



## wwPDB EM Validation Summary Report ⓘ

Jul 24, 2024 – 06:17 PM JST

PDB ID : 8WQL  
EMDB ID : EMD-37749  
Title : In situ PBS-PSII supercomplex from cyanobacterial *Spirulina platensis*  
Authors : You, X.; Zhang, X.; Xiao, Y.N.; Sun, S.; Sui, S.F.  
Deposited on : 2023-10-11  
Resolution : 3.50 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](mailto: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>.

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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) : 2.37.1

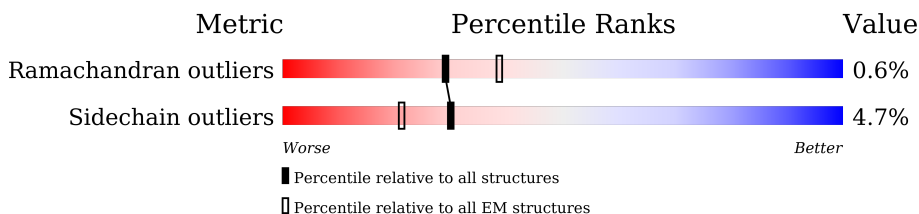
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.50 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)
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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	B2	254	 77% 82% 10% • 6%
1	B3	254	 79% 82% 10% •• 6%
1	B5	254	 74% 81% 12% •• 6%
1	B6	254	 83% 83% 10% • 6%
1	B7	254	 79% 81% 11% •• 6%
1	B8	254	 70% 81% 12% •• 6%
1	B9	254	 78% 83% 10% • 6%
1	BA	254	 77% 82% 11% •• 6%
1	BC	254	 79% 81% 11% •• 6%

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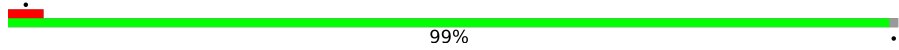
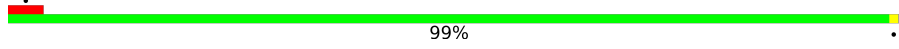
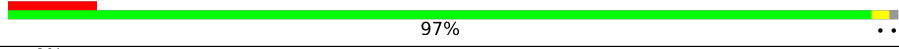
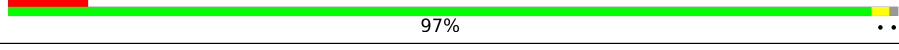
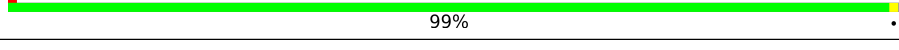
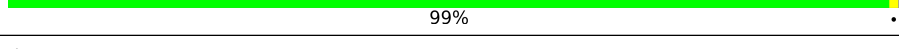
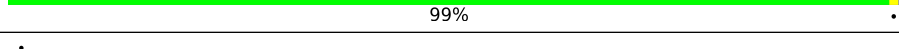
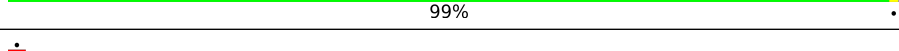
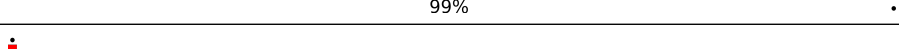
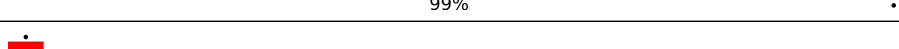
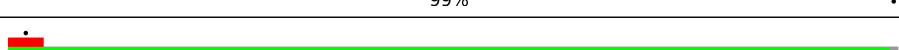
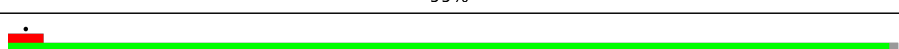
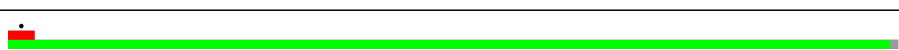
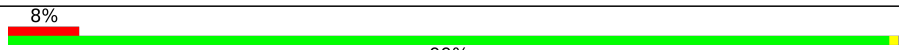
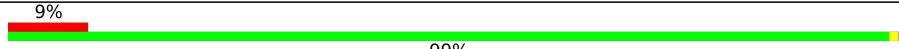
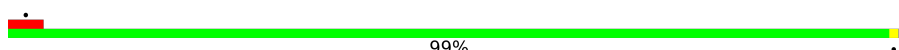
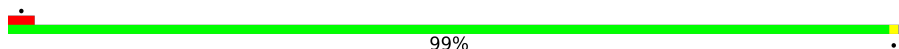
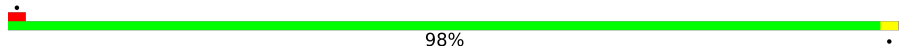
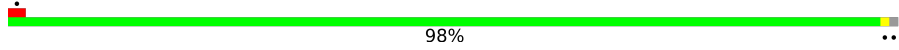
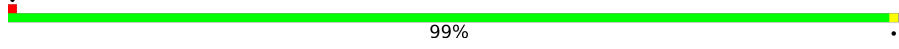
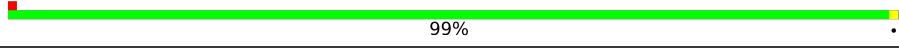
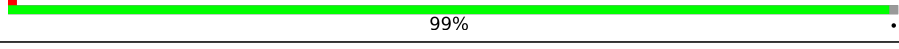
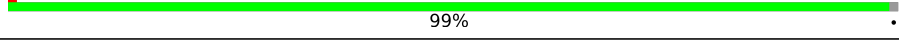
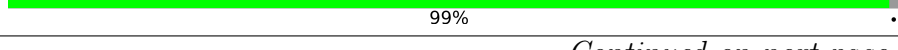



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Mol	Chain	Length	Quality of chain
1	BH	254	72% 81% 12% .. 6%
1	BI	254	80% 81% 11% . 6%
1	BJ	254	74% 81% 12% .. 6%
2	B4	914	93% . .
2	BB	914	93% . .
2	C4	914	93% . 5%
2	CB	914	93% . 5%
3	4G	161	98% ..
3	4L	161	98% ..
3	6G	161	98% ...
3	6L	161	98% ...
3	9F	161	99% .
3	9K	161	99% .
3	AG	161	99% .
3	AL	161	99% .
3	GG	161	98% ..
3	GL	161	98% ..
3	IG	161	90% 9%
3	IL	161	88% 11% ..
3	JF	161	99% ..
3	JK	161	98% ..
3	KG	161	99% .
3	KL	161	99% .
3	LF	161	99% .
3	LK	161	99% .

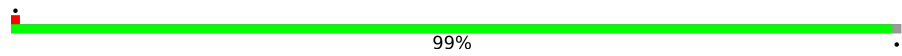
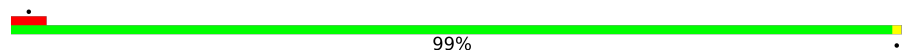
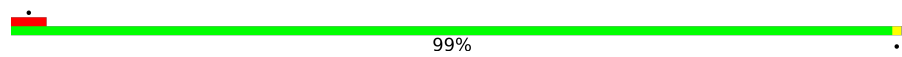
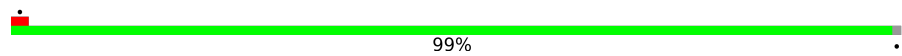
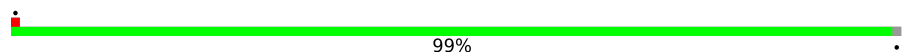
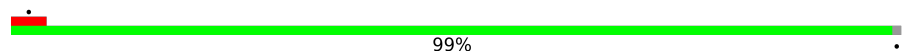
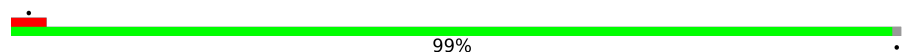
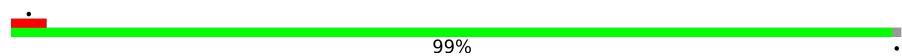
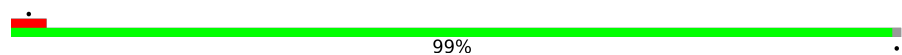
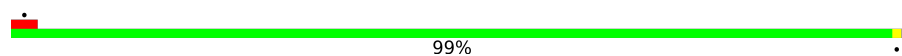
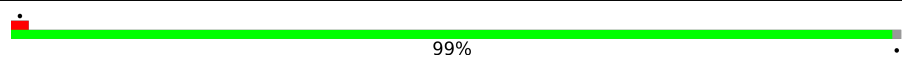
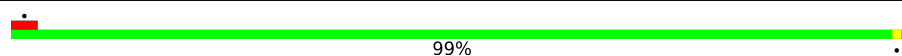
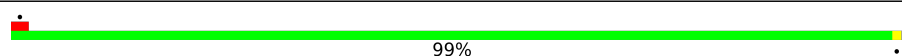
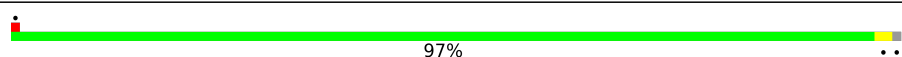
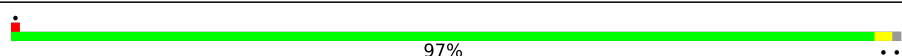
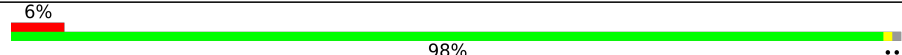
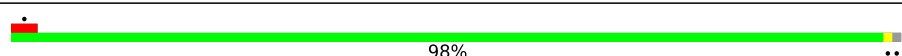
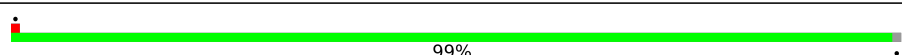
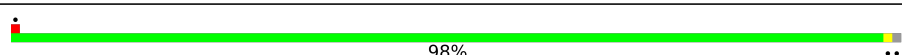
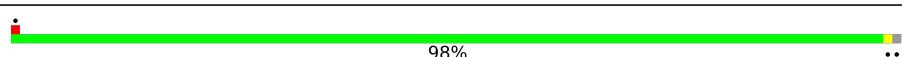
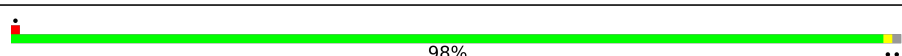
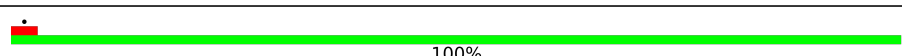
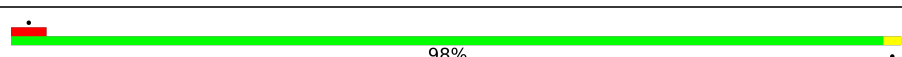
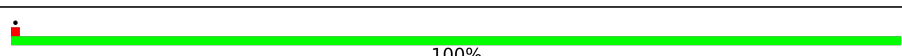
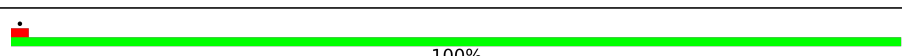
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Mol	Chain	Length	Quality of chain
3	NG	161	 99%
3	NL	161	 99%
3	O4	161	 97%
3	OB	161	 97%
3	PG	161	 99%
3	PL	161	 99%
3	Q4	161	 99%
3	QB	161	 99%
3	RG	161	 99%
3	RL	161	 99%
3	S4	161	 99%
3	SB	161	 99%
3	TG	161	 99%
3	TL	161	 99%
3	V4	161	 99%
3	VB	161	 99%
3	X4	161	 99%
3	XB	161	 99%
3	XF	161	 98%
3	XK	161	 98%
3	Z4	161	 99%
3	ZB	161	 99%
3	ZF	161	 99%
3	ZK	161	 99%
3	bF	161	 99%

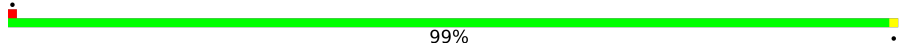
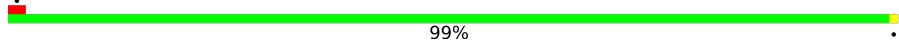
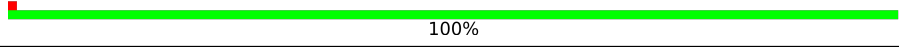
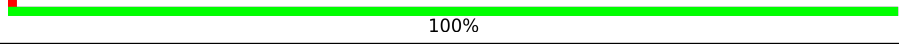
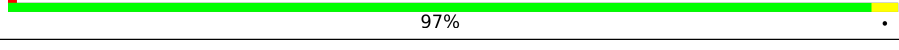
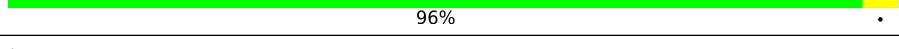
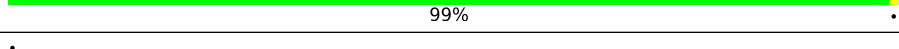
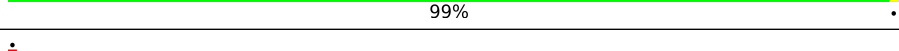
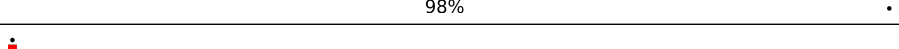
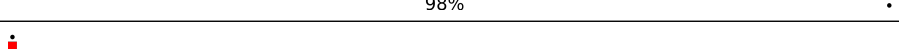
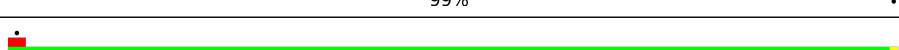
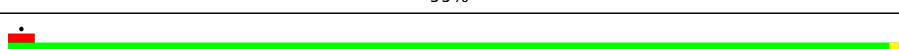
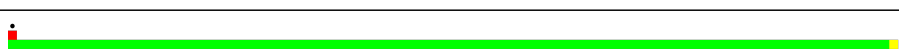
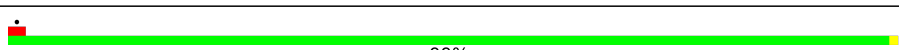
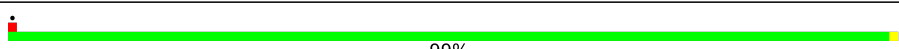

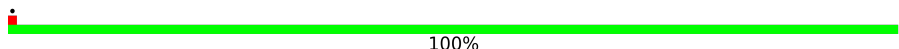
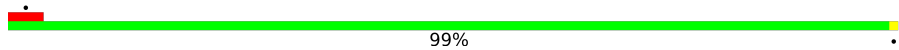
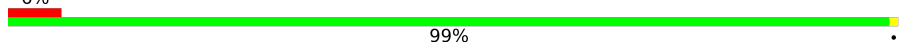
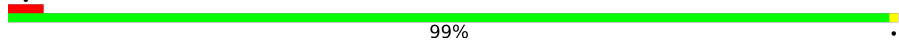
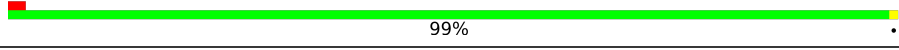
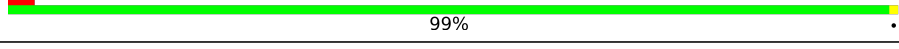
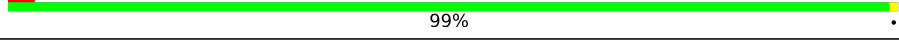
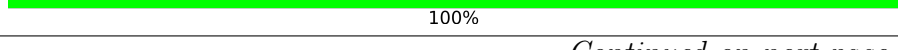

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Mol	Chain	Length	Quality of chain
3	bK	161	 99%
3	dF	161	 99%
3	dK	161	 99%
3	fF	161	 99%
3	fK	161	 99%
3	iF	161	 99%
3	iK	161	 99%
3	kF	161	 99%
3	kK	161	 99%
3	o4	161	 99%
3	oB	161	 99%
3	q4	161	 99%
3	qB	161	 99%
3	s4	161	 97%
3	sB	161	 97%
3	u4	161	 98%
3	uB	161	 98%
3	w4	161	 99%
3	wB	161	 98%
3	y4	161	 98%
3	yB	161	 98%
4	1G	161	 100%
4	1L	161	 98%
4	5G	161	 100%
4	5L	161	 100%

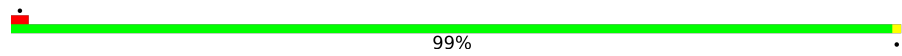
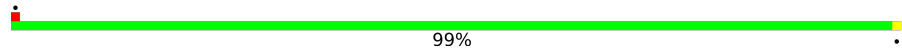
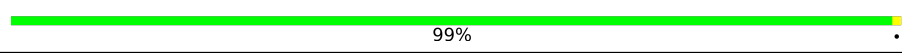
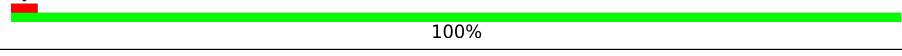
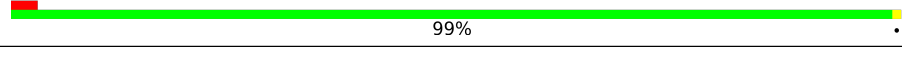
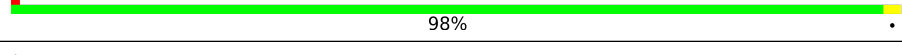
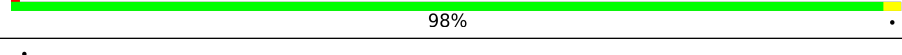
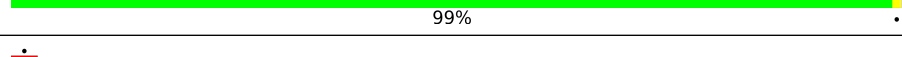
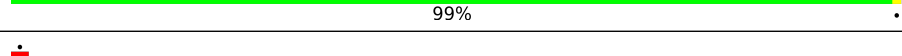
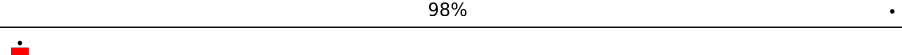
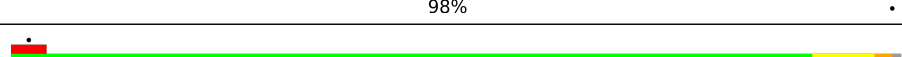
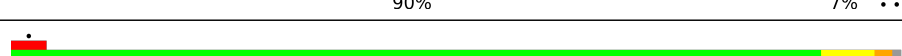
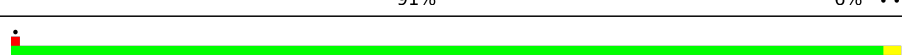
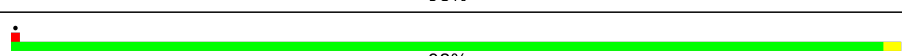
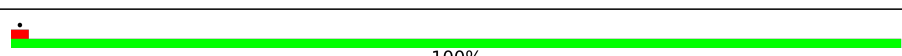
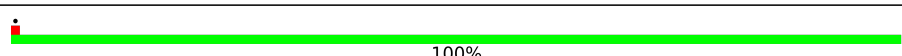

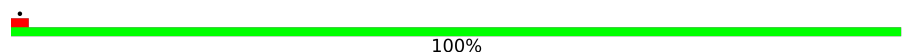
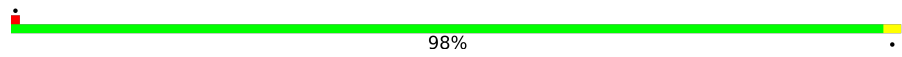
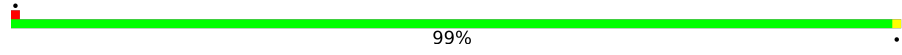
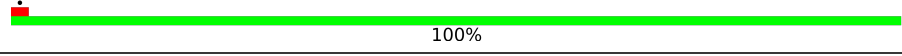
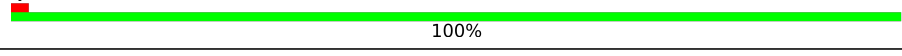
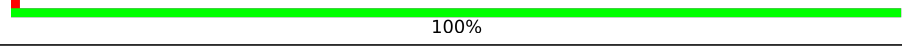
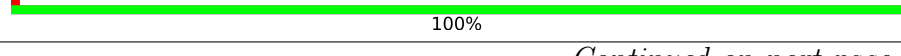

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Mol	Chain	Length	Quality of chain
4	7G	161	 99%
4	7L	161	 99%
4	HG	161	 100%
4	HL	161	 100%
4	IF	161	 97%
4	IK	161	 96%
4	JG	161	 99%
4	JL	161	 99%
4	KF	161	 98%
4	KK	161	 98%
4	LG	161	 99%
4	LL	161	 99%
4	MF	161	 99%
4	MG	161	 99%
4	MK	161	 99%
4	ML	161	 99%
4	OG	161	 100%
4	OL	161	 100%
4	P4	161	 99%
4	PB	161	 99%
4	R4	161	 99%
4	RB	161	 99%
4	SG	161	 99%
4	SL	161	 99%
4	T4	161	 100%

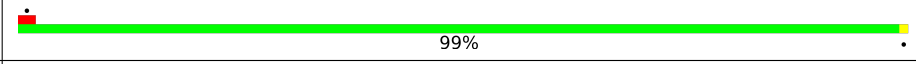
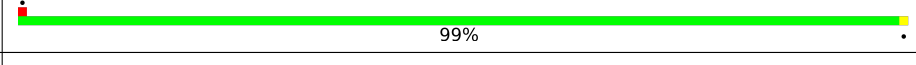
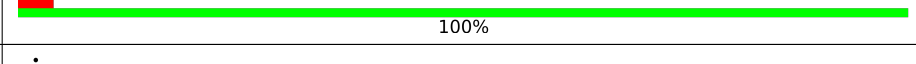
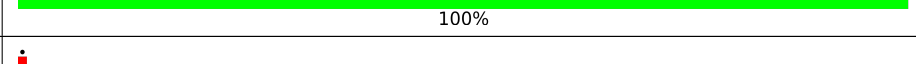
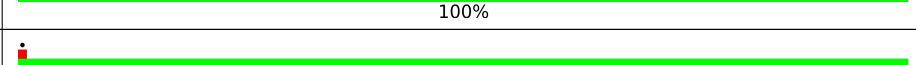
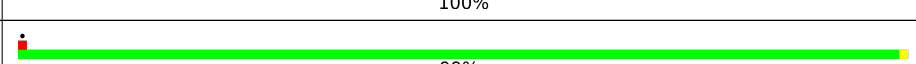
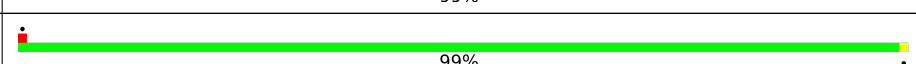
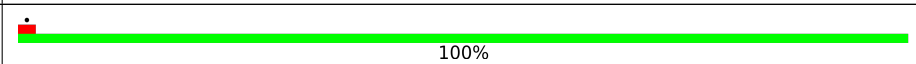

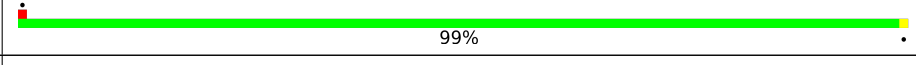
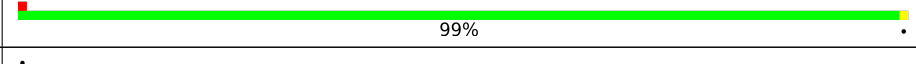
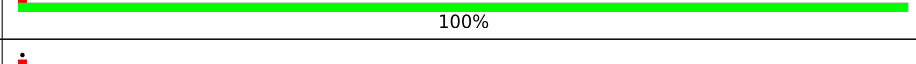
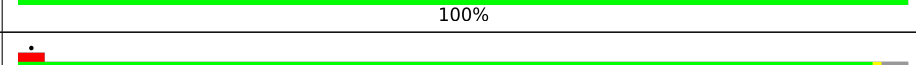
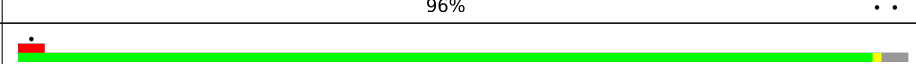
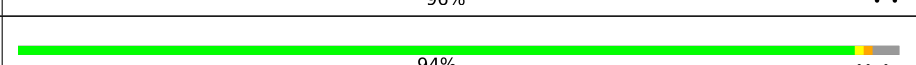
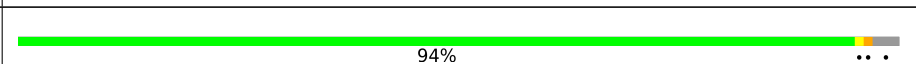
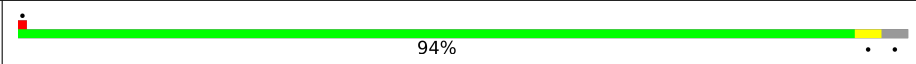
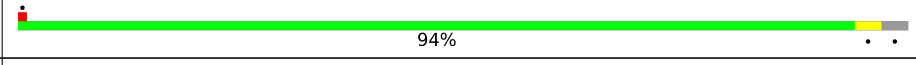
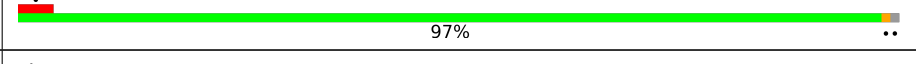
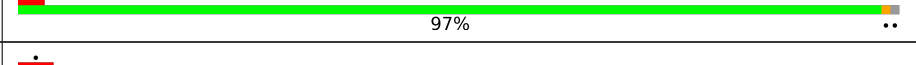
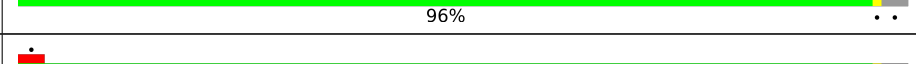
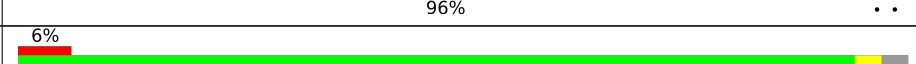
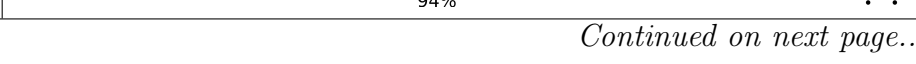


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Mol	Chain	Length	Quality of chain
4	TB	161	 99%
4	UG	161	 99%
4	UL	161	 99%
4	W4	161	 100%
4	WB	161	 99%
4	WG	161	 98%
4	WL	161	 98%
4	Y4	161	 99%
4	YB	161	 99%
4	YF	161	 98%
4	YK	161	 98%
4	a4	161	 90% 7%
4	aB	161	 91% 6%
4	aF	161	 98%
4	aK	161	 98%
4	cF	161	 100%
4	cK	161	 100%
4	eF	161	 100%
4	eK	161	 100%
4	hF	161	 98%
4	hK	161	 99%
4	jF	161	 100%
4	jK	161	 100%
4	lF	161	 100%
4	lK	161	 100%

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Mol	Chain	Length	Quality of chain
4	nF	161	 99%
4	nK	161	 99%
4	p4	161	 100%
4	pB	161	 100%
4	r4	161	 100%
4	rB	161	 100%
4	t4	161	 99%
4	tB	161	 99%
4	v4	161	 100%
4	vB	161	 100%
4	x4	161	 99%
4	xB	161	 99%
4	z4	161	 100%
4	zB	161	 100%
5	2G	67	 96%
5	2L	67	 96%
5	3F	67	 94%
5	3K	67	 94%
5	8G	67	 94%
5	8L	67	 94%
5	NF	67	 97%
5	NK	67	 97%
5	U4	67	 96%
5	UB	67	 96%
5	b4	67	 94%

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Mol	Chain	Length	Quality of chain
5	bB	67	94%
6	A1	359	92% 7%
6	AD	359	91% 7%
6	AE	359	91% 7%
6	a1	359	91% 7%
6	aD	359	91% 7%
6	aE	359	91% 7%
7	B1	509	84% 14% 5%
7	BD	509	84% 14%
7	BE	509	84% 14% 5%
7	b1	509	86% 12%
7	bD	509	85% 13%
7	bE	509	85% 13%
8	C1	469	90% 6%
8	CD	469	91% 5%
8	CE	469	91% 5%
8	c1	469	90% 6%
8	cD	469	90% 6%
8	cE	469	91% 5%
9	D1	352	84% 13%
9	DD	352	84% 13%
9	DE	352	84% 13%
9	d1	352	83% 13%
9	dD	352	83% 13%
9	dE	352	83% 13%

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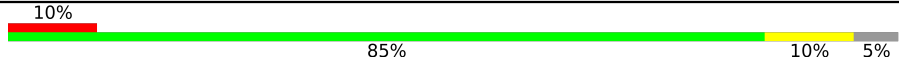

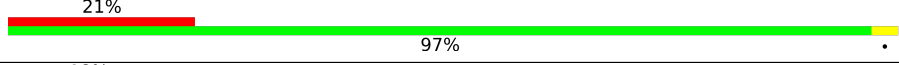
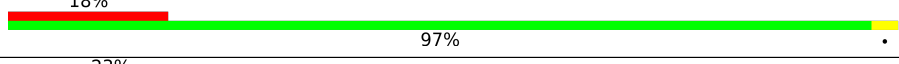
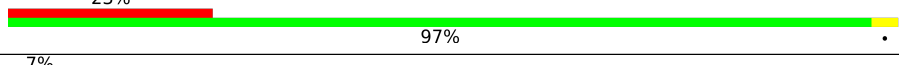
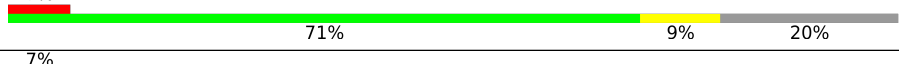
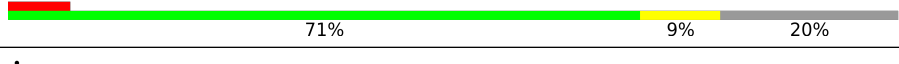

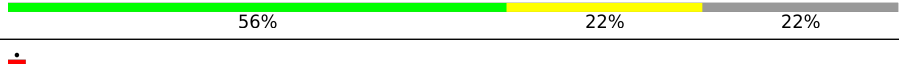


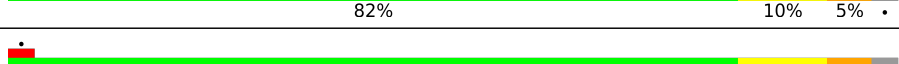
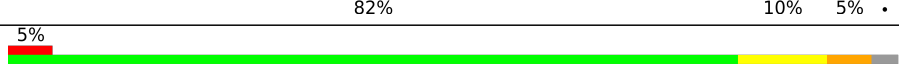
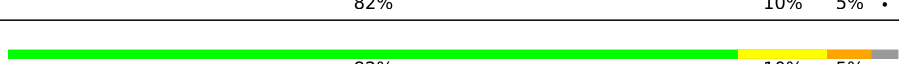

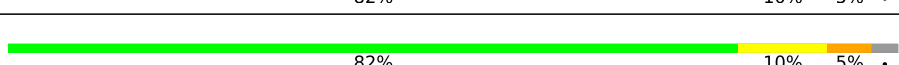
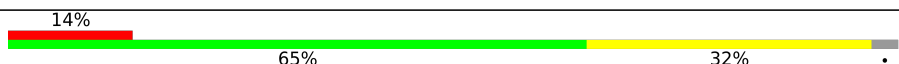
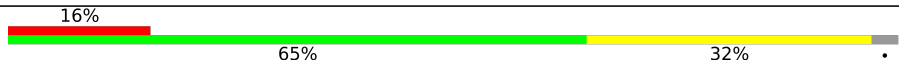
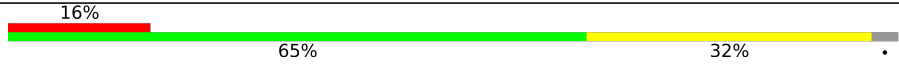


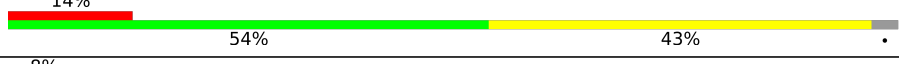
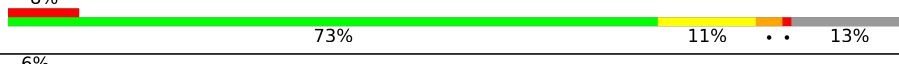


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Mol	Chain	Length	Quality of chain
10	E1	82	89% 6% 5%
10	ED	82	89% 6% 5%
10	EE	82	89% 6% 5%
10	e1	82	90% 5% 5%
10	eD	82	90% 5% 5%
10	eE	82	90% 5% 5%
11	F1	44	64% 16% 20%
11	FD	44	66% 14% 20%
11	FE	44	68% 11% 20%
11	f1	44	64% 16% 20%
11	fD	44	64% 20% 16%
11	fE	44	61% 18% 20%
12	H1	67	28% 90% 6% .
12	HD	67	18% 90% 6% .
12	HE	67	22% 88% 7% .
12	h1	67	90% 6% .
12	hD	67	9% 90% 6% .
12	hE	67	90% 6% .
13	I1	38	58% 26% 8% . 5%
13	ID	38	55% 26% 11% . 5%
13	IE	38	55% 26% 11% . 5%
13	i1	38	63% 26% 5% 5%
13	iD	38	63% 26% 5% 5%
13	iE	38	63% 26% 5% 5%
14	J1	39	10% 85% 10% 5%

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Mol	Chain	Length	Quality of chain
14	JD	39	
14	JE	39	
14	j1	39	
14	jD	39	
14	jE	39	
15	K1	45	
15	KD	45	
15	KE	45	
15	k1	45	
15	kD	45	
15	kE	45	
16	L1	39	
16	LD	39	
16	LE	39	
16	l1	39	
16	lD	39	
16	lE	39	
17	M1	37	
17	MD	37	
17	ME	37	
17	m1	37	
17	mD	37	
17	mE	37	
18	O1	278	
18	OD	278	


























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Mol	Chain	Length	Quality of chain
18	OE	278	6% 73% 11% 13%
18	o1	278	7% 73% 11% 13%
18	oD	278	7% 73% 11% 13%
18	oE	278	7% 73% 11% 13%
19	Q1	164	10% 51% 20% 27%
19	QD	164	12% 51% 20% 27%
19	QE	164	10% 51% 20% 27%
19	q1	164	15% 51% 20% 27%
19	qD	164	12% 51% 20% 27%
19	qE	164	14% 51% 20% 27%
20	R1	39	18% 72% 18% 10%
20	RD	39	18% 72% 18% 10%
20	RE	39	15% 72% 18% 10%
20	r1	39	1% 72% 18% 10%
20	rD	39	10% 72% 18% 10%
20	rE	39	10% 72% 18% 10%
21	S1	47	15% 100%
21	SD	47	19% 100%
21	SE	47	21% 100%
22	T1	31	94% 6%
22	TD	31	94% 6%
22	TE	31	94% 6%
22	t1	31	6% 97%
22	tD	31	6% 97%
22	tE	31	6% 97%

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Mol	Chain	Length	Quality of chain
23	U1	95	 89% 7%
23	UD	95	 89% 7%
23	UE	95	 89% 7%
23	u1	95	 89% 8%
23	uD	95	 89% 8%
23	uE	95	 89% 8%
24	V1	163	 72% 11% 17%
24	VD	163	 72% 11% 17%
24	VE	163	 72% 10% 17%
24	v1	163	 74% 9% 17%
24	vD	163	 74% 9% 17%
24	vE	163	 74% 9% 17%
25	X1	48	 69% 15% 17% 10%
25	XD	48	 69% 15% 17%
25	XE	48	 69% 15% 17% 15%
25	x1	48	 69% 15% 17% 8%
25	xD	48	 69% 15% 17%
25	xE	48	 69% 15% 17%
26	Y1	43	 51% 21% 26% 12%
26	YD	43	 51% 21% 26% 9%
26	YE	43	 51% 21% 26% 7%
26	y1	43	 49% 21% 26% 14% 5%
26	yD	43	 49% 21% 26% 14% 5%
26	yE	43	 49% 21% 26% 14% 5%
27	Z1	63	 73% 22% 5%

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Mol	Chain	Length	Quality of chain
27	ZD	63	16% 73% 22% 5%
27	ZE	63	10% 73% 22% 5%
27	z1	63	14% 76% 19% 5%
27	zD	63	17% 76% 19% 5%
27	zE	63	16% 76% 19% 5%
28	BG	150	5% 10% 17% 69%
28	BL	150	6% 10% 17% 69%
28	EF	150	16% 13% 69%
28	EK	150	16% 13% 69%
29	QG	169	94%
29	QL	169	94%
29	gF	169	93% 7%
29	gK	169	93% 7%
30	VG	161	96% ...
30	VL	161	96% ...
30	mF	161	97% ...
30	mK	161	97% ...
31	b2	162	67% 93% 7%
31	b3	162	98% 93% 7%
31	b5	162	64% 93% 7%
31	b6	162	88% 93% 7%
31	b7	162	93% 7%
31	b8	162	77% 93% 7%
31	b9	162	77% 93% 7%
31	bA	162	99% 93% 7%

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Mol	Chain	Length	Quality of chain
31	bC	162	91% 93% 7%
31	bH	162	62% 93% 7%
31	bI	162	82% 93% 7%
31	bJ	162	73% 93% 7%
31	d2	162	100% 93% 7%
31	d3	162	99% 93% 7%
31	d5	162	84% 93% 7%
31	d6	162	99% 93% 7%
31	d7	162	99% 93% 7%
31	d8	162	65% 93% 7%
31	d9	162	99% 93% 7%
31	dA	162	99% 93% 7%
31	dC	162	99% 93% 7%
31	dH	162	81% 93% 7%
31	dI	162	100% 93% 7%
31	dJ	162	60% 93% 7%
31	f2	162	95% 93% 7%
31	f3	162	92% 93% 7%
31	f5	162	94% 93% 7%
31	f6	162	98% 93% 7%
31	f7	162	100% 93% 7%
31	f8	162	88% 93% 7%
31	f9	162	95% 93% 7%
31	fA	162	96% 93% 7%
31	fC	162	96% 93% 7%

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Mol	Chain	Length	Quality of chain
31	fH	162	85% 93% 7%
31	fI	162	91% 93% 7%
31	fJ	162	86% 93% 7%
31	h2	162	87% 93% 7%
31	h3	162	100% 93% 7%
31	h5	162	78% 93% 7%
31	h6	162	91% 93% 7%
31	h7	162	100% 93% 7%
31	h8	162	85% 93% 7%
31	h9	162	93% 93% 7%
31	hA	162	100% 93% 7%
31	hC	162	99% 93% 7%
31	hH	162	74% 93% 7%
31	hI	162	98% 93% 7%
31	hJ	162	73% 93% 7%
31	j2	162	86% 93% 7%
31	j3	162	96% 93% 7%
31	j5	162	88% 93% 7%
31	j6	162	93% 93% 7%
31	j7	162	96% 93% 7%
31	j8	162	81% 93% 7%
31	j9	162	84% 93% 7%
31	jA	162	94% 93% 7%
31	jC	162	94% 93% 7%
31	jH	162	75% 93% 7%

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Mol	Chain	Length	Quality of chain
31	jI	162	83% 93% 7%
31	jJ	162	85% 93% 7%
31	l2	162	99% 93% 7%
31	l3	162	93% 93% 7%
31	l5	162	93% 93% 7%
31	l6	162	100% 93% 7%
31	l7	162	99% 93% 7%
31	l8	162	86% 93% 7%
31	l9	162	100% 93% 7%
31	lA	162	96% 93% 7%
31	lC	162	98% 93% 7%
31	lH	162	90% 93% 7%
31	lI	162	99% 93% 7%
31	lJ	162	80% 93% 7%
32	c2	172	94% 91% 9%
32	c3	172	99% 91% 9%
32	c5	172	81% 91% 9%
32	c6	172	95% 91% 9%
32	c7	172	99% 91% 9%
32	c8	172	85% 91% 9%
32	c9	172	94% 91% 9%
32	cA	172	92% 91% 9%
32	cC	172	99% 91% 9%
32	cH	172	77% 91% 9%
32	cI	172	95% 91% 9%

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Mol	Chain	Length	Quality of chain
32	cJ	172	80% 91% 9%
32	e2	172	99% 93% 6%
32	e3	172	98% 93% 6%
32	e5	172	97% 93% 6%
32	e6	172	100% 93% 6%
32	e7	172	99% 93% 6%
32	e8	172	94% 93% 6%
32	e9	172	99% 93% 6%
32	eA	172	99% 93% 6%
32	eC	172	100% 93% 6%
32	eH	172	96% 93% 6%
32	eI	172	100% 93% 6%
32	eJ	172	95% 93% 6%
32	g2	172	90% 94% 6%
32	g3	172	97% 94% 6%
32	g5	172	80% 94% 6%
32	g6	172	95% 94% 6%
32	g7	172	95% 94% 6%
32	g8	172	74% 94% 6%
32	g9	172	90% 94% 6%
32	gA	172	95% 94% 6%
32	gC	172	89% 94% 6%
32	gH	172	70% 94% 6%
32	gI	172	95% 94% 6%
32	gJ	172	75% 94% 6%

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Mol	Chain	Length	Quality of chain
32	i2	172	87% 93% 6% .
32	i3	172	99% 93% 6% .
32	i5	172	88% 93% 6% .
32	i6	172	95% 93% 6% .
32	i7	172	99% 93% 6% .
32	i8	172	92% 93% 6% .
32	i9	172	88% 93% 6% .
32	iA	172	100% 93% 6% .
32	iC	172	94% 93% 6% .
32	iH	172	89% 93% 6% .
32	iI	172	88% 93% 6% .
32	iJ	172	92% 93% 6% .
32	k2	172	97% 92% 7% .
32	k3	172	98% 92% 7% .
32	k5	172	98% 92% 7% .
32	k6	172	99% 92% 7% .
32	k7	172	100% 92% 7% .
32	k8	172	98% 92% 7% .
32	k9	172	92% 92% 7% .
32	kA	172	98% 92% 7% .
32	kC	172	99% 92% 7% .
32	kH	172	88% 92% 7% .
32	kI	172	96% 92% 7% .
32	kJ	172	94% 92% 7% .
32	m2	172	97% 94% 6% .

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Mol	Chain	Length	Quality of chain
32	m3	172	93% 94% 6% •
32	m5	172	81% 94% 6% •
32	m6	172	100% 94% 6% •
32	m7	172	99% 94% 6% •
32	m8	172	81% 94% 6% •
32	m9	172	98% 94% 6% •
32	mA	172	97% 94% 6% •
32	mC	172	98% 94% 6% •
32	mH	172	81% 94% 6% •
32	mI	172	99% 94% 6% •
32	mJ	172	70% 94% 6% •

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
36	CLA	A1	404	X	-	-	-
36	CLA	A1	405	X	-	-	-
36	CLA	AD	404	X	-	-	-
36	CLA	AD	405	X	-	-	-
36	CLA	AE	404	X	-	-	-
36	CLA	AE	405	X	-	-	-
36	CLA	B1	601	X	-	-	-
36	CLA	B1	602	X	-	-	-
36	CLA	B1	603	X	-	-	-
36	CLA	B1	604	X	-	-	-
36	CLA	B1	606	X	-	-	-
36	CLA	B1	607	X	-	-	-
36	CLA	B1	608	X	-	-	-
36	CLA	B1	609	X	-	-	-
36	CLA	B1	610	X	-	-	-
36	CLA	B1	611	X	-	-	-
36	CLA	B1	612	X	-	-	-
36	CLA	B1	613	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
36	CLA	BD	601	X	-	-	-
36	CLA	BD	602	X	-	-	-
36	CLA	BD	603	X	-	-	-
36	CLA	BD	604	X	-	-	-
36	CLA	BD	606	X	-	-	-
36	CLA	BD	607	X	-	-	-
36	CLA	BD	608	X	-	-	-
36	CLA	BD	609	X	-	-	-
36	CLA	BD	610	X	-	-	-
36	CLA	BD	611	X	-	-	-
36	CLA	BD	612	X	-	-	-
36	CLA	BD	613	X	-	-	-
36	CLA	BE	601	X	-	-	-
36	CLA	BE	602	X	-	-	-
36	CLA	BE	603	X	-	-	-
36	CLA	BE	604	X	-	-	-
36	CLA	BE	606	X	-	-	-
36	CLA	BE	607	X	-	-	-
36	CLA	BE	608	X	-	-	-
36	CLA	BE	609	X	-	-	-
36	CLA	BE	610	X	-	-	-
36	CLA	BE	611	X	-	-	-
36	CLA	BE	612	X	-	-	-
36	CLA	BE	613	X	-	-	-
36	CLA	C1	503	X	-	-	-
36	CLA	C1	504	X	-	-	-
36	CLA	C1	505	X	-	-	-
36	CLA	C1	506	X	-	-	-
36	CLA	C1	507	X	-	-	-
36	CLA	C1	508	X	-	-	-
36	CLA	C1	509	X	-	-	-
36	CLA	C1	511	X	-	-	-
36	CLA	C1	512	X	-	-	-
36	CLA	C1	513	X	-	-	-
36	CLA	C1	514	X	-	-	-
36	CLA	C1	515	X	-	-	-
36	CLA	CD	503	X	-	-	-
36	CLA	CD	504	X	-	-	-
36	CLA	CD	505	X	-	-	-
36	CLA	CD	506	X	-	-	-
36	CLA	CD	507	X	-	-	-
36	CLA	CD	508	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
36	CLA	CD	509	X	-	-	-
36	CLA	CD	511	X	-	-	-
36	CLA	CD	512	X	-	-	-
36	CLA	CD	513	X	-	-	-
36	CLA	CD	514	X	-	-	-
36	CLA	CD	515	X	-	-	-
36	CLA	CE	503	X	-	-	-
36	CLA	CE	504	X	-	-	-
36	CLA	CE	505	X	-	-	-
36	CLA	CE	506	X	-	-	-
36	CLA	CE	507	X	-	-	-
36	CLA	CE	508	X	-	-	-
36	CLA	CE	509	X	-	-	-
36	CLA	CE	511	X	-	-	-
36	CLA	CE	512	X	-	-	-
36	CLA	CE	513	X	-	-	-
36	CLA	CE	514	X	-	-	-
36	CLA	CE	515	X	-	-	-
36	CLA	D1	404	X	-	-	-
36	CLA	D1	405	X	-	-	-
36	CLA	DD	405	X	-	-	-
36	CLA	DD	406	X	-	-	-
36	CLA	DE	405	X	-	-	-
36	CLA	DE	406	X	-	-	-
36	CLA	H1	101	X	-	-	-
36	CLA	H1	102	X	-	-	-
36	CLA	HD	101	X	-	-	-
36	CLA	HD	102	X	-	-	-
36	CLA	HE	101	X	-	-	-
36	CLA	HE	102	X	-	-	-
36	CLA	I1	101	X	-	-	-
36	CLA	ID	101	X	-	-	-
36	CLA	IE	101	X	-	-	-
36	CLA	X1	101	X	-	-	-
36	CLA	XD	101	X	-	-	-
36	CLA	XE	101	X	-	-	-
36	CLA	a1	405	X	-	-	-
36	CLA	a1	406	X	-	-	-
36	CLA	a1	407	X	-	-	-
36	CLA	aD	404	X	-	-	-
36	CLA	aD	405	X	-	-	-
36	CLA	aD	406	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
36	CLA	aE	404	X	-	-	-
36	CLA	aE	405	X	-	-	-
36	CLA	aE	406	X	-	-	-
36	CLA	b1	603	X	-	-	-
36	CLA	b1	604	X	-	-	-
36	CLA	b1	605	X	-	-	-
36	CLA	b1	606	X	-	-	-
36	CLA	b1	608	X	-	-	-
36	CLA	b1	609	X	-	-	-
36	CLA	b1	610	X	-	-	-
36	CLA	b1	611	X	-	-	-
36	CLA	b1	612	X	-	-	-
36	CLA	b1	613	X	-	-	-
36	CLA	b1	614	X	-	-	-
36	CLA	bD	603	X	-	-	-
36	CLA	bD	604	X	-	-	-
36	CLA	bD	605	X	-	-	-
36	CLA	bD	606	X	-	-	-
36	CLA	bD	608	X	-	-	-
36	CLA	bD	609	X	-	-	-
36	CLA	bD	610	X	-	-	-
36	CLA	bD	611	X	-	-	-
36	CLA	bD	612	X	-	-	-
36	CLA	bD	613	X	-	-	-
36	CLA	bD	614	X	-	-	-
36	CLA	bE	603	X	-	-	-
36	CLA	bE	604	X	-	-	-
36	CLA	bE	605	X	-	-	-
36	CLA	bE	606	X	-	-	-
36	CLA	bE	608	X	-	-	-
36	CLA	bE	609	X	-	-	-
36	CLA	bE	610	X	-	-	-
36	CLA	bE	611	X	-	-	-
36	CLA	bE	612	X	-	-	-
36	CLA	bE	613	X	-	-	-
36	CLA	bE	614	X	-	-	-
36	CLA	c1	502	X	-	-	-
36	CLA	c1	503	X	-	-	-
36	CLA	c1	504	X	-	-	-
36	CLA	c1	505	X	-	-	-
36	CLA	c1	506	X	-	-	-
36	CLA	c1	507	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
36	CLA	c1	508	X	-	-	-
36	CLA	c1	510	X	-	-	-
36	CLA	c1	511	X	-	-	-
36	CLA	c1	512	X	-	-	-
36	CLA	c1	513	X	-	-	-
36	CLA	cD	503	X	-	-	-
36	CLA	cD	504	X	-	-	-
36	CLA	cD	505	X	-	-	-
36	CLA	cD	506	X	-	-	-
36	CLA	cD	507	X	-	-	-
36	CLA	cD	508	X	-	-	-
36	CLA	cD	510	X	-	-	-
36	CLA	cD	511	X	-	-	-
36	CLA	cD	512	X	-	-	-
36	CLA	cD	513	X	-	-	-
36	CLA	cE	503	X	-	-	-
36	CLA	cE	504	X	-	-	-
36	CLA	cE	505	X	-	-	-
36	CLA	cE	506	X	-	-	-
36	CLA	cE	507	X	-	-	-
36	CLA	cE	508	X	-	-	-
36	CLA	cE	510	X	-	-	-
36	CLA	cE	511	X	-	-	-
36	CLA	cE	512	X	-	-	-
36	CLA	cE	513	X	-	-	-
36	CLA	cE	514	X	-	-	-
36	CLA	d1	403	X	-	-	-
36	CLA	d1	405	X	-	-	-
36	CLA	d1	406	X	-	-	-
36	CLA	dD	403	X	-	-	-
36	CLA	dD	405	X	-	-	-
36	CLA	dD	406	X	-	-	-
36	CLA	dE	403	X	-	-	-
36	CLA	dE	405	X	-	-	-
36	CLA	dE	406	X	-	-	-
36	CLA	h1	101	X	-	-	-
36	CLA	h1	102	X	-	-	-
36	CLA	hD	101	X	-	-	-
36	CLA	hD	102	X	-	-	-
36	CLA	hE	101	X	-	-	-
36	CLA	hE	102	X	-	-	-
36	CLA	iD	101	X	-	-	-

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<b>Mol</b>	<b>Type</b>	<b>Chain</b>	<b>Res</b>	<b>Chirality</b>	<b>Geometry</b>	<b>Clashes</b>	<b>Electron density</b>
36	CLA	iE	101	X	-	-	-
36	CLA	x1	101	X	-	-	-
36	CLA	xD	101	X	-	-	-
36	CLA	xE	101	X	-	-	-

## 2 Entry composition [i](#)

There are 48 unique types of molecules in this entry. The entry contains 552008 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 LRC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	BA	240	1948	1237	343	362	6	0	0
1	BC	240	1942	1231	343	362	6	0	0
1	BH	240	1850	1166	328	350	6	0	0
1	BI	240	1925	1218	339	362	6	0	0
1	BJ	240	1856	1172	328	350	6	0	0
1	B2	240	1942	1233	342	361	6	0	0
1	B3	240	1936	1228	340	362	6	0	0
1	B5	240	1856	1172	328	350	6	0	0
1	B6	240	1945	1234	343	362	6	0	0
1	B7	240	1942	1234	340	362	6	0	0
1	B8	240	1850	1166	328	350	6	0	0
1	B9	240	1942	1234	340	362	6	0	0

- Molecule 2 is a protein called LCM.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	BB	888	7001	4444	1216	1324	17	0	0
2	CB	866	6844	4349	1188	1290	17	0	0
2	B4	888	7001	4444	1216	1324	17	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	C4	866	6844	4349	1188	1290	17	0	0

- Molecule 3 is a protein called Allophycocyanin alpha chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	OB	160	1199	750	203	240	6	0	0
3	QB	160	1205	754	206	239	6	0	0
3	SB	160	1209	756	207	240	6	0	0
3	VB	160	1205	753	206	240	6	0	0
3	XB	160	1203	753	204	240	6	0	0
3	ZB	160	1209	756	207	240	6	0	0
3	JF	160	1203	753	204	240	6	0	0
3	LF	160	1209	756	207	240	6	0	0
3	XF	160	1209	756	207	240	6	0	0
3	ZF	160	1209	756	207	240	6	0	0
3	AG	160	1209	756	207	240	6	0	0
3	GG	160	1209	756	207	240	6	0	0
3	IG	160	1206	755	207	238	6	0	0
3	KG	160	1203	753	204	240	6	0	0
3	NG	160	1203	753	204	240	6	0	0
3	PG	160	1209	756	207	240	6	0	0
3	RG	160	1209	756	207	240	6	0	0
3	TG	160	1203	753	204	240	6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	JK	160	1209	756	207	240	6	0	0
3	LK	160	1209	756	207	240	6	0	0
3	XK	160	1209	756	207	240	6	0	0
3	ZK	160	1209	756	207	240	6	0	0
3	AL	160	1209	756	207	240	6	0	0
3	GL	160	1209	756	207	240	6	0	0
3	IL	160	1203	753	204	240	6	0	0
3	KL	160	1203	753	204	240	6	0	0
3	NL	160	1203	753	204	240	6	0	0
3	PL	160	1209	756	207	240	6	0	0
3	RL	160	1209	756	207	240	6	0	0
3	TL	160	1203	753	204	240	6	0	0
3	Z4	160	1209	756	207	240	6	0	0
3	S4	160	1209	756	207	240	6	0	0
3	V4	160	1205	753	206	240	6	0	0
3	X4	160	1196	748	203	239	6	0	0
3	s4	160	1209	756	207	240	6	0	0
3	u4	160	1199	750	203	240	6	0	0
3	w4	160	1196	749	204	238	5	0	0
3	o4	160	1205	754	207	238	6	0	0
3	q4	160	1198	748	207	237	6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	y4	160	1209	756	207	240	6	0	0
3	O4	160	1203	753	204	240	6	0	0
3	Q4	160	1209	756	207	240	6	0	0
3	sB	160	1209	756	207	240	6	0	0
3	uB	160	1199	750	203	240	6	0	0
3	wB	160	1209	756	207	240	6	0	0
3	oB	160	1199	751	204	238	6	0	0
3	qB	160	1198	748	207	237	6	0	0
3	yB	160	1209	756	207	240	6	0	0
3	bF	160	1209	756	207	240	6	0	0
3	dF	160	1205	753	206	240	6	0	0
3	fF	160	1209	756	207	240	6	0	0
3	iF	160	1209	756	207	240	6	0	0
3	kF	160	1209	756	207	240	6	0	0
3	9F	160	1209	756	207	240	6	0	0
3	4G	160	1205	753	206	240	6	0	0
3	6G	160	1209	756	207	240	6	0	0
3	bK	160	1209	756	207	240	6	0	0
3	dK	160	1205	753	206	240	6	0	0
3	fK	160	1209	756	207	240	6	0	0
3	iK	160	1209	756	207	240	6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	kK	160	Total	C	N	O	S	0	0
			1209	756	207	240	6		
3	9K	160	Total	C	N	O	S	0	0
			1209	756	207	240	6		
3	4L	160	Total	C	N	O	S	0	0
			1205	753	206	240	6		
3	6L	160	Total	C	N	O	S	0	0
			1209	756	207	240	6		

- Molecule 4 is a protein called Allophycocyanin beta chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	PB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	RB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	TB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	WB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	YB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	IF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	KF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	MF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	YF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	HG	161	Total	C	N	O	S	0	0
			1208	762	201	238	7		
4	JG	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	LG	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	MG	161	Total	C	N	O	S	0	0
			1210	763	204	236	7		
4	OG	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	SG	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	UG	161	1214	765	204	238	7	0	0
4	WG	161	1214	765	204	238	7	0	0
4	IK	161	1214	765	204	238	7	0	0
4	KK	161	1214	765	204	238	7	0	0
4	MK	161	1214	765	204	238	7	0	0
4	YK	161	1214	765	204	238	7	0	0
4	HL	161	1208	762	201	238	7	0	0
4	JL	161	1214	765	204	238	7	0	0
4	LL	161	1214	765	204	238	7	0	0
4	ML	161	1210	763	204	236	7	0	0
4	OL	161	1214	765	204	238	7	0	0
4	SL	161	1214	765	204	238	7	0	0
4	UL	161	1214	765	204	238	7	0	0
4	WL	161	1214	765	204	238	7	0	0
4	a4	160	1199	754	203	236	6	0	0
4	T4	161	1214	765	204	238	7	0	0
4	W4	161	1214	765	204	238	7	0	0
4	Y4	161	1214	765	204	238	7	0	0
4	t4	161	1214	765	204	238	7	0	0
4	v4	161	1214	765	204	238	7	0	0
4	p4	161	1208	762	201	238	7	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
4	r4	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	x4	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	z4	161	Total	C	N	O	S	0	0
			1208	762	201	238	7		
4	P4	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	R4	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	aB	160	Total	C	N	O	S	0	0
			1196	753	203	234	6		
4	tB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	vB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	pB	161	Total	C	N	O	S	0	0
			1208	762	201	238	7		
4	rB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	xB	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	zB	161	Total	C	N	O	S	0	0
			1208	762	201	238	7		
4	aF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	cF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	eF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	hF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	jF	161	Total	C	N	O	S	0	0
			1211	763	204	238	6		
4	lF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	nF	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	1G	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	5G	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		

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Mol	Chain	Residues	Atoms					AltConf	Trace
4	7G	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	aK	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	cK	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	eK	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	hK	161	Total	C	N	O	S	0	0
			1208	762	201	238	7		
4	jK	161	Total	C	N	O	S	0	0
			1211	763	204	238	6		
4	lK	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	nK	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	1L	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	5L	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		
4	7L	161	Total	C	N	O	S	0	0
			1214	765	204	238	7		

- Molecule 5 is a protein called Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	UB	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	NF	66	Total	C	N	O	S	0	0
			535	338	99	94	4		
5	NK	66	Total	C	N	O	S	0	0
			535	338	99	94	4		
5	b4	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	U4	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	bB	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	3F	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	2G	65	Total	C	N	O	S	0	0
			527	333	98	93	3		

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Mol	Chain	Residues	Atoms					AltConf	Trace
5	8G	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	3K	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	2L	65	Total	C	N	O	S	0	0
			527	333	98	93	3		
5	8L	65	Total	C	N	O	S	0	0
			527	333	98	93	3		

- Molecule 6 is a protein called Photosystem II protein D1.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AD	334	Total	C	N	O	S	0	0
			2606	1707	433	454	12		
6	AE	334	Total	C	N	O	S	0	0
			2606	1707	433	454	12		
6	A1	334	Total	C	N	O	S	0	0
			2613	1713	433	455	12		
6	a1	334	Total	C	N	O	S	0	0
			2611	1712	431	456	12		
6	aD	334	Total	C	N	O	S	0	0
			2617	1715	434	456	12		
6	aE	334	Total	C	N	O	S	0	0
			2617	1715	434	456	12		

- Molecule 7 is a protein called Photosystem II CP47 reaction center protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	BD	502	Total	C	N	O	S	0	0
			3929	2563	662	691	13		
7	BE	502	Total	C	N	O	S	0	0
			3923	2560	659	691	13		
7	B1	502	Total	C	N	O	S	0	0
			3925	2561	662	689	13		
7	b1	504	Total	C	N	O	S	0	0
			3945	2572	667	693	13		
7	bD	504	Total	C	N	O	S	0	0
			3945	2572	667	693	13		
7	bE	504	Total	C	N	O	S	0	0
			3945	2572	667	693	13		

- Molecule 8 is a protein called Photosystem II CP43 reaction center protein.



Mol	Chain	Residues	Atoms					AltConf	Trace
8	CD	450	Total	C	N	O	S	0	0
			3485	2286	585	601	13		
8	CE	450	Total	C	N	O	S	0	0
			3485	2286	585	601	13		
8	C1	450	Total	C	N	O	S	0	0
			3485	2286	585	601	13		
8	c1	453	Total	C	N	O	S	0	0
			3484	2282	585	604	13		
8	cD	453	Total	C	N	O	S	0	0
			3480	2279	584	604	13		
8	cE	453	Total	C	N	O	S	0	0
			3482	2280	584	605	13		

- Molecule 9 is a protein called Photosystem II D2 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	DD	341	Total	C	N	O	S	0	0
			2713	1799	444	457	13		
9	DE	341	Total	C	N	O	S	0	0
			2713	1799	444	457	13		
9	D1	341	Total	C	N	O	S	0	0
			2713	1799	444	457	13		
9	d1	341	Total	C	N	O	S	0	0
			2709	1797	443	456	13		
9	dD	341	Total	C	N	O	S	0	0
			2709	1797	443	456	13		
9	dE	341	Total	C	N	O	S	0	0
			2709	1797	443	456	13		

- Molecule 10 is a protein called Cytochrome b559 subunit alpha.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	ED	78	Total	C	N	O	0	0
			634	412	105	117		
10	EE	78	Total	C	N	O	0	0
			634	412	105	117		
10	E1	78	Total	C	N	O	0	0
			634	412	105	117		
10	e1	78	Total	C	N	O	0	0
			634	412	105	117		
10	eD	78	Total	C	N	O	0	0
			634	412	105	117		
10	eE	78	Total	C	N	O	0	0
			634	412	105	117		

- Molecule 11 is a protein called Cytochrome b559 subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	FD	35	Total	C	N	O	S	0	0
			283	194	46	42	1		
11	FE	35	Total	C	N	O	S	0	0
			283	194	46	42	1		
11	F1	35	Total	C	N	O	S	0	0
			283	194	46	42	1		
11	f1	35	Total	C	N	O	S	0	0
			283	194	46	42	1		
11	fD	37	Total	C	N	O	S	0	0
			299	204	49	45	1		
11	fE	35	Total	C	N	O	S	0	0
			283	194	46	42	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
12	HD	64	Total	C	N	O	S	0	0
			504	335	82	85	2		
12	HE	64	Total	C	N	O	S	0	0
			504	335	82	85	2		
12	H1	64	Total	C	N	O	S	0	0
			512	340	83	87	2		
12	h1	64	Total	C	N	O	S	0	0
			512	340	83	87	2		
12	hD	64	Total	C	N	O	S	0	0
			512	340	83	87	2		
12	hE	64	Total	C	N	O	S	0	0
			512	340	83	87	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
13	ID	36	Total	C	N	O	S	0	0
			294	197	50	46	1		
13	IE	36	Total	C	N	O	S	0	0
			294	197	50	46	1		
13	I1	36	Total	C	N	O	S	0	0
			294	197	50	46	1		
13	i1	36	Total	C	N	O	S	0	0
			290	194	49	46	1		
13	iD	36	Total	C	N	O	S	0	0
			290	194	49	46	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	iE	36	290	194	49	46	1	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	JD	37	262	179	39	44		0	0
14	JE	37	262	179	39	44		0	0
14	J1	37	262	179	39	44		0	0
14	j1	39	276	187	41	47	1	0	0
14	jD	39	276	187	41	47	1	0	0
14	jE	39	276	187	41	47	1	0	0

- Molecule 15 is a protein called Photosystem II reaction center protein K.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	KD	36	286	203	39	44		0	0
15	KE	36	286	203	39	44		0	0
15	K1	36	286	203	39	44		0	0
15	k1	35	277	197	37	43		0	0
15	kD	35	277	197	37	43		0	0
15	kE	35	277	197	37	43		0	0

- Molecule 16 is a protein called Photosystem II reaction center protein L.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	LD	38	315	209	52	53	1	0	0
16	LE	38	315	209	52	53	1	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
16	L1	38	Total	C	N	O	S	0	0
			315	209	52	53	1		
16	l1	38	Total	C	N	O	S	0	0
			315	209	52	53	1		
16	lD	38	Total	C	N	O	S	0	0
			315	209	52	53	1		
16	lE	38	Total	C	N	O	S	0	0
			315	209	52	53	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
17	MD	36	Total	C	N	O	S	0	0
			286	190	43	52	1		
17	ME	36	Total	C	N	O	S	0	0
			286	190	43	52	1		
17	M1	36	Total	C	N	O	S	0	0
			286	190	43	52	1		
17	m1	36	Total	C	N	O	S	0	0
			286	190	43	52	1		
17	mD	36	Total	C	N	O	S	0	0
			286	190	43	52	1		
17	mE	36	Total	C	N	O	S	0	0
			286	190	43	52	1		

- Molecule 18 is a protein called Photosystem II extrinsic protein O.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	OD	243	Total	C	N	O	S	0	0
			1856	1174	308	372	2		
18	OE	243	Total	C	N	O	S	0	0
			1856	1174	308	372	2		
18	O1	243	Total	C	N	O	S	0	0
			1856	1174	308	372	2		
18	o1	243	Total	C	N	O	S	0	0
			1856	1174	308	372	2		
18	oD	243	Total	C	N	O	S	0	0
			1856	1174	308	372	2		
18	oE	243	Total	C	N	O	S	0	0
			1856	1174	308	372	2		

- Molecule 19 is a protein called PsbQ protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	QD	119	Total	C	N	O	S	0	0
			966	610	165	189	2		
19	QE	119	Total	C	N	O	S	0	0
			966	610	165	189	2		
19	Q1	119	Total	C	N	O	S	0	0
			966	610	165	189	2		
19	q1	119	Total	C	N	O	S	0	0
			966	610	165	189	2		
19	qD	119	Total	C	N	O	S	0	0
			966	610	165	189	2		
19	qE	119	Total	C	N	O	S	0	0
			966	610	165	189	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
20	RD	35	Total	C	N	O	S	0	0
			260	175	43	41	1		
20	RE	35	Total	C	N	O	S	0	0
			260	175	43	41	1		
20	R1	35	Total	C	N	O	S	0	0
			260	175	43	41	1		
20	r1	35	Total	C	N	O	S	0	0
			260	175	43	41	1		
20	rD	35	Total	C	N	O	S	0	0
			260	175	43	41	1		
20	rE	35	Total	C	N	O	S	0	0
			260	175	43	41	1		

- Molecule 21 is a protein called LPP1.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	SD	47	Total	C	N	O	0	0
			235	141	47	47		
21	SE	47	Total	C	N	O	0	0
			235	141	47	47		
21	S1	47	Total	C	N	O	0	0
			235	141	47	47		

- Molecule 22 is a protein called Photosystem II reaction center protein T.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	TD	29	Total	C	N	O			
			225	154	35	36	0	0	
22	TE	29	Total	C	N	O			
			225	154	35	36	0	0	
22	T1	29	Total	C	N	O			
			225	154	35	36	0	0	
22	t1	30	Total	C	N	O	S		
			233	159	36	37	1	0	
22	tD	30	Total	C	N	O	S		
			233	159	36	37	1	0	
22	tE	30	Total	C	N	O	S		
			233	159	36	37	1	0	

- Molecule 23 is a protein called PsbU.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	UD	95	Total	C	N	O	S		
			755	484	121	148	2	0	
23	UE	95	Total	C	N	O	S		
			755	484	121	148	2	0	
23	U1	95	Total	C	N	O	S		
			755	484	121	148	2	0	
23	u1	95	Total	C	N	O	S		
			755	484	121	148	2	0	
23	uD	95	Total	C	N	O	S		
			755	484	121	148	2	0	
23	uE	95	Total	C	N	O	S		
			755	484	121	148	2	0	

- Molecule 24 is a protein called Photosystem II extrinsic protein V.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	VD	135	Total	C	N	O	S		
			1043	662	175	203	3	0	
24	VE	135	Total	C	N	O	S		
			1043	662	175	203	3	0	
24	V1	135	Total	C	N	O	S		
			1043	662	175	203	3	0	
24	v1	135	Total	C	N	O	S		
			1043	662	175	203	3	0	
24	vD	135	Total	C	N	O	S		
			1043	662	175	203	3	0	
24	vE	135	Total	C	N	O	S		
			1043	662	175	203	3	0	

- Molecule 25 is a protein called Photosystem II reaction center protein X.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	XD	40	Total	C	N	O	S	0	0
			313	210	50	51	2		
25	XE	40	Total	C	N	O	S	0	0
			313	210	50	51	2		
25	X1	40	Total	C	N	O	S	0	0
			313	210	50	51	2		
25	x1	40	Total	C	N	O	S	0	0
			313	210	50	51	2		
25	xD	40	Total	C	N	O	S	0	0
			313	210	50	51	2		
25	xE	40	Total	C	N	O	S	0	0
			313	210	50	51	2		

- Molecule 26 is a protein called Photosystem II reaction center protein Psb30.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	YD	32	Total	C	N	O	S	0	0
			239	162	37	39	1		
26	YE	32	Total	C	N	O	S	0	0
			239	162	37	39	1		
26	Y1	32	Total	C	N	O	S	0	0
			239	162	37	39	1		
26	y1	32	Total	C	N	O	S	0	0
			239	162	37	39	1		
26	yD	32	Total	C	N	O	S	0	0
			239	162	37	39	1		
26	yE	32	Total	C	N	O	S	0	0
			239	162	37	39	1		

- Molecule 27 is a protein called Photosystem II reaction center protein Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	ZD	60	Total	C	N	O	S	0	0
			461	319	68	73	1		
27	ZE	60	Total	C	N	O	S	0	0
			461	319	68	73	1		
27	Z1	60	Total	C	N	O	S	0	0
			461	319	68	73	1		
27	z1	60	Total	C	N	O	S	0	0
			461	319	68	73	1		
27	zD	60	Total	C	N	O	S	0	0
			461	319	68	73	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
27	zE	60	Total	C	N	O	S	0	0
			461	319	68	73	1		

- Molecule 28 is a protein called LPP2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	EF	46	Total	C	N	O	S	0	0
			354	214	69	66	5		
28	BG	46	Total	C	N	O	S	0	0
			357	216	69	66	6		
28	EK	46	Total	C	N	O	S	0	0
			354	214	69	66	5		
28	BL	46	Total	C	N	O	S	0	0
			357	216	69	66	6		

- Molecule 29 is a protein called Allophycocyanin beta-18 subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	QG	169	Total	C	N	O	S	0	0
			1297	818	219	257	3		
29	QL	169	Total	C	N	O	S	0	0
			1297	818	219	257	3		
29	gF	169	Total	C	N	O	S	0	0
			1297	818	219	257	3		
29	gK	169	Total	C	N	O	S	0	0
			1297	818	219	257	3		

- Molecule 30 is a protein called Allophycocyanin-B alpha subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	VG	160	Total	C	N	O	S	0	0
			1254	795	212	241	6		
30	VL	160	Total	C	N	O	S	0	0
			1254	795	212	241	6		
30	mF	160	Total	C	N	O	S	0	0
			1254	795	212	241	6		
30	mK	160	Total	C	N	O	S	0	0
			1254	795	212	241	6		

- Molecule 31 is a protein called C-phycocyanin alpha subunit.



Mol	Chain	Residues	Atoms					AltConf	Trace
31	b2	162	Total	C	N	O	S	0	0
			1052	645	186	218	3		
31	d2	162	Total	C	N	O	S	0	0
			1013	619	181	212	1		
31	f2	162	Total	C	N	O	S	0	0
			1030	634	179	215	2		
31	h2	162	Total	C	N	O	S	0	0
			1042	637	189	214	2		
31	j2	162	Total	C	N	O	S	0	0
			1029	633	182	212	2		
31	l2	162	Total	C	N	O	S	0	0
			1059	650	186	222	1		
31	b3	162	Total	C	N	O	S	0	0
			1052	645	186	218	3		
31	d3	162	Total	C	N	O	S	0	0
			1013	619	181	212	1		
31	f3	162	Total	C	N	O	S	0	0
			1030	634	179	215	2		
31	h3	162	Total	C	N	O	S	0	0
			1042	637	189	214	2		
31	j3	162	Total	C	N	O	S	0	0
			1029	633	182	212	2		
31	l3	162	Total	C	N	O	S	0	0
			1059	650	186	222	1		
31	b5	162	Total	C	N	O	S	0	0
			1052	645	186	218	3		
31	d5	162	Total	C	N	O	S	0	0
			1013	619	181	212	1		
31	f5	162	Total	C	N	O	S	0	0
			1030	634	179	215	2		
31	h5	162	Total	C	N	O	S	0	0
			1042	637	189	214	2		
31	j5	162	Total	C	N	O	S	0	0
			1029	633	182	212	2		
31	l5	162	Total	C	N	O	S	0	0
			1059	650	186	222	1		
31	b6	162	Total	C	N	O	S	0	0
			1052	645	186	218	3		
31	d6	162	Total	C	N	O	S	0	0
			1013	619	181	212	1		
31	f6	162	Total	C	N	O	S	0	0
			1030	634	179	215	2		
31	h6	162	Total	C	N	O	S	0	0
			1042	637	189	214	2		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
31	j6	162	Total 1029	C 633	N 182	O 212	S 2	0	0
31	l6	162	Total 1059	C 650	N 186	O 222	S 1	0	0
31	b7	162	Total 1052	C 645	N 186	O 218	S 3	0	0
31	d7	162	Total 1013	C 619	N 181	O 212	S 1	0	0
31	f7	162	Total 1030	C 634	N 179	O 215	S 2	0	0
31	h7	162	Total 1042	C 637	N 189	O 214	S 2	0	0
31	j7	162	Total 1029	C 633	N 182	O 212	S 2	0	0
31	l7	162	Total 1059	C 650	N 186	O 222	S 1	0	0
31	b8	162	Total 1052	C 645	N 186	O 218	S 3	0	0
31	d8	162	Total 1013	C 619	N 181	O 212	S 1	0	0
31	f8	162	Total 1030	C 634	N 179	O 215	S 2	0	0
31	h8	162	Total 1042	C 637	N 189	O 214	S 2	0	0
31	j8	162	Total 1029	C 633	N 182	O 212	S 2	0	0
31	l8	162	Total 1059	C 650	N 186	O 222	S 1	0	0
31	b9	162	Total 1052	C 645	N 186	O 218	S 3	0	0
31	d9	162	Total 1013	C 619	N 181	O 212	S 1	0	0
31	f9	162	Total 1030	C 634	N 179	O 215	S 2	0	0
31	h9	162	Total 1036	C 634	N 186	O 214	S 2	0	0
31	j9	162	Total 1029	C 633	N 182	O 212	S 2	0	0
31	l9	162	Total 1059	C 650	N 186	O 222	S 1	0	0
31	bA	162	Total 1052	C 645	N 186	O 218	S 3	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
31	dA	162	Total 1013	C 619	N 181	O 212	S 1	0	0
31	fA	162	Total 1030	C 634	N 179	O 215	S 2	0	0
31	hA	162	Total 1042	C 637	N 189	O 214	S 2	0	0
31	jA	162	Total 1029	C 633	N 182	O 212	S 2	0	0
31	lA	162	Total 1059	C 650	N 186	O 222	S 1	0	0
31	bC	162	Total 1052	C 645	N 186	O 218	S 3	0	0
31	dC	162	Total 1013	C 619	N 181	O 212	S 1	0	0
31	fC	162	Total 1030	C 634	N 179	O 215	S 2	0	0
31	hC	162	Total 1042	C 637	N 189	O 214	S 2	0	0
31	jC	162	Total 1029	C 633	N 182	O 212	S 2	0	0
31	lC	162	Total 1059	C 650	N 186	O 222	S 1	0	0
31	bH	162	Total 1052	C 645	N 186	O 218	S 3	0	0
31	dH	162	Total 1013	C 619	N 181	O 212	S 1	0	0
31	fH	162	Total 1030	C 634	N 179	O 215	S 2	0	0
31	hH	162	Total 1042	C 637	N 189	O 214	S 2	0	0
31	jH	162	Total 1029	C 633	N 182	O 212	S 2	0	0
31	lH	162	Total 1059	C 650	N 186	O 222	S 1	0	0
31	bI	162	Total 1052	C 645	N 186	O 218	S 3	0	0
31	dI	162	Total 1013	C 619	N 181	O 212	S 1	0	0
31	fI	162	Total 1030	C 634	N 179	O 215	S 2	0	0
31	hI	162	Total 1042	C 637	N 189	O 214	S 2	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
31	jI	162	Total	C	N	O	S	0	0
			1029	633	182	212	2		
31	II	162	Total	C	N	O	S	0	0
			1059	650	186	222	1		
31	bJ	162	Total	C	N	O	S	0	0
			1052	645	186	218	3		
31	dJ	162	Total	C	N	O	S	0	0
			1013	619	181	212	1		
31	fJ	162	Total	C	N	O	S	0	0
			1030	634	179	215	2		
31	hJ	162	Total	C	N	O	S	0	0
			1042	637	189	214	2		
31	jJ	162	Total	C	N	O	S	0	0
			1029	633	182	212	2		
31	lJ	162	Total	C	N	O	S	0	0
			1059	650	186	222	1		

- Molecule 32 is a protein called Phycocyanin beta subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	c2	172	Total	C	N	O	S	0	0
			1076	651	191	228	6		
32	e2	172	Total	C	N	O	S	0	0
			1063	642	188	228	5		
32	g2	172	Total	C	N	O	S	0	0
			1088	655	198	228	7		
32	i2	172	Total	C	N	O	S	0	0
			1086	654	195	231	6		
32	k2	172	Total	C	N	O	S	0	0
			1103	665	195	238	5		
32	m2	172	Total	C	N	O	S	0	0
			1098	662	195	235	6		
32	c3	172	Total	C	N	O	S	0	0
			1076	651	191	228	6		
32	e3	172	Total	C	N	O	S	0	0
			1063	642	188	228	5		
32	g3	172	Total	C	N	O	S	0	0
			1088	655	198	228	7		
32	i3	172	Total	C	N	O	S	0	0
			1086	654	195	231	6		
32	k3	172	Total	C	N	O	S	0	0
			1103	665	195	238	5		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
32	m3	172	1098	662	195	235	6	0	0
32	c5	172	1076	651	191	228	6	0	0
32	e5	172	1063	642	188	228	5	0	0
32	g5	172	1088	655	198	228	7	0	0
32	i5	172	1086	654	195	231	6	0	0
32	k5	172	1103	665	195	238	5	0	0
32	m5	172	1098	662	195	235	6	0	0
32	c6	172	1076	651	191	228	6	0	0
32	e6	172	1063	642	188	228	5	0	0
32	g6	172	1088	655	198	228	7	0	0
32	i6	172	1086	654	195	231	6	0	0
32	k6	172	1103	665	195	238	5	0	0
32	m6	172	1098	662	195	235	6	0	0
32	c7	172	1076	651	191	228	6	0	0
32	e7	172	1063	642	188	228	5	0	0
32	g7	172	1088	655	198	228	7	0	0
32	i7	172	1086	654	195	231	6	0	0
32	k7	172	1103	665	195	238	5	0	0
32	m7	172	1098	662	195	235	6	0	0
32	c8	172	1076	651	191	228	6	0	0
32	e8	172	1063	642	188	228	5	0	0

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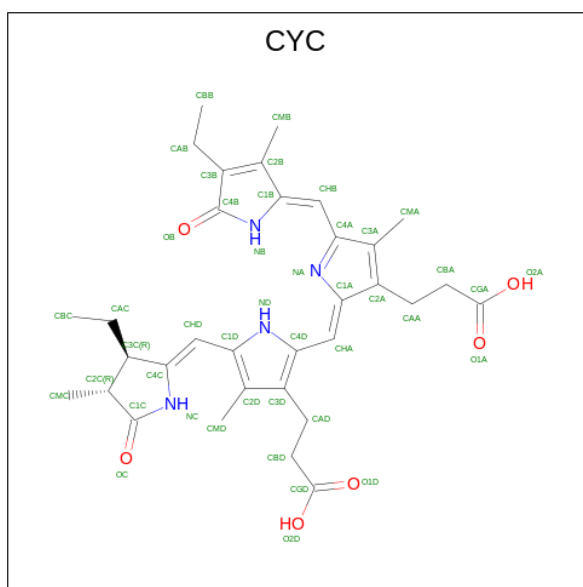
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
32	g8	172	1088	655	198	228	7	0	0
32	i8	172	1086	654	195	231	6	0	0
32	k8	172	1103	665	195	238	5	0	0
32	m8	172	1098	662	195	235	6	0	0
32	c9	172	1076	651	191	228	6	0	0
32	e9	172	1063	642	188	228	5	0	0
32	g9	172	1088	655	198	228	7	0	0
32	i9	172	1086	654	195	231	6	0	0
32	k9	172	1103	665	195	238	5	0	0
32	m9	172	1098	662	195	235	6	0	0
32	cA	172	1076	651	191	228	6	0	0
32	eA	172	1063	642	188	228	5	0	0
32	gA	172	1088	655	198	228	7	0	0
32	iA	172	1086	654	195	231	6	0	0
32	kA	172	1103	665	195	238	5	0	0
32	mA	172	1098	662	195	235	6	0	0
32	cC	172	1076	651	191	228	6	0	0
32	eC	172	1063	642	188	228	5	0	0
32	gC	172	1088	655	198	228	7	0	0
32	iC	172	1086	654	195	231	6	0	0
32	kC	172	1103	665	195	238	5	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
32	mC	172	Total	C	N	O	S	0	0
			1098	662	195	235	6		
32	cH	172	Total	C	N	O	S	0	0
			1076	651	191	228	6		
32	eH	172	Total	C	N	O	S	0	0
			1063	642	188	228	5		
32	gH	172	Total	C	N	O	S	0	0
			1088	655	198	228	7		
32	iH	172	Total	C	N	O	S	0	0
			1086	654	195	231	6		
32	kH	172	Total	C	N	O	S	0	0
			1103	665	195	238	5		
32	mH	172	Total	C	N	O	S	0	0
			1098	662	195	235	6		
32	cI	172	Total	C	N	O	S	0	0
			1073	650	190	227	6		
32	eI	172	Total	C	N	O	S	0	0
			1063	642	188	228	5		
32	gI	172	Total	C	N	O	S	0	0
			1085	654	197	227	7		
32	iI	172	Total	C	N	O	S	0	0
			1086	654	195	231	6		
32	kI	172	Total	C	N	O	S	0	0
			1103	665	195	238	5		
32	mI	172	Total	C	N	O	S	0	0
			1098	662	195	235	6		
32	cJ	172	Total	C	N	O	S	0	0
			1076	651	191	228	6		
32	eJ	172	Total	C	N	O	S	0	0
			1063	642	188	228	5		
32	gJ	172	Total	C	N	O	S	0	0
			1088	655	198	228	7		
32	iJ	172	Total	C	N	O	S	0	0
			1086	654	195	231	6		
32	kJ	172	Total	C	N	O	S	0	0
			1103	665	195	238	5		
32	mJ	172	Total	C	N	O	S	0	0
			1098	662	195	235	6		

- Molecule 33 is PHYCOCYANOBILIN (three-letter code: CYC) (formula:  $C_{33}H_{40}N_4O_6$ ).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	BA	1	43	33	4	6	0
33	BB	1	43	33	4	6	0
33	BB	1	43	33	4	6	0
33	BB	1	43	33	4	6	0
33	BB	1	43	33	4	6	0
33	CB	1	43	33	4	6	0
33	CB	1	43	33	4	6	0
33	CB	1	43	33	4	6	0
33	OB	1	43	33	4	6	0
33	PB	1	43	33	4	6	0
33	QB	1	43	33	4	6	0
33	RB	1	43	33	4	6	0
33	SB	1	43	33	4	6	0
33	TB	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	VB	1	43	33	4	6	0
33	WB	1	43	33	4	6	0
33	XB	1	43	33	4	6	0
33	ZB	1	43	33	4	6	0
33	BC	1	43	33	4	6	0
33	IF	1	43	33	4	6	0
33	JF	1	43	33	4	6	0
33	KF	1	43	33	4	6	0
33	LF	1	43	33	4	6	0
33	NF	1	43	33	4	6	0
33	XF	1	43	33	4	6	0
33	YF	1	43	33	4	6	0
33	ZF	1	43	33	4	6	0
33	AG	1	43	33	4	6	0
33	GG	1	43	33	4	6	0
33	HG	1	43	33	4	6	0
33	IG	1	43	33	4	6	0
33	JG	1	43	33	4	6	0
33	LG	1	43	33	4	6	0
33	MG	1	43	33	4	6	0
33	NG	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	OG	1	43	33	4	6	0
33	PG	1	43	33	4	6	0
33	QG	1	43	33	4	6	0
33	RG	1	43	33	4	6	0
33	TG	1	43	33	4	6	0
33	VG	1	43	33	4	6	0
33	WG	1	43	33	4	6	0
33	BI	1	43	33	4	6	0
33	IK	1	43	33	4	6	0
33	JK	1	43	33	4	6	0
33	KK	1	43	33	4	6	0
33	LK	1	43	33	4	6	0
33	NK	1	43	33	4	6	0
33	XK	1	43	33	4	6	0
33	YK	1	43	33	4	6	0
33	ZK	1	43	33	4	6	0
33	AL	1	43	33	4	6	0
33	GL	1	43	33	4	6	0
33	HL	1	43	33	4	6	0
33	IL	1	43	33	4	6	0
33	JL	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	LL	1	43	33	4	6	0
33	ML	1	43	33	4	6	0
33	NL	1	43	33	4	6	0
33	OL	1	43	33	4	6	0
33	PL	1	43	33	4	6	0
33	QL	1	43	33	4	6	0
33	RL	1	43	33	4	6	0
33	TL	1	43	33	4	6	0
33	VL	1	43	33	4	6	0
33	WL	1	43	33	4	6	0
33	b2	1	43	33	4	6	0
33	c2	1	43	33	4	6	0
33	c2	1	43	33	4	6	0
33	d2	1	43	33	4	6	0
33	e2	1	43	33	4	6	0
33	e2	1	43	33	4	6	0
33	f2	1	43	33	4	6	0
33	g2	1	43	33	4	6	0
33	h2	1	43	33	4	6	0
33	i2	1	43	33	4	6	0
33	i2	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	j2	1	Total 43	C 33	N 4	O 6	0
33	j2	1	Total 43	C 33	N 4	O 6	0
33	k2	1	Total 43	C 33	N 4	O 6	0
33	l2	1	Total 43	C 33	N 4	O 6	0
33	m2	1	Total 43	C 33	N 4	O 6	0
33	B2	1	Total 43	C 33	N 4	O 6	0
33	b3	1	Total 43	C 33	N 4	O 6	0
33	c3	1	Total 43	C 33	N 4	O 6	0
33	c3	1	Total 43	C 33	N 4	O 6	0
33	d3	1	Total 43	C 33	N 4	O 6	0
33	e3	1	Total 43	C 33	N 4	O 6	0
33	e3	1	Total 43	C 33	N 4	O 6	0
33	f3	1	Total 43	C 33	N 4	O 6	0
33	g3	1	Total 43	C 33	N 4	O 6	0
33	h3	1	Total 43	C 33	N 4	O 6	0
33	i3	1	Total 43	C 33	N 4	O 6	0
33	i3	1	Total 43	C 33	N 4	O 6	0
33	j3	1	Total 43	C 33	N 4	O 6	0
33	j3	1	Total 43	C 33	N 4	O 6	0
33	k3	1	Total 43	C 33	N 4	O 6	0
33	l3	1	Total 43	C 33	N 4	O 6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	m3	1	43	33	4	6	0
33	B3	1	43	33	4	6	0
33	Z4	1	43	33	4	6	0
33	a4	1	43	33	4	6	0
33	b4	1	43	33	4	6	0
33	S4	1	43	33	4	6	0
33	T4	1	43	33	4	6	0
33	V4	1	43	33	4	6	0
33	W4	1	43	33	4	6	0
33	X4	1	43	33	4	6	0
33	s4	1	43	33	4	6	0
33	u4	1	43	33	4	6	0
33	v4	1	43	33	4	6	0
33	w4	1	43	33	4	6	0
33	o4	1	43	33	4	6	0
33	q4	1	43	33	4	6	0
33	r4	1	43	33	4	6	0
33	y4	1	43	33	4	6	0
33	z4	1	43	33	4	6	0
33	B4	1	43	33	4	6	0
33	B4	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	B4	1	Total 43	C 33	N 4	O 6	0
33	B4	1	Total 43	C 33	N 4	O 6	0
33	C4	1	Total 43	C 33	N 4	O 6	0
33	C4	1	Total 43	C 33	N 4	O 6	0
33	C4	1	Total 43	C 33	N 4	O 6	0
33	O4	1	Total 43	C 33	N 4	O 6	0
33	P4	1	Total 43	C 33	N 4	O 6	0
33	Q4	1	Total 43	C 33	N 4	O 6	0
33	R4	1	Total 43	C 33	N 4	O 6	0
33	b5	1	Total 43	C 33	N 4	O 6	0
33	c5	1	Total 43	C 33	N 4	O 6	0
33	c5	1	Total 43	C 33	N 4	O 6	0
33	d5	1	Total 43	C 33	N 4	O 6	0
33	e5	1	Total 43	C 33	N 4	O 6	0
33	e5	1	Total 43	C 33	N 4	O 6	0
33	f5	1	Total 43	C 33	N 4	O 6	0
33	g5	1	Total 43	C 33	N 4	O 6	0
33	g5	1	Total 43	C 33	N 4	O 6	0
33	h5	1	Total 43	C 33	N 4	O 6	0
33	i5	1	Total 43	C 33	N 4	O 6	0
33	i5	1	Total 43	C 33	N 4	O 6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	j5	1	Total 43	C 33	N 4	O 6	0
33	j5	1	Total 43	C 33	N 4	O 6	0
33	k5	1	Total 43	C 33	N 4	O 6	0
33	l5	1	Total 43	C 33	N 4	O 6	0
33	m5	1	Total 43	C 33	N 4	O 6	0
33	b6	1	Total 43	C 33	N 4	O 6	0
33	c6	1	Total 43	C 33	N 4	O 6	0
33	c6	1	Total 43	C 33	N 4	O 6	0
33	d6	1	Total 43	C 33	N 4	O 6	0
33	e6	1	Total 43	C 33	N 4	O 6	0
33	e6	1	Total 43	C 33	N 4	O 6	0
33	f6	1	Total 43	C 33	N 4	O 6	0
33	g6	1	Total 43	C 33	N 4	O 6	0
33	h6	1	Total 43	C 33	N 4	O 6	0
33	i6	1	Total 43	C 33	N 4	O 6	0
33	i6	1	Total 43	C 33	N 4	O 6	0
33	j6	1	Total 43	C 33	N 4	O 6	0
33	j6	1	Total 43	C 33	N 4	O 6	0
33	k6	1	Total 43	C 33	N 4	O 6	0
33	l6	1	Total 43	C 33	N 4	O 6	0
33	m6	1	Total 43	C 33	N 4	O 6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	B6	1	Total 43	C 33	N 4	O 6	0
33	b7	1	Total 43	C 33	N 4	O 6	0
33	c7	1	Total 43	C 33	N 4	O 6	0
33	c7	1	Total 43	C 33	N 4	O 6	0
33	d7	1	Total 43	C 33	N 4	O 6	0
33	e7	1	Total 43	C 33	N 4	O 6	0
33	e7	1	Total 43	C 33	N 4	O 6	0
33	f7	1	Total 43	C 33	N 4	O 6	0
33	g7	1	Total 43	C 33	N 4	O 6	0
33	h7	1	Total 43	C 33	N 4	O 6	0
33	i7	1	Total 43	C 33	N 4	O 6	0
33	i7	1	Total 43	C 33	N 4	O 6	0
33	j7	1	Total 43	C 33	N 4	O 6	0
33	j7	1	Total 43	C 33	N 4	O 6	0
33	k7	1	Total 43	C 33	N 4	O 6	0
33	l7	1	Total 43	C 33	N 4	O 6	0
33	m7	1	Total 43	C 33	N 4	O 6	0
33	B7	1	Total 43	C 33	N 4	O 6	0
33	b8	1	Total 43	C 33	N 4	O 6	0
33	c8	1	Total 43	C 33	N 4	O 6	0
33	c8	1	Total 43	C 33	N 4	O 6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	d8	1	Total 43	33	4	6	0
33	e8	1	Total 43	33	4	6	0
33	e8	1	Total 43	33	4	6	0
33	f8	1	Total 43	33	4	6	0
33	g8	1	Total 43	33	4	6	0
33	g8	1	Total 43	33	4	6	0
33	h8	1	Total 43	33	4	6	0
33	i8	1	Total 43	33	4	6	0
33	i8	1	Total 43	33	4	6	0
33	j8	1	Total 43	33	4	6	0
33	j8	1	Total 43	33	4	6	0
33	k8	1	Total 43	33	4	6	0
33	l8	1	Total 43	33	4	6	0
33	m8	1	Total 43	33	4	6	0
33	b9	1	Total 43	33	4	6	0
33	c9	1	Total 43	33	4	6	0
33	c9	1	Total 43	33	4	6	0
33	d9	1	Total 43	33	4	6	0
33	e9	1	Total 43	33	4	6	0
33	e9	1	Total 43	33	4	6	0
33	f9	1	Total 43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	g9	1	Total 43	C 33	N 4	O 6	0
33	h9	1	Total 43	C 33	N 4	O 6	0
33	i9	1	Total 43	C 33	N 4	O 6	0
33	i9	1	Total 43	C 33	N 4	O 6	0
33	j9	1	Total 43	C 33	N 4	O 6	0
33	j9	1	Total 43	C 33	N 4	O 6	0
33	k9	1	Total 43	C 33	N 4	O 6	0
33	l9	1	Total 43	C 33	N 4	O 6	0
33	m9	1	Total 43	C 33	N 4	O 6	0
33	B9	1	Total 43	C 33	N 4	O 6	0
33	bA	1	Total 43	C 33	N 4	O 6	0
33	cA	1	Total 43	C 33	N 4	O 6	0
33	cA	1	Total 43	C 33	N 4	O 6	0
33	dA	1	Total 43	C 33	N 4	O 6	0
33	eA	1	Total 43	C 33	N 4	O 6	0
33	eA	1	Total 43	C 33	N 4	O 6	0
33	fA	1	Total 43	C 33	N 4	O 6	0
33	gA	1	Total 43	C 33	N 4	O 6	0
33	hA	1	Total 43	C 33	N 4	O 6	0
33	iA	1	Total 43	C 33	N 4	O 6	0
33	iA	1	Total 43	C 33	N 4	O 6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	jA	1	43	33	4	6	0
33	jA	1	43	33	4	6	0
33	kA	1	43	33	4	6	0
33	lA	1	43	33	4	6	0
33	mA	1	43	33	4	6	0
33	aB	1	43	33	4	6	0
33	bB	1	43	33	4	6	0
33	sB	1	43	33	4	6	0
33	uB	1	43	33	4	6	0
33	vB	1	43	33	4	6	0
33	wB	1	43	33	4	6	0
33	oB	1	43	33	4	6	0
33	qB	1	43	33	4	6	0
33	rB	1	43	33	4	6	0
33	yB	1	43	33	4	6	0
33	zB	1	43	33	4	6	0
33	bC	1	43	33	4	6	0
33	cC	1	43	33	4	6	0
33	cC	1	43	33	4	6	0
33	dC	1	43	33	4	6	0
33	eC	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	eC	1	43	33	4	6	0
33	fC	1	43	33	4	6	0
33	gC	1	43	33	4	6	0
33	hC	1	43	33	4	6	0
33	iC	1	43	33	4	6	0
33	iC	1	43	33	4	6	0
33	jC	1	43	33	4	6	0
33	jC	1	43	33	4	6	0
33	kC	1	43	33	4	6	0
33	lC	1	43	33	4	6	0
33	mC	1	43	33	4	6	0
33	aF	1	43	33	4	6	0
33	bF	1	43	33	4	6	0
33	cF	1	43	33	4	6	0
33	dF	1	43	33	4	6	0
33	eF	1	43	33	4	6	0
33	3F	1	43	33	4	6	0
33	3F	1	43	33	4	6	0
33	fF	1	43	33	4	6	0
33	gF	1	43	33	4	6	0
33	hF	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	jF	1	43	33	4	6	0
33	kF	1	43	33	4	6	0
33	mF	1	43	33	4	6	0
33	nF	1	43	33	4	6	0
33	9F	1	43	33	4	6	0
33	2G	1	43	33	4	6	0
33	1G	1	43	33	4	6	0
33	4G	1	43	33	4	6	0
33	5G	1	43	33	4	6	0
33	6G	1	43	33	4	6	0
33	7G	1	43	33	4	6	0
33	bH	1	43	33	4	6	0
33	cH	1	43	33	4	6	0
33	cH	1	43	33	4	6	0
33	dH	1	43	33	4	6	0
33	eH	1	43	33	4	6	0
33	eH	1	43	33	4	6	0
33	fH	1	43	33	4	6	0
33	gH	1	43	33	4	6	0
33	gH	1	43	33	4	6	0
33	hH	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	iH	1	43	33	4	6	0
33	iH	1	43	33	4	6	0
33	jH	1	43	33	4	6	0
33	jH	1	43	33	4	6	0
33	kH	1	43	33	4	6	0
33	lH	1	43	33	4	6	0
33	mH	1	43	33	4	6	0
33	bI	1	43	33	4	6	0
33	cI	1	43	33	4	6	0
33	cI	1	43	33	4	6	0
33	dI	1	43	33	4	6	0
33	eI	1	43	33	4	6	0
33	eI	1	43	33	4	6	0
33	fI	1	43	33	4	6	0
33	gI	1	43	33	4	6	0
33	hI	1	43	33	4	6	0
33	iI	1	43	33	4	6	0
33	iI	1	43	33	4	6	0
33	jI	1	43	33	4	6	0
33	jI	1	43	33	4	6	0
33	kI	1	43	33	4	6	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	lI	1	Total 43	C 33	N 4	O 6	0
33	mI	1	Total 43	C 33	N 4	O 6	0
33	bJ	1	Total 43	C 33	N 4	O 6	0
33	cJ	1	Total 43	C 33	N 4	O 6	0
33	cJ	1	Total 43	C 33	N 4	O 6	0
33	dJ	1	Total 43	C 33	N 4	O 6	0
33	eJ	1	Total 43	C 33	N 4	O 6	0
33	eJ	1	Total 43	C 33	N 4	O 6	0
33	fJ	1	Total 43	C 33	N 4	O 6	0
33	gJ	1	Total 43	C 33	N 4	O 6	0
33	gJ	1	Total 43	C 33	N 4	O 6	0
33	hJ	1	Total 43	C 33	N 4	O 6	0
33	iJ	1	Total 43	C 33	N 4	O 6	0
33	iJ	1	Total 43	C 33	N 4	O 6	0
33	jJ	1	Total 43	C 33	N 4	O 6	0
33	jJ	1	Total 43	C 33	N 4	O 6	0
33	kJ	1	Total 43	C 33	N 4	O 6	0
33	lJ	1	Total 43	C 33	N 4	O 6	0
33	mJ	1	Total 43	C 33	N 4	O 6	0
33	aK	1	Total 43	C 33	N 4	O 6	0
33	bK	1	Total 43	C 33	N 4	O 6	0

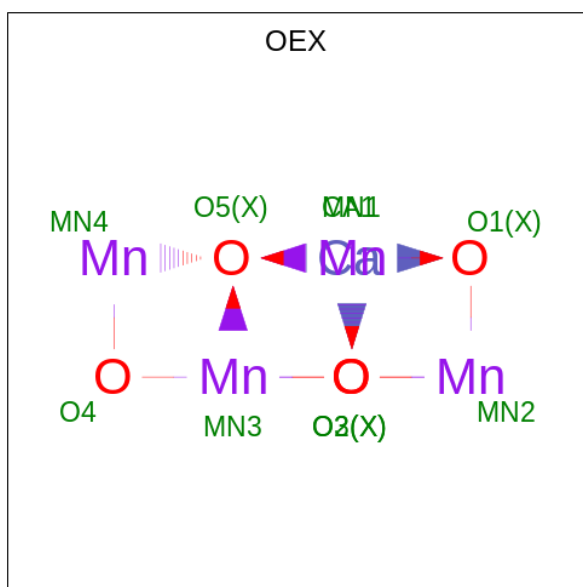
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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
33	cK	1	43	33	4	6	0
33	dK	1	43	33	4	6	0
33	eK	1	43	33	4	6	0
33	3K	1	43	33	4	6	0
33	3K	1	43	33	4	6	0
33	fK	1	43	33	4	6	0
33	gK	1	43	33	4	6	0
33	hK	1	43	33	4	6	0
33	jK	1	43	33	4	6	0
33	kK	1	43	33	4	6	0
33	mK	1	43	33	4	6	0
33	nK	1	43	33	4	6	0
33	9K	1	43	33	4	6	0
33	2L	1	43	33	4	6	0
33	1L	1	43	33	4	6	0
33	4L	1	43	33	4	6	0
33	5L	1	43	33	4	6	0
33	6L	1	43	33	4	6	0
33	7L	1	43	33	4	6	0

- Molecule 34 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula:  $\text{CaMn}_4\text{O}_5$ ).



