



wwPDB EM Validation Summary Report ⓘ

May 22, 2024 – 06:41 PM JST

PDB ID : 8WM6
EMDB ID : EMD-37642
Title : The structure of PSI-CAC(L-14)of R.salina at 2.7 angstroms resolution
Authors : Zhang, S.M.; Si, L.; Li, M.
Deposited on : 2023-10-03
Resolution : 2.70 Å(reported)

This is a wwPDB EM 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/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev92
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36.2

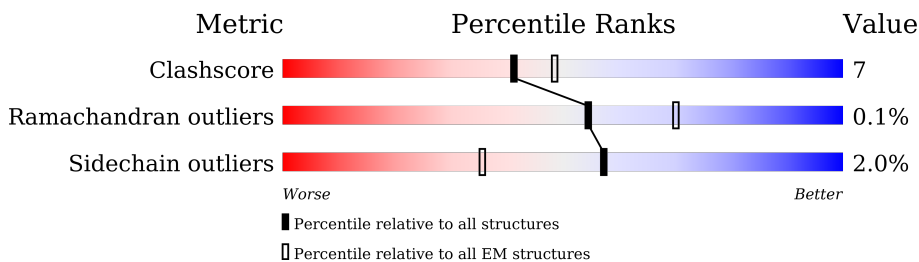
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 2.70 Å.

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




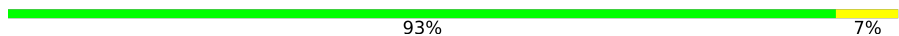






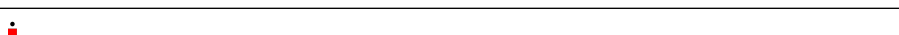
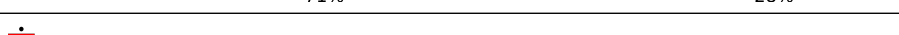
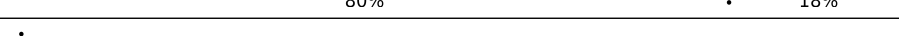
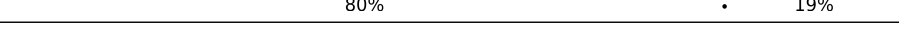
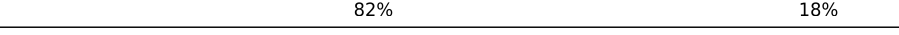








Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	752	
2	B	734	
3	C	81	
4	D	141	
5	E	64	
6	F	188	
7	I	36	
8	J	42	

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Mol	Chain	Length	Quality of chain
9	L	153	
10	M	30	
11	O	146	
12	K	87	
13	s	269	
14	c	216	
15	a	216	
16	b	223	
17	h	225	
18	f	212	
18	j	212	
18	m	212	
19	e	203	
20	l	238	
21	k	241	
22	i	218	
23	d	213	
24	g	255	
25	R	129	
26	n	219	
27	Q	234	

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
28	CLA	A	801	X	-	-	-
28	CLA	A	802	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
28	CLA	A	803	X	-	-	-
28	CLA	A	804	X	-	-	-
28	CLA	A	805	X	-	-	-
28	CLA	A	806	X	-	-	-
28	CLA	A	807	X	-	-	-
28	CLA	A	808	X	-	-	-
28	CLA	A	809	X	-	-	-
28	CLA	A	810	X	-	-	-
28	CLA	A	812	X	-	-	-
28	CLA	A	813	X	-	-	-
28	CLA	A	815	X	-	-	-
28	CLA	A	816	X	-	-	-
28	CLA	A	817	X	-	-	-
28	CLA	A	818	X	-	-	-
28	CLA	A	819	X	-	-	-
28	CLA	A	820	X	-	-	-
28	CLA	A	822	X	-	-	-
28	CLA	A	824	X	-	-	-
28	CLA	A	826	X	-	-	-
28	CLA	A	827	X	-	-	-
28	CLA	A	829	X	-	-	-
28	CLA	A	831	X	-	-	-
28	CLA	A	832	X	-	-	-
28	CLA	A	833	X	-	-	-
28	CLA	A	834	X	-	-	-
28	CLA	A	835	X	-	-	-
28	CLA	A	837	X	-	-	-
28	CLA	A	838	X	-	-	-
28	CLA	A	839	X	-	-	-
28	CLA	A	840	X	-	-	-
28	CLA	A	841	X	-	-	-
28	CLA	A	851	X	-	-	-
28	CLA	A	852	X	-	-	-
28	CLA	A	854	X	-	-	-
28	CLA	A	855	X	-	-	-
28	CLA	B	801	X	-	-	-
28	CLA	B	802	X	-	-	-
28	CLA	B	803	X	-	-	-
28	CLA	B	804	X	-	-	-
28	CLA	B	805	X	-	-	-
28	CLA	B	806	X	-	-	-
28	CLA	B	807	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
28	CLA	B	808	X	-	-	-
28	CLA	B	809	X	-	-	-
28	CLA	B	810	X	-	-	-
28	CLA	B	811	X	-	-	-
28	CLA	B	812	X	-	-	-
28	CLA	B	813	X	-	-	-
28	CLA	B	815	X	-	-	-
28	CLA	B	817	X	-	-	-
28	CLA	B	820	X	-	-	-
28	CLA	B	821	X	-	-	-
28	CLA	B	823	X	-	-	-
28	CLA	B	824	X	-	-	-
28	CLA	B	825	X	-	-	-
28	CLA	B	826	X	-	-	-
28	CLA	B	828	X	-	-	-
28	CLA	B	830	X	-	-	-
28	CLA	B	831	X	-	-	-
28	CLA	B	832	X	-	-	-
28	CLA	B	833	X	-	-	-
28	CLA	B	834	X	-	-	-
28	CLA	B	835	X	-	-	-
28	CLA	B	836	X	-	-	-
28	CLA	B	837	X	-	-	-
28	CLA	B	838	X	-	-	-
28	CLA	B	839	X	-	-	-
28	CLA	B	840	X	-	-	-
28	CLA	F	201	X	-	-	-
28	CLA	F	202	X	-	-	-
28	CLA	J	103	X	-	-	-
28	CLA	K	101	X	-	-	-
28	CLA	K	103	X	-	-	-
28	CLA	L	202	X	-	-	-
28	CLA	L	207	X	-	-	-
28	CLA	O	201	X	-	-	-
28	CLA	O	202	X	-	-	-
28	CLA	O	206	X	-	-	-
28	CLA	Q	302	X	-	-	-
28	CLA	Q	303	X	-	-	-
28	CLA	R	203	X	-	-	-
28	CLA	a	303	X	-	-	-
28	CLA	a	304	X	-	-	-
28	CLA	a	305	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
28	CLA	a	306	X	-	-	-
28	CLA	a	307	X	-	-	-
28	CLA	a	308	X	-	-	-
28	CLA	a	309	X	-	-	-
28	CLA	a	310	X	-	-	-
28	CLA	a	311	X	-	-	-
28	CLA	a	312	X	-	-	-
28	CLA	b	601	X	-	-	-
28	CLA	b	602	X	-	-	-
28	CLA	b	603	X	-	-	-
28	CLA	b	605	X	-	-	-
28	CLA	b	606	X	-	-	-
28	CLA	b	607	X	-	-	-
28	CLA	b	608	X	-	-	-
28	CLA	b	609	X	-	-	-
28	CLA	b	610	X	-	-	-
28	CLA	b	611	X	-	-	-
28	CLA	b	612	X	-	-	-
28	CLA	c	601	X	-	-	-
28	CLA	c	602	X	-	-	-
28	CLA	c	603	X	-	-	-
28	CLA	c	605	X	-	-	-
28	CLA	c	607	X	-	-	-
28	CLA	c	608	X	-	-	-
28	CLA	c	609	X	-	-	-
28	CLA	c	612	X	-	-	-
28	CLA	d	301	X	-	-	-
28	CLA	d	302	X	-	-	-
28	CLA	d	303	X	-	-	-
28	CLA	d	304	X	-	-	-
28	CLA	d	305	X	-	-	-
28	CLA	d	306	X	-	-	-
28	CLA	d	307	X	-	-	-
28	CLA	d	308	X	-	-	-
28	CLA	d	309	X	-	-	-
28	CLA	e	601	X	-	-	-
28	CLA	e	603	X	-	-	-
28	CLA	e	606	X	-	-	-
28	CLA	e	607	X	-	-	-
28	CLA	e	608	X	-	-	-
28	CLA	e	610	X	-	-	-
28	CLA	e	611	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
28	CLA	f	601	X	-	-	-
28	CLA	f	602	X	-	-	-
28	CLA	f	603	X	-	-	-
28	CLA	f	604	X	-	-	-
28	CLA	f	608	X	-	-	-
28	CLA	f	609	X	-	-	-
28	CLA	f	610	X	-	-	-
28	CLA	f	612	X	-	-	-
28	CLA	f	613	X	-	-	-
28	CLA	g	302	X	-	-	-
28	CLA	g	303	X	-	-	-
28	CLA	g	304	X	-	-	-
28	CLA	g	306	X	-	-	-
28	CLA	g	307	X	-	-	-
28	CLA	g	308	X	-	-	-
28	CLA	g	309	X	-	-	-
28	CLA	g	310	X	-	-	-
28	CLA	g	311	X	-	-	-
28	CLA	g	315	X	-	-	-
28	CLA	g	322	X	-	-	-
28	CLA	h	302	X	-	-	-
28	CLA	h	303	X	-	-	-
28	CLA	h	304	X	-	-	-
28	CLA	h	305	X	-	-	-
28	CLA	h	306	X	-	-	-
28	CLA	h	307	X	-	-	-
28	CLA	h	308	X	-	-	-
28	CLA	h	313	X	-	-	-
28	CLA	i	302	X	-	-	-
28	CLA	i	303	X	-	-	-
28	CLA	i	304	X	-	-	-
28	CLA	i	306	X	-	-	-
28	CLA	i	307	X	-	-	-
28	CLA	i	308	X	-	-	-
28	CLA	i	309	X	-	-	-
28	CLA	i	311	X	-	-	-
28	CLA	i	312	X	-	-	-
28	CLA	j	601	X	-	-	-
28	CLA	j	602	X	-	-	-
28	CLA	j	603	X	-	-	-
28	CLA	j	605	X	-	-	-
28	CLA	j	606	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
28	CLA	j	607	X	-	-	-
28	CLA	j	608	X	-	-	-
28	CLA	j	609	X	-	-	-
28	CLA	j	610	X	-	-	-
28	CLA	j	612	X	-	-	-
28	CLA	j	613	X	-	-	-
28	CLA	k	602	X	-	-	-
28	CLA	k	603	X	-	-	-
28	CLA	k	604	X	-	-	-
28	CLA	k	605	X	-	-	-
28	CLA	k	607	X	-	-	-
28	CLA	k	608	X	-	-	-
28	CLA	k	609	X	-	-	-
28	CLA	k	610	X	-	-	-
28	CLA	k	614	X	-	-	-
28	CLA	l	302	X	-	-	-
28	CLA	l	303	X	-	-	-
28	CLA	l	304	X	-	-	-
28	CLA	l	305	X	-	-	-
28	CLA	l	306	X	-	-	-
28	CLA	l	307	X	-	-	-
28	CLA	l	308	X	-	-	-
28	CLA	l	309	X	-	-	-
28	CLA	l	311	X	-	-	-
28	CLA	m	601	X	-	-	-
28	CLA	m	602	X	-	-	-
28	CLA	m	603	X	-	-	-
28	CLA	m	606	X	-	-	-
28	CLA	m	607	X	-	-	-
28	CLA	m	608	X	-	-	-
28	CLA	m	609	X	-	-	-
28	CLA	m	610	X	-	-	-
28	CLA	m	612	X	-	-	-
28	CLA	m	613	X	-	-	-
28	CLA	n	601	X	-	-	-
28	CLA	n	603	X	-	-	-
28	CLA	n	604	X	-	-	-
28	CLA	n	605	X	-	-	-
28	CLA	n	606	X	-	-	-
28	CLA	n	607	X	-	-	-
28	CLA	n	608	X	-	-	-
28	CLA	n	609	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
28	CLA	n	610	X	-	-	-
28	CLA	n	613	X	-	-	-
28	CLA	s	202	X	-	-	-
28	CLA	s	206	X	-	-	-
28	CLA	s	208	X	-	-	-

2 Entry composition [i](#)

There are 40 unique types of molecules in this entry. The entry contains 61164 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Photosystem I P700 chlorophyll a apoprotein A1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	742	5825	3802	994	1001	28	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	732	5826	3844	982	985	15	1	0

- Molecule 3 is a protein called Photosystem I iron-sulfur center.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	80	592	361	103	116	12	0	0

- Molecule 4 is a protein called Photosystem I reaction center subunit II.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	D	139	1084	692	186	203	3	0	0

- Molecule 5 is a protein called Photosystem I reaction center subunit IV.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
5	E	60	484	309	84	91	0	0

- Molecule 6 is a protein called Photosystem I reaction center subunit III.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	F	161	1254	814	212	226	2	0	0

- Molecule 7 is a protein called Photosystem I reaction center subunit VIII.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	I	34	264	182	35	45	2	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	J	42	351	240	49	59	3	0	0

- Molecule 9 is a protein called Photosystem I reaction center subunit XI.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	L	151	1146	753	182	208	3	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	M	30	232	155	38	38	1	0	0

- Molecule 11 is a protein called PsaO.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	O	104	773	515	117	138	3	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	K	69	488	319	80	87	2	0	0

- Molecule 13 is a protein called chain s.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	s	154	1140	719	195	217	9	0	0

- Molecule 14 is a protein called cac-c.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	c	170	1357	897	221	236	3	0	0

- Molecule 15 is a protein called cac-a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	a	175	1361	889	217	245	10	0	0

- Molecule 16 is a protein called cac-b.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	b	194	1439	916	251	258	14	0	0

- Molecule 17 is a protein called cac-h.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	h	162	1200	778	202	214	6	0	0

- Molecule 18 is a protein called cac-f.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
18	m	174	1309	846	214	241	8	0	0
18	f	174	1302	842	212	240	8	0	0
18	j	172	1293	834	212	239	8	0	0

- Molecule 19 is a protein called cac-e.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
19	e	169	1286	843	207	228	8	0	0

- Molecule 20 is a protein called cac-l.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
20	l	175	1344	869	230	238	7	0	0

- Molecule 21 is a protein called cac-k.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	k	180	1346	872	223	239	12	0	0

- Molecule 22 is a protein called cac-i.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	i	175	1324	849	227	237	11	0	0

- Molecule 23 is a protein called cac-d.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	d	129	974	624	169	171	10	0	0

- Molecule 24 is a protein called cac-g.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	g	219	1630	1060	267	292	11	0	0

- Molecule 25 is a protein called PsaR.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	R	90	664	434	105	124	1	0	0

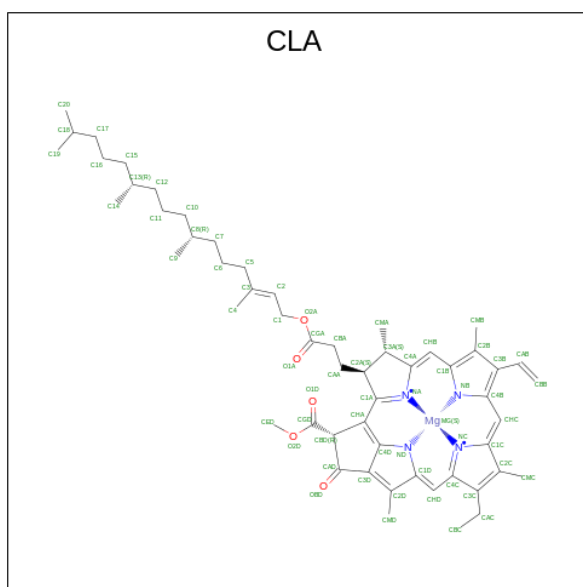
- Molecule 26 is a protein called cac-n.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
26	n	181	1350	870	228	242	10	0	0

- Molecule 27 is a protein called PsaQ.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
27	Q	179	1294	814	222	252	6	0	0

- Molecule 28 is CHLOROPHYLL A (three-letter code: CLA) (formula: C₅₅H₇₂MgN₄O₅).



Mol	Chain	Residues	Atoms				AltConf	
28	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			55	45	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			56	46	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			62	52	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			54	44	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
28	A	1	Total	C	Mg	N	O	0
			50	40	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	A	1	45	35	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	45	35	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	49	39	1	4	5	0
28	A	1	51	41	1	4	5	0
28	A	1	55	45	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	62	52	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	50	40	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	50	40	1	4	5	0
28	A	1	51	41	1	4	5	0
28	A	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	65	55	1	4	5	0
28	A	1	41	33	1	4	3	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	54	44	1	4	5	0
28	B	1	55	45	1	4	5	0
28	B	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	B	1	60	50	1	4	5	0
28	B	1	59	49	1	4	5	0
28	B	1	55	45	1	4	5	0
28	B	1	59	49	1	4	5	0
28	B	1	57	47	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	46	36	1	4	5	0
28	B	1	55	45	1	4	5	0
28	B	1	53	43	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	64	54	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	51	41	1	4	5	0
28	B	1	50	40	1	4	5	0
28	B	1	49	39	1	4	5	0
28	B	1	50	40	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	45	35	1	4	5	0
28	B	1	58	48	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	B	1	65	55	1	4	5	0
28	B	1	47	37	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	57	47	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	B	1	65	55	1	4	5	0
28	F	1	65	55	1	4	5	0
28	F	1	52	42	1	4	5	0
28	J	1	42	34	1	4	3	0
28	L	1	49	39	1	4	5	0
28	L	1	65	55	1	4	5	0
28	L	1	50	40	1	4	5	0
28	L	1	51	41	1	4	5	0
28	O	1	52	42	1	4	5	0
28	O	1	65	55	1	4	5	0
28	O	1	65	55	1	4	5	0
28	K	1	51	41	1	4	5	0
28	K	1	42	34	1	4	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	s	1	65	55	1	4	5	0
28	s	1	65	55	1	4	5	0
28	s	1	65	55	1	4	5	0
28	s	1	51	41	1	4	5	0
28	c	1	51	41	1	4	5	0
28	c	1	50	40	1	4	5	0
28	c	1	51	41	1	4	5	0
28	c	1	65	55	1	4	5	0
28	c	1	51	41	1	4	5	0
28	c	1	52	42	1	4	5	0
28	c	1	46	36	1	4	5	0
28	c	1	65	55	1	4	5	0
28	c	1	45	35	1	4	5	0
28	c	1	45	35	1	4	5	0
28	c	1	65	55	1	4	5	0
28	a	1	52	42	1	4	5	0
28	a	1	50	40	1	4	5	0
28	a	1	51	41	1	4	5	0
28	a	1	65	55	1	4	5	0
28	a	1	45	35	1	4	5	0
28	a	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	a	1	65	55	1	4	5	0
28	a	1	48	38	1	4	5	0
28	a	1	65	55	1	4	5	0
28	a	1	65	55	1	4	5	0
28	a	1	48	38	1	4	5	0
28	b	1	51	41	1	4	5	0
28	b	1	55	45	1	4	5	0
28	b	1	65	55	1	4	5	0
28	b	1	65	55	1	4	5	0
28	b	1	65	55	1	4	5	0
28	b	1	61	51	1	4	5	0
28	b	1	65	55	1	4	5	0
28	b	1	65	55	1	4	5	0
28	b	1	51	41	1	4	5	0
28	b	1	65	55	1	4	5	0
28	b	1	65	55	1	4	5	0
28	b	1	51	41	1	4	5	0
28	h	1	65	55	1	4	5	0
28	h	1	50	40	1	4	5	0
28	h	1	50	40	1	4	5	0
28	h	1	51	41	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	h	1	51	41	1	4	5	0
28	h	1	65	55	1	4	5	0
28	h	1	57	47	1	4	5	0
28	h	1	51	41	1	4	5	0
28	h	1	65	55	1	4	5	0
28	m	1	42	34	1	4	3	0
28	m	1	56	46	1	4	5	0
28	m	1	65	55	1	4	5	0
28	m	1	65	55	1	4	5	0
28	m	1	42	34	1	4	3	0
28	m	1	65	55	1	4	5	0
28	m	1	51	41	1	4	5	0
28	m	1	65	55	1	4	5	0
28	m	1	51	41	1	4	5	0
28	m	1	55	45	1	4	5	0
28	m	1	51	41	1	4	5	0
28	m	1	43	35	1	4	3	0
28	e	1	45	35	1	4	5	0
28	e	1	50	40	1	4	5	0
28	e	1	51	41	1	4	5	0
28	e	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	e	1	65	55	1	4	5	0
28	e	1	65	55	1	4	5	0
28	e	1	65	55	1	4	5	0
28	e	1	46	36	1	4	5	0
28	e	1	65	55	1	4	5	0
28	e	1	65	55	1	4	5	0
28	l	1	47	37	1	4	5	0
28	l	1	65	55	1	4	5	0
28	l	1	51	41	1	4	5	0
28	l	1	65	55	1	4	5	0
28	l	1	65	55	1	4	5	0
28	l	1	65	55	1	4	5	0
28	l	1	65	55	1	4	5	0
28	l	1	51	41	1	4	5	0
28	l	1	61	51	1	4	5	0
28	l	1	65	55	1	4	5	0
28	k	1	51	41	1	4	5	0
28	k	1	50	40	1	4	5	0
28	k	1	51	41	1	4	5	0
28	k	1	65	55	1	4	5	0
28	k	1	45	35	1	4	5	0
28	k	1	51	41	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	k	1	51	41	1	4	5	0
28	k	1	65	55	1	4	5	0
28	k	1	65	55	1	4	5	0
28	k	1	51	41	1	4	5	0
28	k	1	51	41	1	4	5	0
28	f	1	47	37	1	4	5	0
28	f	1	65	55	1	4	5	0
28	f	1	51	41	1	4	5	0
28	f	1	65	55	1	4	5	0
28	f	1	45	35	1	4	5	0
28	f	1	51	41	1	4	5	0
28	f	1	65	55	1	4	5	0
28	f	1	65	55	1	4	5	0
28	f	1	65	55	1	4	5	0
28	f	1	51	41	1	4	5	0
28	f	1	65	55	1	4	5	0
28	i	1	51	41	1	4	5	0
28	i	1	50	40	1	4	5	0
28	i	1	51	41	1	4	5	0
28	i	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	i	1	51	41	1	4	5	0
28	i	1	61	51	1	4	5	0
28	i	1	51	41	1	4	5	0
28	i	1	46	36	1	4	5	0
28	i	1	51	41	1	4	5	0
28	i	1	51	41	1	4	5	0
28	j	1	51	41	1	4	5	0
28	j	1	50	40	1	4	5	0
28	j	1	51	41	1	4	5	0
28	j	1	65	55	1	4	5	0
28	j	1	45	35	1	4	5	0
28	j	1	51	41	1	4	5	0
28	j	1	51	41	1	4	5	0
28	j	1	45	35	1	4	5	0
28	j	1	51	41	1	4	5	0
28	j	1	61	51	1	4	5	0
28	j	1	51	41	1	4	5	0
28	j	1	65	55	1	4	5	0
28	d	1	50	40	1	4	5	0
28	d	1	51	41	1	4	5	0
28	d	1	65	55	1	4	5	0

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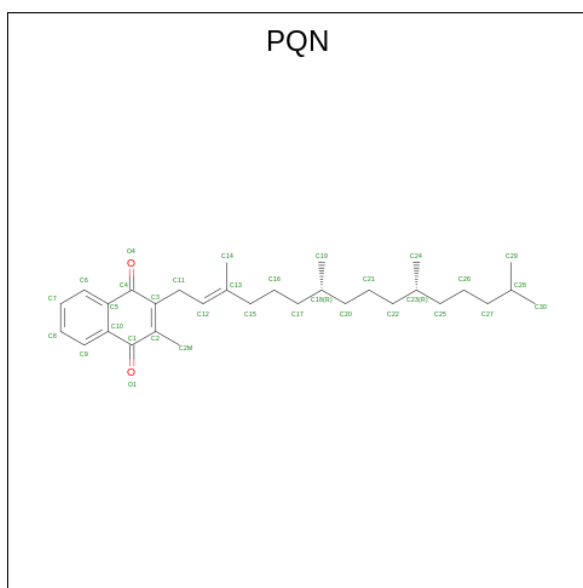
Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	d	1	51	41	1	4	5	0
28	d	1	51	41	1	4	5	0
28	d	1	51	41	1	4	5	0
28	d	1	46	36	1	4	5	0
28	d	1	41	33	1	4	3	0
28	d	1	41	33	1	4	3	0
28	d	1	51	41	1	4	5	0
28	g	1	42	34	1	4	3	0
28	g	1	50	40	1	4	5	0
28	g	1	51	41	1	4	5	0
28	g	1	65	55	1	4	5	0
28	g	1	51	41	1	4	5	0
28	g	1	51	41	1	4	5	0
28	g	1	65	55	1	4	5	0
28	g	1	65	55	1	4	5	0
28	g	1	51	41	1	4	5	0
28	g	1	54	44	1	4	5	0
28	g	1	51	41	1	4	5	0
28	g	1	65	55	1	4	5	0
28	R	1	51	41	1	4	5	0
28	n	1	45	35	1	4	5	0

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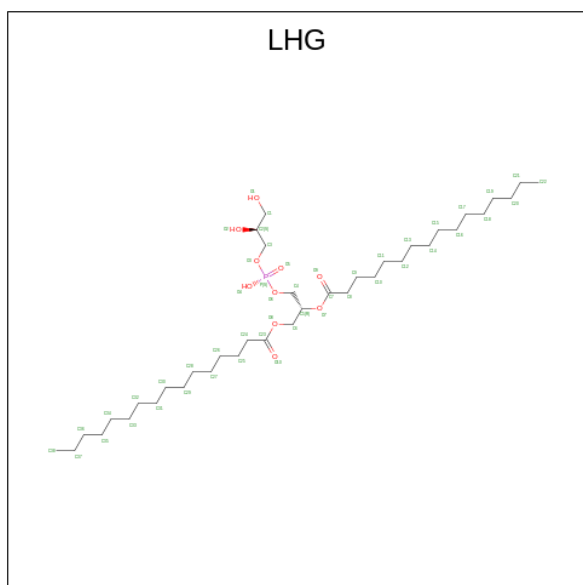
Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
28	n	1	50	40	1	4	5	0
28	n	1	51	41	1	4	5	0
28	n	1	60	50	1	4	5	0
28	n	1	51	41	1	4	5	0
28	n	1	51	41	1	4	5	0
28	n	1	65	55	1	4	5	0
28	n	1	51	41	1	4	5	0
28	n	1	65	55	1	4	5	0
28	n	1	65	55	1	4	5	0
28	n	1	51	41	1	4	5	0
28	Q	1	65	55	1	4	5	0
28	Q	1	45	35	1	4	5	0

- Molecule 29 is PHYLLOQUINONE (three-letter code: PQN) (formula: C₃₁H₄₆O₂).



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

- Molecule 30 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{76}O_{10}P$).



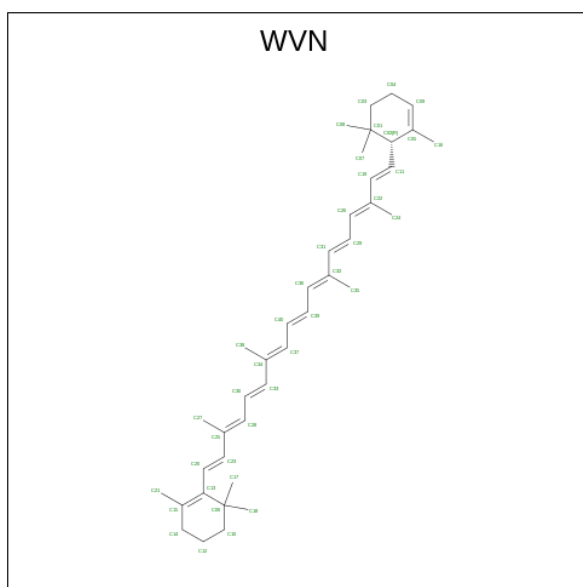
Mol	Chain	Residues	Atoms				AltConf
30	A	1	Total	C	O	P	0
			48	37	10	1	
30	A	1	Total	C	O	P	0
			27	16	10	1	
30	A	1	Total	C	O	P	0
			38	27	10	1	
30	J	1	Total	C	O	P	0
			49	38	10	1	
30	L	1	Total	C	O	P	0
			49	38	10	1	
30	c	1	Total	C	O	P	0
			37	26	10	1	
30	c	1	Total	C	O	P	0
			37	26	10	1	
30	a	1	Total	C	O	P	0
			49	38	10	1	
30	a	1	Total	C	O	P	0
			49	38	10	1	

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	P	
30	b	1	49	38	10	1	0
30	b	1	31	20	10	1	0
30	m	1	37	26	10	1	0
30	e	1	37	26	10	1	0
30	l	1	32	21	10	1	0
30	k	1	37	26	10	1	0
30	f	1	49	38	10	1	0
30	i	1	37	26	10	1	0
30	j	1	30	19	10	1	0
30	d	1	37	26	10	1	0
30	g	1	37	26	10	1	0
30	g	1	37	26	10	1	0
30	n	1	43	32	10	1	0

- Molecule 31 is 1,3,3-trimethyl-2-[(1E,3E,5E,7E,9E,11E,13E,15E,17E)-3,7,12,16-tetramethyl-18-[(1R)-2,6,6-trimethylcyclohex-2-en-1-yl]octadeca-1,3,5,7,9,11,13,15,17-nonaenyl]cyclohexene (three-letter code: WVN) (formula: C₄₀H₅₆).



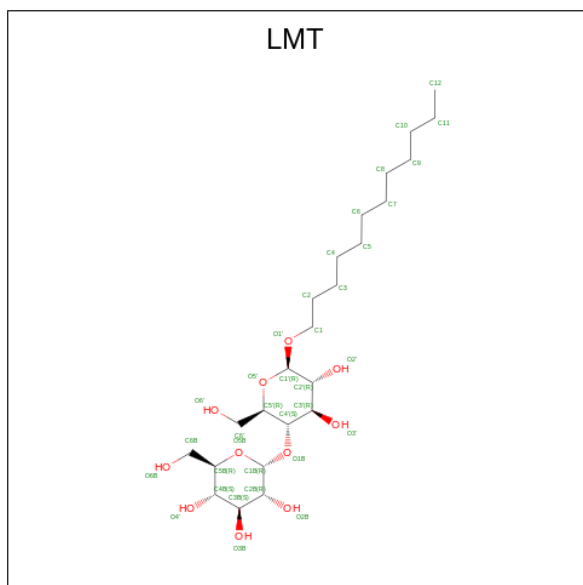
Mol	Chain	Residues	Atoms	AltConf
31	A	1	Total C 40 40	0
31	A	1	Total C 40 40	0
31	A	1	Total C 40 40	0
31	A	1	Total C 40 40	0
31	B	1	Total C 40 40	0
31	B	1	Total C 40 40	0
31	B	1	Total C 40 40	0
31	B	1	Total C 40 40	0
31	B	1	Total C 40 40	0
31	F	1	Total C 40 40	0
31	F	1	Total C 40 40	0
31	I	1	Total C 40 40	0
31	J	1	Total C 40 40	0
31	J	1	Total C 40 40	0

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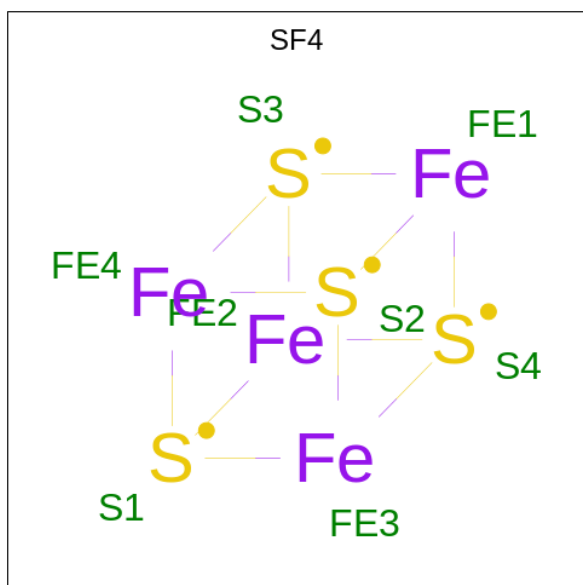
Mol	Chain	Residues	Atoms	AltConf
31	L	1	Total C 40 40	0
31	L	1	Total C 40 40	0
31	L	1	Total C 40 40	0
31	M	1	Total C 40 40	0
31	K	1	Total C 40 40	0
31	K	1	Total C 40 40	0
31	s	1	Total C 40 40	0
31	s	1	Total C 40 40	0
31	h	1	Total C 40 40	0
31	e	1	Total C 40 40	0
31	l	1	Total C 40 40	0
31	l	1	Total C 40 40	0
31	i	1	Total C 40 40	0
31	R	1	Total C 40 40	0
31	R	1	Total C 40 40	0

- Molecule 32 is DODECYL-BETA-D-MALTOSE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



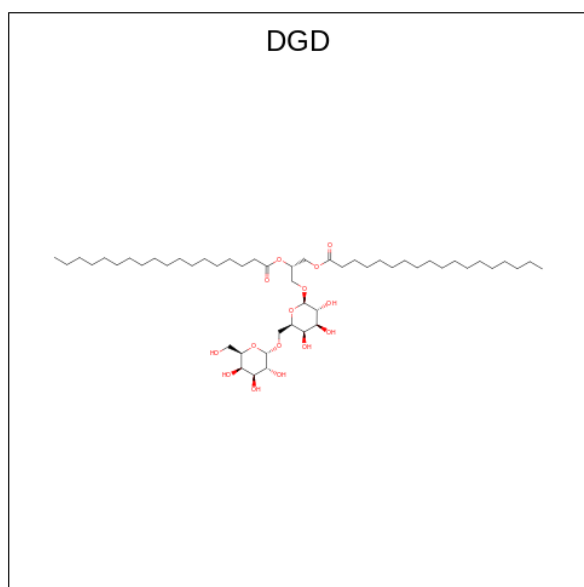
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
32	A	1	35	24	11	0
32	a	1	24	18	6	0
32	a	1	35	24	11	0
32	b	1	24	18	6	0

- Molecule 33 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe₄S₄).



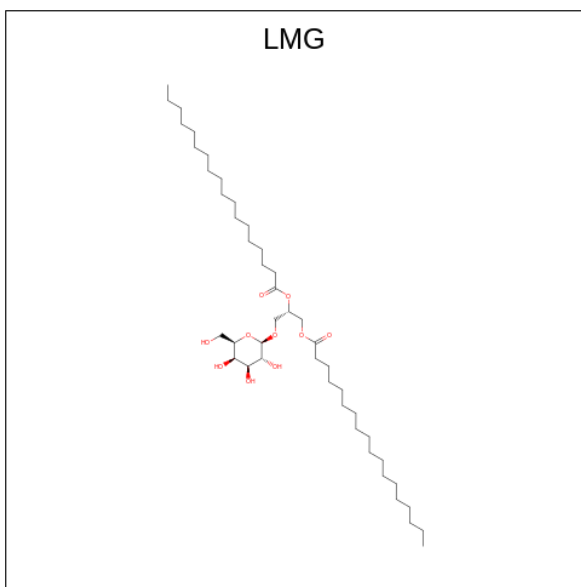
Mol	Chain	Residues	Atoms			AltConf
33	A	1	Total	Fe	S	0
			8	4	4	
33	C	1	Total	Fe	S	0
			8	4	4	
33	C	1	Total	Fe	S	0
			8	4	4	

- Molecule 34 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



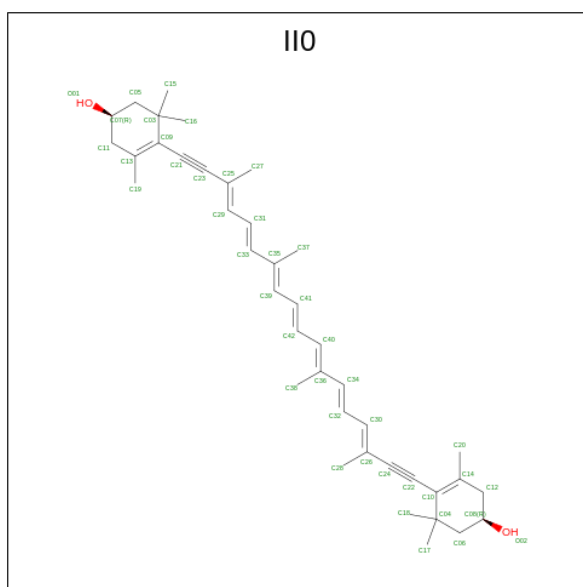
Mol	Chain	Residues	Atoms			AltConf
34	B	1	Total	C	O	0
			60	45	15	

- Molecule 35 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
35	F	1	48	38	10	0
35	J	1	55	45	10	0
35	L	1	55	45	10	0
35	O	1	26	16	10	0
35	c	1	55	45	10	0
35	b	1	49	39	10	0
35	n	1	55	45	10	0
35	Q	1	38	28	10	0

- Molecule 36 is (1 {R})-3,5,5-trimethyl-4-[(3 {E},5 {E},7 {E},9 {E},11 {E},13 {E},15 {E})-3,7,12,16-tetramethyl-18-[(4 {R})-2,6,6-trimethyl-4-oxidanyl-cyclohexen-1-yl]octadec a-3,5,7,9,11,13,15-heptaen-1,17-diyne]cyclohex-3-en-1-ol (three-letter code: II0) (formula: C₄₀H₅₂O₂) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			AltConf
36	J	1	Total	C	O	0
			42	40	2	
36	O	1	Total	C	O	0
			42	40	2	
36	c	1	Total	C	O	0
			42	40	2	
36	c	1	Total	C	O	0
			42	40	2	
36	c	1	Total	C	O	0
			42	40	2	
36	c	1	Total	C	O	0
			42	40	2	
36	a	1	Total	C	O	0
			42	40	2	
36	a	1	Total	C	O	0
			42	40	2	
36	a	1	Total	C	O	0
			42	40	2	
36	a	1	Total	C	O	0
			42	40	2	
36	b	1	Total	C	O	0
			42	40	2	
36	b	1	Total	C	O	0
			42	40	2	
36	b	1	Total	C	O	0
			42	40	2	
36	h	1	Total	C	O	0
			28	27	1	

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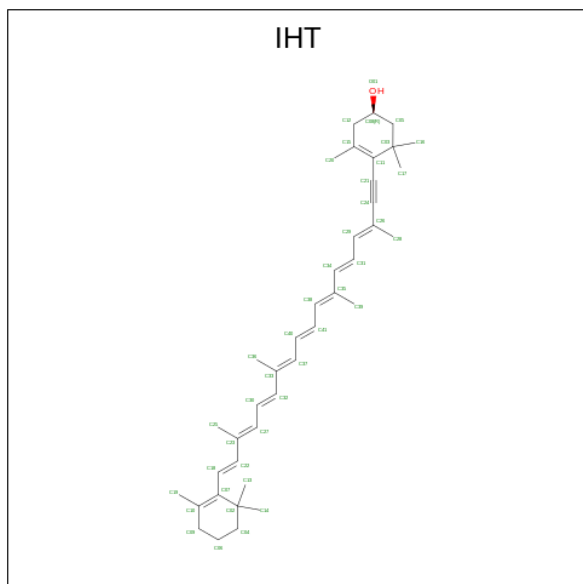
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
36	h	1	42	40	2	0
36	h	1	42	40	2	0
36	m	1	42	40	2	0
36	m	1	42	40	2	0
36	m	1	42	40	2	0
36	m	1	42	40	2	0
36	e	1	42	40	2	0
36	e	1	42	40	2	0
36	e	1	42	40	2	0
36	e	1	42	40	2	0
36	l	1	42	40	2	0
36	l	1	42	40	2	0
36	l	1	42	40	2	0
36	l	1	42	40	2	0
36	k	1	42	40	2	0
36	k	1	42	40	2	0
36	k	1	42	40	2	0
36	k	1	42	40	2	0
36	k	1	42	40	2	0
36	f	1	42	40	2	0
36	f	1	42	40	2	0

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Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
36	f	1	42	40	2	0
36	f	1	42	40	2	0
36	i	1	42	40	2	0
36	i	1	42	40	2	0
36	i	1	42	40	2	0
36	i	1	42	40	2	0
36	i	1	42	40	2	0
36	i	1	42	40	2	0
36	j	1	42	40	2	0
36	j	1	42	40	2	0
36	d	1	42	40	2	0
36	d	1	42	40	2	0
36	d	1	42	40	2	0
36	d	1	42	40	2	0
36	g	1	42	40	2	0
36	g	1	42	40	2	0
36	g	1	42	40	2	0
36	g	1	42	40	2	0
36	n	1	42	40	2	0
36	n	1	42	40	2	0
36	n	1	42	40	2	0
36	n	1	42	40	2	0

- Molecule 37 is (1 {R})-3,5,5-trimethyl-4-[(3 {E},5 {E},7 {E},9 {E},11 {E},13 {E},15 {E},17 {E})-3,7,12,16-tetramethyl-18-(2,6,6-trimethylcyclohexen-1-yl)octadeca-3,5,7,9,11,13,15,17-octaen-1-ynyl]cyclohex-3-en-1-ol (three-letter code: IHT) (formula: C₄₀H₅₄O).

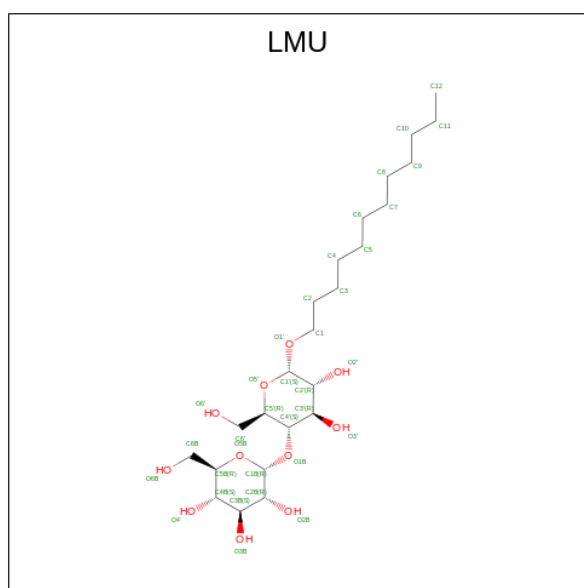


Mol	Chain	Residues	Atoms			AltConf
37	O	1	Total	C	O	0
			41	40	1	
37	c	1	Total	C	O	0
			41	40	1	
37	a	1	Total	C	O	0
			41	40	1	
37	b	1	Total	C	O	0
			41	40	1	
37	b	1	Total	C	O	0
			41	40	1	
37	m	1	Total	C	O	0
			41	40	1	
37	k	1	Total	C	O	0
			41	40	1	
37	f	1	Total	C	O	0
			41	40	1	
37	j	1	Total	C	O	0
			41	40	1	
37	g	1	Total	C	O	0
			41	40	1	
37	R	1	Total	C	O	0
			41	40	1	
37	n	1	Total	C	O	0
			41	40	1	

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Mol	Chain	Residues	Atoms					AltConf
38	d	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
38	d	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
38	g	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
38	g	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
38	g	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
38	n	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
38	n	1	Total	C	Mg	N	O	0
			45	35	1	4	5	

- Molecule 39 is DODECYL-ALPHA-D-MALTOSE (three-letter code: LMU) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms			AltConf
39	i	1	Total	C	O	0
			35	24	11	

- Molecule 40 is water.

Mol	Chain	Residues	Atoms		AltConf
40	A	50	Total	O	0
			50	50	

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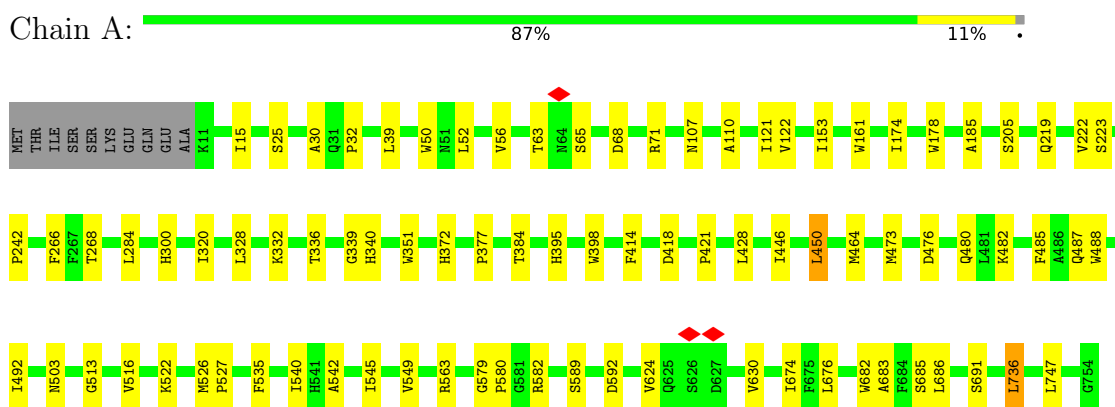
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Mol	Chain	Residues	Atoms		AltConf
40	B	57	Total 57	O 57	0
40	C	8	Total 8	O 8	0
40	D	1	Total 1	O 1	0
40	F	2	Total 2	O 2	0
40	I	1	Total 1	O 1	0
40	J	1	Total 1	O 1	0
40	L	1	Total 1	O 1	0
40	O	1	Total 1	O 1	0
40	K	1	Total 1	O 1	0
40	a	3	Total 3	O 3	0
40	b	2	Total 2	O 2	0
40	h	1	Total 1	O 1	0
40	m	1	Total 1	O 1	0
40	e	4	Total 4	O 4	0
40	R	1	Total 1	O 1	0
40	n	3	Total 3	O 3	0
40	Q	1	Total 1	O 1	0

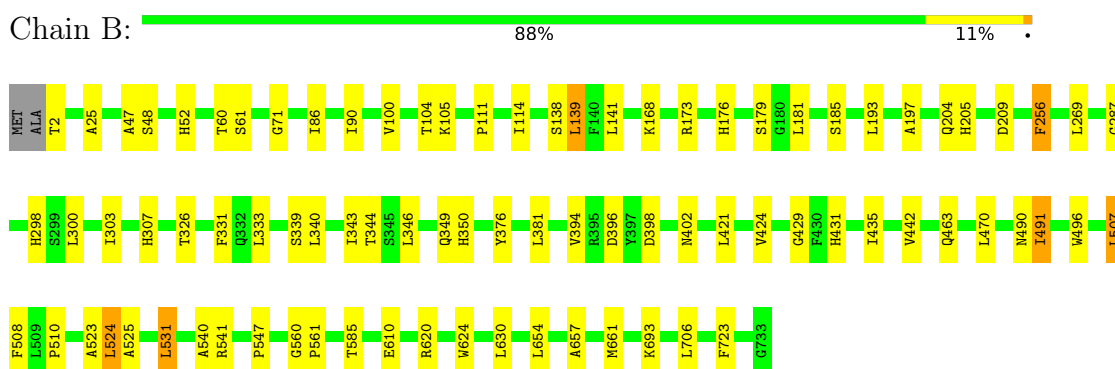
3 Residue-property plots [i](#)

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 atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

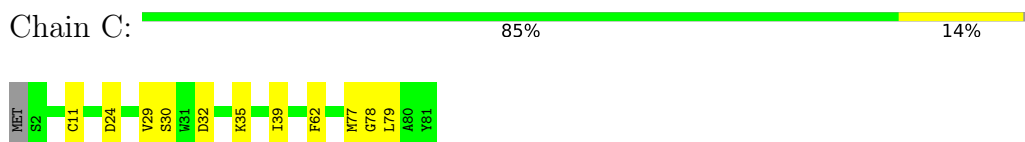
- Molecule 1: Photosystem I P700 chlorophyll a apoprotein A1




- Molecule 2: Photosystem I P700 chlorophyll a apoprotein A2



- Molecule 3: Photosystem I iron-sulfur center




- Molecule 4: Photosystem I reaction center subunit II

Chain D:  80% 18% ..



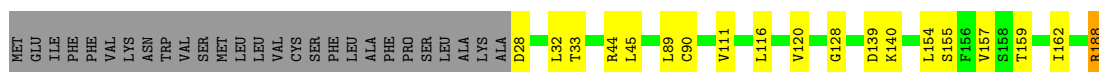
- Molecule 5: Photosystem I reaction center subunit IV

Chain E:  84% 9% 6%




- Molecule 6: Photosystem I reaction center subunit III

Chain F:  76% 10% 14%




- Molecule 7: Photosystem I reaction center subunit VIII

Chain I:  83% 11% 6%




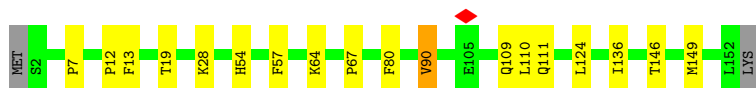
- Molecule 8: Photosystem I reaction center subunit IX

Chain J:  90% 10%



- Molecule 9: Photosystem I reaction center subunit XI

Chain L:  87% 11% ..

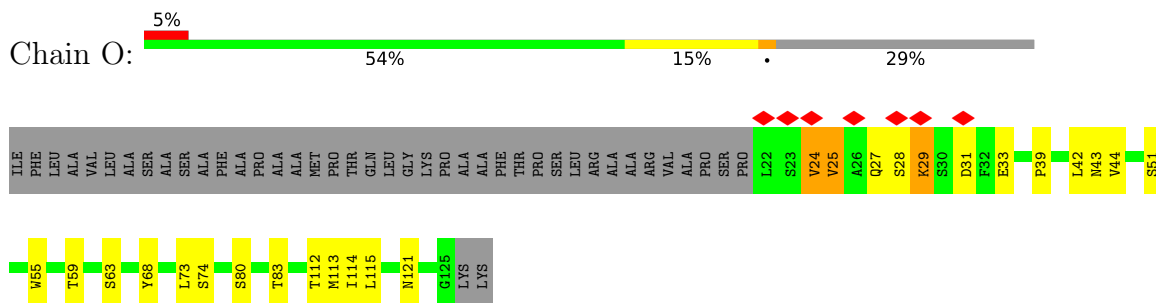


- Molecule 10: Photosystem I reaction center subunit XII

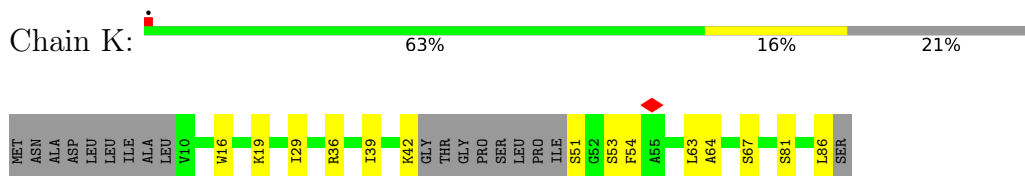
Chain M:  93% 7%



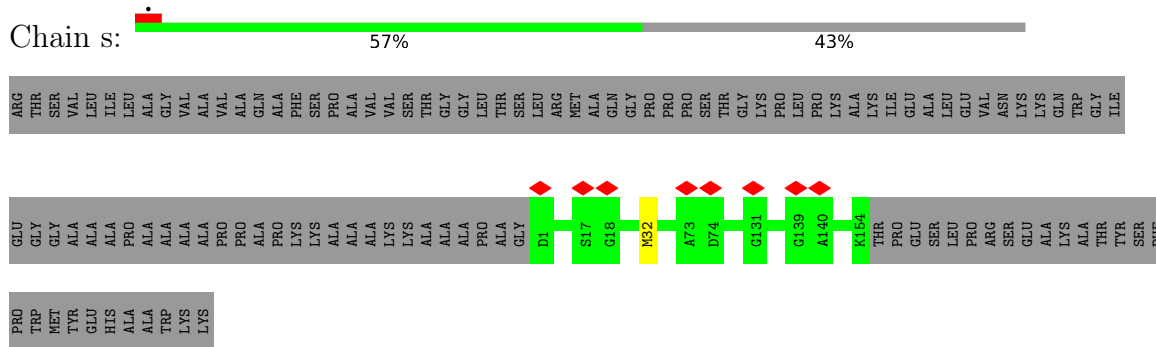
- Molecule 11: PsaO



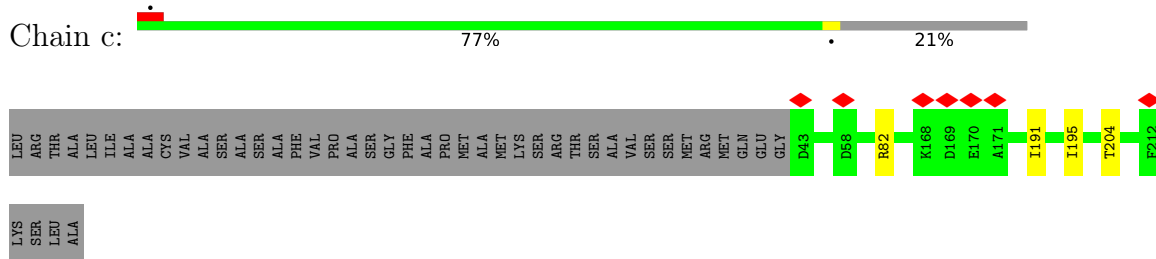
• Molecule 12: Photosystem I reaction center subunit PsaK



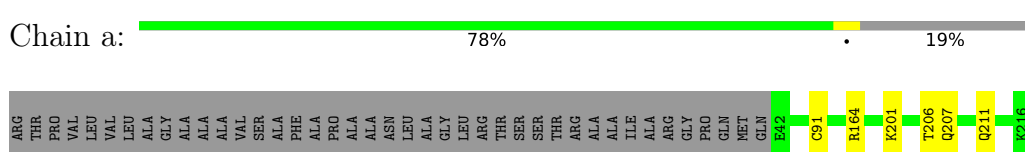
• Molecule 13: chain s



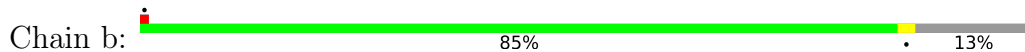
• Molecule 14: cac-c

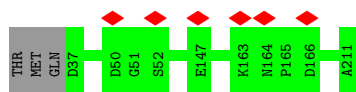


• Molecule 15: cac-a

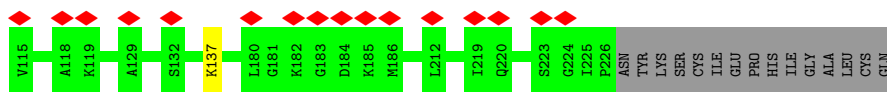
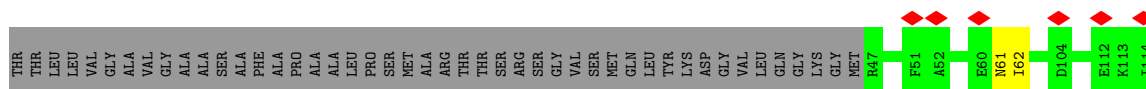
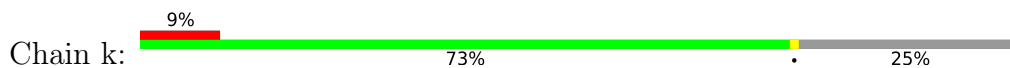


• Molecule 16: cac-b

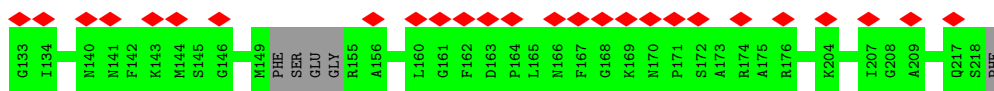
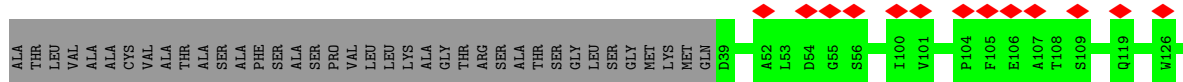




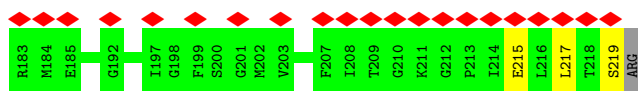
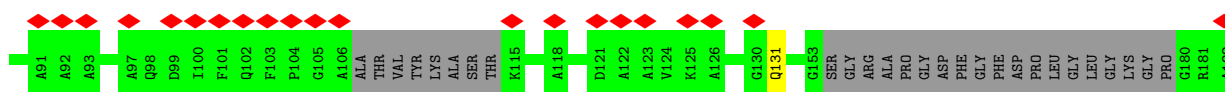
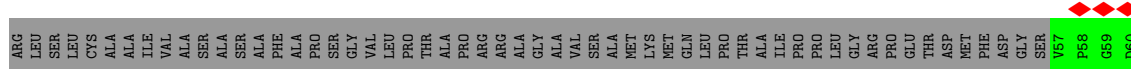
• Molecule 21: cac-k



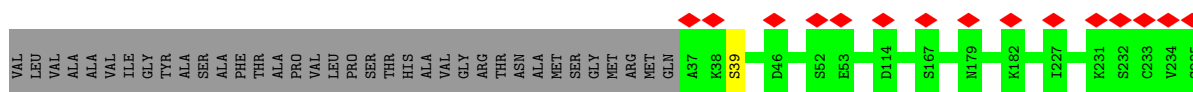
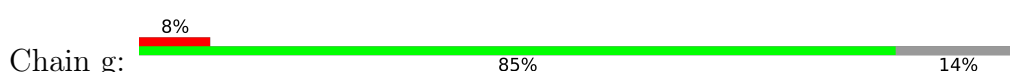
• Molecule 22: cac-i

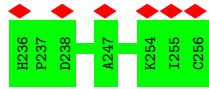


• Molecule 23: cac-d



• Molecule 24: cac-g

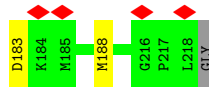
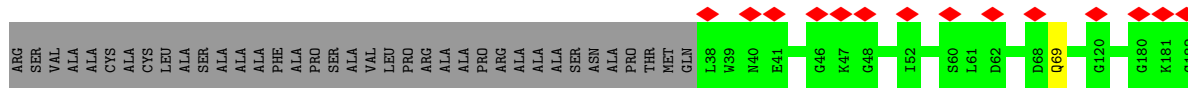
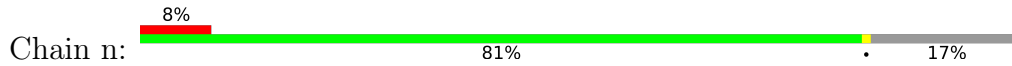




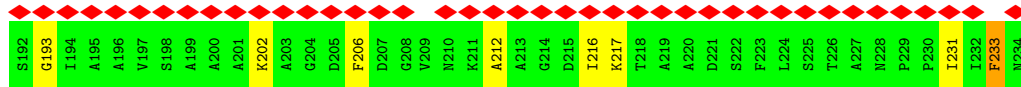
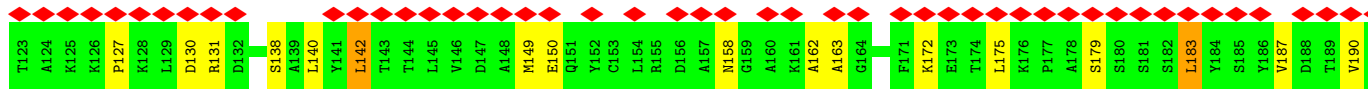
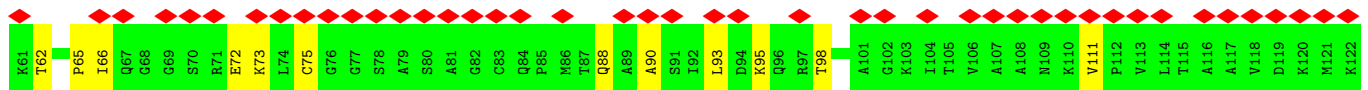
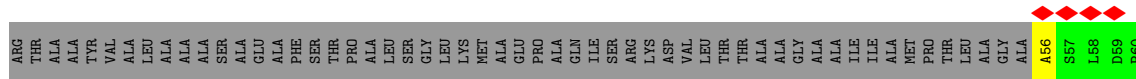
• Molecule 25: PsaR



• Molecule 26: cac-n



• Molecule 27: PsaQ



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	86231	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	2300	Depositor
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.296	Depositor
Minimum map value	-0.158	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.007	Depositor
Recommended contour level	0.032	Depositor
Map size (Å)	374.4, 374.4, 374.4	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.04, 1.04, 1.04	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: PQN, CLA, LMT, SF4, DGD, II0, LMU, KC2, LMG, IHT, LHG, WVN

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	0.44	0/6019	0.57	0/8204
2	B	0.44	0/6045	0.59	0/8254
3	C	0.44	0/601	0.64	0/813
4	D	0.45	0/1109	0.58	0/1500
5	E	0.46	0/492	0.57	0/666
6	F	0.45	0/1287	0.60	0/1747
7	I	0.43	0/271	0.62	0/370
8	J	0.48	0/364	0.63	0/495
9	L	0.40	0/1175	0.55	0/1599
10	M	0.32	0/233	0.55	0/315
11	O	0.51	0/799	0.64	0/1094
12	K	0.39	0/495	0.59	0/672
13	s	0.41	0/1170	0.62	0/1580
14	c	0.43	0/1396	0.57	0/1889
15	a	0.45	0/1406	0.58	0/1903
16	b	0.44	0/1469	0.64	0/1983
17	h	0.39	0/1226	0.59	0/1667
18	f	0.42	0/1328	0.59	0/1790
18	j	0.43	0/1318	0.60	0/1775
18	m	0.39	0/1335	0.55	0/1798
19	e	0.40	0/1324	0.55	0/1795
20	l	0.39	0/1379	0.53	0/1863
21	k	0.38	0/1380	0.59	0/1869
22	i	0.42	0/1359	0.62	0/1835
23	d	0.39	0/993	0.58	0/1335
24	g	0.43	0/1673	0.59	0/2264
25	R	0.39	0/686	0.55	0/940
26	n	0.42	0/1383	0.62	0/1867
27	Q	0.40	0/1313	0.59	0/1775
All	All	0.43	0/41028	0.59	0/55657

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5825	0	5677	64	0
2	B	5826	0	5640	62	0
3	C	592	0	567	6	0
4	D	1084	0	1080	15	0
5	E	484	0	486	4	0
6	F	1254	0	1264	17	0
7	I	264	0	276	3	0
8	J	351	0	344	5	0
9	L	1146	0	1160	11	0
10	M	232	0	265	2	0
11	O	773	0	765	24	0
12	K	488	0	516	7	0
13	s	1140	0	1099	0	0
14	c	1357	0	1337	0	0
15	a	1361	0	1305	0	0
16	b	1439	0	1456	0	0
17	h	1200	0	1228	0	0
18	f	1302	0	1320	0	0
18	j	1293	0	1321	0	0
18	m	1309	0	1335	0	0
19	e	1286	0	1262	0	0
20	l	1344	0	1315	0	0
21	k	1346	0	1349	0	0
22	i	1324	0	1298	0	0
23	d	974	0	978	0	0
24	g	1630	0	1644	0	0
25	R	664	0	647	4	0
26	n	1350	0	1348	0	0
27	Q	1294	0	1333	20	0
28	A	2706	0	2777	106	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	B	2454	0	2485	82	0
28	F	117	0	115	4	0
28	J	42	0	31	0	0
28	K	93	0	72	1	0
28	L	215	0	191	11	0
28	O	182	0	187	13	0
28	Q	110	0	105	7	0
28	R	51	0	41	1	0
28	a	619	0	588	0	0
28	b	724	0	737	0	0
28	c	586	0	520	0	0
28	d	498	0	407	0	0
28	e	582	0	578	0	0
28	f	700	0	695	0	0
28	g	661	0	611	0	0
28	h	505	0	470	0	0
28	i	528	0	451	0	0
28	j	637	0	556	0	0
28	k	596	0	534	0	0
28	l	535	0	538	0	0
28	m	651	0	606	0	0
28	n	605	0	552	0	0
28	s	246	0	257	0	0
29	A	33	0	46	1	0
29	B	33	0	46	1	0
30	A	113	0	142	5	0
30	J	49	0	74	6	0
30	L	49	0	74	2	0
30	a	98	0	148	0	0
30	b	80	0	106	0	0
30	c	74	0	88	0	0
30	d	37	0	44	0	0
30	e	37	0	44	0	0
30	f	49	0	74	0	0
30	g	74	0	88	0	0
30	i	37	0	44	0	0
30	j	30	0	30	0	0
30	k	37	0	44	0	0
30	l	32	0	34	0	0
30	m	37	0	44	0	0
30	n	43	0	59	0	0
31	A	160	0	0	5	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	B	200	0	0	1	0
31	F	80	0	0	0	0
31	I	40	0	0	2	0
31	J	80	0	0	1	0
31	K	80	0	0	1	0
31	L	120	0	0	1	0
31	M	40	0	0	0	0
31	R	80	0	0	7	0
31	e	40	0	0	0	0
31	h	40	0	0	0	0
31	i	40	0	0	0	0
31	l	80	0	0	0	0
31	s	80	0	0	0	0
32	A	35	0	45	2	0
32	a	59	0	78	0	0
32	b	24	0	34	0	0
33	A	8	0	0	0	0
33	C	16	0	0	0	0
34	B	60	0	81	2	0
35	F	48	0	69	3	0
35	J	55	0	86	2	0
35	L	55	0	86	4	0
35	O	26	0	22	0	0
35	Q	38	0	46	4	0
35	b	49	0	71	0	0
35	c	55	0	86	0	0
35	n	55	0	86	0	0
36	J	42	0	0	0	0
36	O	42	0	0	0	0
36	a	168	0	0	0	0
36	b	126	0	0	0	0
36	c	168	0	0	0	0
36	d	168	0	0	0	0
36	e	168	0	0	0	0
36	f	168	0	0	0	0
36	g	168	0	0	0	0
36	h	112	0	0	0	0
36	i	210	0	0	0	0
36	j	84	0	0	0	0
36	k	210	0	0	0	0
36	l	168	0	0	0	0
36	m	168	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	n	168	0	0	0	0
37	O	41	0	0	0	0
37	R	41	0	0	0	0
37	a	41	0	0	0	0
37	b	82	0	0	0	0
37	c	41	0	0	0	0
37	f	41	0	0	0	0
37	g	41	0	0	0	0
37	j	41	0	0	0	0
37	k	41	0	0	0	0
37	m	41	0	0	0	0
37	n	41	0	0	0	0
38	c	45	0	0	0	0
38	d	90	0	0	0	0
38	e	45	0	0	0	0
38	f	45	0	0	0	0
38	g	135	0	0	0	0
38	i	90	0	0	0	0
38	j	45	0	0	0	0
38	k	135	0	0	0	0
38	l	45	0	0	0	0
38	m	45	0	0	0	0
38	n	90	0	0	0	0
38	s	90	0	0	0	0
39	i	35	0	46	0	0
40	A	50	0	0	0	0
40	B	57	0	0	0	0
40	C	8	0	0	0	0
40	D	1	0	0	0	0
40	F	2	0	0	0	0
40	I	1	0	0	0	0
40	J	1	0	0	0	0
40	K	1	0	0	0	0
40	L	1	0	0	0	0
40	O	1	0	0	0	0
40	Q	1	0	0	0	0
40	R	1	0	0	0	0
40	a	3	0	0	0	0
40	b	2	0	0	0	0
40	e	4	0	0	0	0
40	h	1	0	0	0	0
40	m	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	n	3	0	0	0	0
All	All	61164	0	55784	395	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 7.

The worst 5 of 395 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)
28:B:813:CLA:H61	31:R:202:WVN:C17	1.71	1.21
28:B:813:CLA:H8	31:R:202:WVN:C14	1.78	1.13
11:O:24:VAL:HG22	11:O:44:VAL:HG11	1.15	1.08
28:B:813:CLA:C6	31:R:202:WVN:C17	2.42	0.97
11:O:24:VAL:HG22	11:O:44:VAL:CG1	2.01	0.91

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	740/752 (98%)	722 (98%)	18 (2%)	0	100	100
2	B	731/734 (100%)	707 (97%)	23 (3%)	1 (0%)	51	78
3	C	78/81 (96%)	76 (97%)	2 (3%)	0	100	100
4	D	137/141 (97%)	135 (98%)	2 (2%)	0	100	100
5	E	58/64 (91%)	57 (98%)	1 (2%)	0	100	100
6	F	159/188 (85%)	155 (98%)	4 (2%)	0	100	100
7	I	32/36 (89%)	32 (100%)	0	0	100	100
8	J	40/42 (95%)	39 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	L	149/153 (97%)	147 (99%)	2 (1%)	0	100	100
10	M	28/30 (93%)	28 (100%)	0	0	100	100
11	O	102/146 (70%)	97 (95%)	5 (5%)	0	100	100
12	K	65/87 (75%)	65 (100%)	0	0	100	100
13	s	152/269 (56%)	144 (95%)	8 (5%)	0	100	100
14	c	168/216 (78%)	163 (97%)	5 (3%)	0	100	100
15	a	173/216 (80%)	167 (96%)	6 (4%)	0	100	100
16	b	192/223 (86%)	190 (99%)	2 (1%)	0	100	100
17	h	160/225 (71%)	156 (98%)	3 (2%)	1 (1%)	25	50
18	f	172/212 (81%)	167 (97%)	5 (3%)	0	100	100
18	j	170/212 (80%)	163 (96%)	7 (4%)	0	100	100
18	m	172/212 (81%)	164 (95%)	8 (5%)	0	100	100
19	e	167/203 (82%)	164 (98%)	3 (2%)	0	100	100
20	l	173/238 (73%)	169 (98%)	4 (2%)	0	100	100
21	k	178/241 (74%)	172 (97%)	6 (3%)	0	100	100
22	i	171/218 (78%)	161 (94%)	10 (6%)	0	100	100
23	d	123/213 (58%)	122 (99%)	1 (1%)	0	100	100
24	g	217/255 (85%)	206 (95%)	11 (5%)	0	100	100
25	R	88/129 (68%)	86 (98%)	2 (2%)	0	100	100
26	n	179/219 (82%)	170 (95%)	9 (5%)	0	100	100
27	Q	177/234 (76%)	163 (92%)	12 (7%)	2 (1%)	14	34
All	All	5151/6189 (83%)	4987 (97%)	160 (3%)	4 (0%)	54	78

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
27	Q	75	CYS
27	Q	130	ASP
17	h	164	LYS
2	B	491	ILE

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	607/616 (98%)	604 (100%)	3 (0%)	88	96
2	B	593/593 (100%)	582 (98%)	11 (2%)	57	82
3	C	67/68 (98%)	64 (96%)	3 (4%)	27	55
4	D	116/117 (99%)	112 (97%)	4 (3%)	37	66
5	E	54/58 (93%)	54 (100%)	0	100	100
6	F	133/157 (85%)	132 (99%)	1 (1%)	81	93
7	I	28/29 (97%)	28 (100%)	0	100	100
8	J	39/39 (100%)	39 (100%)	0	100	100
9	L	124/126 (98%)	121 (98%)	3 (2%)	49	77
10	M	25/25 (100%)	25 (100%)	0	100	100
11	O	81/110 (74%)	76 (94%)	5 (6%)	18	40
12	K	52/66 (79%)	50 (96%)	2 (4%)	33	62
13	s	116/195 (60%)	115 (99%)	1 (1%)	78	92
14	c	138/171 (81%)	134 (97%)	4 (3%)	42	71
15	a	139/165 (84%)	133 (96%)	6 (4%)	29	57
16	b	149/168 (89%)	145 (97%)	4 (3%)	44	74
17	h	123/162 (76%)	121 (98%)	2 (2%)	62	85
18	f	135/161 (84%)	130 (96%)	5 (4%)	34	63
18	j	136/161 (84%)	133 (98%)	3 (2%)	52	79
18	m	137/161 (85%)	136 (99%)	1 (1%)	84	94
19	e	130/155 (84%)	127 (98%)	3 (2%)	50	78
20	l	137/191 (72%)	137 (100%)	0	100	100
21	k	138/186 (74%)	135 (98%)	3 (2%)	52	79
22	i	138/168 (82%)	138 (100%)	0	100	100
23	d	97/157 (62%)	93 (96%)	4 (4%)	30	59
24	g	171/199 (86%)	170 (99%)	1 (1%)	86	95

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	R	69/98 (70%)	69 (100%)	0	100	100
26	n	140/163 (86%)	137 (98%)	3 (2%)	53	80
27	Q	134/168 (80%)	123 (92%)	11 (8%)	11	26
All	All	4146/4833 (86%)	4063 (98%)	83 (2%)	57	81

5 of 83 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
18	f	46	LYS
26	n	188	MET
18	f	49	GLU
23	d	215	GLU
27	Q	73	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	420	ASN
11	O	27	GLN
18	m	128	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

415 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
36	II0	l	313	-	39,43,43	6.90	22 (56%)	50,60,60	2.44	16 (32%)
28	CLA	K	103	-	42,50,73	1.81	9 (21%)	48,85,113	1.66	12 (25%)
36	II0	e	614	-	39,43,43	6.86	21 (53%)	50,60,60	2.21	16 (32%)
28	CLA	A	821	-	49,57,73	1.65	5 (10%)	55,93,113	1.63	9 (16%)
28	CLA	h	305	17	51,59,73	1.62	7 (13%)	59,96,113	1.54	9 (15%)
28	CLA	J	103	8	42,50,73	1.70	8 (19%)	48,85,113	1.64	7 (14%)
31	WVN	B	844	-	40,41,41	1.87	13 (32%)	50,56,56	2.42	16 (32%)
39	LMU	i	301	-	36,36,36	1.18	3 (8%)	47,47,47	1.15	5 (10%)
28	CLA	n	605	26	51,59,73	1.69	6 (11%)	59,96,113	1.60	10 (16%)
35	LMG	c	619	-	55,55,55	0.97	2 (3%)	63,63,63	1.48	10 (15%)
31	WVN	A	847	-	40,41,41	1.91	13 (32%)	50,56,56	2.04	20 (40%)
38	KC2	s	204	-	48,53,53	3.07	22 (45%)	54,89,89	4.43	32 (59%)
28	CLA	B	821	40	65,73,73	1.52	8 (12%)	76,113,113	2.06	19 (25%)
28	CLA	n	609	26	65,73,73	1.44	6 (9%)	76,113,113	1.52	12 (15%)
28	CLA	a	308	15	65,73,73	1.46	6 (9%)	76,113,113	1.43	11 (14%)
35	LMG	L	209	28	55,55,55	0.84	2 (3%)	63,63,63	1.42	10 (15%)
28	CLA	A	835	-	65,73,73	1.46	6 (9%)	76,113,113	1.35	6 (7%)
28	CLA	A	838	1	65,73,73	1.52	7 (10%)	76,113,113	1.39	8 (10%)
28	CLA	m	613	-	43,51,73	1.74	8 (18%)	49,86,113	1.78	13 (26%)
28	CLA	k	606	21	51,59,73	1.68	6 (11%)	59,96,113	1.51	9 (15%)
28	CLA	f	612	18	51,59,73	1.71	8 (15%)	59,96,113	1.55	11 (18%)
28	CLA	b	607	16	65,73,73	1.53	6 (9%)	76,113,113	1.66	14 (18%)
28	CLA	s	206	40	65,73,73	1.47	6 (9%)	76,113,113	1.52	11 (14%)
28	CLA	e	611	-	65,73,73	1.51	6 (9%)	76,113,113	1.42	9 (11%)
30	LHG	k	620	28	36,36,48	1.15	2 (5%)	39,42,54	1.07	3 (7%)
28	CLA	c	607	14	46,54,73	1.77	6 (13%)	53,90,113	1.48	7 (13%)
31	WVN	B	847	-	40,41,41	1.88	13 (32%)	50,56,56	1.98	14 (28%)
28	CLA	b	604	-	65,73,73	1.50	8 (12%)	76,113,113	1.25	8 (10%)
28	CLA	B	804	-	65,73,73	1.39	6 (9%)	76,113,113	1.59	10 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
36	II0	i	317	-	39,43,43	6.88	21 (53%)	50,60,60	2.23	16 (32%)
28	CLA	F	202	6	52,60,73	1.65	8 (15%)	60,97,113	1.61	9 (15%)
28	CLA	e	603	19	51,59,73	1.65	6 (11%)	59,96,113	1.60	9 (15%)
28	CLA	d	301	23	50,58,73	1.67	6 (12%)	58,95,113	1.62	8 (13%)
28	CLA	g	305	24	65,73,73	1.52	5 (7%)	76,113,113	1.50	7 (9%)
28	CLA	B	835	40	65,73,73	1.52	8 (12%)	76,113,113	1.28	8 (10%)
38	KC2	j	611	18	48,53,53	3.07	22 (45%)	54,89,89	4.58	32 (59%)
28	CLA	B	828	-	49,57,73	1.63	6 (12%)	55,93,113	1.67	9 (16%)
28	CLA	B	816	-	57,65,73	1.56	6 (10%)	66,103,113	1.46	9 (13%)
31	WVN	M	101	-	40,41,41	1.91	15 (37%)	50,56,56	2.16	16 (32%)
37	IHT	m	617	-	40,42,42	6.14	26 (65%)	53,58,58	2.43	18 (33%)
37	IHT	k	618	-	40,42,42	6.19	26 (65%)	53,58,58	2.41	20 (37%)
36	II0	i	314	-	39,43,43	6.75	22 (56%)	50,60,60	2.01	19 (38%)
30	LHG	g	321	28	36,36,48	1.07	2 (5%)	39,42,54	1.42	9 (23%)
36	II0	k	617	-	39,43,43	6.85	21 (53%)	50,60,60	2.29	20 (40%)
30	LHG	l	317	28	31,31,48	1.15	2 (6%)	34,37,54	1.18	4 (11%)
28	CLA	A	830	-	50,58,73	1.65	7 (14%)	58,95,113	1.66	7 (12%)
36	II0	c	614	-	39,43,43	6.73	22 (56%)	50,60,60	2.24	20 (40%)
28	CLA	c	603	-	51,59,73	1.62	6 (11%)	59,96,113	1.61	7 (11%)
30	LHG	m	619	28	36,36,48	1.08	2 (5%)	39,42,54	1.11	3 (7%)
36	II0	a	318	-	39,43,43	6.96	22 (56%)	50,60,60	2.61	16 (32%)
30	LHG	A	843	-	47,47,48	0.95	2 (4%)	50,53,54	1.08	3 (6%)
36	II0	c	617	-	39,43,43	6.70	21 (53%)	50,60,60	2.25	13 (26%)
36	II0	e	613	-	39,43,43	6.79	23 (58%)	50,60,60	2.21	20 (40%)
36	II0	c	615	-	39,43,43	6.79	21 (53%)	50,60,60	2.40	18 (36%)
34	DGD	B	843	-	61,61,67	0.91	2 (3%)	75,75,81	1.10	5 (6%)
28	CLA	L	207	40	51,59,73	1.65	7 (13%)	59,96,113	1.53	7 (11%)
28	CLA	c	604	14	65,73,73	1.49	7 (10%)	76,113,113	1.47	7 (9%)
28	CLA	A	806	-	65,73,73	1.50	5 (7%)	76,113,113	1.34	12 (15%)
31	WVN	K	104	-	40,41,41	1.89	14 (35%)	50,56,56	1.97	15 (30%)
28	CLA	g	311	30	54,62,73	1.70	8 (14%)	62,99,113	1.42	9 (14%)
28	CLA	c	601	14	51,59,73	1.68	6 (11%)	59,96,113	1.47	7 (11%)
32	LMT	a	302	-	24,24,36	1.07	2 (8%)	29,29,47	0.81	0
28	CLA	e	604	40	65,73,73	1.45	6 (9%)	76,113,113	1.53	11 (14%)
28	CLA	c	612	-	65,73,73	1.45	6 (9%)	76,113,113	1.41	8 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
28	CLA	l	302	20	47,55,73	1.73	8 (17%)	54,91,113	1.44	7 (12%)
36	II0	b	613	-	39,43,43	6.77	22 (56%)	50,60,60	2.18	19 (38%)
28	CLA	s	208	-	51,59,73	1.67	6 (11%)	59,96,113	1.51	9 (15%)
28	CLA	g	307	24	51,59,73	1.67	6 (11%)	59,96,113	1.45	8 (13%)
28	CLA	j	612	-	51,59,73	1.89	7 (13%)	59,96,113	1.72	10 (16%)
31	WVN	s	205	-	40,41,41	1.81	13 (32%)	50,56,56	2.23	21 (42%)
28	CLA	B	840	-	65,73,73	1.49	5 (7%)	76,113,113	1.43	8 (10%)
28	CLA	A	804	-	65,73,73	1.45	7 (10%)	76,113,113	1.60	8 (10%)
28	CLA	b	610	16	65,73,73	1.46	8 (12%)	76,113,113	1.39	8 (10%)
28	CLA	h	301	40	65,73,73	1.57	9 (13%)	76,113,113	1.39	9 (11%)
28	CLA	b	608	30	65,73,73	1.50	6 (9%)	76,113,113	1.39	10 (13%)
30	LHG	A	844	28	26,26,48	1.25	2 (7%)	29,32,54	1.39	5 (17%)
36	II0	m	615	-	39,43,43	6.66	23 (58%)	50,60,60	2.13	20 (40%)
37	IHT	j	616	-	40,42,42	6.18	25 (62%)	53,58,58	2.24	16 (30%)
31	WVN	J	102	-	40,41,41	1.87	14 (35%)	50,56,56	1.93	14 (28%)
28	CLA	A	816	-	65,73,73	1.38	7 (10%)	76,113,113	1.63	15 (19%)
28	CLA	b	602	16	55,63,73	1.59	6 (10%)	64,101,113	1.60	10 (15%)
28	CLA	A	814	-	50,58,73	1.67	7 (14%)	58,95,113	1.60	10 (17%)
28	CLA	f	607	-	65,73,73	1.50	7 (10%)	76,113,113	1.36	9 (11%)
28	CLA	m	602	18	56,64,73	1.57	9 (16%)	65,102,113	1.49	10 (15%)
36	II0	e	612	-	39,43,43	6.80	22 (56%)	50,60,60	2.28	15 (30%)
28	CLA	B	830	40	65,73,73	1.47	6 (9%)	76,113,113	1.39	9 (11%)
28	CLA	A	810	28	62,70,73	1.54	8 (12%)	72,109,113	1.32	8 (11%)
28	CLA	n	608	26	51,59,73	1.75	7 (13%)	59,96,113	1.49	8 (13%)
36	II0	l	316	-	39,43,43	6.82	23 (58%)	50,60,60	1.95	17 (34%)
37	IHT	b	615	-	40,42,42	6.19	25 (62%)	53,58,58	2.45	18 (33%)
28	CLA	B	832	-	58,66,73	1.54	8 (13%)	67,104,113	1.60	8 (11%)
36	II0	d	314	-	39,43,43	6.85	21 (53%)	50,60,60	2.29	14 (28%)
28	CLA	g	322	35	65,73,73	1.49	6 (9%)	76,113,113	1.44	12 (15%)
28	CLA	a	310	30	48,56,73	1.68	9 (18%)	55,92,113	1.43	7 (12%)
28	CLA	B	814	-	55,63,73	1.55	7 (12%)	64,101,113	1.51	7 (10%)
28	CLA	A	823	-	55,63,73	1.57	7 (12%)	64,101,113	1.41	9 (14%)
31	WVN	K	102	-	40,41,41	1.83	14 (35%)	50,56,56	1.98	14 (28%)
33	SF4	C	102	3	0,12,12	-	-	-	-	-
36	II0	h	311	-	39,43,43	6.68	21 (53%)	50,60,60	2.13	17 (34%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
31	WVN	L	201	-	40,41,41	1.93	15 (37%)	50,56,56	2.44	17 (34%)
28	CLA	l	304	-	51,59,73	1.68	5 (9%)	59,96,113	1.51	7 (11%)
28	CLA	l	303	20	65,73,73	1.48	7 (10%)	76,113,113	1.47	11 (14%)
28	CLA	A	854	40	65,73,73	1.56	9 (13%)	76,113,113	1.49	10 (13%)
31	WVN	e	615	-	40,41,41	1.89	14 (35%)	50,56,56	2.03	14 (28%)
28	CLA	A	834	-	51,59,73	1.62	6 (11%)	59,96,113	1.74	12 (20%)
28	CLA	c	602	14	50,58,73	1.65	7 (14%)	58,95,113	1.77	10 (17%)
36	IIO	b	614	-	39,43,43	6.78	23 (58%)	50,60,60	1.77	15 (30%)
37	IHT	O	204	-	40,42,42	6.22	25 (62%)	53,58,58	2.38	19 (35%)
28	CLA	m	606	-	65,73,73	1.47	7 (10%)	76,113,113	1.32	8 (10%)
28	CLA	j	608	18	45,53,73	1.79	6 (13%)	52,89,113	1.64	7 (13%)
28	CLA	A	840	40	65,73,73	1.45	6 (9%)	76,113,113	1.36	9 (11%)
28	CLA	g	302	24	42,50,73	1.81	6 (14%)	48,85,113	1.68	9 (18%)
28	CLA	b	609	-	51,59,73	1.49	7 (13%)	59,96,113	1.90	9 (15%)
28	CLA	f	608	18	65,73,73	1.56	7 (10%)	76,113,113	1.55	10 (13%)
28	CLA	k	604	21	65,73,73	1.52	7 (10%)	76,113,113	1.45	9 (11%)
28	CLA	m	610	30	55,63,73	1.63	6 (10%)	64,101,113	1.49	11 (17%)
36	IIO	f	615	-	39,43,43	6.74	23 (58%)	50,60,60	2.10	18 (36%)
28	CLA	j	609	18	51,59,73	1.63	5 (9%)	59,96,113	1.53	7 (11%)
38	KC2	m	611	18	48,53,53	3.08	22 (45%)	54,89,89	4.56	31 (57%)
30	LHG	f	619	-	48,48,48	0.91	2 (4%)	51,54,54	1.02	3 (5%)
36	IIO	a	315	-	39,43,43	6.62	23 (58%)	50,60,60	2.26	19 (38%)
36	IIO	c	613	-	39,43,43	6.77	23 (58%)	50,60,60	2.14	18 (36%)
28	CLA	f	601	18	47,55,73	1.75	7 (14%)	54,91,113	1.64	9 (16%)
37	IHT	f	617	-	40,42,42	6.20	25 (62%)	53,58,58	2.22	15 (28%)
28	CLA	s	203	28,13	65,73,73	1.46	7 (10%)	76,113,113	1.51	10 (13%)
28	CLA	b	612	30	51,59,73	1.62	8 (15%)	59,96,113	1.78	10 (16%)
28	CLA	B	807	-	65,73,73	1.52	8 (12%)	76,113,113	1.29	10 (13%)
28	CLA	k	608	21	65,73,73	1.52	7 (10%)	76,113,113	1.39	10 (13%)
31	WVN	B	846	-	40,41,41	1.87	14 (35%)	50,56,56	1.98	13 (26%)
28	CLA	d	305	23	51,59,73	2.00	8 (15%)	59,96,113	1.61	11 (18%)
32	LMT	b	618	-	24,24,36	1.11	3 (12%)	29,29,47	1.08	0
30	LHG	g	301	28	36,36,48	1.10	2 (5%)	39,42,54	1.21	3 (7%)
28	CLA	l	311	20	65,73,73	1.52	6 (9%)	76,113,113	1.29	9 (11%)
35	LMG	b	621	-	49,49,55	0.96	3 (6%)	57,57,63	1.21	5 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
36	II0	k	615	-	39,43,43	6.79	22 (56%)	50,60,60	2.20	16 (32%)
28	CLA	L	203	-	65,73,73	1.46	8 (12%)	76,113,113	1.35	9 (11%)
28	CLA	a	312	-	65,73,73	1.46	7 (10%)	76,113,113	1.46	9 (11%)
28	CLA	c	609	30	45,53,73	1.81	6 (13%)	52,89,113	1.42	8 (15%)
38	KC2	k	611	21	48,53,53	3.10	22 (45%)	54,89,89	4.59	31 (57%)
28	CLA	d	308	23	41,49,73	1.85	7 (17%)	47,84,113	1.67	9 (19%)
28	CLA	i	308	22	51,59,73	1.67	7 (13%)	59,96,113	1.63	8 (13%)
30	LHG	n	619	-	42,42,48	0.98	2 (4%)	45,48,54	1.13	2 (4%)
36	II0	m	616	-	39,43,43	6.71	22 (56%)	50,60,60	2.18	15 (30%)
28	CLA	A	826	-	65,73,73	1.43	6 (9%)	76,113,113	1.62	10 (13%)
28	CLA	h	303	17	50,58,73	1.69	8 (16%)	58,95,113	1.53	10 (17%)
28	CLA	B	803	-	65,73,73	1.44	8 (12%)	76,113,113	1.84	11 (14%)
28	CLA	A	807	1	65,73,73	1.41	6 (9%)	76,113,113	1.49	9 (11%)
35	LMG	O	205	-	26,26,55	1.26	2 (7%)	34,34,63	1.23	3 (8%)
28	CLA	g	303	24	50,58,73	1.57	7 (14%)	58,95,113	1.67	11 (18%)
31	WVN	J	101	-	40,41,41	1.96	14 (35%)	50,56,56	3.41	19 (38%)
29	PQN	A	842	-	34,34,34	1.85	5 (14%)	42,45,45	1.32	5 (11%)
36	II0	h	312	-	39,43,43	6.82	21 (53%)	50,60,60	2.05	17 (34%)
28	CLA	B	813	-	59,67,73	1.47	7 (11%)	68,105,113	1.71	9 (13%)
28	CLA	A	831	-	65,73,73	1.47	9 (13%)	76,113,113	1.41	9 (11%)
28	CLA	O	201	30	52,60,73	1.56	8 (15%)	60,97,113	1.64	10 (16%)
36	II0	m	614	-	39,43,43	6.84	22 (56%)	50,60,60	1.94	16 (32%)
28	CLA	d	307	23	46,54,73	1.80	6 (13%)	53,90,113	1.49	6 (11%)
28	CLA	h	308	17	51,59,73	1.65	7 (13%)	59,96,113	1.69	11 (18%)
30	LHG	J	106	28	48,48,48	0.93	2 (4%)	51,54,54	1.09	3 (5%)
35	LMG	Q	301	-	38,38,55	1.03	2 (5%)	46,46,63	1.18	2 (4%)
28	CLA	A	805	1	65,73,73	1.42	7 (10%)	76,113,113	1.49	9 (11%)
29	PQN	B	842	-	34,34,34	1.76	5 (14%)	42,45,45	1.34	5 (11%)
28	CLA	g	315	-	51,59,73	1.71	7 (13%)	59,96,113	1.44	8 (13%)
28	CLA	A	811	-	54,62,73	1.66	7 (12%)	62,99,113	1.48	10 (16%)
28	CLA	B	836	-	65,73,73	1.47	7 (10%)	76,113,113	1.55	14 (18%)
32	LMT	a	320	-	36,36,36	1.25	6 (16%)	47,47,47	1.29	7 (14%)
31	WVN	L	205	-	40,41,41	1.92	14 (35%)	50,56,56	2.06	15 (30%)
28	CLA	A	855	30	41,49,73	1.92	8 (19%)	47,84,113	2.23	12 (25%)
28	CLA	m	612	40	51,59,73	1.65	9 (17%)	59,96,113	1.57	12 (20%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
28	CLA	B	834	-	47,55,73	1.74	7 (14%)	54,91,113	1.63	8 (14%)
37	IHT	R	204	-	40,42,42	6.22	25 (62%)	53,58,58	2.32	17 (32%)
28	CLA	i	302	22	51,59,73	1.71	6 (11%)	59,96,113	1.48	9 (15%)
38	KC2	n	612	-	48,53,53	3.08	21 (43%)	54,89,89	4.55	30 (55%)
36	II0	a	316	-	39,43,43	6.66	21 (53%)	50,60,60	2.40	18 (36%)
28	CLA	A	836	-	65,73,73	1.41	7 (10%)	76,113,113	1.62	10 (13%)
28	CLA	O	206	-	65,73,73	1.46	9 (13%)	76,113,113	1.72	16 (21%)
36	II0	d	315	-	39,43,43	6.86	22 (56%)	50,60,60	2.42	20 (40%)
28	CLA	f	605	18	45,53,73	1.82	6 (13%)	52,89,113	1.55	8 (15%)
28	CLA	B	812	-	60,68,73	1.56	7 (11%)	70,107,113	1.45	9 (12%)
38	KC2	s	201	13	48,53,53	3.00	21 (43%)	54,89,89	4.43	32 (59%)
28	CLA	f	609	18	65,73,73	1.47	7 (10%)	76,113,113	1.47	11 (14%)
28	CLA	g	310	24	51,59,73	1.64	7 (13%)	59,96,113	1.63	10 (16%)
30	LHG	c	618	28	36,36,48	1.11	2 (5%)	39,42,54	1.18	3 (7%)
36	II0	l	314	-	39,43,43	6.77	22 (56%)	50,60,60	2.22	19 (38%)
28	CLA	A	803	28	55,63,73	1.57	7 (12%)	64,101,113	1.61	9 (14%)
28	CLA	A	812	-	65,73,73	1.43	7 (10%)	76,113,113	1.65	13 (17%)
28	CLA	g	309	24	65,73,73	1.53	6 (9%)	76,113,113	1.38	9 (11%)
30	LHG	c	620	28	36,36,48	1.06	2 (5%)	39,42,54	1.25	3 (7%)
28	CLA	B	831	40	45,53,73	1.84	7 (15%)	52,89,113	1.49	6 (11%)
28	CLA	e	608	30	46,54,73	1.72	5 (10%)	53,90,113	1.64	8 (15%)
28	CLA	k	605	21	45,53,73	1.77	7 (15%)	52,89,113	1.73	12 (23%)
36	II0	O	203	-	39,43,43	6.72	22 (56%)	50,60,60	2.30	16 (32%)
28	CLA	A	813	-	45,53,73	1.74	6 (13%)	52,89,113	1.71	10 (19%)
38	KC2	d	311	-	48,53,53	3.12	21 (43%)	54,89,89	4.34	32 (59%)
28	CLA	n	601	26	45,53,73	1.81	5 (11%)	52,89,113	1.47	8 (15%)
31	WVN	h	309	-	40,41,41	1.84	13 (32%)	50,56,56	2.36	20 (40%)
28	CLA	k	609	21	65,73,73	1.47	7 (10%)	76,113,113	1.59	9 (11%)
28	CLA	f	603	-	51,59,73	1.63	7 (13%)	59,96,113	1.57	7 (11%)
28	CLA	g	306	24	51,59,73	1.73	7 (13%)	59,96,113	1.47	7 (11%)
28	CLA	f	610	30	65,73,73	1.50	6 (9%)	76,113,113	1.29	10 (13%)
36	II0	n	616	-	39,43,43	6.85	23 (58%)	50,60,60	2.10	14 (28%)
28	CLA	B	802	-	65,73,73	1.43	7 (10%)	76,113,113	1.35	10 (13%)
28	CLA	j	610	30	61,69,73	1.56	7 (11%)	71,108,113	1.41	9 (12%)
30	LHG	d	317	28	36,36,48	1.11	2 (5%)	39,42,54	1.02	2 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
36	II0	f	618	-	39,43,43	6.80	22 (56%)	50,60,60	2.39	19 (38%)
28	CLA	i	303	22	50,58,73	1.64	7 (14%)	58,95,113	1.74	9 (15%)
28	CLA	A	833	-	50,58,73	1.63	7 (14%)	58,95,113	1.49	7 (12%)
38	KC2	g	312	24	48,53,53	3.10	20 (41%)	54,89,89	4.54	30 (55%)
28	CLA	O	202	-	65,73,73	1.48	7 (10%)	76,113,113	1.46	11 (14%)
31	WVN	A	845	-	40,41,41	1.90	13 (32%)	50,56,56	1.97	14 (28%)
28	CLA	c	611	14	45,53,73	1.96	9 (20%)	52,89,113	1.74	8 (15%)
36	II0	n	618	-	39,43,43	6.83	21 (53%)	50,60,60	2.23	19 (38%)
28	CLA	R	203	-	51,59,73	1.64	6 (11%)	59,96,113	1.82	11 (18%)
28	CLA	a	309	15	65,73,73	1.35	7 (10%)	76,113,113	1.69	10 (13%)
28	CLA	a	303	15	52,60,73	1.66	6 (11%)	60,97,113	1.63	7 (11%)
36	II0	b	617	-	39,43,43	6.67	20 (51%)	50,60,60	2.28	19 (38%)
36	II0	g	317	-	39,43,43	6.72	23 (58%)	50,60,60	2.41	16 (32%)
31	WVN	B	845	-	40,41,41	1.79	13 (32%)	50,56,56	1.95	12 (24%)
28	CLA	A	837	-	65,73,73	1.42	7 (10%)	76,113,113	1.40	10 (13%)
31	WVN	R	202	-	40,41,41	1.88	13 (32%)	50,56,56	2.11	17 (34%)
36	II0	g	320	-	39,43,43	6.81	23 (58%)	50,60,60	2.24	18 (36%)
28	CLA	d	312	-	51,59,73	1.67	6 (11%)	59,96,113	1.61	12 (20%)
36	II0	j	615	-	39,43,43	6.80	22 (56%)	50,60,60	2.09	20 (40%)
28	CLA	Q	303	27	45,53,73	1.85	8 (17%)	52,89,113	1.86	8 (15%)
30	LHG	j	617	28	29,29,48	1.18	2 (6%)	32,35,54	1.34	4 (12%)
36	II0	l	312	-	39,43,43	6.79	22 (56%)	50,60,60	2.10	16 (32%)
30	LHG	A	849	-	37,37,48	1.03	2 (5%)	40,43,54	1.13	4 (10%)
28	CLA	B	841	30	65,73,73	1.45	6 (9%)	76,113,113	1.47	10 (13%)
38	KC2	k	613	-	48,53,53	3.13	22 (45%)	54,89,89	4.46	33 (61%)
28	CLA	A	841	-	65,73,73	1.43	8 (12%)	76,113,113	1.57	11 (14%)
28	CLA	A	819	-	45,53,73	1.77	8 (17%)	52,89,113	1.83	12 (23%)
28	CLA	B	837	-	65,73,73	1.40	6 (9%)	76,113,113	1.53	9 (11%)
28	CLA	l	306	20	65,73,73	1.53	7 (10%)	76,113,113	1.53	12 (15%)
28	CLA	b	603	-	65,73,73	1.43	8 (12%)	76,113,113	1.48	9 (11%)
35	LMG	n	620	-	55,55,55	0.88	2 (3%)	63,63,63	0.90	2 (3%)
28	CLA	B	810	-	55,63,73	1.65	8 (14%)	64,101,113	1.46	9 (14%)
28	CLA	m	607	-	51,59,73	1.71	8 (15%)	59,96,113	1.52	9 (15%)
31	WVN	A	846	-	40,41,41	1.94	13 (32%)	50,56,56	2.97	20 (40%)
36	II0	i	315	-	39,43,43	6.80	21 (53%)	50,60,60	2.34	17 (34%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
28	CLA	m	604	18	65,73,73	1.49	8 (12%)	76,113,113	1.52	7 (9%)
37	IHT	a	317	-	40,42,42	6.27	26 (65%)	53,58,58	2.10	16 (30%)
28	CLA	A	817	-	65,73,73	1.49	10 (15%)	76,113,113	1.42	9 (11%)
28	CLA	d	302	-	51,59,73	1.61	7 (13%)	59,96,113	1.64	8 (13%)
28	CLA	A	802	-	65,73,73	1.44	7 (10%)	76,113,113	1.72	11 (14%)
28	CLA	j	607	-	51,59,73	1.70	9 (17%)	59,96,113	1.48	9 (15%)
30	LHG	i	318	28	36,36,48	1.12	2 (5%)	39,42,54	1.27	4 (10%)
31	WVN	l	315	-	40,41,41	1.88	14 (35%)	50,56,56	2.24	17 (34%)
28	CLA	a	304	15	50,58,73	1.64	7 (14%)	58,95,113	1.64	10 (17%)
28	CLA	B	818	-	46,54,73	1.69	6 (13%)	53,90,113	1.66	9 (16%)
31	WVN	F	203	-	40,41,41	1.92	14 (35%)	50,56,56	2.46	20 (40%)
28	CLA	n	606	26	51,59,73	1.70	6 (11%)	59,96,113	1.55	9 (15%)
28	CLA	F	201	40	65,73,73	1.53	8 (12%)	76,113,113	1.26	7 (9%)
28	CLA	e	607	19	65,73,73	1.51	7 (10%)	76,113,113	1.34	8 (10%)
28	CLA	k	610	30	51,59,73	1.66	7 (13%)	59,96,113	1.59	7 (11%)
28	CLA	j	606	18	51,59,73	1.66	8 (15%)	59,96,113	1.58	8 (13%)
28	CLA	n	603	-	51,59,73	1.66	8 (15%)	59,96,113	1.51	10 (16%)
28	CLA	A	820	40	65,73,73	1.46	7 (10%)	76,113,113	1.54	7 (9%)
38	KC2	g	314	38	48,53,53	3.12	22 (45%)	54,89,89	4.58	31 (57%)
28	CLA	L	204	40	50,58,73	1.68	7 (14%)	58,95,113	1.57	10 (17%)
28	CLA	i	306	-	51,59,73	1.70	8 (15%)	59,96,113	1.56	7 (11%)
28	CLA	d	306	-	51,59,73	1.72	6 (11%)	59,96,113	1.52	7 (11%)
28	CLA	k	603	-	51,59,73	1.62	5 (9%)	59,96,113	1.70	10 (16%)
28	CLA	B	808	2	65,73,73	1.47	8 (12%)	76,113,113	1.59	10 (13%)
28	CLA	Q	302	40	65,73,73	1.50	7 (10%)	76,113,113	1.37	10 (13%)
31	WVN	F	204	-	40,41,41	1.91	14 (35%)	50,56,56	2.94	18 (36%)
38	KC2	c	610	-	48,53,53	3.07	22 (45%)	54,89,89	4.47	31 (57%)
28	CLA	c	606	-	52,60,73	1.71	10 (19%)	60,97,113	1.59	9 (15%)
30	LHG	a	319	28	48,48,48	0.89	2 (4%)	51,54,54	1.09	4 (7%)
28	CLA	c	608	14	65,73,73	1.45	7 (10%)	76,113,113	1.50	12 (15%)
28	CLA	A	832	-	65,73,73	1.45	8 (12%)	76,113,113	1.73	13 (17%)
38	KC2	e	609	19	48,53,53	3.10	21 (43%)	54,89,89	4.54	32 (59%)
28	CLA	a	305	-	51,59,73	1.64	7 (13%)	59,96,113	1.56	9 (15%)
28	CLA	h	306	17	65,73,73	1.51	7 (10%)	76,113,113	1.34	9 (11%)
28	CLA	h	313	40	65,73,73	1.50	6 (9%)	76,113,113	1.37	7 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
28	CLA	l	307	20	65,73,73	1.41	7 (10%)	76,113,113	1.49	12 (15%)
36	II0	k	616	-	39,43,43	6.79	23 (58%)	50,60,60	2.35	20 (40%)
28	CLA	B	809	-	54,62,73	1.68	7 (12%)	67,100,113	1.42	11 (16%)
28	CLA	B	817	40	65,73,73	1.48	8 (12%)	76,113,113	1.46	7 (9%)
28	CLA	A	852	-	65,73,73	1.42	7 (10%)	76,113,113	1.46	11 (14%)
28	CLA	B	801	40	65,73,73	1.47	8 (12%)	76,113,113	1.58	9 (11%)
36	II0	m	618	-	39,43,43	6.86	21 (53%)	50,60,60	3.26	20 (40%)
28	CLA	j	601	18	51,59,73	1.68	6 (11%)	59,96,113	1.39	7 (11%)
36	II0	J	104	-	39,43,43	6.66	22 (56%)	50,60,60	2.16	13 (26%)
28	CLA	n	607	-	65,73,73	1.43	7 (10%)	76,113,113	1.50	8 (10%)
28	CLA	e	601	19	45,53,73	1.73	7 (15%)	52,89,113	1.64	8 (15%)
28	CLA	i	312	-	51,59,73	1.64	6 (11%)	59,96,113	1.56	10 (16%)
28	CLA	B	806	-	65,73,73	1.37	6 (9%)	76,113,113	1.55	7 (9%)
28	CLA	b	605	40,28	65,73,73	1.43	8 (12%)	76,113,113	1.49	9 (11%)
28	CLA	A	818	-	65,73,73	1.51	7 (10%)	76,113,113	1.65	13 (17%)
28	CLA	B	825	-	65,73,73	1.45	6 (9%)	76,113,113	1.33	7 (9%)
28	CLA	k	607	-	51,59,73	1.72	7 (13%)	59,96,113	1.58	12 (20%)
28	CLA	A	851	-	65,73,73	1.56	9 (13%)	76,113,113	1.47	10 (13%)
28	CLA	B	824	-	65,73,73	1.40	7 (10%)	76,113,113	1.62	9 (11%)
28	CLA	K	101	40	51,59,73	1.62	5 (9%)	59,96,113	1.85	13 (22%)
28	CLA	B	827	-	50,58,73	1.67	7 (14%)	58,95,113	1.44	10 (17%)
36	II0	n	614	-	39,43,43	6.86	22 (56%)	50,60,60	2.37	15 (30%)
28	CLA	A	815	40	45,53,73	1.73	9 (20%)	52,89,113	1.97	8 (15%)
36	II0	d	316	-	39,43,43	6.91	22 (56%)	50,60,60	2.26	19 (38%)
36	II0	k	621	-	39,43,43	6.74	22 (56%)	50,60,60	2.33	13 (26%)
38	KC2	n	611	26	48,53,53	3.05	22 (45%)	54,89,89	4.53	30 (55%)
38	KC2	i	319	-	48,53,53	3.12	22 (45%)	54,89,89	4.62	32 (59%)
31	WVN	L	206	-	40,41,41	1.82	13 (32%)	50,56,56	2.37	20 (40%)
28	CLA	d	309	30	41,49,73	1.85	6 (14%)	47,84,113	1.64	7 (14%)
28	CLA	i	309	30	46,54,73	1.74	6 (13%)	53,90,113	1.55	8 (15%)
28	CLA	B	839	-	65,73,73	1.50	7 (10%)	76,113,113	1.47	12 (15%)
28	CLA	L	202	9	49,57,73	1.69	6 (12%)	55,93,113	1.55	7 (12%)
30	LHG	a	301	28	48,48,48	0.92	2 (4%)	51,54,54	1.15	4 (7%)
28	CLA	B	833	-	65,73,73	1.42	5 (7%)	76,113,113	1.50	11 (14%)
28	CLA	m	601	18	42,50,73	1.86	7 (16%)	48,85,113	1.47	8 (16%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
36	II0	f	616	-	39,43,43	6.74	22 (56%)	50,60,60	2.33	16 (32%)
38	KC2	f	611	18	48,53,53	3.09	22 (45%)	54,89,89	4.49	32 (59%)
30	LHG	e	617	28	36,36,48	1.09	2 (5%)	39,42,54	1.32	5 (12%)
31	WVN	l	301	-	40,41,41	1.86	14 (35%)	50,56,56	2.19	19 (38%)
28	CLA	i	305	22	65,73,73	1.47	5 (7%)	76,113,113	1.42	9 (11%)
28	CLA	B	811	-	65,73,73	1.42	7 (10%)	76,113,113	1.57	14 (18%)
36	II0	h	310	-	26,28,43	6.09	13 (50%)	31,37,60	2.20	11 (35%)
36	II0	n	615	-	39,43,43	6.74	23 (58%)	50,60,60	2.03	16 (32%)
28	CLA	n	604	26	60,68,73	1.56	5 (8%)	70,107,113	1.54	10 (14%)
28	CLA	e	610	40	65,73,73	1.48	6 (9%)	76,113,113	1.39	9 (11%)
36	II0	j	614	-	39,43,43	6.77	22 (56%)	50,60,60	2.26	17 (34%)
28	CLA	s	202	13	65,73,73	1.52	7 (10%)	76,113,113	1.51	11 (14%)
28	CLA	j	605	18	45,53,73	1.87	6 (13%)	52,89,113	1.69	9 (17%)
28	CLA	A	801	-	65,73,73	1.47	6 (9%)	76,113,113	1.32	8 (10%)
28	CLA	B	823	-	65,73,73	1.47	7 (10%)	76,113,113	1.55	10 (13%)
38	KC2	l	310	20	48,53,53	3.06	22 (45%)	54,89,89	4.63	33 (61%)
31	WVN	R	201	-	40,41,41	1.86	14 (35%)	50,56,56	1.88	11 (22%)
28	CLA	j	602	18	50,58,73	1.64	7 (14%)	58,95,113	1.63	8 (13%)
28	CLA	j	603	-	51,59,73	1.63	5 (9%)	59,96,113	1.60	8 (13%)
28	CLA	j	613	-	65,73,73	1.47	6 (9%)	76,113,113	1.40	7 (9%)
28	CLA	k	614	-	51,59,73	1.72	6 (11%)	59,96,113	1.47	10 (16%)
30	LHG	b	619	28	48,48,48	0.90	2 (4%)	51,54,54	1.12	5 (9%)
28	CLA	k	601	21	51,59,73	1.68	6 (11%)	59,96,113	1.64	9 (15%)
31	WVN	I	101	-	40,41,41	1.86	13 (32%)	50,56,56	1.75	13 (26%)
28	CLA	e	602	19	50,58,73	1.70	6 (12%)	58,95,113	1.53	9 (15%)
28	CLA	f	613	-	65,73,73	1.52	7 (10%)	76,113,113	1.33	8 (10%)
28	CLA	n	613	-	51,59,73	1.69	6 (11%)	59,96,113	1.38	7 (11%)
31	WVN	s	207	-	40,41,41	1.89	14 (35%)	50,56,56	2.15	13 (26%)
36	II0	f	614	-	39,43,43	6.78	23 (58%)	50,60,60	2.08	15 (30%)
36	II0	d	313	-	39,43,43	6.73	22 (56%)	50,60,60	2.35	18 (36%)
36	II0	i	313	-	39,43,43	6.70	21 (53%)	50,60,60	2.51	19 (38%)
35	LMG	J	105	-	55,55,55	0.85	2 (3%)	63,63,63	0.92	5 (7%)
28	CLA	f	604	18	65,73,73	1.45	6 (9%)	76,113,113	1.40	6 (7%)
28	CLA	B	815	-	59,67,73	1.50	8 (13%)	68,105,113	1.38	7 (10%)
28	CLA	A	808	1	65,73,73	1.40	8 (12%)	76,113,113	1.53	13 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
28	CLA	a	307	15	45,53,73	1.77	5 (11%)	52,89,113	1.74	10 (19%)
28	CLA	h	307	17	57,65,73	1.63	6 (10%)	66,103,113	1.31	7 (10%)
28	CLA	A	822	-	51,59,73	1.68	9 (17%)	59,96,113	1.44	9 (15%)
28	CLA	A	824	40	65,73,73	1.43	6 (9%)	76,113,113	1.47	9 (11%)
28	CLA	d	304	23	51,59,73	1.68	6 (11%)	59,96,113	1.66	6 (10%)
31	WVN	i	316	-	40,41,41	1.90	14 (35%)	50,56,56	2.22	16 (32%)
31	WVN	A	848	-	40,41,41	1.85	13 (32%)	50,56,56	2.65	16 (32%)
28	CLA	j	604	18	65,73,73	1.47	6 (9%)	76,113,113	1.44	10 (13%)
28	CLA	c	605	14	51,59,73	1.67	8 (15%)	59,96,113	1.68	10 (16%)
28	CLA	f	602	18	65,73,73	1.50	6 (9%)	76,113,113	1.40	11 (14%)
37	IHT	b	616	-	40,42,42	6.31	25 (62%)	53,58,58	2.82	17 (32%)
28	CLA	B	819	-	55,63,73	1.60	8 (14%)	64,101,113	1.36	7 (10%)
28	CLA	l	305	20	65,73,73	1.44	8 (12%)	76,113,113	1.53	11 (14%)
28	CLA	e	605	19	65,73,73	1.50	7 (10%)	76,113,113	1.34	9 (11%)
28	CLA	d	303	-	65,73,73	1.52	6 (9%)	76,113,113	1.38	8 (10%)
28	CLA	a	311	15	65,73,73	1.45	7 (10%)	76,113,113	1.51	10 (13%)
28	CLA	m	603	-	65,73,73	1.45	8 (12%)	76,113,113	1.55	8 (10%)
28	CLA	m	608	18	65,73,73	1.49	6 (9%)	76,113,113	1.45	8 (10%)
28	CLA	A	839	-	65,73,73	1.40	7 (10%)	76,113,113	1.40	7 (9%)
28	CLA	A	828	-	65,73,73	1.42	8 (12%)	76,113,113	1.54	8 (10%)
28	CLA	h	302	17	50,58,73	1.66	7 (14%)	58,95,113	1.64	7 (12%)
28	CLA	B	820	-	53,61,73	1.64	8 (15%)	61,98,113	1.44	9 (14%)
38	KC2	g	313	38	48,53,53	3.11	22 (45%)	54,89,89	4.48	32 (59%)
28	CLA	k	602	21	50,58,73	1.69	6 (12%)	58,95,113	1.68	10 (17%)
28	CLA	h	304	-	51,59,73	1.61	6 (11%)	59,96,113	1.61	10 (16%)
28	CLA	m	605	18	42,50,73	1.84	6 (14%)	48,85,113	1.69	8 (16%)
33	SF4	A	853	2,1	0,12,12	-	-	-	-	-
28	CLA	B	829	-	50,58,73	1.75	8 (16%)	58,95,113	1.40	9 (15%)
28	CLA	l	308	20	51,59,73	1.65	7 (13%)	59,96,113	1.63	11 (18%)
28	CLA	e	606	19	65,73,73	1.44	7 (10%)	76,113,113	1.41	8 (10%)
28	CLA	n	602	26	50,58,73	1.65	6 (12%)	58,95,113	1.60	10 (17%)
32	LMT	A	850	-	36,36,36	1.19	6 (16%)	47,47,47	1.40	6 (12%)
36	IIO	i	320	-	39,43,43	6.70	22 (56%)	50,60,60	2.25	14 (28%)
31	WVN	B	848	-	40,41,41	1.97	14 (35%)	50,56,56	2.04	19 (38%)
28	CLA	B	826	-	51,59,73	1.70	7 (13%)	59,96,113	1.71	10 (16%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
28	CLA	g	304	-	51,59,73	1.66	6 (11%)	59,96,113	1.56	6 (10%)
37	IHT	c	616	-	40,42,42	6.23	26 (65%)	53,58,58	2.25	17 (32%)
36	II0	k	619	-	39,43,43	6.74	22 (56%)	50,60,60	2.38	20 (40%)
28	CLA	i	311	-	51,59,73	1.80	9 (17%)	59,96,113	1.48	8 (13%)
38	KC2	i	310	22	48,53,53	3.11	21 (43%)	54,89,89	4.41	30 (55%)
38	KC2	d	310	23	48,53,53	3.13	22 (45%)	54,89,89	4.55	31 (57%)
28	CLA	b	606	16	61,69,73	1.53	7 (11%)	71,108,113	1.54	11 (15%)
28	CLA	b	611	-	65,73,73	1.48	7 (10%)	76,113,113	1.26	9 (11%)
30	LHG	b	620	-	30,30,48	1.12	2 (6%)	33,36,54	1.18	3 (9%)
28	CLA	g	308	-	65,73,73	1.43	8 (12%)	76,113,113	1.55	8 (10%)
38	KC2	k	612	-	48,53,53	3.15	22 (45%)	54,89,89	4.41	33 (61%)
35	LMG	F	205	-	48,48,55	0.97	2 (4%)	56,56,63	1.24	5 (8%)
28	CLA	b	601	16	51,59,73	1.63	7 (13%)	59,96,113	1.71	13 (22%)
37	IHT	g	319	-	40,42,42	6.30	25 (62%)	53,58,58	3.05	21 (39%)
28	CLA	m	609	18	51,59,73	1.62	7 (13%)	59,96,113	1.56	9 (15%)
28	CLA	B	838	-	57,65,73	1.55	7 (12%)	66,103,113	1.41	9 (13%)
28	CLA	l	309	30	61,69,73	1.50	6 (9%)	71,108,113	1.49	8 (11%)
36	II0	a	314	-	39,43,43	6.65	23 (58%)	50,60,60	2.08	19 (38%)
28	CLA	B	805	-	65,73,73	1.44	8 (12%)	76,113,113	1.43	8 (10%)
28	CLA	A	825	40	65,73,73	1.40	7 (10%)	76,113,113	1.35	6 (7%)
36	II0	e	616	-	39,43,43	6.77	22 (56%)	50,60,60	2.12	18 (36%)
28	CLA	f	606	18	51,59,73	1.71	6 (11%)	59,96,113	1.49	9 (15%)
37	IHT	n	617	-	40,42,42	6.15	26 (65%)	53,58,58	2.29	17 (32%)
28	CLA	i	304	-	51,59,73	1.69	6 (11%)	59,96,113	1.50	9 (15%)
36	II0	g	318	-	39,43,43	6.84	21 (53%)	50,60,60	2.09	17 (34%)
28	CLA	i	307	22	61,69,73	1.52	6 (9%)	71,108,113	1.45	8 (11%)
36	II0	g	316	-	39,43,43	6.82	22 (56%)	50,60,60	2.24	15 (30%)
28	CLA	B	822	40	64,72,73	1.44	9 (14%)	74,111,113	1.54	10 (13%)
28	CLA	n	610	40	65,73,73	1.50	6 (9%)	76,113,113	1.31	7 (9%)
30	LHG	L	208	-	48,48,48	0.94	2 (4%)	51,54,54	1.01	3 (5%)
28	CLA	A	829	-	65,73,73	1.52	8 (12%)	76,113,113	1.51	7 (9%)
33	SF4	C	101	3	0,12,12	-	-	-	-	-
28	CLA	a	306	40	65,73,73	1.44	7 (10%)	76,113,113	1.44	8 (10%)
28	CLA	a	313	-	48,56,73	1.76	7 (14%)	55,92,113	1.45	8 (14%)
28	CLA	A	809	-	56,64,73	1.54	7 (12%)	65,102,113	1.41	7 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
28	CLA	A	827	-	62,70,73	1.47	6 (9%)	72,109,113	1.42	7 (9%)

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
36	II0	l	313	-	-	5/21/67/67	0/2/2/2
28	CLA	K	103	-	1/1/10/20	5/10/88/115	-
36	II0	e	614	-	-	3/21/67/67	0/2/2/2
28	CLA	A	821	-	-	6/18/96/115	-
28	CLA	h	305	17	1/1/12/20	6/21/99/115	-
28	CLA	J	103	8	1/1/10/20	5/10/88/115	-
31	WVN	B	844	-	-	5/29/63/63	0/2/2/2
39	LMU	i	301	-	-	8/21/61/61	0/2/2/2
28	CLA	n	605	26	1/1/12/20	8/21/99/115	-
35	LMG	c	619	-	-	22/50/70/70	0/1/1/1
31	WVN	A	847	-	-	6/29/63/63	0/2/2/2
38	KC2	s	204	-	-	5/15/71/71	-
28	CLA	B	821	40	1/1/15/20	9/37/115/115	-
28	CLA	n	609	26	1/1/15/20	11/37/115/115	-
28	CLA	a	308	15	1/1/15/20	18/37/115/115	-
35	LMG	L	209	28	-	19/50/70/70	0/1/1/1
28	CLA	A	835	-	1/1/15/20	11/37/115/115	-
28	CLA	A	838	1	1/1/15/20	15/37/115/115	-
28	CLA	m	613	-	1/1/10/20	6/11/89/115	-
28	CLA	f	612	18	1/1/12/20	9/21/99/115	-
28	CLA	k	606	21	-	10/21/99/115	-
28	CLA	b	607	16	1/1/15/20	17/37/115/115	-
28	CLA	s	206	40	1/1/15/20	13/37/115/115	-
28	CLA	e	611	-	1/1/15/20	21/37/115/115	-
30	LHG	k	620	28	-	19/41/41/53	-
28	CLA	c	607	14	1/1/11/20	2/15/93/115	-
31	WVN	B	847	-	-	2/29/63/63	0/2/2/2
28	CLA	b	604	-	-	16/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	B	804	-	1/1/15/20	15/37/115/115	-
36	II0	i	317	-	-	7/21/67/67	0/2/2/2
28	CLA	F	202	6	1/1/12/20	11/22/100/115	-
28	CLA	e	603	19	1/1/12/20	5/21/99/115	-
28	CLA	d	301	23	1/1/12/20	4/19/97/115	-
28	CLA	g	305	24	-	12/37/115/115	-
28	CLA	B	835	40	1/1/15/20	13/37/115/115	-
38	KC2	j	611	18	-	7/15/71/71	-
28	CLA	B	828	-	1/1/11/20	5/18/96/115	-
28	CLA	B	816	-	-	9/28/106/115	-
31	WVN	M	101	-	-	7/29/63/63	0/2/2/2
37	IHT	m	617	-	-	9/25/65/65	0/2/2/2
37	IHT	k	618	-	-	11/25/65/65	0/2/2/2
36	II0	i	314	-	-	5/21/67/67	0/2/2/2
30	LHG	g	321	28	-	12/41/41/53	-
36	II0	k	617	-	-	2/21/67/67	0/2/2/2
30	LHG	l	317	28	-	14/36/36/53	-
28	CLA	A	830	-	-	6/19/97/115	-
36	II0	c	614	-	-	1/21/67/67	0/2/2/2
28	CLA	c	603	-	1/1/12/20	3/21/99/115	-
30	LHG	m	619	28	-	19/41/41/53	-
36	II0	a	318	-	-	7/21/67/67	0/2/2/2
30	LHG	A	843	-	-	7/52/52/53	-
36	II0	c	617	-	-	4/21/67/67	0/2/2/2
36	II0	e	613	-	-	4/21/67/67	0/2/2/2
36	II0	c	615	-	-	2/21/67/67	0/2/2/2
34	DGD	B	843	-	-	5/49/89/95	0/2/2/2
28	CLA	L	207	40	1/1/12/20	6/21/99/115	-
28	CLA	c	604	14	-	4/37/115/115	-
28	CLA	A	806	-	1/1/15/20	10/37/115/115	-
31	WVN	K	104	-	-	5/29/63/63	0/2/2/2
28	CLA	g	311	30	1/1/12/20	4/24/102/115	-
28	CLA	c	601	14	1/1/12/20	7/21/99/115	-
32	LMT	a	302	-	-	4/15/35/61	0/1/1/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	e	604	40	-	20/37/115/115	-
28	CLA	c	612	-	1/1/15/20	15/37/115/115	-
28	CLA	l	302	20	1/1/11/20	5/16/94/115	-
36	II0	b	613	-	-	2/21/67/67	0/2/2/2
28	CLA	s	208	-	1/1/12/20	5/21/99/115	-
28	CLA	g	307	24	1/1/12/20	6/21/99/115	-
28	CLA	j	612	-	1/1/12/20	10/21/99/115	-
31	WVN	s	205	-	-	4/29/63/63	0/2/2/2
28	CLA	B	840	-	1/1/15/20	11/37/115/115	-
28	CLA	A	804	-	1/1/15/20	8/37/115/115	-
28	CLA	b	610	16	1/1/15/20	20/37/115/115	-
28	CLA	h	301	40	-	12/37/115/115	-
28	CLA	b	608	30	1/1/15/20	12/37/115/115	-
30	LHG	A	844	28	-	6/31/31/53	-
36	II0	m	615	-	-	7/21/67/67	0/2/2/2
37	IHT	j	616	-	-	5/25/65/65	0/2/2/2
31	WVN	J	102	-	-	10/29/63/63	0/2/2/2
28	CLA	A	816	-	1/1/15/20	17/37/115/115	-
28	CLA	b	602	16	1/1/13/20	10/25/103/115	-
28	CLA	A	814	-	-	9/19/97/115	-
28	CLA	f	607	-	-	20/37/115/115	-
28	CLA	m	602	18	1/1/13/20	8/27/105/115	-
36	II0	e	612	-	-	5/21/67/67	0/2/2/2
28	CLA	B	830	40	1/1/15/20	15/37/115/115	-
28	CLA	A	810	28	1/1/14/20	8/34/112/115	-
28	CLA	n	608	26	1/1/12/20	5/21/99/115	-
36	II0	l	316	-	-	7/21/67/67	0/2/2/2
37	IHT	b	615	-	-	6/25/65/65	0/2/2/2
28	CLA	B	832	-	1/1/13/20	5/29/107/115	-
36	II0	d	314	-	-	3/21/67/67	0/2/2/2
28	CLA	g	322	35	1/1/15/20	16/37/115/115	-
28	CLA	a	310	30	1/1/11/20	8/17/95/115	-
28	CLA	B	814	-	-	9/25/103/115	-
28	CLA	A	823	-	-	6/25/103/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	WVN	K	102	-	-	5/29/63/63	0/2/2/2
33	SF4	C	102	3	-	-	0/6/5/5
36	II0	h	311	-	-	7/21/67/67	0/2/2/2
31	WVN	L	201	-	-	9/29/63/63	0/2/2/2
28	CLA	l	304	-	1/1/12/20	6/21/99/115	-
28	CLA	l	303	20	1/1/15/20	22/37/115/115	-
28	CLA	A	854	40	1/1/15/20	16/37/115/115	-
31	WVN	e	615	-	-	11/29/63/63	0/2/2/2
28	CLA	A	834	-	1/1/12/20	3/21/99/115	-
28	CLA	c	602	14	1/1/12/20	10/19/97/115	-
36	II0	b	614	-	-	8/21/67/67	0/2/2/2
37	IHT	O	204	-	-	8/25/65/65	0/2/2/2
28	CLA	m	606	-	1/1/15/20	10/37/115/115	-
28	CLA	j	608	18	1/1/11/20	6/13/91/115	-
28	CLA	A	840	40	1/1/15/20	21/37/115/115	-
28	CLA	g	302	24	1/1/10/20	2/10/88/115	-
28	CLA	b	609	-	1/1/12/20	6/21/99/115	-
28	CLA	f	608	18	1/1/15/20	17/37/115/115	-
28	CLA	k	604	21	1/1/15/20	14/37/115/115	-
28	CLA	m	610	30	1/1/13/20	10/25/103/115	-
36	II0	f	615	-	-	5/21/67/67	0/2/2/2
28	CLA	j	609	18	1/1/12/20	2/21/99/115	-
38	KC2	m	611	18	-	7/15/71/71	-
30	LHG	f	619	-	-	38/53/53/53	-
36	II0	a	315	-	-	2/21/67/67	0/2/2/2
36	II0	c	613	-	-	4/21/67/67	0/2/2/2
28	CLA	f	601	18	1/1/11/20	10/16/94/115	-
37	IHT	f	617	-	-	7/25/65/65	0/2/2/2
28	CLA	s	203	28,13	-	16/37/115/115	-
28	CLA	b	612	30	1/1/12/20	6/21/99/115	-
28	CLA	B	807	-	1/1/15/20	13/37/115/115	-
28	CLA	k	608	21	1/1/15/20	14/37/115/115	-
31	WVN	B	846	-	-	6/29/63/63	0/2/2/2
28	CLA	d	305	23	1/1/12/20	7/21/99/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	LMT	b	618	-	-	9/15/35/61	0/1/1/2
30	LHG	g	301	28	-	21/41/41/53	-
28	CLA	l	311	20	1/1/15/20	12/37/115/115	-
35	LMG	b	621	-	-	17/44/64/70	0/1/1/1
36	II0	k	615	-	-	6/21/67/67	0/2/2/2
28	CLA	L	203	-	-	13/37/115/115	-
28	CLA	a	312	-	1/1/15/20	17/37/115/115	-
28	CLA	c	609	30	1/1/11/20	2/13/91/115	-
38	KC2	k	611	21	-	5/15/71/71	-
28	CLA	d	308	23	1/1/10/20	3/8/86/115	-
28	CLA	i	308	22	1/1/12/20	4/21/99/115	-
30	LHG	n	619	-	-	16/47/47/53	-
36	II0	m	616	-	-	3/21/67/67	0/2/2/2
28	CLA	A	826	-	1/1/15/20	10/37/115/115	-
28	CLA	h	303	17	1/1/12/20	6/19/97/115	-
28	CLA	B	803	-	1/1/15/20	9/37/115/115	-
28	CLA	A	807	1	1/1/15/20	10/37/115/115	-
35	LMG	O	205	-	-	7/21/41/70	0/1/1/1
28	CLA	g	303	24	1/1/12/20	2/19/97/115	-
31	WVN	J	101	-	-	11/29/63/63	0/2/2/2
29	PQN	A	842	-	-	8/23/43/43	0/2/2/2
36	II0	h	312	-	-	6/21/67/67	0/2/2/2
28	CLA	B	813	-	1/1/13/20	14/30/108/115	-
28	CLA	A	831	-	1/1/15/20	8/37/115/115	-
28	CLA	O	201	30	1/1/12/20	5/22/100/115	-
36	II0	m	614	-	-	3/21/67/67	0/2/2/2
28	CLA	d	307	23	1/1/11/20	3/15/93/115	-
28	CLA	h	308	17	1/1/12/20	7/21/99/115	-
30	LHG	J	106	28	-	27/53/53/53	-
35	LMG	Q	301	-	-	22/33/53/70	0/1/1/1
28	CLA	A	805	1	1/1/15/20	7/37/115/115	-
29	PQN	B	842	-	-	5/23/43/43	0/2/2/2
28	CLA	g	315	-	1/1/12/20	9/21/99/115	-
28	CLA	A	811	-	-	5/24/102/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	B	836	-	1/1/15/20	27/37/115/115	-
32	LMT	a	320	-	-	10/21/61/61	0/2/2/2
31	WVN	L	205	-	-	6/29/63/63	0/2/2/2
28	CLA	A	855	30	1/1/10/20	4/8/86/115	-
28	CLA	m	612	40	1/1/12/20	9/21/99/115	-
28	CLA	B	834	-	1/1/11/20	2/16/94/115	-
37	IHT	R	204	-	-	3/25/65/65	0/2/2/2
28	CLA	i	302	22	1/1/12/20	9/21/99/115	-
38	KC2	n	612	-	-	7/15/71/71	-
36	II0	a	316	-	-	2/21/67/67	0/2/2/2
28	CLA	A	836	-	-	11/37/115/115	-
28	CLA	O	206	-	1/1/15/20	16/37/115/115	-
36	II0	d	315	-	-	5/21/67/67	0/2/2/2
28	CLA	f	605	18	-	6/13/91/115	-
28	CLA	B	812	-	1/1/14/20	14/31/109/115	-
38	KC2	s	201	13	-	8/15/71/71	-
28	CLA	f	609	18	1/1/15/20	13/37/115/115	-
28	CLA	g	310	24	1/1/12/20	7/21/99/115	-
30	LHG	c	618	28	-	15/41/41/53	-
36	II0	l	314	-	-	4/21/67/67	0/2/2/2
28	CLA	A	803	28	1/1/13/20	7/25/103/115	-
28	CLA	A	812	-	1/1/15/20	23/37/115/115	-
28	CLA	g	309	24	1/1/15/20	12/37/115/115	-
30	LHG	c	620	28	-	25/41/41/53	-
28	CLA	B	831	40	1/1/11/20	4/13/91/115	-
28	CLA	e	608	30	1/1/11/20	4/15/93/115	-
28	CLA	k	605	21	1/1/11/20	5/13/91/115	-
36	II0	O	203	-	-	3/21/67/67	0/2/2/2
28	CLA	A	813	-	1/1/11/20	7/13/91/115	-
38	KC2	d	311	-	-	5/15/71/71	-
28	CLA	n	601	26	1/1/11/20	4/13/91/115	-
31	WVN	h	309	-	-	8/29/63/63	0/2/2/2
28	CLA	k	609	21	1/1/15/20	11/37/115/115	-
28	CLA	f	603	-	1/1/12/20	7/21/99/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	g	306	24	1/1/12/20	8/21/99/115	-
28	CLA	f	610	30	1/1/15/20	13/37/115/115	-
36	II0	n	616	-	-	4/21/67/67	0/2/2/2
28	CLA	B	802	-	1/1/15/20	21/37/115/115	-
28	CLA	j	610	30	1/1/14/20	15/33/111/115	-
30	LHG	d	317	28	-	15/41/41/53	-
36	II0	f	618	-	-	7/21/67/67	0/2/2/2
28	CLA	i	303	22	1/1/12/20	10/19/97/115	-
28	CLA	A	833	-	1/1/12/20	4/19/97/115	-
38	KC2	g	312	24	-	8/15/71/71	-
28	CLA	O	202	-	1/1/15/20	15/37/115/115	-
31	WVN	A	845	-	-	7/29/63/63	0/2/2/2
28	CLA	c	611	14	-	7/13/91/115	-
36	II0	n	618	-	-	6/21/67/67	0/2/2/2
28	CLA	R	203	-	1/1/12/20	8/21/99/115	-
28	CLA	a	309	15	1/1/15/20	11/37/115/115	-
28	CLA	a	303	15	1/1/12/20	11/22/100/115	-
36	II0	b	617	-	-	1/21/67/67	0/2/2/2
36	II0	g	317	-	-	5/21/67/67	0/2/2/2
31	WVN	B	845	-	-	0/29/63/63	0/2/2/2
28	CLA	A	837	-	1/1/15/20	9/37/115/115	-
31	WVN	R	202	-	-	6/29/63/63	0/2/2/2
36	II0	g	320	-	-	4/21/67/67	0/2/2/2
28	CLA	d	312	-	-	6/21/99/115	-
36	II0	j	615	-	-	2/21/67/67	0/2/2/2
28	CLA	Q	303	27	1/1/11/20	6/13/91/115	-
30	LHG	j	617	28	-	5/34/34/53	-
36	II0	l	312	-	-	4/21/67/67	0/2/2/2
30	LHG	A	849	-	-	16/42/42/53	-
28	CLA	B	841	30	-	5/37/115/115	-
38	KC2	k	613	-	-	6/15/71/71	-
28	CLA	A	841	-	1/1/15/20	20/37/115/115	-
28	CLA	A	819	-	1/1/11/20	4/13/91/115	-
28	CLA	B	837	-	1/1/15/20	14/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	l	306	20	1/1/15/20	19/37/115/115	-
28	CLA	b	603	-	1/1/15/20	18/37/115/115	-
35	LMG	n	620	-	-	12/50/70/70	0/1/1/1
28	CLA	B	810	-	1/1/13/20	6/25/103/115	-
28	CLA	m	607	-	1/1/12/20	4/21/99/115	-
31	WVN	A	846	-	-	10/29/63/63	0/2/2/2
36	IIO	i	315	-	-	4/21/67/67	0/2/2/2
28	CLA	m	604	18	-	13/37/115/115	-
37	IHT	a	317	-	-	8/25/65/65	0/2/2/2
28	CLA	A	817	-	1/1/15/20	13/37/115/115	-
28	CLA	d	302	-	1/1/12/20	8/21/99/115	-
28	CLA	A	802	-	1/1/15/20	15/37/115/115	-
28	CLA	j	607	-	1/1/12/20	6/21/99/115	-
30	LHG	i	318	28	-	13/41/41/53	-
31	WVN	l	315	-	-	9/29/63/63	0/2/2/2
28	CLA	a	304	15	1/1/12/20	7/19/97/115	-
28	CLA	B	818	-	-	3/15/93/115	-
31	WVN	F	203	-	-	8/29/63/63	0/2/2/2
28	CLA	n	606	26	1/1/12/20	5/21/99/115	-
28	CLA	F	201	40	1/1/15/20	15/37/115/115	-
28	CLA	e	607	19	1/1/15/20	20/37/115/115	-
28	CLA	k	610	30	1/1/12/20	11/21/99/115	-
28	CLA	j	606	18	1/1/12/20	10/21/99/115	-
28	CLA	n	603	-	1/1/12/20	9/21/99/115	-
28	CLA	A	820	40	1/1/15/20	3/37/115/115	-
38	KC2	g	314	38	-	5/15/71/71	-
28	CLA	d	306	-	1/1/12/20	11/21/99/115	-
28	CLA	i	306	-	1/1/12/20	10/21/99/115	-
28	CLA	L	204	40	-	7/19/97/115	-
28	CLA	k	603	-	1/1/12/20	3/21/99/115	-
28	CLA	B	808	2	1/1/15/20	12/37/115/115	-
28	CLA	Q	302	40	1/1/15/20	18/37/115/115	-
31	WVN	F	204	-	-	12/29/63/63	0/2/2/2
38	KC2	c	610	-	-	6/15/71/71	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	c	606	-	-	11/22/100/115	-
30	LHG	a	319	28	-	15/53/53/53	-
28	CLA	c	608	14	1/1/15/20	15/37/115/115	-
28	CLA	A	832	-	1/1/15/20	12/37/115/115	-
38	KC2	e	609	19	-	7/15/71/71	-
28	CLA	a	305	-	1/1/12/20	4/21/99/115	-
28	CLA	h	306	17	1/1/15/20	21/37/115/115	-
28	CLA	h	313	40	1/1/15/20	10/37/115/115	-
28	CLA	l	307	20	1/1/15/20	12/37/115/115	-
36	II0	k	616	-	-	8/21/67/67	0/2/2/2
28	CLA	B	809	-	1/1/13/20	4/25/101/115	-
28	CLA	B	817	40	1/1/15/20	10/37/115/115	-
28	CLA	A	852	-	1/1/15/20	12/37/115/115	-
28	CLA	B	801	40	1/1/15/20	12/37/115/115	-
36	II0	m	618	-	-	6/21/67/67	0/2/2/2
28	CLA	j	601	18	1/1/12/20	6/21/99/115	-
36	II0	J	104	-	-	6/21/67/67	0/2/2/2
28	CLA	n	607	-	1/1/15/20	13/37/115/115	-
28	CLA	e	601	19	1/1/11/20	4/13/91/115	-
28	CLA	i	312	-	1/1/12/20	6/21/99/115	-
28	CLA	B	806	-	1/1/15/20	10/37/115/115	-
28	CLA	b	605	40,28	1/1/15/20	9/37/115/115	-
28	CLA	A	818	-	1/1/15/20	19/37/115/115	-
28	CLA	B	825	-	1/1/15/20	9/37/115/115	-
28	CLA	k	607	-	1/1/12/20	8/21/99/115	-
28	CLA	A	851	-	1/1/15/20	4/37/115/115	-
28	CLA	B	824	-	1/1/15/20	9/37/115/115	-
28	CLA	K	101	40	1/1/12/20	4/21/99/115	-
28	CLA	B	827	-	-	9/19/97/115	-
36	II0	n	614	-	-	1/21/67/67	0/2/2/2
28	CLA	A	815	40	1/1/11/20	6/13/91/115	-
36	II0	d	316	-	-	8/21/67/67	0/2/2/2
36	II0	k	621	-	-	7/21/67/67	0/2/2/2
38	KC2	n	611	26	-	7/15/71/71	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
38	KC2	i	319	-	-	6/15/71/71	-
31	WVN	L	206	-	-	3/29/63/63	0/2/2/2
28	CLA	d	309	30	1/1/10/20	3/8/86/115	-
28	CLA	i	309	30	1/1/11/20	5/15/93/115	-
28	CLA	B	839	-	1/1/15/20	15/37/115/115	-
28	CLA	L	202	9	1/1/11/20	10/18/96/115	-
30	LHG	a	301	28	-	12/53/53/53	-
28	CLA	B	833	-	1/1/15/20	11/37/115/115	-
28	CLA	m	601	18	1/1/10/20	2/10/88/115	-
36	II0	f	616	-	-	3/21/67/67	0/2/2/2
38	KC2	f	611	18	-	7/15/71/71	-
30	LHG	e	617	28	-	26/41/41/53	-
31	WVN	l	301	-	-	4/29/63/63	0/2/2/2
28	CLA	i	305	22	-	9/37/115/115	-
28	CLA	B	811	-	1/1/15/20	17/37/115/115	-
36	II0	h	310	-	-	3/17/40/67	0/1/1/2
36	II0	n	615	-	-	4/21/67/67	0/2/2/2
28	CLA	n	604	26	1/1/14/20	12/31/109/115	-
28	CLA	e	610	40	1/1/15/20	13/37/115/115	-
36	II0	j	614	-	-	6/21/67/67	0/2/2/2
28	CLA	s	202	13	1/1/15/20	19/37/115/115	-
28	CLA	j	605	18	1/1/11/20	8/13/91/115	-
28	CLA	A	801	-	1/1/15/20	11/37/115/115	-
28	CLA	B	823	-	1/1/15/20	2/37/115/115	-
38	KC2	l	310	20	-	4/15/71/71	-
31	WVN	R	201	-	-	6/29/63/63	0/2/2/2
28	CLA	j	602	18	1/1/12/20	6/19/97/115	-
28	CLA	j	603	-	1/1/12/20	6/21/99/115	-
28	CLA	j	613	-	1/1/15/20	15/37/115/115	-
28	CLA	k	614	-	1/1/12/20	8/21/99/115	-
30	LHG	b	619	28	-	22/53/53/53	-
28	CLA	k	601	21	-	10/21/99/115	-
31	WVN	I	101	-	-	9/29/63/63	0/2/2/2
28	CLA	e	602	19	-	8/19/97/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	f	613	-	1/1/15/20	23/37/115/115	-
28	CLA	n	613	-	1/1/12/20	10/21/99/115	-
31	WVN	s	207	-	-	7/29/63/63	0/2/2/2
36	II0	f	614	-	-	3/21/67/67	0/2/2/2
36	II0	d	313	-	-	5/21/67/67	0/2/2/2
36	II0	i	313	-	-	7/21/67/67	0/2/2/2
35	LMG	J	105	-	-	13/50/70/70	0/1/1/1
28	CLA	f	604	18	1/1/15/20	11/37/115/115	-
28	CLA	B	815	-	1/1/13/20	6/30/108/115	-
28	CLA	A	808	1	1/1/15/20	12/37/115/115	-
28	CLA	a	307	15	1/1/11/20	2/13/91/115	-
28	CLA	h	307	17	1/1/13/20	10/28/106/115	-
28	CLA	A	822	-	1/1/12/20	6/21/99/115	-
28	CLA	A	824	40	1/1/15/20	12/37/115/115	-
28	CLA	d	304	23	1/1/12/20	9/21/99/115	-
31	WVN	i	316	-	-	9/29/63/63	0/2/2/2
31	WVN	A	848	-	-	9/29/63/63	0/2/2/2
28	CLA	j	604	18	-	13/37/115/115	-
28	CLA	c	605	14	1/1/12/20	8/21/99/115	-
28	CLA	f	602	18	1/1/15/20	14/37/115/115	-
37	IHT	b	616	-	-	8/25/65/65	0/2/2/2
28	CLA	B	819	-	-	8/25/103/115	-
28	CLA	l	305	20	1/1/15/20	16/37/115/115	-
28	CLA	e	605	19	-	17/37/115/115	-
28	CLA	d	303	-	1/1/15/20	19/37/115/115	-
28	CLA	a	311	15	1/1/15/20	12/37/115/115	-
28	CLA	m	603	-	1/1/15/20	11/37/115/115	-
28	CLA	m	608	18	1/1/15/20	23/37/115/115	-
28	CLA	A	839	-	1/1/15/20	16/37/115/115	-
28	CLA	h	302	17	1/1/12/20	7/19/97/115	-
28	CLA	A	828	-	-	9/37/115/115	-
28	CLA	B	820	-	1/1/12/20	6/23/101/115	-
38	KC2	g	313	38	-	2/15/71/71	-
28	CLA	k	602	21	1/1/12/20	8/19/97/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	h	304	-	1/1/12/20	6/21/99/115	-
28	CLA	m	605	18	-	4/10/88/115	-
33	SF4	A	853	2,1	-	-	0/6/5/5
28	CLA	B	829	-	-	5/19/97/115	-
28	CLA	l	308	20	1/1/12/20	9/21/99/115	-
28	CLA	e	606	19	1/1/15/20	22/37/115/115	-
28	CLA	n	602	26	-	4/19/97/115	-
32	LMT	A	850	-	-	11/21/61/61	0/2/2/2
36	II0	i	320	-	-	6/21/67/67	0/2/2/2
31	WVN	B	848	-	-	6/29/63/63	0/2/2/2
28	CLA	B	826	-	1/1/12/20	5/21/99/115	-
28	CLA	g	304	-	1/1/12/20	4/21/99/115	-
37	IHT	c	616	-	-	10/25/65/65	0/2/2/2
36	II0	k	619	-	-	5/21/67/67	0/2/2/2
28	CLA	i	311	-	1/1/12/20	7/21/99/115	-
38	KC2	i	310	22	-	7/15/71/71	-
38	KC2	d	310	23	-	6/15/71/71	-
28	CLA	b	606	16	1/1/14/20	13/33/111/115	-
28	CLA	b	611	-	1/1/15/20	21/37/115/115	-
30	LHG	b	620	-	-	17/35/35/53	-
28	CLA	g	308	-	1/1/15/20	17/37/115/115	-
38	KC2	k	612	-	-	5/15/71/71	-
35	LMG	F	205	-	-	11/43/63/70	0/1/1/1
28	CLA	b	601	16	1/1/12/20	8/21/99/115	-
37	IHT	g	319	-	-	8/25/65/65	0/2/2/2
28	CLA	m	609	18	1/1/12/20	6/21/99/115	-
28	CLA	B	838	-	1/1/13/20	8/28/106/115	-
28	CLA	l	309	30	1/1/14/20	12/33/111/115	-
36	II0	a	314	-	-	3/21/67/67	0/2/2/2
28	CLA	B	805	-	1/1/15/20	13/37/115/115	-
28	CLA	A	825	40	-	10/37/115/115	-
36	II0	e	616	-	-	4/21/67/67	0/2/2/2
28	CLA	f	606	18	-	5/21/99/115	-
37	IHT	n	617	-	-	8/25/65/65	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	CLA	i	304	-	1/1/12/20	5/21/99/115	-
36	II0	g	318	-	-	2/21/67/67	0/2/2/2
28	CLA	i	307	22	1/1/14/20	12/33/111/115	-
36	II0	g	316	-	-	5/21/67/67	0/2/2/2
28	CLA	B	822	40	-	11/36/114/115	-
28	CLA	n	610	40	1/1/15/20	16/37/115/115	-
30	LHG	L	208	-	-	21/53/53/53	-
28	CLA	A	829	-	1/1/15/20	15/37/115/115	-
33	SF4	C	101	3	-	-	0/6/5/5
28	CLA	a	306	40	1/1/15/20	15/37/115/115	-
28	CLA	a	313	-	-	8/17/95/115	-
28	CLA	A	809	-	1/1/13/20	10/27/105/115	-
28	CLA	A	827	-	1/1/14/20	9/34/112/115	-

The worst 5 of 4219 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	b	616	IHT	C15-C11	25.61	1.63	1.34
37	g	319	IHT	C15-C11	25.50	1.63	1.34
37	a	317	IHT	C15-C11	25.34	1.63	1.34
37	R	204	IHT	C15-C11	25.21	1.63	1.34
37	O	204	IHT	C15-C11	25.16	1.63	1.34

The worst 5 of 4792 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	J	101	WVN	C29-C26-C22	13.31	146.31	127.31
38	g	312	KC2	C1A-NA-C4A	-12.33	101.16	106.71
38	i	319	KC2	C1A-NA-C4A	-12.21	101.22	106.71
38	l	310	KC2	C1A-NA-C4A	-12.16	101.24	106.71
38	j	611	KC2	C1A-NA-C4A	-11.84	101.39	106.71

5 of 217 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
28	A	801	CLA	ND
28	A	802	CLA	ND
28	A	803	CLA	ND
28	A	804	CLA	ND

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Mol	Chain	Res	Type	Atom
28	A	805	CLA	ND

5 of 3777 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
28	A	801	CLA	CHA-CBD-CGD-O1D
28	A	801	CLA	CHA-CBD-CGD-O2D
28	A	801	CLA	CBD-CGD-O2D-CED
28	A	802	CLA	C1A-C2A-CAA-CBA
28	A	802	CLA	CBA-CGA-O2A-C1

There are no ring outliers.

