



wwPDB X-ray Structure Validation Summary Report ⓘ

Aug 17, 2026 – 01:38 PM EDT

PDB ID : 9Z34 / pdb_00009z34
Title : RT XFEL structure of one-flash state of Photosystem II (1F, S2 rich) at 1.98 Angstrom obtained from anomalous data at 9.5 keV
Authors : Bhowmick, A.; Kern, J.; Yano, J.; Yachandra, V.K.; Minnetian, N.M.; Zhang, M.
Deposited on : 2025-11-05
Resolution : 1.98 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	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

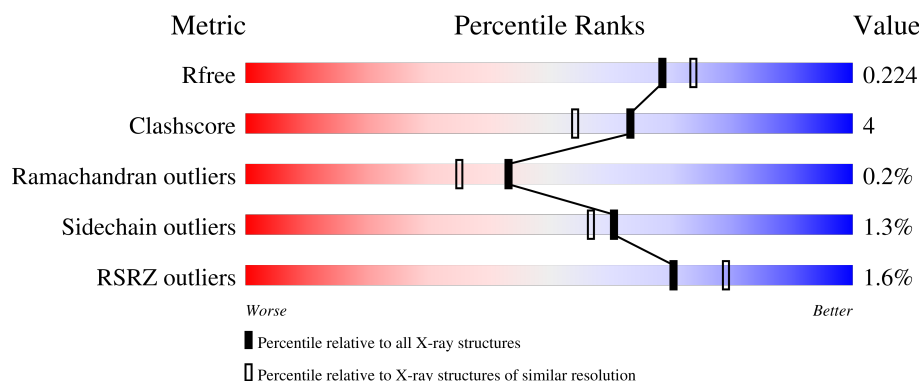
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

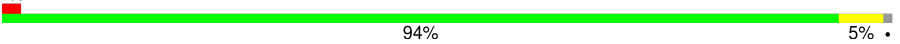
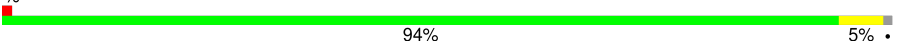
The reported resolution of this entry is 1.98 Å.

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.



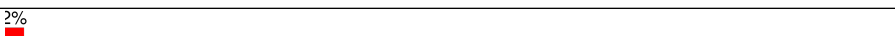
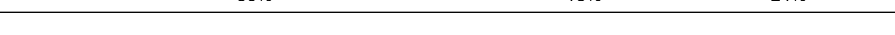
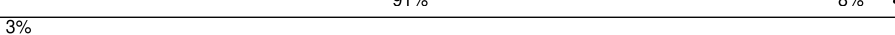
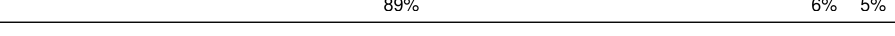
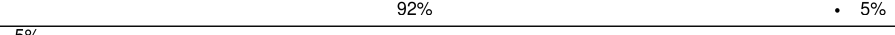
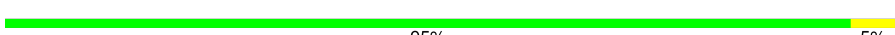
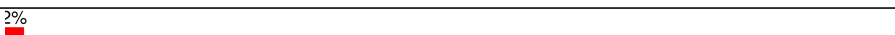
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1506 (1.98-1.98)
Clashscore	190562	1534 (1.98-1.98)
Ramachandran outliers	187476	1518 (1.98-1.98)
Sidechain outliers	187428	1518 (1.98-1.98)
RSRZ outliers	180081	1506 (1.98-1.98)

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	 92% 6% .
1	a	344	 90% 7% . .
2	B	510	 94% 5% .
2	b	510	 94% 5% .

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Mol	Chain	Length	Quality of chain
3	C	461	
3	c	461	
4	D	352	
4	d	352	
5	E	84	
5	e	84	
6	F	45	
6	f	45	
7	H	66	
7	h	66	
8	I	38	
8	i	38	
9	J	40	
9	j	40	
10	K	46	
10	k	46	
11	L	37	
11	l	37	
12	M	36	
12	m	36	
13	O	272	
13	o	272	
14	T	32	
14	t	32	
15	U	134	

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Mol	Chain	Length	Quality of chain
15	u	134	
16	V	163	
16	v	163	
17	Y	46	
17	y	46	
18	X	41	
18	x	41	
19	Z	62	
19	z	62	
20	R	41	
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
35	HEC	V	201	X	-	-	-
35	HEC	v	201	X	-	-	-

2 Entry composition

There are 36 unique types of molecules in this entry. The entry contains 52680 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 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	334	Total	C	N	O	S	0	0	0
			2622	1717	431	459	15			
1	a	334	Total	C	N	O	S	0	0	0
			2619	1714	431	459	15			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	505	Total	C	N	O	S	0	5	0
			4016	2637	670	696	13			
2	b	505	Total	C	N	O	S	0	1	0
			3984	2614	665	692	13			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	442	Total	C	N	O	S	0	1	0
			3426	2249	571	593	13			
3	c	451	Total	C	N	O	S	0	2	0
			3500	2290	587	610	13			

- 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	0	0
			2717	1800	444	461	12			
4	d	341	Total	C	N	O	S	0	1	0
			2723	1804	444	463	12			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	82	Total	C	N	O	0	1	0
			666	436	107	123			
5	e	82	Total	C	N	O	0	0	0
			664	434	108	122			

- 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	34	Total	C	N	O	S	0	0	0
			275	187	45	42	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	H	65	Total	C	N	O	S	0	0	0
			505	335	82	85	3			
7	h	63	Total	C	N	O	S	0	0	0
			493	327	80	83	3			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
H	41	CYS	PHE	conflict	UNP Q8DJ43
h	41	CYS	PHE	conflict	UNP Q8DJ43

- 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
			296	200	46	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
			257	174	40	42	1			
9	j	36	Total	C	N	O	S	0	0	0
			257	174	40	42	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	0	0
			293	204	43	46			
10	k	37	Total	C	N	O	0	0	0
			293	204	43	46			

- 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	S	0	0	0
			304	202	48	53	1			
11	l	36	Total	C	N	O		0	0	0
			296	197	47	52				

- 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	0	0
			256	171	37	47	1			
12	m	32	Total	C	N	O	S	0	0	0
			251	168	36	46	1			

- 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	1	0
			1870	1168	313	385	4			
13	o	244	Total	C	N	O	S	0	0	0
			1874	1170	317	383	4			

- 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
			258	181	36	39	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	0	0
			774	491	129	154			
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	0	0
			1064	675	177	208	4			
16	v	137	Total	C	N	O	S	0	0	0
			1064	675	177	208	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Y	27	Total	C	N	O	S	0	0	0
			196	128	35	30	3			
17	y	30	Total	C	N	O	S	0	0	0
			218	144	35	36	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	X	38	Total	C	N	O	0	0	0
			281	188	45	48			
18	x	39	Total	C	N	O	0	0	0
			286	191	46	49			

- 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
			479	328	72	77	2			
19	z	62	Total	C	N	O	S	0	0	0
			477	326	72	77	2			

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

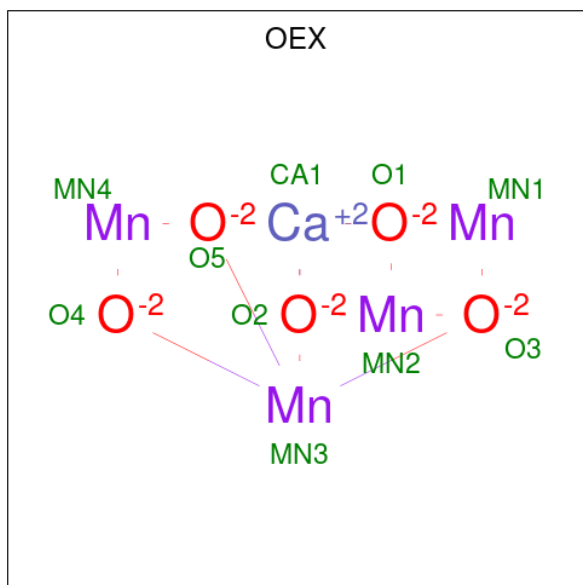
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	R	28	Total	C	N	O	0	0	0
			221	151	38	32			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	r	28	Total	C	N	O	0	0	0
			221	151	38	32			

- Molecule 21 is CA-MN4-O5 CLUSTER (CCD ID: OEX) (formula: CaMn_4O_5) (labeled as "Ligand of Interest" by depositor).



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

- Molecule 22 is FE (II) ION (CCD ID: FE2) (formula: Fe).

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

- Molecule 23 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

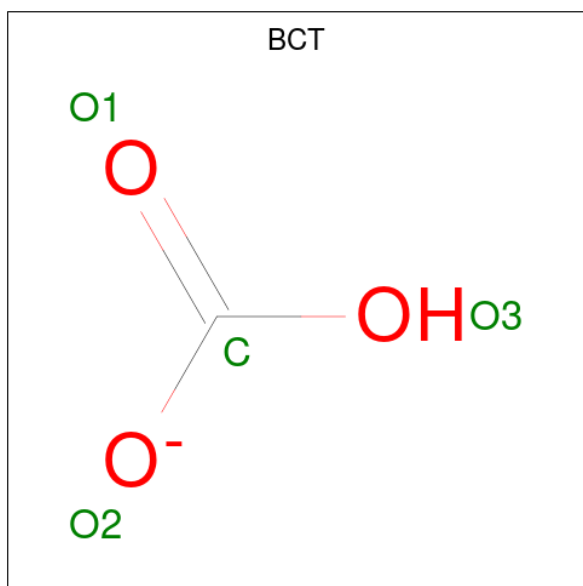
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
23	A	2	Total	Cl	0	0
			2	2		

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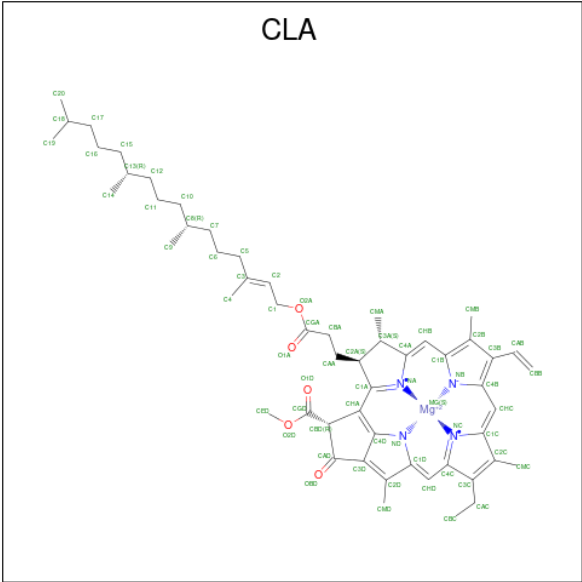
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
23	a	2	Total	Cl	0	0
			2	2		

- Molecule 24 is BICARBONATE ION (CCD ID: BCT) (formula: CHO_3^-).



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

- Molecule 25 is CHLOROPHYLL A (CCD ID: CLA) (formula: $\text{C}_{55}\text{H}_{72}\text{MgN}_4\text{O}_5$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	A	1	Total	C	Mg	N	O	0	0
			54	44	1	4	5		
25	A	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	B	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	B	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 59	C 49	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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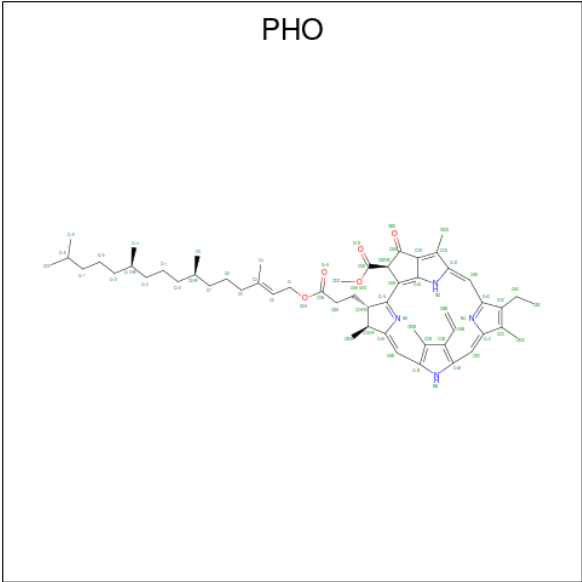
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
25	b	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
25	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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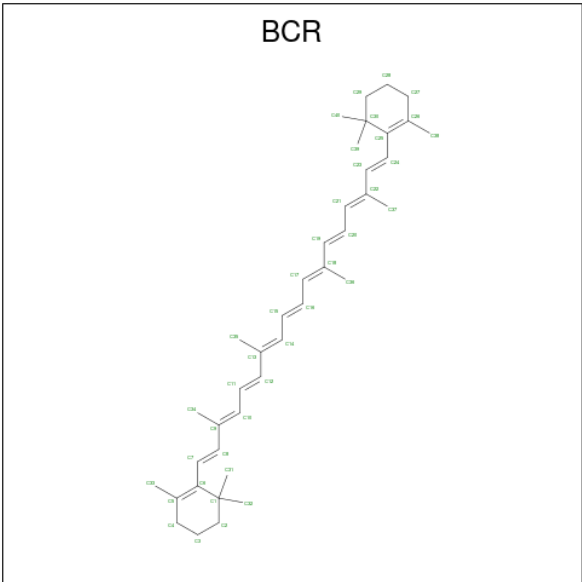
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			64	54	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
25	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

- Molecule 26 is PHEOPHYTIN A (CCD ID: PHO) (formula: $C_{55}H_{74}N_4O_5$).



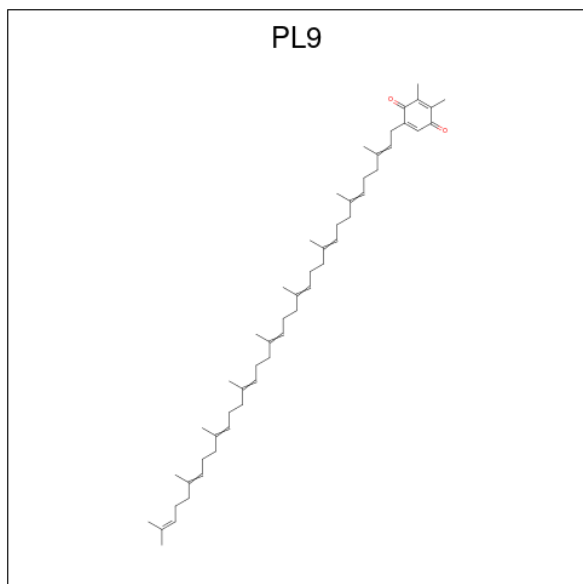
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
26	A	1	Total	C	N	O	0	0
			64	55	4	5		
26	A	1	Total	C	N	O	0	0
			64	55	4	5		
26	a	1	Total	C	N	O	0	0
			64	55	4	5		
26	d	1	Total	C	N	O	0	0
			64	55	4	5		

- Molecule 27 is BETA-CAROTENE (CCD ID: BCR) (formula: C₄₀H₅₆).



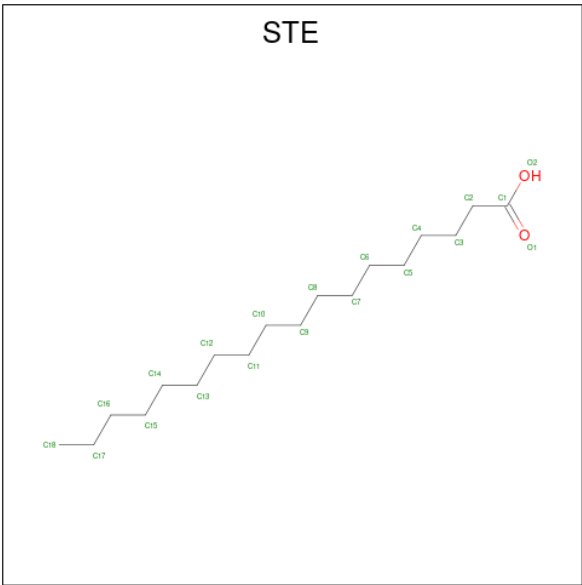
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	A	1	Total C 40 40	0	0
27	B	1	Total C 40 40	0	0
27	B	1	Total C 40 40	0	0
27	B	1	Total C 40 40	0	0
27	C	1	Total C 40 40	0	0
27	C	1	Total C 40 40	0	0
27	D	1	Total C 40 40	0	0
27	H	1	Total C 40 40	0	0
27	J	1	Total C 40 40	0	0
27	K	1	Total C 40 40	0	0
27	T	1	Total C 40 40	0	0
27	a	1	Total C 40 40	0	0
27	b	1	Total C 40 40	0	0
27	b	1	Total C 40 40	0	0
27	b	1	Total C 40 40	0	0
27	c	1	Total C 40 40	0	0
27	c	1	Total C 40 40	0	0
27	d	1	Total C 40 40	0	0
27	h	1	Total C 40 40	0	0
27	k	1	Total C 40 40	0	0
27	k	1	Total C 40 40	0	0
27	t	1	Total C 40 40	0	0

- Molecule 28 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 (CCD ID: PL9) (formula: $C_{53}H_{80}O_2$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
28	A	1	Total	C	O	0	0
			55	53	2		
28	D	1	Total	C	O	0	0
			55	53	2		
28	a	1	Total	C	O	0	0
			55	53	2		
28	d	1	Total	C	O	0	0
			55	53	2		

- Molecule 29 is STEARIC ACID (CCD ID: STE) (formula: $C_{18}H_{36}O_2$).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
29	A	1	Total	C	0	0
			9	9		
29	A	1	Total	C	0	0
			8	8		
29	A	1	Total	C	0	0
			17	17		
29	A	1	Total	C	0	0
			11	11		
29	B	1	Total	C	0	0
			17	15		
				O		
			2			
29	B	1	Total	C	0	0
			18	16		
				O		
			2			
29	B	1	Total	C	0	0
			12	10		
				O		
			2			
29	B	1	Total	C	0	0
			15	15		
29	C	1	Total	C	0	0
			14	12		
				O		
			2			
29	C	1	Total	C	0	0
			5	5		
29	C	1	Total	C	0	0
			7	7		
29	C	1	Total	C	0	0
			10	10		
29	C	1	Total	C	0	0
			12	10		
				O		
			2			
29	C	1	Total	C	0	0
			16	16		

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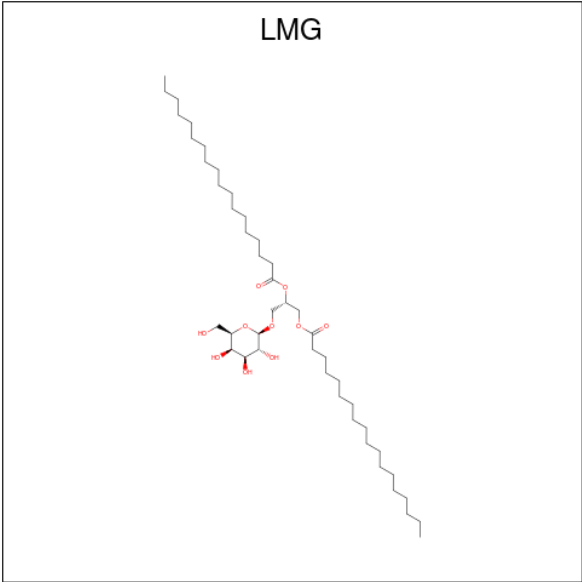
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	C	1	Total C 14 14	0	0
29	D	1	Total C 9 9	0	0
29	E	1	Total C O 12 10 2	0	0
29	E	1	Total C 12 12	0	0
29	E	1	Total C O 20 18 2	0	0
29	H	1	Total C 18 18	0	0
29	I	1	Total C O 17 15 2	0	0
29	I	1	Total C O 15 13 2	0	0
29	J	1	Total C O 12 10 2	0	0
29	K	1	Total C 14 14	0	0
29	M	1	Total C O 15 13 2	0	0
29	M	1	Total C 10 10	0	0
29	M	1	Total C 15 15	0	0
29	T	1	Total C 16 16	0	0
29	X	1	Total C O 20 18 2	0	0
29	Z	1	Total C 17 17	0	0
29	a	1	Total C O 12 10 2	0	0
29	b	1	Total C O 20 18 2	0	0
29	b	1	Total C O 16 14 2	0	0
29	b	1	Total C 10 10	0	0
29	b	1	Total C 11 11	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	c	1	Total C 13 13	0	0
29	c	1	Total C 18 18	0	0
29	d	1	Total C O 20 18 2	0	0
29	d	1	Total C O 20 18 2	0	0
29	d	1	Total C O 20 18 2	0	0
29	e	1	Total C 9 9	0	0
29	e	1	Total C 9 9	0	0
29	e	1	Total C O 13 11 2	0	0
29	f	1	Total C 8 8	0	0
29	h	1	Total C 10 10	0	0
29	i	1	Total C O 12 10 2	0	0
29	i	1	Total C 6 6	0	0
29	j	1	Total C O 12 10 2	0	0
29	j	1	Total C 16 16	0	0
29	k	1	Total C O 14 12 2	0	0
29	m	1	Total C O 12 10 2	0	0
29	m	1	Total C 18 18	0	0
29	t	1	Total C O 14 12 2	0	0
29	t	1	Total C 10 10	0	0
29	z	1	Total C 9 9	0	0

- Molecule 30 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (CCD ID: LMG) (formula: C₄₅H₈₆O₁₀).



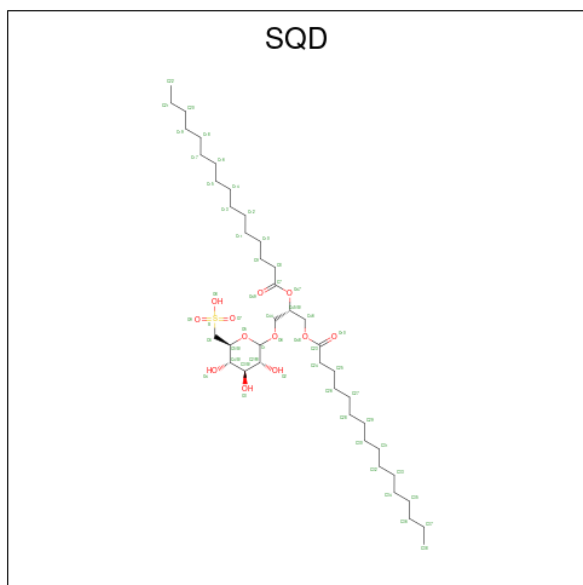
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
30	A	1	Total	C	O	0	0
			48	38	10		
30	B	1	Total	C	O	0	0
			45	35	10		
30	C	1	Total	C	O	0	0
			36	26	10		
30	C	1	Total	C	O	0	0
			48	38	10		
30	D	1	Total	C	O	0	0
			50	40	10		
30	D	1	Total	C	O	0	0
			51	41	10		
30	M	1	Total	C	O	0	0
			51	41	10		
30	a	1	Total	C	O	0	0
			55	45	10		
30	b	1	Total	C	O	0	0
			55	45	10		
30	c	1	Total	C	O	0	0
			30	25	5		
30	c	1	Total	C	O	0	0
			46	36	10		
30	c	1	Total	C	O	0	0
			48	38	10		
30	c	1	Total	C	O	0	0
			49	39	10		
30	d	1	Total	C	O	0	0
			44	34	10		

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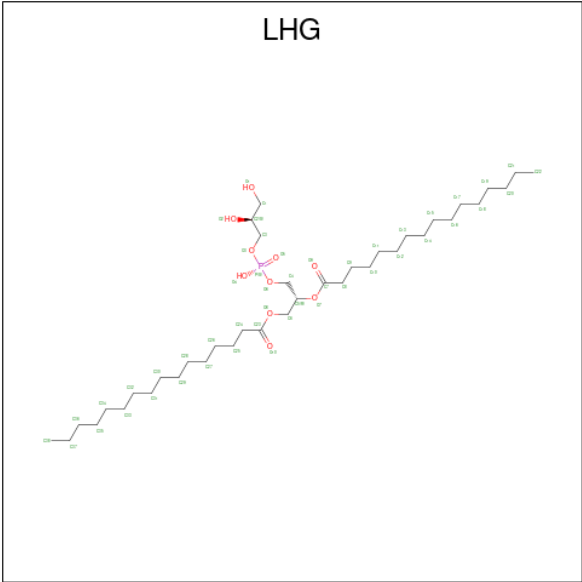
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
30	m	1	Total	C	O	0	0
			51	41	10		

- Molecule 31 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (CCD ID: SQD) (formula: C₄₁H₇₈O₁₂S).



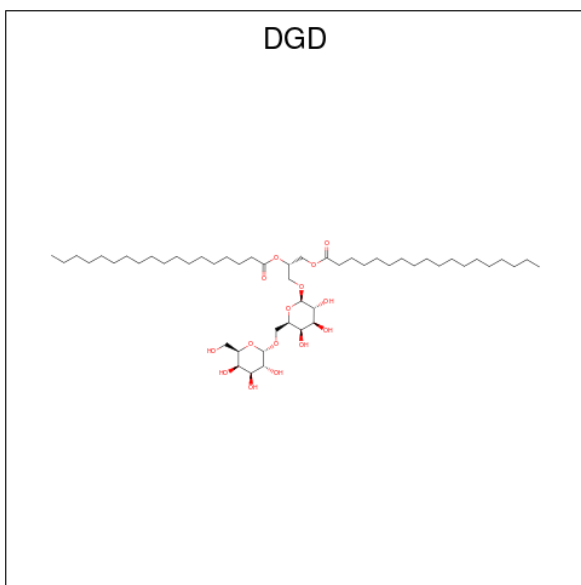
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
31	A	1	Total	C	O	S	0	0
			52	39	12	1		
31	A	1	Total	C	O	S	0	0
			43	30	12	1		
31	B	1	Total	C	O	S	0	0
			54	41	12	1		
31	D	1	Total	C	O	S	0	0
			36	25	10	1		
31	a	1	Total	C	O	S	0	0
			54	41	12	1		
31	a	1	Total	C	O	S	0	0
			54	41	12	1		
31	b	1	Total	C	O	S	0	0
			49	36	12	1		
31	f	1	Total	C	O	S	0	0
			41	28	12	1		

- Molecule 32 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (CCD ID: LHG) (formula: C₃₈H₇₅O₁₀P).



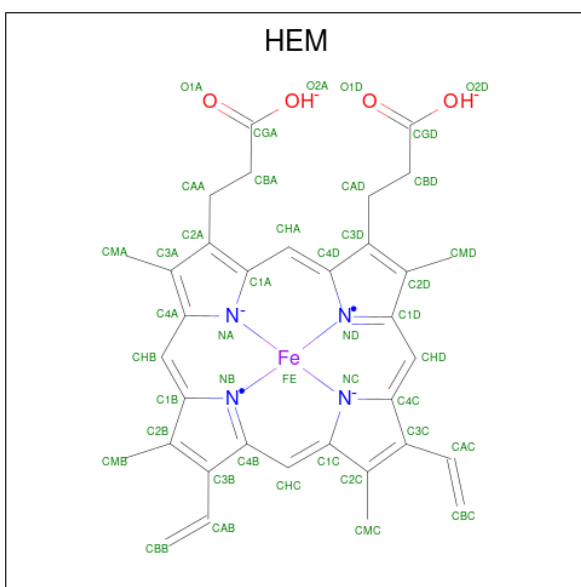
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
32	A	1	Total	C	O	P	0	0
			49	38	10	1		
32	D	1	Total	C	O	P	0	0
			49	38	10	1		
32	D	1	Total	C	O	P	0	0
			47	36	10	1		
32	D	1	Total	C	O	P	0	0
			49	38	10	1		
32	L	1	Total	C	O	P	0	0
			49	38	10	1		
32	a	1	Total	C	O	P	0	0
			49	38	10	1		
32	d	1	Total	C	O	P	0	0
			49	38	10	1		
32	d	1	Total	C	O	P	0	0
			39	28	10	1		
32	e	1	Total	C	O	P	0	0
			42	31	10	1		
32	l	1	Total	C	O	P	0	0
			49	38	10	1		

- Molecule 33 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (CCD ID: DGD) (formula: C₅₁H₉₆O₁₅).



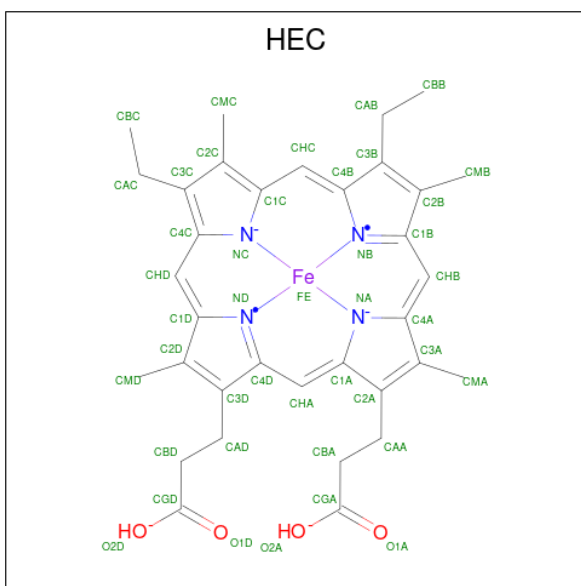
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
33	A	1	Total	C	O	0	0
			66	51	15		
33	C	1	Total	C	O	0	0
			62	47	15		
33	C	1	Total	C	O	0	0
			62	47	15		
33	C	1	Total	C	O	0	0
			62	47	15		
33	H	1	Total	C	O	0	0
			62	47	15		
33	c	1	Total	C	O	0	0
			62	47	15		
33	c	1	Total	C	O	0	0
			62	47	15		
33	c	1	Total	C	O	0	0
			62	47	15		
33	h	1	Total	C	O	0	0
			62	47	15		

- Molecule 34 is PROTOPORPHYRIN IX CONTAINING FE (CCD ID: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



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

- Molecule 35 is HEME C (CCD ID: HEC) (formula: $\text{C}_{34}\text{H}_{36}\text{FeN}_4\text{O}_4$).



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

- Molecule 36 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	A	146	Total O 146 146	0	0
36	B	231	Total O 231 231	0	0
36	C	197	Total O 197 197	0	0
36	D	142	Total O 142 142	0	0
36	E	28	Total O 28 28	0	0
36	F	11	Total O 11 11	0	0
36	H	26	Total O 26 26	0	0
36	I	15	Total O 15 15	0	0
36	J	11	Total O 11 11	0	0
36	K	8	Total O 8 8	0	0
36	L	8	Total O 8 8	0	0
36	M	9	Total O 9 9	0	0
36	O	122	Total O 122 122	0	0
36	T	10	Total O 10 10	0	0
36	U	57	Total O 57 57	0	0
36	V	74	Total O 74 74	0	0
36	Y	4	Total O 4 4	0	0
36	X	11	Total O 11 11	0	0
36	Z	2	Total O 2 2	0	0
36	R	2	Total O 2 2	0	0
36	a	132	Total O 132 132	0	0

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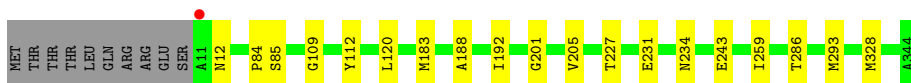
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
36	b	211	Total 211	O 211	0	0
36	c	183	Total 183	O 183	0	0
36	d	128	Total 128	O 128	0	0
36	e	21	Total 21	O 21	0	0
36	f	8	Total 8	O 8	0	0
36	h	17	Total 17	O 17	0	0
36	i	11	Total 11	O 11	0	0
36	j	7	Total 7	O 7	0	0
36	k	9	Total 9	O 9	0	0
36	l	14	Total 14	O 14	0	0
36	m	13	Total 13	O 13	0	0
36	o	125	Total 125	O 125	0	0
36	t	11	Total 11	O 11	0	0
36	u	59	Total 59	O 59	0	0
36	v	64	Total 64	O 64	0	0
36	y	3	Total 3	O 3	0	0
36	x	8	Total 8	O 8	0	0
36	z	2	Total 2	O 2	0	0
36	r	2	Total 2	O 2	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 1

Chain A: 

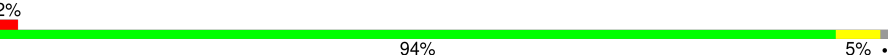


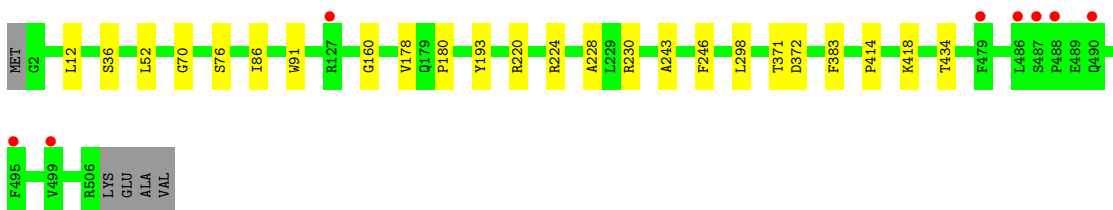
- Molecule 1: Photosystem II protein D1 1

Chain a: 

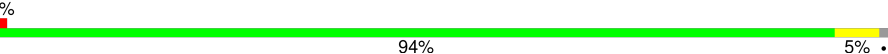


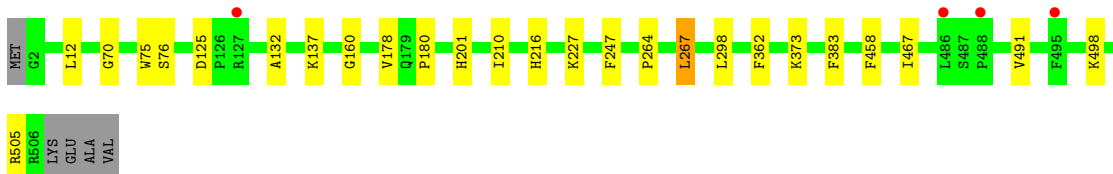
- Molecule 2: Photosystem II CP47 reaction center protein

Chain B: 

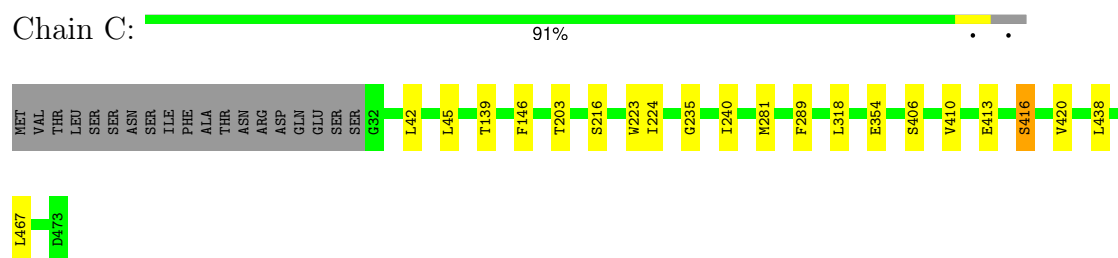


- Molecule 2: Photosystem II CP47 reaction center protein

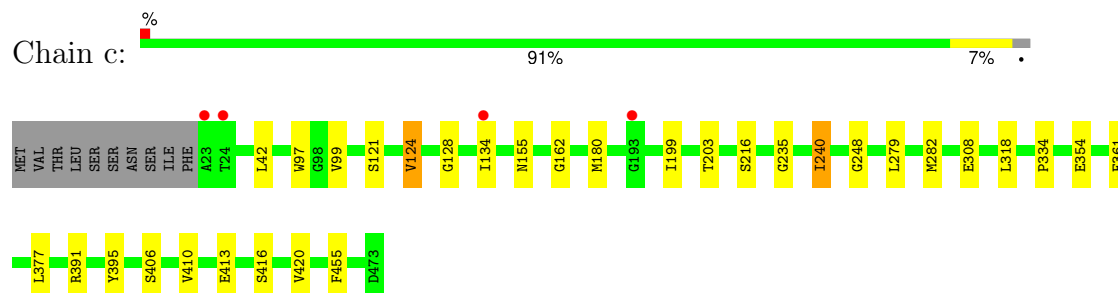
Chain b: 



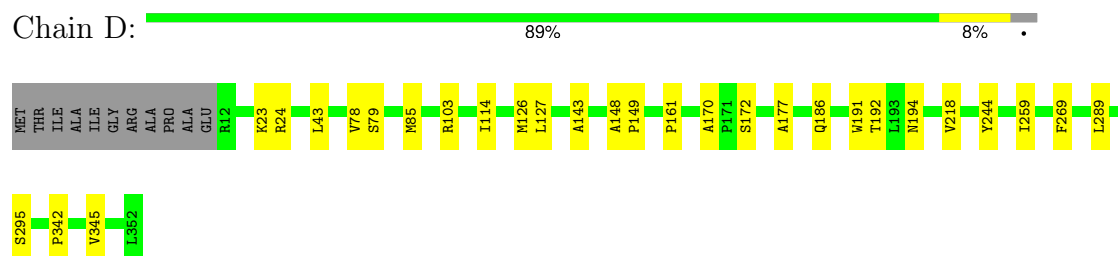
- Molecule 3: Photosystem II CP43 reaction center protein



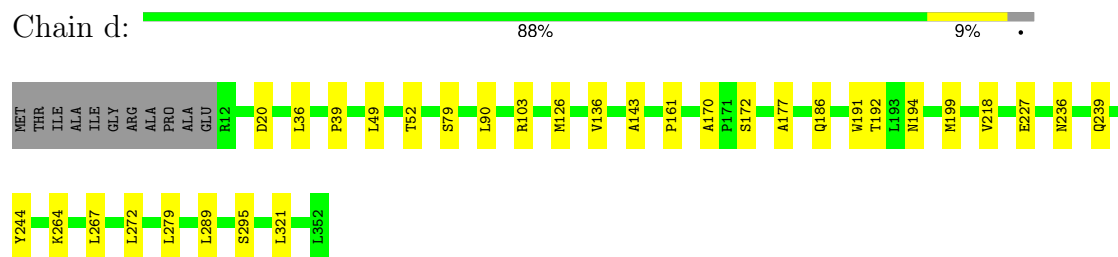
- Molecule 3: Photosystem II CP43 reaction center protein



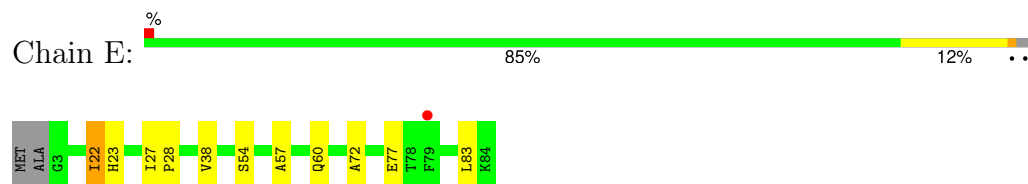
- Molecule 4: Photosystem II D2 protein



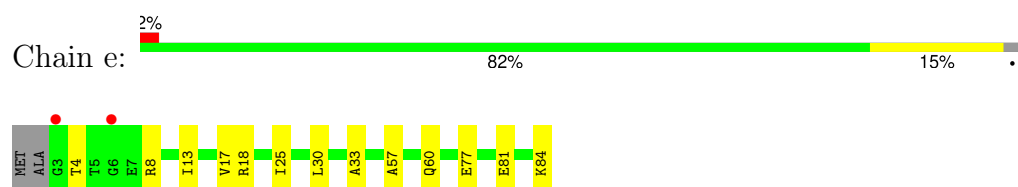
- Molecule 4: Photosystem II D2 protein



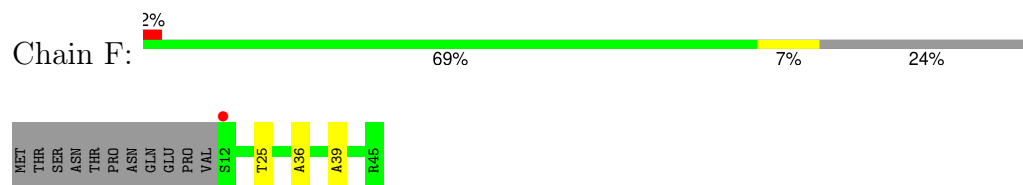
- Molecule 5: Cytochrome b559 subunit alpha



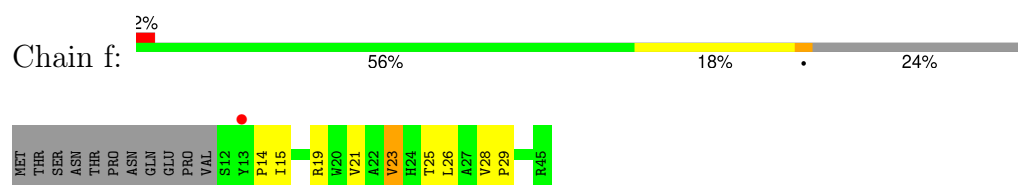
- Molecule 5: Cytochrome b559 subunit alpha



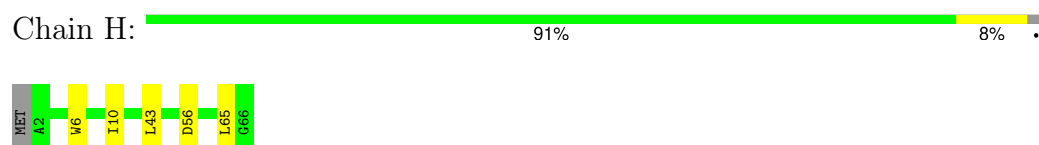
- Molecule 6: Cytochrome b559 subunit beta



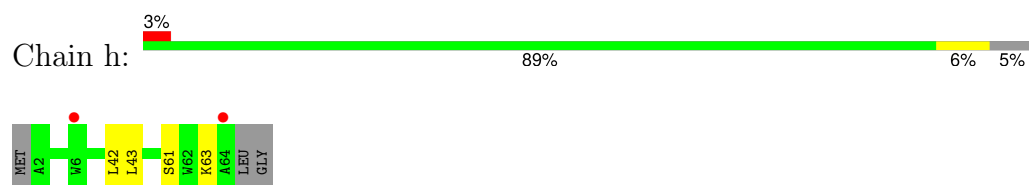
- Molecule 6: Cytochrome b559 subunit beta



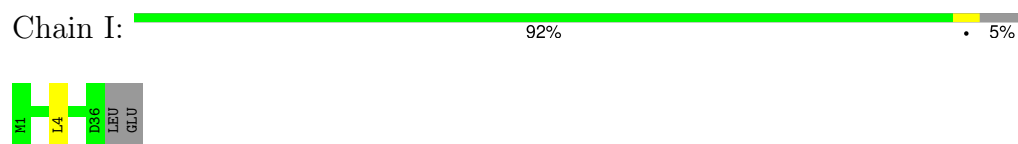
- Molecule 7: Photosystem II reaction center protein H



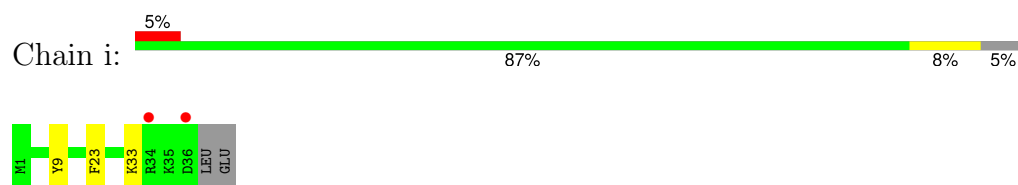
- Molecule 7: Photosystem II reaction center protein H



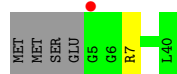
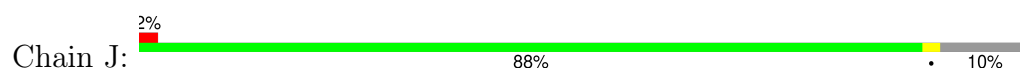
- Molecule 8: Photosystem II reaction center protein I



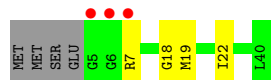
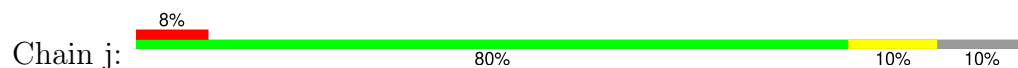
- Molecule 8: Photosystem II reaction center protein I



- Molecule 9: Photosystem II reaction center protein J



- Molecule 9: Photosystem II reaction center protein J



- Molecule 10: Photosystem II reaction center protein K



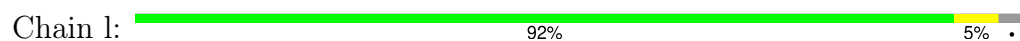
- Molecule 10: Photosystem II reaction center protein K



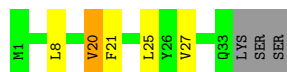
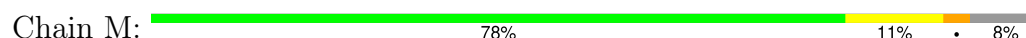
- Molecule 11: Photosystem II reaction center protein L



- Molecule 11: Photosystem II reaction center protein L



- Molecule 12: Photosystem II reaction center protein M



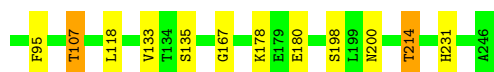
- Molecule 12: Photosystem II reaction center protein M

Chain m:  69% 19% 11%



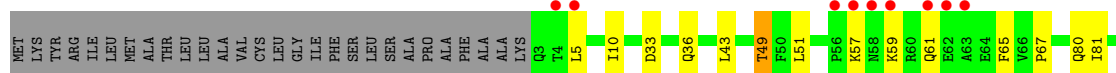
- Molecule 13: Photosystem II manganese-stabilizing polypeptide

Chain O:  2% 80% 8% 10%



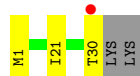
- Molecule 13: Photosystem II manganese-stabilizing polypeptide

Chain o:  4% 81% 8% 10%



- Molecule 14: Photosystem II reaction center protein T

Chain T:  3% 84% 9% 6%



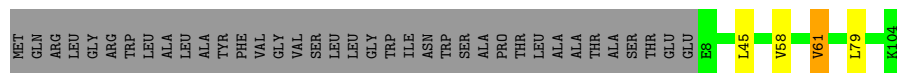
- Molecule 14: Photosystem II reaction center protein T

Chain t:  6% 84% 9% 6%

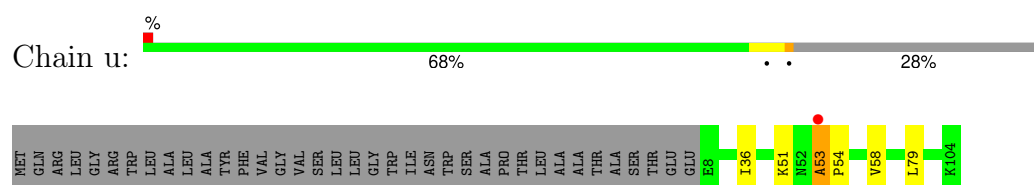


- Molecule 15: Photosystem II 12 kDa extrinsic protein

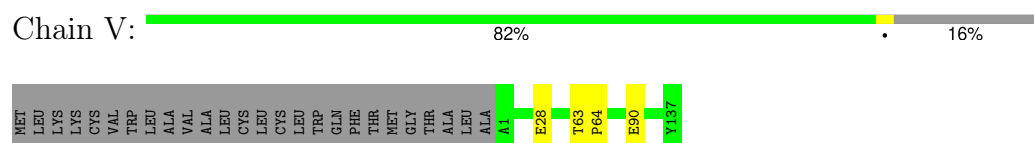
Chain U:  69% 28%



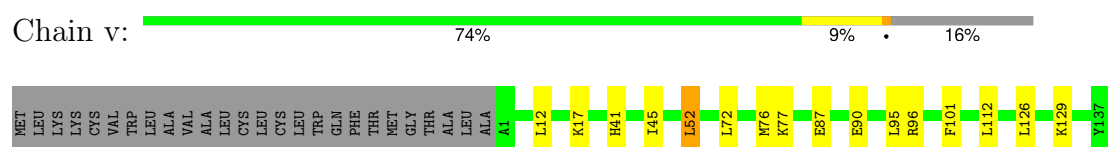
- Molecule 15: Photosystem II 12 kDa extrinsic protein



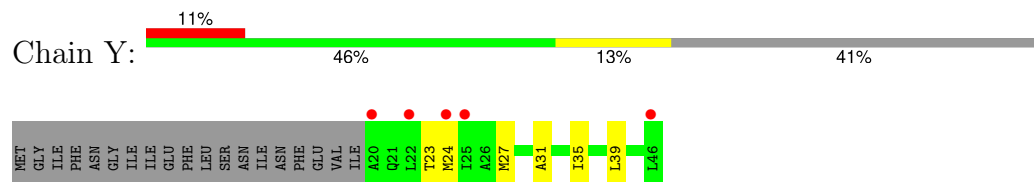
- Molecule 16: Cytochrome c-550



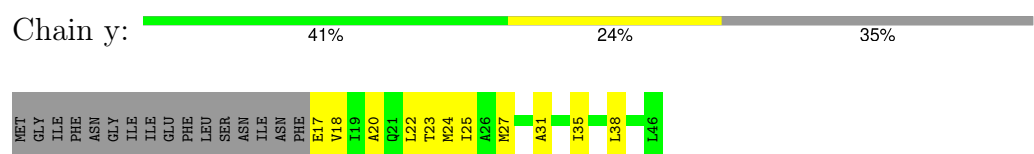
- Molecule 16: Cytochrome c-550



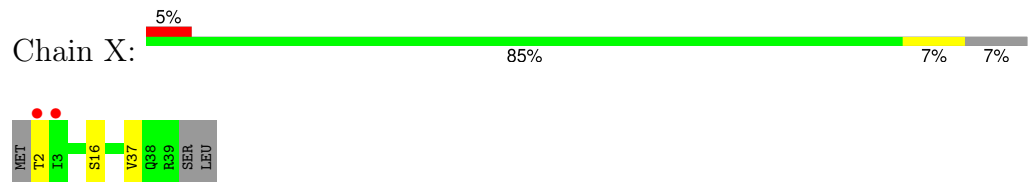
- Molecule 17: Photosystem II reaction center protein Ycf12



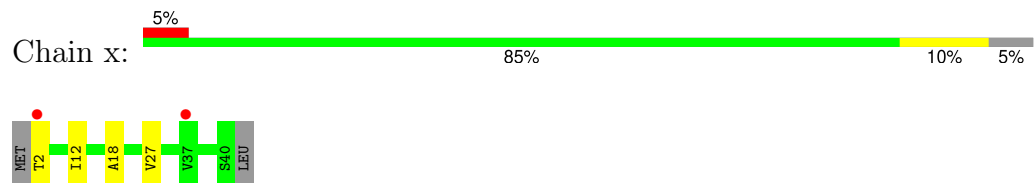
- Molecule 17: Photosystem II reaction center protein Ycf12



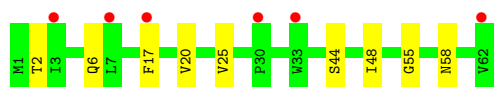
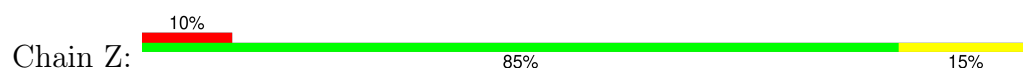
- Molecule 18: Photosystem II reaction center X protein



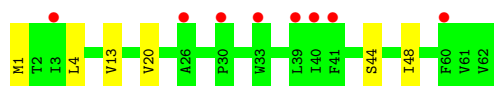
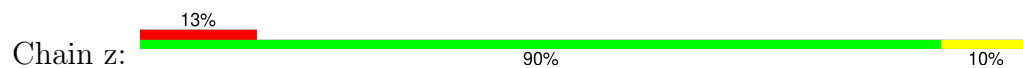
- Molecule 18: Photosystem II reaction center X protein



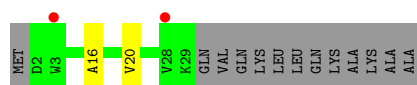
- Molecule 19: Photosystem II reaction center protein Z



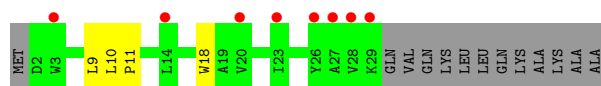
- Molecule 19: Photosystem II reaction center protein Z



- Molecule 20: Photosystem II protein Y



- 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	117.55Å 222.83Å 309.13Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	37.44 – 1.98 37.44 – 1.98	Depositor EDS
% Data completeness (in resolution range)	98.3 (37.44-1.98) 83.2 (37.44-1.98)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.32 (at 1.98Å)	Xtriage
Refinement program	PHENIX 2.0_5848	Depositor
R, R_{free}	0.188 , 0.224 0.188 , 0.224	Depositor DCC
R_{free} test set	4966 reflections (0.79%)	wwPDB-VP
Wilson B-factor (Å ²)	25.6	Xtriage
Anisotropy	0.210	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 57.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.96	EDS
Total number of atoms	52680	wwPDB-VP
Average B, all atoms (Å ²)	40.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.38% 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: FE2, HEM, CL, LHG, HEC, DGD, SQD, CLA, BCR, OEX, FME, BCT, LMG, STE, PHO, PL9

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	0.34	0/2707	0.50	0/3692
1	a	0.33	0/2704	0.50	0/3688
2	B	0.31	0/4166	0.45	0/5675
2	b	0.29	0/4127	0.45	0/5623
3	C	0.29	0/3539	0.45	0/4819
3	c	0.28	0/3619	0.43	0/4926
4	D	0.33	0/2812	0.48	0/3832
4	d	0.31	0/2821	0.46	0/3844
5	E	0.25	0/688	0.45	0/940
5	e	0.23	0/683	0.44	0/932
6	F	0.25	0/284	0.38	0/387
6	f	0.25	0/284	0.48	0/387
7	H	0.27	0/517	0.44	0/705
7	h	0.25	0/505	0.43	0/689
8	I	0.29	0/293	0.45	0/396
8	i	0.30	0/293	0.43	0/396
9	J	0.25	0/263	0.37	0/356
9	j	0.21	0/263	0.36	0/356
10	K	0.26	0/303	0.42	0/416
10	k	0.26	0/303	0.43	0/416
11	L	0.32	0/311	0.43	0/422
11	l	0.32	0/303	0.42	0/412
12	M	0.30	0/249	0.50	0/341
12	m	0.31	0/244	0.49	0/334
13	O	0.29	0/1904	0.49	0/2585
13	o	0.29	0/1905	0.47	0/2583
14	T	0.32	0/257	0.47	0/349
14	t	0.28	0/255	0.38	0/346
15	U	0.27	0/785	0.43	0/1064
15	u	0.27	0/785	0.46	0/1064
16	V	0.28	0/1085	0.47	0/1473
16	v	0.25	0/1085	0.40	0/1473

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	Y	0.19	0/197	0.31	0/264
17	y	0.18	0/219	0.34	0/294
18	X	0.25	0/284	0.39	0/384
18	x	0.20	0/289	0.31	0/391
19	Z	0.19	0/490	0.41	0/669
19	z	0.19	0/488	0.30	0/666
20	R	0.19	0/227	0.31	0/313
20	r	0.20	0/227	0.36	0/313
All	All	0.29	0/42763	0.45	0/58215

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

Mol	Chain	#Chirality outliers	#Planarity outliers
16	V	0	1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	V	63	THR	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2622	0	2519	10	0
1	a	2619	0	2510	17	0
2	B	4016	0	3883	19	0
2	b	3984	0	3842	20	0
3	C	3426	0	3353	12	0
3	c	3500	0	3426	22	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	D	2717	0	2621	20	0
4	d	2723	0	2627	25	0
5	E	666	0	651	8	0
5	e	664	0	648	12	0
6	F	275	0	282	3	0
6	f	275	0	282	7	0
7	H	505	0	528	4	0
7	h	493	0	514	1	0
8	I	296	0	311	0	0
8	i	296	0	311	4	0
9	J	257	0	268	0	0
9	j	257	0	268	4	0
10	K	293	0	305	2	0
10	k	293	0	305	7	0
11	L	304	0	316	2	0
11	l	296	0	304	0	0
12	M	256	0	269	5	0
12	m	251	0	267	6	0
13	O	1870	0	1830	19	0
13	o	1874	0	1846	15	0
14	T	258	0	261	3	0
14	t	256	0	256	3	0
15	U	774	0	773	2	0
15	u	774	0	773	4	0
16	V	1064	0	1073	2	0
16	v	1064	0	1073	13	0
17	Y	196	0	217	4	0
17	y	218	0	241	6	0
18	X	281	0	312	3	0
18	x	286	0	314	3	0
19	Z	479	0	516	7	0
19	z	477	0	509	6	0
20	R	221	0	238	1	0
20	r	221	0	238	2	0
21	A	10	0	0	0	0
21	a	10	0	0	0	0
22	A	1	0	0	0	0
22	a	1	0	0	0	0
23	A	2	0	0	0	0
23	a	2	0	0	0	0
24	A	4	0	1	0	0
24	a	4	0	1	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	A	249	0	264	4	0
25	B	1035	0	1139	19	0
25	C	839	0	922	15	0
25	D	130	0	144	3	0
25	a	260	0	288	9	0
25	b	1035	0	1139	21	0
25	c	839	0	919	15	0
25	d	130	0	144	5	0
26	A	128	0	148	1	0
26	a	64	0	74	1	0
26	d	64	0	74	2	0
27	A	40	0	56	1	0
27	B	120	0	168	2	0
27	C	80	0	112	3	0
27	D	40	0	56	1	0
27	H	40	0	56	1	0
27	J	40	0	56	2	0
27	K	40	0	56	0	0
27	T	40	0	56	3	0
27	a	40	0	56	1	0
27	b	120	0	168	2	0
27	c	80	0	112	2	0
27	d	40	0	56	1	0
27	h	40	0	56	4	0
27	k	80	0	112	4	0
27	t	40	0	56	4	0
28	A	55	0	80	3	0
28	D	55	0	80	2	0
28	a	55	0	80	3	0
28	d	55	0	80	2	0
29	A	45	0	83	1	0
29	B	62	0	96	3	0
29	C	78	0	126	1	0
29	D	9	0	17	0	0
29	E	44	0	74	0	0
29	H	18	0	35	1	0
29	I	32	0	48	0	0
29	J	12	0	16	0	0
29	K	14	0	27	1	0
29	M	40	0	67	3	0
29	T	16	0	31	4	0
29	X	20	0	35	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	Z	17	0	33	0	0
29	a	12	0	16	0	0
29	b	57	0	96	3	0
29	c	31	0	57	1	0
29	d	60	0	105	6	0
29	e	31	0	52	0	0
29	f	8	0	15	0	0
29	h	10	0	19	0	0
29	i	18	0	24	1	0
29	j	28	0	47	0	0
29	k	14	0	20	0	0
29	m	30	0	51	1	0
29	t	24	0	36	0	0
29	z	9	0	14	0	0
30	A	48	0	66	2	0
30	B	45	0	60	4	0
30	C	84	0	106	3	0
30	D	101	0	142	6	0
30	M	51	0	72	2	0
30	a	55	0	86	3	0
30	b	55	0	86	1	0
30	c	173	0	240	3	0
30	d	44	0	58	0	0
30	m	51	0	72	3	0
31	A	95	0	124	2	0
31	B	54	0	78	4	0
31	D	36	0	46	0	0
31	a	108	0	156	3	0
31	b	49	0	65	3	0
31	f	41	0	49	3	0
32	A	49	0	74	1	0
32	D	145	0	215	14	0
32	L	49	0	74	2	0
32	a	49	0	74	3	0
32	d	88	0	125	0	0
32	e	42	0	57	1	0
32	l	49	0	74	2	0
33	A	66	0	96	2	0
33	C	186	0	246	1	0
33	H	62	0	82	1	0
33	c	186	0	246	4	0
33	h	62	0	82	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
34	F	43	0	30	2	0
34	f	43	0	30	5	0
35	V	43	0	30	0	0
35	v	43	0	30	1	0
36	A	146	0	0	2	0
36	B	231	0	0	2	0
36	C	197	0	0	1	0
36	D	142	0	0	0	0
36	E	28	0	0	0	0
36	F	11	0	0	2	0
36	H	26	0	0	0	0
36	I	15	0	0	0	0
36	J	11	0	0	0	0
36	K	8	0	0	0	0
36	L	8	0	0	0	0
36	M	9	0	0	0	0
36	O	122	0	0	3	0
36	R	2	0	0	0	0
36	T	10	0	0	0	0
36	U	57	0	0	0	0
36	V	74	0	0	2	0
36	X	11	0	0	0	0
36	Y	4	0	0	0	0
36	Z	2	0	0	0	0
36	a	132	0	0	3	0
36	b	211	0	0	2	0
36	c	183	0	0	2	0
36	d	128	0	0	3	0
36	e	21	0	0	0	0
36	f	8	0	0	1	0
36	h	17	0	0	0	0
36	i	11	0	0	0	0
36	j	7	0	0	0	0
36	k	9	0	0	2	0
36	l	14	0	0	0	0
36	m	13	0	0	1	0
36	o	125	0	0	0	0
36	r	2	0	0	0	0
36	t	11	0	0	0	0
36	u	59	0	0	0	0
36	v	64	0	0	2	0
36	x	8	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	y	3	0	0	0	0
36	z	2	0	0	0	0
All	All	52680	0	52200	412	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 4.

The worst 5 of 412 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:D:410:LHG:H152	32:L:101:LHG:H281	1.59	0.84
28:A:612:PL9:H361	6:F:25:THR:HG21	1.61	0.81
1:a:101:SER:HB2	30:a:616:LMG:H132	1.63	0.81
34:F:101:HEM:HBC2	34:F:101:HEM:HHD	1.66	0.78
1:a:102:LEU:H	30:a:616:LMG:H121	1.50	0.76

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	332/344 (96%)	327 (98%)	4 (1%)	1 (0%)	36	27
1	a	332/344 (96%)	326 (98%)	5 (2%)	1 (0%)	36	27
2	B	508/510 (100%)	500 (98%)	8 (2%)	0	100	100
2	b	504/510 (99%)	495 (98%)	8 (2%)	1 (0%)	43	35
3	C	441/461 (96%)	432 (98%)	8 (2%)	1 (0%)	43	35
3	c	451/461 (98%)	442 (98%)	8 (2%)	1 (0%)	43	35
4	D	339/352 (96%)	332 (98%)	7 (2%)	0	100	100
4	d	340/352 (97%)	332 (98%)	8 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	E	81/84 (96%)	79 (98%)	2 (2%)	0	100	100
5	e	80/84 (95%)	80 (100%)	0	0	100	100
6	F	32/45 (71%)	32 (100%)	0	0	100	100
6	f	32/45 (71%)	32 (100%)	0	0	100	100
7	H	63/66 (96%)	61 (97%)	2 (3%)	0	100	100
7	h	61/66 (92%)	58 (95%)	2 (3%)	1 (2%)	7	2
8	I	34/38 (90%)	31 (91%)	3 (9%)	0	100	100
8	i	34/38 (90%)	32 (94%)	2 (6%)	0	100	100
9	J	34/40 (85%)	31 (91%)	2 (6%)	1 (3%)	3	0
9	j	34/40 (85%)	33 (97%)	1 (3%)	0	100	100
10	K	35/46 (76%)	34 (97%)	1 (3%)	0	100	100
10	k	35/46 (76%)	35 (100%)	0	0	100	100
11	L	35/37 (95%)	35 (100%)	0	0	100	100
11	l	34/37 (92%)	34 (100%)	0	0	100	100
12	M	31/36 (86%)	31 (100%)	0	0	100	100
12	m	30/36 (83%)	30 (100%)	0	0	100	100
13	O	243/272 (89%)	231 (95%)	11 (4%)	1 (0%)	30	20
13	o	242/272 (89%)	235 (97%)	7 (3%)	0	100	100
14	T	28/32 (88%)	28 (100%)	0	0	100	100
14	t	28/32 (88%)	27 (96%)	1 (4%)	0	100	100
15	U	95/134 (71%)	93 (98%)	2 (2%)	0	100	100
15	u	95/134 (71%)	91 (96%)	3 (3%)	1 (1%)	11	4
16	V	135/163 (83%)	130 (96%)	4 (3%)	1 (1%)	18	9
16	v	135/163 (83%)	132 (98%)	3 (2%)	0	100	100
17	Y	25/46 (54%)	25 (100%)	0	0	100	100
17	y	28/46 (61%)	28 (100%)	0	0	100	100
18	X	36/41 (88%)	35 (97%)	1 (3%)	0	100	100
18	x	37/41 (90%)	37 (100%)	0	0	100	100
19	Z	60/62 (97%)	59 (98%)	1 (2%)	0	100	100
19	z	60/62 (97%)	57 (95%)	3 (5%)	0	100	100
20	R	26/41 (63%)	26 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	r	26/41 (63%)	26 (100%)	0	0	100	100
All	All	5231/5700 (92%)	5114 (98%)	107 (2%)	10 (0%)	43	35

5 of 10 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	416	SER
16	V	64	PRO
3	c	416	SER
15	u	53	ALA
2	b	505	ARG

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	270/280 (96%)	268 (99%)	2 (1%)	76	73
1	a	269/280 (96%)	263 (98%)	6 (2%)	45	38
2	B	408/407 (100%)	406 (100%)	2 (0%)	81	79
2	b	403/407 (99%)	401 (100%)	2 (0%)	81	79
3	C	345/362 (95%)	341 (99%)	4 (1%)	63	58
3	c	354/362 (98%)	347 (98%)	7 (2%)	48	42
4	D	276/283 (98%)	274 (99%)	2 (1%)	76	73
4	d	277/283 (98%)	274 (99%)	3 (1%)	65	61
5	E	72/73 (99%)	70 (97%)	2 (3%)	38	29
5	e	71/73 (97%)	70 (99%)	1 (1%)	59	54
6	F	28/39 (72%)	28 (100%)	0	100	100
6	f	28/39 (72%)	27 (96%)	1 (4%)	31	20
7	H	54/55 (98%)	54 (100%)	0	100	100
7	h	53/55 (96%)	51 (96%)	2 (4%)	29	19
8	I	32/34 (94%)	31 (97%)	1 (3%)	35	26

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	i	32/34 (94%)	32 (100%)	0	100	100
9	J	24/28 (86%)	24 (100%)	0	100	100
9	j	24/28 (86%)	24 (100%)	0	100	100
10	K	30/37 (81%)	27 (90%)	3 (10%)	7	1
10	k	30/37 (81%)	28 (93%)	2 (7%)	15	5
11	L	35/35 (100%)	35 (100%)	0	100	100
11	l	34/35 (97%)	32 (94%)	2 (6%)	18	8
12	M	28/32 (88%)	26 (93%)	2 (7%)	13	5
12	m	28/32 (88%)	27 (96%)	1 (4%)	31	20
13	O	206/228 (90%)	201 (98%)	5 (2%)	43	35
13	o	207/228 (91%)	203 (98%)	4 (2%)	50	44
14	T	26/28 (93%)	25 (96%)	1 (4%)	29	19
14	t	25/28 (89%)	25 (100%)	0	100	100
15	U	84/112 (75%)	82 (98%)	2 (2%)	43	35
15	u	84/112 (75%)	84 (100%)	0	100	100
16	V	117/138 (85%)	117 (100%)	0	100	100
16	v	117/138 (85%)	116 (99%)	1 (1%)	70	67
17	Y	19/37 (51%)	19 (100%)	0	100	100
17	y	22/37 (60%)	22 (100%)	0	100	100
18	X	31/34 (91%)	31 (100%)	0	100	100
18	x	31/34 (91%)	30 (97%)	1 (3%)	34	24
19	Z	52/52 (100%)	52 (100%)	0	100	100
19	z	51/52 (98%)	51 (100%)	0	100	100
20	R	22/33 (67%)	22 (100%)	0	100	100
20	r	22/33 (67%)	20 (91%)	2 (9%)	9	2
All	All	4321/4654 (93%)	4260 (99%)	61 (1%)	61	54

5 of 61 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	a	200	LEU
13	o	118	LEU
3	c	124	VAL

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Mol	Chain	Res	Type
13	o	115	ARG
20	r	9	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 50 such sidechains are listed below:

Mol	Chain	Res	Type
2	b	497	GLN
4	d	338	ASN
19	z	31	GLN
3	c	322	GLN
4	d	61	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

6 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	$\# Z > 2$
8	FME	I	1	8	8,9,10	0.47	0	8,9,11	0.76	0
14	FME	t	1	14	8,9,10	0.51	0	8,9,11	0.92	0
12	FME	M	1	12	8,9,10	0.44	0	8,9,11	0.95	0
14	FME	T	1	14	8,9,10	0.44	0	8,9,11	0.88	0
12	FME	m	1	12	8,9,10	0.43	0	8,9,11	0.60	0
8	FME	i	1	8	8,9,10	0.49	0	8,9,11	0.69	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
8	FME	I	1	8	-	2/7/9/11	-
14	FME	t	1	14	-	4/7/9/11	-
12	FME	M	1	12	-	1/7/9/11	-
14	FME	T	1	14	-	3/7/9/11	-
12	FME	m	1	12	-	0/7/9/11	-
8	FME	i	1	8	-	0/7/9/11	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

5 of 10 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
12	M	1	FME	CB-CA-N-CN
14	T	1	FME	N-CA-CB-CG
14	t	1	FME	O-C-CA-CB
14	t	1	FME	N-CA-CB-CG
14	T	1	FME	CB-CG-SD-CE

There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
14	T	1	FME	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 211 ligands modelled in this entry, 6 are monoatomic - leaving 205 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
29	STE	h	103	-	9,9,19	0.39	0	8,8,19	0.69	0
30	LMG	d	410	-	44,44,55	0.51	0	52,52,63	0.66	0
29	STE	C	520	-	9,9,19	0.35	0	8,8,19	0.80	0
35	HEC	v	201	16	50,50,50	1.67	8 (16%)	68,82,82	1.32	6 (8%)
25	CLA	A	614	36	69,73,73	1.34	8 (11%)	82,113,113	1.22	6 (7%)
21	OEX	A	601	3,1,36	0,14,14	-	-	-	-	-
27	BCR	B	617	-	41,41,41	0.42	0	56,56,56	0.72	1 (1%)
29	STE	E	103	-	19,19,19	0.63	0	19,19,19	1.02	1 (5%)
29	STE	C	518	-	4,4,19	0.39	0	3,3,19	0.46	0
33	DGD	c	520	-	63,63,67	0.52	0	77,77,81	0.78	2 (2%)
25	CLA	c	507	36	69,73,73	1.12	4 (5%)	82,113,113	1.34	7 (8%)
25	CLA	c	503	3	69,73,73	1.30	8 (11%)	82,113,113	1.45	8 (9%)
31	SQD	A	616	-	50,52,54	1.55	7 (14%)	60,63,65	1.94	11 (18%)
30	LMG	c	522	-	46,46,55	0.53	0	54,54,63	0.69	0
29	STE	e	104	-	12,12,19	0.68	0	12,12,19	1.24	2 (16%)
25	CLA	b	605	2	69,73,73	1.12	7 (10%)	82,113,113	1.25	7 (8%)
29	STE	M	104	-	14,14,19	0.33	0	13,13,19	0.88	0
29	STE	d	409	-	19,19,19	0.56	0	19,19,19	1.08	1 (5%)
25	CLA	B	606	2	69,73,73	1.39	8 (11%)	82,113,113	1.39	8 (9%)
29	STE	B	623	-	17,17,19	0.61	0	17,17,19	1.20	2 (11%)
25	CLA	B	616	2	64,68,73	1.31	7 (10%)	76,107,113	1.45	9 (11%)
25	CLA	c	506	3	69,73,73	1.26	7 (10%)	82,113,113	1.15	5 (6%)
30	LMG	B	620	-	45,45,55	0.52	0	53,53,63	0.97	2 (3%)
31	SQD	f	102	-	39,41,54	1.66	7 (17%)	49,52,65	1.76	10 (20%)
28	PL9	a	611	-	55,55,55	0.81	1 (1%)	68,69,69	1.51	11 (16%)
29	STE	E	102	-	11,11,19	0.34	0	10,10,19	0.73	0
25	CLA	C	513	3	69,73,73	1.33	6 (8%)	82,113,113	1.35	8 (9%)
29	STE	J	102	-	11,11,19	0.70	0	11,11,19	1.23	0
29	STE	c	516	-	12,12,19	0.36	0	11,11,19	0.76	0
29	STE	C	516	-	13,13,19	0.78	0	13,13,19	0.91	0
27	BCR	T	101	-	41,41,41	0.46	0	56,56,56	0.97	2 (3%)
26	PHO	a	608	-	58,69,69	2.08	9 (15%)	55,99,99	1.60	9 (16%)
27	BCR	h	101	-	41,41,41	0.44	0	56,56,56	0.89	2 (3%)
29	STE	f	103	-	7,7,19	0.37	0	6,6,19	0.68	0
25	CLA	C	504	36	63,67,73	1.30	8 (12%)	74,105,113	1.20	7 (9%)
29	STE	I	102	-	14,14,19	0.70	0	14,14,19	1.05	0
25	CLA	c	511	3	69,73,73	1.50	7 (10%)	82,113,113	1.45	5 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
29	STE	B	624	-	11,11,19	0.67	0	11,11,19	1.31	2 (18%)
27	BCR	A	611	-	41,41,41	0.40	0	56,56,56	0.87	3 (5%)
29	STE	b	624	-	9,9,19	0.33	0	8,8,19	0.78	0
29	STE	e	103	-	8,8,19	0.37	0	7,7,19	0.70	0
32	LHG	D	408	-	48,48,48	0.60	1 (2%)	51,54,54	0.65	2 (3%)
33	DGD	A	619	-	67,67,67	0.55	0	81,81,81	0.96	6 (7%)
25	CLA	C	501	3	69,73,73	1.33	7 (10%)	82,113,113	1.44	6 (7%)
29	STE	b	621	-	19,19,19	0.61	0	19,19,19	1.05	0
25	CLA	c	501	3	69,73,73	1.08	5 (7%)	82,113,113	1.26	6 (7%)
25	CLA	B	603	2	69,73,73	1.32	5 (7%)	82,113,113	1.29	8 (9%)
25	CLA	B	608	2	69,73,73	1.15	8 (11%)	82,113,113	1.37	10 (12%)
29	STE	z	101	-	8,8,19	0.38	0	7,7,19	0.63	0
25	CLA	b	616	2	64,68,73	1.22	6 (9%)	76,107,113	1.42	8 (10%)
32	LHG	D	410	-	48,48,48	0.58	1 (2%)	51,54,54	0.79	2 (3%)
32	LHG	e	102	-	41,41,48	0.57	0	44,47,54	0.57	0
29	STE	B	625	-	14,14,19	0.35	0	13,13,19	0.85	0
27	BCR	k	101	-	41,41,41	0.35	0	56,56,56	0.85	2 (3%)
25	CLA	d	403	4	69,73,73	1.27	9 (13%)	82,113,113	1.22	9 (10%)
27	BCR	D	403	-	41,41,41	0.41	0	56,56,56	0.84	1 (1%)
32	LHG	L	101	-	48,48,48	0.49	0	51,54,54	0.73	0
25	CLA	b	609	2	69,73,73	1.19	6 (8%)	82,113,113	1.38	10 (12%)
31	SQD	D	407	-	34,36,54	1.46	4 (11%)	42,45,65	1.70	9 (21%)
29	STE	M	103	-	9,9,19	0.33	0	8,8,19	0.78	0
25	CLA	D	402	4	69,73,73	1.21	6 (8%)	82,113,113	1.30	7 (8%)
29	STE	j	102	-	15,15,19	0.38	0	14,14,19	0.73	0
25	CLA	B	604	2	69,73,73	1.41	7 (10%)	82,113,113	1.58	8 (9%)
31	SQD	a	614	-	52,54,54	1.48	6 (11%)	62,65,65	1.97	12 (19%)
25	CLA	C	510	3	69,73,73	1.29	8 (11%)	82,113,113	1.38	8 (9%)
30	LMG	A	615	-	48,48,55	0.48	0	56,56,63	0.65	1 (1%)
32	LHG	a	613	-	48,48,48	0.55	0	51,54,54	0.61	0
29	STE	b	623	-	15,15,19	0.68	0	15,15,19	1.19	1 (6%)
29	STE	k	103	-	13,13,19	0.69	0	13,13,19	1.09	0
25	CLA	b	603	2	69,73,73	1.24	8 (11%)	82,113,113	1.37	8 (9%)
31	SQD	B	622	-	52,54,54	1.57	8 (15%)	62,65,65	1.82	14 (22%)
33	DGD	H	102	-	63,63,67	0.53	0	77,77,81	0.92	3 (3%)
30	LMG	c	518	-	29,29,55	0.43	0	31,31,63	0.61	0
25	CLA	b	610	36	69,73,73	1.21	7 (10%)	82,113,113	1.32	8 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
31	SQD	b	620	-	47,49,54	1.60	9 (19%)	57,60,65	1.85	13 (22%)
29	STE	m	102	-	11,11,19	0.66	0	11,11,19	1.41	2 (18%)
29	STE	A	622	-	10,10,19	0.33	0	9,9,19	0.83	0
25	CLA	a	607	36	69,73,73	1.20	6 (8%)	82,113,113	1.23	7 (8%)
25	CLA	a	612	36	69,73,73	1.27	8 (11%)	82,113,113	1.32	11 (13%)
25	CLA	b	615	2	69,73,73	1.47	10 (14%)	82,113,113	1.31	6 (7%)
27	BCR	K	101	-	41,41,41	0.37	0	56,56,56	0.91	0
25	CLA	B	613	2	69,73,73	1.37	9 (13%)	82,113,113	1.43	8 (9%)
25	CLA	B	611	2	69,73,73	1.15	7 (10%)	82,113,113	1.32	6 (7%)
34	HEM	F	101	6,5	50,50,50	1.42	8 (16%)	67,82,82	1.15	3 (4%)
30	LMG	b	622	-	55,55,55	0.50	0	63,63,63	0.88	4 (6%)
25	CLA	C	505	3	69,73,73	1.24	7 (10%)	82,113,113	1.41	9 (10%)
27	BCR	b	618	-	41,41,41	0.42	0	56,56,56	0.93	3 (5%)
29	STE	C	526	-	15,15,19	0.33	0	14,14,19	0.84	0
29	STE	K	102	-	13,13,19	0.37	0	12,12,19	0.66	0
25	CLA	B	601	36	69,73,73	1.35	7 (10%)	82,113,113	1.35	4 (4%)
24	BCT	a	605	22	3,3,3	0.79	0	2,3,3	2.06	1 (50%)
27	BCR	c	515	-	41,41,41	0.39	0	56,56,56	0.99	2 (3%)
27	BCR	H	101	-	41,41,41	0.45	0	56,56,56	1.15	4 (7%)
25	CLA	b	601	36	69,73,73	1.27	7 (10%)	82,113,113	1.32	5 (6%)
30	LMG	a	616	-	55,55,55	0.48	0	63,63,63	1.29	7 (11%)
25	CLA	b	606	2	69,73,73	1.40	6 (8%)	82,113,113	1.42	5 (6%)
29	STE	A	613	-	8,8,19	0.37	0	7,7,19	0.74	0
30	LMG	M	101	-	51,51,55	0.45	0	59,59,63	0.85	2 (3%)
28	PL9	A	612	-	55,55,55	0.67	0	68,69,69	1.48	7 (10%)
27	BCR	c	514	-	41,41,41	0.32	0	56,56,56	0.57	0
29	STE	C	527	-	13,13,19	0.35	0	12,12,19	0.78	0
32	LHG	l	101	-	48,48,48	0.46	0	51,54,54	0.62	0
30	LMG	C	517	-	35,35,55	0.51	0	43,43,63	1.45	6 (13%)
25	CLA	c	505	3	69,73,73	1.17	6 (8%)	82,113,113	1.34	8 (9%)
29	STE	C	519	-	6,6,19	0.38	0	5,5,19	0.64	0
33	DGD	h	102	-	63,63,67	0.54	0	77,77,81	0.95	6 (7%)
30	LMG	D	406	-	51,51,55	0.48	0	59,59,63	0.64	1 (1%)
25	CLA	c	504	36	64,68,73	1.16	6 (9%)	76,107,113	1.34	8 (10%)
29	STE	E	101	-	11,11,19	0.74	0	11,11,19	1.20	1 (9%)
27	BCR	a	610	-	41,41,41	0.42	0	56,56,56	0.74	0
28	PL9	D	404	-	55,55,55	1.04	3 (5%)	68,69,69	1.57	12 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
25	CLA	B	602	2	69,73,73	1.21	7 (10%)	82,113,113	1.32	8 (9%)
26	PHO	A	609	-	58,69,69	2.08	9 (15%)	55,99,99	1.71	11 (20%)
25	CLA	A	607	36	69,73,73	1.16	6 (8%)	82,113,113	1.36	7 (8%)
25	CLA	B	609	2	69,73,73	1.22	5 (7%)	82,113,113	1.32	7 (8%)
25	CLA	B	607	36	69,73,73	1.29	8 (11%)	82,113,113	1.29	7 (8%)
25	CLA	b	608	2	69,73,73	1.16	7 (10%)	82,113,113	1.35	8 (9%)
29	STE	I	101	-	16,16,19	0.75	0	16,16,19	0.95	1 (6%)
29	STE	m	103	-	17,17,19	0.35	0	16,16,19	0.82	0
25	CLA	D	401	4	69,73,73	1.14	7 (10%)	82,113,113	1.16	7 (8%)
33	DGD	C	521	-	63,63,67	0.57	0	77,77,81	0.85	3 (3%)
25	CLA	B	614	2	69,73,73	1.37	7 (10%)	82,113,113	1.37	11 (13%)
27	BCR	k	102	-	41,41,41	0.39	0	56,56,56	0.90	2 (3%)
26	PHO	d	401	-	58,69,69	2.19	10 (17%)	55,99,99	1.69	11 (20%)
24	BCT	A	605	22	3,3,3	0.81	0	2,3,3	1.96	1 (50%)
29	STE	t	102	-	13,13,19	0.65	0	13,13,19	1.27	2 (15%)
33	DGD	C	522	-	63,63,67	0.60	0	77,77,81	0.77	2 (2%)
27	BCR	C	514	-	41,41,41	0.34	0	56,56,56	0.58	0
25	CLA	C	511	3	69,73,73	1.35	7 (10%)	82,113,113	1.39	4 (4%)
25	CLA	B	615	2	69,73,73	1.62	10 (14%)	82,113,113	1.45	5 (6%)
25	CLA	b	613	2	69,73,73	1.21	6 (8%)	82,113,113	1.31	7 (8%)
29	STE	c	517	-	17,17,19	0.39	0	16,16,19	0.68	0
32	LHG	D	409	-	46,46,48	0.56	0	49,52,54	0.59	0
25	CLA	B	610	36	69,73,73	1.29	7 (10%)	82,113,113	1.45	10 (12%)
25	CLA	b	604	2	69,73,73	1.22	8 (11%)	82,113,113	1.55	14 (17%)
27	BCR	t	101	-	41,41,41	0.54	0	56,56,56	1.19	6 (10%)
29	STE	a	617	-	11,11,19	0.75	0	11,11,19	1.09	1 (9%)
25	CLA	B	612	2	69,73,73	1.14	6 (8%)	82,113,113	1.36	8 (9%)
27	BCR	B	618	-	41,41,41	0.43	0	56,56,56	0.76	1 (1%)
27	BCR	J	101	-	41,41,41	0.35	0	56,56,56	0.86	1 (1%)
25	CLA	A	610	1	58,62,73	1.24	6 (10%)	68,99,113	1.33	6 (8%)
25	CLA	c	510	3	69,73,73	1.29	8 (11%)	82,113,113	1.26	7 (8%)
29	STE	D	411	-	8,8,19	0.34	0	7,7,19	0.73	0
31	SQD	A	618	-	41,43,54	1.77	8 (19%)	51,54,65	1.51	9 (17%)
25	CLA	b	602	2	69,73,73	1.15	7 (10%)	82,113,113	1.33	7 (8%)
25	CLA	C	512	3	69,73,73	1.40	10 (14%)	82,113,113	1.36	8 (9%)
29	STE	d	406	-	19,19,19	0.67	0	19,19,19	0.97	1 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	LHG	d	407	-	48,48,48	0.53	0	51,54,54	0.71	2 (3%)
29	STE	H	103	-	17,17,19	0.39	0	16,16,19	0.77	0
28	PL9	d	405	-	55,55,55	0.96	2 (3%)	68,69,69	1.57	14 (20%)
29	STE	Z	101	-	16,16,19	0.36	0	15,15,19	0.74	0
35	HEC	V	201	16	50,50,50	1.66	7 (14%)	68,82,82	1.43	9 (13%)
30	LMG	c	524	-	49,49,55	0.51	0	57,57,63	0.84	4 (7%)
21	OEX	a	601	3,1,36	0,14,14	-	-	-		
29	STE	T	102	-	15,15,19	0.37	0	14,14,19	0.76	0
25	CLA	d	402	4	69,73,73	1.19	7 (10%)	82,113,113	1.29	6 (7%)
29	STE	X	101	-	19,19,19	0.61	0	19,19,19	1.15	0
27	BCR	B	619	-	41,41,41	0.38	0	56,56,56	0.79	1 (1%)
25	CLA	C	507	36	69,73,73	1.11	6 (8%)	82,113,113	1.43	7 (8%)
27	BCR	d	404	-	41,41,41	0.45	0	56,56,56	0.91	2 (3%)
25	CLA	C	506	3	69,73,73	1.13	7 (10%)	82,113,113	1.23	5 (6%)
25	CLA	c	509	3	69,73,73	1.12	5 (7%)	82,113,113	1.34	7 (8%)
25	CLA	C	509	3	69,73,73	1.11	6 (8%)	82,113,113	1.24	5 (6%)
32	LHG	d	408	-	38,38,48	0.56	0	41,44,54	0.67	0
25	CLA	c	512	3	69,73,73	1.17	8 (11%)	82,113,113	1.21	6 (7%)
25	CLA	C	503	3	69,73,73	1.33	8 (11%)	82,113,113	1.48	10 (12%)
25	CLA	c	508	3	68,72,73	1.33	9 (13%)	80,111,113	1.41	9 (11%)
25	CLA	c	513	3	69,73,73	1.25	7 (10%)	82,113,113	1.19	6 (7%)
29	STE	d	411	-	19,19,19	0.57	0	19,19,19	1.04	0
25	CLA	C	508	3	69,73,73	1.25	8 (11%)	82,113,113	1.31	5 (6%)
29	STE	A	620	-	7,7,19	0.32	0	6,6,19	0.80	0
27	BCR	C	515	-	41,41,41	0.34	0	56,56,56	0.59	0
29	STE	M	102	-	14,14,19	0.66	0	14,14,19	1.11	1 (7%)
25	CLA	b	612	2	69,73,73	1.22	9 (13%)	82,113,113	1.22	8 (9%)
32	LHG	A	617	-	48,48,48	0.53	0	51,54,54	0.54	0
30	LMG	m	101	-	51,51,55	0.49	0	59,59,63	0.76	1 (1%)
29	STE	i	102	-	5,5,19	0.35	0	4,4,19	0.56	0
29	STE	C	525	-	11,11,19	0.75	0	11,11,19	1.30	2 (18%)
31	SQD	a	615	-	52,54,54	1.64	8 (15%)	62,65,65	1.45	8 (12%)
26	PHO	A	608	-	58,69,69	1.93	7 (12%)	55,99,99	1.59	7 (12%)
33	DGD	c	519	-	63,63,67	0.62	0	77,77,81	0.83	3 (3%)
34	HEM	f	101	6,5	50,50,50	1.51	9 (18%)	67,82,82	1.40	7 (10%)
25	CLA	A	606	1	69,73,73	1.22	6 (8%)	82,113,113	1.19	5 (6%)
29	STE	A	621	-	16,16,19	0.35	0	15,15,19	0.81	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
29	STE	i	101	-	11,11,19	0.75	0	11,11,19	1.12	0
29	STE	B	621	-	16,16,19	0.62	0	16,16,19	1.19	0
30	LMG	D	405	-	50,50,55	0.43	0	58,58,63	1.12	3 (5%)
29	STE	j	101	-	11,11,19	0.74	0	11,11,19	1.34	1 (9%)
30	LMG	C	524	-	48,48,55	0.50	0	56,56,63	0.65	1 (1%)
30	LMG	c	523	-	48,48,55	0.47	0	56,56,63	0.67	0
25	CLA	a	609	1	69,73,73	1.17	6 (8%)	82,113,113	1.19	7 (8%)
25	CLA	c	502	3	69,73,73	1.14	5 (7%)	82,113,113	1.40	9 (10%)
29	STE	b	625	-	10,10,19	0.36	0	9,9,19	0.73	0
25	CLA	C	502	3	69,73,73	1.22	8 (11%)	82,113,113	1.23	5 (6%)
27	BCR	b	619	-	41,41,41	0.37	0	56,56,56	0.77	0
25	CLA	b	611	2	69,73,73	1.22	6 (8%)	82,113,113	1.22	7 (8%)
25	CLA	B	605	2	69,73,73	1.21	7 (10%)	82,113,113	1.26	7 (8%)
25	CLA	a	606	1	69,73,73	1.30	9 (13%)	82,113,113	1.32	8 (9%)
27	BCR	b	617	-	41,41,41	0.41	0	56,56,56	0.76	2 (3%)
25	CLA	b	607	36	69,73,73	1.23	6 (8%)	82,113,113	1.24	7 (8%)
29	STE	t	103	-	9,9,19	0.39	0	8,8,19	0.70	0
25	CLA	b	614	2	69,73,73	1.30	8 (11%)	82,113,113	1.28	7 (8%)
33	DGD	C	523	-	63,63,67	0.60	1 (1%)	77,77,81	0.76	1 (1%)
33	DGD	c	521	-	63,63,67	0.51	0	77,77,81	0.68	2 (2%)
29	STE	e	101	-	8,8,19	0.40	0	7,7,19	0.59	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
29	STE	h	103	-	-	4/7/7/17	-
30	LMG	d	410	-	-	9/39/59/70	0/1/1/1
29	STE	C	520	-	-	4/7/7/17	-
35	HEC	v	201	16	1/1/3/7	4/14/54/54	-
25	CLA	A	614	36	-	3/39/115/115	-
27	BCR	B	617	-	-	2/29/63/63	0/2/2/2
29	STE	E	103	-	-	12/17/17/17	-
29	STE	C	518	-	-	0/2/2/17	-
33	DGD	c	520	-	-	17/51/91/95	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	c	507	36	-	8/39/115/115	-
25	CLA	c	503	3	-	10/39/115/115	-
31	SQD	A	616	-	-	19/47/67/69	0/1/1/1
30	LMG	c	522	-	-	15/41/61/70	0/1/1/1
29	STE	e	104	-	-	3/10/10/17	-
25	CLA	b	605	2	-	10/39/115/115	-
29	STE	M	104	-	-	9/12/12/17	-
29	STE	d	409	-	-	11/17/17/17	-
25	CLA	B	606	2	-	12/39/115/115	-
29	STE	B	623	-	-	9/15/15/17	-
25	CLA	B	616	2	-	10/33/109/115	-
25	CLA	c	506	3	-	15/39/115/115	-
30	LMG	B	620	-	-	14/40/60/70	0/1/1/1
31	SQD	f	102	-	-	17/36/56/69	0/1/1/1
28	PL9	a	611	-	-	13/53/73/73	0/1/1/1
29	STE	E	102	-	-	3/9/9/17	-
25	CLA	C	513	3	-	12/39/115/115	-
29	STE	J	102	-	-	8/9/9/17	-
29	STE	c	516	-	-	5/10/10/17	-
29	STE	C	516	-	-	6/11/11/17	-
27	BCR	T	101	-	-	7/29/63/63	0/2/2/2
26	PHO	a	608	-	-	4/37/103/103	0/5/6/6
27	BCR	h	101	-	-	1/29/63/63	0/2/2/2
29	STE	f	103	-	-	3/5/5/17	-
25	CLA	C	504	36	-	7/32/108/115	-
29	STE	I	102	-	-	3/12/12/17	-
25	CLA	c	511	3	-	4/39/115/115	-
29	STE	B	624	-	-	2/9/9/17	-
27	BCR	A	611	-	-	0/29/63/63	0/2/2/2
29	STE	b	624	-	-	4/7/7/17	-
29	STE	e	103	-	-	3/6/6/17	-
32	LHG	D	408	-	-	19/53/53/53	-
33	DGD	A	619	-	-	24/55/95/95	0/2/2/2
25	CLA	C	501	3	-	5/39/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	STE	b	621	-	-	7/17/17/17	-
25	CLA	c	501	3	-	1/39/115/115	-
25	CLA	B	603	2	-	4/39/115/115	-
25	CLA	B	608	2	-	1/39/115/115	-
29	STE	z	101	-	-	3/6/6/17	-
25	CLA	b	616	2	-	9/33/109/115	-
32	LHG	D	410	-	-	19/53/53/53	-
32	LHG	e	102	-	-	19/46/46/53	-
29	STE	B	625	-	-	4/12/12/17	-
27	BCR	k	101	-	-	7/29/63/63	0/2/2/2
25	CLA	d	403	4	-	10/39/115/115	-
27	BCR	D	403	-	-	2/29/63/63	0/2/2/2
32	LHG	L	101	-	-	14/53/53/53	-
25	CLA	b	609	2	-	6/39/115/115	-
31	SQD	D	407	-	-	15/28/48/69	0/1/1/1
29	STE	M	103	-	-	4/7/7/17	-
25	CLA	D	402	4	-	9/39/115/115	-
29	STE	j	102	-	-	6/13/13/17	-
25	CLA	B	604	2	-	7/39/115/115	-
31	SQD	a	614	-	-	27/49/69/69	0/1/1/1
25	CLA	C	510	3	-	7/39/115/115	-
30	LMG	A	615	-	-	20/43/63/70	0/1/1/1
32	LHG	a	613	-	-	24/53/53/53	-
29	STE	b	623	-	-	7/13/13/17	-
29	STE	k	103	-	-	5/11/11/17	-
25	CLA	b	603	2	-	6/39/115/115	-
31	SQD	B	622	-	-	24/49/69/69	0/1/1/1
33	DGD	H	102	-	-	17/51/91/95	0/2/2/2
30	LMG	c	518	-	-	8/31/31/70	-
25	CLA	b	610	36	-	6/39/115/115	-
31	SQD	b	620	-	-	20/44/64/69	0/1/1/1
29	STE	m	102	-	-	4/9/9/17	-
29	STE	A	622	-	-	6/8/8/17	-
25	CLA	a	607	36	-	5/39/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	a	612	36	-	2/39/115/115	-
25	CLA	b	615	2	-	3/39/115/115	-
27	BCR	K	101	-	-	2/29/63/63	0/2/2/2
25	CLA	B	613	2	-	11/39/115/115	-
25	CLA	B	611	2	-	4/39/115/115	-
34	HEM	F	101	6,5	-	3/14/54/54	-
30	LMG	b	622	-	-	20/50/70/70	0/1/1/1
25	CLA	C	505	3	-	8/39/115/115	-
27	BCR	b	618	-	-	0/29/63/63	0/2/2/2
29	STE	C	526	-	-	4/13/13/17	-
29	STE	K	102	-	-	8/11/11/17	-
25	CLA	B	601	36	-	14/39/115/115	-
27	BCR	c	515	-	-	0/29/63/63	0/2/2/2
27	BCR	H	101	-	-	3/29/63/63	0/2/2/2
25	CLA	b	601	36	-	15/39/115/115	-
30	LMG	a	616	-	-	26/50/70/70	0/1/1/1
25	CLA	b	606	2	-	7/39/115/115	-
29	STE	A	613	-	-	2/6/6/17	-
30	LMG	M	101	-	-	17/46/66/70	0/1/1/1
28	PL9	A	612	-	-	21/53/73/73	0/1/1/1
27	BCR	c	514	-	-	1/29/63/63	0/2/2/2
29	STE	C	527	-	-	6/11/11/17	-
32	LHG	l	101	-	-	17/53/53/53	-
30	LMG	C	517	-	-	12/30/50/70	0/1/1/1
25	CLA	c	505	3	-	7/39/115/115	-
29	STE	C	519	-	-	3/4/4/17	-
33	DGD	h	102	-	-	17/51/91/95	0/2/2/2
30	LMG	D	406	-	-	12/46/66/70	0/1/1/1
25	CLA	c	504	36	-	9/33/109/115	-
29	STE	E	101	-	-	1/9/9/17	-
27	BCR	a	610	-	-	0/29/63/63	0/2/2/2
28	PL9	D	404	-	-	6/53/73/73	0/1/1/1
25	CLA	B	602	2	-	6/39/115/115	-
26	PHO	A	609	-	-	2/37/103/103	0/5/6/6
25	CLA	A	607	36	-	6/39/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	CLA	B	609	2	-	2/39/115/115	-
25	CLA	B	607	36	-	3/39/115/115	-
25	CLA	b	608	2	-	7/39/115/115	-
29	STE	I	101	-	-	6/14/14/17	-
29	STE	m	103	-	-	11/15/15/17	-
25	CLA	D	401	4	-	2/39/115/115	-
33	DGD	C	521	-	-	17/51/91/95	0/2/2/2
25	CLA	B	614	2	-	12/39/115/115	-
27	BCR	k	102	-	-	3/29/63/63	0/2/2/2
26	PHO	d	401	-	-	1/37/103/103	0/5/6/6
29	STE	t	102	-	-	6/11/11/17	-
33	DGD	C	522	-	-	20/51/91/95	0/2/2/2
27	BCR	C	514	-	-	0/29/63/63	0/2/2/2
25	CLA	C	511	3	-	6/39/115/115	-
25	CLA	B	615	2	-	14/39/115/115	-
25	CLA	b	613	2	-	4/39/115/115	-
29	STE	c	517	-	-	10/15/15/17	-
32	LHG	D	409	-	-	14/51/51/53	-
25	CLA	B	610	36	-	6/39/115/115	-
25	CLA	b	604	2	-	9/39/115/115	-
27	BCR	t	101	-	-	5/29/63/63	0/2/2/2
29	STE	a	617	-	-	4/9/9/17	-
25	CLA	B	612	2	-	8/39/115/115	-
27	BCR	B	618	-	-	0/29/63/63	0/2/2/2
27	BCR	J	101	-	-	4/29/63/63	0/2/2/2
25	CLA	A	610	1	-	2/26/102/115	-
25	CLA	c	510	3	-	7/39/115/115	-
29	STE	D	411	-	-	3/6/6/17	-
31	SQD	A	618	-	-	12/38/58/69	0/1/1/1
25	CLA	b	602	2	-	7/39/115/115	-
25	CLA	C	512	3	-	13/39/115/115	-
29	STE	d	406	-	-	7/17/17/17	-
32	LHG	d	407	-	-	17/53/53/53	-
29	STE	H	103	-	-	7/15/15/17	-
28	PL9	d	405	-	-	10/53/73/73	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	STE	Z	101	-	-	9/14/14/17	-
35	HEC	V	201	16	1/1/3/7	6/14/54/54	-
30	LMG	c	524	-	-	16/44/64/70	0/1/1/1
29	STE	X	101	-	-	10/17/17/17	-
29	STE	T	102	-	-	9/13/13/17	-
25	CLA	d	402	4	-	7/39/115/115	-
27	BCR	B	619	-	-	2/29/63/63	0/2/2/2
25	CLA	C	507	36	-	9/39/115/115	-
27	BCR	d	404	-	-	4/29/63/63	0/2/2/2
25	CLA	C	506	3	-	11/39/115/115	-
25	CLA	c	509	3	-	16/39/115/115	-
25	CLA	C	509	3	-	11/39/115/115	-
32	LHG	d	408	-	-	9/43/43/53	-
25	CLA	c	512	3	-	15/39/115/115	-
25	CLA	C	503	3	-	2/39/115/115	-
25	CLA	c	508	3	-	6/38/114/115	-
25	CLA	c	513	3	-	13/39/115/115	-
29	STE	d	411	-	-	9/17/17/17	-
25	CLA	C	508	3	-	3/39/115/115	-
29	STE	A	620	-	-	3/5/5/17	-
27	BCR	C	515	-	-	0/29/63/63	0/2/2/2
29	STE	M	102	-	-	5/12/12/17	-
25	CLA	b	612	2	-	2/39/115/115	-
32	LHG	A	617	-	-	23/53/53/53	-
30	LMG	m	101	-	-	18/46/66/70	0/1/1/1
29	STE	i	102	-	-	2/3/3/17	-
29	STE	C	525	-	-	3/9/9/17	-
31	SQD	a	615	-	-	15/49/69/69	0/1/1/1
26	PHO	A	608	-	-	1/37/103/103	0/5/6/6
33	DGD	c	519	-	-	22/51/91/95	0/2/2/2
34	HEM	f	101	6,5	-	4/14/54/54	-
25	CLA	A	606	1	-	6/39/115/115	-
29	STE	A	621	-	-	9/14/14/17	-
29	STE	i	101	-	-	6/9/9/17	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	STE	B	621	-	-	6/14/14/17	-
30	LMG	D	405	-	-	15/45/65/70	0/1/1/1
29	STE	j	101	-	-	3/9/9/17	-
30	LMG	C	524	-	-	12/43/63/70	0/1/1/1
30	LMG	c	523	-	-	17/43/63/70	0/1/1/1
25	CLA	a	609	1	-	11/39/115/115	-
25	CLA	c	502	3	-	6/39/115/115	-
29	STE	b	625	-	-	6/8/8/17	-
25	CLA	C	502	3	-	6/39/115/115	-
27	BCR	b	619	-	-	0/29/63/63	0/2/2/2
25	CLA	b	611	2	-	4/39/115/115	-
25	CLA	B	605	2	-	10/39/115/115	-
25	CLA	a	606	1	-	3/39/115/115	-
27	BCR	b	617	-	-	2/29/63/63	0/2/2/2
25	CLA	b	607	36	-	11/39/115/115	-
29	STE	t	103	-	-	4/7/7/17	-
25	CLA	b	614	2	-	13/39/115/115	-
33	DGD	C	523	-	-	13/51/91/95	0/2/2/2
33	DGD	c	521	-	-	15/51/91/95	0/2/2/2
29	STE	e	101	-	-	3/6/6/17	-

The worst 5 of 627 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	d	401	PHO	C1B-C2B	9.69	1.50	1.39
26	d	401	PHO	C3B-C4B	9.45	1.51	1.41
26	a	608	PHO	C1B-C2B	9.18	1.49	1.39
26	A	609	PHO	C1B-C2B	9.11	1.49	1.39
26	A	609	PHO	C3B-C4B	8.59	1.50	1.41

The worst 5 of 827 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	B	615	CLA	C4A-NA-C1A	9.29	110.92	106.68
25	B	604	CLA	C4A-NA-C1A	9.15	110.85	106.68
25	c	511	CLA	C4A-NA-C1A	8.25	110.44	106.68
25	c	503	CLA	C4A-NA-C1A	8.03	110.34	106.68
25	C	511	CLA	C4A-NA-C1A	7.94	110.30	106.68

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
35	V	201	HEC	NA
35	v	201	HEC	NA

5 of 1663 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
25	B	601	CLA	C1A-C2A-CAA-CBA
25	B	601	CLA	CBA-CGA-O2A-C1
25	B	601	CLA	O1A-CGA-O2A-C1
25	B	614	CLA	CAD-CBD-CGD-O1D
25	B	614	CLA	CAD-CBD-CGD-O2D

There are no ring outliers.

