwPDB-VP
Wilson B-factor (Å ²)	36.9	Xtrriage
Anisotropy	0.562	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.33 , 76.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.97	EDS
Total number of atoms	54282	wwPDB-VP
Average B, all atoms (Å ²)	59.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.74% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: BCT, LMG, OEX, SQD, GOL, LMT, HTG, BCR, K2I, CLA, LHG, MG, PHO, FE2, HSK, FME, RRX, UNL, CA, PL9, HEM, HEC, DGD, DMS, CL

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.43	0/2704	0.54	0/3690
1	a	0.41	0/2713	0.53	0/3700
2	B	0.41	0/4149	0.54	0/5652
2	b	0.40	0/4123	0.53	0/5619
3	C	0.38	0/3613	0.49	0/4919
3	c	0.37	0/3632	0.50	0/4945
4	D	0.45	0/2804	0.56	0/3820
4	d	0.43	0/2827	0.52	0/3850
5	E	0.35	0/671	0.49	0/918
5	e	0.33	0/648	0.49	0/887
6	F	0.35	0/284	0.48	0/387
6	f	0.34	0/265	0.46	0/360
7	H	0.38	0/511	0.49	0/697
7	h	0.35	0/511	0.50	0/697
8	I	0.30	0/290	0.44	0/393
8	i	0.34	0/293	0.47	0/396
9	J	0.35	0/257	0.48	0/349
9	j	0.33	0/277	0.49	0/376
10	K	0.34	0/306	0.44	0/422
10	k	0.35	0/296	0.47	0/408
11	L	0.49	0/308	0.49	0/420
11	l	0.47	0/314	0.49	0/428
12	M	0.37	0/257	0.57	0/352
12	m	0.41	0/266	0.48	0/363
13	O	0.37	0/1901	0.58	0/2579
13	o	0.37	0/1905	0.58	0/2583
14	T	0.44	0/255	0.45	0/346
14	t	0.40	0/255	0.44	0/346
15	U	0.41	0/792	0.56	0/1073
15	u	0.40	0/785	0.55	0/1064
16	V	0.38	0/1083	0.55	0/1470

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	v	0.33	0/1073	0.51	0/1461
17	Y	0.30	0/221	0.42	0/296
17	y	0.30	0/213	0.46	0/285
18	X	0.30	0/278	0.42	0/376
18	x	0.30	0/284	0.46	0/384
19	Z	0.31	0/459	0.43	0/630
19	z	0.28	0/454	0.42	0/622
20	R	0.25	0/209	0.41	0/290
All	All	0.39	0/42486	0.52	0/57853

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 [i](#)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

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	A	335/344 (97%)	331 (99%)	3 (1%)	1 (0%)	41	41
1	a	335/344 (97%)	330 (98%)	4 (1%)	1 (0%)	41	41
2	B	508/505 (101%)	502 (99%)	6 (1%)	0	100	100
2	b	509/505 (101%)	503 (99%)	6 (1%)	0	100	100
3	C	451/455 (99%)	442 (98%)	8 (2%)	1 (0%)	47	49
3	c	453/455 (100%)	443 (98%)	9 (2%)	1 (0%)	47	49

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	D	339/342 (99%)	331 (98%)	8 (2%)	0	100	100
4	d	342/342 (100%)	335 (98%)	7 (2%)	0	100	100
5	E	79/83 (95%)	79 (100%)	0	0	100	100
5	e	77/83 (93%)	77 (100%)	0	0	100	100
6	F	32/44 (73%)	32 (100%)	0	0	100	100
6	f	30/44 (68%)	30 (100%)	0	0	100	100
7	H	61/63 (97%)	59 (97%)	2 (3%)	0	100	100
7	h	61/63 (97%)	59 (97%)	2 (3%)	0	100	100
8	I	34/38 (90%)	33 (97%)	1 (3%)	0	100	100
8	i	34/38 (90%)	33 (97%)	1 (3%)	0	100	100
9	J	34/40 (85%)	32 (94%)	2 (6%)	0	100	100
9	j	37/40 (92%)	37 (100%)	0	0	100	100
10	K	36/37 (97%)	36 (100%)	0	0	100	100
10	k	35/37 (95%)	35 (100%)	0	0	100	100
11	L	36/37 (97%)	36 (100%)	0	0	100	100
11	l	36/37 (97%)	36 (100%)	0	0	100	100
12	M	32/36 (89%)	32 (100%)	0	0	100	100
12	m	33/36 (92%)	33 (100%)	0	0	100	100
13	O	244/244 (100%)	239 (98%)	5 (2%)	0	100	100
13	o	244/244 (100%)	239 (98%)	5 (2%)	0	100	100
14	T	28/32 (88%)	28 (100%)	0	0	100	100
14	t	28/32 (88%)	28 (100%)	0	0	100	100
15	U	96/104 (92%)	93 (97%)	3 (3%)	0	100	100
15	u	95/104 (91%)	92 (97%)	3 (3%)	0	100	100
16	V	136/137 (99%)	133 (98%)	3 (2%)	0	100	100
16	v	135/137 (98%)	132 (98%)	3 (2%)	0	100	100
17	Y	28/30 (93%)	28 (100%)	0	0	100	100
17	y	27/30 (90%)	27 (100%)	0	0	100	100
18	X	36/40 (90%)	35 (97%)	1 (3%)	0	100	100
18	x	37/40 (92%)	36 (97%)	1 (3%)	0	100	100
19	Z	60/62 (97%)	59 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	z	59/62 (95%)	58 (98%)	1 (2%)	0	100	100
20	R	32/41 (78%)	32 (100%)	0	0	100	100
All	All	5244/5387 (97%)	5155 (98%)	85 (2%)	4 (0%)	51	54

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	c	416	SER
3	C	416	SER
1	A	259	ILE
1	a	259	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	A	267/279 (96%)	266 (100%)	1 (0%)	91	94
1	a	270/279 (97%)	269 (100%)	1 (0%)	91	94
2	B	405/403 (100%)	402 (99%)	3 (1%)	84	88
2	b	398/403 (99%)	394 (99%)	4 (1%)	76	82
3	C	354/356 (99%)	350 (99%)	4 (1%)	73	79
3	c	355/356 (100%)	351 (99%)	4 (1%)	73	79
4	D	275/276 (100%)	273 (99%)	2 (1%)	84	88
4	d	278/276 (101%)	275 (99%)	3 (1%)	73	79
5	E	70/72 (97%)	68 (97%)	2 (3%)	42	46
5	e	66/72 (92%)	66 (100%)	0	100	100
6	F	28/38 (74%)	27 (96%)	1 (4%)	35	36
6	f	26/38 (68%)	25 (96%)	1 (4%)	33	34
7	H	53/53 (100%)	52 (98%)	1 (2%)	57	63
7	h	53/53 (100%)	52 (98%)	1 (2%)	57	63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	I	31/34 (91%)	31 (100%)	0	100	100
8	i	32/34 (94%)	32 (100%)	0	100	100
9	J	23/28 (82%)	23 (100%)	0	100	100
9	j	25/28 (89%)	25 (100%)	0	100	100
10	K	30/30 (100%)	29 (97%)	1 (3%)	38	40
10	k	28/30 (93%)	28 (100%)	0	100	100
11	L	33/35 (94%)	33 (100%)	0	100	100
11	l	35/35 (100%)	35 (100%)	0	100	100
12	M	29/32 (91%)	29 (100%)	0	100	100
12	m	30/32 (94%)	30 (100%)	0	100	100
13	O	205/207 (99%)	204 (100%)	1 (0%)	88	92
13	o	206/207 (100%)	203 (98%)	3 (2%)	65	71
14	T	25/28 (89%)	25 (100%)	0	100	100
14	t	25/28 (89%)	24 (96%)	1 (4%)	31	32
15	U	84/89 (94%)	82 (98%)	2 (2%)	49	53
15	u	84/89 (94%)	83 (99%)	1 (1%)	71	77
16	V	115/117 (98%)	115 (100%)	0	100	100
16	v	114/117 (97%)	114 (100%)	0	100	100
17	Y	22/23 (96%)	21 (96%)	1 (4%)	27	27
17	y	21/23 (91%)	20 (95%)	1 (5%)	25	24
18	X	29/33 (88%)	29 (100%)	0	100	100
18	x	29/33 (88%)	29 (100%)	0	100	100
19	Z	45/51 (88%)	45 (100%)	0	100	100
19	z	43/51 (84%)	42 (98%)	1 (2%)	50	55
20	R	11/33 (33%)	11 (100%)	0	100	100
All	All	4252/4401 (97%)	4212 (99%)	40 (1%)	78	84

5 of 40 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	d	28	VAL
13	o	179	GLU
4	d	180	ARG

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Mol	Chain	Res	Type
7	h	49	TYR
15	u	9	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

12 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	HSK	d	336[A]	-	7,10,12	1.07	1 (14%)	3,12,16	1.15	0
14	FME	t	1	14	8,9,10	0.66	0	7,9,11	1.79	2 (28%)
8	FME	i	1	8	8,9,10	0.58	0	7,9,11	1.59	2 (28%)
8	FME	I	1	8	8,9,10	0.60	0	7,9,11	1.56	2 (28%)
19	FME	Z	1	19	8,9,10	0.63	0	7,9,11	1.81	2 (28%)
14	FME	T	1	14	8,9,10	0.66	0	7,9,11	1.65	2 (28%)
12	FME	M	1	12	8,9,10	0.73	0	7,9,11	1.33	1 (14%)
4	HSK	d	336[B]	-	7,11,12	1.32	1 (14%)	3,14,16	1.53	1 (33%)
12	FME	m	1	12	8,9,10	0.56	0	7,9,11	1.32	1 (14%)
4	HSK	D	336[B]	-	7,11,12	1.31	1 (14%)	3,14,16	1.51	1 (33%)
4	HSK	D	336[A]	-	7,10,12	1.07	1 (14%)	3,12,16	1.40	0
19	FME	z	1	19	8,9,10	0.62	0	7,9,11	1.63	4 (57%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the

Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	HSK	d	336[A]	-	-	0/5/6/8	0/1/1/1
14	FME	t	1	14	-	3/7/9/11	-
8	FME	i	1	8	-	0/7/9/11	-
8	FME	I	1	8	-	2/7/9/11	-
19	FME	Z	1	19	-	3/7/9/11	-
14	FME	T	1	14	-	2/7/9/11	-
12	FME	M	1	12	-	1/7/9/11	-
4	HSK	d	336[B]	-	-	0/5/6/8	0/1/1/1
12	FME	m	1	12	-	1/7/9/11	-
4	HSK	D	336[B]	-	-	0/5/6/8	0/1/1/1
4	HSK	D	336[A]	-	-	0/5/6/8	0/1/1/1
19	FME	z	1	19	-	4/7/9/11	-

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	336[B]	HSK	CE1-ND1	-3.06	1.33	1.36
4	d	336[B]	HSK	CE1-ND1	-2.97	1.33	1.36
4	D	336[A]	HSK	CE1-ND1	-2.43	1.33	1.36
4	d	336[A]	HSK	CE1-ND1	-2.19	1.34	1.36

The worst 5 of 18 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	Z	1	FME	CE-SD-CG	2.98	110.64	100.40
14	t	1	FME	O-C-CA	-2.54	118.12	124.78
14	T	1	FME	CE-SD-CG	2.53	109.10	100.40
4	d	336[B]	HSK	CD2-NE2-CE1	2.47	109.63	105.78
4	D	336[B]	HSK	CD2-NE2-CE1	2.40	109.52	105.78

There are no chirality outliers.

5 of 16 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
19	Z	1	FME	CA-CB-CG-SD
12	m	1	FME	O1-CN-N-CA
14	t	1	FME	N-CA-CB-CG
19	z	1	FME	N-CA-CB-CG
19	z	1	FME	C-CA-CB-CG

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 399 ligands modelled in this entry, 13 are monoatomic and 44 are unknown - leaving 342 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
34	DMS	o	2607	-	3,3,3	2.67	1 (33%)	3,3,3	0.55	0
24	CLA	b	619	-	65,73,73	2.51	19 (29%)	76,113,113	2.49	25 (32%)
34	DMS	v	212	-	3,3,3	2.67	1 (33%)	3,3,3	0.58	0
24	CLA	c	505	-	65,73,73	2.87	19 (29%)	76,113,113	2.28	25 (32%)
26	BCR	T	101	-	41,41,41	0.72	0	56,56,56	1.67	14 (25%)
24	CLA	C	504	-	65,73,73	2.60	18 (27%)	76,113,113	2.34	23 (30%)
39	LHG	D	411	-	43,43,48	0.93	2 (4%)	46,49,54	1.00	3 (6%)
37	GOL	V	203	-	5,5,5	0.96	0	5,5,5	0.89	0
34	DMS	O	313	-	3,3,3	2.67	1 (33%)	3,3,3	0.54	0
24	CLA	C	507	-	65,73,73	2.77	19 (29%)	76,113,113	2.55	24 (31%)
34	DMS	A	425	-	3,3,3	2.68	1 (33%)	3,3,3	0.55	0
37	GOL	o	2601	-	5,5,5	1.01	0	5,5,5	0.85	0
27	SQD	B	621	-	53,54,54	1.07	4 (7%)	62,65,65	1.52	8 (12%)
34	DMS	O	304	-	3,3,3	2.67	1 (33%)	3,3,3	0.52	0
34	DMS	B	645	-	3,3,3	2.68	1 (33%)	3,3,3	0.47	0
24	CLA	b	618	-	65,73,73	2.40	18 (27%)	76,113,113	2.32	25 (32%)
24	CLA	B	616	-	65,73,73	2.43	19 (29%)	76,113,113	2.51	27 (35%)
34	DMS	C	539	-	3,3,3	2.76	1 (33%)	3,3,3	0.70	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
27	SQD	a	2102	-	52,53,54	1.02	3 (5%)	61,64,65	1.22	5 (8%)
28	LMG	D	412	42	44,44,55	0.93	2 (4%)	52,52,63	0.90	4 (7%)
36	HTG	O	302	-	19,19,19	0.99	1 (5%)	23,24,24	0.96	2 (8%)
26	BCR	c	528	-	41,41,41	0.72	0	56,56,56	1.45	9 (16%)
34	DMS	d	420	-	3,3,3	2.70	1 (33%)	3,3,3	0.57	0
34	DMS	B	649	-	3,3,3	2.67	1 (33%)	3,3,3	0.51	0
24	CLA	c	509	44	65,73,73	2.54	20 (30%)	76,113,113	2.50	25 (32%)
36	HTG	B	626	-	19,19,19	1.08	2 (10%)	23,24,24	1.57	3 (13%)
34	DMS	d	419	-	3,3,3	2.66	1 (33%)	3,3,3	0.50	0
37	GOL	Z	102	-	5,5,5	0.97	0	5,5,5	0.83	0
34	DMS	C	538	-	3,3,3	2.70	1 (33%)	3,3,3	0.53	0
41	RRX	h	702	-	42,42,42	0.71	0	57,58,58	1.37	9 (15%)
31	PL9	D	407	-	55,55,55	0.72	2 (3%)	68,69,69	1.58	15 (22%)
41	RRX	H	101	-	42,42,42	0.74	0	57,58,58	1.33	8 (14%)
29	LMT	m	103	-	36,36,36	0.47	0	47,47,47	1.03	4 (8%)
36	HTG	i	103	-	19,19,19	0.97	2 (10%)	23,24,24	1.25	1 (4%)
34	DMS	u	203	-	3,3,3	2.63	1 (33%)	3,3,3	0.59	0
34	DMS	b	641	-	3,3,3	2.72	1 (33%)	3,3,3	0.59	0
24	CLA	B	607	-	65,73,73	2.50	19 (29%)	76,113,113	2.47	24 (31%)
28	LMG	B	622	-	51,51,55	0.93	2 (3%)	59,59,63	1.02	4 (6%)
34	DMS	o	2604	-	3,3,3	2.67	1 (33%)	3,3,3	0.49	0
26	BCR	b	621	-	41,41,41	0.84	0	56,56,56	1.20	6 (10%)
34	DMS	z	1802	-	3,3,3	2.68	1 (33%)	3,3,3	0.56	0
24	CLA	b	614	-	65,73,73	2.59	20 (30%)	76,113,113	2.47	27 (35%)
34	DMS	O	309	-	3,3,3	2.68	1 (33%)	3,3,3	0.65	0
34	DMS	v	205	-	3,3,3	2.63	1 (33%)	3,3,3	0.54	0
34	DMS	O	306	-	3,3,3	2.72	1 (33%)	3,3,3	0.55	0
34	DMS	c	536	-	3,3,3	2.75	1 (33%)	3,3,3	0.61	0
34	DMS	c	533	-	3,3,3	2.68	1 (33%)	3,3,3	0.57	0
36	HTG	B	628	-	19,19,19	1.02	2 (10%)	23,24,24	1.58	4 (17%)
34	DMS	b	635	-	3,3,3	2.66	1 (33%)	3,3,3	0.52	0
29	LMT	A	420	-	36,36,36	0.56	1 (2%)	47,47,47	1.35	5 (10%)
34	DMS	v	210	-	3,3,3	2.67	1 (33%)	3,3,3	0.54	0
34	DMS	c	535	-	3,3,3	2.68	1 (33%)	3,3,3	0.61	0
39	LHG	E	101	-	48,48,48	0.95	2 (4%)	51,54,54	1.06	3 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
24	CLA	b	612	-	65,73,73	2.57	20 (30%)	76,113,113	2.40	26 (34%)
34	DMS	C	528	-	3,3,3	2.63	1 (33%)	3,3,3	0.45	0
34	DMS	O	314	-	3,3,3	2.67	1 (33%)	3,3,3	0.49	0
34	DMS	o	2606	-	3,3,3	2.66	1 (33%)	3,3,3	0.56	0
24	CLA	C	509	-	65,73,73	2.61	19 (29%)	76,113,113	2.38	21 (27%)
24	CLA	c	511	-	65,73,73	2.81	20 (30%)	76,113,113	2.37	24 (31%)
34	DMS	V	209	-	3,3,3	2.64	1 (33%)	3,3,3	0.57	0
34	DMS	V	206	-	3,3,3	2.69	1 (33%)	3,3,3	0.57	0
37	GOL	D	403	-	5,5,5	1.15	0	5,5,5	0.87	0
34	DMS	b	638	-	3,3,3	2.69	1 (33%)	3,3,3	0.56	0
24	CLA	D	405	-	65,73,73	2.49	21 (32%)	76,113,113	2.43	26 (34%)
28	LMG	d	411	42	48,48,55	0.95	2 (4%)	56,56,63	1.04	2 (3%)
34	DMS	O	311	-	3,3,3	2.70	1 (33%)	3,3,3	0.61	0
24	CLA	d	404	-	65,73,73	2.43	19 (29%)	76,113,113	2.38	24 (31%)
24	CLA	c	507	-	65,73,73	2.62	20 (30%)	76,113,113	2.37	23 (30%)
37	GOL	C	524	-	5,5,5	0.90	0	5,5,5	0.97	0
29	LMT	B	623	-	36,36,36	0.39	0	47,47,47	1.33	7 (14%)
24	CLA	b	609	-	65,73,73	2.47	20 (30%)	76,113,113	2.36	24 (31%)
24	CLA	b	607	-	65,73,73	2.92	20 (30%)	76,113,113	2.44	25 (32%)
28	LMG	C	520	-	51,51,55	0.94	2 (3%)	59,59,63	1.16	5 (8%)
26	BCR	t	102	-	41,41,41	0.72	0	56,56,56	1.55	17 (30%)
24	CLA	c	508	-	65,73,73	2.54	20 (30%)	76,113,113	2.48	27 (35%)
24	CLA	B	610	-	65,73,73	2.64	20 (30%)	76,113,113	2.42	24 (31%)
38	DGD	H	102	-	63,63,67	0.88	3 (4%)	77,77,81	1.02	5 (6%)
24	CLA	A	405	-	65,73,73	2.45	20 (30%)	76,113,113	2.46	27 (35%)
24	CLA	C	511	-	65,73,73	2.56	20 (30%)	76,113,113	2.44	28 (36%)
34	DMS	i	106	-	3,3,3	2.64	1 (33%)	3,3,3	0.46	0
24	CLA	C	508	44	65,73,73	2.66	20 (30%)	76,113,113	2.38	25 (32%)
26	BCR	Y	302	-	41,41,41	0.77	0	56,56,56	1.62	10 (17%)
26	BCR	B	618	-	41,41,41	0.75	0	56,56,56	1.39	6 (10%)
37	GOL	U	502	-	5,5,5	0.85	0	5,5,5	0.97	0
36	HTG	d	403	-	19,19,19	1.10	2 (10%)	23,24,24	1.06	2 (8%)
26	BCR	b	622	-	41,41,41	0.79	1 (2%)	56,56,56	1.40	6 (10%)
34	DMS	B	647	-	3,3,3	2.69	1 (33%)	3,3,3	0.46	0
34	DMS	b	632	-	3,3,3	2.45	1 (33%)	3,3,3	0.57	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
24	CLA	b	606	-	65,73,73	2.55	20 (30%)	76,113,113	2.46	29 (38%)
34	DMS	D	419	-	3,3,3	2.67	1 (33%)	3,3,3	0.56	0
24	CLA	b	604	44	65,73,73	2.51	21 (32%)	76,113,113	2.36	23 (30%)
34	DMS	e	104	-	3,3,3	2.68	1 (33%)	3,3,3	0.57	0
36	HTG	c	526	-	19,19,19	1.08	2 (10%)	23,24,24	1.17	1 (4%)
37	GOL	B	632	-	5,5,5	0.98	0	5,5,5	0.81	0
34	DMS	b	633	-	3,3,3	2.62	1 (33%)	3,3,3	0.59	0
34	DMS	b	643	-	3,3,3	2.68	1 (33%)	3,3,3	0.54	0
36	HTG	B	624	-	19,19,19	1.10	1 (5%)	23,24,24	1.27	2 (8%)
26	BCR	a	2114	-	41,41,41	0.75	0	56,56,56	1.32	6 (10%)
24	CLA	b	608	-	65,73,73	2.23	19 (29%)	76,113,113	2.62	23 (30%)
29	LMT	B	636	-	36,36,36	0.49	0	47,47,47	1.06	4 (8%)
37	GOL	o	2603	-	5,5,5	0.83	0	5,5,5	1.08	0
39	LHG	d	408	-	48,48,48	0.93	2 (4%)	51,54,54	1.12	4 (7%)
39	LHG	l	101	-	48,48,48	0.87	2 (4%)	51,54,54	1.13	3 (5%)
25	PHO	a	2112	-	51,69,69	1.80	8 (15%)	47,99,99	1.93	9 (19%)
24	CLA	C	510	-	65,73,73	2.64	21 (32%)	76,113,113	2.47	25 (32%)
32	K2I	a	2119	-	8,10,10	1.37	2 (25%)	10,14,14	1.56	3 (30%)
38	DGD	D	408	-	46,46,67	1.03	2 (4%)	53,54,81	1.16	4 (7%)
24	CLA	a	2109	-	65,73,73	2.61	19 (29%)	76,113,113	2.50	26 (34%)
36	HTG	c	524	-	19,19,19	1.08	2 (10%)	23,24,24	1.58	2 (8%)
24	CLA	B	608	44	65,73,73	2.54	18 (27%)	76,113,113	2.39	27 (35%)
34	DMS	t	103	-	3,3,3	2.71	1 (33%)	3,3,3	0.60	0
24	CLA	B	606	-	65,73,73	2.35	19 (29%)	76,113,113	2.49	22 (28%)
29	LMT	z	1801	-	33,33,36	0.43	0	43,43,47	0.97	2 (4%)
34	DMS	u	204	-	3,3,3	2.72	1 (33%)	3,3,3	0.64	0
26	BCR	C	515	-	41,41,41	0.75	0	56,56,56	1.45	7 (12%)
24	CLA	b	613	44	65,73,73	2.42	20 (30%)	76,113,113	2.47	28 (36%)
34	DMS	O	308	-	3,3,3	2.67	1 (33%)	3,3,3	0.52	0
34	DMS	d	417	-	3,3,3	2.69	1 (33%)	3,3,3	0.59	0
25	PHO	A	408	-	51,69,69	1.90	7 (13%)	47,99,99	1.82	9 (19%)
34	DMS	b	642	-	3,3,3	2.71	1 (33%)	3,3,3	0.59	0
24	CLA	B	615	-	65,73,73	2.33	19 (29%)	76,113,113	2.65	25 (32%)
37	GOL	d	415	-	5,5,5	0.90	0	5,5,5	0.99	0
34	DMS	V	207	-	3,3,3	2.65	1 (33%)	3,3,3	0.53	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
34	DMS	c	529	-	3,3,3	2.61	1 (33%)	3,3,3	0.34	0
24	CLA	C	512	3	65,73,73	2.78	21 (32%)	76,113,113	2.41	27 (35%)
34	DMS	c	530	-	3,3,3	2.62	1 (33%)	3,3,3	0.46	0
34	DMS	B	638	-	3,3,3	2.67	1 (33%)	3,3,3	0.48	0
36	HTG	d	414	-	19,19,19	1.01	2 (10%)	23,24,24	1.26	1 (4%)
38	DGD	c	520	-	63,63,67	0.84	3 (4%)	77,77,81	0.97	5 (6%)
34	DMS	C	536	-	3,3,3	2.69	1 (33%)	3,3,3	0.60	0
34	DMS	C	533	-	3,3,3	2.66	1 (33%)	3,3,3	0.51	0
34	DMS	D	417	-	3,3,3	2.69	1 (33%)	3,3,3	0.48	0
38	DGD	h	703	-	63,63,67	0.92	3 (4%)	77,77,81	1.06	6 (7%)
24	CLA	c	513	3	65,73,73	2.50	18 (27%)	76,113,113	2.38	29 (38%)
34	DMS	d	422	-	3,3,3	2.67	1 (33%)	3,3,3	0.51	0
24	CLA	c	515	-	65,73,73	2.63	21 (32%)	76,113,113	2.32	23 (30%)
27	SQD	A	413	-	53,54,54	1.04	3 (5%)	62,65,65	1.29	6 (9%)
40	HEM	F	102	6,5	41,50,50	1.92	6 (14%)	45,82,82	1.70	9 (20%)
34	DMS	B	643	-	3,3,3	2.71	1 (33%)	3,3,3	0.60	0
26	BCR	b	620	-	41,41,41	0.78	0	56,56,56	1.38	4 (7%)
26	BCR	c	516	-	41,41,41	0.75	0	56,56,56	1.56	9 (16%)
26	BCR	D	406	-	41,41,41	0.82	1 (2%)	56,56,56	1.60	8 (14%)
38	DGD	C	518	-	63,63,67	0.84	2 (3%)	77,77,81	1.06	5 (6%)
34	DMS	T	106	-	3,3,3	2.70	1 (33%)	3,3,3	0.56	0
28	LMG	b	623	-	51,51,55	0.93	2 (3%)	59,59,63	1.01	2 (3%)
34	DMS	B	646	-	3,3,3	2.68	1 (33%)	3,3,3	0.51	0
37	GOL	c	527	-	5,5,5	0.76	0	5,5,5	1.03	0
37	GOL	a	2101	-	5,5,5	1.02	0	5,5,5	1.12	0
24	CLA	b	617	-	65,73,73	2.47	19 (29%)	76,113,113	2.50	27 (35%)
34	DMS	c	541	-	3,3,3	2.67	1 (33%)	3,3,3	0.48	0
43	HEC	v	201	16	32,50,50	2.34	6 (18%)	24,82,82	1.75	4 (16%)
27	SQD	f	102	-	35,36,54	1.65	3 (8%)	40,41,65	1.40	5 (12%)
21	OEX	A	401	44,3,1	0,15,15	-	-	-	-	-
37	GOL	H	103	-	5,5,5	0.95	0	5,5,5	0.86	0
26	BCR	A	410	-	41,41,41	0.82	0	56,56,56	1.43	8 (14%)
24	CLA	B	604	-	65,73,73	2.51	20 (30%)	76,113,113	2.46	25 (32%)
26	BCR	K	101	-	41,41,41	0.73	0	56,56,56	1.35	8 (14%)
27	SQD	A	411	-	48,49,54	1.03	3 (6%)	57,60,65	1.71	10 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
36	HTG	V	204	-	19,19,19	0.97	2 (10%)	23,24,24	1.88	5 (21%)
34	DMS	o	2608	-	3,3,3	2.65	1 (33%)	3,3,3	0.42	0
34	DMS	O	312	-	3,3,3	2.66	1 (33%)	3,3,3	0.54	0
34	DMS	b	640	-	3,3,3	2.66	1 (33%)	3,3,3	0.53	0
29	LMT	B	637	-	24,24,36	0.51	0	29,29,47	0.71	0
24	CLA	C	503	-	65,73,73	2.71	19 (29%)	76,113,113	2.49	25 (32%)
34	DMS	o	2612	-	3,3,3	2.72	1 (33%)	3,3,3	0.65	0
34	DMS	a	2121	-	3,3,3	2.51	1 (33%)	3,3,3	0.17	0
34	DMS	d	418	-	3,3,3	2.67	1 (33%)	3,3,3	0.48	0
29	LMT	I	1201	-	24,24,36	0.44	0	29,29,47	1.14	3 (10%)
24	CLA	b	610	44	65,73,73	2.66	19 (29%)	76,113,113	2.40	28 (36%)
34	DMS	c	532	-	3,3,3	2.58	1 (33%)	3,3,3	0.34	0
28	LMG	c	522	-	48,48,55	1.00	2 (4%)	56,56,63	1.25	6 (10%)
36	HTG	b	626	-	19,19,19	1.09	2 (10%)	23,24,24	1.33	2 (8%)
29	LMT	a	2103	-	36,36,36	0.39	0	47,47,47	1.22	5 (10%)
24	CLA	c	510	-	65,73,73	2.51	18 (27%)	76,113,113	2.50	23 (30%)
29	LMT	m	102	-	36,36,36	0.50	0	47,47,47	1.16	5 (10%)
34	DMS	b	634	-	3,3,3	2.72	1 (33%)	3,3,3	0.63	0
24	CLA	A	409	-	65,73,73	2.36	18 (27%)	76,113,113	2.50	28 (36%)
34	DMS	x	802	-	3,3,3	2.71	1 (33%)	3,3,3	0.65	0
38	DGD	c	518	-	63,63,67	0.81	2 (3%)	77,77,81	1.20	6 (7%)
34	DMS	b	639	-	3,3,3	2.63	1 (33%)	3,3,3	0.42	0
37	GOL	U	501	-	5,5,5	1.12	0	5,5,5	0.89	0
34	DMS	o	2609	-	3,3,3	2.68	1 (33%)	3,3,3	0.59	0
36	HTG	c	523	-	19,19,19	1.00	2 (10%)	23,24,24	1.68	4 (17%)
34	DMS	C	535	-	3,3,3	2.67	1 (33%)	3,3,3	0.47	0
24	CLA	b	611	-	65,73,73	2.53	19 (29%)	76,113,113	2.49	28 (36%)
36	HTG	C	522	-	19,19,19	0.98	1 (5%)	23,24,24	1.77	4 (17%)
32	K2I	A	419	-	8,10,10	1.30	1 (12%)	10,14,14	1.44	3 (30%)
24	CLA	b	605	-	65,73,73	2.56	20 (30%)	76,113,113	2.40	27 (35%)
28	LMG	C	526	-	48,48,55	0.98	2 (4%)	56,56,63	1.26	5 (8%)
34	DMS	a	2124	-	3,3,3	2.68	1 (33%)	3,3,3	0.52	0
37	GOL	O	303	-	5,5,5	0.94	0	5,5,5	0.92	0
34	DMS	B	640	-	3,3,3	2.70	1 (33%)	3,3,3	0.56	0
29	LMT	j	1601	-	22,22,36	0.64	1 (4%)	26,26,47	1.18	2 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
34	DMS	B	648	-	3,3,3	2.66	1 (33%)	3,3,3	0.36	0
34	DMS	T	104	-	3,3,3	2.67	1 (33%)	3,3,3	0.53	0
24	CLA	C	513	-	65,73,73	2.49	17 (26%)	76,113,113	2.53	29 (38%)
38	DGD	c	519	-	63,63,67	0.84	2 (3%)	77,77,81	1.07	4 (5%)
34	DMS	F	103	-	3,3,3	2.67	1 (33%)	3,3,3	0.71	0
26	BCR	C	516	-	41,41,41	0.73	0	56,56,56	1.54	10 (17%)
36	HTG	B	625[A]	-	19,19,19	1.01	1 (5%)	23,24,24	1.23	1 (4%)
24	CLA	B	605	-	65,73,73	2.58	19 (29%)	76,113,113	2.31	21 (27%)
24	CLA	D	404	-	65,73,73	2.20	18 (27%)	76,113,113	2.77	26 (34%)
24	CLA	b	616	-	65,73,73	2.56	19 (29%)	76,113,113	2.46	26 (34%)
34	DMS	a	2122	-	3,3,3	2.69	1 (33%)	3,3,3	0.55	0
36	HTG	C	521	-	19,19,19	1.02	2 (10%)	23,24,24	1.07	2 (8%)
34	DMS	D	416	-	3,3,3	2.68	1 (33%)	3,3,3	0.58	0
34	DMS	B	644	-	3,3,3	2.67	1 (33%)	3,3,3	0.58	0
43	HEC	V	201	16	32,50,50	2.20	6 (18%)	24,82,82	1.63	3 (12%)
24	CLA	B	611	44	65,73,73	2.38	19 (29%)	76,113,113	2.51	26 (34%)
24	CLA	C	506	-	65,73,73	2.72	20 (30%)	76,113,113	2.23	23 (30%)
39	LHG	D	409	-	48,48,48	0.88	2 (4%)	51,54,54	1.16	6 (11%)
39	LHG	L	101	-	48,48,48	0.94	2 (4%)	51,54,54	1.04	3 (5%)
26	BCR	k	2003	-	41,41,41	0.66	0	56,56,56	1.48	11 (19%)
34	DMS	B	641	-	3,3,3	2.55	1 (33%)	3,3,3	0.43	0
34	DMS	c	538	-	3,3,3	2.71	1 (33%)	3,3,3	0.62	0
24	CLA	D	401	44	65,73,73	2.29	19 (29%)	76,113,113	2.73	28 (36%)
34	DMS	d	421	-	3,3,3	2.69	1 (33%)	3,3,3	0.66	0
24	CLA	a	2110	44	65,73,73	2.36	17 (26%)	76,113,113	2.72	29 (38%)
34	DMS	V	210	-	3,3,3	2.66	1 (33%)	3,3,3	0.59	0
24	CLA	B	613	-	65,73,73	2.32	22 (33%)	76,113,113	2.55	23 (30%)
39	LHG	D	410	-	48,48,48	0.89	2 (4%)	51,54,54	0.92	3 (5%)
34	DMS	c	534	-	3,3,3	2.68	1 (33%)	3,3,3	0.56	0
39	LHG	d	409	-	48,48,48	0.80	2 (4%)	51,54,54	0.97	3 (5%)
37	GOL	k	2001	-	5,5,5	0.93	0	5,5,5	0.92	0
24	CLA	B	612	-	65,73,73	2.68	19 (29%)	76,113,113	2.53	26 (34%)
24	CLA	C	505	44	65,73,73	2.59	20 (30%)	76,113,113	2.37	24 (31%)
32	K2I	a	2118[A]	-	8,10,10	1.37	1 (12%)	10,14,14	2.36	4 (40%)
33	BCT	A	421	22	2,3,3	0.60	0	2,3,3	0.98	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
34	DMS	E	107	-	3,3,3	2.65	1 (33%)	3,3,3	0.52	0
24	CLA	c	514	-	65,73,73	2.68	20 (30%)	76,113,113	2.51	27 (35%)
26	BCR	c	517	-	41,41,41	0.77	0	56,56,56	1.53	10 (17%)
24	CLA	B	602	44	65,73,73	2.48	20 (30%)	76,113,113	2.42	22 (28%)
28	LMG	c	521	-	49,49,55	0.93	2 (4%)	57,57,63	1.12	5 (8%)
37	GOL	v	203	-	5,5,5	1.05	0	5,5,5	1.19	1 (20%)
24	CLA	A	406	44	65,73,73	2.23	21 (32%)	76,113,113	2.43	27 (35%)
21	OEX	a	2104	44,3,1	0,15,15	-	-	-	-	-
34	DMS	T	105	-	3,3,3	2.66	1 (33%)	3,3,3	0.53	0
36	HTG	B	625[B]	-	19,19,19	1.00	1 (5%)	23,24,24	1.47	4 (17%)
34	DMS	C	529	-	3,3,3	2.67	1 (33%)	3,3,3	0.52	0
34	DMS	E	108	-	3,3,3	2.69	1 (33%)	3,3,3	0.58	0
34	DMS	u	202	-	3,3,3	2.68	1 (33%)	3,3,3	0.71	0
34	DMS	v	214	-	3,3,3	2.76	1 (33%)	3,3,3	0.77	0
34	DMS	B	650	-	3,3,3	2.69	1 (33%)	3,3,3	0.53	0
34	DMS	C	530	-	3,3,3	2.69	1 (33%)	3,3,3	0.63	0
36	HTG	b	602	-	19,19,19	1.13	2 (10%)	23,24,24	1.81	4 (17%)
36	HTG	b	601	-	19,19,19	1.04	2 (10%)	23,24,24	1.57	4 (17%)
34	DMS	v	211	-	3,3,3	2.69	1 (33%)	3,3,3	0.57	0
34	DMS	v	207	-	3,3,3	2.63	1 (33%)	3,3,3	0.48	0
34	DMS	C	534	-	3,3,3	2.66	1 (33%)	3,3,3	0.61	0
39	LHG	d	410	-	35,35,48	1.10	2 (5%)	38,41,54	1.01	3 (7%)
34	DMS	V	208	-	3,3,3	2.67	1 (33%)	3,3,3	0.60	0
24	CLA	c	512	-	65,73,73	2.42	18 (27%)	76,113,113	2.34	24 (31%)
24	CLA	c	506	44	65,73,73	2.37	18 (27%)	76,113,113	2.59	27 (35%)
24	CLA	a	2113	-	65,73,73	2.28	18 (27%)	76,113,113	2.56	25 (32%)
24	CLA	d	405	-	65,73,73	2.51	19 (29%)	76,113,113	2.45	27 (35%)
36	HTG	B	627	-	19,19,19	1.04	2 (10%)	23,24,24	1.59	3 (13%)
34	DMS	C	527	-	3,3,3	2.69	1 (33%)	3,3,3	0.58	0
24	CLA	c	504	-	65,73,73	2.39	19 (29%)	76,113,113	2.36	23 (30%)
34	DMS	D	418	-	3,3,3	2.64	1 (33%)	3,3,3	0.49	0
31	PL9	x	801	-	38,38,55	0.40	0	45,45,69	1.77	15 (33%)
26	BCR	B	619	-	41,41,41	0.85	1 (2%)	56,56,56	1.13	5 (8%)
29	LMT	a	2120	-	36,36,36	0.48	0	47,47,47	1.20	6 (12%)
32	K2I	A	418[A]	-	8,10,10	1.34	0	10,14,14	2.63	4 (40%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
34	DMS	V	205	-	3,3,3	2.70	1 (33%)	3,3,3	0.57	0
34	DMS	c	542	-	3,3,3	2.64	1 (33%)	3,3,3	0.56	0
24	CLA	B	614	-	65,73,73	2.36	19 (29%)	76,113,113	2.44	25 (32%)
34	DMS	b	637	-	3,3,3	2.68	1 (33%)	3,3,3	0.57	0
24	CLA	B	617	-	65,73,73	2.40	19 (29%)	76,113,113	2.56	22 (28%)
29	LMT	b	624	-	25,25,36	0.44	0	30,30,47	1.15	3 (10%)
40	HEM	e	103	6,5	41,50,50	1.97	7 (17%)	45,82,82	1.65	7 (15%)
37	GOL	v	202	-	5,5,5	0.97	0	5,5,5	0.93	0
34	DMS	C	531	-	3,3,3	2.61	1 (33%)	3,3,3	0.52	0
34	DMS	O	307	-	3,3,3	2.66	1 (33%)	3,3,3	0.55	0
28	LMG	i	101	-	51,51,55	0.93	2 (3%)	59,59,63	1.12	4 (6%)
34	DMS	C	532	-	3,3,3	2.64	1 (33%)	3,3,3	0.38	0
34	DMS	a	2123	-	3,3,3	2.68	1 (33%)	3,3,3	0.52	0
34	DMS	A	423	-	3,3,3	2.69	1 (33%)	3,3,3	0.56	0
29	LMT	E	105	-	24,24,36	0.51	1 (4%)	29,29,47	0.88	1 (3%)
34	DMS	o	2605	-	3,3,3	2.67	1 (33%)	3,3,3	0.58	0
32	K2I	a	2118[B]	-	8,10,10	1.37	1 (12%)	10,14,14	2.26	3 (30%)
34	DMS	b	636	-	3,3,3	2.74	1 (33%)	3,3,3	0.69	0
27	SQD	L	102	-	53,54,54	1.03	3 (5%)	62,65,65	1.60	9 (14%)
39	LHG	e	101	-	31,31,48	0.89	1 (3%)	33,36,54	1.07	1 (3%)
24	CLA	C	502	-	65,73,73	2.50	20 (30%)	76,113,113	2.30	19 (25%)
24	CLA	c	503	-	65,73,73	2.46	18 (27%)	76,113,113	2.64	23 (30%)
34	DMS	c	540	-	3,3,3	2.66	1 (33%)	3,3,3	0.51	0
33	BCT	a	2108	22	2,3,3	0.57	0	2,3,3	1.08	0
37	GOL	C	525	-	5,5,5	0.93	0	5,5,5	0.95	0
34	DMS	o	2610	-	3,3,3	2.66	1 (33%)	3,3,3	0.46	0
25	PHO	A	407	-	51,69,69	1.79	8 (15%)	47,99,99	1.63	11 (23%)
37	GOL	v	204	-	5,5,5	0.80	0	5,5,5	0.94	0
37	GOL	b	631	-	5,5,5	0.87	0	5,5,5	0.99	0
24	CLA	B	609	-	65,73,73	2.51	20 (30%)	76,113,113	2.39	26 (34%)
24	CLA	b	615	-	65,73,73	2.35	18 (27%)	76,113,113	2.62	23 (30%)
29	LMT	Z	101	-	36,36,36	0.40	0	47,47,47	0.83	0
34	DMS	D	420	-	3,3,3	2.67	1 (33%)	3,3,3	0.55	0
27	SQD	a	2115	-	46,47,54	1.03	3 (6%)	55,58,65	1.78	11 (20%)
38	DGD	C	517	-	63,63,67	0.84	3 (4%)	77,77,81	1.07	6 (7%)
28	LMG	A	412	-	51,51,55	0.97	2 (3%)	59,59,63	1.12	4 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
31	PL9	d	407	-	55,55,55	0.74	1 (1%)	68,69,69	1.58	15 (22%)
34	DMS	c	537	-	3,3,3	2.69	1 (33%)	3,3,3	0.63	0
36	HTG	D	413	-	19,19,19	1.06	2 (10%)	23,24,24	1.24	3 (13%)
34	DMS	u	201	-	3,3,3	2.66	1 (33%)	3,3,3	0.57	0
34	DMS	U	503	-	3,3,3	2.66	1 (33%)	3,3,3	0.53	0
37	GOL	B	635	-	5,5,5	1.08	0	5,5,5	0.90	0
34	DMS	o	2611	-	3,3,3	2.65	1 (33%)	3,3,3	0.49	0
29	LMT	i	104	-	24,24,36	0.54	1 (4%)	29,29,47	1.38	3 (10%)
34	DMS	v	206	-	3,3,3	2.70	1 (33%)	3,3,3	0.63	0
36	HTG	b	625	-	19,19,19	0.91	1 (5%)	23,24,24	1.80	6 (26%)
27	SQD	F	101	-	44,45,54	1.10	3 (6%)	53,56,65	1.57	10 (18%)
29	LMT	J	102	-	24,24,36	0.51	0	29,29,47	1.05	2 (6%)
34	DMS	O	310	-	3,3,3	2.68	1 (33%)	3,3,3	0.51	0
34	DMS	A	426	-	3,3,3	2.68	1 (33%)	3,3,3	0.60	0
24	CLA	d	401	44	65,73,73	2.42	18 (27%)	76,113,113	2.62	28 (36%)
29	LMT	f	101	-	24,24,36	0.55	1 (4%)	29,29,47	0.89	1 (3%)
34	DMS	B	639	-	3,3,3	2.60	1 (33%)	3,3,3	0.60	0
34	DMS	V	202	-	3,3,3	2.67	1 (33%)	3,3,3	0.63	0
29	LMT	A	414	-	35,35,36	0.44	0	46,46,47	1.13	4 (8%)
34	DMS	O	305	-	3,3,3	2.64	1 (33%)	3,3,3	0.52	0
25	PHO	a	2111	-	51,69,69	1.81	7 (13%)	47,99,99	1.71	7 (14%)
32	K2I	A	418[B]	-	8,10,10	1.35	1 (12%)	10,14,14	2.12	4 (40%)
34	DMS	v	208	-	3,3,3	2.68	1 (33%)	3,3,3	0.54	0
34	DMS	c	539	-	3,3,3	2.69	1 (33%)	3,3,3	0.62	0
24	CLA	B	603	-	65,73,73	2.49	19 (29%)	76,113,113	2.46	27 (35%)
34	DMS	B	642	-	3,3,3	2.66	1 (33%)	3,3,3	0.40	0
34	DMS	j	1604	-	3,3,3	2.66	1 (33%)	3,3,3	0.49	0
34	DMS	c	531	-	3,3,3	2.65	1 (33%)	3,3,3	0.41	0
34	DMS	v	213	-	3,3,3	2.68	1 (33%)	3,3,3	0.59	0
34	DMS	k	2004	-	3,3,3	2.67	1 (33%)	3,3,3	0.52	0
36	HTG	I	1202	-	19,19,19	1.15	2 (10%)	23,24,24	1.95	4 (17%)
29	LMT	M	101	-	36,36,36	0.40	0	47,47,47	1.09	4 (8%)
26	BCR	B	620	-	41,41,41	0.75	0	56,56,56	1.24	7 (12%)
34	DMS	A	424	-	3,3,3	2.58	1 (33%)	3,3,3	0.47	0
34	DMS	C	537	-	3,3,3	2.67	1 (33%)	3,3,3	0.52	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
34	DMS	v	209	-	3,3,3	2.67	1 (33%)	3,3,3	0.62	0
38	DGD	C	519	-	63,63,67	0.87	2 (3%)	77,77,81	1.18	8 (10%)
24	CLA	C	514	-	65,73,73	2.64	20 (30%)	76,113,113	2.38	25 (32%)
26	BCR	d	406	-	41,41,41	0.86	1 (2%)	56,56,56	1.70	8 (14%)
31	PL9	A	417	-	38,38,55	0.52	0	45,45,69	1.67	9 (20%)
34	DMS	d	423	-	3,3,3	2.69	1 (33%)	3,3,3	0.57	0
29	LMT	T	102	-	24,24,36	0.40	0	29,29,47	0.97	1 (3%)
34	DMS	A	422	-	3,3,3	2.53	1 (33%)	3,3,3	0.65	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	CLA	A	409	-	1/1/15/20	9/37/115/115	-
39	LHG	d	408	-	-	11/53/53/53	-
39	LHG	l	101	-	-	16/53/53/53	-
36	HTG	b	602	-	-	3/10/30/30	0/1/1/1
24	CLA	b	619	-	1/1/15/20	8/37/115/115	-
25	PHO	a	2112	-	-	2/37/103/103	0/5/6/6
24	CLA	C	510	-	1/1/15/20	6/37/115/115	-
36	HTG	b	601	-	-	2/10/30/30	0/1/1/1
32	K2I	a	2119	-	-	-	0/1/1/1
24	CLA	c	505	-	1/1/15/20	1/37/115/115	-
26	BCR	T	101	-	-	3/29/63/63	0/2/2/2
38	DGD	D	408	-	-	17/40/61/95	0/1/1/2
38	DGD	c	518	-	-	17/51/91/95	0/2/2/2
37	GOL	U	501	-	-	2/4/4/4	-
24	CLA	a	2109	-	1/1/15/20	3/37/115/115	-
39	LHG	d	410	-	-	6/40/40/53	-
24	CLA	C	504	-	-	4/37/115/115	-
39	LHG	D	411	-	-	11/48/48/53	-
24	CLA	c	512	-	1/1/15/20	9/37/115/115	-
36	HTG	c	523	-	-	2/10/30/30	0/1/1/1
36	HTG	c	524	-	-	0/10/30/30	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	CLA	B	608	44	1/1/15/20	3/37/115/115	-
37	GOL	V	203	-	-	4/4/4/4	-
24	CLA	B	606	-	1/1/15/20	5/37/115/115	-
24	CLA	C	507	-	1/1/15/20	14/37/115/115	-
24	CLA	c	506	44	1/1/15/20	6/37/115/115	-
24	CLA	b	611	-	-	1/37/115/115	-
24	CLA	a	2113	-	1/1/15/20	7/37/115/115	-
24	CLA	d	405	-	1/1/15/20	4/37/115/115	-
27	SQD	B	621	-	-	20/49/69/69	0/1/1/1
36	HTG	B	627	-	-	3/10/30/30	0/1/1/1
37	GOL	o	2601	-	-	3/4/4/4	-
29	LMT	z	1801	-	-	8/16/56/61	0/2/2/2
24	CLA	c	504	-	1/1/15/20	6/37/115/115	-
36	HTG	C	522	-	-	3/10/30/30	0/1/1/1
24	CLA	b	618	-	1/1/15/20	6/37/115/115	-
32	K2I	A	419	-	-	-	0/1/1/1
24	CLA	B	616	-	1/1/15/20	9/37/115/115	-
27	SQD	a	2102	-	-	12/48/68/69	0/1/1/1
28	LMG	D	412	42	-	10/39/59/70	0/1/1/1
31	PL9	x	801	-	-	9/42/42/73	-
26	BCR	C	515	-	-	3/29/63/63	0/2/2/2
24	CLA	b	613	44	1/1/15/20	6/37/115/115	-
36	HTG	O	302	-	-	5/10/30/30	0/1/1/1
26	BCR	B	619	-	-	0/29/63/63	0/2/2/2
26	BCR	c	528	-	-	4/29/63/63	0/2/2/2
24	CLA	c	509	44	1/1/15/20	8/37/115/115	-
24	CLA	b	605	-	1/1/15/20	1/37/115/115	-
25	PHO	A	408	-	-	0/37/103/103	0/5/6/6
28	LMG	C	526	-	-	11/43/63/70	0/1/1/1
29	LMT	a	2120	-	-	12/21/61/61	0/2/2/2
36	HTG	B	626	-	-	4/10/30/30	0/1/1/1
37	GOL	O	303	-	-	4/4/4/4	-
37	GOL	Z	102	-	-	2/4/4/4	-
41	RRX	h	702	-	-	1/29/65/65	0/2/2/2
32	K2I	A	418[A]	-	-	-	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	PL9	D	407	-	-	3/53/73/73	0/1/1/1
24	CLA	B	615	-	1/1/15/20	12/37/115/115	-
37	GOL	d	415	-	-	2/4/4/4	-
24	CLA	B	614	-	1/1/15/20	3/37/115/115	-
41	RRX	H	101	-	-	1/29/65/65	0/2/2/2
29	LMT	m	103	-	-	1/21/61/61	0/2/2/2
36	HTG	i	103	-	-	1/10/30/30	0/1/1/1
24	CLA	B	617	-	1/1/15/20	11/37/115/115	-
29	LMT	b	624	-	-	4/17/37/61	0/1/1/2
40	HEM	e	103	6,5	-	4/12/54/54	-
37	GOL	v	202	-	-	2/4/4/4	-
28	LMG	i	101	-	-	12/46/66/70	0/1/1/1
29	LMT	j	1601	-	-	5/11/31/61	0/1/1/2
24	CLA	C	512	3	1/1/15/20	5/37/115/115	-
36	HTG	d	414	-	-	1/10/30/30	0/1/1/1
29	LMT	E	105	-	-	7/15/35/61	0/1/1/2
24	CLA	C	513	-	1/1/15/20	7/37/115/115	-
38	DGD	c	519	-	-	19/51/91/95	0/2/2/2
32	K2I	a	2118[B]	-	-	-	0/1/1/1
24	CLA	B	607	-	1/1/15/20	8/37/115/115	-
28	LMG	B	622	-	-	12/46/66/70	0/1/1/1
38	DGD	c	520	-	-	10/51/91/95	0/2/2/2
27	SQD	L	102	-	-	22/49/69/69	0/1/1/1
39	LHG	e	101	-	-	16/35/35/53	-
26	BCR	b	621	-	-	1/29/63/63	0/2/2/2
26	BCR	C	516	-	-	2/29/63/63	0/2/2/2
24	CLA	C	502	-	1/1/15/20	5/37/115/115	-
24	CLA	c	503	-	-	1/37/115/115	-
38	DGD	h	703	-	-	8/51/91/95	0/2/2/2
37	GOL	C	525	-	-	2/4/4/4	-
24	CLA	b	614	-	1/1/15/20	3/37/115/115	-
36	HTG	B	625[A]	-	-	4/10/30/30	0/1/1/1
24	CLA	c	513	3	-	3/37/115/115	-
24	CLA	c	515	-	1/1/15/20	6/37/115/115	-
24	CLA	B	605	-	1/1/15/20	7/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	SQD	A	413	-	-	12/49/69/69	0/1/1/1
40	HEM	F	102	6,5	-	3/12/54/54	-
24	CLA	D	404	-	1/1/15/20	1/37/115/115	-
26	BCR	b	620	-	-	2/29/63/63	0/2/2/2
26	BCR	c	516	-	-	2/29/63/63	0/2/2/2
36	HTG	B	628	-	-	1/10/30/30	0/1/1/1
24	CLA	b	616	-	1/1/15/20	4/37/115/115	-
29	LMT	A	420	-	-	6/21/61/61	0/2/2/2
25	PHO	A	407	-	-	5/37/103/103	0/5/6/6
26	BCR	D	406	-	-	6/29/63/63	0/2/2/2
37	GOL	v	204	-	-	4/4/4/4	-
39	LHG	E	101	-	-	19/53/53/53	-
24	CLA	b	612	-	1/1/15/20	1/37/115/115	-
38	DGD	C	518	-	-	19/51/91/95	0/2/2/2
36	HTG	C	521	-	-	3/10/30/30	0/1/1/1
37	GOL	b	631	-	-	2/4/4/4	-
28	LMG	b	623	-	-	12/46/66/70	0/1/1/1
37	GOL	c	527	-	-	1/4/4/4	-
37	GOL	a	2101	-	-	2/4/4/4	-
43	HEC	V	201	16	-	2/10/54/54	-
24	CLA	B	611	44	1/1/15/20	9/37/115/115	-
24	CLA	B	609	-	-	1/37/115/115	-
24	CLA	b	615	-	1/1/15/20	3/37/115/115	-
24	CLA	C	506	-	1/1/15/20	3/37/115/115	-
29	LMT	Z	101	-	-	10/21/61/61	0/2/2/2
27	SQD	a	2115	-	-	12/42/62/69	0/1/1/1
24	CLA	C	509	-	1/1/15/20	7/37/115/115	-
28	LMG	A	412	-	-	16/46/66/70	0/1/1/1
31	PL9	d	407	-	-	4/53/73/73	0/1/1/1
38	DGD	C	517	-	-	14/51/91/95	0/2/2/2
24	CLA	b	617	-	1/1/15/20	12/37/115/115	-
24	CLA	c	511	-	1/1/15/20	8/37/115/115	-
36	HTG	D	413	-	-	2/10/30/30	0/1/1/1
43	HEC	v	201	16	-	2/10/54/54	-
27	SQD	f	102	-	-	13/38/38/69	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	LHG	D	409	-	-	16/53/53/53	-
37	GOL	H	103	-	-	2/4/4/4	-
26	BCR	A	410	-	-	1/29/63/63	0/2/2/2
37	GOL	D	403	-	-	0/4/4/4	-
39	LHG	L	101	-	-	14/53/53/53	-
24	CLA	B	604	-	1/1/15/20	3/37/115/115	-
26	BCR	K	101	-	-	0/29/63/63	0/2/2/2
26	BCR	k	2003	-	-	0/29/63/63	0/2/2/2
24	CLA	D	405	-	1/1/15/20	6/37/115/115	-
37	GOL	B	635	-	-	0/4/4/4	-
27	SQD	A	411	-	-	9/44/64/69	0/1/1/1
24	CLA	D	401	44	-	5/37/115/115	-
28	LMG	d	411	42	-	7/43/63/70	0/1/1/1
24	CLA	a	2110	44	-	7/37/115/115	-
24	CLA	d	404	-	1/1/15/20	2/37/115/115	-
29	LMT	i	104	-	-	11/15/35/61	0/1/1/2
24	CLA	c	507	-	1/1/15/20	5/37/115/115	-
36	HTG	b	625	-	-	0/10/30/30	0/1/1/1
27	SQD	F	101	-	-	15/40/60/69	0/1/1/1
37	GOL	C	524	-	-	0/4/4/4	-
36	HTG	V	204	-	-	5/10/30/30	0/1/1/1
24	CLA	B	613	-	1/1/15/20	3/37/115/115	-
39	LHG	D	410	-	-	9/53/53/53	-
29	LMT	J	102	-	-	6/15/35/61	0/1/1/2
29	LMT	B	623	-	-	10/21/61/61	0/2/2/2
39	LHG	d	409	-	-	12/53/53/53	-
24	CLA	b	609	-	1/1/15/20	5/37/115/115	-
24	CLA	b	607	-	1/1/15/20	6/37/115/115	-
24	CLA	d	401	44	1/1/15/20	4/37/115/115	-
29	LMT	f	101	-	-	6/15/35/61	0/1/1/2
28	LMG	C	520	-	-	14/46/66/70	0/1/1/1
26	BCR	t	102	-	-	3/29/63/63	0/2/2/2
37	GOL	k	2001	-	-	2/4/4/4	-
29	LMT	A	414	-	-	6/20/60/61	0/2/2/2
24	CLA	c	508	-	1/1/15/20	8/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	CLA	B	612	-	1/1/15/20	5/37/115/115	-
24	CLA	B	610	-	1/1/15/20	3/37/115/115	-
38	DGD	H	102	-	-	9/51/91/95	0/2/2/2
24	CLA	C	505	44	1/1/15/20	6/37/115/115	-
25	PHO	a	2111	-	-	4/37/103/103	0/5/6/6
32	K2I	A	418[B]	-	-	-	0/1/1/1
24	CLA	A	405	-	1/1/15/20	6/37/115/115	-
32	K2I	a	2118[A]	-	-	-	0/1/1/1
29	LMT	B	637	-	-	9/15/35/61	0/1/1/2
24	CLA	B	603	-	1/1/15/20	4/37/115/115	-
24	CLA	C	511	-	1/1/15/20	6/37/115/115	-
24	CLA	C	508	44	1/1/15/20	7/37/115/115	-
26	BCR	Y	302	-	-	4/29/63/63	0/2/2/2
26	BCR	B	618	-	-	2/29/63/63	0/2/2/2
24	CLA	C	503	-	1/1/15/20	5/37/115/115	-
37	GOL	U	502	-	-	2/4/4/4	-
24	CLA	c	514	-	1/1/15/20	4/37/115/115	-
36	HTG	d	403	-	-	4/10/30/30	0/1/1/1
26	BCR	b	622	-	-	2/29/63/63	0/2/2/2
29	LMT	I	1201	-	-	7/15/35/61	0/1/1/2
36	HTG	I	1202	-	-	3/10/30/30	0/1/1/1
26	BCR	c	517	-	-	2/29/63/63	0/2/2/2
24	CLA	b	606	-	1/1/15/20	2/37/115/115	-
29	LMT	M	101	-	-	5/21/61/61	0/2/2/2
24	CLA	B	602	44	1/1/15/20	11/37/115/115	-
24	CLA	b	610	44	1/1/15/20	1/37/115/115	-
24	CLA	b	604	44	1/1/15/20	12/37/115/115	-
26	BCR	B	620	-	-	0/29/63/63	0/2/2/2
28	LMG	c	522	-	-	9/43/63/70	0/1/1/1
36	HTG	c	526	-	-	2/10/30/30	0/1/1/1
37	GOL	B	632	-	-	0/4/4/4	-
28	LMG	c	521	-	-	13/44/64/70	0/1/1/1
37	GOL	v	203	-	-	1/4/4/4	-
36	HTG	b	626	-	-	5/10/30/30	0/1/1/1
24	CLA	A	406	44	-	7/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	BCR	a	2114	-	-	2/29/63/63	0/2/2/2
36	HTG	B	624	-	-	3/10/30/30	0/1/1/1
36	HTG	B	625[B]	-	-	3/10/30/30	0/1/1/1
29	LMT	a	2103	-	-	11/21/61/61	0/2/2/2
24	CLA	b	608	-	1/1/15/20	5/37/115/115	-
24	CLA	C	514	-	1/1/15/20	0/37/115/115	-
24	CLA	c	510	-	1/1/15/20	5/37/115/115	-
29	LMT	B	636	-	-	8/21/61/61	0/2/2/2
38	DGD	C	519	-	-	6/51/91/95	0/2/2/2
26	BCR	d	406	-	-	6/29/63/63	0/2/2/2
31	PL9	A	417	-	-	11/42/42/73	-
29	LMT	T	102	-	-	7/15/35/61	0/1/1/2
29	LMT	m	102	-	-	6/21/61/61	0/2/2/2
37	GOL	o	2603	-	-	3/4/4/4	-

The worst 5 of 1676 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	c	505	CLA	MG-NA	11.53	2.33	2.06
24	C	512	CLA	MG-NA	11.41	2.33	2.06
24	C	508	CLA	MG-NA	10.32	2.30	2.06
24	C	506	CLA	MG-NA	9.69	2.29	2.06
24	C	504	CLA	MG-NA	9.53	2.28	2.06

The worst 5 of 2401 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	c	503	CLA	C1D-ND-C4D	-10.88	98.60	106.33
24	D	404	CLA	C1D-ND-C4D	-10.56	98.83	106.33
24	a	2110	CLA	C1D-ND-C4D	-10.44	98.92	106.33
24	b	615	CLA	C1D-ND-C4D	-10.13	99.14	106.33
24	c	510	CLA	C1D-ND-C4D	-10.01	99.22	106.33

5 of 62 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
24	A	405	CLA	ND
24	A	409	CLA	ND
24	B	602	CLA	ND

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Mol	Chain	Res	Type	Atom
24	B	603	CLA	ND
24	B	604	CLA	ND

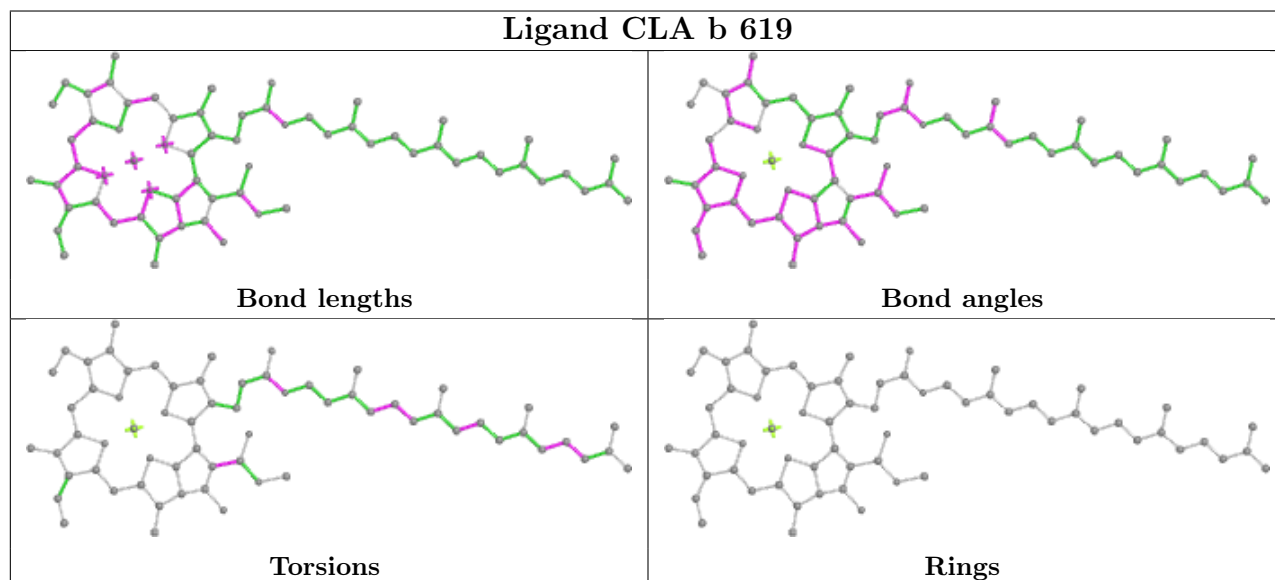
5 of 1199 torsion outliers are listed below:

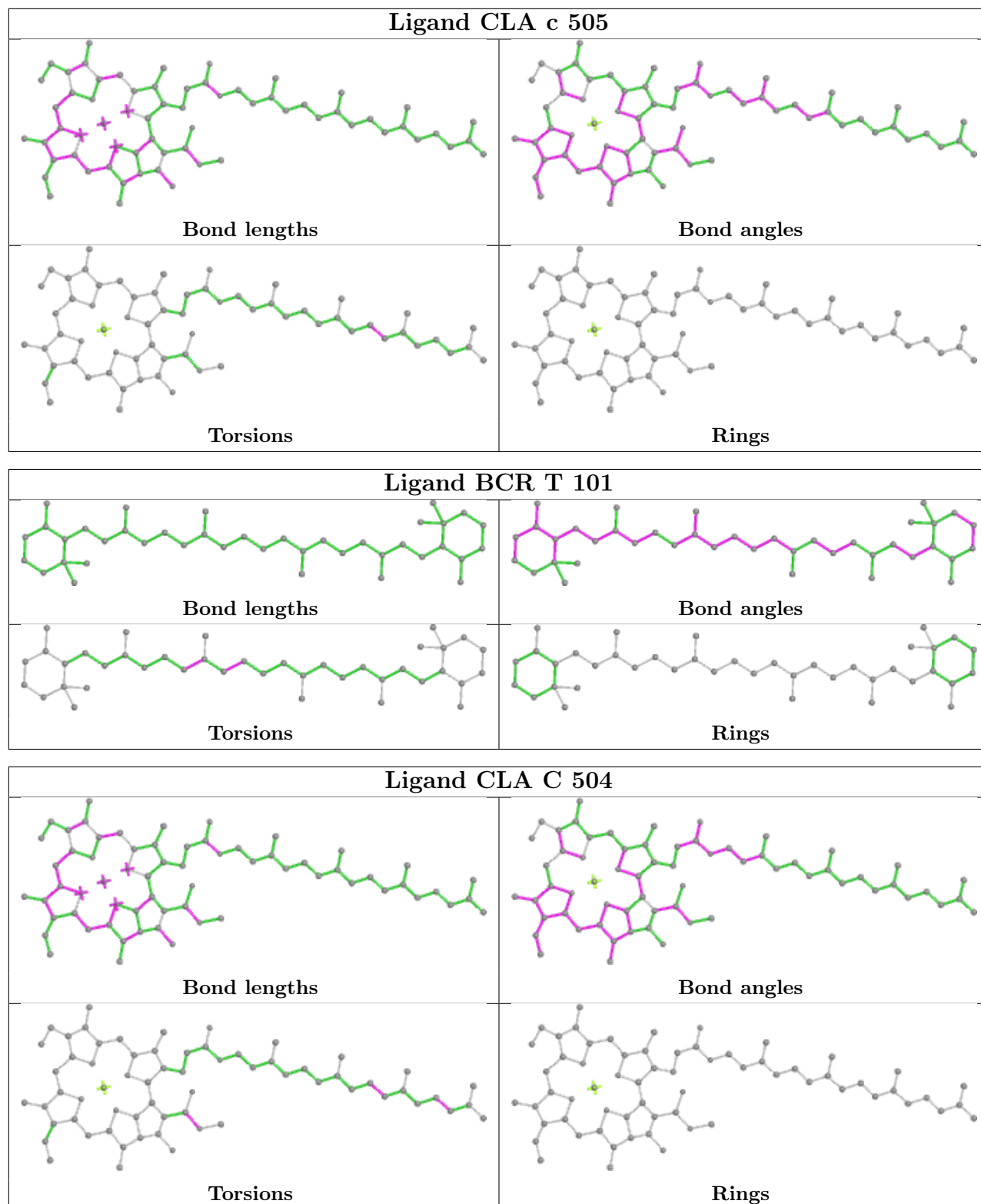
Mol	Chain	Res	Type	Atoms
24	B	606	CLA	C4-C3-C5-C6
24	B	607	CLA	CHA-CBD-CGD-O1D
24	B	607	CLA	CHA-CBD-CGD-O2D
24	B	615	CLA	CHA-CBD-CGD-O1D
24	B	615	CLA	CAD-CBD-CGD-O1D

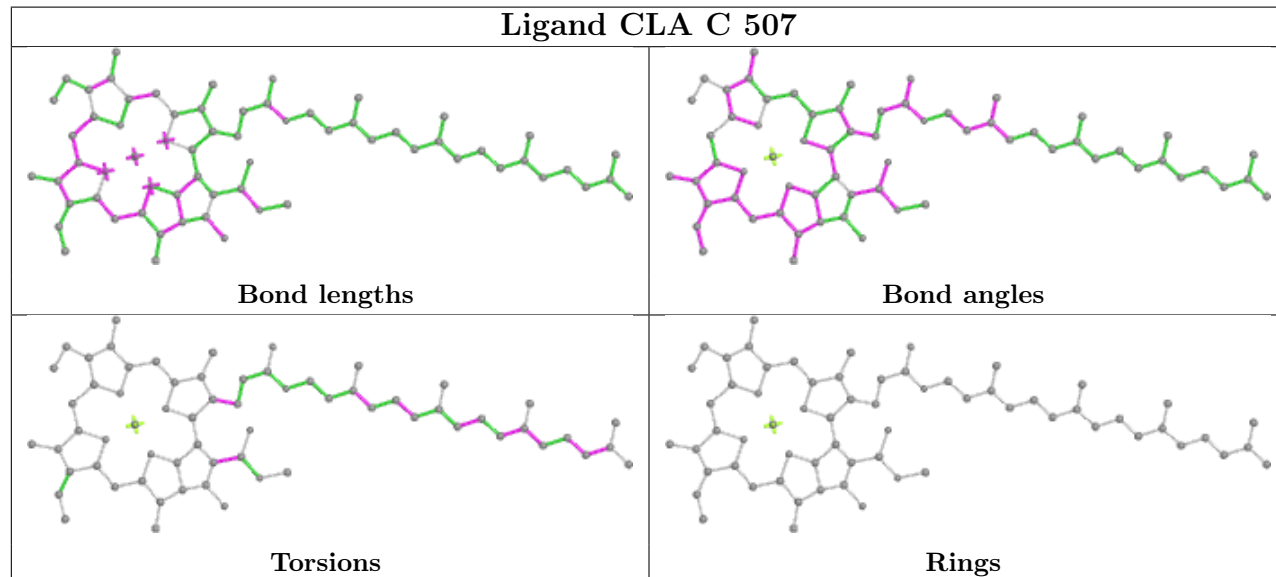
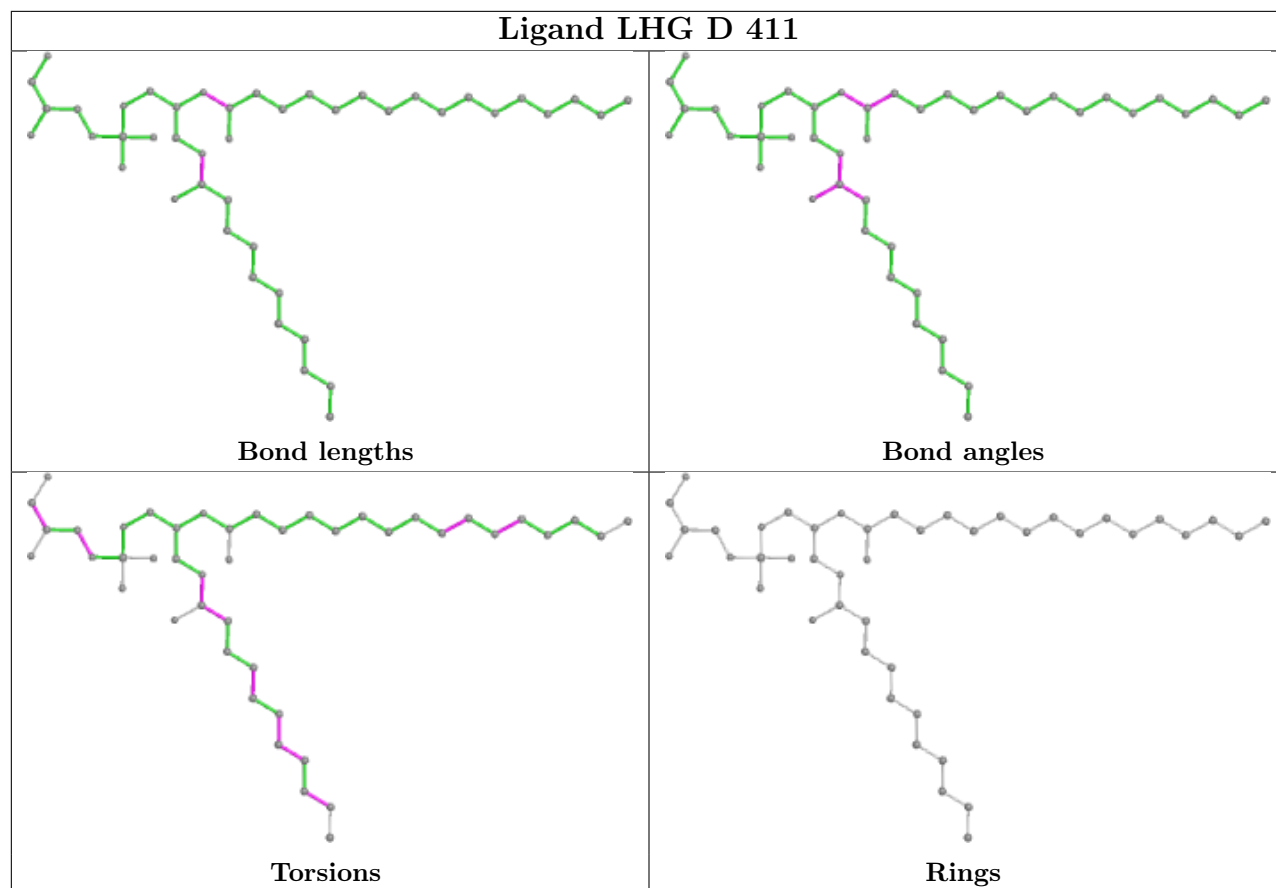
There are no ring outliers.

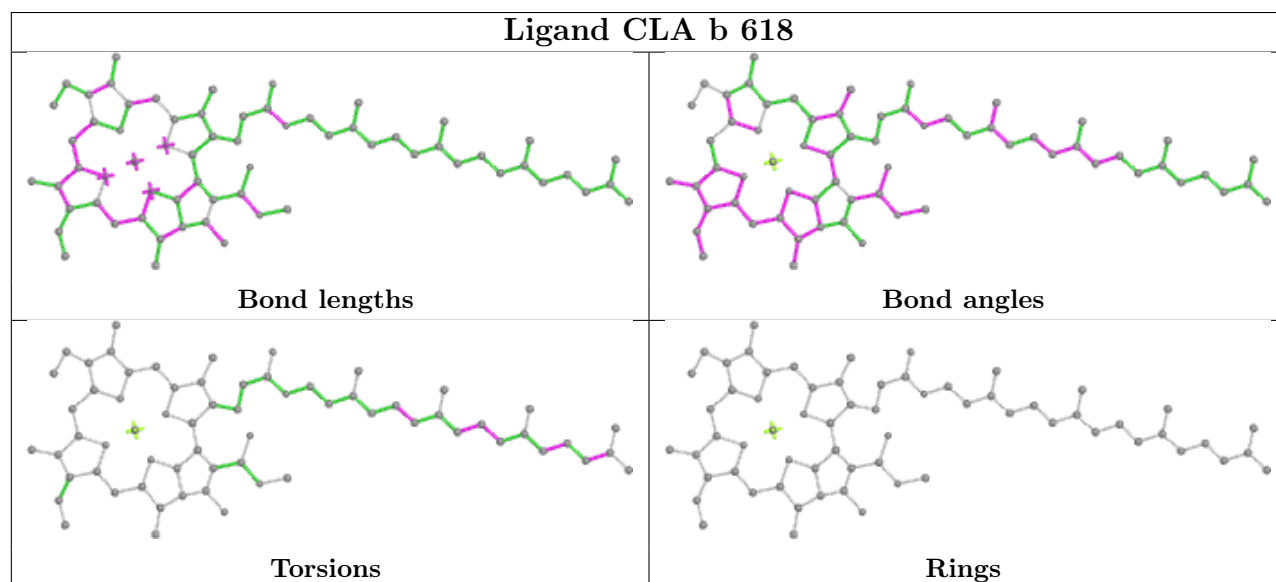
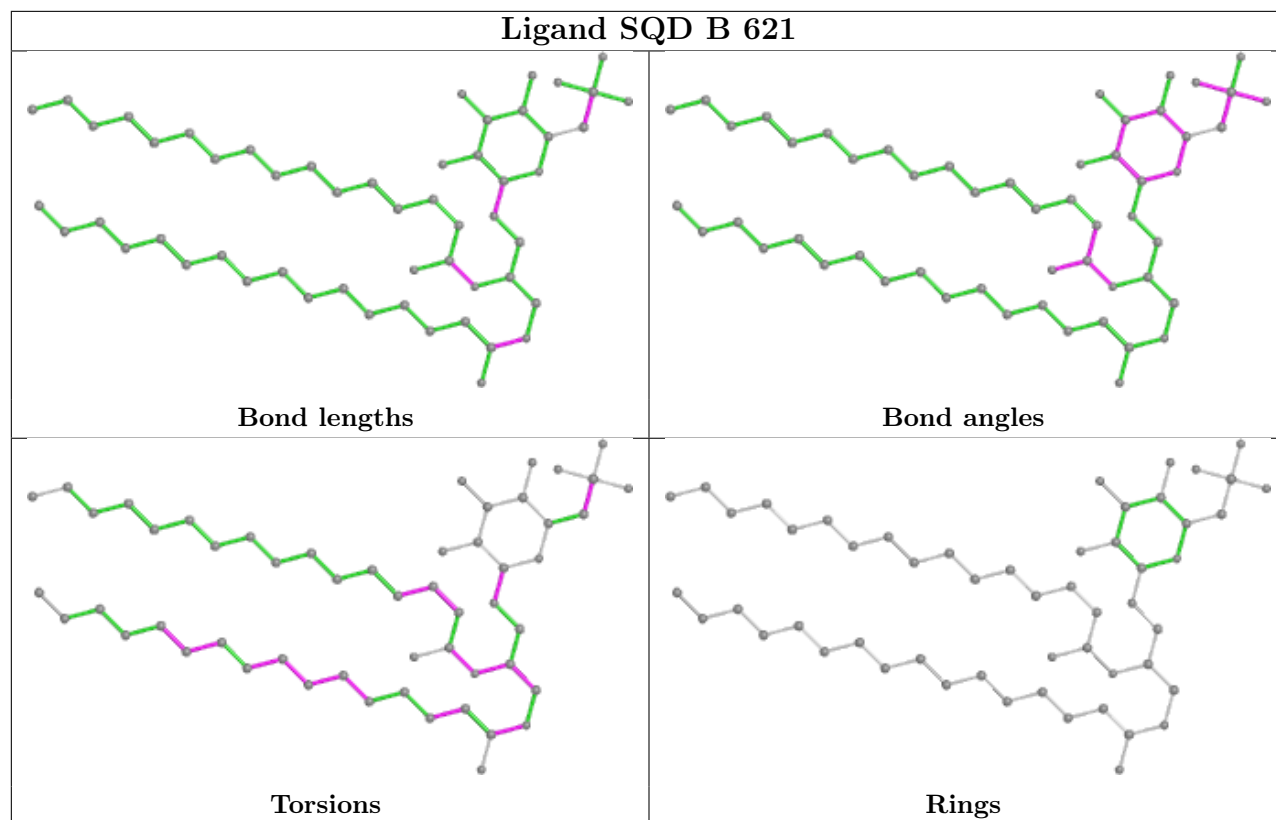
No monomer is involved in short contacts.

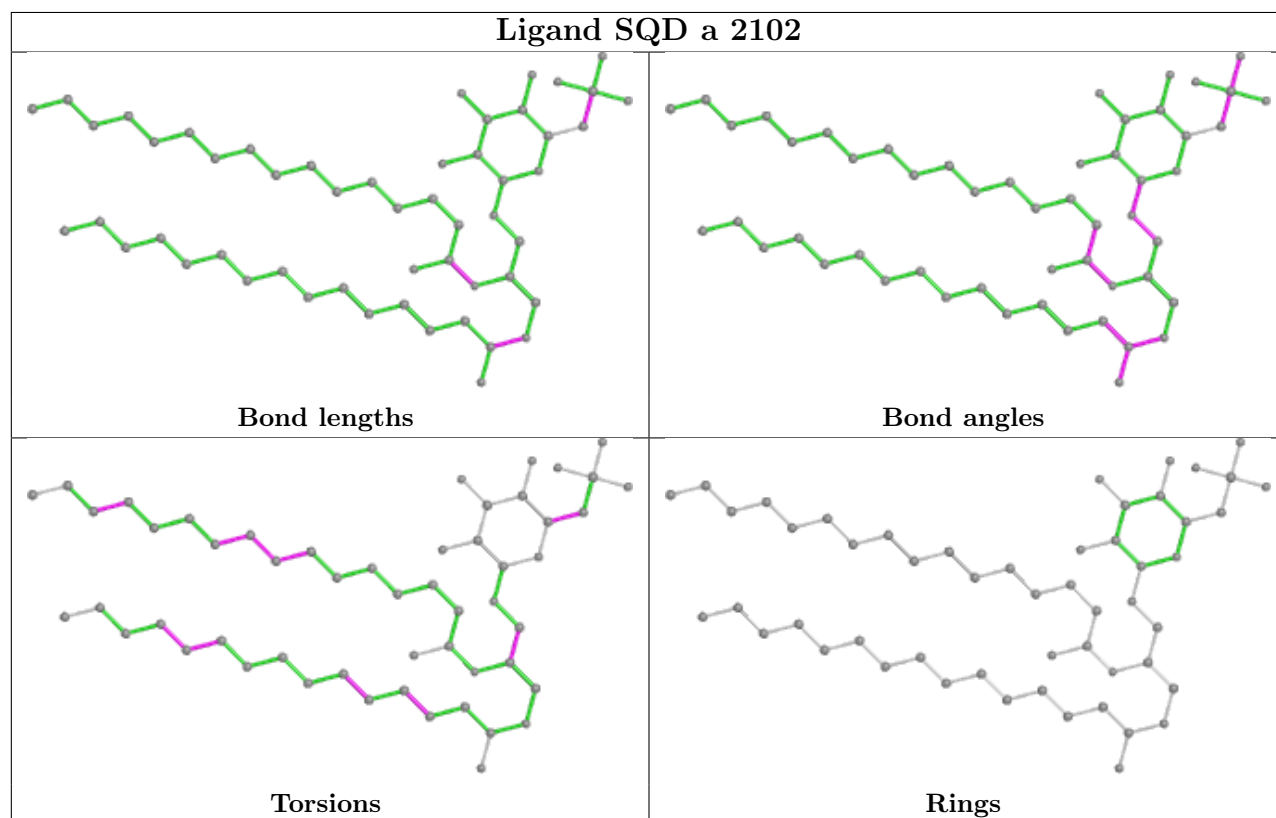
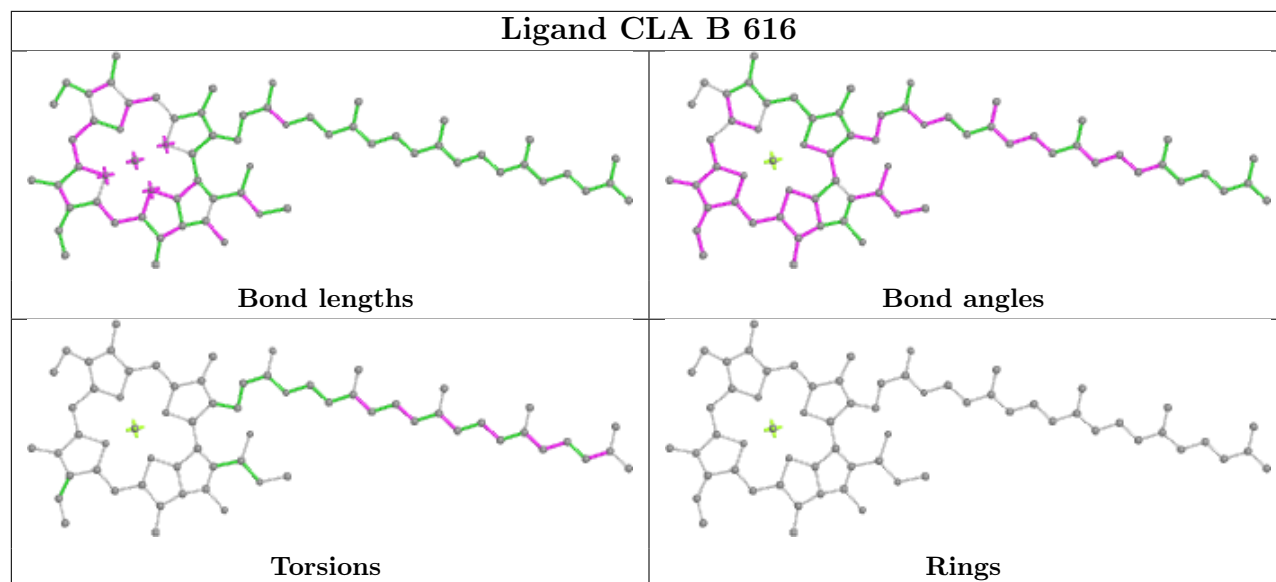
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

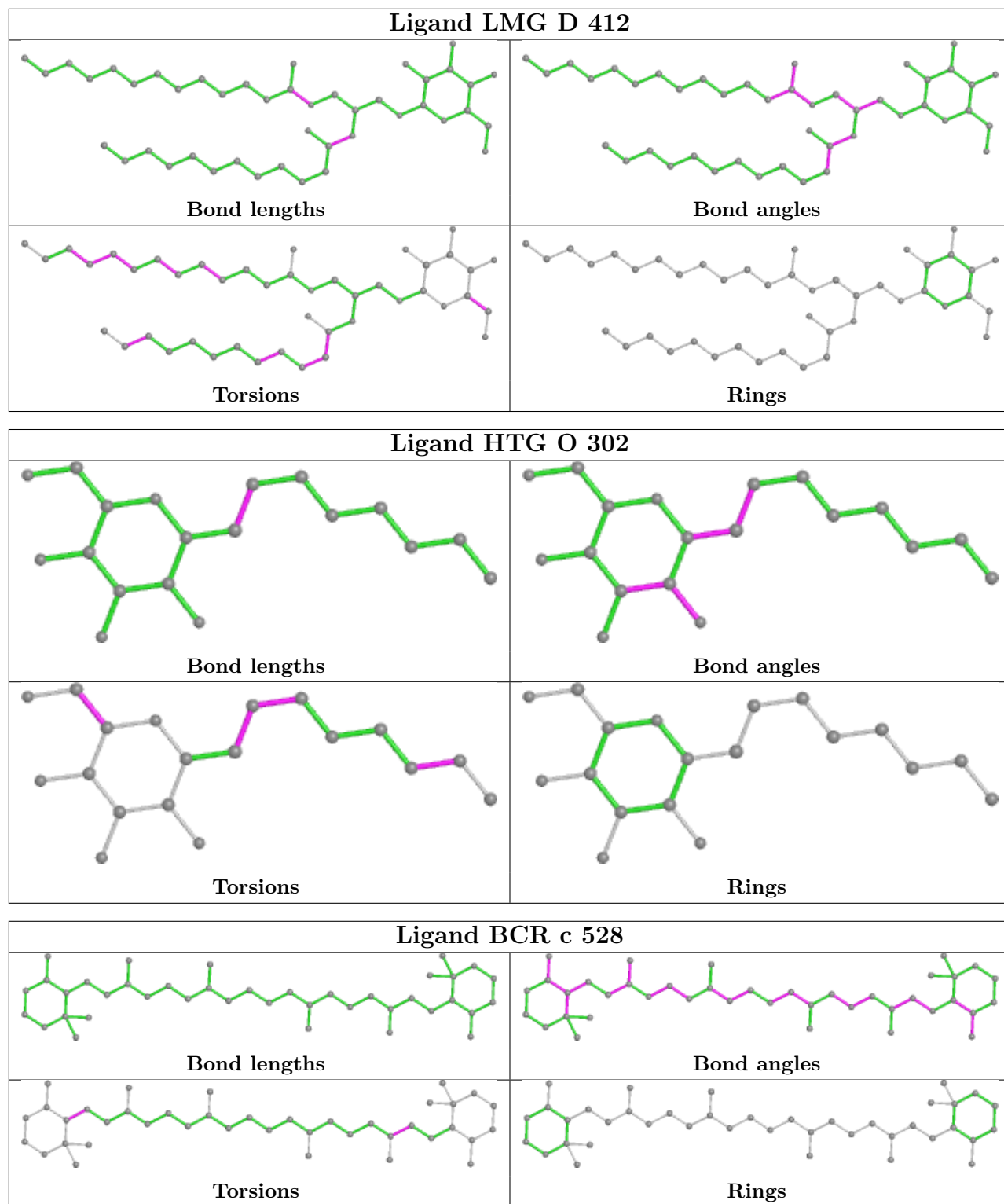


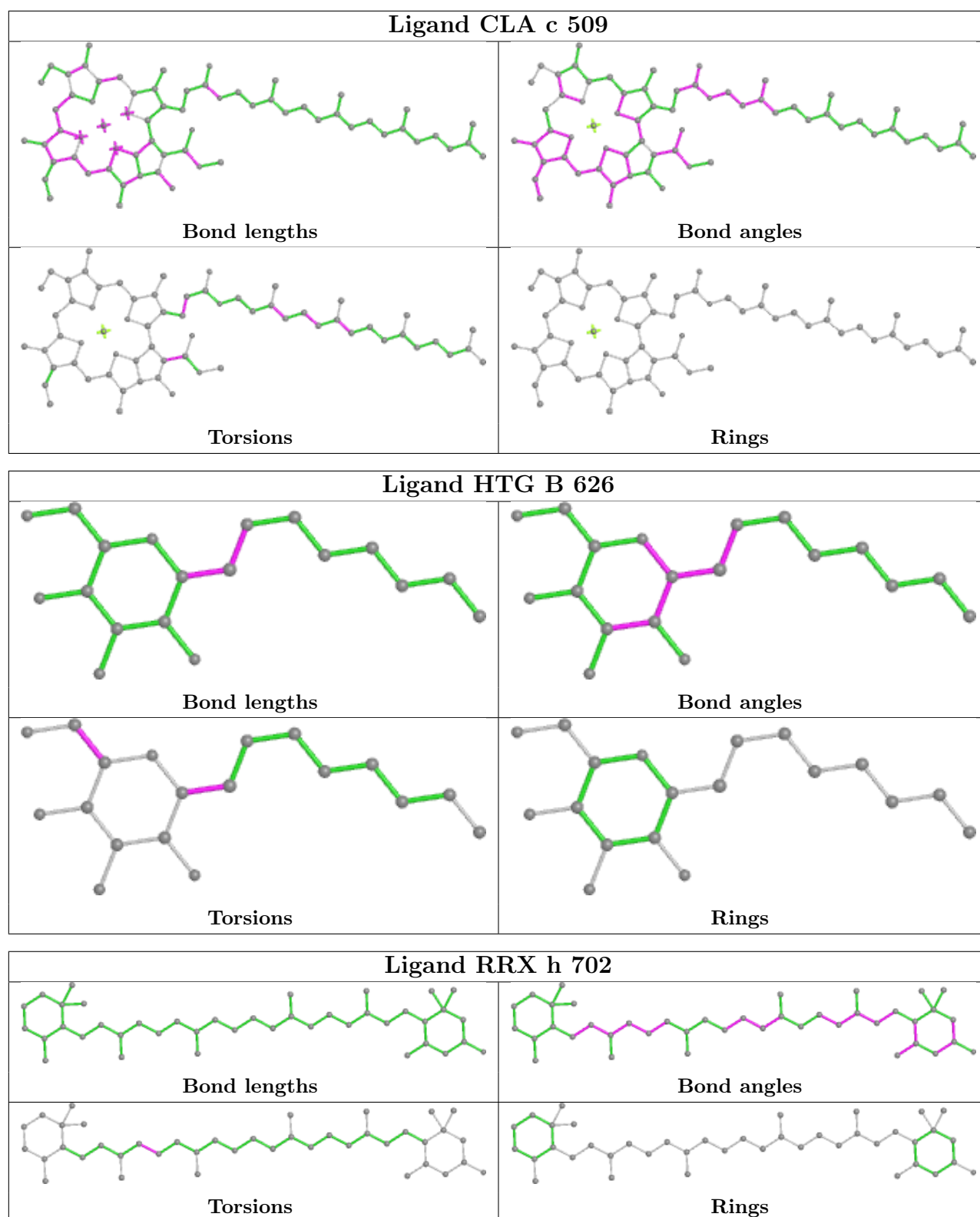


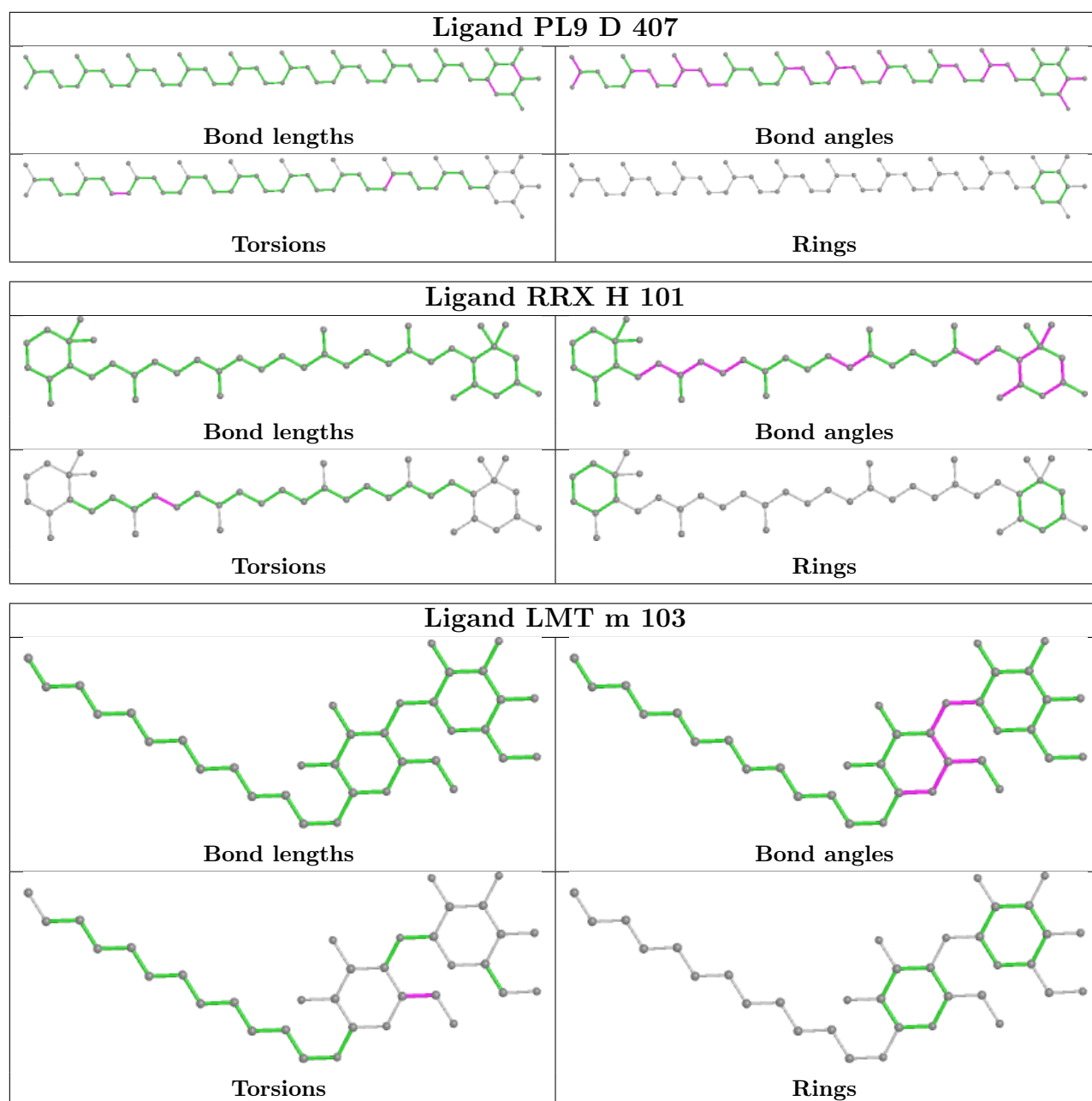


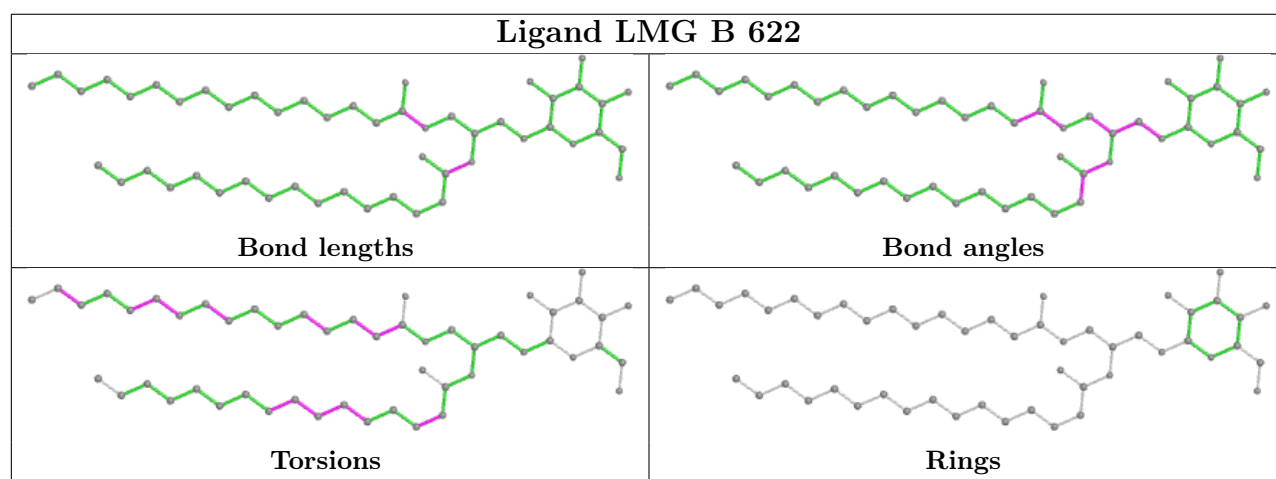
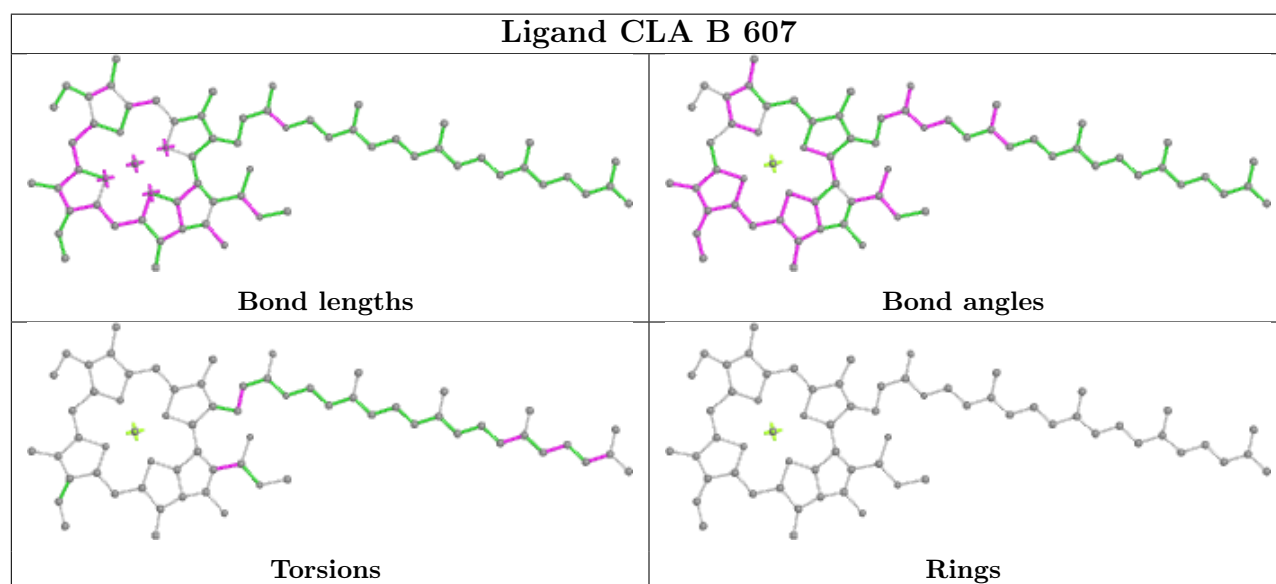
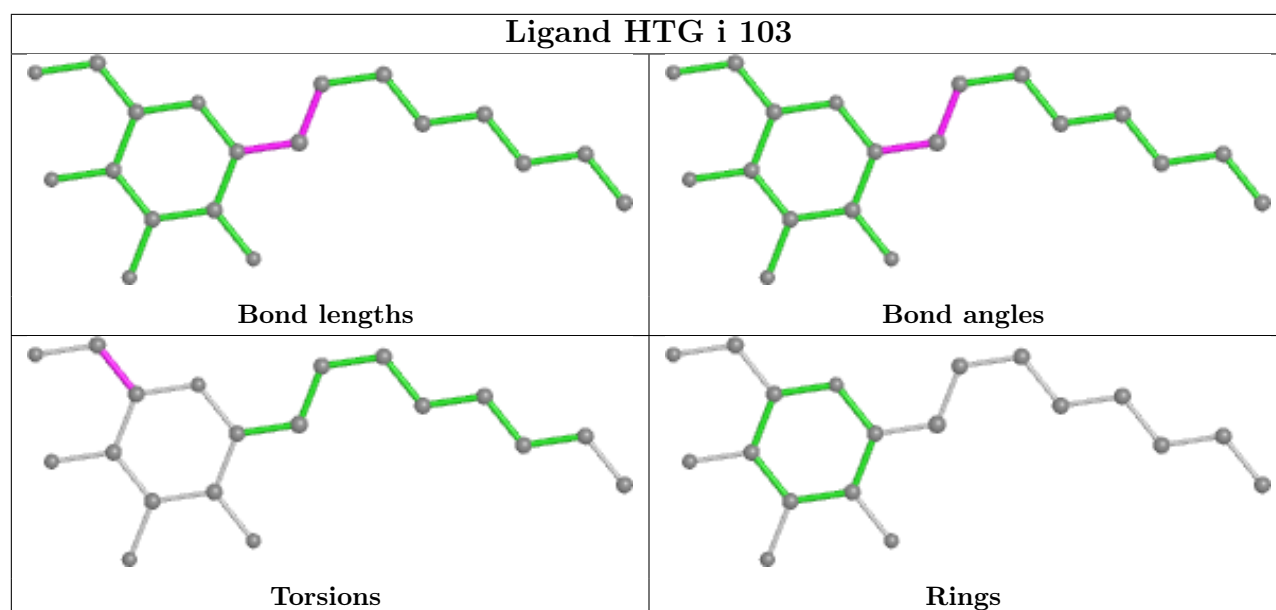