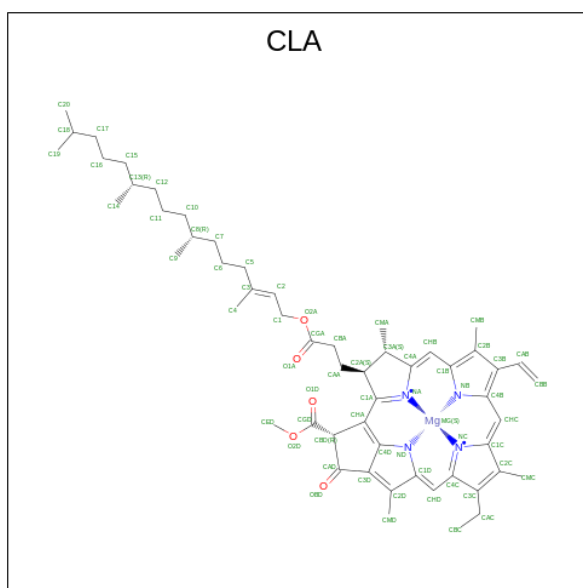


Mol	Chain	Residues	Atoms				AltConf
			Total	Ca	Mn	O	
34	AD	1	10	1	4	5	0
34	AE	1	10	1	4	5	0
34	A1	1	10	1	4	5	0
34	a1	1	10	1	4	5	0
34	aD	1	10	1	4	5	0
34	aE	1	10	1	4	5	0

- Molecule 35 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		AltConf
			Total	Cl	
35	AD	2	2	2	0
35	AE	2	2	2	0
35	A1	2	2	2	0
35	a1	2	2	2	0
35	aD	2	2	2	0
35	aE	2	2	2	0

- Molecule 36 is CHLOROPHYLL A (three-letter code: CLA) (formula:  $C_{55}H_{72}MgN_4O_5$ ).



Mol	Chain	Residues	Atoms				AltConf	
			Total	C	Mg	N		O
36	AD	1	Total	C	Mg	N	O	0
			46	36	1	4	5	
36	AD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			45	35	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			60	50	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	
36	BD	1	Total	C	Mg	N	O	0
			65	55	1	4	5	

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	BD	1	65	55	1	4	5	0
36	BD	1	65	55	1	4	5	0
36	BD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	55	45	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	CD	1	50	40	1	4	5	0
36	CD	1	65	55	1	4	5	0
36	DD	1	65	55	1	4	5	0
36	DD	1	65	55	1	4	5	0
36	HD	1	65	55	1	4	5	0
36	HD	1	60	50	1	4	5	0
36	ID	1	60	50	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	XD	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	AE	1	Total 46	C 36	Mg 1	N 4	O 5	0
36	AE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 45	C 35	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 60	C 50	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	BE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	CE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	CE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	CE	1	Total 65	C 55	Mg 1	N 4	O 5	0
36	CE	1	Total 65	C 55	Mg 1	N 4	O 5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	CE	1	55	45	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	CE	1	50	40	1	4	5	0
36	CE	1	65	55	1	4	5	0
36	DE	1	65	55	1	4	5	0
36	DE	1	65	55	1	4	5	0
36	HE	1	65	55	1	4	5	0
36	HE	1	60	50	1	4	5	0
36	IE	1	60	50	1	4	5	0
36	XE	1	65	55	1	4	5	0
36	A1	1	46	36	1	4	5	0
36	A1	1	65	55	1	4	5	0
36	B1	1	45	35	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	B1	1	65	55	1	4	5	0
36	B1	1	60	50	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	B1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	55	45	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	C1	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	C1	1	50	40	1	4	5	0
36	C1	1	65	55	1	4	5	0
36	D1	1	65	55	1	4	5	0
36	D1	1	65	55	1	4	5	0
36	H1	1	65	55	1	4	5	0
36	H1	1	60	50	1	4	5	0
36	I1	1	60	50	1	4	5	0
36	X1	1	65	55	1	4	5	0
36	a1	1	46	36	1	4	5	0
36	a1	1	65	55	1	4	5	0
36	a1	1	60	50	1	4	5	0
36	b1	1	45	35	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	60	50	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	b1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	55	45	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	c1	1	50	40	1	4	5	0
36	c1	1	65	55	1	4	5	0
36	d1	1	65	55	1	4	5	0
36	d1	1	65	55	1	4	5	0
36	d1	1	65	55	1	4	5	0
36	h1	1	65	55	1	4	5	0
36	h1	1	60	50	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	x1	1	65	55	1	4	5	0
36	aD	1	46	36	1	4	5	0
36	aD	1	65	55	1	4	5	0
36	aD	1	60	50	1	4	5	0
36	bD	1	45	35	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	60	50	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	bD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	cD	1	50	40	1	4	5	0
36	cD	1	65	55	1	4	5	0
36	dD	1	65	55	1	4	5	0
36	dD	1	65	55	1	4	5	0
36	dD	1	65	55	1	4	5	0
36	hD	1	65	55	1	4	5	0
36	hD	1	60	50	1	4	5	0
36	iD	1	55	45	1	4	5	0
36	xD	1	65	55	1	4	5	0
36	aE	1	46	36	1	4	5	0
36	aE	1	65	55	1	4	5	0
36	aE	1	60	50	1	4	5	0
36	bE	1	45	35	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0

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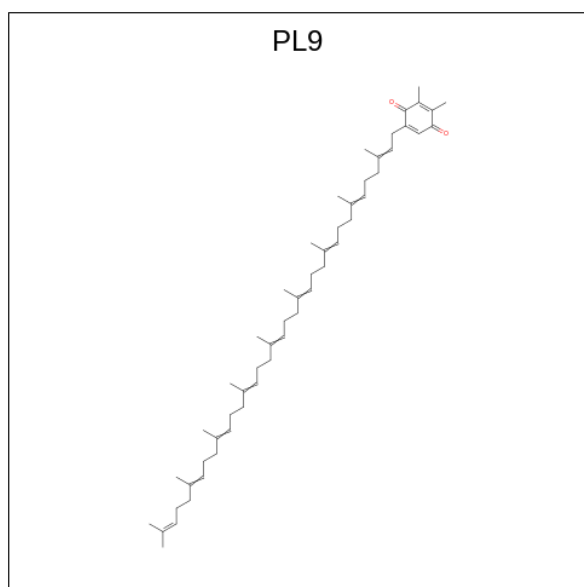
Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	60	50	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	bE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	65	55	1	4	5	0
36	cE	1	50	40	1	4	5	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	Mg	N	O	
36	cE	1	65	55	1	4	5	0
36	dE	1	65	55	1	4	5	0
36	dE	1	65	55	1	4	5	0
36	dE	1	65	55	1	4	5	0
36	hE	1	65	55	1	4	5	0
36	hE	1	60	50	1	4	5	0
36	iE	1	55	45	1	4	5	0
36	xE	1	65	55	1	4	5	0

- Molecule 37 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula:  $C_{53}H_{80}O_2$ ).



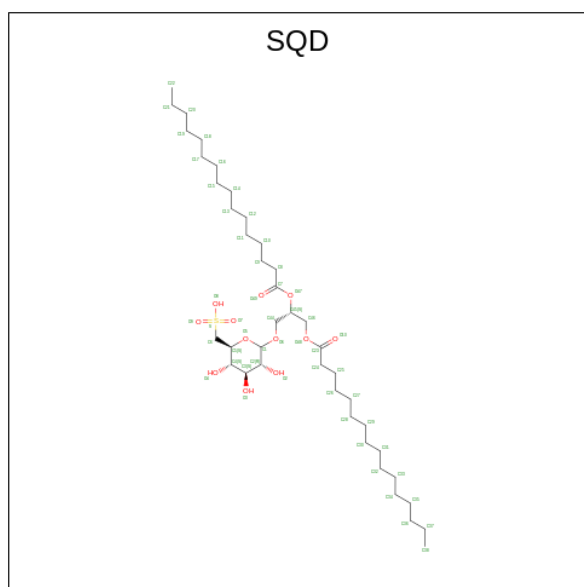
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
37	AD	1	55	53	2	0
37	DD	1	55	53	2	0

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Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
37	AE	1	55	53	2	0
37	DE	1	55	53	2	0
37	A1	1	55	53	2	0
37	D1	1	55	53	2	0
37	a1	1	55	53	2	0
37	d1	1	55	53	2	0
37	aD	1	55	53	2	0
37	dD	1	55	53	2	0
37	aE	1	55	53	2	0
37	dE	1	55	53	2	0

- Molecule 38 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: C<sub>41</sub>H<sub>78</sub>O<sub>12</sub>S).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	S	
38	AD	1	46	33	12	1	0

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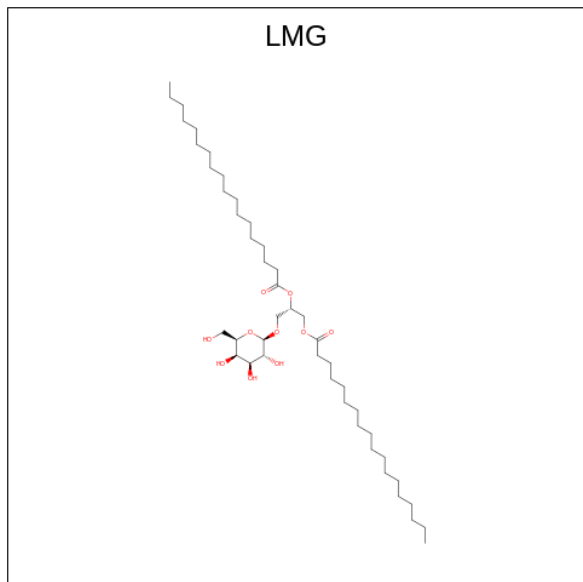
Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	S	
38	BD	1	38	25	12	1	0
38	CD	1	54	41	12	1	0
38	DD	1	34	21	12	1	0
38	LD	1	43	30	12	1	0
38	LD	1	43	30	12	1	0
38	AE	1	46	33	12	1	0
38	BE	1	38	25	12	1	0
38	CE	1	54	41	12	1	0
38	DE	1	34	21	12	1	0
38	LE	1	43	30	12	1	0
38	LE	1	43	30	12	1	0
38	A1	1	46	33	12	1	0
38	B1	1	38	25	12	1	0
38	C1	1	54	41	12	1	0
38	D1	1	34	21	12	1	0
38	L1	1	43	30	12	1	0
38	L1	1	43	30	12	1	0
38	c1	1	54	41	12	1	0
38	d1	1	34	21	12	1	0
38	h1	1	35	22	12	1	0
38	cD	1	54	41	12	1	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	S	
38	dD	1	Total 34	C 21	O 12	S 1	0
38	hD	1	Total 35	C 22	O 12	S 1	0
38	cE	1	Total 54	C 41	O 12	S 1	0
38	dE	1	Total 34	C 21	O 12	S 1	0
38	hE	1	Total 35	C 22	O 12	S 1	0

- Molecule 39 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: C<sub>45</sub>H<sub>86</sub>O<sub>10</sub>).



Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
39	AD	1	Total 36	C 26	O 10	0
39	BD	1	Total 51	C 41	O 10	0
39	CD	1	Total 51	C 41	O 10	0
39	CD	1	Total 51	C 41	O 10	0
39	DD	1	Total 51	C 41	O 10	0
39	JD	1	Total 27	C 17	O 10	0

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Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
39	MD	1	36	26	10	0
39	TD	1	36	26	10	0
39	AE	1	36	26	10	0
39	BE	1	51	41	10	0
39	CE	1	51	41	10	0
39	CE	1	51	41	10	0
39	DE	1	51	41	10	0
39	JE	1	27	17	10	0
39	ME	1	36	26	10	0
39	TE	1	36	26	10	0
39	A1	1	36	26	10	0
39	B1	1	51	41	10	0
39	C1	1	51	41	10	0
39	C1	1	51	41	10	0
39	D1	1	51	41	10	0
39	J1	1	27	17	10	0
39	M1	1	36	26	10	0
39	T1	1	36	26	10	0
39	a1	1	51	41	10	0
39	a1	1	36	26	10	0
39	b1	1	51	41	10	0

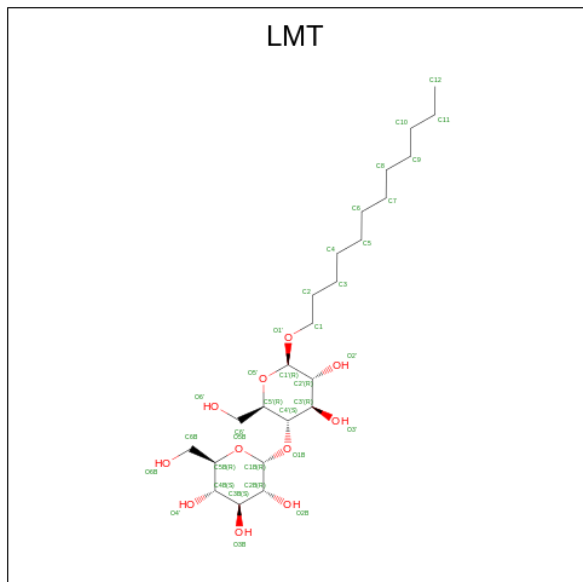
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Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
39	d1	1	51	41	10	0
39	j1	1	27	17	10	0
39	m1	1	36	26	10	0
39	t1	1	36	26	10	0
39	y1	1	51	41	10	0
39	aD	1	51	41	10	0
39	aD	1	36	26	10	0
39	bD	1	51	41	10	0
39	dD	1	51	41	10	0
39	jD	1	27	17	10	0
39	mD	1	36	26	10	0
39	tD	1	36	26	10	0
39	yD	1	51	41	10	0
39	aE	1	51	41	10	0
39	aE	1	36	26	10	0
39	bE	1	51	41	10	0
39	dE	1	51	41	10	0
39	jE	1	27	17	10	0
39	mE	1	36	26	10	0
39	tE	1	36	26	10	0
39	yE	1	51	41	10	0

- Molecule 40 is DODECYL-BETA-D-MALTOSE (three-letter code: LMT) (formula:  $C_{24}H_{46}O_{11}$ ).



Mol	Chain	Residues	Atoms			AltConf
40	AD	1	Total	C	O	0
			24	18	6	
40	AD	1	Total	C	O	0
			35	24	11	
40	BD	1	Total	C	O	0
			24	18	6	
40	BD	1	Total	C	O	0
			35	24	11	
40	BD	1	Total	C	O	0
			24	18	6	
40	CD	1	Total	C	O	0
			24	18	6	
40	DD	1	Total	C	O	0
			24	18	6	
40	DD	1	Total	C	O	0
			25	19	6	
40	DD	1	Total	C	O	0
			22	16	6	
40	AE	1	Total	C	O	0
			24	18	6	
40	AE	1	Total	C	O	0
			35	24	11	
40	BE	1	Total	C	O	0
			24	18	6	

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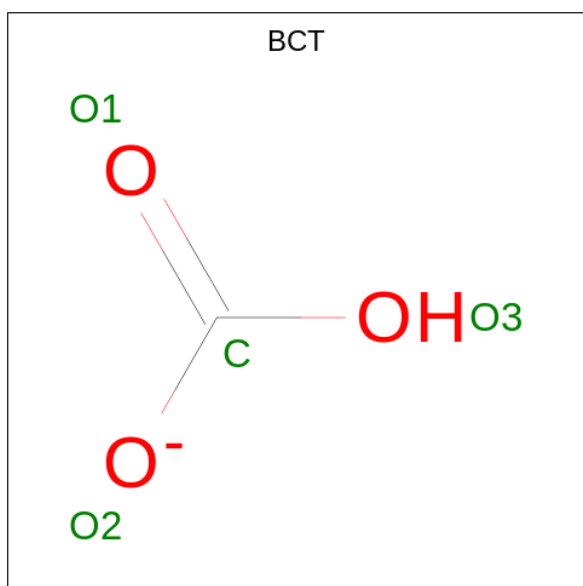
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
40	BE	1	35	24	11	0
40	BE	1	24	18	6	0
40	DE	1	24	18	6	0
40	DE	1	25	19	6	0
40	DE	1	22	16	6	0
40	A1	1	24	18	6	0
40	A1	1	35	24	11	0
40	B1	1	24	18	6	0
40	B1	1	24	18	6	0
40	B1	1	24	18	6	0
40	C1	1	24	18	6	0
40	D1	1	24	18	6	0
40	D1	1	25	19	6	0
40	D1	1	22	16	6	0
40	a1	1	35	24	11	0
40	b1	1	35	24	11	0
40	b1	1	24	18	6	0
40	b1	1	24	18	6	0
40	d1	1	24	18	6	0
40	d1	1	25	19	6	0
40	d1	1	22	16	6	0

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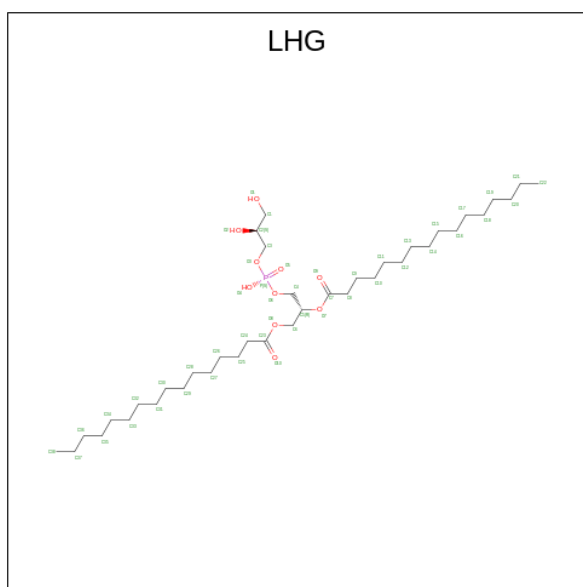
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
40	i1	1	24	18	6	0
40	j1	1	35	24	11	0
40	bD	1	35	24	11	0
40	bD	1	24	18	6	0
40	bD	1	24	18	6	0
40	cD	1	24	18	6	0
40	dD	1	24	18	6	0
40	dD	1	25	19	6	0
40	dD	1	22	16	6	0
40	iD	1	24	18	6	0
40	jD	1	35	24	11	0
40	bE	1	35	24	11	0
40	bE	1	24	18	6	0
40	bE	1	24	18	6	0
40	bE	1	24	18	6	0
40	cE	1	24	18	6	0
40	dE	1	24	18	6	0
40	dE	1	25	19	6	0
40	dE	1	22	16	6	0
40	iE	1	24	18	6	0
40	jE	1	35	24	11	0

- Molecule 41 is BICARBONATE ION (three-letter code: BCT) (formula:  $\text{CHO}_3$ ).



Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
41	AD	1	4	1	3	0
41	AE	1	4	1	3	0
41	A1	1	4	1	3	0
41	a1	1	4	1	3	0
41	aD	1	4	1	3	0
41	aE	1	4	1	3	0

- Molecule 42 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula:  $\text{C}_{38}\text{H}_{75}\text{O}_{10}\text{P}$ ).



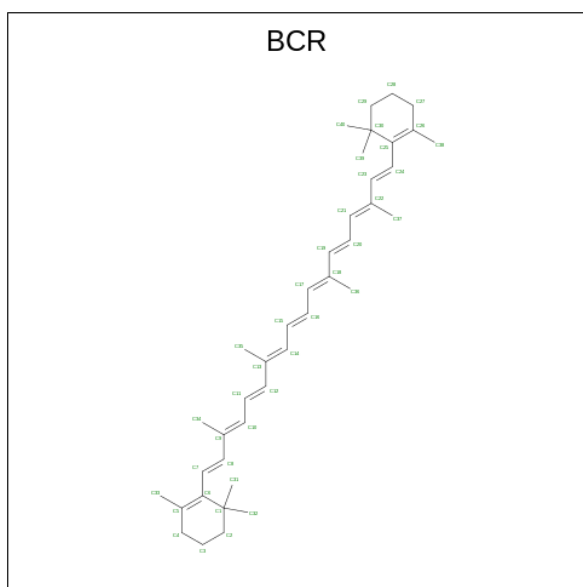
Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	P	
42	AD	1	38	27	10	1	0
42	BD	1	49	38	10	1	0
42	DD	1	49	38	10	1	0
42	DD	1	49	38	10	1	0
42	AE	1	38	27	10	1	0
42	BE	1	49	38	10	1	0
42	DE	1	49	38	10	1	0
42	DE	1	49	38	10	1	0
42	A1	1	38	27	10	1	0
42	B1	1	49	38	10	1	0
42	D1	1	49	38	10	1	0
42	D1	1	49	38	10	1	0
42	a1	1	38	27	10	1	0
42	d1	1	49	38	10	1	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	P	
42	d1	1	Total 49	C 38	O 10	P 1	0
42	e1	1	Total 40	C 29	O 10	P 1	0
42	l1	1	Total 49	C 38	O 10	P 1	0
42	aD	1	Total 38	C 27	O 10	P 1	0
42	dD	1	Total 49	C 38	O 10	P 1	0
42	dD	1	Total 49	C 38	O 10	P 1	0
42	eD	1	Total 40	C 29	O 10	P 1	0
42	lD	1	Total 49	C 38	O 10	P 1	0
42	aE	1	Total 38	C 27	O 10	P 1	0
42	dE	1	Total 49	C 38	O 10	P 1	0
42	dE	1	Total 49	C 38	O 10	P 1	0
42	eE	1	Total 40	C 29	O 10	P 1	0
42	lE	1	Total 49	C 38	O 10	P 1	0

- Molecule 43 is BETA-CAROTENE (three-letter code: BCR) (formula: C<sub>40</sub>H<sub>56</sub>) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
43	BD	1	Total C 40 40	0
43	BD	1	Total C 40 40	0
43	BD	1	Total C 40 40	0
43	CD	1	Total C 40 40	0
43	CD	1	Total C 40 40	0
43	CD	1	Total C 40 40	0
43	DD	1	Total C 40 40	0
43	ID	1	Total C 40 40	0
43	XD	1	Total C 40 40	0
43	ZD	1	Total C 40 40	0
43	BE	1	Total C 40 40	0
43	BE	1	Total C 40 40	0
43	BE	1	Total C 40 40	0
43	CE	1	Total C 40 40	0

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Mol	Chain	Residues	Atoms	AltConf
43	CE	1	Total C 40 40	0
43	DE	1	Total C 40 40	0
43	IE	1	Total C 40 40	0
43	XE	1	Total C 40 40	0
43	ZE	1	Total C 40 40	0
43	ZE	1	Total C 40 40	0
43	B1	1	Total C 40 40	0
43	B1	1	Total C 40 40	0
43	B1	1	Total C 40 40	0
43	C1	1	Total C 40 40	0
43	C1	1	Total C 40 40	0
43	D1	1	Total C 40 40	0
43	I1	1	Total C 40 40	0
43	X1	1	Total C 40 40	0
43	Z1	1	Total C 40 40	0
43	Z1	1	Total C 40 40	0
43	b1	1	Total C 40 40	0
43	b1	1	Total C 40 40	0
43	b1	1	Total C 40 40	0
43	c1	1	Total C 40 40	0
43	c1	1	Total C 40 40	0

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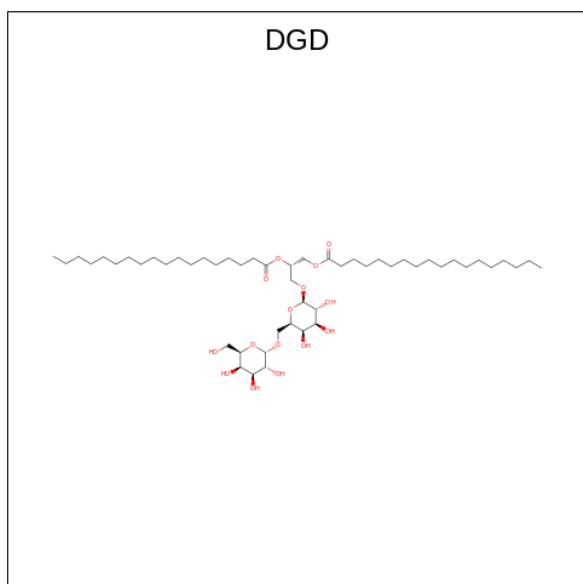
Mol	Chain	Residues	Atoms	AltConf
43	d1	1	Total C 40 40	0
43	h1	1	Total C 40 40	0
43	i1	1	Total C 40 40	0
43	k1	1	Total C 40 40	0
43	z1	1	Total C 40 40	0
43	bD	1	Total C 40 40	0
43	bD	1	Total C 40 40	0
43	bD	1	Total C 40 40	0
43	cD	1	Total C 40 40	0
43	cD	1	Total C 40 40	0
43	dD	1	Total C 40 40	0
43	hD	1	Total C 40 40	0
43	iD	1	Total C 40 40	0
43	kD	1	Total C 40 40	0
43	zD	1	Total C 40 40	0
43	bE	1	Total C 40 40	0
43	bE	1	Total C 40 40	0
43	bE	1	Total C 40 40	0
43	cE	1	Total C 40 40	0
43	cE	1	Total C 40 40	0
43	dE	1	Total C 40 40	0

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Mol	Chain	Residues	Atoms	AltConf
43	hE	1	Total C 40 40	0
43	iE	1	Total C 40 40	0
43	kE	1	Total C 40 40	0
43	zE	1	Total C 40 40	0

- Molecule 44 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula:  $C_{51}H_{96}O_{15}$ ).



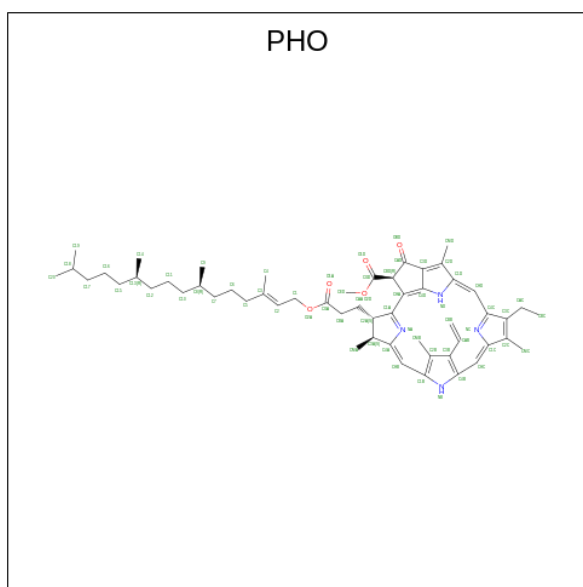
Mol	Chain	Residues	Atoms	AltConf
44	CD	1	Total C O 47 32 15	0
44	CD	1	Total C O 62 47 15	0
44	HD	1	Total C O 62 47 15	0
44	JD	1	Total C O 62 47 15	0
44	CE	1	Total C O 47 32 15	0
44	CE	1	Total C O 62 47 15	0
44	HE	1	Total C O 62 47 15	0

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Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
44	JE	1	62	47	15	0
44	C1	1	47	32	15	0
44	C1	1	62	47	15	0
44	H1	1	62	47	15	0
44	J1	1	62	47	15	0
44	c1	1	47	32	15	0
44	c1	1	62	47	15	0
44	c1	1	62	47	15	0
44	h1	1	62	47	15	0
44	cD	1	47	32	15	0
44	cD	1	62	47	15	0
44	cD	1	62	47	15	0
44	hD	1	62	47	15	0
44	cE	1	47	32	15	0
44	cE	1	62	47	15	0
44	cE	1	62	47	15	0
44	hE	1	62	47	15	0

- Molecule 45 is PHEOPHYTIN A (three-letter code: PHO) (formula:  $C_{55}H_{74}N_4O_5$ ).

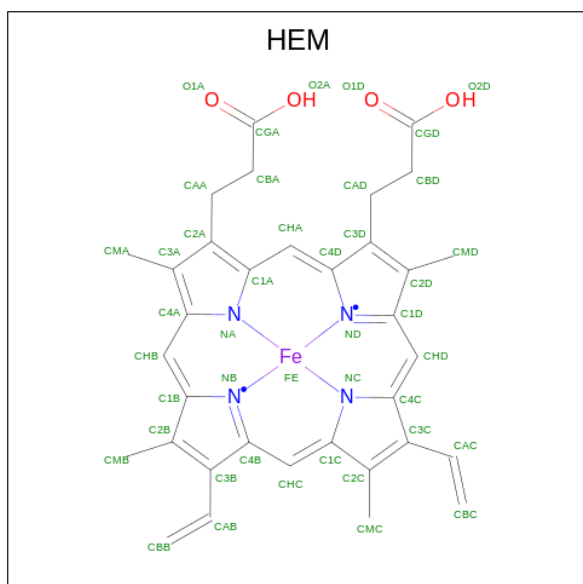


Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
45	DD	1	Total 64	C 55	N 4	O 5	0
45	DD	1	Total 58	C 49	N 4	O 5	0
45	DE	1	Total 64	C 55	N 4	O 5	0
45	DE	1	Total 64	C 55	N 4	O 5	0
45	A1	1	Total 64	C 55	N 4	O 5	0
45	D1	1	Total 64	C 55	N 4	O 5	0
45	a1	1	Total 52	C 43	N 4	O 5	0
45	d1	1	Total 64	C 55	N 4	O 5	0
45	aD	1	Total 64	C 55	N 4	O 5	0
45	dD	1	Total 52	C 43	N 4	O 5	0
45	aE	1	Total 56	C 47	N 4	O 5	0
45	dE	1	Total 56	C 47	N 4	O 5	0

- Molecule 46 is FE (II) ION (three-letter code: FE2) (formula: Fe).

Mol	Chain	Residues	Atoms	AltConf
46	DD	1	Total Fe 1 1	0
46	DE	1	Total Fe 1 1	0
46	D1	1	Total Fe 1 1	0
46	d1	1	Total Fe 1 1	0
46	dD	1	Total Fe 1 1	0
46	dE	1	Total Fe 1 1	0

- Molecule 47 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula:  $C_{34}H_{32}FeN_4O_4$ ).



Mol	Chain	Residues	Atoms	AltConf
47	ED	1	Total C Fe N O 43 34 1 4 4	0
47	VD	1	Total C Fe N O 43 34 1 4 4	0
47	EE	1	Total C Fe N O 43 34 1 4 4	0
47	VE	1	Total C Fe N O 43 34 1 4 4	0
47	E1	1	Total C Fe N O 43 34 1 4 4	0

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Mol	Chain	Residues	Atoms				AltConf	
			Total	C	Fe	N		O
47	V1	1	43	34	1	4	4	0
47	f1	1	43	34	1	4	4	0
47	v1	1	43	34	1	4	4	0
47	fD	1	43	34	1	4	4	0
47	vD	1	43	34	1	4	4	0
47	fE	1	43	34	1	4	4	0
47	vE	1	43	34	1	4	4	0

- Molecule 48 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		AltConf
48	KD	1	Total 1	Ca 1	0
48	UD	1	Total 1	Ca 1	0
48	VD	1	Total 1	Ca 1	0
48	KE	1	Total 1	Ca 1	0
48	UE	1	Total 1	Ca 1	0
48	VE	1	Total 1	Ca 1	0
48	K1	1	Total 1	Ca 1	0
48	U1	1	Total 1	Ca 1	0
48	V1	1	Total 1	Ca 1	0
48	k1	1	Total 1	Ca 1	0
48	u1	1	Total 1	Ca 1	0
48	v1	1	Total 1	Ca 1	0

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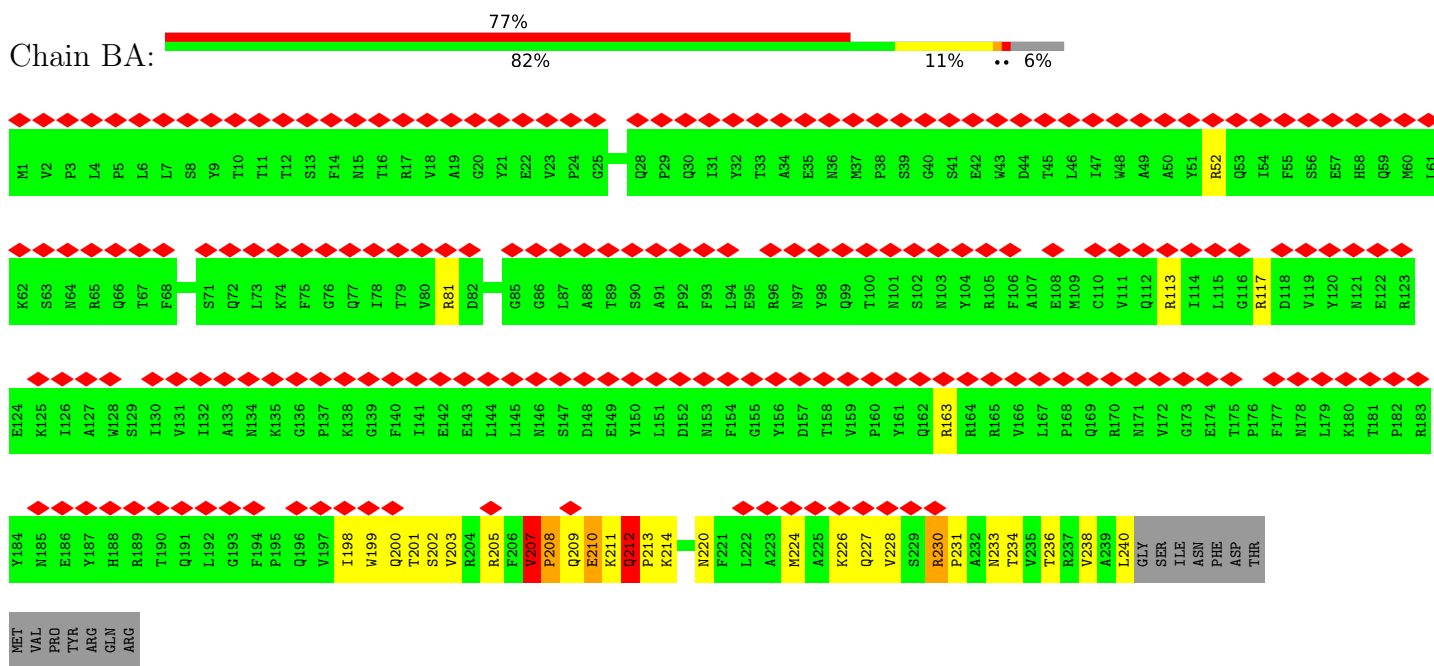
<b>Mol</b>	<b>Chain</b>	<b>Residues</b>	<b>Atoms</b>		<b>AltConf</b>
48	kD	1	Total 1	Ca 1	0
48	uD	1	Total 1	Ca 1	0
48	vD	1	Total 1	Ca 1	0
48	kE	1	Total 1	Ca 1	0
48	uE	1	Total 1	Ca 1	0
48	vE	1	Total 1	Ca 1	0



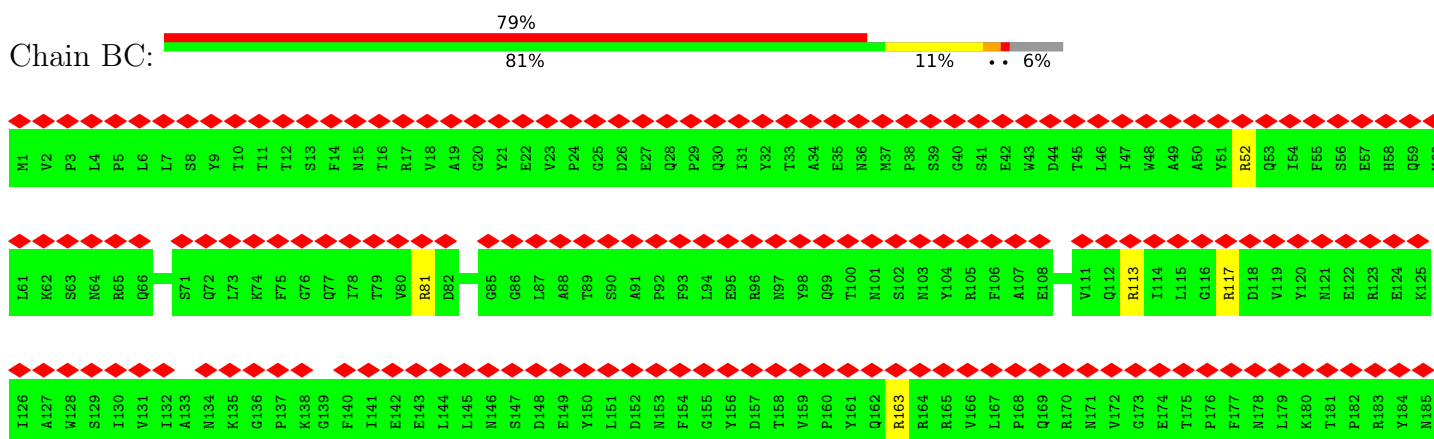
### 3 Residue-property plots

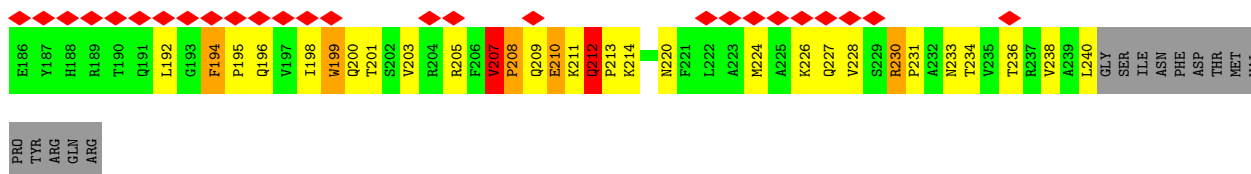
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: LRC1

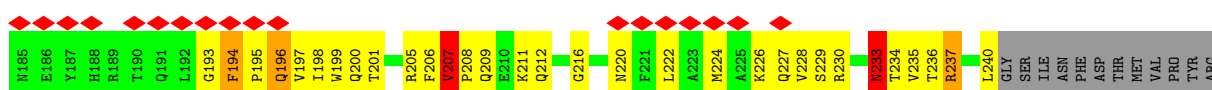
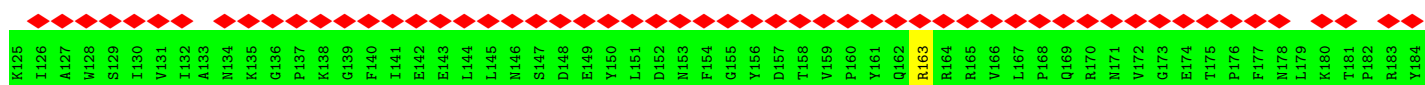
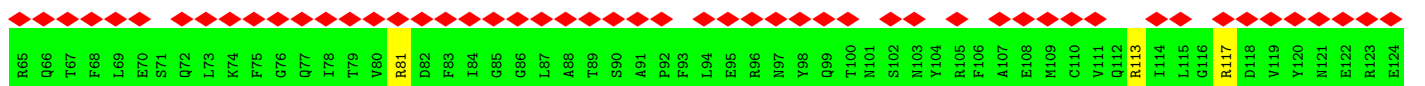
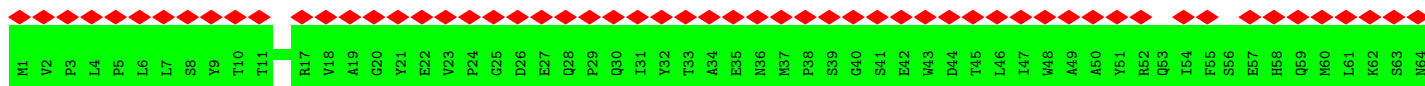
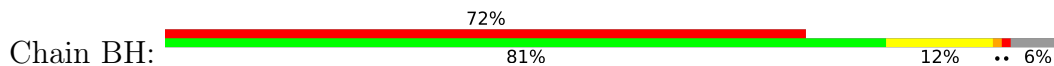


#### • Molecule 1: LRC1



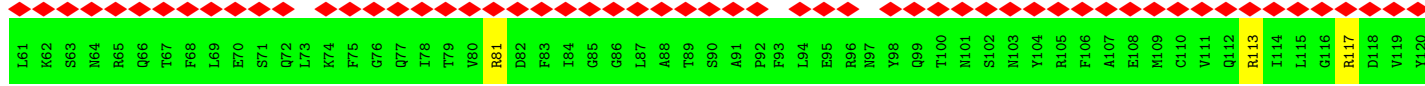
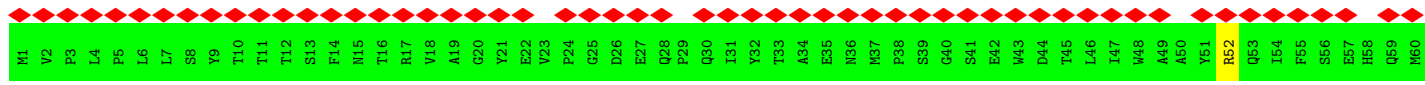
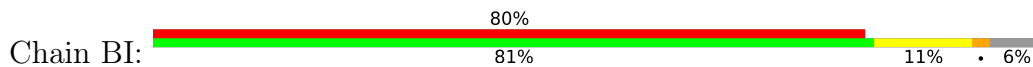


• Molecule 1: LRC1



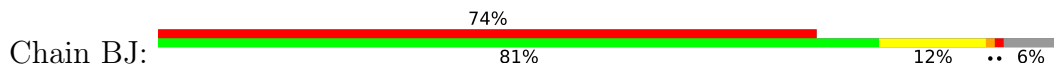
GLN  
ARG

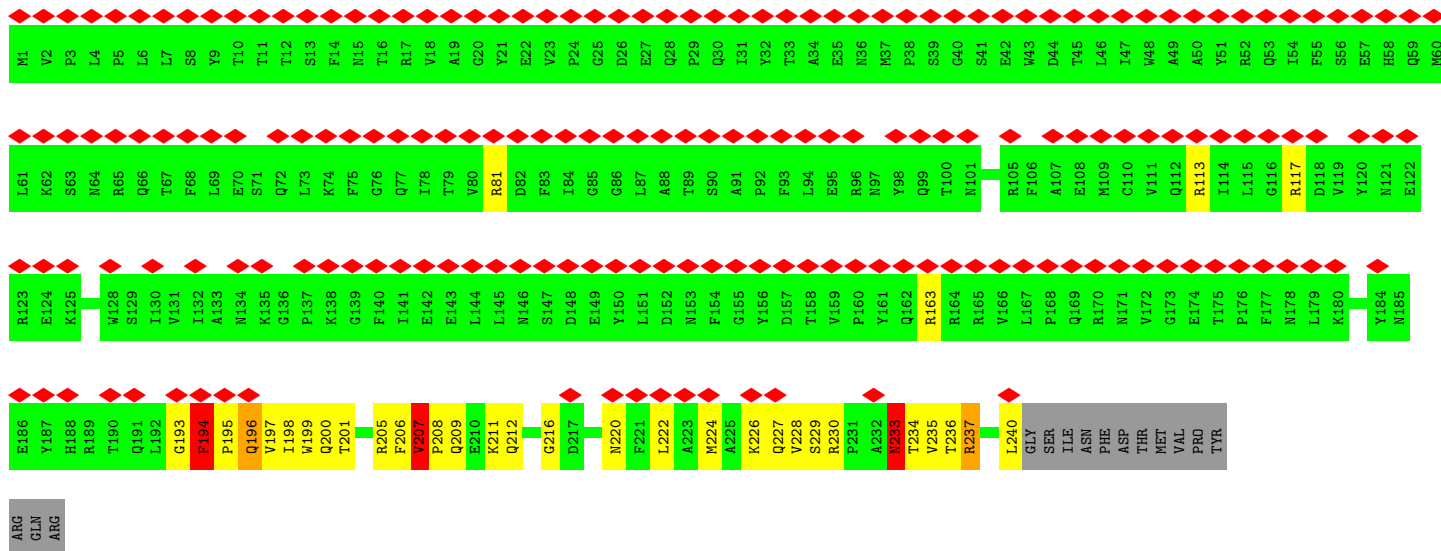
• Molecule 1: LRC1



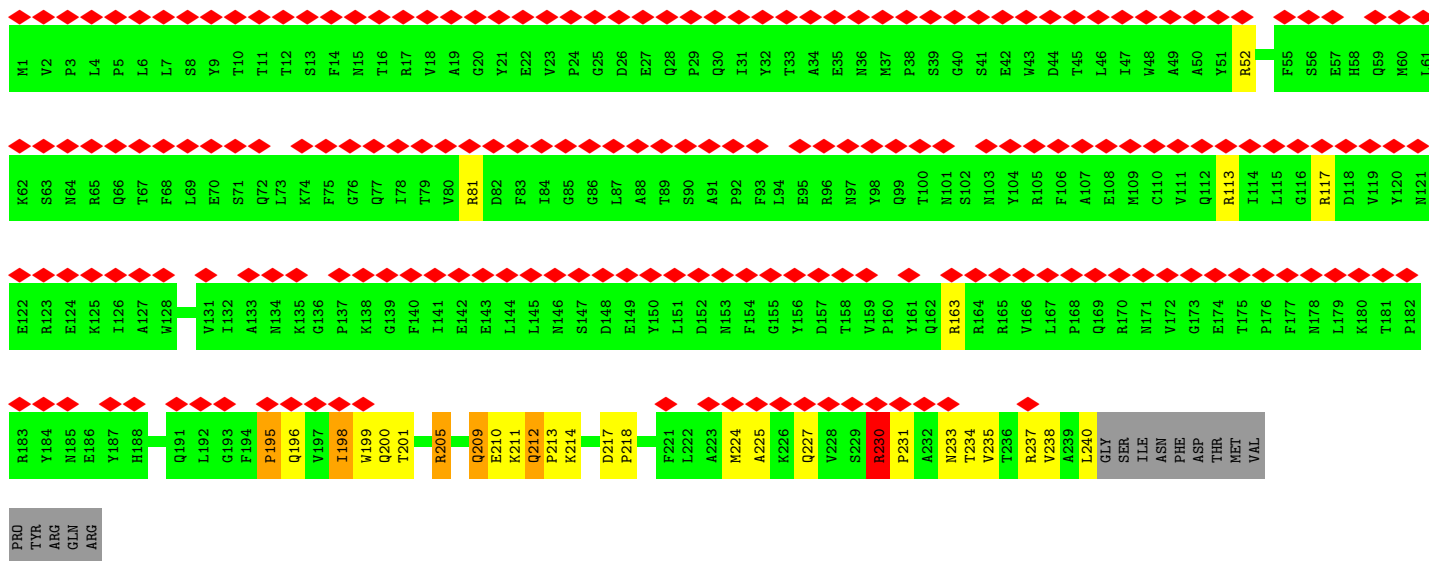
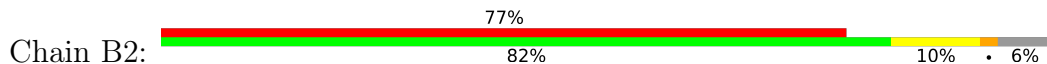
PHE  
ASP  
THR  
MET  
VAL  
PRO  
TYR  
ARG  
GLN  
ARG

• Molecule 1: LRC1

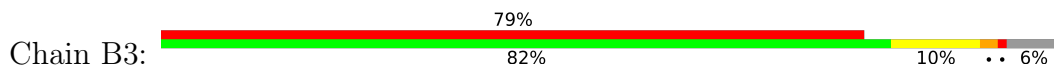


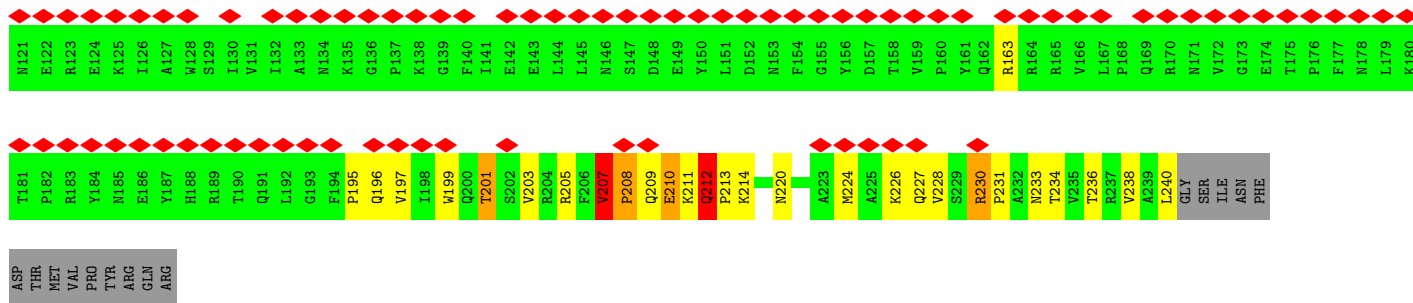


• Molecule 1: LRC1

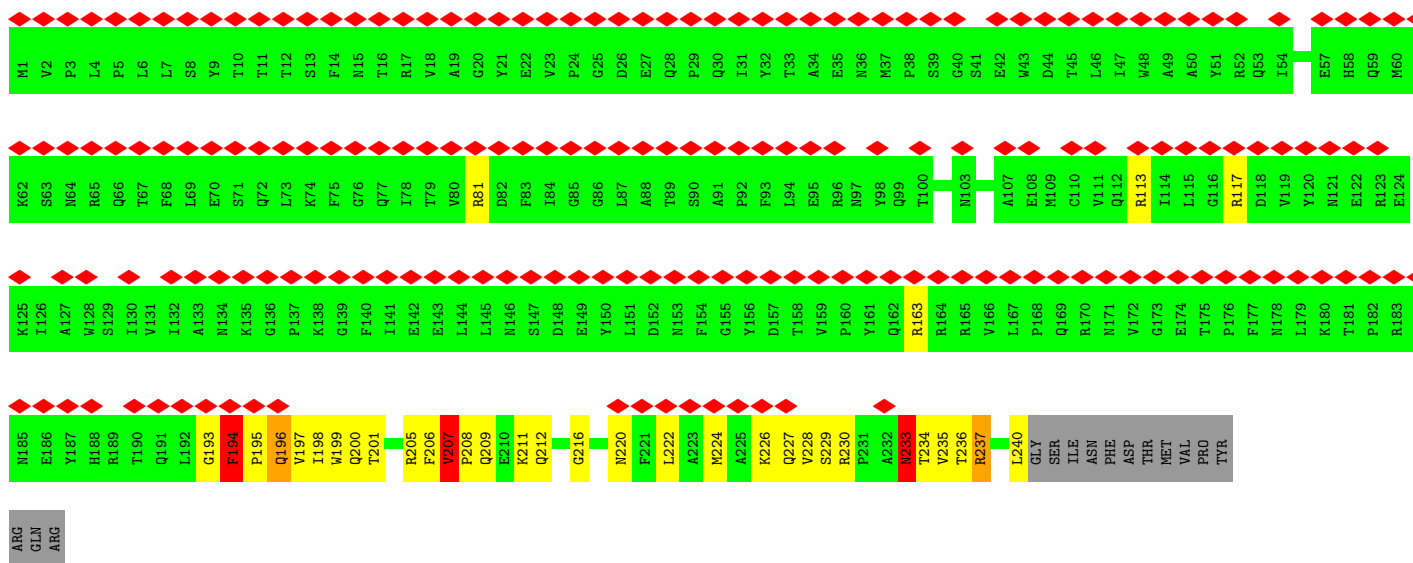
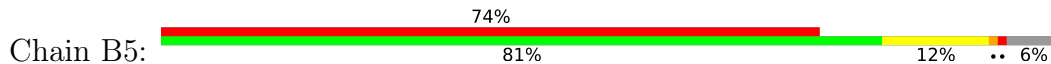


• Molecule 1: LRC1

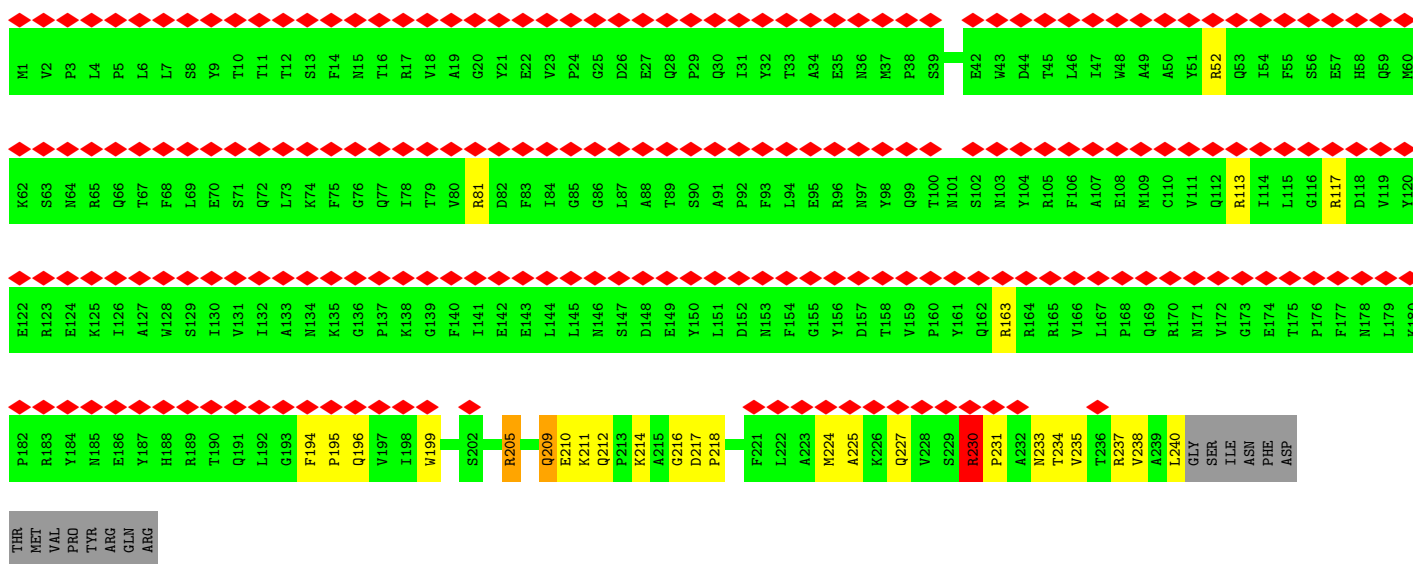
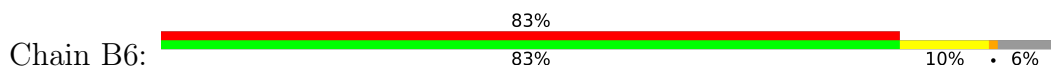




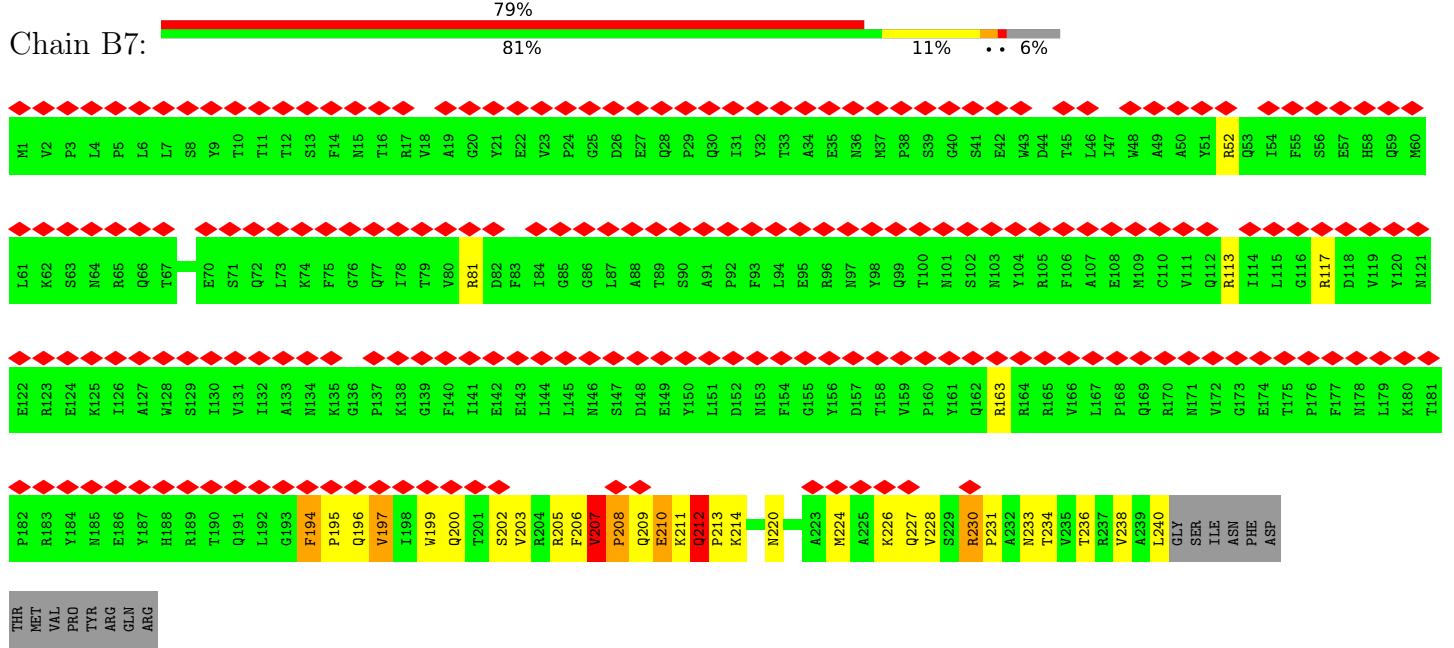
• Molecule 1: LRC1



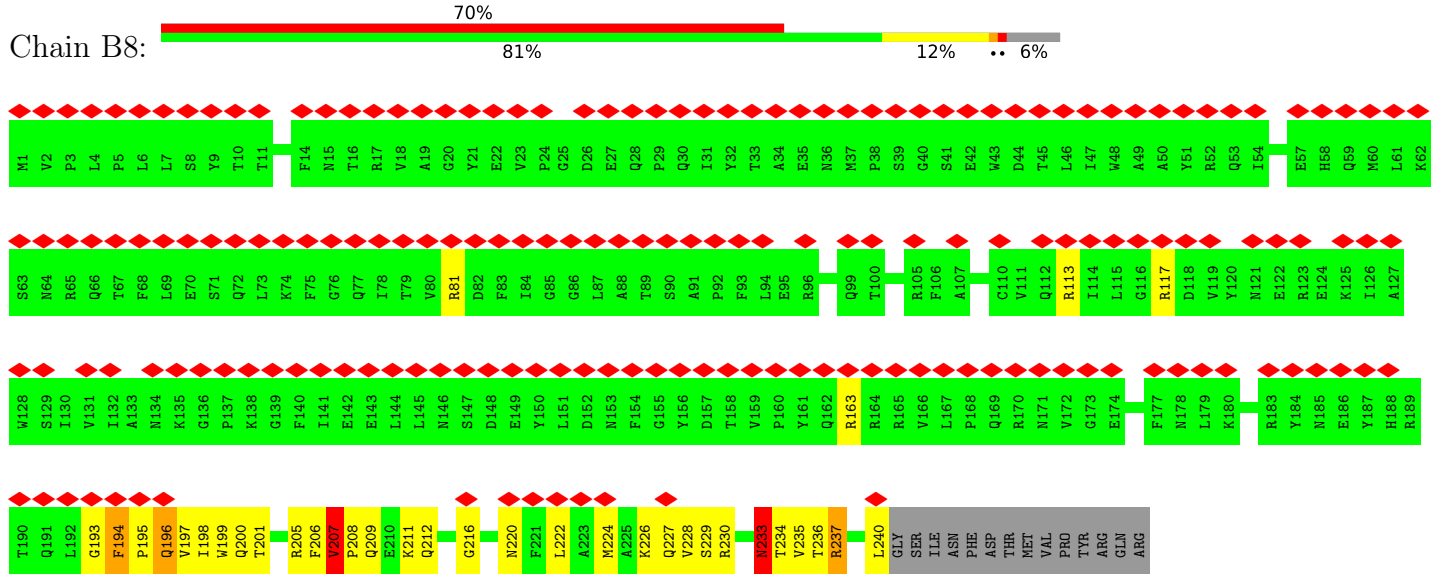
• Molecule 1: LRC1



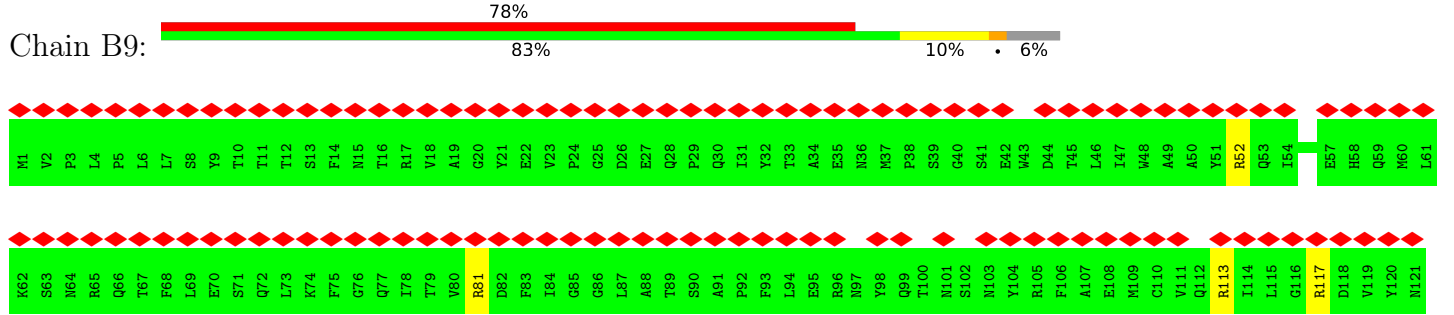
• Molecule 1: LRC1

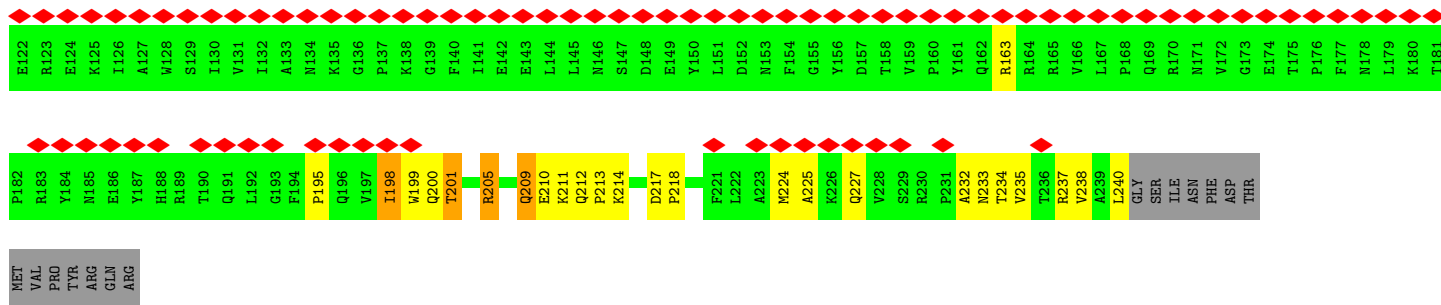


• Molecule 1: LRC1

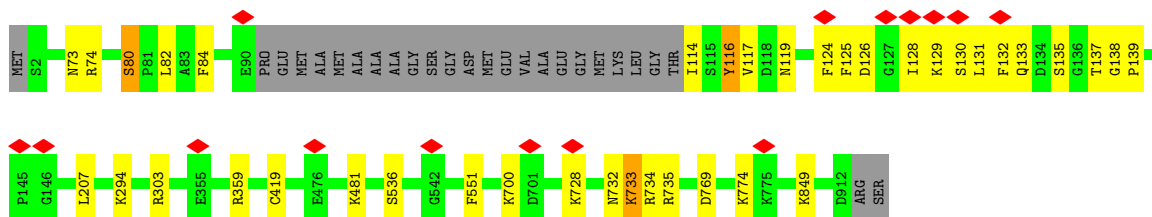


• Molecule 1: LRC1

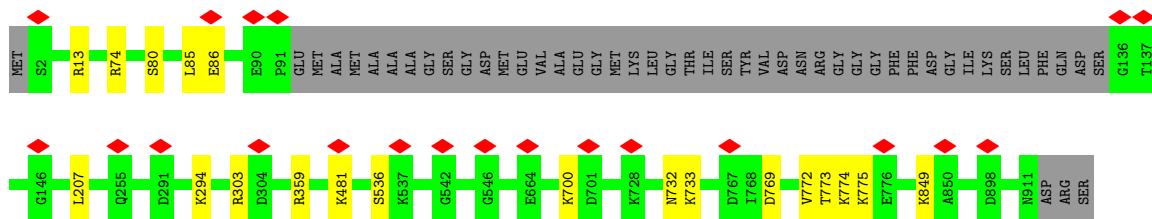




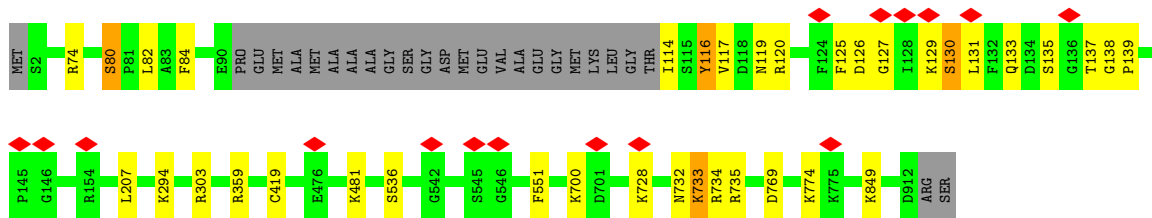
• Molecule 2: LCM



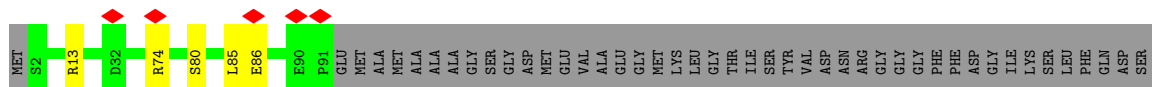
• Molecule 2: LCM

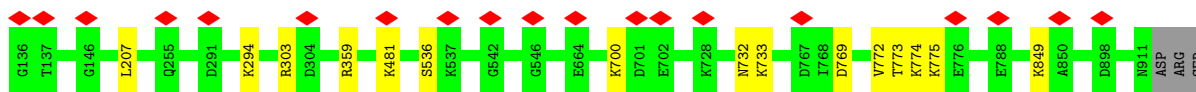


• Molecule 2: LCM

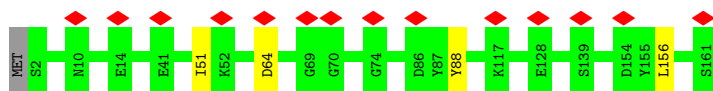


• Molecule 2: LCM





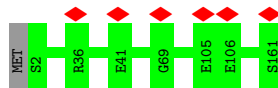
- Molecule 3: Allophycocyanin alpha chain



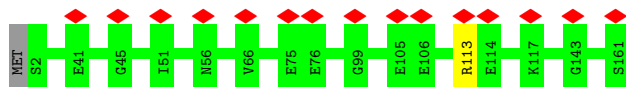
- Molecule 3: Allophycocyanin alpha chain



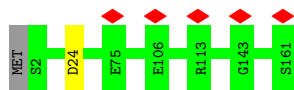
- Molecule 3: Allophycocyanin alpha chain



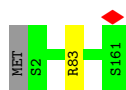
- Molecule 3: Allophycocyanin alpha chain



- Molecule 3: Allophycocyanin alpha chain

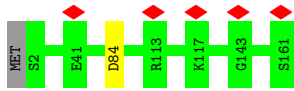


- Molecule 3: Allophycocyanin alpha chain



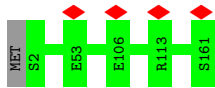
- Molecule 3: Allophycocyanin alpha chain

Chain JF:  99%



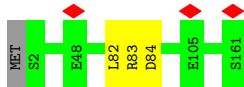
- Molecule 3: Allophycocyanin alpha chain

Chain LF:  99%



- Molecule 3: Allophycocyanin alpha chain

Chain XF:  98%



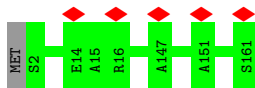
- Molecule 3: Allophycocyanin alpha chain

Chain ZF:  99%



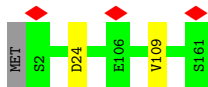
- Molecule 3: Allophycocyanin alpha chain

Chain AG:  99%




- Molecule 3: Allophycocyanin alpha chain

Chain GG:  98%



- Molecule 3: Allophycocyanin alpha chain

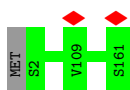
Chain IG:  90%





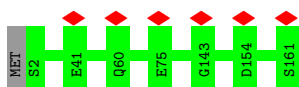
- Molecule 3: Allophycocyanin alpha chain

Chain KG:  99%



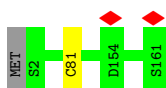
- Molecule 3: Allophycocyanin alpha chain

Chain NG:  99%



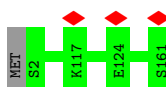
- Molecule 3: Allophycocyanin alpha chain

Chain PG:  99%



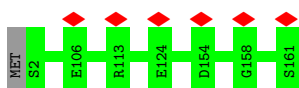
- Molecule 3: Allophycocyanin alpha chain

Chain RG:  99%



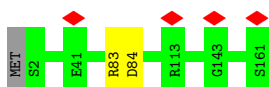
- Molecule 3: Allophycocyanin alpha chain

Chain TG:  99%



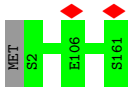
- Molecule 3: Allophycocyanin alpha chain

Chain JK:  98%

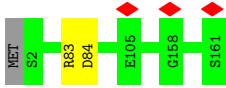


- Molecule 3: Allophycocyanin alpha chain

Chain LK:  99%



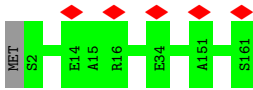
- Molecule 3: Allophycocyanin alpha chain



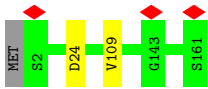
- Molecule 3: Allophycocyanin alpha chain



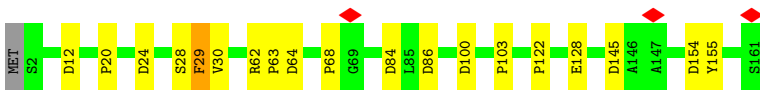
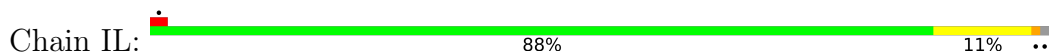
- Molecule 3: Allophycocyanin alpha chain



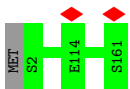
- Molecule 3: Allophycocyanin alpha chain



- Molecule 3: Allophycocyanin alpha chain

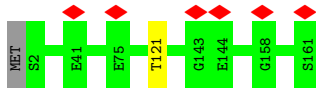


- Molecule 3: Allophycocyanin alpha chain



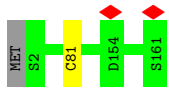
- Molecule 3: Allophycocyanin alpha chain

Chain NL:  99%



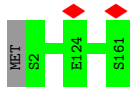
- Molecule 3: Allophycocyanin alpha chain

Chain PL:  99%



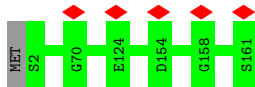
- Molecule 3: Allophycocyanin alpha chain

Chain RL:  99%



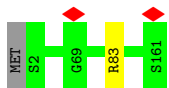
- Molecule 3: Allophycocyanin alpha chain

Chain TL:  99%



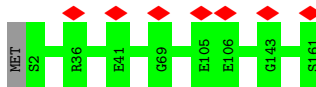
- Molecule 3: Allophycocyanin alpha chain

Chain Z4:  99%



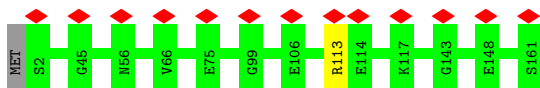
- Molecule 3: Allophycocyanin alpha chain

Chain S4:  99%



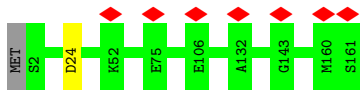
- Molecule 3: Allophycocyanin alpha chain

Chain V4:  99%



- Molecule 3: Allophycocyanin alpha chain

Chain X4:  99%



- Molecule 3: Allophycocyanin alpha chain

Chain s4:  97%



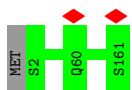
- Molecule 3: Allophycocyanin alpha chain

Chain u4:  98%



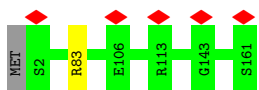
- Molecule 3: Allophycocyanin alpha chain

Chain w4:  99%



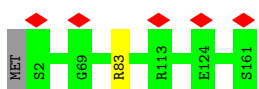
- Molecule 3: Allophycocyanin alpha chain

Chain o4:  99%



- Molecule 3: Allophycocyanin alpha chain

Chain q4:  99%



- Molecule 3: Allophycocyanin alpha chain

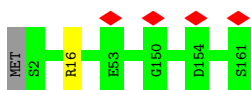
Chain y4:  98%



- Molecule 3: Allophycocyanin alpha chain



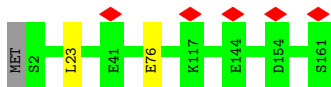
- Molecule 3: Allophycocyanin alpha chain



- Molecule 3: Allophycocyanin alpha chain



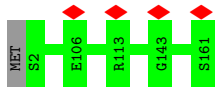
- Molecule 3: Allophycocyanin alpha chain



- Molecule 3: Allophycocyanin alpha chain

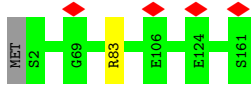


- Molecule 3: Allophycocyanin alpha chain



- Molecule 3: Allophycocyanin alpha chain

Chain qB:  99%



- Molecule 3: Allophycocyanin alpha chain

Chain yB:  98%



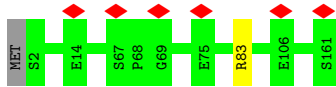
- Molecule 3: Allophycocyanin alpha chain

Chain bF:  99%



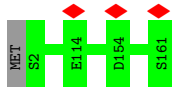
- Molecule 3: Allophycocyanin alpha chain

Chain dF:  99%



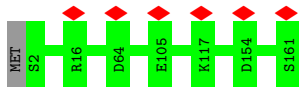
- Molecule 3: Allophycocyanin alpha chain

Chain fF:  99%



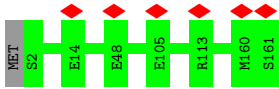
- Molecule 3: Allophycocyanin alpha chain

Chain iF:  99%

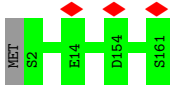


- Molecule 3: Allophycocyanin alpha chain

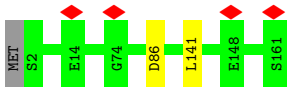
Chain kF:  99%



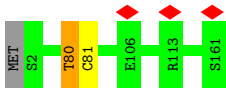
- Molecule 3: Allophycocyanin alpha chain



- Molecule 3: Allophycocyanin alpha chain



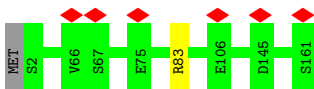
- Molecule 3: Allophycocyanin alpha chain



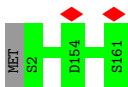
- Molecule 3: Allophycocyanin alpha chain



- Molecule 3: Allophycocyanin alpha chain

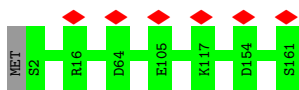


- Molecule 3: Allophycocyanin alpha chain



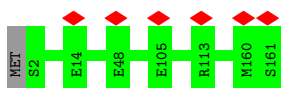
- Molecule 3: Allophycocyanin alpha chain

Chain iK:  99%



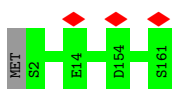
- Molecule 3: Allophycocyanin alpha chain

Chain kK:  99%



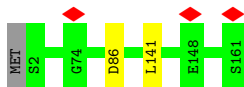
- Molecule 3: Allophycocyanin alpha chain

Chain 9K:  99%



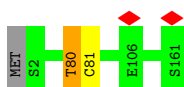
- Molecule 3: Allophycocyanin alpha chain

Chain 4L:  98%



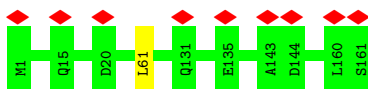
- Molecule 3: Allophycocyanin alpha chain

Chain 6L:  98%



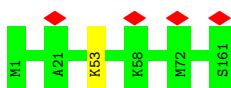
- Molecule 4: Allophycocyanin beta chain

Chain PB:  99%



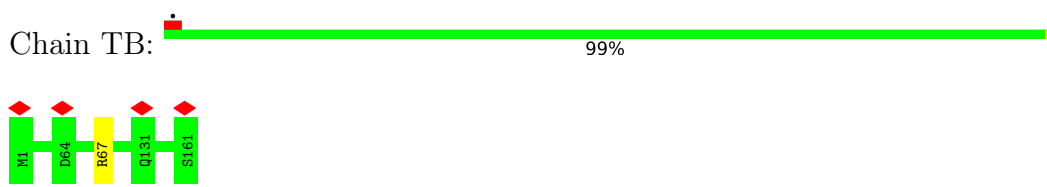
- Molecule 4: Allophycocyanin beta chain

Chain RB:  99%

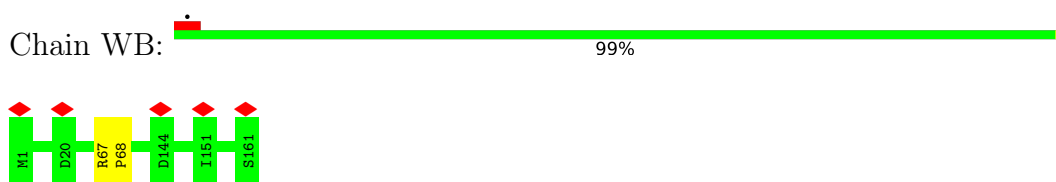




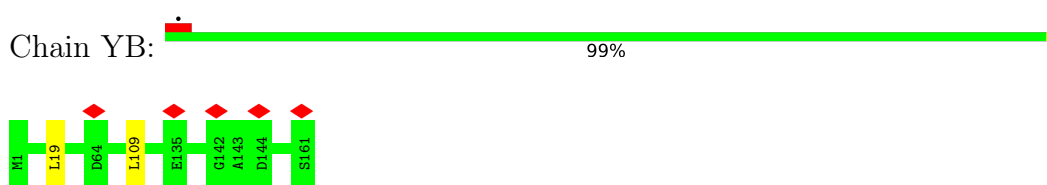
- Molecule 4: Allophycocyanin beta chain



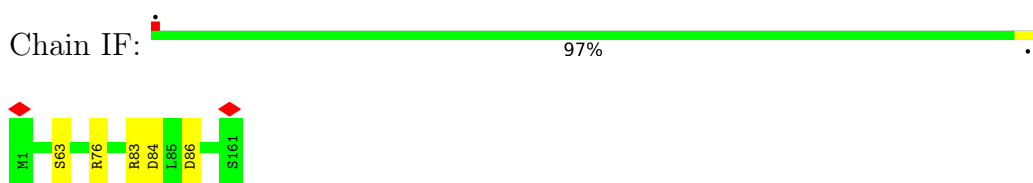
- Molecule 4: Allophycocyanin beta chain



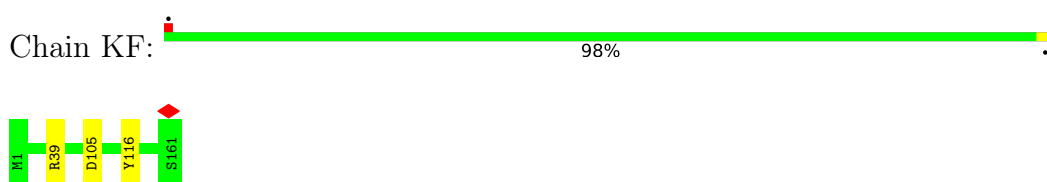
- Molecule 4: Allophycocyanin beta chain



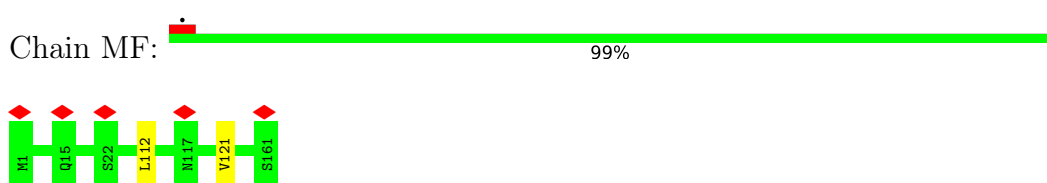
- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain



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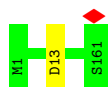




- Molecule 4: Allophycocyanin beta chain



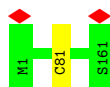
- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain



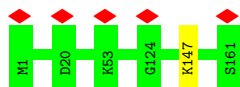
- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain

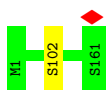


- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain

Chain UG:  99%



- Molecule 4: Allophycocyanin beta chain

Chain WG:  98%



- Molecule 4: Allophycocyanin beta chain

Chain IK:  96%



- Molecule 4: Allophycocyanin beta chain

Chain KK:  98%



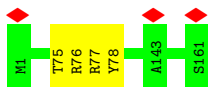
- Molecule 4: Allophycocyanin beta chain

Chain MK:  99%



- Molecule 4: Allophycocyanin beta chain

Chain YK:  98%



- Molecule 4: Allophycocyanin beta chain

Chain HL:  100%



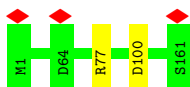
- Molecule 4: Allophycocyanin beta chain

Chain JL:  99%



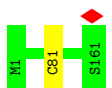
- Molecule 4: Allophycocyanin beta chain

Chain LL:  99%



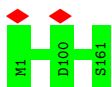
- Molecule 4: Allophycocyanin beta chain

Chain ML:  99%



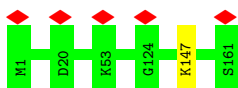
- Molecule 4: Allophycocyanin beta chain

Chain OL:  100%



- Molecule 4: Allophycocyanin beta chain

Chain SL:  99%



- Molecule 4: Allophycocyanin beta chain

Chain UL:  99%

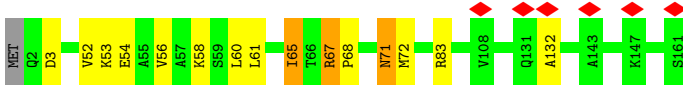
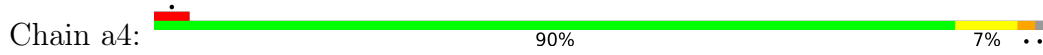


- Molecule 4: Allophycocyanin beta chain

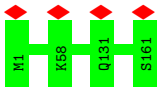
Chain WL:  98%



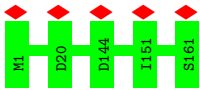
- Molecule 4: Allophycocyanin beta chain



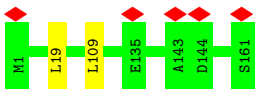
- Molecule 4: Allophycocyanin beta chain



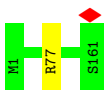
- Molecule 4: Allophycocyanin beta chain



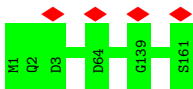
- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain

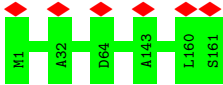


- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain

Chain p4:  100%



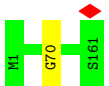
- Molecule 4: Allophycocyanin beta chain

Chain r4:  100%



- Molecule 4: Allophycocyanin beta chain

Chain x4:  99%



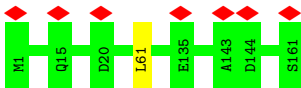
- Molecule 4: Allophycocyanin beta chain

Chain z4:  100%



- Molecule 4: Allophycocyanin beta chain

Chain P4:  99%



- Molecule 4: Allophycocyanin beta chain

Chain R4:  99%



- Molecule 4: Allophycocyanin beta chain

Chain aB:  91% 6% ..