132 monomers are involved in 215 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
35	v	201	HEC	1	0
25	A	614	CLA	2	0
33	c	520	DGD	1	0
25	c	507	CLA	1	0
25	c	503	CLA	3	0
25	b	605	CLA	1	0
29	M	104	STE	3	0
29	d	409	STE	4	0
29	B	623	STE	2	0
25	B	616	CLA	2	0
30	B	620	LMG	4	0
31	f	102	SQD	3	0
28	a	611	PL9	3	0
25	C	513	CLA	1	0
29	c	516	STE	1	0
27	T	101	BCR	3	0
26	a	608	PHO	1	0
27	h	101	BCR	4	0
25	c	511	CLA	4	0
27	A	611	BCR	1	0
32	D	408	LHG	2	0
33	A	619	DGD	2	0
29	b	621	STE	1	0
25	c	501	CLA	2	0
25	B	603	CLA	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
25	b	616	CLA	2	0
32	D	410	LHG	7	0
32	e	102	LHG	1	0
27	k	101	BCR	1	0
25	d	403	CLA	2	0
27	D	403	BCR	1	0
32	L	101	LHG	2	0
25	b	609	CLA	4	0
25	D	402	CLA	1	0
25	B	604	CLA	1	0
31	a	614	SQD	1	0
30	A	615	LMG	2	0
32	a	613	LHG	3	0
25	b	603	CLA	2	0
31	B	622	SQD	4	0
33	H	102	DGD	1	0
30	c	518	LMG	1	0
25	b	610	CLA	2	0
31	b	620	SQD	3	0
29	A	622	STE	1	0
25	a	607	CLA	1	0
25	a	612	CLA	2	0
25	b	615	CLA	3	0
25	B	613	CLA	4	0
25	B	611	CLA	1	0
34	F	101	HEM	2	0
30	b	622	LMG	1	0
25	C	505	CLA	2	0
27	b	618	BCR	1	0
29	K	102	STE	1	0
27	c	515	BCR	1	0
27	H	101	BCR	1	0
25	b	601	CLA	1	0
30	a	616	LMG	3	0
30	M	101	LMG	2	0
28	A	612	PL9	3	0
27	c	514	BCR	1	0
29	C	527	STE	1	0
32	l	101	LHG	2	0
30	C	517	LMG	1	0
25	c	505	CLA	1	0
30	D	406	LMG	1	0

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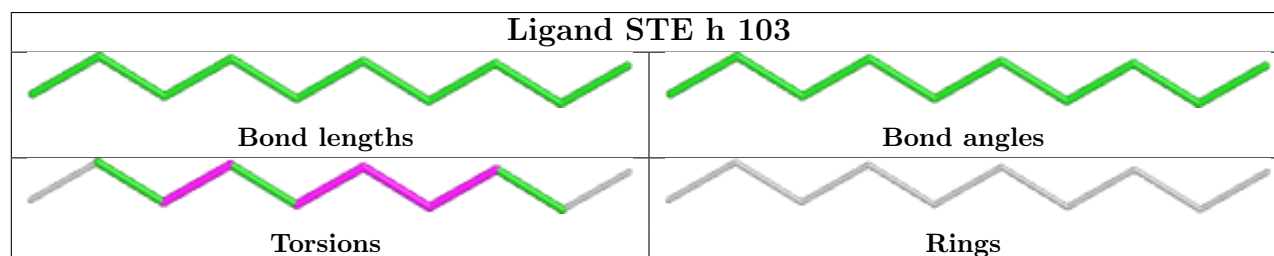
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25	B	609	CLA	1	0
25	B	607	CLA	1	0
25	b	608	CLA	2	0
29	m	103	STE	1	0
25	D	401	CLA	2	0
33	C	521	DGD	1	0
25	B	614	CLA	5	0
27	k	102	BCR	3	0
26	d	401	PHO	2	0
27	C	514	BCR	1	0
25	C	511	CLA	3	0
25	B	615	CLA	3	0
25	b	613	CLA	1	0
32	D	409	LHG	5	0
25	b	604	CLA	2	0
27	t	101	BCR	4	0
25	B	612	CLA	1	0
27	B	618	BCR	2	0
27	J	101	BCR	2	0
25	A	610	CLA	1	0
25	c	510	CLA	1	0
31	A	618	SQD	2	0
25	b	602	CLA	3	0
25	C	512	CLA	3	0
29	d	406	STE	1	0
29	H	103	STE	1	0
28	d	405	PL9	2	0
29	T	102	STE	4	0
25	d	402	CLA	3	0
29	X	101	STE	1	0
25	C	507	CLA	1	0
27	d	404	BCR	1	0
25	C	506	CLA	2	0
25	c	509	CLA	2	0
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25	c	512	CLA	1	0
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25	c	513	CLA	2	0

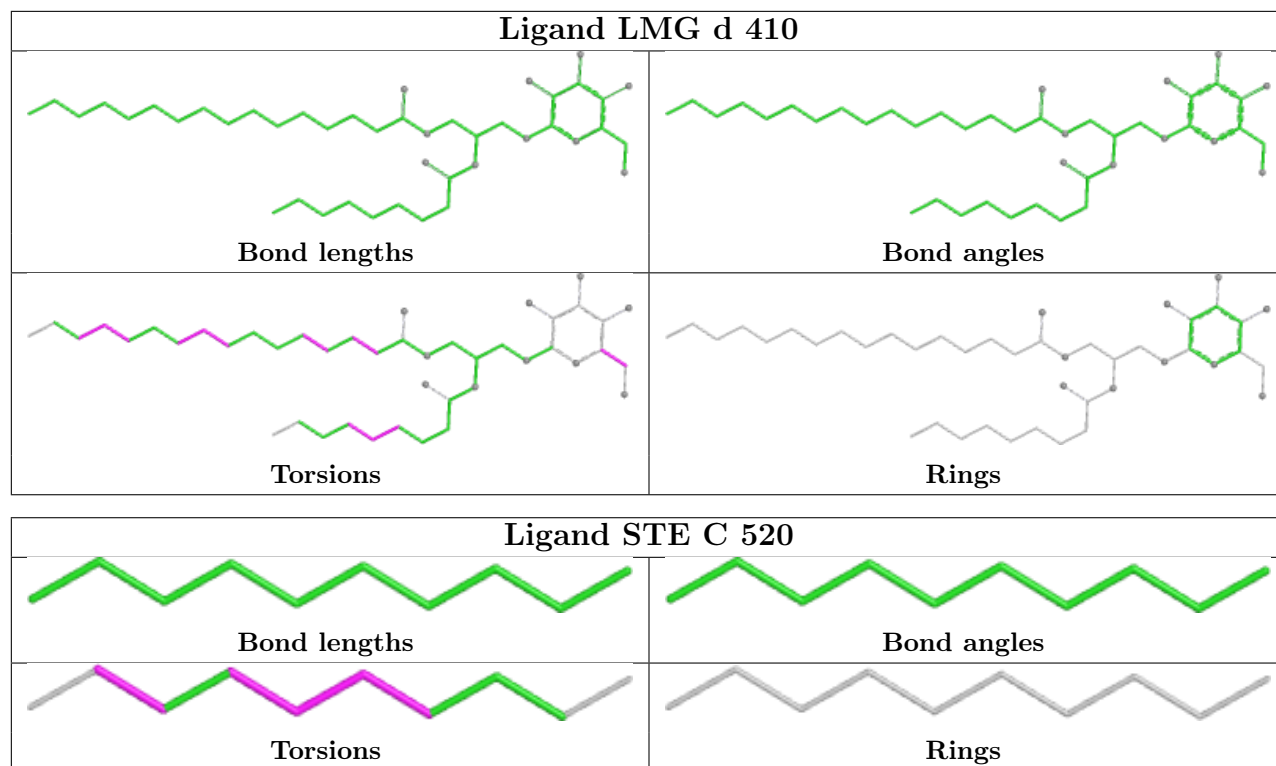
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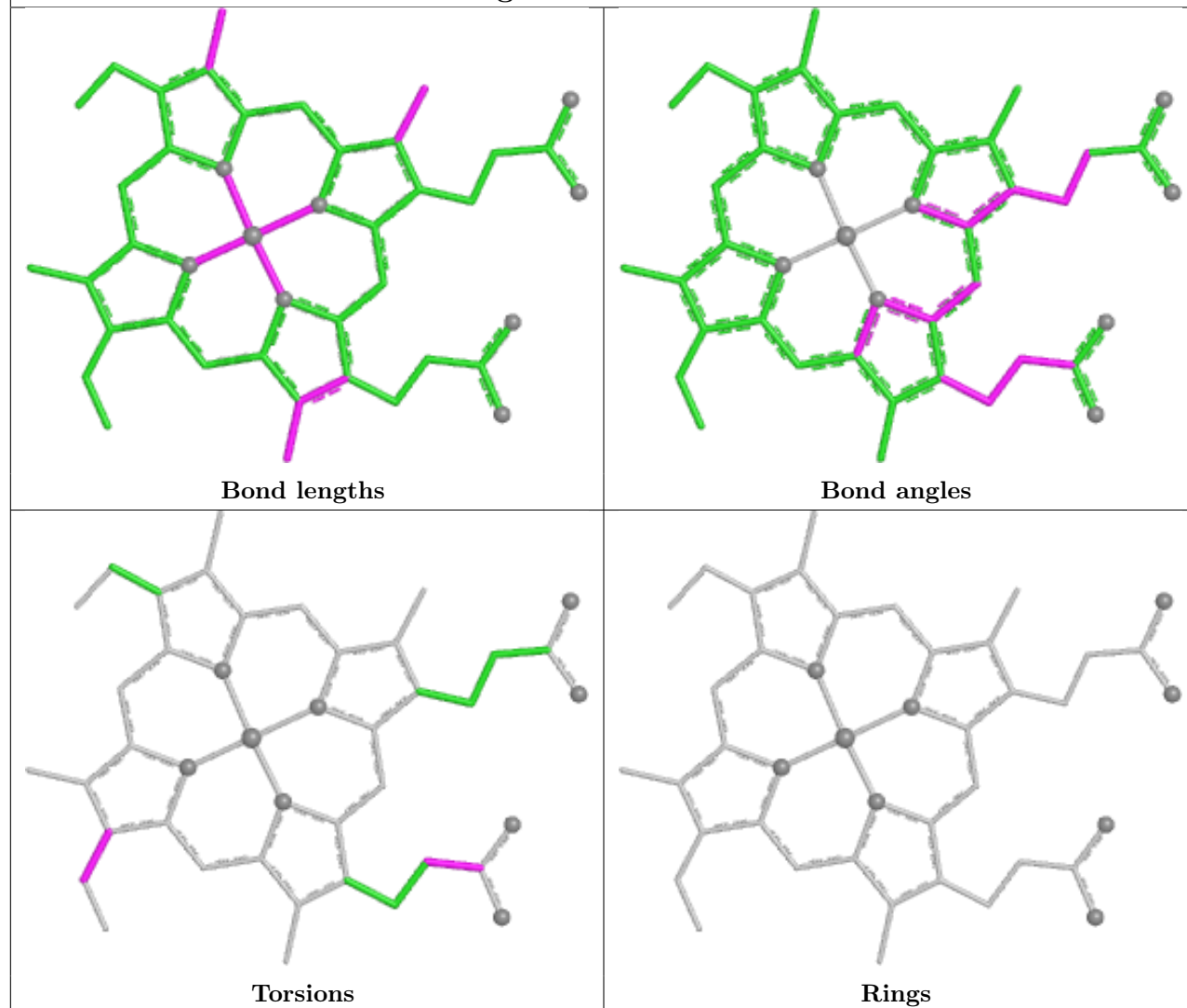
Mol	Chain	Res	Type	Clashes	Symm-Clashes
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25	C	508	CLA	1	0
27	C	515	BCR	2	0
25	b	612	CLA	1	0
32	A	617	LHG	1	0
30	m	101	LMG	3	0
31	a	615	SQD	2	0
33	c	519	DGD	1	0
34	f	101	HEM	5	0
25	A	606	CLA	2	0
29	i	101	STE	1	0
29	B	621	STE	1	0
30	D	405	LMG	5	0
30	C	524	LMG	2	0
30	c	523	LMG	2	0
25	a	609	CLA	3	0
29	b	625	STE	2	0
25	C	502	CLA	2	0
25	B	605	CLA	2	0
25	a	606	CLA	5	0
27	b	617	BCR	1	0
25	b	614	CLA	2	0
33	c	521	DGD	3	0

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

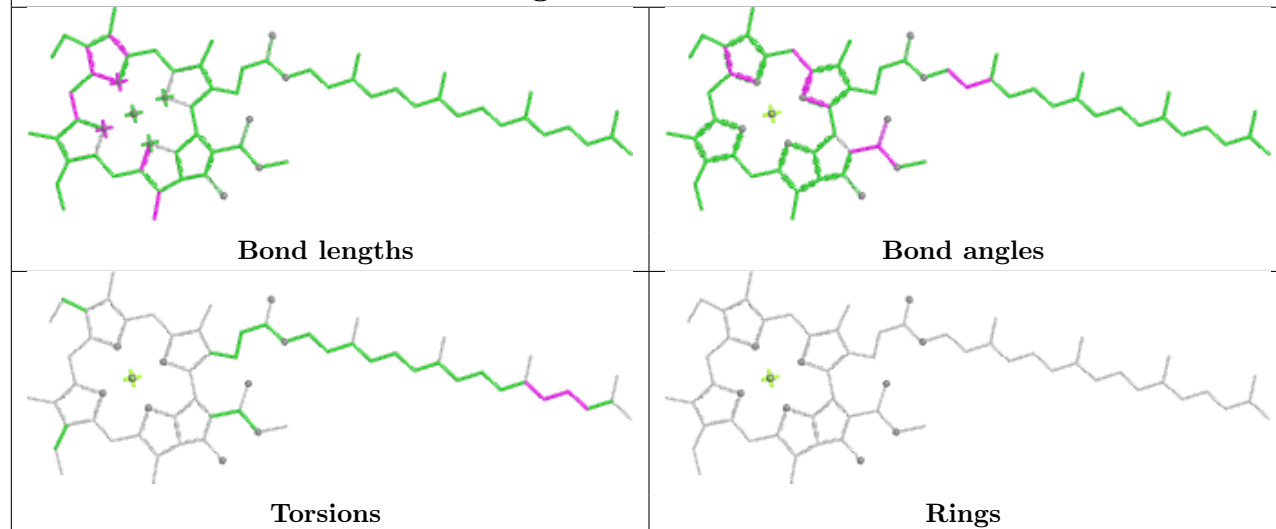


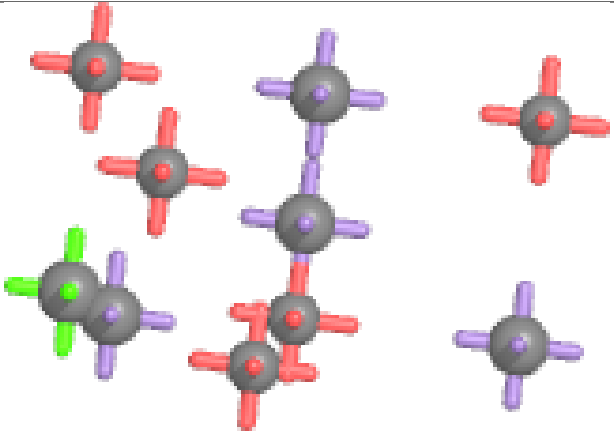
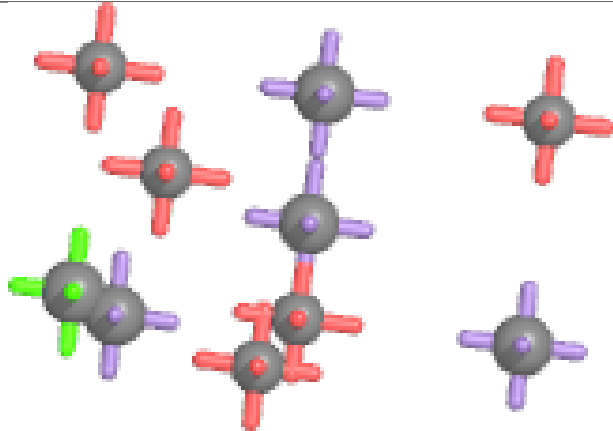
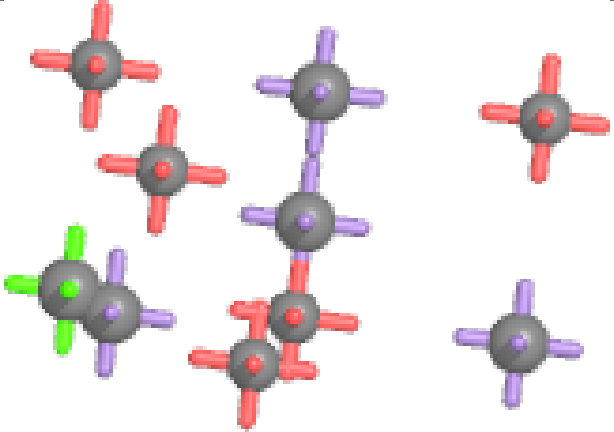
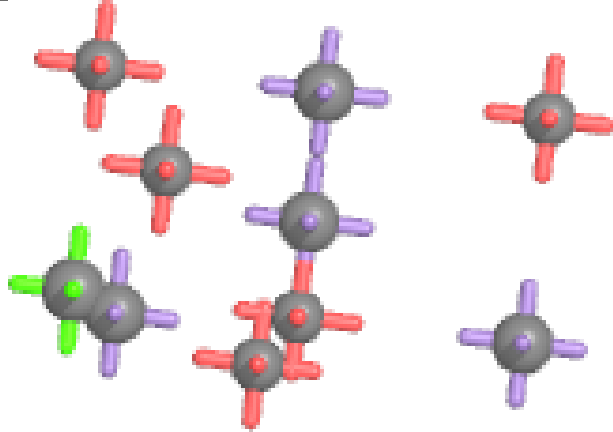


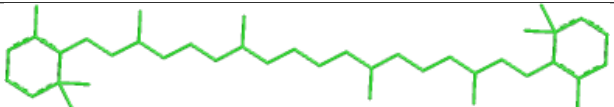
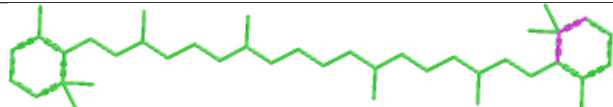
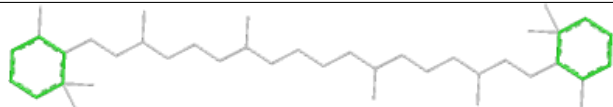
Ligand HEC v 201

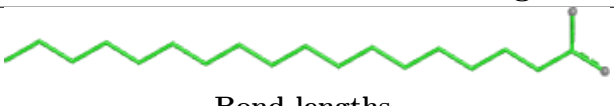
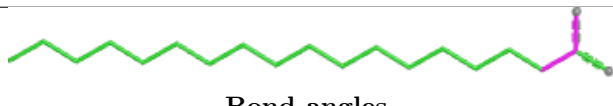


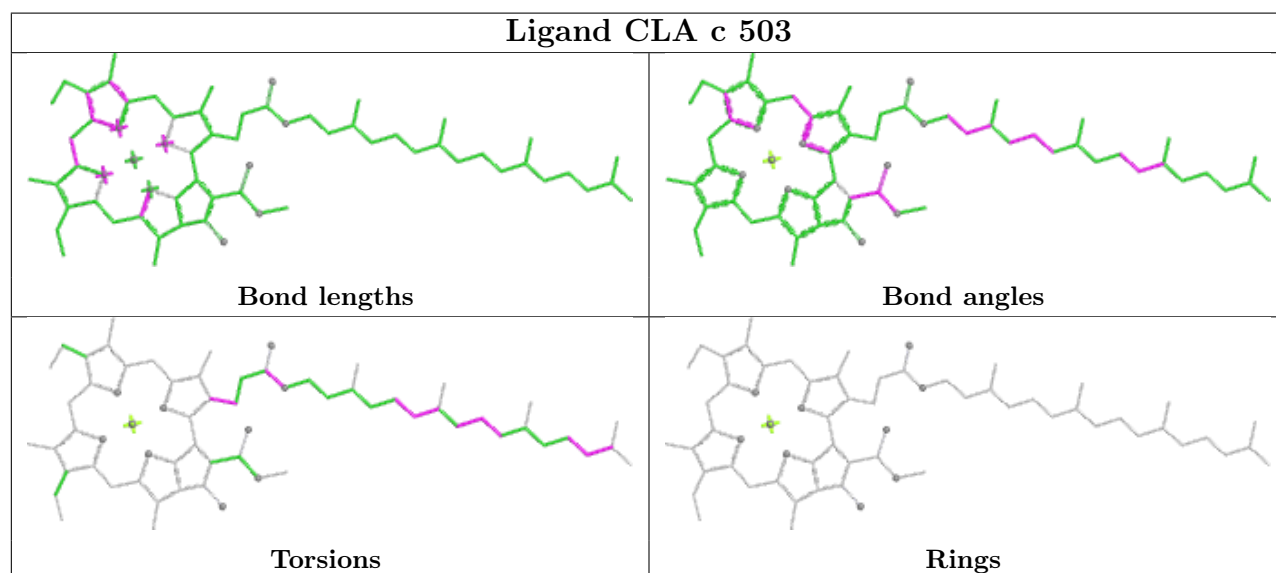
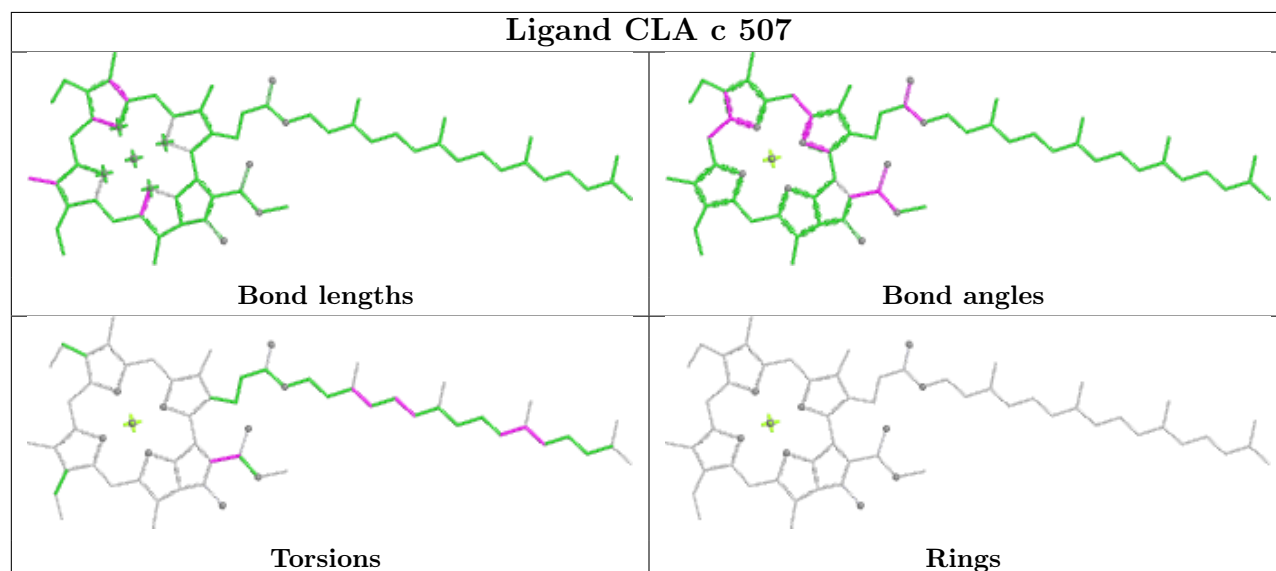
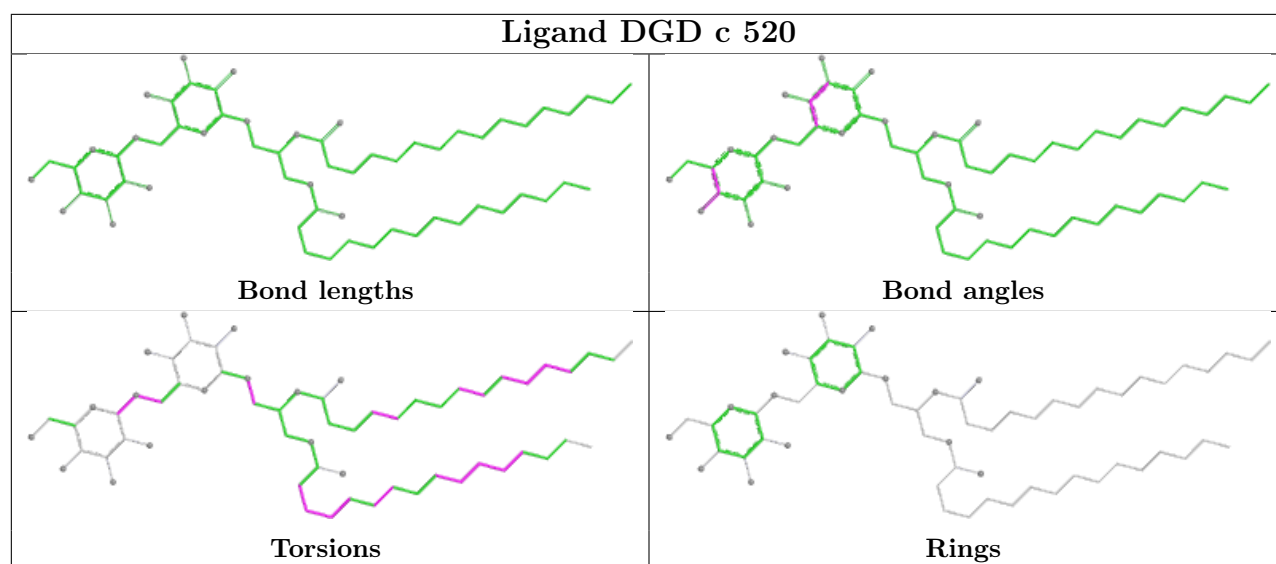
Ligand CLA A 614

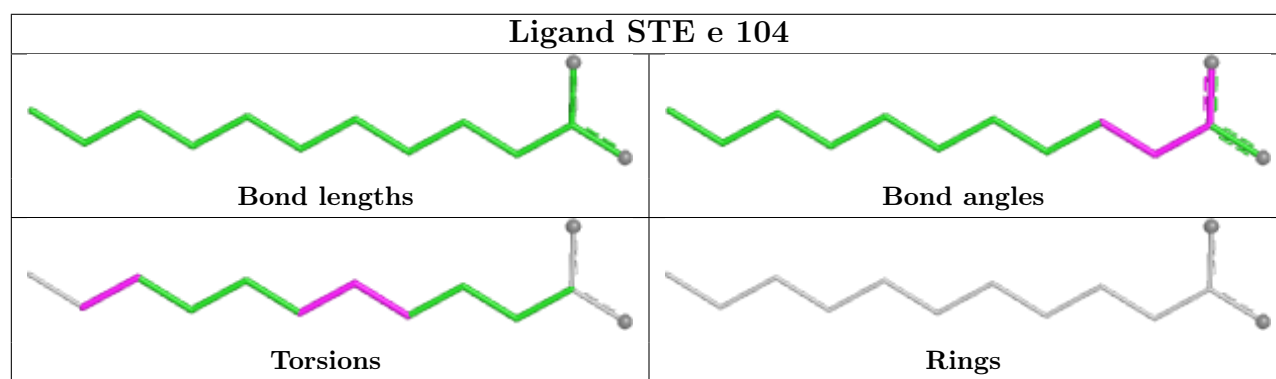
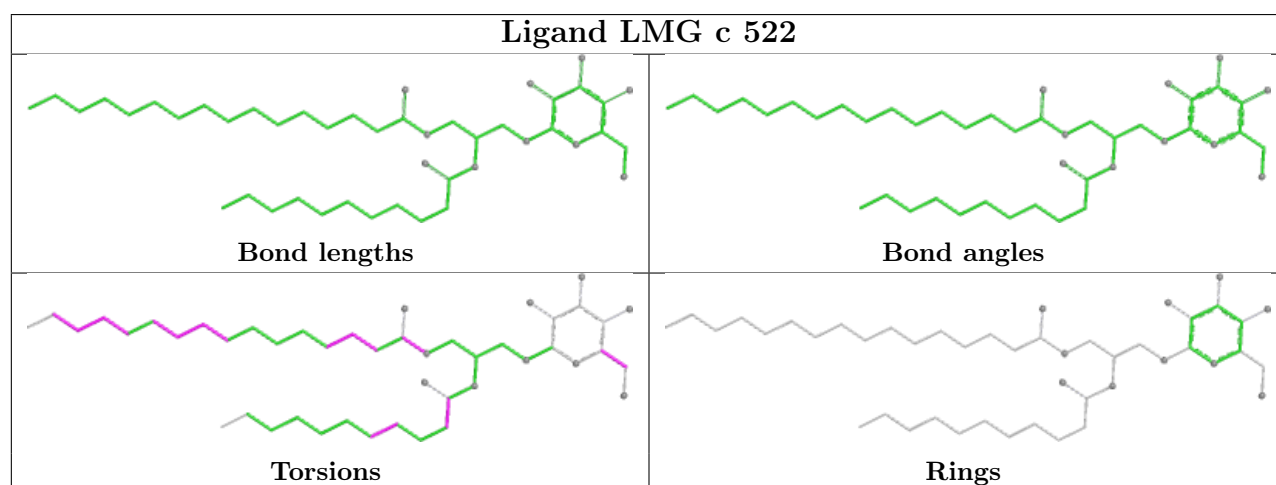
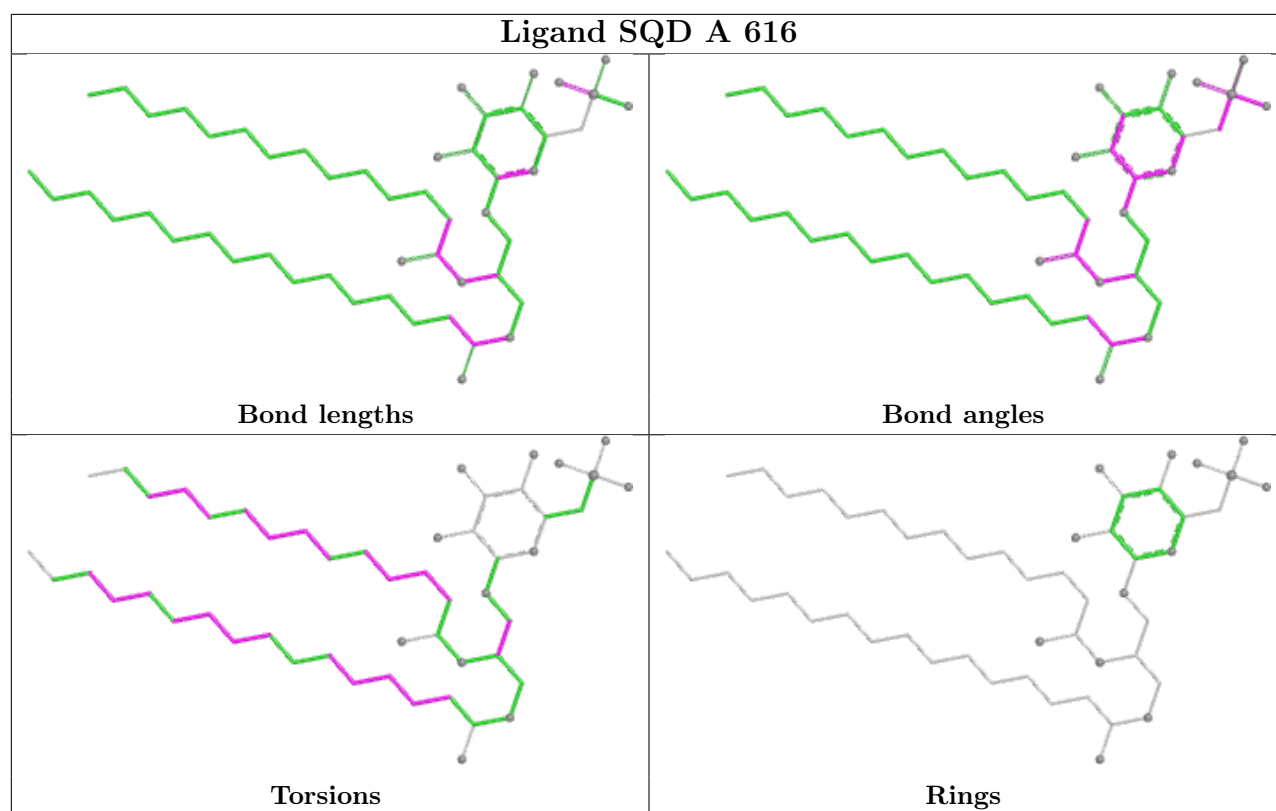


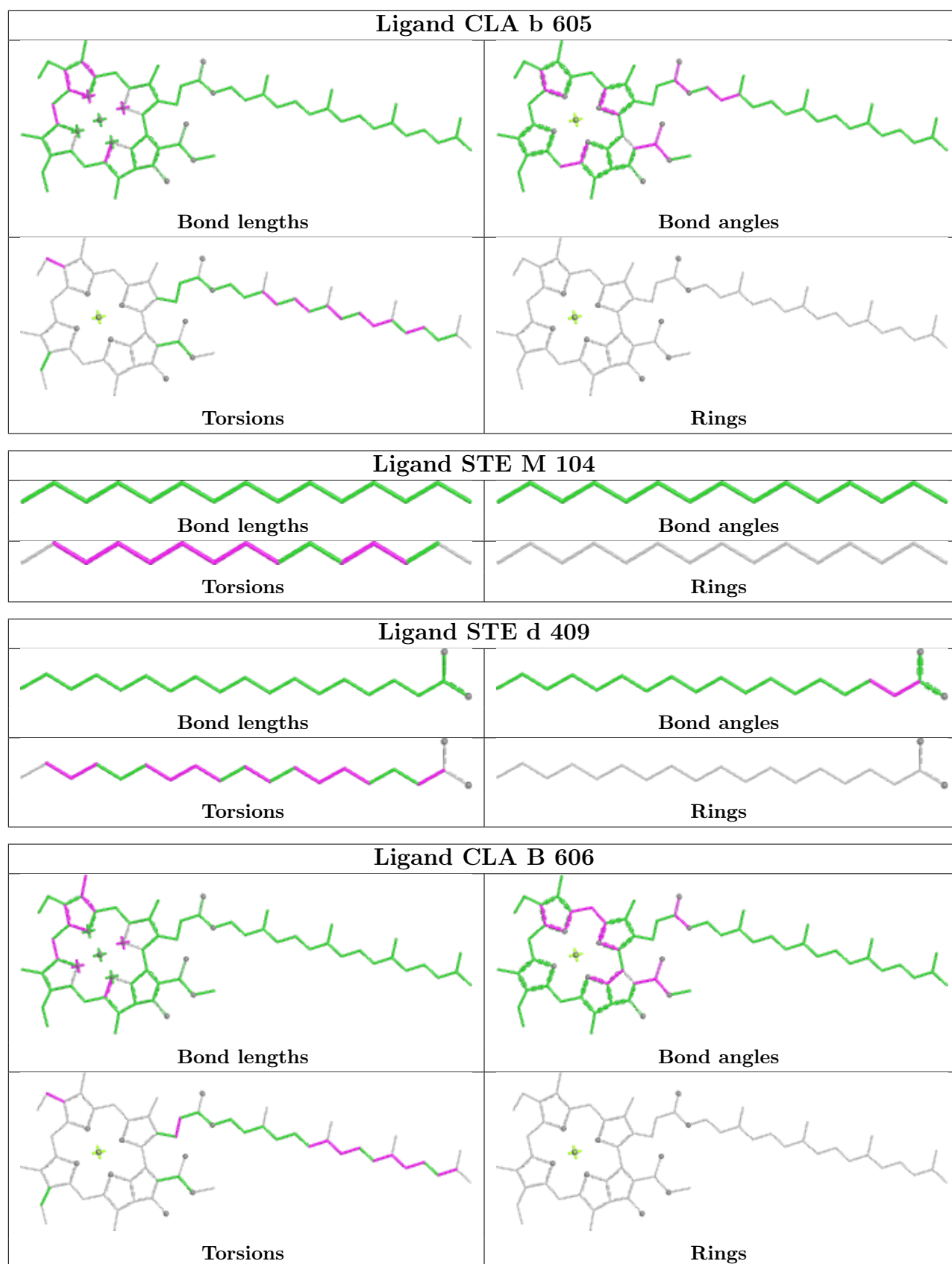
Ligand OEX A 601	
	
Bond lengths	Bond angles
	
Torsions	Rings

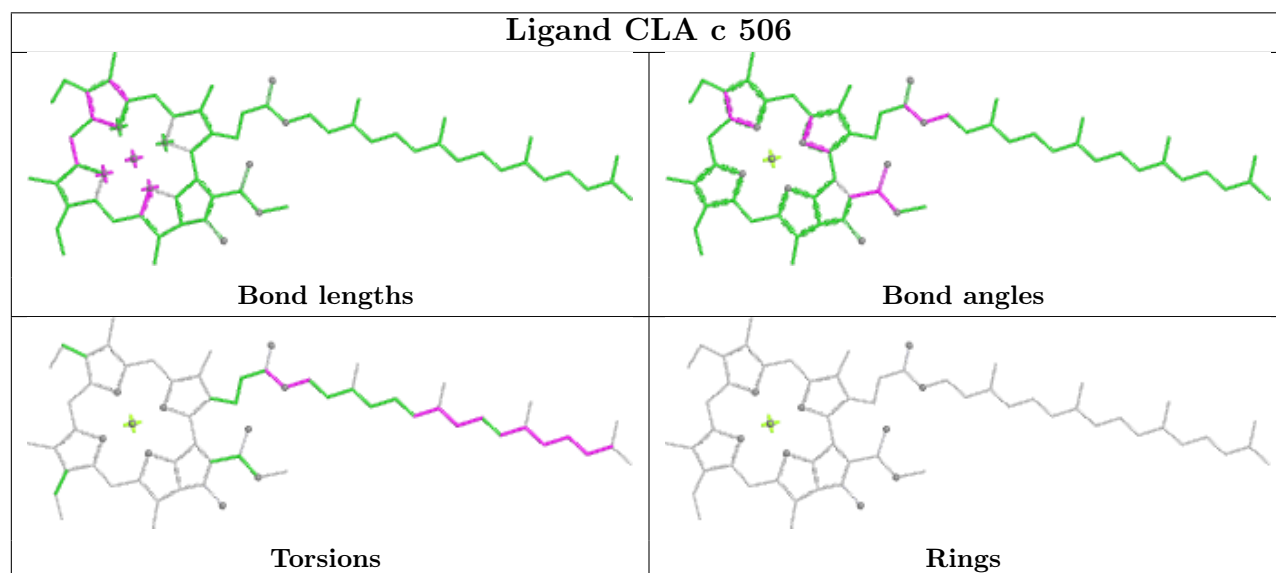
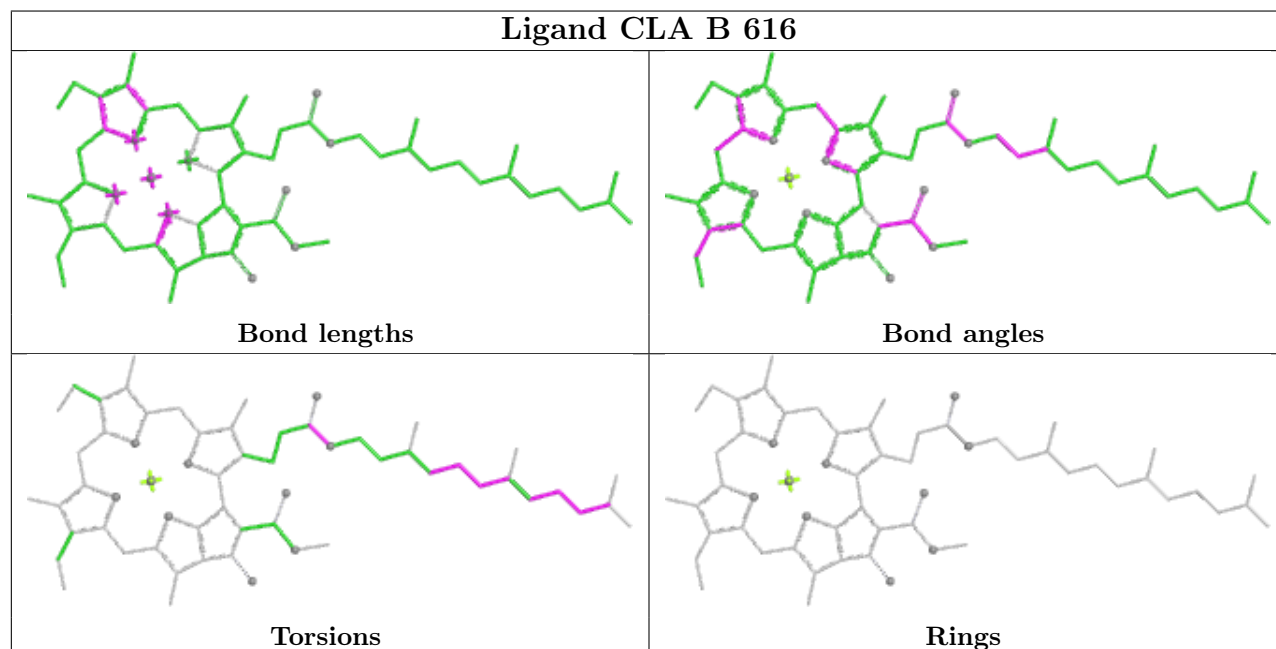
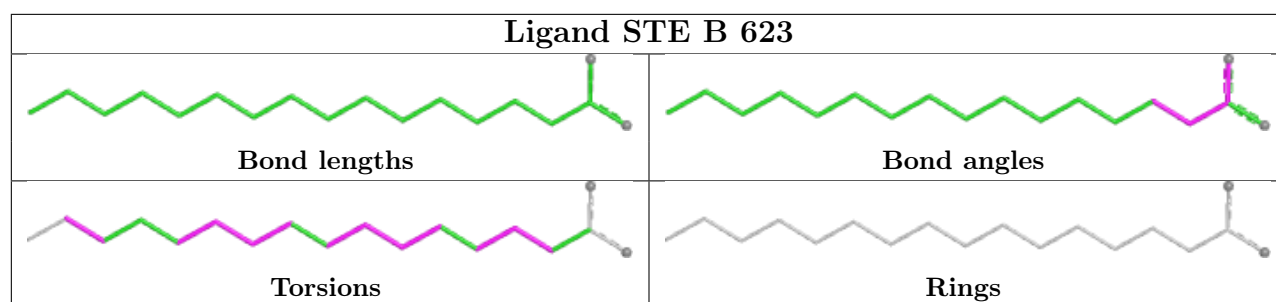
Ligand BCR B 617	
	
Bond lengths	Bond angles
	
Torsions	Rings

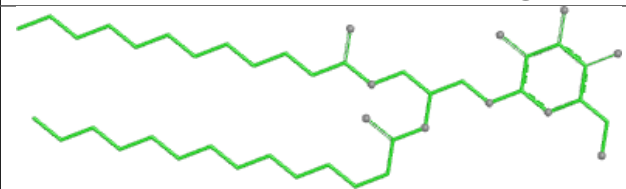
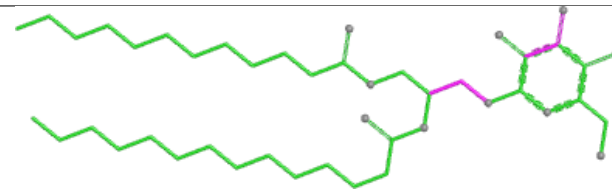
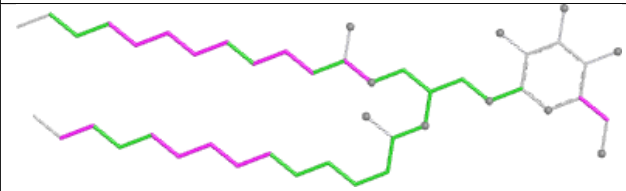
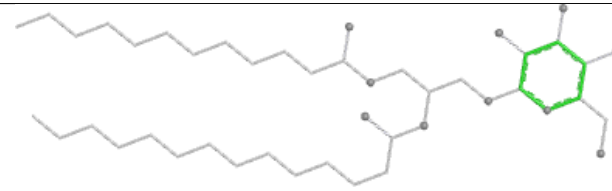
Ligand STE E 103	
	
Bond lengths	Bond angles
	
Torsions	Rings

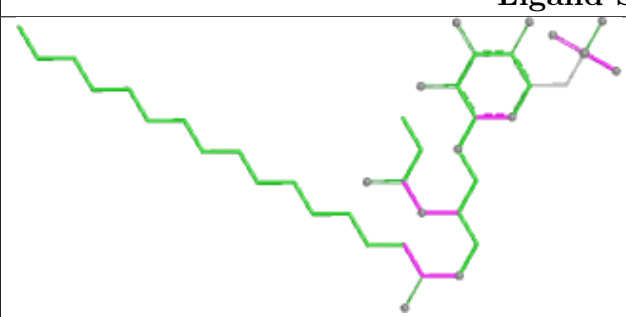
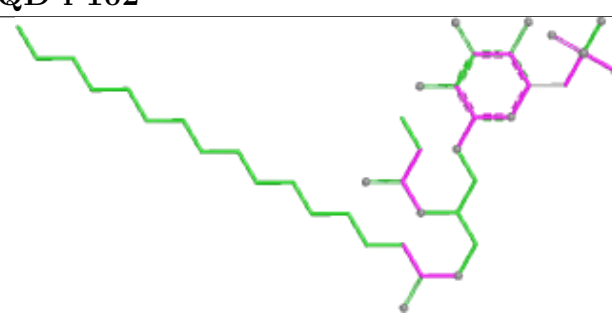
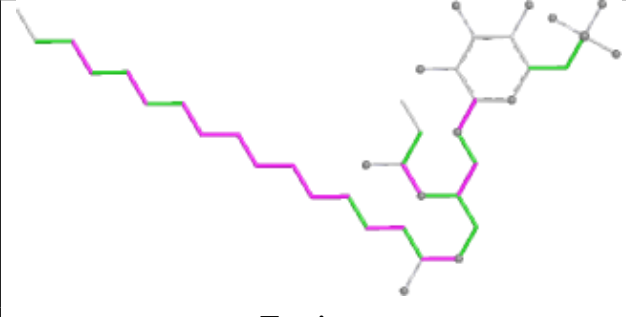
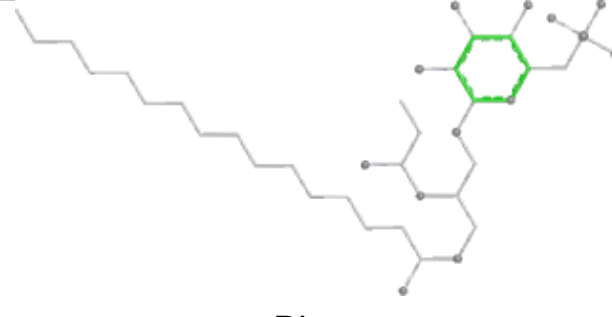


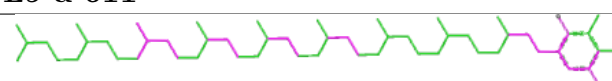
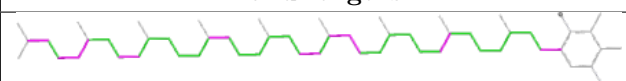
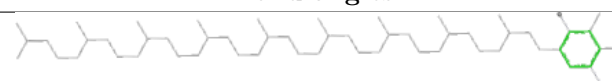


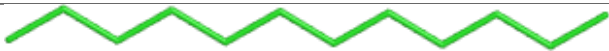
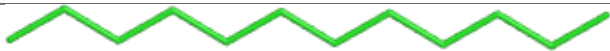


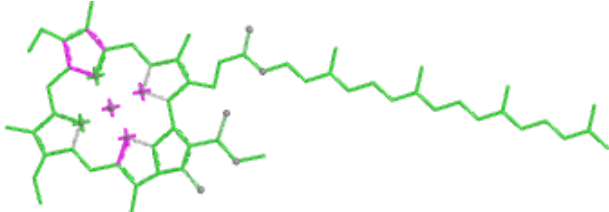
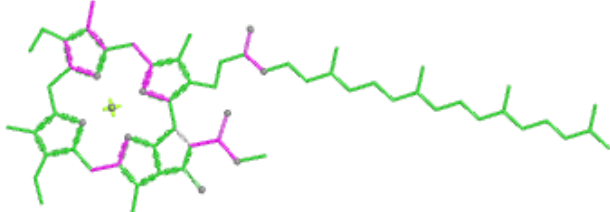
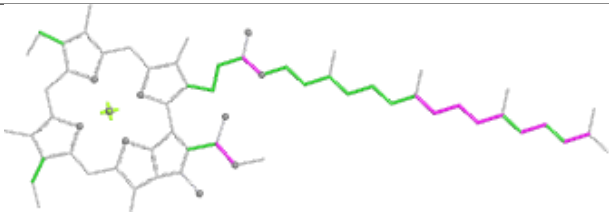
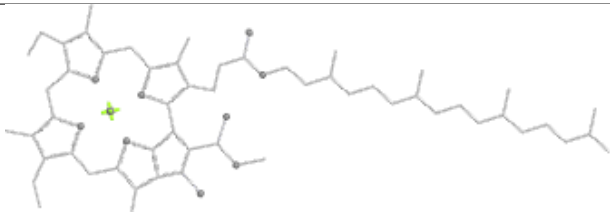


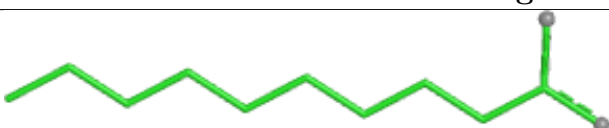
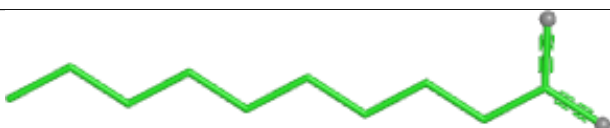
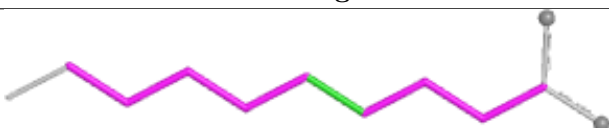
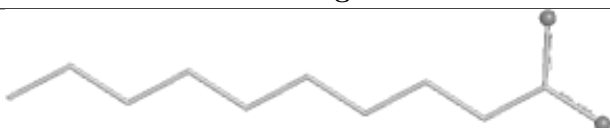
Ligand LMG B 620	
	
Bond lengths	Bond angles
	
Torsions	Rings

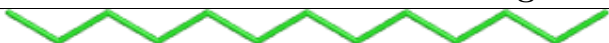
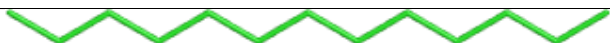
Ligand SQD f 102	
	
Bond lengths	Bond angles
	
Torsions	Rings

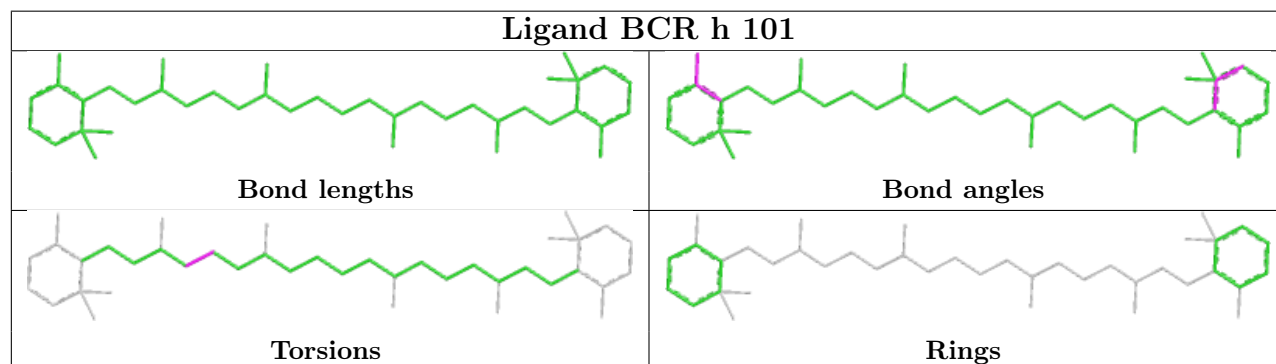
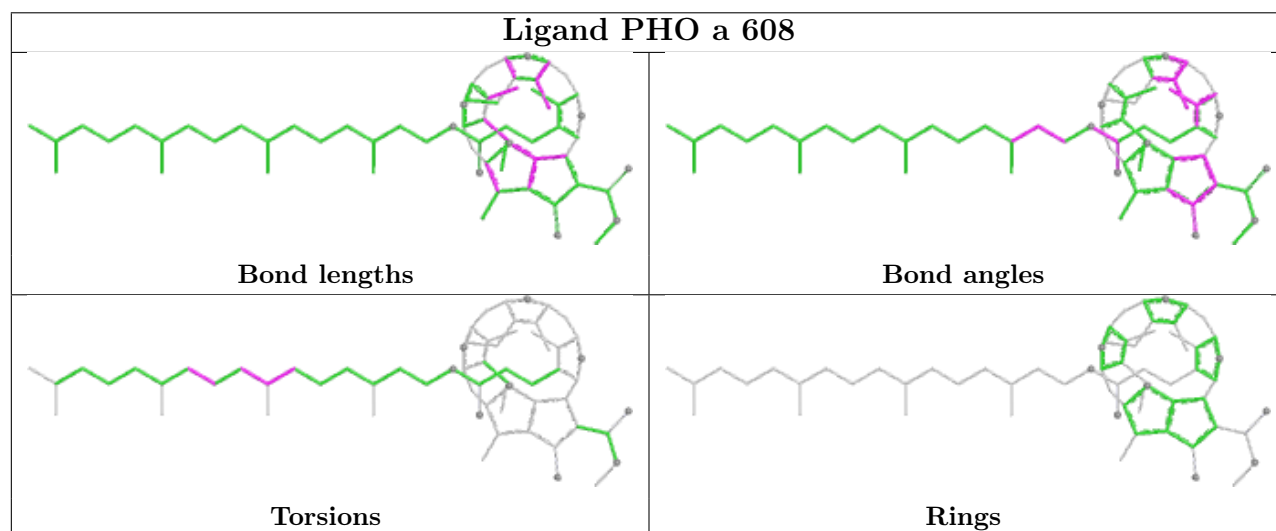
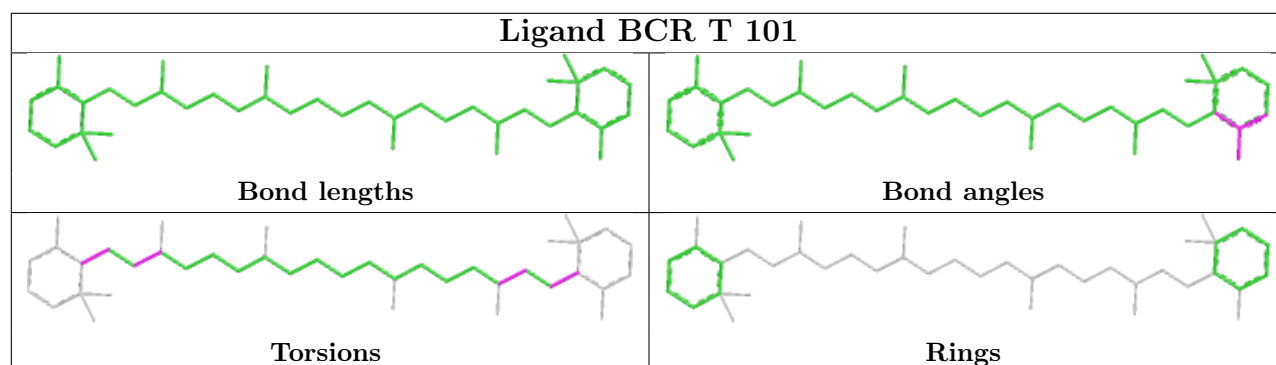
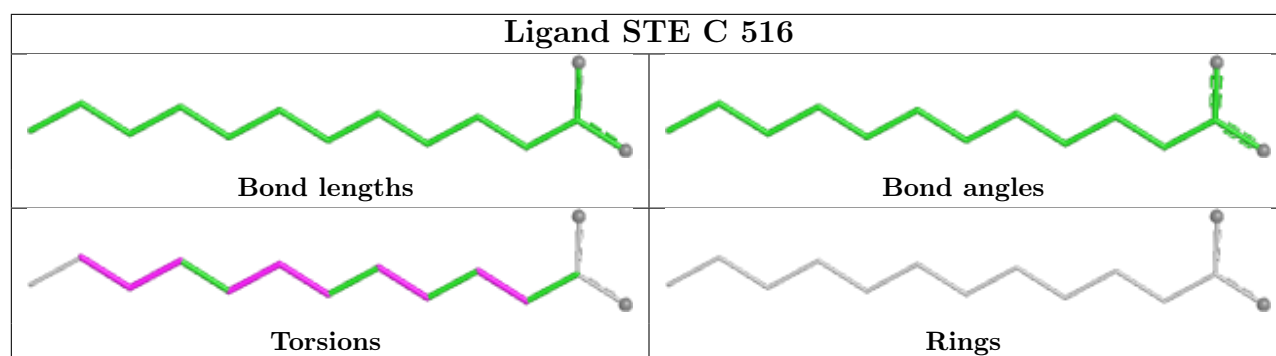
Ligand PL9 a 611	
	
Bond lengths	Bond angles
	
Torsions	Rings

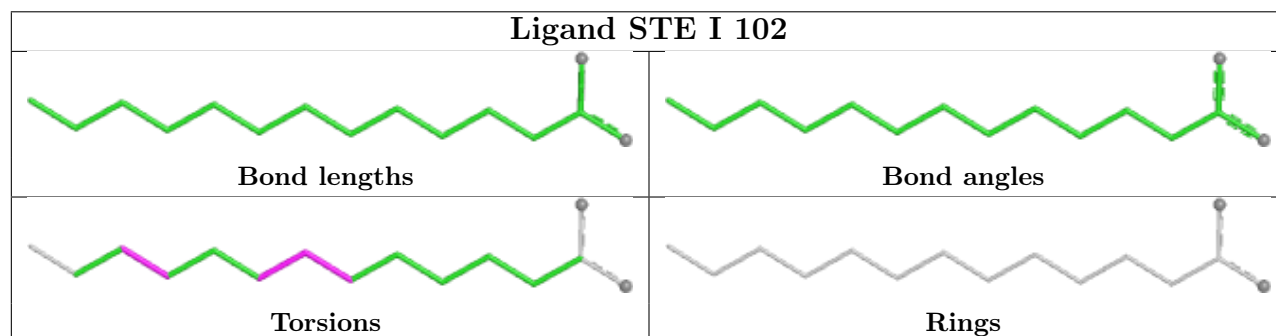
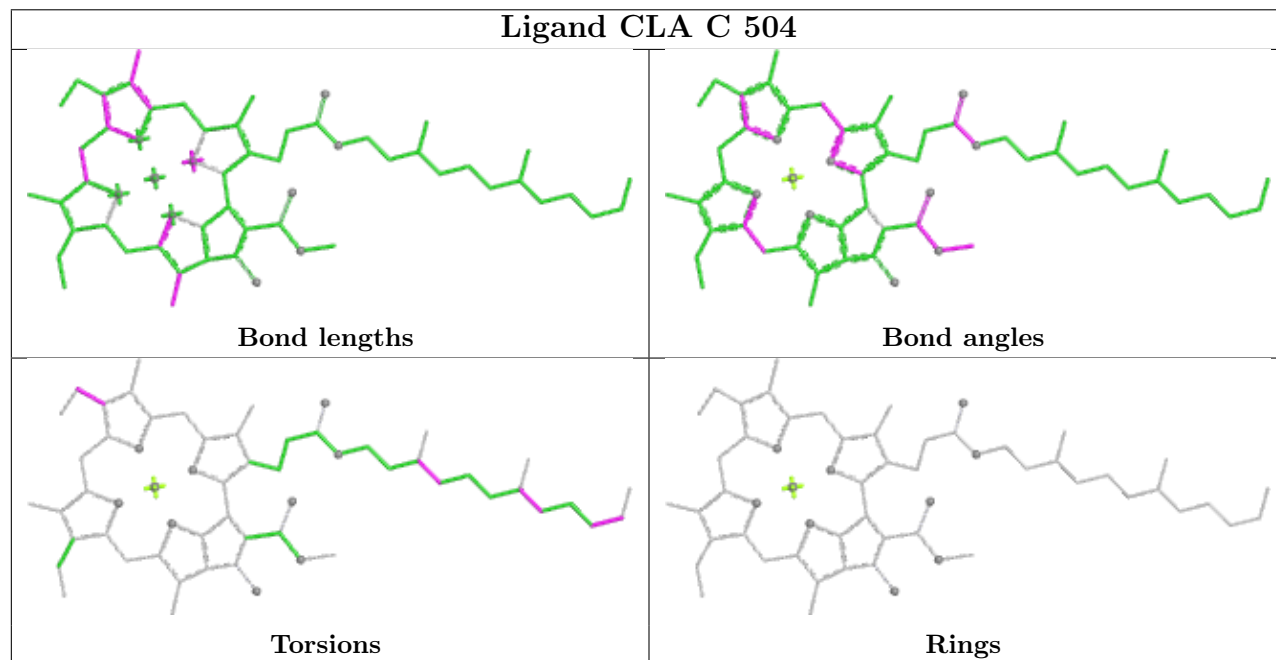
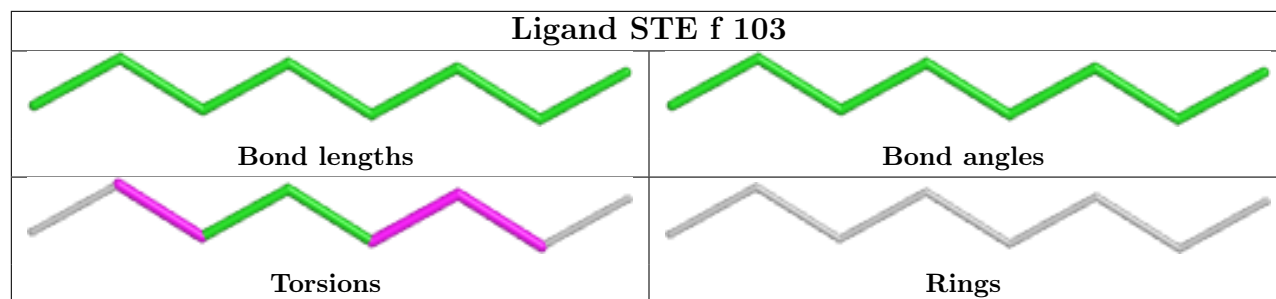
Ligand STE E 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

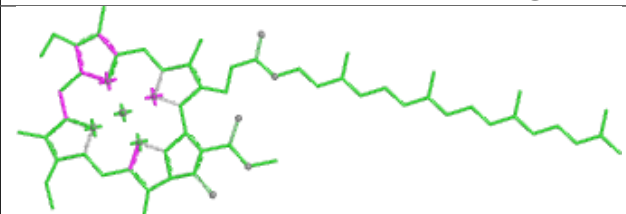
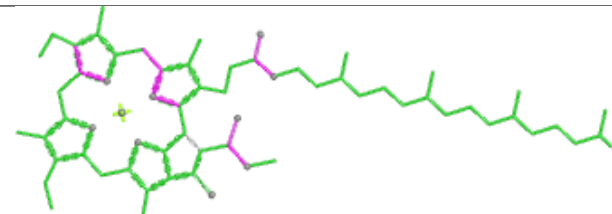
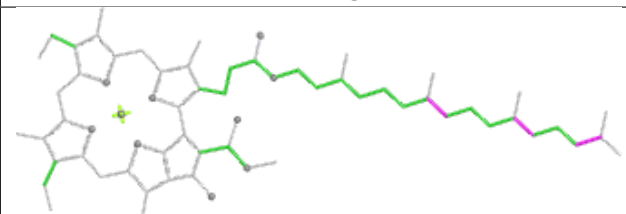
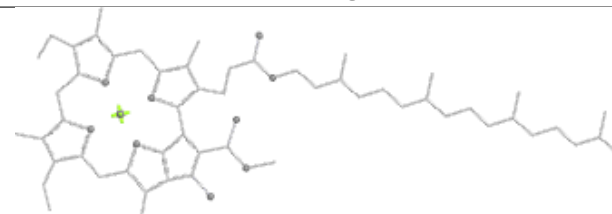
Ligand CLA C 513	
 Bond lengths	 Bond angles
 Torsions	 Rings

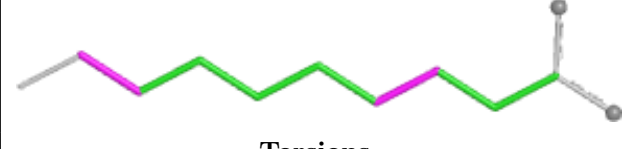
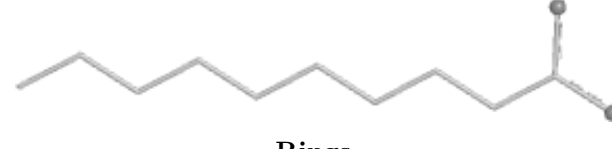
Ligand STE J 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

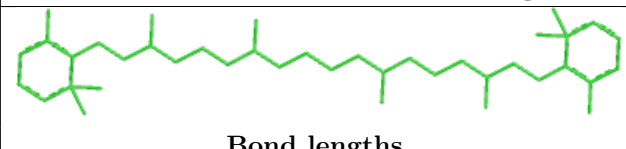
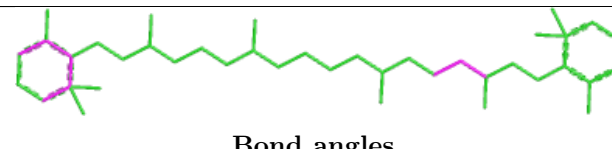
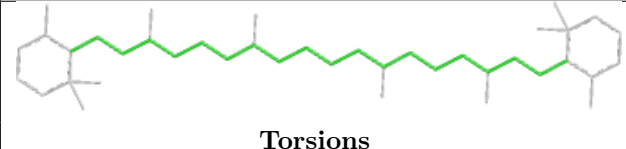
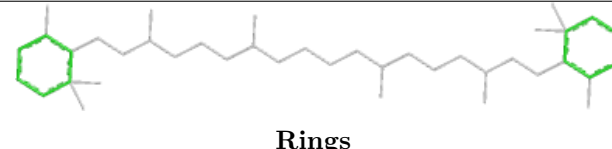
Ligand STE c 516	
 Bond lengths	 Bond angles
 Torsions	 Rings

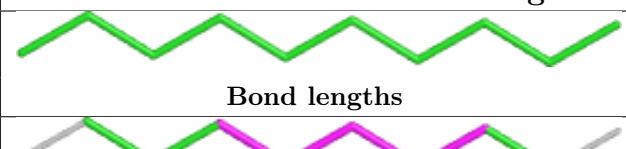
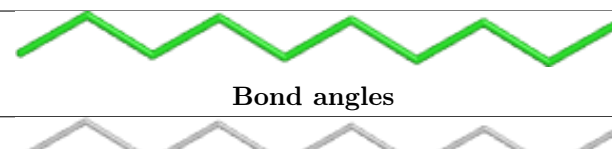


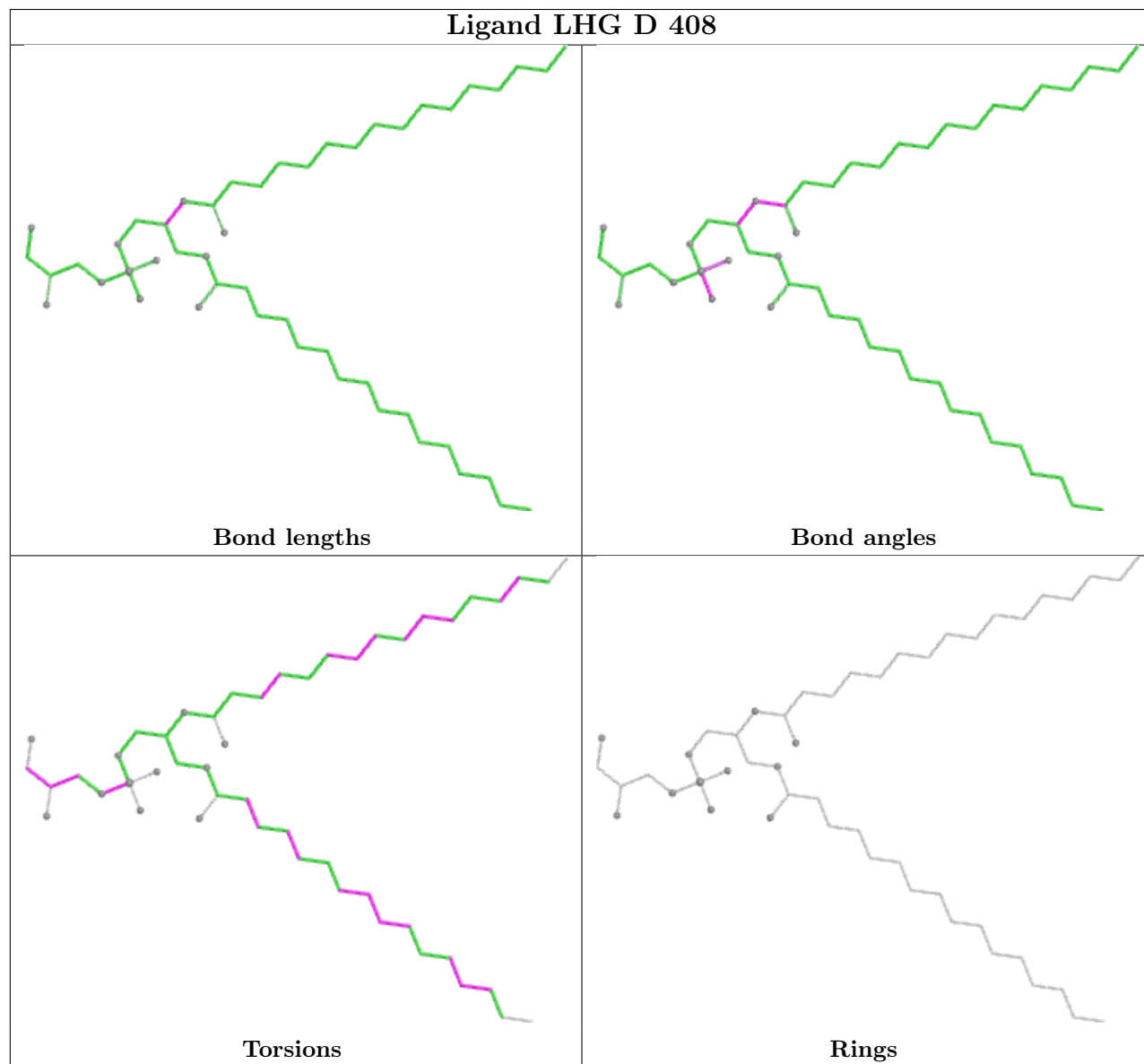
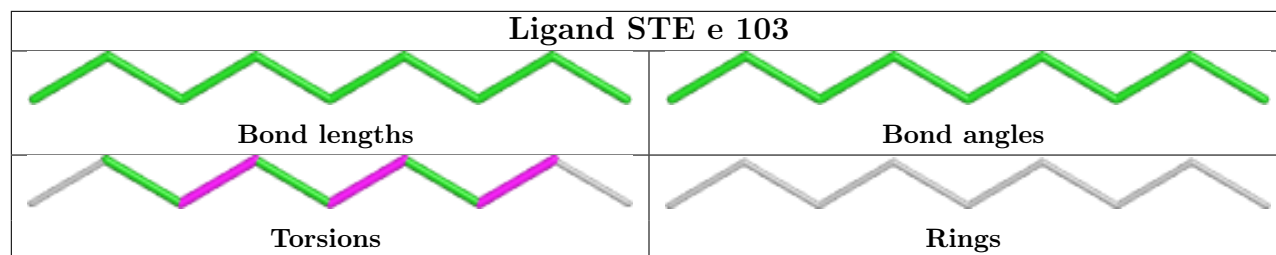


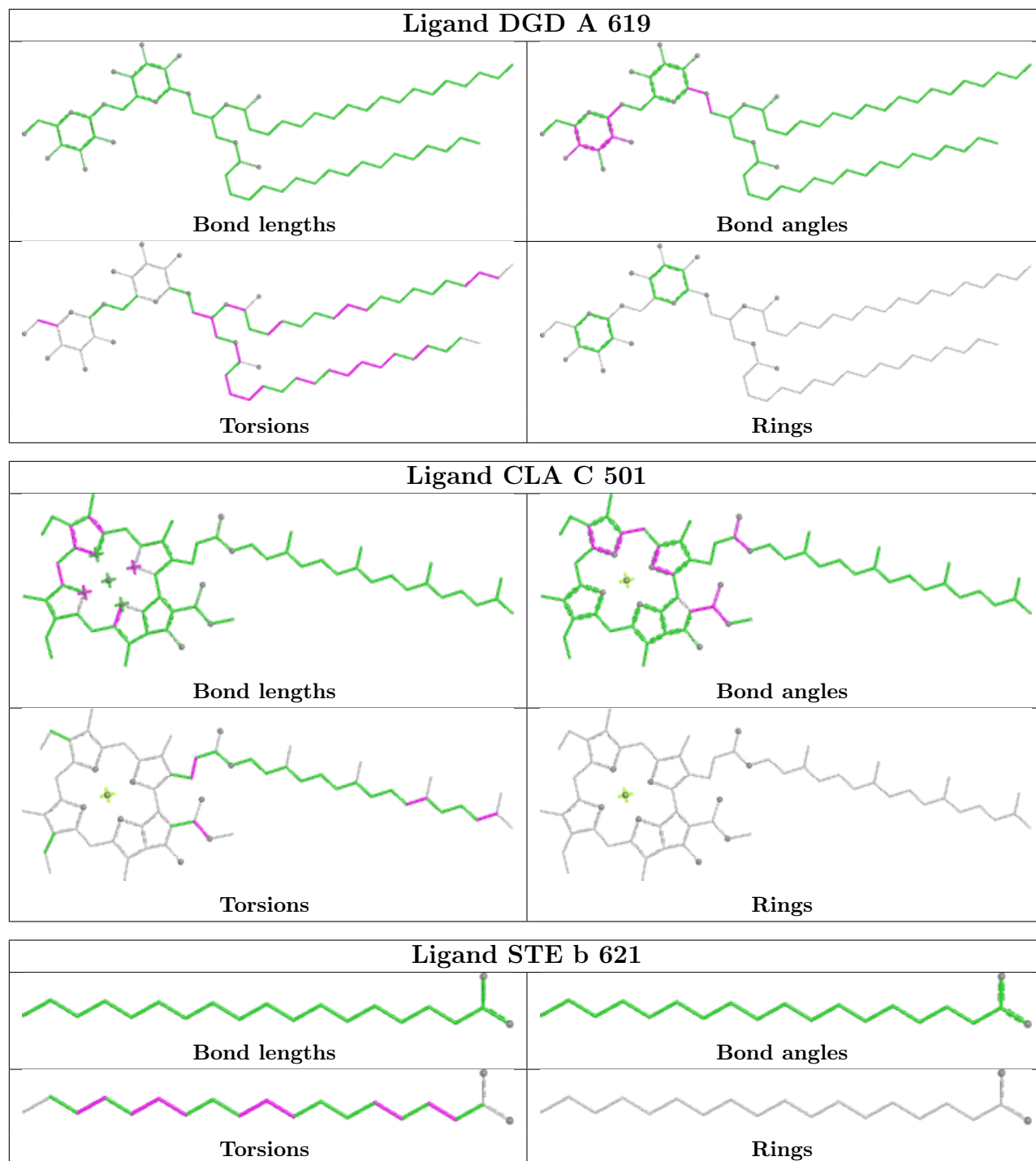
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Bond lengths	Bond angles
	
Torsions	Rings

Ligand STE B 624	
	
Bond lengths	Bond angles
	
Torsions	Rings

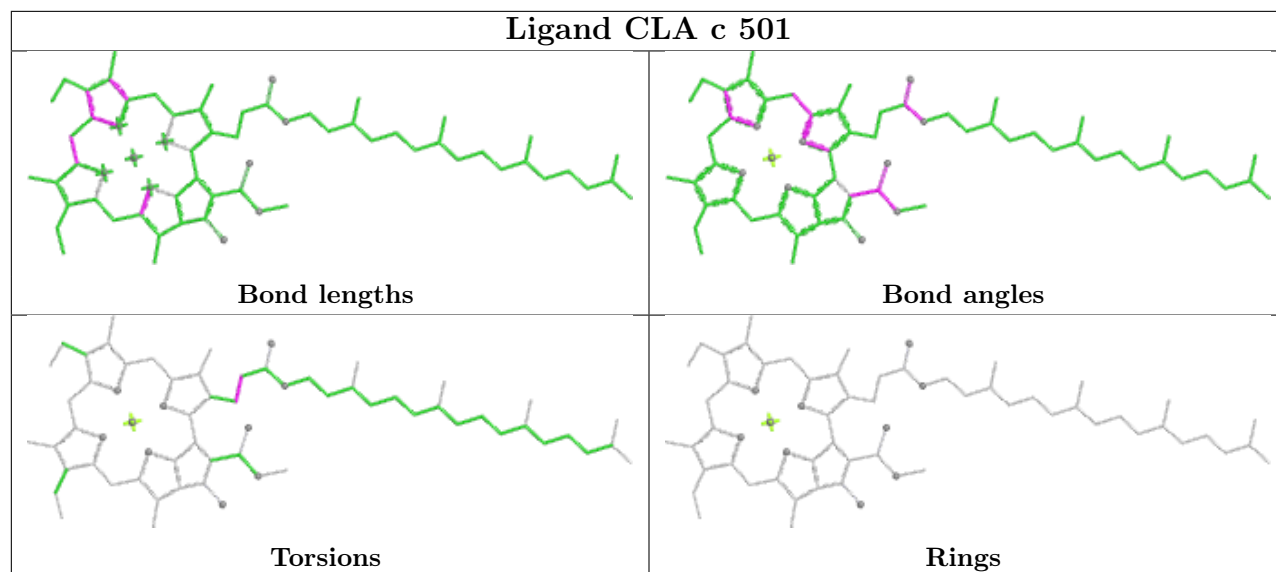
Ligand BCR A 611	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand STE b 624	
	