108 monomers are involved in 236 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
28	A	821	CLA	3	0
31	A	847	WVN	3	0
28	B	821	CLA	4	0
35	L	209	LMG	4	0
28	A	835	CLA	4	0
28	A	838	CLA	4	0
28	B	804	CLA	2	0
28	F	202	CLA	1	0
28	B	835	CLA	6	0
28	A	830	CLA	1	0
30	A	843	LHG	1	0
34	B	843	DGD	2	0
28	L	207	CLA	2	0
28	A	806	CLA	4	0
28	B	840	CLA	2	0
28	A	804	CLA	2	0
30	A	844	LHG	1	0
28	A	816	CLA	3	0
28	A	814	CLA	1	0
28	B	830	CLA	4	0
28	A	810	CLA	2	0
28	B	832	CLA	4	0
28	B	814	CLA	1	0
28	A	823	CLA	3	0
31	K	102	WVN	1	0
28	A	854	CLA	6	0
28	A	834	CLA	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
28	A	840	CLA	2	0
28	B	807	CLA	2	0
31	B	846	WVN	1	0
28	L	203	CLA	5	0
28	A	826	CLA	3	0
28	B	803	CLA	5	0
28	A	807	CLA	5	0
31	J	101	WVN	1	0
29	A	842	PQN	1	0
28	B	813	CLA	8	0
28	A	831	CLA	3	0
28	O	201	CLA	1	0
30	J	106	LHG	6	0
35	Q	301	LMG	4	0
29	B	842	PQN	1	0
28	A	811	CLA	2	0
28	B	836	CLA	3	0
28	B	834	CLA	2	0
28	A	836	CLA	6	0
28	O	206	CLA	8	0
28	A	803	CLA	2	0
28	A	812	CLA	1	0
28	B	831	CLA	2	0
28	A	813	CLA	1	0
28	B	802	CLA	3	0
28	O	202	CLA	4	0
28	R	203	CLA	1	0
28	A	837	CLA	3	0
31	R	202	WVN	7	0
30	A	849	LHG	3	0
28	B	841	CLA	3	0
28	A	841	CLA	5	0
28	A	819	CLA	1	0
28	B	837	CLA	4	0
28	B	810	CLA	1	0
31	A	846	WVN	1	0
28	A	817	CLA	3	0
28	A	802	CLA	8	0
28	F	201	CLA	3	0
28	A	820	CLA	4	0
28	L	204	CLA	3	0
28	B	808	CLA	1	0

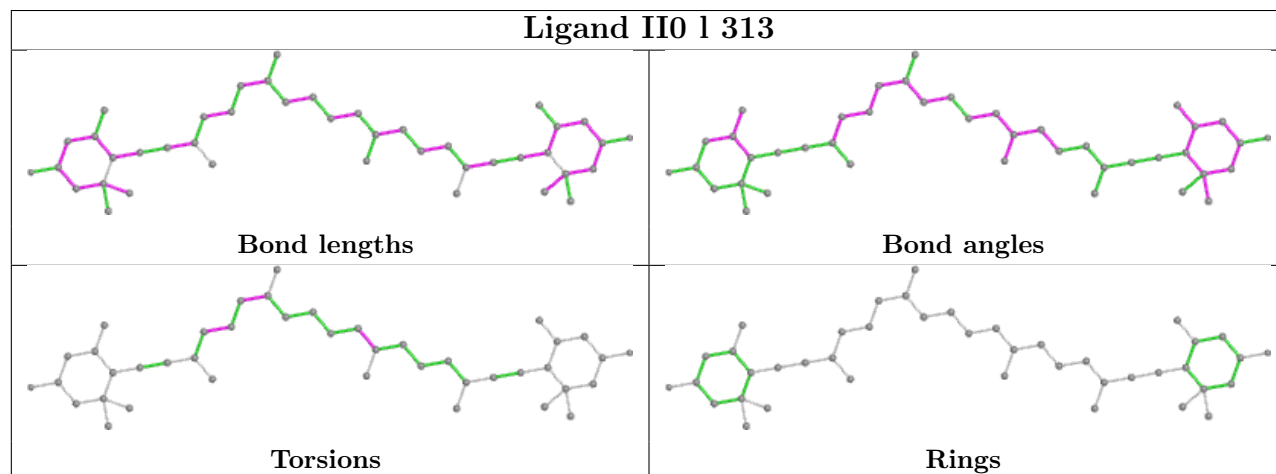
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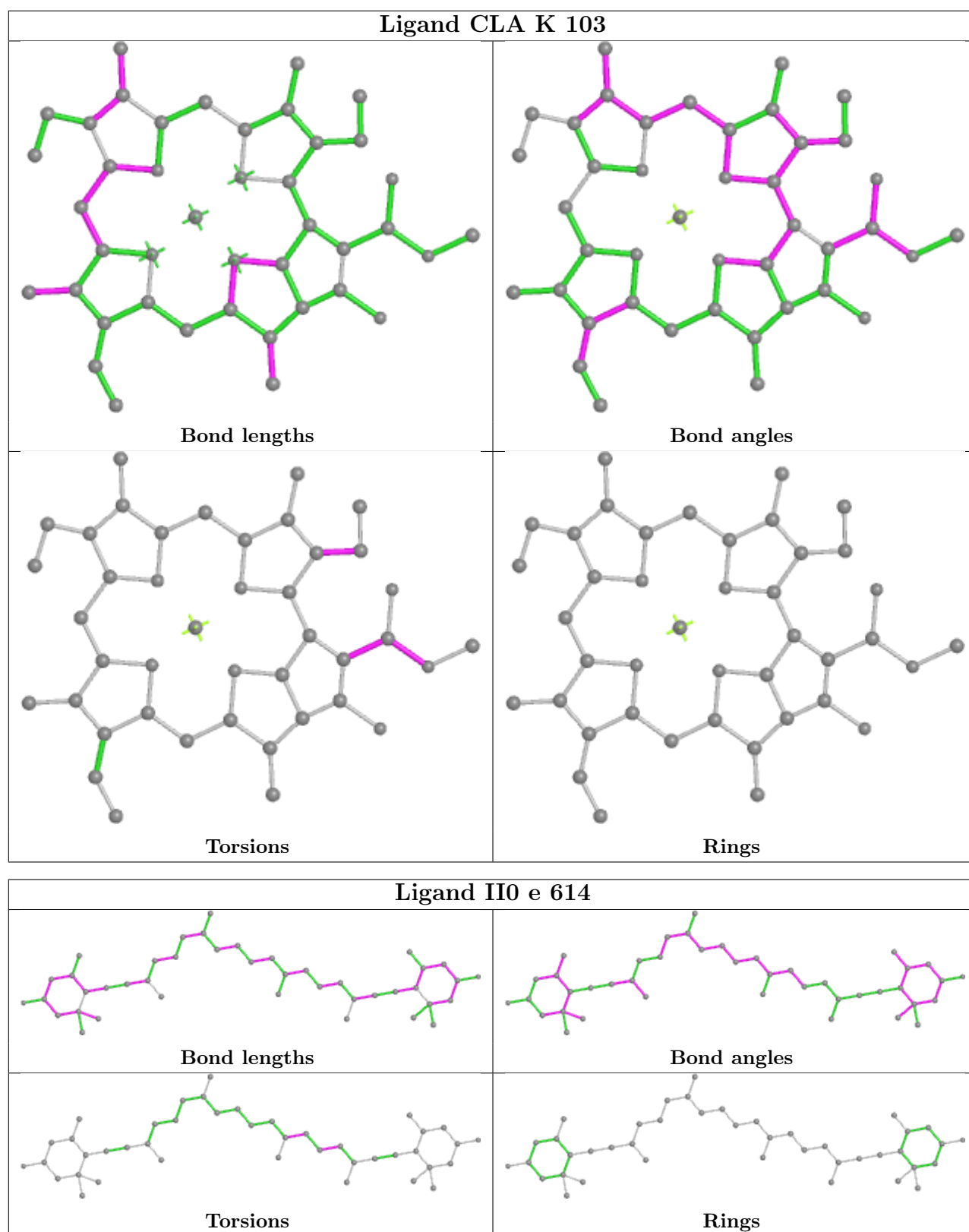
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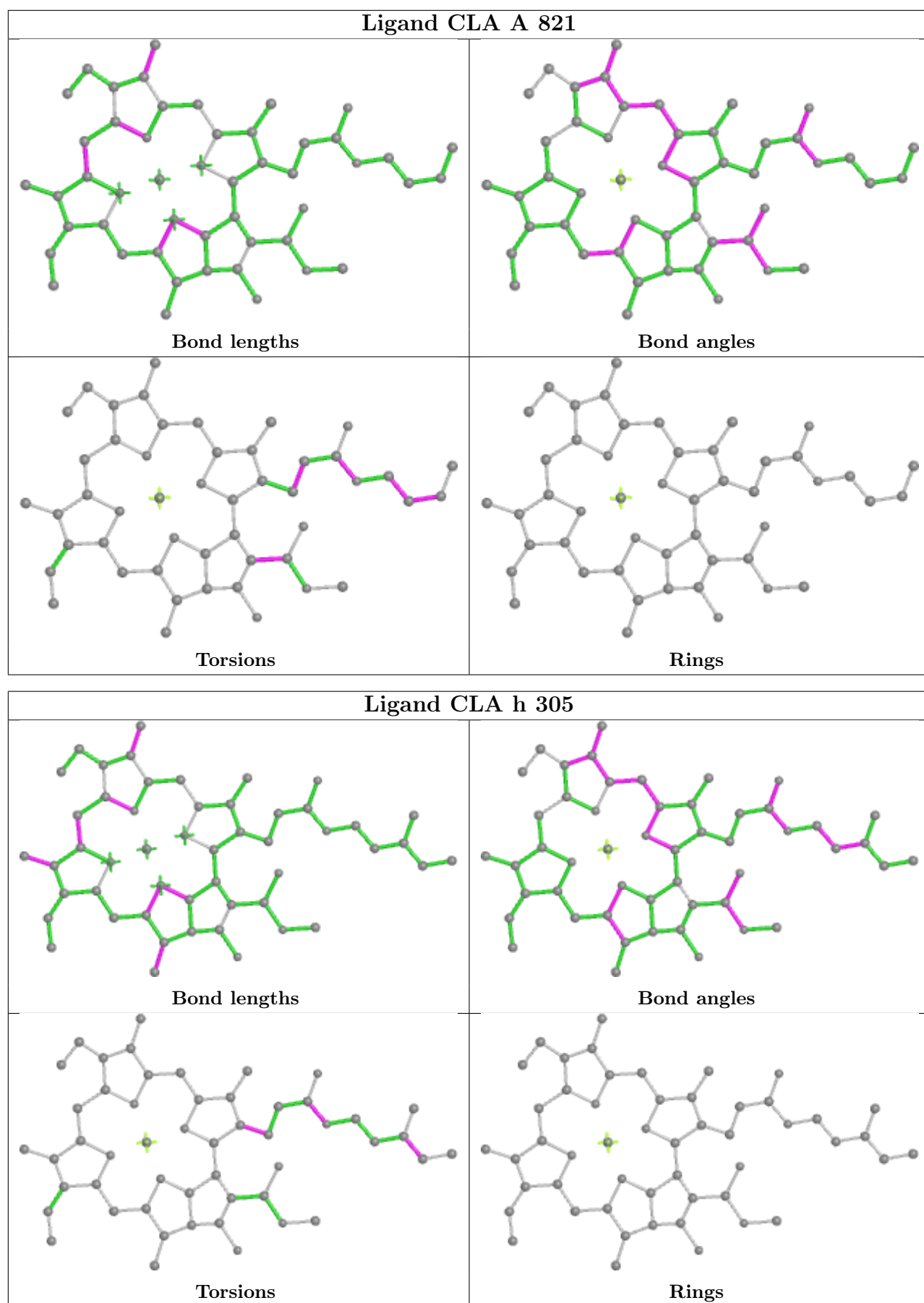
Mol	Chain	Res	Type	Clashes	Symm-Clashes
28	Q	302	CLA	7	0
28	A	832	CLA	2	0
28	B	817	CLA	3	0
28	A	852	CLA	2	0
28	B	801	CLA	5	0
28	B	806	CLA	1	0
28	A	818	CLA	3	0
28	B	825	CLA	2	0
28	A	851	CLA	3	0
28	B	824	CLA	3	0
28	K	101	CLA	1	0
28	B	827	CLA	2	0
28	A	815	CLA	1	0
31	L	206	WVN	1	0
28	B	839	CLA	3	0
28	L	202	CLA	2	0
28	B	833	CLA	3	0
28	B	811	CLA	3	0
28	A	801	CLA	5	0
28	B	823	CLA	2	0
31	I	101	WVN	2	0
35	J	105	LMG	2	0
28	B	815	CLA	5	0
28	A	808	CLA	1	0
28	A	822	CLA	2	0
28	A	824	CLA	4	0
31	A	848	WVN	1	0
28	B	819	CLA	1	0
28	A	839	CLA	5	0
28	A	828	CLA	4	0
28	B	820	CLA	1	0
32	A	850	LMT	2	0
35	F	205	LMG	3	0
28	B	805	CLA	3	0
28	B	822	CLA	5	0
30	L	208	LHG	2	0
28	A	829	CLA	2	0
28	A	809	CLA	3	0
28	A	827	CLA	2	0

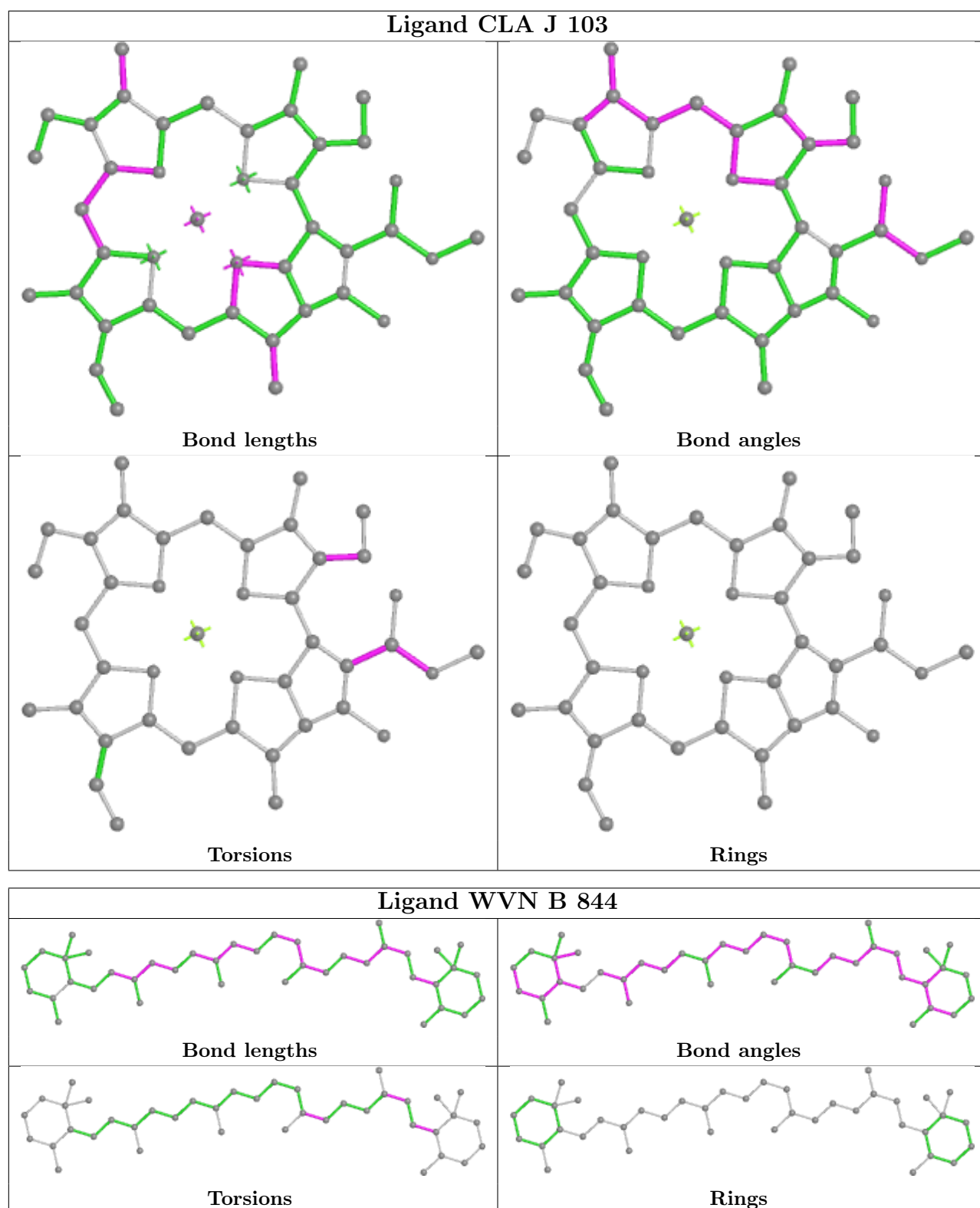
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will

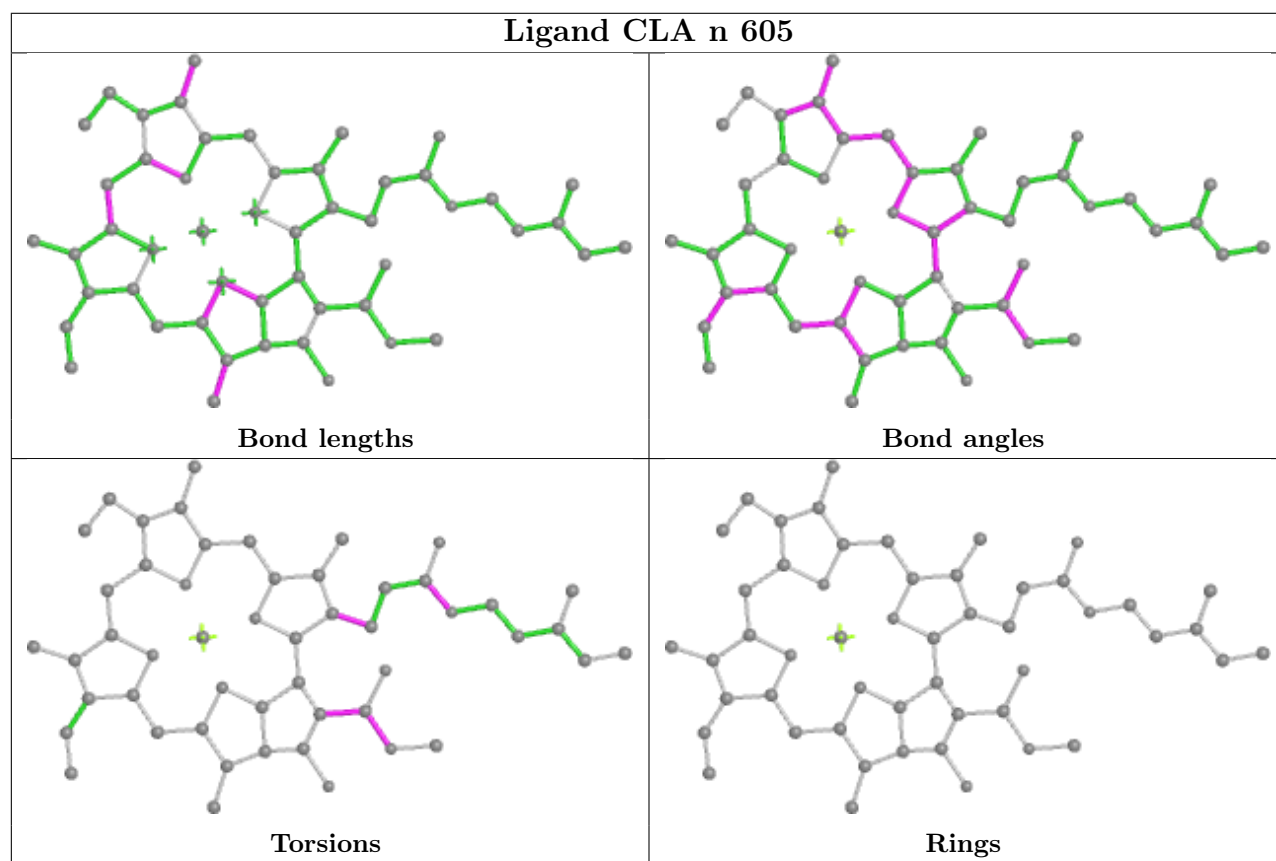
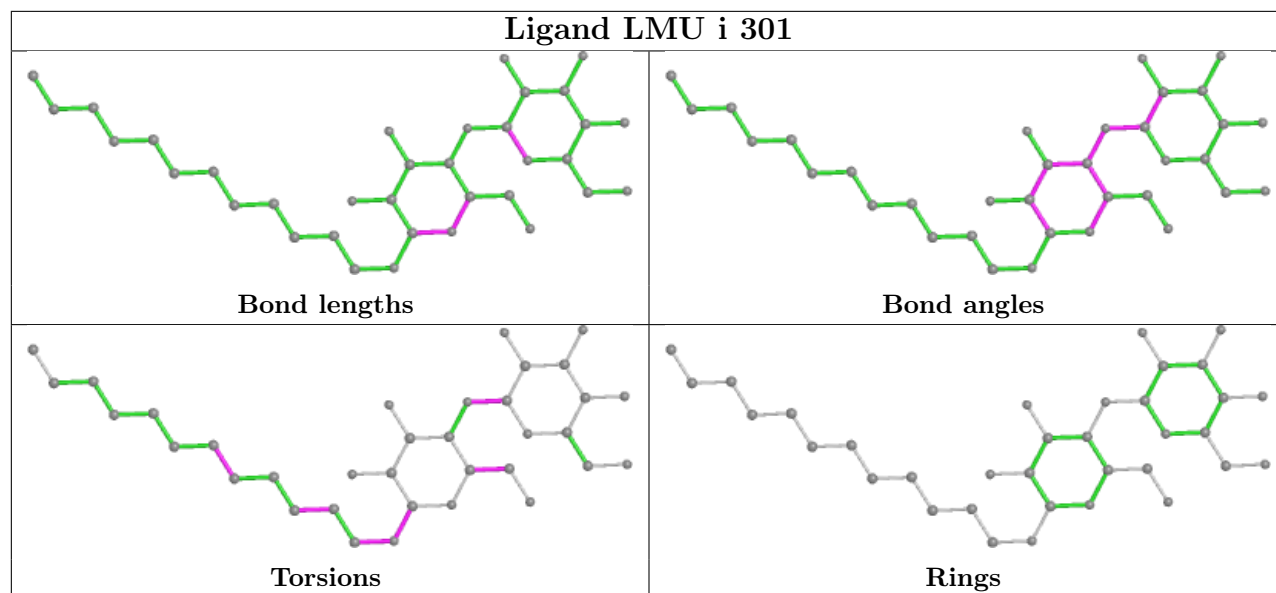
also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

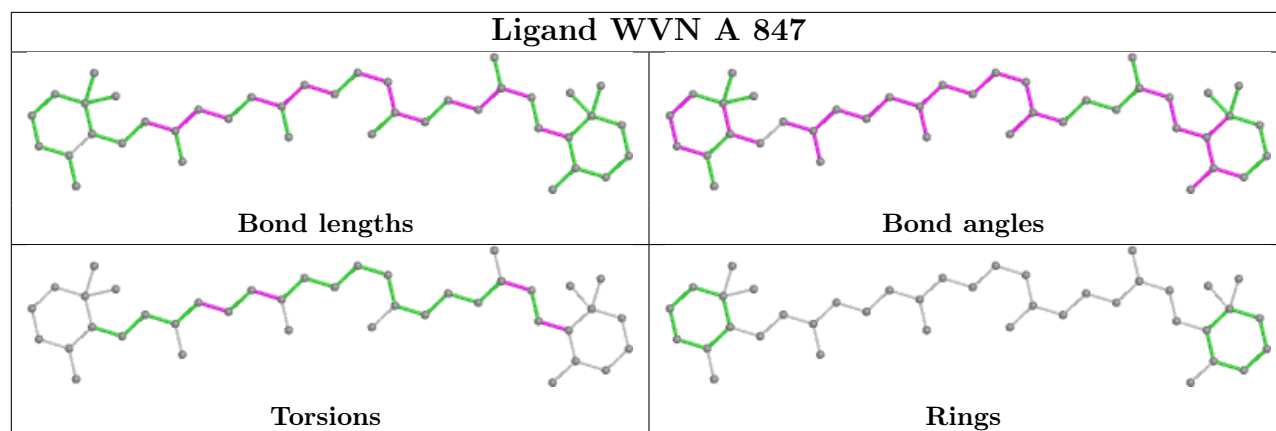
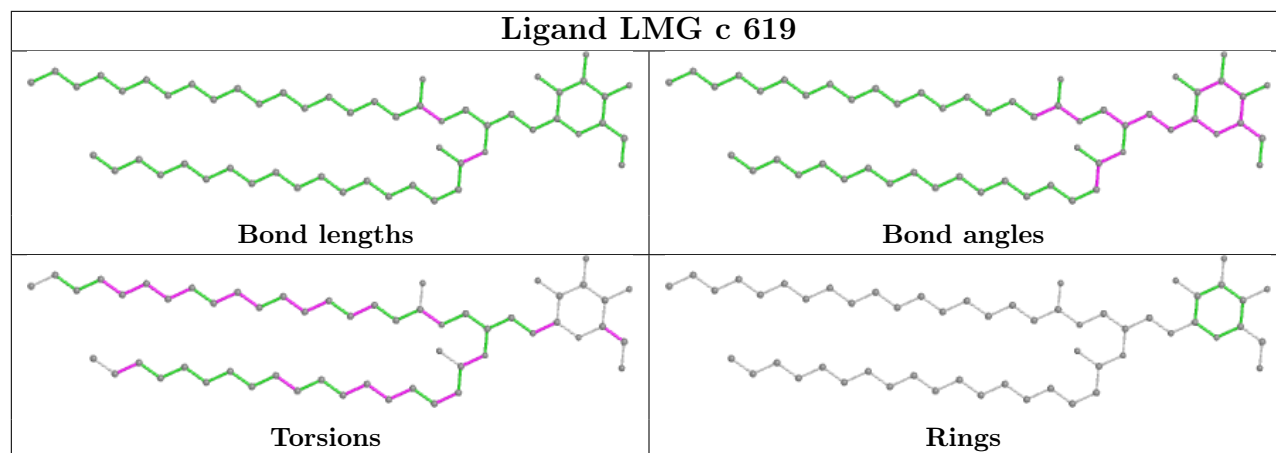


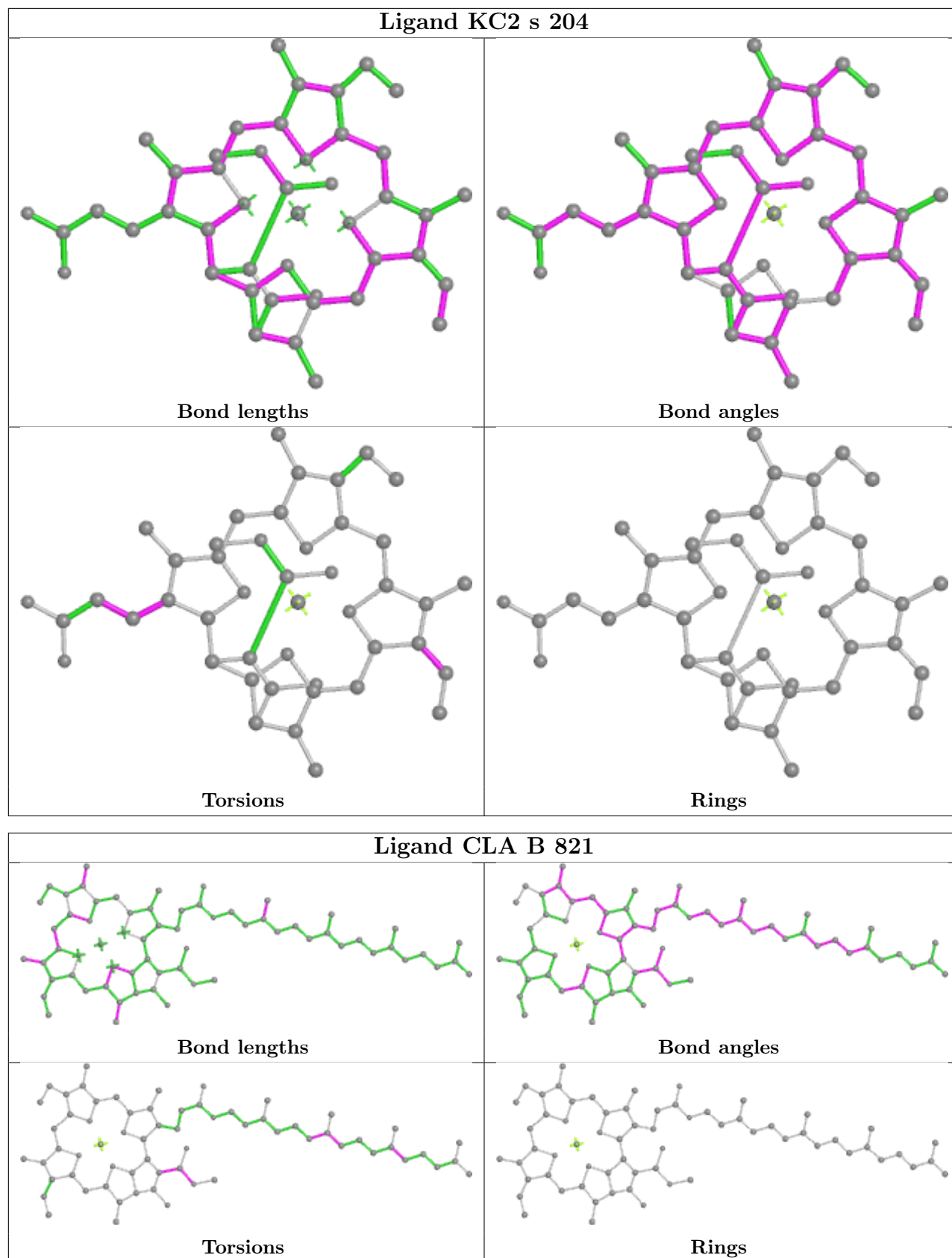


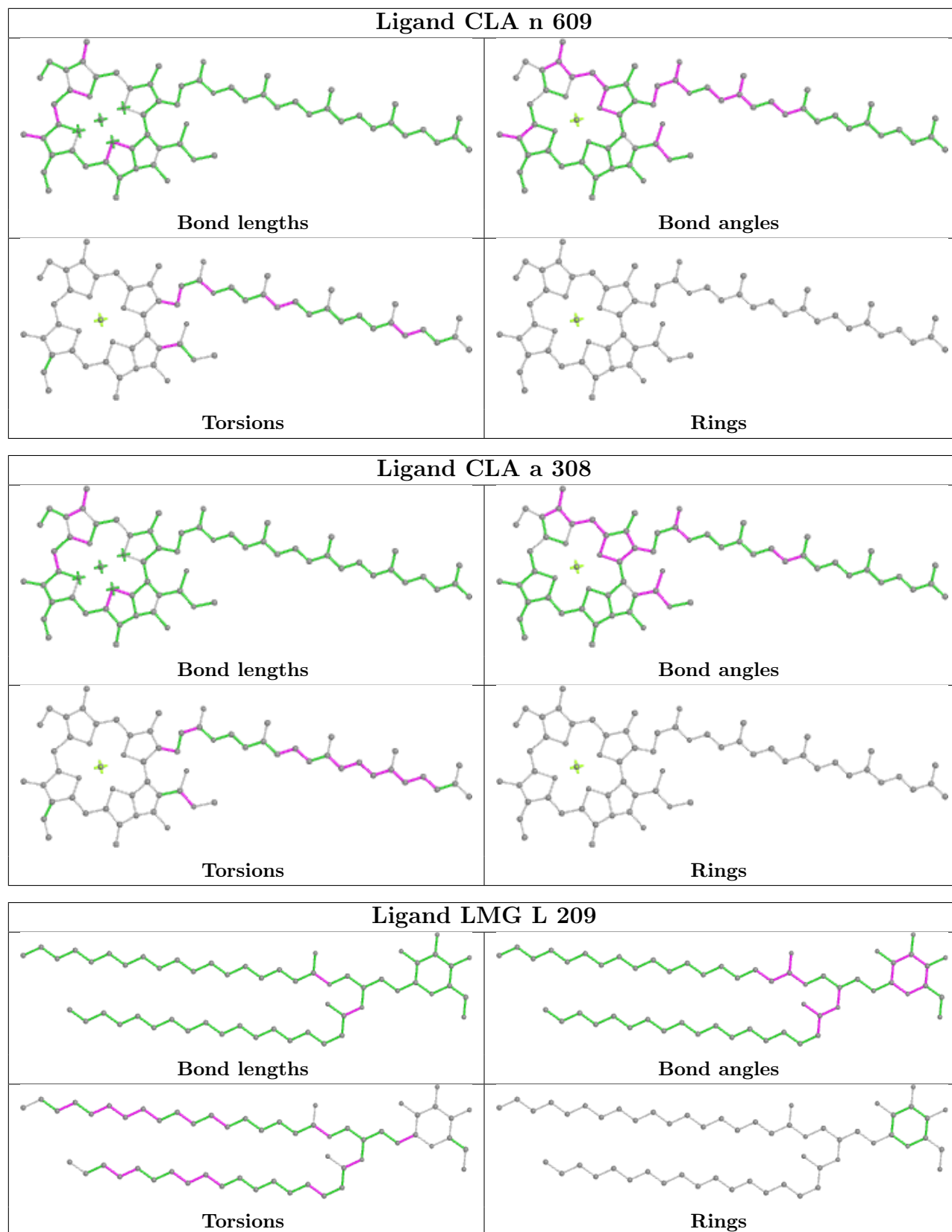


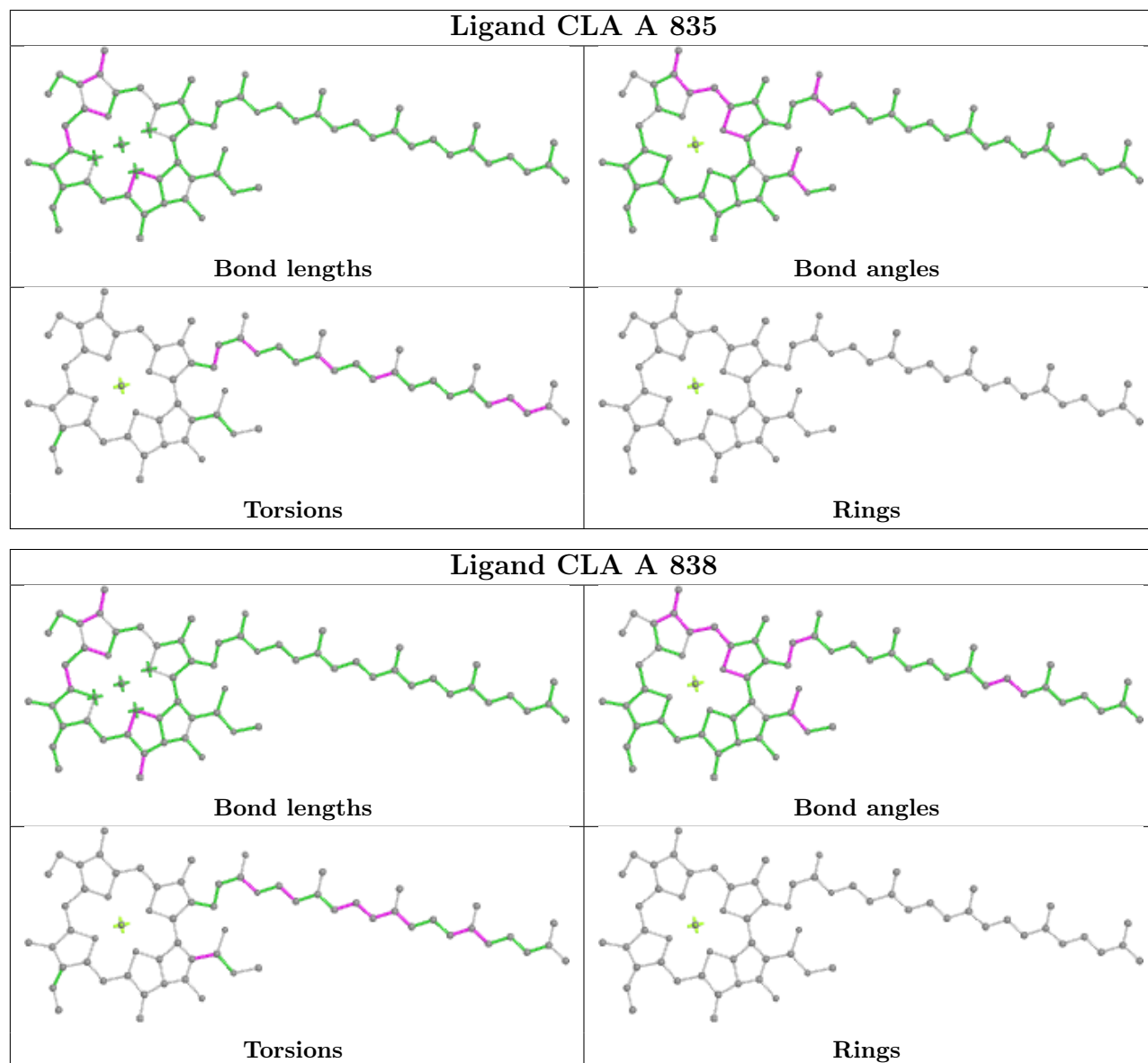


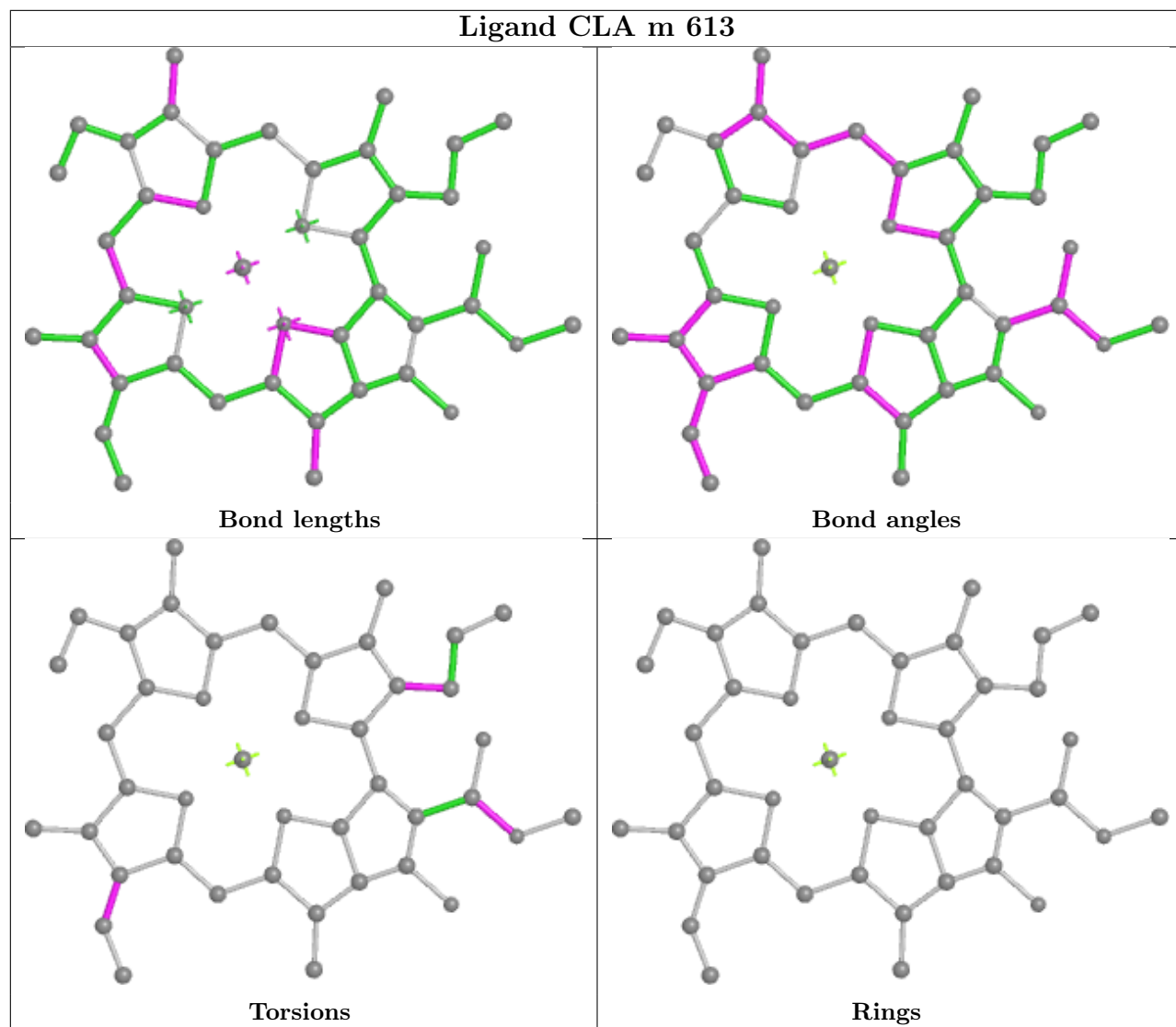


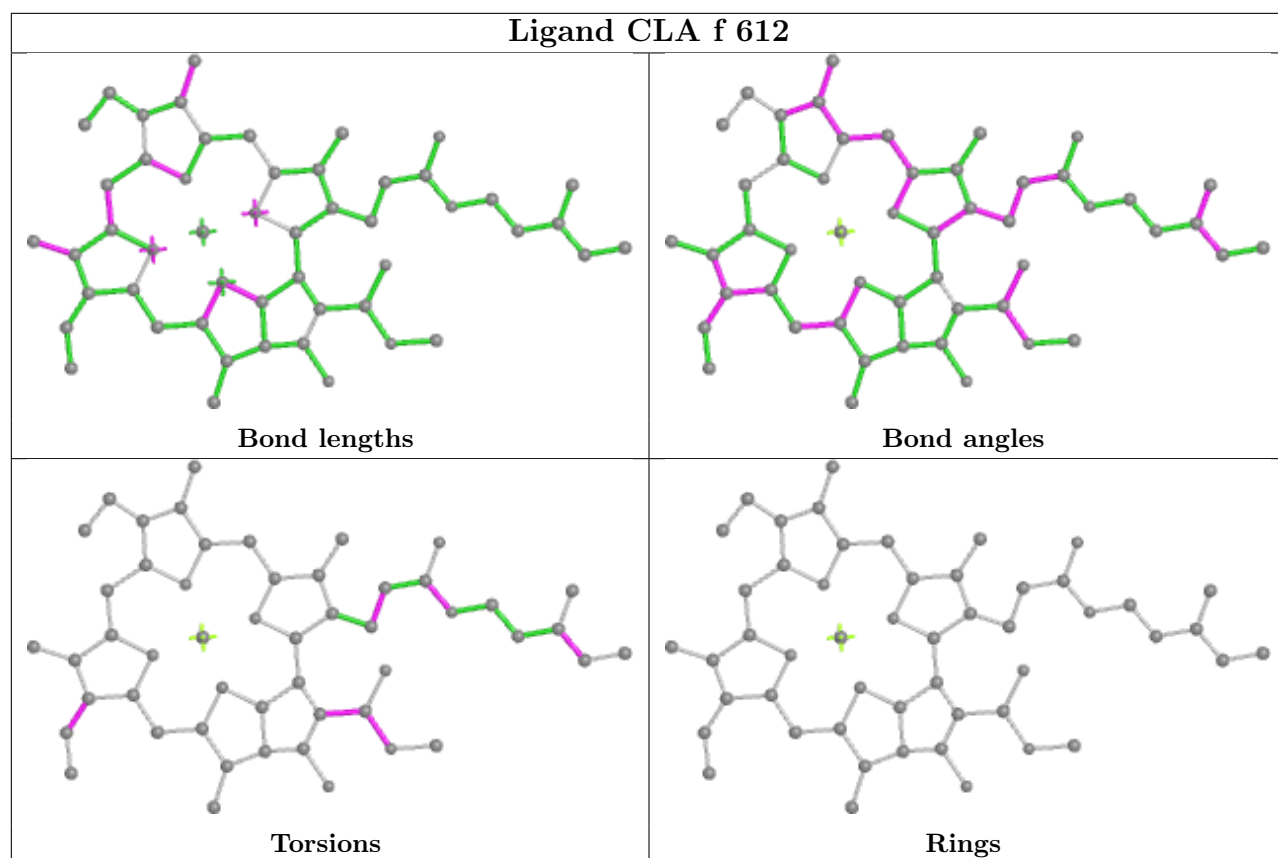
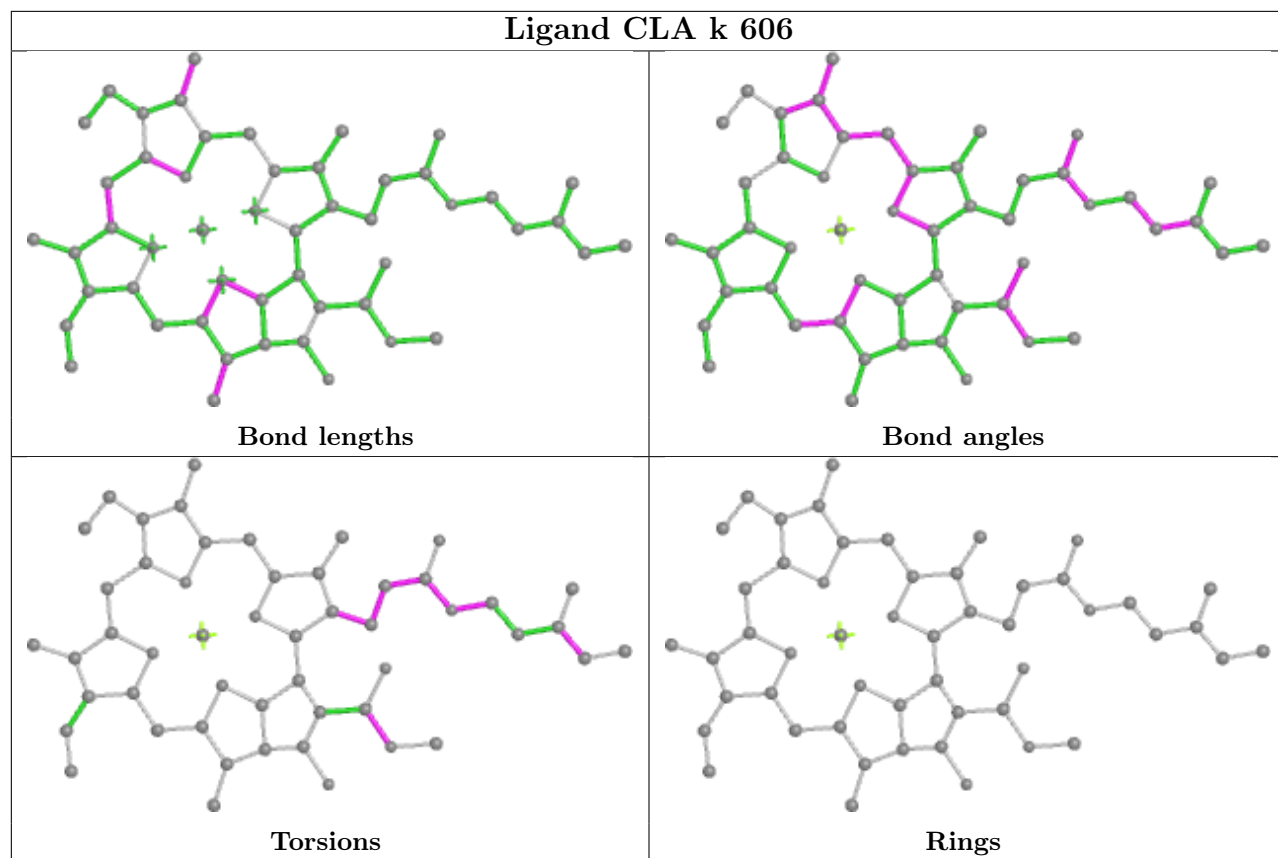


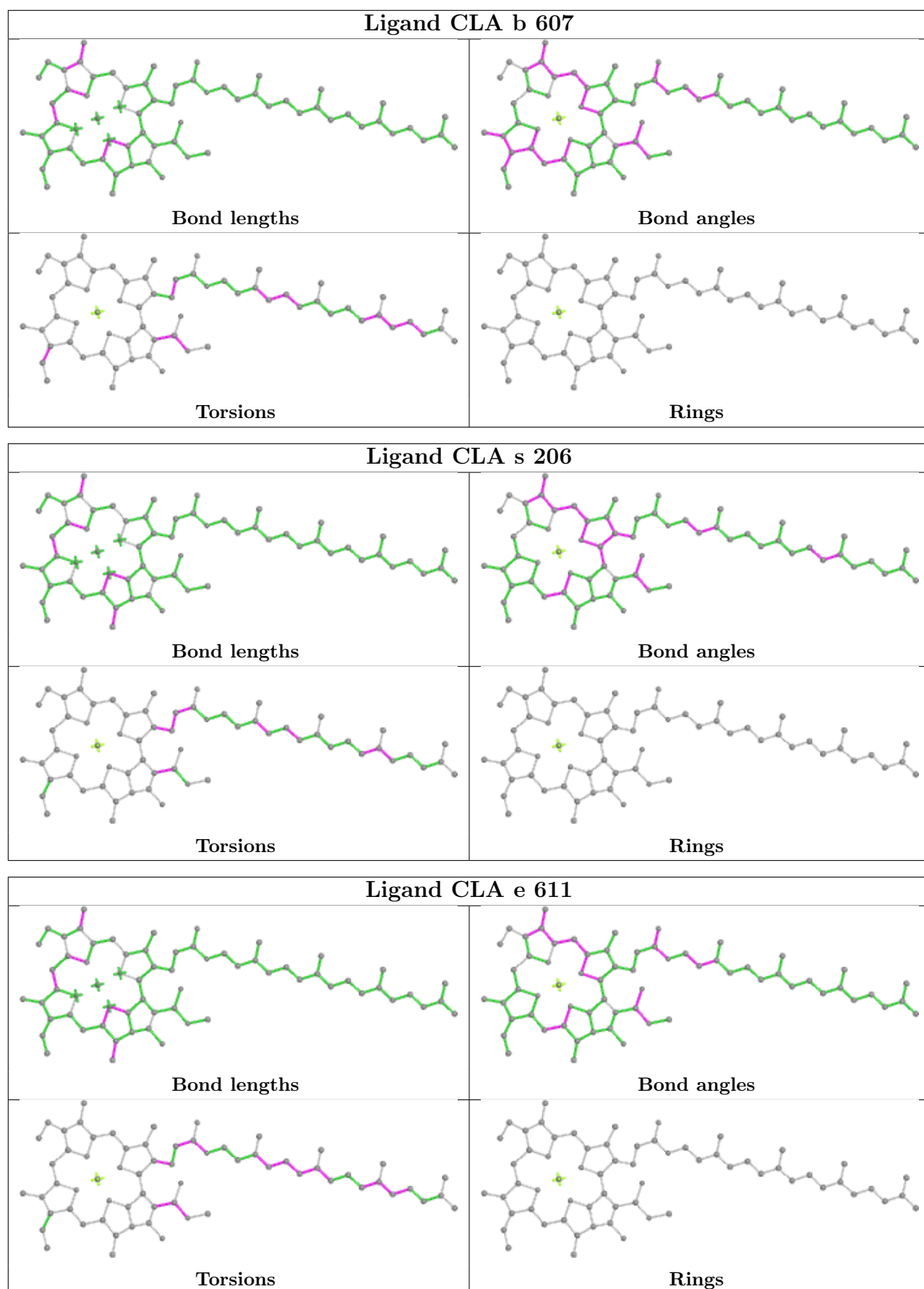


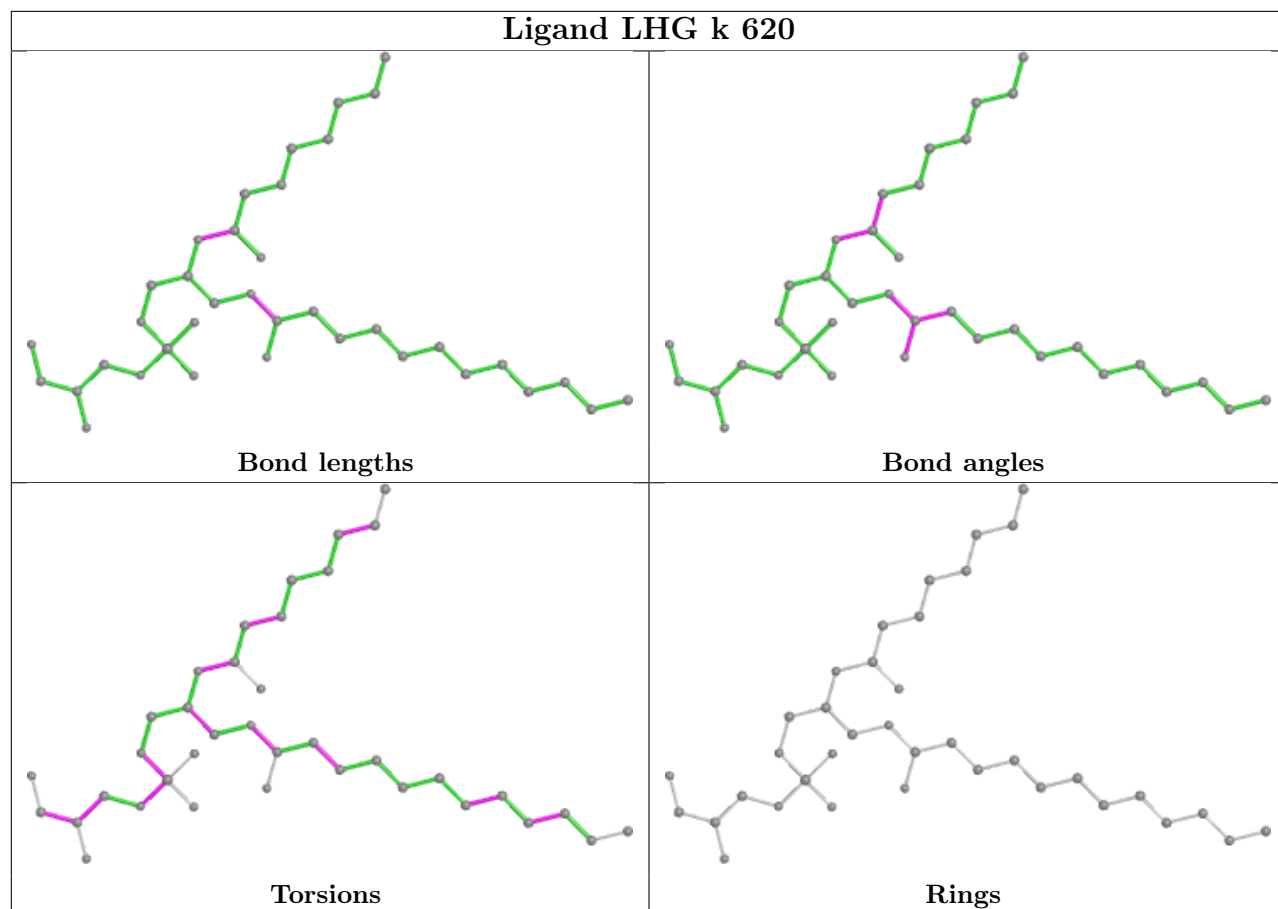


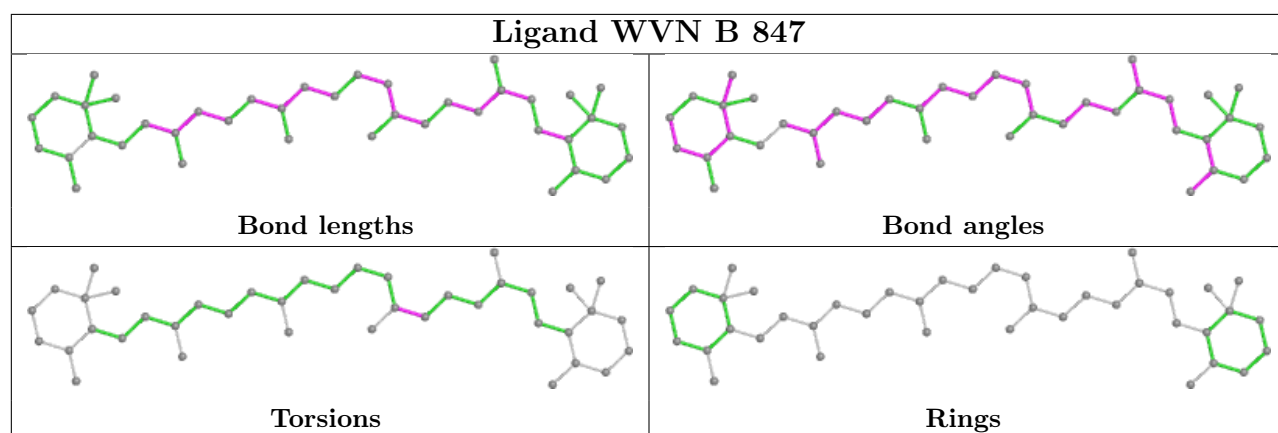
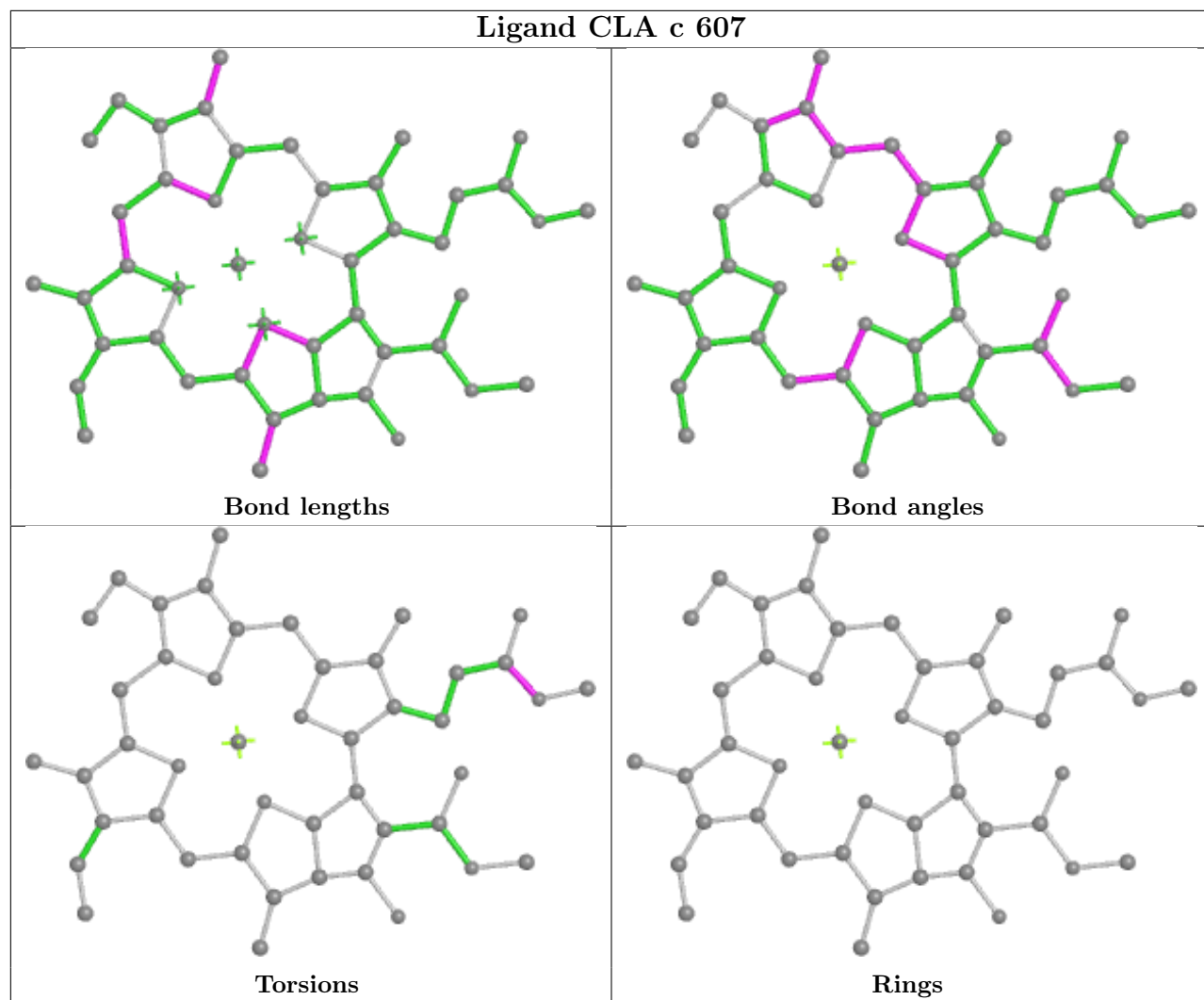


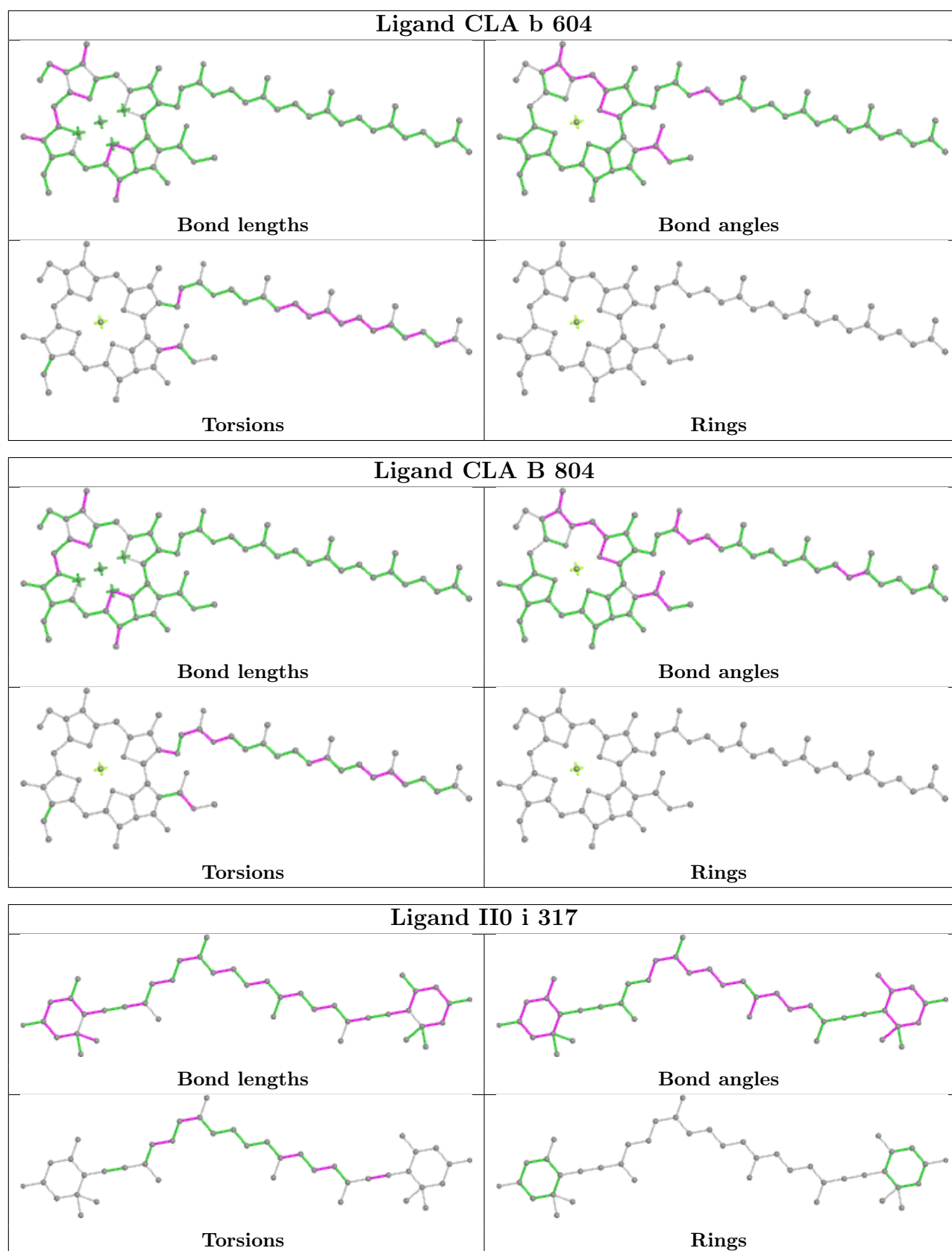


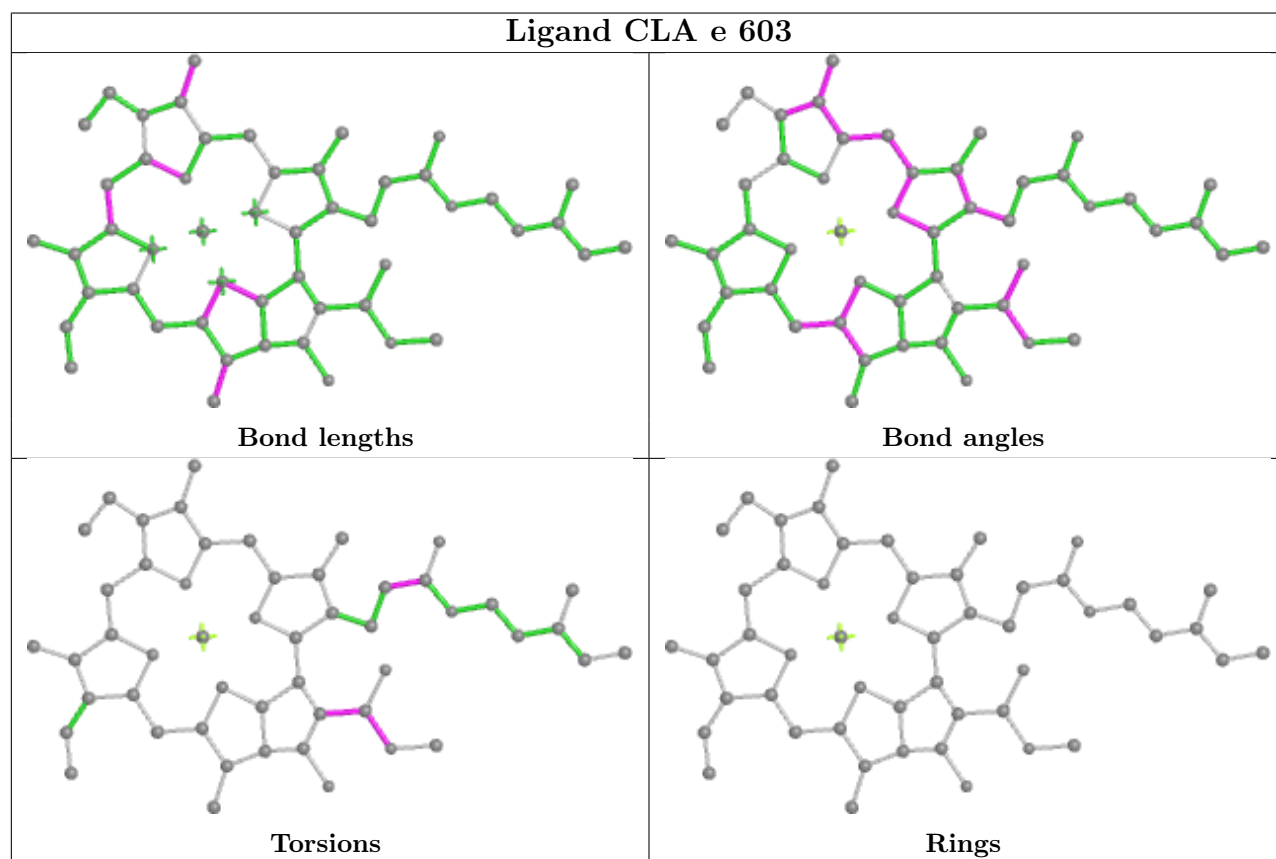
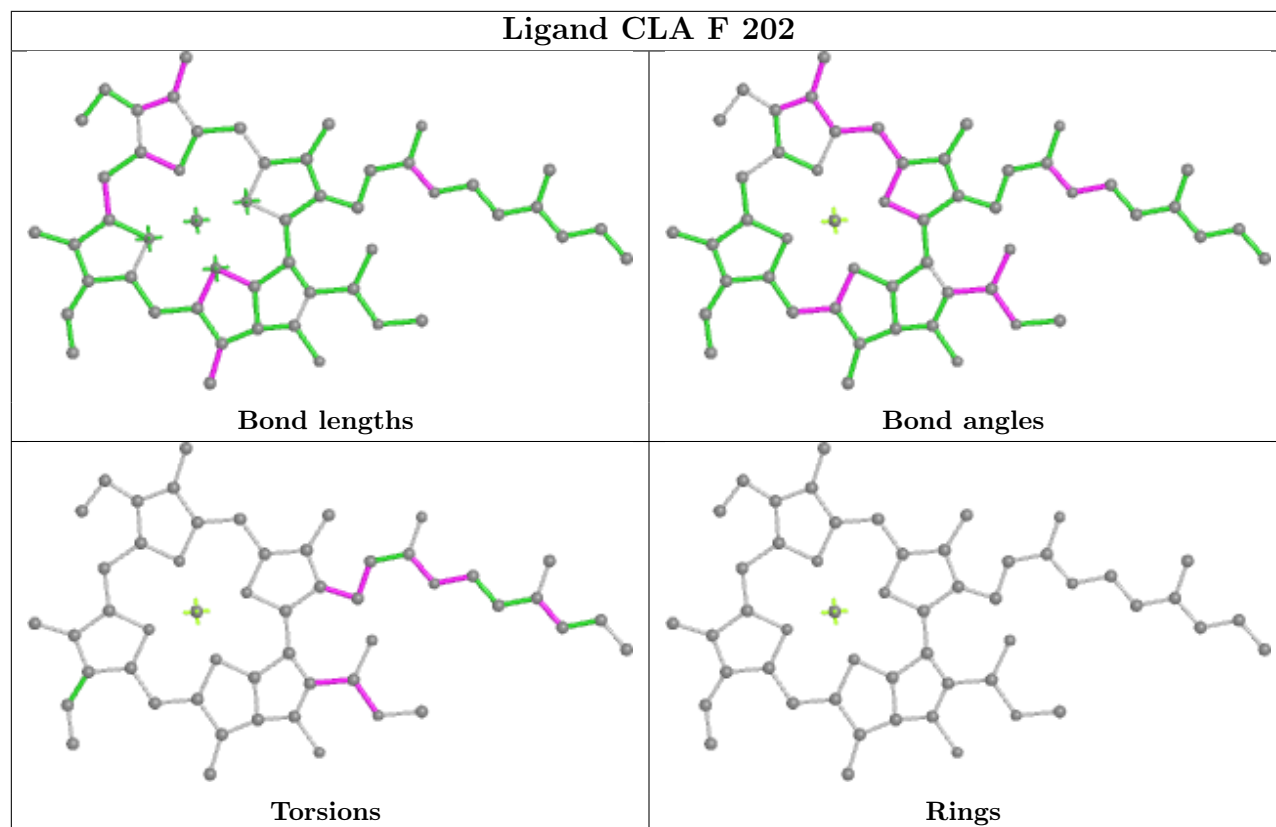


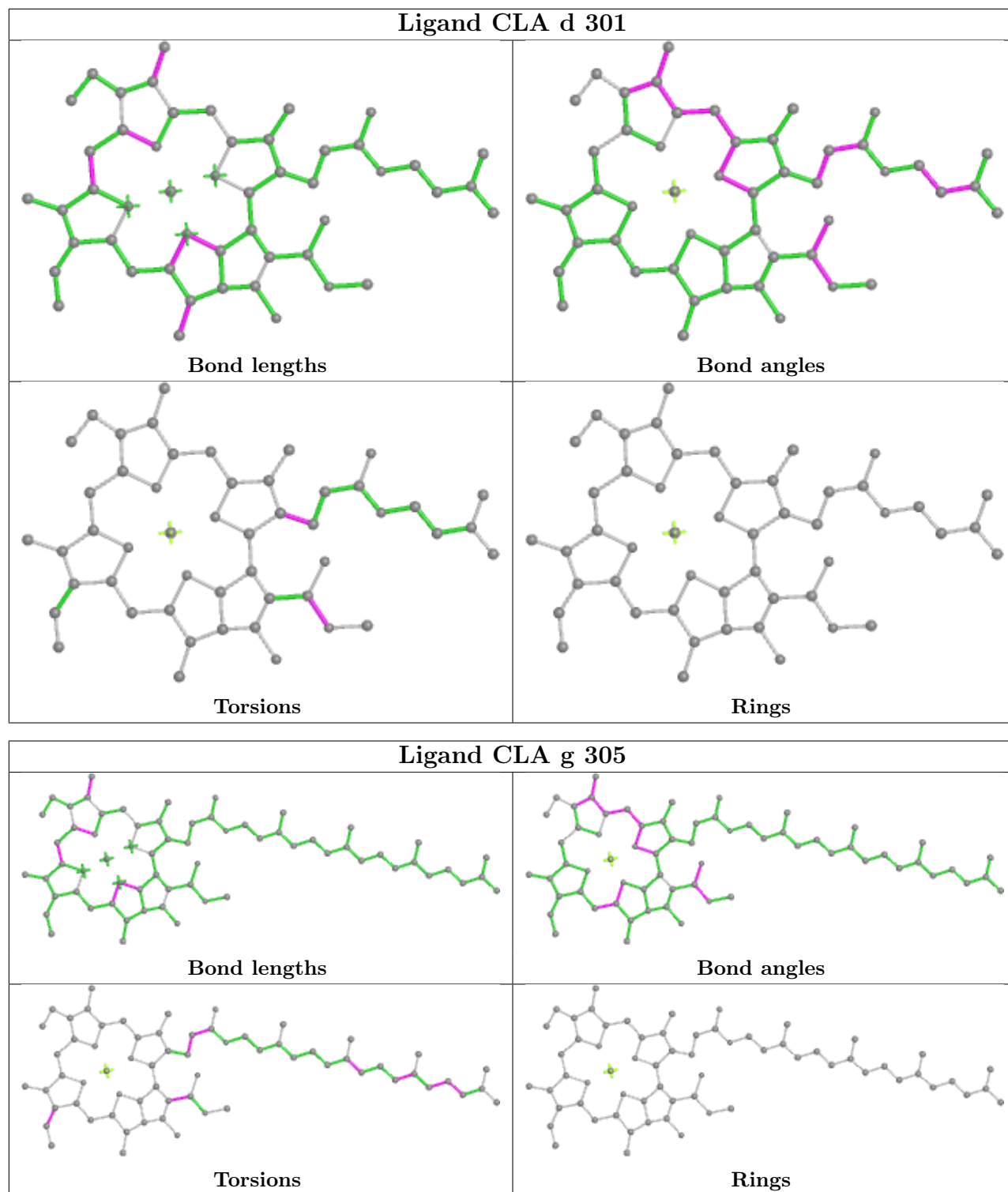


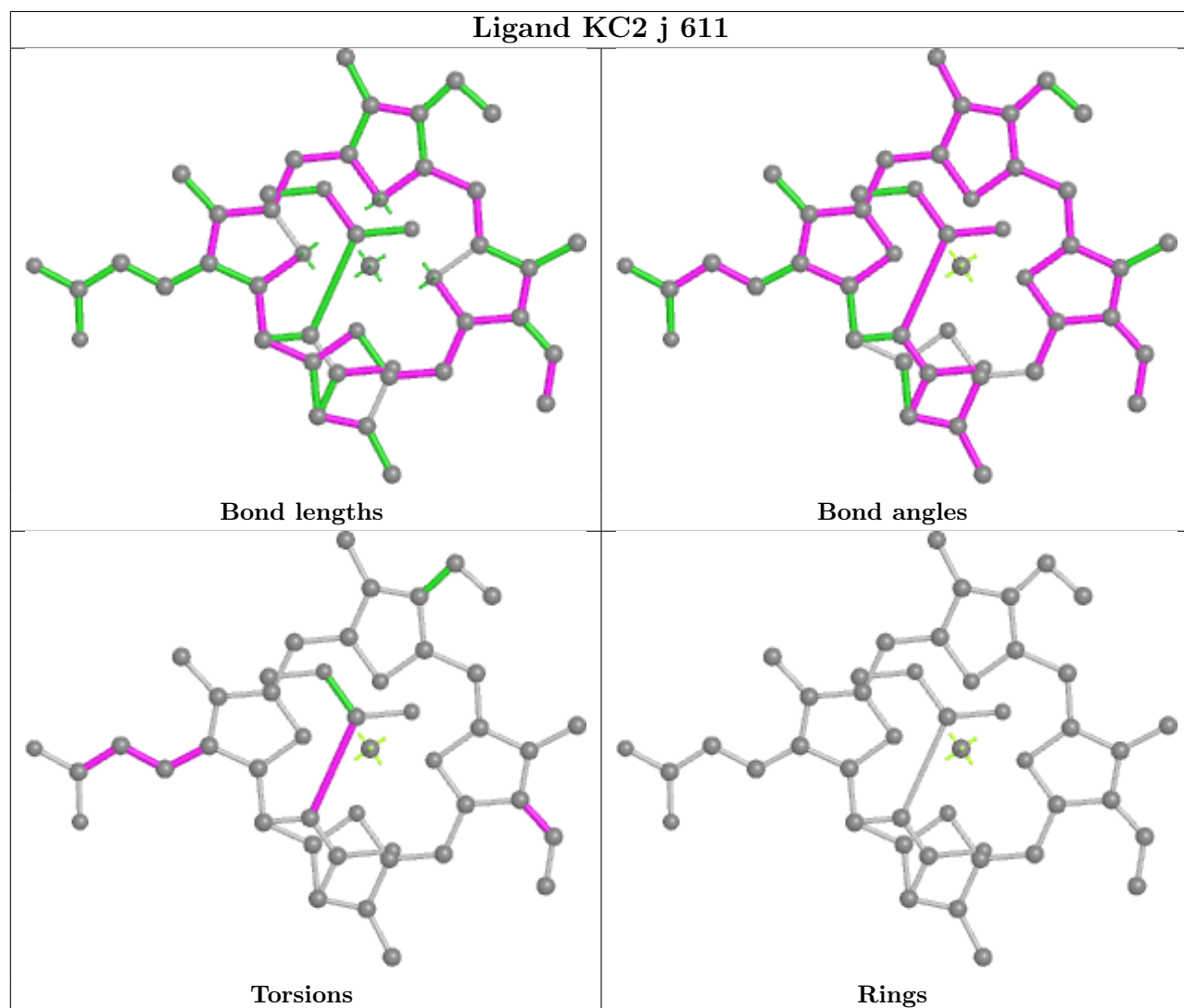
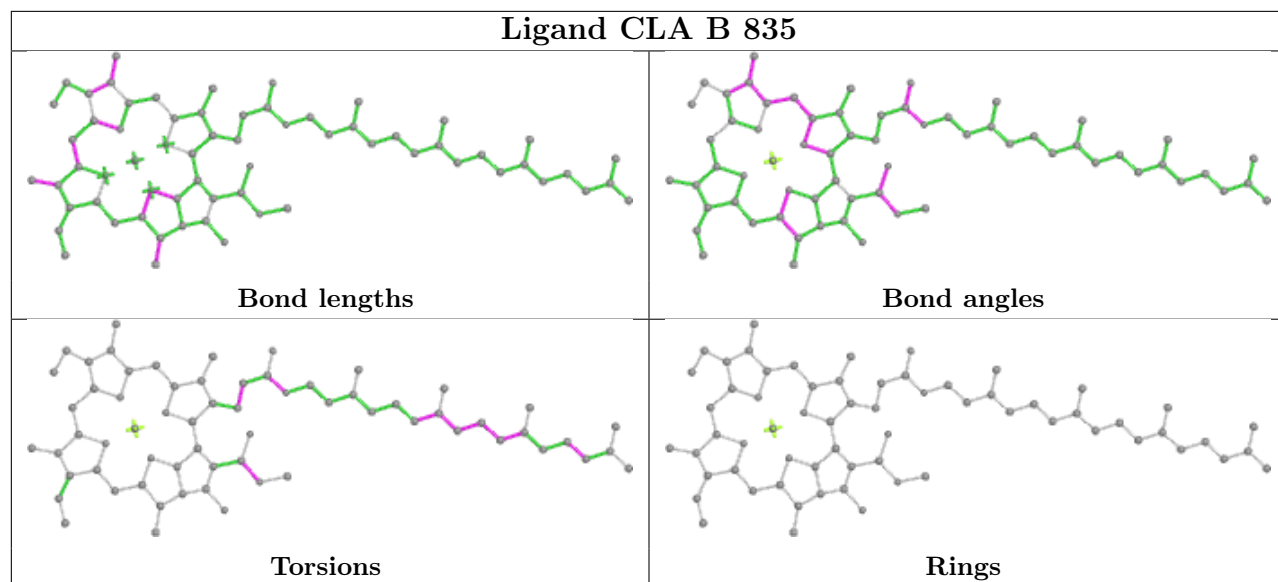


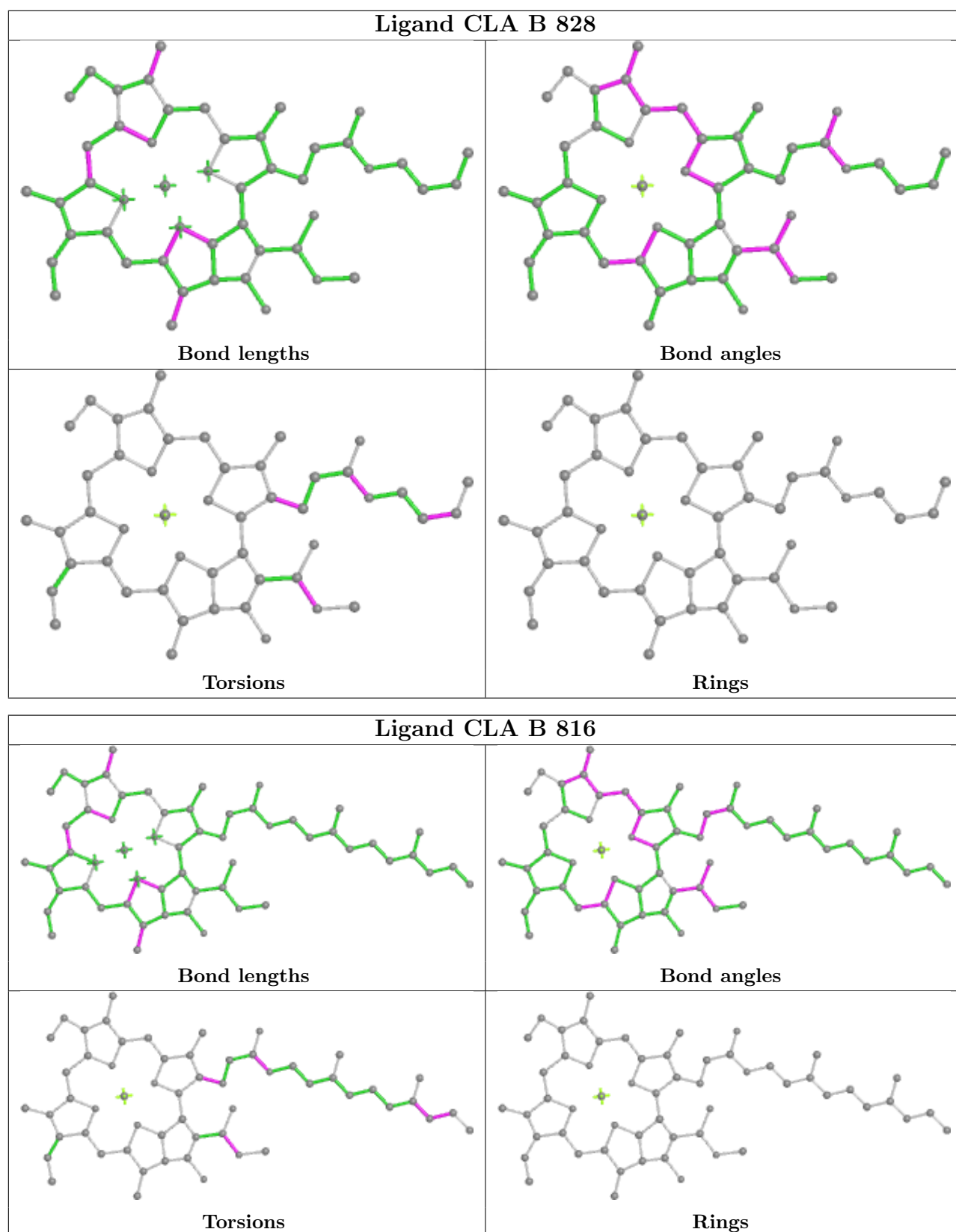


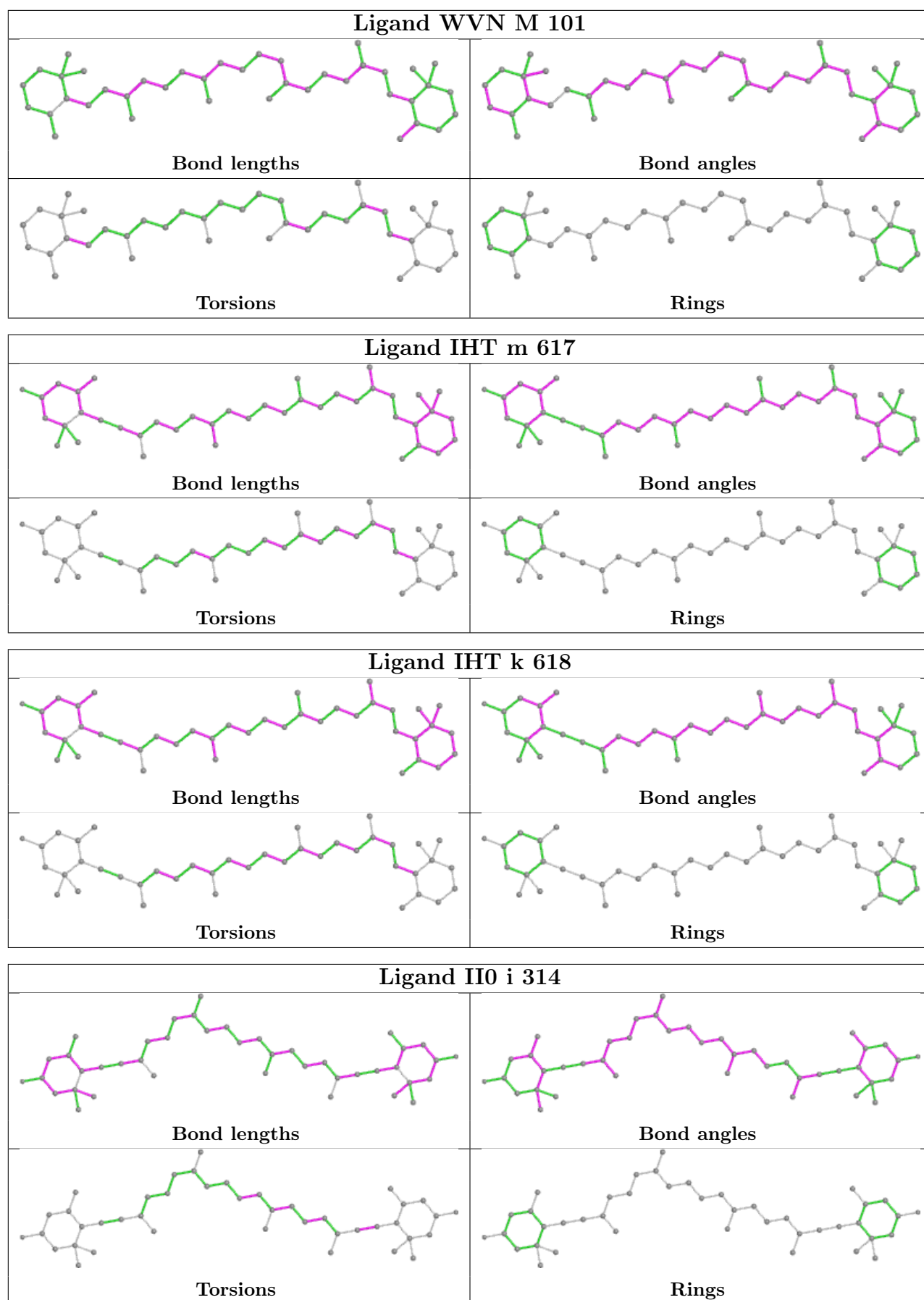


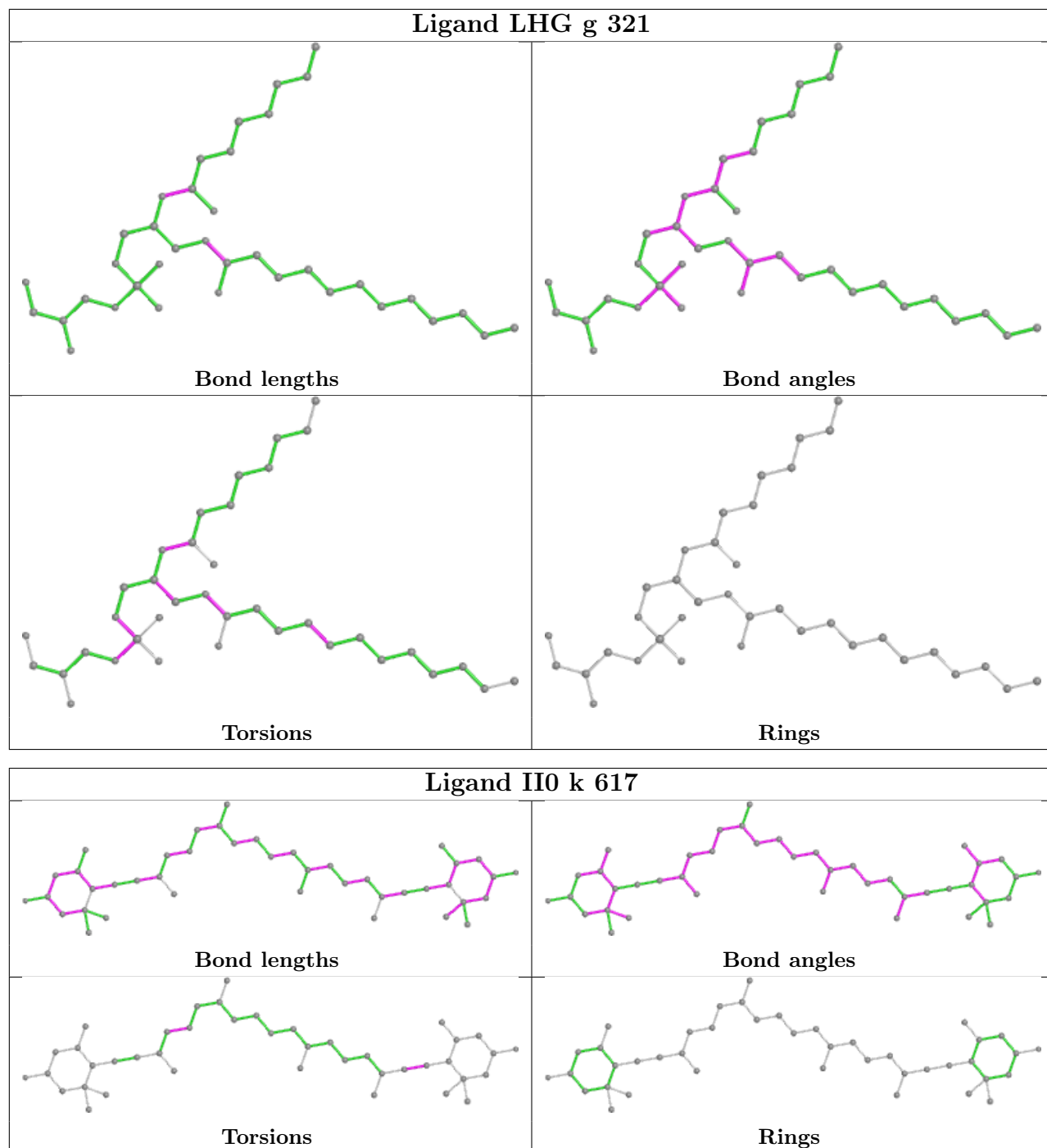


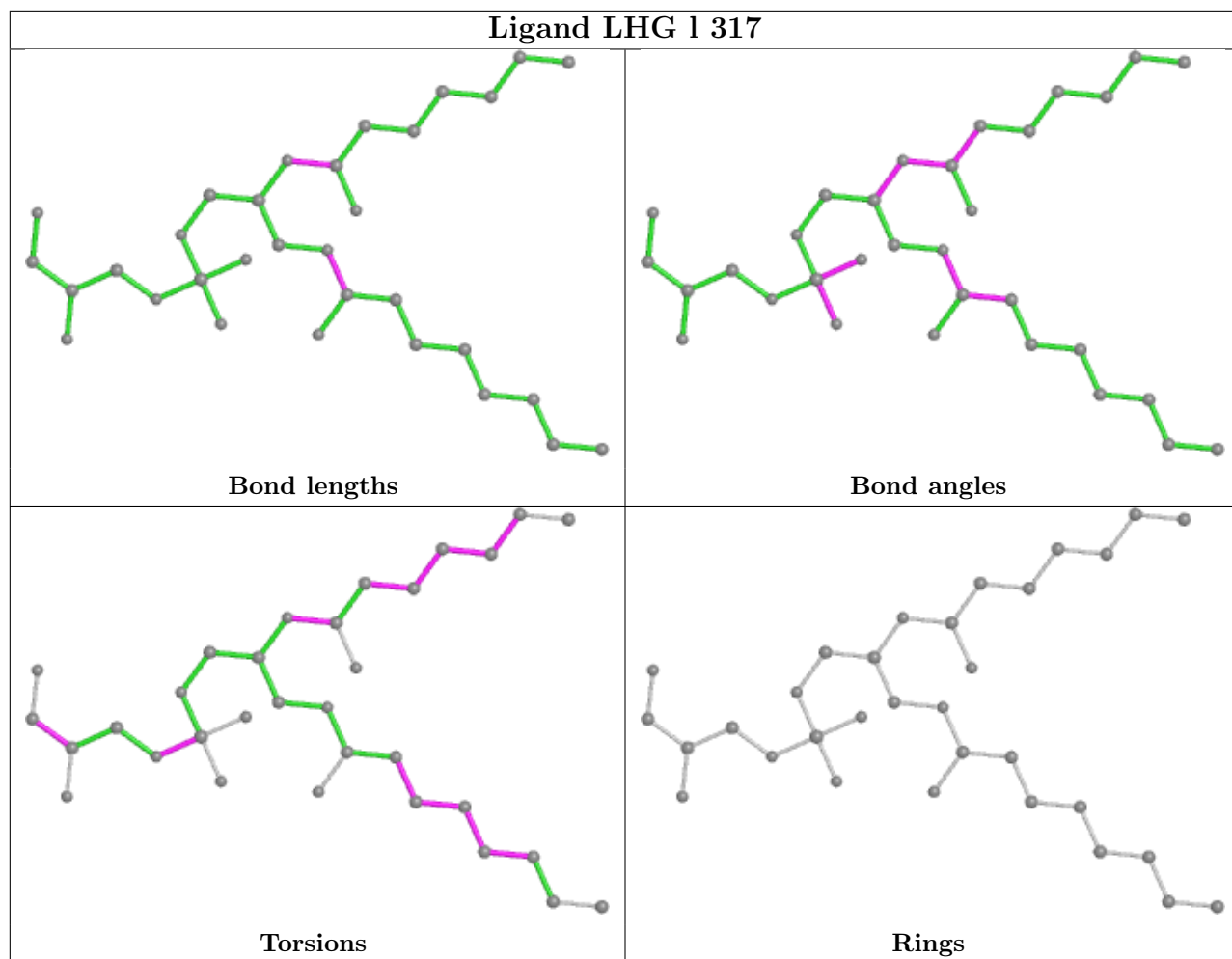


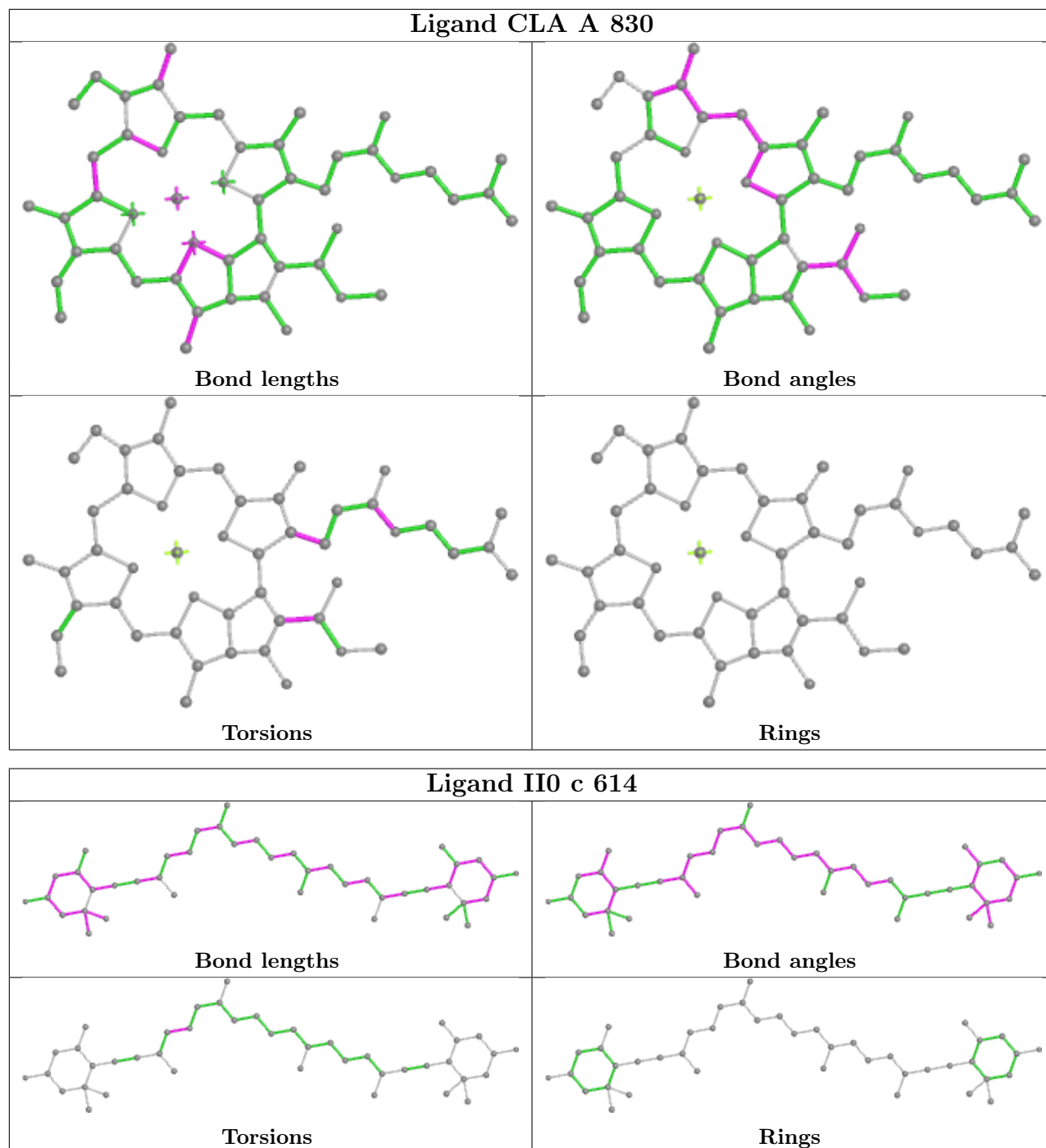


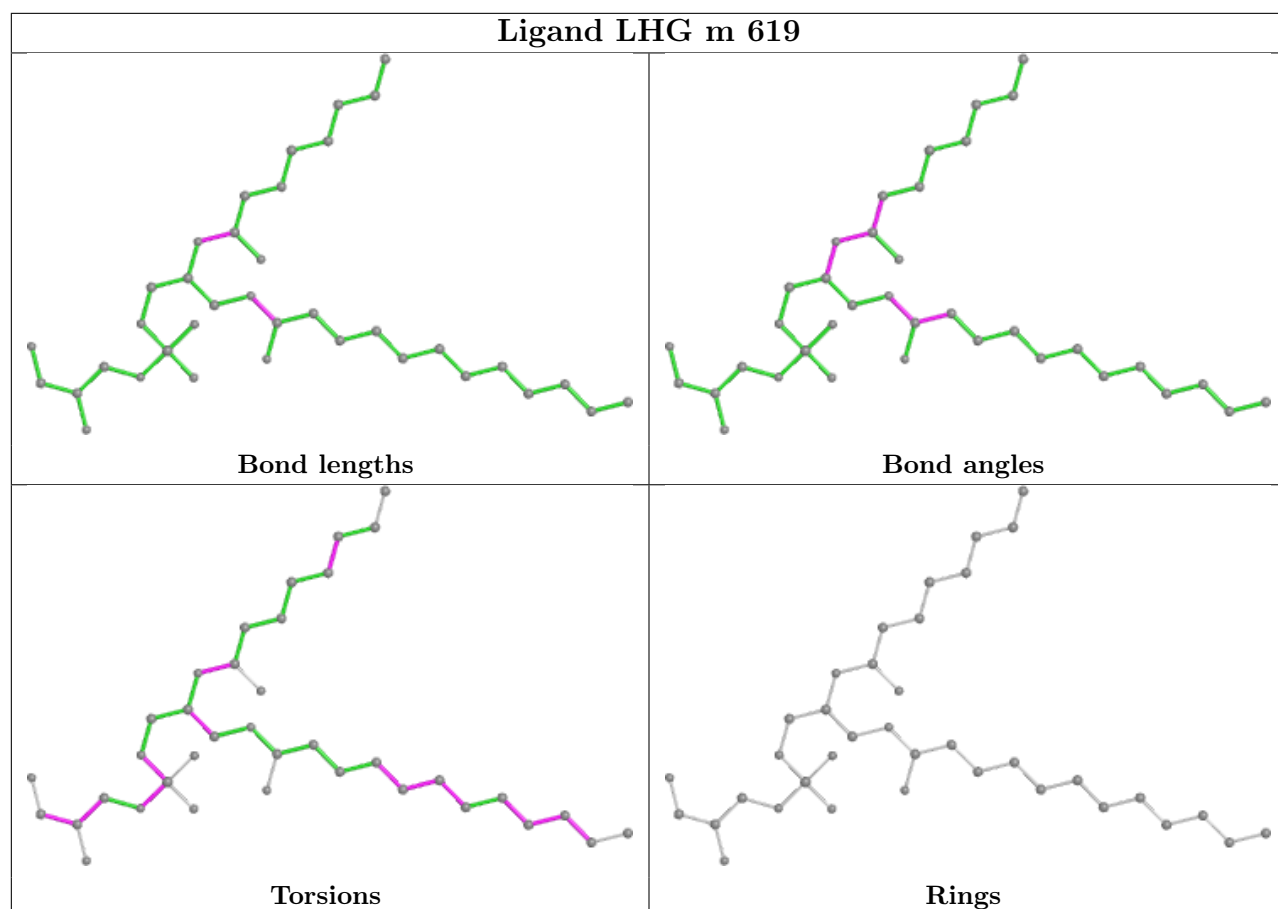
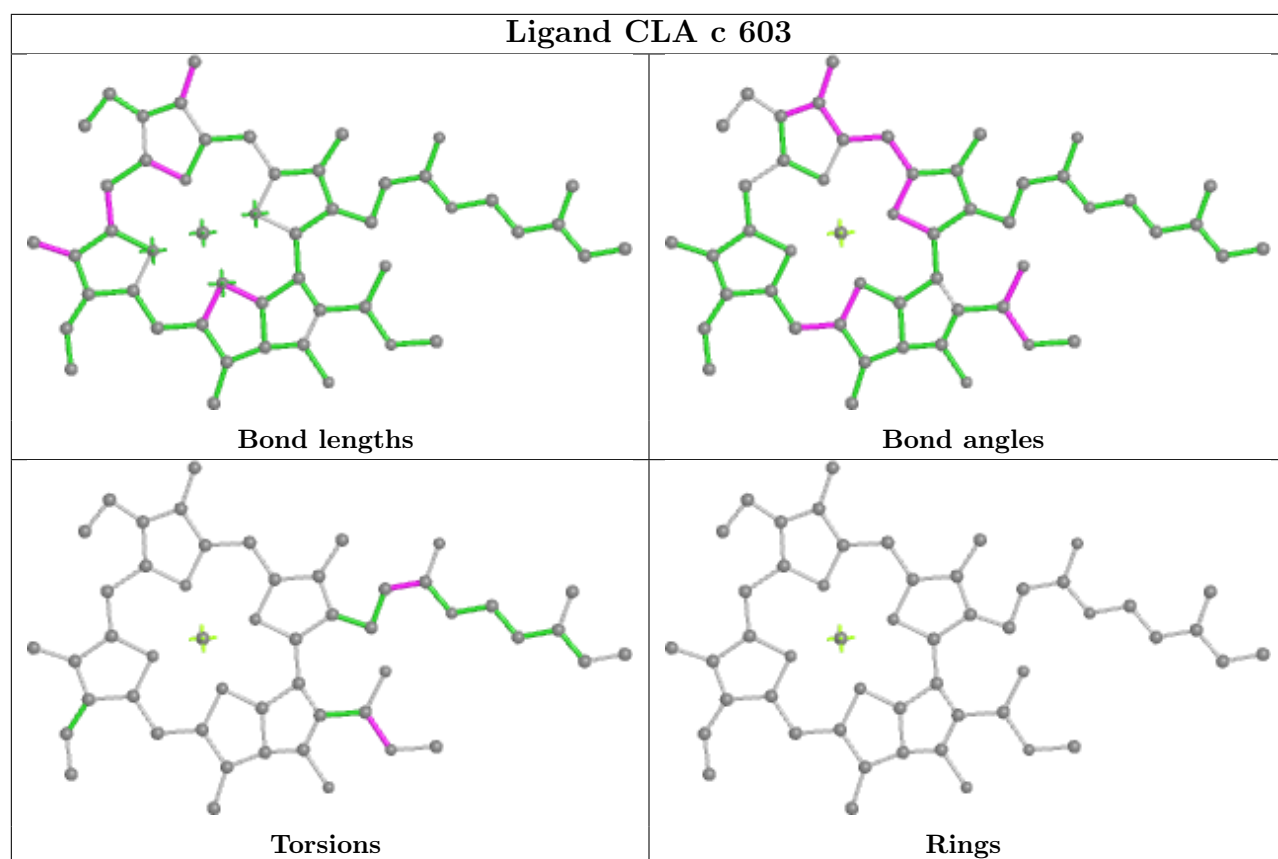


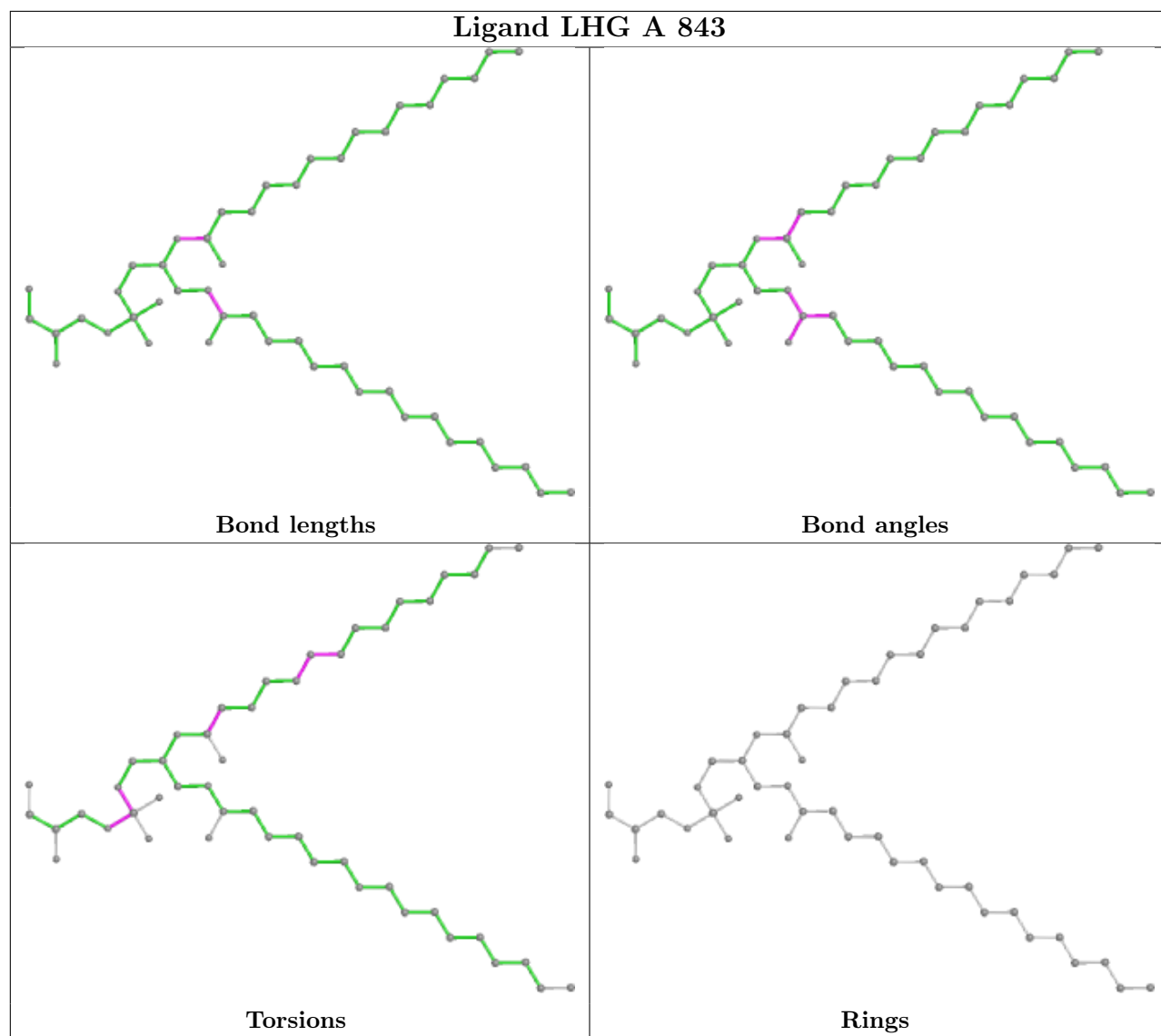
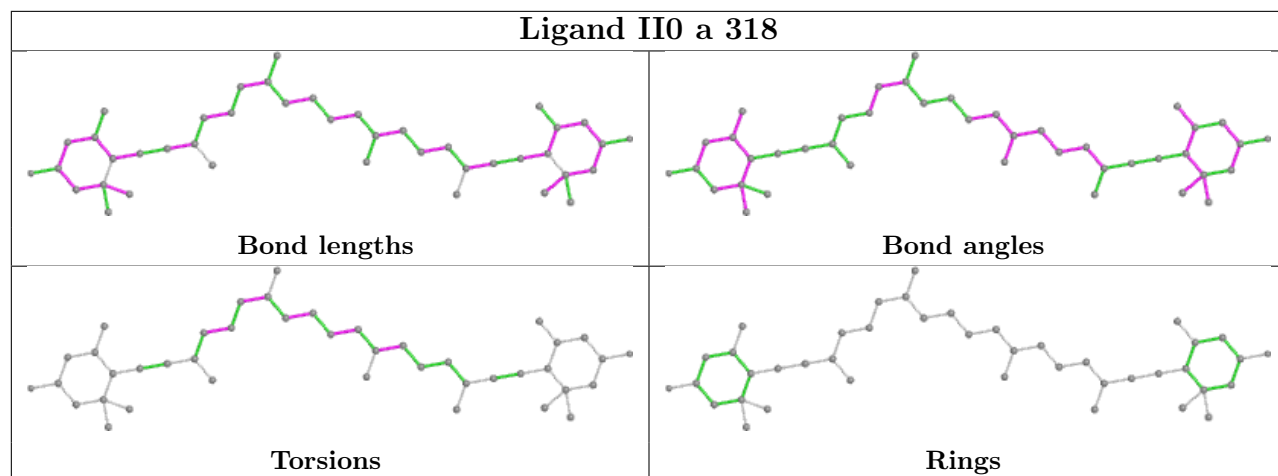


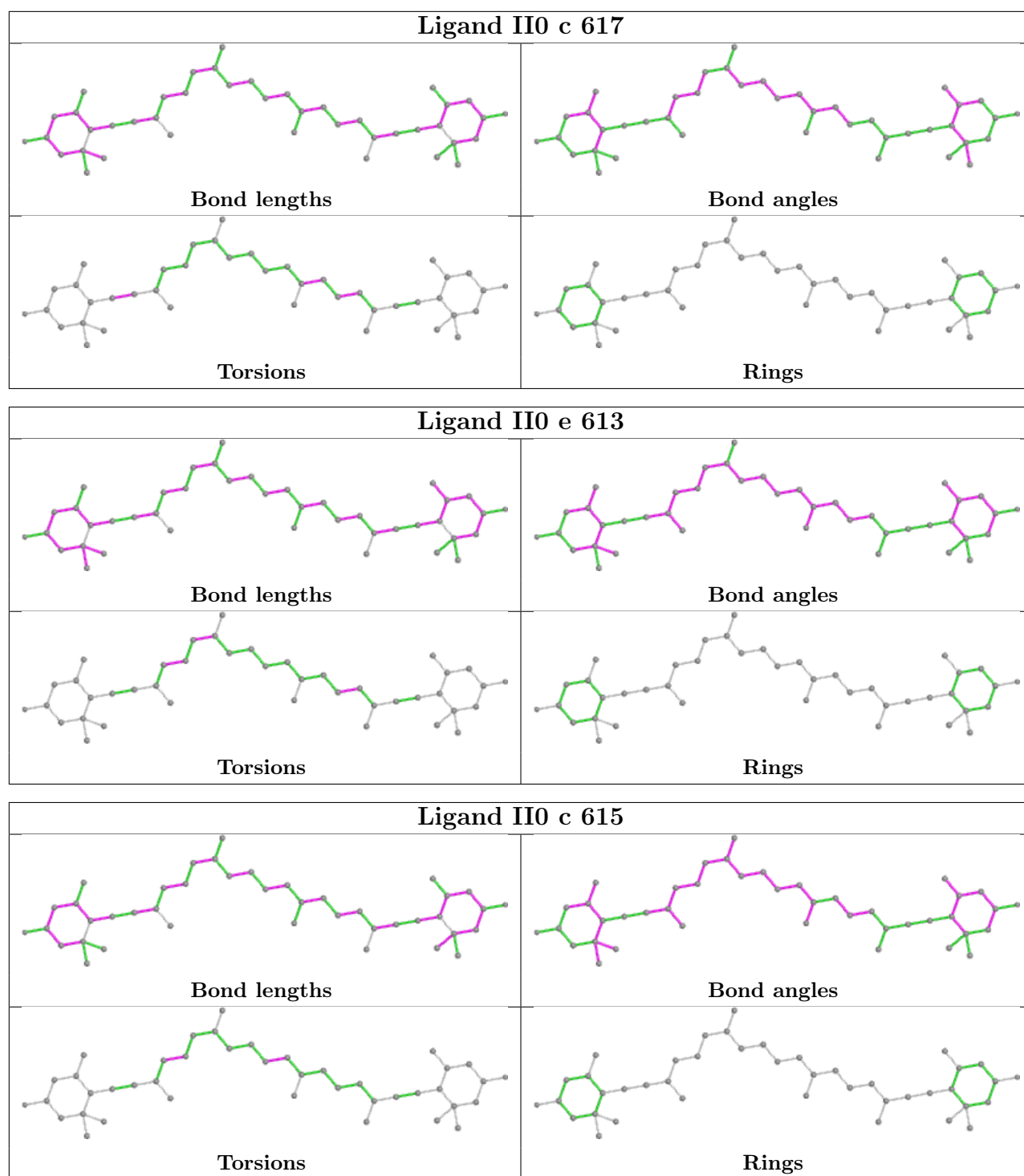


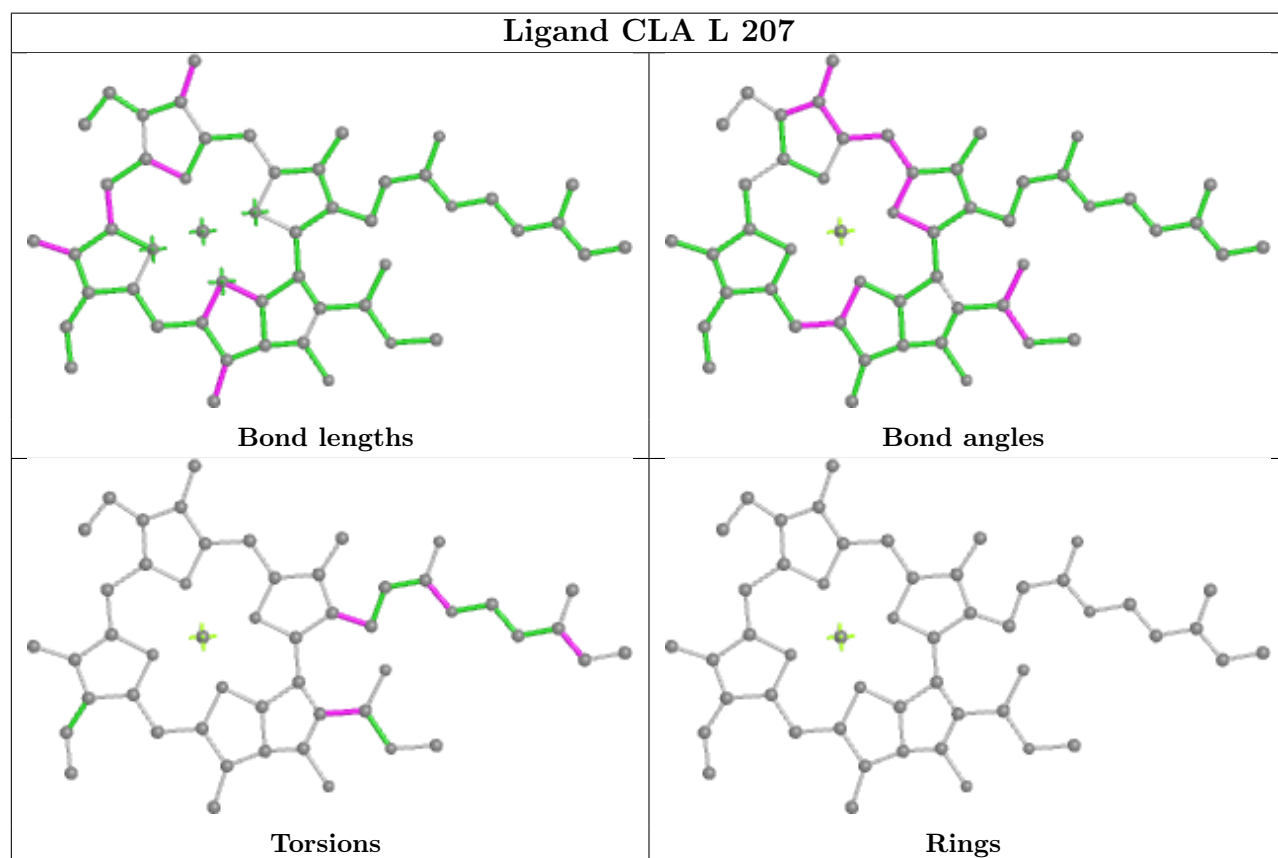
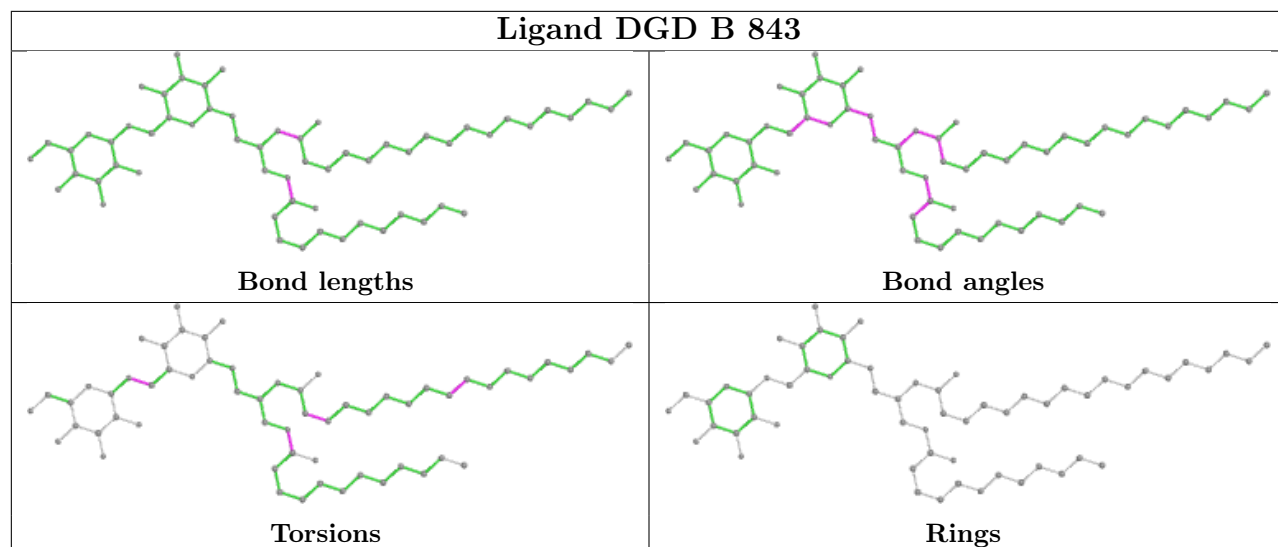


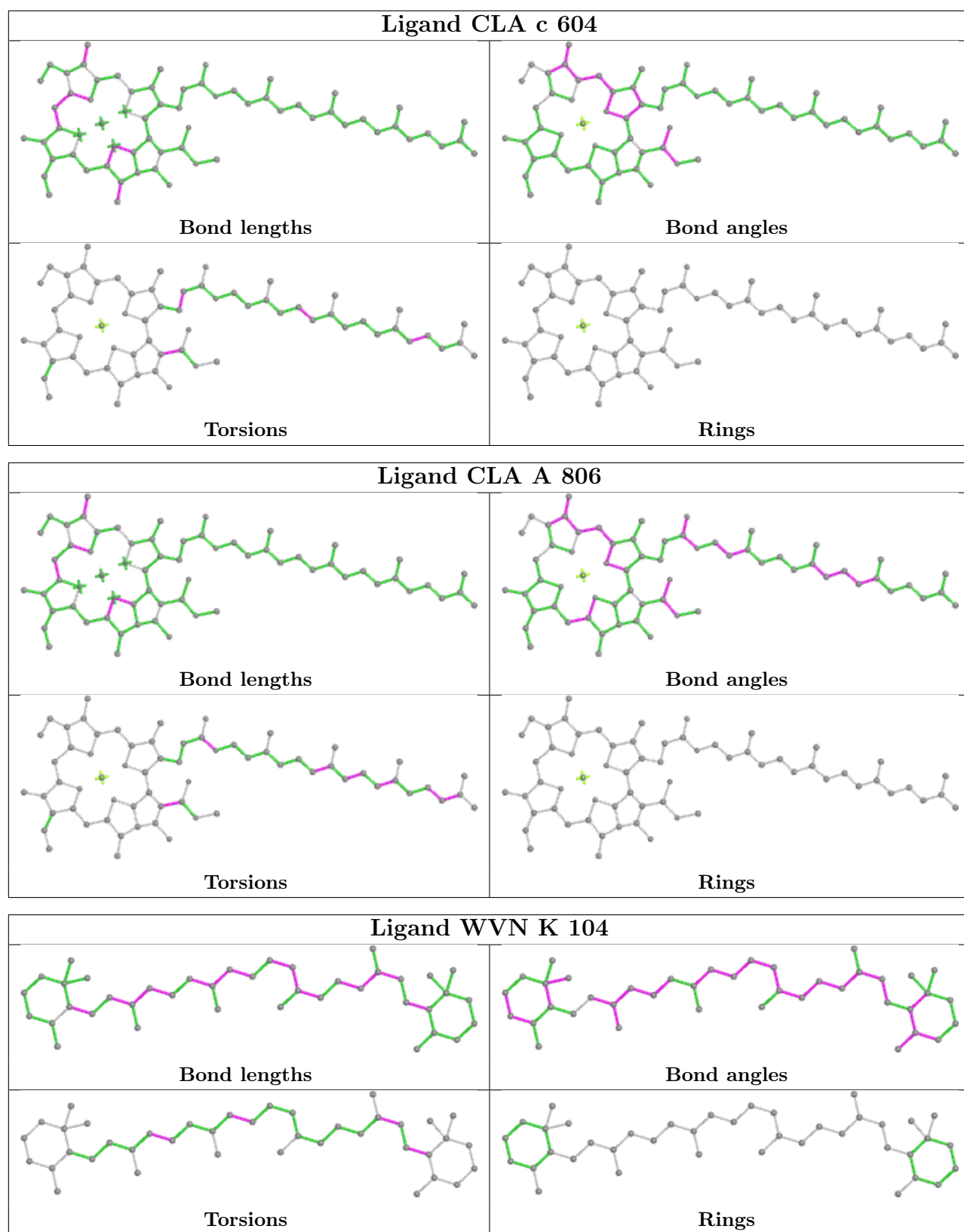


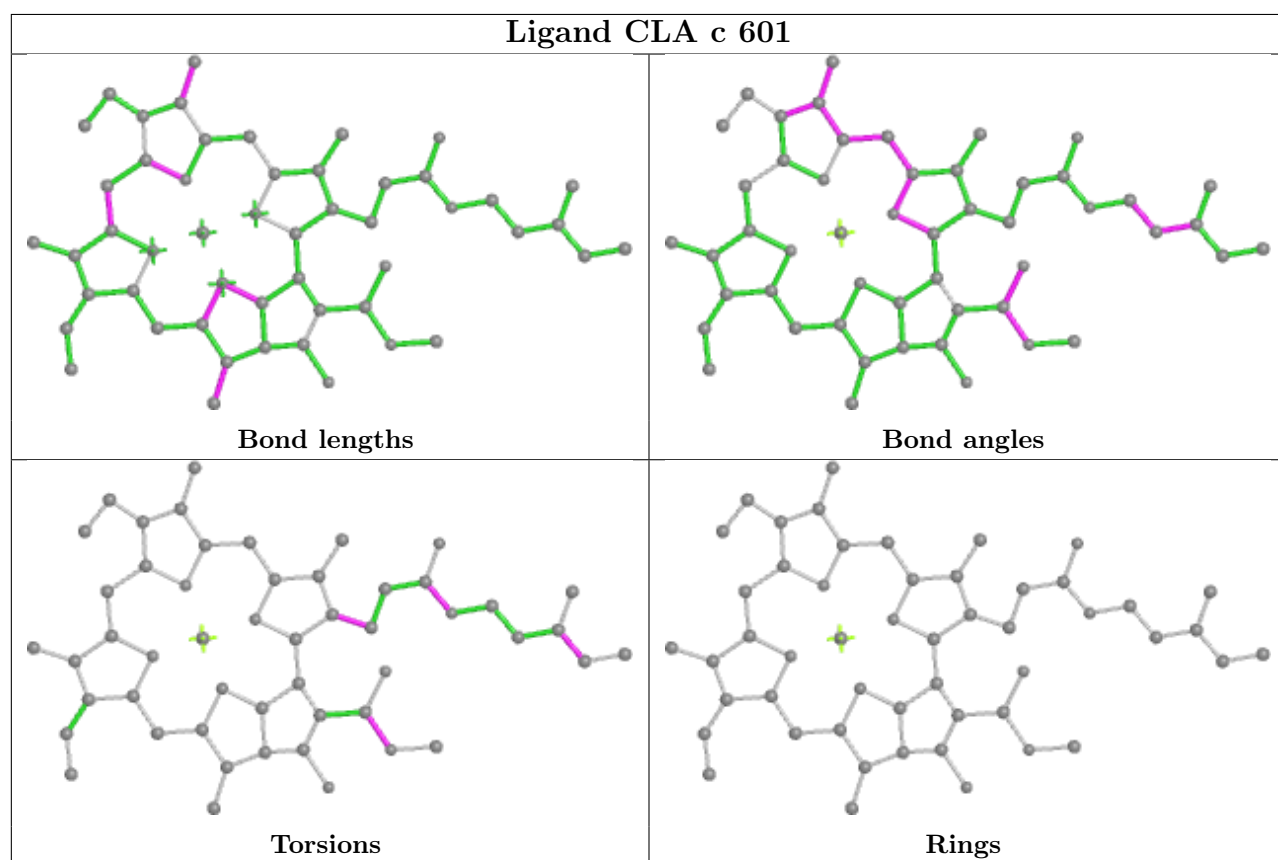
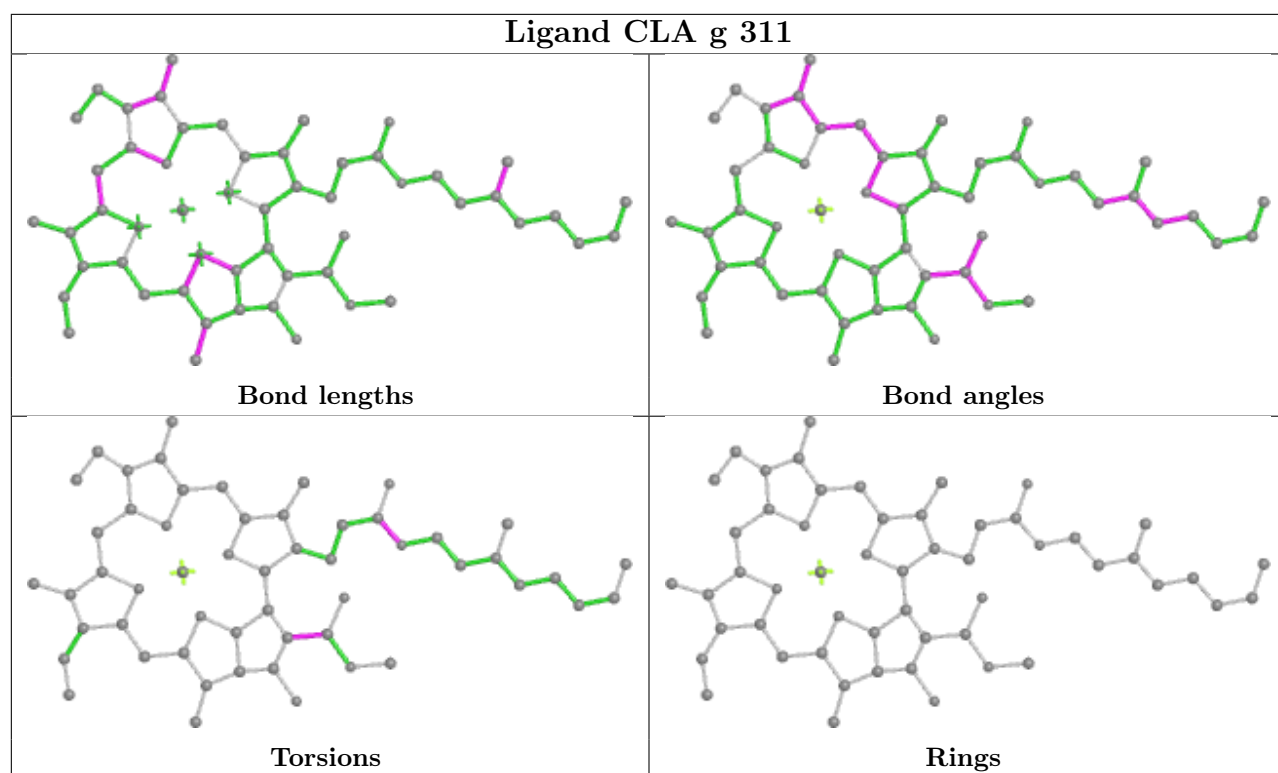