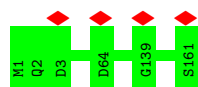
- Molecule 4: Allophycocyanin beta chain

Chain tB:  99%



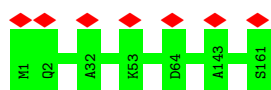
- Molecule 4: Allophycocyanin beta chain

Chain vB:  100%



- Molecule 4: Allophycocyanin beta chain

Chain pB:  100%



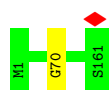
- Molecule 4: Allophycocyanin beta chain

Chain rB:  100%



- Molecule 4: Allophycocyanin beta chain

Chain xB:  99%



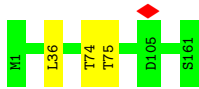
- Molecule 4: Allophycocyanin beta chain

Chain zB:  100%

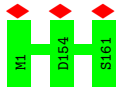


- Molecule 4: Allophycocyanin beta chain

Chain aF:  98%



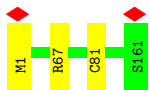
- Molecule 4: Allophycocyanin beta chain



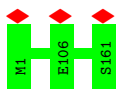
- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain



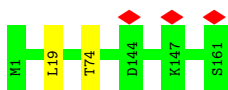
- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain



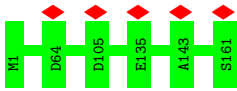
- Molecule 4: Allophycocyanin beta chain



- Molecule 4: Allophycocyanin beta chain

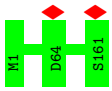


Chain 1G:  100%



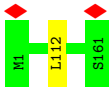
• Molecule 4: Allophycocyanin beta chain

Chain 5G:  100%



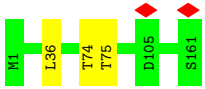
• Molecule 4: Allophycocyanin beta chain

Chain 7G:  99%



• Molecule 4: Allophycocyanin beta chain

Chain aK:  98%



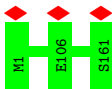
• Molecule 4: Allophycocyanin beta chain

Chain cK:  100%



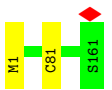
• Molecule 4: Allophycocyanin beta chain

Chain eK:  100%



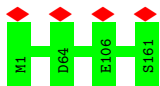
• Molecule 4: Allophycocyanin beta chain

Chain hK:  99%



- Molecule 4: Allophycocyanin beta chain

Chain jK:  100%



- Molecule 4: Allophycocyanin beta chain

Chain iK:  100%



- Molecule 4: Allophycocyanin beta chain

Chain nK:  99%



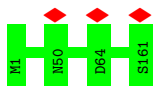
- Molecule 4: Allophycocyanin beta chain

Chain 1L:  98%



- Molecule 4: Allophycocyanin beta chain

Chain 5L:  100%



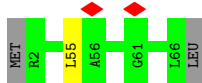
- Molecule 4: Allophycocyanin beta chain

Chain 7L:  99%



- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core

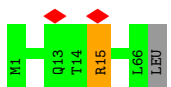
Chain UB:  96%



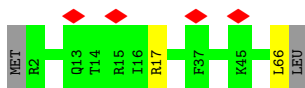
- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



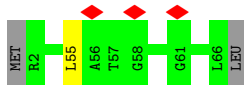
- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



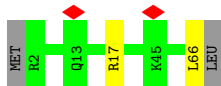
- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



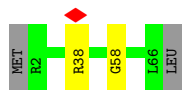
- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



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- Molecule 5: Phycobilisome 7.8 kDa linker polypeptide, allophycocyanin-associated, core



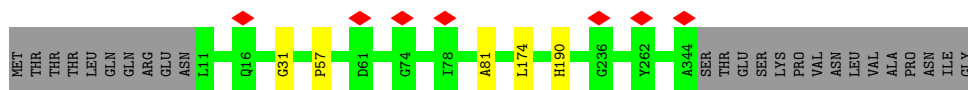
- Molecule 6: Photosystem II protein D1



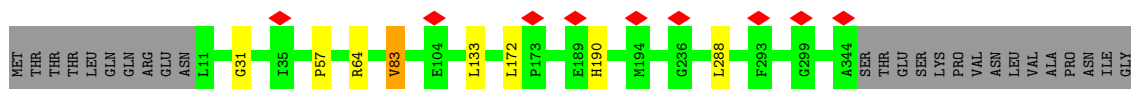
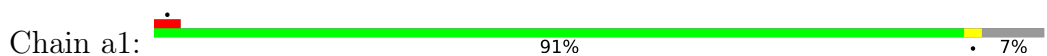
- Molecule 6: Photosystem II protein D1



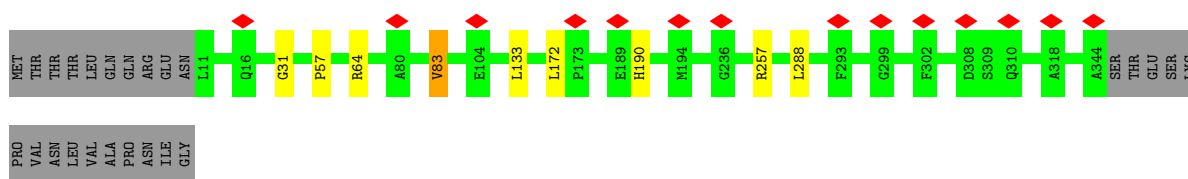
• Molecule 6: Photosystem II protein D1



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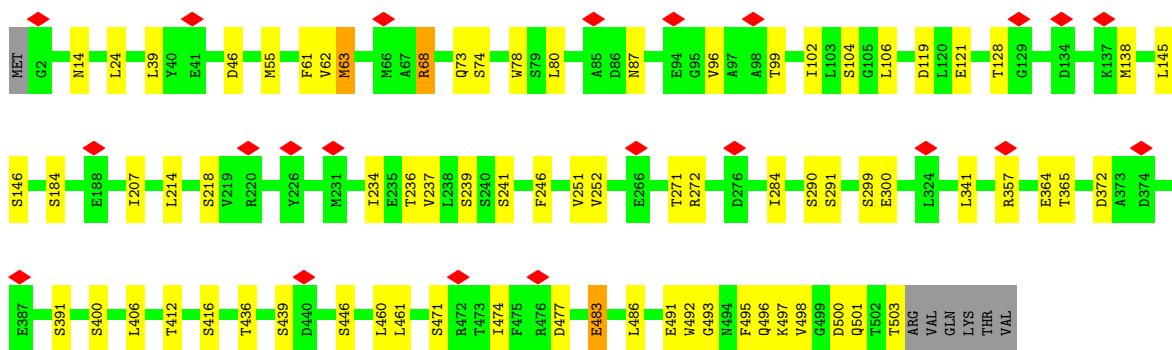
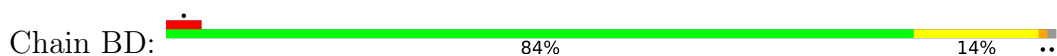
• Molecule 6: Photosystem II protein D1



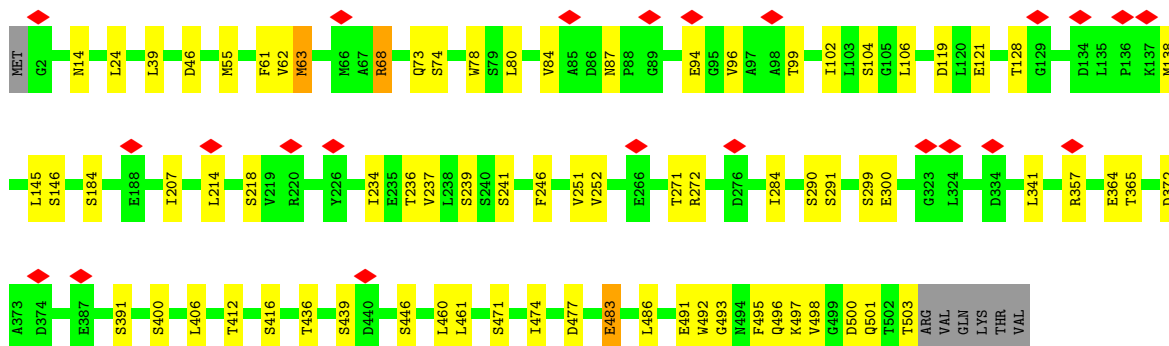
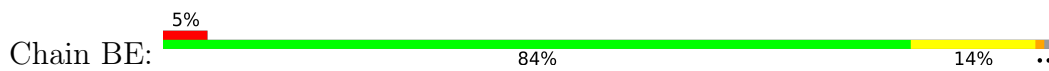
• Molecule 6: Photosystem II protein D1



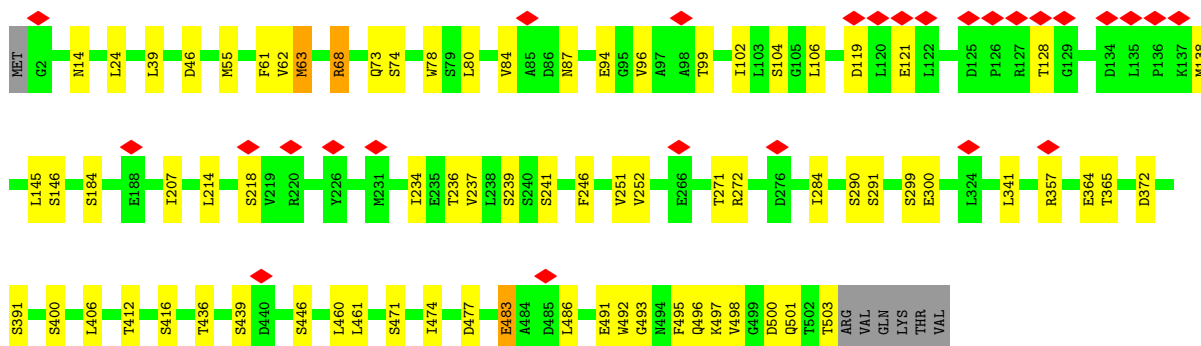
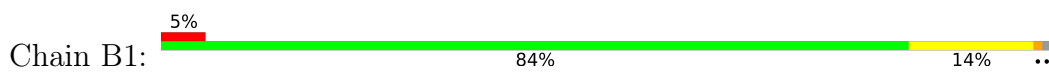
• Molecule 7: Photosystem II CP47 reaction center protein



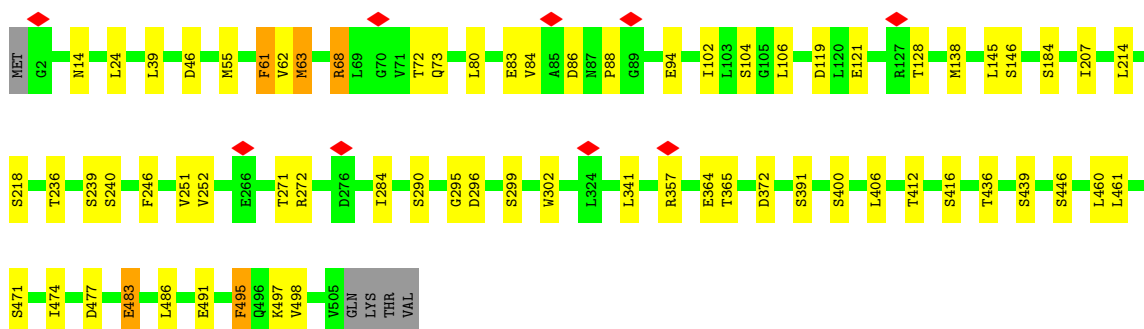
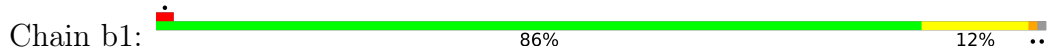
• Molecule 7: Photosystem II CP47 reaction center protein



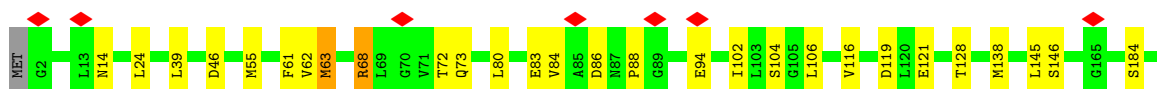
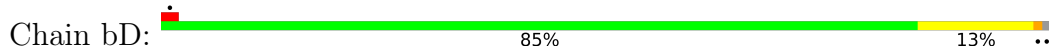
• Molecule 7: Photosystem II CP47 reaction center protein

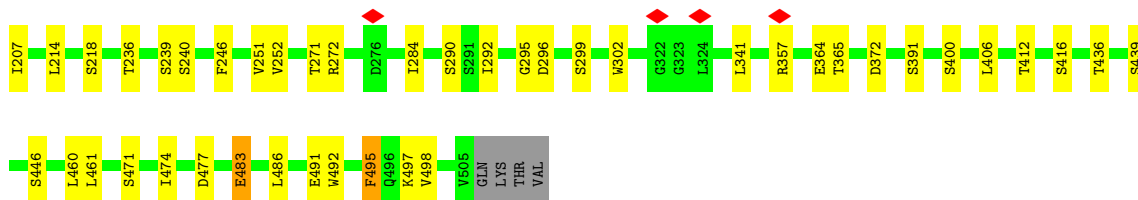


• Molecule 7: Photosystem II CP47 reaction center protein

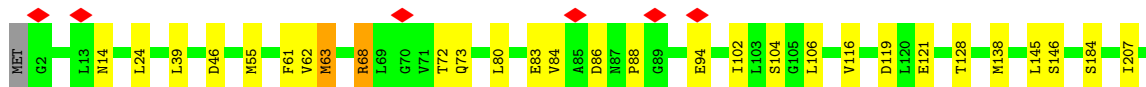
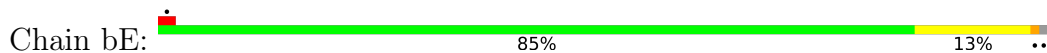


• Molecule 7: Photosystem II CP47 reaction center protein

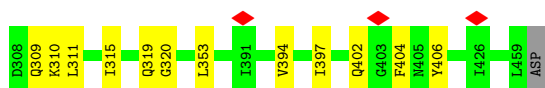
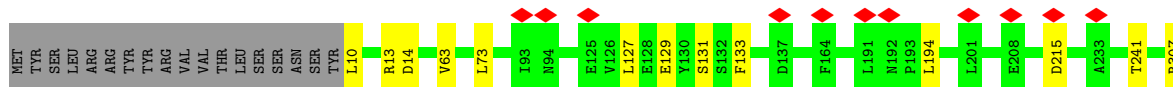




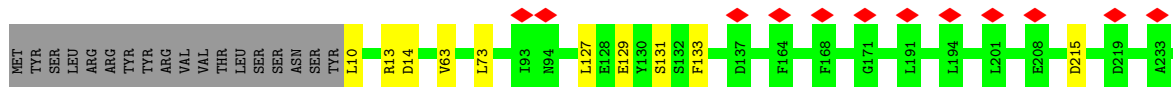
• Molecule 7: Photosystem II CP47 reaction center protein



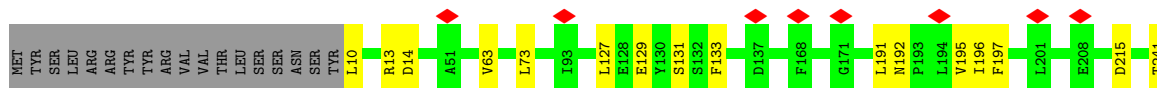
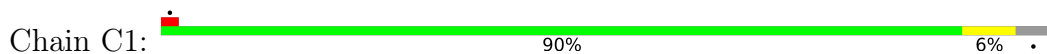
• Molecule 8: Photosystem II CP43 reaction center protein

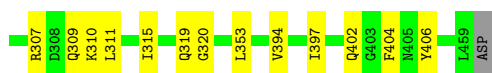


• Molecule 8: Photosystem II CP43 reaction center protein

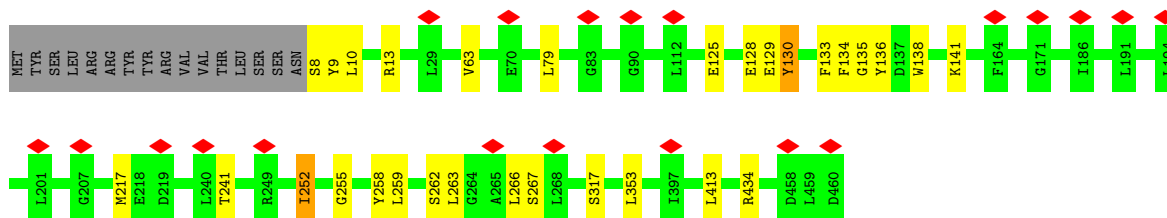


• Molecule 8: Photosystem II CP43 reaction center protein

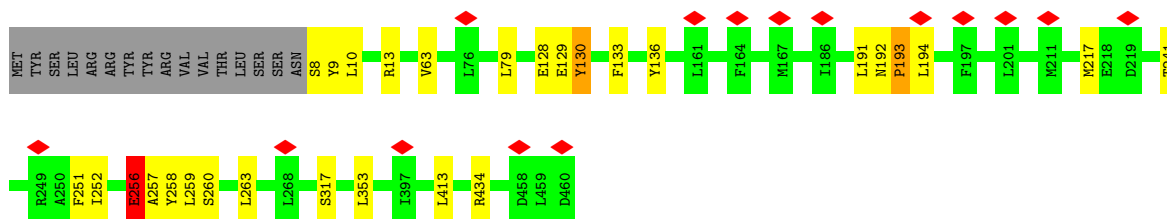




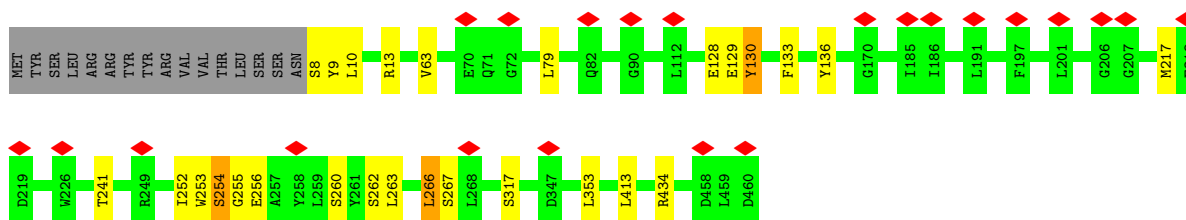
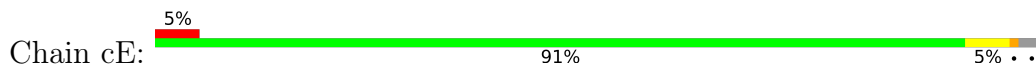
- Molecule 8: Photosystem II CP43 reaction center protein



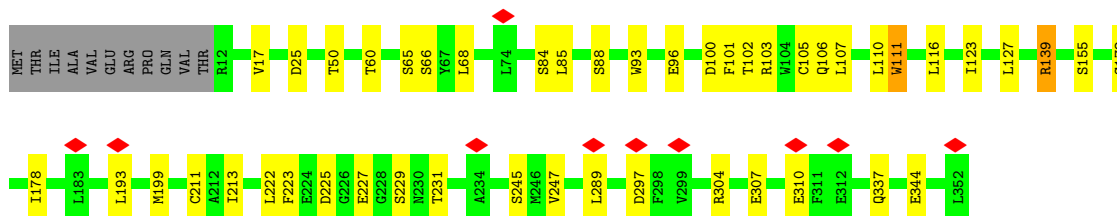
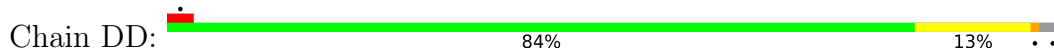
- Molecule 8: Photosystem II CP43 reaction center protein



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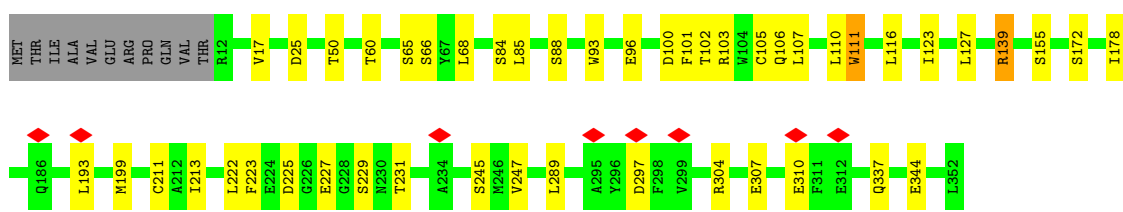
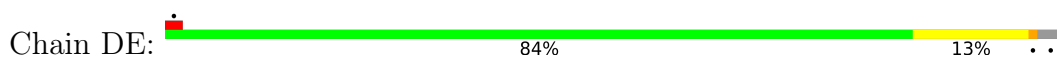


- Molecule 9: Photosystem II D2 protein

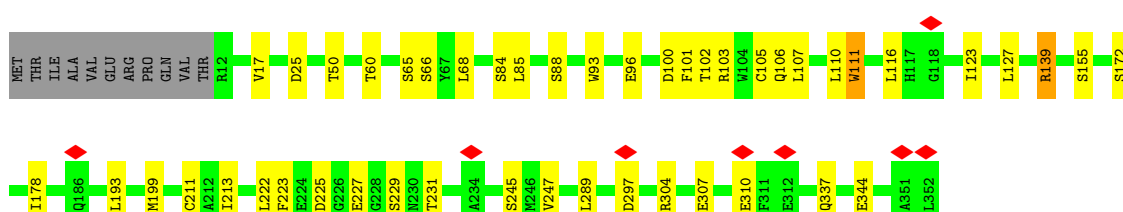
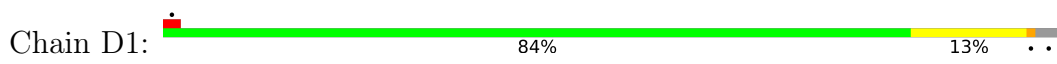


- Molecule 9: Photosystem II D2 protein

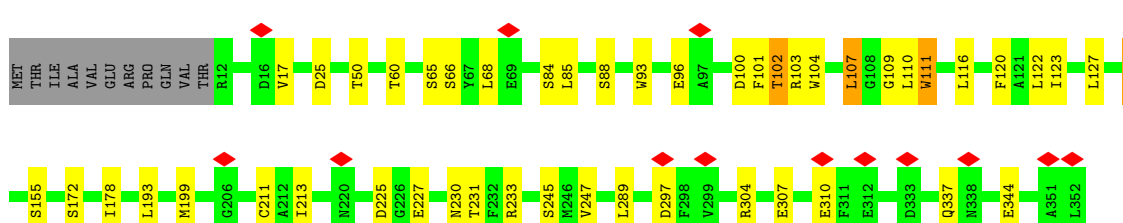
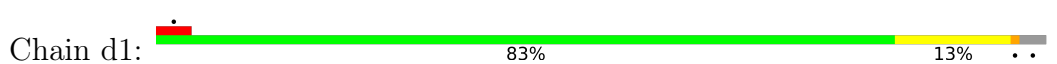




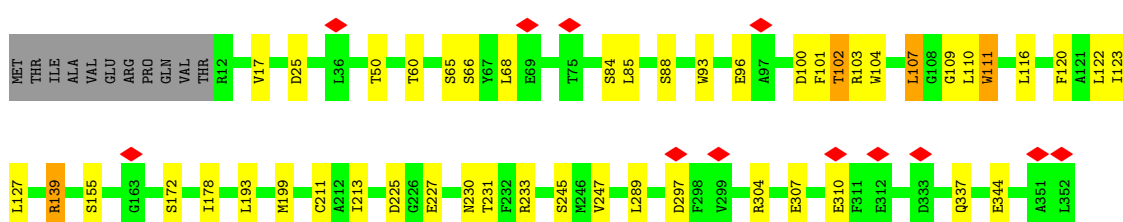
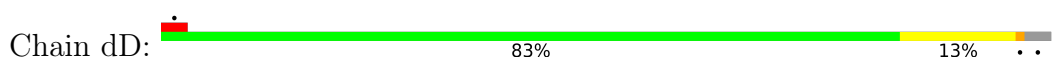
• Molecule 9: Photosystem II D2 protein



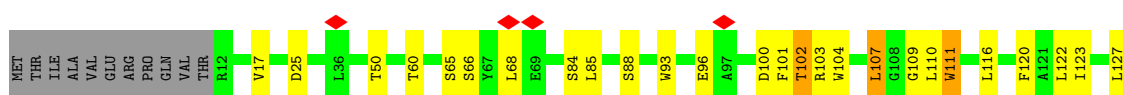
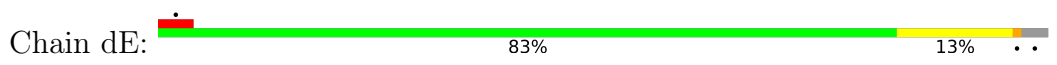
• Molecule 9: Photosystem II D2 protein

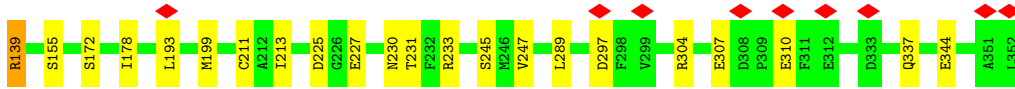


• Molecule 9: Photosystem II D2 protein

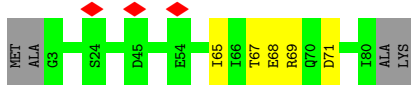
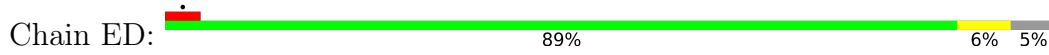


• Molecule 9: Photosystem II D2 protein

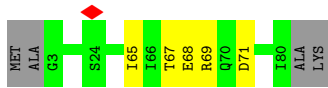
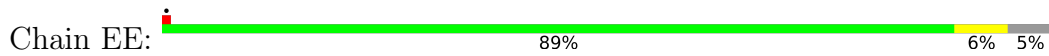




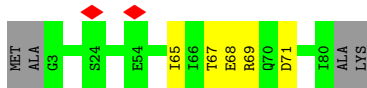
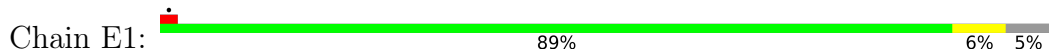
- Molecule 10: Cytochrome b559 subunit alpha



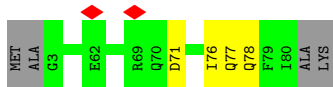
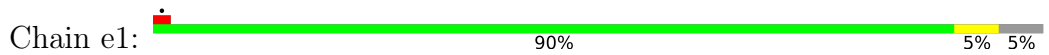
- Molecule 10: Cytochrome b559 subunit alpha



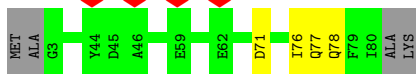
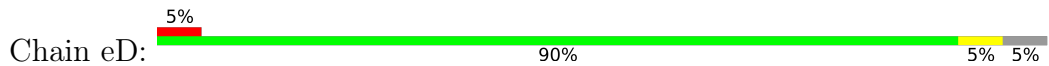
- Molecule 10: Cytochrome b559 subunit alpha



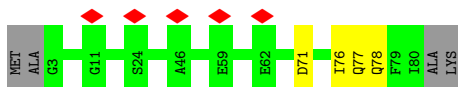
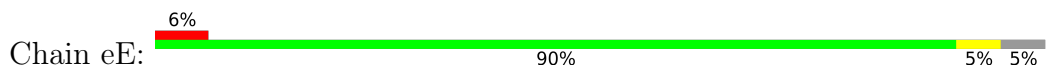
- Molecule 10: Cytochrome b559 subunit alpha



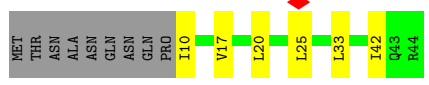
- Molecule 10: Cytochrome b559 subunit alpha



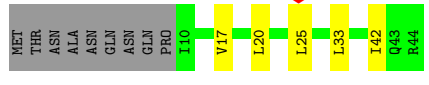
- Molecule 10: Cytochrome b559 subunit alpha



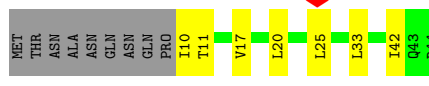
- Molecule 11: Cytochrome b559 subunit beta



● Molecule 11: Cytochrome b559 subunit beta



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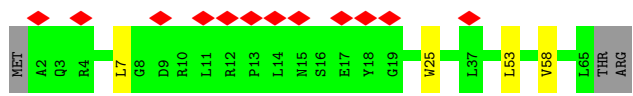
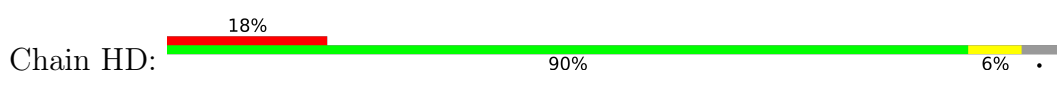
● Molecule 11: Cytochrome b559 subunit beta



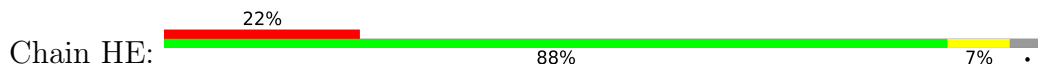
● Molecule 11: Cytochrome b559 subunit beta



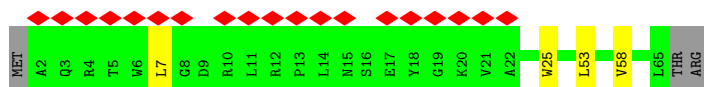
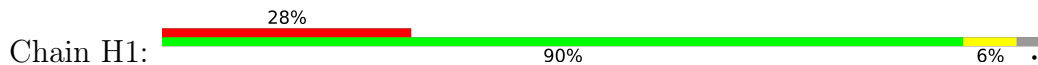
● Molecule 12: Photosystem II reaction center protein H



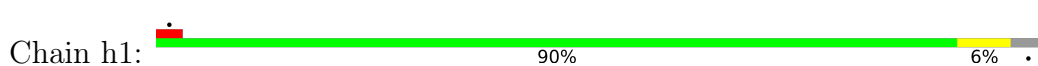
• Molecule 12: Photosystem II reaction center protein H



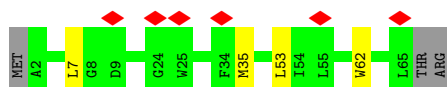
• Molecule 12: Photosystem II reaction center protein H



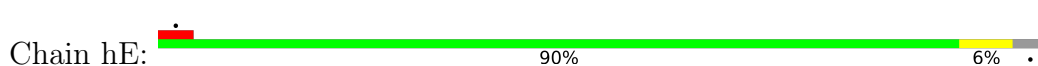
• Molecule 12: Photosystem II reaction center protein H



• Molecule 12: Photosystem II reaction center protein H



• Molecule 12: Photosystem II reaction center protein H



• Molecule 13: Photosystem II reaction center protein I



• Molecule 13: Photosystem II reaction center protein I





• Molecule 13: Photosystem II reaction center protein I



• Molecule 13: Photosystem II reaction center protein I



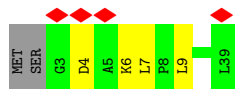
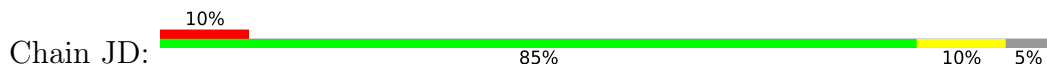
• Molecule 13: Photosystem II reaction center protein I



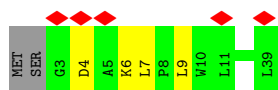
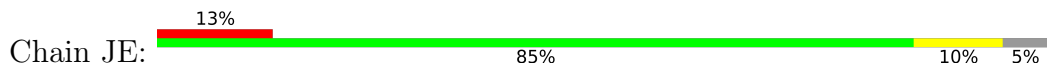
• Molecule 13: Photosystem II reaction center protein I



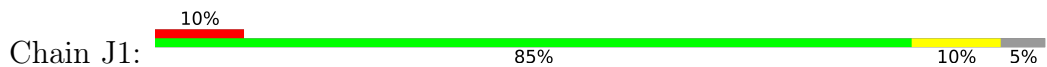
• Molecule 14: Photosystem II reaction center protein J

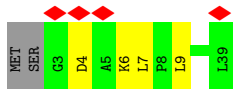


• Molecule 14: Photosystem II reaction center protein J

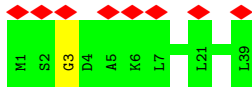


• Molecule 14: Photosystem II reaction center protein J

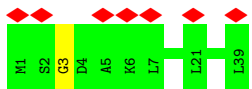




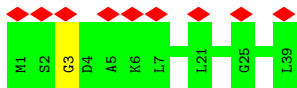
- Molecule 14: Photosystem II reaction center protein J



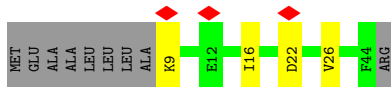
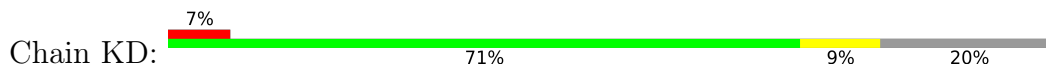
- Molecule 14: Photosystem II reaction center protein J



- Molecule 14: Photosystem II reaction center protein J



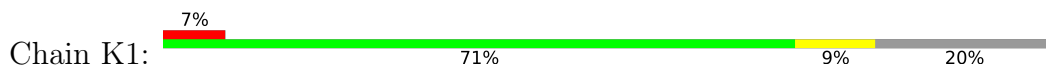
- Molecule 15: Photosystem II reaction center protein K



- Molecule 15: Photosystem II reaction center protein K



- Molecule 15: Photosystem II reaction center protein K



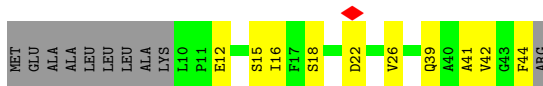
- Molecule 15: Photosystem II reaction center protein K

Chain k1:  56% 22% 22%



- Molecule 15: Photosystem II reaction center protein K

Chain kD:  56% 22% 22%




- Molecule 15: Photosystem II reaction center protein K

Chain kE:  56% 22% 22%




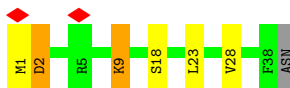
- Molecule 16: Photosystem II reaction center protein L

Chain LD:  82% 10% 5% .




- Molecule 16: Photosystem II reaction center protein L

Chain LE:  5% 82% 10% 5% .




- Molecule 16: Photosystem II reaction center protein L

Chain L1:  82% 10% 5% .

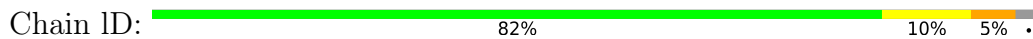


- Molecule 16: Photosystem II reaction center protein L

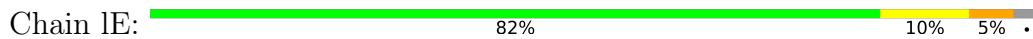
Chain l1:  82% 10% 5% .



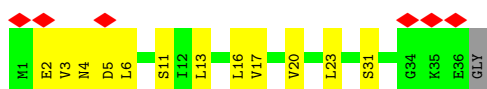
- Molecule 16: Photosystem II reaction center protein L



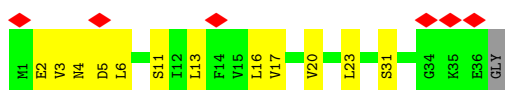
● Molecule 16: Photosystem II reaction center protein L



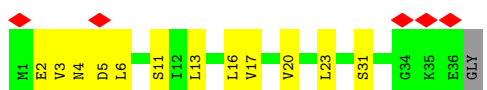
● Molecule 17: Photosystem II reaction center protein M



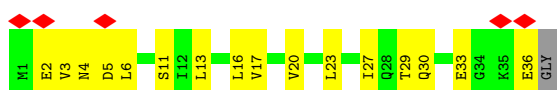
● Molecule 17: Photosystem II reaction center protein M



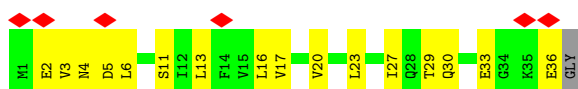
● Molecule 17: Photosystem II reaction center protein M



● Molecule 17: Photosystem II reaction center protein M



● Molecule 17: Photosystem II reaction center protein M

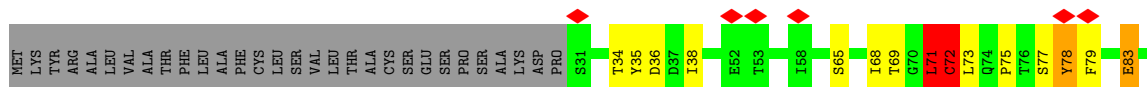
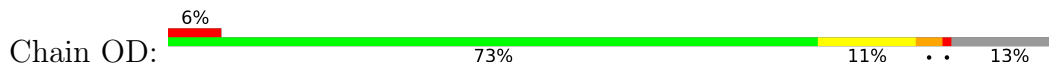




• Molecule 17: Photosystem II reaction center protein M

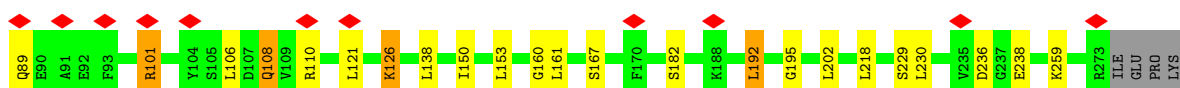
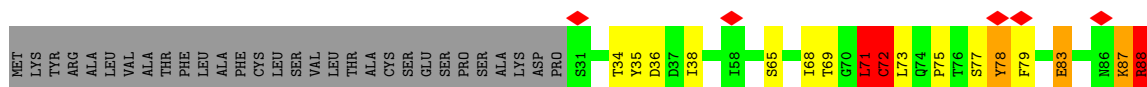
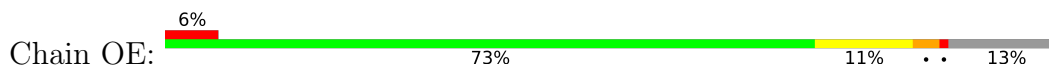


• Molecule 18: Photosystem II extrinsic protein O



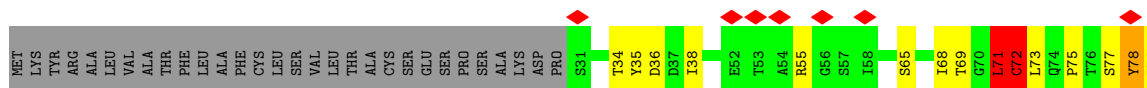
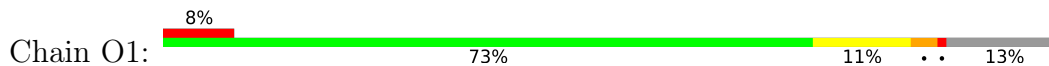
I1E  
GLU  
PRO  
LYS  
ALA

• Molecule 18: Photosystem II extrinsic protein O



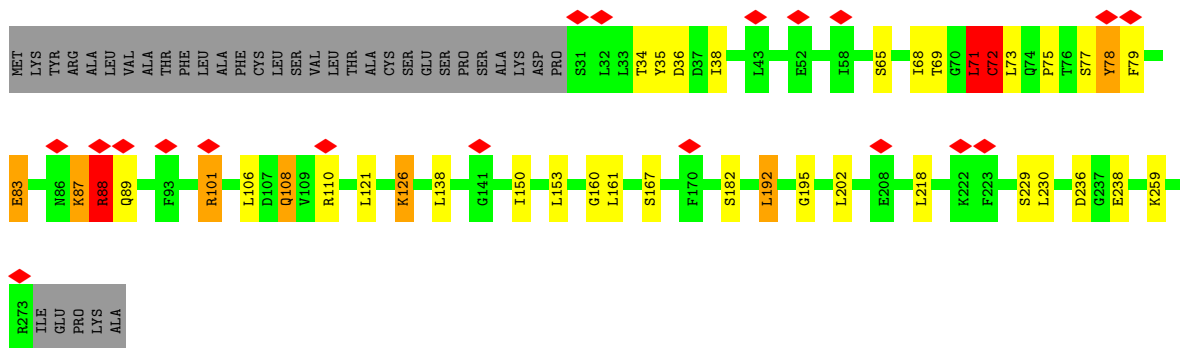
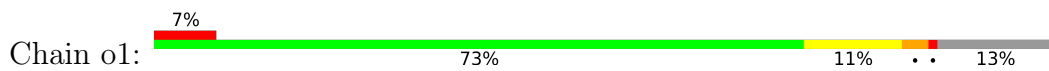
ALA

• Molecule 18: Photosystem II extrinsic protein O

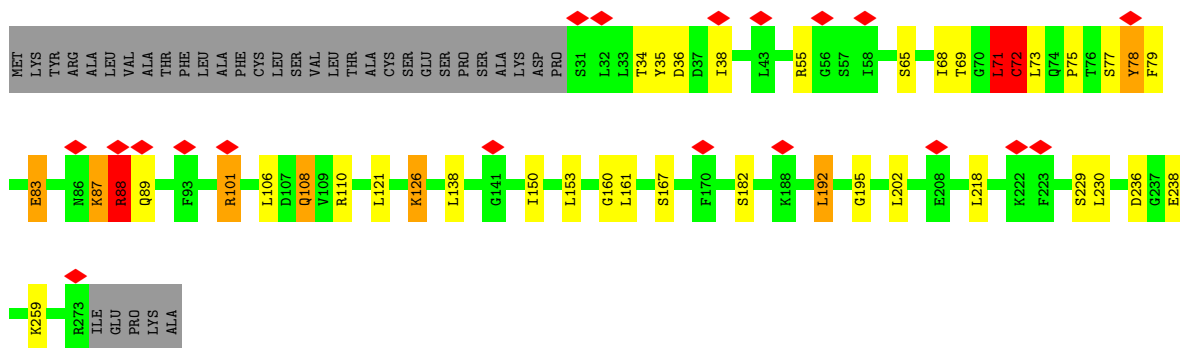
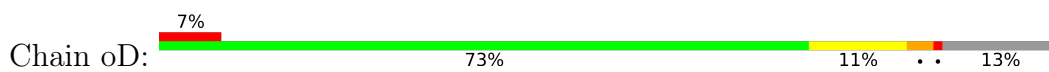


E238  
K259  
Y271  
A272  
R273  
I1E  
GLU  
PRO  
LYS  
ALA

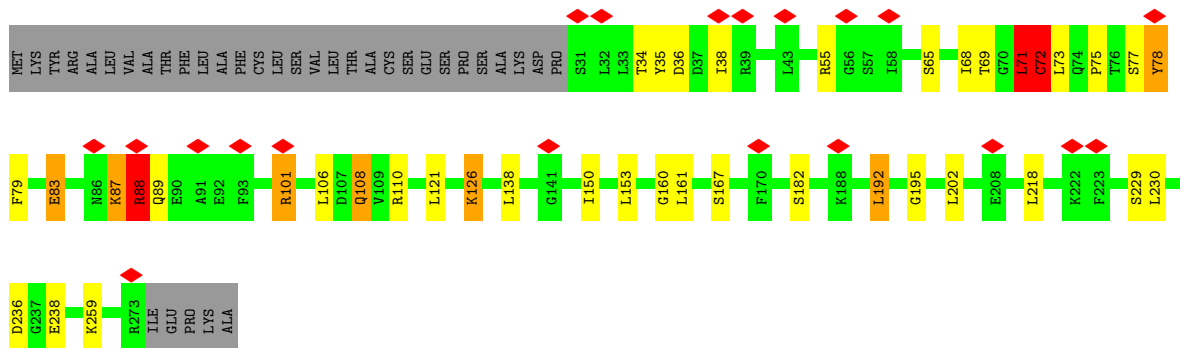
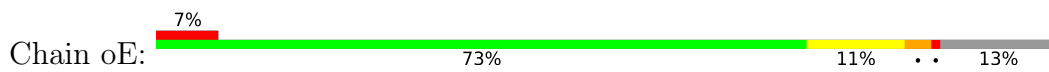
• Molecule 18: Photosystem II extrinsic protein O



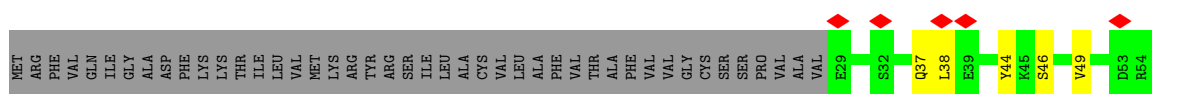
• Molecule 18: Photosystem II extrinsic protein O

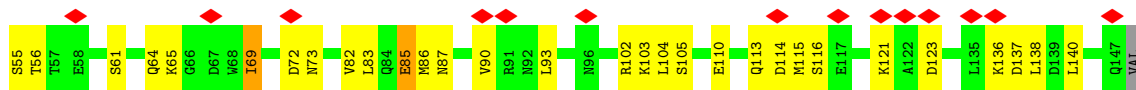


• Molecule 18: Photosystem II extrinsic protein O

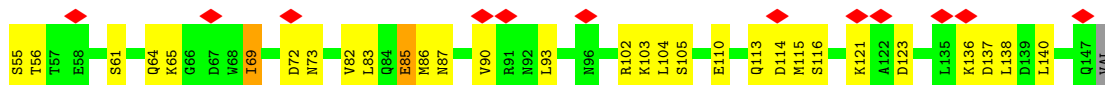
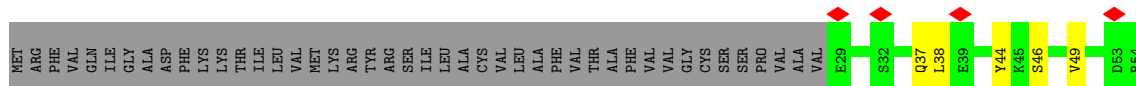


• Molecule 19: PsbQ protein

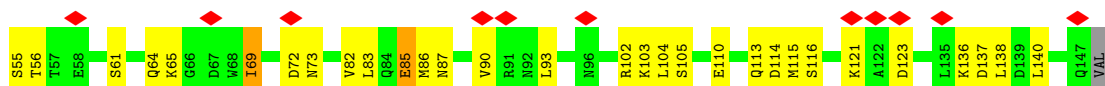
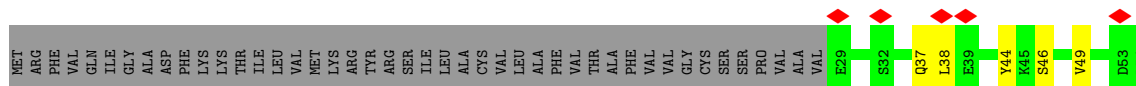




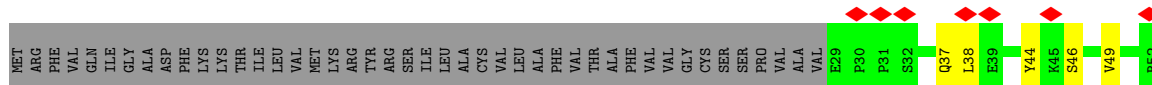
• Molecule 19: PsbQ protein



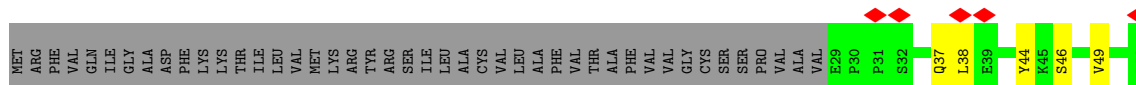
• Molecule 19: PsbQ protein

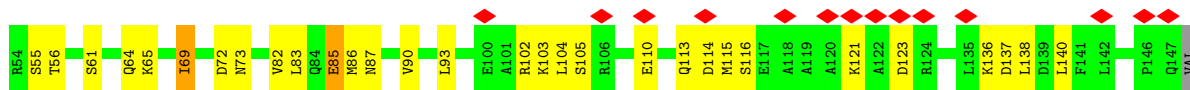


• Molecule 19: PsbQ protein

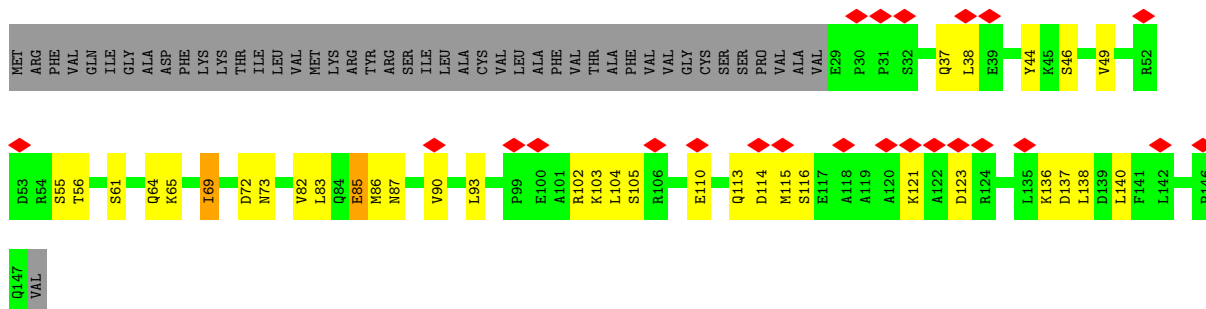


• Molecule 19: PsbQ protein

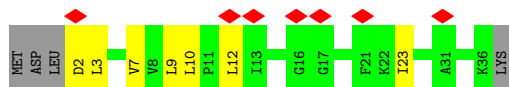
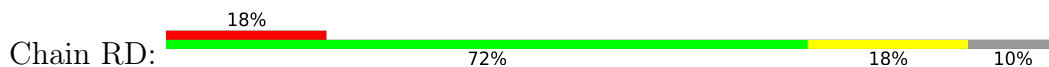




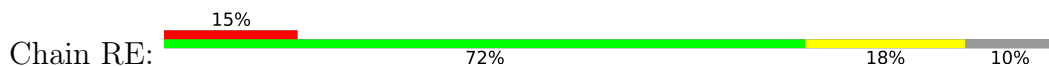
• Molecule 19: PsbQ protein



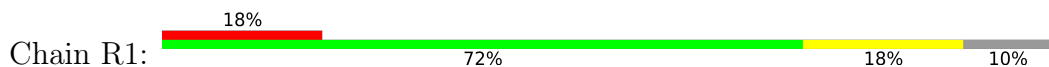
• Molecule 20: Photosystem II reaction center protein Y



• Molecule 20: Photosystem II reaction center protein Y



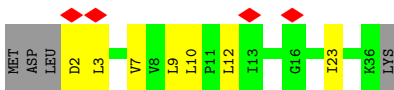
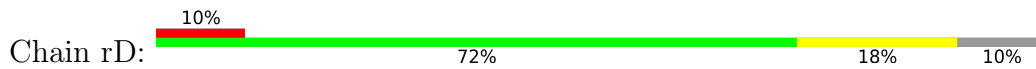
• Molecule 20: Photosystem II reaction center protein Y



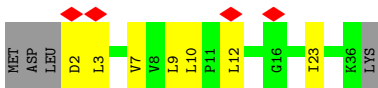
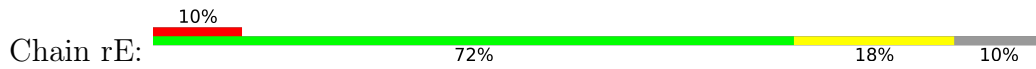
• Molecule 20: Photosystem II reaction center protein Y



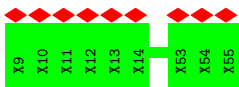
• Molecule 20: Photosystem II reaction center protein Y



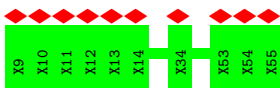
- Molecule 20: Photosystem II reaction center protein Y



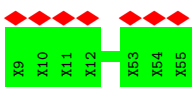
- Molecule 21: LPP1



- Molecule 21: LPP1



- Molecule 21: LPP1



- Molecule 22: Photosystem II reaction center protein T



- Molecule 22: Photosystem II reaction center protein T



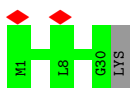
- Molecule 22: Photosystem II reaction center protein T

Chain T1:  94% 6%



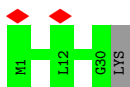
- Molecule 22: Photosystem II reaction center protein T

Chain t1:  6% 97%



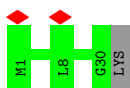
- Molecule 22: Photosystem II reaction center protein T

Chain tD:  6% 97%



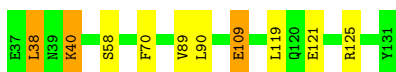
- Molecule 22: Photosystem II reaction center protein T

Chain tE:  6% 97%



- Molecule 23: PsbU

Chain UD:  89% 7%



- Molecule 23: PsbU

Chain UE:  89% 7%

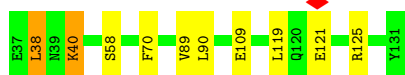


- Molecule 23: PsbU

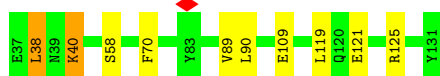
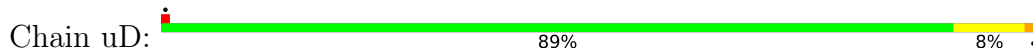
Chain U1:  89% 7%



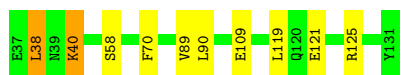
- Molecule 23: PsbU



• Molecule 23: PsbU



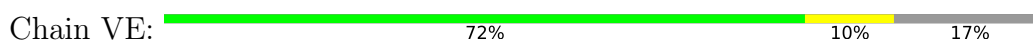
• Molecule 23: PsbU



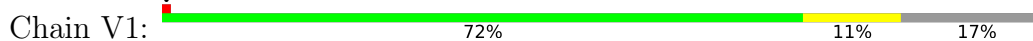
• Molecule 24: Photosystem II extrinsic protein V



• Molecule 24: Photosystem II extrinsic protein V

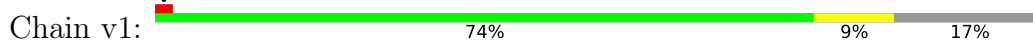


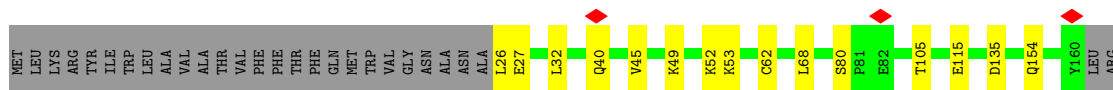
• Molecule 24: Photosystem II extrinsic protein V



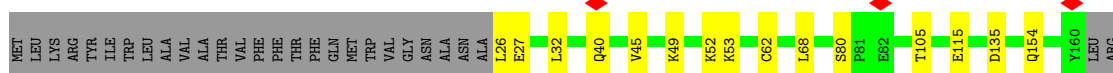
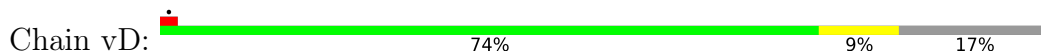
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• Molecule 24: Photosystem II extrinsic protein V

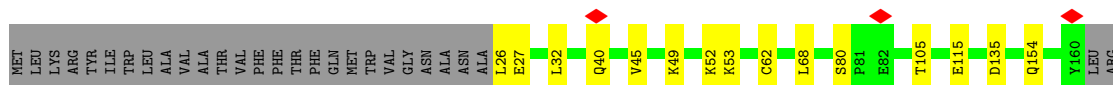




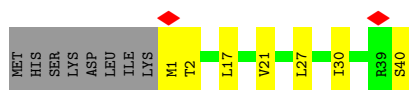
- Molecule 24: Photosystem II extrinsic protein V



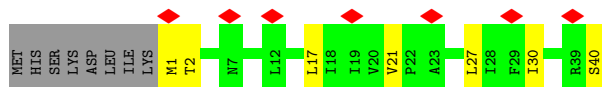
- Molecule 24: Photosystem II extrinsic protein V



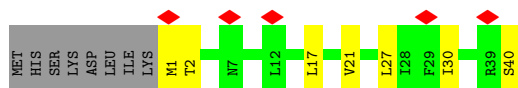
- Molecule 25: Photosystem II reaction center protein X



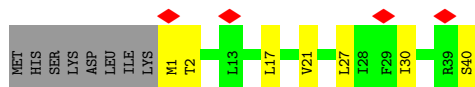
- Molecule 25: Photosystem II reaction center protein X



- Molecule 25: Photosystem II reaction center protein X

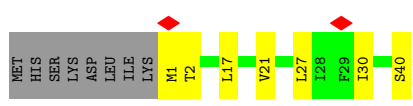


- Molecule 25: Photosystem II reaction center protein X

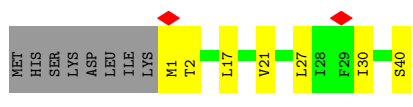


- Molecule 25: Photosystem II reaction center protein X

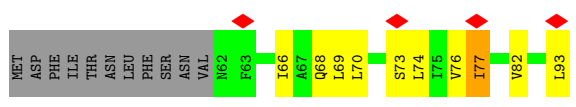




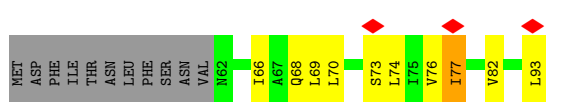
● Molecule 25: Photosystem II reaction center protein X



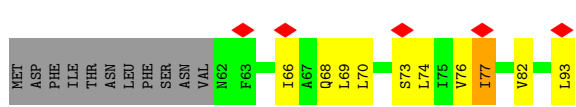
● Molecule 26: Photosystem II reaction center protein Psb30



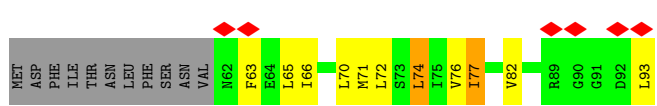
● Molecule 26: Photosystem II reaction center protein Psb30



● Molecule 26: Photosystem II reaction center protein Psb30

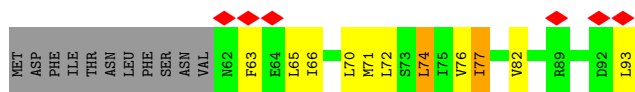


● Molecule 26: Photosystem II reaction center protein Psb30



● Molecule 26: Photosystem II reaction center protein Psb30

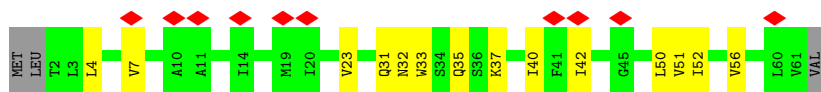
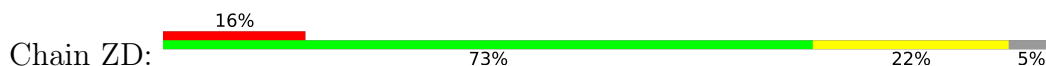




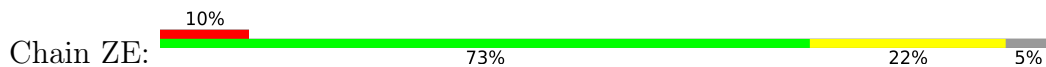
- Molecule 26: Photosystem II reaction center protein Psb30



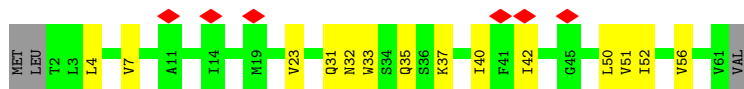
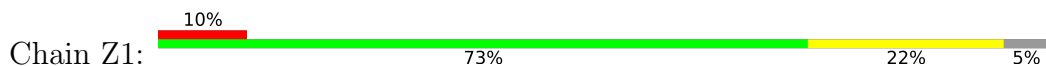
- Molecule 27: Photosystem II reaction center protein Z



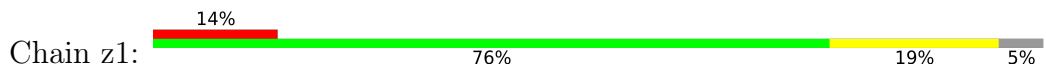
- Molecule 27: Photosystem II reaction center protein Z



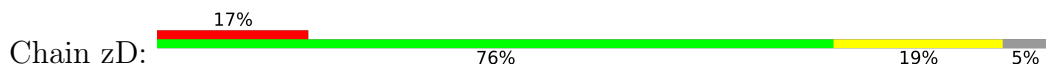
- Molecule 27: Photosystem II reaction center protein Z



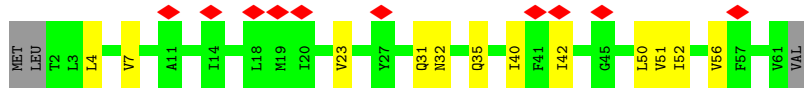
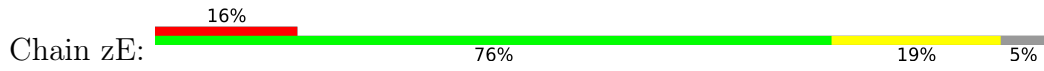
- Molecule 27: Photosystem II reaction center protein Z



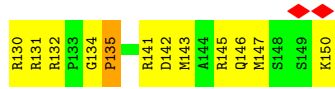
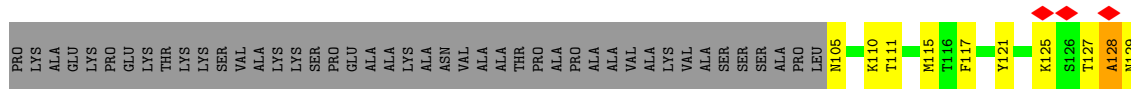
- Molecule 27: Photosystem II reaction center protein Z



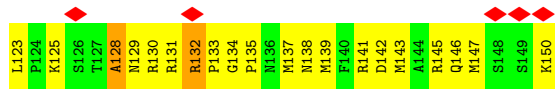
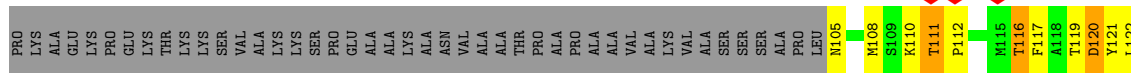
- Molecule 27: Photosystem II reaction center protein Z



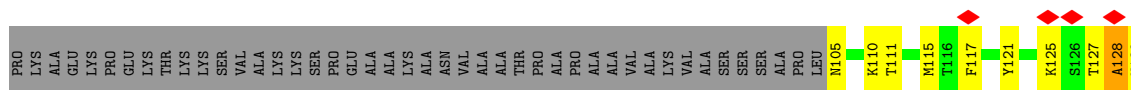
• Molecule 28: LPP2



• Molecule 28: LPP2

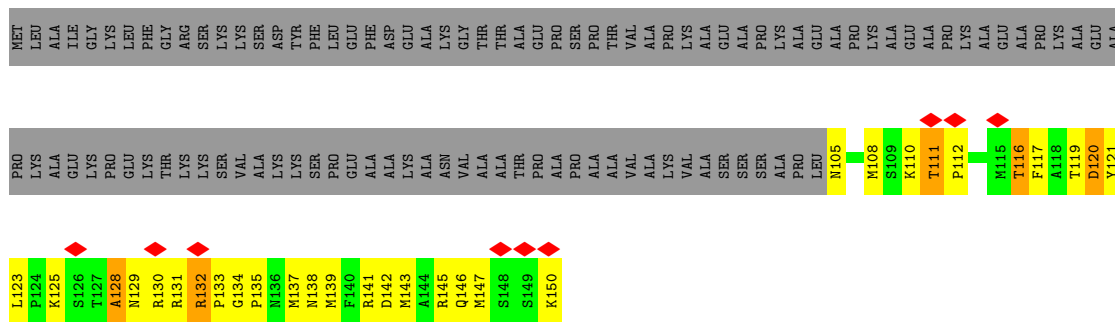


• Molecule 28: LPP2



• Molecule 28: LPP2





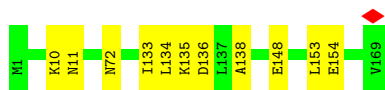
• Molecule 29: Allophycocyanin beta-18 subunit



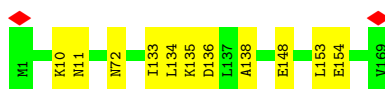
• Molecule 29: Allophycocyanin beta-18 subunit



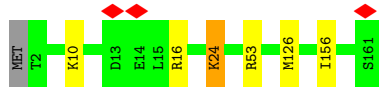
• Molecule 29: Allophycocyanin beta-18 subunit



• Molecule 29: Allophycocyanin beta-18 subunit

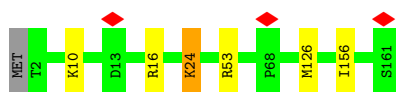


• Molecule 30: Allophycocyanin-B alpha subunit



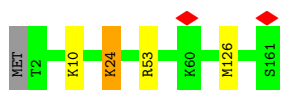
• Molecule 30: Allophycocyanin-B alpha subunit

Chain VL:  96%



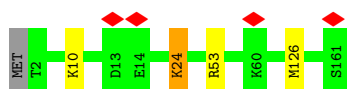
- Molecule 30: Allophycocyanin-B alpha subunit

Chain mF:  97%



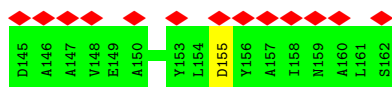
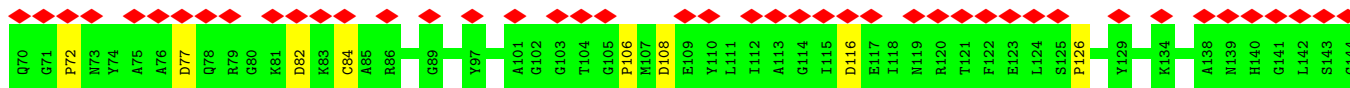
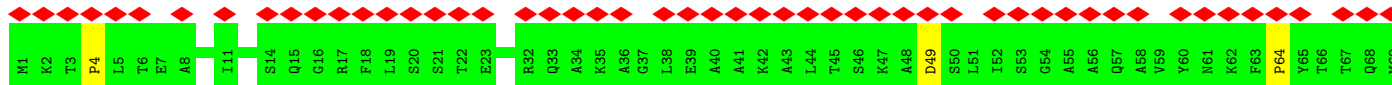
- Molecule 30: Allophycocyanin-B alpha subunit

Chain mK:  97%



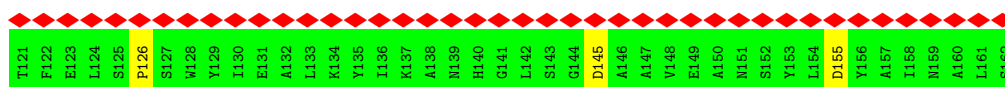
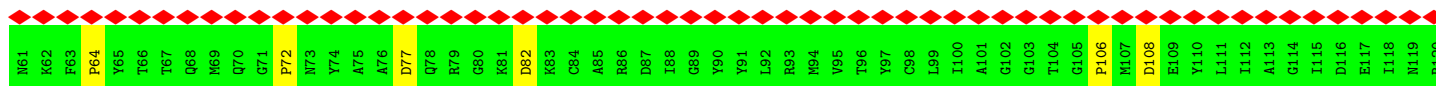
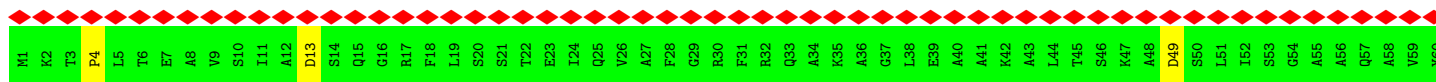
- Molecule 31: C-phycoyanin alpha subunit

Chain b2:  67%  
93% 7%

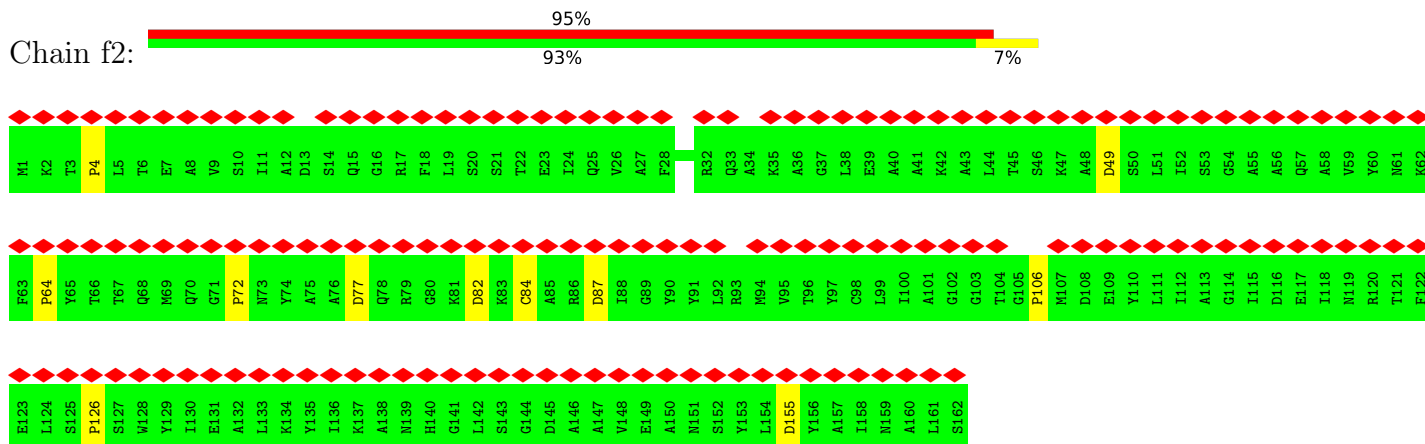


- Molecule 31: C-phycoyanin alpha subunit

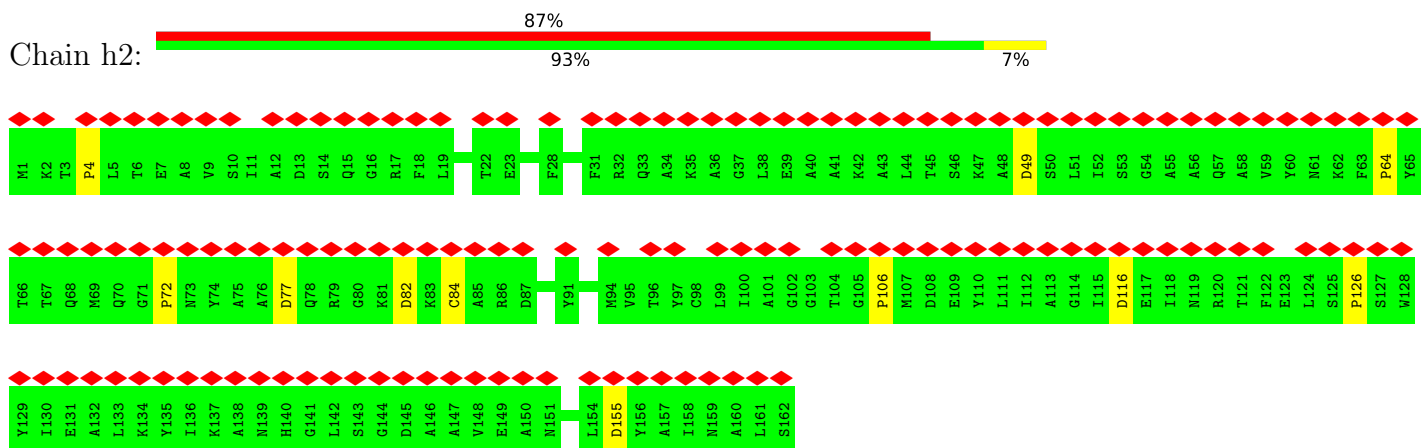
Chain d2:  100%  
93% 7%



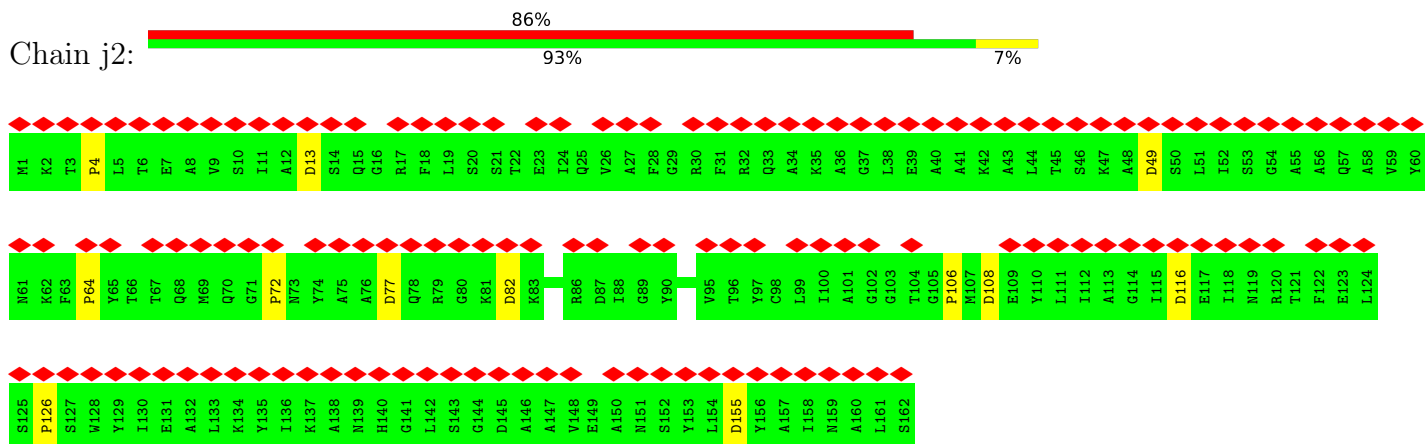
- Molecule 31: C-phycoyanin alpha subunit



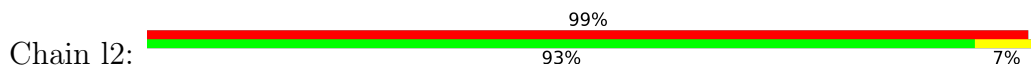
- Molecule 31: C-phycoyanin alpha subunit

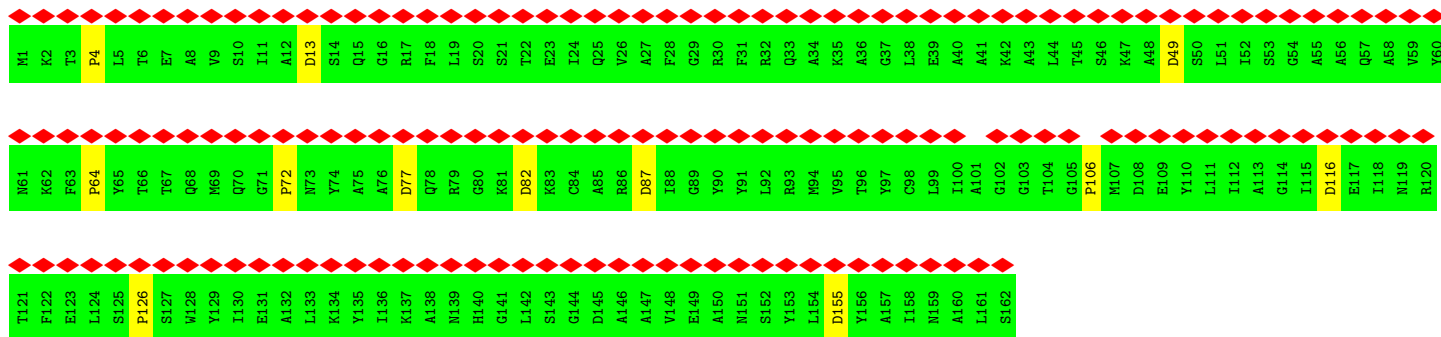


- Molecule 31: C-phycoyanin alpha subunit

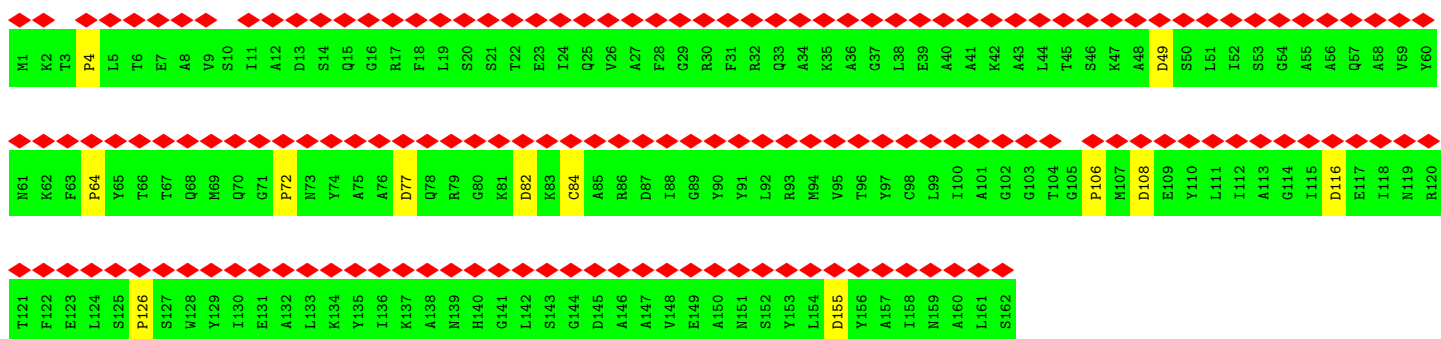
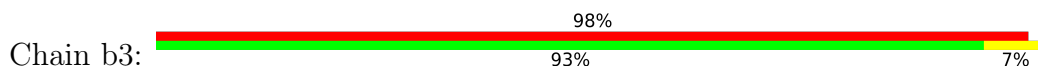


- Molecule 31: C-phycoyanin alpha subunit

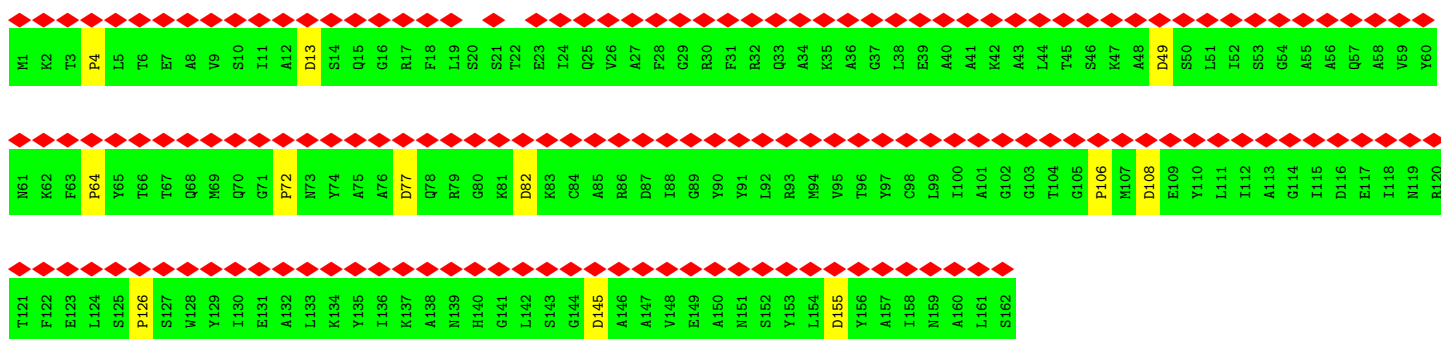




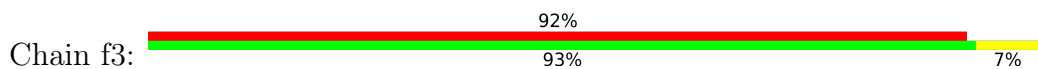
• Molecule 31: C-phycoerythrin alpha subunit

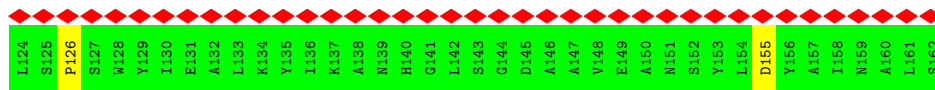


• Molecule 31: C-phycoerythrin alpha subunit

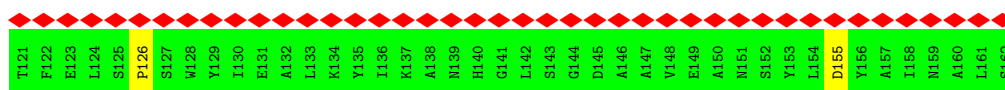
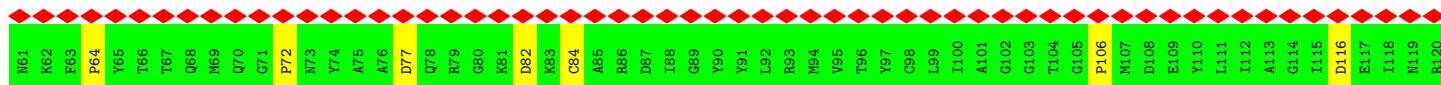
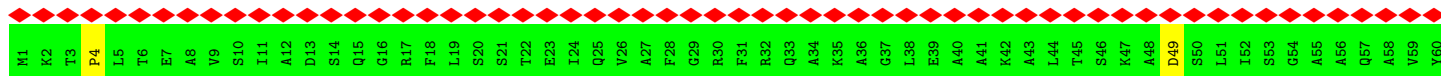
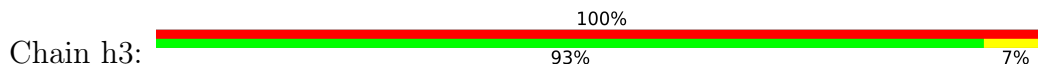


• Molecule 31: C-phycoerythrin alpha subunit

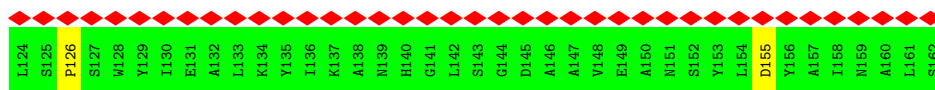
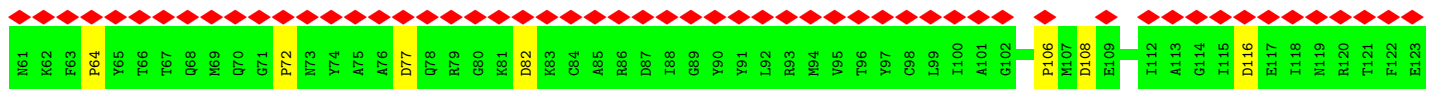
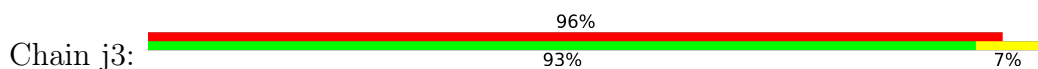




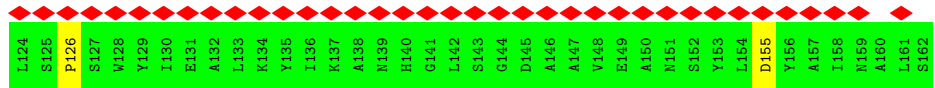
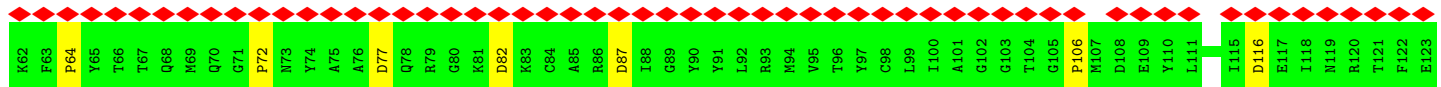
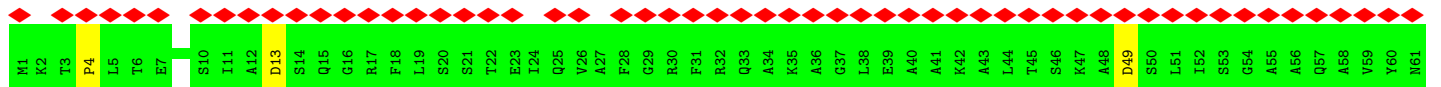
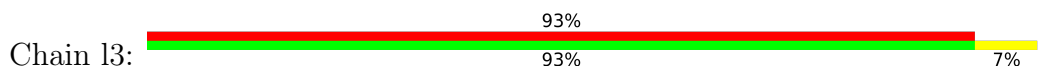
• Molecule 31: C-phycoerythrin alpha subunit



• Molecule 31: C-phycoerythrin alpha subunit

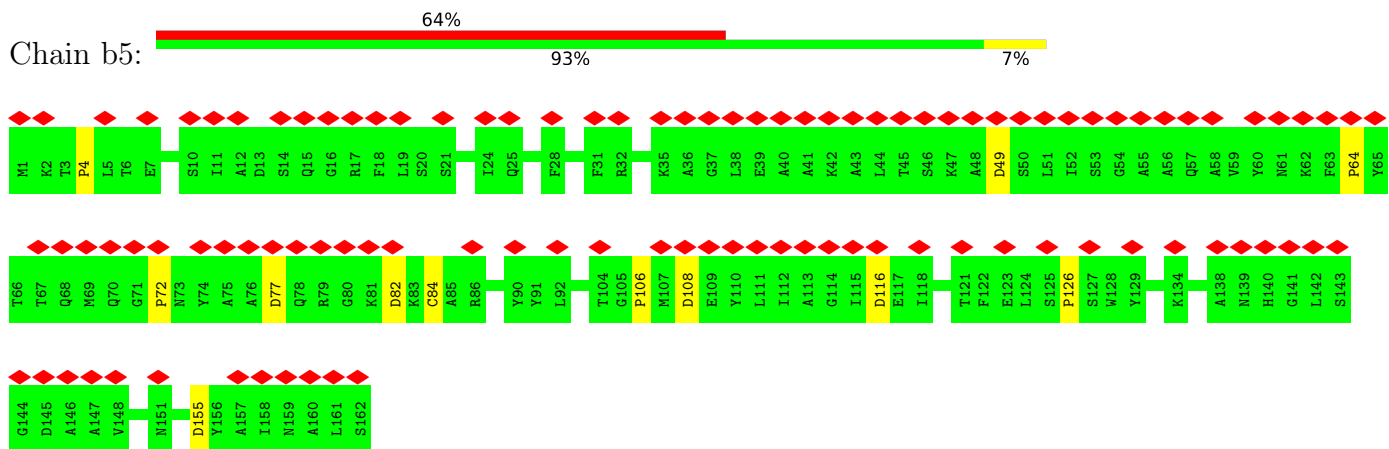


• Molecule 31: C-phycoerythrin alpha subunit

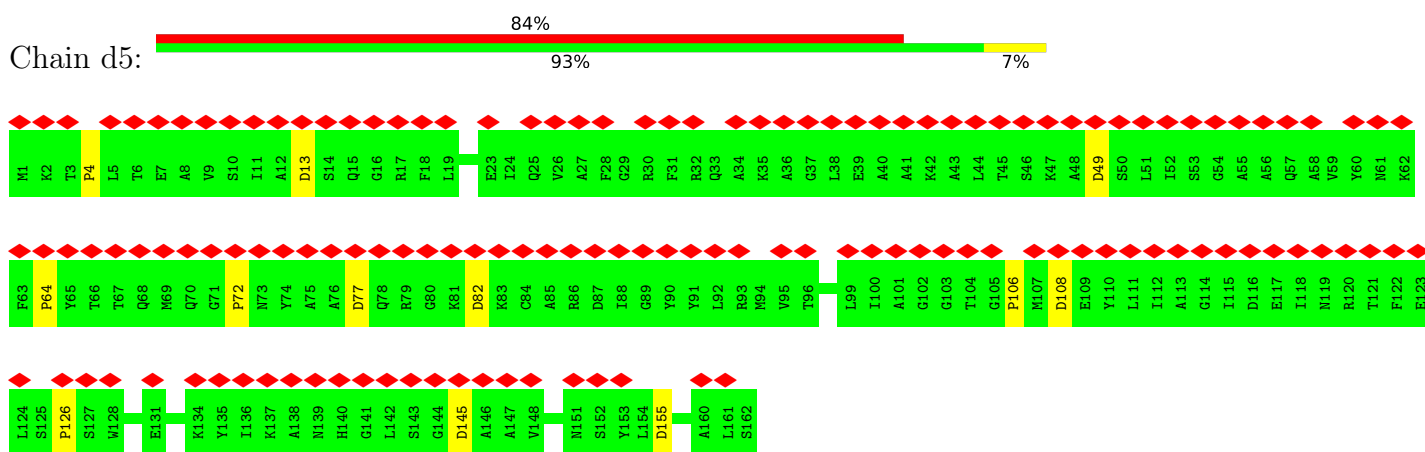


• Molecule 31: C-phycoerythrin alpha subunit

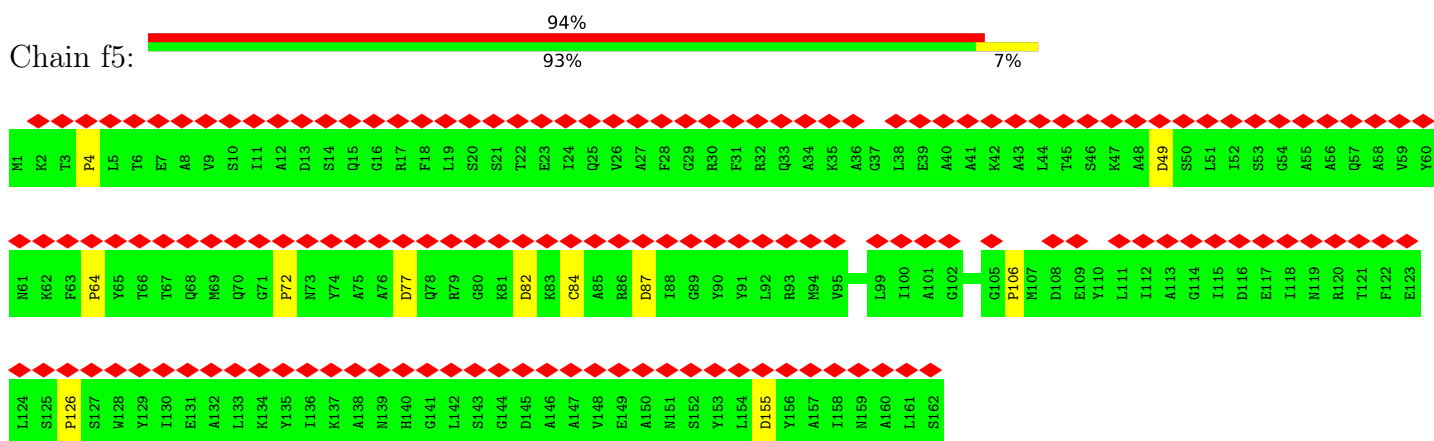




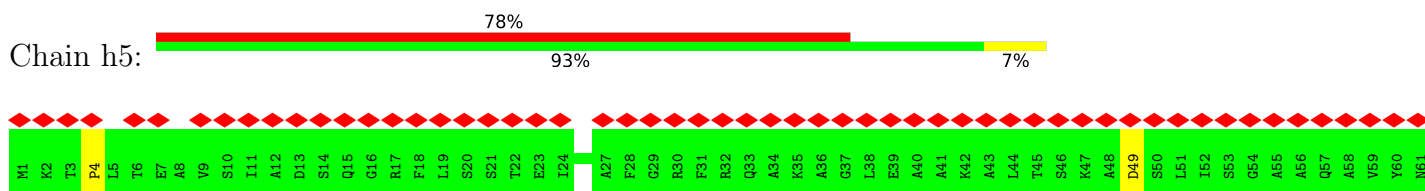
• Molecule 31: C-phycoyanin alpha subunit

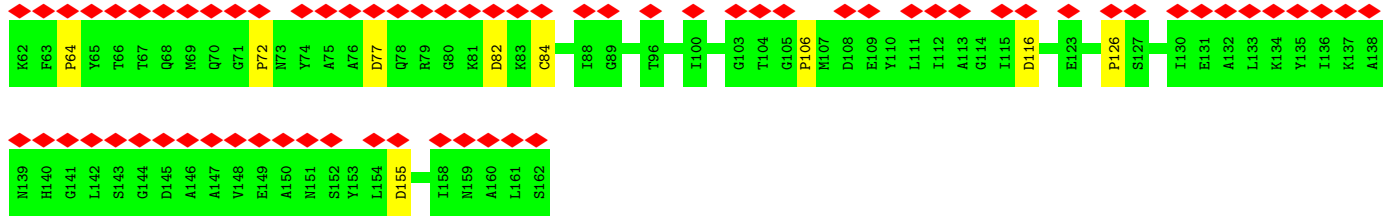


• Molecule 31: C-phycoyanin alpha subunit

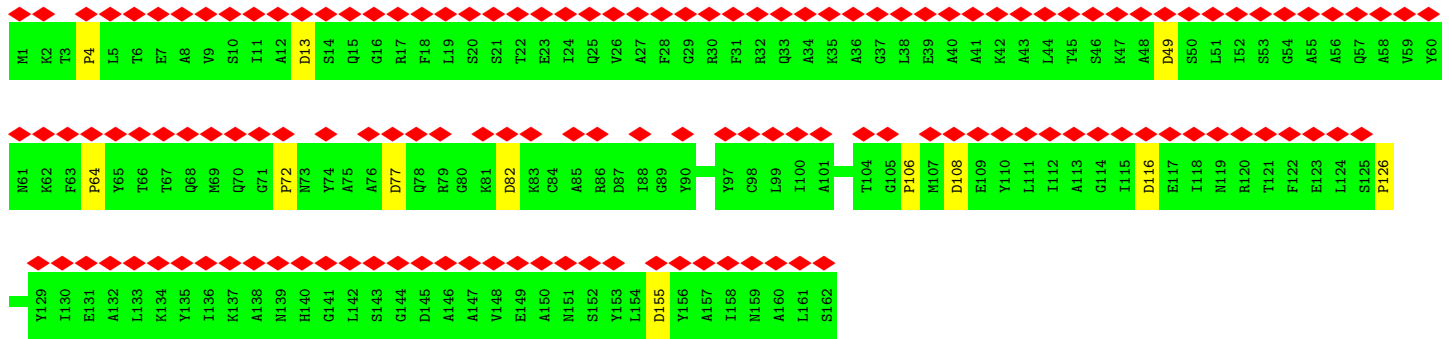
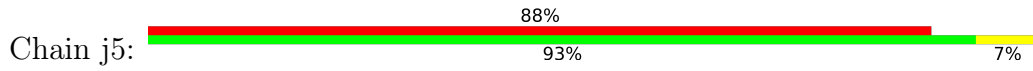


• Molecule 31: C-phycoyanin alpha subunit

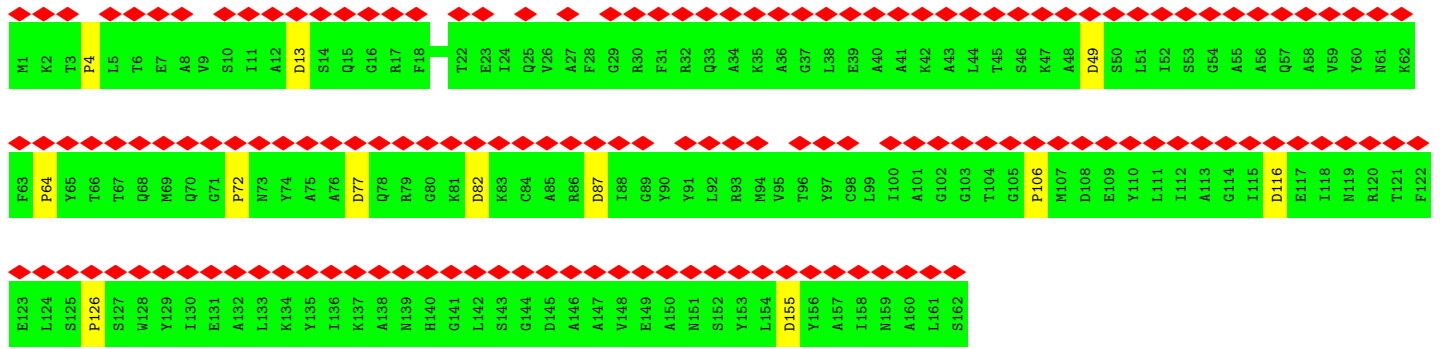
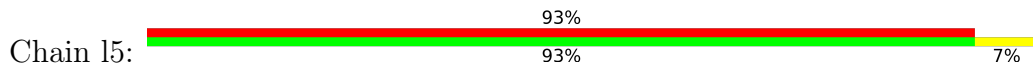




• Molecule 31: C-phycoerythrin alpha subunit

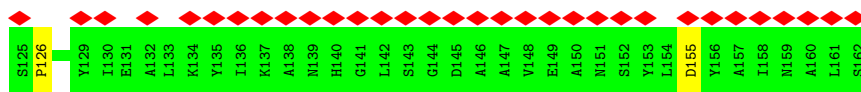


• Molecule 31: C-phycoerythrin alpha subunit

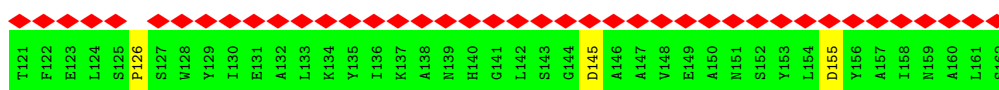
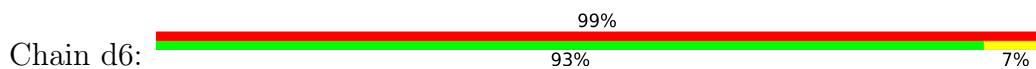


• Molecule 31: C-phycoerythrin alpha subunit

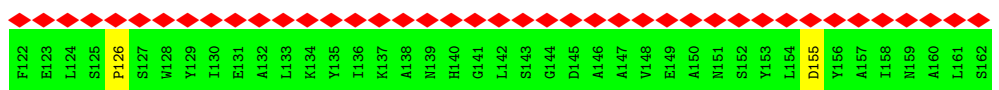
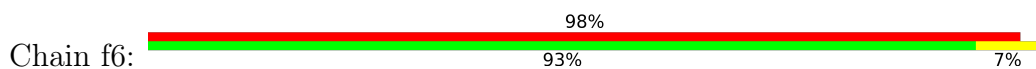




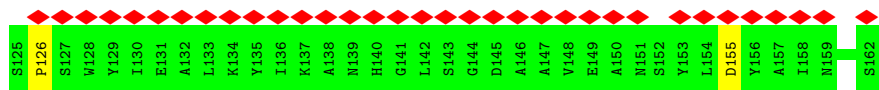
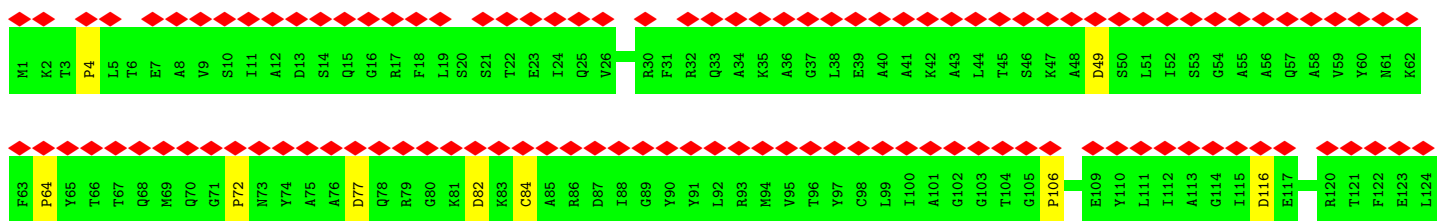
- Molecule 31: C-phycoerythrin alpha subunit



- Molecule 31: C-phycoerythrin alpha subunit

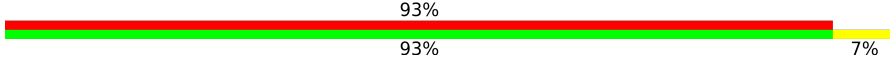


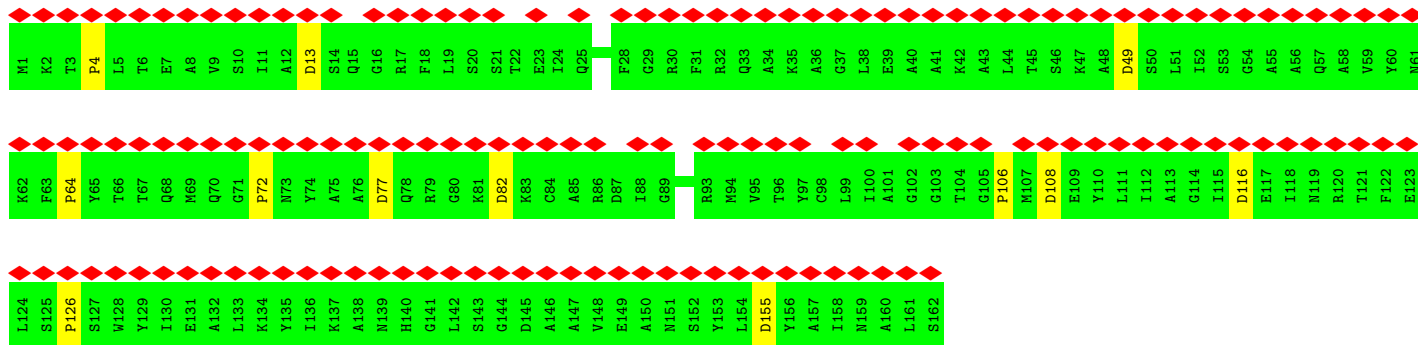
- Molecule 31: C-phycoerythrin alpha subunit



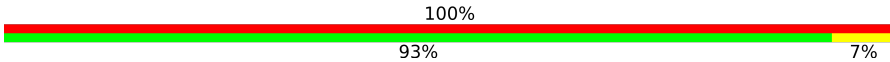
- Molecule 31: C-phycoerythrin alpha subunit

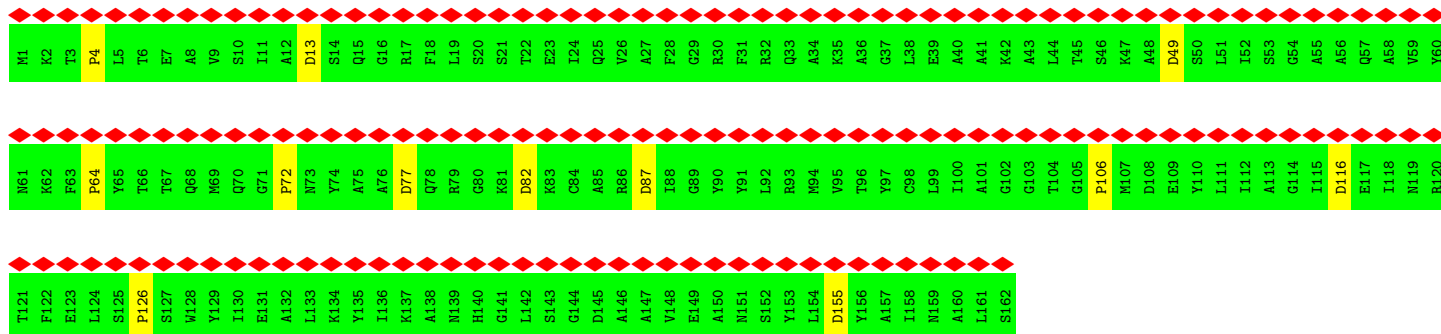


Chain j6: 



• Molecule 31: C-phycoerythrin alpha subunit

Chain l6: 

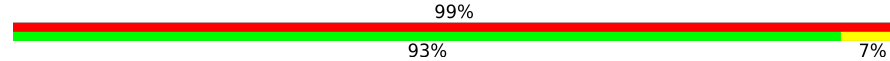


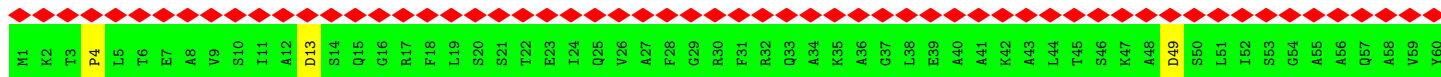
• Molecule 31: C-phycoerythrin alpha subunit

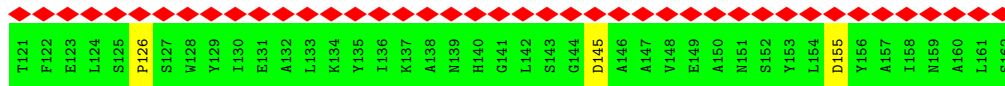
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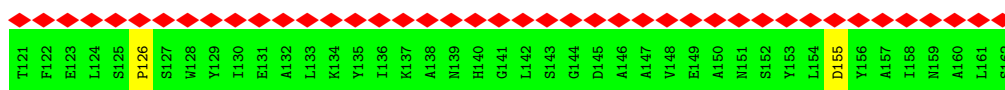
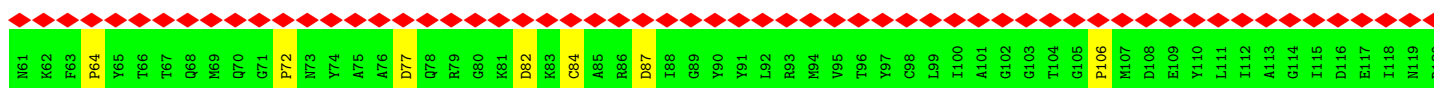
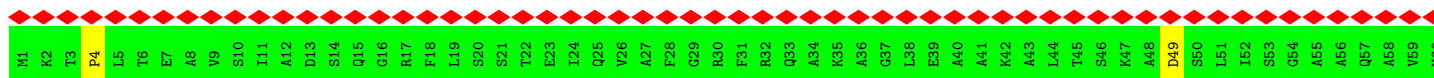
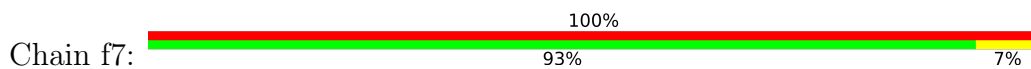
• Molecule 31: C-phycoerythrin alpha subunit

Chain d7: 

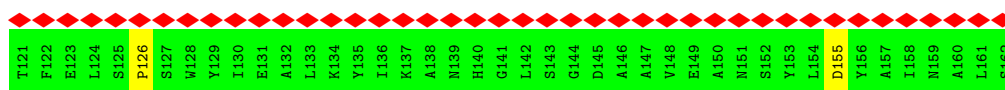
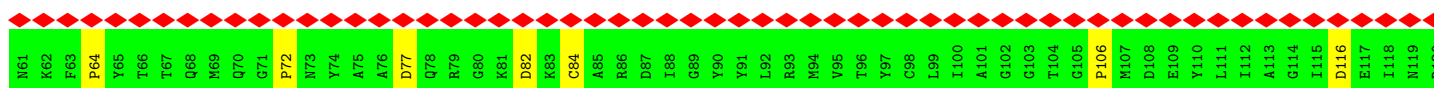
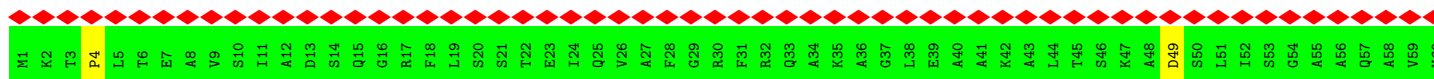




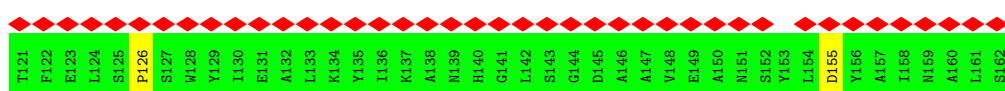
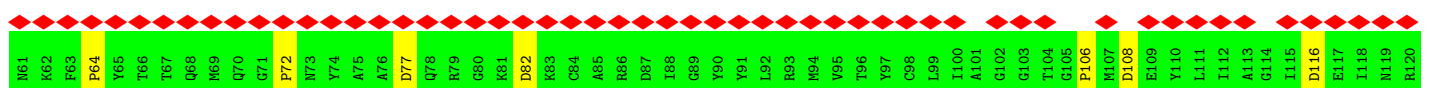
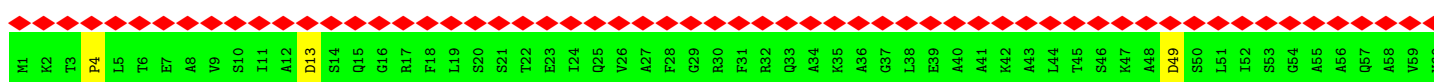
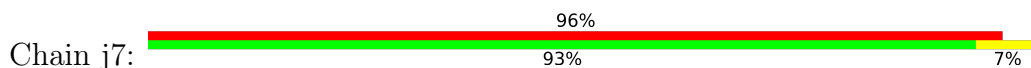
- Molecule 31: C-phycoerythrin alpha subunit



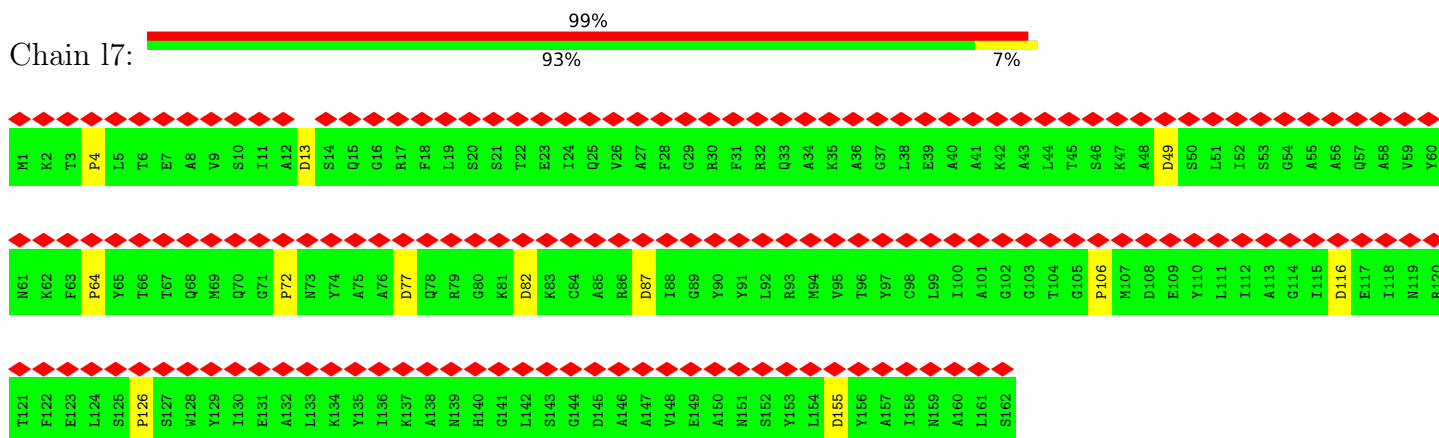
- Molecule 31: C-phycoerythrin alpha subunit