Bond lengths	Bond angles
	
Torsions	Rings

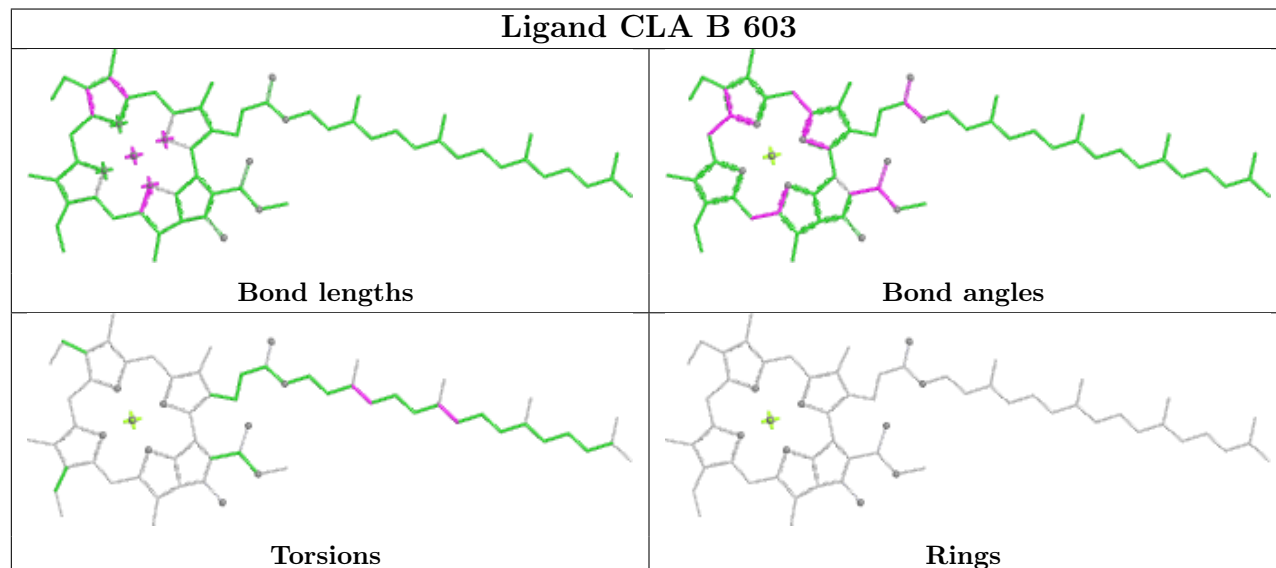




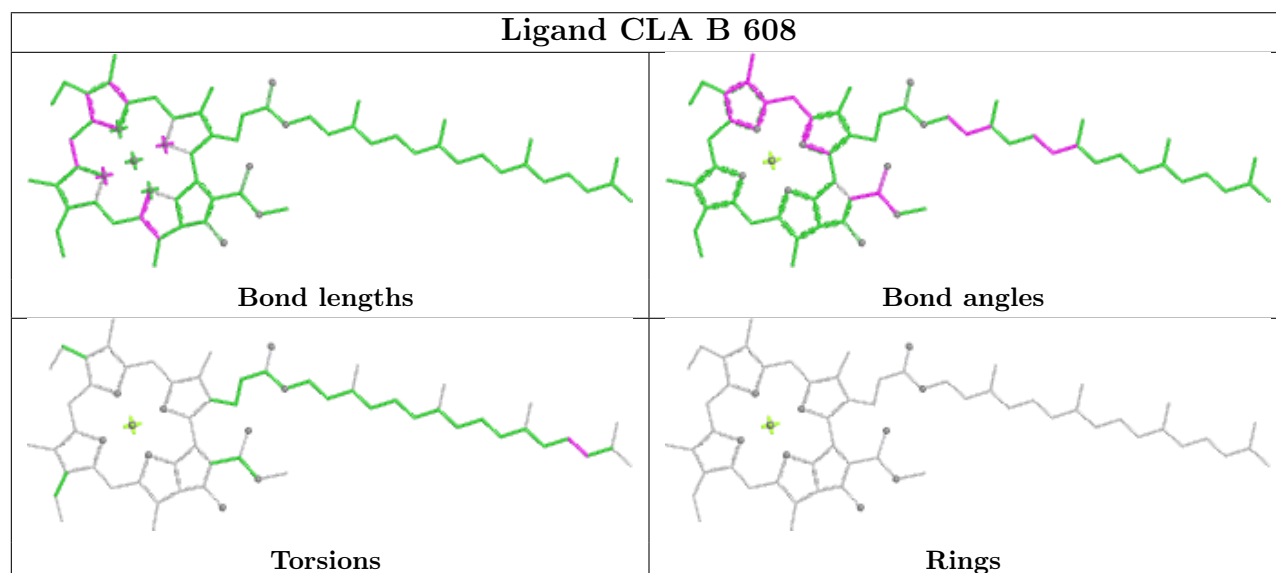
Ligand CLA c 501

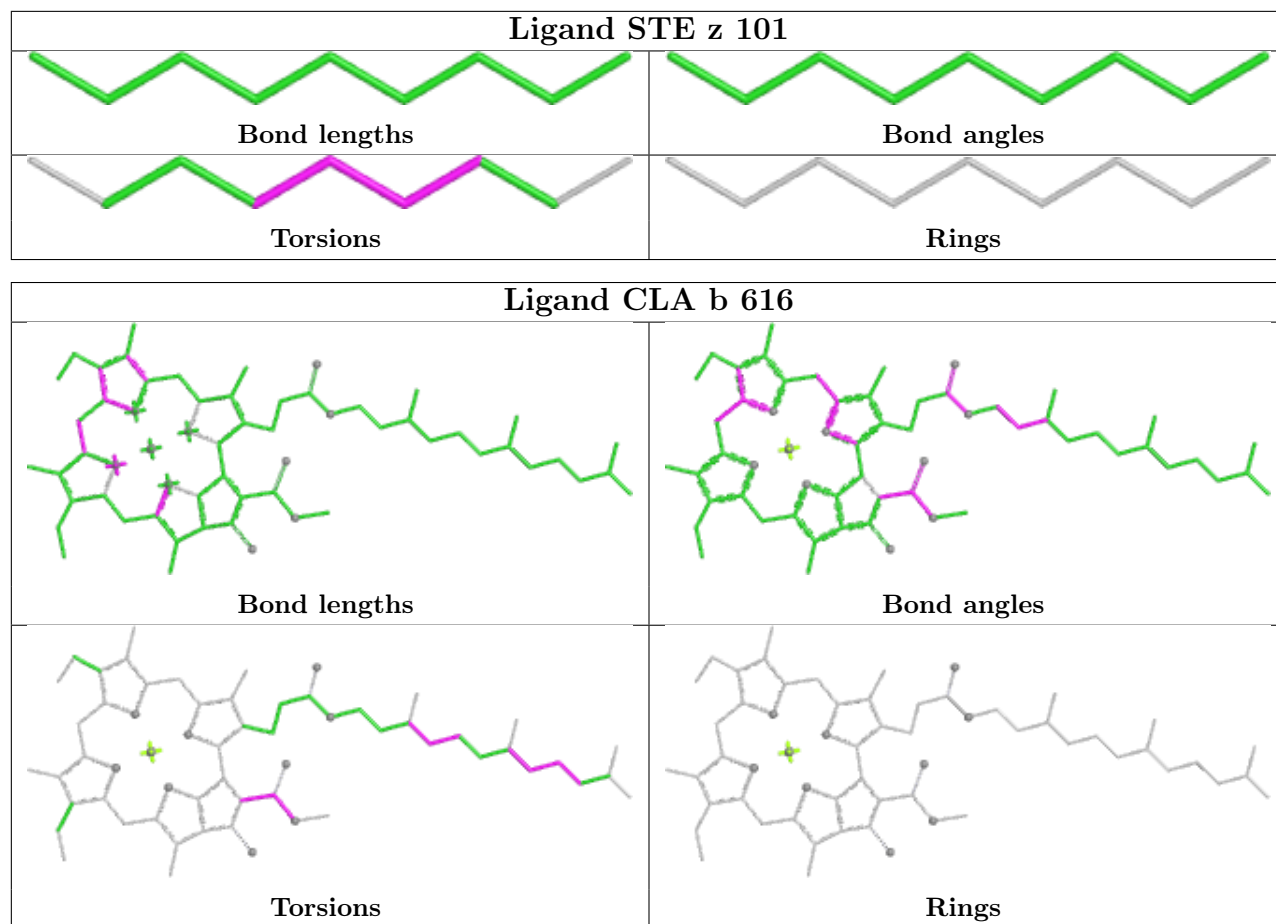


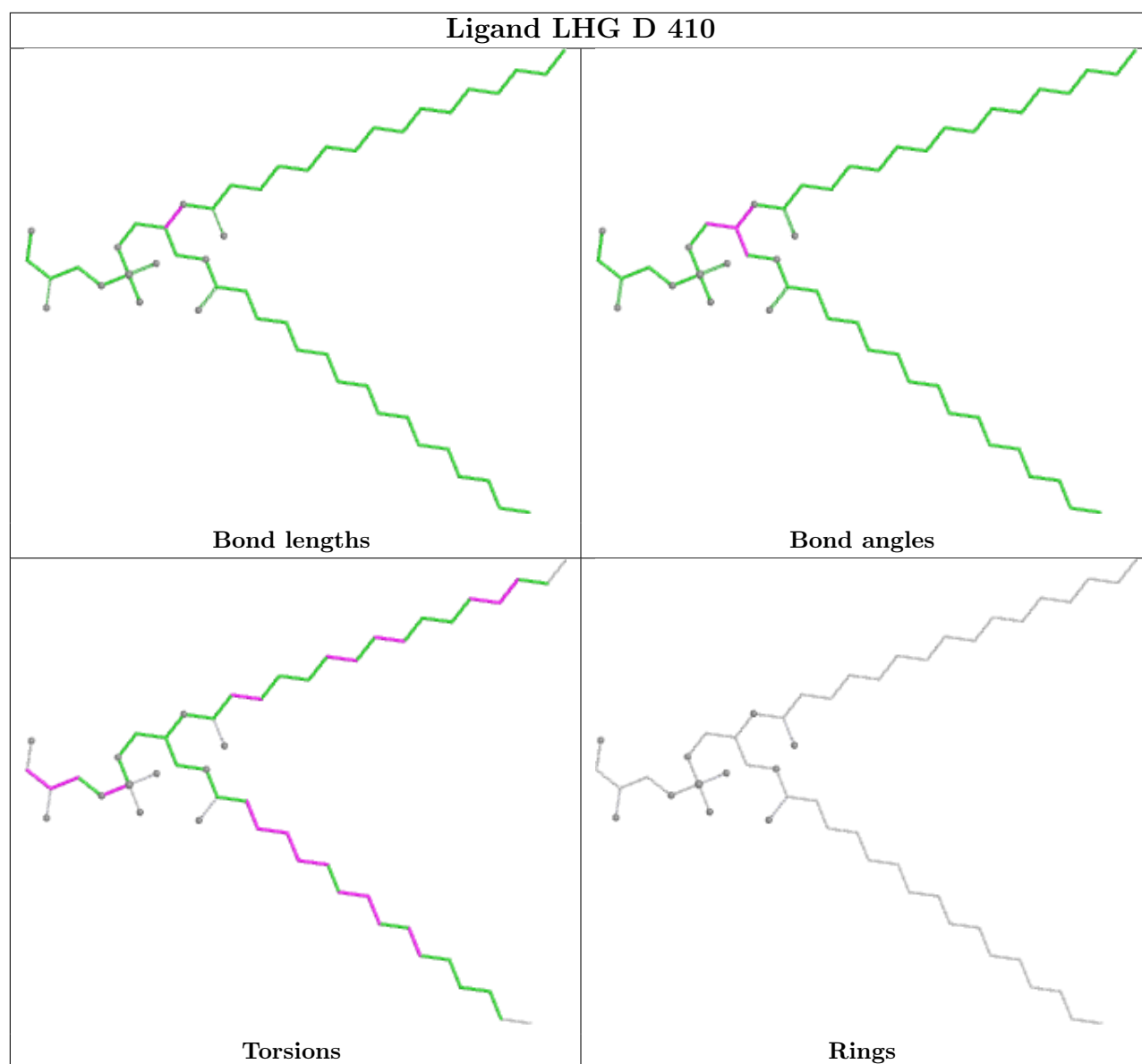
Ligand CLA B 603

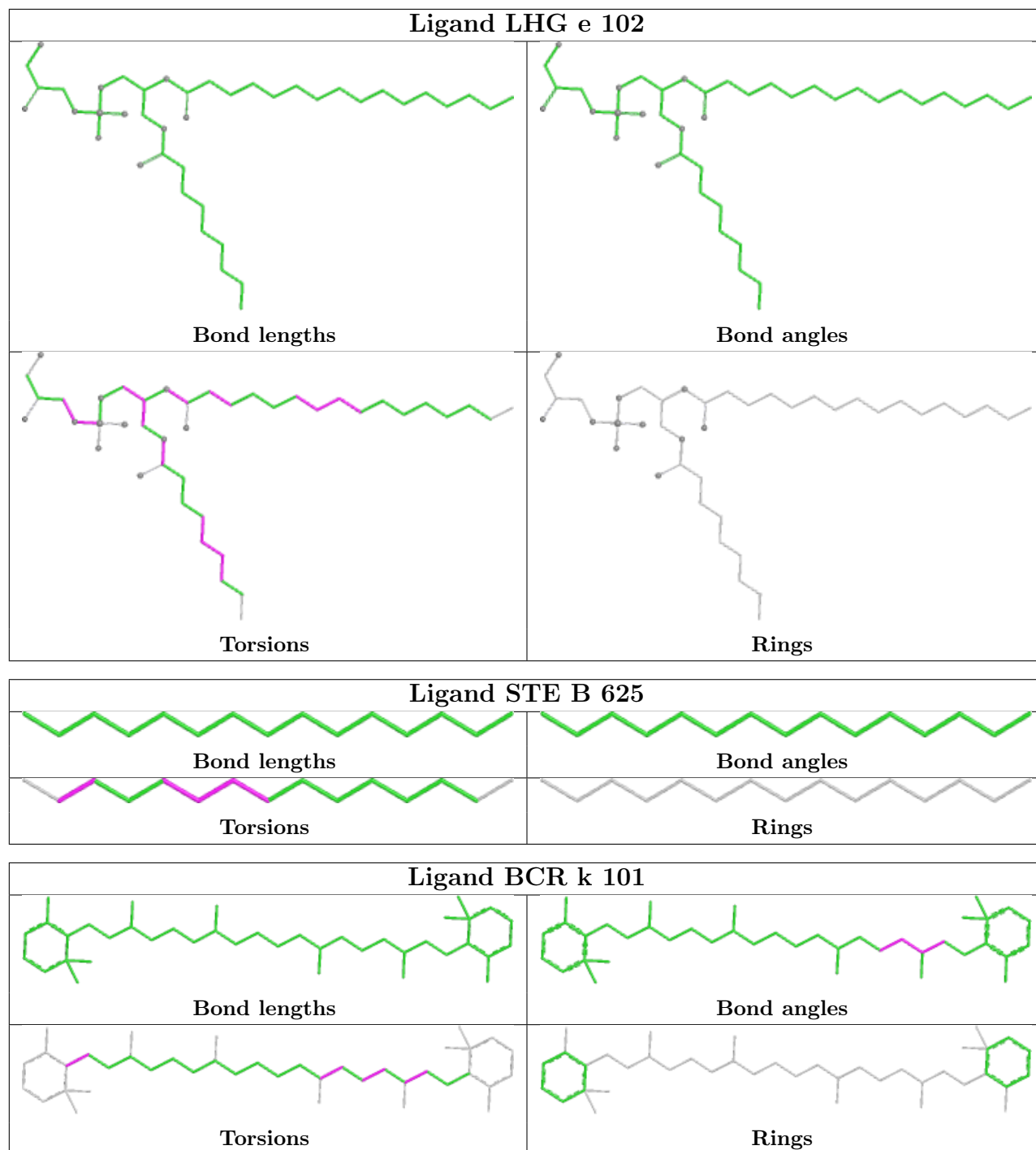


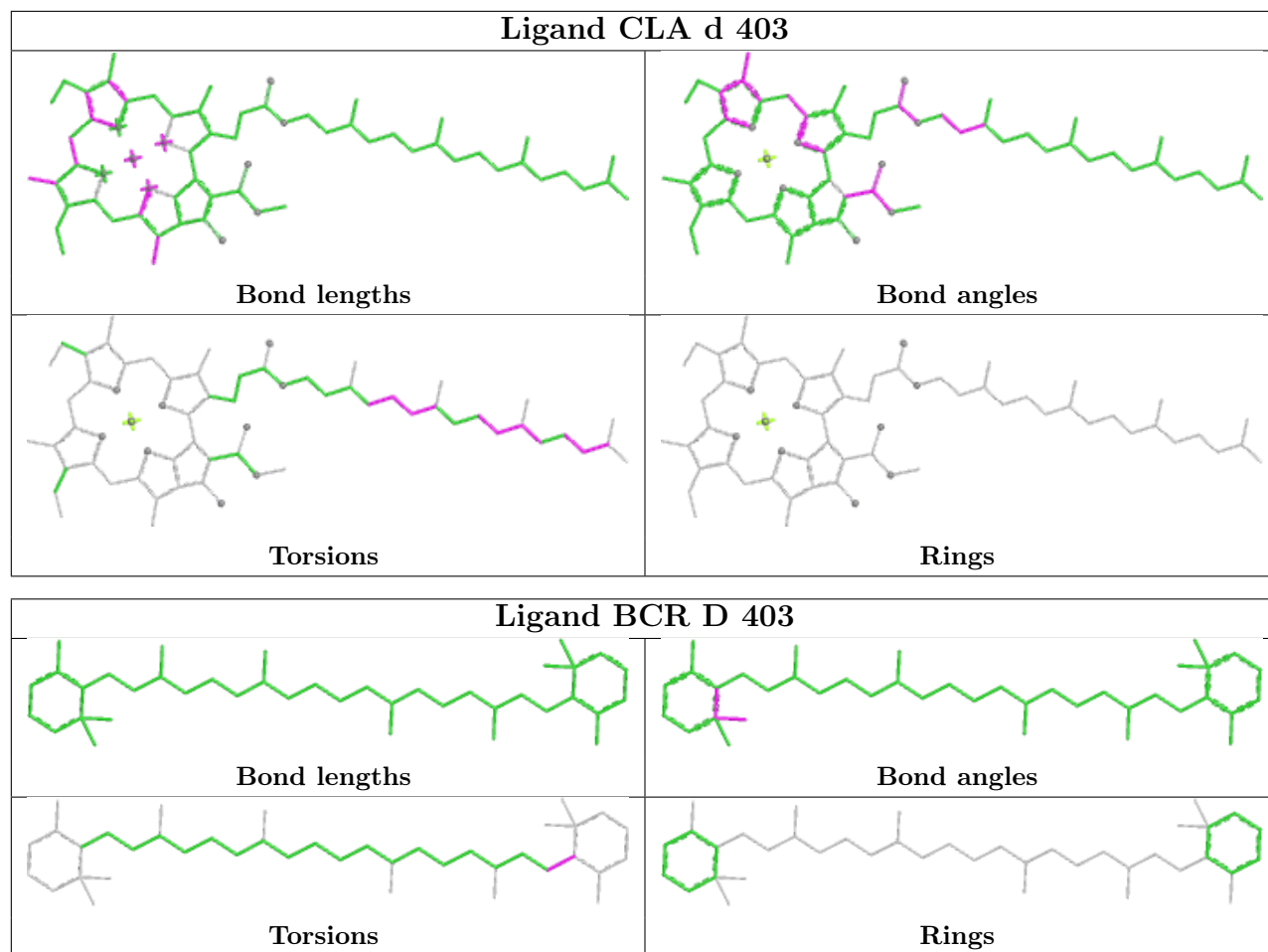
Ligand CLA B 608

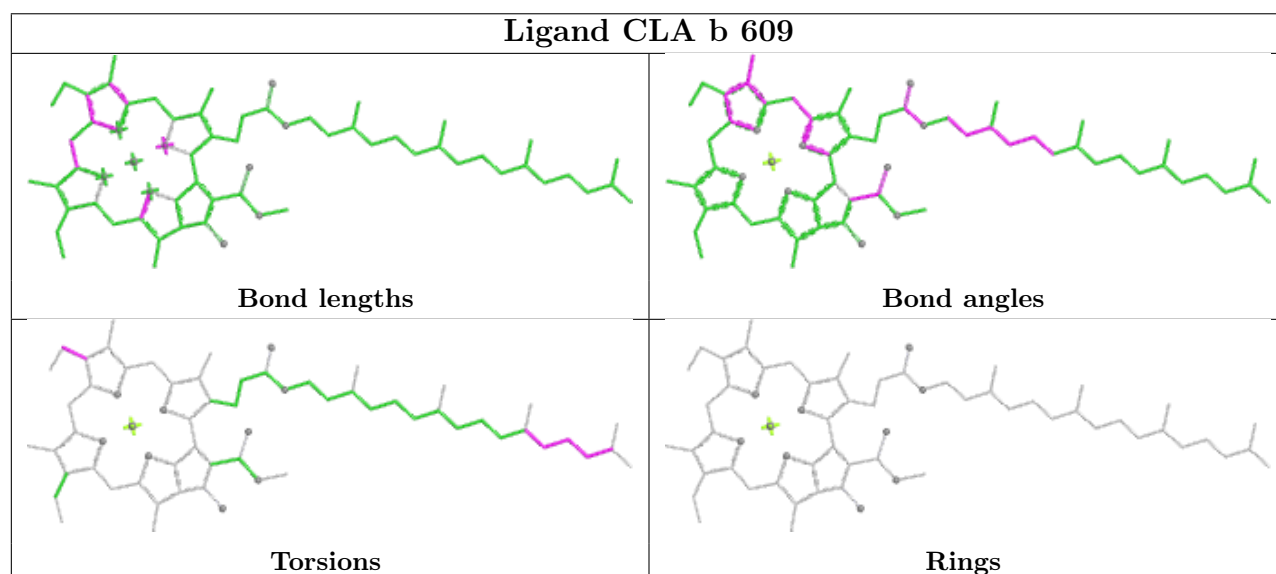
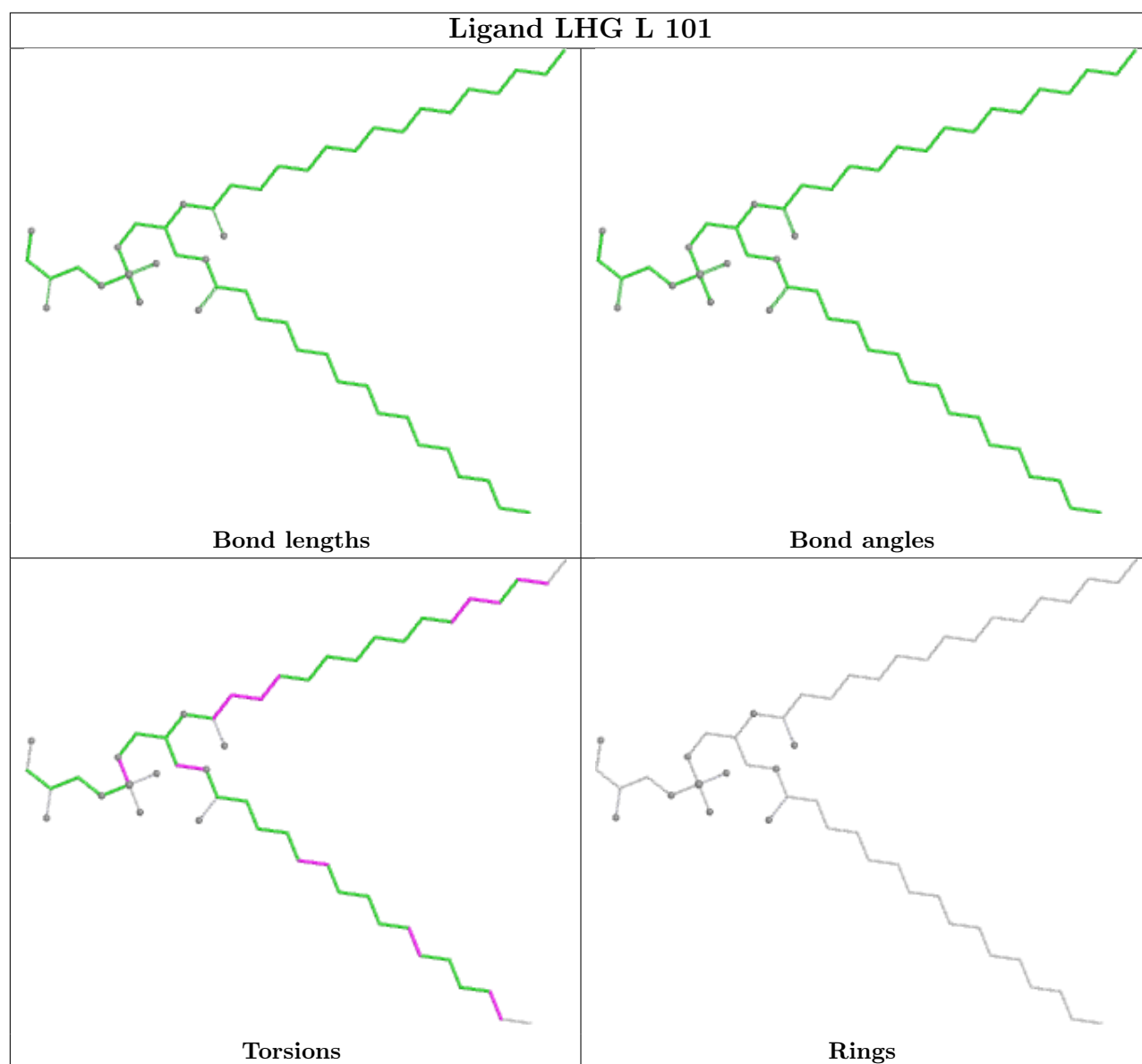


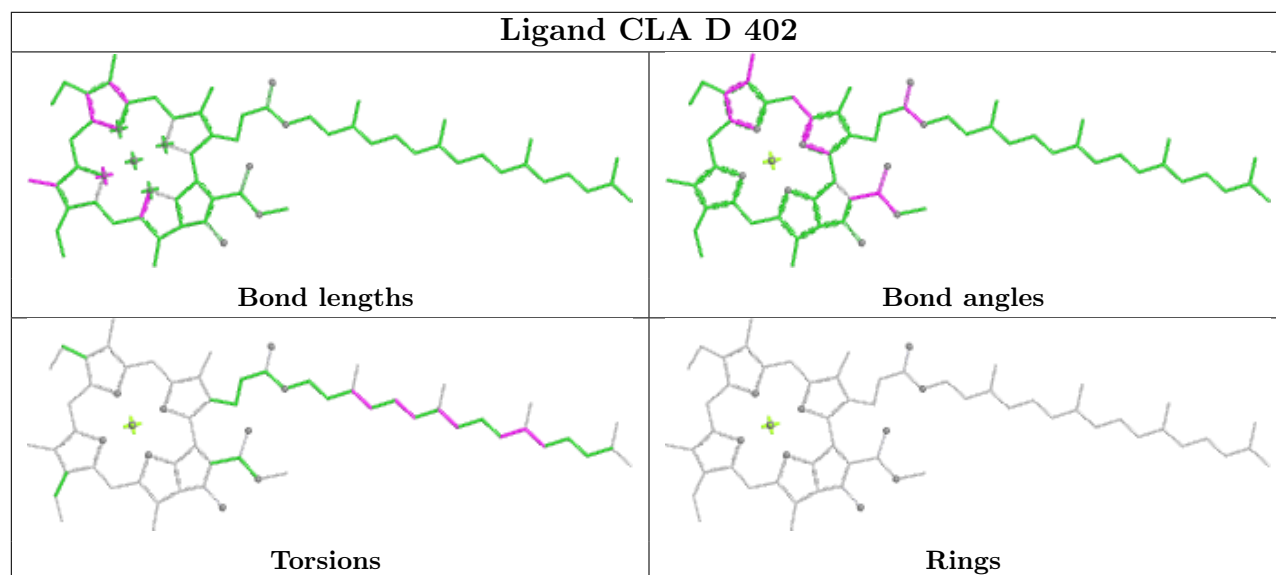
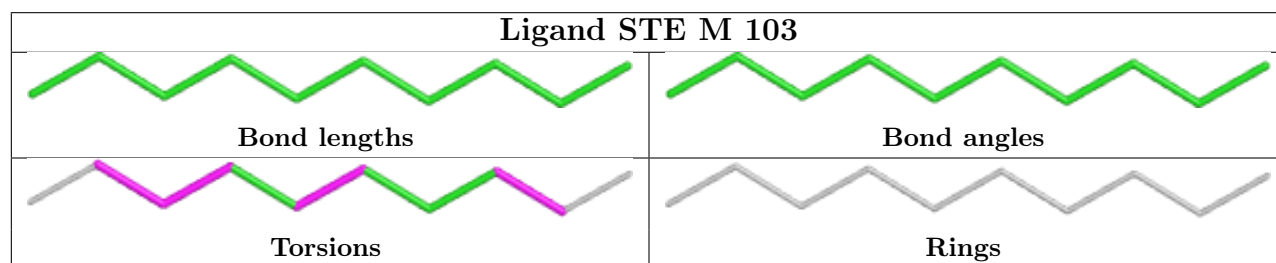
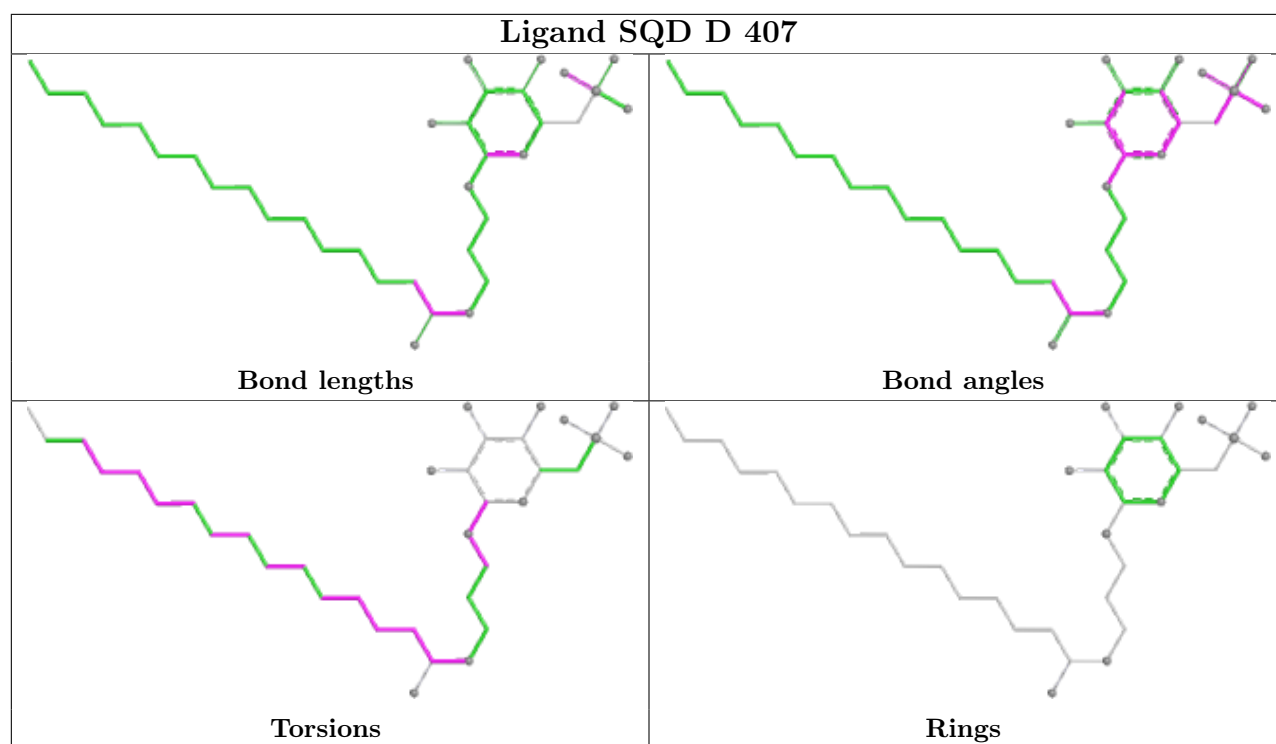


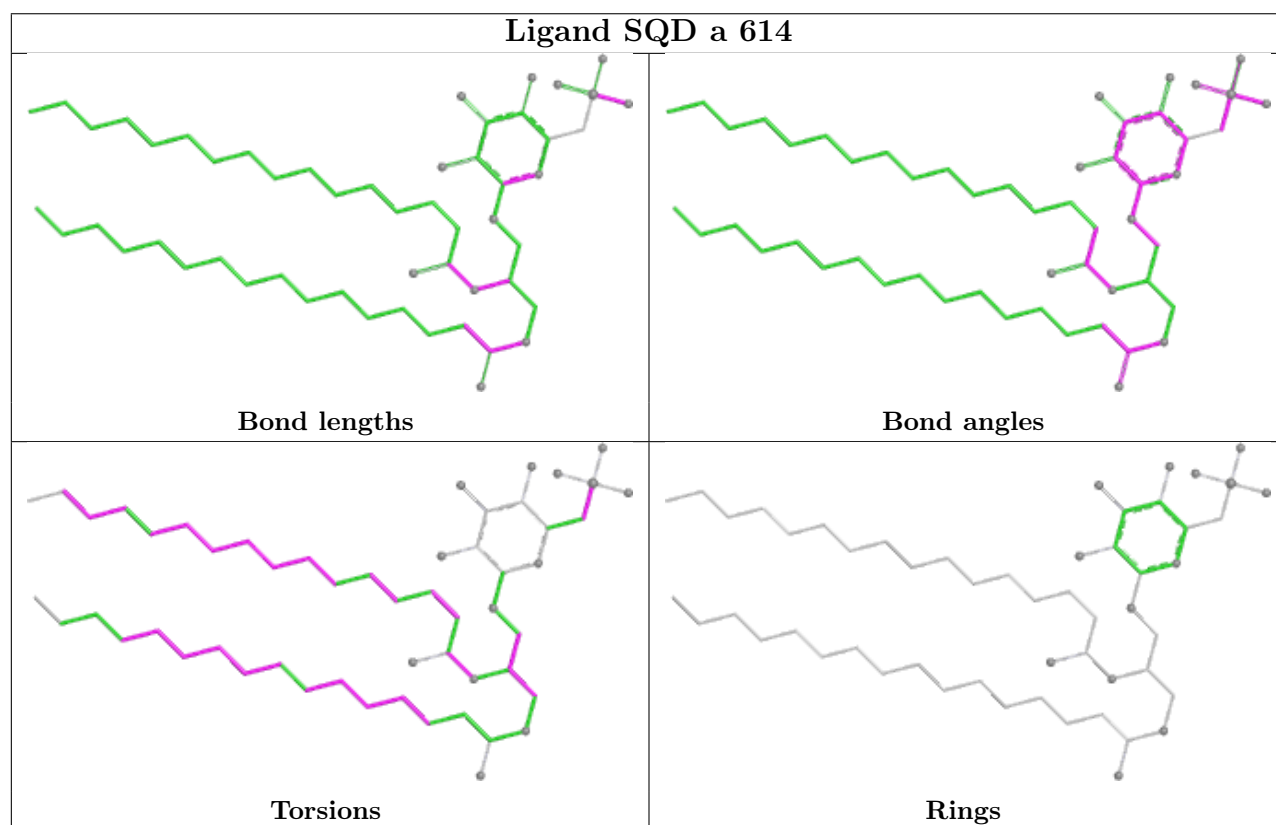
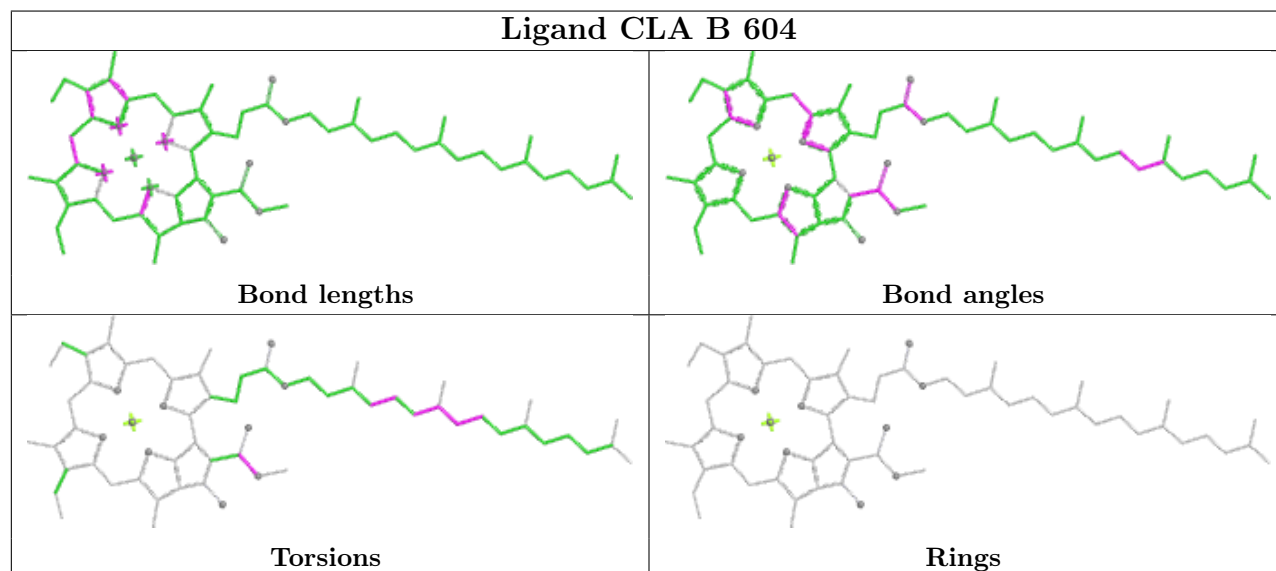
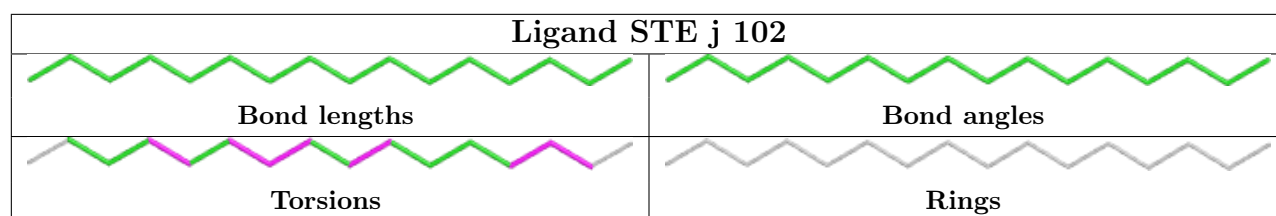


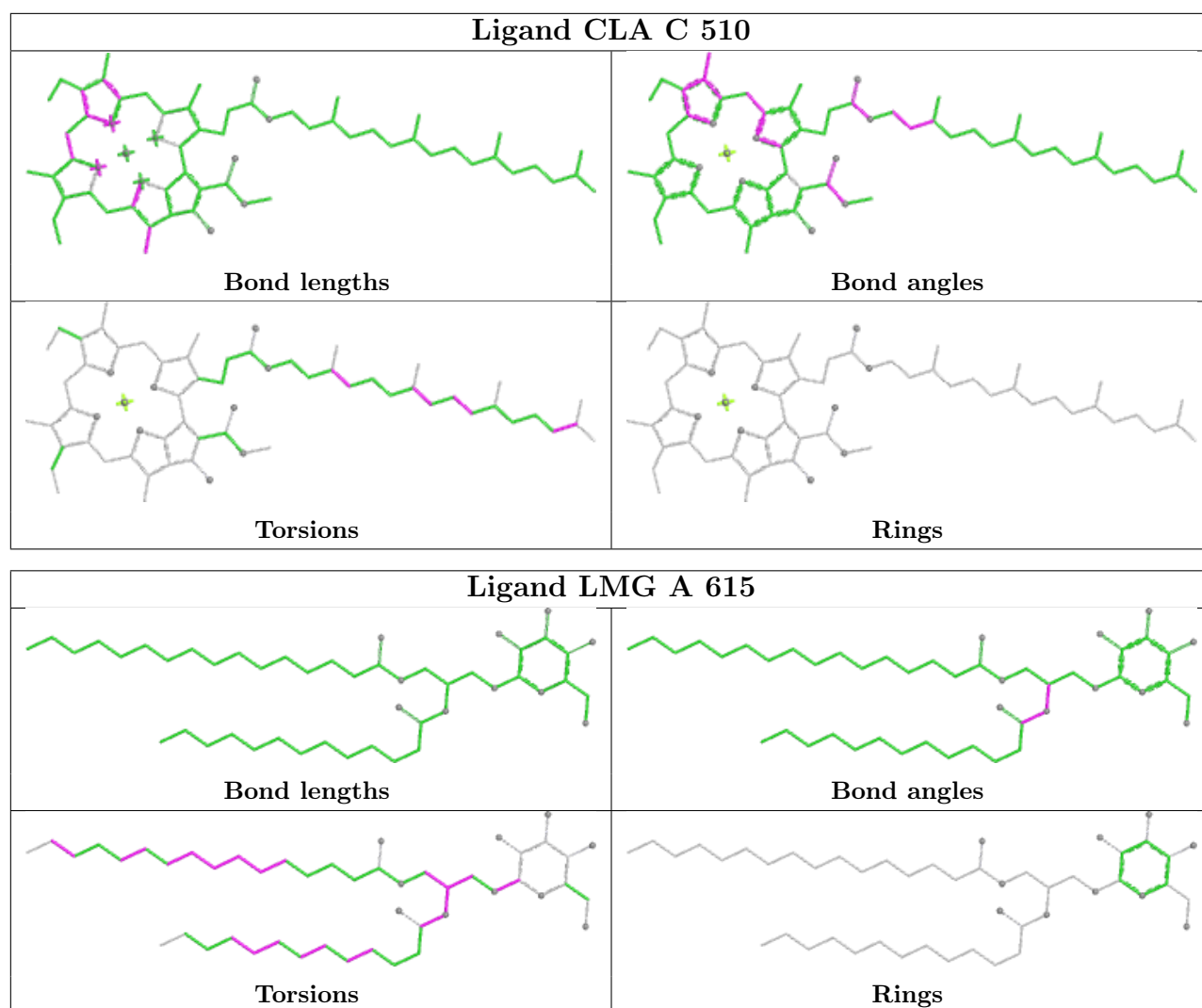


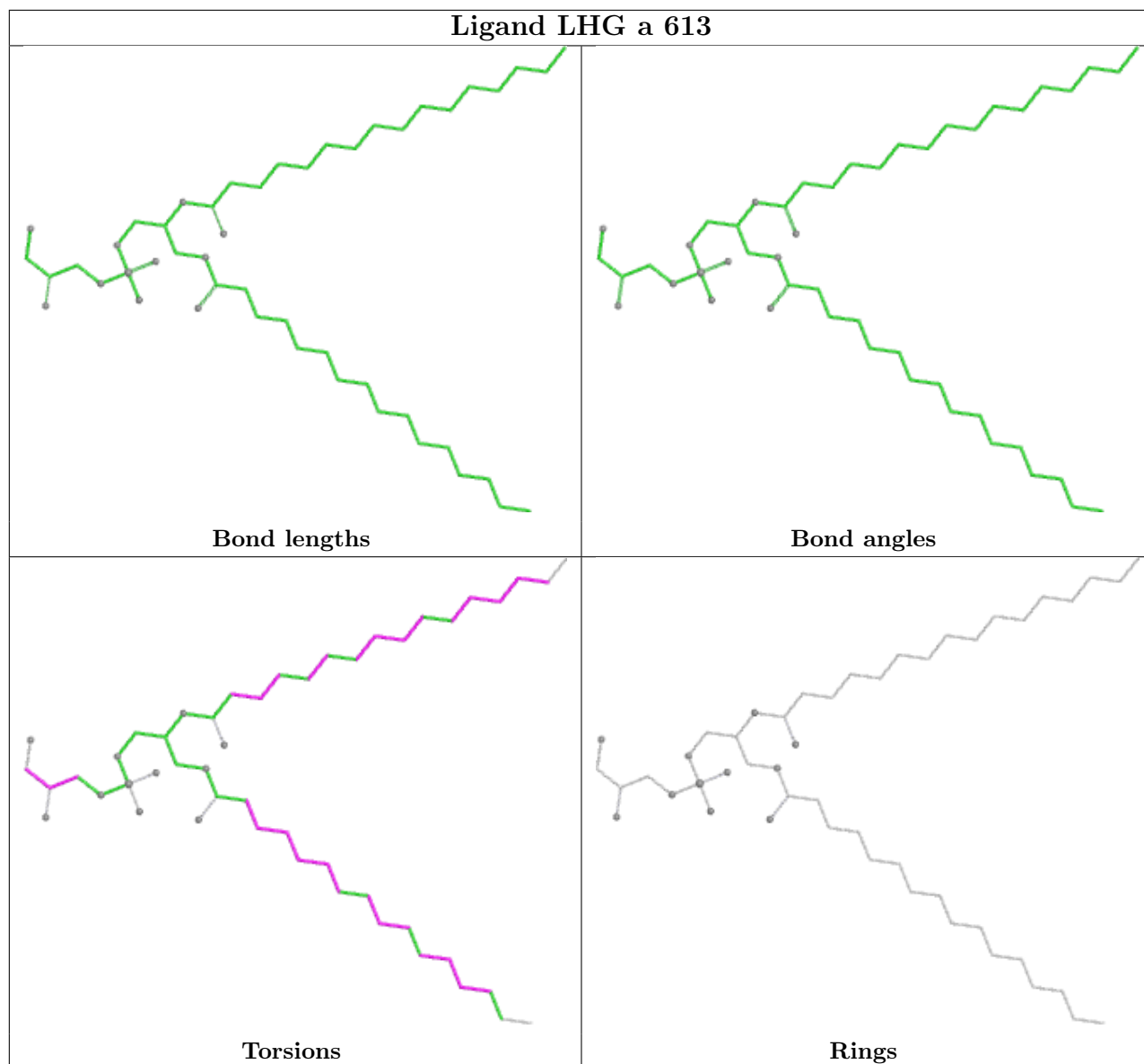
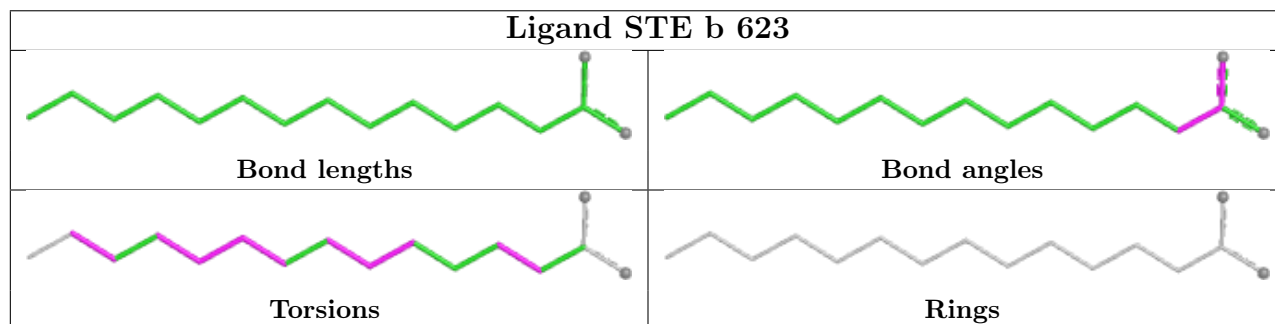


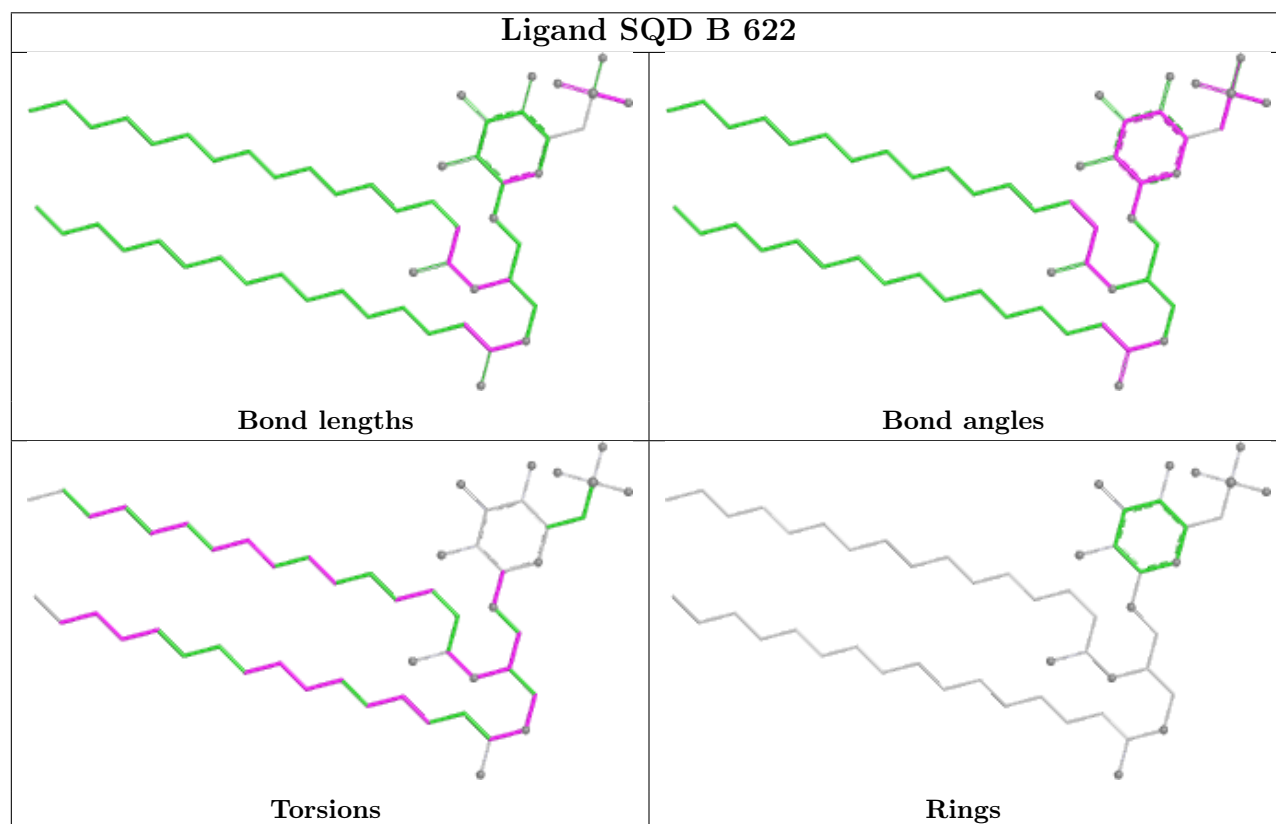
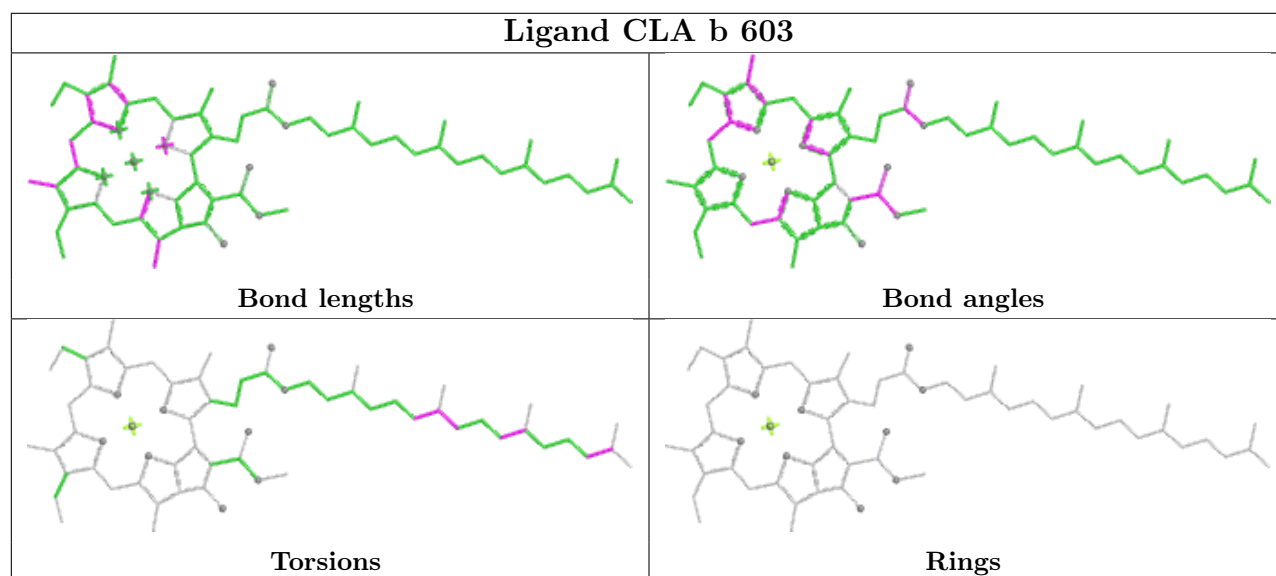
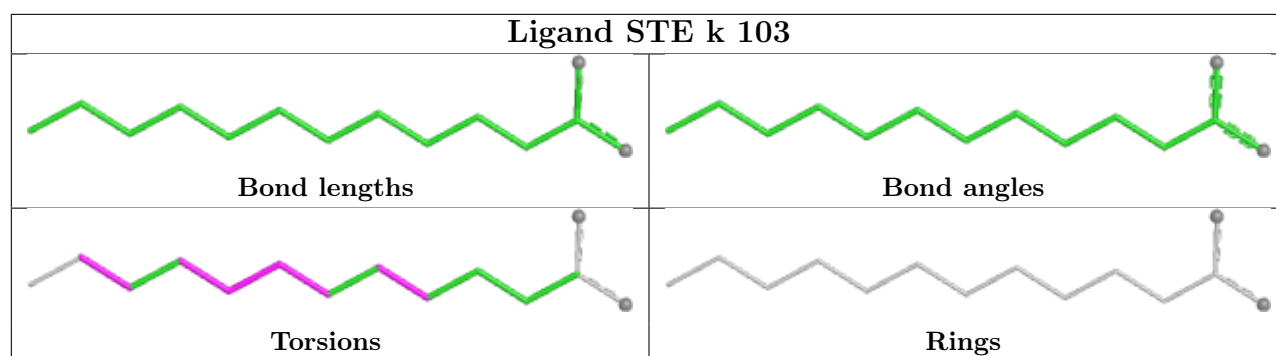


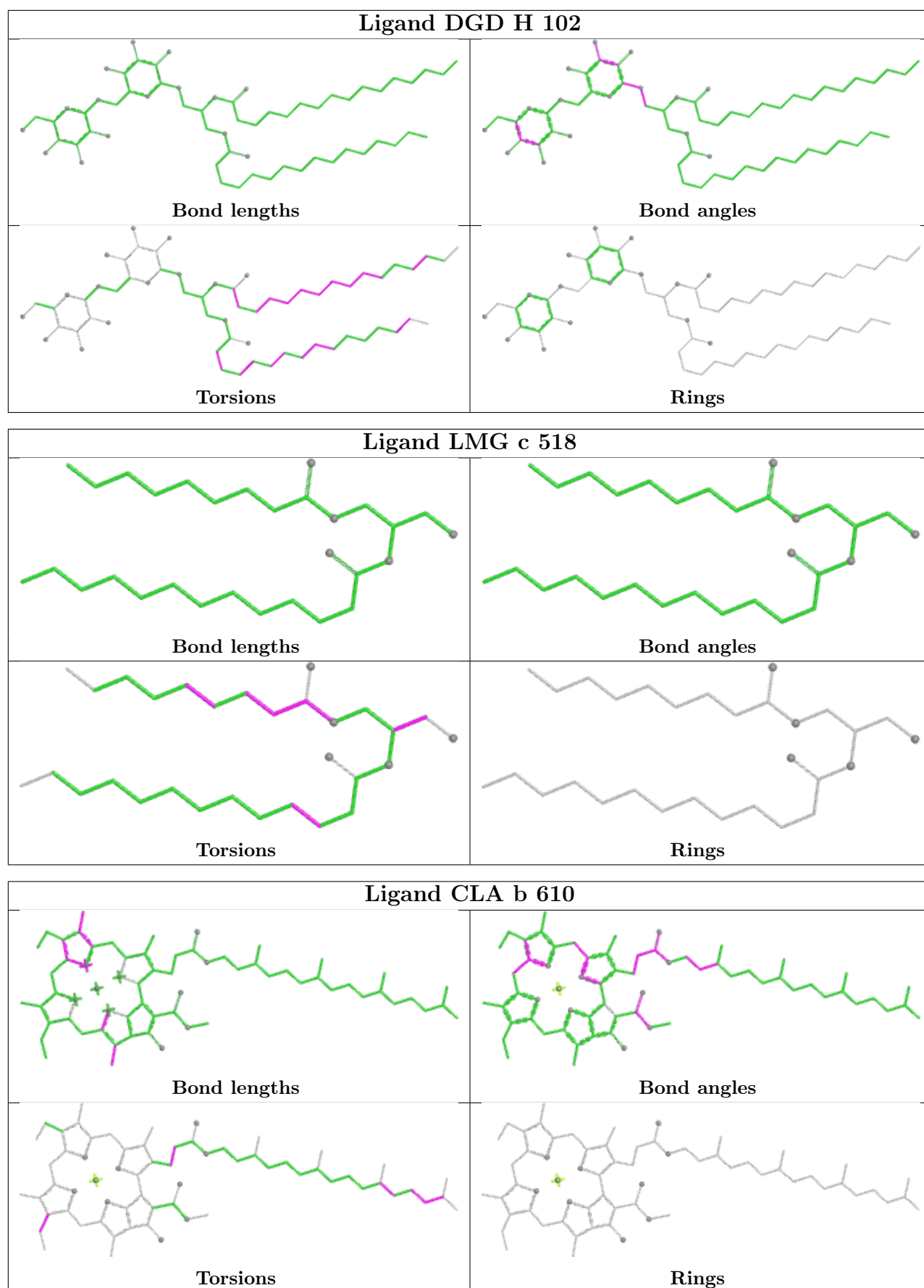


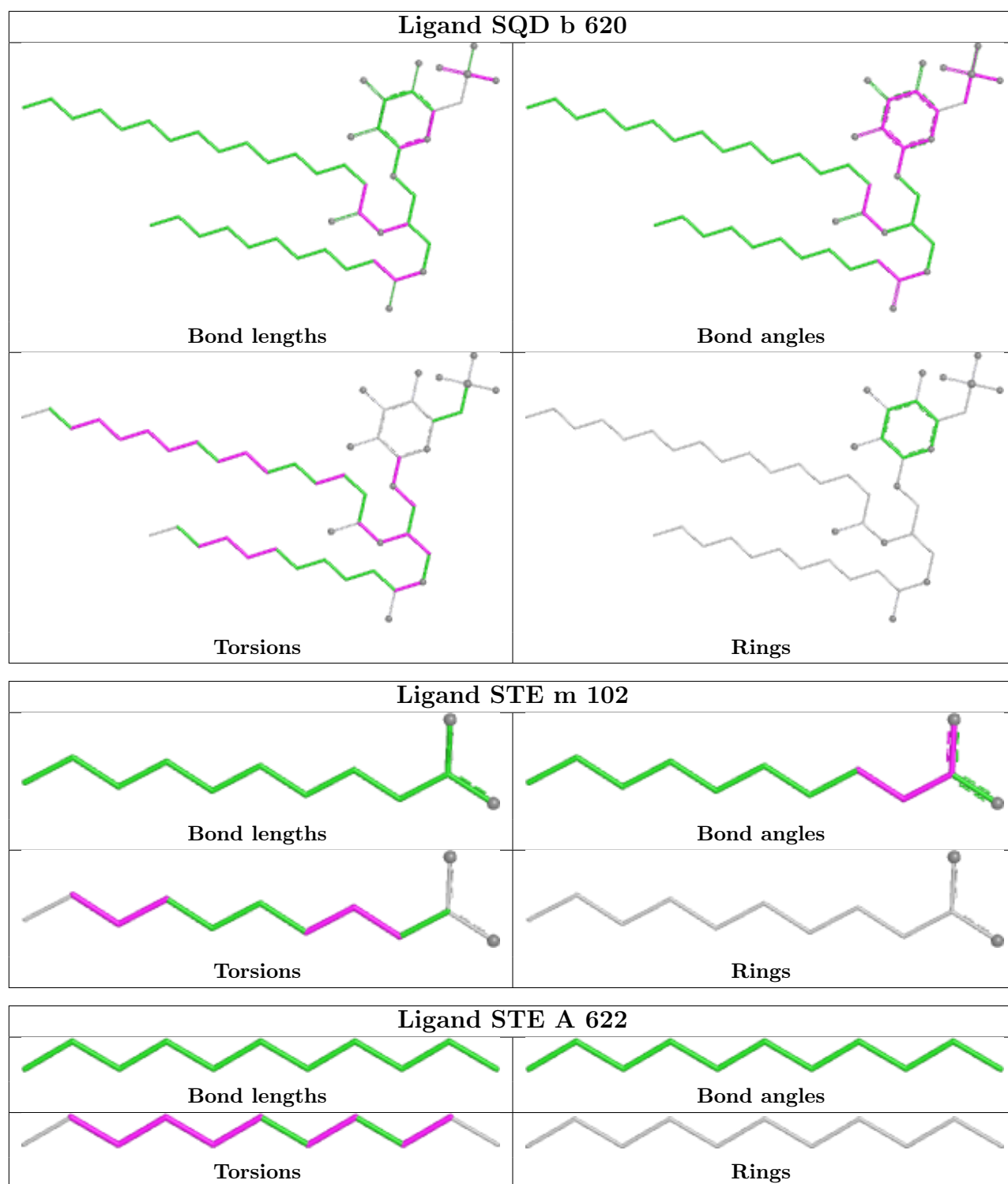


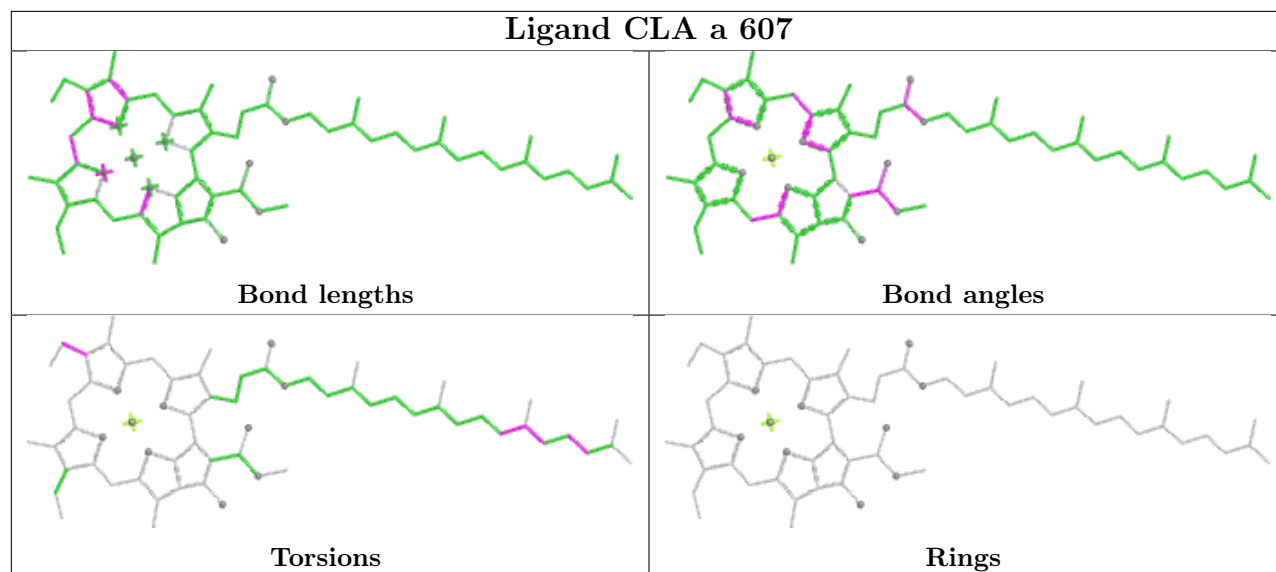
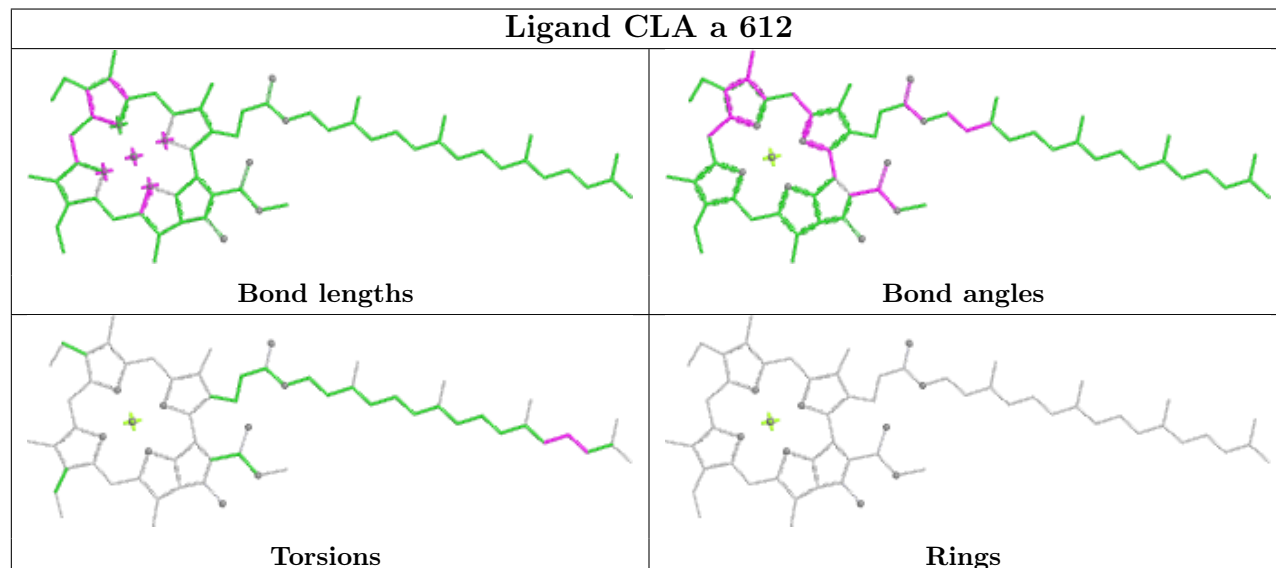
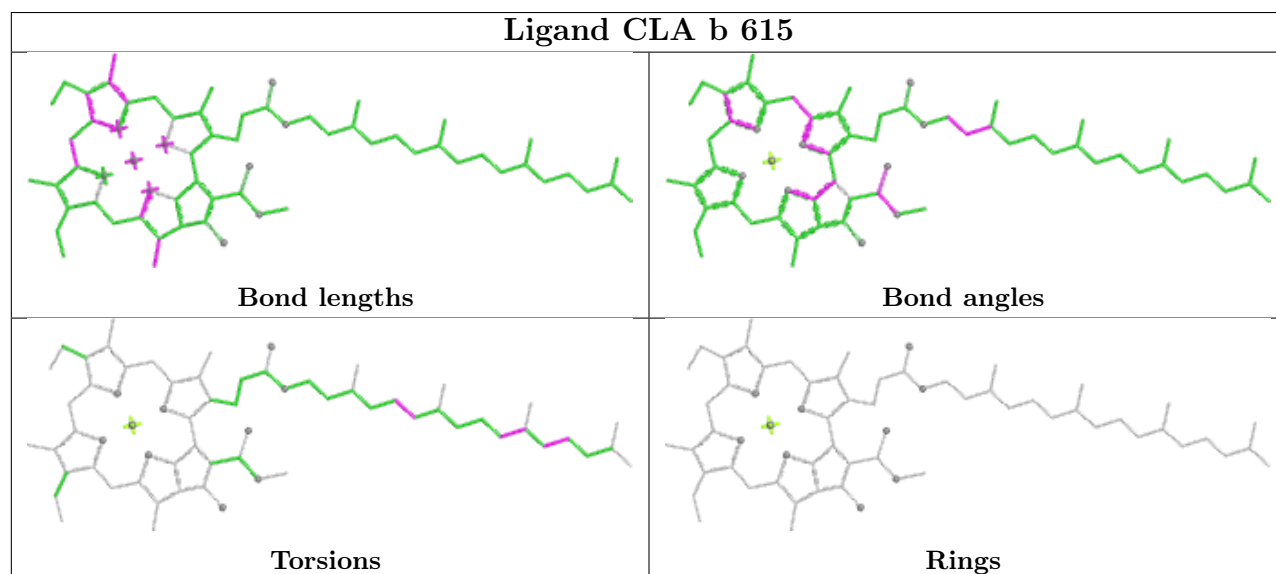


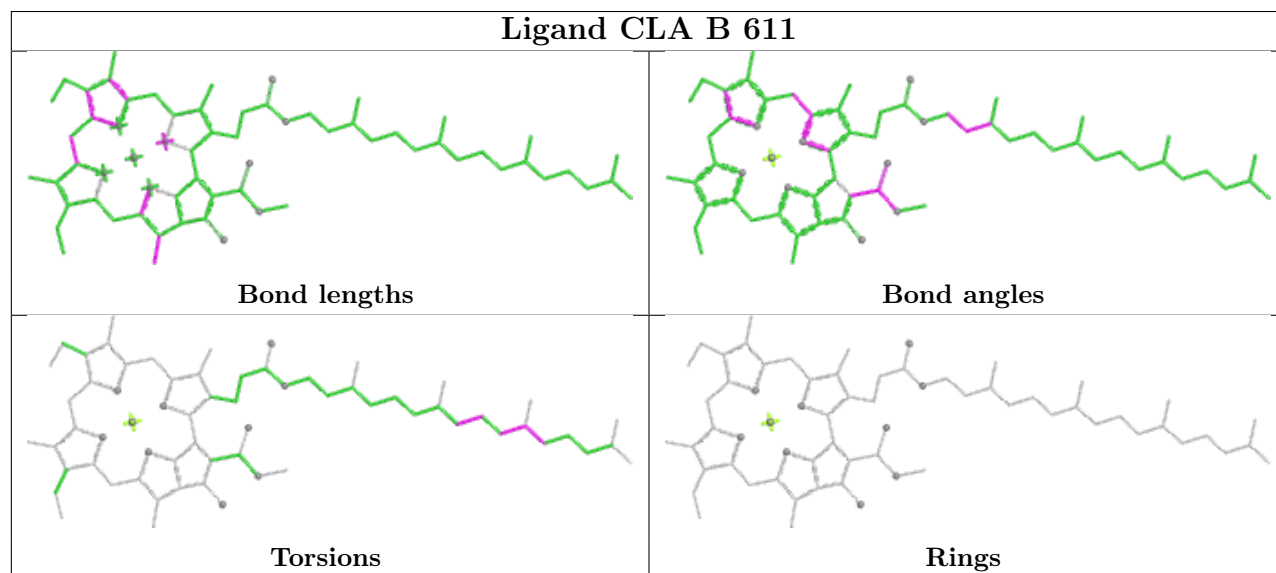
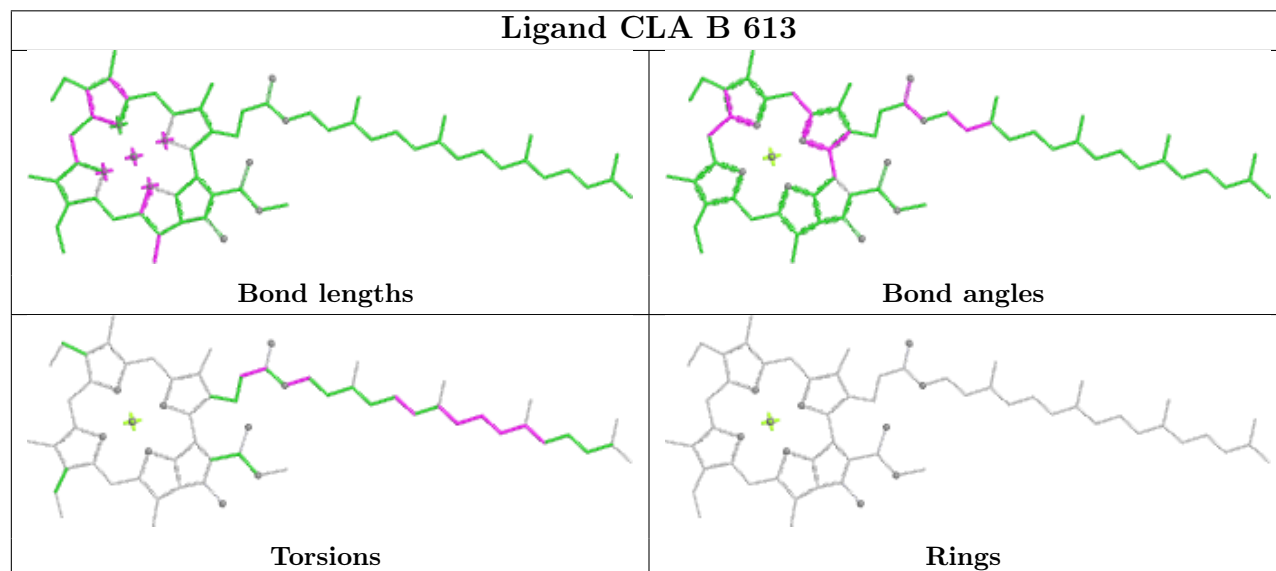
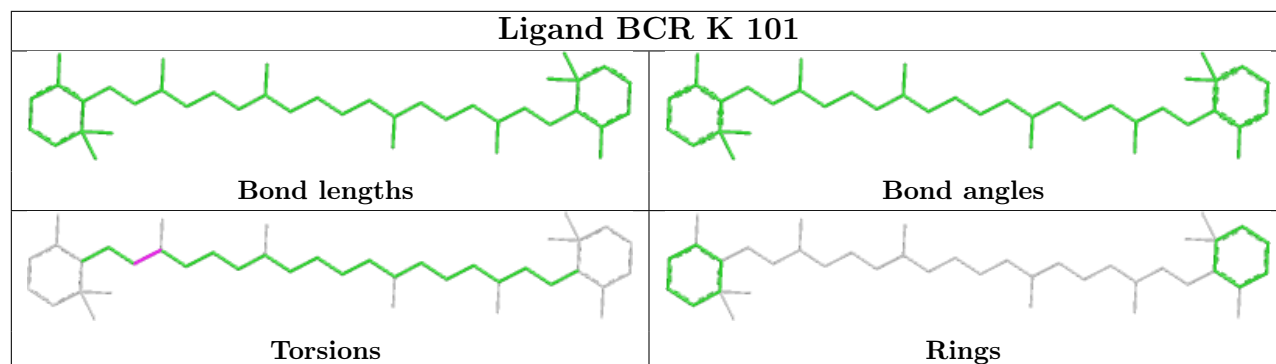
Ligand LHG a 613**Ligand STE b 623**

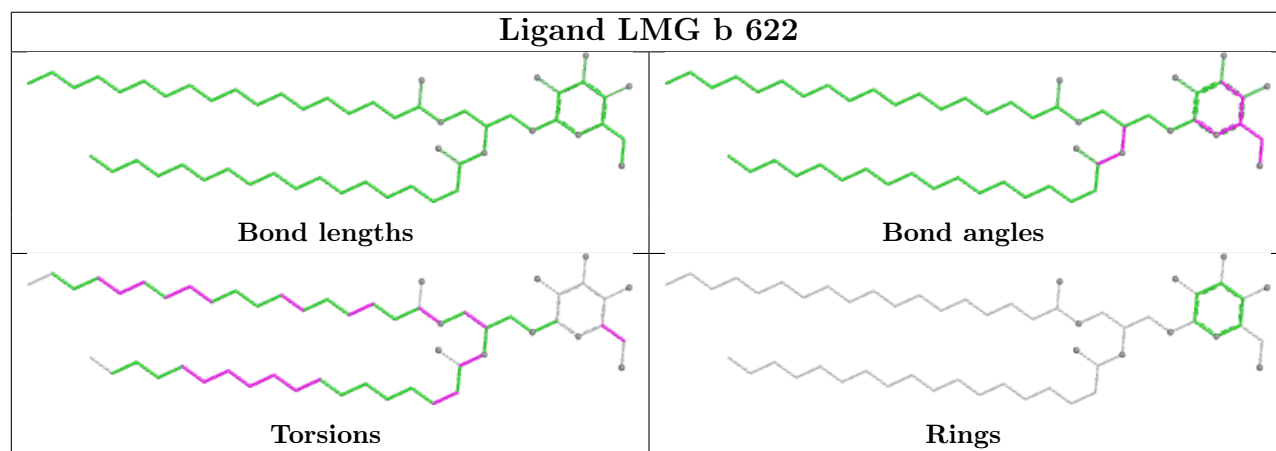
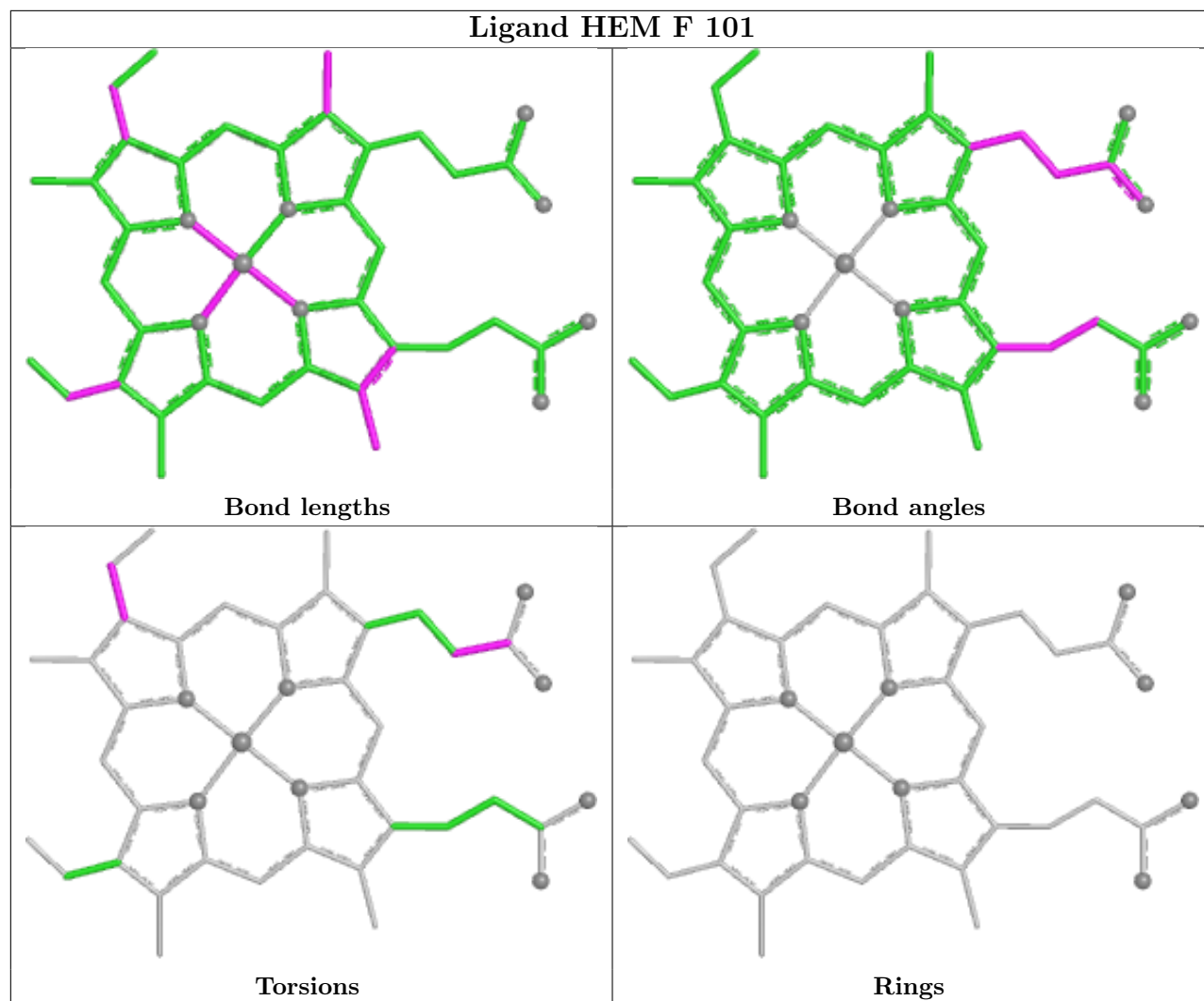


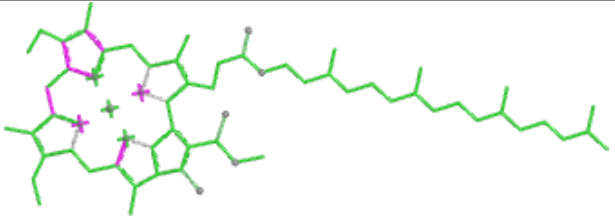
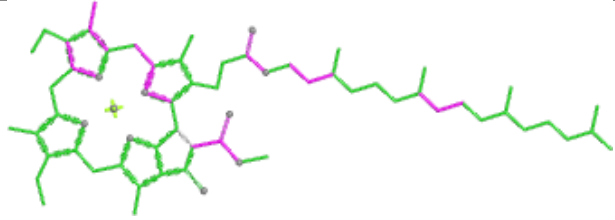
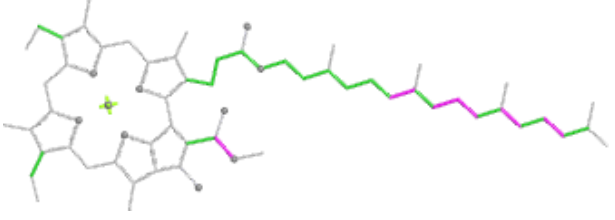
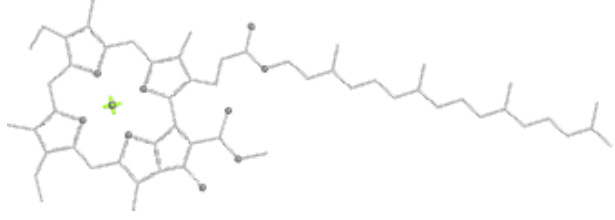
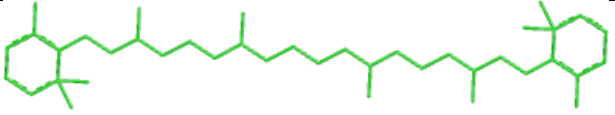
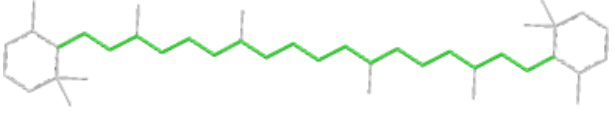
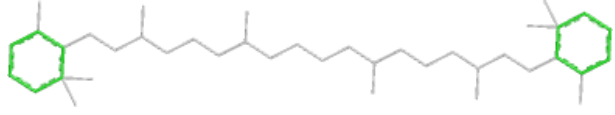
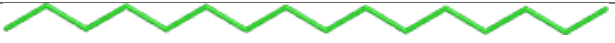
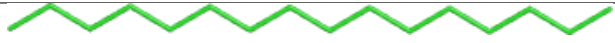


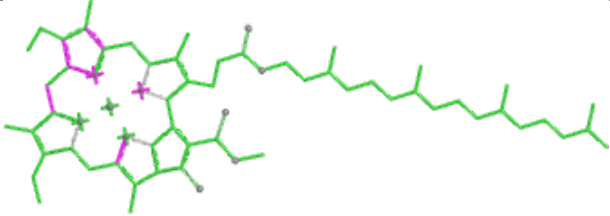
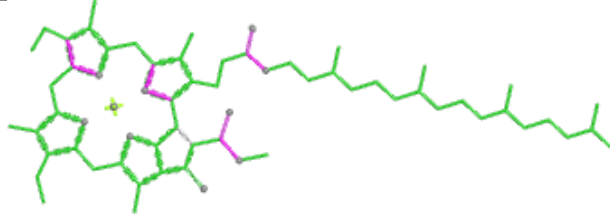
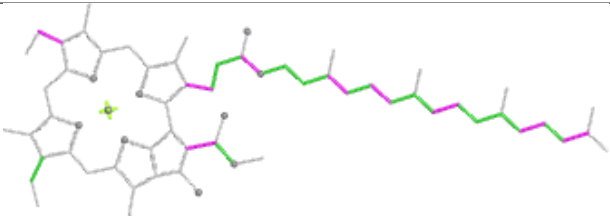
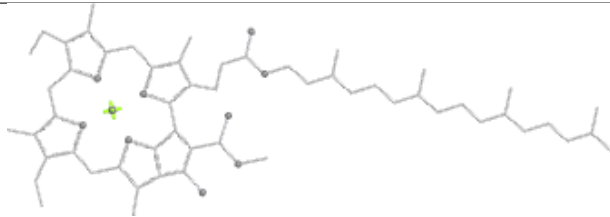
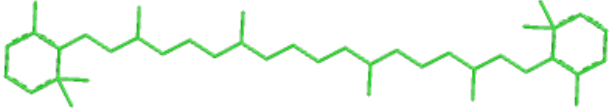
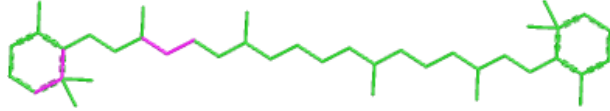
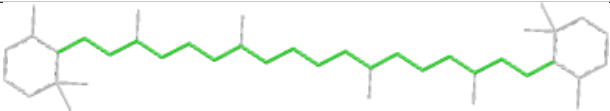
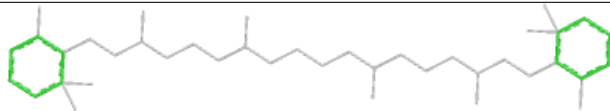
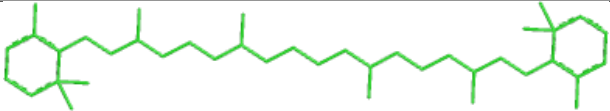
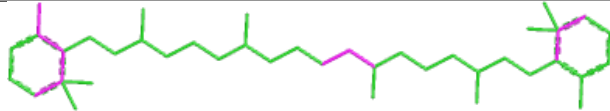
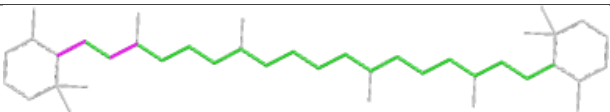
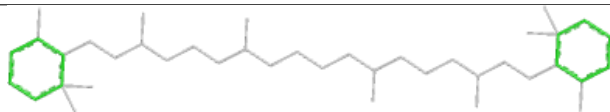


Ligand CLA a 607**Ligand CLA a 612****Ligand CLA b 615**

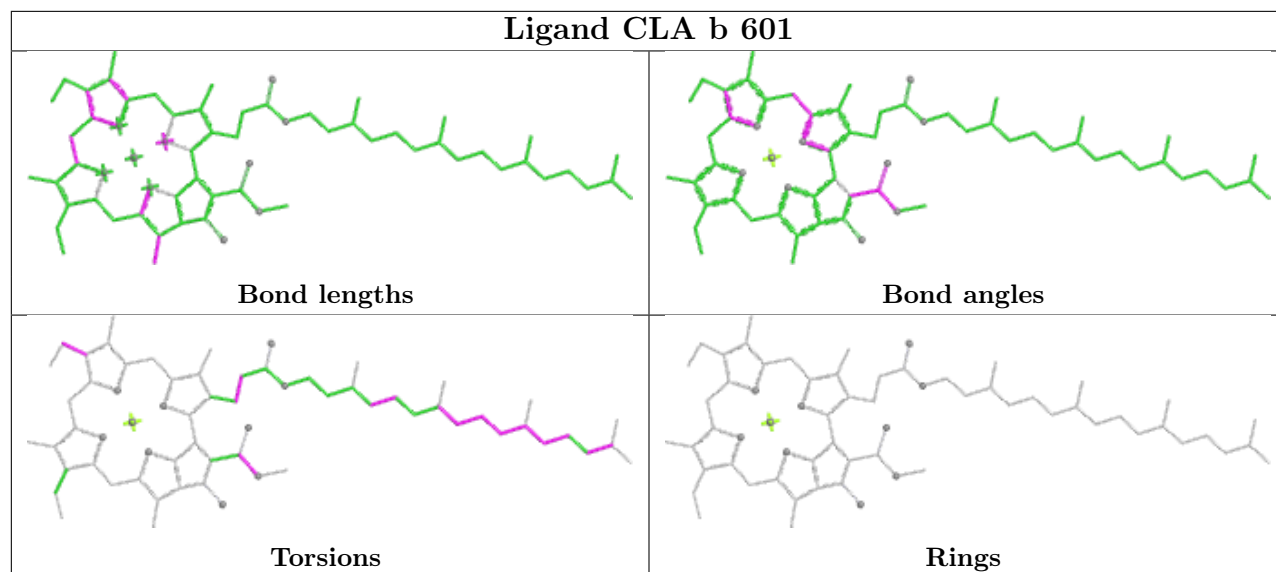




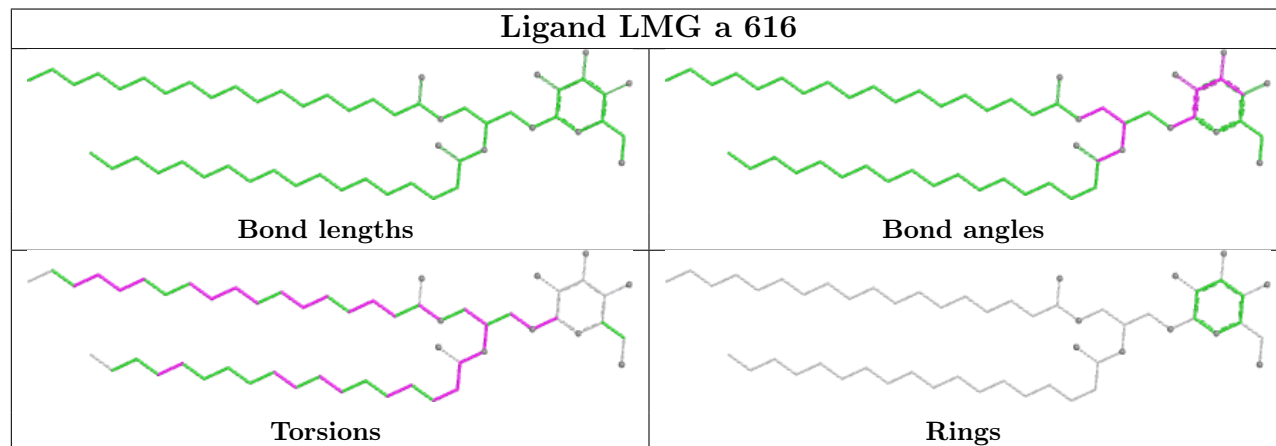
Ligand CLA C 505	
 Bond lengths	 Bond angles
 Torsions	 Rings
Ligand BCR b 618	
 Bond lengths	 Bond angles
 Torsions	 Rings
Ligand STE C 526	
 Bond lengths	 Bond angles
 Torsions	 Rings
Ligand STE K 102	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA B 601	
	
Bond lengths	Bond angles
	
Torsions	Rings
Ligand BCR c 515	
	
Bond lengths	Bond angles
	
Torsions	Rings
Ligand BCR H 101	
	
Bond lengths	Bond angles
	
Torsions	Rings

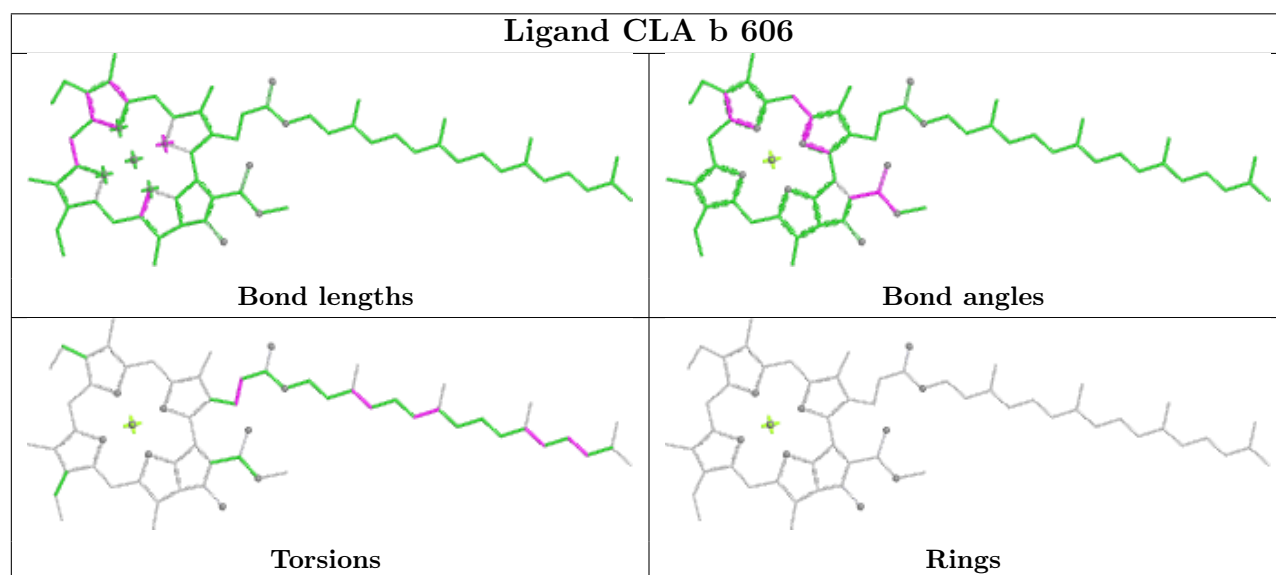
Ligand CLA b 601

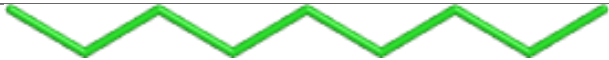
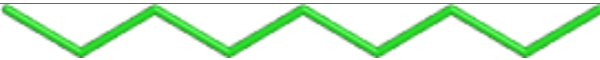


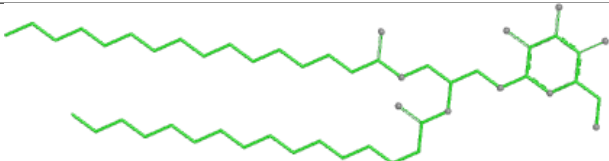
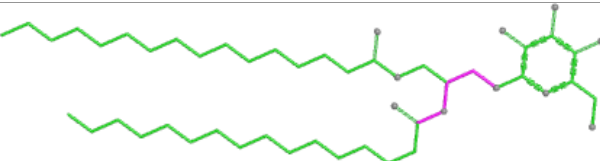
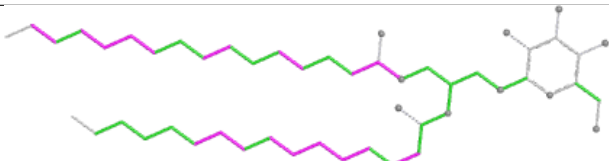
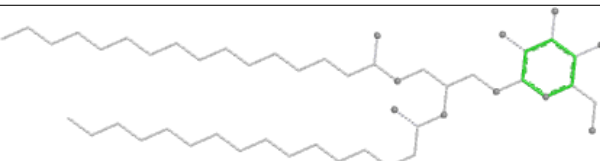
Ligand LMG a 616

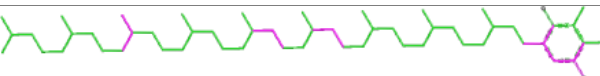
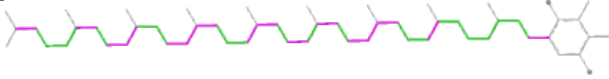
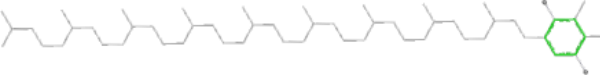


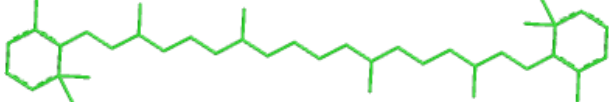
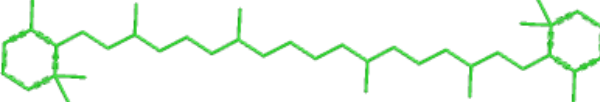
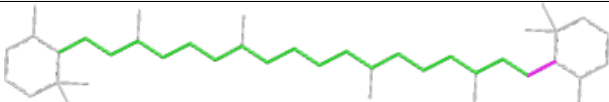
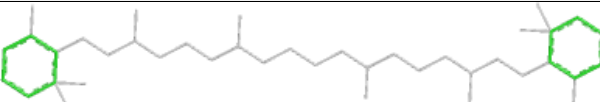
Ligand CLA b 606



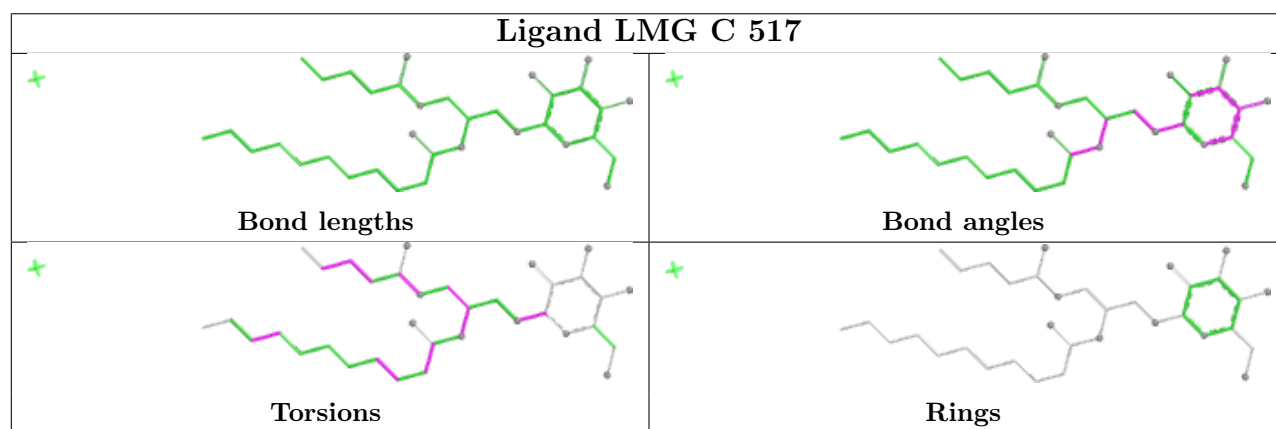
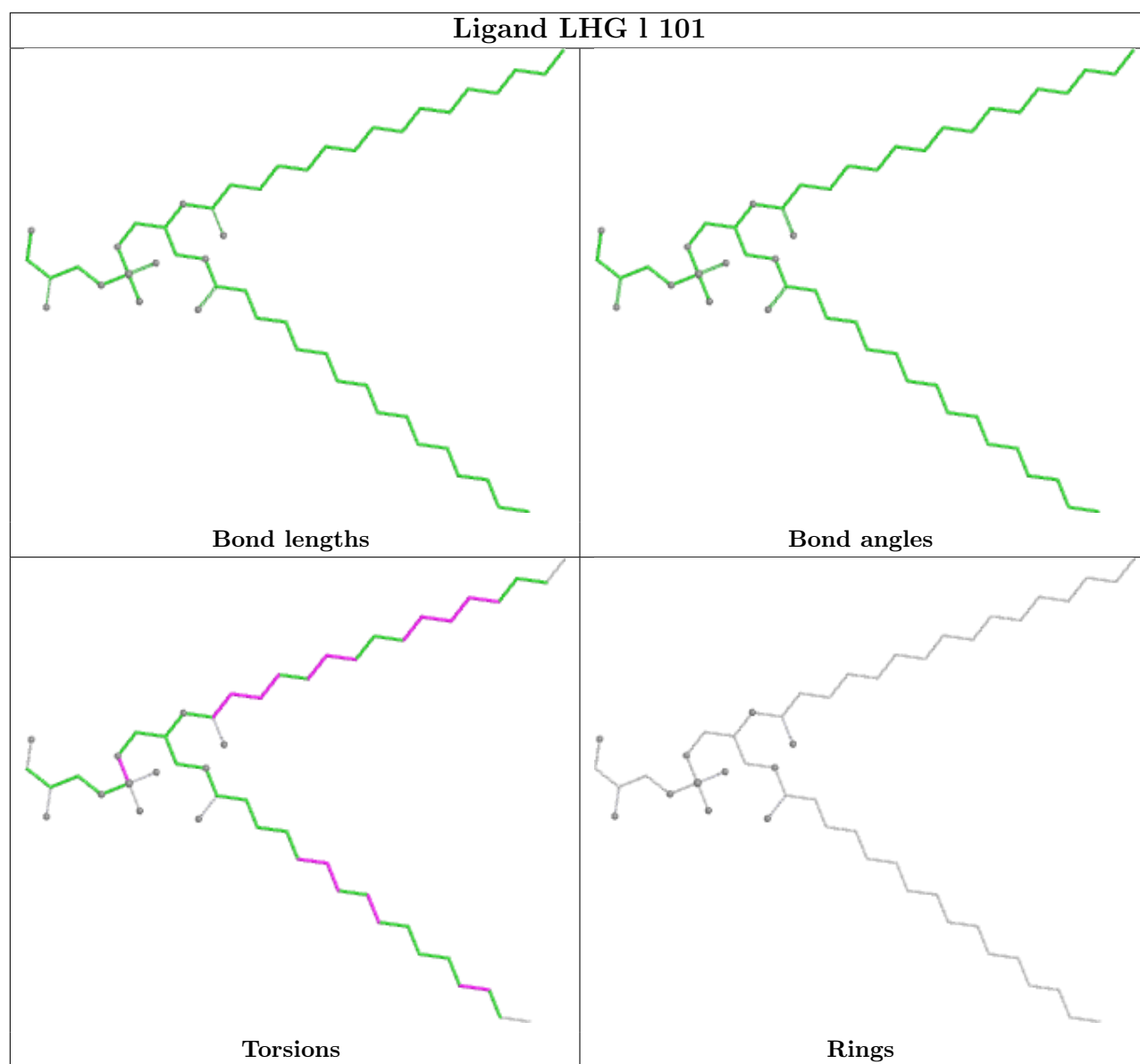
Ligand STE A 613	
 Bond lengths	 Bond angles
 Torsions	 Rings