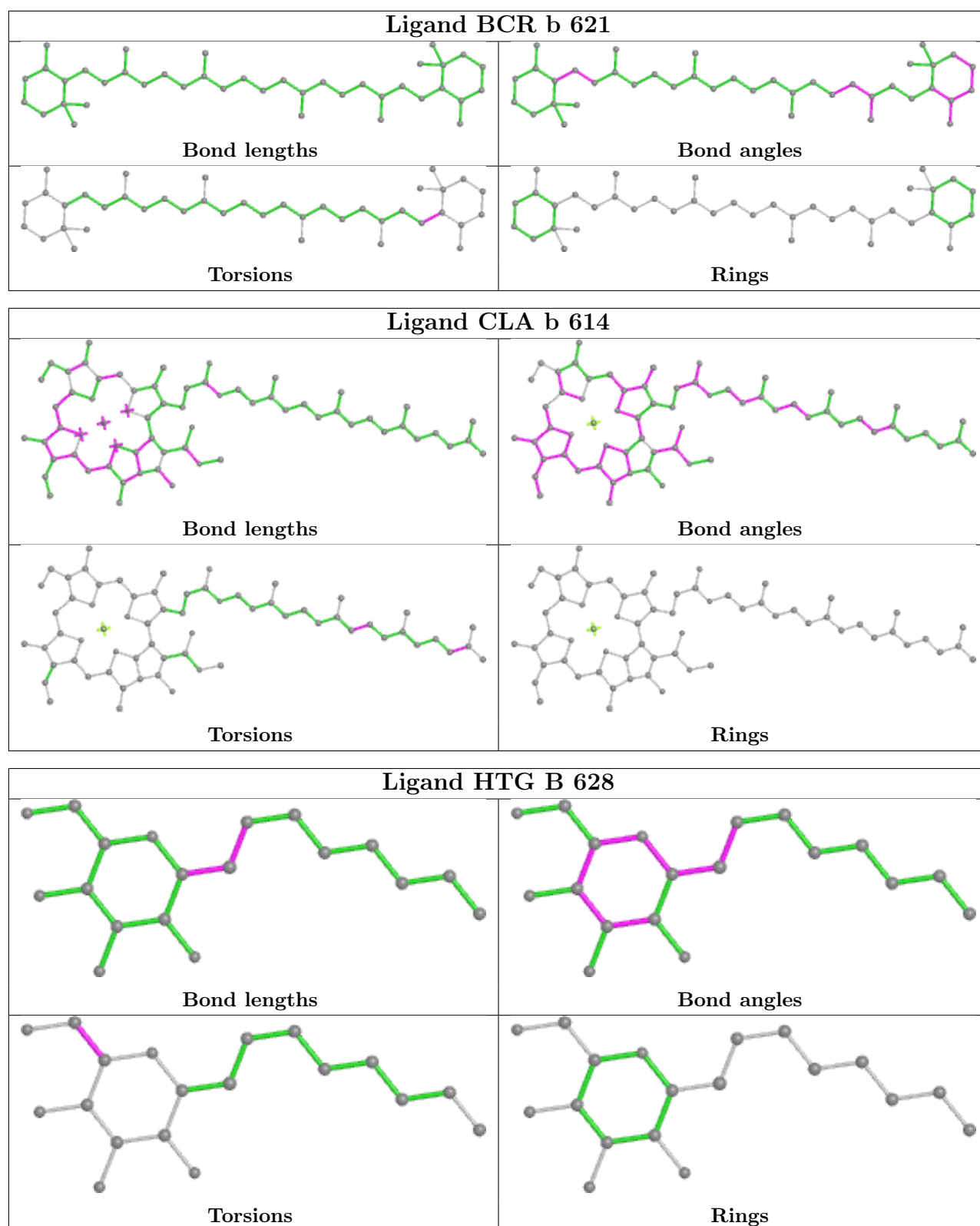


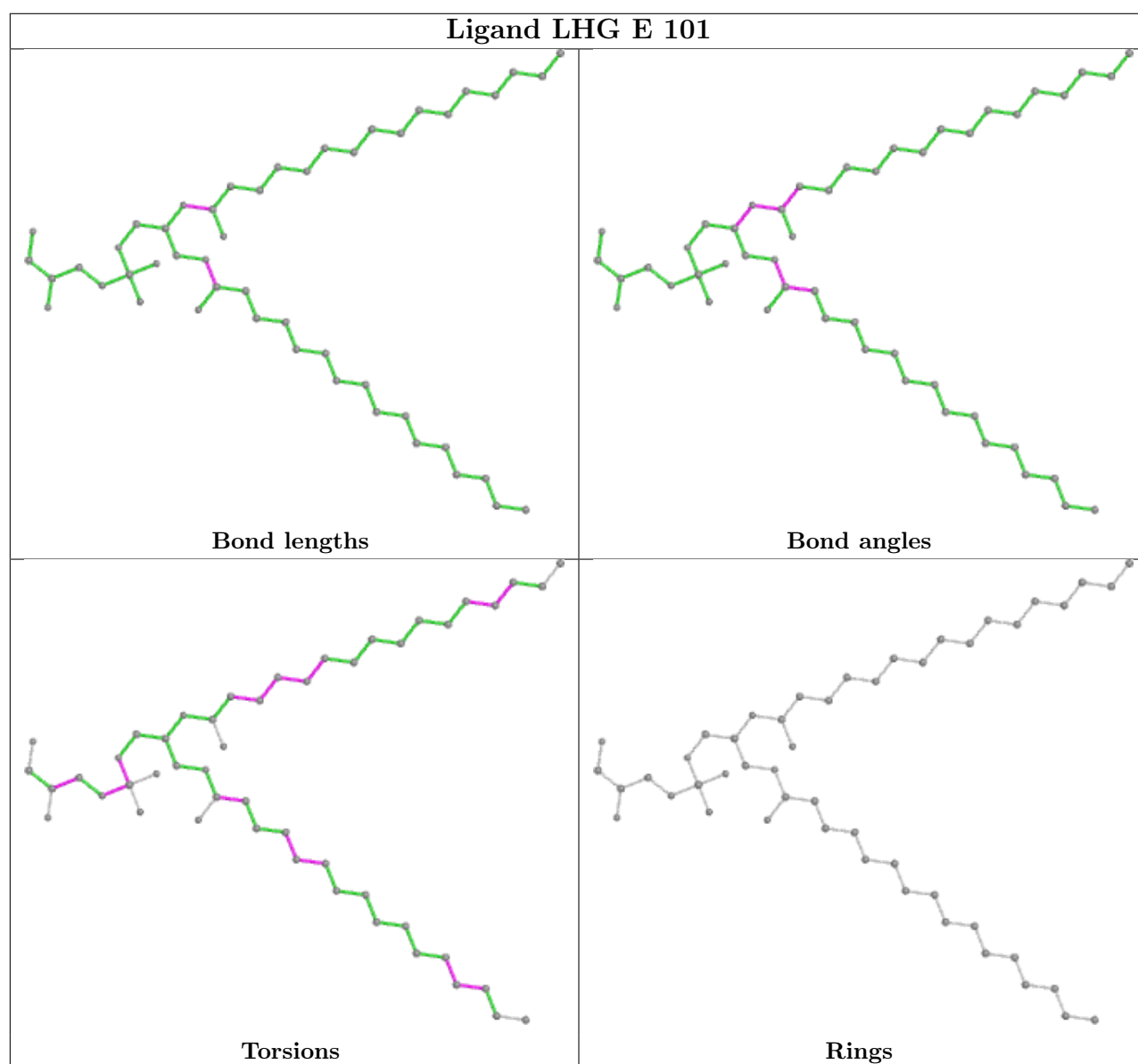
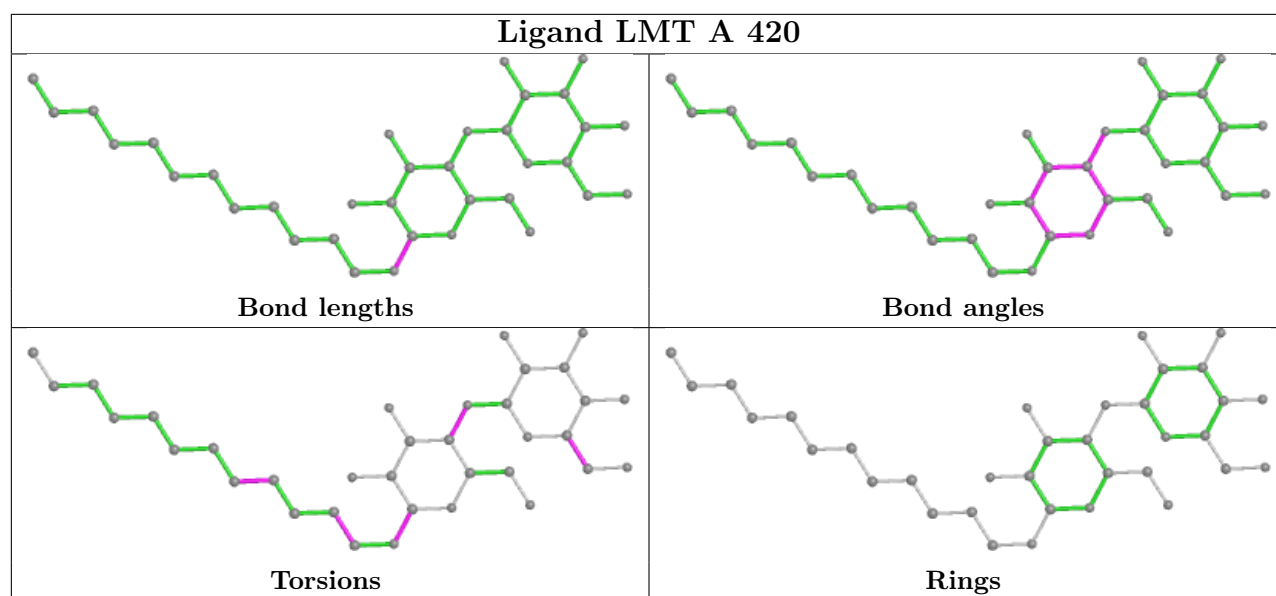


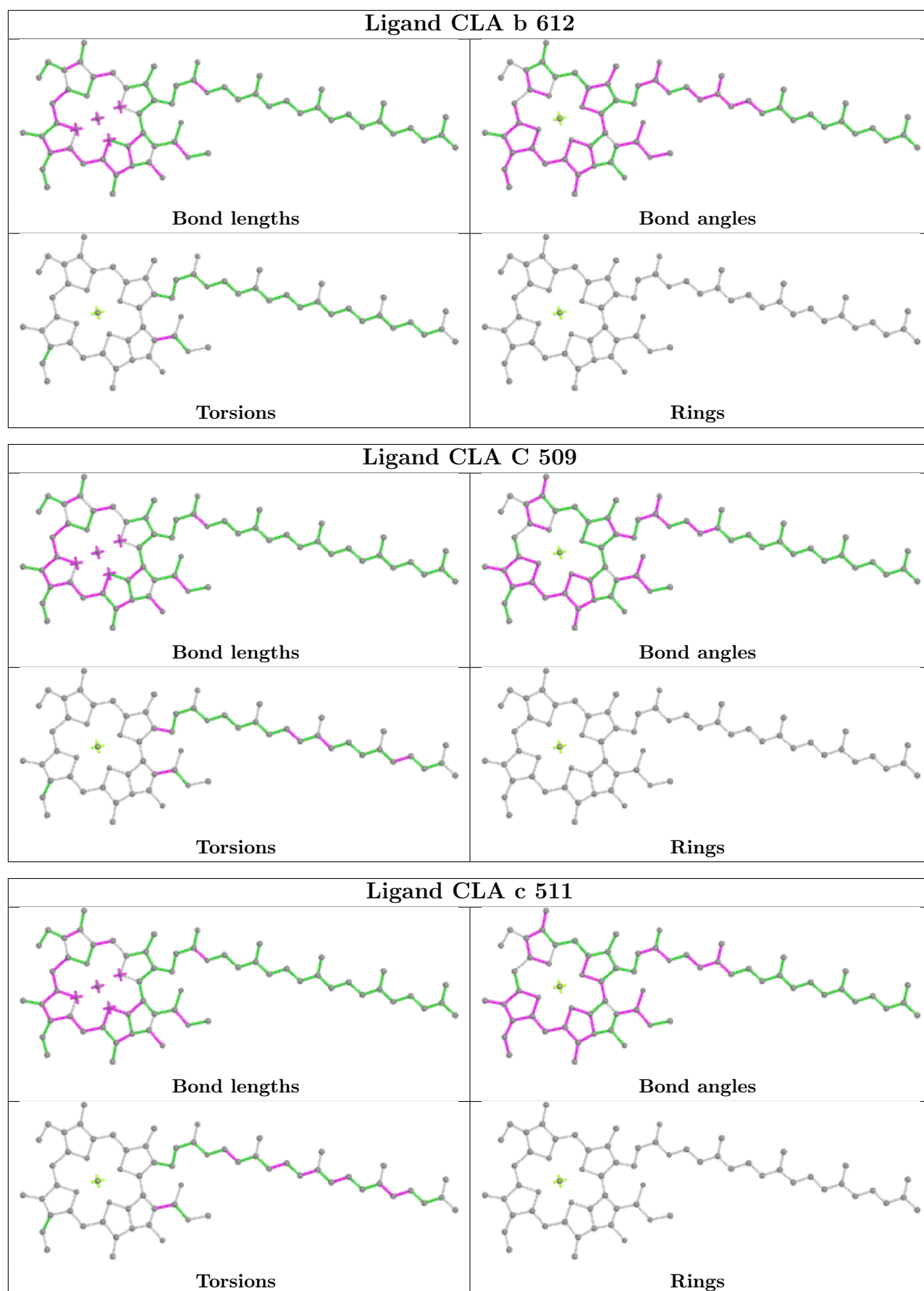


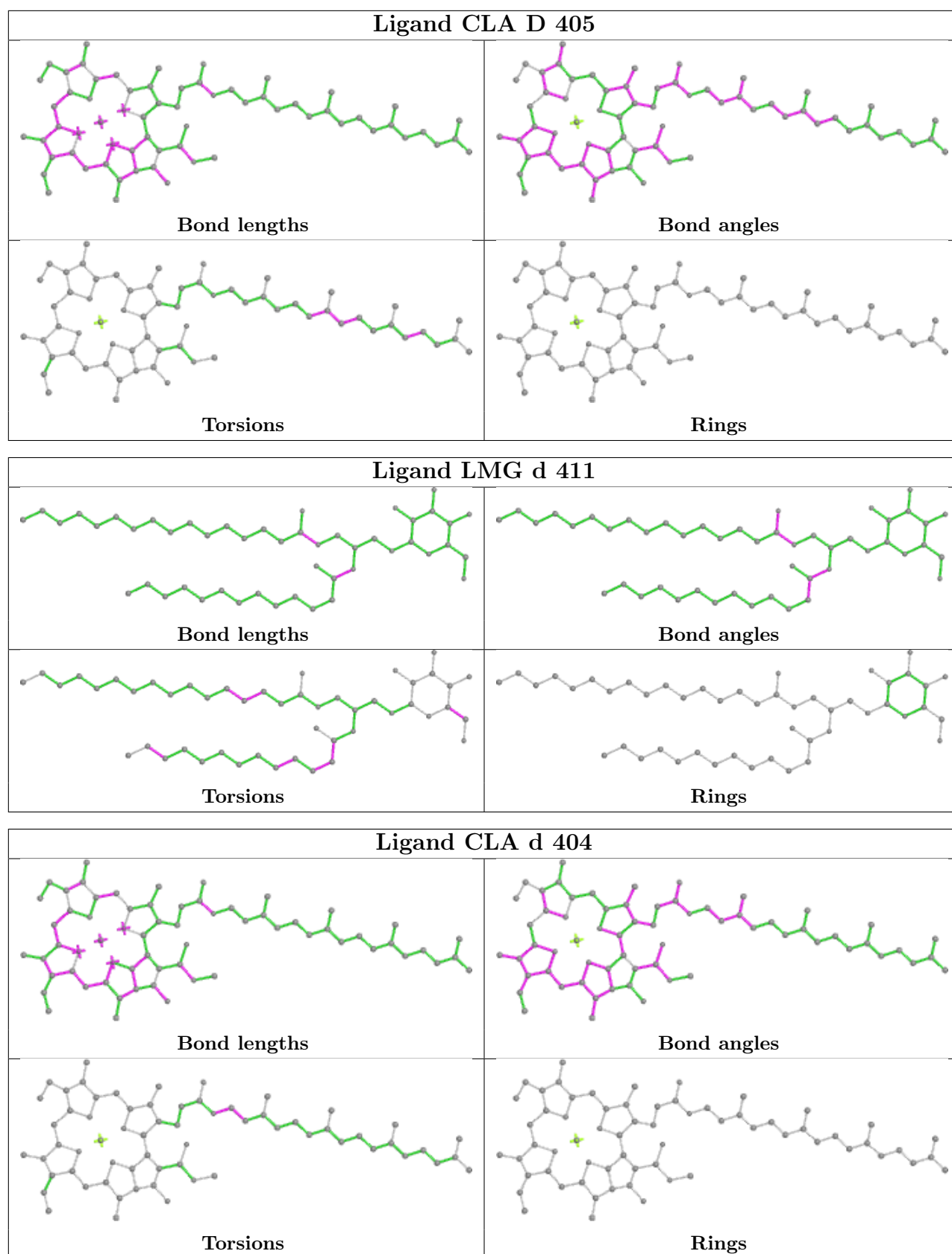


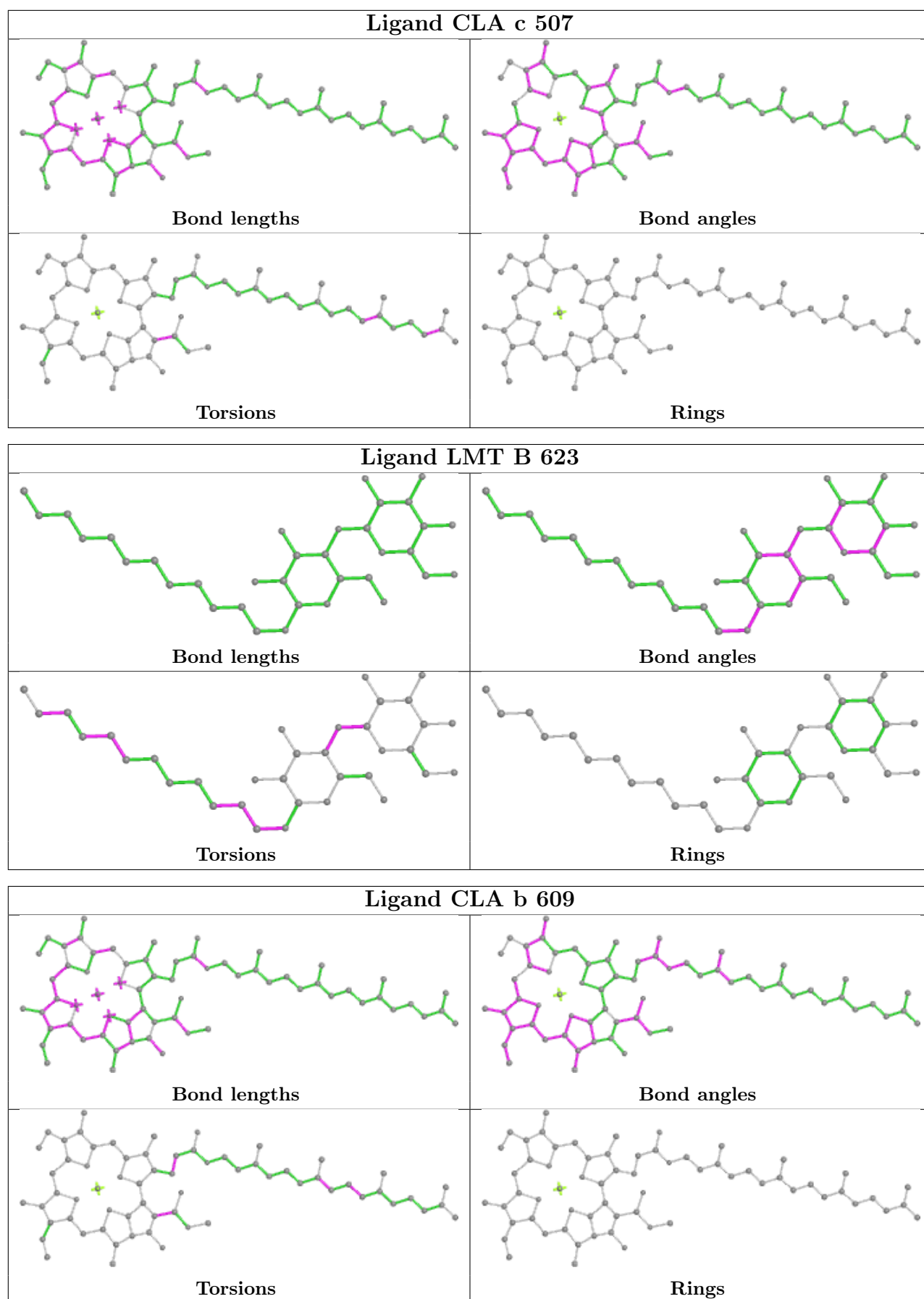


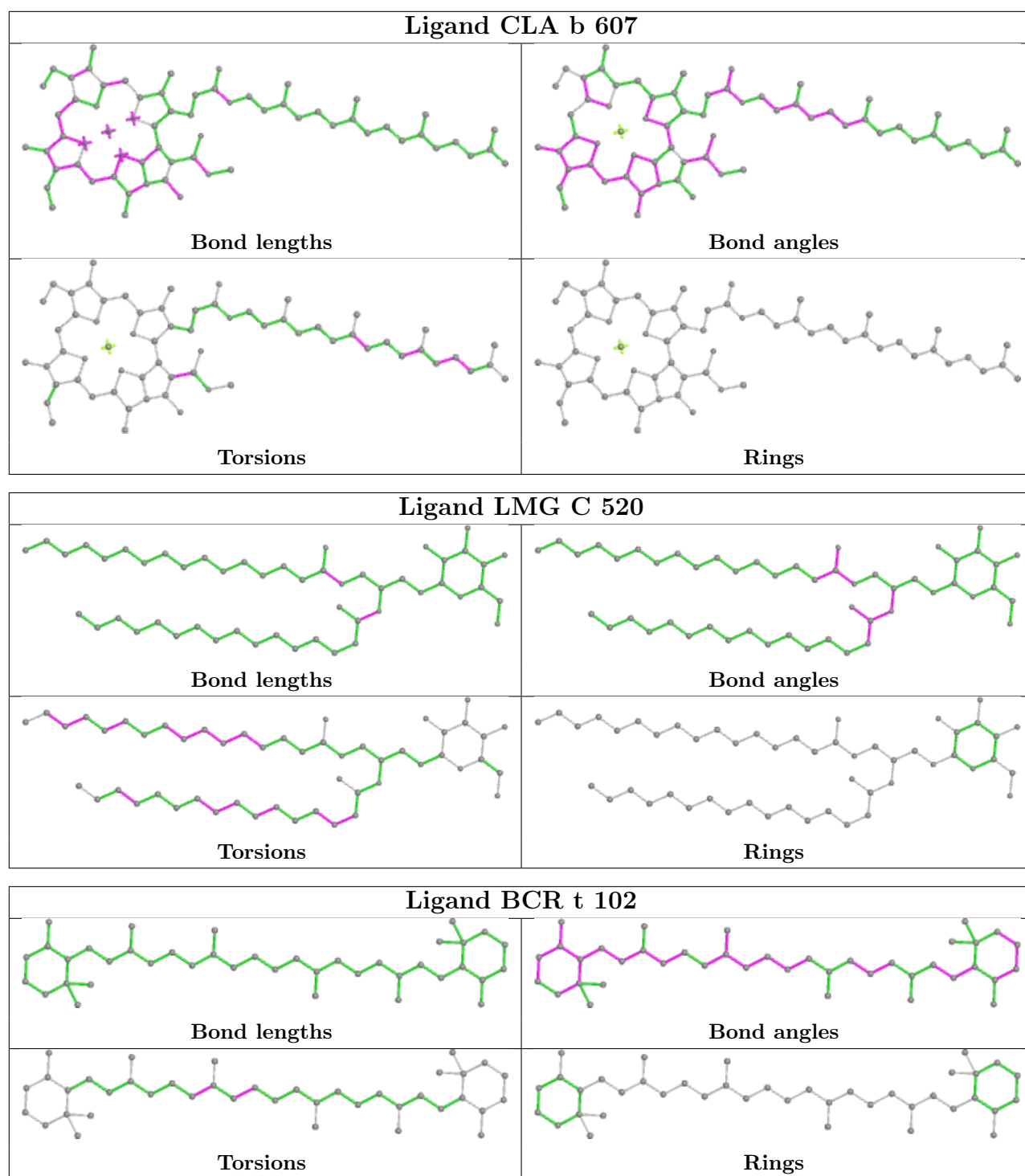


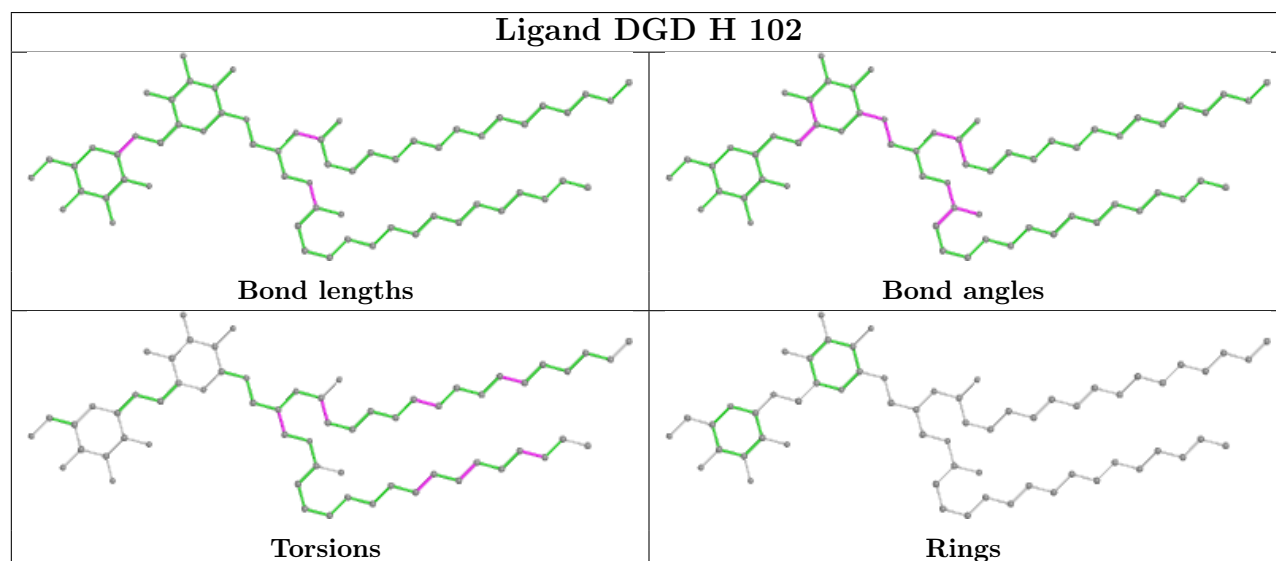
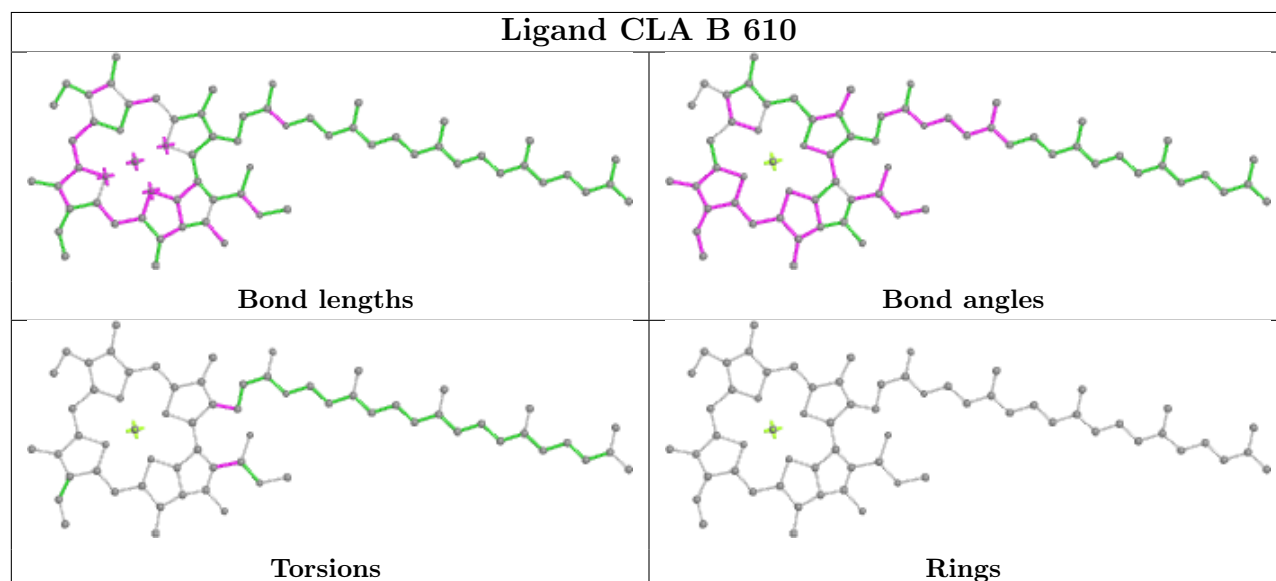
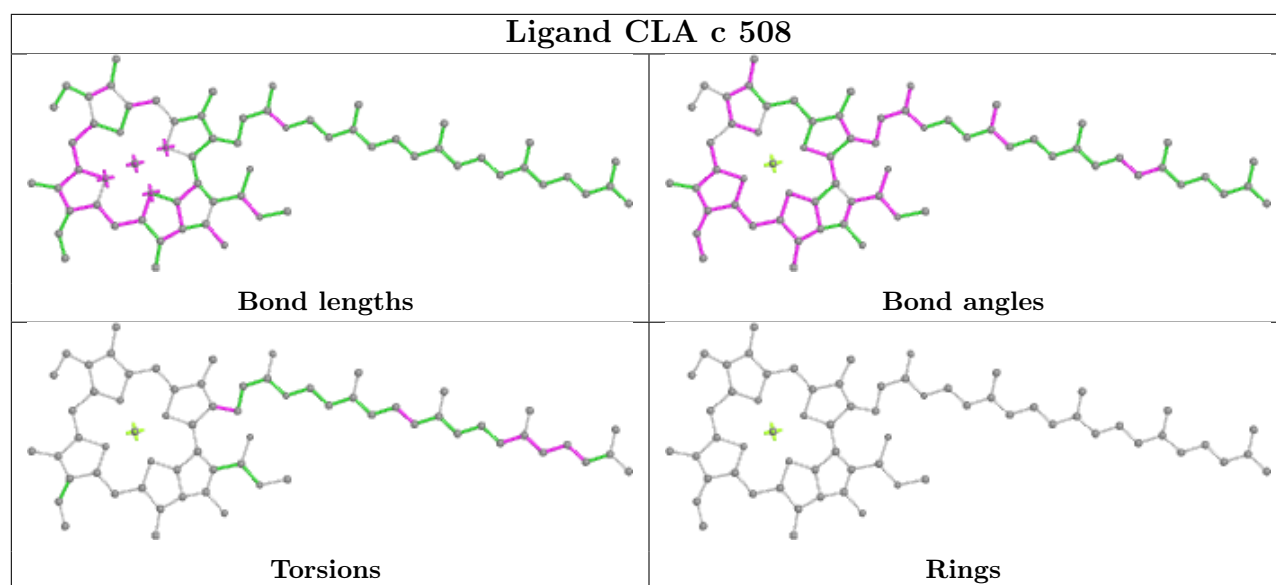


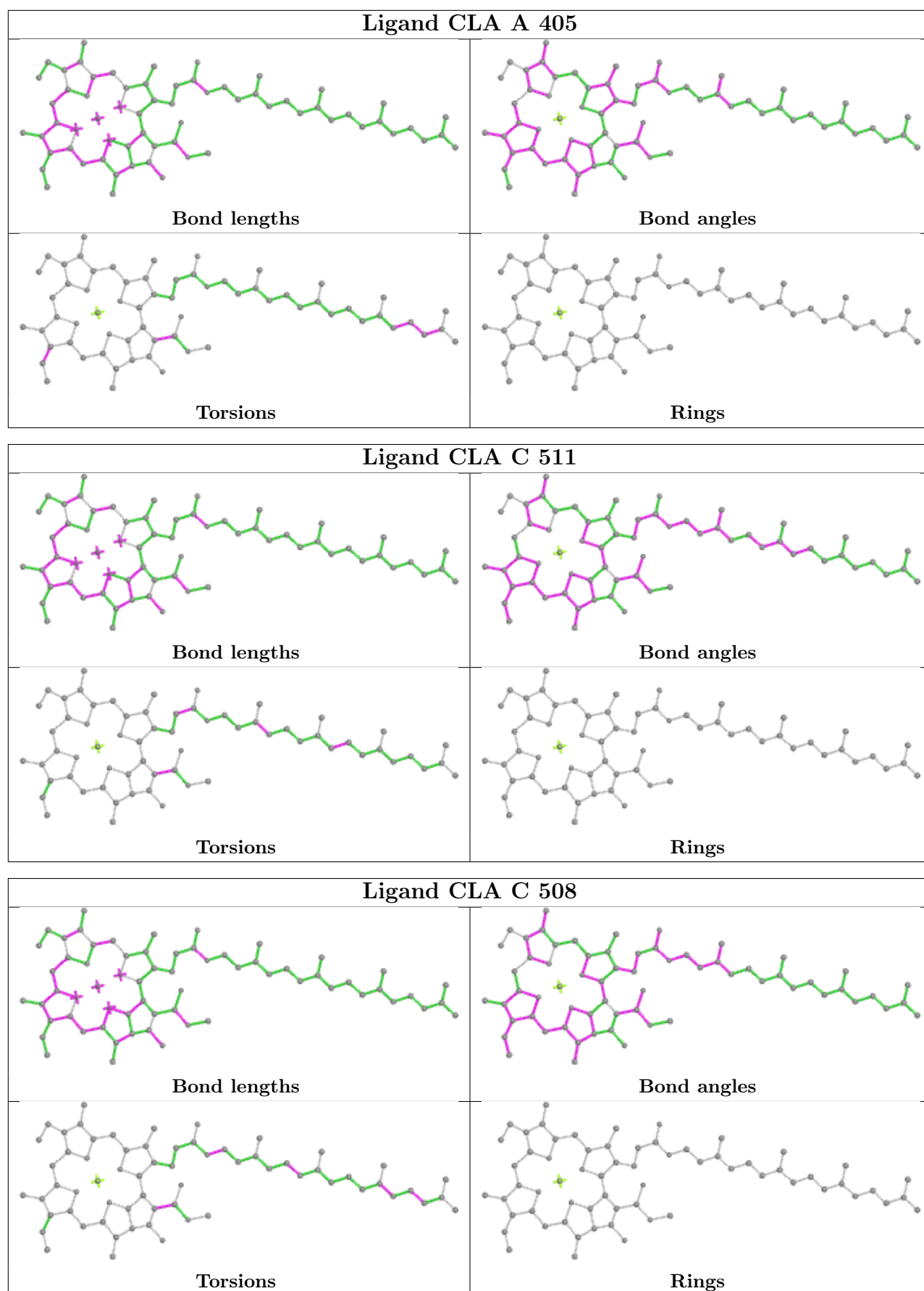


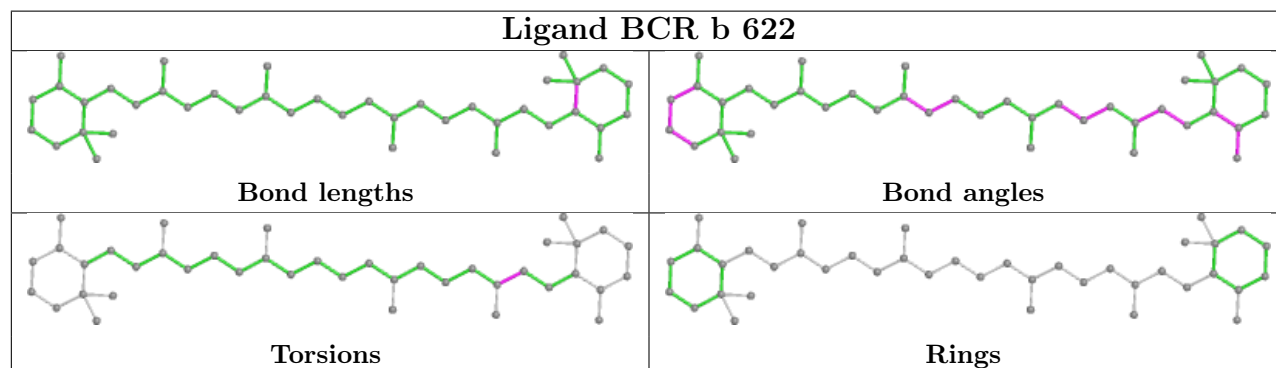
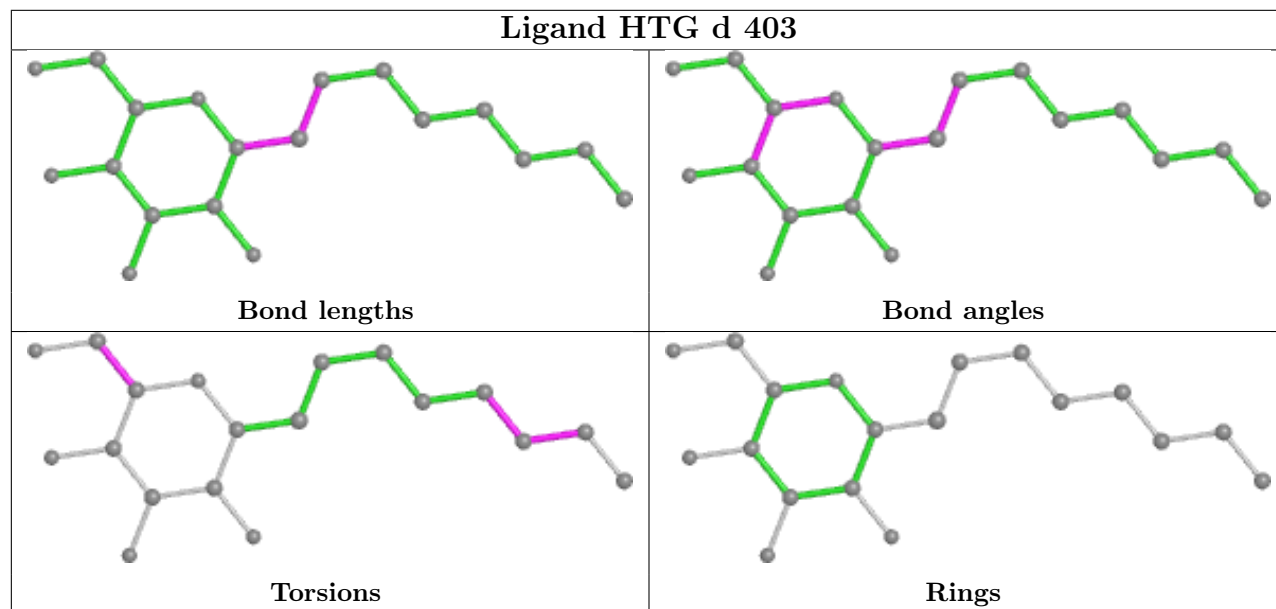
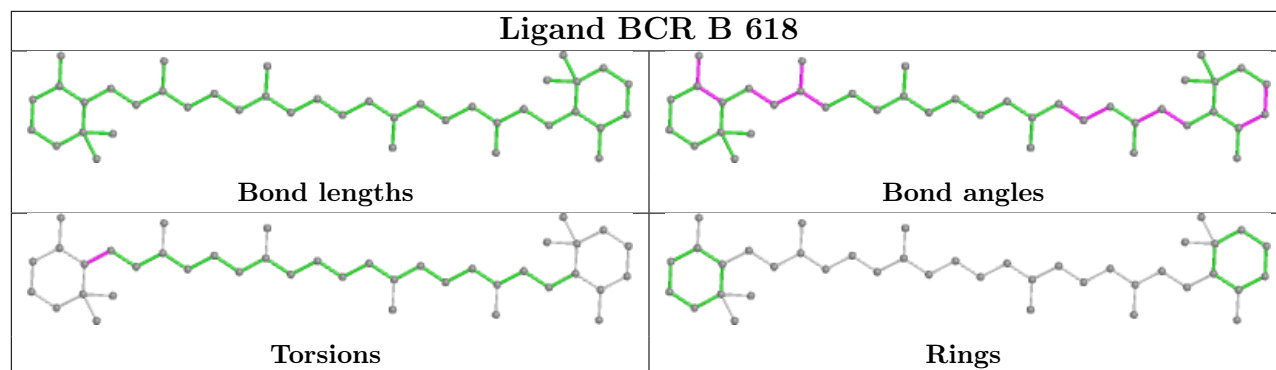
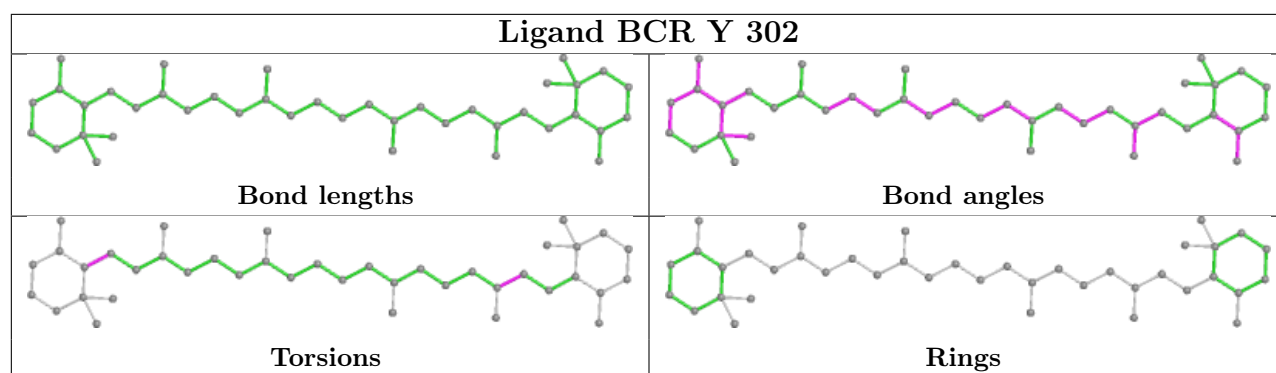


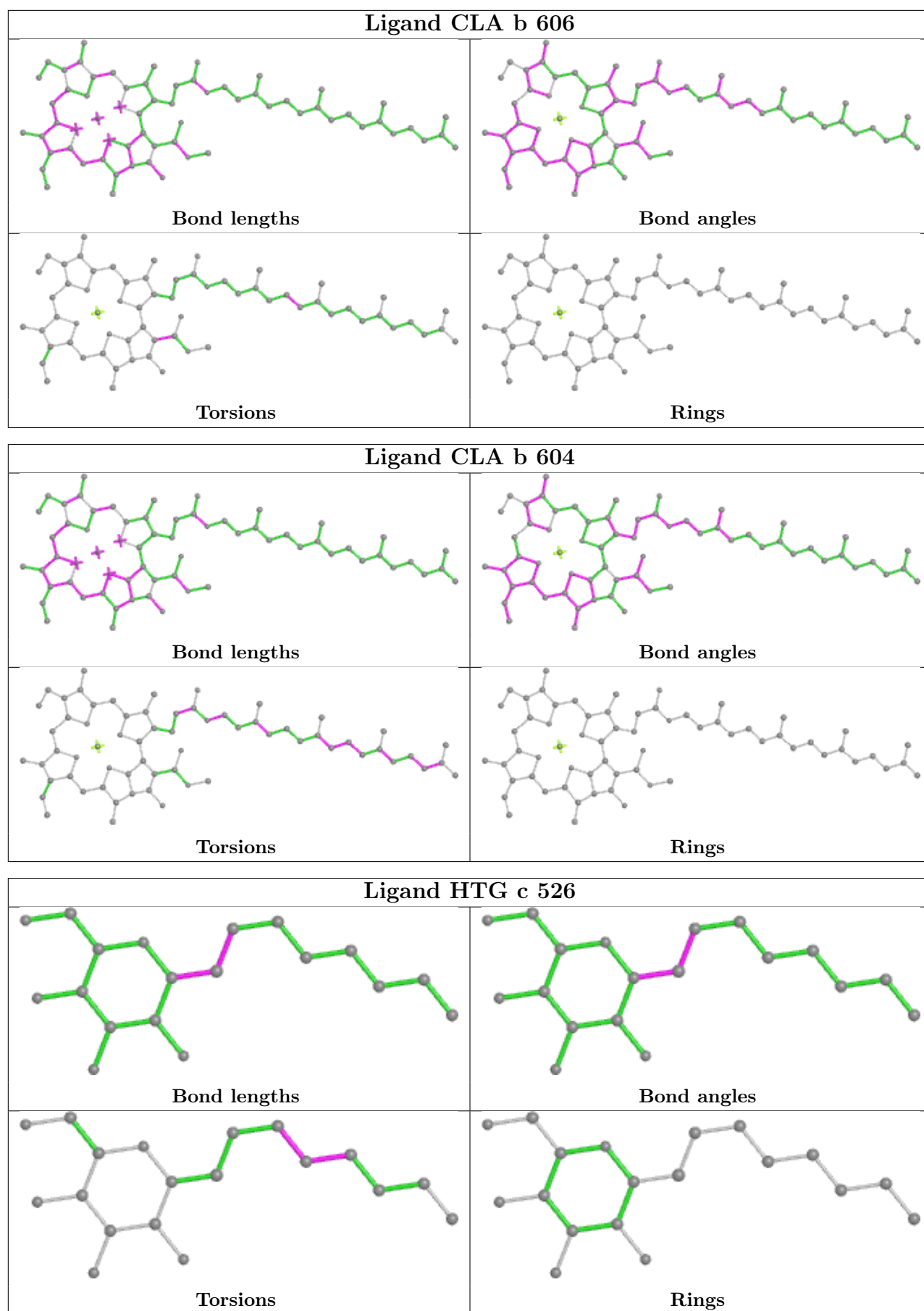


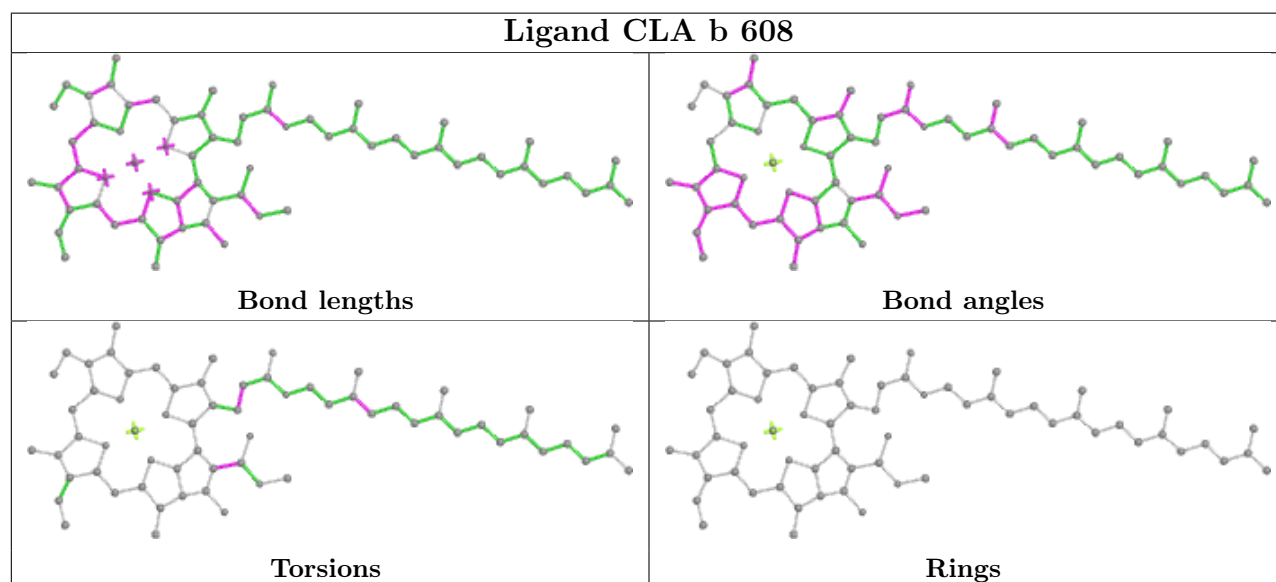
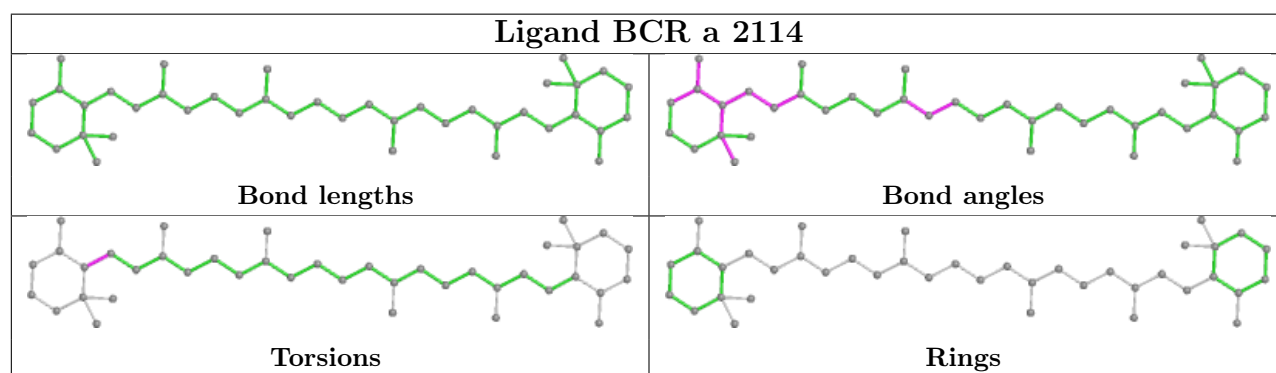
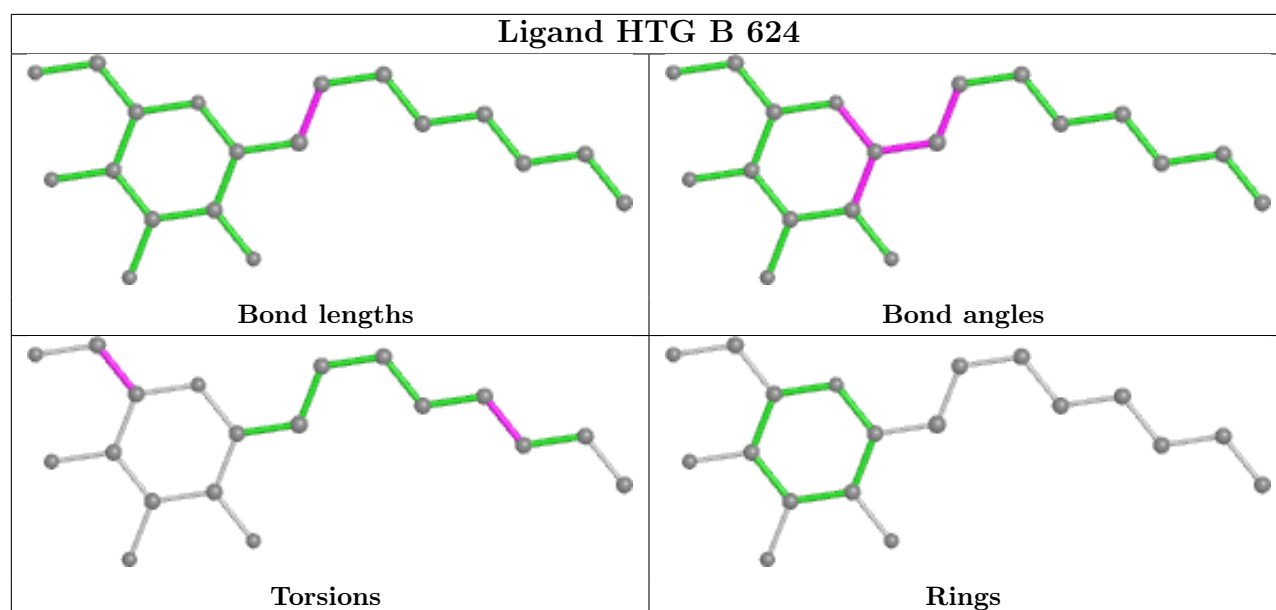


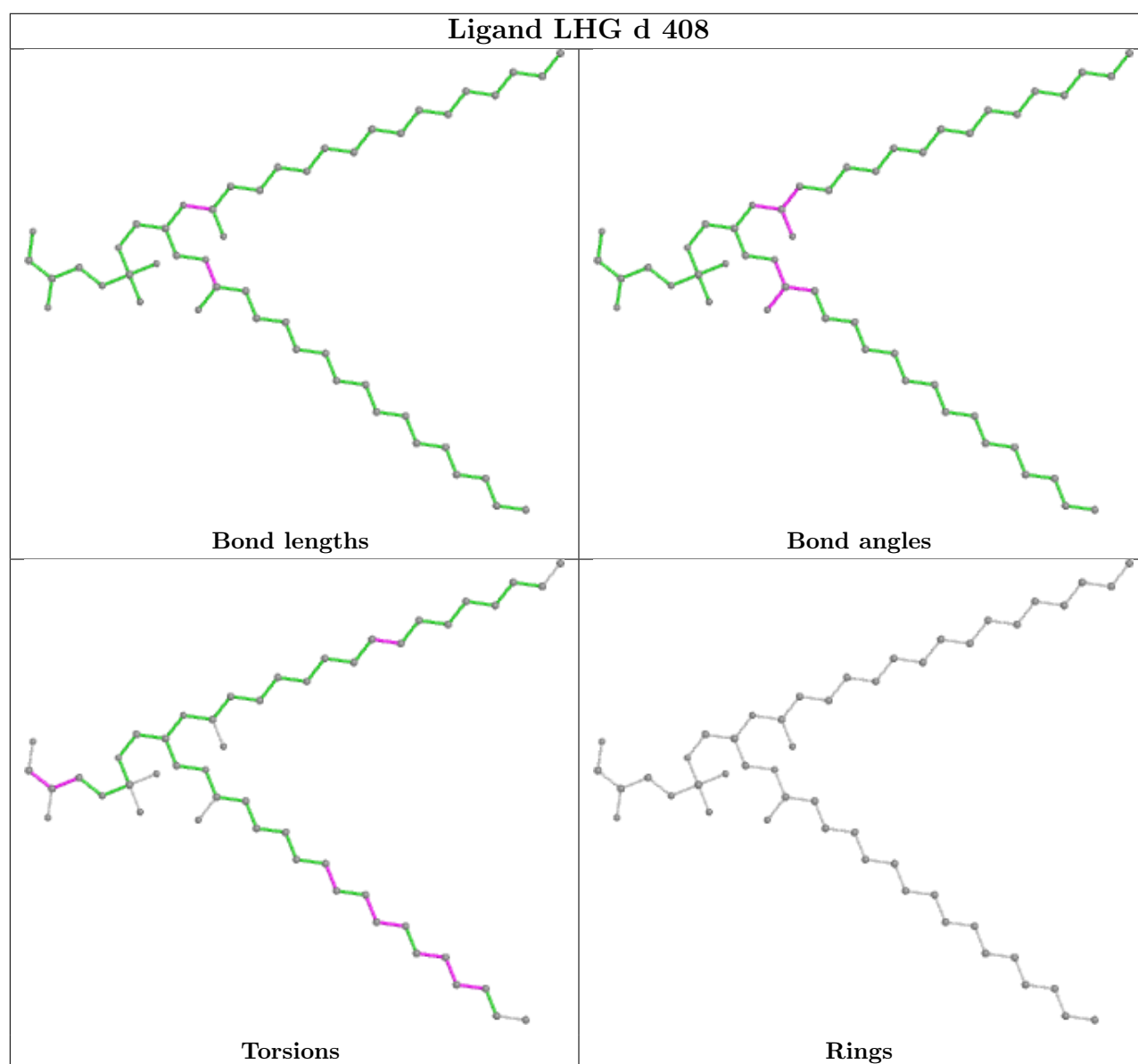
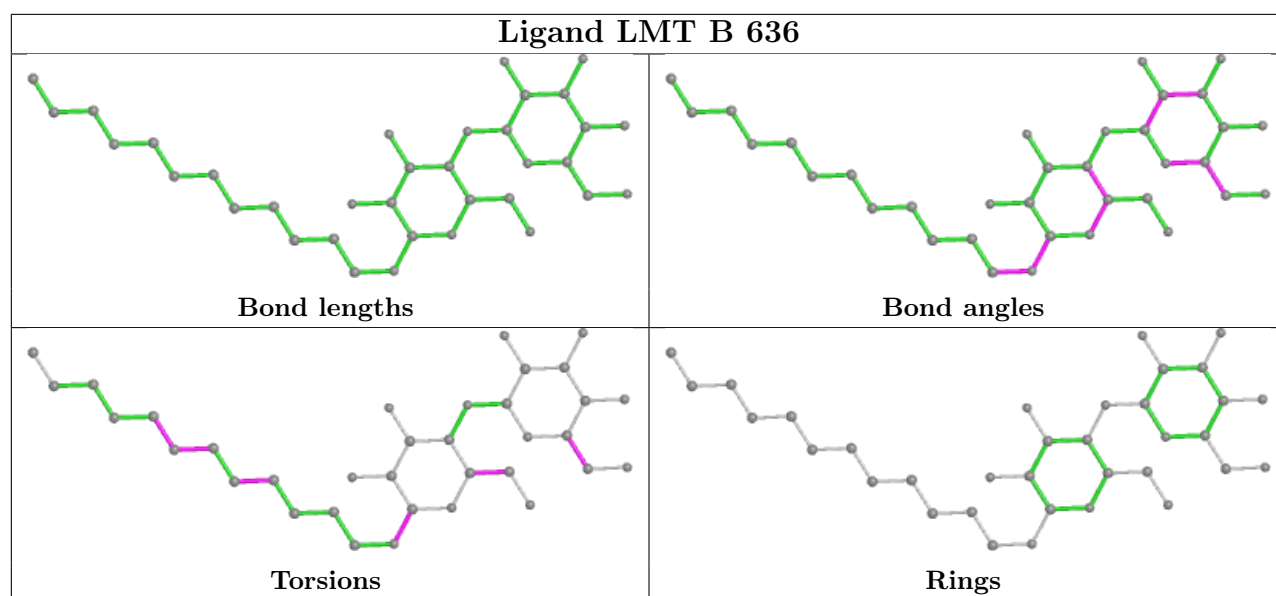


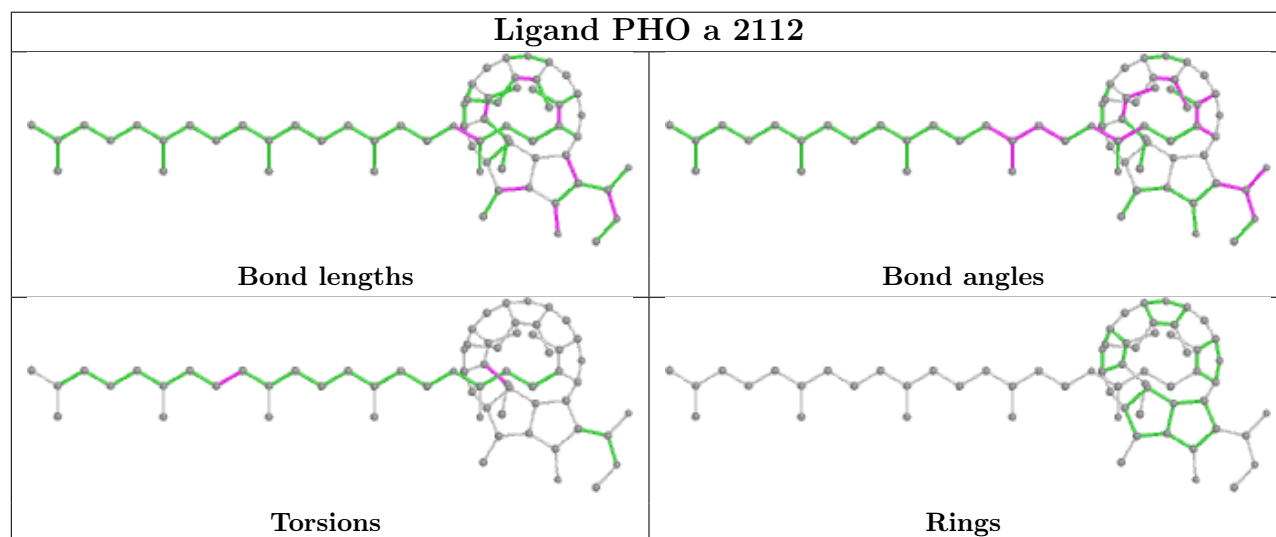
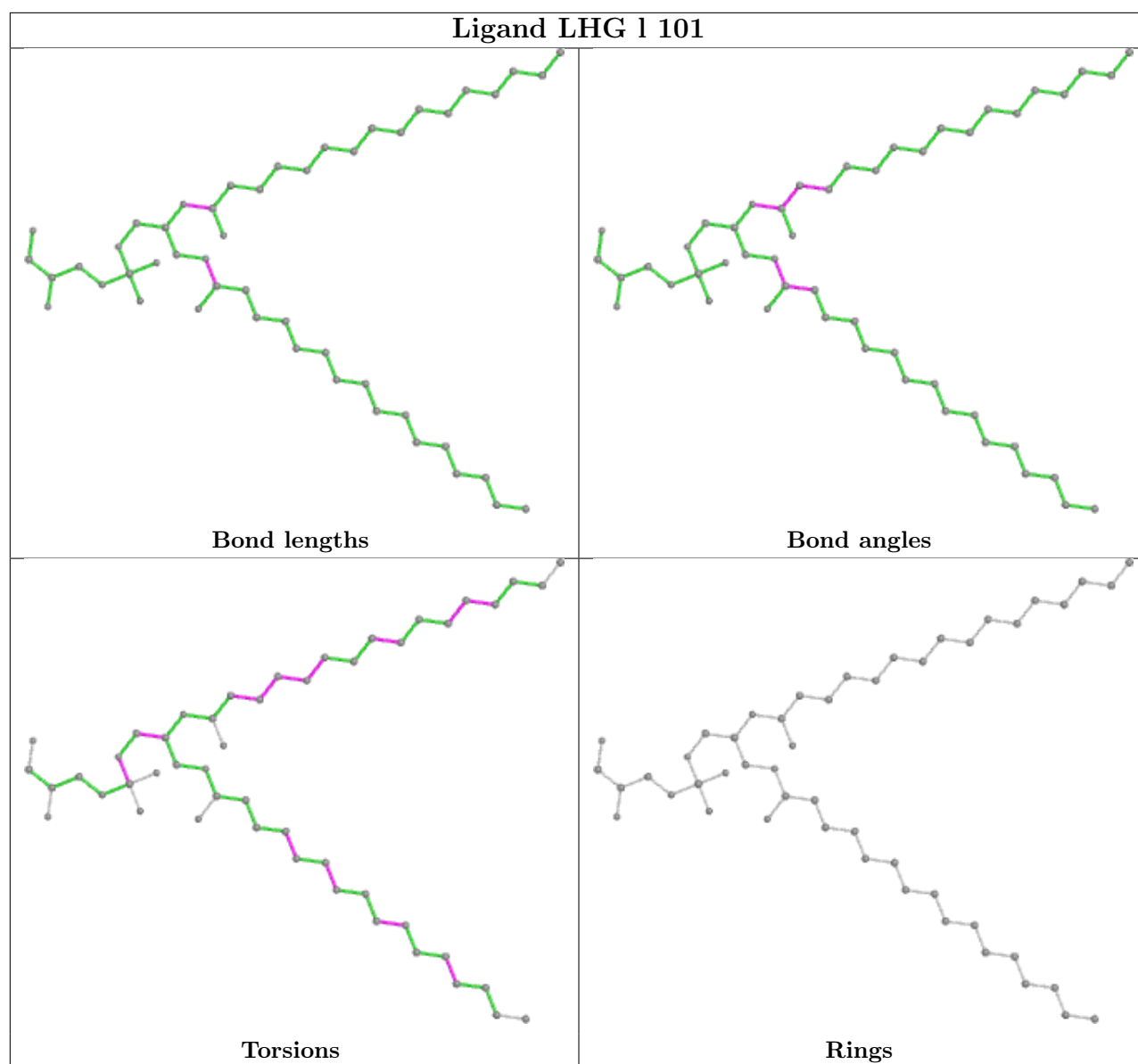


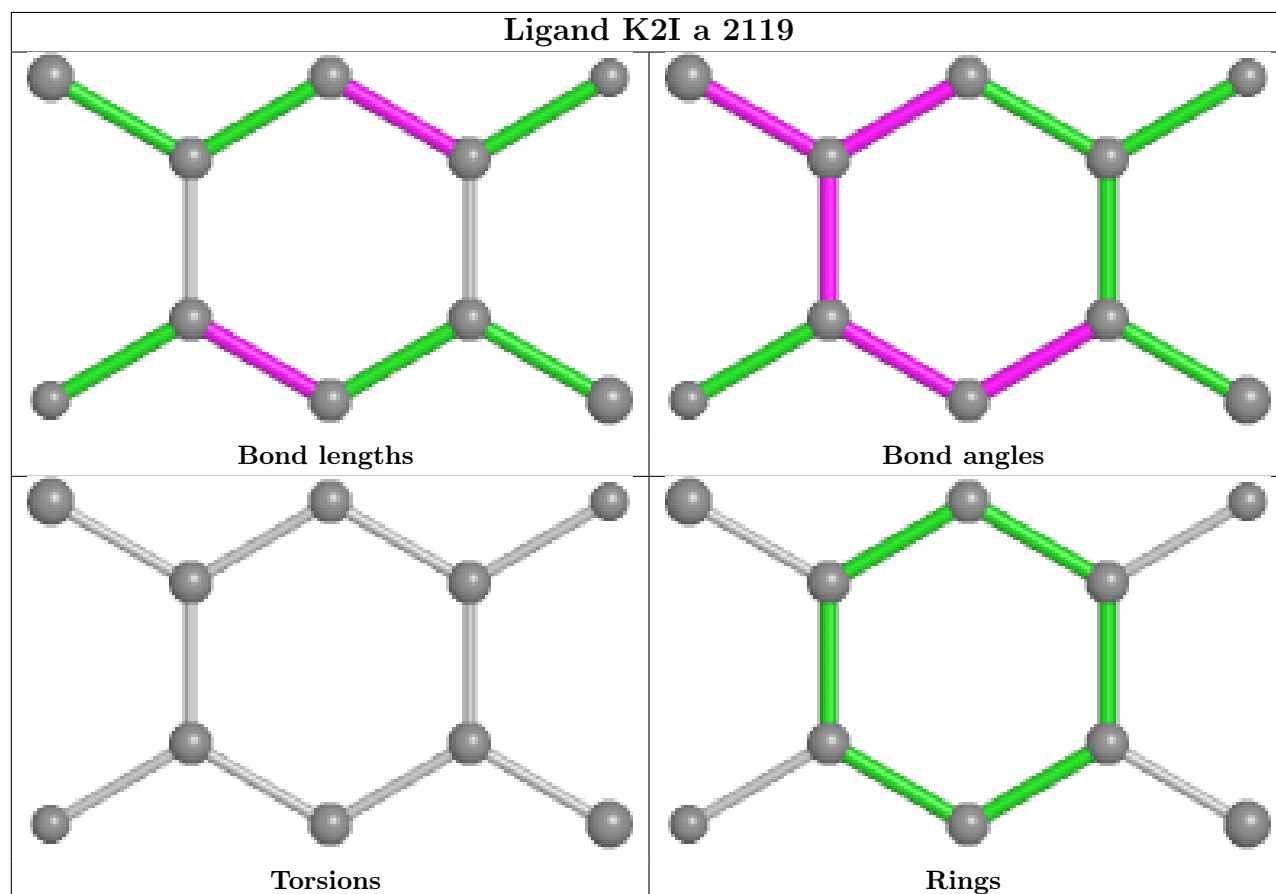
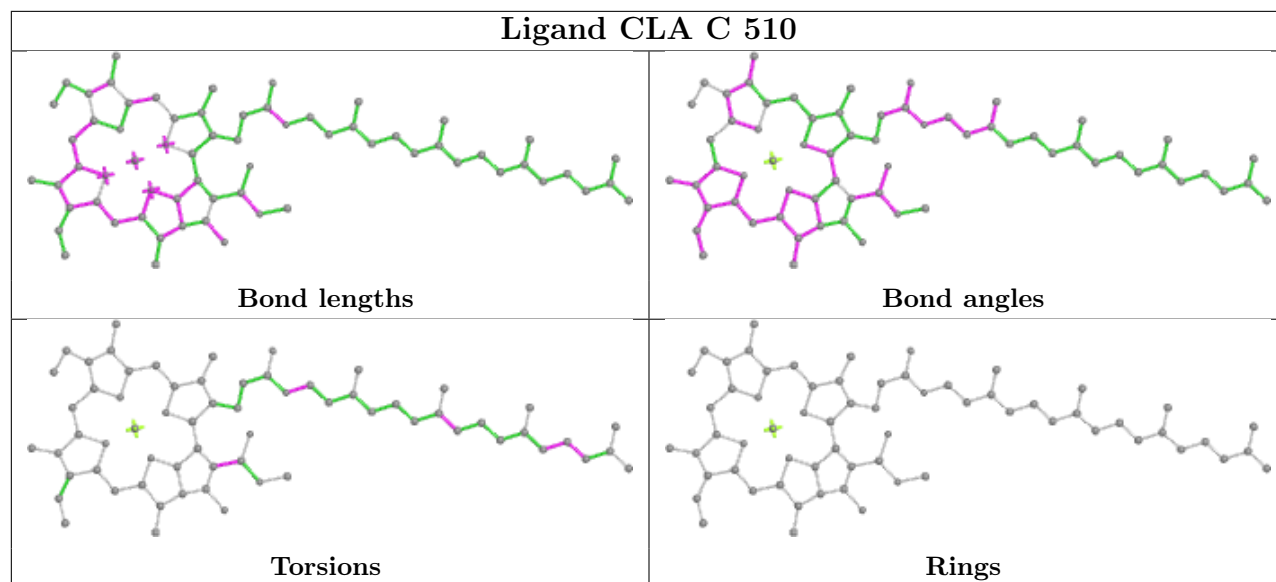


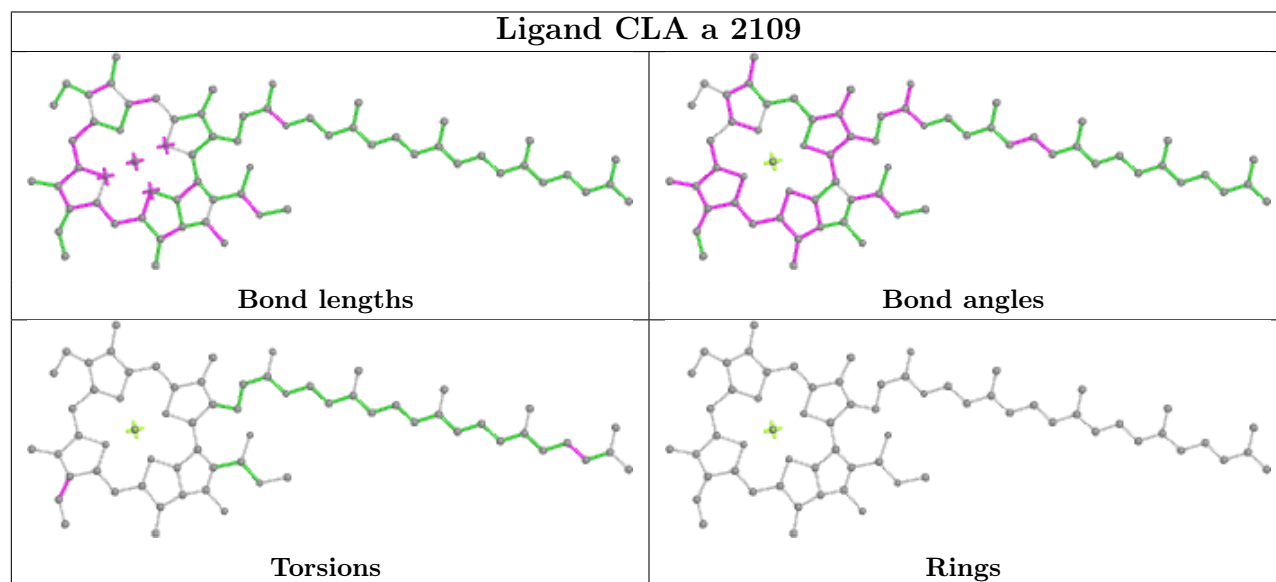
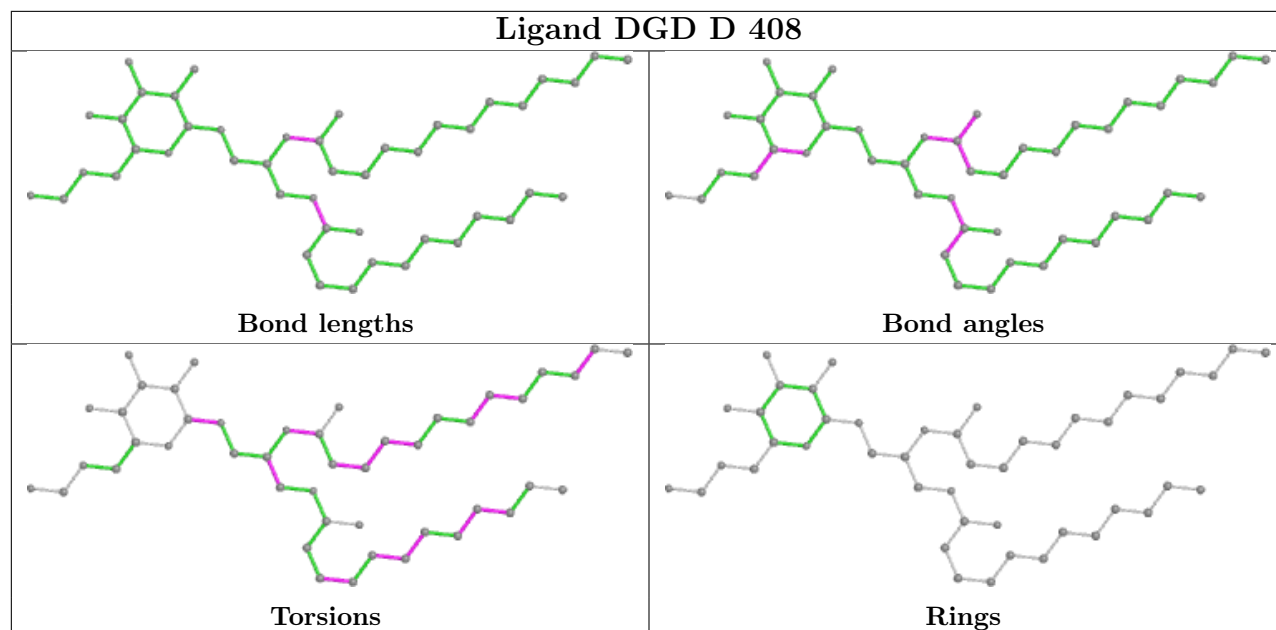


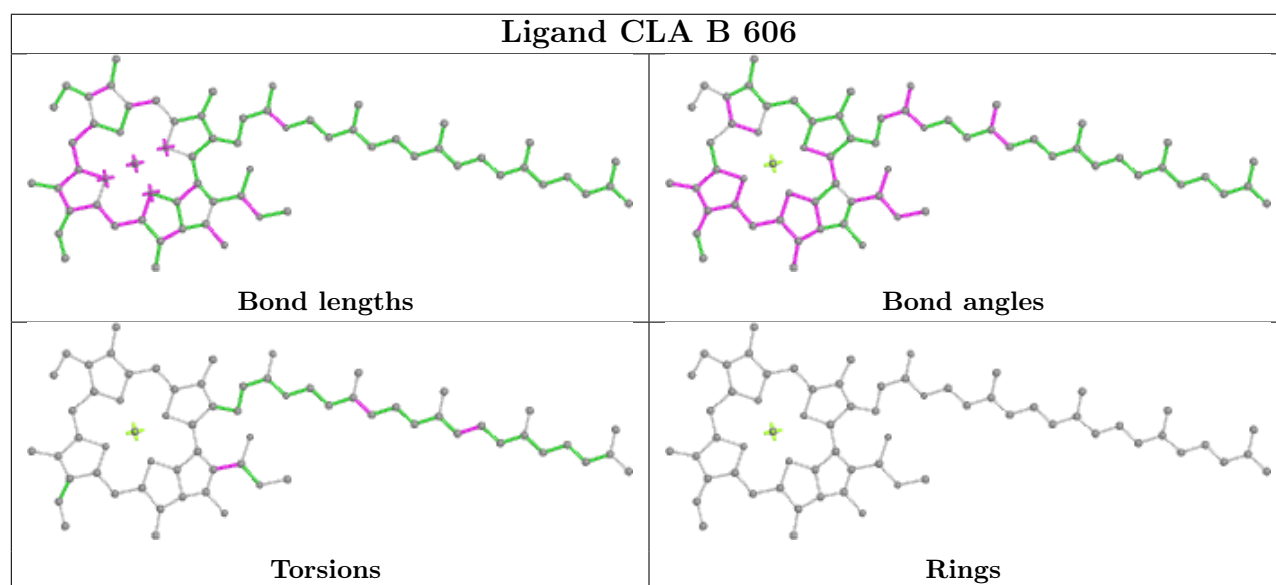
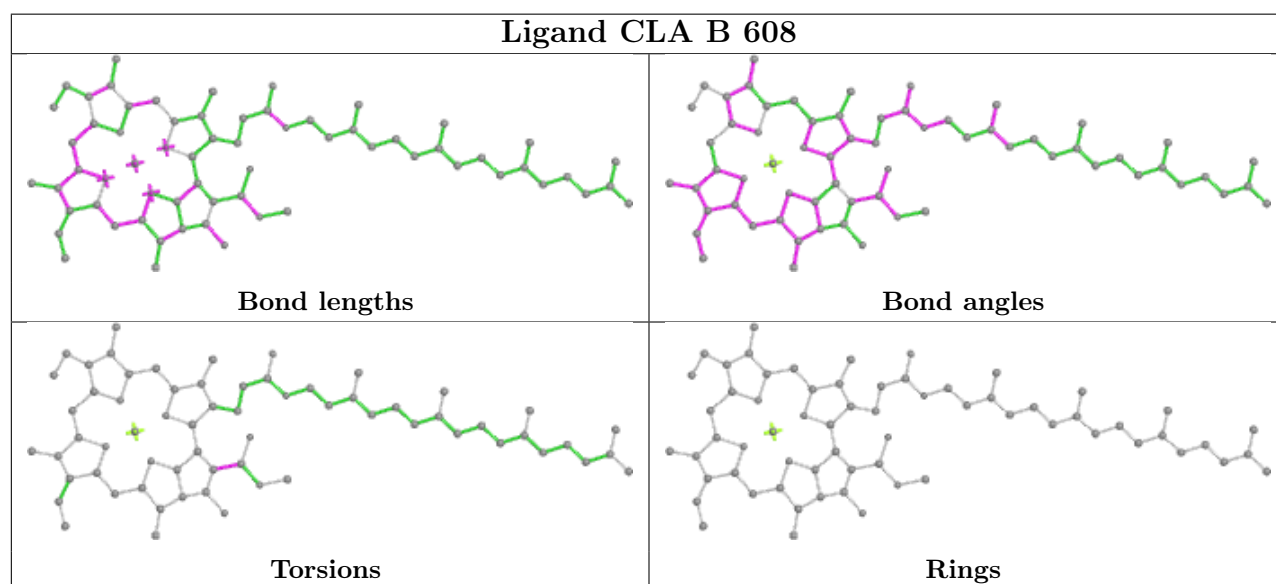
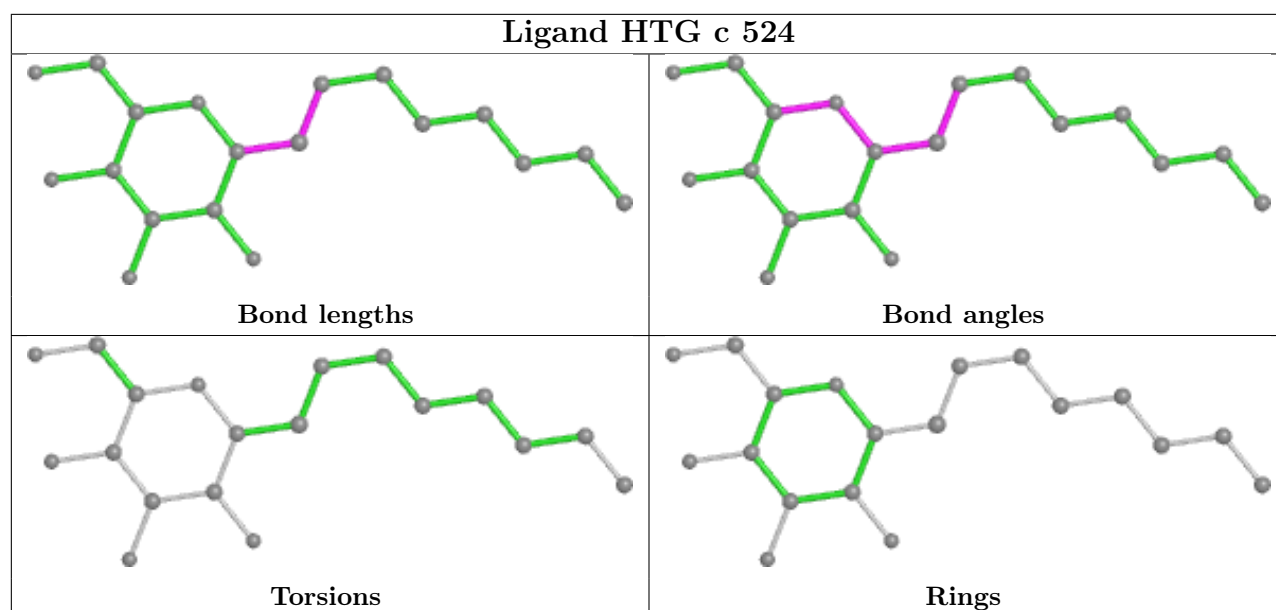


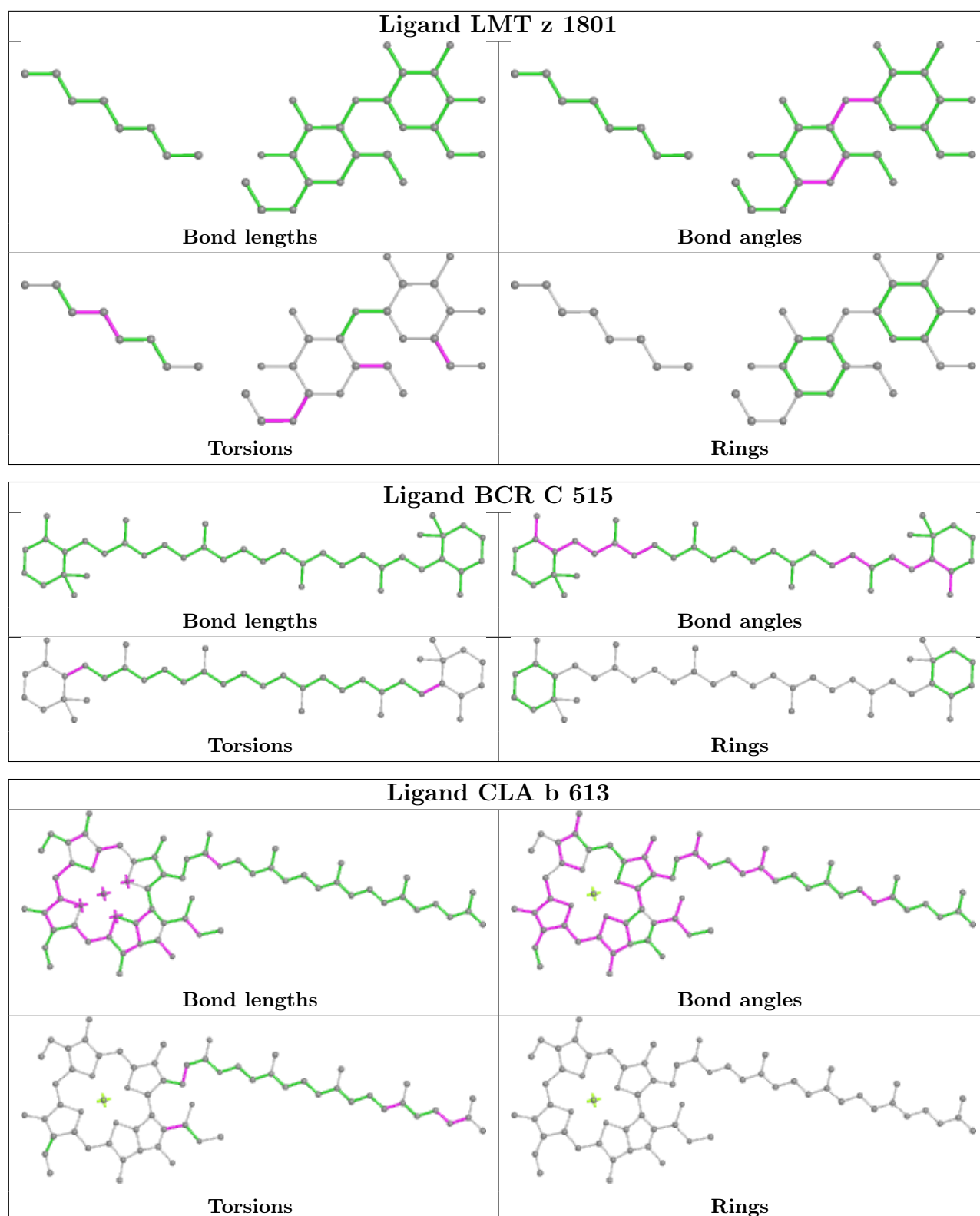


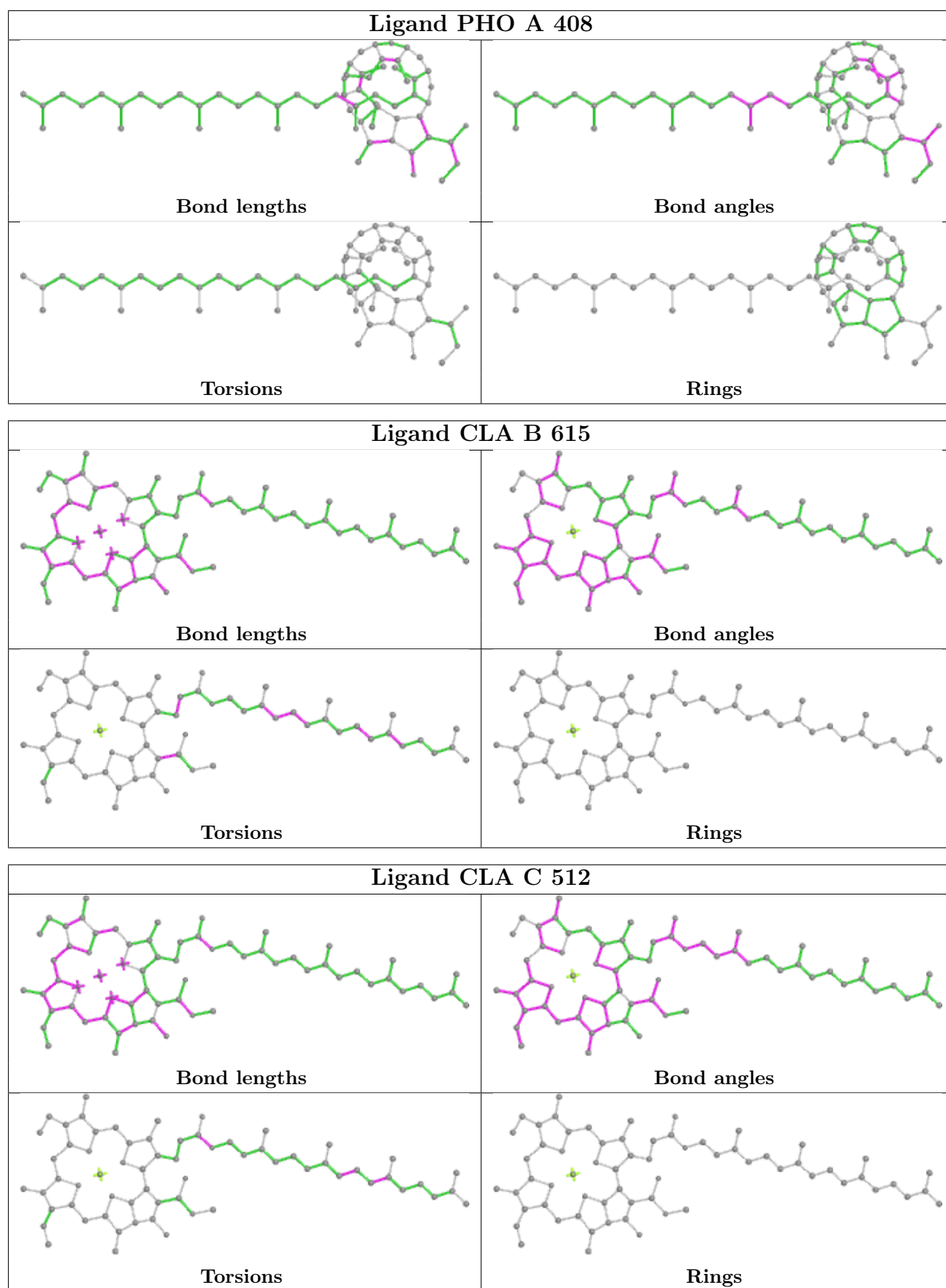


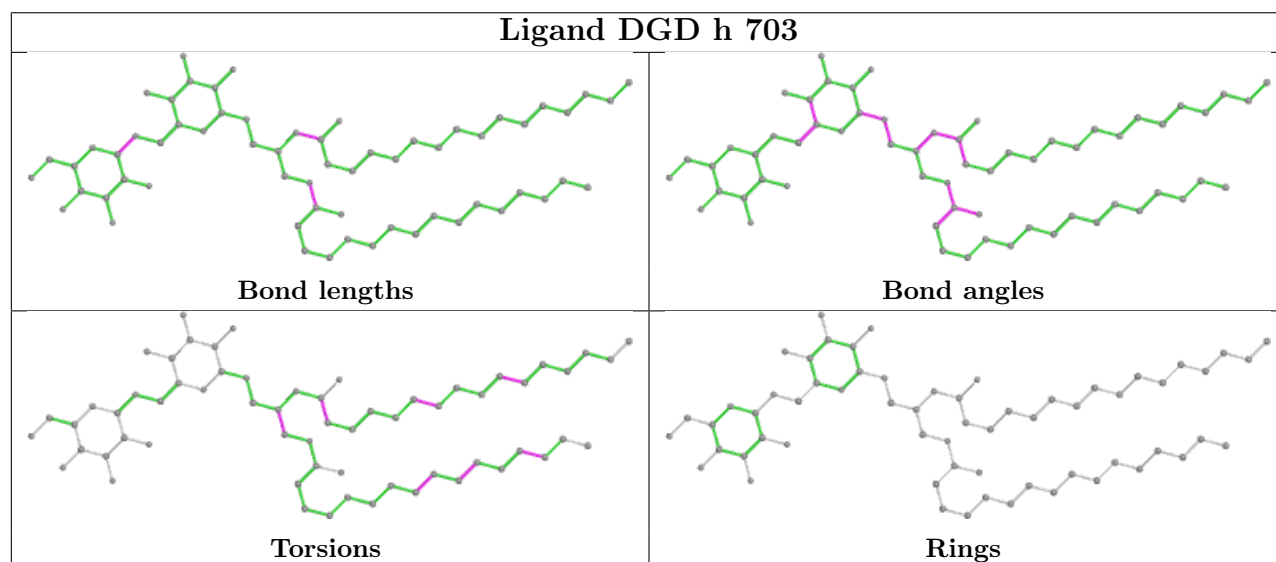
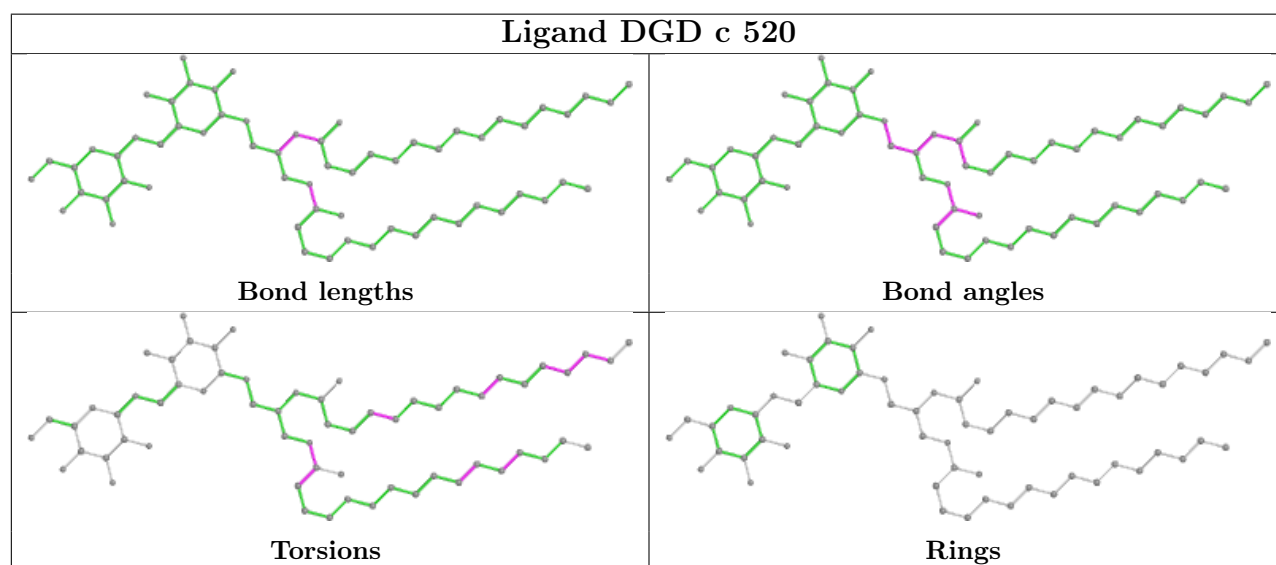
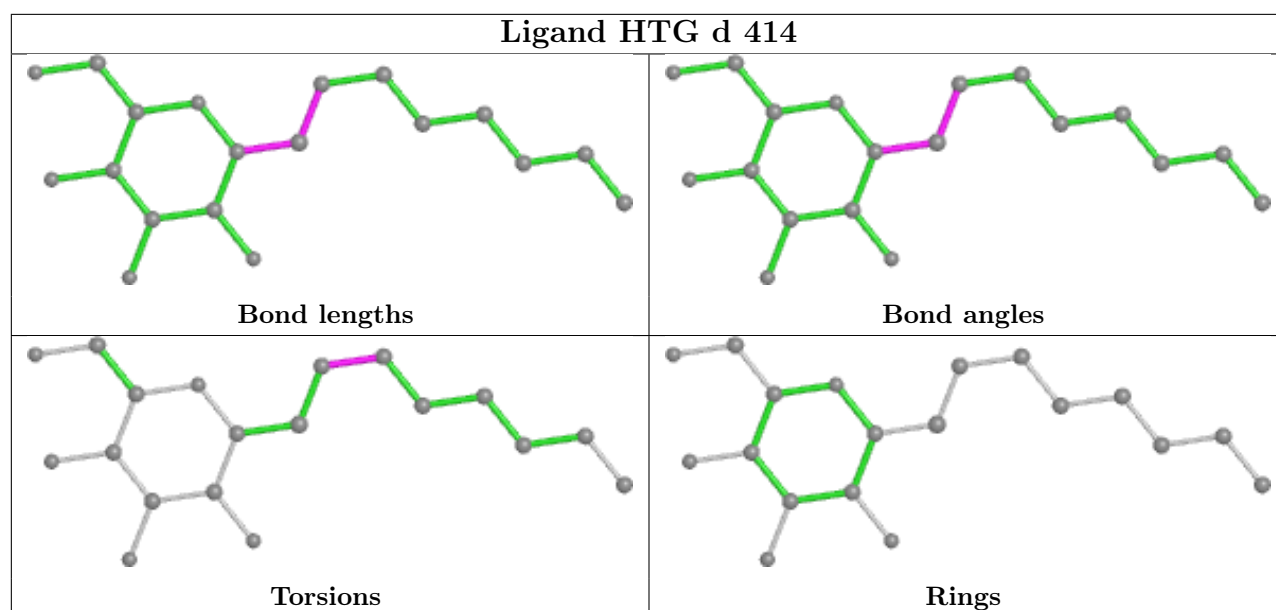


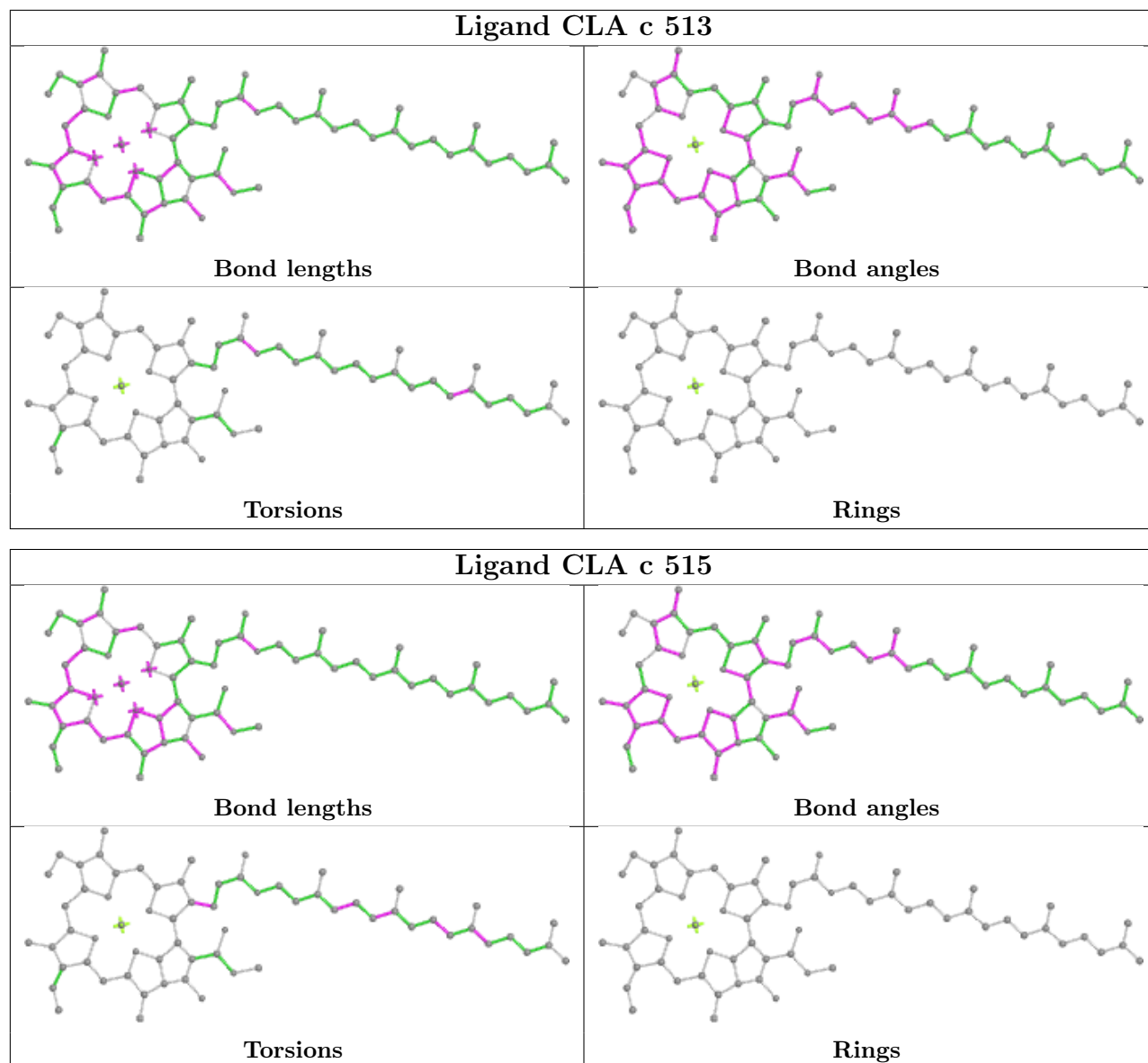


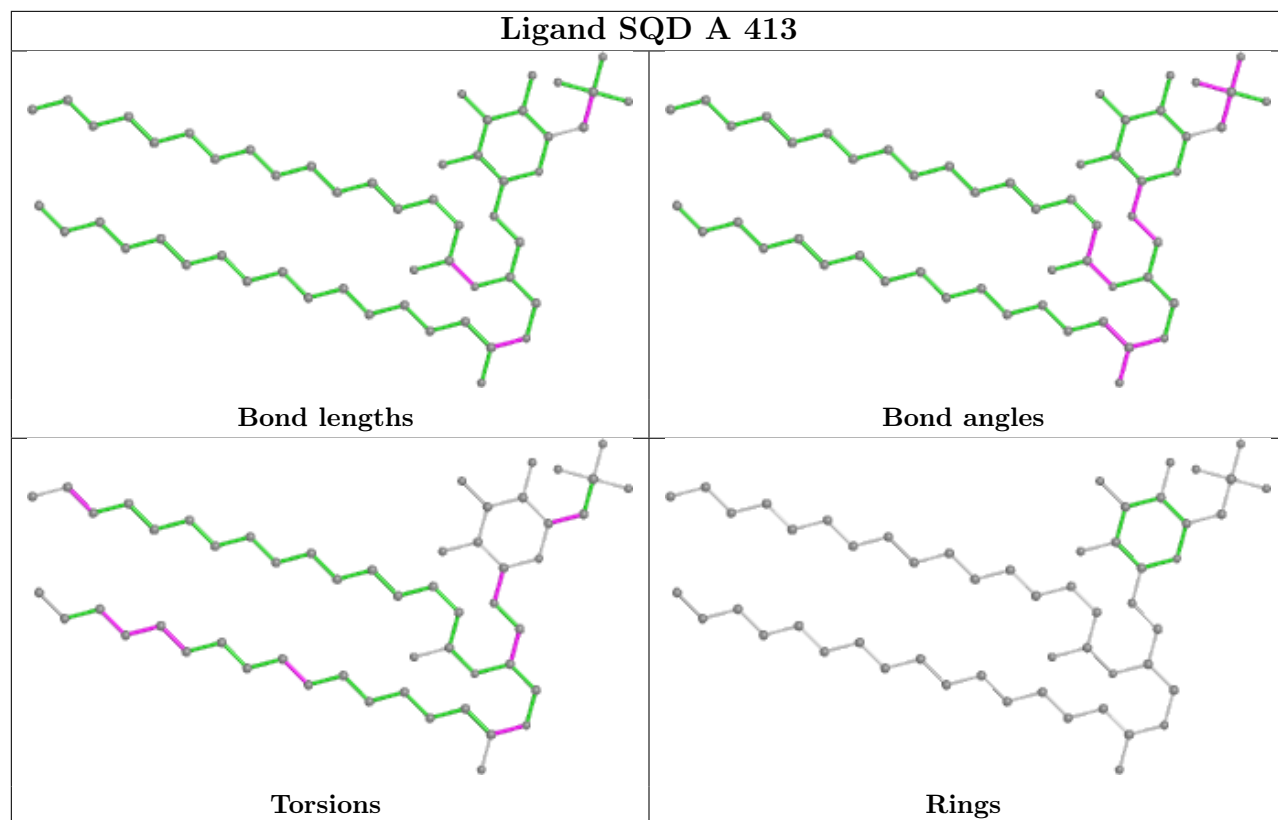


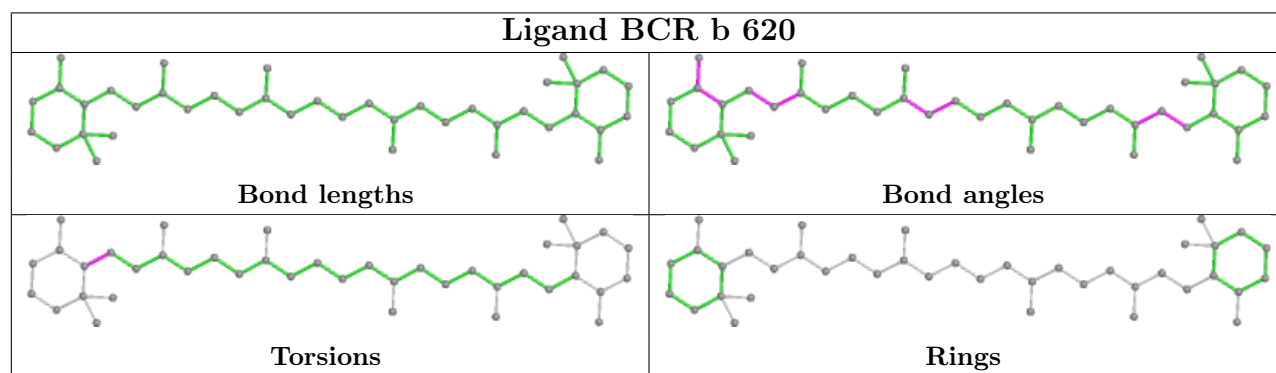
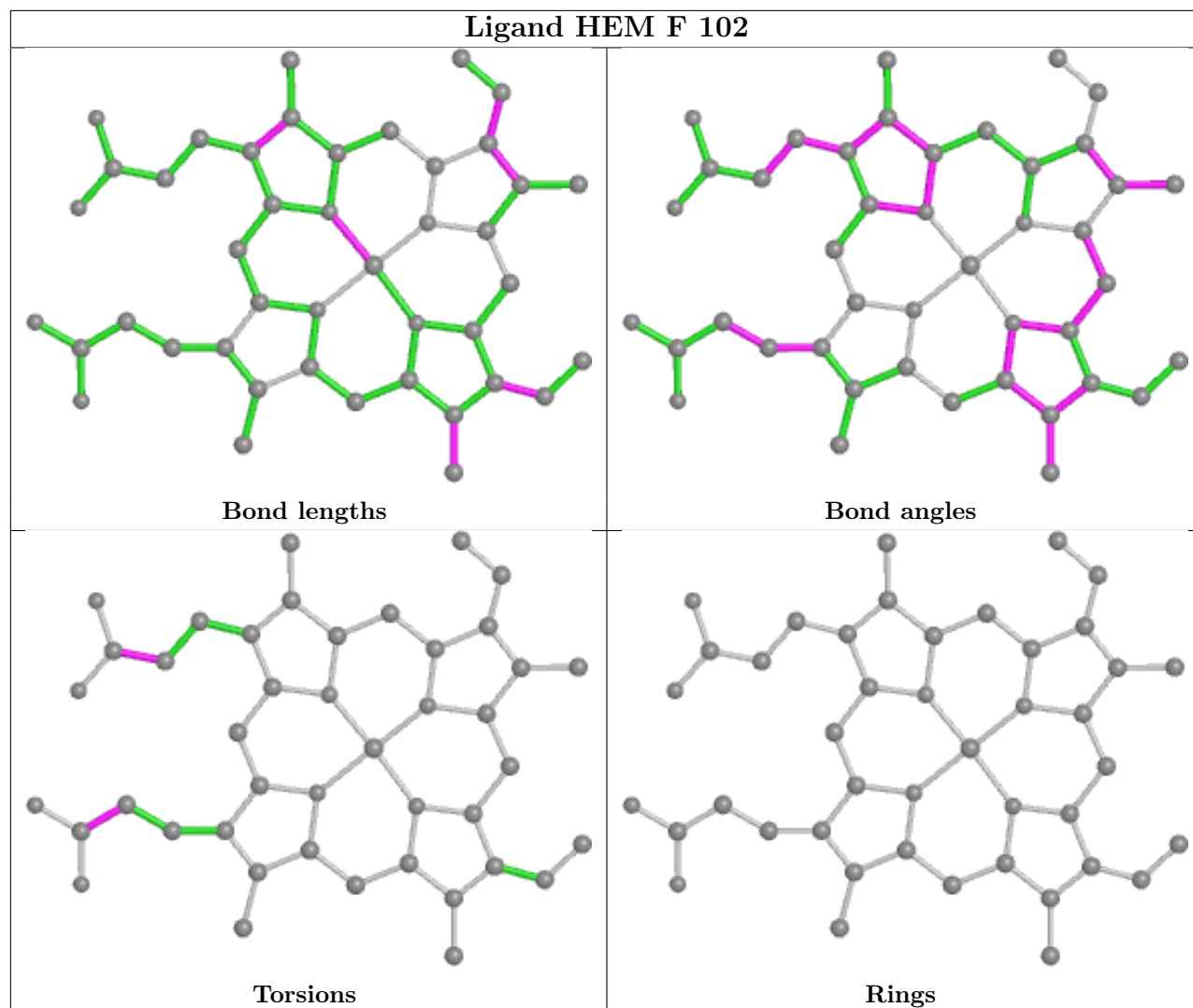