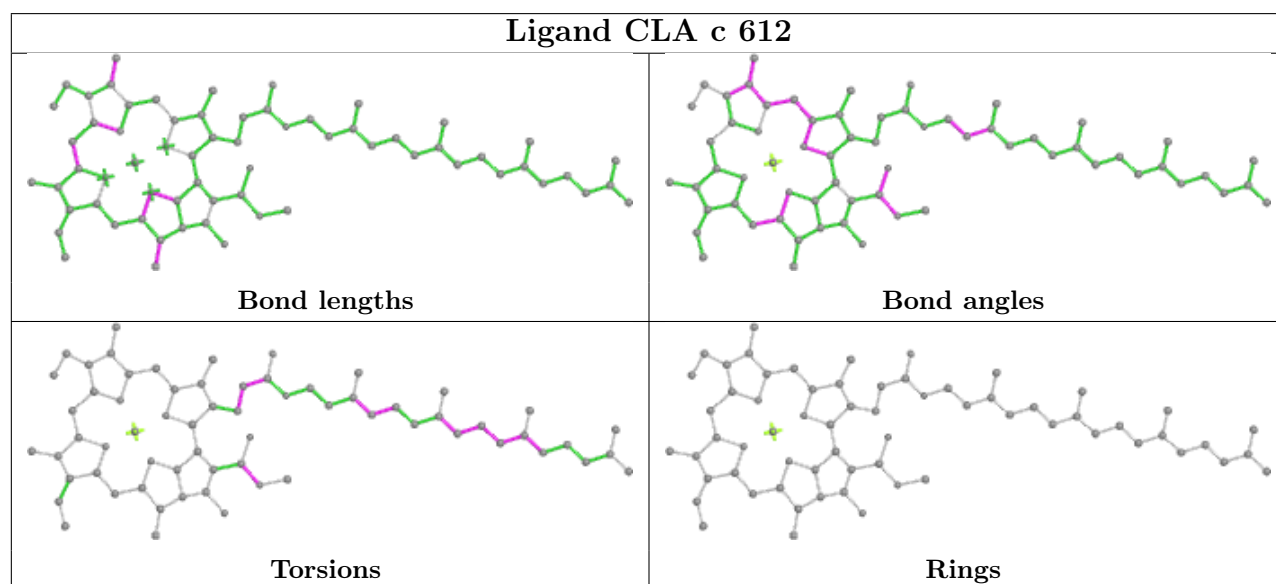
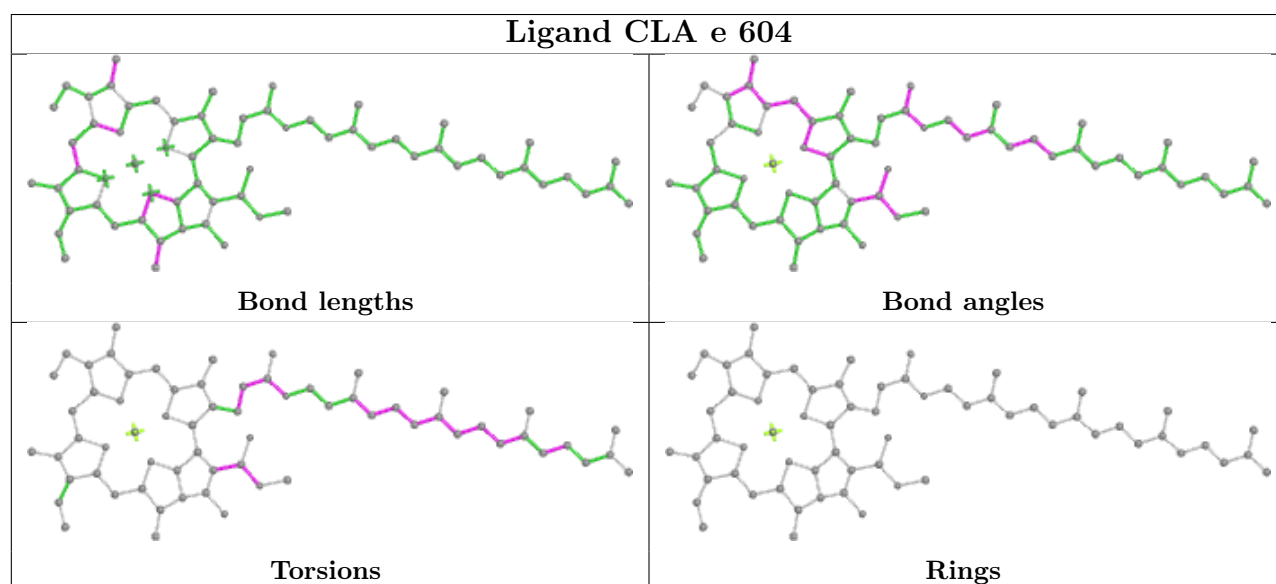
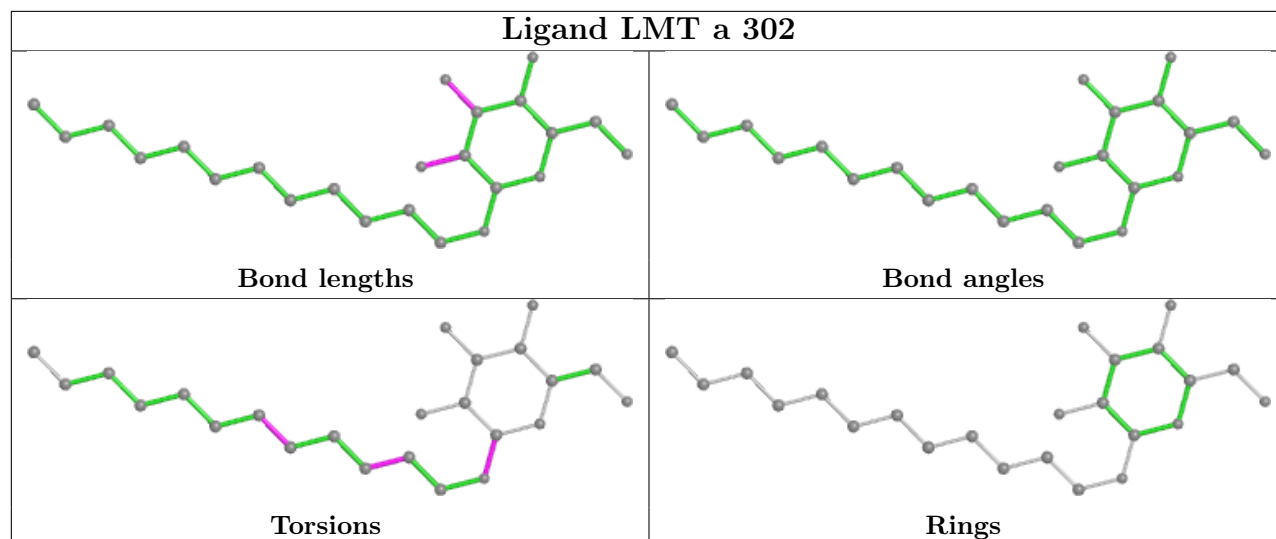


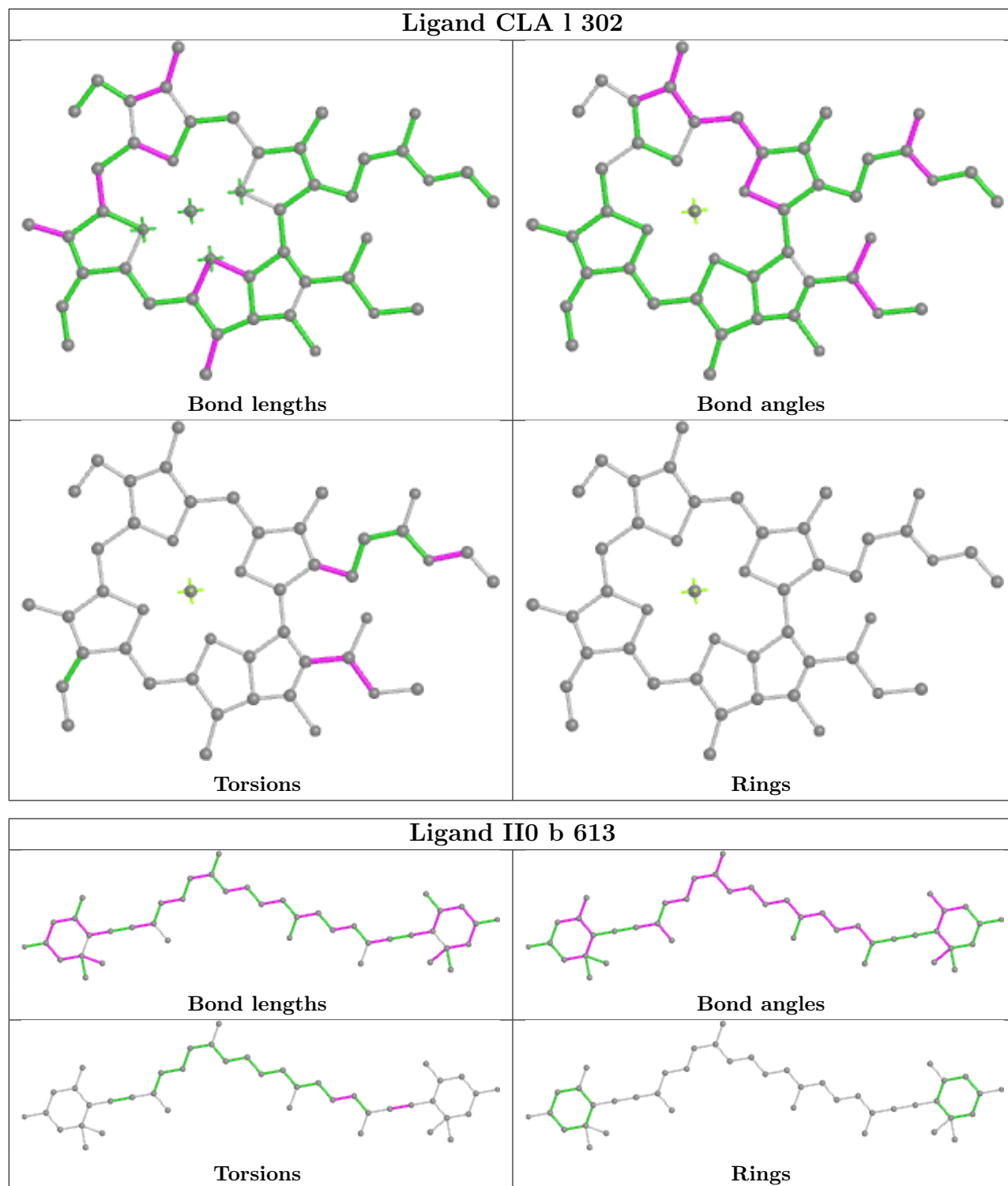


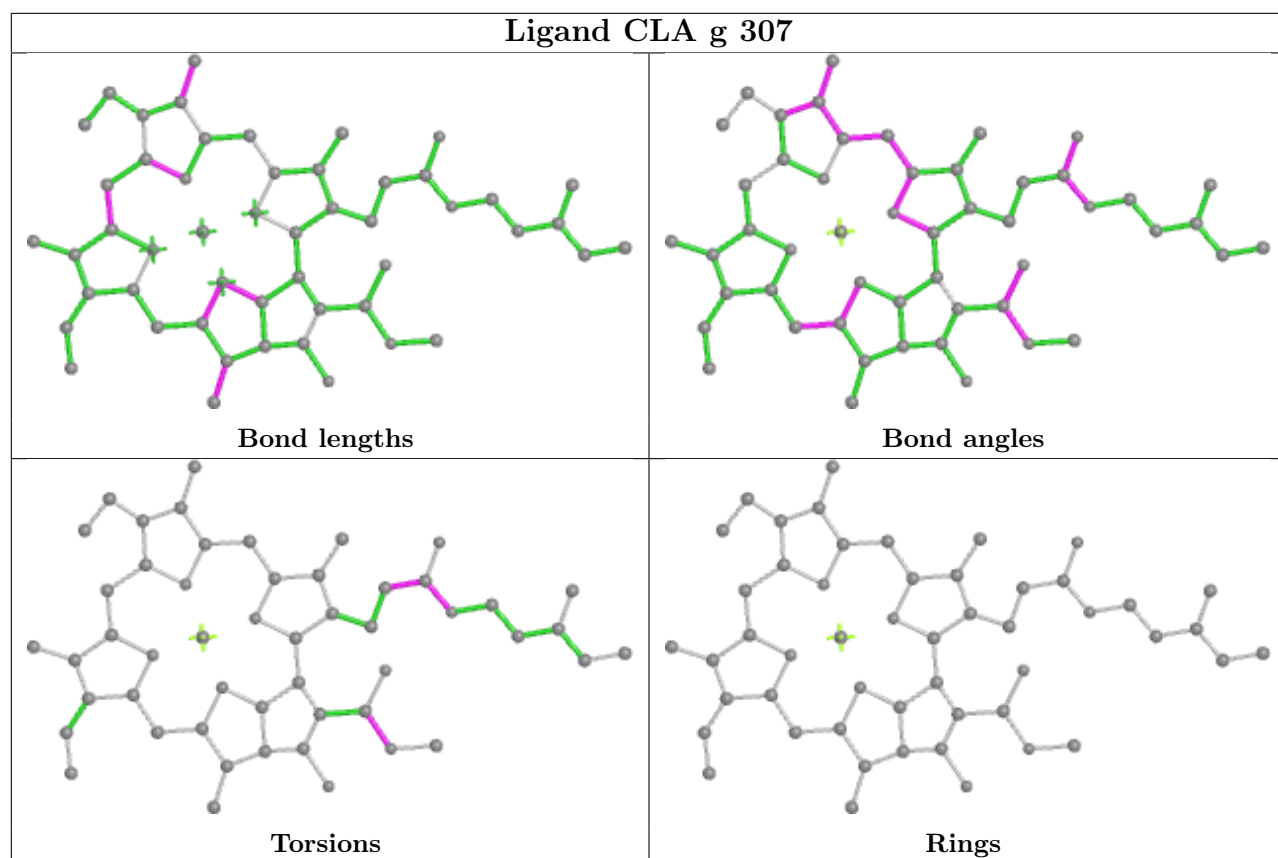
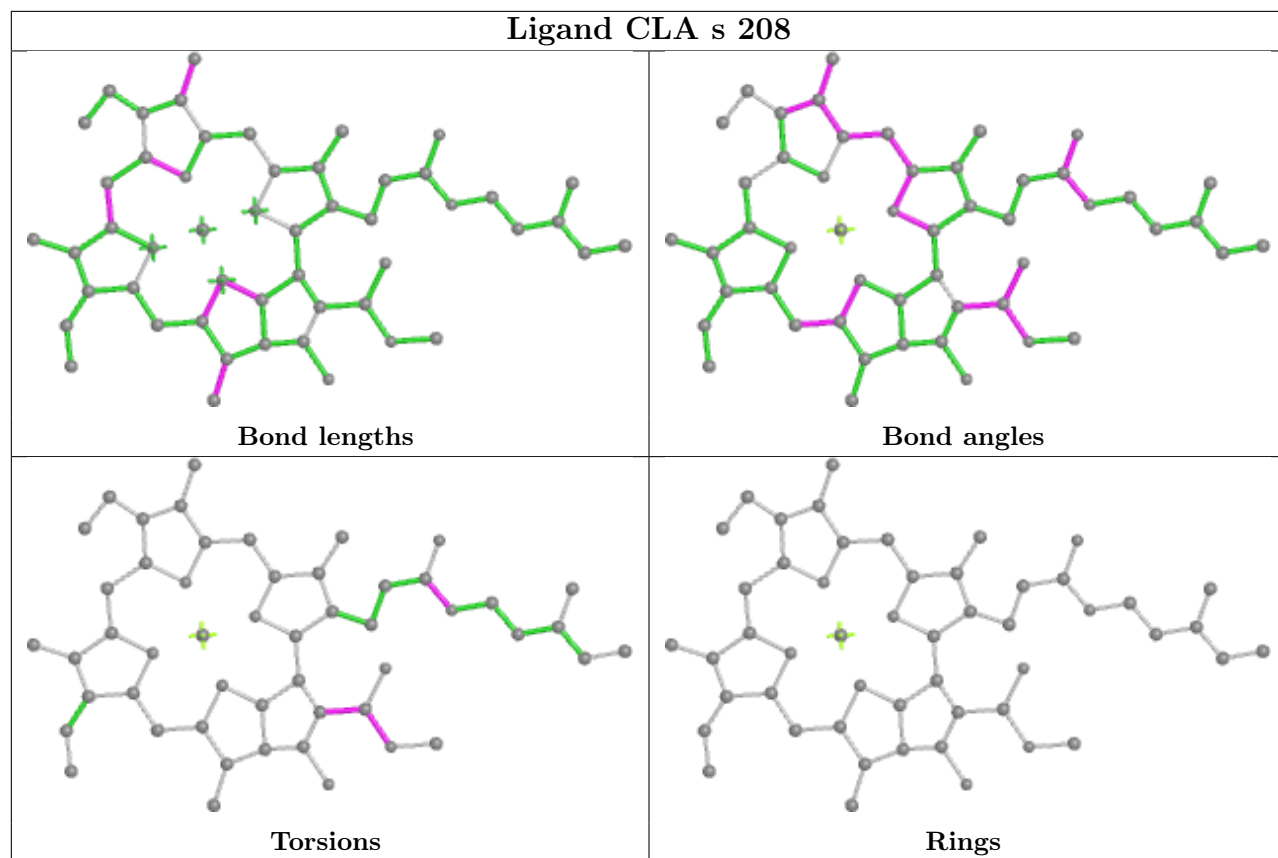


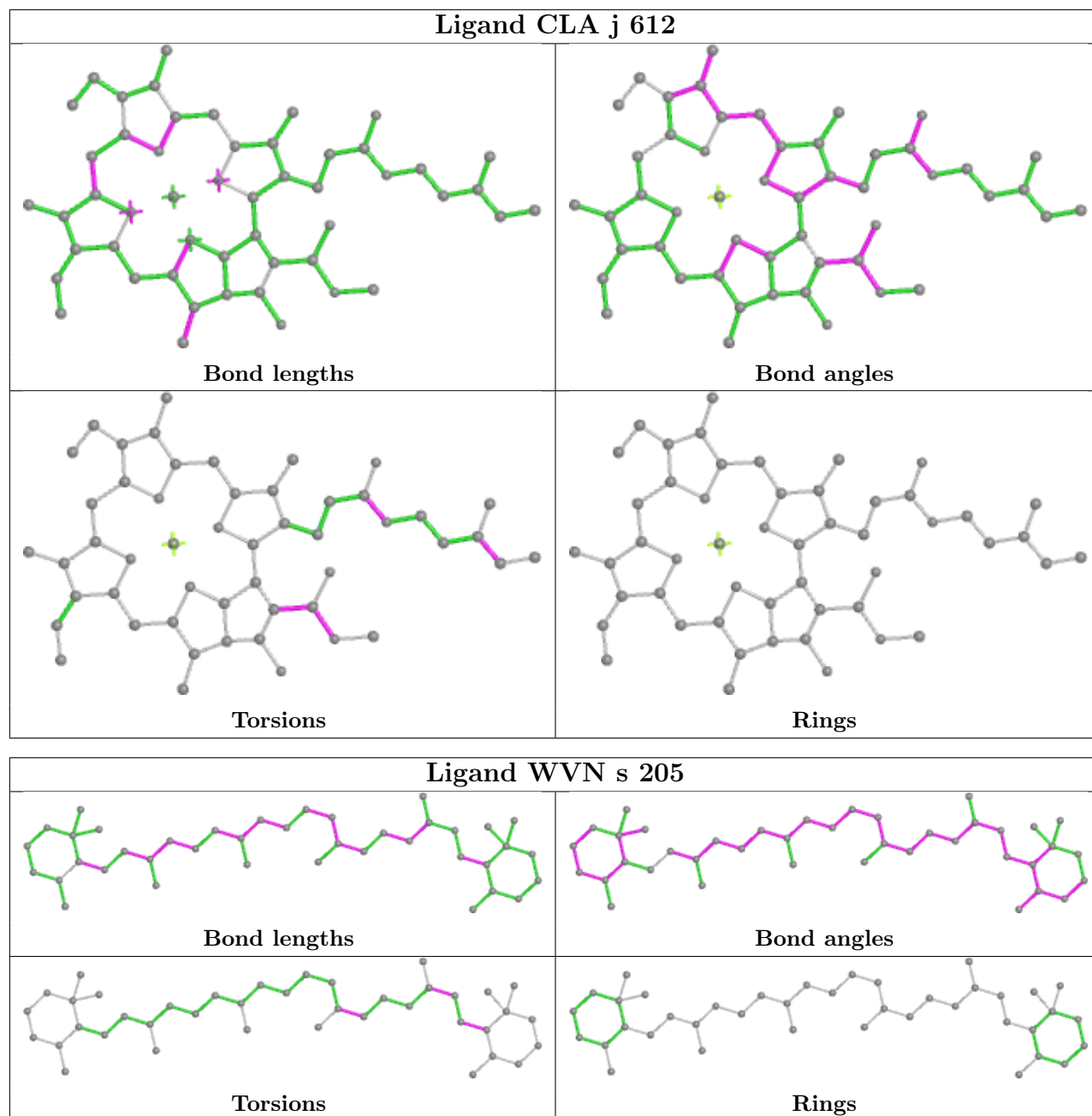


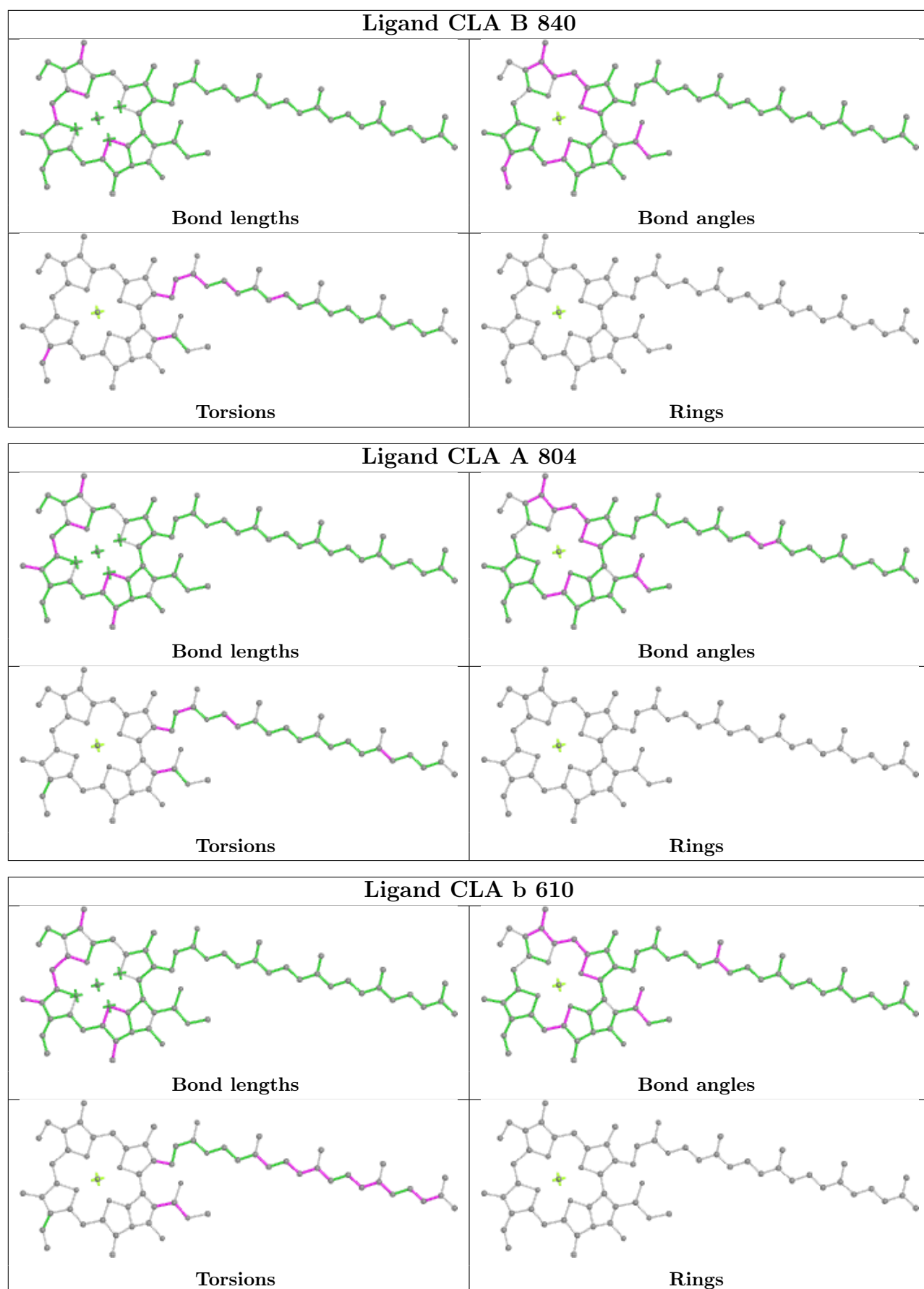


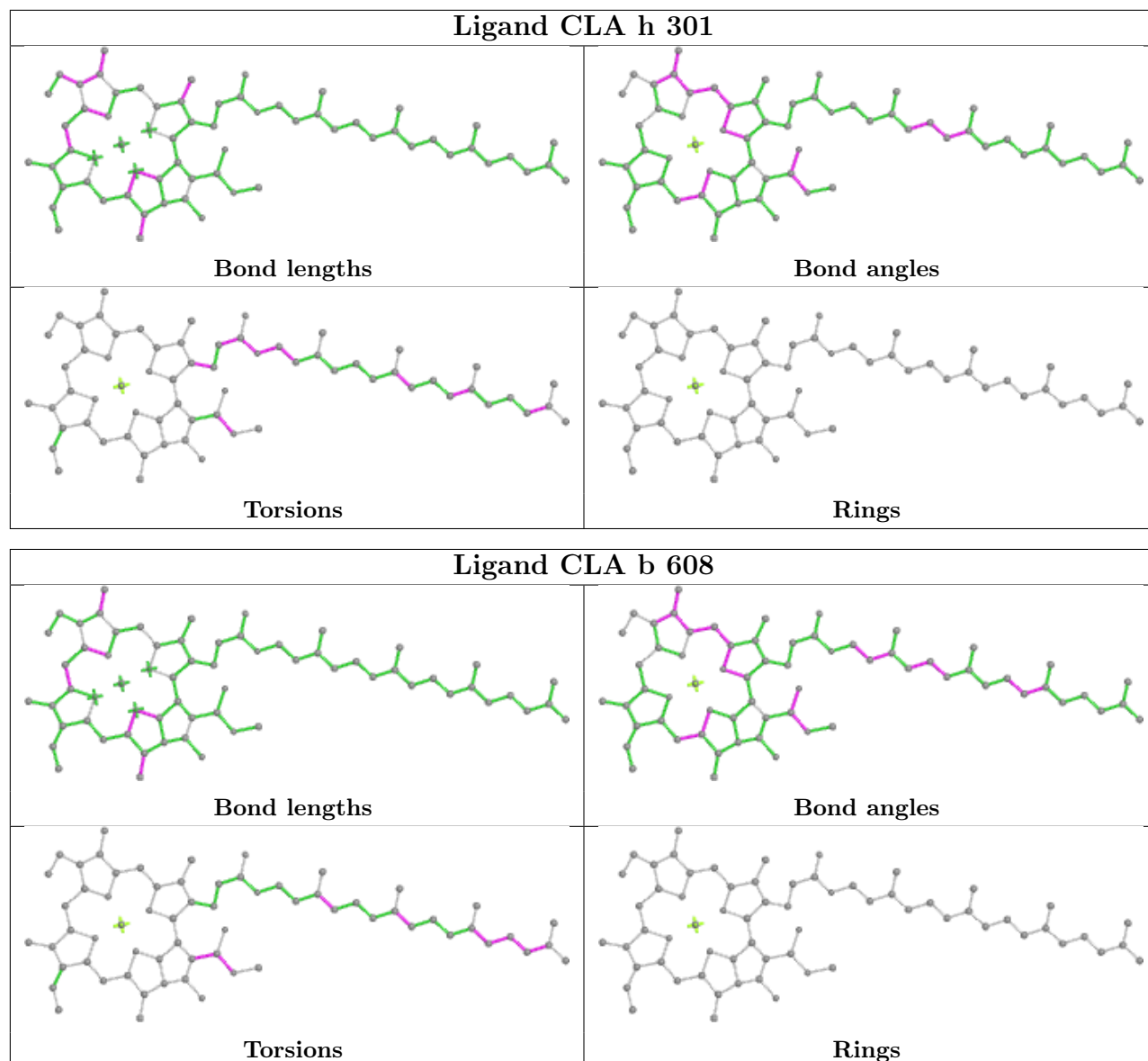


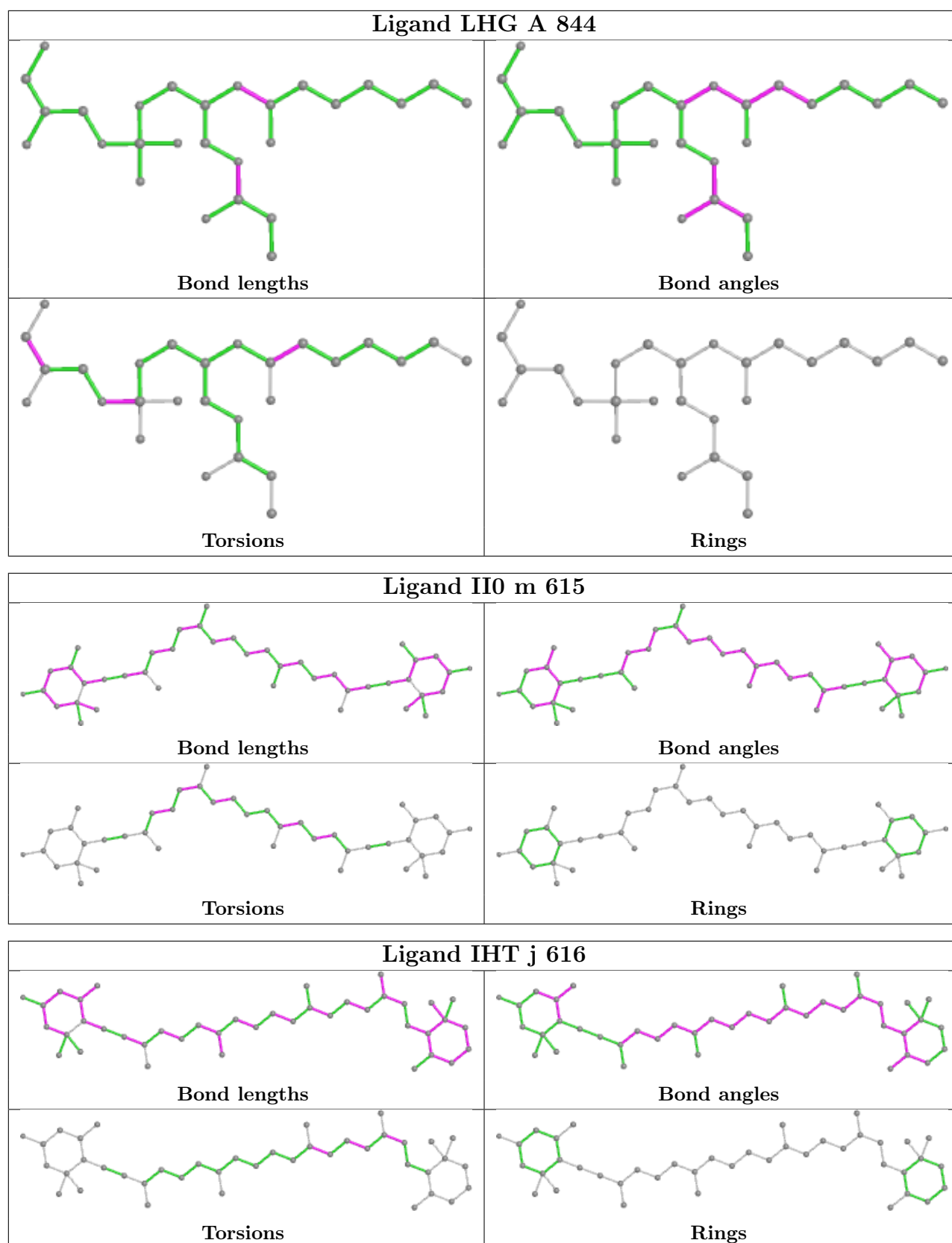


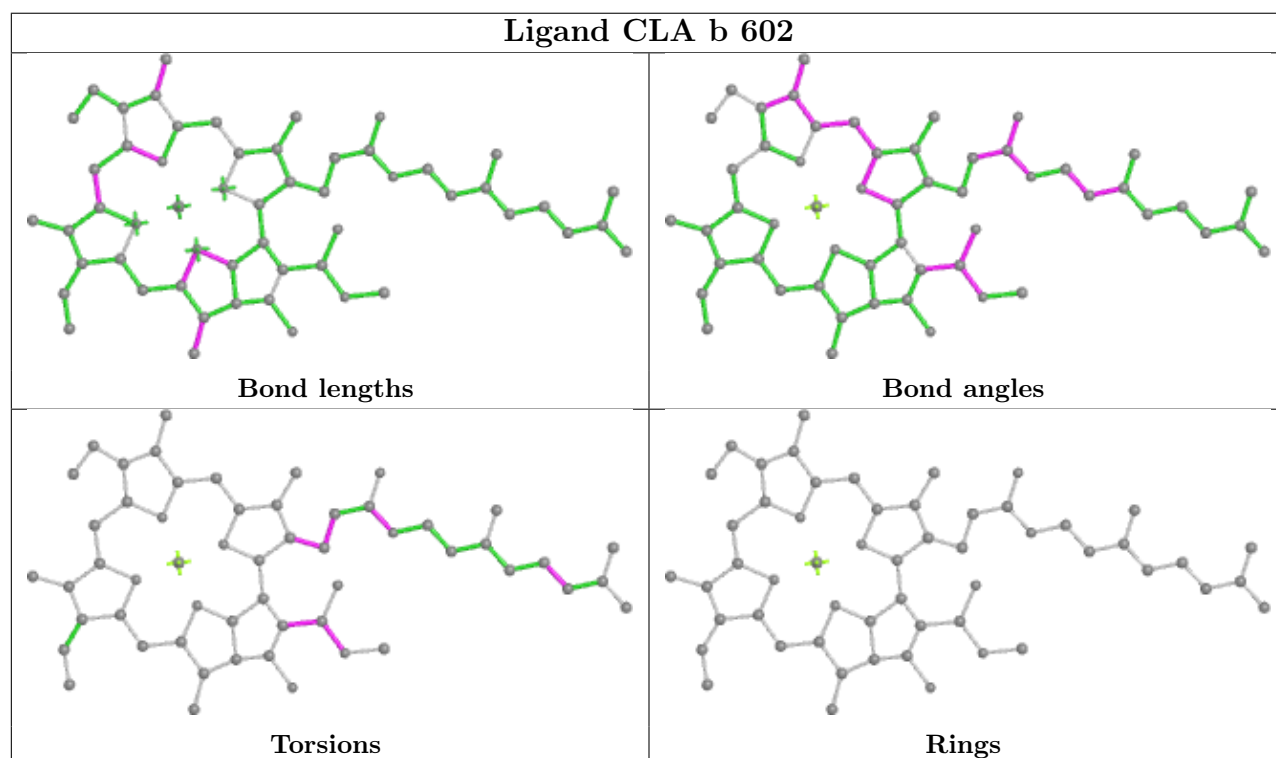
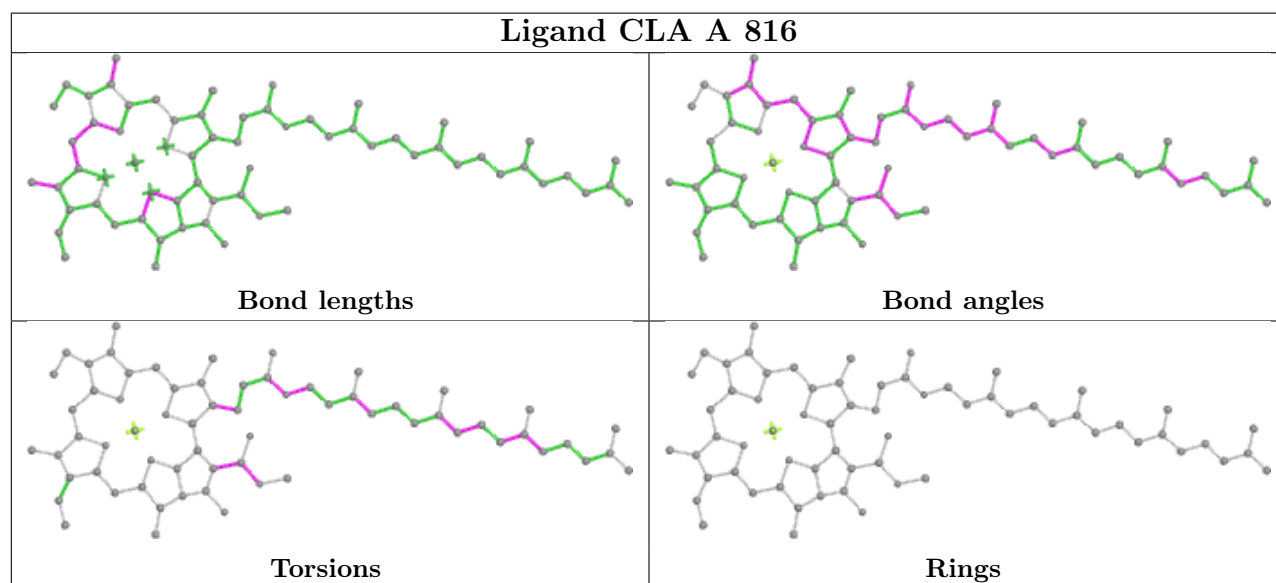
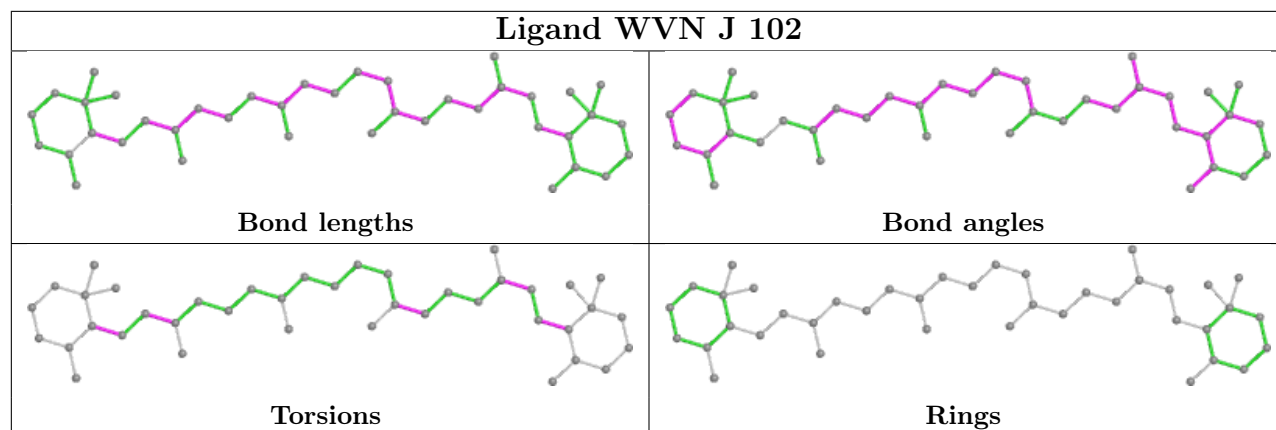


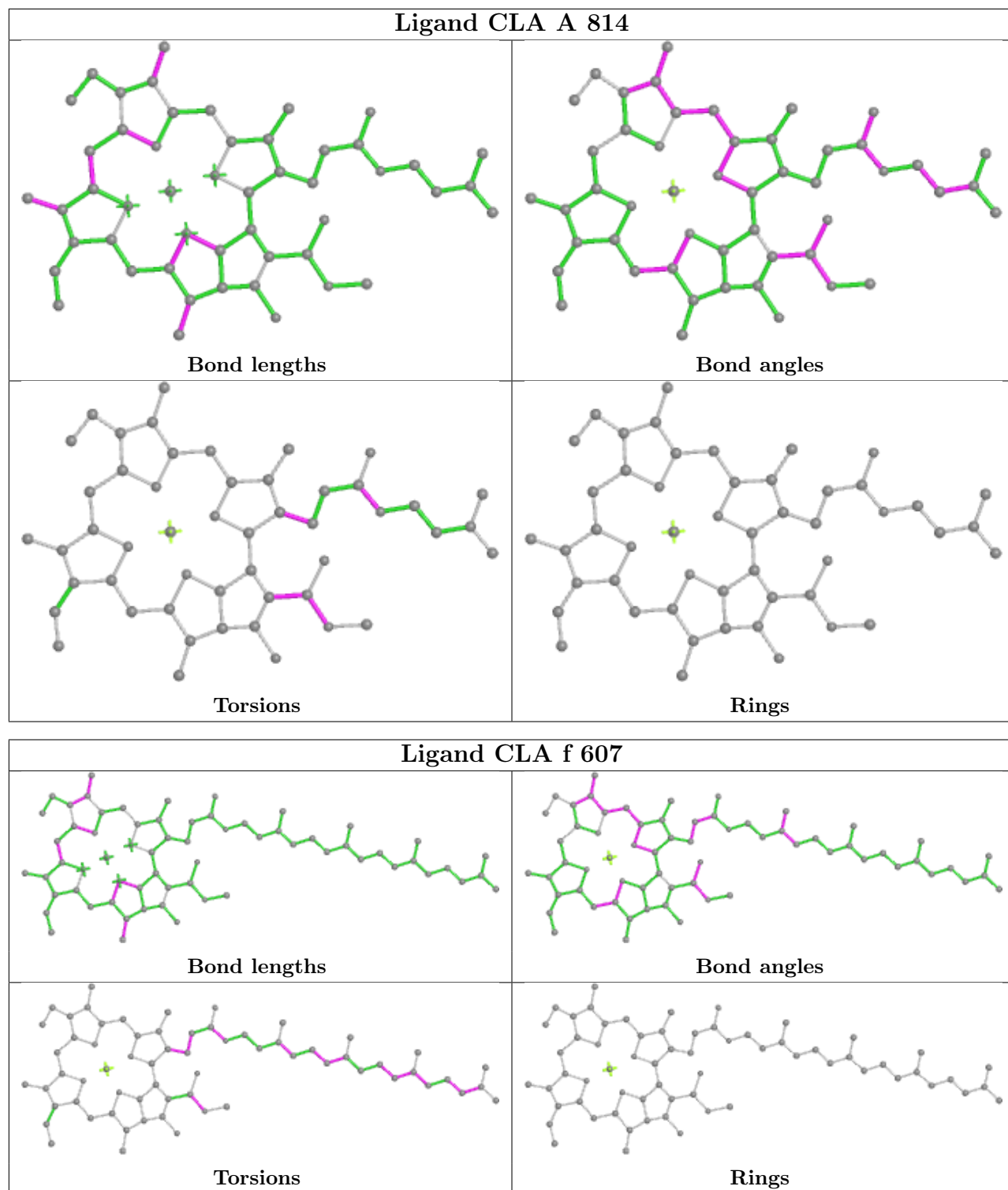


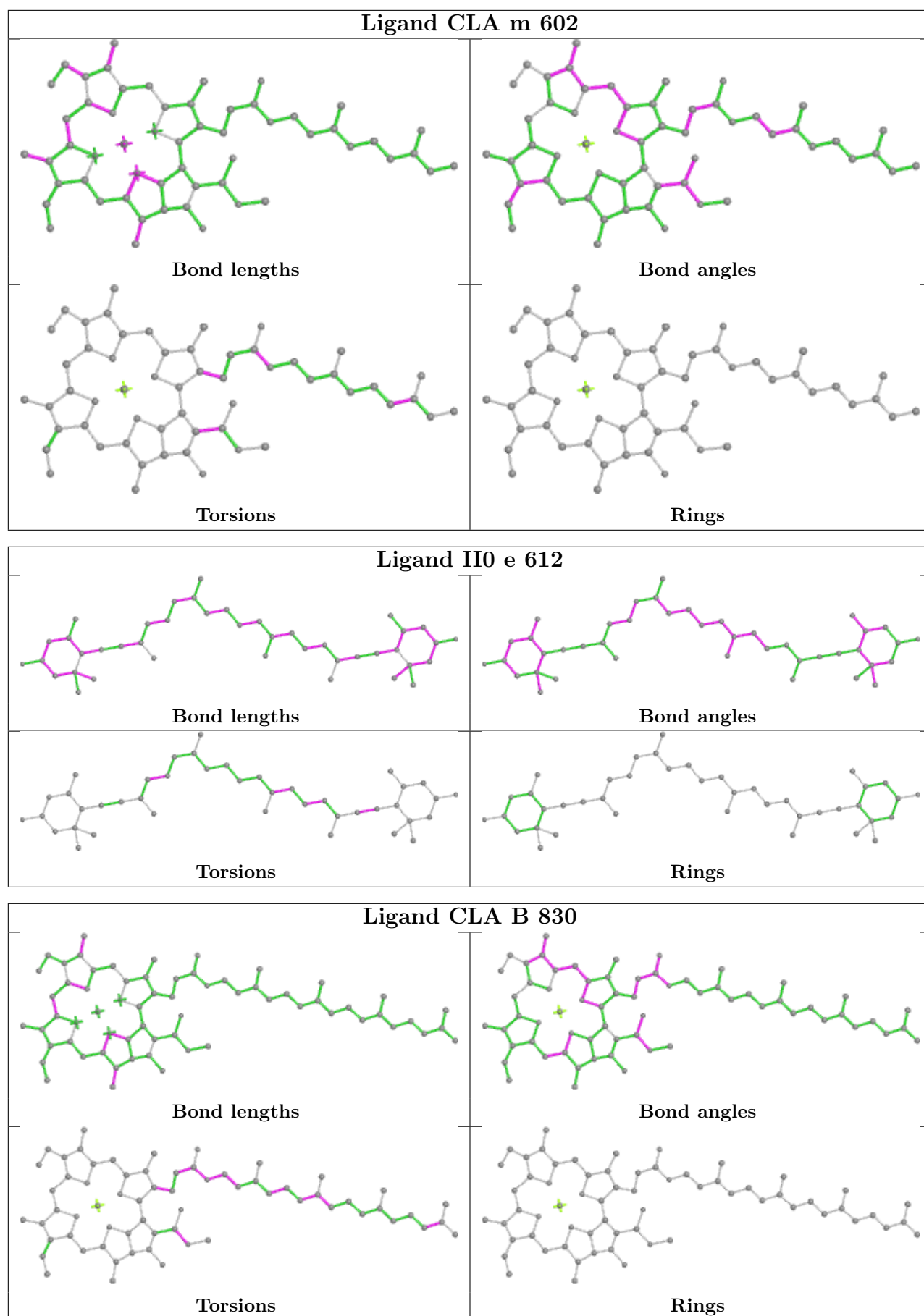


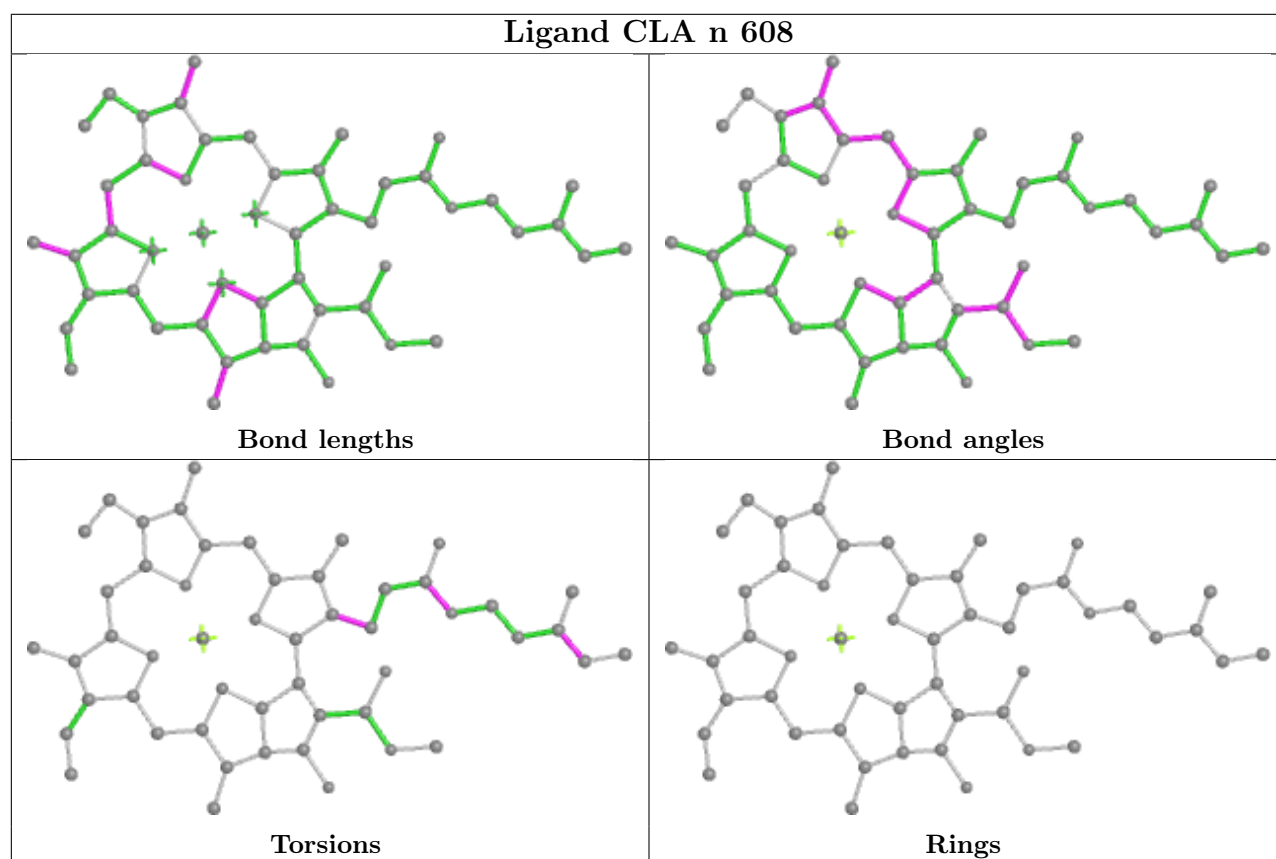
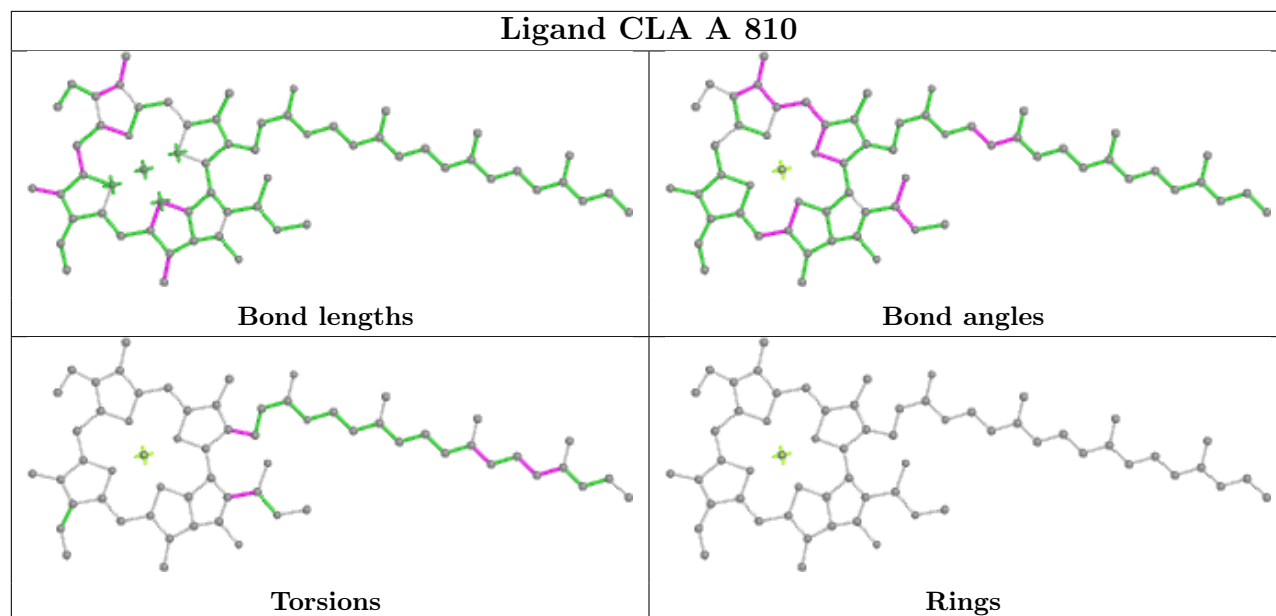


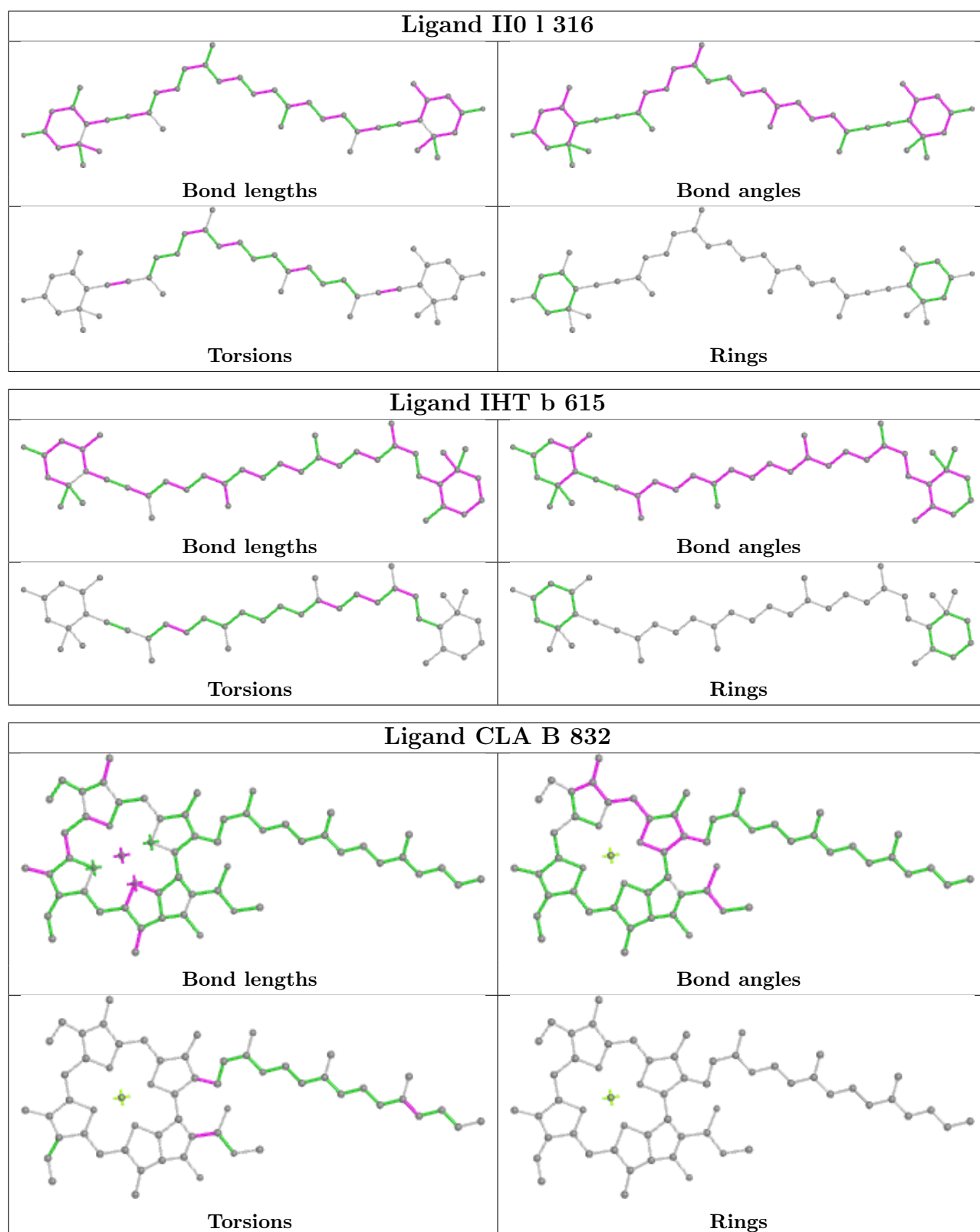


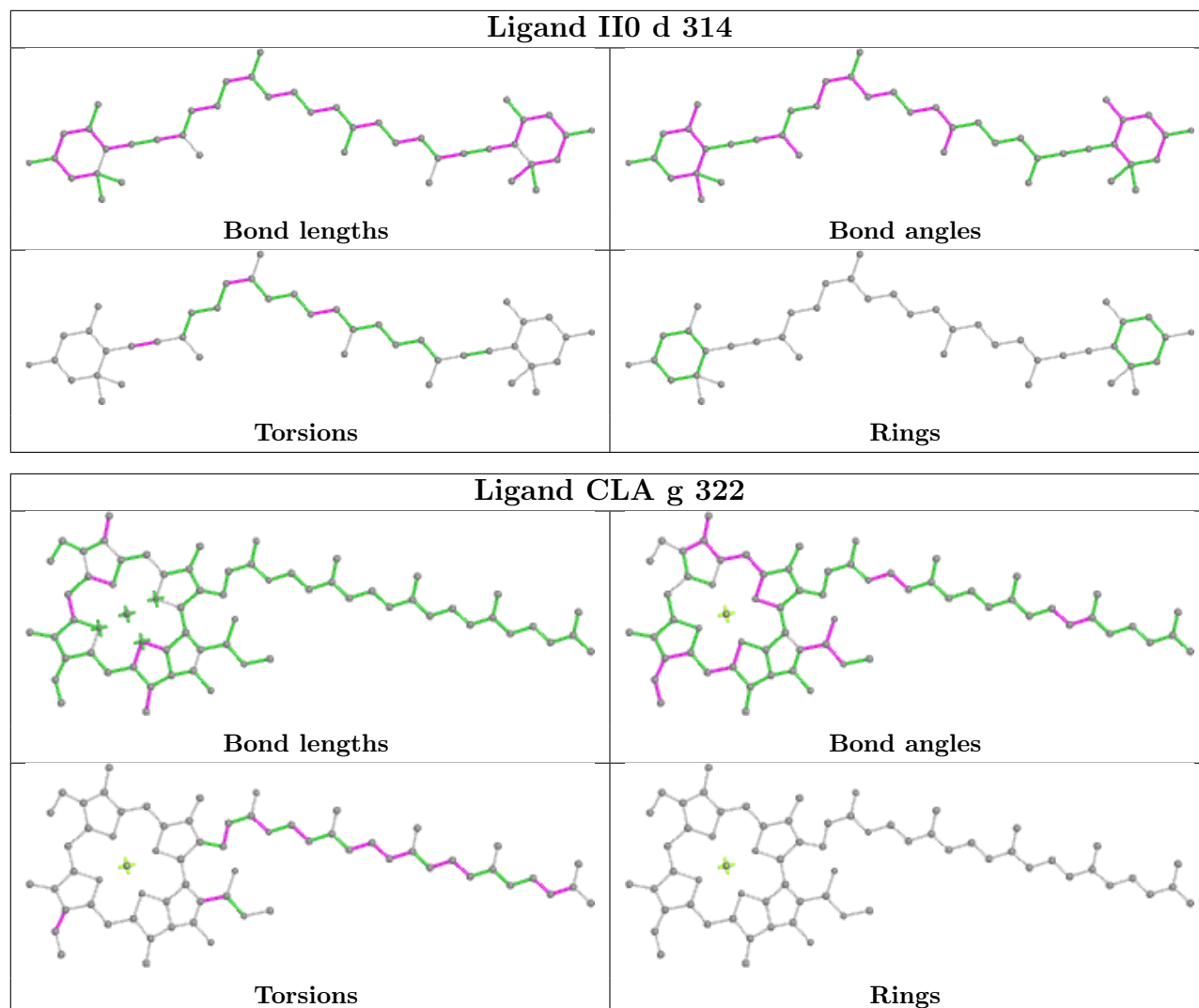


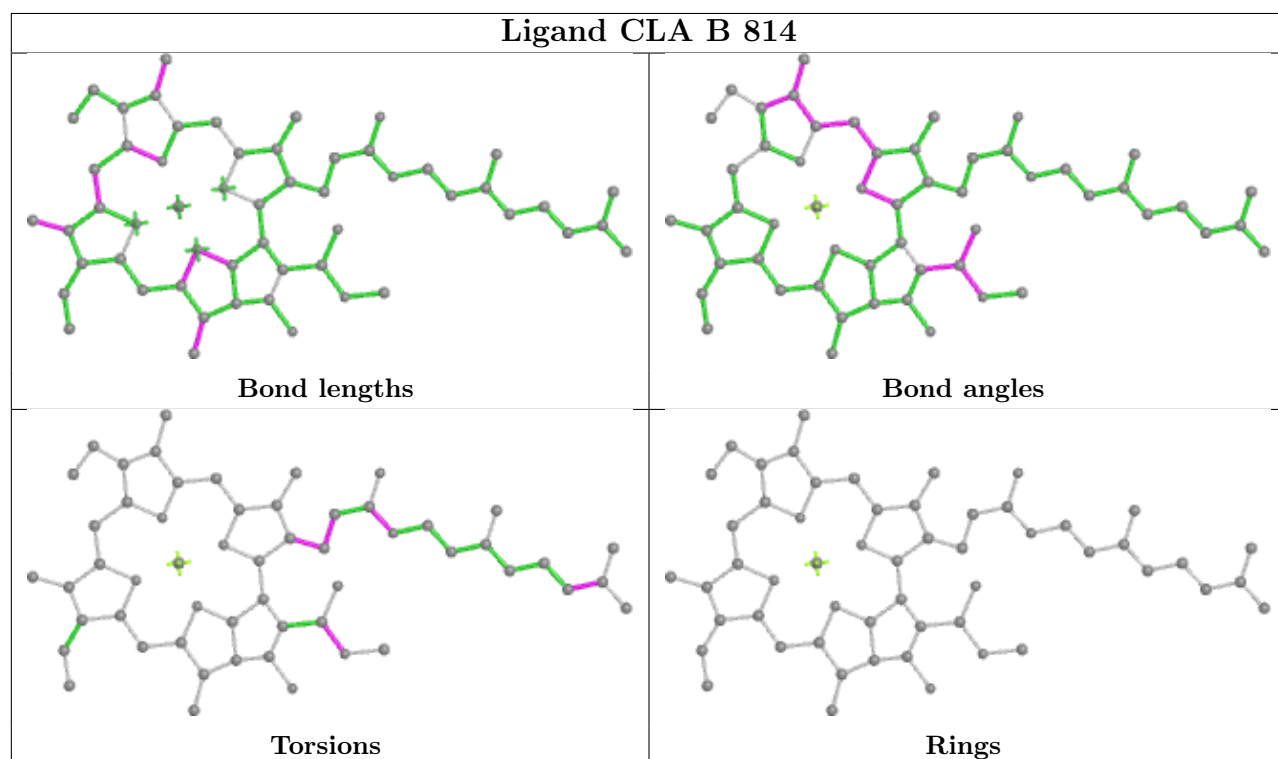
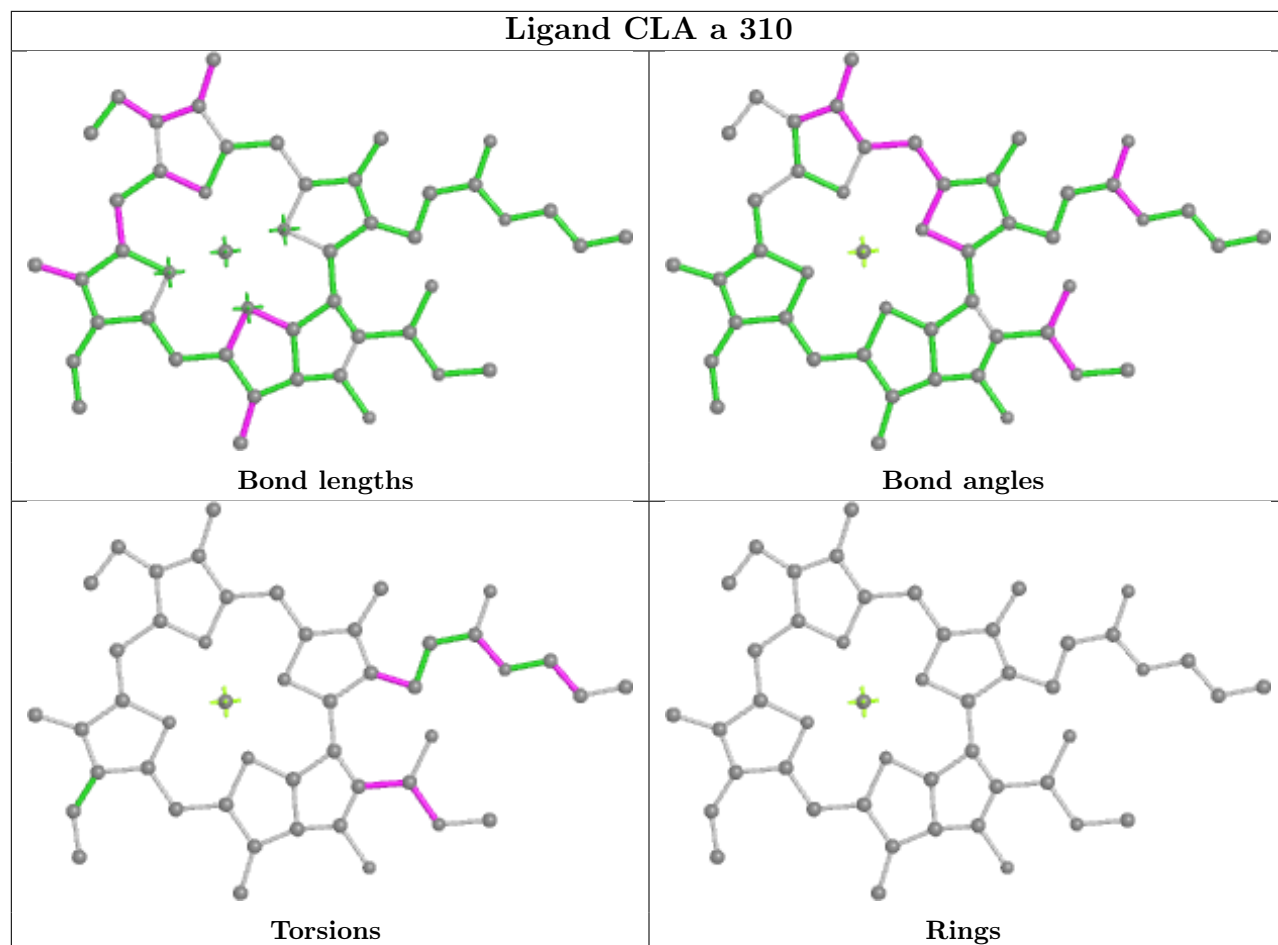


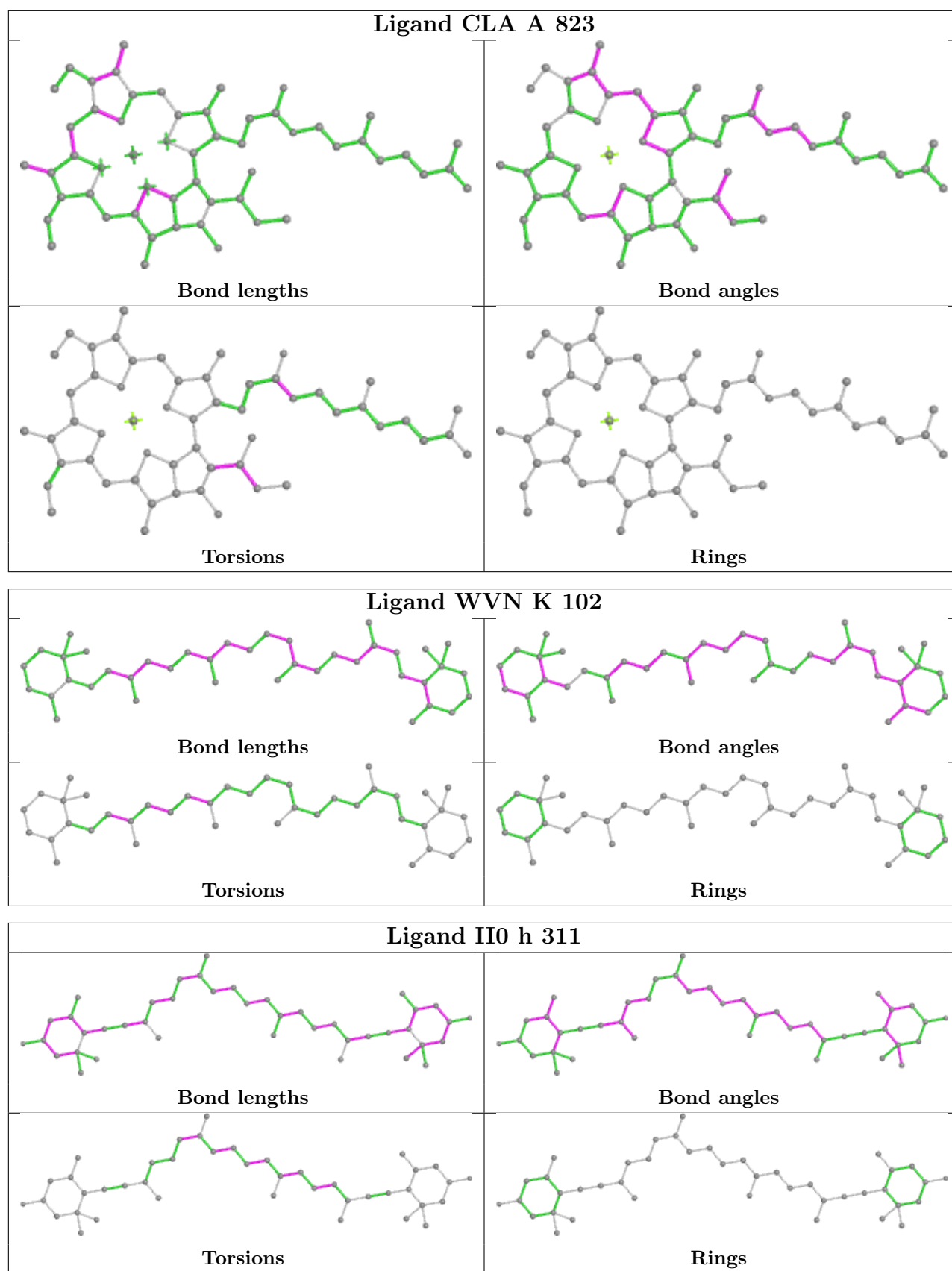


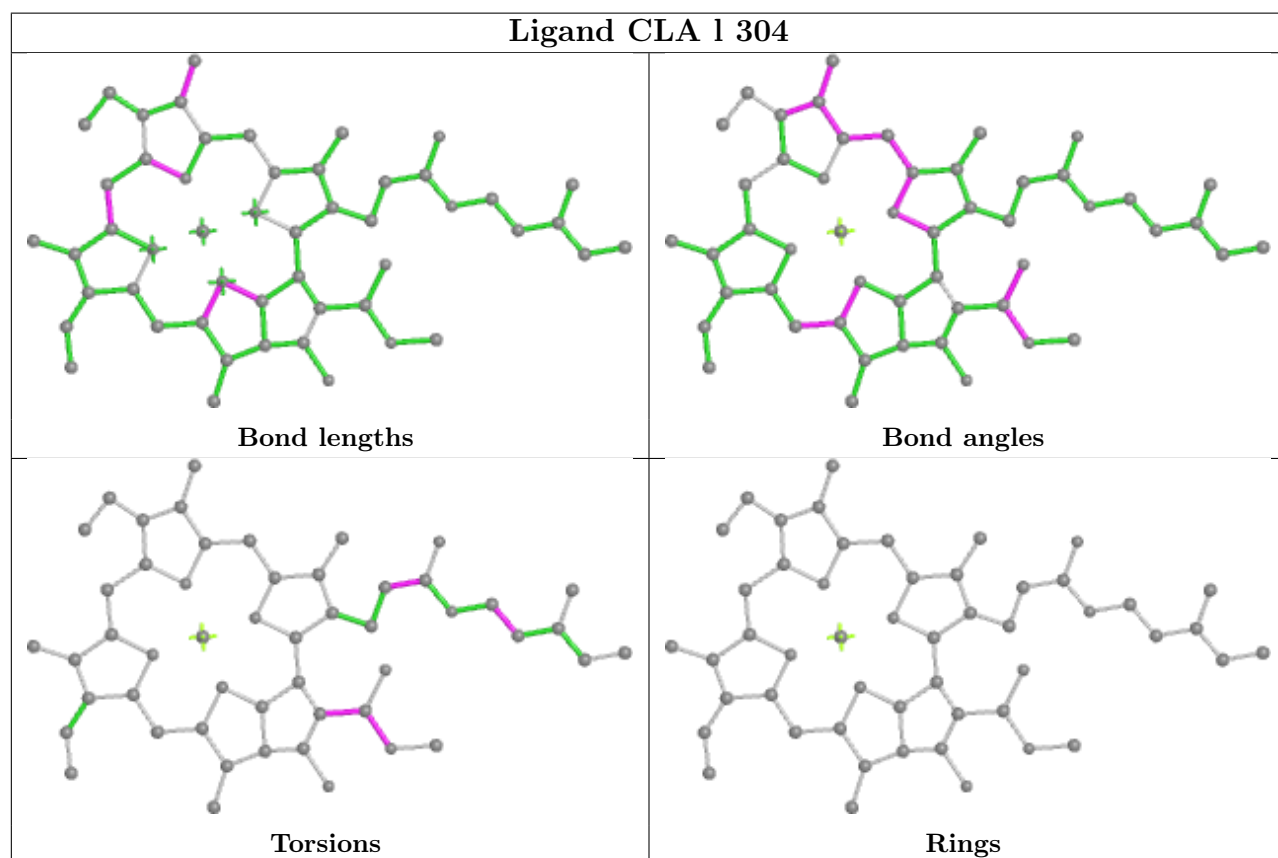
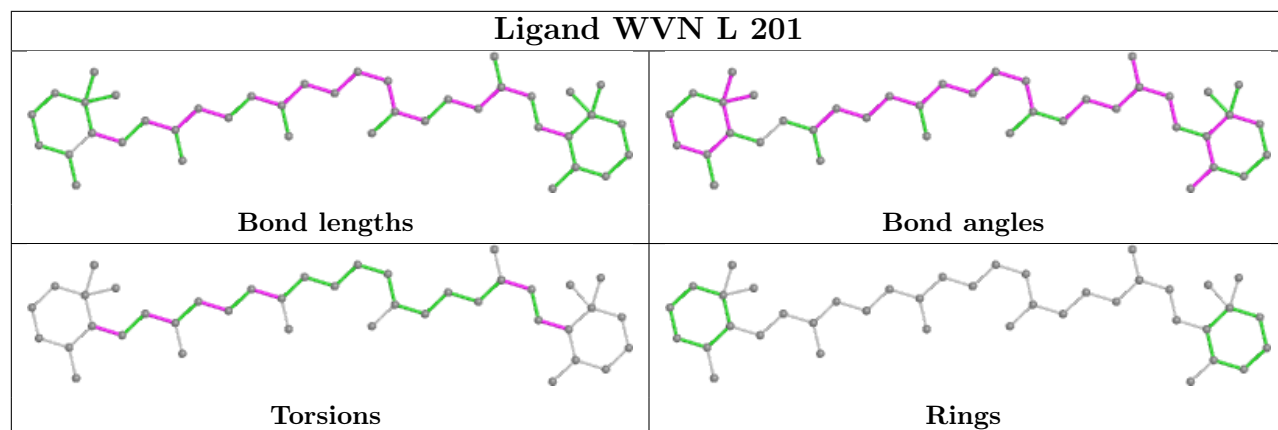


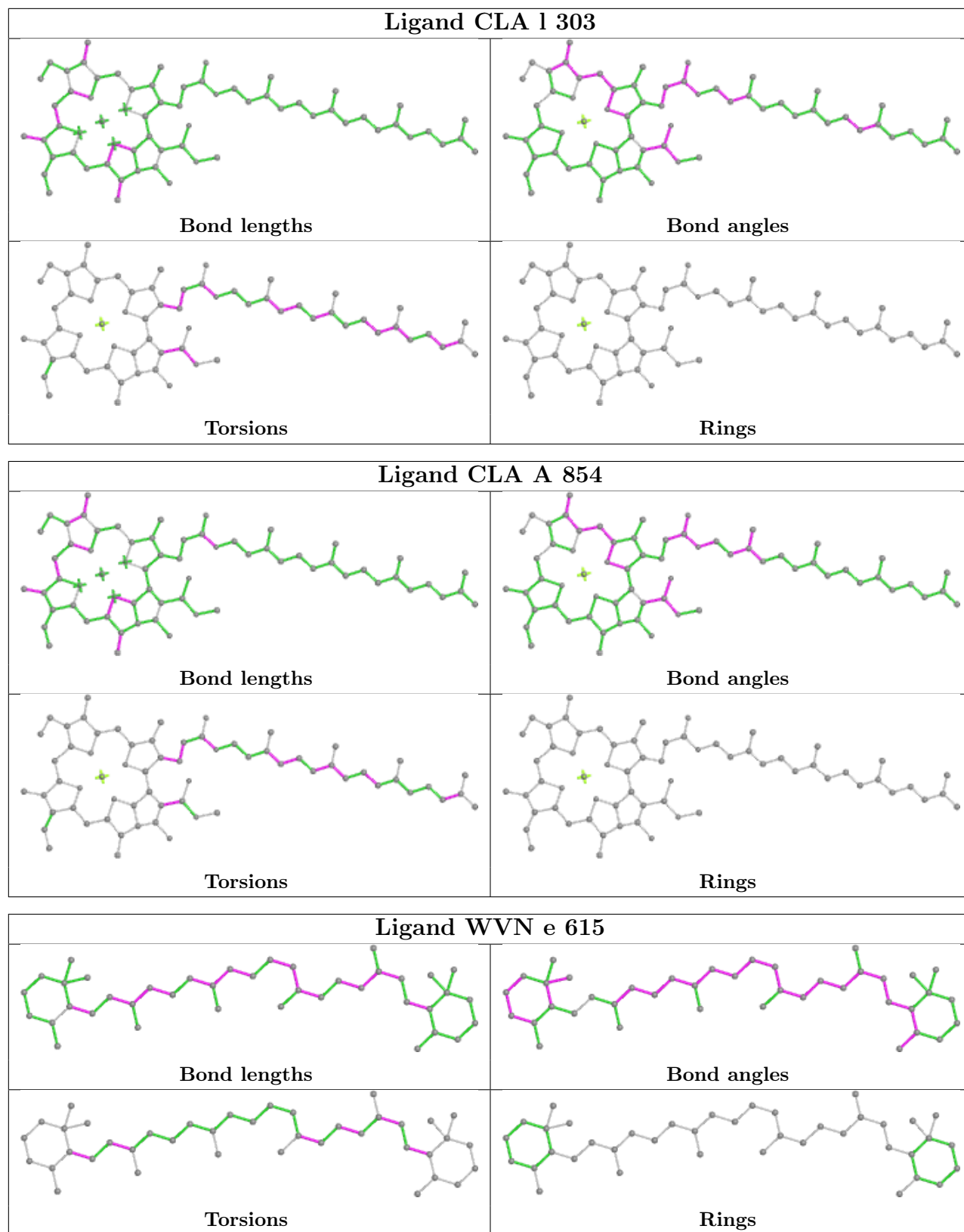


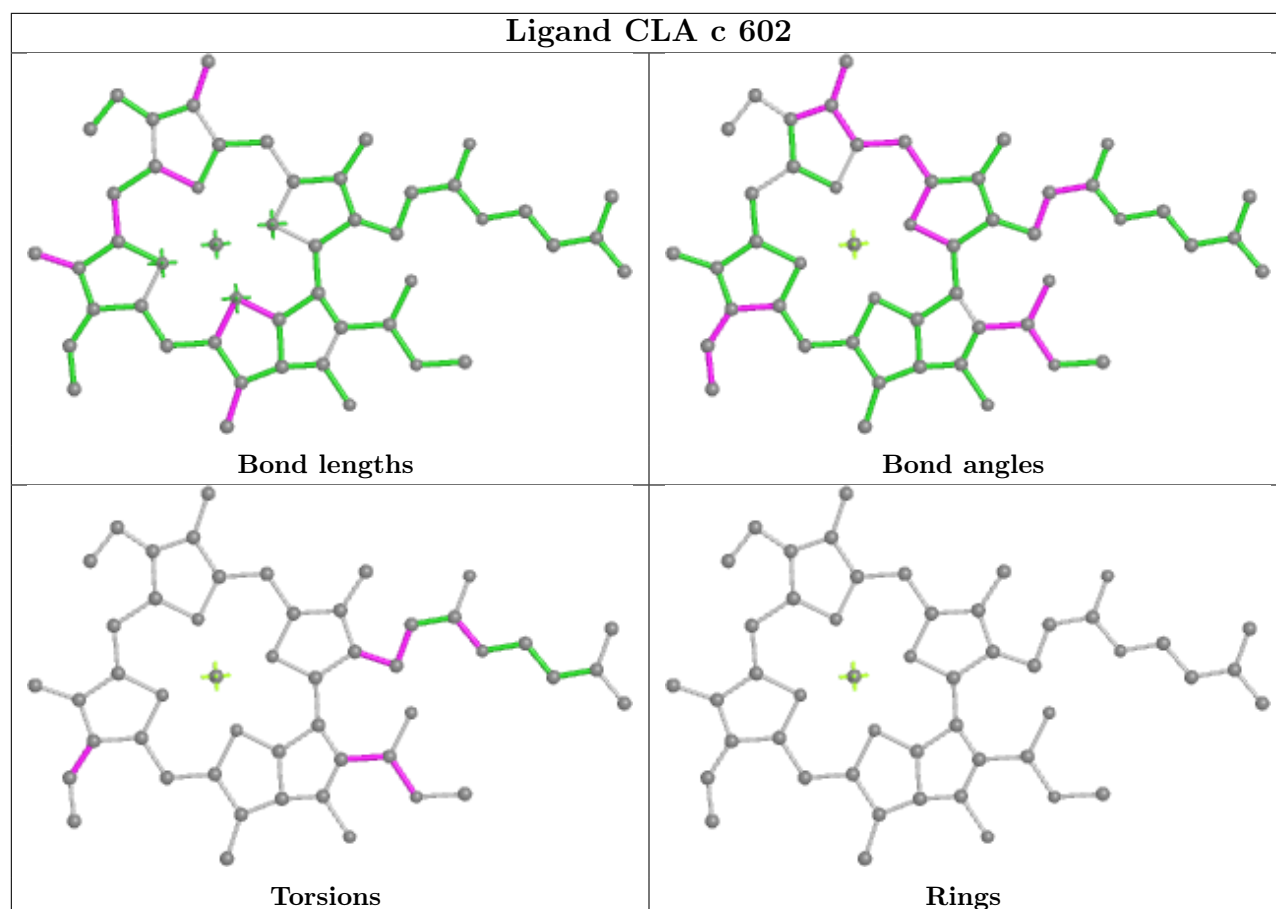
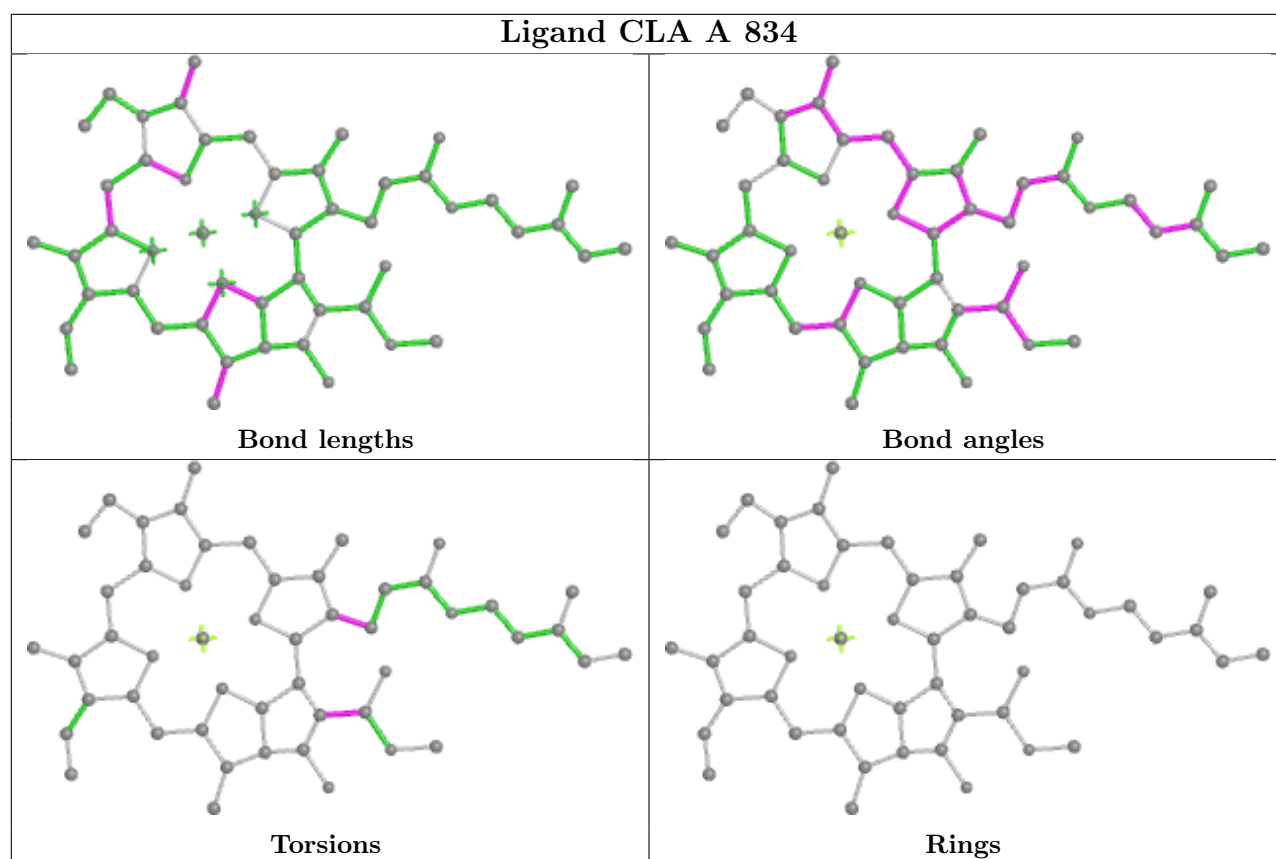


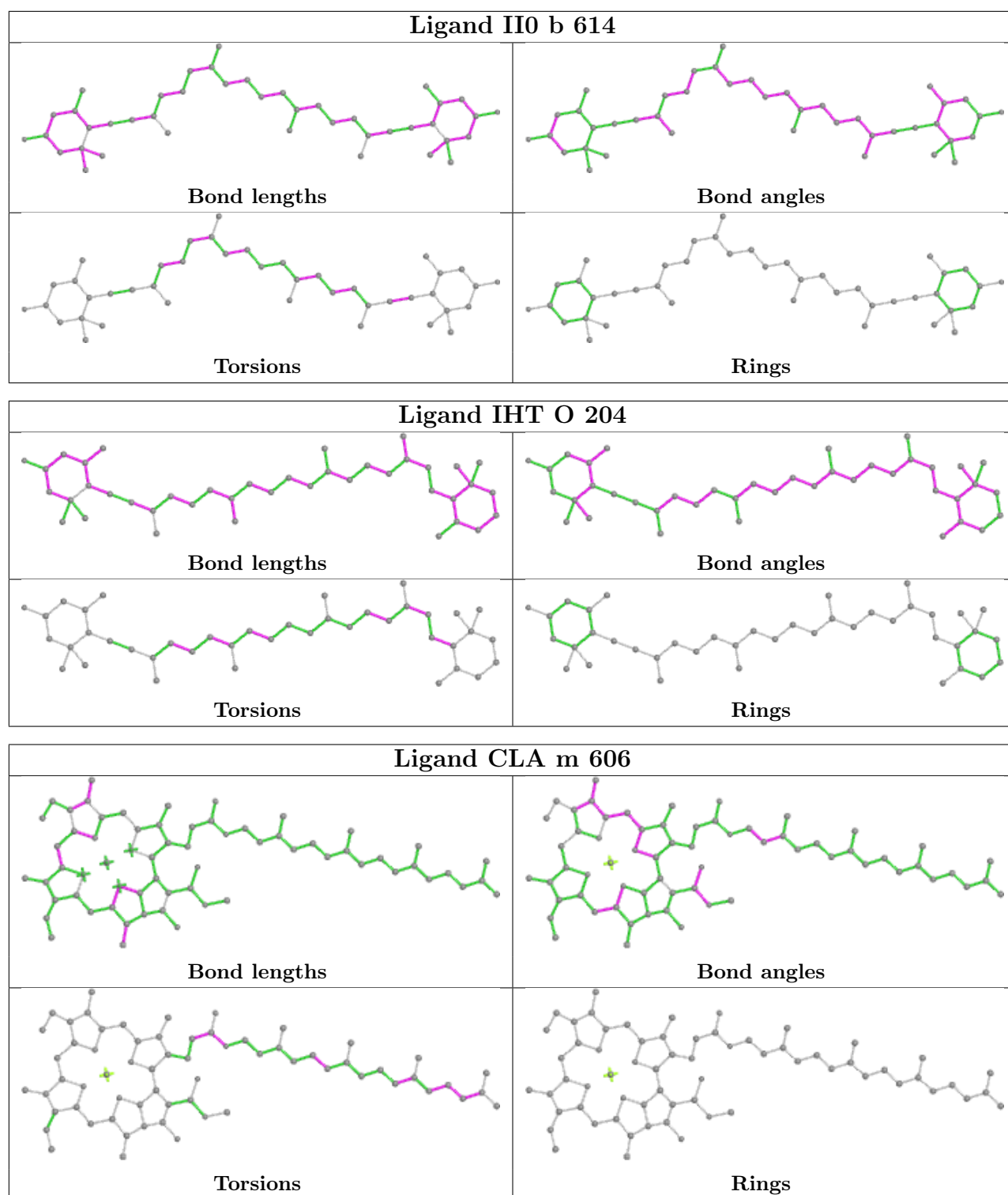


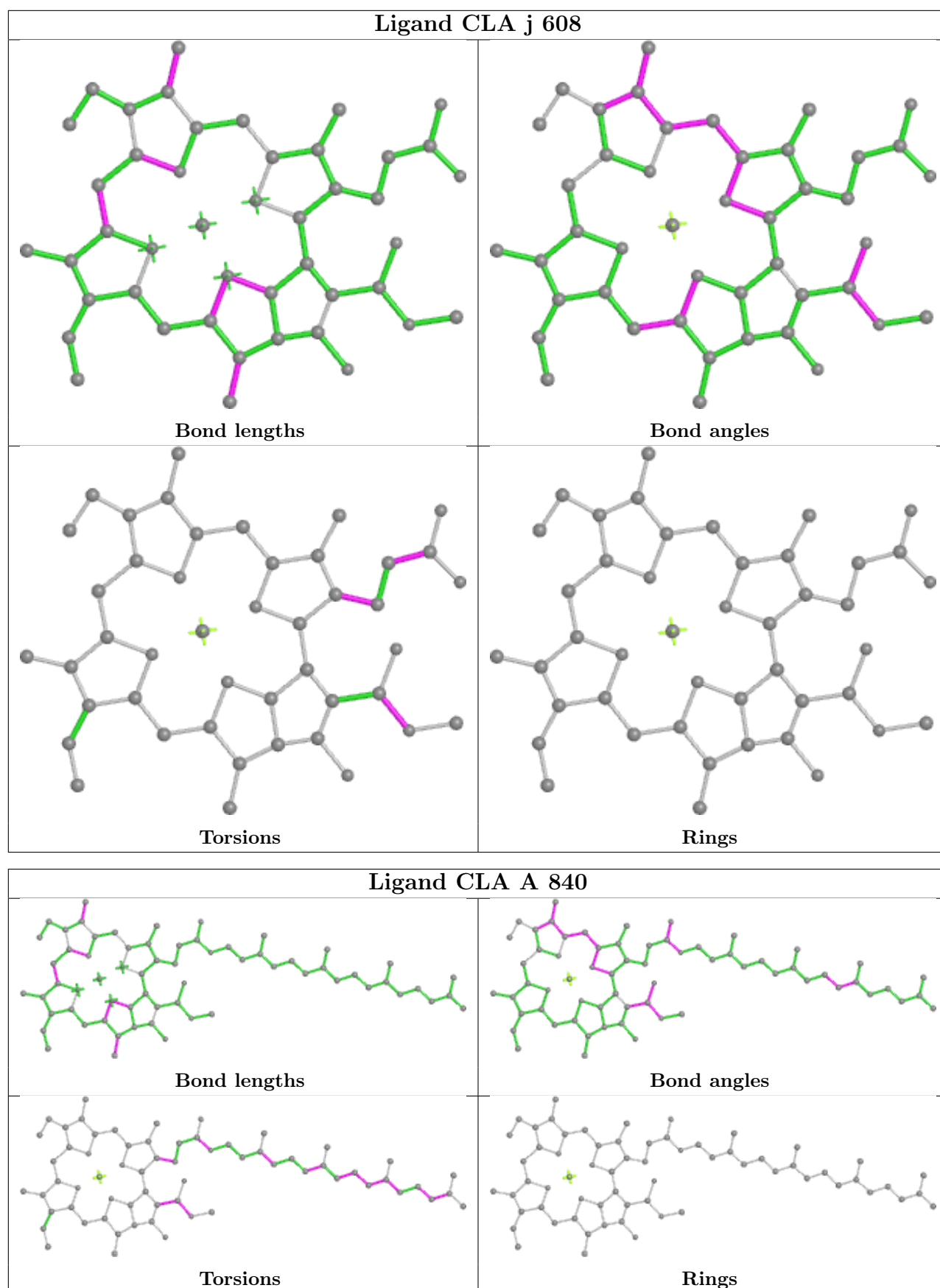


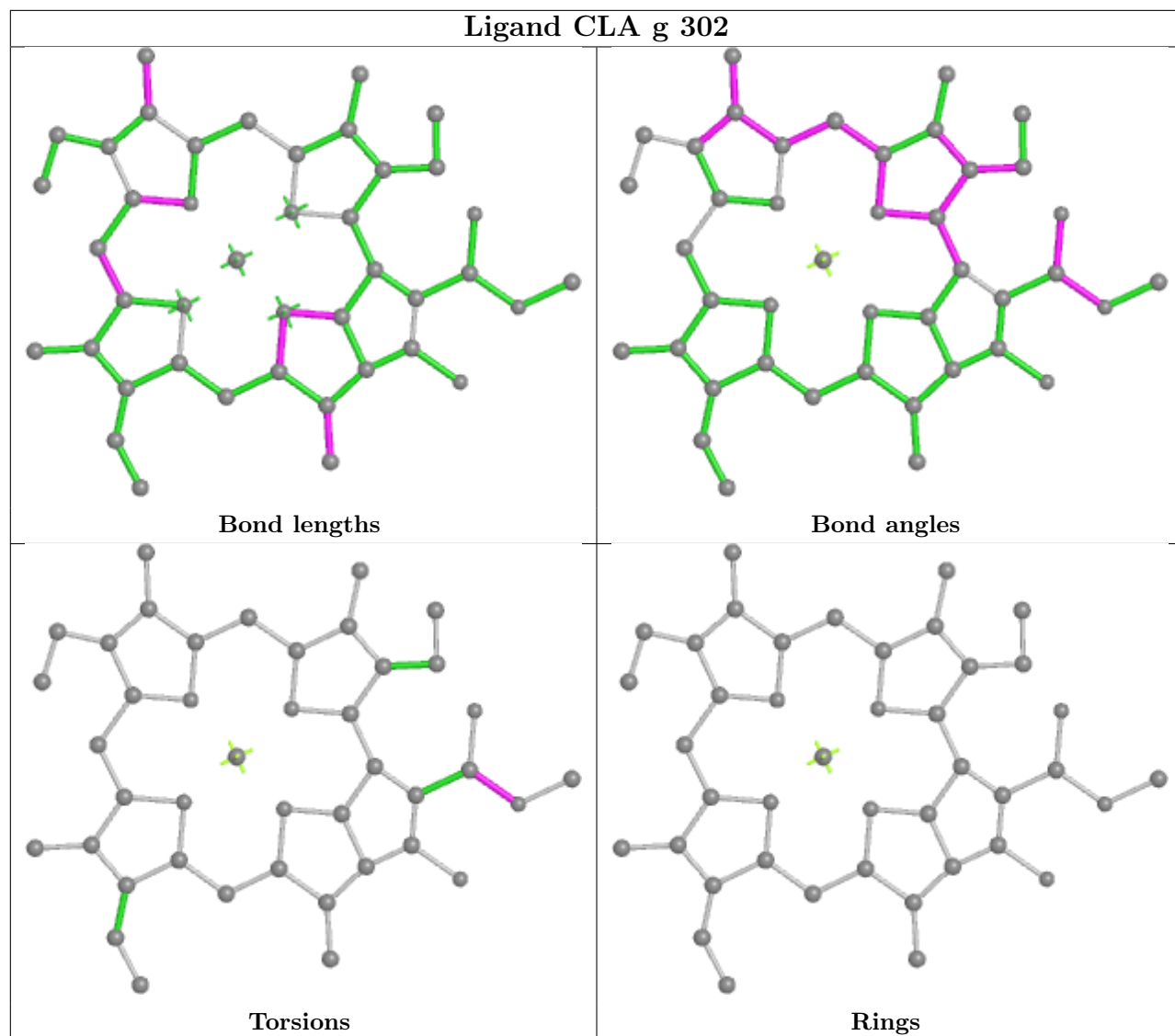


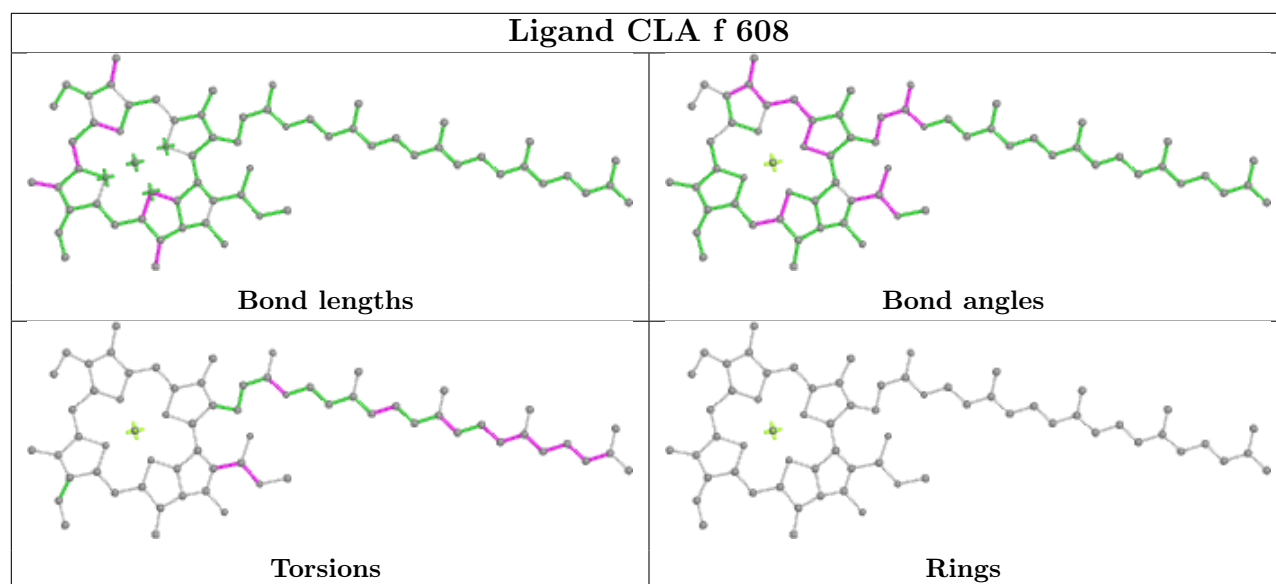
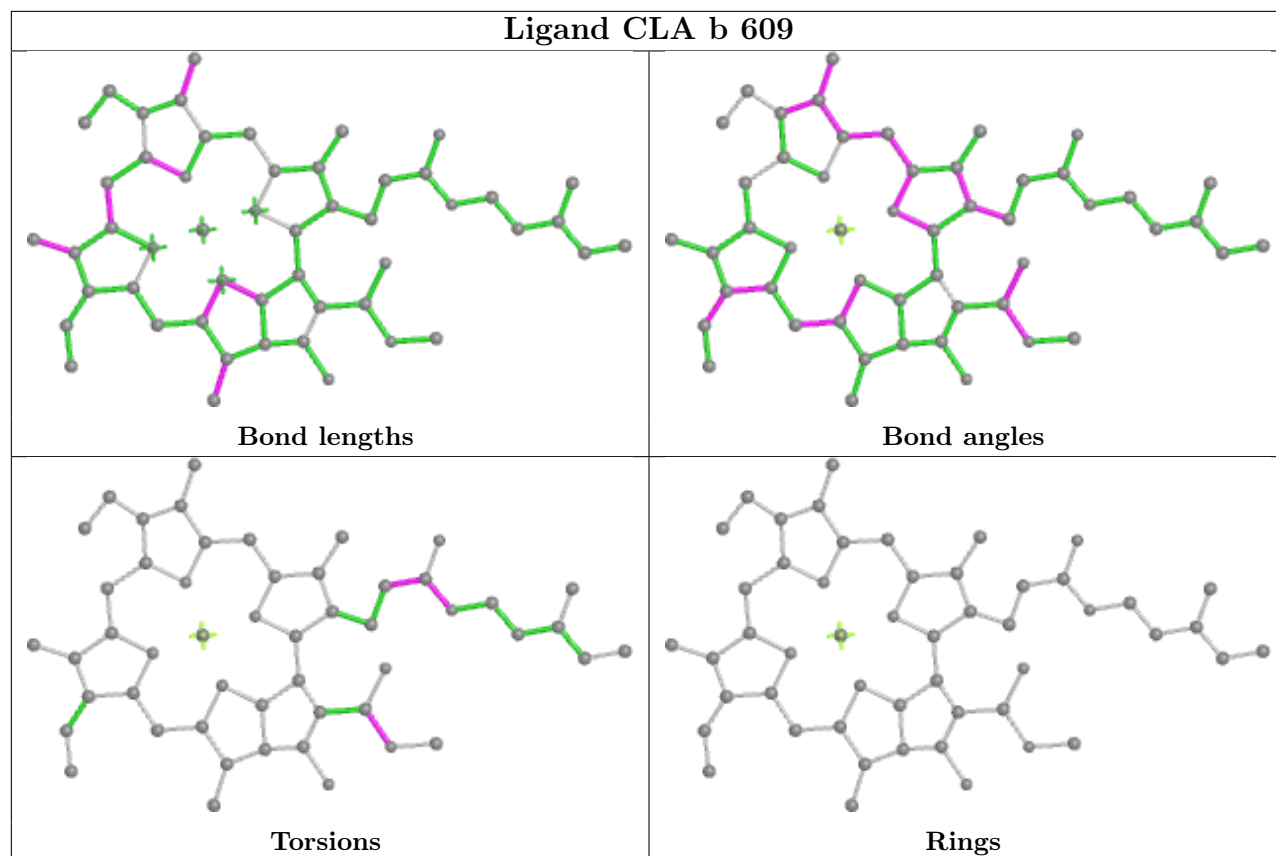


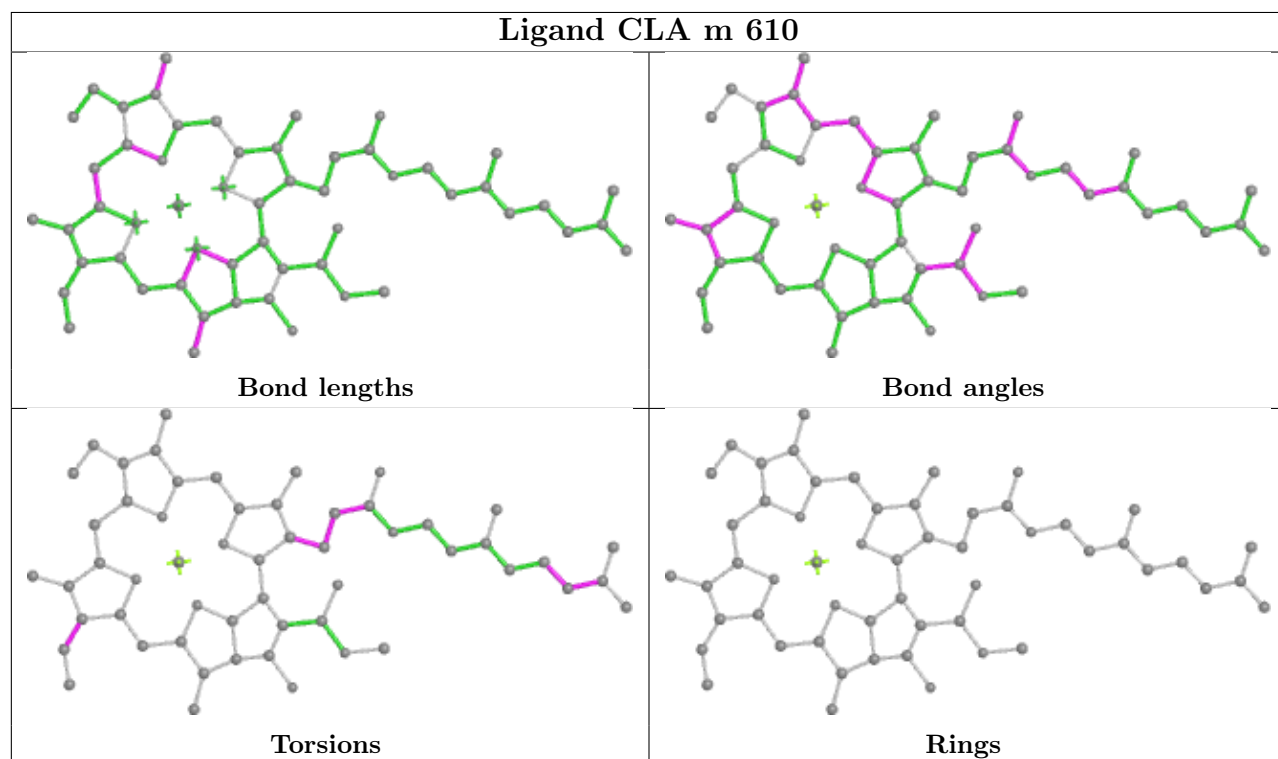
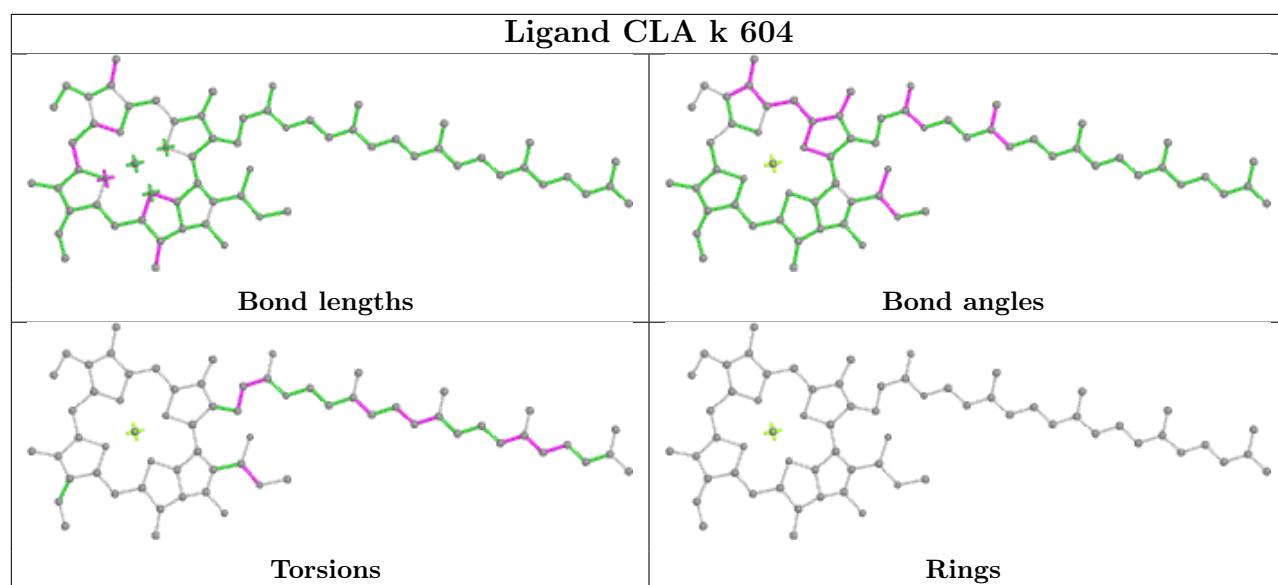


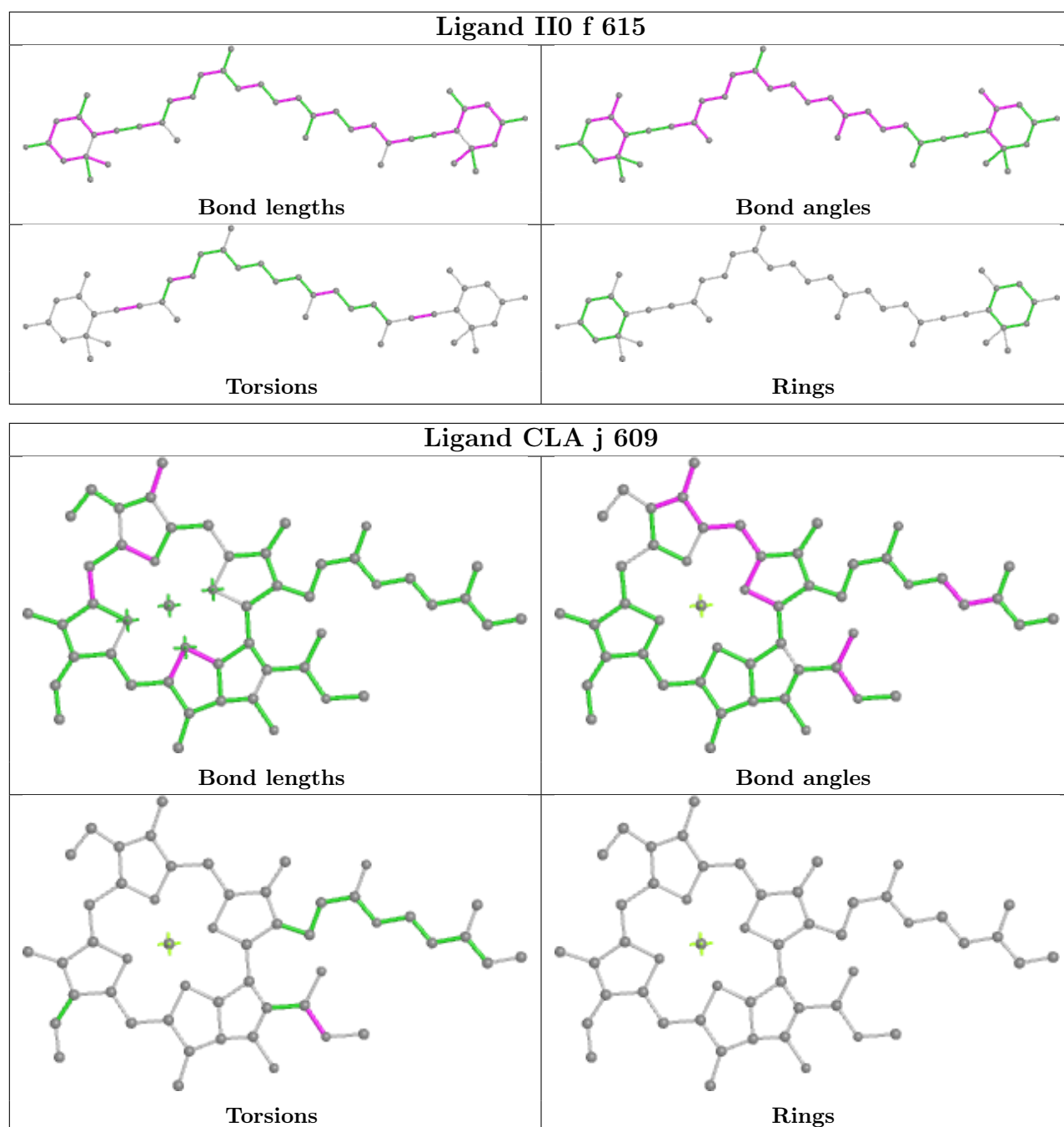


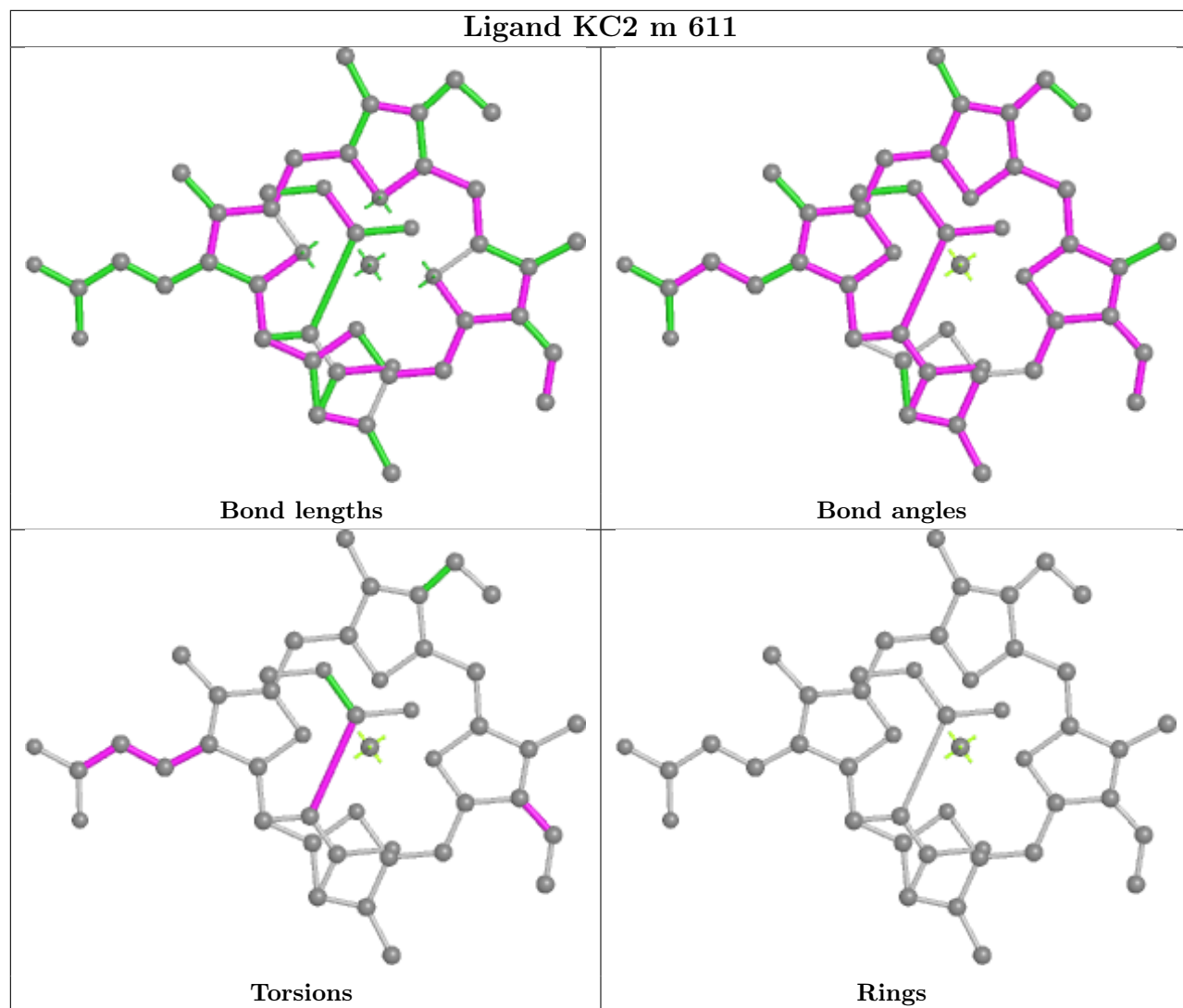


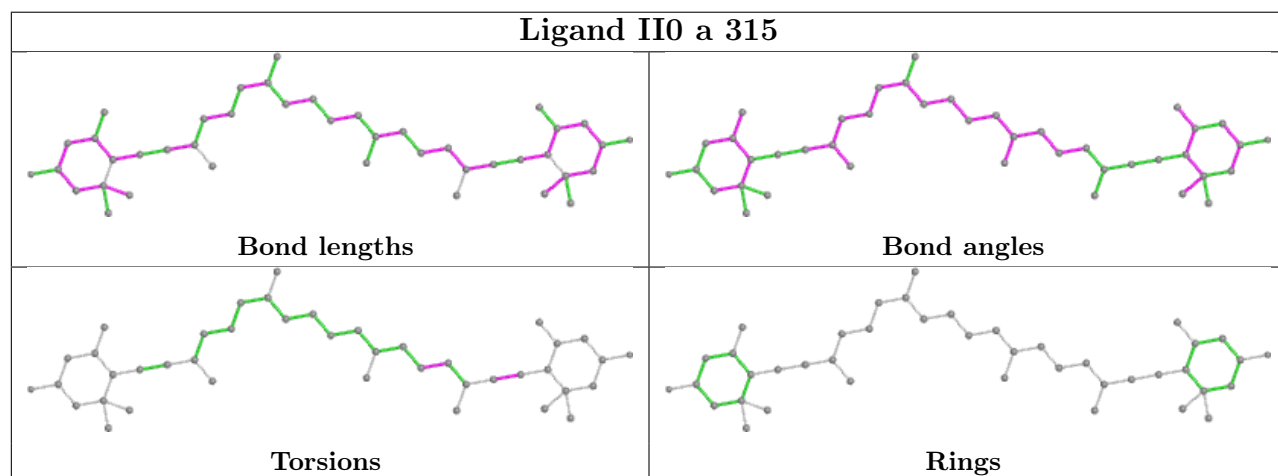
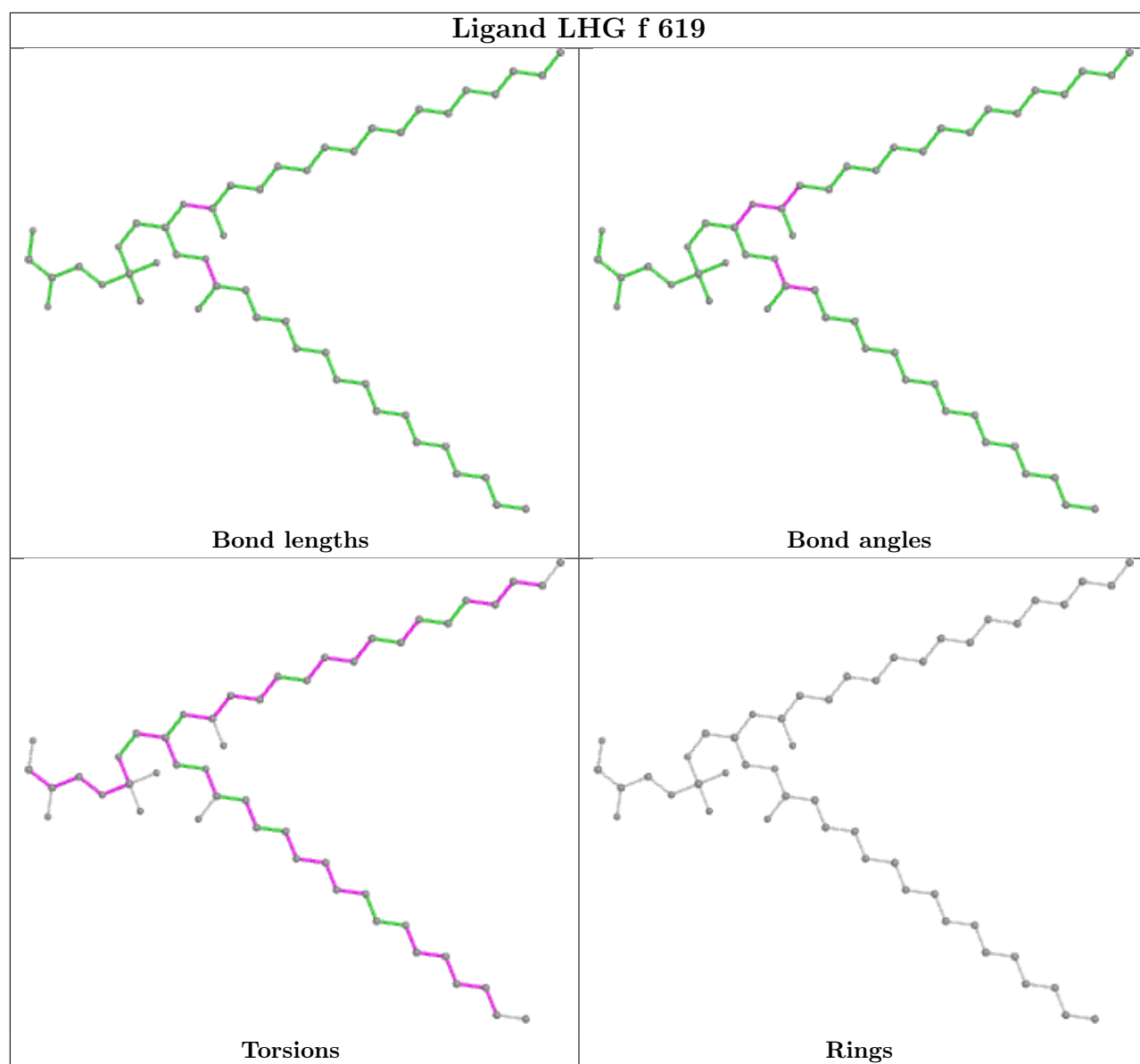


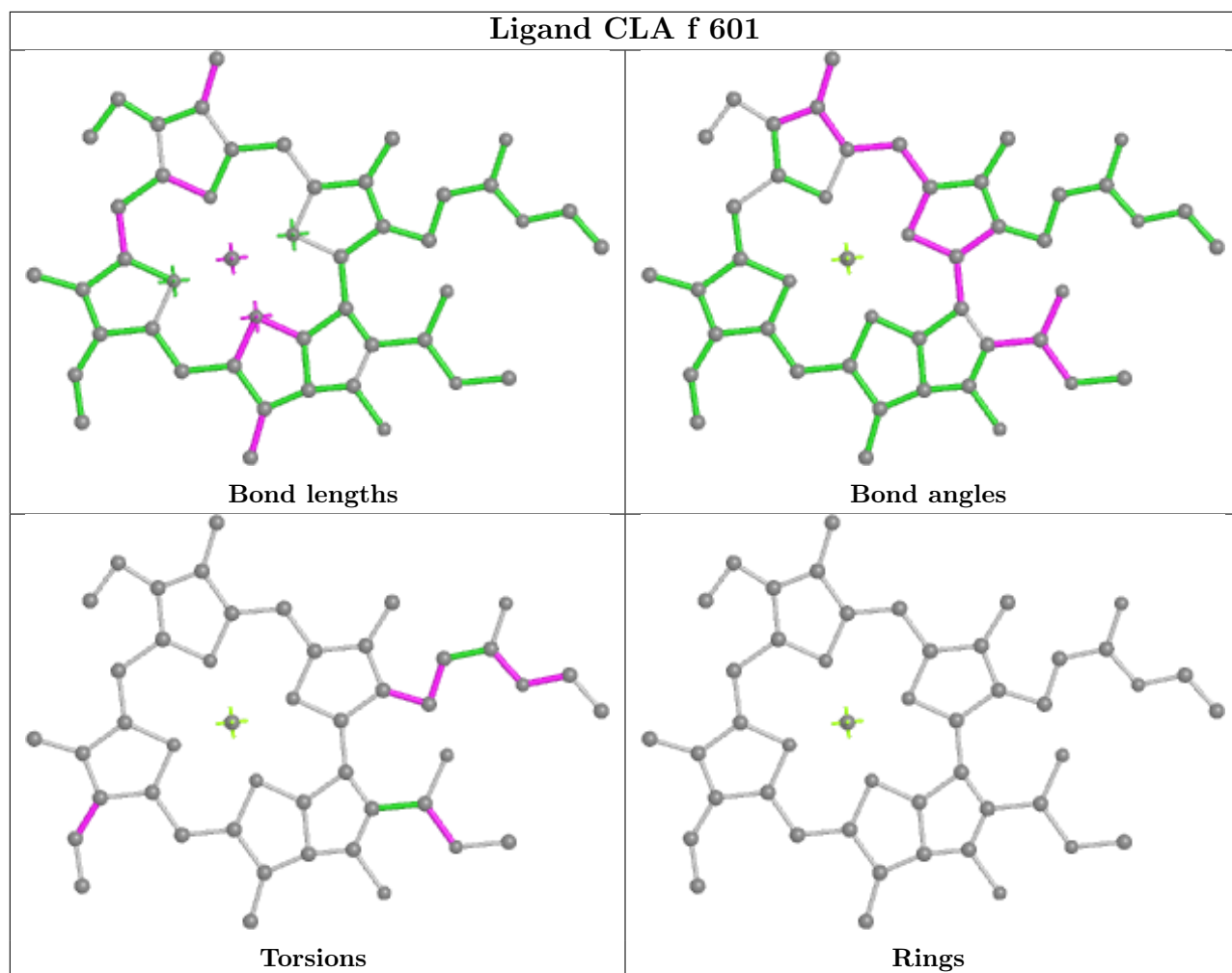
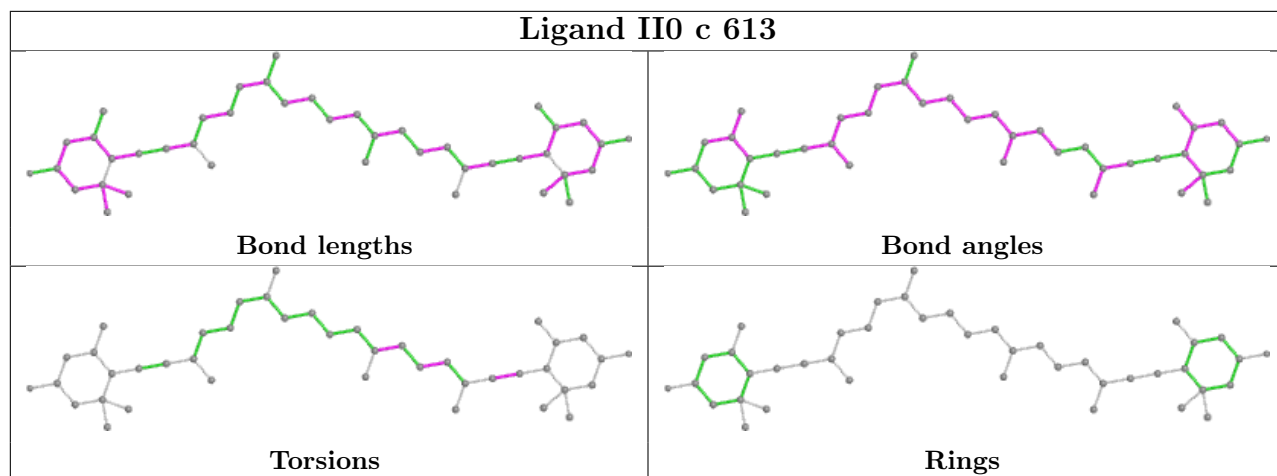


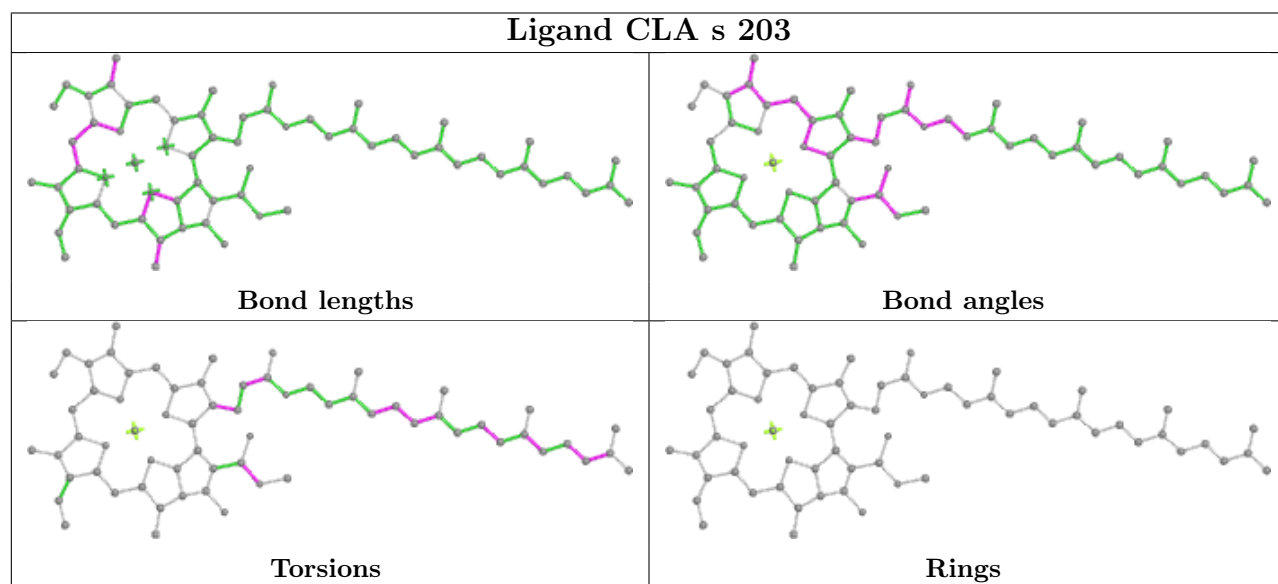
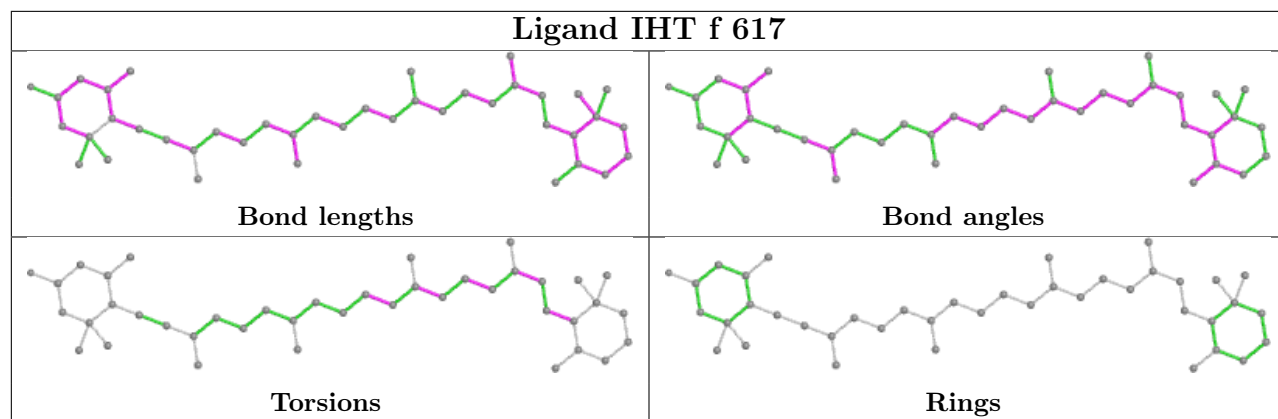