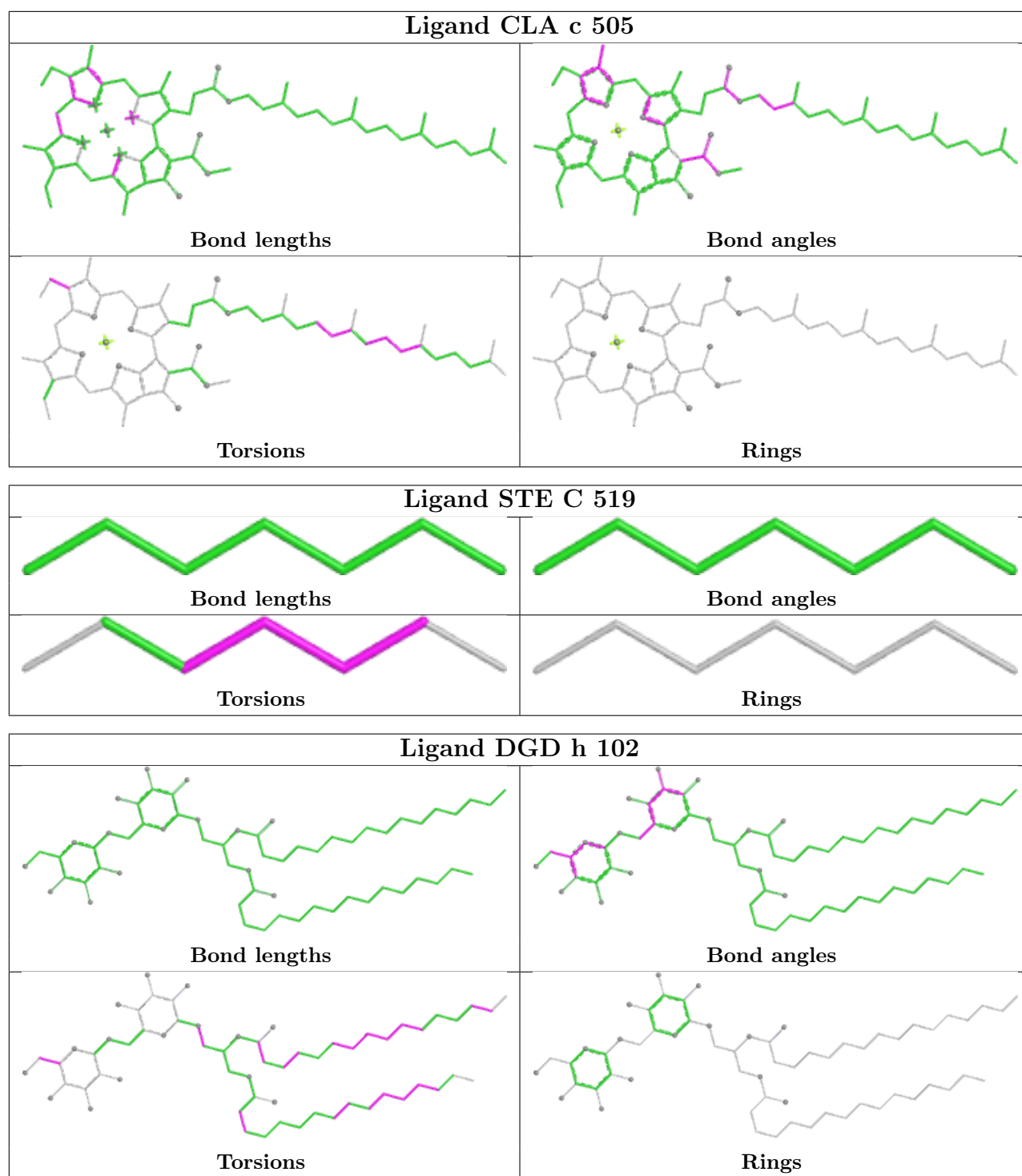
Ligand LMG M 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

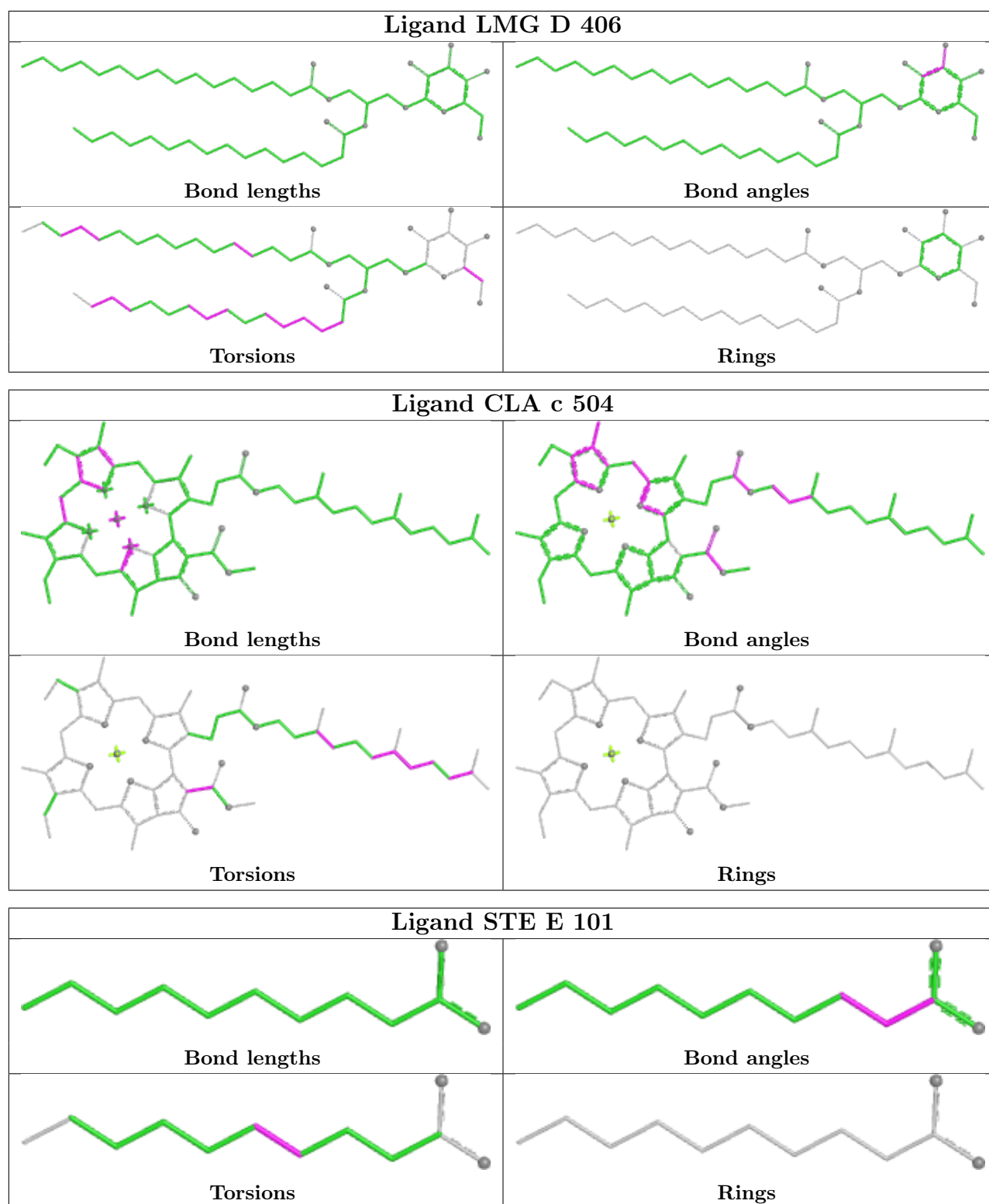
Ligand PL9 A 612	
 Bond lengths	 Bond angles
 Torsions	 Rings

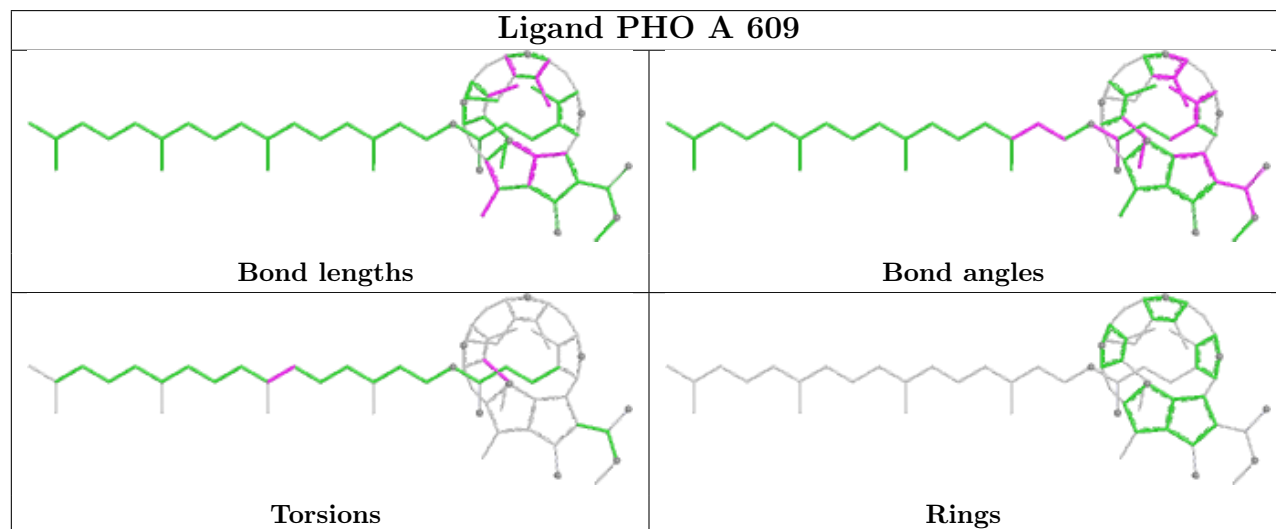
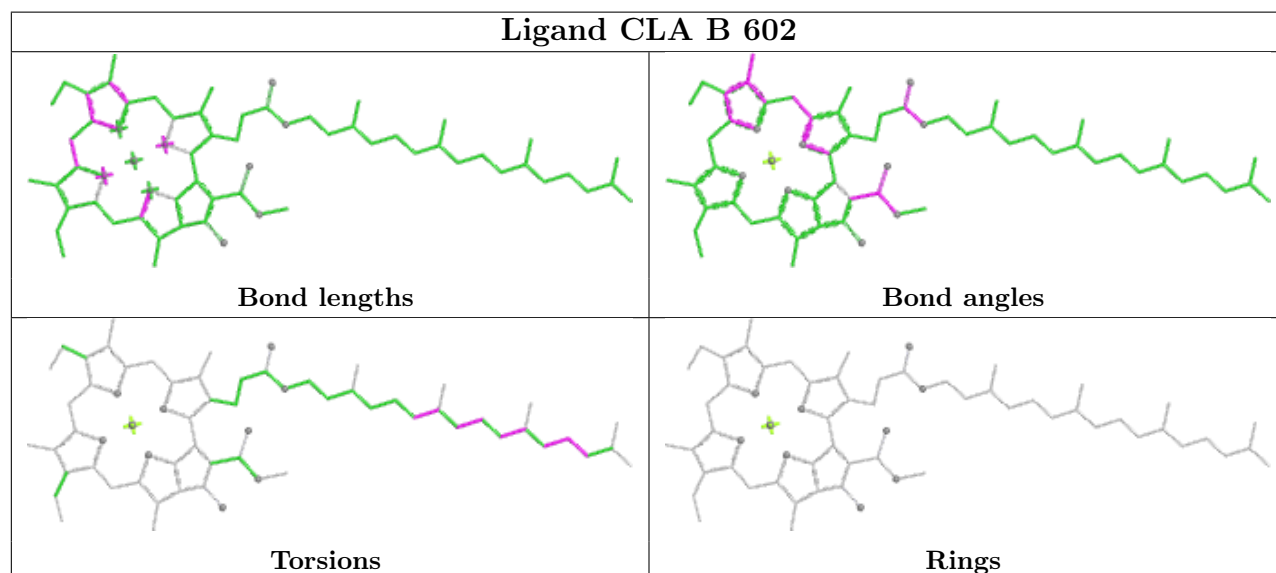
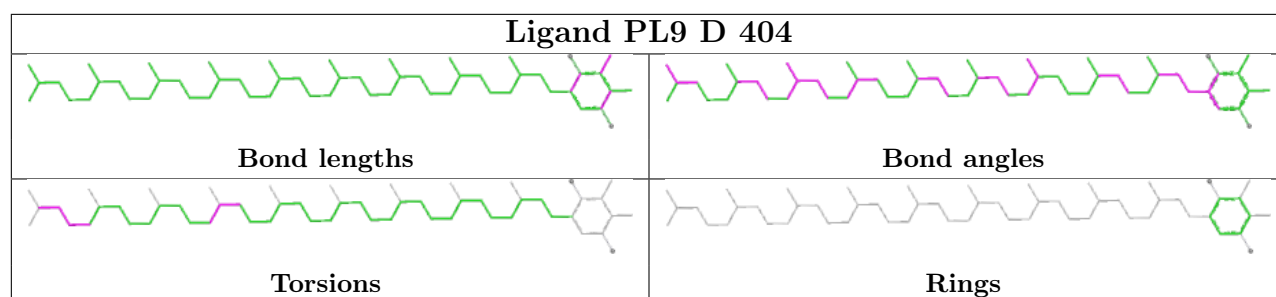
Ligand BCR c 514	
 Bond lengths	 Bond angles
 Torsions	 Rings

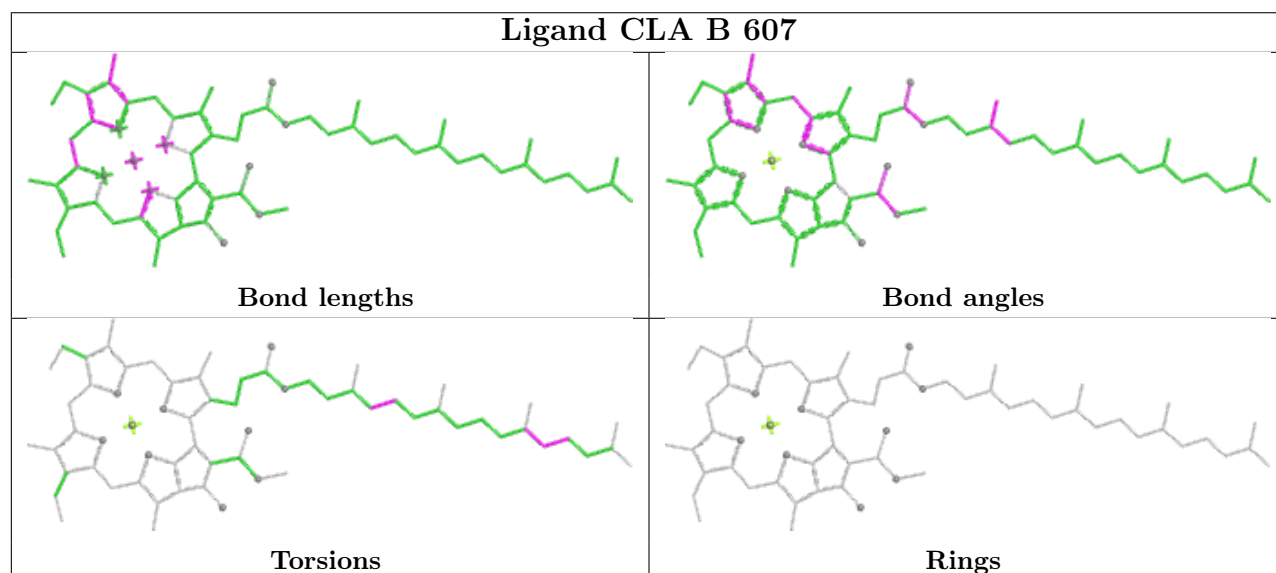
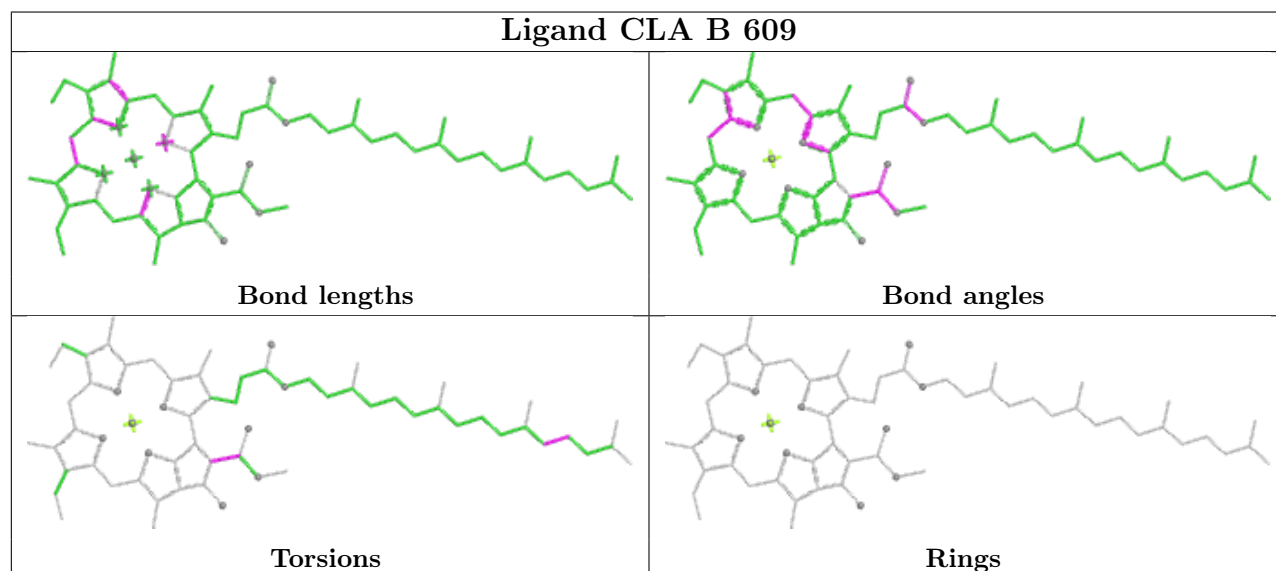
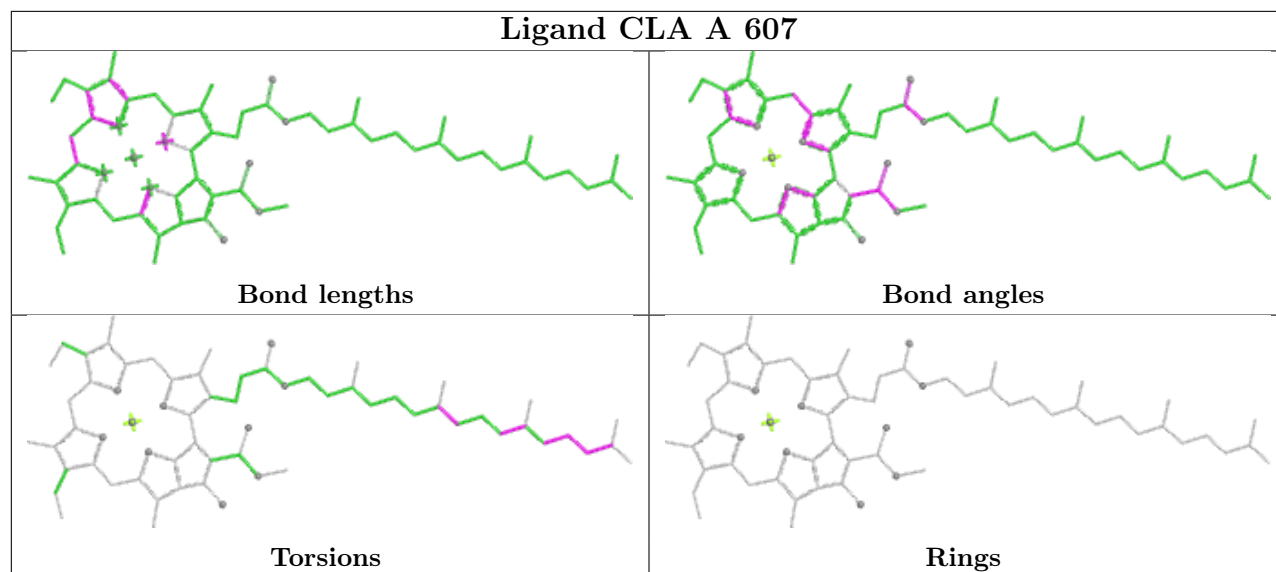
Ligand STE C 527	
 Bond lengths	 Bond angles
 Torsions	 Rings

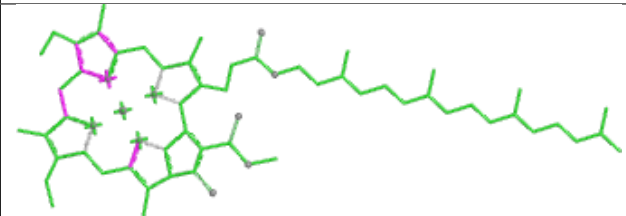
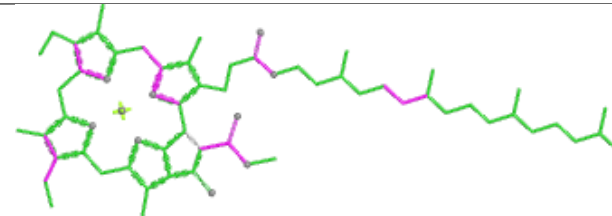
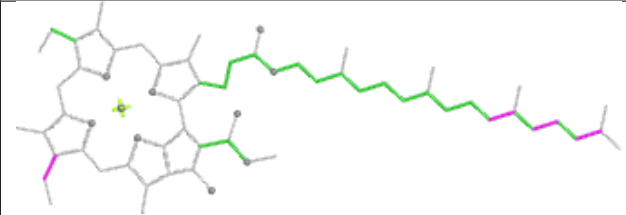
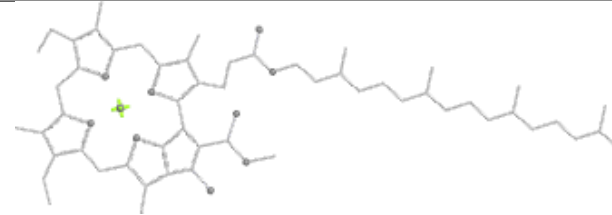


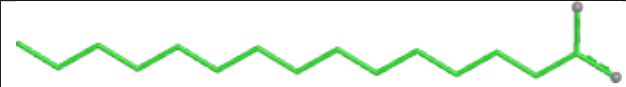
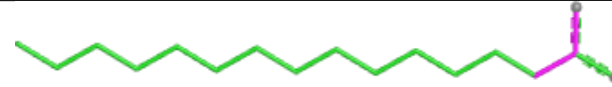
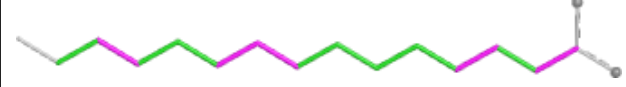
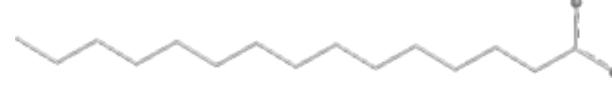




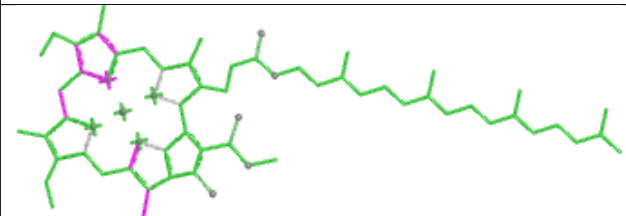
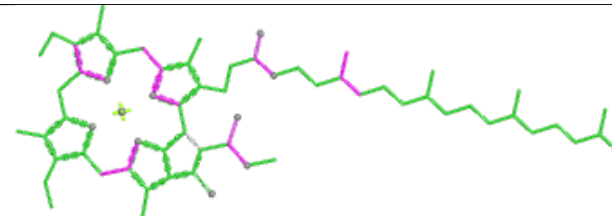
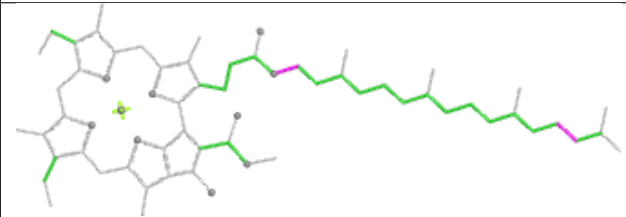
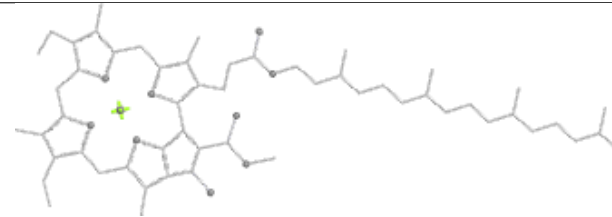


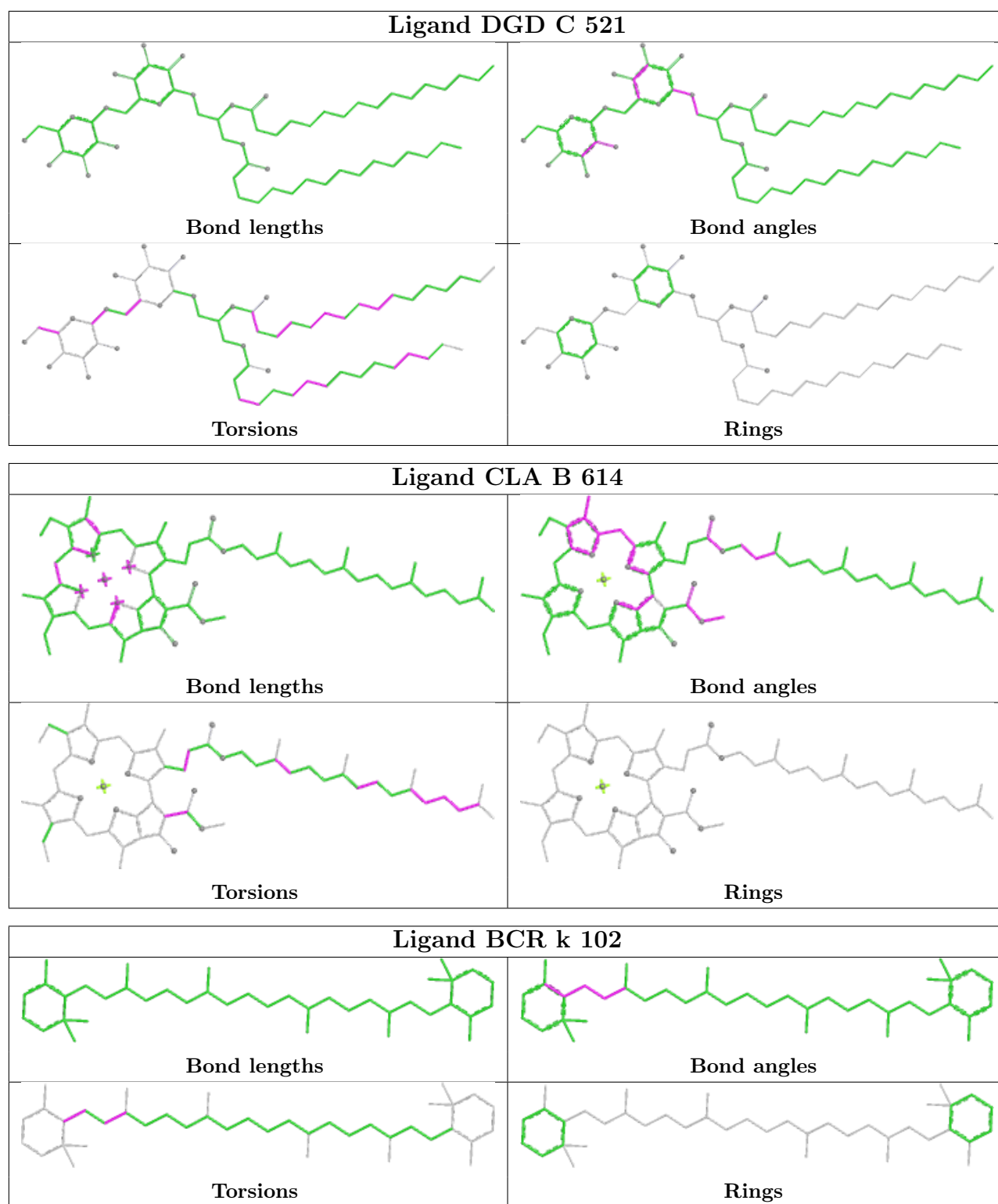


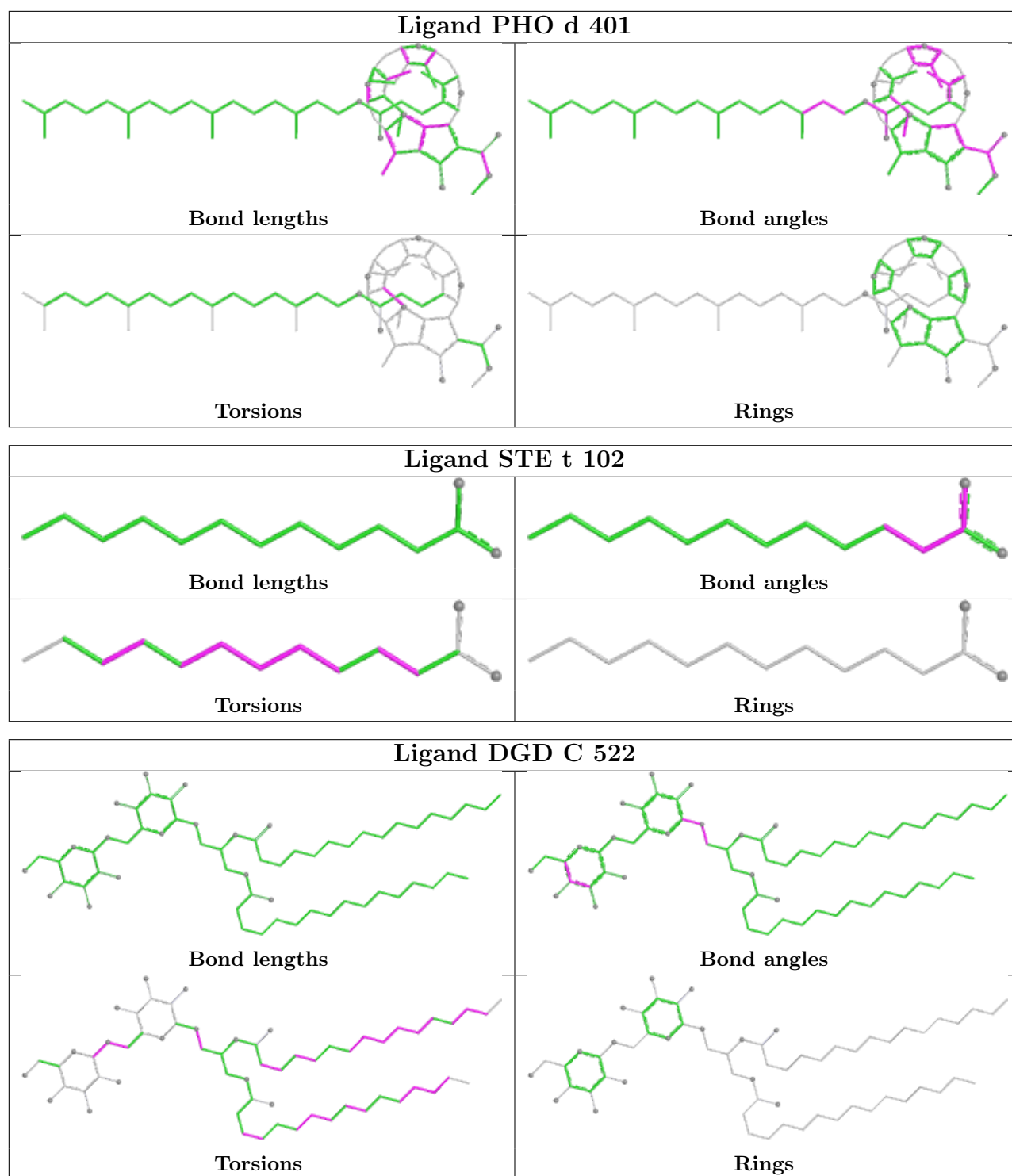
Ligand CLA b 608	
	
Bond lengths	Bond angles
	
Torsions	Rings

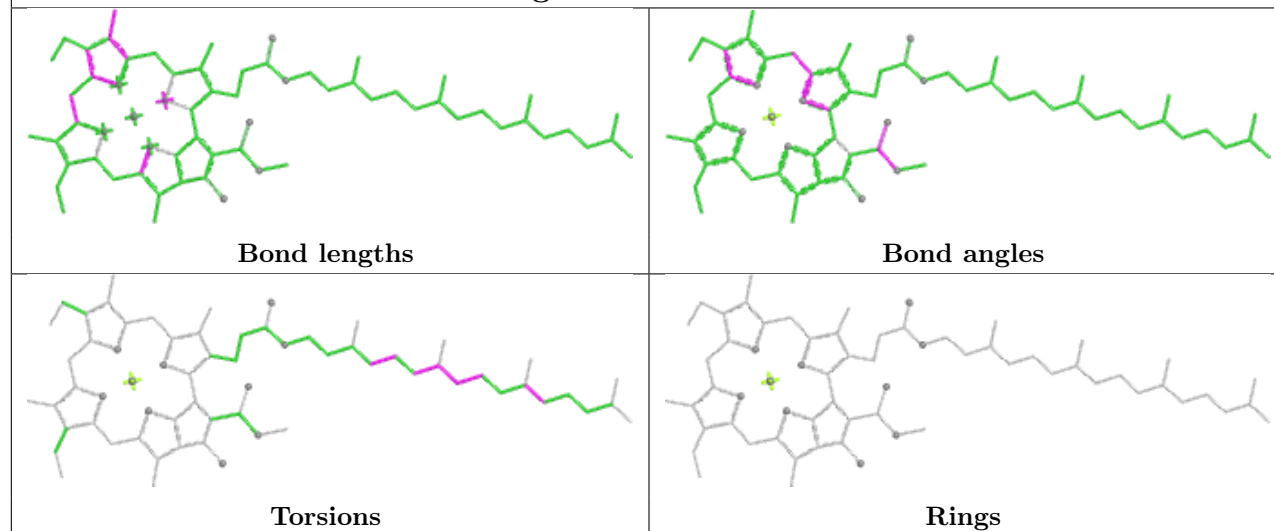
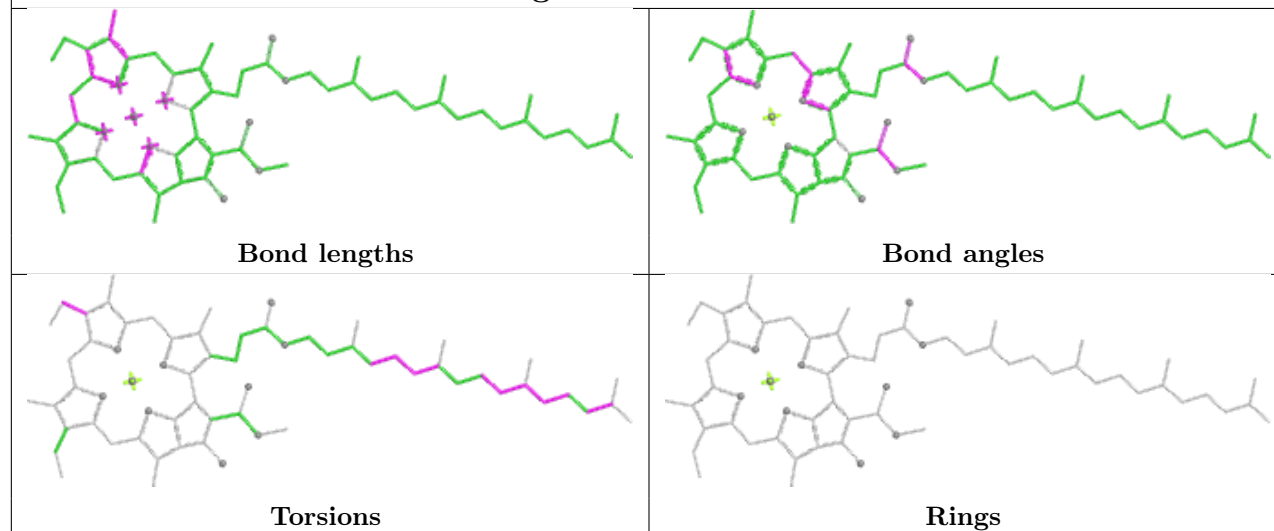
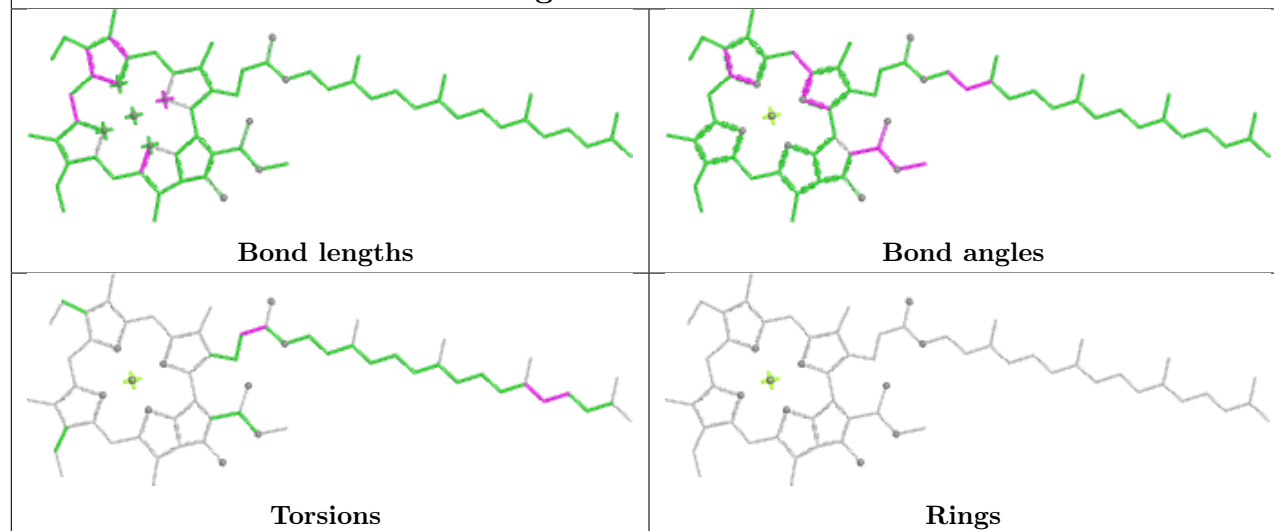
Ligand STE I 101	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand STE m 103	
	
Bond lengths	Bond angles
	
Torsions	Rings

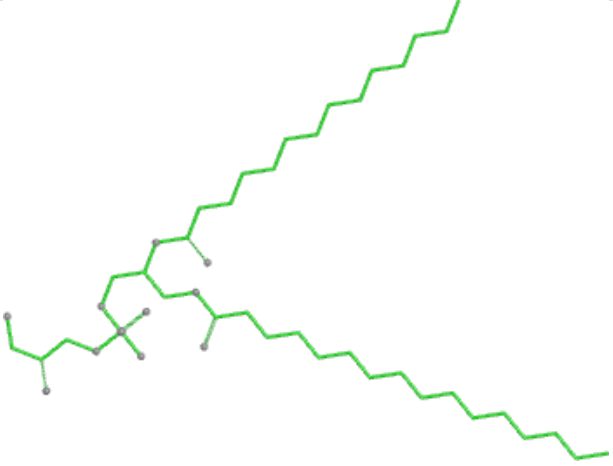
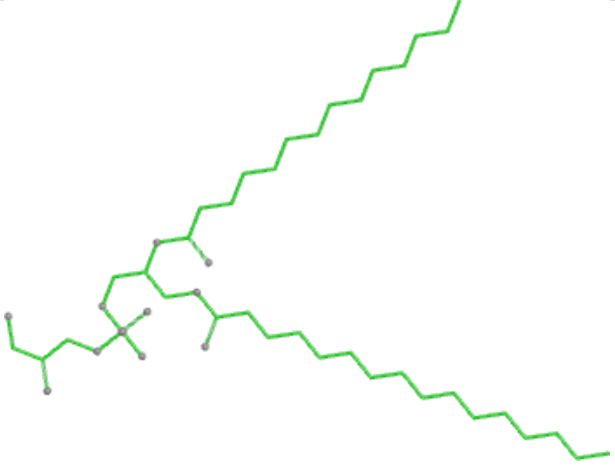
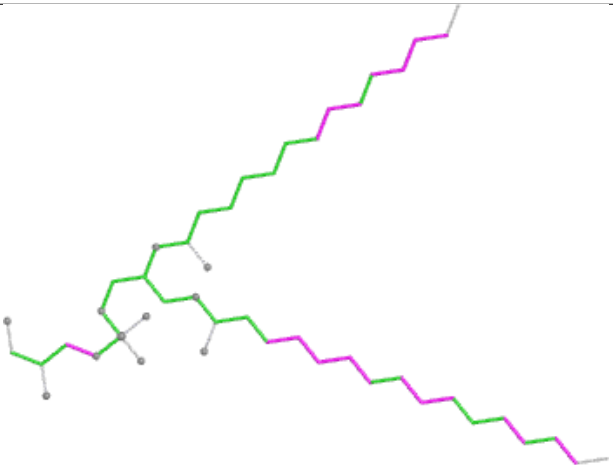
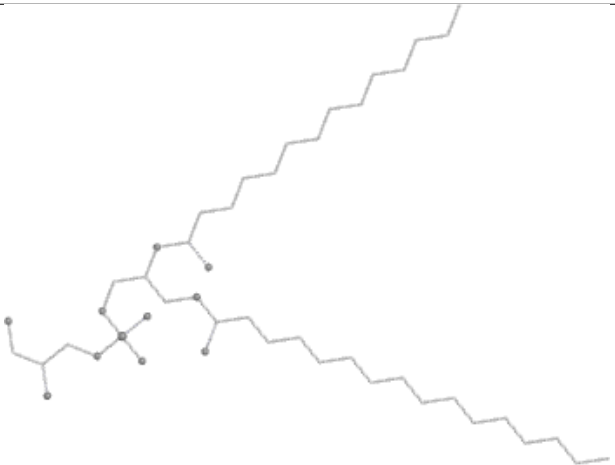
Ligand CLA D 401	
	
Bond lengths	Bond angles
	
Torsions	Rings

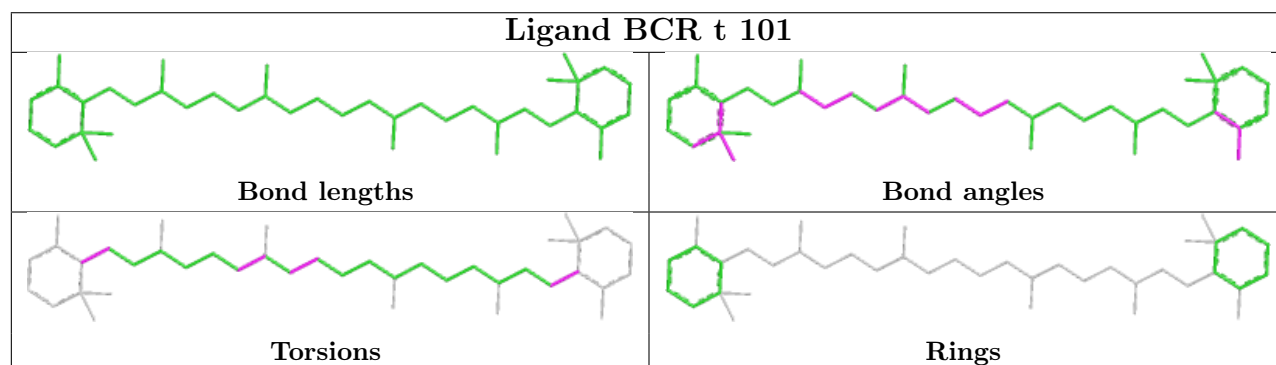
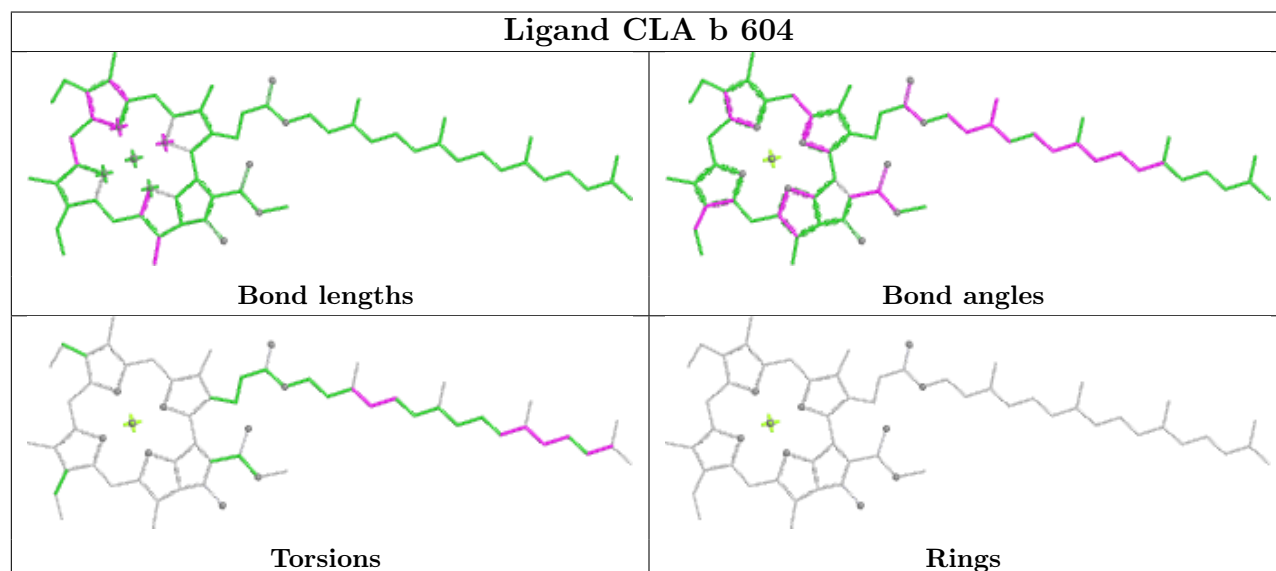
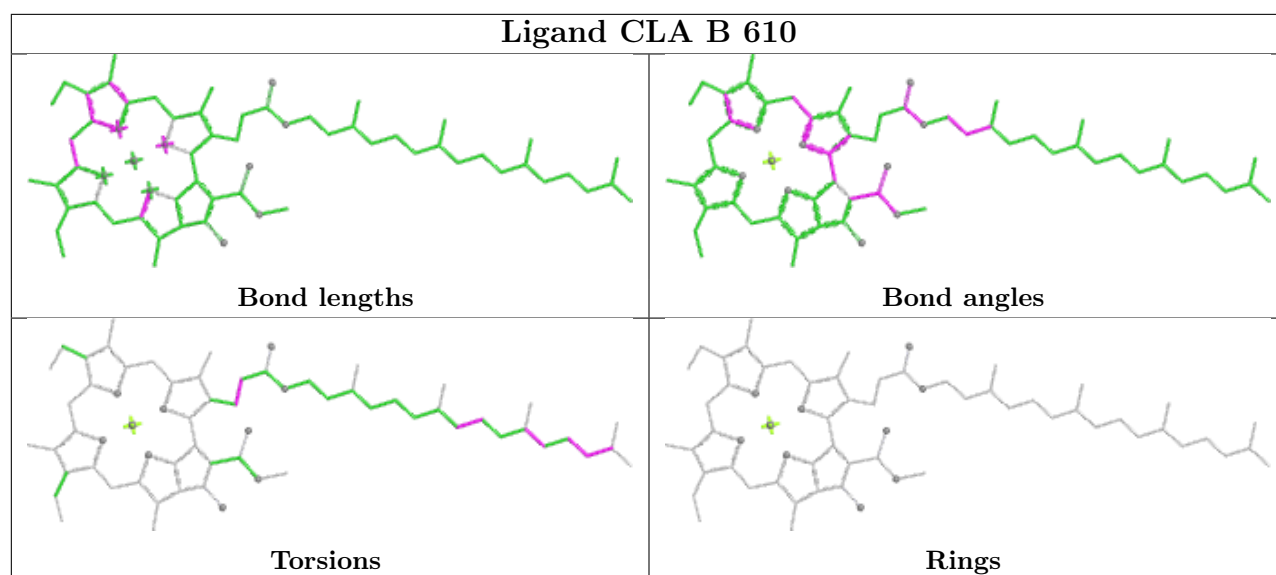


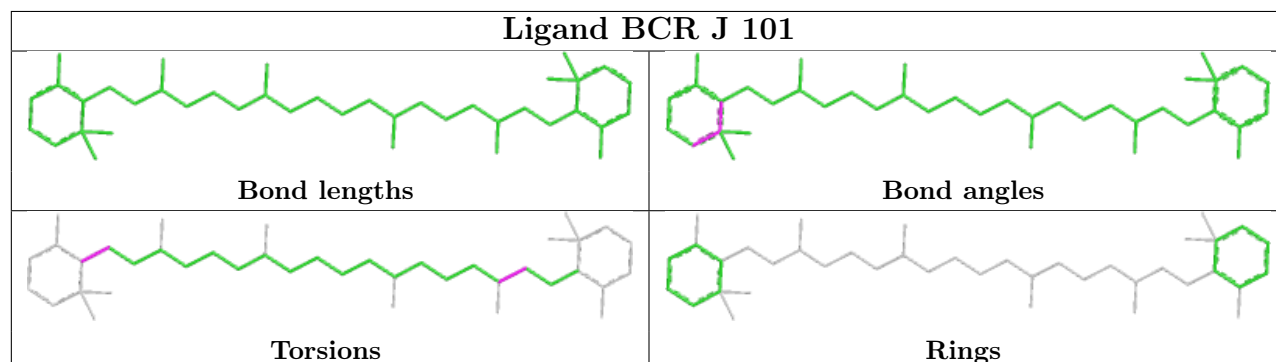
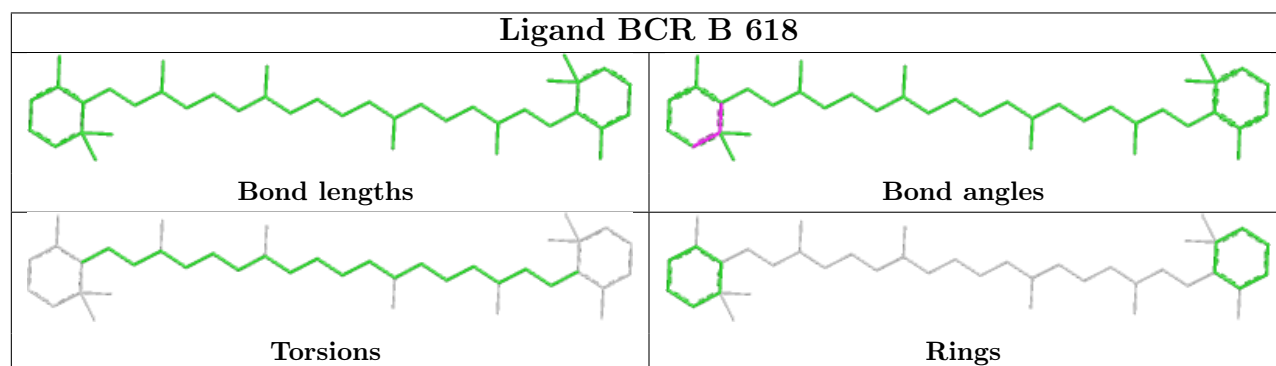
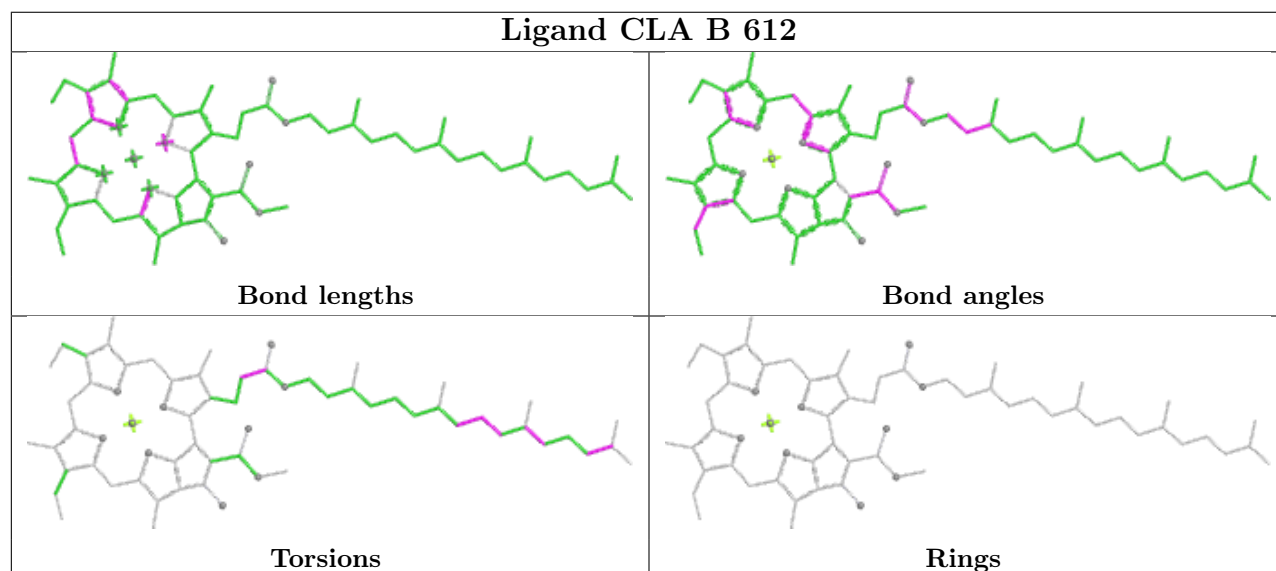
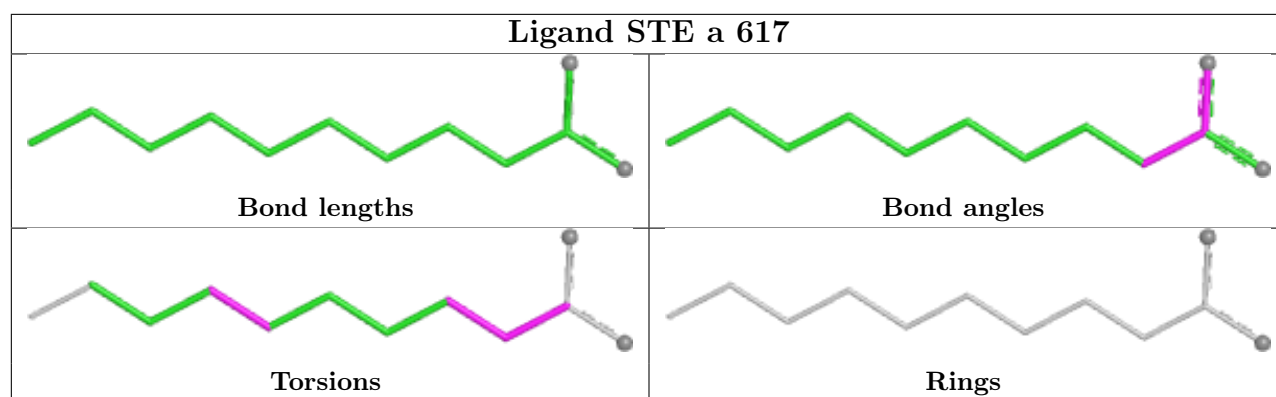


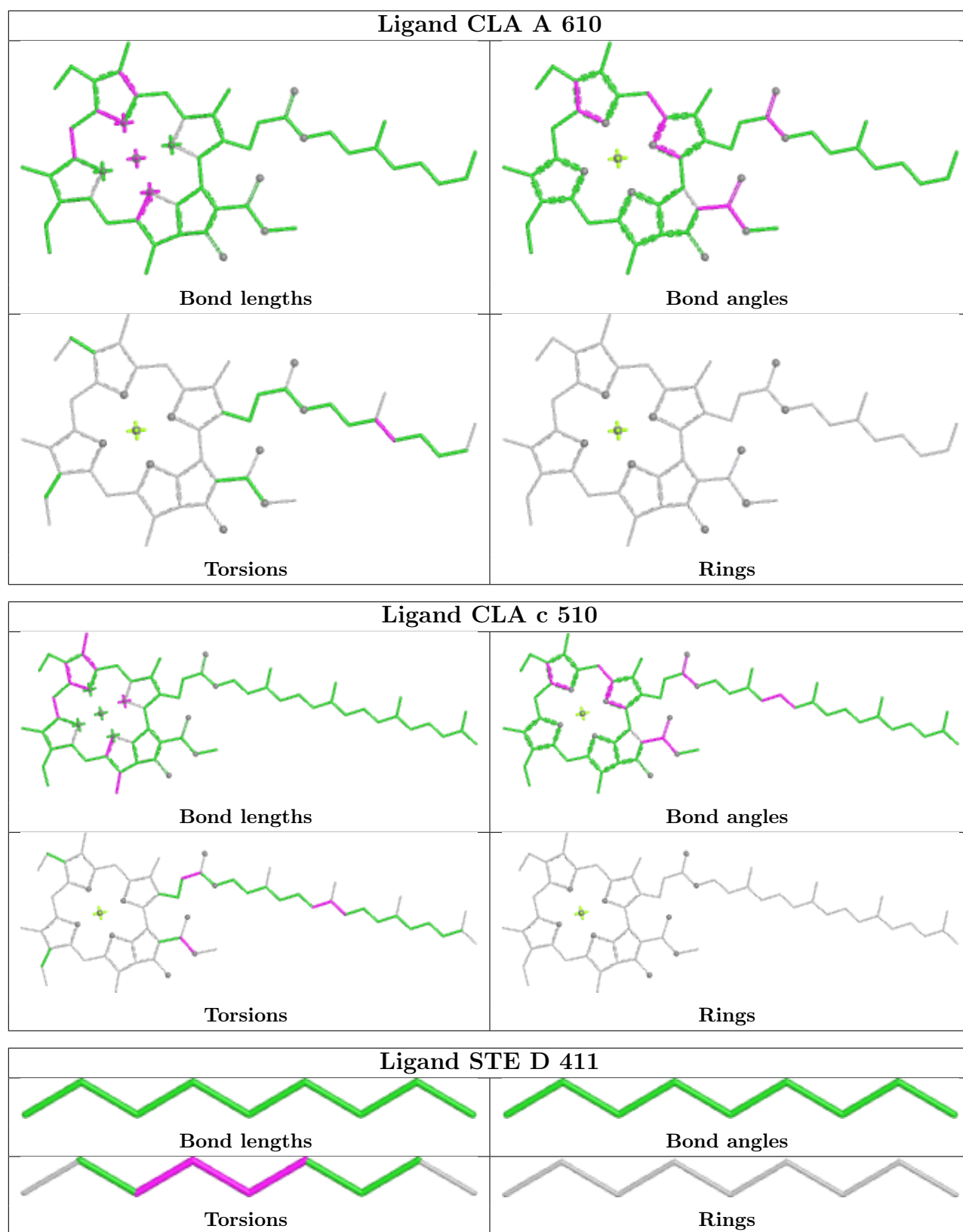
Ligand CLA C 511**Ligand CLA B 615****Ligand CLA b 613**

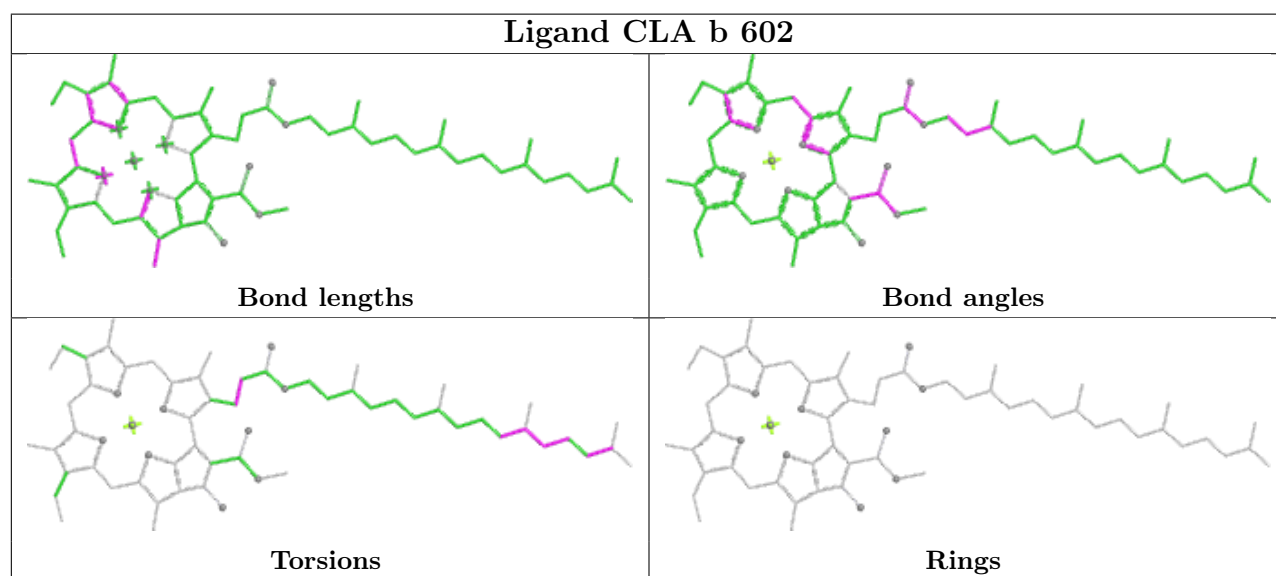
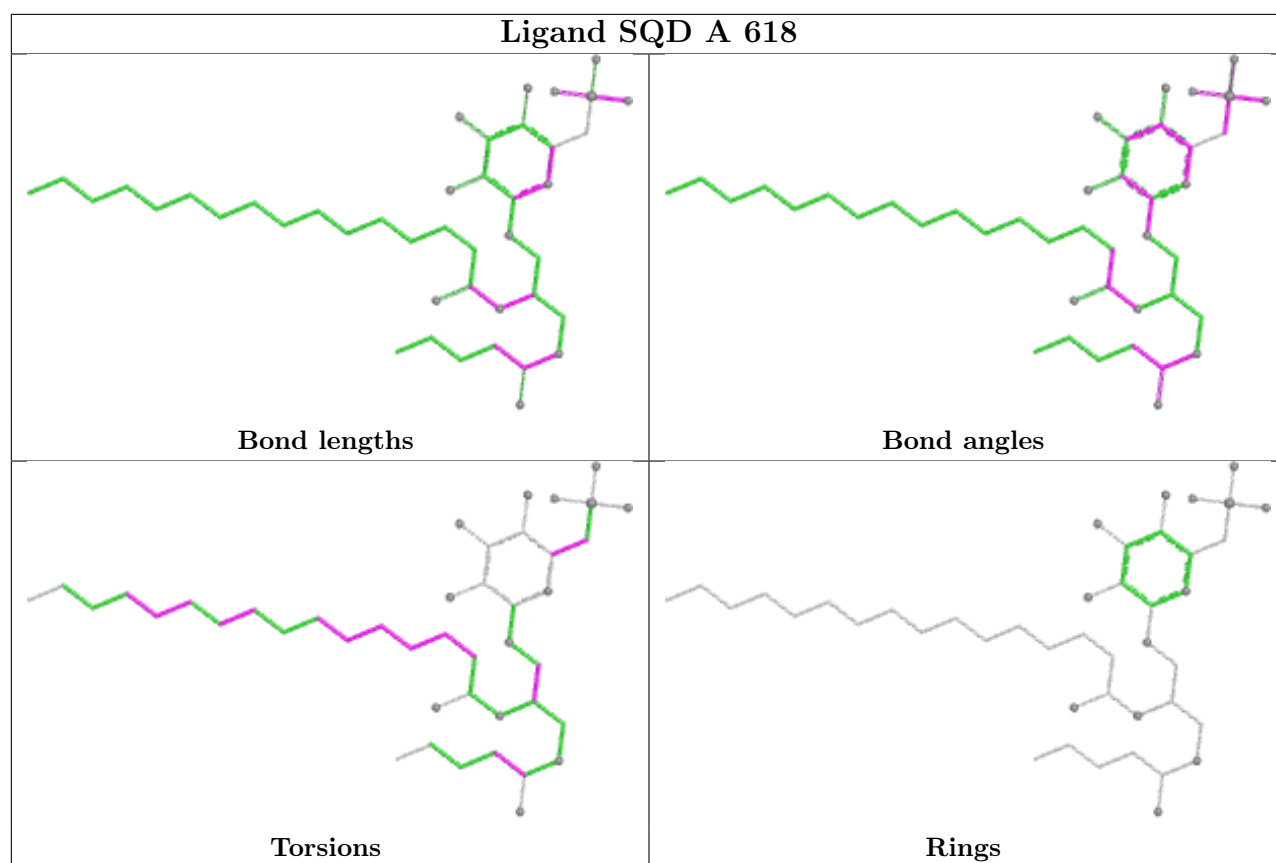
Ligand STE c 517	
 Bond lengths	 Bond angles
 Torsions	 Rings

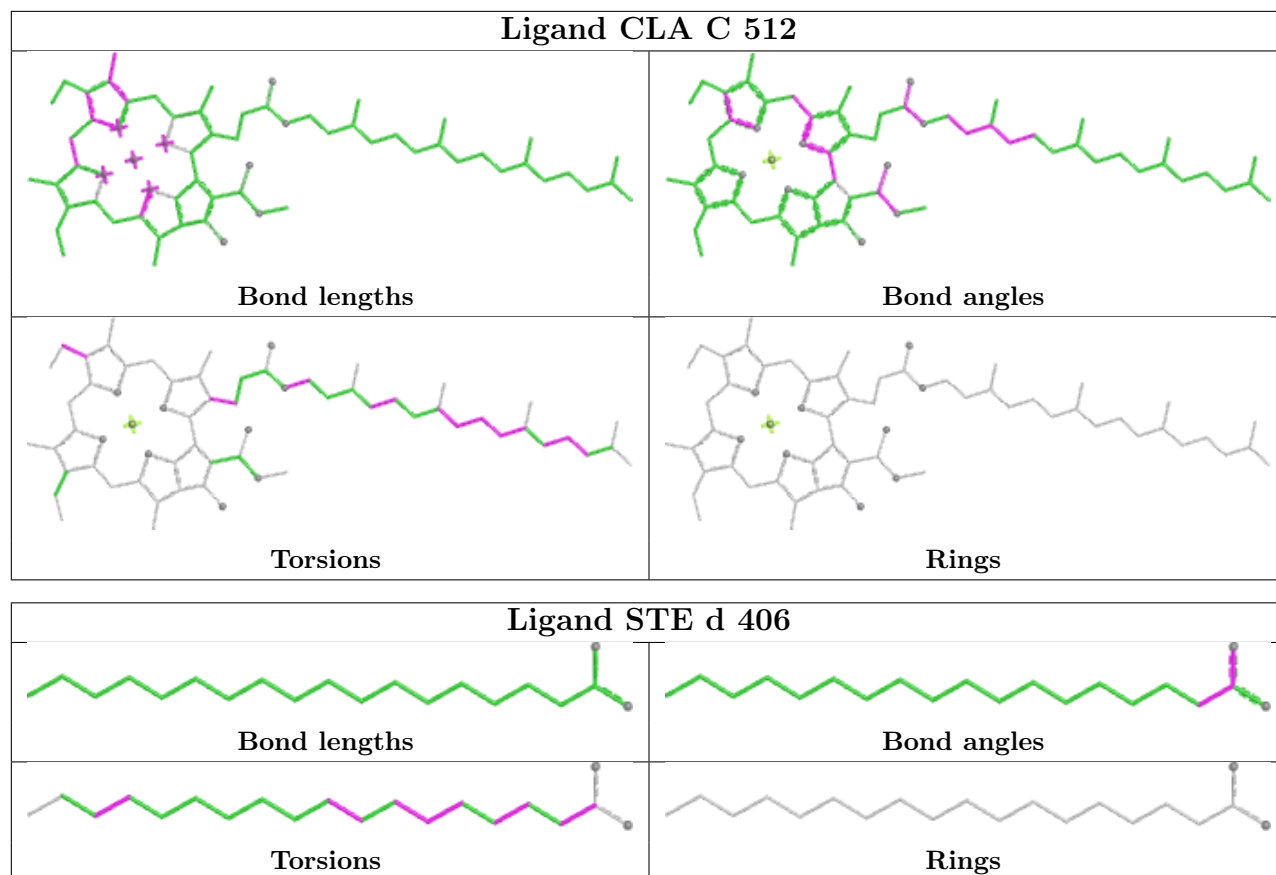
Ligand LHG D 409	
 Bond lengths	 Bond angles
 Torsions	 Rings

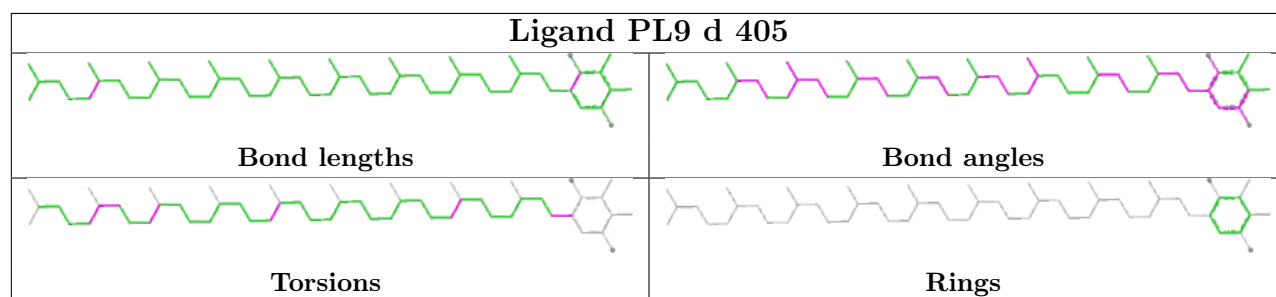
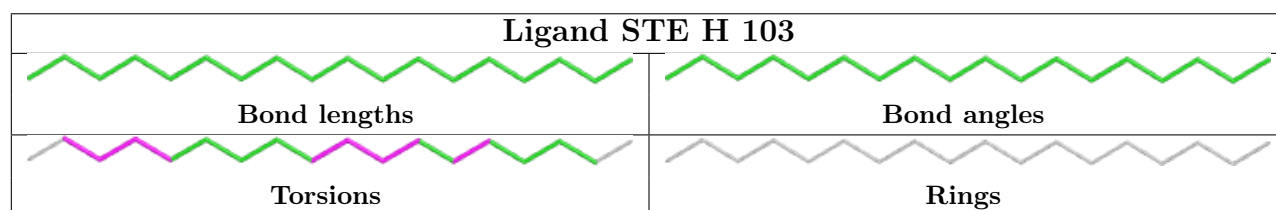
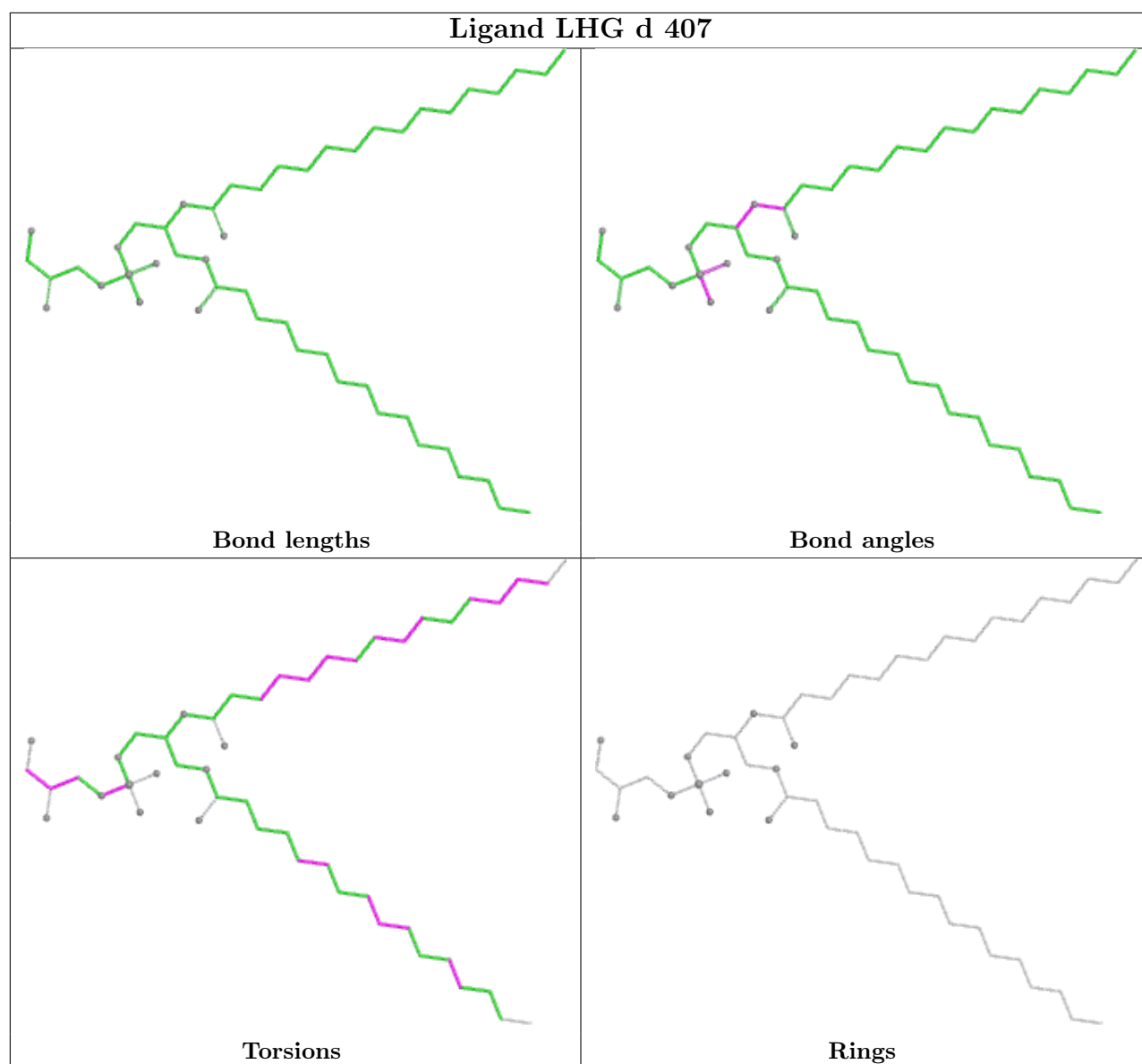




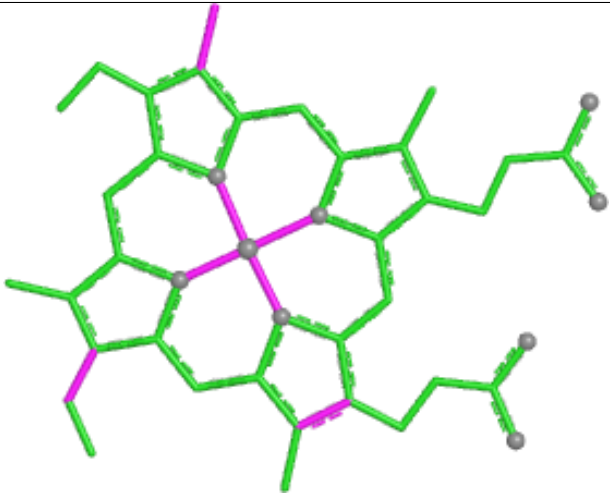
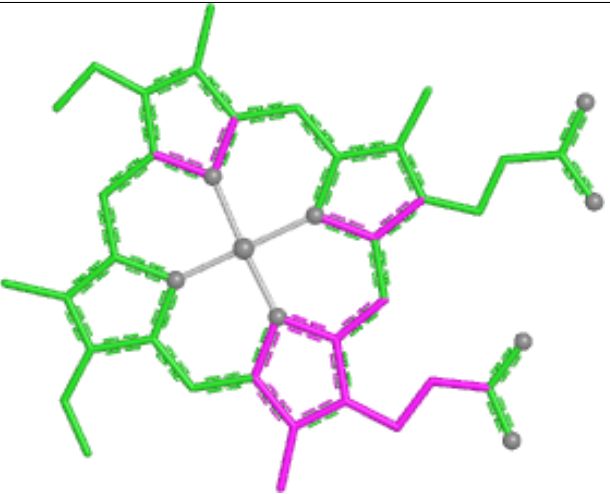
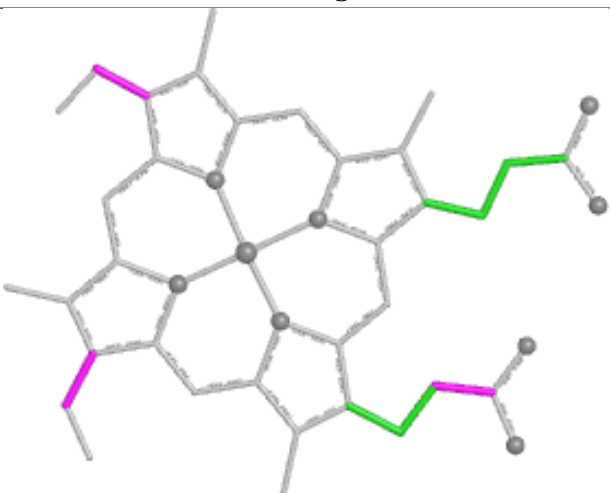
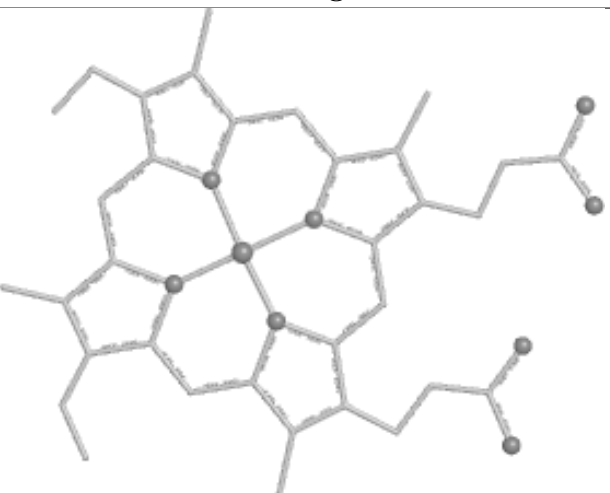


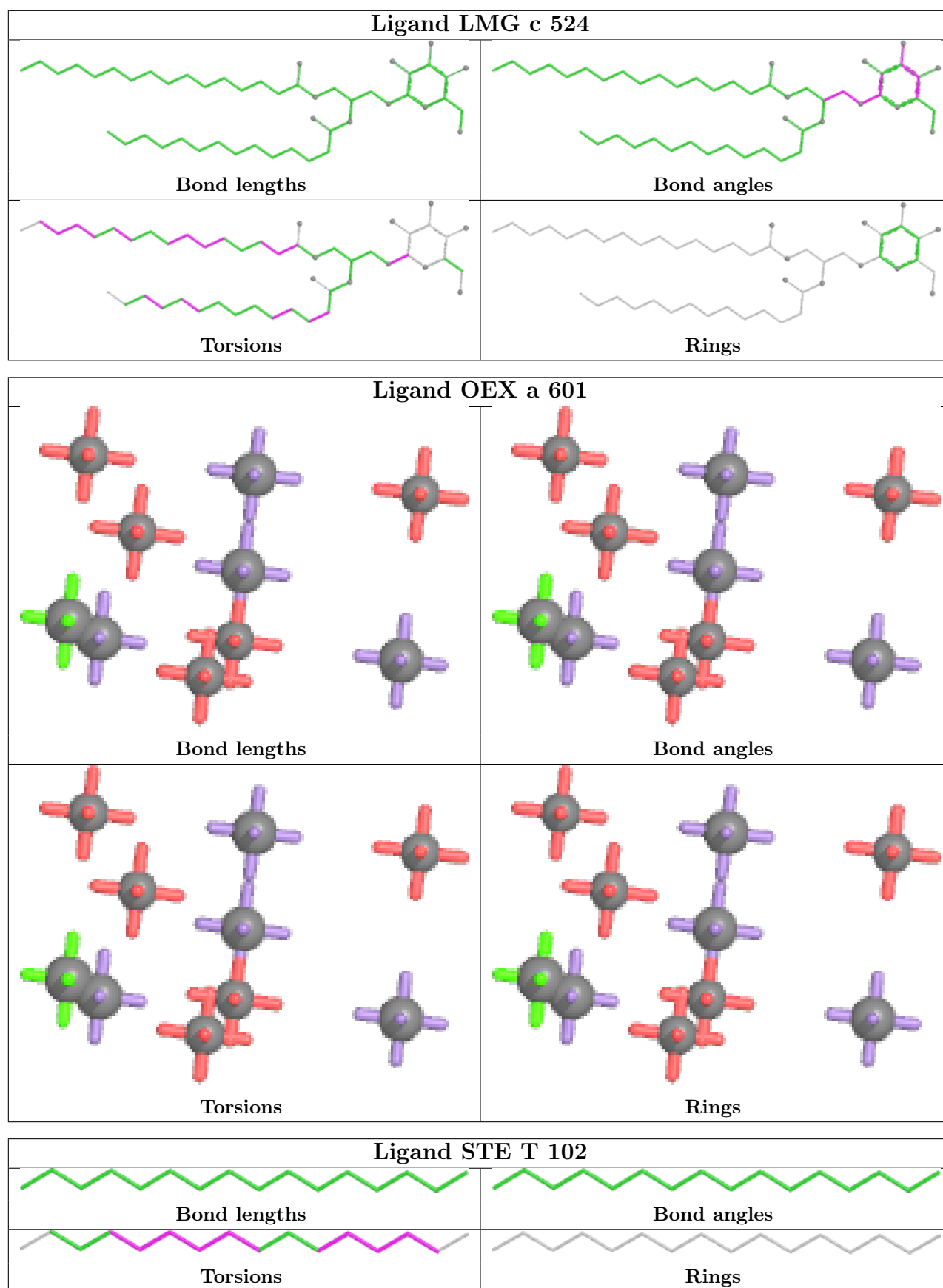


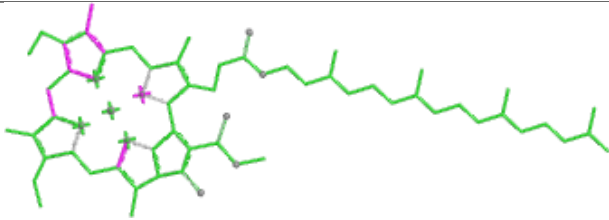
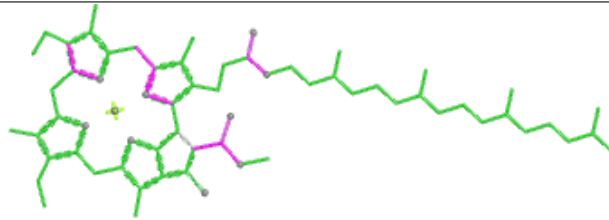
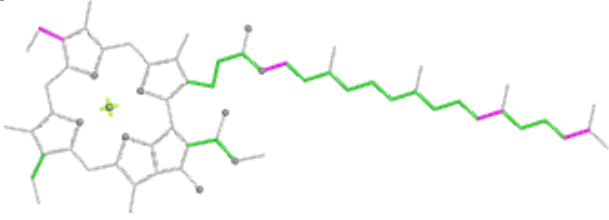
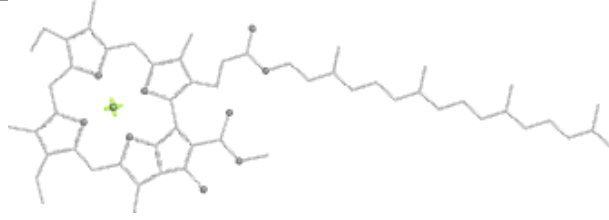


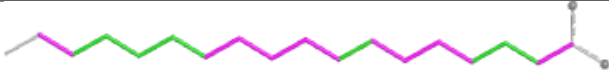
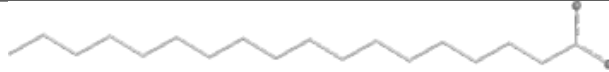


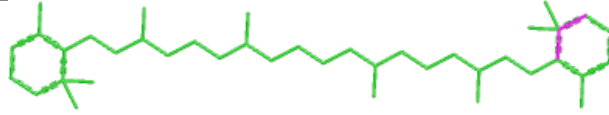
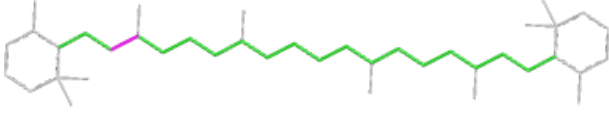
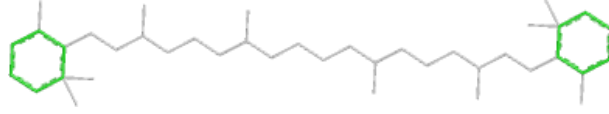
Ligand STE Z 101	
 Bond lengths	 Bond angles
 Torsions	 Rings

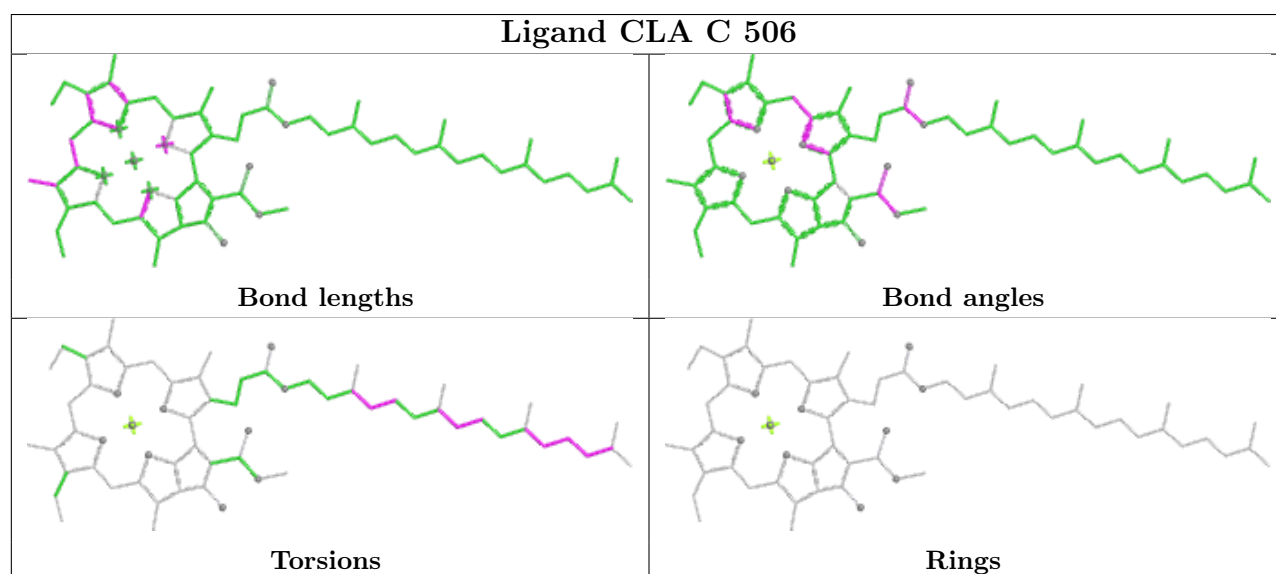
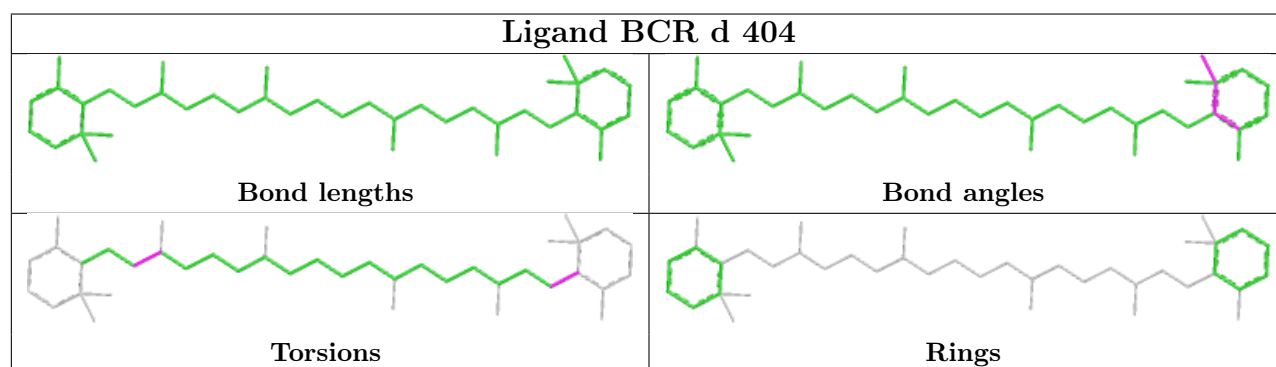
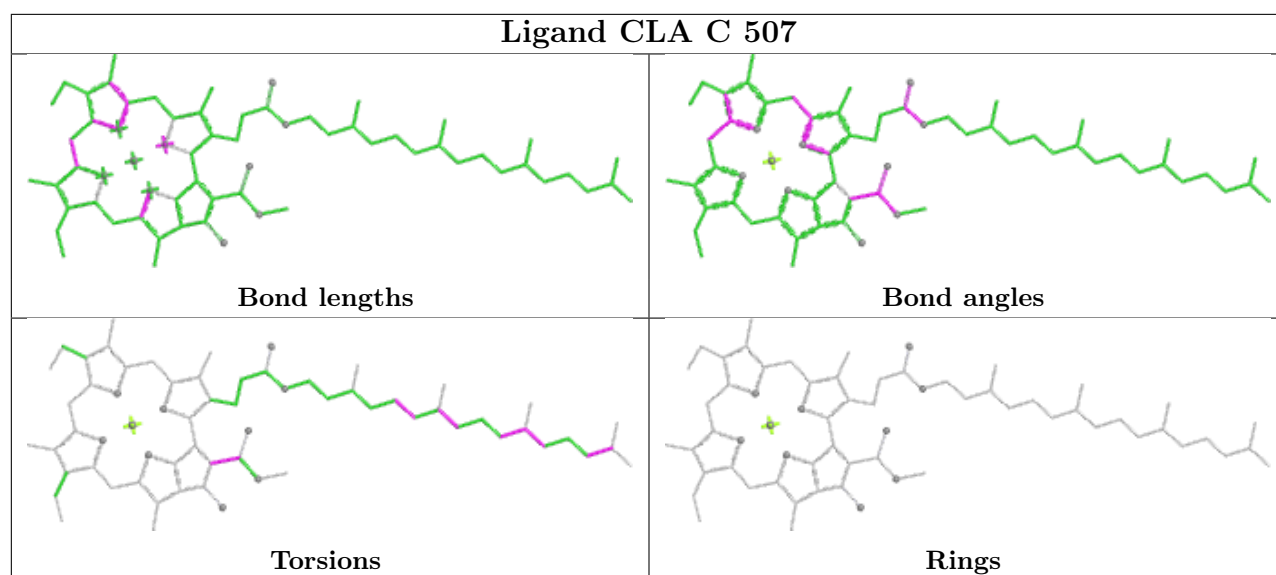
Ligand HEC V 201	
 Bond lengths	 Bond angles
 Torsions	 Rings

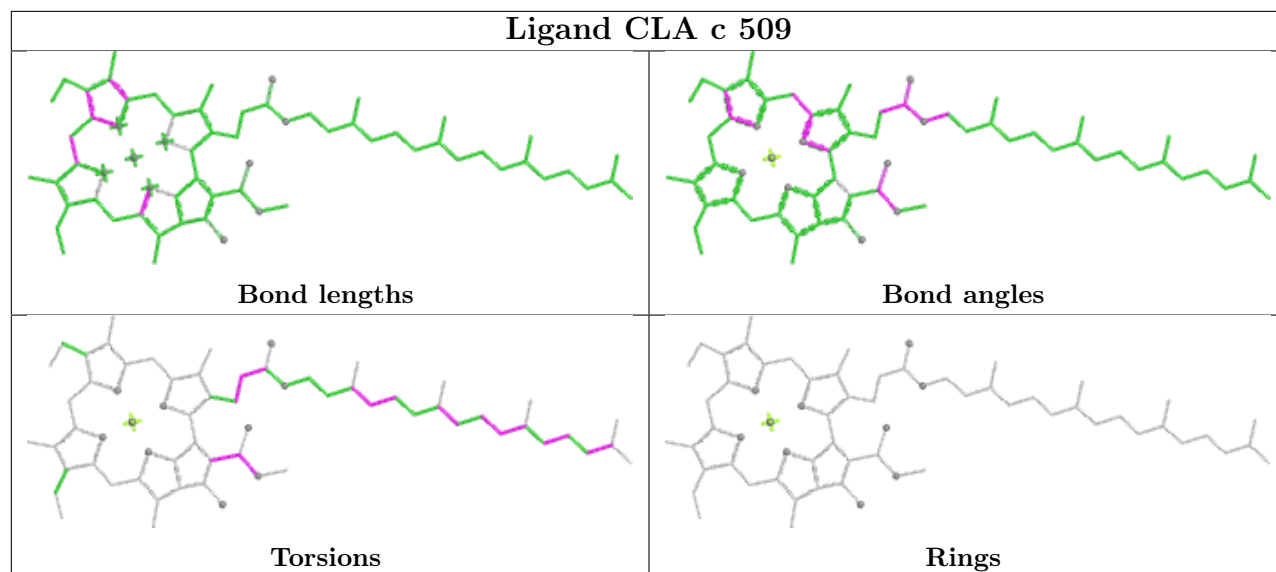
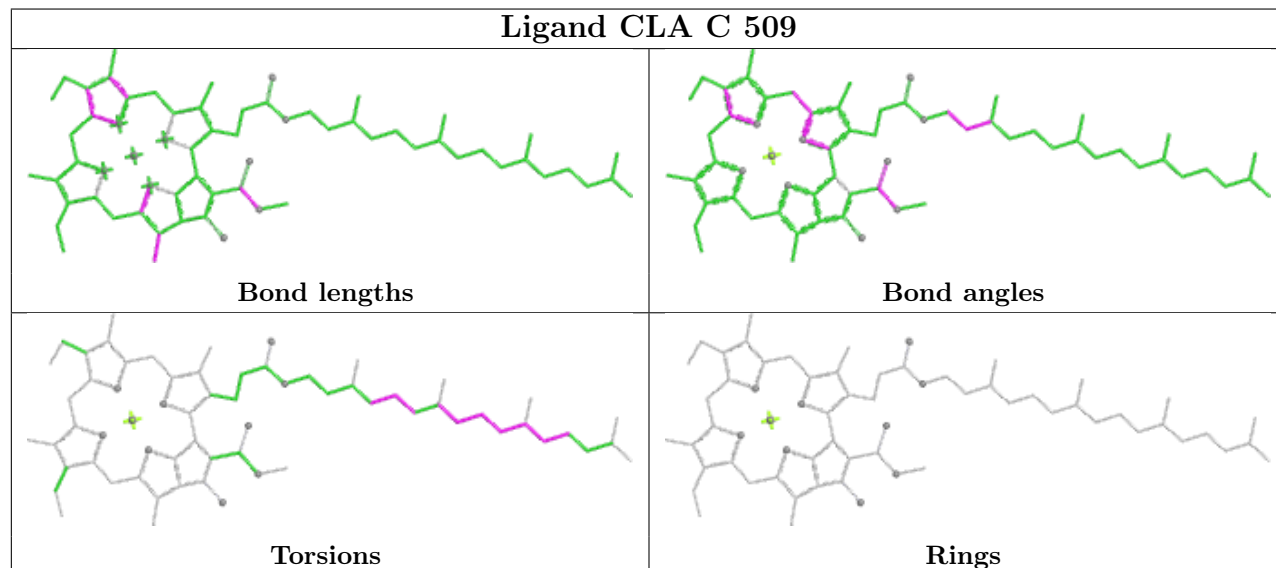