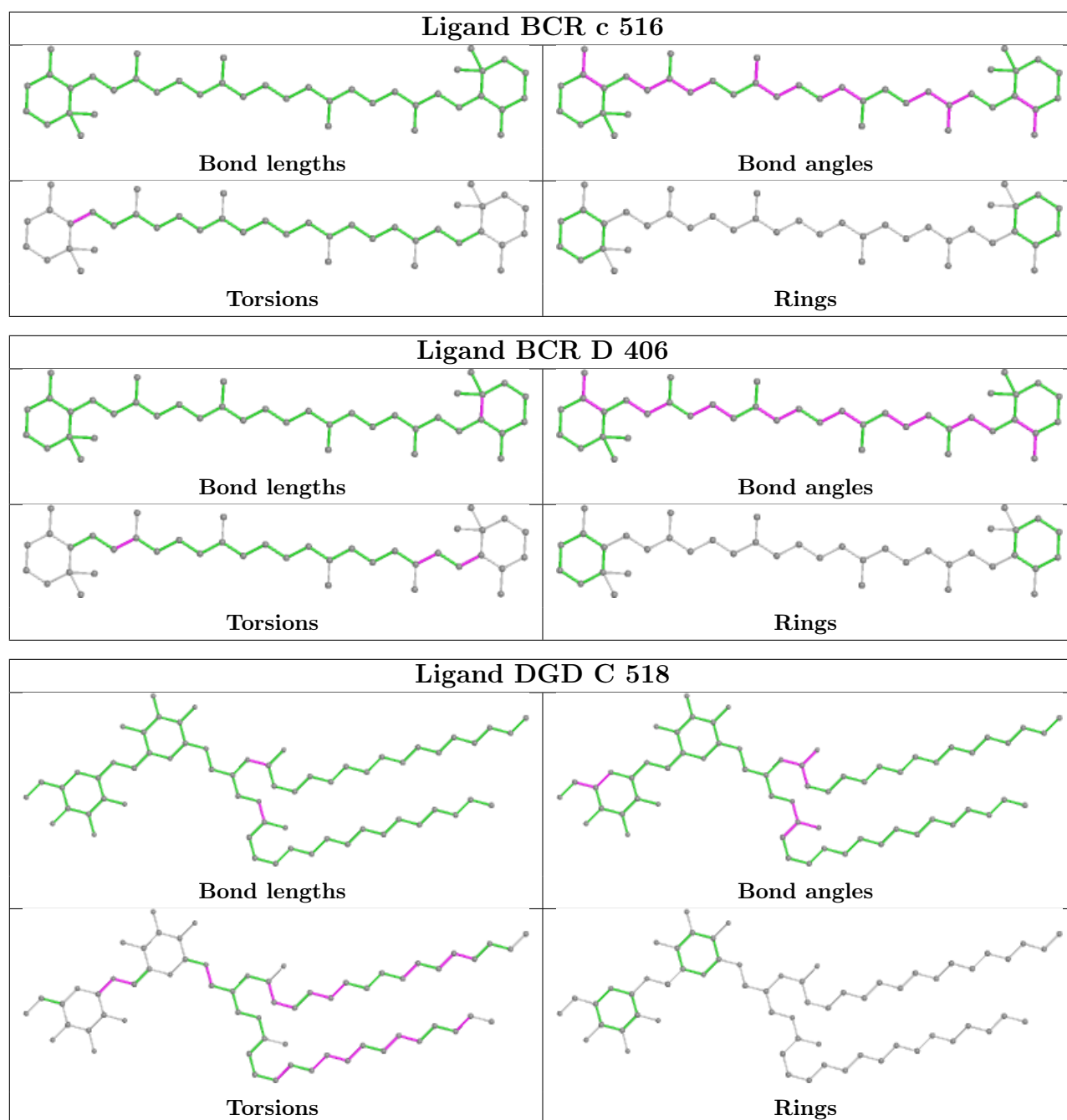


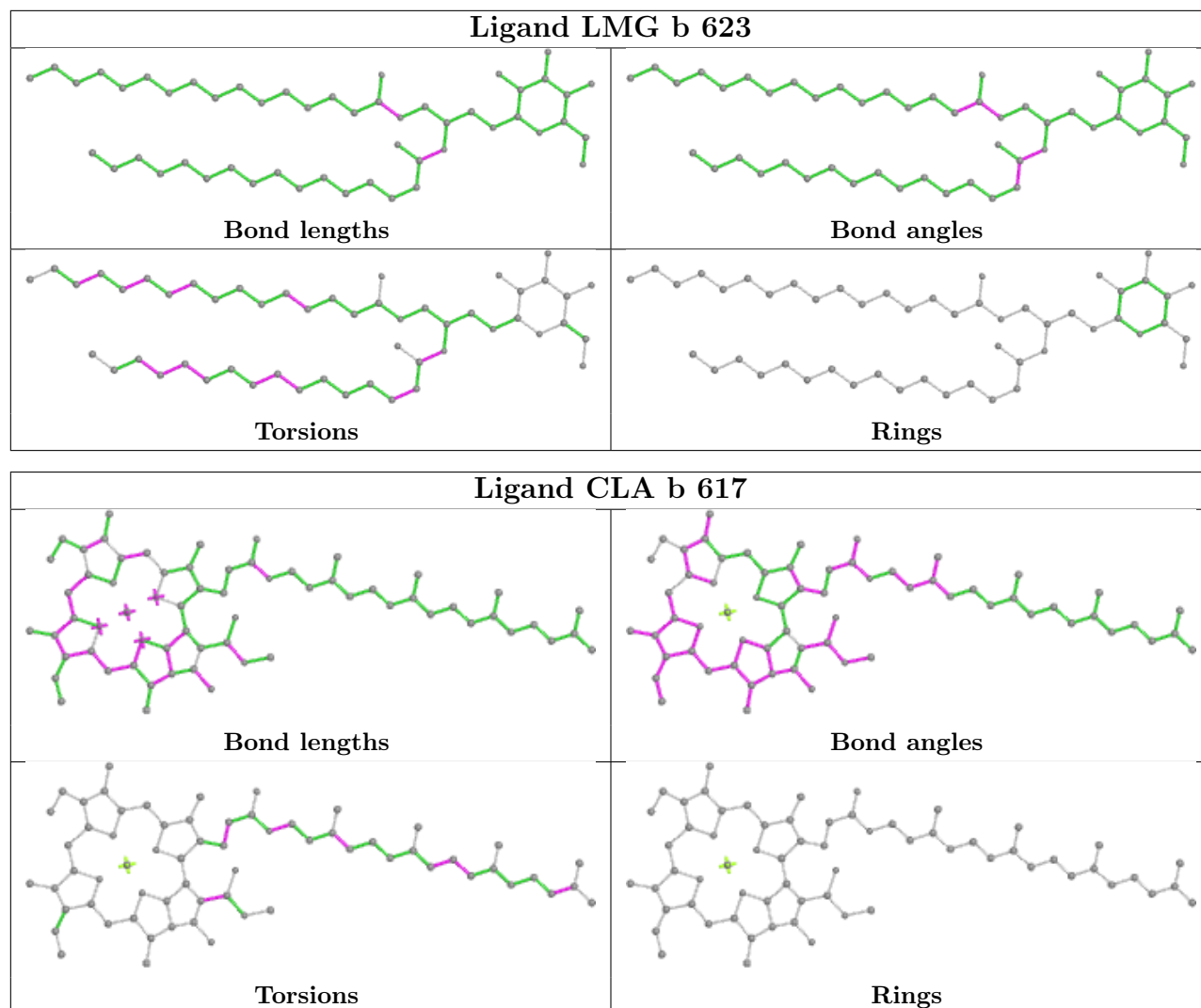


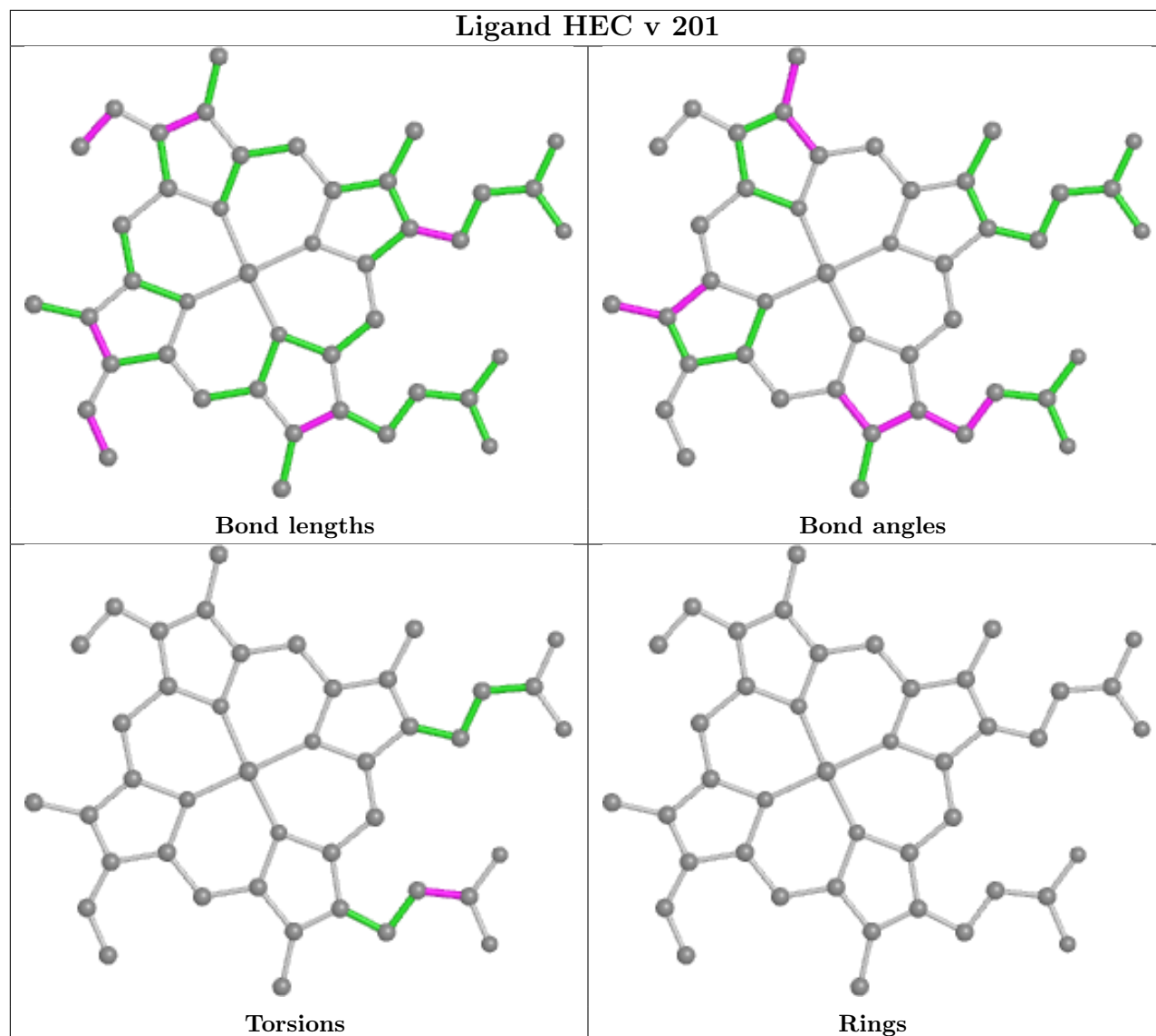


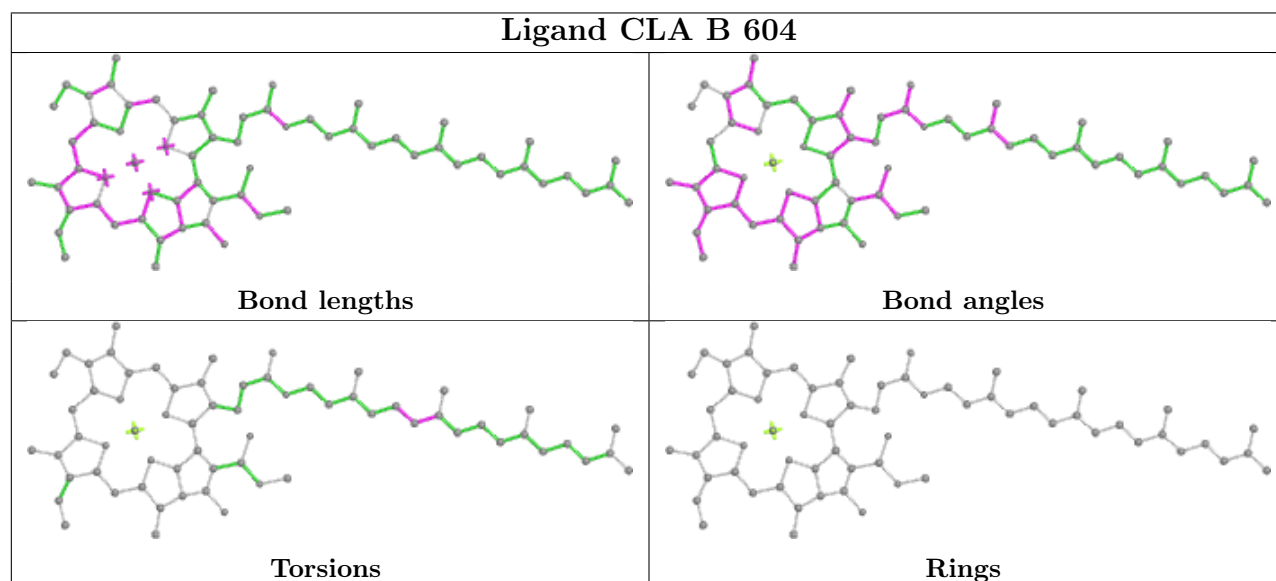
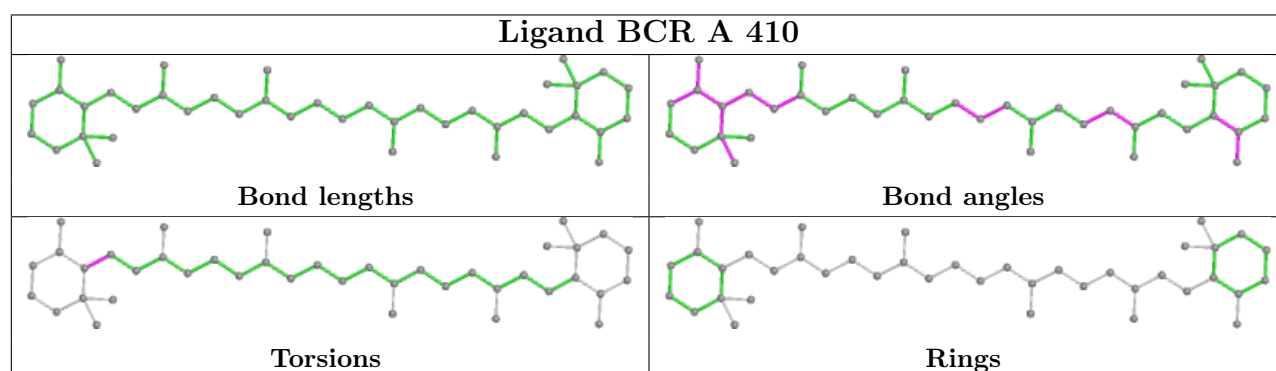
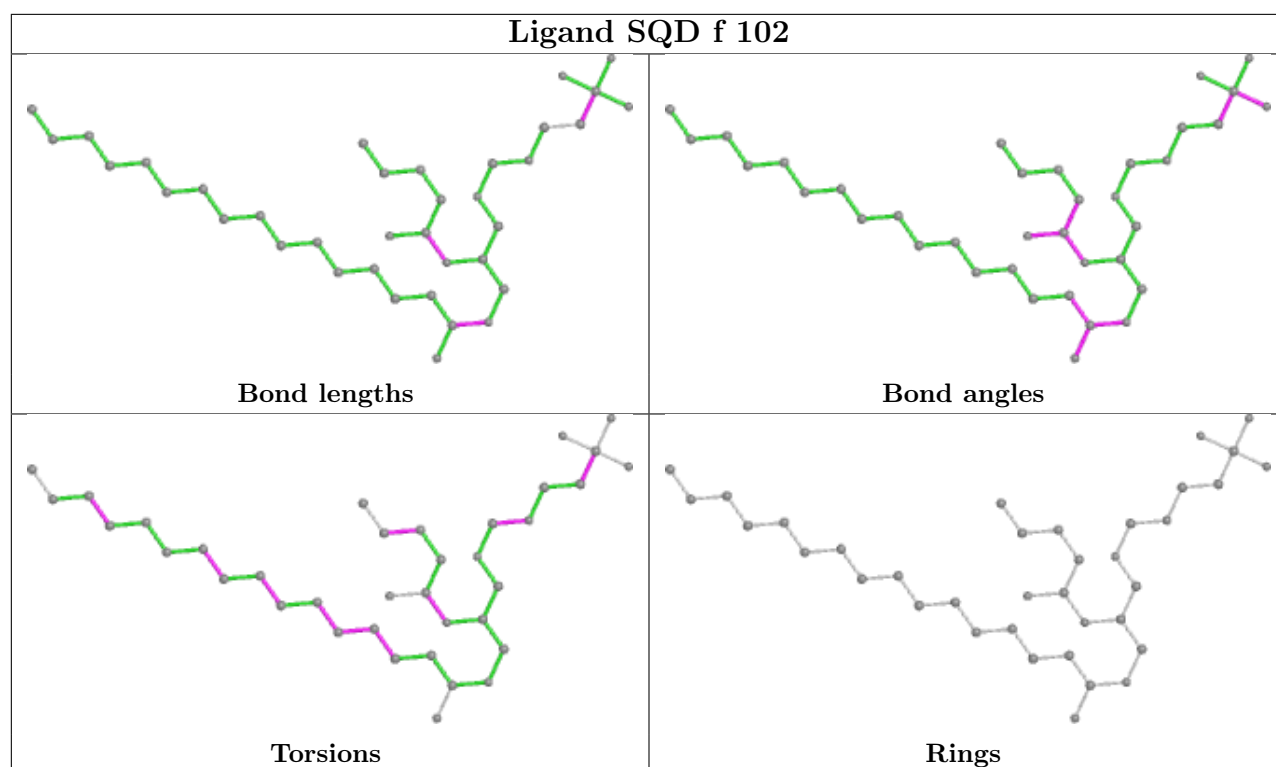


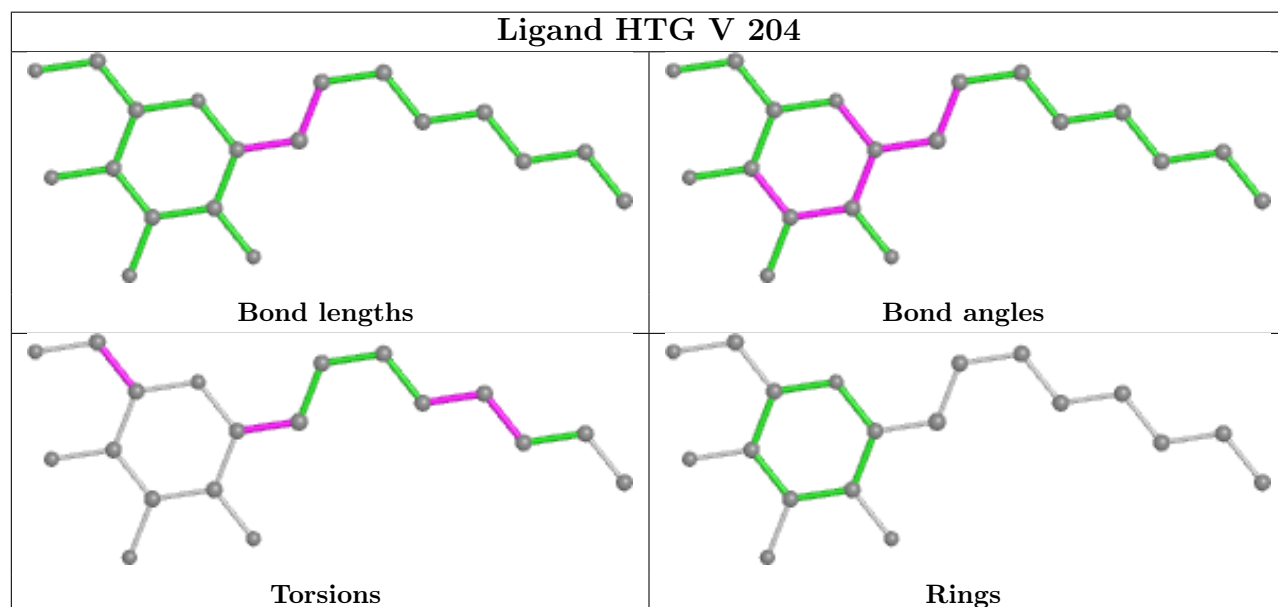
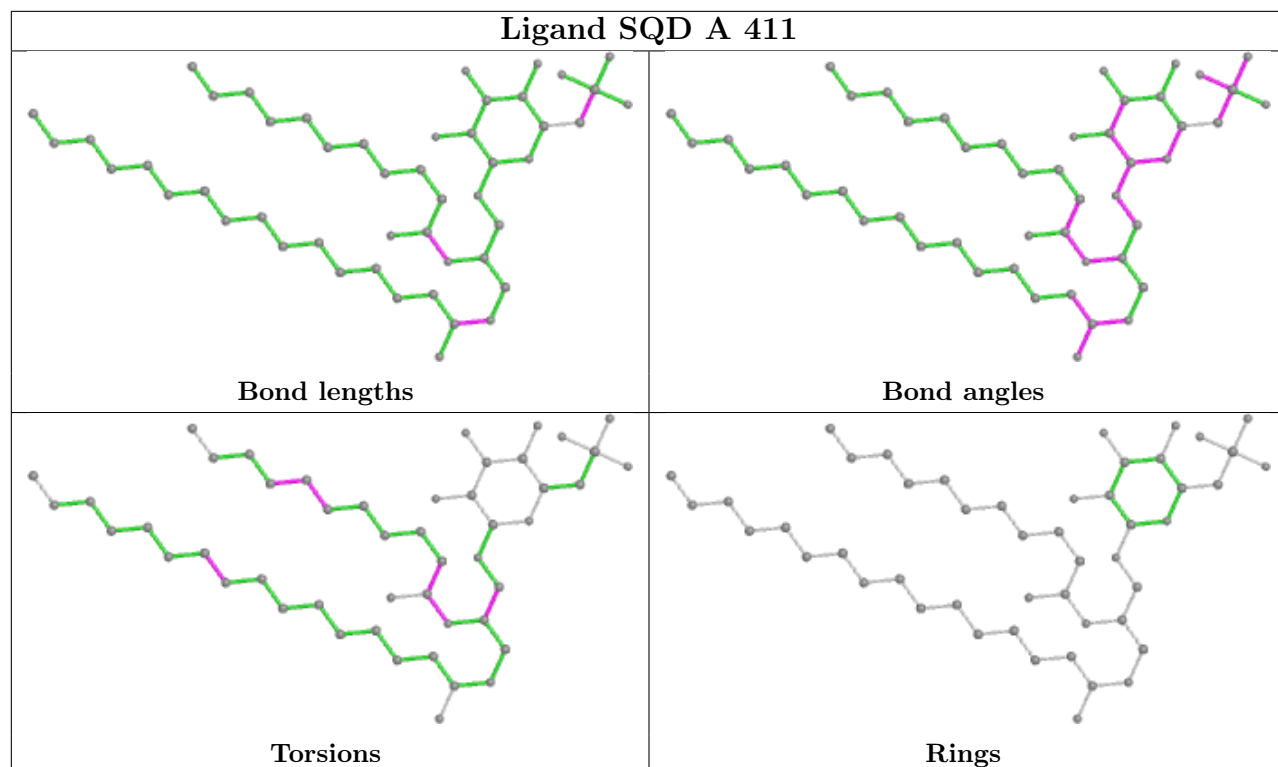
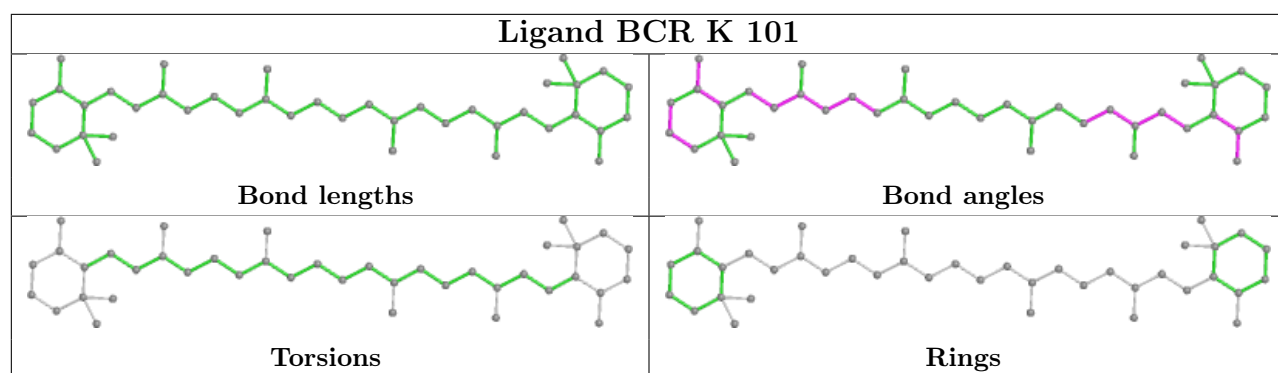


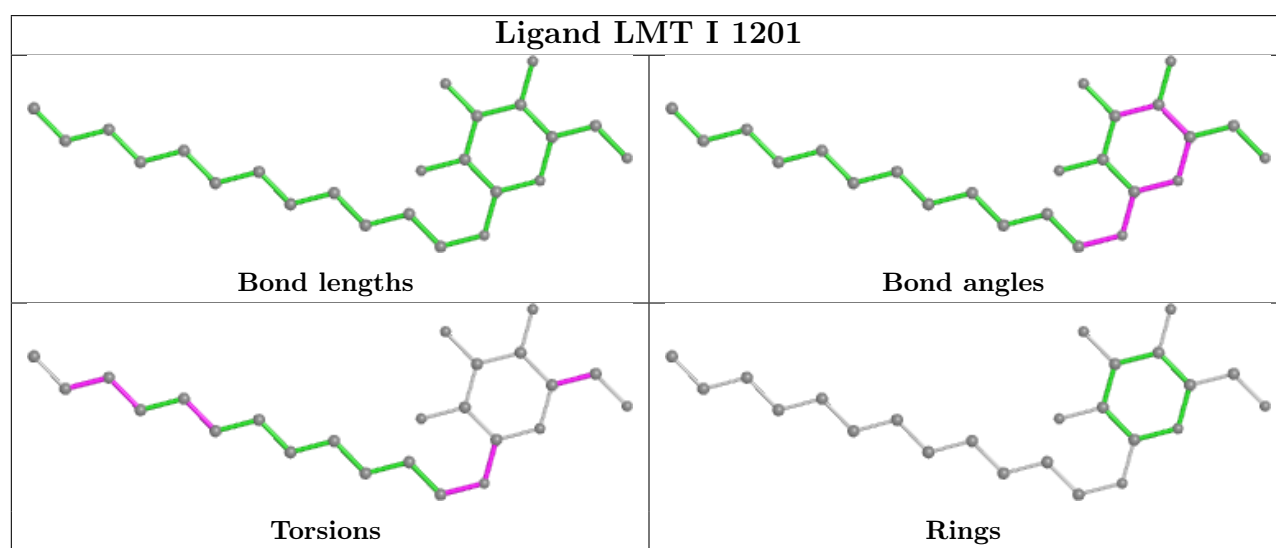
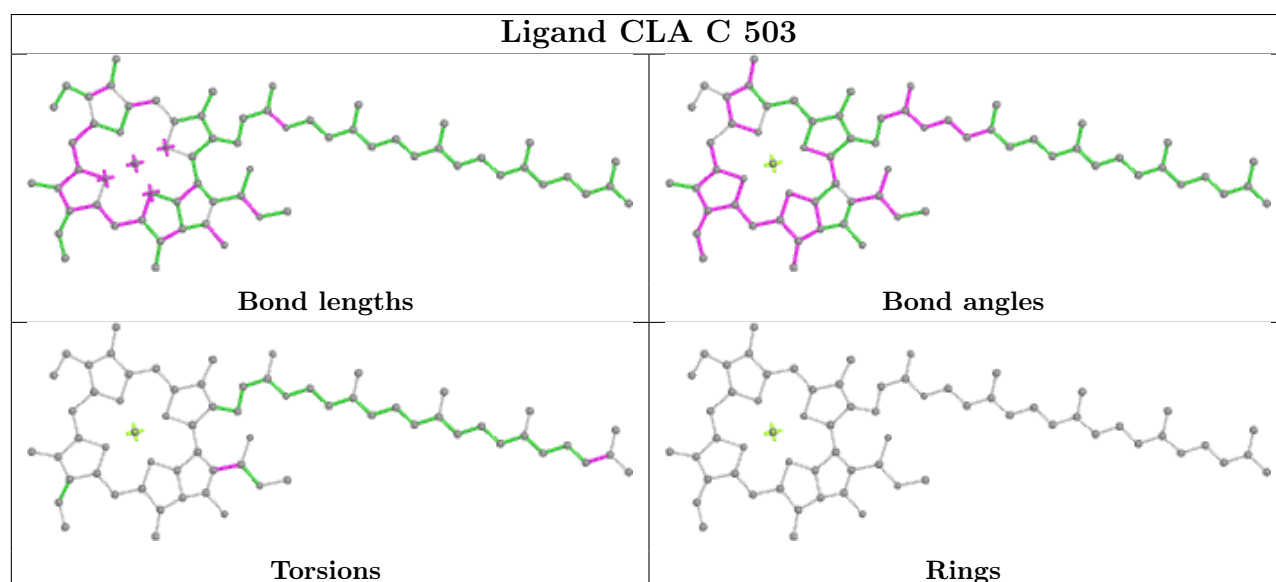
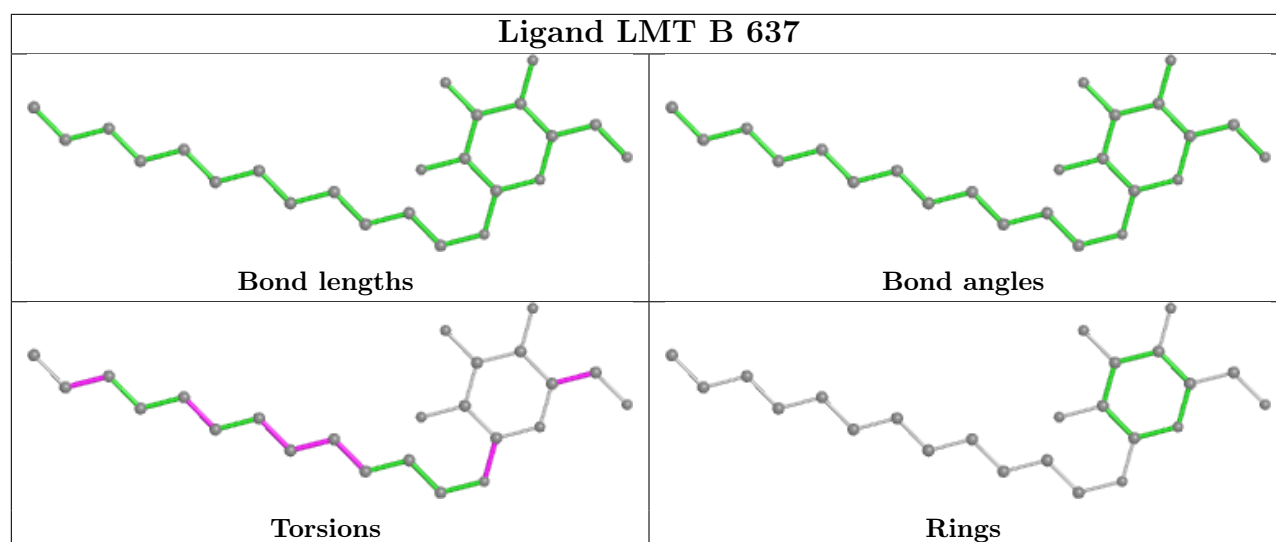


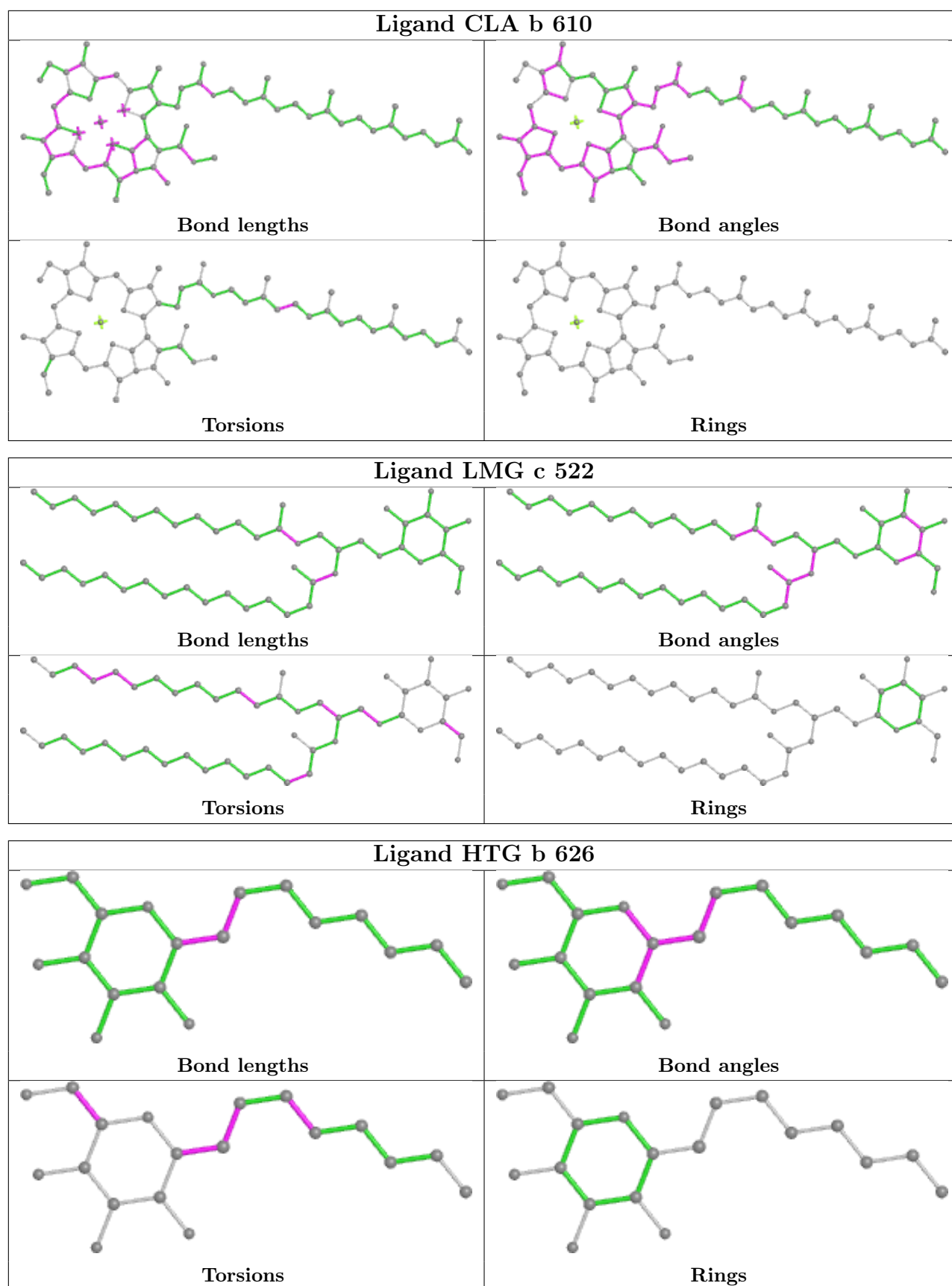


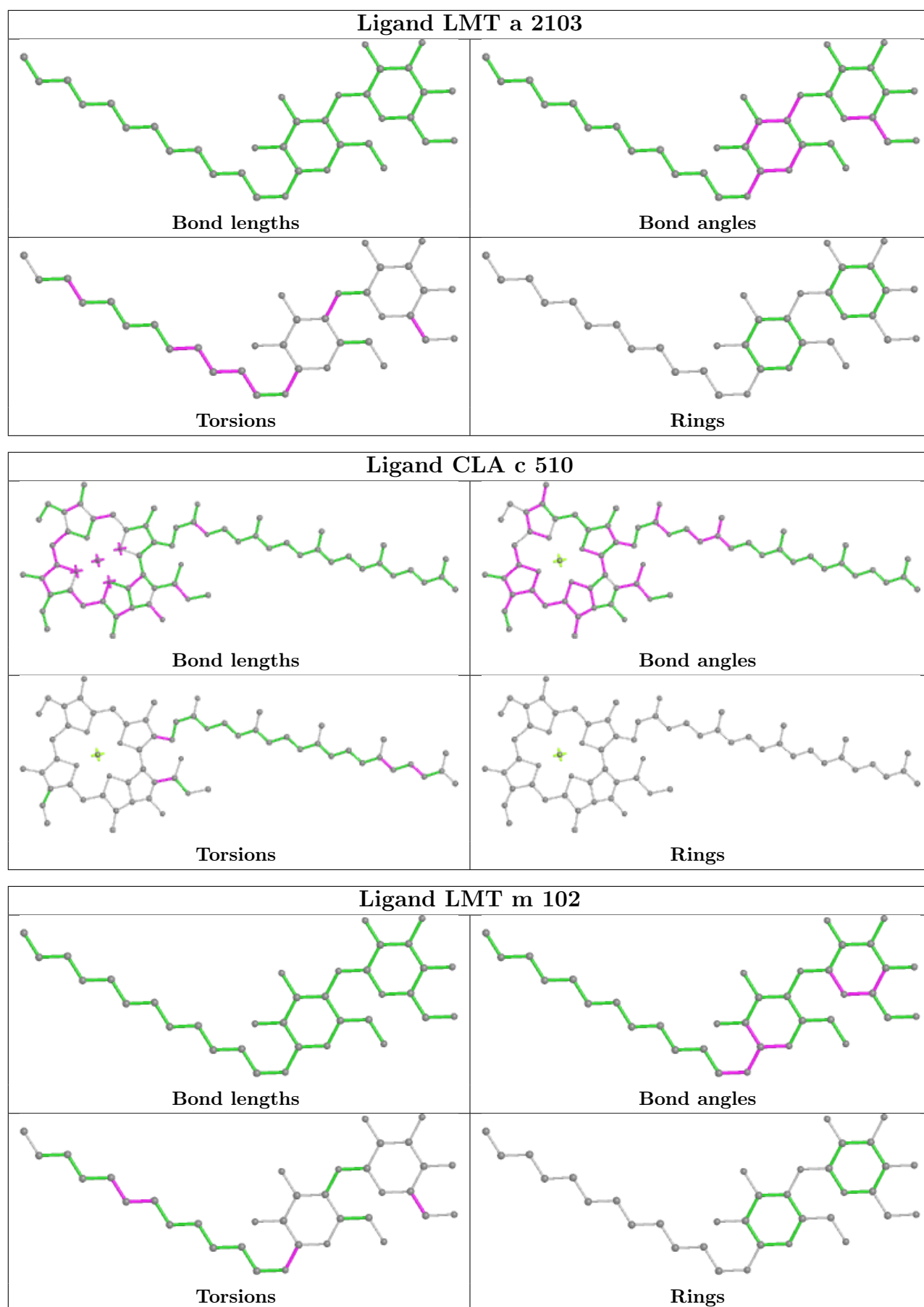


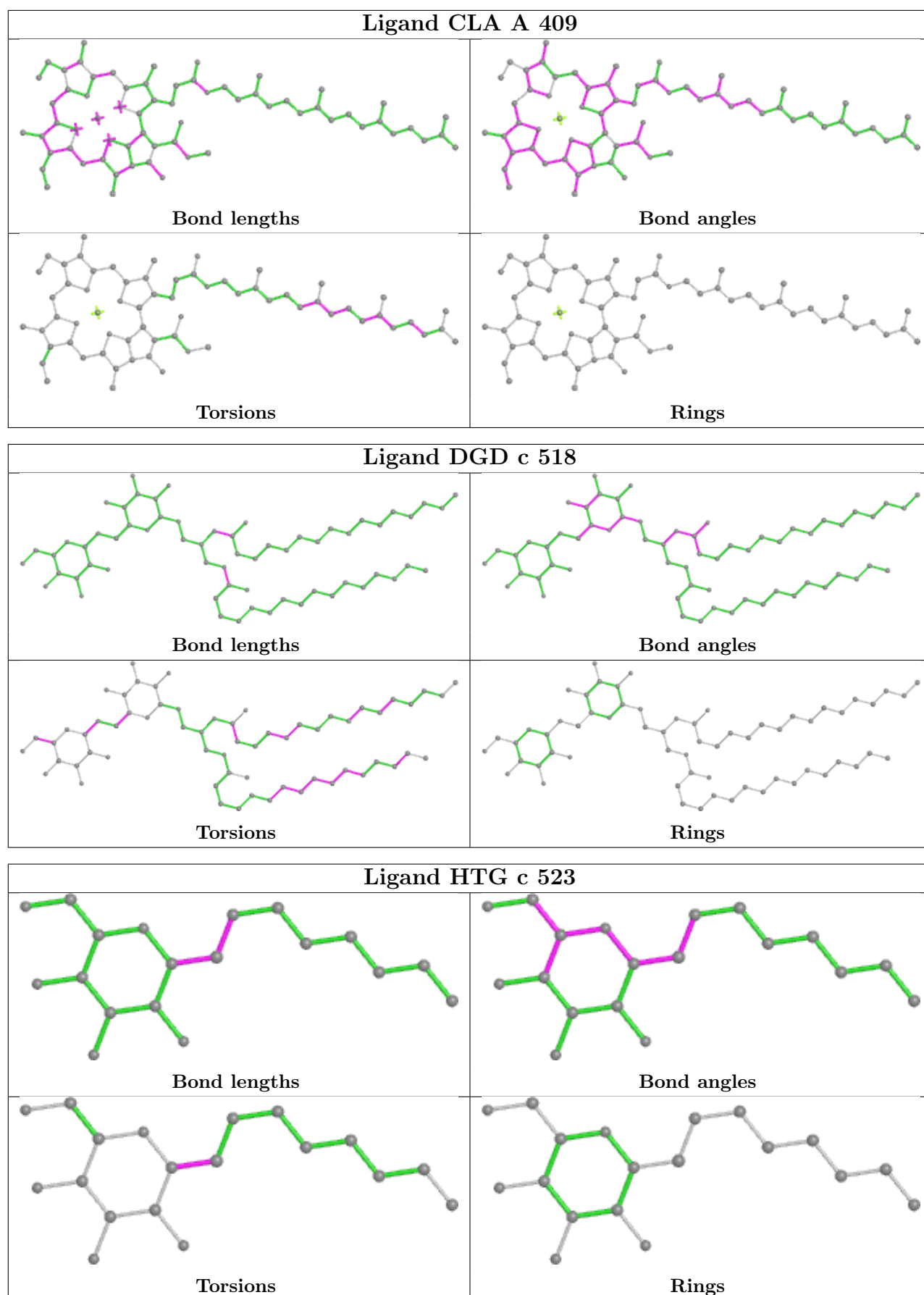


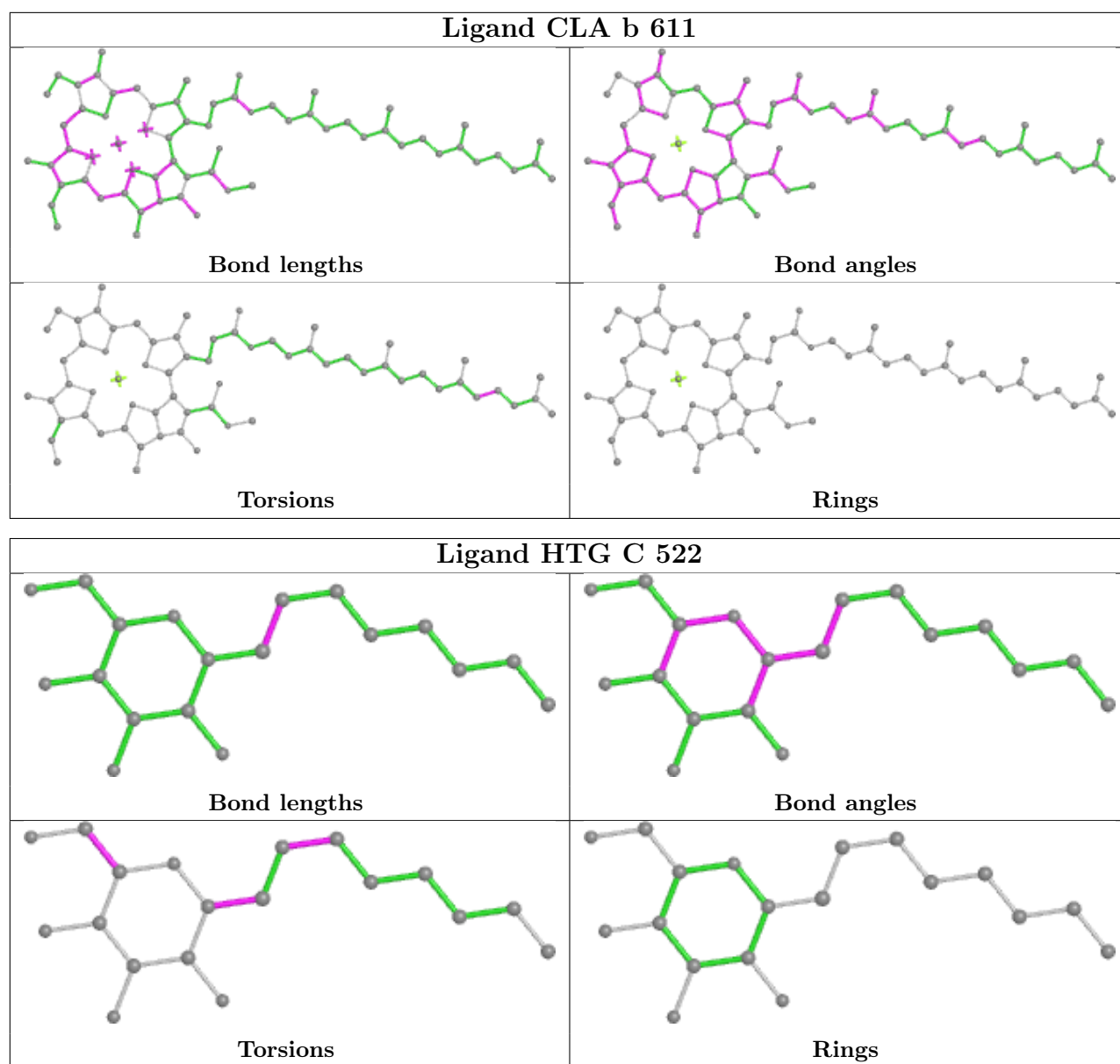


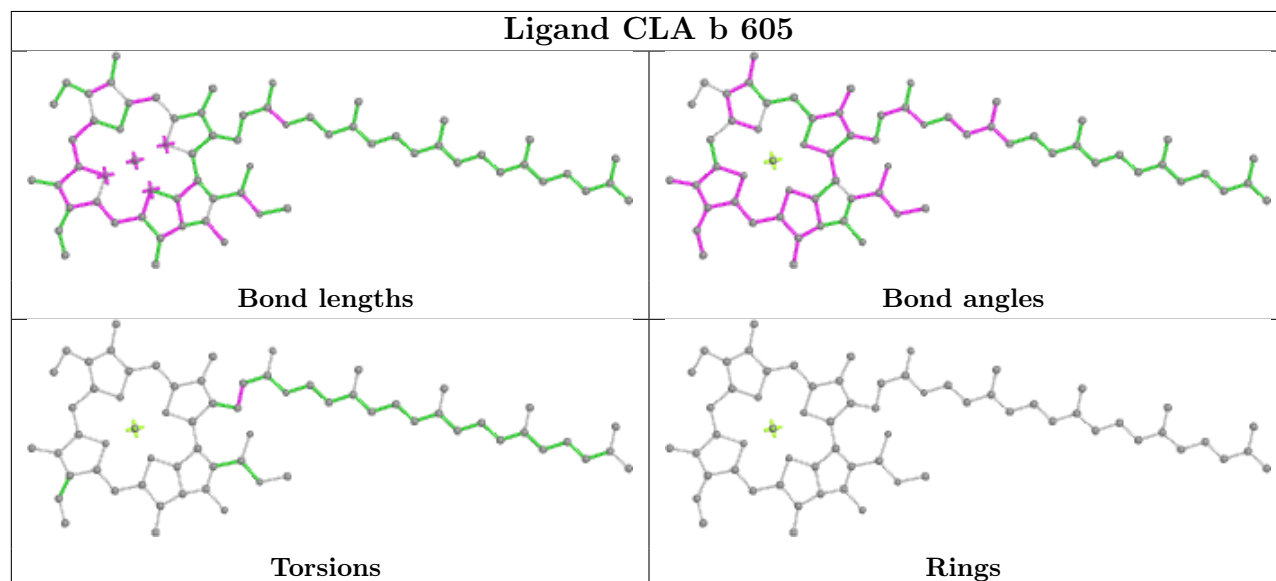
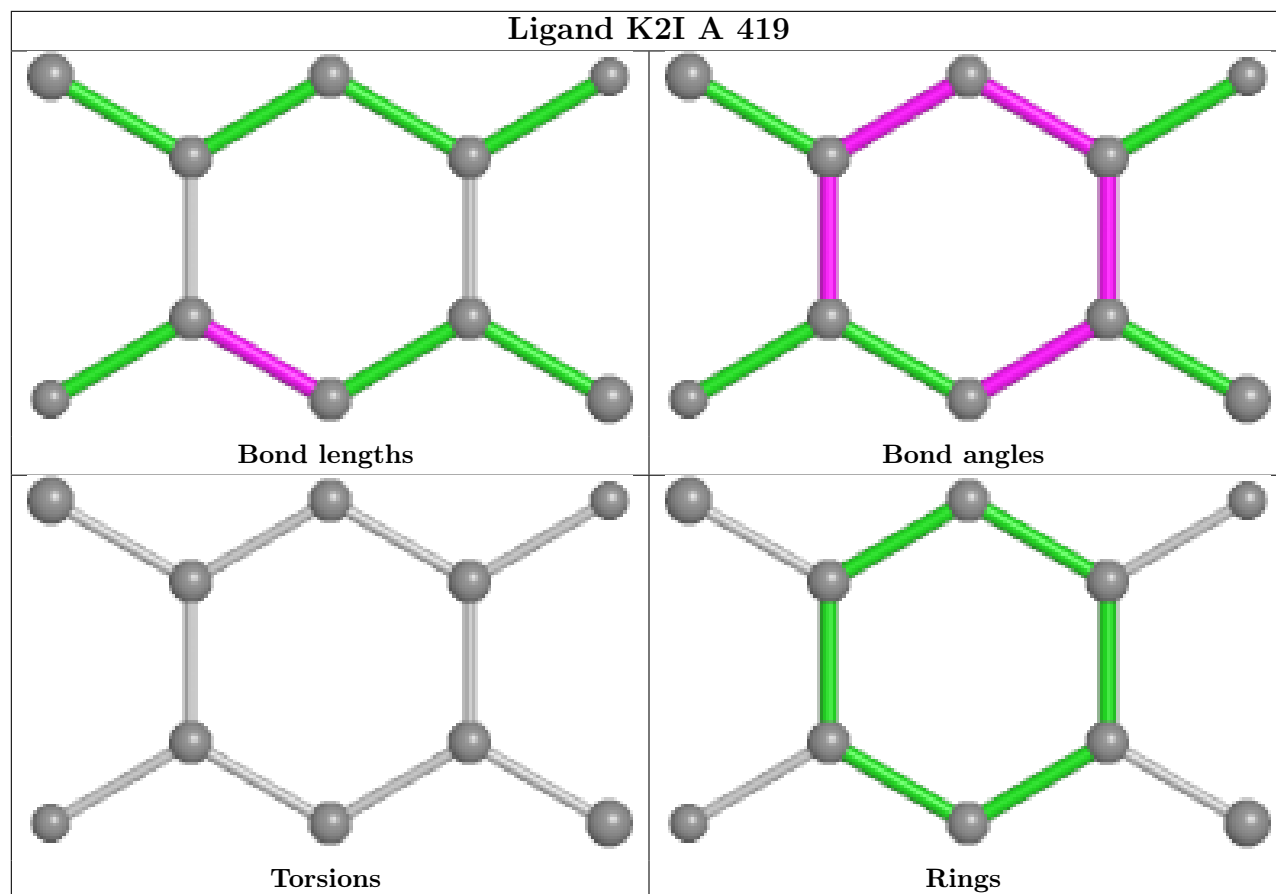


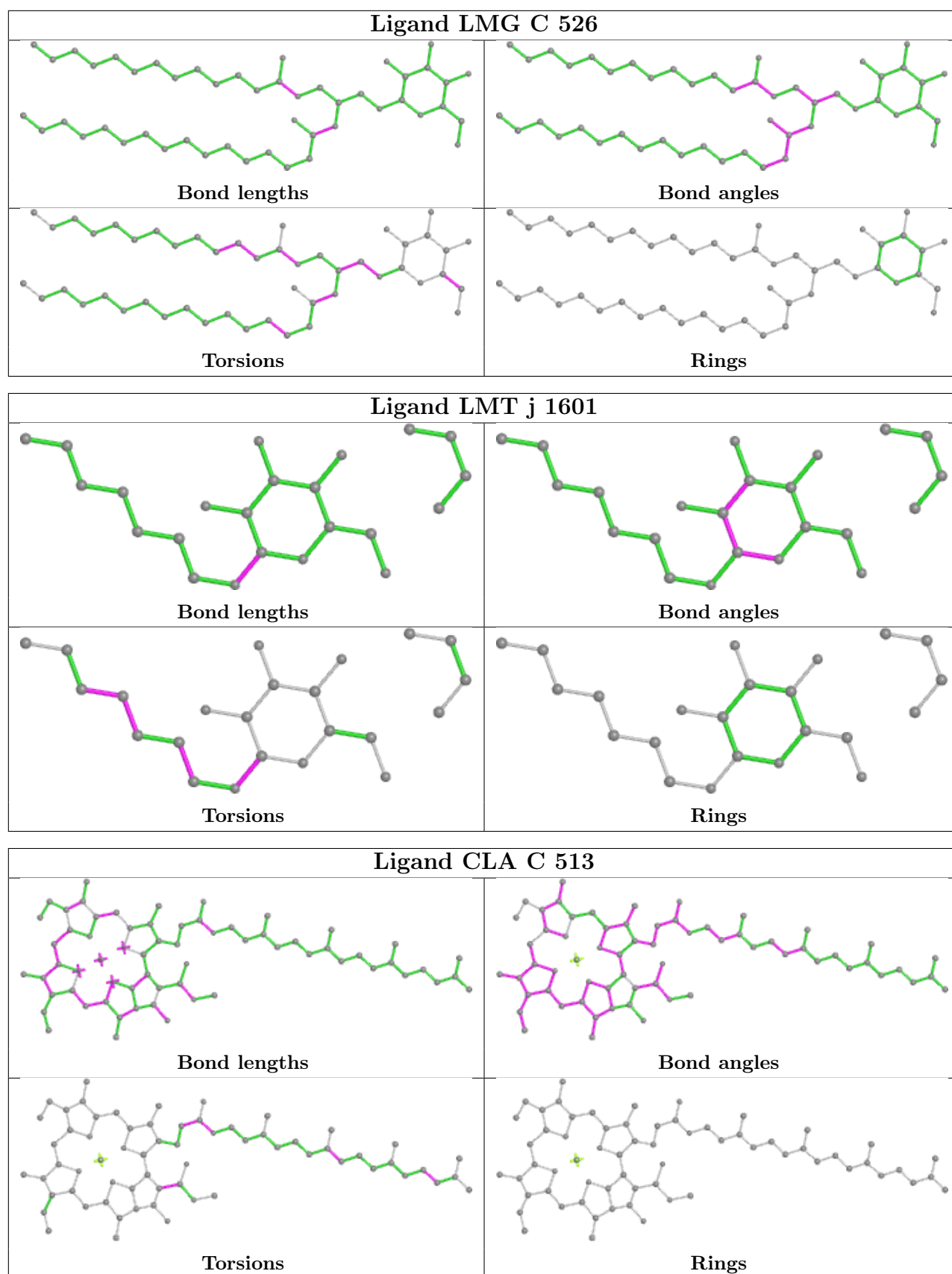


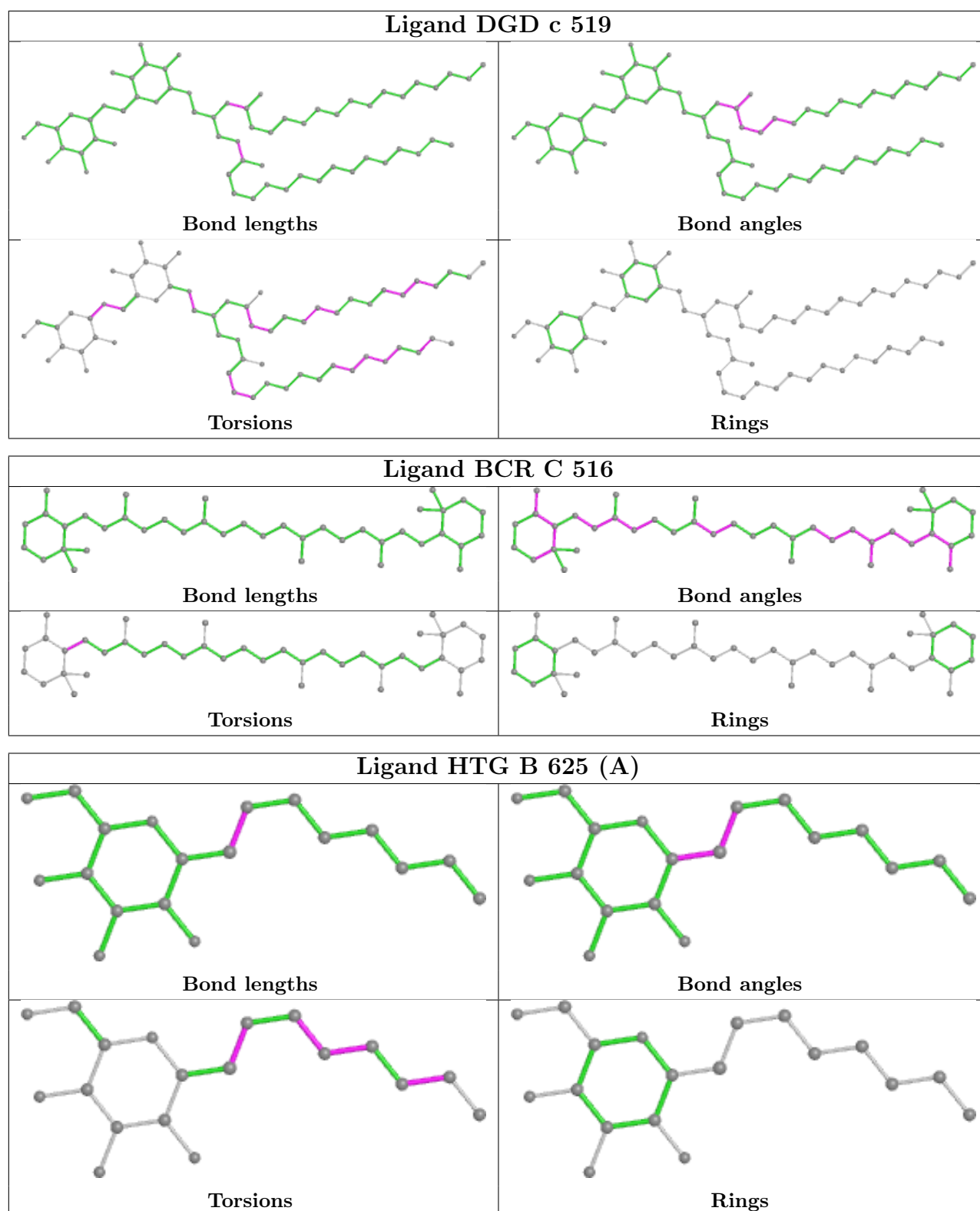


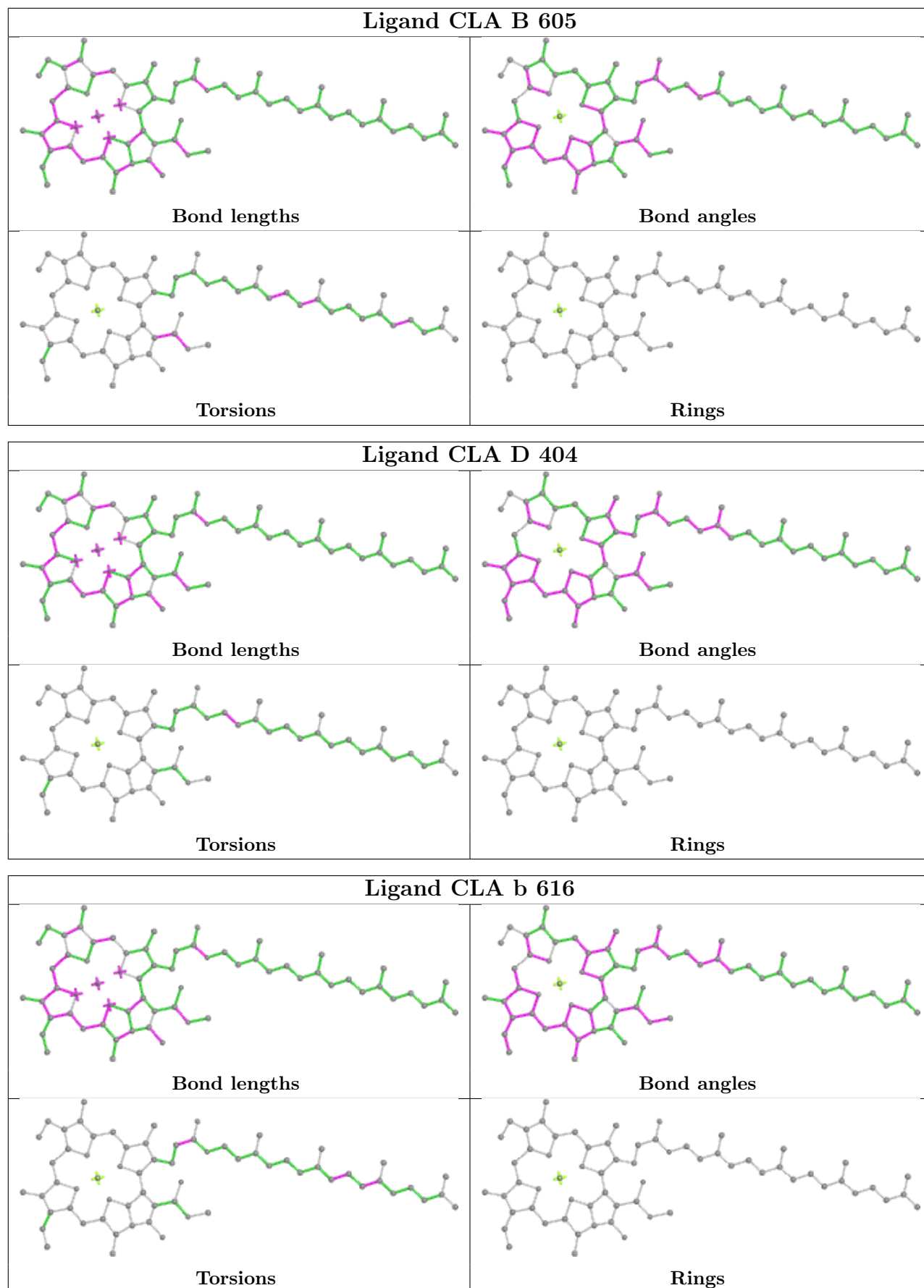


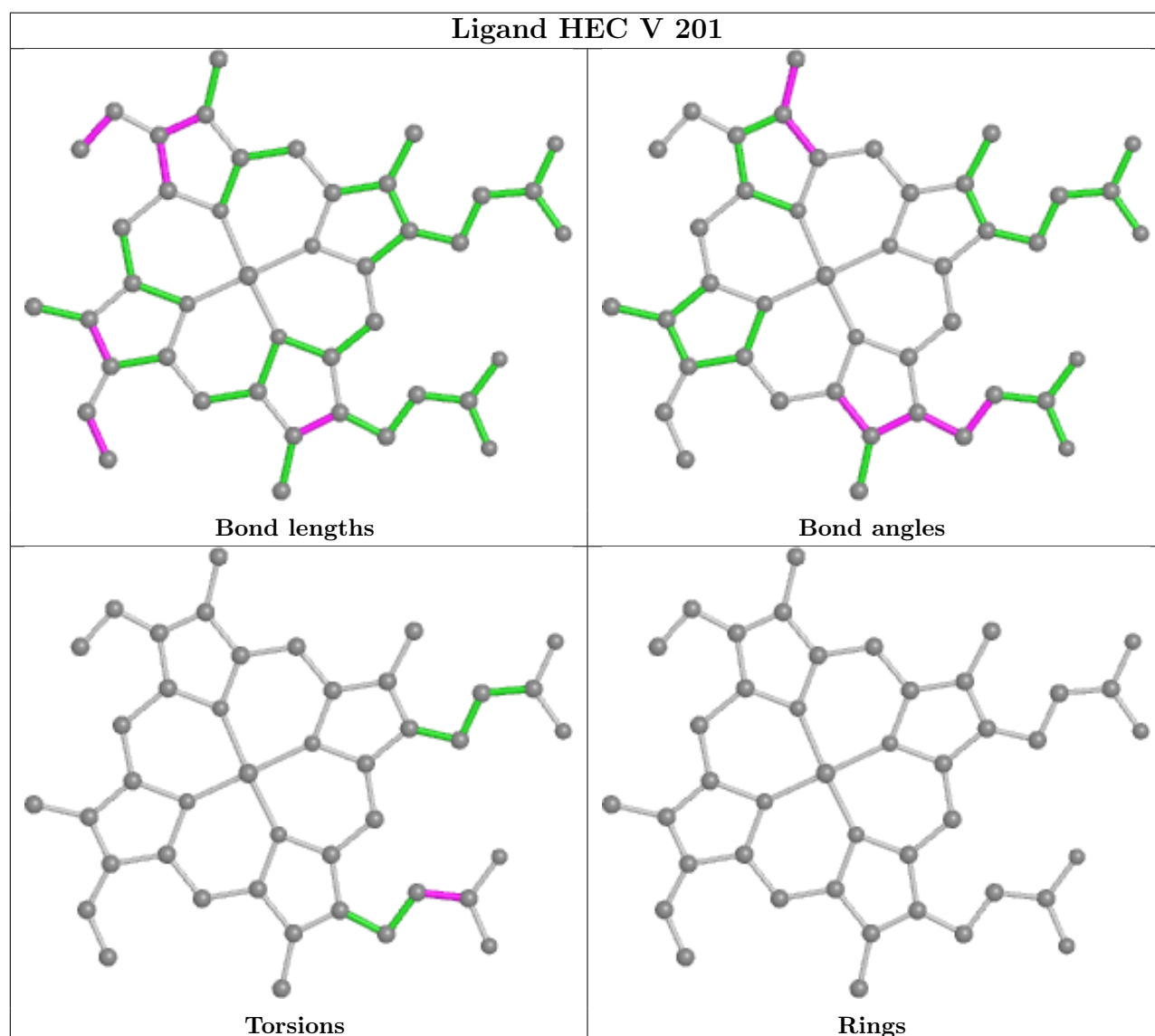
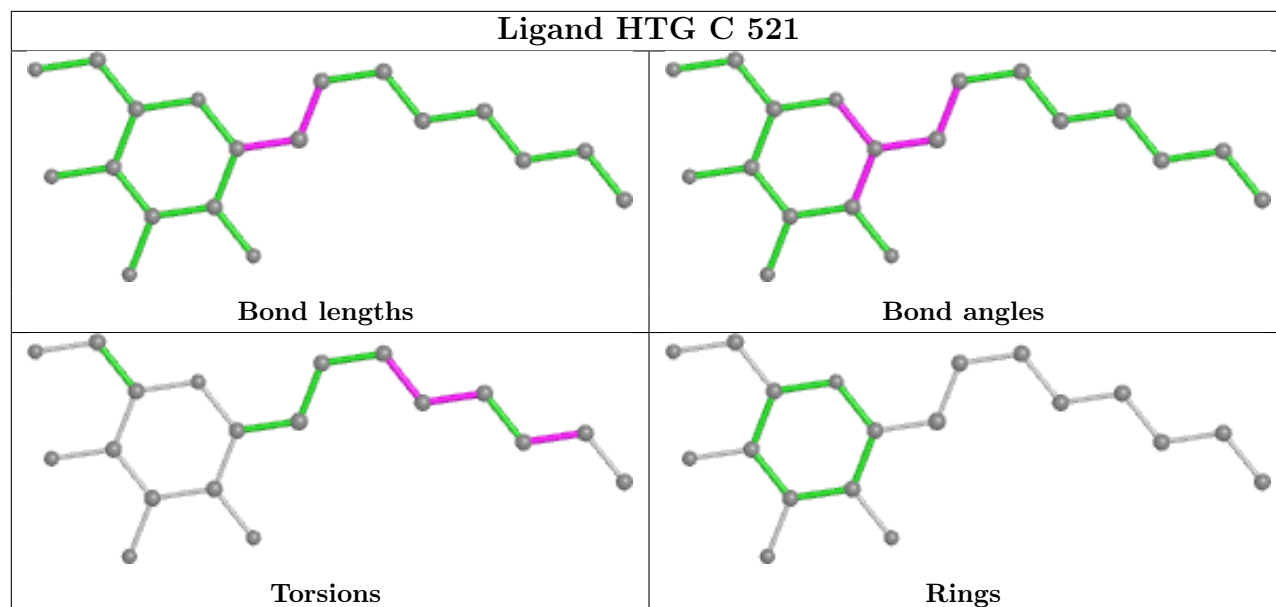


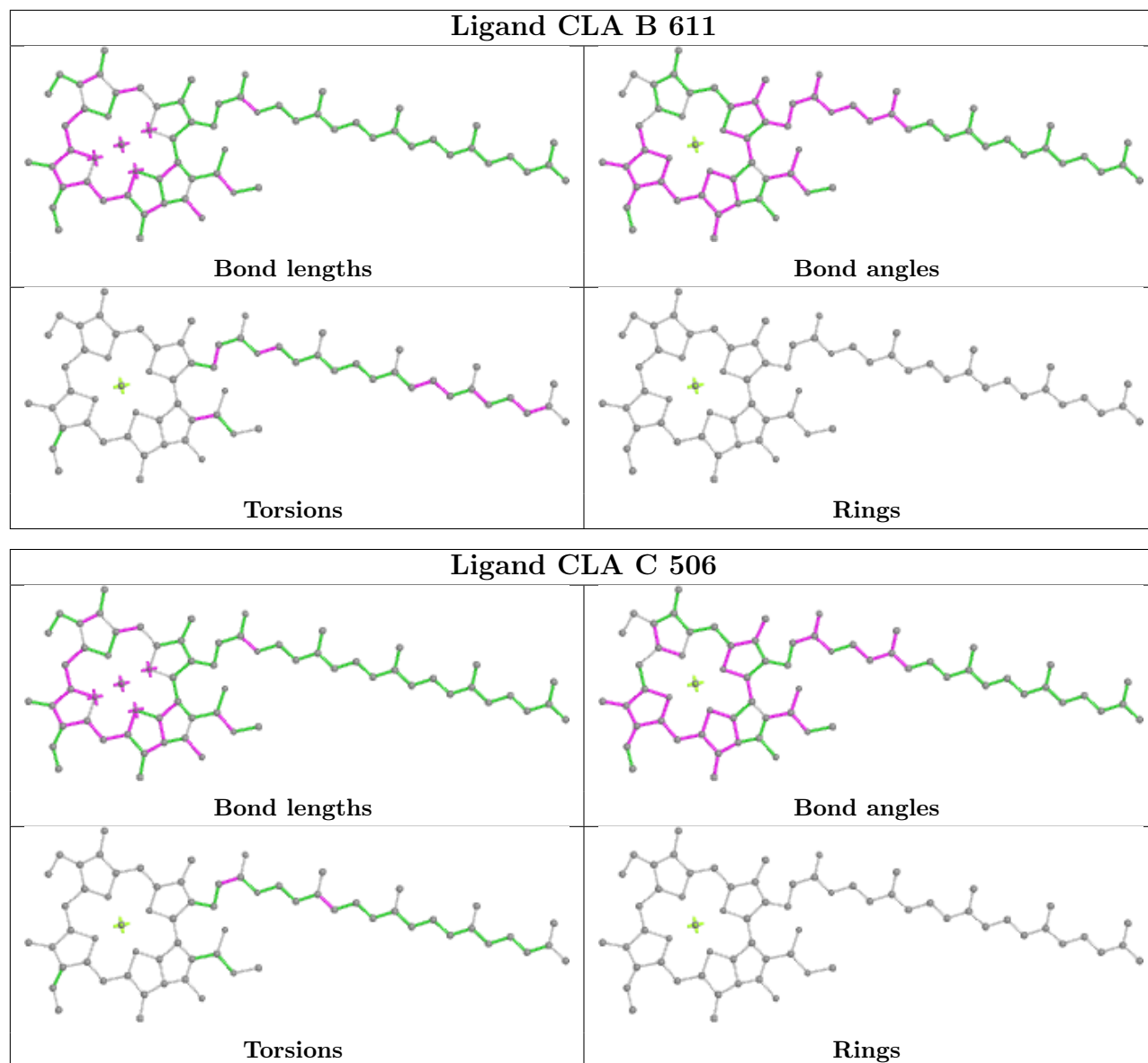


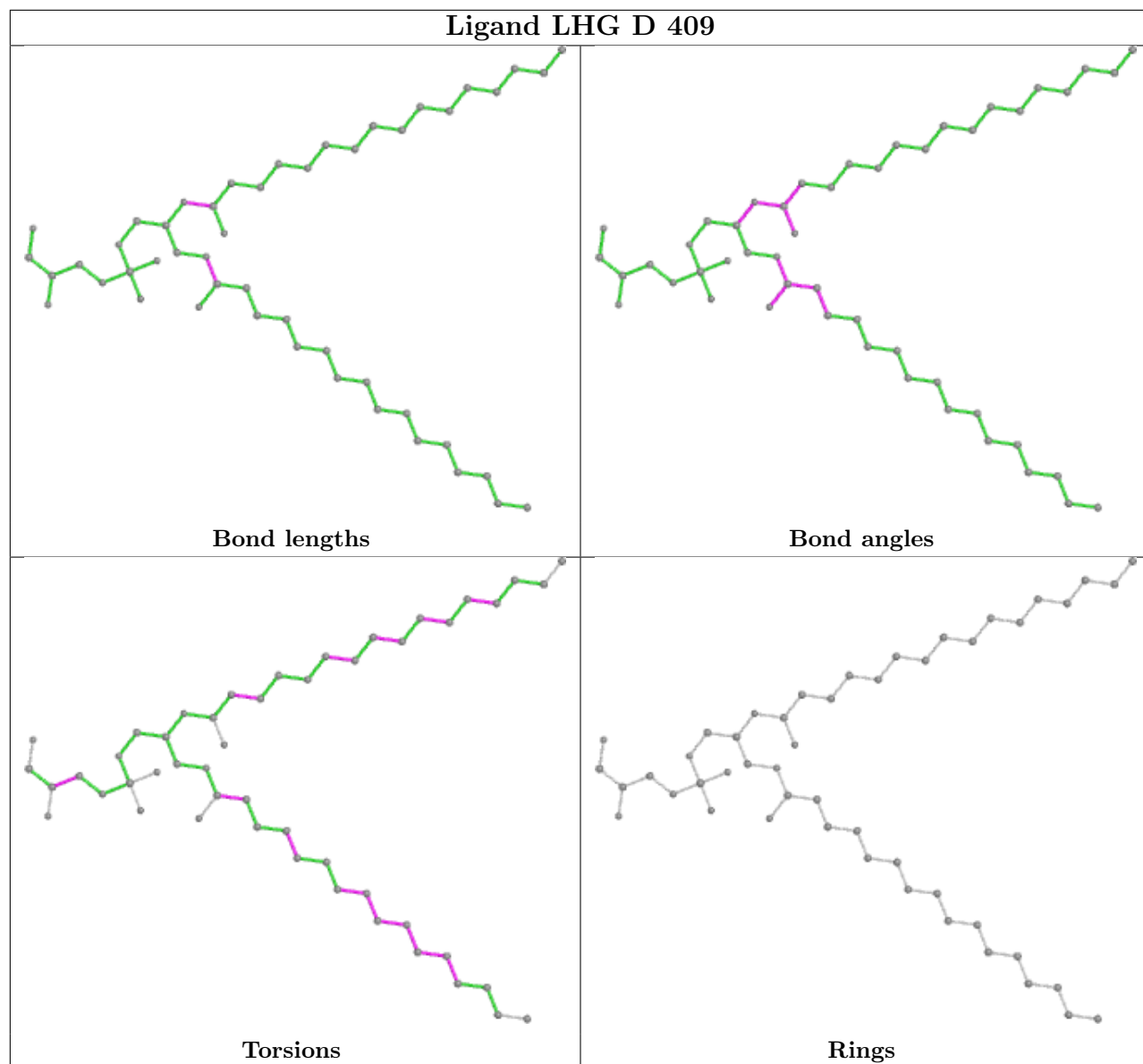


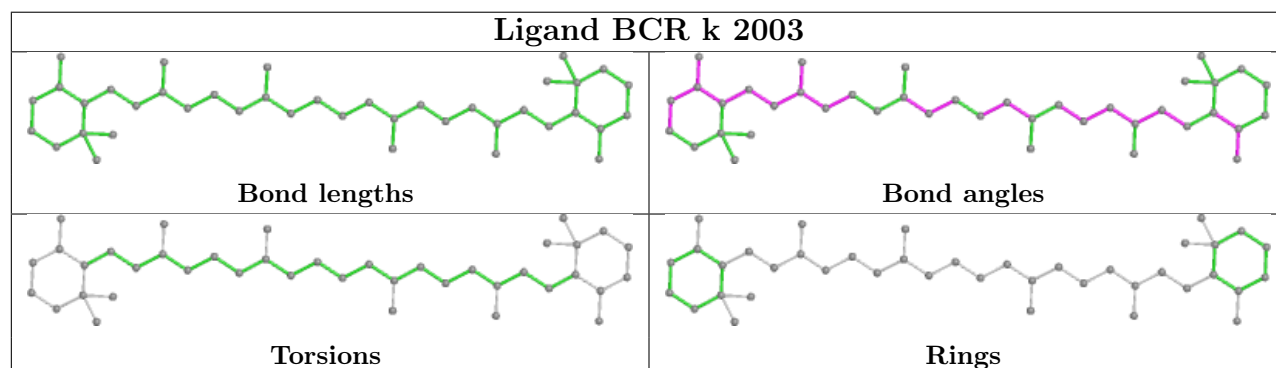
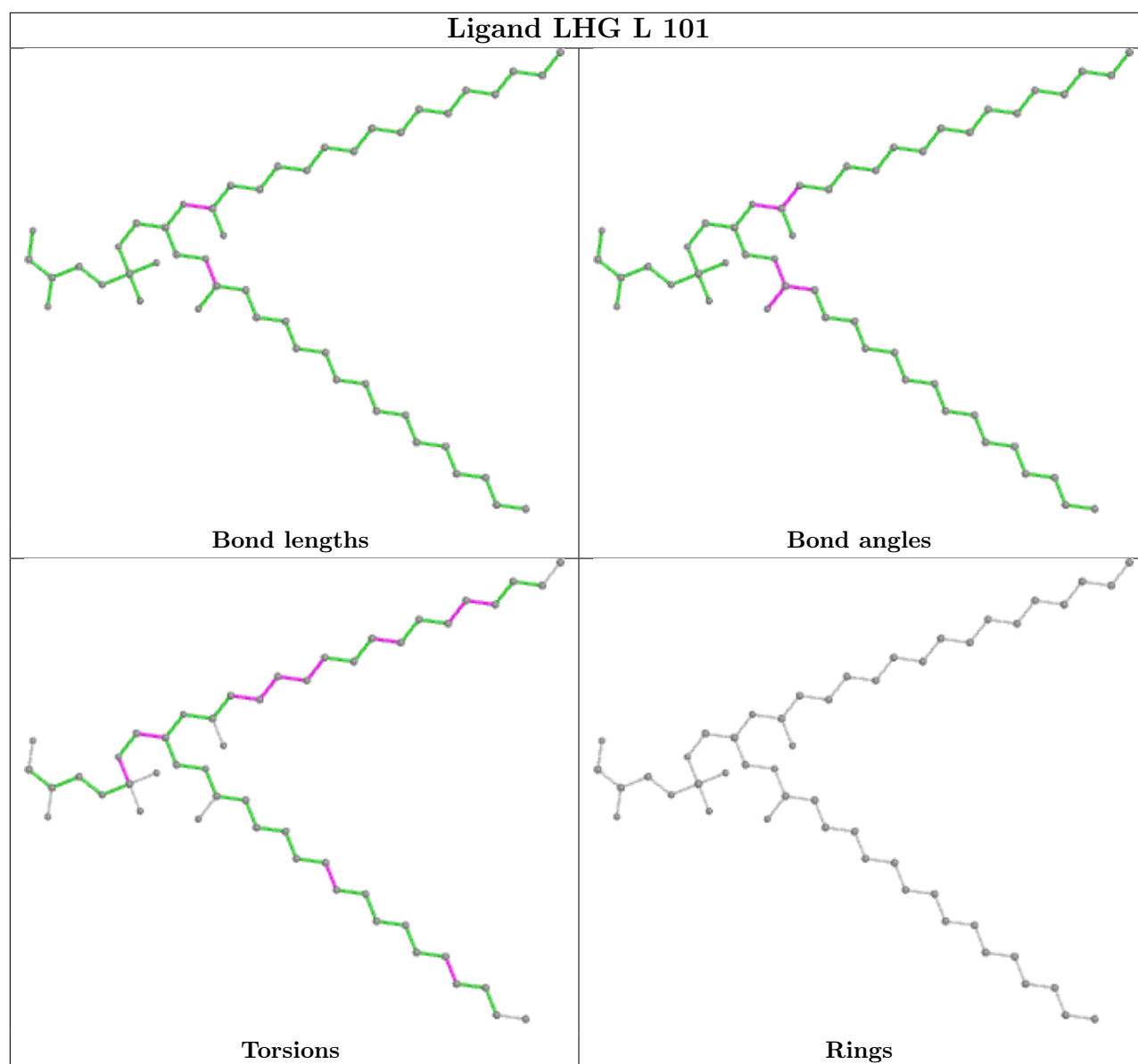


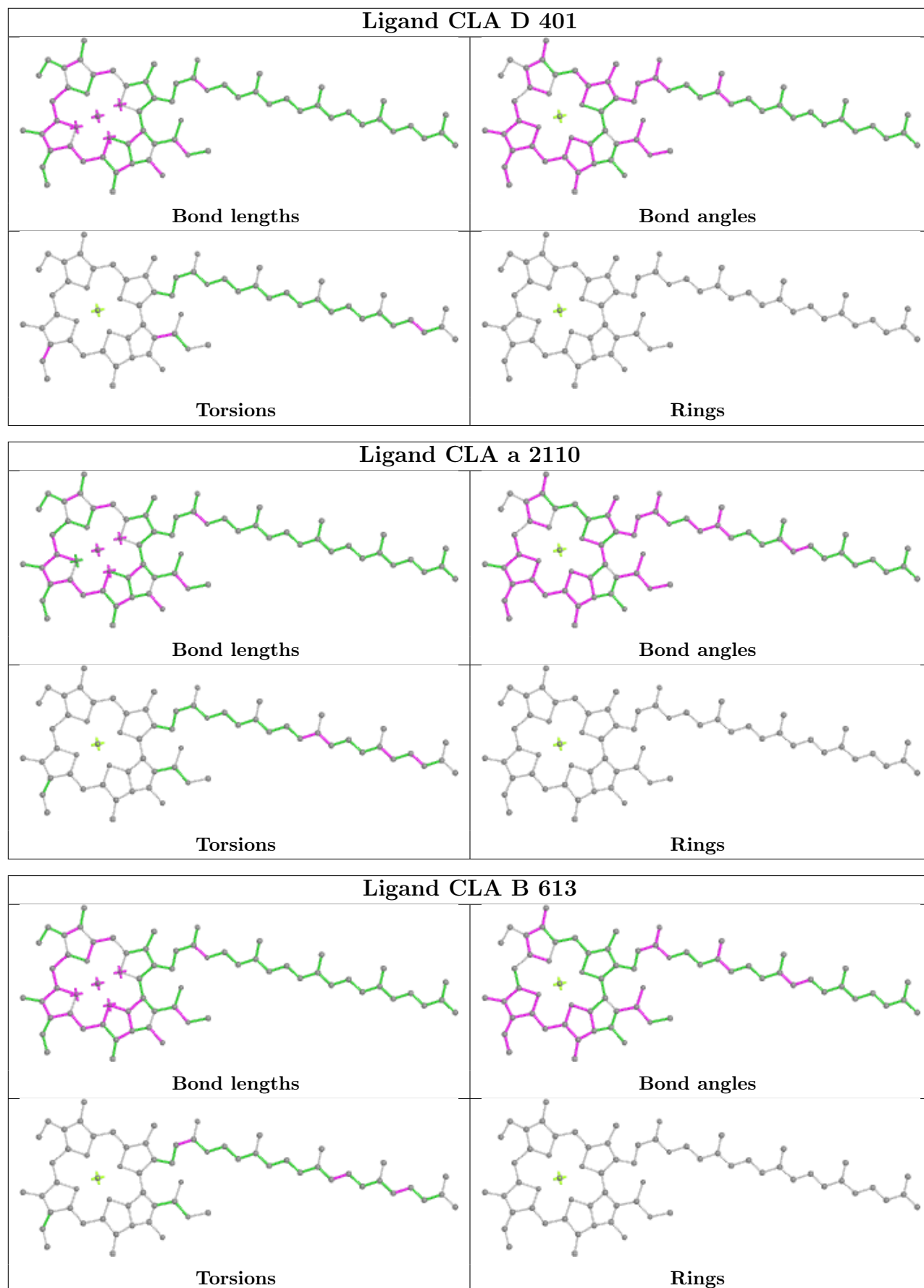


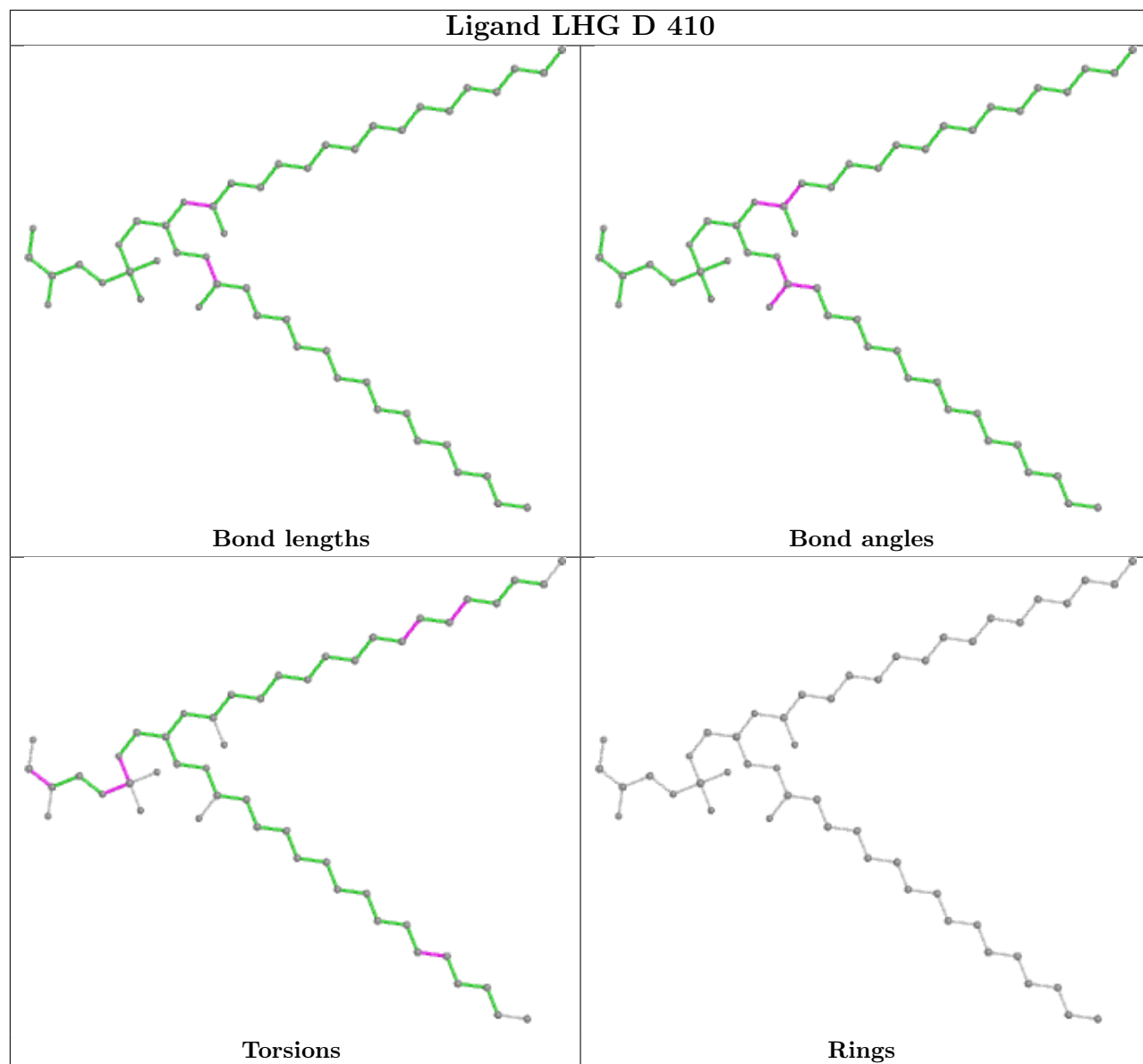


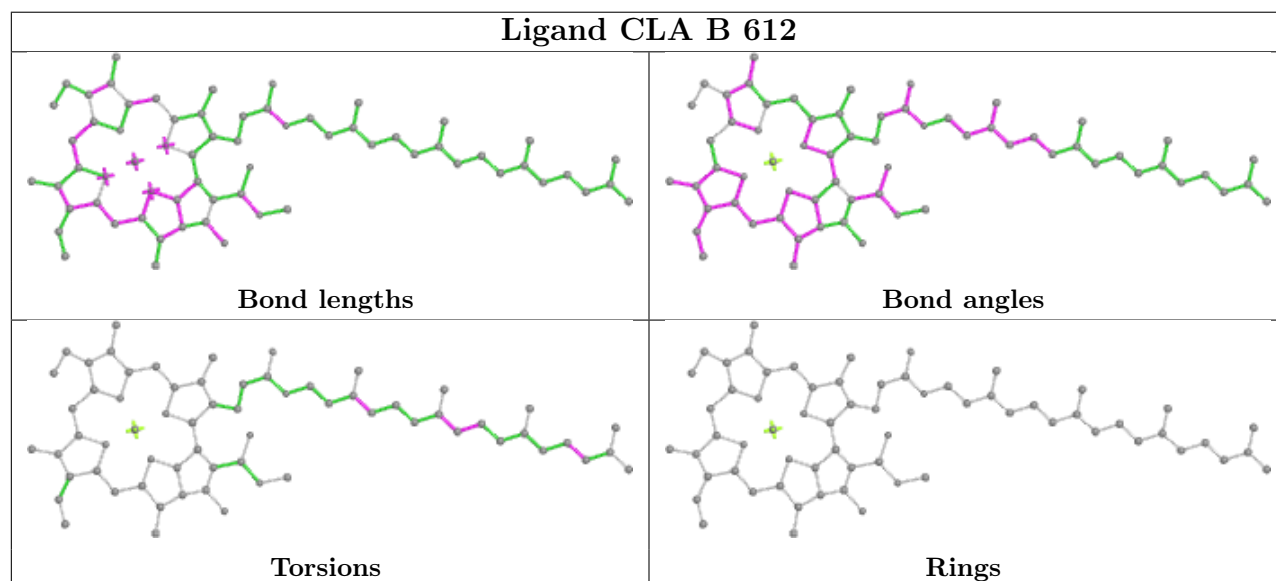
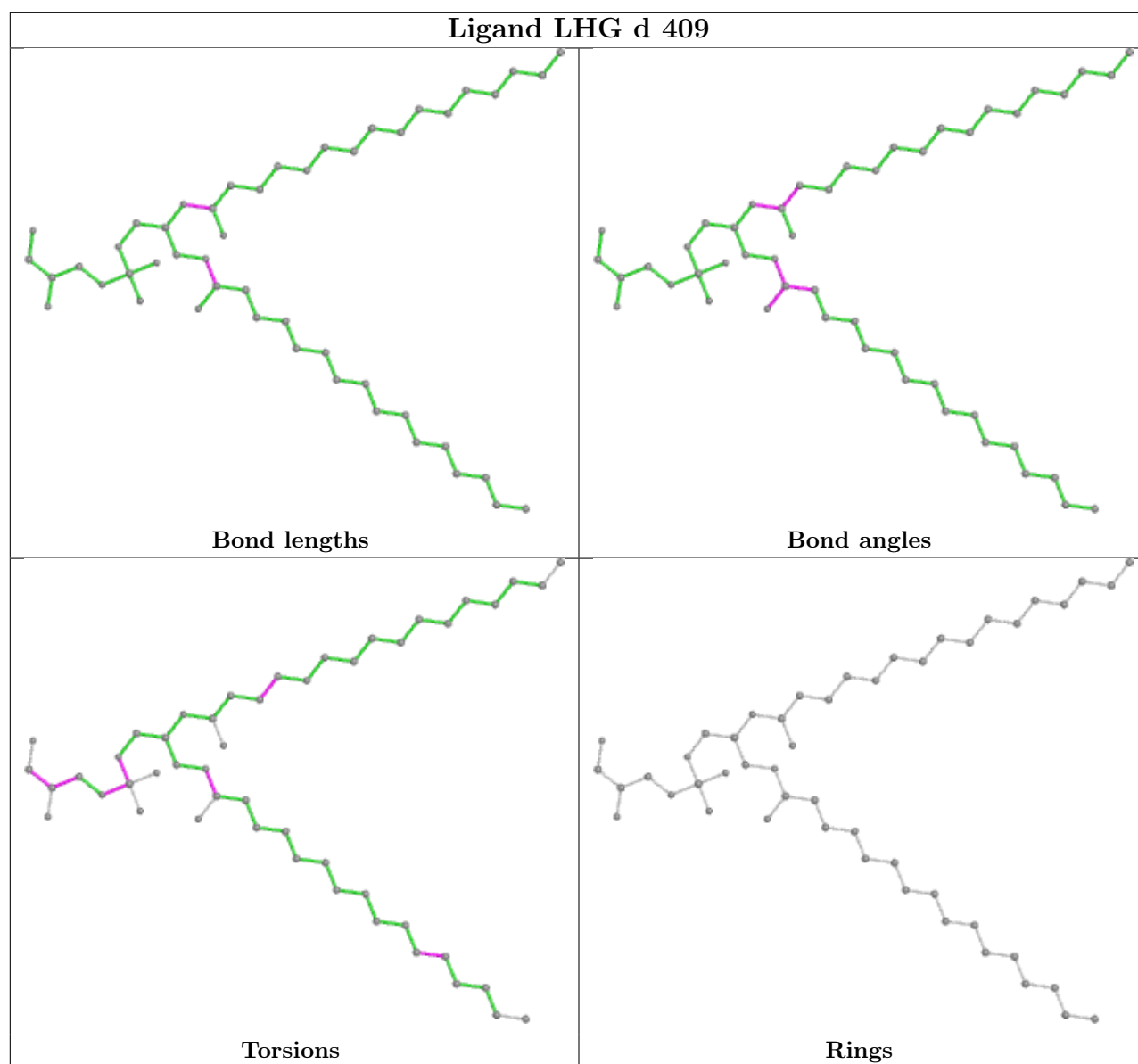


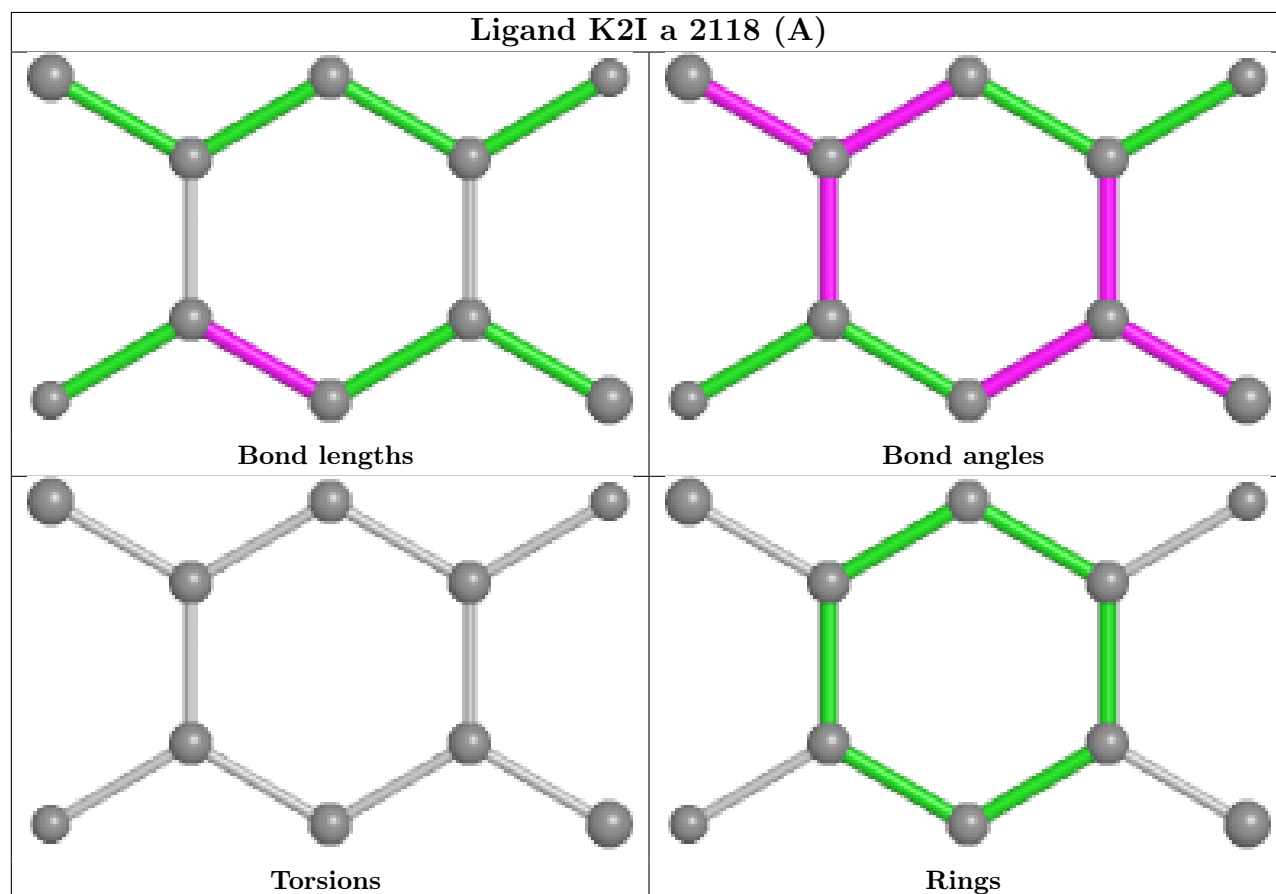
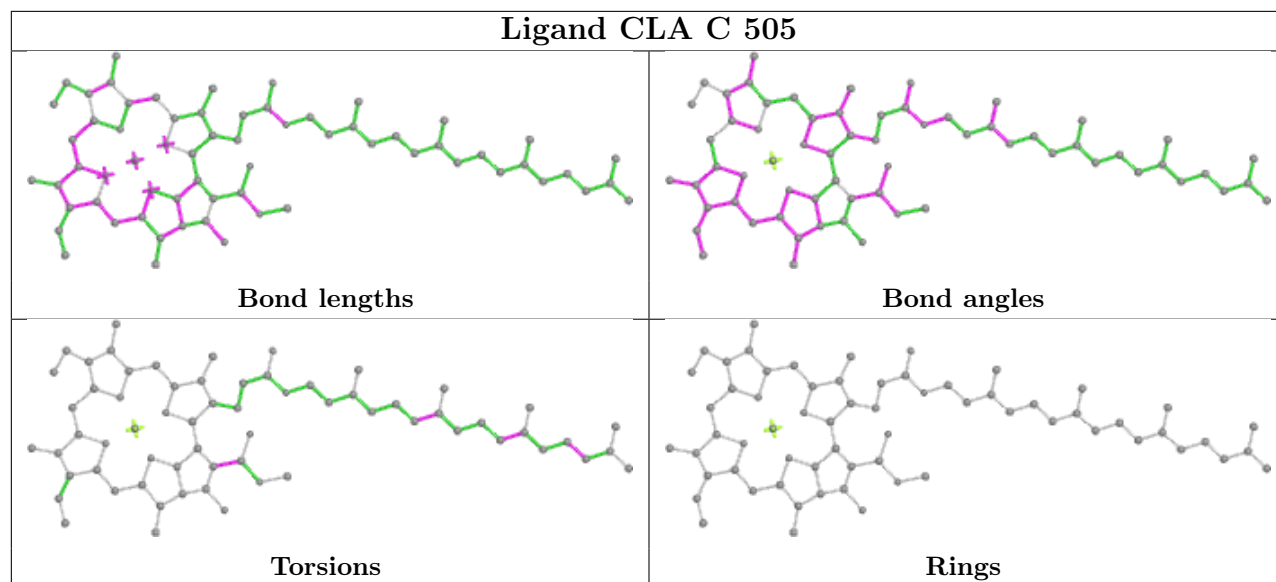