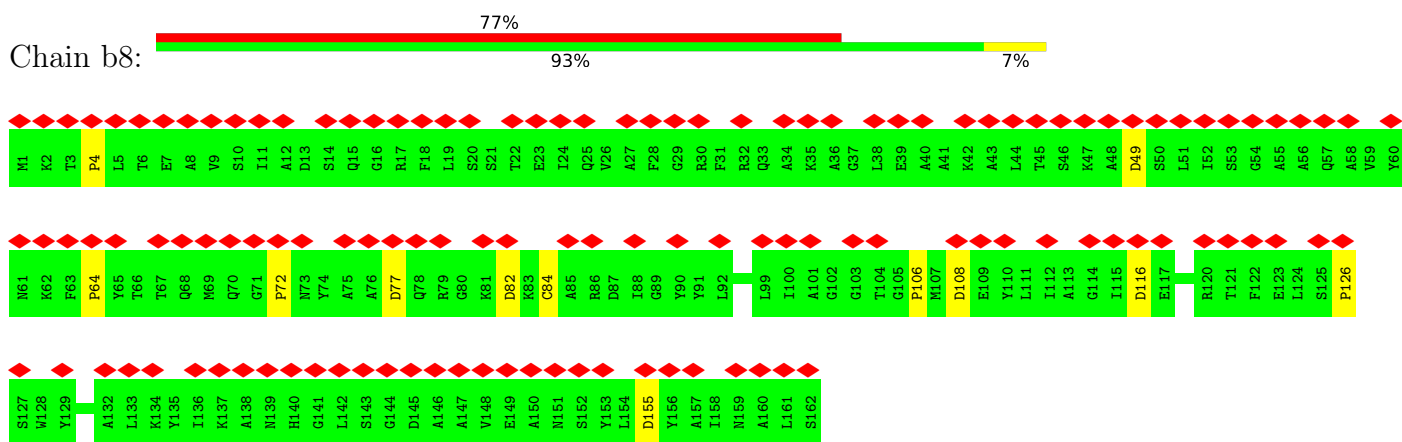
- Molecule 31: C-phycoerythrin alpha subunit



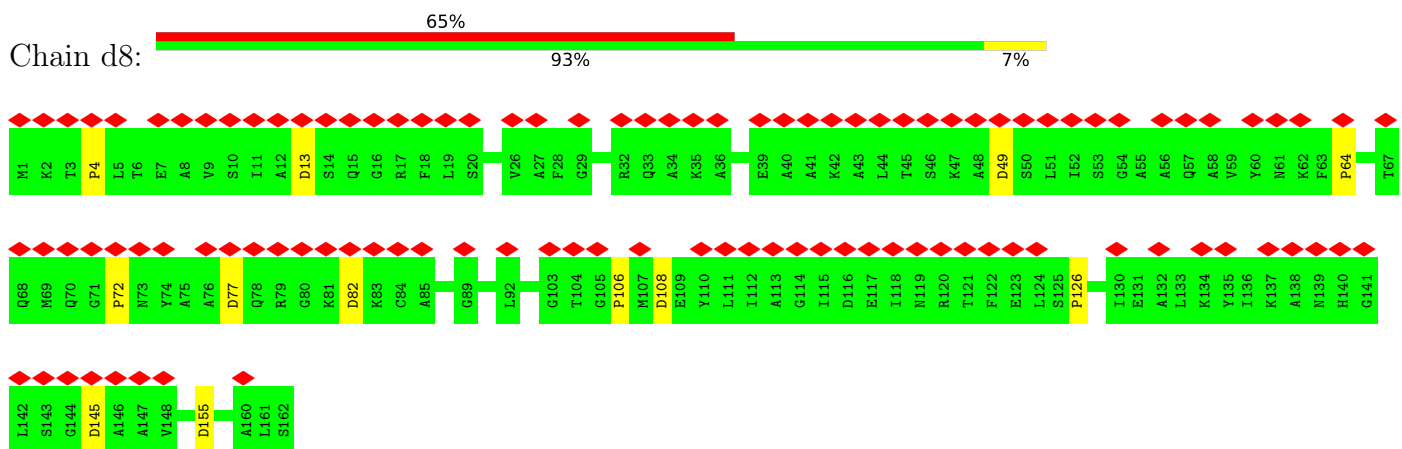
- Molecule 31: C-phycoerythrin alpha subunit



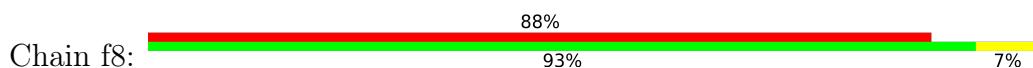
- Molecule 31: C-phycoerythrin alpha subunit

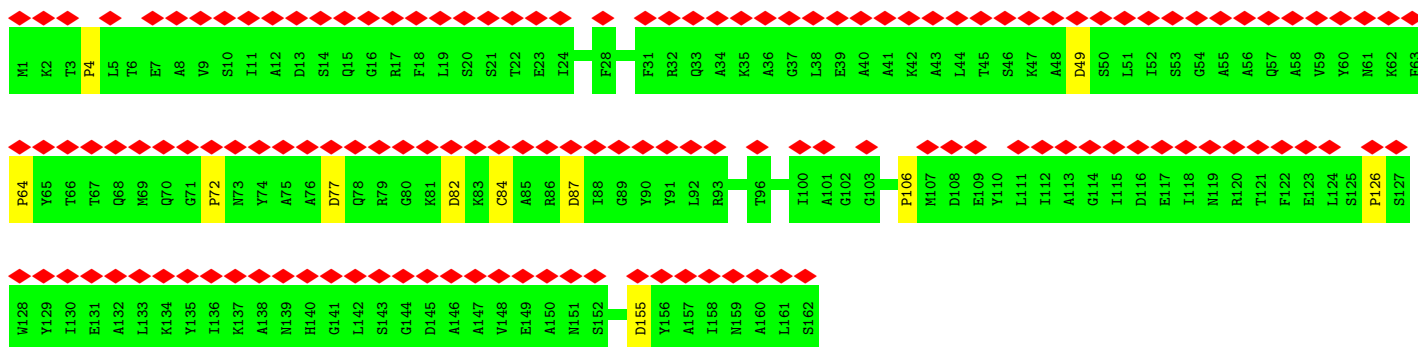


- Molecule 31: C-phycoerythrin alpha subunit

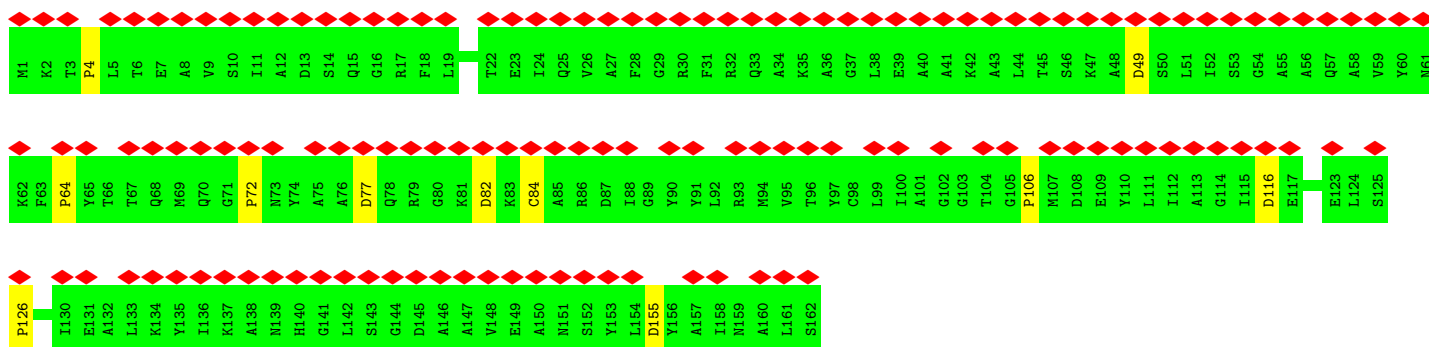
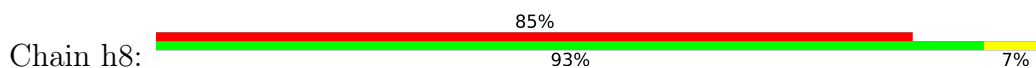


- Molecule 31: C-phycoerythrin alpha subunit

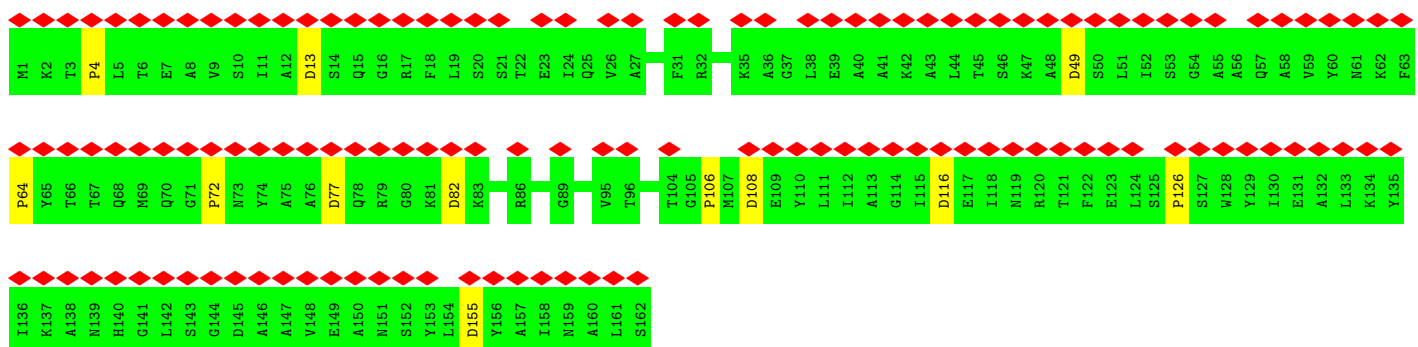
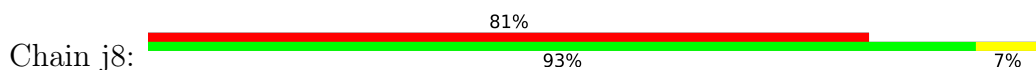




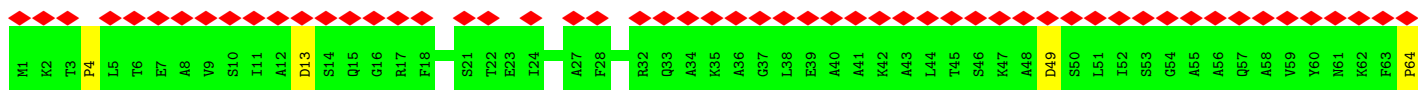
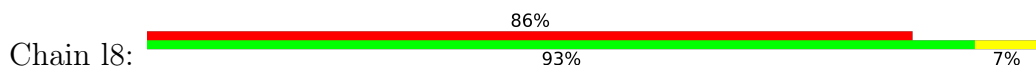
- Molecule 31: C-phyco cyanin alpha subunit

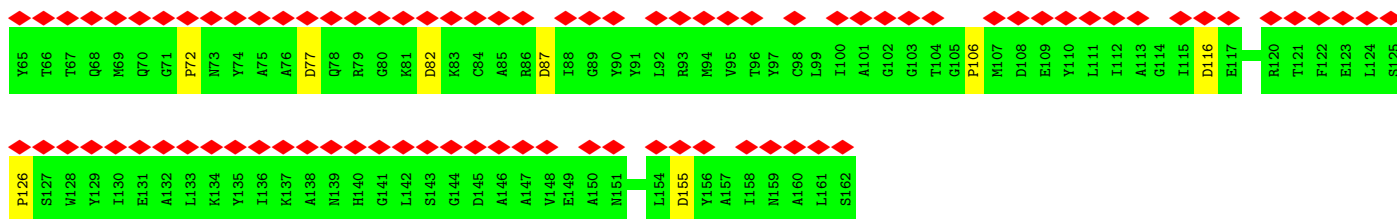


- Molecule 31: C-phyco cyanin alpha subunit

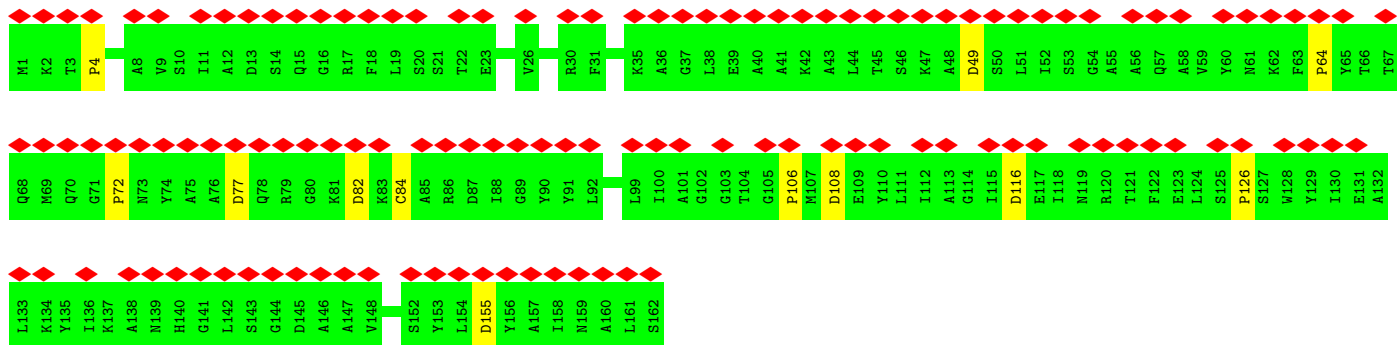
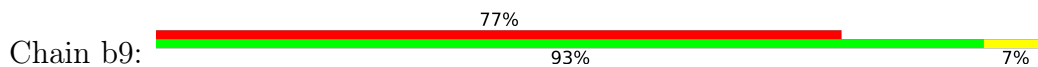


- Molecule 31: C-phyco cyanin alpha subunit

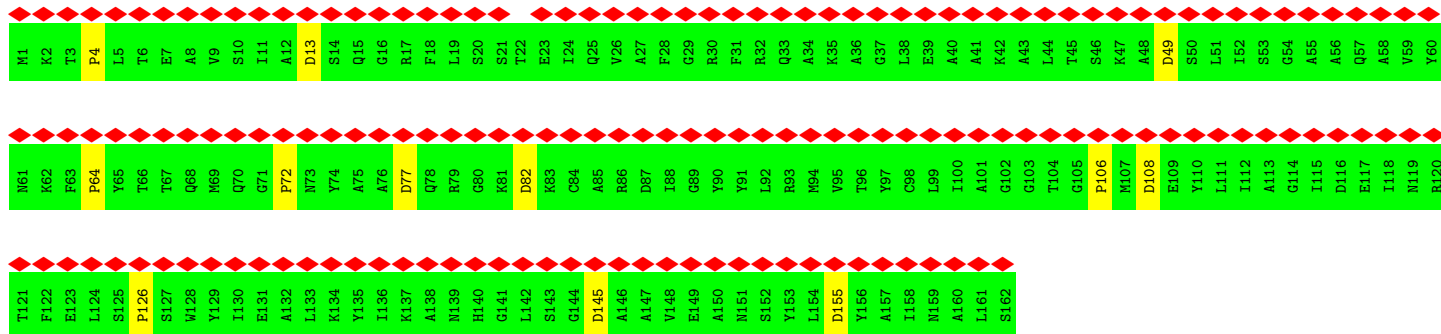
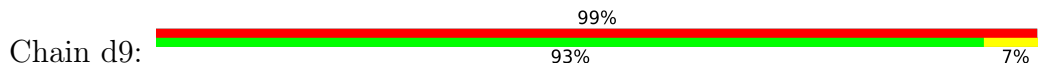




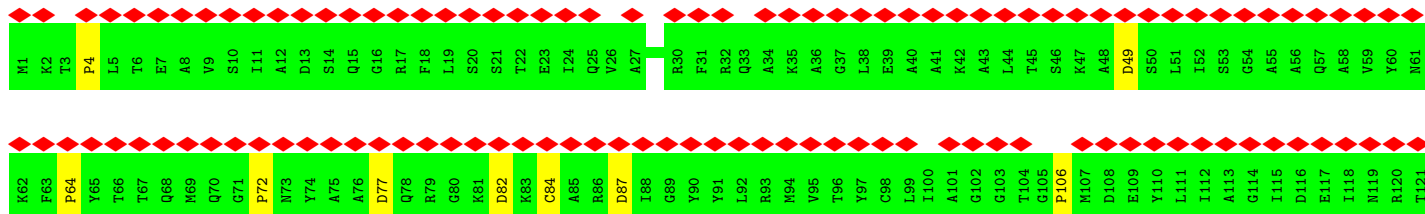
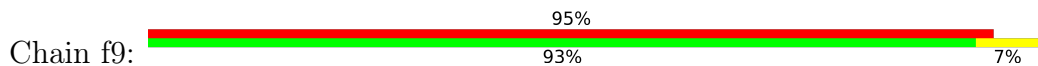
• Molecule 31: C-phycoerythrin alpha subunit



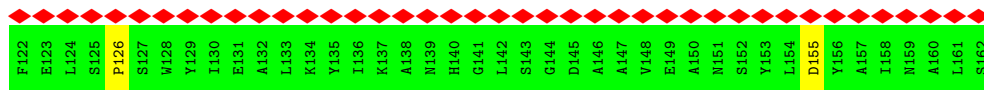
• Molecule 31: C-phycoerythrin alpha subunit



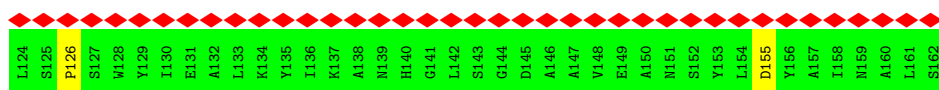
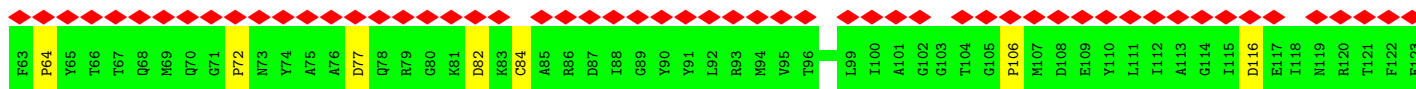
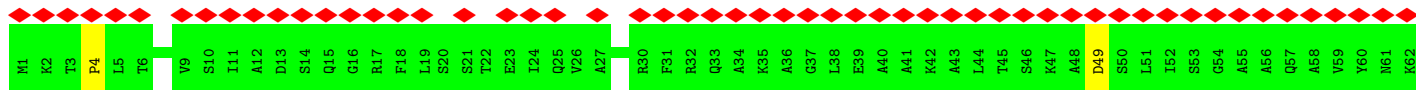
• Molecule 31: C-phycoerythrin alpha subunit



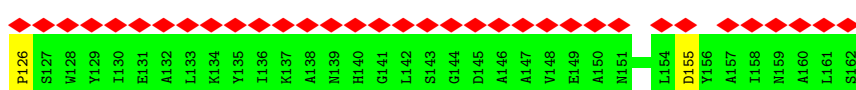
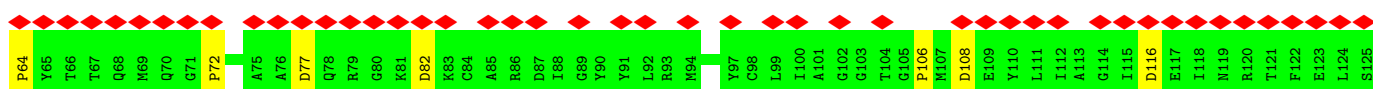
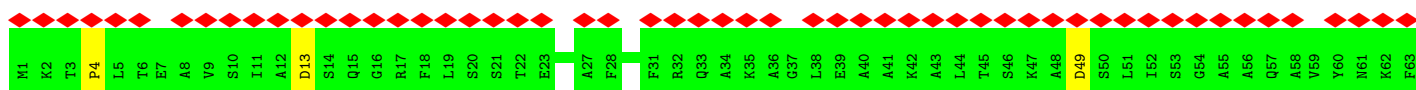
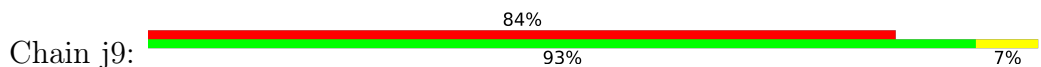




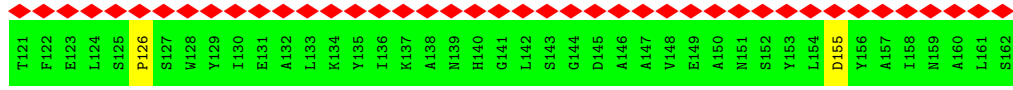
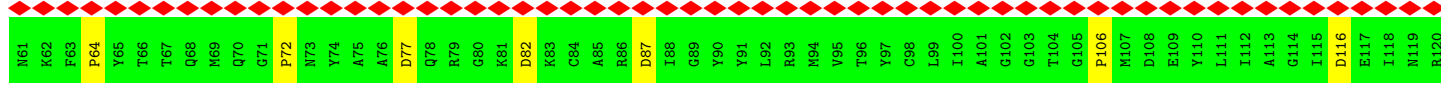
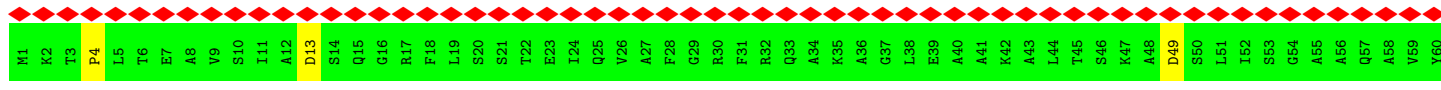
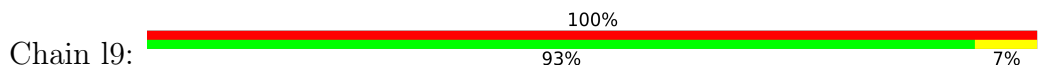
• Molecule 31: C-phycoyanin alpha subunit



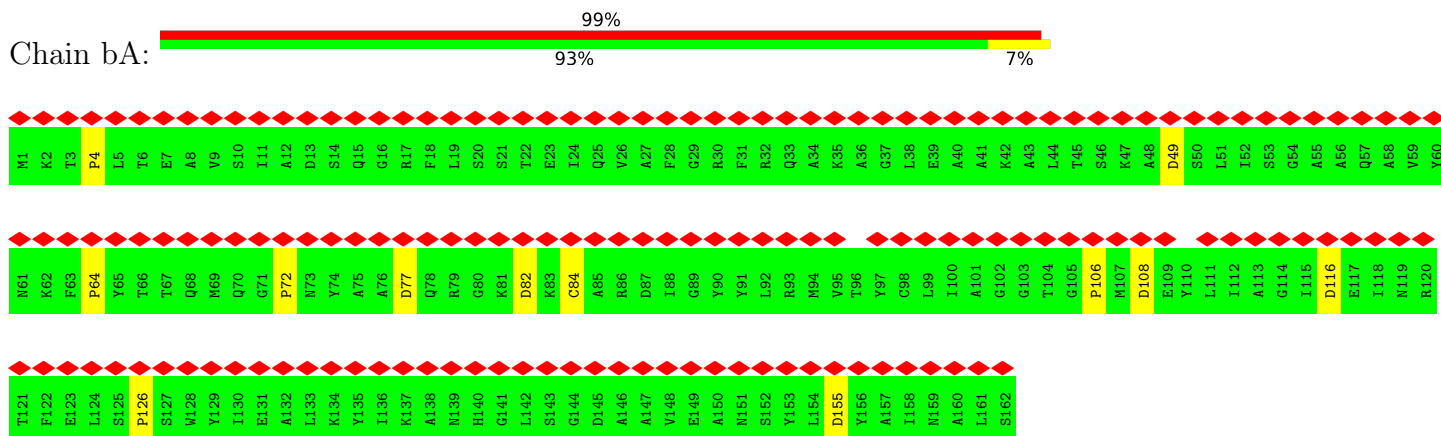
• Molecule 31: C-phycoyanin alpha subunit



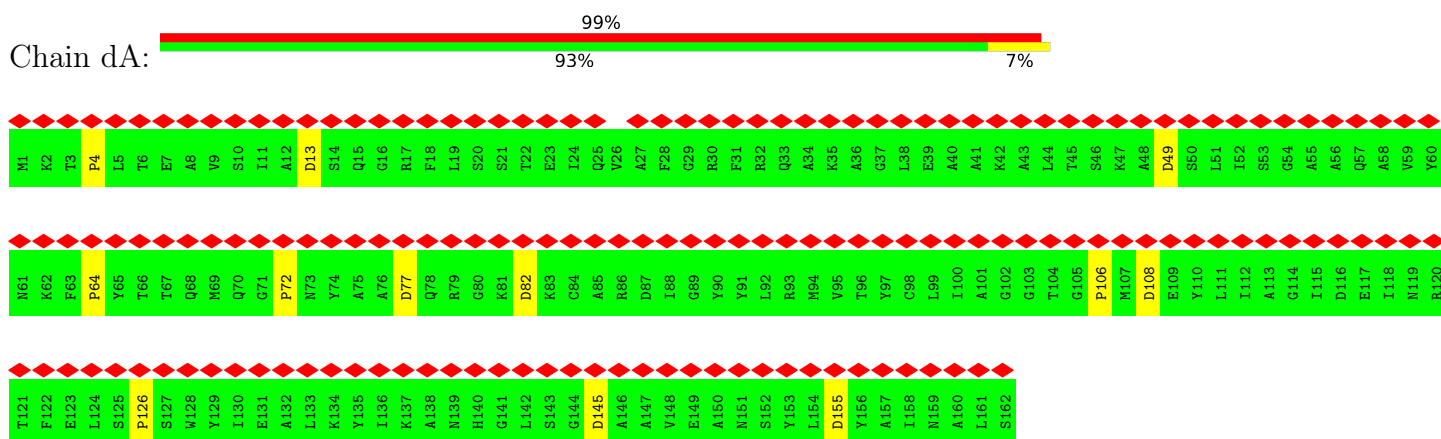
• Molecule 31: C-phycoyanin alpha subunit



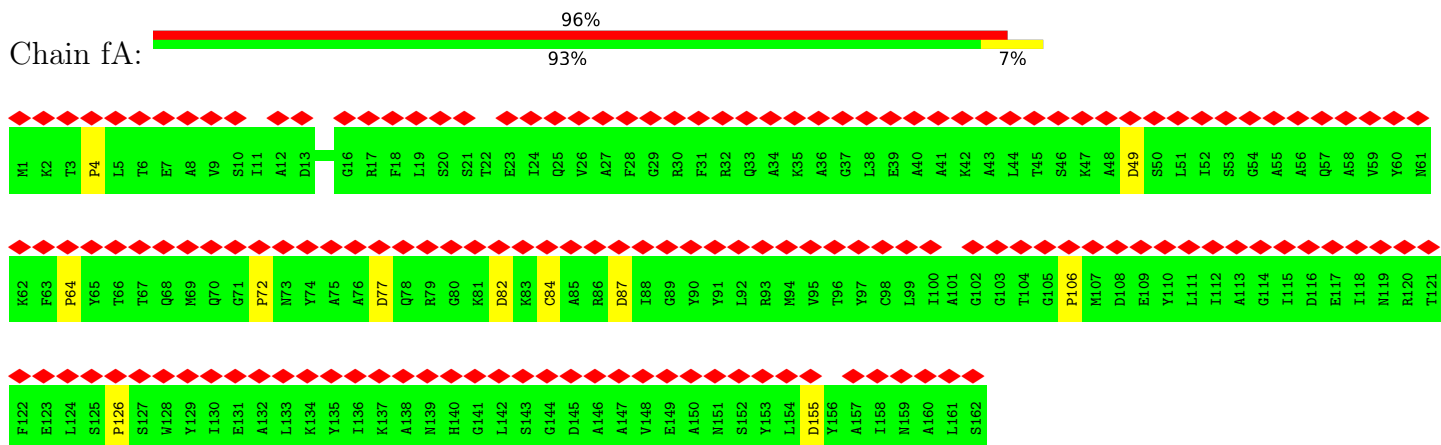
• Molecule 31: C-phycoyanin alpha subunit



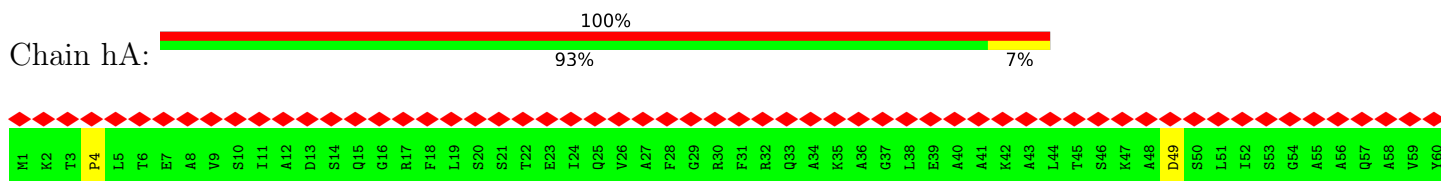
- Molecule 31: C-phycoerythrin alpha subunit

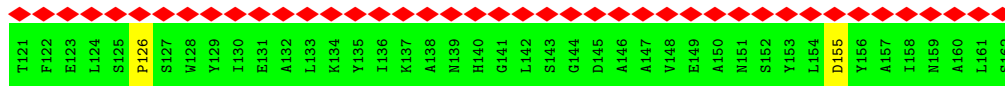
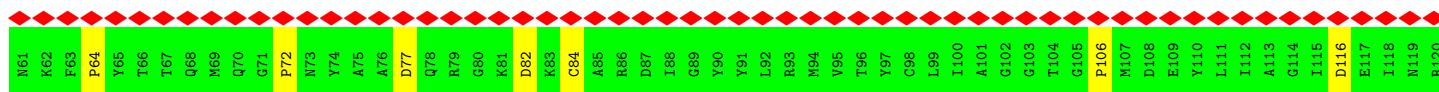


- Molecule 31: C-phycoerythrin alpha subunit

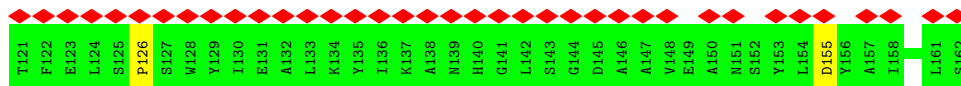
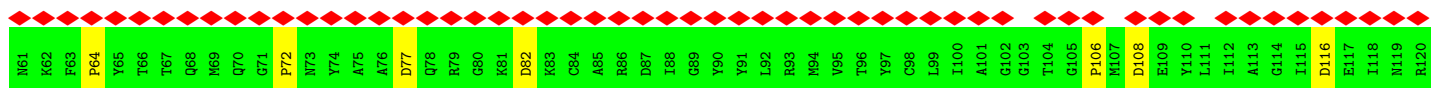
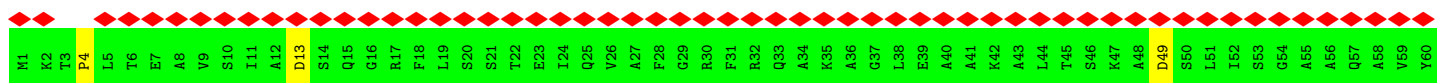


- Molecule 31: C-phycoerythrin alpha subunit

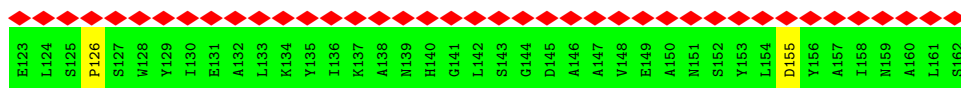
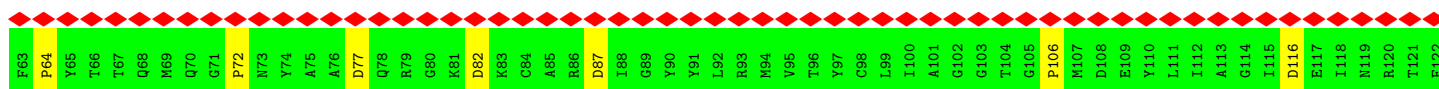
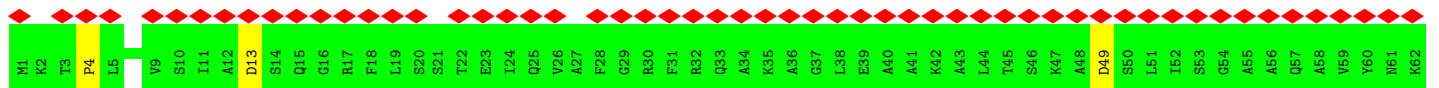




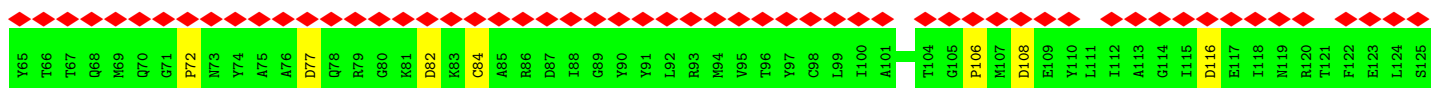
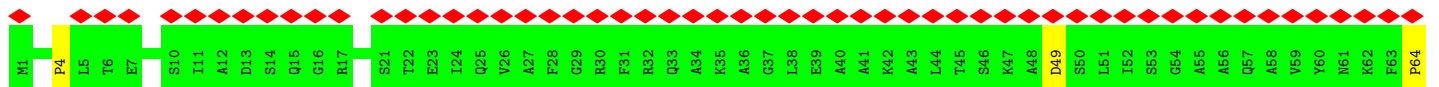
• Molecule 31: C-phycoerythrin alpha subunit

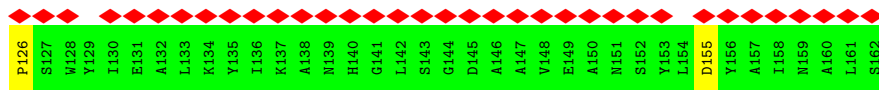


• Molecule 31: C-phycoerythrin alpha subunit

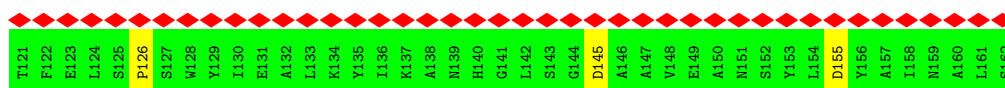
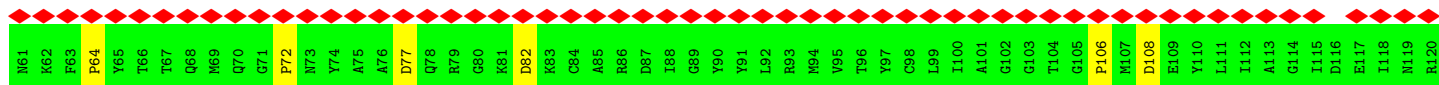
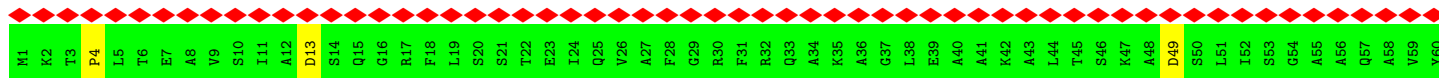


• Molecule 31: C-phycoerythrin alpha subunit

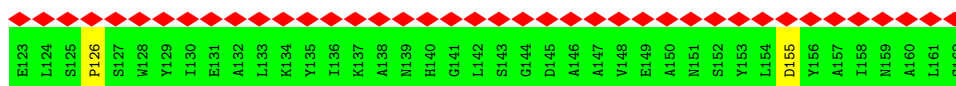
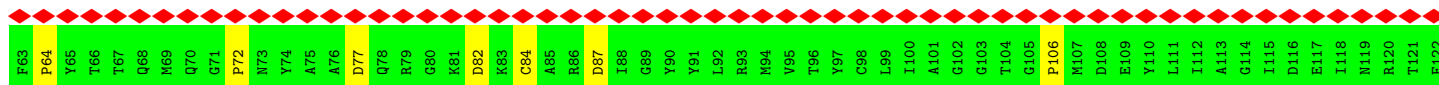
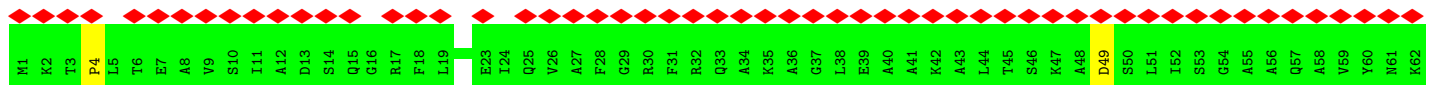




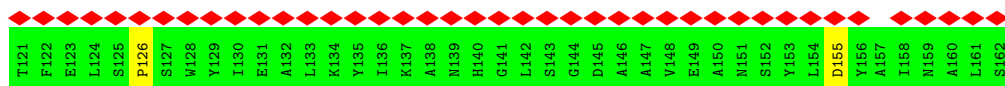
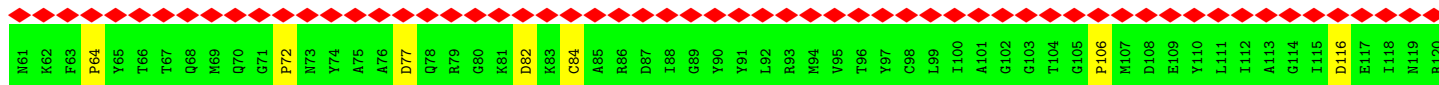
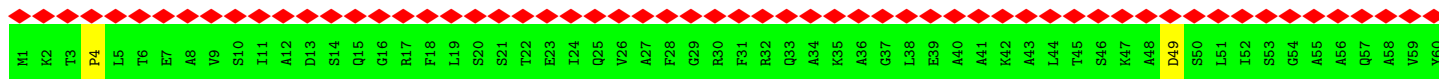
- Molecule 31: C-phycoerythrin alpha subunit



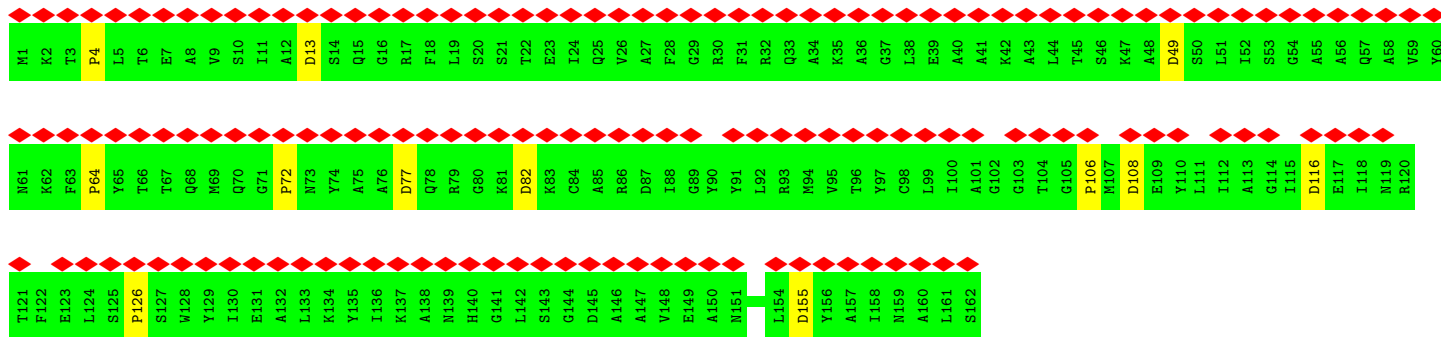
- Molecule 31: C-phycoerythrin alpha subunit



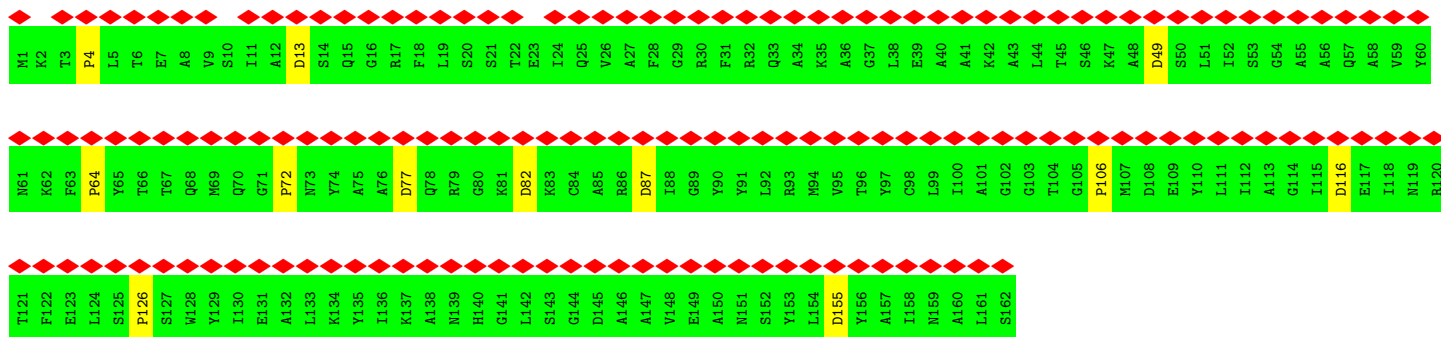
- Molecule 31: C-phycoerythrin alpha subunit



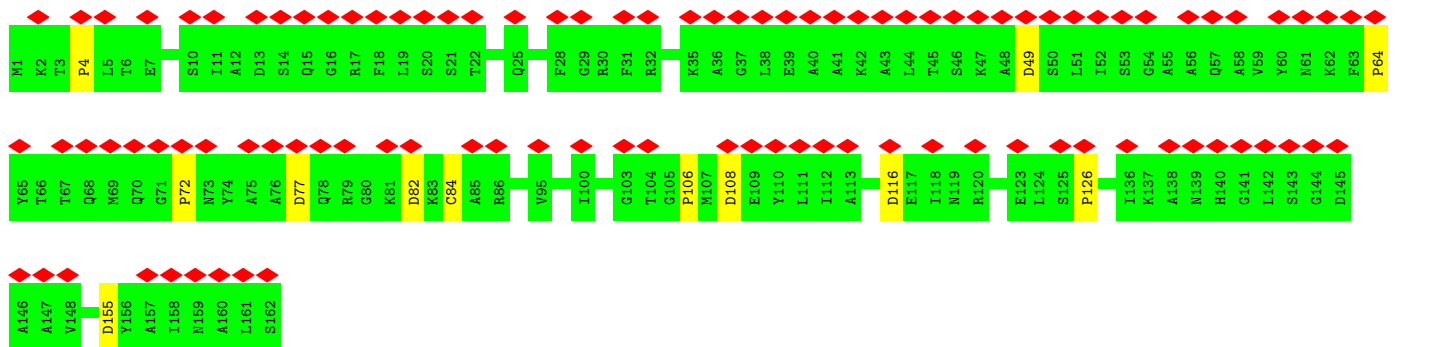
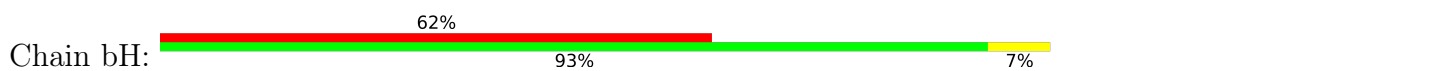
- Molecule 31: C-phycoerythrin alpha subunit



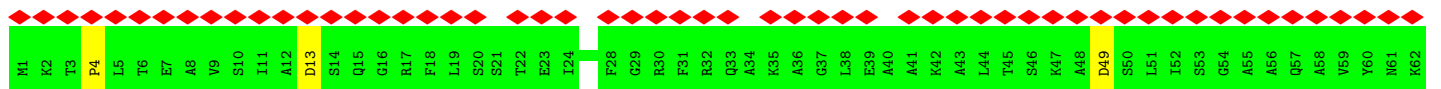
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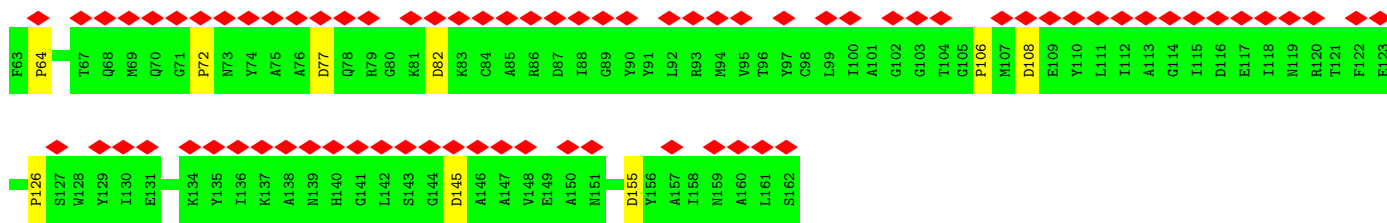


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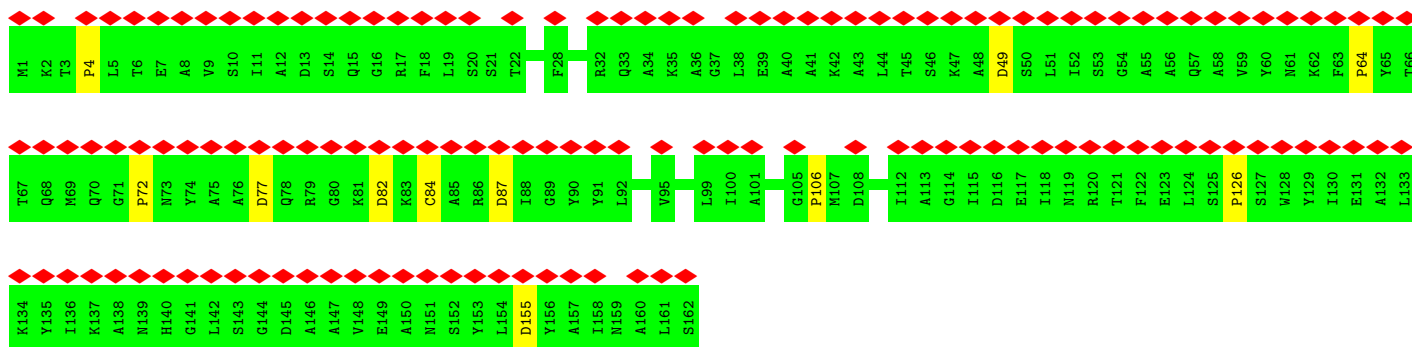
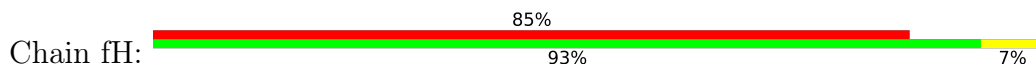


• Molecule 31: C-phycoyanin alpha subunit

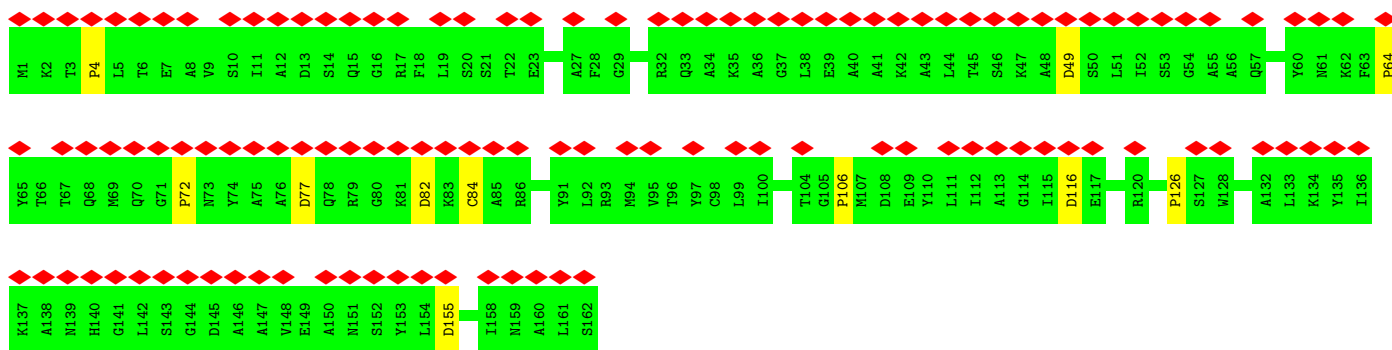
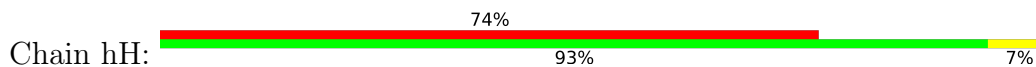




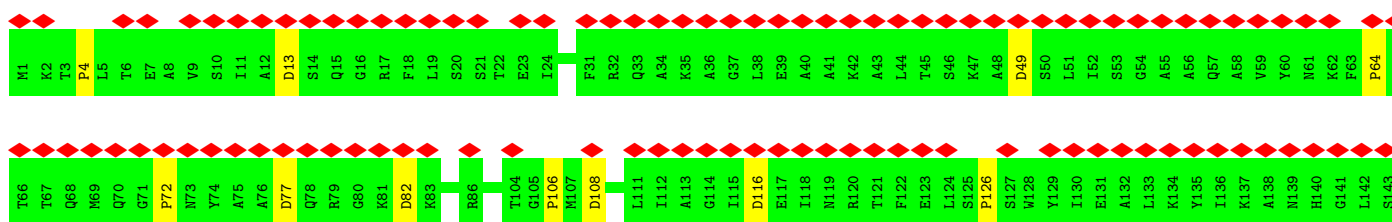
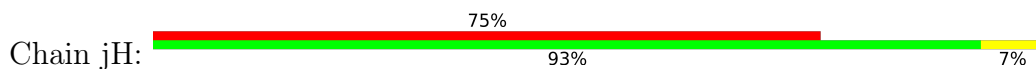
- Molecule 31: C-phycoerythrin alpha subunit



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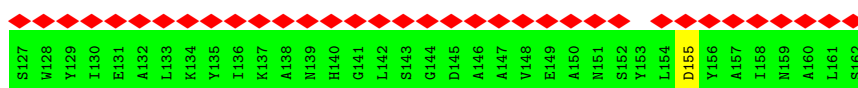
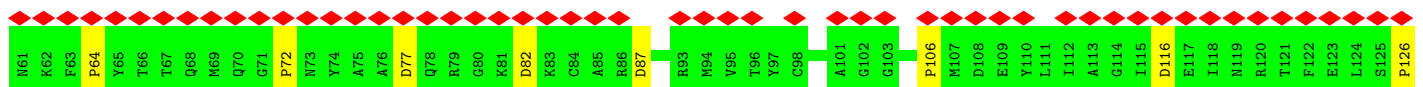
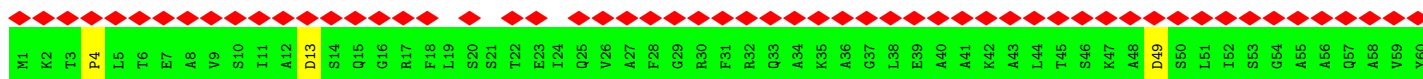
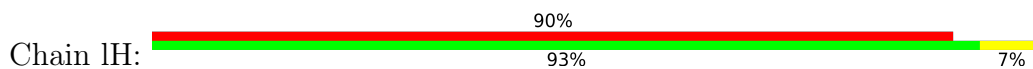


- Molecule 31: C-phycoerythrin alpha subunit

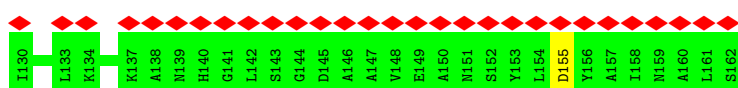
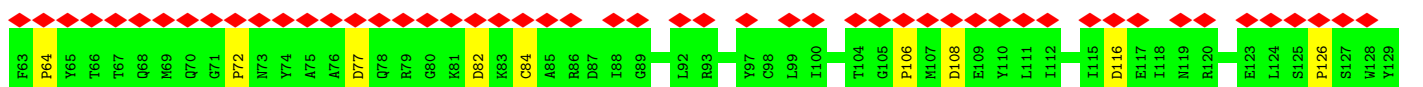
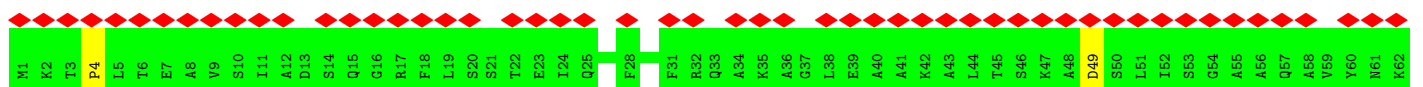
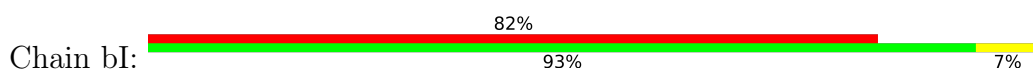




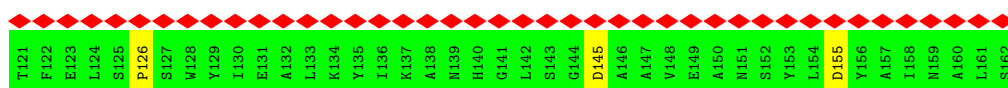
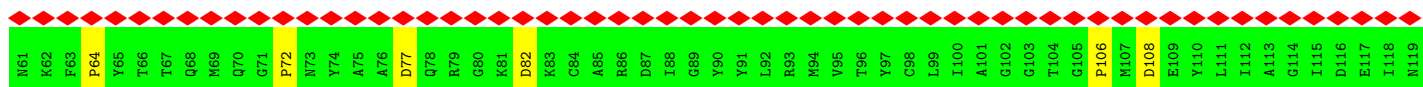
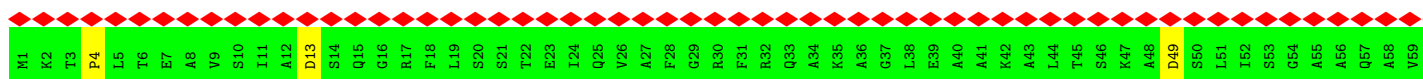
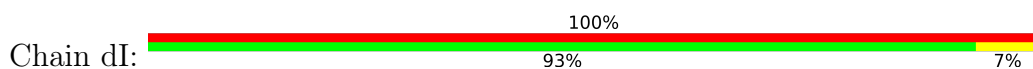
- Molecule 31: C-phycoerythrin alpha subunit



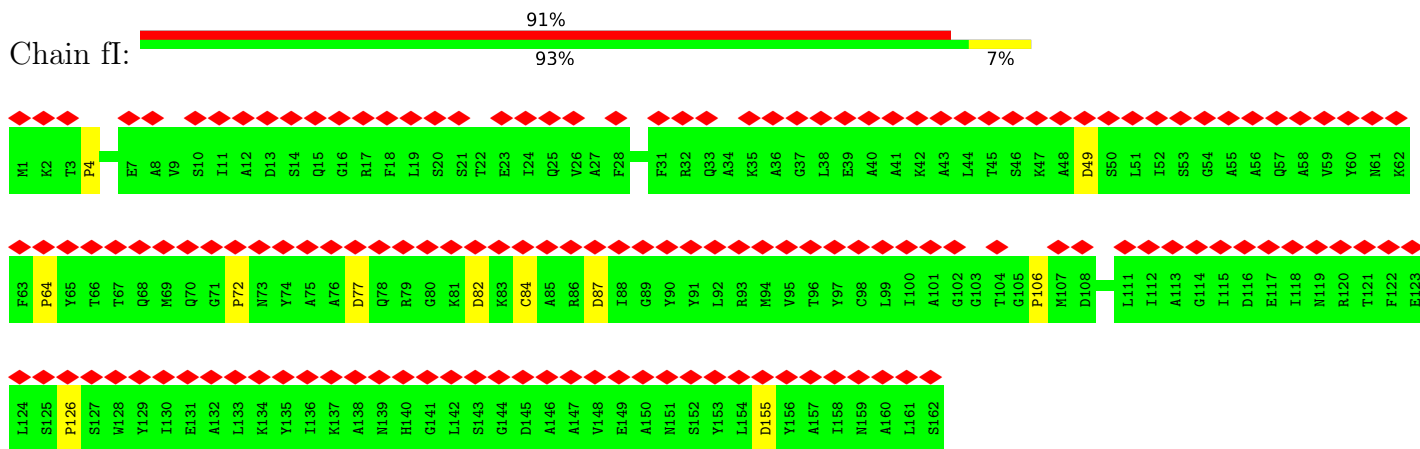
- Molecule 31: C-phycoerythrin alpha subunit



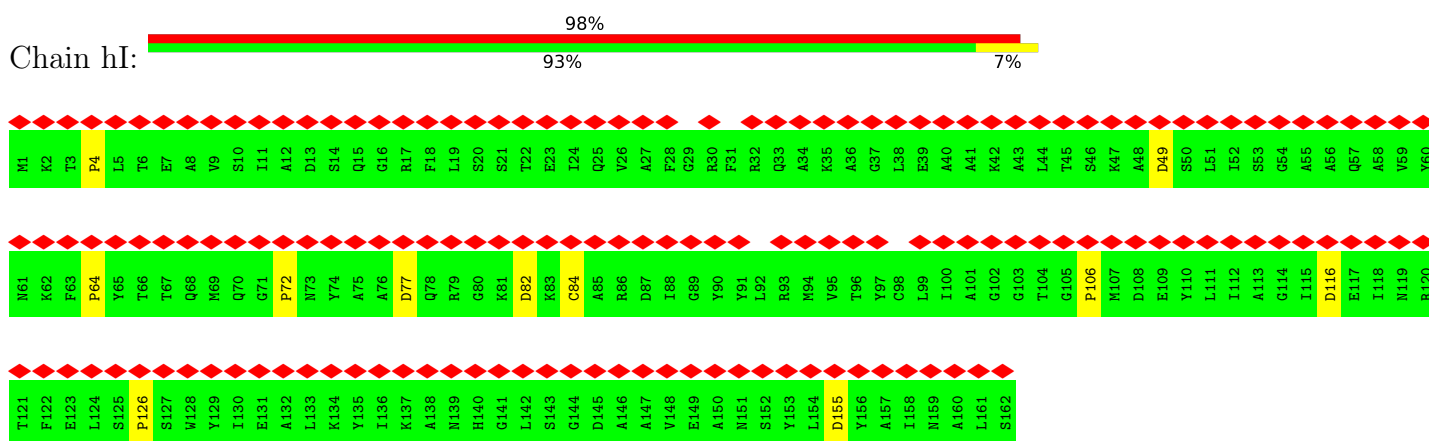
- Molecule 31: C-phycoerythrin alpha subunit



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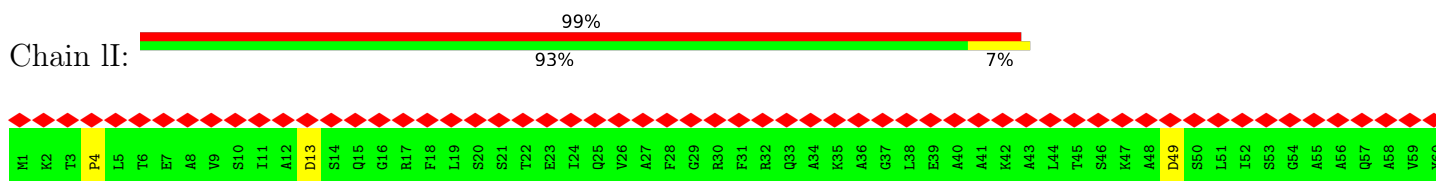
• Molecule 31: C-phycoyanin alpha subunit



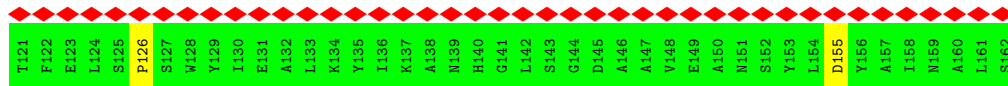
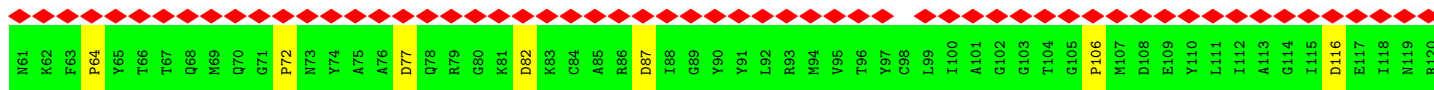
• Molecule 31: C-phycoyanin alpha subunit



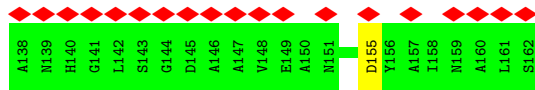
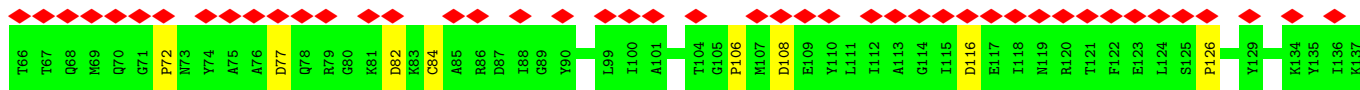
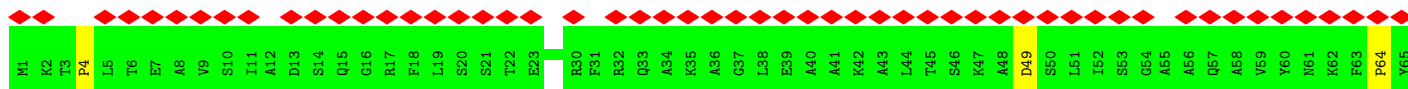
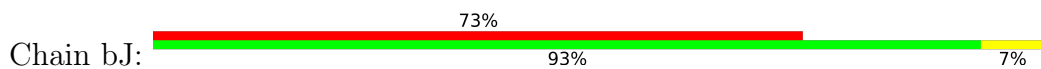
• Molecule 31: C-phycoyanin alpha subunit



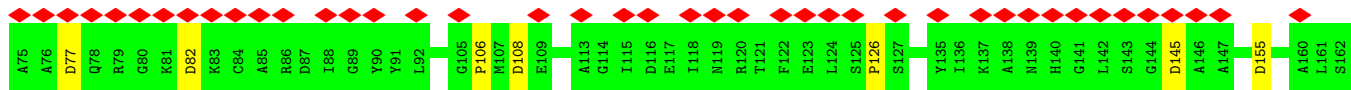
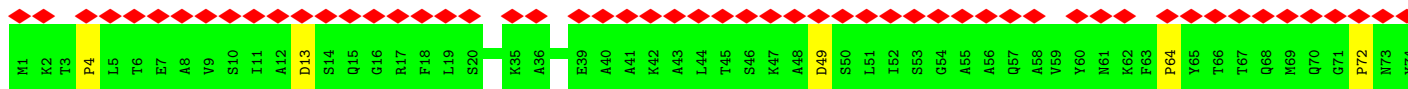
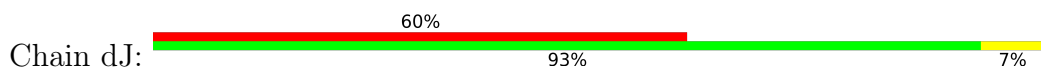




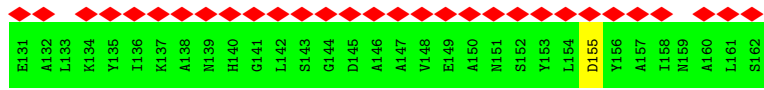
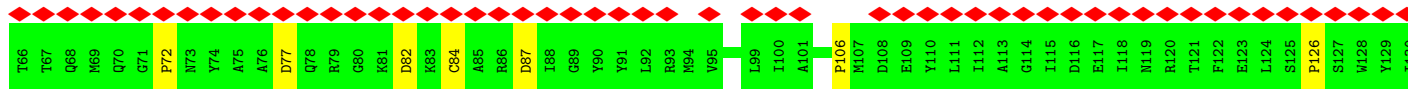
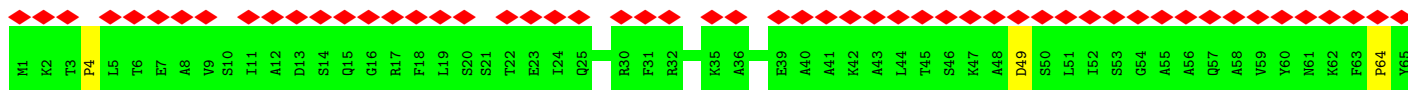
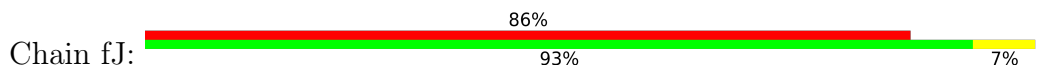
• Molecule 31: C-phycoerythrin alpha subunit



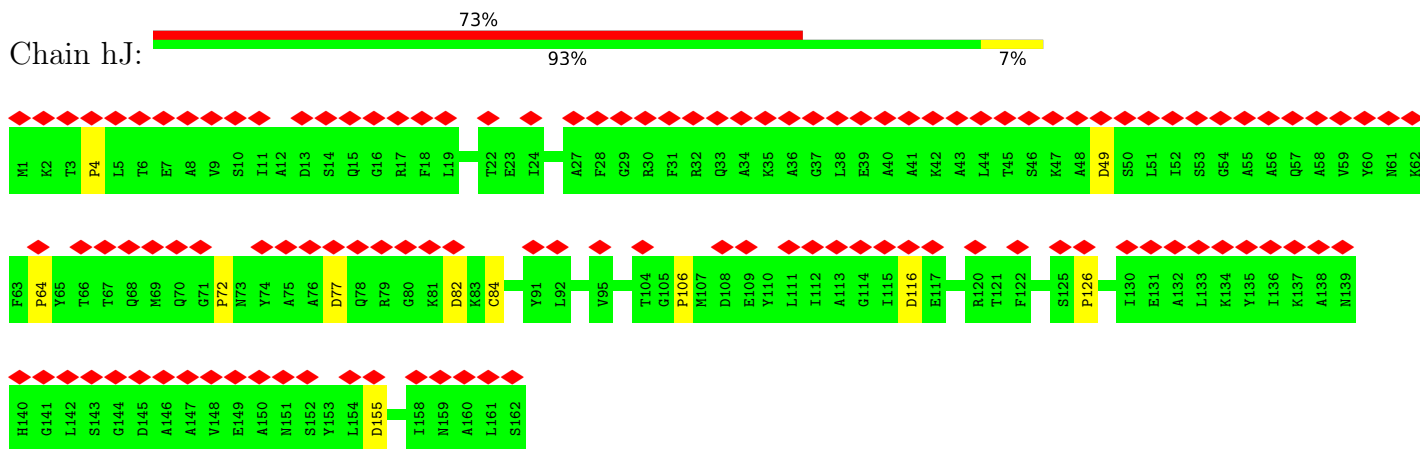
• Molecule 31: C-phycoerythrin alpha subunit



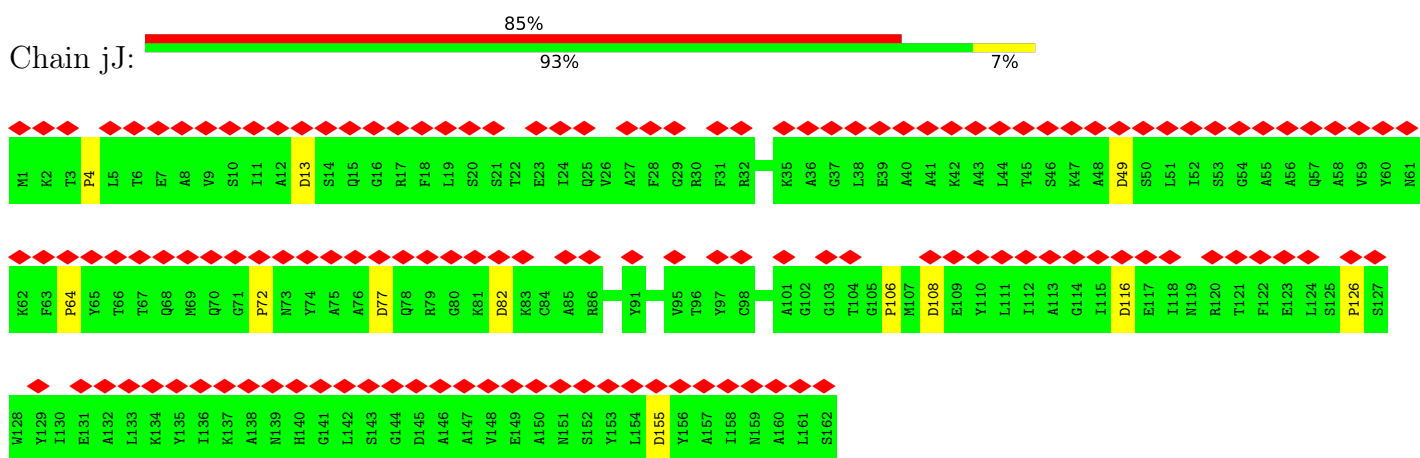
• Molecule 31: C-phycoerythrin alpha subunit



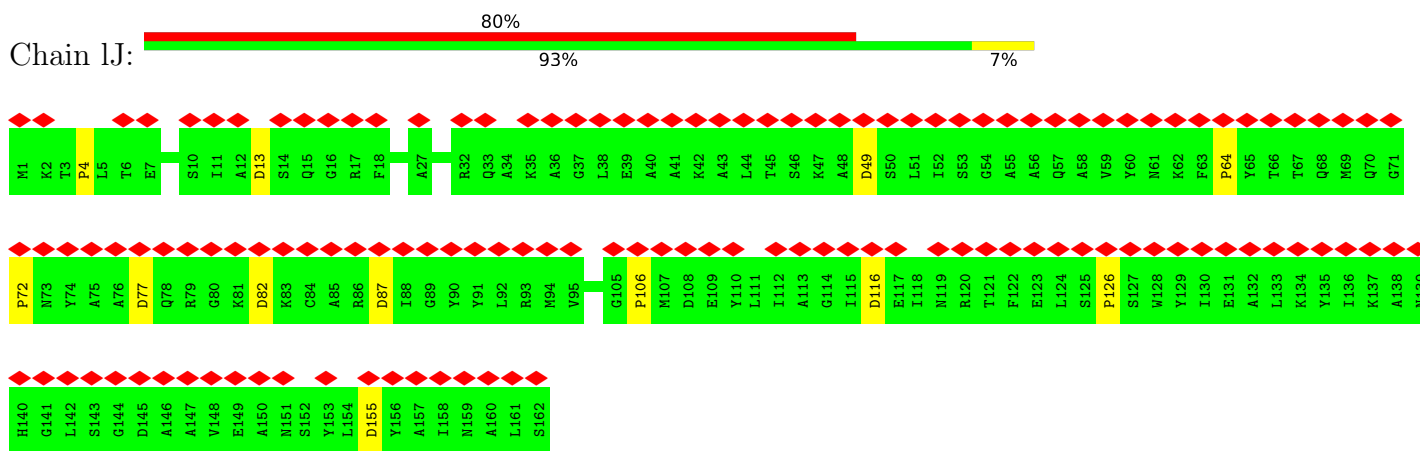
• Molecule 31: C-phycoerythrin alpha subunit



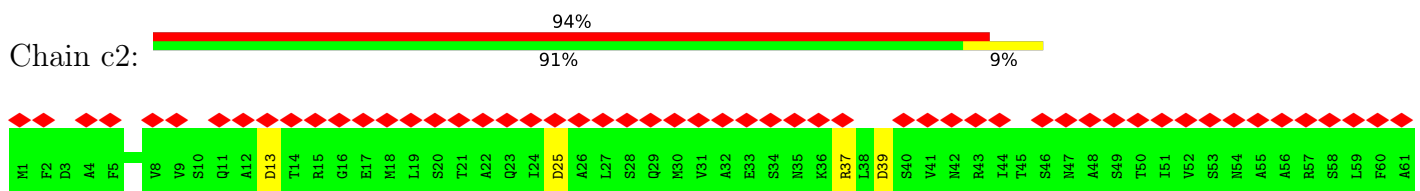
• Molecule 31: C-phycoyanin alpha subunit

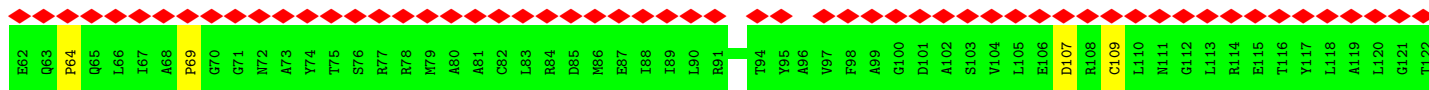


• Molecule 31: C-phycoyanin alpha subunit

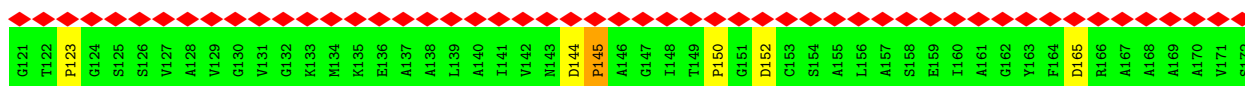
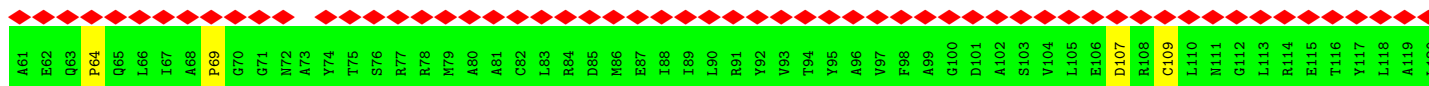
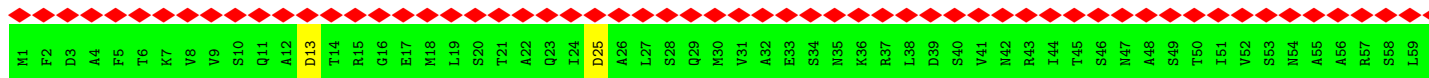
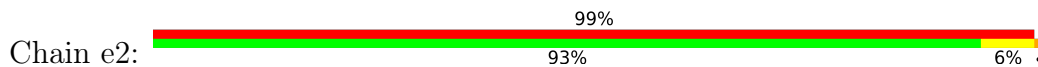


• Molecule 32: Phycoyanin beta subunit

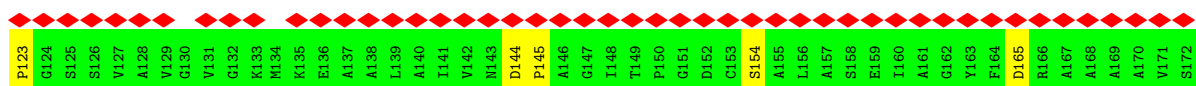
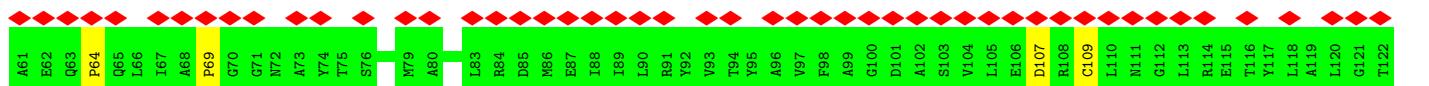
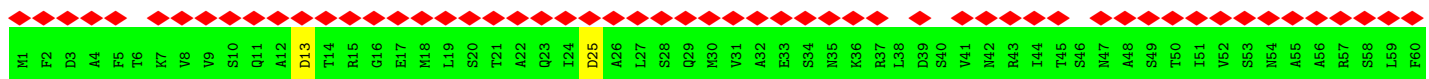




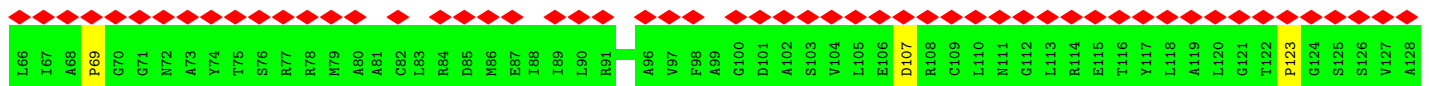
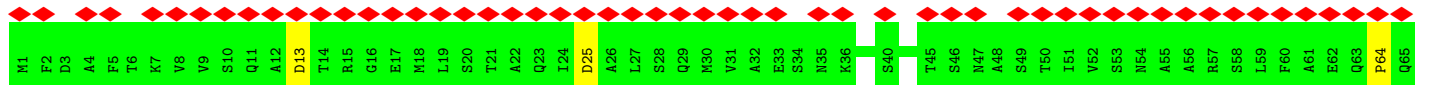
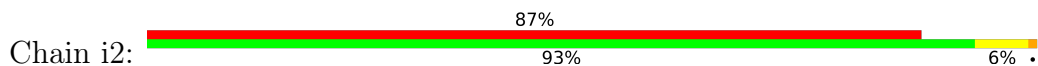
• Molecule 32: Phycocyanin beta subunit

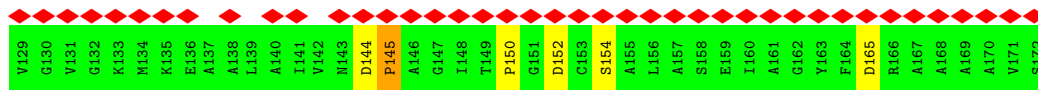


• Molecule 32: Phycocyanin beta subunit

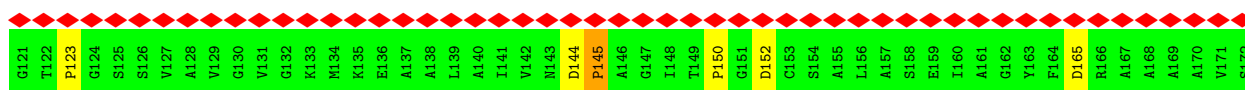
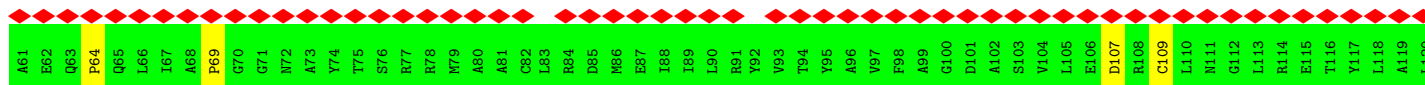
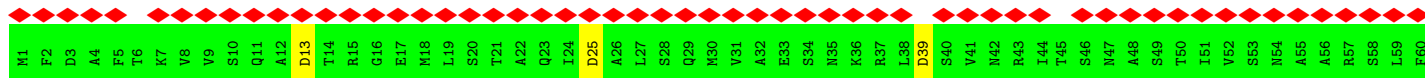
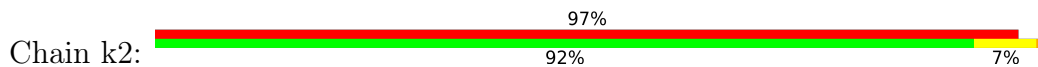


• Molecule 32: Phycocyanin beta subunit

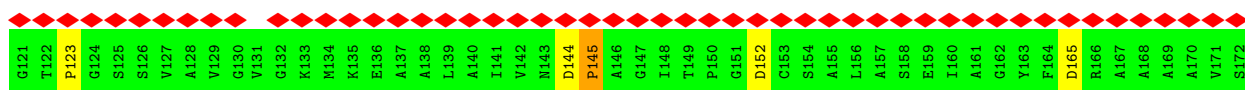
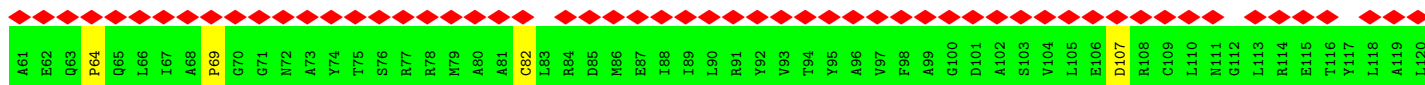
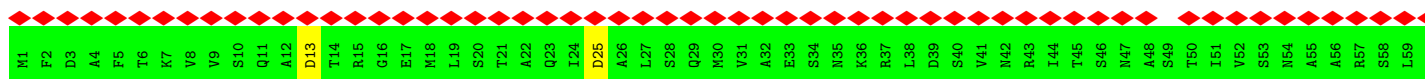




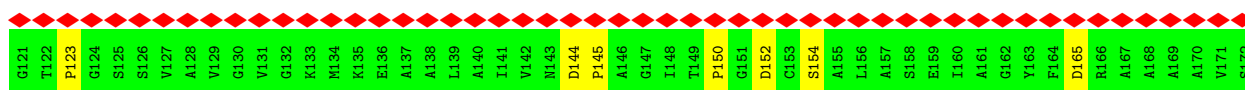
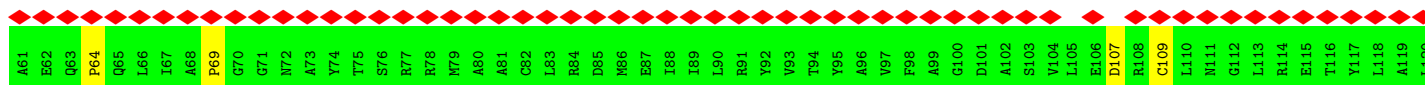
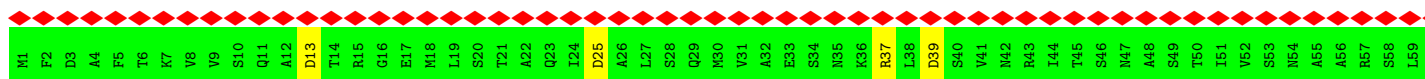
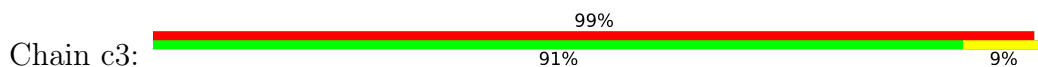
• Molecule 32: Phycocyanin beta subunit



• Molecule 32: Phycocyanin beta subunit

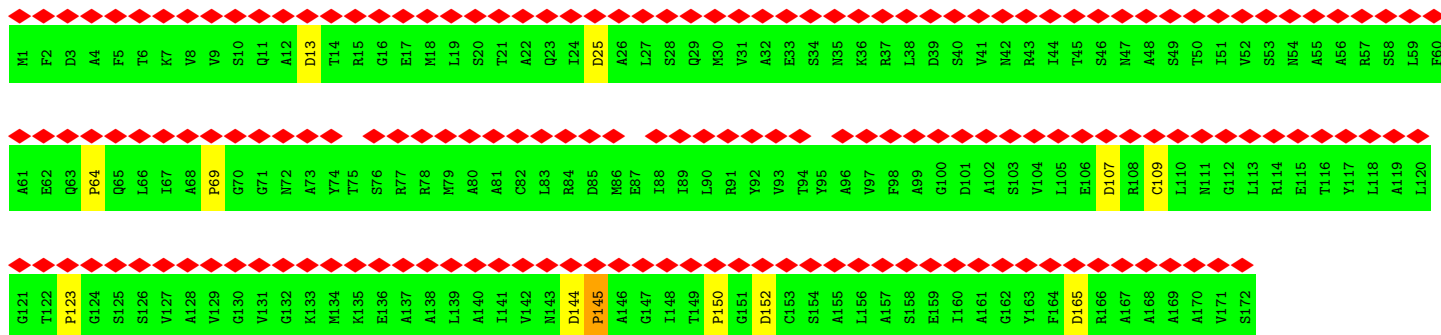


• Molecule 32: Phycocyanin beta subunit

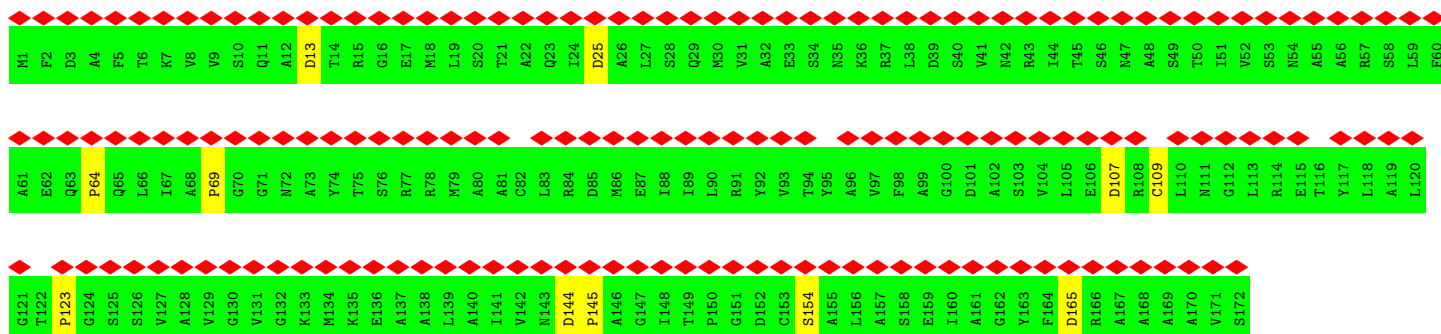
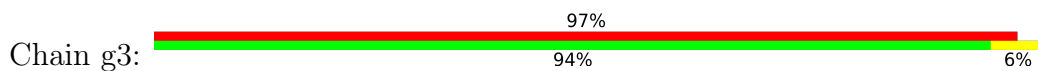


• Molecule 32: Phycocyanin beta subunit

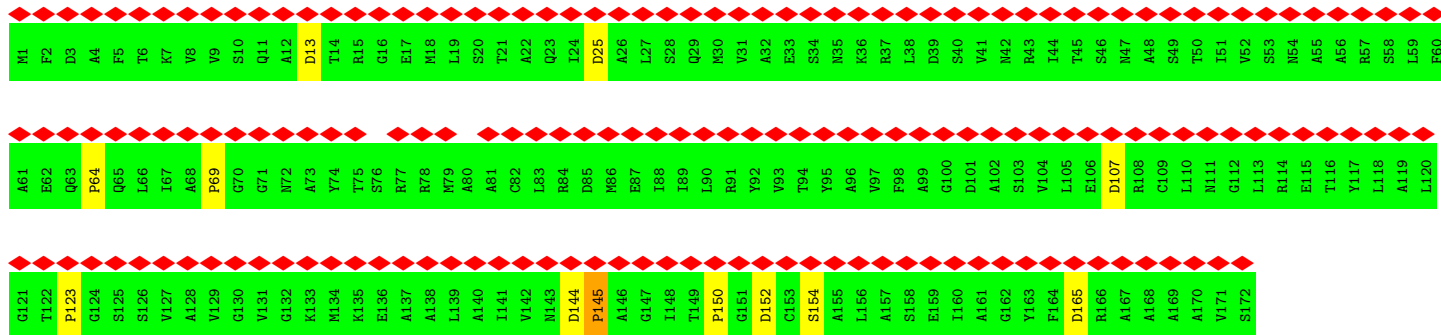




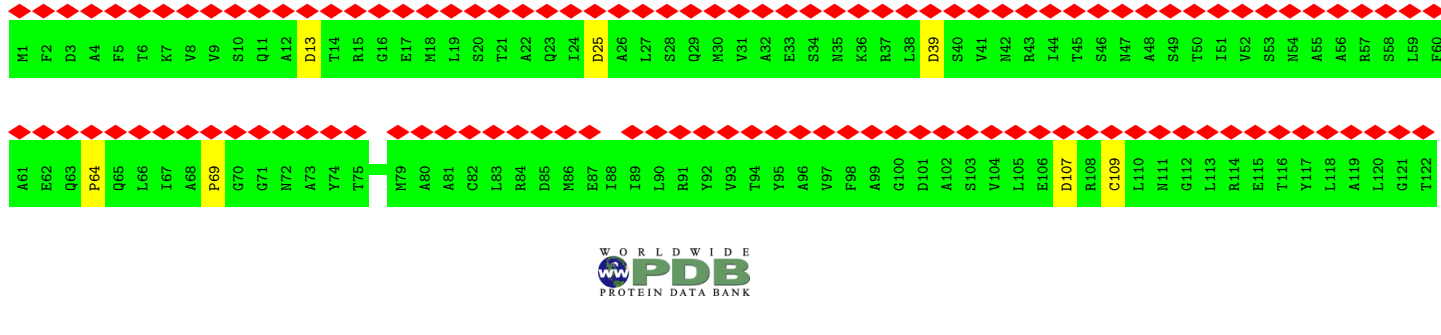
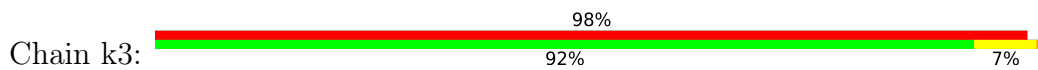
• Molecule 32: Phycocyanin beta subunit

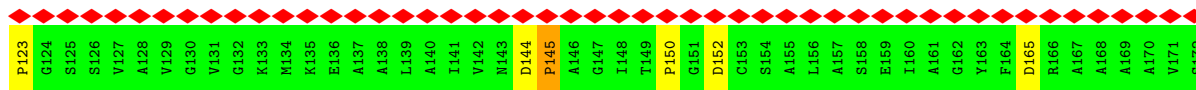


• Molecule 32: Phycocyanin beta subunit

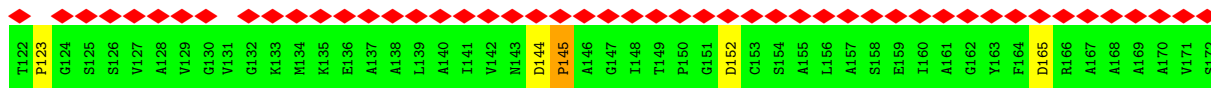
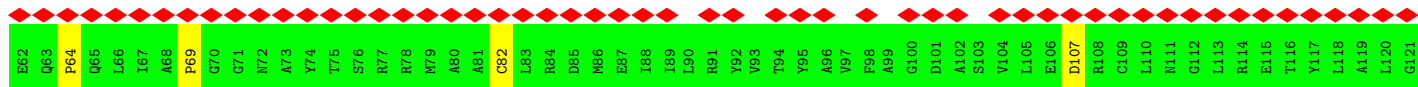
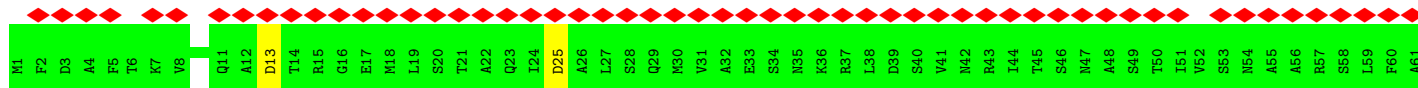


• Molecule 32: Phycocyanin beta subunit

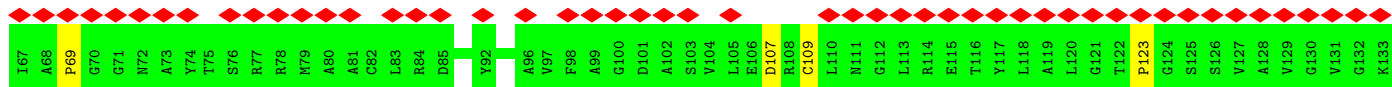
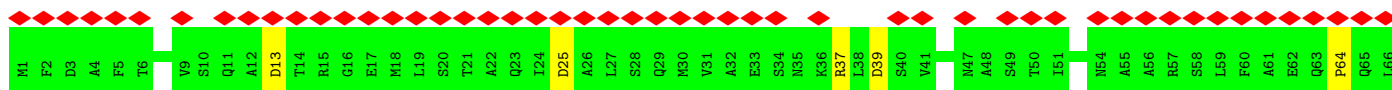
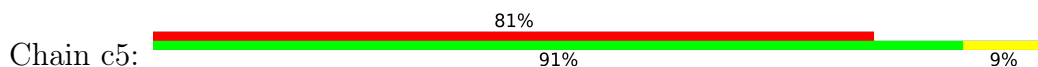




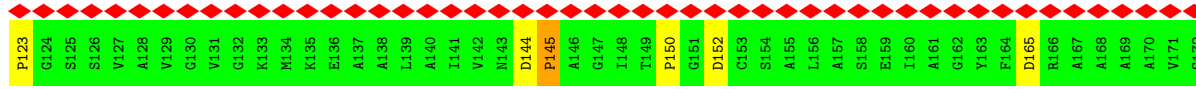
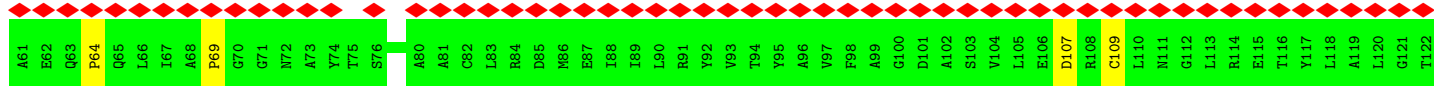
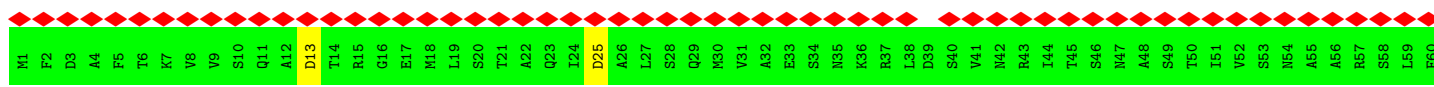
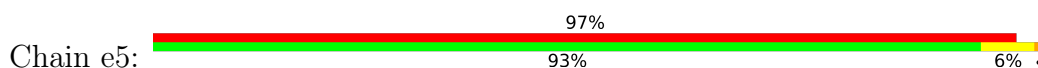
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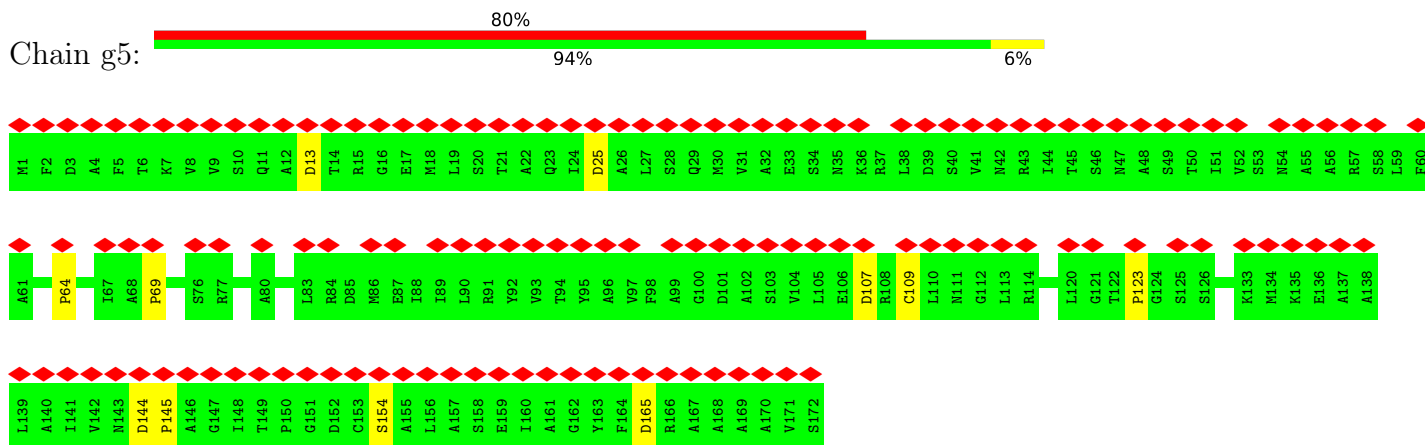
• Molecule 32: Phycocyanin beta subunit