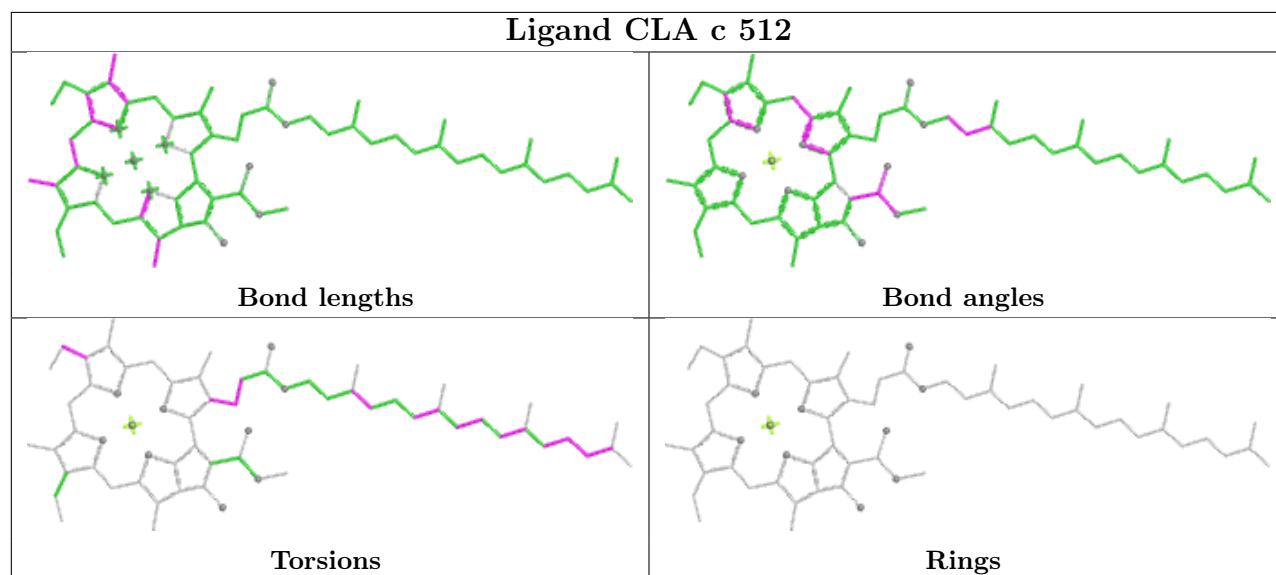
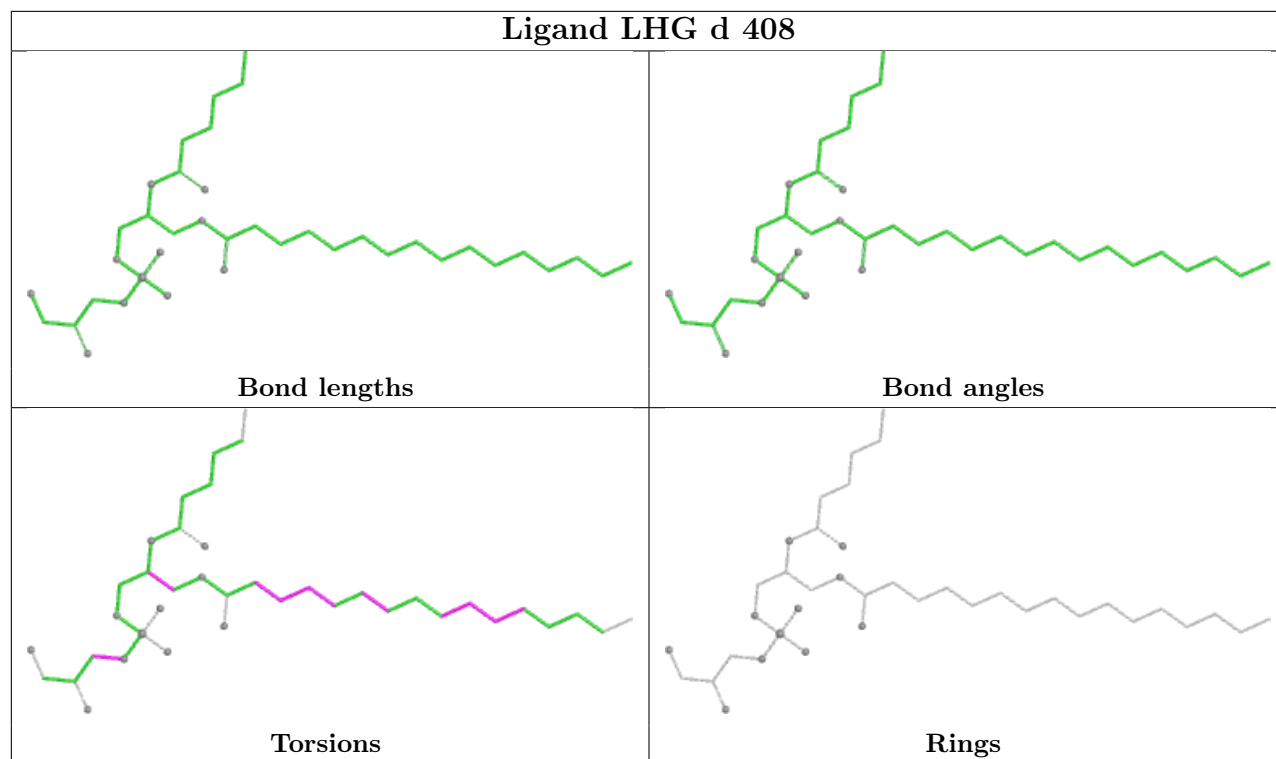
Ligand CLA d 402	
	
Bond lengths	Bond angles
	
Torsions	Rings

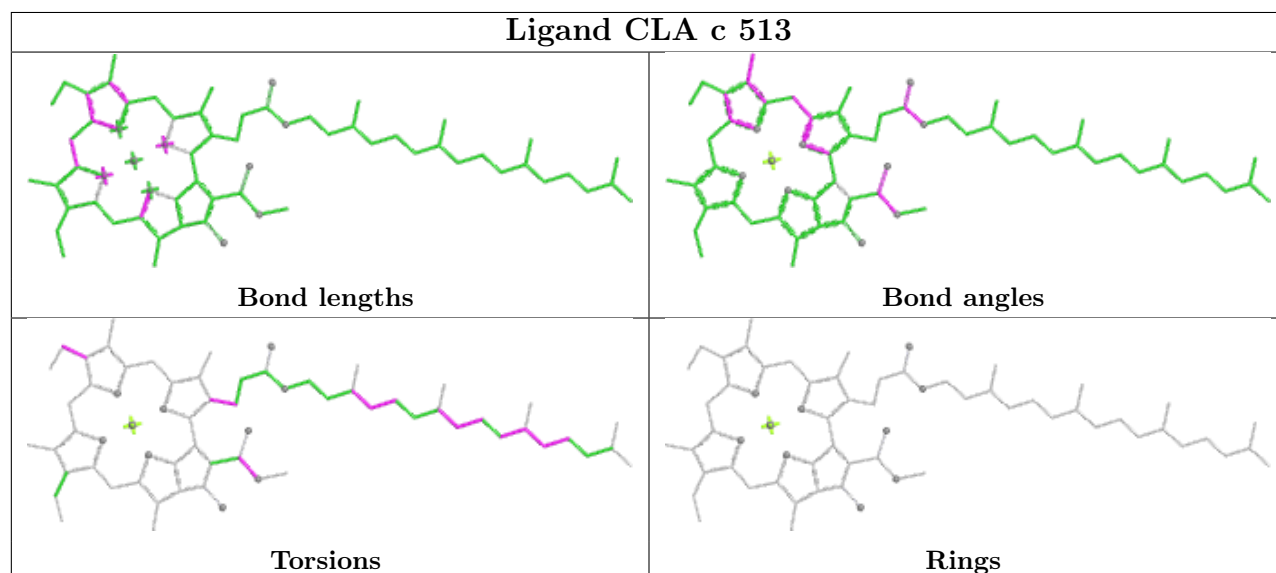
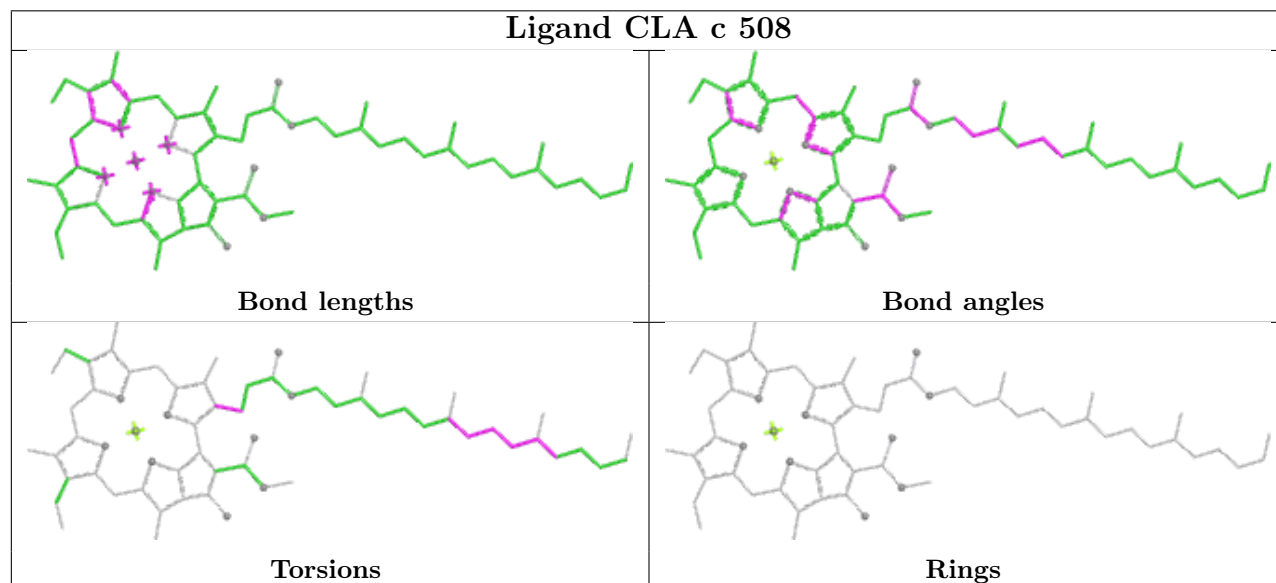
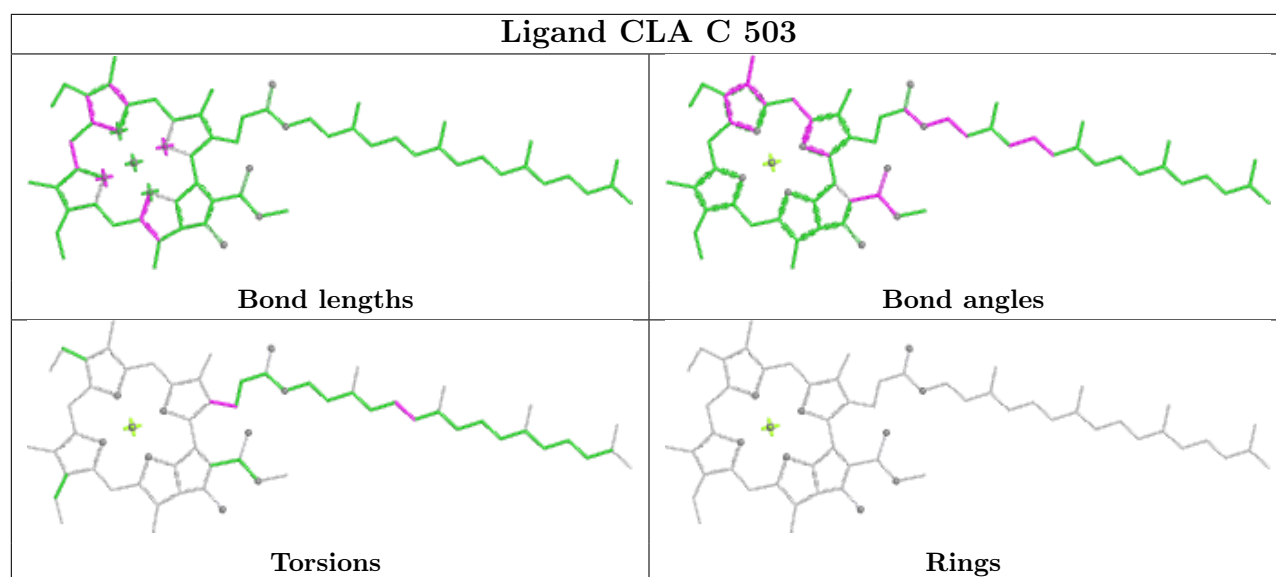
Ligand STE X 101	
	
Bond lengths	Bond angles
	
Torsions	Rings

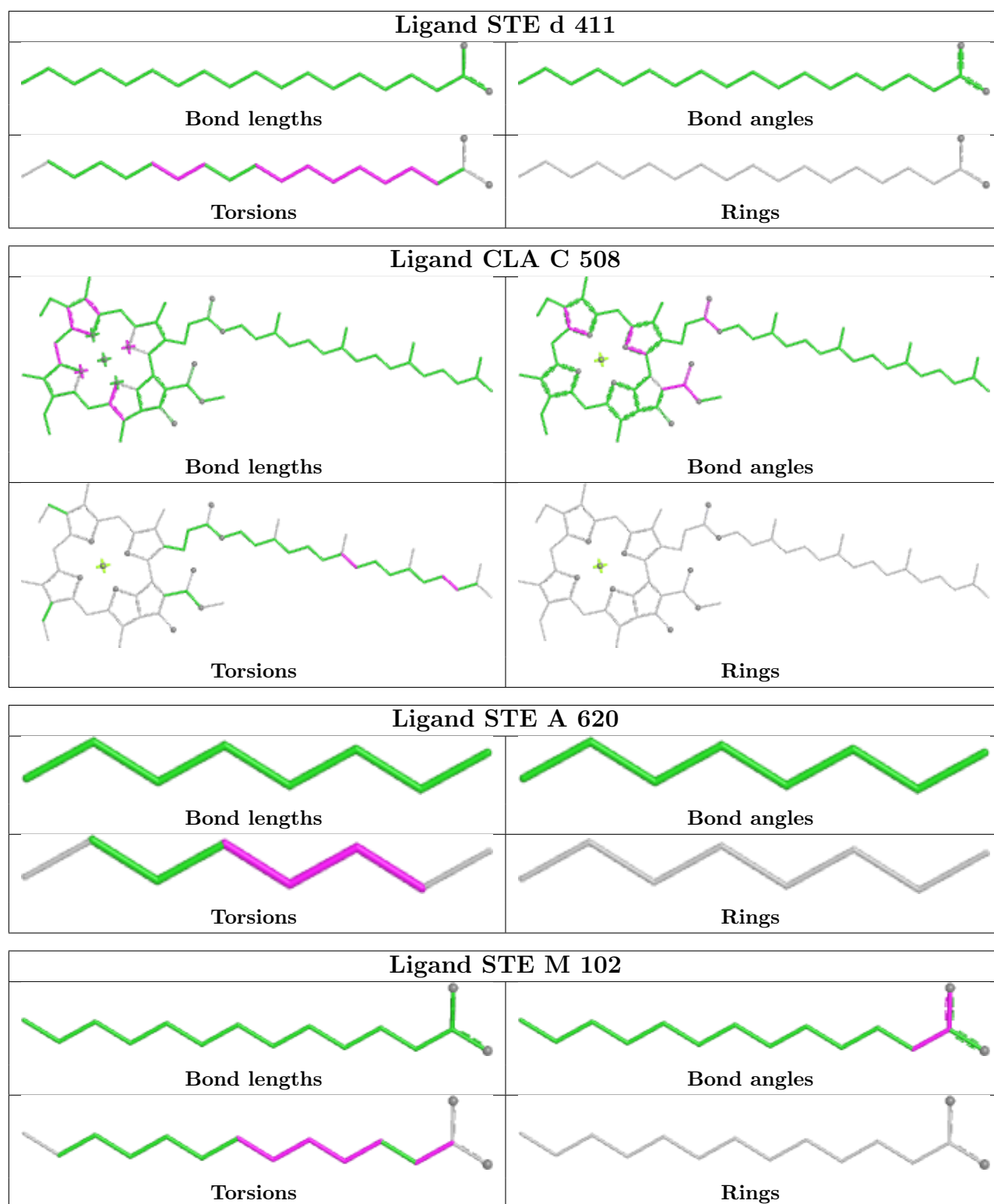
Ligand BCR B 619	
	
Bond lengths	Bond angles
	
Torsions	Rings



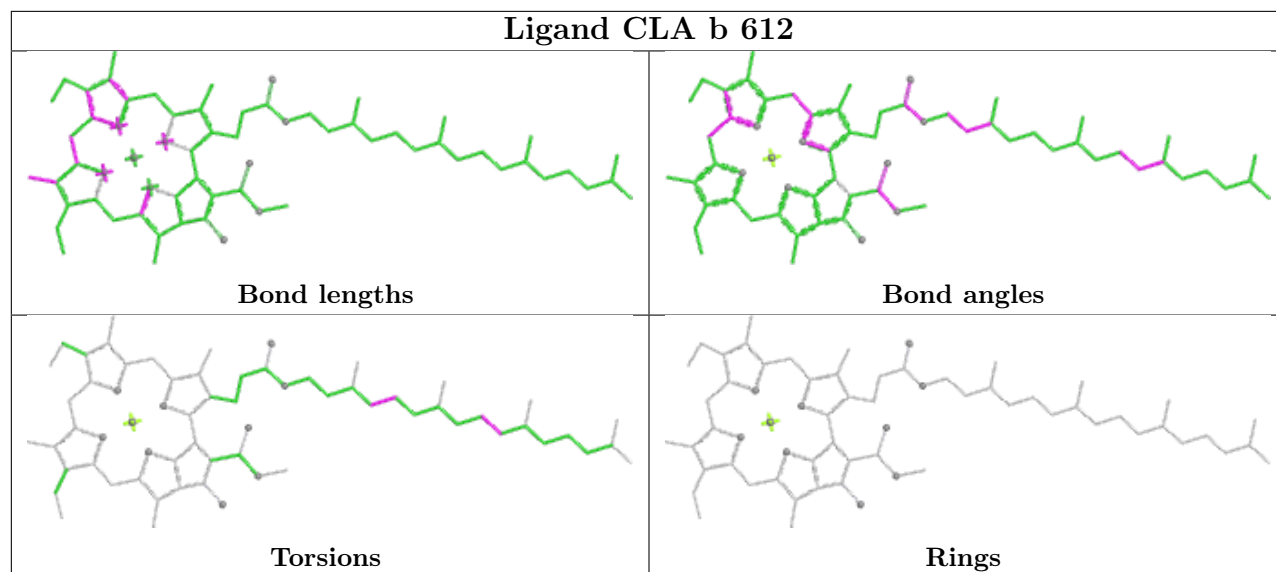
Ligand CLA c 509**Ligand CLA C 509**



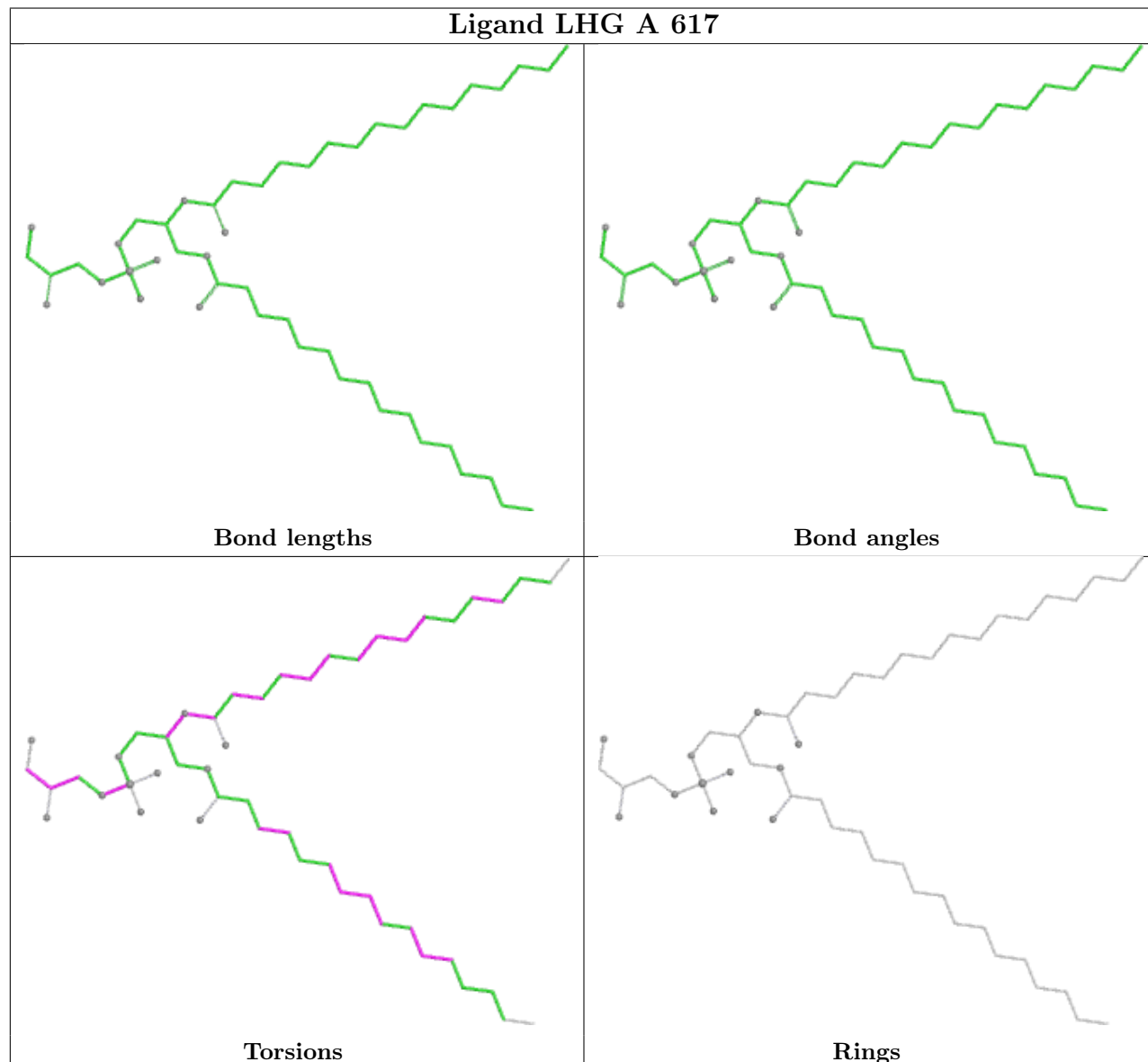


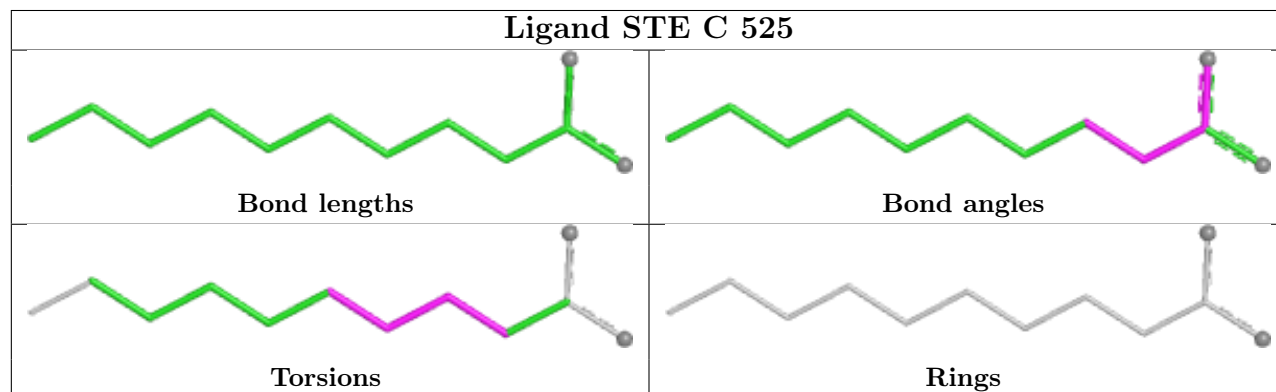
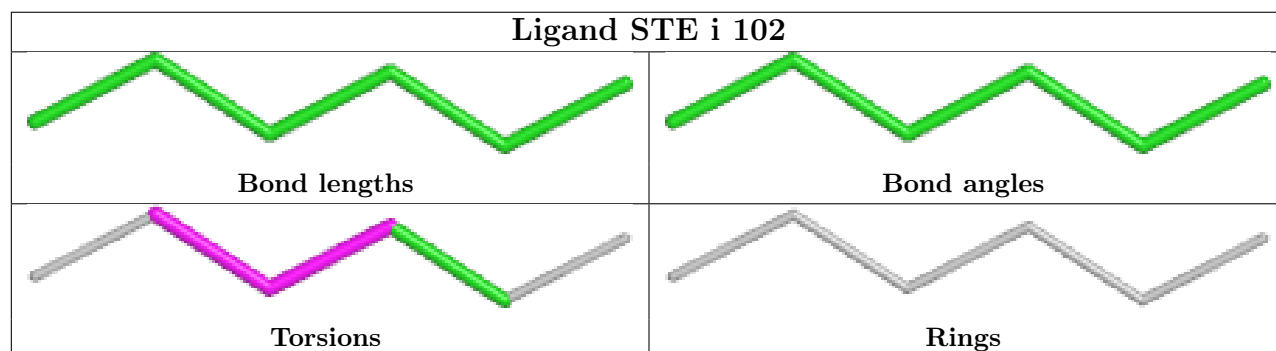
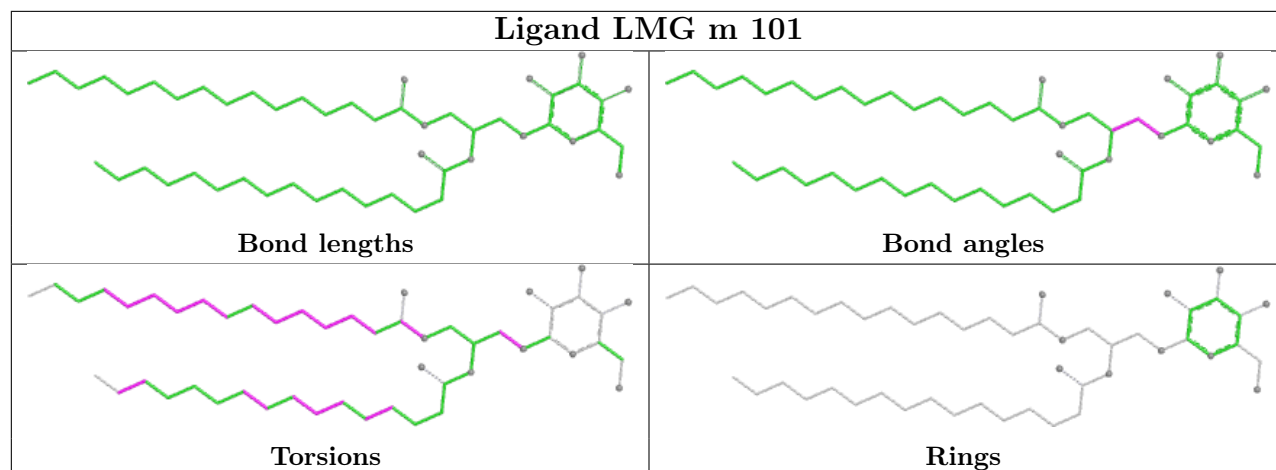


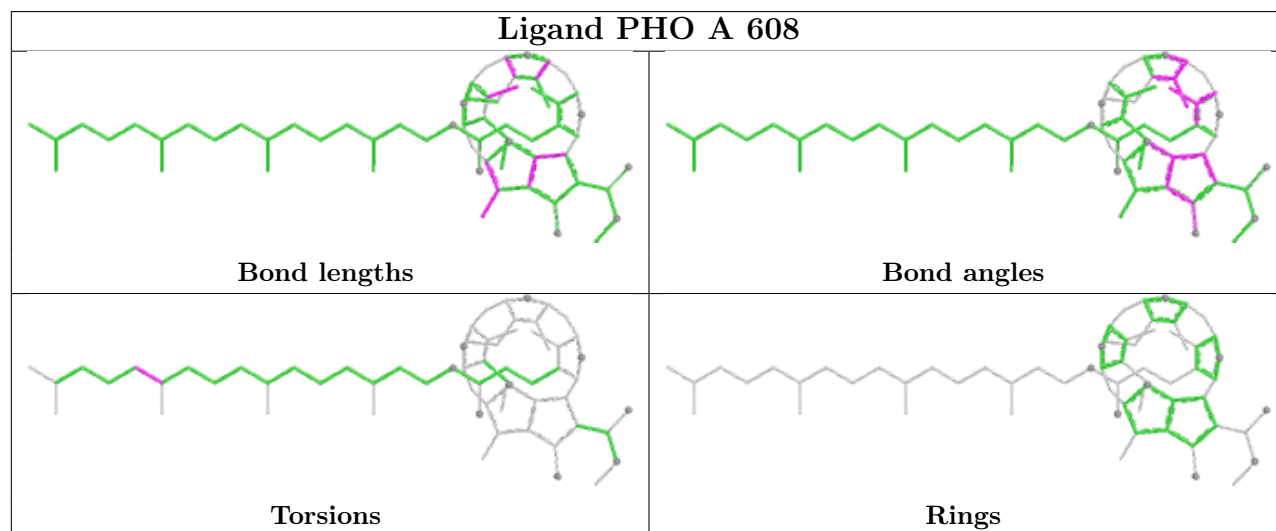
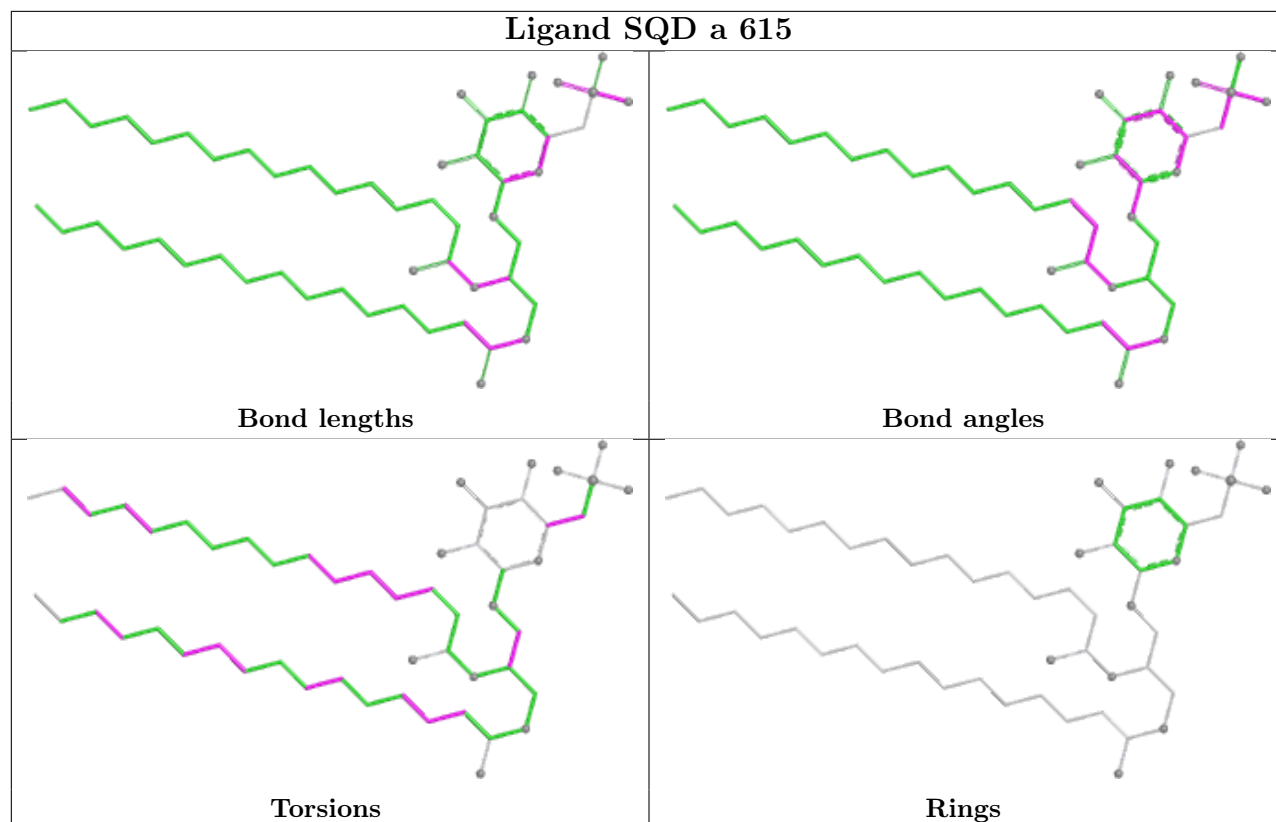
Ligand CLA b 612



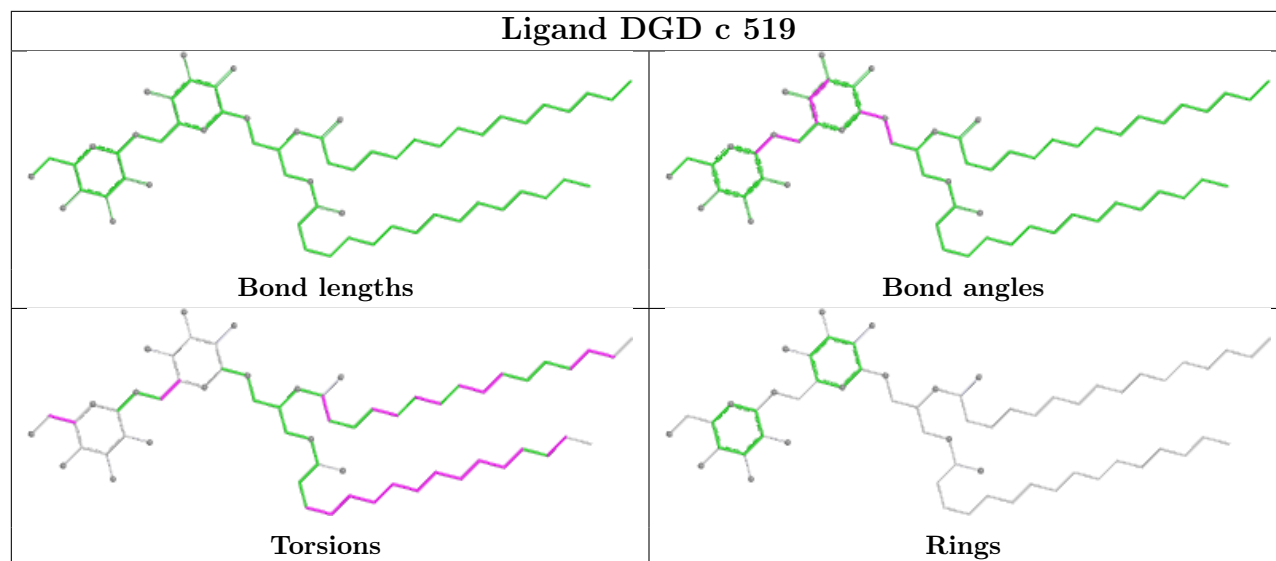
Ligand LHG A 617



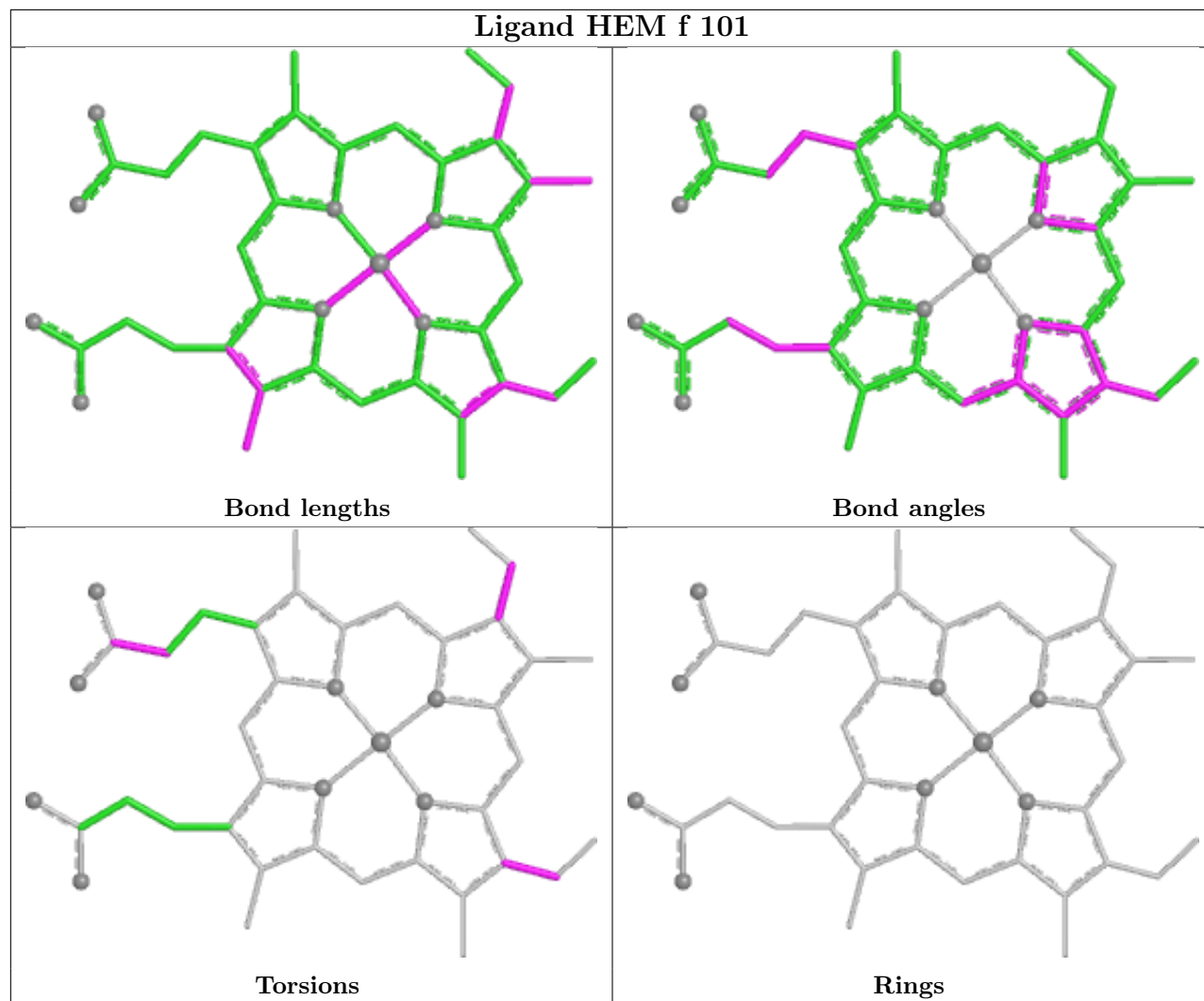


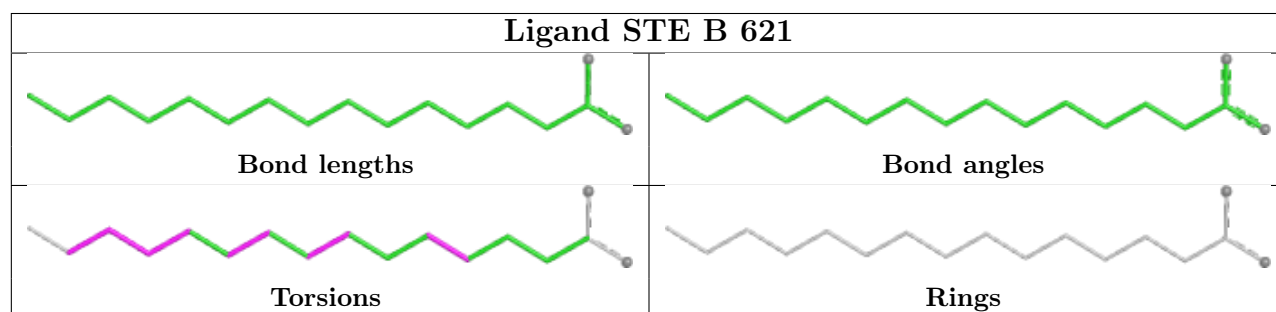
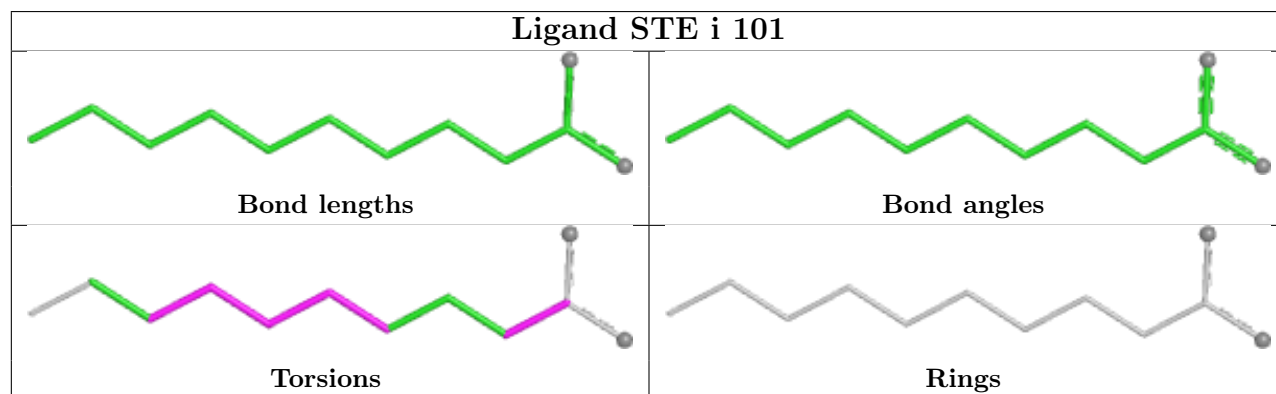
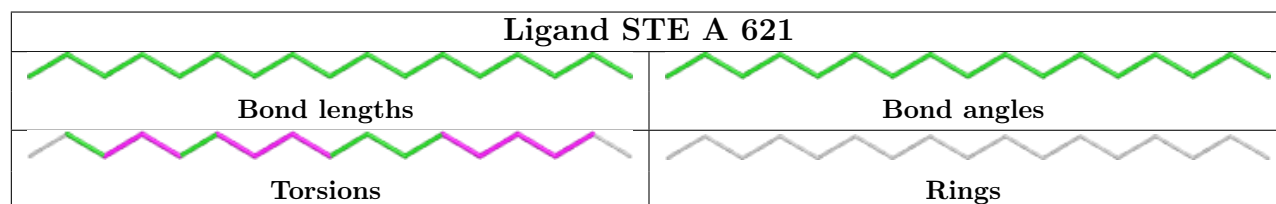
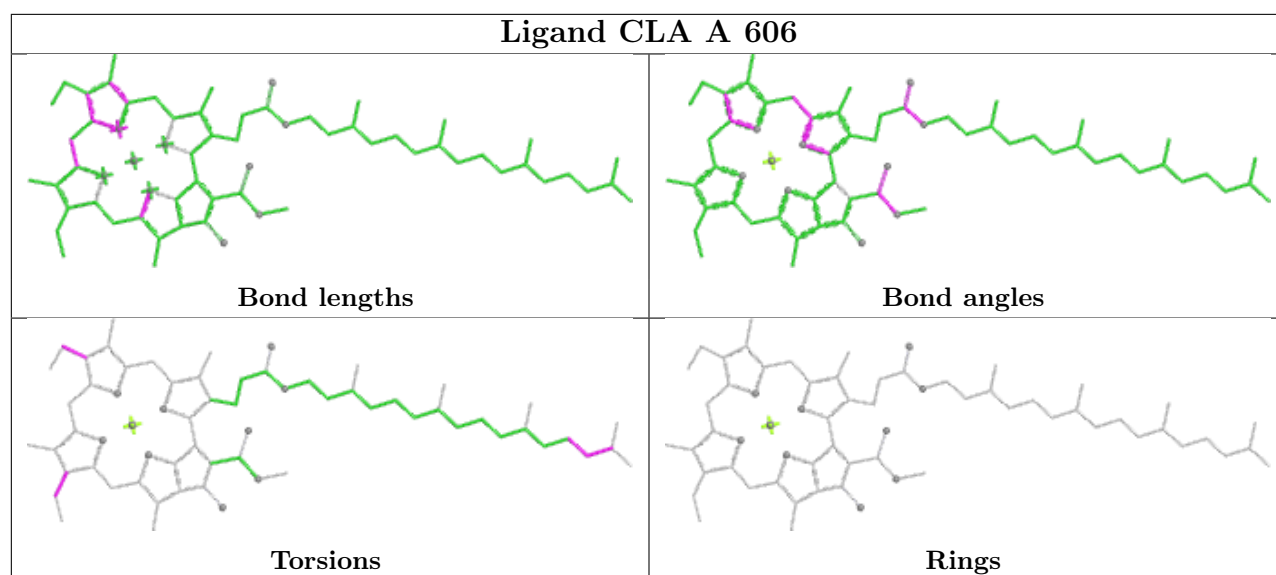


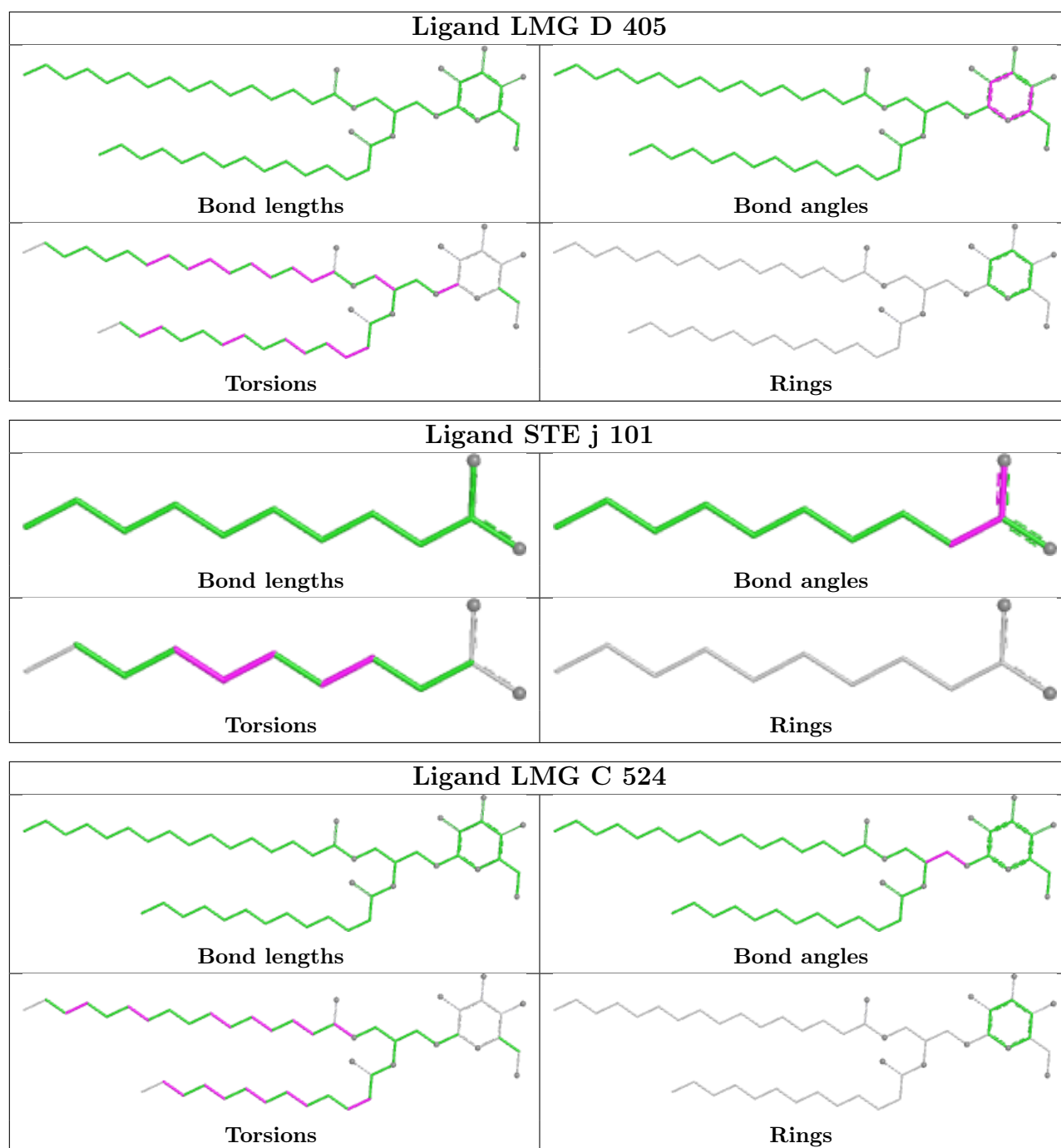
Ligand DGD c 519

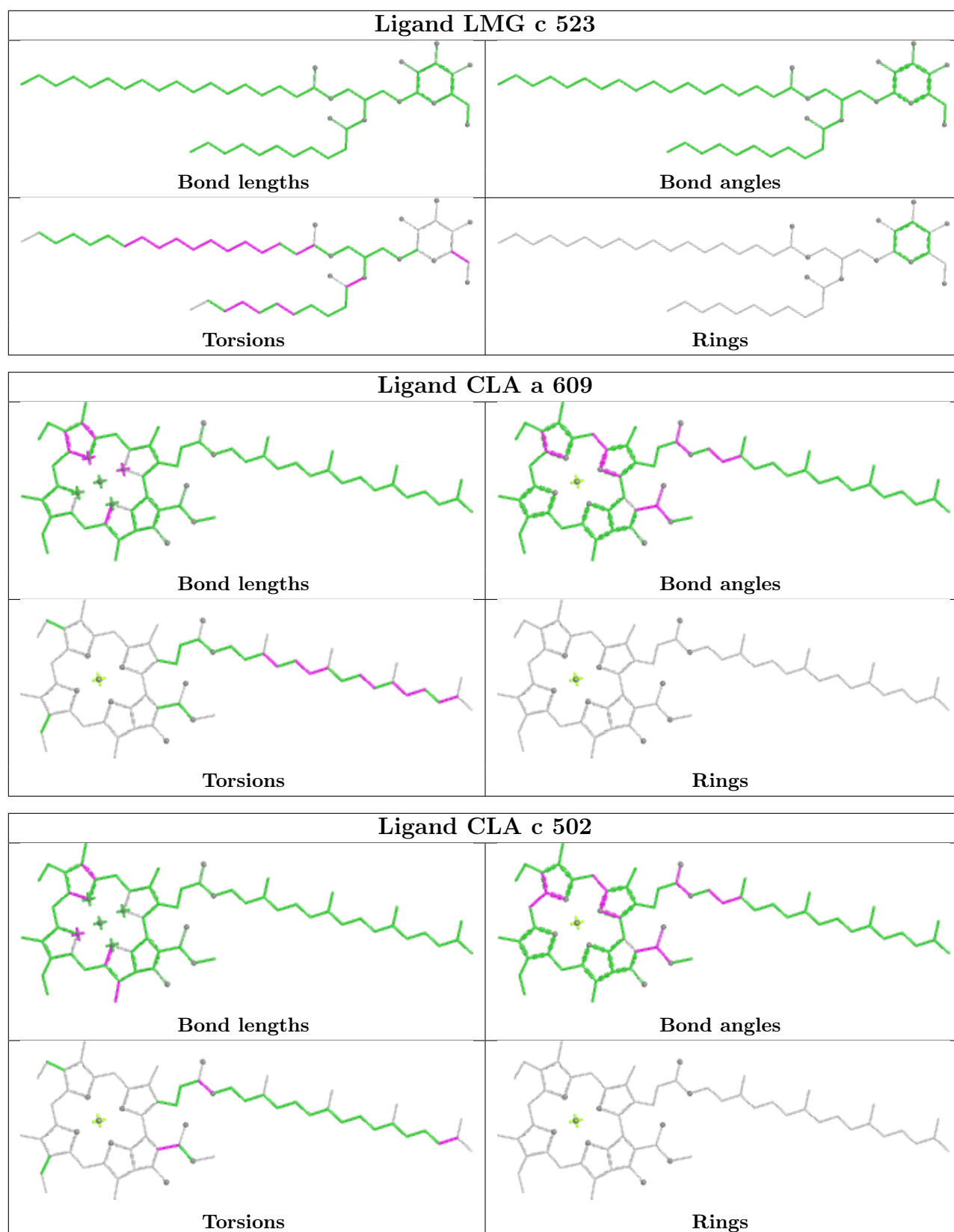


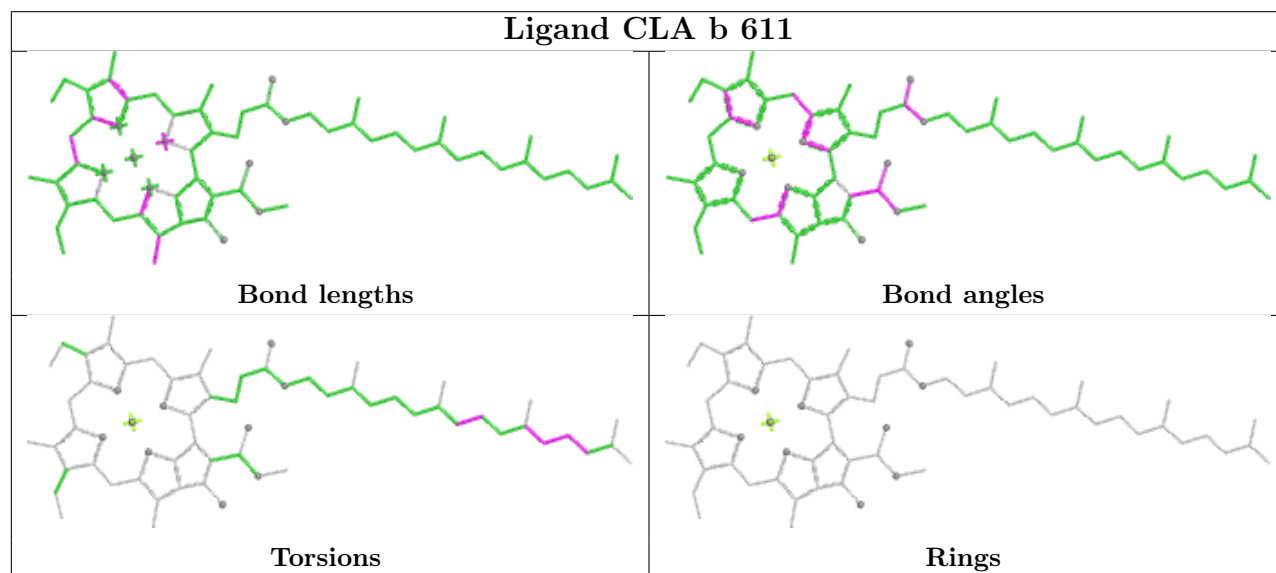
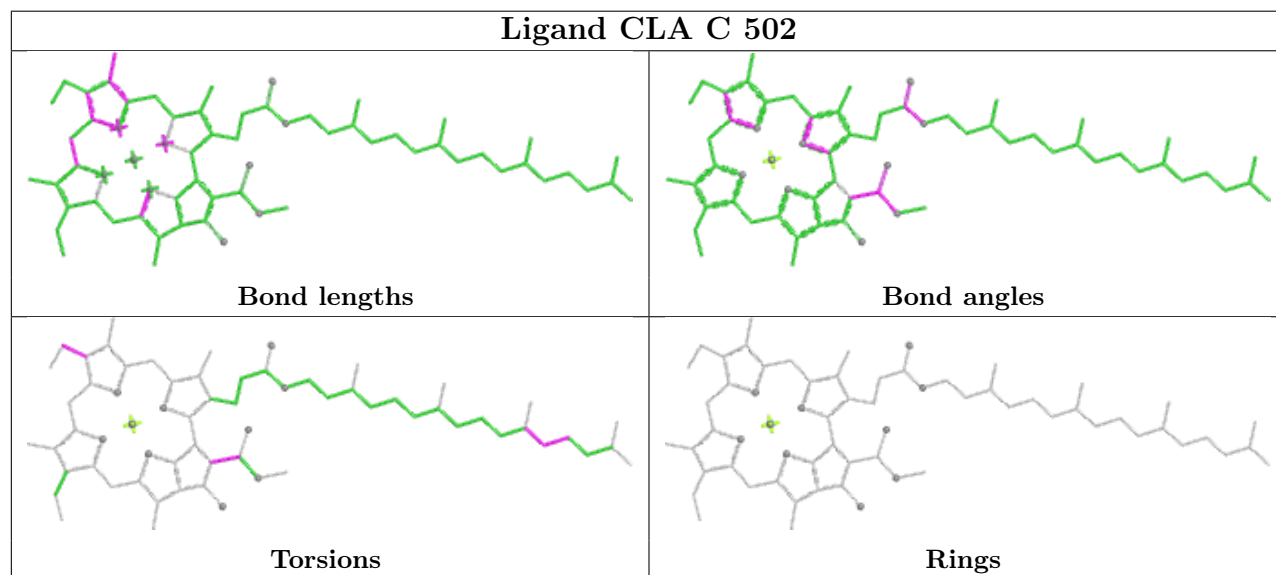
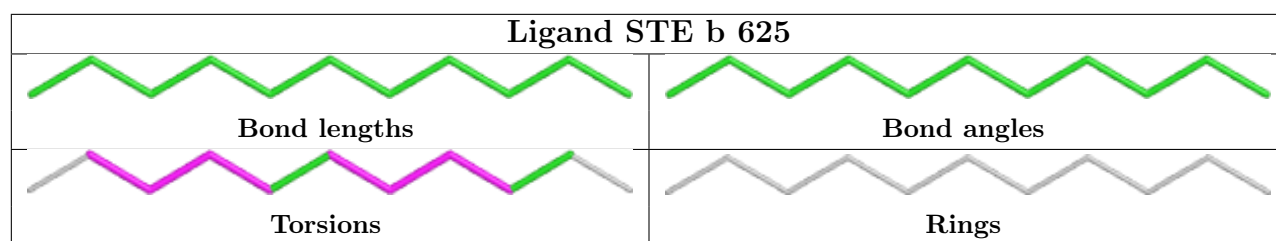
Ligand HEM f 101

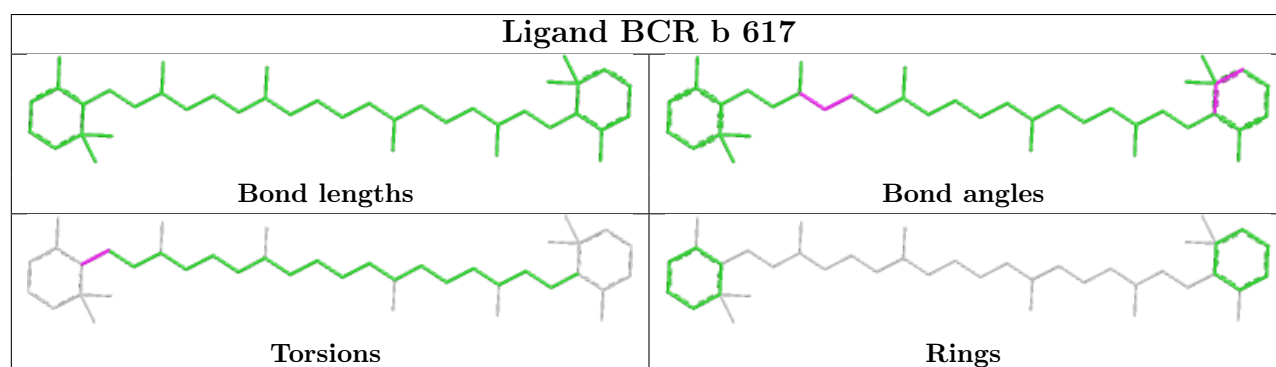
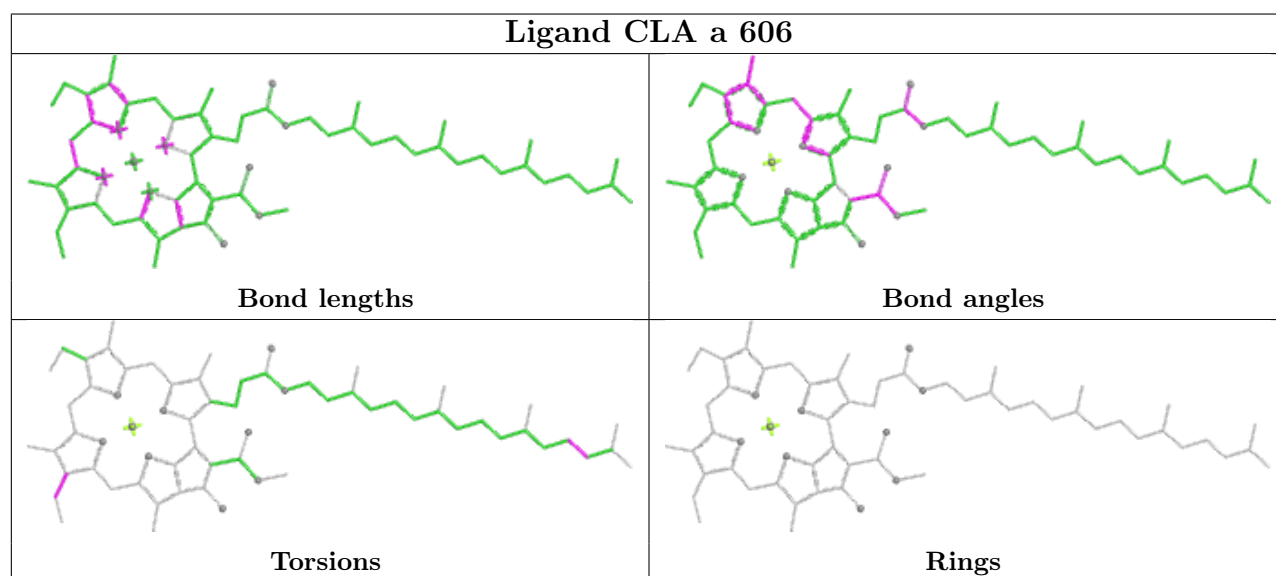
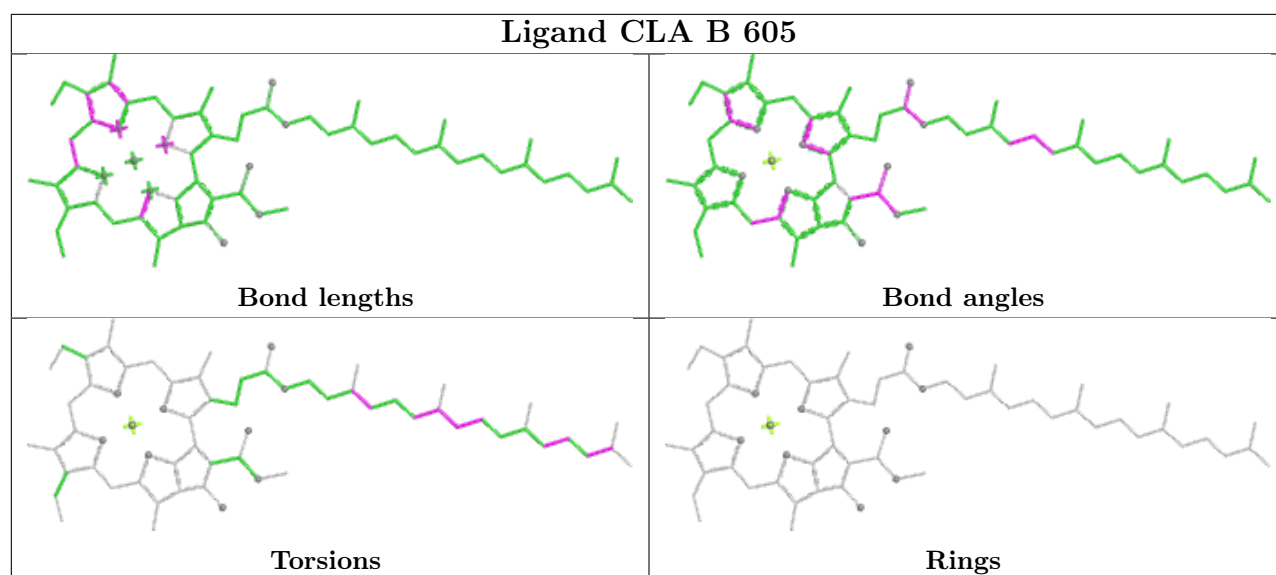


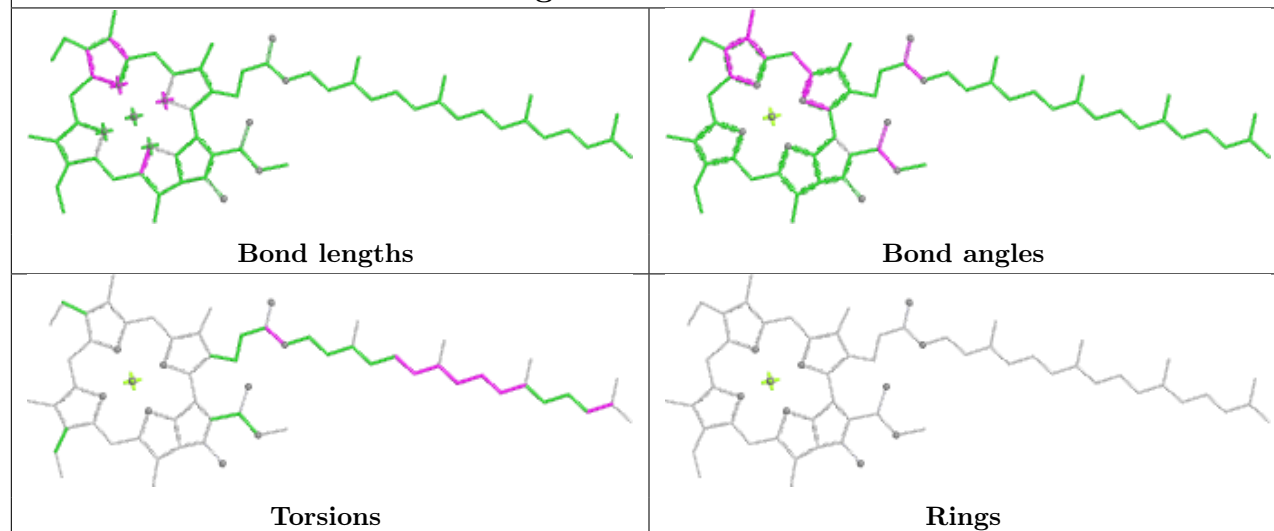
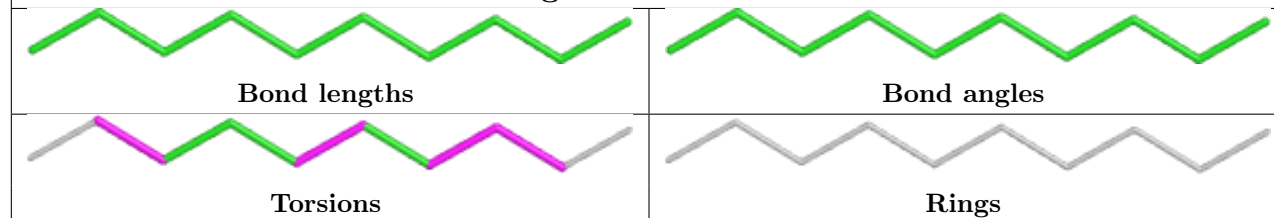
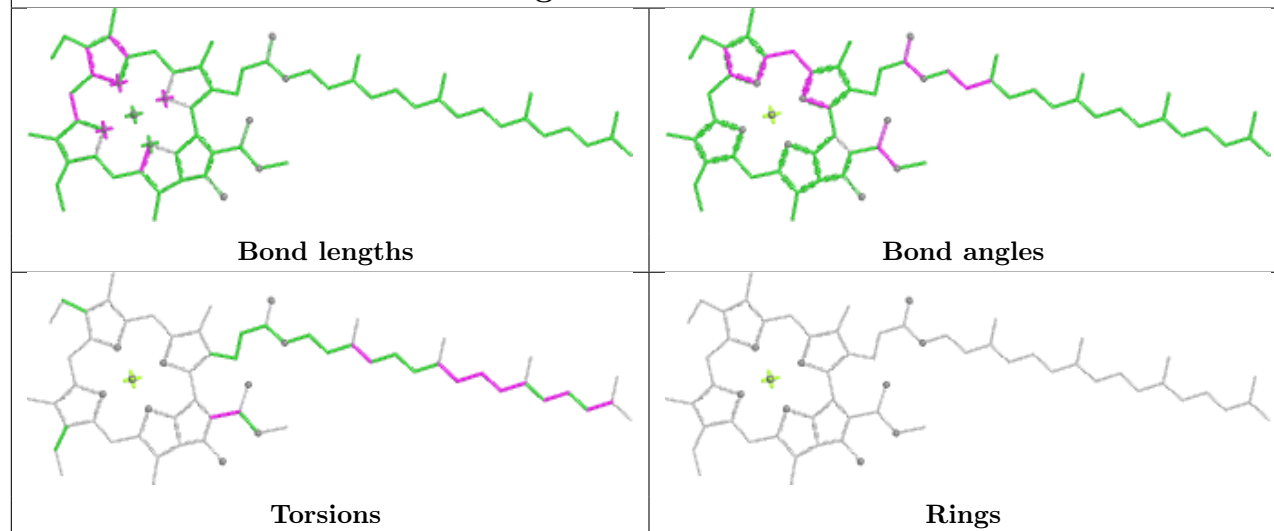


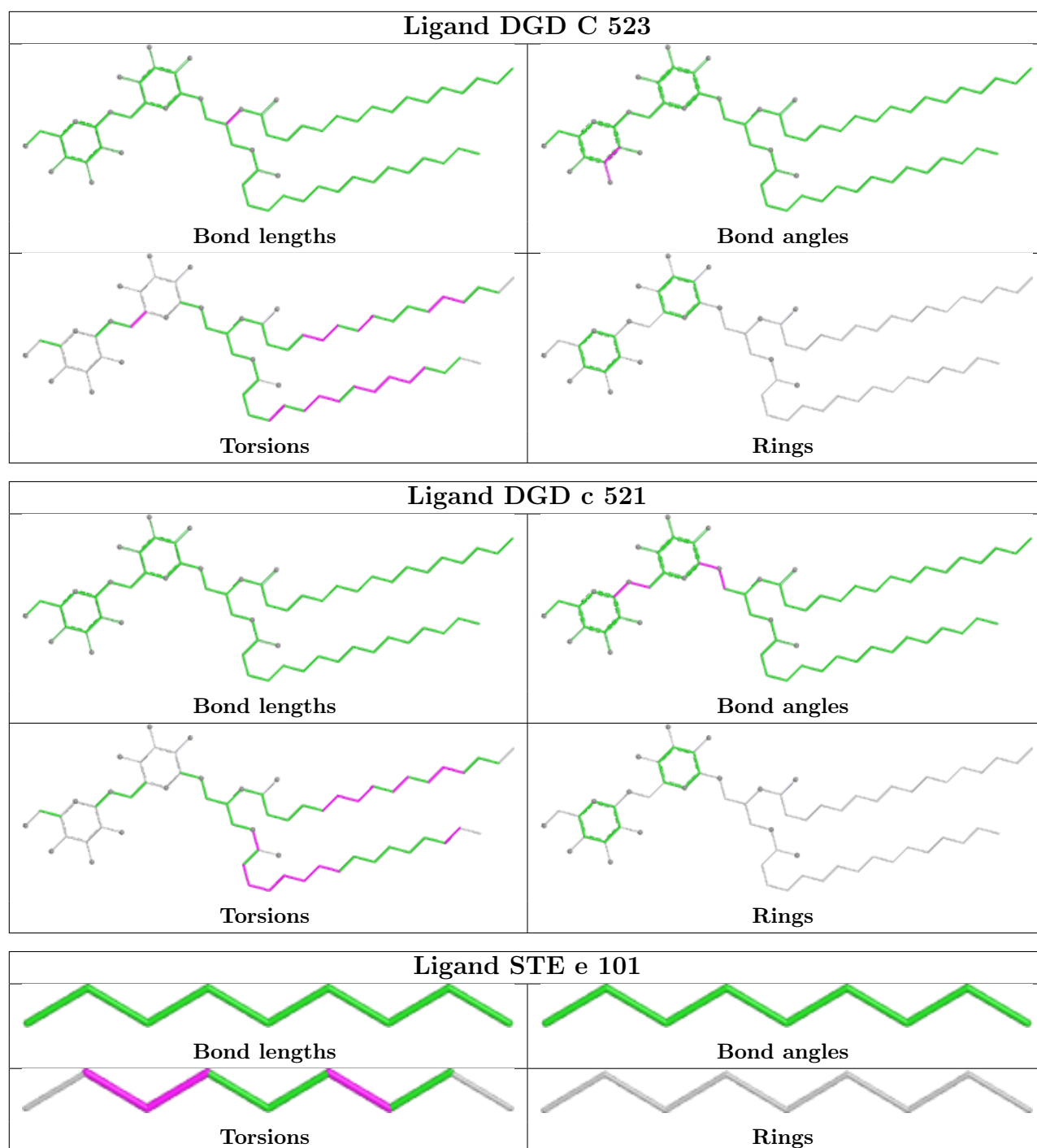








Ligand CLA b 607**Ligand STE t 103****Ligand CLA b 614**



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 ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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%)	-0.41	1 (0%) 90 93	22, 27, 43, 74	0
1	a	334/344 (97%)	-0.25	2 (0%) 85 90	22, 29, 52, 73	0
2	B	505/510 (99%)	-0.18	8 (1%) 70 79	17, 31, 55, 84	5 (0%)
2	b	505/510 (99%)	-0.05	4 (0%) 82 87	25, 34, 64, 94	1 (0%)
3	C	442/461 (95%)	-0.14	0 100 100	16, 34, 49, 69	1 (0%)
3	c	451/461 (97%)	0.04	4 (0%) 81 86	19, 38, 56, 91	2 (0%)
4	D	341/352 (96%)	-0.42	0 100 100	22, 28, 43, 68	0
4	d	341/352 (96%)	-0.21	0 100 100	23, 33, 52, 69	1 (0%)
5	E	82/84 (97%)	0.48	1 (1%) 76 83	30, 47, 62, 82	1 (1%)
5	e	82/84 (97%)	0.64	2 (2%) 59 69	38, 54, 72, 81	0
6	F	34/45 (75%)	0.21	1 (2%) 53 63	33, 40, 54, 78	0
6	f	34/45 (75%)	0.49	1 (2%) 53 63	40, 47, 67, 84	0
7	H	65/66 (98%)	0.10	0 100 100	28, 38, 50, 70	0
7	h	63/66 (95%)	0.37	2 (3%) 50 60	36, 46, 56, 61	0
8	I	35/38 (92%)	-0.01	0 100 100	31, 37, 57, 72	0
8	i	35/38 (92%)	0.22	2 (5%) 29 38	31, 39, 65, 86	0
9	J	36/40 (90%)	0.41	1 (2%) 55 65	30, 46, 72, 81	0
9	j	36/40 (90%)	0.60	3 (8%) 17 24	36, 52, 78, 84	0
10	K	37/46 (80%)	0.37	0 100 100	38, 46, 61, 72	0
10	k	37/46 (80%)	0.44	0 100 100	44, 50, 67, 75	0
11	L	37/37 (100%)	-0.31	0 100 100	24, 27, 56, 64	0
11	l	36/37 (97%)	-0.36	0 100 100	25, 29, 63, 77	0
12	M	32/36 (88%)	-0.04	0 100 100	27, 31, 52, 71	0
12	m	31/36 (86%)	-0.24	0 100 100	27, 32, 49, 61	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	O	244/272 (89%)	0.09	5 (2%) 65 74	24, 39, 72, 119	1 (0%)
13	o	244/272 (89%)	0.16	10 (4%) 41 51	25, 39, 74, 114	0
14	T	29/32 (90%)	-0.21	1 (3%) 48 58	25, 30, 48, 65	0
14	t	29/32 (90%)	-0.20	2 (6%) 23 30	25, 31, 61, 76	0
15	U	97/134 (72%)	0.07	0 100 100	30, 39, 62, 89	0
15	u	97/134 (72%)	0.02	1 (1%) 79 86	29, 38, 53, 81	0
16	V	137/163 (84%)	-0.07	0 100 100	28, 38, 52, 69	0
16	v	137/163 (84%)	0.23	0 100 100	32, 44, 61, 82	0
17	Y	27/46 (58%)	1.41	5 (18%) 3 4	50, 64, 88, 90	0
17	y	30/46 (65%)	0.92	0 100 100	55, 65, 74, 87	0
18	X	38/41 (92%)	0.38	2 (5%) 32 41	36, 46, 61, 71	0
18	x	39/41 (95%)	0.49	2 (5%) 33 43	43, 54, 73, 90	0
19	Z	62/62 (100%)	1.19	6 (9%) 13 19	49, 62, 97, 108	0
19	z	62/62 (100%)	1.18	8 (12%) 7 10	54, 66, 107, 122	0
20	R	28/41 (68%)	1.03	2 (7%) 22 29	53, 64, 74, 81	0
20	r	28/41 (68%)	1.63	8 (28%) 1 1	63, 77, 92, 97	0
All	All	5293/5700 (92%)	-0.00	84 (1%) 70 79	16, 36, 65, 122	12 (0%)

The worst 5 of 84 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	o	58	ASN	6.0
19	z	33	TRP	5.0
3	c	23	ALA	4.9
19	Z	62	VAL	4.2
17	Y	25	ILE	4.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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
14	FME	T	1	10/11	0.94	0.08	31,36,52,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
14	FME	t	1	10/11	0.94	0.07	30,35,52,57	0
12	FME	M	1	10/11	0.95	0.09	33,42,54,58	0
12	FME	m	1	10/11	0.96	0.09	31,44,61,67	0
8	FME	I	1	10/11	0.96	0.08	37,44,51,52	0
8	FME	i	1	10/11	0.97	0.07	36,44,50,51	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides 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($\text{\AA}^2$)	Q<0.9
29	STE	I	101	17/20	0.62	0.17	50,60,66,66	0
29	STE	i	101	12/20	0.62	0.15	62,75,94,95	0
29	STE	C	520	10/20	0.63	0.21	51,70,79,80	0
29	STE	e	101	9/20	0.65	0.25	63,70,76,78	0
29	STE	j	102	16/20	0.67	0.22	57,63,90,91	0
29	STE	K	102	14/20	0.68	0.17	54,60,74,76	0
29	STE	C	527	14/20	0.69	0.19	57,69,77,82	0
29	STE	C	518	5/20	0.69	0.22	54,59,60,61	0
29	STE	A	621	17/20	0.71	0.15	52,60,68,69	0
30	LMG	c	518	30/55	0.71	0.18	42,75,94,96	0
30	LMG	D	405	50/55	0.72	0.17	35,62,93,96	0
29	STE	c	517	18/20	0.72	0.20	61,71,79,80	0
29	STE	E	103	20/20	0.73	0.18	43,60,70,72	0
29	STE	H	103	18/20	0.73	0.17	52,62,68,72	0
29	STE	E	102	12/20	0.75	0.19	61,67,86,87	0
29	STE	b	625	11/20	0.75	0.22	52,57,60,65	0
29	STE	C	516	14/20	0.76	0.18	51,58,64,64	0
30	LMG	C	517	36/55	0.76	0.15	43,54,63,66	0
29	STE	b	623	16/20	0.76	0.18	45,55,71,75	0
30	LMG	b	622	55/55	0.76	0.18	45,62,73,77	0
29	STE	i	102	6/20	0.76	0.16	48,59,67,70	0
30	LMG	c	523	48/55	0.76	0.16	49,66,77,86	0
32	LHG	e	102	42/49	0.76	0.17	52,77,88,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
29	STE	A	613	9/20	0.77	0.16	53,56,73,75	0
29	STE	e	103	9/20	0.77	0.17	51,62,70,71	0
32	LHG	A	617	49/49	0.77	0.16	45,66,89,90	0
29	STE	h	103	10/20	0.77	0.19	58,66,72,75	0
30	LMG	a	616	55/55	0.78	0.15	38,54,67,74	0
29	STE	T	102	16/20	0.78	0.19	40,49,73,76	0
29	STE	e	104	13/20	0.78	0.19	70,73,81,85	0
29	STE	I	102	15/20	0.79	0.18	46,51,64,71	0
29	STE	k	103	14/20	0.79	0.15	51,63,74,76	0
29	STE	Z	101	17/20	0.79	0.20	49,66,84,85	0
29	STE	a	617	12/20	0.79	0.14	57,61,74,77	0
29	STE	C	525	12/20	0.79	0.16	43,48,54,55	0
30	LMG	B	620	45/55	0.80	0.15	35,51,78,83	0
29	STE	A	622	11/20	0.80	0.15	54,58,66,67	0
28	PL9	a	611	55/55	0.80	0.17	36,59,72,73	0
29	STE	b	624	10/20	0.81	0.14	47,50,56,65	0
29	STE	C	519	7/20	0.81	0.16	53,55,58,58	0
29	STE	B	625	15/20	0.81	0.20	41,50,63,73	0
31	SQD	a	615	54/54	0.81	0.14	42,54,85,88	0
29	STE	j	101	12/20	0.81	0.15	48,52,56,64	0
29	STE	f	103	8/20	0.81	0.19	53,57,62,64	0
29	STE	d	409	20/20	0.82	0.15	44,56,80,80	0
29	STE	z	101	9/20	0.82	0.22	55,61,64,65	0
29	STE	B	624	12/20	0.82	0.13	48,55,63,67	0
33	DGD	A	619	66/66	0.82	0.14	44,54,76,80	0
29	STE	J	102	12/20	0.83	0.14	46,50,62,67	0
29	STE	E	101	12/20	0.83	0.15	59,65,75,76	0
29	STE	M	104	15/20	0.84	0.16	45,49,71,74	0
31	SQD	A	618	43/54	0.84	0.12	39,50,79,83	0
28	PL9	A	612	55/55	0.84	0.15	31,55,70,77	0
29	STE	d	406	20/20	0.85	0.13	38,47,71,77	0
29	STE	t	103	10/20	0.85	0.14	42,53,56,57	0
29	STE	B	623	18/20	0.85	0.13	43,51,81,84	0
29	STE	d	411	20/20	0.85	0.14	36,48,62,71	0
29	STE	D	411	9/20	0.85	0.15	51,56,66,68	0
29	STE	A	620	8/20	0.86	0.15	51,52,56,57	0
29	STE	C	526	16/20	0.86	0.13	37,43,58,63	0
29	STE	B	621	17/20	0.86	0.13	39,47,65,67	0
29	STE	c	516	13/20	0.86	0.15	59,62,68,69	0
25	CLA	b	601	65/65	0.86	0.12	44,59,79,85	0
30	LMG	A	615	48/55	0.86	0.12	39,52,64,68	0
30	LMG	m	101	51/55	0.87	0.12	37,48,57,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
29	STE	M	102	15/20	0.87	0.11	36,43,60,73	0
31	SQD	B	622	54/54	0.87	0.11	37,54,68,69	0
29	STE	X	101	20/20	0.87	0.13	34,43,64,73	0
31	SQD	b	620	49/54	0.87	0.11	38,53,66,72	0
29	STE	b	621	20/20	0.87	0.13	34,50,61,65	0
30	LMG	M	101	51/55	0.87	0.11	32,47,58,60	0
30	LMG	c	524	49/55	0.87	0.12	39,56,66,74	0
29	STE	m	102	12/20	0.88	0.12	44,47,66,67	0
29	STE	t	102	14/20	0.88	0.11	36,46,54,54	0
29	STE	m	103	18/20	0.89	0.14	36,42,62,63	0
30	LMG	C	524	48/55	0.89	0.13	42,60,72,75	0
31	SQD	f	102	41/54	0.89	0.13	48,68,79,82	0
25	CLA	c	513	65/65	0.90	0.12	43,56,75,78	0
27	BCR	C	514	40/40	0.90	0.11	43,48,54,59	0
30	LMG	c	522	46/55	0.90	0.12	37,61,67,68	0
27	BCR	J	101	40/40	0.90	0.10	37,45,57,58	0
25	CLA	C	513	65/65	0.90	0.11	41,53,78,82	0
25	CLA	B	601	65/65	0.90	0.11	30,45,74,79	0
29	STE	M	103	10/20	0.90	0.11	40,44,52,56	0
27	BCR	k	101	40/40	0.91	0.11	46,50,57,59	0
31	SQD	a	614	54/54	0.91	0.12	40,55,71,75	0
27	BCR	c	514	40/40	0.91	0.11	46,53,58,59	0
27	BCR	h	101	40/40	0.91	0.10	38,45,56,58	0
27	BCR	d	404	40/40	0.92	0.10	38,43,69,80	0
27	BCR	k	102	40/40	0.92	0.12	40,46,55,59	0
31	SQD	D	407	36/54	0.92	0.12	42,59,72,72	0
25	CLA	c	512	65/65	0.92	0.10	43,50,71,74	0
31	SQD	A	616	52/54	0.92	0.10	30,48,68,74	0
33	DGD	h	102	62/66	0.92	0.10	34,41,50,52	0
27	BCR	b	619	40/40	0.93	0.09	30,39,53,57	0
25	CLA	C	503	65/65	0.93	0.08	30,36,41,47	0
27	BCR	B	618	40/40	0.93	0.08	26,34,41,47	0
25	CLA	C	511	65/65	0.93	0.09	28,43,54,56	0
27	BCR	D	403	40/40	0.93	0.10	30,39,64,73	0
32	LHG	a	613	49/49	0.93	0.11	34,43,56,61	0
27	BCR	H	101	40/40	0.93	0.08	30,39,47,49	0
25	CLA	C	512	65/65	0.93	0.10	36,43,70,78	0
33	DGD	C	522	62/66	0.93	0.10	31,41,82,89	0
33	DGD	H	102	62/66	0.93	0.09	30,37,48,55	0
27	BCR	T	101	40/40	0.93	0.08	29,35,45,46	0
25	CLA	B	606	65/65	0.94	0.08	24,31,59,69	0
28	PL9	d	405	55/55	0.94	0.07	25,31,36,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
27	BCR	K	101	40/40	0.94	0.10	34,44,55,57	0
25	CLA	b	606	65/65	0.94	0.08	28,34,59,67	0
27	BCR	b	617	40/40	0.94	0.08	28,36,43,47	0
25	CLA	d	403	65/65	0.94	0.09	30,36,67,75	0
30	LMG	D	406	51/55	0.94	0.11	29,43,67,77	0
26	PHO	d	401	64/64	0.94	0.07	28,34,39,42	0
27	BCR	c	515	40/40	0.94	0.09	29,42,49,50	0
32	LHG	D	410	49/49	0.94	0.10	29,39,55,57	0
25	CLA	b	616	60/65	0.94	0.09	31,37,73,78	0
25	CLA	c	503	65/65	0.94	0.08	33,39,45,47	0
27	BCR	C	515	40/40	0.94	0.08	28,37,46,47	0
25	CLA	c	509	65/65	0.94	0.09	33,39,52,54	0
27	BCR	t	101	40/40	0.94	0.07	24,33,45,47	0
33	DGD	c	520	62/66	0.94	0.10	34,43,73,77	0
25	CLA	c	511	65/65	0.94	0.09	37,48,57,65	0
25	CLA	C	506	65/65	0.95	0.09	30,36,70,76	0
25	CLA	b	608	65/65	0.95	0.07	29,36,47,51	0
25	CLA	b	609	65/65	0.95	0.07	32,39,55,60	0
25	CLA	b	614	65/65	0.95	0.08	26,33,64,71	0
25	CLA	b	615	65/65	0.95	0.08	27,35,54,59	0
25	CLA	C	508	65/65	0.95	0.08	28,34,81,92	0
25	CLA	C	509	65/65	0.95	0.08	29,34,51,57	0
27	BCR	a	610	40/40	0.95	0.06	23,31,39,40	0
25	CLA	c	505	65/65	0.95	0.08	28,36,55,60	0
30	LMG	d	410	44/55	0.95	0.09	34,43,66,72	0
27	BCR	b	618	40/40	0.95	0.07	25,34,45,48	0
25	CLA	c	506	65/65	0.95	0.09	35,41,72,79	0
25	CLA	c	507	65/65	0.95	0.07	31,40,49,50	0
25	CLA	c	508	64/65	0.95	0.09	31,38,75,91	0
25	CLA	C	510	65/65	0.95	0.08	29,35,48,57	0
25	CLA	c	510	65/65	0.95	0.07	32,40,50,55	0
25	CLA	C	501	65/65	0.95	0.07	25,31,43,44	0
25	CLA	C	502	65/65	0.95	0.07	27,33,44,50	0
25	CLA	B	610	65/65	0.95	0.07	21,29,35,38	0
25	CLA	a	606	65/65	0.95	0.07	21,26,36,49	0
32	LHG	D	409	47/49	0.95	0.11	30,37,69,71	0
28	PL9	D	404	55/55	0.95	0.07	17,28,37,41	0
26	PHO	A	608	64/64	0.95	0.06	19,26,30,33	0
32	LHG	d	408	39/49	0.95	0.09	27,39,56,60	0
26	PHO	A	609	64/64	0.95	0.06	23,28,33,33	0
25	CLA	a	607	65/65	0.95	0.09	26,34,78,84	0
33	DGD	C	521	62/66	0.95	0.10	24,35,67,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
27	BCR	A	611	40/40	0.95	0.06	25,32,36,39	0
33	DGD	C	523	62/66	0.95	0.10	27,40,66,80	0
27	BCR	B	617	40/40	0.95	0.07	26,34,42,44	0
33	DGD	c	519	62/66	0.95	0.09	24,36,63,72	0
25	CLA	C	504	59/65	0.95	0.08	27,35,70,74	0
33	DGD	c	521	62/66	0.95	0.10	29,42,70,77	0
27	BCR	B	619	40/40	0.95	0.07	26,36,50,54	0
25	CLA	a	612	65/65	0.96	0.06	20,26,40,45	0
25	CLA	C	505	65/65	0.96	0.07	23,32,51,65	0
25	CLA	b	602	65/65	0.96	0.08	28,34,48,55	0
25	CLA	b	603	65/65	0.96	0.07	25,30,54,58	0
25	CLA	b	604	65/65	0.96	0.08	21,29,58,74	0
25	CLA	d	402	65/65	0.96	0.06	20,27,48,53	0
25	CLA	b	605	65/65	0.96	0.06	24,30,41,44	0
25	CLA	B	609	65/65	0.96	0.06	24,31,46,52	0
25	CLA	b	607	65/65	0.96	0.07	22,30,51,57	0
26	PHO	a	608	64/64	0.96	0.06	22,27,33,39	0
25	CLA	C	507	65/65	0.96	0.07	24,33,49,55	0
25	CLA	B	603	65/65	0.96	0.07	22,27,50,53	0
32	LHG	D	408	49/49	0.96	0.08	24,34,42,48	0
25	CLA	b	610	65/65	0.96	0.07	28,34,40,43	0
25	CLA	b	611	65/65	0.96	0.06	25,30,45,51	0
32	LHG	L	101	49/49	0.96	0.08	28,35,43,56	0
25	CLA	b	613	65/65	0.96	0.08	22,27,64,68	0
32	LHG	d	407	49/49	0.96	0.07	28,36,48,53	0
25	CLA	B	612	65/65	0.96	0.07	21,27,38,42	0
25	CLA	B	614	65/65	0.96	0.07	22,30,59,67	0
25	CLA	B	616	60/65	0.96	0.08	25,33,75,80	0
25	CLA	c	501	65/65	0.96	0.07	28,35,46,49	0
25	CLA	c	502	65/65	0.96	0.07	27,34,46,58	0
25	CLA	B	604	65/65	0.96	0.07	20,26,54,58	0
25	CLA	c	504	60/65	0.96	0.07	27,38,65,67	0
25	CLA	B	602	65/65	0.96	0.07	24,30,46,49	0
25	CLA	B	607	65/65	0.96	0.07	21,27,51,56	0
25	CLA	B	608	65/65	0.96	0.06	23,29,44,48	0
25	CLA	a	609	65/65	0.96	0.09	22,27,66,73	0
34	HEM	F	101	43/43	0.96	0.09	37,42,49,52	0
25	CLA	A	607	65/65	0.97	0.08	21,29,79,85	0
25	CLA	A	610	54/65	0.97	0.06	21,27,51,61	0
32	LHG	l	101	49/49	0.97	0.07	30,39,48,55	0
25	CLA	B	611	65/65	0.97	0.06	22,26,39,43	0
25	CLA	D	401	65/65	0.97	0.06	19,23,47,52	0