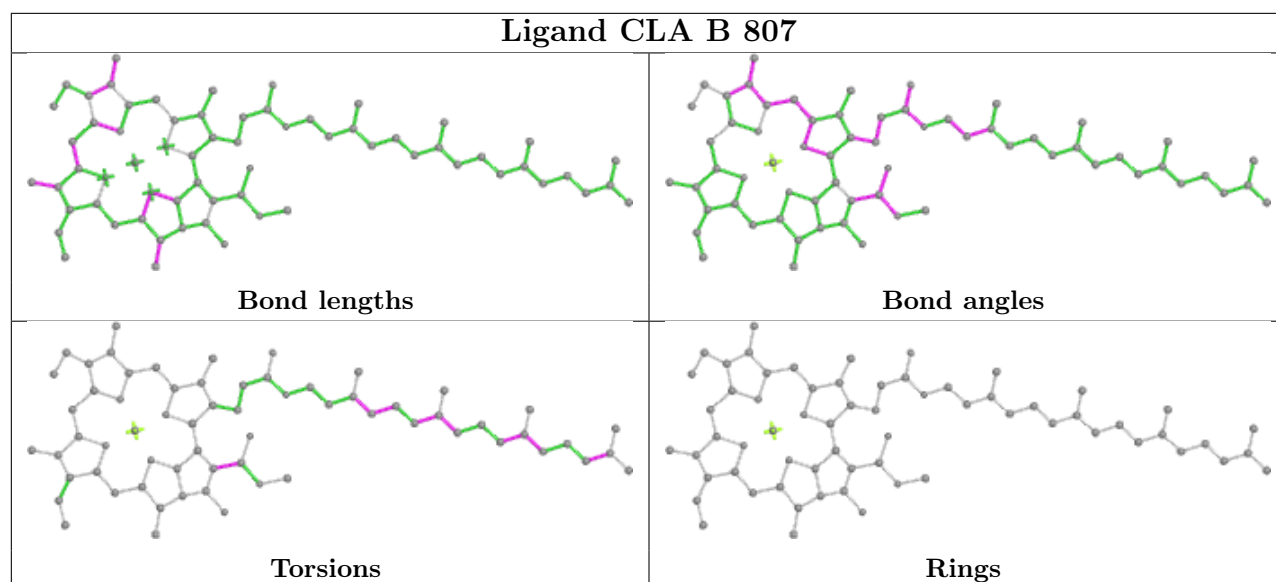
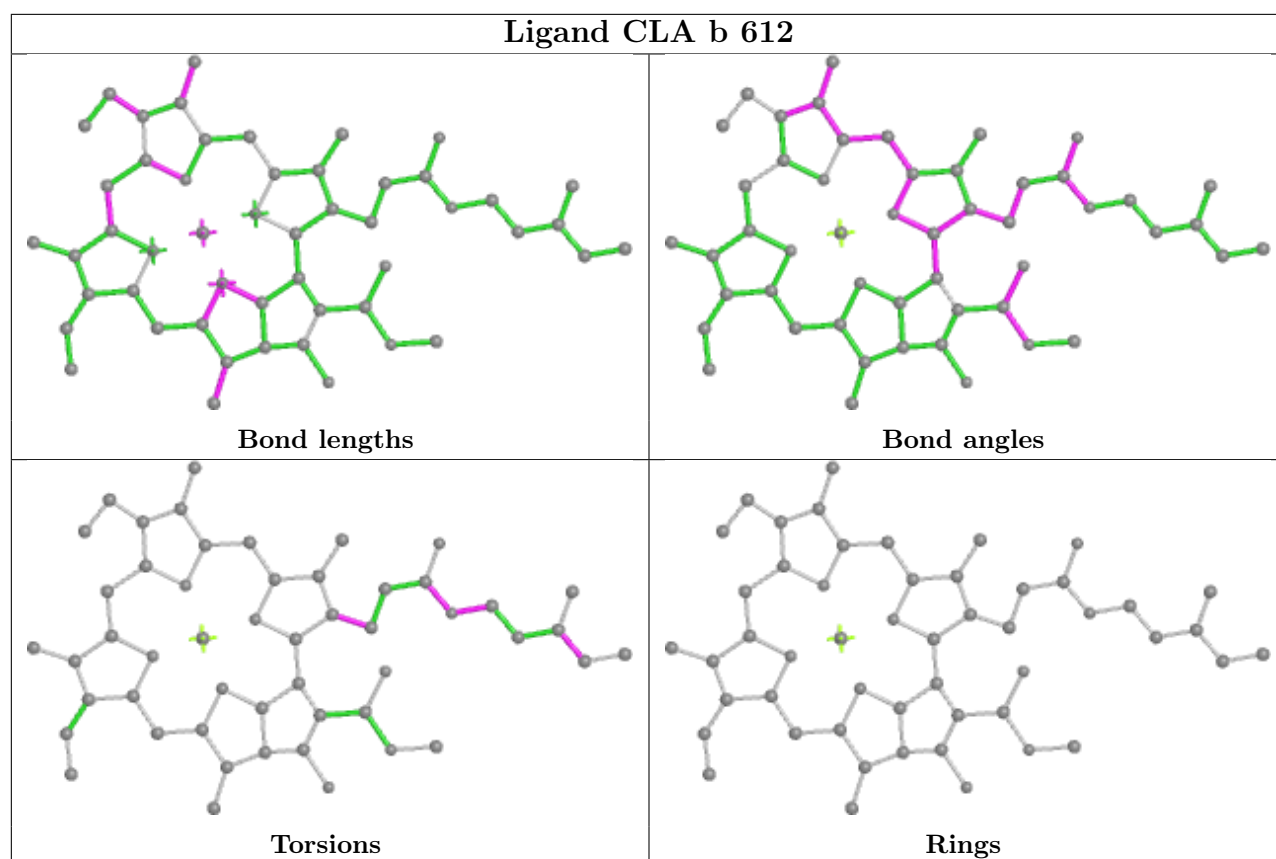


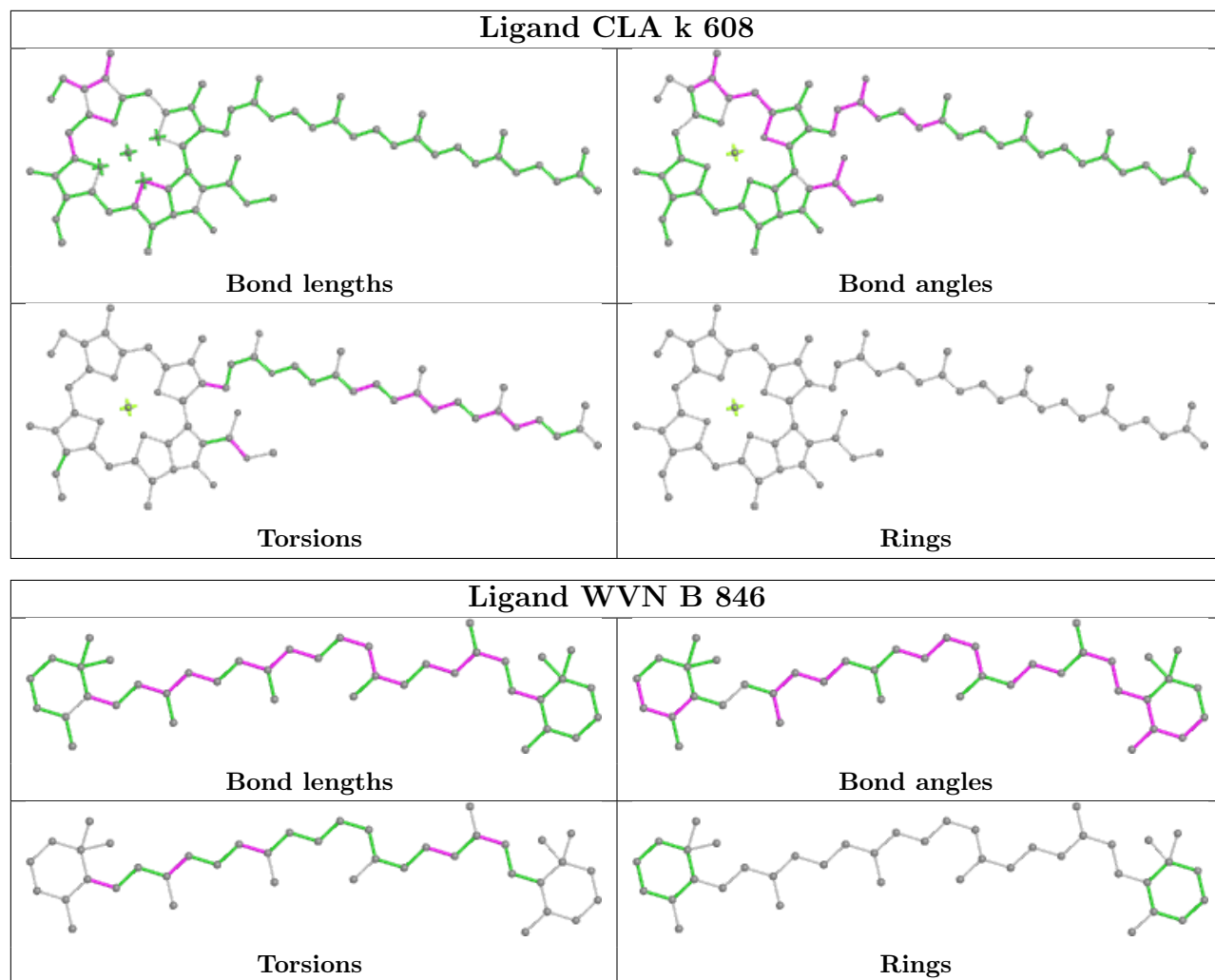


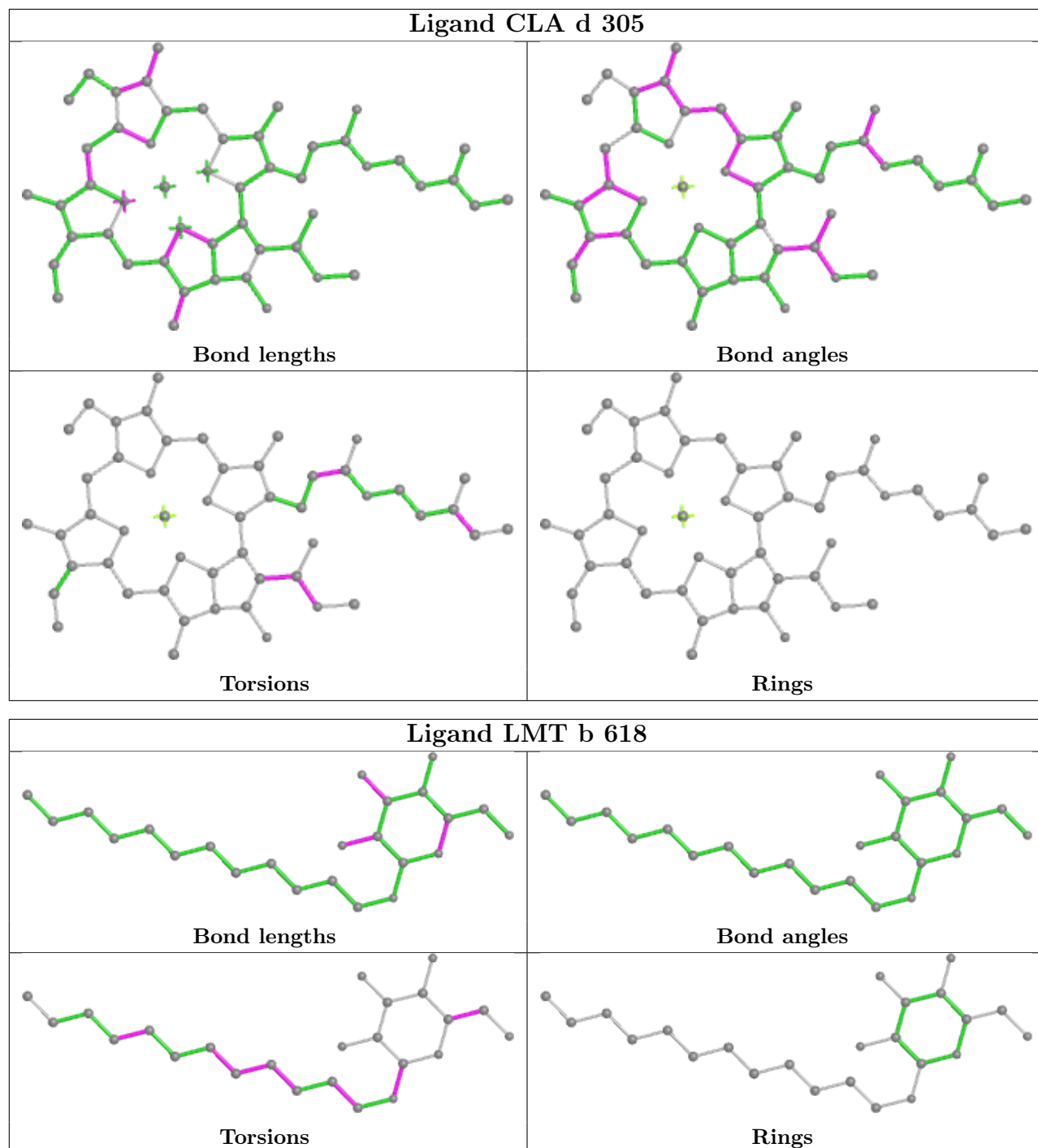


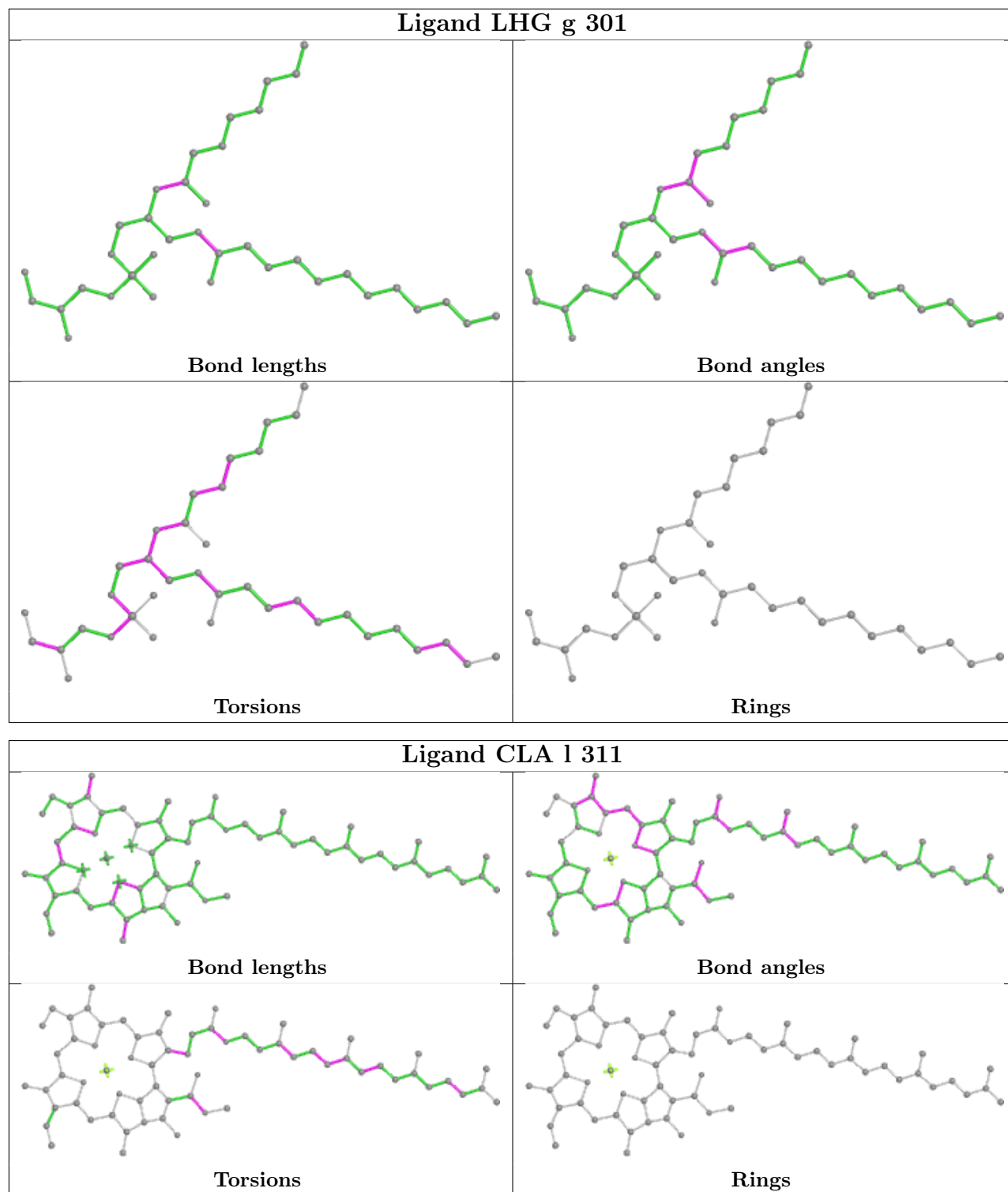


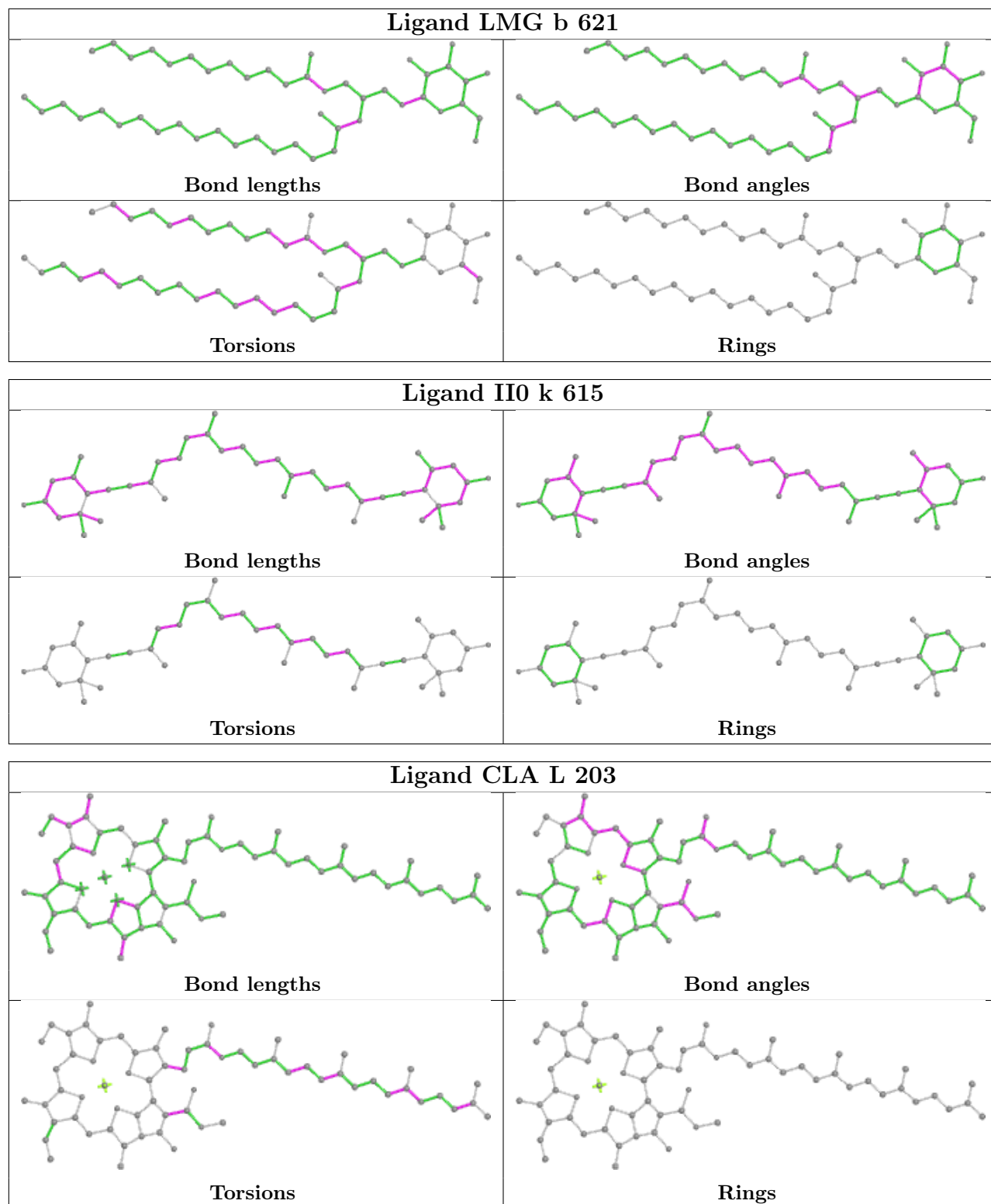


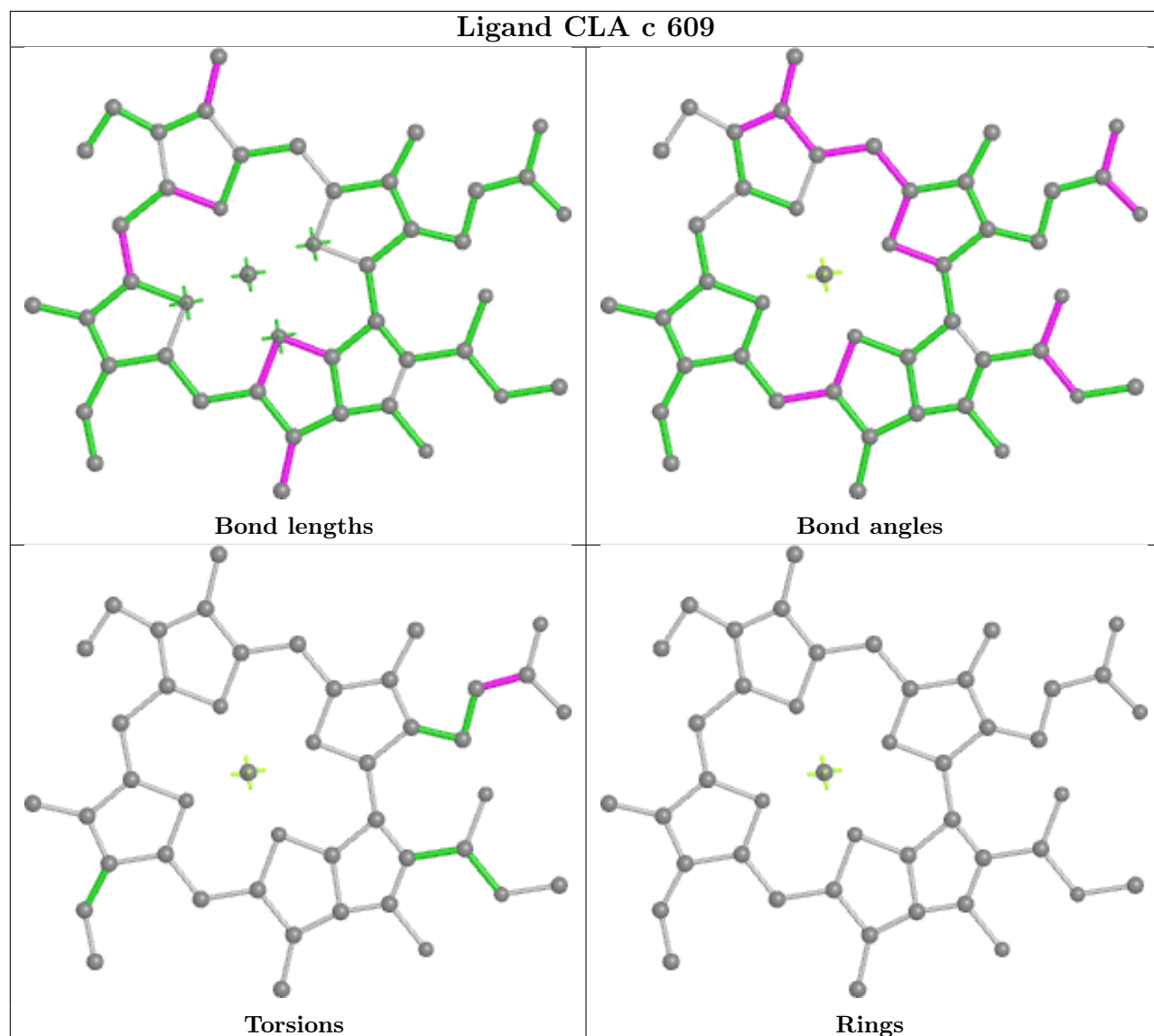
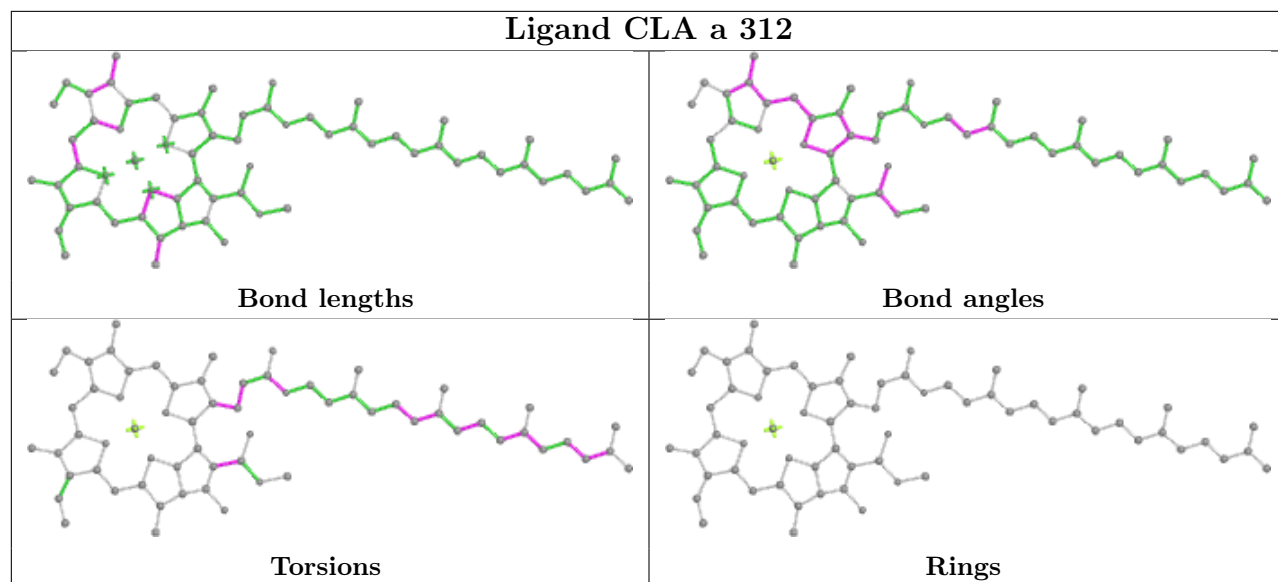


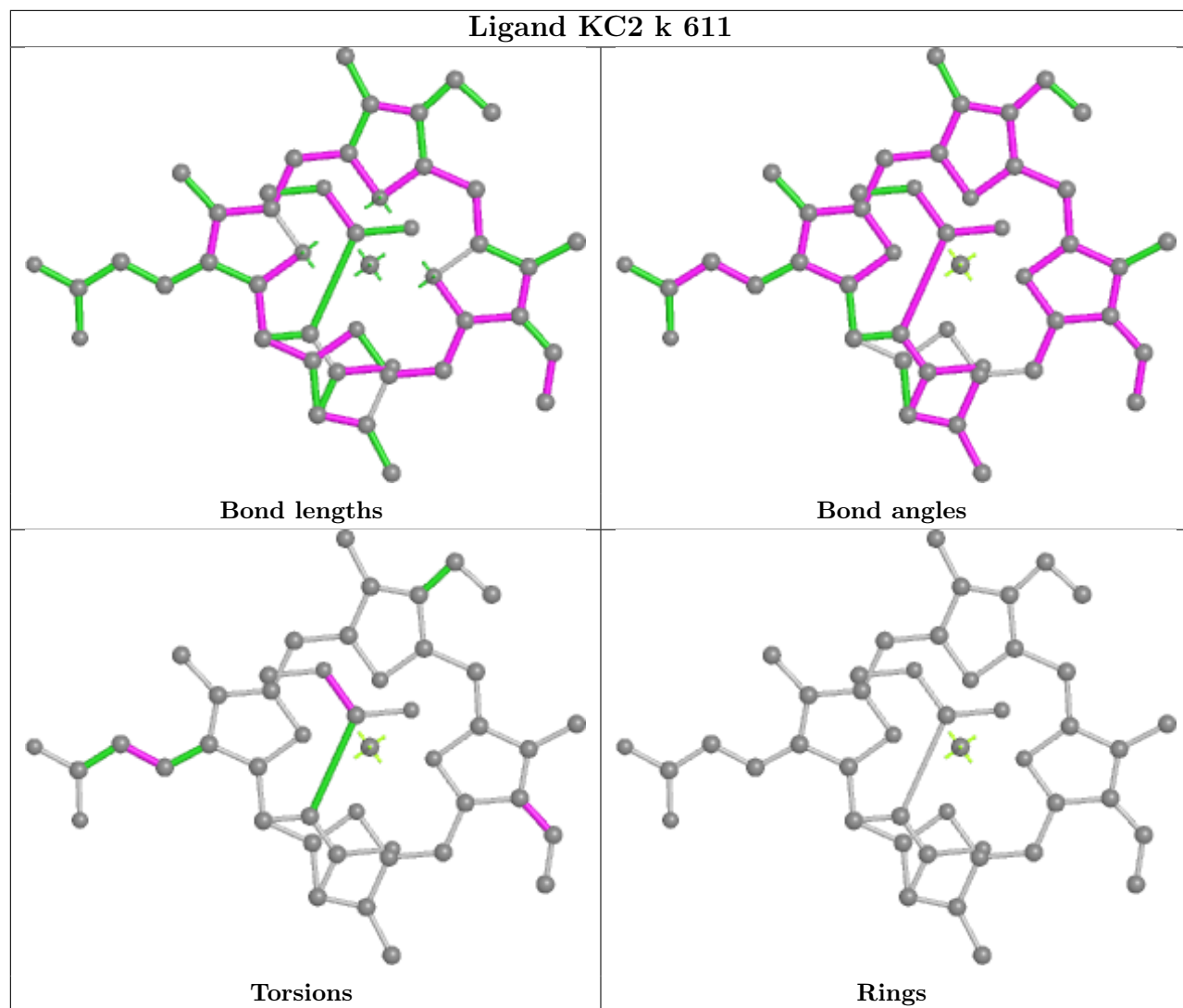


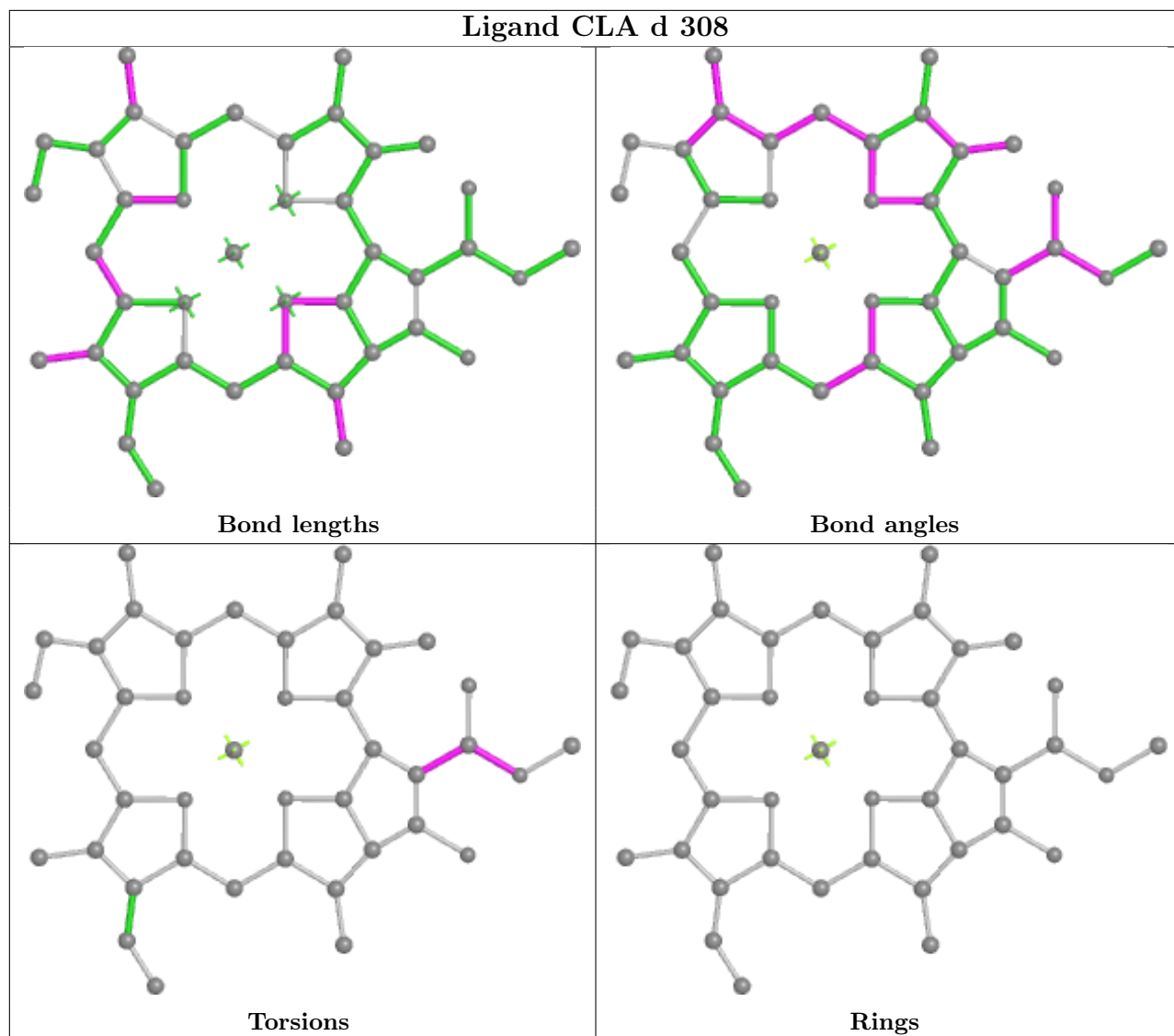


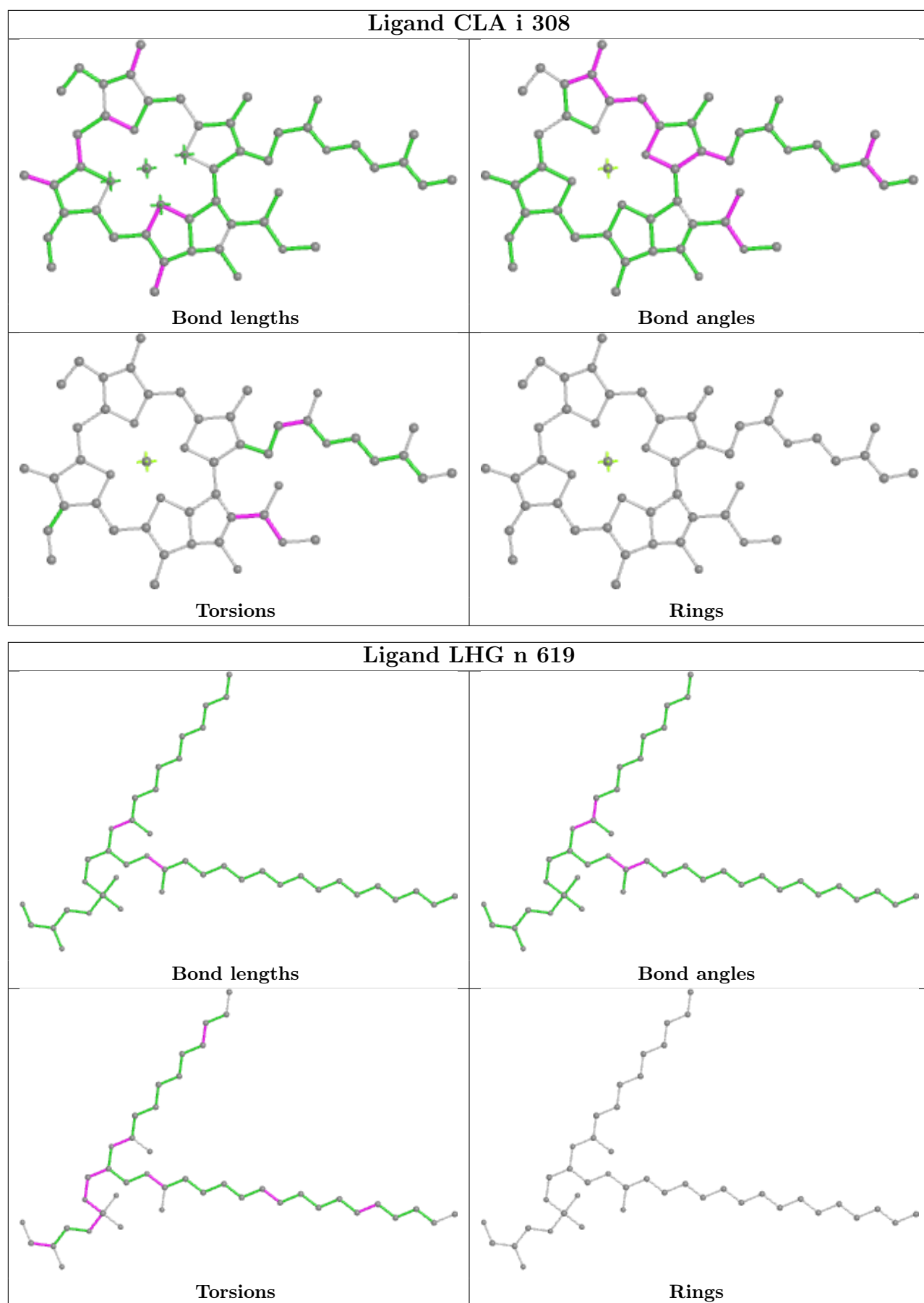


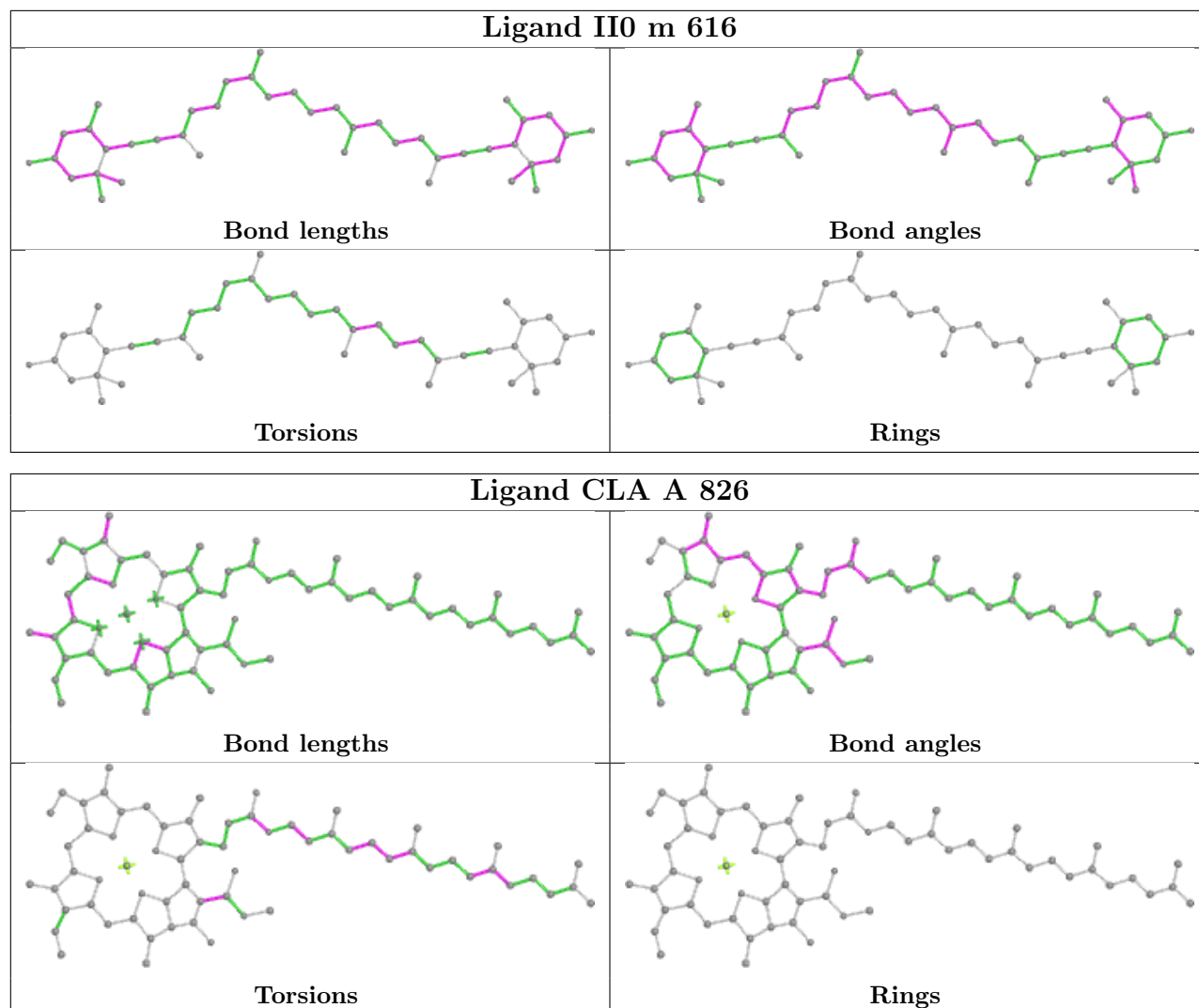


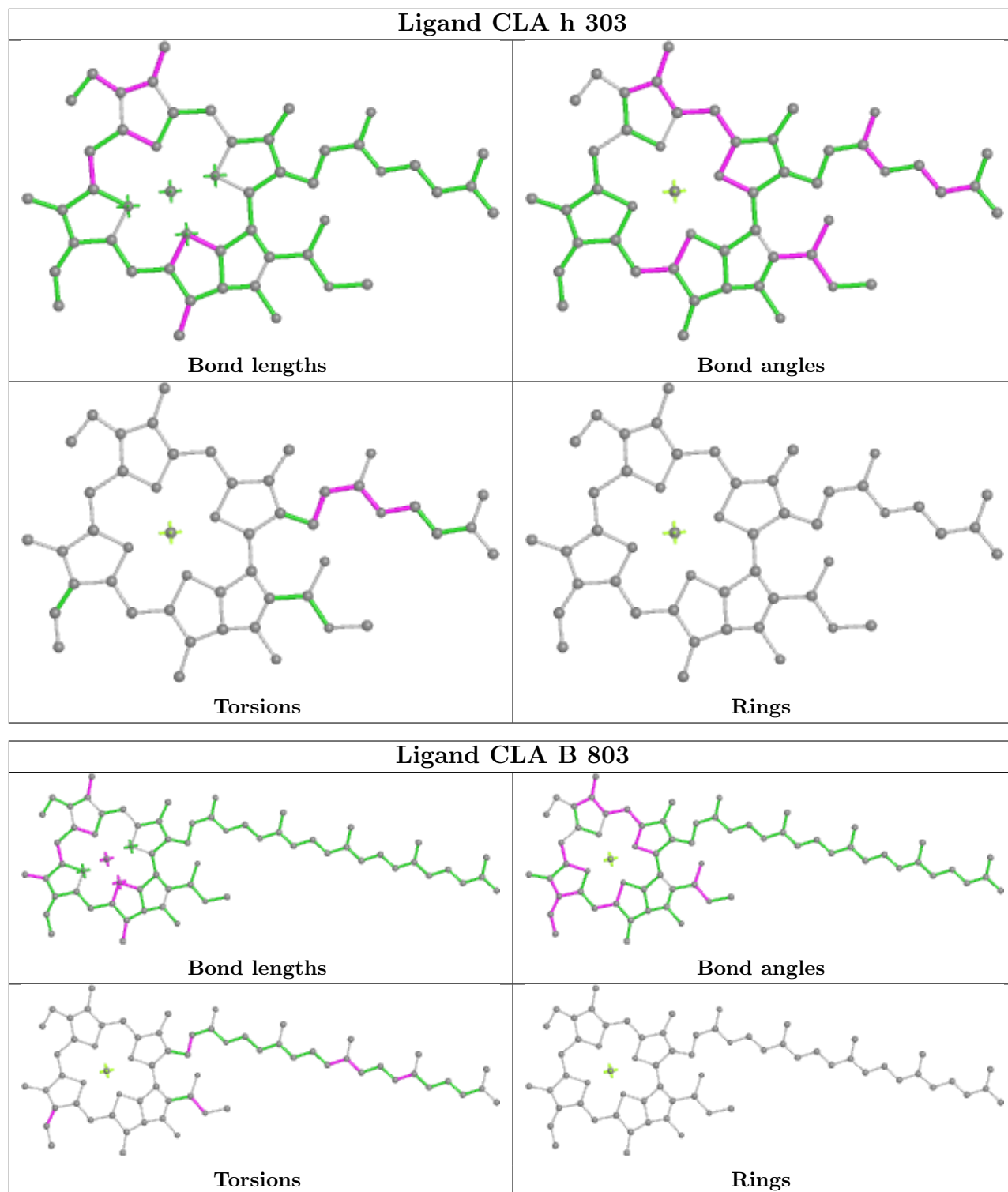


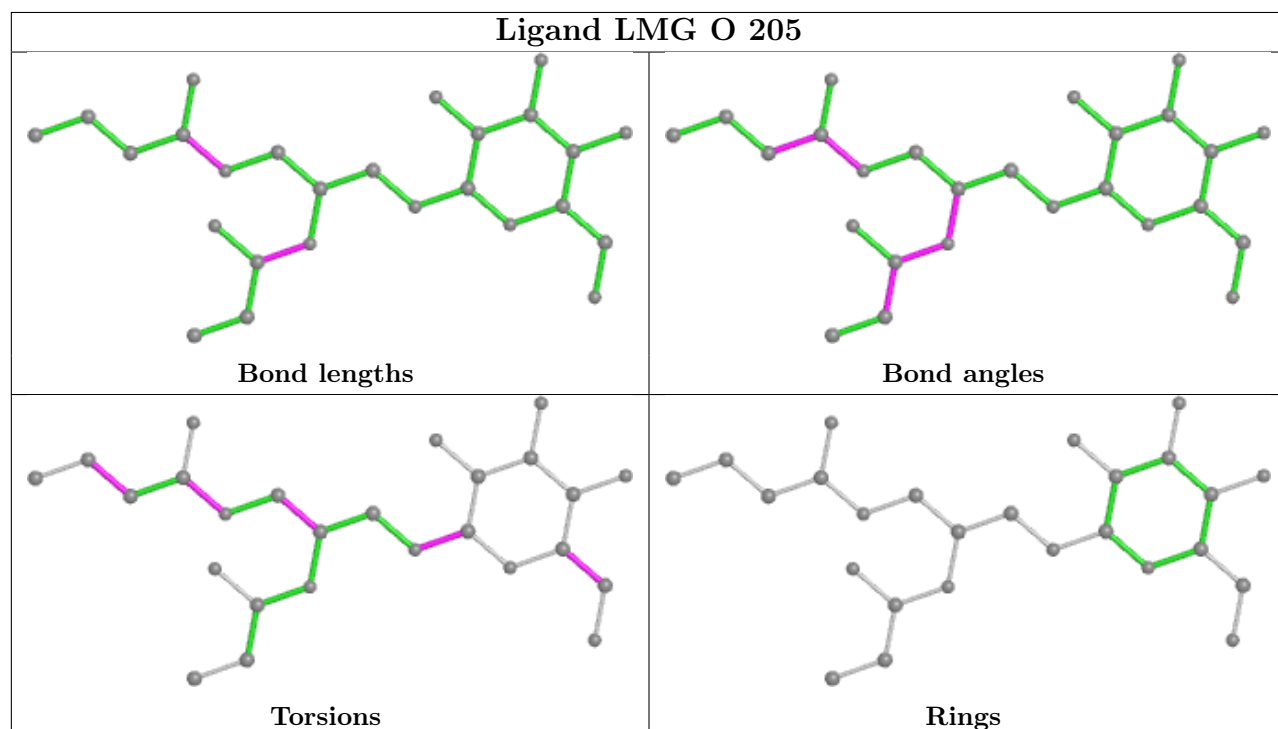
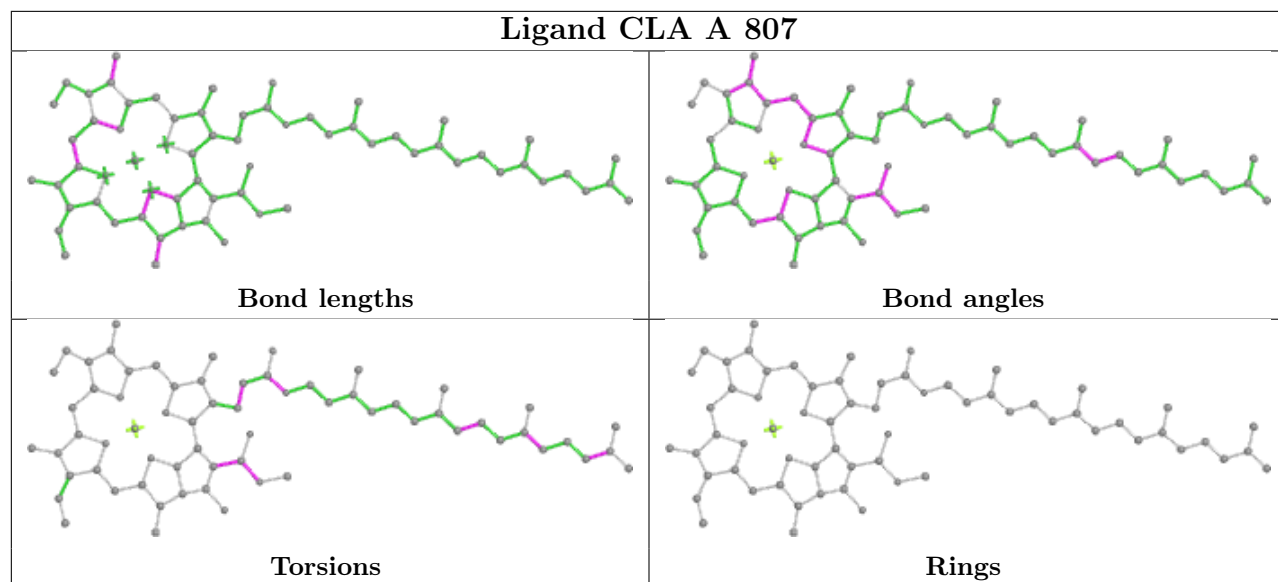


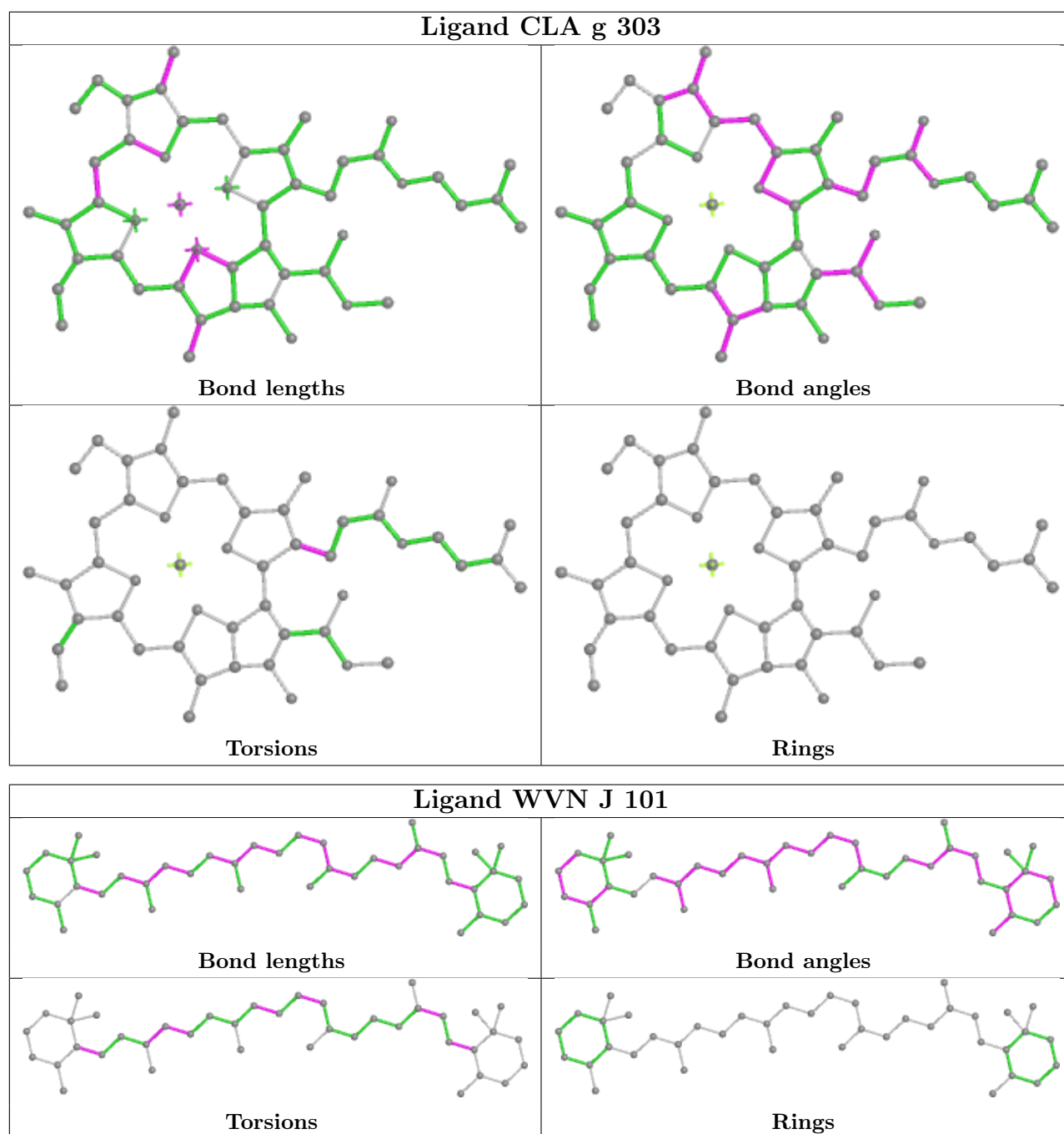


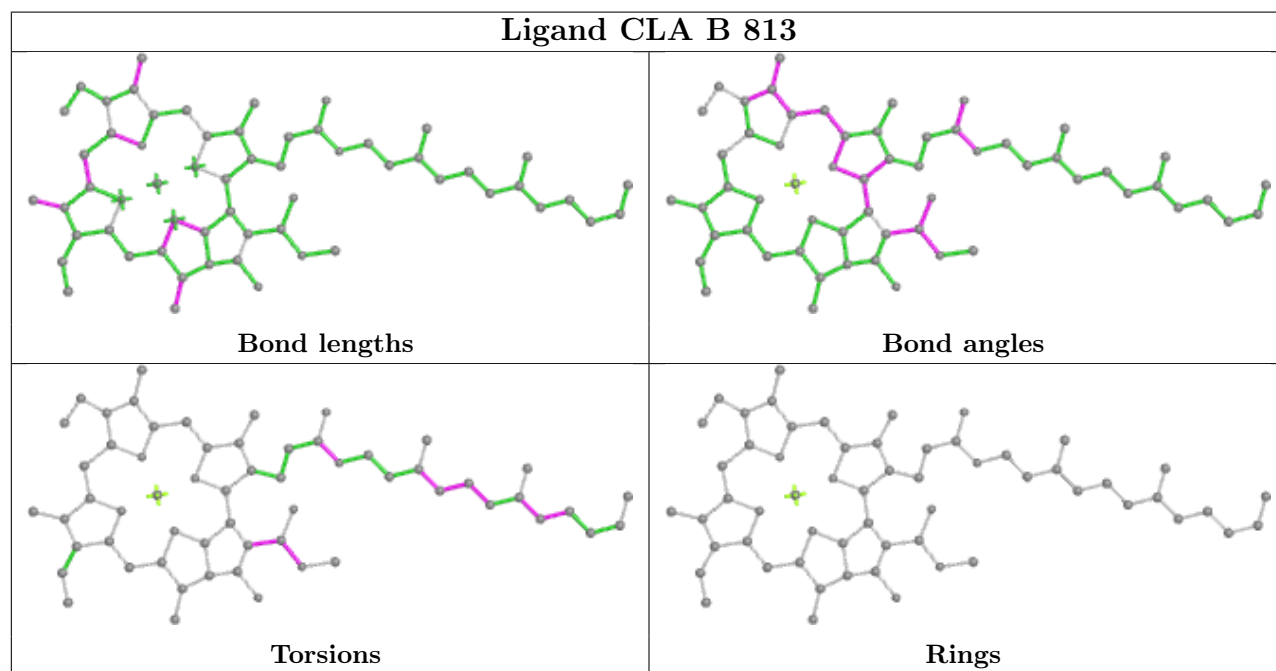
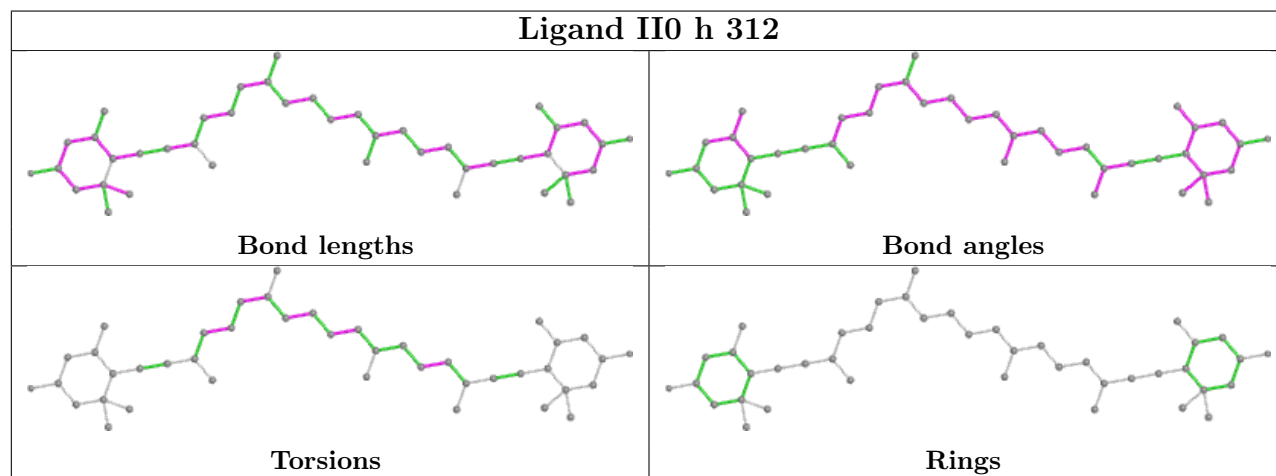
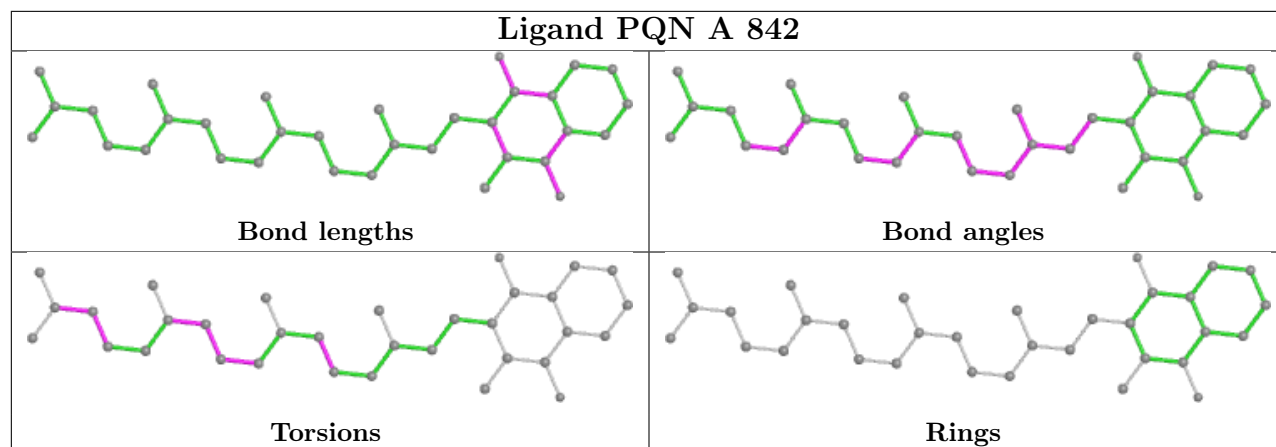


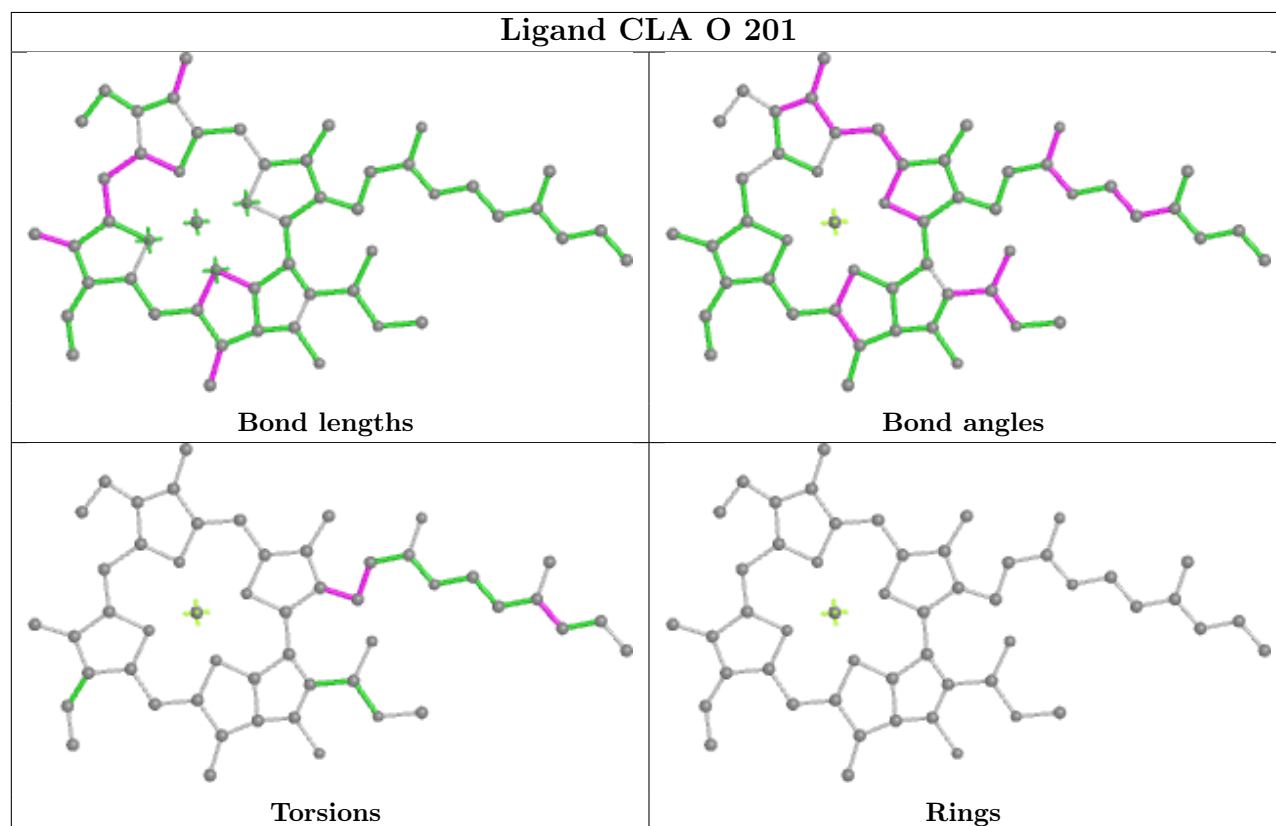
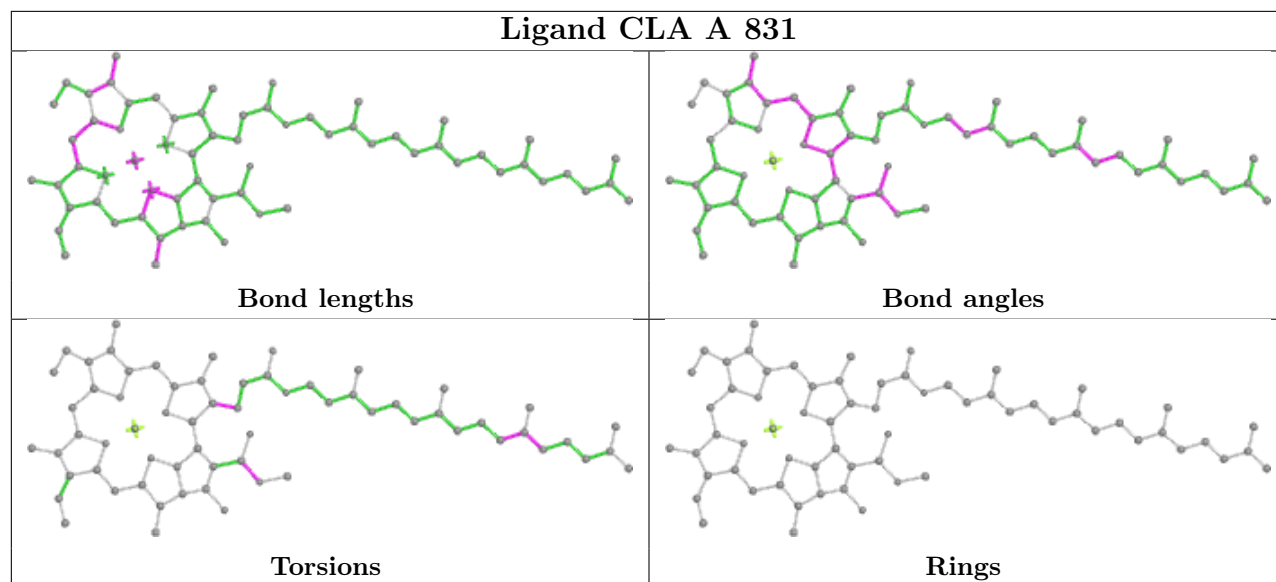


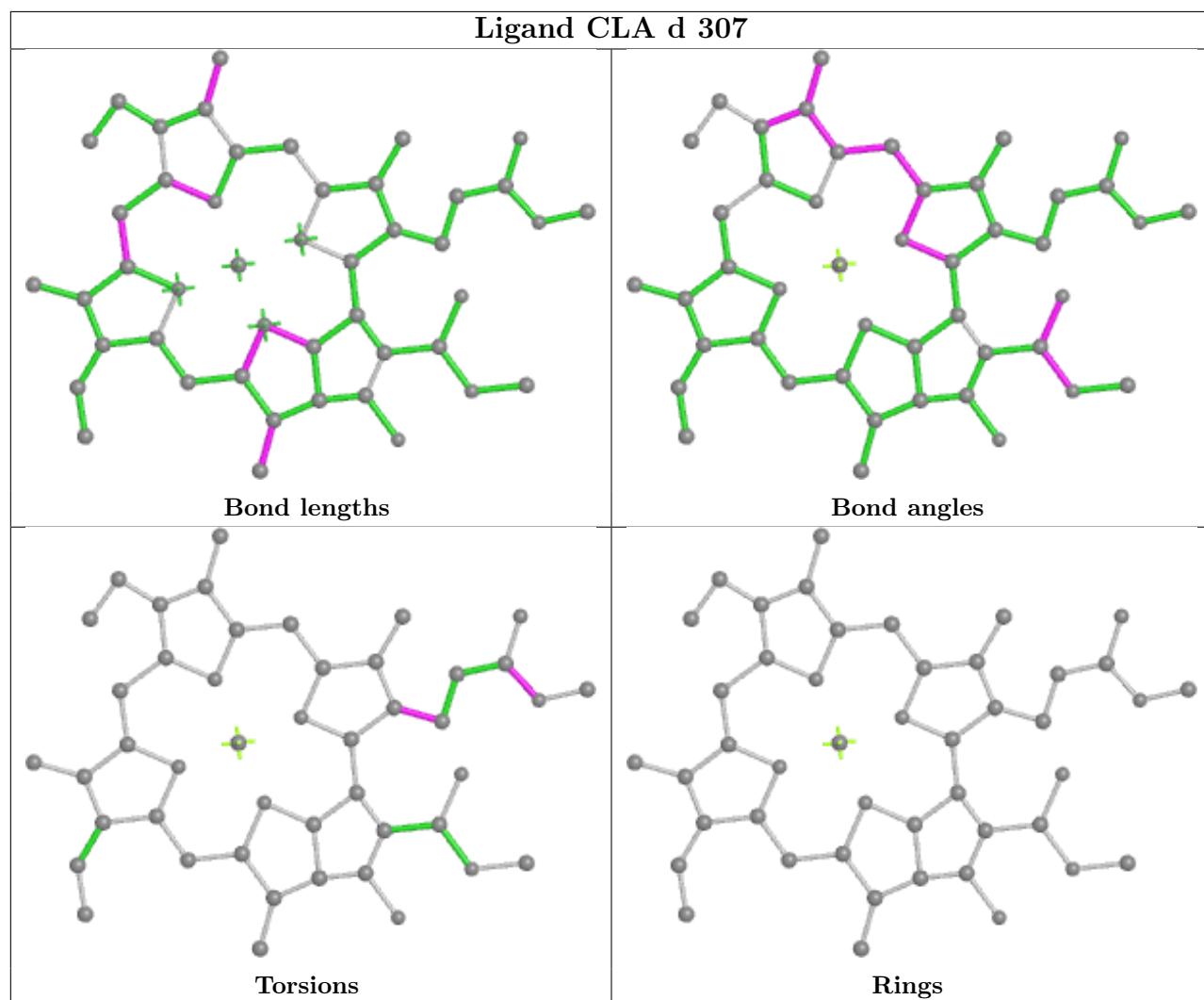
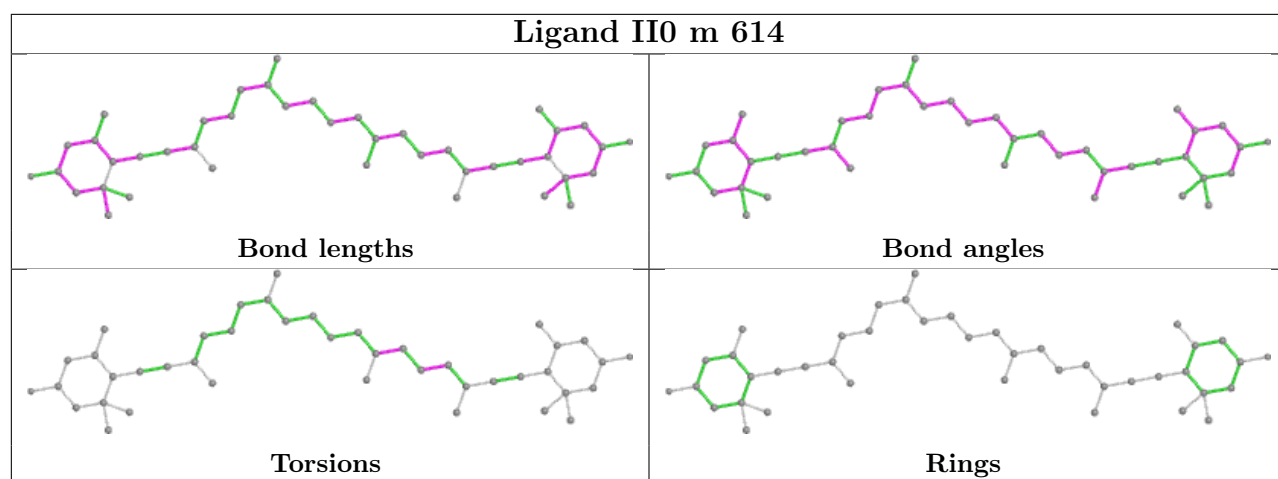


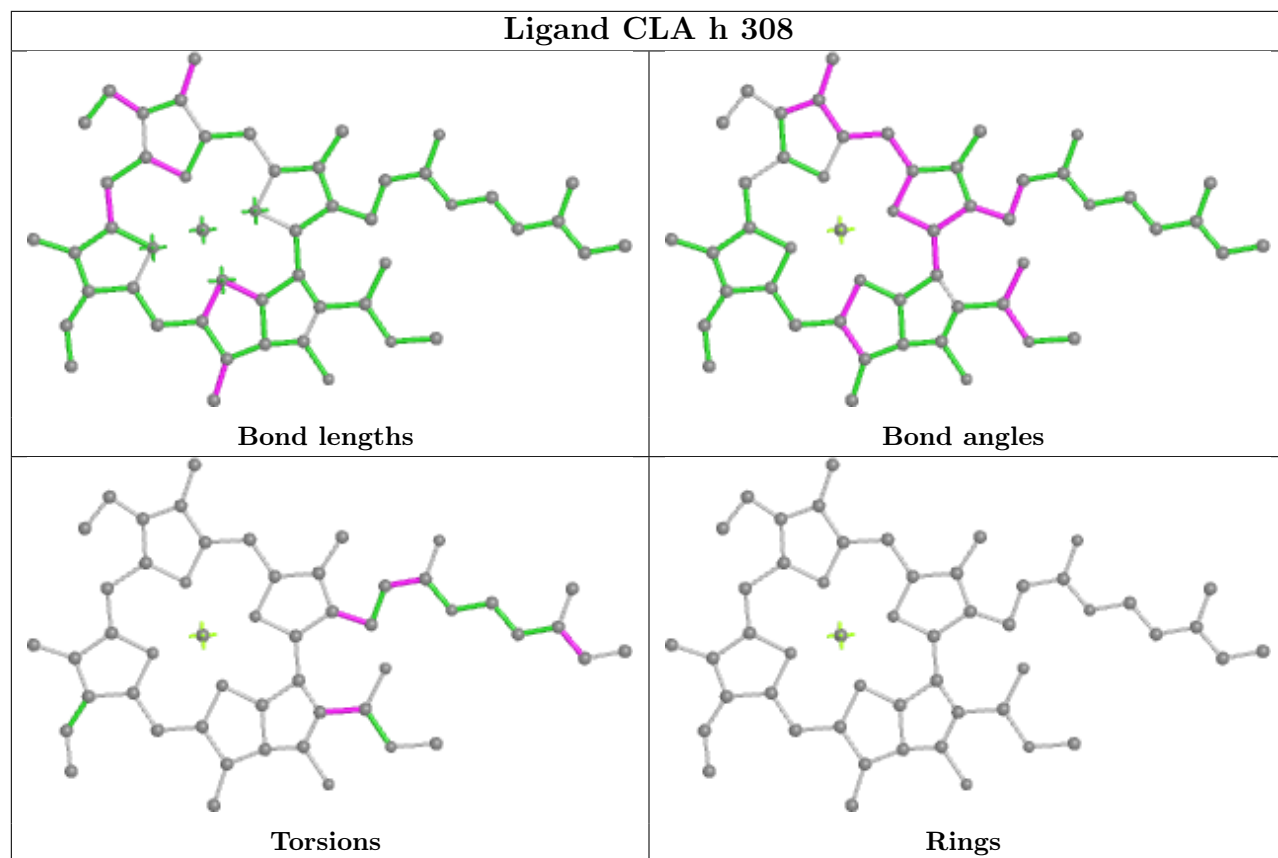


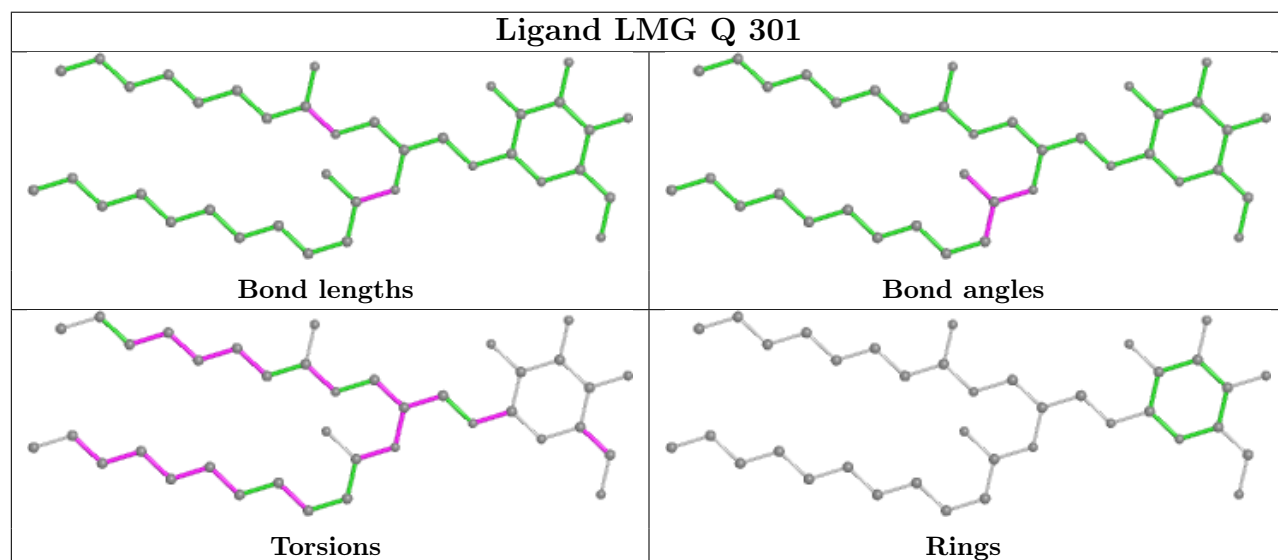
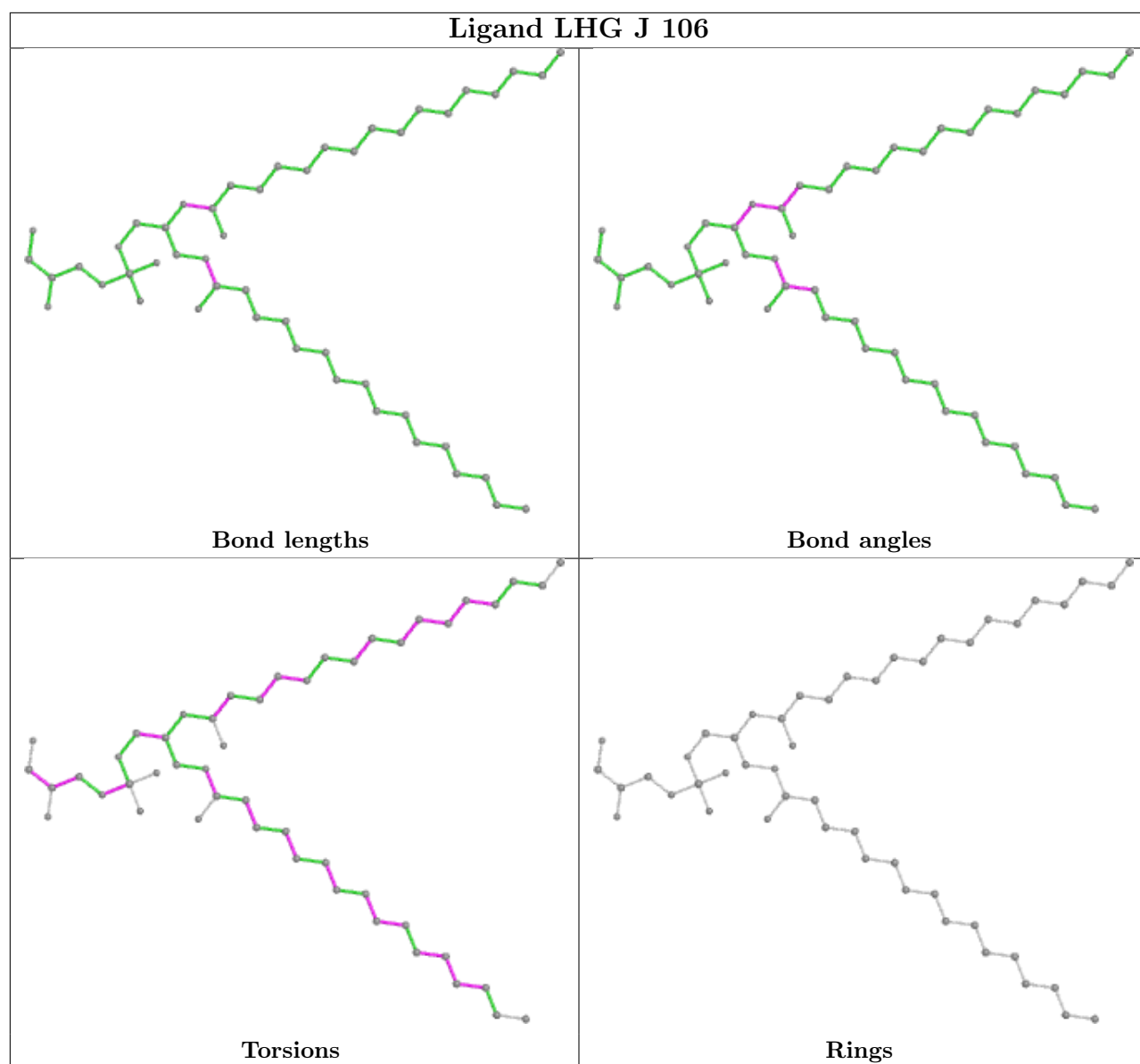


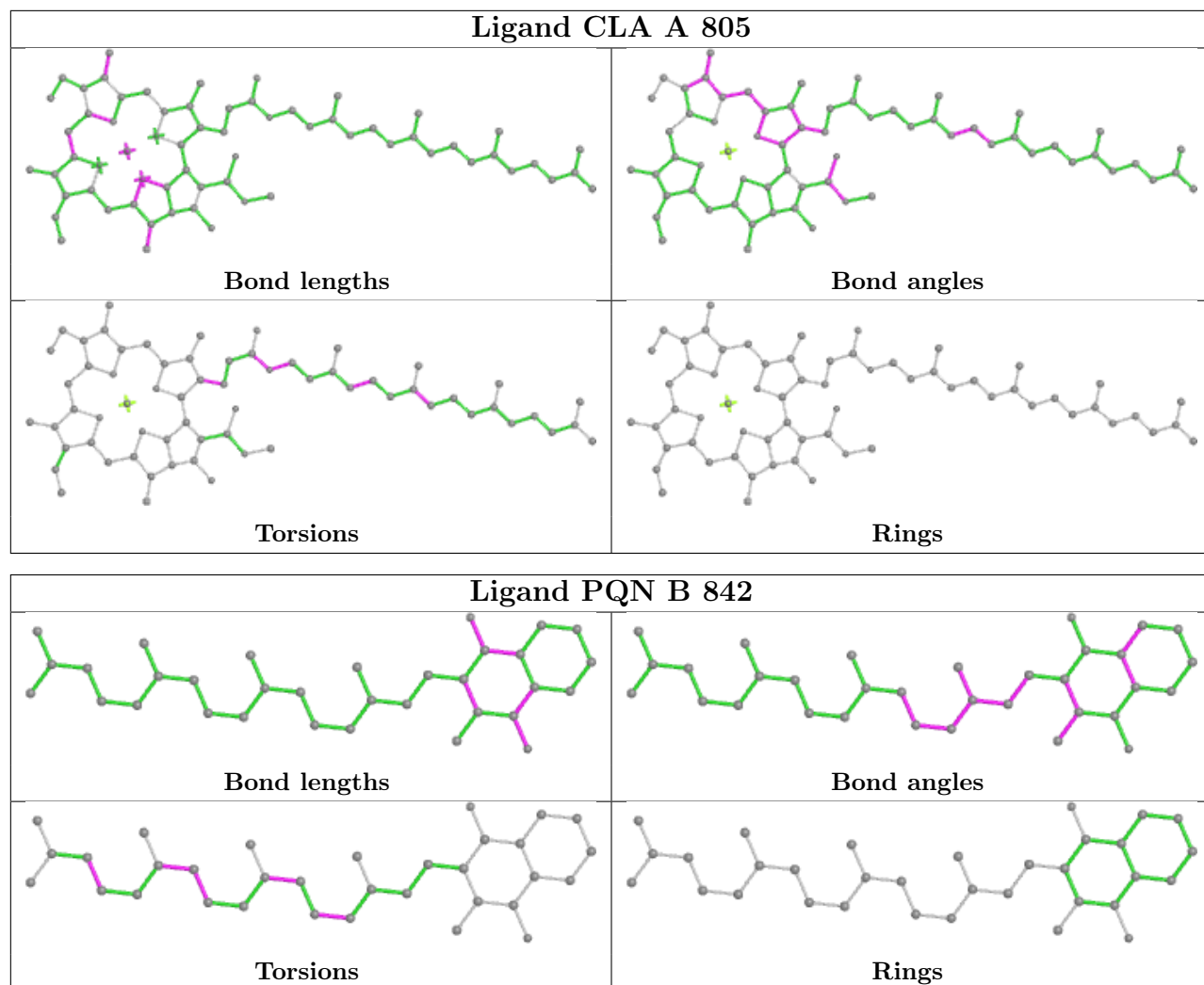


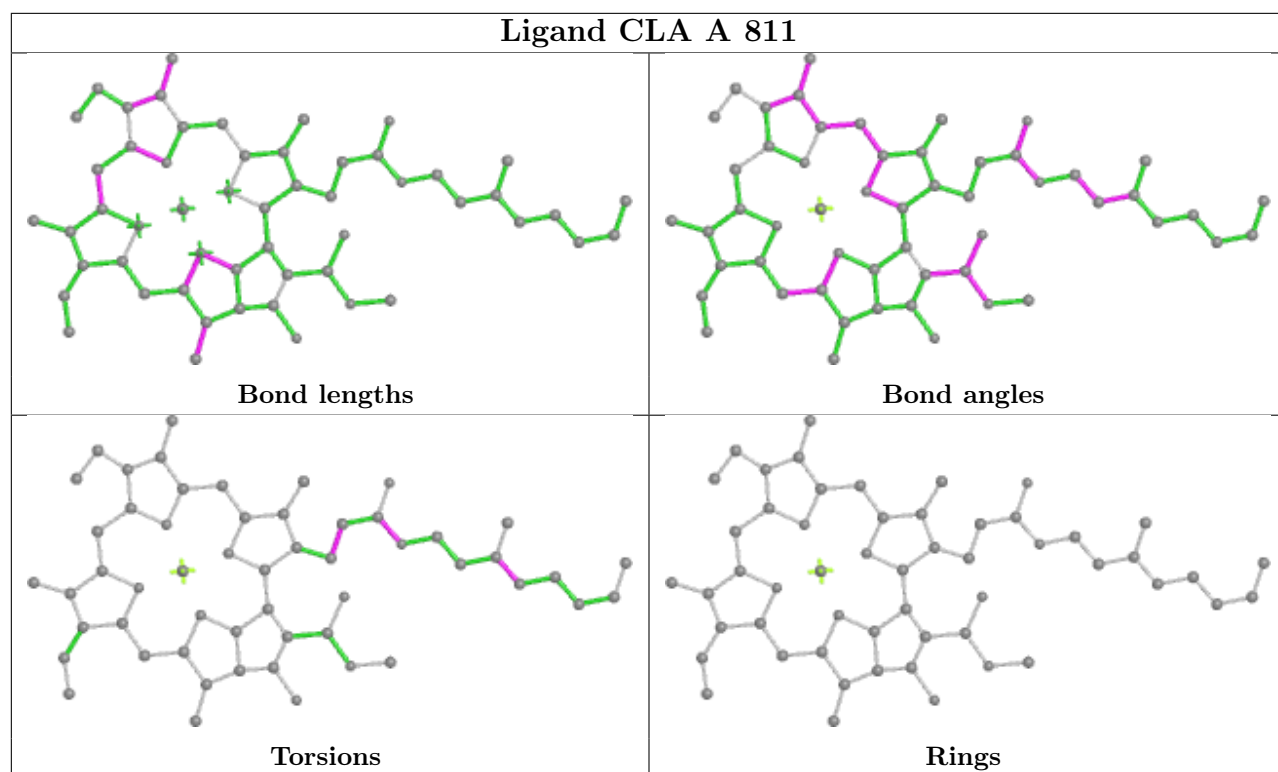
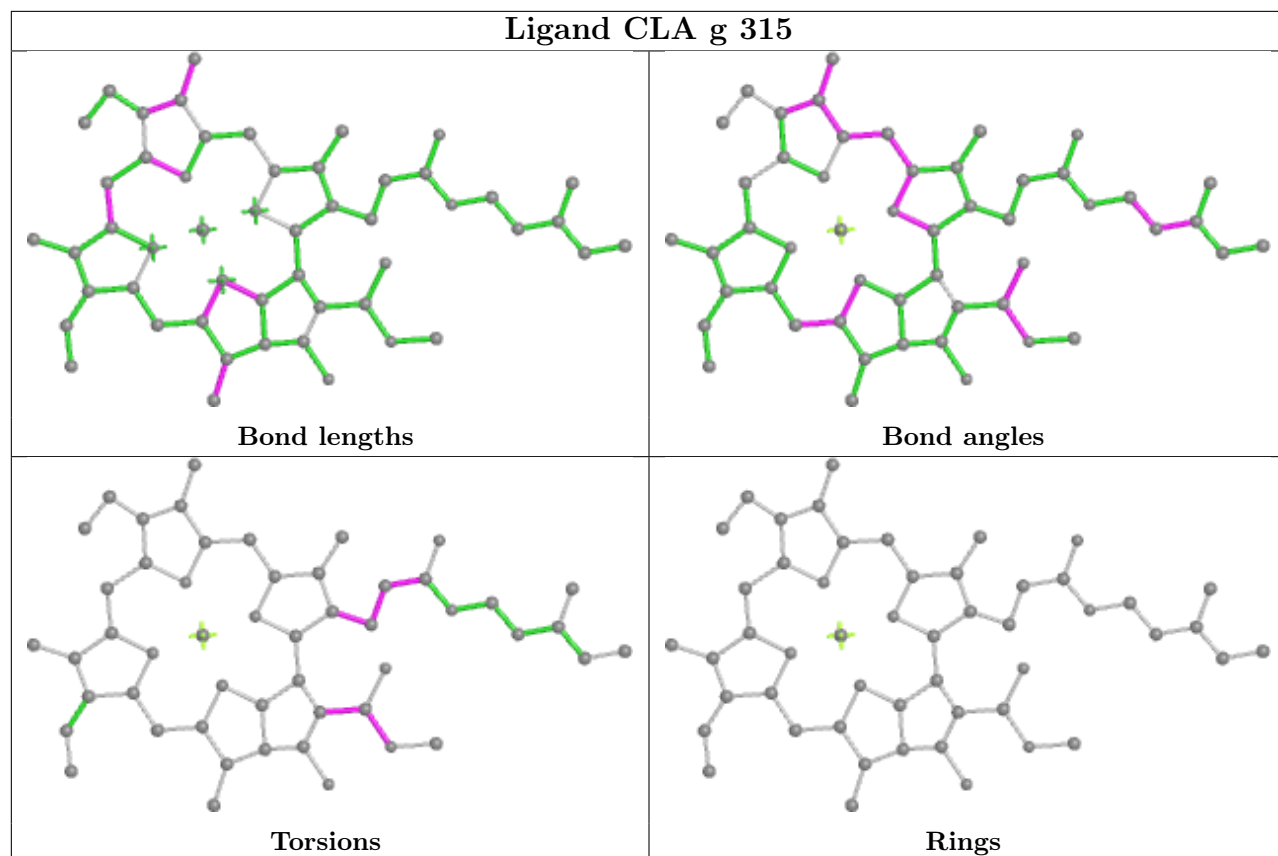


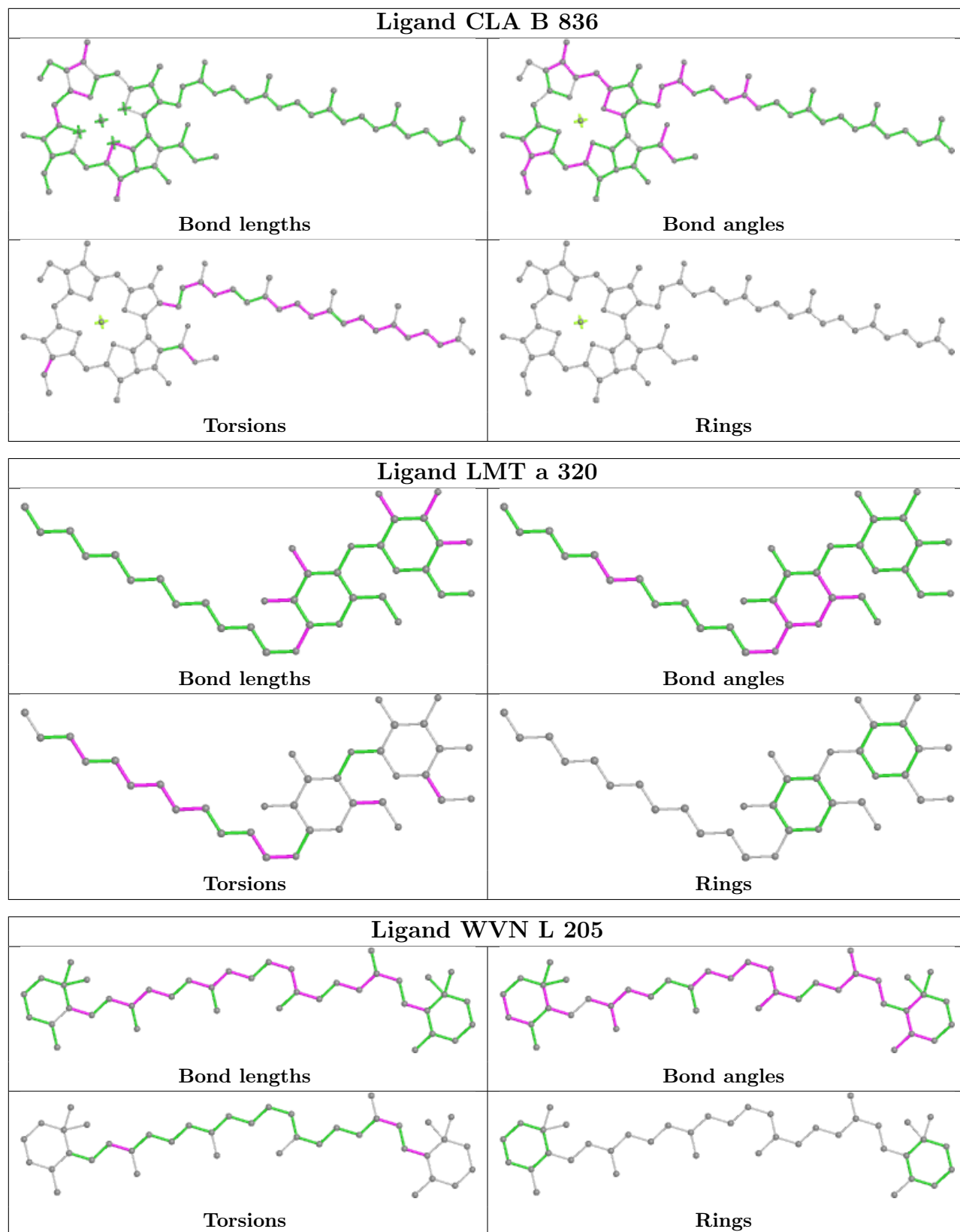


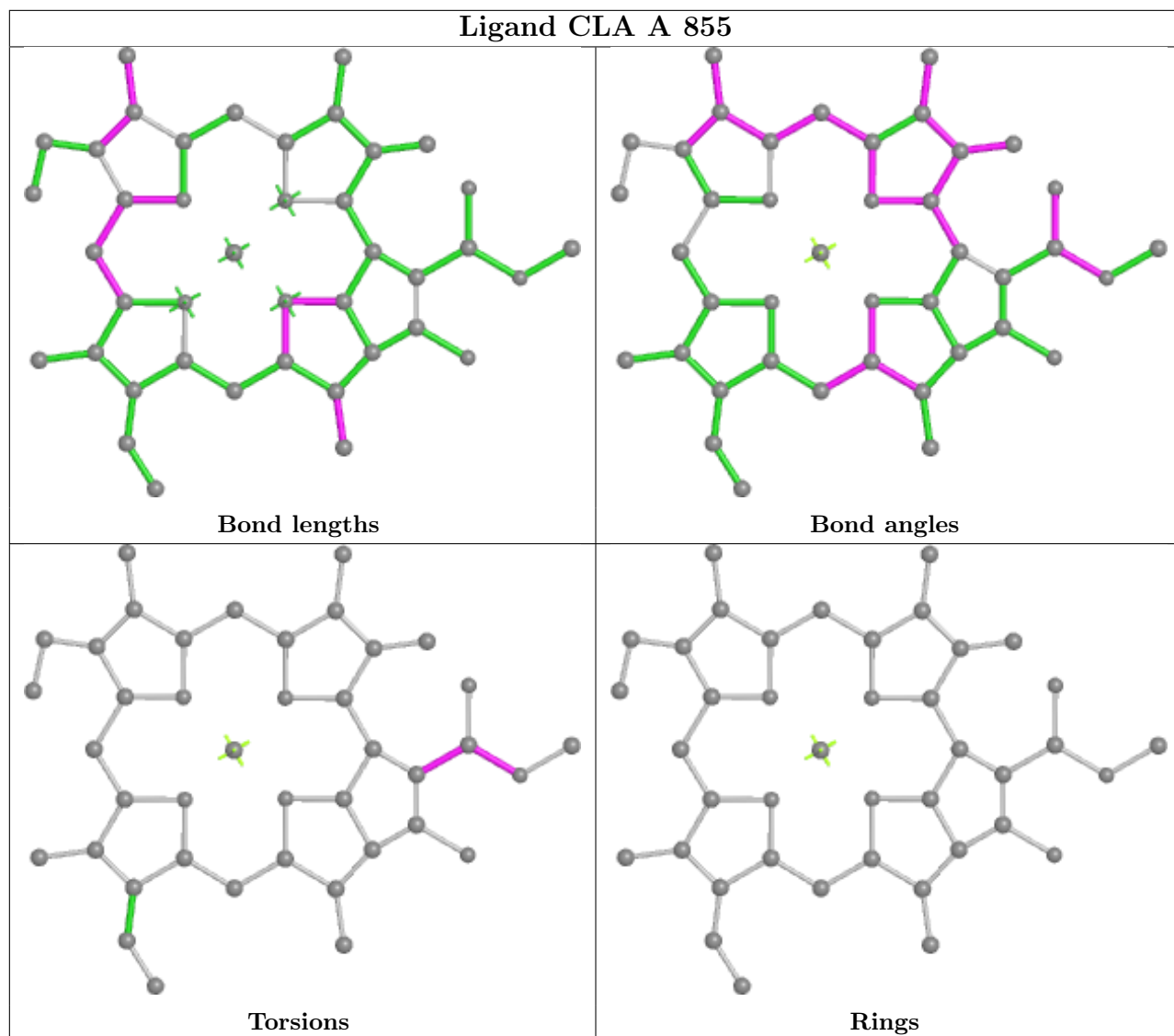


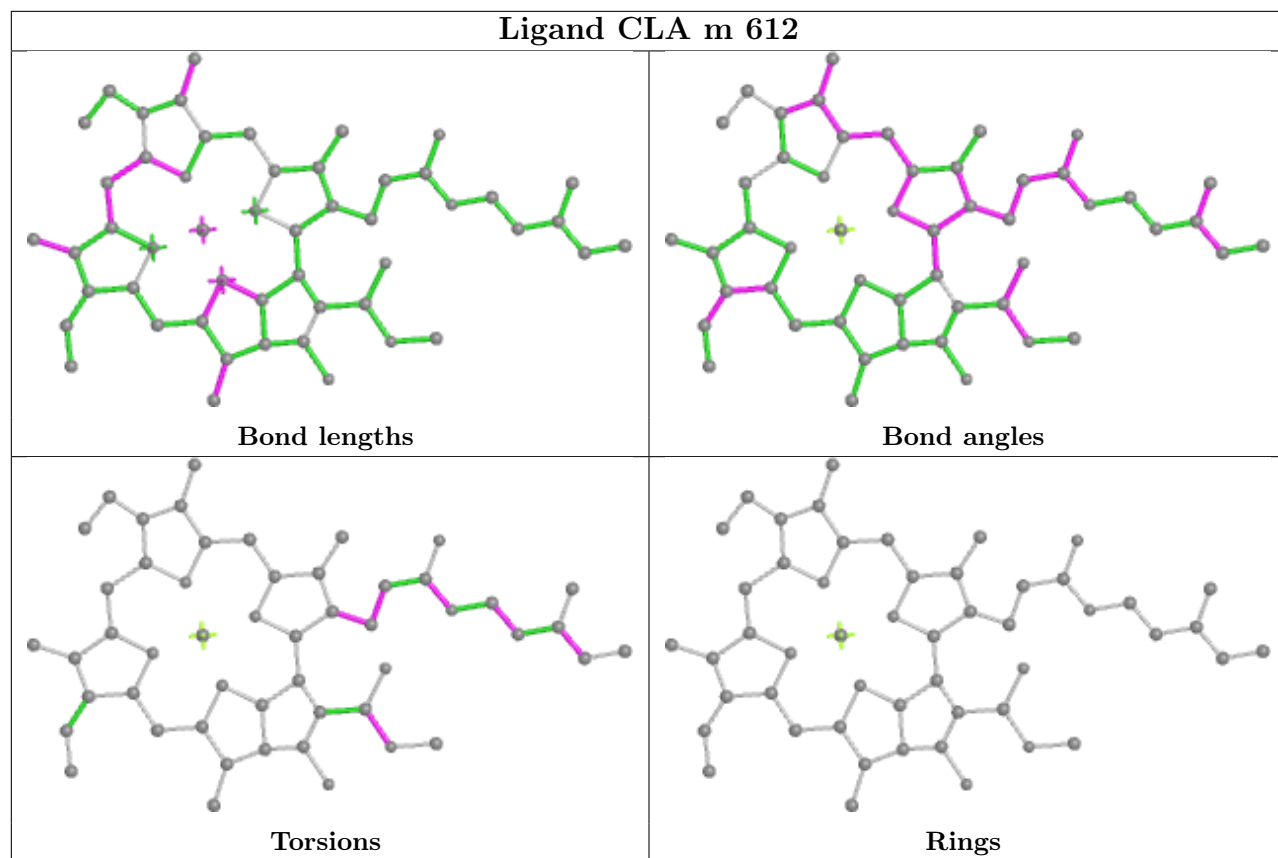


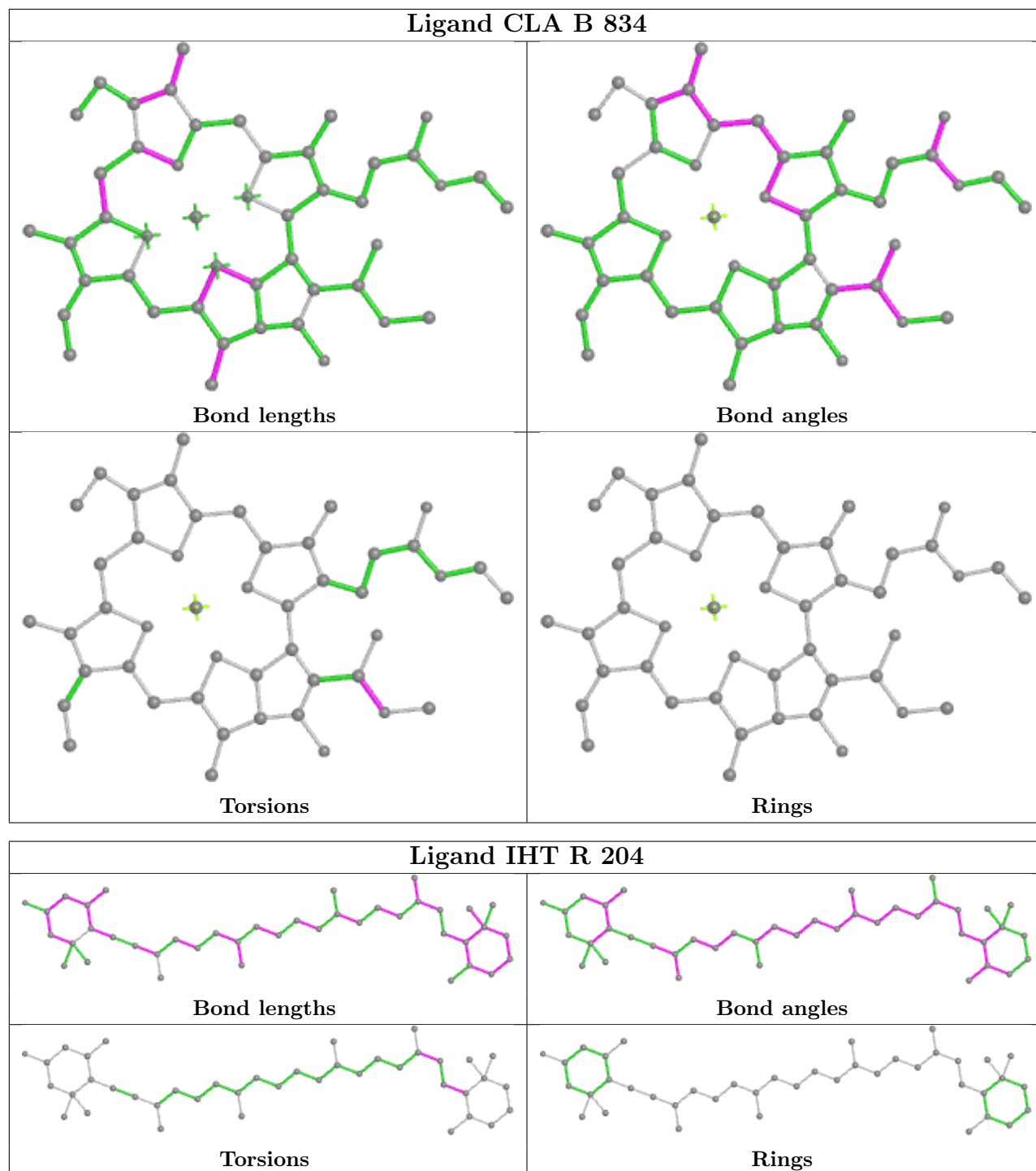


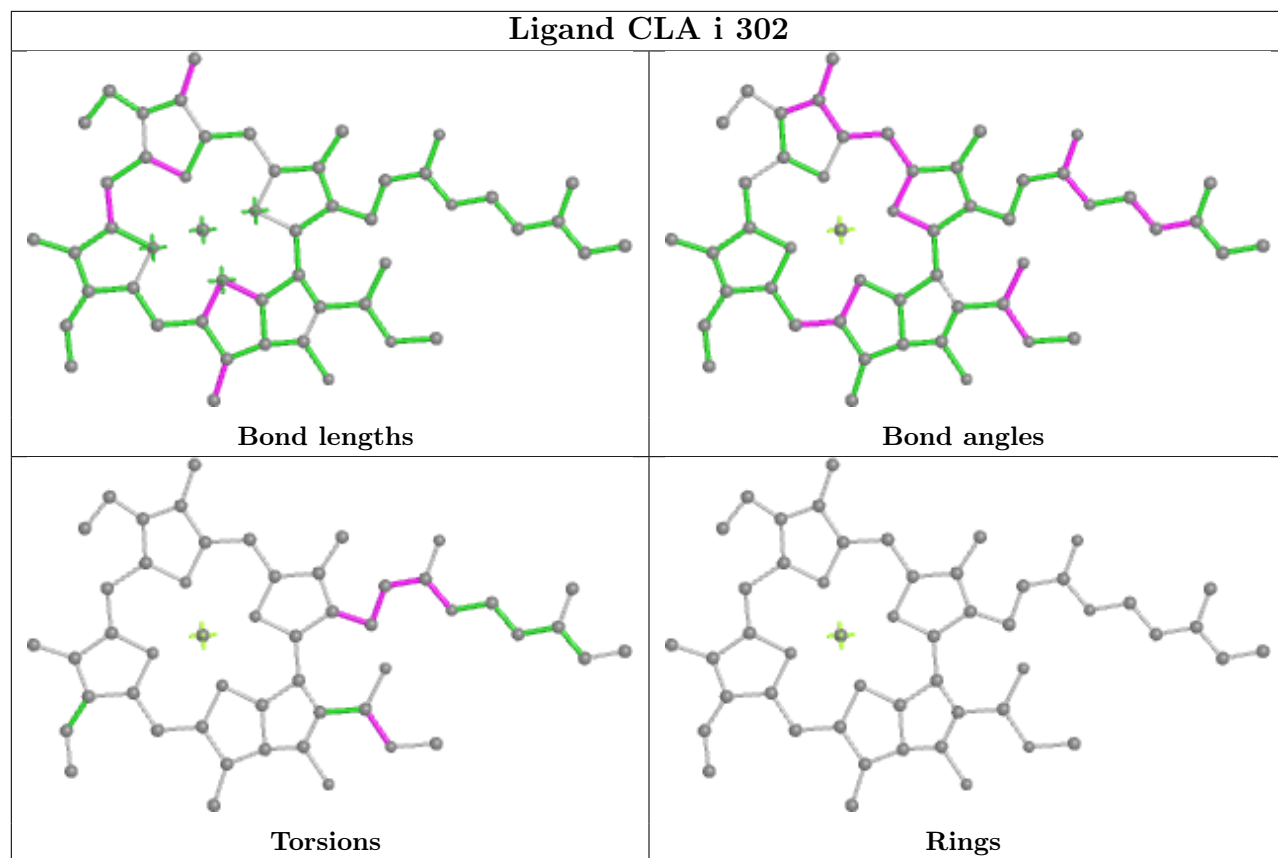


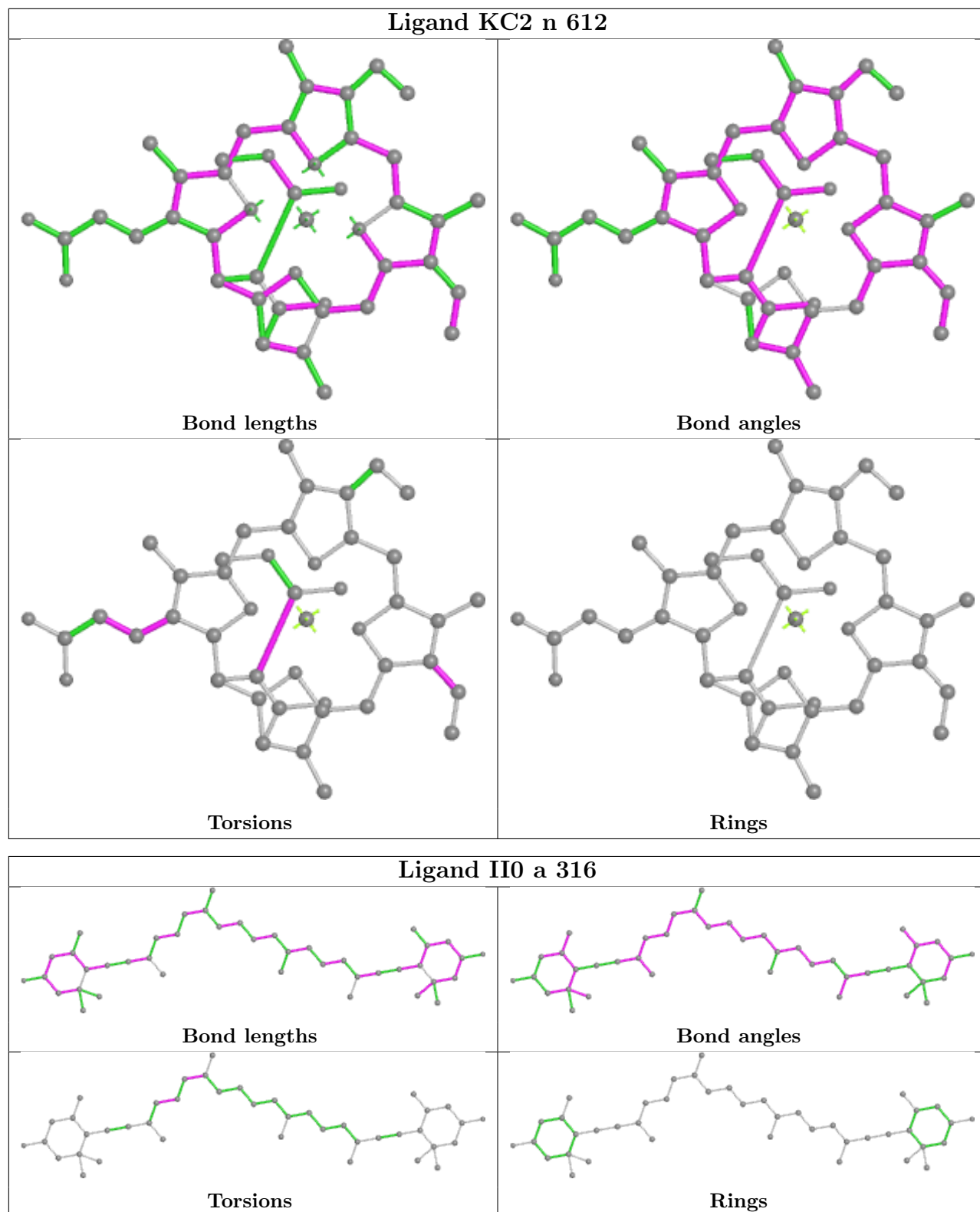


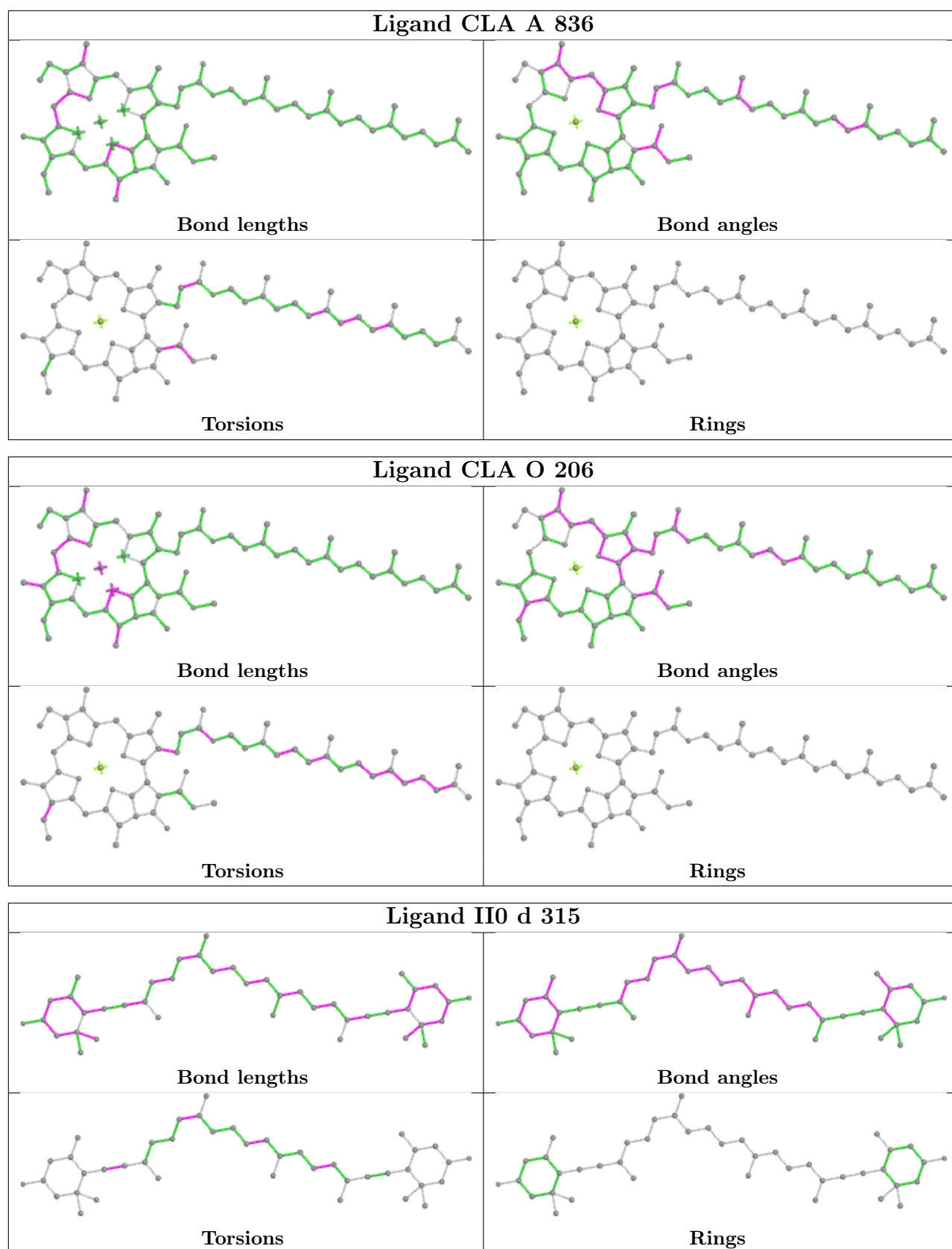


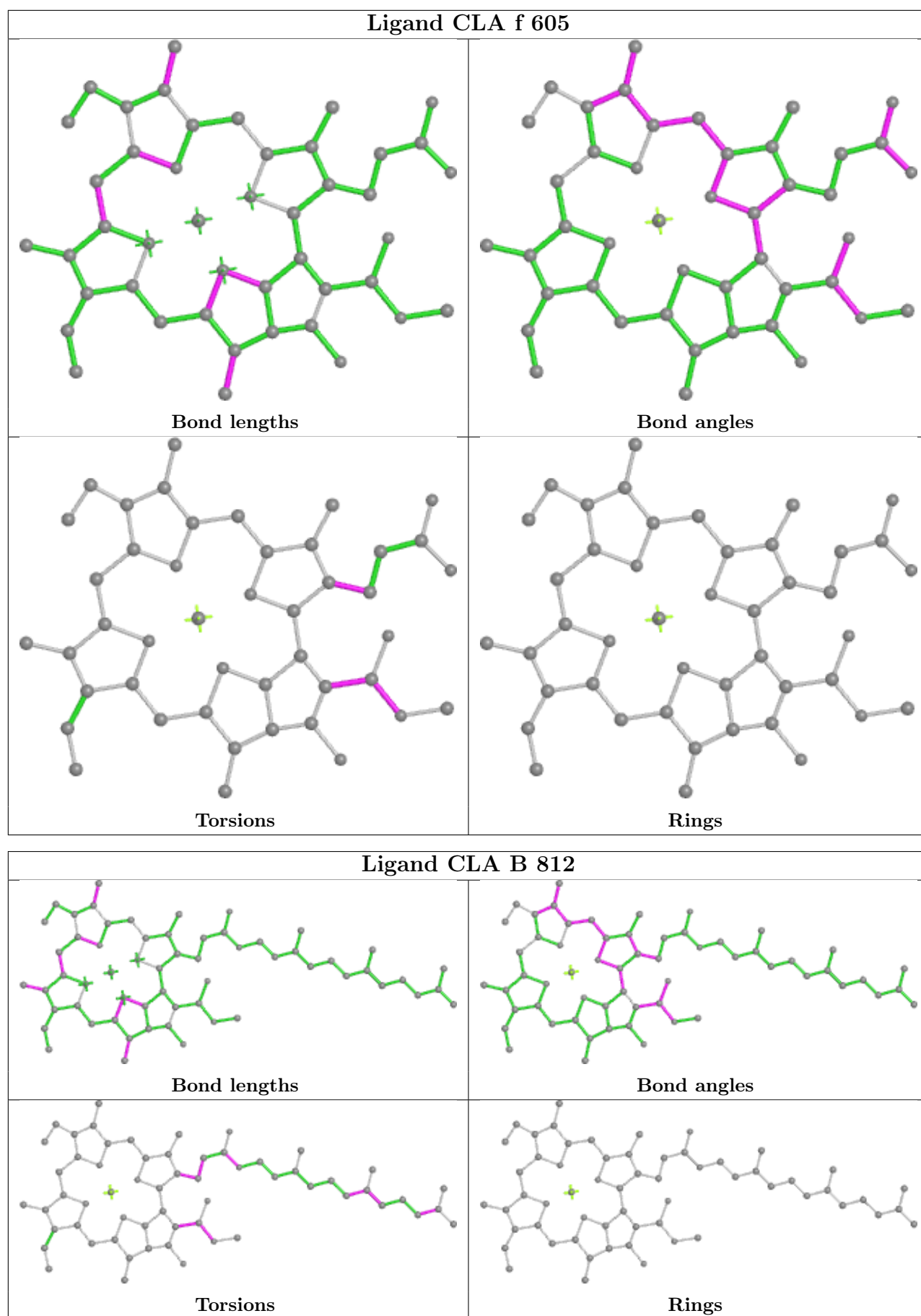


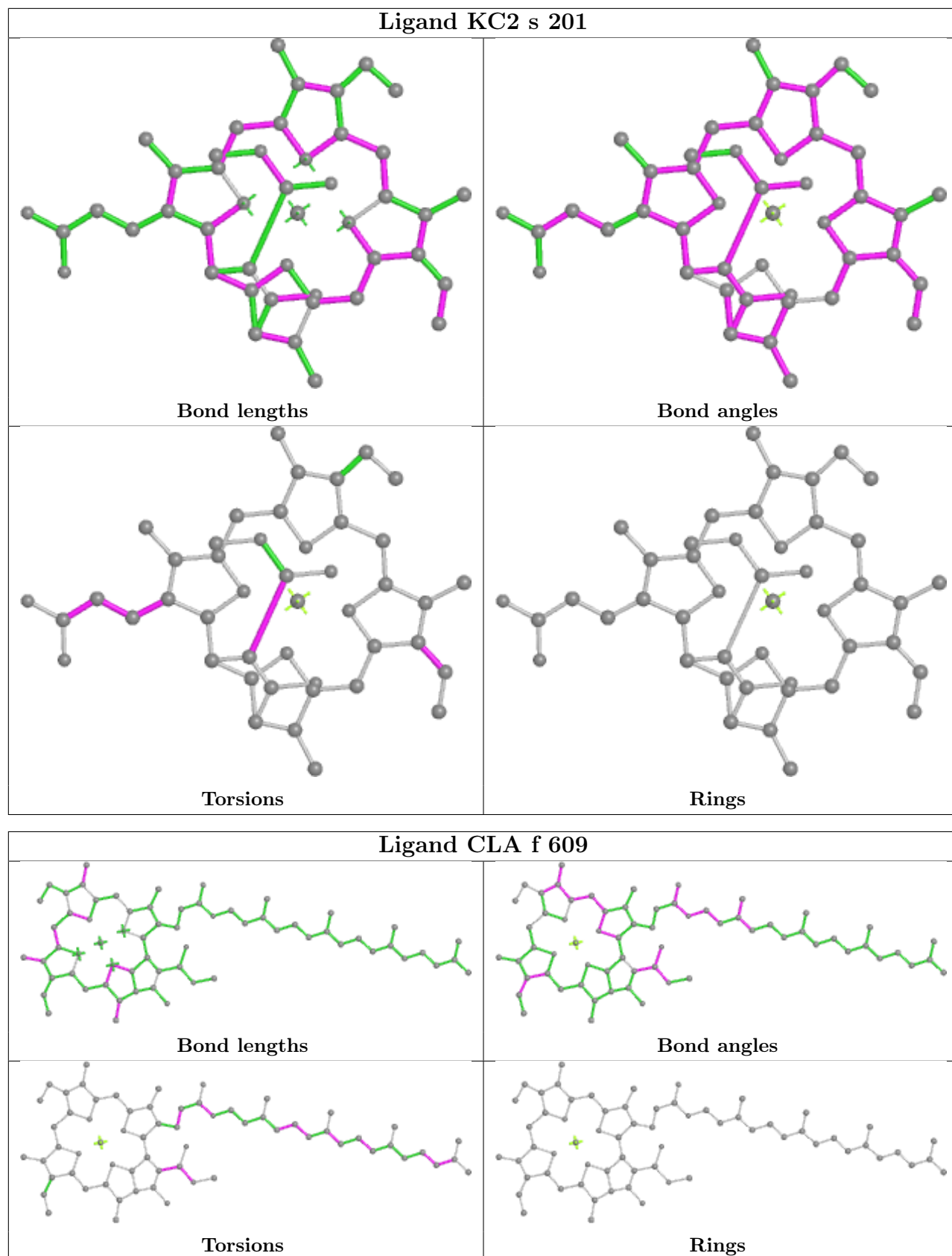


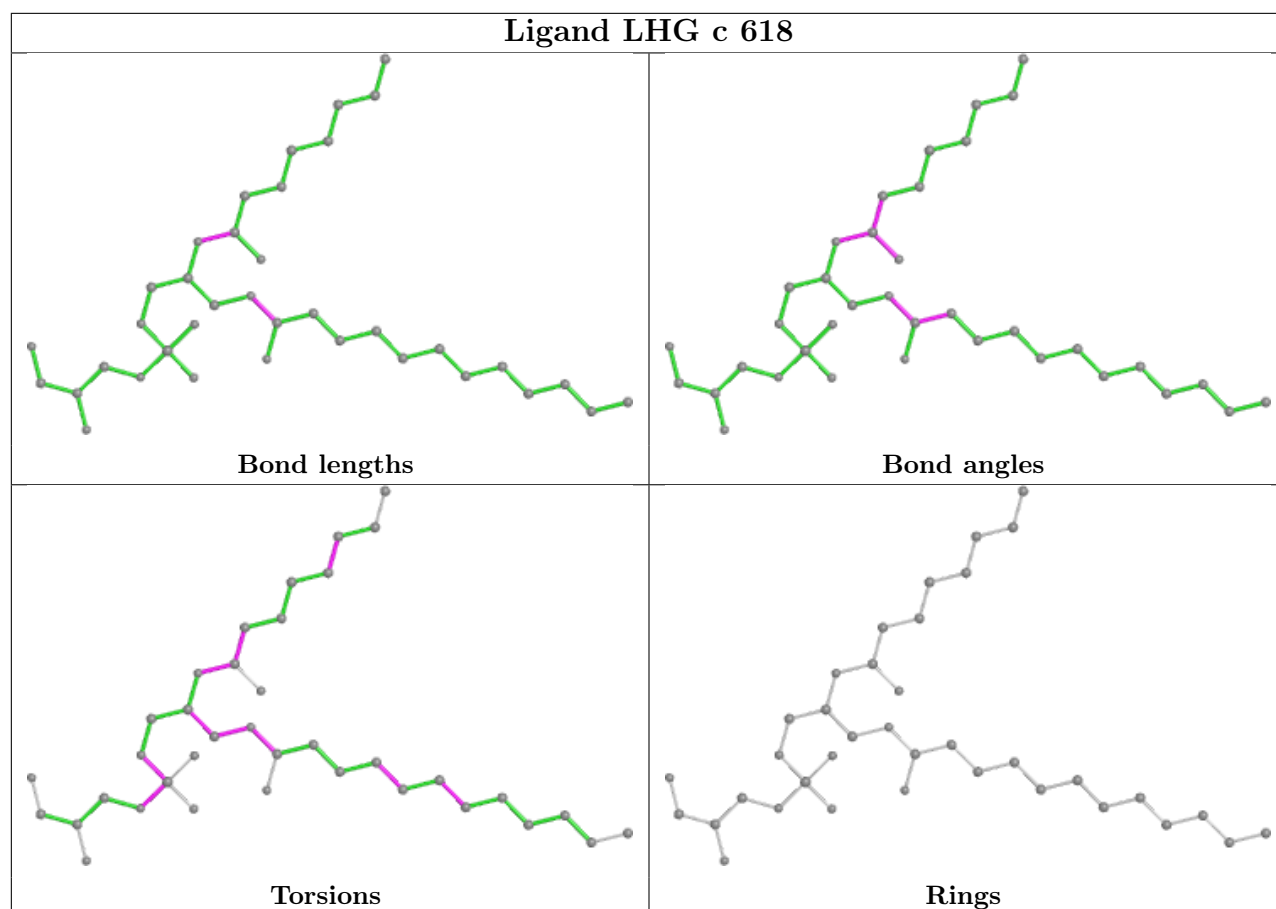
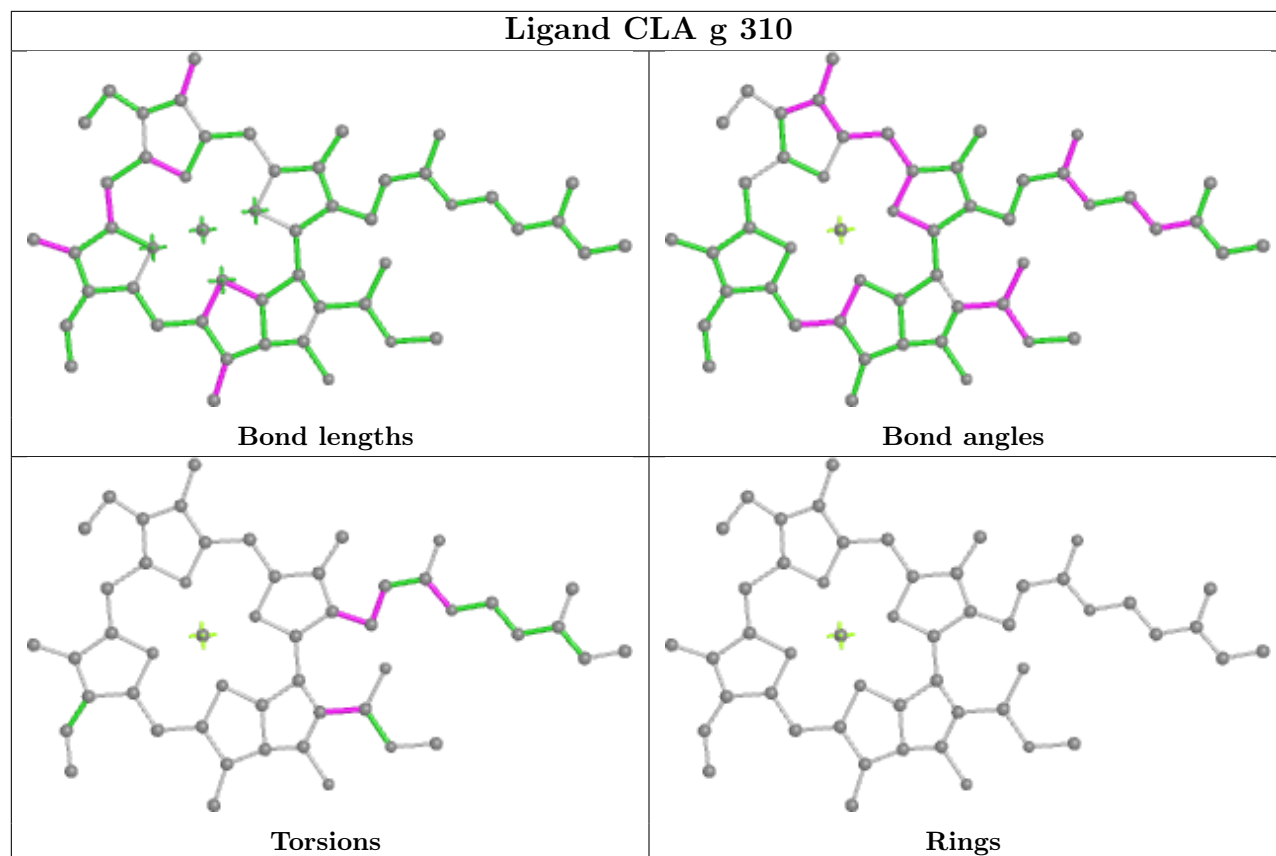


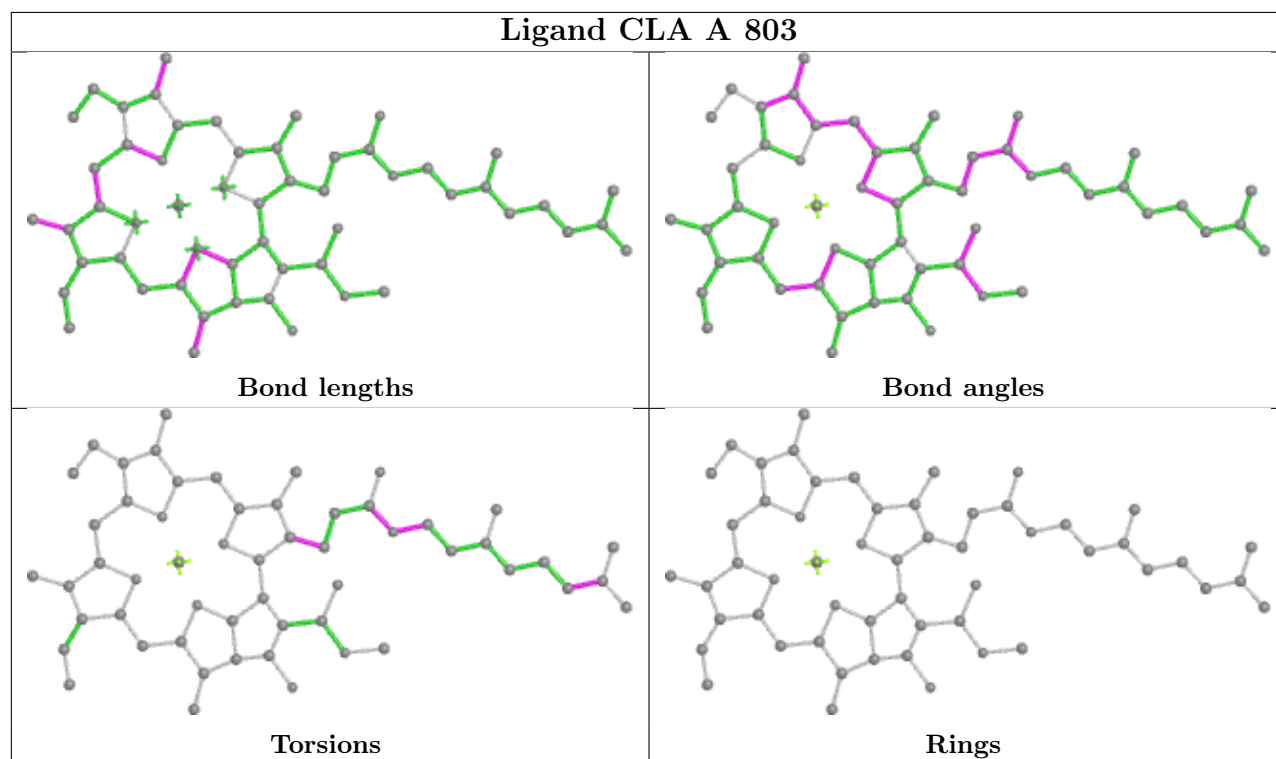
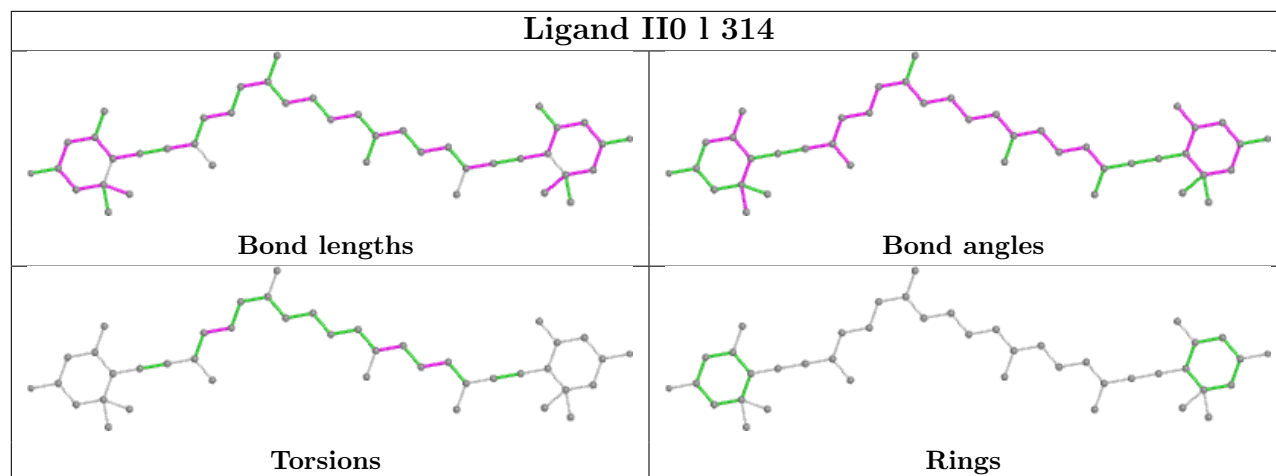