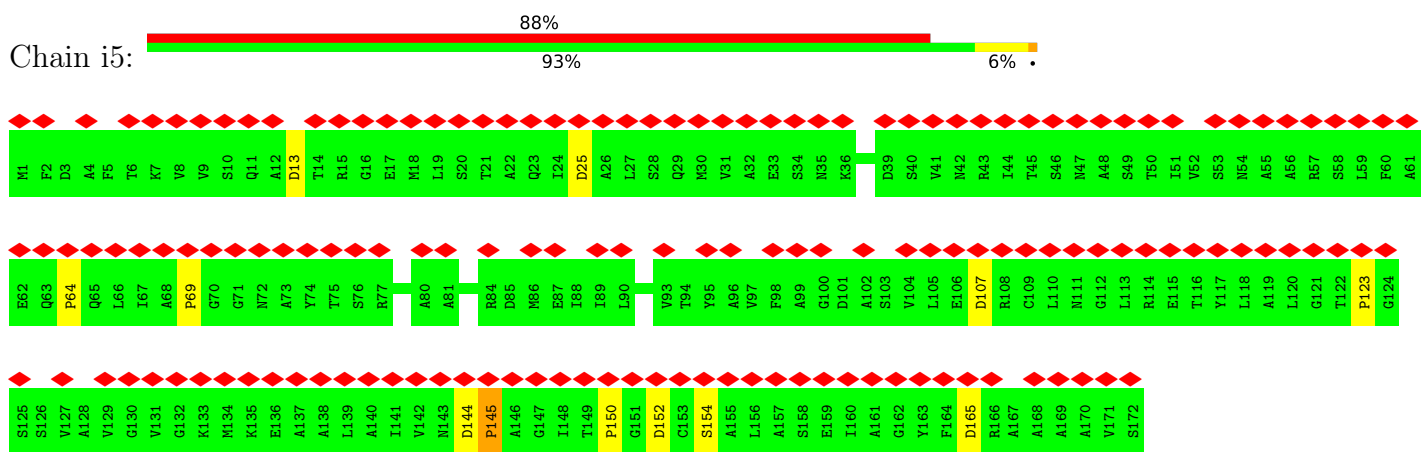
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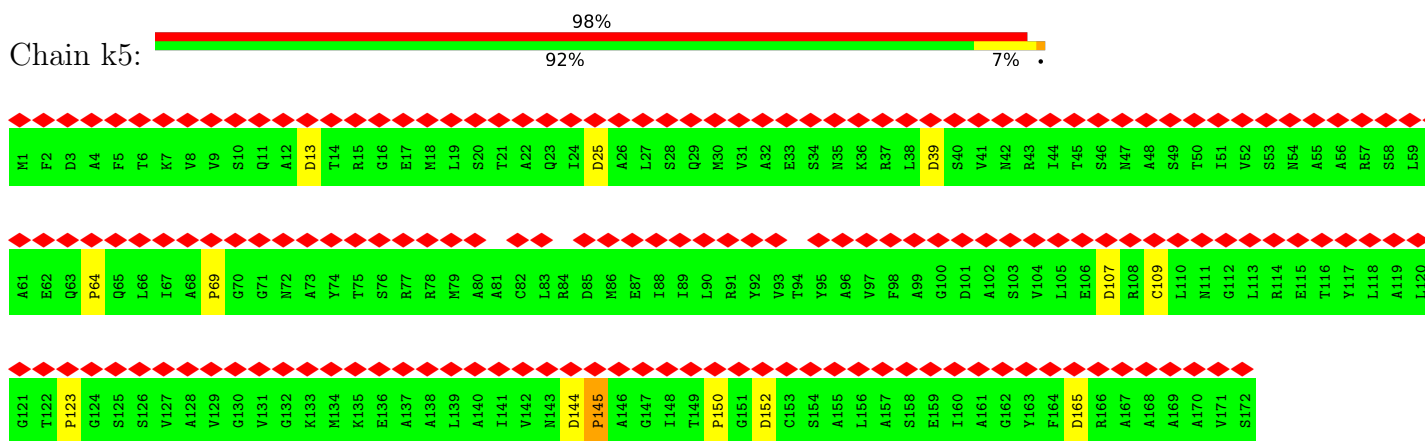
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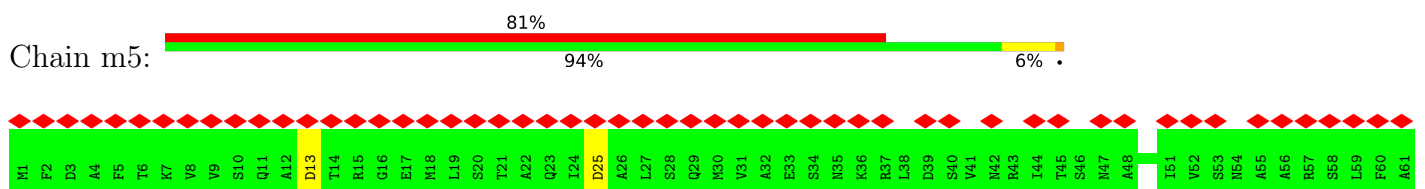
• Molecule 32: Phycocyanin beta subunit

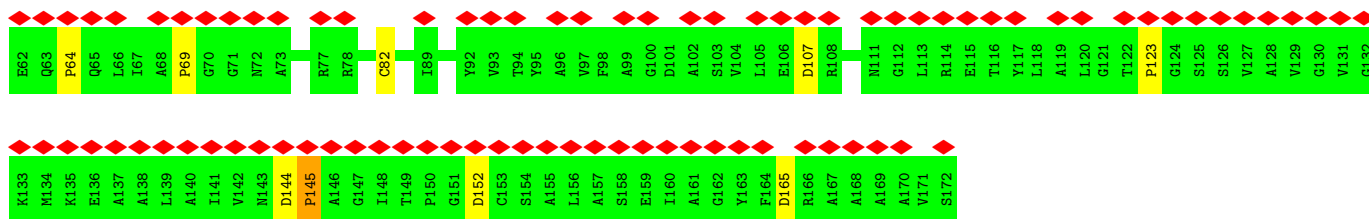


• Molecule 32: Phycocyanin beta subunit

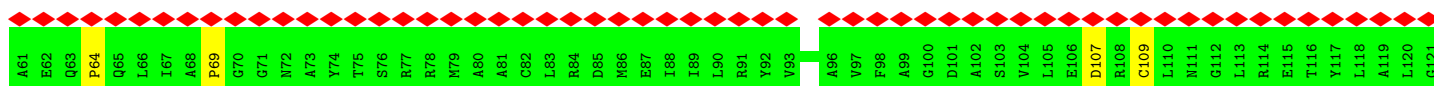
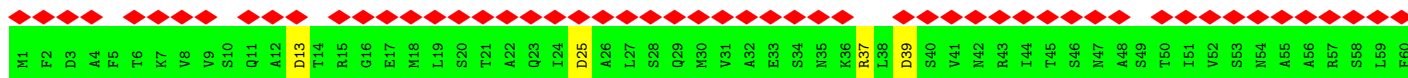
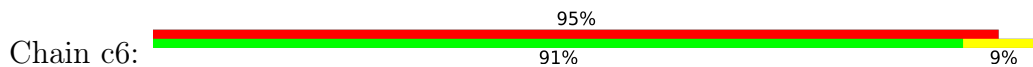


• Molecule 32: Phycocyanin beta subunit

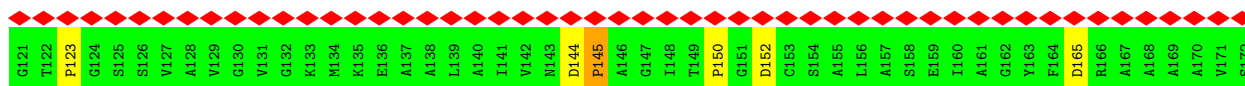
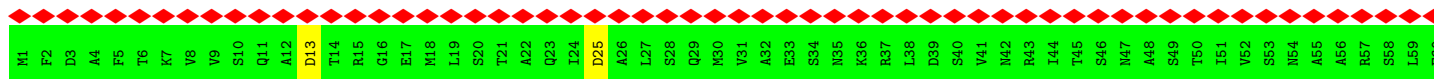




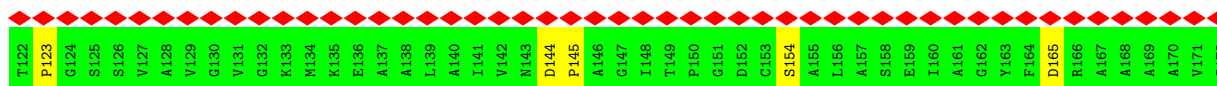
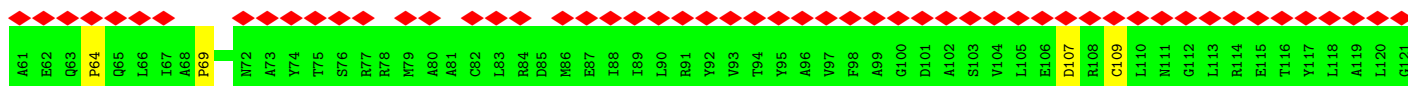
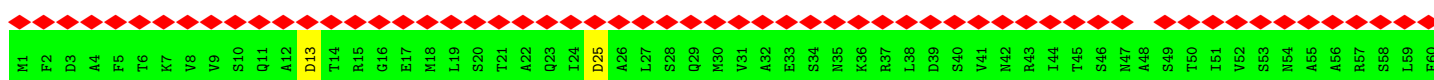
• Molecule 32: Phycocyanin beta subunit



• Molecule 32: Phycocyanin beta subunit

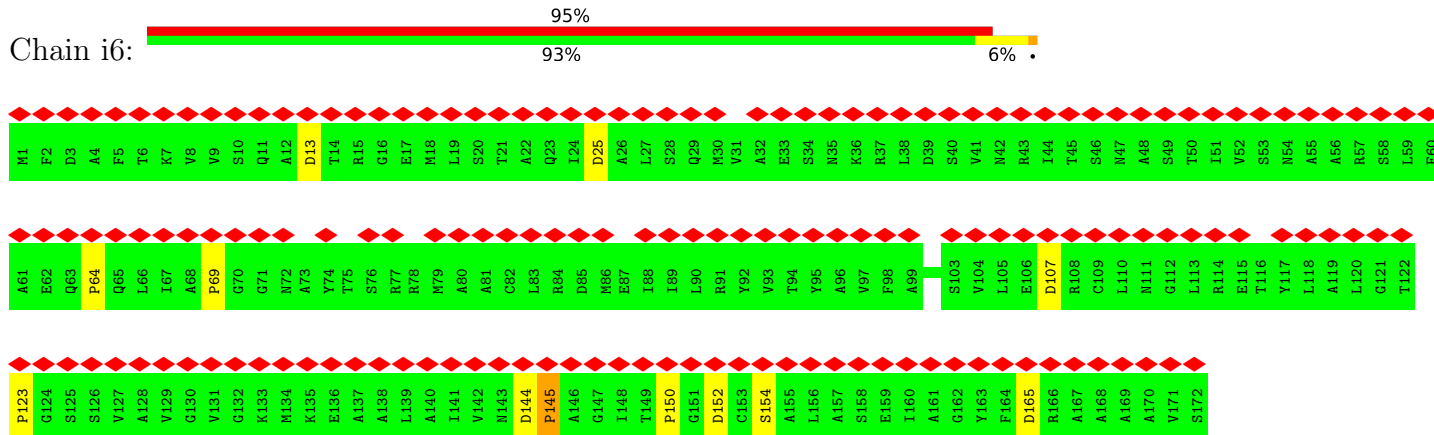


• Molecule 32: Phycocyanin beta subunit

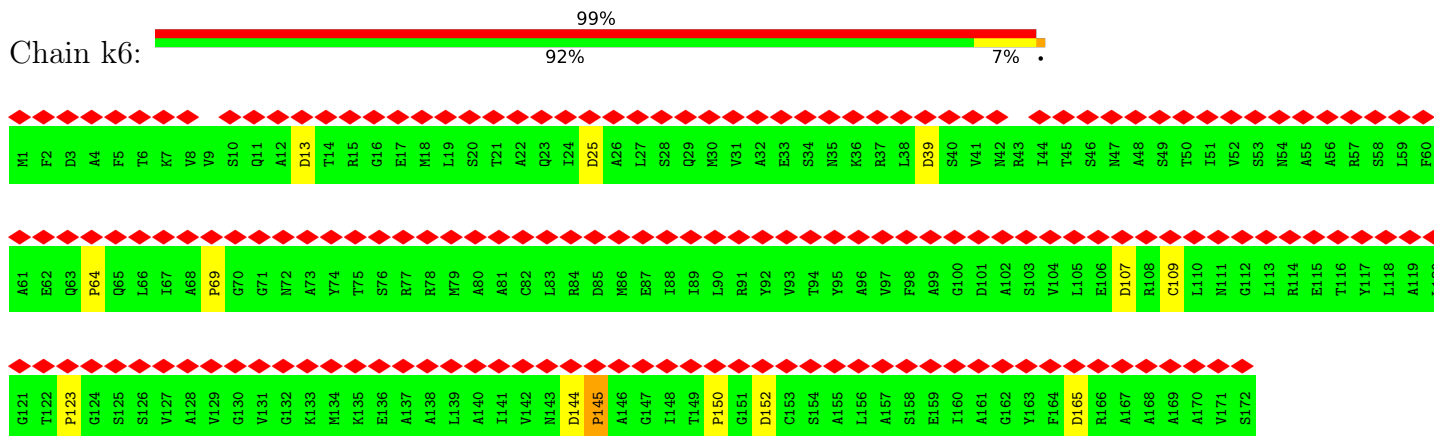




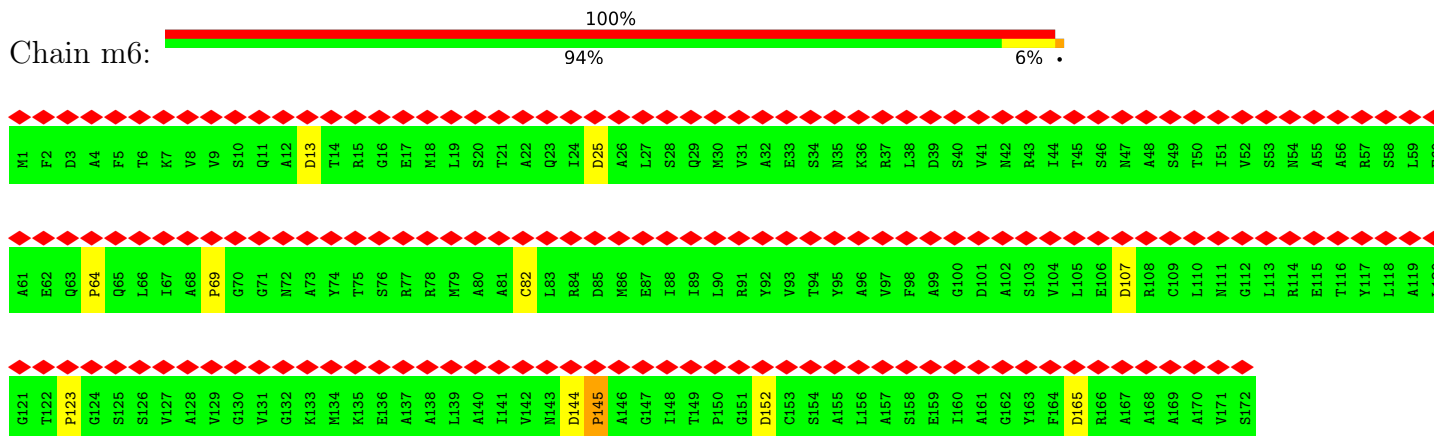
• Molecule 32: Phycocyanin beta subunit



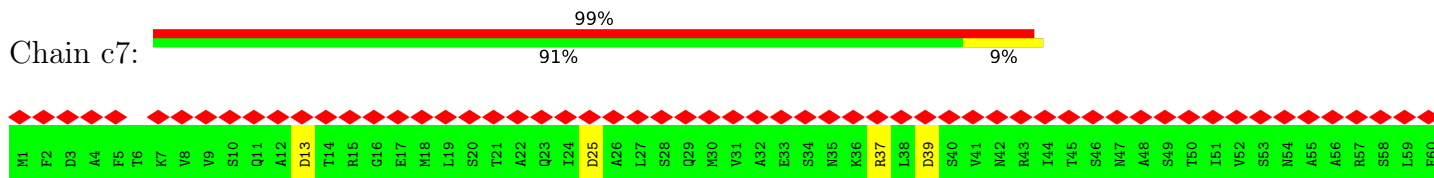
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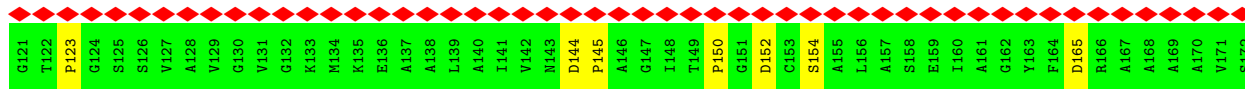
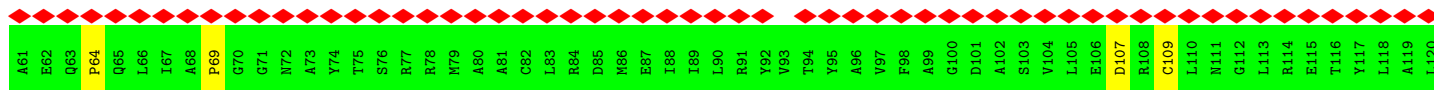


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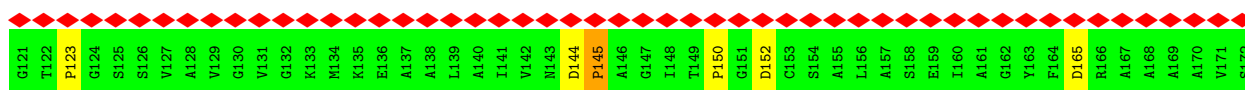
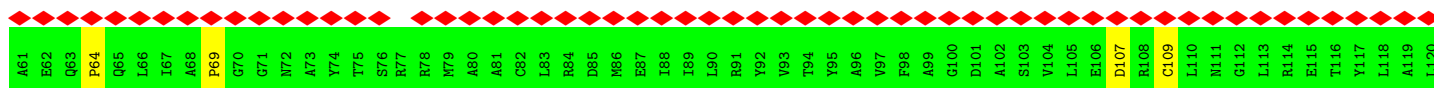
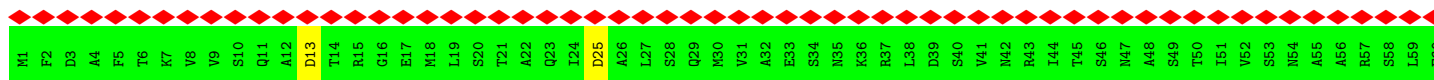
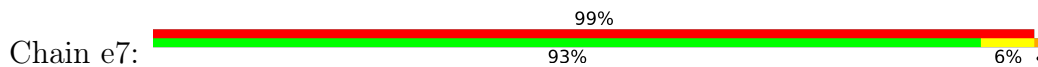


• Molecule 32: Phycocyanin beta subunit

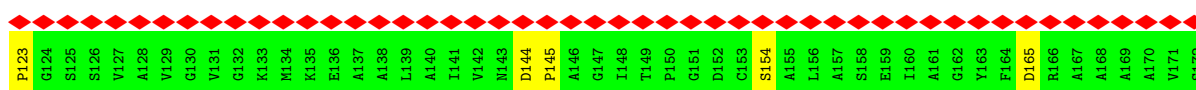
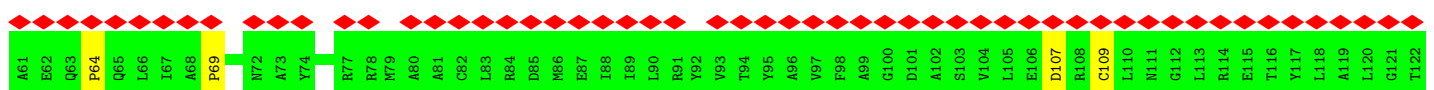
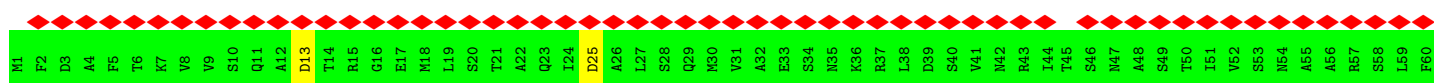




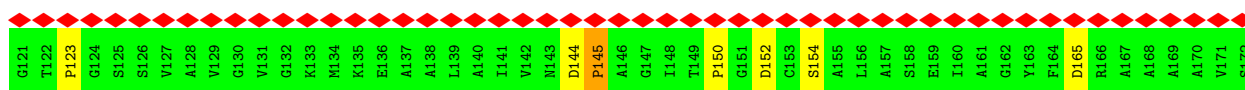
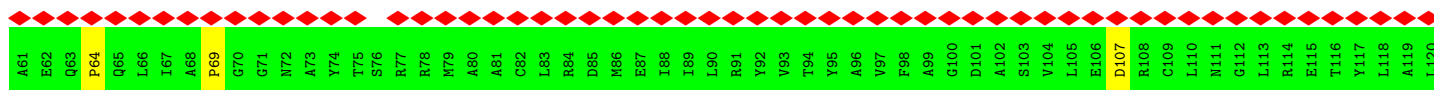
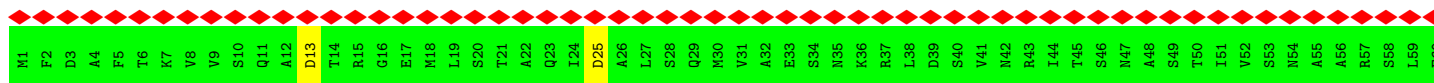
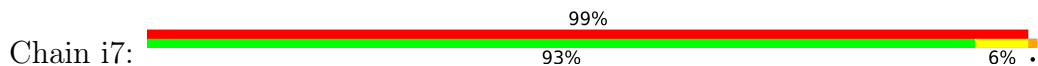
• Molecule 32: Phycocyanin beta subunit



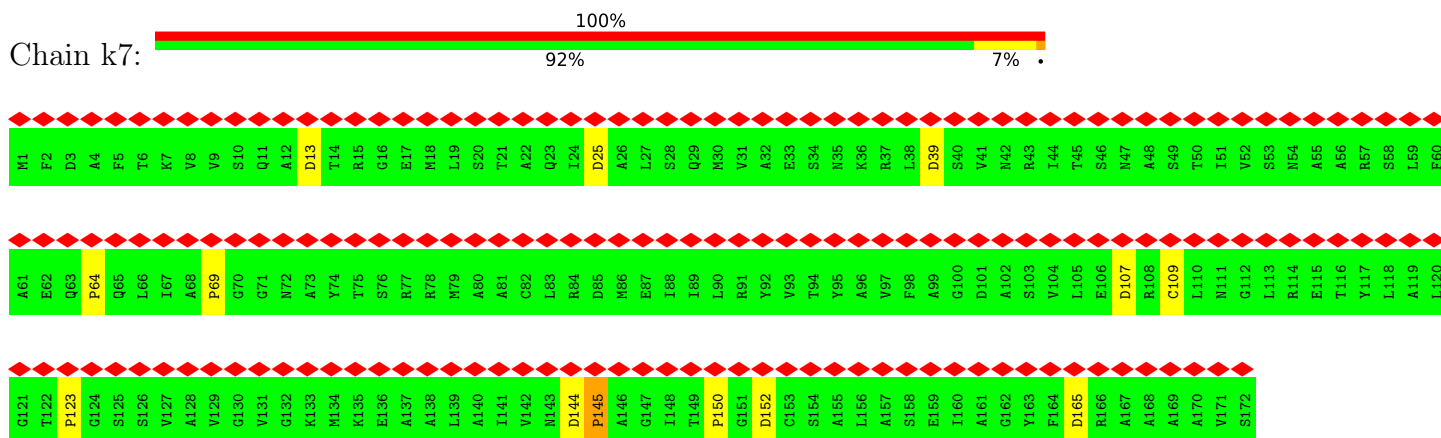
• Molecule 32: Phycocyanin beta subunit



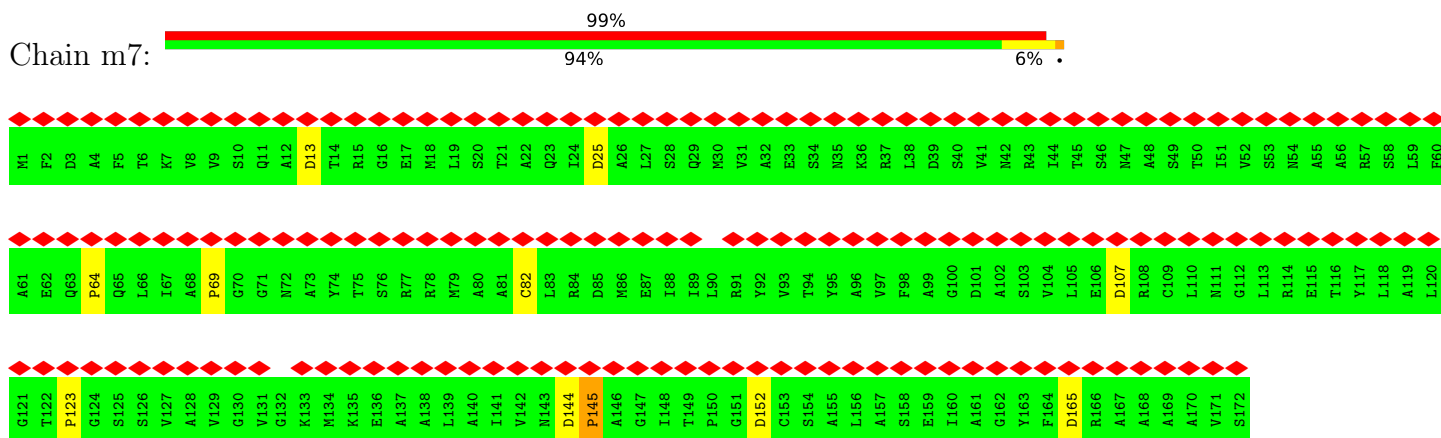
• Molecule 32: Phycocyanin beta subunit



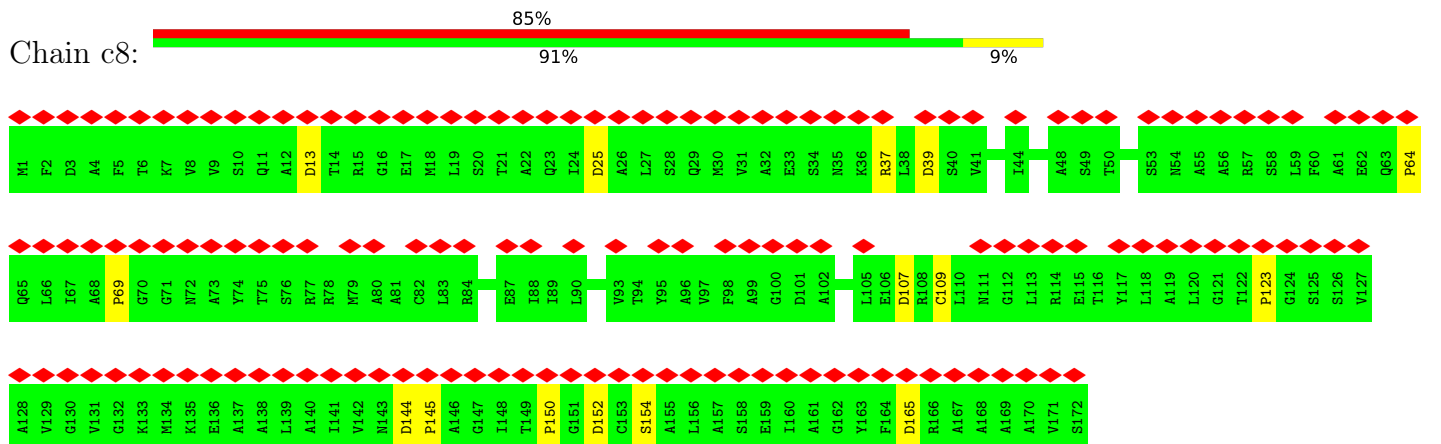
- Molecule 32: Phycocyanin beta subunit



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- Molecule 32: Phycocyanin beta subunit

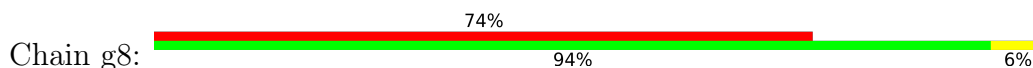


- Molecule 32: Phycocyanin beta subunit

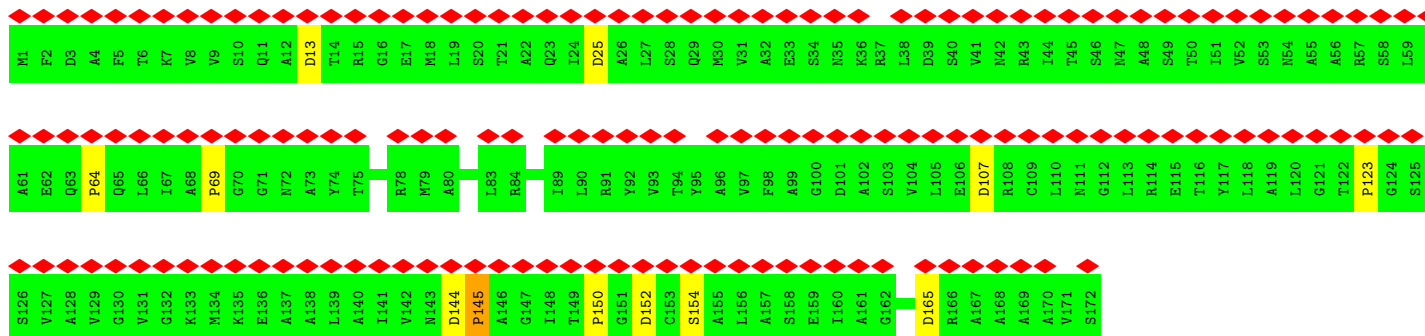
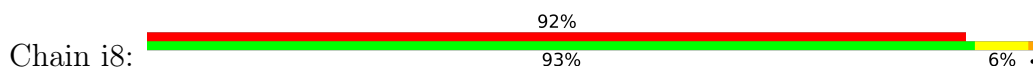




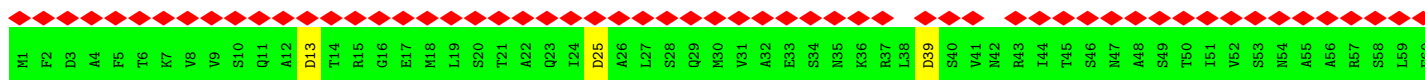
• Molecule 32: Phycocyanin beta subunit

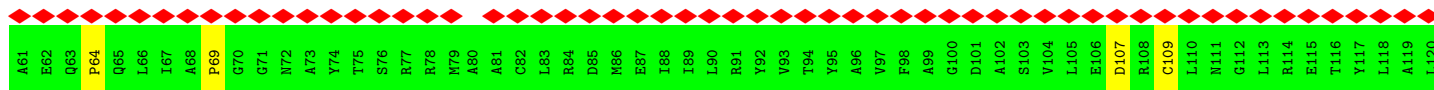


• Molecule 32: Phycocyanin beta subunit

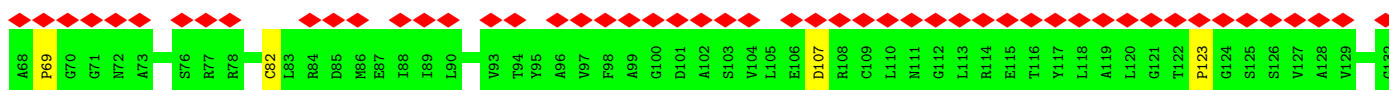
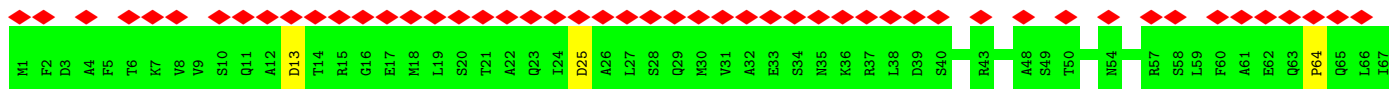
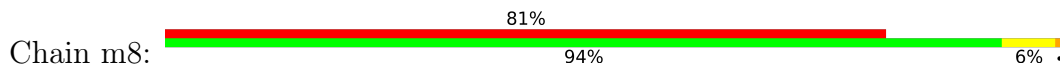


• Molecule 32: Phycocyanin beta subunit

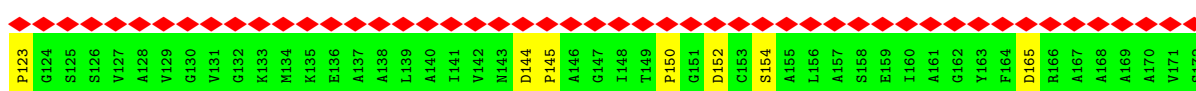
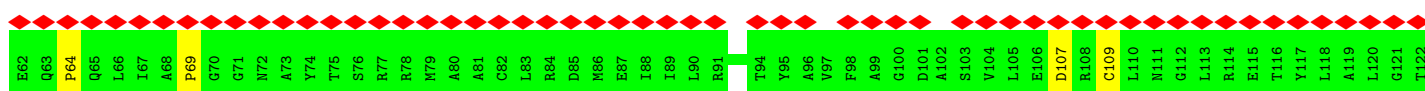
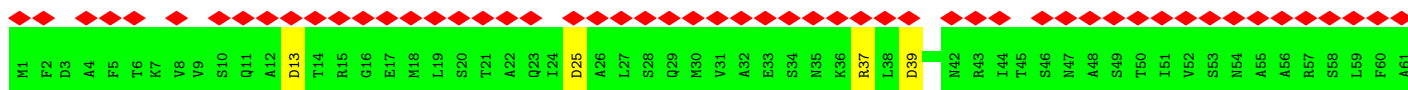
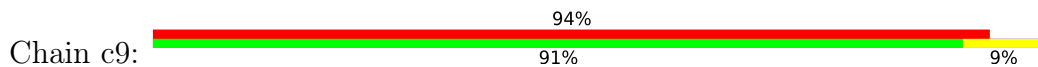




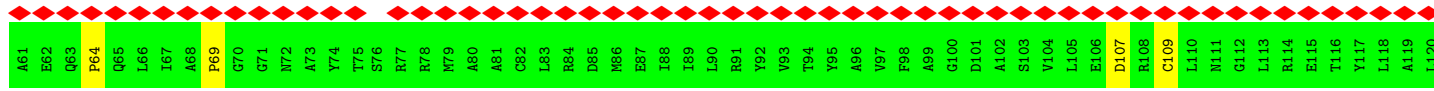
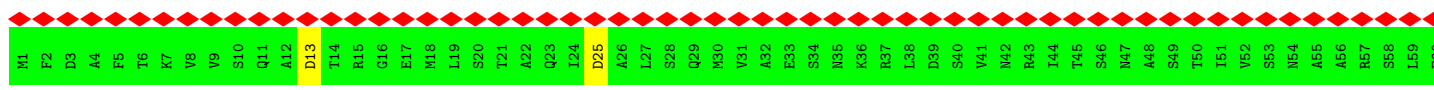
• Molecule 32: Phycocyanin beta subunit

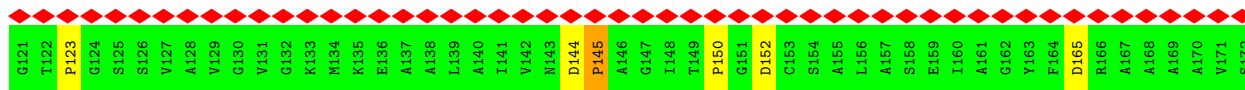


• Molecule 32: Phycocyanin beta subunit

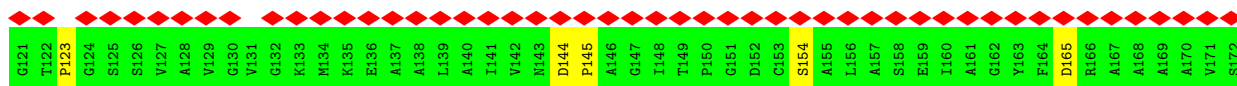
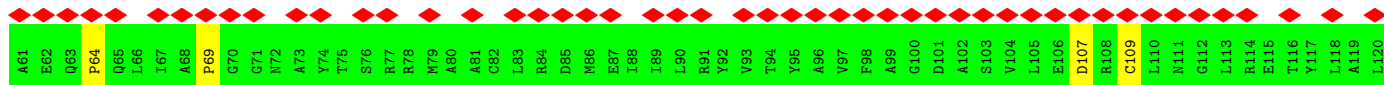
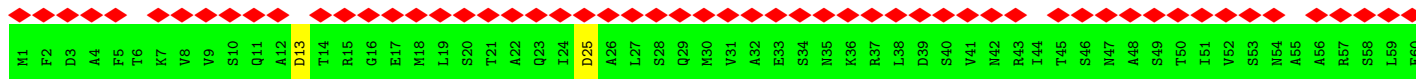
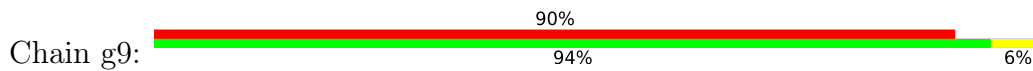


• Molecule 32: Phycocyanin beta subunit

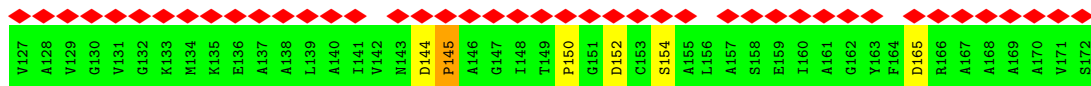
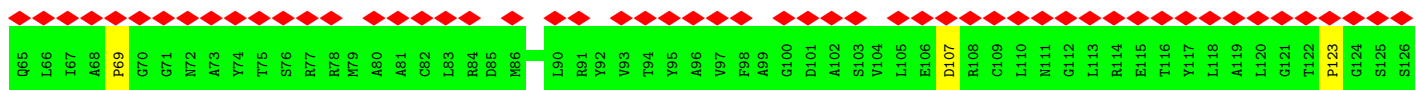
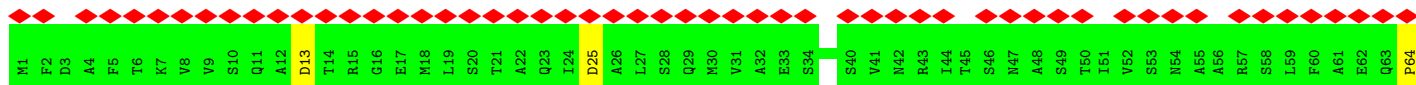
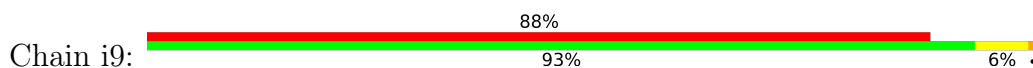




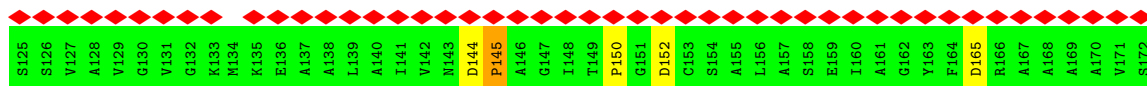
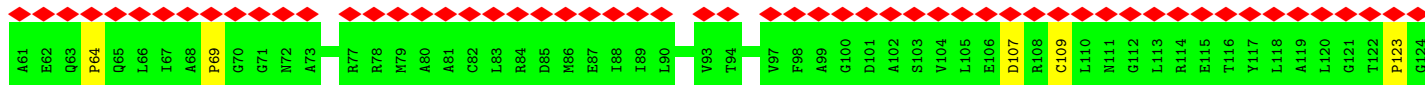
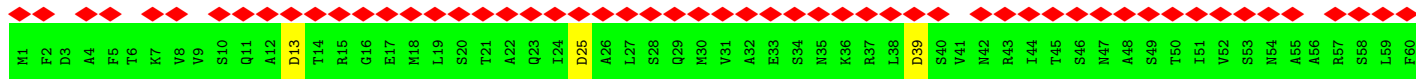
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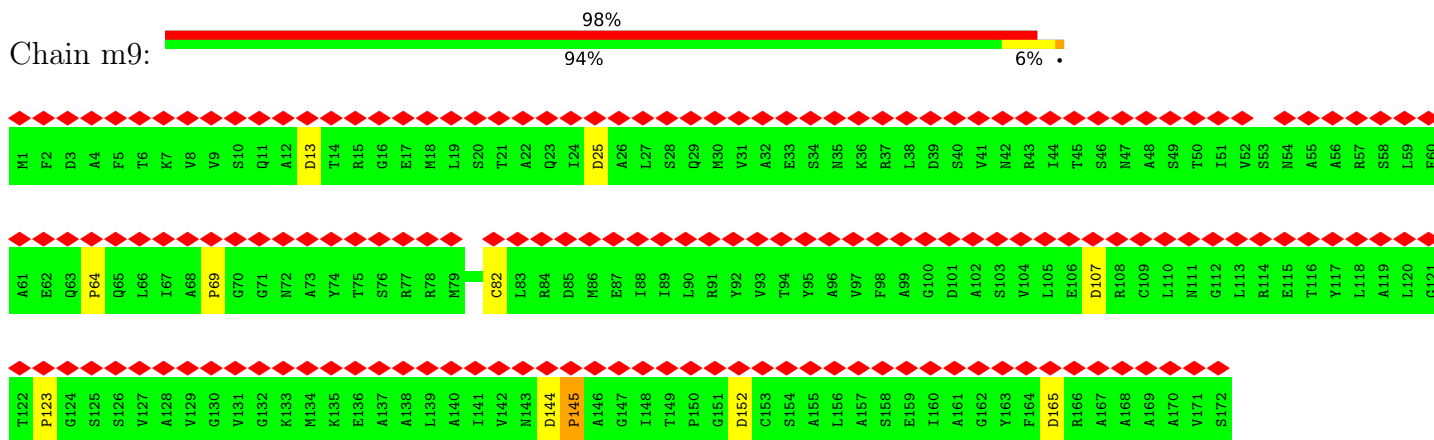
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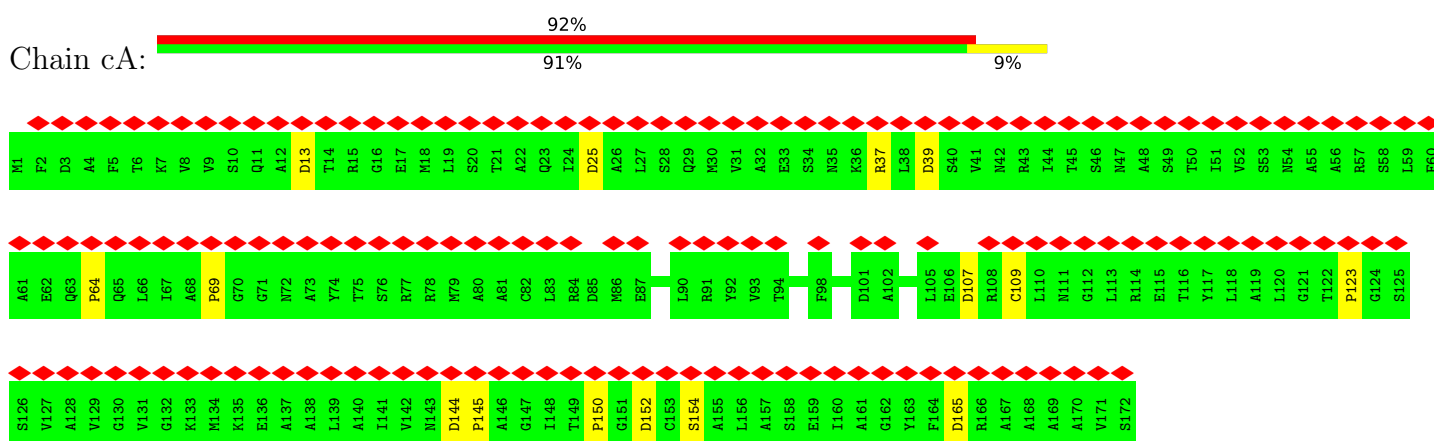
• Molecule 32: Phycocyanin beta subunit



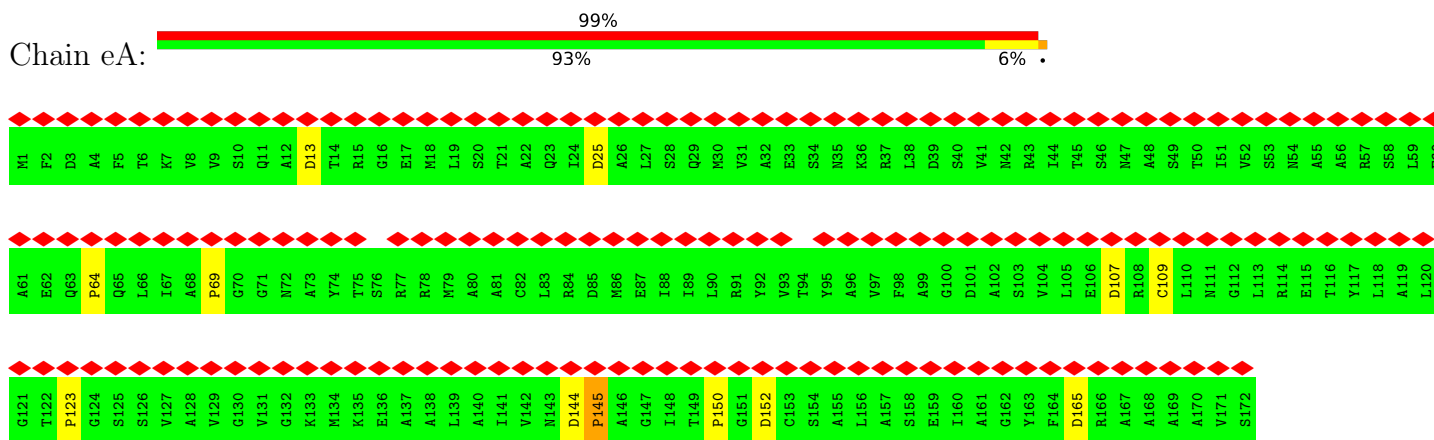
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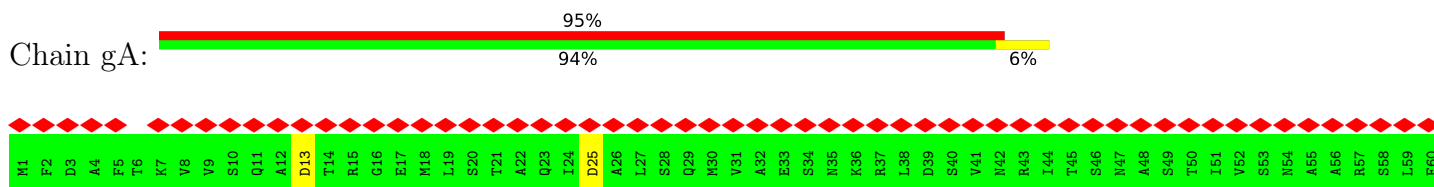
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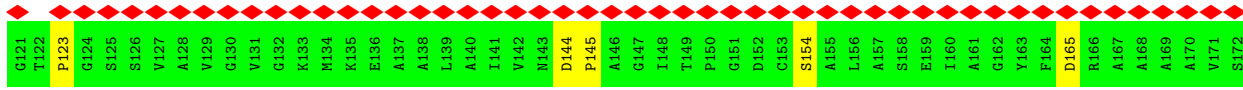
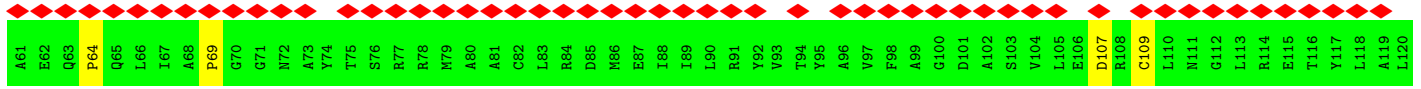


• Molecule 32: Phycocyanin beta subunit

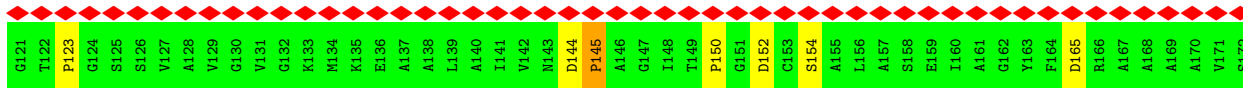
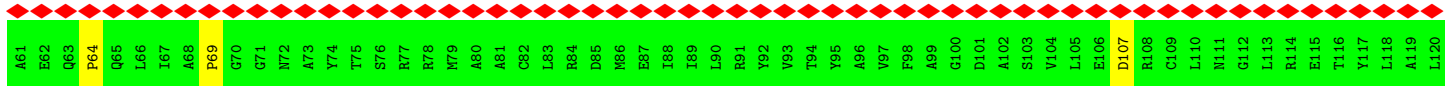
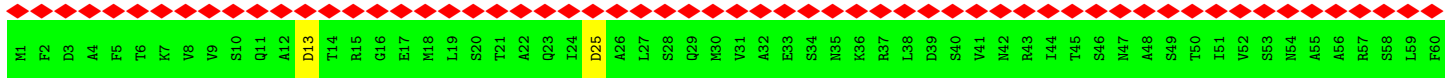


• Molecule 32: Phycocyanin beta subunit

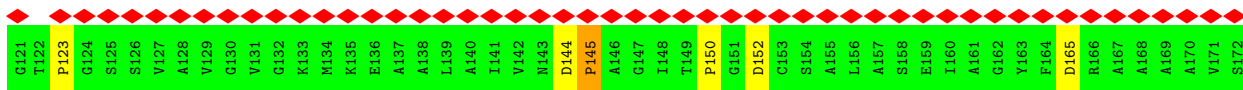
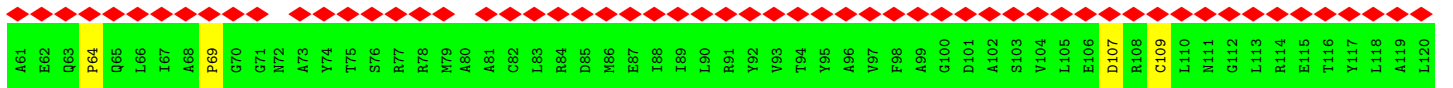
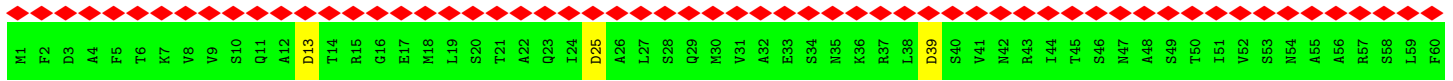




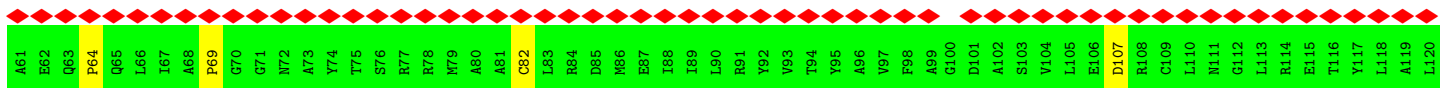
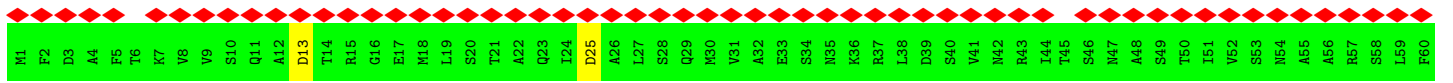
• Molecule 32: Phycocyanin beta subunit



• Molecule 32: Phycocyanin beta subunit

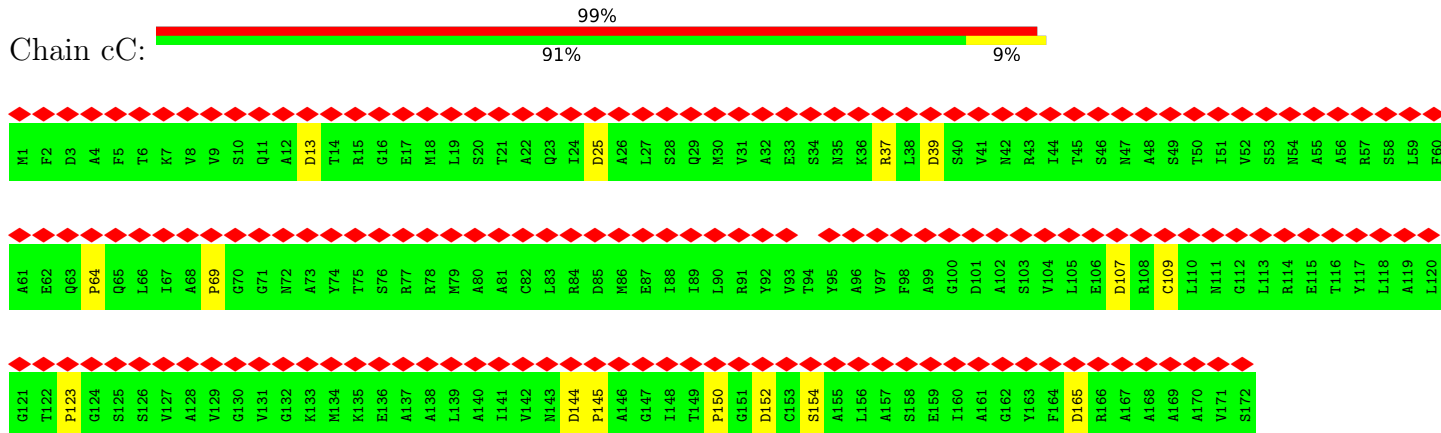


• Molecule 32: Phycocyanin beta subunit

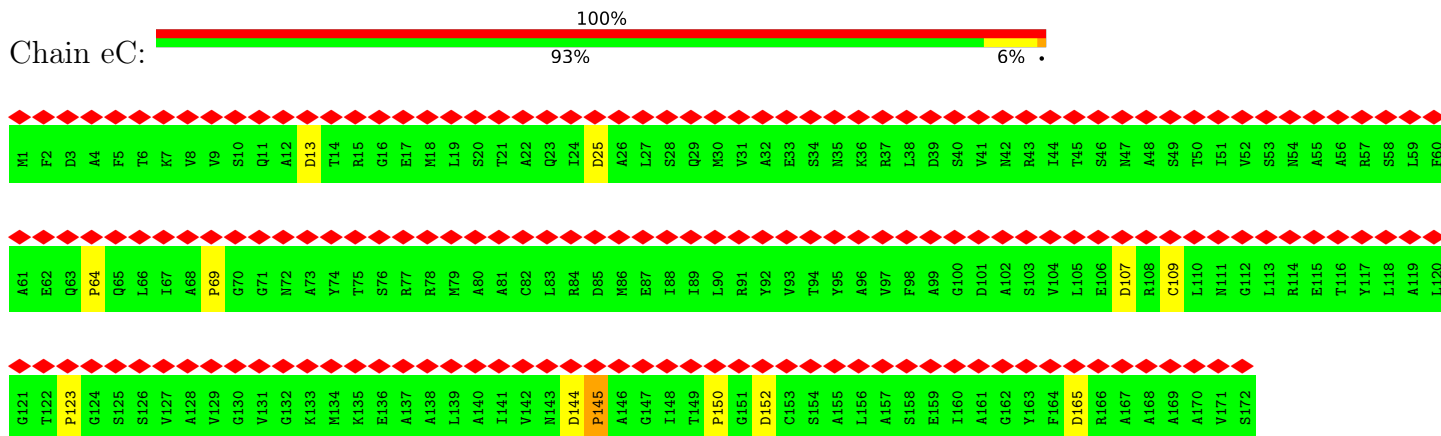




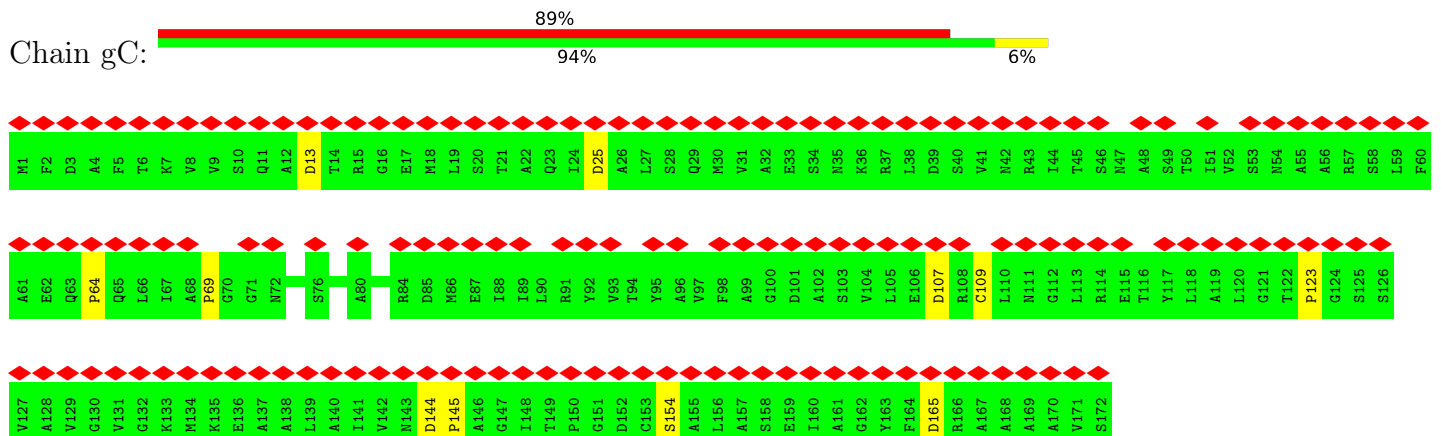
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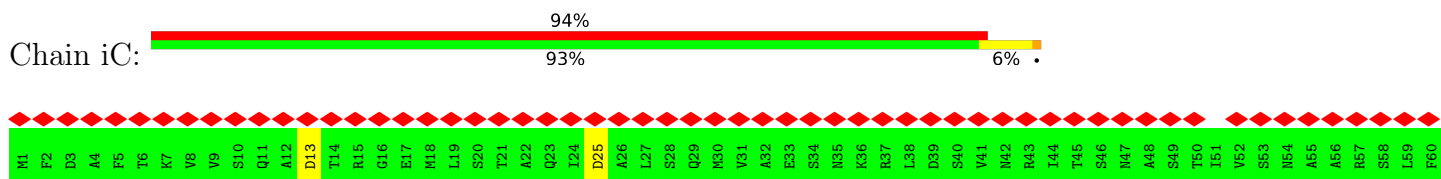
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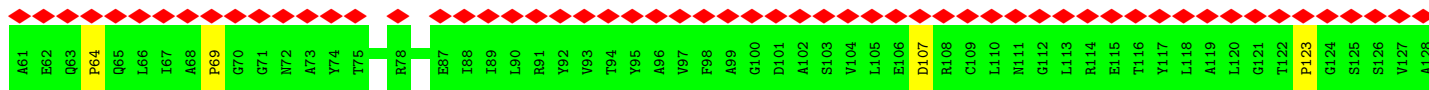


• Molecule 32: Phycocyanin beta subunit

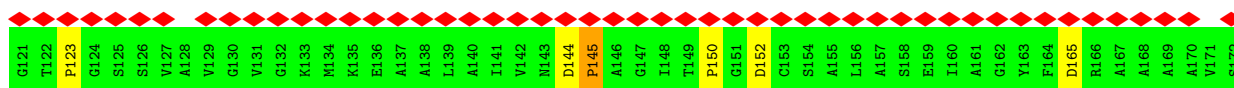
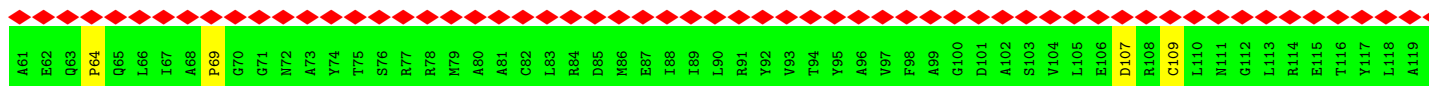
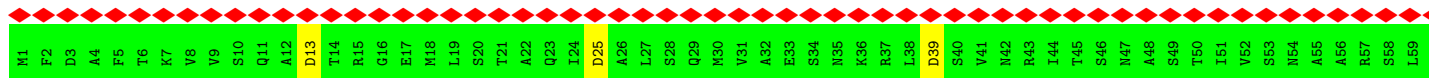


• Molecule 32: Phycocyanin beta subunit

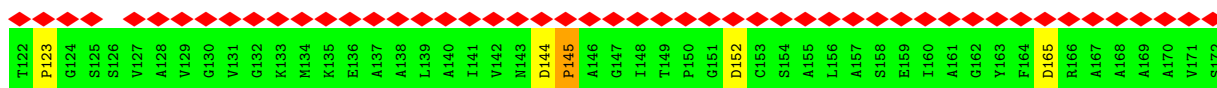
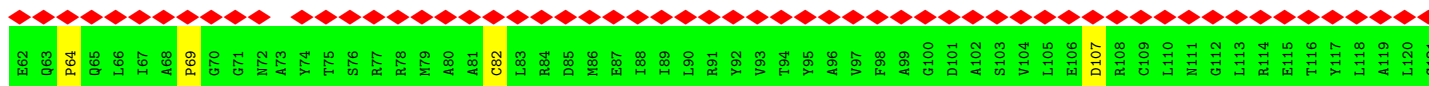
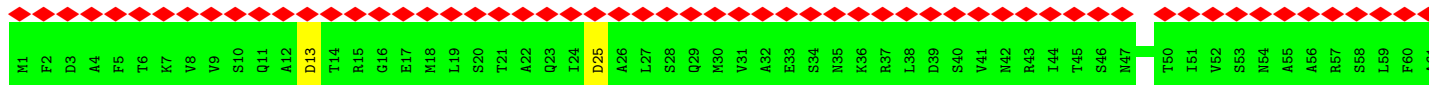




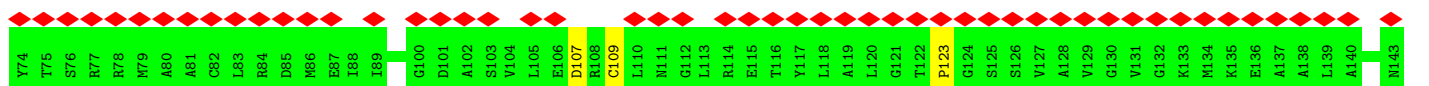
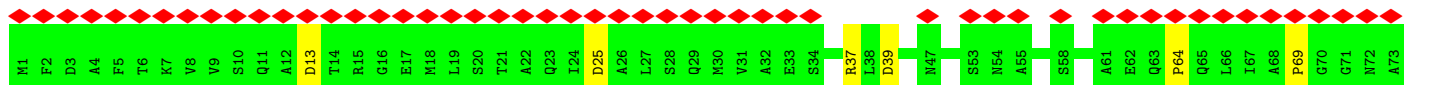
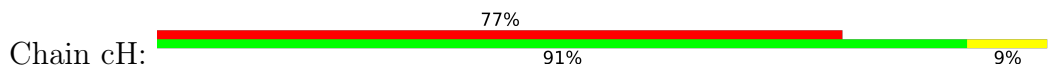
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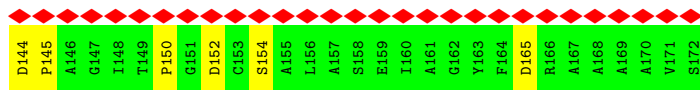


• Molecule 32: Phycocyanin beta subunit

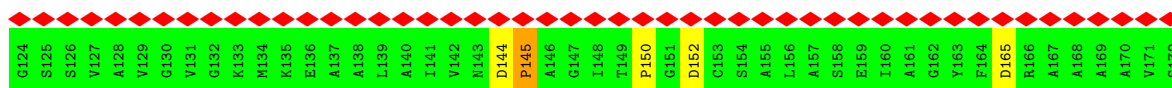
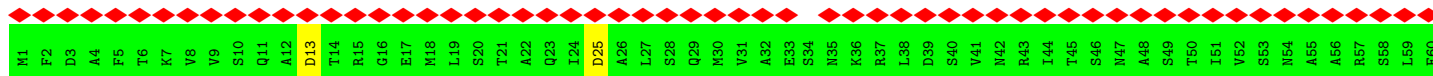


• Molecule 32: Phycocyanin beta subunit

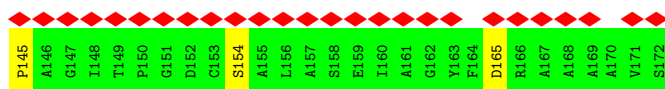
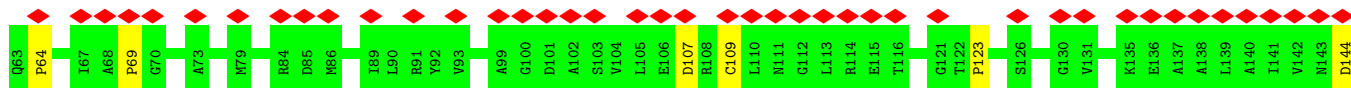
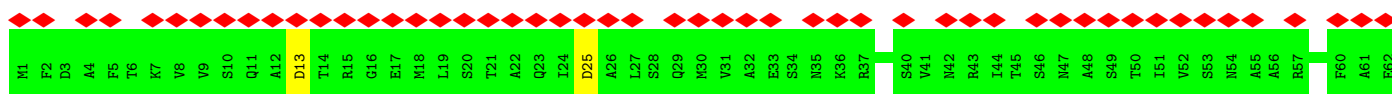




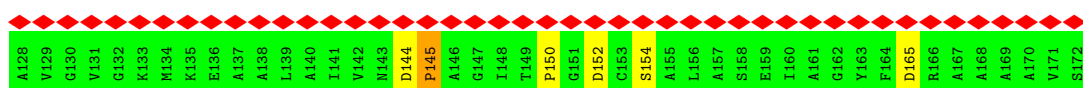
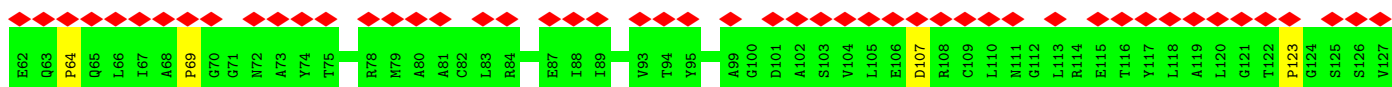
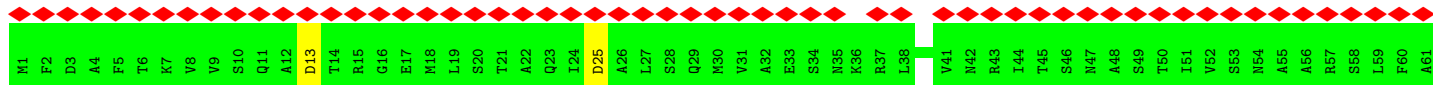
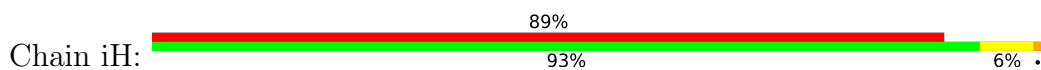
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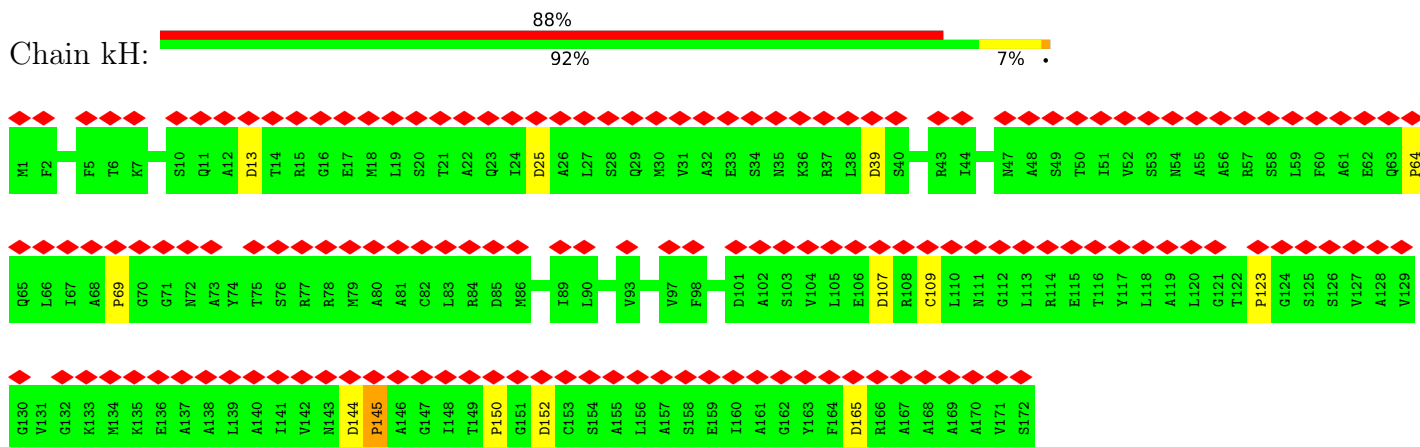
• Molecule 32: Phycocyanin beta subunit



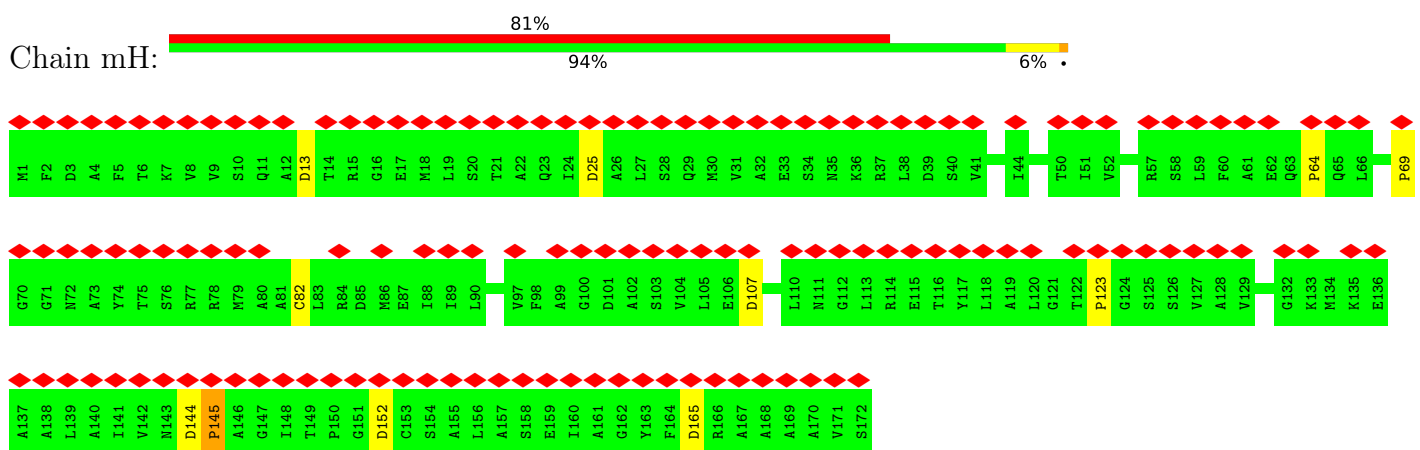
• Molecule 32: Phycocyanin beta subunit



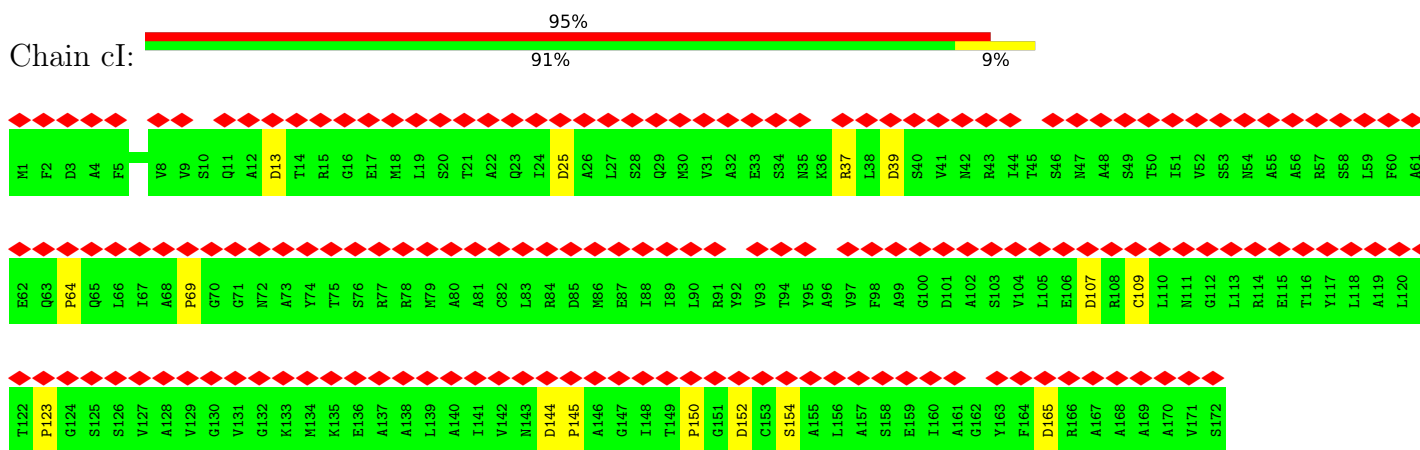
• Molecule 32: Phycocyanin beta subunit



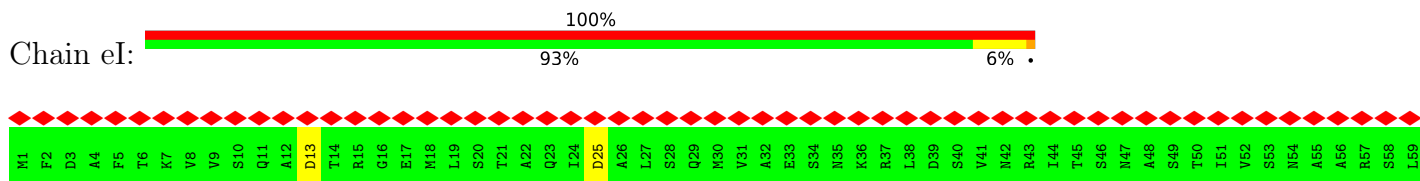
• Molecule 32: Phycocyanin beta subunit

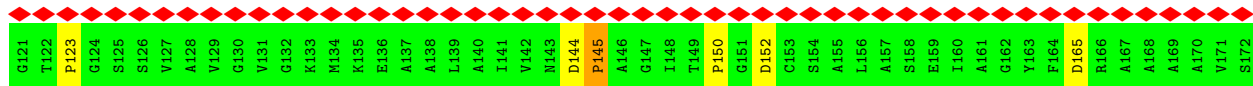
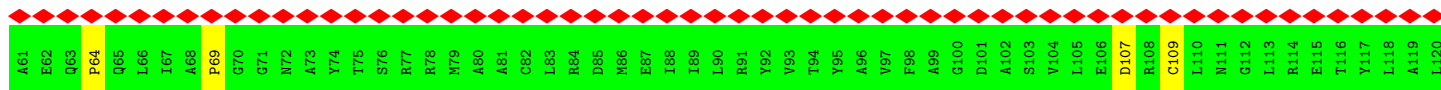


• Molecule 32: Phycocyanin beta subunit

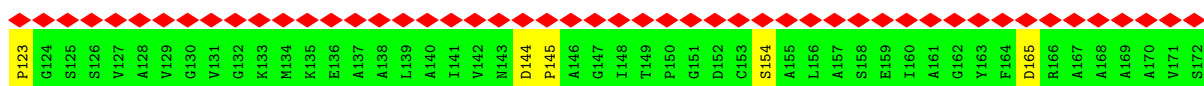
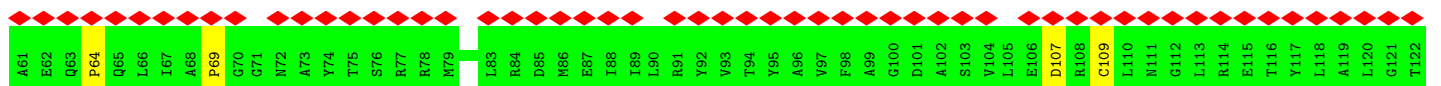
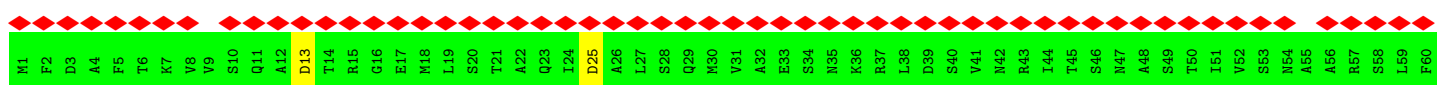
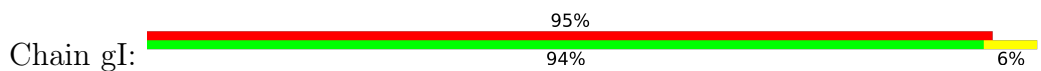


• Molecule 32: Phycocyanin beta subunit

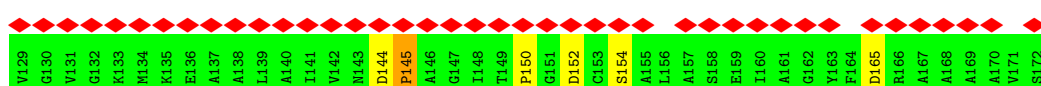
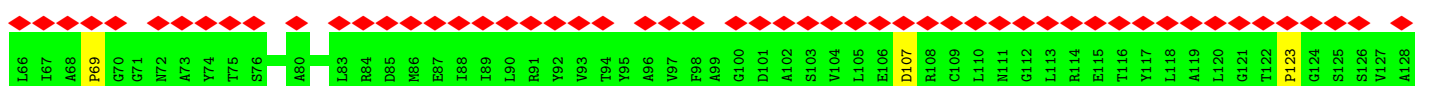
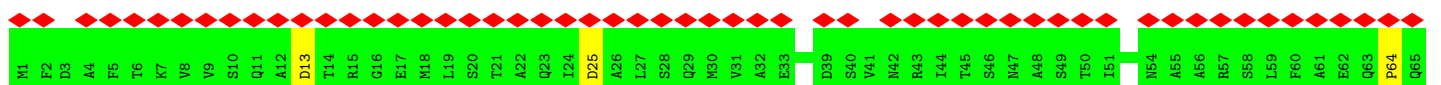
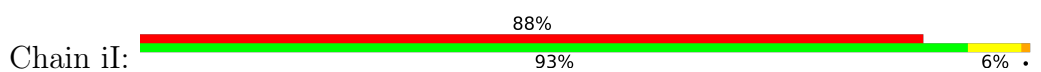




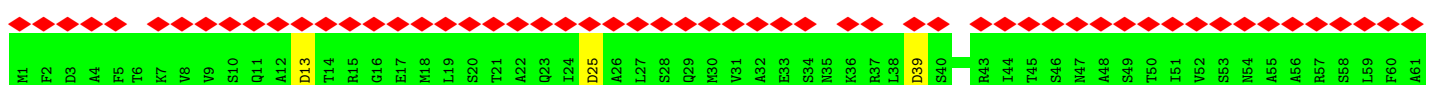
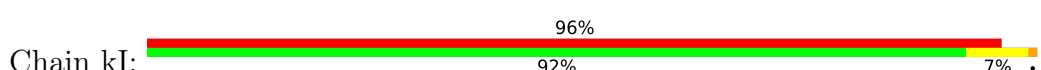
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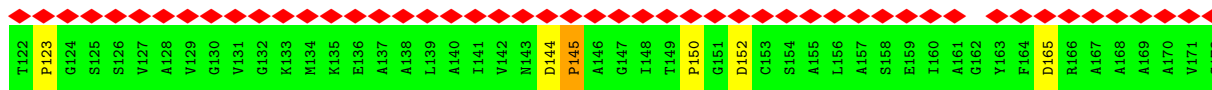


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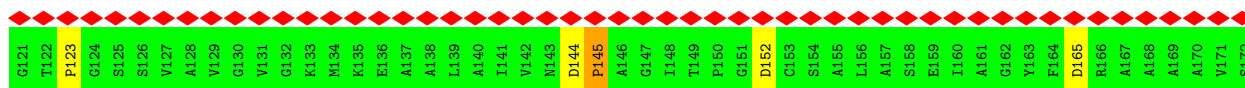
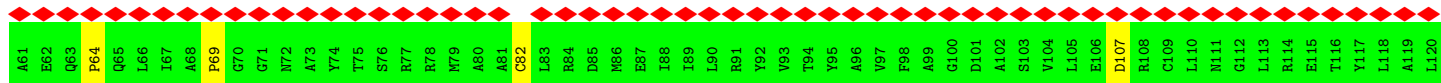
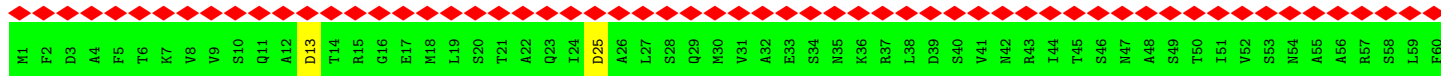
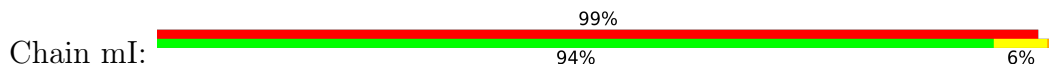


• Molecule 32: Phycocyanin beta subunit

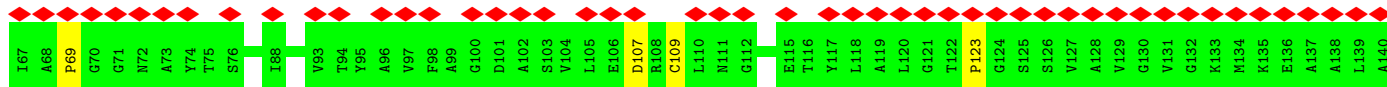
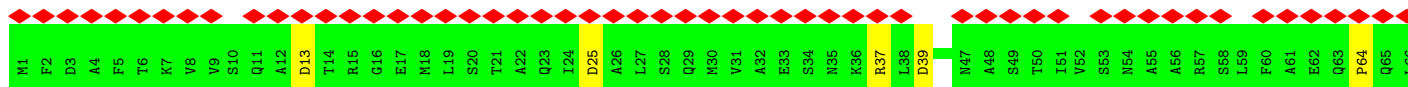
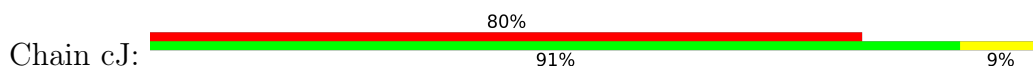




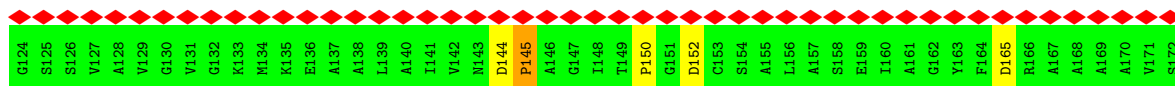
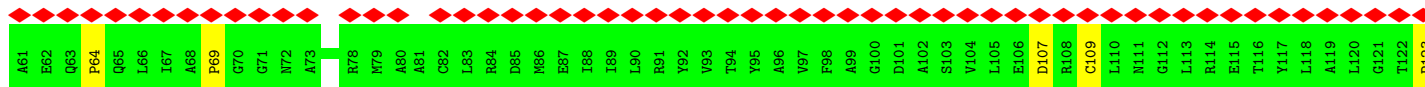
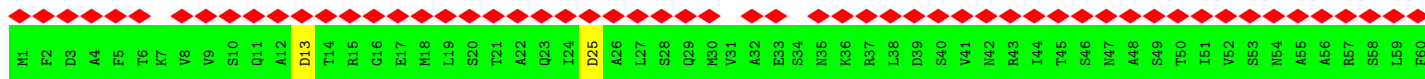
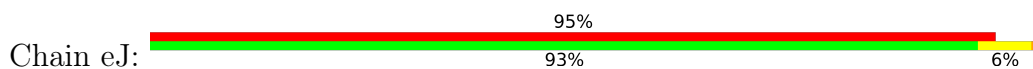
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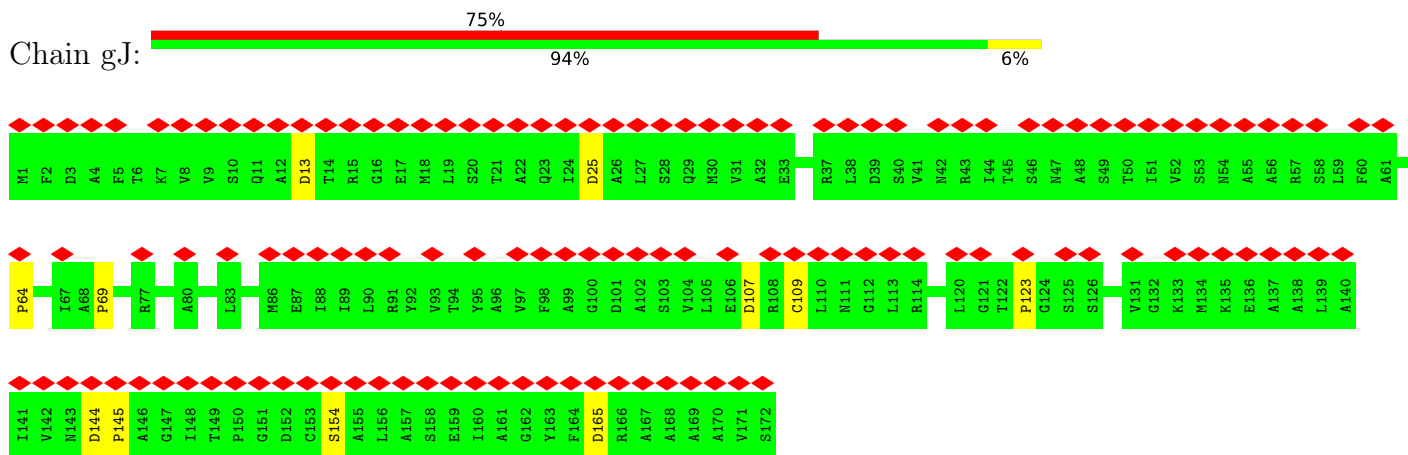
• Molecule 32: Phycocyanin beta subunit



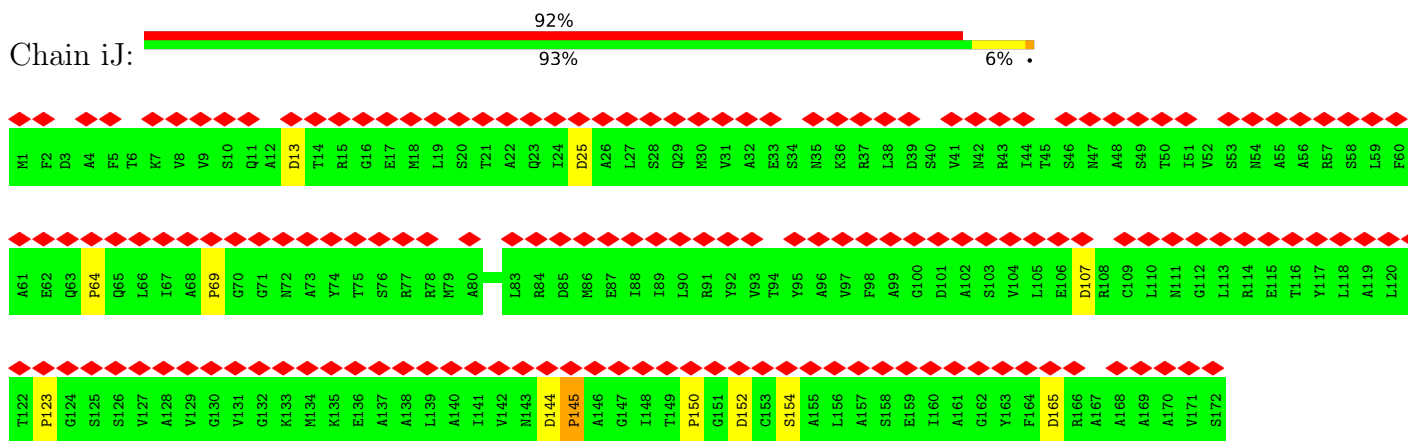
• Molecule 32: Phycocyanin beta subunit



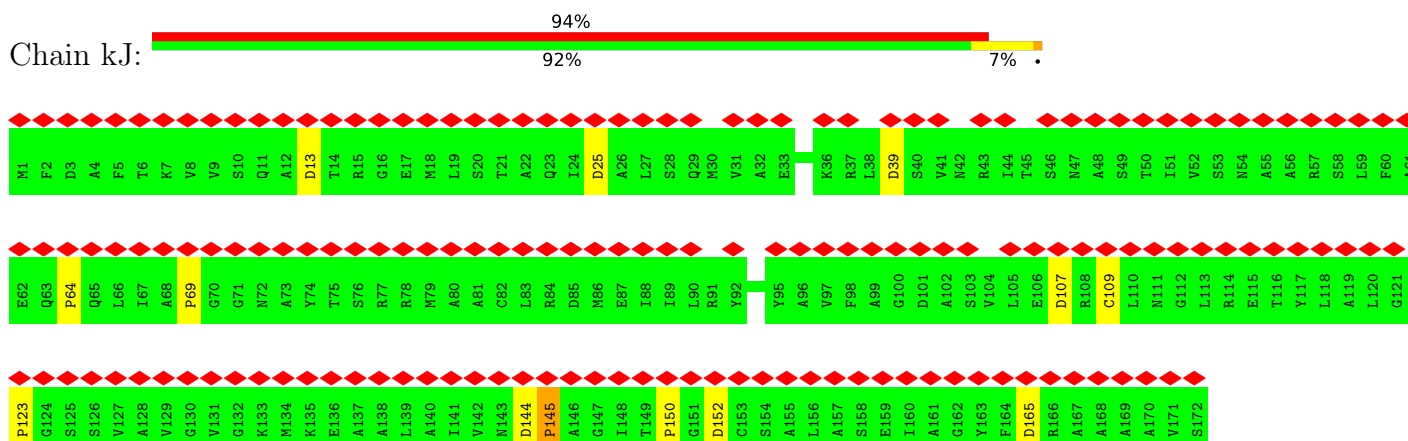
• Molecule 32: Phycocyanin beta subunit



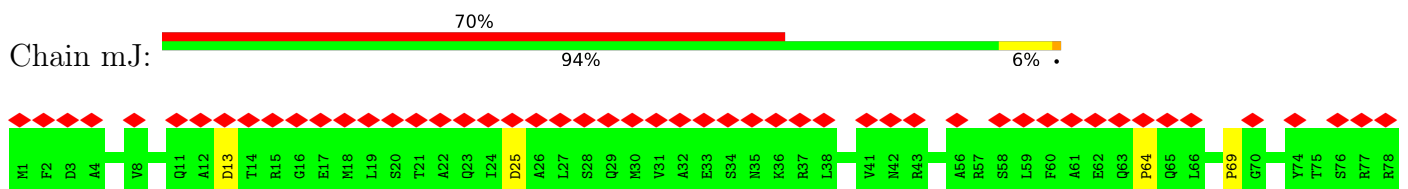
• Molecule 32: Phycocyanin beta subunit

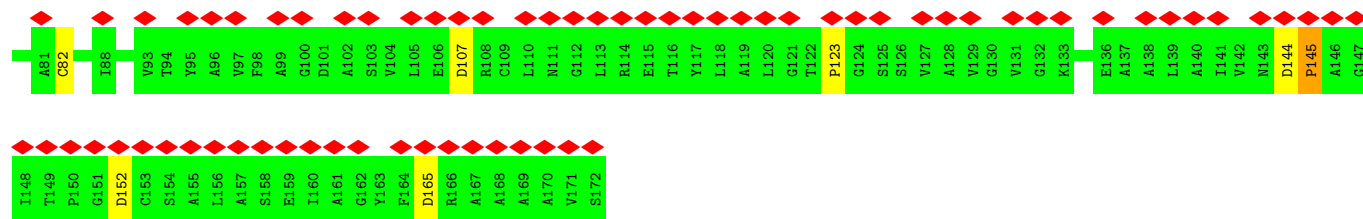


• Molecule 32: Phycocyanin beta subunit



• Molecule 32: Phycocyanin beta subunit







## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	168000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	35	Depositor
Minimum defocus (nm)	6000	Depositor
Maximum defocus (nm)	6000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	1.723	Depositor
Minimum map value	-1.208	Depositor
Average map value	0.006	Depositor
Map value standard deviation	0.057	Depositor
Recommended contour level	0.16	Depositor
Map size ( $\text{\AA}$ )	652.8, 652.8, 652.8	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.632, 1.632, 1.632	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: CL, LHG, OEX, LMT, HEM, CLA, DGD, PHO, CA, SQD, BCT, CYC, LMG, BCR, PL9, FE2

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	B2	0.70	0/1991	1.18	11/2706 (0.4%)
1	B3	0.69	0/1984	1.19	12/2698 (0.4%)
1	B5	0.67	0/1899	1.18	13/2590 (0.5%)
1	B6	0.69	0/1994	1.17	12/2710 (0.4%)
1	B7	0.68	0/1991	1.21	13/2707 (0.5%)
1	B8	0.67	0/1892	1.18	13/2581 (0.5%)
1	B9	0.70	0/1991	1.00	10/2707 (0.4%)
1	BA	0.68	0/1997	1.17	12/2714 (0.4%)
1	BC	0.69	0/1990	1.20	13/2705 (0.5%)
1	BH	0.67	0/1892	1.18	13/2581 (0.5%)
1	BI	0.70	0/1971	1.33	12/2679 (0.4%)
1	BJ	0.67	0/1899	1.18	13/2590 (0.5%)
2	B4	0.48	0/7144	0.73	8/9652 (0.1%)
2	BB	0.49	0/7144	0.73	7/9652 (0.1%)
2	C4	0.48	0/6986	0.71	6/9441 (0.1%)
2	CB	0.48	0/6986	0.71	6/9441 (0.1%)
3	4G	0.38	0/1220	0.64	2/1649 (0.1%)
3	4L	0.38	0/1220	0.64	2/1649 (0.1%)
3	6G	0.42	0/1224	0.66	1/1653 (0.1%)
3	6L	0.42	0/1224	0.66	1/1653 (0.1%)
3	9F	0.38	0/1224	0.56	0/1653
3	9K	0.38	0/1224	0.56	0/1653
3	AG	0.40	0/1224	0.62	0/1653
3	AL	0.40	0/1224	0.62	0/1653
3	GG	0.42	0/1224	0.62	1/1653 (0.1%)
3	GL	0.42	0/1224	0.62	1/1653 (0.1%)
3	IG	0.39	0/1221	0.84	12/1649 (0.7%)
3	IL	0.39	0/1218	0.88	14/1646 (0.9%)
3	JF	0.41	0/1218	0.65	1/1646 (0.1%)
3	JK	0.41	0/1224	0.66	1/1653 (0.1%)
3	KG	0.44	0/1218	0.61	0/1646
3	KL	0.44	0/1218	0.61	0/1646