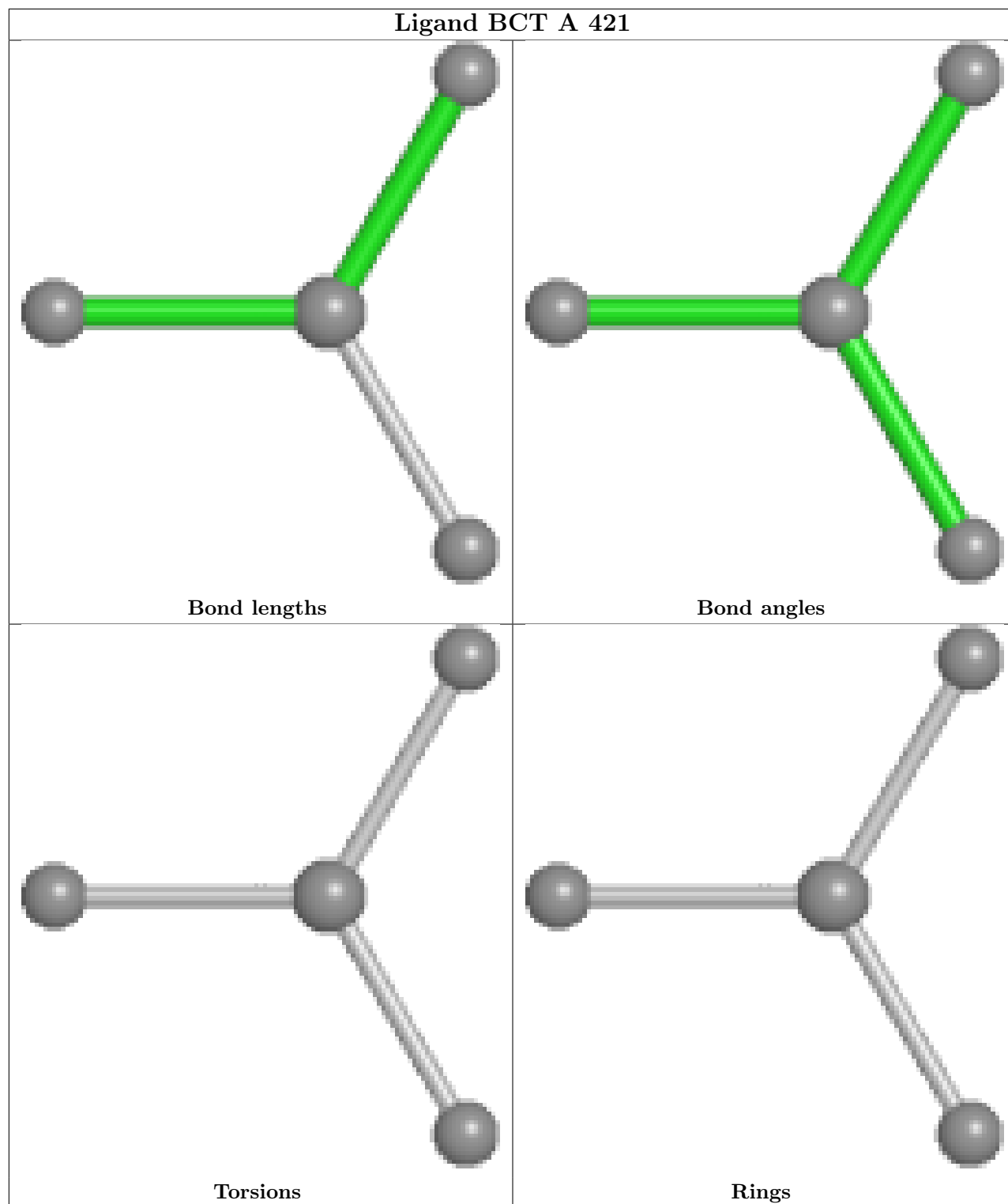


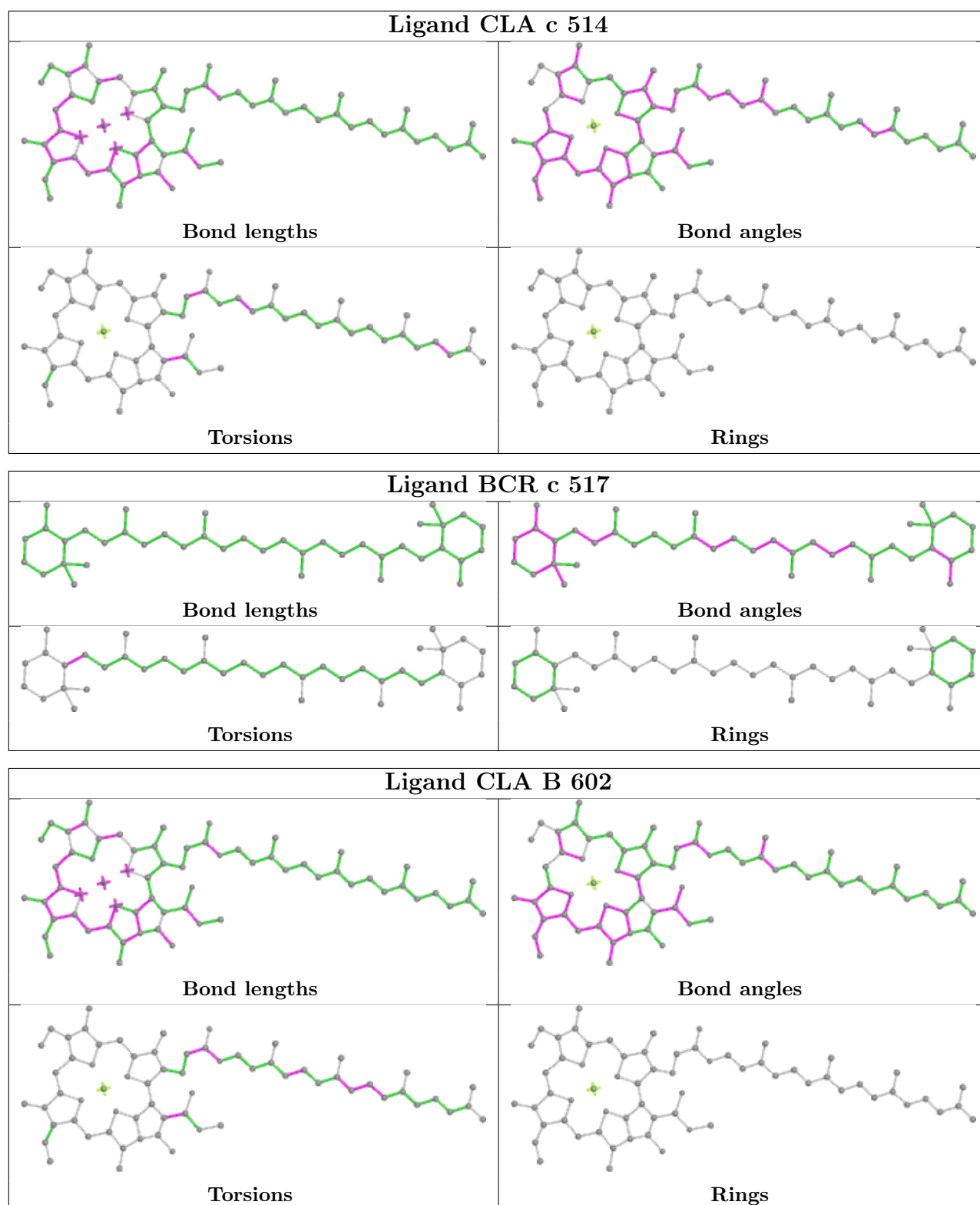


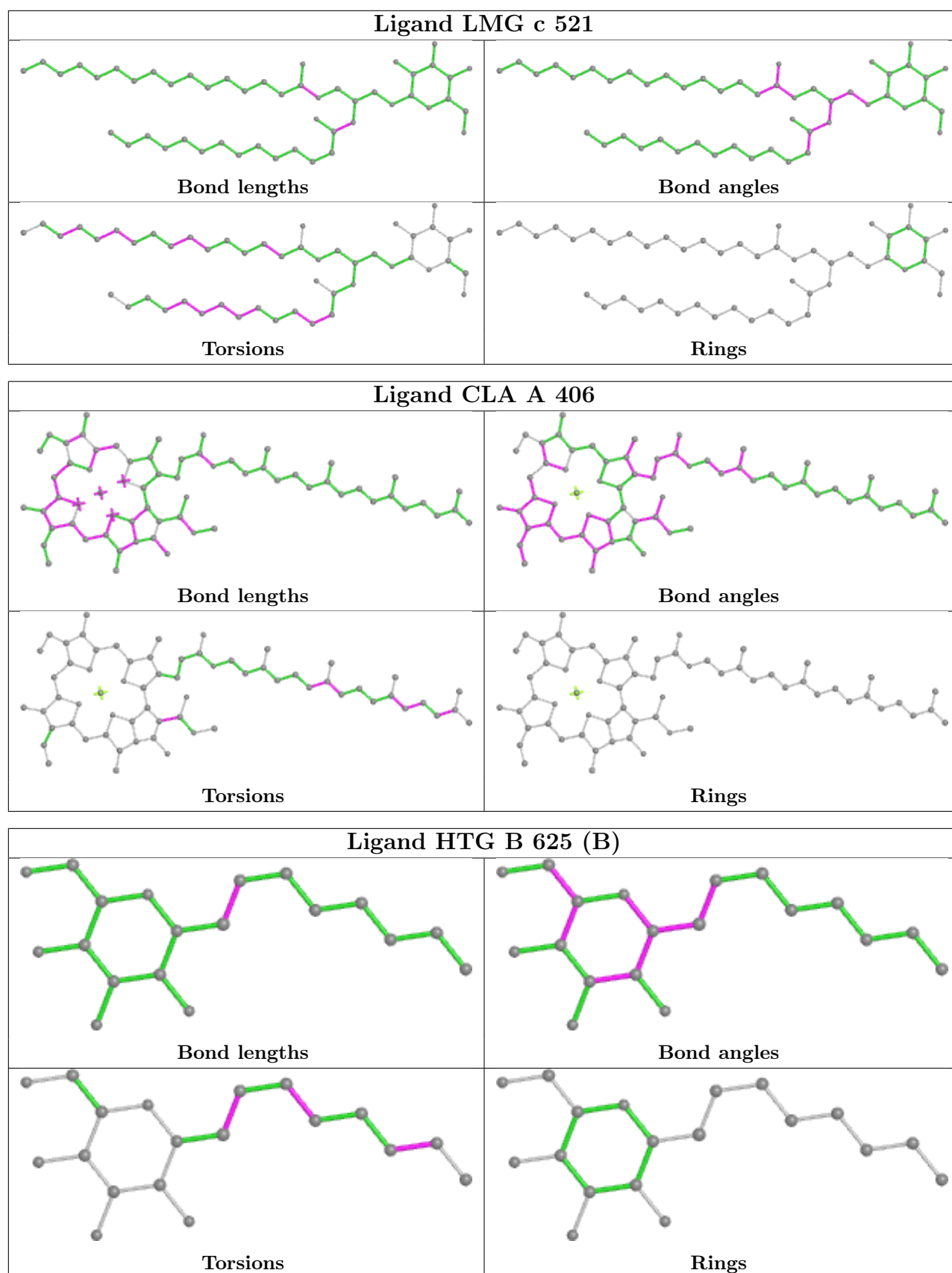


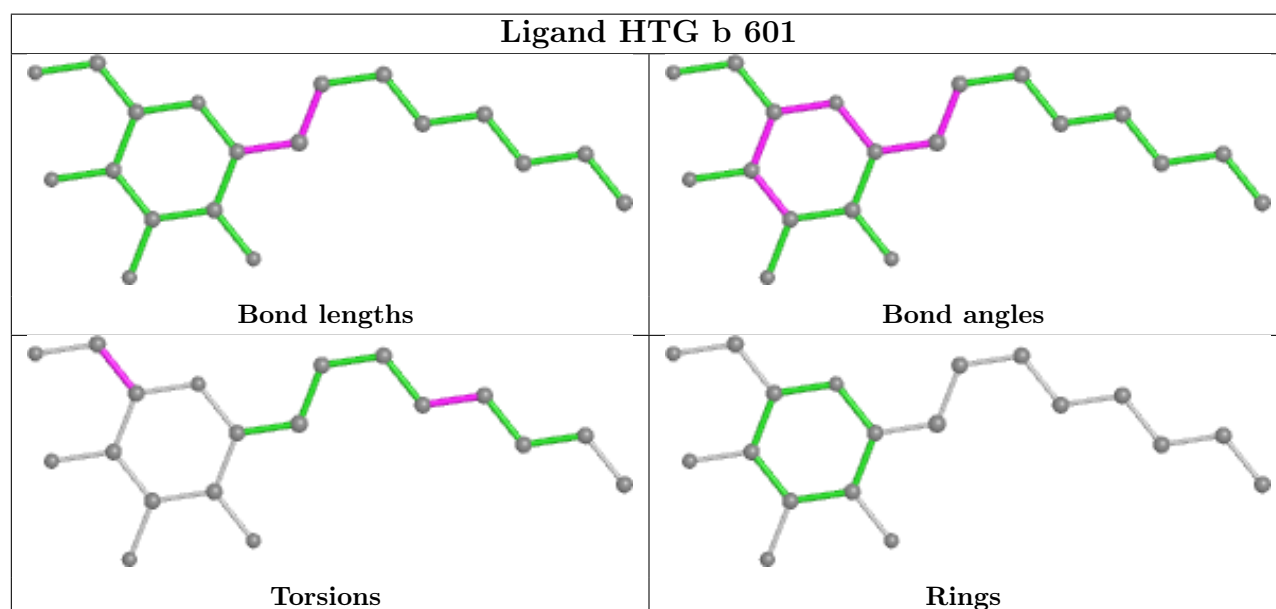
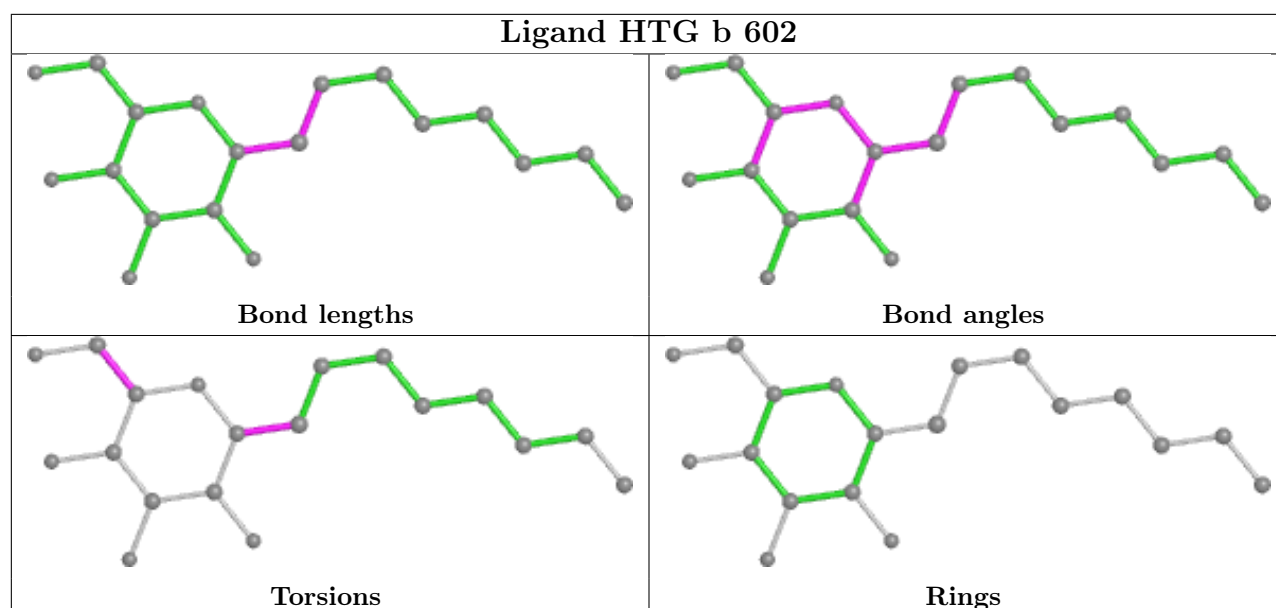


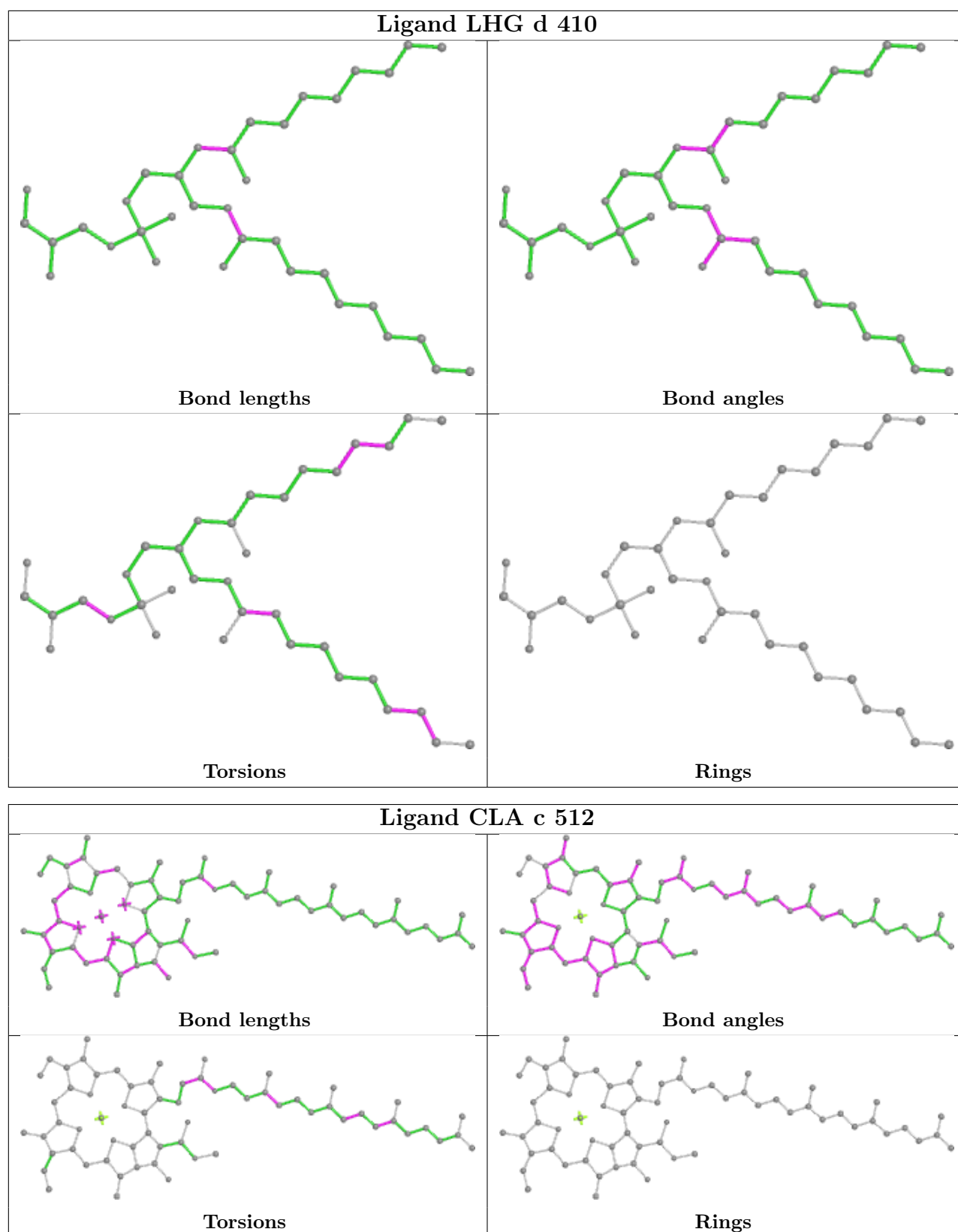


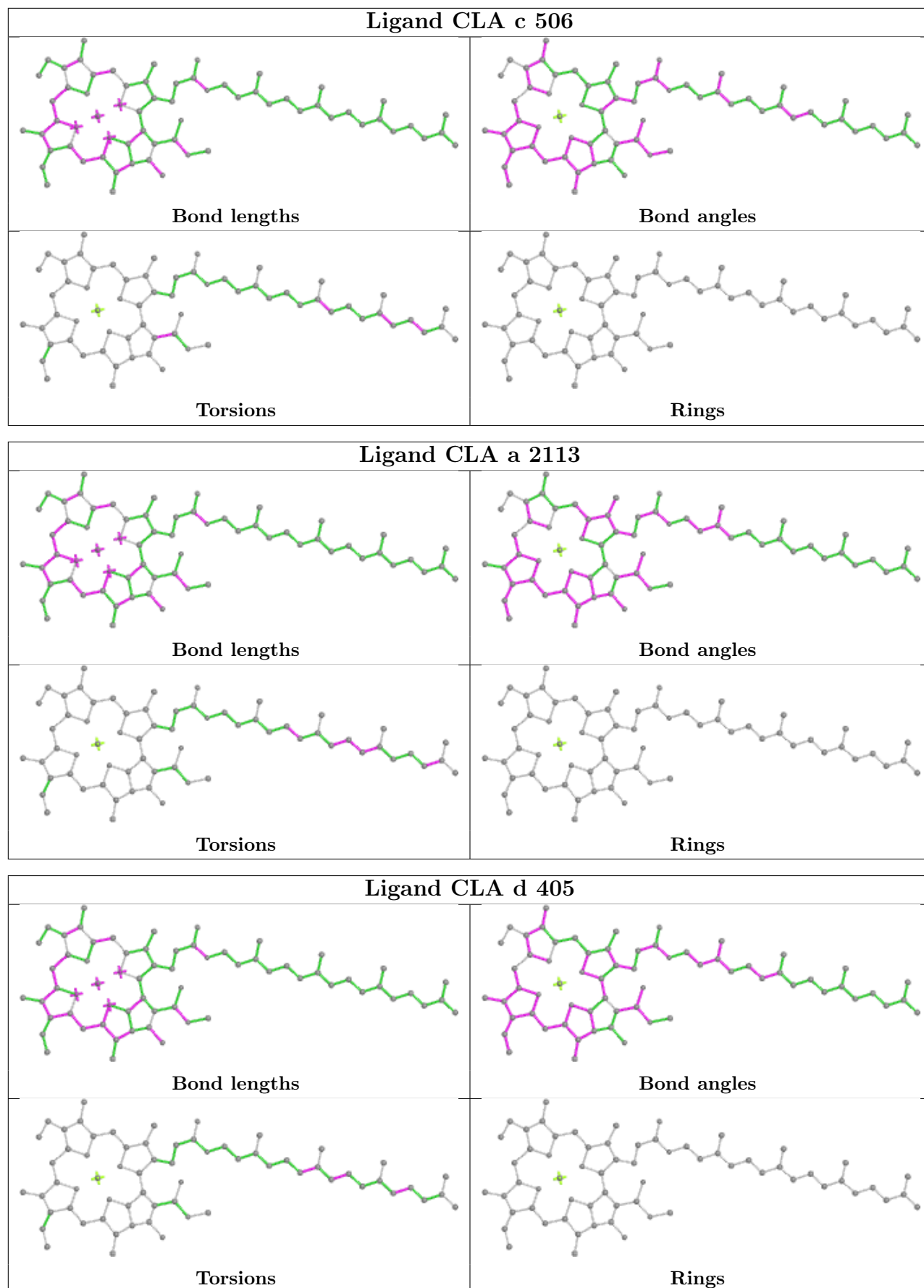


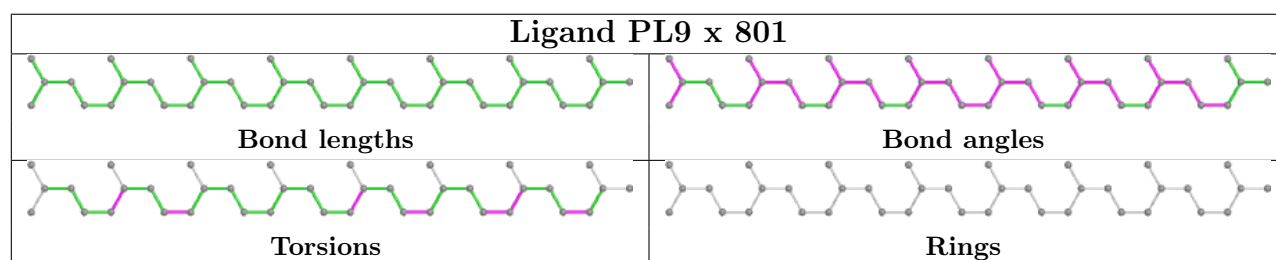
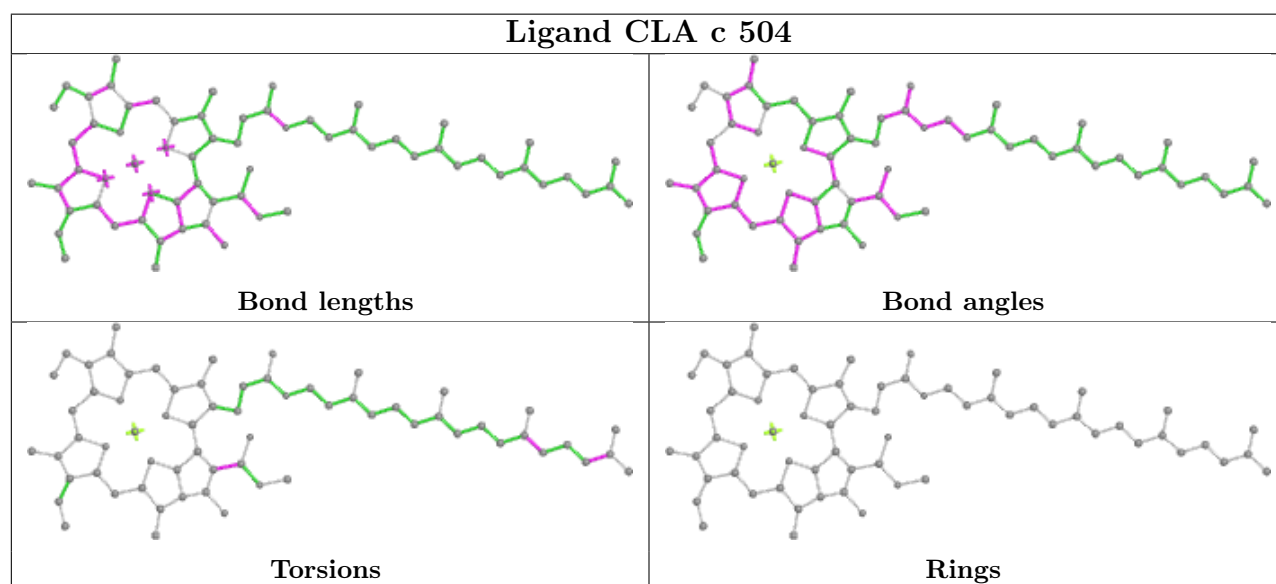
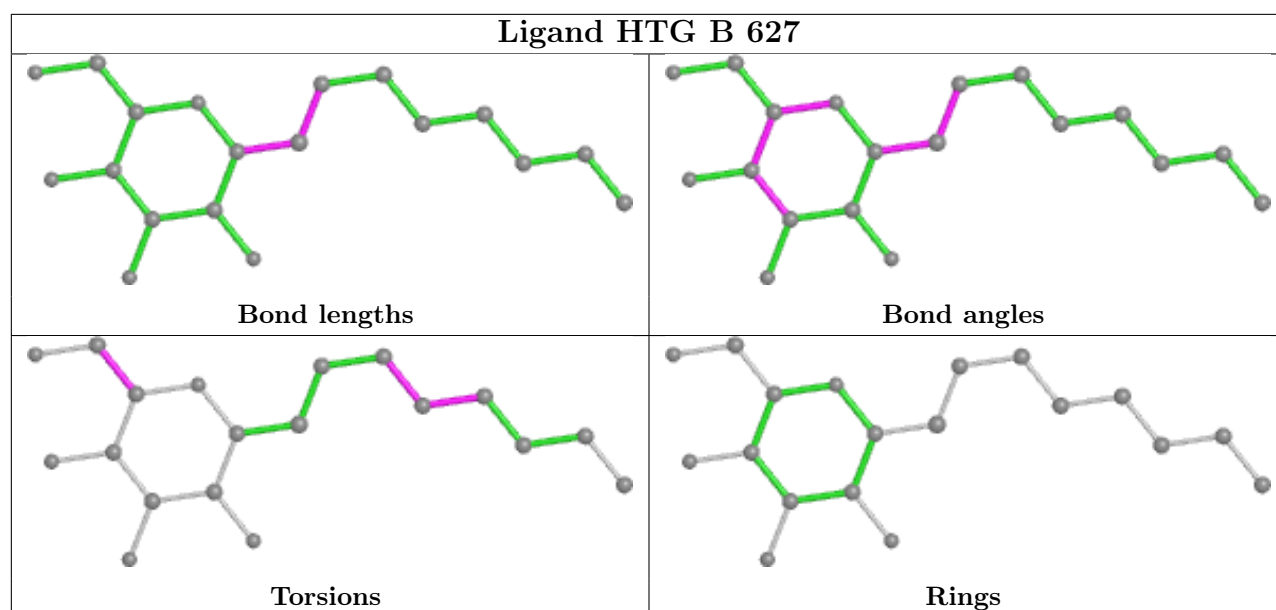


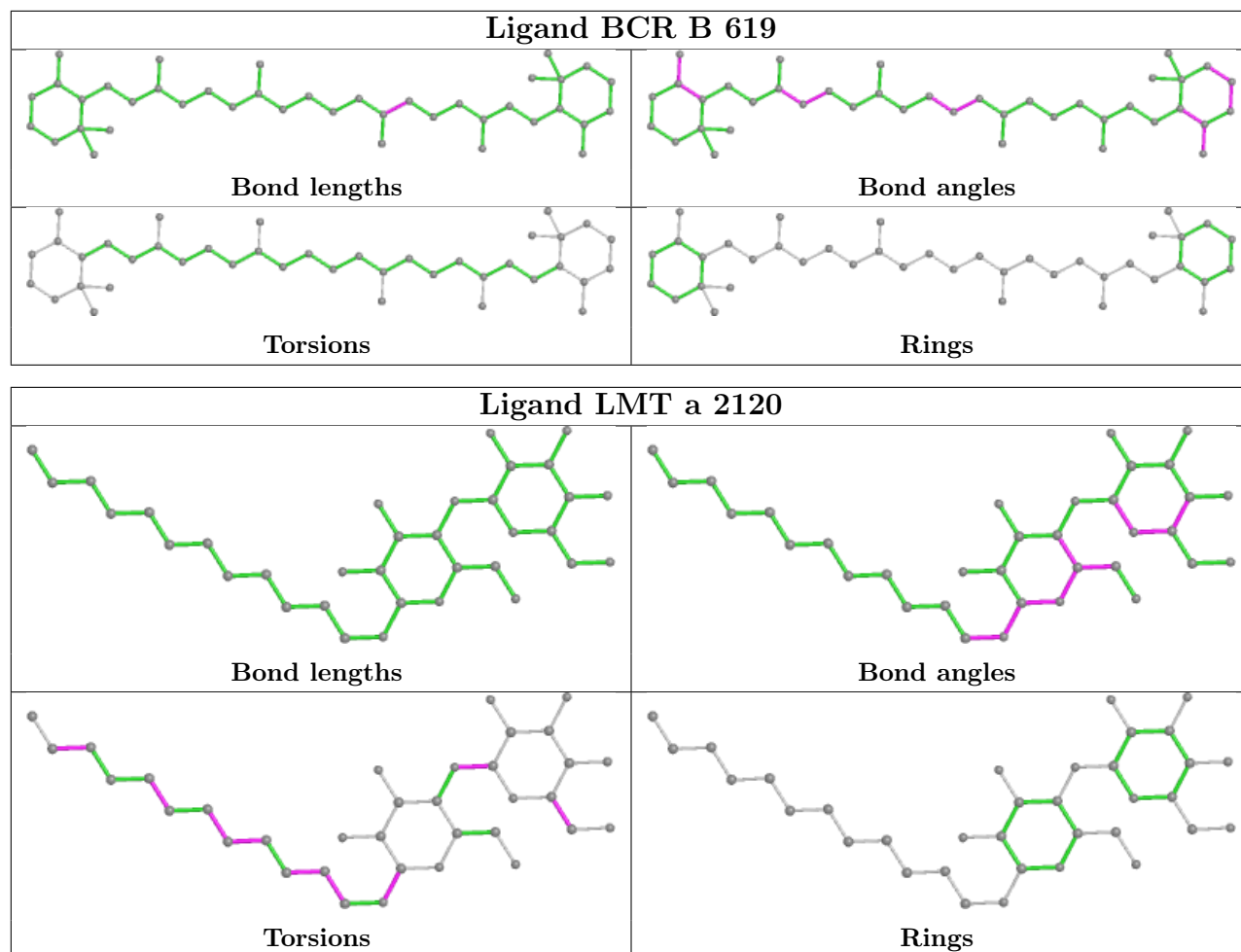


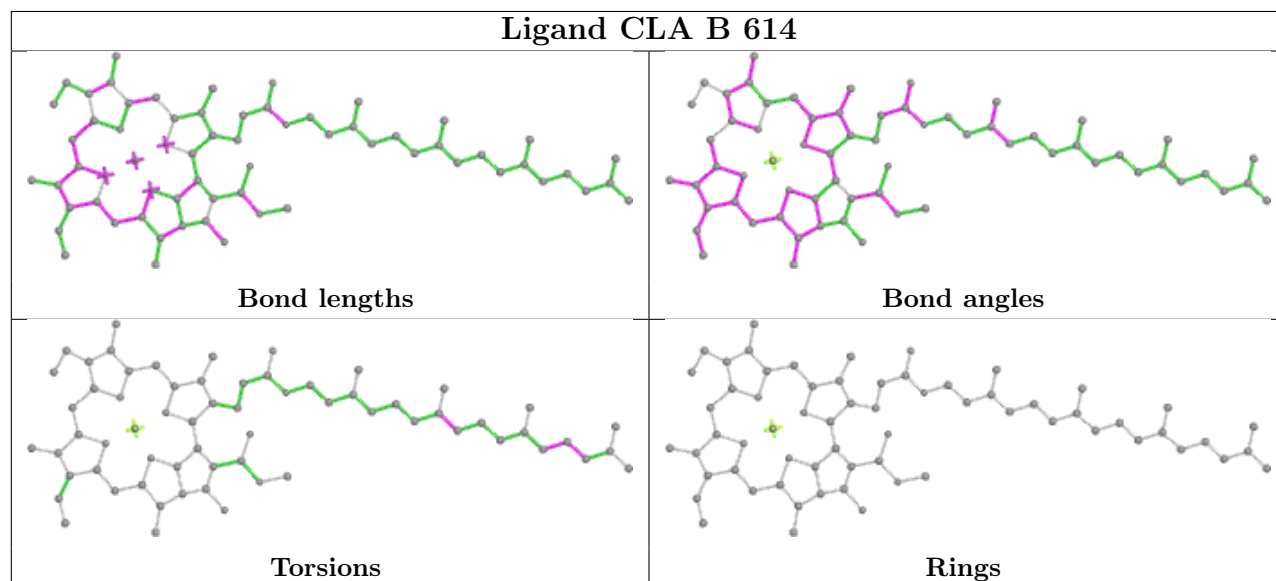
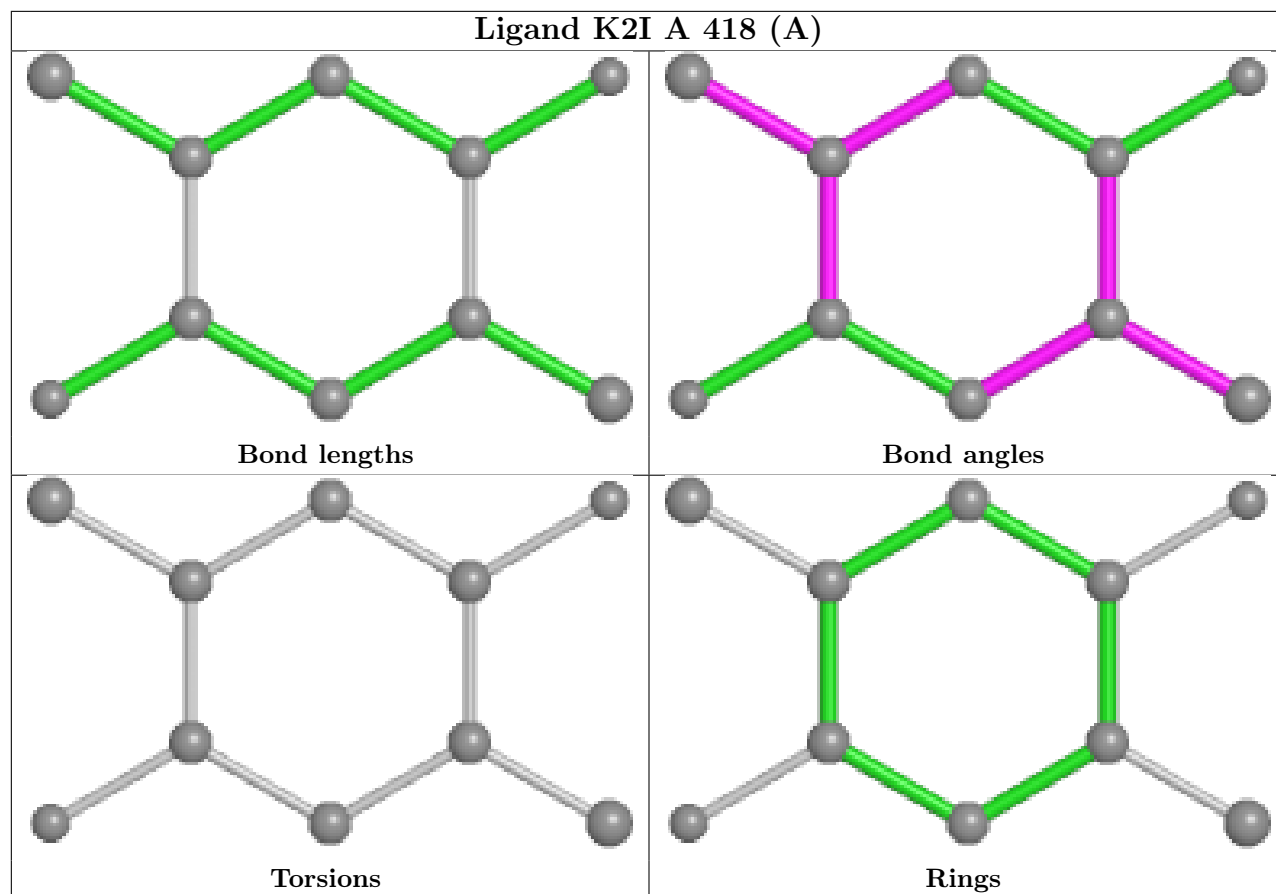


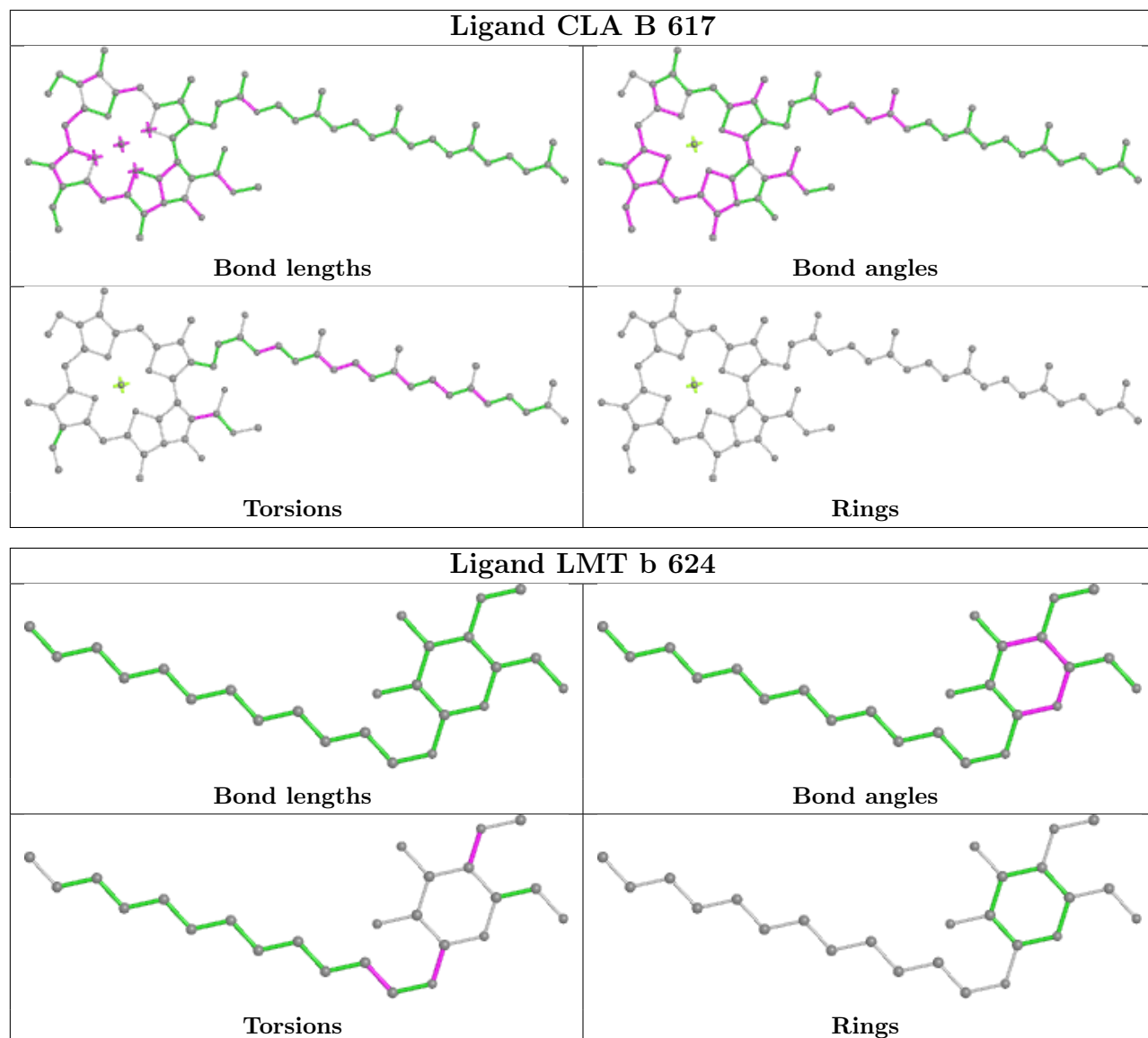


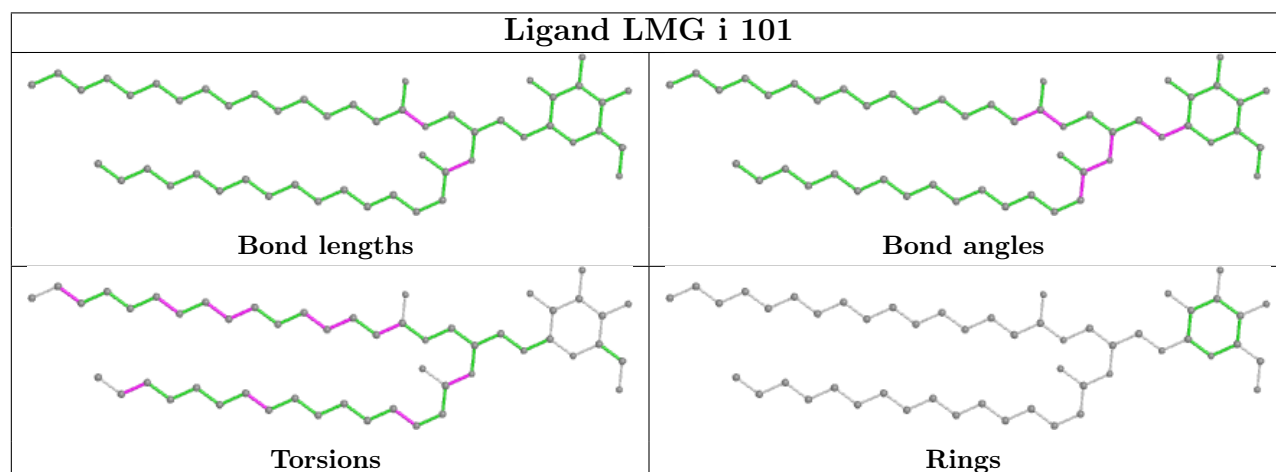
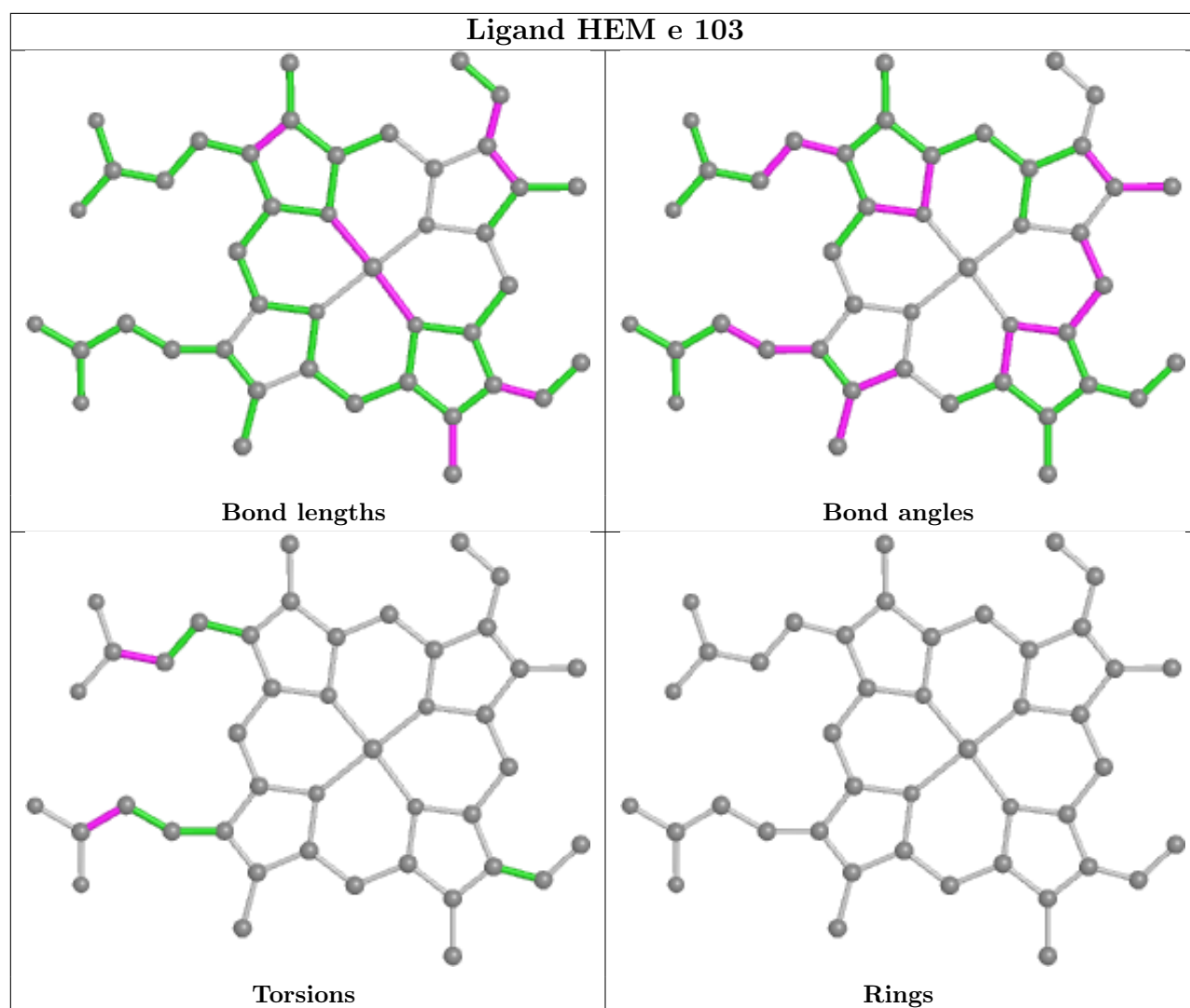


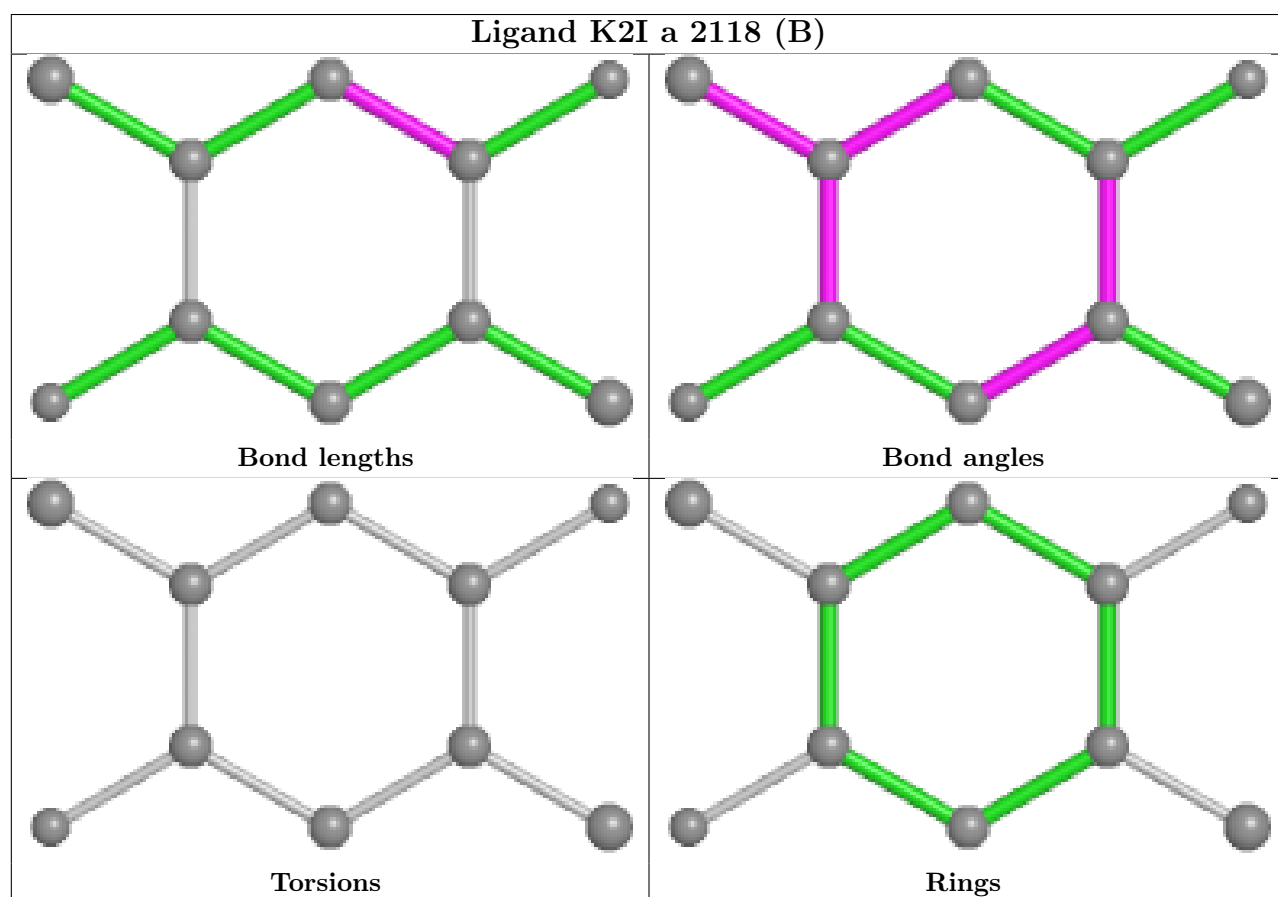
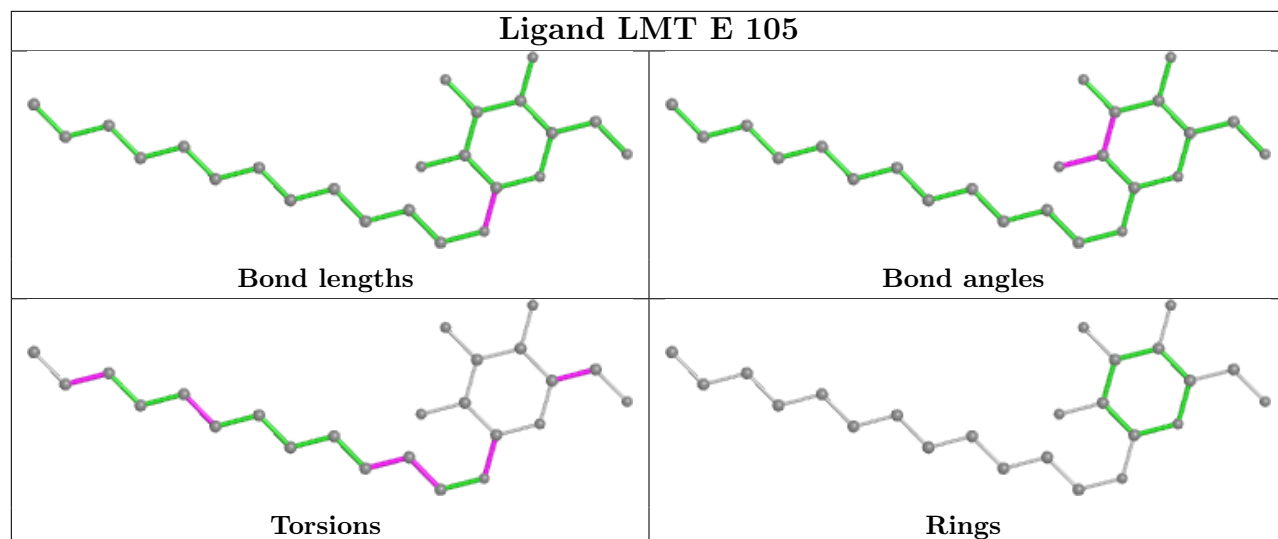


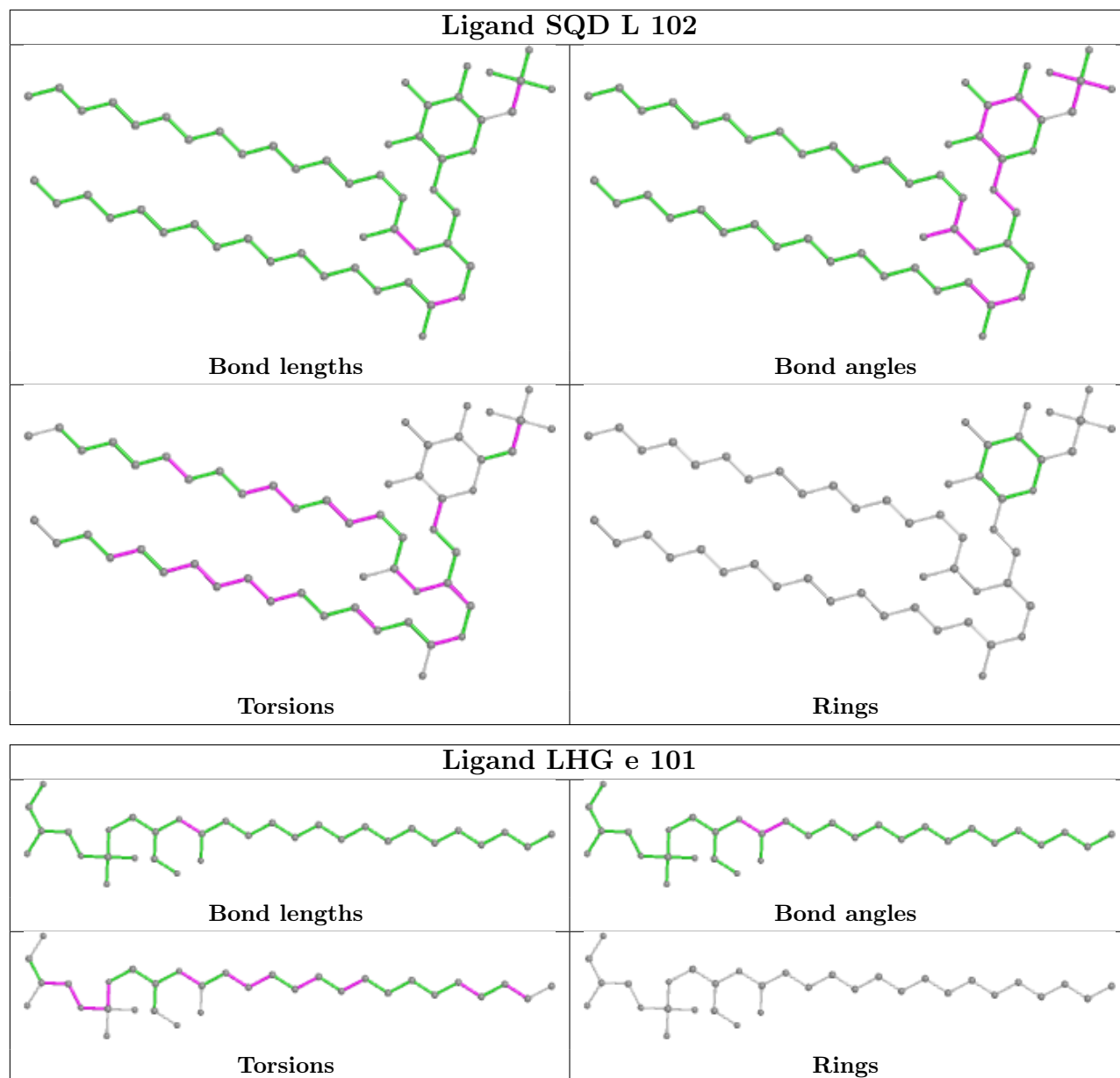


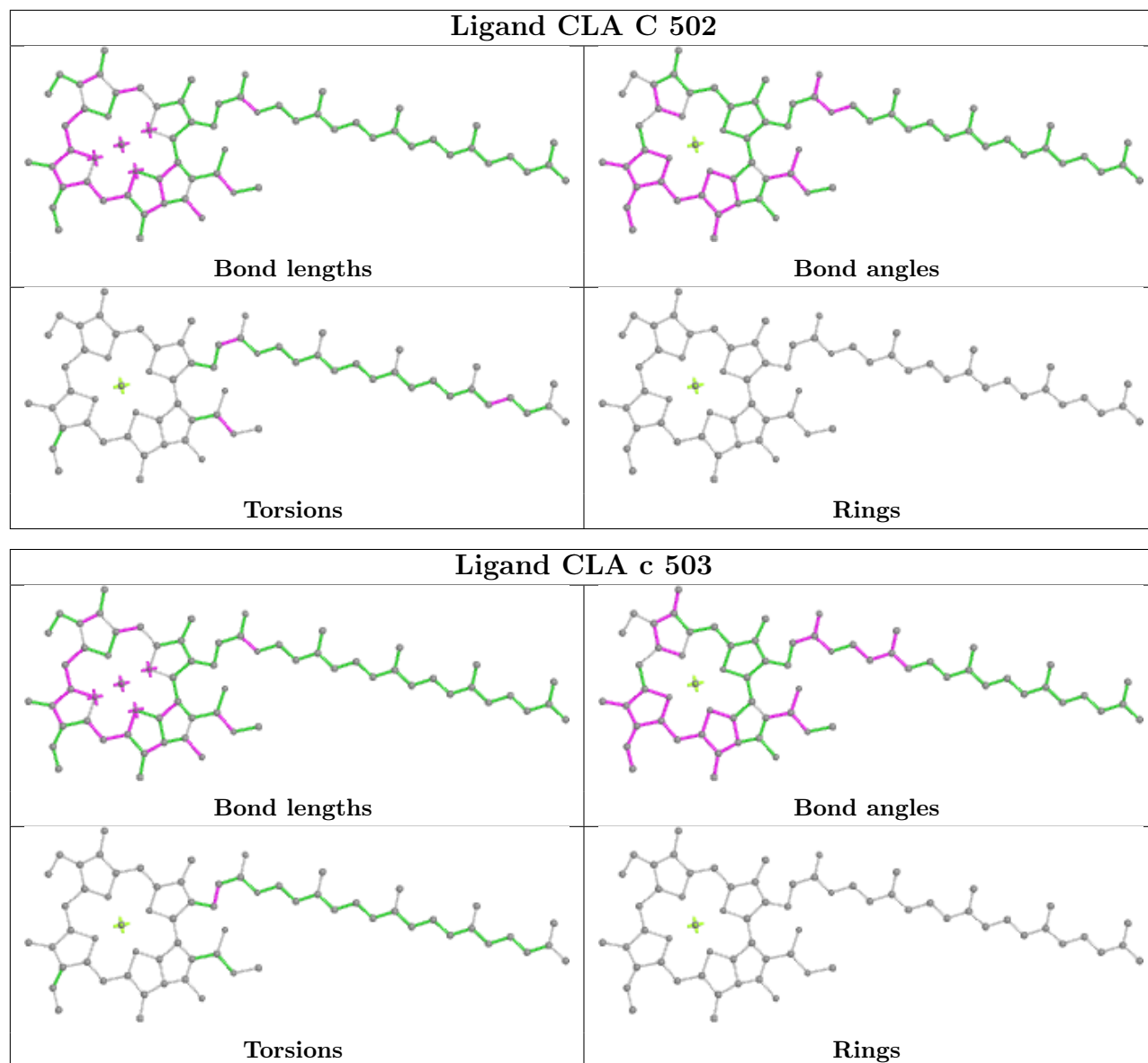


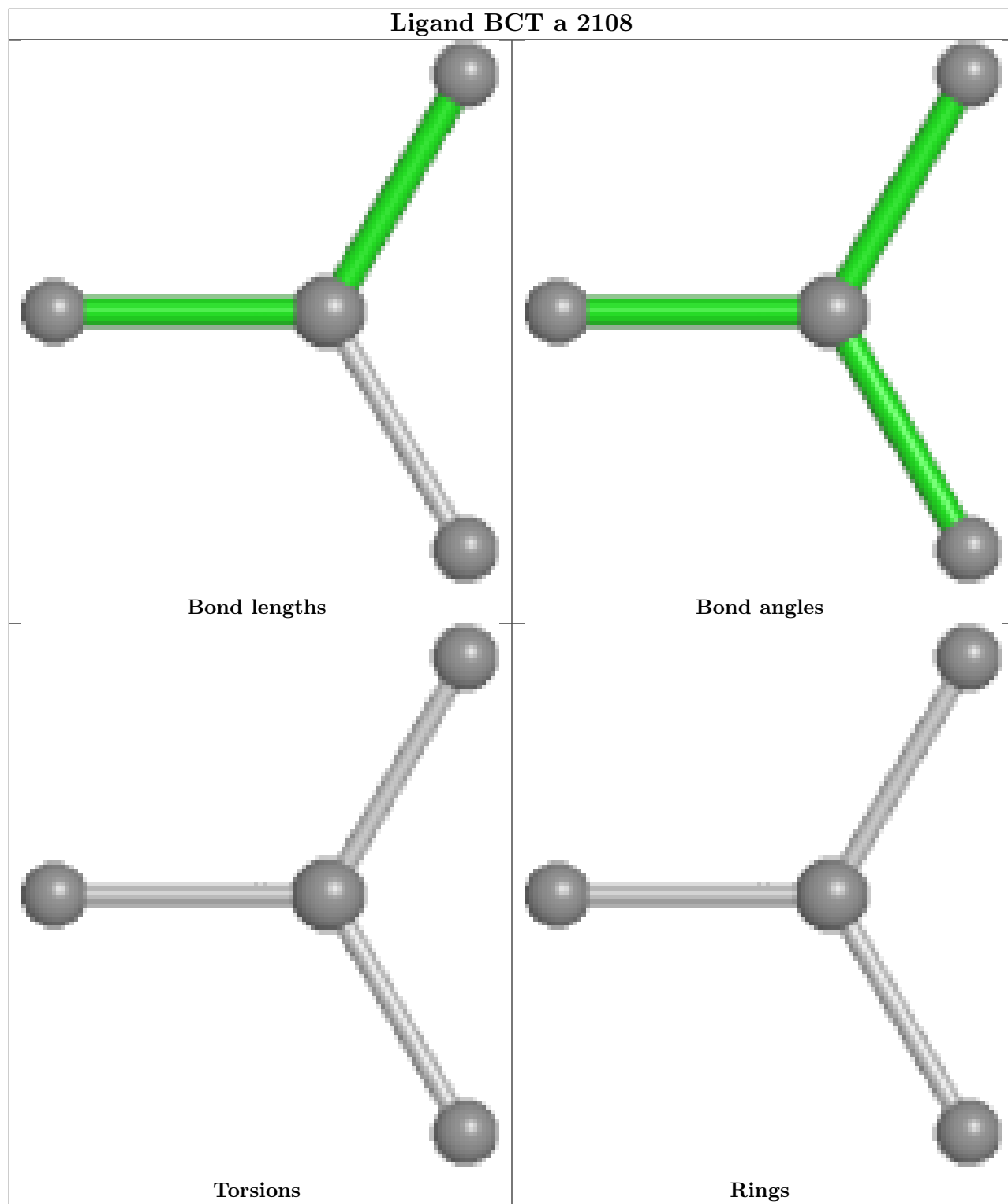


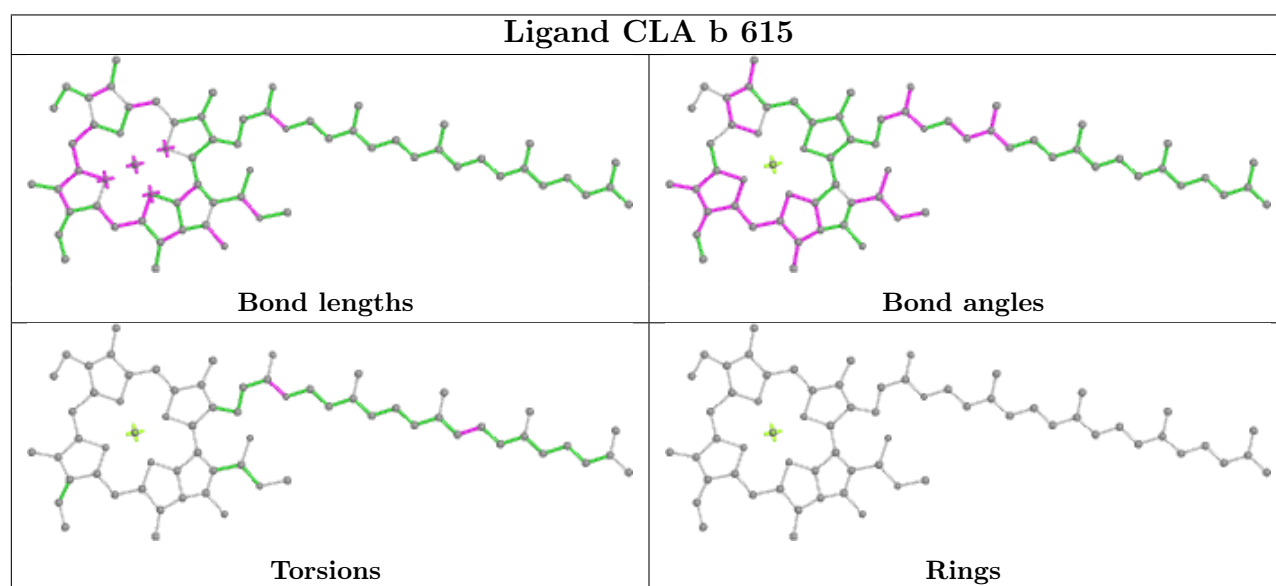
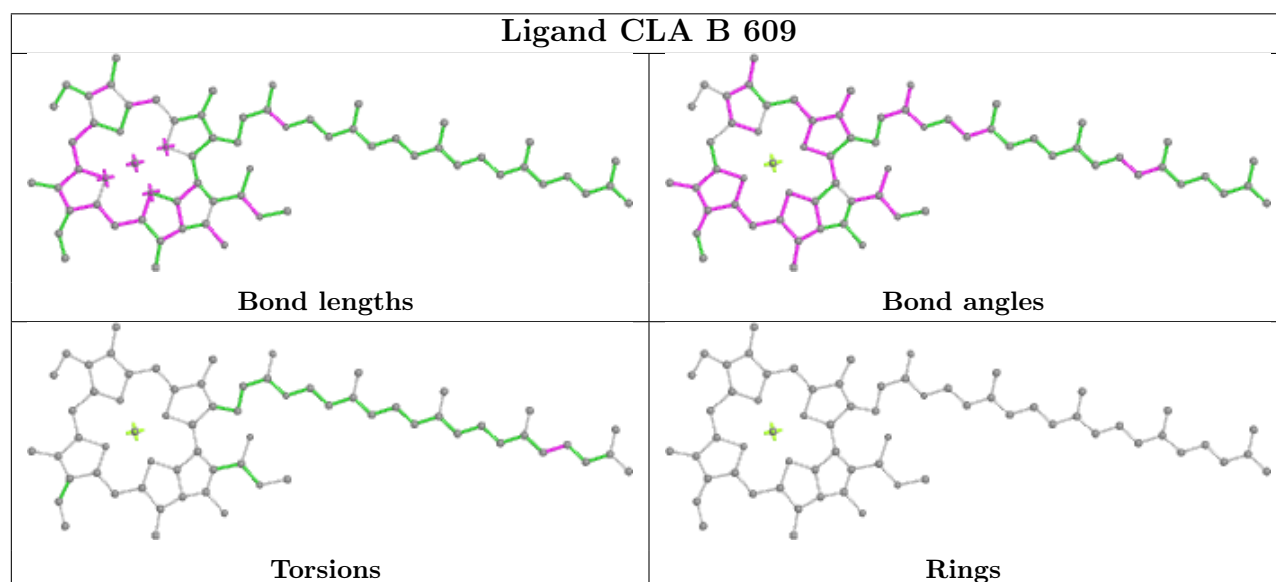
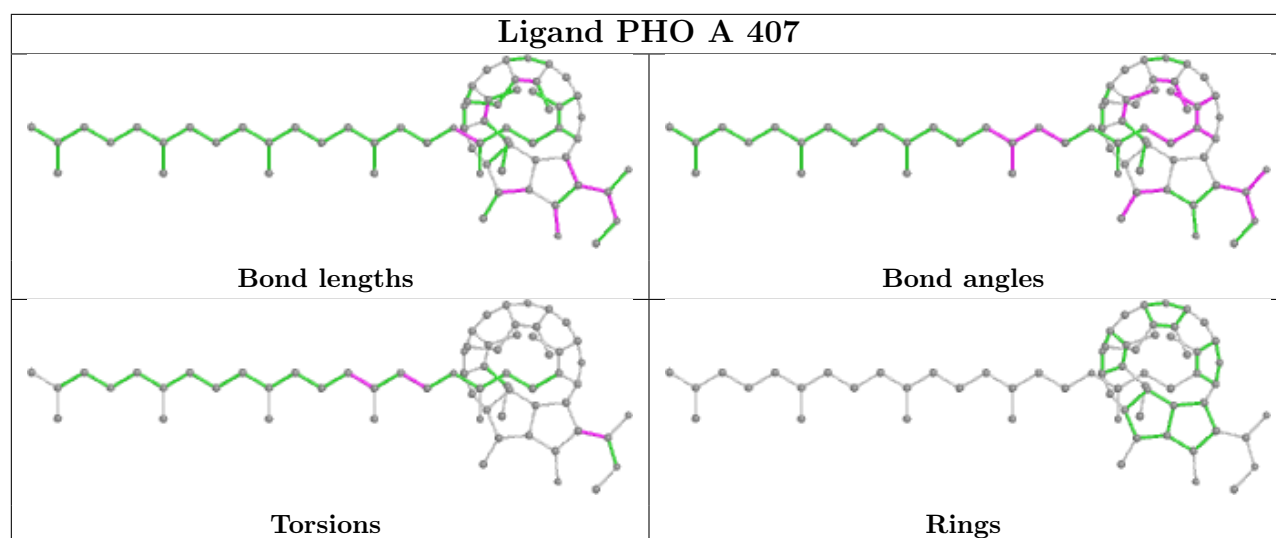


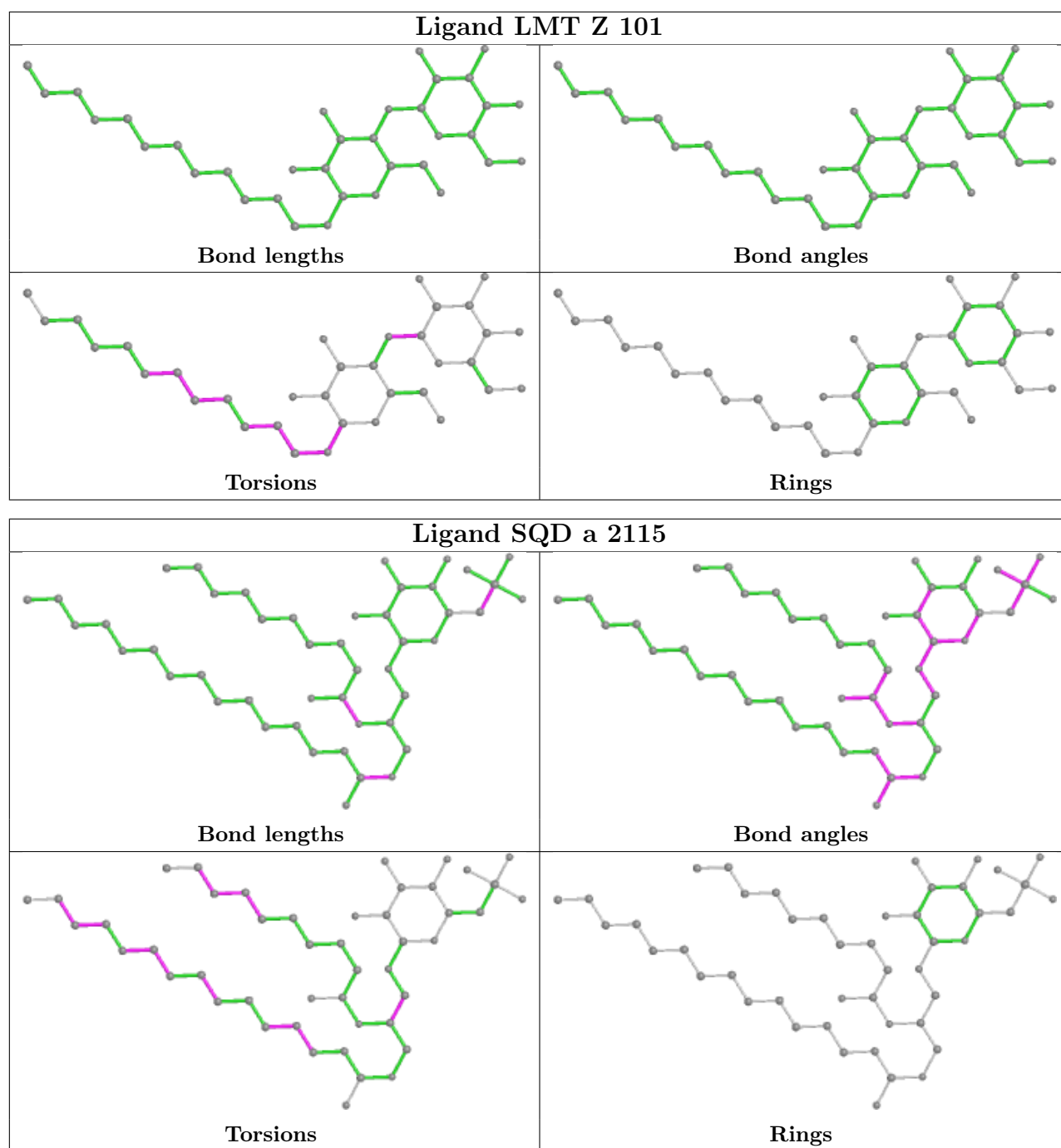


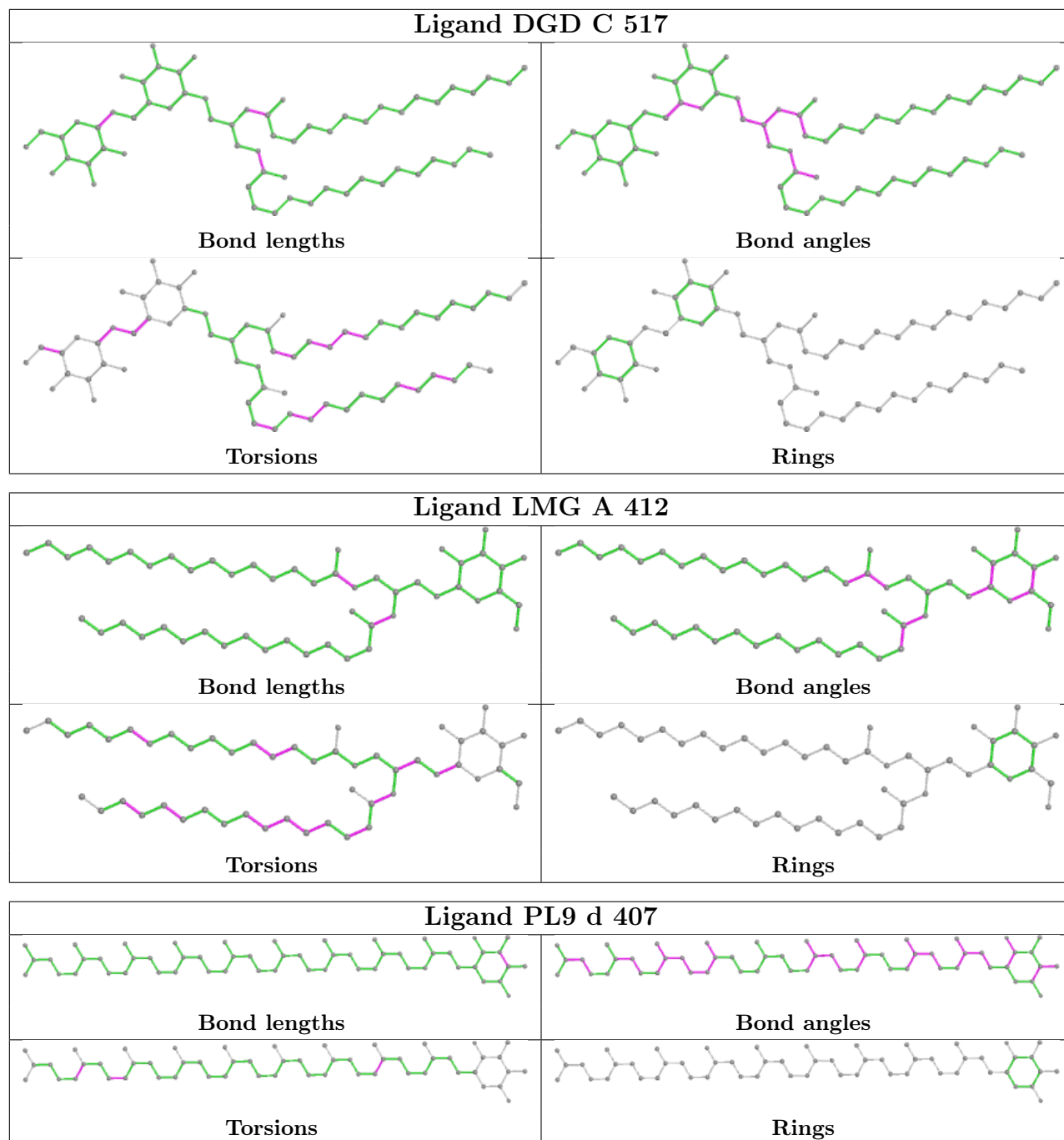


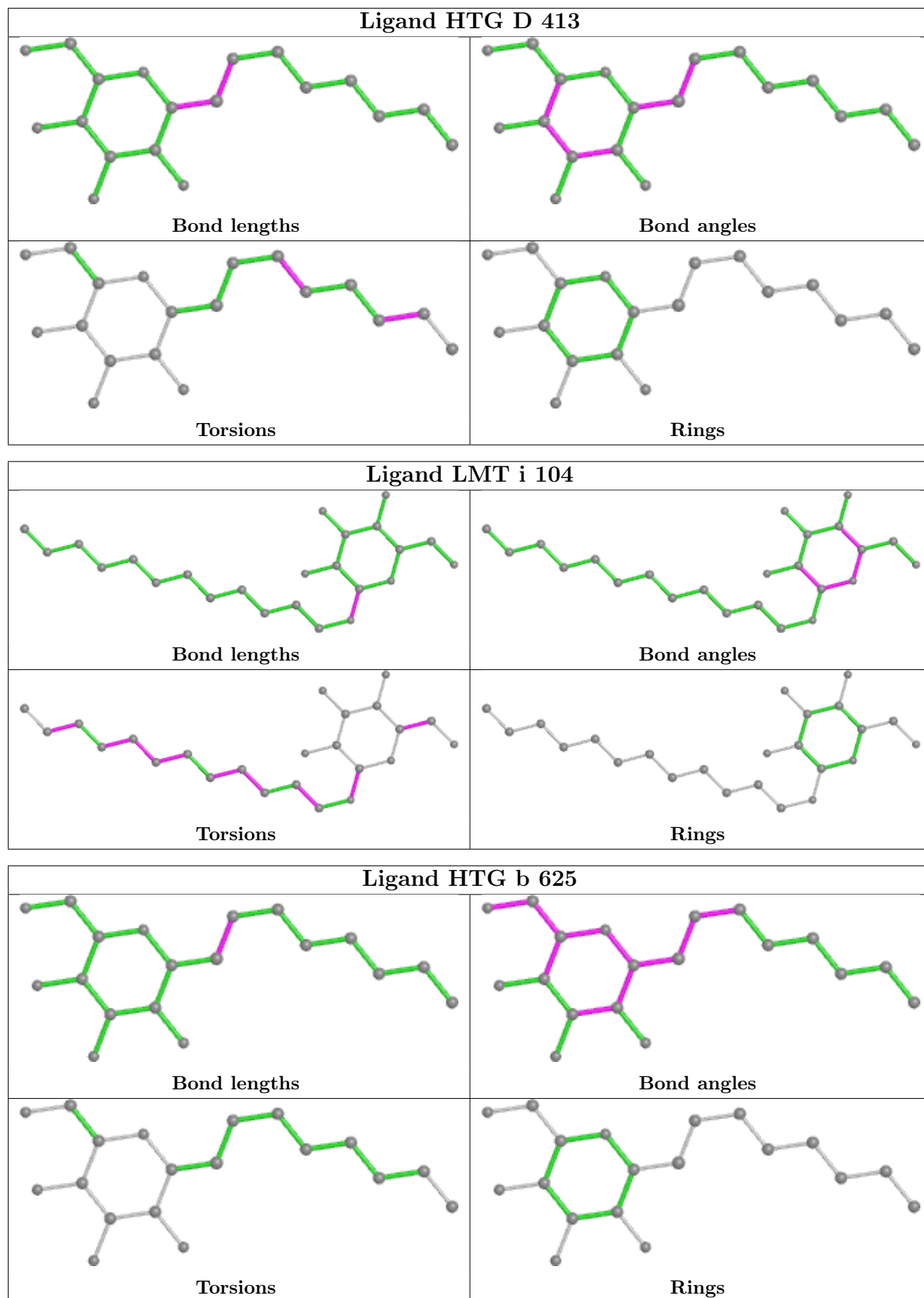


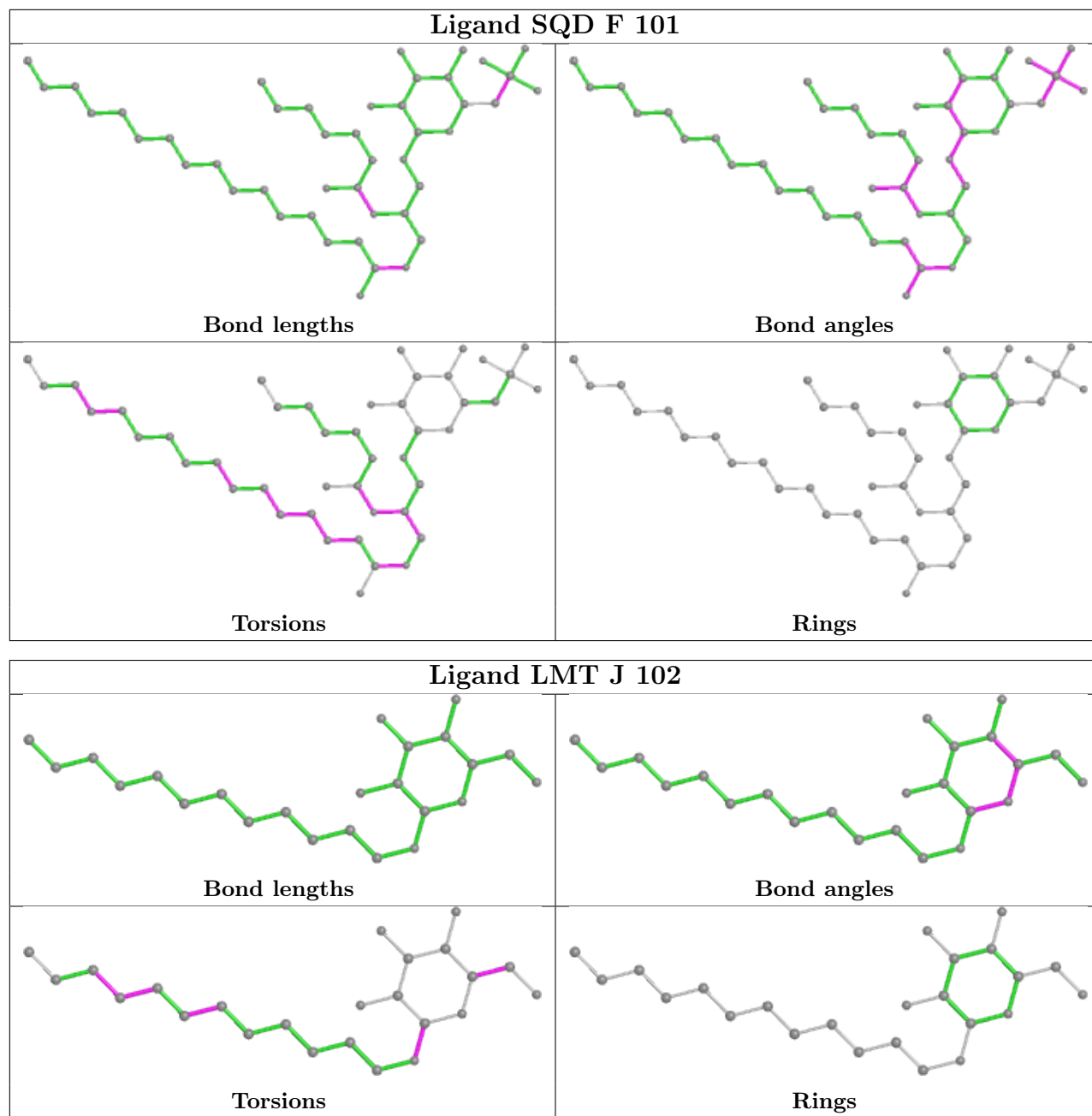


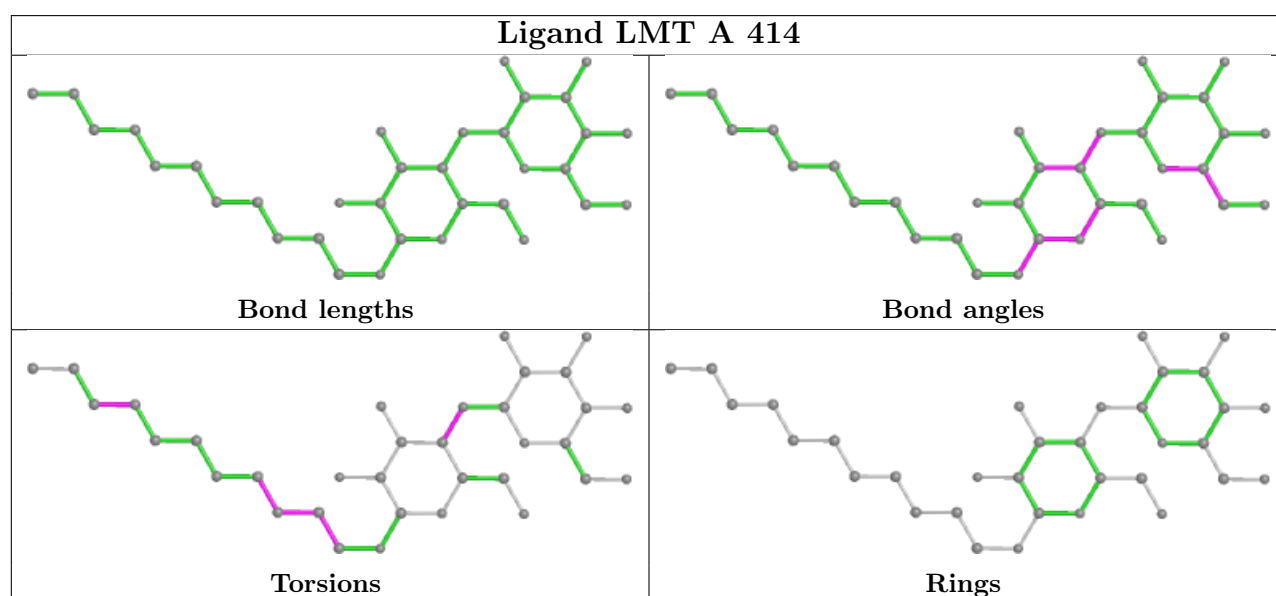
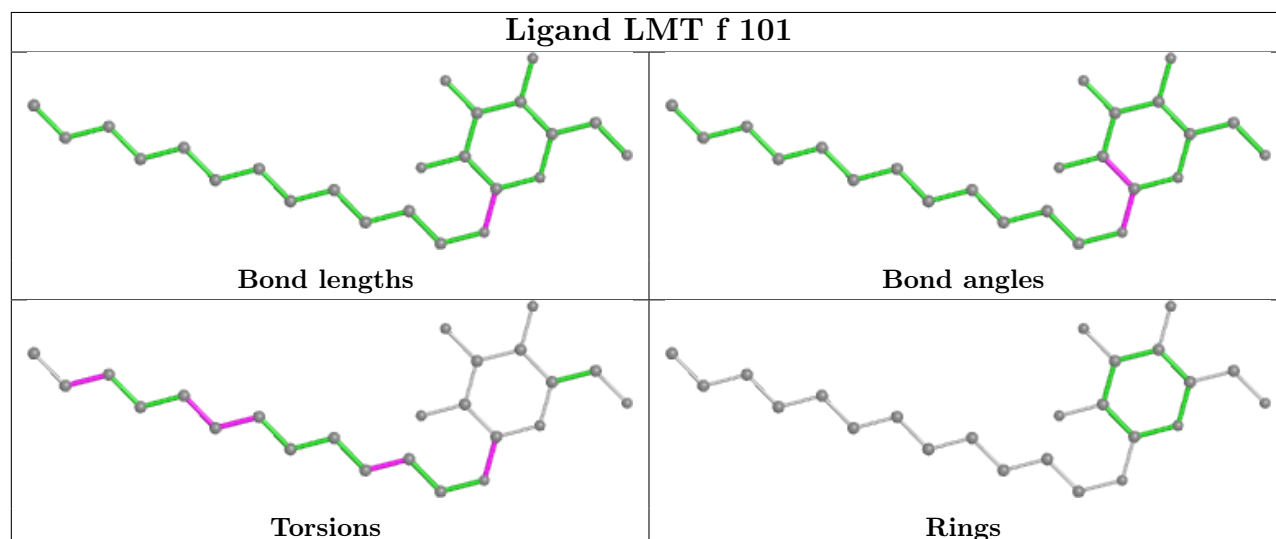
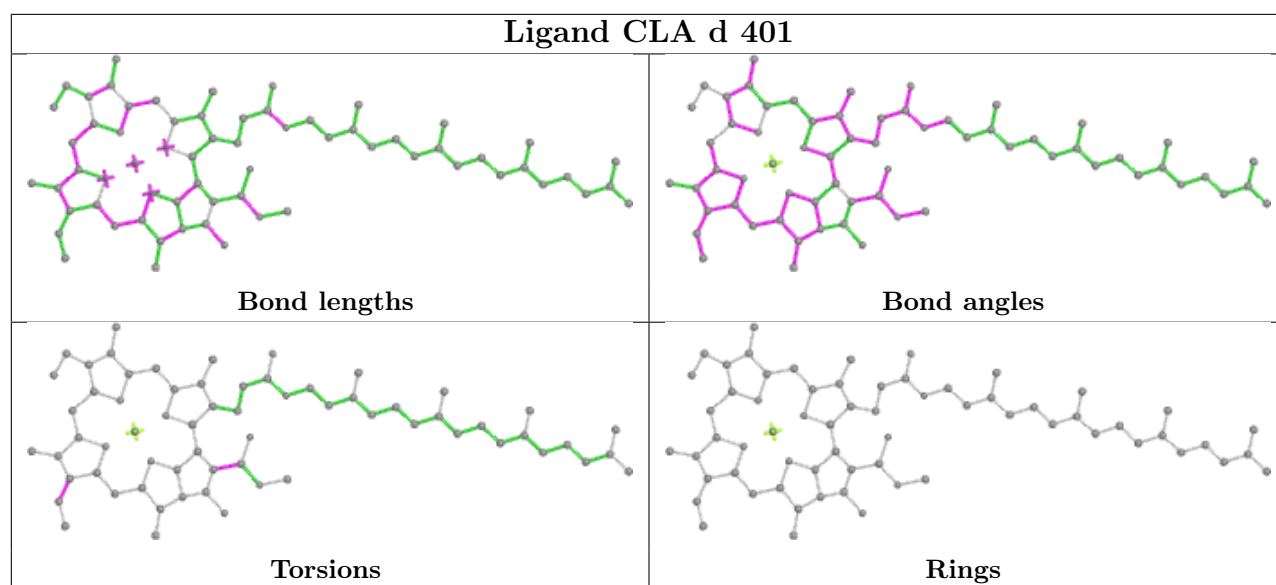


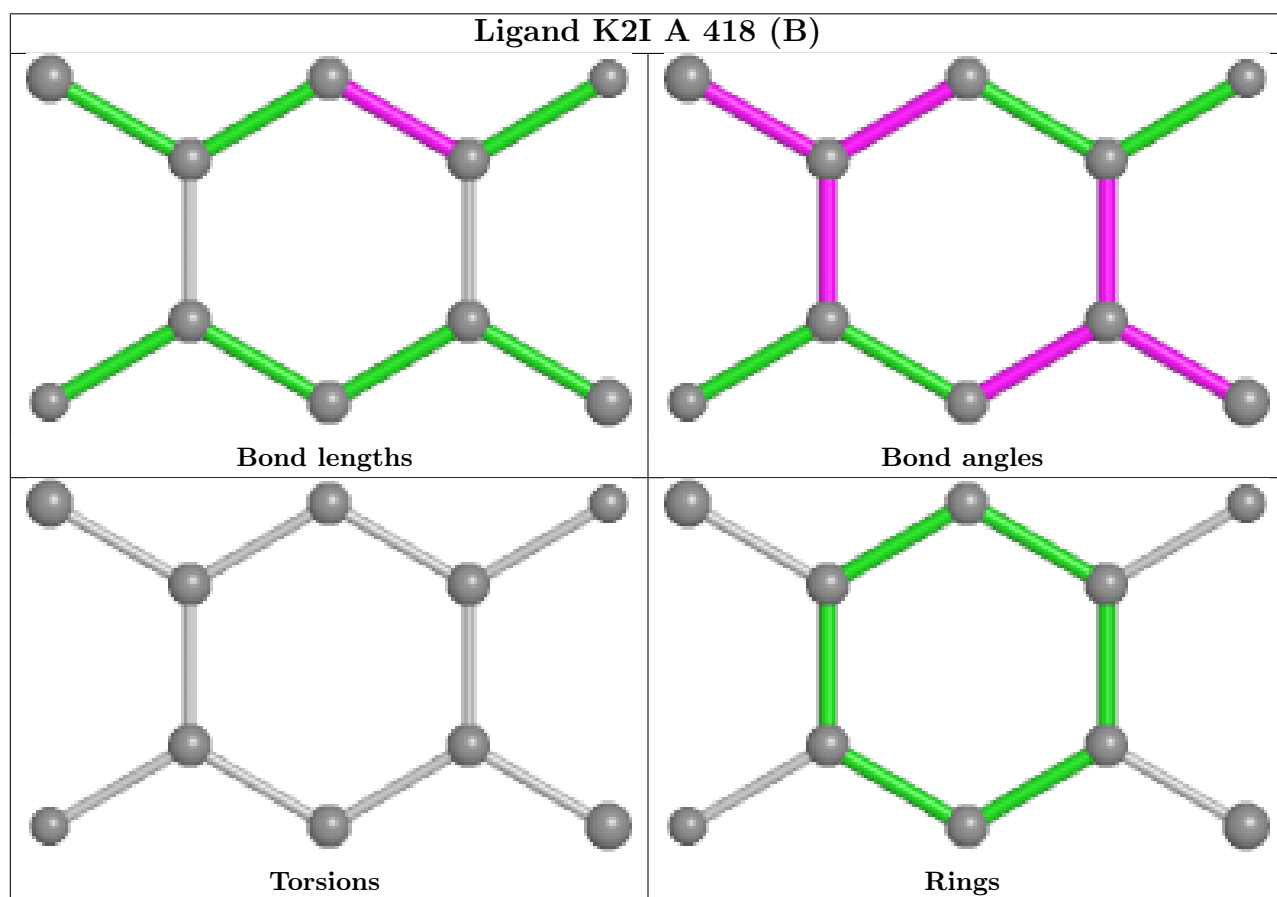
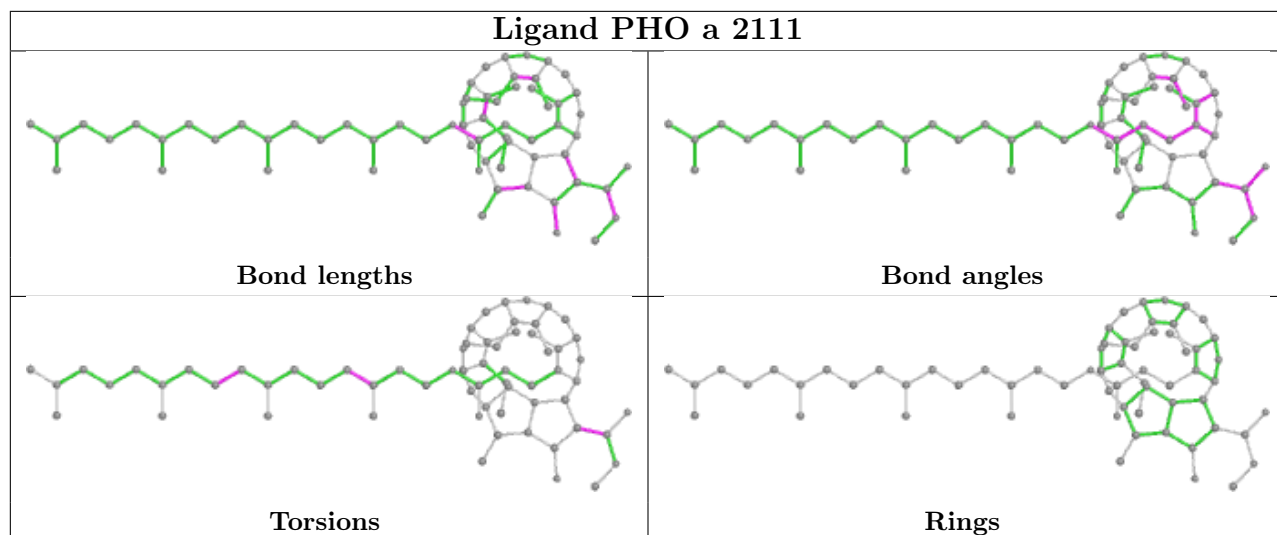