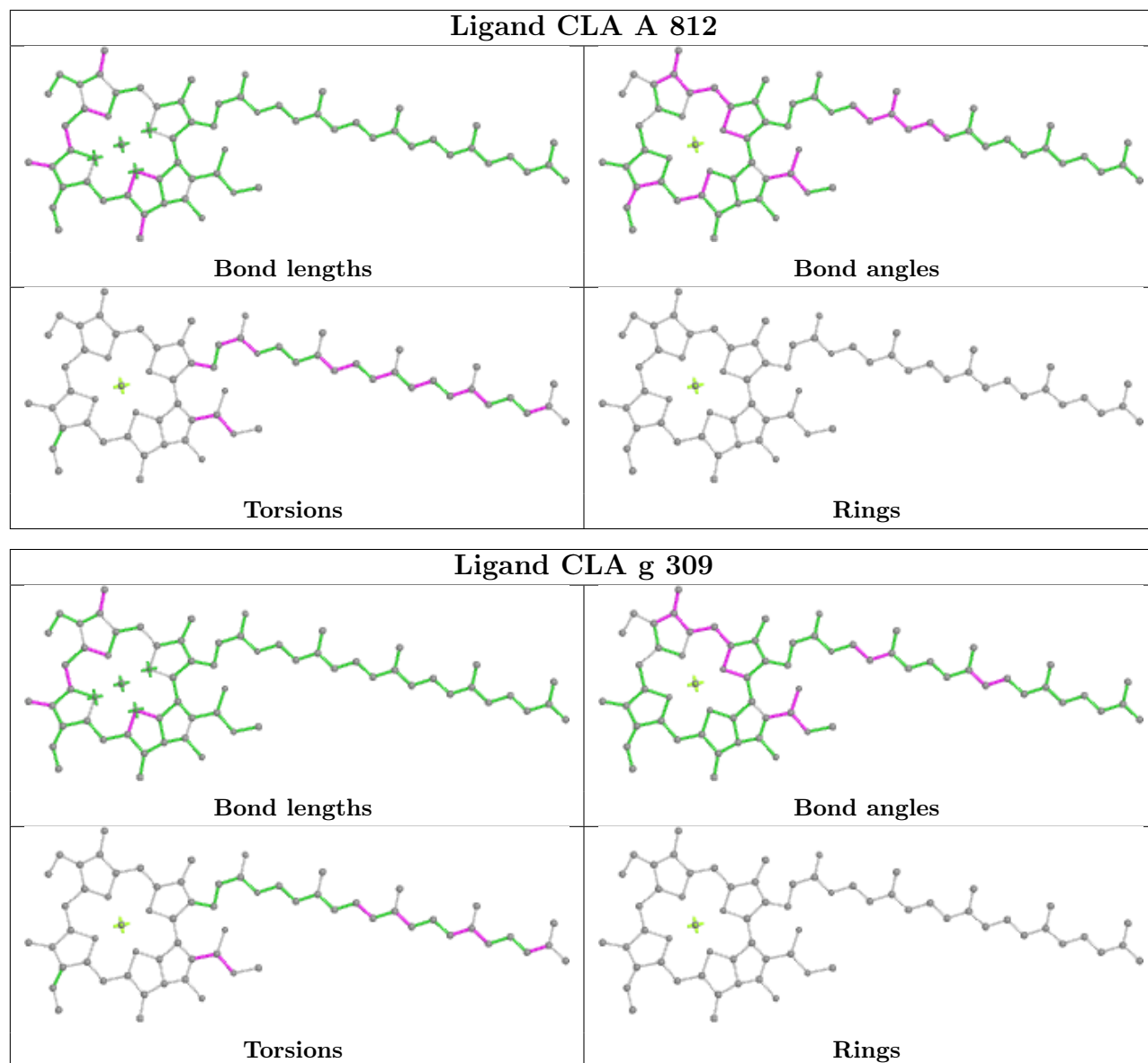


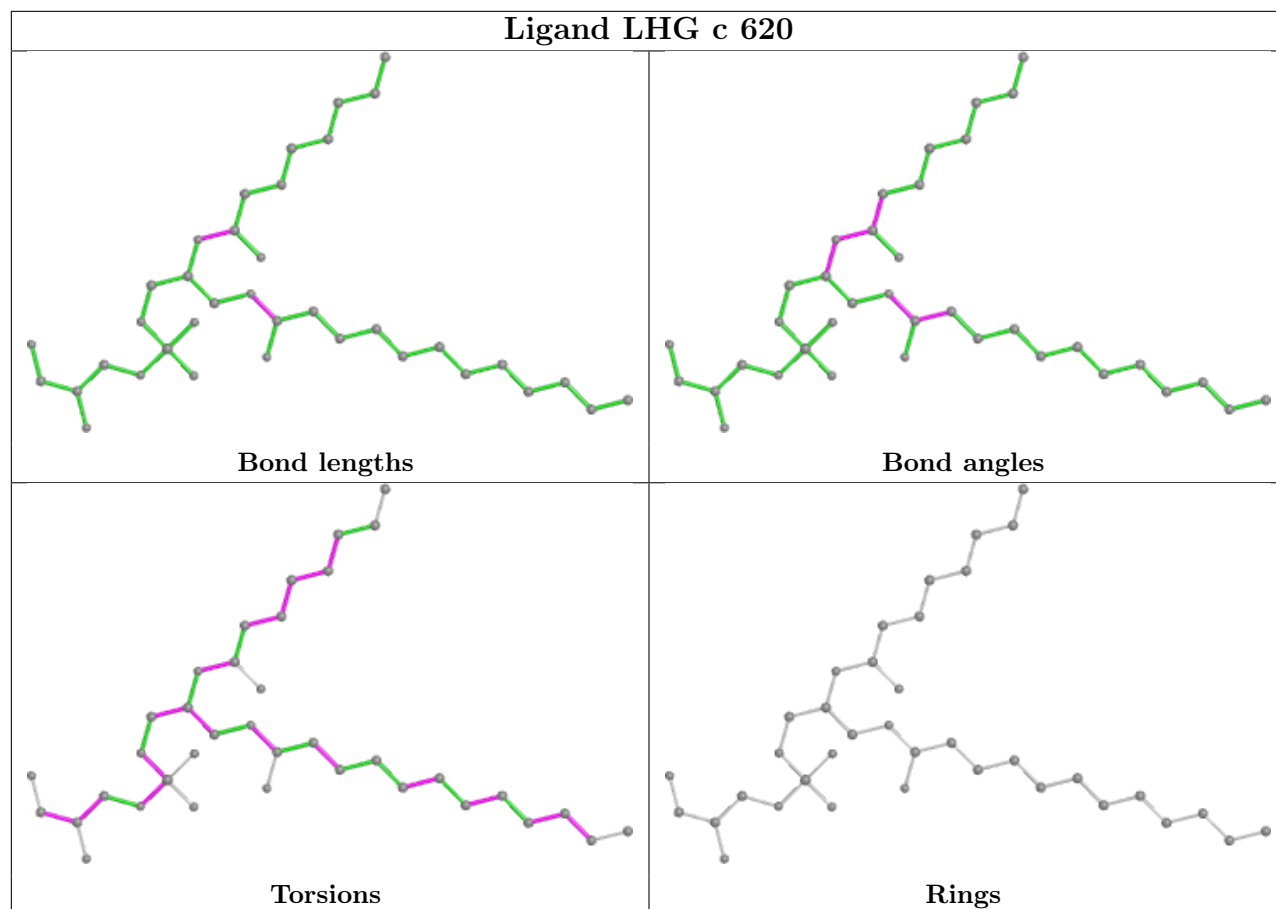


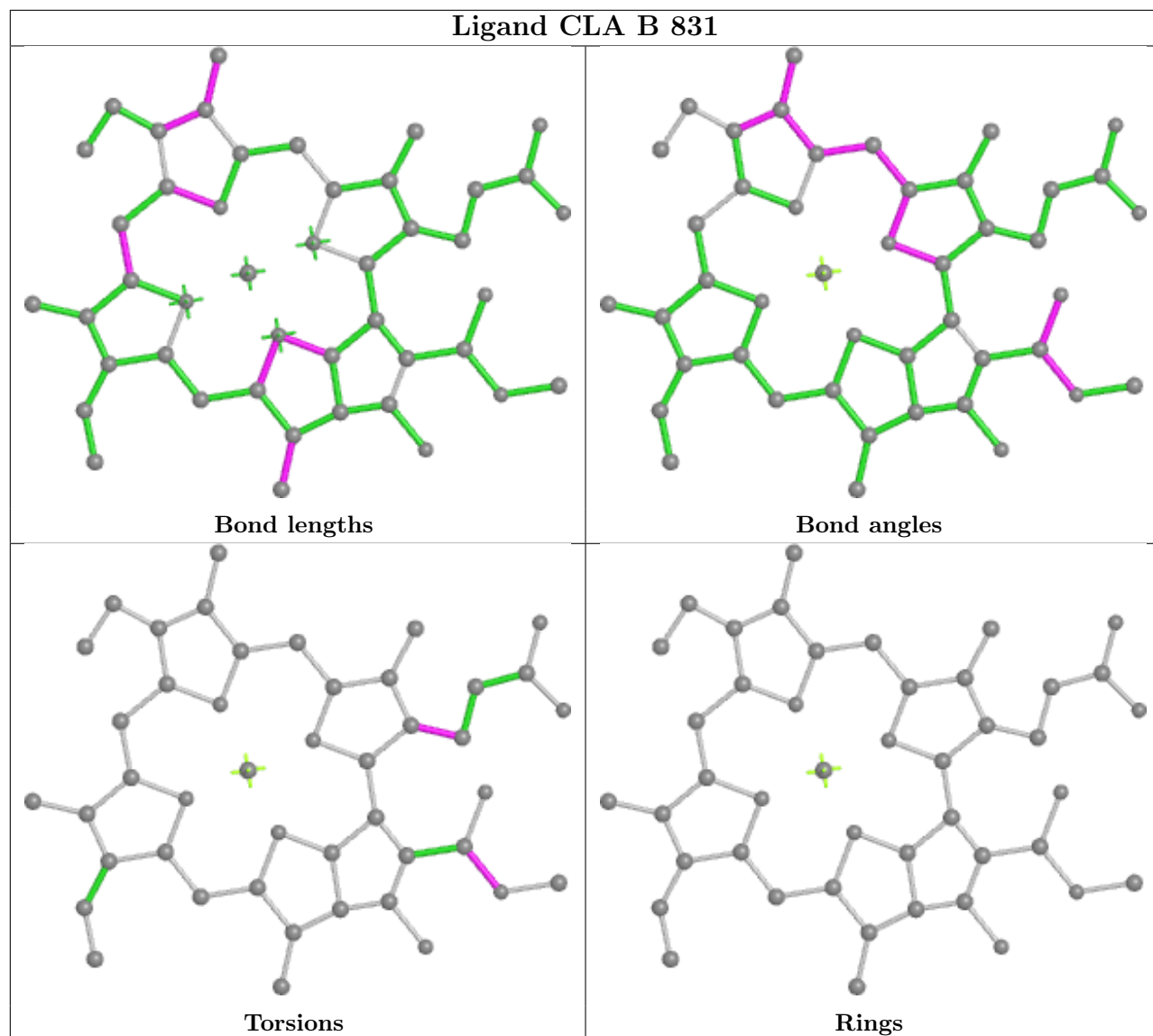


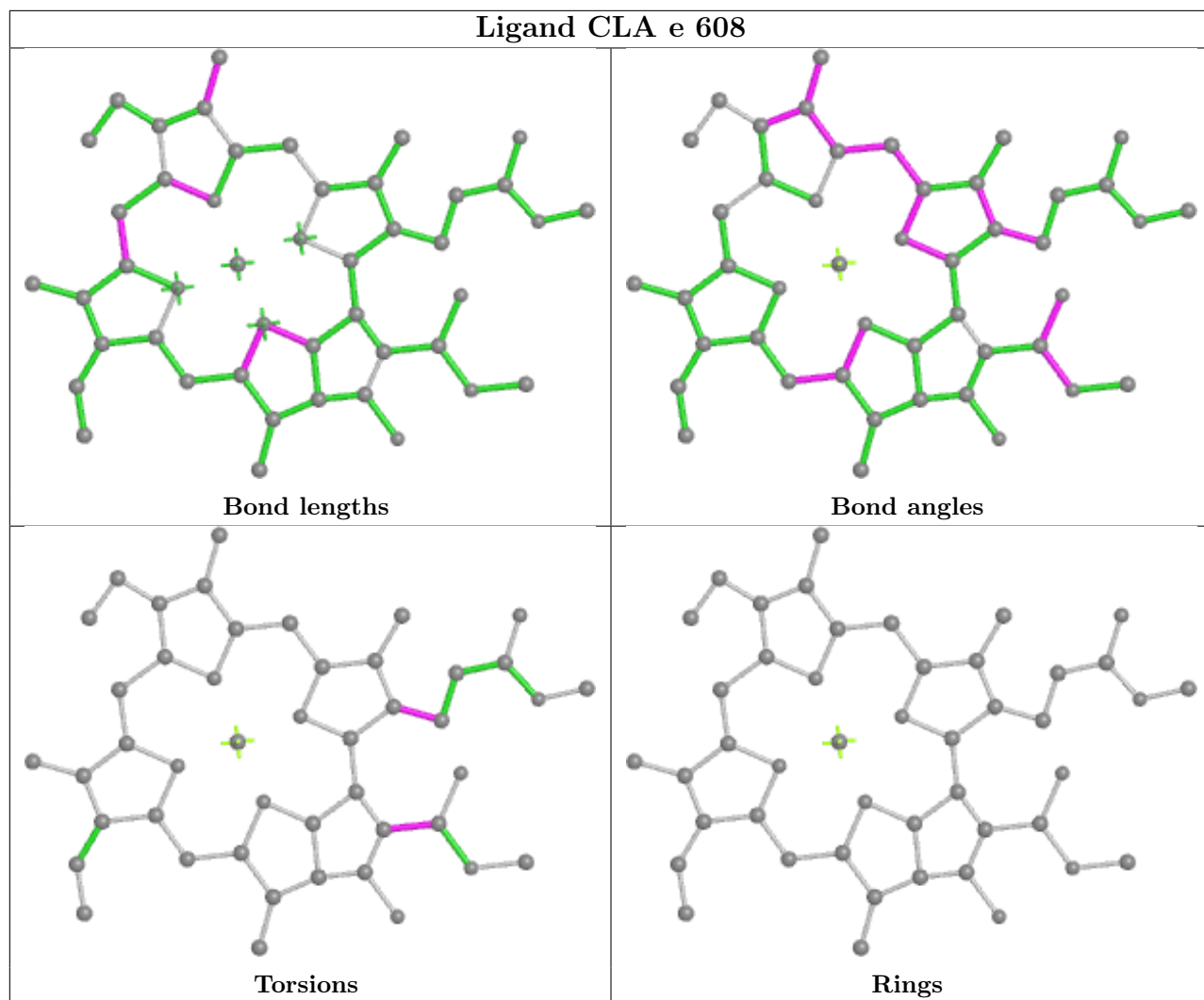


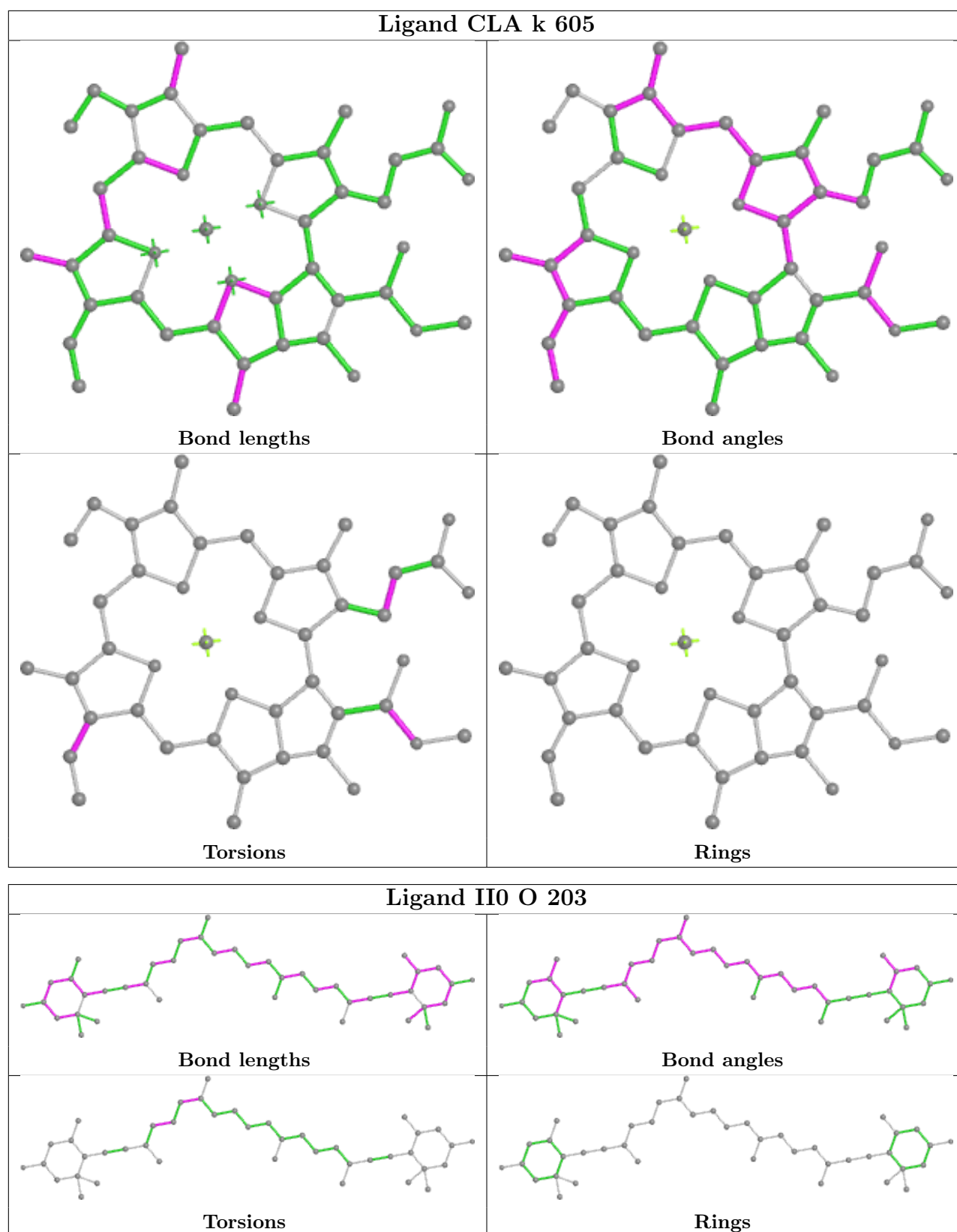


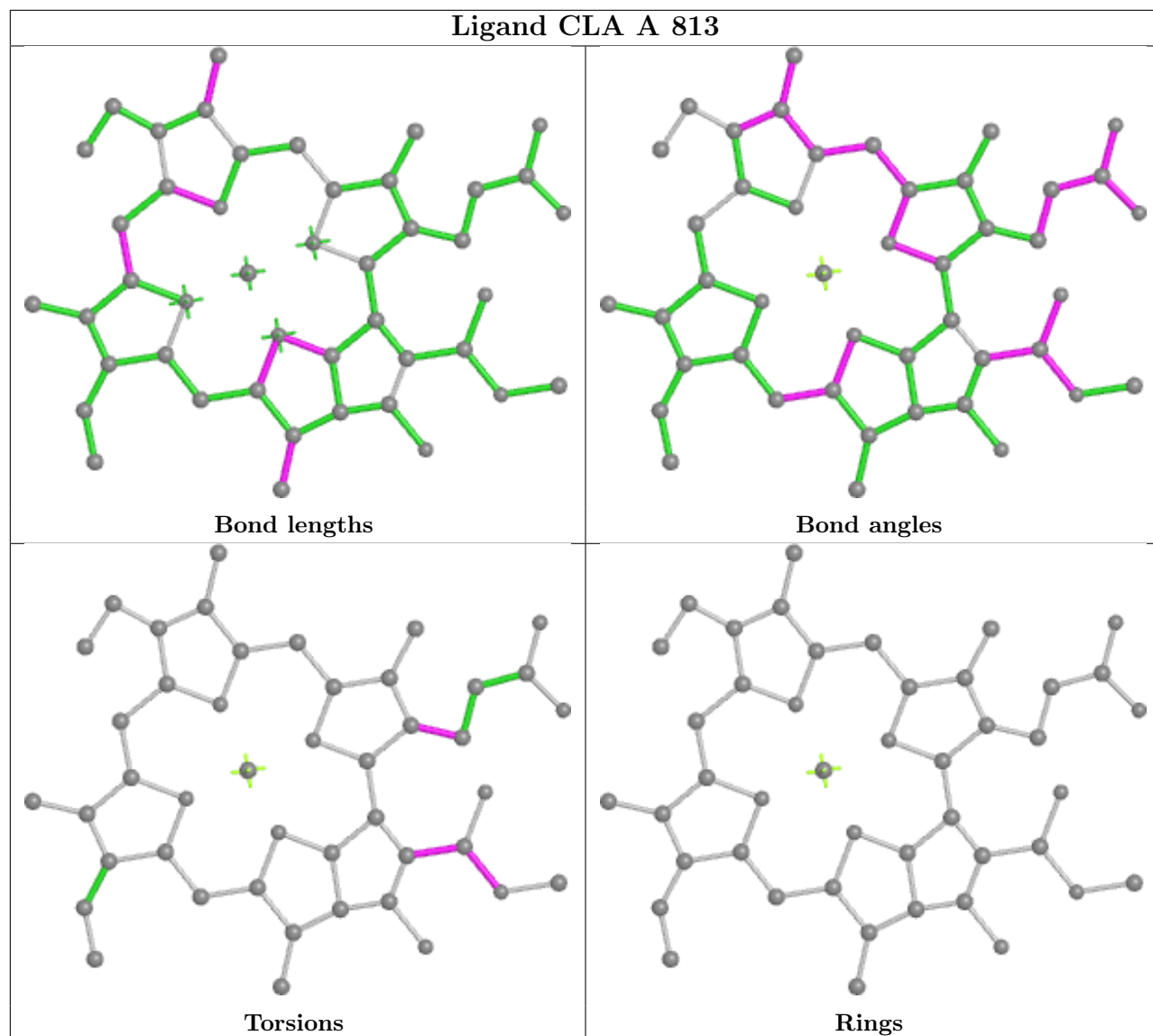


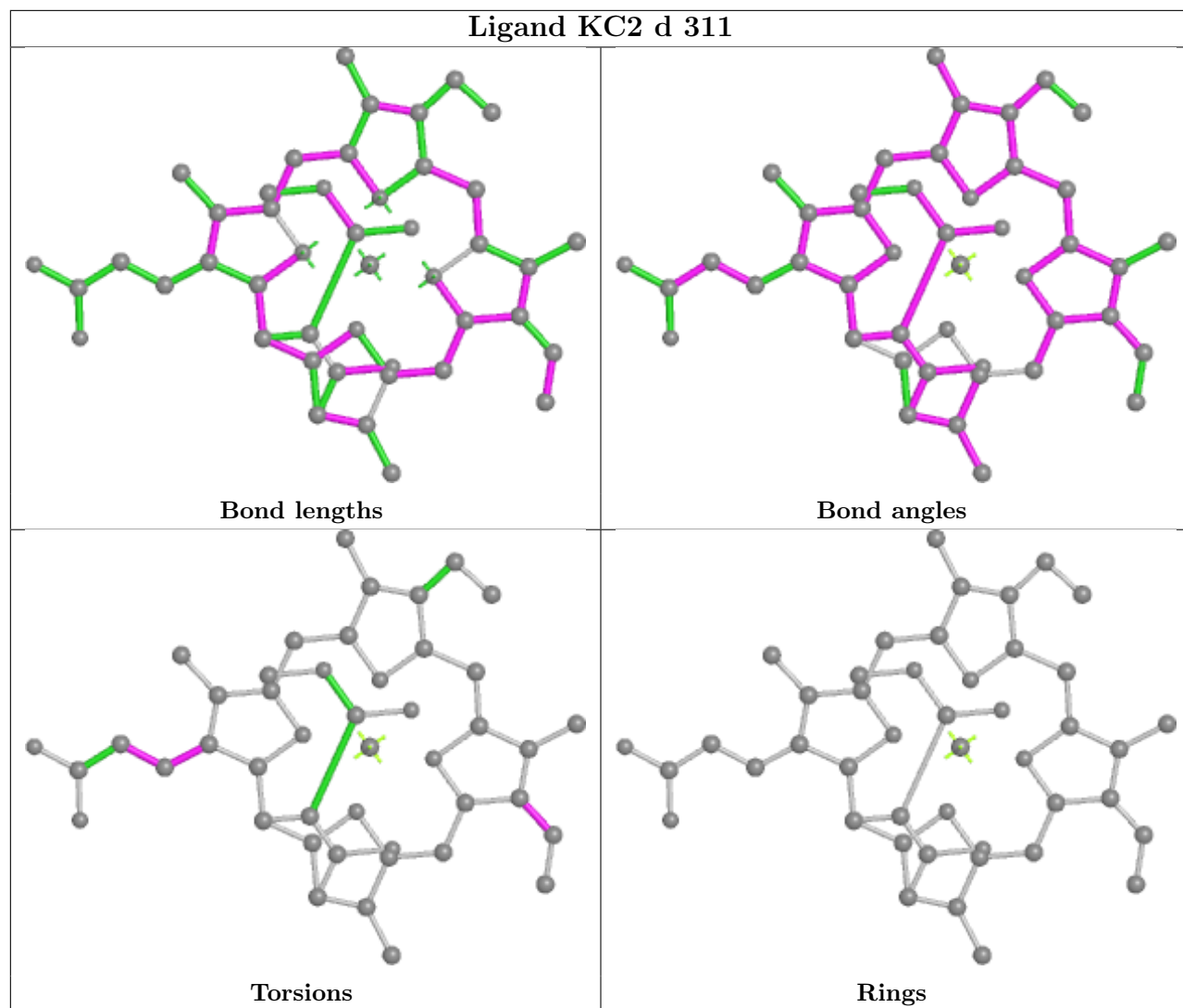


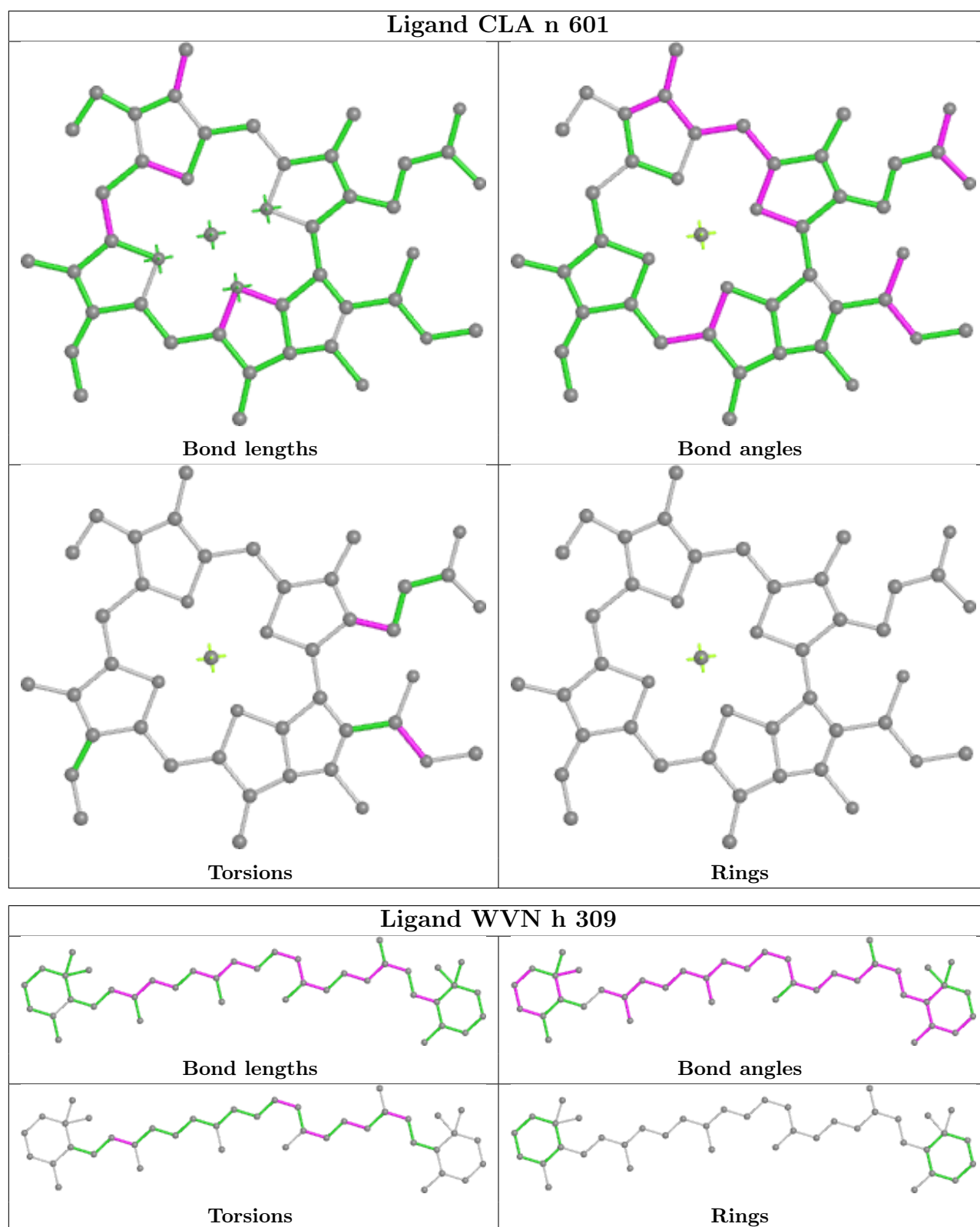


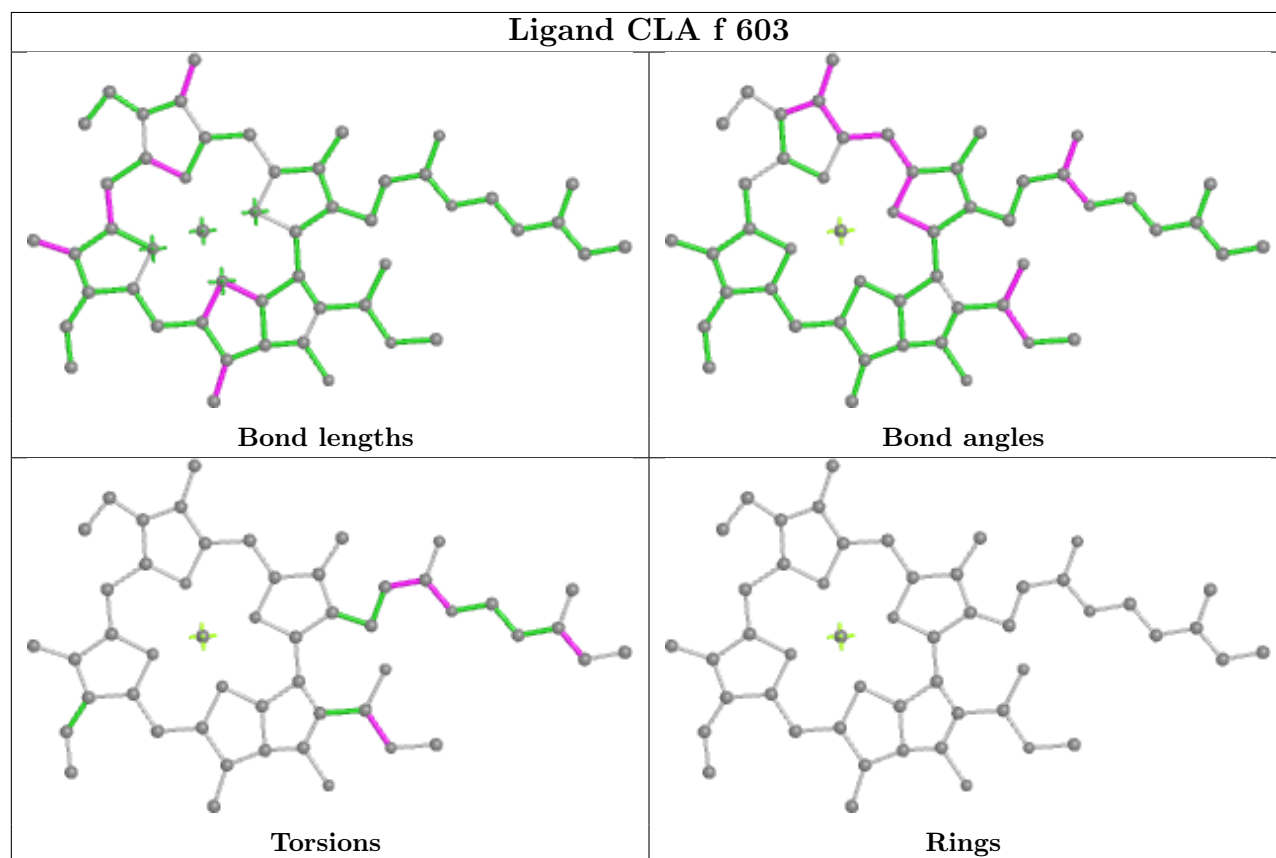
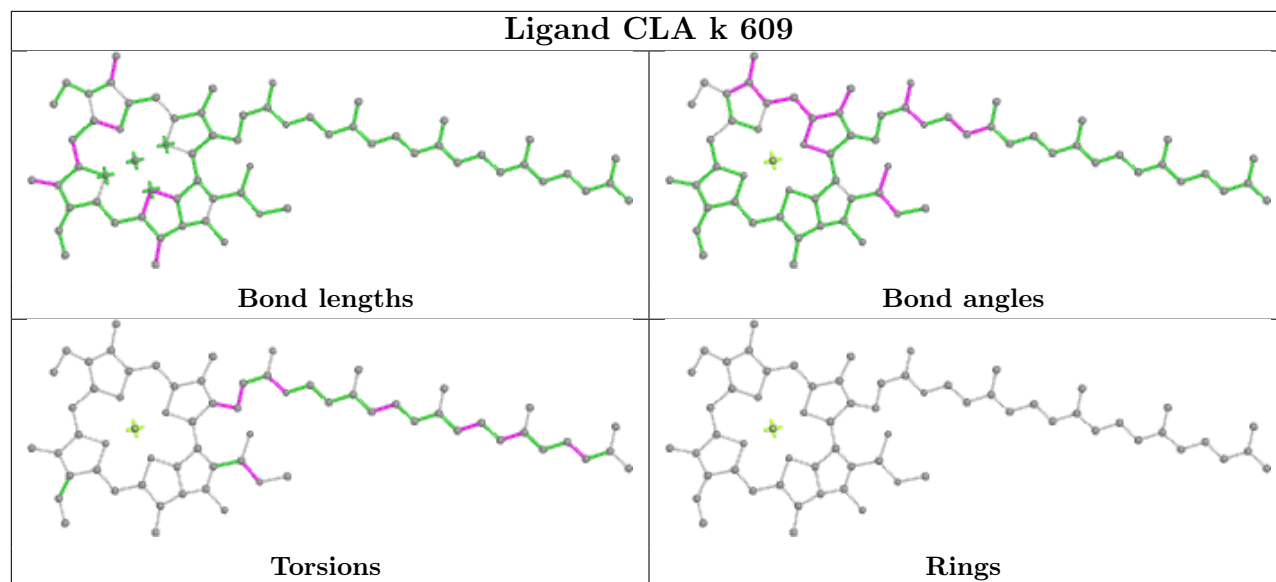


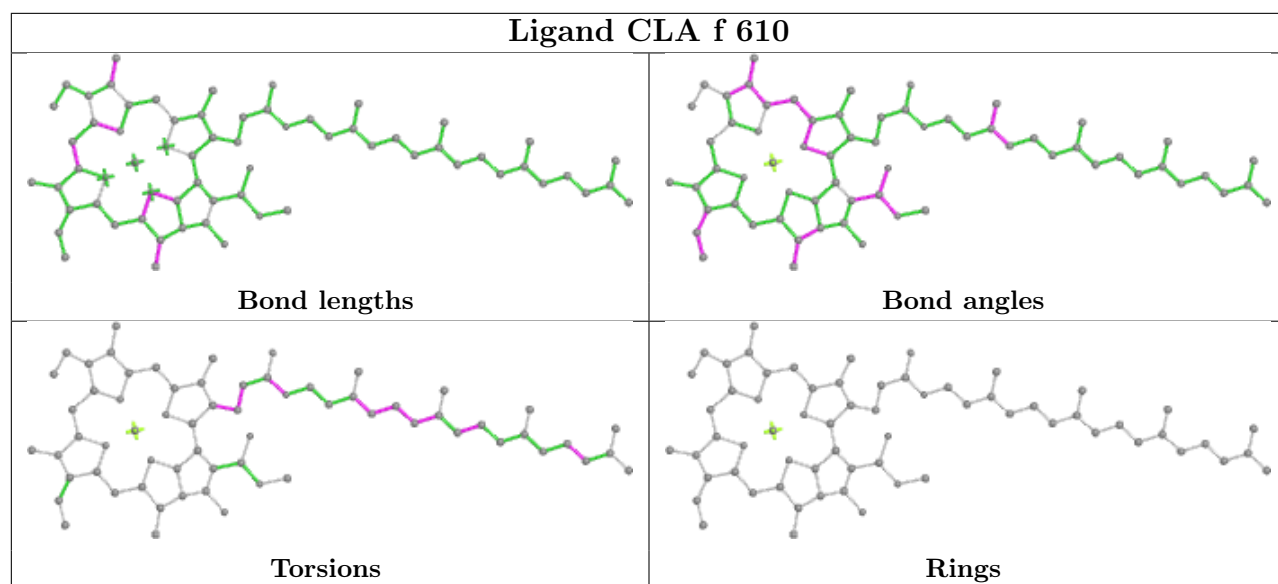
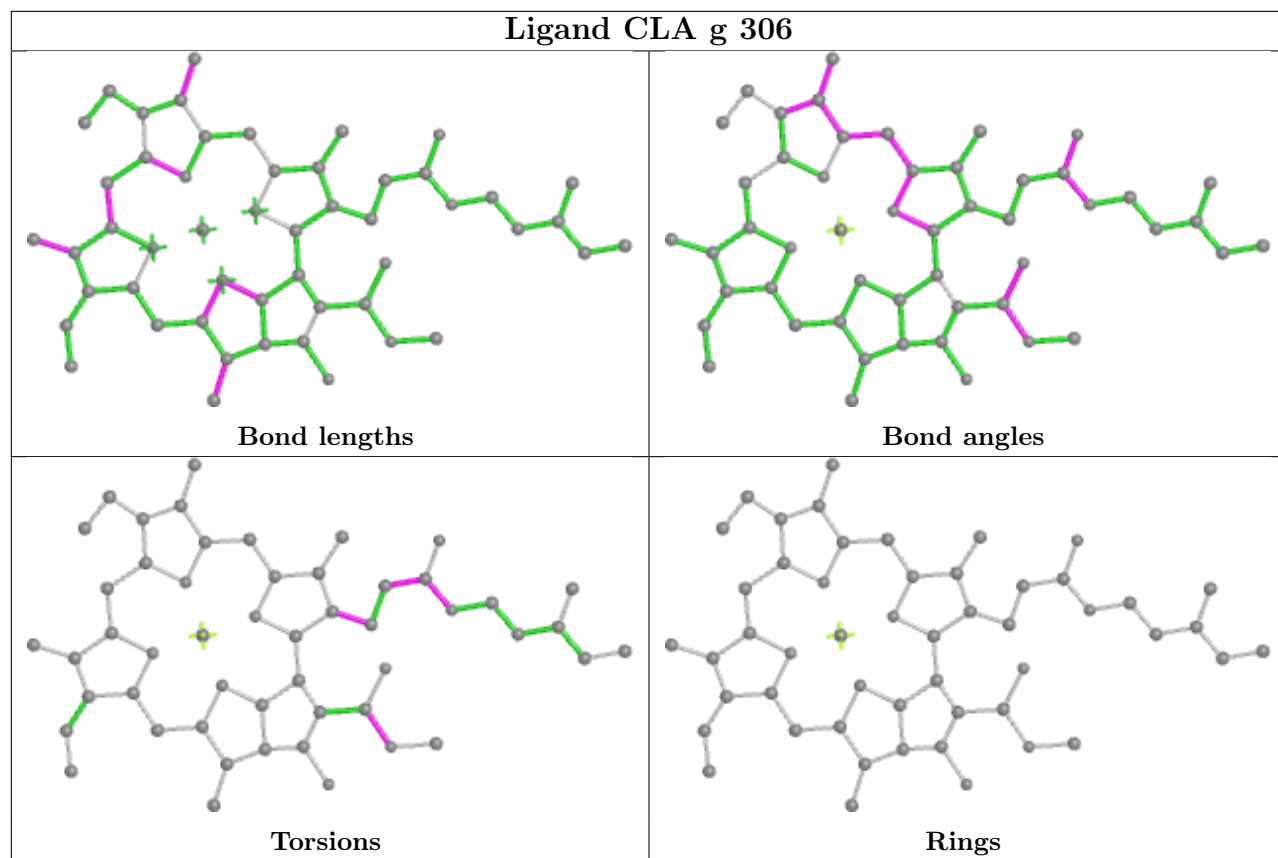


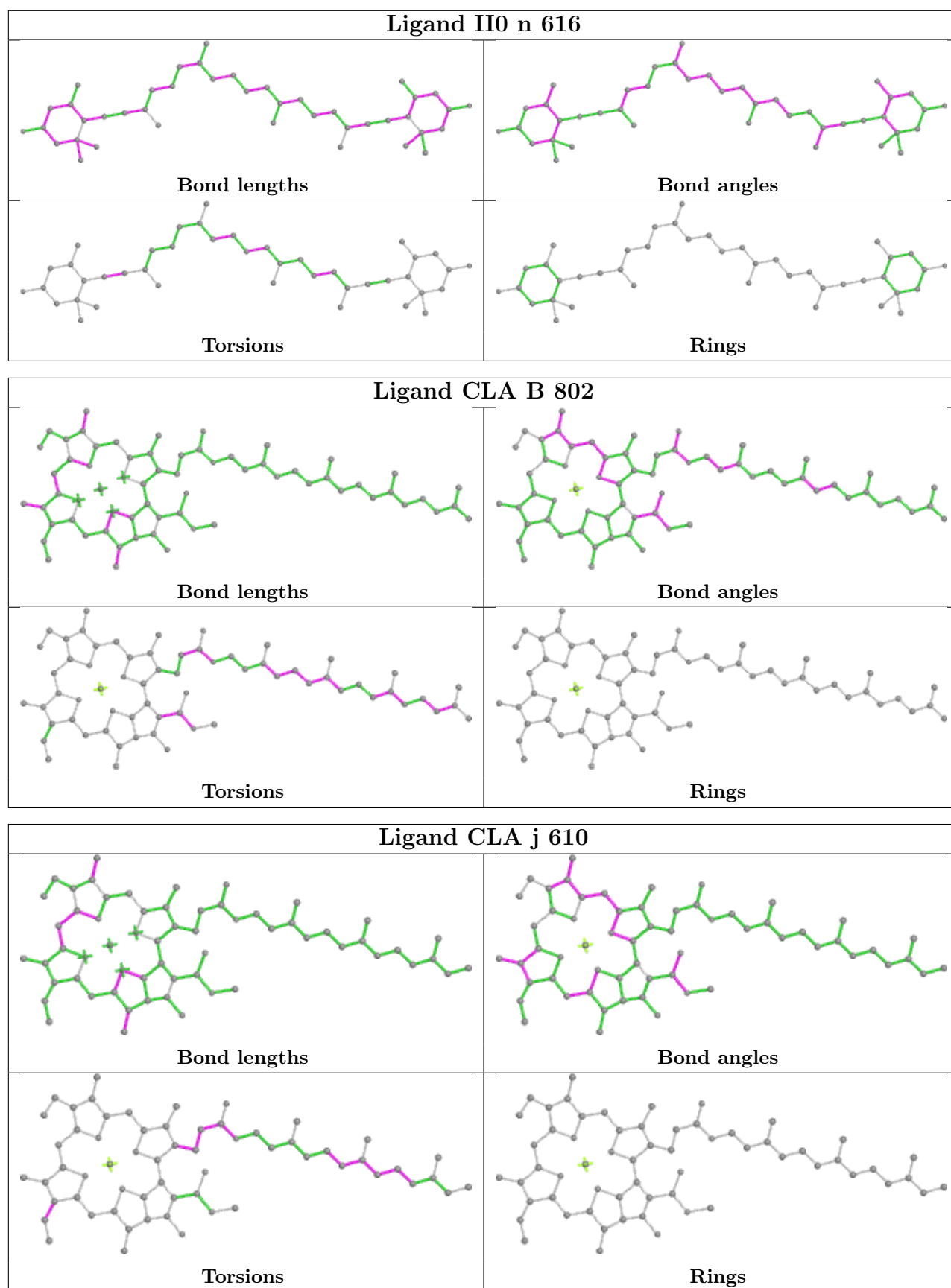


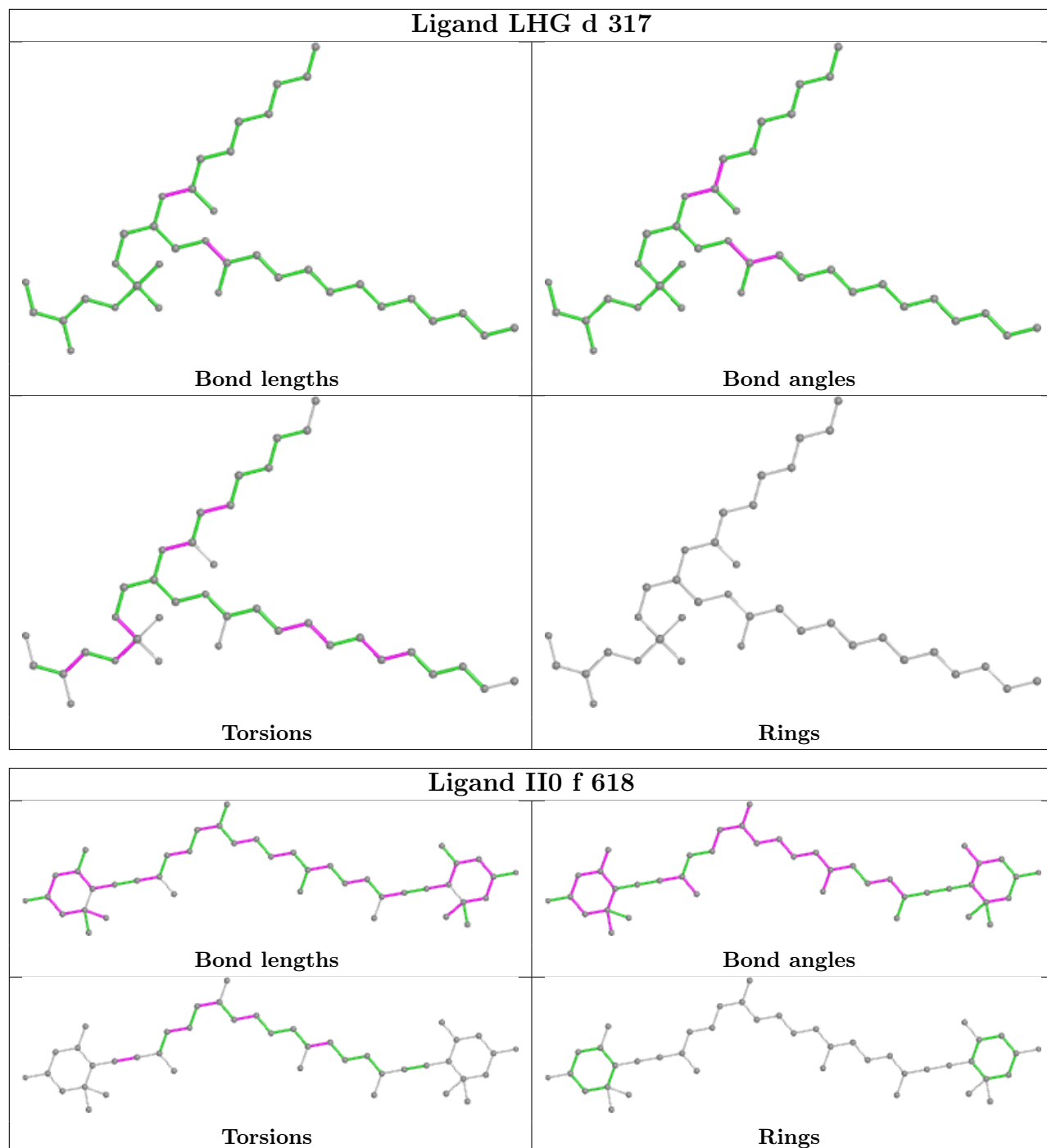


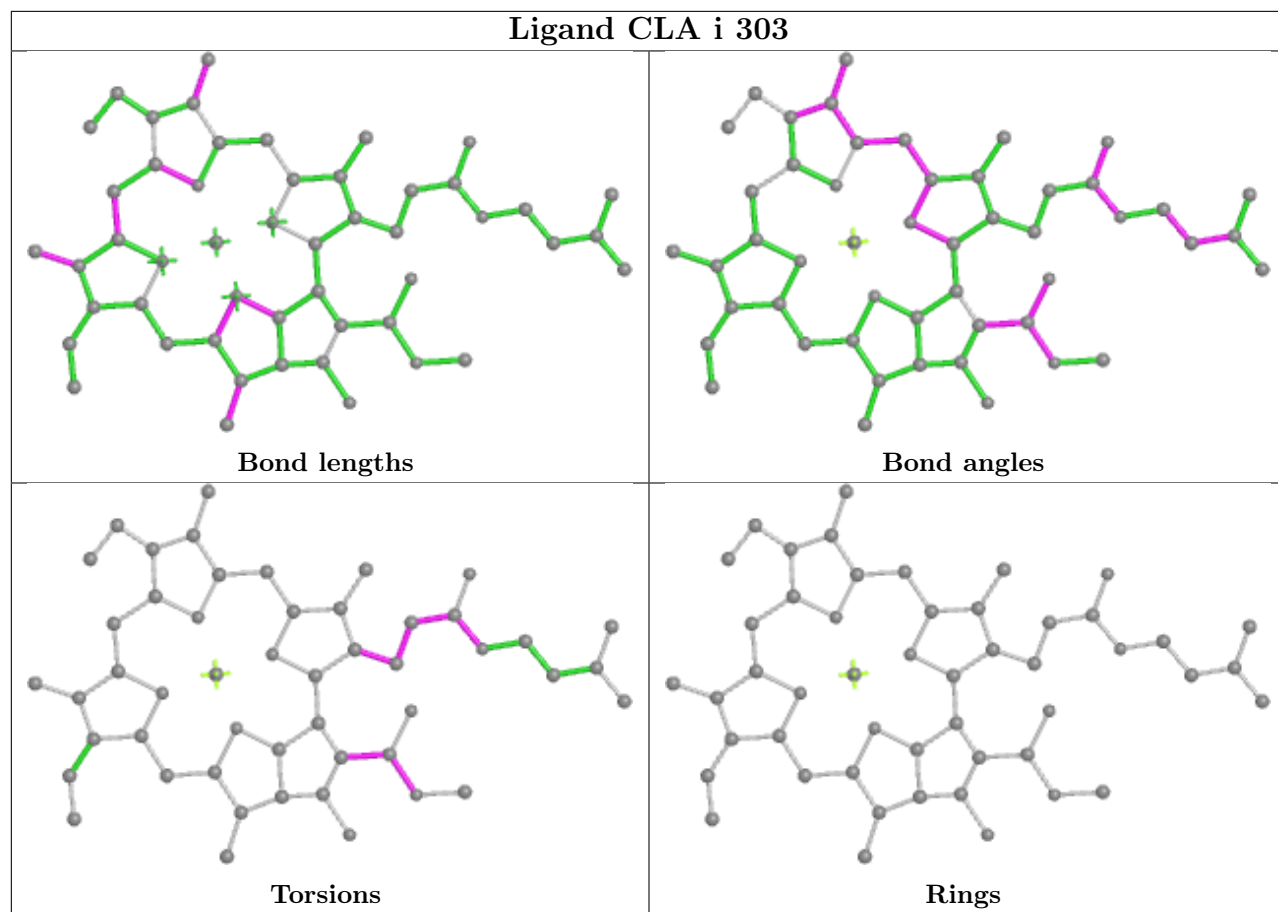


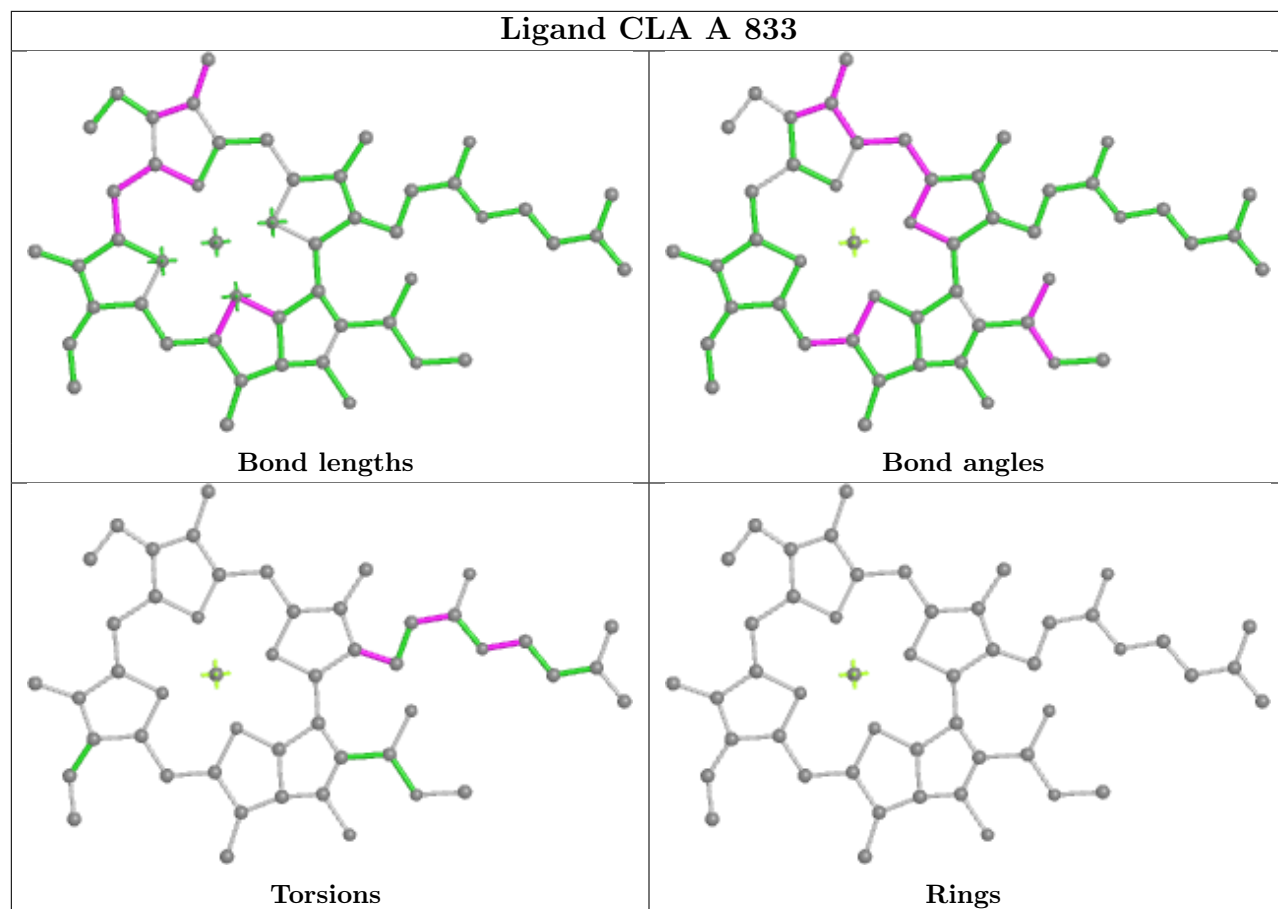


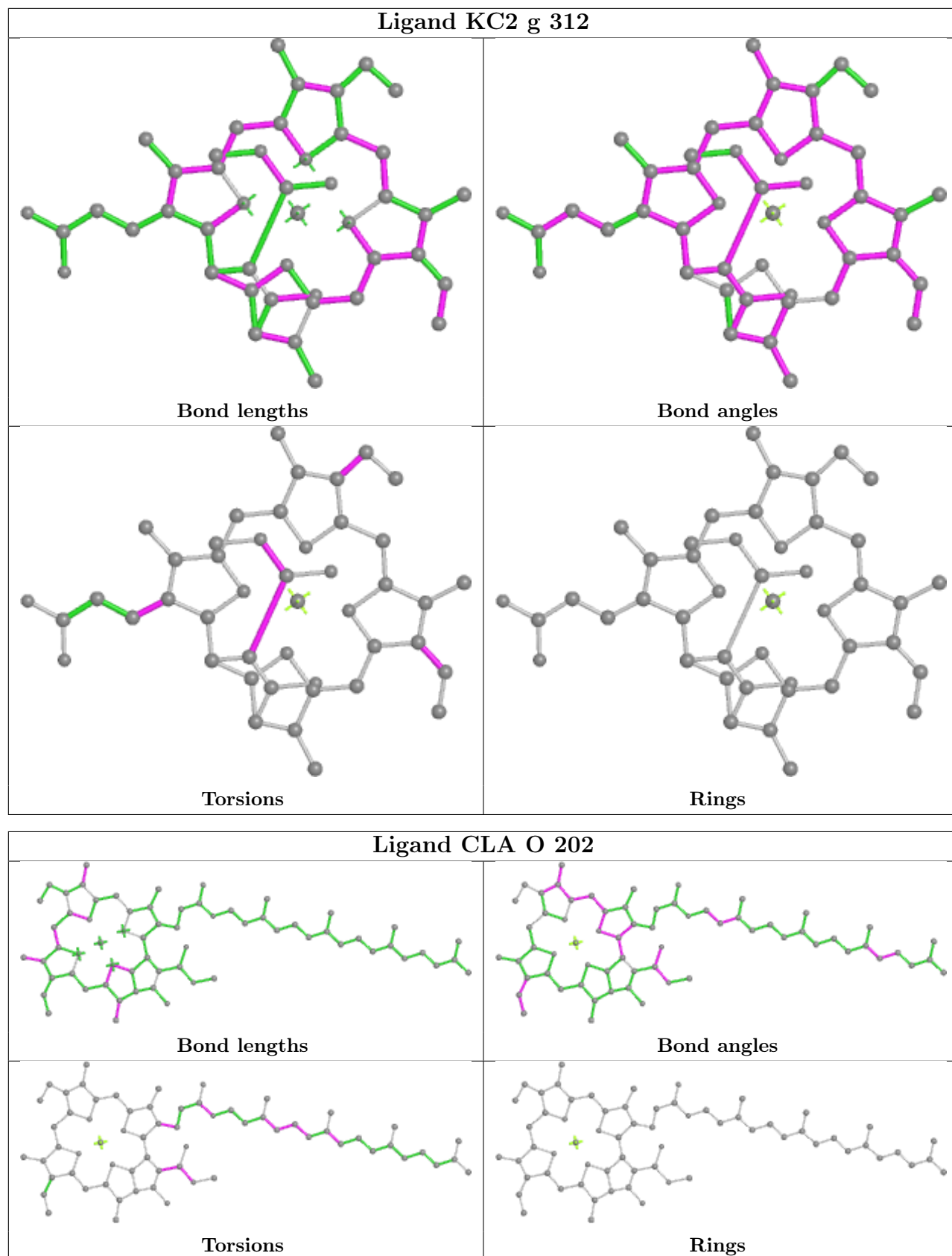


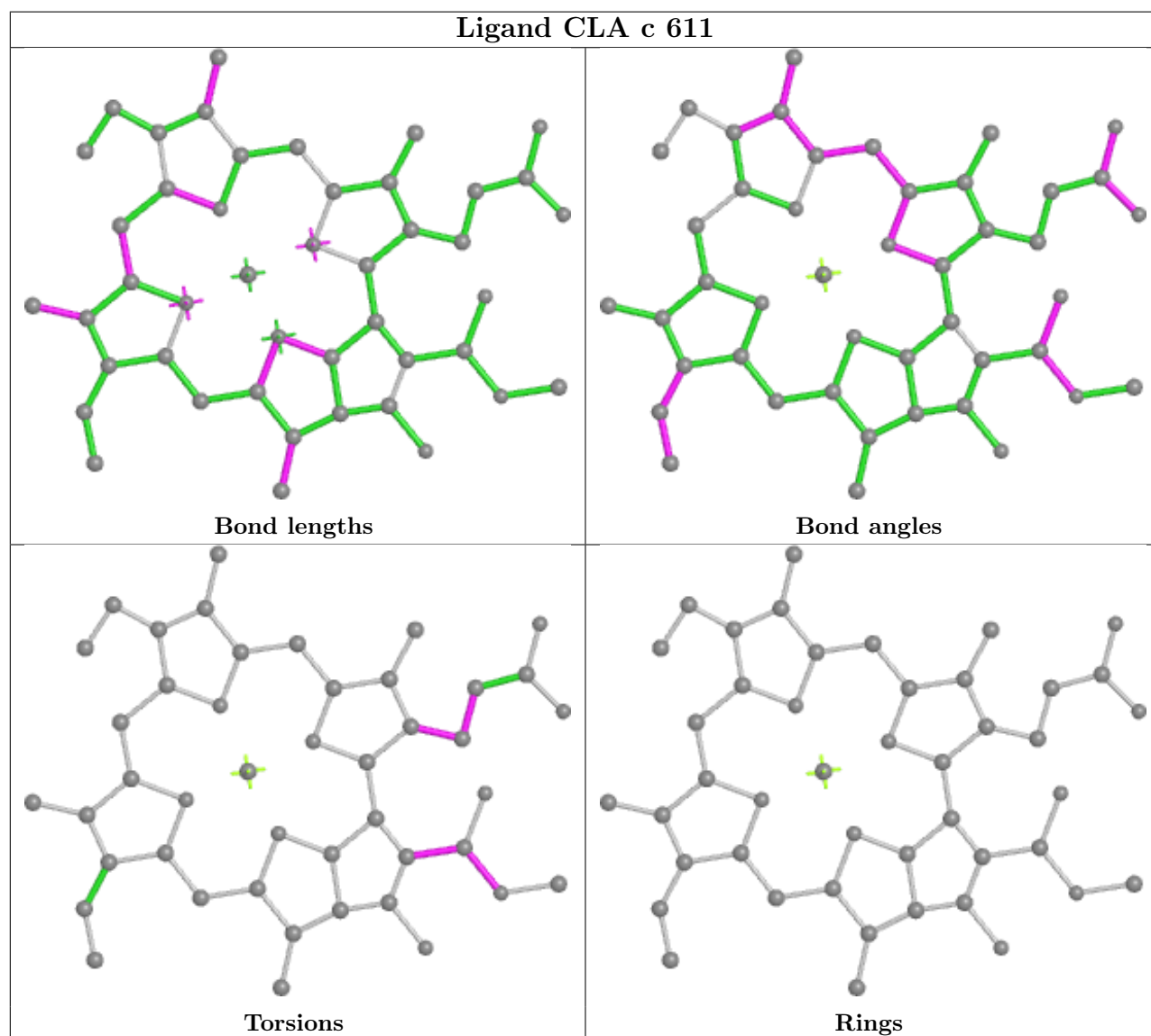
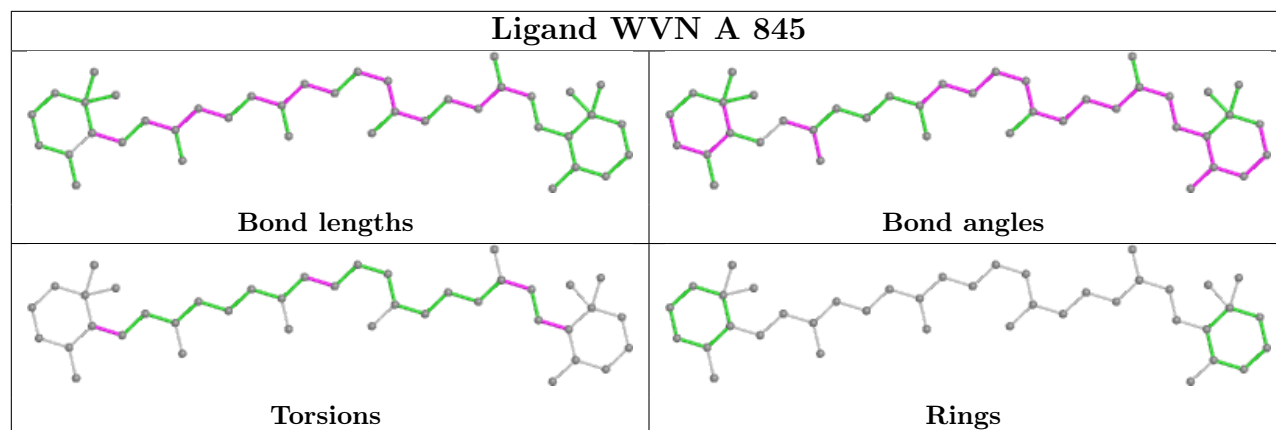


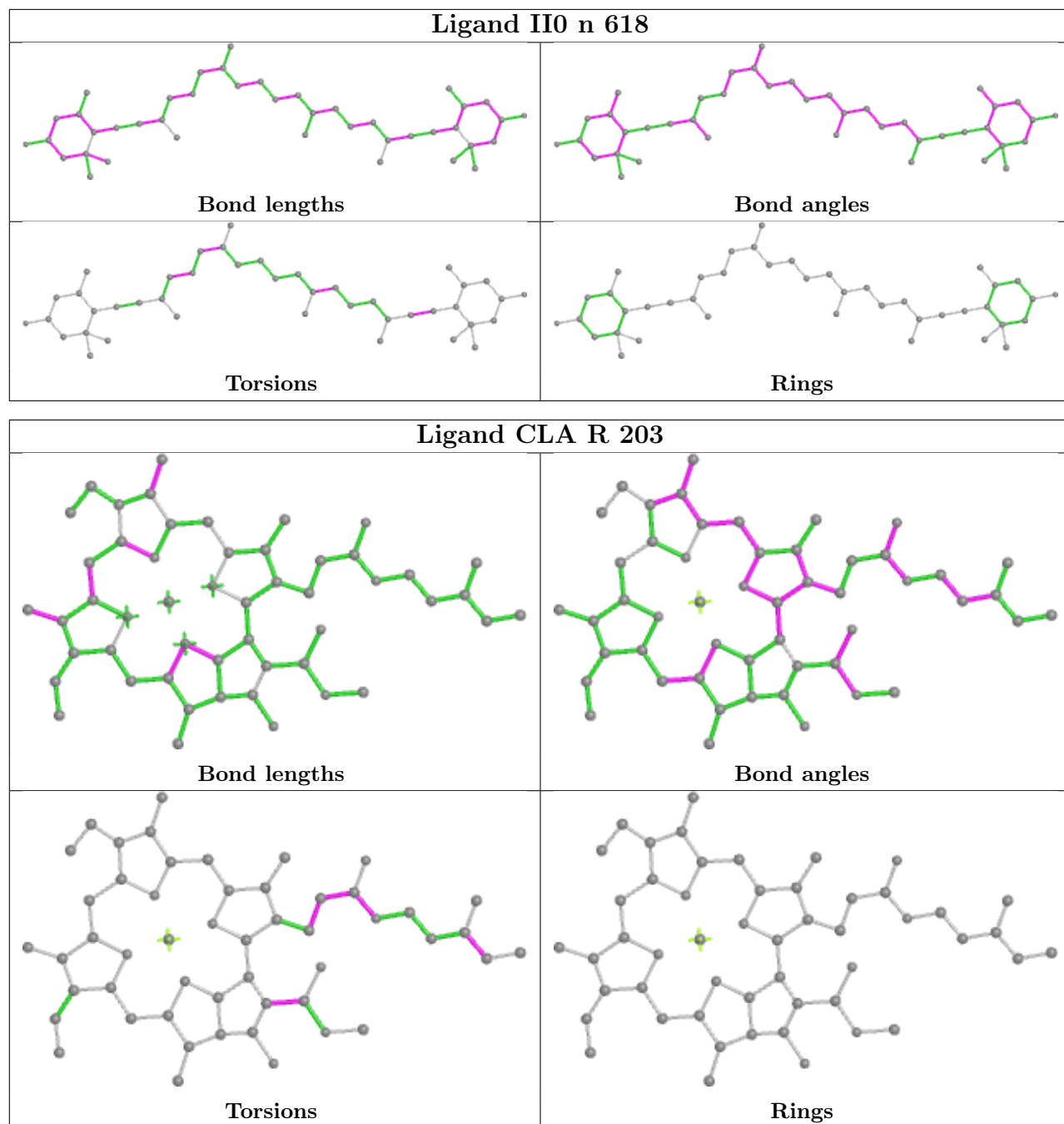


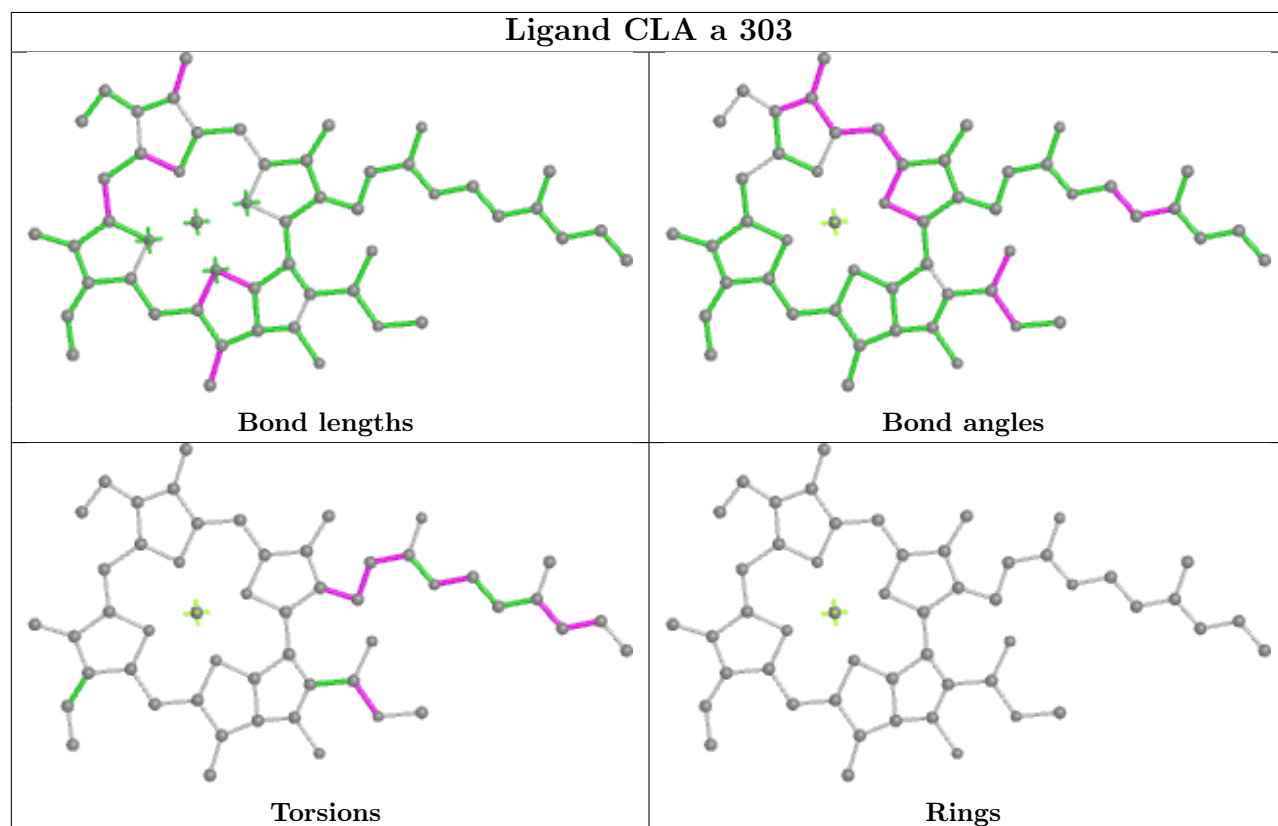
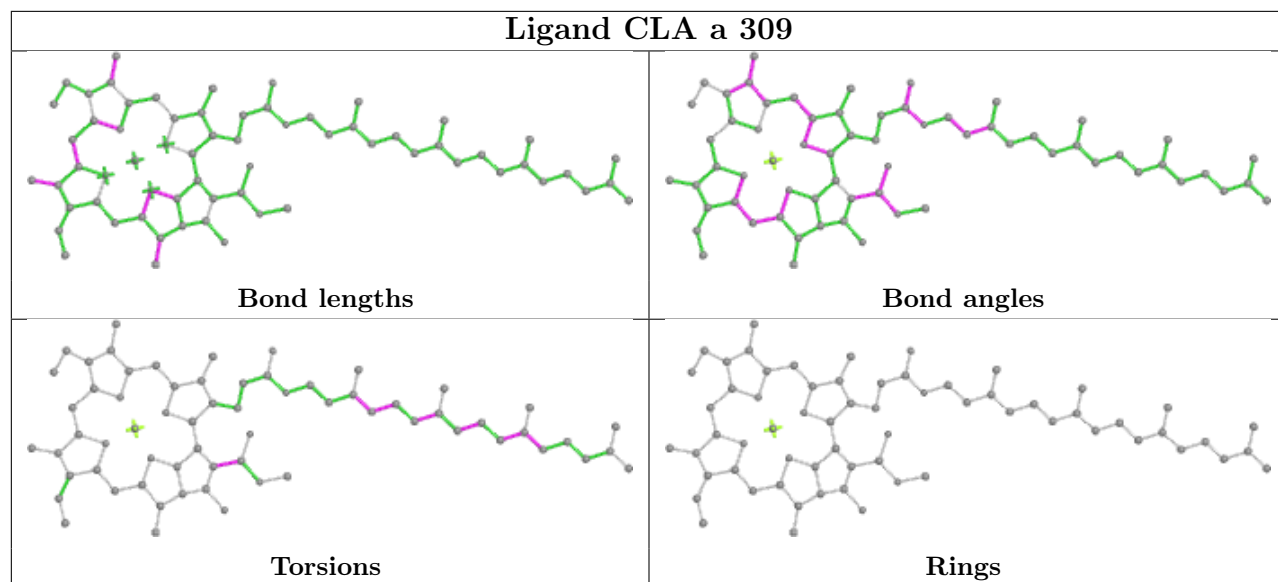


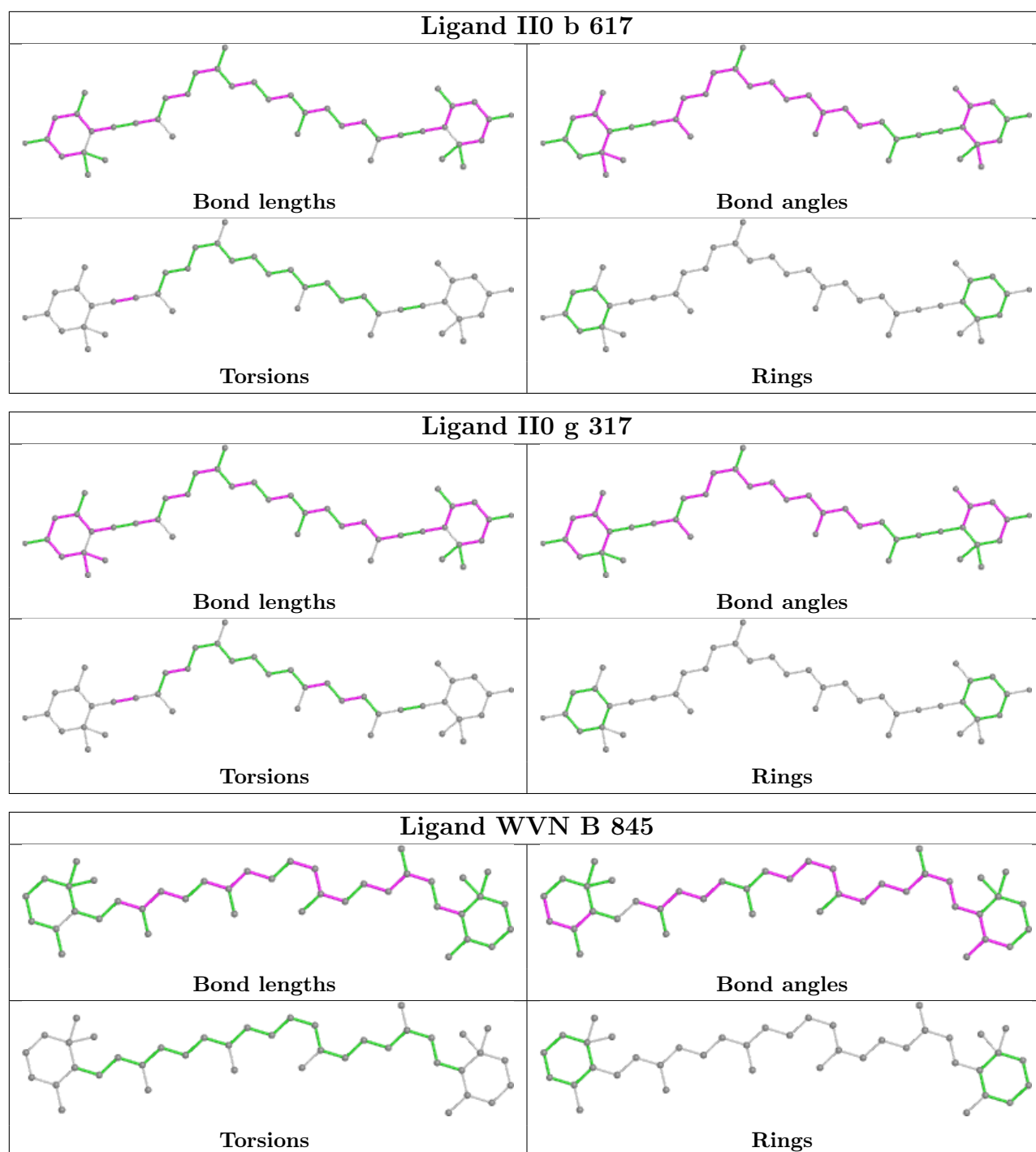


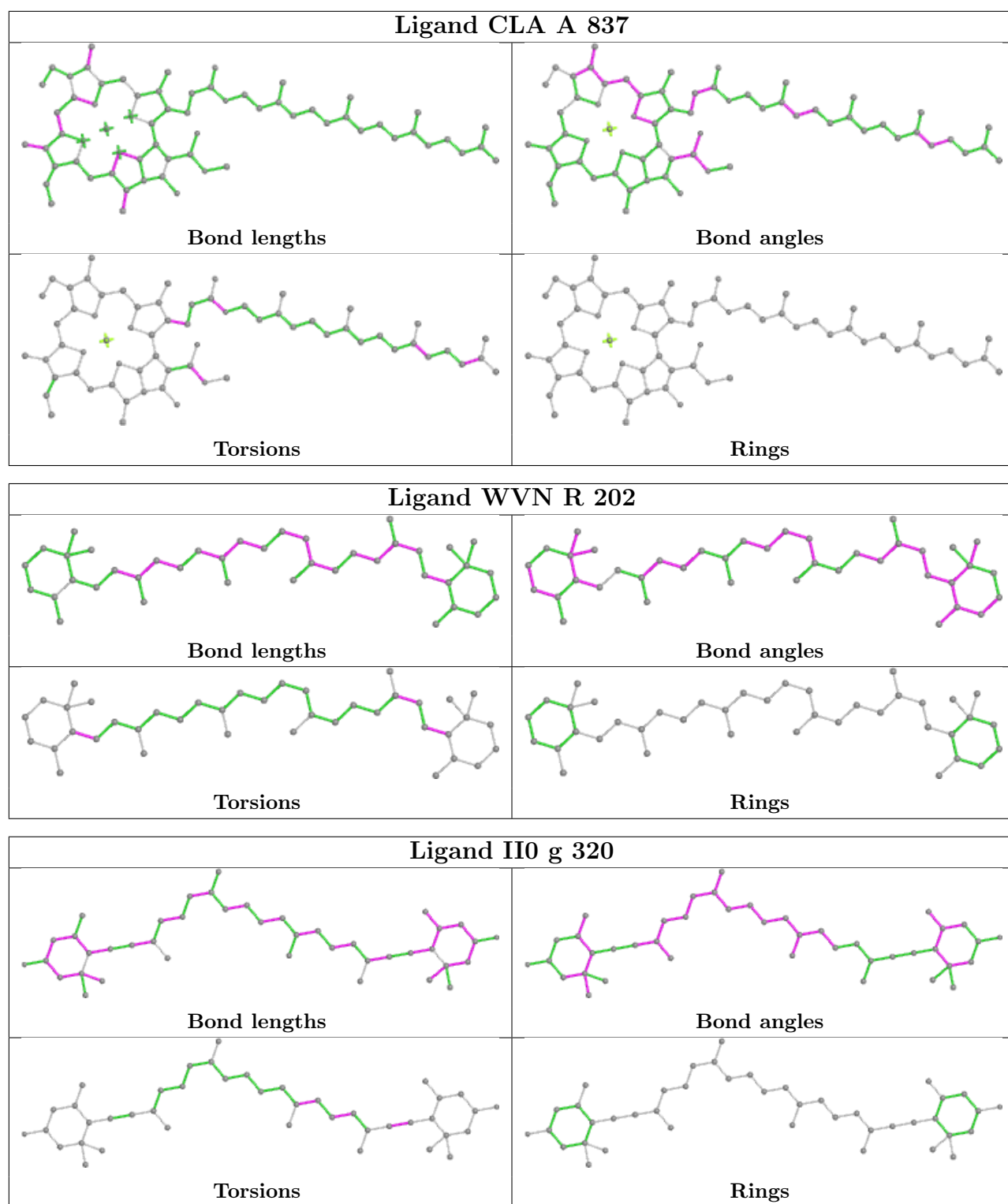


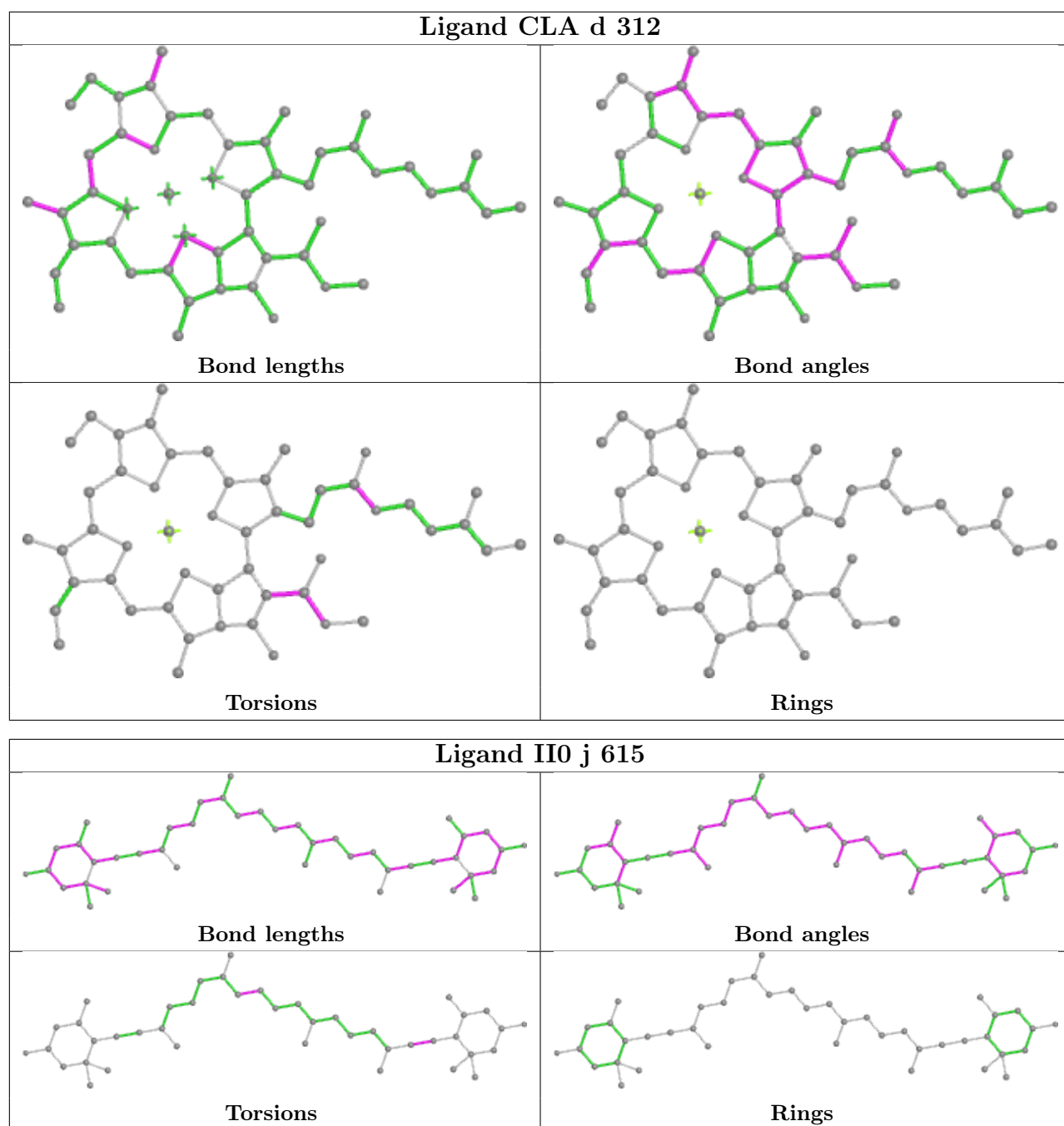


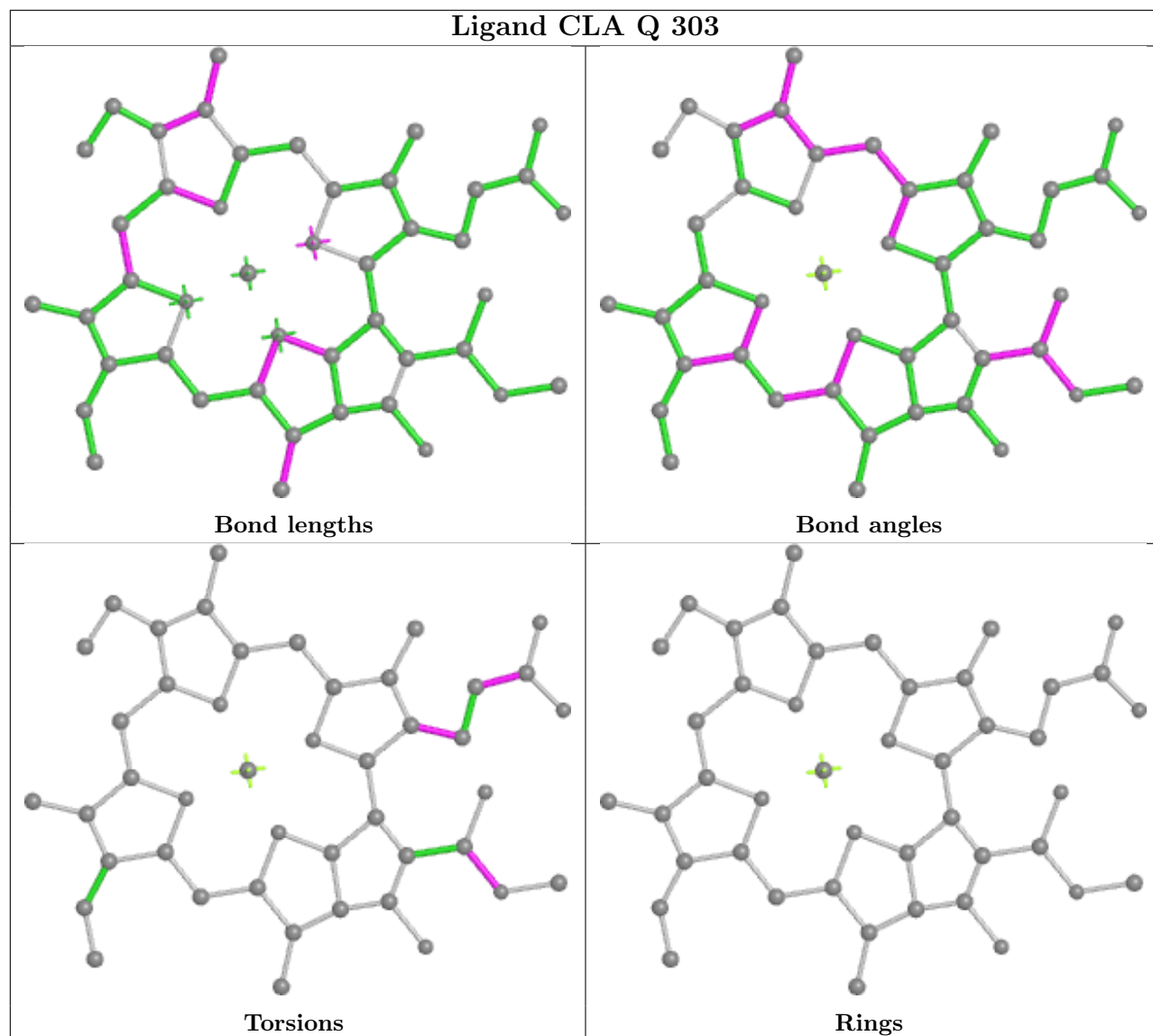


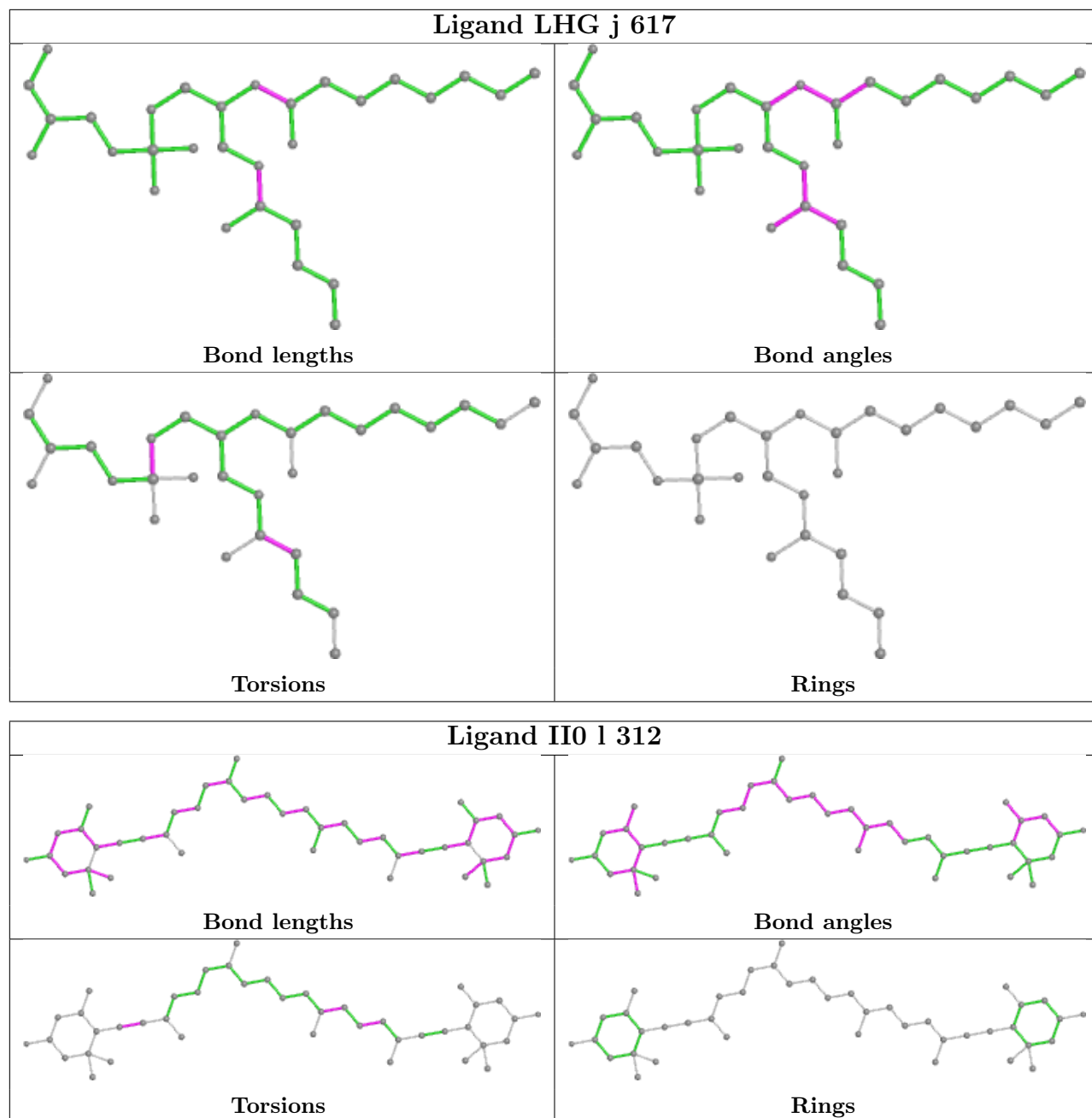


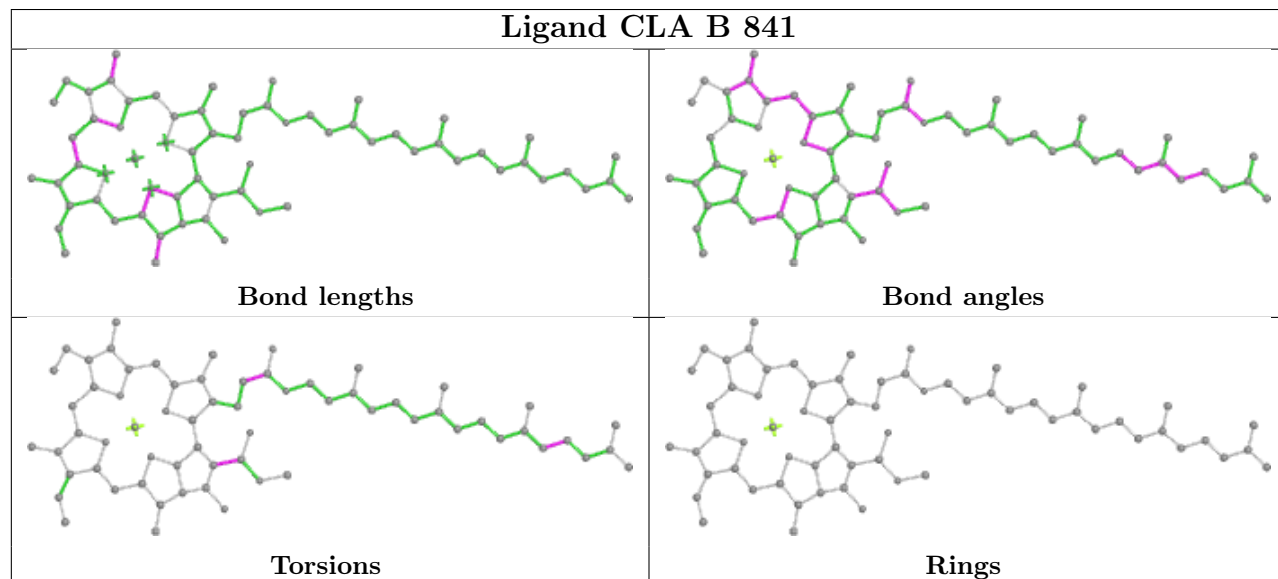
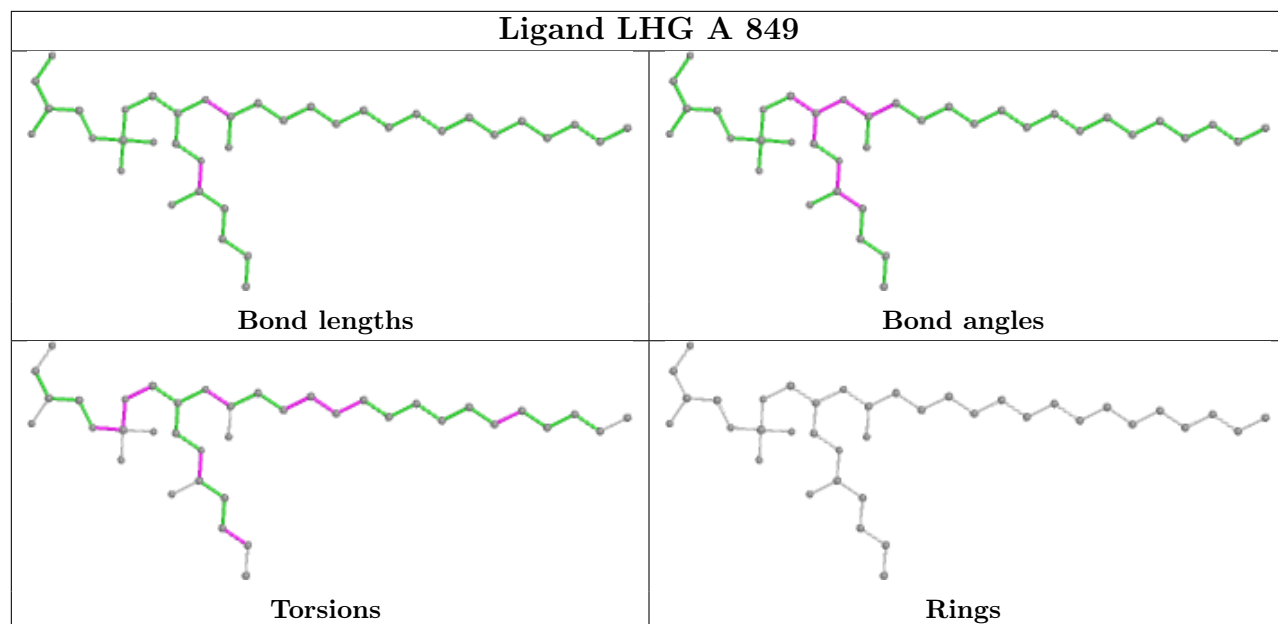


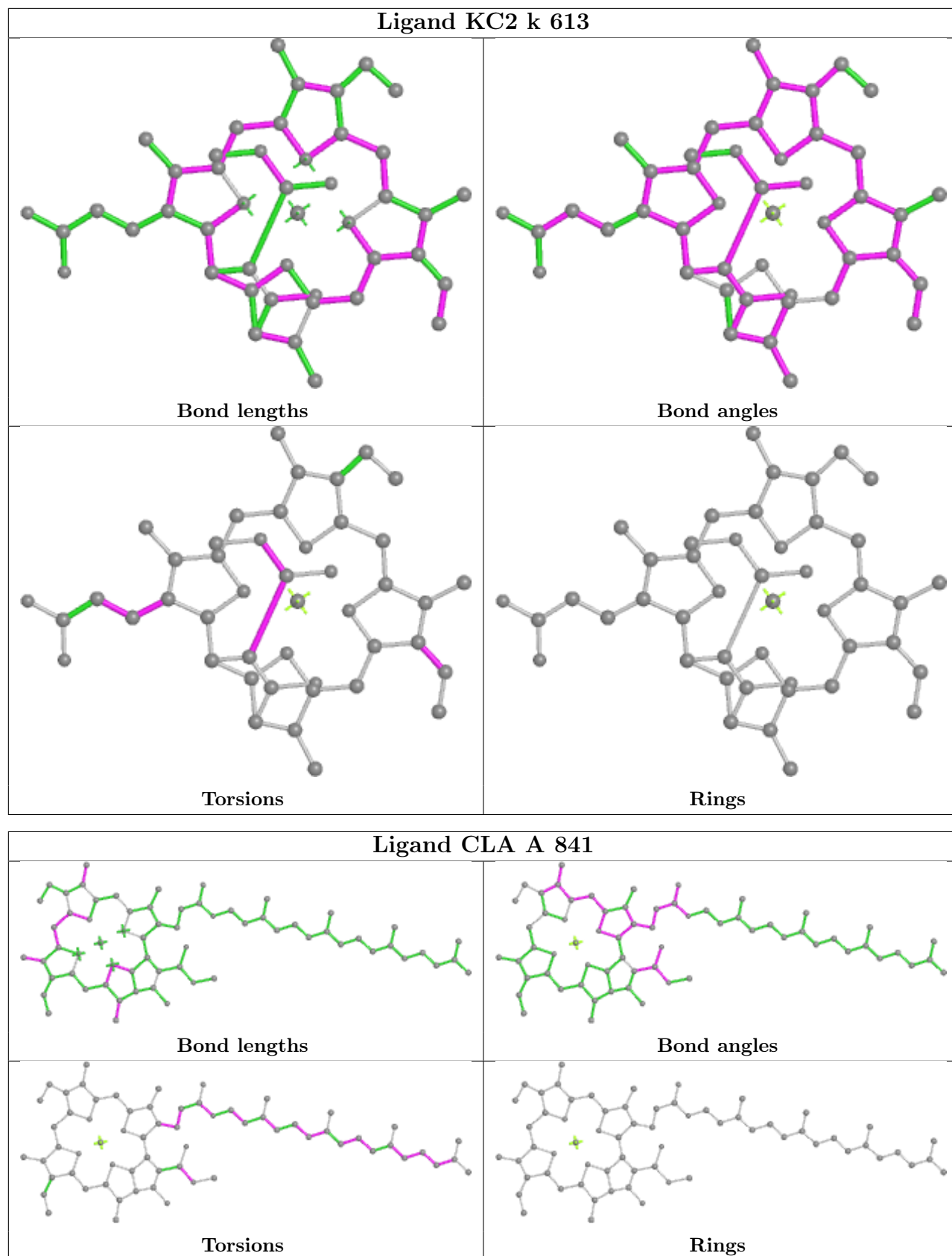


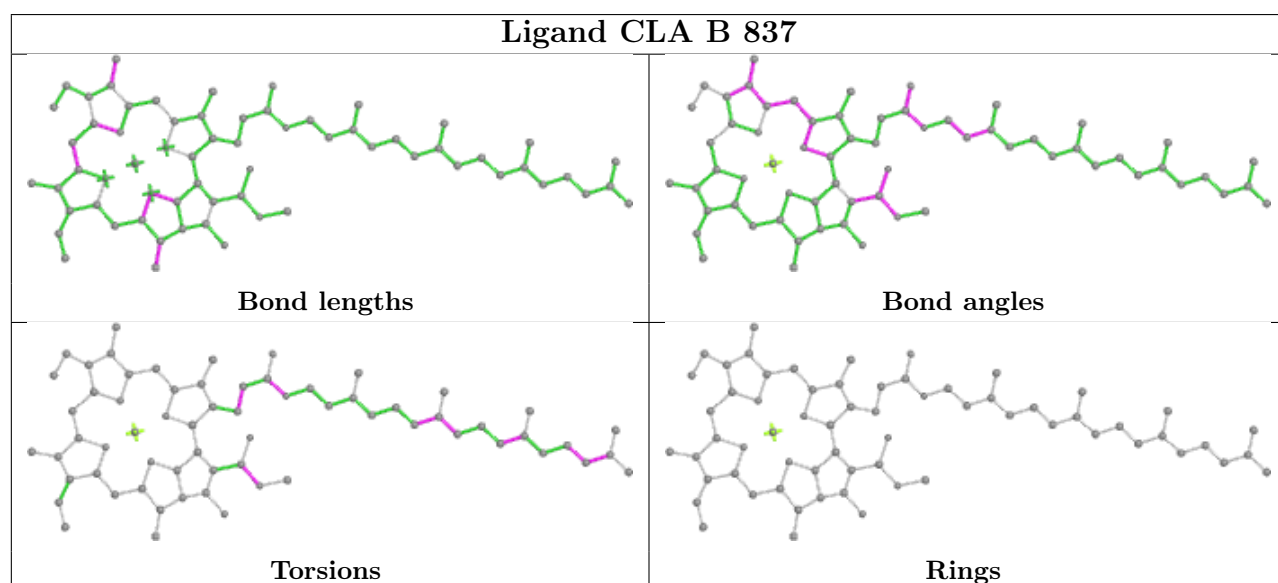
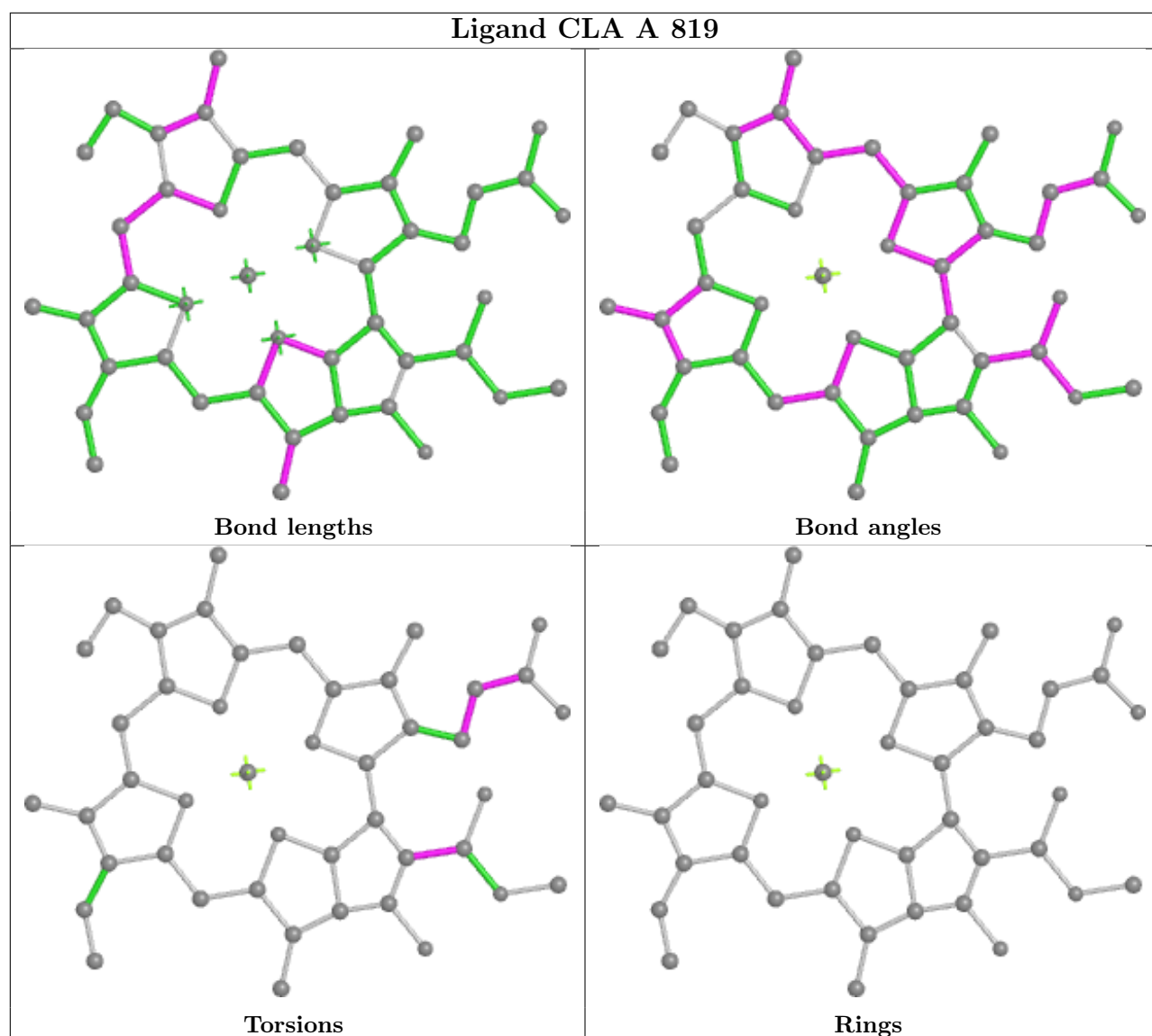


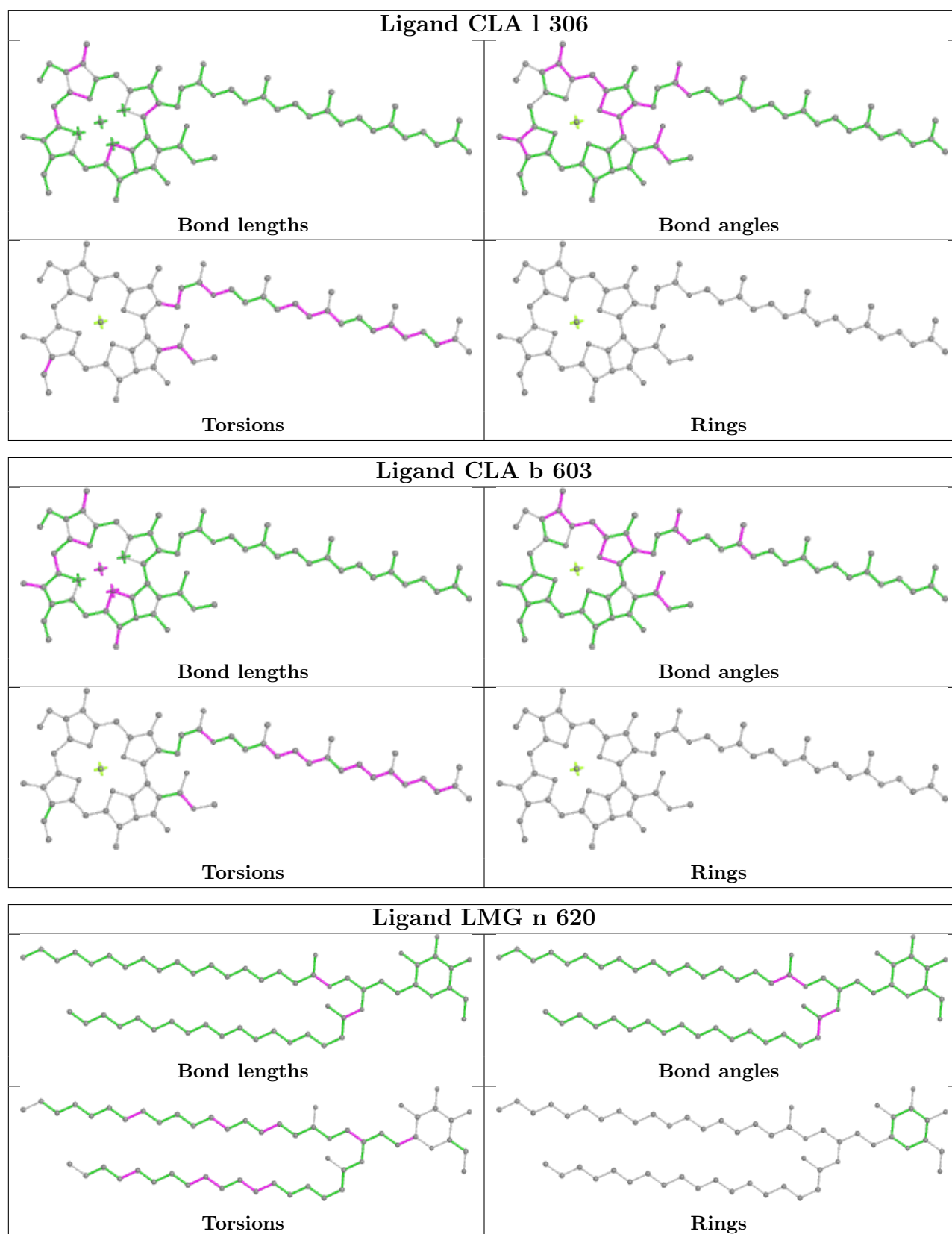


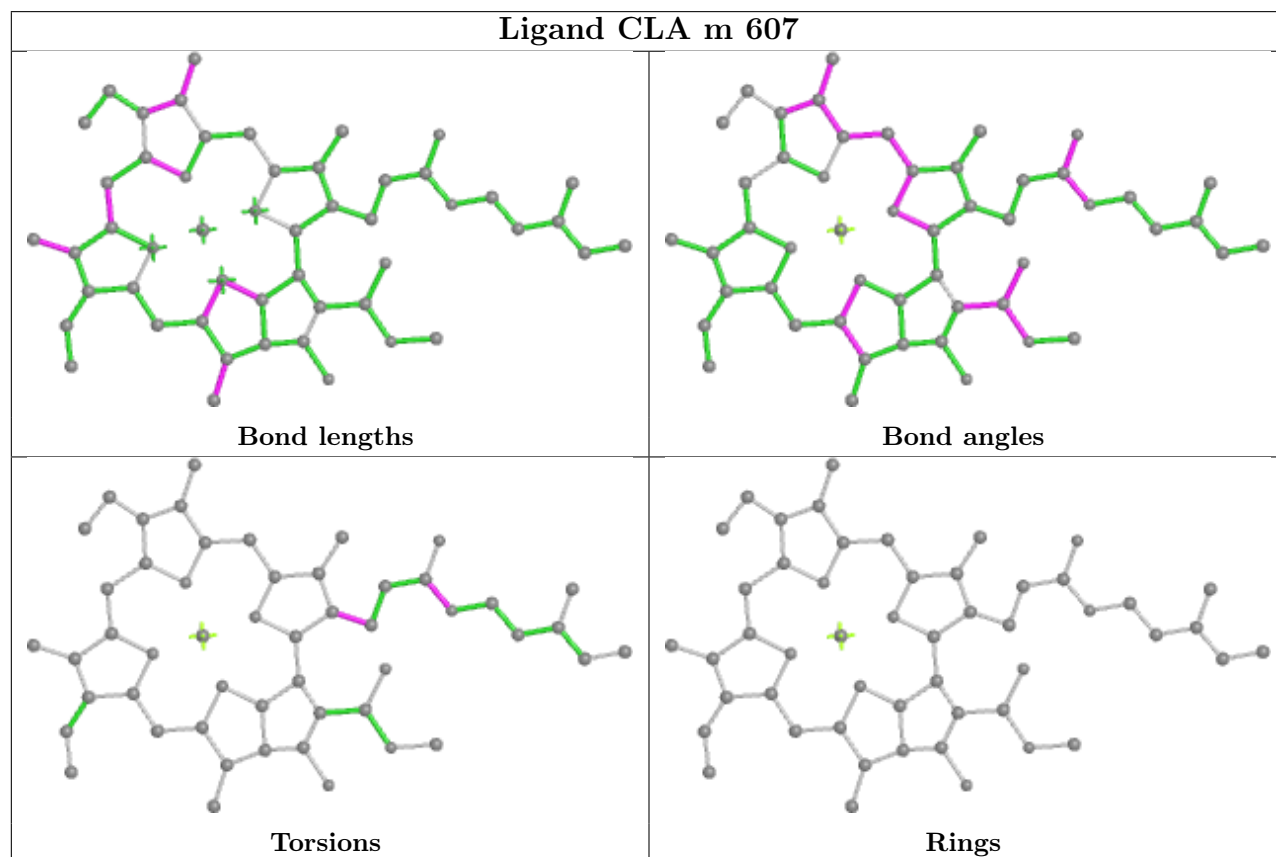
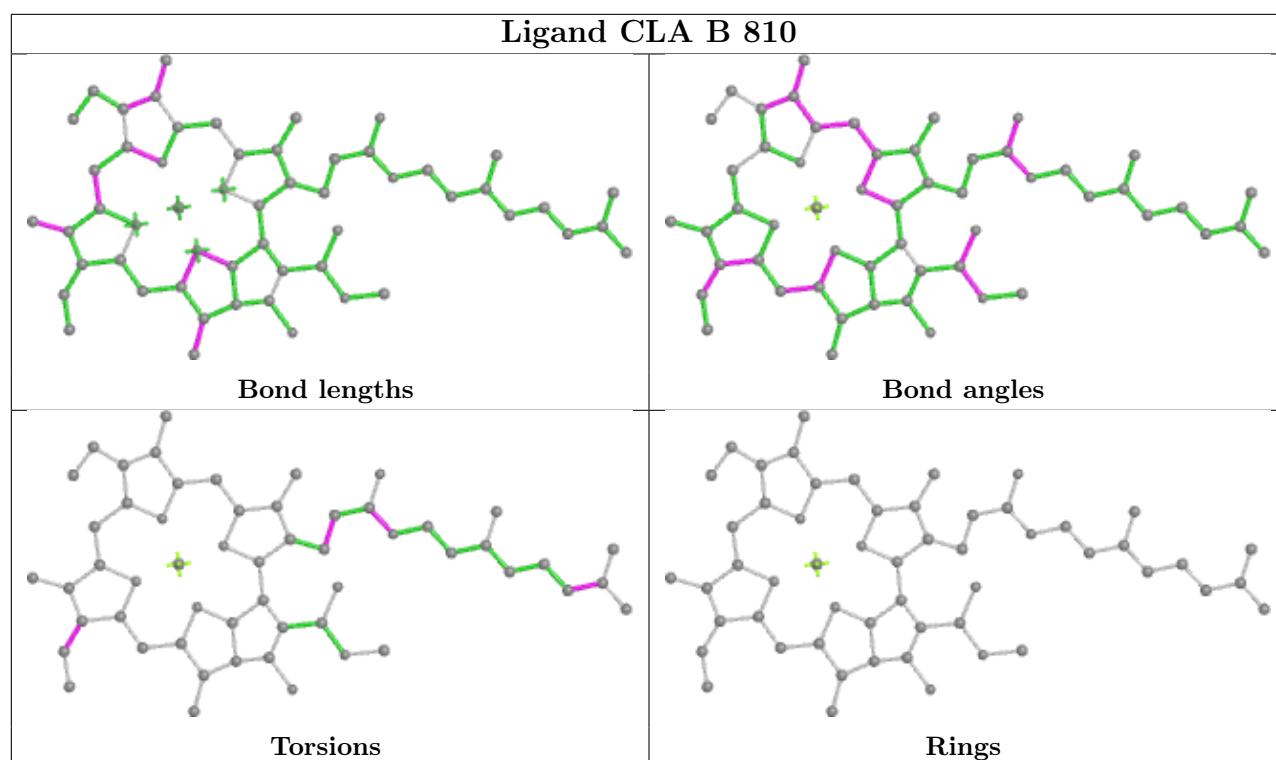


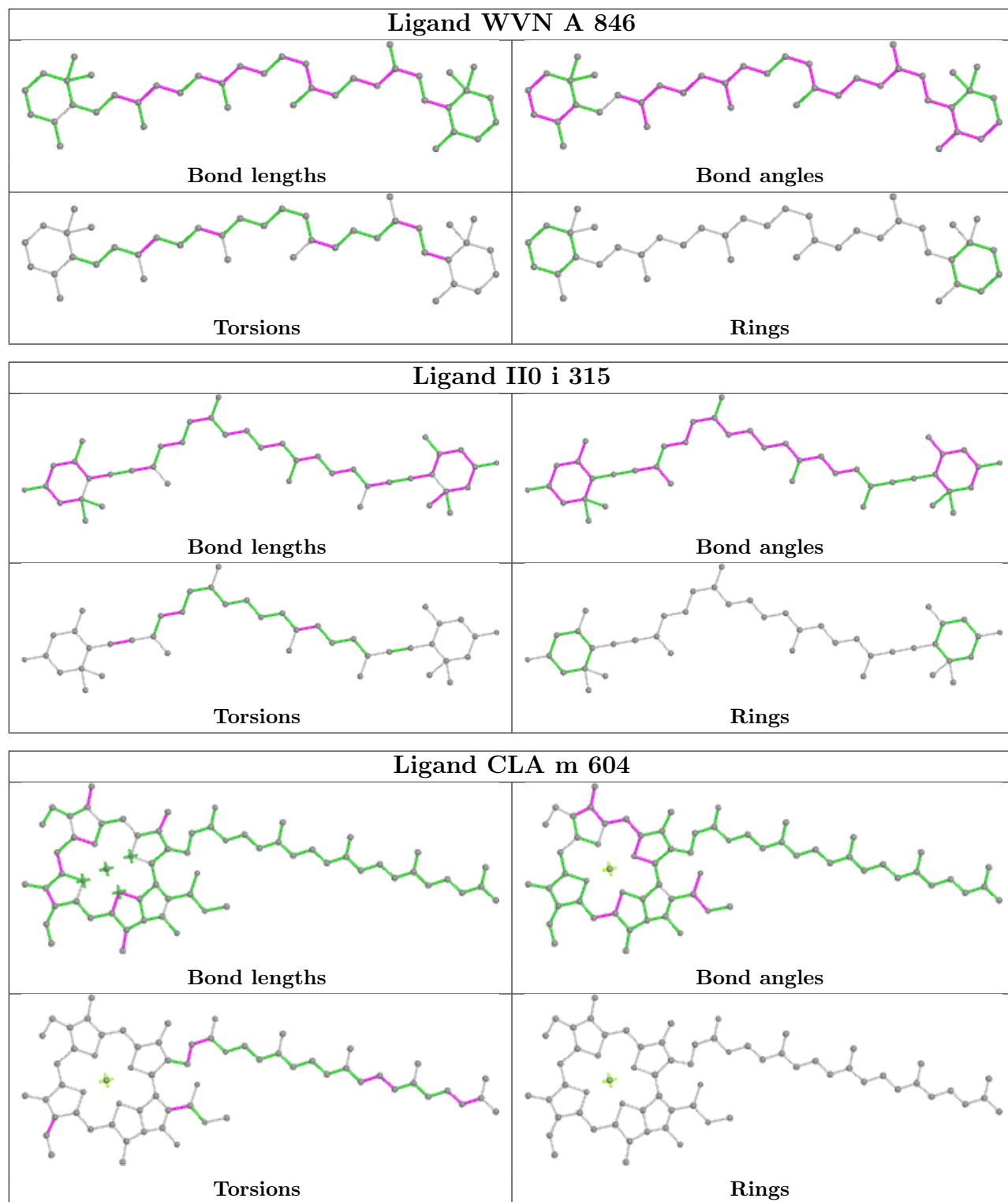


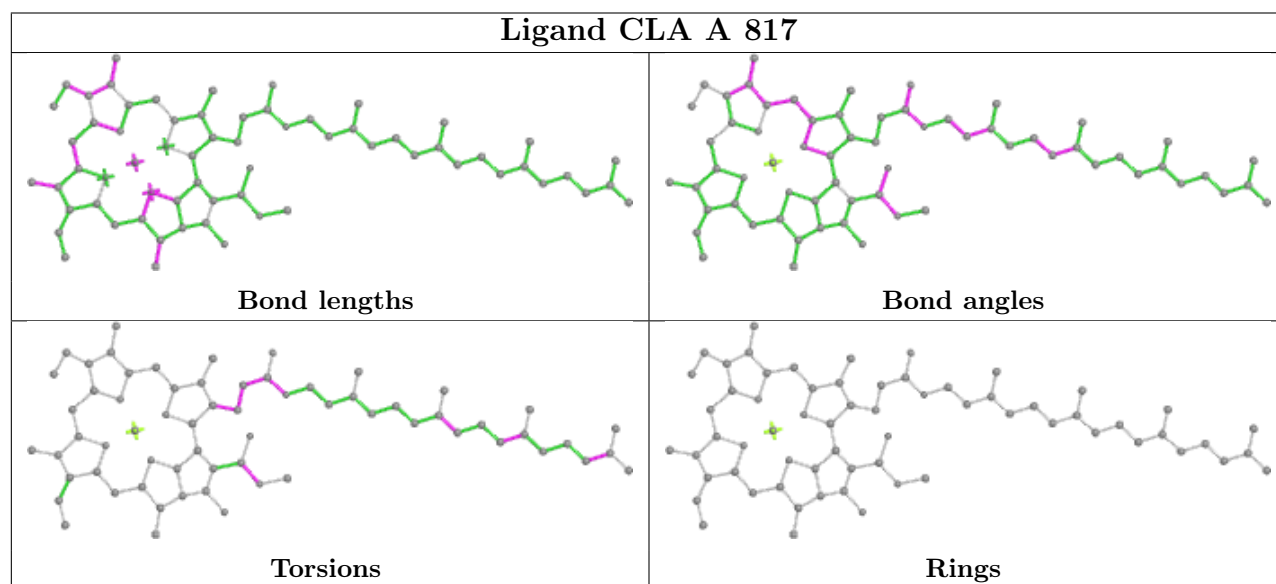
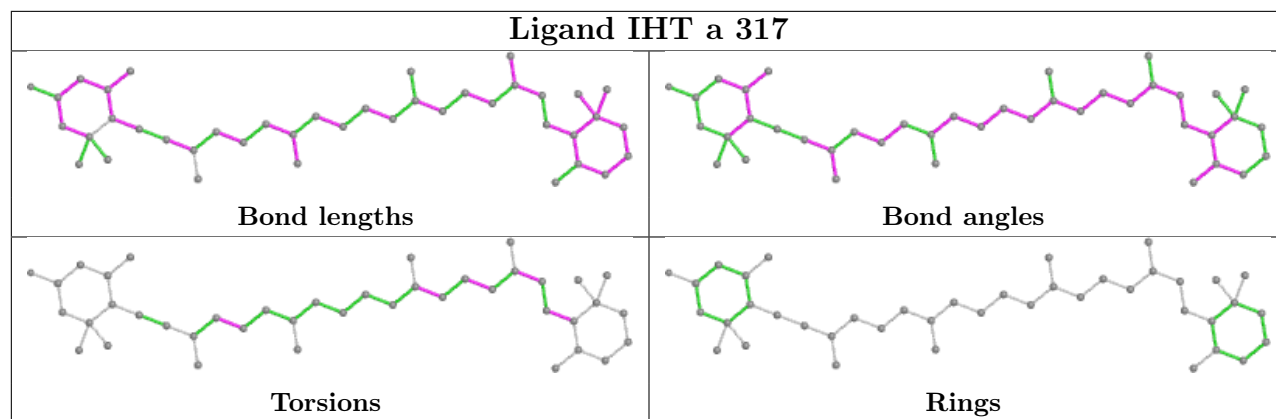


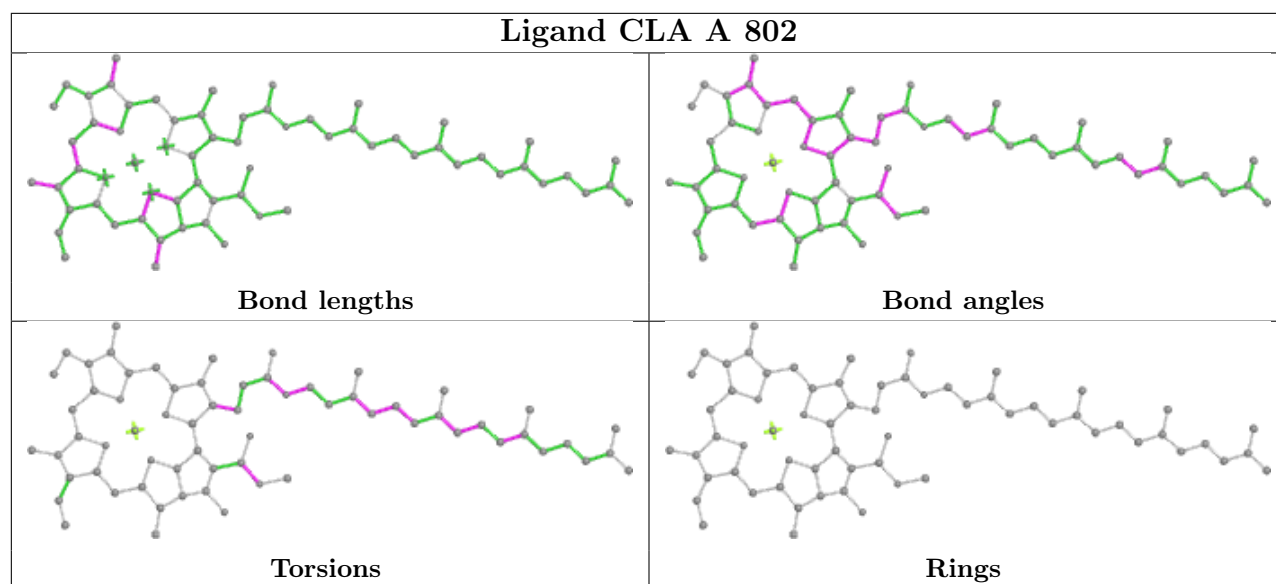
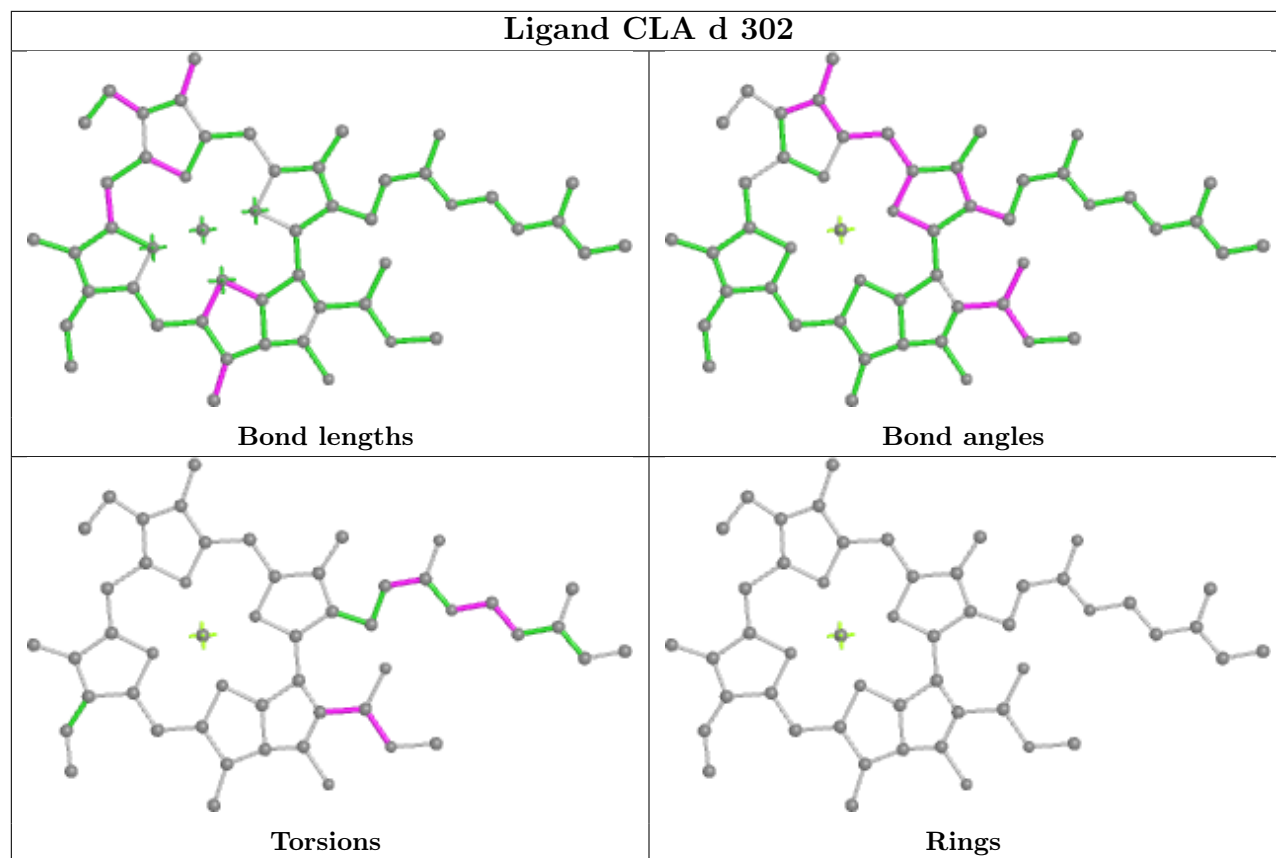


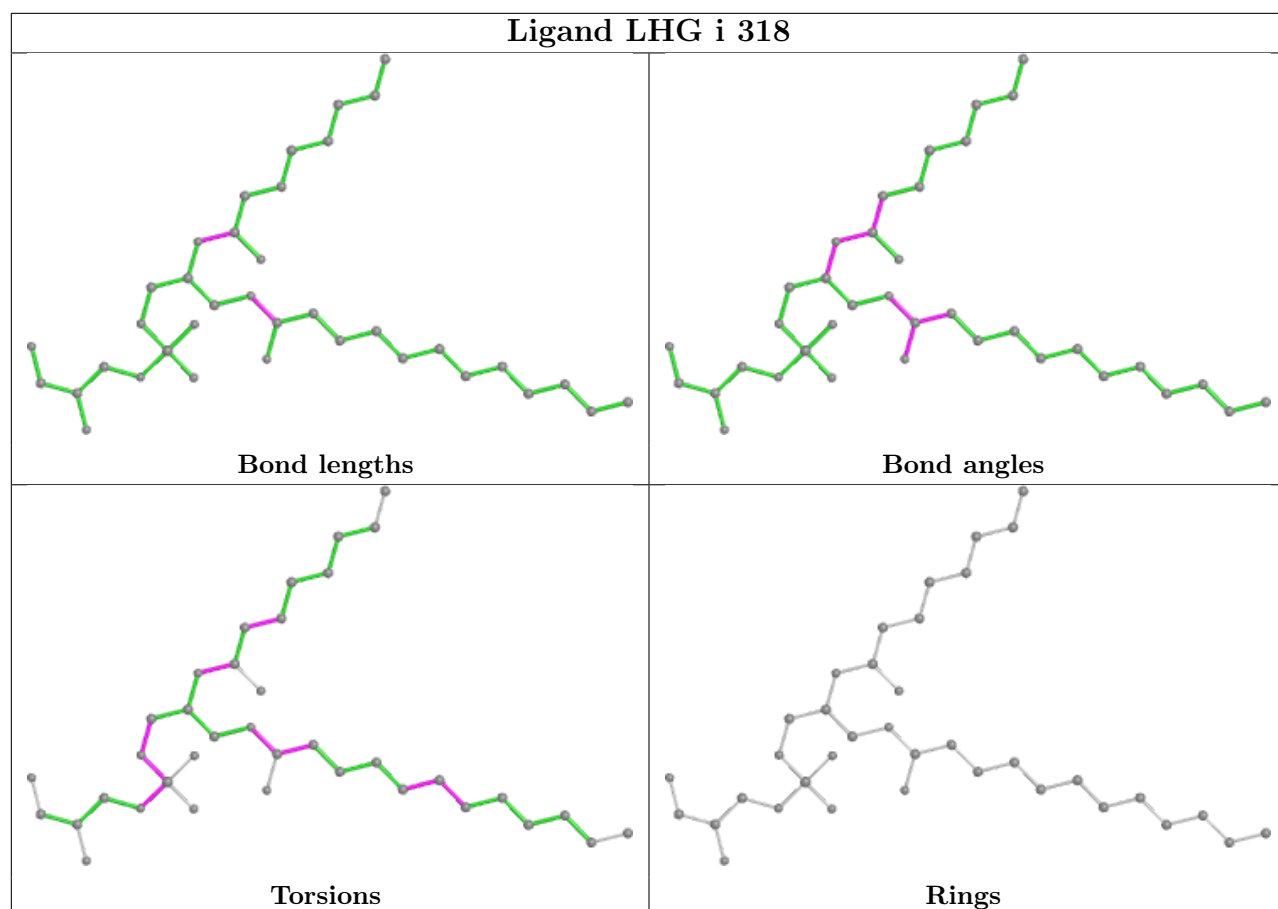
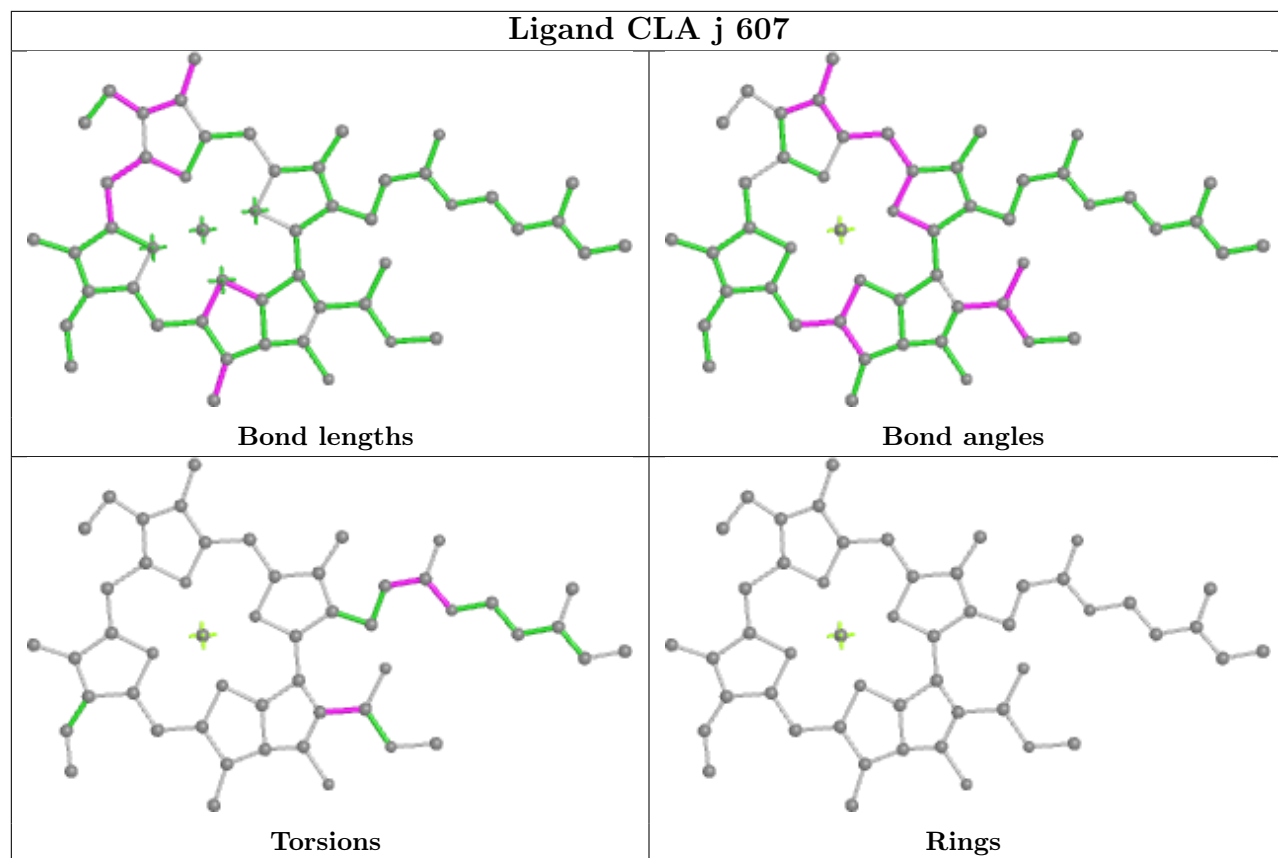


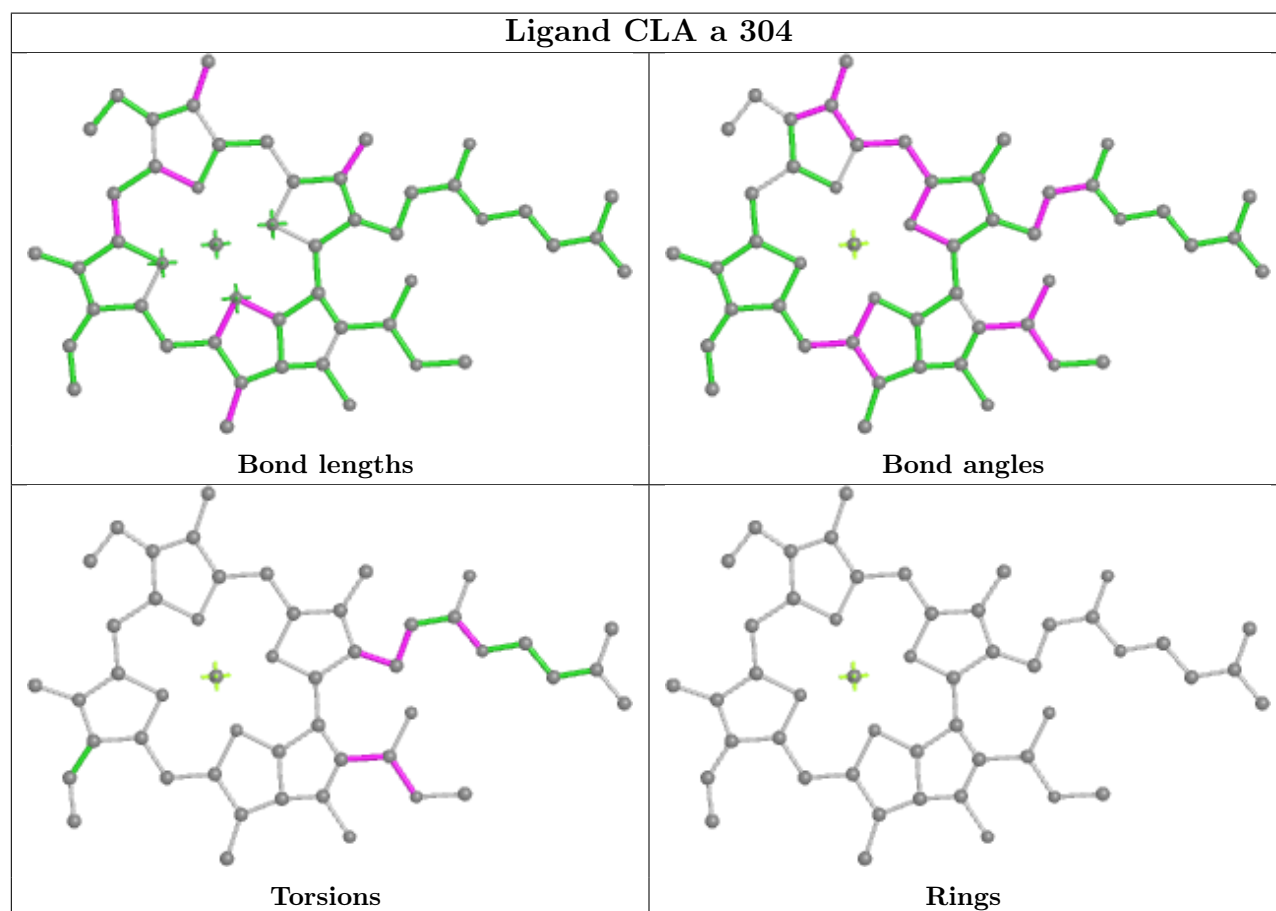
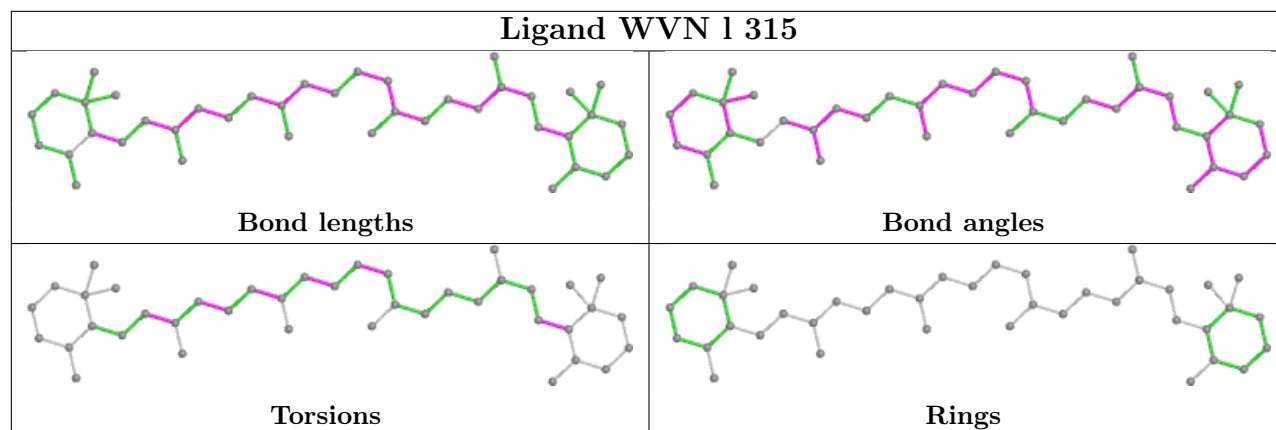