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
3	LF	0.41	0/1224	0.62	0/1653
3	LK	0.41	0/1224	0.62	0/1653
3	NG	0.40	0/1218	0.60	0/1646
3	NL	0.40	0/1218	0.60	0/1646
3	O4	0.36	0/1218	0.67	3/1646 (0.2%)
3	OB	0.36	0/1214	0.67	3/1642 (0.2%)
3	PG	0.45	0/1224	0.63	0/1653
3	PL	0.45	0/1224	0.63	0/1653
3	Q4	0.33	0/1224	0.55	0/1653
3	QB	0.34	0/1220	0.55	0/1648
3	RG	0.37	0/1224	0.57	0/1653
3	RL	0.37	0/1224	0.57	0/1653
3	S4	0.35	0/1224	0.61	0/1653
3	SB	0.35	0/1224	0.61	0/1653
3	TG	0.38	0/1218	0.61	0/1646
3	TL	0.38	0/1218	0.61	0/1646
3	V4	0.33	0/1220	0.59	0/1649
3	VB	0.33	0/1220	0.59	0/1649
3	X4	0.34	0/1211	0.60	1/1637 (0.1%)
3	XB	0.35	0/1218	0.61	1/1646 (0.1%)
3	XF	0.39	0/1224	0.65	1/1653 (0.1%)
3	XK	0.39	0/1224	0.63	0/1653
3	Z4	0.36	0/1224	0.64	0/1653
3	ZB	0.36	0/1224	0.64	0/1653
3	ZF	0.40	0/1224	0.59	0/1653
3	ZK	0.40	0/1224	0.59	0/1653
3	bF	0.40	0/1224	0.61	0/1653
3	bK	0.40	0/1224	0.61	0/1653
3	dF	0.40	0/1220	0.61	1/1649 (0.1%)
3	dK	0.40	0/1220	0.61	1/1649 (0.1%)
3	fF	0.45	0/1224	0.64	0/1653
3	fK	0.45	0/1224	0.64	0/1653
3	iF	0.38	0/1224	0.57	0/1653
3	iK	0.38	0/1224	0.57	0/1653
3	kF	0.39	0/1224	0.62	0/1653
3	kK	0.39	0/1224	0.62	0/1653
3	o4	0.37	0/1220	0.62	0/1648
3	oB	0.37	0/1214	0.61	0/1641
3	q4	0.39	0/1212	0.61	0/1637
3	qB	0.39	0/1212	0.61	0/1637
3	s4	0.42	0/1224	0.64	1/1653 (0.1%)
3	sB	0.42	0/1224	0.64	1/1653 (0.1%)
3	u4	0.34	0/1214	0.60	1/1642 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
3	uB	0.34	0/1214	0.60	1/1642 (0.1%)
3	w4	0.35	0/1211	0.54	0/1638
3	wB	0.35	0/1224	0.54	0/1653
3	y4	0.44	0/1224	0.60	0/1653
3	yB	0.44	0/1224	0.60	0/1653
4	1G	0.39	0/1230	0.63	0/1665
4	1L	0.40	0/1230	0.63	0/1665
4	5G	0.40	0/1230	0.57	0/1665
4	5L	0.40	0/1230	0.57	0/1665
4	7G	0.45	0/1230	0.69	3/1665 (0.2%)
4	7L	0.45	0/1230	0.69	3/1665 (0.2%)
4	HG	0.42	0/1224	0.60	0/1658
4	HL	0.42	0/1224	0.60	0/1658
4	IF	0.37	0/1230	0.68	2/1665 (0.1%)
4	IK	0.37	0/1230	0.69	2/1665 (0.1%)
4	JG	0.45	0/1230	0.63	1/1665 (0.1%)
4	JL	0.45	0/1230	0.63	1/1665 (0.1%)
4	KF	0.42	0/1230	0.60	1/1665 (0.1%)
4	KK	0.42	0/1230	0.60	1/1665 (0.1%)
4	LG	0.51	0/1230	0.71	1/1665 (0.1%)
4	LL	0.51	0/1230	0.71	1/1665 (0.1%)
4	MF	0.43	1/1230 (0.1%)	0.70	2/1665 (0.1%)
4	MG	0.42	0/1226	0.58	0/1660
4	MK	0.43	1/1230 (0.1%)	0.70	2/1665 (0.1%)
4	ML	0.42	0/1226	0.58	0/1660
4	OG	0.44	0/1230	0.67	0/1665
4	OL	0.44	0/1230	0.67	0/1665
4	P4	0.36	0/1230	0.62	1/1665 (0.1%)
4	PB	0.36	0/1230	0.62	1/1665 (0.1%)
4	R4	0.35	0/1230	0.58	0/1665
4	RB	0.35	0/1230	0.58	0/1665
4	SG	0.37	0/1230	0.59	0/1665
4	SL	0.37	0/1230	0.59	0/1665
4	T4	0.35	0/1230	0.54	0/1665
4	TB	0.35	0/1230	0.55	0/1665
4	UG	0.36	0/1230	0.57	0/1665
4	UL	0.36	0/1230	0.57	0/1665
4	W4	0.33	0/1230	0.59	0/1665
4	WB	0.33	0/1230	0.59	0/1665
4	WG	0.41	0/1230	0.63	1/1665 (0.1%)
4	WL	0.41	0/1230	0.63	1/1665 (0.1%)
4	Y4	0.35	0/1230	0.62	2/1665 (0.1%)
4	YB	0.35	0/1230	0.62	2/1665 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
4	YF	0.43	0/1230	0.63	0/1665
4	YK	0.43	0/1230	0.63	0/1665
4	a4	0.42	0/1214	0.70	0/1644
4	aB	0.41	0/1211	0.69	0/1640
4	aF	0.48	0/1230	0.64	2/1665 (0.1%)
4	aK	0.48	0/1230	0.64	2/1665 (0.1%)
4	cF	0.43	0/1230	0.61	0/1665
4	cK	0.43	0/1230	0.61	0/1665
4	eF	0.43	0/1230	0.61	0/1665
4	eK	0.42	0/1230	0.61	0/1665
4	hF	0.40	0/1230	0.57	0/1665
4	hK	0.39	0/1224	0.56	0/1658
4	jF	0.36	0/1227	0.56	0/1662
4	jK	0.36	0/1227	0.56	0/1662
4	lF	0.39	0/1230	0.59	0/1665
4	lK	0.39	0/1230	0.59	0/1665
4	nF	0.39	0/1230	0.63	2/1665 (0.1%)
4	nK	0.39	0/1230	0.63	2/1665 (0.1%)
4	p4	0.37	0/1224	0.57	0/1658
4	pB	0.37	0/1224	0.57	0/1658
4	r4	0.42	0/1230	0.60	0/1665
4	rB	0.42	0/1230	0.60	0/1665
4	t4	0.43	1/1230 (0.1%)	0.65	2/1665 (0.1%)
4	tB	0.43	1/1230 (0.1%)	0.66	2/1665 (0.1%)
4	v4	0.36	0/1230	0.62	0/1665
4	vB	0.36	0/1230	0.62	0/1665
4	x4	0.42	0/1230	0.58	0/1665
4	xB	0.42	0/1230	0.59	0/1665
4	z4	0.37	0/1224	0.57	0/1658
4	zB	0.37	0/1224	0.57	0/1658
5	2G	0.42	0/536	0.66	1/720 (0.1%)
5	2L	0.42	0/536	0.66	1/720 (0.1%)
5	3F	0.57	1/536 (0.2%)	0.78	2/720 (0.3%)
5	3K	0.57	1/536 (0.2%)	0.78	2/720 (0.3%)
5	8G	0.58	0/536	0.74	1/720 (0.1%)
5	8L	0.58	0/536	0.74	1/720 (0.1%)
5	NF	0.47	0/544	0.74	1/730 (0.1%)
5	NK	0.47	0/544	0.74	1/730 (0.1%)
5	U4	0.38	0/536	0.68	0/720
5	UB	0.39	0/536	0.68	0/720
5	b4	0.37	0/536	0.67	1/720 (0.1%)
5	bB	0.37	0/536	0.67	1/720 (0.1%)
6	A1	0.45	0/2695	0.73	1/3681 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
6	AD	0.45	0/2687	0.73	2/3670 (0.1%)
6	AE	0.45	0/2687	0.73	2/3670 (0.1%)
6	a1	0.47	0/2693	0.71	2/3679 (0.1%)
6	aD	0.47	0/2699	0.70	2/3686 (0.1%)
6	aE	0.47	0/2699	0.71	2/3686 (0.1%)
7	B1	0.53	2/4059 (0.0%)	0.78	12/5531 (0.2%)
7	BD	0.53	2/4063 (0.0%)	0.78	11/5536 (0.2%)
7	BE	0.54	2/4057 (0.0%)	0.78	11/5529 (0.2%)
7	b1	0.47	1/4079 (0.0%)	0.74	9/5557 (0.2%)
7	bD	0.48	1/4079 (0.0%)	0.74	9/5557 (0.2%)
7	bE	0.48	1/4079 (0.0%)	0.74	9/5557 (0.2%)
8	C1	0.42	0/3597	0.71	4/4895 (0.1%)
8	CD	0.41	0/3597	0.69	4/4895 (0.1%)
8	CE	0.41	0/3597	0.69	4/4895 (0.1%)
8	c1	0.45	0/3595	0.74	4/4894 (0.1%)
8	cD	0.46	0/3591	0.75	6/4890 (0.1%)
8	cE	0.45	0/3593	0.74	6/4891 (0.1%)
9	D1	0.59	1/2810 (0.0%)	0.83	4/3833 (0.1%)
9	DD	0.59	1/2810 (0.0%)	0.83	4/3833 (0.1%)
9	DE	0.59	1/2810 (0.0%)	0.83	4/3833 (0.1%)
9	d1	0.60	1/2806 (0.0%)	0.83	6/3828 (0.2%)
9	dD	0.60	1/2806 (0.0%)	0.83	7/3828 (0.2%)
9	dE	0.60	1/2806 (0.0%)	0.83	7/3828 (0.2%)
10	E1	0.37	0/652	0.66	0/889
10	ED	0.37	0/652	0.66	0/889
10	EE	0.37	0/652	0.66	0/889
10	e1	0.39	0/652	0.64	0/889
10	eD	0.39	0/652	0.64	0/889
10	eE	0.39	0/652	0.64	0/889
11	F1	0.42	0/292	0.84	1/400 (0.2%)
11	FD	0.42	0/292	0.85	1/400 (0.2%)
11	FE	0.42	0/292	0.85	1/400 (0.2%)
11	f1	0.46	0/292	0.89	1/400 (0.2%)
11	fD	0.45	0/309	0.91	1/424 (0.2%)
11	fE	0.44	0/292	0.90	1/400 (0.2%)
12	H1	0.35	0/526	0.87	2/717 (0.3%)
12	HD	0.35	0/518	0.87	2/708 (0.3%)
12	HE	0.37	0/518	0.88	2/708 (0.3%)
12	h1	0.43	0/526	0.83	2/717 (0.3%)
12	hD	0.43	0/526	0.83	2/717 (0.3%)
12	hE	0.43	0/526	0.83	2/717 (0.3%)
13	I1	0.69	0/300	1.00	1/404 (0.2%)
13	ID	0.70	0/300	1.03	2/404 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
13	IE	0.70	0/300	1.03	2/404 (0.5%)
13	i1	0.47	0/296	0.72	0/400
13	iD	0.47	0/296	0.72	0/400
13	iE	0.47	0/296	0.72	0/400
14	J1	0.33	0/268	0.64	0/367
14	JD	0.33	0/268	0.64	0/367
14	JE	0.33	0/268	0.64	0/367
14	j1	0.37	0/282	0.78	0/385
14	jD	0.37	0/282	0.78	0/385
14	jE	0.37	0/282	0.78	0/385
15	K1	0.44	0/297	0.86	1/409 (0.2%)
15	KD	0.44	0/297	0.86	1/409 (0.2%)
15	KE	0.44	0/297	0.86	1/409 (0.2%)
15	k1	0.40	0/288	0.82	1/398 (0.3%)
15	kD	0.40	0/288	0.82	1/398 (0.3%)
15	kE	0.40	0/288	0.82	1/398 (0.3%)
16	L1	0.46	0/322	0.83	2/434 (0.5%)
16	LD	0.46	0/322	0.83	2/434 (0.5%)
16	LE	0.46	0/322	0.83	2/434 (0.5%)
16	l1	0.47	0/322	0.83	2/434 (0.5%)
16	lD	0.47	0/322	0.83	2/434 (0.5%)
16	lE	0.47	0/322	0.83	2/434 (0.5%)
17	M1	0.47	0/290	0.77	0/392
17	MD	0.47	0/290	0.77	0/392
17	ME	0.47	0/290	0.77	0/392
17	m1	0.53	0/290	0.78	0/392
17	mD	0.53	0/290	0.78	0/392
17	mE	0.53	0/290	0.78	0/392
18	O1	0.46	0/1893	0.96	6/2571 (0.2%)
18	OD	0.46	0/1893	0.96	6/2571 (0.2%)
18	OE	0.46	0/1893	0.96	6/2571 (0.2%)
18	o1	0.46	0/1893	0.96	6/2571 (0.2%)
18	oD	0.46	0/1893	0.96	6/2571 (0.2%)
18	oE	0.46	0/1893	0.96	6/2571 (0.2%)
19	Q1	0.42	0/985	0.84	4/1332 (0.3%)
19	QD	0.41	0/985	0.84	4/1332 (0.3%)
19	QE	0.42	0/985	0.84	4/1332 (0.3%)
19	q1	0.42	0/985	0.85	4/1332 (0.3%)
19	qD	0.41	0/985	0.85	4/1332 (0.3%)
19	qE	0.41	0/985	0.85	4/1332 (0.3%)
20	R1	0.34	0/264	0.74	0/357
20	RD	0.34	0/264	0.74	0/357
20	RE	0.34	0/264	0.74	0/357

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
20	r1	0.33	0/264	0.74	0/357
20	rD	0.34	0/264	0.74	0/357
20	rE	0.34	0/264	0.74	0/357
22	T1	0.39	0/230	0.78	0/313
22	TD	0.39	0/230	0.78	0/313
22	TE	0.39	0/230	0.78	0/313
22	t1	0.39	0/238	0.59	0/323
22	tD	0.39	0/238	0.59	0/323
22	tE	0.39	0/238	0.59	0/323
23	U1	0.41	0/769	0.84	4/1040 (0.4%)
23	UD	0.41	0/769	0.84	4/1040 (0.4%)
23	UE	0.41	0/769	0.84	4/1040 (0.4%)
23	u1	0.41	0/769	0.84	3/1040 (0.3%)
23	uD	0.41	0/769	0.84	3/1040 (0.3%)
23	uE	0.41	0/769	0.84	3/1040 (0.3%)
24	V1	0.37	0/1064	0.73	2/1447 (0.1%)
24	VD	0.37	0/1064	0.73	2/1447 (0.1%)
24	VE	0.37	0/1064	0.73	2/1447 (0.1%)
24	v1	0.37	0/1064	0.73	2/1447 (0.1%)
24	vD	0.37	0/1064	0.73	2/1447 (0.1%)
24	vE	0.37	0/1064	0.73	2/1447 (0.1%)
25	X1	0.35	0/318	0.68	0/429
25	XD	0.35	0/318	0.68	0/429
25	XE	0.35	0/318	0.68	0/429
25	x1	0.35	0/318	0.68	0/429
25	xD	0.35	0/318	0.68	0/429
25	xE	0.35	0/318	0.68	0/429
26	Y1	0.40	0/241	0.87	1/327 (0.3%)
26	YD	0.40	0/241	0.87	1/327 (0.3%)
26	YE	0.40	0/241	0.87	1/327 (0.3%)
26	y1	0.34	0/241	0.76	1/327 (0.3%)
26	yD	0.34	0/241	0.76	1/327 (0.3%)
26	yE	0.34	0/241	0.76	1/327 (0.3%)
27	Z1	0.38	0/473	0.77	0/651
27	ZD	0.38	0/473	0.77	0/651
27	ZE	0.38	0/473	0.77	0/651
27	z1	0.45	0/473	0.81	0/651
27	zD	0.45	0/473	0.81	0/651
27	zE	0.45	0/473	0.81	0/651
28	BG	0.54	0/363	1.31	6/483 (1.2%)
28	BL	0.54	0/363	1.31	6/483 (1.2%)
28	EF	0.55	0/360	1.24	3/480 (0.6%)
28	EK	0.55	0/360	1.24	3/480 (0.6%)



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
29	QG	0.49	0/1316	0.71	0/1790
29	QL	0.48	0/1316	0.71	0/1790
29	gF	0.47	0/1316	0.71	0/1790
29	gK	0.47	0/1316	0.71	0/1790
30	VG	0.43	0/1274	0.70	2/1720 (0.1%)
30	VL	0.43	0/1274	0.70	2/1720 (0.1%)
30	mF	0.43	0/1274	0.69	2/1720 (0.1%)
30	mK	0.43	0/1274	0.69	2/1720 (0.1%)
31	b2	0.40	0/1060	0.80	11/1446 (0.8%)
31	b3	0.40	0/1060	0.80	11/1446 (0.8%)
31	b5	0.40	0/1060	0.80	11/1446 (0.8%)
31	b6	0.40	0/1060	0.80	11/1446 (0.8%)
31	b7	0.40	0/1060	0.80	11/1446 (0.8%)
31	b8	0.40	0/1060	0.80	11/1446 (0.8%)
31	b9	0.40	0/1060	0.80	11/1446 (0.8%)
31	bA	0.40	0/1060	0.80	11/1446 (0.8%)
31	bC	0.40	0/1060	0.80	11/1446 (0.8%)
31	bH	0.40	0/1060	0.80	11/1446 (0.8%)
31	bI	0.40	0/1060	0.80	11/1446 (0.8%)
31	bJ	0.40	0/1060	0.80	11/1446 (0.8%)
31	d2	0.40	0/1019	0.82	12/1397 (0.9%)
31	d3	0.40	0/1019	0.82	12/1397 (0.9%)
31	d5	0.40	0/1019	0.82	12/1397 (0.9%)
31	d6	0.40	0/1019	0.82	12/1397 (0.9%)
31	d7	0.40	0/1019	0.82	12/1397 (0.9%)
31	d8	0.40	0/1019	0.82	12/1397 (0.9%)
31	d9	0.40	0/1019	0.82	12/1397 (0.9%)
31	dA	0.40	0/1019	0.82	12/1397 (0.9%)
31	dC	0.40	0/1019	0.82	12/1397 (0.9%)
31	dH	0.40	0/1019	0.82	12/1397 (0.9%)
31	dI	0.40	0/1019	0.82	12/1397 (0.9%)
31	dJ	0.40	0/1019	0.82	12/1397 (0.9%)
31	f2	0.40	0/1039	0.79	10/1424 (0.7%)
31	f3	0.40	0/1039	0.79	10/1424 (0.7%)
31	f5	0.40	0/1039	0.79	10/1424 (0.7%)
31	f6	0.40	0/1039	0.79	10/1424 (0.7%)
31	f7	0.40	0/1039	0.79	10/1424 (0.7%)
31	f8	0.40	0/1039	0.79	10/1424 (0.7%)
31	f9	0.40	0/1039	0.79	10/1424 (0.7%)
31	fA	0.40	0/1039	0.79	10/1424 (0.7%)
31	fC	0.40	0/1039	0.79	10/1424 (0.7%)
31	fH	0.40	0/1039	0.79	10/1424 (0.7%)
31	fI	0.40	0/1039	0.79	10/1424 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
31	fJ	0.40	0/1039	0.79	10/1424 (0.7%)
31	h2	0.40	0/1051	0.78	10/1437 (0.7%)
31	h3	0.40	0/1051	0.79	10/1437 (0.7%)
31	h5	0.40	0/1051	0.78	10/1437 (0.7%)
31	h6	0.40	0/1051	0.79	10/1437 (0.7%)
31	h7	0.40	0/1051	0.79	10/1437 (0.7%)
31	h8	0.40	0/1051	0.79	10/1437 (0.7%)
31	h9	0.40	0/1045	0.79	10/1430 (0.7%)
31	hA	0.40	0/1051	0.79	10/1437 (0.7%)
31	hC	0.40	0/1051	0.79	10/1437 (0.7%)
31	hH	0.40	0/1051	0.78	10/1437 (0.7%)
31	hI	0.40	0/1051	0.78	10/1437 (0.7%)
31	hJ	0.40	0/1051	0.78	10/1437 (0.7%)
31	j2	0.40	0/1037	0.82	12/1419 (0.8%)
31	j3	0.40	0/1037	0.82	12/1419 (0.8%)
31	j5	0.40	0/1037	0.82	12/1419 (0.8%)
31	j6	0.40	0/1037	0.82	12/1419 (0.8%)
31	j7	0.40	0/1037	0.82	12/1419 (0.8%)
31	j8	0.40	0/1037	0.82	12/1419 (0.8%)
31	j9	0.40	0/1037	0.82	12/1419 (0.8%)
31	jA	0.40	0/1037	0.82	12/1419 (0.8%)
31	jC	0.40	0/1037	0.82	12/1419 (0.8%)
31	jH	0.40	0/1037	0.82	12/1419 (0.8%)
31	jI	0.40	0/1037	0.82	12/1419 (0.8%)
31	jJ	0.40	0/1037	0.82	12/1419 (0.8%)
31	l2	0.40	0/1070	0.81	12/1464 (0.8%)
31	l3	0.40	0/1070	0.81	12/1464 (0.8%)
31	l5	0.40	0/1070	0.81	12/1464 (0.8%)
31	l6	0.40	0/1070	0.81	12/1464 (0.8%)
31	l7	0.40	0/1070	0.81	12/1464 (0.8%)
31	l8	0.40	0/1070	0.81	12/1464 (0.8%)
31	l9	0.40	0/1070	0.81	12/1464 (0.8%)
31	lA	0.40	0/1070	0.81	12/1464 (0.8%)
31	lC	0.40	0/1070	0.81	12/1464 (0.8%)
31	lH	0.40	0/1070	0.81	12/1464 (0.8%)
31	lI	0.40	0/1070	0.81	12/1464 (0.8%)
31	lJ	0.40	0/1070	0.81	12/1464 (0.8%)
32	c2	0.37	0/1083	0.83	12/1488 (0.8%)
32	c3	0.37	0/1083	0.83	12/1488 (0.8%)
32	c5	0.37	0/1083	0.83	12/1488 (0.8%)
32	c6	0.37	0/1083	0.83	12/1488 (0.8%)
32	c7	0.36	0/1083	0.83	12/1488 (0.8%)
32	c8	0.37	0/1083	0.83	12/1488 (0.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
32	c9	0.37	0/1083	0.83	12/1488 (0.8%)
32	cA	0.37	0/1083	0.83	12/1488 (0.8%)
32	cC	0.36	0/1083	0.83	12/1488 (0.8%)
32	cH	0.36	0/1083	0.83	12/1488 (0.8%)
32	cI	0.37	0/1080	0.83	12/1484 (0.8%)
32	cJ	0.37	0/1083	0.83	12/1488 (0.8%)
32	e2	0.37	0/1069	0.80	11/1467 (0.7%)
32	e3	0.37	0/1069	0.80	11/1467 (0.7%)
32	e5	0.37	0/1069	0.80	11/1467 (0.7%)
32	e6	0.37	0/1069	0.80	11/1467 (0.7%)
32	e7	0.37	0/1069	0.80	11/1467 (0.7%)
32	e8	0.37	0/1069	0.80	11/1467 (0.7%)
32	e9	0.37	0/1069	0.80	11/1467 (0.7%)
32	eA	0.37	0/1069	0.80	11/1467 (0.7%)
32	eC	0.37	0/1069	0.80	11/1467 (0.7%)
32	eH	0.37	0/1069	0.80	11/1467 (0.7%)
32	eI	0.37	0/1069	0.80	11/1467 (0.7%)
32	eJ	0.37	0/1069	0.80	11/1467 (0.7%)
32	g2	0.36	0/1094	0.74	9/1498 (0.6%)
32	g3	0.36	0/1094	0.74	9/1498 (0.6%)
32	g5	0.36	0/1094	0.74	9/1498 (0.6%)
32	g6	0.36	0/1094	0.74	9/1498 (0.6%)
32	g7	0.36	0/1094	0.74	9/1498 (0.6%)
32	g8	0.36	0/1094	0.74	9/1498 (0.6%)
32	g9	0.36	0/1094	0.74	9/1498 (0.6%)
32	gA	0.36	0/1094	0.74	9/1498 (0.6%)
32	gC	0.36	0/1094	0.74	9/1498 (0.6%)
32	gH	0.36	0/1094	0.74	9/1498 (0.6%)
32	gI	0.36	0/1091	0.74	9/1494 (0.6%)
32	gJ	0.36	0/1094	0.74	9/1498 (0.6%)
32	i2	0.37	0/1093	0.84	13/1497 (0.9%)
32	i3	0.37	0/1093	0.84	13/1497 (0.9%)
32	i5	0.37	0/1093	0.84	13/1497 (0.9%)
32	i6	0.37	0/1093	0.84	13/1497 (0.9%)
32	i7	0.37	0/1093	0.84	13/1497 (0.9%)
32	i8	0.37	0/1093	0.84	13/1497 (0.9%)
32	i9	0.37	0/1093	0.84	13/1497 (0.9%)
32	iA	0.37	0/1093	0.84	13/1497 (0.9%)
32	iC	0.37	0/1093	0.84	13/1497 (0.9%)
32	iH	0.37	0/1093	0.84	13/1497 (0.9%)
32	iI	0.37	0/1093	0.84	13/1497 (0.9%)
32	iJ	0.37	0/1093	0.84	13/1497 (0.9%)
32	k2	0.36	0/1110	0.81	13/1520 (0.9%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
32	k3	0.36	0/1110	0.81	13/1520 (0.9%)
32	k5	0.36	0/1110	0.81	13/1520 (0.9%)
32	k6	0.36	0/1110	0.81	13/1520 (0.9%)
32	k7	0.36	0/1110	0.81	13/1520 (0.9%)
32	k8	0.36	0/1110	0.81	13/1520 (0.9%)
32	k9	0.36	0/1110	0.81	13/1520 (0.9%)
32	kA	0.36	0/1110	0.81	13/1520 (0.9%)
32	kC	0.36	0/1110	0.81	13/1520 (0.9%)
32	kH	0.36	0/1110	0.81	13/1520 (0.9%)
32	kI	0.36	0/1110	0.81	13/1520 (0.9%)
32	kJ	0.36	0/1110	0.81	13/1520 (0.9%)
32	m2	0.36	0/1104	0.79	10/1514 (0.7%)
32	m3	0.36	0/1104	0.79	10/1514 (0.7%)
32	m5	0.36	0/1104	0.79	10/1514 (0.7%)
32	m6	0.36	0/1104	0.79	10/1514 (0.7%)
32	m7	0.36	0/1104	0.79	10/1514 (0.7%)
32	m8	0.36	0/1104	0.79	10/1514 (0.7%)
32	m9	0.36	0/1104	0.79	10/1514 (0.7%)
32	mA	0.36	0/1104	0.79	10/1514 (0.7%)
32	mC	0.36	0/1104	0.79	10/1514 (0.7%)
32	mH	0.36	0/1104	0.79	10/1514 (0.7%)
32	mI	0.36	0/1104	0.79	10/1514 (0.7%)
32	mJ	0.36	0/1104	0.79	10/1514 (0.7%)
All	All	0.44	21/519767 (0.0%)	0.76	2195/706903 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B5	0	1
1	B8	0	1
1	BC	0	1
1	BH	0	1
1	BJ	0	1
2	B4	0	5
2	BB	0	5
2	C4	0	4
2	CB	0	4
3	GG	0	1
3	GL	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	s4	0	1
3	sB	0	1
4	UG	0	1
4	UL	0	1
4	WG	0	1
4	WL	0	1
4	a4	0	2
4	aB	0	2
4	x4	0	1
4	xB	0	1
5	3F	0	1
5	3K	0	1
5	U4	0	1
5	UB	0	1
6	A1	0	4
6	AD	0	4
6	AE	0	4
6	a1	0	5
6	aD	0	5
6	aE	0	5
7	B1	0	5
7	BD	0	5
7	BE	0	5
7	b1	0	5
7	bD	0	5
7	bE	0	5
8	cE	0	1
9	D1	0	2
9	DD	0	2
9	DE	0	2
9	d1	0	2
9	dD	0	2
9	dE	0	2
12	H1	0	1
12	HD	0	1
12	HE	0	1
12	h1	0	1
12	hD	0	1
12	hE	0	1
13	i1	0	2
13	iD	0	2
13	iE	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
14	j1	0	1
14	jD	0	1
14	jE	0	1
18	O1	0	16
18	OD	0	16
18	OE	0	16
18	o1	0	16
18	oD	0	16
18	oE	0	16
19	Q1	0	3
19	QD	0	3
19	QE	0	3
19	q1	0	3
19	qD	0	3
19	qE	0	3
23	U1	0	2
23	UD	0	2
23	UE	0	2
23	u1	0	2
23	uD	0	2
23	uE	0	2
24	V1	0	1
24	VD	0	1
24	VE	0	1
24	v1	0	2
24	vD	0	2
24	vE	0	2
28	BG	0	1
28	BL	0	1
28	EF	0	1
28	EK	0	1
29	QG	0	1
29	QL	0	1
29	gF	0	1
29	gK	0	1
32	c2	0	1
32	c3	0	1
32	c5	0	1
32	c6	0	1
32	c7	0	1
32	c8	0	1
32	c9	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
32	cA	0	1
32	cC	0	1
32	cH	0	1
32	cI	0	1
32	cJ	0	1
32	e2	0	1
32	e3	0	1
32	e5	0	1
32	e6	0	1
32	e7	0	1
32	e8	0	1
32	e9	0	1
32	eA	0	1
32	eC	0	1
32	eH	0	1
32	eI	0	1
32	eJ	0	1
32	g2	0	1
32	g3	0	1
32	g5	0	1
32	g6	0	1
32	g7	0	1
32	g8	0	1
32	g9	0	1
32	gA	0	1
32	gC	0	1
32	gH	0	1
32	gI	0	1
32	gJ	0	1
32	k2	0	1
32	k3	0	1
32	k5	0	1
32	k6	0	1
32	k7	0	1
32	k8	0	1
32	k9	0	1
32	kA	0	1
32	kC	0	1
32	kH	0	1
32	kI	0	1
32	kJ	0	1
All	All	0	317

The worst 5 of 21 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	3F	37	PHE	CE2-CZ	7.52	1.51	1.37
5	3K	37	PHE	CE2-CZ	7.50	1.51	1.37
7	BD	61	PHE	CE2-CZ	6.98	1.50	1.37
7	BE	61	PHE	CE2-CZ	6.98	1.50	1.37
7	B1	61	PHE	CE2-CZ	6.98	1.50	1.37

The worst 5 of 2195 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BI	212	GLN	C-N-CD	-32.69	48.69	120.60
1	BI	230	ARG	C-N-CD	-30.57	53.35	120.60
1	B2	230	ARG	C-N-CD	-30.57	53.35	120.60
1	B6	230	ARG	C-N-CD	-30.57	53.35	120.60
1	B8	207	VAL	C-N-CD	-26.51	62.27	120.60

There are no chirality outliers.

5 of 317 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	BB	481	LYS	Peptide
2	BB	536	SER	Peptide
2	BB	732	ASN	Peptide
2	BB	733	LYS	Mainchain
2	BB	80	SER	Mainchain

## 5.2 Too-close contacts [i](#)

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

## 5.3 Torsion angles [i](#)

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

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	B2	238/254 (94%)	215 (90%)	14 (6%)	9 (4%)	3	25
1	B3	238/254 (94%)	218 (92%)	10 (4%)	10 (4%)	3	23
1	B5	238/254 (94%)	215 (90%)	13 (6%)	10 (4%)	3	23
1	B6	238/254 (94%)	216 (91%)	16 (7%)	6 (2%)	5	34
1	B7	238/254 (94%)	214 (90%)	12 (5%)	12 (5%)	2	19
1	B8	238/254 (94%)	215 (90%)	13 (6%)	10 (4%)	3	23
1	B9	238/254 (94%)	213 (90%)	18 (8%)	7 (3%)	4	31
1	BA	238/254 (94%)	223 (94%)	8 (3%)	7 (3%)	4	31
1	BC	238/254 (94%)	217 (91%)	10 (4%)	11 (5%)	2	21
1	BH	238/254 (94%)	215 (90%)	13 (6%)	10 (4%)	3	23
1	BI	238/254 (94%)	212 (89%)	17 (7%)	9 (4%)	3	25
1	BJ	238/254 (94%)	215 (90%)	13 (6%)	10 (4%)	3	23
2	B4	884/914 (97%)	806 (91%)	70 (8%)	8 (1%)	17	56
2	BB	884/914 (97%)	806 (91%)	68 (8%)	10 (1%)	14	52
2	C4	862/914 (94%)	799 (93%)	61 (7%)	2 (0%)	47	81
2	CB	862/914 (94%)	798 (93%)	62 (7%)	2 (0%)	47	81
3	4G	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	4L	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	6G	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	6L	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	9F	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	9K	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	AG	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
3	AL	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
3	GG	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	GL	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	IG	158/161 (98%)	149 (94%)	9 (6%)	0	100	100
3	IL	158/161 (98%)	149 (94%)	8 (5%)	1 (1%)	25	64
3	JF	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
3	JK	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
3	KG	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	KL	158/161 (98%)	152 (96%)	6 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	LF	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	LK	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	NG	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	NL	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	O4	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
3	OB	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
3	PG	158/161 (98%)	155 (98%)	3 (2%)	0	100	100
3	PL	158/161 (98%)	155 (98%)	3 (2%)	0	100	100
3	Q4	158/161 (98%)	156 (99%)	2 (1%)	0	100	100
3	QB	158/161 (98%)	156 (99%)	2 (1%)	0	100	100
3	RG	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	RL	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	S4	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	SB	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	TG	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	TL	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	V4	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	VB	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	X4	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	XB	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	XF	158/161 (98%)	156 (99%)	1 (1%)	1 (1%)	25	64
3	XK	158/161 (98%)	156 (99%)	1 (1%)	1 (1%)	25	64
3	Z4	158/161 (98%)	148 (94%)	10 (6%)	0	100	100
3	ZB	158/161 (98%)	148 (94%)	10 (6%)	0	100	100
3	ZF	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	ZK	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	bF	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	bK	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	dF	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	dK	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	fF	158/161 (98%)	150 (95%)	8 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	fK	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	iF	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	iK	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	kF	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	kK	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	o4	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	oB	158/161 (98%)	153 (97%)	5 (3%)	0	100	100
3	q4	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	qB	158/161 (98%)	152 (96%)	6 (4%)	0	100	100
3	s4	158/161 (98%)	152 (96%)	5 (3%)	1 (1%)	25	64
3	sB	158/161 (98%)	152 (96%)	5 (3%)	1 (1%)	25	64
3	u4	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	uB	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	w4	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	wB	158/161 (98%)	154 (98%)	4 (2%)	0	100	100
3	y4	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
3	yB	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
4	1G	159/161 (99%)	155 (98%)	4 (2%)	0	100	100
4	1L	159/161 (99%)	155 (98%)	4 (2%)	0	100	100
4	5G	159/161 (99%)	148 (93%)	11 (7%)	0	100	100
4	5L	159/161 (99%)	148 (93%)	11 (7%)	0	100	100
4	7G	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	7L	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	HG	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	HL	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	IF	159/161 (99%)	149 (94%)	9 (6%)	1 (1%)	25	64
4	IK	159/161 (99%)	148 (93%)	10 (6%)	1 (1%)	25	64
4	JG	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	JL	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	KF	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	KK	159/161 (99%)	152 (96%)	7 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	LG	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	LL	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	MF	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	MG	159/161 (99%)	155 (98%)	4 (2%)	0	100	100
4	MK	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	ML	159/161 (99%)	155 (98%)	4 (2%)	0	100	100
4	OG	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	OL	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	P4	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	PB	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	R4	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	RB	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	SG	159/161 (99%)	157 (99%)	2 (1%)	0	100	100
4	SL	159/161 (99%)	157 (99%)	2 (1%)	0	100	100
4	T4	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	TB	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	UG	159/161 (99%)	156 (98%)	3 (2%)	0	100	100
4	UL	159/161 (99%)	156 (98%)	3 (2%)	0	100	100
4	W4	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	WB	159/161 (99%)	153 (96%)	5 (3%)	1 (1%)	25	64
4	WG	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	WL	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	Y4	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	YB	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	YF	159/161 (99%)	153 (96%)	5 (3%)	1 (1%)	25	64
4	YK	159/161 (99%)	153 (96%)	5 (3%)	1 (1%)	25	64
4	a4	158/161 (98%)	141 (89%)	13 (8%)	4 (2%)	5	34
4	aB	158/161 (98%)	139 (88%)	12 (8%)	7 (4%)	2	21
4	aF	159/161 (99%)	150 (94%)	8 (5%)	1 (1%)	25	64
4	aK	159/161 (99%)	150 (94%)	8 (5%)	1 (1%)	25	64
4	cF	159/161 (99%)	151 (95%)	8 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	cK	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	eF	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	eK	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	hF	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	hK	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	jF	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	jK	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	lF	159/161 (99%)	155 (98%)	4 (2%)	0	100	100
4	lK	159/161 (99%)	155 (98%)	4 (2%)	0	100	100
4	nF	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	nK	159/161 (99%)	151 (95%)	8 (5%)	0	100	100
4	p4	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	pB	159/161 (99%)	154 (97%)	5 (3%)	0	100	100
4	r4	159/161 (99%)	149 (94%)	10 (6%)	0	100	100
4	rB	159/161 (99%)	149 (94%)	10 (6%)	0	100	100
4	t4	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	tB	159/161 (99%)	152 (96%)	7 (4%)	0	100	100
4	v4	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	vB	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	x4	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	xB	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	z4	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
4	zB	159/161 (99%)	153 (96%)	6 (4%)	0	100	100
5	2G	63/67 (94%)	54 (86%)	9 (14%)	0	100	100
5	2L	63/67 (94%)	54 (86%)	9 (14%)	0	100	100
5	3F	63/67 (94%)	56 (89%)	7 (11%)	0	100	100
5	3K	63/67 (94%)	56 (89%)	7 (11%)	0	100	100
5	8G	63/67 (94%)	56 (89%)	7 (11%)	0	100	100
5	8L	63/67 (94%)	56 (89%)	7 (11%)	0	100	100
5	NF	64/67 (96%)	54 (84%)	10 (16%)	0	100	100
5	NK	64/67 (96%)	54 (84%)	10 (16%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	U4	63/67 (94%)	61 (97%)	2 (3%)	0	100	100
5	UB	63/67 (94%)	61 (97%)	2 (3%)	0	100	100
5	b4	63/67 (94%)	58 (92%)	5 (8%)	0	100	100
5	bB	63/67 (94%)	58 (92%)	5 (8%)	0	100	100
6	A1	332/359 (92%)	300 (90%)	32 (10%)	0	100	100
6	AD	332/359 (92%)	300 (90%)	32 (10%)	0	100	100
6	AE	332/359 (92%)	300 (90%)	32 (10%)	0	100	100
6	a1	332/359 (92%)	305 (92%)	26 (8%)	1 (0%)	41	75
6	aD	332/359 (92%)	305 (92%)	26 (8%)	1 (0%)	41	75
6	aE	332/359 (92%)	305 (92%)	26 (8%)	1 (0%)	41	75
7	B1	500/509 (98%)	454 (91%)	44 (9%)	2 (0%)	34	72
7	BD	500/509 (98%)	454 (91%)	44 (9%)	2 (0%)	34	72
7	BE	500/509 (98%)	454 (91%)	44 (9%)	2 (0%)	34	72
7	b1	502/509 (99%)	450 (90%)	48 (10%)	4 (1%)	19	58
7	bD	502/509 (99%)	450 (90%)	48 (10%)	4 (1%)	19	58
7	bE	502/509 (99%)	450 (90%)	48 (10%)	4 (1%)	19	58
8	C1	448/469 (96%)	408 (91%)	37 (8%)	3 (1%)	22	61
8	CD	448/469 (96%)	411 (92%)	36 (8%)	1 (0%)	47	81
8	CE	448/469 (96%)	411 (92%)	36 (8%)	1 (0%)	47	81
8	c1	451/469 (96%)	390 (86%)	49 (11%)	12 (3%)	5	33
8	cD	451/469 (96%)	384 (85%)	56 (12%)	11 (2%)	6	35
8	cE	451/469 (96%)	392 (87%)	49 (11%)	10 (2%)	6	37
9	D1	339/352 (96%)	302 (89%)	36 (11%)	1 (0%)	41	75
9	DD	339/352 (96%)	302 (89%)	36 (11%)	1 (0%)	41	75
9	DE	339/352 (96%)	302 (89%)	36 (11%)	1 (0%)	41	75
9	d1	339/352 (96%)	300 (88%)	34 (10%)	5 (2%)	10	45
9	dD	339/352 (96%)	301 (89%)	33 (10%)	5 (2%)	10	45
9	dE	339/352 (96%)	301 (89%)	33 (10%)	5 (2%)	10	45
10	E1	76/82 (93%)	67 (88%)	9 (12%)	0	100	100
10	ED	76/82 (93%)	67 (88%)	9 (12%)	0	100	100
10	EE	76/82 (93%)	66 (87%)	10 (13%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	e1	76/82 (93%)	69 (91%)	7 (9%)	0	100	100
10	eD	76/82 (93%)	69 (91%)	7 (9%)	0	100	100
10	eE	76/82 (93%)	69 (91%)	7 (9%)	0	100	100
11	F1	33/44 (75%)	31 (94%)	2 (6%)	0	100	100
11	FD	33/44 (75%)	31 (94%)	2 (6%)	0	100	100
11	FE	33/44 (75%)	31 (94%)	2 (6%)	0	100	100
11	f1	33/44 (75%)	31 (94%)	2 (6%)	0	100	100
11	fD	35/44 (80%)	33 (94%)	2 (6%)	0	100	100
11	fE	33/44 (75%)	30 (91%)	2 (6%)	1 (3%)	4	30
12	H1	62/67 (92%)	55 (89%)	7 (11%)	0	100	100
12	HD	62/67 (92%)	55 (89%)	7 (11%)	0	100	100
12	HE	62/67 (92%)	54 (87%)	8 (13%)	0	100	100
12	h1	62/67 (92%)	51 (82%)	11 (18%)	0	100	100
12	hD	62/67 (92%)	51 (82%)	11 (18%)	0	100	100
12	hE	62/67 (92%)	51 (82%)	11 (18%)	0	100	100
13	I1	34/38 (90%)	27 (79%)	1 (3%)	6 (18%)	0	2
13	ID	34/38 (90%)	27 (79%)	1 (3%)	6 (18%)	0	2
13	IE	34/38 (90%)	27 (79%)	1 (3%)	6 (18%)	0	2
13	i1	34/38 (90%)	29 (85%)	4 (12%)	1 (3%)	4	31
13	iD	34/38 (90%)	29 (85%)	4 (12%)	1 (3%)	4	31
13	iE	34/38 (90%)	29 (85%)	4 (12%)	1 (3%)	4	31
14	J1	35/39 (90%)	35 (100%)	0	0	100	100
14	JD	35/39 (90%)	35 (100%)	0	0	100	100
14	JE	35/39 (90%)	35 (100%)	0	0	100	100
14	j1	37/39 (95%)	34 (92%)	3 (8%)	0	100	100
14	jD	37/39 (95%)	34 (92%)	3 (8%)	0	100	100
14	jE	37/39 (95%)	34 (92%)	3 (8%)	0	100	100
15	K1	34/45 (76%)	26 (76%)	8 (24%)	0	100	100
15	KD	34/45 (76%)	26 (76%)	8 (24%)	0	100	100
15	KE	34/45 (76%)	26 (76%)	8 (24%)	0	100	100
15	k1	33/45 (73%)	27 (82%)	2 (6%)	4 (12%)	0	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	kD	33/45 (73%)	27 (82%)	2 (6%)	4 (12%)	0	5
15	kE	33/45 (73%)	27 (82%)	2 (6%)	4 (12%)	0	5
16	L1	36/39 (92%)	33 (92%)	3 (8%)	0	100	100
16	LD	36/39 (92%)	33 (92%)	3 (8%)	0	100	100
16	LE	36/39 (92%)	33 (92%)	3 (8%)	0	100	100
16	l1	36/39 (92%)	33 (92%)	3 (8%)	0	100	100
16	lD	36/39 (92%)	33 (92%)	3 (8%)	0	100	100
16	lE	36/39 (92%)	33 (92%)	3 (8%)	0	100	100
17	M1	34/37 (92%)	26 (76%)	8 (24%)	0	100	100
17	MD	34/37 (92%)	26 (76%)	8 (24%)	0	100	100
17	ME	34/37 (92%)	26 (76%)	8 (24%)	0	100	100
17	m1	34/37 (92%)	27 (79%)	7 (21%)	0	100	100
17	mD	34/37 (92%)	27 (79%)	7 (21%)	0	100	100
17	mE	34/37 (92%)	27 (79%)	7 (21%)	0	100	100
18	O1	241/278 (87%)	163 (68%)	73 (30%)	5 (2%)	7	38
18	OD	241/278 (87%)	163 (68%)	73 (30%)	5 (2%)	7	38
18	OE	241/278 (87%)	163 (68%)	73 (30%)	5 (2%)	7	38
18	o1	241/278 (87%)	164 (68%)	72 (30%)	5 (2%)	7	38
18	oD	241/278 (87%)	164 (68%)	72 (30%)	5 (2%)	7	38
18	oE	241/278 (87%)	164 (68%)	72 (30%)	5 (2%)	7	38
19	Q1	117/164 (71%)	104 (89%)	13 (11%)	0	100	100
19	QD	117/164 (71%)	104 (89%)	13 (11%)	0	100	100
19	QE	117/164 (71%)	104 (89%)	13 (11%)	0	100	100
19	q1	117/164 (71%)	104 (89%)	13 (11%)	0	100	100
19	qD	117/164 (71%)	103 (88%)	14 (12%)	0	100	100
19	qE	117/164 (71%)	104 (89%)	13 (11%)	0	100	100
20	R1	33/39 (85%)	30 (91%)	3 (9%)	0	100	100
20	RD	33/39 (85%)	30 (91%)	3 (9%)	0	100	100
20	RE	33/39 (85%)	30 (91%)	3 (9%)	0	100	100
20	r1	33/39 (85%)	30 (91%)	3 (9%)	0	100	100
20	rD	33/39 (85%)	30 (91%)	3 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	rE	33/39 (85%)	30 (91%)	3 (9%)	0	100	100
22	T1	27/31 (87%)	23 (85%)	4 (15%)	0	100	100
22	TD	27/31 (87%)	23 (85%)	4 (15%)	0	100	100
22	TE	27/31 (87%)	23 (85%)	4 (15%)	0	100	100
22	t1	28/31 (90%)	27 (96%)	1 (4%)	0	100	100
22	tD	28/31 (90%)	27 (96%)	1 (4%)	0	100	100
22	tE	28/31 (90%)	27 (96%)	1 (4%)	0	100	100
23	U1	93/95 (98%)	83 (89%)	10 (11%)	0	100	100
23	UD	93/95 (98%)	83 (89%)	10 (11%)	0	100	100
23	UE	93/95 (98%)	83 (89%)	10 (11%)	0	100	100
23	u1	93/95 (98%)	83 (89%)	10 (11%)	0	100	100
23	uD	93/95 (98%)	83 (89%)	10 (11%)	0	100	100
23	uE	93/95 (98%)	83 (89%)	10 (11%)	0	100	100
24	V1	133/163 (82%)	123 (92%)	10 (8%)	0	100	100
24	VD	133/163 (82%)	123 (92%)	10 (8%)	0	100	100
24	VE	133/163 (82%)	123 (92%)	10 (8%)	0	100	100
24	v1	133/163 (82%)	121 (91%)	12 (9%)	0	100	100
24	vD	133/163 (82%)	121 (91%)	12 (9%)	0	100	100
24	vE	133/163 (82%)	121 (91%)	12 (9%)	0	100	100
25	X1	38/48 (79%)	36 (95%)	2 (5%)	0	100	100
25	XD	38/48 (79%)	36 (95%)	2 (5%)	0	100	100
25	XE	38/48 (79%)	36 (95%)	2 (5%)	0	100	100
25	x1	38/48 (79%)	36 (95%)	2 (5%)	0	100	100
25	xD	38/48 (79%)	36 (95%)	2 (5%)	0	100	100
25	xE	38/48 (79%)	36 (95%)	2 (5%)	0	100	100
26	Y1	30/43 (70%)	28 (93%)	2 (7%)	0	100	100
26	YD	30/43 (70%)	28 (93%)	2 (7%)	0	100	100
26	YE	30/43 (70%)	28 (93%)	2 (7%)	0	100	100
26	y1	30/43 (70%)	27 (90%)	2 (7%)	1 (3%)	4	28
26	yD	30/43 (70%)	27 (90%)	2 (7%)	1 (3%)	4	28
26	yE	30/43 (70%)	27 (90%)	2 (7%)	1 (3%)	4	28

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
27	Z1	58/63 (92%)	56 (97%)	2 (3%)	0	100	100
27	ZD	58/63 (92%)	56 (97%)	2 (3%)	0	100	100
27	ZE	58/63 (92%)	56 (97%)	2 (3%)	0	100	100
27	z1	58/63 (92%)	56 (97%)	2 (3%)	0	100	100
27	zD	58/63 (92%)	56 (97%)	2 (3%)	0	100	100
27	zE	58/63 (92%)	56 (97%)	2 (3%)	0	100	100
28	BG	44/150 (29%)	32 (73%)	7 (16%)	5 (11%)	0	6
28	BL	44/150 (29%)	32 (73%)	7 (16%)	5 (11%)	0	6
28	EF	44/150 (29%)	35 (80%)	7 (16%)	2 (4%)	2	21
28	EK	44/150 (29%)	35 (80%)	7 (16%)	2 (4%)	2	21
29	QG	167/169 (99%)	151 (90%)	12 (7%)	4 (2%)	6	35
29	QL	167/169 (99%)	151 (90%)	12 (7%)	4 (2%)	6	35
29	gF	167/169 (99%)	151 (90%)	14 (8%)	2 (1%)	13	50
29	gK	167/169 (99%)	151 (90%)	14 (8%)	2 (1%)	13	50
30	VG	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
30	VL	158/161 (98%)	151 (96%)	7 (4%)	0	100	100
30	mF	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
30	mK	158/161 (98%)	150 (95%)	8 (5%)	0	100	100
31	b2	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	b3	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	b5	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	b6	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	b7	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	b8	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	b9	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	bA	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	bC	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	bH	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	bI	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	bJ	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	d2	160/162 (99%)	159 (99%)	1 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	d3	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	d5	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	d6	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	d7	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	d8	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	d9	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	dA	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	dC	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	dH	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	dI	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	dJ	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	f2	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	f3	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	f5	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	f6	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	f7	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	f8	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	f9	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	fA	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	fC	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	fH	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	fI	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	fJ	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	h2	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	h3	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	h5	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	h6	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	h7	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	h8	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	h9	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	hA	160/162 (99%)	159 (99%)	1 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	hC	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	hH	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	hI	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	hJ	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	j2	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	j3	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	j5	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	j6	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	j7	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	j8	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	j9	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	jA	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	jC	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	jH	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	jI	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	jJ	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	l2	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	l3	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	l5	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	l6	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	l7	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	l8	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	l9	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	lA	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	lC	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	lH	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	lI	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
31	lJ	160/162 (99%)	159 (99%)	1 (1%)	0	100	100
32	c2	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	c3	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	c5	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	c6	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	c7	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	c8	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	c9	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	cA	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	cC	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	cH	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	cI	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	cJ	170/172 (99%)	163 (96%)	5 (3%)	2 (1%)	13	50
32	e2	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	e3	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	e5	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	e6	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	e7	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	e8	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	e9	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	eA	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	eC	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	eH	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	eI	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	eJ	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	g2	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	g3	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	g5	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	g6	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	g7	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	g8	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	g9	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	gA	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	gC	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	gH	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	gI	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	gJ	170/172 (99%)	167 (98%)	2 (1%)	1 (1%)	25	64
32	i2	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	i3	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	i5	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	i6	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	i7	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	i8	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	i9	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	iA	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	iC	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	iH	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	iI	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	iJ	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	k2	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	k3	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	k5	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	k6	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	k7	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	k8	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	k9	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	kA	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	kC	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	kH	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	kI	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	kJ	170/172 (99%)	169 (99%)	0	1 (1%)	25	64
32	m2	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	m3	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	m5	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	m6	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	m7	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	m8	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	m9	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	mA	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	mC	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	mH	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	mI	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
32	mJ	170/172 (99%)	168 (99%)	1 (1%)	1 (1%)	25	64
All	All	69685/72752 (96%)	65802 (94%)	3473 (5%)	410 (1%)	29	64

5 of 410 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	BA	207	VAL
1	BA	208	PRO
1	BA	212	GLN
1	BA	213	PRO
1	BA	231	PRO

### 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	B2	208/225 (92%)	188 (90%)	20 (10%)	8	34
1	B3	208/225 (92%)	187 (90%)	21 (10%)	7	32
1	B5	190/225 (84%)	168 (88%)	22 (12%)	5	26
1	B6	209/225 (93%)	192 (92%)	17 (8%)	11	41
1	B7	209/225 (93%)	187 (90%)	22 (10%)	7	31
1	B8	189/225 (84%)	168 (89%)	21 (11%)	6	28
1	B9	209/225 (93%)	191 (91%)	18 (9%)	10	38
1	BA	210/225 (93%)	187 (89%)	23 (11%)	6	29
1	BC	209/225 (93%)	187 (90%)	22 (10%)	7	31

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	BH	189/225 (84%)	168 (89%)	21 (11%)	6	28
1	BI	206/225 (92%)	186 (90%)	20 (10%)	8	33
1	BJ	190/225 (84%)	168 (88%)	22 (12%)	5	26
2	B4	747/767 (97%)	725 (97%)	22 (3%)	42	71
2	BB	747/767 (97%)	725 (97%)	22 (3%)	42	71
2	C4	732/767 (95%)	722 (99%)	10 (1%)	67	85
2	CB	732/767 (95%)	722 (99%)	10 (1%)	67	85
3	4G	125/127 (98%)	125 (100%)	0	100	100
3	4L	125/127 (98%)	125 (100%)	0	100	100
3	6G	126/127 (99%)	124 (98%)	2 (2%)	62	83
3	6L	126/127 (99%)	124 (98%)	2 (2%)	62	83
3	9F	126/127 (99%)	126 (100%)	0	100	100
3	9K	126/127 (99%)	126 (100%)	0	100	100
3	AG	126/127 (99%)	126 (100%)	0	100	100
3	AL	126/127 (99%)	126 (100%)	0	100	100
3	GG	126/127 (99%)	126 (100%)	0	100	100
3	GL	126/127 (99%)	126 (100%)	0	100	100
3	IG	125/127 (98%)	122 (98%)	3 (2%)	49	76
3	IL	125/127 (98%)	120 (96%)	5 (4%)	31	64
3	JF	125/127 (98%)	125 (100%)	0	100	100
3	JK	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	KG	125/127 (98%)	125 (100%)	0	100	100
3	KL	125/127 (98%)	125 (100%)	0	100	100
3	LF	126/127 (99%)	126 (100%)	0	100	100
3	LK	126/127 (99%)	126 (100%)	0	100	100
3	NG	125/127 (98%)	125 (100%)	0	100	100
3	NL	125/127 (98%)	124 (99%)	1 (1%)	81	91
3	O4	125/127 (98%)	124 (99%)	1 (1%)	81	91
3	OB	124/127 (98%)	123 (99%)	1 (1%)	81	91
3	PG	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	PL	126/127 (99%)	125 (99%)	1 (1%)	81	91

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	Q4	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	QB	125/127 (98%)	124 (99%)	1 (1%)	81	91
3	RG	126/127 (99%)	126 (100%)	0	100	100
3	RL	126/127 (99%)	126 (100%)	0	100	100
3	S4	126/127 (99%)	126 (100%)	0	100	100
3	SB	126/127 (99%)	126 (100%)	0	100	100
3	TG	125/127 (98%)	125 (100%)	0	100	100
3	TL	125/127 (98%)	125 (100%)	0	100	100
3	V4	125/127 (98%)	124 (99%)	1 (1%)	81	91
3	VB	125/127 (98%)	124 (99%)	1 (1%)	81	91
3	X4	123/127 (97%)	123 (100%)	0	100	100
3	XB	125/127 (98%)	125 (100%)	0	100	100
3	XF	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	XK	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	Z4	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	ZB	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	ZF	126/127 (99%)	126 (100%)	0	100	100
3	ZK	126/127 (99%)	126 (100%)	0	100	100
3	bF	126/127 (99%)	126 (100%)	0	100	100
3	bK	126/127 (99%)	126 (100%)	0	100	100
3	dF	125/127 (98%)	125 (100%)	0	100	100
3	dK	125/127 (98%)	125 (100%)	0	100	100
3	fF	126/127 (99%)	126 (100%)	0	100	100
3	fK	126/127 (99%)	126 (100%)	0	100	100
3	iF	126/127 (99%)	126 (100%)	0	100	100
3	iK	126/127 (99%)	126 (100%)	0	100	100
3	kF	126/127 (99%)	126 (100%)	0	100	100
3	kK	126/127 (99%)	126 (100%)	0	100	100
3	o4	125/127 (98%)	124 (99%)	1 (1%)	81	91
3	oB	124/127 (98%)	124 (100%)	0	100	100
3	q4	124/127 (98%)	123 (99%)	1 (1%)	81	91

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	qB	124/127 (98%)	123 (99%)	1 (1%)	81	91
3	s4	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	sB	126/127 (99%)	125 (99%)	1 (1%)	81	91
3	u4	124/127 (98%)	123 (99%)	1 (1%)	81	91
3	uB	124/127 (98%)	123 (99%)	1 (1%)	81	91
3	w4	123/127 (97%)	123 (100%)	0	100	100
3	wB	126/127 (99%)	124 (98%)	2 (2%)	62	83
3	y4	126/127 (99%)	124 (98%)	2 (2%)	62	83
3	yB	126/127 (99%)	124 (98%)	2 (2%)	62	83
4	1G	125/125 (100%)	125 (100%)	0	100	100
4	1L	125/125 (100%)	122 (98%)	3 (2%)	49	76
4	5G	125/125 (100%)	125 (100%)	0	100	100
4	5L	125/125 (100%)	125 (100%)	0	100	100
4	7G	125/125 (100%)	125 (100%)	0	100	100
4	7L	125/125 (100%)	125 (100%)	0	100	100
4	HG	124/125 (99%)	124 (100%)	0	100	100
4	HL	124/125 (99%)	124 (100%)	0	100	100
4	IF	125/125 (100%)	123 (98%)	2 (2%)	62	83
4	IK	125/125 (100%)	122 (98%)	3 (2%)	49	76
4	JG	125/125 (100%)	125 (100%)	0	100	100
4	JL	125/125 (100%)	125 (100%)	0	100	100
4	KF	125/125 (100%)	123 (98%)	2 (2%)	62	83
4	KK	125/125 (100%)	123 (98%)	2 (2%)	62	83
4	LG	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	LL	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	MF	125/125 (100%)	125 (100%)	0	100	100
4	MG	124/125 (99%)	123 (99%)	1 (1%)	81	91
4	MK	125/125 (100%)	125 (100%)	0	100	100
4	ML	124/125 (99%)	123 (99%)	1 (1%)	81	91
4	OG	125/125 (100%)	125 (100%)	0	100	100
4	OL	125/125 (100%)	125 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	P4	125/125 (100%)	125 (100%)	0	100	100
4	PB	125/125 (100%)	125 (100%)	0	100	100
4	R4	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	RB	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	SG	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	SL	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	T4	125/125 (100%)	125 (100%)	0	100	100
4	TB	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	UG	125/125 (100%)	125 (100%)	0	100	100
4	UL	125/125 (100%)	125 (100%)	0	100	100
4	W4	125/125 (100%)	125 (100%)	0	100	100
4	WB	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	WG	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	WL	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	Y4	125/125 (100%)	125 (100%)	0	100	100
4	YB	125/125 (100%)	125 (100%)	0	100	100
4	YF	125/125 (100%)	122 (98%)	3 (2%)	49	76
4	YK	125/125 (100%)	122 (98%)	3 (2%)	49	76
4	a4	123/125 (98%)	111 (90%)	12 (10%)	8	33
4	aB	122/125 (98%)	113 (93%)	9 (7%)	13	44
4	aF	125/125 (100%)	125 (100%)	0	100	100
4	aK	125/125 (100%)	125 (100%)	0	100	100
4	cF	125/125 (100%)	125 (100%)	0	100	100
4	cK	125/125 (100%)	125 (100%)	0	100	100
4	eF	125/125 (100%)	125 (100%)	0	100	100
4	eK	125/125 (100%)	125 (100%)	0	100	100
4	hF	125/125 (100%)	122 (98%)	3 (2%)	49	76
4	hK	124/125 (99%)	122 (98%)	2 (2%)	62	83
4	jF	124/125 (99%)	124 (100%)	0	100	100
4	jK	124/125 (99%)	124 (100%)	0	100	100
4	lF	125/125 (100%)	125 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	lK	125/125 (100%)	125 (100%)	0	100	100
4	nF	125/125 (100%)	125 (100%)	0	100	100
4	nK	125/125 (100%)	125 (100%)	0	100	100
4	p4	124/125 (99%)	124 (100%)	0	100	100
4	pB	124/125 (99%)	124 (100%)	0	100	100
4	r4	125/125 (100%)	125 (100%)	0	100	100
4	rB	125/125 (100%)	125 (100%)	0	100	100
4	t4	125/125 (100%)	125 (100%)	0	100	100
4	tB	125/125 (100%)	124 (99%)	1 (1%)	81	91
4	v4	125/125 (100%)	125 (100%)	0	100	100
4	vB	125/125 (100%)	125 (100%)	0	100	100
4	x4	125/125 (100%)	125 (100%)	0	100	100
4	xB	125/125 (100%)	125 (100%)	0	100	100
4	z4	124/125 (99%)	124 (100%)	0	100	100
4	zB	124/125 (99%)	124 (100%)	0	100	100
5	2G	58/60 (97%)	58 (100%)	0	100	100
5	2L	58/60 (97%)	58 (100%)	0	100	100
5	3F	58/60 (97%)	58 (100%)	0	100	100
5	3K	58/60 (97%)	58 (100%)	0	100	100
5	8G	58/60 (97%)	57 (98%)	1 (2%)	60	82
5	8L	58/60 (97%)	57 (98%)	1 (2%)	60	82
5	NF	59/60 (98%)	58 (98%)	1 (2%)	60	82
5	NK	59/60 (98%)	58 (98%)	1 (2%)	60	82
5	U4	58/60 (97%)	58 (100%)	0	100	100
5	UB	58/60 (97%)	58 (100%)	0	100	100
5	b4	58/60 (97%)	57 (98%)	1 (2%)	60	82
5	bB	58/60 (97%)	57 (98%)	1 (2%)	60	82
6	A1	269/293 (92%)	269 (100%)	0	100	100
6	AD	268/293 (92%)	268 (100%)	0	100	100
6	AE	268/293 (92%)	268 (100%)	0	100	100
6	a1	269/293 (92%)	268 (100%)	1 (0%)	91	96

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	aD	270/293 (92%)	268 (99%)	2 (1%)	84	93
6	aE	270/293 (92%)	269 (100%)	1 (0%)	91	96
7	B1	397/405 (98%)	335 (84%)	62 (16%)	2	16
7	BD	398/405 (98%)	337 (85%)	61 (15%)	2	17
7	BE	397/405 (98%)	334 (84%)	63 (16%)	2	14
7	b1	399/405 (98%)	341 (86%)	58 (14%)	3	18
7	bD	399/405 (98%)	339 (85%)	60 (15%)	3	17
7	bE	399/405 (98%)	339 (85%)	60 (15%)	3	17
8	C1	346/365 (95%)	324 (94%)	22 (6%)	17	50
8	CD	346/365 (95%)	326 (94%)	20 (6%)	20	53
8	CE	346/365 (95%)	327 (94%)	19 (6%)	21	54
8	c1	344/365 (94%)	328 (95%)	16 (5%)	26	60
8	cD	343/365 (94%)	327 (95%)	16 (5%)	26	60
8	cE	343/365 (94%)	329 (96%)	14 (4%)	30	63
9	D1	274/285 (96%)	233 (85%)	41 (15%)	3	17
9	DD	274/285 (96%)	233 (85%)	41 (15%)	3	17
9	DE	274/285 (96%)	233 (85%)	41 (15%)	3	17
9	d1	273/285 (96%)	234 (86%)	39 (14%)	3	19
9	dD	273/285 (96%)	234 (86%)	39 (14%)	3	19
9	dE	273/285 (96%)	234 (86%)	39 (14%)	3	19
10	E1	68/70 (97%)	63 (93%)	5 (7%)	13	44
10	ED	68/70 (97%)	63 (93%)	5 (7%)	13	44
10	EE	68/70 (97%)	63 (93%)	5 (7%)	13	44
10	e1	68/70 (97%)	64 (94%)	4 (6%)	19	53
10	eD	68/70 (97%)	64 (94%)	4 (6%)	19	53
10	eE	68/70 (97%)	64 (94%)	4 (6%)	19	53
11	F1	29/37 (78%)	23 (79%)	6 (21%)	1	6
11	FD	29/37 (78%)	24 (83%)	5 (17%)	2	11
11	FE	29/37 (78%)	25 (86%)	4 (14%)	3	20
11	f1	29/37 (78%)	23 (79%)	6 (21%)	1	6
11	fD	31/37 (84%)	23 (74%)	8 (26%)	0	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	fE	29/37 (78%)	23 (79%)	6 (21%)	1	6
12	H1	55/58 (95%)	54 (98%)	1 (2%)	59	81
12	HD	53/58 (91%)	52 (98%)	1 (2%)	57	80
12	HE	53/58 (91%)	51 (96%)	2 (4%)	33	65
12	h1	55/58 (95%)	54 (98%)	1 (2%)	59	81
12	hD	55/58 (95%)	54 (98%)	1 (2%)	59	81
12	hE	55/58 (95%)	54 (98%)	1 (2%)	59	81
13	I1	34/36 (94%)	22 (65%)	12 (35%)	0	1
13	ID	34/36 (94%)	21 (62%)	13 (38%)	0	1
13	IE	34/36 (94%)	21 (62%)	13 (38%)	0	1
13	i1	33/36 (92%)	22 (67%)	11 (33%)	0	1
13	iD	33/36 (92%)	22 (67%)	11 (33%)	0	1
13	iE	33/36 (92%)	22 (67%)	11 (33%)	0	1
14	J1	25/27 (93%)	21 (84%)	4 (16%)	2	14
14	JD	25/27 (93%)	21 (84%)	4 (16%)	2	14
14	JE	25/27 (93%)	21 (84%)	4 (16%)	2	14
14	j1	27/27 (100%)	27 (100%)	0	100	100
14	jD	27/27 (100%)	27 (100%)	0	100	100
14	jE	27/27 (100%)	27 (100%)	0	100	100
15	K1	31/37 (84%)	28 (90%)	3 (10%)	8	33
15	KD	31/37 (84%)	28 (90%)	3 (10%)	8	33
15	KE	31/37 (84%)	28 (90%)	3 (10%)	8	33
15	k1	30/37 (81%)	25 (83%)	5 (17%)	2	12
15	kD	30/37 (81%)	25 (83%)	5 (17%)	2	12
15	kE	30/37 (81%)	25 (83%)	5 (17%)	2	12
16	L1	36/37 (97%)	30 (83%)	6 (17%)	2	12
16	LD	36/37 (97%)	30 (83%)	6 (17%)	2	12
16	LE	36/37 (97%)	30 (83%)	6 (17%)	2	12
16	l1	36/37 (97%)	30 (83%)	6 (17%)	2	12
16	lD	36/37 (97%)	30 (83%)	6 (17%)	2	12
16	lE	36/37 (97%)	30 (83%)	6 (17%)	2	12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	M1	33/33 (100%)	21 (64%)	12 (36%)	0	1
17	MD	33/33 (100%)	21 (64%)	12 (36%)	0	1
17	ME	33/33 (100%)	21 (64%)	12 (36%)	0	1
17	m1	33/33 (100%)	17 (52%)	16 (48%)	0	0
17	mD	33/33 (100%)	17 (52%)	16 (48%)	0	0
17	mE	33/33 (100%)	17 (52%)	16 (48%)	0	0
18	O1	201/230 (87%)	173 (86%)	28 (14%)	3	20
18	OD	201/230 (87%)	174 (87%)	27 (13%)	4	21
18	OE	201/230 (87%)	174 (87%)	27 (13%)	4	21
18	o1	201/230 (87%)	174 (87%)	27 (13%)	4	21
18	oD	201/230 (87%)	173 (86%)	28 (14%)	3	20
18	oE	201/230 (87%)	173 (86%)	28 (14%)	3	20
19	Q1	106/144 (74%)	76 (72%)	30 (28%)	0	3
19	QD	106/144 (74%)	76 (72%)	30 (28%)	0	3
19	QE	106/144 (74%)	76 (72%)	30 (28%)	0	3
19	q1	106/144 (74%)	76 (72%)	30 (28%)	0	3
19	qD	106/144 (74%)	76 (72%)	30 (28%)	0	3
19	qE	106/144 (74%)	76 (72%)	30 (28%)	0	3
20	R1	26/30 (87%)	19 (73%)	7 (27%)	0	3
20	RD	26/30 (87%)	19 (73%)	7 (27%)	0	3
20	RE	26/30 (87%)	19 (73%)	7 (27%)	0	3
20	r1	26/30 (87%)	19 (73%)	7 (27%)	0	3
20	rD	26/30 (87%)	19 (73%)	7 (27%)	0	3
20	rE	26/30 (87%)	19 (73%)	7 (27%)	0	3
22	T1	23/25 (92%)	23 (100%)	0	100	100
22	TD	23/25 (92%)	23 (100%)	0	100	100
22	TE	23/25 (92%)	23 (100%)	0	100	100
22	t1	24/25 (96%)	24 (100%)	0	100	100
22	tD	24/25 (96%)	24 (100%)	0	100	100
22	tE	24/25 (96%)	24 (100%)	0	100	100
23	U1	82/82 (100%)	74 (90%)	8 (10%)	8	33

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	UD	82/82 (100%)	74 (90%)	8 (10%)	8	33
23	UE	82/82 (100%)	74 (90%)	8 (10%)	8	33
23	u1	82/82 (100%)	74 (90%)	8 (10%)	8	33
23	uD	82/82 (100%)	74 (90%)	8 (10%)	8	33
23	uE	82/82 (100%)	74 (90%)	8 (10%)	8	33
24	V1	114/137 (83%)	99 (87%)	15 (13%)	4	21
24	VD	114/137 (83%)	99 (87%)	15 (13%)	4	21
24	VE	114/137 (83%)	100 (88%)	14 (12%)	4	23
24	v1	114/137 (83%)	103 (90%)	11 (10%)	8	34
24	vD	114/137 (83%)	103 (90%)	11 (10%)	8	34
24	vE	114/137 (83%)	103 (90%)	11 (10%)	8	34
25	X1	36/44 (82%)	29 (81%)	7 (19%)	1	7
25	XD	36/44 (82%)	29 (81%)	7 (19%)	1	7
25	XE	36/44 (82%)	29 (81%)	7 (19%)	1	7
25	x1	36/44 (82%)	29 (81%)	7 (19%)	1	7
25	xD	36/44 (82%)	29 (81%)	7 (19%)	1	7
25	xE	36/44 (82%)	29 (81%)	7 (19%)	1	7
26	Y1	26/37 (70%)	16 (62%)	10 (38%)	0	1
26	YD	26/37 (70%)	16 (62%)	10 (38%)	0	1
26	YE	26/37 (70%)	16 (62%)	10 (38%)	0	1
26	y1	26/37 (70%)	15 (58%)	11 (42%)	0	0
26	yD	26/37 (70%)	15 (58%)	11 (42%)	0	0
26	yE	26/37 (70%)	15 (58%)	11 (42%)	0	0
27	Z1	51/54 (94%)	37 (72%)	14 (28%)	0	3
27	ZD	51/54 (94%)	37 (72%)	14 (28%)	0	3
27	ZE	51/54 (94%)	37 (72%)	14 (28%)	0	3
27	z1	51/54 (94%)	39 (76%)	12 (24%)	1	4
27	zD	51/54 (94%)	39 (76%)	12 (24%)	1	4
27	zE	51/54 (94%)	39 (76%)	12 (24%)	1	4
28	BG	39/113 (34%)	15 (38%)	24 (62%)	0	0
28	BL	39/113 (34%)	15 (38%)	24 (62%)	0	0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
28	EF	38/113 (34%)	20 (53%)	18 (47%)	0	0
28	EK	38/113 (34%)	20 (53%)	18 (47%)	0	0
29	QG	135/135 (100%)	127 (94%)	8 (6%)	19	53
29	QL	135/135 (100%)	127 (94%)	8 (6%)	19	53
29	gF	135/135 (100%)	127 (94%)	8 (6%)	19	53
29	gK	135/135 (100%)	127 (94%)	8 (6%)	19	53
30	VG	135/136 (99%)	130 (96%)	5 (4%)	34	65
30	VL	135/136 (99%)	130 (96%)	5 (4%)	34	65
30	mF	135/136 (99%)	132 (98%)	3 (2%)	52	78
30	mK	135/136 (99%)	132 (98%)	3 (2%)	52	78
31	b2	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	b3	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	b5	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	b6	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	b7	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	b8	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	b9	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	bA	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	bC	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	bH	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	bI	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	bJ	87/125 (70%)	86 (99%)	1 (1%)	73	88
31	d2	78/125 (62%)	78 (100%)	0	100	100
31	d3	78/125 (62%)	78 (100%)	0	100	100
31	d5	78/125 (62%)	78 (100%)	0	100	100
31	d6	78/125 (62%)	78 (100%)	0	100	100
31	d7	78/125 (62%)	78 (100%)	0	100	100
31	d8	78/125 (62%)	78 (100%)	0	100	100
31	d9	78/125 (62%)	78 (100%)	0	100	100
31	dA	78/125 (62%)	78 (100%)	0	100	100
31	dC	78/125 (62%)	78 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	dH	78/125 (62%)	78 (100%)	0	100	100
31	dI	78/125 (62%)	78 (100%)	0	100	100
31	dJ	78/125 (62%)	78 (100%)	0	100	100
31	f2	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	f3	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	f5	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	f6	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	f7	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	f8	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	f9	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	fA	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	fC	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	fH	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	fI	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	fJ	80/125 (64%)	79 (99%)	1 (1%)	69	86
31	h2	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	h3	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	h5	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	h6	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	h7	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	h8	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	h9	81/125 (65%)	80 (99%)	1 (1%)	71	87
31	hA	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	hC	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	hH	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	hI	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	hJ	82/125 (66%)	81 (99%)	1 (1%)	71	87
31	j2	81/125 (65%)	81 (100%)	0	100	100
31	j3	81/125 (65%)	81 (100%)	0	100	100
31	j5	81/125 (65%)	81 (100%)	0	100	100
31	j6	81/125 (65%)	81 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	j7	81/125 (65%)	81 (100%)	0	100	100
31	j8	81/125 (65%)	81 (100%)	0	100	100
31	j9	81/125 (65%)	81 (100%)	0	100	100
31	jA	81/125 (65%)	81 (100%)	0	100	100
31	jC	81/125 (65%)	81 (100%)	0	100	100
31	jH	81/125 (65%)	81 (100%)	0	100	100
31	jI	81/125 (65%)	81 (100%)	0	100	100
31	jJ	81/125 (65%)	81 (100%)	0	100	100
31	l2	85/125 (68%)	85 (100%)	0	100	100
31	l3	85/125 (68%)	85 (100%)	0	100	100
31	l5	85/125 (68%)	85 (100%)	0	100	100
31	l6	85/125 (68%)	85 (100%)	0	100	100
31	l7	85/125 (68%)	85 (100%)	0	100	100
31	l8	85/125 (68%)	85 (100%)	0	100	100
31	l9	85/125 (68%)	85 (100%)	0	100	100
31	lA	85/125 (68%)	85 (100%)	0	100	100
31	lC	85/125 (68%)	85 (100%)	0	100	100
31	lH	85/125 (68%)	85 (100%)	0	100	100
31	lI	85/125 (68%)	85 (100%)	0	100	100
31	lJ	85/125 (68%)	85 (100%)	0	100	100
32	c2	85/131 (65%)	85 (100%)	0	100	100
32	c3	85/131 (65%)	85 (100%)	0	100	100
32	c5	85/131 (65%)	85 (100%)	0	100	100
32	c6	85/131 (65%)	85 (100%)	0	100	100
32	c7	85/131 (65%)	85 (100%)	0	100	100
32	c8	85/131 (65%)	85 (100%)	0	100	100
32	c9	85/131 (65%)	85 (100%)	0	100	100
32	cA	85/131 (65%)	85 (100%)	0	100	100
32	cC	85/131 (65%)	85 (100%)	0	100	100
32	cH	85/131 (65%)	85 (100%)	0	100	100
32	cI	84/131 (64%)	84 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	cJ	85/131 (65%)	85 (100%)	0	100	100
32	e2	83/131 (63%)	83 (100%)	0	100	100
32	e3	83/131 (63%)	83 (100%)	0	100	100
32	e5	83/131 (63%)	83 (100%)	0	100	100
32	e6	83/131 (63%)	83 (100%)	0	100	100
32	e7	83/131 (63%)	83 (100%)	0	100	100
32	e8	83/131 (63%)	83 (100%)	0	100	100
32	e9	83/131 (63%)	83 (100%)	0	100	100
32	eA	83/131 (63%)	83 (100%)	0	100	100
32	eC	83/131 (63%)	83 (100%)	0	100	100
32	eH	83/131 (63%)	83 (100%)	0	100	100
32	eI	83/131 (63%)	83 (100%)	0	100	100
32	eJ	83/131 (63%)	83 (100%)	0	100	100
32	g2	89/131 (68%)	89 (100%)	0	100	100
32	g3	89/131 (68%)	89 (100%)	0	100	100
32	g5	89/131 (68%)	89 (100%)	0	100	100
32	g6	89/131 (68%)	89 (100%)	0	100	100
32	g7	89/131 (68%)	89 (100%)	0	100	100
32	g8	89/131 (68%)	89 (100%)	0	100	100
32	g9	89/131 (68%)	89 (100%)	0	100	100
32	gA	89/131 (68%)	89 (100%)	0	100	100
32	gC	89/131 (68%)	89 (100%)	0	100	100
32	gH	89/131 (68%)	89 (100%)	0	100	100
32	gI	88/131 (67%)	88 (100%)	0	100	100
32	gJ	89/131 (68%)	89 (100%)	0	100	100
32	i2	88/131 (67%)	88 (100%)	0	100	100
32	i3	88/131 (67%)	88 (100%)	0	100	100
32	i5	88/131 (67%)	88 (100%)	0	100	100
32	i6	88/131 (67%)	88 (100%)	0	100	100
32	i7	88/131 (67%)	88 (100%)	0	100	100
32	i8	88/131 (67%)	88 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	i9	88/131 (67%)	88 (100%)	0	100	100
32	iA	88/131 (67%)	88 (100%)	0	100	100
32	iC	88/131 (67%)	88 (100%)	0	100	100
32	iH	88/131 (67%)	88 (100%)	0	100	100
32	iI	88/131 (67%)	88 (100%)	0	100	100
32	iJ	88/131 (67%)	88 (100%)	0	100	100
32	k2	94/131 (72%)	94 (100%)	0	100	100
32	k3	94/131 (72%)	94 (100%)	0	100	100
32	k5	94/131 (72%)	94 (100%)	0	100	100
32	k6	94/131 (72%)	94 (100%)	0	100	100
32	k7	94/131 (72%)	94 (100%)	0	100	100
32	k8	94/131 (72%)	94 (100%)	0	100	100
32	k9	94/131 (72%)	94 (100%)	0	100	100
32	kA	94/131 (72%)	94 (100%)	0	100	100
32	kC	94/131 (72%)	94 (100%)	0	100	100
32	kH	94/131 (72%)	94 (100%)	0	100	100
32	kI	94/131 (72%)	94 (100%)	0	100	100
32	kJ	94/131 (72%)	94 (100%)	0	100	100
32	m2	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	m3	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	m5	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	m6	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	m7	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	m8	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	m9	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	mA	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	mC	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	mH	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	mI	93/131 (71%)	91 (98%)	2 (2%)	52	78
32	mJ	93/131 (71%)	91 (98%)	2 (2%)	52	78
All	All	49693/57880 (86%)	47380 (95%)	2313 (5%)	30	60

5 of 2313 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
16	lD	18	SER
32	mJ	82	CYS
19	qD	69	ILE
16	lD	2	ASP
9	dE	139	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 491 such sidechains are listed below:

Mol	Chain	Res	Type
4	v4	71	ASN
32	gH	72	ASN
31	b7	73	ASN
4	7G	117	ASN
4	aK	50	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 882 ligands modelled in this entry, 36 are monoatomic - leaving 846 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	aF	201	4	42,46,46	2.98	12 (28%)	50,67,67	2.94	19 (38%)
36	CLA	cD	514	-	65,73,73	1.43	8 (12%)	76,113,113	1.50	9 (11%)
36	CLA	dE	403	-	65,73,73	1.41	7 (10%)	76,113,113	1.57	7 (9%)
36	CLA	B1	603	7	65,73,73	1.51	10 (15%)	76,113,113	1.46	8 (10%)
36	CLA	BD	607	7	65,73,73	1.42	8 (12%)	76,113,113	1.99	11 (14%)
36	CLA	DD	406	9	65,73,73	1.44	9 (13%)	76,113,113	1.53	11 (14%)
33	CYC	c5	202	32	42,46,46	1.13	1 (2%)	50,67,67	0.97	2 (4%)
33	CYC	yB	201	3	42,46,46	2.99	13 (30%)	50,67,67	3.19	22 (44%)
36	CLA	B1	613	43	65,73,73	1.44	10 (15%)	76,113,113	1.44	8 (10%)
33	CYC	i7	201	-	42,46,46	1.12	1 (2%)	50,67,67	0.97	2 (4%)
40	LMT	bE	621	-	24,24,36	1.12	2 (8%)	29,29,47	1.14	3 (10%)
33	CYC	c3	202	32	42,46,46	1.14	1 (2%)	50,67,67	0.97	2 (4%)
47	HEM	E1	101	-	41,50,50	1.50	6 (14%)	45,82,82	1.89	13 (28%)
38	SQD	L1	101	-	42,43,54	1.35	5 (11%)	51,54,65	1.22	4 (7%)
33	CYC	eH	202	-	42,46,46	1.09	1 (2%)	50,67,67	0.95	2 (4%)
40	LMT	bE	601	7	36,36,36	1.34	8 (22%)	47,47,47	1.17	3 (6%)
33	CYC	QL	201	29	42,46,46	3.12	13 (30%)	50,67,67	3.03	23 (46%)
33	CYC	j2	202	-	42,46,46	1.06	1 (2%)	50,67,67	0.98	2 (4%)
44	DGD	HD	103	-	63,63,67	0.84	2 (3%)	77,77,81	1.04	4 (5%)
36	CLA	b1	606	7	65,73,73	1.46	10 (15%)	76,113,113	1.54	11 (14%)
43	BCR	B1	617	-	41,41,41	0.73	0	56,56,56	1.86	12 (21%)
40	LMT	BD	623	7	24,24,36	1.20	4 (16%)	29,29,47	1.14	1 (3%)
33	CYC	KF	201	4	42,46,46	3.10	11 (26%)	50,67,67	3.33	25 (50%)
33	CYC	m2	201	-	42,46,46	1.08	1 (2%)	50,67,67	0.95	2 (4%)
34	OEX	AE	401	6	0,15,15	-	-	-	-	-
43	BCR	ZE	101	27	41,41,41	0.72	0	56,56,56	2.17	23 (41%)
42	LHG	DE	410	-	48,48,48	0.91	2 (4%)	51,54,54	1.03	3 (5%)
36	CLA	CE	513	-	65,73,73	1.43	8 (12%)	76,113,113	1.58	8 (10%)
33	CYC	QB	201	4,3	42,46,46	3.18	17 (40%)	50,67,67	3.12	20 (40%)
33	CYC	V4	201	3	42,46,46	3.10	11 (26%)	50,67,67	3.26	20 (40%)
33	CYC	cJ	202	32	42,46,46	1.13	1 (2%)	50,67,67	0.96	2 (4%)
43	BCR	I1	102	13	41,41,41	0.79	0	56,56,56	2.77	18 (32%)
33	CYC	v4	201	4	42,46,46	3.07	14 (33%)	50,67,67	3.00	22 (44%)
36	CLA	c1	505	8	65,73,73	1.45	12 (18%)	76,113,113	1.81	14 (18%)
33	CYC	JK	201	3	42,46,46	3.51	13 (30%)	50,67,67	2.91	15 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	iC	202	-	42,46,46	3.04	13 (30%)	50,67,67	3.89	23 (46%)
45	PHO	aD	412	6	51,69,69	2.26	14 (27%)	47,99,99	2.59	16 (34%)
36	CLA	DE	405	-	65,73,73	1.47	11 (16%)	76,113,113	1.56	8 (10%)
33	CYC	RB	201	4,5	42,46,46	3.24	14 (33%)	50,67,67	3.09	23 (46%)
33	CYC	nK	201	3,4	42,46,46	3.15	13 (30%)	50,67,67	2.66	19 (38%)
33	CYC	BC	301	32	42,46,46	3.02	13 (30%)	50,67,67	3.89	24 (48%)
33	CYC	bC	201	-	42,46,46	3.03	13 (30%)	50,67,67	3.58	25 (50%)
36	CLA	c1	510	8	65,73,73	1.37	11 (16%)	76,113,113	1.66	18 (23%)
33	CYC	l6	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.58	25 (50%)
38	SQD	dD	414	9	33,34,54	1.48	4 (12%)	42,45,65	1.52	6 (14%)
33	CYC	bF	201	3	42,46,46	3.00	14 (33%)	50,67,67	3.01	18 (36%)
43	BCR	c1	515	36,8	41,41,41	0.76	0	56,56,56	2.49	20 (35%)
33	CYC	g2	201	32	42,46,46	1.05	1 (2%)	50,67,67	0.96	2 (4%)
40	LMT	BD	619	-	24,24,36	1.12	3 (12%)	29,29,47	1.04	1 (3%)
36	CLA	aE	405	-	65,73,73	1.42	11 (16%)	76,113,113	1.65	12 (15%)
39	LMG	B1	618	7	51,51,55	0.92	2 (3%)	59,59,63	1.17	4 (6%)
43	BCR	bD	616	36,7	41,41,41	0.82	1 (2%)	56,56,56	2.51	22 (39%)
36	CLA	c1	512	-	65,73,73	1.46	9 (13%)	76,113,113	1.63	13 (17%)
33	CYC	l3	201	-	42,46,46	3.06	12 (28%)	50,67,67	3.58	25 (50%)
36	CLA	BD	613	43	65,73,73	1.44	10 (15%)	76,113,113	1.44	8 (10%)
43	BCR	BD	616	7	41,41,41	0.69	0	56,56,56	1.87	14 (25%)
43	BCR	BE	615	36,7	41,41,41	0.82	1 (2%)	56,56,56	2.51	22 (39%)
33	CYC	i8	202	-	42,46,46	3.05	14 (33%)	50,67,67	3.89	23 (46%)
33	CYC	e2	201	32	42,46,46	3.05	13 (30%)	50,67,67	3.88	23 (46%)
33	CYC	gK	201	29	42,46,46	3.14	13 (30%)	50,67,67	3.06	23 (46%)
36	CLA	CD	504	-	65,73,73	1.48	10 (15%)	76,113,113	1.51	12 (15%)
36	CLA	CD	514	-	50,58,73	1.63	10 (20%)	58,95,113	1.50	7 (12%)
33	CYC	b9	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	iA	202	-	42,46,46	3.04	14 (33%)	50,67,67	3.89	23 (46%)
36	CLA	CD	506	8	65,73,73	1.44	10 (15%)	76,113,113	1.85	14 (18%)
33	CYC	m7	201	-	42,46,46	1.07	1 (2%)	50,67,67	0.95	2 (4%)
43	BCR	d1	407	-	41,41,41	0.69	0	56,56,56	1.82	12 (21%)
36	CLA	BE	602	7	65,73,73	1.41	11 (16%)	76,113,113	1.72	12 (15%)
36	CLA	cE	514	-	65,73,73	1.43	8 (12%)	76,113,113	1.50	9 (11%)
33	CYC	e2	202	-	42,46,46	1.08	1 (2%)	50,67,67	0.95	2 (4%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
40	LMT	AD	409	-	24,24,36	1.14	3 (12%)	29,29,47	1.07	1 (3%)
33	CYC	OL	201	4	42,46,46	2.96	15 (35%)	50,67,67	3.31	18 (36%)
33	CYC	eJ	201	32	42,46,46	3.05	13 (30%)	50,67,67	3.89	23 (46%)
37	PL9	A1	406	-	55,55,55	0.64	1 (1%)	68,69,69	1.47	11 (16%)
33	CYC	B3	301	32	42,46,46	3.03	13 (30%)	50,67,67	3.89	23 (46%)
33	CYC	mH	201	-	42,46,46	1.07	1 (2%)	50,67,67	0.95	2 (4%)
33	CYC	b4	101	4,5	42,46,46	2.92	13 (30%)	50,67,67	3.27	22 (44%)
33	CYC	c6	202	32	42,46,46	1.14	1 (2%)	50,67,67	0.96	2 (4%)
44	DGD	cD	517	-	63,63,67	0.85	2 (3%)	77,77,81	1.00	3 (3%)
33	CYC	C4	1003	2	42,46,46	3.07	15 (35%)	50,67,67	2.99	19 (38%)
38	SQD	CE	501	8	53,54,54	1.18	4 (7%)	62,65,65	1.18	7 (11%)
36	CLA	c1	507	43,8	65,73,73	1.47	8 (12%)	76,113,113	1.82	14 (18%)
36	CLA	hE	101	43	65,73,73	2.42	9 (13%)	76,113,113	1.66	10 (13%)
33	CYC	eI	201	32	42,46,46	3.05	13 (30%)	50,67,67	3.88	23 (46%)
40	LMT	A1	413	-	36,36,36	1.21	4 (11%)	47,47,47	1.16	3 (6%)
34	OEX	AD	401	6	0,15,15	-	-	-	-	-
44	DGD	cD	518	-	63,63,67	0.85	2 (3%)	77,77,81	1.11	6 (7%)
45	PHO	aE	412	-	43,61,69	2.13	10 (23%)	37,89,99	2.82	15 (40%)
36	CLA	CD	507	-	55,63,73	1.59	9 (16%)	64,101,113	1.73	11 (17%)
36	CLA	bD	608	-	60,68,73	1.50	9 (15%)	70,107,113	1.67	12 (17%)
33	CYC	VB	201	3	42,46,46	3.09	11 (26%)	50,67,67	3.26	20 (40%)
44	DGD	HE	103	-	63,63,67	0.85	2 (3%)	77,77,81	1.04	4 (5%)
36	CLA	BE	603	7	65,73,73	1.51	10 (15%)	76,113,113	1.45	8 (10%)
43	BCR	CD	516	36,8	41,41,41	0.76	0	56,56,56	2.24	18 (32%)
36	CLA	CE	509	8	65,73,73	1.39	11 (16%)	76,113,113	1.44	11 (14%)
39	LMG	jE	102	39,14	27,27,55	1.35	2 (7%)	35,35,63	1.11	2 (5%)
40	LMT	DD	404	-	24,24,36	1.16	3 (12%)	29,29,47	1.01	1 (3%)
33	CYC	j6	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.58	25 (50%)
37	PL9	DE	408	9	55,55,55	0.63	2 (3%)	68,69,69	1.62	17 (25%)
40	LMT	AD	412	-	36,36,36	1.21	4 (11%)	47,47,47	1.16	3 (6%)
33	CYC	h8	201	-	42,46,46	3.07	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	jK	201	4	42,46,46	3.13	14 (33%)	50,67,67	2.72	20 (40%)
44	DGD	hD	104	-	63,63,67	0.86	2 (3%)	77,77,81	1.14	6 (7%)
36	CLA	bE	610	-	65,73,73	1.46	10 (15%)	76,113,113	1.46	10 (13%)
34	OEX	aD	401	6	0,15,15	-	-	-	-	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	gH	202	32	42,46,46	3.03	13 (30%)	50,67,67	3.89	24 (48%)
36	CLA	bD	606	7	65,73,73	1.46	10 (15%)	76,113,113	1.55	11 (14%)
43	BCR	BD	617	-	41,41,41	0.73	0	56,56,56	1.86	12 (21%)
33	CYC	eA	201	32	42,46,46	3.04	13 (30%)	50,67,67	3.88	23 (46%)
39	LMG	CD	502	-	51,51,55	0.93	2 (3%)	59,59,63	1.04	5 (8%)
40	LMT	CD	522	-	24,24,36	1.12	2 (8%)	29,29,47	1.14	3 (10%)
36	CLA	cE	512	-	65,73,73	1.46	9 (13%)	76,113,113	1.64	14 (18%)
33	CYC	b7	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.58	25 (50%)
44	DGD	H1	103	-	63,63,67	0.84	2 (3%)	77,77,81	1.04	4 (5%)
33	CYC	aK	201	4	42,46,46	2.98	11 (26%)	50,67,67	2.94	19 (38%)
44	DGD	CE	517	8	48,48,67	0.97	2 (4%)	62,62,81	1.27	8 (12%)
37	PL9	d1	408	9	55,55,55	0.63	2 (3%)	68,69,69	1.62	17 (25%)
33	CYC	k5	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.87	23 (46%)
42	LHG	AD	411	6	37,37,48	1.04	2 (5%)	40,43,54	1.18	3 (7%)
33	CYC	gJ	202	32	42,46,46	3.02	13 (30%)	50,67,67	3.89	23 (46%)
33	CYC	k6	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.87	23 (46%)
36	CLA	BD	606	-	60,68,73	1.50	9 (15%)	70,107,113	1.67	12 (17%)
36	CLA	b1	605	7	65,73,73	1.50	10 (15%)	76,113,113	1.44	8 (10%)
33	CYC	i9	201	-	42,46,46	1.11	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	KK	201	4	42,46,46	3.09	11 (26%)	50,67,67	3.32	25 (50%)
36	CLA	BE	612	-	65,73,73	1.48	11 (16%)	76,113,113	1.43	9 (11%)
33	CYC	f8	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	dK	201	3	42,46,46	3.40	13 (30%)	50,67,67	3.20	22 (44%)
39	LMG	DE	411	9	51,51,55	0.94	2 (3%)	59,59,63	1.26	5 (8%)
42	LHG	eD	101	-	39,39,48	1.03	2 (5%)	42,45,54	1.18	4 (9%)
44	DGD	JD	101	-	63,63,67	0.83	2 (3%)	77,77,81	0.99	4 (5%)
39	LMG	TD	101	-	36,36,55	1.15	2 (5%)	44,44,63	0.99	3 (6%)
33	CYC	CB	1001	2,4	42,46,46	3.48	16 (38%)	50,67,67	5.71	21 (42%)
33	CYC	l2	201	-	42,46,46	3.05	12 (28%)	50,67,67	3.58	25 (50%)
36	CLA	bD	603	-	45,53,73	1.74	10 (22%)	52,89,113	1.75	9 (17%)
36	CLA	bE	607	-	65,73,73	1.44	10 (15%)	76,113,113	1.72	11 (14%)
38	SQD	cD	502	8	53,54,54	1.18	4 (7%)	62,65,65	1.15	5 (8%)
36	CLA	B1	614	7	65,73,73	1.59	9 (13%)	76,113,113	1.43	11 (14%)
33	CYC	jA	202	-	42,46,46	1.06	1 (2%)	50,67,67	0.97	2 (4%)
38	SQD	h1	103	12	34,35,54	1.65	6 (17%)	43,46,65	1.91	10 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
45	PHO	d1	402	9	51,69,69	2.16	14 (27%)	47,99,99	2.65	15 (31%)
33	CYC	6L	201	3	42,46,46	2.98	14 (33%)	50,67,67	3.05	22 (44%)
36	CLA	b1	604	7	65,73,73	1.42	11 (16%)	76,113,113	1.71	12 (15%)
36	CLA	bE	613	-	65,73,73	1.49	11 (16%)	76,113,113	1.44	9 (11%)
36	CLA	BE	608	-	65,73,73	1.38	7 (10%)	76,113,113	1.58	7 (9%)
33	CYC	i7	202	-	42,46,46	3.05	14 (33%)	50,67,67	3.88	23 (46%)
33	CYC	gI	201	32	42,46,46	1.07	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	I1	101	13,6	60,68,73	1.45	8 (13%)	70,107,113	1.53	7 (10%)
33	CYC	i5	201	-	42,46,46	1.12	1 (2%)	50,67,67	0.96	2 (4%)
45	PHO	DE	401	-	51,69,69	2.31	14 (27%)	47,99,99	2.55	18 (38%)
33	CYC	f3	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	B7	301	32	42,46,46	3.03	13 (30%)	50,67,67	3.89	23 (46%)
33	CYC	3K	101	4,5	42,46,46	3.27	13 (30%)	50,67,67	3.06	21 (42%)
43	BCR	DE	407	-	41,41,41	0.70	0	56,56,56	1.82	11 (19%)
33	CYC	b2	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	jJ	202	-	42,46,46	1.05	1 (2%)	50,67,67	0.97	2 (4%)
36	CLA	BE	607	7	65,73,73	1.42	8 (12%)	76,113,113	1.99	11 (14%)
40	LMT	i1	102	-	24,24,36	1.15	2 (8%)	29,29,47	0.98	1 (3%)
33	CYC	g9	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	b1	610	-	65,73,73	1.46	10 (15%)	76,113,113	1.46	9 (11%)
33	CYC	j2	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
36	CLA	C1	511	8	65,73,73	1.39	9 (13%)	76,113,113	1.40	13 (17%)
33	CYC	BB	1002	2	42,46,46	3.07	14 (33%)	50,67,67	2.99	19 (38%)
38	SQD	dE	414	9	33,34,54	1.48	4 (12%)	42,45,65	1.52	6 (14%)
33	CYC	qB	201	3	42,46,46	3.16	11 (26%)	50,67,67	2.90	19 (38%)
39	LMG	yD	101	39	51,51,55	0.90	2 (3%)	59,59,63	1.08	5 (8%)
33	CYC	OB	201	3	42,46,46	3.21	13 (30%)	50,67,67	2.76	17 (34%)
33	CYC	jF	201	4	42,46,46	3.13	14 (33%)	50,67,67	2.72	20 (40%)
38	SQD	AD	407	-	45,46,54	1.28	4 (8%)	54,57,65	1.27	4 (7%)
39	LMG	J1	102	39,14	27,27,55	1.30	2 (7%)	35,35,63	1.06	1 (2%)
41	BCT	AD	410	-	2,3,3	1.15	0	2,3,3	4.50	2 (100%)
43	BCR	b1	618	-	41,41,41	0.73	0	56,56,56	1.86	12 (21%)
33	CYC	B4	1004	4,2	42,46,46	3.02	13 (30%)	50,67,67	2.80	20 (40%)
47	HEM	VE	201	24	41,50,50	1.45	6 (14%)	45,82,82	2.16	12 (26%)
36	CLA	CE	504	-	65,73,73	1.48	10 (15%)	76,113,113	1.52	12 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
39	LMG	DD	411	9	51,51,55	0.94	2 (3%)	59,59,63	1.26	5 (8%)
40	LMT	iD	103	-	24,24,36	1.14	2 (8%)	29,29,47	0.98	1 (3%)
33	CYC	bA	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
36	CLA	D1	405	9	65,73,73	1.44	9 (13%)	76,113,113	1.53	11 (14%)
33	CYC	fl	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.59	25 (50%)
39	LMG	TE	101	-	36,36,55	1.14	2 (5%)	44,44,63	0.99	3 (6%)
36	CLA	h1	101	43	65,73,73	2.42	9 (13%)	76,113,113	1.67	9 (11%)
37	PL9	dE	408	9	55,55,55	0.63	2 (3%)	68,69,69	1.62	17 (25%)
40	LMT	j1	101	-	36,36,36	1.23	5 (13%)	47,47,47	1.24	6 (12%)
43	BCR	XD	102	25,36	41,41,41	0.93	2 (4%)	56,56,56	2.63	20 (35%)
39	LMG	tD	101	22	36,36,55	1.15	2 (5%)	44,44,63	0.99	3 (6%)
43	BCR	bE	617	7	41,41,41	0.70	0	56,56,56	1.87	14 (25%)
36	CLA	C1	504	-	65,73,73	1.48	10 (15%)	76,113,113	1.51	12 (15%)
43	BCR	b1	616	36,7	41,41,41	0.83	1 (2%)	56,56,56	2.51	22 (39%)
33	CYC	i2	201	-	42,46,46	1.12	1 (2%)	50,67,67	0.97	2 (4%)
33	CYC	g3	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
38	SQD	hE	103	12	34,35,54	1.65	6 (17%)	43,46,65	1.91	10 (23%)
36	CLA	bD	605	7	65,73,73	1.50	10 (15%)	76,113,113	1.44	8 (10%)
33	CYC	WG	201	4	42,46,46	3.12	13 (30%)	50,67,67	2.65	16 (32%)
45	PHO	DE	403	9	51,69,69	1.85	12 (23%)	47,99,99	2.61	15 (31%)
33	CYC	iA	201	-	42,46,46	1.11	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	cD	512	-	65,73,73	1.46	9 (13%)	76,113,113	1.63	13 (17%)
40	LMT	D1	411	-	25,25,36	1.10	2 (8%)	30,30,47	1.06	2 (6%)
36	CLA	cD	513	-	50,58,73	1.63	11 (22%)	58,95,113	1.58	8 (13%)
33	CYC	kF	201	3	42,46,46	3.15	12 (28%)	50,67,67	2.97	19 (38%)
33	CYC	cI	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.86	23 (46%)
36	CLA	b1	613	-	65,73,73	1.49	11 (16%)	76,113,113	1.43	9 (11%)
36	CLA	c1	509	8	65,73,73	1.43	11 (16%)	76,113,113	2.25	13 (17%)
39	LMG	bE	619	7	51,51,55	0.92	2 (3%)	59,59,63	1.17	3 (5%)
33	CYC	VL	201	30	42,46,46	3.04	12 (28%)	50,67,67	3.34	24 (48%)
33	CYC	kC	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.87	23 (46%)
43	BCR	DD	407	-	41,41,41	0.71	0	56,56,56	1.82	12 (21%)
43	BCR	CE	516	36,8	41,41,41	0.76	0	56,56,56	2.24	18 (32%)
33	CYC	j3	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	y4	201	3	42,46,46	2.99	13 (30%)	50,67,67	3.20	22 (44%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	c2	202	32	42,46,46	1.15	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	bE	603	-	45,53,73	1.74	10 (22%)	52,89,113	1.75	9 (17%)
40	LMT	d1	404	-	24,24,36	1.15	2 (8%)	29,29,47	1.01	1 (3%)
33	CYC	BB	1004	2,4	42,46,46	3.02	13 (30%)	50,67,67	2.79	20 (40%)
36	CLA	BD	605	-	65,73,73	1.45	10 (15%)	76,113,113	1.71	11 (14%)
33	CYC	e3	202	-	42,46,46	1.10	1 (2%)	50,67,67	0.95	2 (4%)
33	CYC	ZB	201	3	42,46,46	3.14	13 (30%)	50,67,67	2.89	17 (34%)
36	CLA	XD	101	25	65,73,73	1.43	9 (13%)	76,113,113	1.36	8 (10%)
36	CLA	h1	102	12	60,68,73	1.52	10 (16%)	70,107,113	1.49	9 (12%)
36	CLA	dD	406	9	65,73,73	1.44	10 (15%)	76,113,113	1.55	11 (14%)
33	CYC	cH	202	32	42,46,46	1.14	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	j5	202	-	42,46,46	1.05	1 (2%)	50,67,67	0.98	2 (4%)
36	CLA	cD	507	43,8	65,73,73	1.46	8 (12%)	76,113,113	1.81	14 (18%)
33	CYC	d5	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)
43	BCR	i1	101	-	41,41,41	0.77	1 (2%)	56,56,56	2.55	19 (33%)
36	CLA	AE	404	-	46,54,73	12.09	10 (21%)	53,90,113	2.32	13 (24%)
36	CLA	C1	506	8	65,73,73	1.43	10 (15%)	76,113,113	1.85	14 (18%)
36	CLA	C1	505	-	65,73,73	1.45	10 (15%)	76,113,113	1.50	12 (15%)
33	CYC	YF	201	4	42,46,46	3.42	13 (30%)	50,67,67	3.20	21 (42%)
40	LMT	d1	413	-	22,22,36	1.16	3 (13%)	27,27,47	1.01	1 (3%)
45	PHO	dD	402	9	39,57,69	2.93	10 (25%)	32,84,99	2.37	8 (25%)
36	CLA	cD	509	8	65,73,73	1.43	11 (16%)	76,113,113	2.25	14 (18%)
36	CLA	b1	611	-	65,73,73	1.50	12 (18%)	76,113,113	1.63	11 (14%)
36	CLA	bE	605	7	65,73,73	1.51	10 (15%)	76,113,113	1.44	8 (10%)
33	CYC	g7	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	iJ	202	-	42,46,46	3.03	13 (30%)	50,67,67	3.88	23 (46%)
33	CYC	s4	201	3	42,46,46	3.00	13 (30%)	50,67,67	3.19	21 (42%)
36	CLA	CD	510	8	65,73,73	1.44	9 (13%)	76,113,113	2.36	17 (22%)
39	LMG	BE	618	7	51,51,55	0.92	2 (3%)	59,59,63	1.17	3 (5%)
36	CLA	C1	503	-	65,73,73	1.46	10 (15%)	76,113,113	1.47	10 (13%)
45	PHO	D1	402	9	51,69,69	1.88	11 (21%)	47,99,99	2.56	16 (34%)
39	LMG	jD	102	39,14	27,27,55	1.35	2 (7%)	35,35,63	1.11	1 (2%)
36	CLA	BE	606	-	60,68,73	1.49	9 (15%)	70,107,113	1.67	12 (17%)
33	CYC	eC	202	-	42,46,46	1.10	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	c1	506	-	55,63,73	1.59	10 (18%)	64,101,113	1.72	11 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
36	CLA	HD	101	43	65,73,73	2.43	9 (13%)	76,113,113	1.68	9 (11%)
33	CYC	eI	202	-	42,46,46	1.08	1 (2%)	50,67,67	0.95	2 (4%)
40	LMT	bE	620	-	24,24,36	1.11	2 (8%)	29,29,47	1.04	1 (3%)
33	CYC	i6	201	-	42,46,46	1.12	1 (2%)	50,67,67	0.97	2 (4%)
36	CLA	DE	406	9	65,73,73	1.44	9 (13%)	76,113,113	1.53	11 (14%)
37	PL9	DD	408	9	55,55,55	0.63	2 (3%)	68,69,69	1.62	17 (25%)
36	CLA	dI	406	9	65,73,73	1.44	10 (15%)	76,113,113	1.55	11 (14%)
33	CYC	OG	201	4	42,46,46	2.96	15 (35%)	50,67,67	3.31	18 (36%)
39	LMG	bI	619	7	51,51,55	0.92	2 (3%)	59,59,63	1.17	3 (5%)
33	CYC	PG	201	3	42,46,46	3.08	13 (30%)	50,67,67	3.21	24 (48%)
33	CYC	fK	201	3	42,46,46	3.08	14 (33%)	50,67,67	3.06	20 (40%)
33	CYC	PL	201	3	42,46,46	3.08	13 (30%)	50,67,67	3.21	24 (48%)
36	CLA	aI	407	6	60,68,73	1.43	7 (11%)	70,107,113	1.72	12 (17%)
33	CYC	BB	1001	2,4	42,46,46	3.19	14 (33%)	50,67,67	3.05	22 (44%)
33	CYC	mJ	201	-	42,46,46	1.08	1 (2%)	50,67,67	0.95	2 (4%)
33	CYC	I5	201	-	42,46,46	3.06	12 (28%)	50,67,67	3.59	25 (50%)
36	CLA	B1	605	-	65,73,73	1.45	10 (15%)	76,113,113	1.71	11 (14%)
36	CLA	hD	102	12	60,68,73	1.52	10 (16%)	70,107,113	1.49	10 (14%)
42	LHG	B1	621	-	48,48,48	0.92	2 (4%)	51,54,54	1.06	3 (5%)
39	LMG	dE	411	9	51,51,55	0.95	2 (3%)	59,59,63	1.26	5 (8%)
36	CLA	C1	515	-	65,73,73	1.43	8 (12%)	76,113,113	1.52	8 (10%)
33	CYC	e8	202	-	42,46,46	1.08	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	iH	201	-	42,46,46	1.12	1 (2%)	50,67,67	0.97	2 (4%)
33	CYC	5L	201	4,5	42,46,46	3.00	14 (33%)	50,67,67	3.18	26 (52%)
36	CLA	CE	515	-	65,73,73	1.42	8 (12%)	76,113,113	1.51	8 (10%)
33	CYC	e7	202	-	42,46,46	1.09	1 (2%)	50,67,67	0.96	2 (4%)
39	LMG	CD	519	39	51,51,55	0.92	2 (3%)	59,59,63	1.07	5 (8%)
33	CYC	e7	201	32	42,46,46	3.05	13 (30%)	50,67,67	3.89	23 (46%)
36	CLA	XE	101	25	65,73,73	1.42	9 (13%)	76,113,113	1.35	8 (10%)
33	CYC	jA	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	h9	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
36	CLA	BE	610	-	65,73,73	1.50	12 (18%)	76,113,113	1.62	12 (15%)
33	CYC	iJ	201	-	42,46,46	1.13	1 (2%)	50,67,67	0.97	2 (4%)
36	CLA	cE	507	43,8	65,73,73	1.45	8 (12%)	76,113,113	1.81	14 (18%)
36	CLA	BD	603	7	65,73,73	1.51	10 (15%)	76,113,113	1.45	8 (10%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
38	SQD	BD	621	-	37,38,54	1.43	4 (10%)	46,49,65	4.33	9 (19%)
33	CYC	kJ	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.86	23 (46%)
33	CYC	ZK	201	3	42,46,46	3.14	15 (35%)	50,67,67	2.99	24 (48%)
36	CLA	a1	405	-	46,54,73	12.11	10 (21%)	53,90,113	1.81	8 (15%)
33	CYC	C4	1002	4,2	42,46,46	3.01	12 (28%)	50,67,67	3.03	22 (44%)
33	CYC	LG	201	4,2	42,46,46	2.59	13 (30%)	50,67,67	4.56	29 (58%)
33	CYC	f6	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	dJ	201	-	42,46,46	3.07	12 (28%)	50,67,67	3.57	25 (50%)
37	PL9	AE	406	-	55,55,55	0.64	1 (1%)	68,69,69	1.46	11 (16%)
40	LMT	b1	602	-	24,24,36	1.16	2 (8%)	29,29,47	1.02	0
33	CYC	IH	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
40	LMT	cE	501	-	24,24,36	1.12	2 (8%)	29,29,47	1.14	3 (10%)
39	LMG	y1	101	39	51,51,55	0.91	2 (3%)	59,59,63	1.08	5 (8%)
33	CYC	IL	201	-	42,46,46	3.30	16 (38%)	50,67,67	3.11	24 (48%)
33	CYC	II	201	-	42,46,46	3.05	12 (28%)	50,67,67	3.58	25 (50%)
36	CLA	B1	608	-	65,73,73	1.39	7 (10%)	76,113,113	1.59	7 (9%)
36	CLA	d1	403	-	65,73,73	1.40	7 (10%)	76,113,113	1.57	7 (9%)
42	LHG	e1	101	-	39,39,48	1.03	2 (5%)	42,45,54	1.18	4 (9%)
33	CYC	T4	201	4	42,46,46	3.11	14 (33%)	50,67,67	3.23	22 (44%)
36	CLA	HD	102	12	60,68,73	1.51	10 (16%)	70,107,113	1.49	10 (14%)
40	LMT	BE	622	-	36,36,36	1.28	5 (13%)	47,47,47	1.15	1 (2%)
44	DGD	c1	517	-	63,63,67	0.85	2 (3%)	77,77,81	1.00	3 (3%)
43	BCR	hE	105	25,36,12	41,41,41	0.93	2 (4%)	56,56,56	2.64	19 (33%)
33	CYC	cA	202	32	42,46,46	1.14	1 (2%)	50,67,67	0.96	2 (4%)
38	SQD	L1	102	-	42,43,54	1.35	5 (11%)	51,54,65	1.23	4 (7%)
43	BCR	CD	520	-	41,41,41	0.74	0	56,56,56	1.79	14 (25%)
42	LHG	DE	409	-	48,48,48	0.92	2 (4%)	51,54,54	1.03	2 (3%)
33	CYC	b3	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	j9	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
43	BCR	cE	515	36,8	41,41,41	0.75	0	56,56,56	2.49	20 (35%)
33	CYC	BA	301	32	42,46,46	3.03	13 (30%)	50,67,67	3.89	23 (46%)
33	CYC	9K	201	3	42,46,46	2.93	11 (26%)	50,67,67	2.93	18 (36%)
36	CLA	c1	503	-	65,73,73	1.53	11 (16%)	76,113,113	1.42	10 (13%)
33	CYC	XF	201	3	42,46,46	3.17	13 (30%)	50,67,67	3.03	21 (42%)
36	CLA	CD	513	-	65,73,73	1.42	8 (12%)	76,113,113	1.59	9 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
38	SQD	C1	501	8	53,54,54	1.18	4 (7%)	62,65,65	1.18	7 (11%)
33	CYC	JL	201	4,3	42,46,46	3.07	12 (28%)	50,67,67	2.92	20 (40%)
33	CYC	eK	201	4	42,46,46	3.12	14 (33%)	50,67,67	3.19	20 (40%)
43	BCR	X1	102	25,36	41,41,41	0.94	2 (4%)	56,56,56	2.64	20 (35%)
36	CLA	hD	101	43	65,73,73	2.43	9 (13%)	76,113,113	1.66	9 (11%)
33	CYC	cC	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.86	23 (46%)
40	LMT	BD	622	-	36,36,36	1.28	5 (13%)	47,47,47	1.15	1 (2%)
43	BCR	cD	519	-	41,41,41	0.83	0	56,56,56	2.00	16 (28%)
33	CYC	m3	201	-	42,46,46	1.07	1 (2%)	50,67,67	0.95	2 (4%)
40	LMT	bD	620	-	24,24,36	1.11	2 (8%)	29,29,47	1.04	1 (3%)
33	CYC	mK	201	30	42,46,46	3.06	12 (28%)	50,67,67	3.34	24 (48%)
33	CYC	j9	202	-	42,46,46	1.06	1 (2%)	50,67,67	0.98	2 (4%)
36	CLA	bD	614	43	65,73,73	1.45	10 (15%)	76,113,113	1.44	8 (10%)
36	CLA	BD	614	7	65,73,73	1.59	9 (13%)	76,113,113	1.42	11 (14%)
33	CYC	fA	201	31	42,46,46	3.05	13 (30%)	50,67,67	3.58	25 (50%)
38	SQD	c1	501	8	53,54,54	1.18	4 (7%)	62,65,65	1.15	5 (8%)
39	LMG	A1	408	-	36,36,55	1.08	2 (5%)	44,44,63	1.10	5 (11%)
36	CLA	bE	609	7	65,73,73	1.43	8 (12%)	76,113,113	1.98	11 (14%)
42	LHG	DD	410	-	48,48,48	0.91	2 (4%)	51,54,54	1.03	3 (5%)
36	CLA	cE	509	8	65,73,73	1.44	11 (16%)	76,113,113	2.24	14 (18%)
40	LMT	A1	409	-	24,24,36	1.14	3 (12%)	29,29,47	1.07	1 (3%)
38	SQD	d1	414	9	33,34,54	1.48	4 (12%)	42,45,65	1.52	6 (14%)
42	LHG	aD	411	6	37,37,48	1.04	2 (5%)	40,43,54	1.23	4 (10%)
38	SQD	CD	501	8	53,54,54	1.18	4 (7%)	62,65,65	1.18	7 (11%)
33	CYC	9F	201	3	42,46,46	2.93	11 (26%)	50,67,67	2.92	18 (36%)
33	CYC	IG	201	3	42,46,46	3.30	15 (35%)	50,67,67	3.11	23 (46%)
33	CYC	cH	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.86	23 (46%)
33	CYC	WB	201	4	42,46,46	3.15	13 (30%)	50,67,67	3.08	20 (40%)
44	DGD	c1	516	8	48,48,67	0.99	2 (4%)	62,62,81	1.30	10 (16%)
38	SQD	LD	102	-	42,43,54	1.35	5 (11%)	51,54,65	1.22	4 (7%)
44	DGD	CE	518	-	63,63,67	0.86	2 (3%)	77,77,81	1.09	5 (6%)
33	CYC	iI	201	-	42,46,46	1.11	1 (2%)	50,67,67	0.97	2 (4%)
40	LMT	bE	602	-	24,24,36	1.17	2 (8%)	29,29,47	1.02	0
33	CYC	LF	201	4,3	42,46,46	3.32	14 (33%)	50,67,67	3.19	17 (34%)
33	CYC	4L	201	3	42,46,46	2.95	10 (23%)	50,67,67	3.39	26 (52%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	3F	102	4,5	42,46,46	3.65	15 (35%)	50,67,67	3.45	20 (40%)
33	CYC	gF	201	29	42,46,46	3.14	13 (30%)	50,67,67	3.06	23 (46%)
44	DGD	JE	101	-	63,63,67	0.83	2 (3%)	77,77,81	0.99	4 (5%)
33	CYC	gH	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	GL	201	3,4	42,46,46	3.12	12 (28%)	50,67,67	2.96	19 (38%)
33	CYC	JG	201	4,3	42,46,46	3.09	12 (28%)	50,67,67	2.93	20 (40%)
33	CYC	h5	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
39	LMG	CE	519	39	51,51,55	0.92	2 (3%)	59,59,63	1.07	5 (8%)
41	BCT	a1	411	46	2,3,3	1.15	0	2,3,3	4.49	2 (100%)
44	DGD	h1	104	-	63,63,67	0.87	2 (3%)	77,77,81	1.14	6 (7%)
47	HEM	vD	201	24	41,50,50	1.45	6 (14%)	45,82,82	2.14	12 (26%)
33	CYC	O4	201	3	42,46,46	3.20	13 (30%)	50,67,67	2.76	17 (34%)
42	LHG	AE	411	6	37,37,48	1.03	2 (5%)	40,43,54	1.18	3 (7%)
36	CLA	BE	605	-	65,73,73	1.45	10 (15%)	76,113,113	1.71	11 (14%)
36	CLA	bD	612	7	65,73,73	1.41	6 (9%)	76,113,113	1.86	14 (18%)
33	CYC	c9	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.86	23 (46%)
33	CYC	e5	202	-	42,46,46	1.09	1 (2%)	50,67,67	0.95	2 (4%)
47	HEM	fD	101	-	41,50,50	1.50	6 (14%)	45,82,82	1.90	13 (28%)
33	CYC	BB	1003	2,4	42,46,46	3.00	14 (33%)	50,67,67	3.06	20 (40%)
33	CYC	m6	201	-	42,46,46	1.08	1 (2%)	50,67,67	0.95	2 (4%)
33	CYC	c5	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.86	23 (46%)
33	CYC	kH	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.87	23 (46%)
47	HEM	f1	101	-	41,50,50	1.50	6 (14%)	45,82,82	1.91	13 (28%)
33	CYC	AG	201	3,4	42,46,46	2.85	12 (28%)	50,67,67	3.04	22 (44%)
36	CLA	B1	609	-	65,73,73	1.46	10 (15%)	76,113,113	1.46	10 (13%)
40	LMT	b1	601	7	36,36,36	1.34	8 (22%)	47,47,47	1.17	3 (6%)
33	CYC	d2	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
36	CLA	BD	612	-	65,73,73	1.48	11 (16%)	76,113,113	1.43	9 (11%)
42	LHG	ID	101	-	48,48,48	0.91	2 (4%)	51,54,54	1.06	3 (5%)
33	CYC	g5	201	32	42,46,46	1.07	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	aD	405	-	65,73,73	1.42	11 (16%)	76,113,113	1.66	12 (15%)
43	BCR	C1	520	-	41,41,41	0.74	0	56,56,56	1.79	14 (25%)
39	LMG	a1	410	-	36,36,55	1.08	2 (5%)	44,44,63	1.06	2 (4%)
33	CYC	ML	201	2,4	42,46,46	3.19	13 (30%)	50,67,67	3.35	25 (50%)
33	CYC	hI	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	m9	201	-	42,46,46	1.07	1 (2%)	50,67,67	0.95	2 (4%)
36	CLA	CD	509	8	65,73,73	1.39	11 (16%)	76,113,113	1.45	11 (14%)
33	CYC	aB	201	4,5	42,46,46	3.50	11 (26%)	50,67,67	3.28	24 (48%)
36	CLA	B1	604	7	65,73,73	1.45	10 (15%)	76,113,113	1.55	11 (14%)
36	CLA	B1	601	-	45,53,73	1.75	10 (22%)	52,89,113	1.78	9 (17%)
33	CYC	gA	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	d7	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
42	LHG	BE	620	-	48,48,48	0.93	2 (4%)	51,54,54	1.06	3 (5%)
36	CLA	AE	405	-	65,73,73	1.41	10 (15%)	76,113,113	1.74	12 (15%)
33	CYC	WL	201	4	42,46,46	3.12	13 (30%)	50,67,67	2.65	16 (32%)
33	CYC	r4	201	4,2	42,46,46	3.08	12 (28%)	50,67,67	3.03	25 (50%)
33	CYC	jH	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	NK	101	4,5	42,46,46	3.08	14 (33%)	50,67,67	3.04	22 (44%)
36	CLA	A1	404	-	46,54,73	12.09	10 (21%)	53,90,113	2.34	13 (24%)
33	CYC	iI	202	-	42,46,46	3.04	14 (33%)	50,67,67	3.88	23 (46%)
44	DGD	cE	516	8	48,48,67	0.99	2 (4%)	62,62,81	1.31	10 (16%)
36	CLA	bD	607	-	65,73,73	1.44	10 (15%)	76,113,113	1.71	11 (14%)
40	LMT	BE	623	7	24,24,36	1.19	4 (16%)	29,29,47	1.14	1 (3%)
39	LMG	JD	102	39,14	27,27,55	1.30	2 (7%)	35,35,63	1.06	1 (2%)
33	CYC	g6	201	32	42,46,46	1.05	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	kA	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.87	23 (46%)
40	LMT	bD	601	7	36,36,36	1.34	8 (22%)	47,47,47	1.17	3 (6%)
43	BCR	ZD	101	27	41,41,41	0.73	0	56,56,56	2.17	23 (41%)
33	CYC	oB	201	3	42,46,46	3.23	15 (35%)	50,67,67	2.78	19 (38%)
33	CYC	w4	201	3	42,46,46	3.09	12 (28%)	50,67,67	2.79	18 (36%)
33	CYC	b5	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)
36	CLA	d1	405	-	65,73,73	1.49	11 (16%)	76,113,113	1.56	8 (10%)
40	LMT	DE	412	-	25,25,36	1.10	2 (8%)	30,30,47	1.06	2 (6%)
36	CLA	BE	613	43	65,73,73	1.45	10 (15%)	76,113,113	1.44	7 (9%)
33	CYC	dC	201	-	42,46,46	3.05	12 (28%)	50,67,67	3.57	25 (50%)
36	CLA	bD	604	7	65,73,73	1.42	11 (16%)	76,113,113	1.72	12 (15%)
33	CYC	l7	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	j3	202	-	42,46,46	1.05	1 (2%)	50,67,67	0.97	2 (4%)
33	CYC	cJ	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.86	23 (46%)
33	CYC	IF	201	4	42,46,46	3.18	15 (35%)	50,67,67	3.10	23 (46%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	c8	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.85	23 (46%)
33	CYC	fF	201	3	42,46,46	3.08	14 (33%)	50,67,67	3.06	20 (40%)
43	BCR	IE	102	13	41,41,41	0.79	0	56,56,56	2.77	18 (32%)
33	CYC	l8	201	-	42,46,46	3.07	13 (30%)	50,67,67	3.59	25 (50%)
36	CLA	B1	611	7	65,73,73	1.41	6 (9%)	76,113,113	1.85	13 (17%)
36	CLA	b1	615	7	65,73,73	1.58	9 (13%)	76,113,113	1.43	11 (14%)
36	CLA	DD	405	-	65,73,73	1.48	11 (16%)	76,113,113	1.57	8 (10%)
36	CLA	CD	515	-	65,73,73	1.43	8 (12%)	76,113,113	1.52	8 (10%)
36	CLA	BD	602	7	65,73,73	1.41	11 (16%)	76,113,113	1.72	12 (15%)
33	CYC	k3	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.87	23 (46%)
36	CLA	C1	508	43,8	65,73,73	1.48	9 (13%)	76,113,113	1.74	15 (19%)
33	CYC	i6	202	-	42,46,46	3.05	14 (33%)	50,67,67	3.89	23 (46%)
33	CYC	e6	201	32	42,46,46	3.04	13 (30%)	50,67,67	3.88	23 (46%)
33	CYC	X4	201	4,3	42,46,46	3.15	14 (33%)	50,67,67	3.00	16 (32%)
33	CYC	c7	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.85	23 (46%)
43	BCR	hD	105	25,36,12	41,41,41	0.93	2 (4%)	56,56,56	2.64	19 (33%)
36	CLA	X1	101	25	65,73,73	1.43	9 (13%)	76,113,113	1.35	7 (9%)
33	CYC	XB	201	4,3	42,46,46	3.15	14 (33%)	50,67,67	3.00	16 (32%)
40	LMT	DD	413	-	22,22,36	1.17	3 (13%)	27,27,47	1.03	1 (3%)
40	LMT	iE	103	-	24,24,36	1.14	2 (8%)	29,29,47	0.98	1 (3%)
45	PHO	a1	413	-	39,57,69	2.94	10 (25%)	32,84,99	2.99	14 (43%)
33	CYC	5G	201	4,5	42,46,46	3.00	14 (33%)	50,67,67	3.18	26 (52%)
33	CYC	iC	201	-	42,46,46	1.11	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	d6	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	IK	201	4	42,46,46	3.17	15 (35%)	50,67,67	3.10	23 (46%)
33	CYC	B4	1003	4,2	42,46,46	3.01	14 (33%)	50,67,67	3.06	20 (40%)
41	BCT	A1	410	-	2,3,3	1.15	0	2,3,3	4.49	2 (100%)
36	CLA	CD	505	-	65,73,73	1.46	10 (15%)	76,113,113	1.50	12 (15%)
36	CLA	B1	607	7	65,73,73	1.41	8 (12%)	76,113,113	1.99	11 (14%)
42	LHG	aE	411	6	37,37,48	1.04	2 (5%)	40,43,54	1.23	4 (10%)
43	BCR	cE	519	-	41,41,41	0.83	0	56,56,56	2.01	16 (28%)
36	CLA	cE	510	8	65,73,73	1.37	11 (16%)	76,113,113	1.65	18 (23%)
36	CLA	c1	502	-	65,73,73	1.50	9 (13%)	76,113,113	1.48	9 (11%)
39	LMG	tE	101	22	36,36,55	1.15	2 (5%)	44,44,63	0.99	3 (6%)
42	LHG	dE	409	-	48,48,48	0.92	2 (4%)	51,54,54	1.03	2 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
43	BCR	bE	616	36,7	41,41,41	0.82	1 (2%)	56,56,56	2.51	22 (39%)
36	CLA	x1	101	25	65,73,73	1.42	9 (13%)	76,113,113	1.35	8 (10%)
36	CLA	B1	612	-	65,73,73	1.49	11 (16%)	76,113,113	1.43	9 (11%)
39	LMG	C1	519	39	51,51,55	0.92	2 (3%)	59,59,63	1.07	5 (8%)
33	CYC	NL	201	3	42,46,46	2.96	11 (26%)	50,67,67	3.11	19 (38%)
43	BCR	ID	102	13	41,41,41	0.79	0	56,56,56	2.77	18 (32%)
40	LMT	jD	101	-	36,36,36	1.22	5 (13%)	47,47,47	1.25	6 (12%)
40	LMT	dE	404	-	24,24,36	1.15	2 (8%)	29,29,47	1.01	1 (3%)
39	LMG	JE	102	39,14	27,27,55	1.31	2 (7%)	35,35,63	1.06	1 (2%)
39	LMG	mE	101	-	36,36,55	1.12	2 (5%)	44,44,63	1.11	3 (6%)
33	CYC	k8	201	-	42,46,46	3.03	13 (30%)	50,67,67	3.87	23 (46%)
40	LMT	jE	101	-	36,36,36	1.22	5 (13%)	47,47,47	1.25	6 (12%)
36	CLA	BD	609	-	65,73,73	1.46	10 (15%)	76,113,113	1.46	10 (13%)
33	CYC	PB	201	4	42,46,46	3.11	14 (33%)	50,67,67	3.15	22 (44%)
36	CLA	iD	101	-	55,63,73	1.58	10 (18%)	64,101,113	1.72	11 (17%)
36	CLA	CE	510	8	65,73,73	1.44	9 (13%)	76,113,113	2.36	17 (22%)
40	LMT	DD	412	-	25,25,36	1.11	2 (8%)	30,30,47	1.06	2 (6%)
33	CYC	f5	201	31	42,46,46	3.05	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	g8	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	bE	612	7	65,73,73	1.40	6 (9%)	76,113,113	1.86	14 (18%)
43	BCR	XE	102	25,36	41,41,41	0.94	2 (4%)	56,56,56	2.63	19 (33%)
45	PHO	DD	401	-	51,69,69	2.06	11 (21%)	47,99,99	2.54	19 (40%)
36	CLA	BE	601	-	45,53,73	1.75	10 (22%)	52,89,113	1.78	9 (17%)
43	BCR	cD	515	36,8	41,41,41	0.75	0	56,56,56	2.49	19 (33%)
33	CYC	GG	201	3,4	42,46,46	3.11	12 (28%)	50,67,67	2.95	19 (38%)
43	BCR	Z1	102	-	41,41,41	0.72	0	56,56,56	1.89	13 (23%)
39	LMG	aD	409	-	36,36,55	1.08	2 (5%)	44,44,63	1.06	2 (4%)
39	LMG	t1	101	22	36,36,55	1.15	2 (5%)	44,44,63	0.99	3 (6%)
36	CLA	BD	601	-	45,53,73	1.74	10 (22%)	52,89,113	1.78	9 (17%)
36	CLA	b1	614	43	65,73,73	1.43	10 (15%)	76,113,113	1.45	8 (10%)
37	PL9	a1	409	-	55,55,55	0.66	1 (1%)	68,69,69	1.46	12 (17%)
43	BCR	BE	616	7	41,41,41	0.69	0	56,56,56	1.88	14 (25%)
36	CLA	cD	504	-	65,73,73	1.54	11 (16%)	76,113,113	1.42	10 (13%)
44	DGD	CD	518	-	63,63,67	0.86	2 (3%)	77,77,81	1.08	5 (6%)
33	CYC	o4	201	3	42,46,46	3.22	15 (35%)	50,67,67	2.78	19 (38%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	j8	202	-	42,46,46	1.06	1 (2%)	50,67,67	0.97	2 (4%)
33	CYC	uB	201	3,4	42,46,46	3.31	12 (28%)	50,67,67	2.75	19 (38%)
36	CLA	c1	508	8	65,73,73	1.43	10 (15%)	76,113,113	1.48	11 (14%)
33	CYC	m8	201	-	42,46,46	1.08	1 (2%)	50,67,67	0.95	2 (4%)
42	LHG	eE	101	-	39,39,48	1.03	2 (5%)	42,45,54	1.18	4 (9%)
33	CYC	gJ	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
38	SQD	AE	407	-	45,46,54	1.28	4 (8%)	54,57,65	1.27	4 (7%)
39	LMG	D1	410	9	51,51,55	0.95	2 (3%)	59,59,63	1.27	5 (8%)
33	CYC	h2	201	-	42,46,46	3.07	13 (30%)	50,67,67	3.57	25 (50%)
39	LMG	MD	101	-	36,36,55	1.11	2 (5%)	44,44,63	1.11	3 (6%)
33	CYC	fJ	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
36	CLA	xD	101	25	65,73,73	1.42	9 (13%)	76,113,113	1.36	7 (9%)
40	LMT	cD	501	-	24,24,36	1.13	2 (8%)	29,29,47	1.13	3 (10%)
33	CYC	d9	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	CB	1003	2	42,46,46	3.08	15 (35%)	50,67,67	2.98	19 (38%)
33	CYC	g5	202	32	42,46,46	3.02	13 (30%)	50,67,67	3.89	24 (48%)
36	CLA	cE	504	-	65,73,73	1.53	11 (16%)	76,113,113	1.41	10 (13%)
39	LMG	aE	407	-	51,51,55	0.92	2 (3%)	59,59,63	1.06	2 (3%)
43	BCR	iD	102	-	41,41,41	0.78	1 (2%)	56,56,56	2.55	19 (33%)
36	CLA	C1	514	-	50,58,73	1.63	10 (20%)	58,95,113	1.51	7 (12%)
43	BCR	CD	521	-	41,41,41	0.72	0	56,56,56	1.89	13 (23%)
36	CLA	cE	506	8	65,73,73	1.45	12 (18%)	76,113,113	1.81	14 (18%)
36	CLA	CE	514	-	50,58,73	1.63	10 (20%)	58,95,113	1.50	7 (12%)
36	CLA	bE	604	7	65,73,73	1.43	11 (16%)	76,113,113	1.72	12 (15%)
36	CLA	B1	602	7	65,73,73	1.41	11 (16%)	76,113,113	1.72	12 (15%)
36	CLA	hE	102	12	60,68,73	1.52	10 (16%)	70,107,113	1.49	10 (14%)
44	DGD	cD	516	8	48,48,67	0.99	2 (4%)	62,62,81	1.31	10 (16%)
36	CLA	CD	503	-	65,73,73	1.46	10 (15%)	76,113,113	1.47	10 (13%)
33	CYC	eA	202	-	42,46,46	1.09	1 (2%)	50,67,67	0.95	2 (4%)
33	CYC	4G	201	3	42,46,46	2.95	11 (26%)	50,67,67	3.39	26 (52%)
33	CYC	B4	1001	4,2	42,46,46	3.19	14 (33%)	50,67,67	3.06	22 (44%)
41	BCT	aE	410	46	2,3,3	1.15	0	2,3,3	4.48	2 (100%)
33	CYC	AL	201	3,4	42,46,46	2.85	12 (28%)	50,67,67	3.04	22 (44%)
43	BCR	bD	618	-	41,41,41	0.74	0	56,56,56	1.86	13 (23%)
33	CYC	vB	201	4	42,46,46	3.06	14 (33%)	50,67,67	3.00	22 (44%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
44	DGD	CD	517	8	48,48,67	0.98	2 (4%)	62,62,81	1.27	8 (12%)
33	CYC	jC	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.56	25 (50%)
36	CLA	ID	101	13,6	60,68,73	1.45	8 (13%)	70,107,113	1.53	7 (10%)
33	CYC	bK	201	3	42,46,46	2.99	14 (33%)	50,67,67	3.01	18 (36%)
43	BCR	k1	102	-	41,41,41	0.72	0	56,56,56	1.89	13 (23%)
36	CLA	bE	614	43	65,73,73	1.44	10 (15%)	76,113,113	1.44	8 (10%)
33	CYC	j6	202	-	42,46,46	1.05	1 (2%)	50,67,67	0.98	2 (4%)
33	CYC	bJ	201	-	42,46,46	3.05	12 (28%)	50,67,67	3.57	25 (50%)
33	CYC	fH	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.59	25 (50%)
36	CLA	C1	513	-	65,73,73	1.43	8 (12%)	76,113,113	1.59	9 (11%)
43	BCR	Z1	101	27	41,41,41	0.73	0	56,56,56	2.16	23 (41%)
33	CYC	RG	201	3,4	42,46,46	3.00	10 (23%)	50,67,67	2.95	22 (44%)
33	CYC	eH	201	32	42,46,46	3.05	13 (30%)	50,67,67	3.88	23 (46%)
39	LMG	aD	407	-	51,51,55	0.92	2 (3%)	59,59,63	1.06	2 (3%)
43	BCR	BE	617	-	41,41,41	0.73	0	56,56,56	1.86	12 (21%)
36	CLA	CE	505	-	65,73,73	1.46	10 (15%)	76,113,113	1.49	12 (15%)
33	CYC	S4	201	3,4	42,46,46	3.20	11 (26%)	50,67,67	2.42	22 (44%)
33	CYC	i3	201	-	42,46,46	1.11	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	CE	508	43,8	65,73,73	1.49	9 (13%)	76,113,113	1.73	14 (18%)
36	CLA	bE	611	-	65,73,73	1.50	12 (18%)	76,113,113	1.62	11 (14%)
42	LHG	a1	412	6	37,37,48	1.04	2 (5%)	40,43,54	1.23	4 (10%)
36	CLA	cD	506	8	65,73,73	1.45	12 (18%)	76,113,113	1.81	14 (18%)
37	PL9	D1	407	9	55,55,55	0.63	1 (1%)	68,69,69	1.62	17 (25%)
44	DGD	J1	101	-	63,63,67	0.83	2 (3%)	77,77,81	0.99	4 (5%)
33	CYC	cC	202	32	42,46,46	1.14	1 (2%)	50,67,67	0.97	2 (4%)
33	CYC	c6	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.86	23 (46%)
42	LHG	BD	620	-	48,48,48	0.93	2 (4%)	51,54,54	1.06	3 (5%)
36	CLA	aE	406	6	60,68,73	1.42	7 (11%)	70,107,113	1.71	12 (17%)
33	CYC	j8	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
39	LMG	a1	408	-	51,51,55	0.92	2 (3%)	59,59,63	1.06	2 (3%)
33	CYC	g8	202	32	42,46,46	3.04	13 (30%)	50,67,67	3.89	24 (48%)
33	CYC	dA	201	-	42,46,46	3.06	12 (28%)	50,67,67	3.57	25 (50%)
33	CYC	bB	101	4,5	42,46,46	2.92	13 (30%)	50,67,67	3.26	22 (44%)
39	LMG	m1	101	-	36,36,55	1.12	2 (5%)	44,44,63	1.11	3 (6%)
33	CYC	RL	201	3,4	42,46,46	3.00	10 (23%)	50,67,67	2.96	22 (44%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
43	BCR	h1	105	25,36,12	41,41,41	0.93	2 (4%)	56,56,56	2.64	19 (33%)
38	SQD	D1	413	9	33,34,54	1.48	4 (12%)	42,45,65	1.52	6 (14%)
33	CYC	iH	202	-	42,46,46	3.04	14 (33%)	50,67,67	3.89	23 (46%)
33	CYC	jI	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	lL	201	4	42,46,46	3.29	15 (35%)	50,67,67	2.97	18 (36%)
33	CYC	TG	201	3	42,46,46	3.15	14 (33%)	50,67,67	3.01	21 (42%)
33	CYC	hJ	201	-	42,46,46	3.07	13 (30%)	50,67,67	3.57	25 (50%)
38	SQD	LE	102	-	42,43,54	1.35	5 (11%)	51,54,65	1.23	4 (7%)
36	CLA	BD	608	-	65,73,73	1.39	7 (10%)	76,113,113	1.58	7 (9%)
36	CLA	cE	505	-	65,73,73	1.48	9 (13%)	76,113,113	1.51	13 (17%)
33	CYC	QG	201	29	42,46,46	3.12	14 (33%)	50,67,67	3.04	23 (46%)
43	BCR	c1	519	-	41,41,41	0.83	0	56,56,56	2.01	16 (28%)
34	OEX	A1	401	6	0,15,15	-	-	-	-	-
33	CYC	TB	201	4	42,46,46	3.12	14 (33%)	50,67,67	3.23	22 (44%)
40	LMT	B1	619	-	24,24,36	1.12	3 (12%)	29,29,47	1.04	1 (3%)
33	CYC	b6	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
36	CLA	a1	406	-	65,73,73	1.42	11 (16%)	76,113,113	1.66	12 (15%)
42	LHG	l1	101	-	48,48,48	0.92	2 (4%)	51,54,54	1.05	3 (5%)
42	LHG	d1	410	-	48,48,48	0.91	2 (4%)	51,54,54	1.03	3 (5%)
36	CLA	H1	102	12	60,68,73	1.51	10 (16%)	70,107,113	1.49	10 (14%)
36	CLA	A1	405	-	65,73,73	1.42	10 (15%)	76,113,113	1.74	12 (15%)
36	CLA	bD	609	7	65,73,73	1.43	8 (12%)	76,113,113	1.98	11 (14%)
44	DGD	C1	517	8	48,48,67	0.98	2 (4%)	62,62,81	1.27	8 (12%)
43	BCR	b1	617	7	41,41,41	0.69	0	56,56,56	1.87	13 (23%)
33	CYC	j7	202	-	42,46,46	1.06	1 (2%)	50,67,67	0.97	2 (4%)
38	SQD	hD	103	12	34,35,54	1.65	6 (17%)	43,46,65	1.91	10 (23%)
40	LMT	AE	412	-	36,36,36	1.21	4 (11%)	47,47,47	1.16	3 (6%)
33	CYC	jJ	201	-	42,46,46	3.04	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	lA	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	mA	201	-	42,46,46	1.07	1 (2%)	50,67,67	0.94	2 (4%)
36	CLA	cE	503	-	65,73,73	1.50	10 (15%)	76,113,113	1.48	9 (11%)
40	LMT	DE	404	-	24,24,36	1.16	3 (12%)	29,29,47	1.01	1 (3%)
33	CYC	gC	201	32	42,46,46	1.06	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	W4	201	4	42,46,46	3.15	13 (30%)	50,67,67	3.08	20 (40%)
36	CLA	CE	507	-	55,63,73	1.59	9 (16%)	64,101,113	1.73	11 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
33	CYC	i5	202	-	42,46,46	3.04	14 (33%)	50,67,67	3.89	23 (46%)
36	CLA	bE	615	7	65,73,73	1.58	9 (13%)	76,113,113	1.42	11 (14%)
33	CYC	HL	201	2,4	42,46,46	3.13	10 (23%)	50,67,67	4.03	25 (50%)
33	CYC	i2	202	-	42,46,46	3.04	14 (33%)	50,67,67	3.89	23 (46%)
36	CLA	C1	512	-	65,73,73	1.43	8 (12%)	76,113,113	1.47	13 (17%)
40	LMT	C1	521	8	24,24,36	1.12	2 (8%)	29,29,47	1.14	3 (10%)
34	OEX	a1	402	6	0,15,15	-	-	-	-	-
40	LMT	dD	404	-	24,24,36	1.15	2 (8%)	29,29,47	1.01	2 (6%)
33	CYC	hC	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	f2	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.59	25 (50%)
37	PL9	aD	408	-	55,55,55	0.66	1 (1%)	68,69,69	1.46	12 (17%)
42	LHG	lE	101	-	48,48,48	0.92	2 (4%)	51,54,54	1.06	3 (5%)
34	OEX	aE	401	6	0,15,15	-	-	-	-	-
42	LHG	A1	411	6	37,37,48	1.04	2 (5%)	40,43,54	1.18	3 (7%)
33	CYC	1G	201	4	42,46,46	3.29	15 (35%)	50,67,67	2.96	18 (36%)
36	CLA	IE	101	13,6	60,68,73	1.46	8 (13%)	70,107,113	1.53	7 (10%)
33	CYC	j5	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)
36	CLA	BE	614	7	65,73,73	1.59	9 (13%)	76,113,113	1.43	11 (14%)
43	BCR	bE	618	-	41,41,41	0.74	0	56,56,56	1.86	12 (21%)
33	CYC	hA	201	-	42,46,46	3.07	13 (30%)	50,67,67	3.58	25 (50%)
45	PHO	DD	403	9	44,62,69	2.60	15 (34%)	38,90,99	2.50	14 (36%)
42	LHG	dD	409	-	48,48,48	0.92	2 (4%)	51,54,54	1.03	2 (3%)
36	CLA	BD	604	7	65,73,73	1.46	10 (15%)	76,113,113	1.55	11 (14%)
43	BCR	kE	102	-	41,41,41	0.72	0	56,56,56	1.89	13 (23%)
38	SQD	BE	621	-	37,38,54	1.44	4 (10%)	46,49,65	4.33	9 (19%)
33	CYC	6G	201	3	42,46,46	2.98	14 (33%)	50,67,67	3.06	22 (44%)
39	LMG	AE	408	-	36,36,55	1.09	2 (5%)	44,44,63	1.10	5 (11%)
33	CYC	hH	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
36	CLA	B1	606	-	60,68,73	1.50	9 (15%)	70,107,113	1.66	11 (15%)
36	CLA	cD	505	-	65,73,73	1.48	9 (13%)	76,113,113	1.51	13 (17%)
40	LMT	b1	620	-	24,24,36	1.11	2 (8%)	29,29,47	1.04	1 (3%)
33	CYC	d8	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	e9	201	32	42,46,46	3.04	13 (30%)	50,67,67	3.88	23 (46%)
39	LMG	yE	101	39	51,51,55	0.90	2 (3%)	59,59,63	1.08	4 (6%)
38	SQD	DE	414	9	33,34,54	1.48	4 (12%)	42,45,65	1.51	6 (14%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
38	SQD	LD	101	-	42,43,54	1.34	5 (11%)	51,54,65	1.22	4 (7%)
44	DGD	C1	518	-	63,63,67	0.86	2 (3%)	77,77,81	1.08	5 (6%)
39	LMG	bD	619	7	51,51,55	0.92	2 (3%)	59,59,63	1.17	3 (5%)
36	CLA	cD	510	8	65,73,73	1.37	11 (16%)	76,113,113	1.66	18 (23%)
33	CYC	BI	301	32	42,46,46	3.03	13 (30%)	50,67,67	3.89	24 (48%)
43	BCR	D1	406	-	41,41,41	0.71	0	56,56,56	1.82	11 (19%)
44	DGD	hE	104	-	63,63,67	0.86	2 (3%)	77,77,81	1.14	6 (7%)
39	LMG	ME	101	-	36,36,55	1.11	2 (5%)	44,44,63	1.11	3 (6%)
33	CYC	MG	201	4,2	42,46,46	3.19	13 (30%)	50,67,67	3.35	25 (50%)
36	CLA	cD	503	-	65,73,73	1.50	10 (15%)	76,113,113	1.48	9 (11%)
36	CLA	bE	608	-	60,68,73	1.51	9 (15%)	70,107,113	1.68	12 (17%)
33	CYC	B4	1002	2	42,46,46	3.08	14 (33%)	50,67,67	2.99	19 (38%)
38	SQD	LE	101	-	42,43,54	1.34	5 (11%)	51,54,65	1.22	4 (7%)
33	CYC	z4	201	4,2	42,46,46	3.09	14 (33%)	50,67,67	3.25	26 (52%)
33	CYC	i3	202	-	42,46,46	3.04	14 (33%)	50,67,67	3.89	23 (46%)
33	CYC	nF	201	3,4	42,46,46	3.15	13 (30%)	50,67,67	2.67	19 (38%)
33	CYC	i9	202	-	42,46,46	3.03	14 (33%)	50,67,67	3.88	23 (46%)
33	CYC	q4	201	3	42,46,46	3.16	11 (26%)	50,67,67	2.90	19 (38%)
36	CLA	BE	609	-	65,73,73	1.46	10 (15%)	76,113,113	1.46	10 (13%)
33	CYC	fC	201	31	42,46,46	3.07	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	cF	201	4	42,46,46	2.92	13 (30%)	50,67,67	3.08	21 (42%)
33	CYC	h3	201	-	42,46,46	3.07	13 (30%)	50,67,67	3.58	25 (50%)
36	CLA	H1	101	43	65,73,73	2.43	9 (13%)	76,113,113	1.68	9 (11%)
40	LMT	D1	412	-	22,22,36	1.17	3 (13%)	27,27,47	1.03	1 (3%)
36	CLA	cE	511	-	65,73,73	1.46	7 (10%)	76,113,113	1.52	8 (10%)
36	CLA	CE	503	-	65,73,73	1.46	10 (15%)	76,113,113	1.47	10 (13%)
33	CYC	dH	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
36	CLA	HE	101	43	65,73,73	2.43	9 (13%)	76,113,113	1.68	9 (11%)
36	CLA	BD	611	7	65,73,73	1.41	6 (9%)	76,113,113	1.85	13 (17%)
36	CLA	BE	604	7	65,73,73	1.46	10 (15%)	76,113,113	1.55	12 (15%)
36	CLA	dE	406	9	65,73,73	1.44	10 (15%)	76,113,113	1.55	11 (14%)
33	CYC	a4	201	4,5	42,46,46	3.49	11 (26%)	50,67,67	3.29	24 (48%)
36	CLA	c1	511	-	65,73,73	1.47	7 (10%)	76,113,113	1.53	8 (10%)
42	LHG	DD	409	-	48,48,48	0.92	2 (4%)	51,54,54	1.03	2 (3%)
33	CYC	e3	201	32	42,46,46	3.05	13 (30%)	50,67,67	3.89	23 (46%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
47	HEM	vE	201	24	41,50,50	1.45	6 (14%)	45,82,82	2.14	12 (26%)
33	CYC	j7	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	cK	201	4	42,46,46	2.92	13 (30%)	50,67,67	3.09	21 (42%)
36	CLA	AD	405	-	65,73,73	1.42	10 (15%)	76,113,113	1.74	12 (15%)
36	CLA	aE	404	-	46,54,73	12.10	10 (21%)	53,90,113	1.81	8 (15%)
37	PL9	AD	406	-	55,55,55	0.64	1 (1%)	68,69,69	1.46	11 (16%)
37	PL9	dD	408	9	55,55,55	0.63	2 (3%)	68,69,69	1.62	17 (25%)
33	CYC	i8	201	-	42,46,46	1.11	1 (2%)	50,67,67	0.96	2 (4%)
33	CYC	cI	202	32	42,46,46	1.14	1 (2%)	50,67,67	0.96	2 (4%)
36	CLA	bD	610	-	65,73,73	1.45	10 (15%)	76,113,113	1.46	10 (13%)
33	CYC	SB	201	4,3	42,46,46	3.21	11 (26%)	50,67,67	2.42	21 (42%)
42	LHG	dE	410	-	48,48,48	0.90	2 (4%)	51,54,54	1.03	3 (5%)
36	CLA	xE	101	25	65,73,73	1.42	9 (13%)	76,113,113	1.36	7 (9%)
45	PHO	dE	402	9	43,61,69	2.85	10 (23%)	37,89,99	3.28	9 (24%)
33	CYC	c8	202	32	42,46,46	1.15	1 (2%)	50,67,67	0.97	2 (4%)
43	BCR	CE	520	-	41,41,41	0.74	0	56,56,56	1.79	14 (25%)
39	LMG	aE	409	-	36,36,55	1.08	2 (5%)	44,44,63	1.07	2 (4%)
39	LMG	j1	102	39,14	27,27,55	1.34	2 (7%)	35,35,63	1.11	2 (5%)
36	CLA	cE	508	8	65,73,73	1.42	10 (15%)	76,113,113	1.48	11 (14%)
33	CYC	B9	301	32	42,46,46	3.03	13 (30%)	50,67,67	3.89	23 (46%)
38	SQD	A1	407	-	45,46,54	1.28	4 (8%)	54,57,65	1.27	4 (7%)
33	CYC	eC	201	32	42,46,46	3.04	13 (30%)	50,67,67	3.89	23 (46%)
33	CYC	P4	201	4	42,46,46	3.11	14 (33%)	50,67,67	3.15	22 (44%)
33	CYC	mI	201	-	42,46,46	1.09	1 (2%)	50,67,67	0.95	2 (4%)
44	DGD	c1	518	-	63,63,67	0.86	2 (3%)	77,77,81	1.11	6 (7%)
44	DGD	cE	518	-	63,63,67	0.86	2 (3%)	77,77,81	1.11	6 (7%)
33	CYC	LK	201	4,3	42,46,46	3.32	14 (33%)	50,67,67	3.18	17 (34%)
36	CLA	dD	405	-	65,73,73	1.48	11 (16%)	76,113,113	1.57	8 (10%)
41	BCT	AE	410	-	2,3,3	1.14	0	2,3,3	4.50	2 (100%)
40	LMT	DE	413	-	22,22,36	1.17	3 (13%)	27,27,47	1.03	1 (3%)
45	PHO	A1	412	6	51,69,69	2.49	13 (25%)	47,99,99	2.81	17 (36%)
33	CYC	jC	202	-	42,46,46	1.07	1 (2%)	50,67,67	0.98	2 (4%)
33	CYC	u4	201	3,4	42,46,46	3.30	12 (28%)	50,67,67	2.75	19 (38%)
33	CYC	c7	202	32	42,46,46	1.14	1 (2%)	50,67,67	0.97	2 (4%)
33	CYC	e9	202	-	42,46,46	1.09	1 (2%)	50,67,67	0.95	2 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
36	CLA	bD	615	7	65,73,73	1.58	9 (13%)	76,113,113	1.42	11 (14%)
40	LMT	BE	619	-	24,24,36	1.13	3 (12%)	29,29,47	1.04	1 (3%)
36	CLA	b1	603	-	45,53,73	1.73	10 (22%)	52,89,113	1.75	10 (19%)
36	CLA	BD	610	-	65,73,73	1.51	12 (18%)	76,113,113	1.62	12 (15%)
33	CYC	hF	201	4	42,46,46	3.41	13 (30%)	50,67,67	3.20	21 (42%)
47	HEM	fE	101	-	41,50,50	1.51	6 (14%)	45,82,82	1.91	13 (28%)
33	CYC	dF	201	3	42,46,46	3.41	13 (30%)	50,67,67	3.20	22 (44%)
43	BCR	B1	615	36,7	41,41,41	0.82	1 (2%)	56,56,56	2.51	22 (39%)
40	LMT	AE	409	-	24,24,36	1.13	3 (12%)	29,29,47	1.07	1 (3%)
40	LMT	dD	413	-	22,22,36	1.16	3 (13%)	27,27,47	1.01	1 (3%)
43	BCR	z1	101	27	41,41,41	0.72	0	56,56,56	2.17	22 (39%)
47	HEM	V1	201	24	41,50,50	1.46	6 (14%)	45,82,82	2.16	12 (26%)
36	CLA	b1	609	7	65,73,73	1.44	8 (12%)	76,113,113	1.98	11 (14%)
39	LMG	AD	408	-	36,36,55	1.09	2 (5%)	44,44,63	1.10	5 (11%)
38	SQD	DD	414	9	33,34,54	1.48	4 (12%)	42,45,65	1.51	6 (14%)
33	CYC	zB	201	2,4	42,46,46	3.09	14 (33%)	50,67,67	3.25	26 (52%)
36	CLA	C1	507	-	55,63,73	1.59	9 (16%)	64,101,113	1.73	11 (17%)
33	CYC	f7	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.59	25 (50%)
33	CYC	wB	201	3	42,46,46	3.08	12 (28%)	50,67,67	2.79	18 (36%)
33	CYC	k2	201	-	42,46,46	3.02	14 (33%)	50,67,67	3.88	23 (46%)
33	CYC	eJ	202	-	42,46,46	1.09	1 (2%)	50,67,67	0.95	2 (4%)
39	LMG	dD	411	9	51,51,55	0.95	2 (3%)	59,59,63	1.27	5 (8%)
40	LMT	B1	620	-	24,24,36	1.12	2 (8%)	29,29,47	1.14	3 (10%)
43	BCR	kD	102	-	41,41,41	0.72	0	56,56,56	1.89	13 (23%)
47	HEM	ED	101	-	41,50,50	1.50	6 (14%)	45,82,82	1.90	13 (28%)
36	CLA	CE	506	8	65,73,73	1.45	10 (15%)	76,113,113	1.85	14 (18%)
33	CYC	e8	201	32	42,46,46	3.06	13 (30%)	50,67,67	3.89	23 (46%)
36	CLA	b1	607	-	65,73,73	1.43	10 (15%)	76,113,113	1.71	11 (14%)
33	CYC	rB	201	2,4	42,46,46	3.09	12 (28%)	50,67,67	3.03	24 (48%)
33	CYC	Q4	201	4,3	42,46,46	3.19	17 (40%)	50,67,67	3.12	20 (40%)
33	CYC	2G	101	4,5	42,46,46	3.05	15 (35%)	50,67,67	3.06	25 (50%)
36	CLA	AD	404	-	46,54,73	12.09	10 (21%)	53,90,113	2.33	13 (24%)
36	CLA	HE	102	12	60,68,73	1.51	10 (16%)	70,107,113	1.49	10 (14%)
33	CYC	c3	201	-	42,46,46	3.00	13 (30%)	50,67,67	3.86	23 (46%)
36	CLA	cE	513	-	50,58,73	1.63	10 (20%)	58,95,113	1.59	8 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
40	LMT	a1	401	-	36,36,36	1.28	5 (13%)	47,47,47	1.15	1 (2%)
40	LMT	dD	412	-	25,25,36	1.10	2 (8%)	30,30,47	1.06	2 (6%)
33	CYC	HG	201	4,2	42,46,46	3.13	10 (23%)	50,67,67	4.02	25 (50%)
33	CYC	d3	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.56	25 (50%)
33	CYC	3F	101	4,5	42,46,46	3.27	13 (30%)	50,67,67	3.07	21 (42%)
33	CYC	7L	201	4,5	42,46,46	3.68	15 (35%)	50,67,67	3.18	23 (46%)
33	CYC	m5	201	-	42,46,46	1.07	1 (2%)	50,67,67	0.94	2 (4%)
39	LMG	mD	101	-	36,36,55	1.12	2 (5%)	44,44,63	1.11	3 (6%)
47	HEM	VD	201	24	41,50,50	1.46	6 (14%)	45,82,82	2.16	12 (26%)
36	CLA	CD	508	43,8	65,73,73	1.49	9 (13%)	76,113,113	1.73	15 (19%)
40	LMT	D1	403	-	24,24,36	1.16	3 (12%)	29,29,47	1.00	0
36	CLA	bD	613	-	65,73,73	1.48	11 (16%)	76,113,113	1.44	9 (11%)
43	BCR	BD	615	36,7	41,41,41	0.82	1 (2%)	56,56,56	2.51	22 (39%)
33	CYC	c9	202	32	42,46,46	1.13	1 (2%)	50,67,67	0.96	2 (4%)
43	BCR	dD	407	-	41,41,41	0.70	0	56,56,56	1.82	13 (23%)
33	CYC	B2	301	32	42,46,46	3.02	13 (30%)	50,67,67	3.88	24 (48%)
36	CLA	b1	608	-	60,68,73	1.50	9 (15%)	70,107,113	1.68	12 (17%)
39	LMG	C1	502	-	51,51,55	0.93	2 (3%)	59,59,63	1.04	5 (8%)
33	CYC	XK	201	3	42,46,46	3.17	13 (30%)	50,67,67	3.03	22 (44%)
39	LMG	CE	502	-	51,51,55	0.93	2 (3%)	59,59,63	1.04	5 (8%)
33	CYC	hK	201	4	42,46,46	3.42	13 (30%)	50,67,67	3.19	21 (42%)
39	LMG	d1	411	9	51,51,55	0.95	2 (3%)	59,59,63	1.27	5 (8%)
33	CYC	C4	1001	4,2	42,46,46	3.48	16 (38%)	50,67,67	5.71	21 (42%)
36	CLA	B1	610	-	65,73,73	1.50	12 (18%)	76,113,113	1.61	11 (14%)
36	CLA	c1	504	-	65,73,73	1.48	9 (13%)	76,113,113	1.52	13 (17%)
36	CLA	bD	611	-	65,73,73	1.50	12 (18%)	76,113,113	1.62	11 (14%)
33	CYC	lJ	201	-	42,46,46	3.06	12 (28%)	50,67,67	3.59	25 (50%)
33	CYC	CB	1002	2,4	42,46,46	3.02	12 (28%)	50,67,67	3.03	22 (44%)
33	CYC	TL	201	3	42,46,46	3.15	14 (33%)	50,67,67	3.00	20 (40%)
33	CYC	NF	101	4,5	42,46,46	3.08	14 (33%)	50,67,67	3.04	22 (44%)
33	CYC	mC	201	-	42,46,46	1.08	1 (2%)	50,67,67	0.95	2 (4%)
33	CYC	lC	201	-	42,46,46	3.06	12 (28%)	50,67,67	3.58	25 (50%)
36	CLA	iE	101	-	55,63,73	1.58	10 (18%)	64,101,113	1.72	10 (15%)
39	LMG	M1	101	-	36,36,55	1.11	2 (5%)	44,44,63	1.11	3 (6%)
38	SQD	B1	622	-	37,38,54	1.43	4 (10%)	46,49,65	4.33	9 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
36	CLA	dD	403	-	65,73,73	1.40	7 (10%)	76,113,113	1.57	7 (9%)
43	BCR	C1	516	36,8	41,41,41	0.76	0	56,56,56	2.23	18 (32%)
47	HEM	EE	101	-	41,50,50	1.49	6 (14%)	45,82,82	1.89	12 (26%)
43	BCR	iE	102	-	41,41,41	0.78	1 (2%)	56,56,56	2.55	19 (33%)
47	HEM	v1	201	24	41,50,50	1.46	6 (14%)	45,82,82	2.15	12 (26%)
36	CLA	C1	509	8	65,73,73	1.38	11 (16%)	76,113,113	1.45	11 (14%)
36	CLA	b1	612	7	65,73,73	1.41	6 (9%)	76,113,113	1.85	14 (18%)
40	LMT	B1	623	7	24,24,36	1.20	4 (16%)	29,29,47	1.14	1 (3%)
33	CYC	k9	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.87	23 (46%)
33	CYC	3K	102	4,5	42,46,46	3.66	14 (33%)	50,67,67	3.45	20 (40%)
36	CLA	CE	512	-	65,73,73	1.44	8 (12%)	76,113,113	1.48	13 (17%)
33	CYC	e5	201	32	42,46,46	3.05	13 (30%)	50,67,67	3.88	23 (46%)
33	CYC	eF	201	4	42,46,46	3.12	15 (35%)	50,67,67	3.18	20 (40%)
43	BCR	bD	617	7	41,41,41	0.70	0	56,56,56	1.87	14 (25%)
42	LHG	d1	409	-	48,48,48	0.92	2 (4%)	51,54,54	1.03	2 (3%)
33	CYC	bH	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)
40	LMT	dE	413	-	22,22,36	1.16	2 (9%)	27,27,47	1.01	1 (3%)
33	CYC	B6	301	32	42,46,46	3.03	13 (30%)	50,67,67	3.88	24 (48%)
33	CYC	kI	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.87	23 (46%)
33	CYC	b8	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	k7	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.87	23 (46%)
33	CYC	f9	201	31	42,46,46	3.06	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	JF	201	3	42,46,46	3.51	13 (30%)	50,67,67	2.91	16 (32%)
33	CYC	R4	201	4,5	42,46,46	3.24	14 (33%)	50,67,67	3.09	23 (46%)
33	CYC	7G	201	4,5	42,46,46	3.68	15 (35%)	50,67,67	3.19	23 (46%)
36	CLA	aD	406	6	60,68,73	1.42	7 (11%)	70,107,113	1.71	12 (17%)
36	CLA	aD	404	-	46,54,73	12.11	10 (21%)	53,90,113	1.81	8 (15%)
43	BCR	B1	616	7	41,41,41	0.70	0	56,56,56	1.88	14 (25%)
33	CYC	e6	202	-	42,46,46	1.09	1 (2%)	50,67,67	0.95	2 (4%)
33	CYC	dI	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
33	CYC	jI	202	-	42,46,46	1.06	1 (2%)	50,67,67	0.98	2 (4%)
33	CYC	VG	201	30	42,46,46	3.05	12 (28%)	50,67,67	3.35	24 (48%)
42	LHG	D1	409	-	48,48,48	0.91	2 (4%)	51,54,54	1.03	3 (5%)
43	BCR	ZE	102	-	41,41,41	0.72	0	56,56,56	1.90	13 (23%)
33	CYC	bI	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.57	25 (50%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
36	CLA	D1	404	-	65,73,73	1.48	11 (16%)	76,113,113	1.56	8 (10%)
36	CLA	CD	511	8	65,73,73	1.39	9 (13%)	76,113,113	1.40	13 (17%)
36	CLA	bE	606	7	65,73,73	1.45	10 (15%)	76,113,113	1.55	11 (14%)
36	CLA	c1	514	-	65,73,73	1.43	8 (12%)	76,113,113	1.50	9 (11%)
36	CLA	dE	405	-	65,73,73	1.48	11 (16%)	76,113,113	1.57	8 (10%)
33	CYC	YK	201	4	42,46,46	3.42	13 (30%)	50,67,67	3.20	21 (42%)
33	CYC	h6	201	-	42,46,46	3.07	13 (30%)	50,67,67	3.58	25 (50%)
33	CYC	h7	201	-	42,46,46	3.06	13 (30%)	50,67,67	3.57	25 (50%)
44	DGD	cE	517	-	63,63,67	0.85	2 (3%)	77,77,81	1.00	3 (3%)
36	CLA	cD	511	-	65,73,73	1.46	8 (12%)	76,113,113	1.52	8 (10%)
33	CYC	cA	201	-	42,46,46	3.01	13 (30%)	50,67,67	3.86	23 (46%)
39	LMG	T1	101	-	36,36,55	1.15	2 (5%)	44,44,63	0.99	3 (6%)
36	CLA	BE	611	7	65,73,73	1.41	6 (9%)	76,113,113	1.85	13 (17%)
40	LMT	dE	412	-	25,25,36	1.11	2 (8%)	30,30,47	1.06	2 (6%)
36	CLA	CD	512	-	65,73,73	1.44	8 (12%)	76,113,113	1.47	13 (17%)
38	SQD	cE	502	8	53,54,54	1.18	4 (7%)	62,65,65	1.15	5 (8%)
33	CYC	Z4	201	3	42,46,46	3.15	13 (30%)	50,67,67	2.89	17 (34%)
33	CYC	kK	201	3	42,46,46	3.15	12 (28%)	50,67,67	2.97	19 (38%)
43	BCR	zD	101	27	41,41,41	0.72	0	56,56,56	2.17	23 (41%)
40	LMT	bD	602	-	24,24,36	1.16	2 (8%)	29,29,47	1.02	0
33	CYC	mF	201	30	42,46,46	3.05	12 (28%)	50,67,67	3.33	24 (48%)
33	CYC	jH	202	-	42,46,46	1.06	1 (2%)	50,67,67	0.98	2 (4%)
36	CLA	C1	510	8	65,73,73	1.44	9 (13%)	76,113,113	2.35	17 (22%)
33	CYC	ZF	201	3	42,46,46	3.14	14 (33%)	50,67,67	3.00	24 (48%)
39	LMG	BD	618	7	51,51,55	0.92	2 (3%)	59,59,63	1.17	3 (5%)
42	LHG	D1	408	-	48,48,48	0.92	2 (4%)	51,54,54	1.03	2 (3%)
42	LHG	dD	410	-	48,48,48	0.91	2 (4%)	51,54,54	1.03	3 (5%)
33	CYC	NG	201	3	42,46,46	2.96	11 (26%)	50,67,67	3.11	19 (38%)
36	CLA	CE	511	8	65,73,73	1.39	9 (13%)	76,113,113	1.40	13 (17%)
41	BCT	aD	410	46	2,3,3	1.15	0	2,3,3	4.48	2 (100%)
43	BCR	dE	407	-	41,41,41	0.70	0	56,56,56	1.82	13 (23%)
33	CYC	2L	101	4,5	42,46,46	3.06	15 (35%)	50,67,67	3.05	25 (50%)
33	CYC	l9	201	-	42,46,46	3.05	13 (30%)	50,67,67	3.58	25 (50%)
37	PL9	aE	408	-	55,55,55	0.66	2 (3%)	68,69,69	1.46	12 (17%)
33	CYC	LL	201	2,4	42,46,46	2.59	13 (30%)	50,67,67	4.56	28 (56%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
36	CLA	c1	513	-	50,58,73	1.63	10 (20%)	58,95,113	1.60	8 (13%)
36	CLA	cD	508	8	65,73,73	1.42	10 (15%)	76,113,113	1.48	11 (14%)
33	CYC	sB	201	3	42,46,46	3.00	13 (30%)	50,67,67	3.19	21 (42%)
33	CYC	c2	201	-	42,46,46	3.02	13 (30%)	50,67,67	3.86	23 (46%)
43	BCR	zE	101	27	41,41,41	0.72	0	56,56,56	2.17	22 (39%)
40	LMT	d1	412	-	25,25,36	1.11	2 (8%)	30,30,47	1.06	2 (6%)

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
33	CYC	aF	201	4	-	9/25/74/74	0/4/4/4
36	CLA	cD	514	-	-	15/37/115/115	-
36	CLA	dE	403	-	1/1/15/20	14/37/115/115	-
36	CLA	B1	603	7	1/1/15/20	16/37/115/115	-
36	CLA	BD	607	7	1/1/15/20	14/37/115/115	-
36	CLA	DD	406	9	1/1/15/20	13/37/115/115	-
33	CYC	c5	202	32	-	12/25/74/74	0/4/4/4
36	CLA	B1	613	43	1/1/15/20	14/37/115/115	-
33	CYC	yB	201	3	-	10/25/74/74	0/4/4/4
33	CYC	i7	201	-	-	12/25/74/74	0/4/4/4
40	LMT	bE	621	-	-	8/15/35/61	0/1/1/2
33	CYC	c3	202	32	-	12/25/74/74	0/4/4/4
47	HEM	E1	101	-	-	8/12/54/54	-
38	SQD	L1	101	-	-	11/38/58/69	0/1/1/1
33	CYC	eH	202	-	-	12/25/74/74	0/4/4/4
40	LMT	bE	601	7	-	9/21/61/61	0/2/2/2
33	CYC	QL	201	29	-	7/25/74/74	0/4/4/4
33	CYC	j2	202	-	-	12/25/74/74	0/4/4/4
44	DGD	HD	103	-	-	13/51/91/95	0/2/2/2
36	CLA	b1	606	7	1/1/15/20	16/37/115/115	-
43	BCR	B1	617	-	-	4/29/63/63	0/2/2/2
40	LMT	BD	623	7	-	8/15/35/61	0/1/1/2
33	CYC	KF	201	4	-	9/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	m2	201	-	-	12/25/74/74	0/4/4/4
43	BCR	ZE	101	27	-	12/29/63/63	0/2/2/2
42	LHG	DE	410	-	-	17/53/53/53	-
36	CLA	CE	513	-	1/1/15/20	14/37/115/115	-
33	CYC	QB	201	4,3	-	6/25/74/74	0/4/4/4
33	CYC	V4	201	3	-	14/25/74/74	0/4/4/4
33	CYC	cJ	202	32	-	12/25/74/74	0/4/4/4
43	BCR	I1	102	13	-	10/29/63/63	0/2/2/2
33	CYC	v4	201	4	-	7/25/74/74	0/4/4/4
36	CLA	c1	505	8	1/1/15/20	16/37/115/115	-
33	CYC	JK	201	3	-	6/25/74/74	0/4/4/4
33	CYC	iC	202	-	-	6/25/74/74	0/4/4/4
45	PHO	aD	412	6	-	21/37/103/103	0/5/6/6
36	CLA	DE	405	-	1/1/15/20	11/37/115/115	-
33	CYC	RB	201	4,5	-	9/25/74/74	0/4/4/4
33	CYC	nK	201	3,4	-	5/25/74/74	0/4/4/4
33	CYC	BC	301	32	-	6/25/74/74	0/4/4/4
33	CYC	bC	201	-	-	12/25/74/74	0/4/4/4
36	CLA	c1	510	8	1/1/15/20	21/37/115/115	-
33	CYC	l6	201	-	-	12/25/74/74	0/4/4/4
38	SQD	dD	414	9	-	10/29/49/69	0/1/1/1
33	CYC	bF	201	3	-	8/25/74/74	0/4/4/4
43	BCR	c1	515	36,8	-	12/29/63/63	0/2/2/2
33	CYC	g2	201	32	-	12/25/74/74	0/4/4/4
40	LMT	BD	619	-	-	6/15/35/61	0/1/1/2
36	CLA	aE	405	-	1/1/15/20	14/37/115/115	-
39	LMG	B1	618	7	-	7/46/66/70	0/1/1/1
43	BCR	bD	616	36,7	-	7/29/63/63	0/2/2/2
36	CLA	c1	512	-	1/1/15/20	15/37/115/115	-
36	CLA	BD	613	43	1/1/15/20	14/37/115/115	-
33	CYC	l3	201	-	-	12/25/74/74	0/4/4/4
43	BCR	BD	616	7	-	2/29/63/63	0/2/2/2
43	BCR	BE	615	36,7	-	7/29/63/63	0/2/2/2
33	CYC	i8	202	-	-	6/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	e2	201	32	-	6/25/74/74	0/4/4/4
33	CYC	gK	201	29	-	7/25/74/74	0/4/4/4
36	CLA	CD	504	-	1/1/15/20	8/37/115/115	-
36	CLA	CD	514	-	1/1/12/20	5/19/97/115	-
33	CYC	b9	201	-	-	12/25/74/74	0/4/4/4
33	CYC	iA	202	-	-	6/25/74/74	0/4/4/4
36	CLA	CD	506	8	1/1/15/20	17/37/115/115	-
33	CYC	m7	201	-	-	12/25/74/74	0/4/4/4
43	BCR	d1	407	-	-	7/29/63/63	0/2/2/2
36	CLA	BE	602	7	1/1/15/20	14/37/115/115	-
36	CLA	cE	514	-	1/1/15/20	15/37/115/115	-
33	CYC	e2	202	-	-	12/25/74/74	0/4/4/4
40	LMT	AD	409	-	-	7/15/35/61	0/1/1/2
33	CYC	OL	201	4	-	5/25/74/74	0/4/4/4
33	CYC	eJ	201	32	-	6/25/74/74	0/4/4/4
37	PL9	A1	406	-	-	14/53/73/73	0/1/1/1
33	CYC	B3	301	32	-	6/25/74/74	0/4/4/4
33	CYC	mH	201	-	-	12/25/74/74	0/4/4/4
33	CYC	b4	101	4,5	-	11/25/74/74	0/4/4/4
33	CYC	c6	202	32	-	12/25/74/74	0/4/4/4
44	DGD	cD	517	-	-	17/51/91/95	0/2/2/2
33	CYC	C4	1003	2	-	6/25/74/74	0/4/4/4
38	SQD	CE	501	8	-	10/49/69/69	0/1/1/1
36	CLA	c1	507	43,8	1/1/15/20	18/37/115/115	-
36	CLA	hE	101	43	1/1/15/20	11/37/115/115	-
33	CYC	eI	201	32	-	6/25/74/74	0/4/4/4
40	LMT	A1	413	-	-	14/21/61/61	0/2/2/2
44	DGD	cD	518	-	-	12/51/91/95	0/2/2/2
45	PHO	aE	412	-	-	13/28/94/103	0/5/6/6
36	CLA	CD	507	-	1/1/13/20	14/25/103/115	-
36	CLA	bD	608	-	1/1/14/20	10/31/109/115	-
33	CYC	VB	201	3	-	14/25/74/74	0/4/4/4
44	DGD	HE	103	-	-	13/51/91/95	0/2/2/2
36	CLA	BE	603	7	1/1/15/20	16/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
43	BCR	CD	516	36,8	-	10/29/63/63	0/2/2/2
36	CLA	CE	509	8	1/1/15/20	13/37/115/115	-
39	LMG	jE	102	39,14	-	13/22/42/70	0/1/1/1
40	LMT	DD	404	-	-	8/15/35/61	0/1/1/2
33	CYC	j6	201	-	-	12/25/74/74	0/4/4/4
37	PL9	DE	408	9	-	8/53/73/73	0/1/1/1
40	LMT	AD	412	-	-	14/21/61/61	0/2/2/2
33	CYC	h8	201	-	-	12/25/74/74	0/4/4/4
33	CYC	jK	201	4	-	6/25/74/74	0/4/4/4
44	DGD	hD	104	-	-	13/51/91/95	0/2/2/2
36	CLA	bE	610	-	1/1/15/20	15/37/115/115	-
36	CLA	bD	606	7	1/1/15/20	16/37/115/115	-
33	CYC	gH	202	32	-	6/25/74/74	0/4/4/4
43	BCR	BD	617	-	-	4/29/63/63	0/2/2/2
33	CYC	eA	201	32	-	6/25/74/74	0/4/4/4
39	LMG	CD	502	-	-	13/46/66/70	0/1/1/1
40	LMT	CD	522	-	-	8/15/35/61	0/1/1/2
36	CLA	cE	512	-	1/1/15/20	15/37/115/115	-
33	CYC	b7	201	-	-	12/25/74/74	0/4/4/4
44	DGD	H1	103	-	-	13/51/91/95	0/2/2/2
33	CYC	aK	201	4	-	9/25/74/74	0/4/4/4
44	DGD	CE	517	8	-	15/36/76/95	0/2/2/2
37	PL9	d1	408	9	-	8/53/73/73	0/1/1/1
33	CYC	k5	201	-	-	6/25/74/74	0/4/4/4
42	LHG	AD	411	6	-	10/42/42/53	-
36	CLA	BD	606	-	1/1/14/20	10/31/109/115	-
33	CYC	k6	201	-	-	6/25/74/74	0/4/4/4
36	CLA	b1	605	7	1/1/15/20	16/37/115/115	-
33	CYC	gJ	202	32	-	6/25/74/74	0/4/4/4
33	CYC	i9	201	-	-	12/25/74/74	0/4/4/4
33	CYC	KK	201	4	-	9/25/74/74	0/4/4/4
36	CLA	BE	612	-	1/1/15/20	15/37/115/115	-
33	CYC	f8	201	31	-	12/25/74/74	0/4/4/4
33	CYC	dK	201	3	-	6/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	LMG	DE	411	9	-	12/46/66/70	0/1/1/1
42	LHG	eD	101	-	-	16/44/44/53	-
44	DGD	JD	101	-	-	10/51/91/95	0/2/2/2
39	LMG	TD	101	-	-	7/31/51/70	0/1/1/1
33	CYC	CB	1001	2,4	-	14/25/74/74	0/4/4/4
36	CLA	bD	603	-	1/1/11/20	7/13/91/115	-
33	CYC	l2	201	-	-	12/25/74/74	0/4/4/4
36	CLA	bE	607	-	-	12/37/115/115	-
38	SQD	cD	502	8	-	17/49/69/69	0/1/1/1
36	CLA	B1	614	7	-	12/37/115/115	-
33	CYC	jA	202	-	-	12/25/74/74	0/4/4/4
38	SQD	h1	103	12	-	17/30/50/69	0/1/1/1
45	PHO	d1	402	9	-	16/37/103/103	0/5/6/6
33	CYC	6L	201	3	-	7/25/74/74	0/4/4/4
36	CLA	b1	604	7	1/1/15/20	14/37/115/115	-
36	CLA	bE	613	-	1/1/15/20	15/37/115/115	-
36	CLA	BE	608	-	1/1/15/20	14/37/115/115	-
33	CYC	i7	202	-	-	6/25/74/74	0/4/4/4
33	CYC	gI	201	32	-	12/25/74/74	0/4/4/4
36	CLA	I1	101	13,6	1/1/14/20	15/31/109/115	-
33	CYC	i5	201	-	-	12/25/74/74	0/4/4/4
45	PHO	DE	401	-	-	21/37/103/103	0/5/6/6
33	CYC	f3	201	31	-	12/25/74/74	0/4/4/4
33	CYC	B7	301	32	-	6/25/74/74	0/4/4/4
33	CYC	3K	101	4,5	-	7/25/74/74	0/4/4/4
43	BCR	DE	407	-	-	7/29/63/63	0/2/2/2
33	CYC	b2	201	-	-	12/25/74/74	0/4/4/4
36	CLA	BE	607	7	1/1/15/20	14/37/115/115	-
33	CYC	jJ	202	-	-	12/25/74/74	0/4/4/4
40	LMT	i1	102	-	-	7/15/35/61	0/1/1/2
33	CYC	g9	201	32	-	12/25/74/74	0/4/4/4
36	CLA	b1	610	-	1/1/15/20	15/37/115/115	-
36	CLA	C1	511	8	1/1/15/20	19/37/115/115	-
33	CYC	j2	201	-	-	12/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	BB	1002	2	-	6/25/74/74	0/4/4/4
38	SQD	dE	414	9	-	10/29/49/69	0/1/1/1
33	CYC	qB	201	3	-	7/25/74/74	0/4/4/4
39	LMG	yD	101	39	-	15/46/66/70	0/1/1/1
33	CYC	OB	201	3	-	7/25/74/74	0/4/4/4
33	CYC	jF	201	4	-	6/25/74/74	0/4/4/4
38	SQD	AD	407	-	-	19/41/61/69	0/1/1/1
39	LMG	J1	102	39,14	-	9/22/42/70	0/1/1/1
43	BCR	b1	618	-	-	4/29/63/63	0/2/2/2
47	HEM	VE	201	24	-	5/12/54/54	-
33	CYC	B4	1004	4,2	-	8/25/74/74	0/4/4/4
36	CLA	CE	504	-	1/1/15/20	8/37/115/115	-
39	LMG	DD	411	9	-	12/46/66/70	0/1/1/1
40	LMT	iD	103	-	-	7/15/35/61	0/1/1/2
33	CYC	bA	201	-	-	12/25/74/74	0/4/4/4
36	CLA	D1	405	9	1/1/15/20	13/37/115/115	-
33	CYC	fI	201	31	-	12/25/74/74	0/4/4/4
39	LMG	TE	101	-	-	7/31/51/70	0/1/1/1
36	CLA	h1	101	43	1/1/15/20	11/37/115/115	-
37	PL9	dE	408	9	-	8/53/73/73	0/1/1/1
40	LMT	j1	101	-	-	11/21/61/61	0/2/2/2
43	BCR	XD	102	25,36	-	7/29/63/63	0/2/2/2
39	LMG	tD	101	22	-	7/31/51/70	0/1/1/1
43	BCR	bE	617	7	-	2/29/63/63	0/2/2/2
36	CLA	C1	504	-	1/1/15/20	8/37/115/115	-
43	BCR	b1	616	36,7	-	7/29/63/63	0/2/2/2
33	CYC	i2	201	-	-	12/25/74/74	0/4/4/4
33	CYC	g3	201	32	-	12/25/74/74	0/4/4/4
38	SQD	hE	103	12	-	17/30/50/69	0/1/1/1
36	CLA	bD	605	7	1/1/15/20	16/37/115/115	-
33	CYC	WG	201	4	-	4/25/74/74	0/4/4/4
45	PHO	DE	403	9	-	18/37/103/103	0/5/6/6
36	CLA	cD	512	-	1/1/15/20	15/37/115/115	-
33	CYC	iA	201	-	-	12/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
40	LMT	D1	411	-	-	10/17/37/61	0/1/1/2
36	CLA	cD	513	-	1/1/12/20	7/19/97/115	-
36	CLA	b1	613	-	1/1/15/20	15/37/115/115	-
33	CYC	kF	201	3	-	8/25/74/74	0/4/4/4
33	CYC	cI	201	-	-	6/25/74/74	0/4/4/4
36	CLA	c1	509	8	-	8/37/115/115	-
39	LMG	bE	619	7	-	7/46/66/70	0/1/1/1
33	CYC	VL	201	30	-	13/25/74/74	0/4/4/4
33	CYC	kC	201	-	-	6/25/74/74	0/4/4/4
43	BCR	DD	407	-	-	7/29/63/63	0/2/2/2
43	BCR	CE	516	36,8	-	10/29/63/63	0/2/2/2
33	CYC	j3	201	-	-	12/25/74/74	0/4/4/4
33	CYC	y4	201	3	-	10/25/74/74	0/4/4/4
33	CYC	e2	202	32	-	12/25/74/74	0/4/4/4
36	CLA	bE	603	-	1/1/11/20	7/13/91/115	-
40	LMT	d1	404	-	-	8/15/35/61	0/1/1/2
33	CYC	BB	1004	2,4	-	8/25/74/74	0/4/4/4
36	CLA	BD	605	-	-	11/37/115/115	-
33	CYC	e3	202	-	-	12/25/74/74	0/4/4/4
33	CYC	ZB	201	3	-	4/25/74/74	0/4/4/4
36	CLA	XD	101	25	1/1/15/20	20/37/115/115	-
36	CLA	h1	102	12	1/1/14/20	10/31/109/115	-
36	CLA	dD	406	9	1/1/15/20	13/37/115/115	-
33	CYC	cH	202	32	-	12/25/74/74	0/4/4/4
33	CYC	j5	202	-	-	12/25/74/74	0/4/4/4
36	CLA	cD	507	43,8	1/1/15/20	18/37/115/115	-
33	CYC	d5	201	-	-	12/25/74/74	0/4/4/4
43	BCR	i1	101	-	-	6/29/63/63	0/2/2/2
36	CLA	AE	404	-	1/1/11/20	6/15/93/115	-
36	CLA	C1	506	8	1/1/15/20	17/37/115/115	-
36	CLA	C1	505	-	1/1/15/20	6/37/115/115	-
33	CYC	YF	201	4	-	6/25/74/74	0/4/4/4
40	LMT	d1	413	-	-	8/13/33/61	0/1/1/2
45	PHO	dD	402	9	-	9/23/89/103	0/5/6/6

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	CLA	cD	509	8	-	8/37/115/115	-
36	CLA	b1	611	-	1/1/15/20	18/37/115/115	-
36	CLA	bE	605	7	1/1/15/20	16/37/115/115	-
33	CYC	g7	201	32	-	12/25/74/74	0/4/4/4
33	CYC	iJ	202	-	-	6/25/74/74	0/4/4/4
33	CYC	s4	201	3	-	9/25/74/74	0/4/4/4
36	CLA	CD	510	8	-	8/37/115/115	-
39	LMG	BE	618	7	-	7/46/66/70	0/1/1/1
36	CLA	C1	503	-	1/1/15/20	15/37/115/115	-
45	PHO	D1	402	9	-	17/37/103/103	0/5/6/6
39	LMG	jD	102	39,14	-	13/22/42/70	0/1/1/1
36	CLA	BE	606	-	1/1/14/20	10/31/109/115	-
36	CLA	c1	506	-	1/1/13/20	10/25/103/115	-
33	CYC	eC	202	-	-	12/25/74/74	0/4/4/4
36	CLA	HD	101	43	1/1/15/20	11/37/115/115	-
33	CYC	eI	202	-	-	12/25/74/74	0/4/4/4
40	LMT	bE	620	-	-	6/15/35/61	0/1/1/2
36	CLA	DE	406	9	1/1/15/20	13/37/115/115	-
33	CYC	i6	201	-	-	12/25/74/74	0/4/4/4
37	PL9	DD	408	9	-	8/53/73/73	0/1/1/1
36	CLA	d1	406	9	1/1/15/20	13/37/115/115	-
33	CYC	OG	201	4	-	6/25/74/74	0/4/4/4
39	LMG	b1	619	7	-	7/46/66/70	0/1/1/1
33	CYC	PG	201	3	-	10/25/74/74	0/4/4/4
33	CYC	fK	201	3	-	9/25/74/74	0/4/4/4
33	CYC	PL	201	3	-	10/25/74/74	0/4/4/4
36	CLA	a1	407	6	1/1/14/20	16/31/109/115	-
33	CYC	BB	1001	2,4	-	11/25/74/74	0/4/4/4
33	CYC	mJ	201	-	-	12/25/74/74	0/4/4/4
33	CYC	l5	201	-	-	12/25/74/74	0/4/4/4
36	CLA	B1	605	-	-	11/37/115/115	-
36	CLA	hD	102	12	1/1/14/20	10/31/109/115	-
42	LHG	B1	621	-	-	20/53/53/53	-
39	LMG	dE	411	9	-	12/46/66/70	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	CLA	C1	515	-	1/1/15/20	16/37/115/115	-
33	CYC	e8	202	-	-	12/25/74/74	0/4/4/4
33	CYC	iH	201	-	-	12/25/74/74	0/4/4/4
36	CLA	CE	515	-	1/1/15/20	16/37/115/115	-
33	CYC	5L	201	4,5	-	11/25/74/74	0/4/4/4
33	CYC	e7	202	-	-	12/25/74/74	0/4/4/4
39	LMG	CD	519	39	-	11/46/66/70	0/1/1/1
33	CYC	e7	201	32	-	6/25/74/74	0/4/4/4
36	CLA	XE	101	25	1/1/15/20	20/37/115/115	-
33	CYC	jA	201	-	-	12/25/74/74	0/4/4/4
33	CYC	h9	201	-	-	12/25/74/74	0/4/4/4
36	CLA	BE	610	-	1/1/15/20	18/37/115/115	-
33	CYC	iJ	201	-	-	12/25/74/74	0/4/4/4
36	CLA	cE	507	43,8	1/1/15/20	18/37/115/115	-
36	CLA	BD	603	7	1/1/15/20	16/37/115/115	-
38	SQD	BD	621	-	-	14/33/53/69	0/1/1/1
36	CLA	a1	405	-	1/1/11/20	5/15/93/115	-
33	CYC	ZK	201	3	-	10/25/74/74	0/4/4/4
33	CYC	kJ	201	-	-	6/25/74/74	0/4/4/4
33	CYC	C4	1002	4,2	-	9/25/74/74	0/4/4/4
33	CYC	LG	201	4,2	-	9/25/74/74	0/4/4/4
33	CYC	f6	201	31	-	12/25/74/74	0/4/4/4
33	CYC	dJ	201	-	-	12/25/74/74	0/4/4/4
37	PL9	AE	406	-	-	14/53/73/73	0/1/1/1
40	LMT	b1	602	-	-	6/15/35/61	0/1/1/2
33	CYC	lH	201	-	-	12/25/74/74	0/4/4/4
40	LMT	cE	501	-	-	8/15/35/61	0/1/1/2
39	LMG	y1	101	39	-	15/46/66/70	0/1/1/1
33	CYC	IL	201	-	-	6/25/74/74	0/4/4/4
33	CYC	II	201	-	-	12/25/74/74	0/4/4/4
36	CLA	B1	608	-	1/1/15/20	14/37/115/115	-
36	CLA	d1	403	-	1/1/15/20	14/37/115/115	-
42	LHG	e1	101	-	-	16/44/44/53	-
33	CYC	T4	201	4	-	13/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	CLA	HD	102	12	1/1/14/20	10/31/109/115	-
40	LMT	BE	622	-	-	8/21/61/61	0/2/2/2
44	DGD	c1	517	-	-	17/51/91/95	0/2/2/2
43	BCR	hE	105	25,36,12	-	7/29/63/63	0/2/2/2
33	CYC	cA	202	32	-	12/25/74/74	0/4/4/4
38	SQD	L1	102	-	-	11/38/58/69	0/1/1/1
43	BCR	CD	520	-	-	2/29/63/63	0/2/2/2
42	LHG	DE	409	-	-	14/53/53/53	-
33	CYC	b3	201	-	-	12/25/74/74	0/4/4/4
33	CYC	j9	201	-	-	12/25/74/74	0/4/4/4
43	BCR	cE	515	36,8	-	12/29/63/63	0/2/2/2
33	CYC	BA	301	32	-	6/25/74/74	0/4/4/4
33	CYC	9K	201	3	-	5/25/74/74	0/4/4/4
36	CLA	c1	503	-	1/1/15/20	9/37/115/115	-
33	CYC	XF	201	3	-	12/25/74/74	0/4/4/4
36	CLA	CD	513	-	1/1/15/20	14/37/115/115	-
38	SQD	C1	501	8	-	10/49/69/69	0/1/1/1
33	CYC	JL	201	4,3	-	8/25/74/74	0/4/4/4
33	CYC	eK	201	4	-	8/25/74/74	0/4/4/4
43	BCR	X1	102	25,36	-	7/29/63/63	0/2/2/2
36	CLA	hD	101	43	1/1/15/20	11/37/115/115	-
33	CYC	cC	201	-	-	6/25/74/74	0/4/4/4
40	LMT	BD	622	-	-	8/21/61/61	0/2/2/2
43	BCR	cD	519	-	-	3/29/63/63	0/2/2/2
33	CYC	m3	201	-	-	12/25/74/74	0/4/4/4
40	LMT	bD	620	-	-	6/15/35/61	0/1/1/2
33	CYC	mK	201	30	-	13/25/74/74	0/4/4/4
36	CLA	bD	614	43	1/1/15/20	14/37/115/115	-
33	CYC	j9	202	-	-	12/25/74/74	0/4/4/4
36	CLA	BD	614	7	-	12/37/115/115	-
33	CYC	fA	201	31	-	12/25/74/74	0/4/4/4
38	SQD	c1	501	8	-	17/49/69/69	0/1/1/1
39	LMG	A1	408	-	-	9/31/51/70	0/1/1/1
36	CLA	bE	609	7	1/1/15/20	14/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
42	LHG	DD	410	-	-	17/53/53/53	-
36	CLA	cE	509	8	-	8/37/115/115	-
40	LMT	A1	409	-	-	7/15/35/61	0/1/1/2
38	SQD	d1	414	9	-	10/29/49/69	0/1/1/1
42	LHG	aD	411	6	-	12/42/42/53	-
38	SQD	CD	501	8	-	10/49/69/69	0/1/1/1
33	CYC	9F	201	3	-	5/25/74/74	0/4/4/4
33	CYC	IG	201	3	-	6/25/74/74	0/4/4/4
33	CYC	cH	201	-	-	6/25/74/74	0/4/4/4
33	CYC	WB	201	4	-	10/25/74/74	0/4/4/4
44	DGD	c1	516	8	-	15/36/76/95	0/2/2/2
38	SQD	LD	102	-	-	11/38/58/69	0/1/1/1
44	DGD	CE	518	-	-	19/51/91/95	0/2/2/2
33	CYC	iI	201	-	-	12/25/74/74	0/4/4/4
40	LMT	bE	602	-	-	6/15/35/61	0/1/1/2
33	CYC	LF	201	4,3	-	6/25/74/74	0/4/4/4
33	CYC	4L	201	3	-	9/25/74/74	0/4/4/4
33	CYC	3F	102	4,5	-	5/25/74/74	0/4/4/4
33	CYC	gF	201	29	-	7/25/74/74	0/4/4/4
44	DGD	JE	101	-	-	10/51/91/95	0/2/2/2
33	CYC	gH	201	32	-	12/25/74/74	0/4/4/4
33	CYC	GL	201	3,4	-	8/25/74/74	0/4/4/4
33	CYC	JG	201	4,3	-	8/25/74/74	0/4/4/4
33	CYC	h5	201	-	-	12/25/74/74	0/4/4/4
39	LMG	CE	519	39	-	11/46/66/70	0/1/1/1
44	DGD	h1	104	-	-	12/51/91/95	0/2/2/2
47	HEM	vD	201	24	-	5/12/54/54	-
33	CYC	O4	201	3	-	7/25/74/74	0/4/4/4
42	LHG	AE	411	6	-	10/42/42/53	-
36	CLA	bD	612	7	1/1/15/20	17/37/115/115	-
36	CLA	BE	605	-	-	11/37/115/115	-
33	CYC	c9	201	-	-	6/25/74/74	0/4/4/4
33	CYC	e5	202	-	-	12/25/74/74	0/4/4/4
47	HEM	fD	101	-	-	8/12/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	BB	1003	2,4	-	7/25/74/74	0/4/4/4
33	CYC	m6	201	-	-	12/25/74/74	0/4/4/4
33	CYC	c5	201	-	-	6/25/74/74	0/4/4/4
33	CYC	kH	201	-	-	6/25/74/74	0/4/4/4
47	HEM	f1	101	-	-	8/12/54/54	-
33	CYC	AG	201	3,4	-	7/25/74/74	0/4/4/4
36	CLA	B1	609	-	1/1/15/20	15/37/115/115	-
40	LMT	b1	601	7	-	9/21/61/61	0/2/2/2
33	CYC	d2	201	-	-	12/25/74/74	0/4/4/4
36	CLA	BD	612	-	1/1/15/20	15/37/115/115	-
42	LHG	lD	101	-	-	20/53/53/53	-
33	CYC	g5	201	32	-	12/25/74/74	0/4/4/4
36	CLA	aD	405	-	1/1/15/20	14/37/115/115	-
43	BCR	C1	520	-	-	2/29/63/63	0/2/2/2
39	LMG	a1	410	-	-	12/31/51/70	0/1/1/1
33	CYC	ML	201	2,4	-	13/25/74/74	0/4/4/4
36	CLA	CD	509	8	1/1/15/20	13/37/115/115	-
33	CYC	m9	201	-	-	12/25/74/74	0/4/4/4
33	CYC	hI	201	-	-	12/25/74/74	0/4/4/4
33	CYC	aB	201	4,5	-	7/25/74/74	0/4/4/4
36	CLA	B1	604	7	1/1/15/20	16/37/115/115	-
36	CLA	B1	601	-	1/1/11/20	7/13/91/115	-
33	CYC	gA	201	32	-	12/25/74/74	0/4/4/4
33	CYC	d7	201	-	-	12/25/74/74	0/4/4/4
42	LHG	BE	620	-	-	20/53/53/53	-
36	CLA	AE	405	-	1/1/15/20	12/37/115/115	-
33	CYC	WL	201	4	-	4/25/74/74	0/4/4/4
33	CYC	r4	201	4,2	-	8/25/74/74	0/4/4/4
33	CYC	jH	201	-	-	12/25/74/74	0/4/4/4
33	CYC	NK	101	4,5	-	8/25/74/74	0/4/4/4
36	CLA	A1	404	-	1/1/11/20	6/15/93/115	-
33	CYC	iI	202	-	-	6/25/74/74	0/4/4/4
44	DGD	cE	516	8	-	15/36/76/95	0/2/2/2
36	CLA	bD	607	-	-	11/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
40	LMT	BE	623	7	-	8/15/35/61	0/1/1/2
39	LMG	JD	102	39,14	-	9/22/42/70	0/1/1/1
33	CYC	g6	201	32	-	12/25/74/74	0/4/4/4
33	CYC	kA	201	-	-	6/25/74/74	0/4/4/4
40	LMT	bD	601	7	-	9/21/61/61	0/2/2/2
43	BCR	ZD	101	27	-	12/29/63/63	0/2/2/2
33	CYC	oB	201	3	-	11/25/74/74	0/4/4/4
33	CYC	w4	201	3	-	10/25/74/74	0/4/4/4
33	CYC	b5	201	-	-	12/25/74/74	0/4/4/4
36	CLA	d1	405	-	1/1/15/20	11/37/115/115	-
40	LMT	DE	412	-	-	10/17/37/61	0/1/1/2
36	CLA	BE	613	43	1/1/15/20	14/37/115/115	-
33	CYC	dC	201	-	-	12/25/74/74	0/4/4/4
36	CLA	bD	604	7	1/1/15/20	14/37/115/115	-
33	CYC	l7	201	-	-	12/25/74/74	0/4/4/4
33	CYC	j3	202	-	-	12/25/74/74	0/4/4/4
33	CYC	cJ	201	-	-	6/25/74/74	0/4/4/4
33	CYC	IF	201	4	-	10/25/74/74	0/4/4/4
33	CYC	c8	201	-	-	6/25/74/74	0/4/4/4
33	CYC	fF	201	3	-	9/25/74/74	0/4/4/4
43	BCR	IE	102	13	-	10/29/63/63	0/2/2/2
36	CLA	B1	611	7	1/1/15/20	17/37/115/115	-
33	CYC	l8	201	-	-	12/25/74/74	0/4/4/4
36	CLA	b1	615	7	-	12/37/115/115	-
36	CLA	DD	405	-	1/1/15/20	11/37/115/115	-
36	CLA	CD	515	-	1/1/15/20	16/37/115/115	-
36	CLA	BD	602	7	1/1/15/20	14/37/115/115	-
33	CYC	k3	201	-	-	6/25/74/74	0/4/4/4
36	CLA	C1	508	43,8	1/1/15/20	13/37/115/115	-
33	CYC	i6	202	-	-	6/25/74/74	0/4/4/4
33	CYC	e6	201	32	-	6/25/74/74	0/4/4/4
33	CYC	X4	201	4,3	-	8/25/74/74	0/4/4/4
33	CYC	c7	201	-	-	6/25/74/74	0/4/4/4
43	BCR	hD	105	25,36,12	-	7/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	CLA	X1	101	25	1/1/15/20	20/37/115/115	-
33	CYC	XB	201	4,3	-	8/25/74/74	0/4/4/4
40	LMT	DD	413	-	-	6/13/33/61	0/1/1/2
40	LMT	iE	103	-	-	7/15/35/61	0/1/1/2
45	PHO	a1	413	-	-	8/23/89/103	0/5/6/6
33	CYC	5G	201	4,5	-	11/25/74/74	0/4/4/4
33	CYC	iC	201	-	-	12/25/74/74	0/4/4/4
33	CYC	d6	201	-	-	12/25/74/74	0/4/4/4
33	CYC	IK	201	4	-	10/25/74/74	0/4/4/4
33	CYC	B4	1003	4,2	-	7/25/74/74	0/4/4/4
42	LHG	aE	411	6	-	12/42/42/53	-
36	CLA	CD	505	-	1/1/15/20	6/37/115/115	-
36	CLA	B1	607	7	1/1/15/20	14/37/115/115	-
43	BCR	cE	519	-	-	3/29/63/63	0/2/2/2
36	CLA	cE	510	8	1/1/15/20	21/37/115/115	-
36	CLA	c1	502	-	1/1/15/20	12/37/115/115	-
39	LMG	tE	101	22	-	7/31/51/70	0/1/1/1
42	LHG	dE	409	-	-	14/53/53/53	-
43	BCR	bE	616	36,7	-	7/29/63/63	0/2/2/2
36	CLA	x1	101	25	1/1/15/20	20/37/115/115	-
36	CLA	B1	612	-	1/1/15/20	15/37/115/115	-
39	LMG	C1	519	39	-	11/46/66/70	0/1/1/1
33	CYC	NL	201	3	-	5/25/74/74	0/4/4/4
43	BCR	ID	102	13	-	10/29/63/63	0/2/2/2
40	LMT	jD	101	-	-	11/21/61/61	0/2/2/2
40	LMT	dE	404	-	-	8/15/35/61	0/1/1/2
39	LMG	JE	102	39,14	-	9/22/42/70	0/1/1/1
39	LMG	mE	101	-	-	9/31/51/70	0/1/1/1
33	CYC	k8	201	-	-	6/25/74/74	0/4/4/4
40	LMT	jE	101	-	-	11/21/61/61	0/2/2/2
36	CLA	BD	609	-	1/1/15/20	15/37/115/115	-
36	CLA	iD	101	-	1/1/13/20	10/25/103/115	-
33	CYC	PB	201	4	-	10/25/74/74	0/4/4/4
36	CLA	CE	510	8	-	8/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
40	LMT	DD	412	-	-	10/17/37/61	0/1/1/2
33	CYC	f5	201	31	-	12/25/74/74	0/4/4/4
36	CLA	bE	612	7	1/1/15/20	17/37/115/115	-
33	CYC	g8	201	32	-	12/25/74/74	0/4/4/4
43	BCR	XE	102	25,36	-	7/29/63/63	0/2/2/2
45	PHO	DD	401	-	-	18/37/103/103	0/5/6/6
36	CLA	BE	601	-	1/1/11/20	7/13/91/115	-
43	BCR	cD	515	36,8	-	12/29/63/63	0/2/2/2
33	CYC	GG	201	3,4	-	8/25/74/74	0/4/4/4
43	BCR	Z1	102	-	-	2/29/63/63	0/2/2/2
39	LMG	aD	409	-	-	12/31/51/70	0/1/1/1
39	LMG	t1	101	22	-	7/31/51/70	0/1/1/1
36	CLA	BD	601	-	1/1/11/20	7/13/91/115	-
36	CLA	b1	614	43	1/1/15/20	14/37/115/115	-
37	PL9	a1	409	-	-	15/53/73/73	0/1/1/1
43	BCR	BE	616	7	-	2/29/63/63	0/2/2/2
36	CLA	cD	504	-	1/1/15/20	9/37/115/115	-
44	DGD	CD	518	-	-	19/51/91/95	0/2/2/2
33	CYC	o4	201	3	-	11/25/74/74	0/4/4/4
33	CYC	j8	202	-	-	12/25/74/74	0/4/4/4
33	CYC	uB	201	3,4	-	10/25/74/74	0/4/4/4
36	CLA	c1	508	8	1/1/15/20	9/37/115/115	-
33	CYC	m8	201	-	-	12/25/74/74	0/4/4/4
42	LHG	eE	101	-	-	16/44/44/53	-
33	CYC	gJ	201	32	-	12/25/74/74	0/4/4/4
38	SQD	AE	407	-	-	19/41/61/69	0/1/1/1
39	LMG	D1	410	9	-	12/46/66/70	0/1/1/1
33	CYC	h2	201	-	-	12/25/74/74	0/4/4/4
39	LMG	MD	101	-	-	9/31/51/70	0/1/1/1
33	CYC	fJ	201	31	-	12/25/74/74	0/4/4/4
36	CLA	xD	101	25	1/1/15/20	20/37/115/115	-
40	LMT	cD	501	-	-	8/15/35/61	0/1/1/2
33	CYC	d9	201	-	-	12/25/74/74	0/4/4/4
33	CYC	CB	1003	2	-	6/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	CLA	cE	504	-	1/1/15/20	9/37/115/115	-
33	CYC	g5	202	32	-	6/25/74/74	0/4/4/4
39	LMG	aE	407	-	-	9/46/66/70	0/1/1/1
43	BCR	iD	102	-	-	6/29/63/63	0/2/2/2
36	CLA	C1	514	-	1/1/12/20	5/19/97/115	-
43	BCR	CD	521	-	-	2/29/63/63	0/2/2/2
36	CLA	cE	506	8	1/1/15/20	16/37/115/115	-
36	CLA	CE	514	-	1/1/12/20	5/19/97/115	-
36	CLA	bE	604	7	1/1/15/20	13/37/115/115	-
36	CLA	B1	602	7	1/1/15/20	14/37/115/115	-
36	CLA	hE	102	12	1/1/14/20	10/31/109/115	-
44	DGD	cD	516	8	-	15/36/76/95	0/2/2/2
36	CLA	CD	503	-	1/1/15/20	15/37/115/115	-
33	CYC	eA	202	-	-	12/25/74/74	0/4/4/4
33	CYC	4G	201	3	-	9/25/74/74	0/4/4/4
33	CYC	B4	1001	4,2	-	11/25/74/74	0/4/4/4
33	CYC	AL	201	3,4	-	7/25/74/74	0/4/4/4
43	BCR	bD	618	-	-	4/29/63/63	0/2/2/2
33	CYC	vB	201	4	-	7/25/74/74	0/4/4/4
44	DGD	CD	517	8	-	15/36/76/95	0/2/2/2
36	CLA	ID	101	13,6	1/1/14/20	15/31/109/115	-
33	CYC	jC	201	-	-	12/25/74/74	0/4/4/4
33	CYC	bK	201	3	-	8/25/74/74	0/4/4/4
43	BCR	k1	102	-	-	2/29/63/63	0/2/2/2
36	CLA	bE	614	43	1/1/15/20	14/37/115/115	-
33	CYC	j6	202	-	-	12/25/74/74	0/4/4/4
33	CYC	bJ	201	-	-	12/25/74/74	0/4/4/4
33	CYC	fH	201	31	-	12/25/74/74	0/4/4/4
36	CLA	C1	513	-	1/1/15/20	14/37/115/115	-
43	BCR	Z1	101	27	-	12/29/63/63	0/2/2/2
33	CYC	RG	201	3,4	-	8/25/74/74	0/4/4/4
33	CYC	eH	201	32	-	6/25/74/74	0/4/4/4
39	LMG	aD	407	-	-	9/46/66/70	0/1/1/1
43	BCR	BE	617	-	-	4/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	CLA	CE	505	-	1/1/15/20	6/37/115/115	-
33	CYC	S4	201	3,4	-	11/25/74/74	0/4/4/4
33	CYC	i3	201	-	-	12/25/74/74	0/4/4/4
36	CLA	CE	508	43,8	1/1/15/20	13/37/115/115	-
36	CLA	bE	611	-	1/1/15/20	18/37/115/115	-
42	LHG	a1	412	6	-	12/42/42/53	-
36	CLA	cD	506	8	1/1/15/20	16/37/115/115	-
37	PL9	D1	407	9	-	8/53/73/73	0/1/1/1
44	DGD	J1	101	-	-	10/51/91/95	0/2/2/2
33	CYC	cC	202	32	-	12/25/74/74	0/4/4/4
33	CYC	c6	201	-	-	6/25/74/74	0/4/4/4
42	LHG	BD	620	-	-	20/53/53/53	-
36	CLA	aE	406	6	1/1/14/20	16/31/109/115	-
33	CYC	j8	201	-	-	12/25/74/74	0/4/4/4
39	LMG	a1	408	-	-	9/46/66/70	0/1/1/1
33	CYC	g8	202	32	-	6/25/74/74	0/4/4/4
33	CYC	dA	201	-	-	12/25/74/74	0/4/4/4
33	CYC	bB	101	4,5	-	11/25/74/74	0/4/4/4
39	LMG	m1	101	-	-	9/31/51/70	0/1/1/1
33	CYC	RL	201	3,4	-	8/25/74/74	0/4/4/4
43	BCR	h1	105	25,36,12	-	7/29/63/63	0/2/2/2
38	SQD	D1	413	9	-	10/29/49/69	0/1/1/1
33	CYC	iH	202	-	-	6/25/74/74	0/4/4/4
33	CYC	jI	201	-	-	12/25/74/74	0/4/4/4
33	CYC	1L	201	4	-	11/25/74/74	0/4/4/4
33	CYC	TG	201	3	-	9/25/74/74	0/4/4/4
33	CYC	hJ	201	-	-	12/25/74/74	0/4/4/4
38	SQD	LE	102	-	-	11/38/58/69	0/1/1/1
36	CLA	BD	608	-	1/1/15/20	14/37/115/115	-
36	CLA	cE	505	-	1/1/15/20	6/37/115/115	-
33	CYC	QG	201	29	-	7/25/74/74	0/4/4/4
43	BCR	c1	519	-	-	3/29/63/63	0/2/2/2
40	LMT	B1	619	-	-	6/15/35/61	0/1/1/2
33	CYC	TB	201	4	-	13/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	b6	201	-	-	12/25/74/74	0/4/4/4
36	CLA	a1	406	-	1/1/15/20	14/37/115/115	-
42	LHG	l1	101	-	-	20/53/53/53	-
42	LHG	d1	410	-	-	17/53/53/53	-
36	CLA	H1	102	12	1/1/14/20	10/31/109/115	-
36	CLA	A1	405	-	1/1/15/20	12/37/115/115	-
36	CLA	bD	609	7	1/1/15/20	14/37/115/115	-
44	DGD	C1	517	8	-	15/36/76/95	0/2/2/2
43	BCR	b1	617	7	-	2/29/63/63	0/2/2/2
33	CYC	j7	202	-	-	12/25/74/74	0/4/4/4
38	SQD	hD	103	12	-	17/30/50/69	0/1/1/1
40	LMT	AE	412	-	-	14/21/61/61	0/2/2/2
33	CYC	jJ	201	-	-	12/25/74/74	0/4/4/4
36	CLA	cE	503	-	1/1/15/20	12/37/115/115	-
33	CYC	lA	201	-	-	12/25/74/74	0/4/4/4
33	CYC	mA	201	-	-	12/25/74/74	0/4/4/4
40	LMT	DE	404	-	-	8/15/35/61	0/1/1/2
33	CYC	gC	201	32	-	12/25/74/74	0/4/4/4
33	CYC	W4	201	4	-	10/25/74/74	0/4/4/4
36	CLA	CE	507	-	1/1/13/20	14/25/103/115	-
33	CYC	i5	202	-	-	6/25/74/74	0/4/4/4
36	CLA	bE	615	7	-	12/37/115/115	-
36	CLA	C1	512	-	1/1/15/20	15/37/115/115	-
33	CYC	HL	201	2,4	-	7/25/74/74	0/4/4/4
33	CYC	i2	202	-	-	6/25/74/74	0/4/4/4
40	LMT	C1	521	8	-	8/15/35/61	0/1/1/2
40	LMT	dD	404	-	-	8/15/35/61	0/1/1/2
33	CYC	hC	201	-	-	12/25/74/74	0/4/4/4
33	CYC	f2	201	31	-	12/25/74/74	0/4/4/4
37	PL9	aD	408	-	-	15/53/73/73	0/1/1/1
42	LHG	lE	101	-	-	20/53/53/53	-
42	LHG	A1	411	6	-	10/42/42/53	-
36	CLA	IE	101	13,6	1/1/14/20	15/31/109/115	-
33	CYC	lG	201	4	-	11/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	j5	201	-	-	12/25/74/74	0/4/4/4
36	CLA	BE	614	7	-	12/37/115/115	-
43	BCR	bE	618	-	-	4/29/63/63	0/2/2/2
33	CYC	hA	201	-	-	12/25/74/74	0/4/4/4
45	PHO	DD	403	9	-	13/29/95/103	0/5/6/6
42	LHG	dD	409	-	-	14/53/53/53	-
36	CLA	BD	604	7	1/1/15/20	16/37/115/115	-
43	BCR	kE	102	-	-	2/29/63/63	0/2/2/2
38	SQD	BE	621	-	-	14/33/53/69	0/1/1/1
33	CYC	6G	201	3	-	7/25/74/74	0/4/4/4
39	LMG	AE	408	-	-	9/31/51/70	0/1/1/1
36	CLA	B1	606	-	1/1/14/20	10/31/109/115	-
33	CYC	hH	201	-	-	12/25/74/74	0/4/4/4
36	CLA	cD	505	-	1/1/15/20	6/37/115/115	-
40	LMT	b1	620	-	-	6/15/35/61	0/1/1/2
33	CYC	d8	201	-	-	12/25/74/74	0/4/4/4
33	CYC	e9	201	32	-	6/25/74/74	0/4/4/4
39	LMG	yE	101	39	-	15/46/66/70	0/1/1/1
38	SQD	DE	414	9	-	10/29/49/69	0/1/1/1
38	SQD	LD	101	-	-	11/38/58/69	0/1/1/1
44	DGD	C1	518	-	-	19/51/91/95	0/2/2/2
39	LMG	bD	619	7	-	7/46/66/70	0/1/1/1
36	CLA	cD	510	8	1/1/15/20	21/37/115/115	-
33	CYC	BI	301	32	-	6/25/74/74	0/4/4/4
43	BCR	D1	406	-	-	7/29/63/63	0/2/2/2
44	DGD	hE	104	-	-	13/51/91/95	0/2/2/2
39	LMG	ME	101	-	-	9/31/51/70	0/1/1/1
33	CYC	MG	201	4,2	-	13/25/74/74	0/4/4/4
36	CLA	cD	503	-	1/1/15/20	12/37/115/115	-
36	CLA	bE	608	-	1/1/14/20	10/31/109/115	-
33	CYC	B4	1002	2	-	6/25/74/74	0/4/4/4
38	SQD	LE	101	-	-	11/38/58/69	0/1/1/1
33	CYC	z4	201	4,2	-	7/25/74/74	0/4/4/4
33	CYC	i3	202	-	-	6/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	nF	201	3,4	-	5/25/74/74	0/4/4/4
33	CYC	i9	202	-	-	6/25/74/74	0/4/4/4
33	CYC	q4	201	3	-	7/25/74/74	0/4/4/4
36	CLA	BE	609	-	1/1/15/20	15/37/115/115	-
33	CYC	fC	201	31	-	12/25/74/74	0/4/4/4
33	CYC	cF	201	4	-	4/25/74/74	0/4/4/4
33	CYC	h3	201	-	-	12/25/74/74	0/4/4/4
36	CLA	H1	101	43	1/1/15/20	11/37/115/115	-
40	LMT	D1	412	-	-	6/13/33/61	0/1/1/2
36	CLA	cE	511	-	1/1/15/20	15/37/115/115	-
36	CLA	CE	503	-	1/1/15/20	15/37/115/115	-
36	CLA	HE	101	43	1/1/15/20	11/37/115/115	-
33	CYC	dH	201	-	-	12/25/74/74	0/4/4/4
36	CLA	BD	611	7	1/1/15/20	17/37/115/115	-
36	CLA	BE	604	7	1/1/15/20	16/37/115/115	-
36	CLA	dE	406	9	1/1/15/20	13/37/115/115	-
33	CYC	a4	201	4,5	-	8/25/74/74	0/4/4/4
36	CLA	c1	511	-	1/1/15/20	15/37/115/115	-
42	LHG	DD	409	-	-	13/53/53/53	-
33	CYC	e3	201	32	-	6/25/74/74	0/4/4/4
47	HEM	vE	201	24	-	5/12/54/54	-
33	CYC	j7	201	-	-	12/25/74/74	0/4/4/4
33	CYC	cK	201	4	-	4/25/74/74	0/4/4/4
36	CLA	AD	405	-	1/1/15/20	12/37/115/115	-
36	CLA	aE	404	-	1/1/11/20	5/15/93/115	-
37	PL9	AD	406	-	-	14/53/73/73	0/1/1/1
37	PL9	dD	408	9	-	8/53/73/73	0/1/1/1
33	CYC	i8	201	-	-	12/25/74/74	0/4/4/4
33	CYC	cI	202	32	-	12/25/74/74	0/4/4/4
36	CLA	bD	610	-	1/1/15/20	15/37/115/115	-
33	CYC	SB	201	4,3	-	11/25/74/74	0/4/4/4
42	LHG	dE	410	-	-	17/53/53/53	-
36	CLA	xE	101	25	1/1/15/20	20/37/115/115	-
45	PHO	dE	402	9	-	13/28/94/103	0/5/6/6