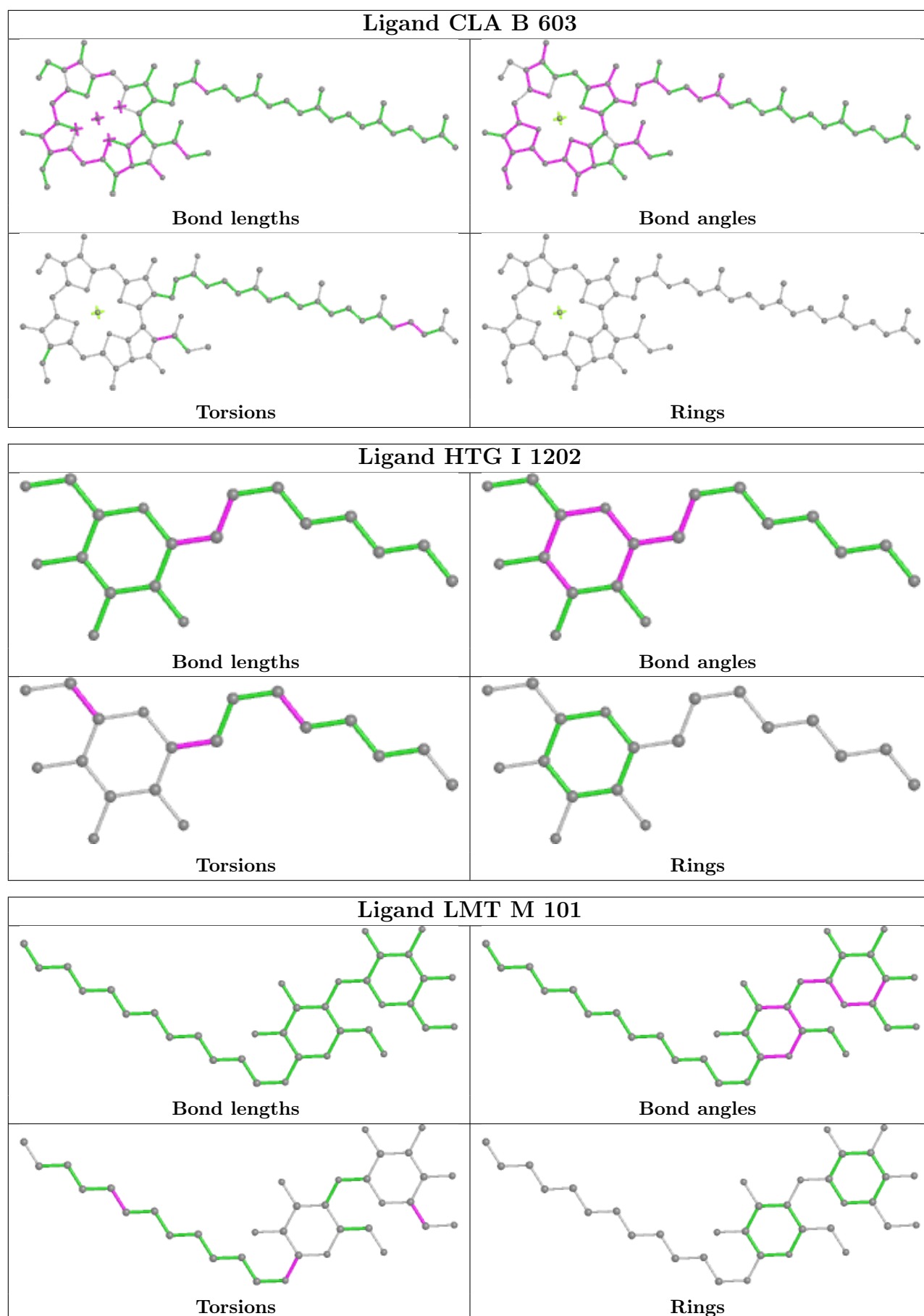


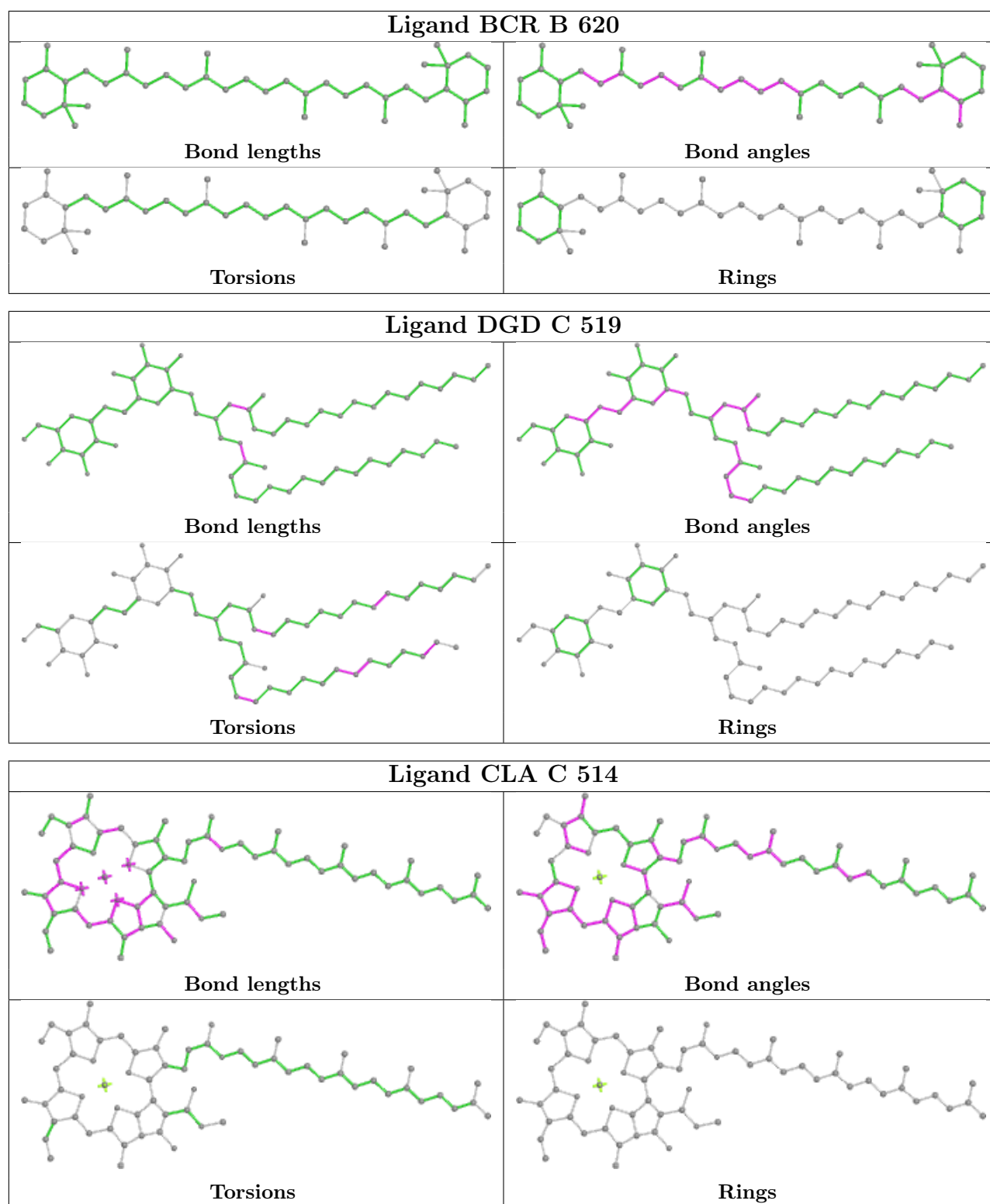


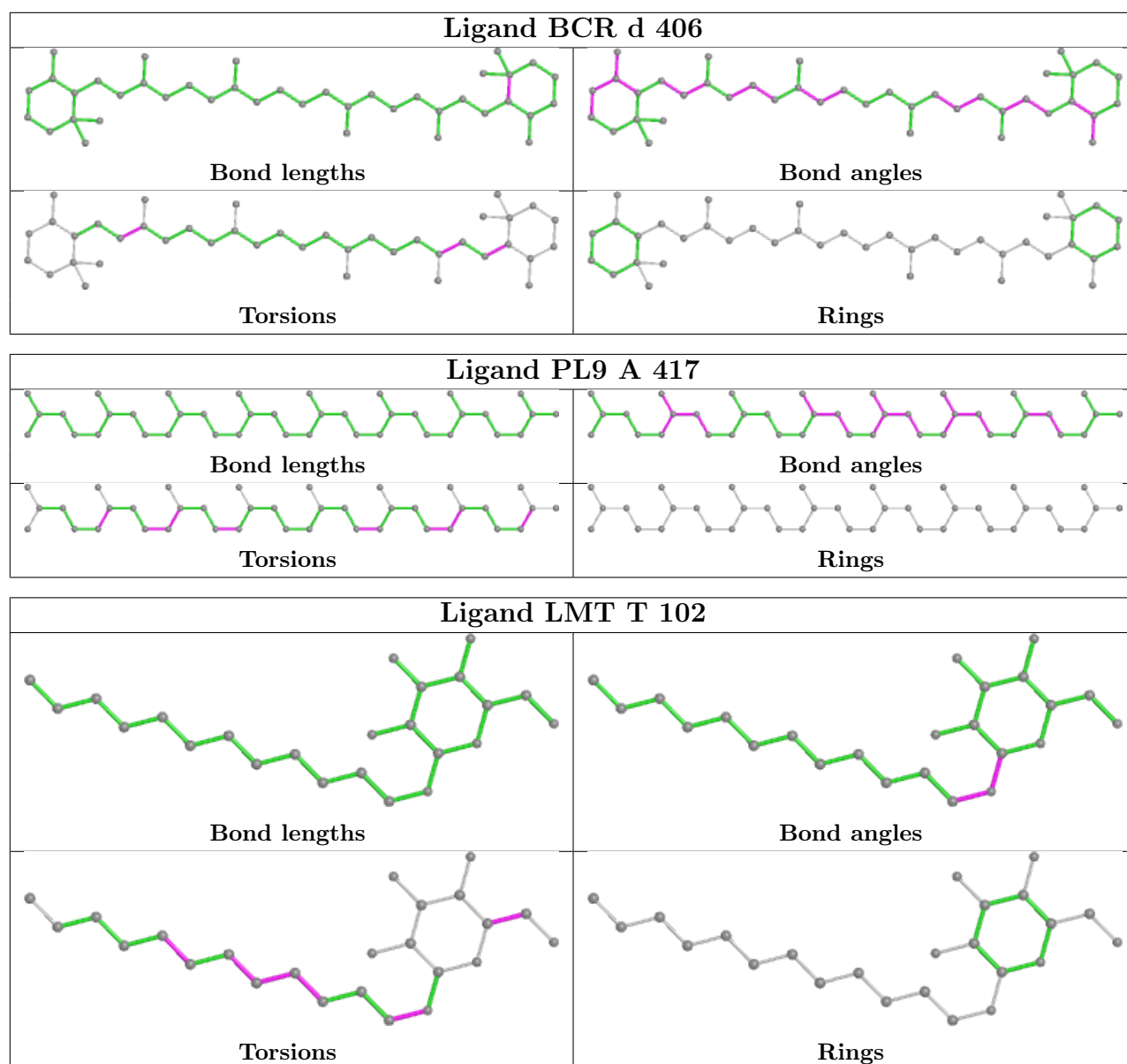












5.7 Other polymers [i](#)

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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	334/344 (97%)	0.04	7 (2%) 63 68	35, 43, 72, 128	0
1	a	334/344 (97%)	0.33	33 (9%) 7 9	37, 45, 84, 116	0
2	B	505/505 (100%)	0.16	43 (8%) 10 13	37, 48, 79, 117	0
2	b	503/505 (99%)	0.20	56 (11%) 5 7	39, 50, 88, 168	0
3	C	451/455 (99%)	0.04	30 (6%) 17 22	39, 53, 71, 138	0
3	c	455/455 (100%)	0.31	32 (7%) 16 20	43, 57, 75, 119	0
4	D	340/342 (99%)	-0.11	7 (2%) 63 68	35, 44, 64, 107	0
4	d	341/342 (99%)	-0.08	12 (3%) 44 50	38, 46, 70, 114	0
5	E	80/83 (96%)	0.52	15 (18%) 1 1	45, 66, 108, 118	0
5	e	79/83 (95%)	0.67	13 (16%) 1 2	52, 67, 101, 124	0
6	F	34/44 (77%)	-0.04	4 (11%) 4 5	48, 56, 86, 104	0
6	f	32/44 (72%)	-0.06	2 (6%) 20 24	49, 58, 104, 129	0
7	H	63/63 (100%)	0.15	3 (4%) 30 36	45, 57, 74, 103	0
7	h	63/63 (100%)	0.64	11 (17%) 1 1	46, 61, 80, 102	0
8	I	35/38 (92%)	0.40	6 (17%) 1 1	47, 63, 114, 124	0
8	i	35/38 (92%)	0.70	5 (14%) 2 3	47, 62, 109, 130	0
9	J	36/40 (90%)	-0.37	0 100 100	45, 60, 95, 109	0
9	j	39/40 (97%)	-0.11	1 (2%) 56 61	51, 62, 86, 108	0
10	K	37/37 (100%)	-0.23	1 (2%) 54 60	51, 59, 73, 88	0
10	k	37/37 (100%)	0.10	2 (5%) 25 31	54, 64, 85, 100	0
11	L	37/37 (100%)	-0.07	4 (10%) 5 7	36, 42, 94, 127	0
11	l	36/37 (97%)	-0.11	0 100 100	37, 43, 101, 128	0
12	M	32/36 (88%)	-0.40	1 (3%) 49 55	40, 44, 63, 86	0
12	m	33/36 (91%)	0.14	2 (6%) 21 26	40, 45, 82, 105	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	O	244/244 (100%)	0.46	34 (13%) 2 3	37, 55, 89, 169	0
13	o	243/244 (99%)	0.38	33 (13%) 3 4	40, 57, 101, 138	0
14	T	29/32 (90%)	-0.17	1 (3%) 45 51	36, 43, 72, 147	0
14	t	29/32 (90%)	0.32	2 (6%) 16 21	37, 43, 76, 98	0
15	U	97/104 (93%)	-0.10	1 (1%) 82 85	43, 52, 79, 92	0
15	u	97/104 (93%)	-0.32	1 (1%) 82 85	46, 56, 75, 124	0
16	V	137/137 (100%)	-0.08	8 (5%) 23 28	42, 50, 68, 98	0
16	v	137/137 (100%)	0.37	14 (10%) 6 8	48, 63, 87, 99	0
17	Y	30/30 (100%)	1.15	5 (16%) 1 2	59, 74, 114, 121	0
17	y	29/30 (96%)	1.10	7 (24%) 0 0	64, 78, 100, 113	0
18	X	38/40 (95%)	0.52	7 (18%) 1 1	53, 66, 85, 92	0
18	x	38/40 (95%)	0.85	7 (18%) 1 1	59, 66, 123, 143	0
19	Z	61/62 (98%)	1.68	26 (42%) 0 0	58, 69, 110, 130	0
19	z	60/62 (96%)	1.91	25 (41%) 0 0	66, 79, 125, 142	0
20	R	34/41 (82%)	6.73	34 (100%) 0 0	99, 139, 163, 165	0
All	All	5274/5387 (97%)	0.25	495 (9%) 8 11	35, 52, 89, 169	0

The worst 5 of 495 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
20	R	31	VAL	12.5
20	R	34	LEU	10.9
20	R	32	GLN	10.8
20	R	18	TRP	9.9
20	R	23	ILE	9.7

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
19	FME	Z	1	10/11	0.88	0.34	86,100,112,113	0
19	FME	z	1	10/11	0.92	0.39	108,131,143,145	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
12	FME	M	1	10/11	0.95	0.13	42,48,82,86	0
14	FME	T	1	10/11	0.95	0.08	45,52,78,79	0
8	FME	I	1	10/11	0.96	0.12	45,54,63,64	0
4	HSK	d	336[B]	11/12	0.97	0.11	48,51,55,59	8
8	FME	i	1	10/11	0.97	0.16	41,53,56,56	0
12	FME	m	1	10/11	0.97	0.08	38,54,81,85	0
14	FME	t	1	10/11	0.97	0.08	41,47,73,76	0
4	HSK	d	336[A]	10/12	0.97	0.11	48,51,53,55	7
4	HSK	D	336[A]	10/12	0.98	0.11	45,48,50,50	7
4	HSK	D	336[B]	11/12	0.98	0.11	45,48,49,50	8

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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
30	UNL	A	415	40/-	0.44	0.42	80,111,132,143	0
30	UNL	B	631	15/-	0.53	0.49	87,100,112,114	0
29	LMT	B	636	35/35	0.55	0.31	66,146,168,168	0
30	UNL	i	105	10/-	0.55	0.33	85,95,98,99	0
29	LMT	j	1601	23/35	0.59	0.26	77,104,149,151	0
30	UNL	E	102	15/-	0.60	0.43	96,102,109,111	0
30	UNL	I	1204	13/-	0.60	0.32	80,87,94,95	0
30	UNL	b	628	15/-	0.60	0.27	85,97,105,106	0
30	UNL	D	415	9/-	0.60	0.29	89,92,97,98	0
37	GOL	U	501	6/6	0.60	0.42	86,95,97,103	0
36	HTG	B	626	19/19	0.62	0.41	53,114,123,126	19
30	UNL	B	630	9/-	0.62	0.54	80,89,103,103	0
37	GOL	B	632	6/6	0.63	0.22	95,101,103,106	0
29	LMT	m	103	35/35	0.63	0.28	75,143,152,155	0
38	DGD	D	408	46/66	0.63	0.31	77,106,140,148	0
30	UNL	E	104	6/-	0.64	0.37	67,78,88,89	0
29	LMT	J	102	24/35	0.64	0.28	76,101,135,137	0
30	UNL	a	2116	17/-	0.64	0.30	85,96,115,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
29	LMT	A	420	35/35	0.64	0.47	91,129,142,147	0
37	GOL	Z	102	6/6	0.64	0.14	105,121,124,124	0
30	UNL	e	102	15/-	0.64	0.42	76,82,95,98	0
30	UNL	B	634	10/-	0.65	0.24	81,96,108,108	0
36	HTG	d	403	19/19	0.67	0.32	83,114,127,128	0
36	HTG	d	414	19/19	0.67	0.26	76,99,110,110	19
30	UNL	j	1602	16/-	0.67	0.39	80,88,100,101	0
37	GOL	D	403	6/6	0.68	0.29	74,79,84,85	0
30	UNL	b	627	11/-	0.68	0.38	91,97,103,103	0
34	DMS	b	642	4/4	0.69	0.31	135,136,137,138	0
30	UNL	E	106	16/-	0.69	0.35	93,104,113,114	0
37	GOL	d	415	6/6	0.69	0.12	94,106,109,110	0
29	LMT	M	101	35/35	0.69	0.23	57,89,104,107	0
30	UNL	I	1203	16/-	0.70	0.30	88,99,102,103	0
37	GOL	v	202	6/6	0.70	0.15	100,106,107,107	0
36	HTG	b	602	19/19	0.70	0.17	68,120,134,138	0
30	UNL	A	416	15/-	0.71	0.60	70,89,101,102	0
34	DMS	k	2004	4/4	0.71	0.21	147,149,149,150	0
37	GOL	H	103	6/6	0.71	0.23	85,97,100,102	0
28	LMG	C	526	48/55	0.71	0.26	63,111,128,134	0
37	GOL	b	631	6/6	0.72	0.18	94,99,103,109	0
36	HTG	D	413	19/19	0.72	0.29	74,106,124,127	0
29	LMT	m	102	35/35	0.72	0.28	49,82,99,101	0
29	LMT	a	2103	35/35	0.72	0.27	60,100,116,118	0
34	DMS	v	214	4/4	0.73	0.34	127,132,134,135	0
30	UNL	k	2002	12/-	0.73	0.19	84,93,114,115	0
31	PL9	A	417	39/55	0.73	0.42	73,85,102,105	0
34	DMS	O	311	4/4	0.73	0.30	103,108,112,113	0
34	DMS	b	637	4/4	0.73	0.31	131,135,135,137	0
30	UNL	C	501	40/-	0.73	0.36	75,102,126,129	0
36	HTG	i	103	19/19	0.73	0.21	74,133,147,148	0
30	UNL	J	103	15/-	0.73	0.18	86,93,99,99	0
37	GOL	V	203	6/6	0.74	0.17	84,103,106,107	0
37	GOL	o	2603	6/6	0.74	0.35	76,86,87,90	0
34	DMS	D	420	4/4	0.74	0.28	124,124,126,126	0
30	UNL	X	801	18/-	0.74	0.21	65,71,96,98	0
36	HTG	I	1202	19/19	0.75	0.24	72,116,134,134	0
29	LMT	a	2120	35/35	0.75	0.43	101,133,144,145	0
36	HTG	c	524	19/19	0.75	0.43	73,97,108,110	19
36	HTG	c	526	19/19	0.75	0.34	97,131,146,149	0
30	UNL	E	103	6/-	0.75	0.20	82,82,84,85	0
36	HTG	B	625[A]	19/19	0.75	0.29	57,70,80,83	19

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
36	HTG	B	625[B]	19/19	0.75	0.29	57,70,80,83	19
29	LMT	b	624	25/35	0.75	0.20	80,110,138,139	0
27	SQD	B	621	54/54	0.75	0.25	48,87,130,133	0
37	GOL	O	303	6/6	0.76	0.27	91,94,95,96	0
34	DMS	T	104	4/4	0.76	0.20	118,127,127,129	0
34	DMS	T	106	4/4	0.76	0.30	121,124,125,126	0
30	UNL	c	501	36/-	0.77	0.26	80,98,127,130	0
29	LMT	I	1201	24/35	0.77	0.23	56,96,144,148	0
30	UNL	h	701	11/-	0.77	0.37	85,89,97,98	0
37	GOL	k	2001	6/6	0.77	0.16	86,107,121,126	0
30	UNL	i	102	19/-	0.77	0.31	86,96,114,114	0
34	DMS	d	423	4/4	0.77	0.22	143,144,144,145	0
30	UNL	Y	301	10/-	0.77	0.23	93,101,108,109	0
28	LMG	c	522	48/55	0.78	0.24	55,110,127,139	0
30	UNL	d	402	40/-	0.78	0.28	61,88,130,131	0
30	UNL	C	523	10/-	0.78	0.30	81,88,98,100	0
29	LMT	A	414	34/35	0.78	0.26	68,107,122,131	0
30	UNL	h	704	12/-	0.78	0.42	83,89,104,106	0
34	DMS	C	536	4/4	0.78	0.36	109,110,113,114	0
37	GOL	v	203	6/6	0.78	0.17	78,80,83,87	0
36	HTG	C	522	19/19	0.78	0.41	66,115,134,137	0
39	LHG	E	101	49/49	0.78	0.31	77,108,122,123	0
39	LHG	e	101	32/49	0.78	0.21	77,130,154,158	0
36	HTG	b	626	19/19	0.79	0.23	96,137,142,142	0
34	DMS	O	314	4/4	0.79	0.35	133,135,136,138	0
37	GOL	B	635	6/6	0.79	0.32	70,80,94,97	0
34	DMS	v	211	4/4	0.79	0.22	95,111,113,114	0
30	UNL	B	629	18/-	0.79	0.26	78,85,103,105	0
36	HTG	B	628	19/19	0.79	0.20	56,128,134,137	0
29	LMT	B	637	24/35	0.80	0.26	50,77,118,128	0
34	DMS	C	534	4/4	0.80	0.28	119,119,120,121	0
29	LMT	f	101	24/35	0.80	0.36	93,112,125,126	0
29	LMT	Z	101	35/35	0.80	0.24	60,125,151,156	0
37	GOL	C	524	6/6	0.80	0.21	91,98,103,105	0
34	DMS	O	307	4/4	0.80	0.33	119,120,120,120	0
28	LMG	i	101	51/55	0.80	0.24	65,82,94,101	0
27	SQD	L	102	54/54	0.80	0.23	55,78,119,123	0
30	UNL	B	633	22/-	0.80	0.17	61,84,112,113	0
30	UNL	d	416	18/-	0.80	0.18	59,74,105,105	0
34	DMS	o	2612	4/4	0.81	0.38	94,95,103,105	0
36	HTG	b	625	19/19	0.81	0.27	46,69,88,89	19
34	DMS	B	644	4/4	0.81	0.31	116,119,120,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
34	DMS	c	539	4/4	0.81	0.37	120,122,123,123	0
30	UNL	d	413	10/-	0.81	0.34	85,88,96,100	0
37	GOL	C	525	6/6	0.81	0.21	83,98,100,101	0
34	DMS	O	304	4/4	0.81	0.34	129,133,136,141	0
41	RRX	h	702	41/41	0.81	0.20	46,59,81,93	0
30	UNL	c	525	12/-	0.82	0.18	88,97,118,118	0
34	DMS	C	538	4/4	0.82	0.21	121,122,124,126	0
29	LMT	i	104	24/35	0.82	0.19	64,103,141,147	0
34	DMS	E	107	4/4	0.82	0.38	124,128,129,133	0
36	HTG	c	523	19/19	0.82	0.27	95,110,115,116	0
37	GOL	o	2601	6/6	0.83	0.15	89,94,98,103	0
32	K2I	A	418[B]	10/10	0.83	0.17	74,95,100,112	10
34	DMS	b	635	4/4	0.83	0.32	102,104,106,108	0
34	DMS	o	2604	4/4	0.83	0.34	124,124,125,126	0
32	K2I	A	418[A]	10/10	0.83	0.17	94,96,102,105	10
34	DMS	B	650	4/4	0.83	0.21	130,131,132,134	0
34	DMS	c	533	4/4	0.83	0.34	110,116,116,117	0
34	DMS	O	306	4/4	0.83	0.29	114,121,122,124	0
34	DMS	B	642	4/4	0.84	0.30	109,111,113,115	0
27	SQD	a	2102	53/54	0.84	0.17	52,80,111,115	0
34	DMS	B	646	4/4	0.84	0.30	111,111,113,115	0
34	DMS	E	108	4/4	0.84	0.56	115,118,120,120	0
34	DMS	B	647	4/4	0.84	0.34	106,110,112,116	0
28	LMG	b	623	51/55	0.84	0.24	56,70,83,100	0
34	DMS	z	1802	4/4	0.84	0.15	139,141,144,144	0
34	DMS	b	643	4/4	0.84	0.22	149,150,151,151	0
29	LMT	E	105	24/35	0.84	0.28	89,104,131,136	0
34	DMS	c	538	4/4	0.84	0.32	111,113,114,116	0
29	LMT	B	623	35/35	0.84	0.21	74,104,121,122	0
34	DMS	C	535	4/4	0.85	0.28	121,122,124,127	0
37	GOL	v	204	6/6	0.85	0.19	85,89,93,97	0
30	UNL	b	629	9/-	0.85	0.30	76,90,96,96	0
30	UNL	a	2117	9/-	0.85	0.45	72,79,83,84	0
34	DMS	c	534	4/4	0.85	0.35	120,120,122,123	0
34	DMS	b	640	4/4	0.85	0.33	103,108,109,111	0
28	LMG	C	520	51/55	0.86	0.21	48,81,101,108	0
34	DMS	C	537	4/4	0.86	0.23	112,114,116,118	0
34	DMS	u	204	4/4	0.86	0.24	106,108,109,110	0
30	UNL	m	101	13/-	0.86	0.30	70,75,95,99	0
27	SQD	A	413	54/54	0.86	0.19	62,81,122,128	0
29	LMT	T	102	24/35	0.86	0.25	48,79,108,114	0
34	DMS	C	527	4/4	0.86	0.28	111,114,115,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
34	DMS	d	419	4/4	0.86	0.40	100,101,102,104	0
34	DMS	d	420	4/4	0.86	0.25	117,117,120,122	0
28	LMG	B	622	51/55	0.86	0.20	51,70,83,92	0
41	RRX	H	101	41/41	0.86	0.14	45,59,68,78	0
29	LMT	z	1801	33/35	0.86	0.18	74,116,131,136	0
34	DMS	u	201	4/4	0.87	0.30	104,109,110,111	0
34	DMS	x	802	4/4	0.87	0.21	110,115,116,118	0
37	GOL	c	527	6/6	0.87	0.20	81,86,93,93	0
26	BCR	k	2003	40/40	0.87	0.18	50,60,69,71	0
27	SQD	F	101	45/54	0.87	0.32	69,97,121,132	0
30	UNL	D	402	40/-	0.88	0.17	60,82,118,122	0
34	DMS	O	313	4/4	0.88	0.41	99,102,104,111	0
30	UNL	b	630	21/-	0.88	0.17	61,79,105,107	0
34	DMS	B	640	4/4	0.88	0.16	119,120,122,123	0
31	PL9	x	801	39/55	0.88	0.18	71,91,119,122	0
34	DMS	a	2122	4/4	0.88	0.32	128,128,129,129	0
34	DMS	j	1604	4/4	0.88	0.22	126,129,130,133	0
30	UNL	T	103	9/-	0.89	0.60	78,85,93,95	0
34	DMS	v	208	4/4	0.89	0.17	115,115,120,124	0
36	HTG	b	601	19/19	0.89	0.14	63,84,94,98	0
28	LMG	A	412	51/55	0.89	0.20	57,79,100,104	0
34	DMS	d	422	4/4	0.89	0.26	113,118,118,121	0
34	DMS	A	424	4/4	0.89	0.40	78,84,87,89	0
28	LMG	c	521	49/55	0.89	0.20	53,88,105,108	0
34	DMS	T	105	4/4	0.89	0.24	134,134,135,135	0
38	DGD	h	703	62/66	0.89	0.19	46,57,74,79	0
34	DMS	O	305	4/4	0.89	0.20	101,101,103,112	0
34	DMS	o	2607	4/4	0.89	0.12	140,140,141,142	0
24	CLA	B	610	65/65	0.89	0.14	42,49,58,60	0
34	DMS	C	539	4/4	0.89	0.34	75,90,91,96	0
34	DMS	O	309	4/4	0.90	0.18	98,101,104,109	0
34	DMS	B	638	4/4	0.90	0.17	124,124,126,126	0
30	UNL	M	102	15/-	0.90	0.23	58,68,108,113	0
34	DMS	C	530	4/4	0.90	0.16	88,93,97,99	0
34	DMS	o	2609	4/4	0.90	0.48	110,119,119,121	0
34	DMS	o	2610	4/4	0.90	0.28	131,131,131,133	0
24	CLA	C	507	65/65	0.90	0.16	50,69,110,117	0
36	HTG	B	627	19/19	0.90	0.14	59,90,110,116	0
34	DMS	D	417	4/4	0.90	0.23	74,86,91,95	0
36	HTG	C	521	19/19	0.90	0.25	90,106,113,116	0
34	DMS	B	649	4/4	0.90	0.30	124,124,125,126	0
34	DMS	e	104	4/4	0.90	0.15	117,119,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
24	CLA	B	603	65/65	0.91	0.18	41,48,57,58	0
34	DMS	C	529	4/4	0.91	0.17	123,124,124,127	0
24	CLA	C	514	65/65	0.91	0.16	54,65,95,98	0
34	DMS	v	212	4/4	0.91	0.17	119,121,122,124	0
34	DMS	v	213	4/4	0.91	0.17	108,108,109,109	0
34	DMS	C	533	4/4	0.91	0.15	120,121,121,122	0
27	SQD	f	102	37/54	0.91	0.16	73,101,129,134	0
34	DMS	a	2124	4/4	0.91	0.14	128,130,130,131	0
34	DMS	d	417	4/4	0.91	0.29	84,87,87,90	0
24	CLA	c	514	65/65	0.91	0.17	56,64,100,102	0
34	DMS	o	2611	4/4	0.91	0.31	96,99,99,99	0
39	LHG	l	101	49/49	0.91	0.21	43,52,71,79	0
34	DMS	O	312	4/4	0.91	0.39	112,116,117,118	0
26	BCR	Y	302	40/40	0.91	0.12	48,56,62,63	0
34	DMS	c	540	4/4	0.92	0.28	118,124,125,128	0
30	UNL	D	414	16/-	0.92	0.25	55,70,85,89	0
34	DMS	a	2123	4/4	0.92	0.14	113,115,118,123	0
24	CLA	b	612	65/65	0.92	0.12	43,52,62,70	0
32	K2I	a	2118[A]	10/10	0.92	0.17	103,106,111,114	10
34	DMS	b	636	4/4	0.92	0.19	69,96,97,100	0
32	K2I	a	2118[B]	10/10	0.92	0.17	82,105,107,112	10
34	DMS	b	639	4/4	0.92	0.17	93,94,94,99	0
36	HTG	B	624	19/19	0.92	0.15	60,69,74,76	0
34	DMS	A	423	4/4	0.92	0.18	113,115,117,121	0
30	UNL	d	412	14/-	0.92	0.31	56,73,79,82	0
34	DMS	o	2605	4/4	0.92	0.25	111,114,114,122	0
38	DGD	H	102	62/66	0.92	0.24	45,54,66,70	0
30	UNL	t	101	8/-	0.92	0.54	75,81,88,89	0
39	LHG	D	409	49/49	0.92	0.20	48,59,70,74	0
34	DMS	c	530	4/4	0.92	0.23	121,122,122,126	0
26	BCR	C	516	40/40	0.92	0.14	48,56,69,72	0
31	PL9	d	407	55/55	0.92	0.18	33,44,55,60	0
24	CLA	c	505	65/65	0.92	0.23	43,57,63,70	0
34	DMS	V	206	4/4	0.92	0.42	88,96,102,105	0
24	CLA	B	602	65/65	0.93	0.23	45,68,113,120	0
34	DMS	B	645	4/4	0.93	0.34	86,91,92,93	0
26	BCR	a	2114	40/40	0.93	0.15	35,45,51,53	0
34	DMS	v	210	4/4	0.93	0.39	122,123,124,125	0
34	DMS	V	207	4/4	0.93	0.17	92,93,99,100	0
27	SQD	a	2115	47/54	0.93	0.16	59,80,97,104	0
38	DGD	C	518	62/66	0.93	0.16	41,54,109,119	0
36	HTG	O	302	19/19	0.93	0.13	51,68,78,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
26	BCR	c	516	40/40	0.93	0.16	63,76,81,85	0
38	DGD	c	518	62/66	0.93	0.18	42,54,95,100	0
38	DGD	c	519	62/66	0.93	0.22	47,59,107,117	0
34	DMS	c	536	4/4	0.93	0.29	83,86,90,95	0
34	DMS	c	537	4/4	0.93	0.50	109,111,112,114	0
24	CLA	b	618	65/65	0.93	0.11	41,51,70,78	0
39	LHG	L	101	49/49	0.93	0.15	44,51,68,70	0
25	PHO	A	408	64/64	0.93	0.19	34,45,52,55	0
26	BCR	C	515	40/40	0.93	0.13	47,65,74,79	0
24	CLA	c	504	65/65	0.93	0.25	40,50,64,81	0
34	DMS	B	643	4/4	0.93	0.14	81,85,90,91	0
26	BCR	b	622	40/40	0.94	0.13	45,57,71,76	0
24	CLA	b	610	65/65	0.94	0.15	31,43,58,62	0
34	DMS	t	103	4/4	0.94	0.31	109,112,116,117	0
34	DMS	D	419	4/4	0.94	0.15	88,95,95,104	0
34	DMS	u	202	4/4	0.94	0.16	79,80,89,90	0
34	DMS	u	203	4/4	0.94	0.27	76,85,86,89	0
26	BCR	c	517	40/40	0.94	0.12	47,59,75,78	0
34	DMS	b	641	4/4	0.94	0.21	67,70,72,74	0
26	BCR	c	528	40/40	0.94	0.11	48,58,68,69	0
24	CLA	B	617	65/65	0.94	0.14	40,52,119,123	0
26	BCR	t	102	40/40	0.94	0.15	42,55,75,77	0
27	SQD	A	411	49/54	0.94	0.17	66,82,98,99	0
24	CLA	C	504	65/65	0.94	0.15	42,52,59,67	0
34	DMS	c	535	4/4	0.94	0.23	95,103,106,106	0
24	CLA	b	619	65/65	0.94	0.14	43,56,119,121	0
34	DMS	O	308	4/4	0.94	0.20	102,105,106,108	0
24	CLA	B	607	65/65	0.94	0.13	37,46,74,84	0
24	CLA	C	508	65/65	0.94	0.14	47,56,73,77	0
24	CLA	c	509	65/65	0.94	0.14	45,56,77,79	0
24	CLA	C	511	65/65	0.94	0.18	37,51,59,70	0
24	CLA	c	515	65/65	0.94	0.20	55,68,98,106	0
24	CLA	C	513	65/65	0.94	0.12	51,65,107,110	0
26	BCR	B	619	40/40	0.94	0.19	40,50,62,67	0
24	CLA	B	612	65/65	0.94	0.19	35,44,57,68	0
24	CLA	D	405	65/65	0.94	0.12	42,52,106,112	0
28	LMG	D	412	44/55	0.94	0.19	44,53,80,83	0
26	BCR	K	101	40/40	0.94	0.13	50,57,63,67	0
24	CLA	b	605	65/65	0.94	0.14	40,51,62,65	0
24	CLA	b	609	65/65	0.94	0.11	39,50,86,88	0
34	DMS	o	2606	4/4	0.94	0.17	109,111,111,111	0
39	LHG	d	408	49/49	0.94	0.28	45,58,73,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
39	LHG	d	409	49/49	0.94	0.17	40,46,72,84	0
34	DMS	b	633	4/4	0.94	0.21	79,80,81,92	0
34	DMS	o	2608	4/4	0.94	0.33	102,107,110,114	0
34	DMS	b	634	4/4	0.94	0.24	96,98,98,104	0
26	BCR	b	621	40/40	0.94	0.23	39,51,63,71	0
24	CLA	b	615	65/65	0.95	0.20	37,45,52,56	0
24	CLA	b	617	65/65	0.95	0.19	36,45,100,113	0
24	CLA	C	503	65/65	0.95	0.19	39,48,62,66	0
24	CLA	B	604	65/65	0.95	0.20	36,45,57,63	0
24	CLA	c	503	65/65	0.95	0.14	44,55,68,73	0
37	GOL	U	502	6/6	0.95	0.19	69,78,90,95	0
34	DMS	V	202	4/4	0.95	0.13	96,97,99,101	0
28	LMG	d	411	48/55	0.95	0.12	47,56,86,95	0
37	GOL	a	2101	6/6	0.95	0.21	66,76,77,80	0
34	DMS	d	421	4/4	0.95	0.23	85,92,95,96	0
31	PL9	D	407	55/55	0.95	0.13	34,43,50,55	0
34	DMS	V	209	4/4	0.95	0.36	87,103,104,110	0
34	DMS	V	210	4/4	0.95	0.14	87,96,98,100	0
24	CLA	D	404	65/65	0.95	0.14	31,38,59,65	0
24	CLA	C	505	65/65	0.95	0.15	41,49,81,86	0
26	BCR	d	406	40/40	0.95	0.11	47,55,75,82	0
24	CLA	c	506	65/65	0.95	0.21	44,52,86,90	0
24	CLA	c	508	65/65	0.95	0.11	51,67,102,107	0
24	CLA	a	2113	65/65	0.95	0.14	40,46,116,121	0
36	HTG	V	204	19/19	0.95	0.21	67,84,115,118	0
24	CLA	c	510	65/65	0.95	0.23	41,51,114,126	0
24	CLA	b	604	65/65	0.95	0.19	52,73,118,121	0
34	DMS	A	425	4/4	0.95	0.34	93,96,96,98	0
34	DMS	A	426	4/4	0.95	0.22	79,80,80,84	0
24	CLA	B	615	65/65	0.95	0.15	35,45,99,107	0
24	CLA	B	611	65/65	0.95	0.18	41,49,57,68	0
26	BCR	B	618	40/40	0.95	0.20	38,47,54,55	0
24	CLA	C	510	65/65	0.95	0.15	46,54,74,77	0
24	CLA	C	502	65/65	0.95	0.17	43,52,68,88	0
39	LHG	d	410	36/49	0.95	0.16	46,54,79,85	0
24	CLA	b	613	65/65	0.95	0.13	42,50,57,64	0
34	DMS	v	207	4/4	0.95	0.20	96,97,99,100	0
24	CLA	b	614	65/65	0.95	0.24	34,44,61,64	0
26	BCR	T	101	40/40	0.95	0.19	39,52,71,75	0
34	DMS	b	638	4/4	0.96	0.12	81,85,89,94	0
34	DMS	C	528	4/4	0.96	0.15	88,96,97,98	0
34	DMS	O	310	4/4	0.96	0.33	102,103,103,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
24	CLA	a	2110	65/65	0.96	0.17	35,44,106,111	0
24	CLA	d	405	65/65	0.96	0.10	46,55,105,115	0
34	DMS	C	531	4/4	0.96	0.12	63,70,77,78	0
24	CLA	b	616	65/65	0.96	0.25	37,41,80,84	0
34	DMS	c	532	4/4	0.96	0.20	72,72,73,75	0
24	CLA	C	509	65/65	0.96	0.14	38,50,106,117	0
24	CLA	A	409	65/65	0.96	0.12	35,45,117,121	0
26	BCR	B	620	40/40	0.96	0.10	42,52,63,67	0
34	DMS	U	503	4/4	0.96	0.21	95,109,110,112	0
38	DGD	C	517	62/66	0.96	0.21	40,51,93,96	0
24	CLA	B	608	65/65	0.96	0.15	33,42,57,67	0
38	DGD	C	519	62/66	0.96	0.15	39,51,92,103	0
24	CLA	b	606	65/65	0.96	0.16	38,48,60,64	0
26	BCR	D	406	40/40	0.96	0.21	42,52,85,86	0
24	CLA	b	607	65/65	0.96	0.21	34,44,84,89	0
24	CLA	b	608	65/65	0.96	0.17	37,45,58,61	0
38	DGD	c	520	62/66	0.96	0.15	44,57,80,88	0
24	CLA	C	512	65/65	0.96	0.10	41,56,65,69	0
24	CLA	c	507	65/65	0.96	0.13	42,52,66,74	0
24	CLA	B	616	65/65	0.96	0.13	39,50,70,78	0
24	CLA	C	506	65/65	0.96	0.16	45,52,70,76	0
34	DMS	B	648	4/4	0.96	0.26	63,65,67,80	0
24	CLA	A	406	65/65	0.96	0.18	34,42,100,104	0
35	CA	b	603	1/1	0.96	0.06	72,72,72,72	0
35	CA	o	2602	1/1	0.96	0.07	71,71,71,71	0
34	DMS	i	106	4/4	0.96	0.19	95,96,97,98	0
40	HEM	F	102	43/43	0.96	0.10	52,62,73,90	0
24	CLA	c	513	65/65	0.96	0.13	45,59,70,79	0
24	CLA	B	605	65/65	0.96	0.27	31,42,75,81	0
34	DMS	c	531	4/4	0.97	0.26	97,99,101,106	0
26	BCR	A	410	40/40	0.97	0.13	37,45,50,52	0
24	CLA	A	405	65/65	0.97	0.13	30,38,50,72	0
24	CLA	c	511	65/65	0.97	0.28	43,55,79,90	0
24	CLA	c	512	65/65	0.97	0.29	42,52,62,74	0
35	CA	B	601	1/1	0.97	0.03	64,64,64,64	0
24	CLA	B	606	65/65	0.97	0.23	34,43,59,64	0
35	CA	c	502	1/1	0.97	0.06	66,66,66,66	0
24	CLA	b	611	65/65	0.97	0.16	42,49,57,63	0
33	BCT	a	2108	4/4	0.97	0.12	55,57,63,68	0
24	CLA	B	609	65/65	0.97	0.17	40,48,58,61	0
24	CLA	d	404	65/65	0.97	0.20	31,41,59,71	0
34	DMS	c	541	4/4	0.97	0.09	104,106,106,106	0

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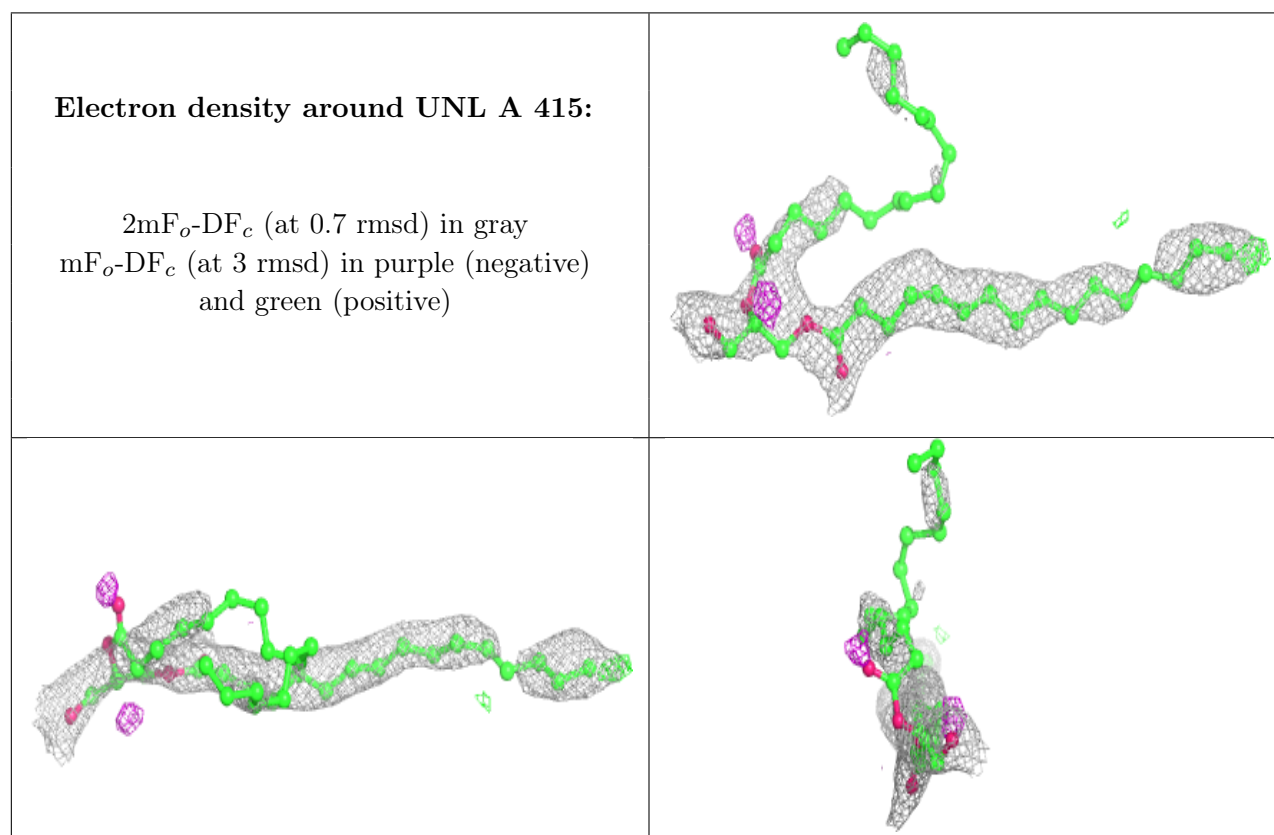
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
34	DMS	c	542	4/4	0.97	0.33	113,114,117,118	0
39	LHG	D	410	49/49	0.97	0.12	41,47,65,81	0
39	LHG	D	411	44/49	0.97	0.14	44,53,90,98	0
24	CLA	B	613	65/65	0.97	0.20	34,43,50,53	0
25	PHO	A	407	64/64	0.97	0.13	33,39,48,49	0
34	DMS	F	103	4/4	0.97	0.17	77,78,79,88	0
24	CLA	B	614	65/65	0.97	0.23	34,41,79,93	0
34	DMS	v	206	4/4	0.97	0.10	78,93,93,98	0
34	DMS	V	205	4/4	0.97	0.17	66,69,70,75	0
26	BCR	b	620	40/40	0.97	0.20	40,49,58,59	0
34	DMS	v	209	4/4	0.97	0.34	82,93,93,101	0
25	PHO	a	2111	64/64	0.97	0.15	33,41,47,55	0
34	DMS	V	208	4/4	0.97	0.29	81,91,94,96	0
43	HEC	v	201	43/43	0.97	0.13	45,55,61,64	0
35	CA	O	301	1/1	0.98	0.11	72,72,72,72	0
34	DMS	v	205	4/4	0.98	0.21	75,76,84,85	0
34	DMS	d	418	4/4	0.98	0.10	69,73,81,88	0
24	CLA	d	401	65/65	0.98	0.14	34,39,47,55	0
24	CLA	a	2109	65/65	0.98	0.17	33,40,51,74	0
32	K2I	a	2119	10/10	0.98	0.18	48,57,64,73	10
33	BCT	A	421	4/4	0.98	0.10	51,56,61,64	0
34	DMS	B	641	4/4	0.98	0.17	63,65,69,71	0
24	CLA	D	401	65/65	0.98	0.10	33,39,49,59	0
34	DMS	A	422	4/4	0.98	0.16	45,48,53,55	0
25	PHO	a	2112	64/64	0.98	0.15	36,46,54,56	0
40	HEM	e	103	43/43	0.98	0.14	52,63,90,105	0
34	DMS	D	416	4/4	0.98	0.09	61,76,81,82	0
32	K2I	A	419	10/10	0.98	0.14	43,52,58,64	10
42	MG	J	101	1/1	0.98	0.07	53,53,53,53	0
42	MG	j	1603	1/1	0.98	0.19	57,57,57,57	0
43	HEC	V	201	43/43	0.98	0.08	37,45,50,53	0
34	DMS	D	418	4/4	0.98	0.23	77,82,88,90	0
34	DMS	a	2121	4/4	0.99	0.11	42,48,52,52	0
23	CL	a	2107	1/1	0.99	0.17	46,46,46,46	0
21	OEX	A	401	10/10	0.99	0.10	39,42,46,48	0
34	DMS	C	532	4/4	0.99	0.10	62,63,63,67	0
34	DMS	c	529	4/4	0.99	0.15	57,60,62,63	0
34	DMS	b	632	4/4	0.99	0.13	47,48,54,58	0
21	OEX	a	2104	10/10	0.99	0.09	38,43,49,52	0
34	DMS	B	639	4/4	0.99	0.17	42,46,47,58	0
22	FE2	A	402	1/1	0.99	0.06	48,48,48,48	0
22	FE2	a	2105	1/1	0.99	0.07	47,47,47,47	0

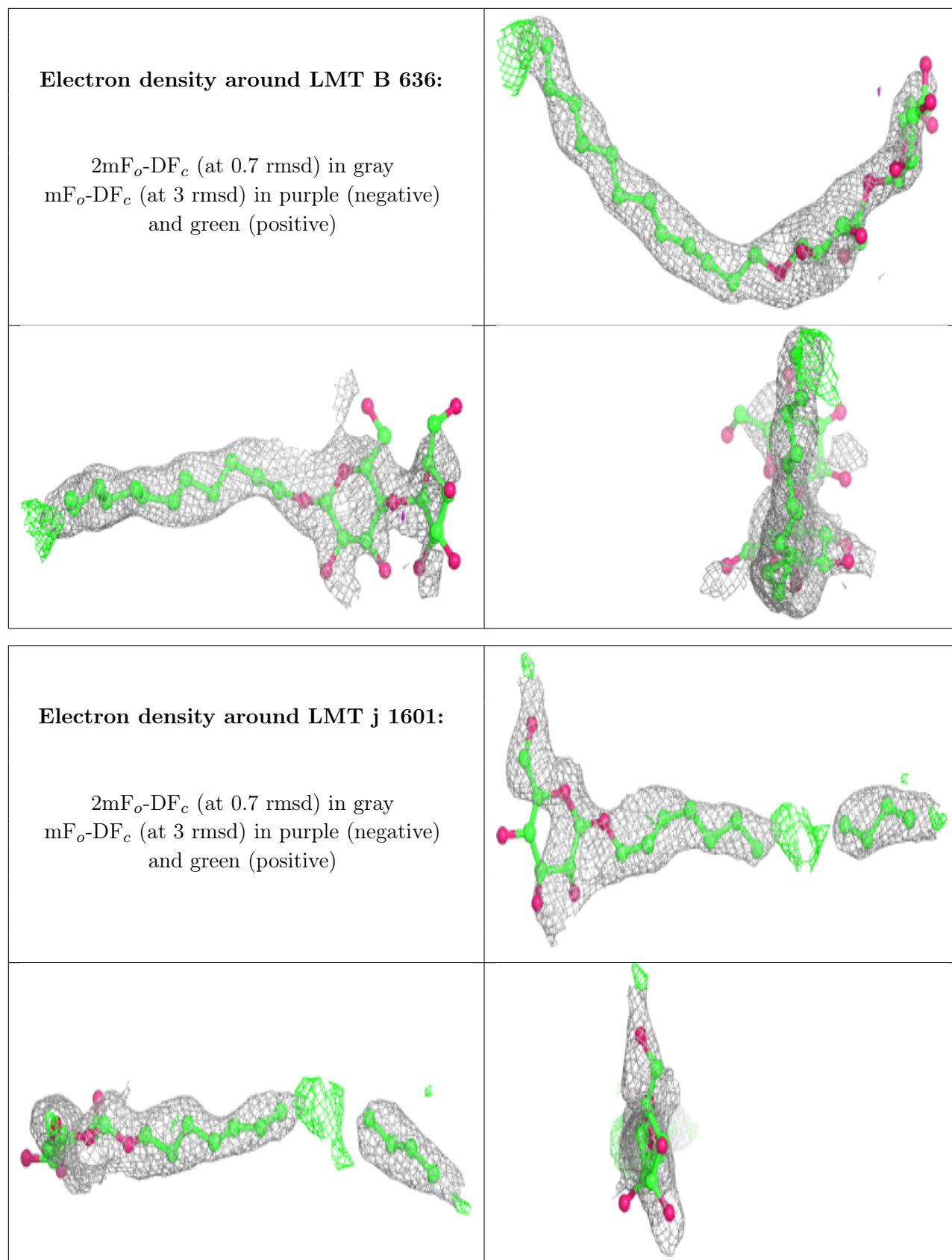
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
23	CL	A	403	1/1	0.99	0.04	42,42,42,42	0
23	CL	A	404	1/1	0.99	0.13	41,41,41,41	0
23	CL	a	2106	1/1	0.99	0.05	47,47,47,47	0

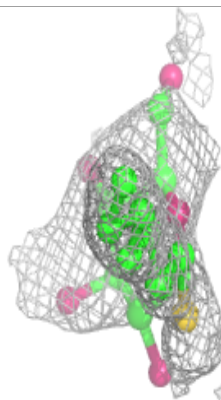
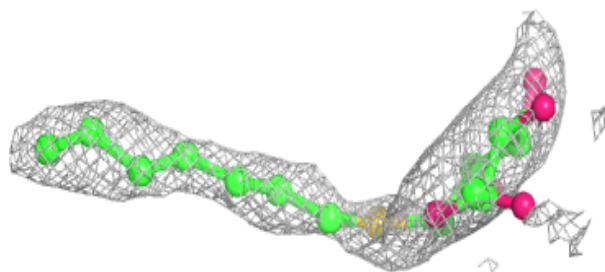
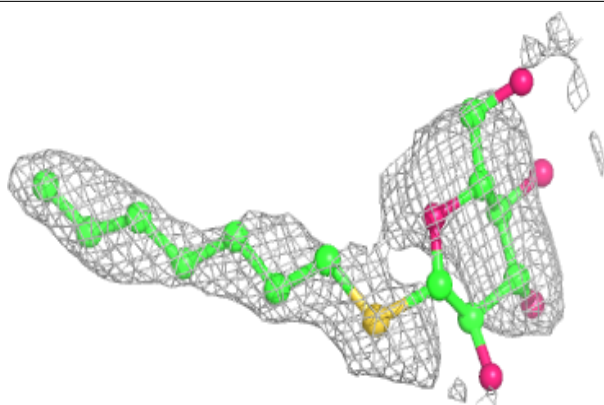
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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



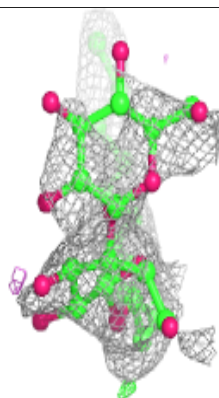
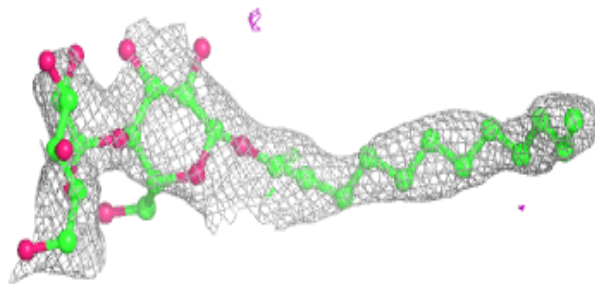
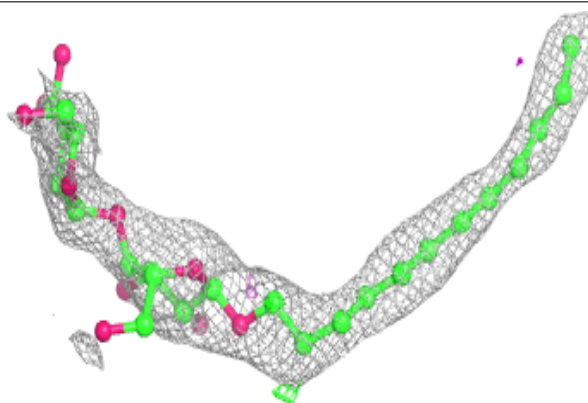


Electron density around HTG B 626:

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

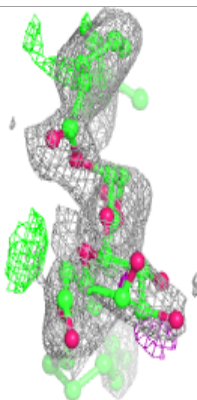
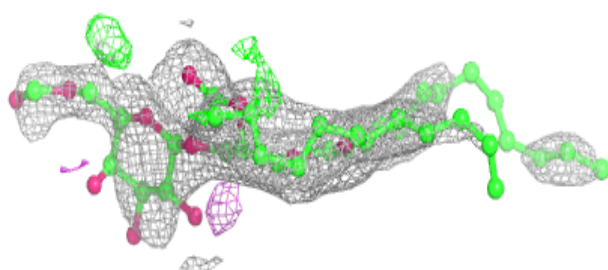
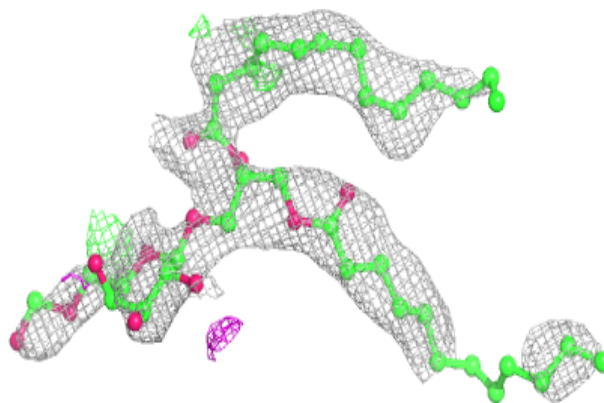
**Electron density around LMT m 103:**

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

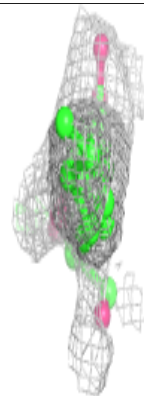
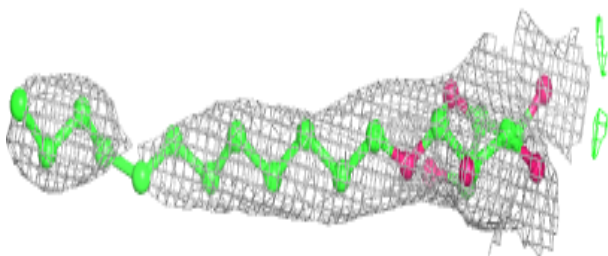
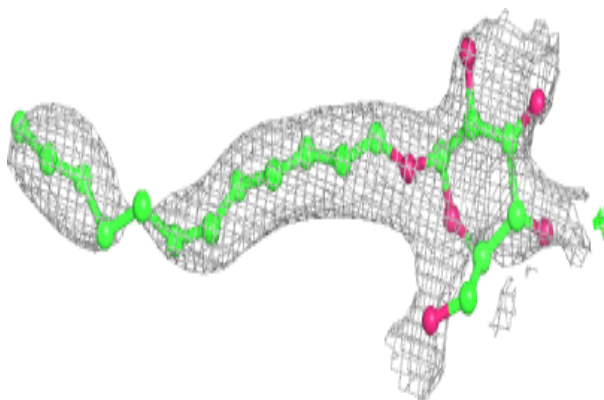


Electron density around DGD D 408:

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

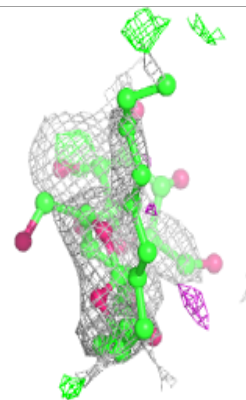
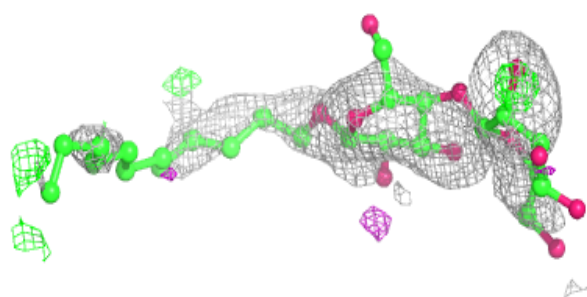
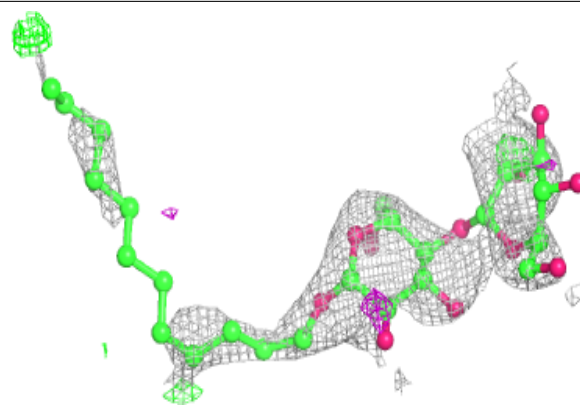
**Electron density around LMT J 102:**

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

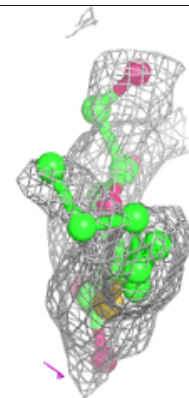
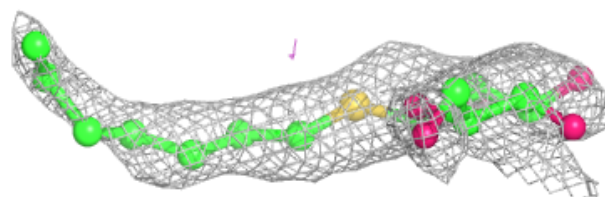
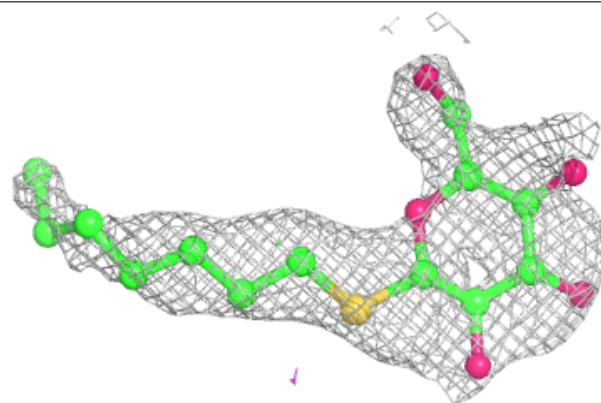


Electron density around LMT A 420:

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

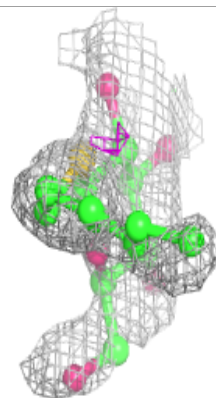
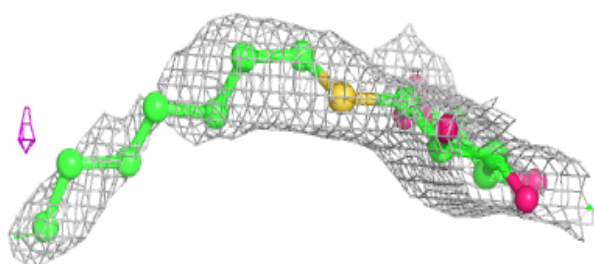
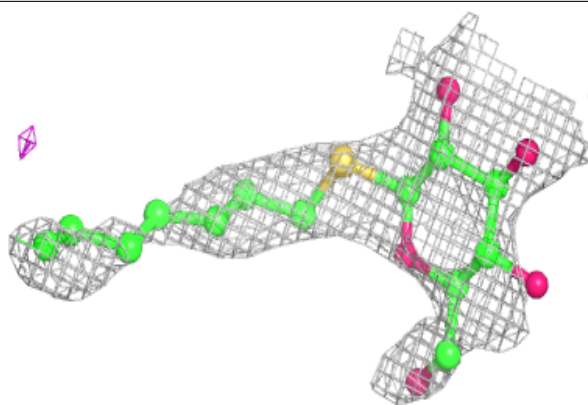
**Electron density around HTG d 403:**

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

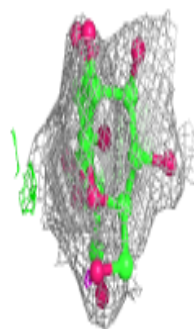
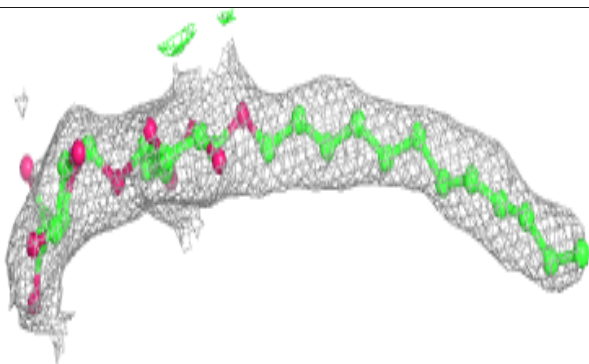
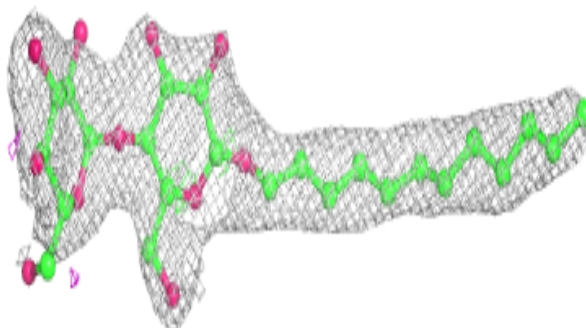


Electron density around HTG d 414:

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

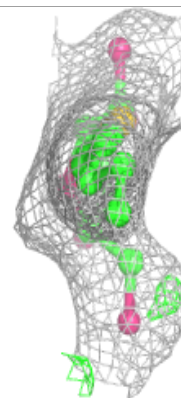
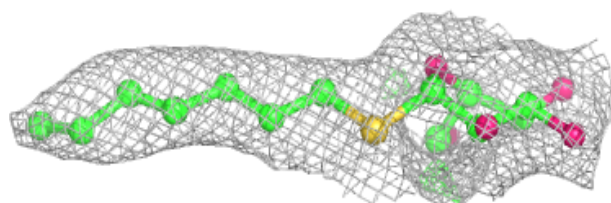
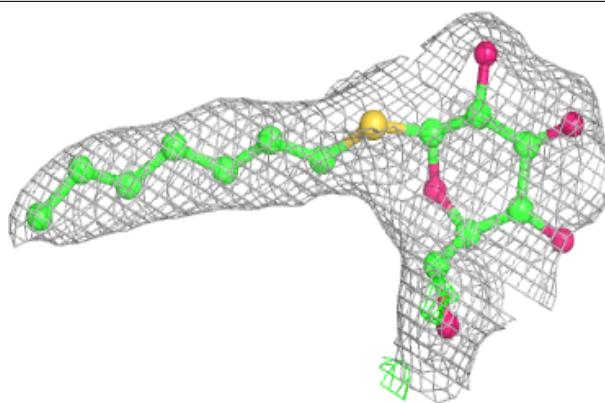
**Electron density around LMT M 101:**

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

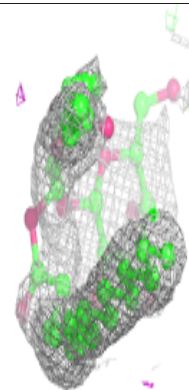
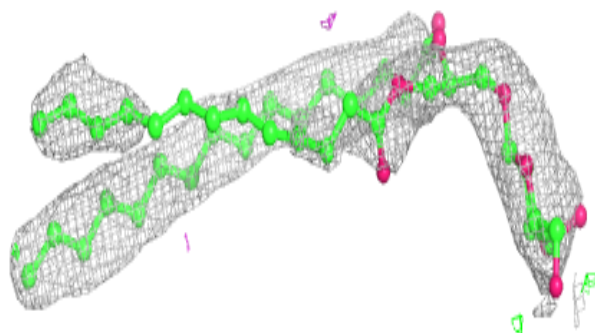
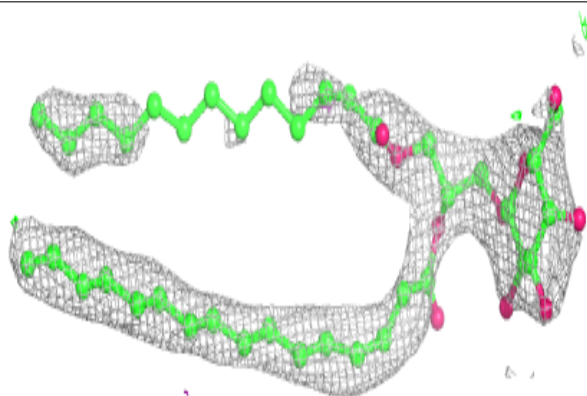


Electron density around HTG b 602:

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

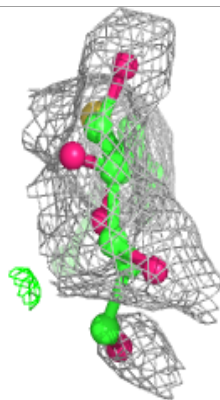
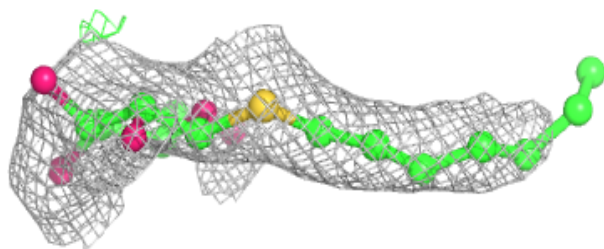
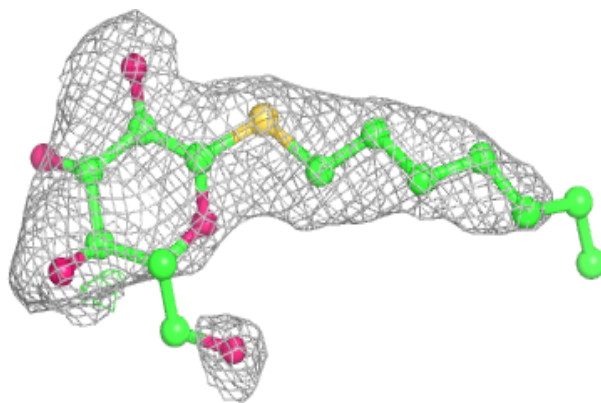
**Electron density around LMG C 526:**

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

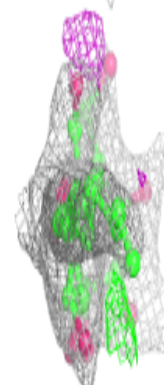
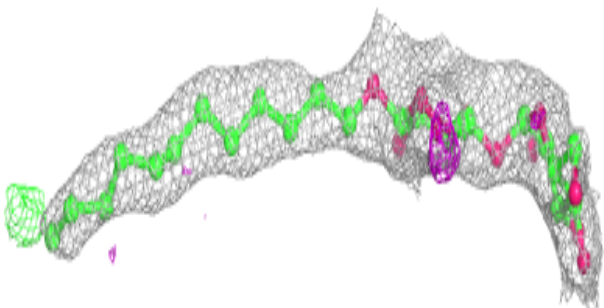
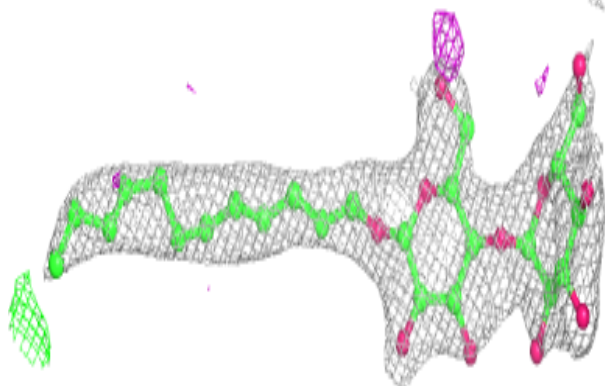


Electron density around HTG D 413:

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

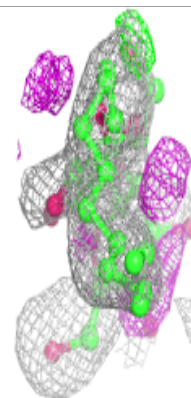
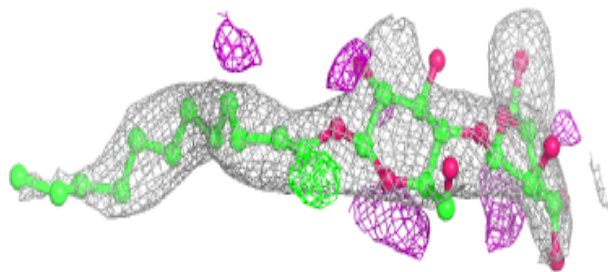
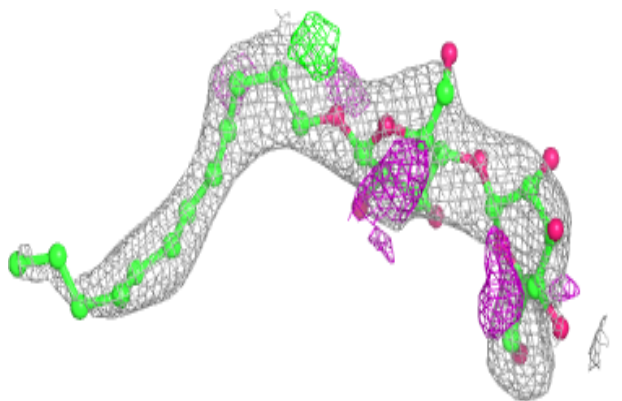
**Electron density around LMT m 102:**

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

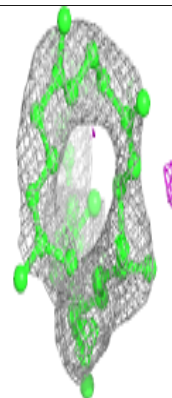
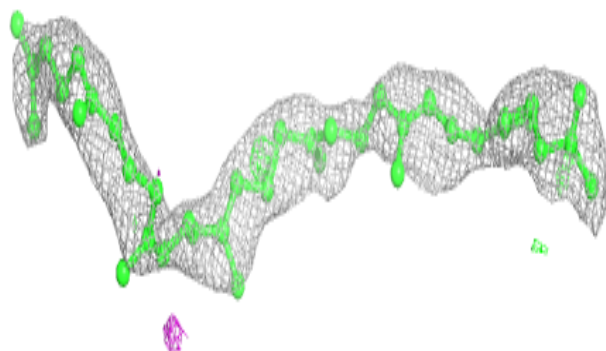
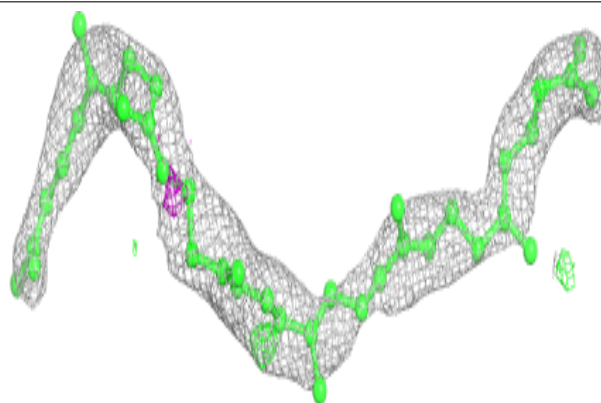


Electron density around LMT a 2103:

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

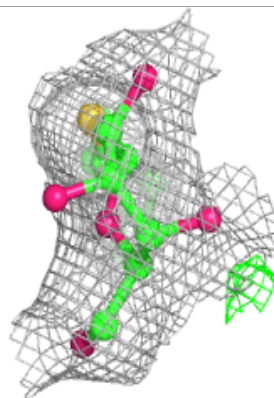
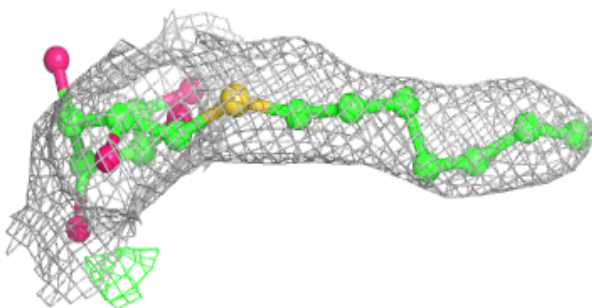
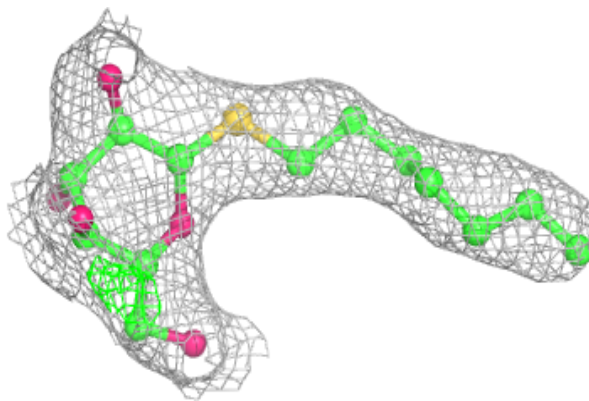
**Electron density around PL9 A 417:**

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

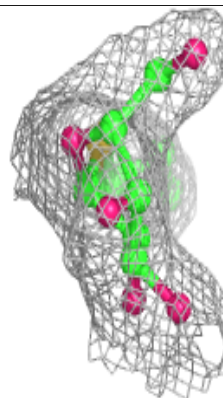
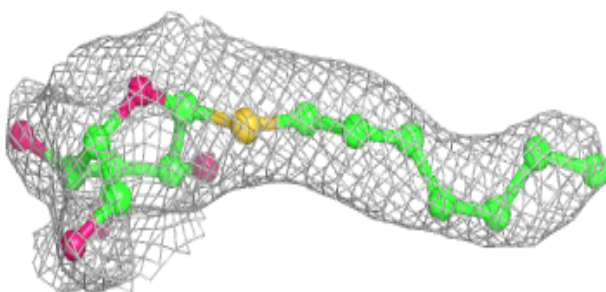
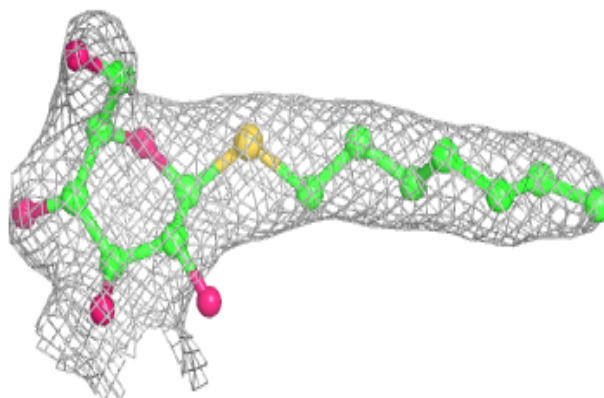


Electron density around HTG i 103:

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

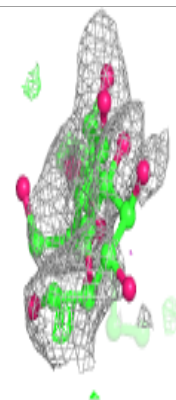
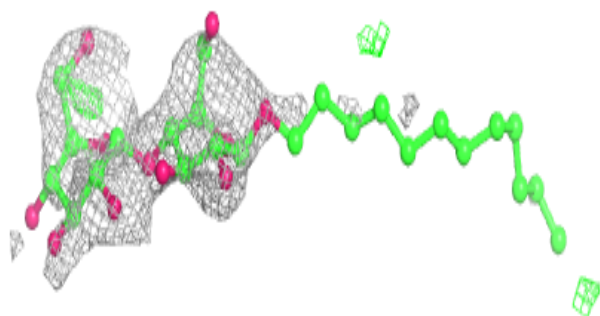
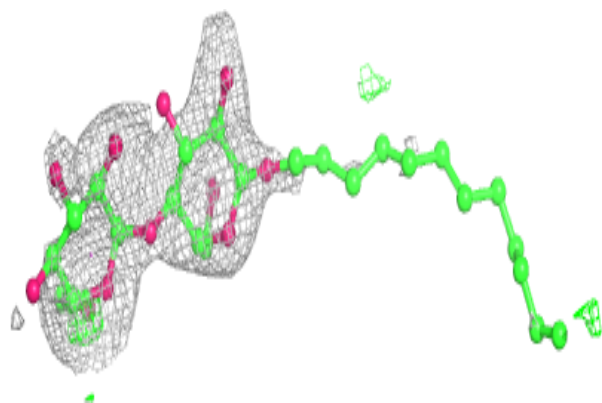
**Electron density around HTG I 1202:**

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

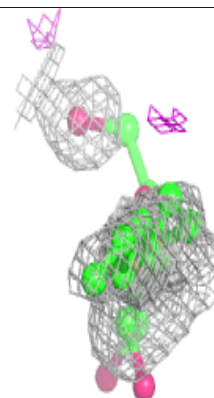
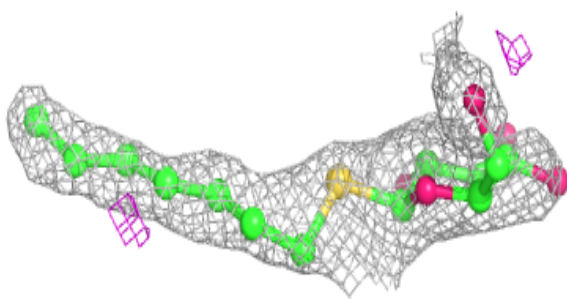
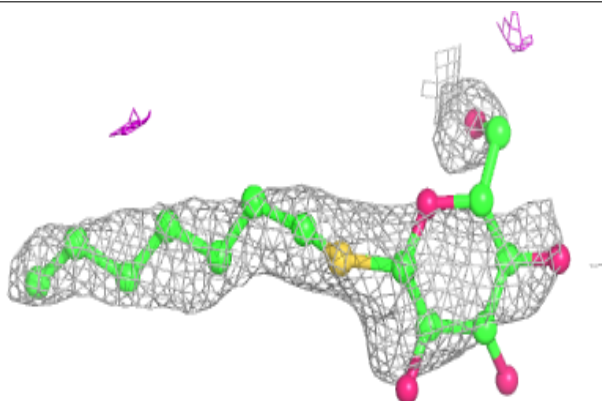


Electron density around LMT a 2120:

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

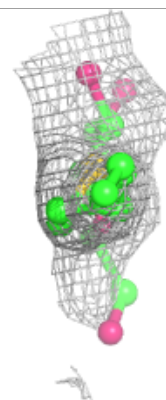
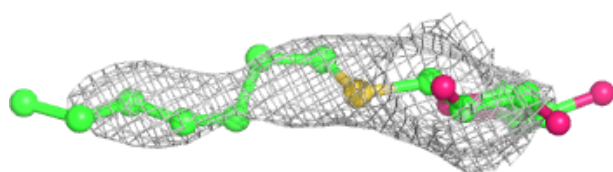
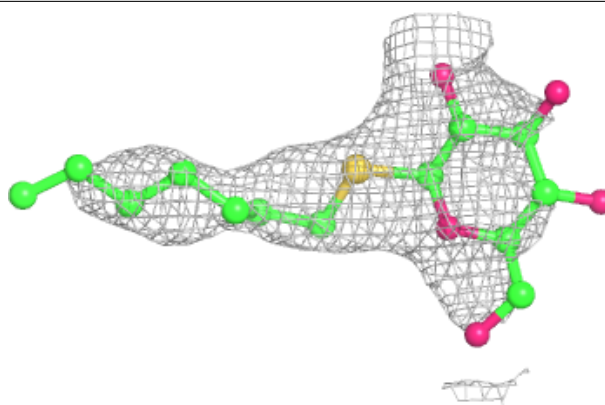
**Electron density around HTG c 524:**

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

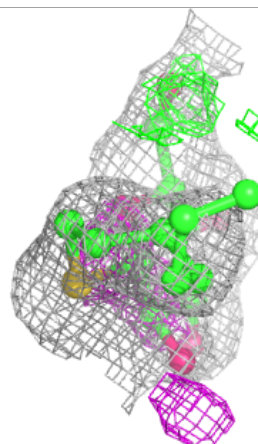
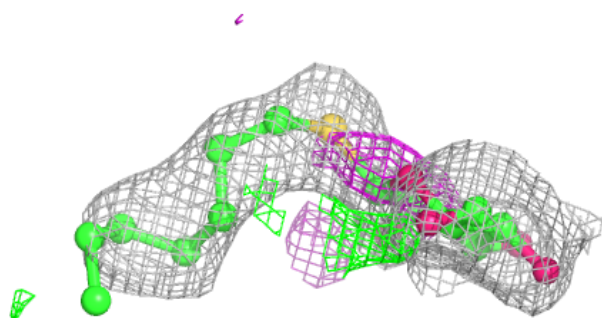
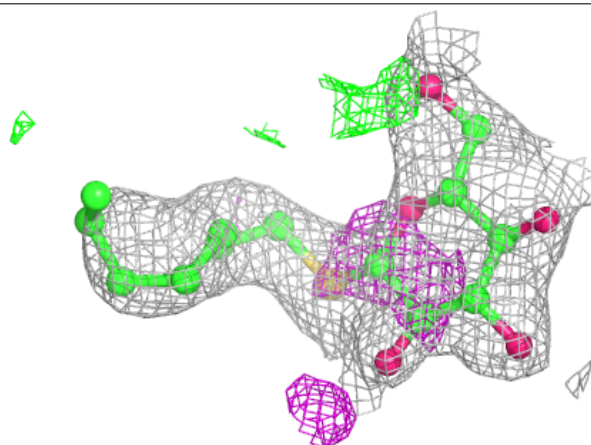


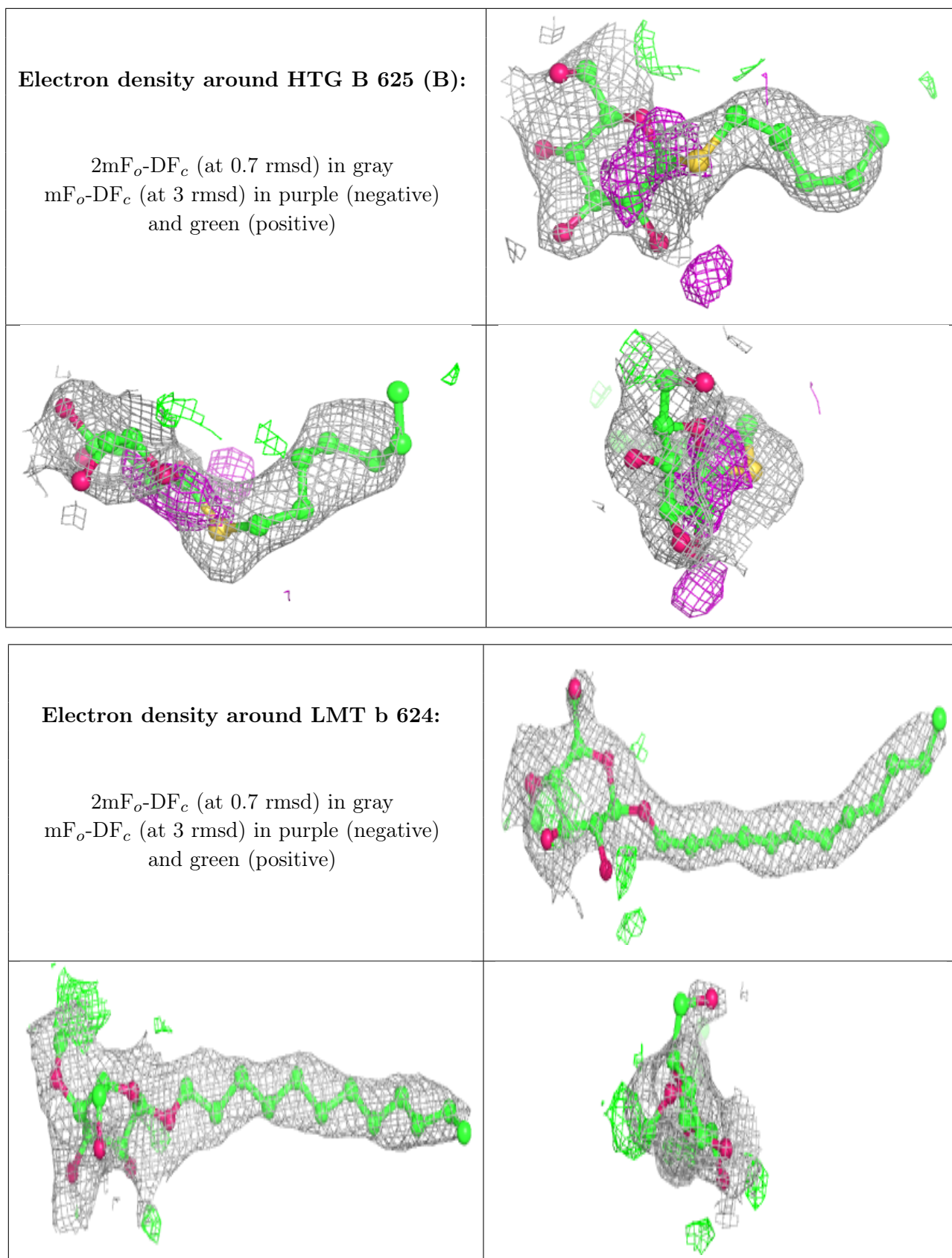
Electron density around HTG c 526:

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

**Electron density around HTG B 625 (A):**

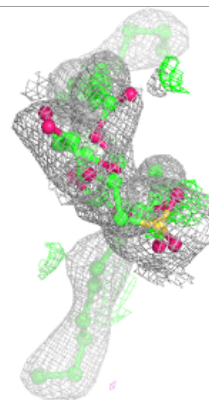
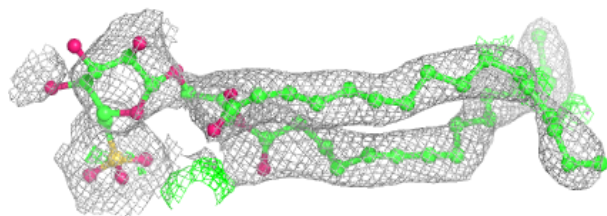
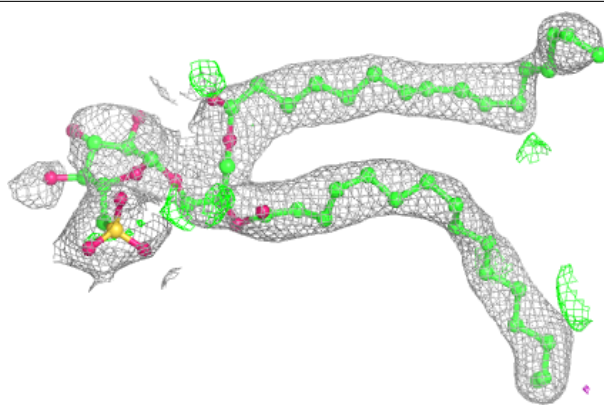
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



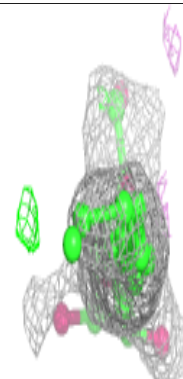
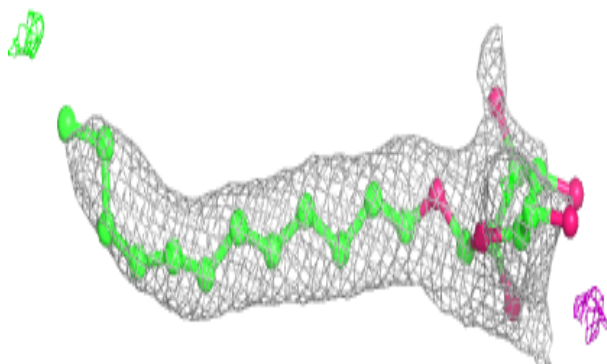
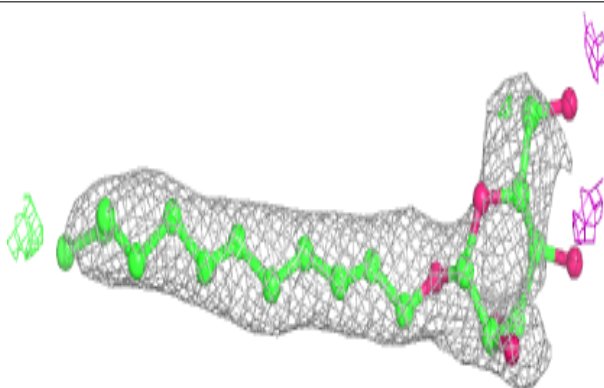


Electron density around SQD B 621:

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

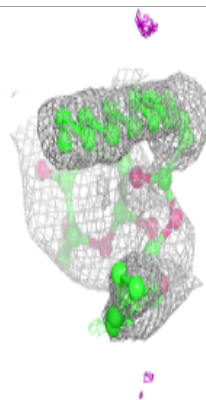
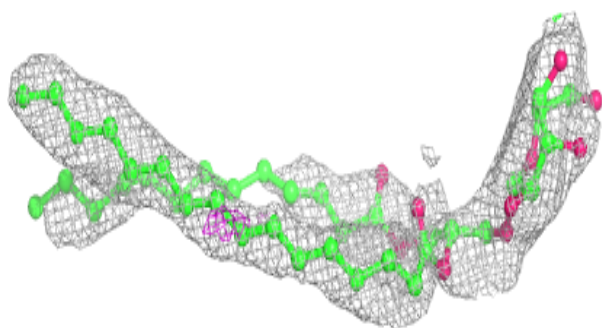
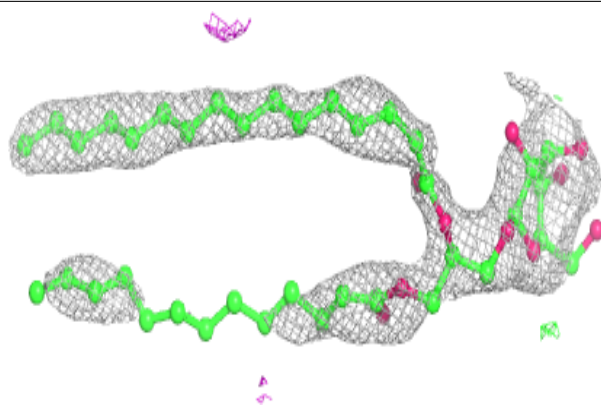
**Electron density around LMT I 1201:**

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

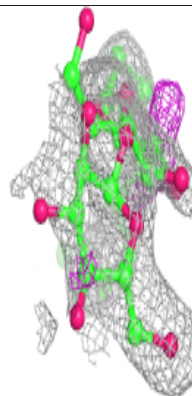
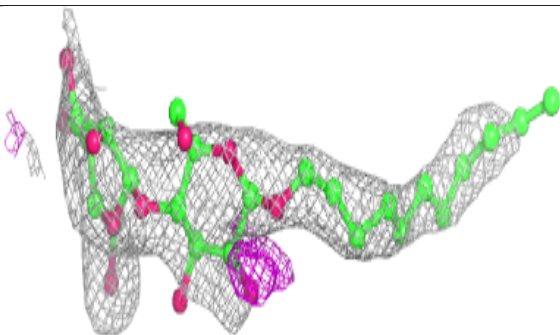
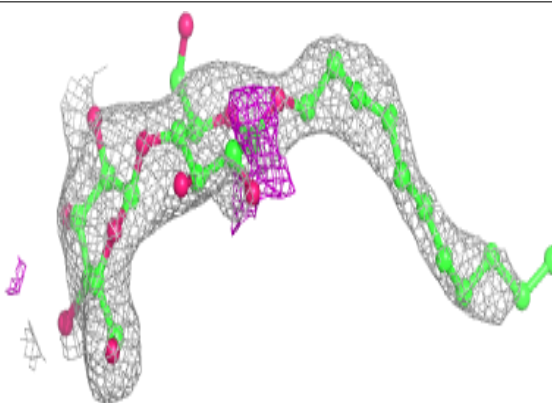


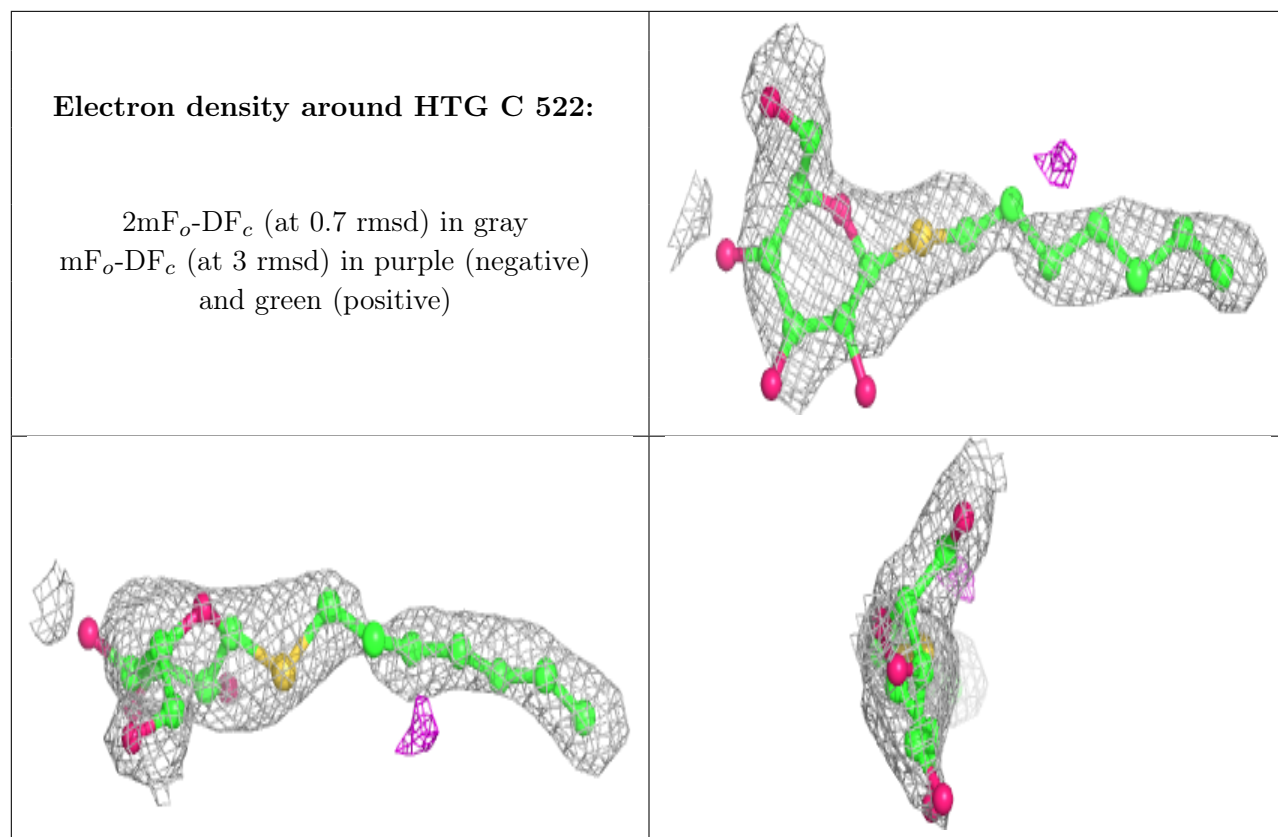
Electron density around LMG c 522:

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

**Electron density around LMT A 414:**

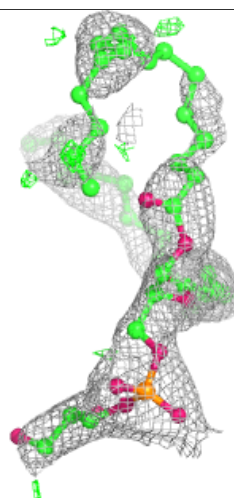
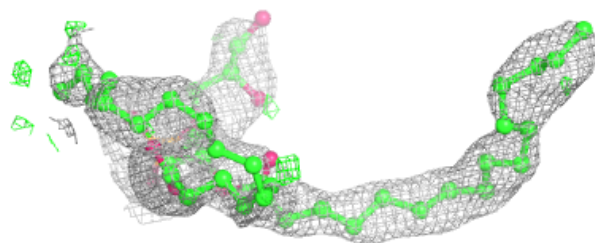
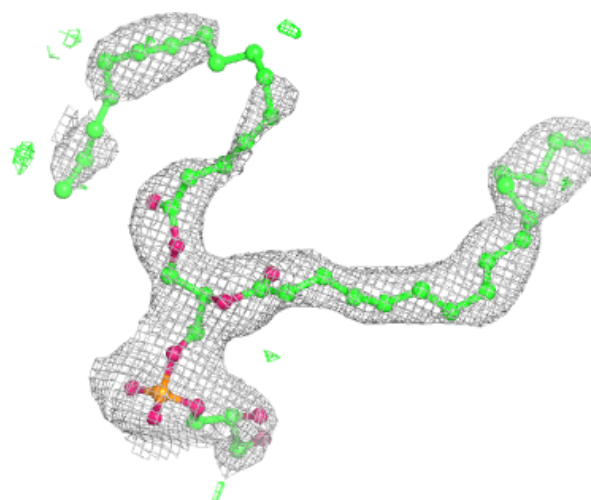
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





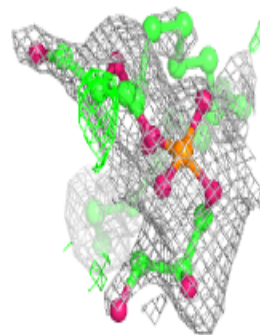
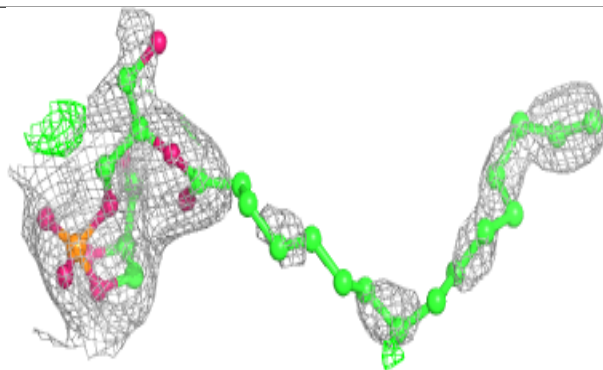
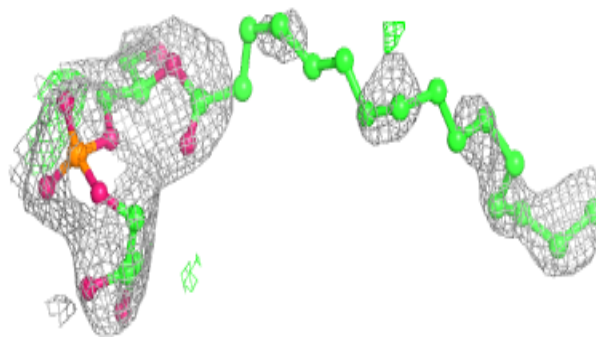
Electron density around LHG E 101:

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

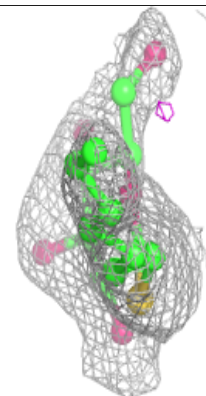
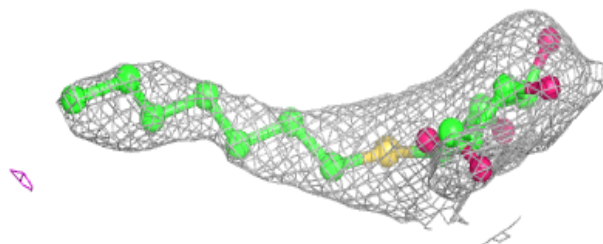
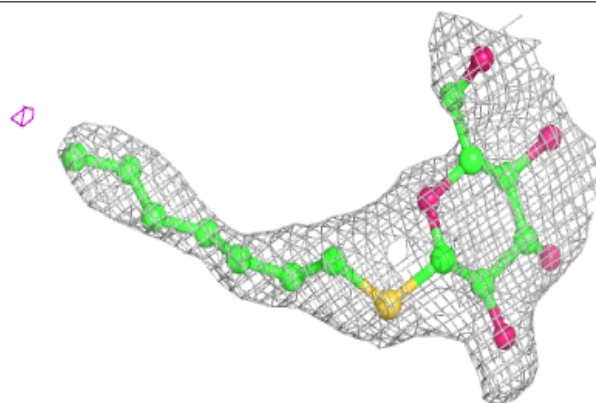


Electron density around LHG e 101:

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

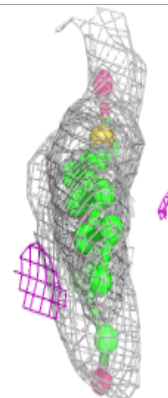
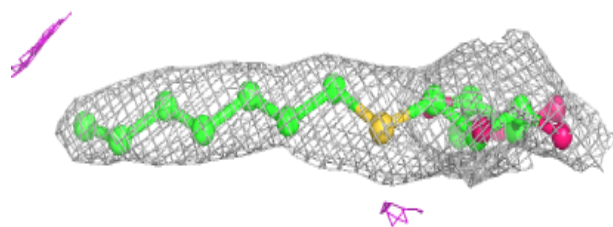
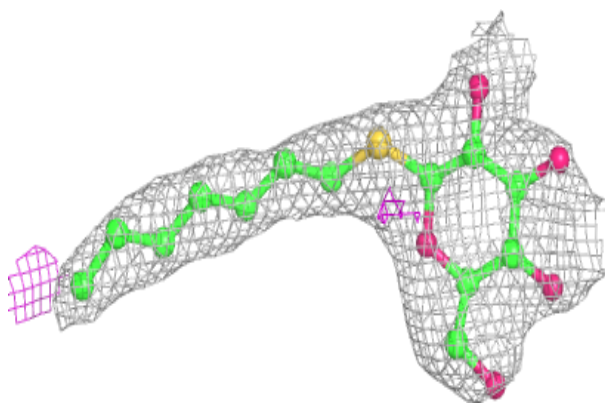
**Electron density around HTG b 626:**

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

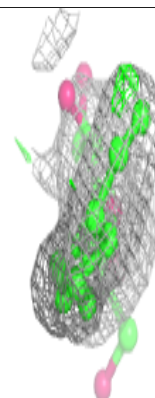
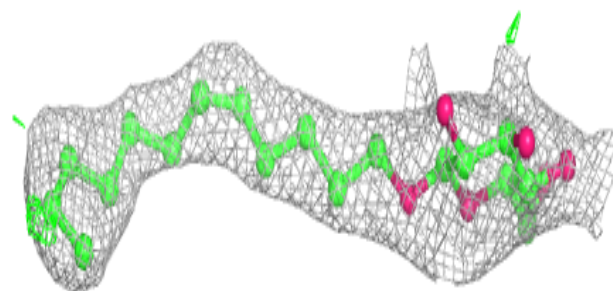
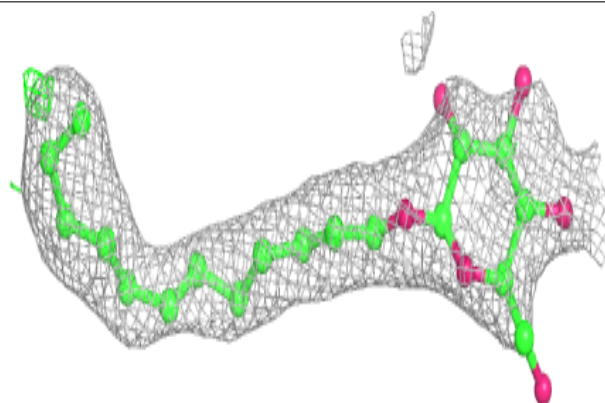


Electron density around HTG B 628:

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

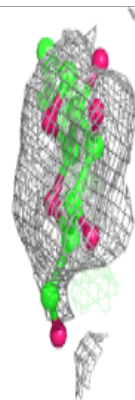
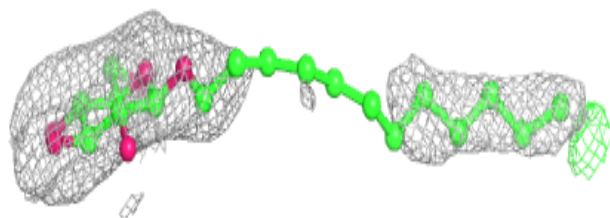
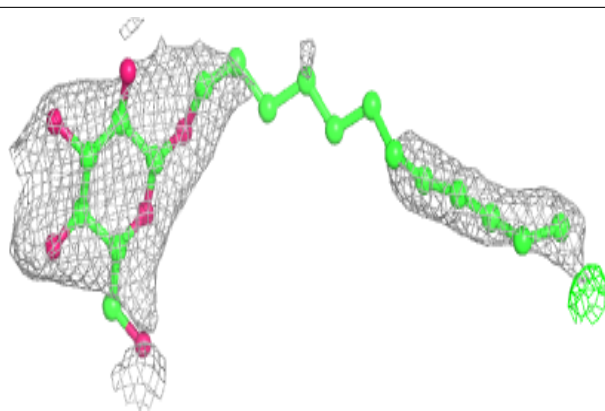
**Electron density around LMT B 637:**

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

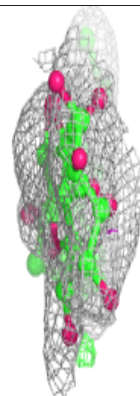
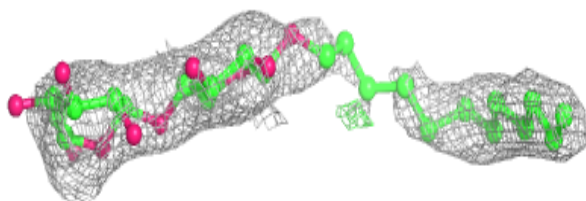
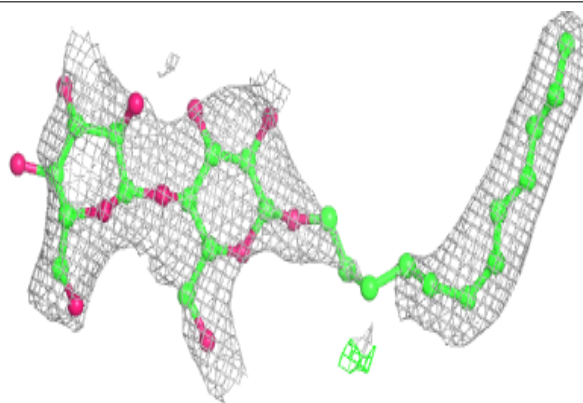


Electron density around LMT f 101:

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

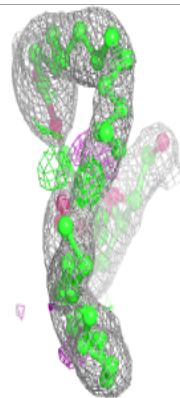
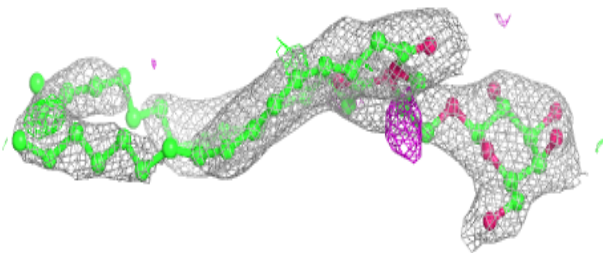
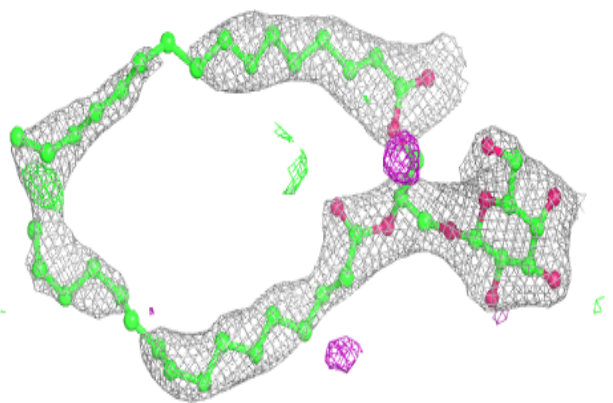
**Electron density around LMT Z 101:**

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

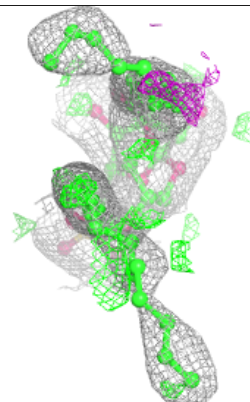
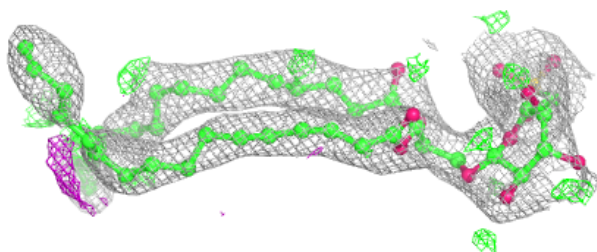
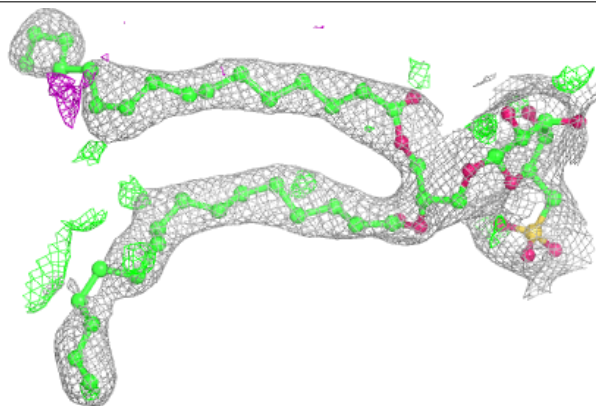


Electron density around LMG i 101:

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

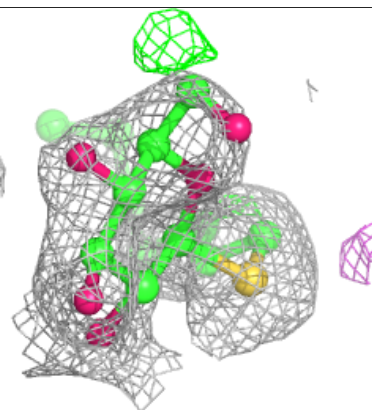
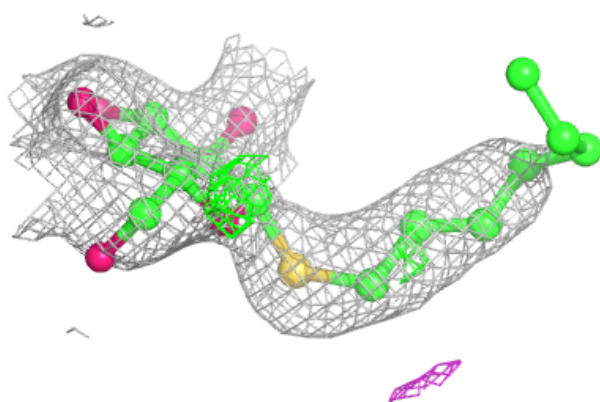
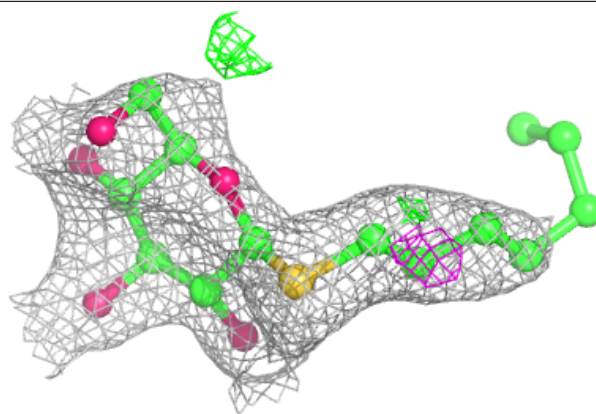
**Electron density around SQD L 102:**

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

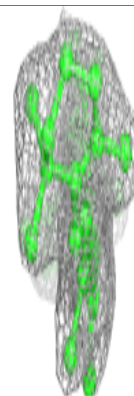
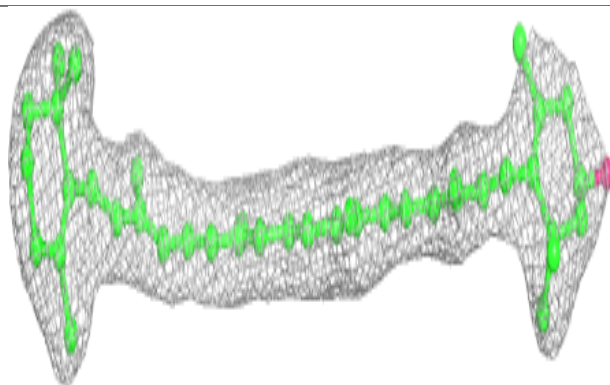
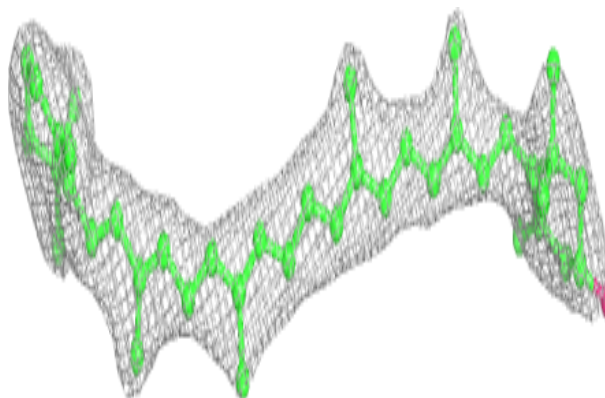


Electron density around HTG b 625:

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

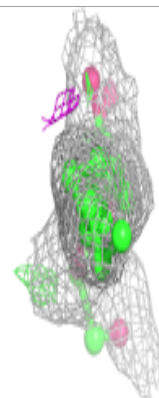
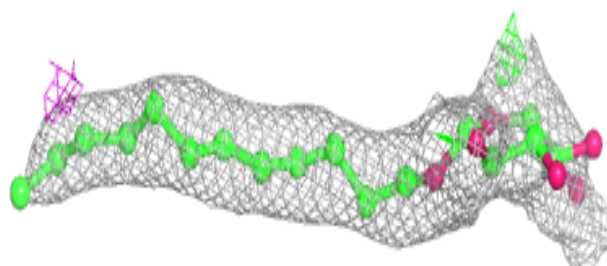
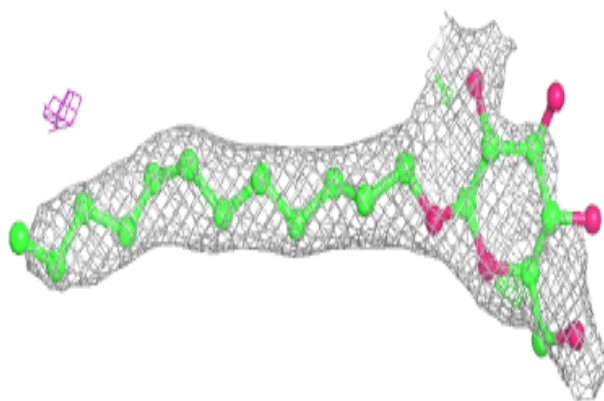
**Electron density around RRX h 702:**

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

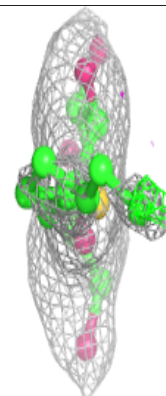
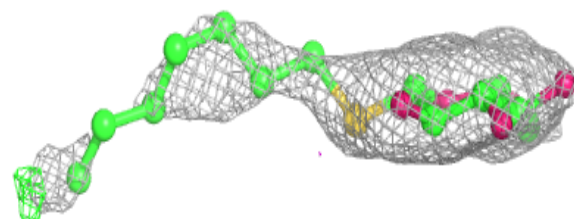
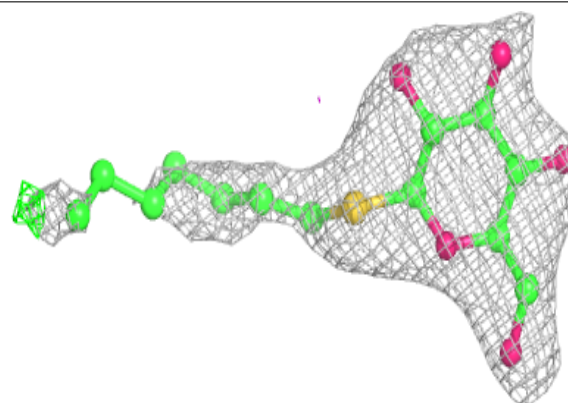


Electron density around LMT i 104:

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

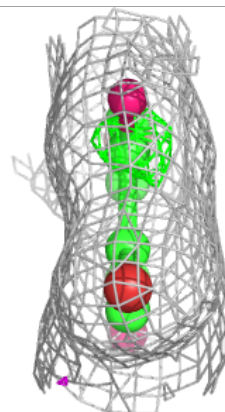
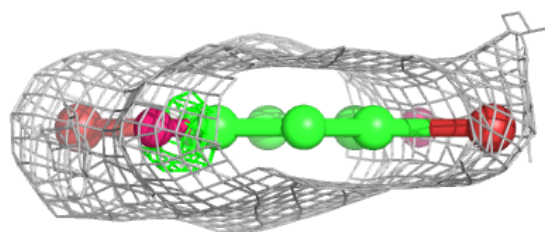
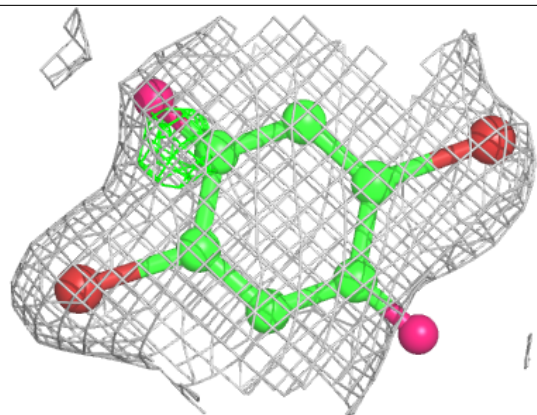
**Electron density around HTG c 523:**

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



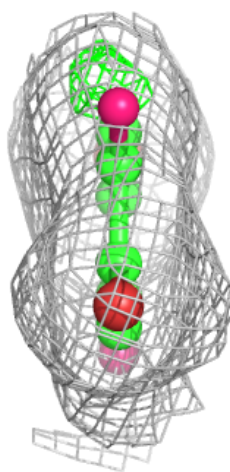
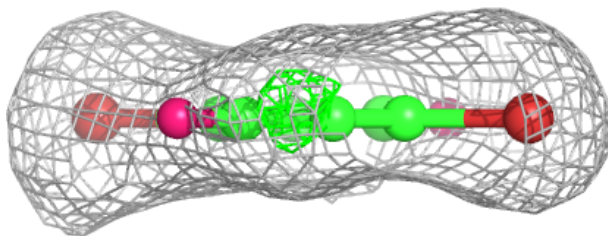
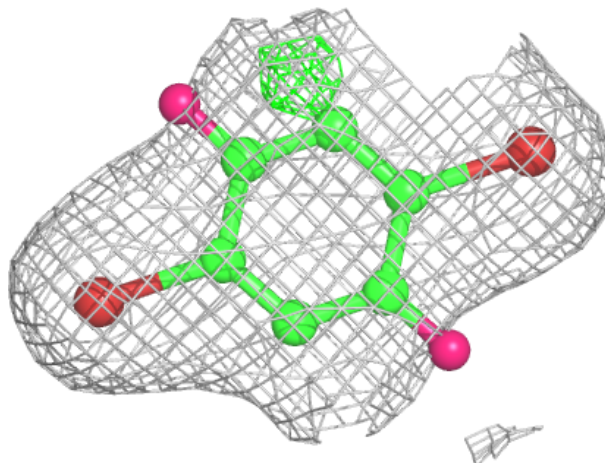
Electron density around K2I A 418 (B):

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



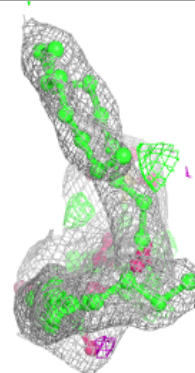
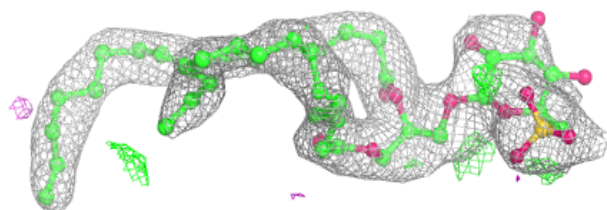
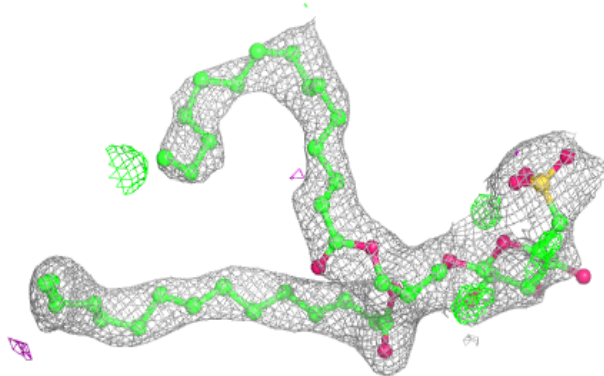
Electron density around K2I A 418 (A):

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

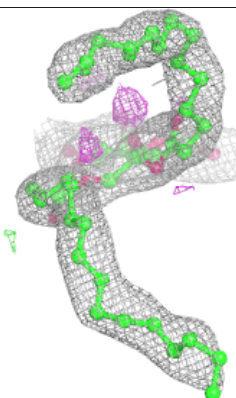
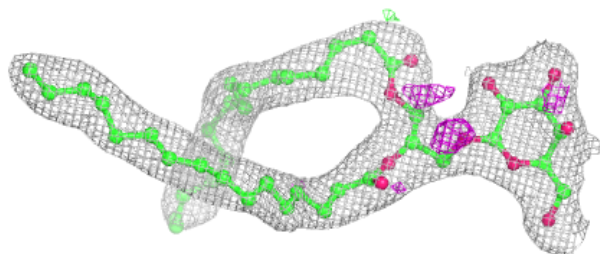
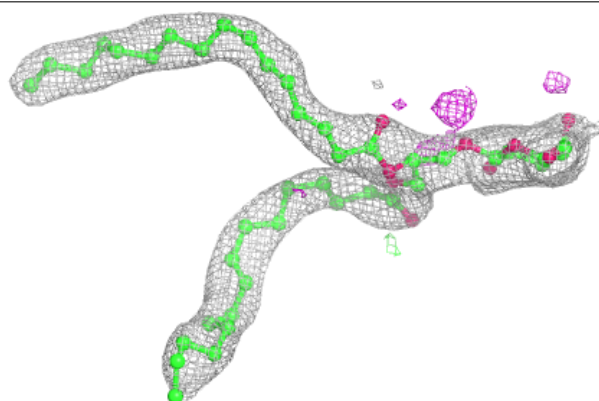


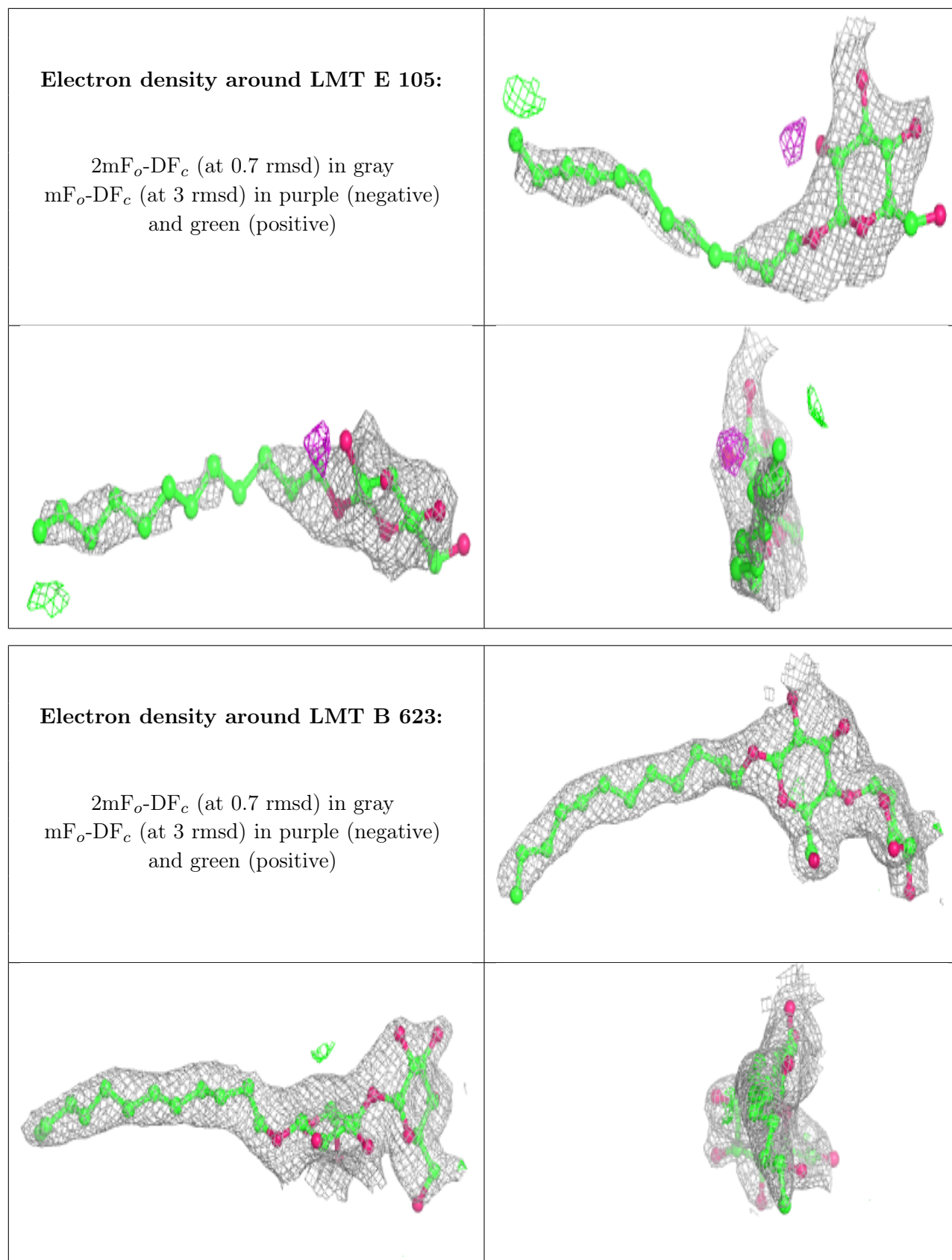
Electron density around SQD a 2102:

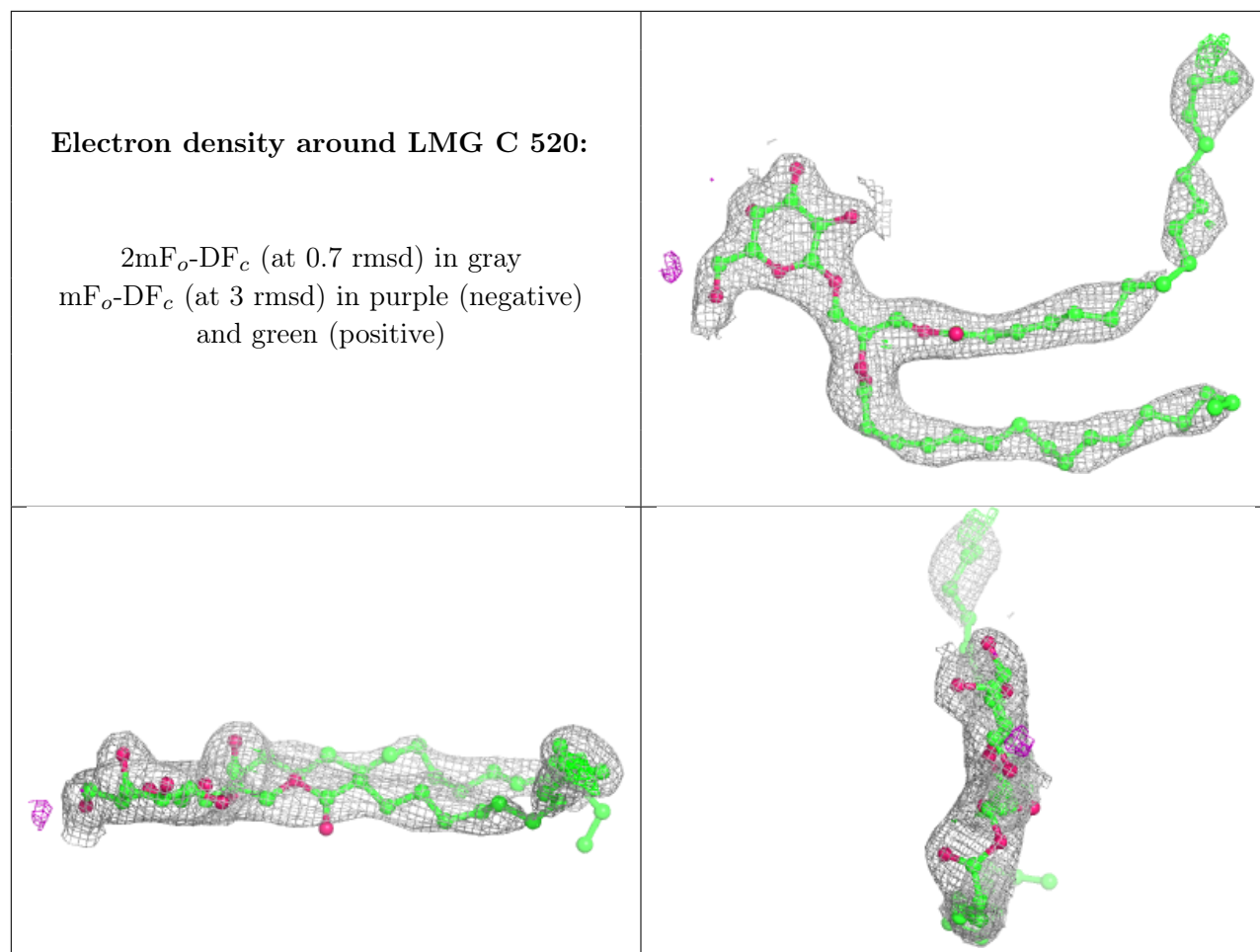
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

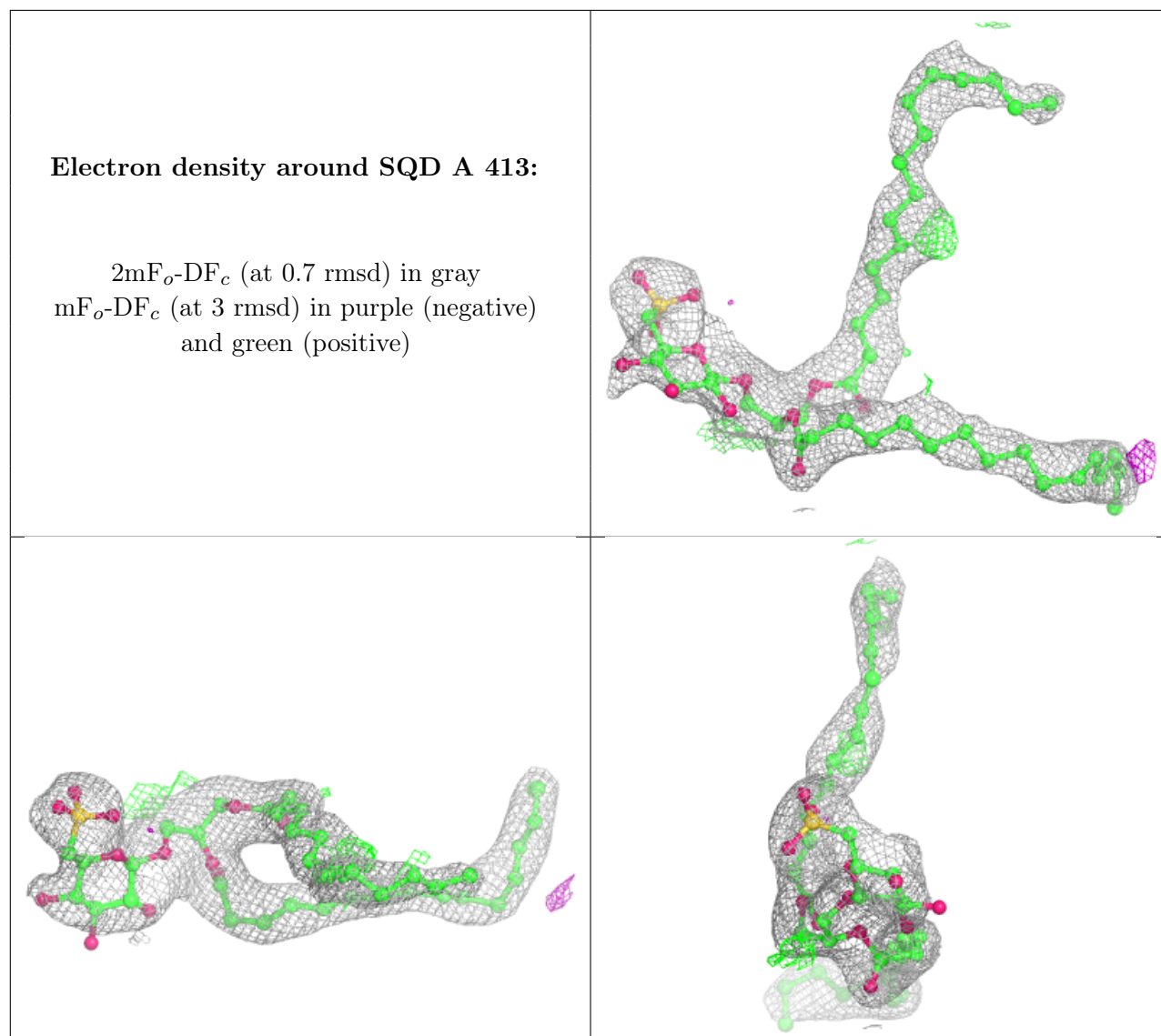
**Electron density around LMG b 623:**

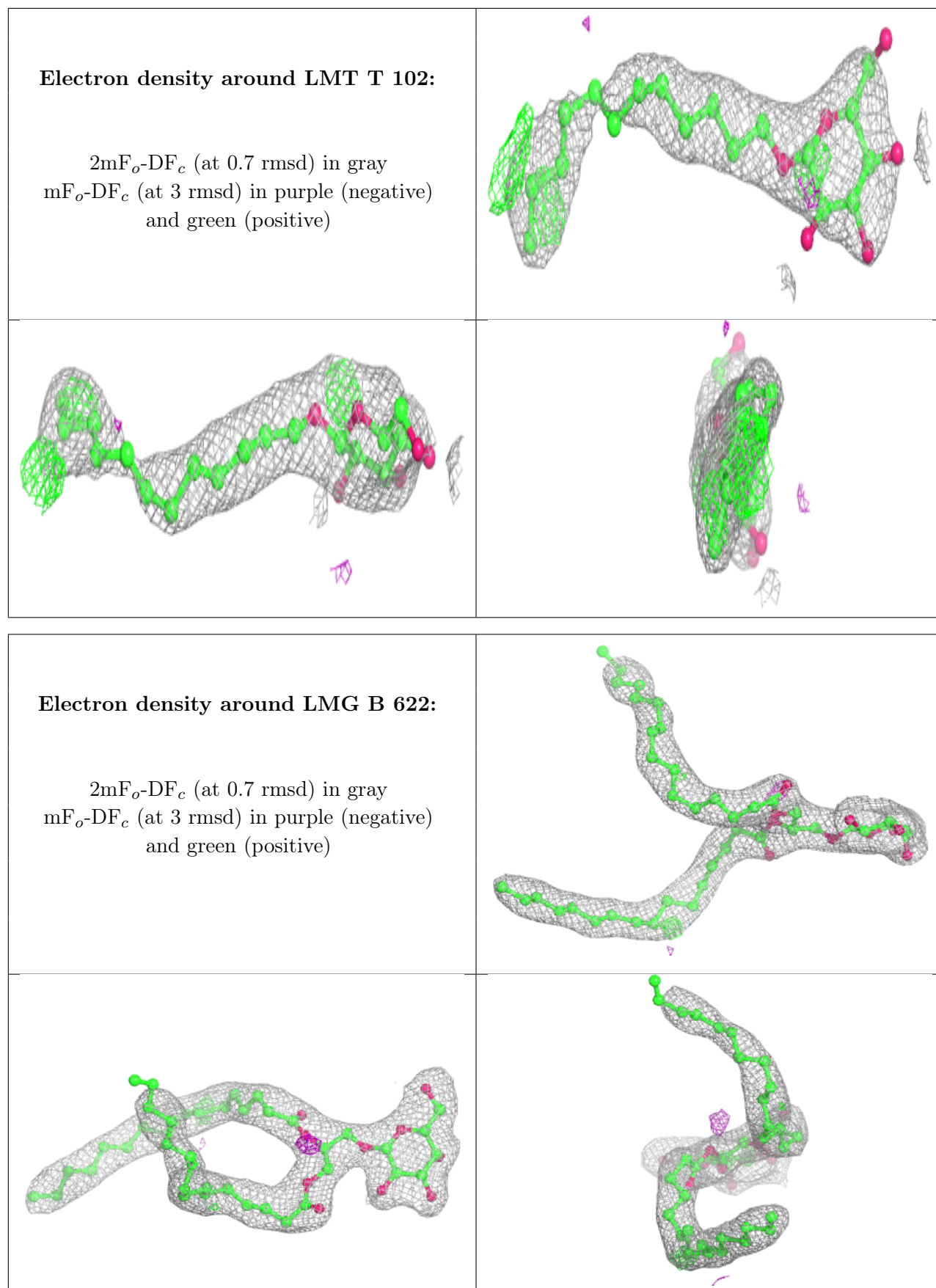
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





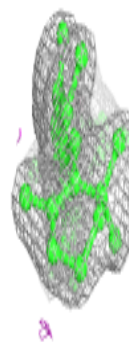
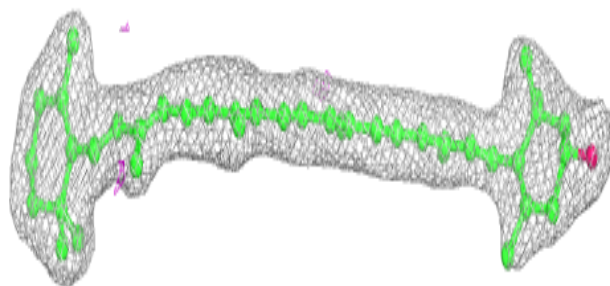
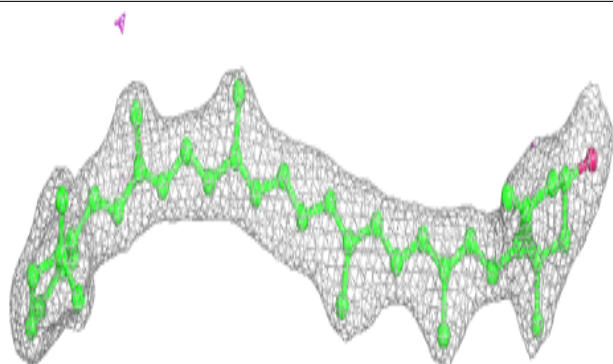




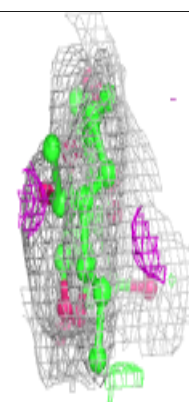
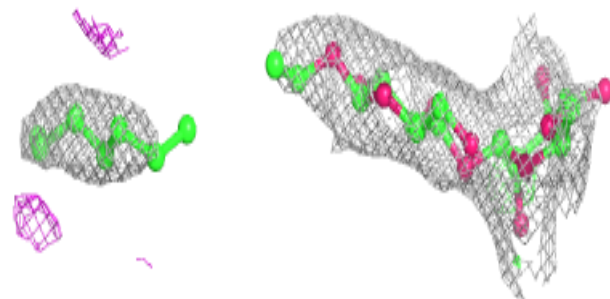
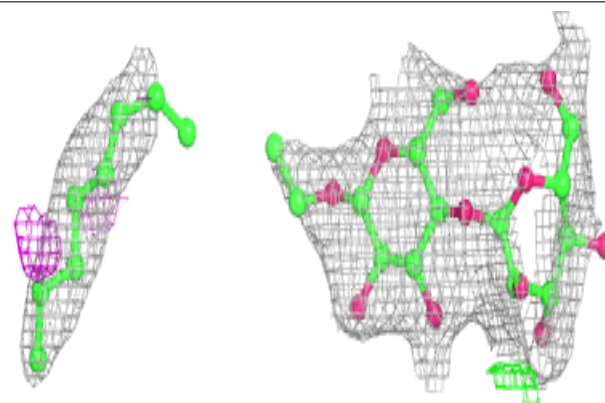


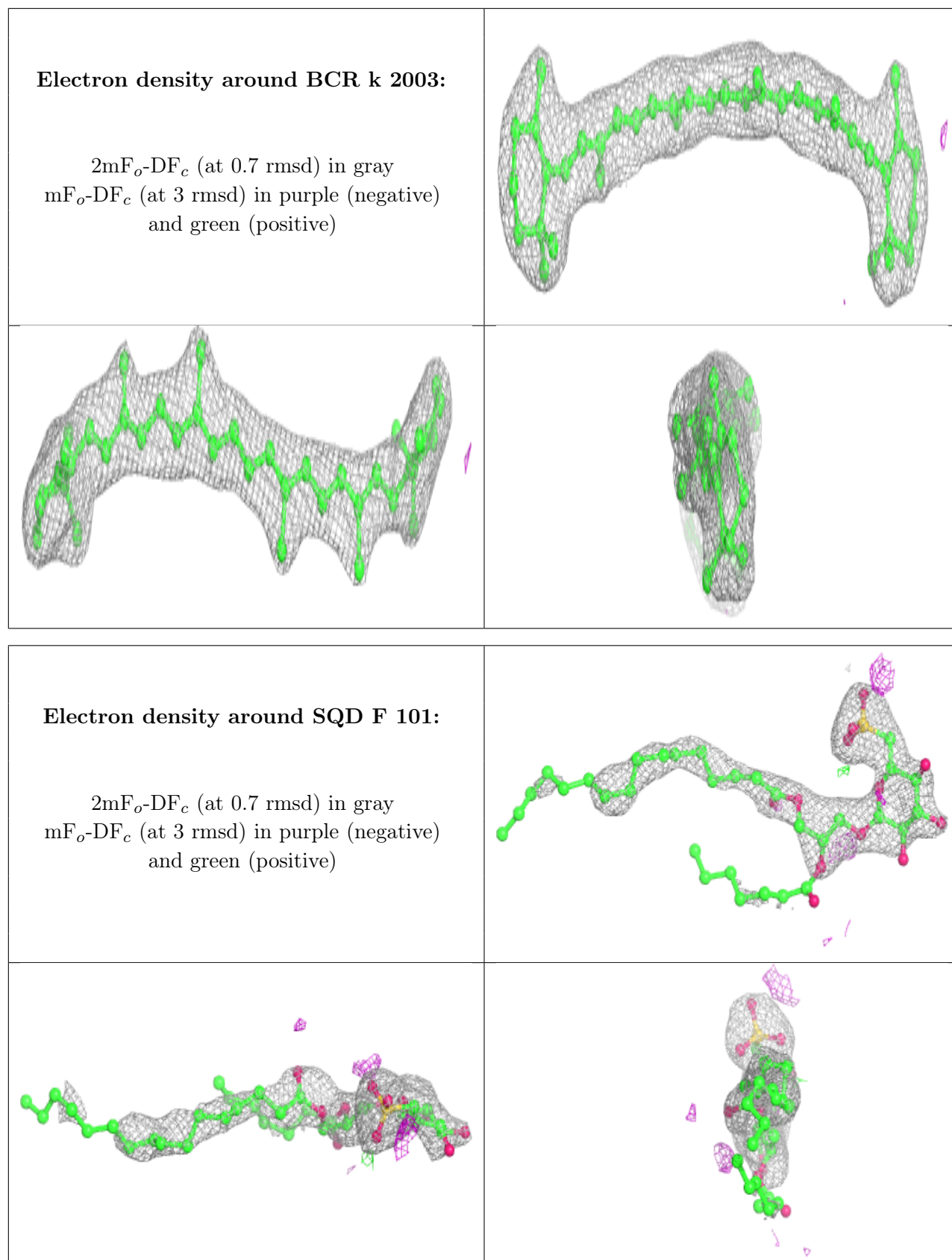
Electron density around RRX H 101:

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

**Electron density around LMT z 1801:**

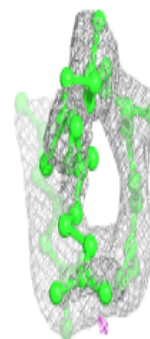
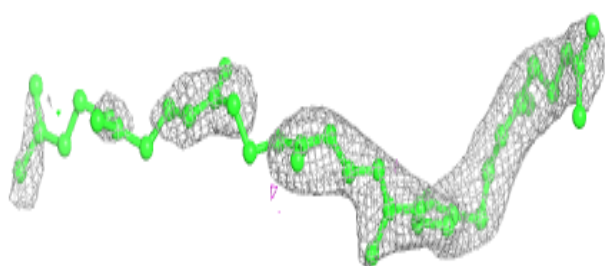
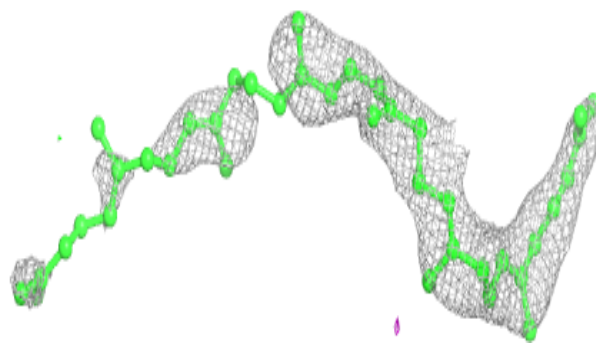
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



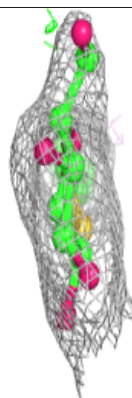
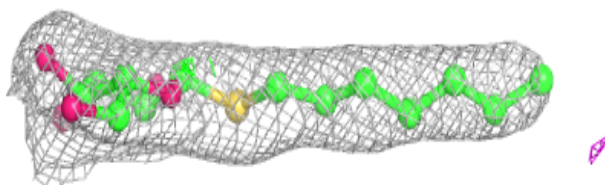
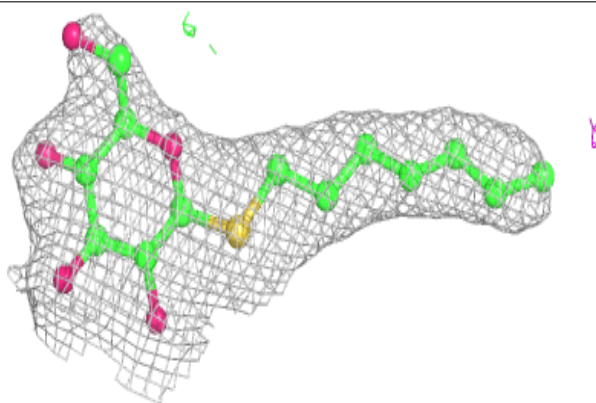


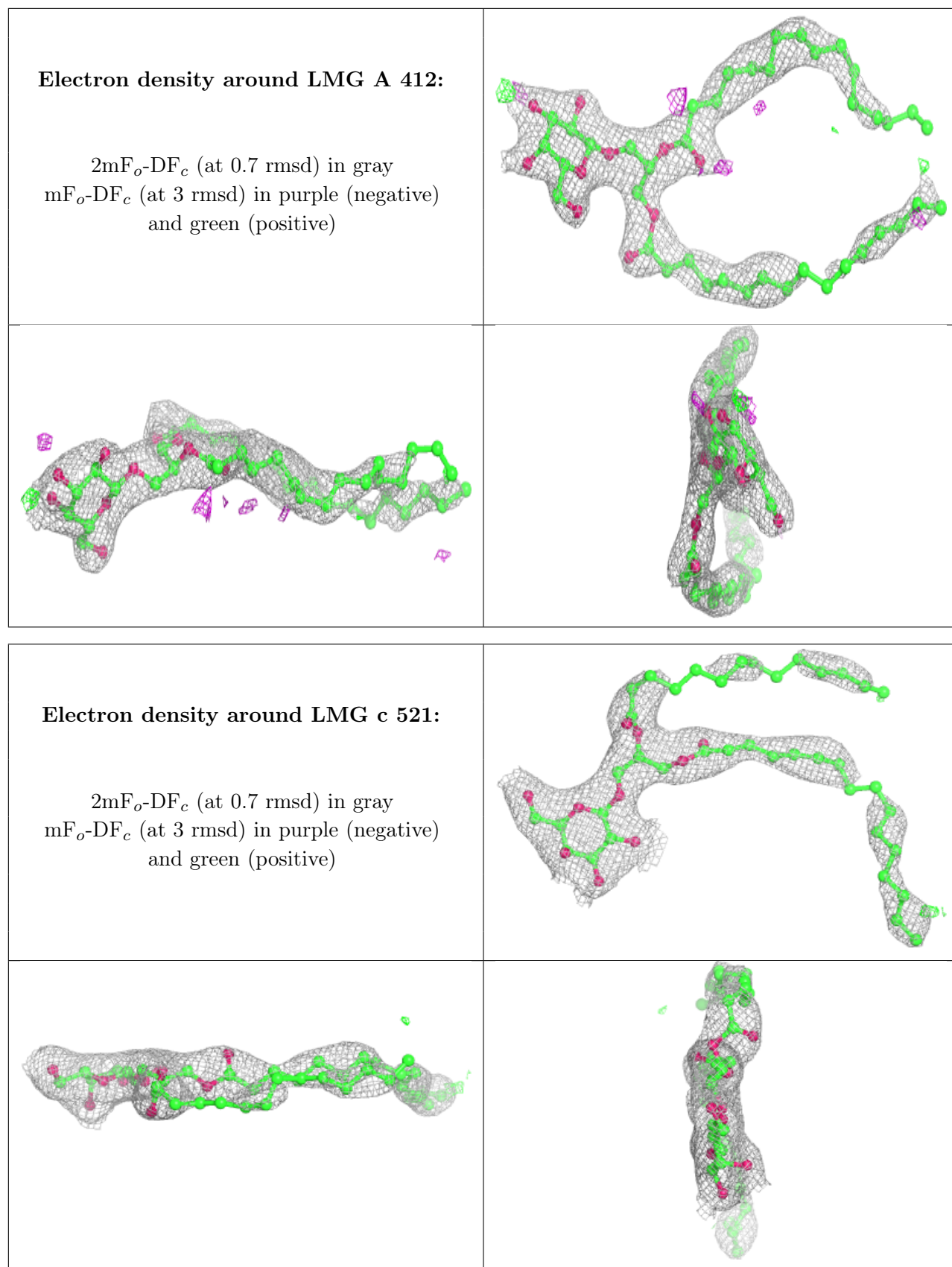
Electron density around PL9 x 801:

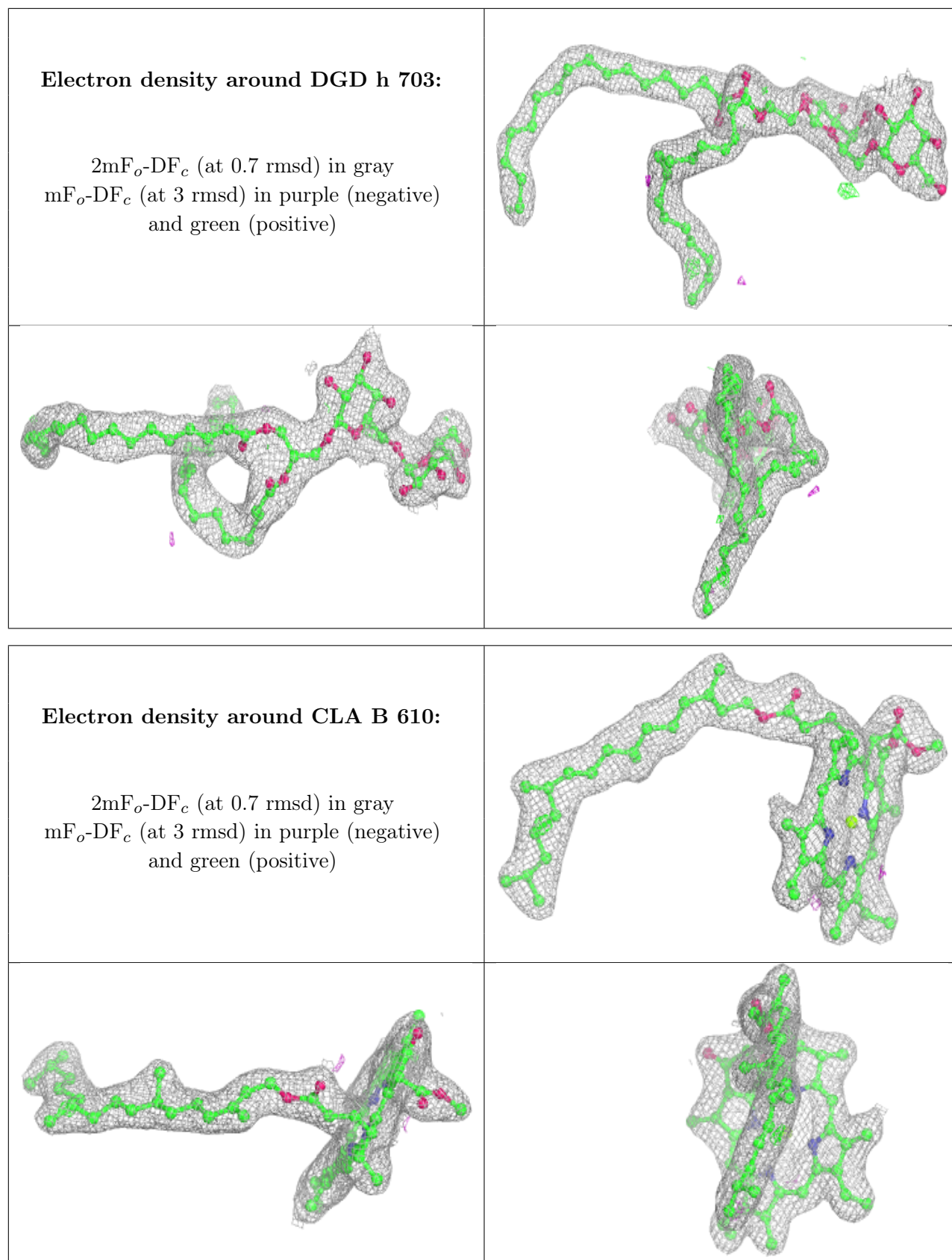
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around HTG b 601:**

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

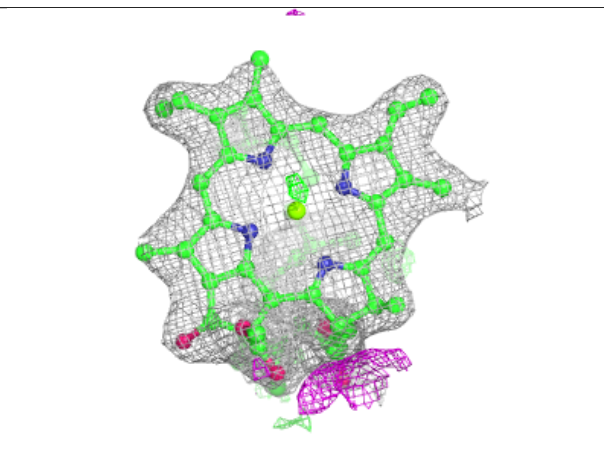
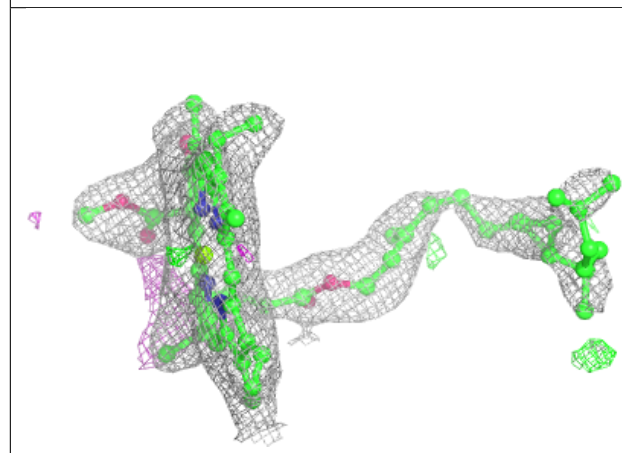
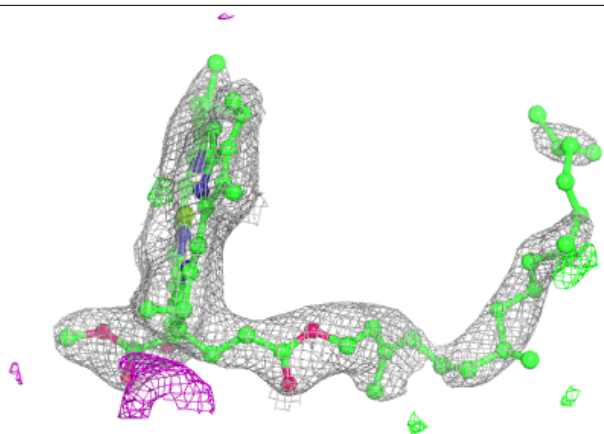




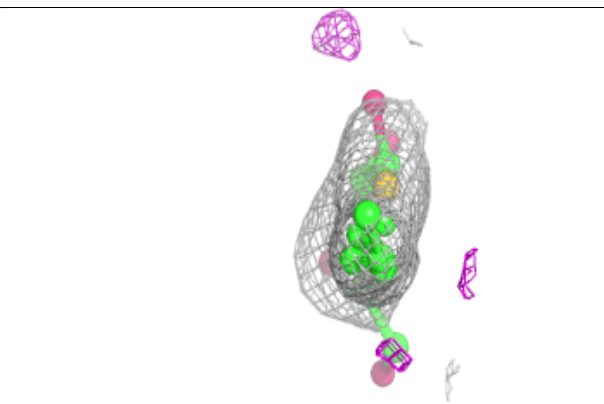
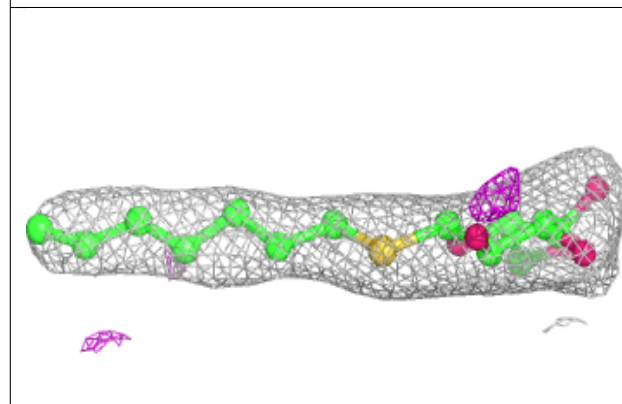
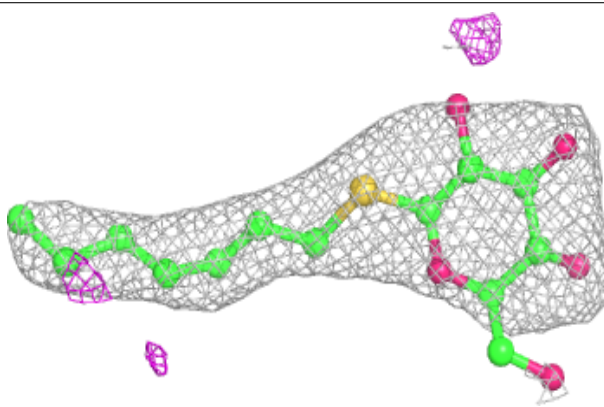


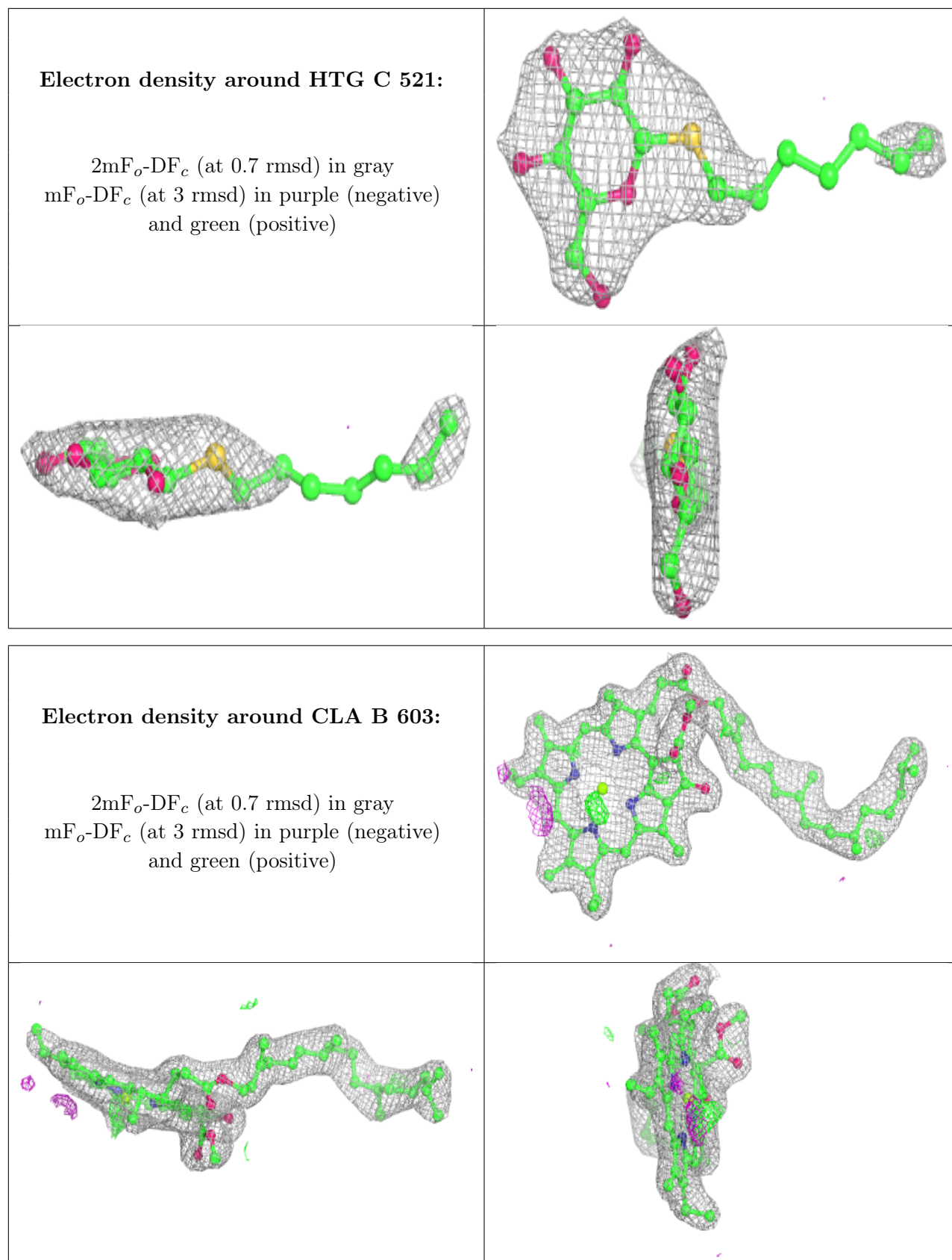
Electron density around CLA C 507:

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

**Electron density around HTG B 627:**

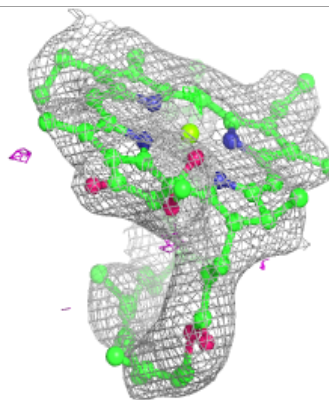
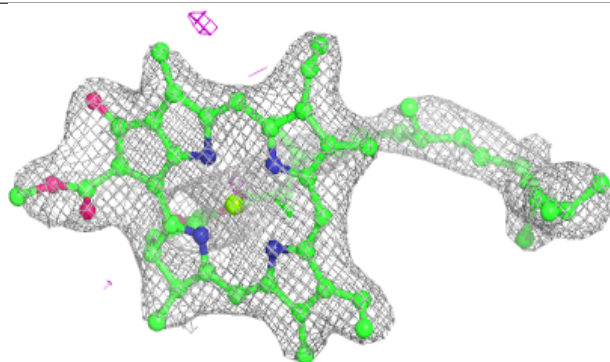
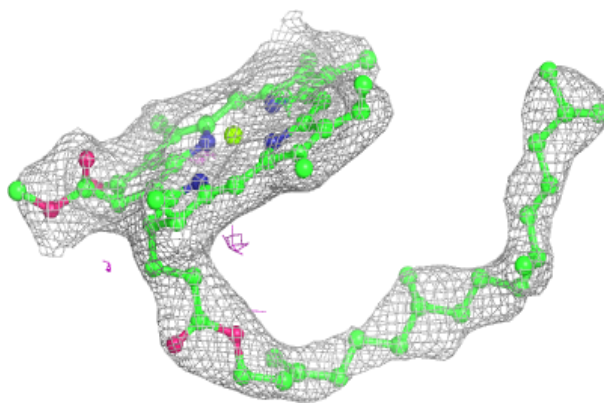
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



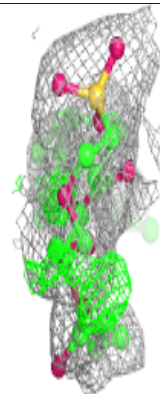
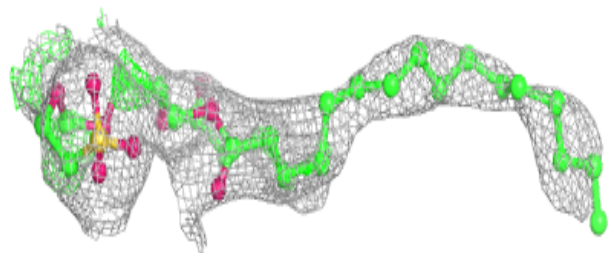
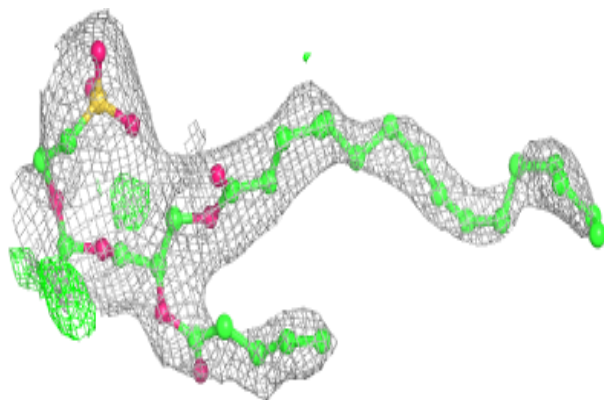


Electron density around CLA C 514:

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

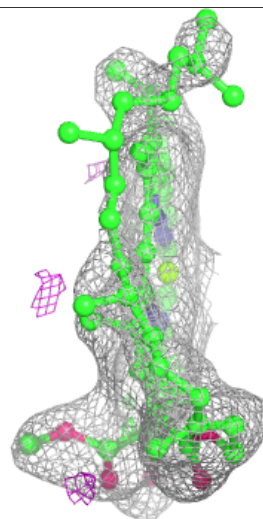
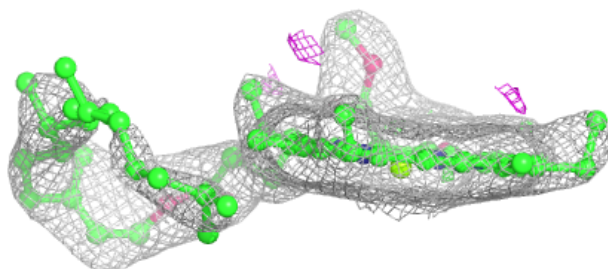
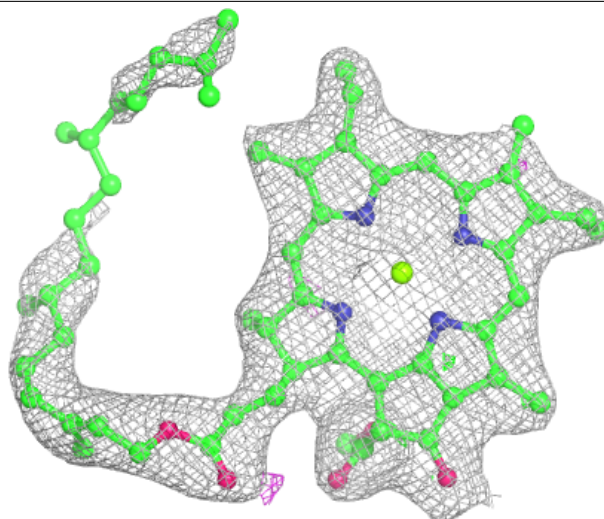
**Electron density around SQD f 102:**

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



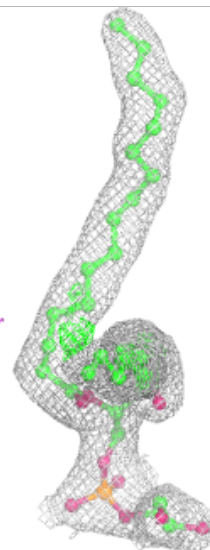
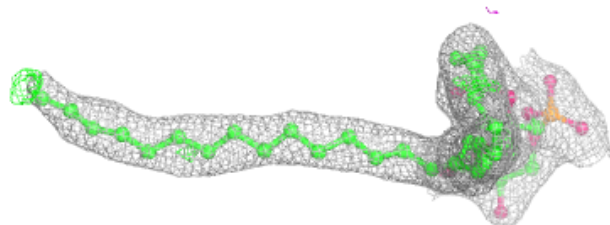
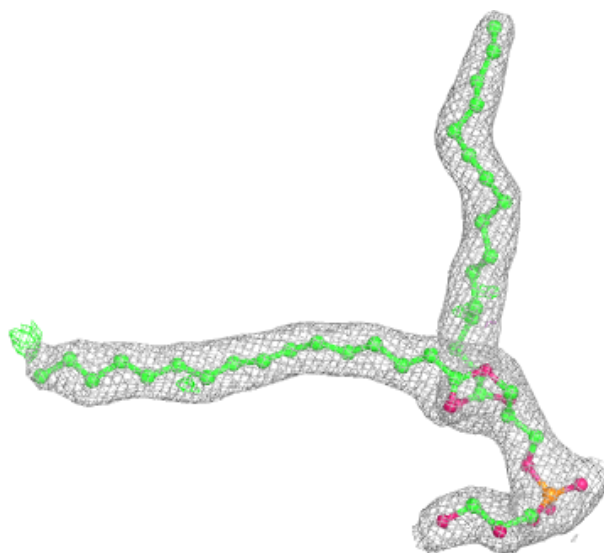
Electron density around CLA c 514:

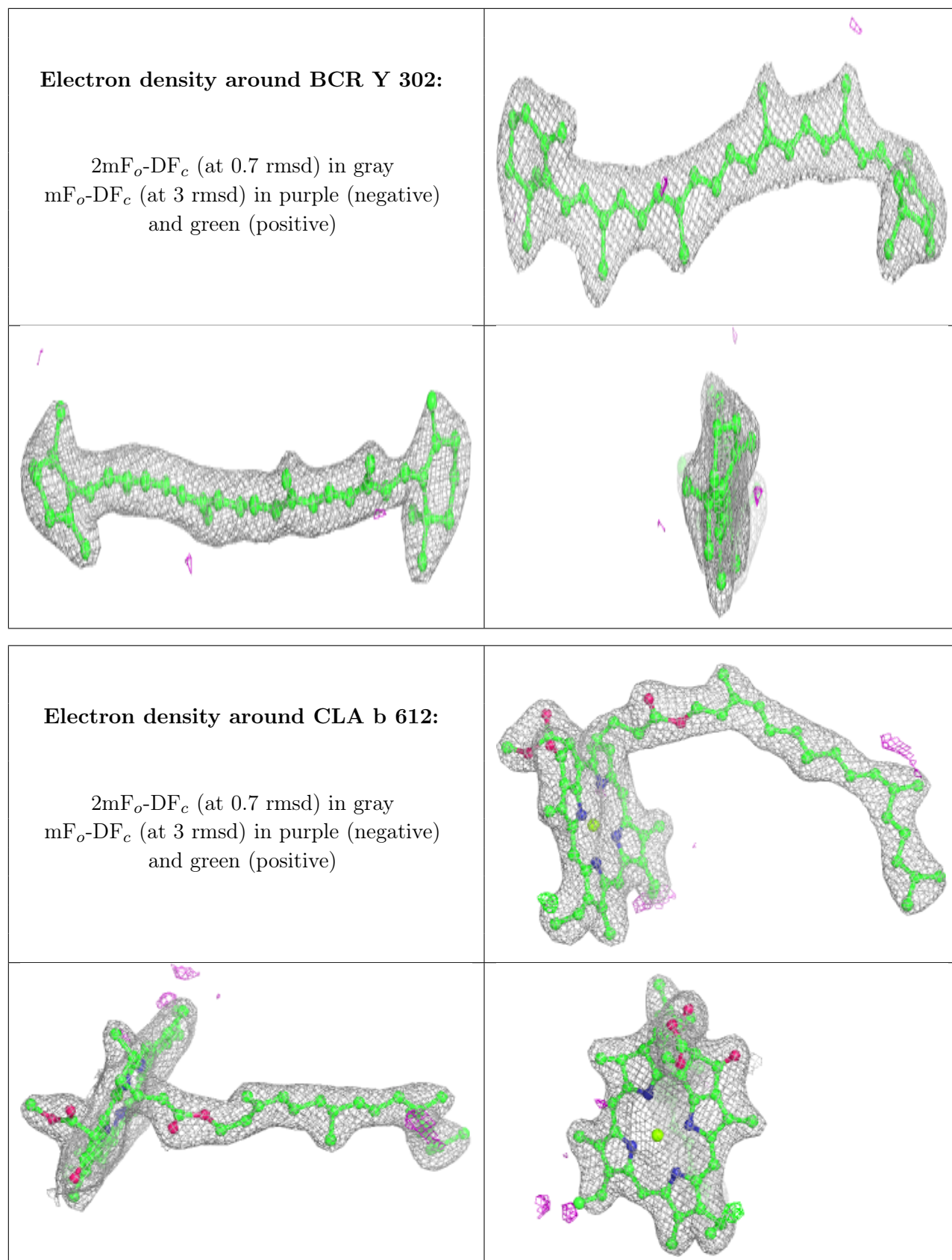
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around LHG 1 101:

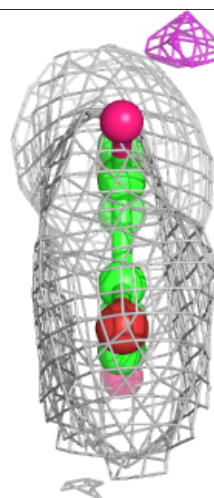
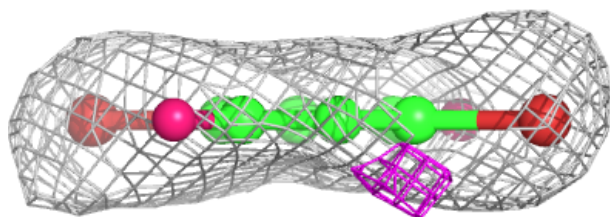
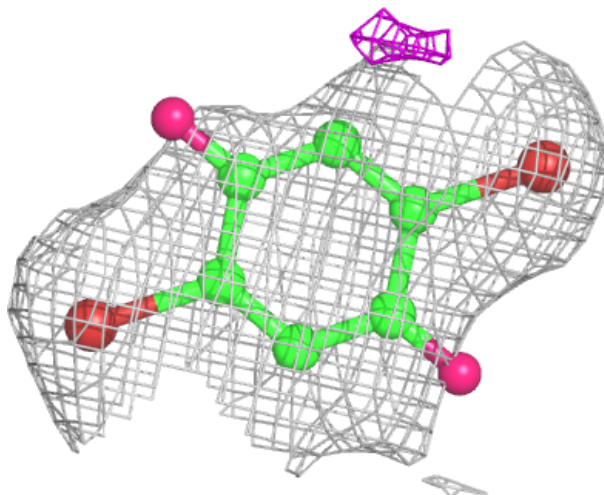
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





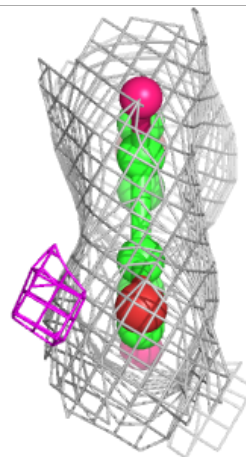
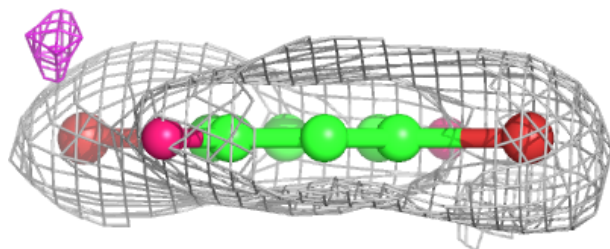
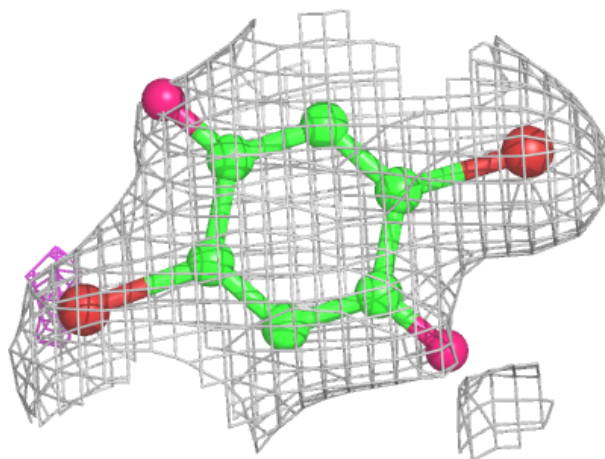
Electron density around K2I a 2118 (A):

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



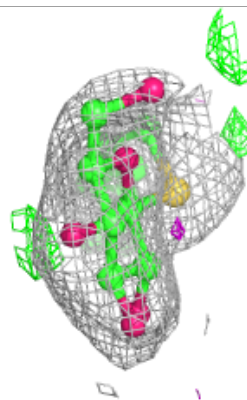
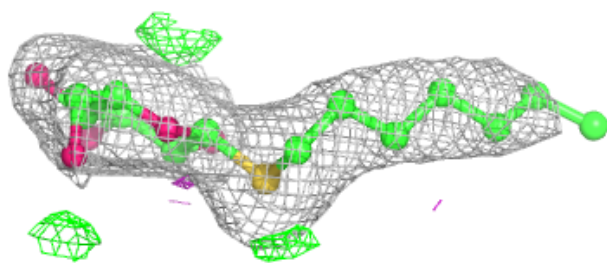
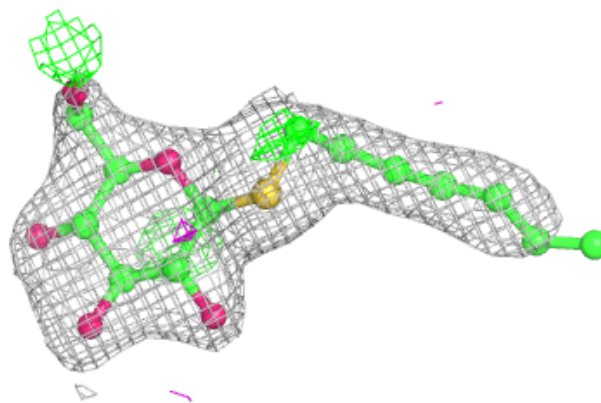
Electron density around K2I a 2118 (B):

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

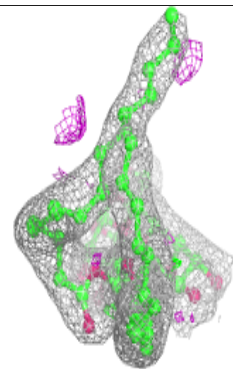
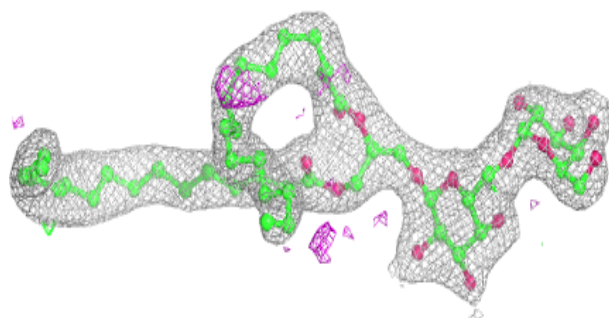
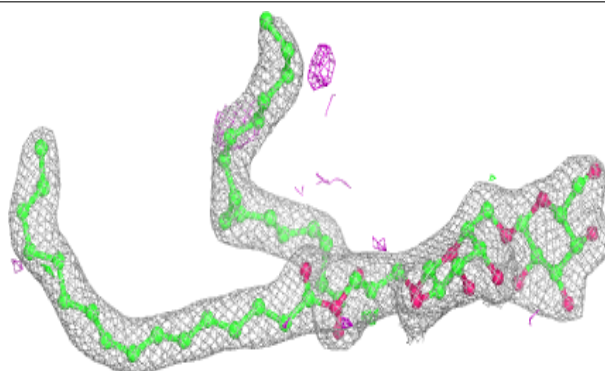


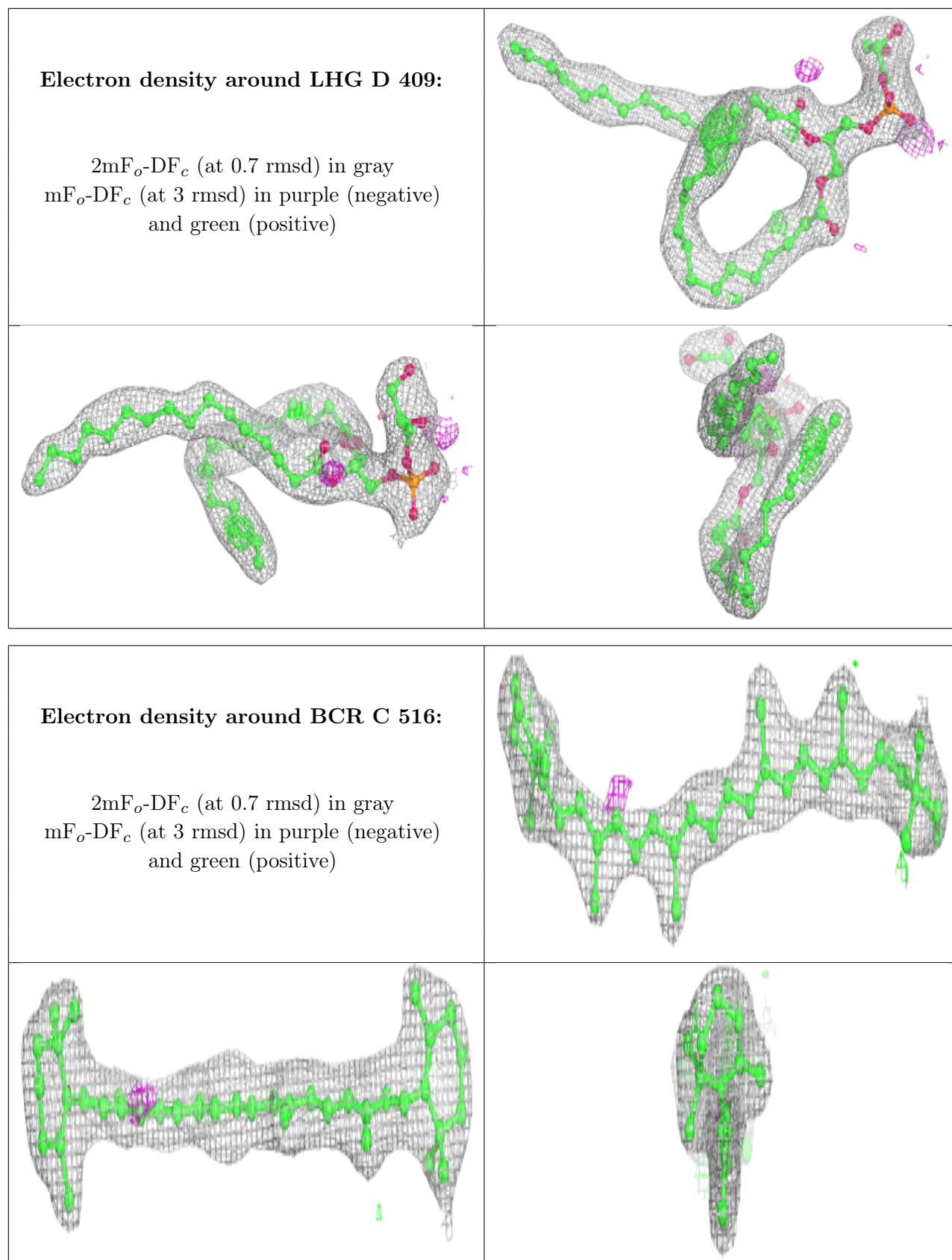
Electron density around HTG B 624:

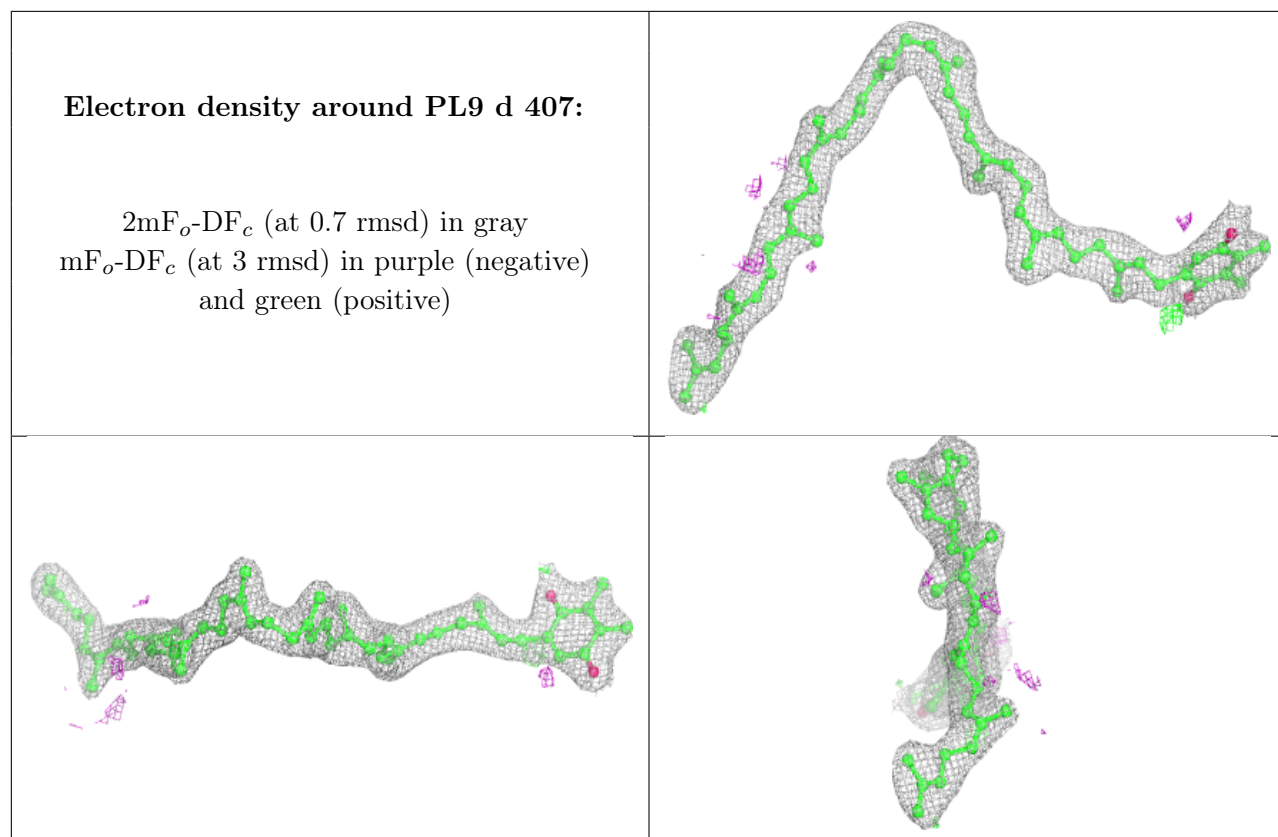
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around DGD H 102:**

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

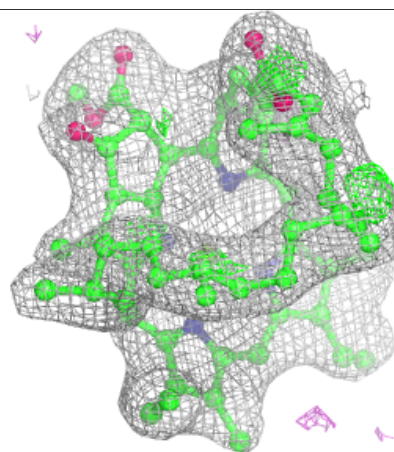
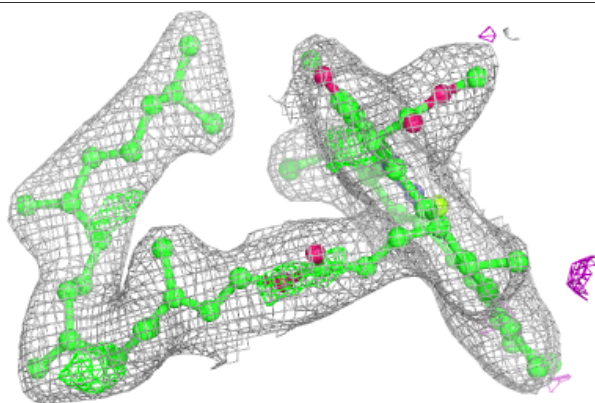
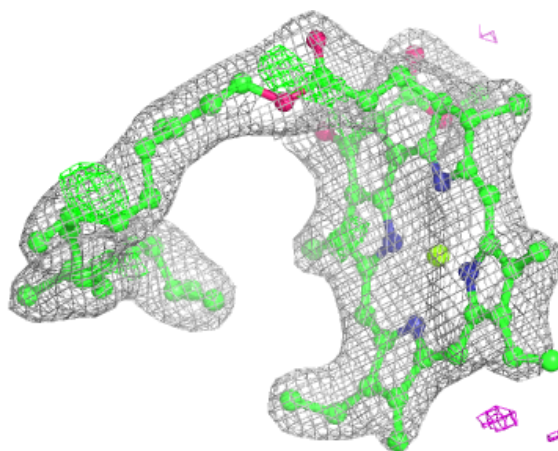






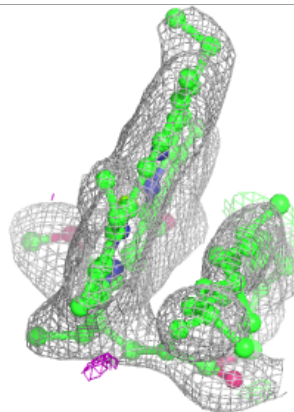
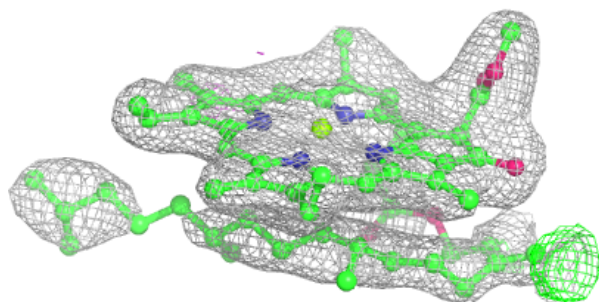
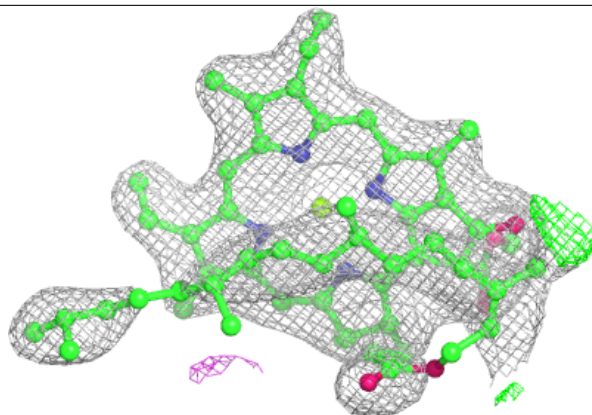
Electron density around CLA c 505:

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

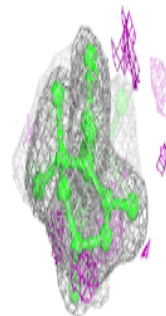
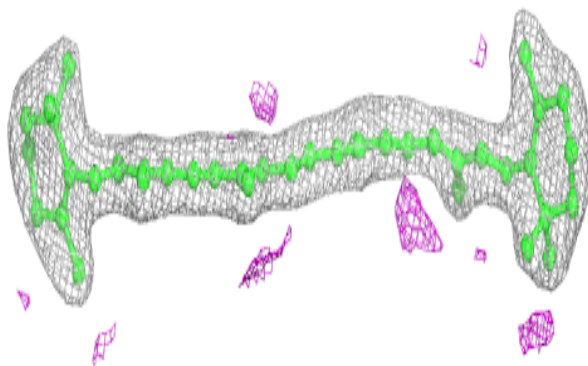
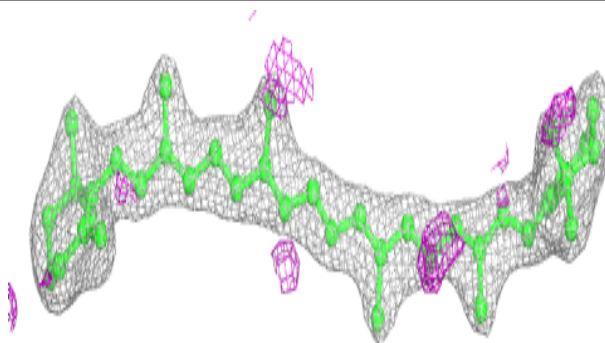


Electron density around CLA B 602:

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

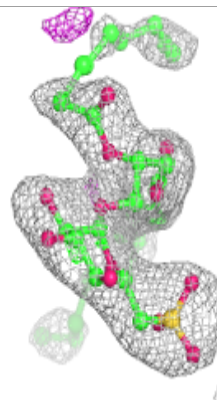
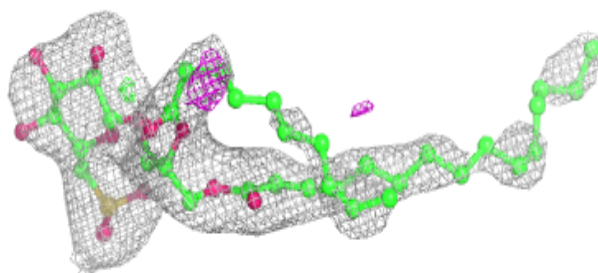
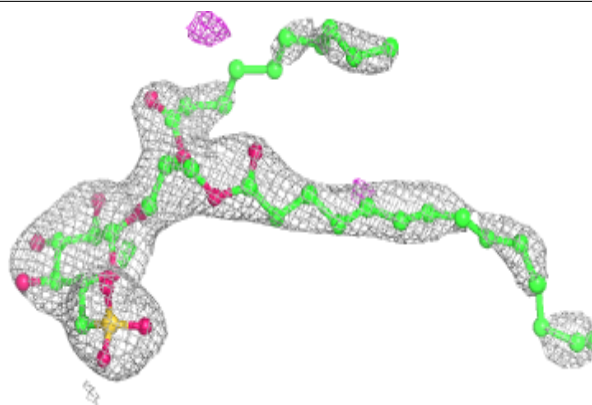
**Electron density around BCR a 2114:**

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

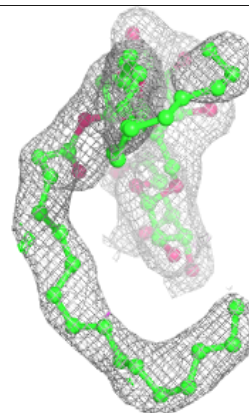
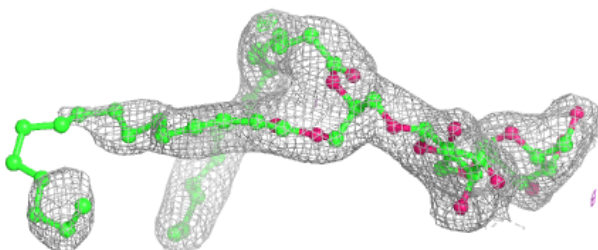
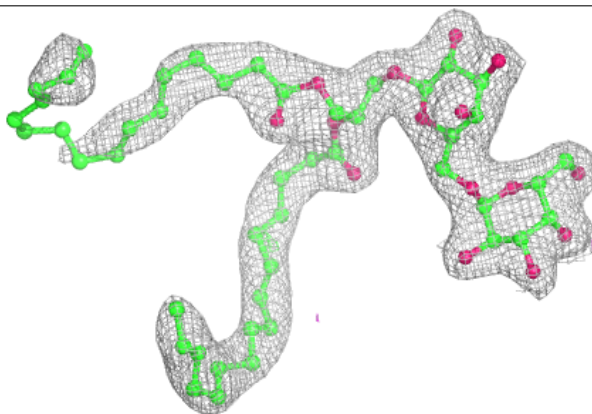


Electron density around SQD a 2115:

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

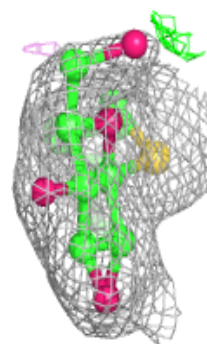
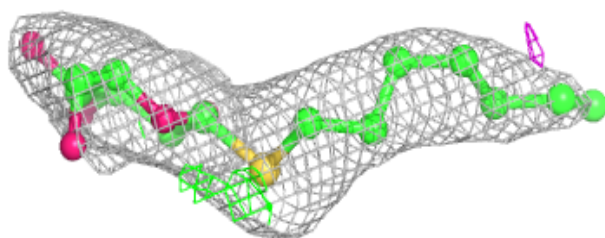
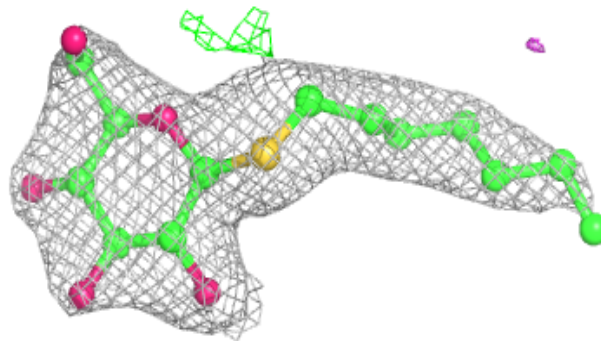
**Electron density around DGD C 518:**

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

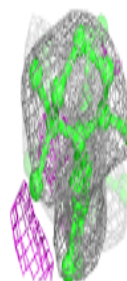
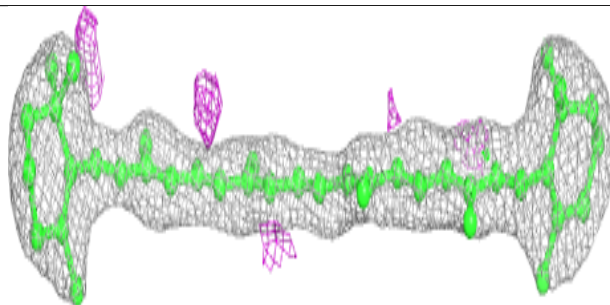
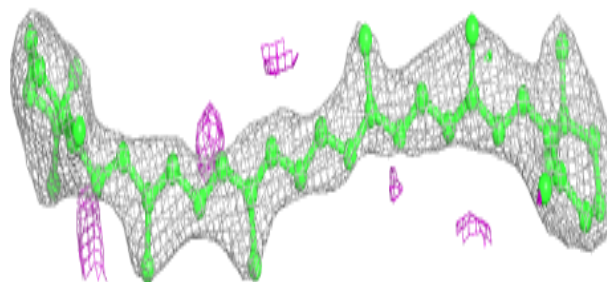


Electron density around HTG O 302:

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

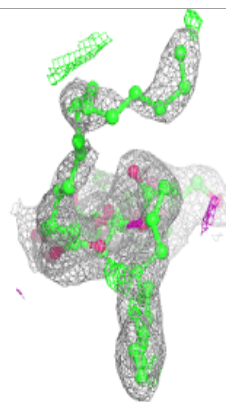
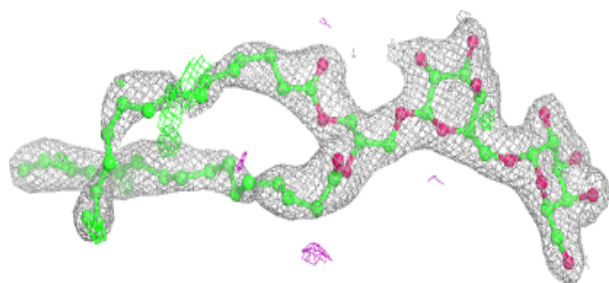
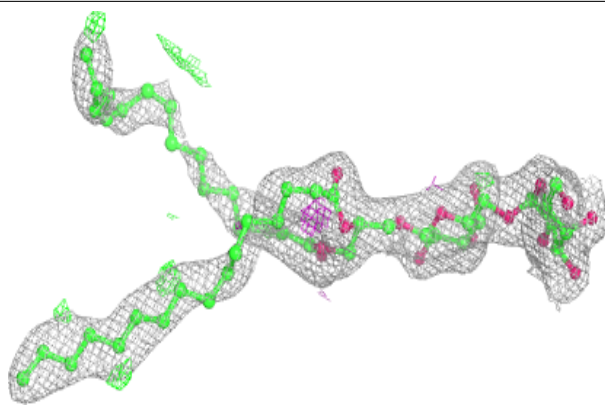
**Electron density around BCR c 516:**

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

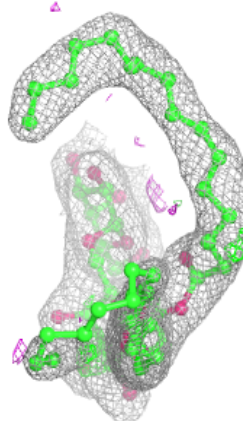
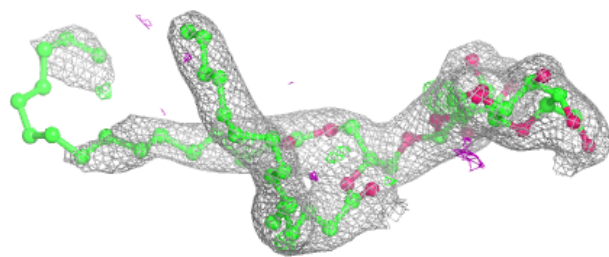
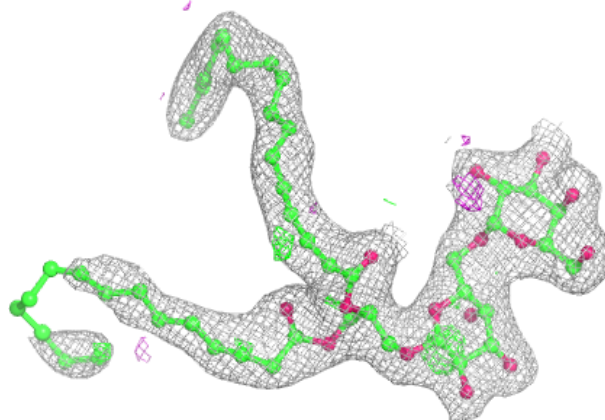


Electron density around DGD c 518:

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

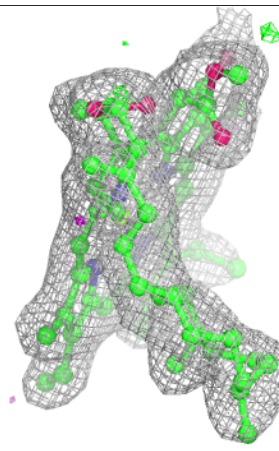
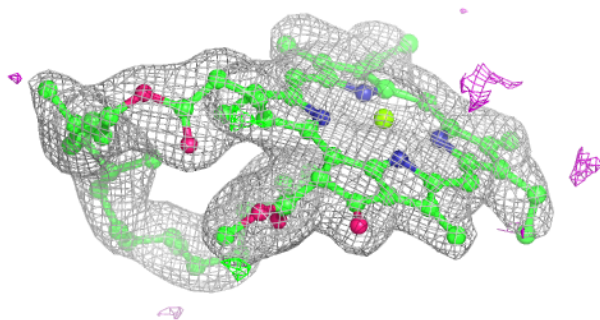
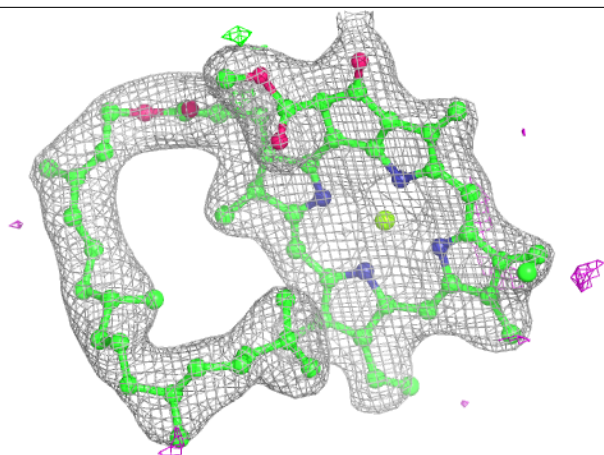
**Electron density around DGD c 519:**

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



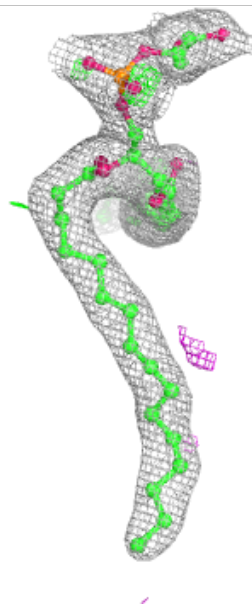
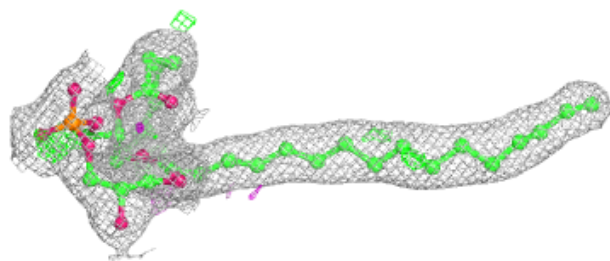
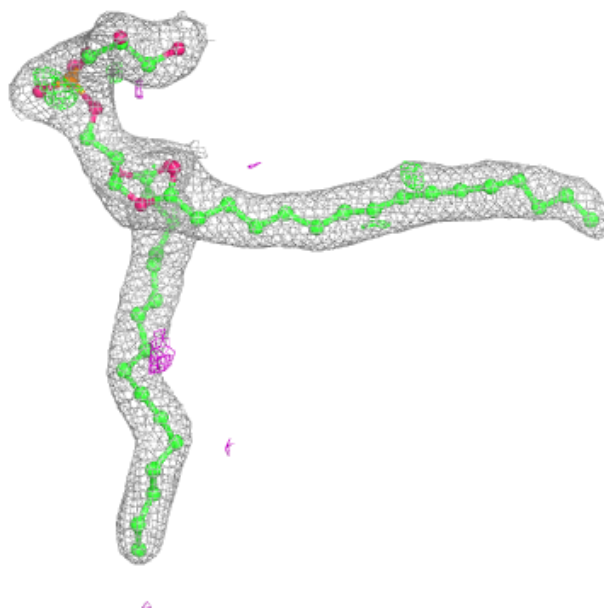
Electron density around CLA b 618:

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



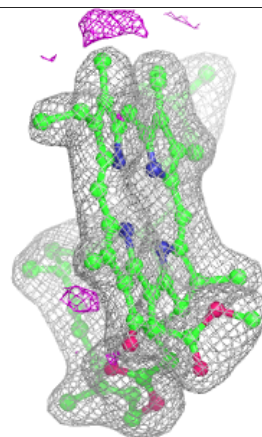
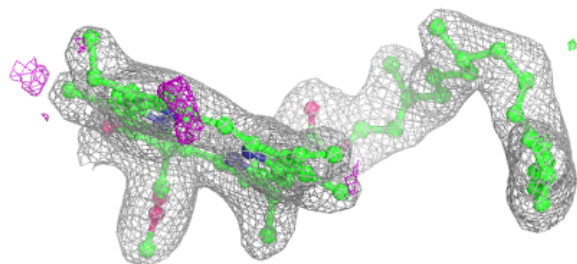
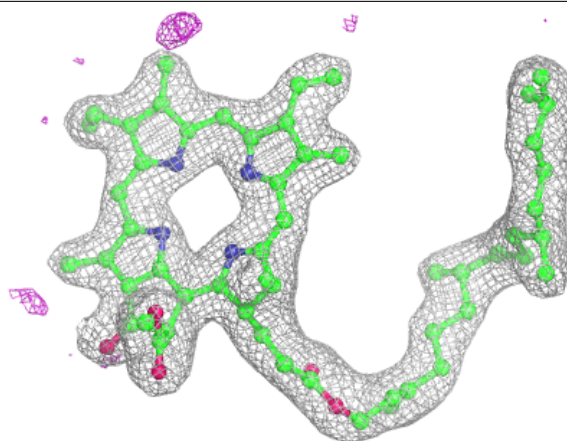
Electron density around LHG L 101:

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

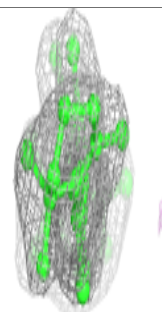
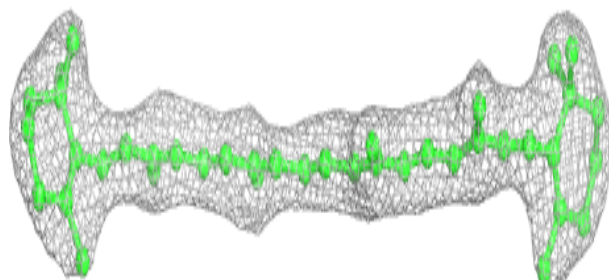
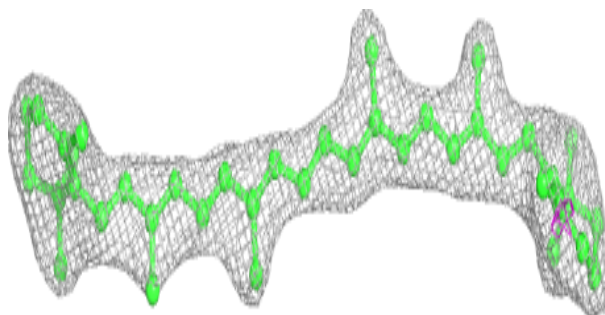


Electron density around PHO A 408:

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

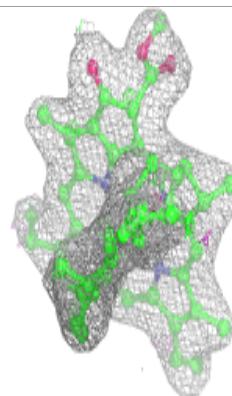
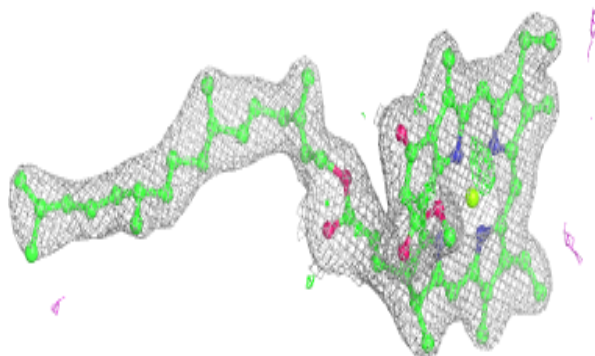
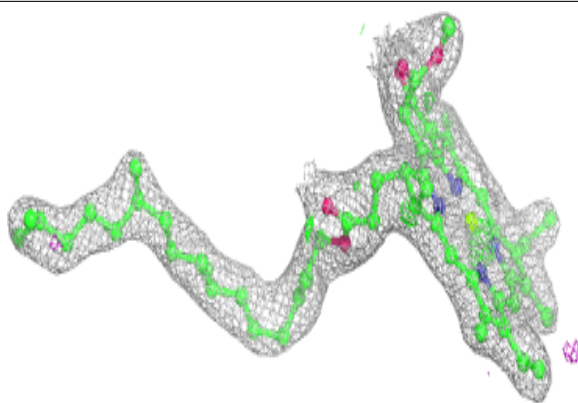
**Electron density around BCR C 515:**

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

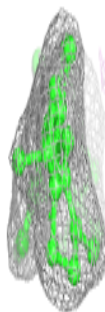
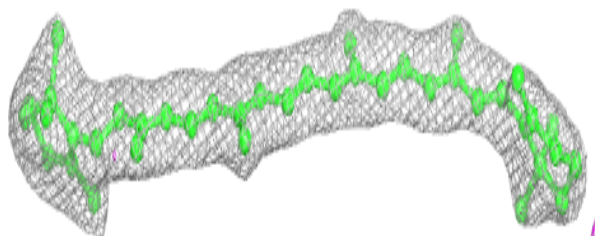
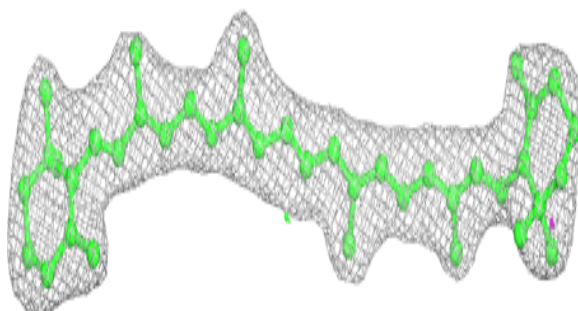


Electron density around CLA c 504:

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

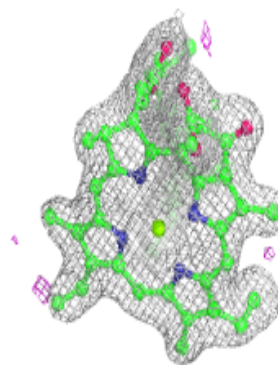
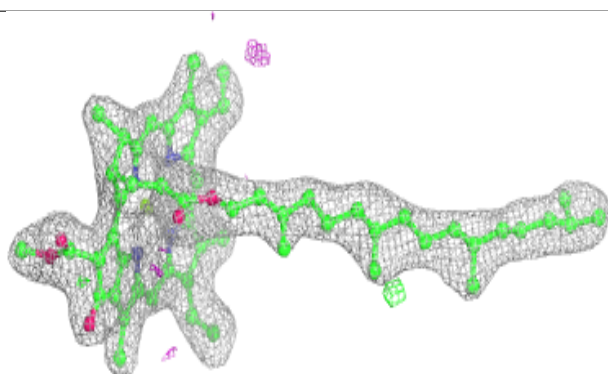
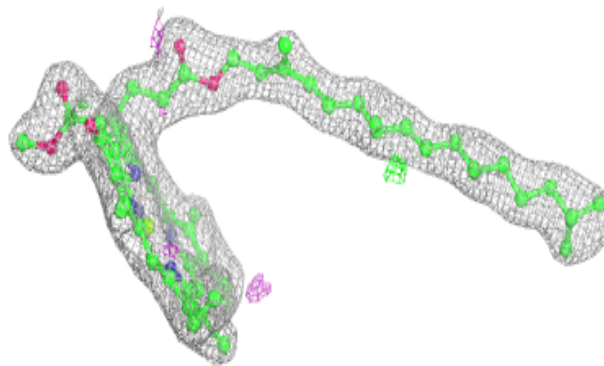
**Electron density around BCR b 622:**

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

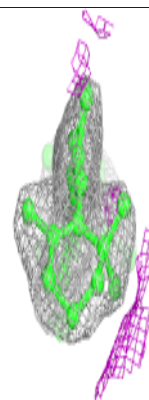
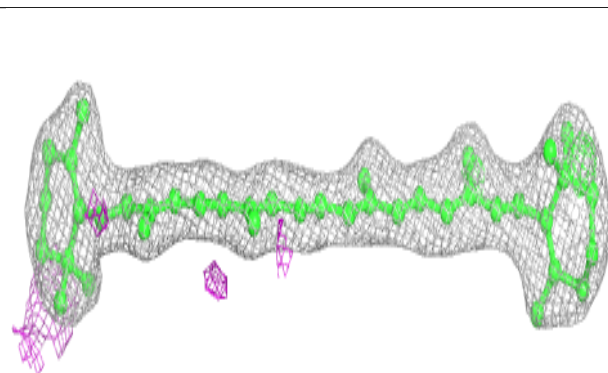
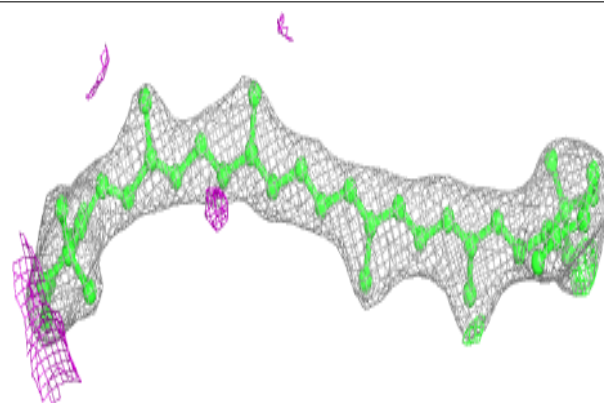


Electron density around CLA b 610:

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

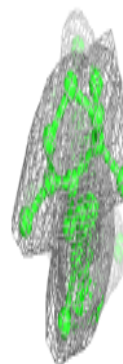
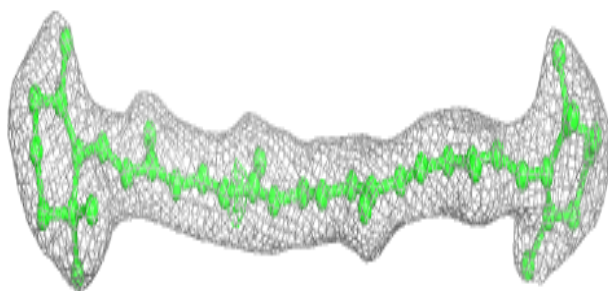
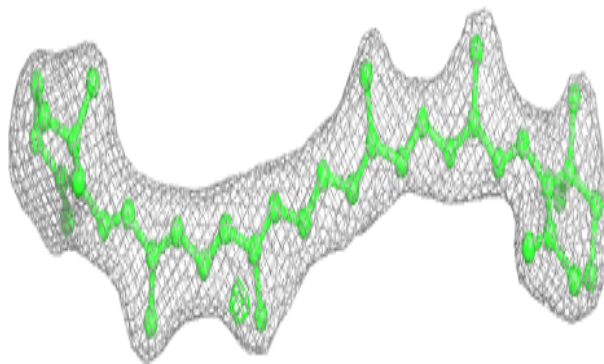
**Electron density around BCR c 517:**

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



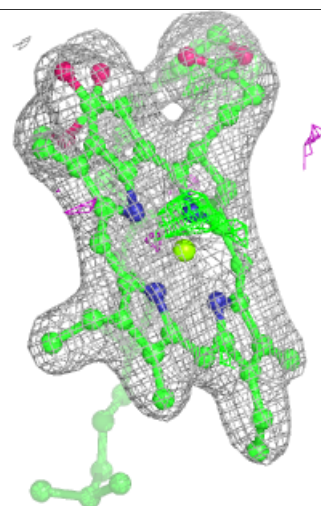
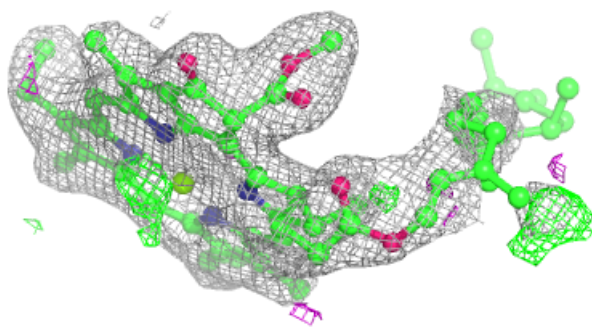
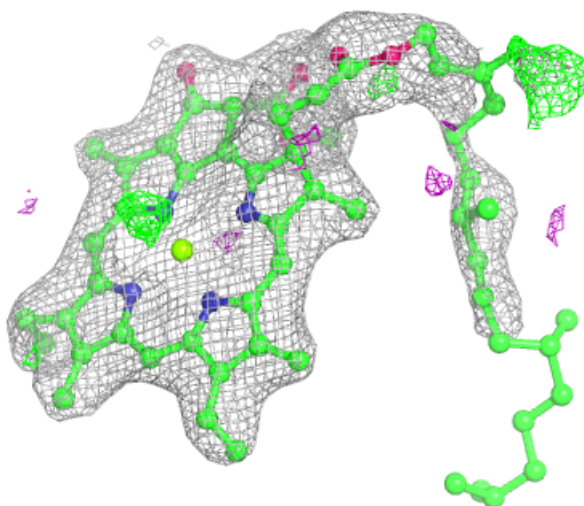
Electron density around BCR c 528:

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



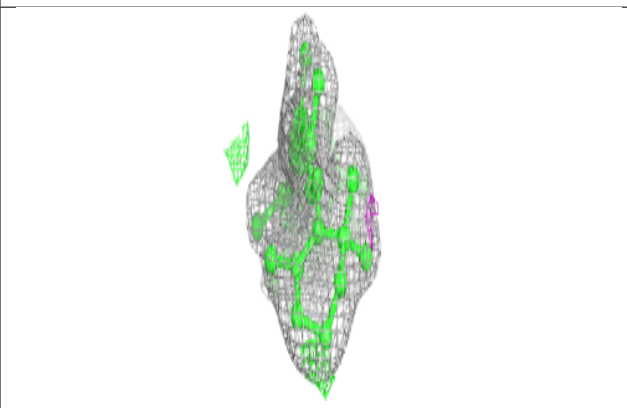
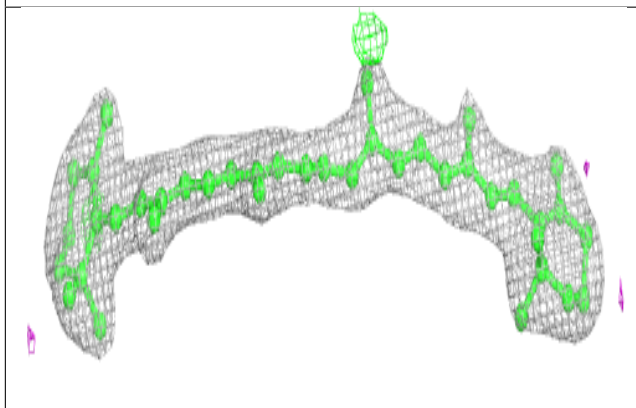
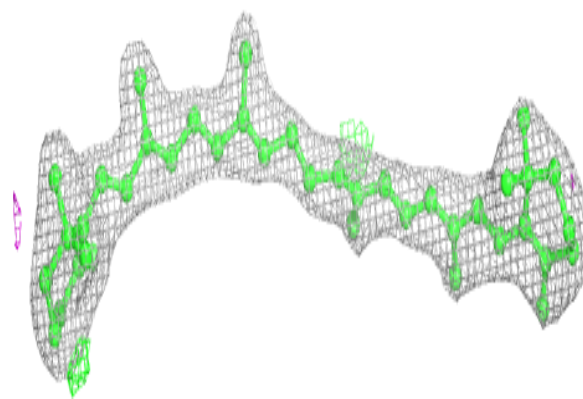
Electron density around CLA B 617:

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

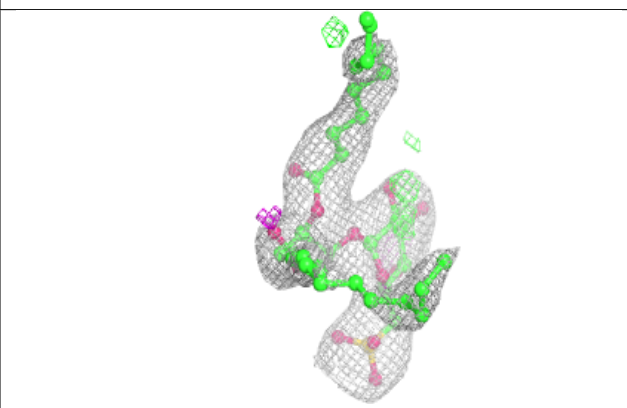
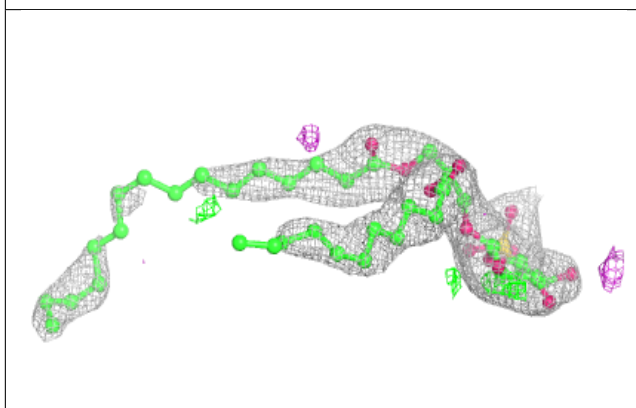
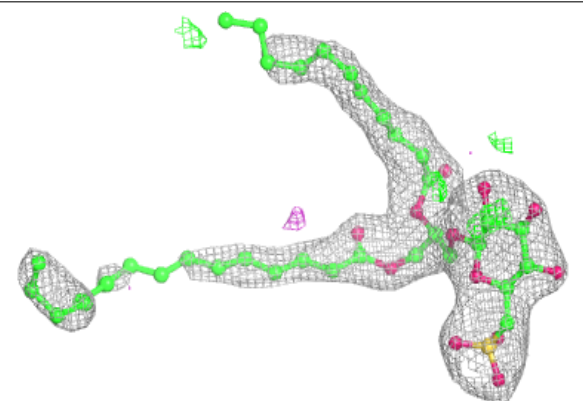


Electron density around BCR t 102:

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

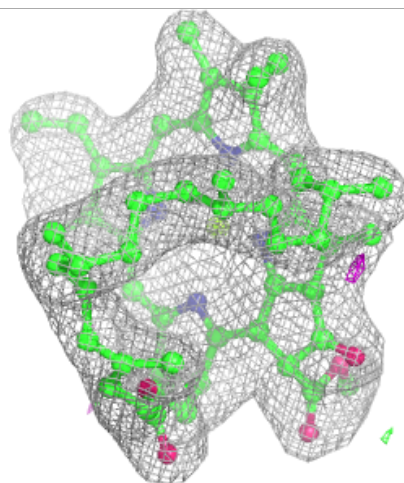
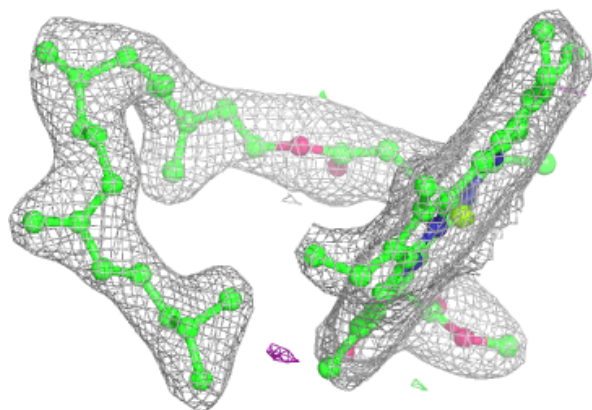
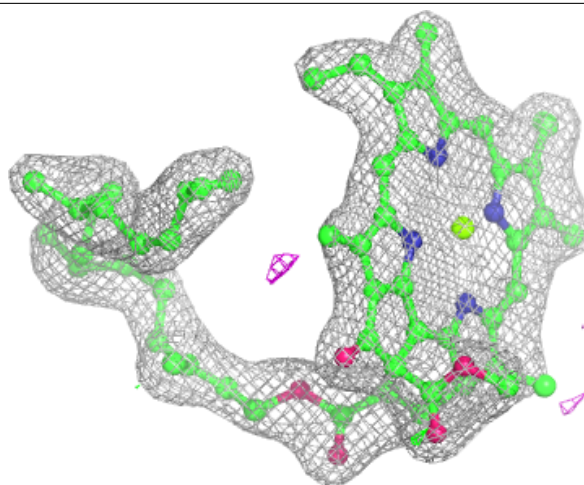
**Electron density around SQD A 411:**

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



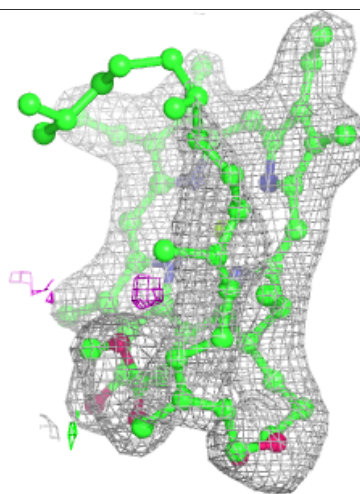
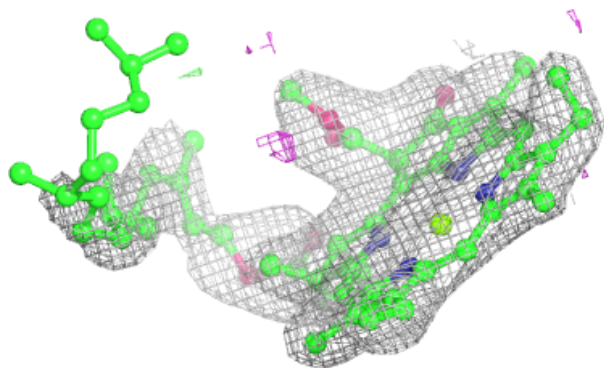
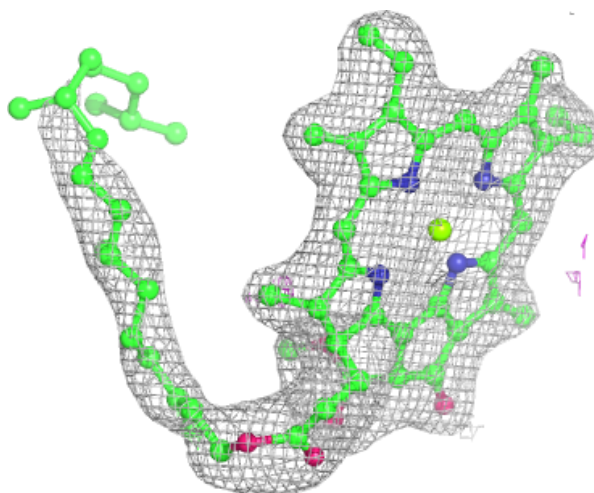
Electron density around CLA C 504:

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



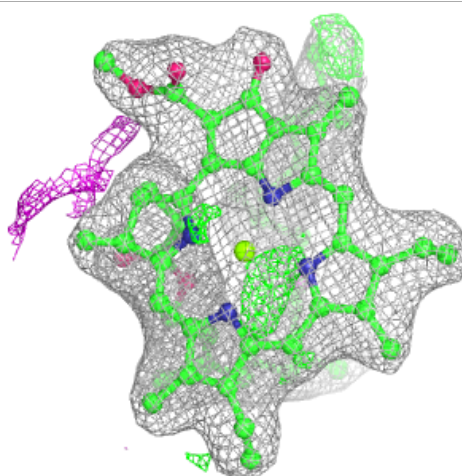
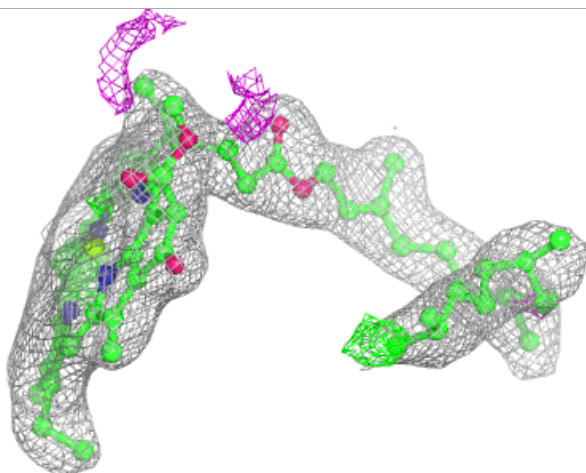
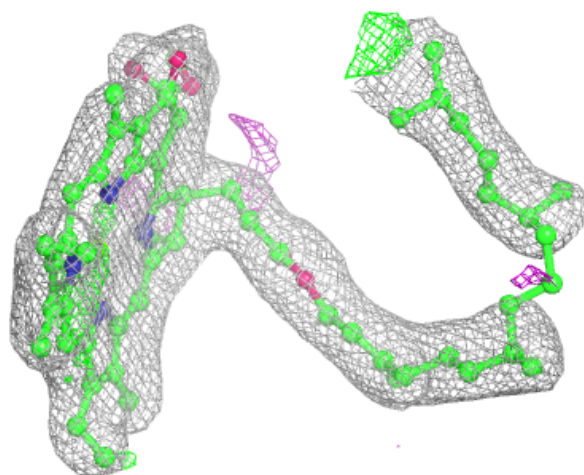
Electron density around CLA b 619:

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



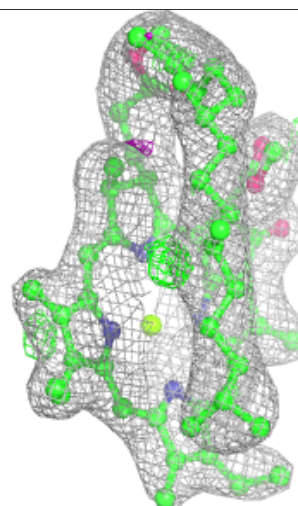
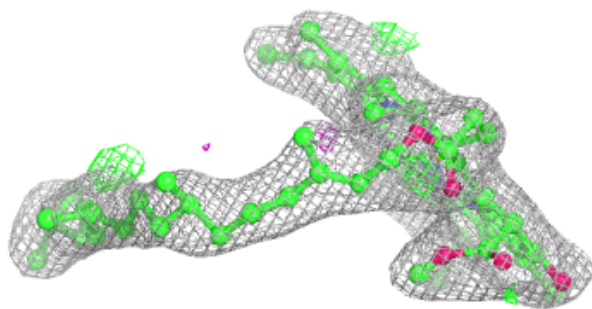
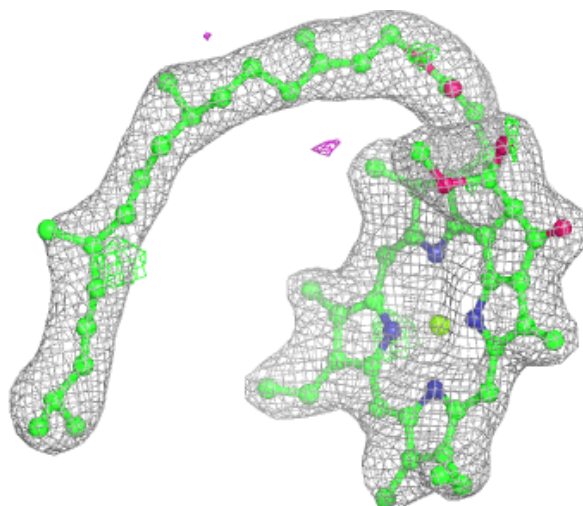
Electron density around CLA B 607:

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



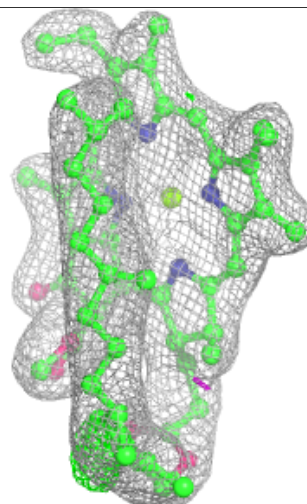
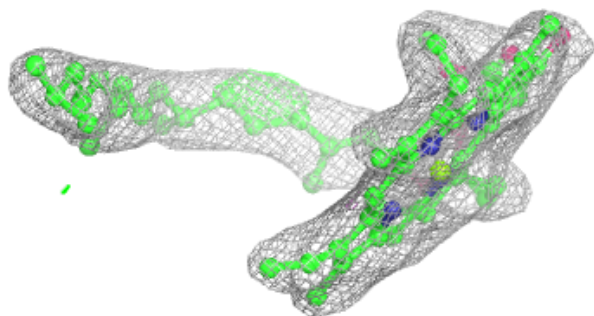
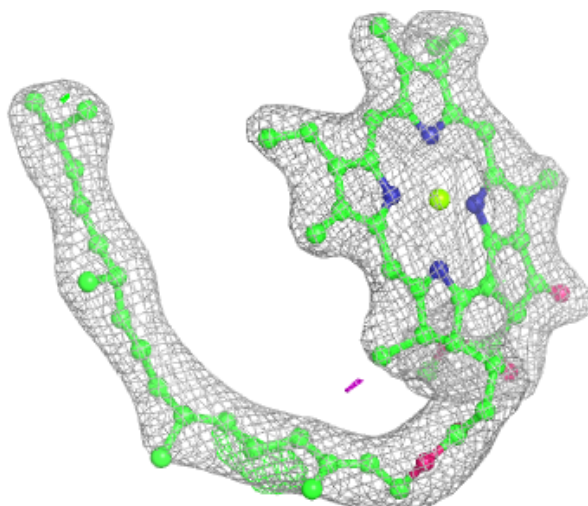
Electron density around CLA C 508:

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



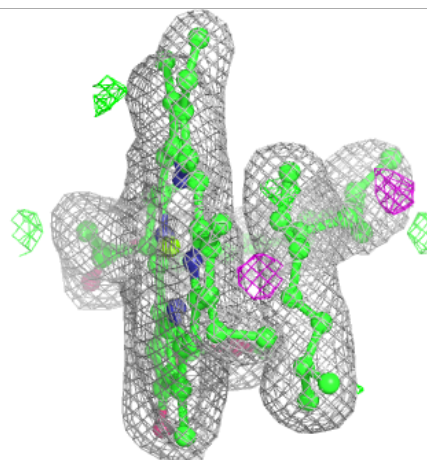
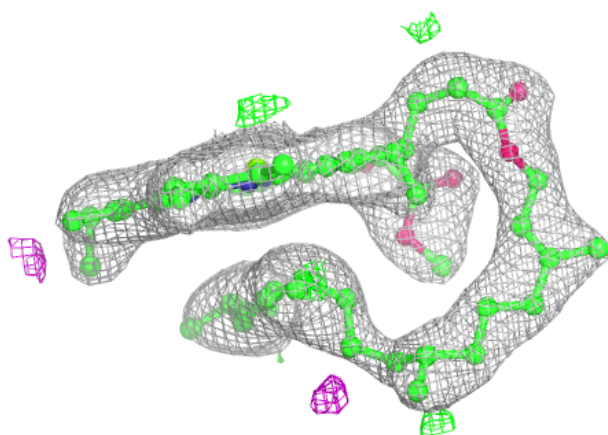
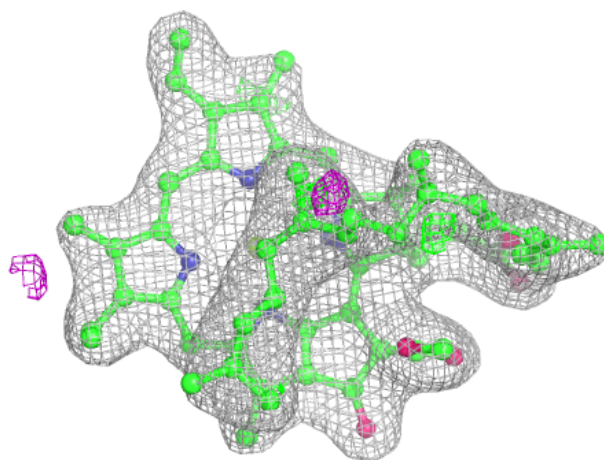
Electron density around CLA c 509:

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



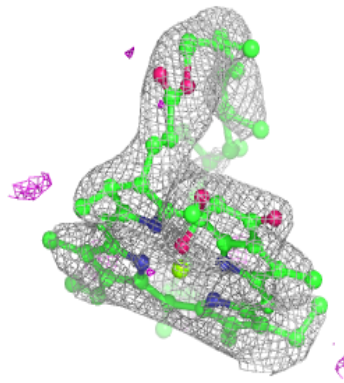
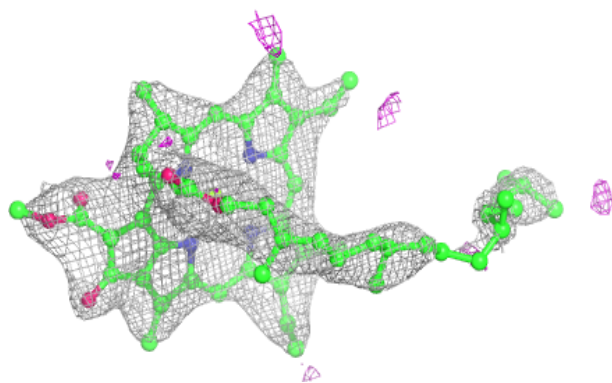
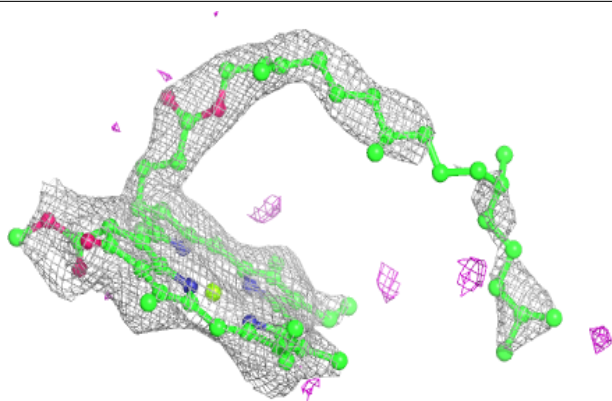
Electron density around CLA C 511:

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



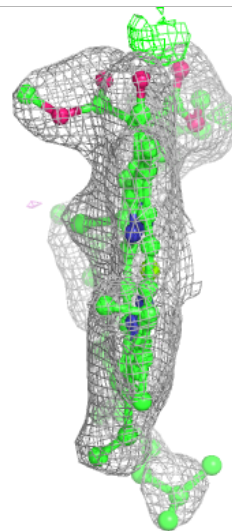
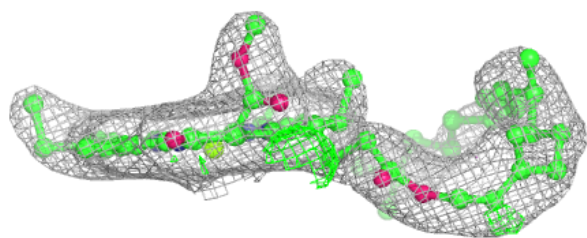
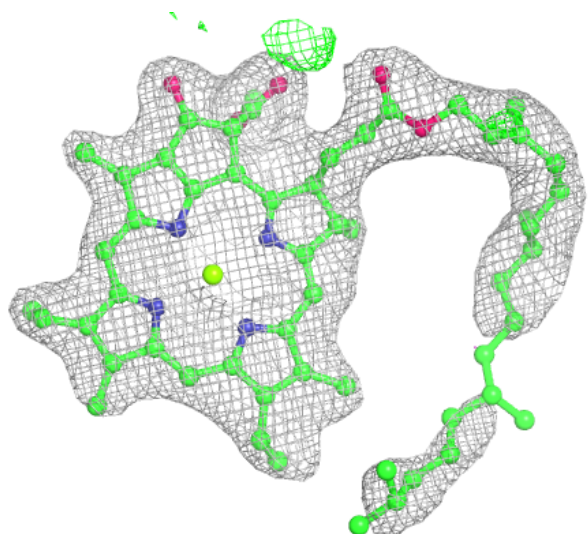
Electron density around CLA c 515:

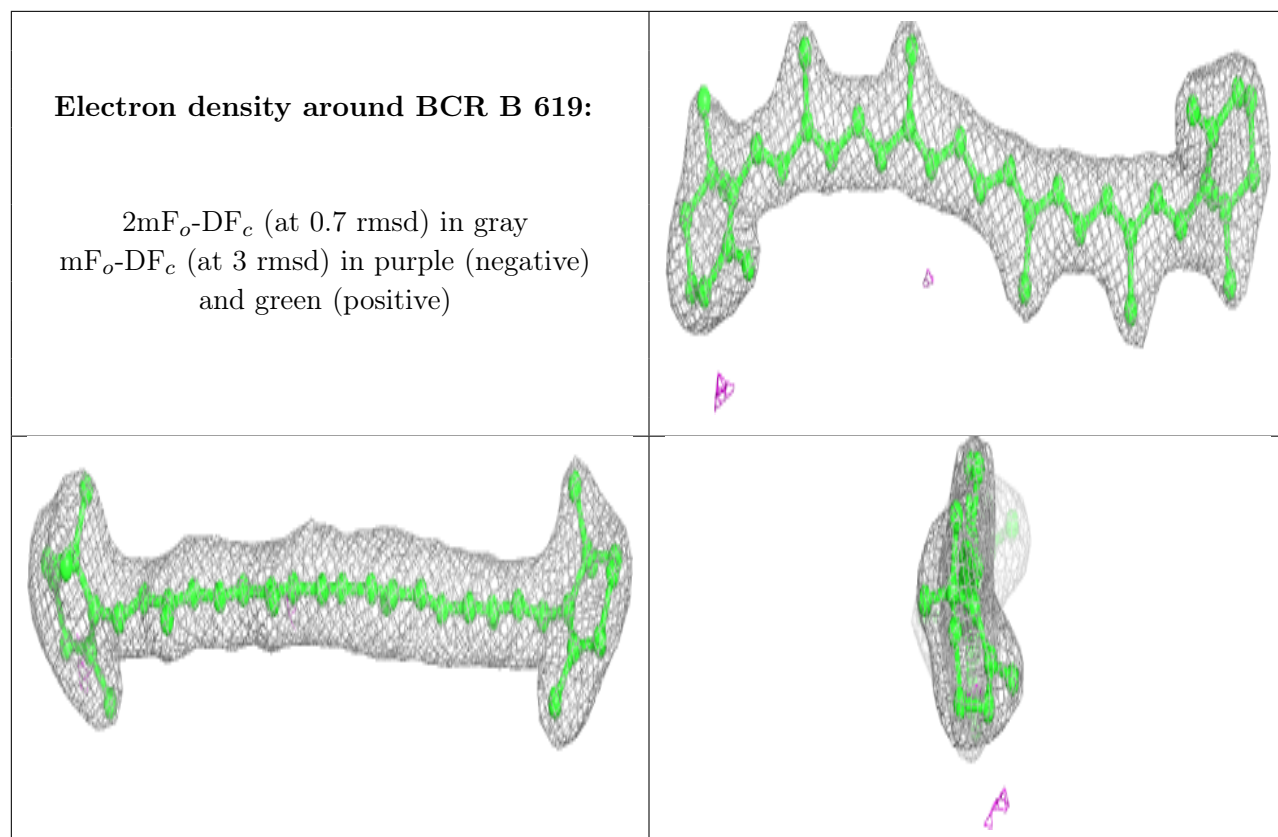
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA C 513:

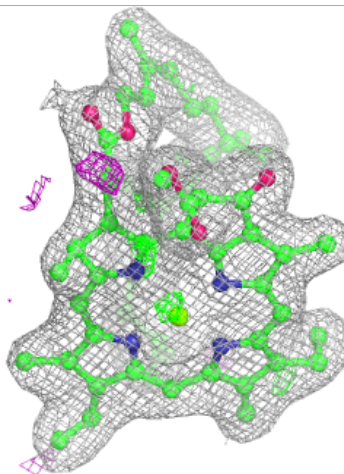
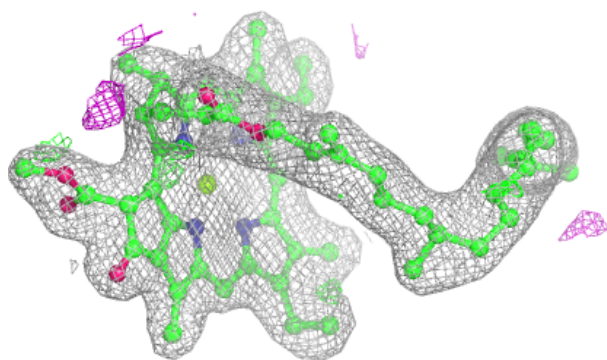
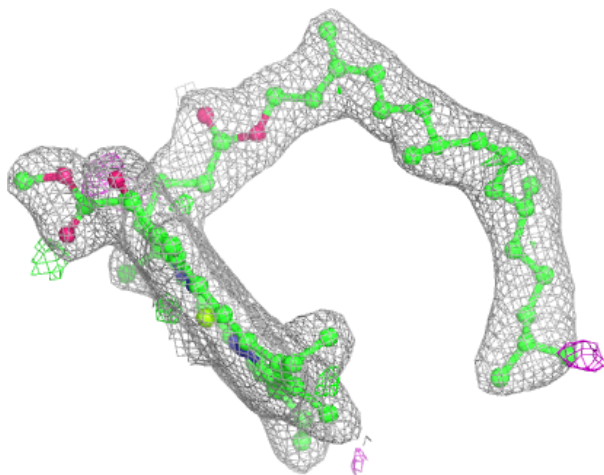
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

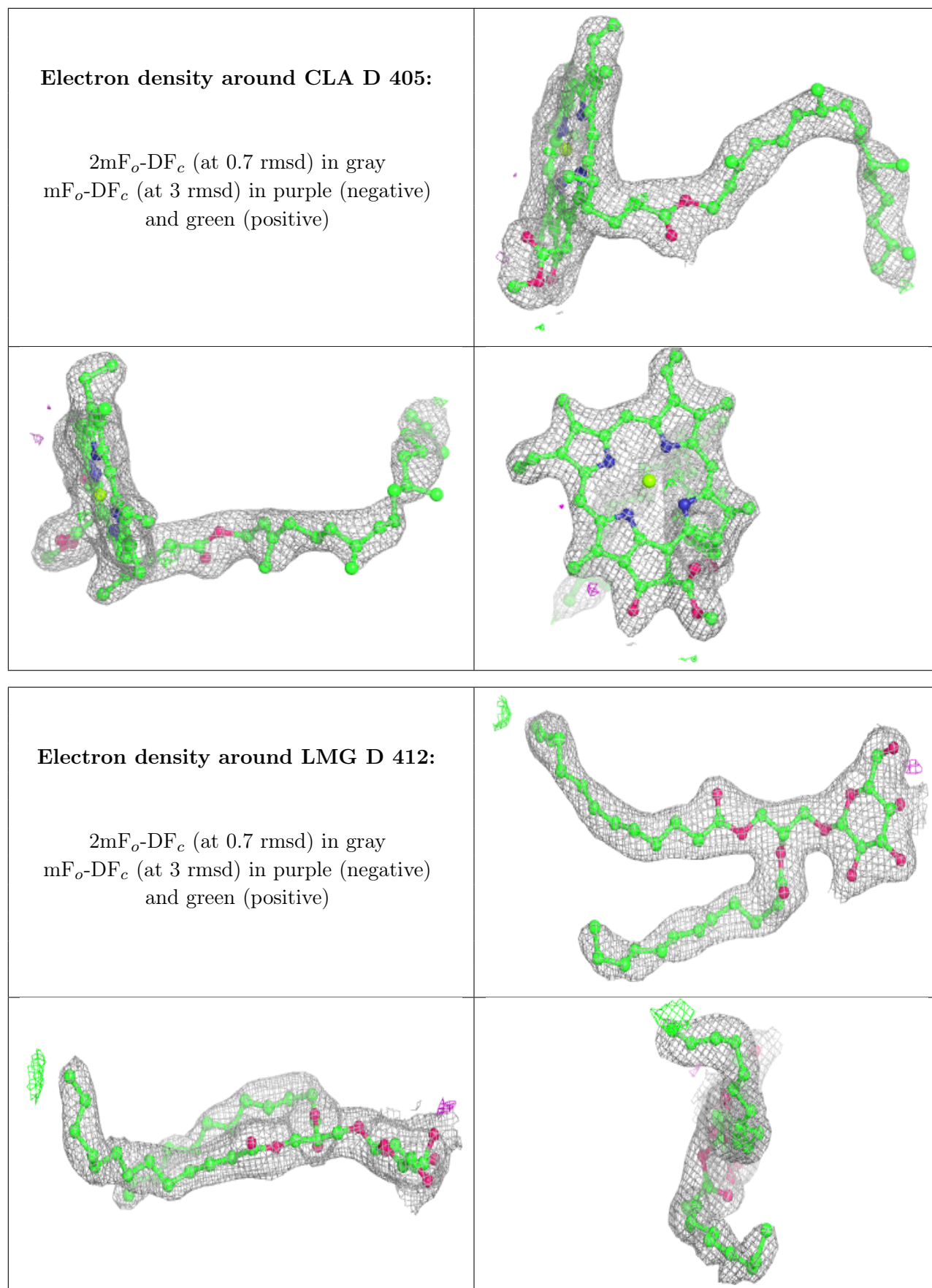


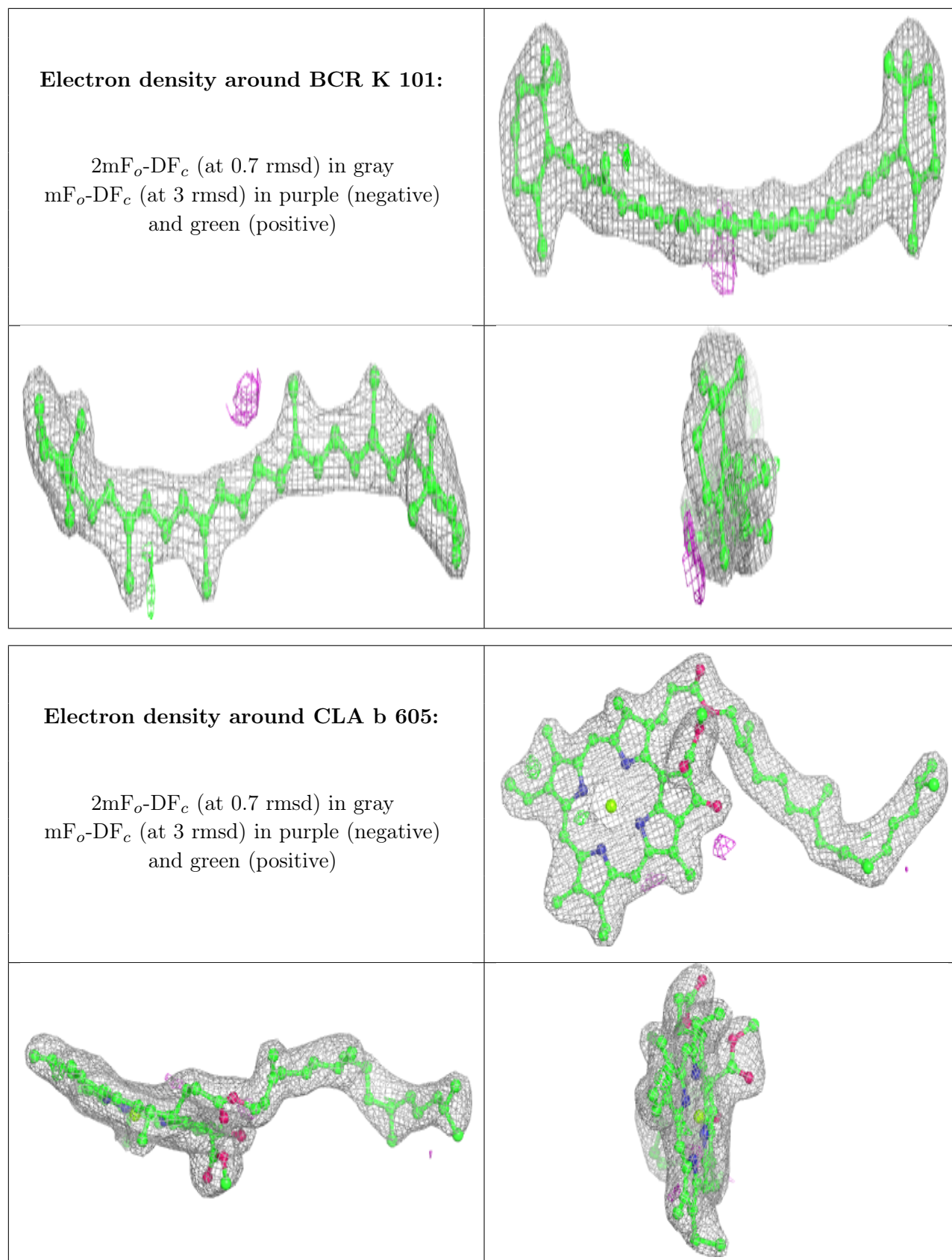


Electron density around CLA B 612:

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

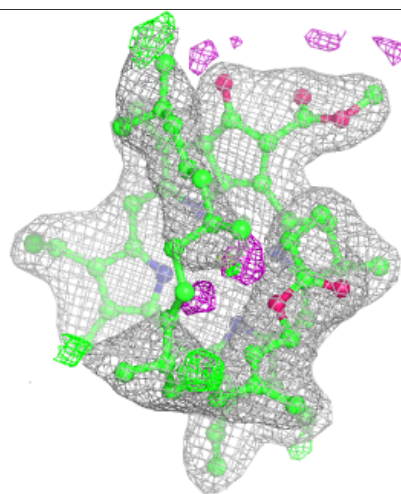
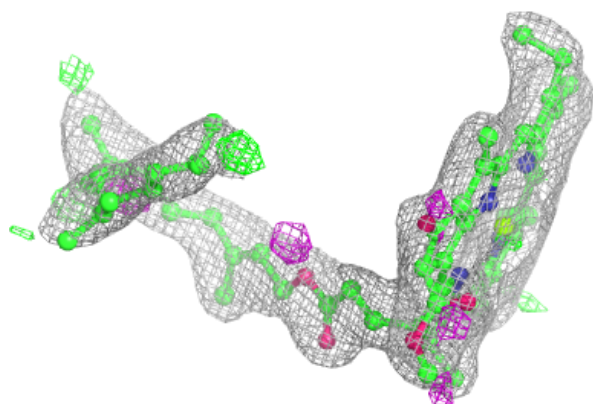
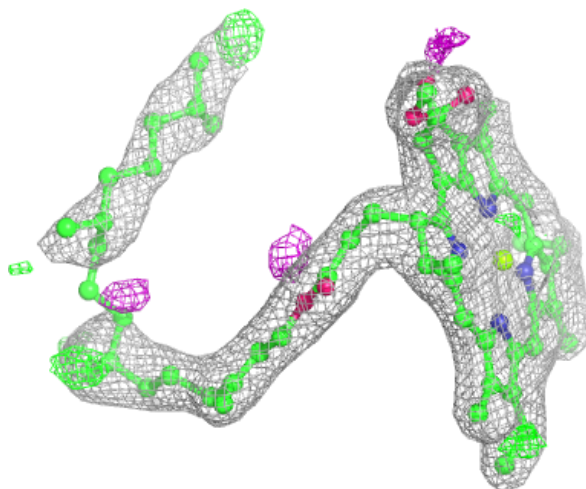






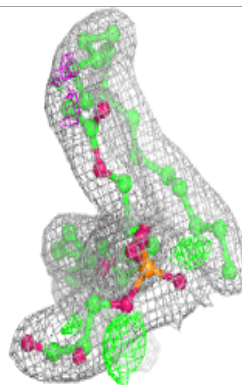
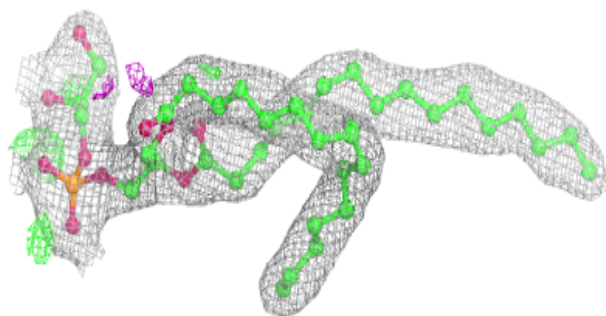
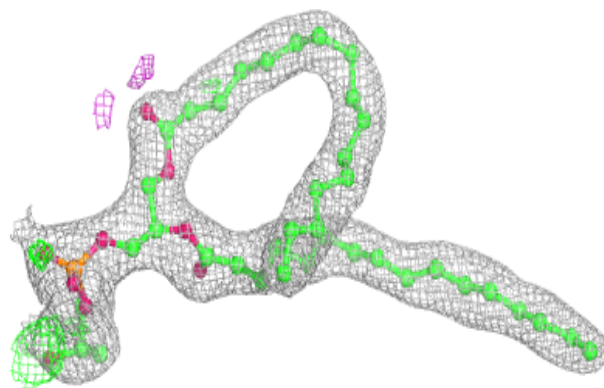
Electron density around CLA b 609:

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

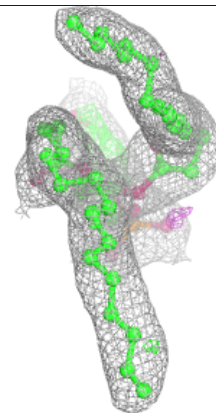
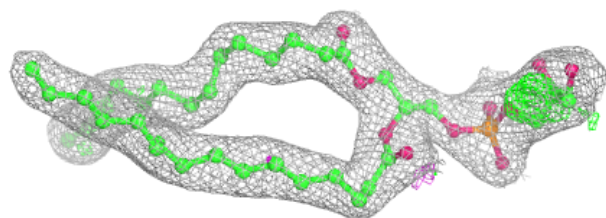
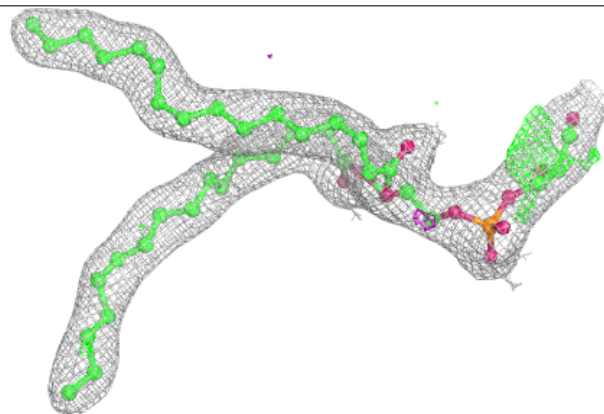


Electron density around LHG d 408:

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

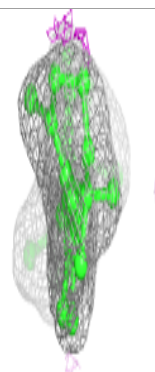
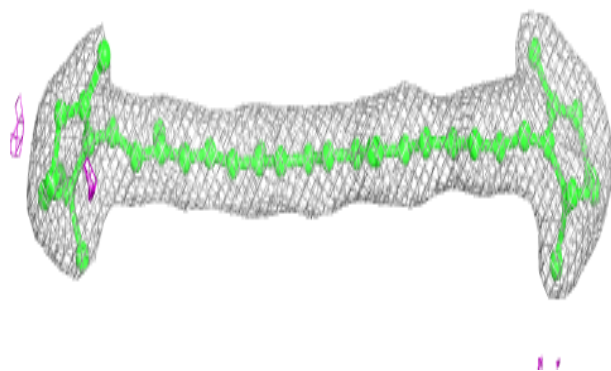
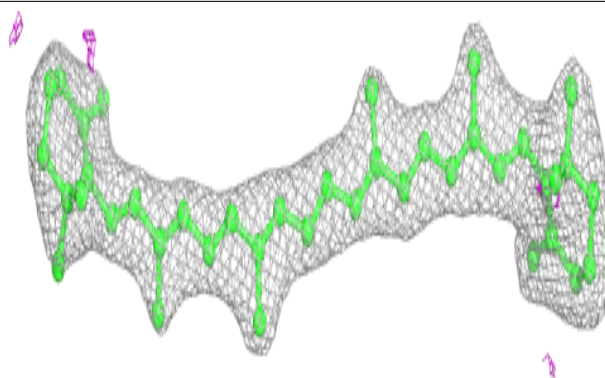
**Electron density around LHG d 409:**

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

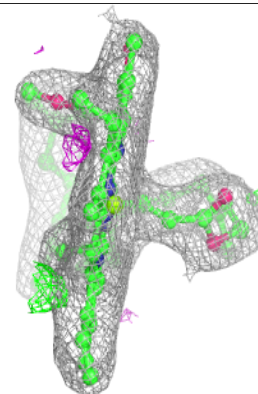
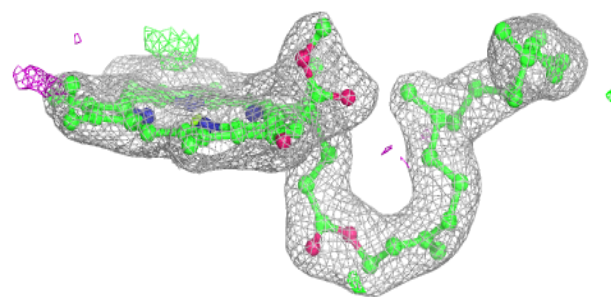
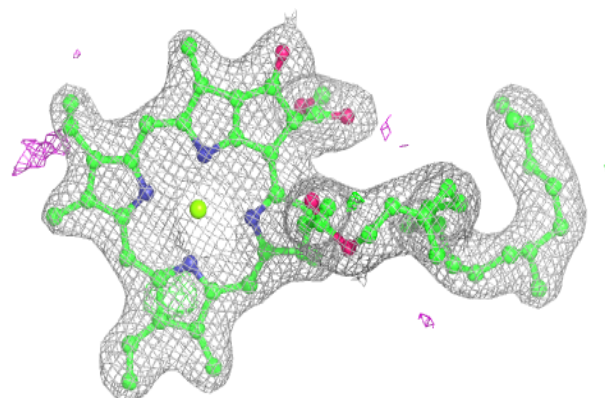


Electron density around BCR b 621:

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

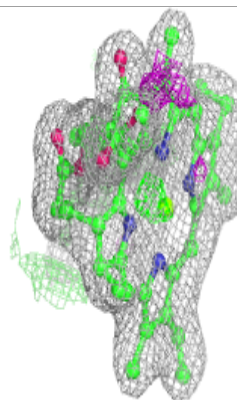
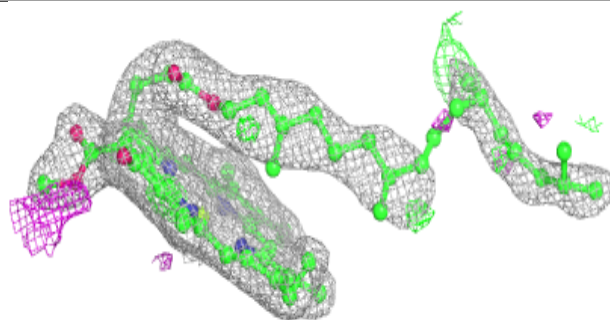
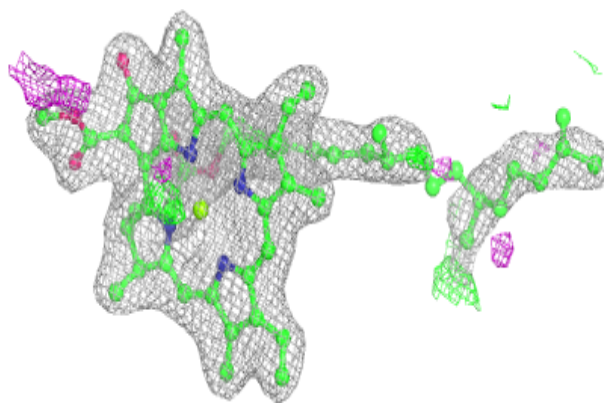
**Electron density around CLA b 615:**

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

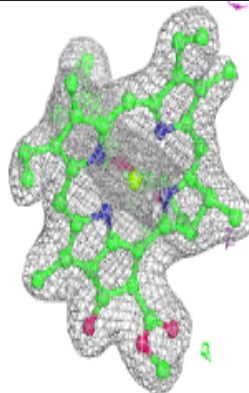
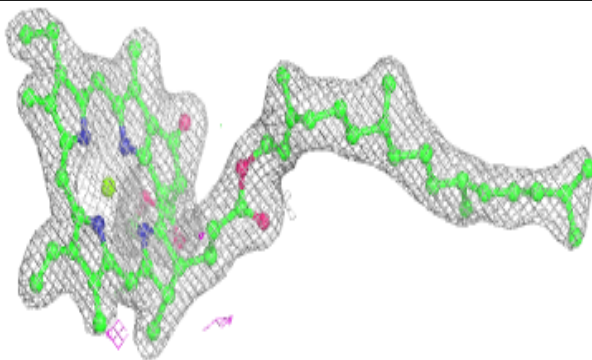
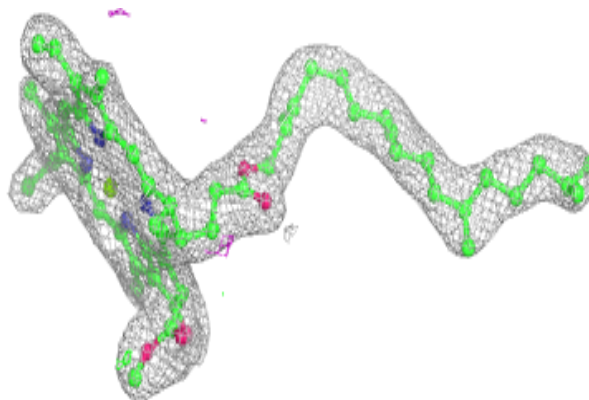


Electron density around CLA b 617:

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

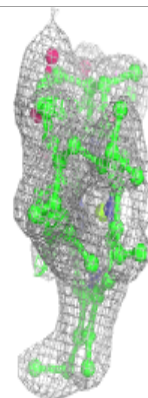
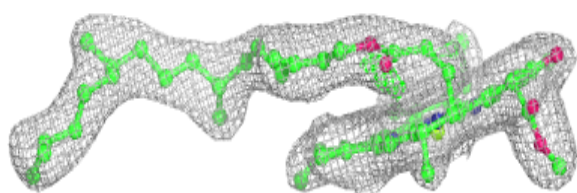
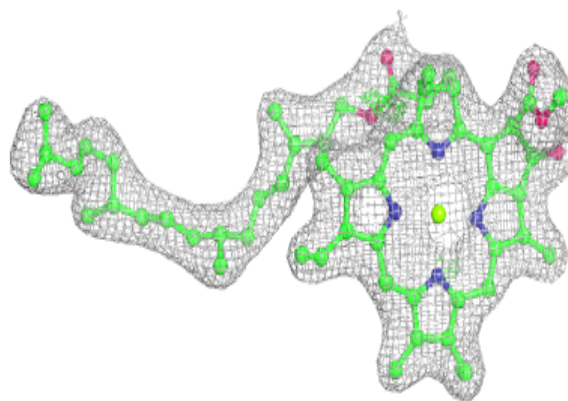
**Electron density around CLA C 503:**

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

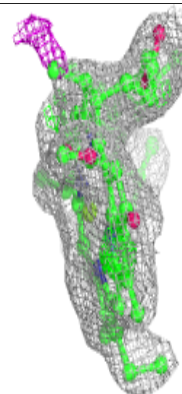
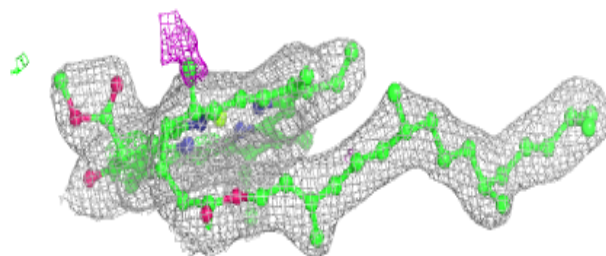
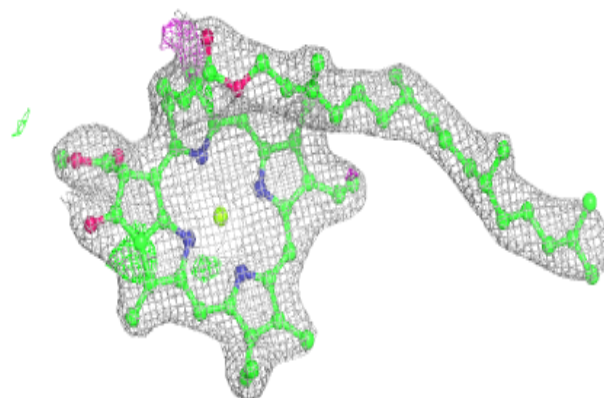


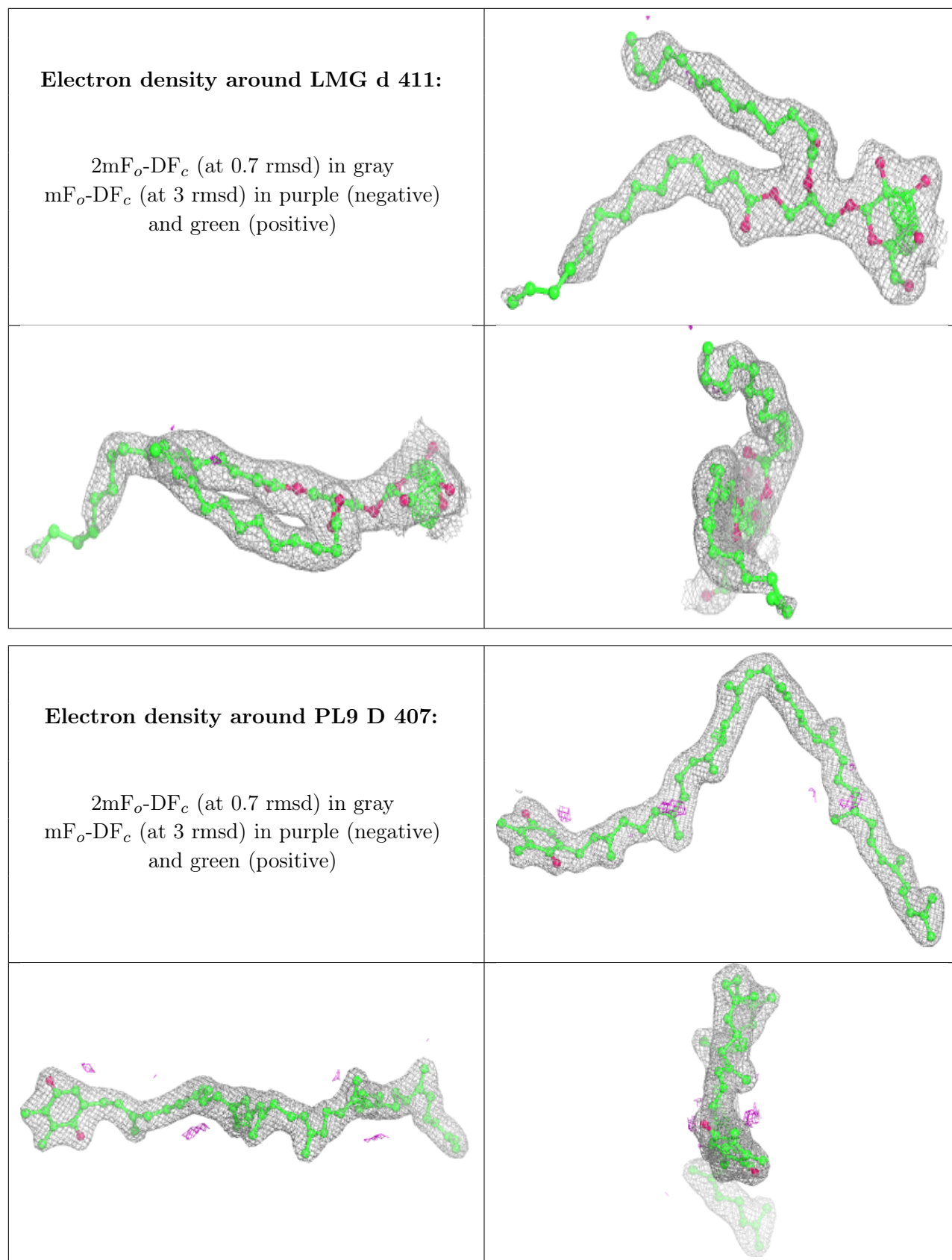
Electron density around CLA B 604:

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

**Electron density around CLA c 503:**

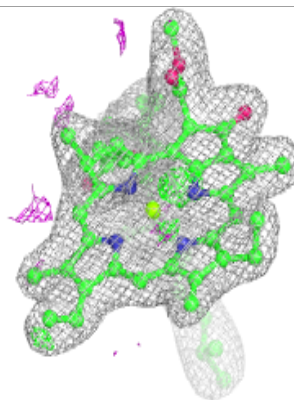
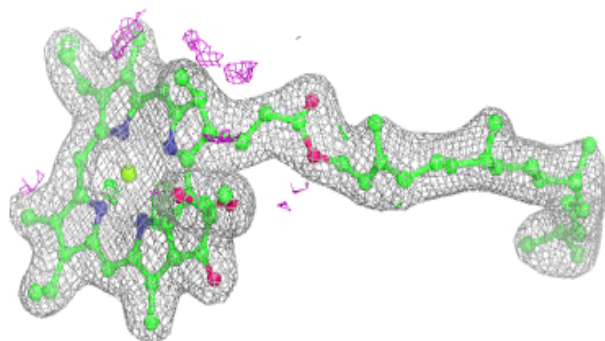
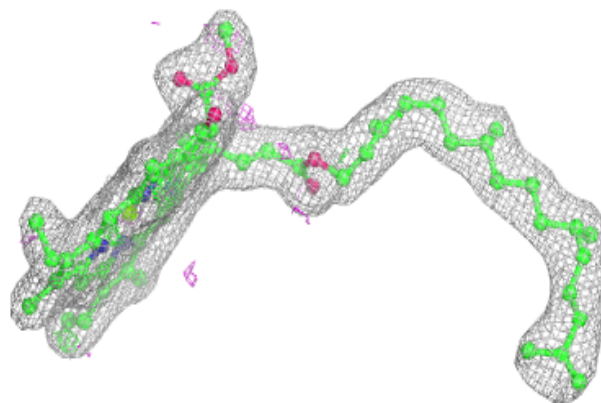
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



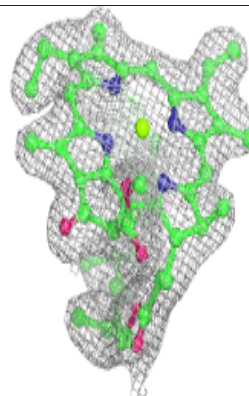
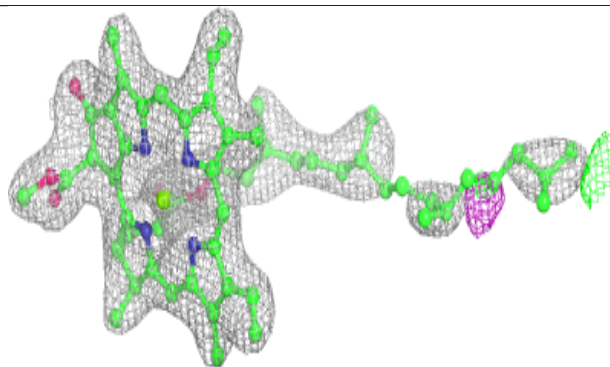
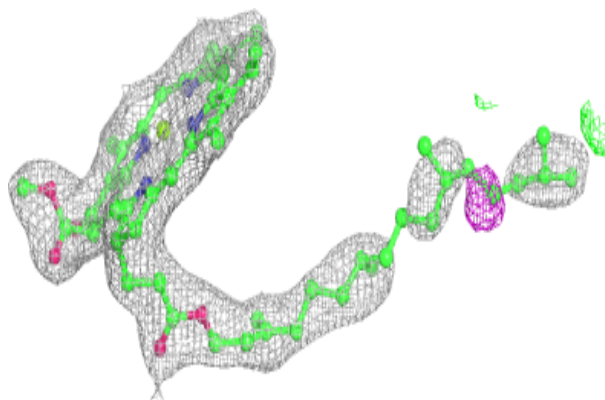


Electron density around CLA D 404:

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

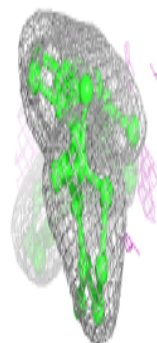
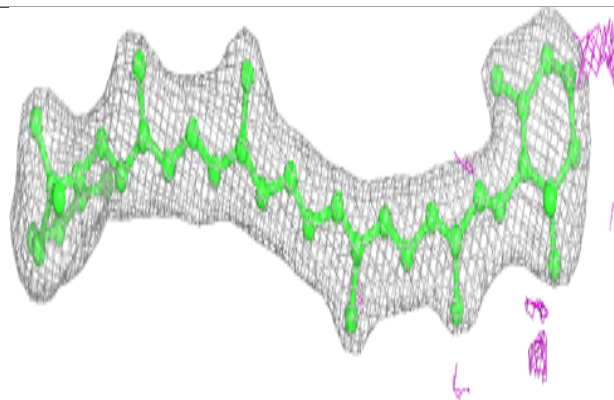
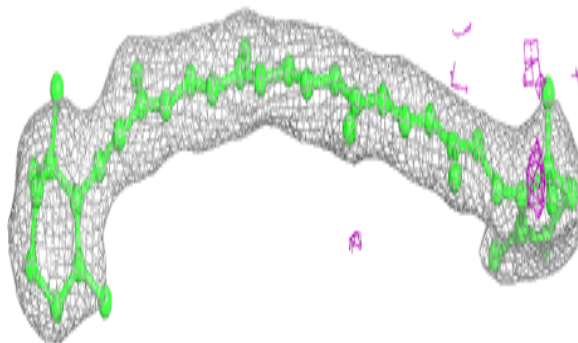
**Electron density around CLA C 505:**

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

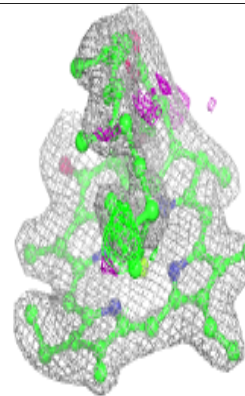
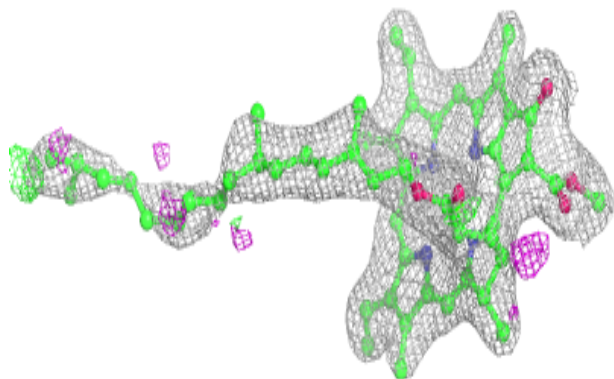
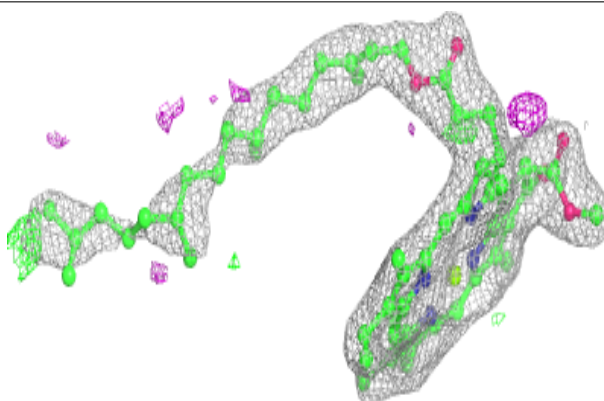


Electron density around BCR d 406:

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

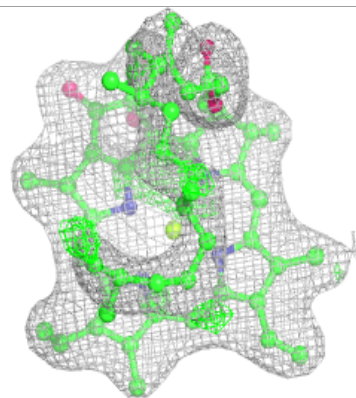
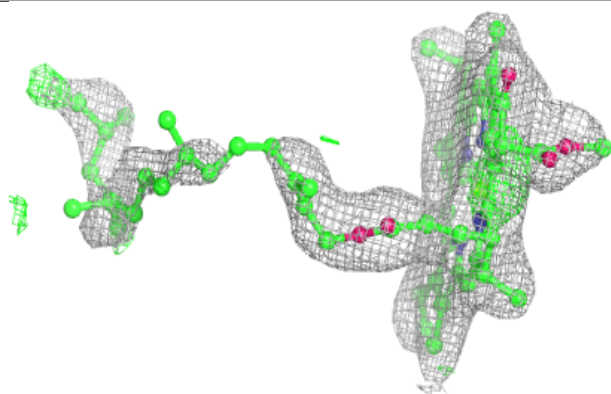
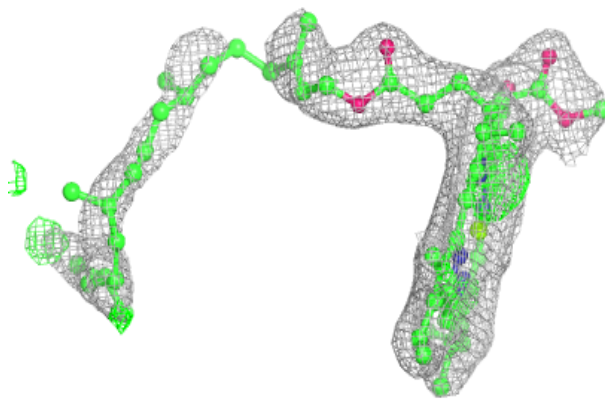
**Electron density around CLA c 506:**

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



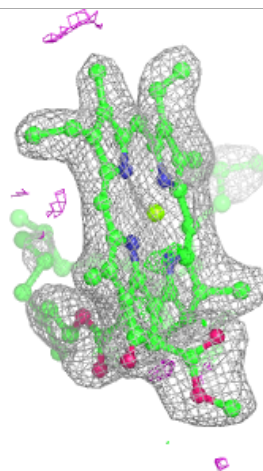
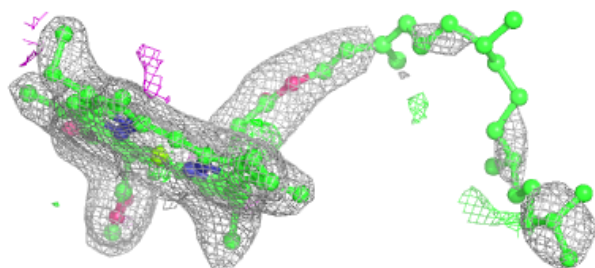
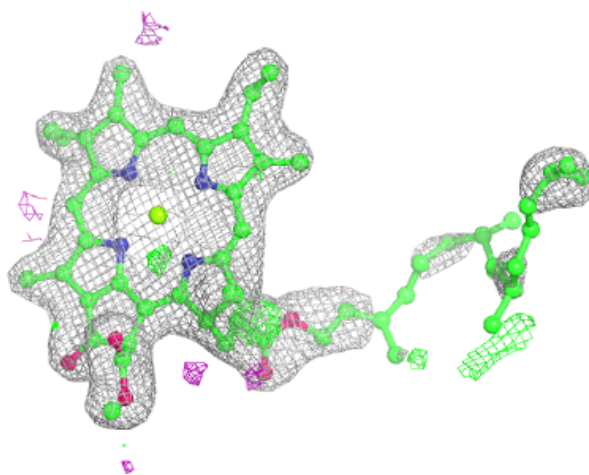
Electron density around CLA c 508:

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



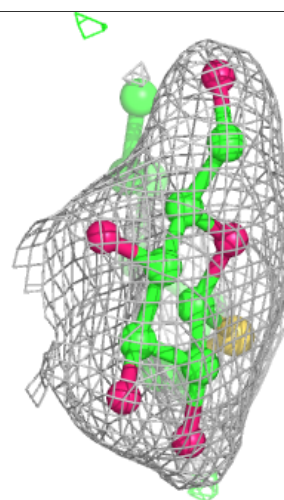
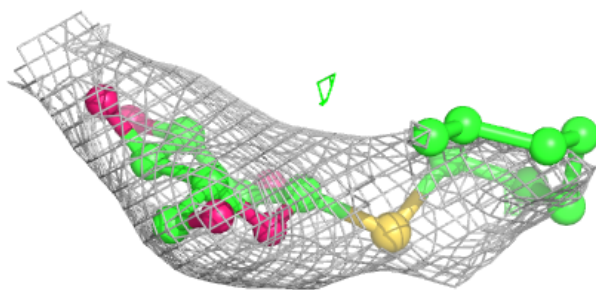
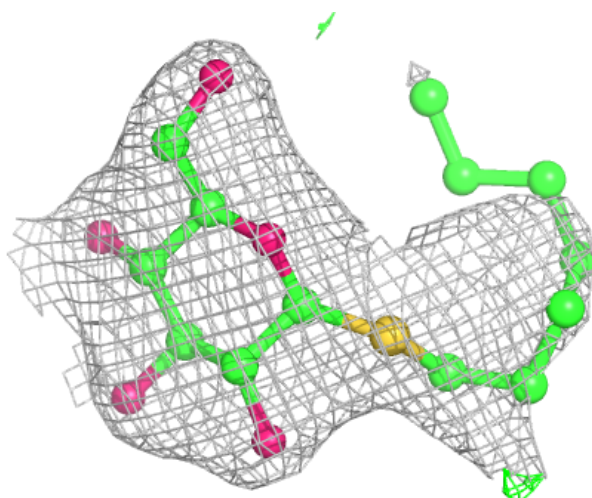
Electron density around CLA a 2113:

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



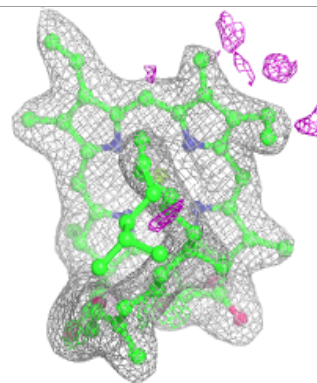
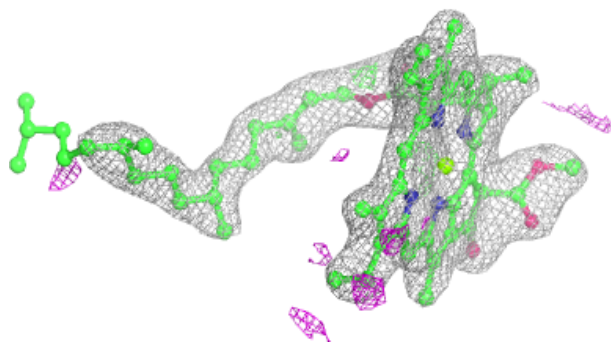
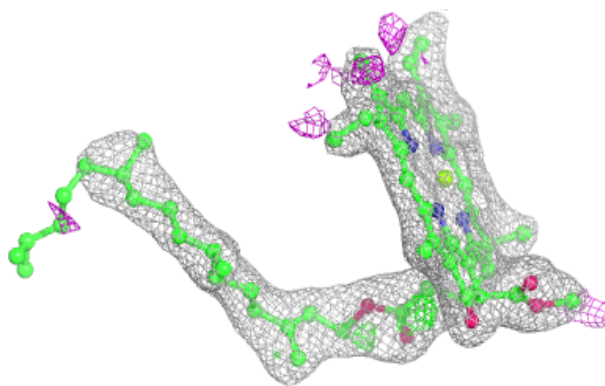
Electron density around HTG V 204:

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



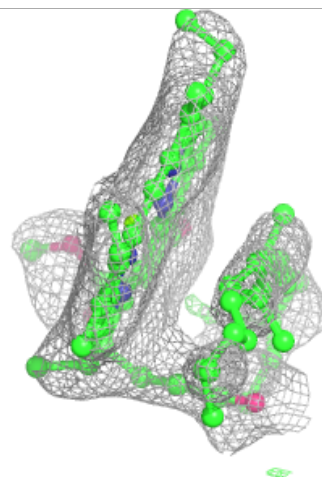
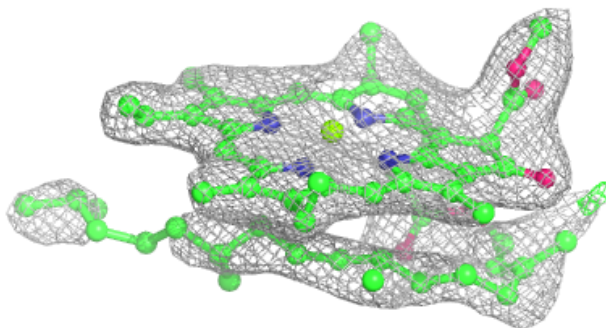
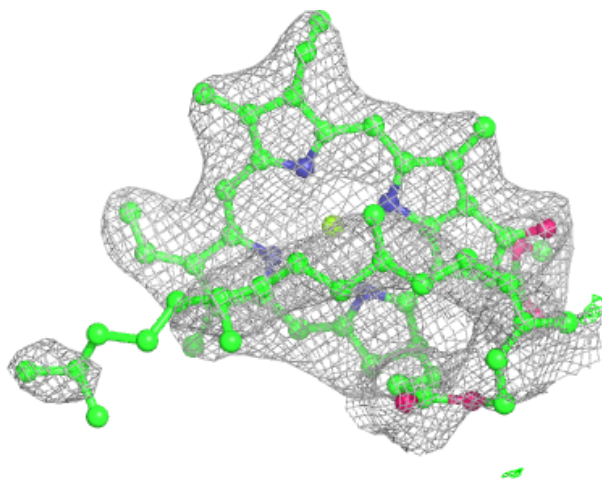
Electron density around CLA c 510:

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



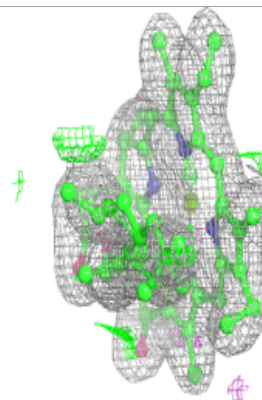
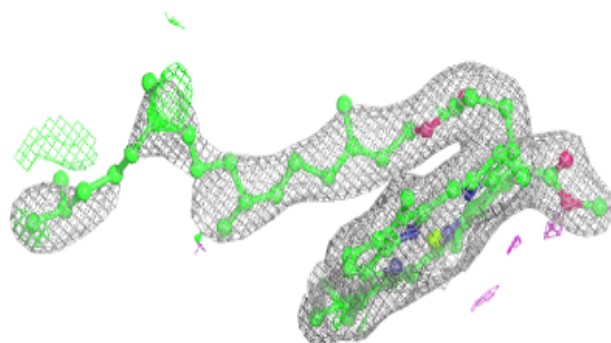
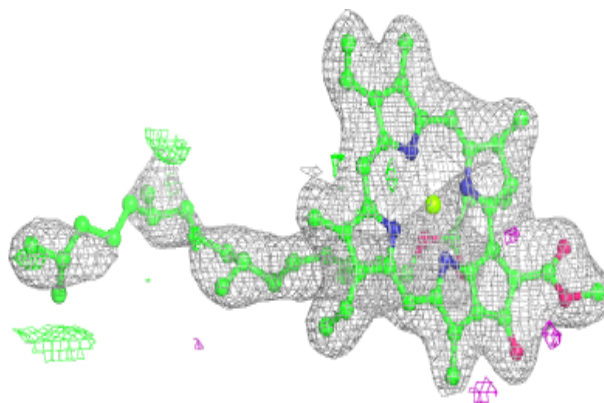
Electron density around CLA b 604:

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

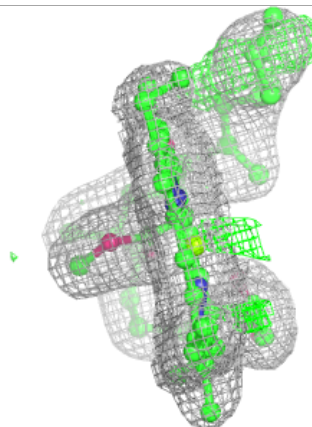
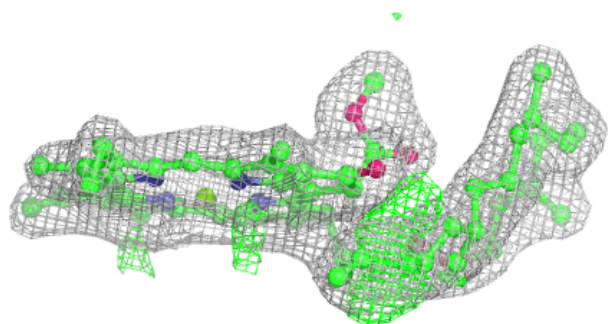
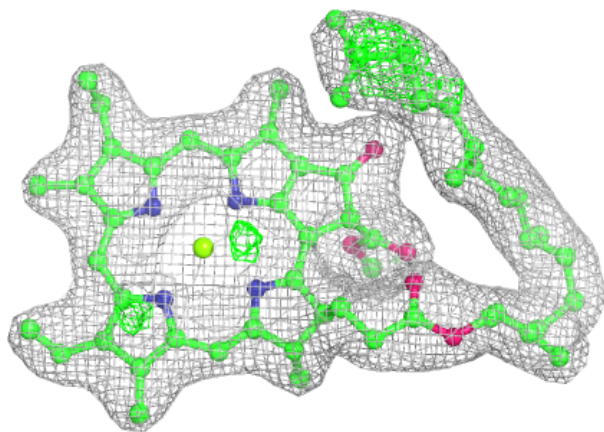


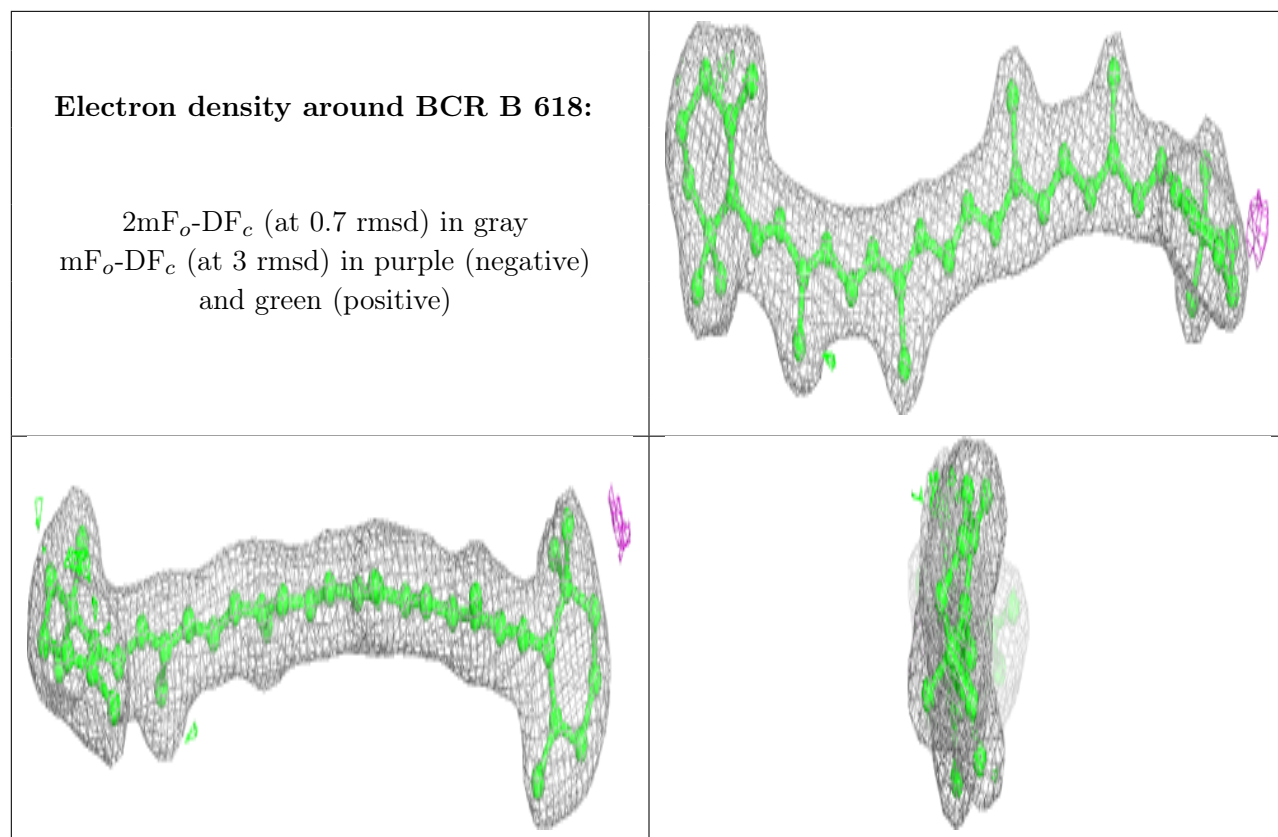
Electron density around CLA B 615:

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

**Electron density around CLA B 611:**

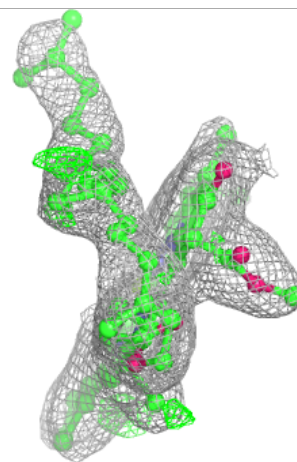
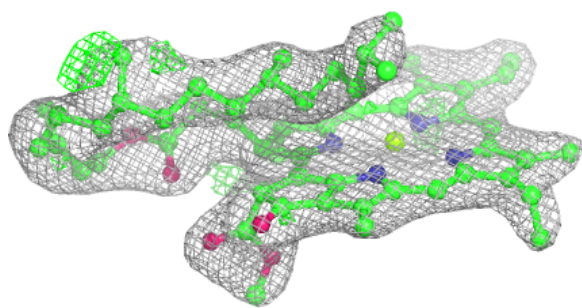
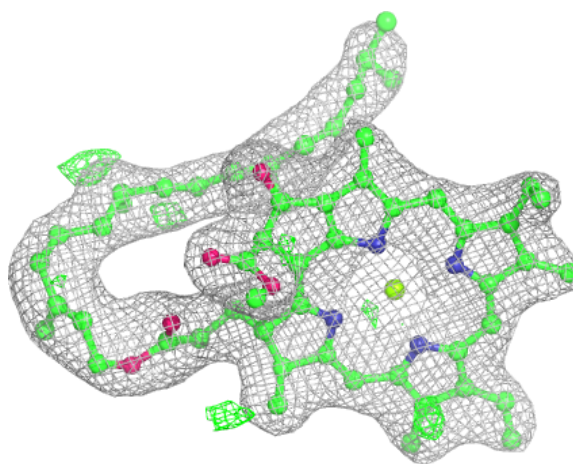
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

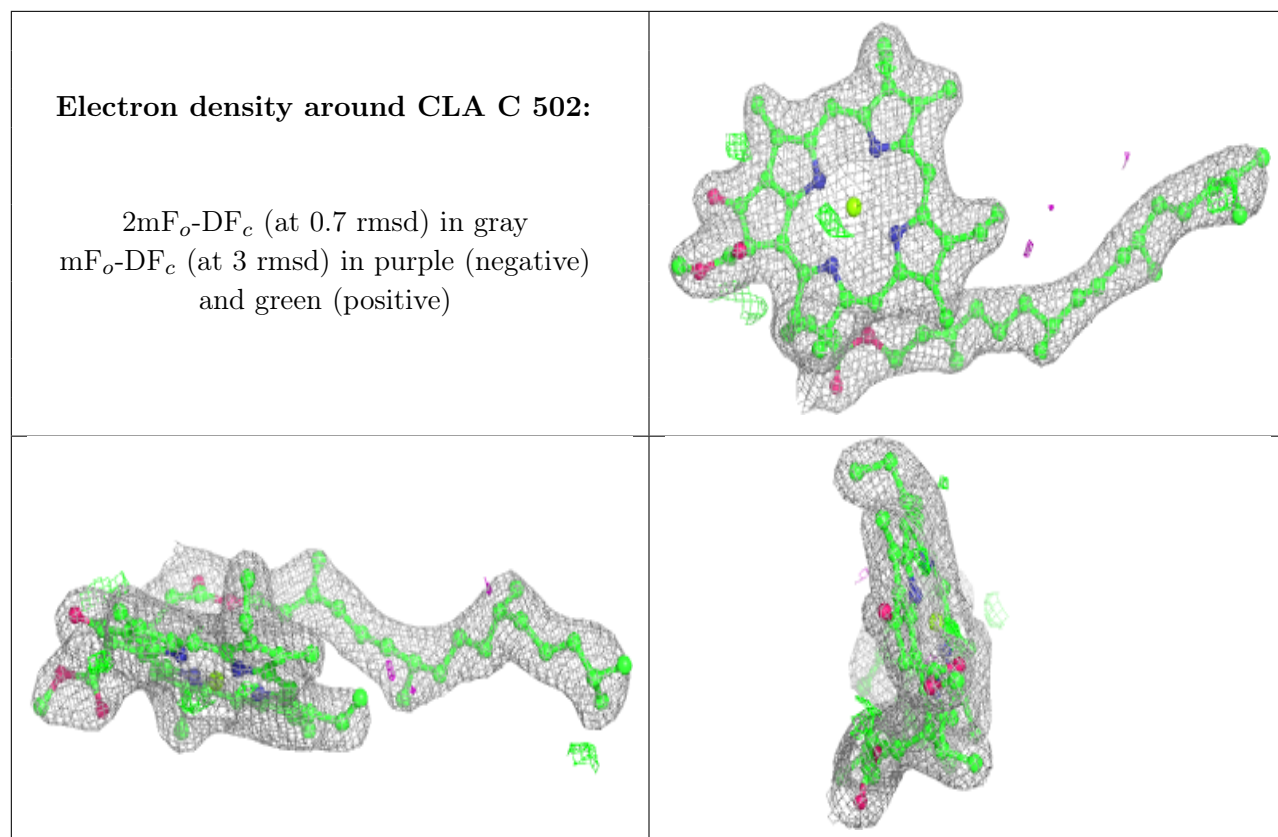




Electron density around CLA C 510:

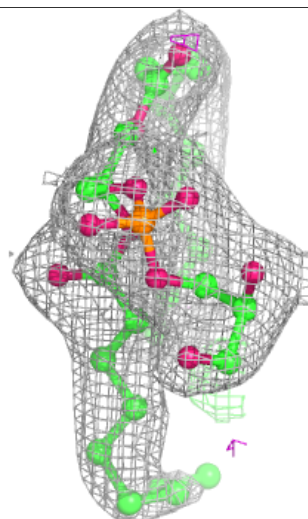
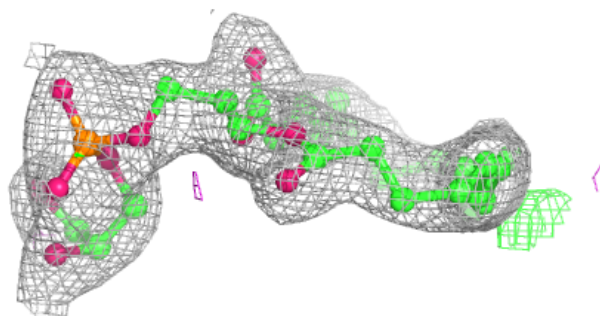
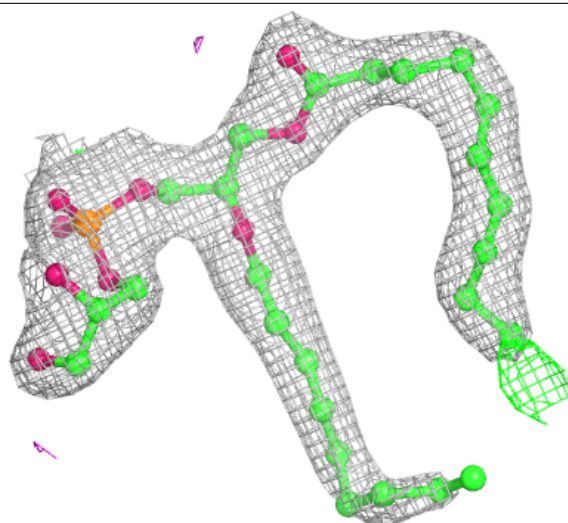
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





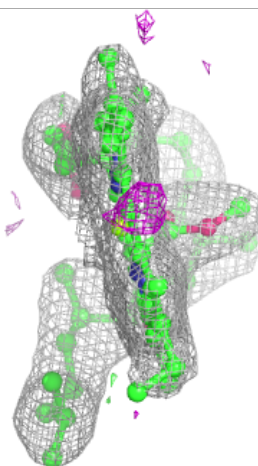
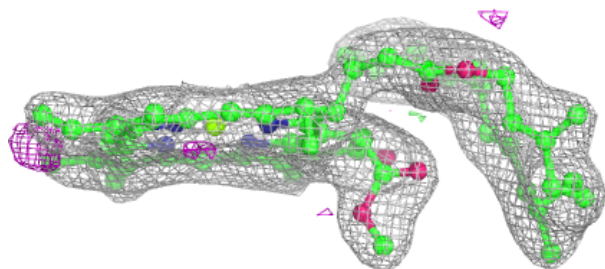
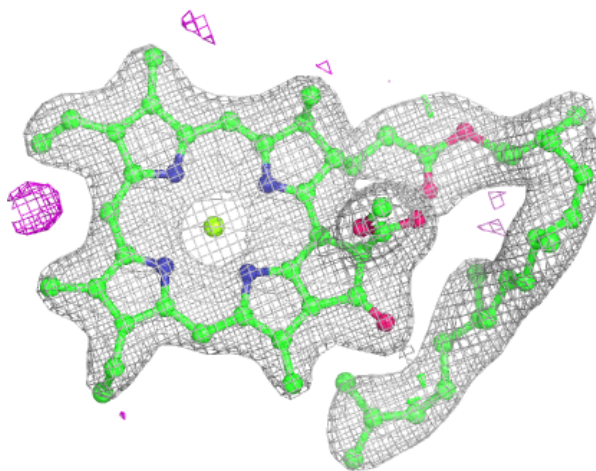
Electron density around LHG d 410:

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



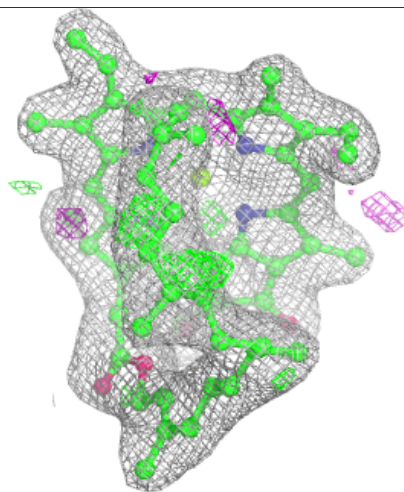
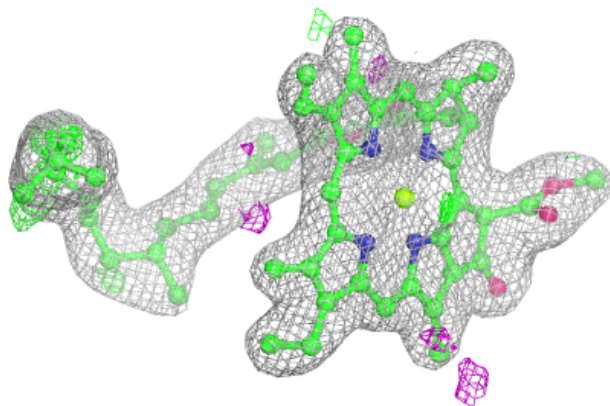
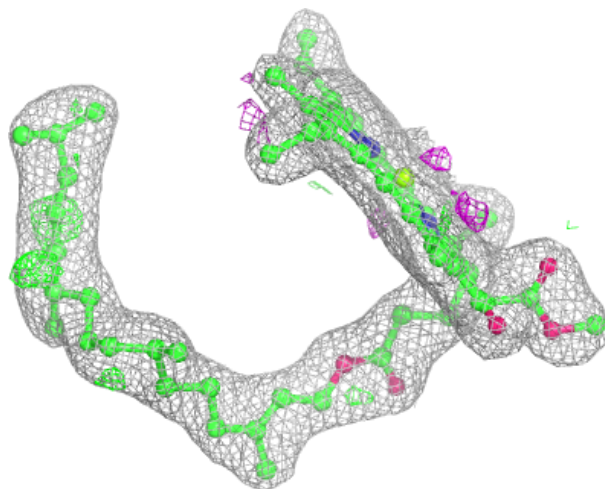
Electron density around CLA b 613:

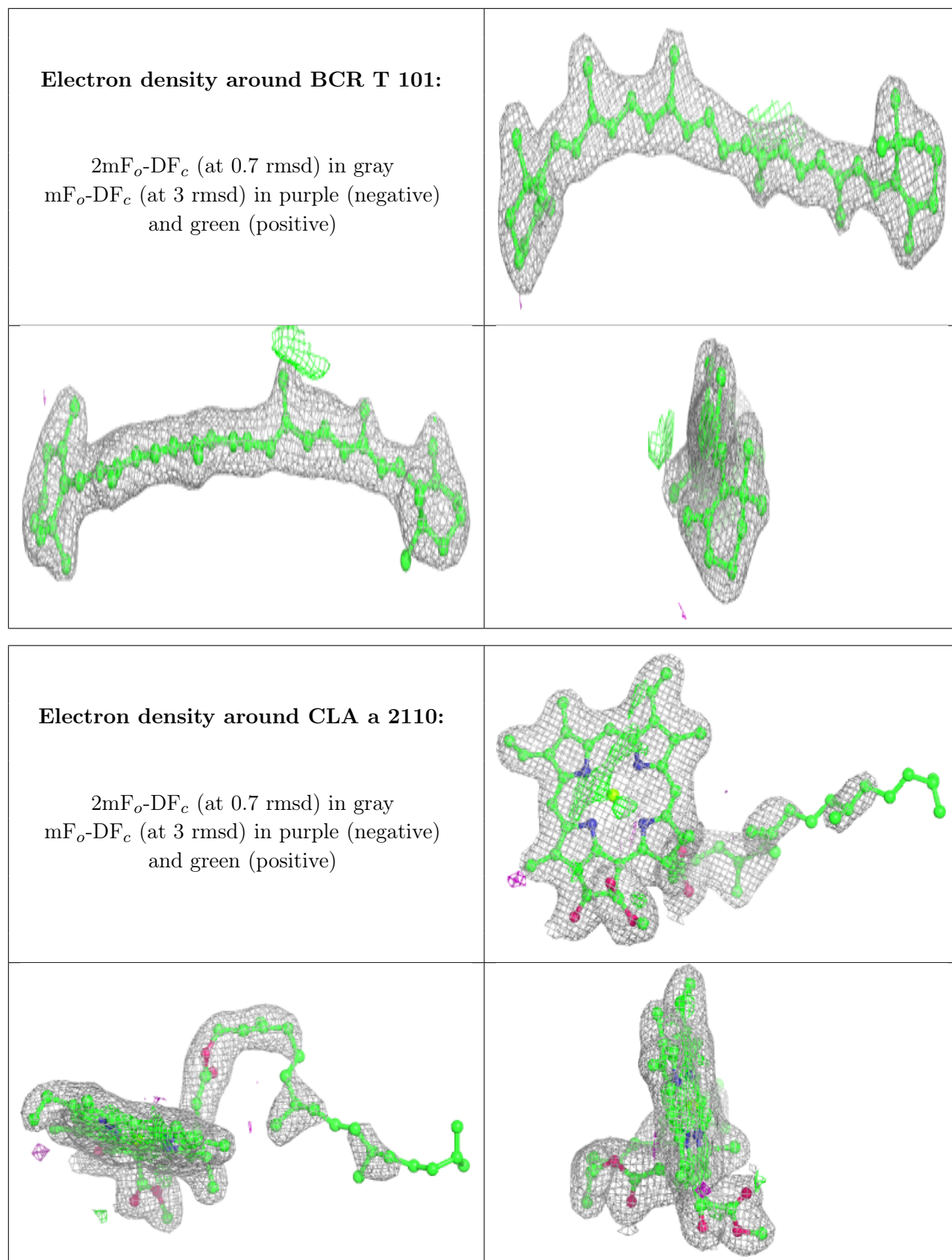
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CLA b 614:

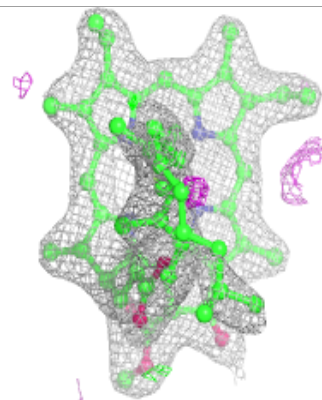
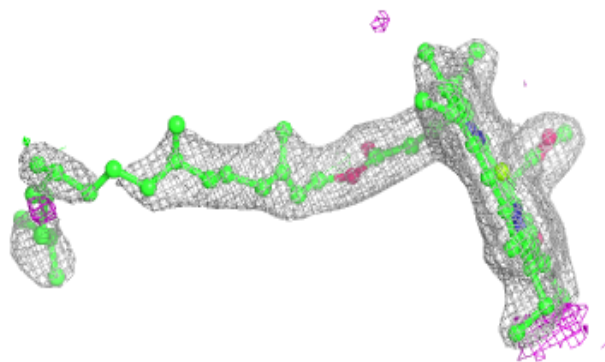
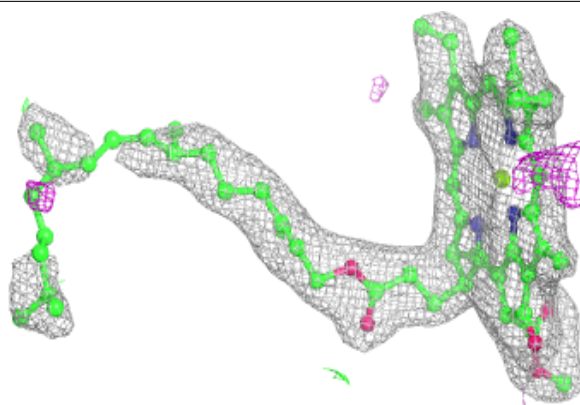
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





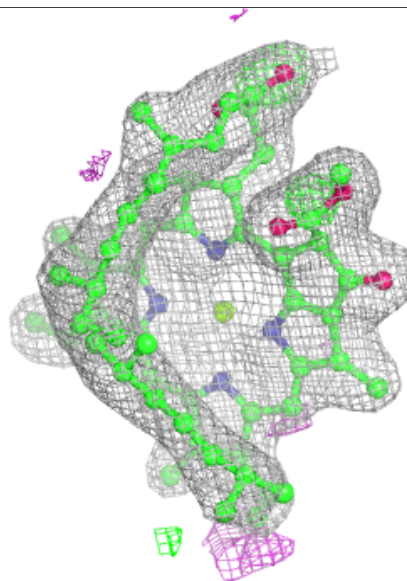
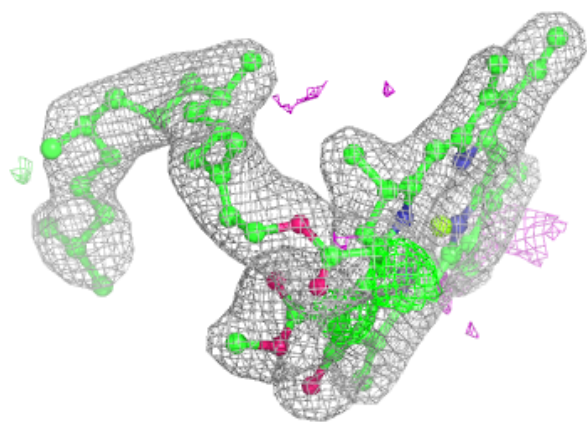
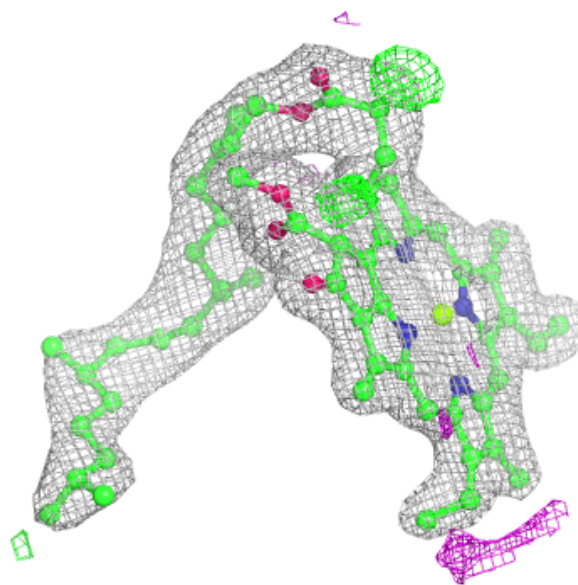
Electron density around CLA d 405:

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



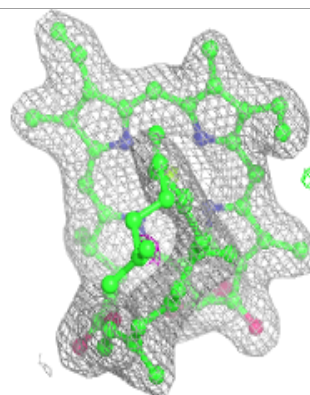
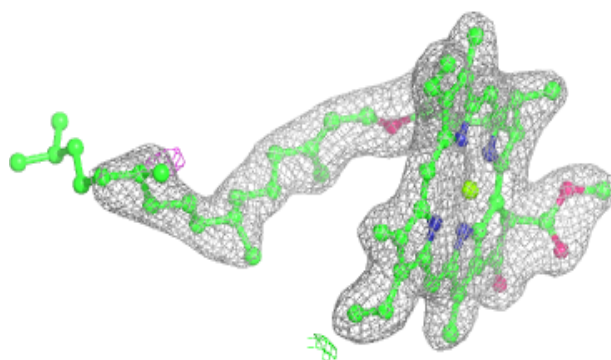
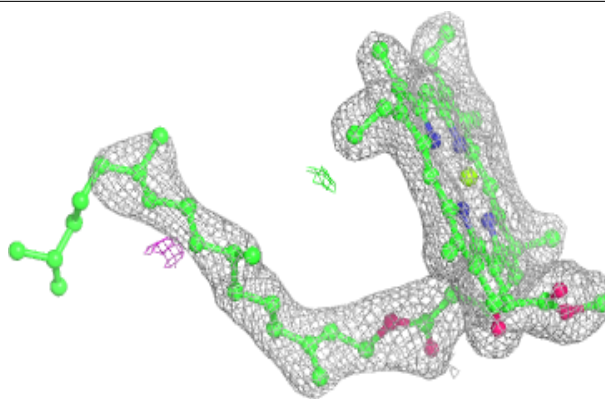
Electron density around CLA b 616:

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

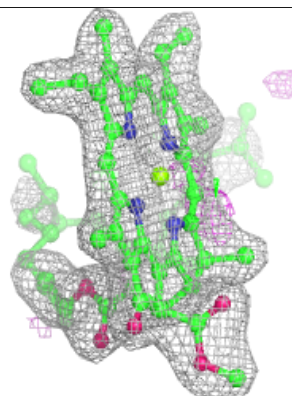
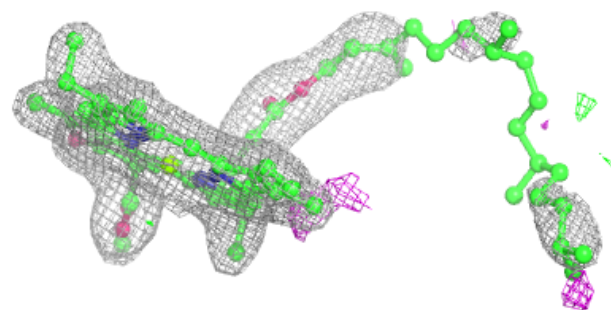
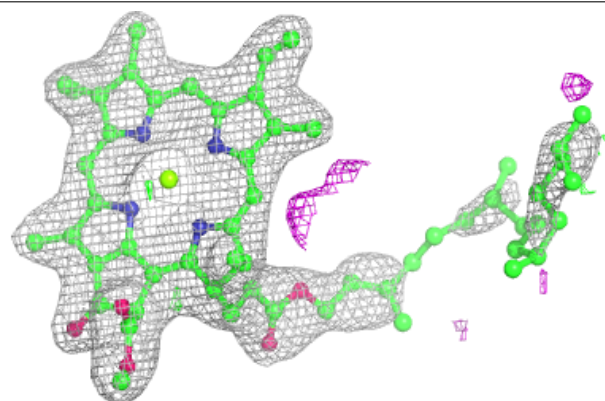


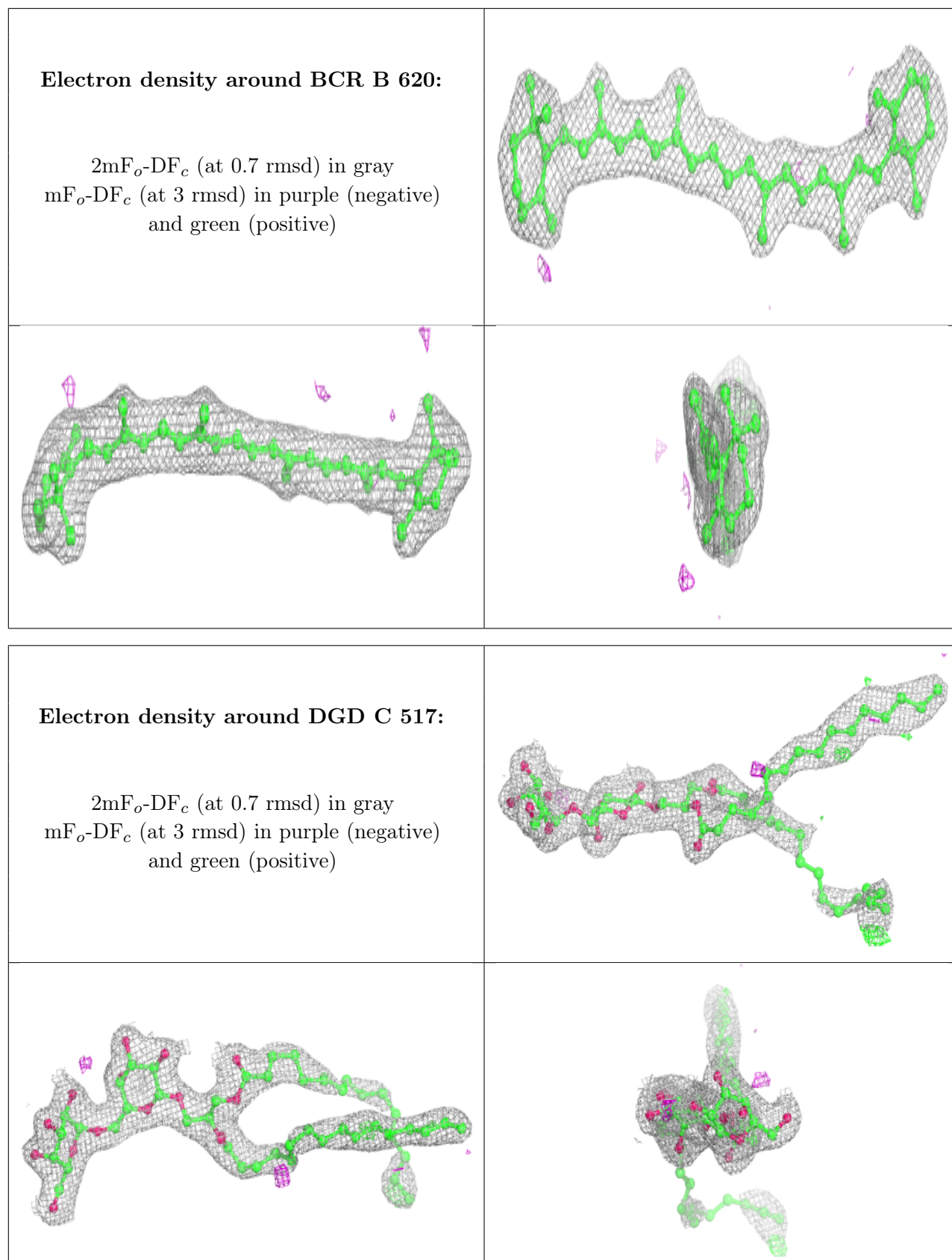
Electron density around CLA C 509:

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

**Electron density around CLA A 409:**

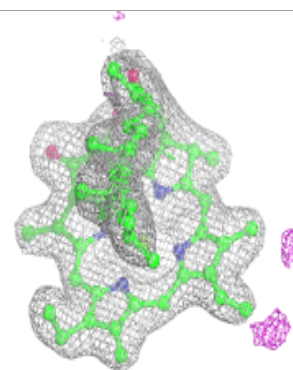
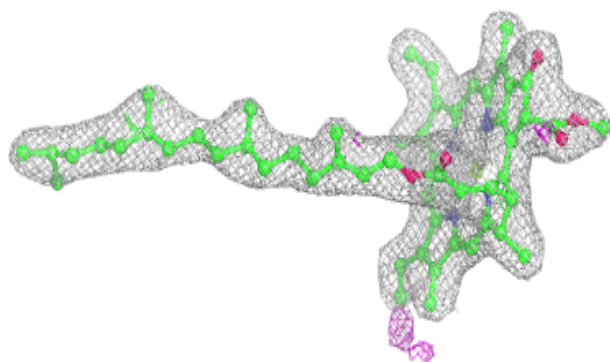
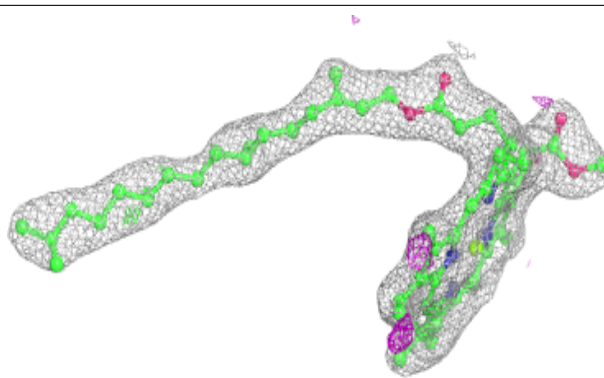
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



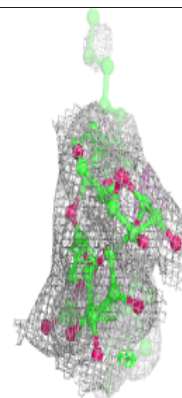
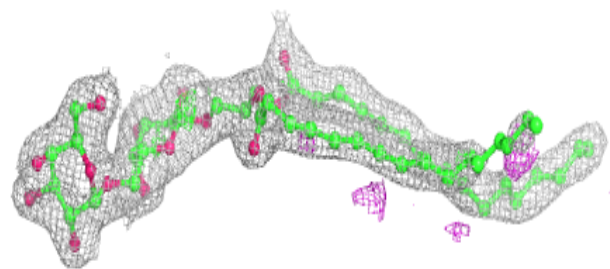
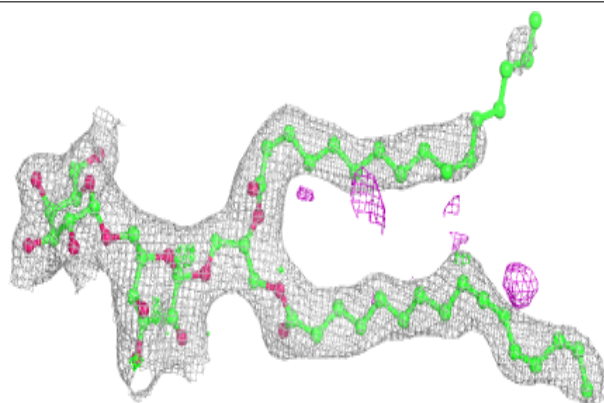


Electron density around CLA B 608:

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

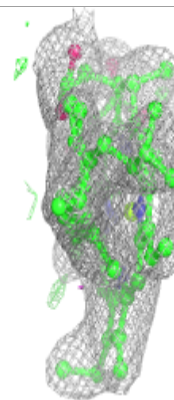
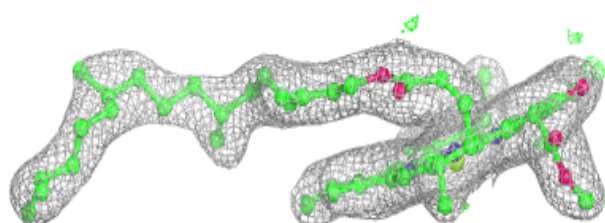
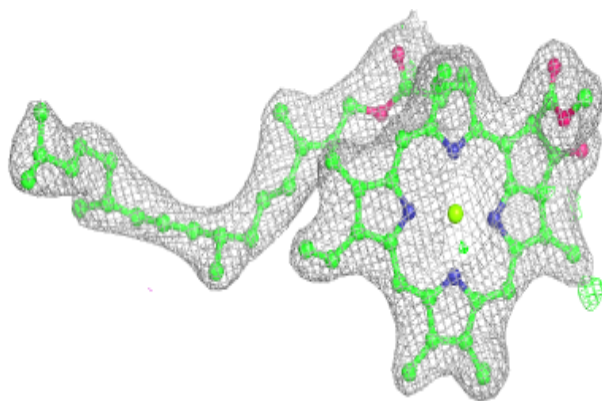
**Electron density around DGD C 519:**

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

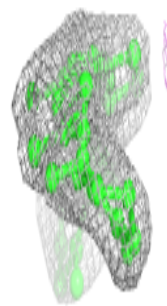
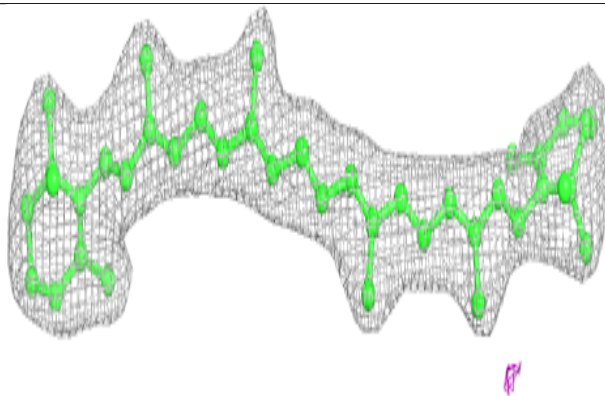
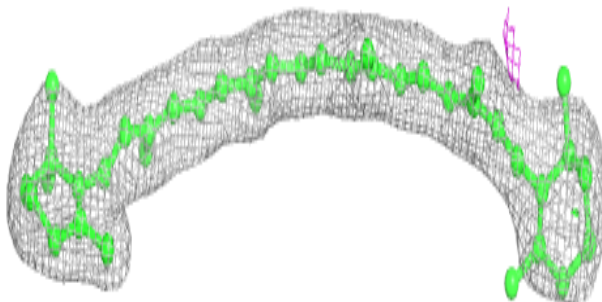


Electron density around CLA b 606:

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

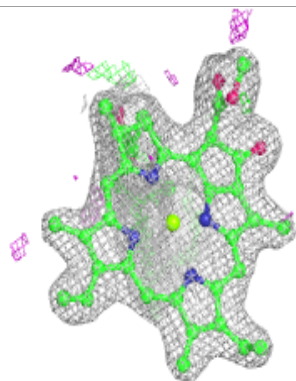
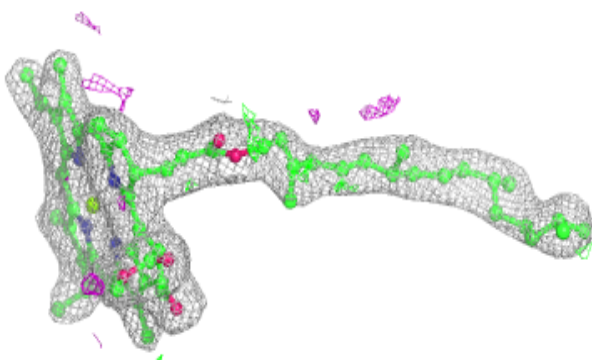
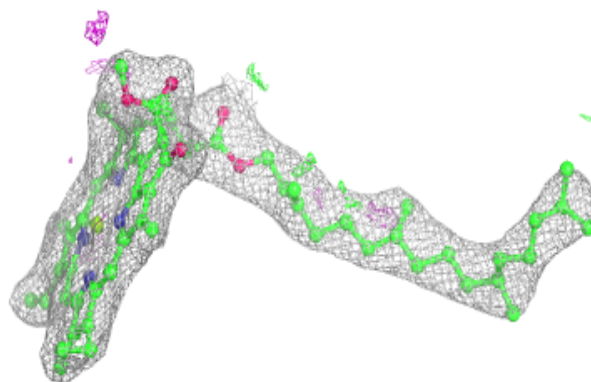
**Electron density around BCR D 406:**

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

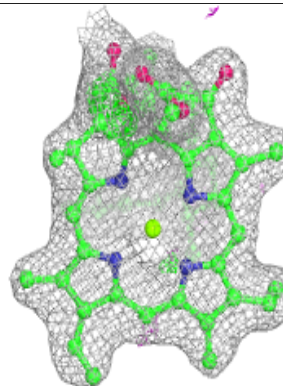
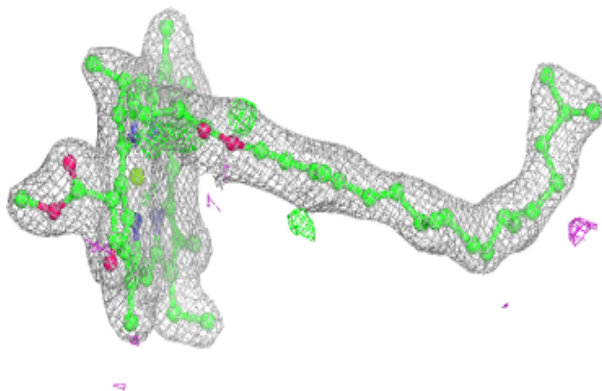
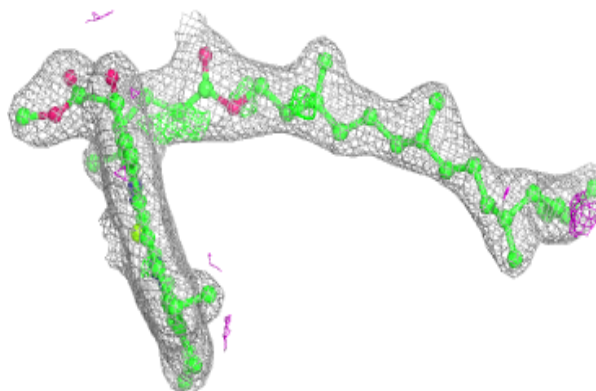


Electron density around CLA b 607:

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

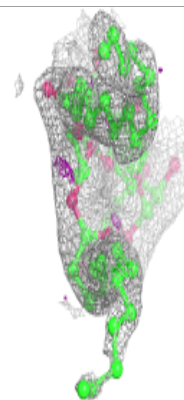
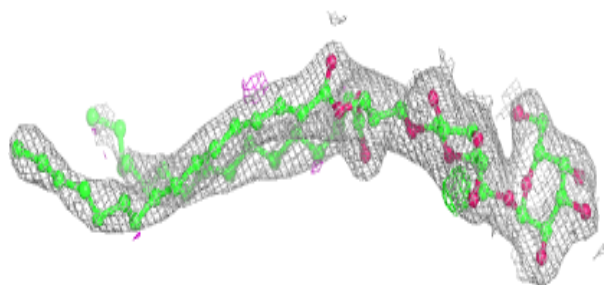
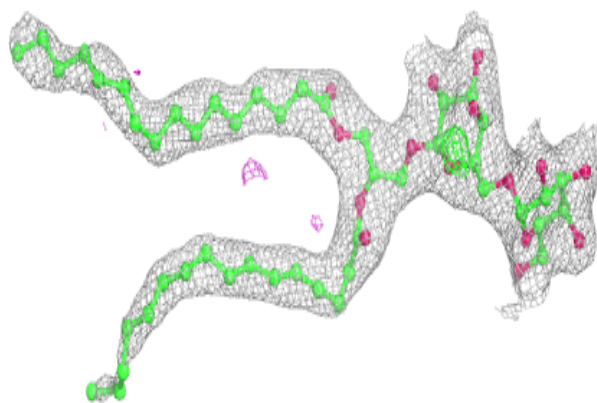
**Electron density around CLA b 608:**

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

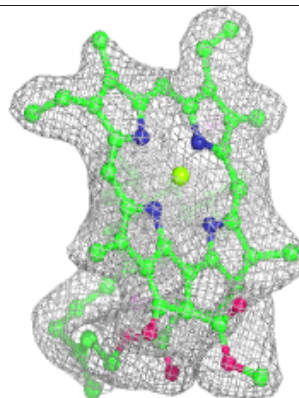
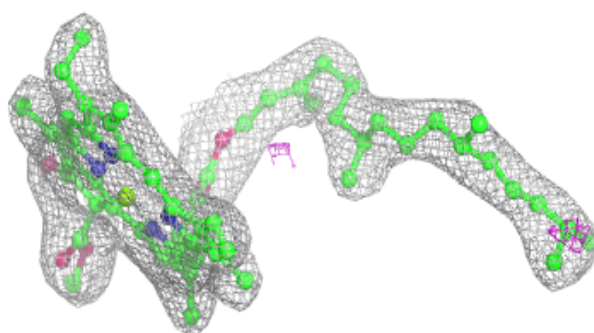
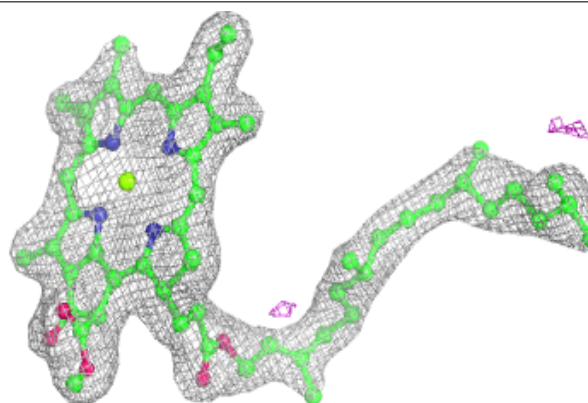


Electron density around DGD c 520:

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

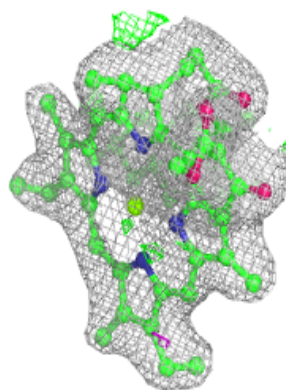
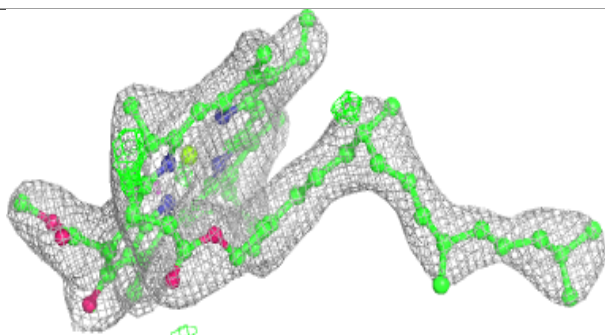
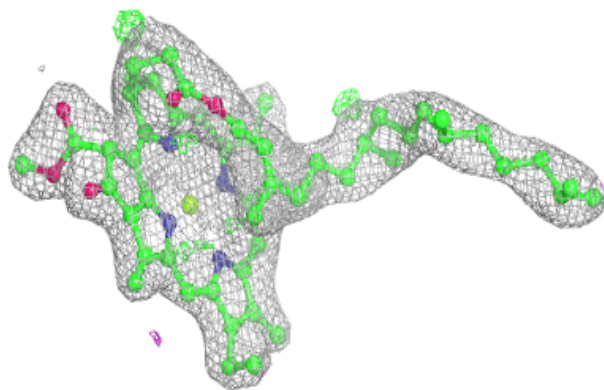
**Electron density around CLA C 512:**

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



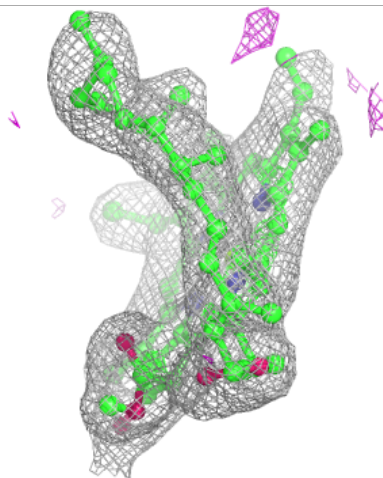
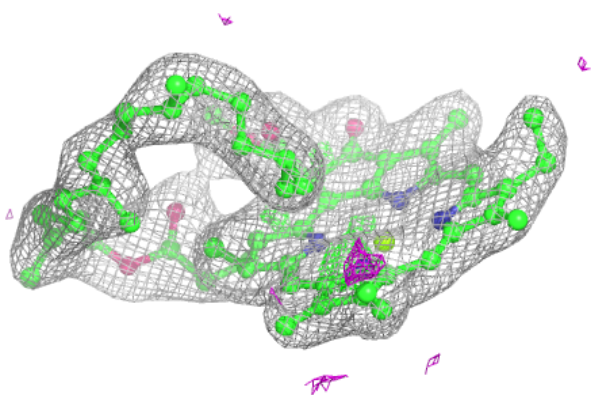
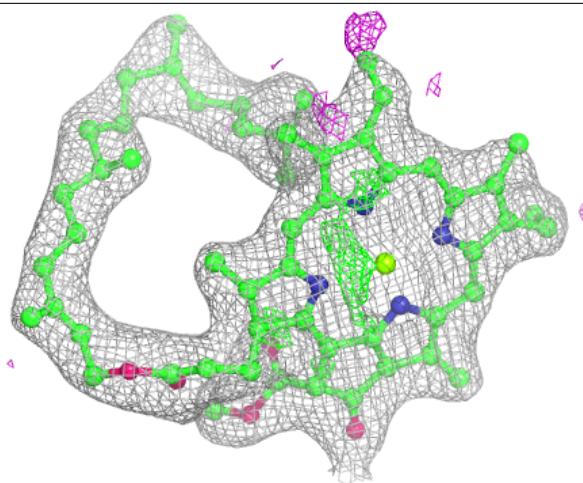
Electron density around CLA c 507:

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



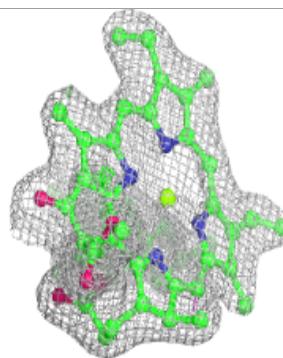
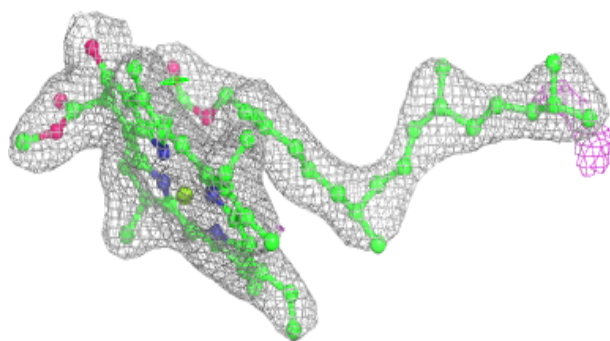
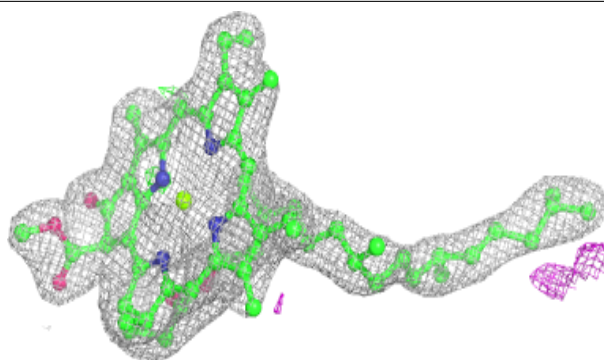
Electron density around CLA B 616:

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

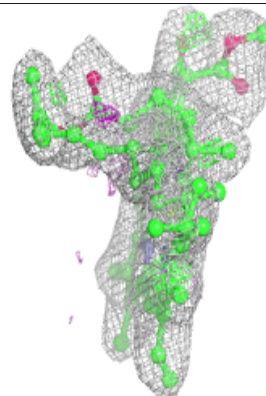
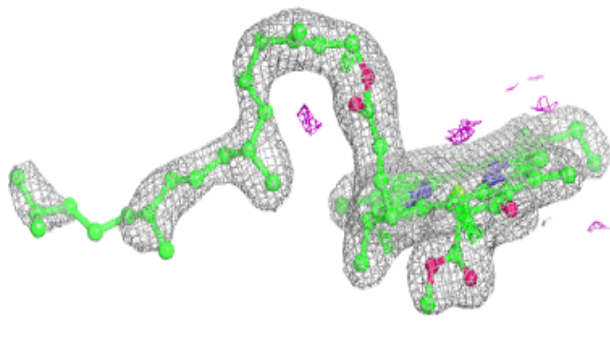
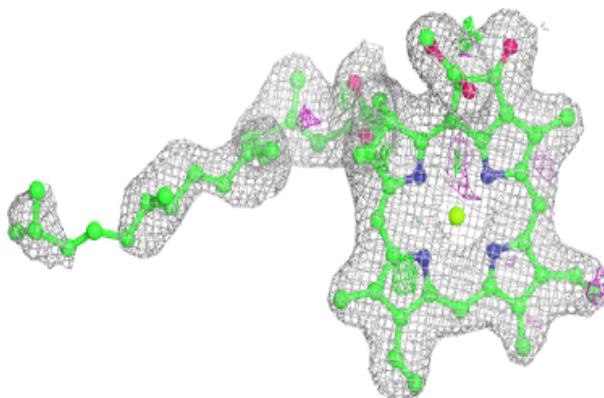


Electron density around CLA C 506:

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

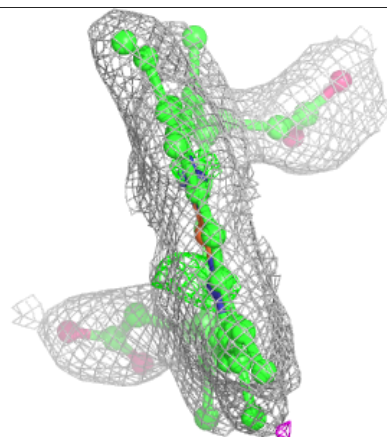
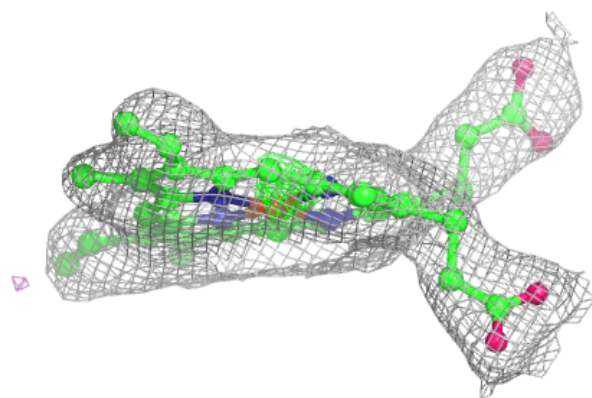
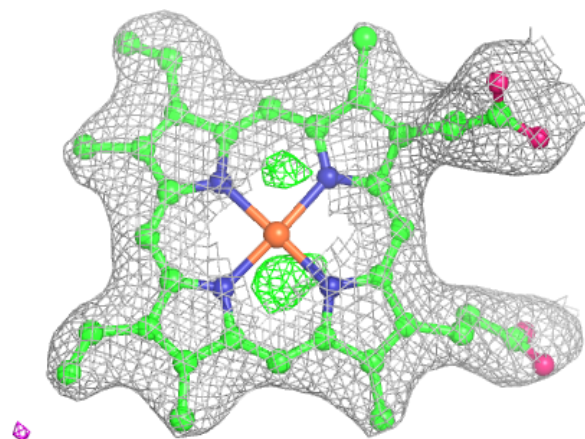
**Electron density around CLA A 406:**

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

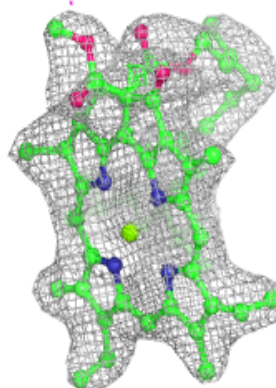
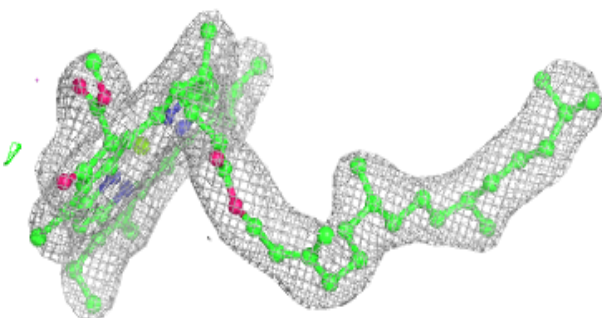
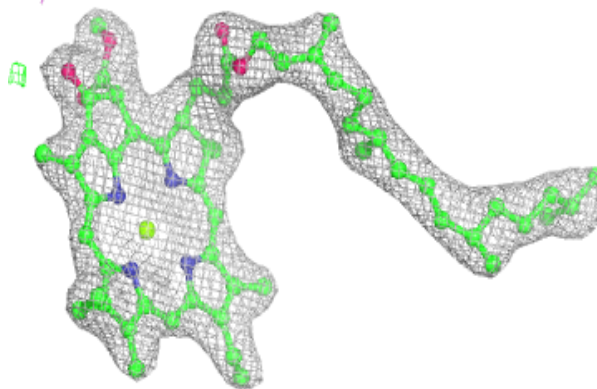


Electron density around HEM F 102:

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

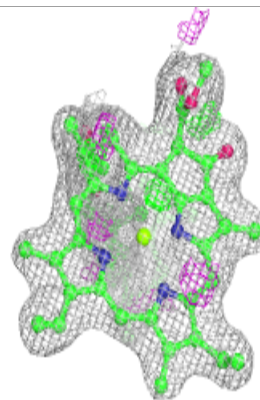
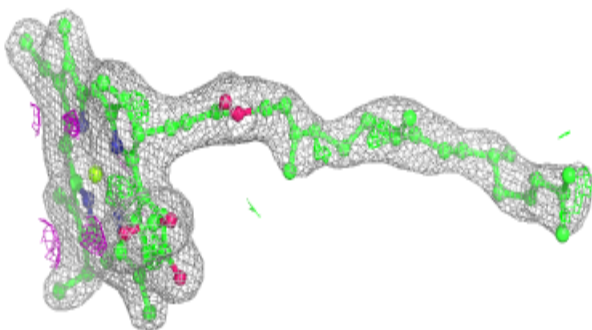
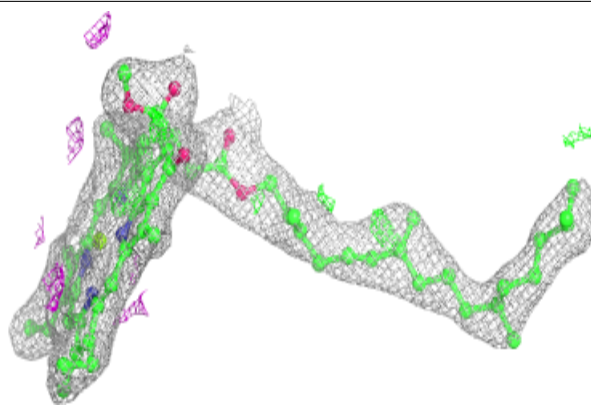
**Electron density around CLA c 513:**

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

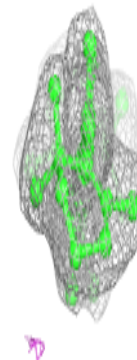
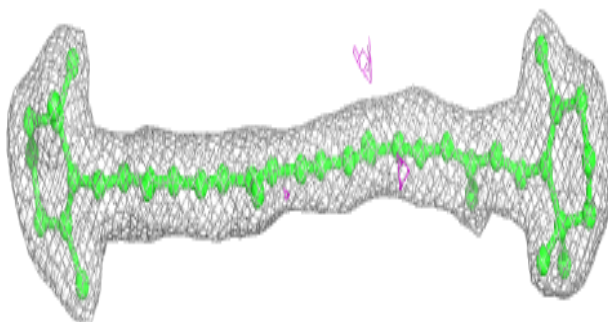
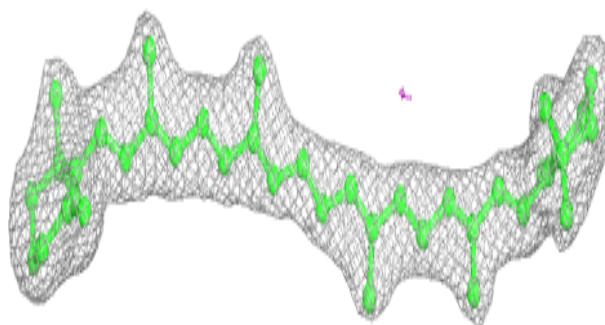


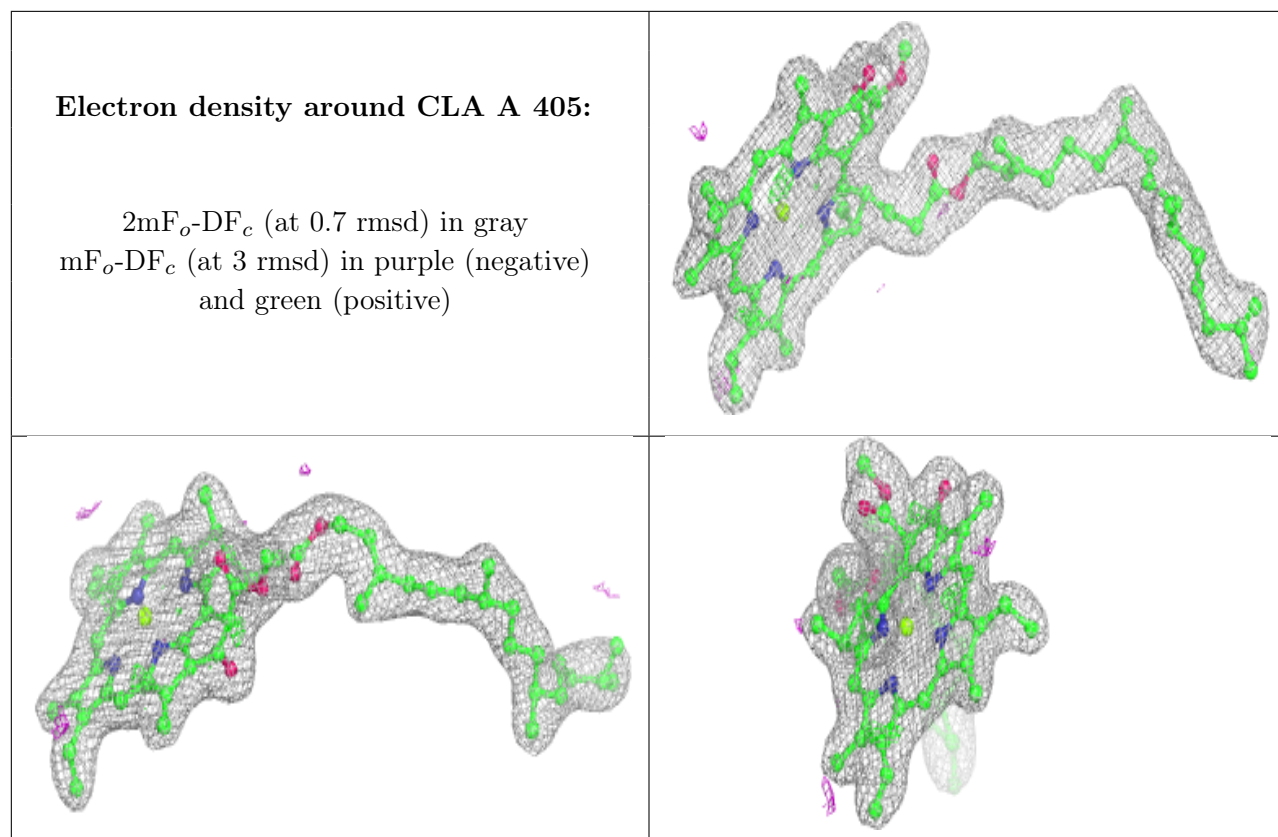
Electron density around CLA B 605:

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

**Electron density around BCR A 410:**

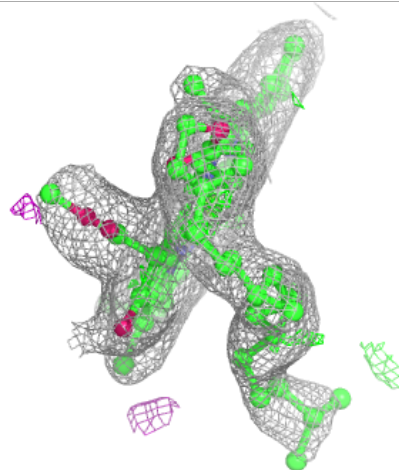
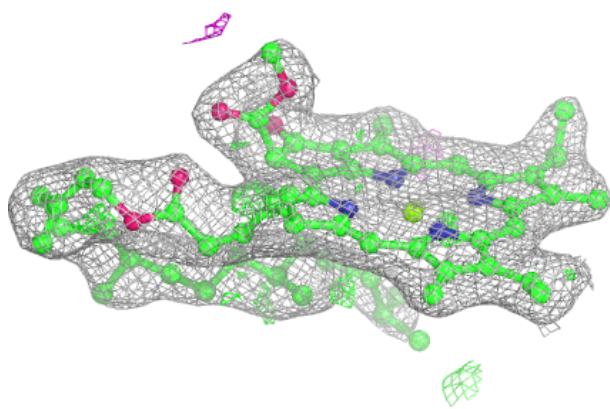
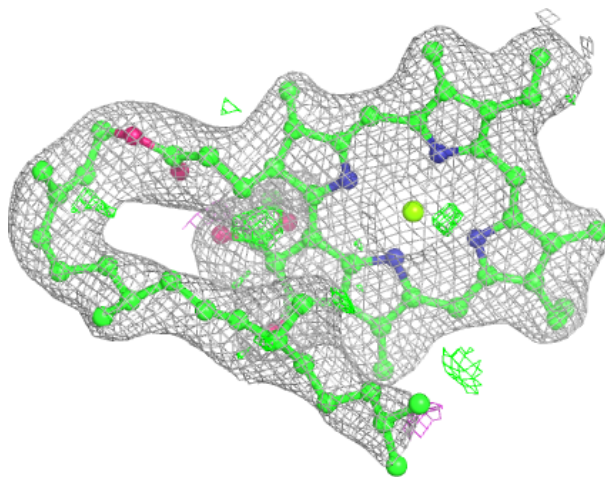
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





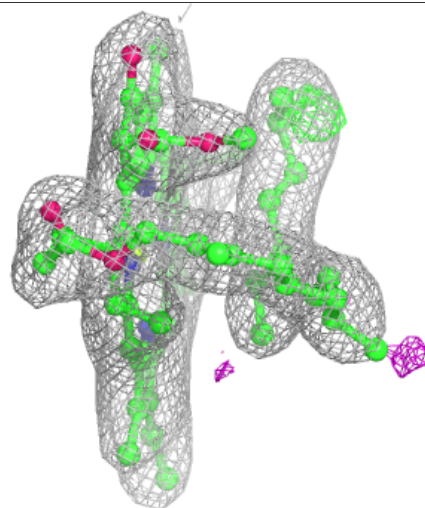
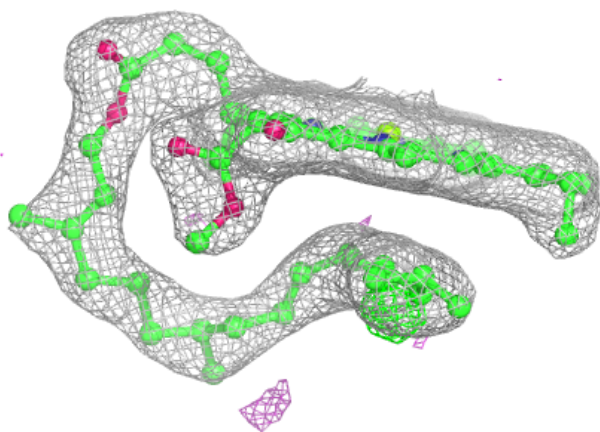
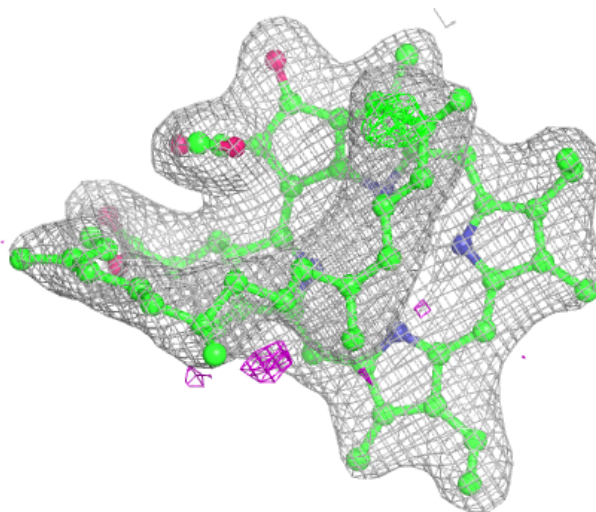
Electron density around CLA c 511:

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



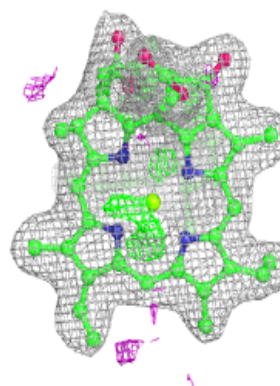
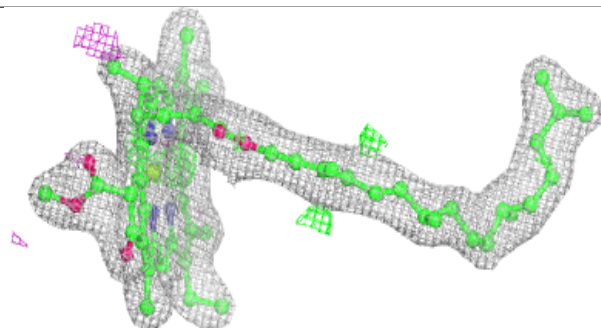
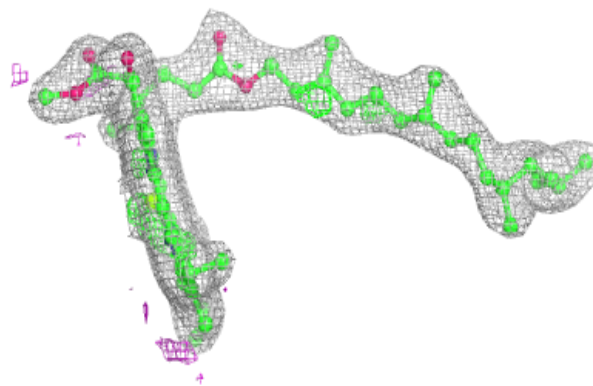
Electron density around CLA c 512:

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

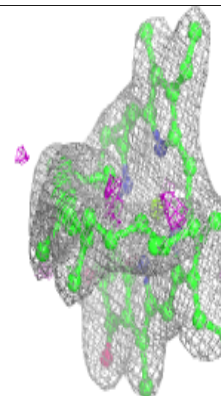
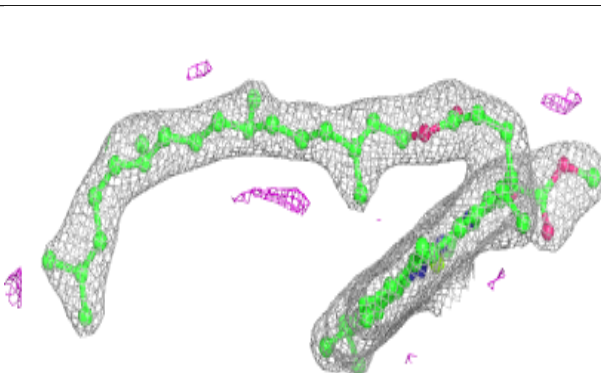
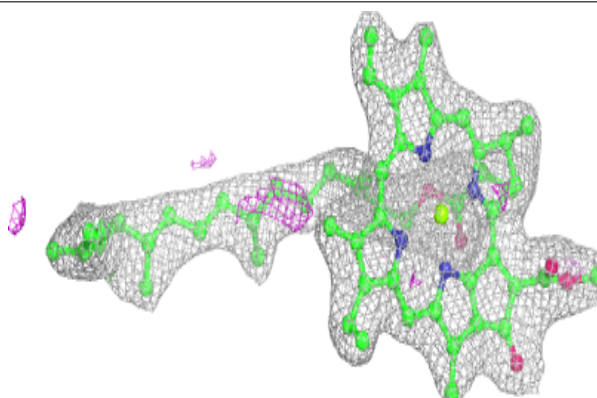


Electron density around CLA B 606:

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

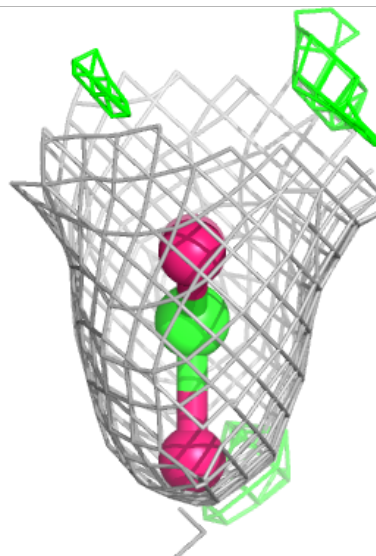
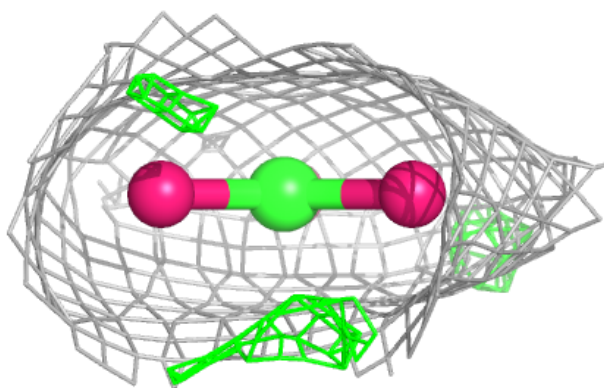
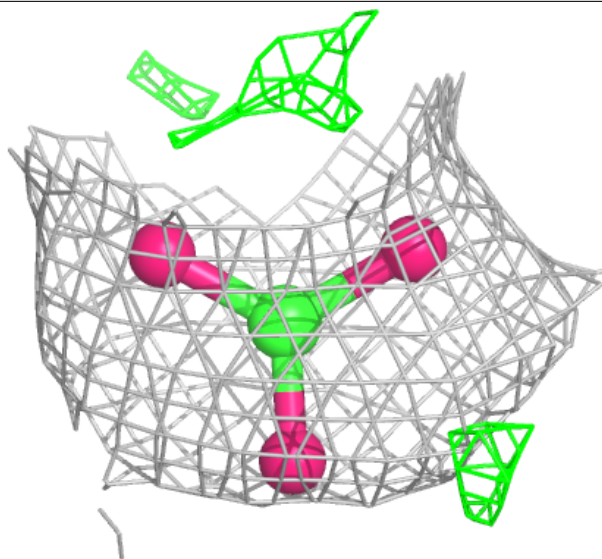
**Electron density around CLA b 611:**

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



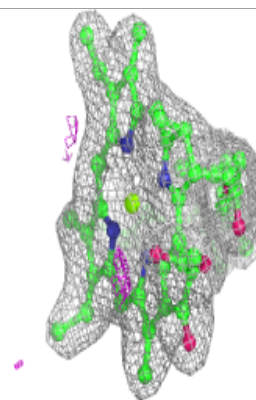
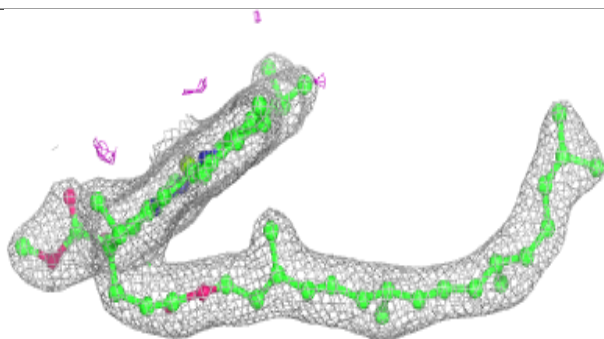
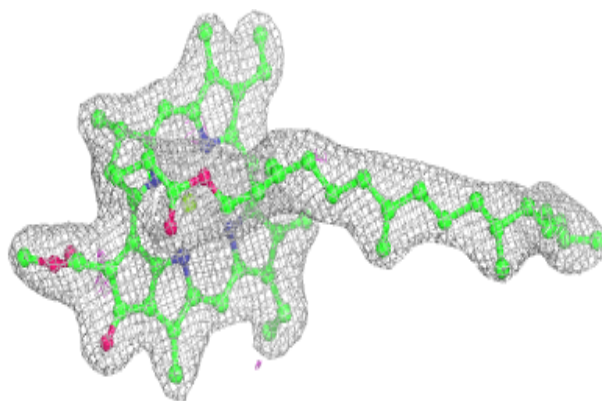
Electron density around BCT a 2108:

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

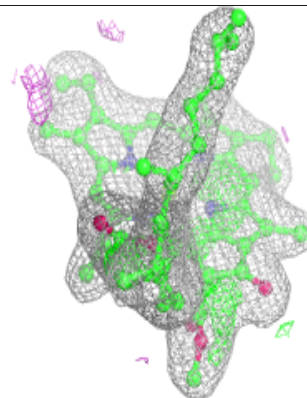
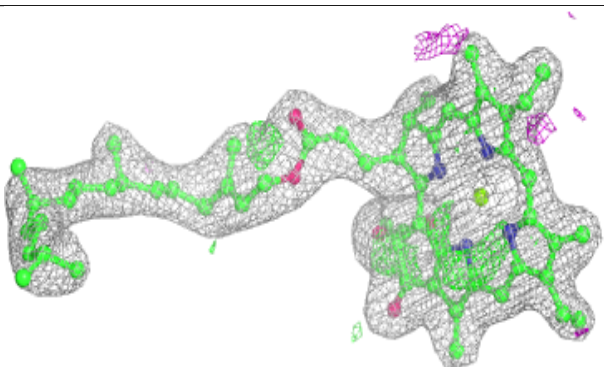
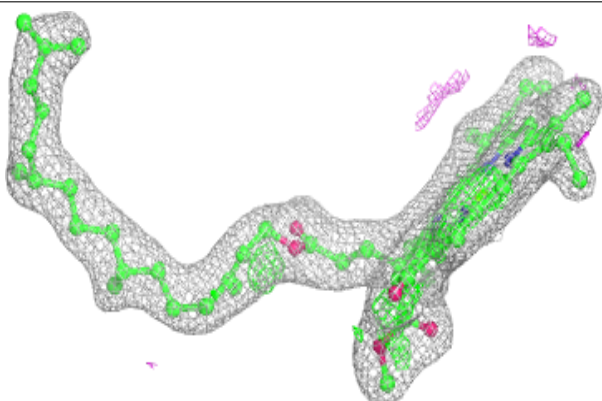


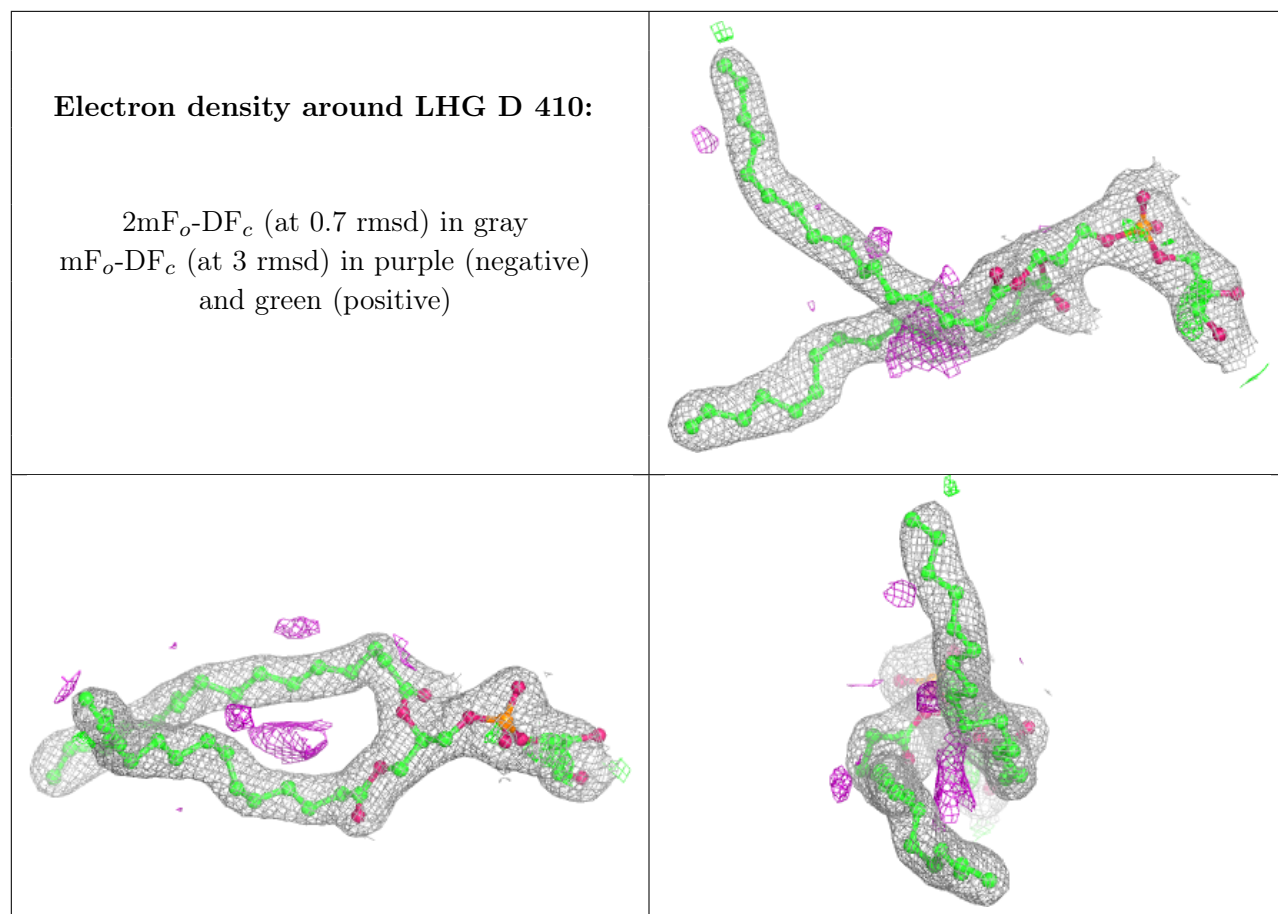
Electron density around CLA B 609:

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

**Electron density around CLA d 404:**

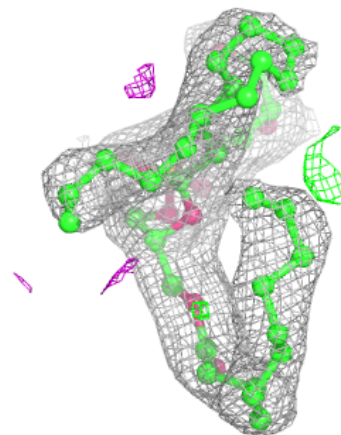
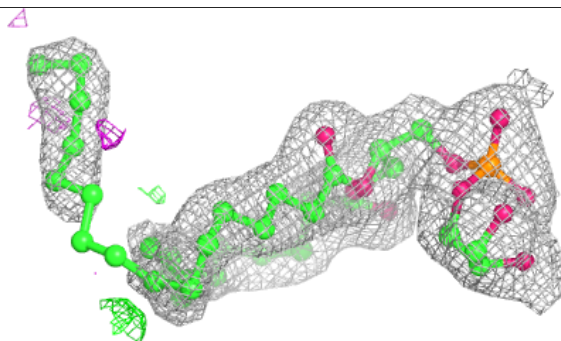
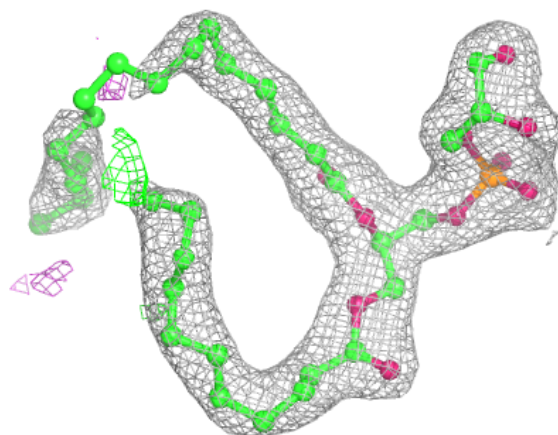
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



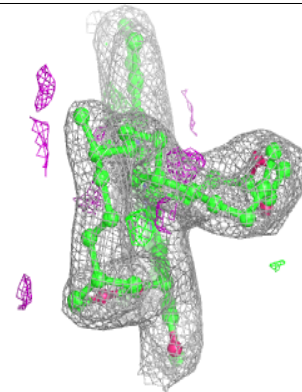
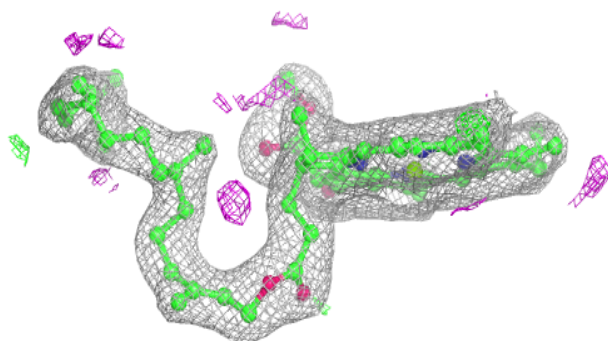
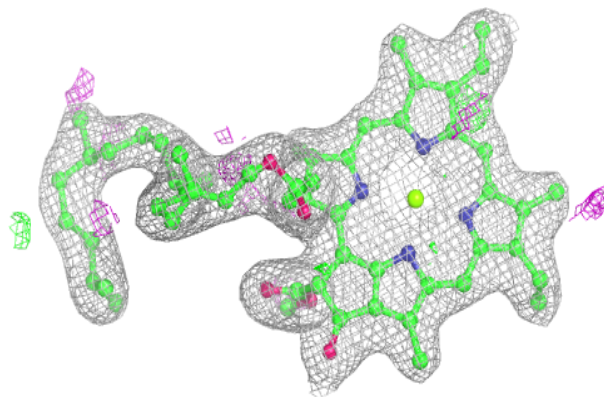


Electron density around LHG D 411:

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

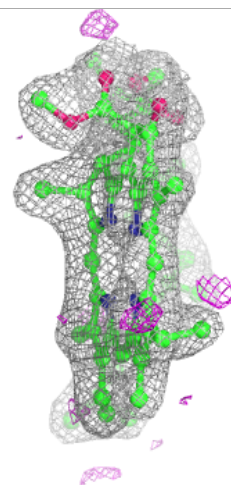
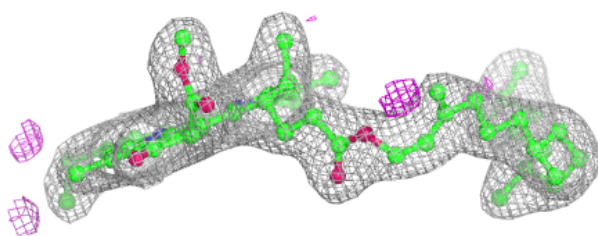
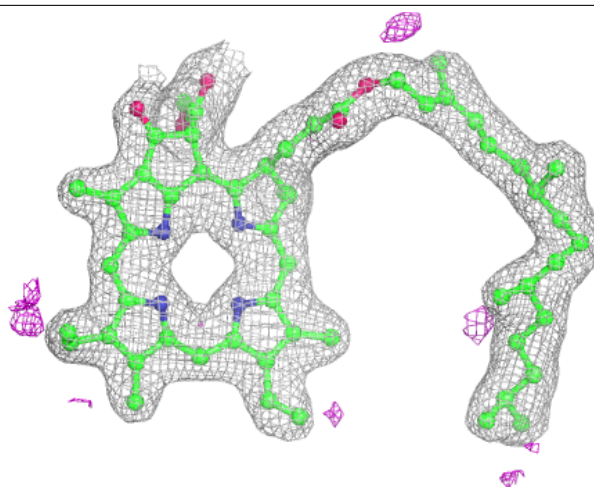
**Electron density around CLA B 613:**

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



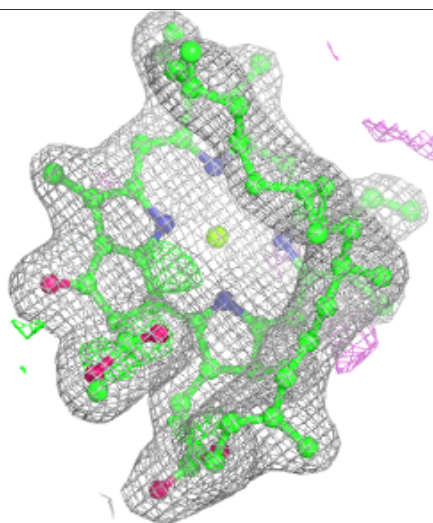
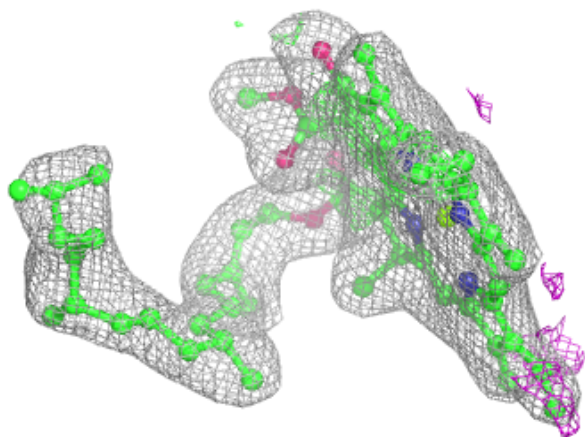
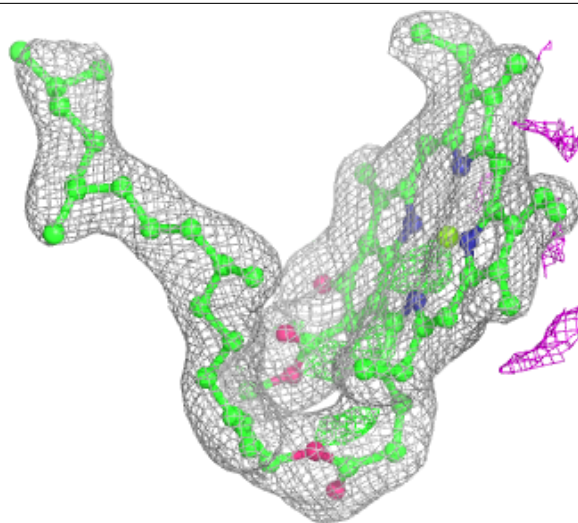
Electron density around PHO A 407:

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



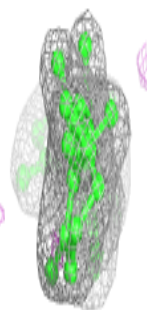
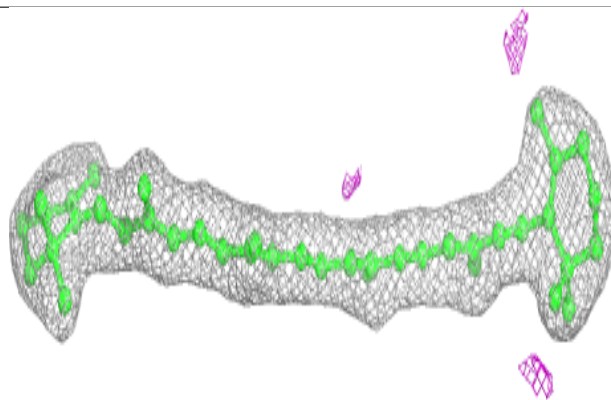
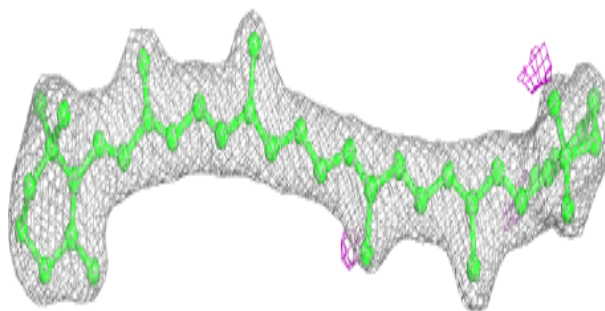
Electron density around CLA B 614:

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

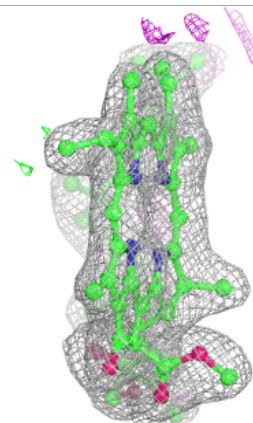
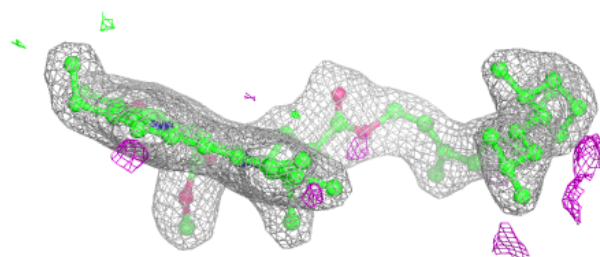
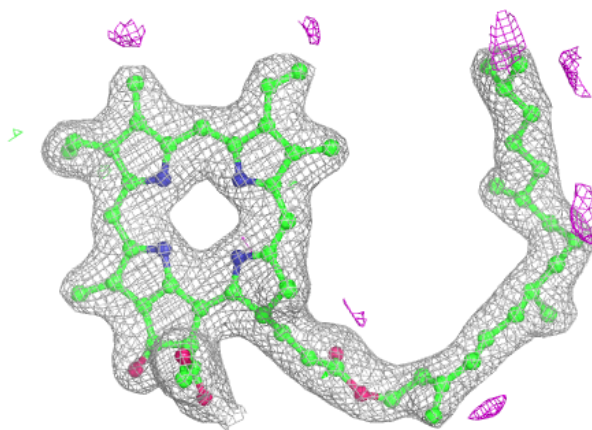


Electron density around BCR b 620:

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

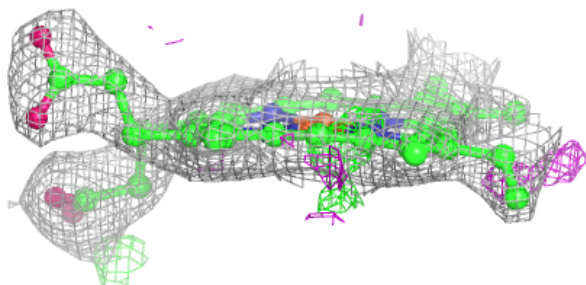
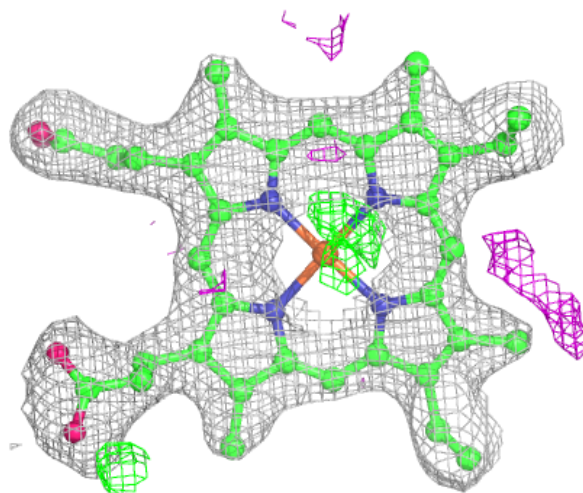
**Electron density around PHO a 2111:**

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



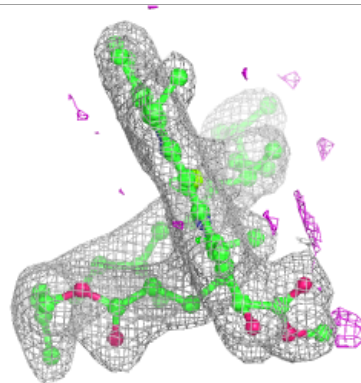
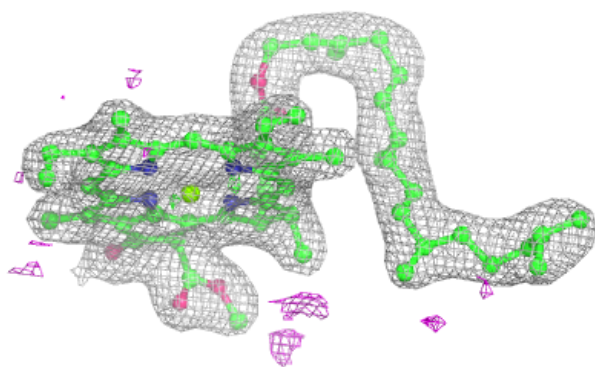
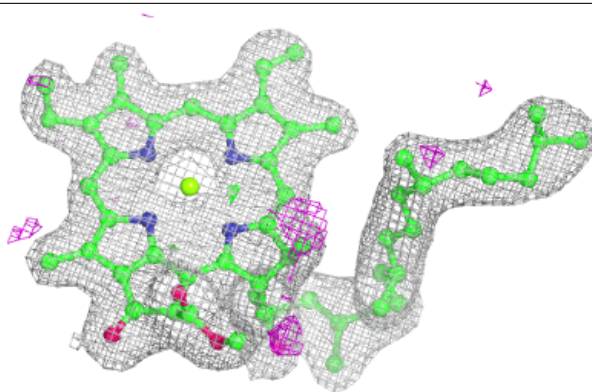
Electron density around HEC v 201:

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

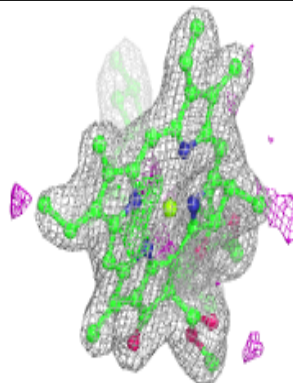
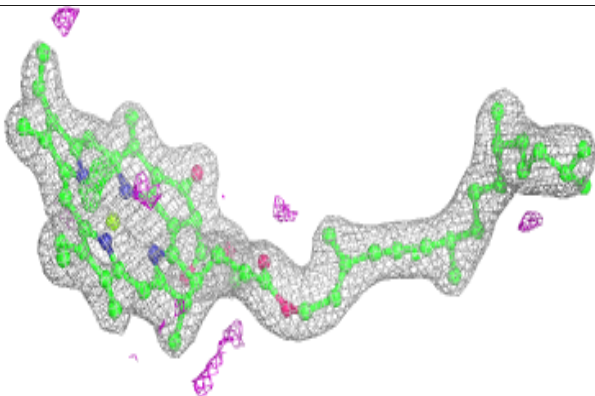
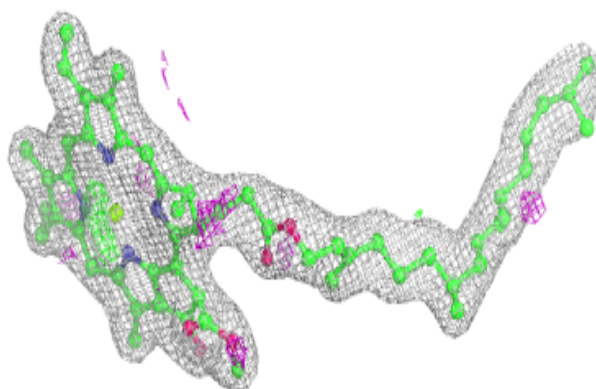


Electron density around CLA d 401:

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

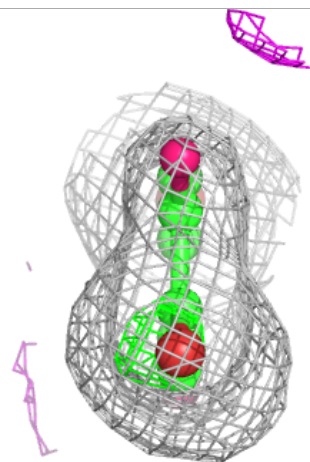
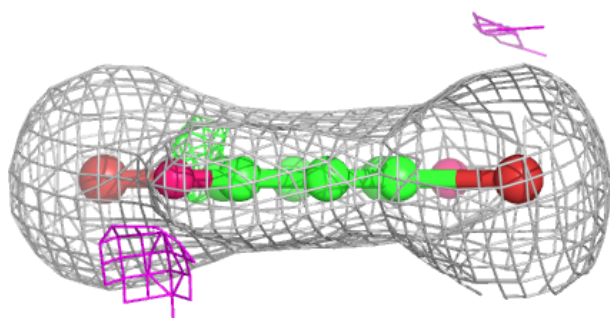
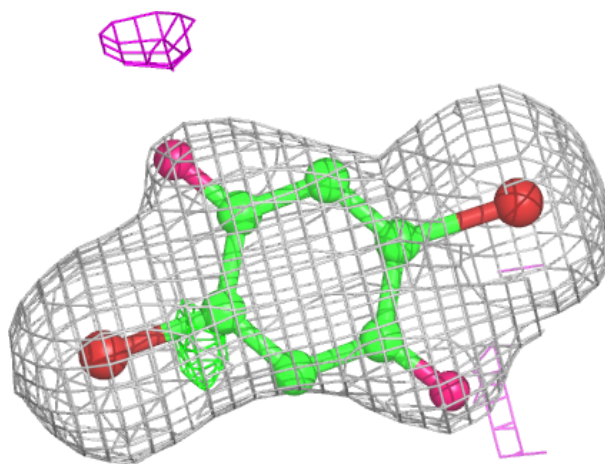
**Electron density around CLA a 2109:**

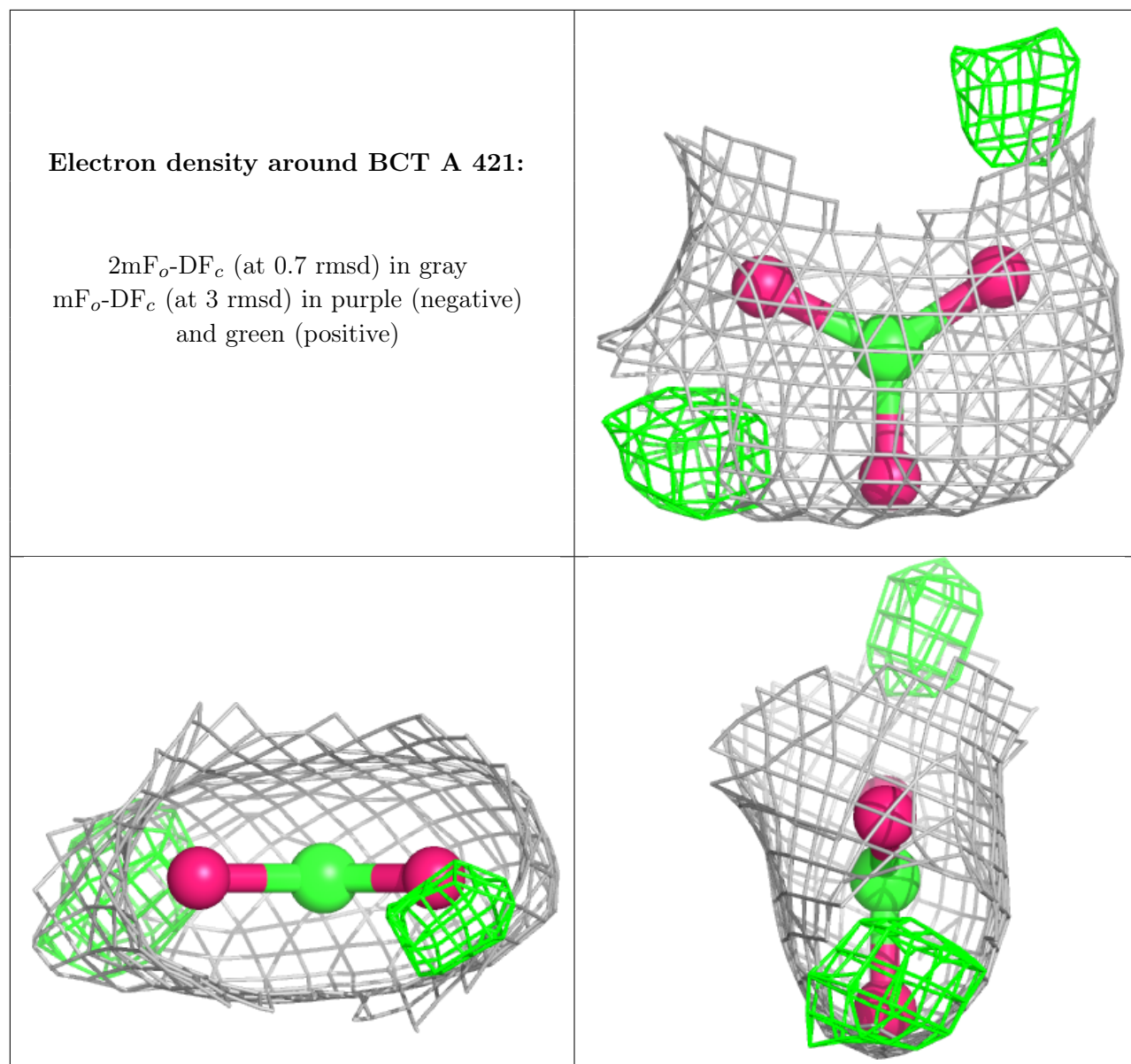
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

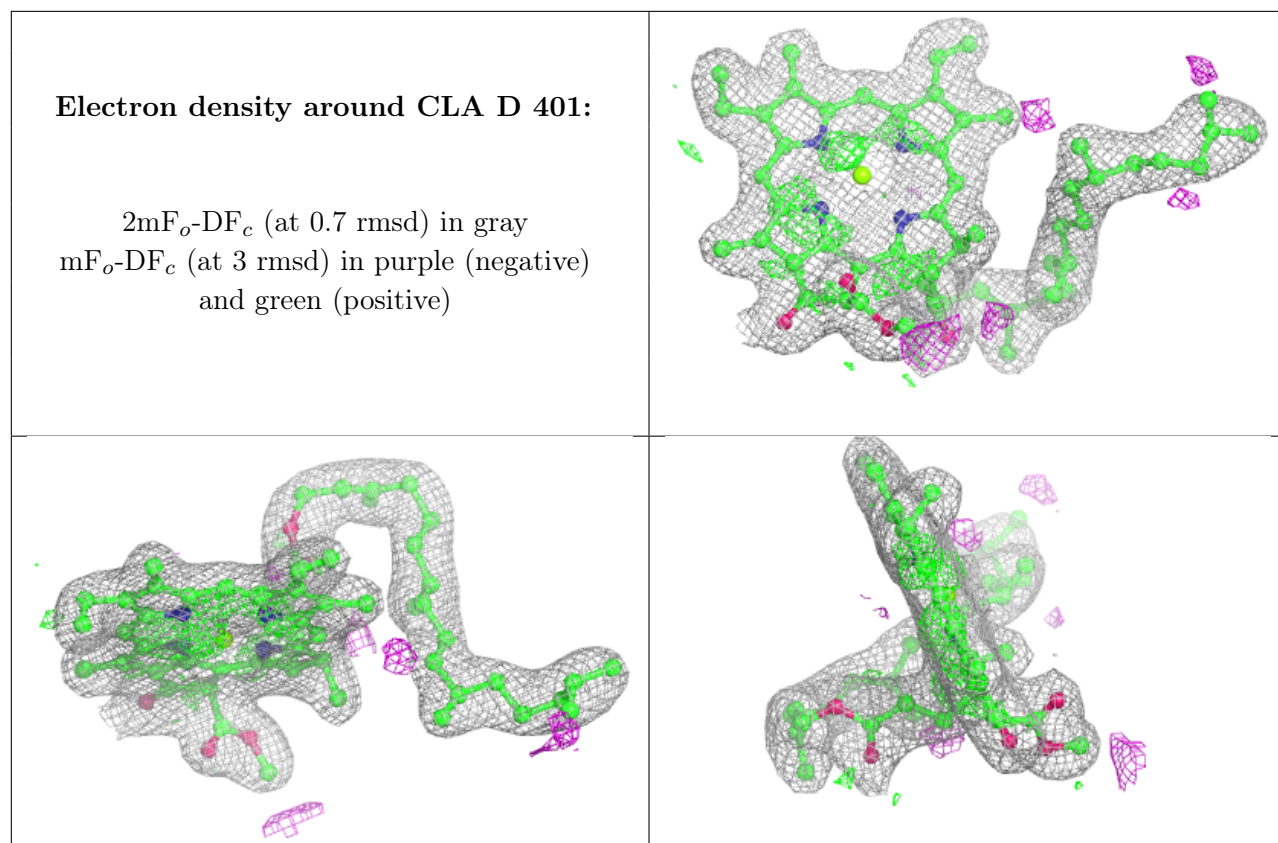


Electron density around K2I a 2119:

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

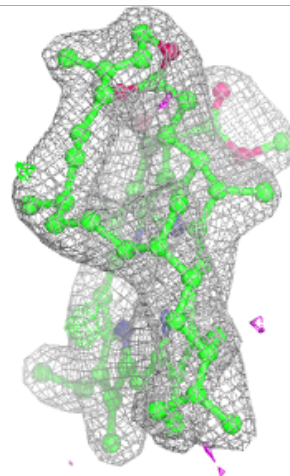
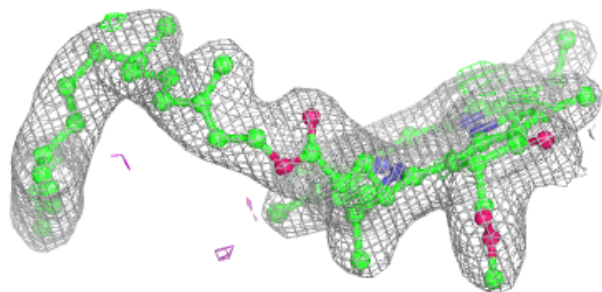
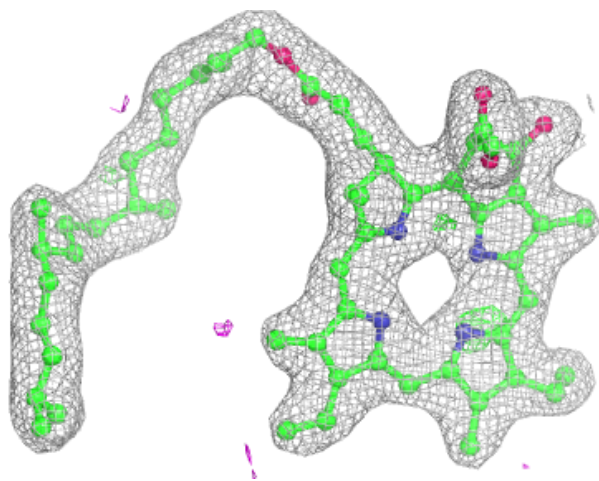






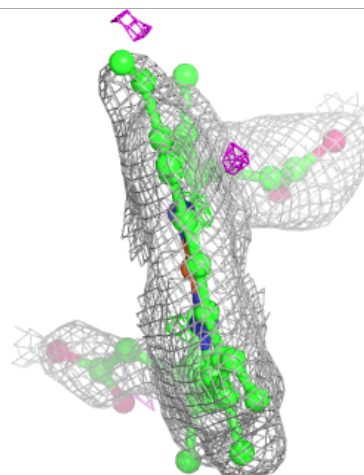
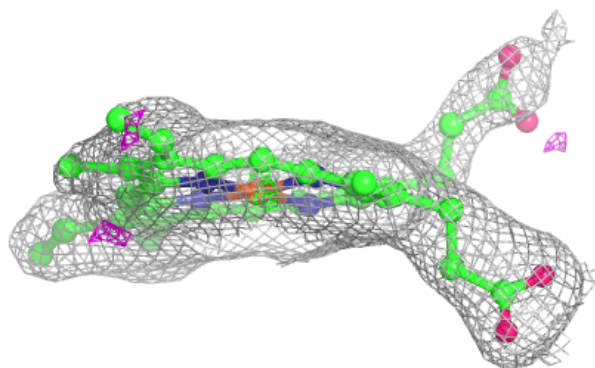
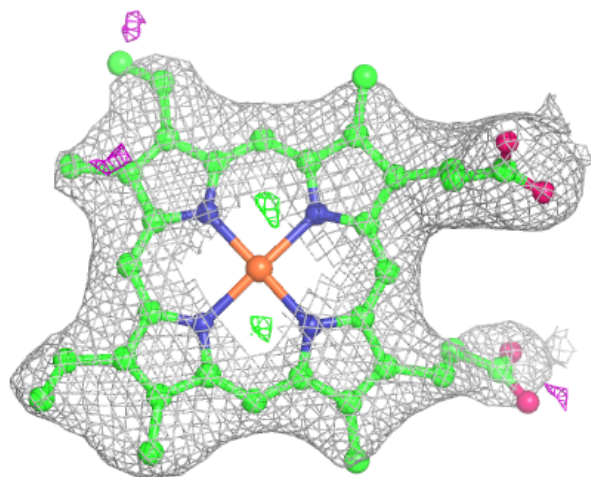
Electron density around PHO a 2112:

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



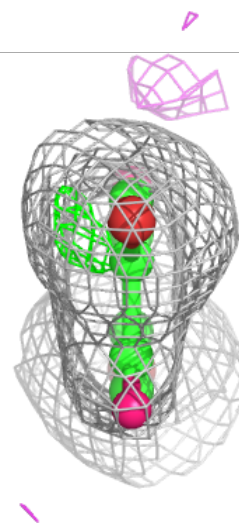
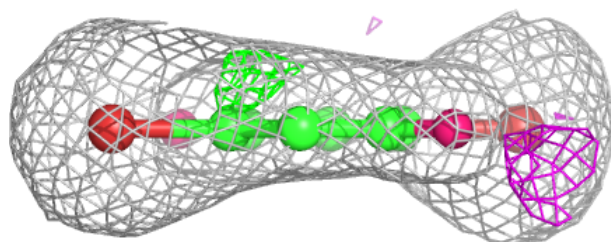
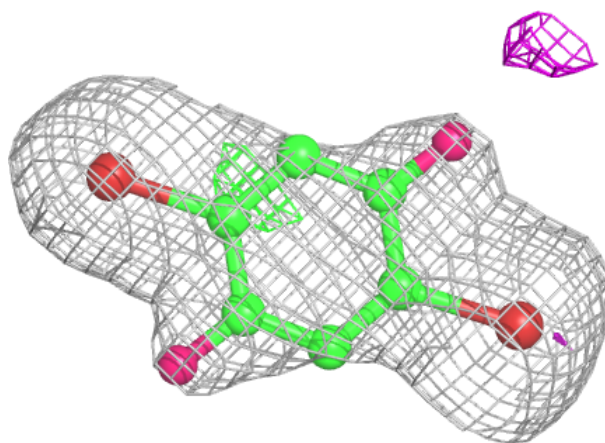
Electron density around HEM e 103:

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



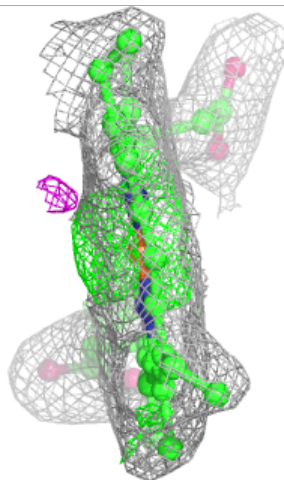
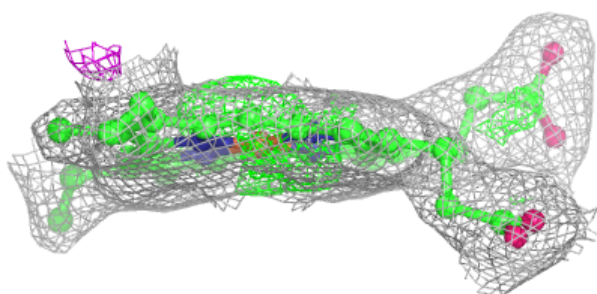
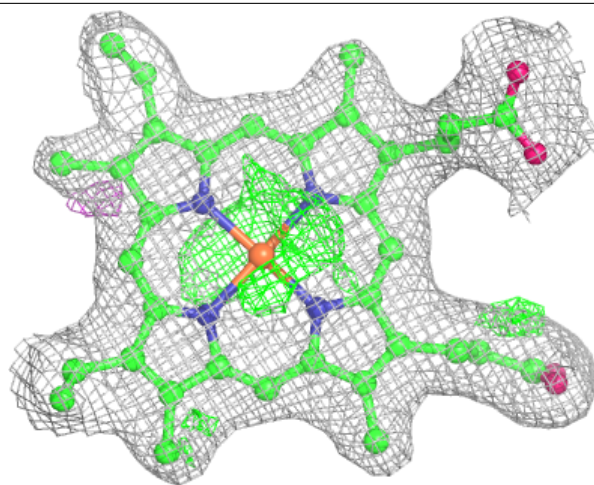
Electron density around K2I A 419:

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



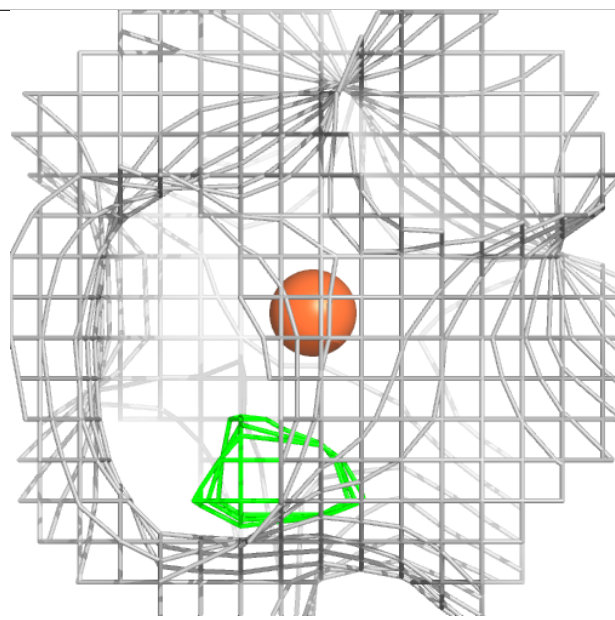
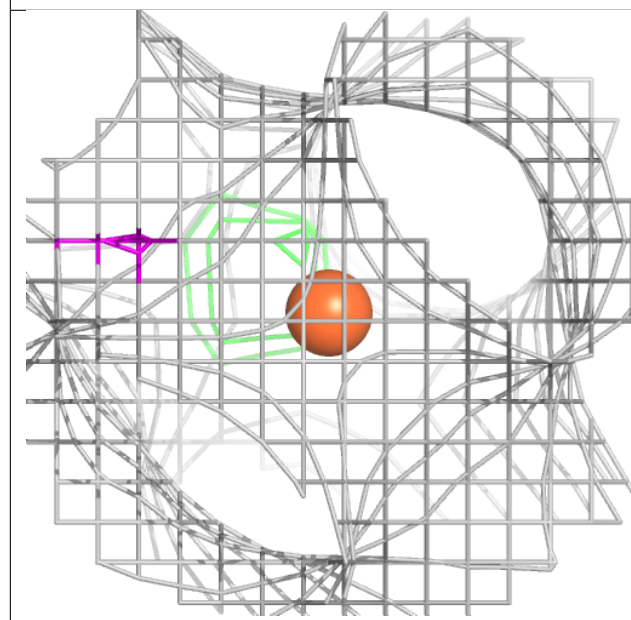
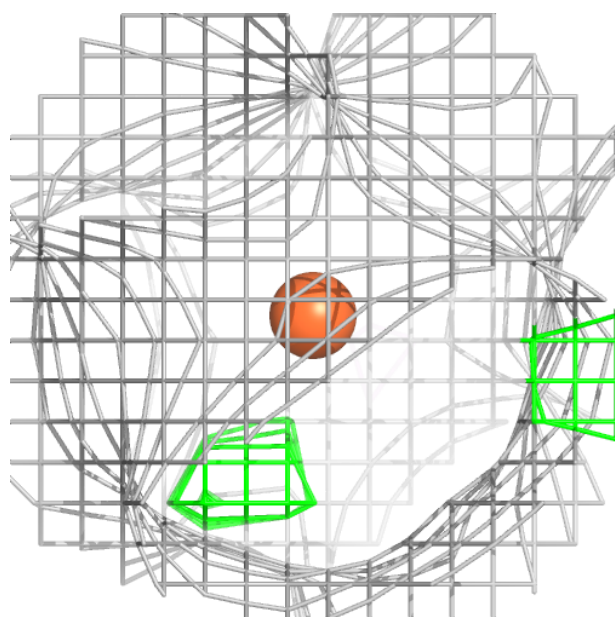
Electron density around HEC V 201:

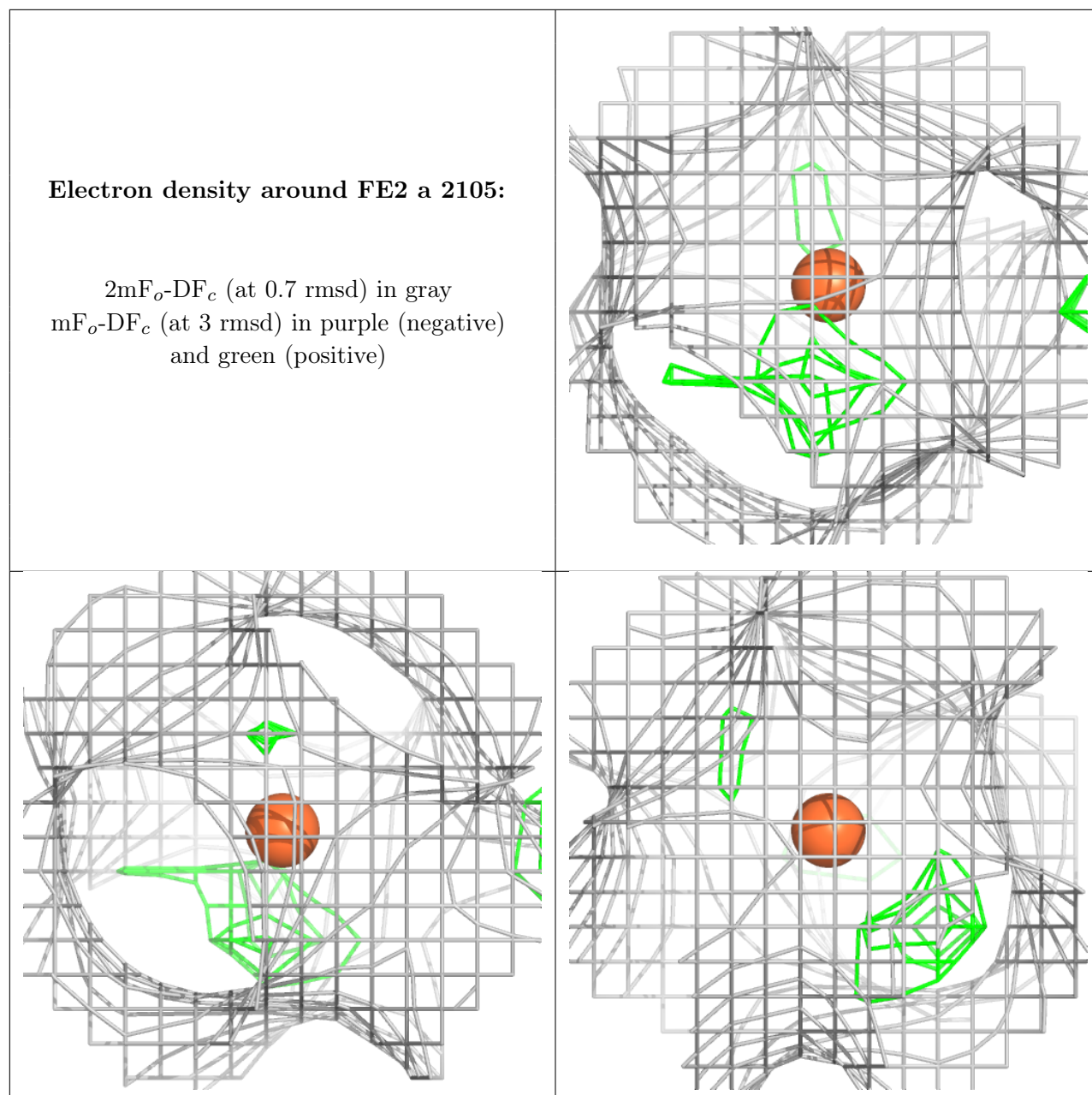
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around FE2 A 402:

$2mF_o-DF_c$ (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.