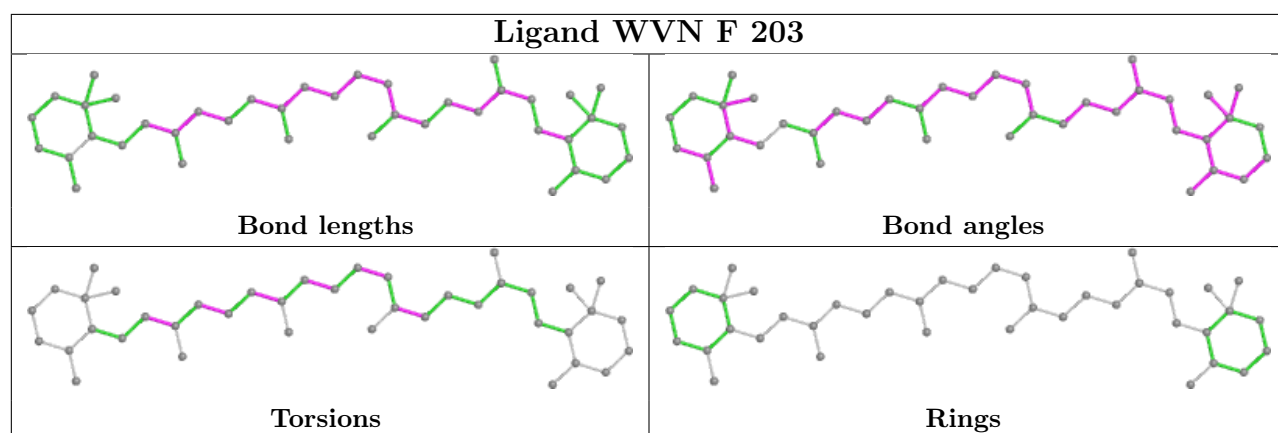
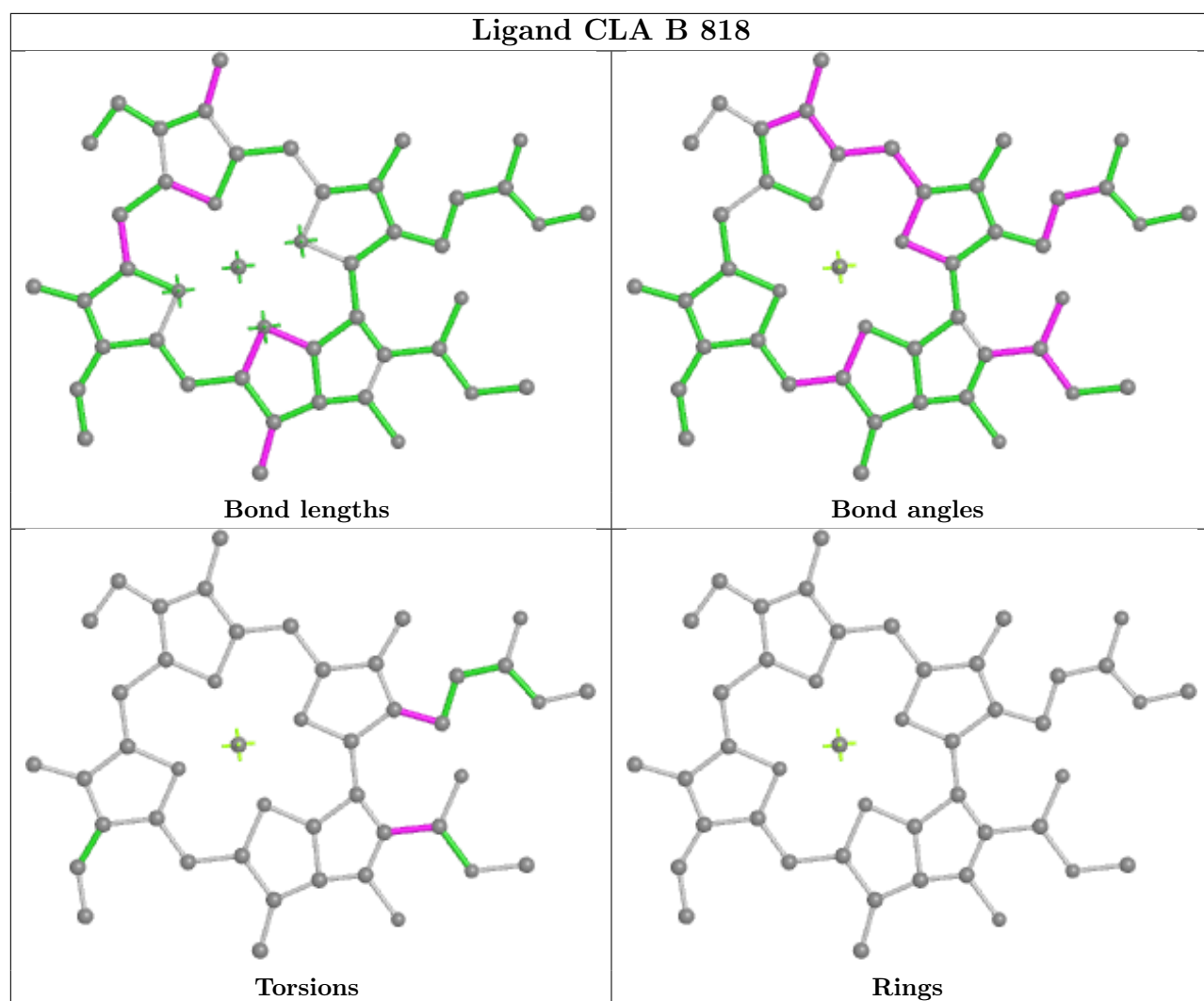


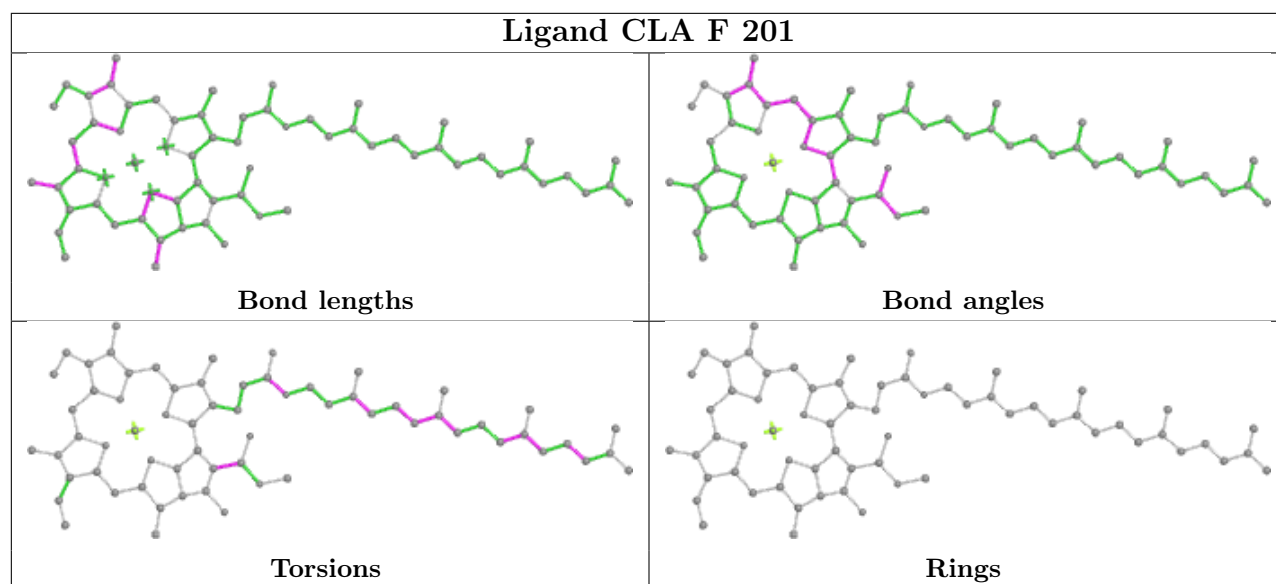
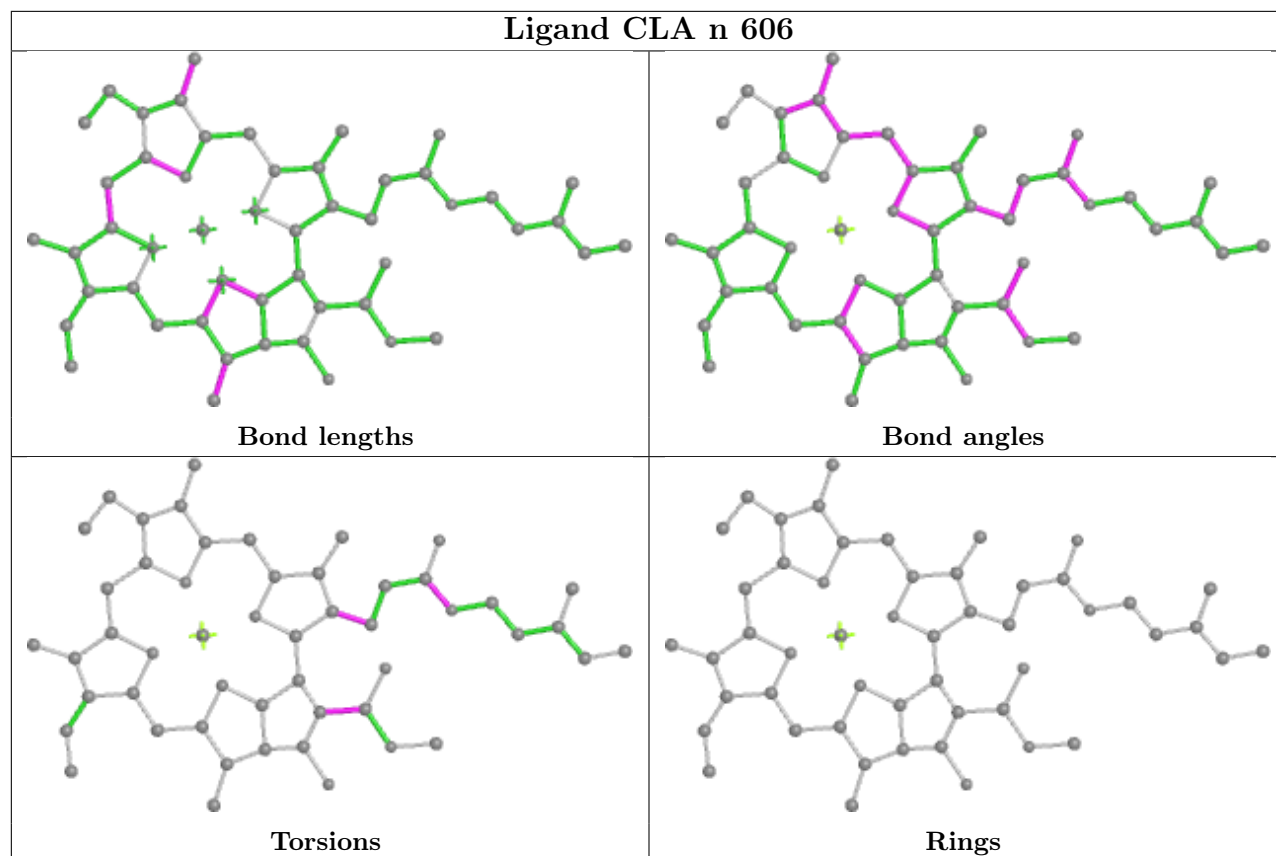


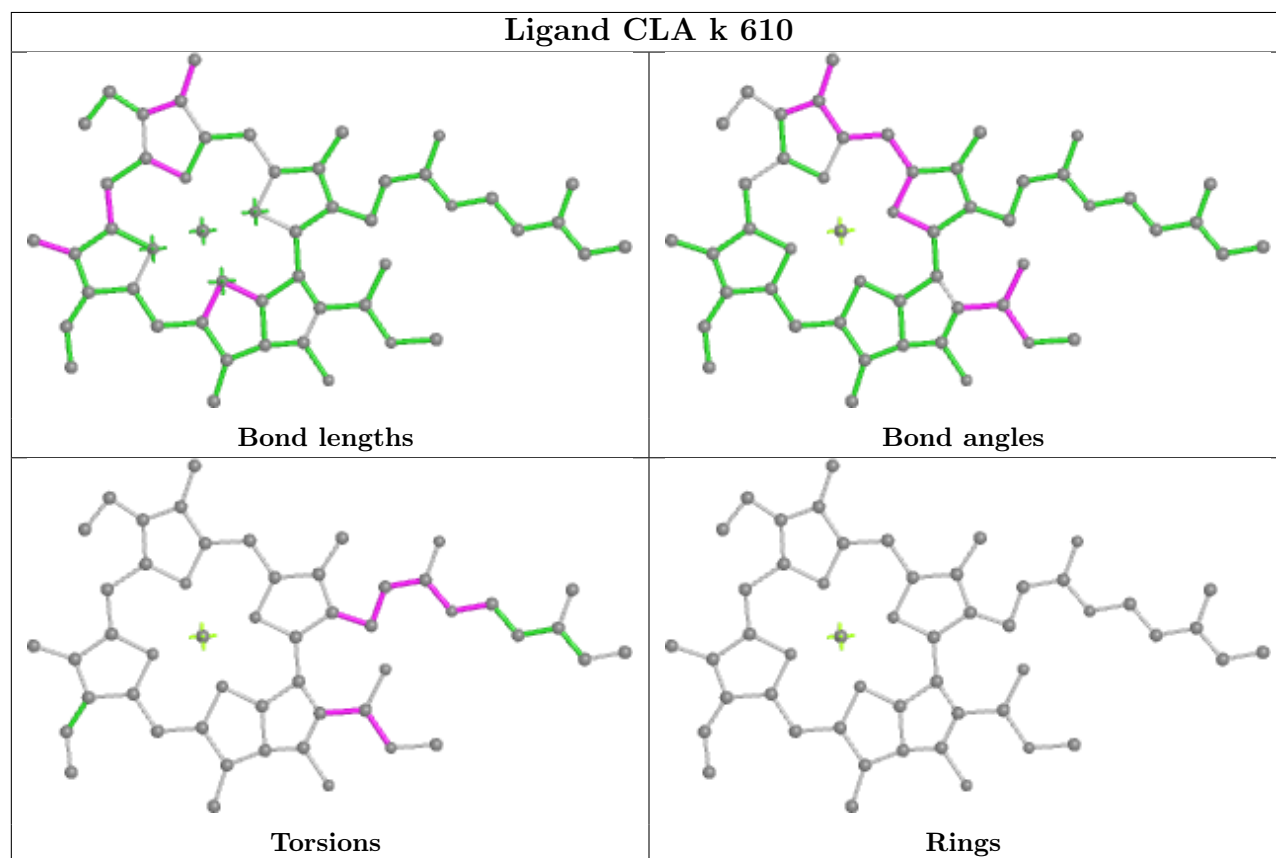
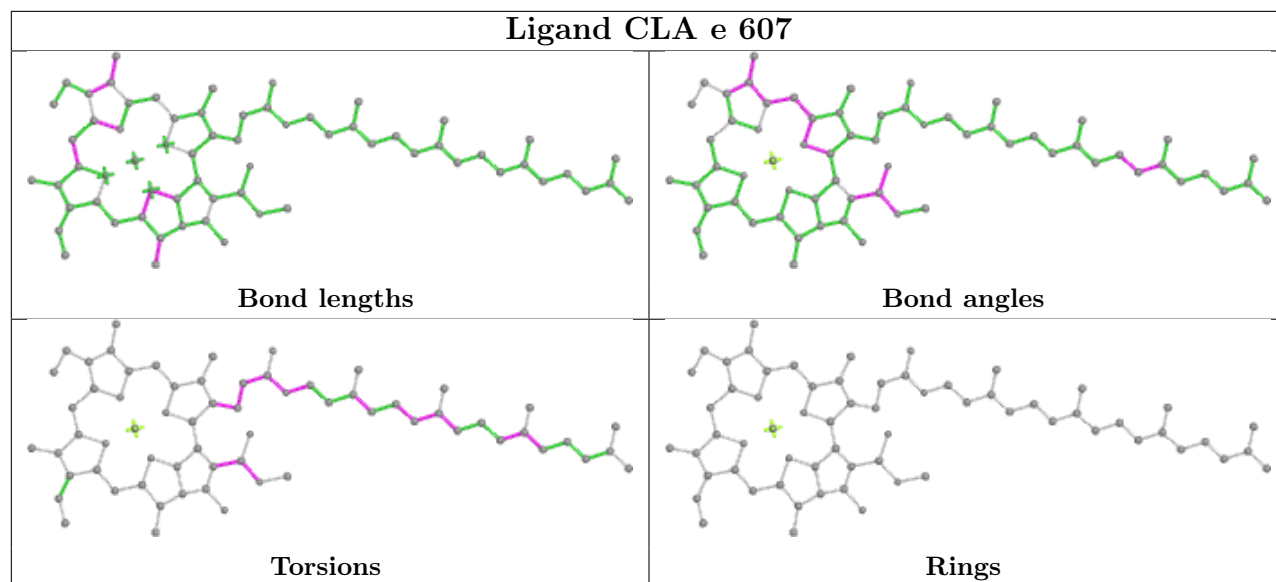


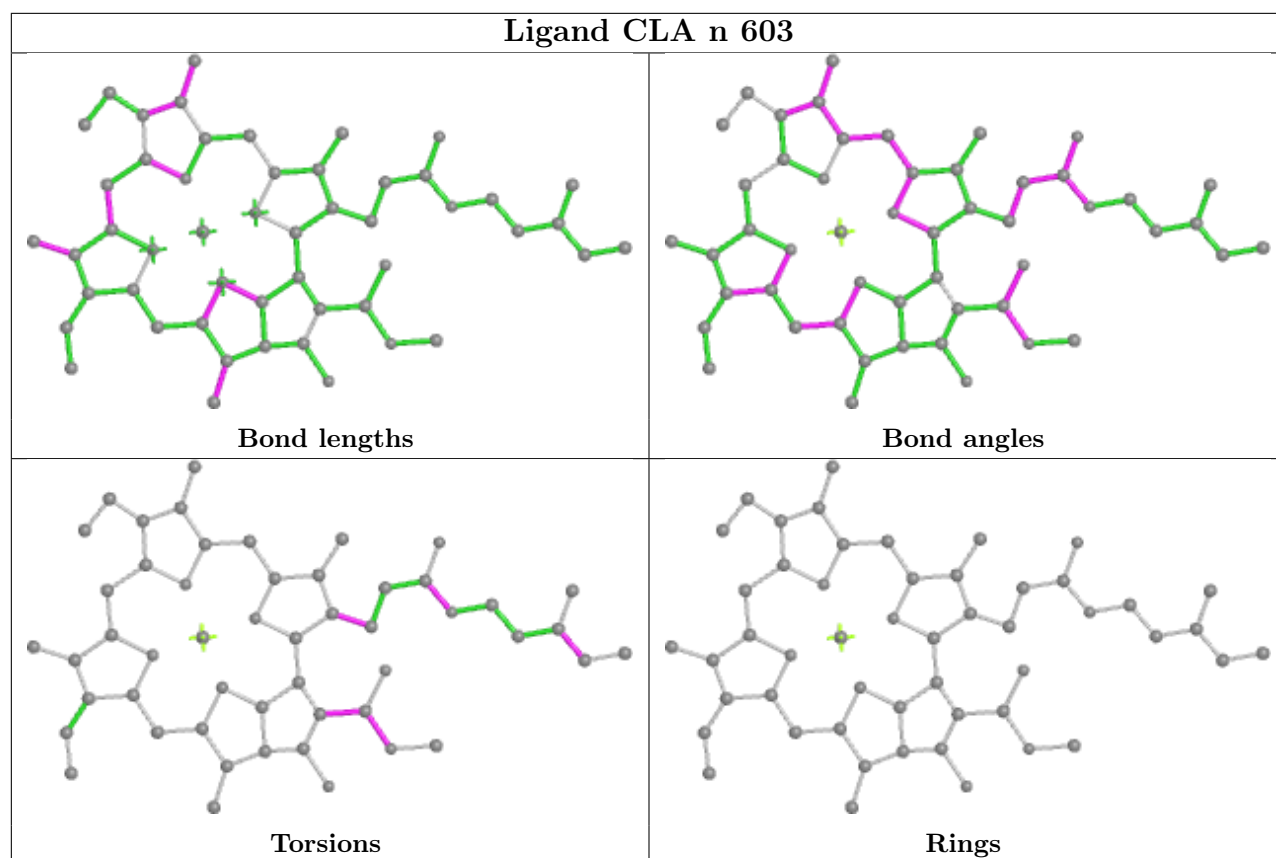
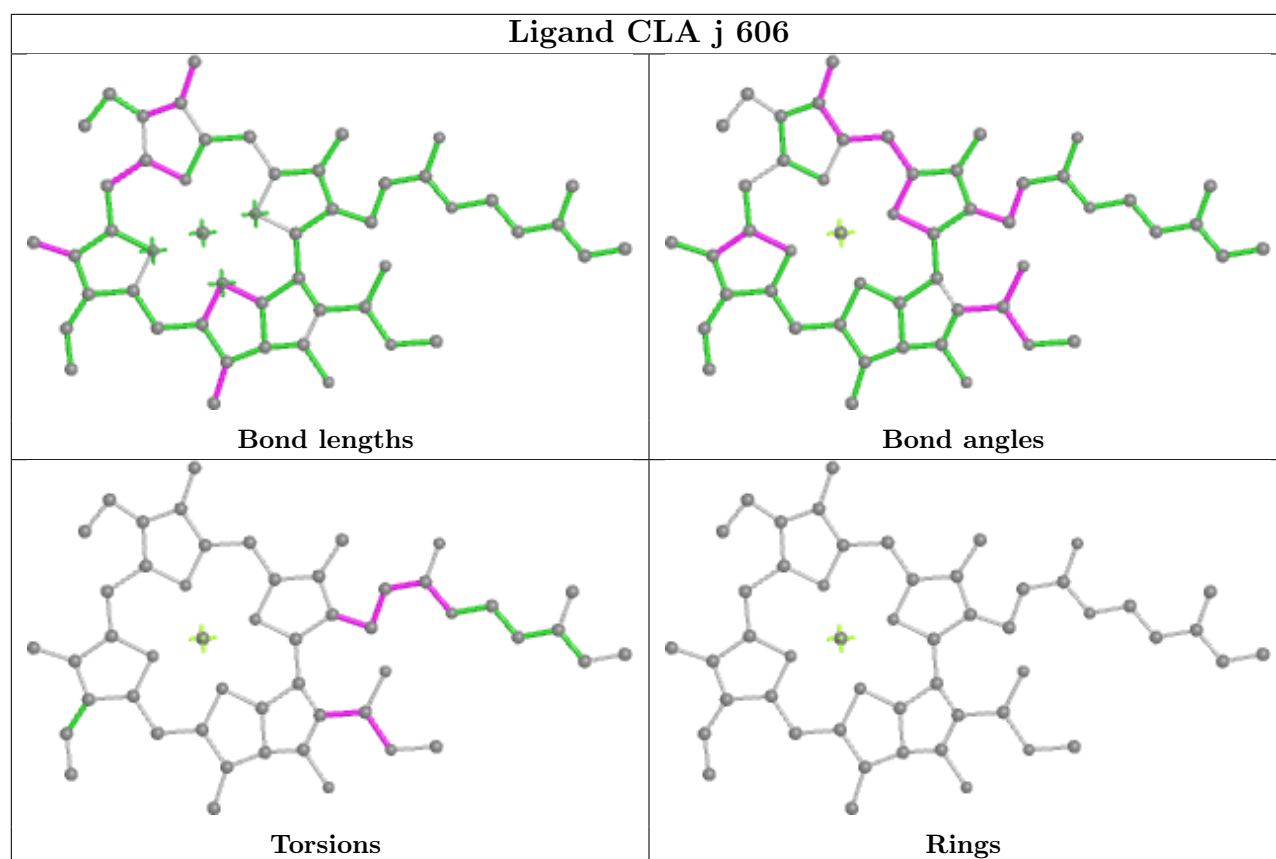


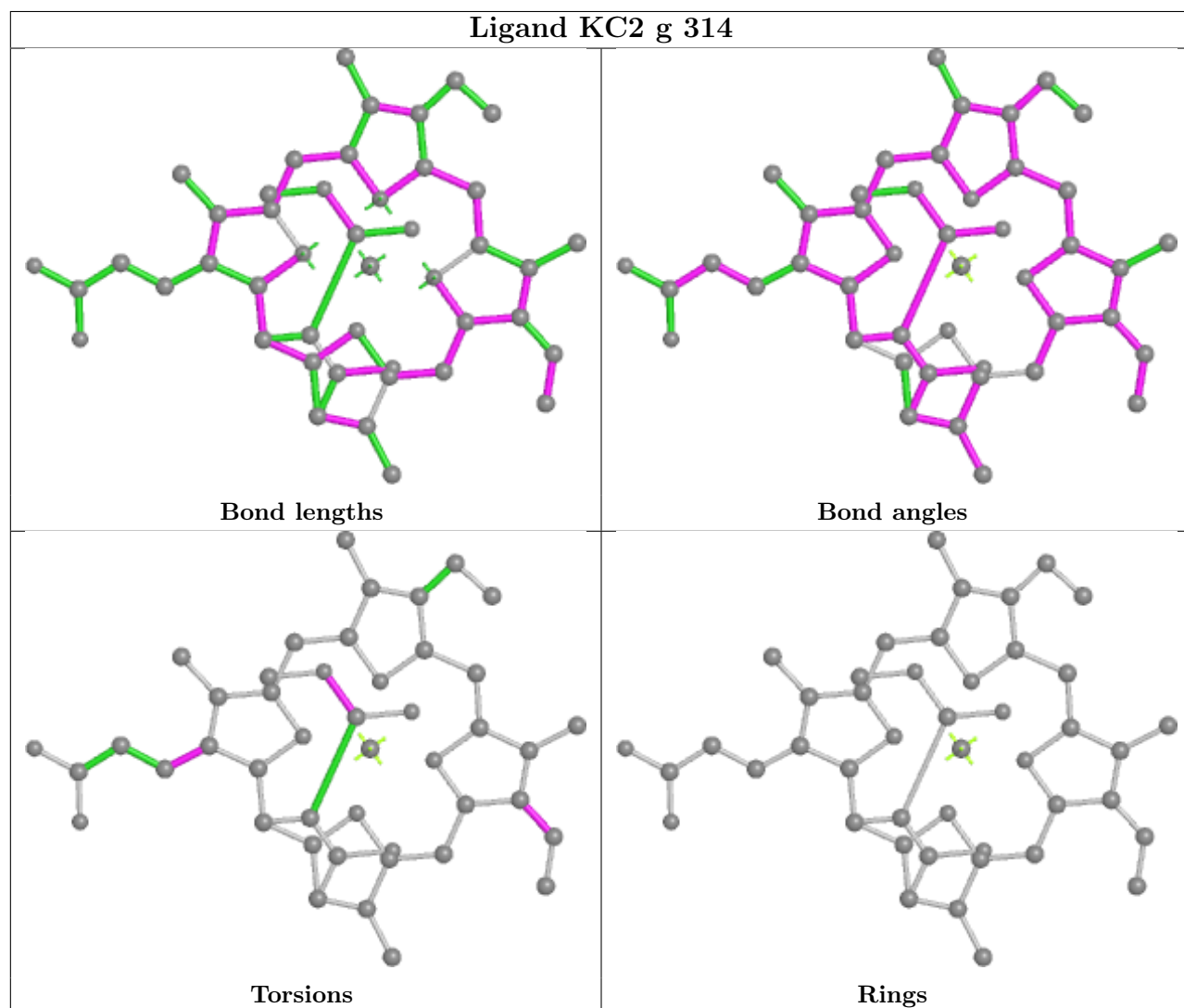
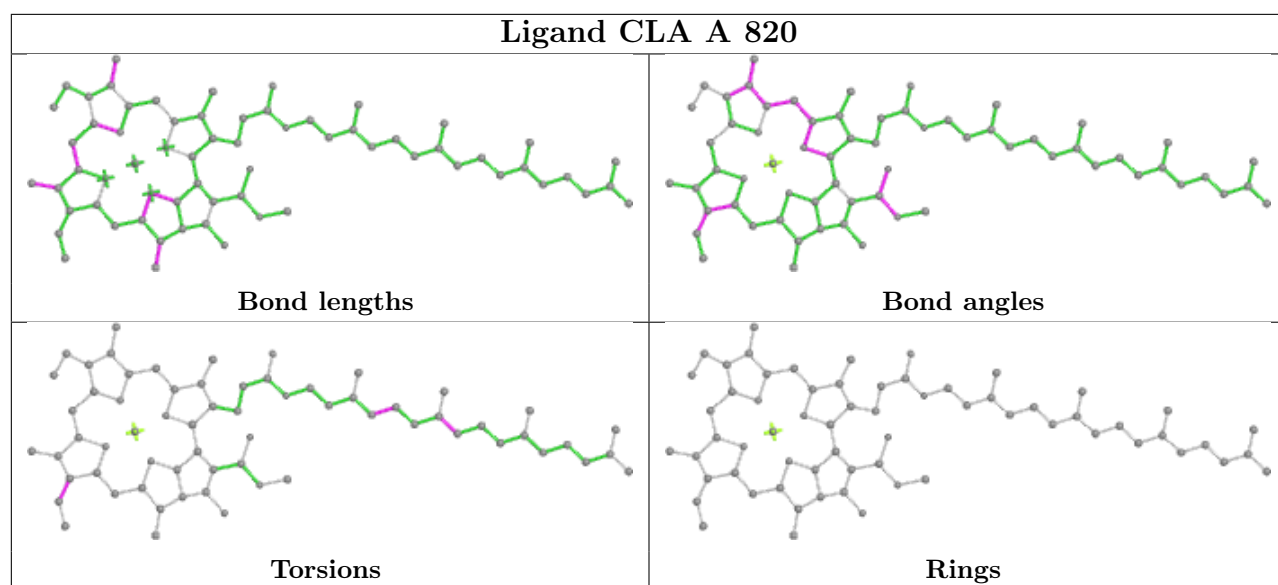




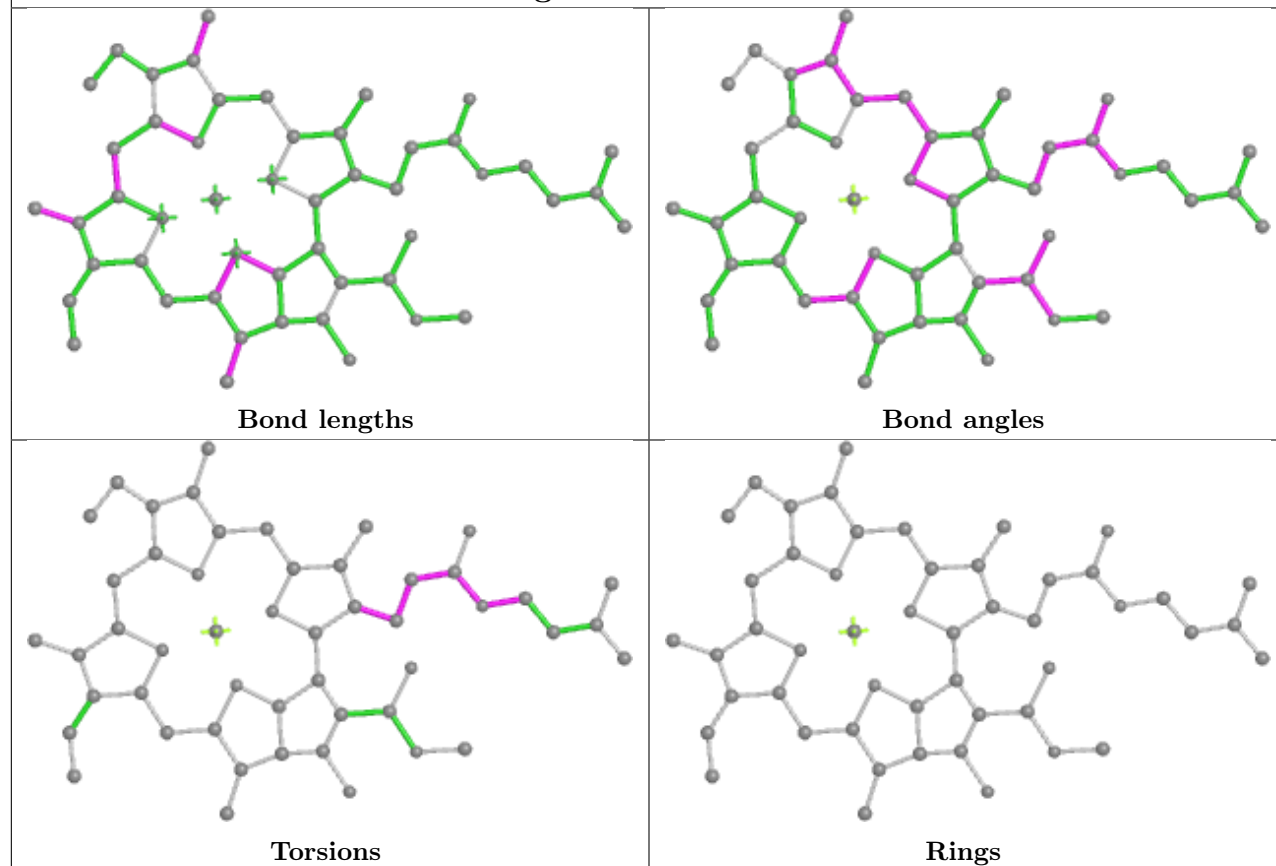




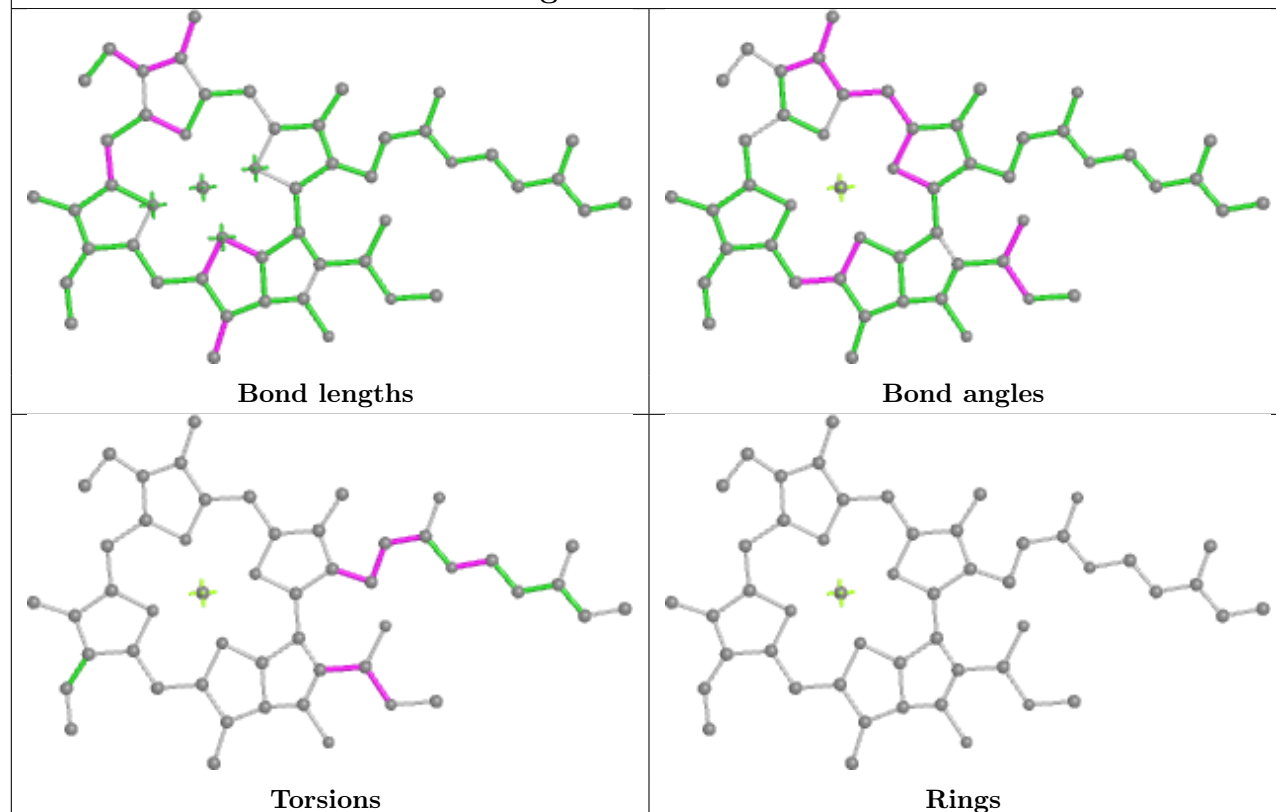


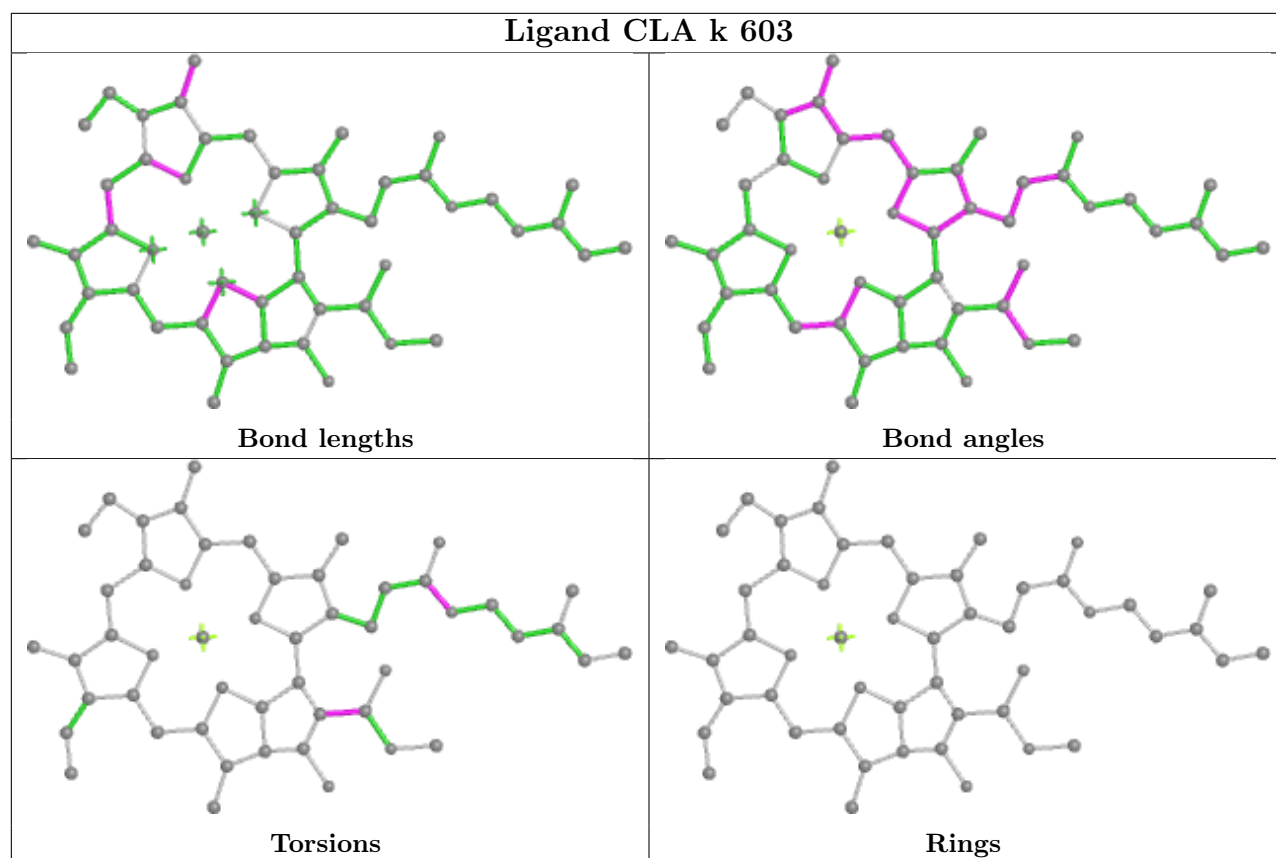
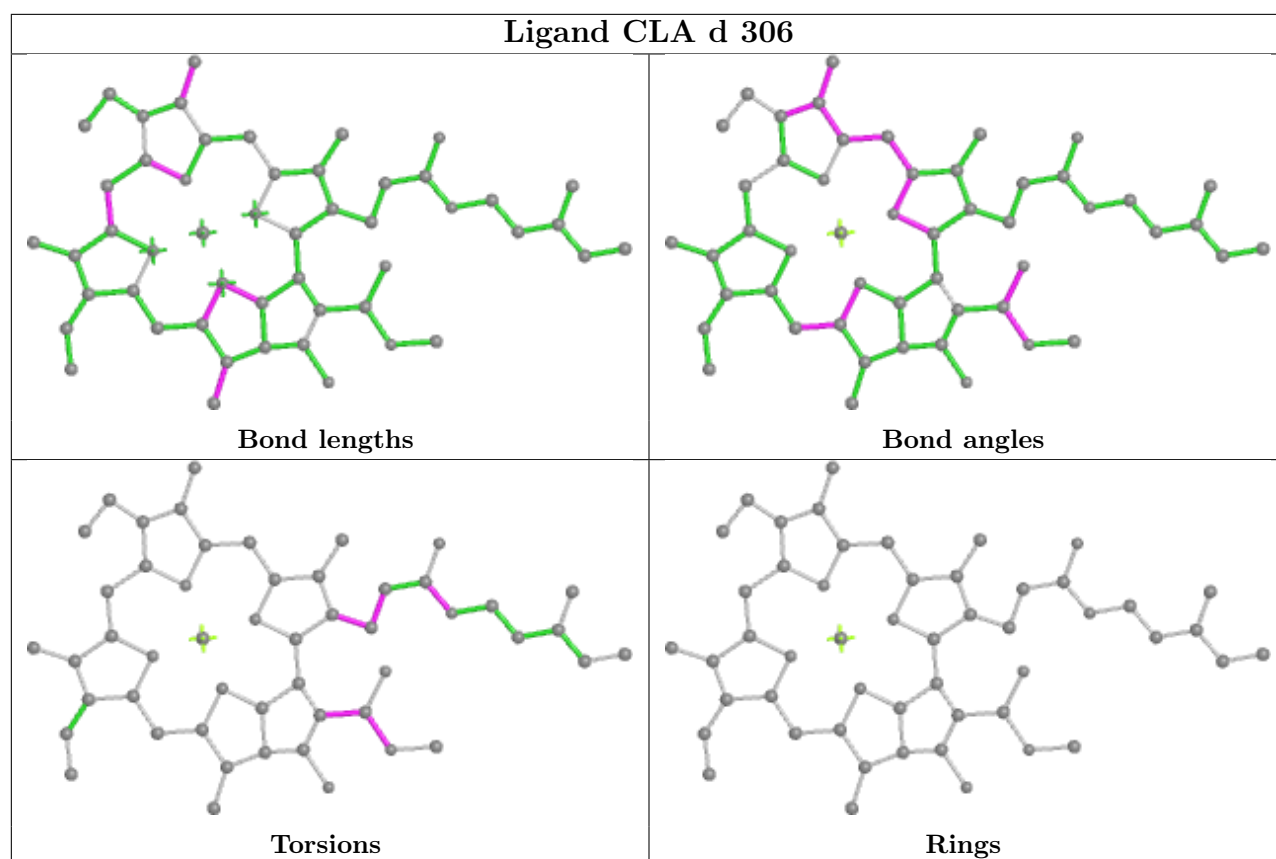


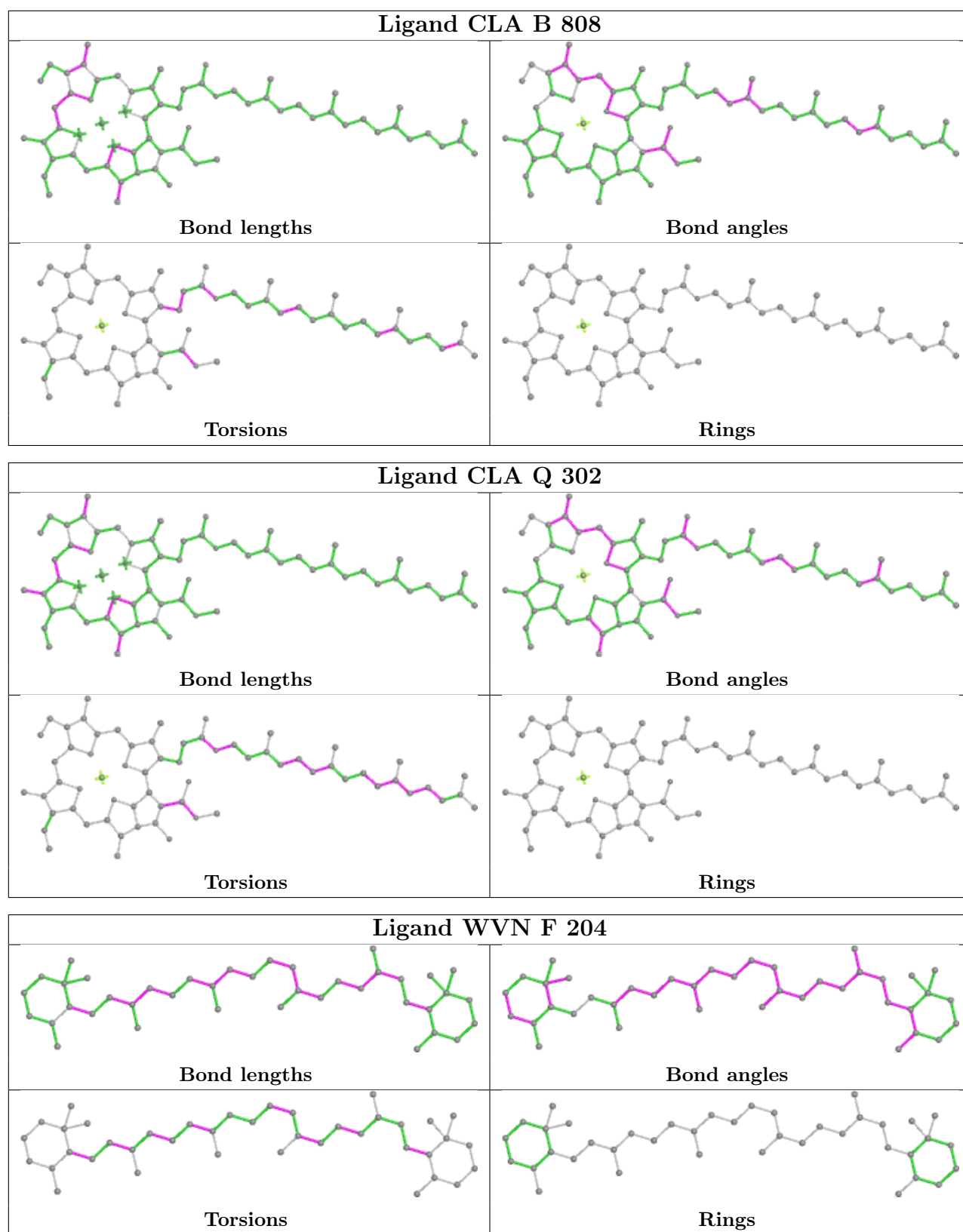
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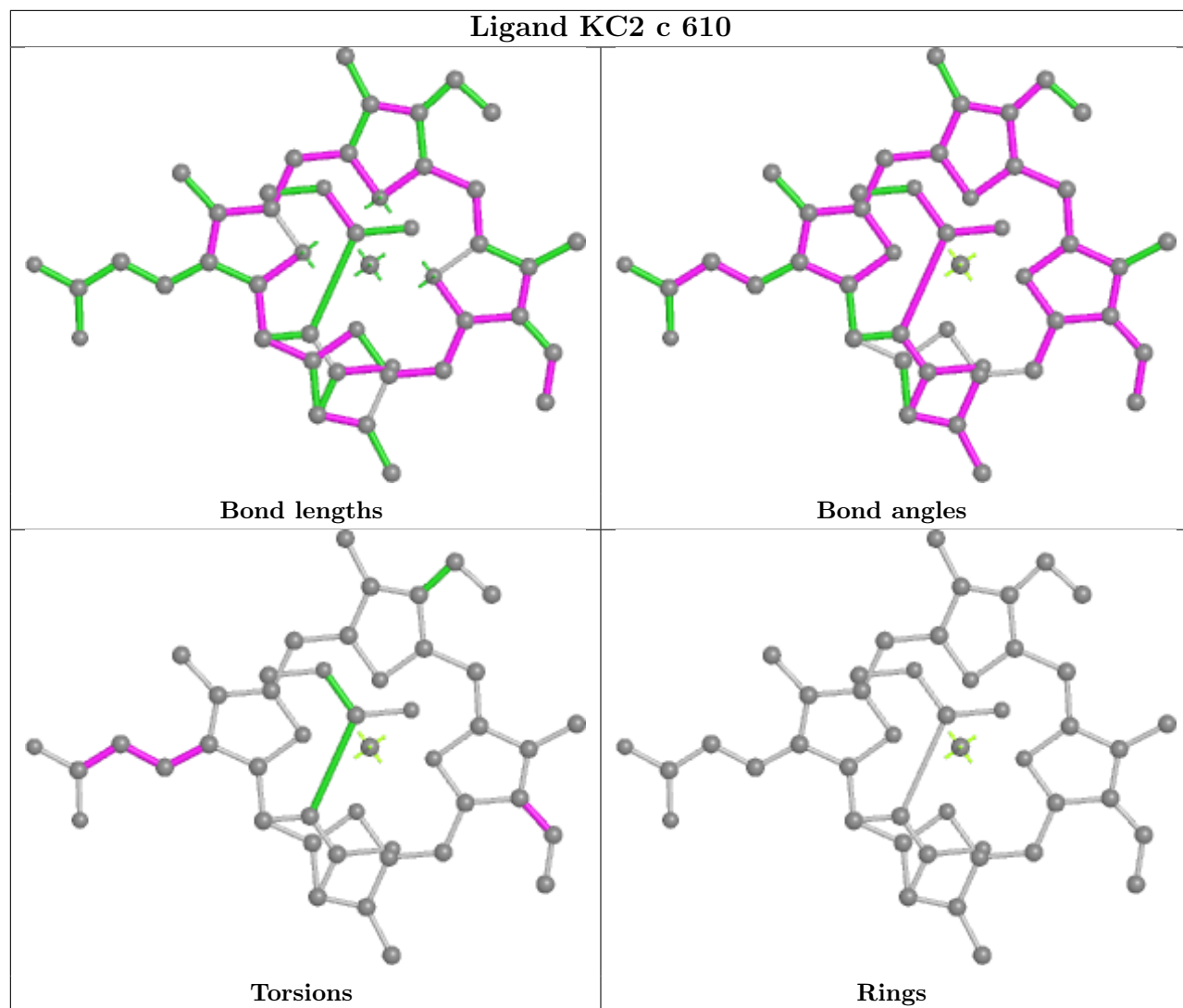


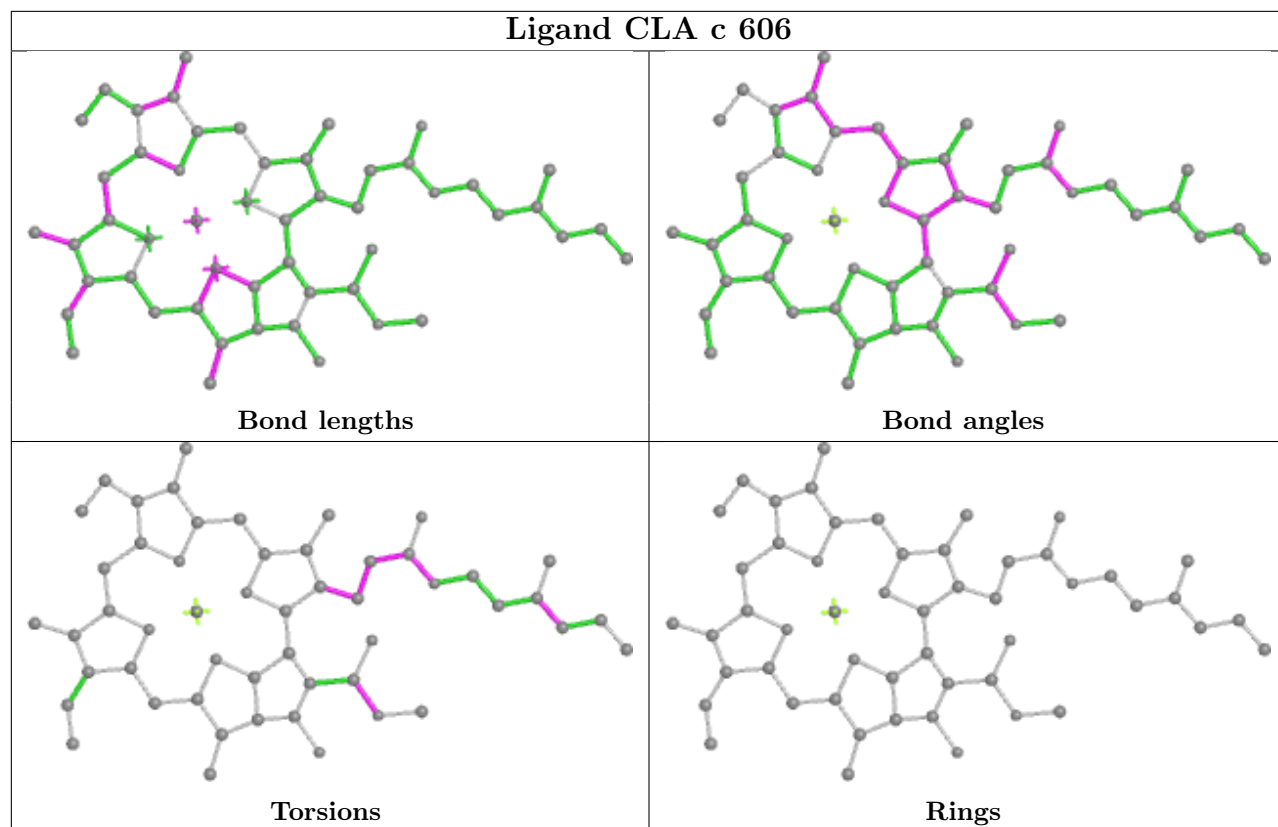
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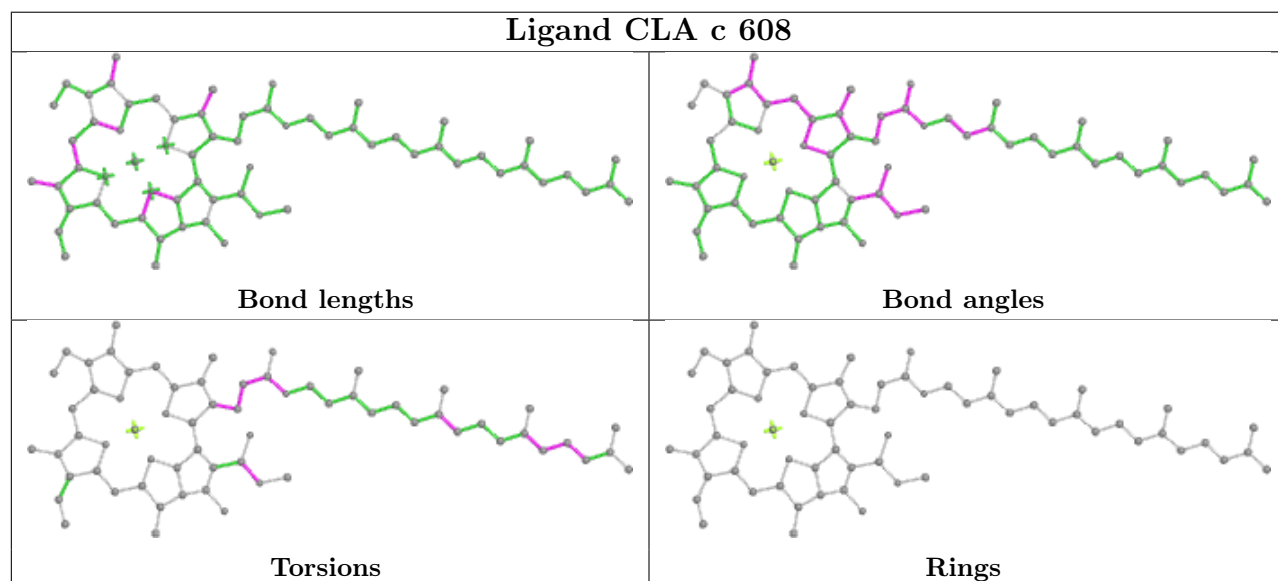
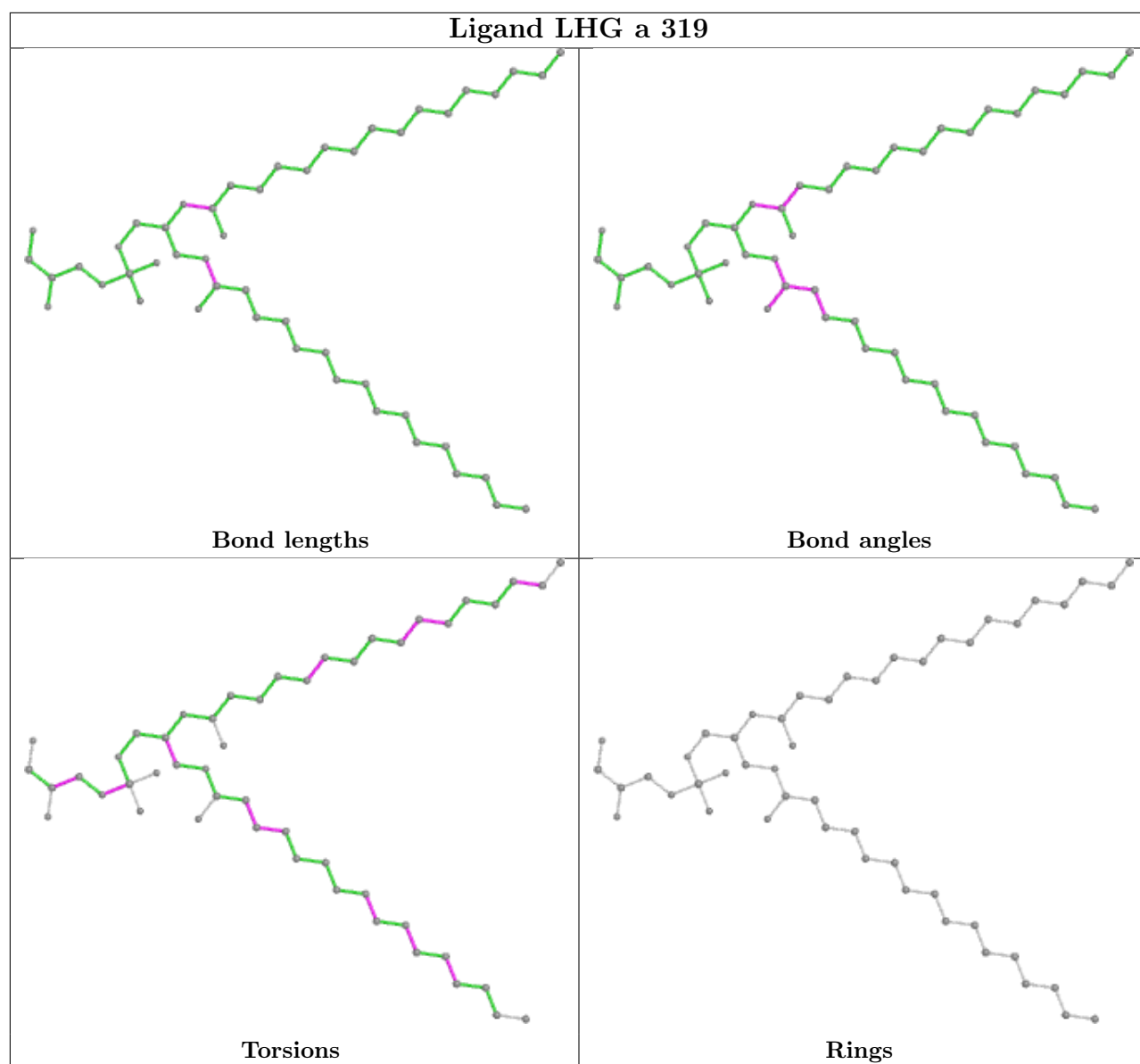


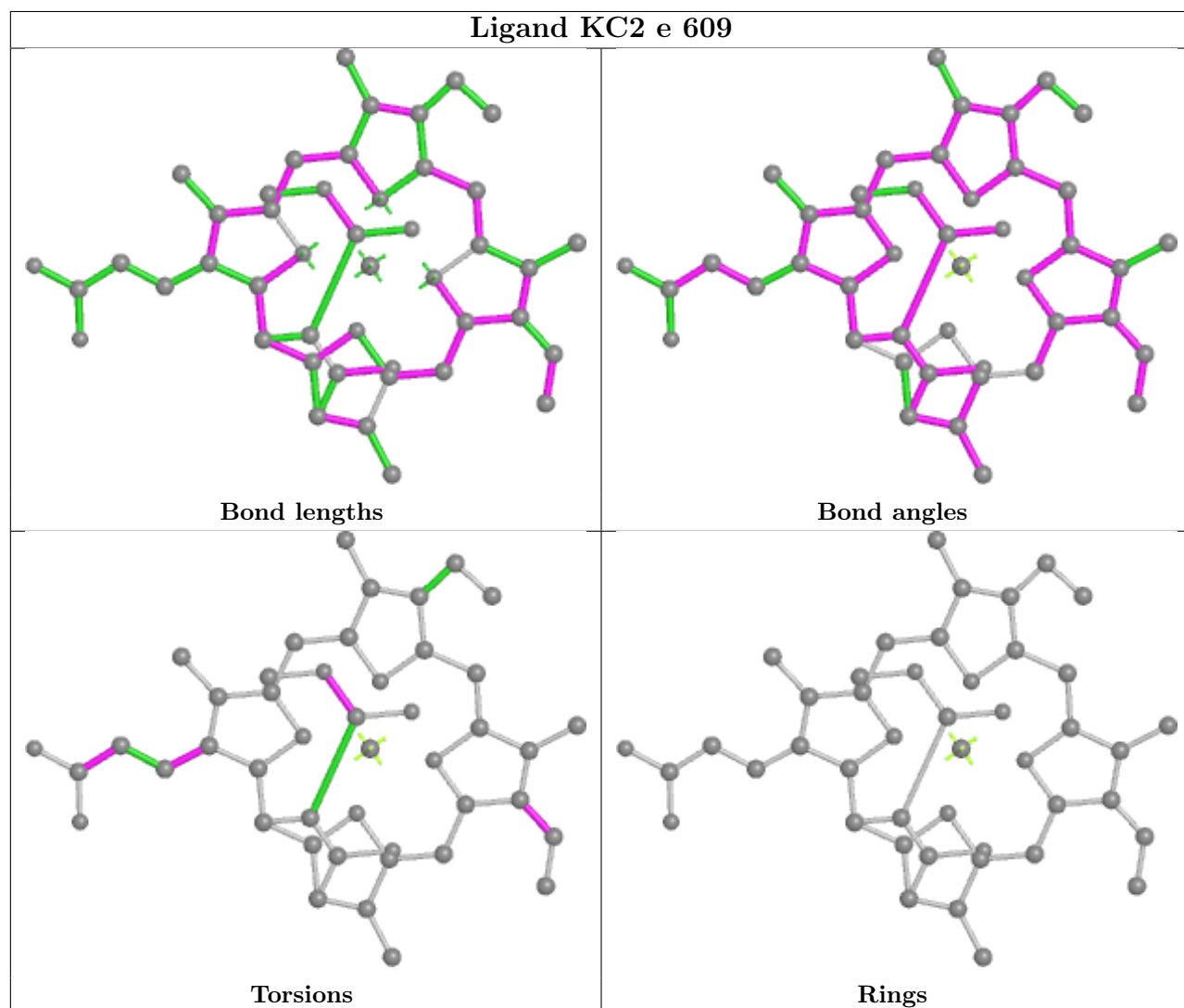
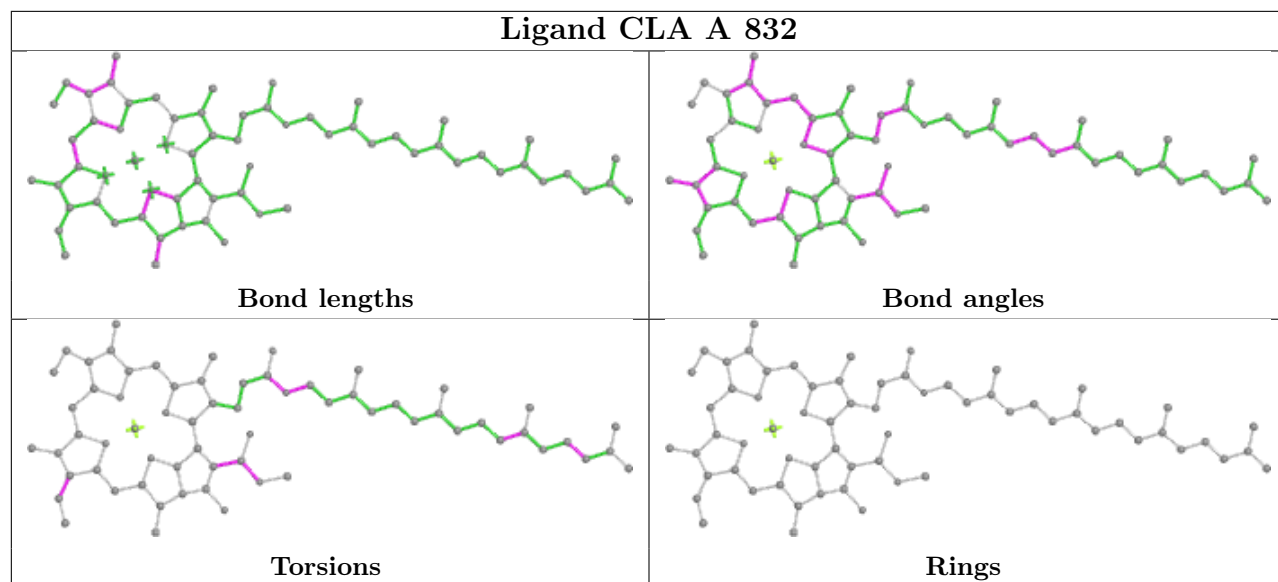


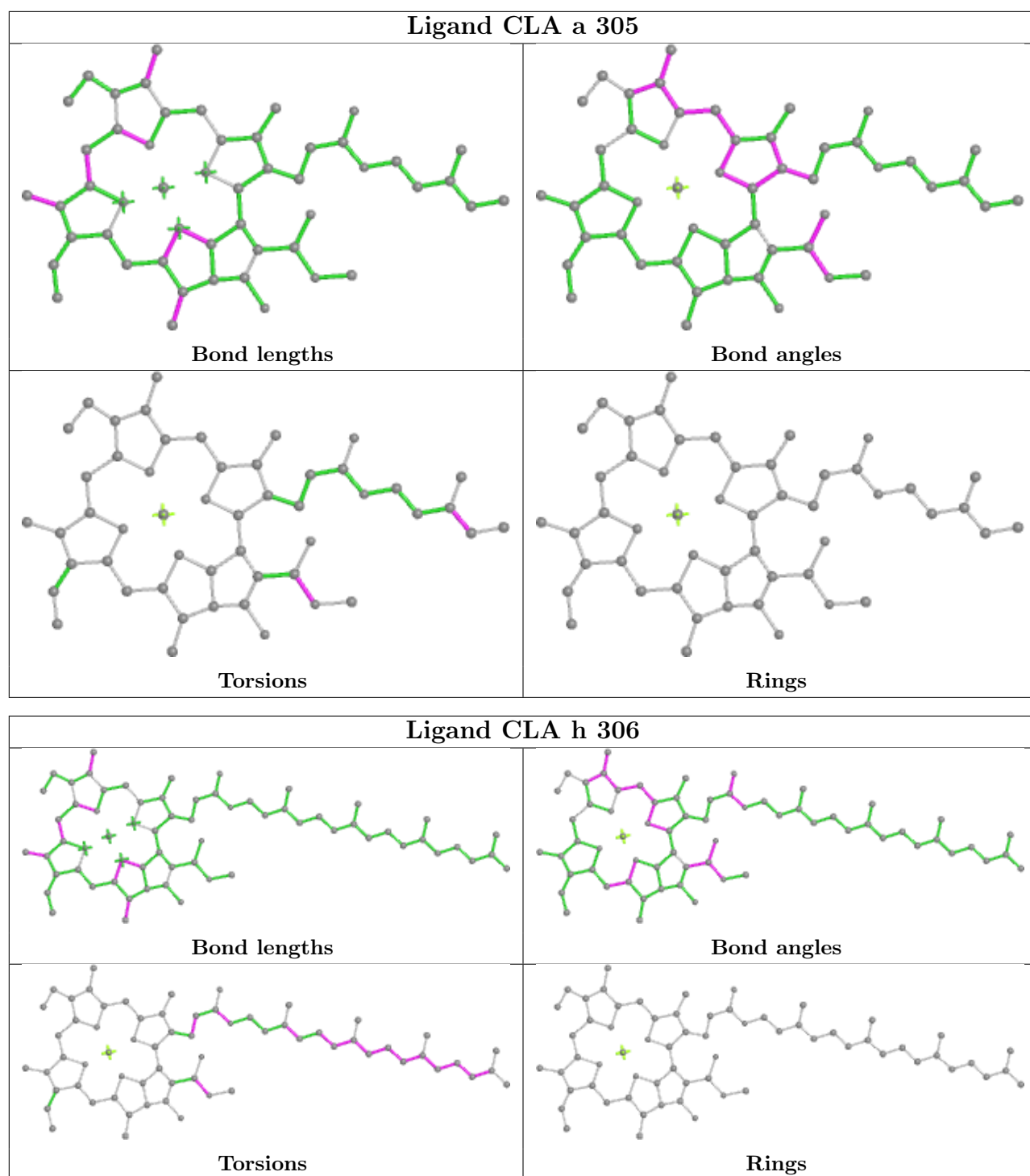


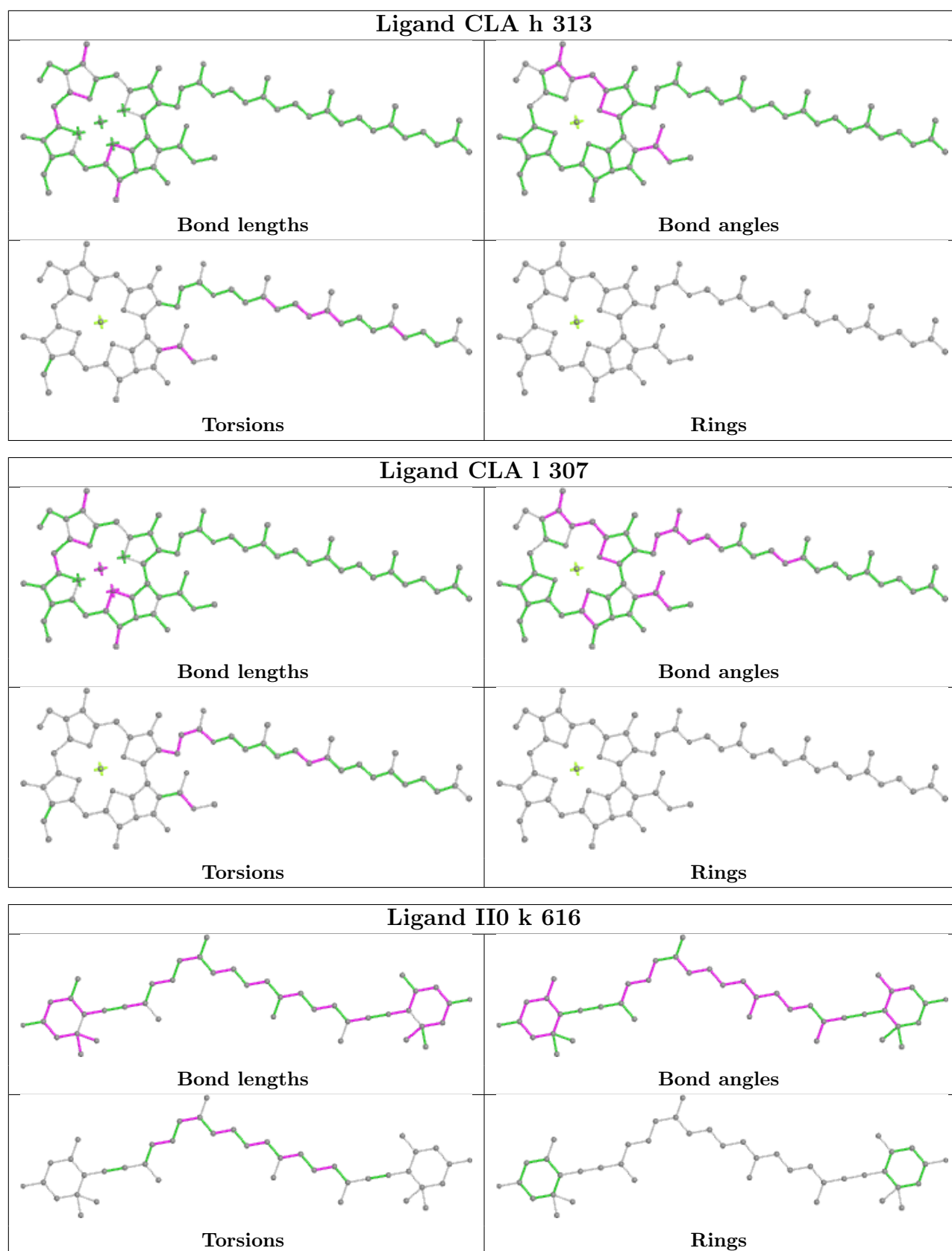


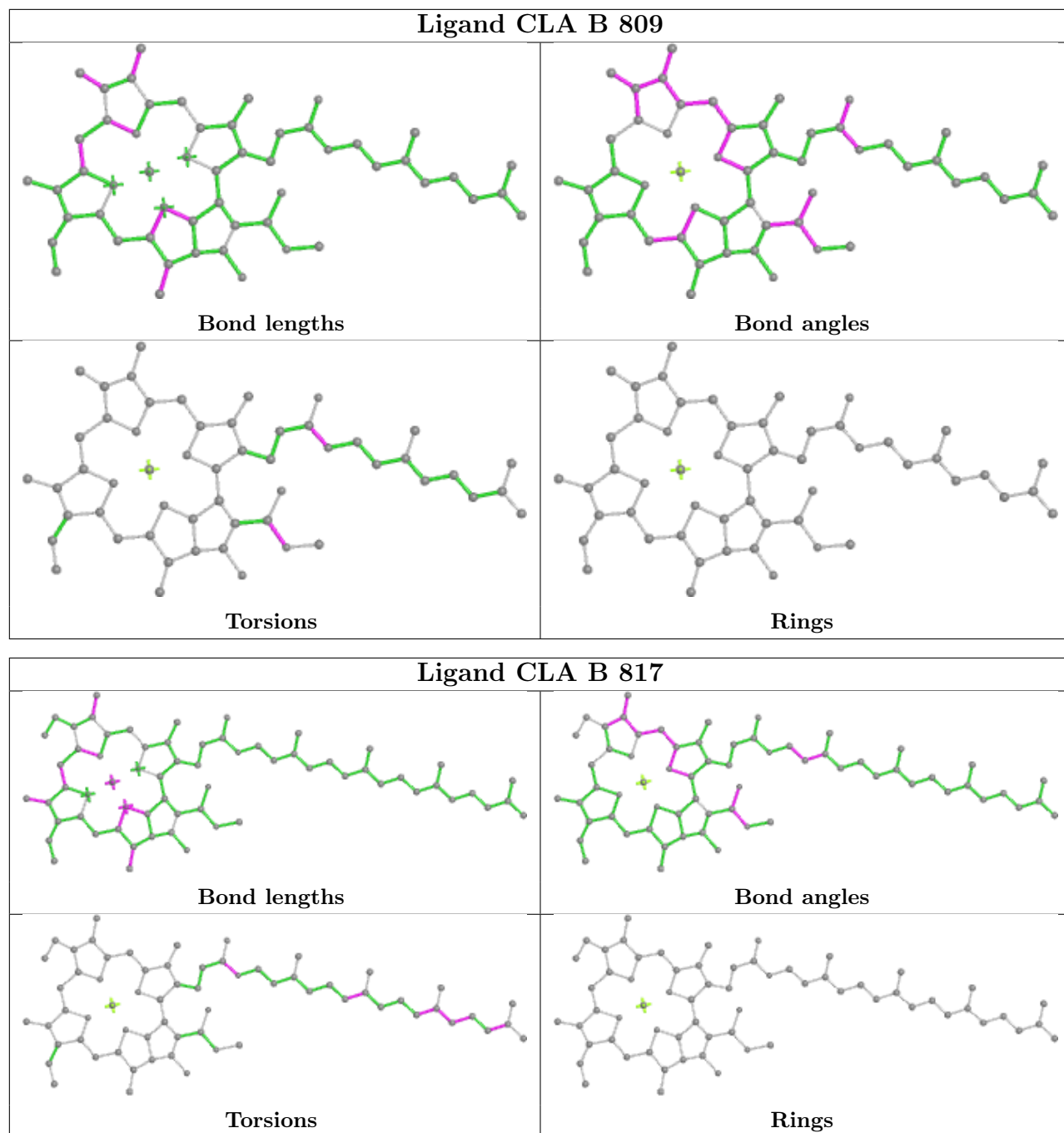


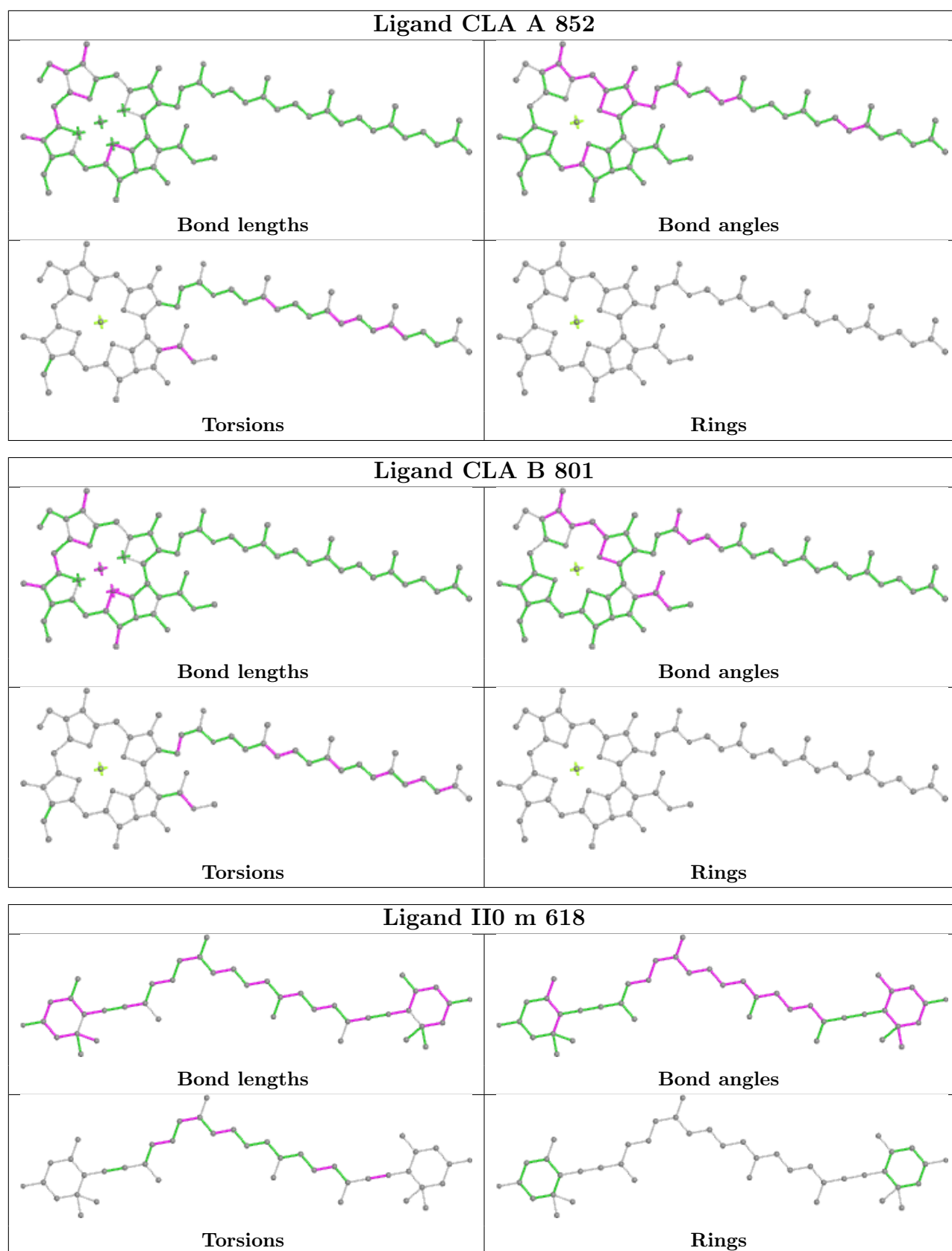


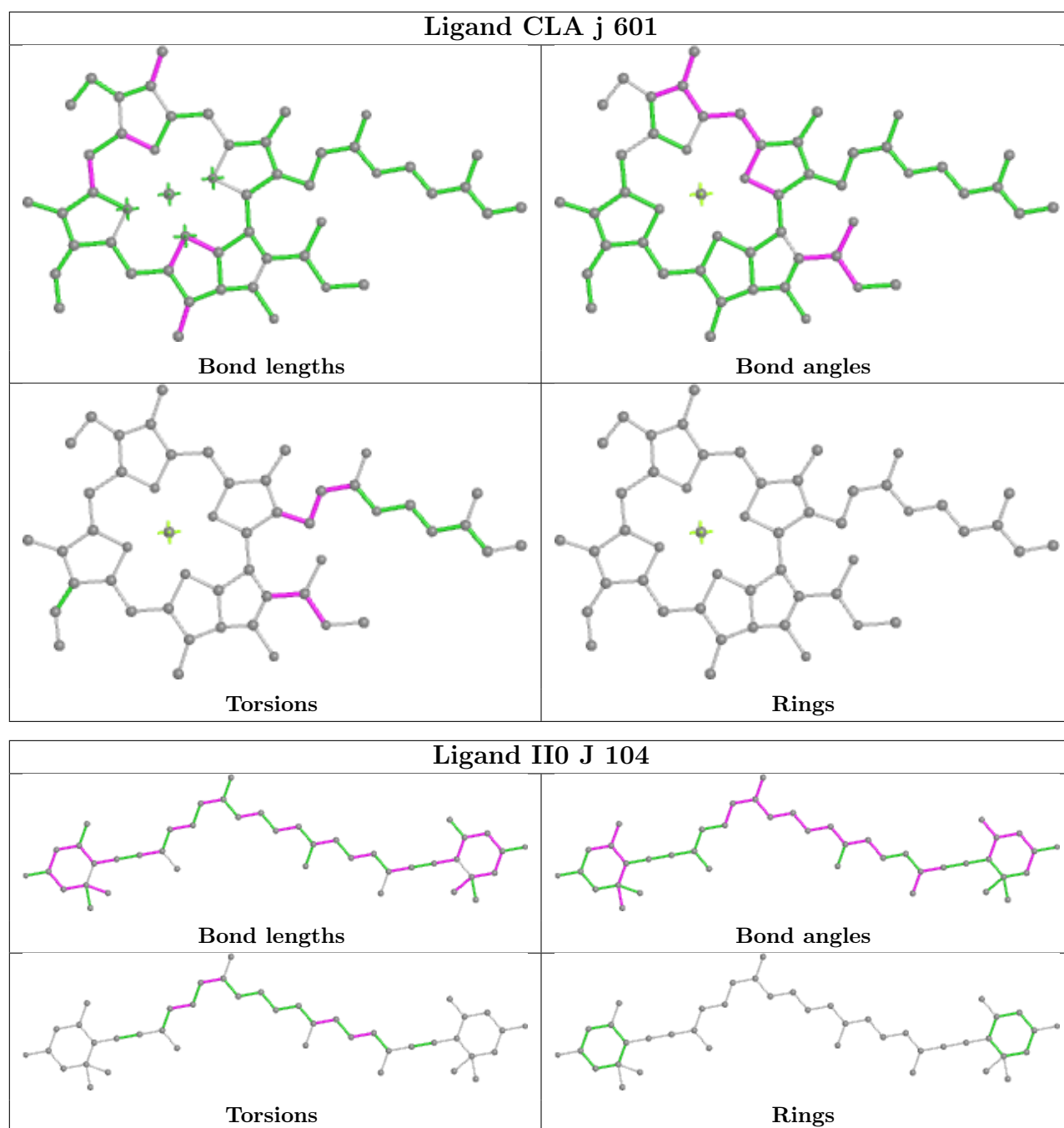


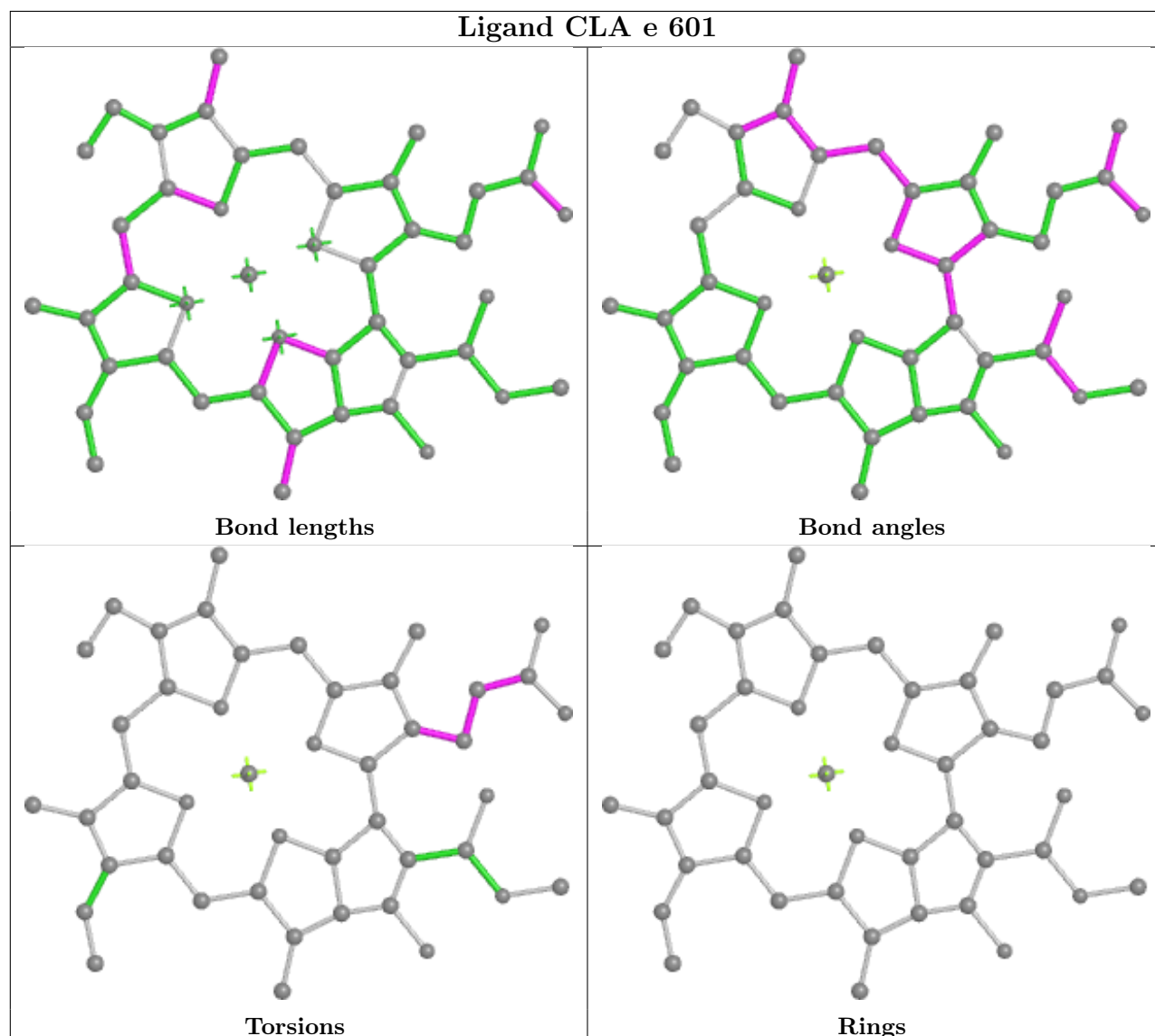
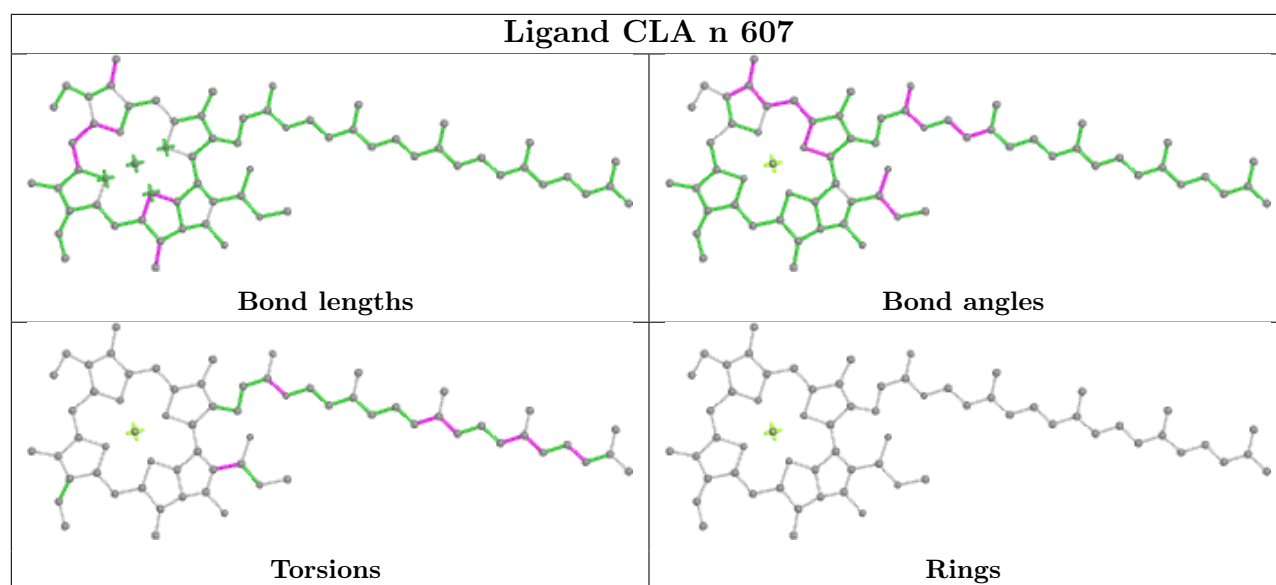


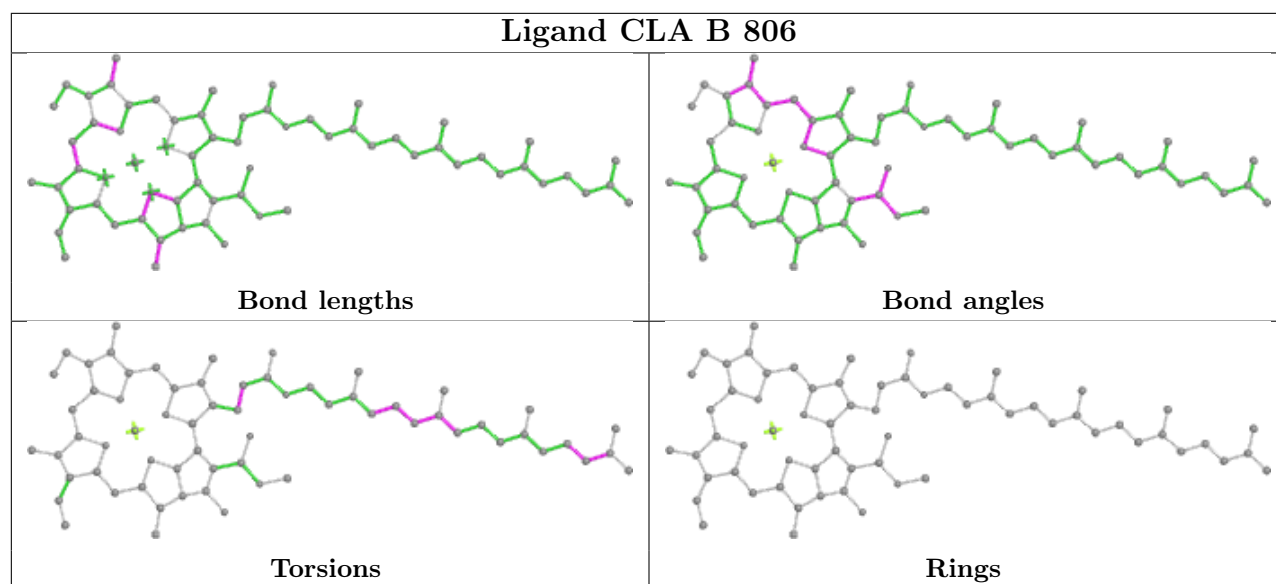
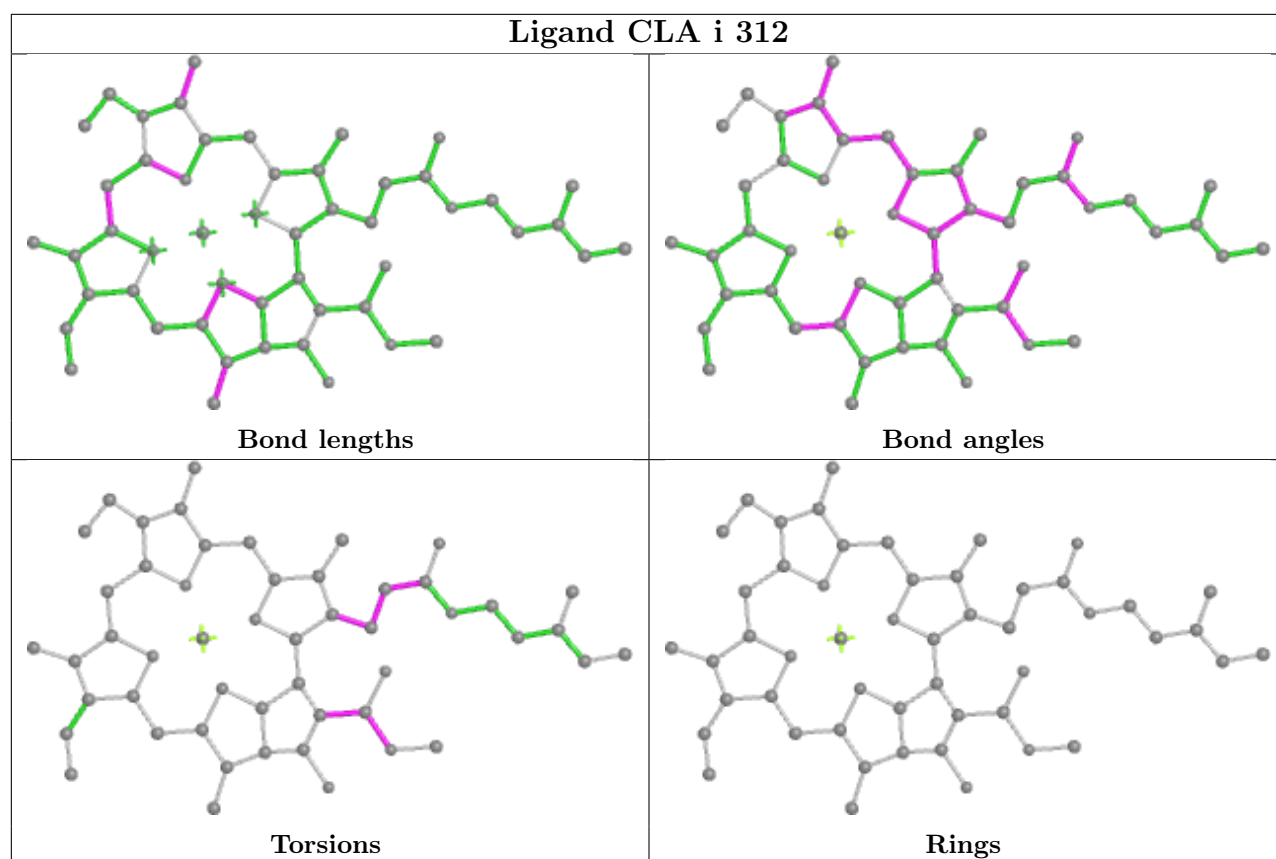


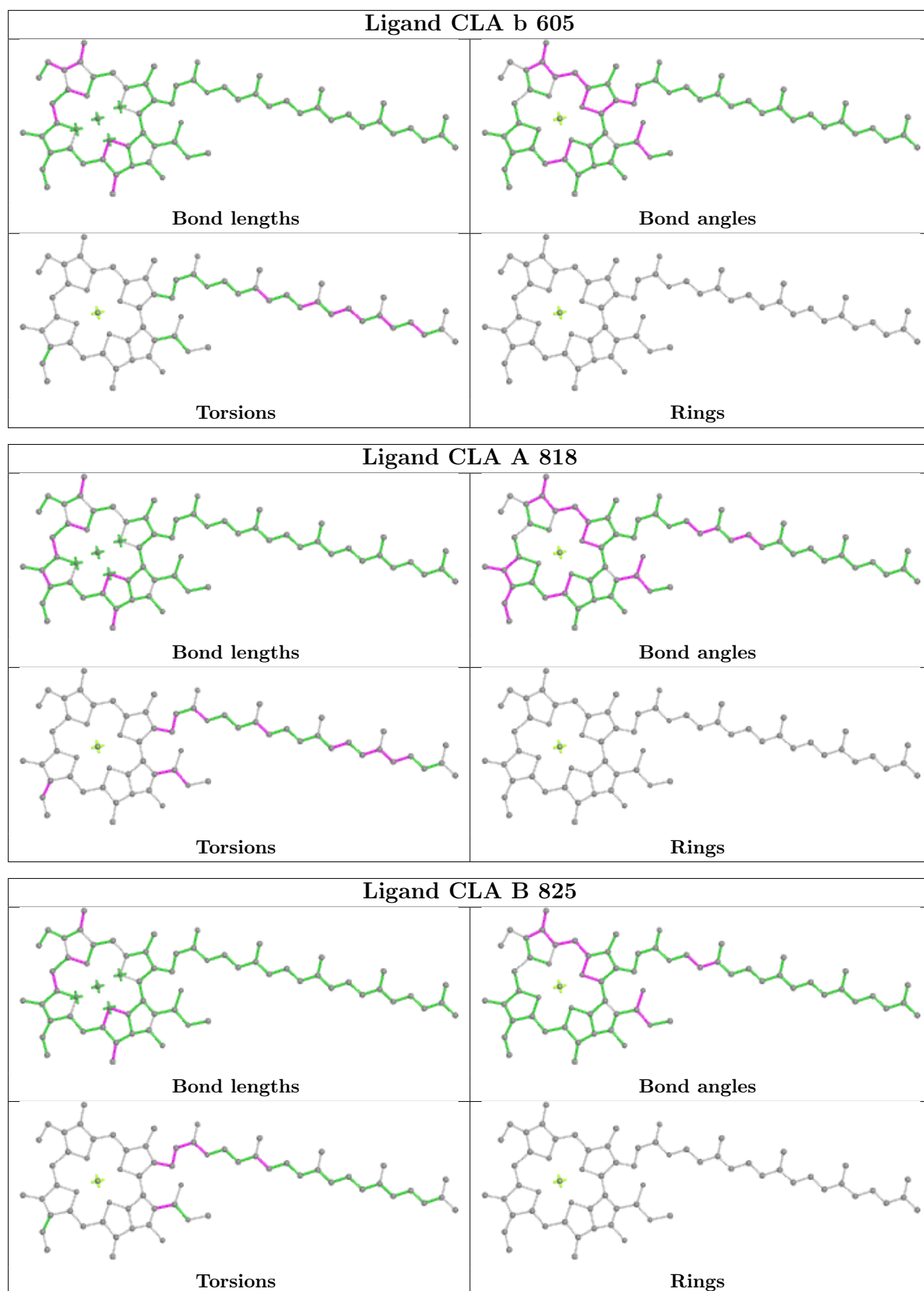


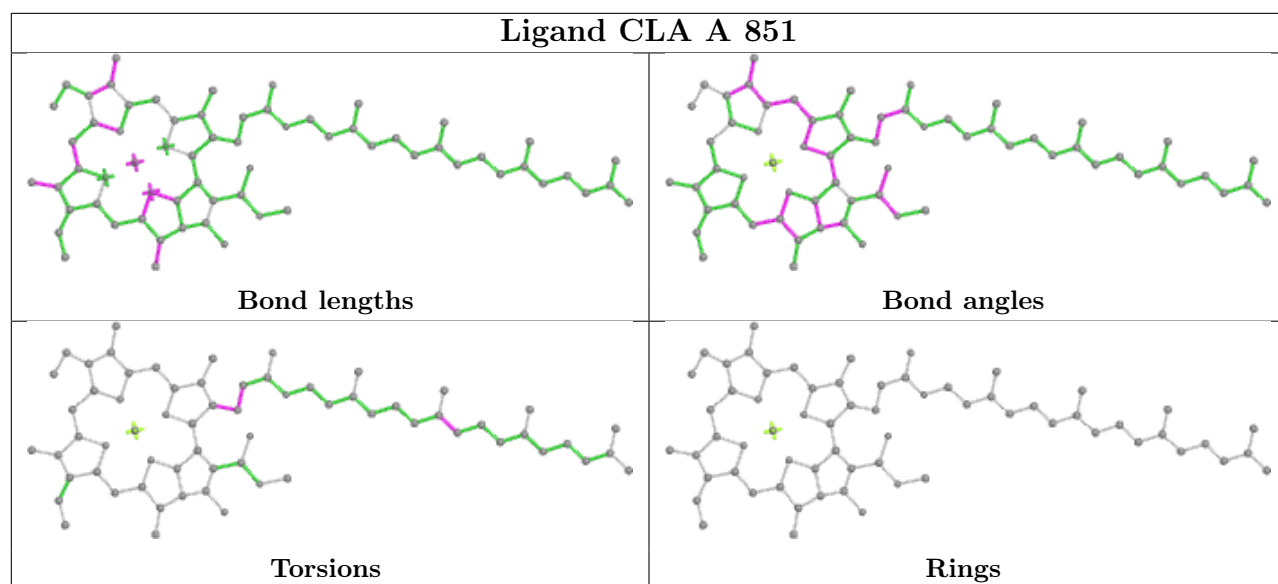
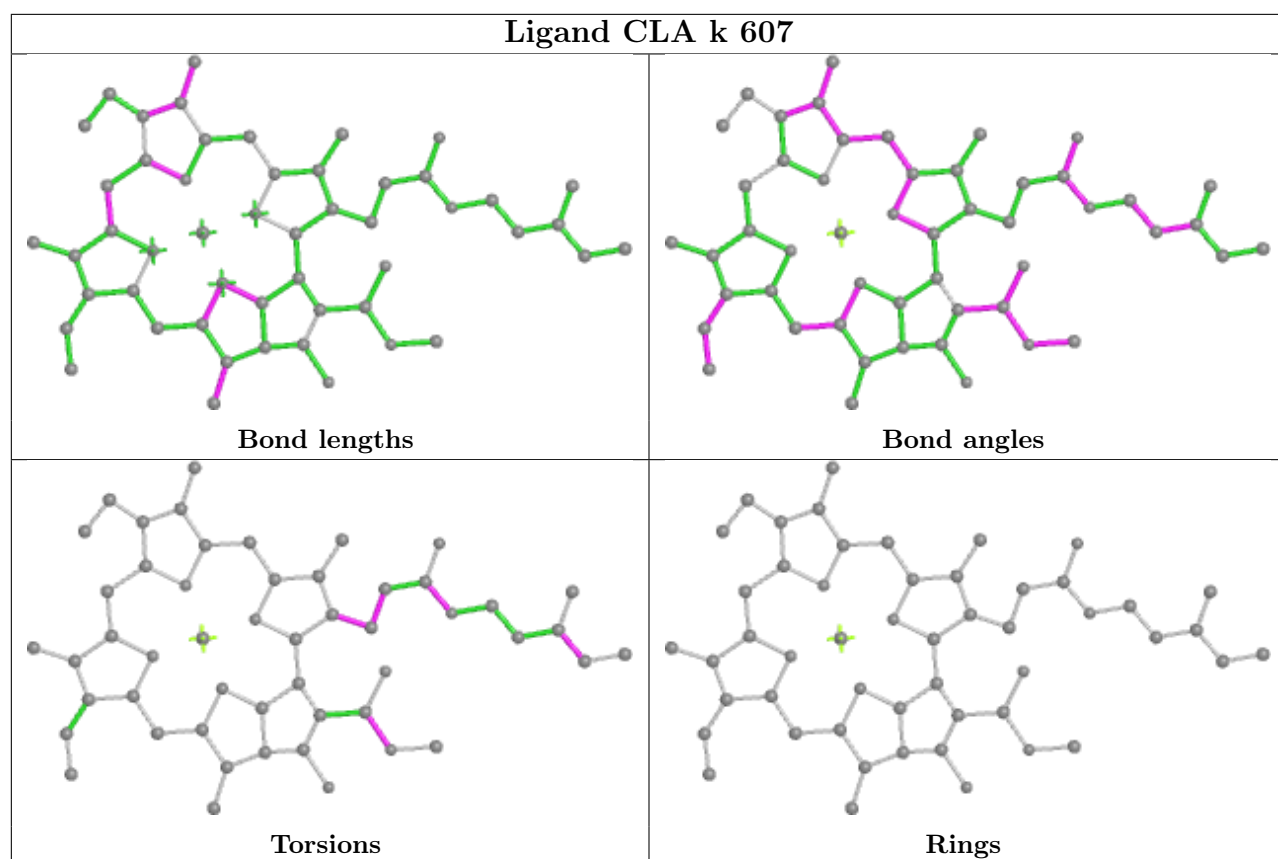


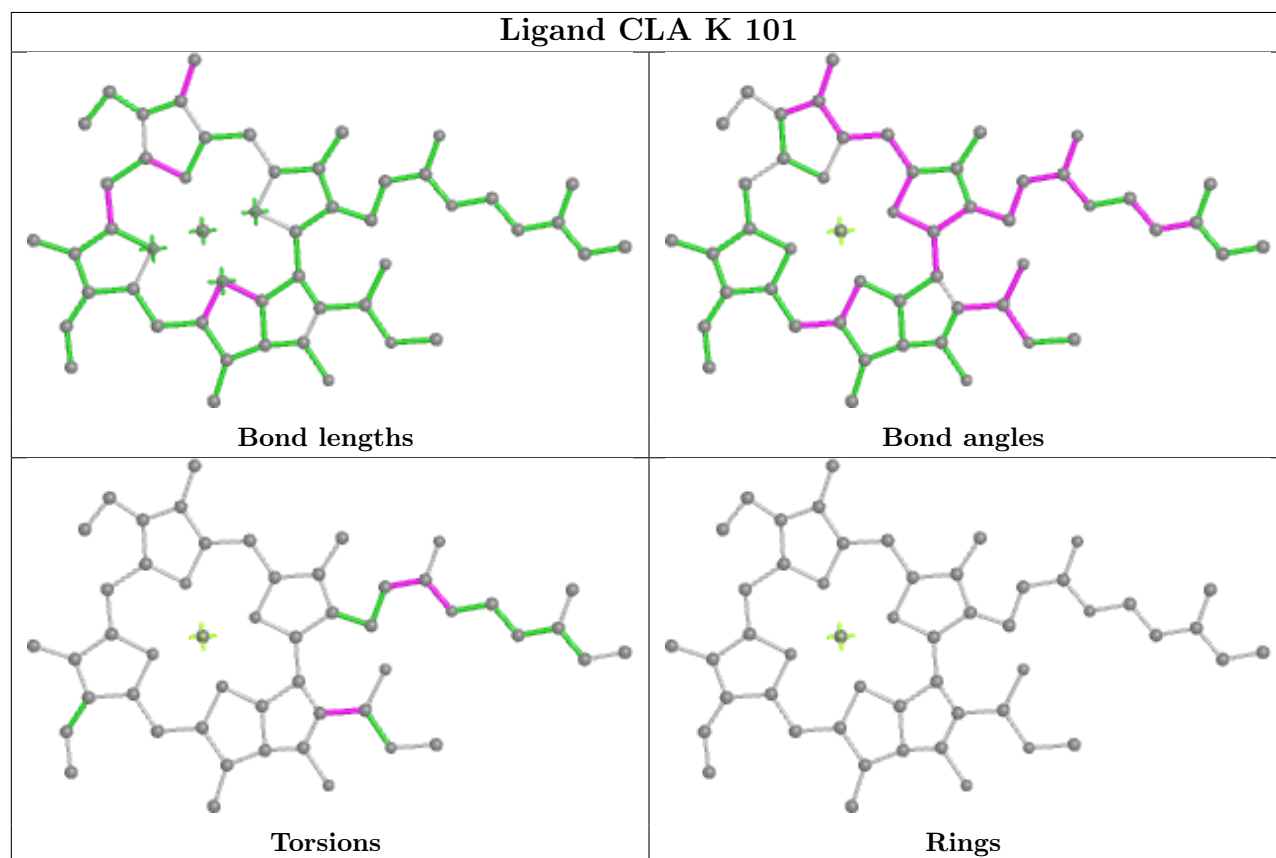
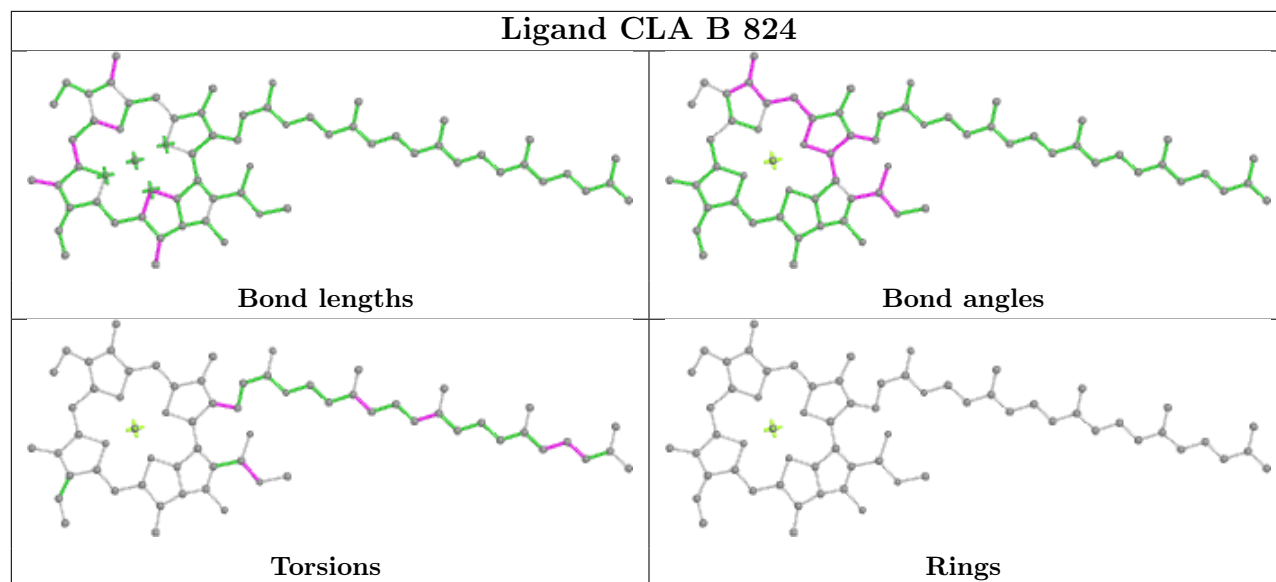


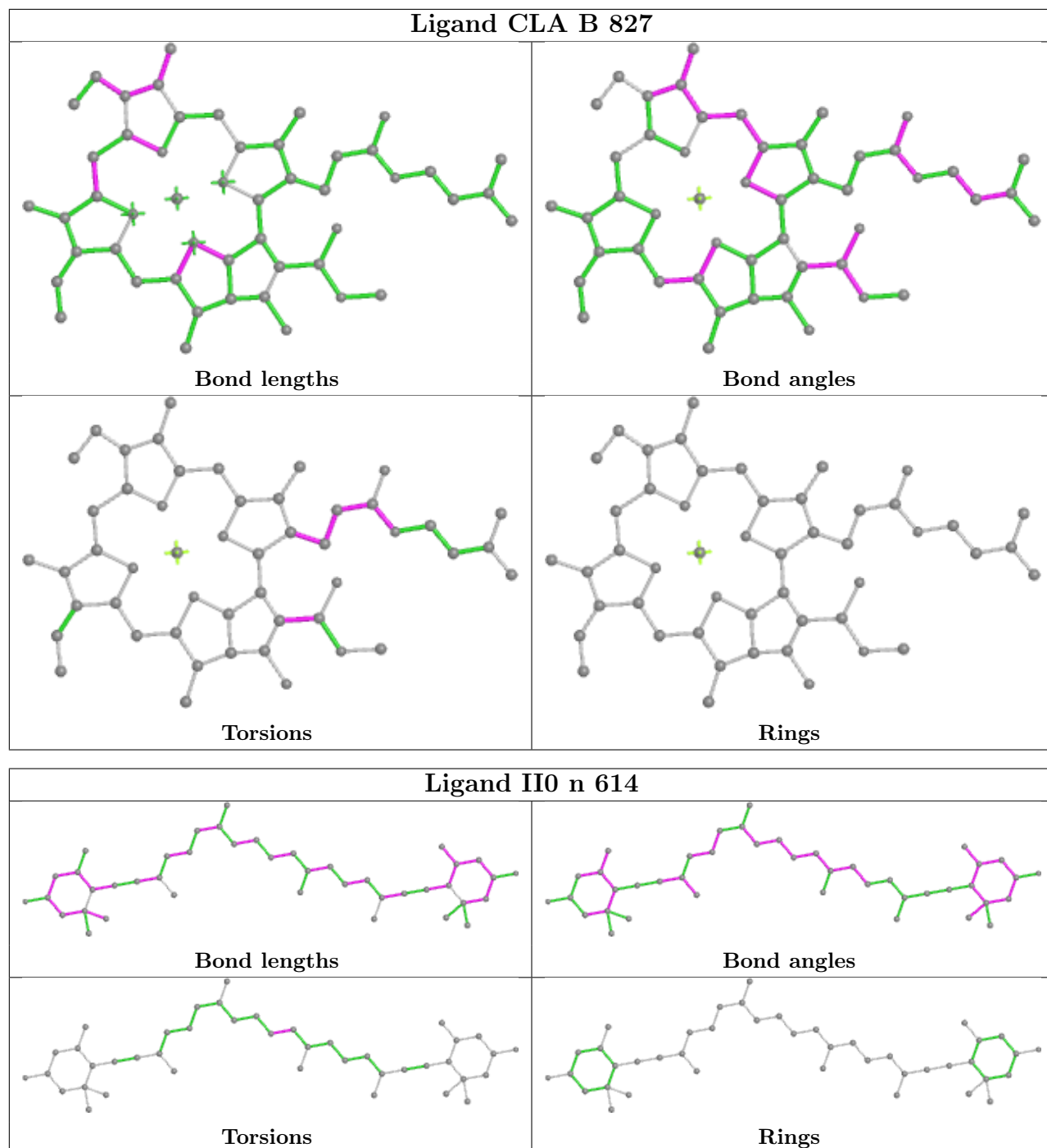


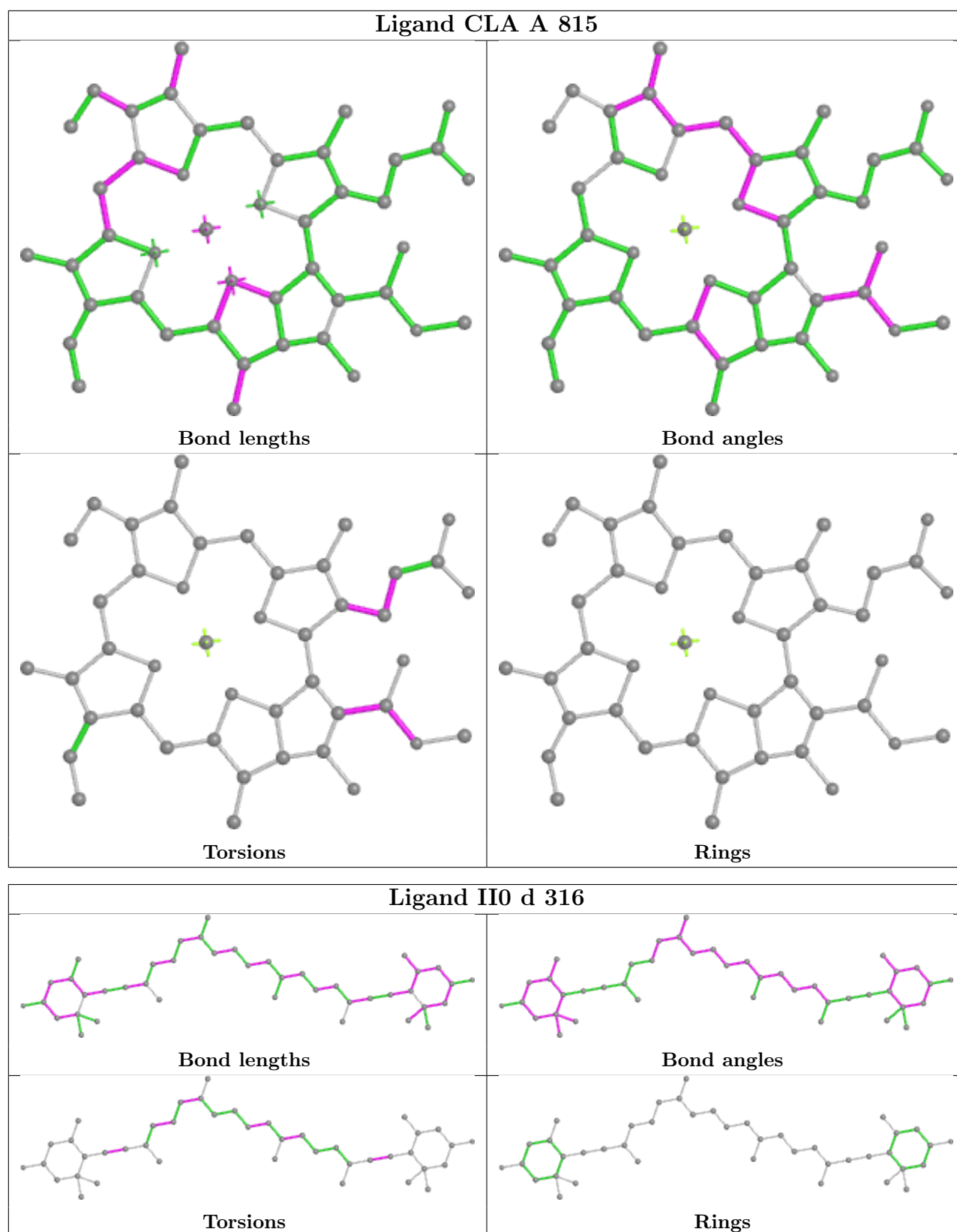


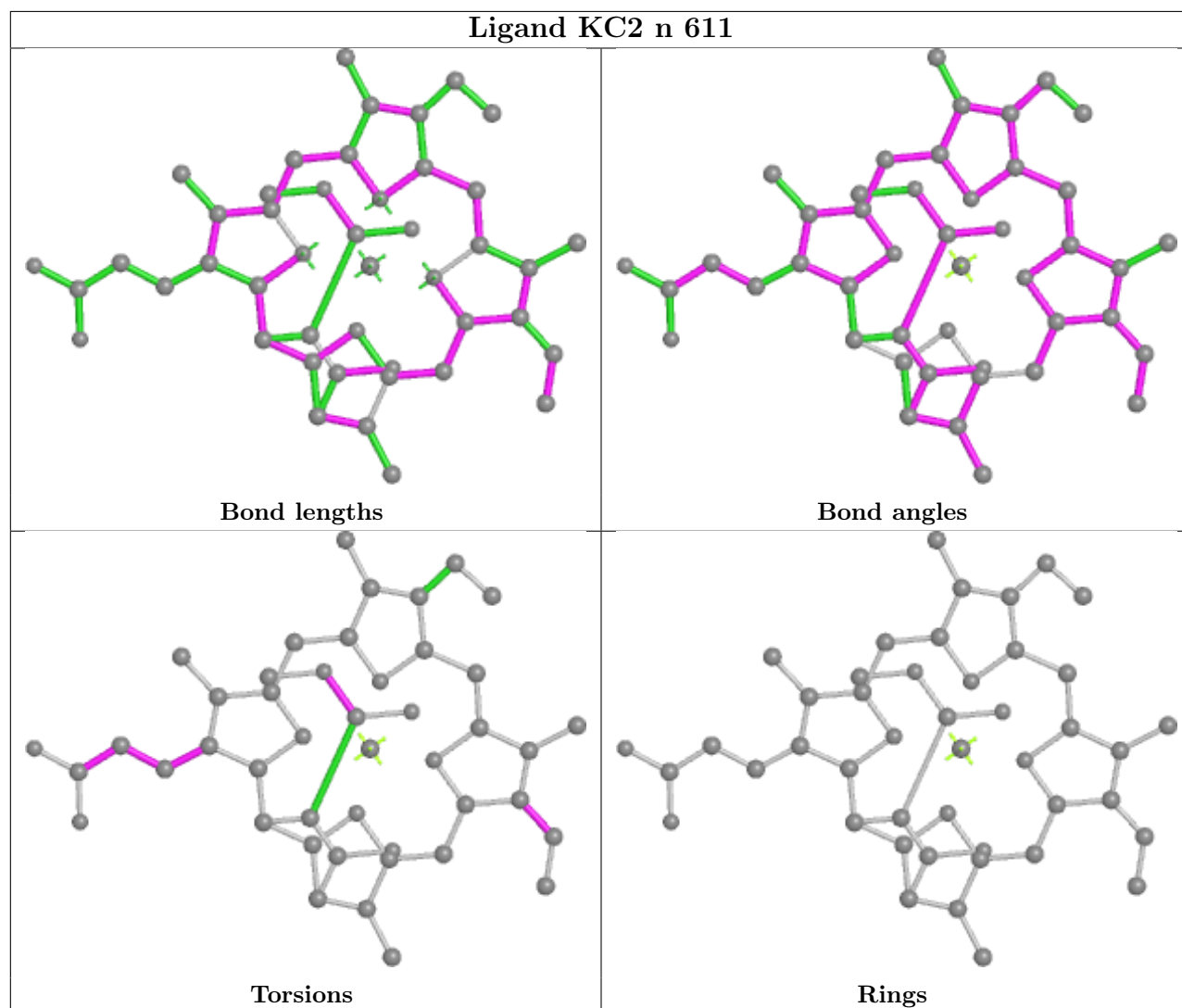
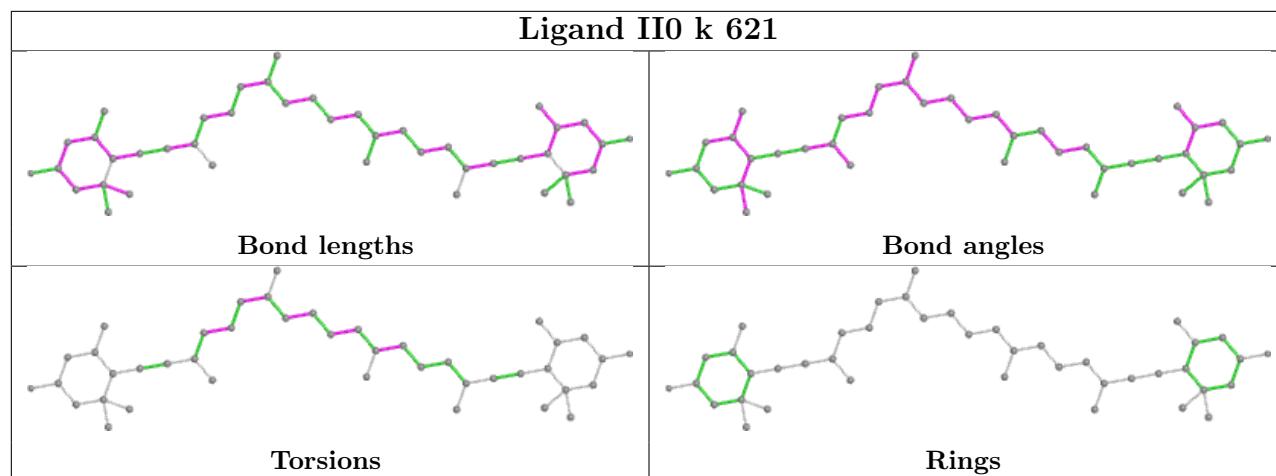


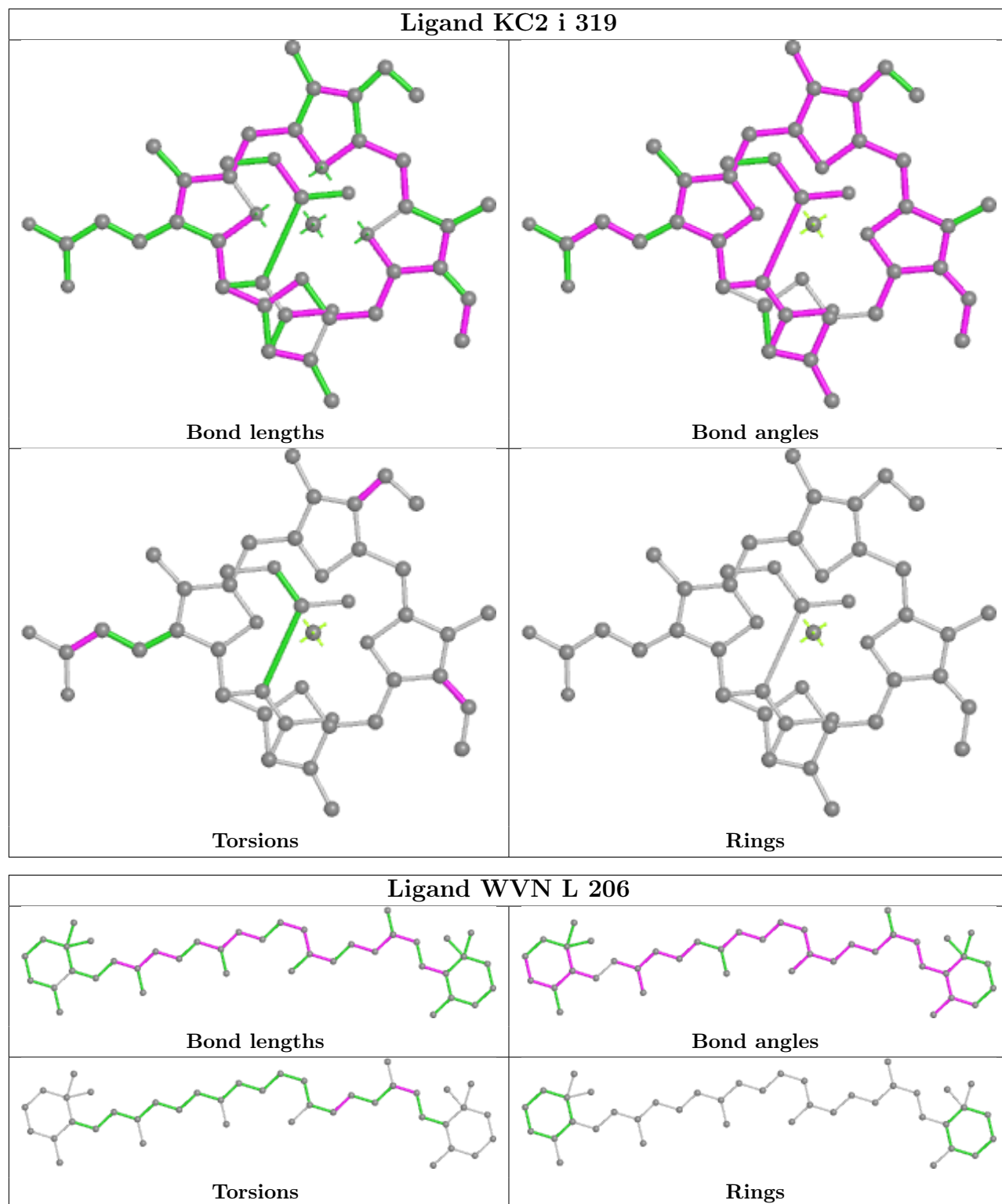


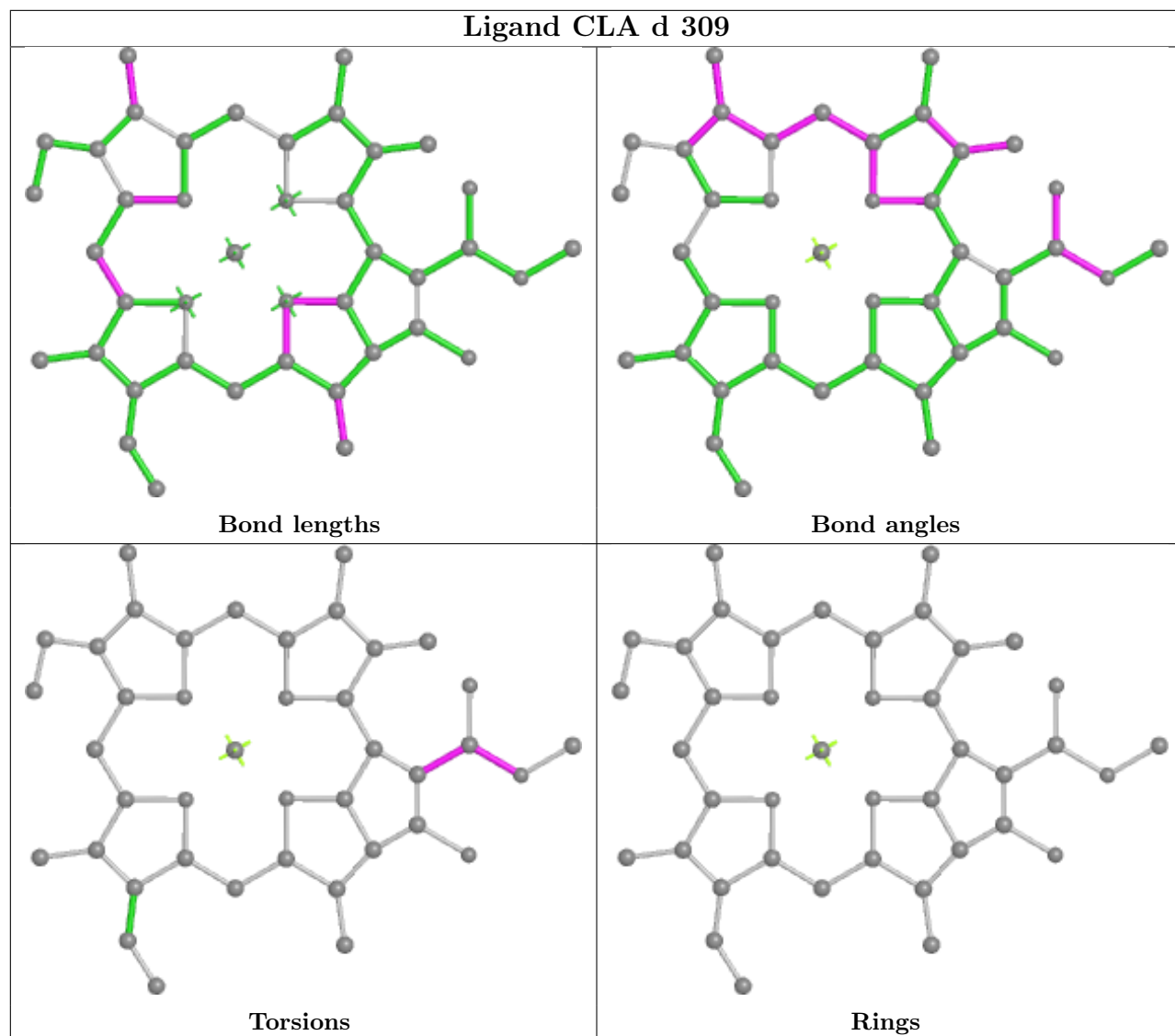


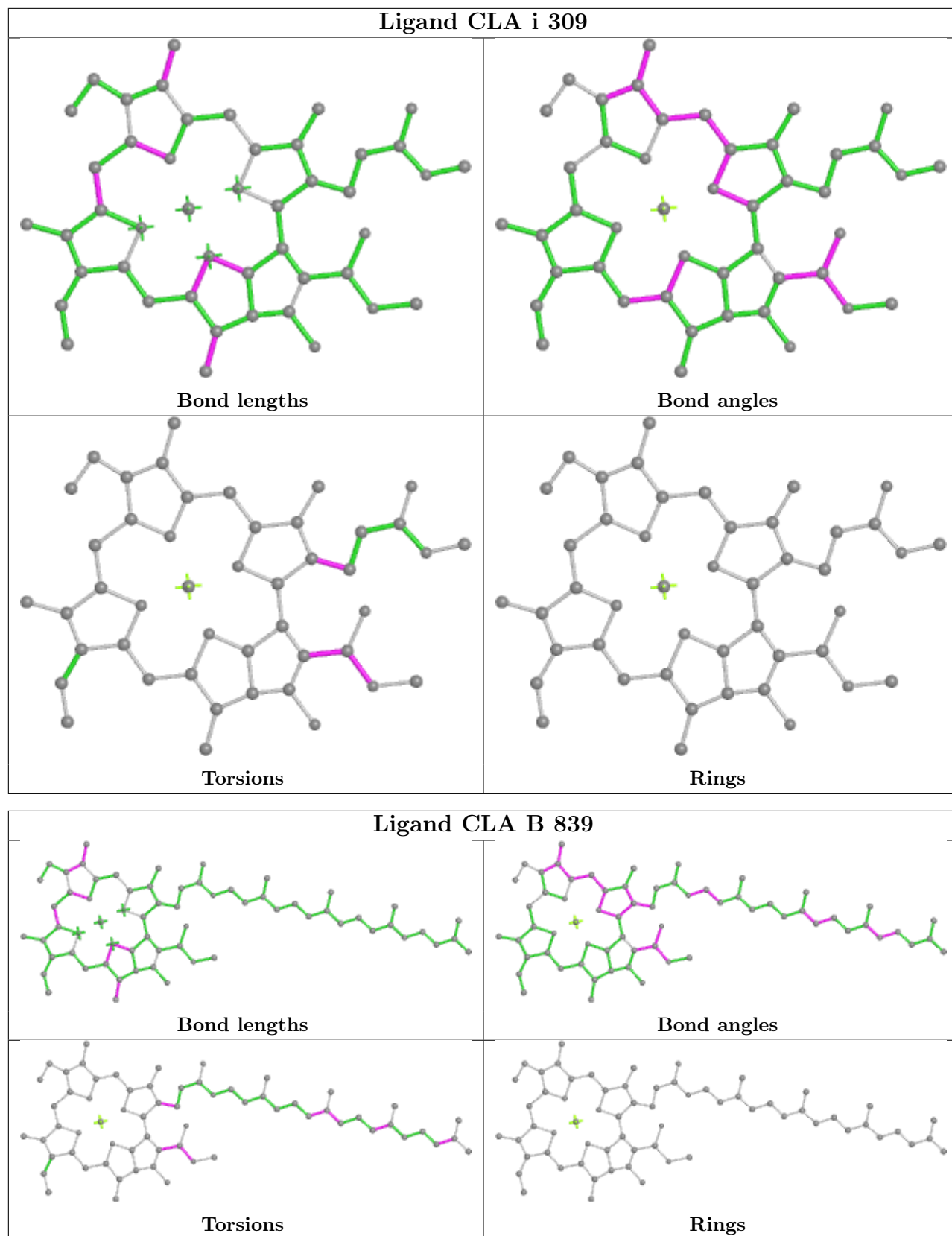


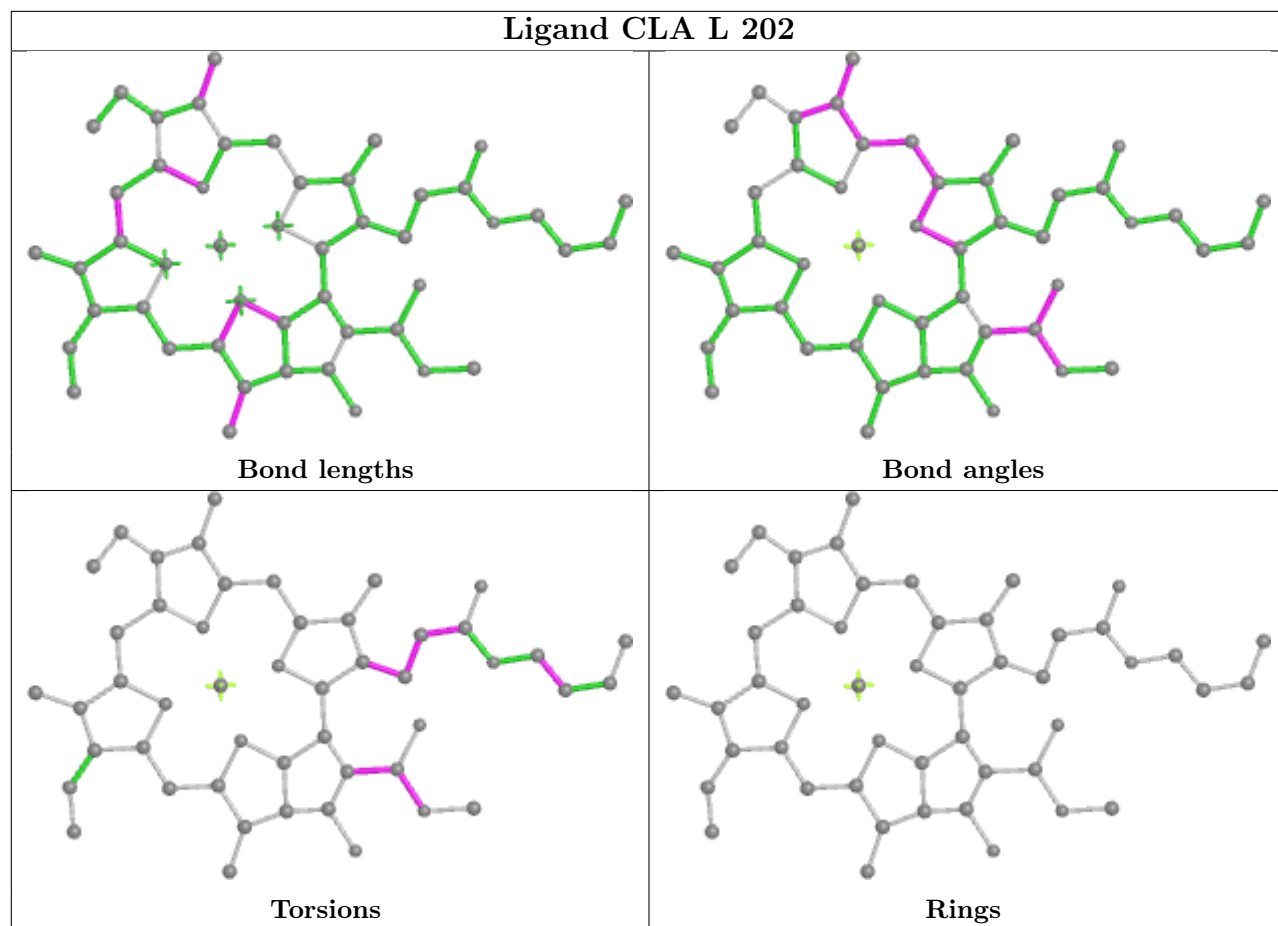


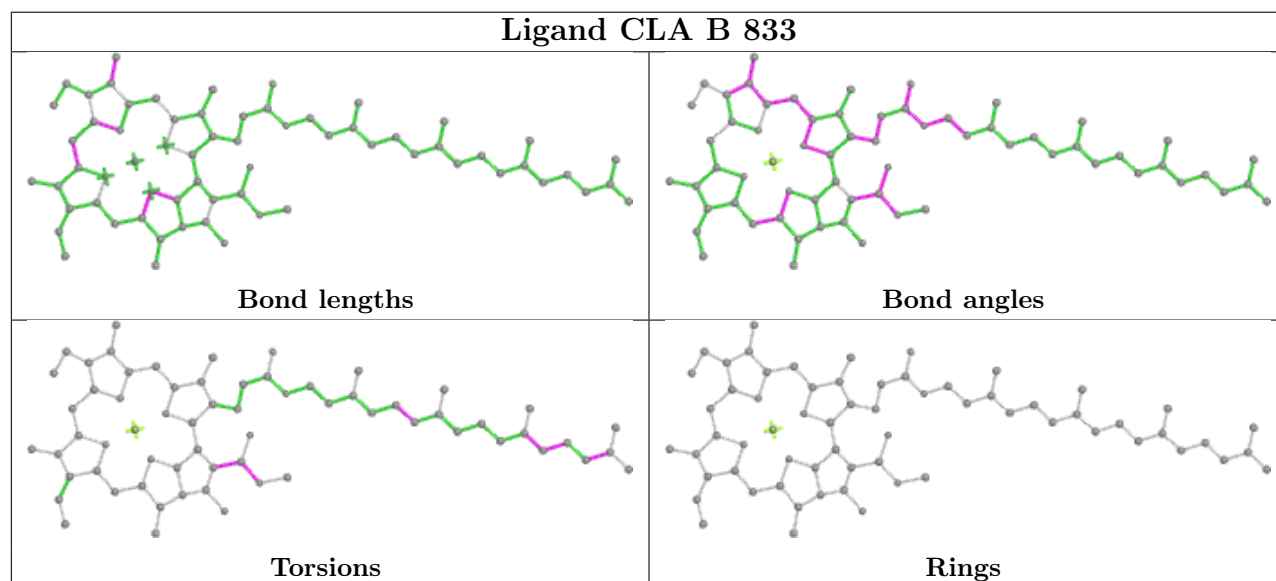
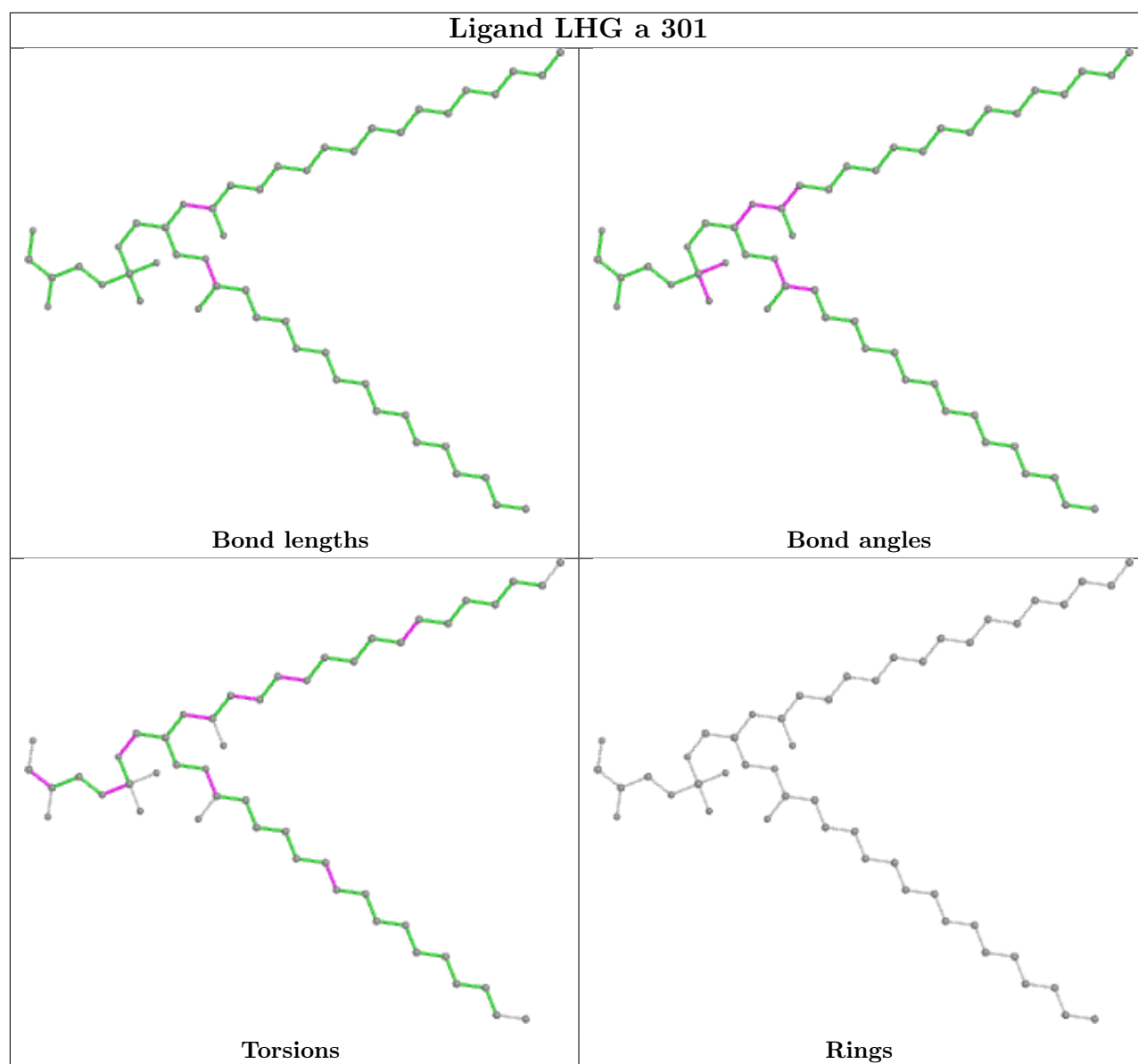