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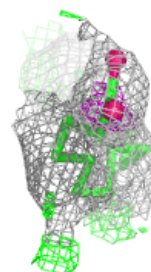
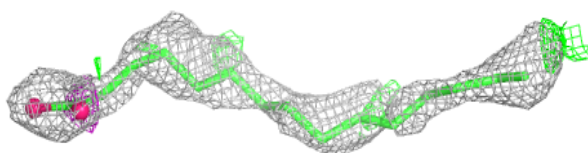
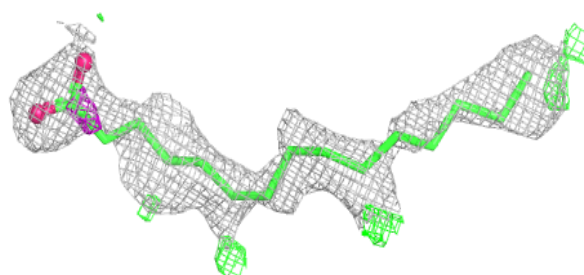
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
25	CLA	D	402	65/65	0.97	0.08	25,32,95,102	0
25	CLA	B	605	65/65	0.97	0.06	20,26,39,42	0
25	CLA	B	613	65/65	0.97	0.06	21,26,56,59	0
25	CLA	A	614	65/65	0.97	0.06	20,25,40,49	0
25	CLA	B	615	65/65	0.97	0.07	25,31,49,55	0
25	CLA	b	612	65/65	0.97	0.06	24,30,40,41	0
24	BCT	A	605	4/4	0.97	0.05	26,30,30,33	0
25	CLA	A	606	65/65	0.97	0.06	17,24,38,48	0
34	HEM	f	101	43/43	0.97	0.09	44,50,59,68	0
24	BCT	a	605	4/4	0.98	0.06	32,34,42,43	0
35	HEC	V	201	43/43	0.98	0.05	24,28,35,41	0
35	HEC	v	201	43/43	0.98	0.06	28,31,36,41	0
23	CL	a	603	1/1	0.99	0.05	27,27,27,27	0
23	CL	a	604	1/1	0.99	0.07	28,28,28,28	0
21	OEX	a	601	10/10	0.99	0.03	22,27,29,30	0
23	CL	A	603	1/1	0.99	0.05	26,26,26,26	0
23	CL	A	604	1/1	0.99	0.04	28,28,28,28	0
21	OEX	A	601	10/10	1.00	0.03	25,26,29,29	0
22	FE2	A	602	1/1	1.00	0.01	27,27,27,27	0
22	FE2	a	602	1/1	1.00	0.02	34,34,34,34	0

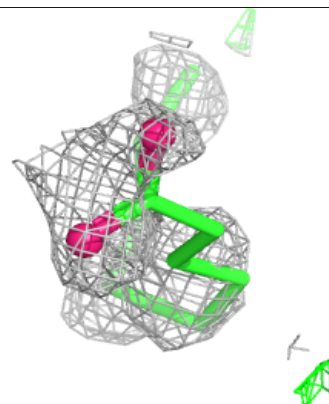
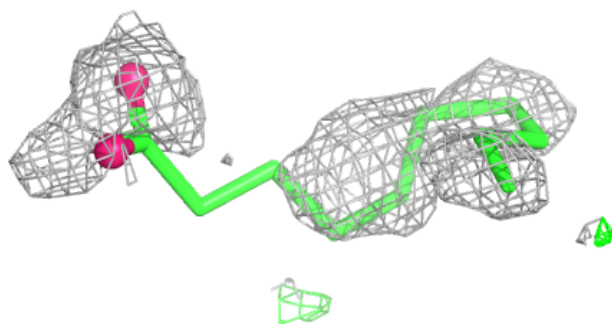
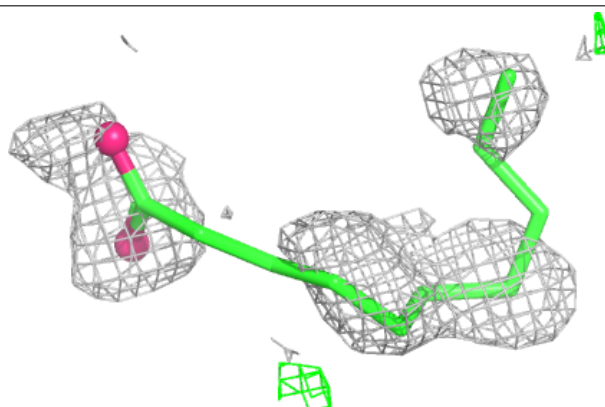
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around STE 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)

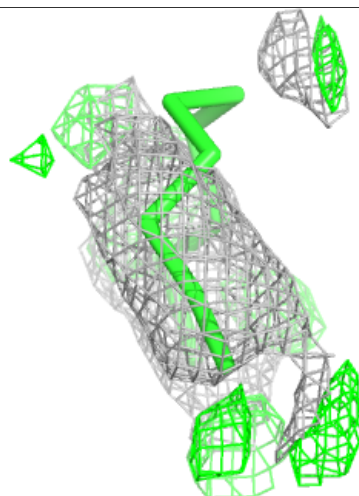
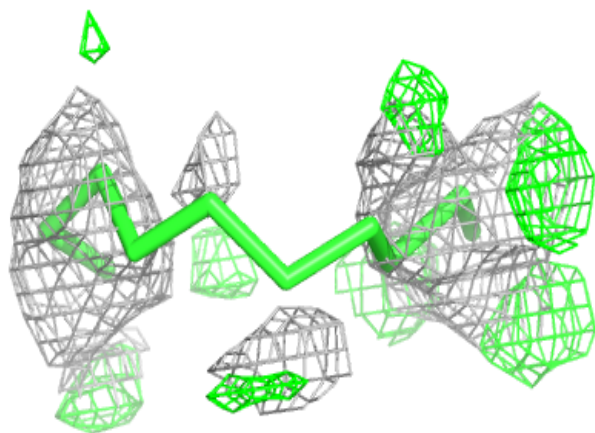
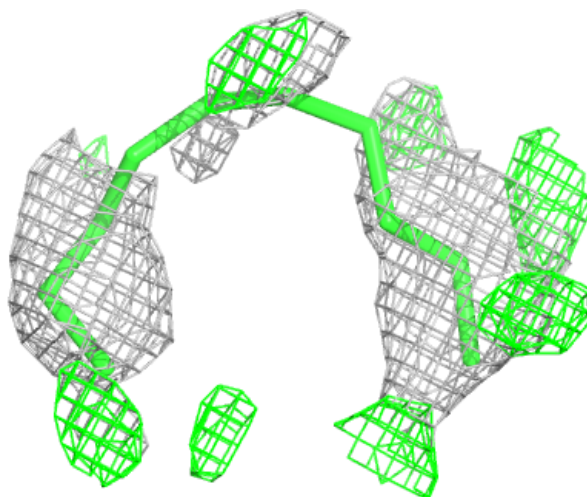
**Electron density around STE i 101:**

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



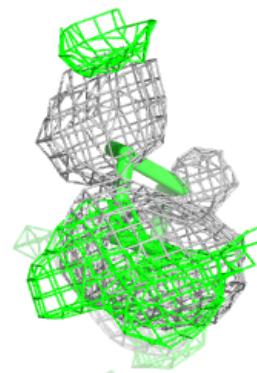
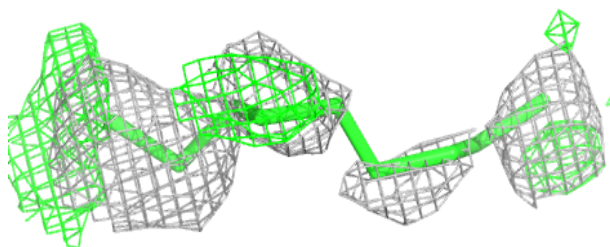
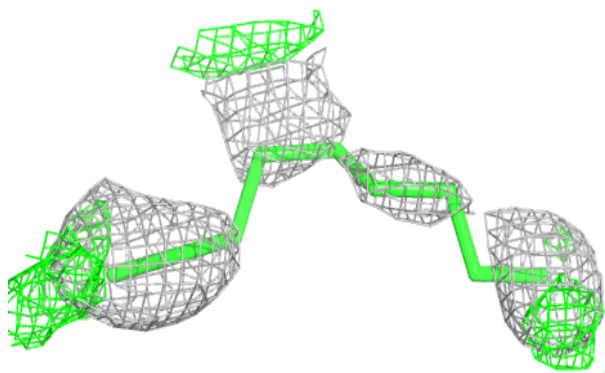
Electron density around STE C 520:

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

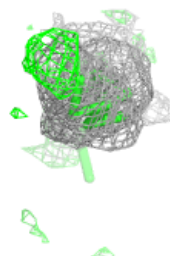
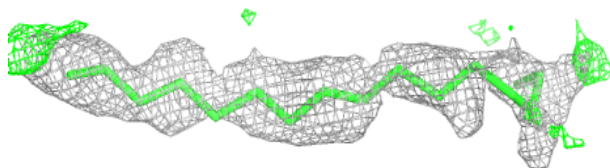
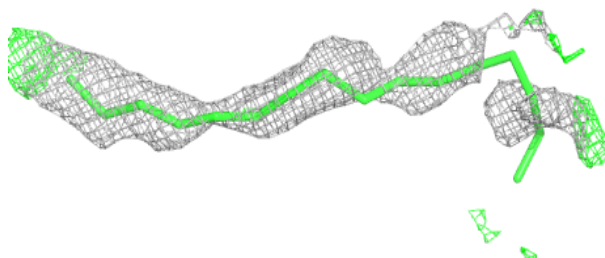


Electron density around STE e 101:

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

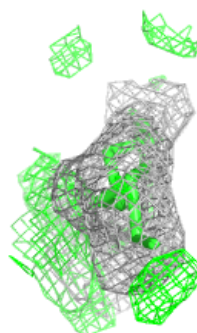
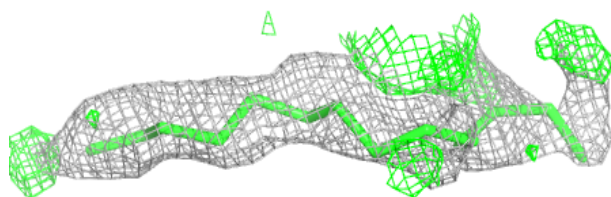
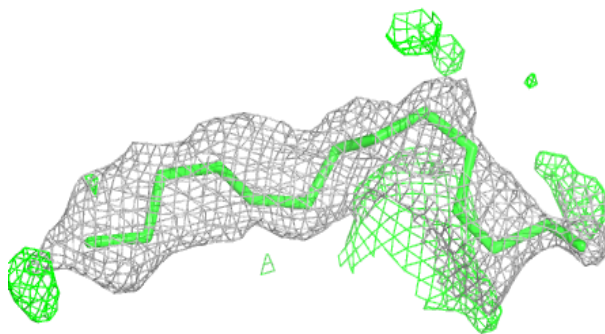
**Electron density around STE j 102:**

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

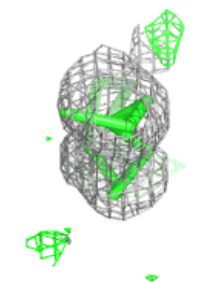
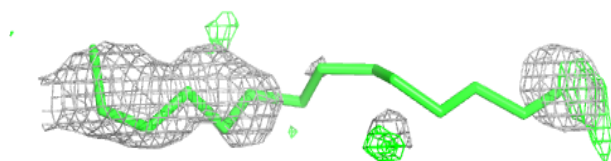
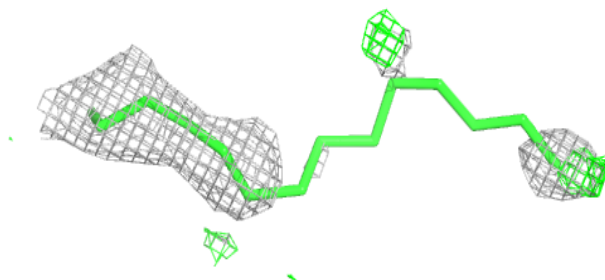


Electron density around STE K 102:

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

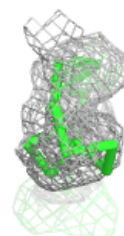
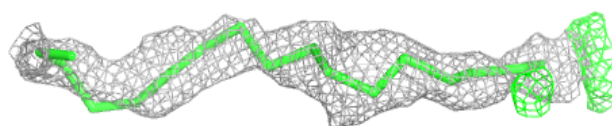
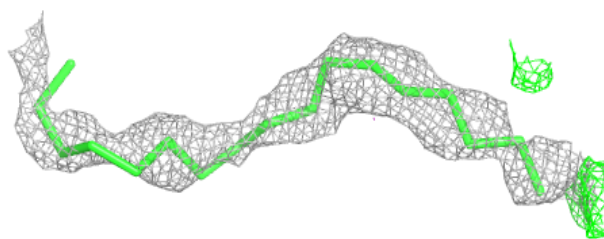
**Electron density around STE C 527:**

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

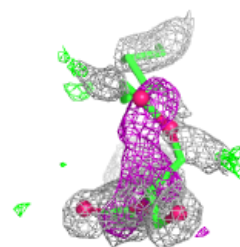
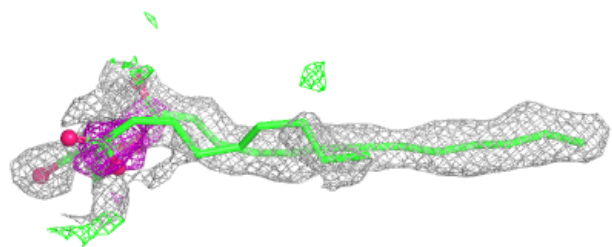
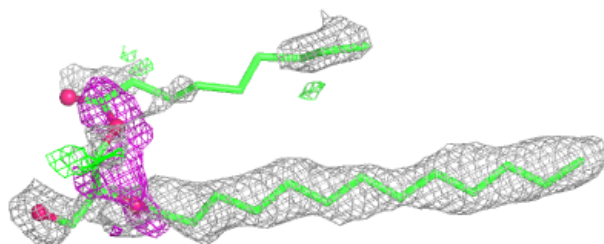


Electron density around STE A 621:

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

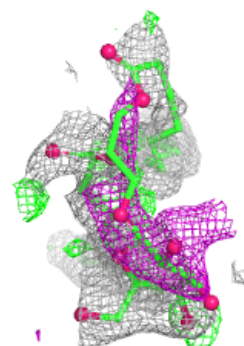
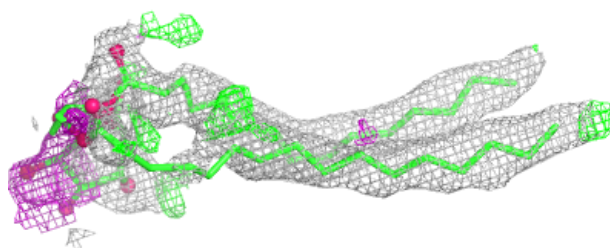
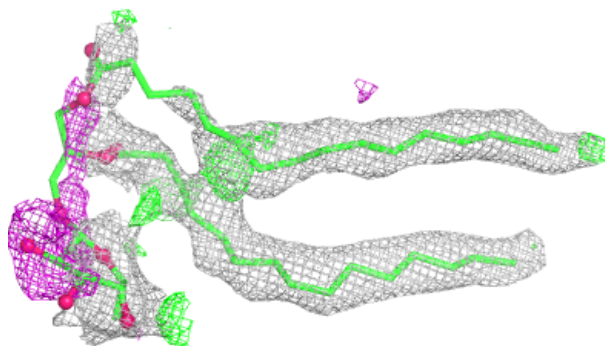
**Electron density around LMG c 518:**

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

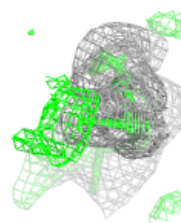
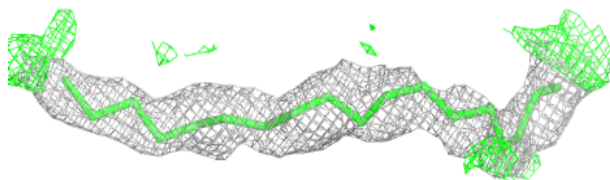
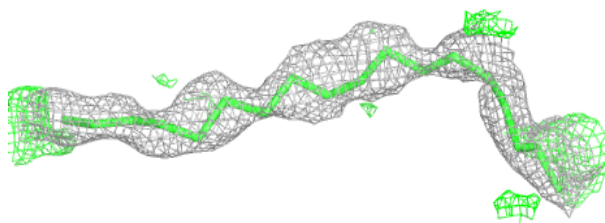


Electron density around LMG D 405:

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

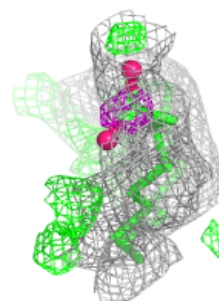
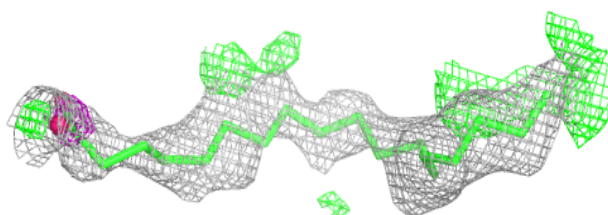
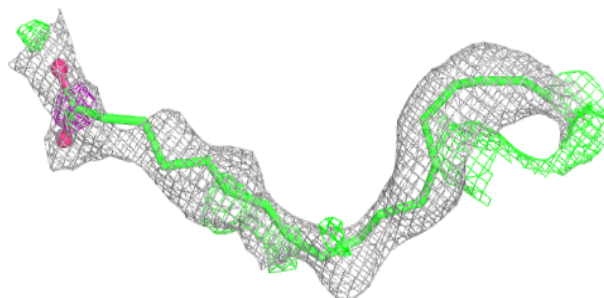
**Electron density around STE c 517:**

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

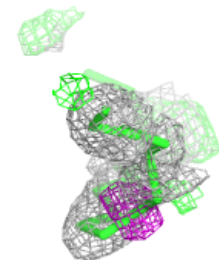
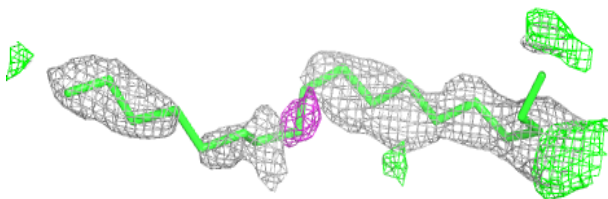
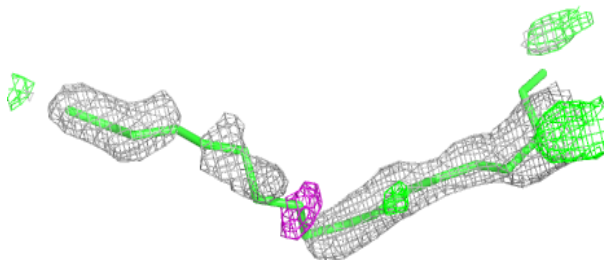


Electron density around STE E 103:

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

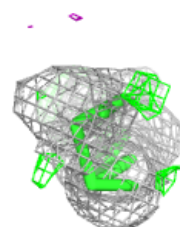
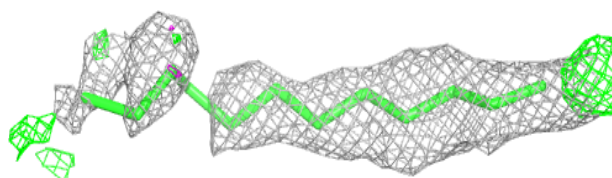
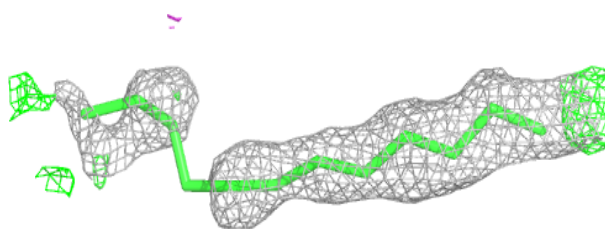
**Electron density around STE H 103:**

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

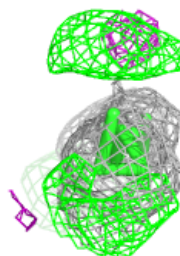
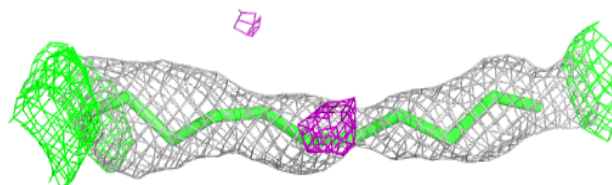
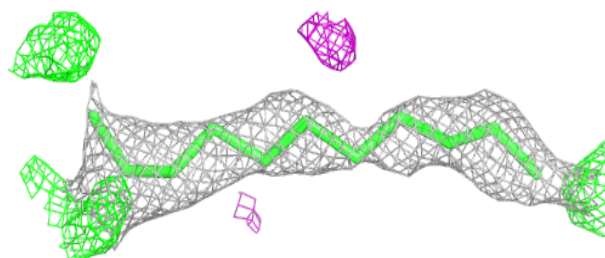


Electron density around STE E 102:

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

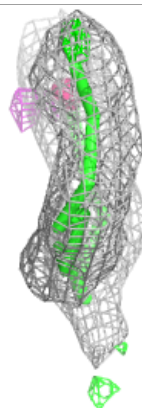
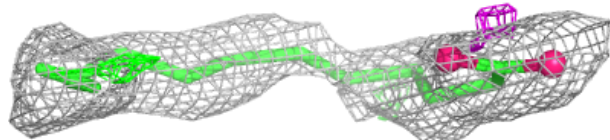
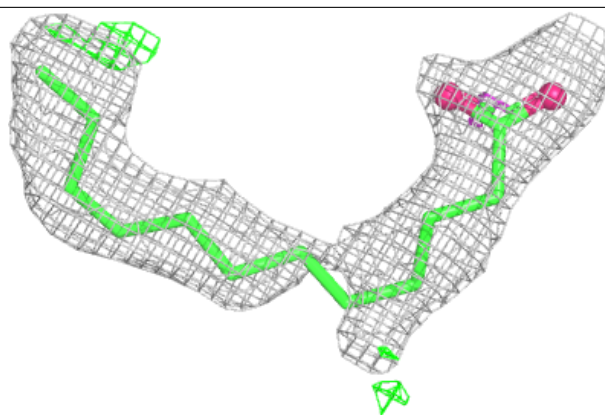
**Electron density around STE b 625:**

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

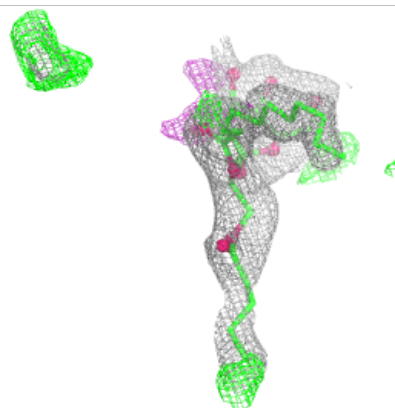
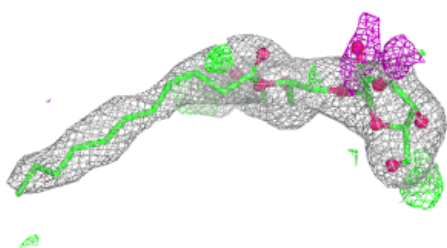
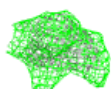
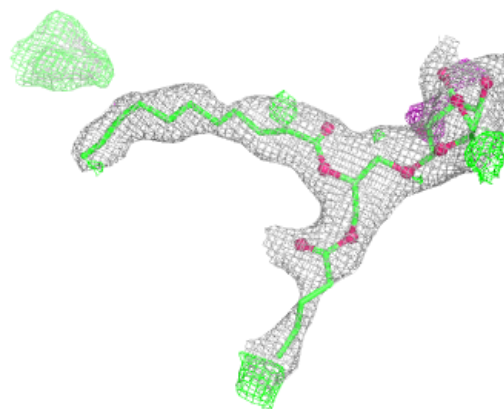


Electron density around STE C 516:

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

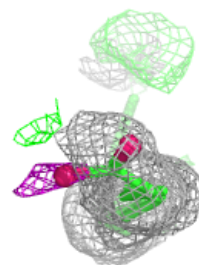
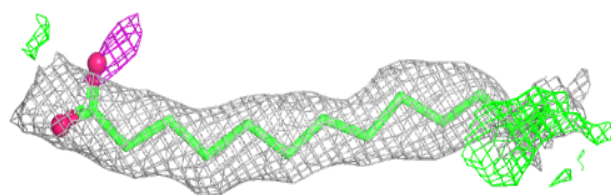
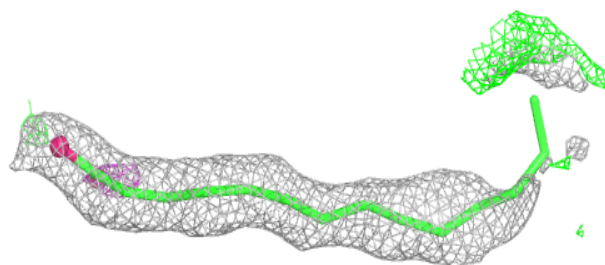
**Electron density around LMG C 517:**

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

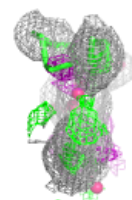
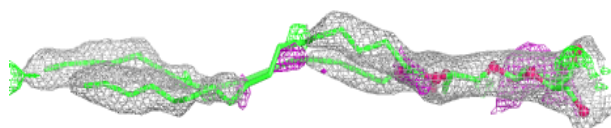
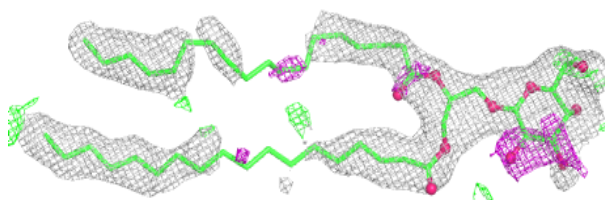


Electron density around STE b 623:

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

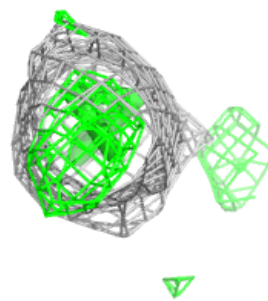
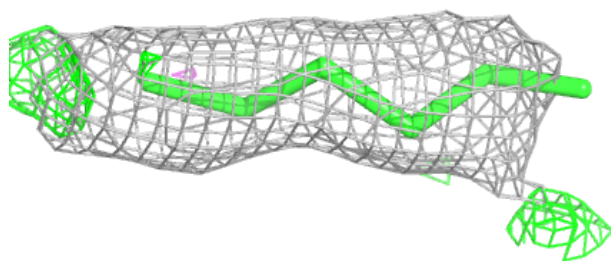
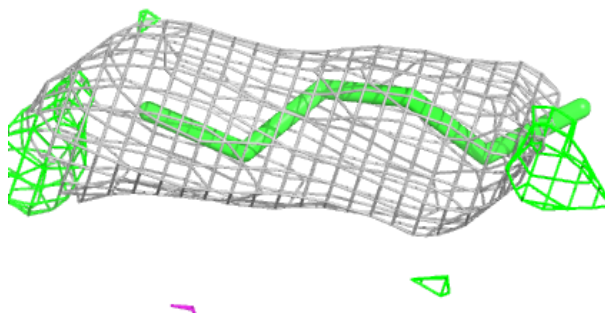
**Electron density around LMG b 622:**

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

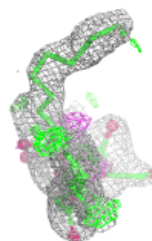
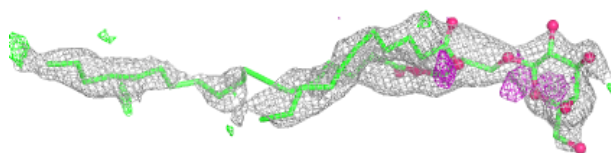
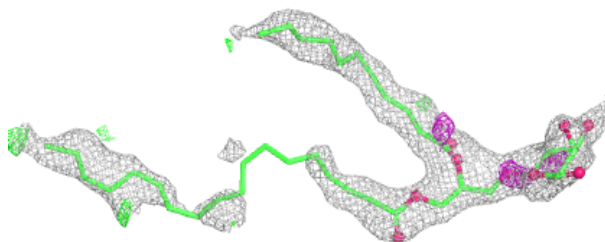


Electron density around STE i 102:

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

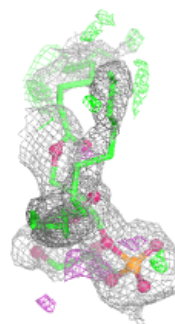
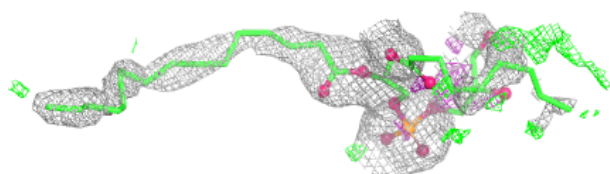
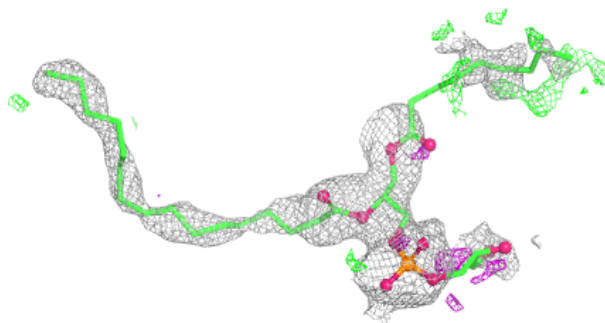
**Electron density around LMG c 523:**

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

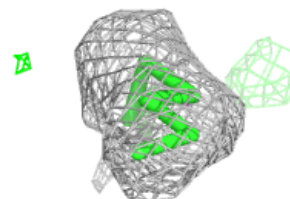
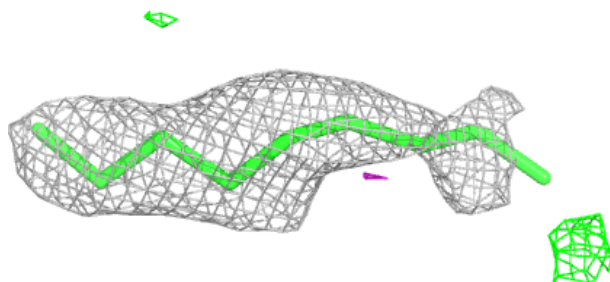
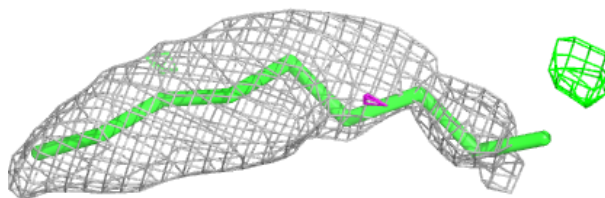


Electron density around LHG e 102:

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

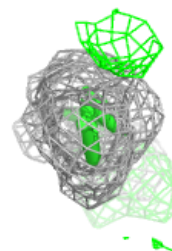
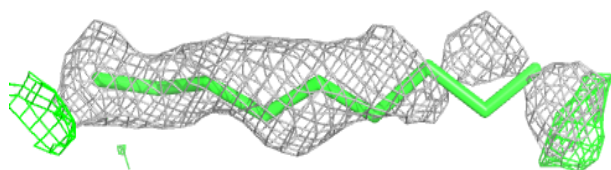
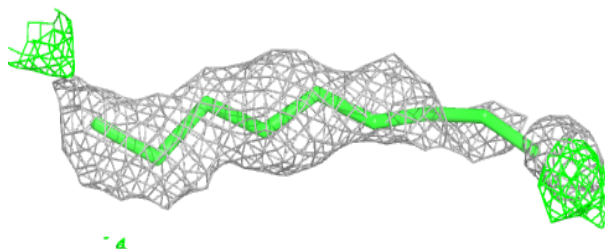
**Electron density around STE A 613:**

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

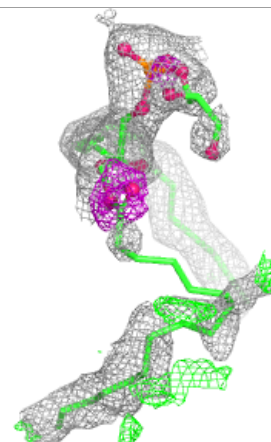
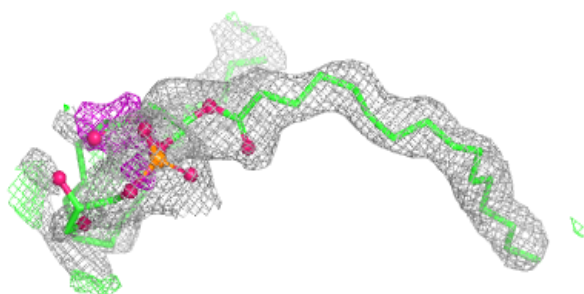
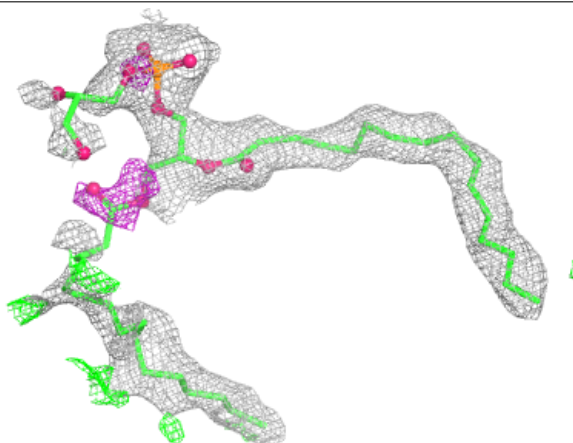


Electron density around STE e 103:

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

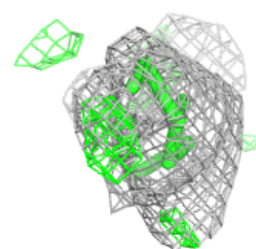
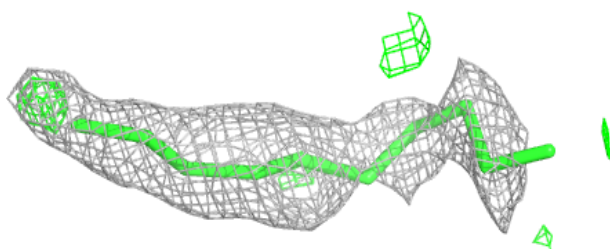
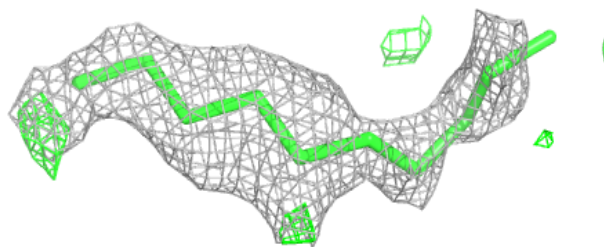
**Electron density around LHG A 617:**

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

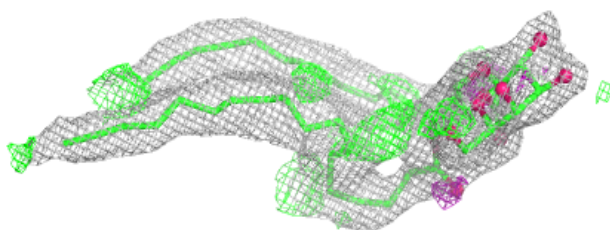
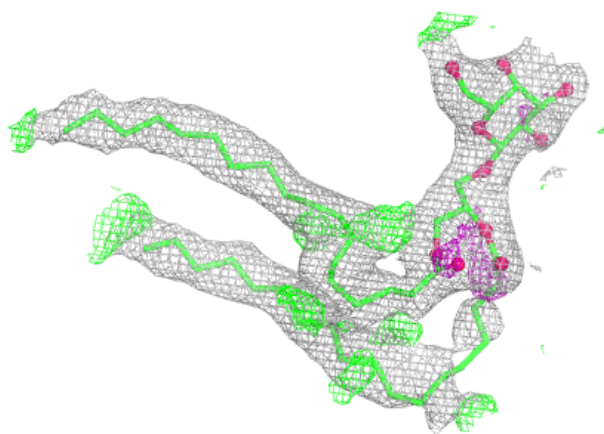


Electron density around STE h 103:

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

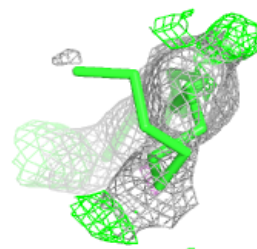
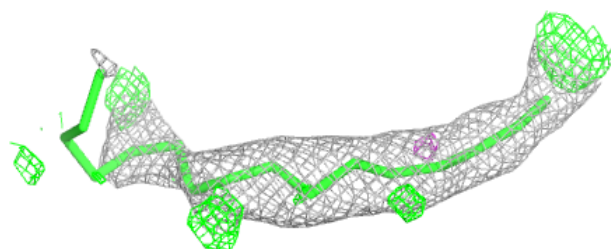
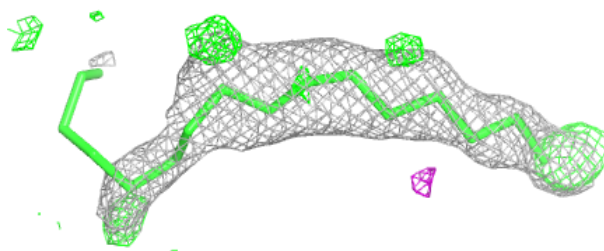
**Electron density around LMG a 616:**

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

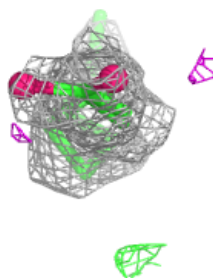
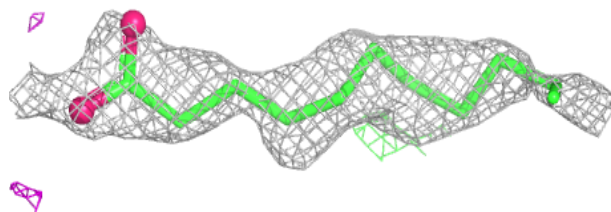
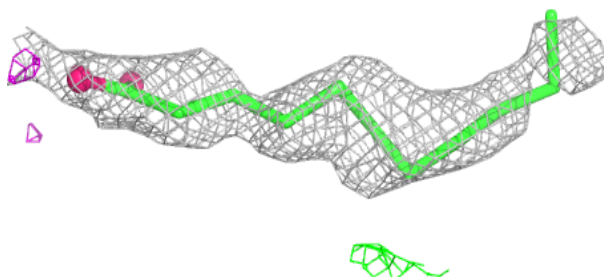


Electron density around STE T 102:

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

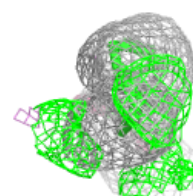
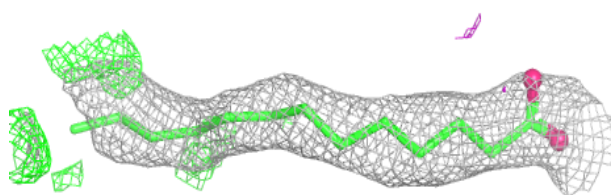
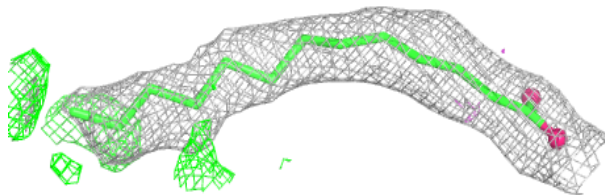
**Electron density around STE e 104:**

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

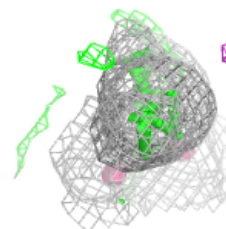
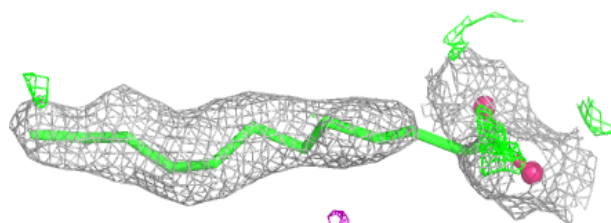
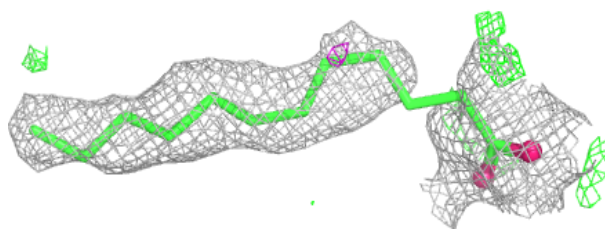


Electron density around STE I 102:

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

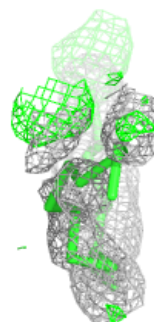
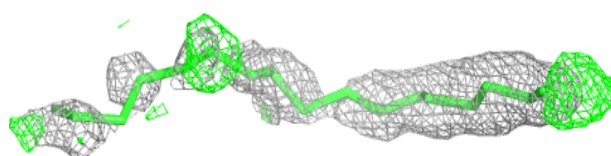
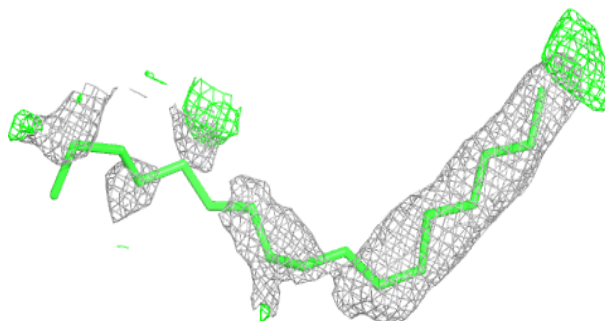
**Electron density around STE k 103:**

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

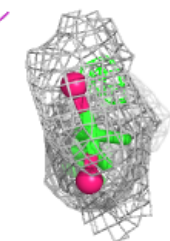
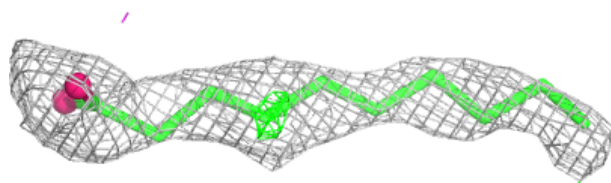
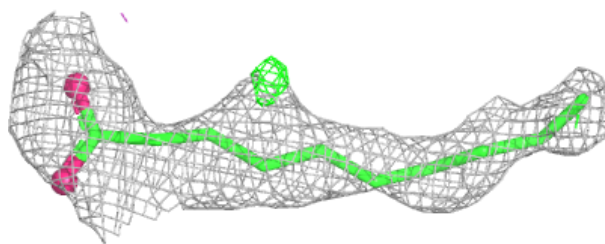


Electron density around STE Z 101:

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

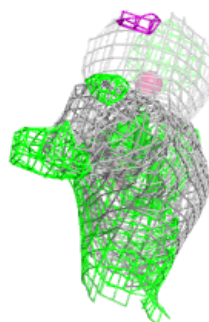
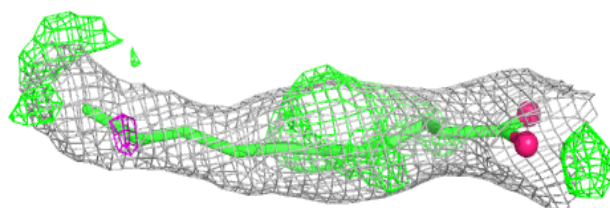
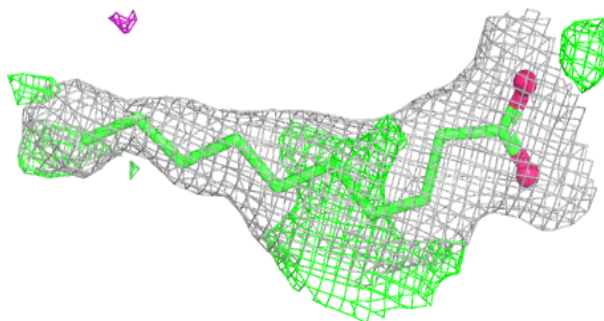
**Electron density around STE a 617:**

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

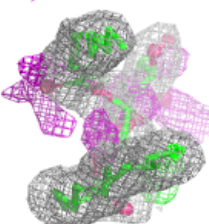
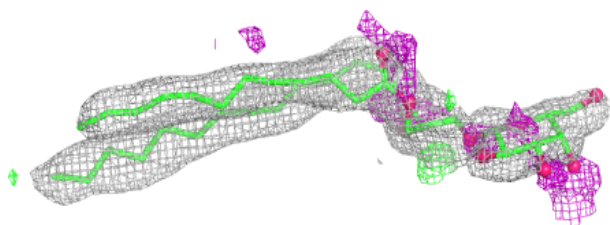
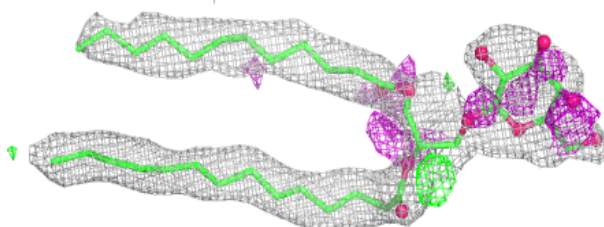


Electron density around STE C 525:

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

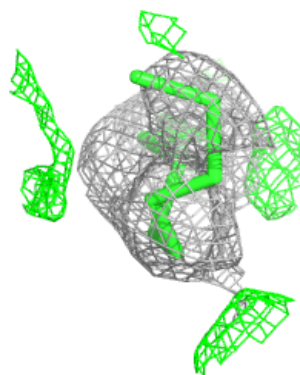
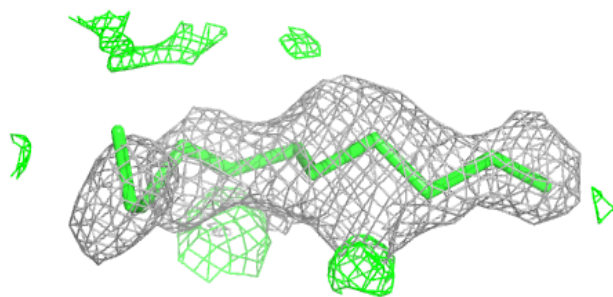
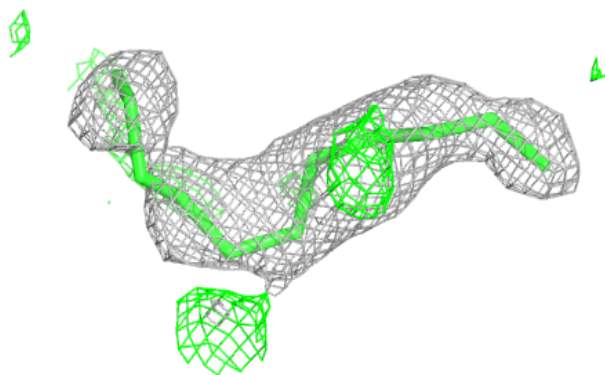
**Electron density around LMG B 620:**

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

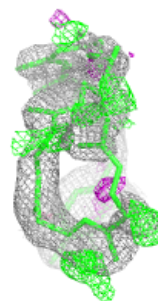
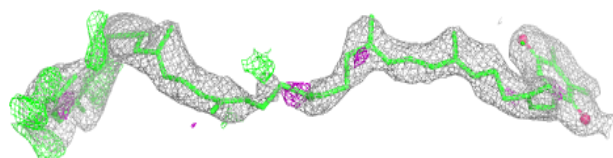
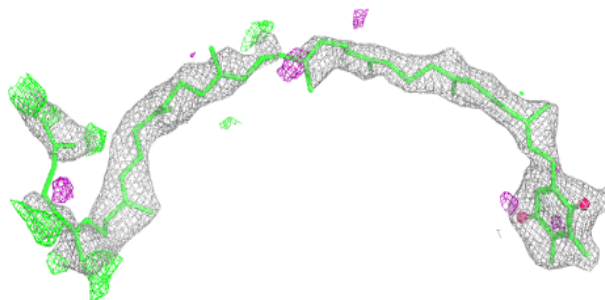


Electron density around STE A 622:

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

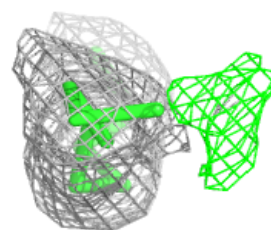
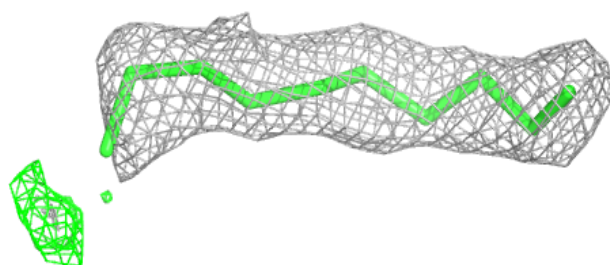
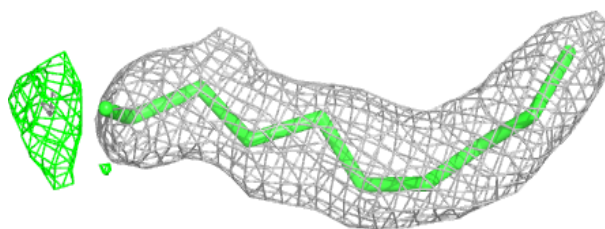
**Electron density around PL9 a 611:**

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

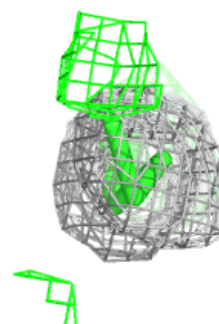
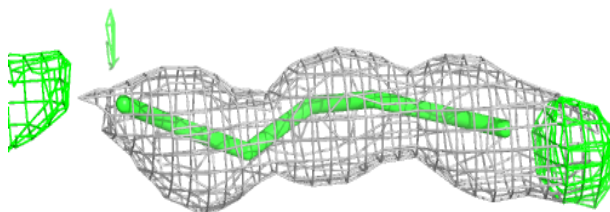
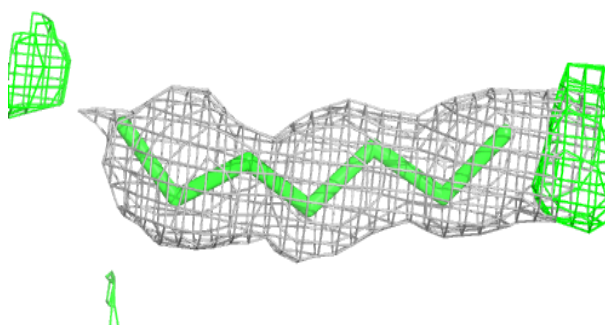


Electron density around STE b 624:

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

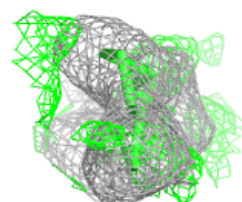
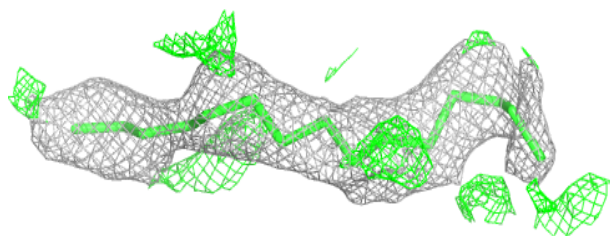
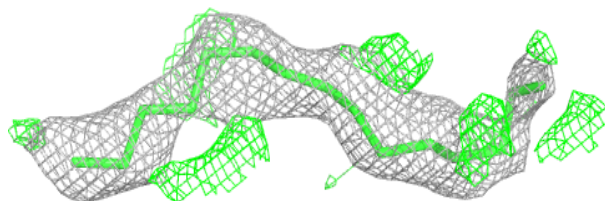
**Electron density around STE C 519:**

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

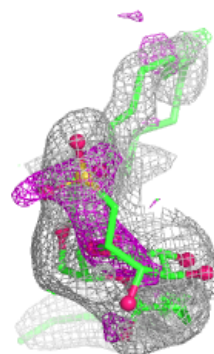
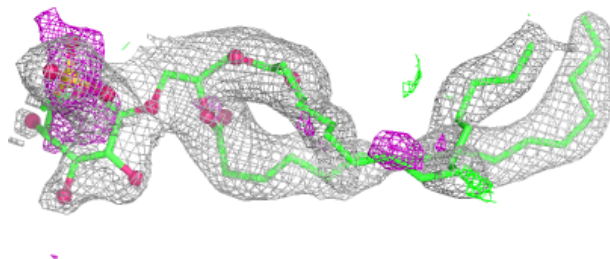
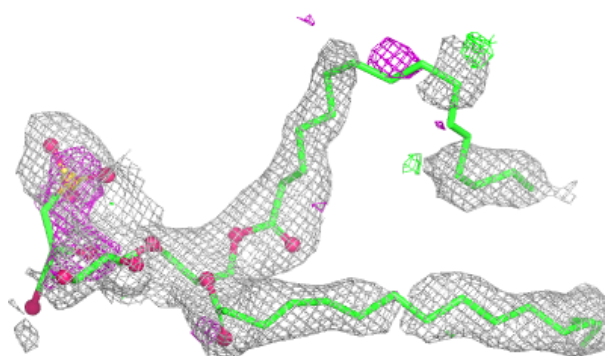


Electron density around STE B 625:

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

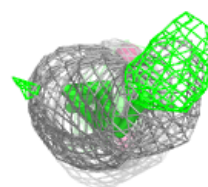
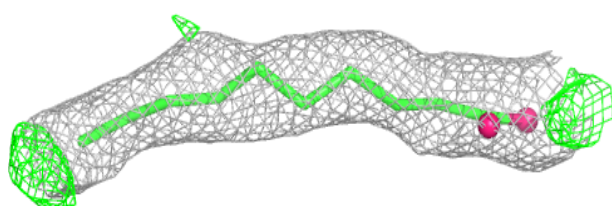
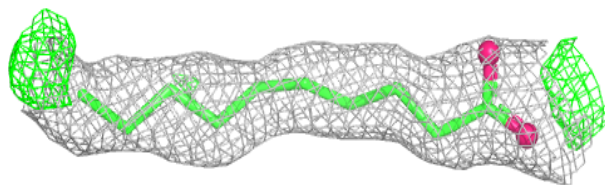
**Electron density around SQD a 615:**

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

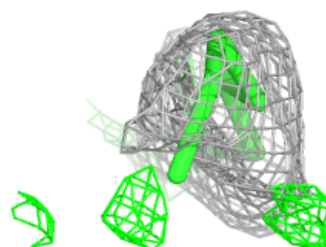
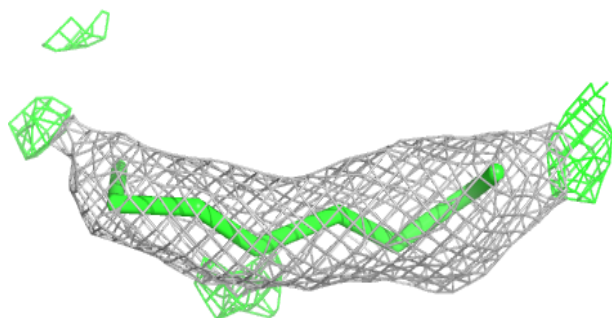
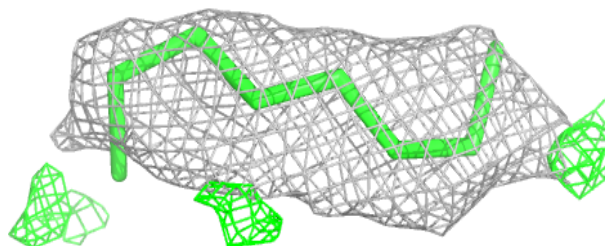


Electron density around STE j 101:

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

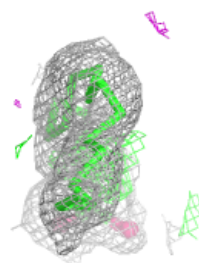
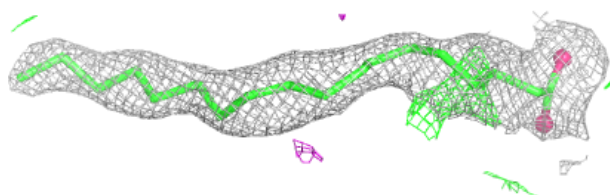
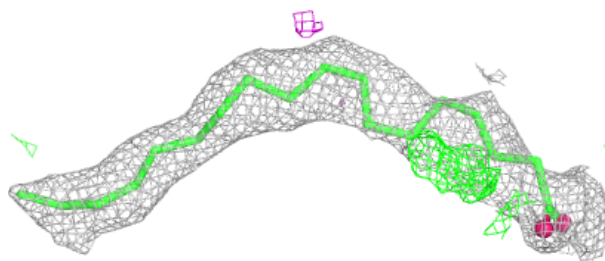
**Electron density around STE f 103:**

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

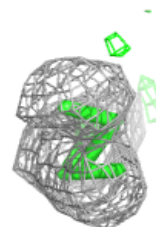
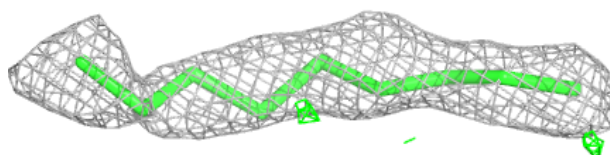
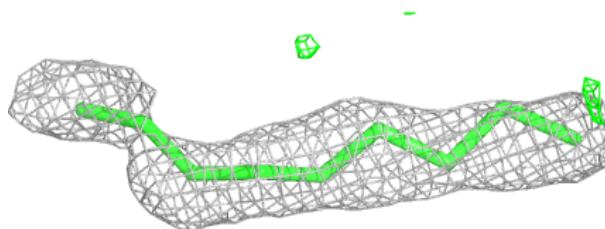


Electron density around STE d 409:

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

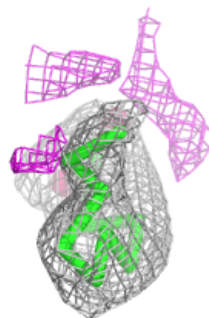
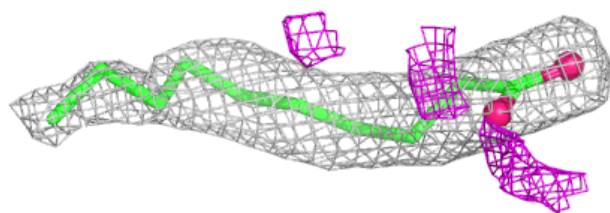
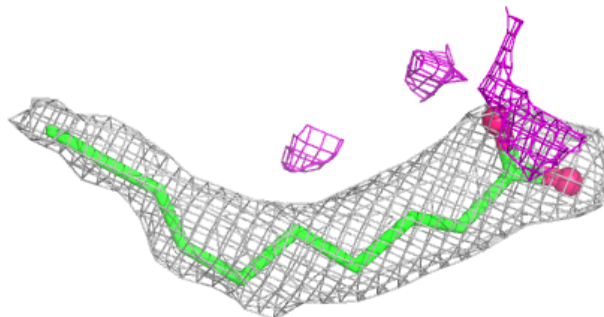
**Electron density around STE z 101:**

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

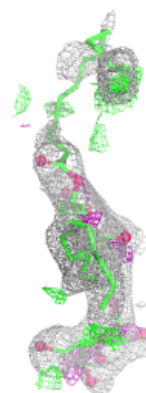
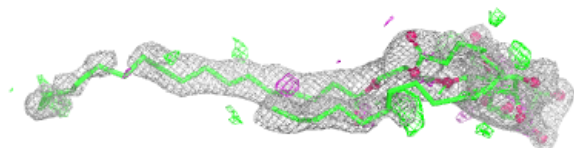
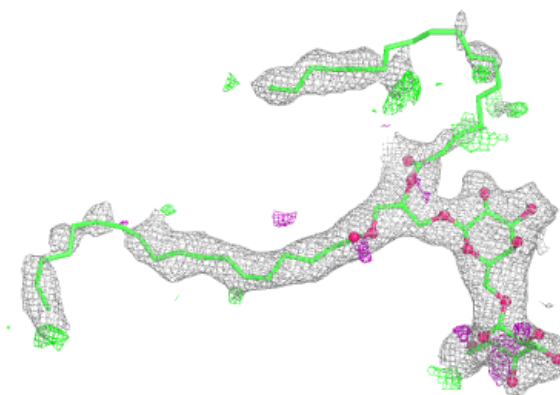


Electron density around STE B 624:

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

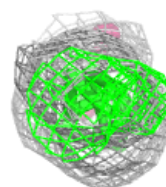
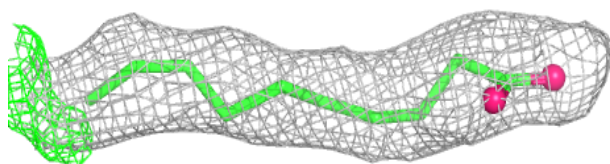
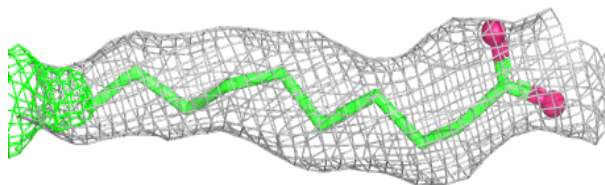
**Electron density around DGD A 619:**

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

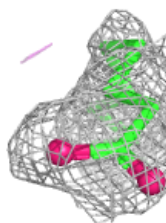
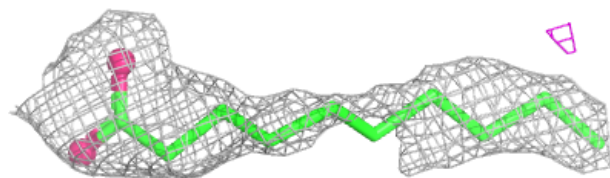
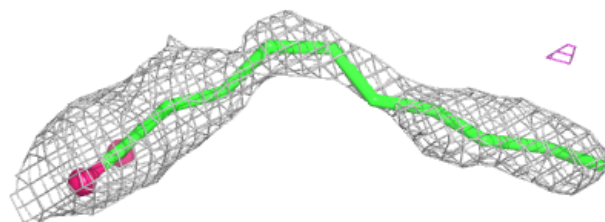


Electron density around STE J 102:

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

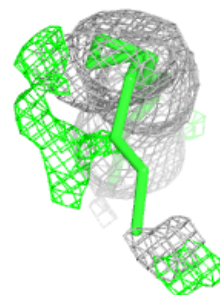
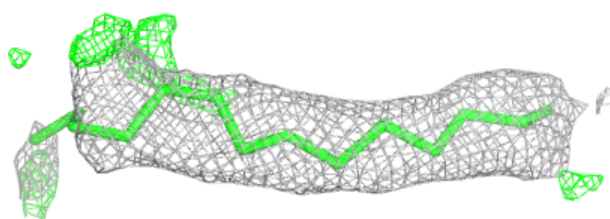
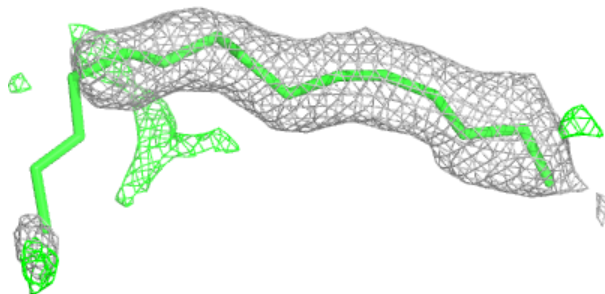
**Electron density around STE E 101:**

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

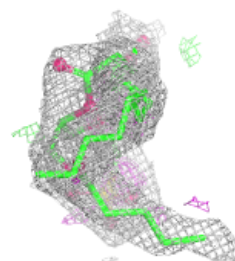
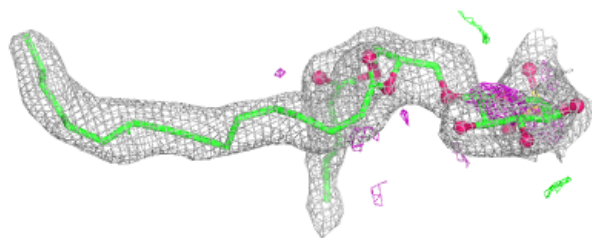
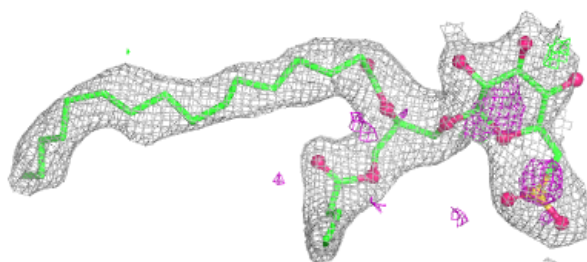


Electron density around STE M 104:

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

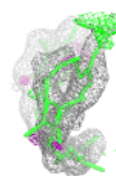
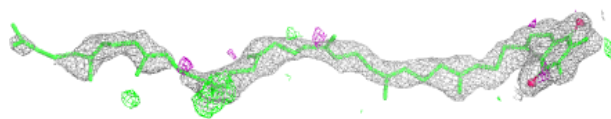
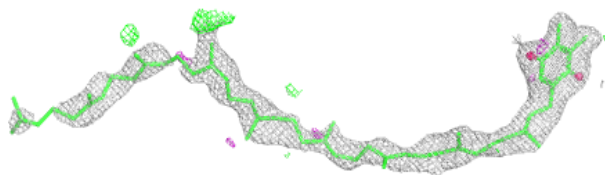
**Electron density around SQD A 618:**

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

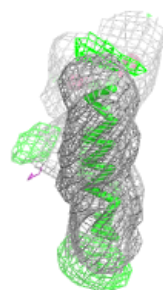
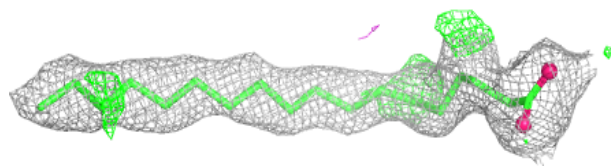
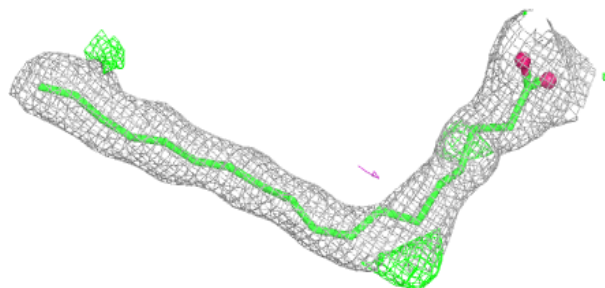


Electron density around PL9 A 612:

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

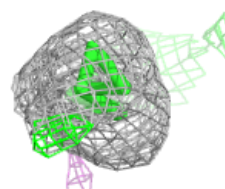
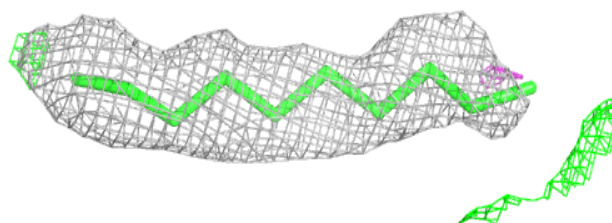
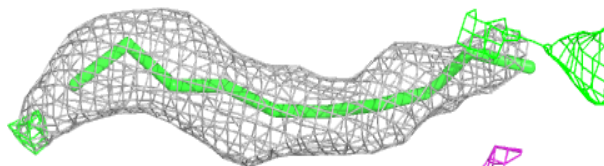
**Electron density around STE d 406:**

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

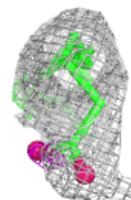
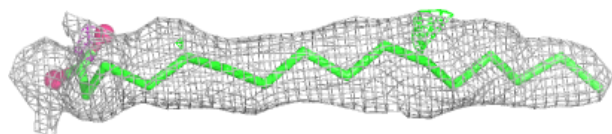
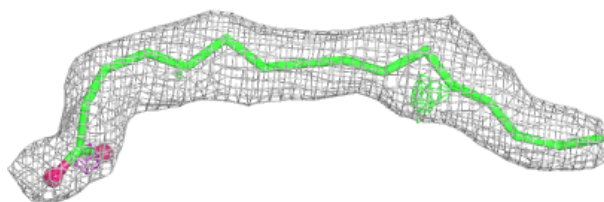


Electron density around STE t 103:

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

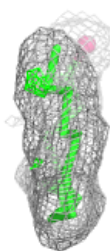
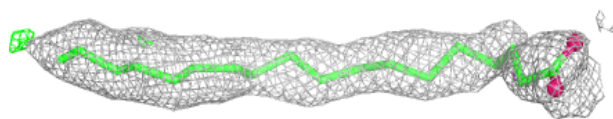
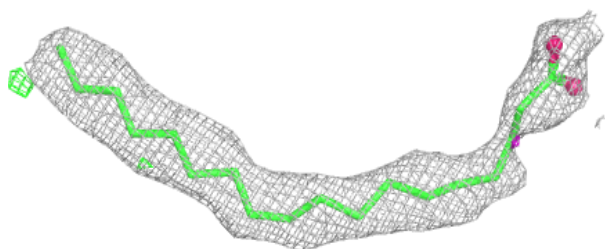
**Electron density around STE B 623:**

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

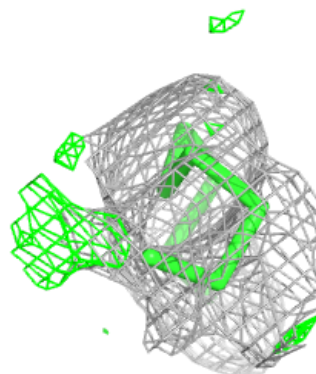
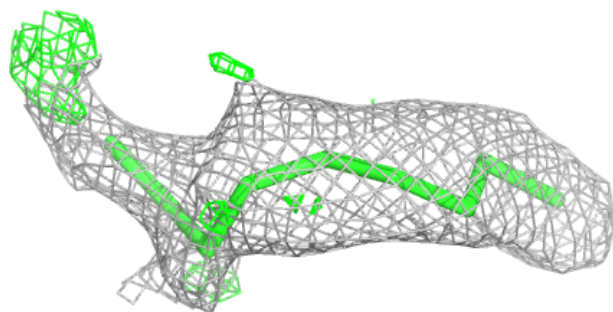
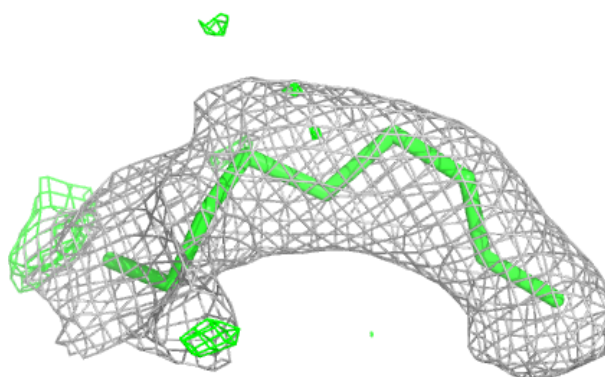


Electron density around STE d 411:

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

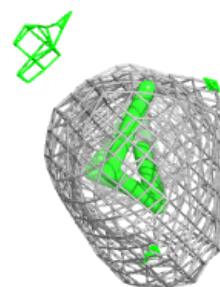
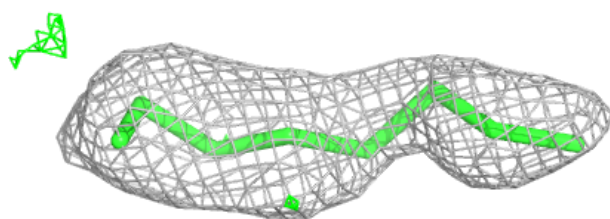
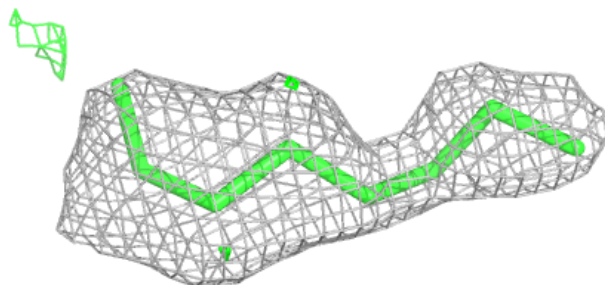
**Electron density around STE D 411:**

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

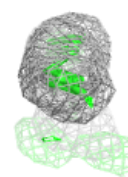
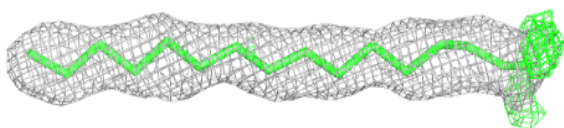
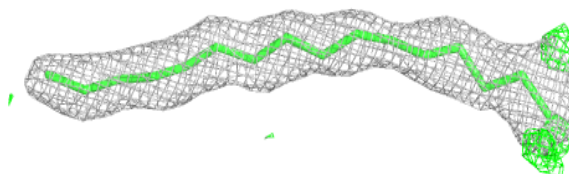


Electron density around STE A 620:

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

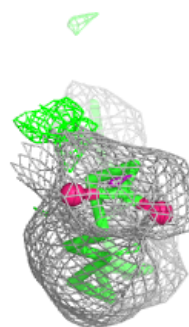
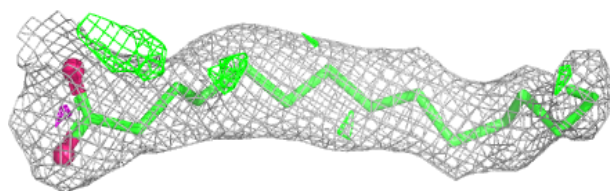
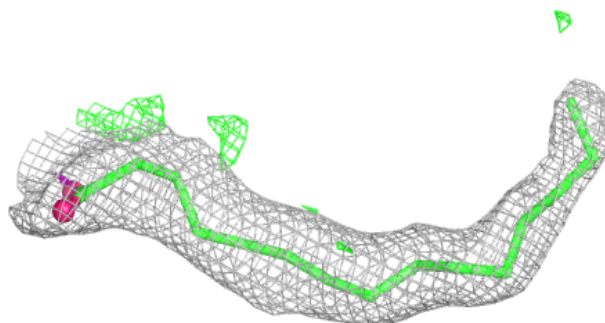
**Electron density around STE C 526:**

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

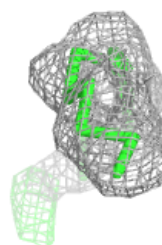
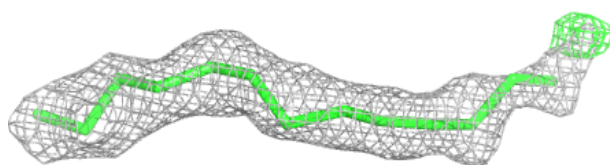
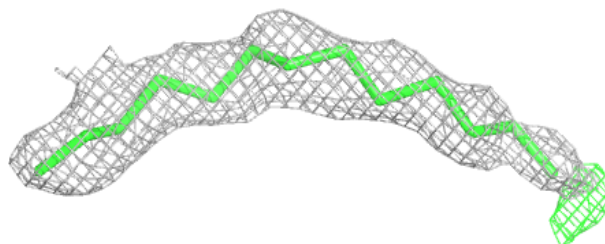


Electron density around STE B 621:

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

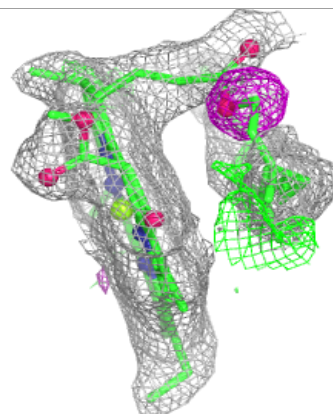
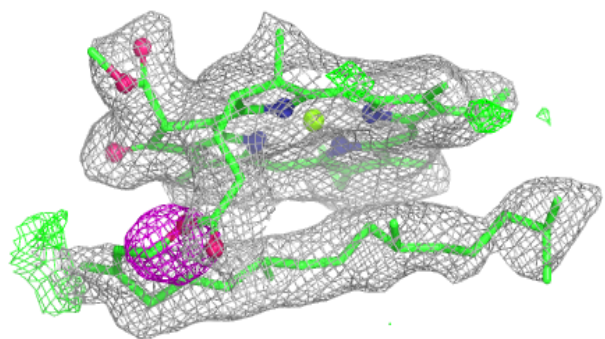
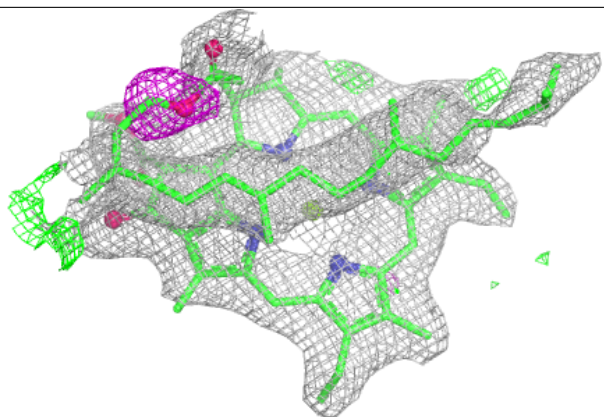
**Electron density around STE c 516:**

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

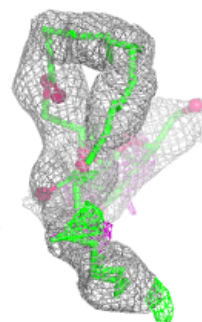
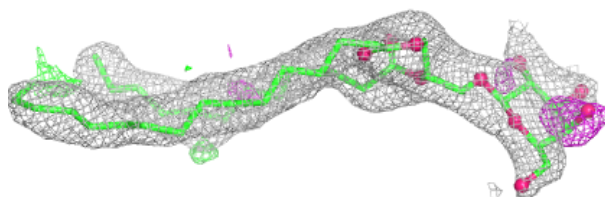
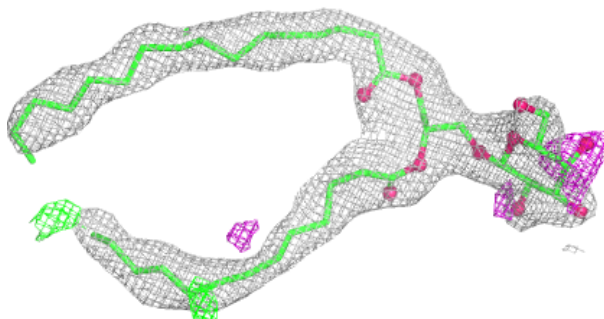


Electron density around CLA b 601:

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

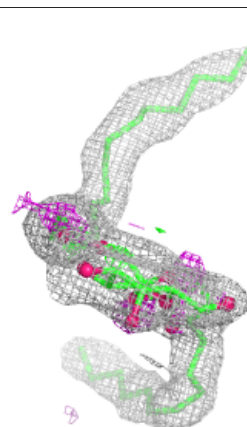
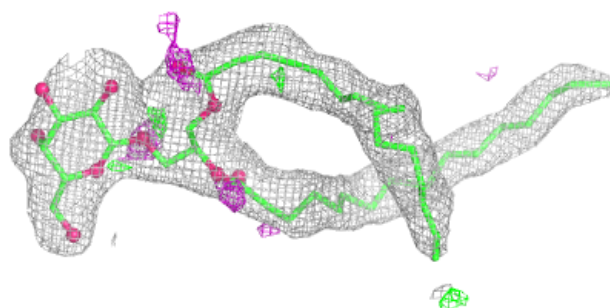
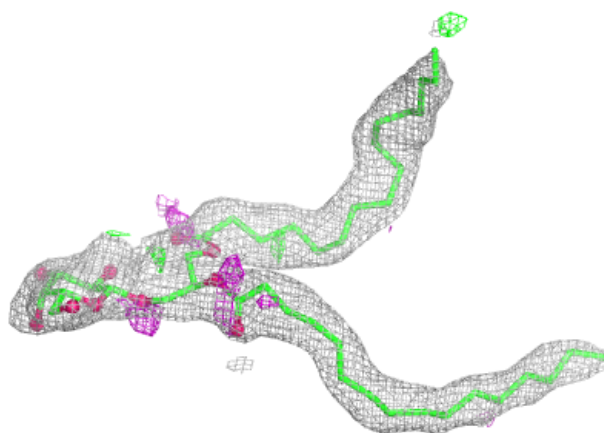
**Electron density around LMG A 615:**

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

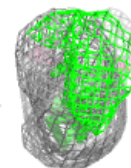
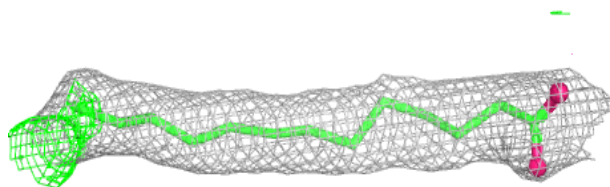
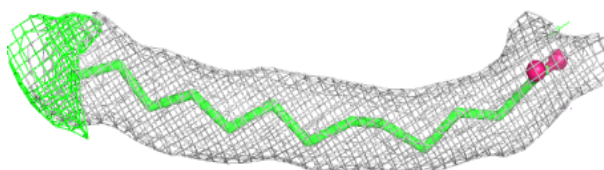


Electron density around LMG m 101:

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

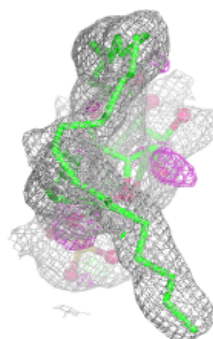
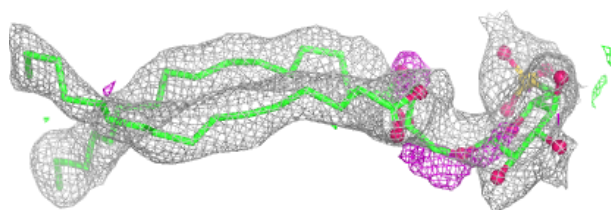
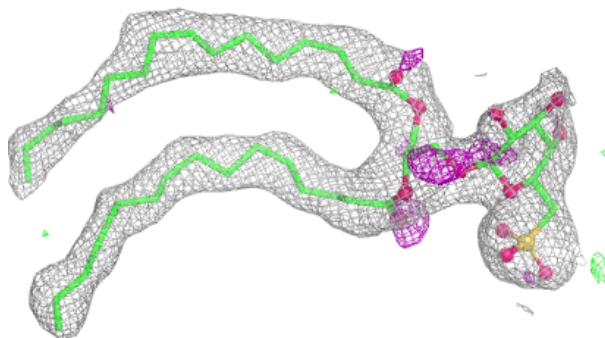
**Electron density around STE M 102:**

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

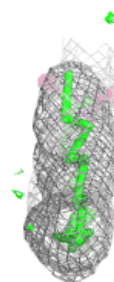
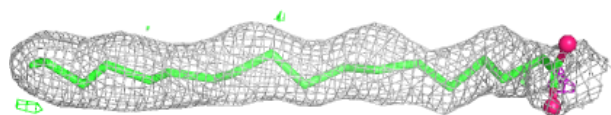
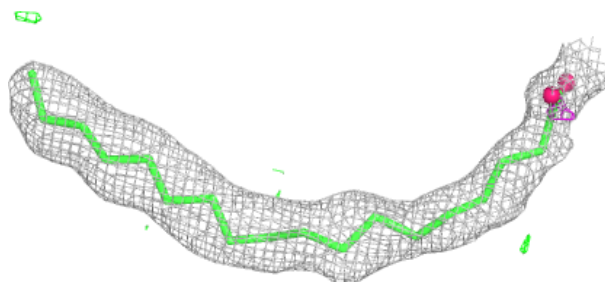


Electron density around SQD B 622:

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

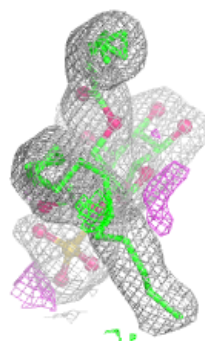
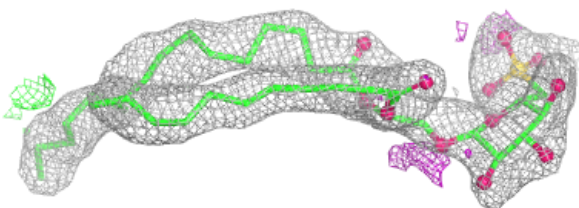
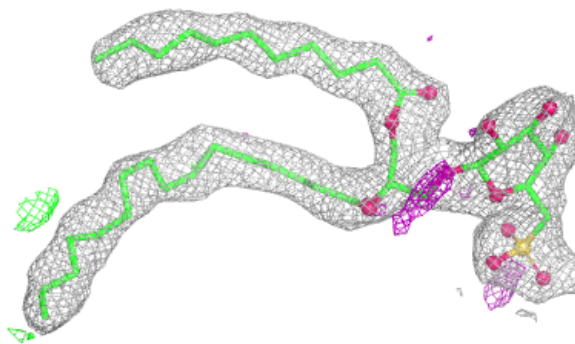
**Electron density around STE X 101:**

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

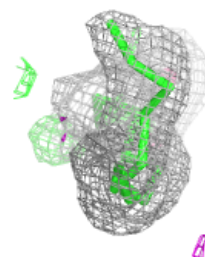
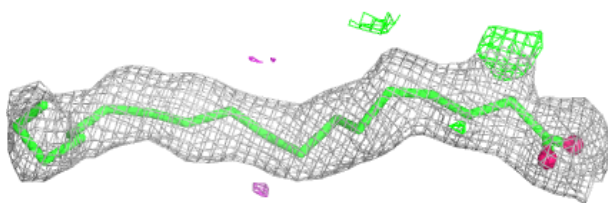
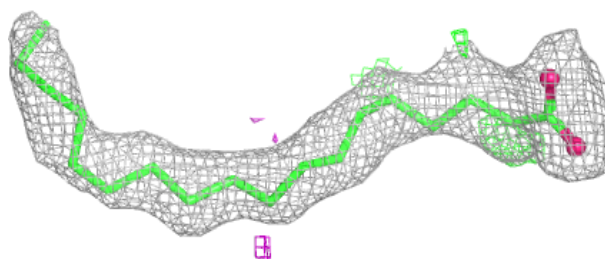


Electron density around SQD b 620:

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

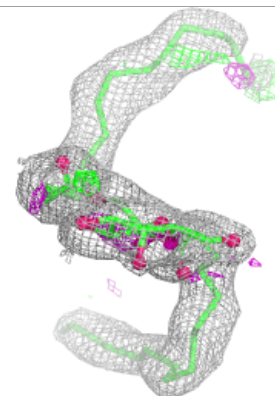
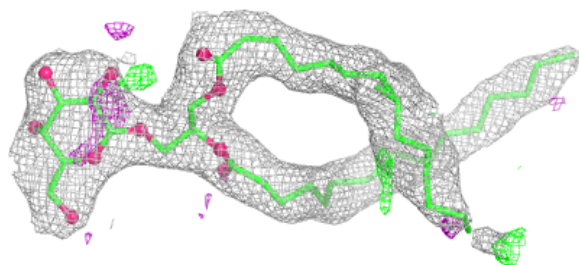
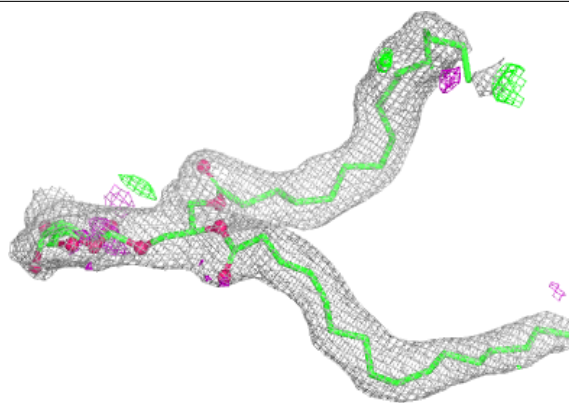
**Electron density around STE b 621:**

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

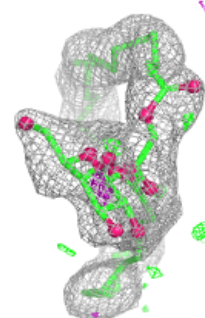
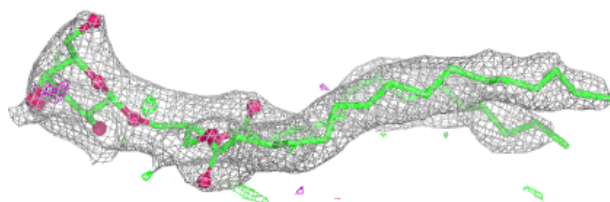
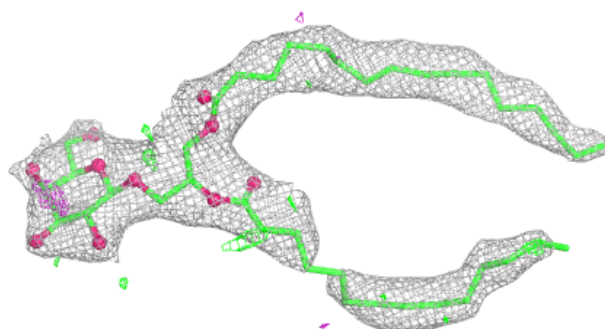


Electron density around LMG M 101:

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

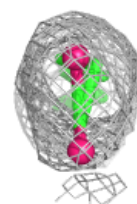
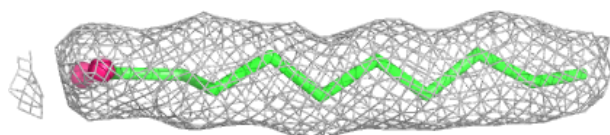
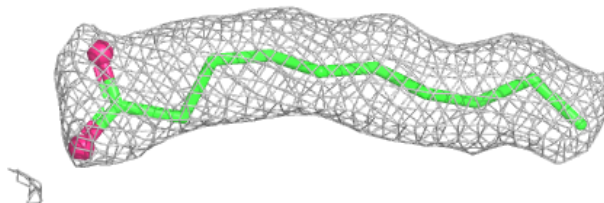
**Electron density around LMG c 524:**

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

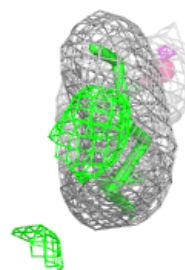
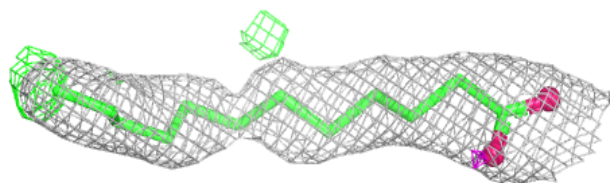
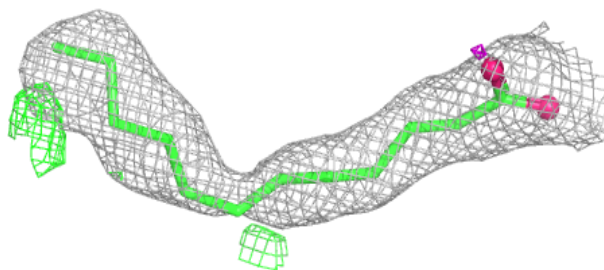


Electron density around STE m 102:

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

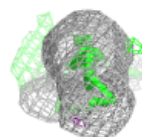
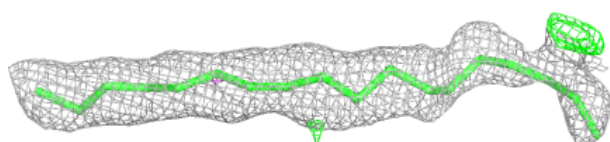
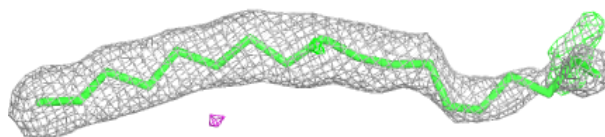
**Electron density around STE t 102:**

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

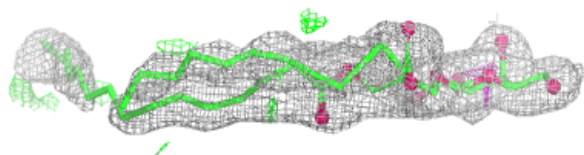
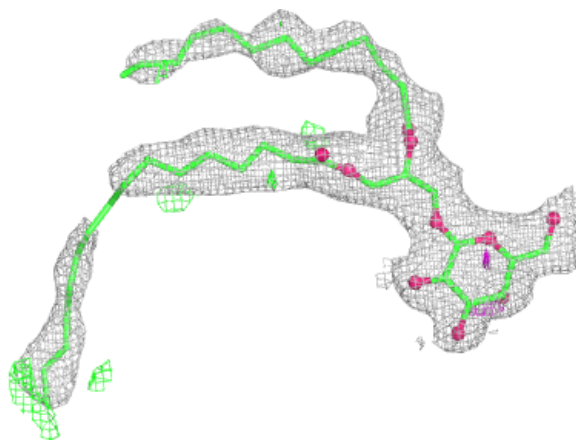


Electron density around STE m 103:

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

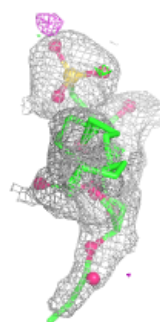
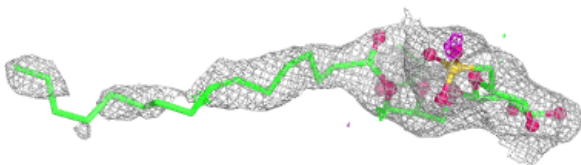
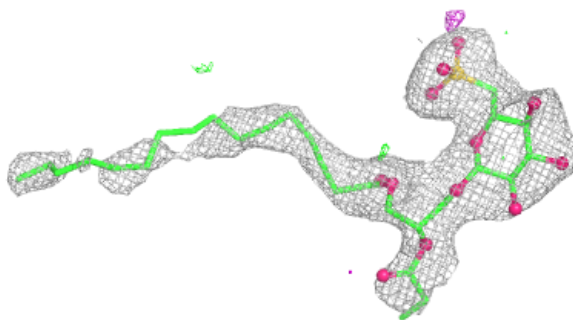
**Electron density around LMG C 524:**