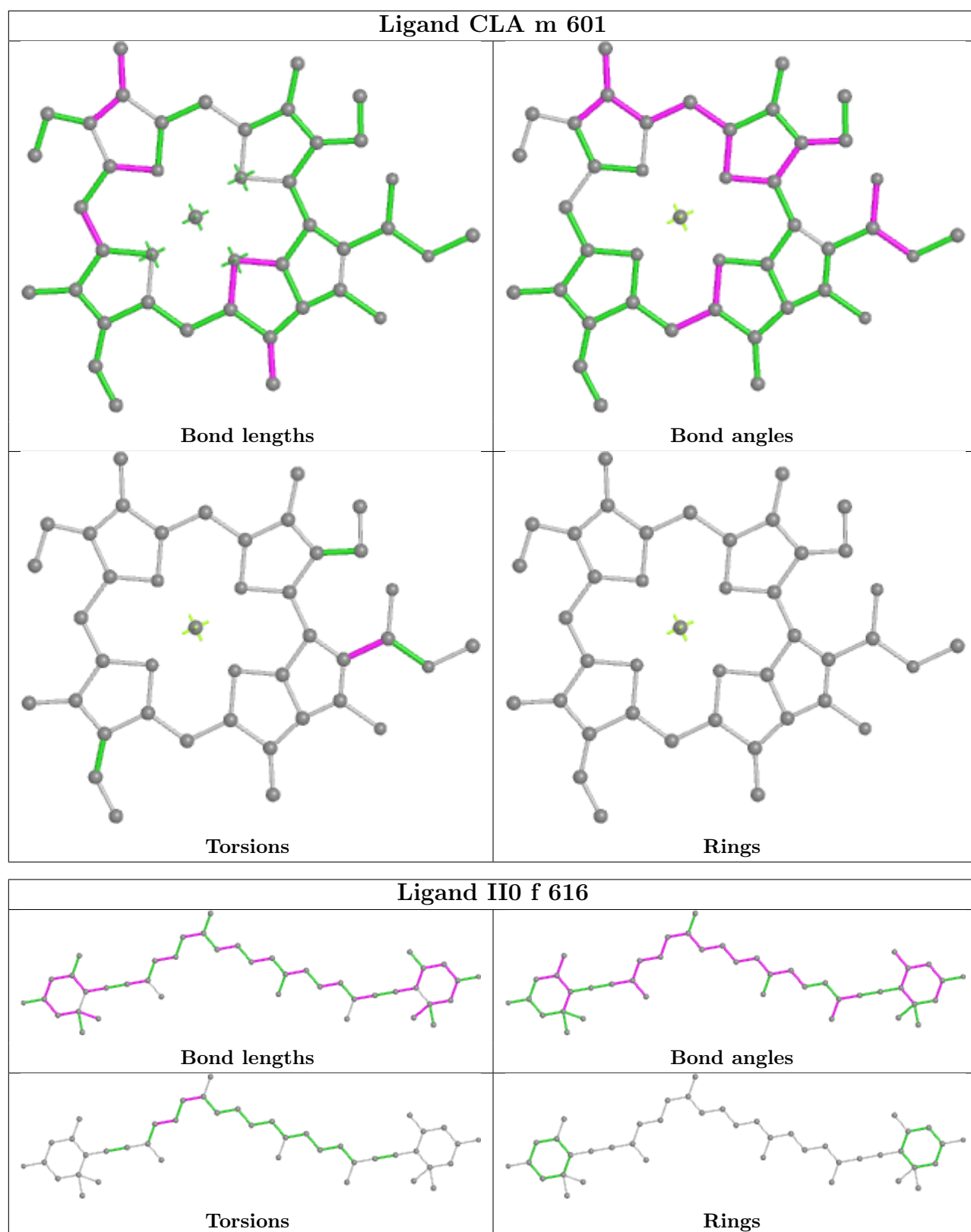


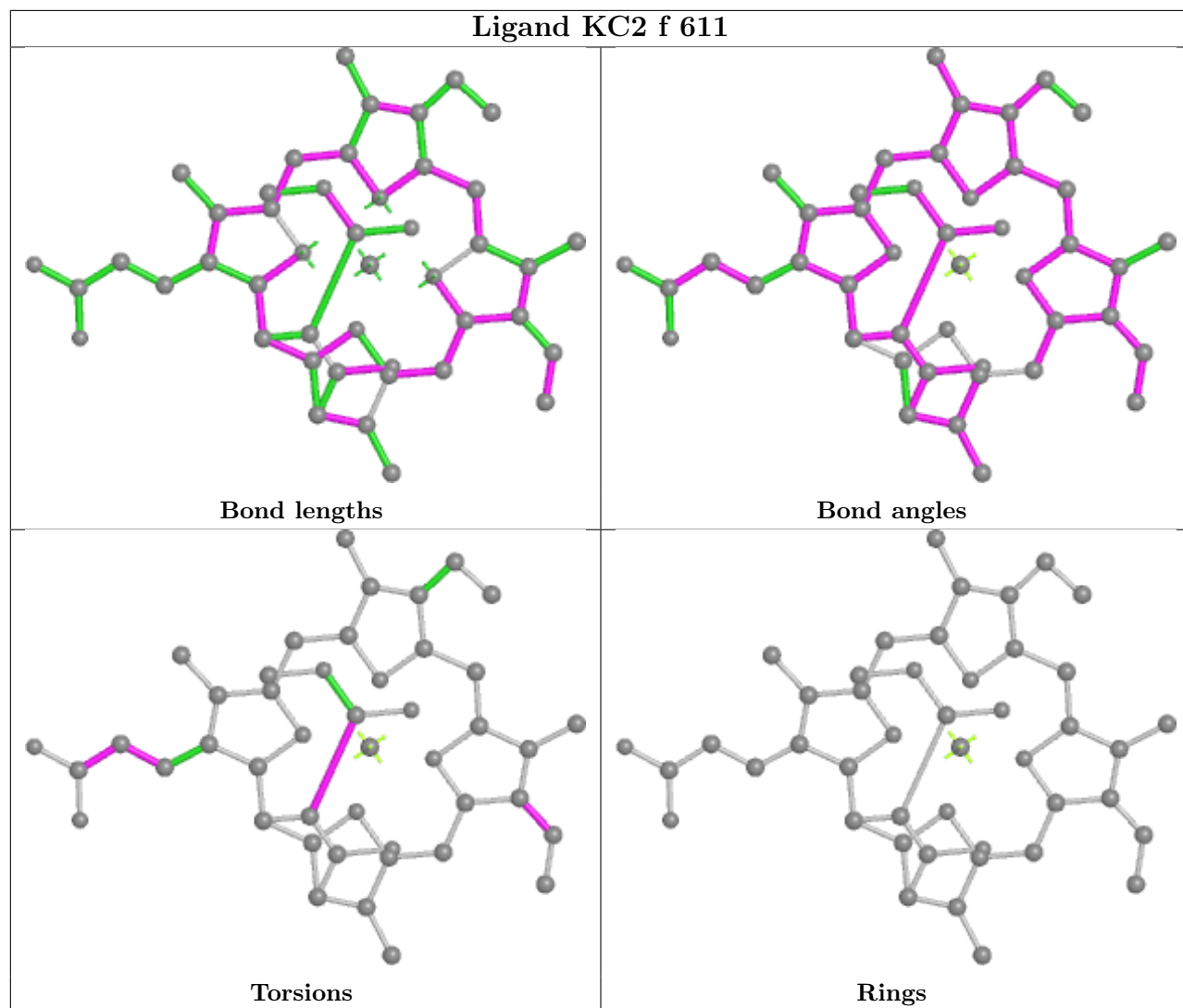


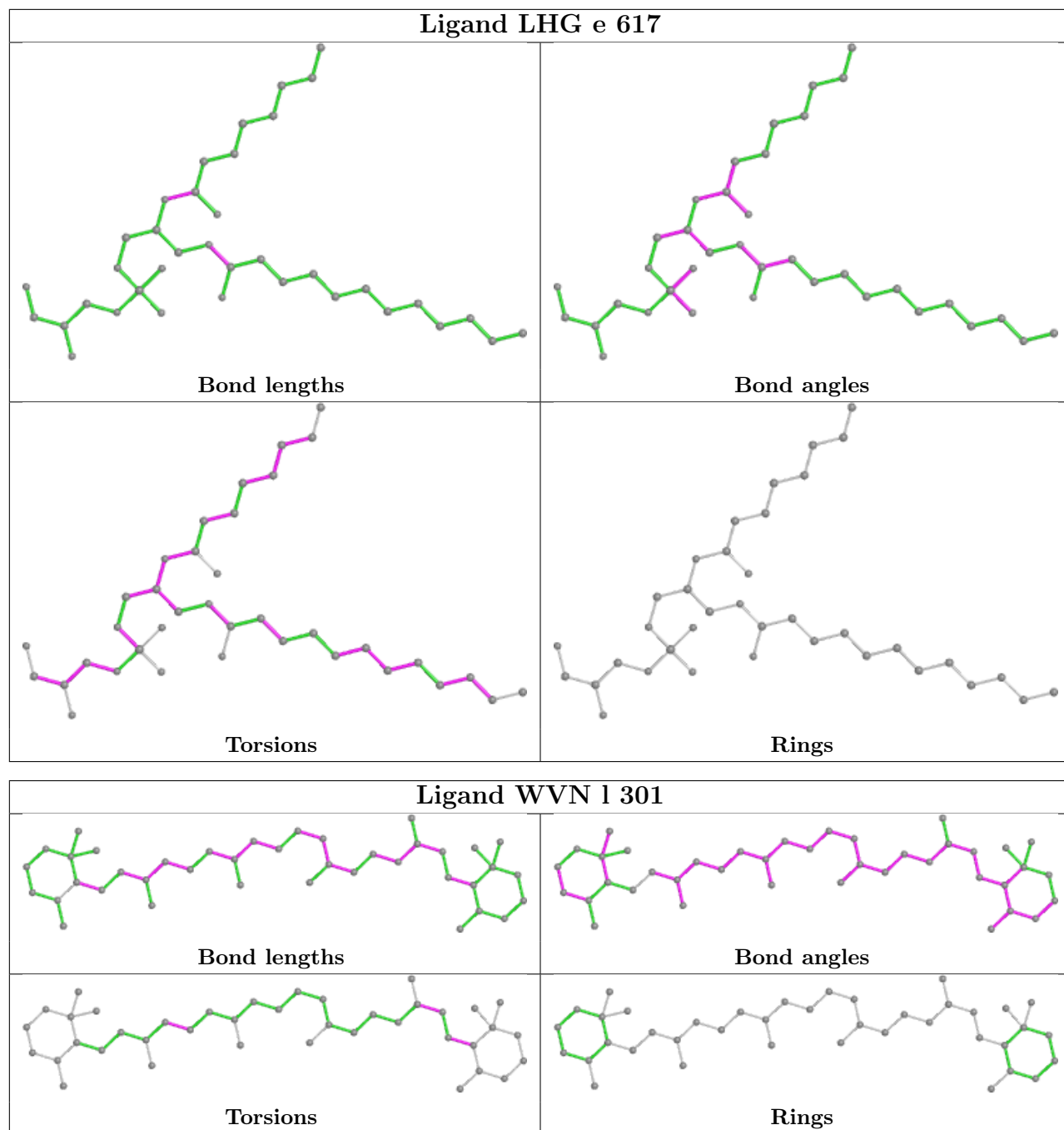


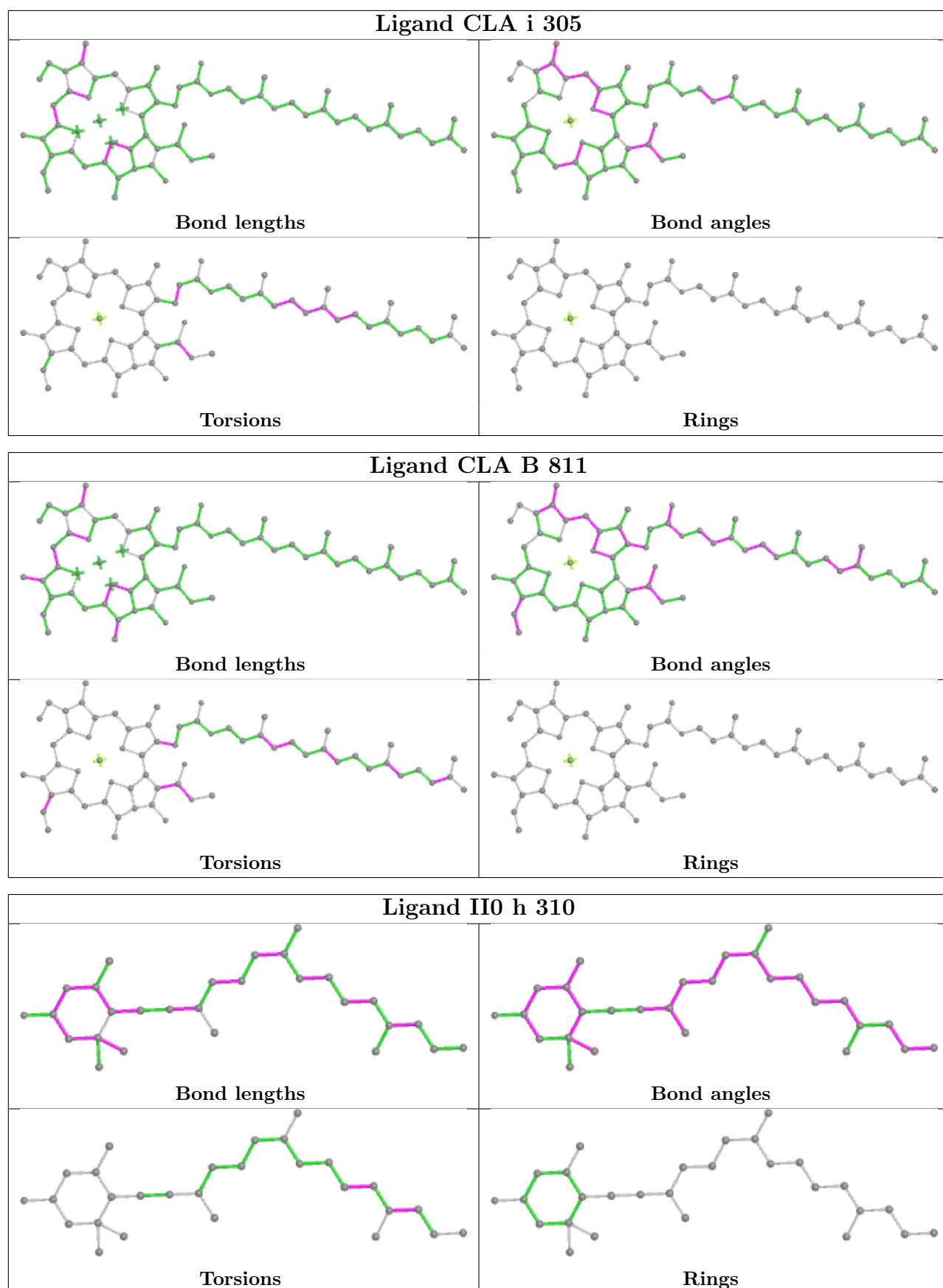


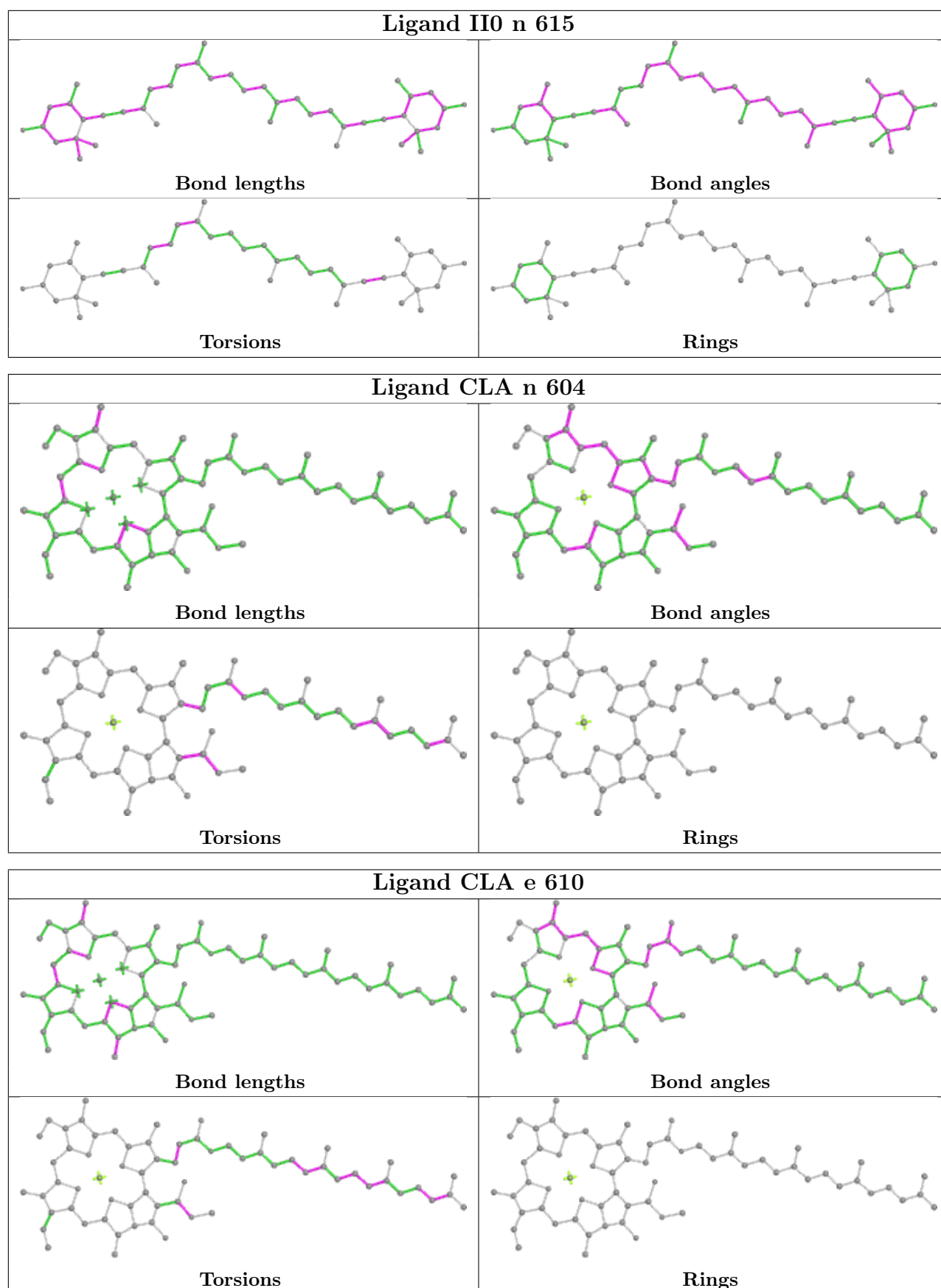


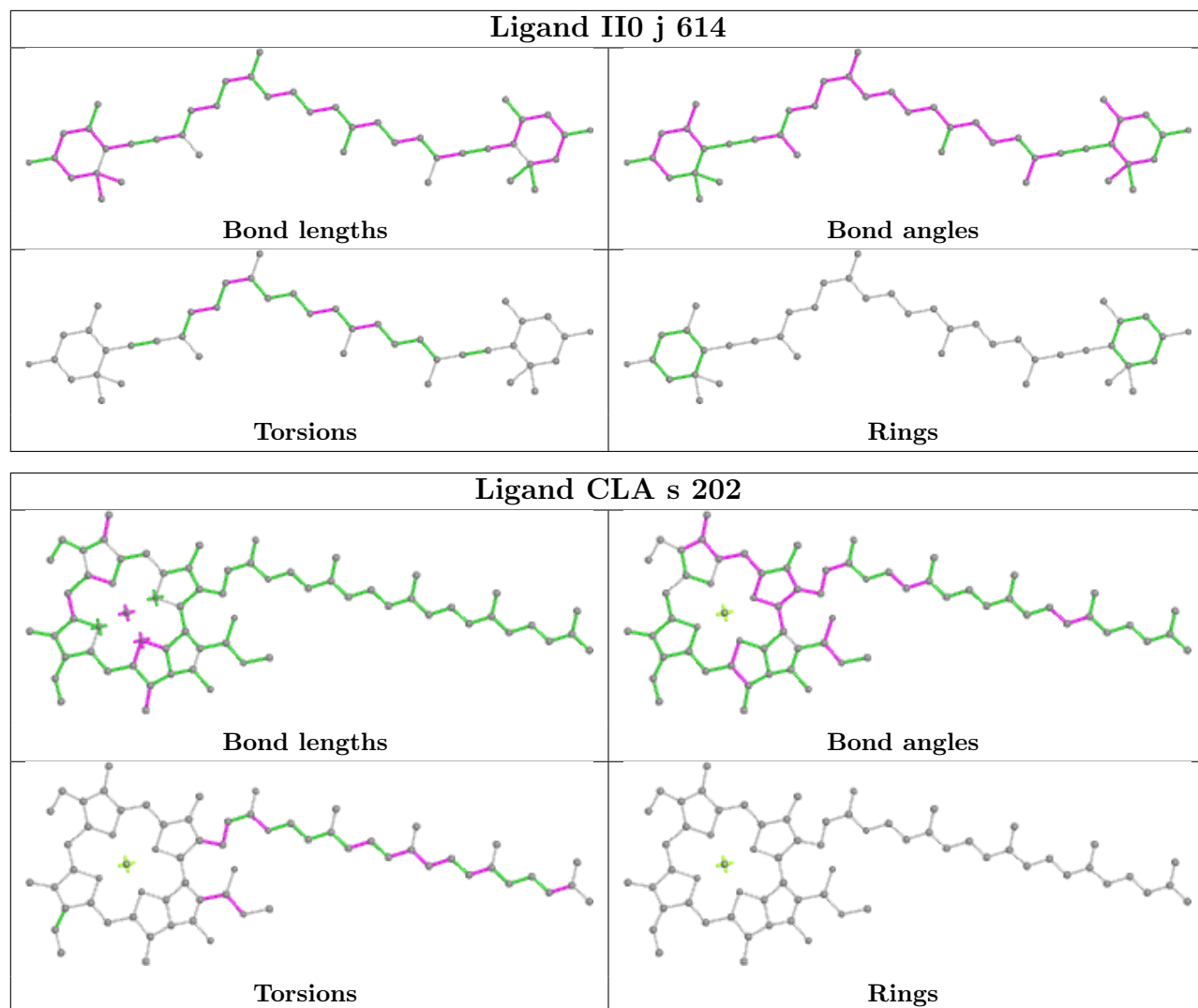


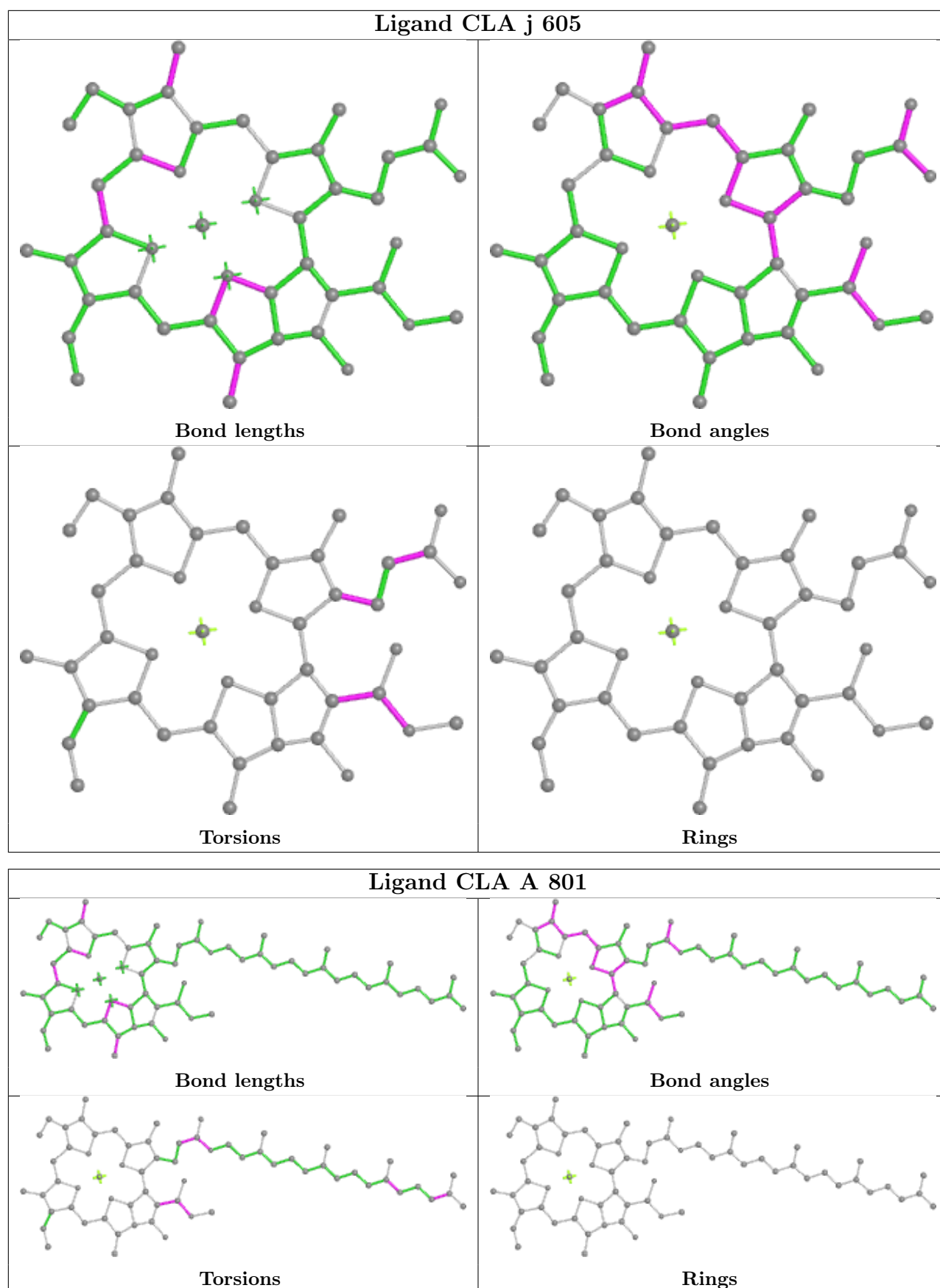


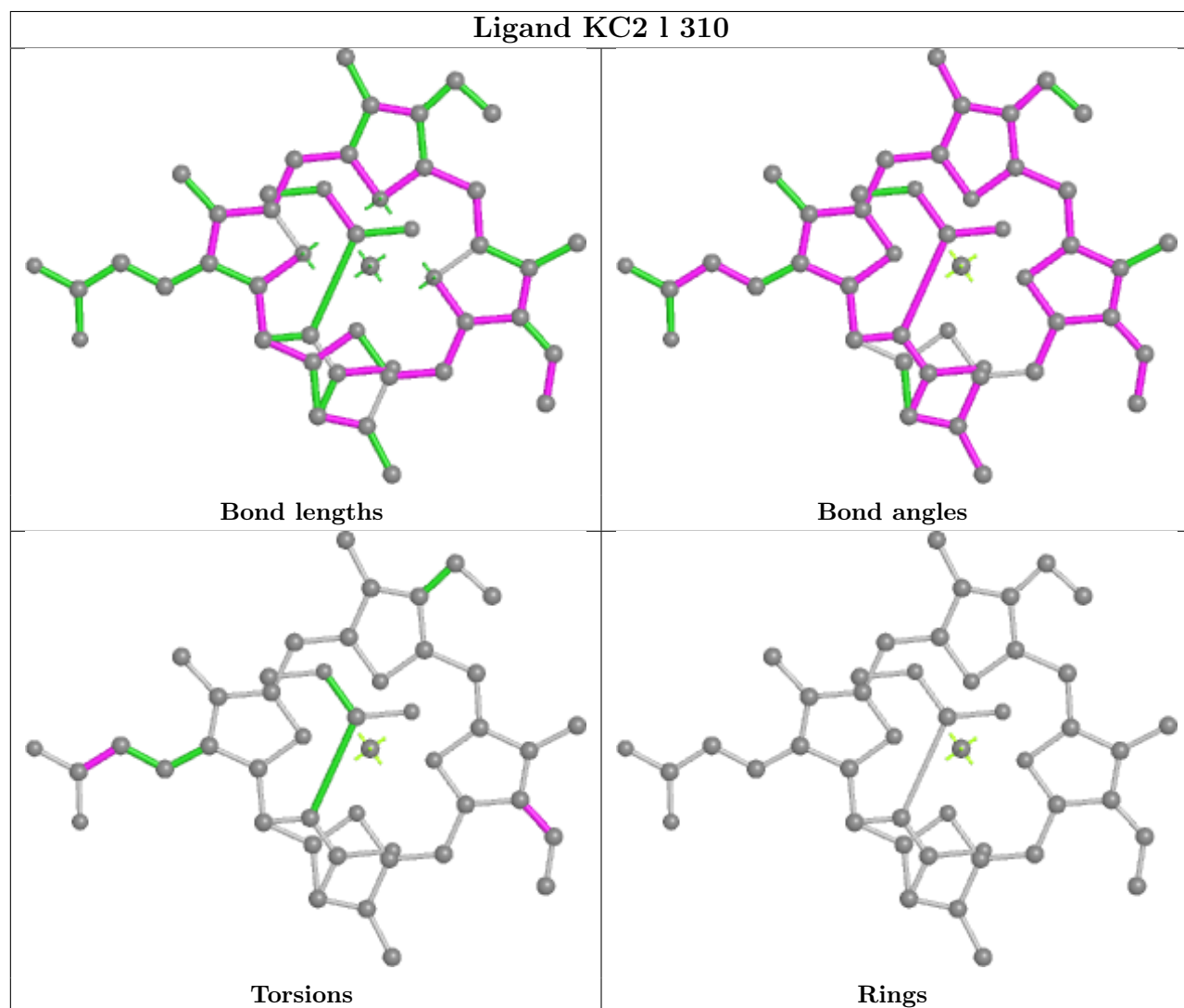
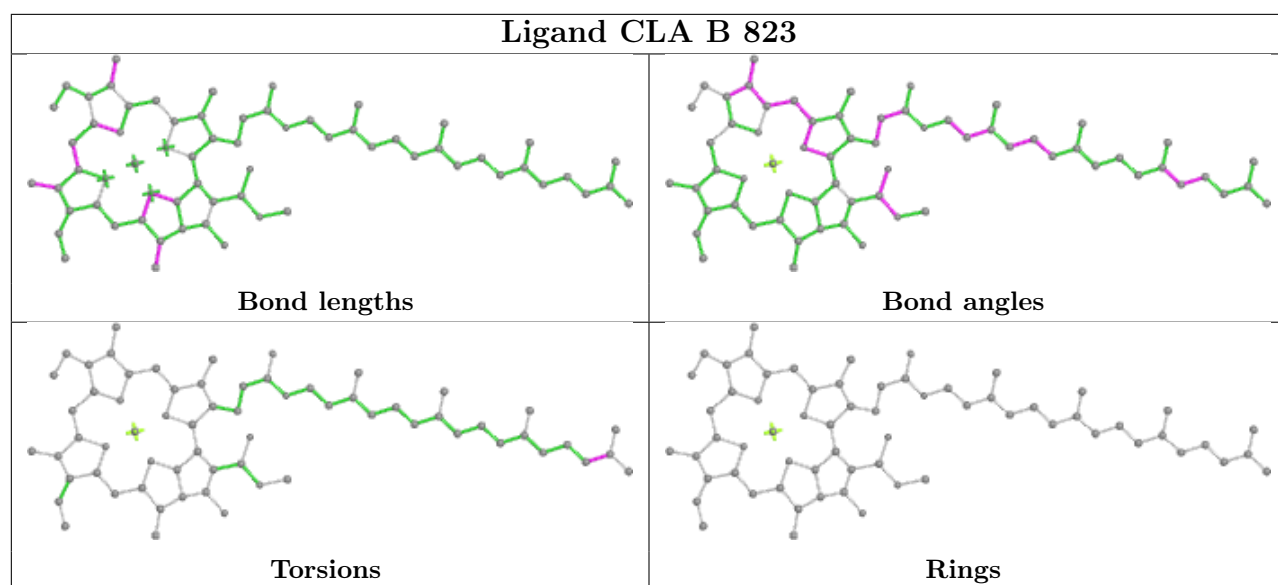


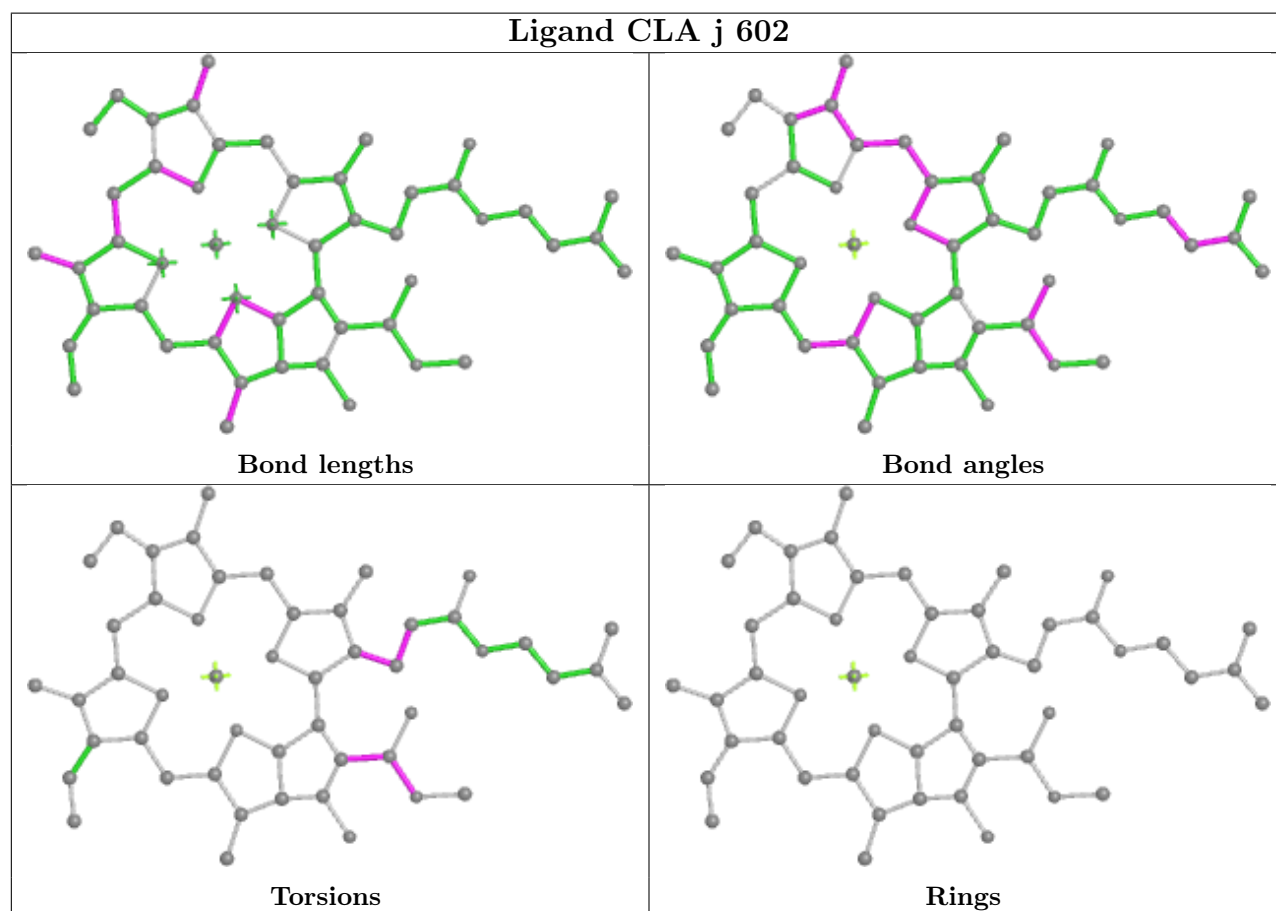
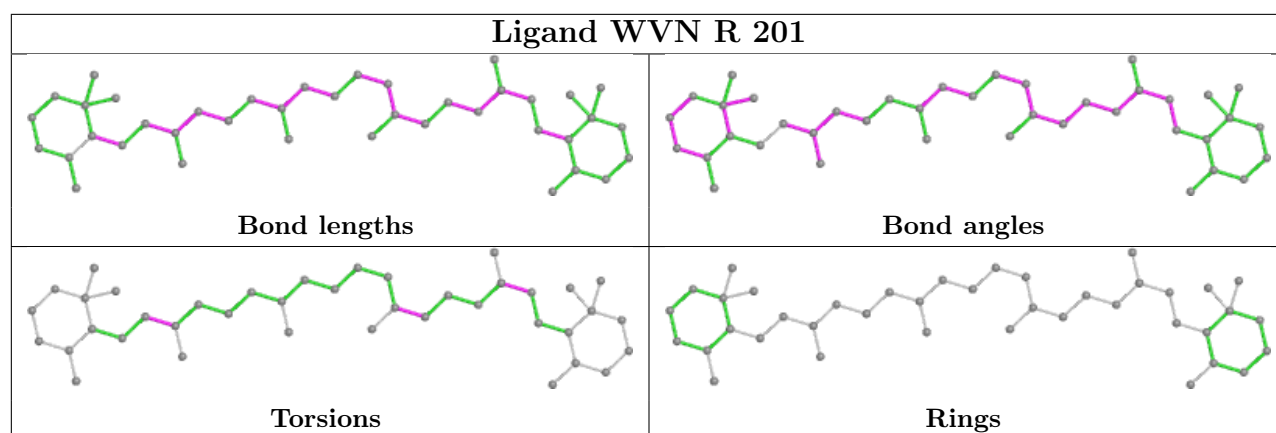


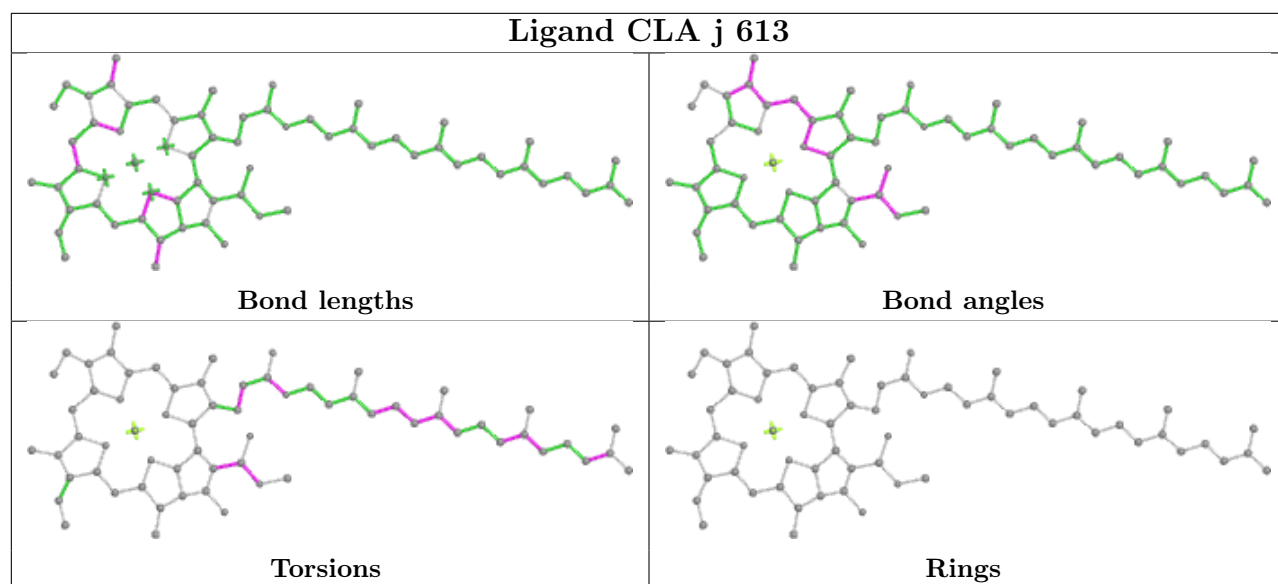
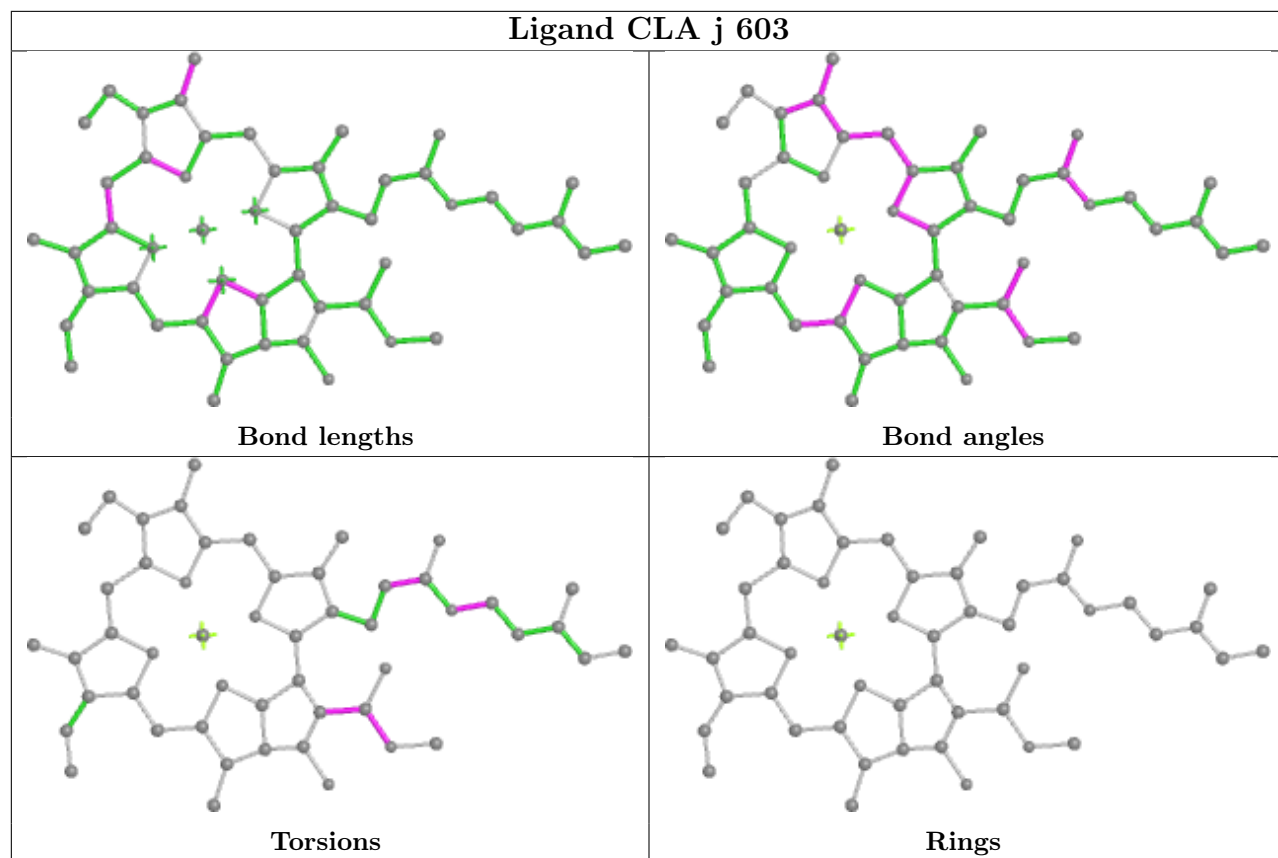


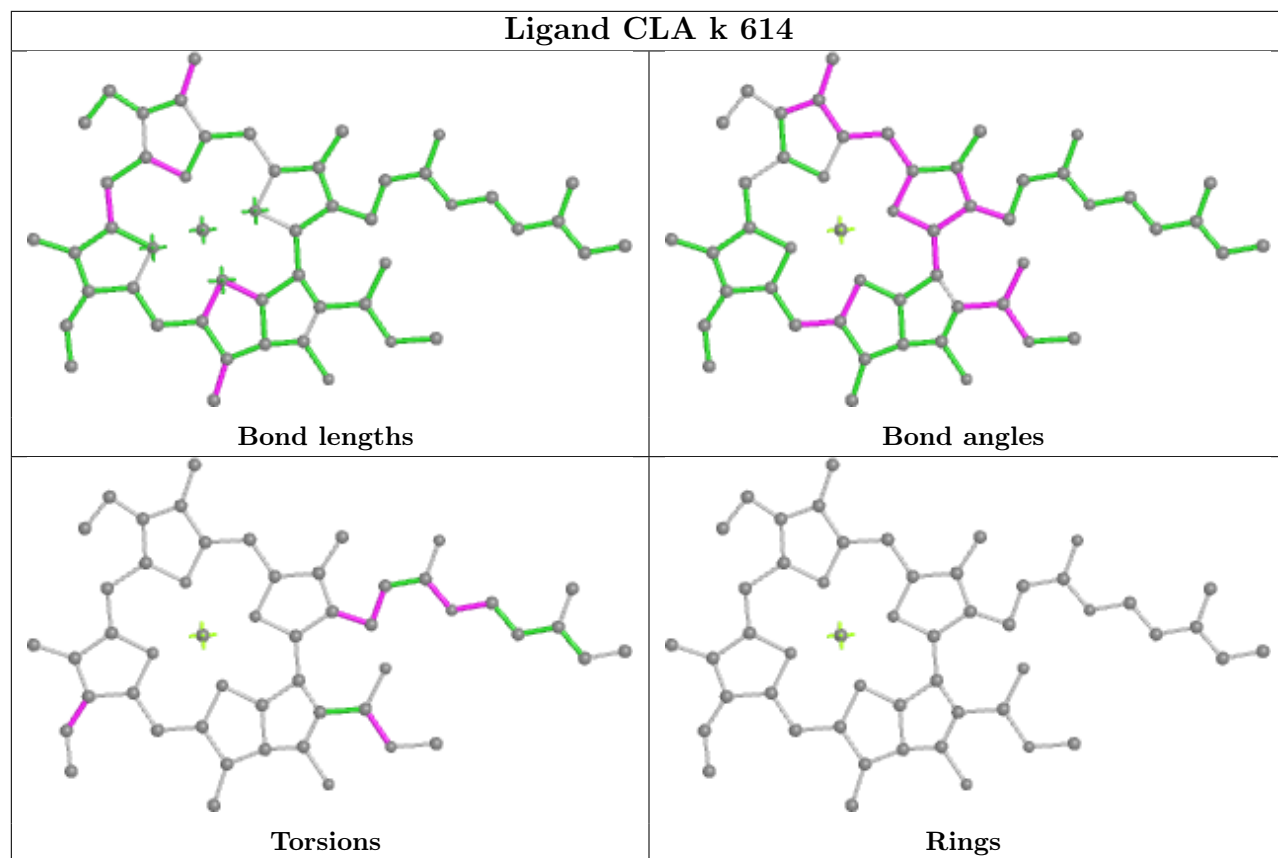


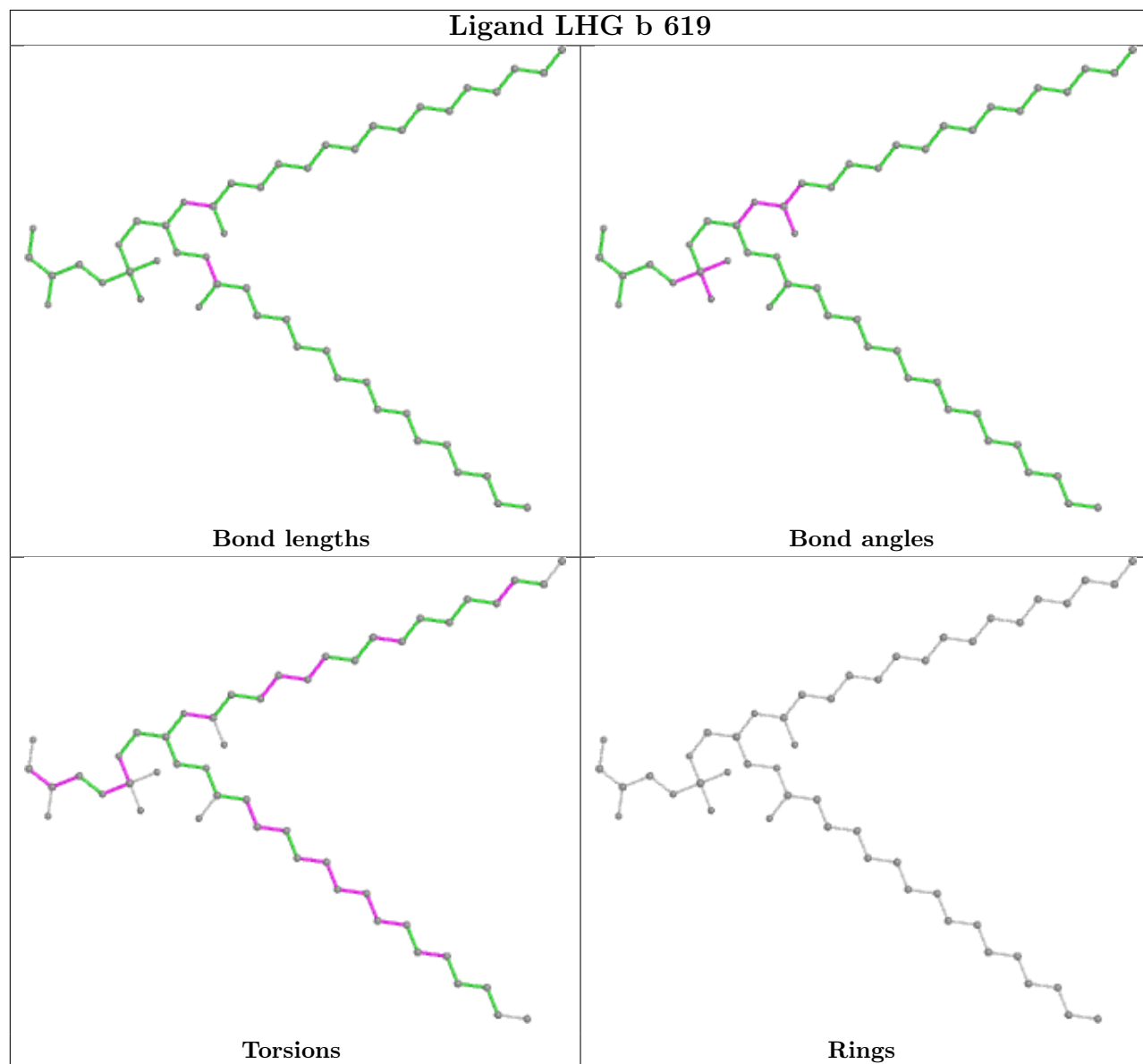


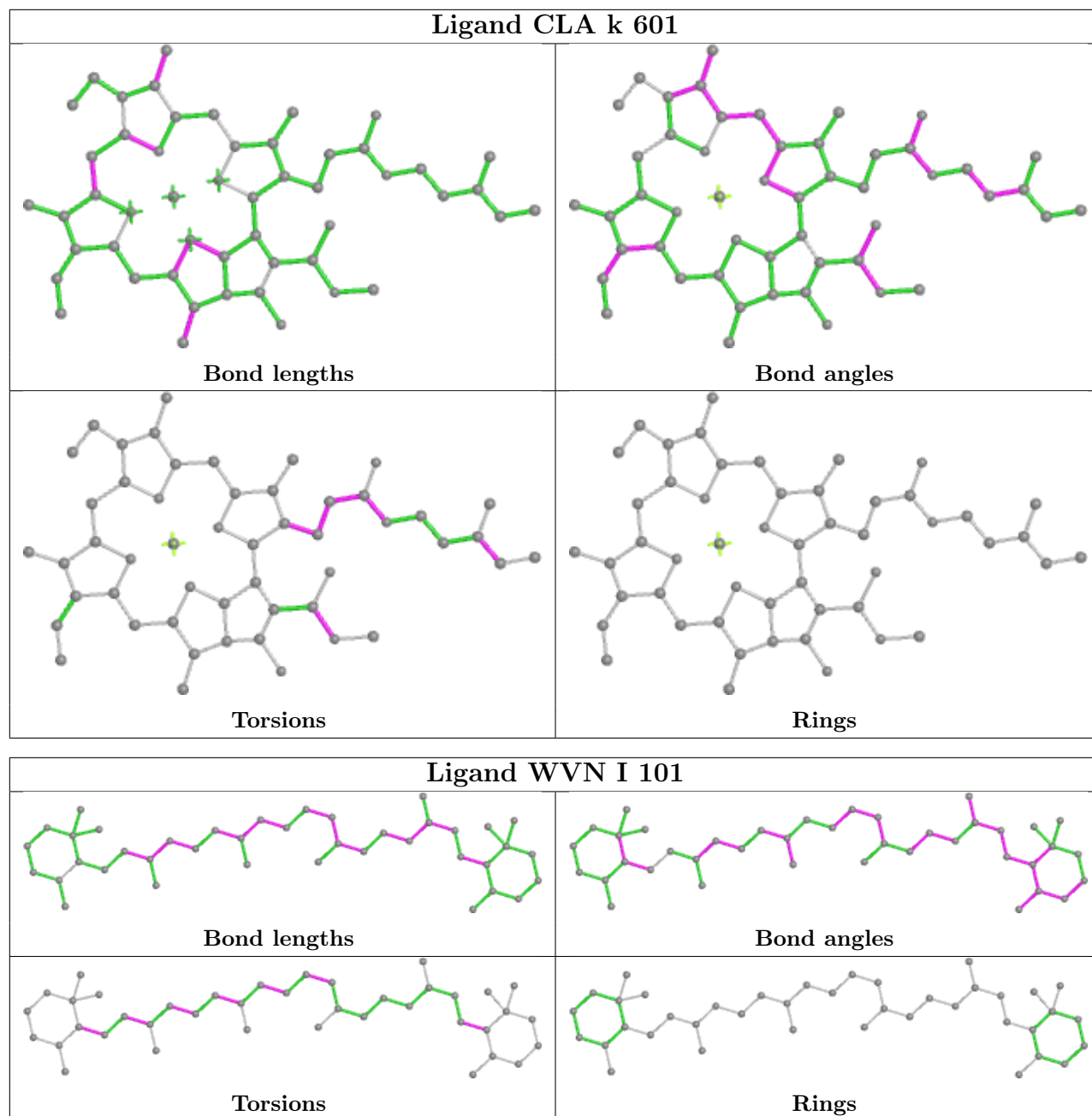


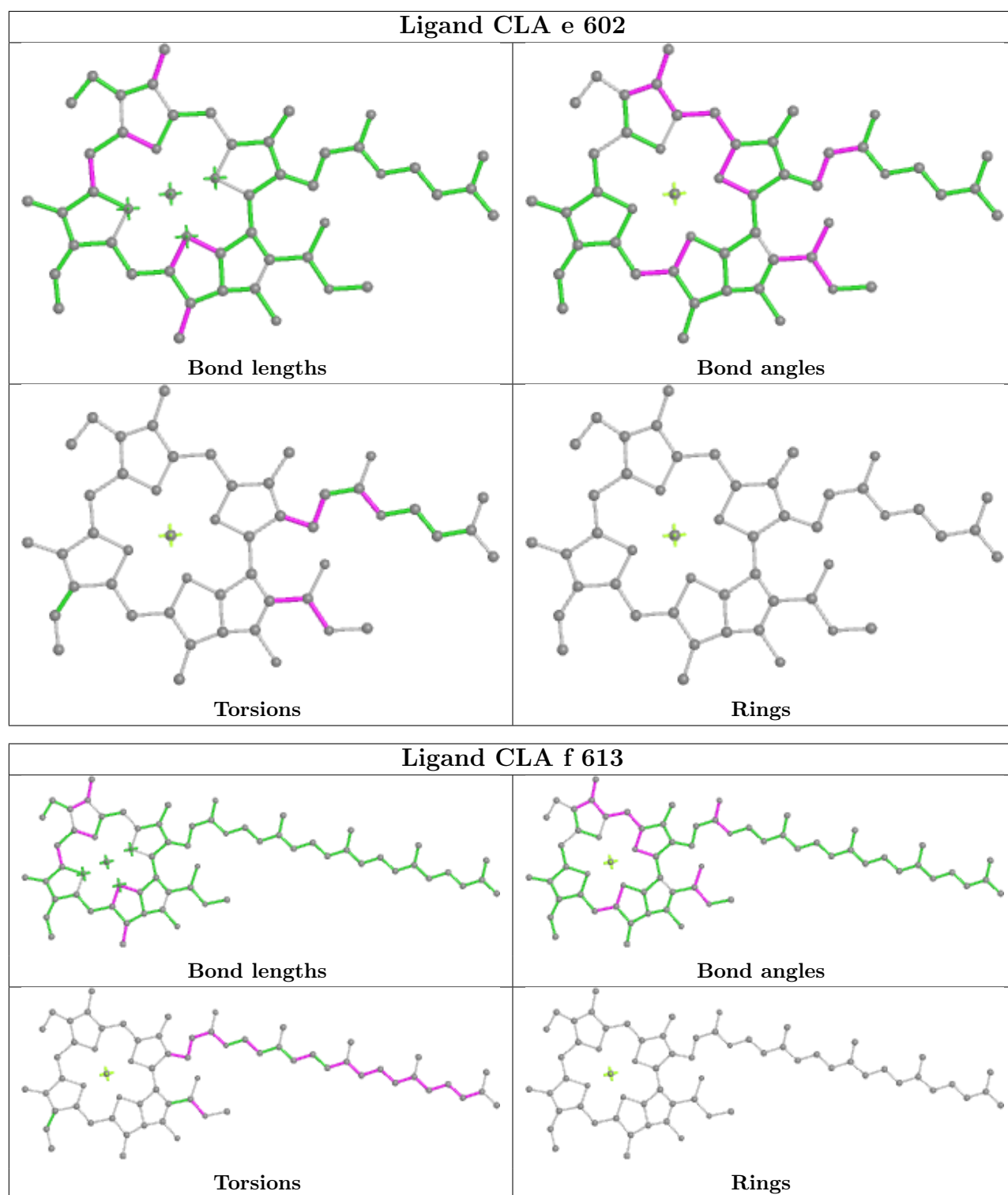


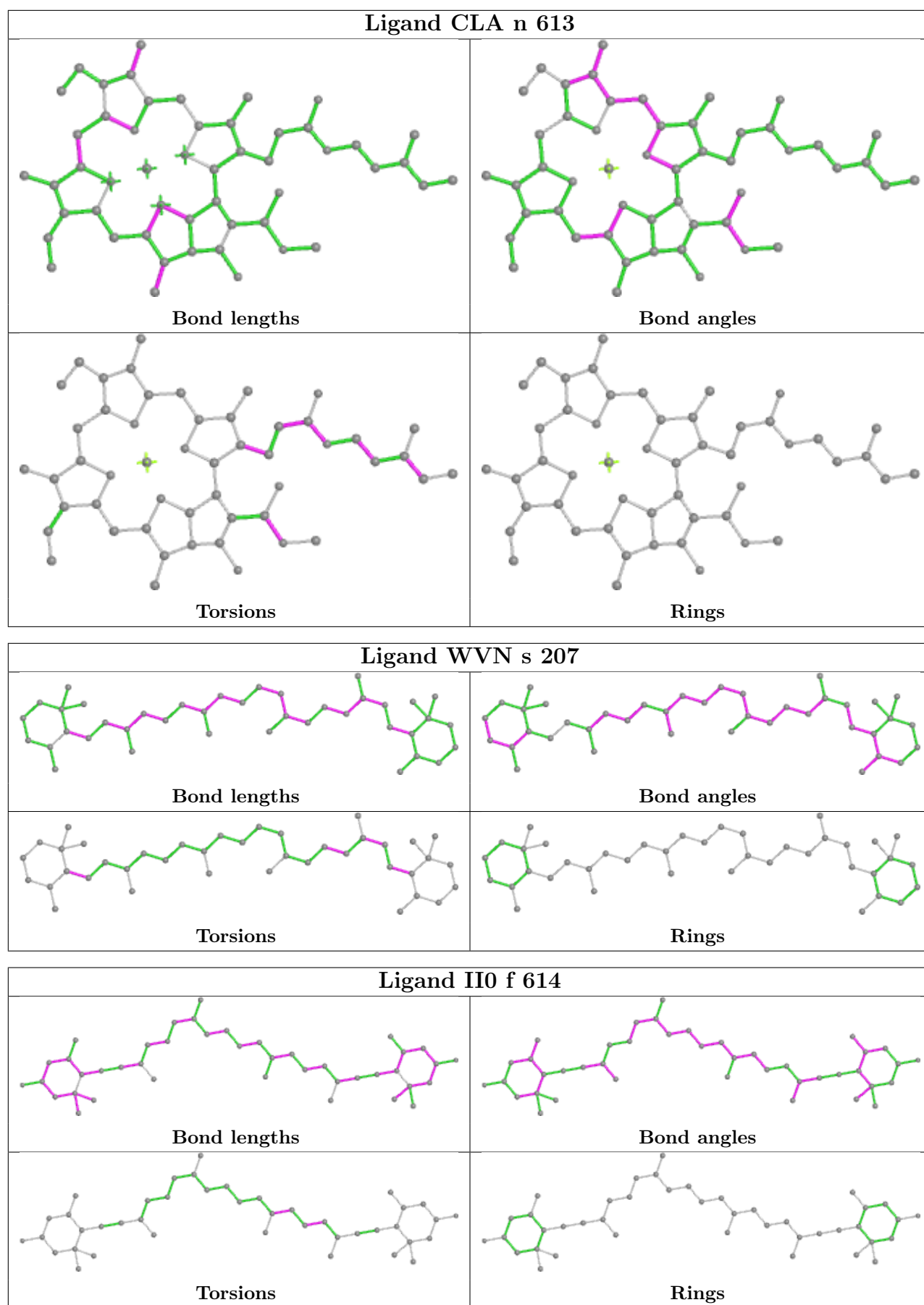


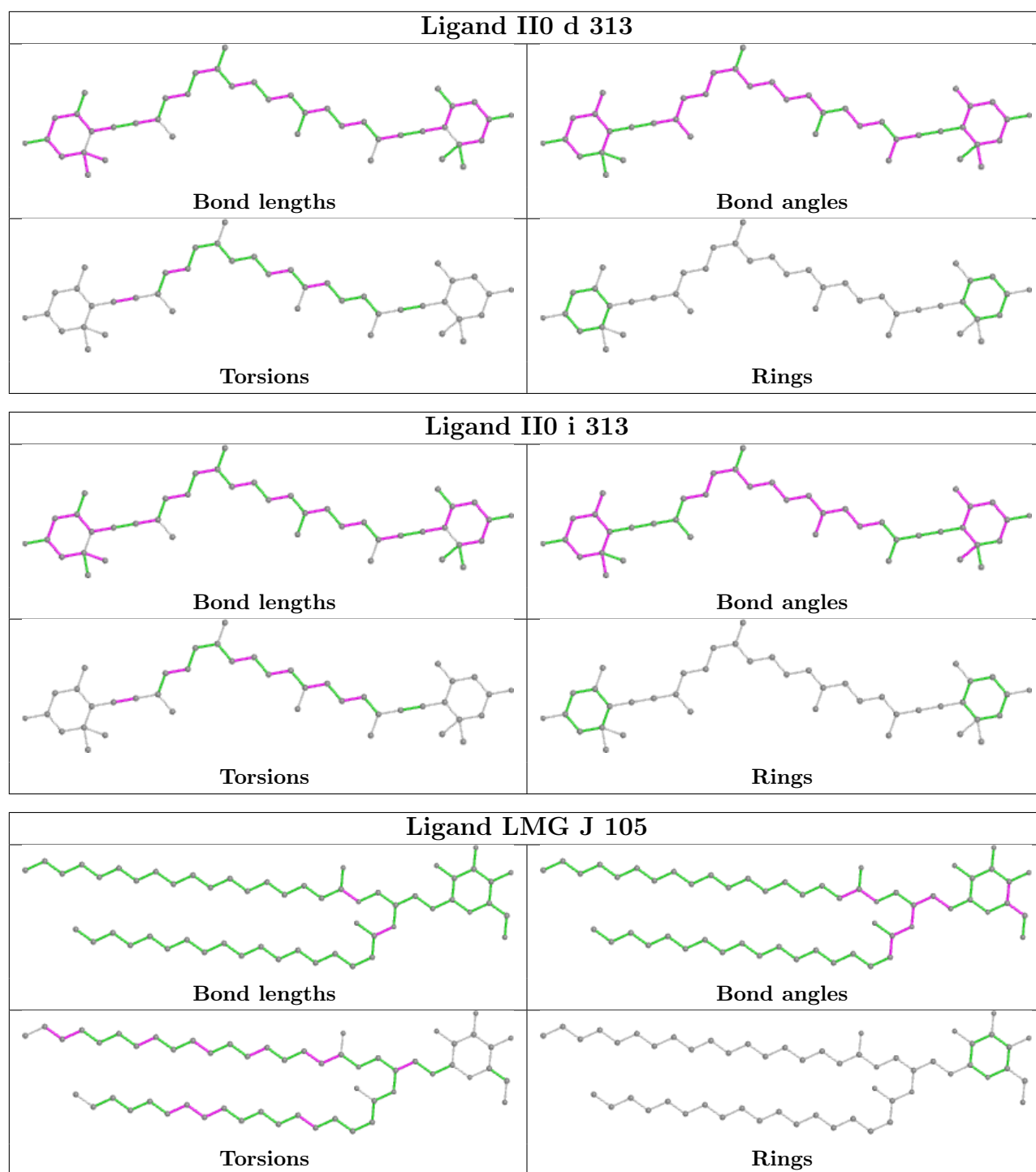


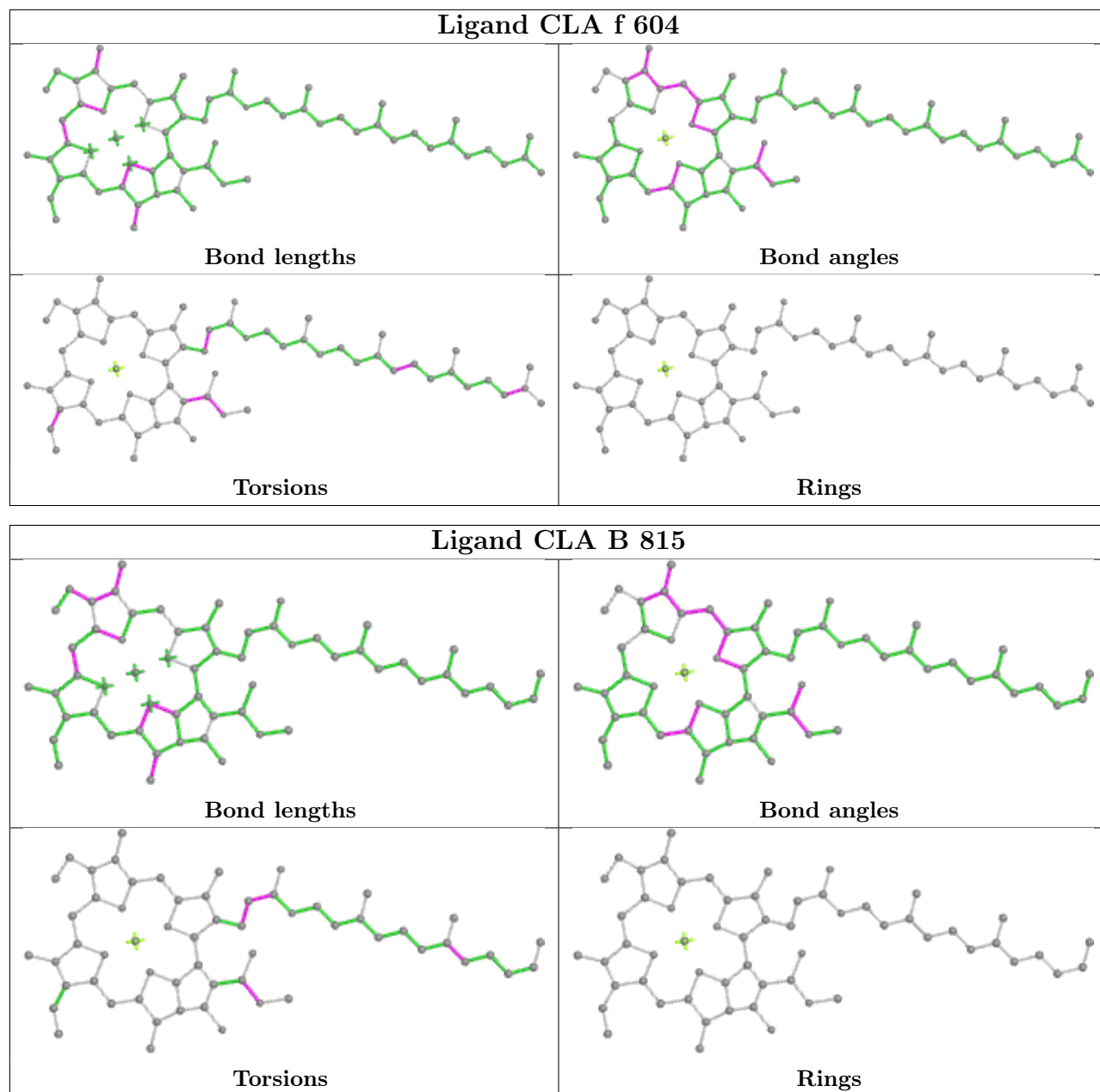


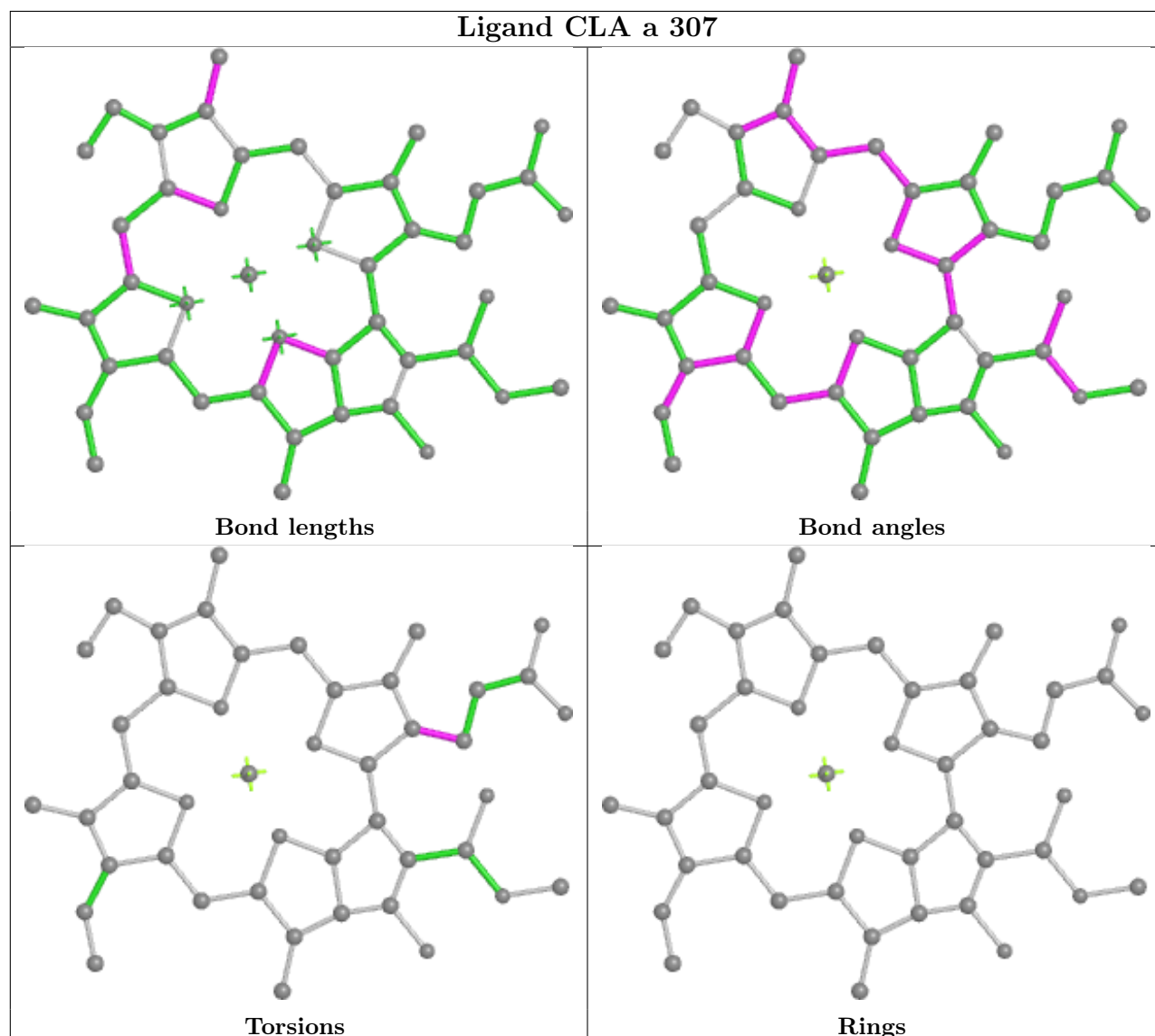
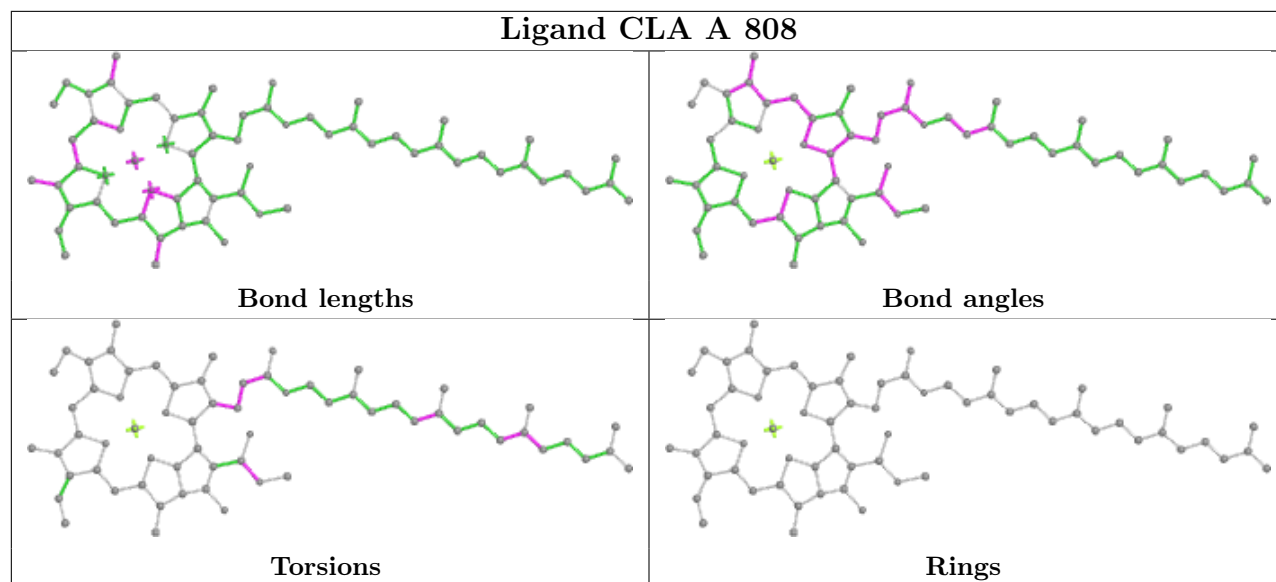


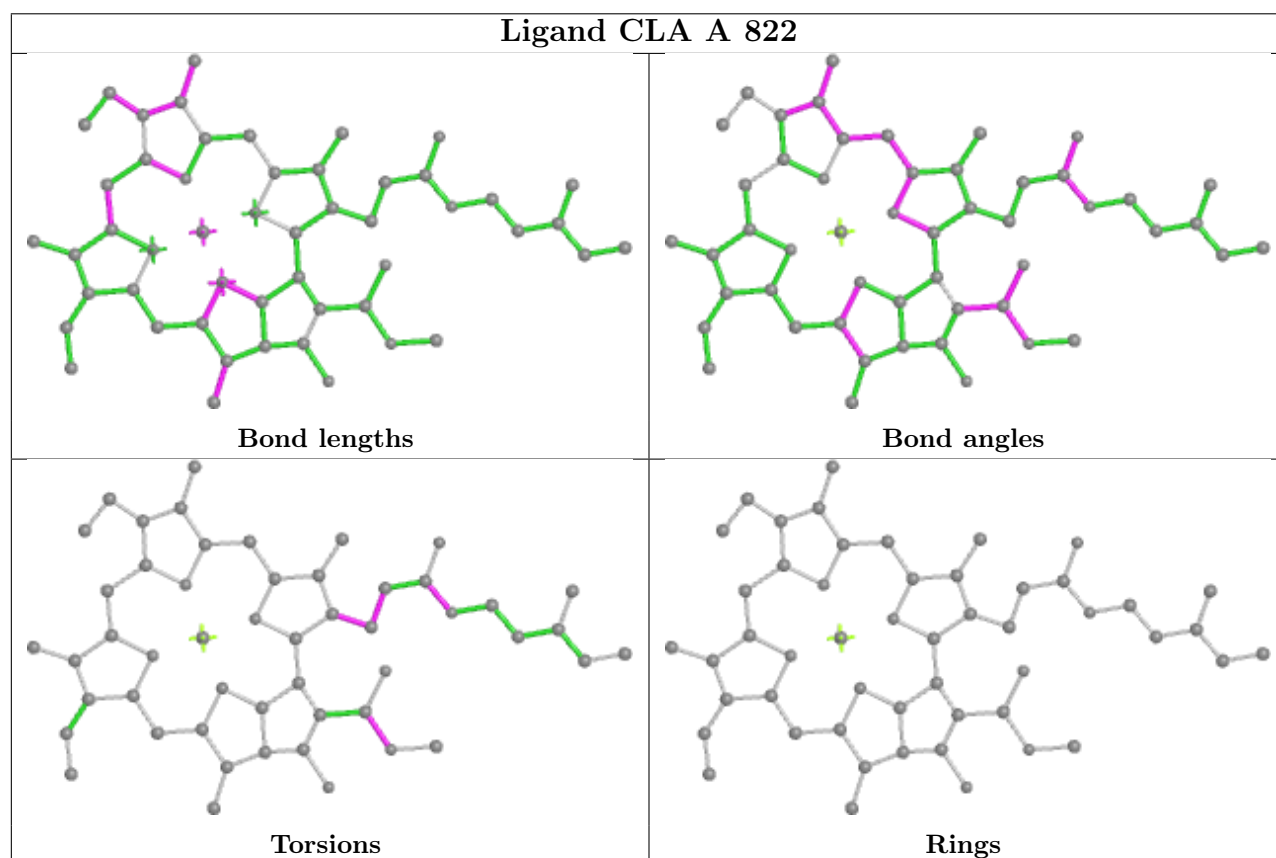
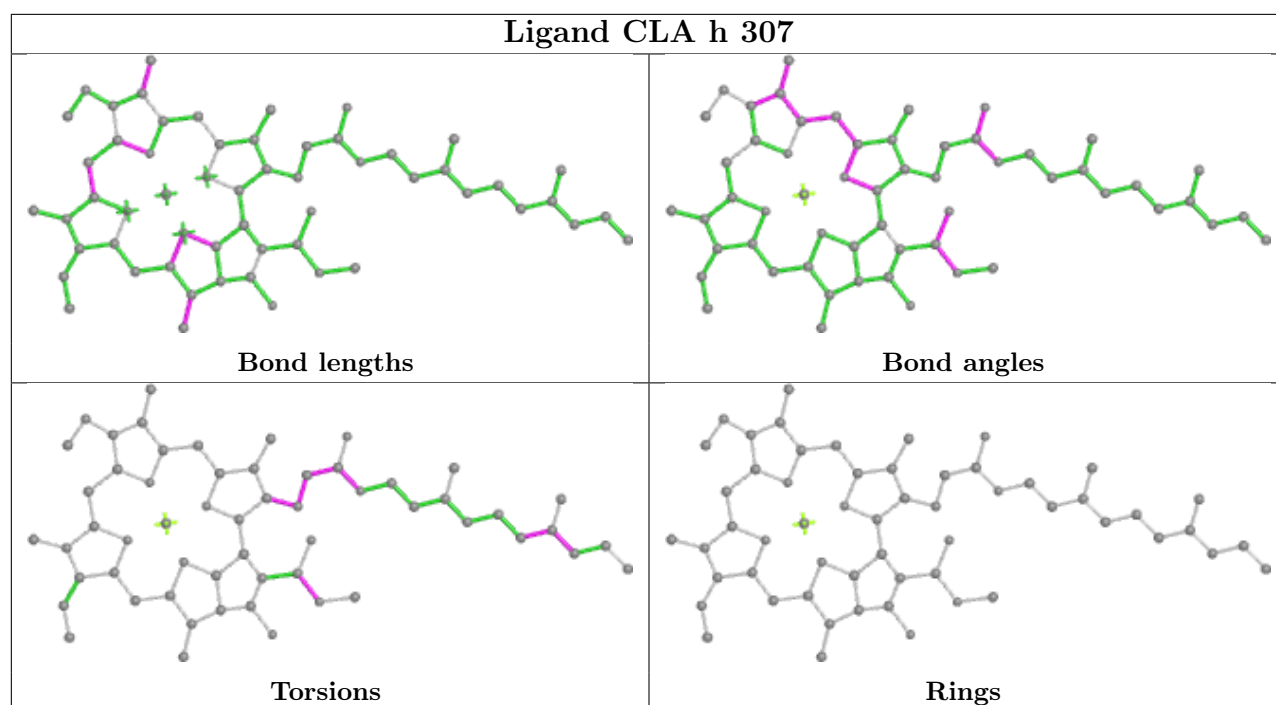


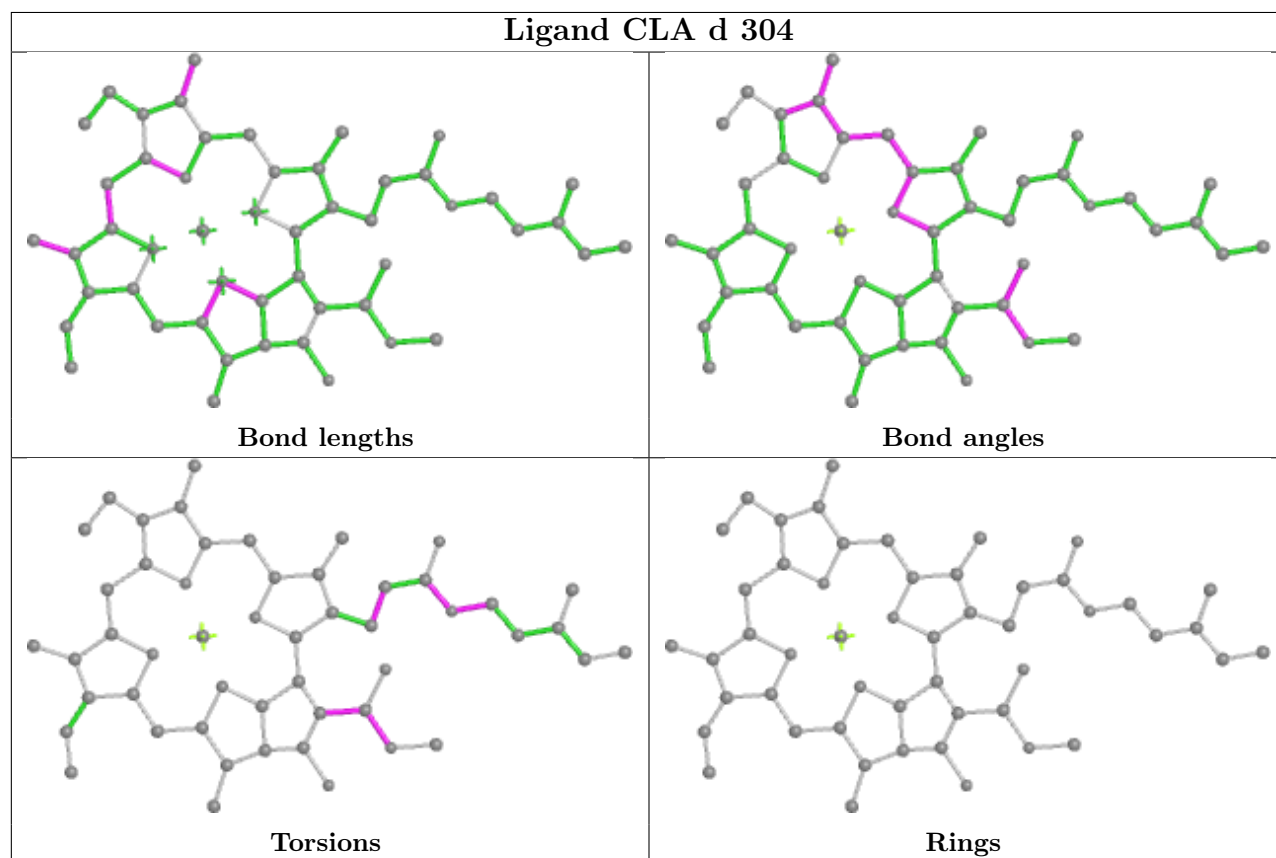
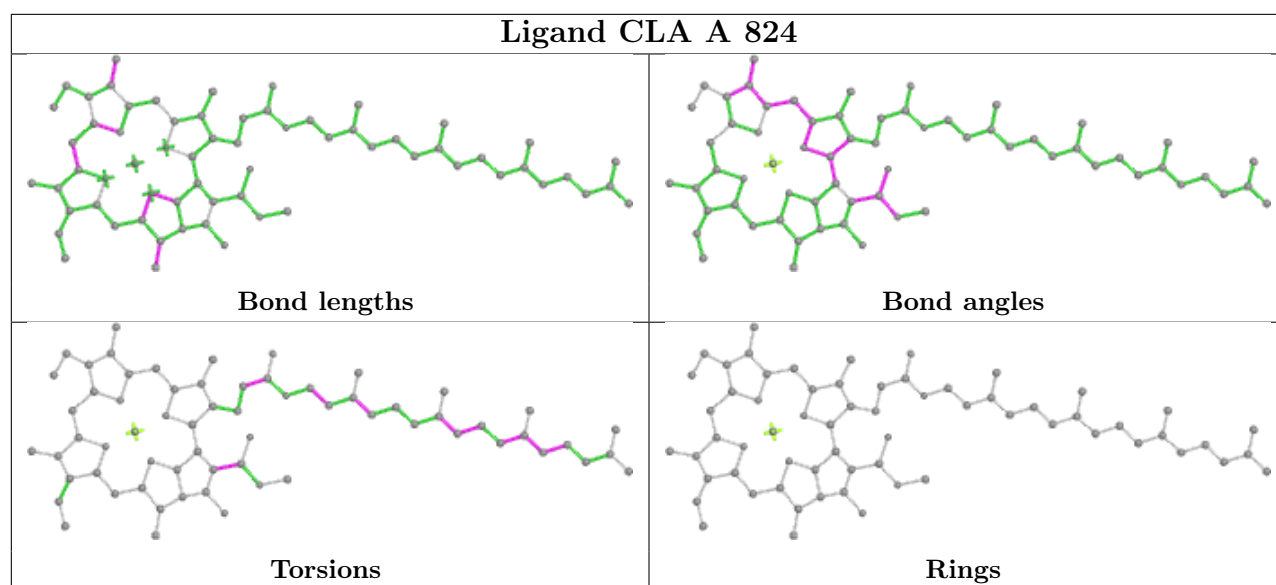


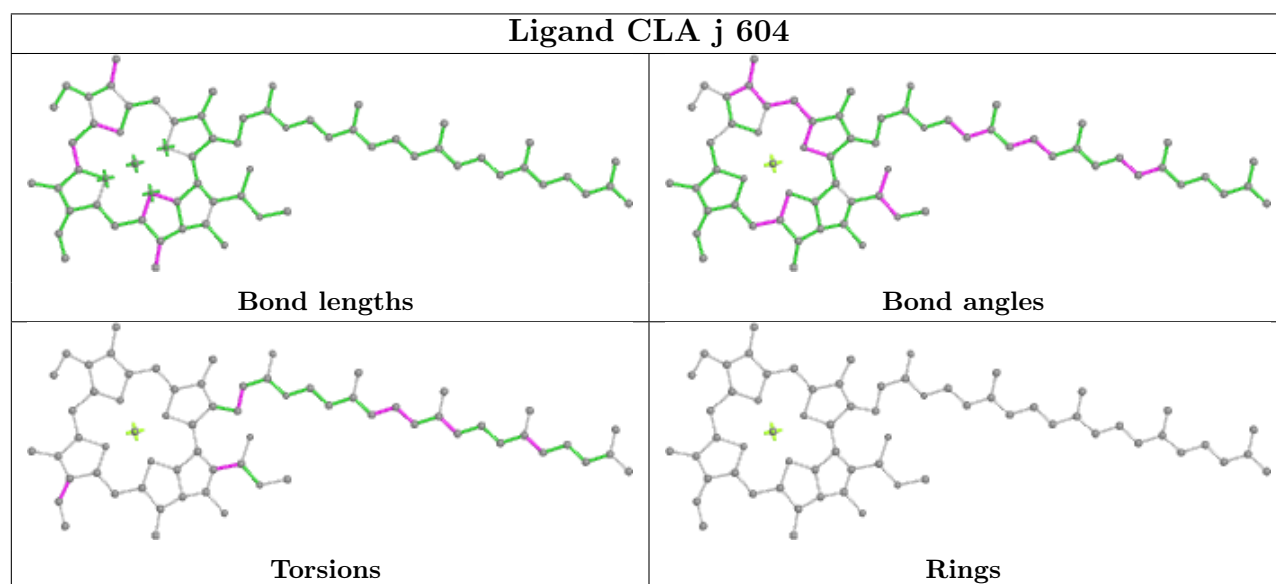
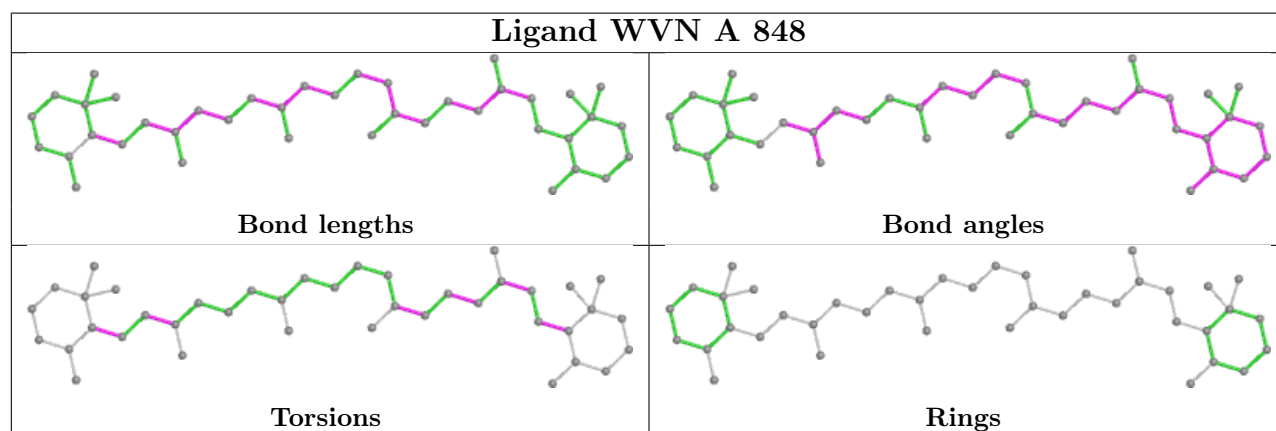
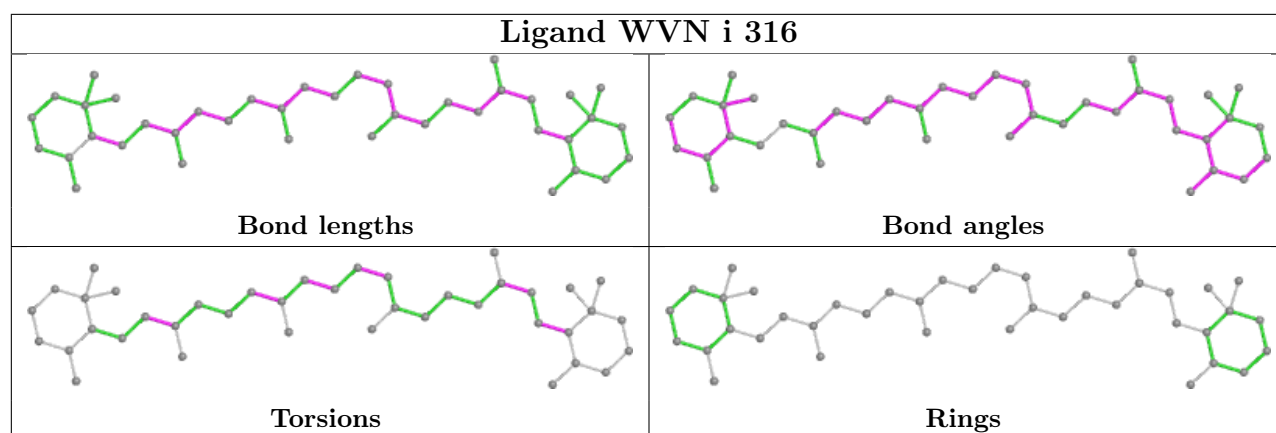


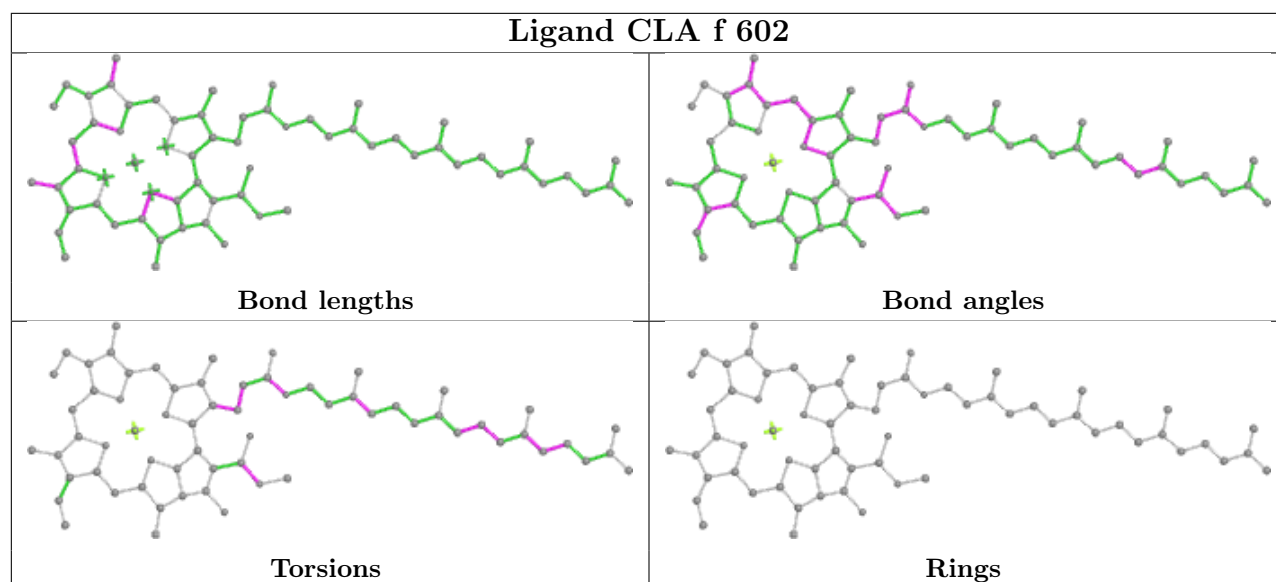
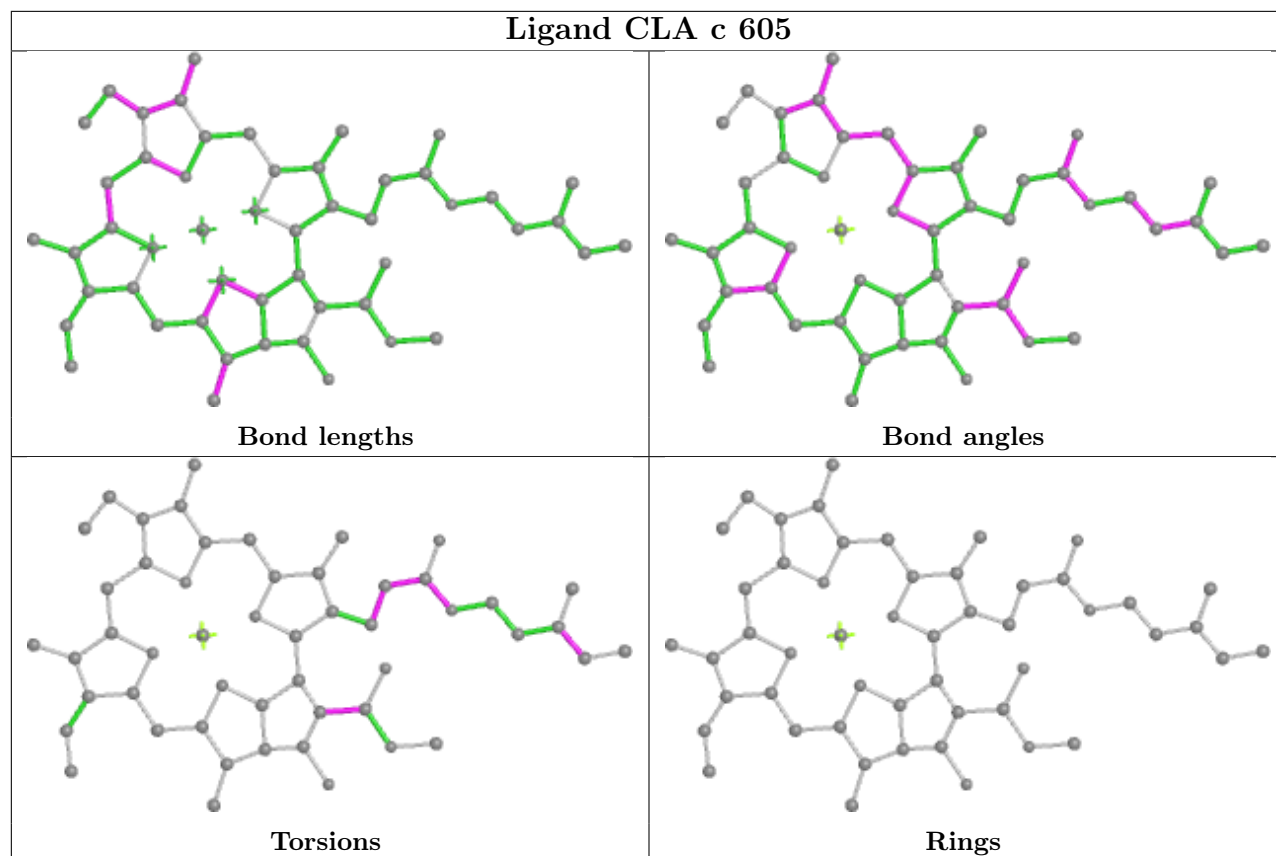


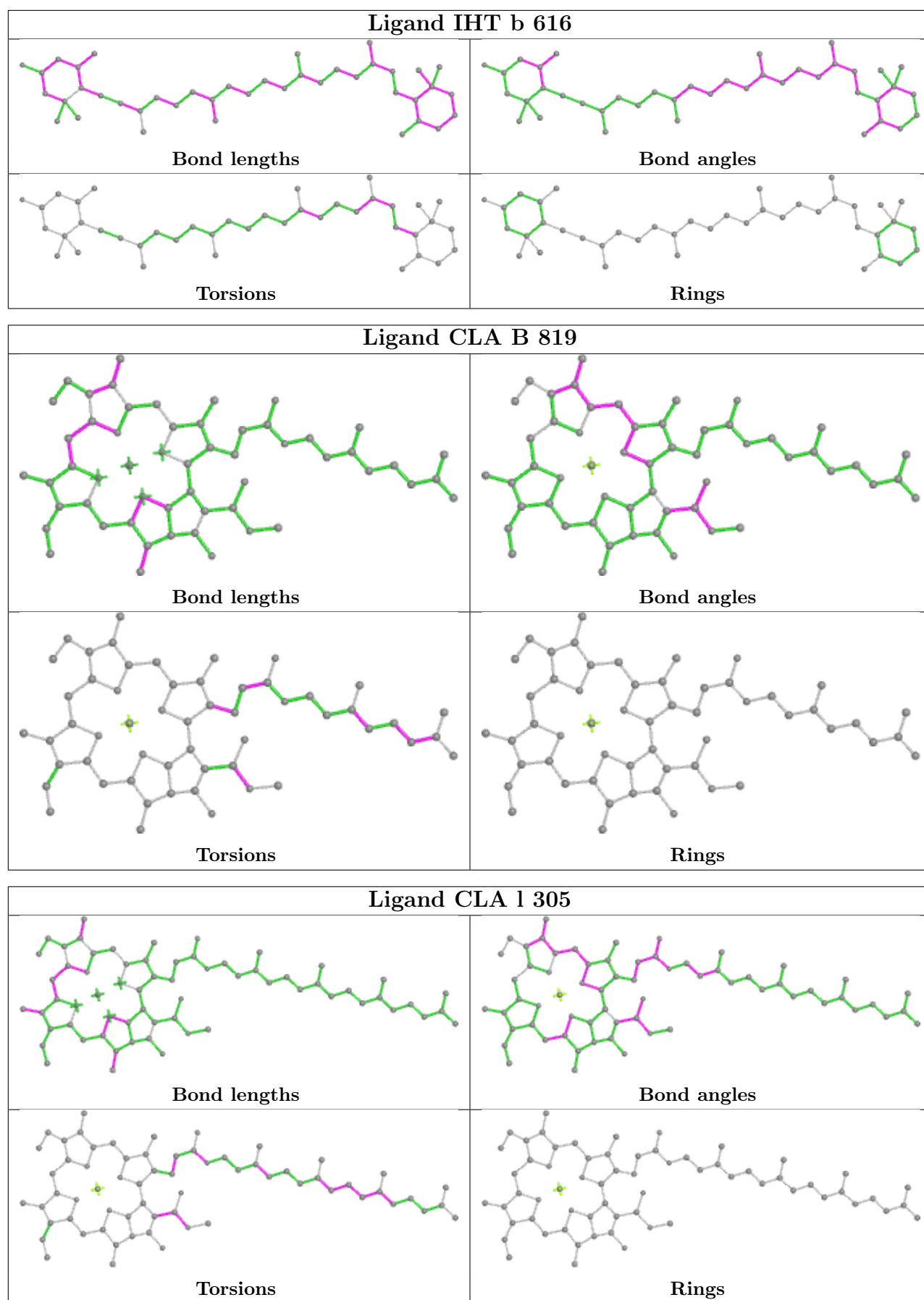


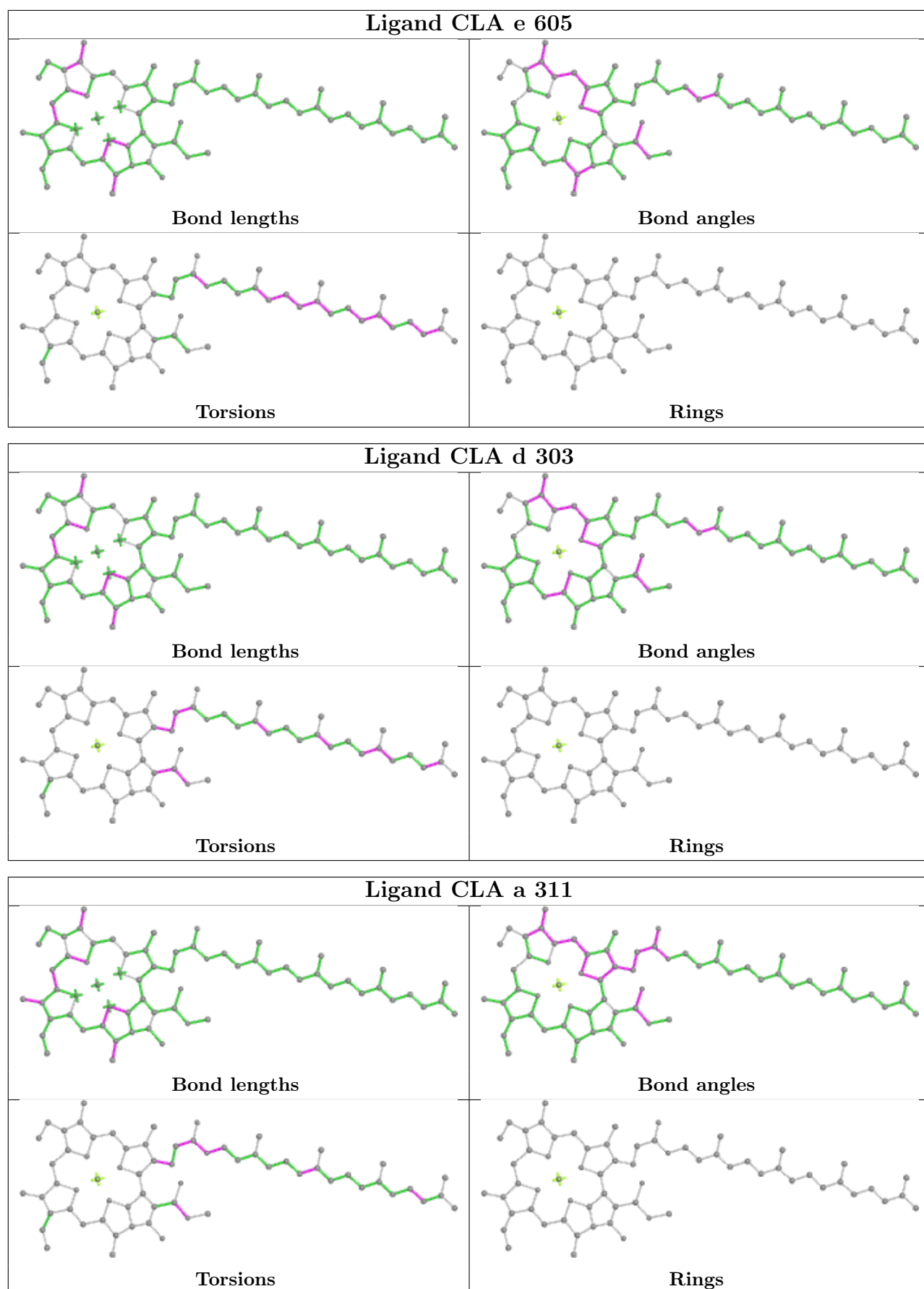


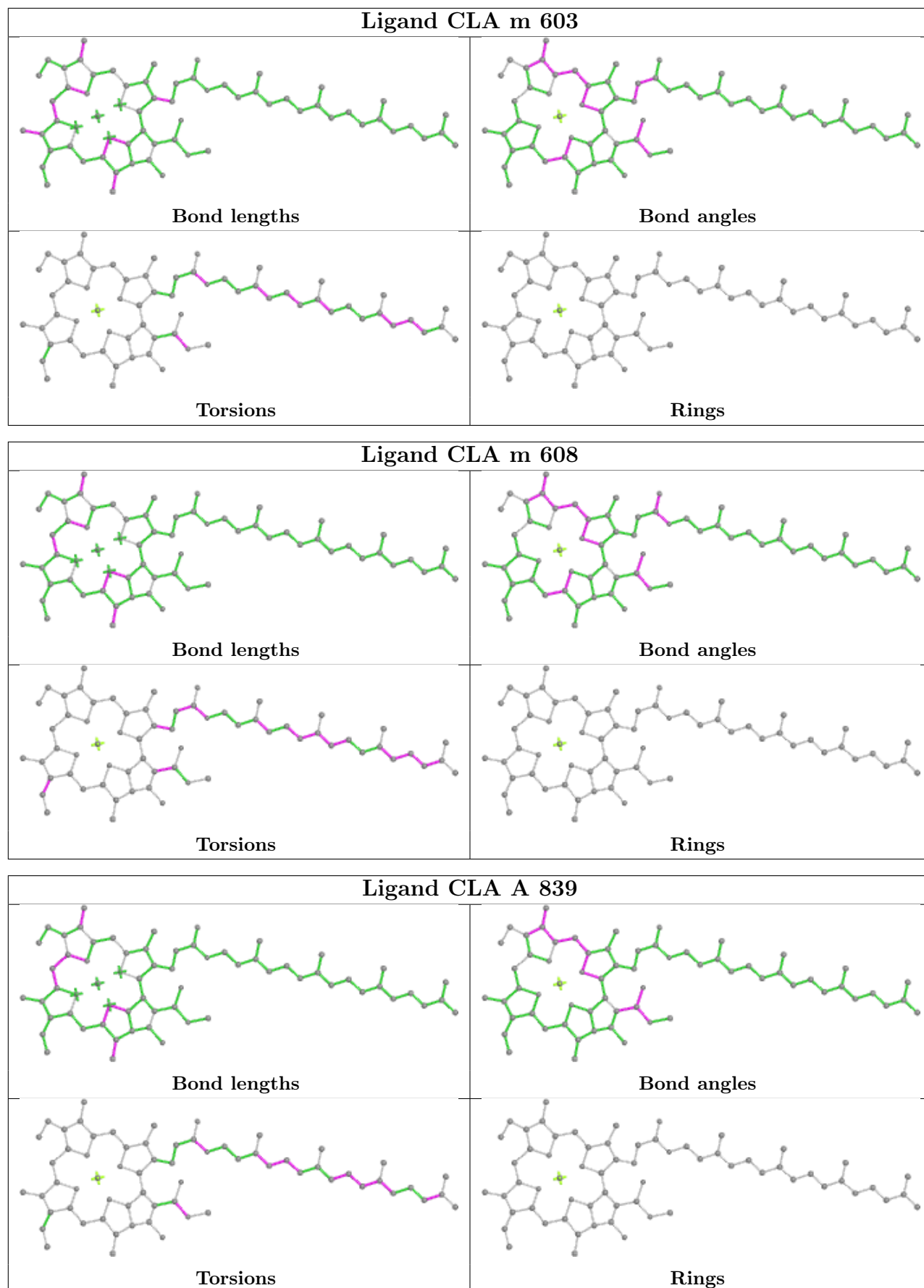


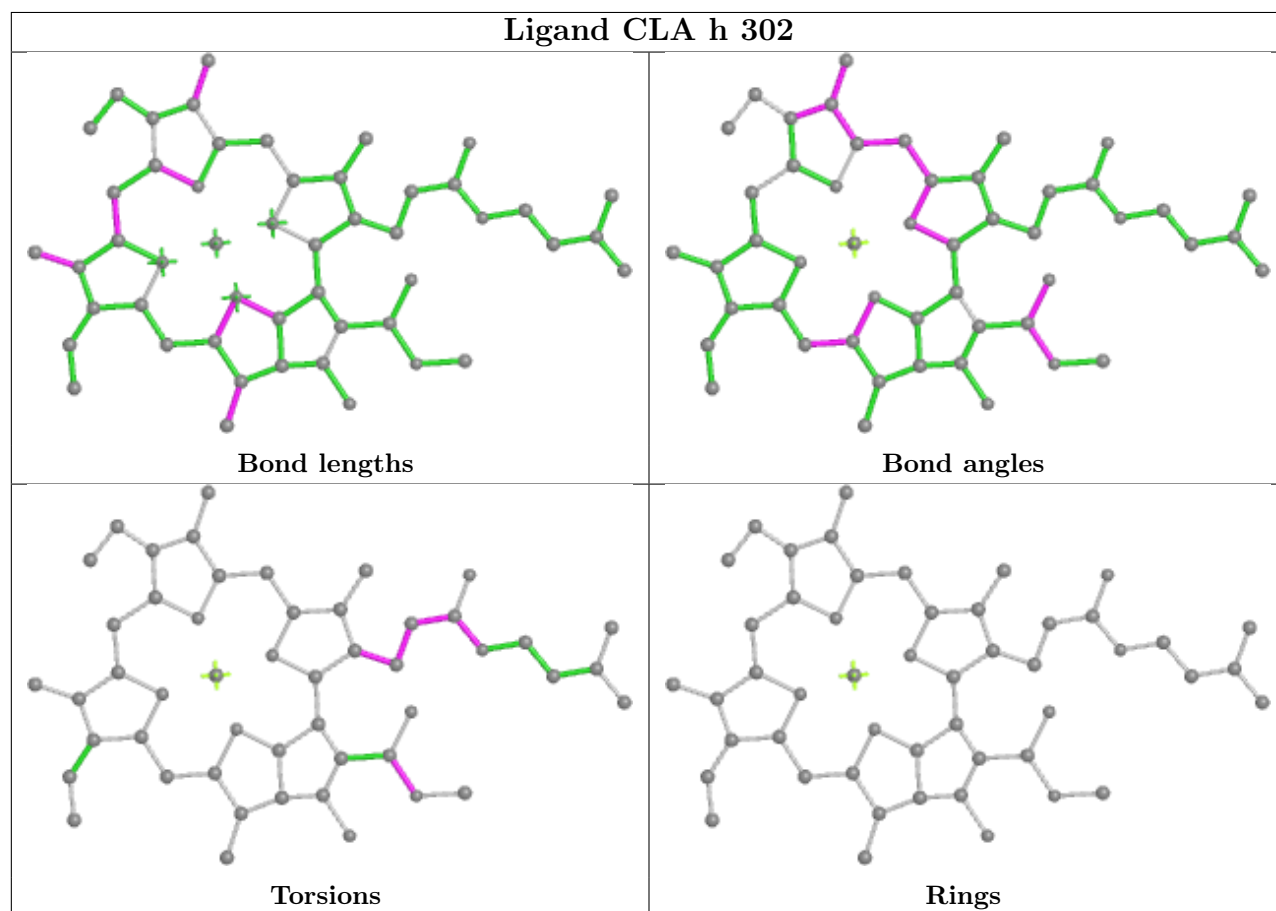
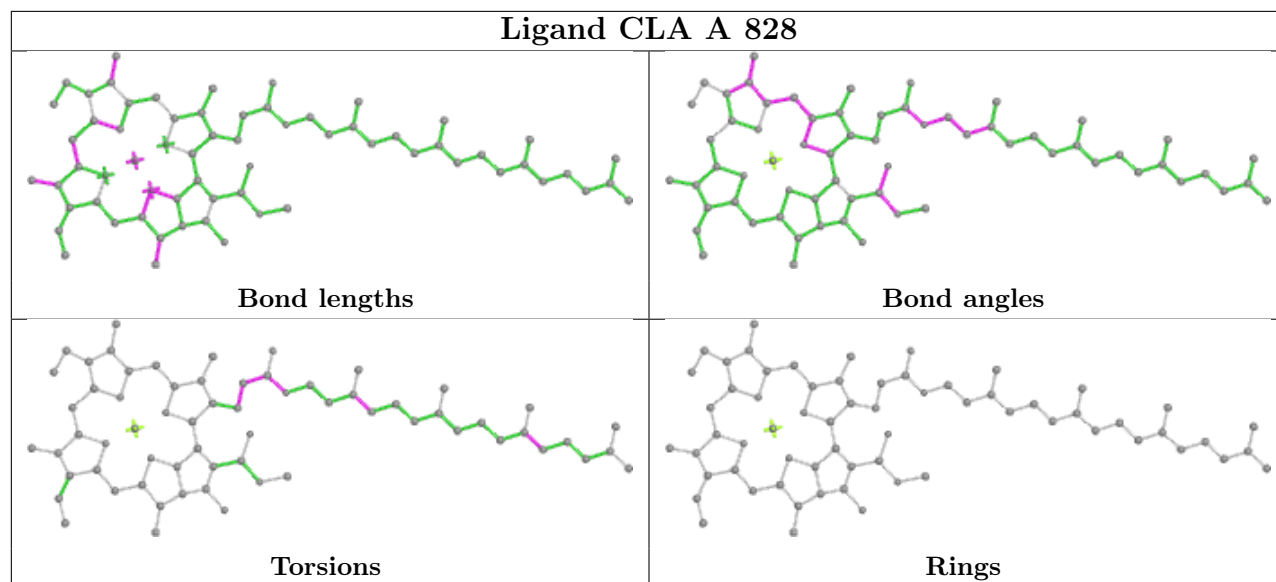


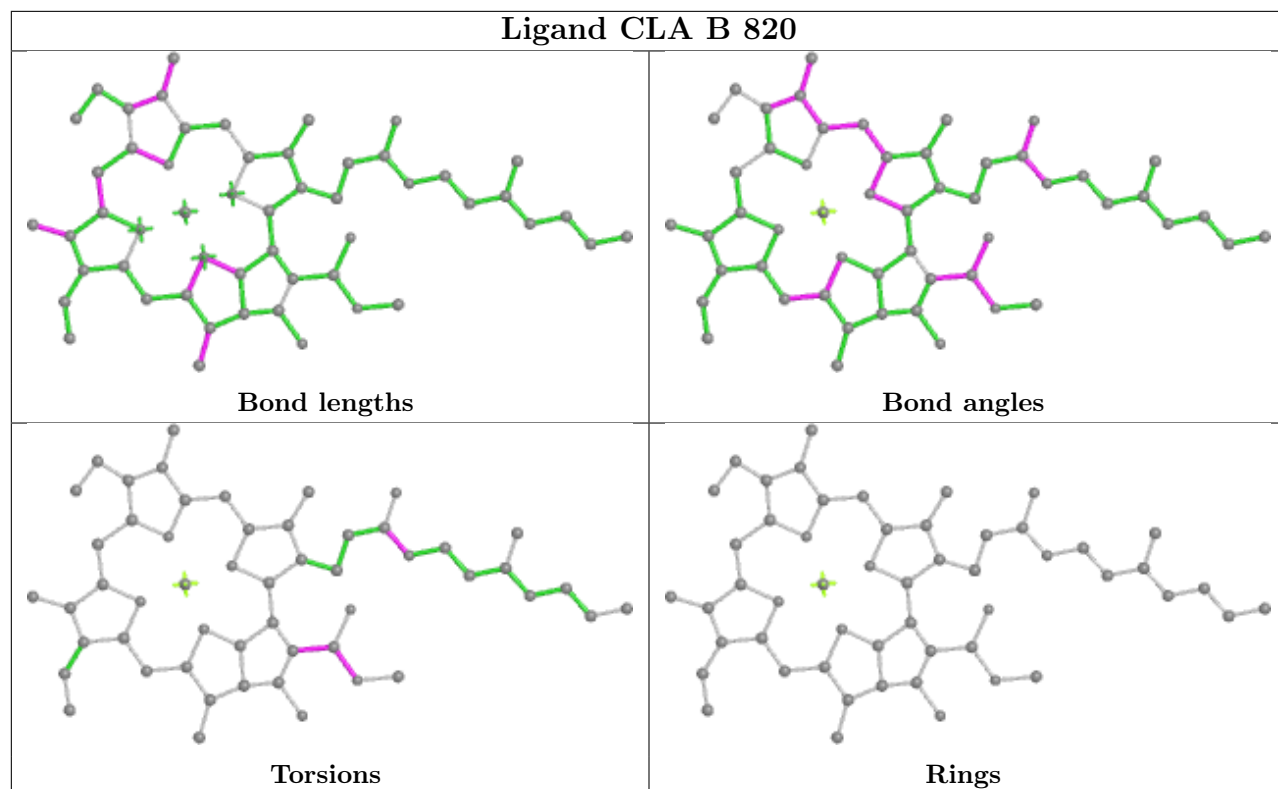


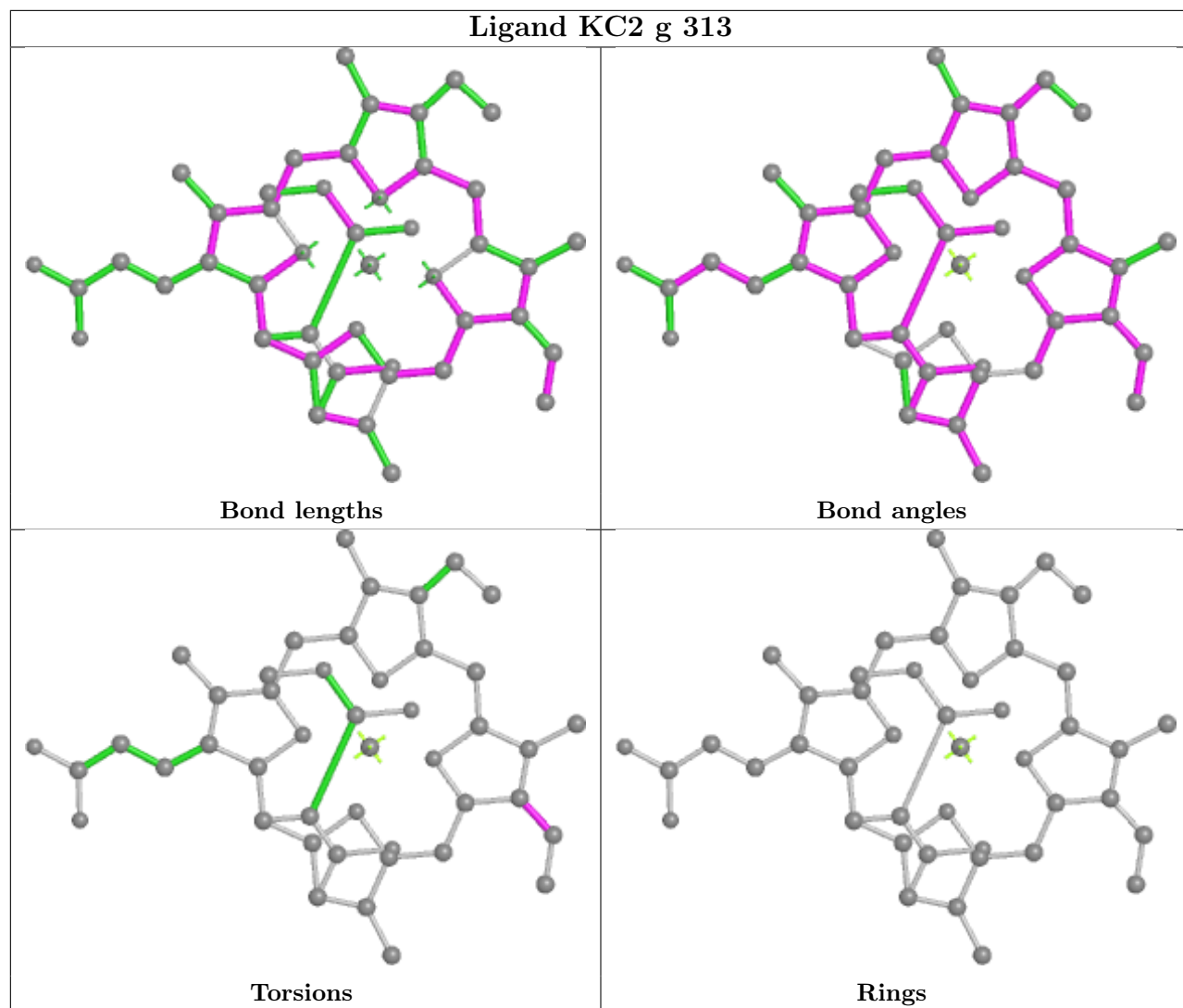


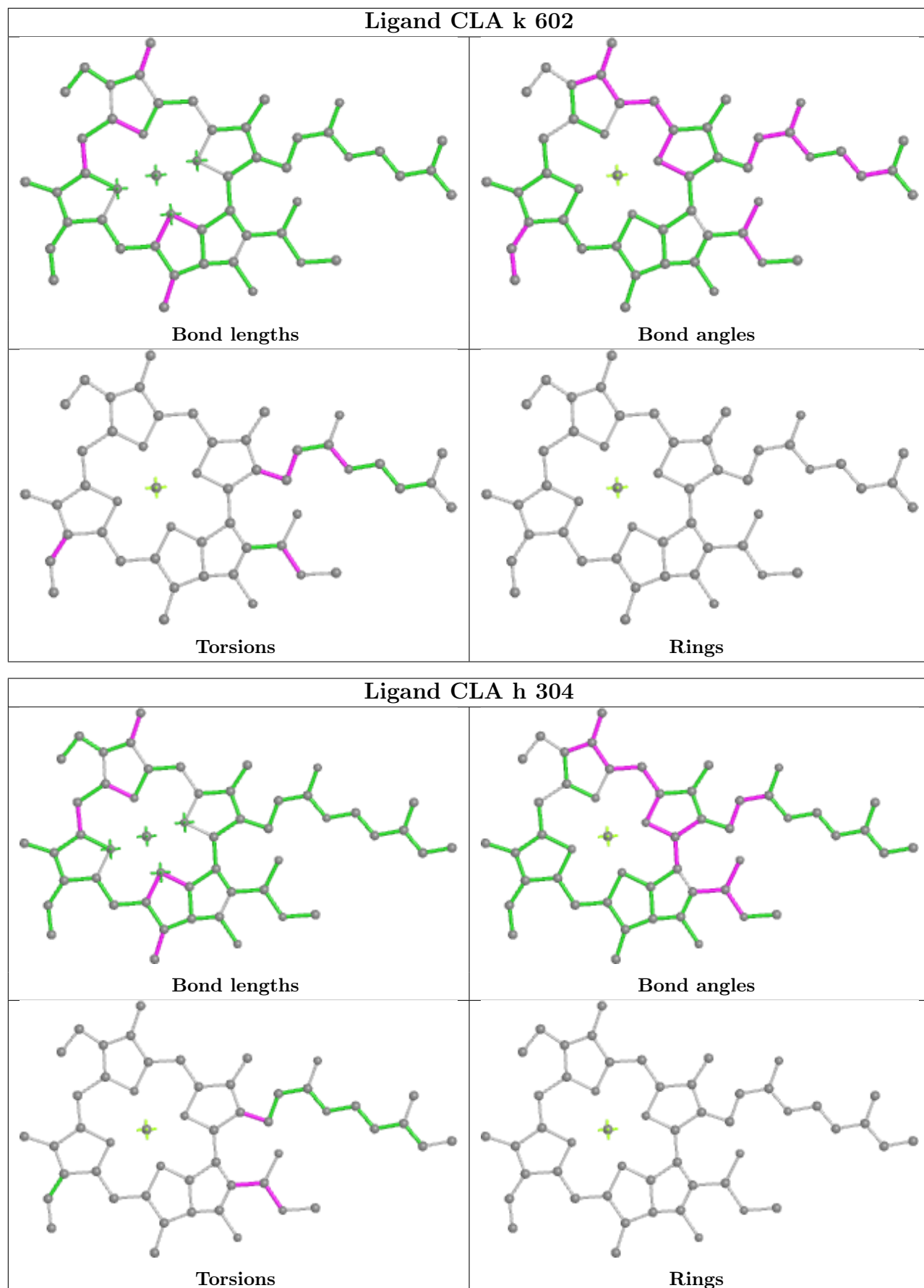


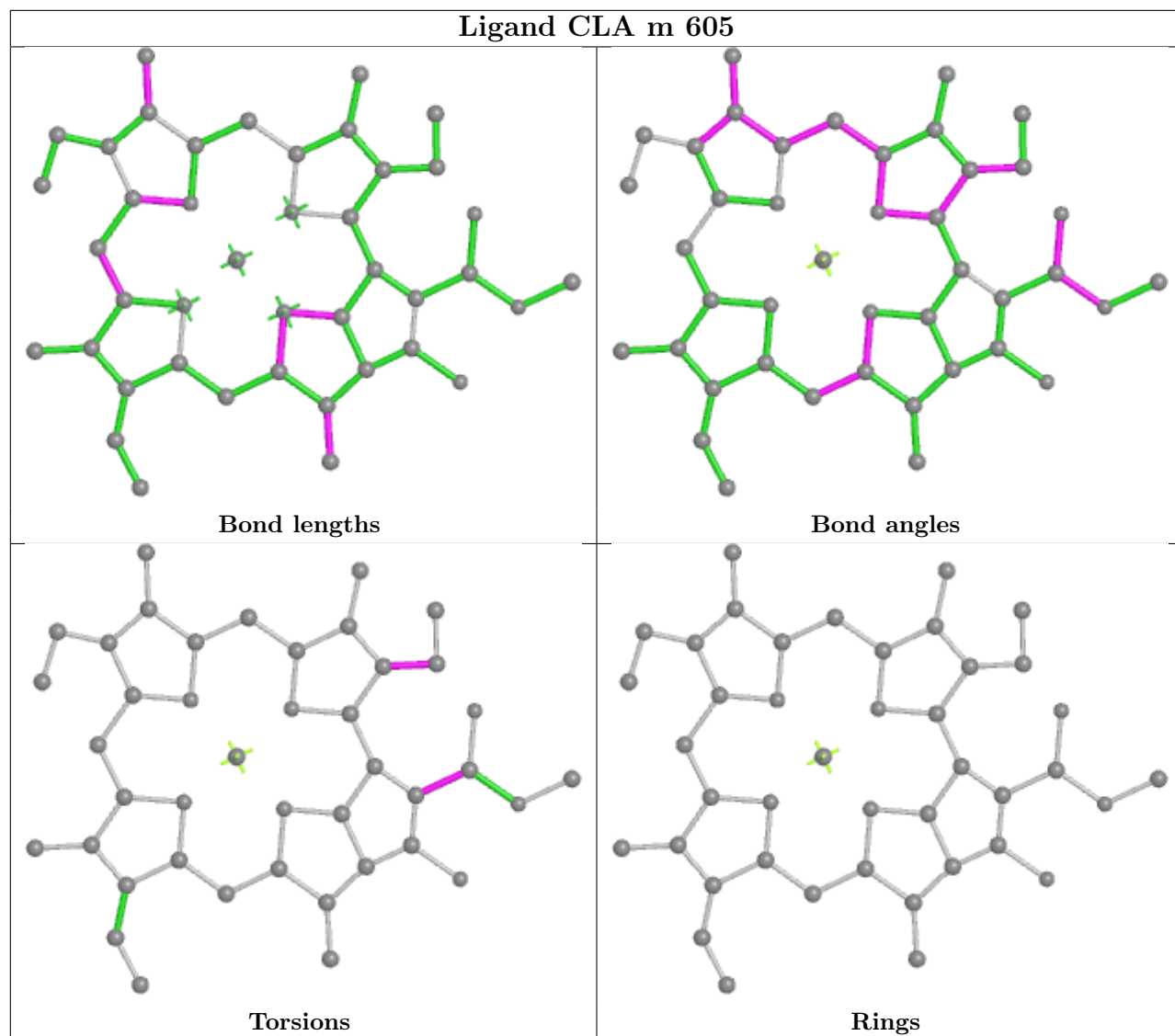




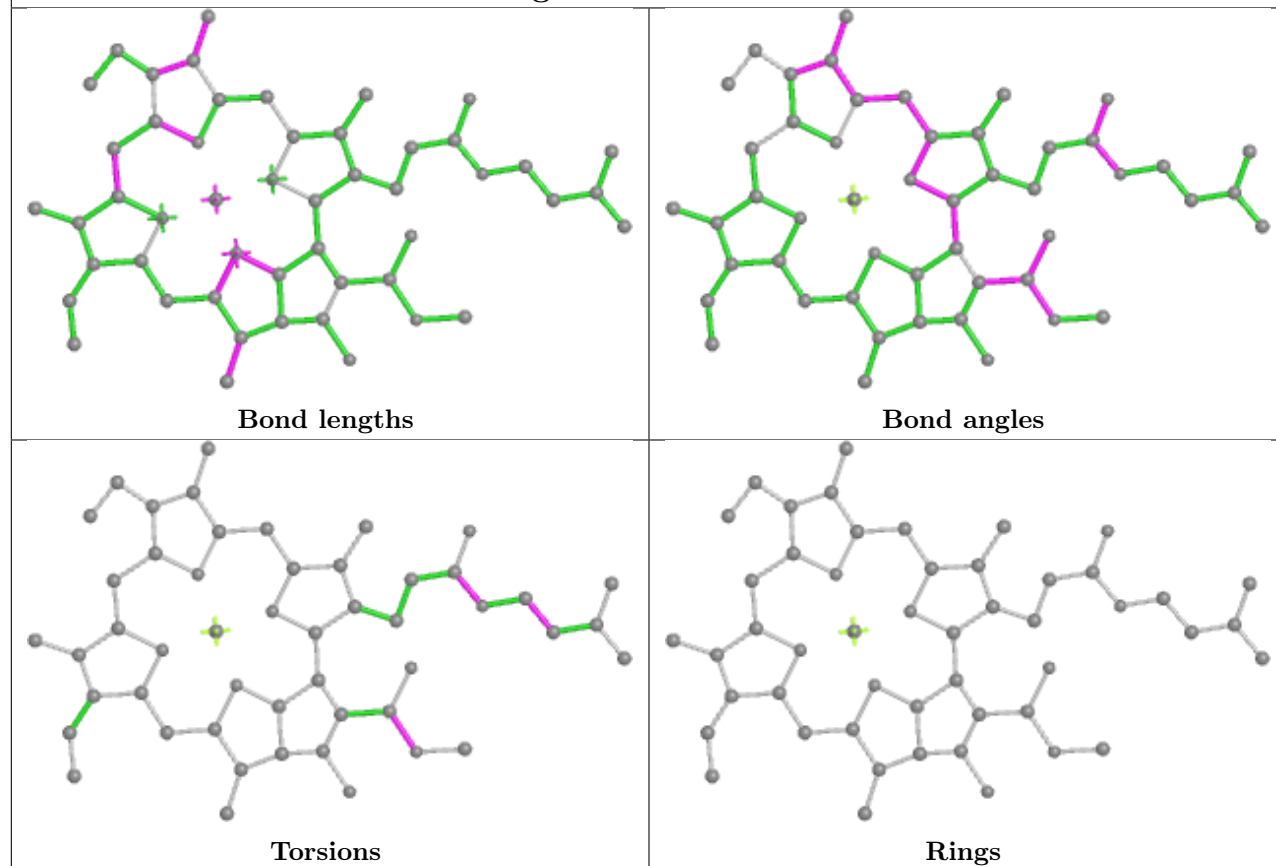




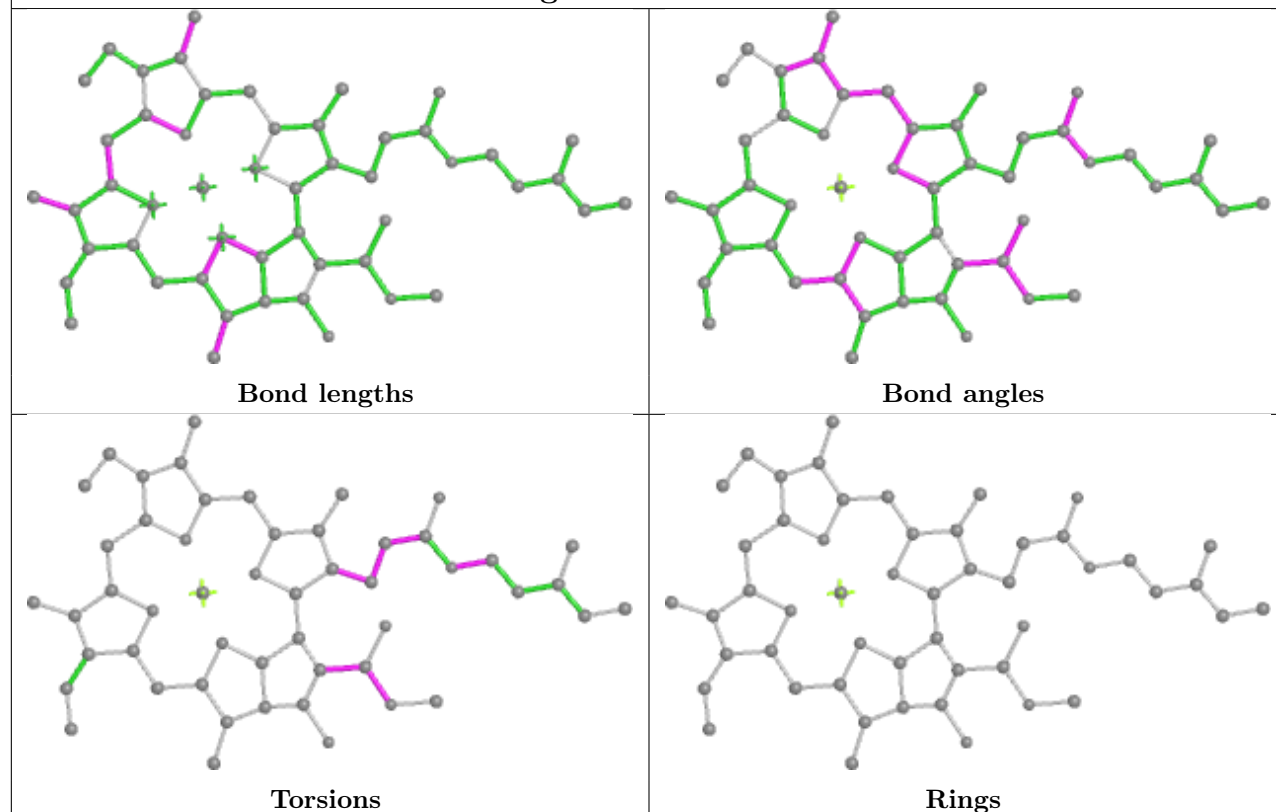


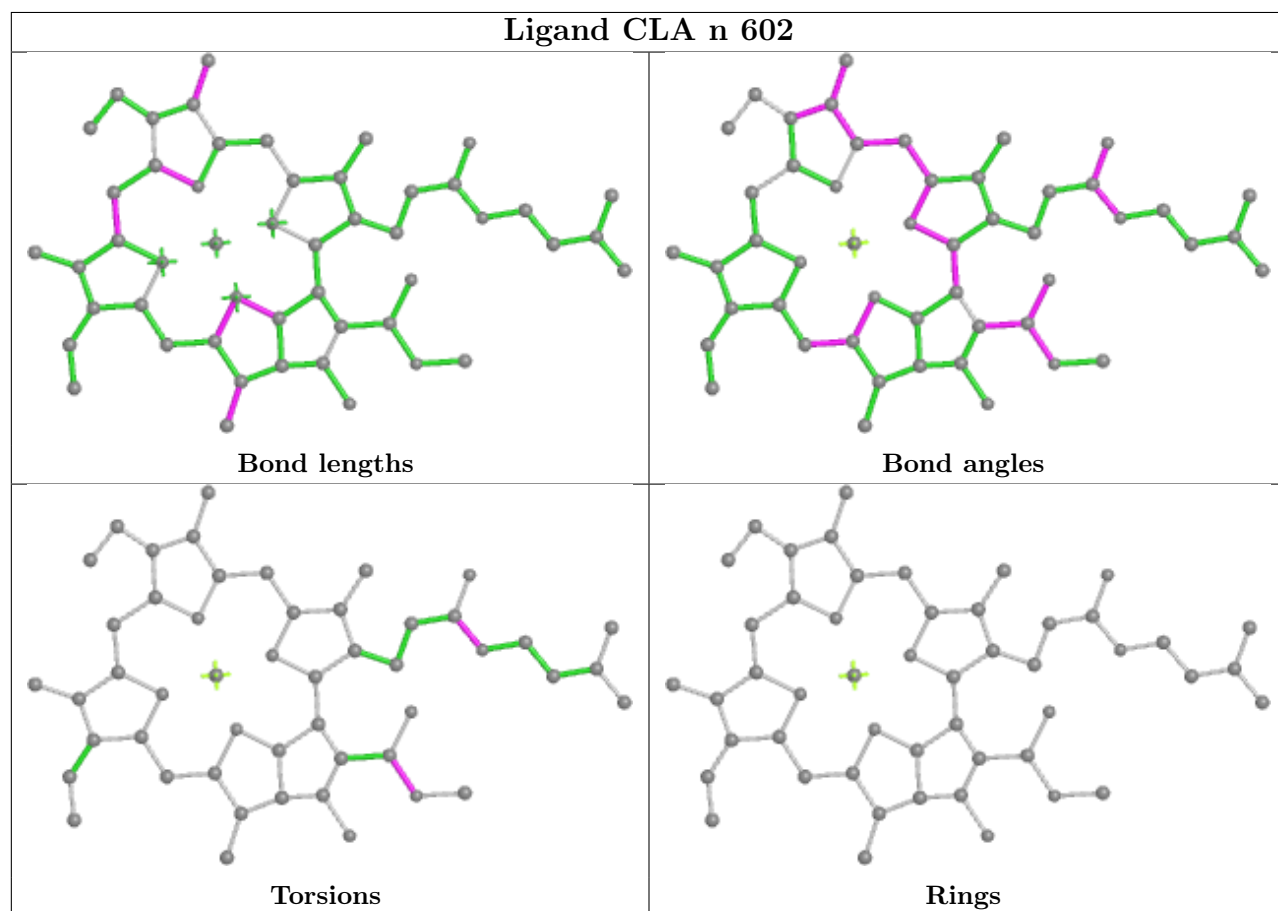
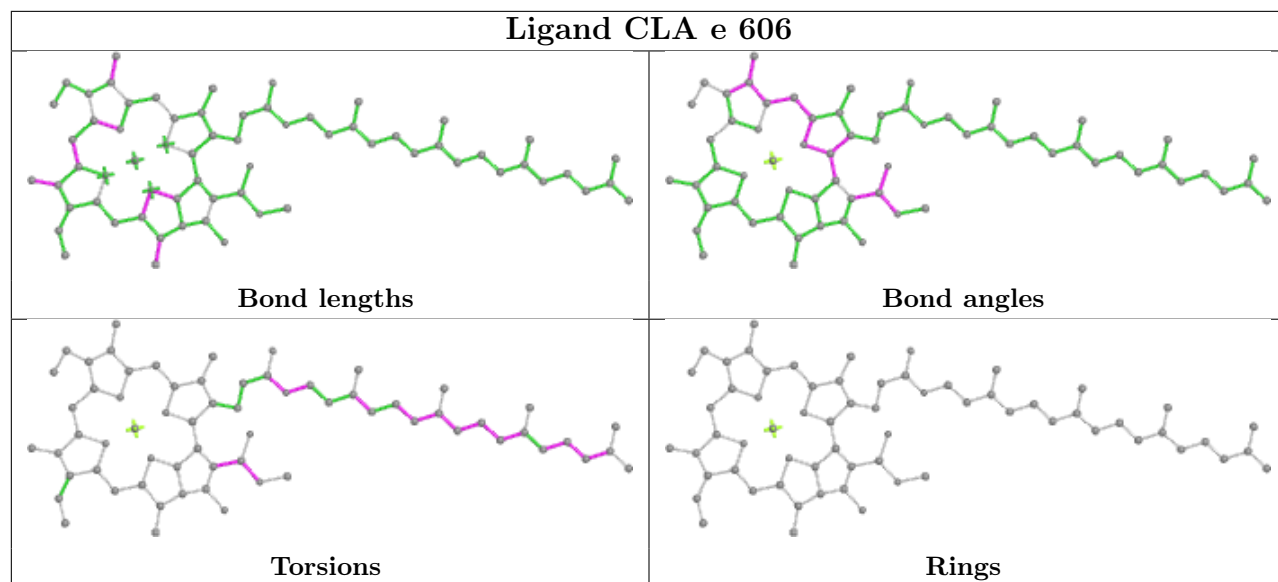


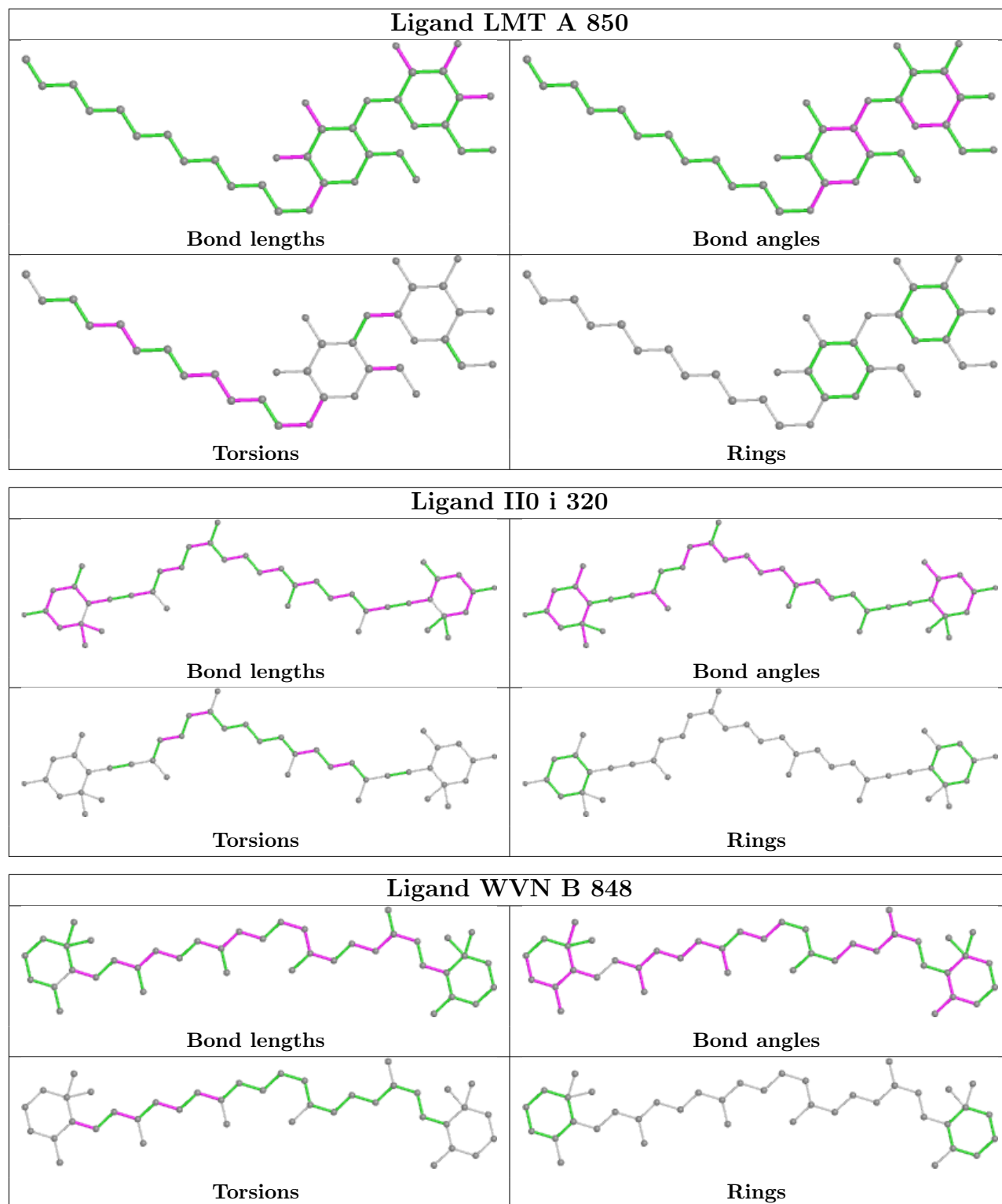
Ligand CLA B 829

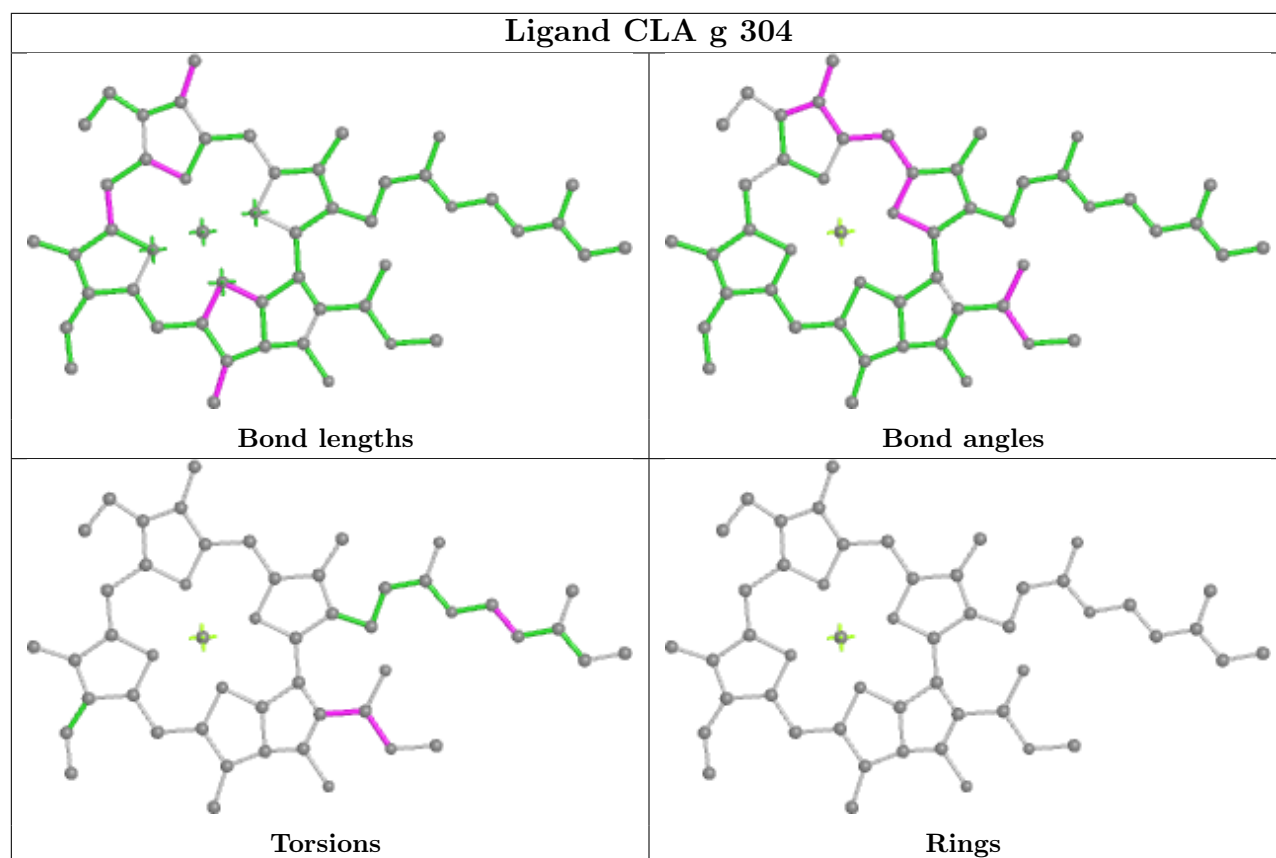
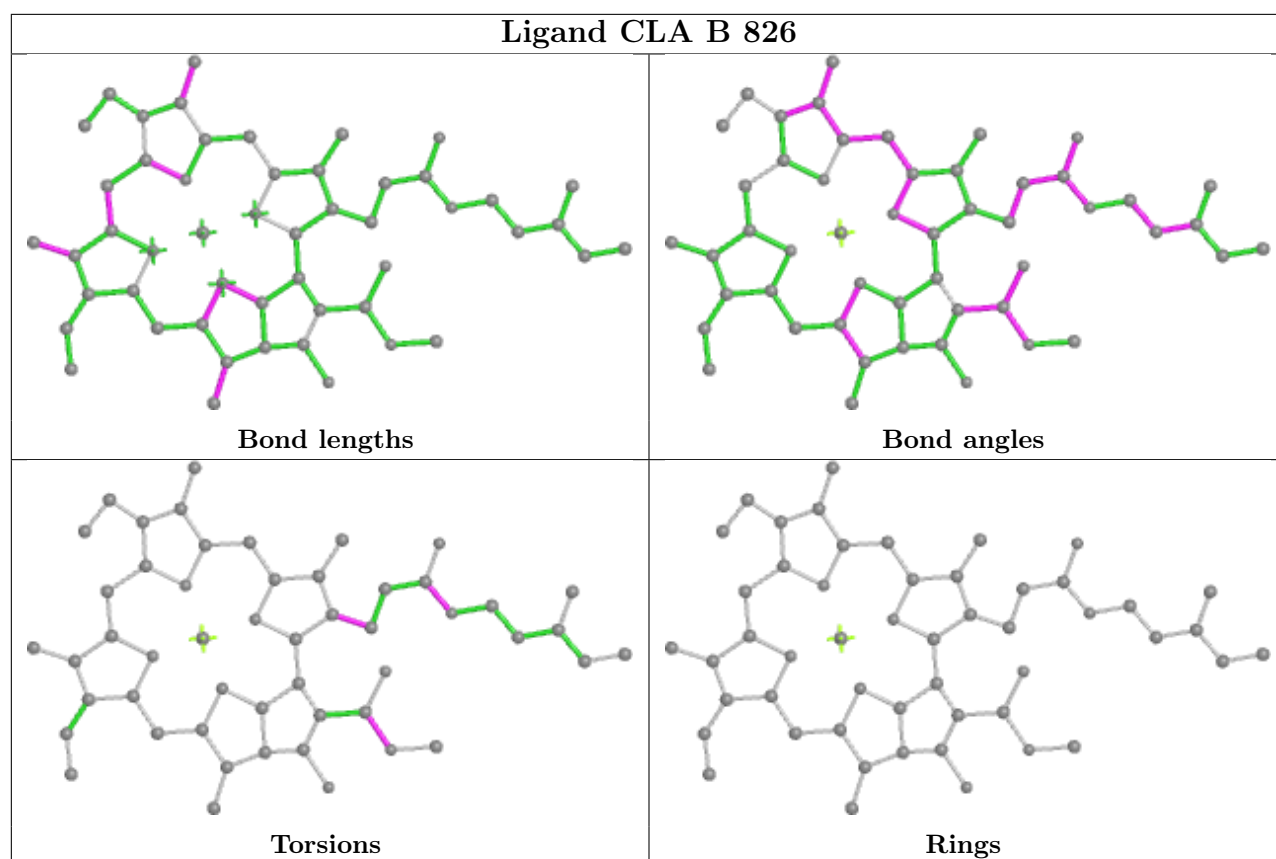


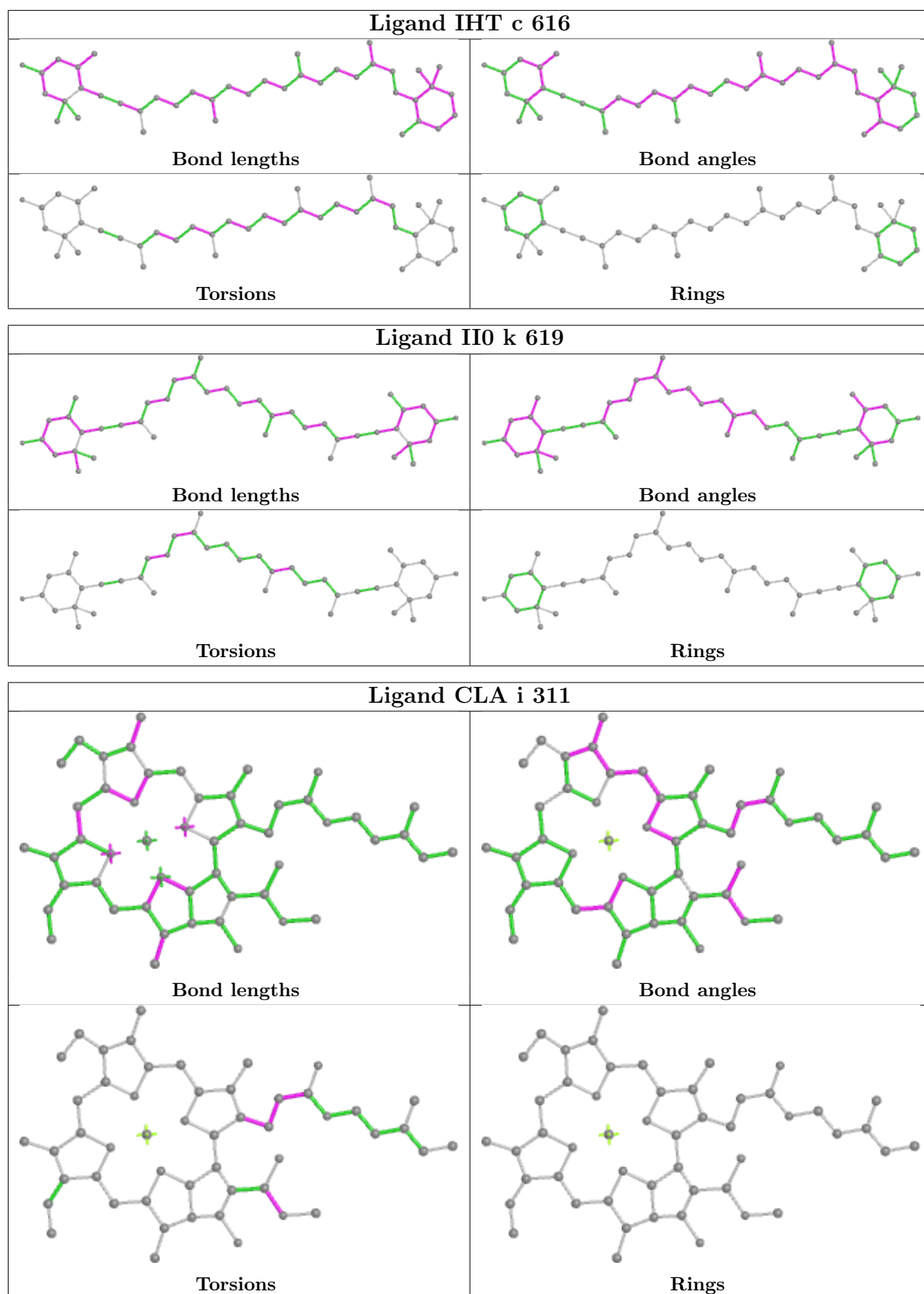
Ligand CLA I 308

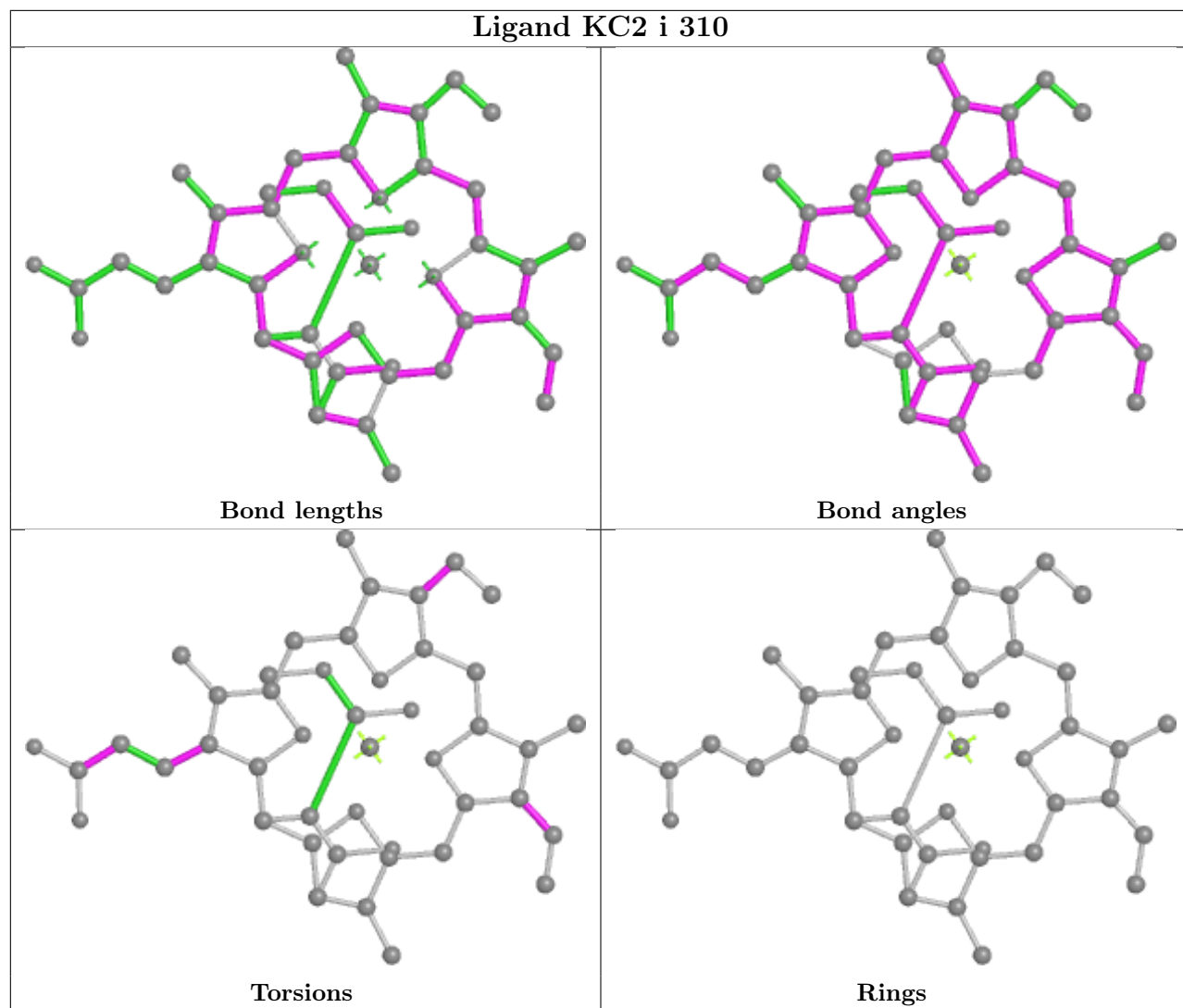


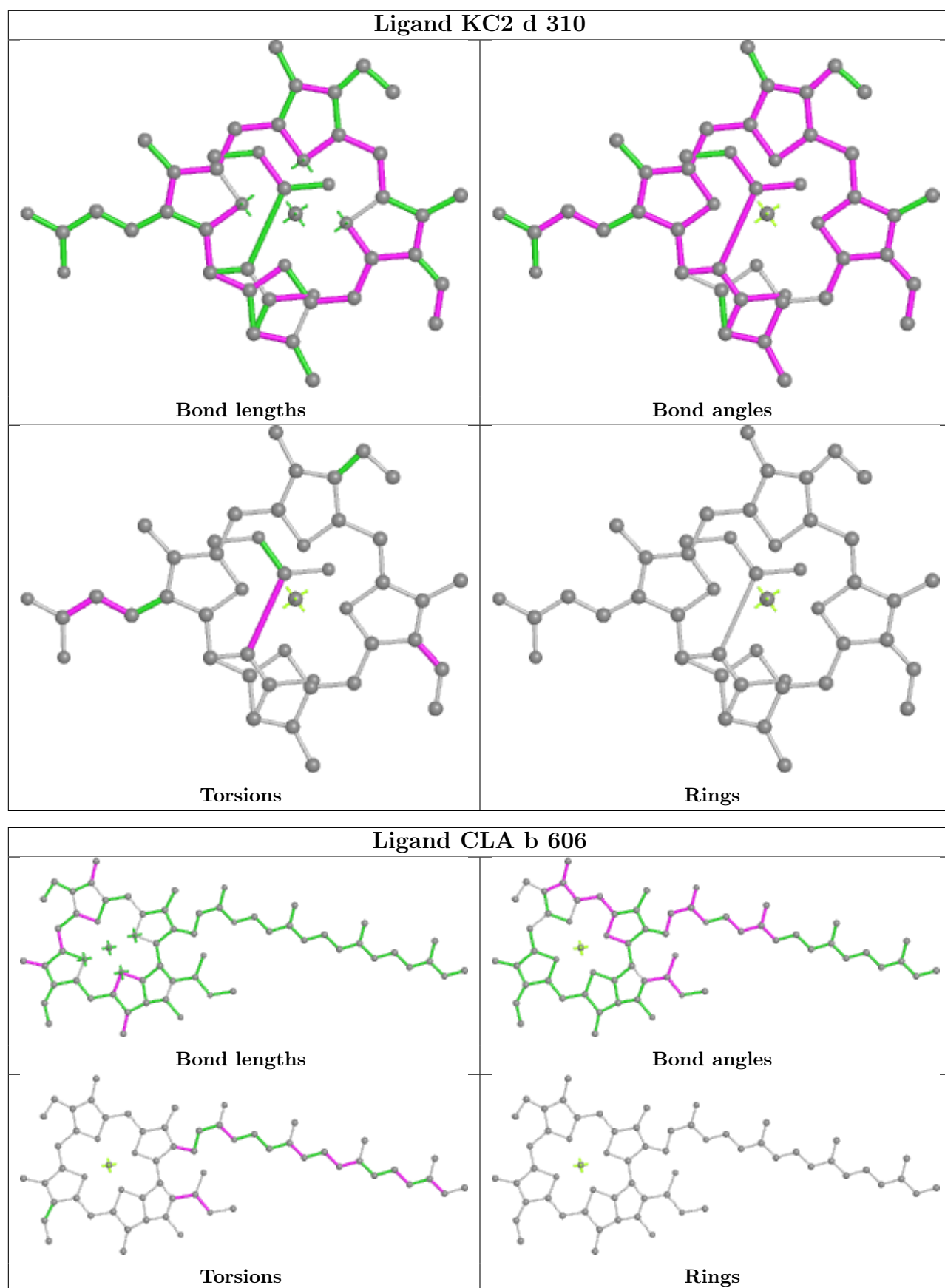


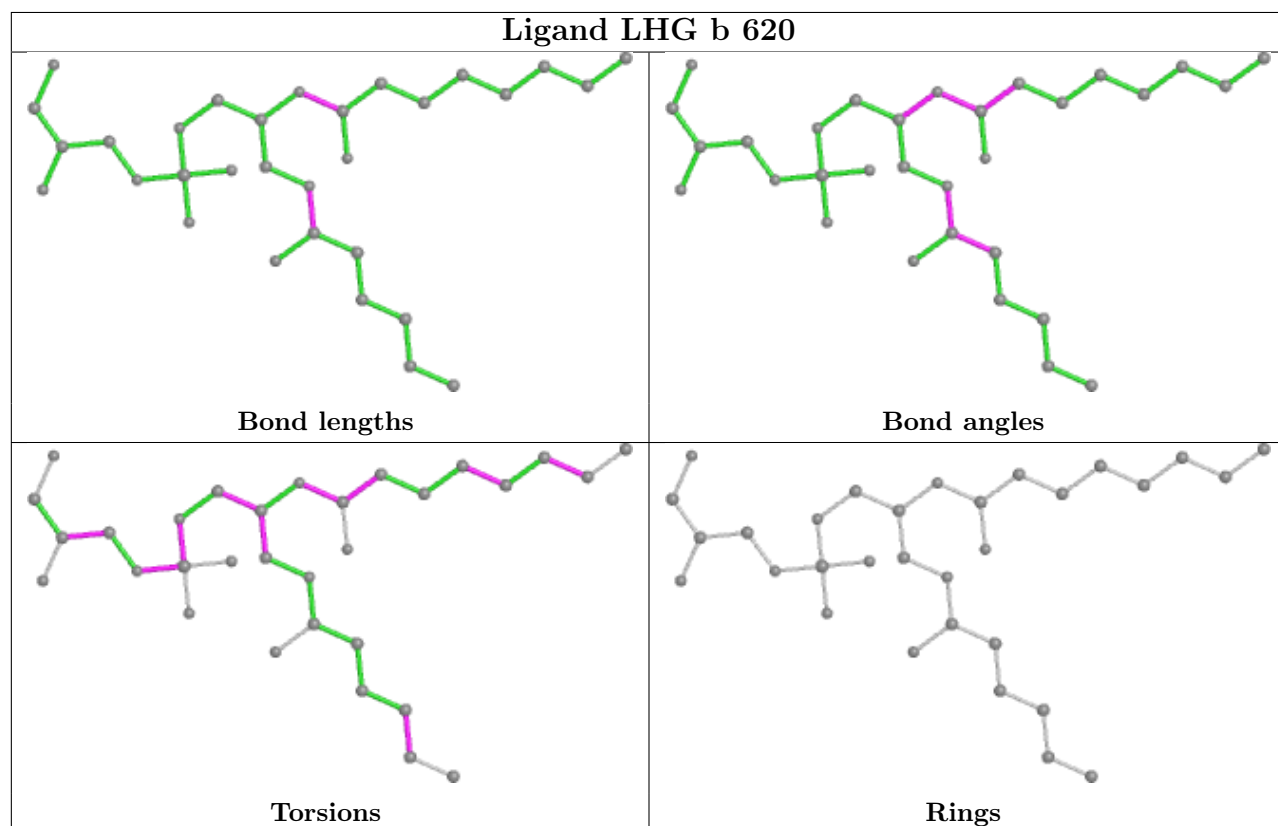
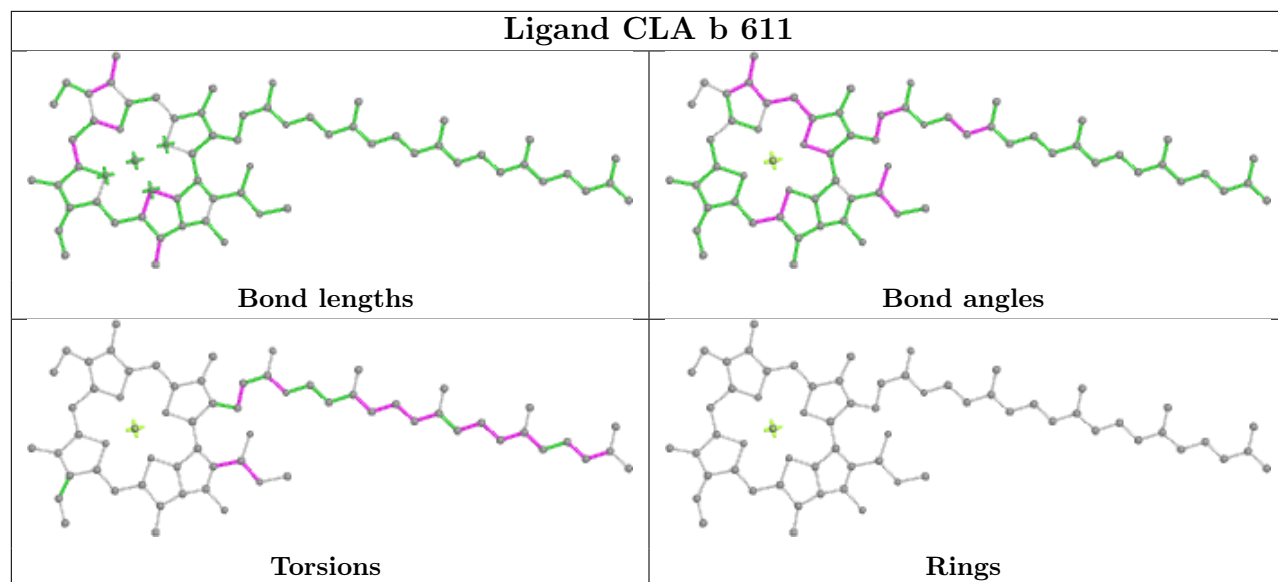


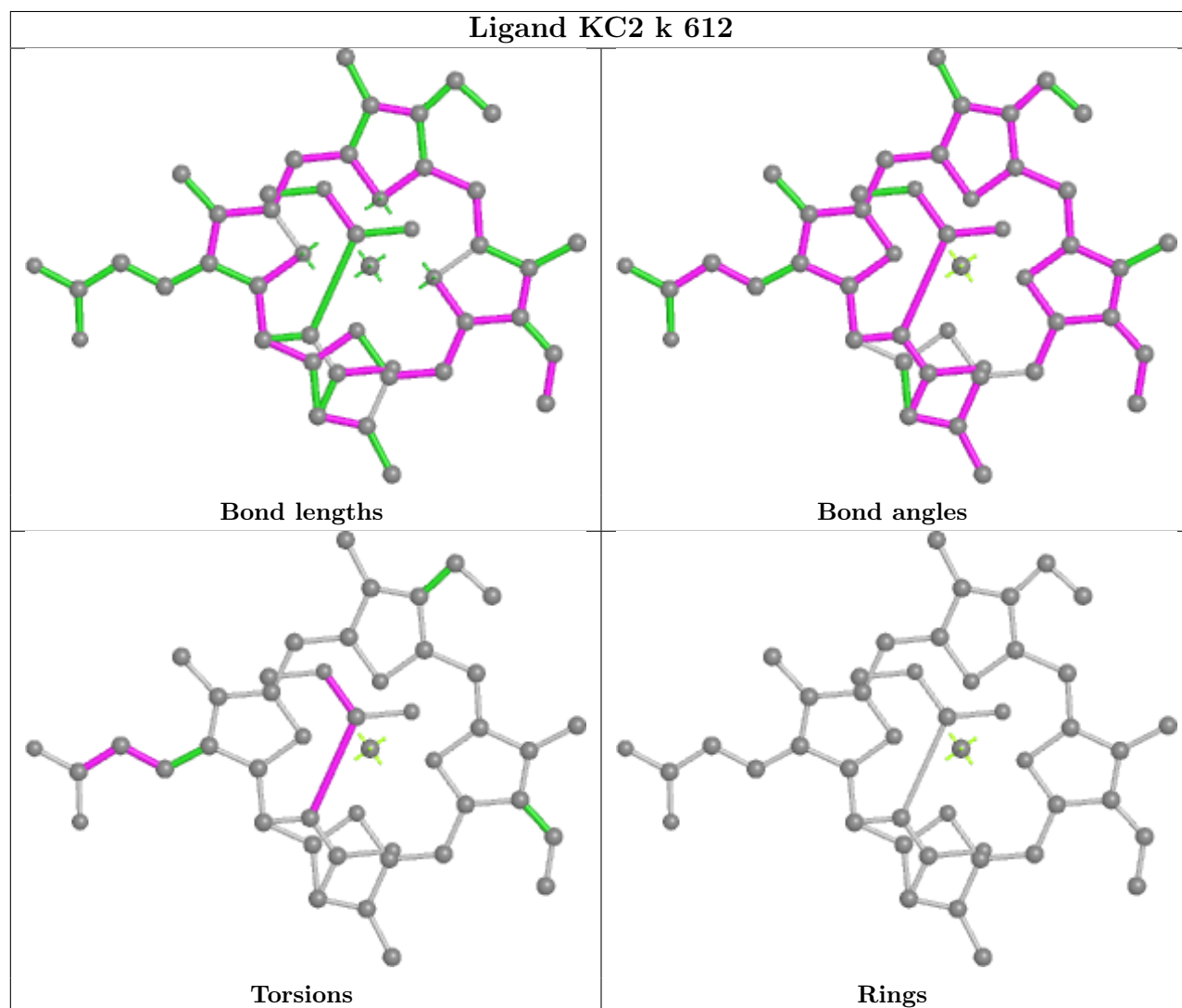
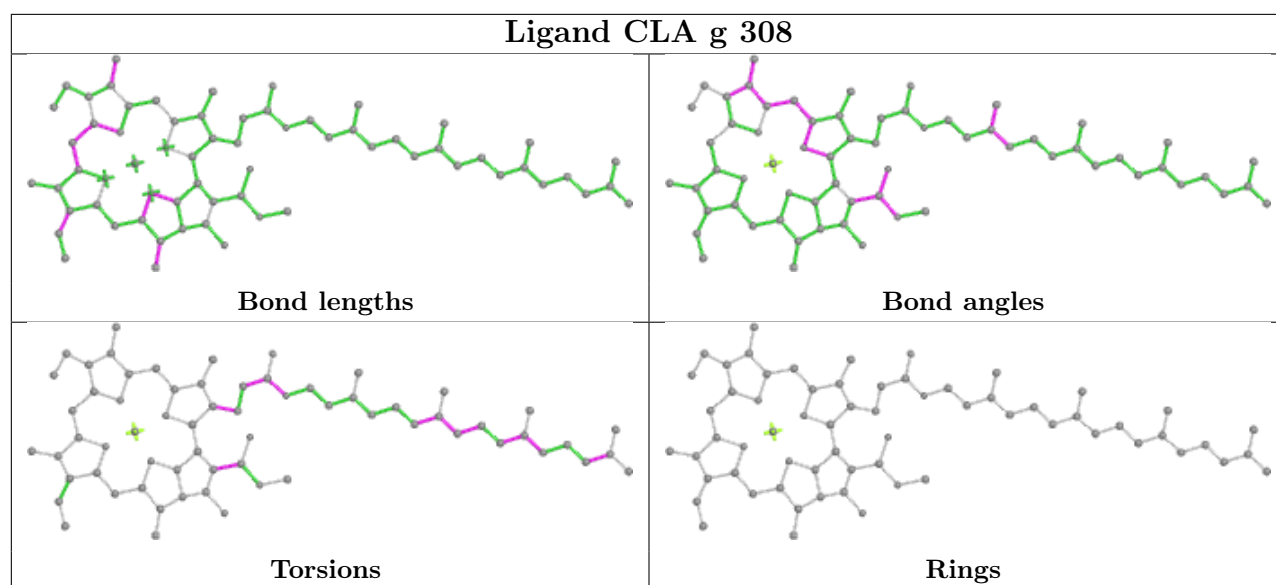


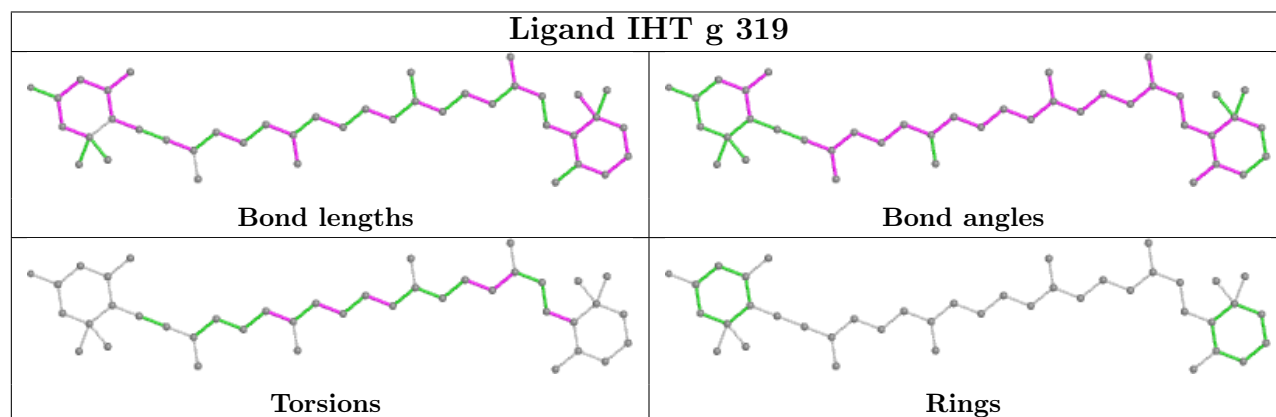
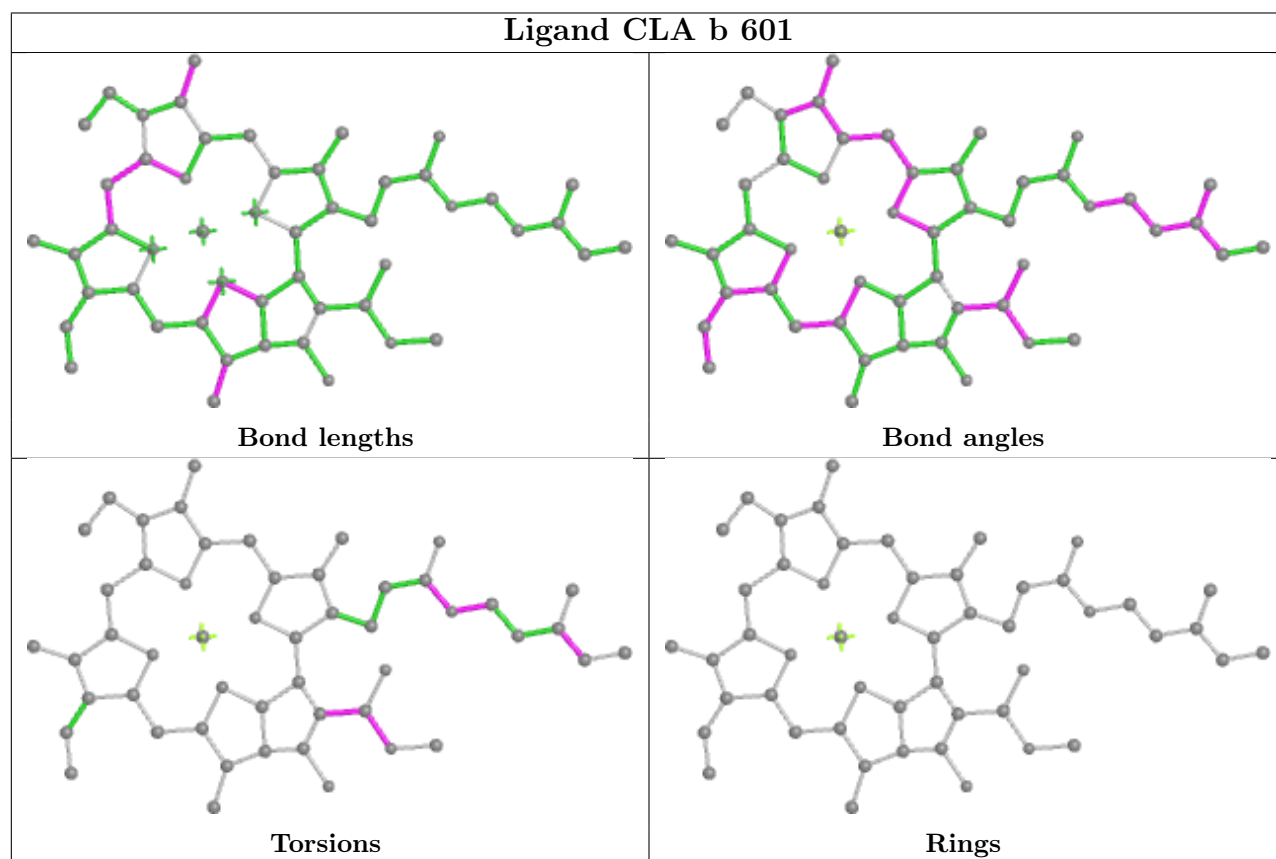
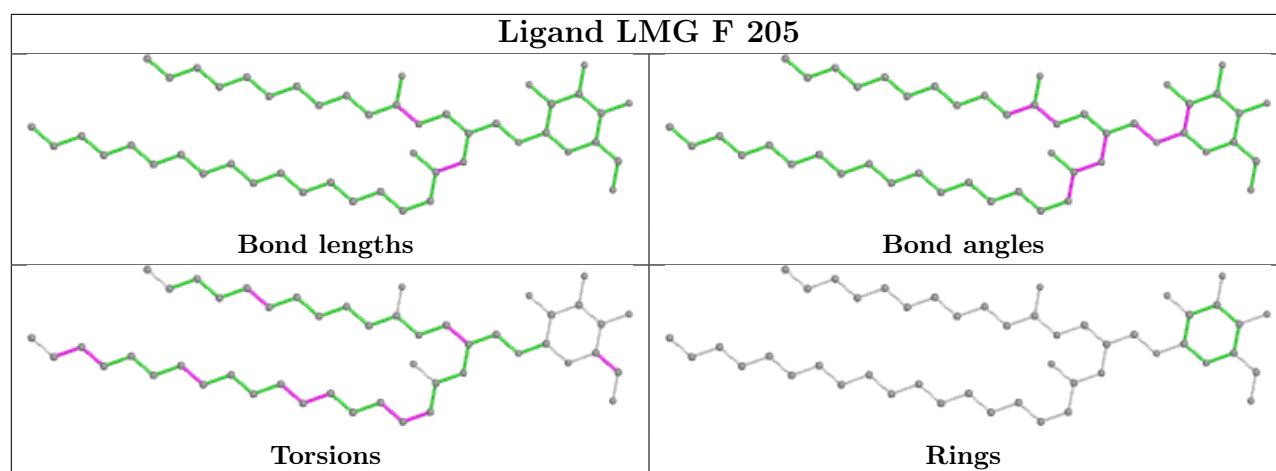


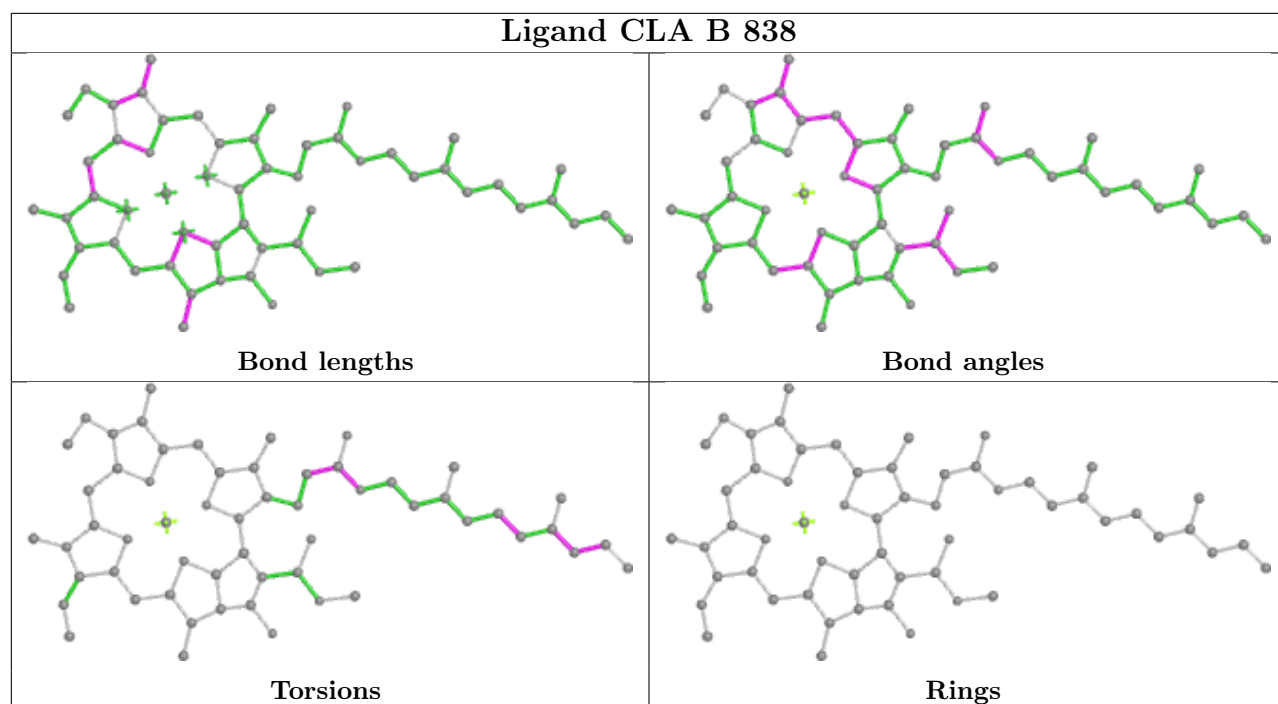
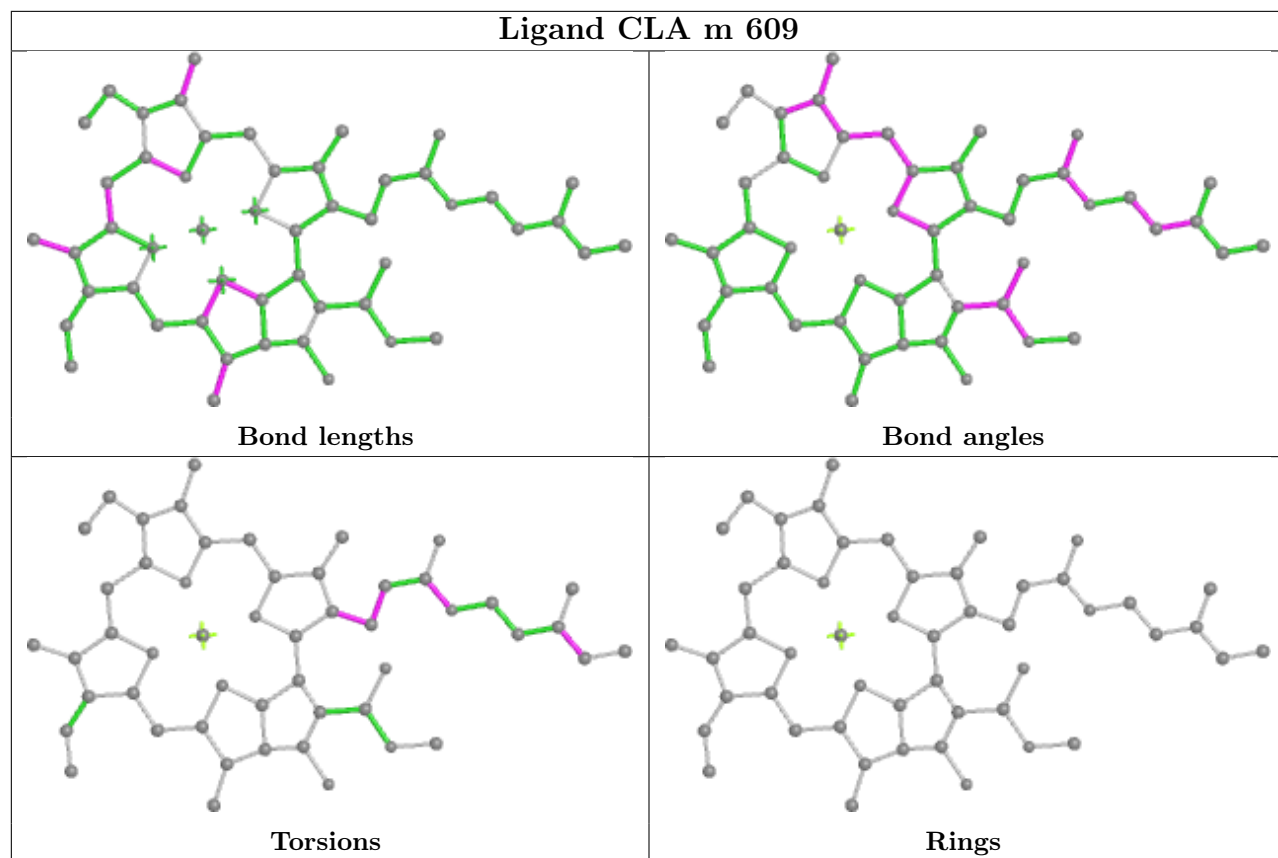


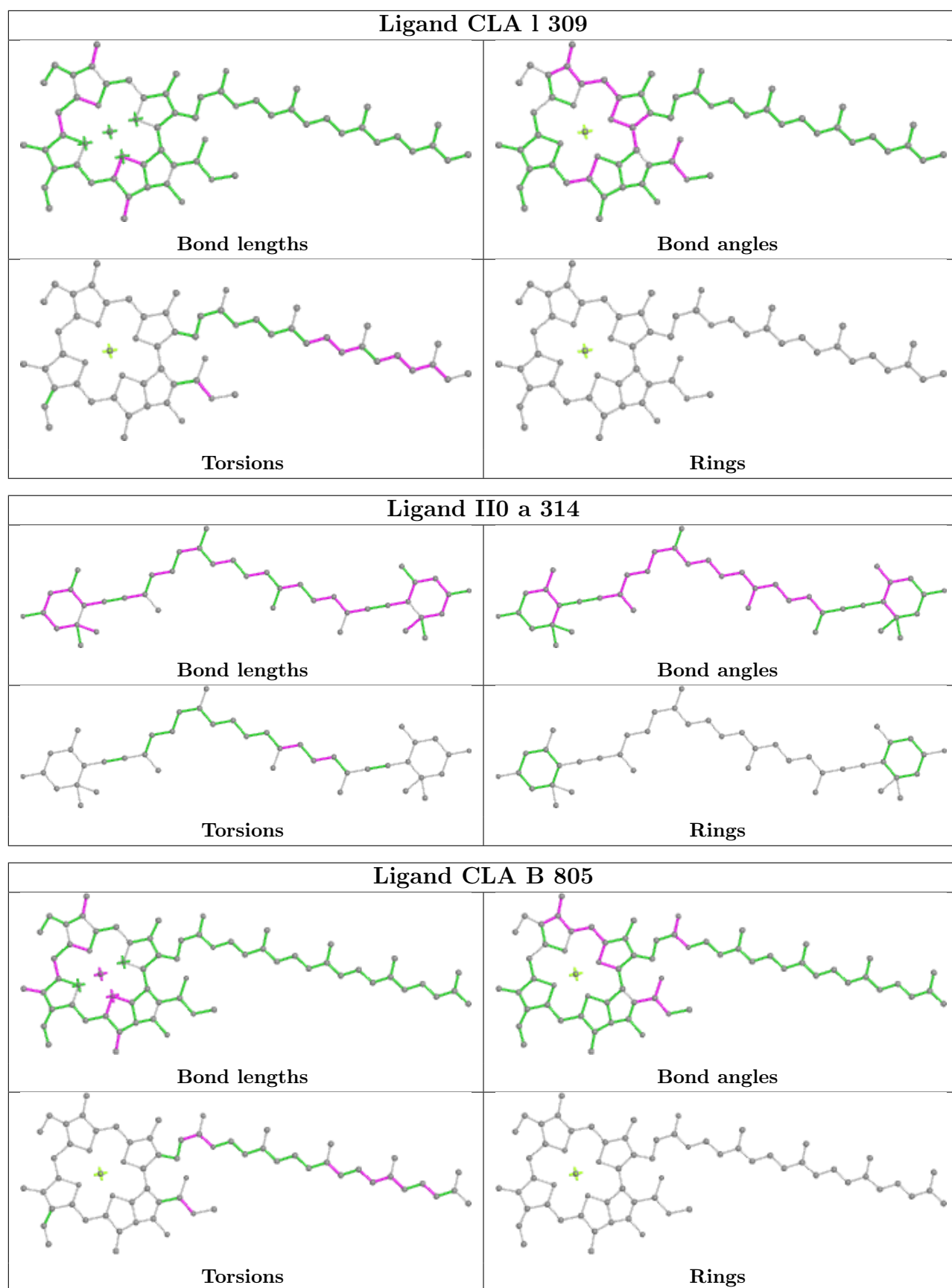


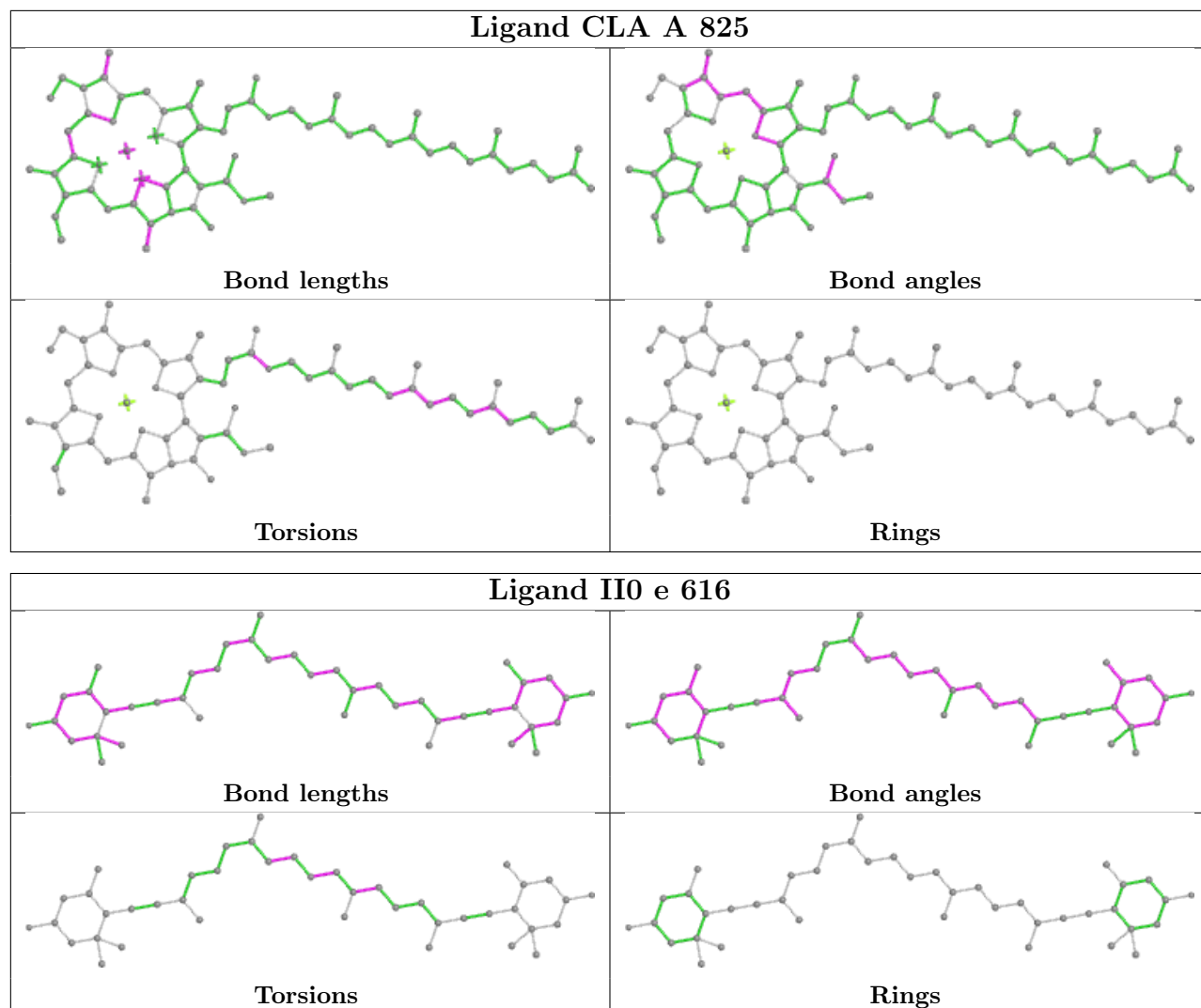


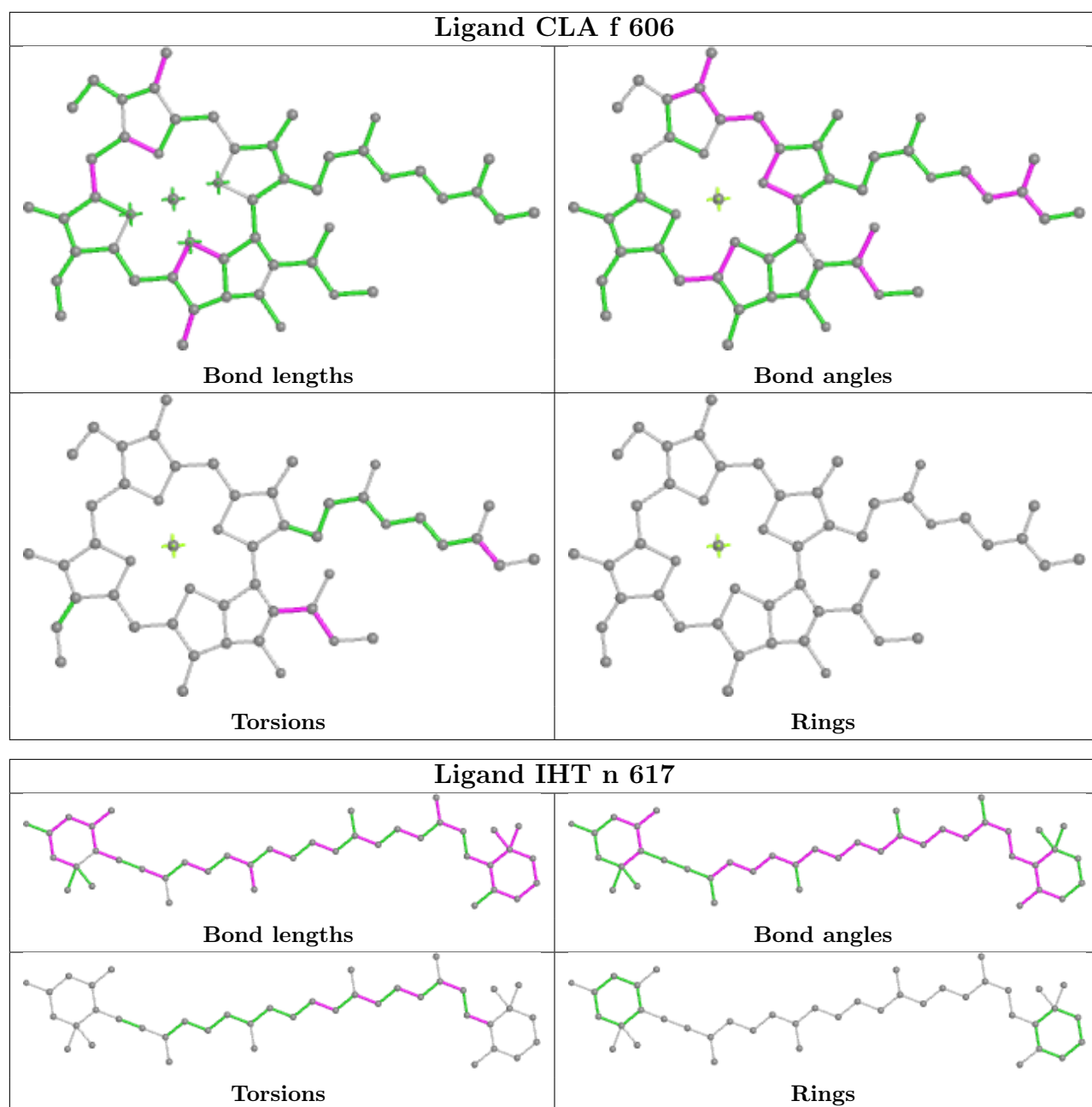


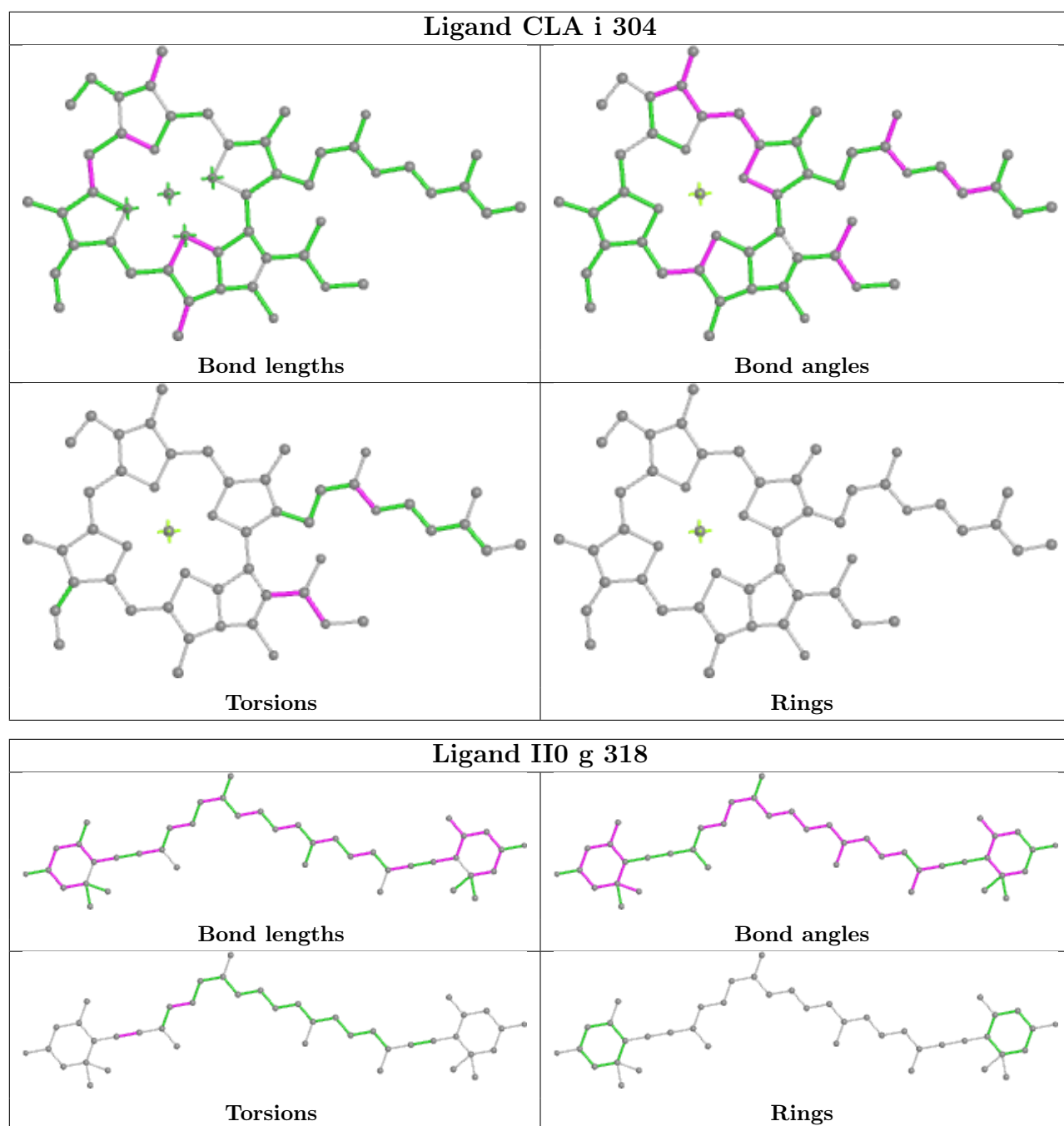


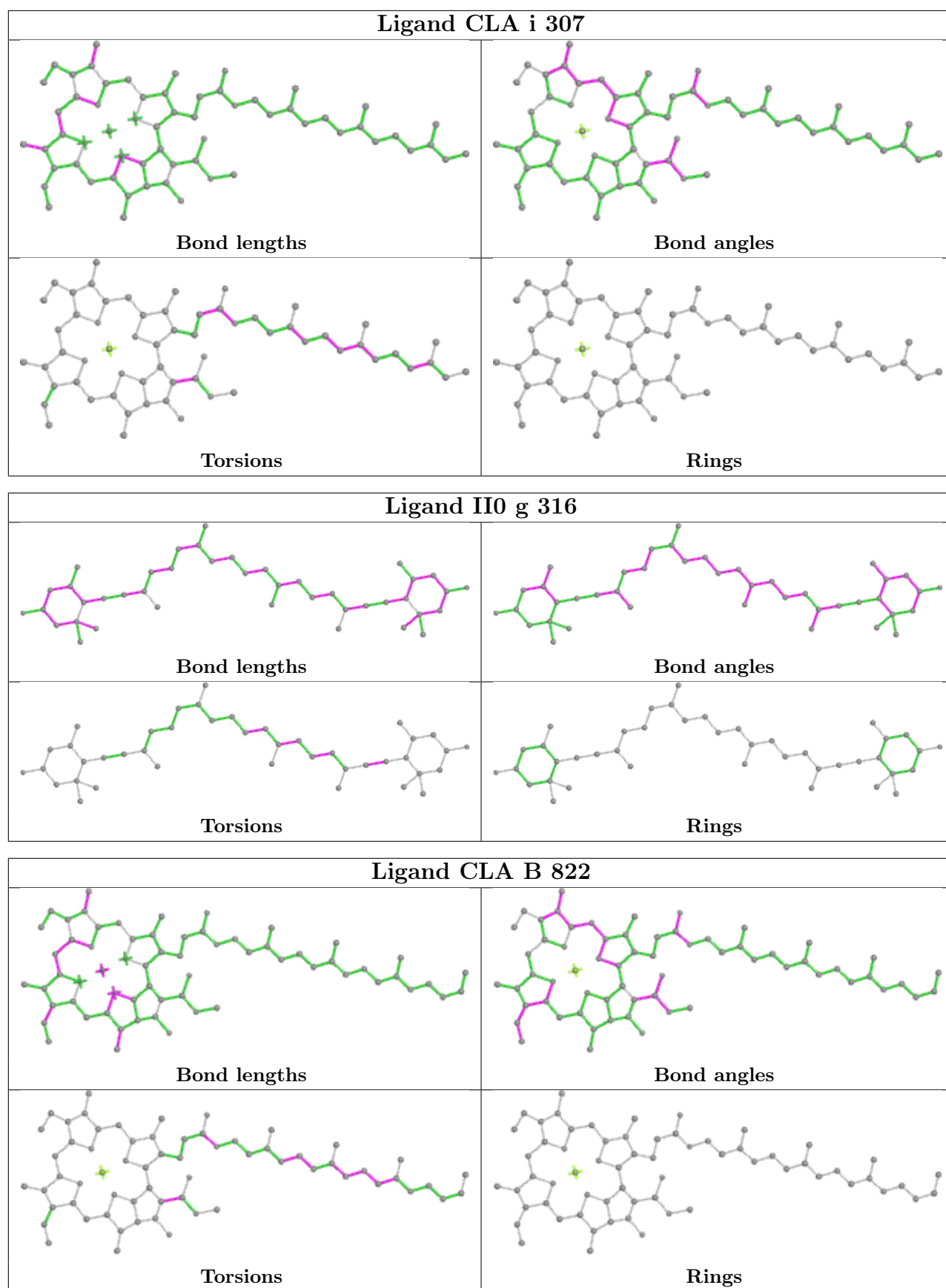


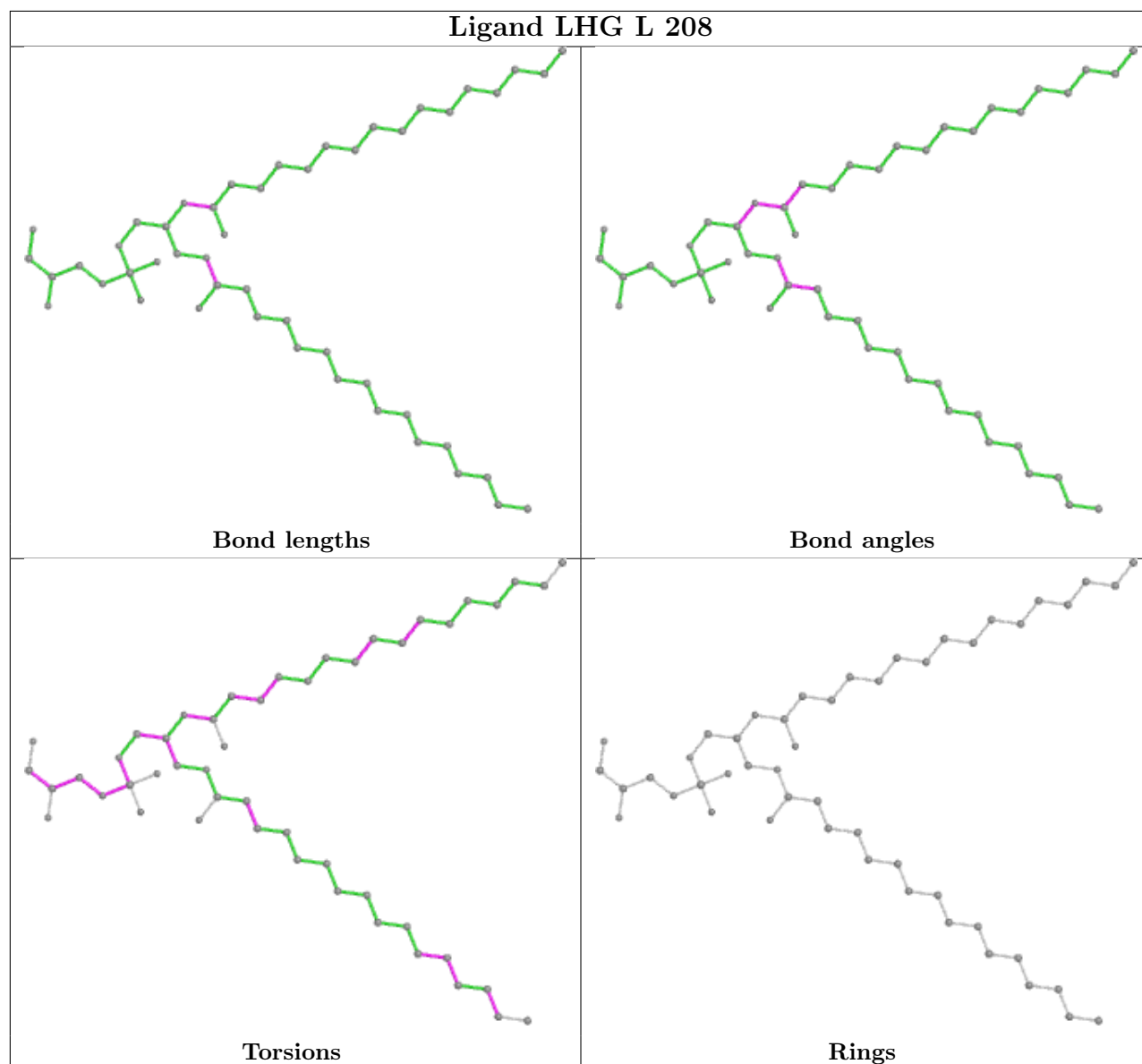
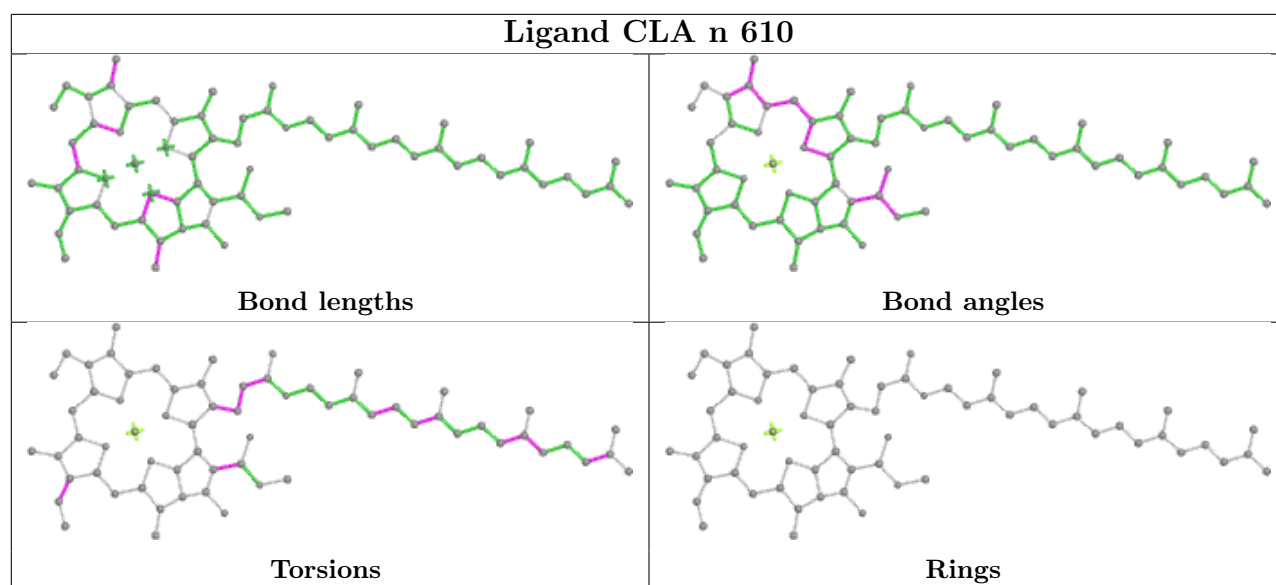


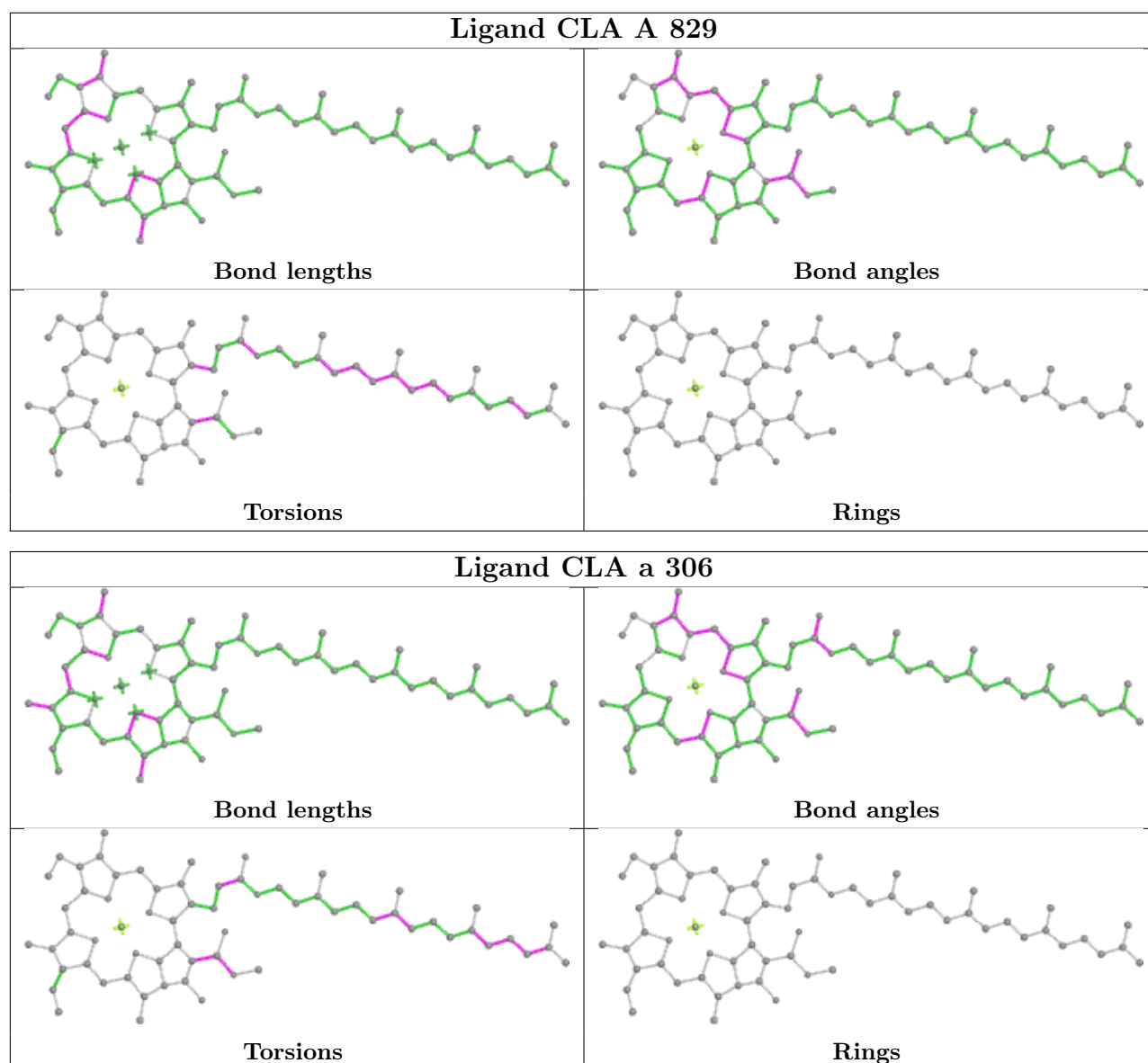


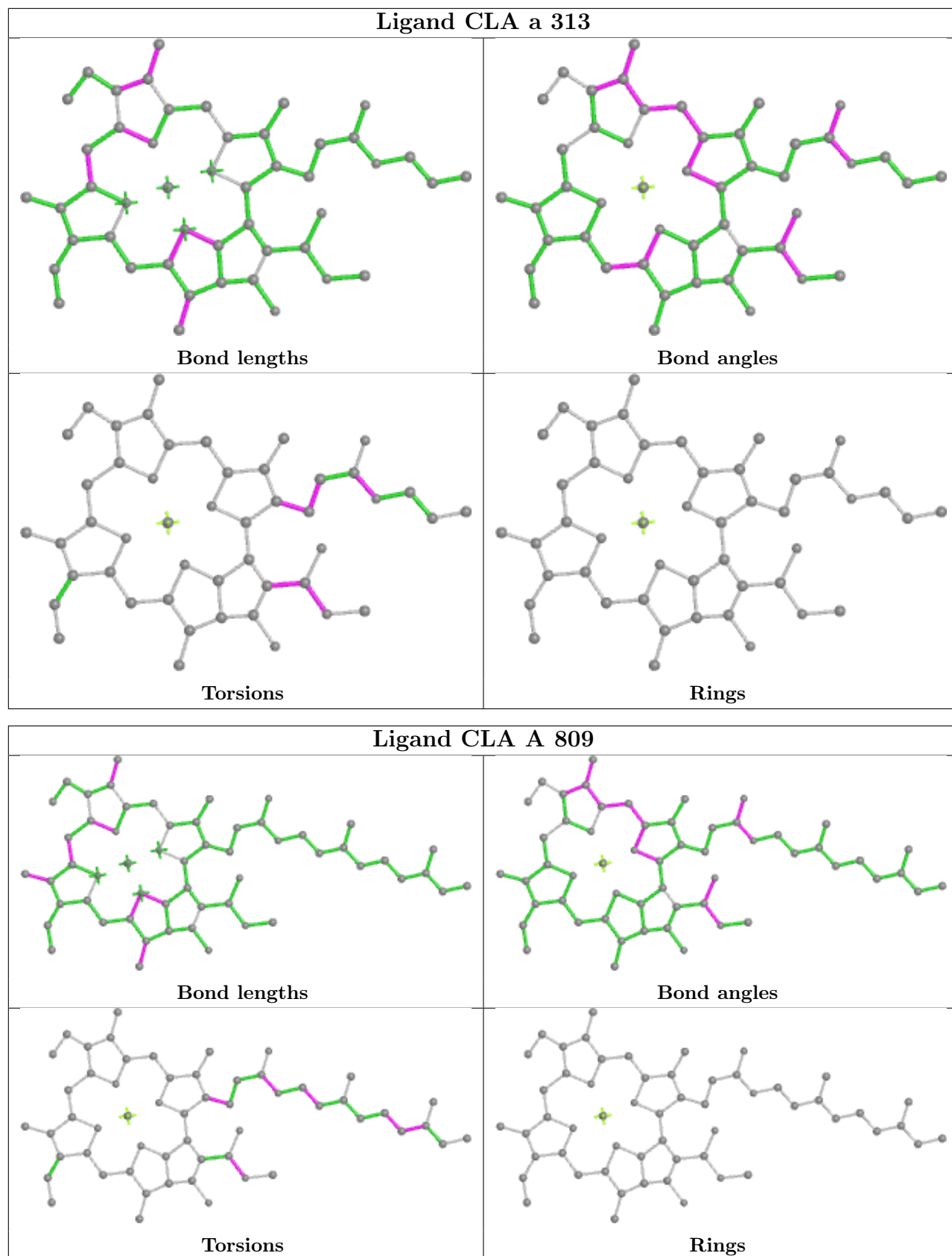


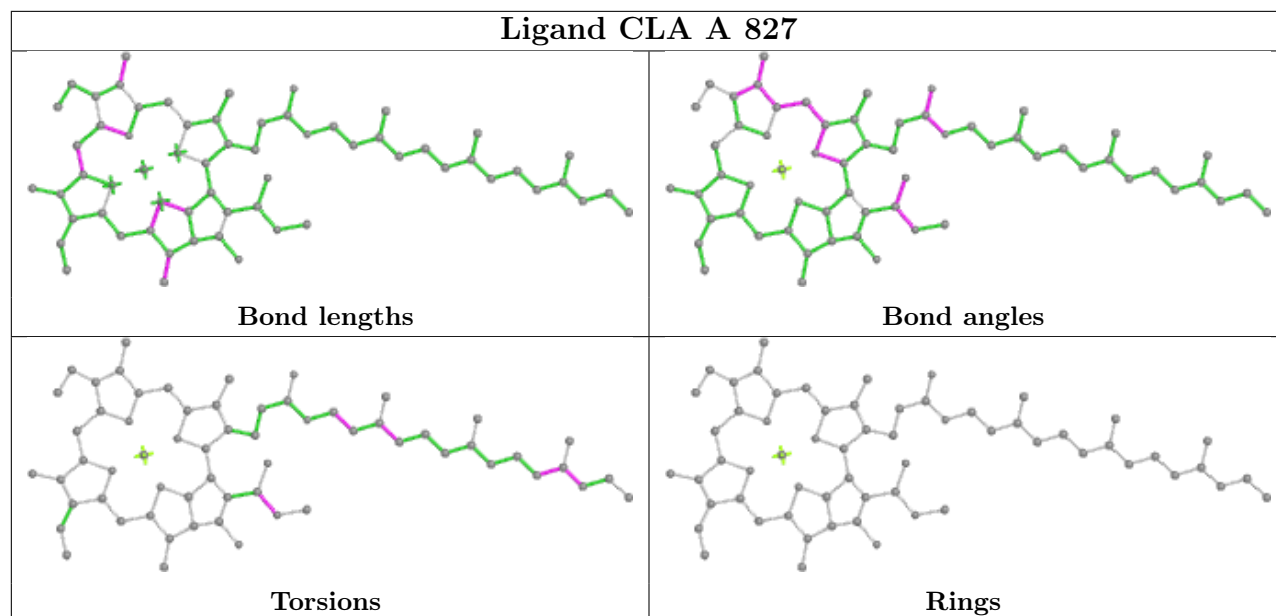












5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

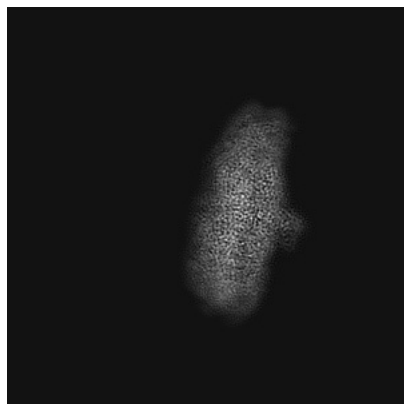
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-37642. These allow visual inspection of the internal detail of the map and identification of artifacts.

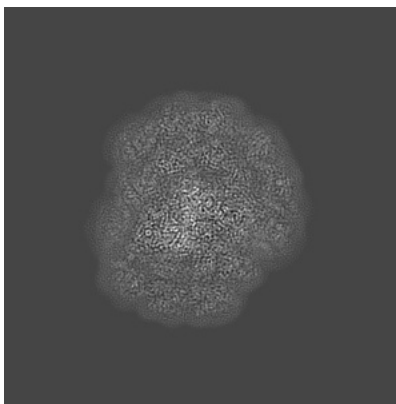
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

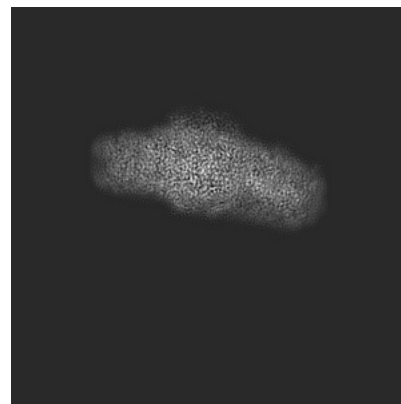
6.1.1 Primary map



X

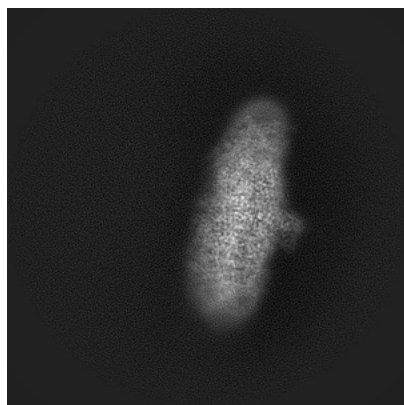


Y

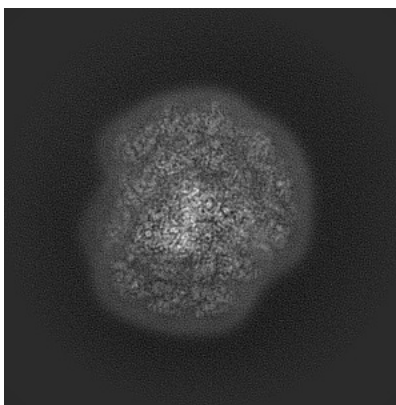


Z

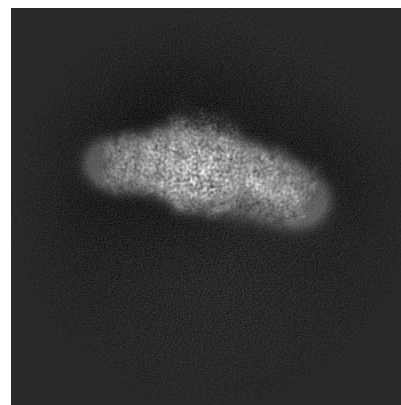
6.1.2 Raw map



X



Y

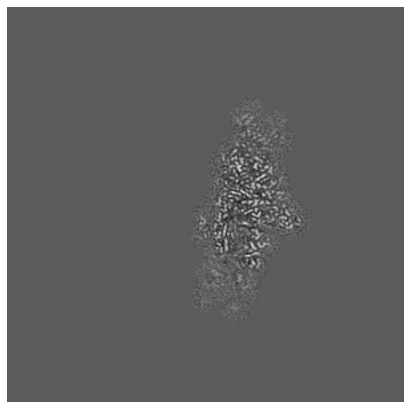


Z

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

6.2 Central slices [i](#)

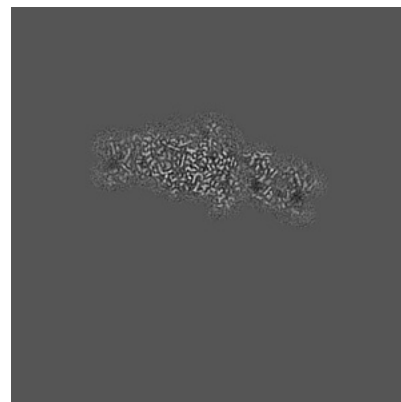
6.2.1 Primary map



X Index: 180

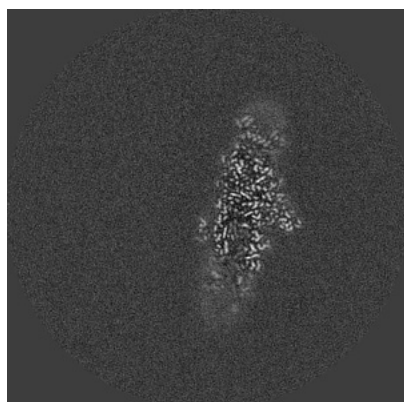


Y Index: 180

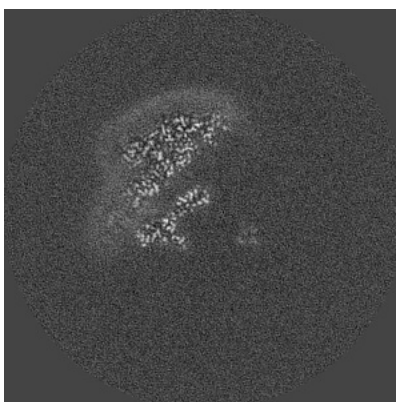


Z Index: 180

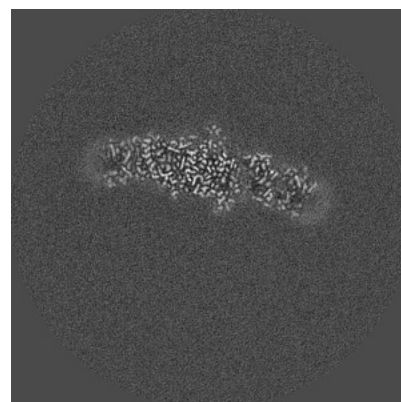
6.2.2 Raw map



X Index: 180



Y Index: 180

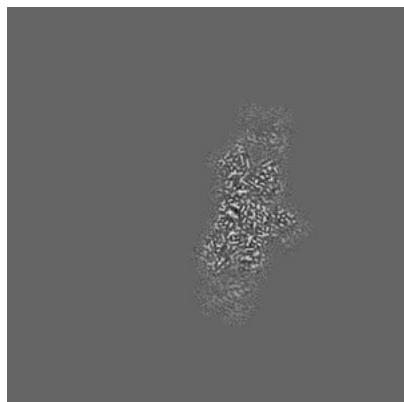


Z Index: 180

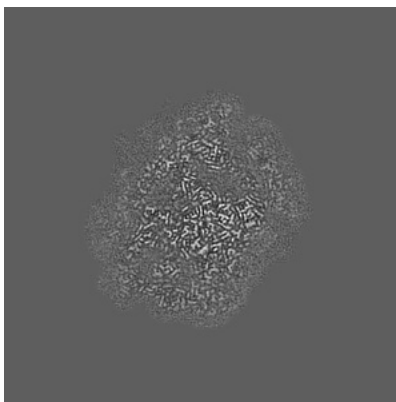
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

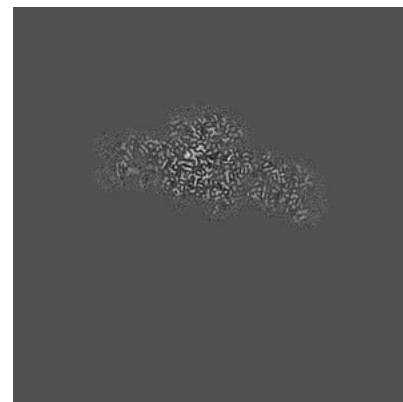
6.3.1 Primary map



X Index: 165

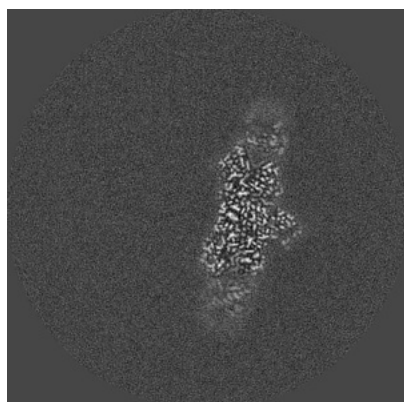


Y Index: 211

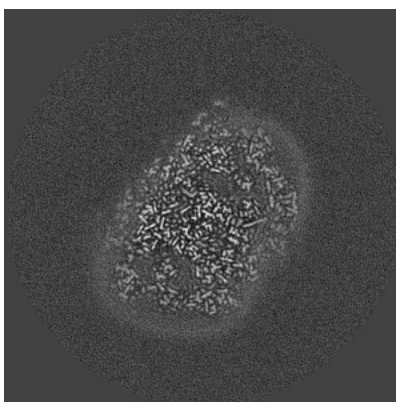


Z Index: 170

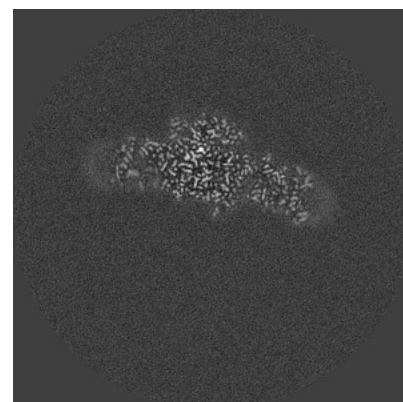
6.3.2 Raw map



X Index: 165



Y Index: 216

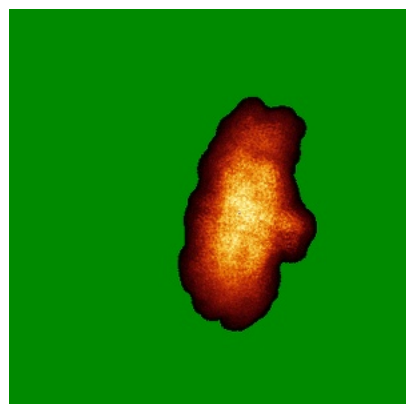


Z Index: 170

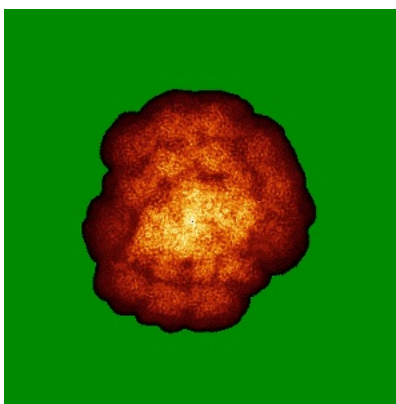
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

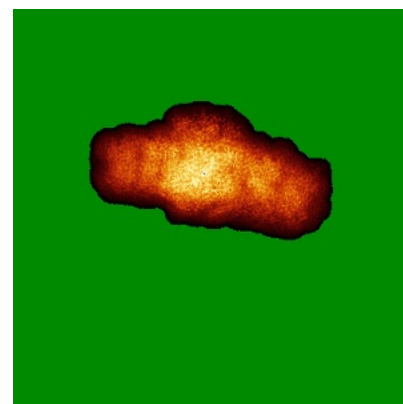
6.4.1 Primary map



X

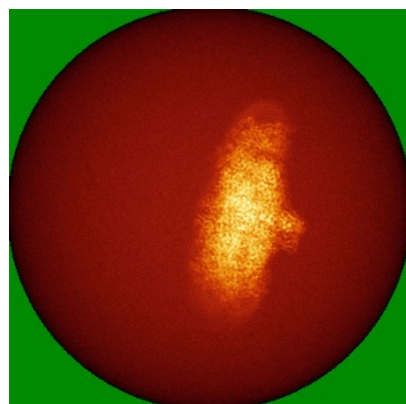


Y

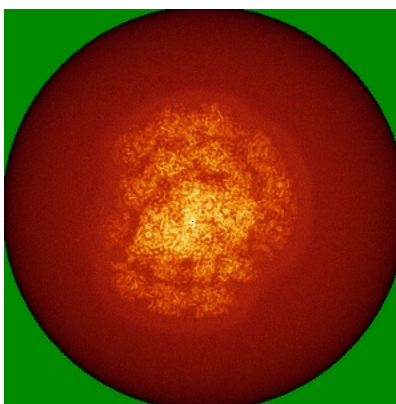


Z

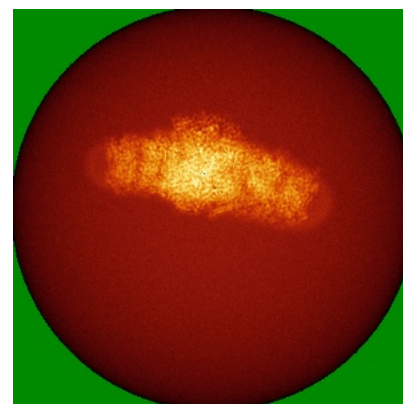
6.4.2 Raw map



X



Y

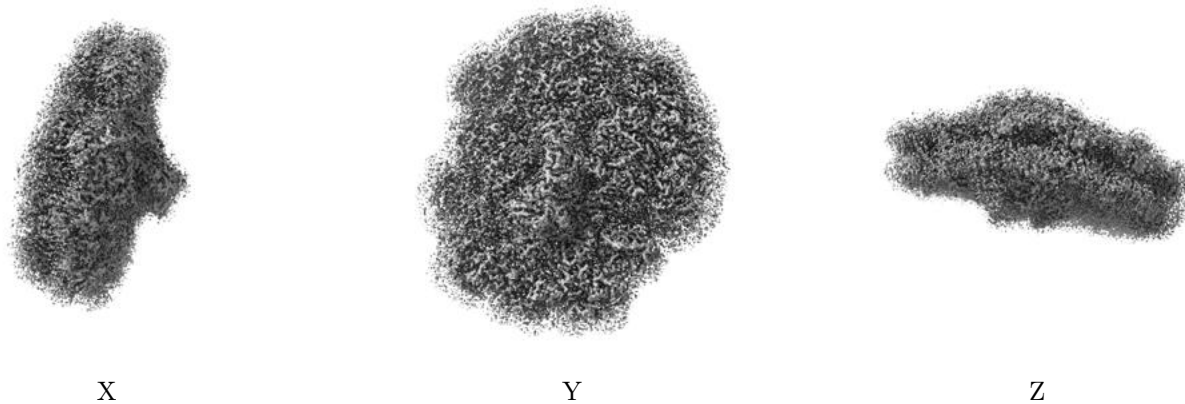


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

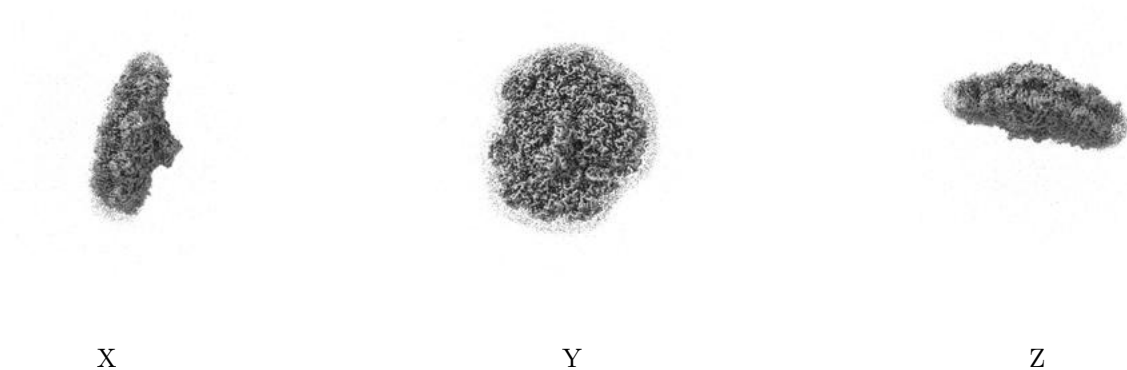
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.032. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

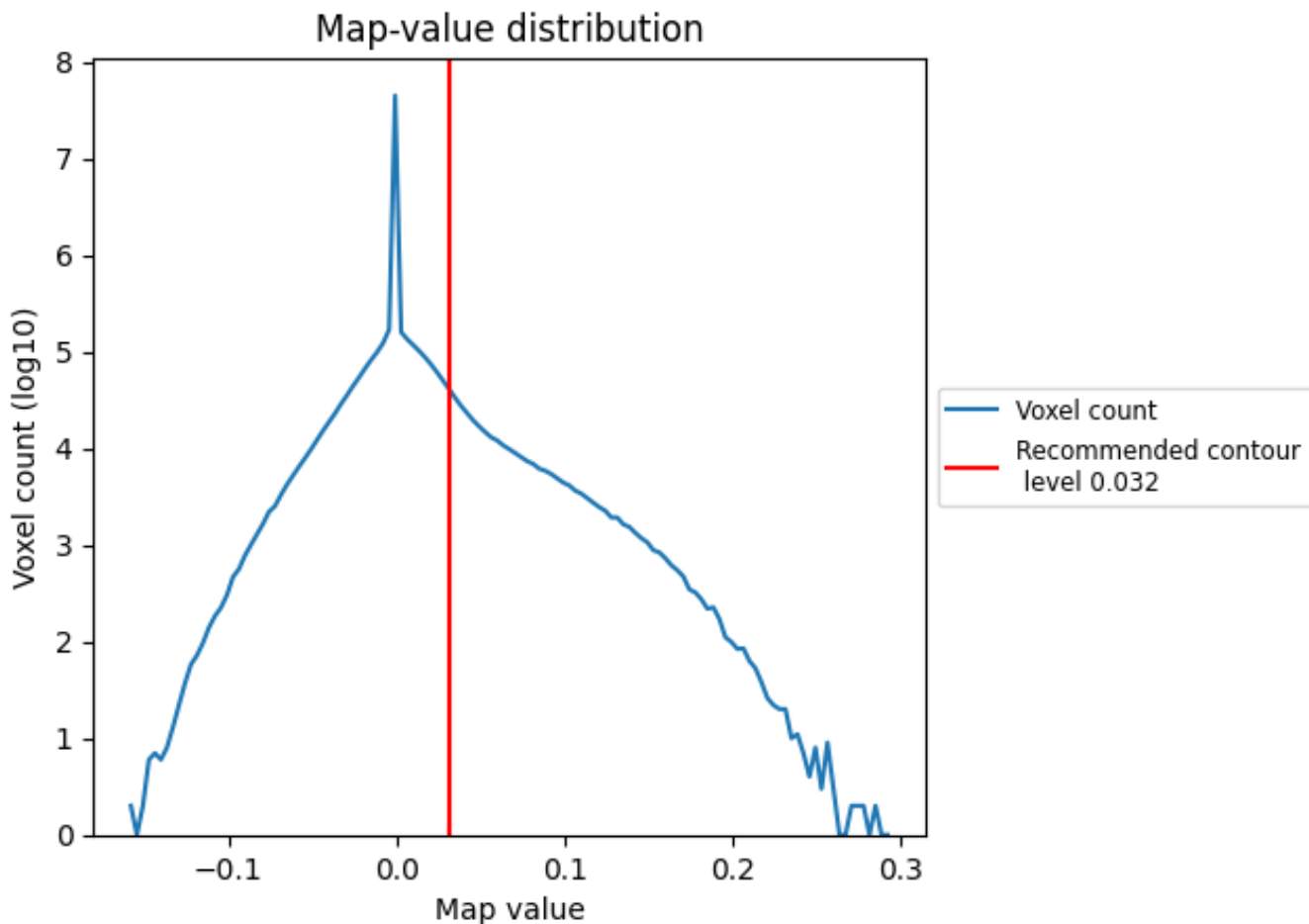
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

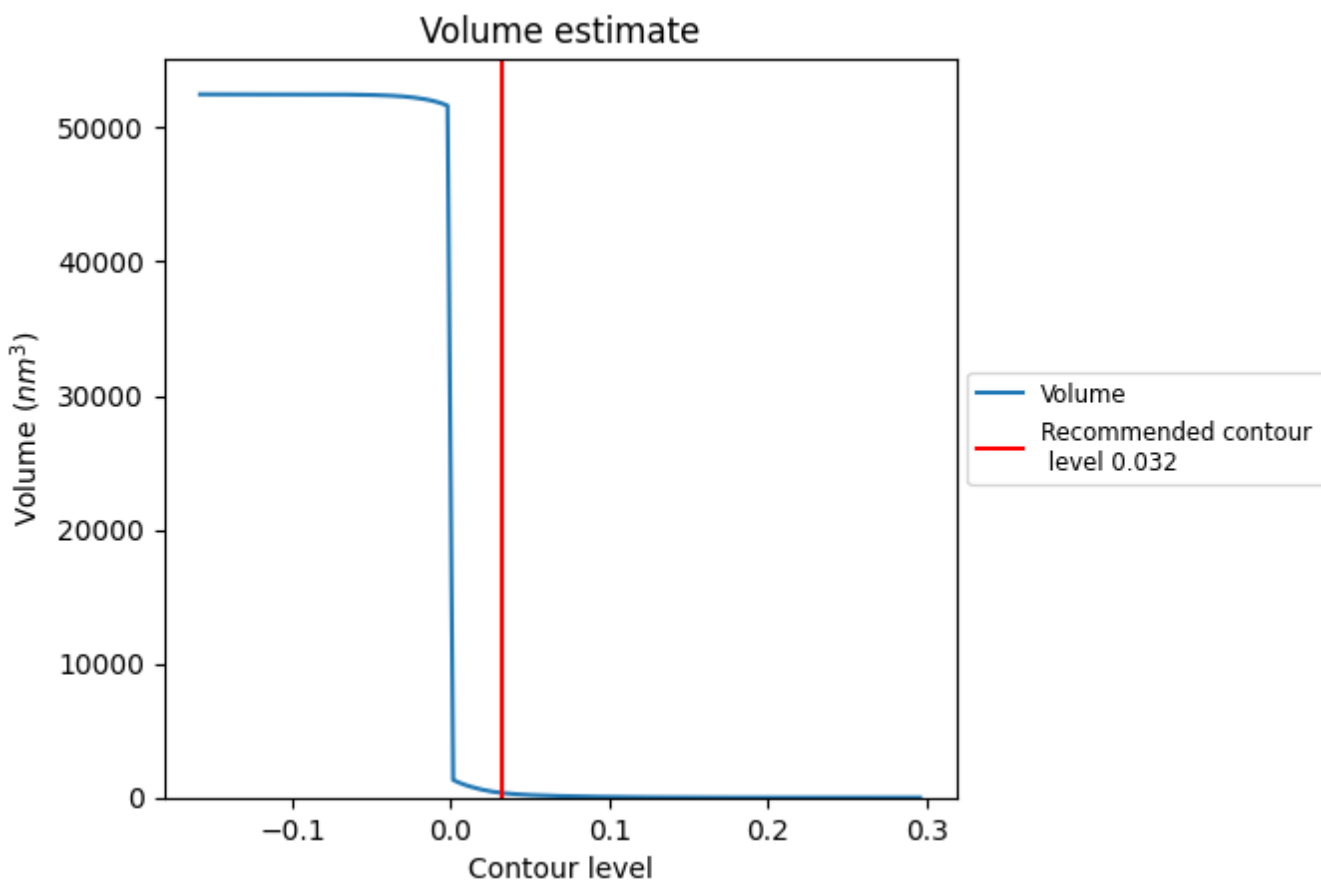
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

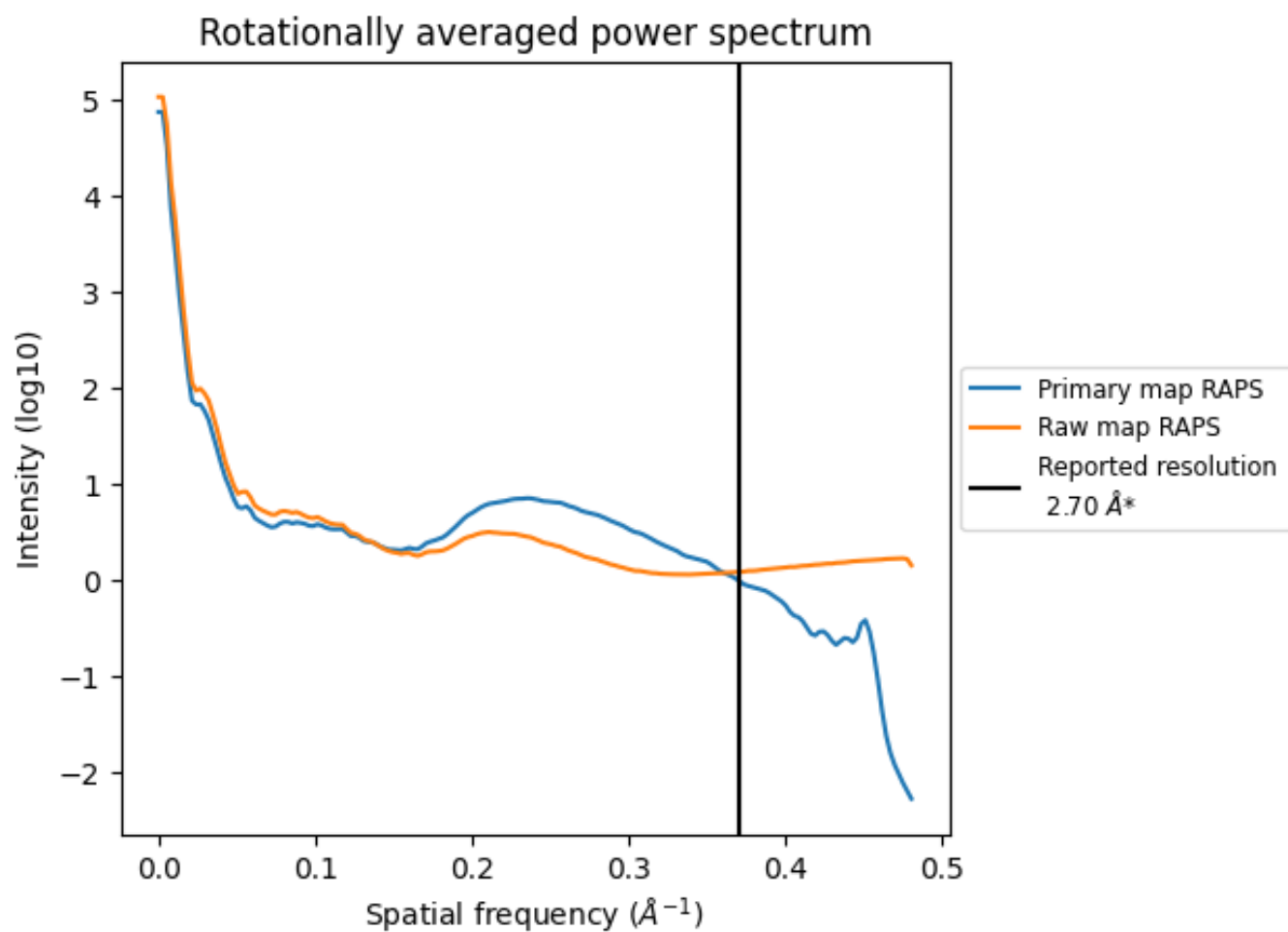
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 349 nm^3 ; this corresponds to an approximate mass of 315 kDa.

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

7.3 Rotationally averaged power spectrum i

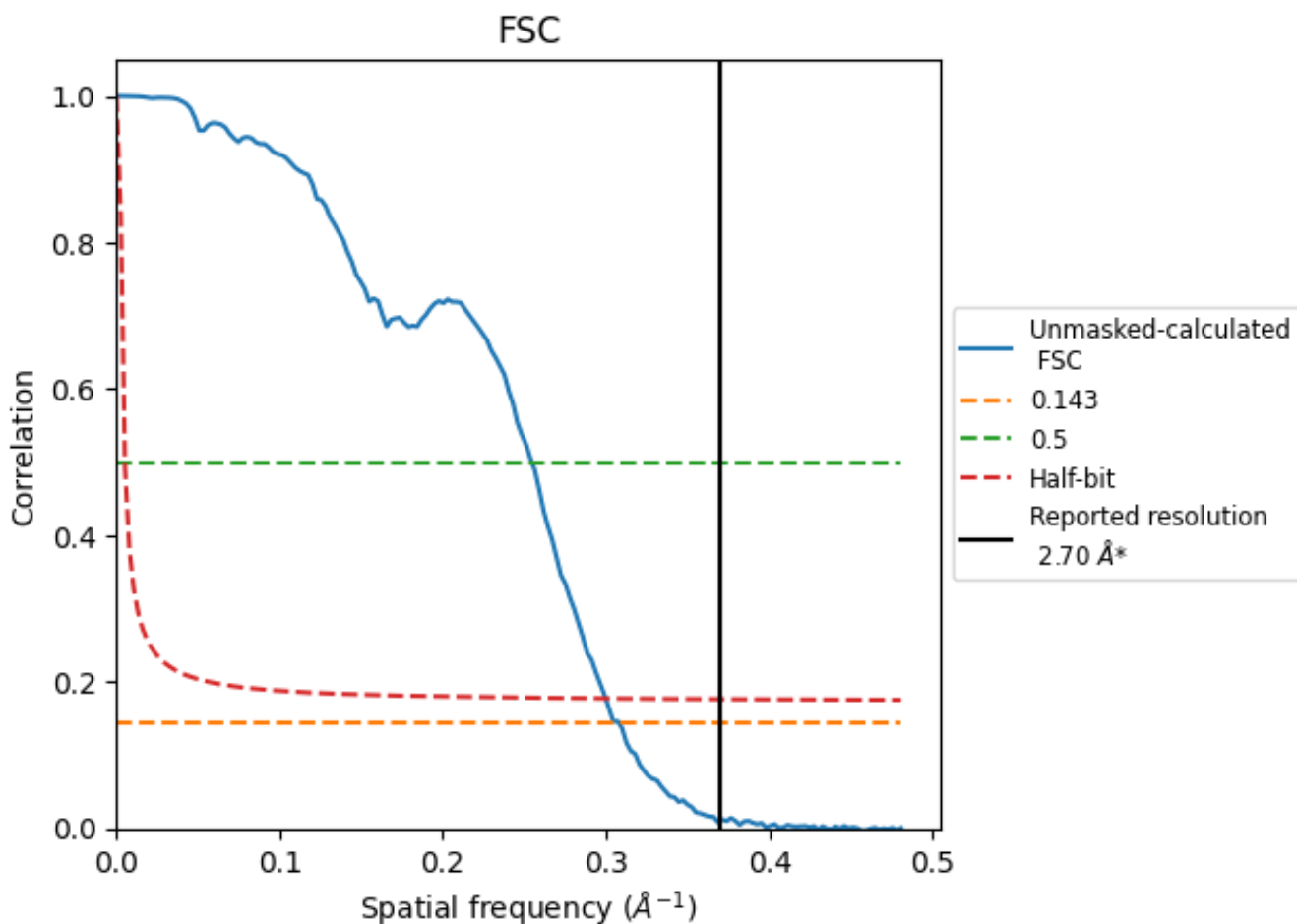


*Reported resolution corresponds to spatial frequency of 0.370 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.370 \AA^{-1}

8.2 Resolution estimates [i](#)

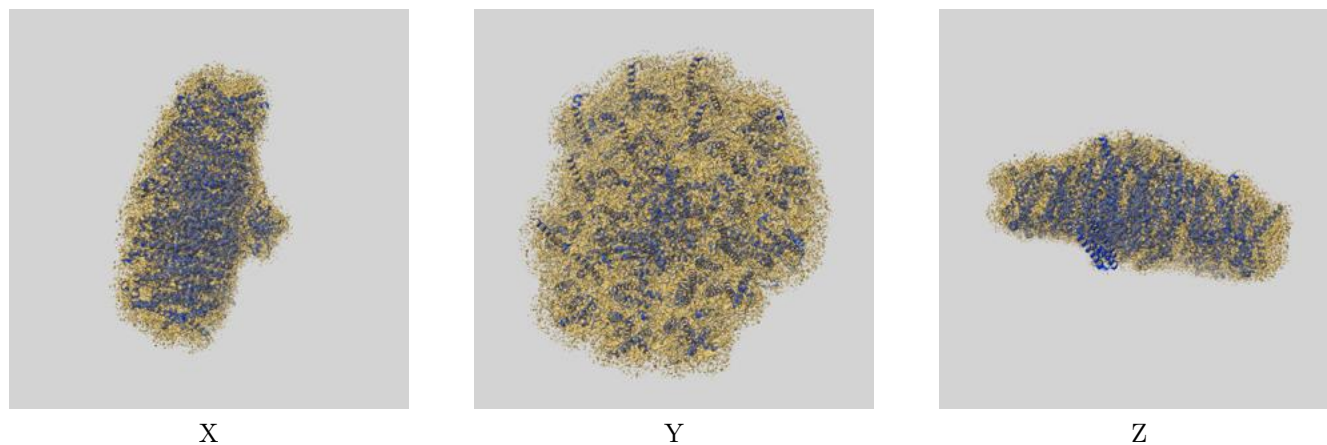
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.70	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.25	3.93	3.34

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.25 differs from the reported value 2.7 by more than 10 %

9 Map-model fit [i](#)

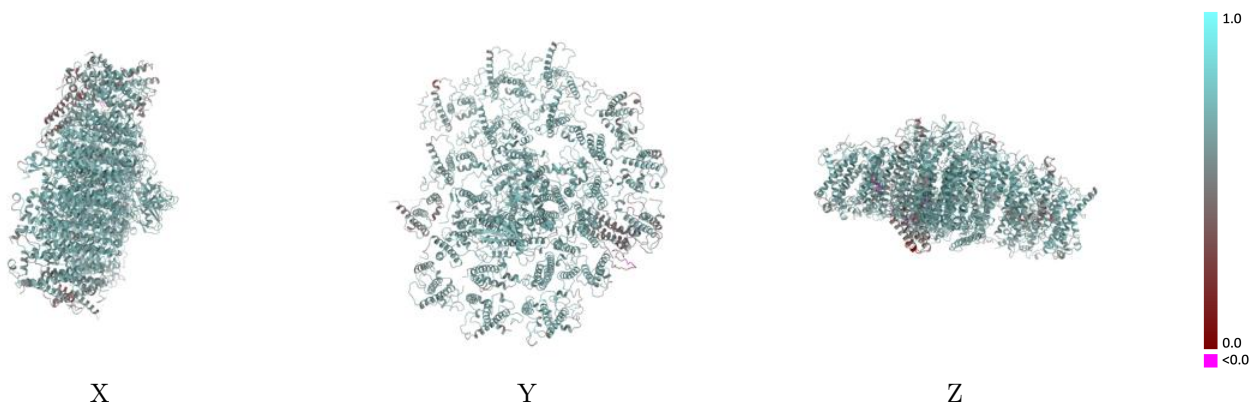
This section contains information regarding the fit between EMDB map EMD-37642 and PDB model 8WM6. Per-residue inclusion information can be found in section [3](#) on page [41](#).

9.1 Map-model overlay [i](#)



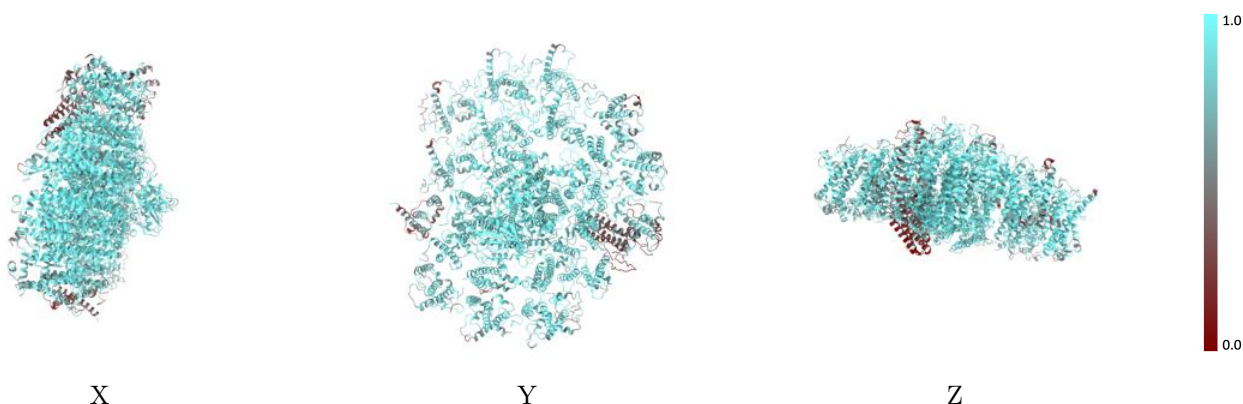
The images above show the 3D surface view of the map at the recommended contour level 0.032 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



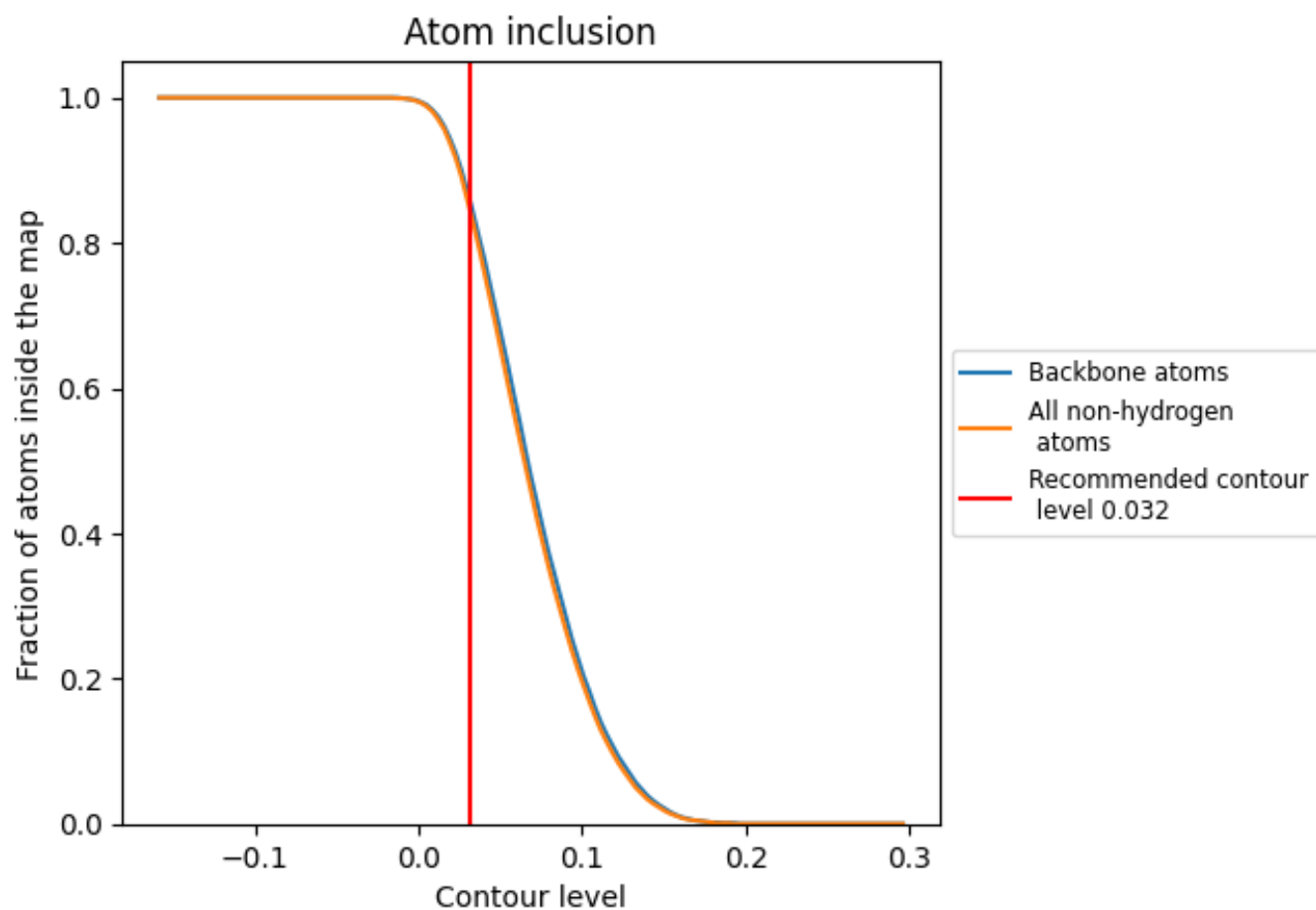
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.032).





























































9.4 Atom inclusion [i](#)



At the recommended contour level, 85% of all backbone atoms, 84% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.032) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8410	 0.6190
A	 0.9560	 0.6740
B	 0.9620	 0.6780
C	 0.9610	 0.6650
D	 0.8910	 0.6380
E	 0.8590	 0.6300
F	 0.9250	 0.6600
I	 0.9570	 0.6610
J	 0.9210	 0.6630
K	 0.8700	 0.6330
L	 0.9100	 0.6530
M	 0.9480	 0.6580
O	 0.8770	 0.6260
Q	 0.2720	 0.3930
R	 0.9240	 0.6520
a	 0.9190	 0.6430
b	 0.8960	 0.6360
c	 0.7960	 0.5960
d	 0.5010	 0.4930
e	 0.7280	 0.5650
f	 0.8040	 0.6020
g	 0.7870	 0.6040
h	 0.8440	 0.6090
i	 0.6260	 0.5310
j	 0.8130	 0.6040
k	 0.7010	 0.5440
l	 0.8460	 0.6150
m	 0.8580	 0.6220
n	 0.7180	 0.5690
s	 0.8770	 0.6320