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

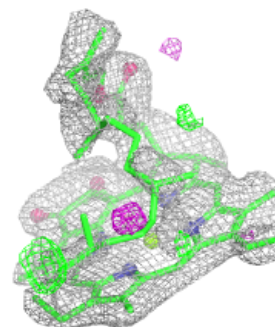
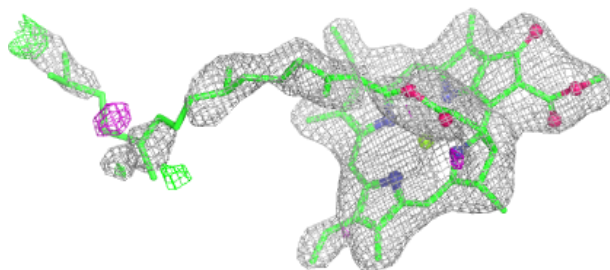
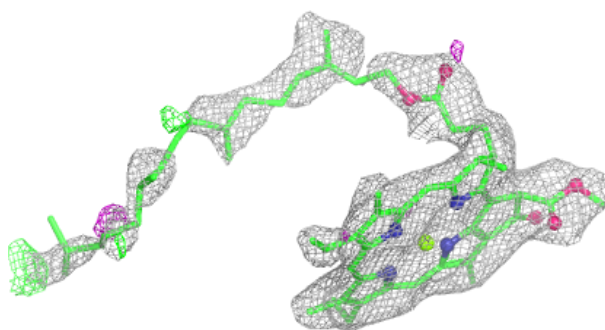


Electron density around SQD f 102:

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

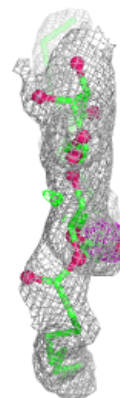
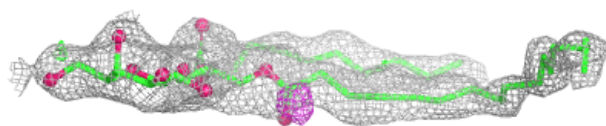
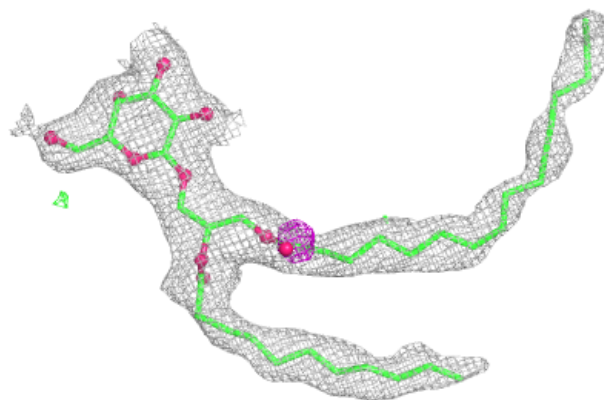
**Electron density around CLA c 513:**

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

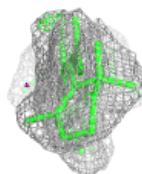
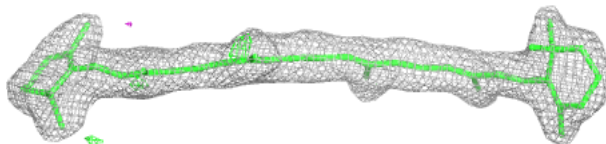
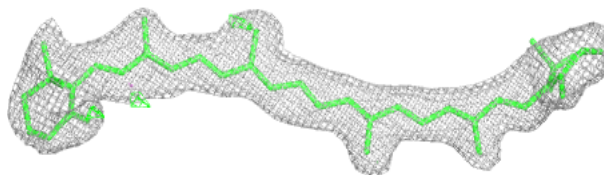


Electron density around LMG c 522:

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

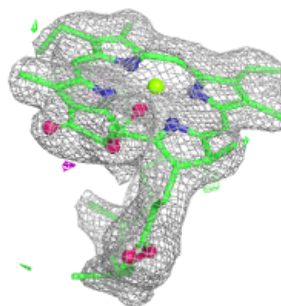
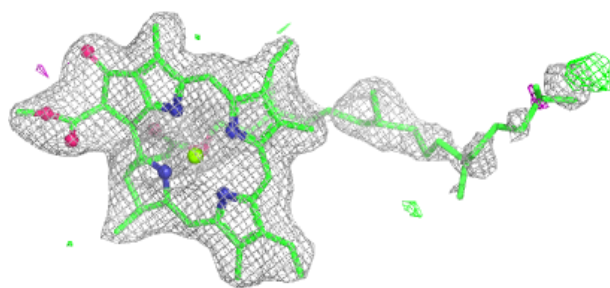
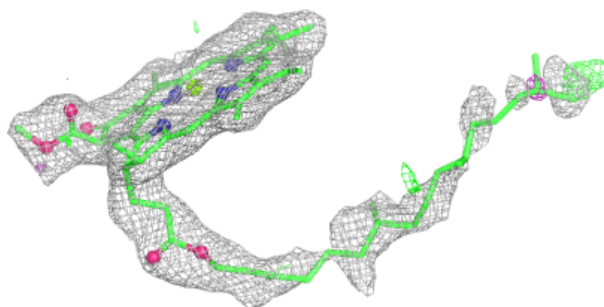
**Electron density around BCR J 101:**

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

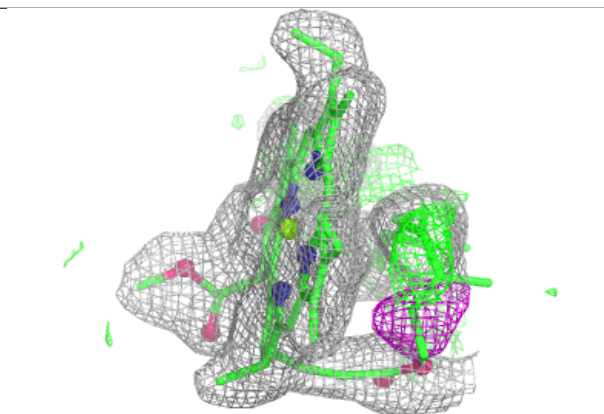
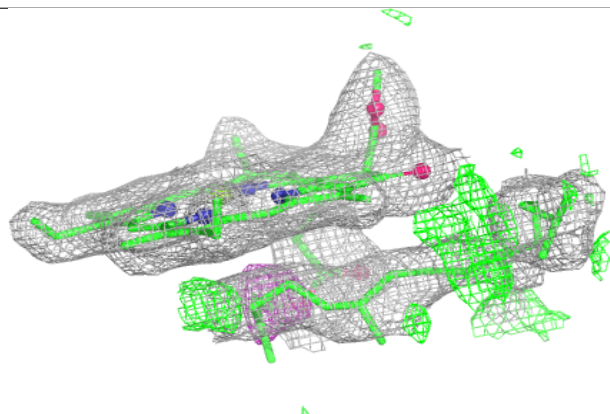
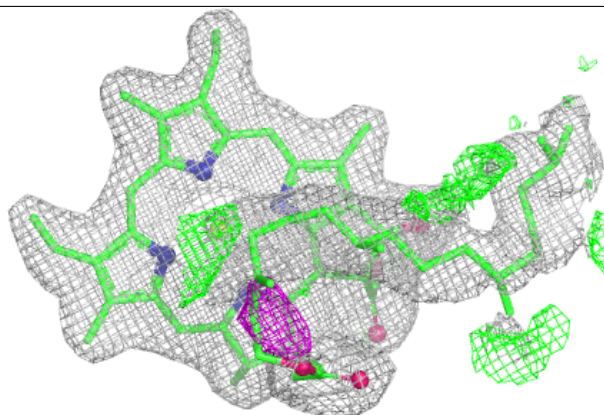


Electron density around CLA C 513:

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

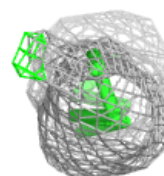
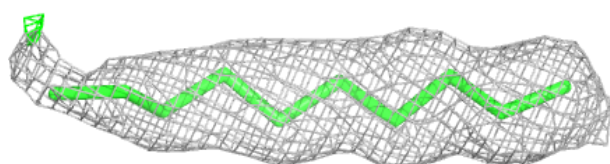
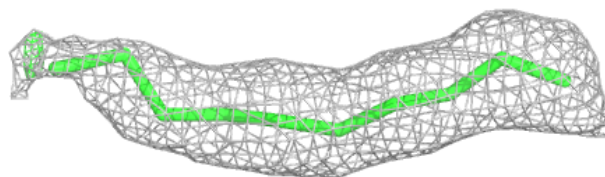
**Electron density around CLA B 601:**

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

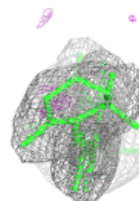
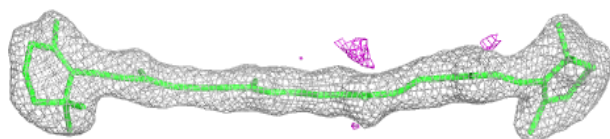
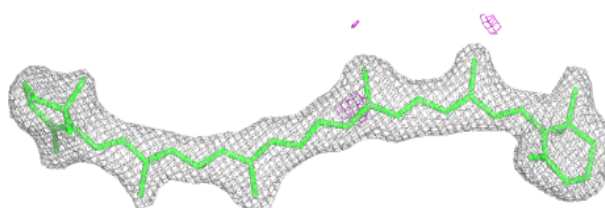


Electron density around STE M 103:

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

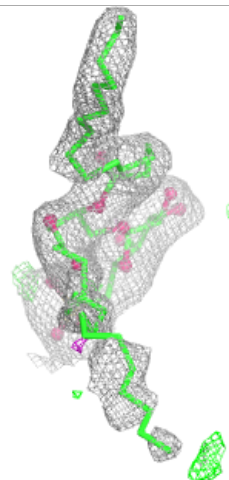
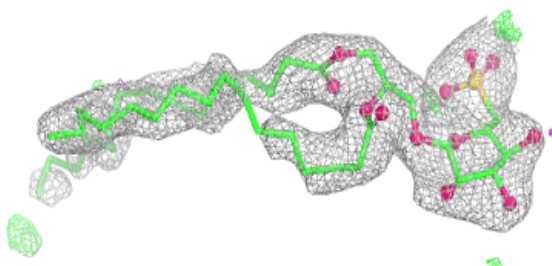
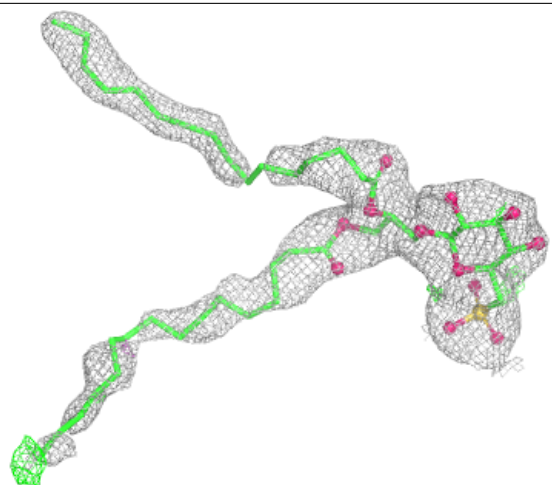
**Electron density around BCR k 101:**

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



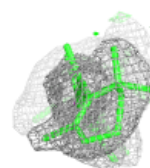
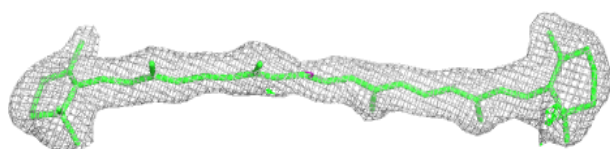
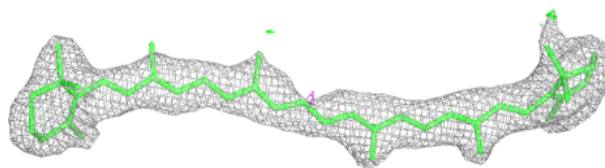
Electron density around SQD a 614:

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

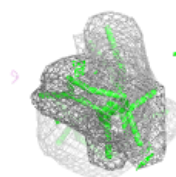
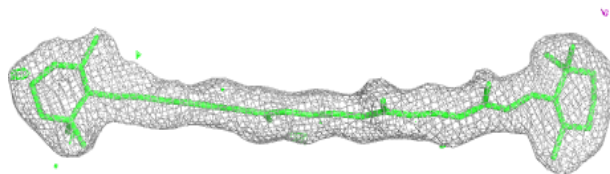
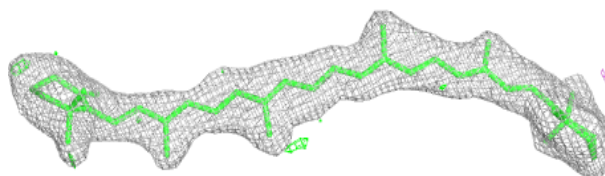


Electron density around BCR c 514:

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

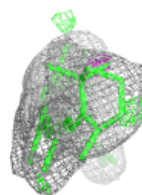
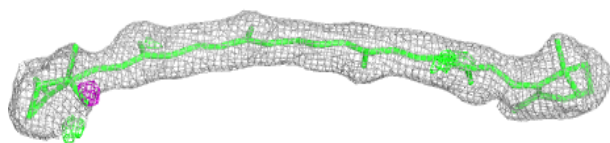
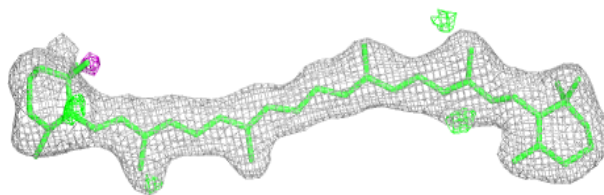
**Electron density around BCR h 101:**

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

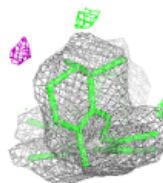
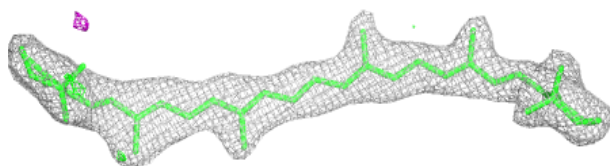
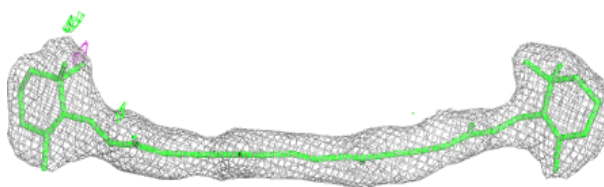


Electron density around BCR d 404:

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

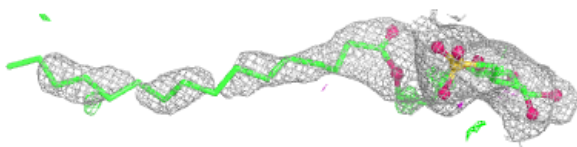
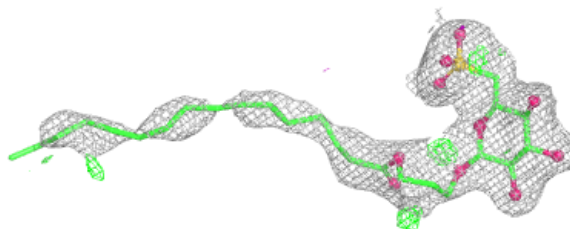
**Electron density around BCR k 102:**

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



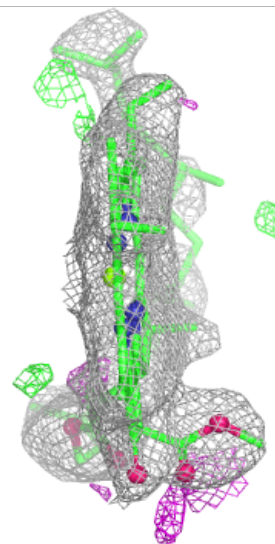
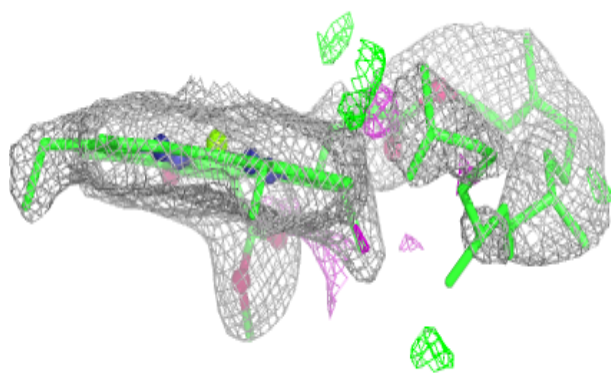
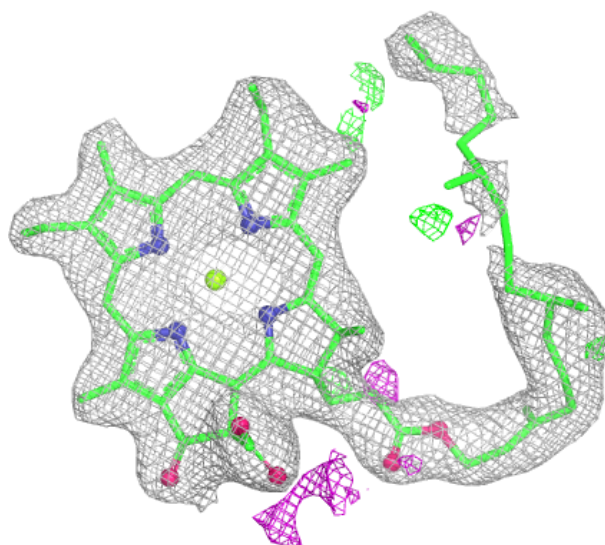
Electron density around SQD D 407:

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



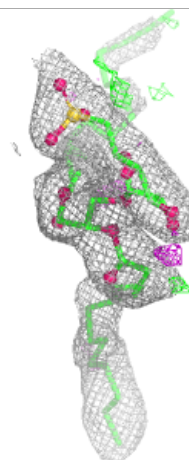
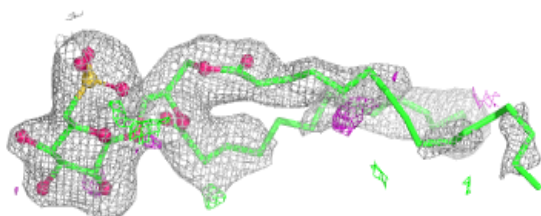
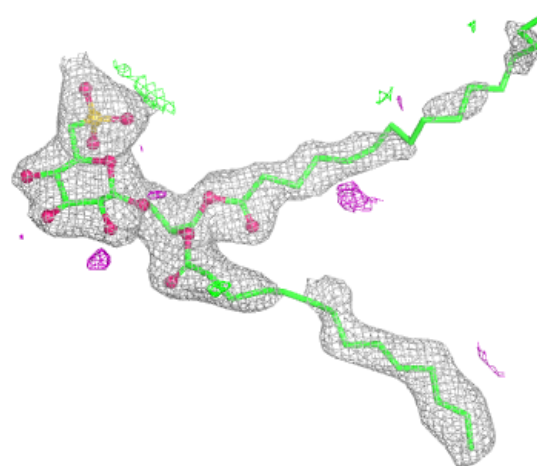
Electron density around CLA c 512:

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



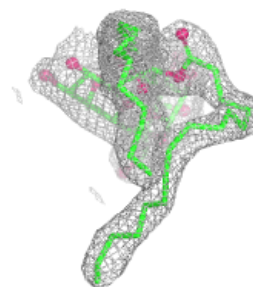
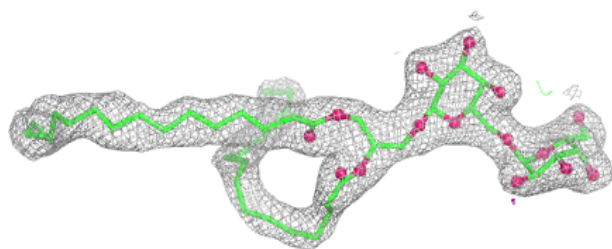
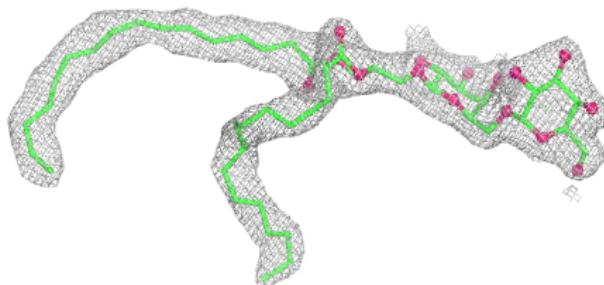
Electron density around SQD A 616:

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



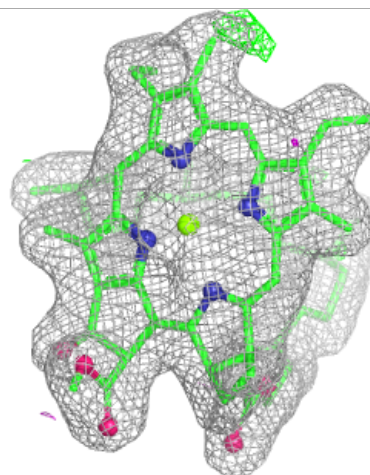
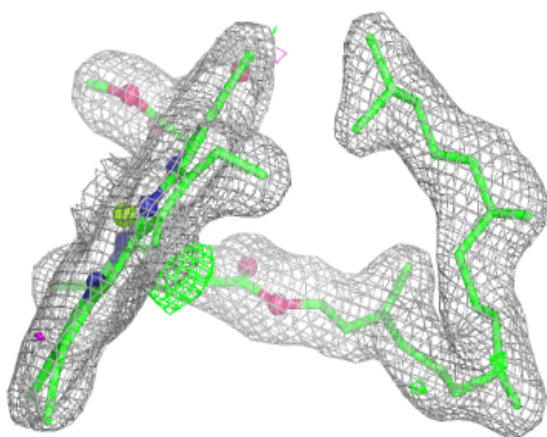
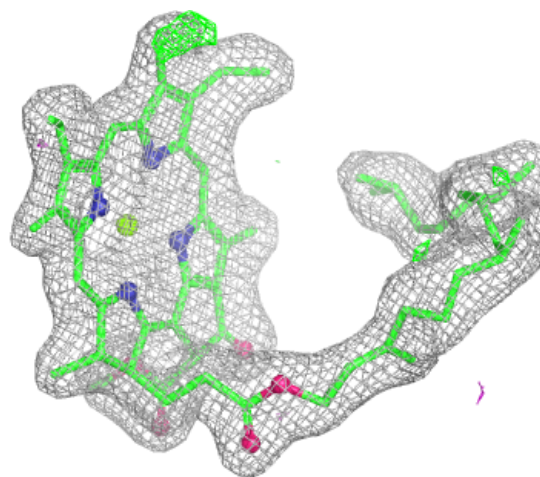
Electron density around DGD h 102:

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



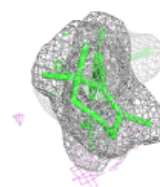
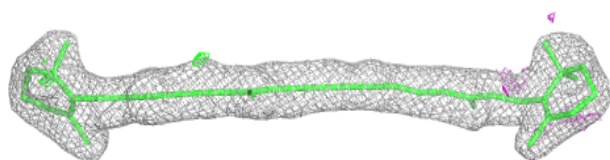
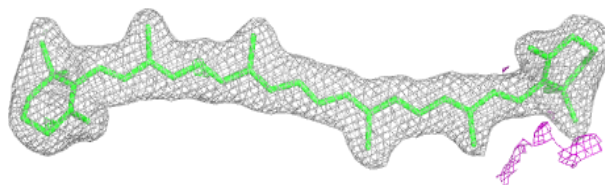
Electron density around CLA C 503:

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

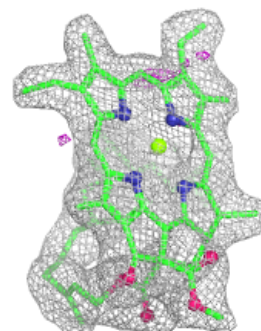
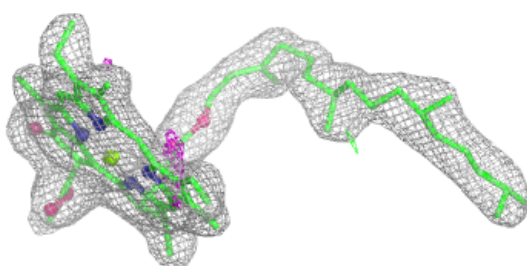
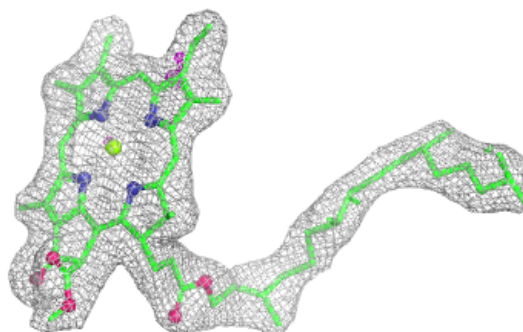


Electron density around BCR B 618:

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

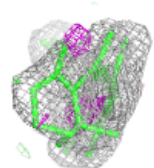
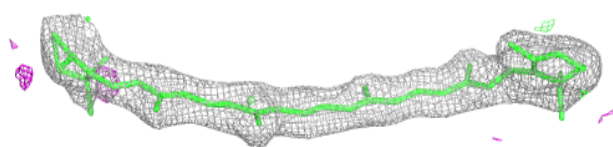
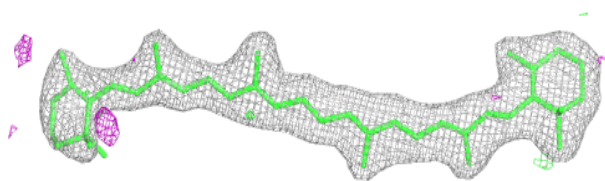
**Electron density around CLA C 511:**

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

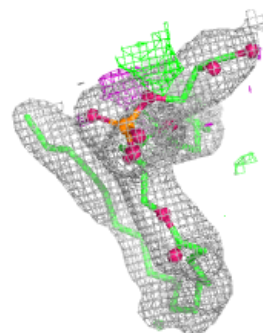
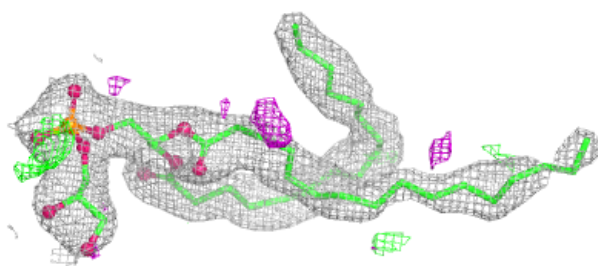
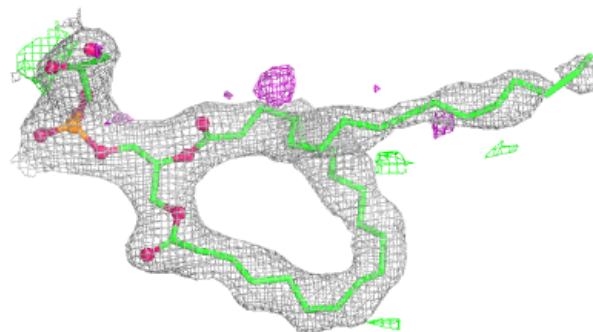


Electron density around BCR D 403:

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

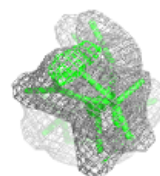
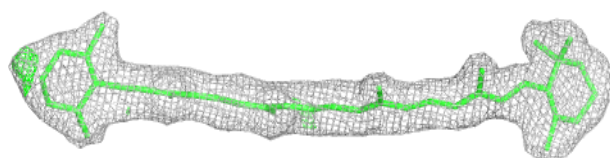
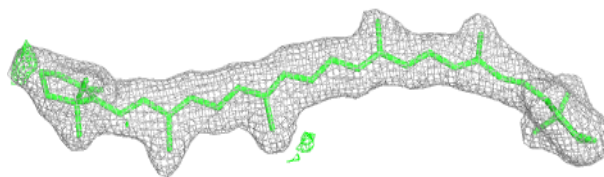
**Electron density around LHG a 613:**

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



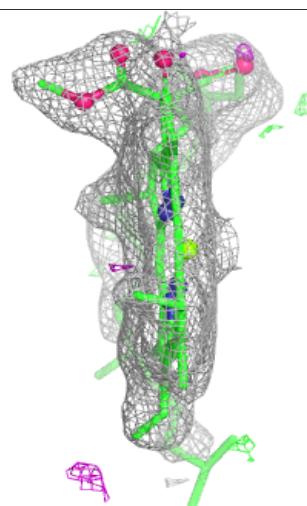
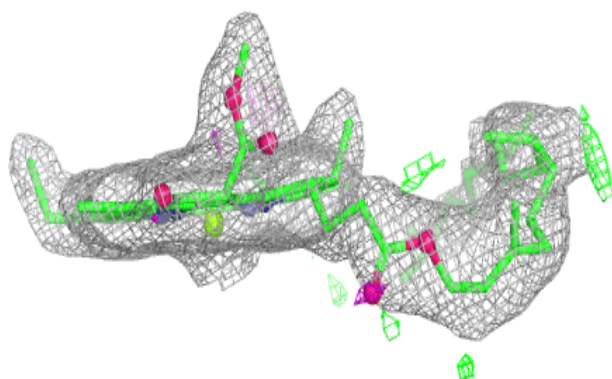
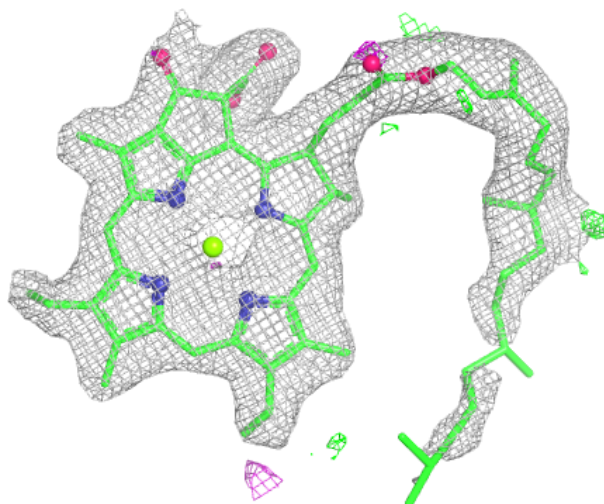
Electron density around BCR H 101:

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



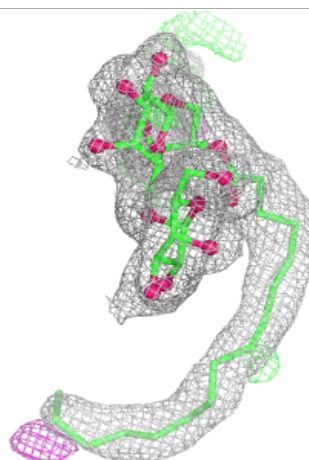
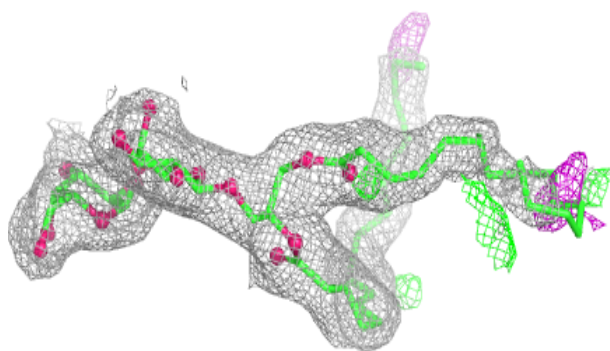
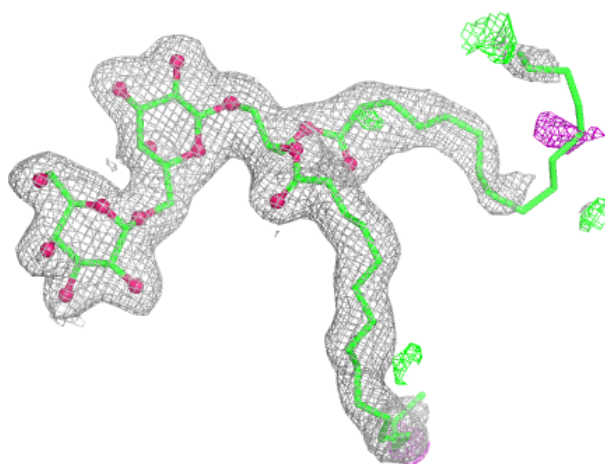
Electron density around CLA C 512:

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



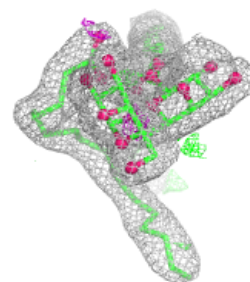
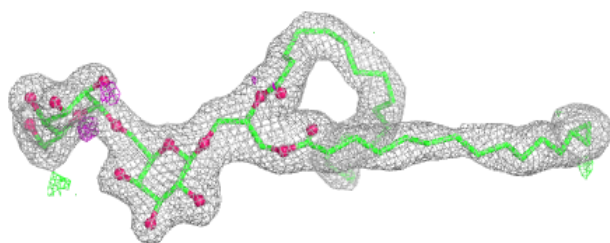
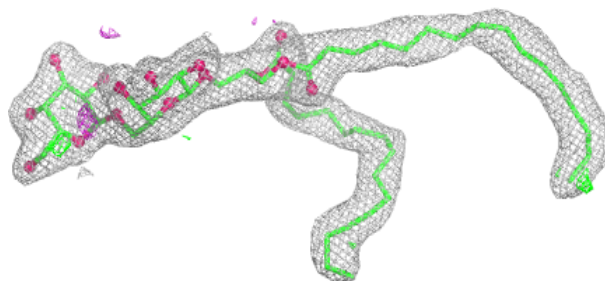
Electron density around DGD C 522:

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

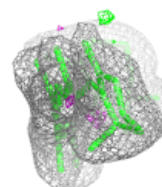
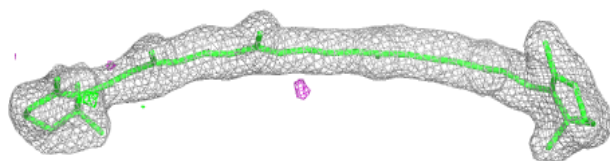
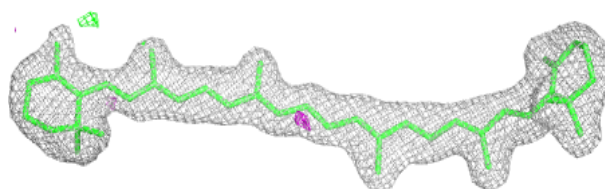


Electron density around DGD H 102:

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

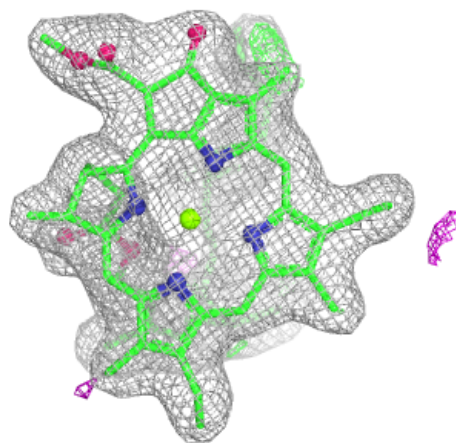
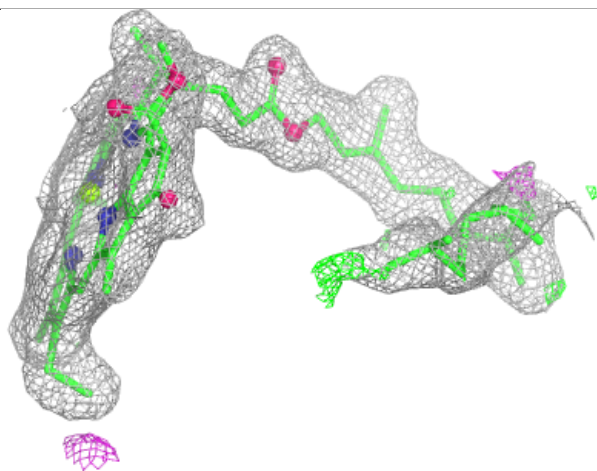
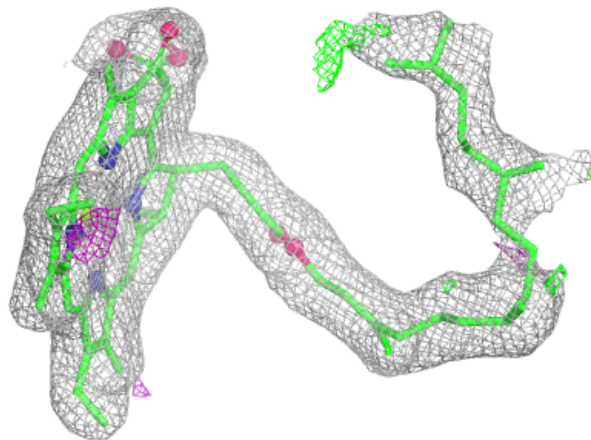
**Electron density around BCR T 101:**

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



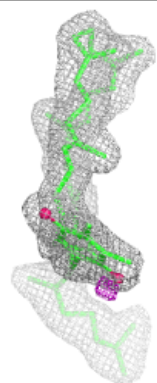
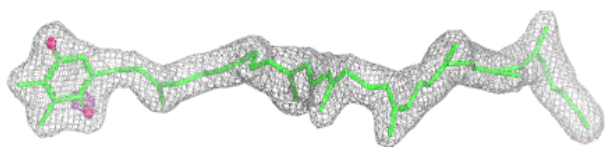
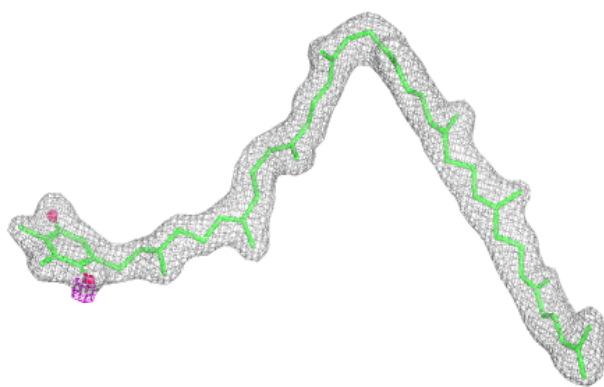
Electron density around CLA B 606:

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

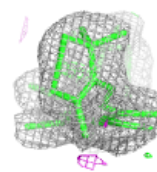
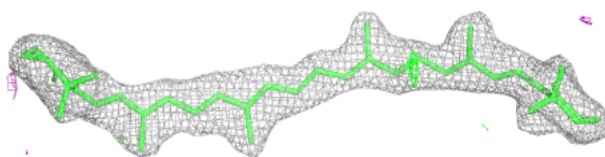
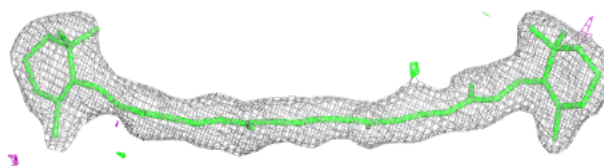


Electron density around PL9 d 405:

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

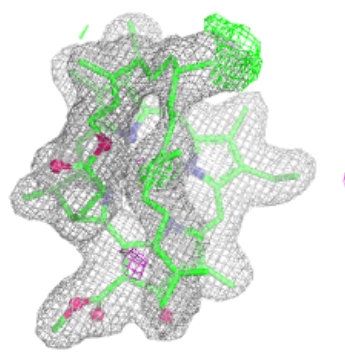
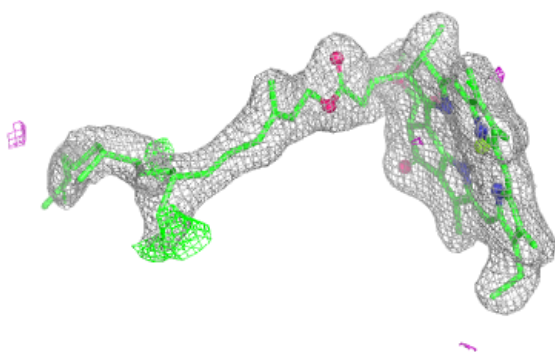
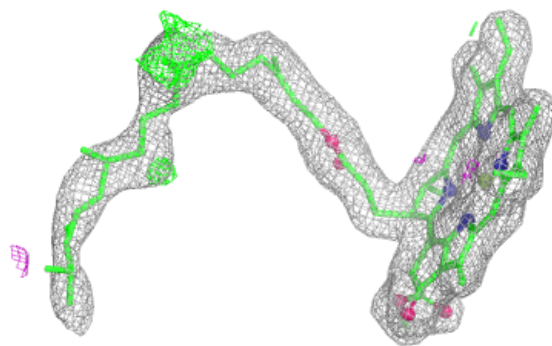
**Electron density around BCR K 101:**

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

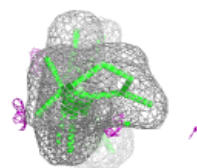
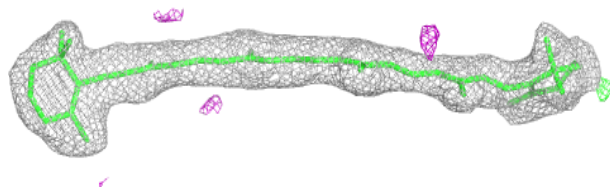
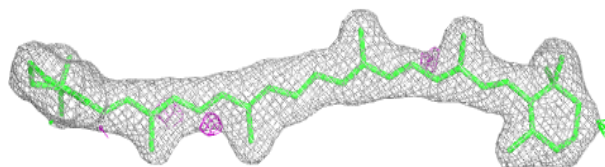


Electron density around CLA b 606:

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

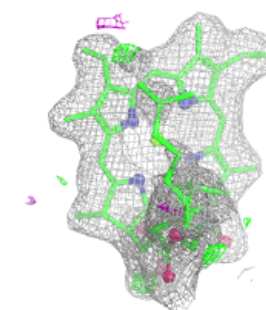
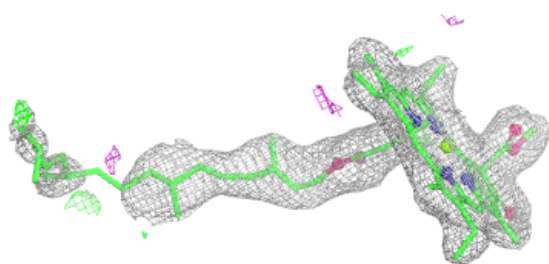
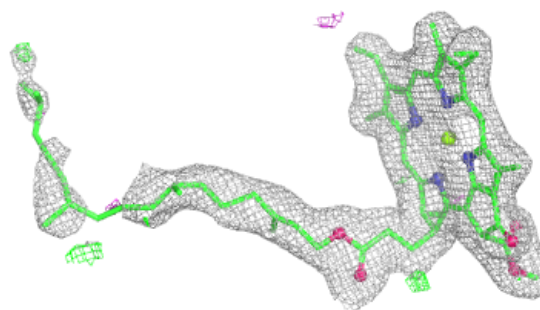
**Electron density around BCR b 617:**

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

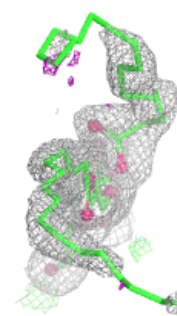
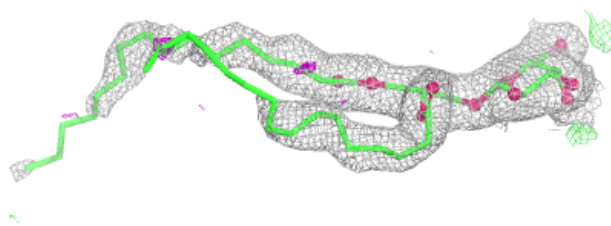
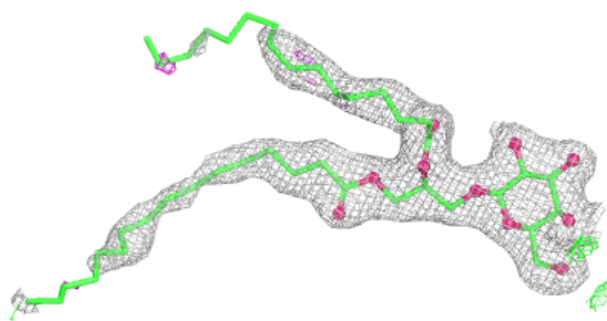


Electron density around CLA d 403:

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

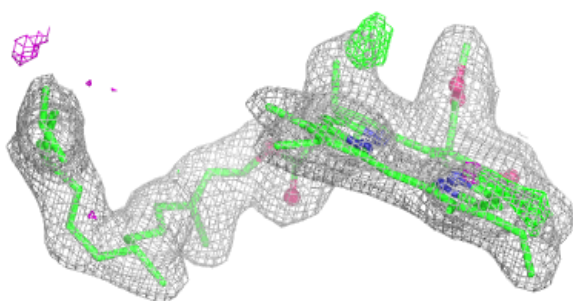
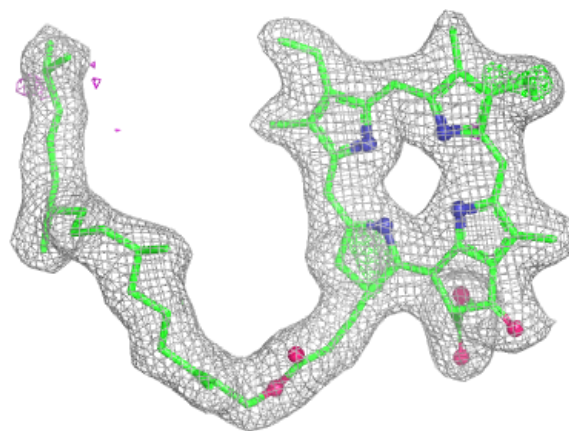
**Electron density around LMG D 406:**

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

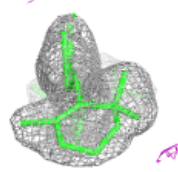
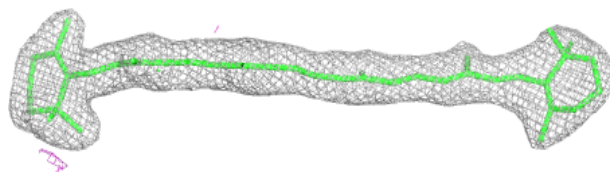
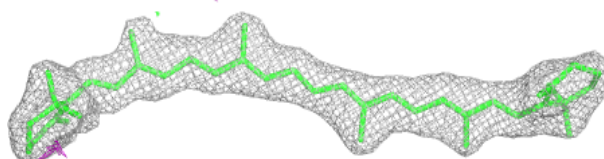


Electron density around PHO d 401:

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

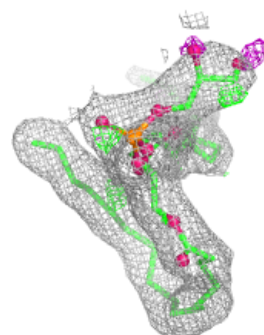
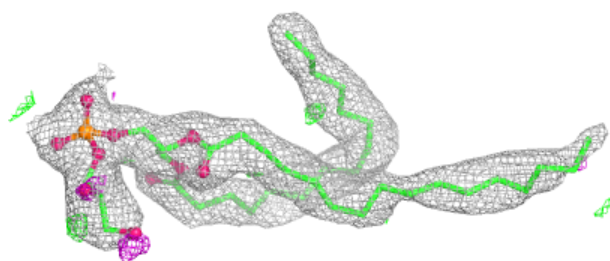
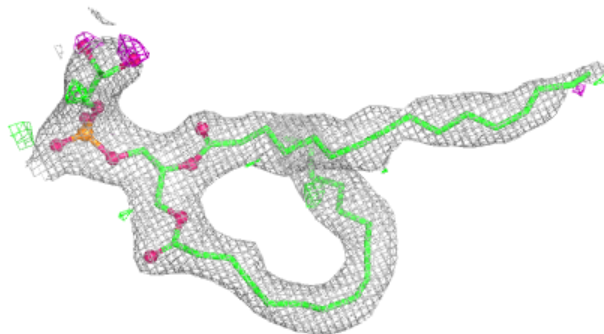
**Electron density around BCR c 515:**

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

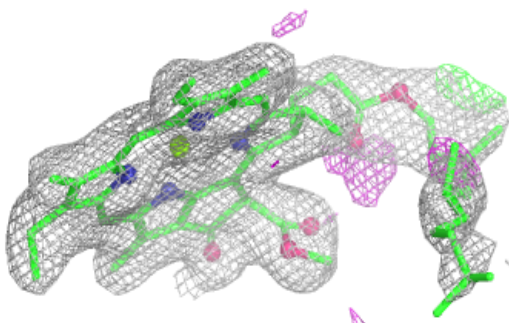
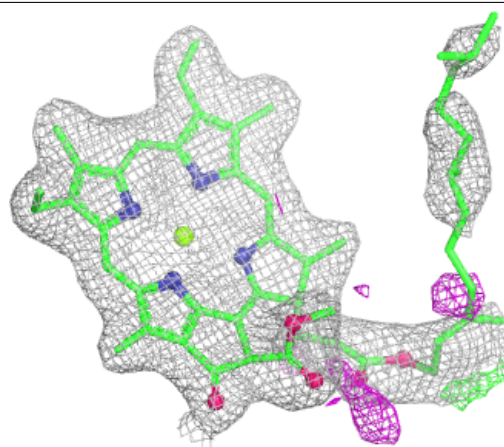


Electron density around LHG D 410:

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

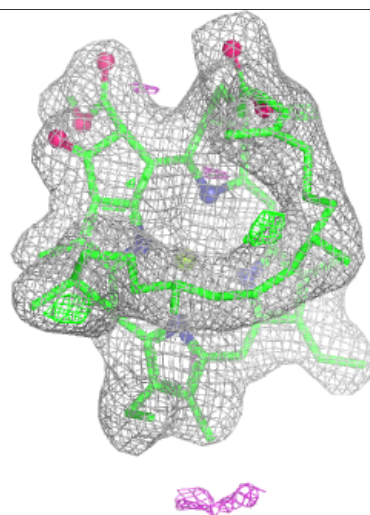
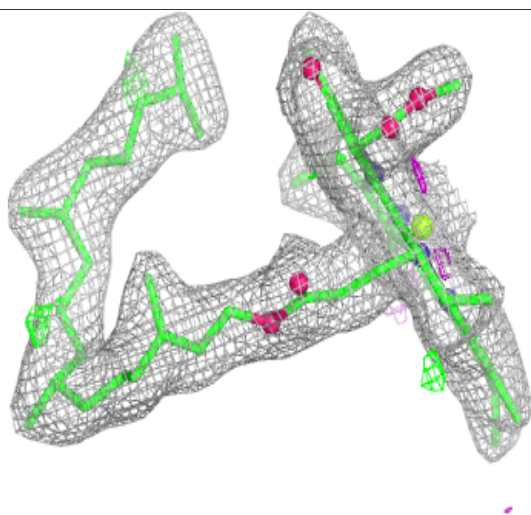
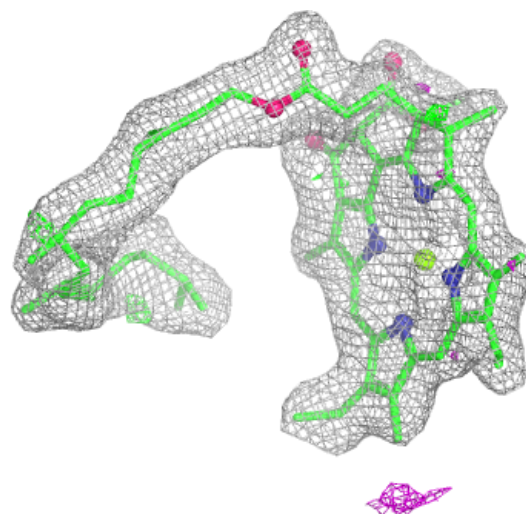
**Electron density around CLA b 616:**

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



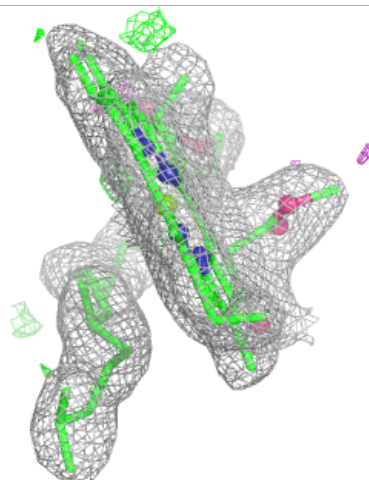
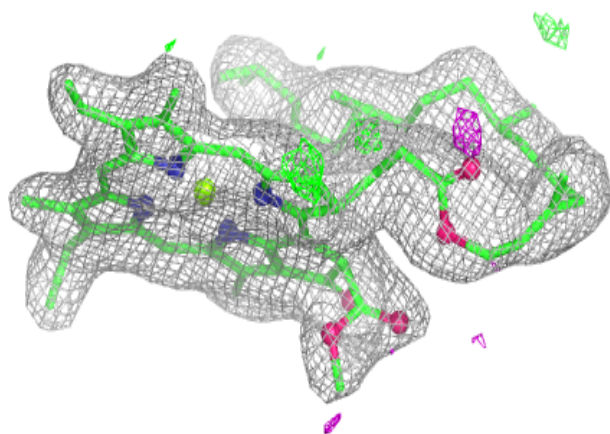
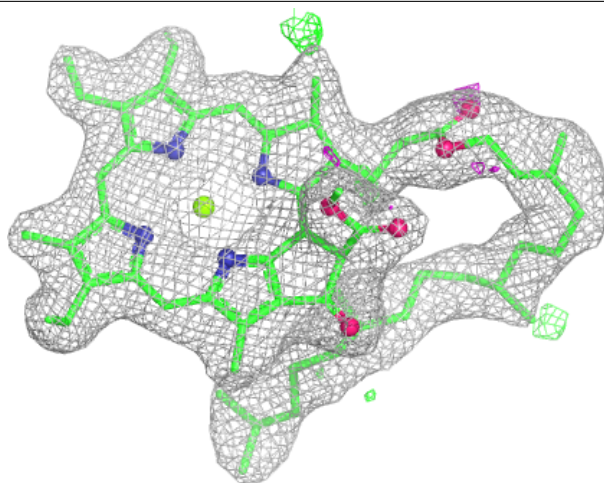
Electron density around CLA c 503:

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



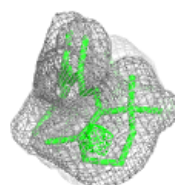
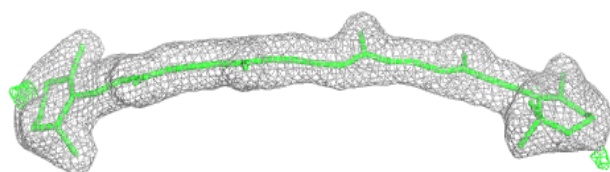
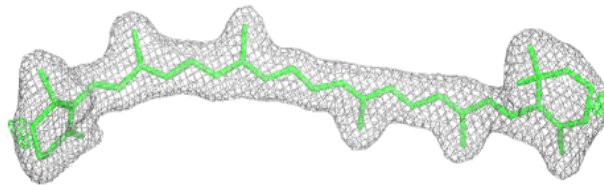
Electron density around CLA c 509:

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

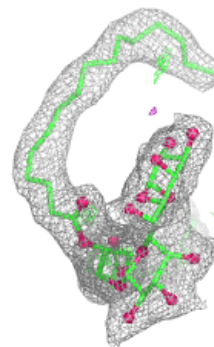
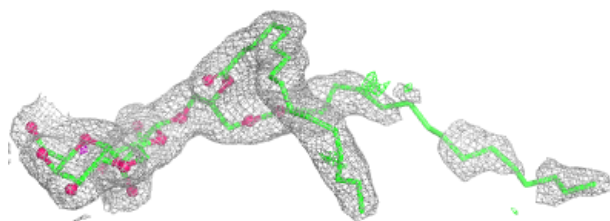
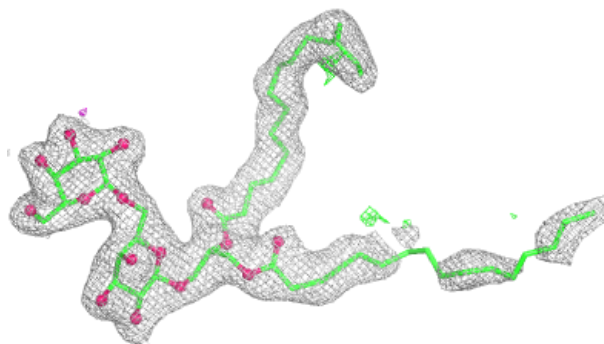


Electron density around BCR t 101:

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

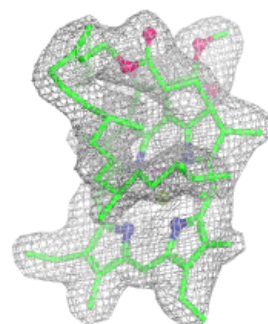
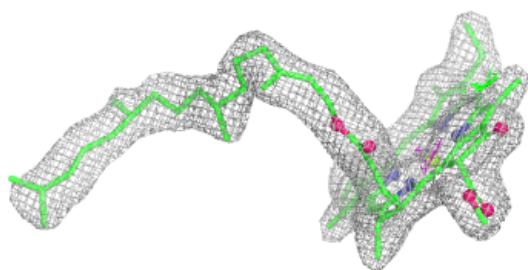
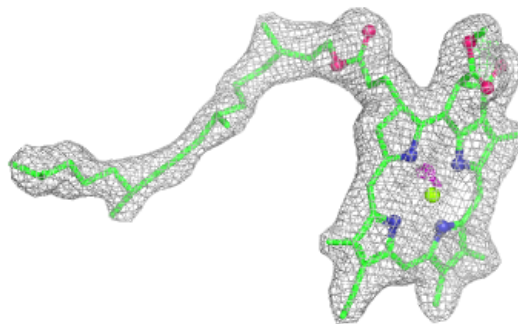
**Electron density around DGD c 520:**

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

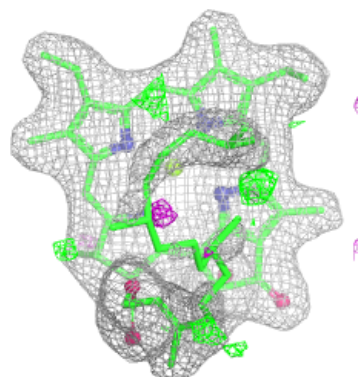
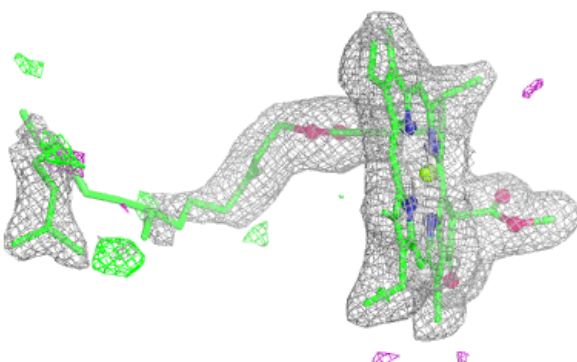
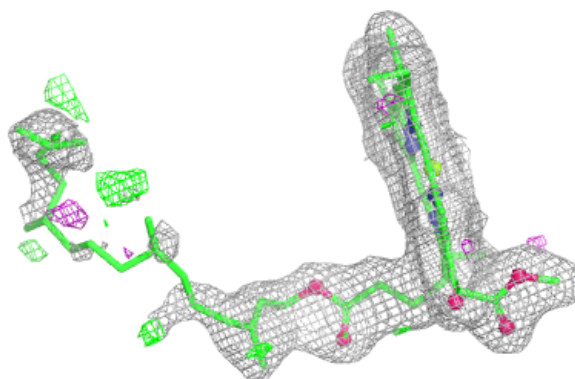


Electron density around CLA c 511:

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

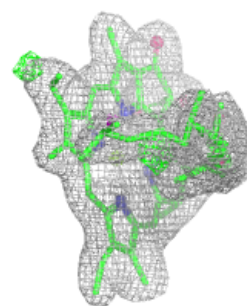
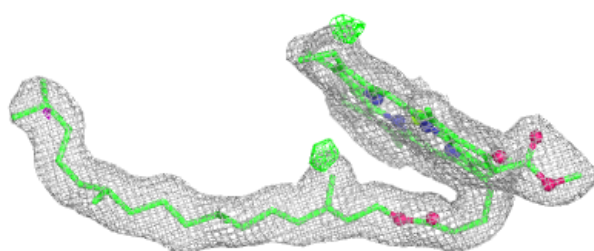
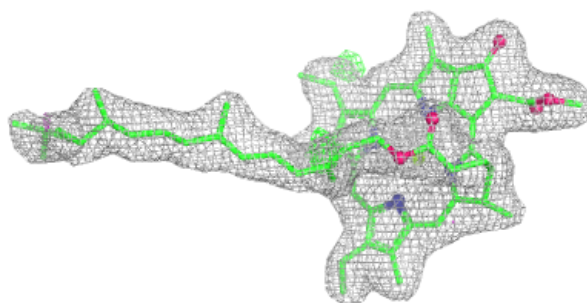
**Electron density around CLA C 506:**

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

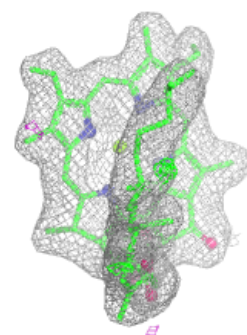
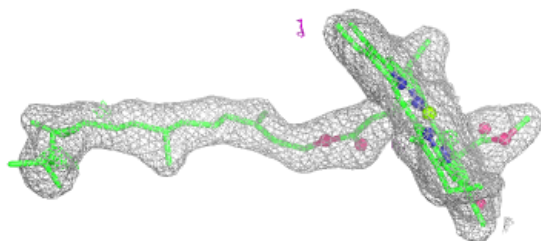
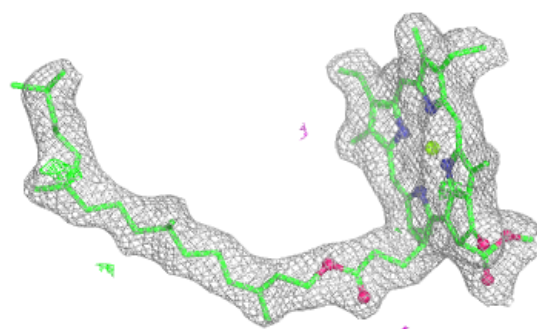


Electron density around CLA b 608:

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

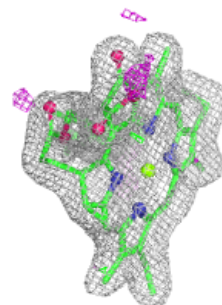
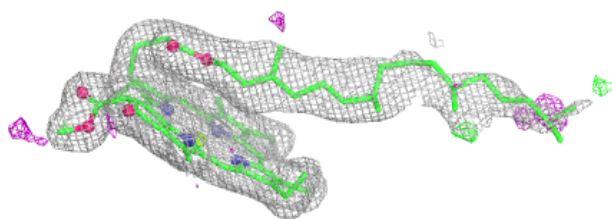
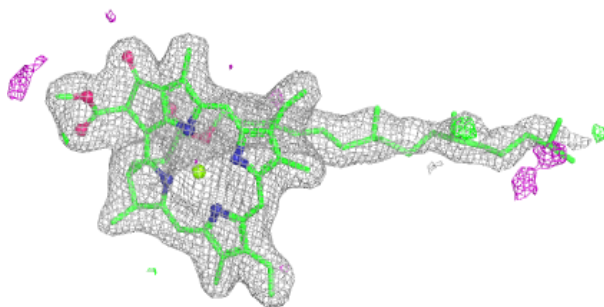
**Electron density around CLA b 609:**

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



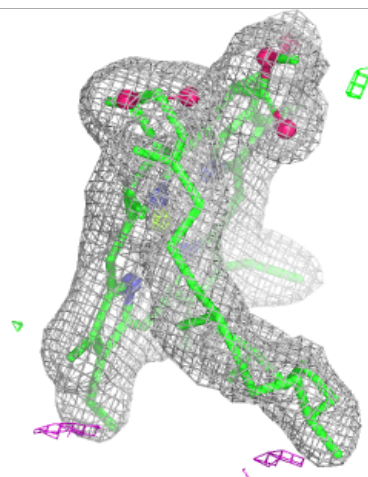
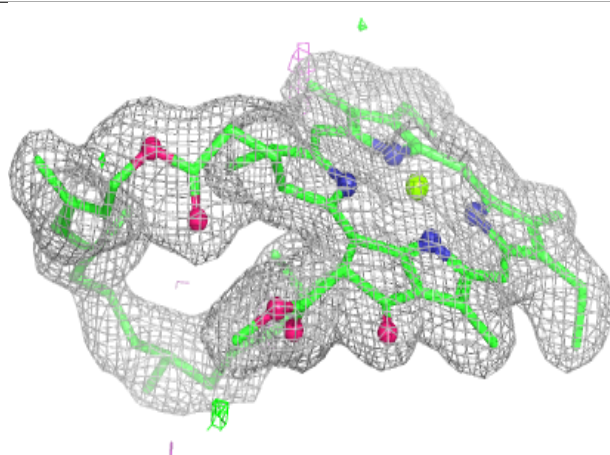
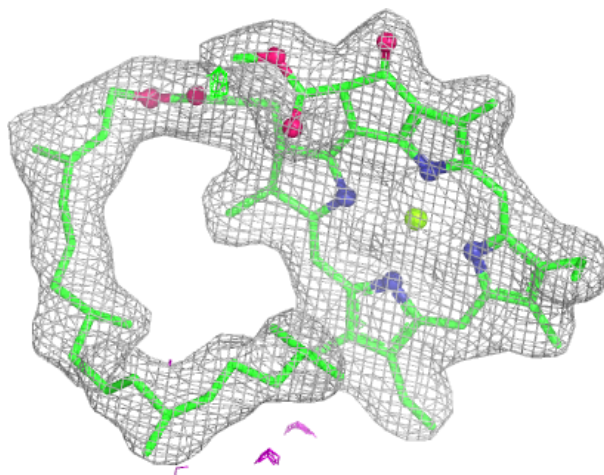
Electron density around CLA b 614:

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



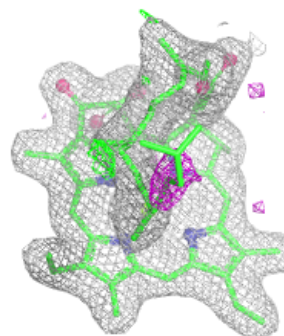
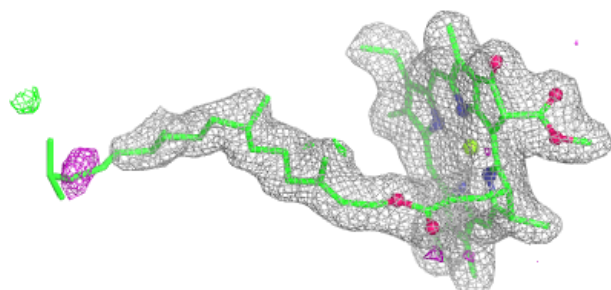
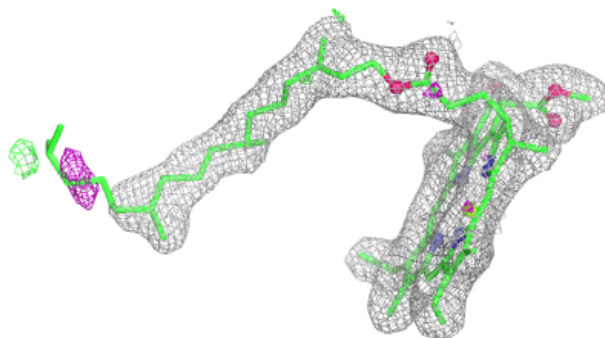
Electron density around CLA b 615:

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



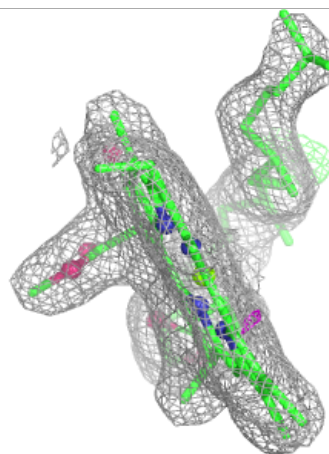
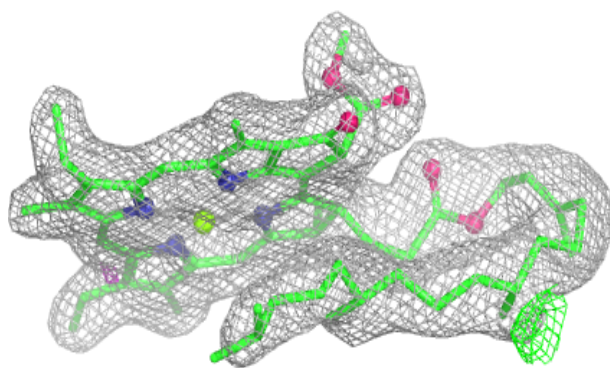
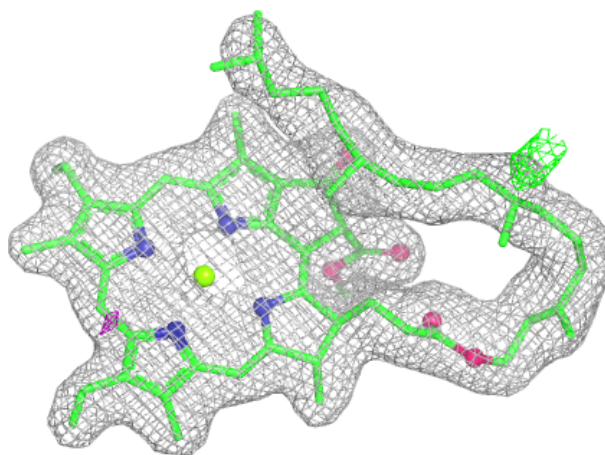
Electron density around CLA C 508:

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



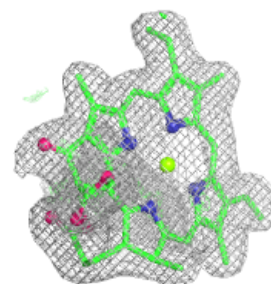
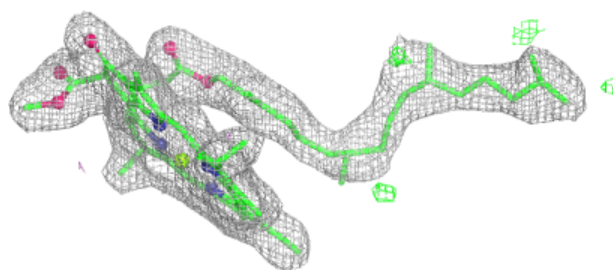
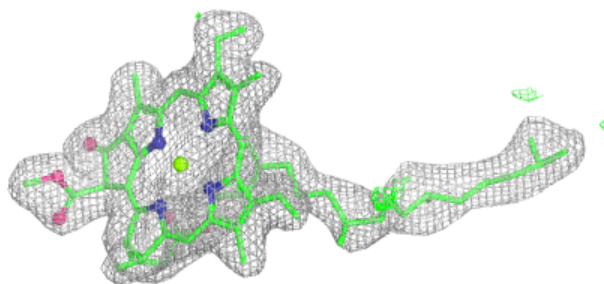
Electron density around CLA C 509:

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

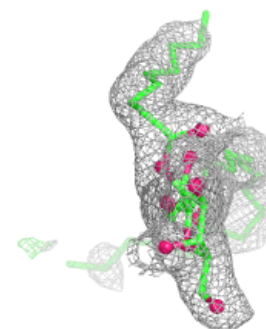
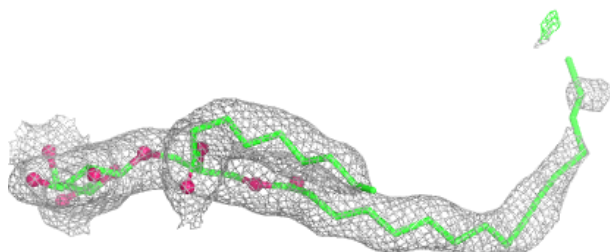
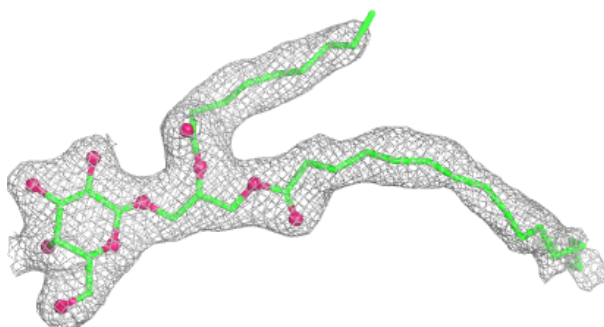


Electron density around CLA c 505:

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

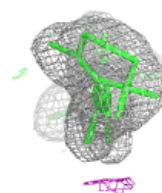
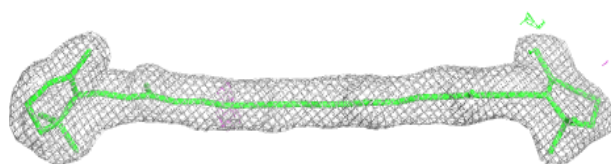
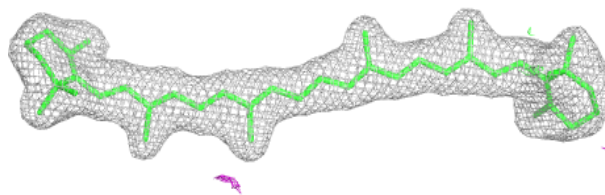
**Electron density around LMG d 410:**

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

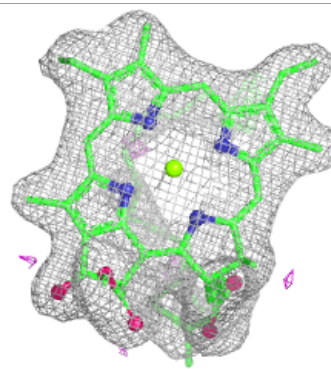
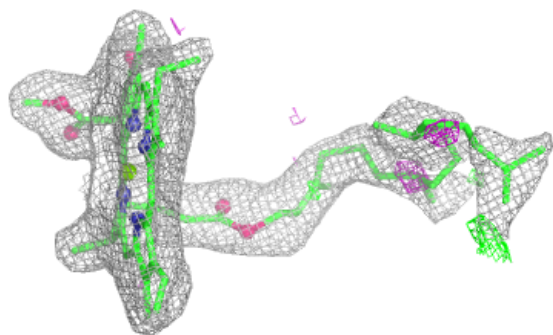
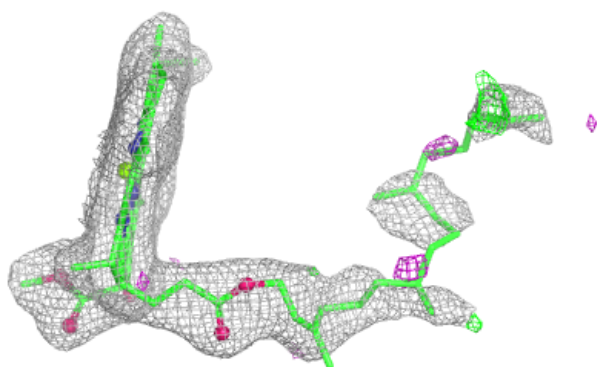


Electron density around BCR b 618:

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

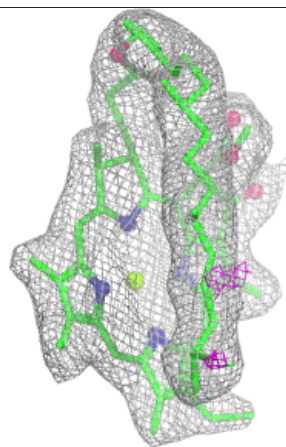
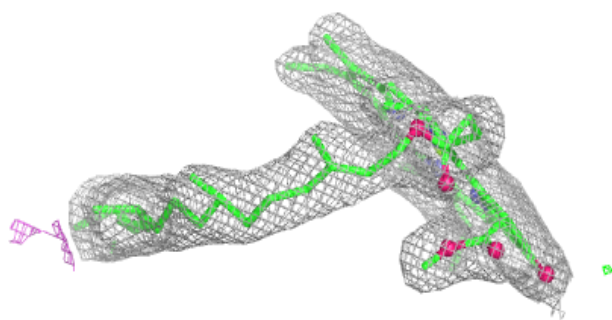
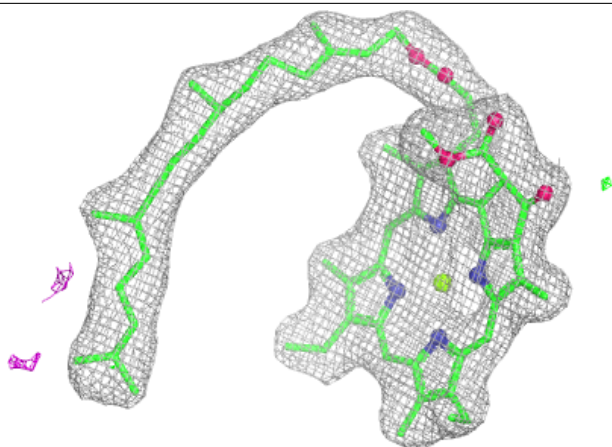
**Electron density around CLA c 506:**

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



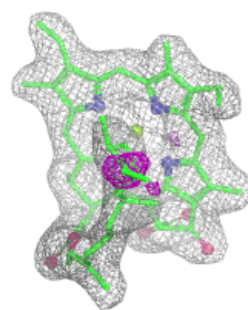
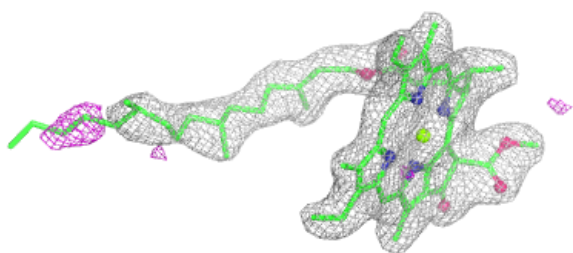
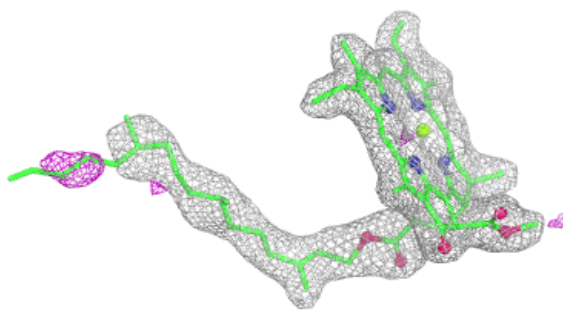
Electron density around CLA c 507:

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



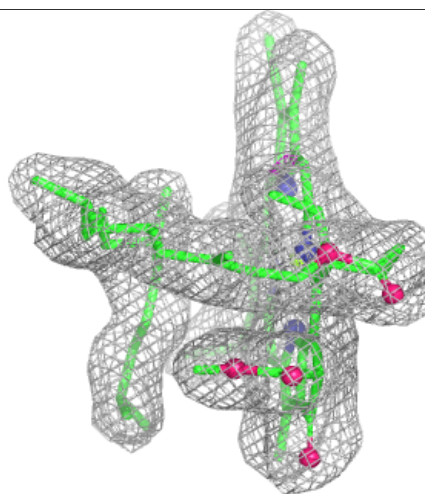
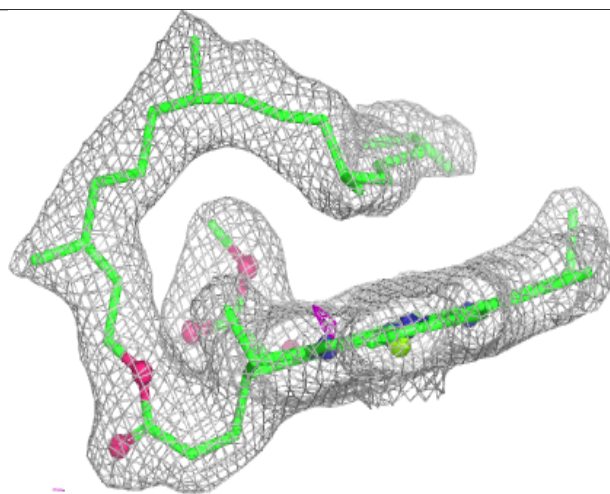
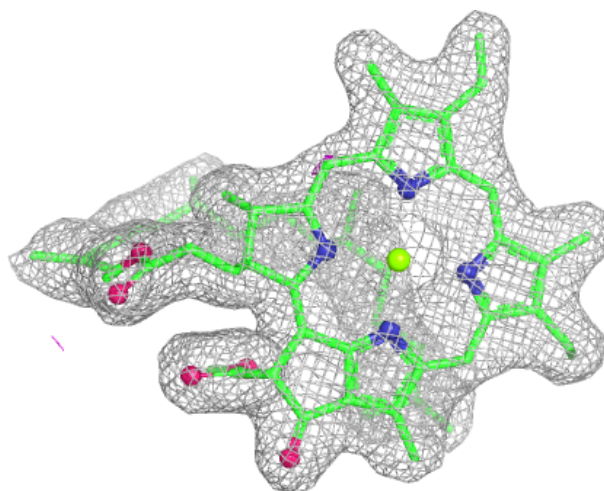
Electron density around CLA c 508:

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



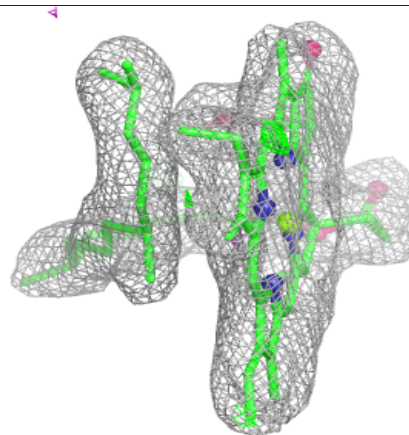
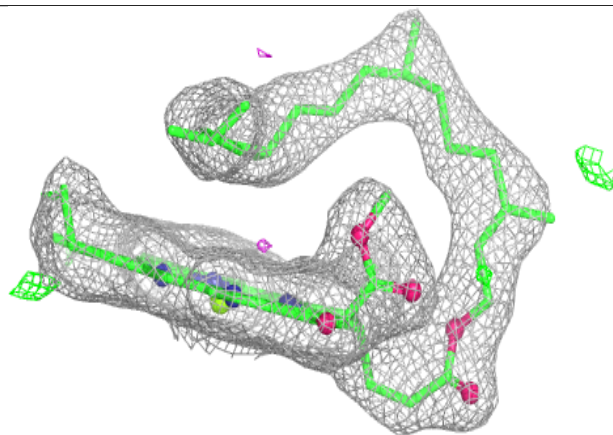
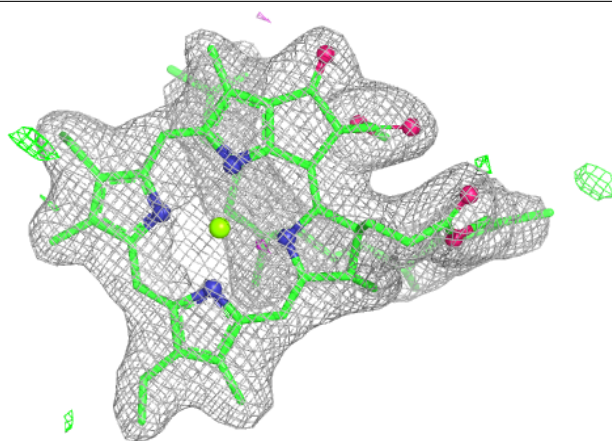
Electron density around CLA C 510:

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



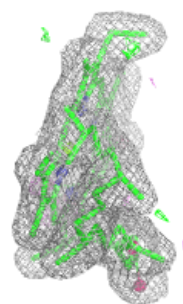
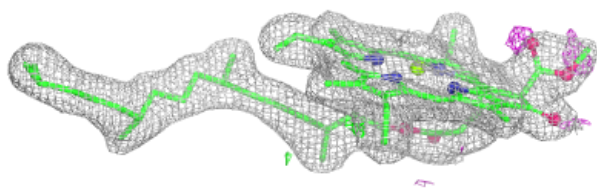
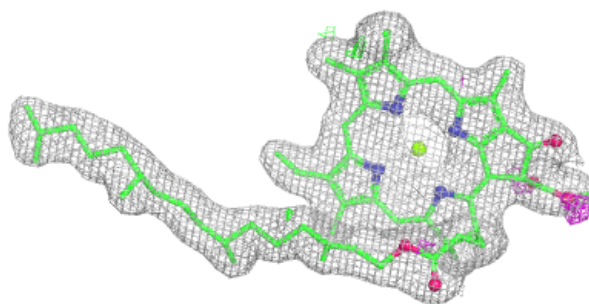
Electron density around CLA c 510:

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

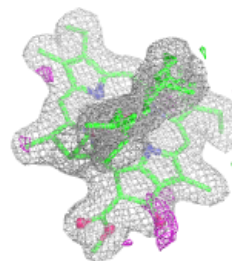
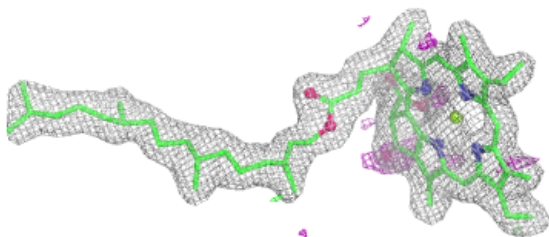
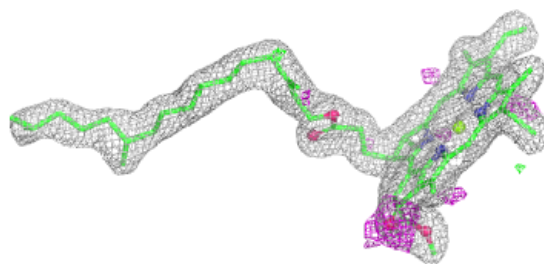


Electron density around CLA C 501:

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

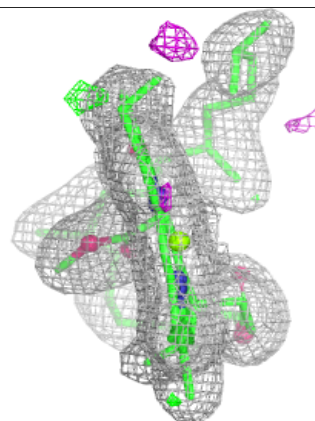
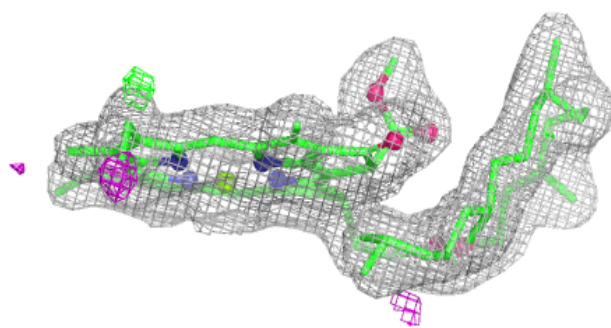
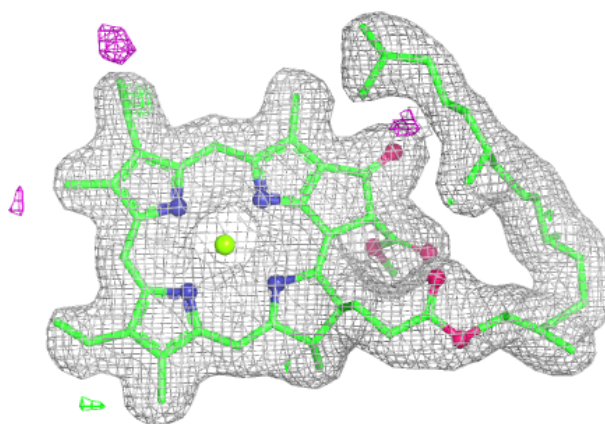
**Electron density around CLA C 502:**

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

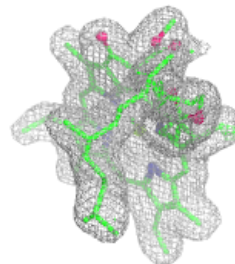
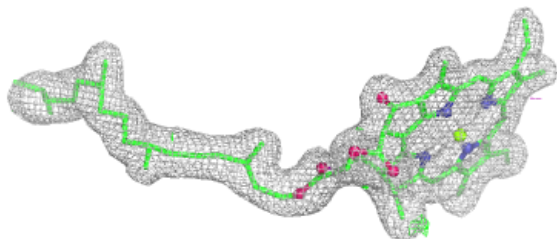
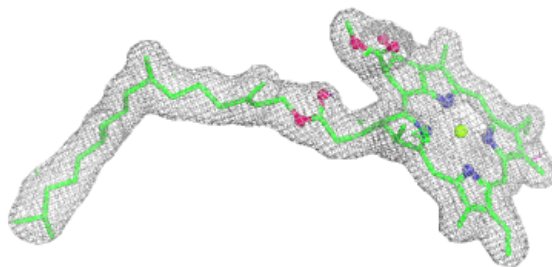


Electron density around CLA B 610:

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

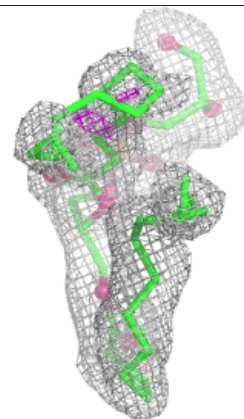
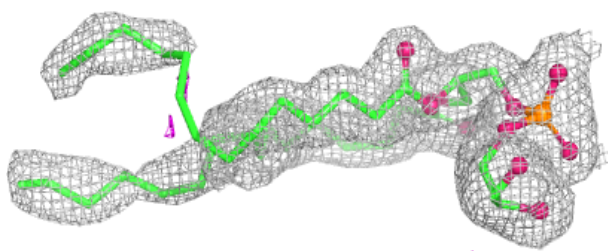
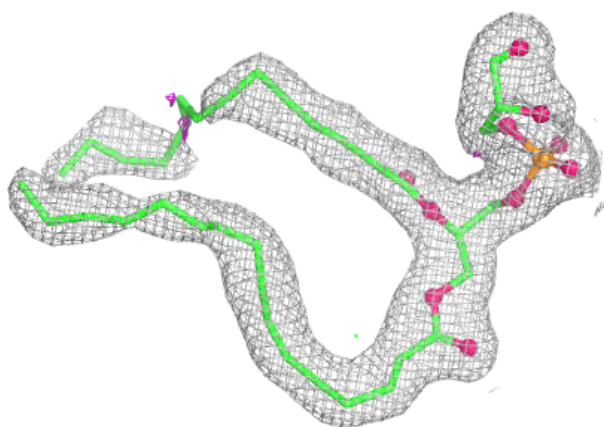
**Electron density around CLA a 606:**

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

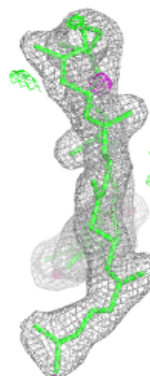
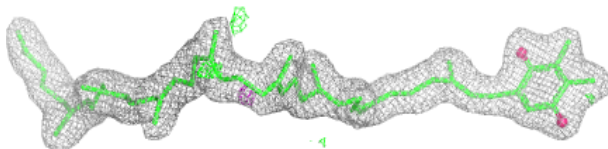
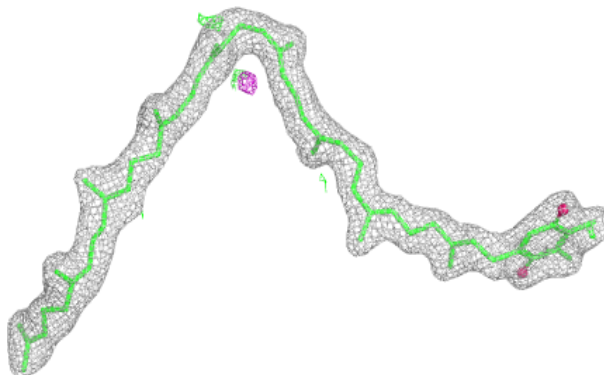


Electron density around LHG D 409:

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

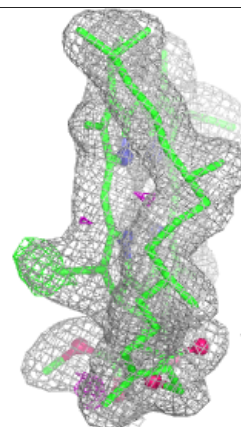
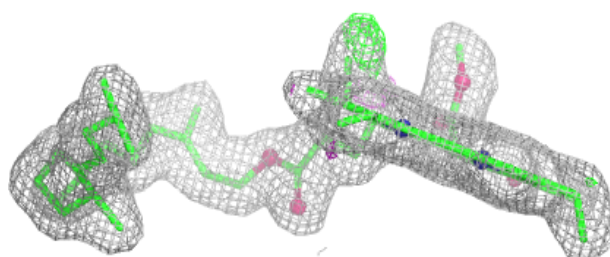
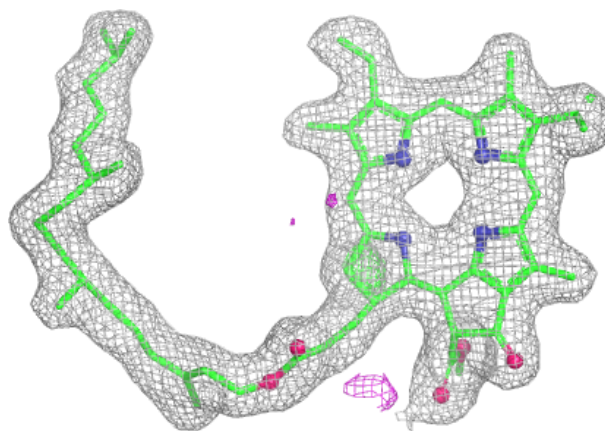
**Electron density around PL9 D 404:**

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

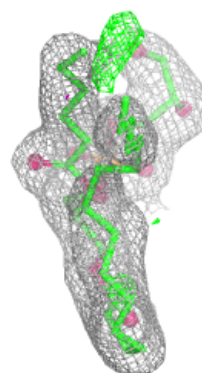
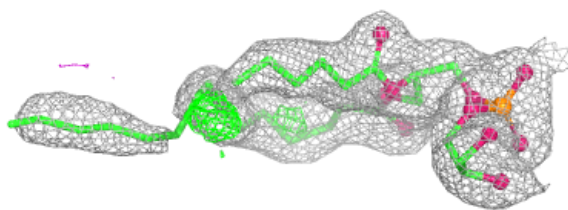
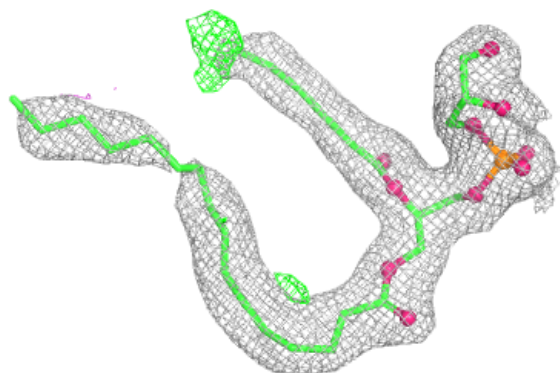


Electron density around PHO A 608:

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

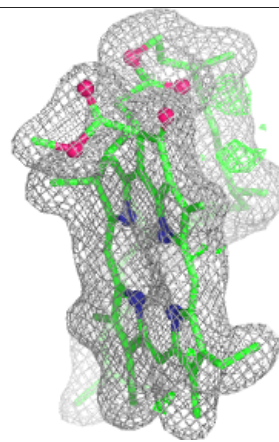
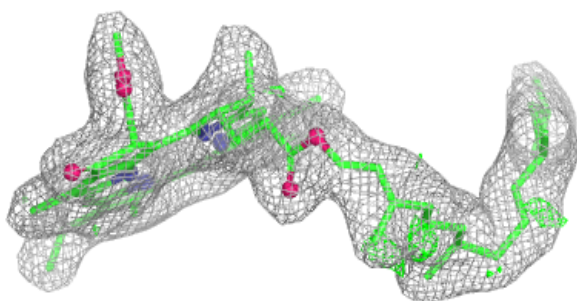
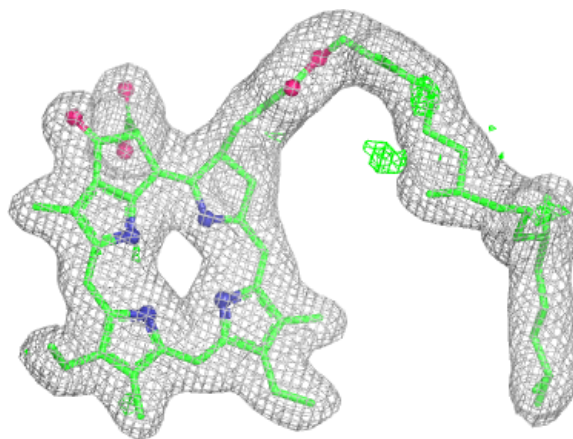
**Electron density around LHG d 408:**

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



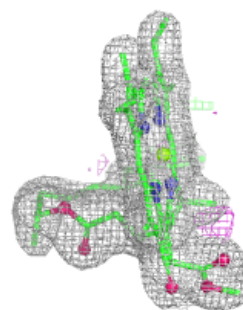
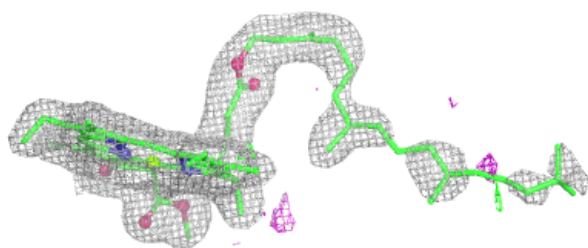
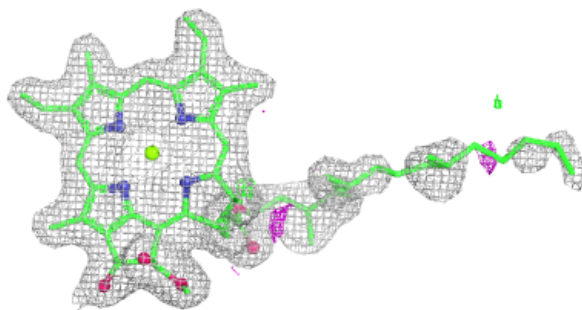
Electron density around PHO A 609:

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

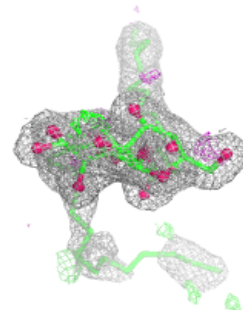
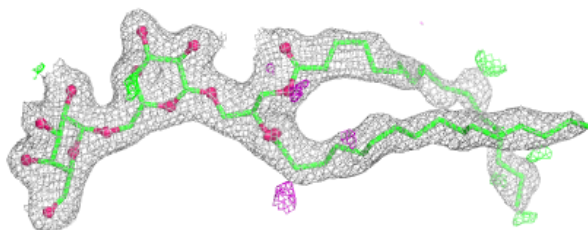
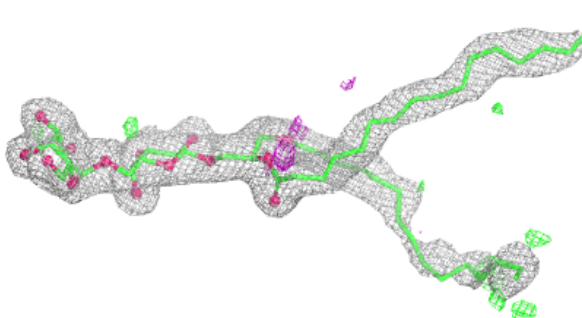


Electron density around CLA a 607:

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

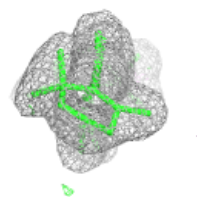
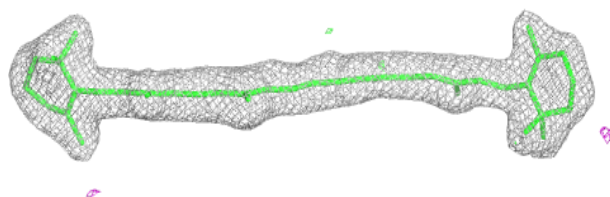
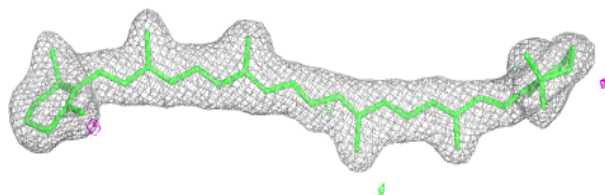
**Electron density around DGD C 521:**

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

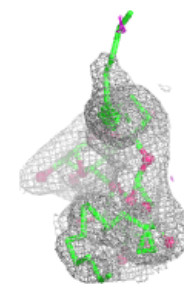
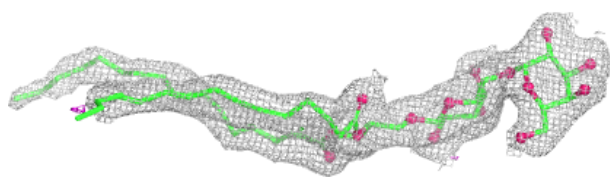
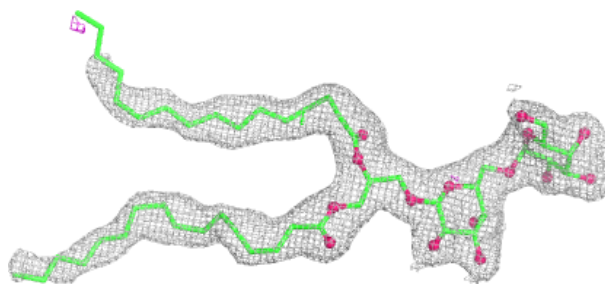


Electron density around BCR A 611:

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

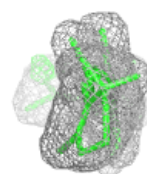
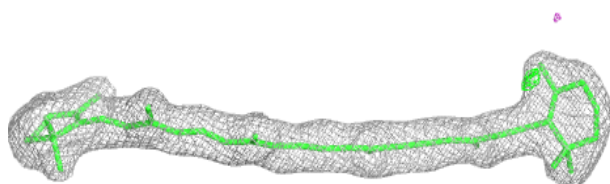
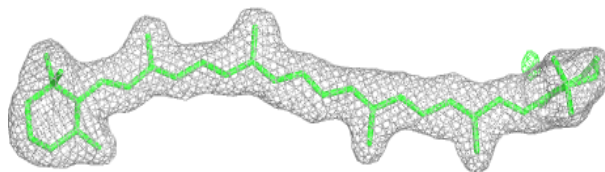
**Electron density around DGD C 523:**

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

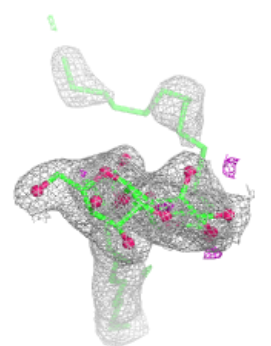
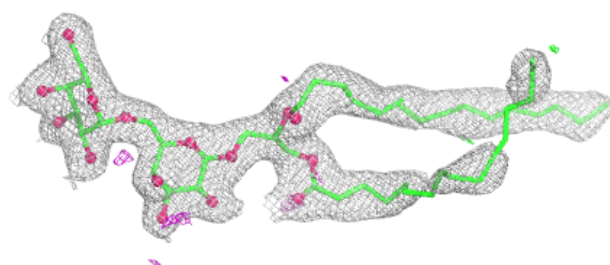
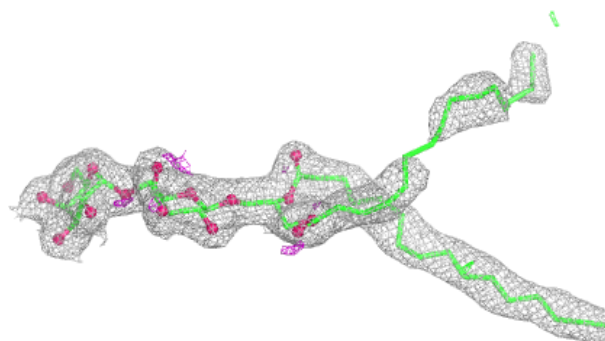


Electron density around BCR B 617:

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

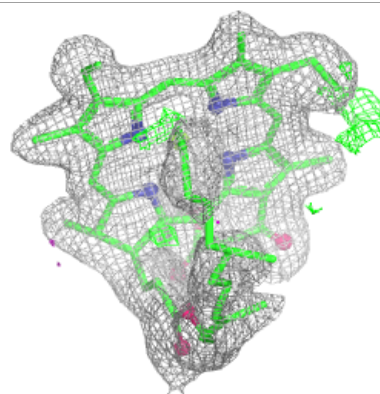
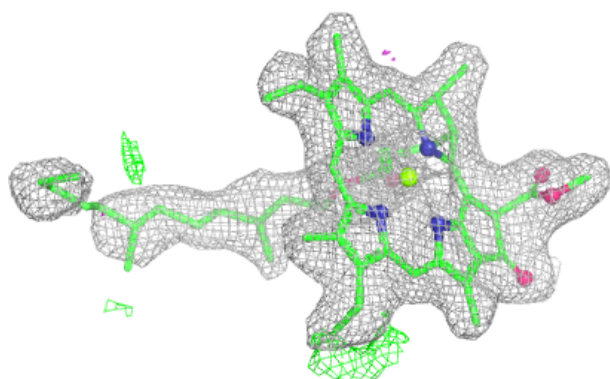
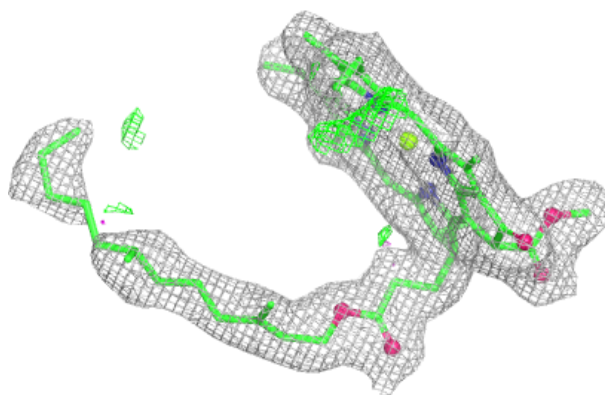
**Electron density around DGD c 519:**

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

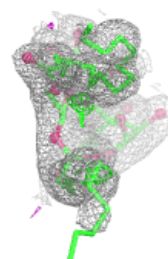
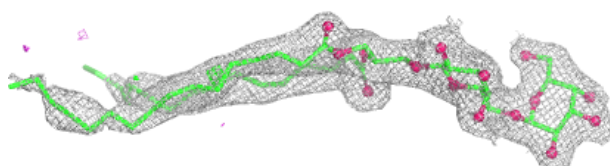
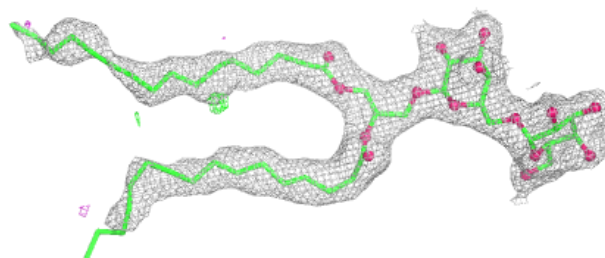


Electron density around CLA C 504:

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

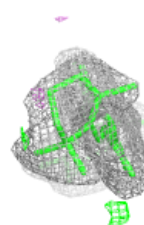
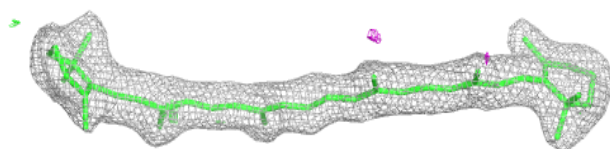
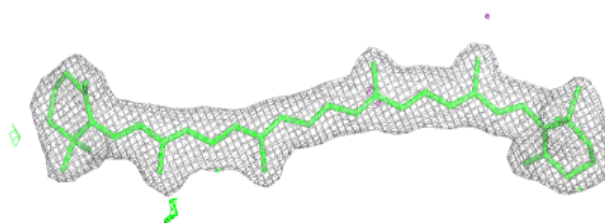
**Electron density around DGD c 521:**

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

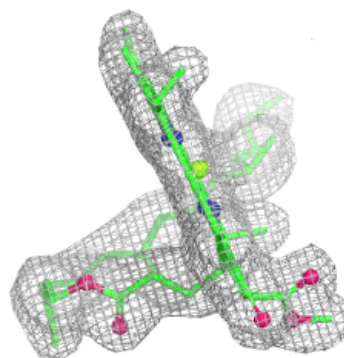
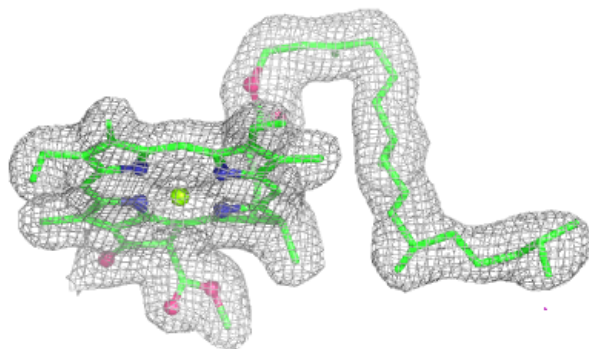
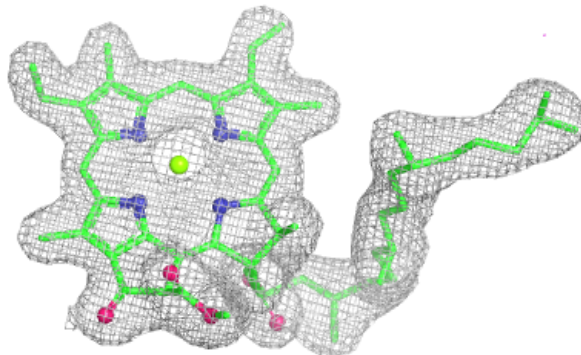


Electron density around BCR B 619:

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

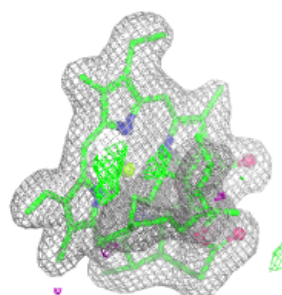
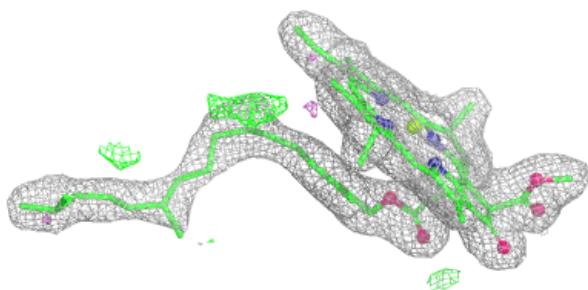
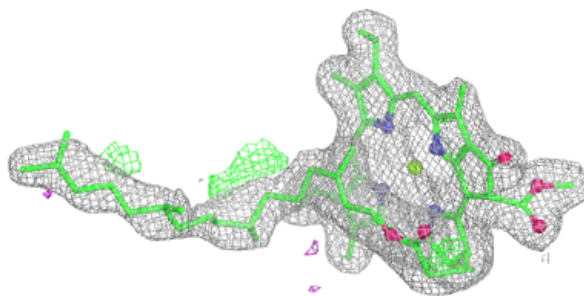
**Electron density around CLA a 612:**

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

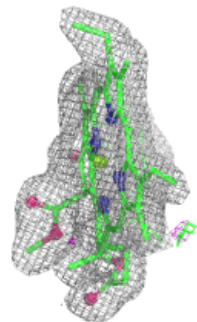
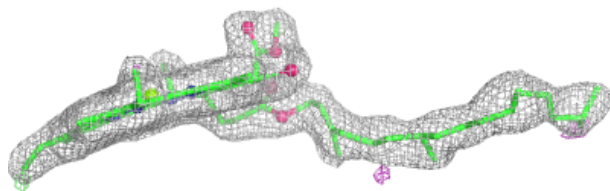
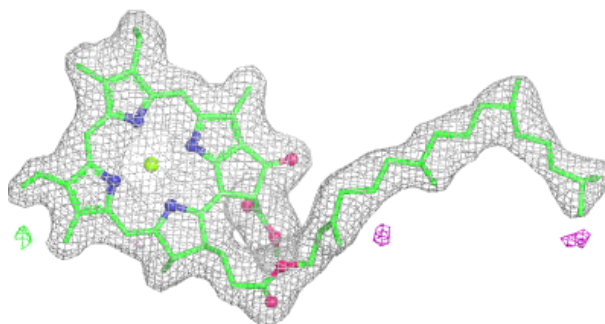


Electron density around CLA C 505:

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

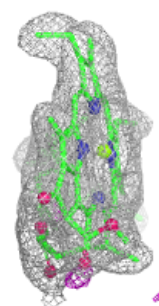
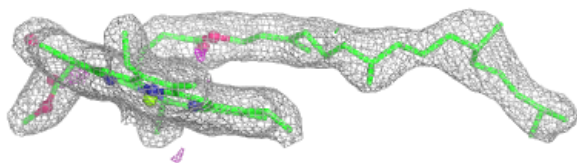
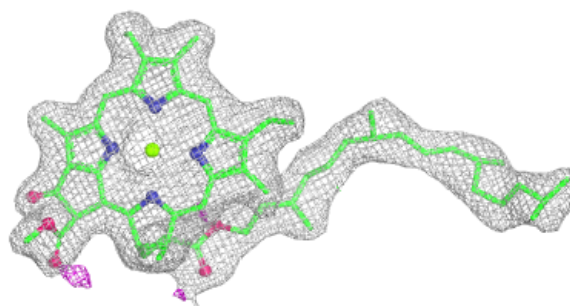
**Electron density around CLA b 602:**

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

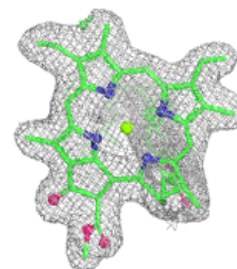
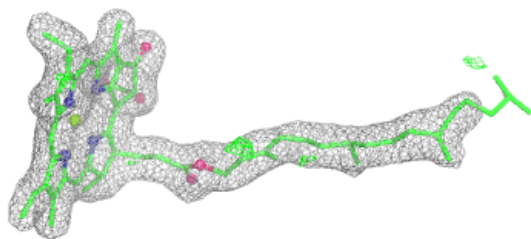
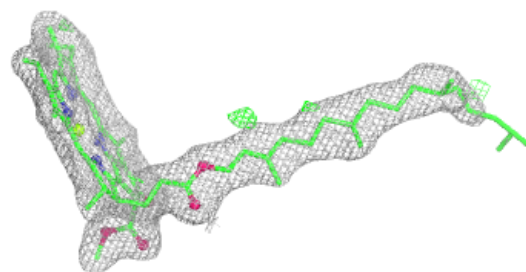


Electron density around CLA b 603:

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

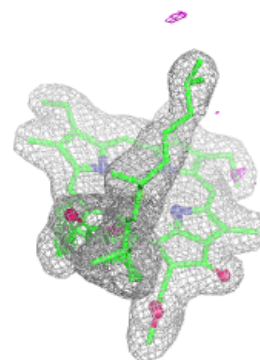
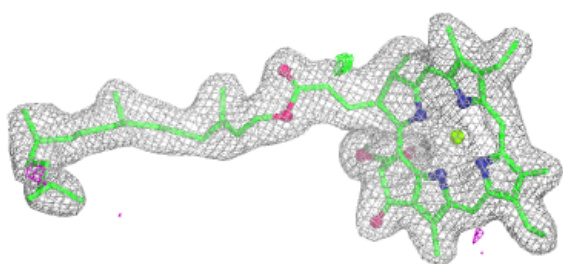
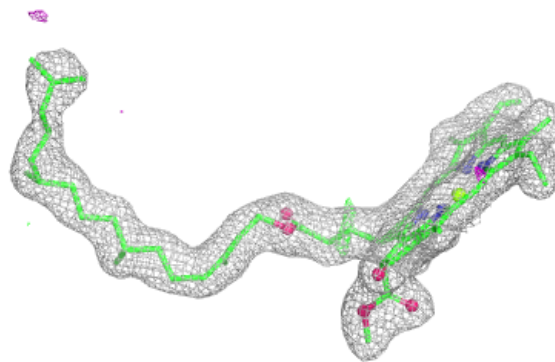
**Electron density around CLA b 604:**

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

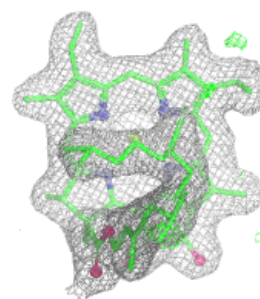
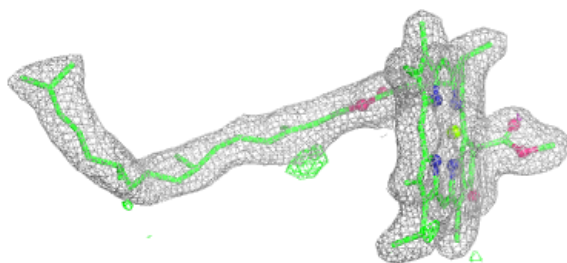
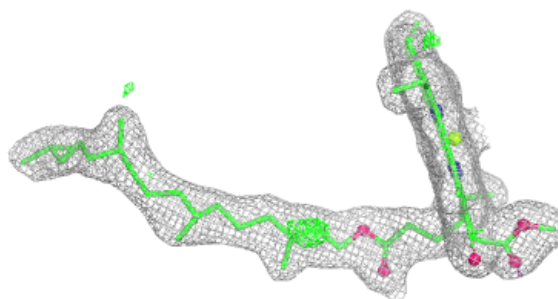


Electron density around CLA d 402:

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

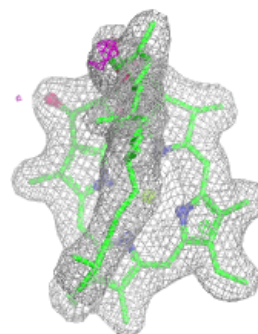
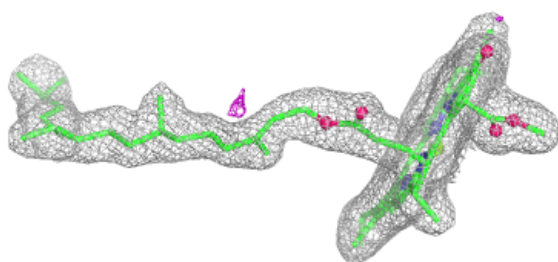
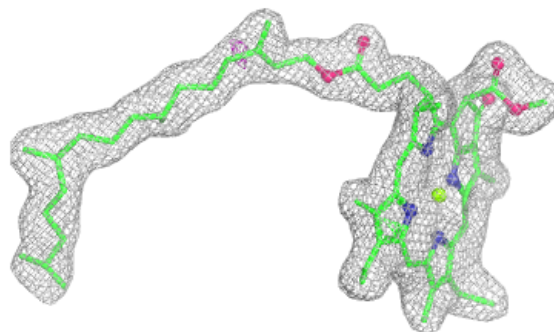
**Electron density around CLA b 605:**

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

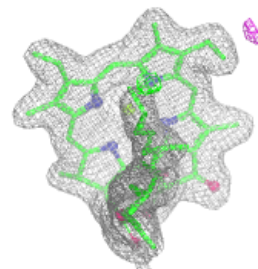
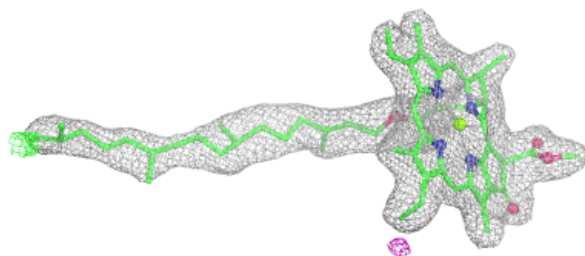
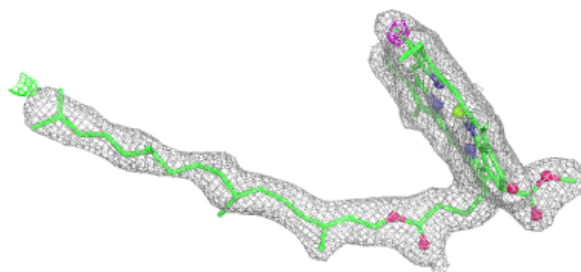


Electron density around CLA B 609:

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

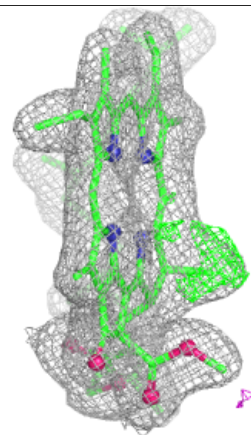
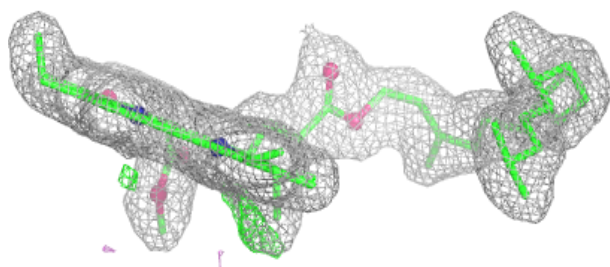
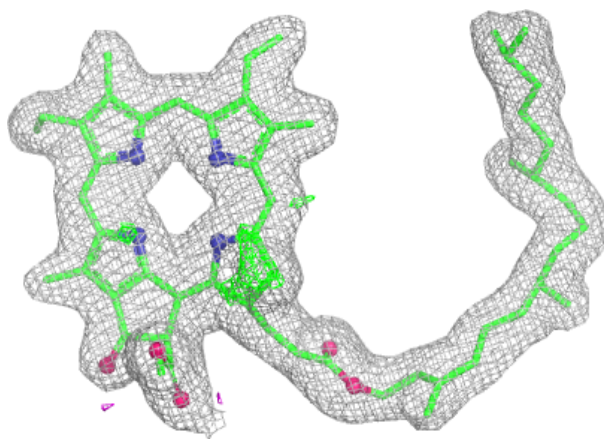
**Electron density around CLA b 607:**

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



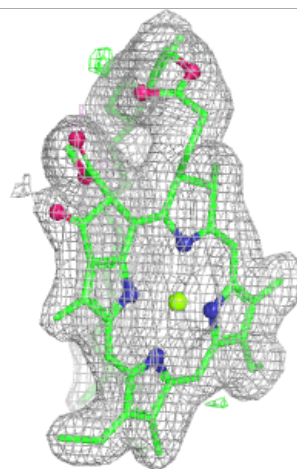
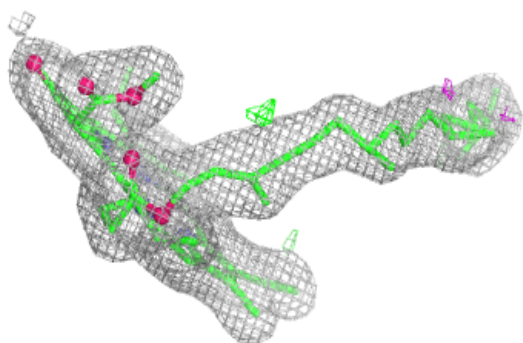
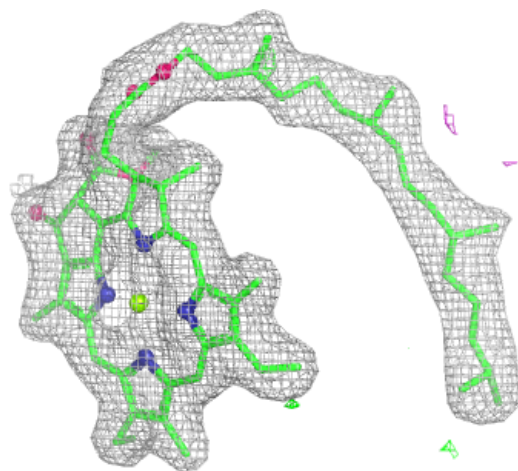
Electron density around PHO a 608:

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



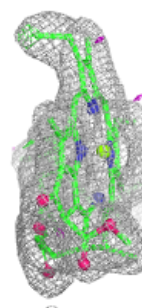
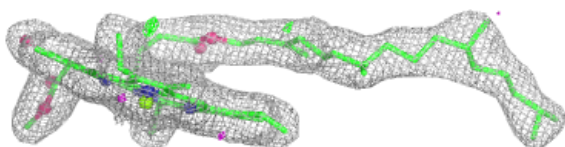
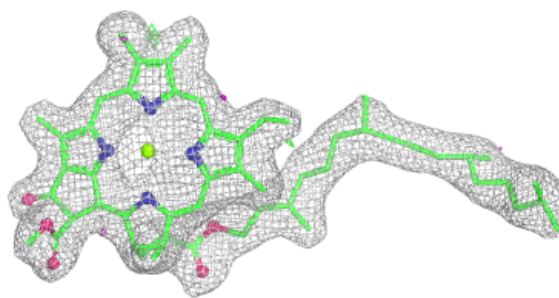
Electron density around CLA C 507:

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



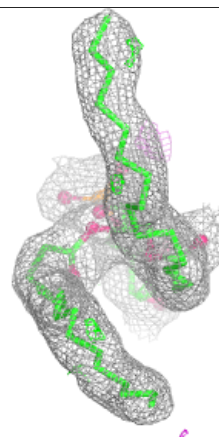
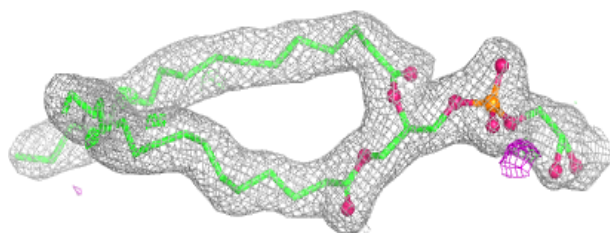
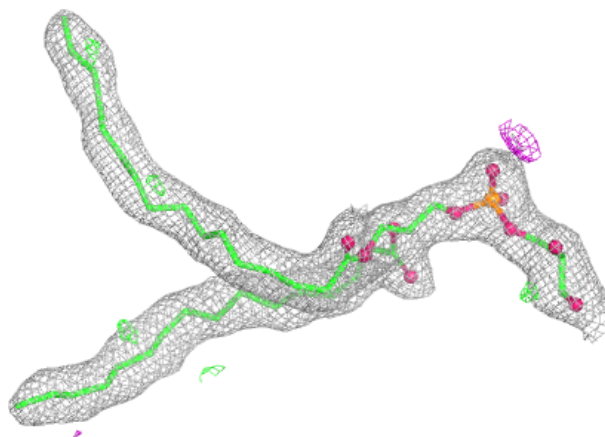
Electron density around CLA B 603:

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



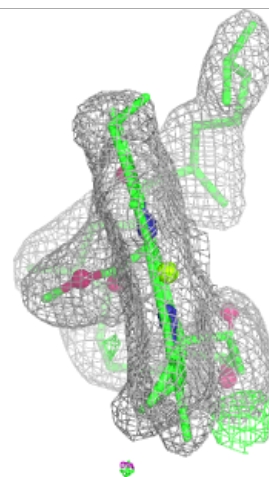
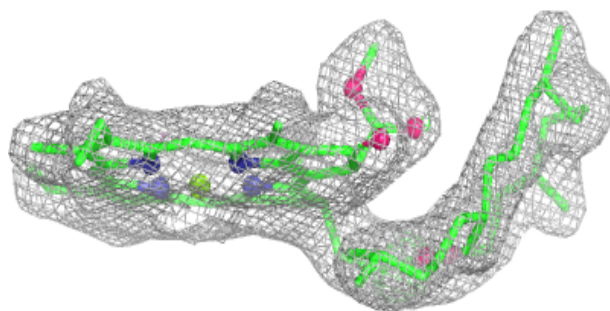
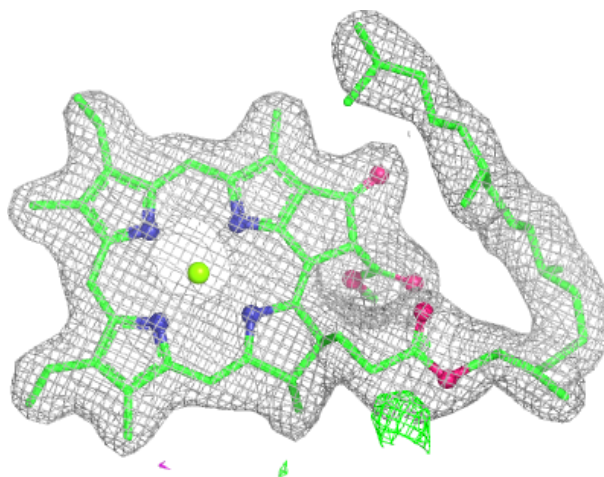
Electron density around LHG D 408:

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



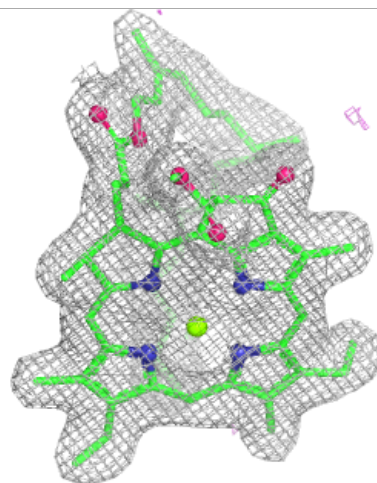
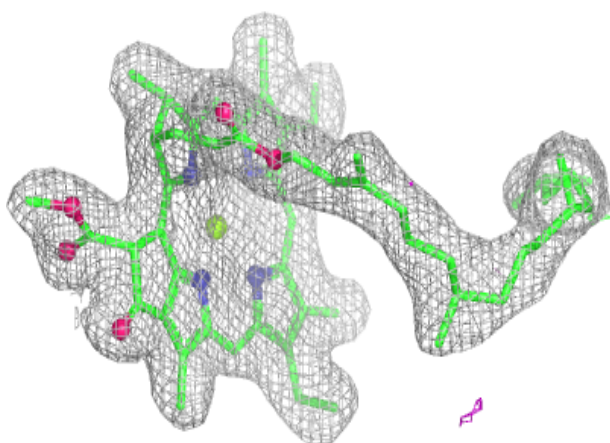
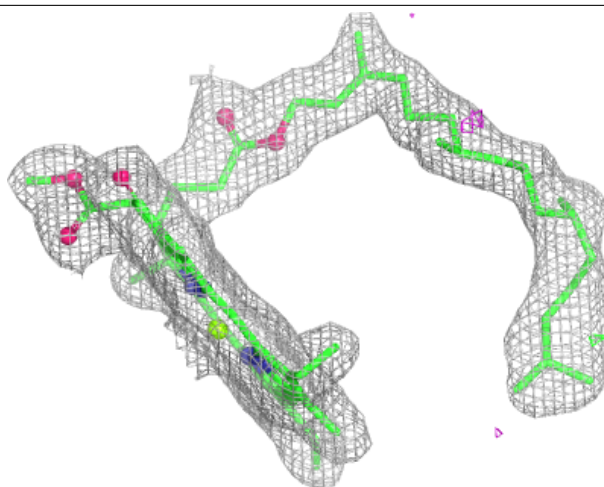
Electron density around CLA b 610:

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



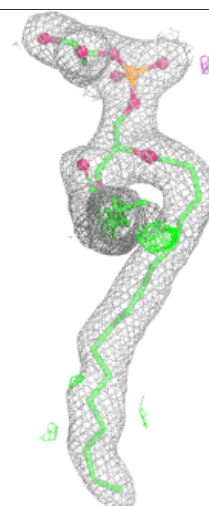
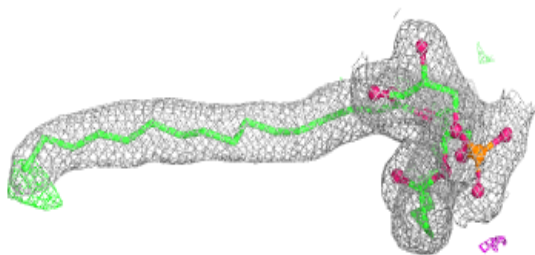
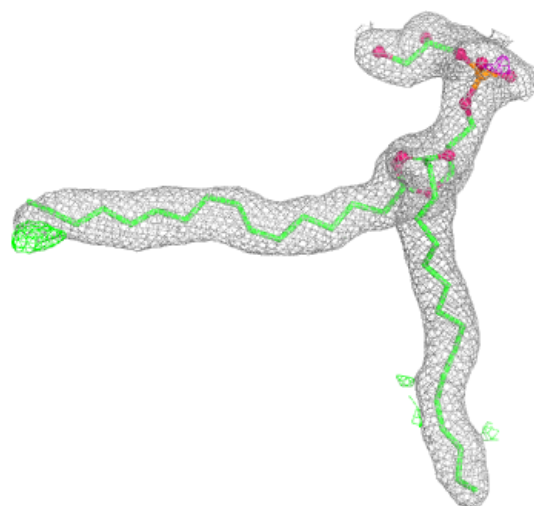
Electron density around CLA b 611:

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



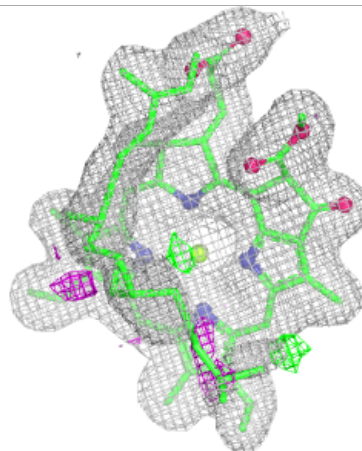
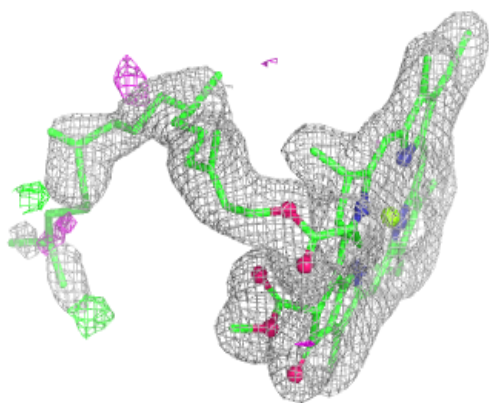
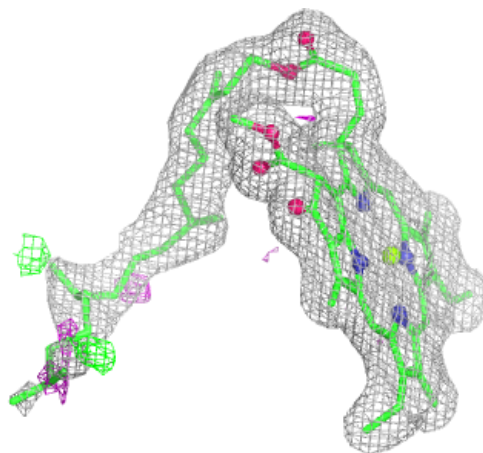
Electron density around LHG L 101:

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



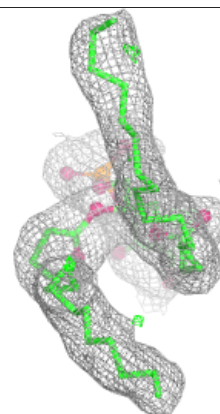
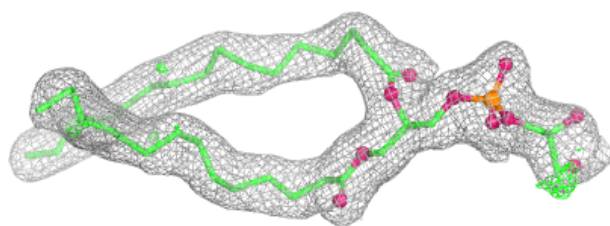
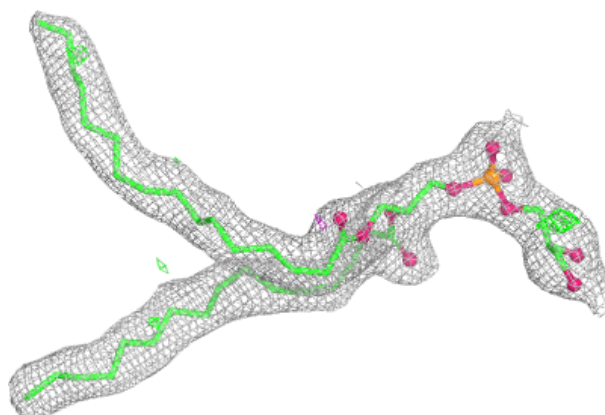
Electron density around CLA b 613:

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



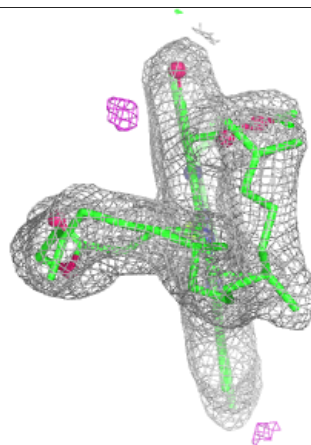
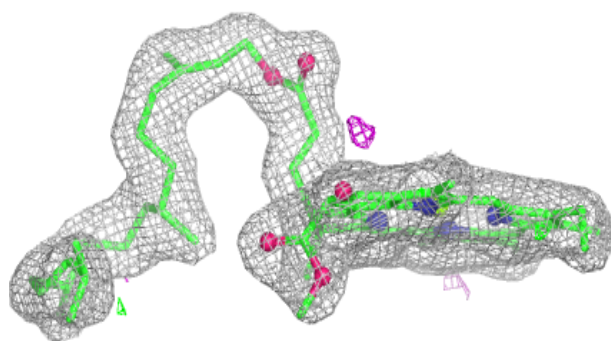
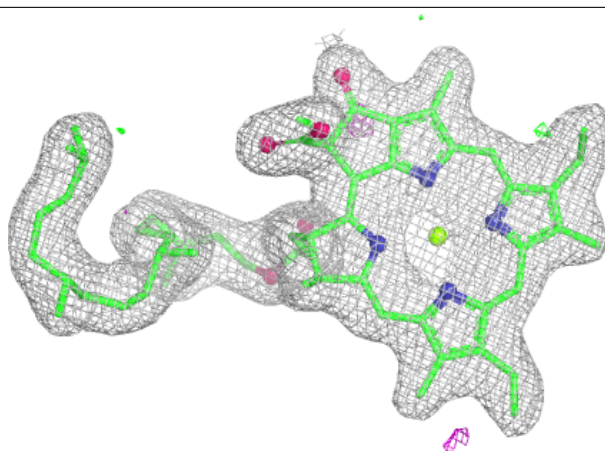
Electron density around LHG d 407:

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

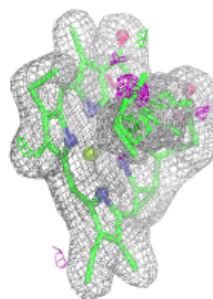
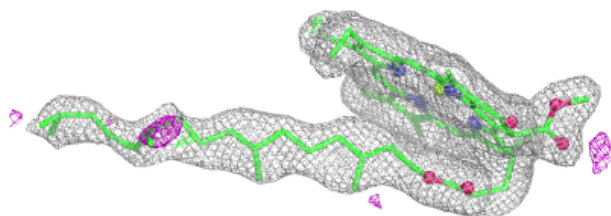
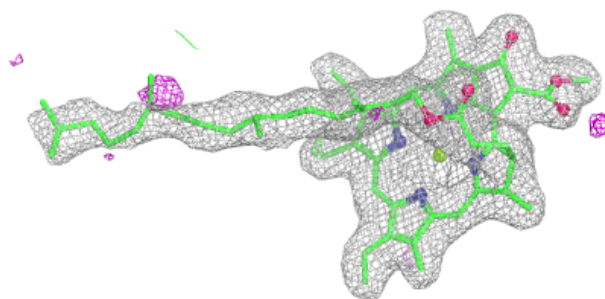


Electron density around CLA B 612:

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

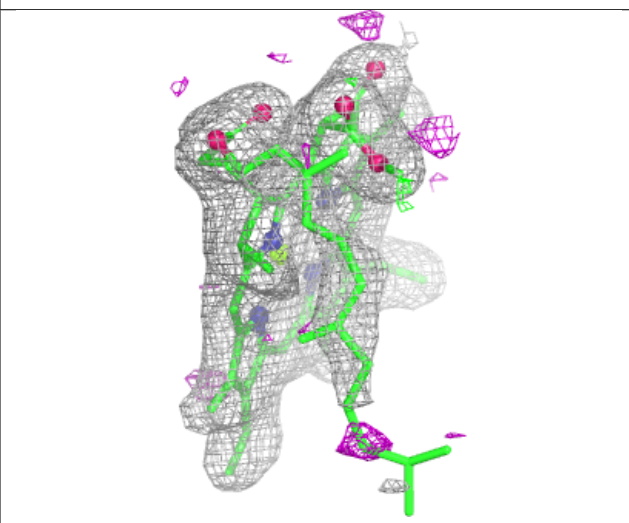
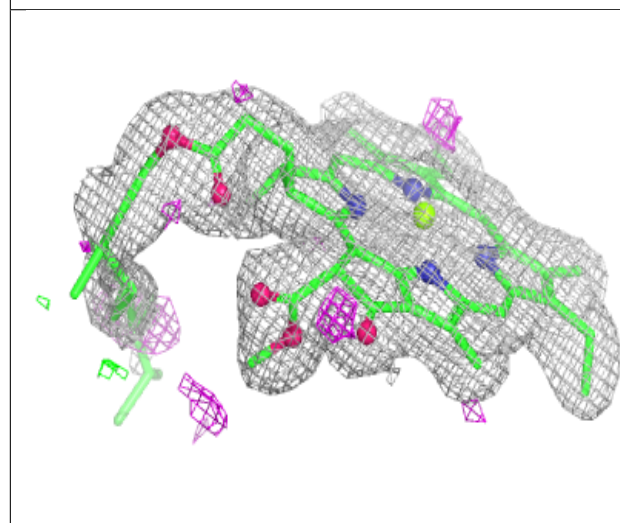
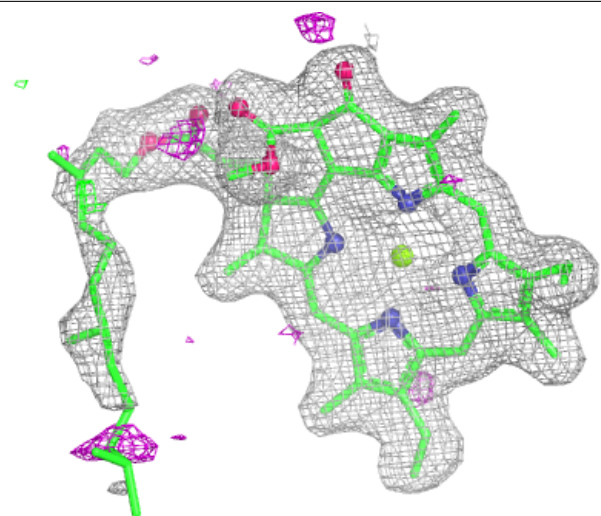
**Electron density around CLA B 614:**

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



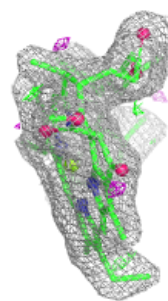
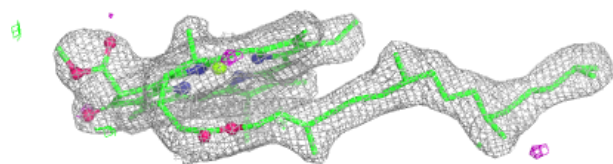
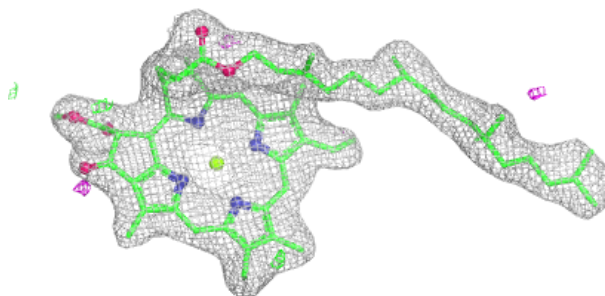
Electron density around CLA B 616:

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

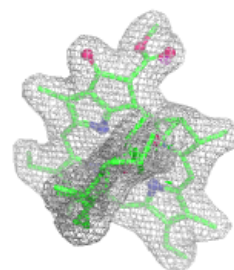
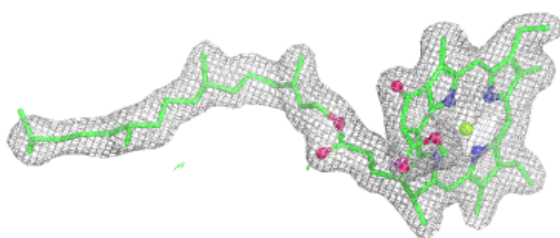
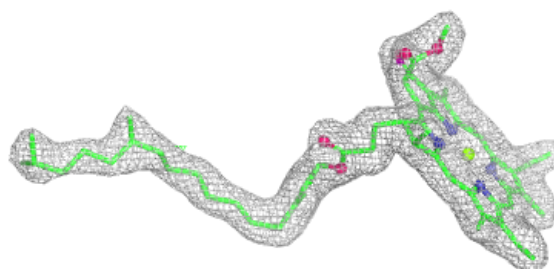


Electron density around CLA c 501:

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

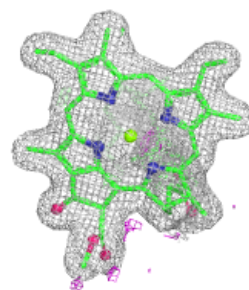
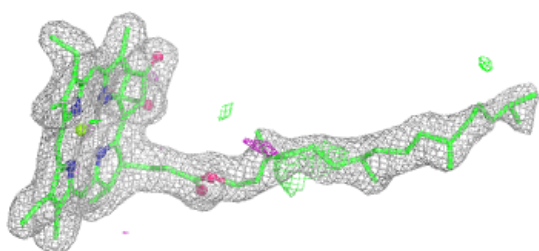
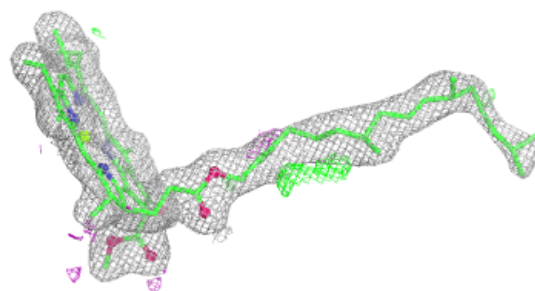
**Electron density around CLA c 502:**

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

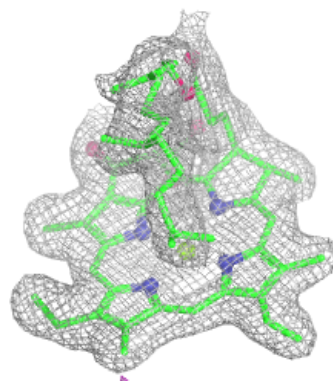
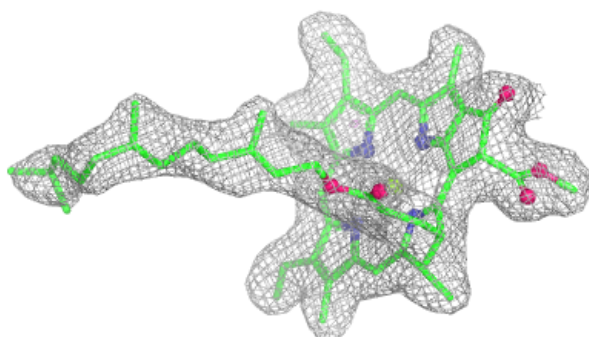
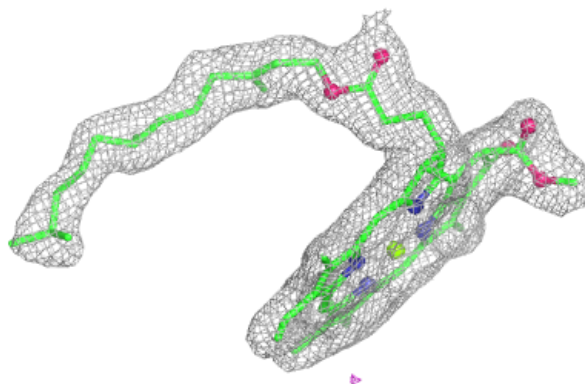


Electron density around CLA B 604:

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

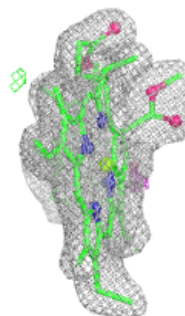
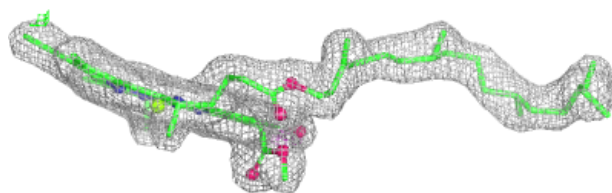
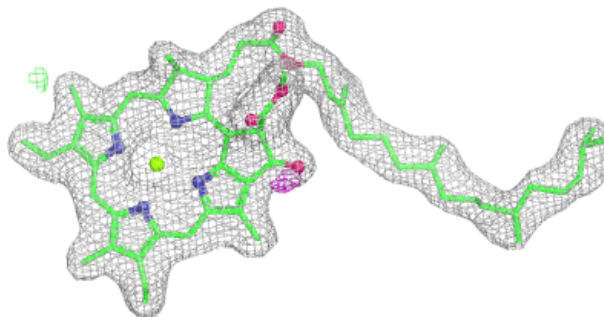
**Electron density around CLA c 504:**

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

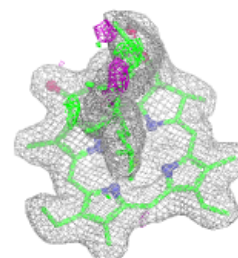
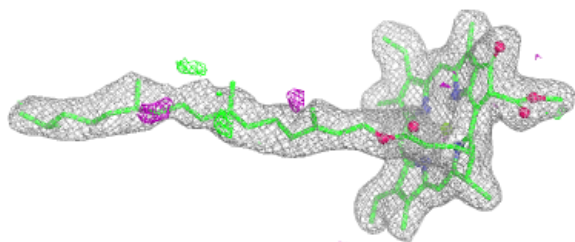
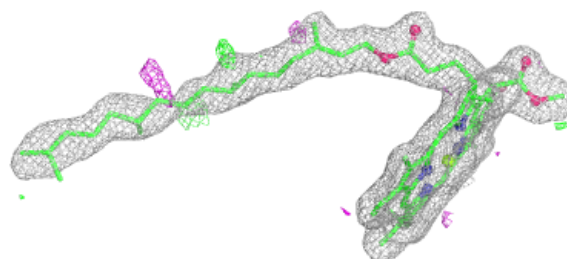


Electron density around CLA B 602:

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

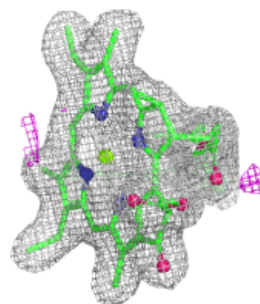
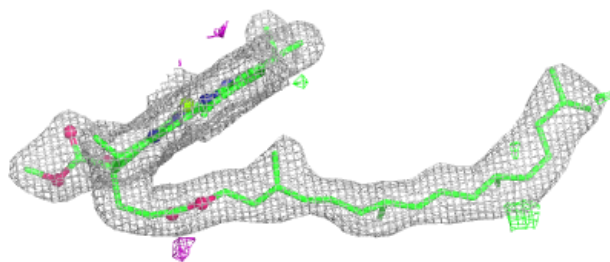
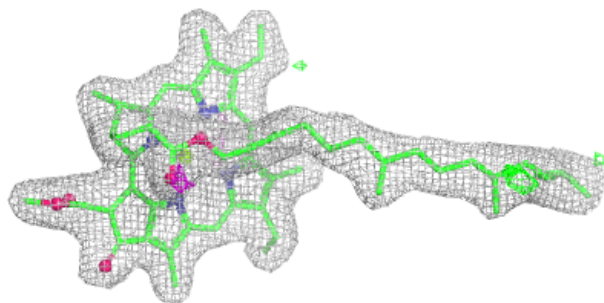
**Electron density around CLA B 607:**

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

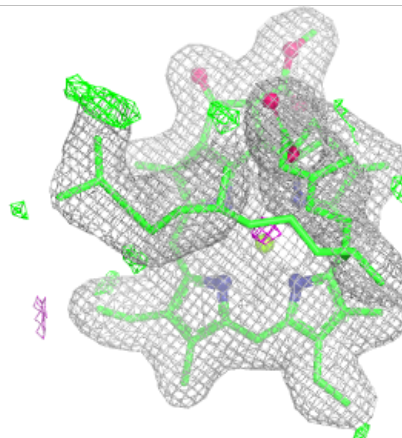
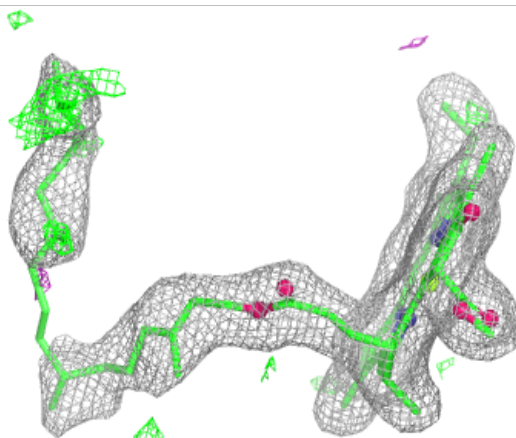
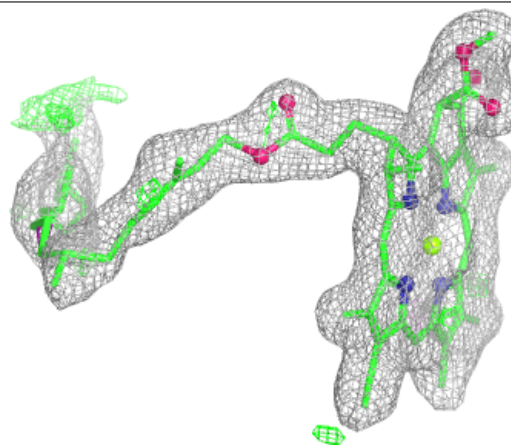


Electron density around CLA B 608:

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

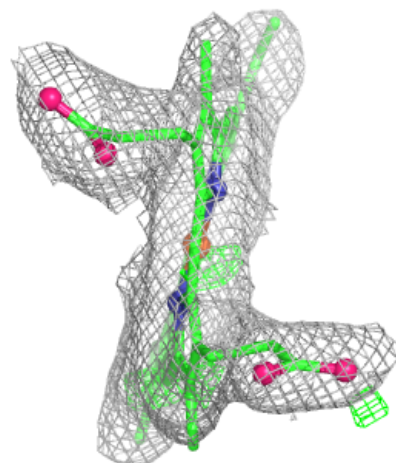
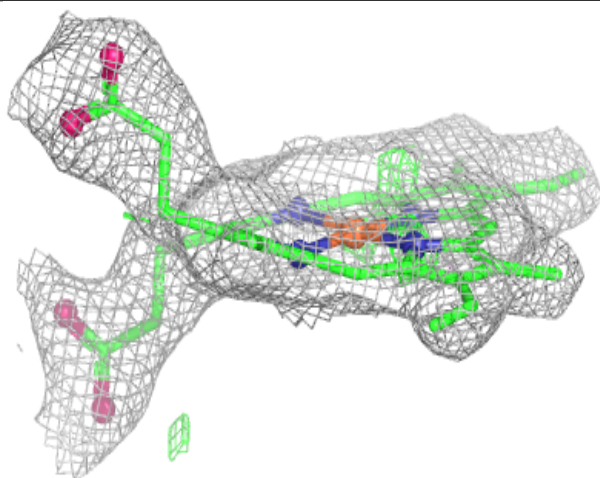
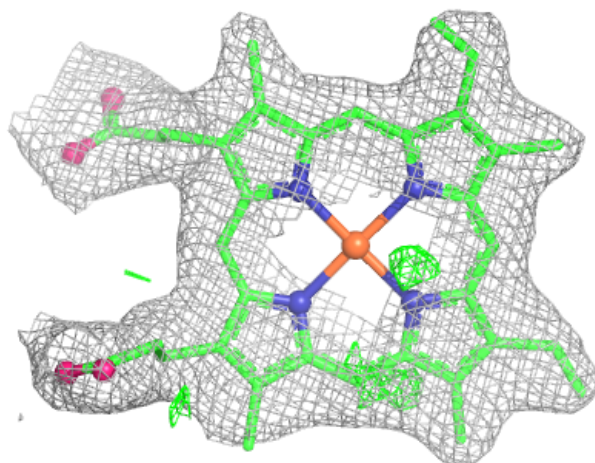
**Electron density around CLA a 609:**

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



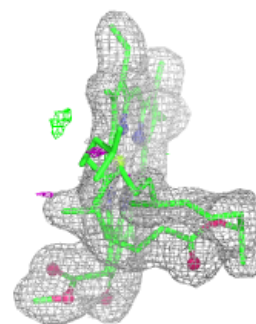
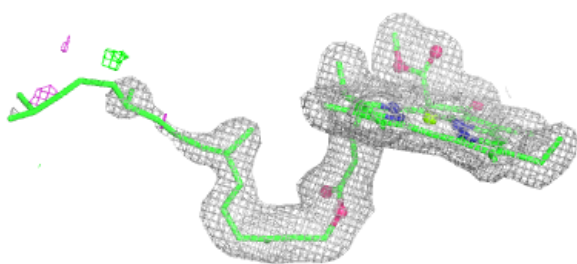
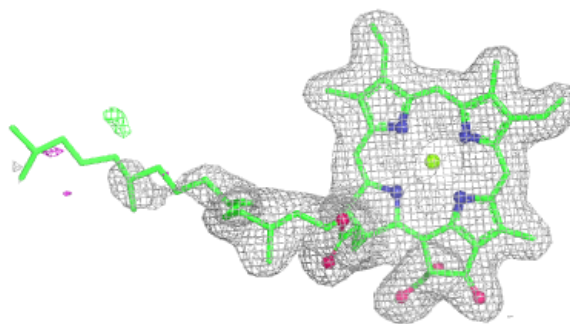
Electron density around HEM F 101:

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

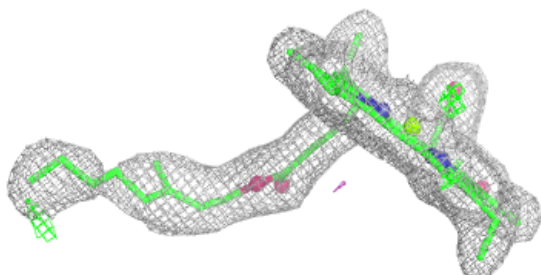
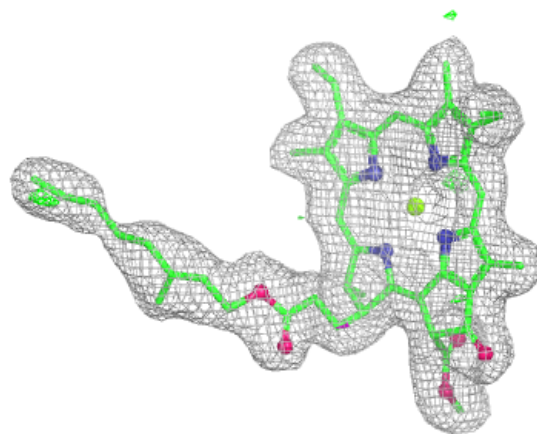


Electron density around CLA A 607:

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

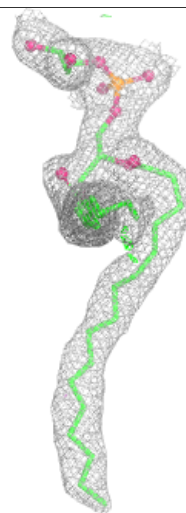
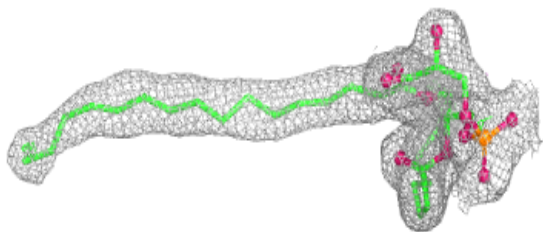
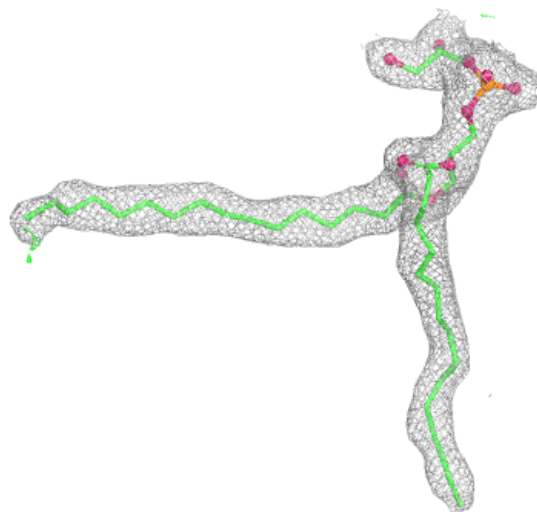
**Electron density around CLA A 610:**

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



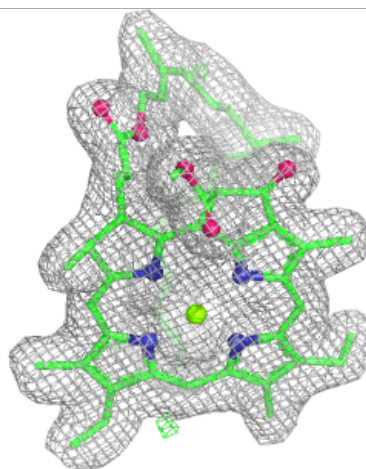
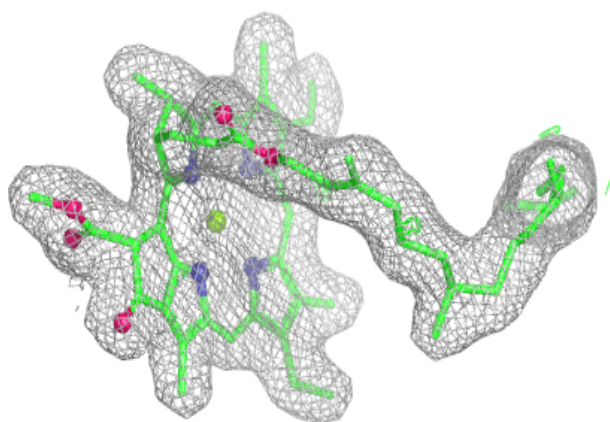
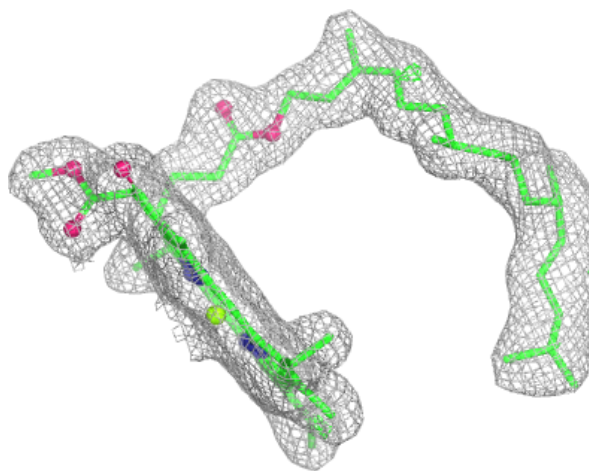
Electron density around LHG 1 101:

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



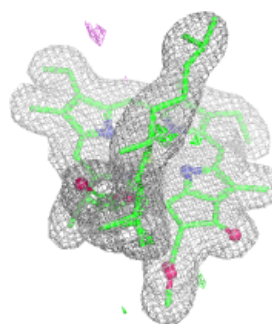
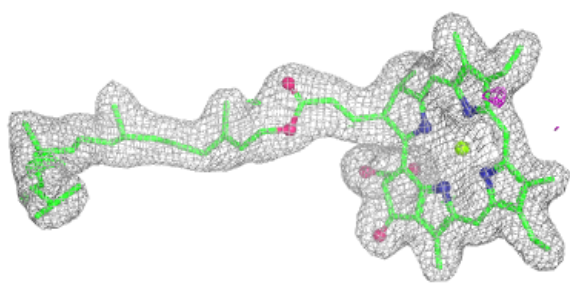
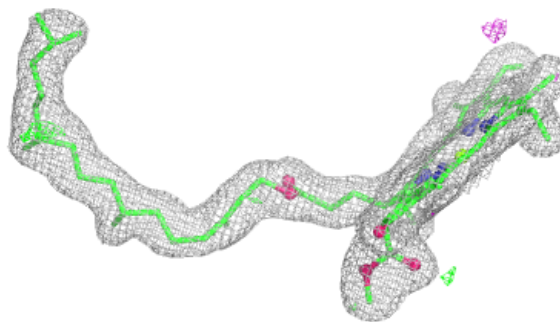
Electron density around CLA B 611:

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

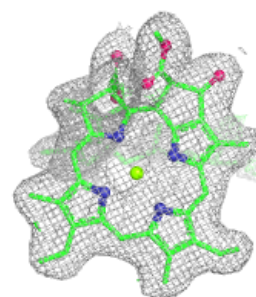
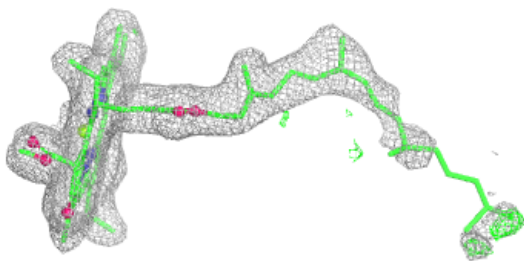
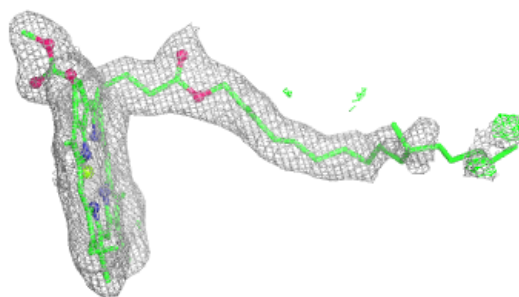


Electron density around CLA D 401:

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

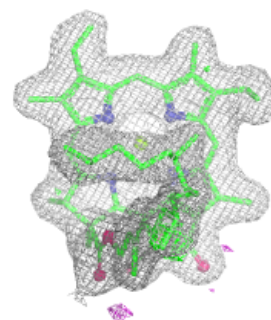
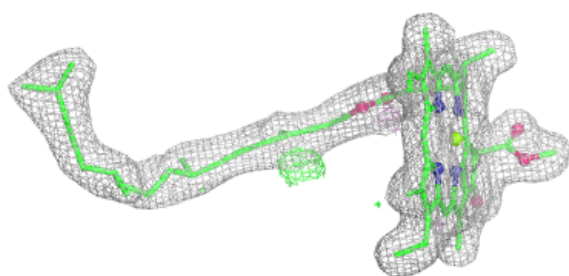
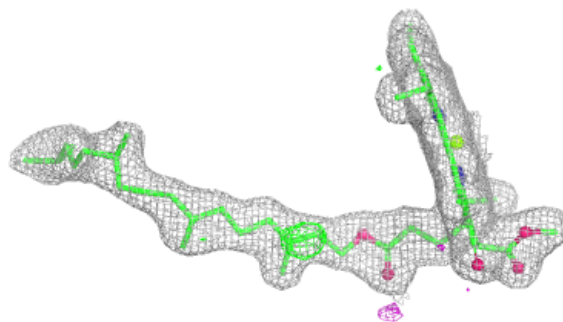
**Electron density around CLA D 402:**

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



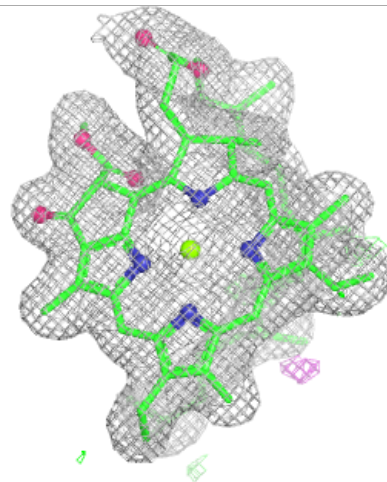
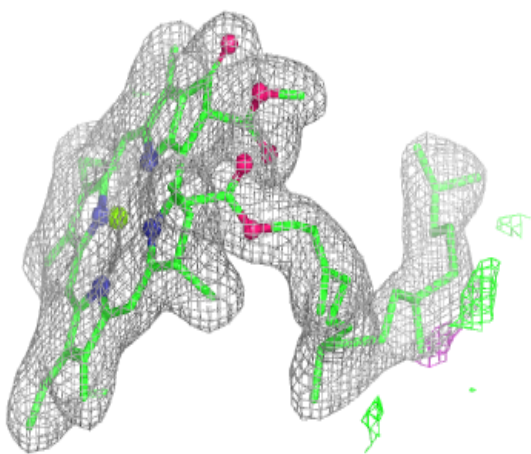
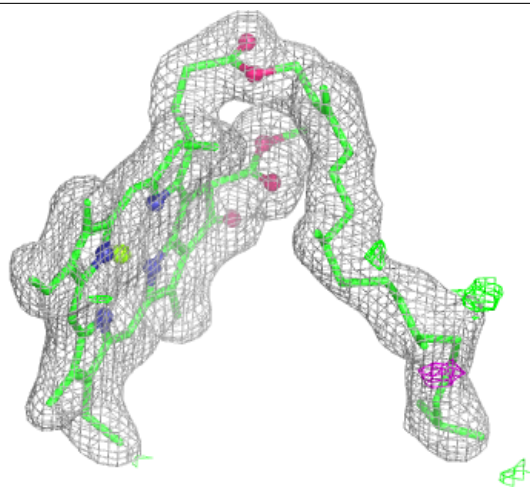
Electron density around CLA B 605:

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



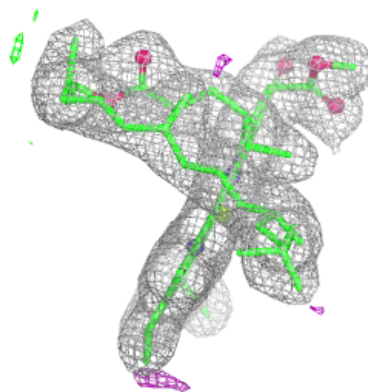
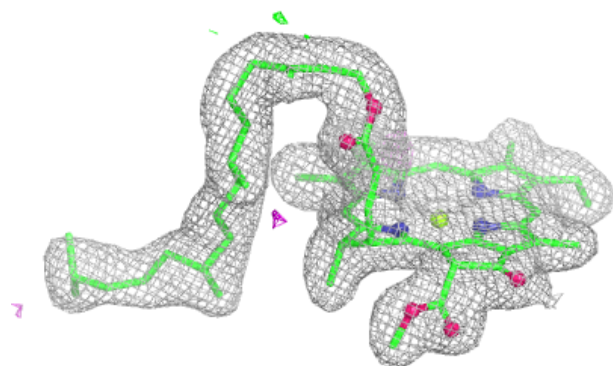
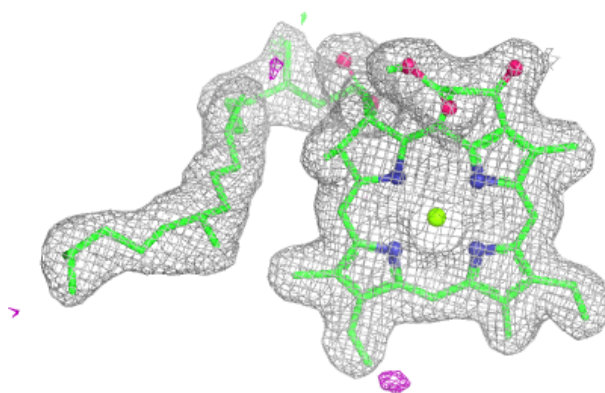
Electron density around CLA B 613:

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



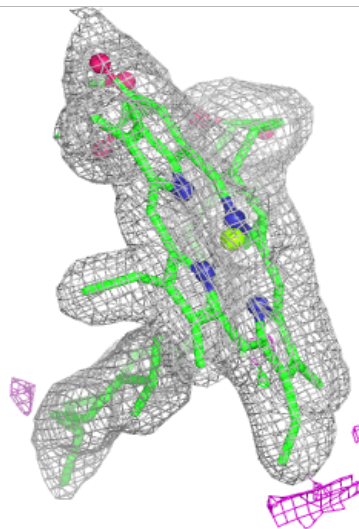
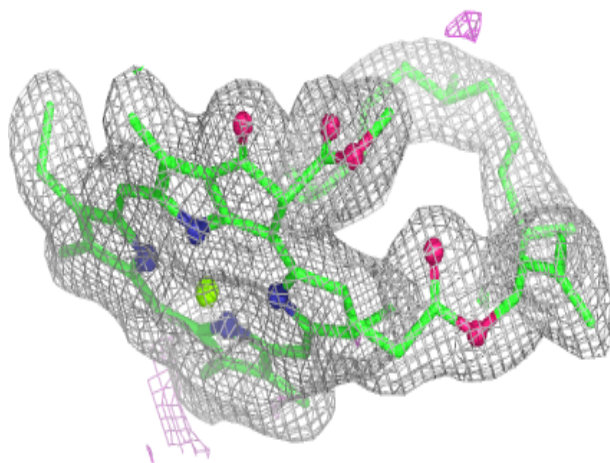
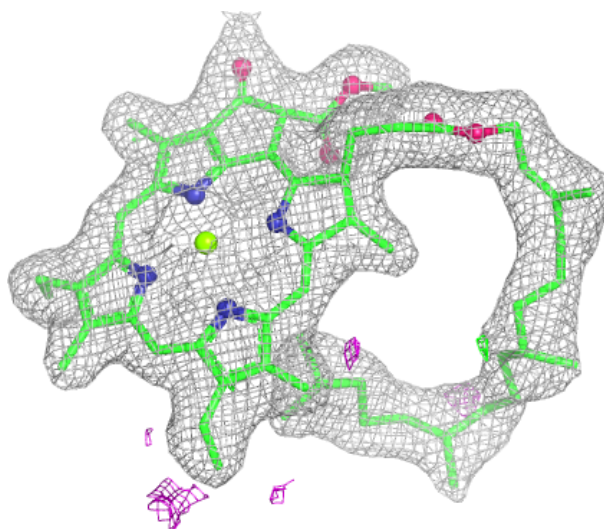
Electron density around CLA A 614:

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



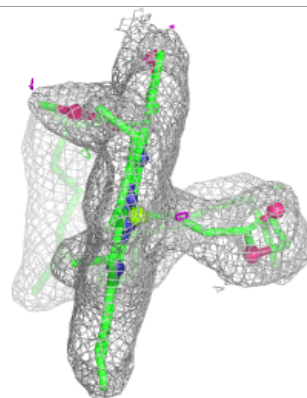
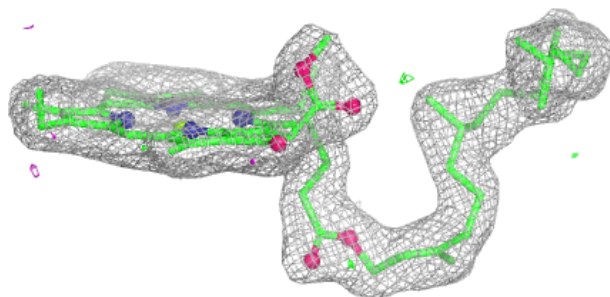
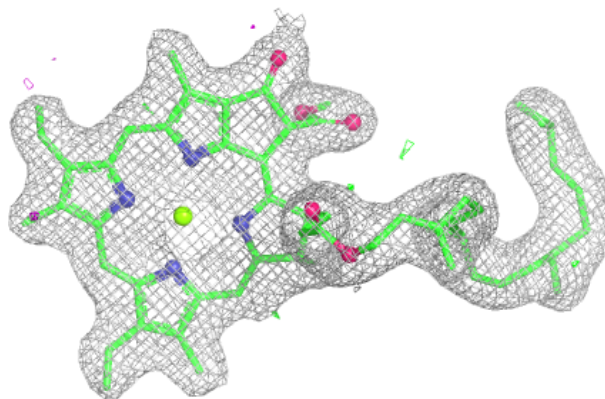
Electron density around CLA B 615:

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

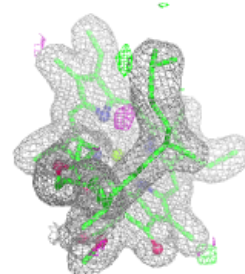
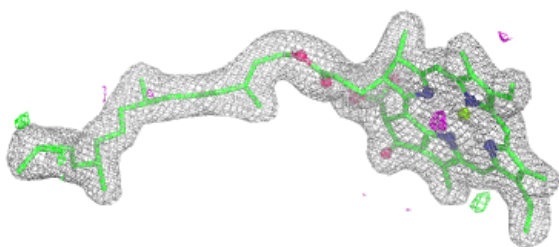
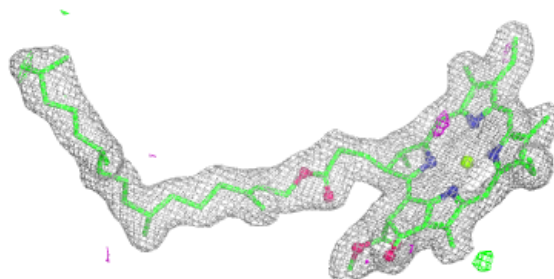


Electron density around CLA b 612:

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

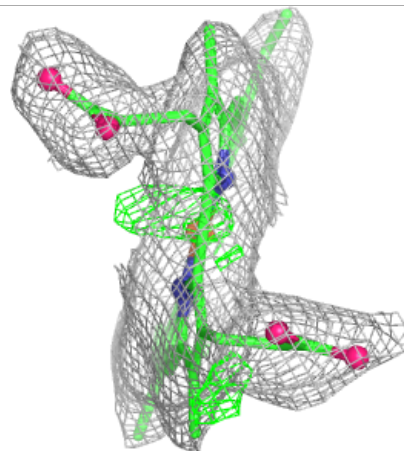
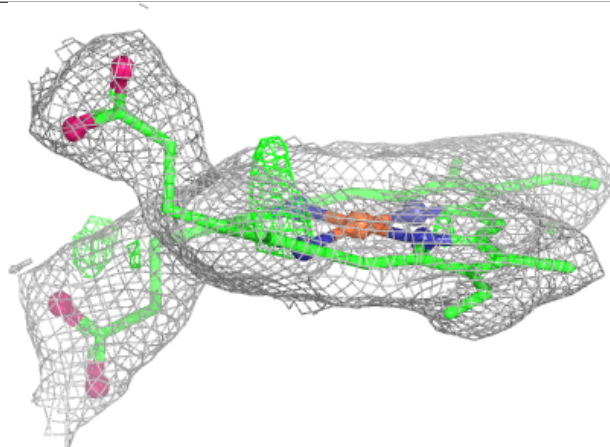
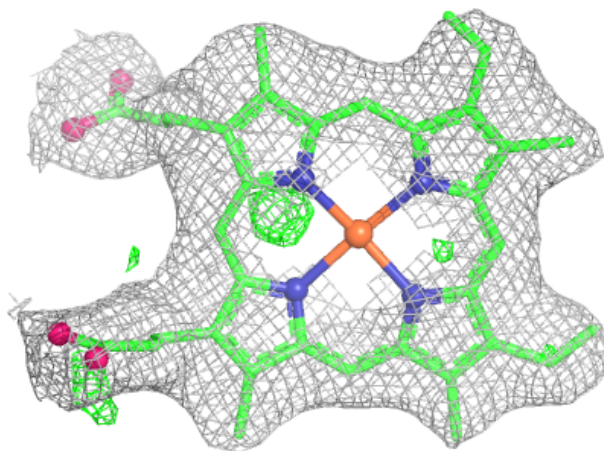
**Electron density around CLA A 606:**

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



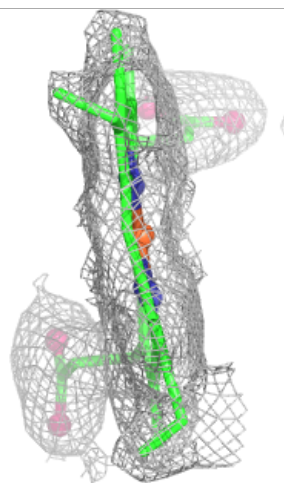
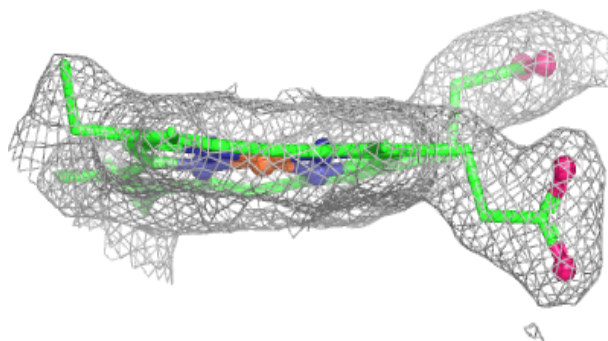
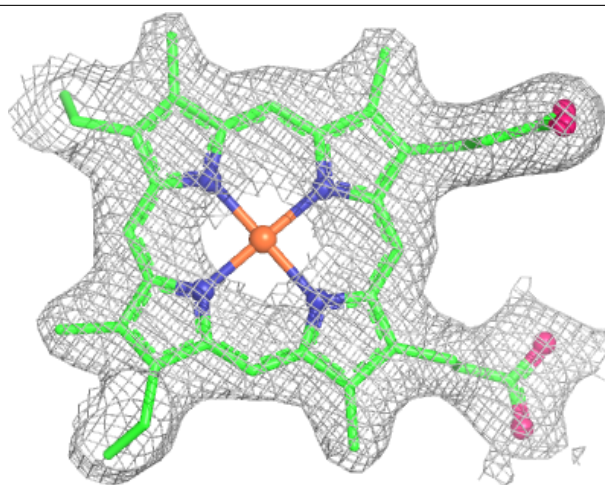
Electron density around HEM f 101:

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



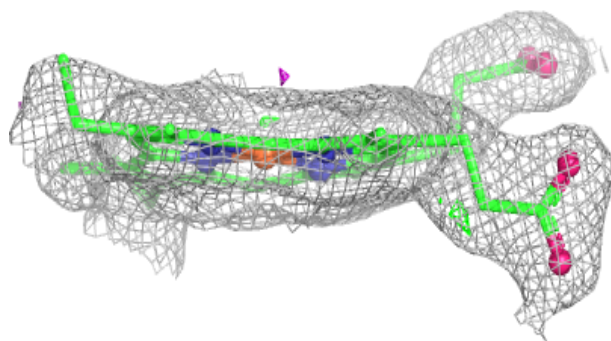
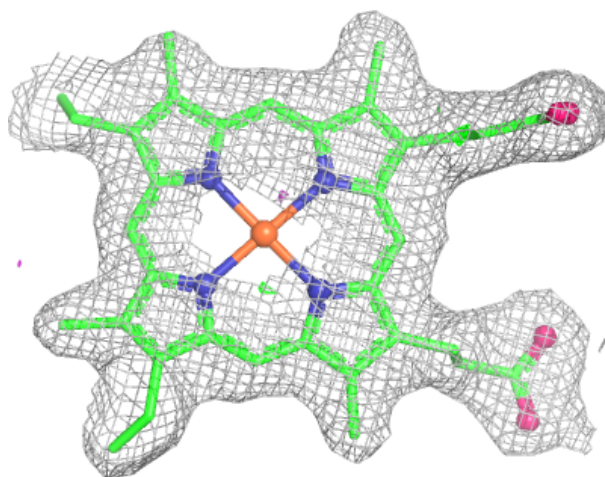
Electron density around HEC V 201:

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



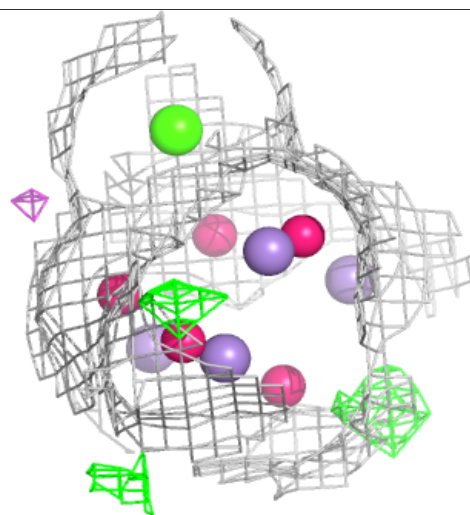
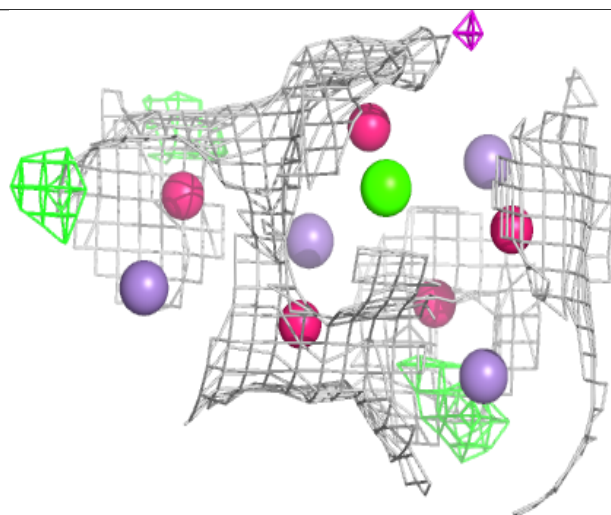
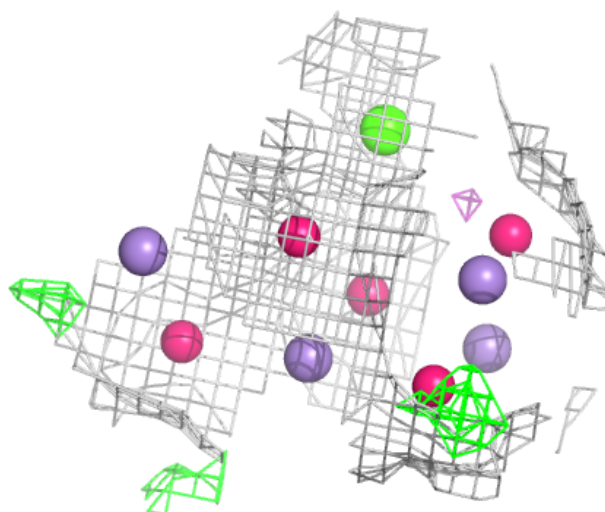
Electron density around HEC v 201:

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



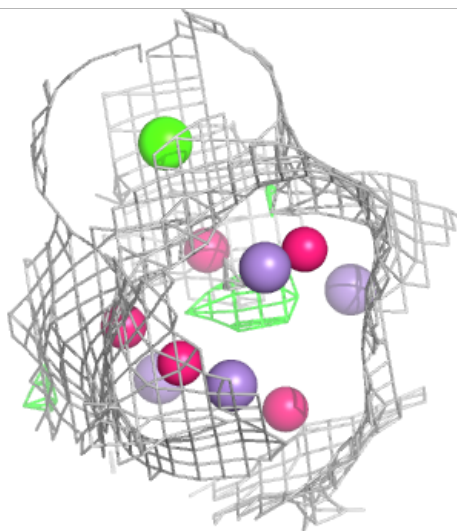
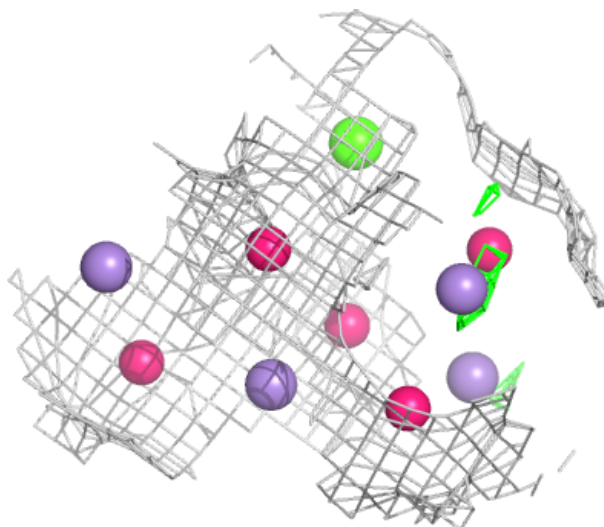
Electron density around OEX a 601:

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



Electron density around OEX A 601:

$2mF_o-DF_c$ (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.