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	c8	202	32	-	12/25/74/74	0/4/4/4
43	BCR	CE	520	-	-	2/29/63/63	0/2/2/2
39	LMG	aE	409	-	-	12/31/51/70	0/1/1/1
39	LMG	j1	102	39,14	-	13/22/42/70	0/1/1/1
36	CLA	cE	508	8	1/1/15/20	9/37/115/115	-
33	CYC	B9	301	32	-	6/25/74/74	0/4/4/4
38	SQD	A1	407	-	-	19/41/61/69	0/1/1/1
33	CYC	eC	201	32	-	6/25/74/74	0/4/4/4
33	CYC	P4	201	4	-	10/25/74/74	0/4/4/4
33	CYC	mI	201	-	-	12/25/74/74	0/4/4/4
44	DGD	c1	518	-	-	12/51/91/95	0/2/2/2
44	DGD	cE	518	-	-	13/51/91/95	0/2/2/2
33	CYC	LK	201	4,3	-	6/25/74/74	0/4/4/4
36	CLA	dD	405	-	1/1/15/20	11/37/115/115	-
45	PHO	A1	412	6	-	21/37/103/103	0/5/6/6
40	LMT	DE	413	-	-	6/13/33/61	0/1/1/2
33	CYC	jC	202	-	-	12/25/74/74	0/4/4/4
33	CYC	u4	201	3,4	-	10/25/74/74	0/4/4/4
33	CYC	c7	202	32	-	12/25/74/74	0/4/4/4
33	CYC	e9	202	-	-	12/25/74/74	0/4/4/4
36	CLA	bD	615	7	-	12/37/115/115	-
40	LMT	BE	619	-	-	6/15/35/61	0/1/1/2
36	CLA	b1	603	-	1/1/11/20	7/13/91/115	-
36	CLA	BD	610	-	1/1/15/20	18/37/115/115	-
33	CYC	hF	201	4	-	6/25/74/74	0/4/4/4
47	HEM	fE	101	-	-	8/12/54/54	-
33	CYC	dF	201	3	-	6/25/74/74	0/4/4/4
43	BCR	B1	615	36,7	-	7/29/63/63	0/2/2/2
40	LMT	AE	409	-	-	7/15/35/61	0/1/1/2
40	LMT	dD	413	-	-	8/13/33/61	0/1/1/2
43	BCR	z1	101	27	-	12/29/63/63	0/2/2/2
47	HEM	V1	201	24	-	5/12/54/54	-
36	CLA	b1	609	7	1/1/15/20	14/37/115/115	-
39	LMG	AD	408	-	-	9/31/51/70	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
38	SQD	DD	414	9	-	10/29/49/69	0/1/1/1
33	CYC	zB	201	2,4	-	7/25/74/74	0/4/4/4
36	CLA	C1	507	-	1/1/13/20	14/25/103/115	-
33	CYC	f7	201	31	-	12/25/74/74	0/4/4/4
33	CYC	wB	201	3	-	10/25/74/74	0/4/4/4
33	CYC	k2	201	-	-	6/25/74/74	0/4/4/4
33	CYC	eJ	202	-	-	12/25/74/74	0/4/4/4
39	LMG	dD	411	9	-	12/46/66/70	0/1/1/1
40	LMT	B1	620	-	-	8/15/35/61	0/1/1/2
43	BCR	kD	102	-	-	2/29/63/63	0/2/2/2
47	HEM	ED	101	-	-	8/12/54/54	-
36	CLA	CE	506	8	1/1/15/20	17/37/115/115	-
33	CYC	e8	201	32	-	6/25/74/74	0/4/4/4
36	CLA	b1	607	-	-	11/37/115/115	-
33	CYC	rB	201	2,4	-	8/25/74/74	0/4/4/4
33	CYC	Q4	201	4,3	-	6/25/74/74	0/4/4/4
33	CYC	2G	101	4,5	-	8/25/74/74	0/4/4/4
36	CLA	AD	404	-	1/1/11/20	6/15/93/115	-
36	CLA	HE	102	12	1/1/14/20	10/31/109/115	-
33	CYC	c3	201	-	-	6/25/74/74	0/4/4/4
36	CLA	cE	513	-	1/1/12/20	7/19/97/115	-
40	LMT	a1	401	-	-	8/21/61/61	0/2/2/2
40	LMT	dD	412	-	-	10/17/37/61	0/1/1/2
33	CYC	HG	201	4,2	-	7/25/74/74	0/4/4/4
33	CYC	d3	201	-	-	12/25/74/74	0/4/4/4
33	CYC	3F	101	4,5	-	7/25/74/74	0/4/4/4
33	CYC	7L	201	4,5	-	12/25/74/74	0/4/4/4
33	CYC	m5	201	-	-	12/25/74/74	0/4/4/4
39	LMG	mD	101	-	-	9/31/51/70	0/1/1/1
47	HEM	VD	201	24	-	5/12/54/54	-
36	CLA	CD	508	43,8	1/1/15/20	13/37/115/115	-
40	LMT	D1	403	-	-	8/15/35/61	0/1/1/2
36	CLA	bD	613	-	1/1/15/20	15/37/115/115	-
43	BCR	BD	615	36,7	-	7/29/63/63	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	c9	202	32	-	12/25/74/74	0/4/4/4
43	BCR	dD	407	-	-	7/29/63/63	0/2/2/2
33	CYC	B2	301	32	-	6/25/74/74	0/4/4/4
36	CLA	b1	608	-	1/1/14/20	10/31/109/115	-
39	LMG	C1	502	-	-	13/46/66/70	0/1/1/1
33	CYC	XK	201	3	-	12/25/74/74	0/4/4/4
39	LMG	CE	502	-	-	13/46/66/70	0/1/1/1
33	CYC	hK	201	4	-	6/25/74/74	0/4/4/4
39	LMG	d1	411	9	-	12/46/66/70	0/1/1/1
33	CYC	C4	1001	4,2	-	14/25/74/74	0/4/4/4
36	CLA	B1	610	-	1/1/15/20	18/37/115/115	-
36	CLA	c1	504	-	1/1/15/20	6/37/115/115	-
36	CLA	bD	611	-	1/1/15/20	18/37/115/115	-
33	CYC	lJ	201	-	-	12/25/74/74	0/4/4/4
33	CYC	CB	1002	2,4	-	9/25/74/74	0/4/4/4
33	CYC	TL	201	3	-	9/25/74/74	0/4/4/4
33	CYC	NF	101	4,5	-	8/25/74/74	0/4/4/4
33	CYC	mC	201	-	-	12/25/74/74	0/4/4/4
36	CLA	iE	101	-	1/1/13/20	10/25/103/115	-
33	CYC	lC	201	-	-	12/25/74/74	0/4/4/4
39	LMG	M1	101	-	-	9/31/51/70	0/1/1/1
38	SQD	B1	622	-	-	14/33/53/69	0/1/1/1
36	CLA	dD	403	-	1/1/15/20	14/37/115/115	-
43	BCR	C1	516	36,8	-	10/29/63/63	0/2/2/2
47	HEM	EE	101	-	-	8/12/54/54	-
43	BCR	iE	102	-	-	6/29/63/63	0/2/2/2
47	HEM	v1	201	24	-	5/12/54/54	-
36	CLA	C1	509	8	1/1/15/20	13/37/115/115	-
36	CLA	b1	612	7	1/1/15/20	17/37/115/115	-
40	LMT	B1	623	7	-	8/15/35/61	0/1/1/2
33	CYC	k9	201	-	-	6/25/74/74	0/4/4/4
36	CLA	CE	512	-	1/1/15/20	15/37/115/115	-
33	CYC	3K	102	4,5	-	5/25/74/74	0/4/4/4
33	CYC	e5	201	32	-	6/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
33	CYC	eF	201	4	-	8/25/74/74	0/4/4/4
43	BCR	bD	617	7	-	2/29/63/63	0/2/2/2
42	LHG	d1	409	-	-	14/53/53/53	-
33	CYC	bH	201	-	-	12/25/74/74	0/4/4/4
40	LMT	dE	413	-	-	8/13/33/61	0/1/1/2
33	CYC	B6	301	32	-	6/25/74/74	0/4/4/4
33	CYC	kI	201	-	-	6/25/74/74	0/4/4/4
33	CYC	b8	201	-	-	12/25/74/74	0/4/4/4
33	CYC	k7	201	-	-	6/25/74/74	0/4/4/4
33	CYC	f9	201	31	-	12/25/74/74	0/4/4/4
33	CYC	JF	201	3	-	6/25/74/74	0/4/4/4
33	CYC	R4	201	4,5	-	9/25/74/74	0/4/4/4
33	CYC	7G	201	4,5	-	12/25/74/74	0/4/4/4
36	CLA	aD	406	6	1/1/14/20	16/31/109/115	-
36	CLA	aD	404	-	1/1/11/20	5/15/93/115	-
43	BCR	B1	616	7	-	2/29/63/63	0/2/2/2
33	CYC	e6	202	-	-	12/25/74/74	0/4/4/4
33	CYC	dI	201	-	-	12/25/74/74	0/4/4/4
33	CYC	jI	202	-	-	12/25/74/74	0/4/4/4
33	CYC	VG	201	30	-	13/25/74/74	0/4/4/4
42	LHG	D1	409	-	-	17/53/53/53	-
43	BCR	ZE	102	-	-	2/29/63/63	0/2/2/2
36	CLA	dE	405	-	1/1/15/20	11/37/115/115	-
36	CLA	D1	404	-	1/1/15/20	11/37/115/115	-
36	CLA	CD	511	8	1/1/15/20	19/37/115/115	-
36	CLA	bE	606	7	1/1/15/20	16/37/115/115	-
33	CYC	bI	201	-	-	12/25/74/74	0/4/4/4
36	CLA	c1	514	-	-	15/37/115/115	-
33	CYC	YK	201	4	-	6/25/74/74	0/4/4/4
33	CYC	h6	201	-	-	12/25/74/74	0/4/4/4
33	CYC	h7	201	-	-	12/25/74/74	0/4/4/4
44	DGD	cE	517	-	-	17/51/91/95	0/2/2/2
36	CLA	cD	511	-	1/1/15/20	15/37/115/115	-
33	CYC	cA	201	-	-	6/25/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	LMG	T1	101	-	-	7/31/51/70	0/1/1/1
36	CLA	BE	611	7	1/1/15/20	17/37/115/115	-
40	LMT	dE	412	-	-	10/17/37/61	0/1/1/2
36	CLA	CD	512	-	1/1/15/20	15/37/115/115	-
38	SQD	cE	502	8	-	16/49/69/69	0/1/1/1
33	CYC	Z4	201	3	-	4/25/74/74	0/4/4/4
33	CYC	kK	201	3	-	8/25/74/74	0/4/4/4
43	BCR	zD	101	27	-	12/29/63/63	0/2/2/2
40	LMT	bD	602	-	-	6/15/35/61	0/1/1/2
33	CYC	mF	201	30	-	13/25/74/74	0/4/4/4
33	CYC	jH	202	-	-	12/25/74/74	0/4/4/4
36	CLA	C1	510	8	-	8/37/115/115	-
33	CYC	ZF	201	3	-	10/25/74/74	0/4/4/4
39	LMG	BD	618	7	-	7/46/66/70	0/1/1/1
42	LHG	D1	408	-	-	13/53/53/53	-
42	LHG	dD	410	-	-	17/53/53/53	-
33	CYC	NG	201	3	-	5/25/74/74	0/4/4/4
36	CLA	CE	511	8	1/1/15/20	19/37/115/115	-
43	BCR	dE	407	-	-	7/29/63/63	0/2/2/2
33	CYC	2L	101	4,5	-	8/25/74/74	0/4/4/4
33	CYC	l9	201	-	-	12/25/74/74	0/4/4/4
37	PL9	aE	408	-	-	15/53/73/73	0/1/1/1
36	CLA	c1	513	-	1/1/12/20	7/19/97/115	-
36	CLA	cD	508	8	1/1/15/20	9/37/115/115	-
33	CYC	LL	201	2,4	-	10/25/74/74	0/4/4/4
33	CYC	sB	201	3	-	9/25/74/74	0/4/4/4
33	CYC	c2	201	-	-	6/25/74/74	0/4/4/4
43	BCR	zE	101	27	-	12/29/63/63	0/2/2/2
40	LMT	d1	412	-	-	10/17/37/61	0/1/1/2

The worst 5 of 6426 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	aD	404	CLA	O2A-C1	81.33	3.36	1.45
36	a1	405	CLA	O2A-C1	81.33	3.36	1.45
36	aE	404	CLA	O2A-C1	81.32	3.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	AE	404	CLA	O2A-C1	81.21	3.36	1.45
36	AD	404	CLA	O2A-C1	81.20	3.36	1.45

The worst 5 of 10766 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	C4	1001	CYC	CMD-C2D-C3D	22.02	166.46	124.94
33	CB	1001	CYC	CMD-C2D-C3D	22.01	166.45	124.94
38	BE	621	SQD	O9-S-C6	-20.40	82.70	106.94
38	BD	621	SQD	O9-S-C6	-20.39	82.70	106.94
38	B1	622	SQD	O9-S-C6	-20.38	82.71	106.94

5 of 190 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
36	AD	404	CLA	ND
36	AD	405	CLA	ND
36	BD	601	CLA	ND
36	BD	602	CLA	ND
36	BD	603	CLA	ND

5 of 8834 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
33	BA	301	CYC	NA-C4A-CHB-C1B
33	BA	301	CYC	C3A-C4A-CHB-C1B
33	BA	301	CYC	C2C-C3C-CAC-CBC
33	BA	301	CYC	C4C-C3C-CAC-CBC
33	BB	1001	CYC	C2C-C3C-CAC-CBC

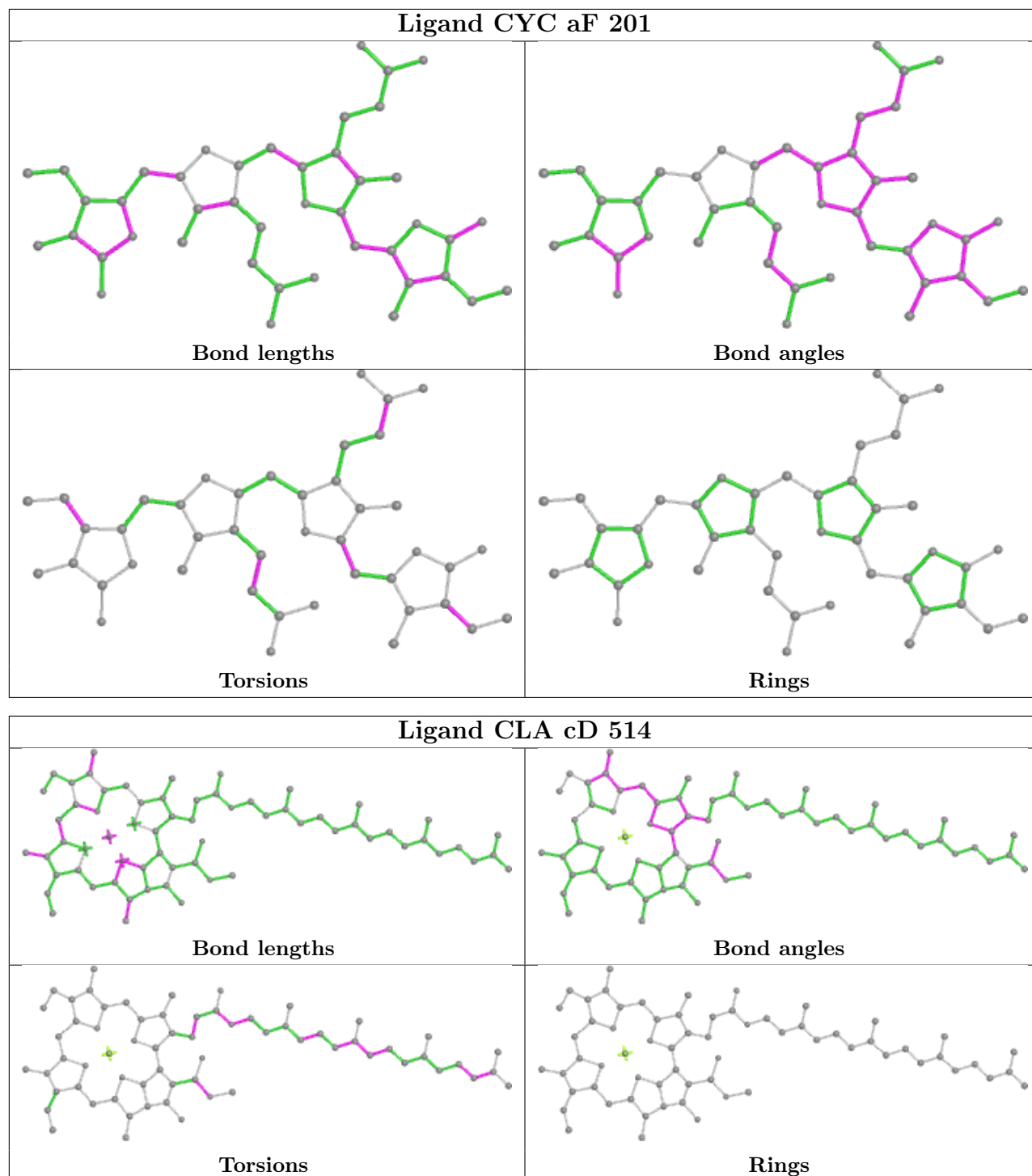
There are no ring outliers.

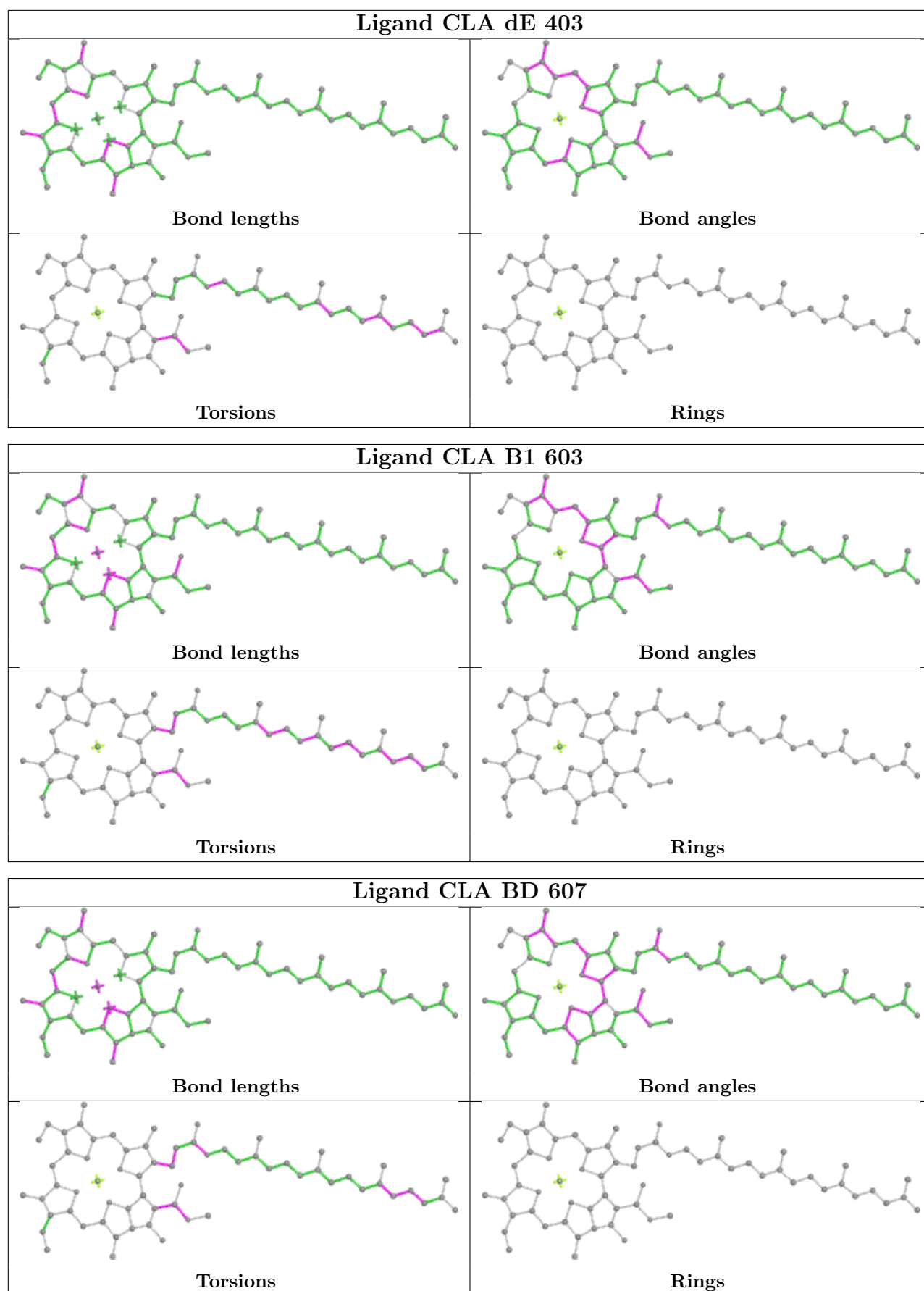
No monomer is involved in short contacts.

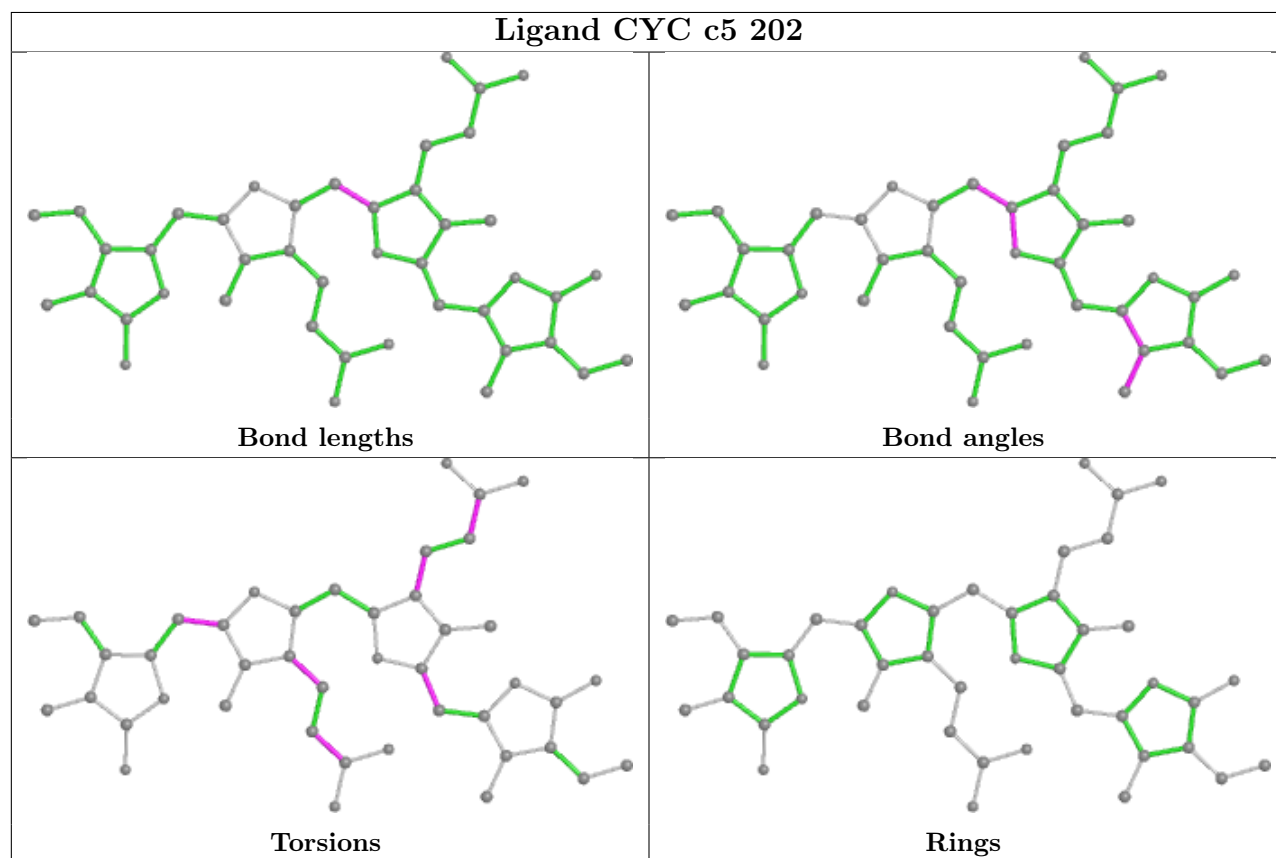
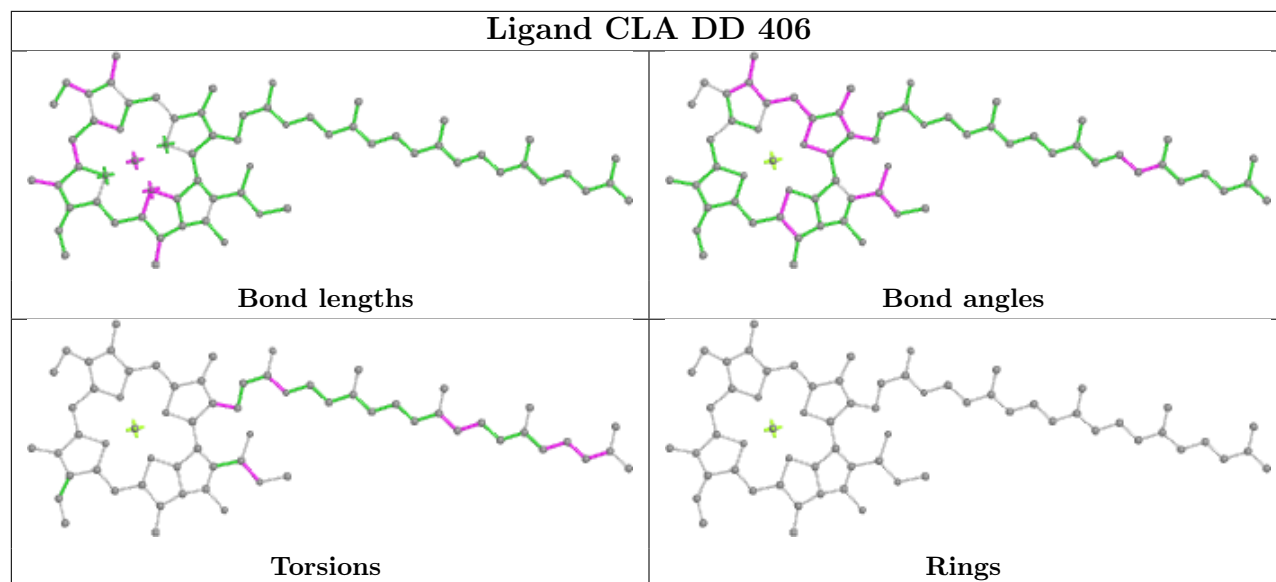
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and

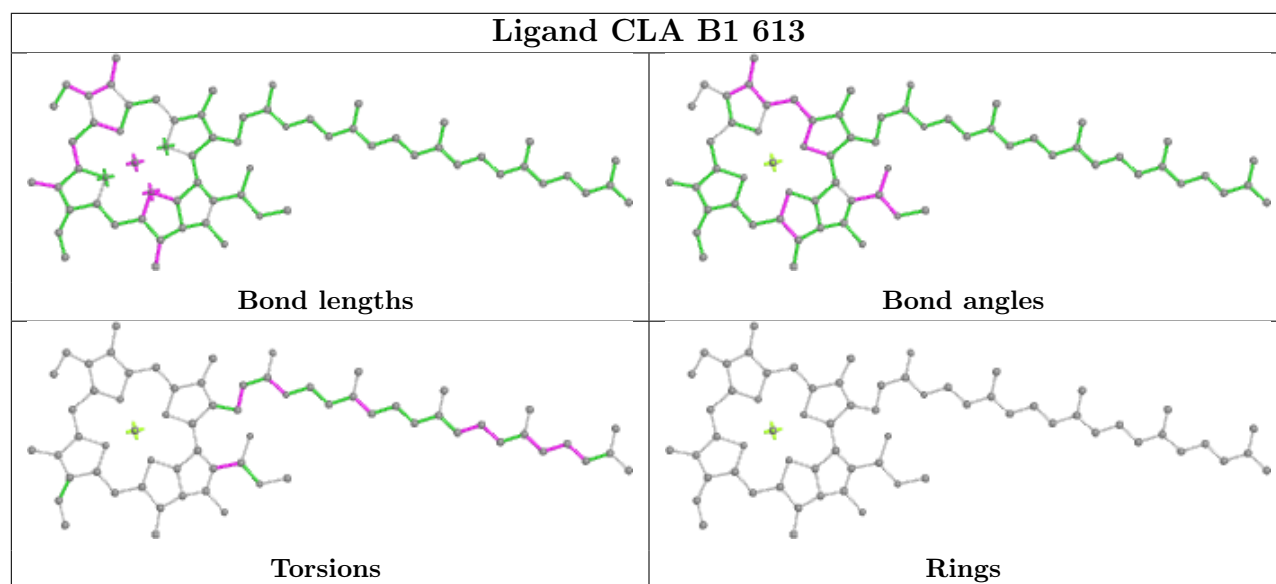
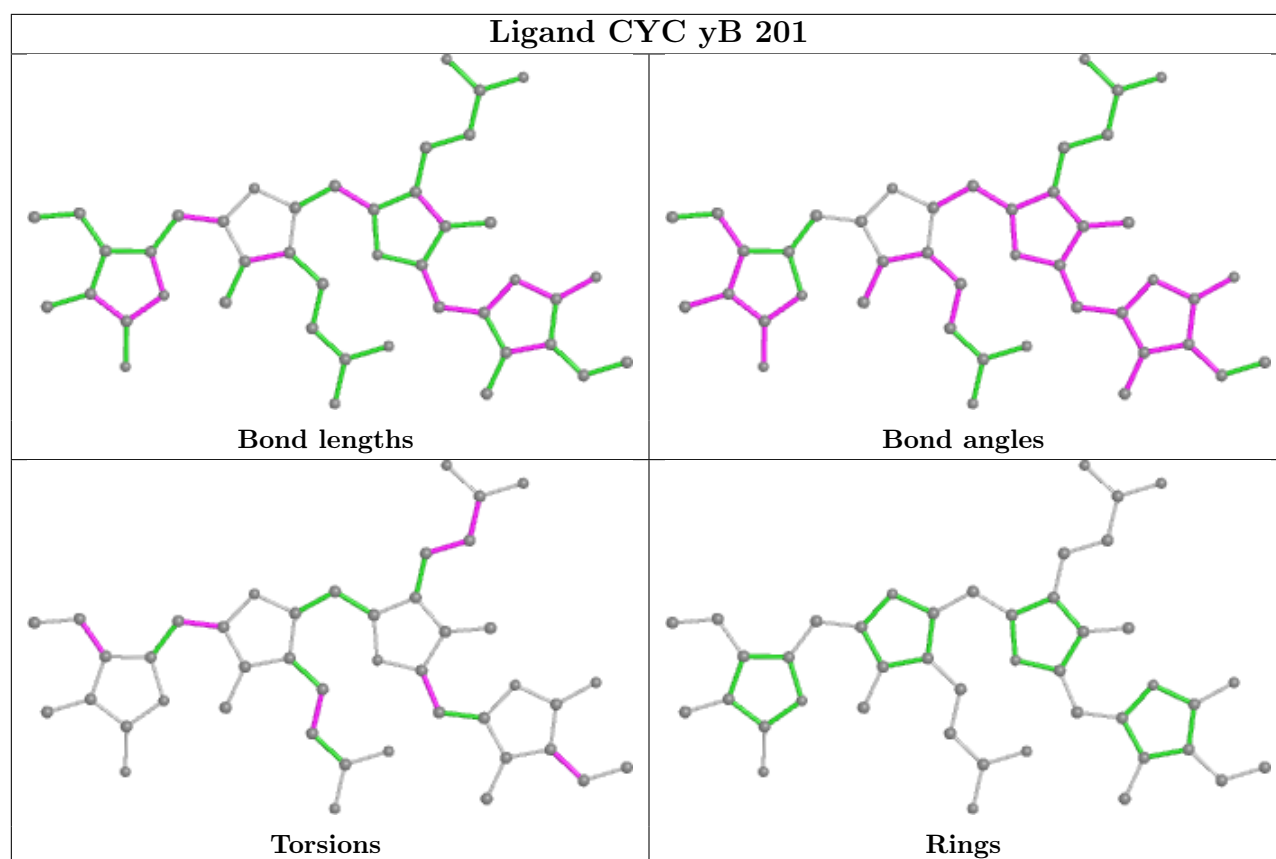


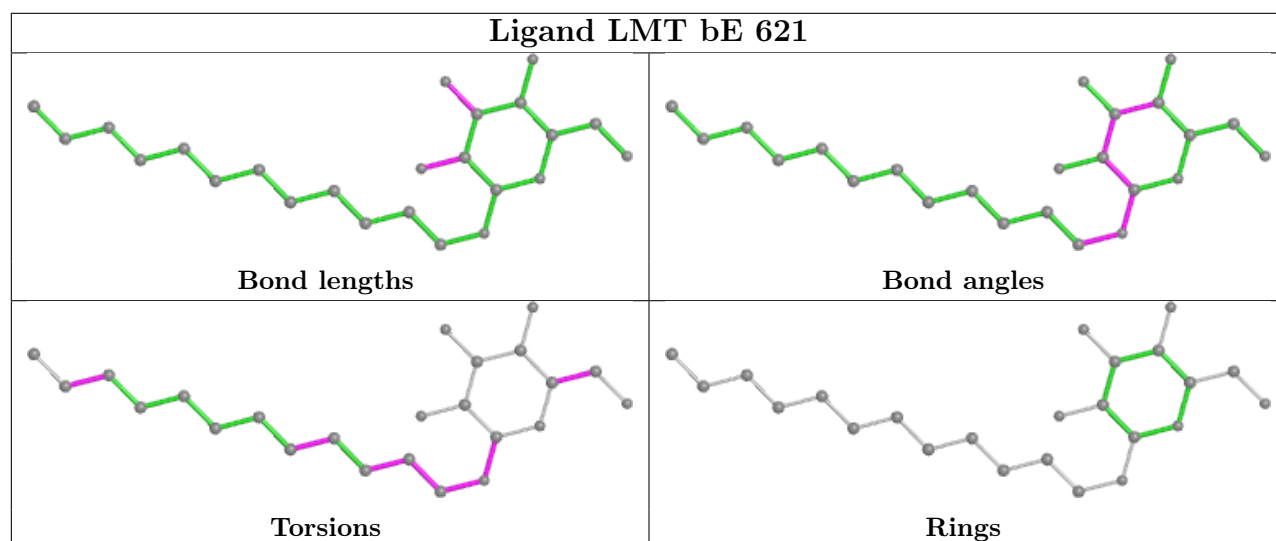
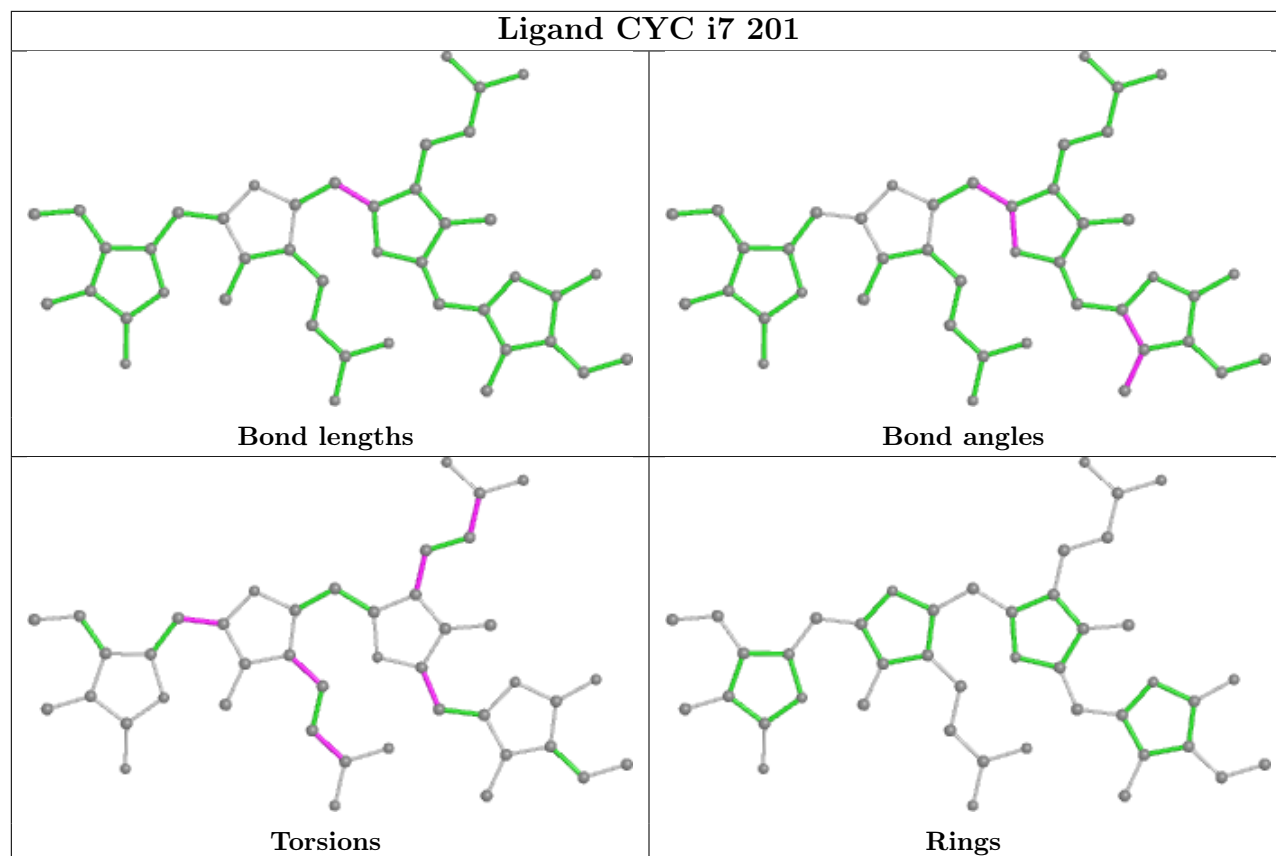
any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

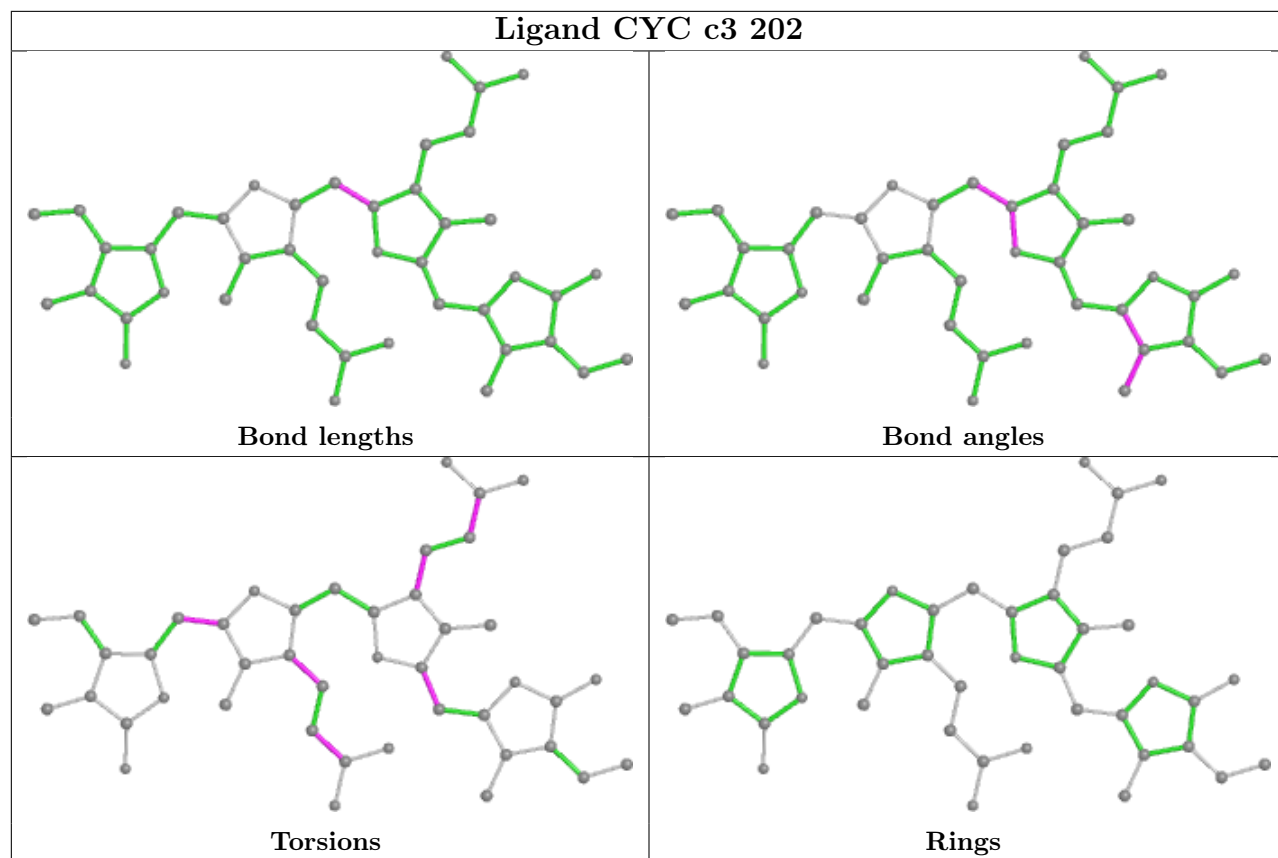


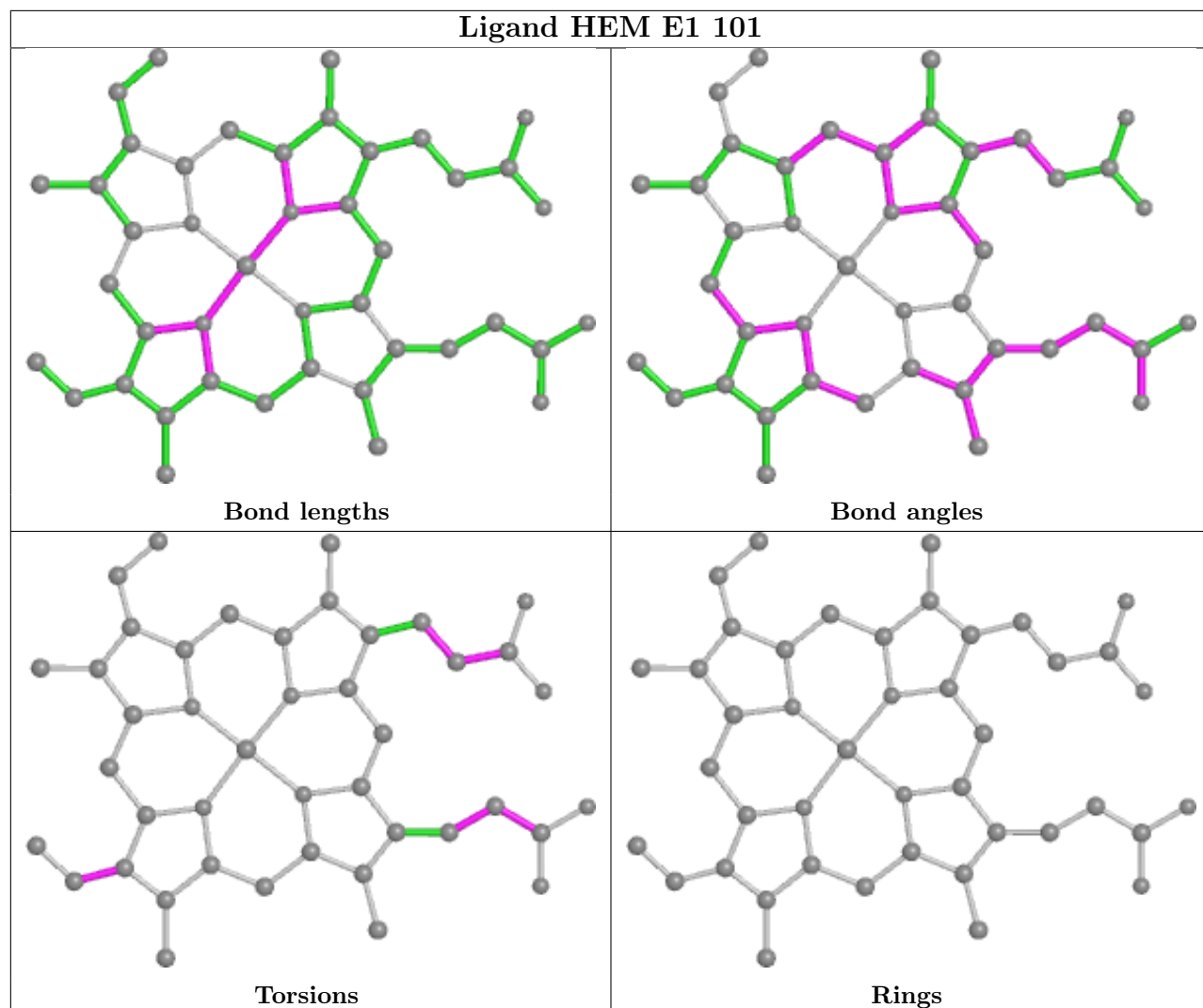


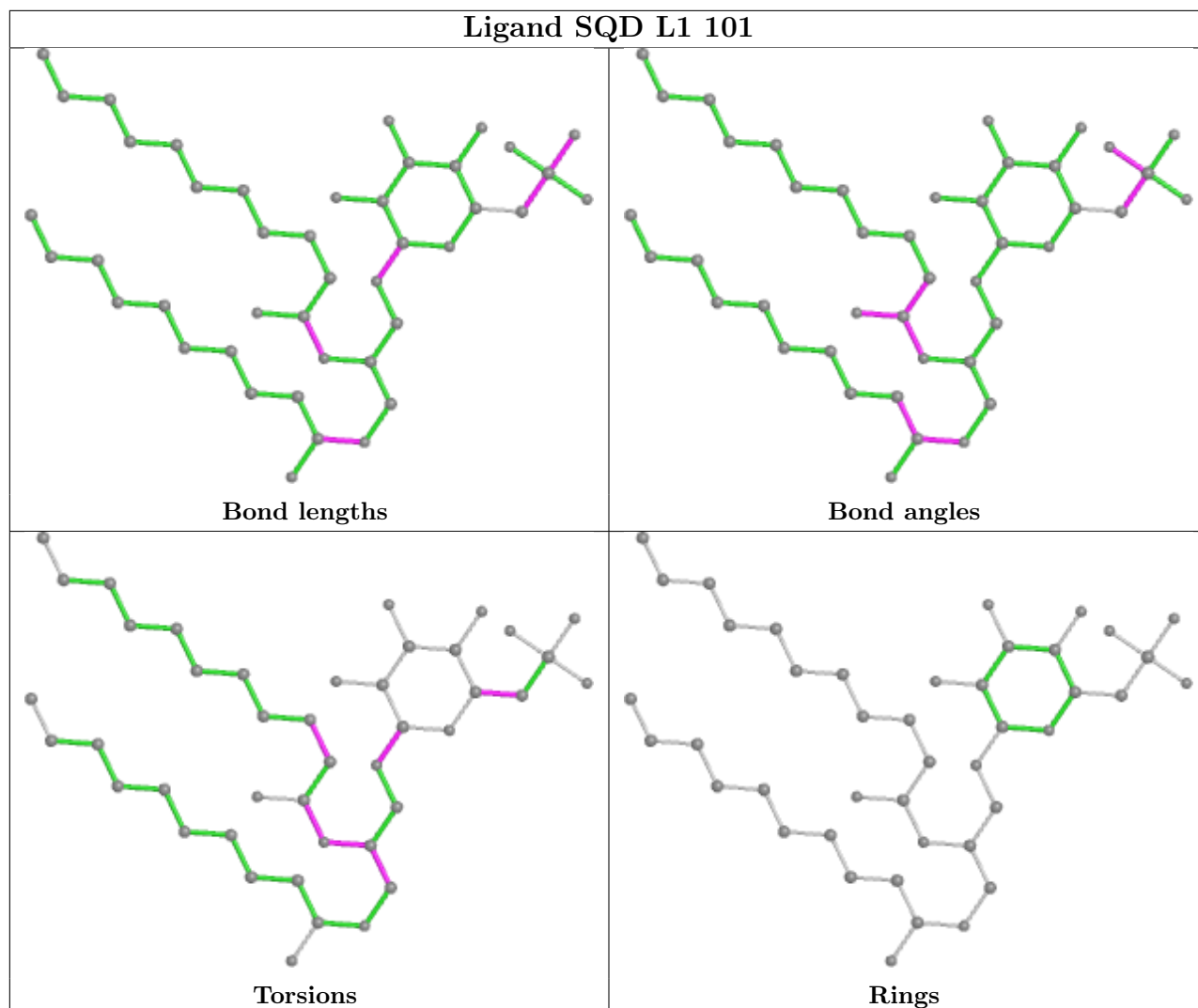




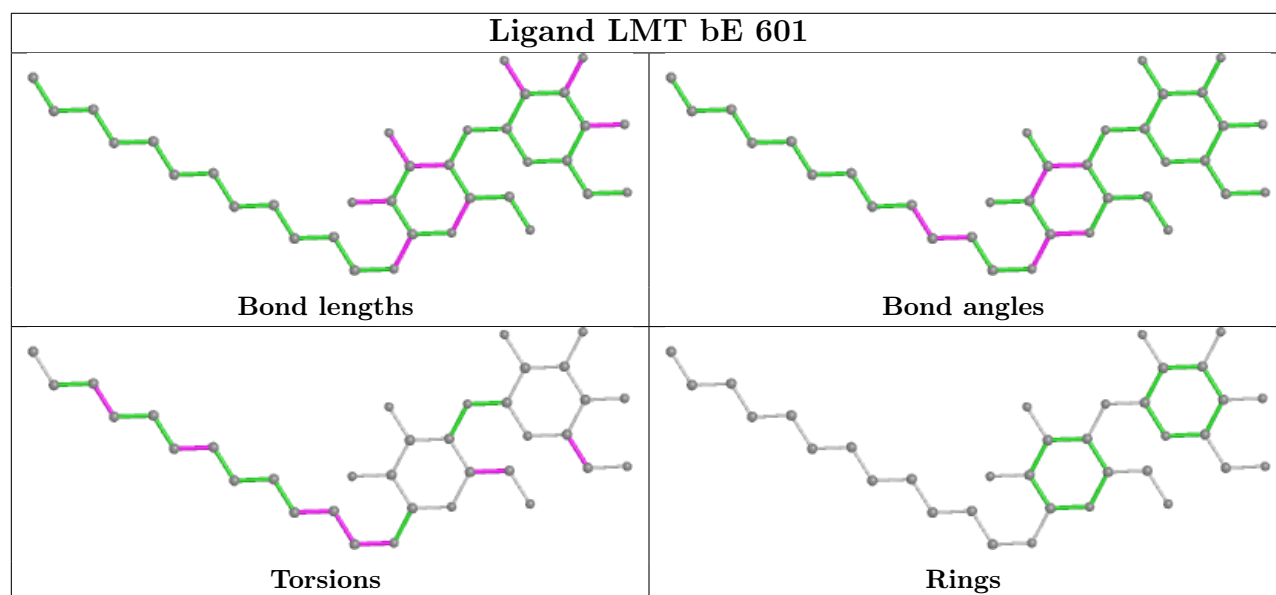
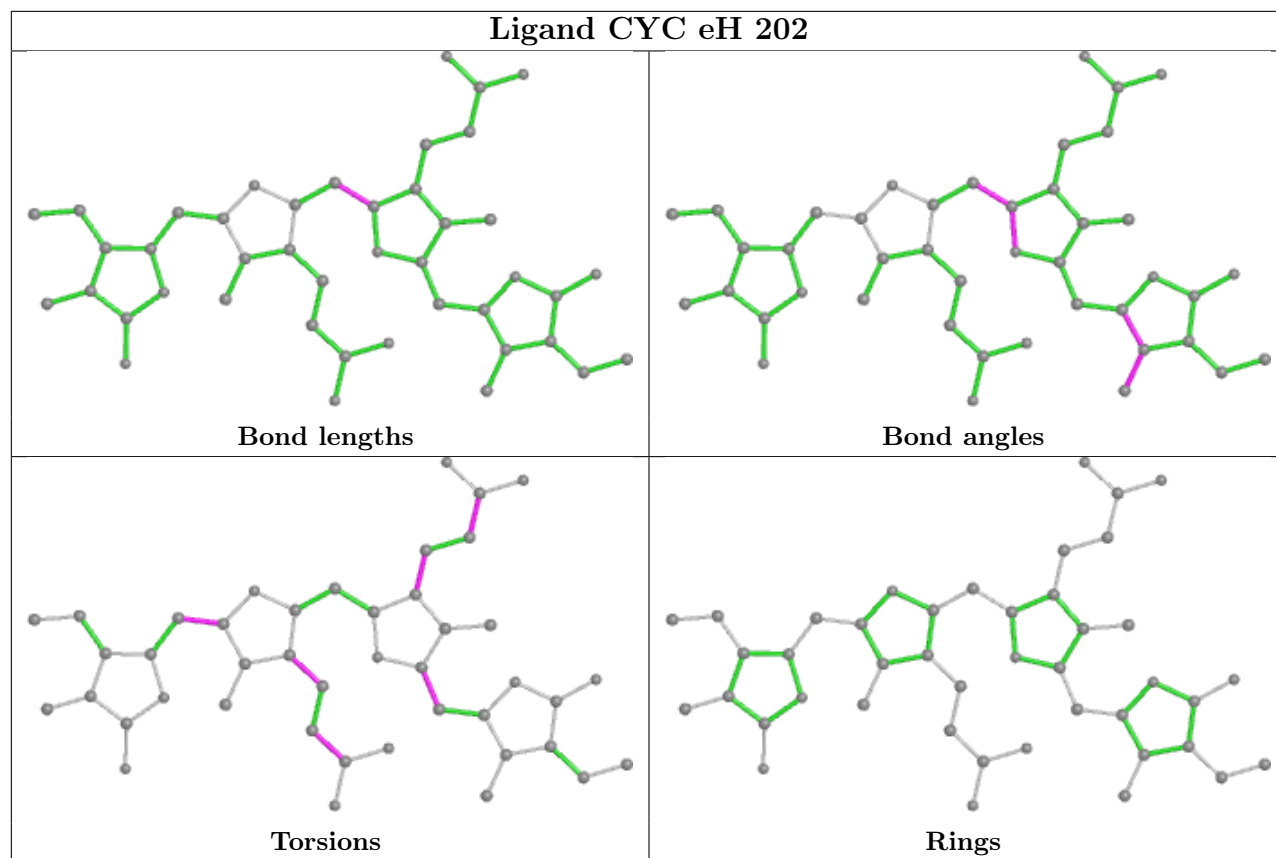


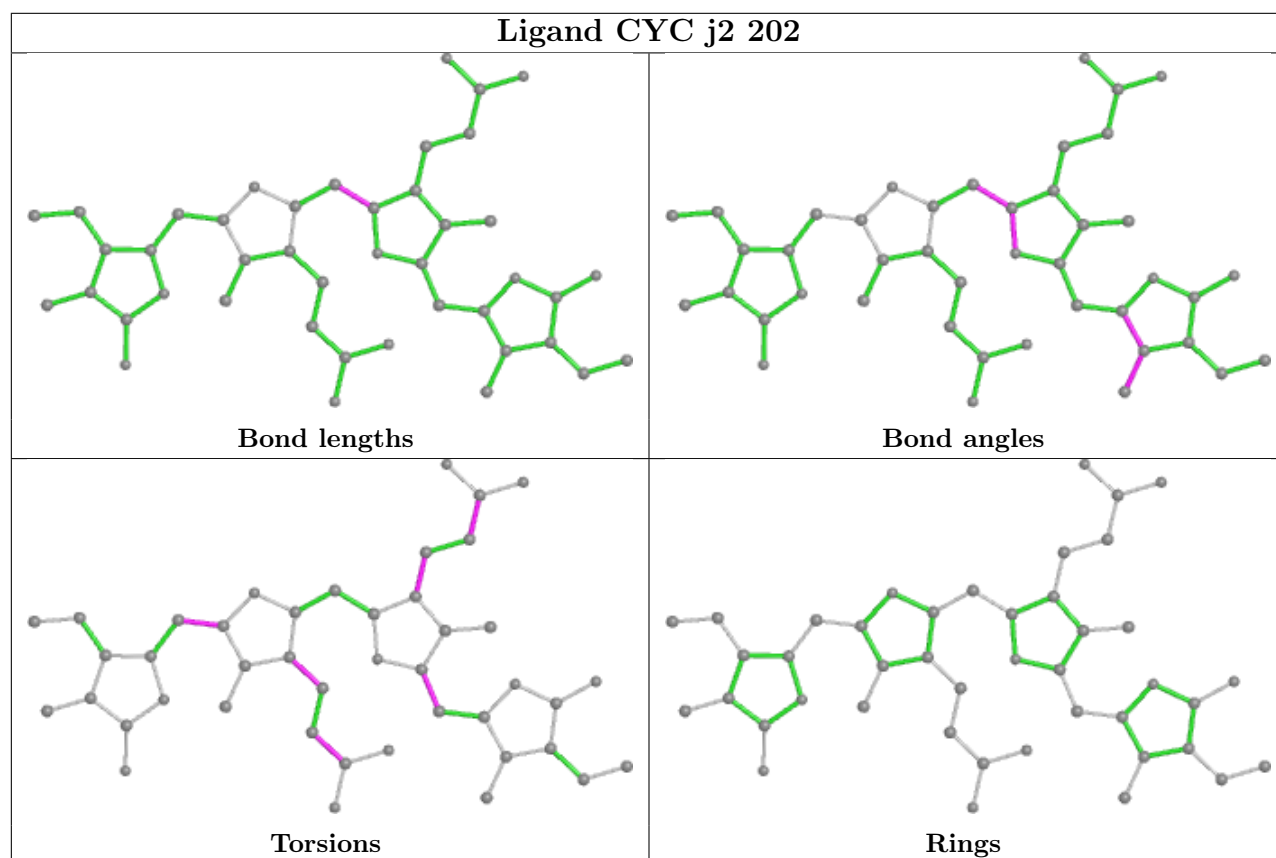
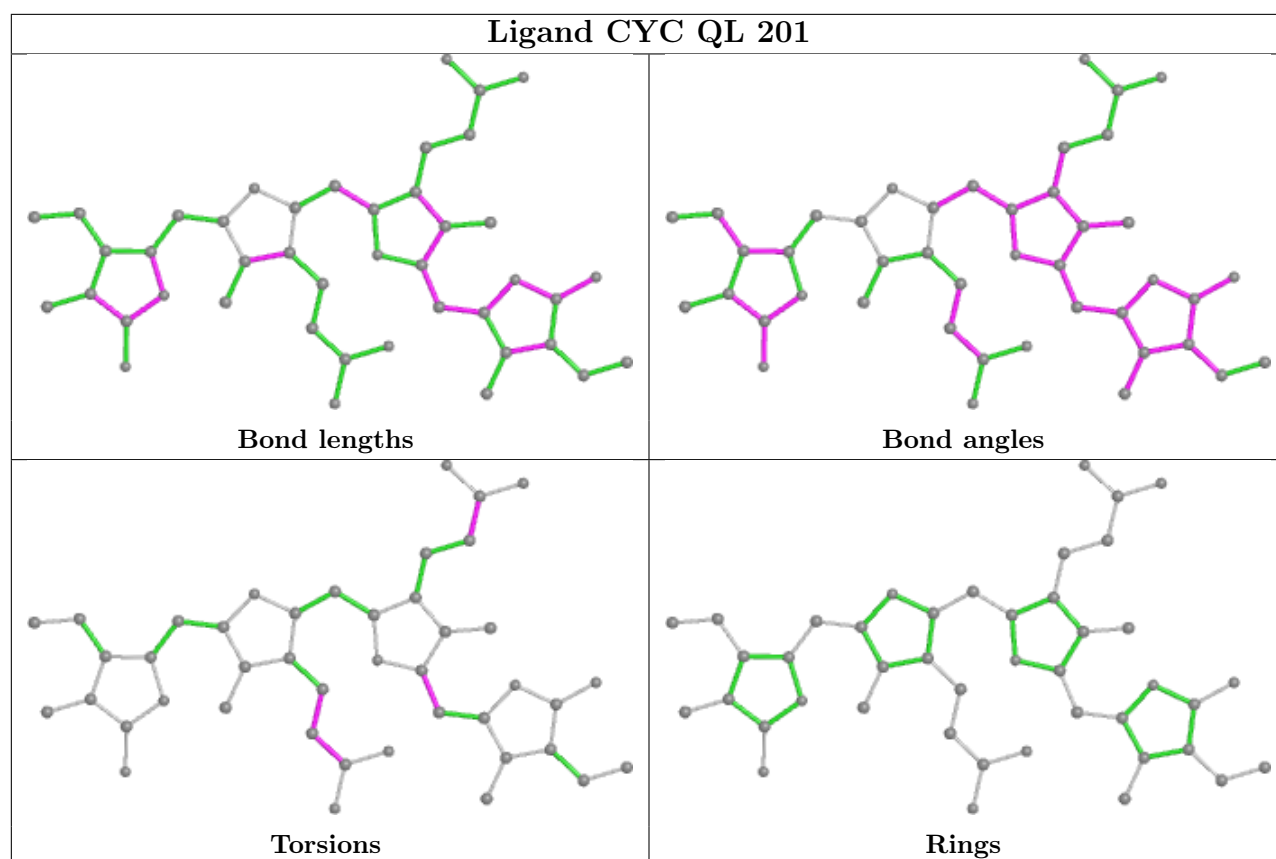


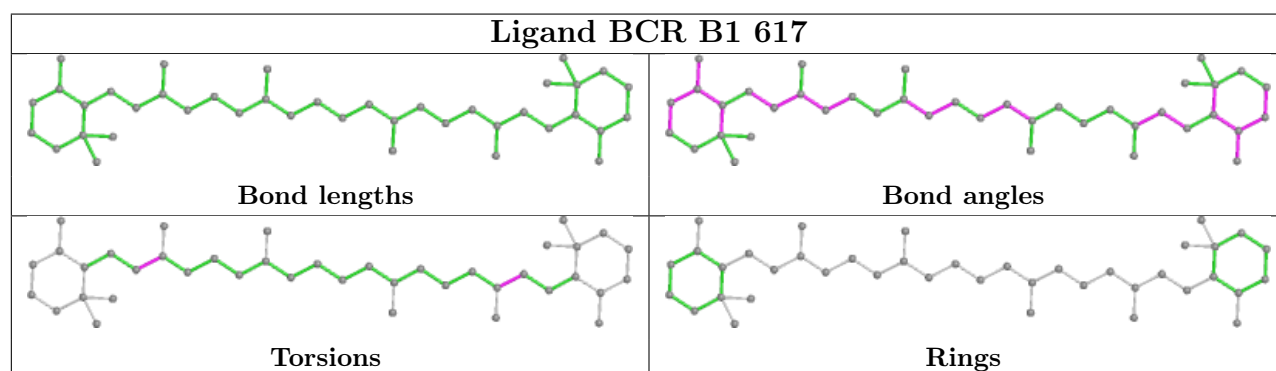
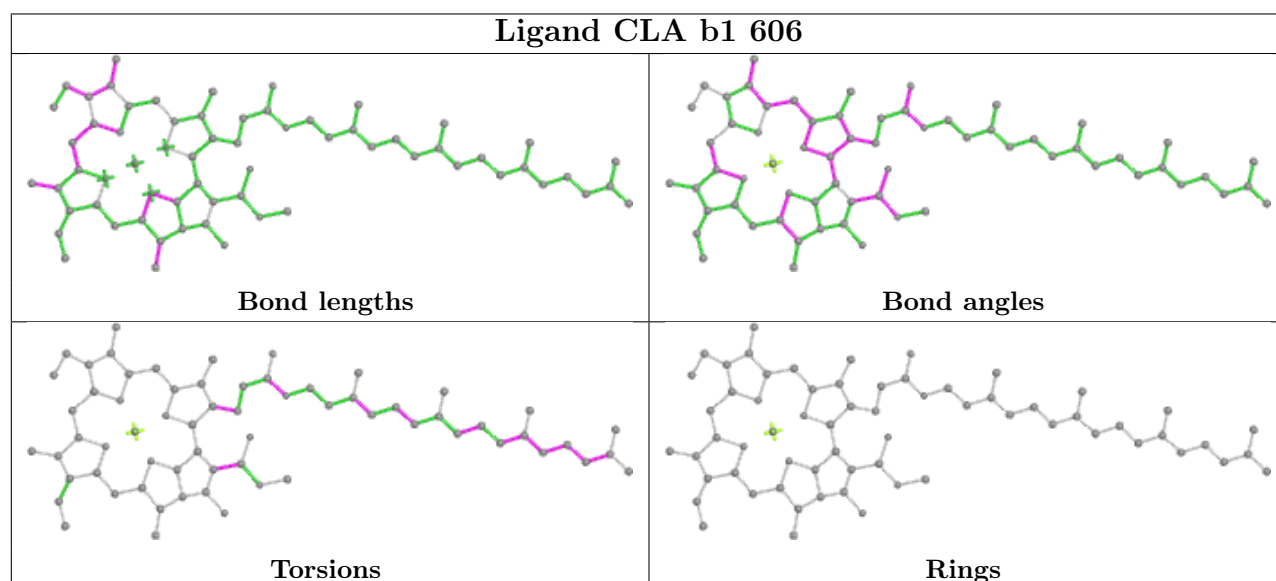
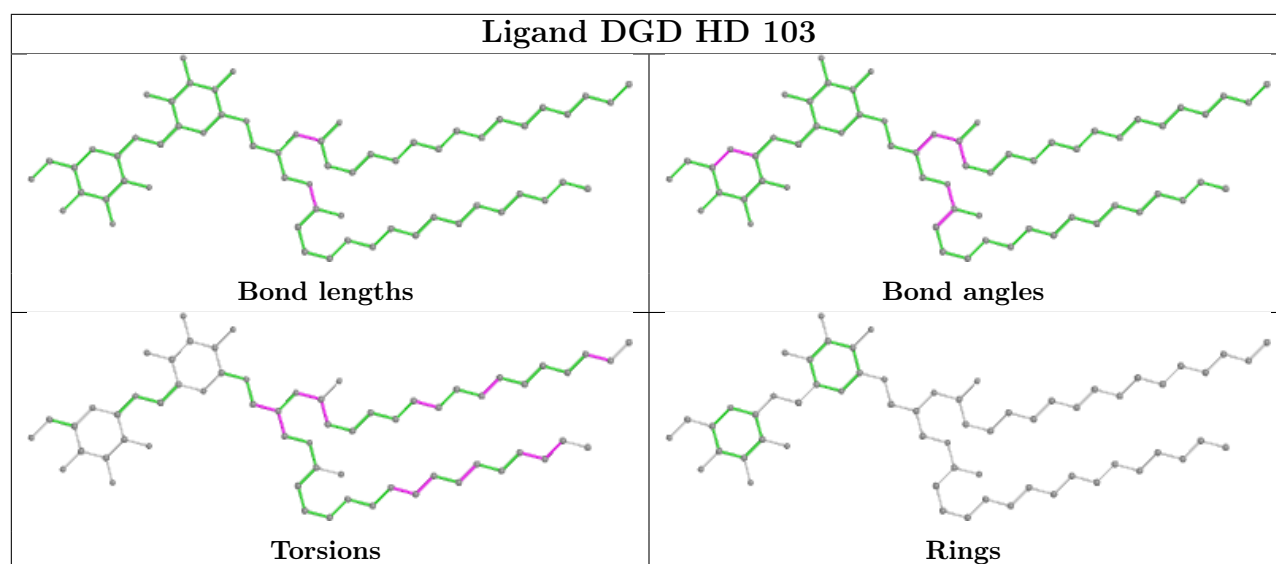


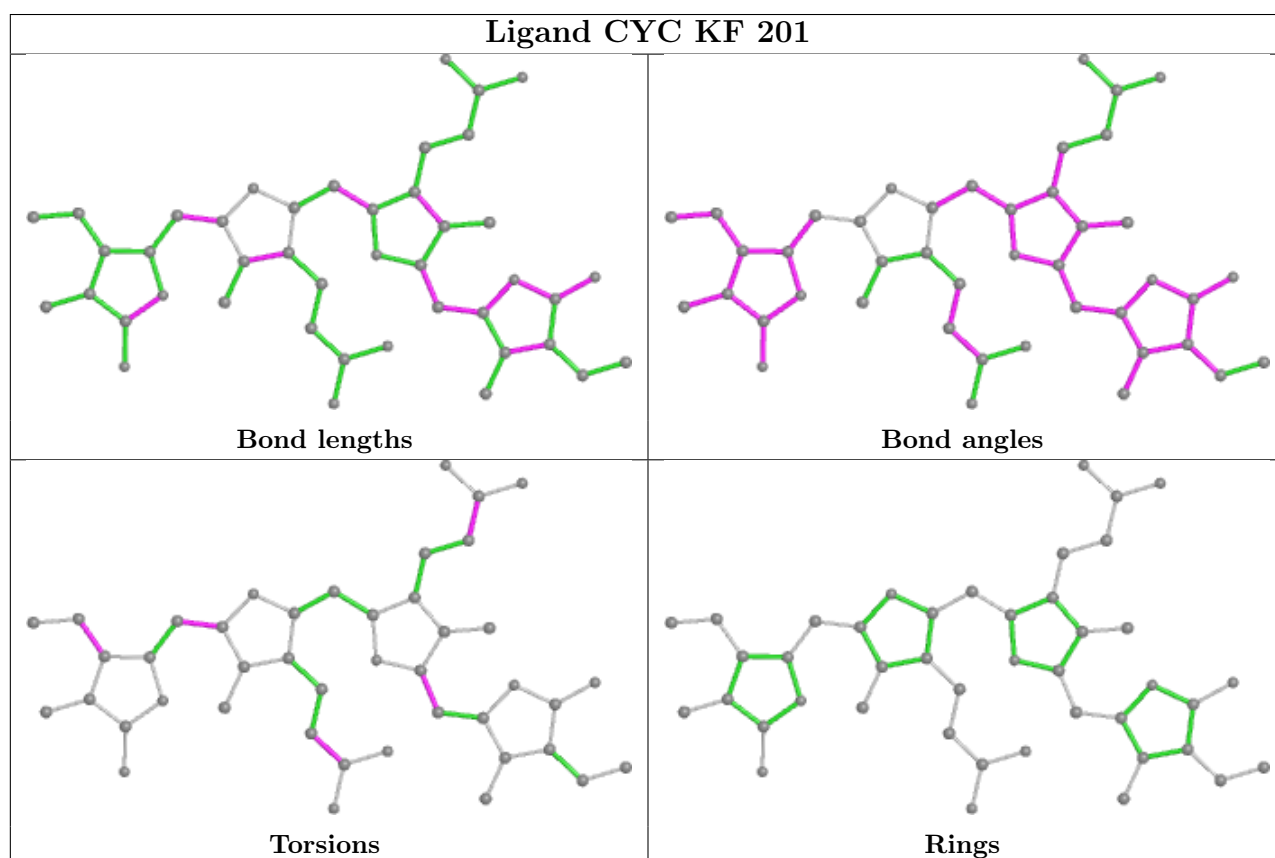
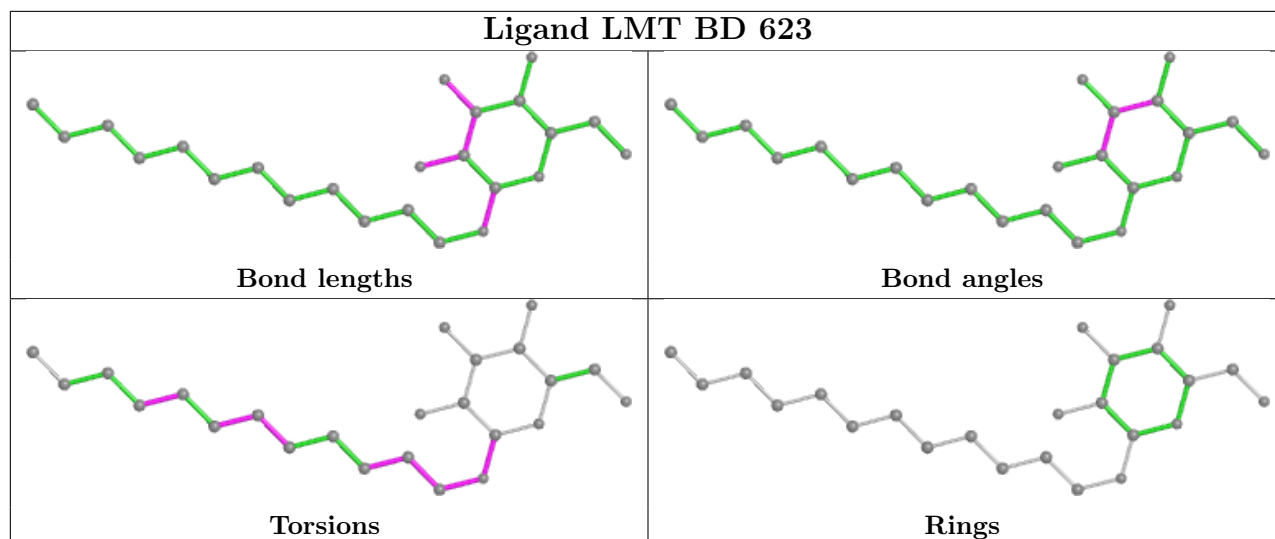


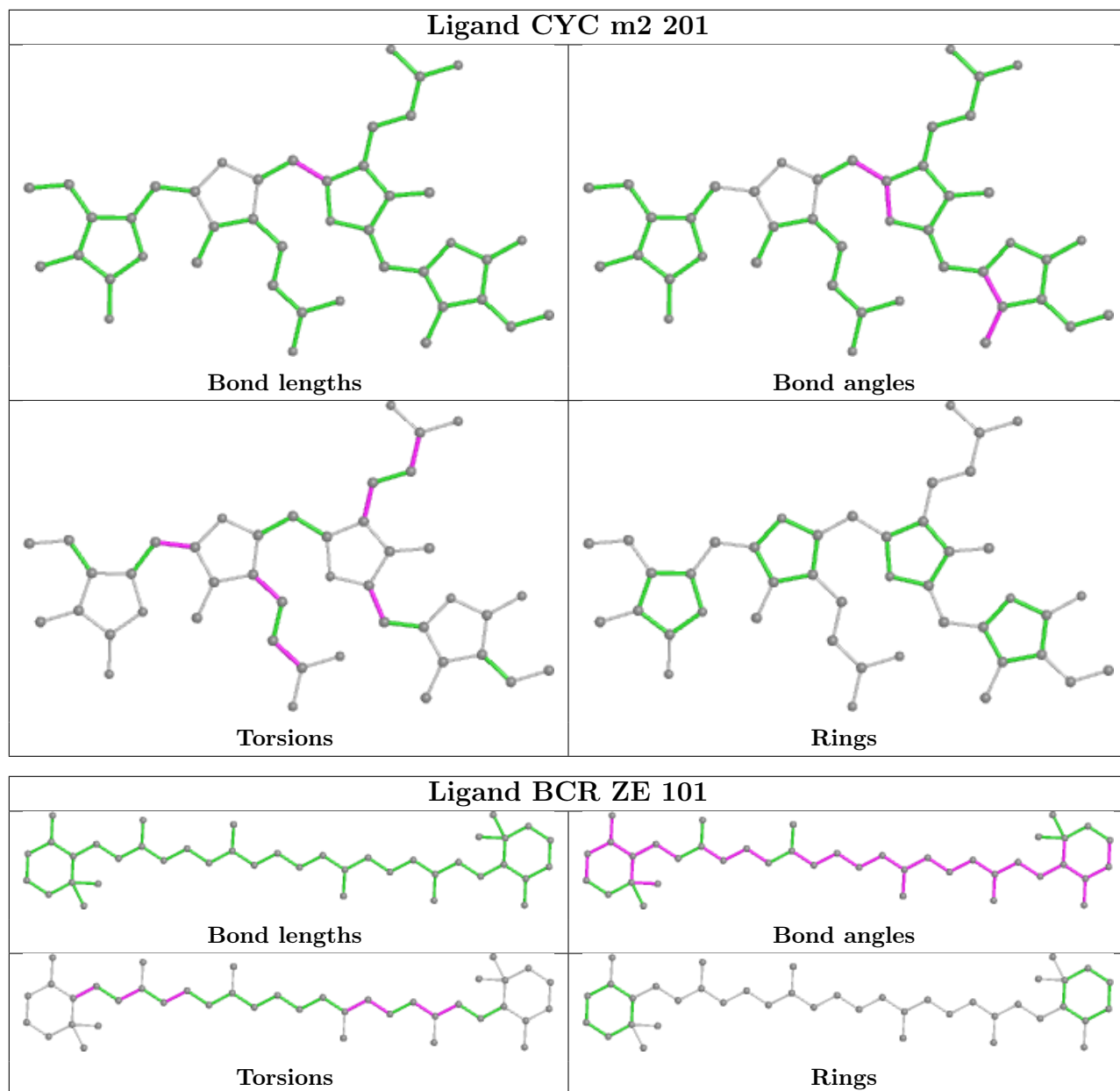


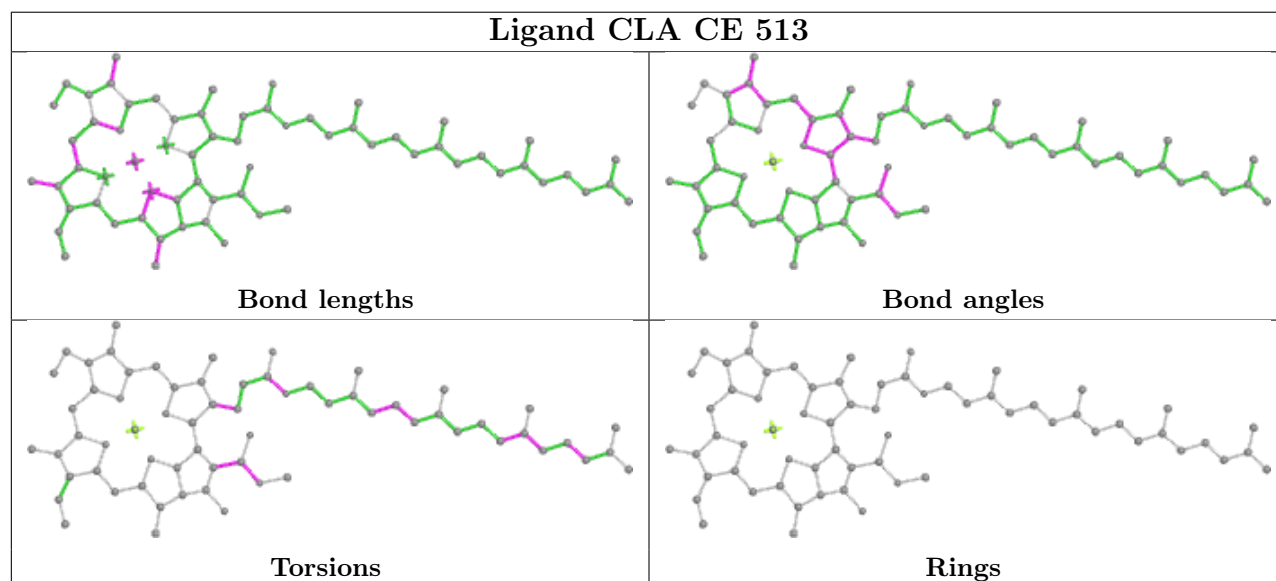
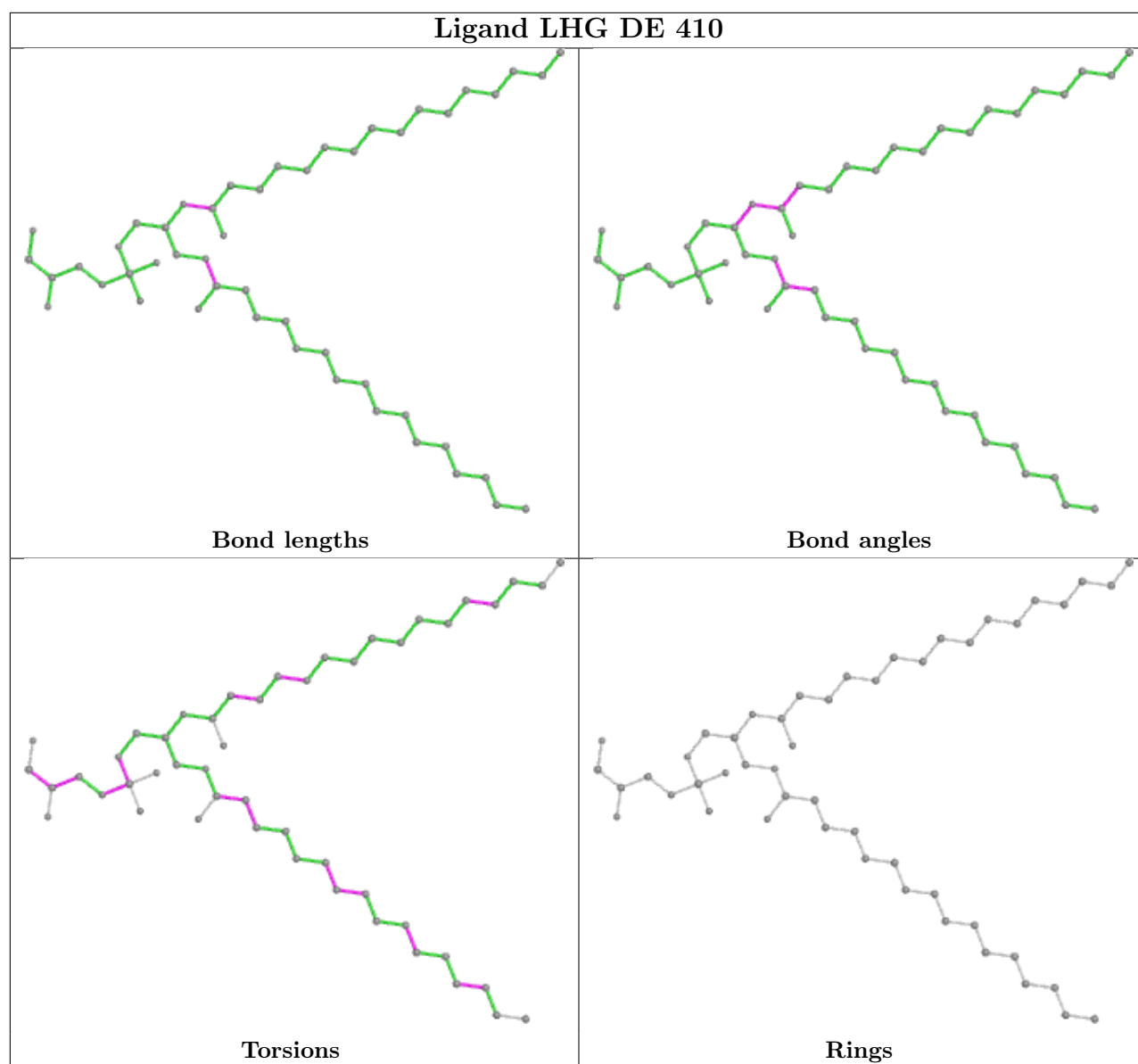


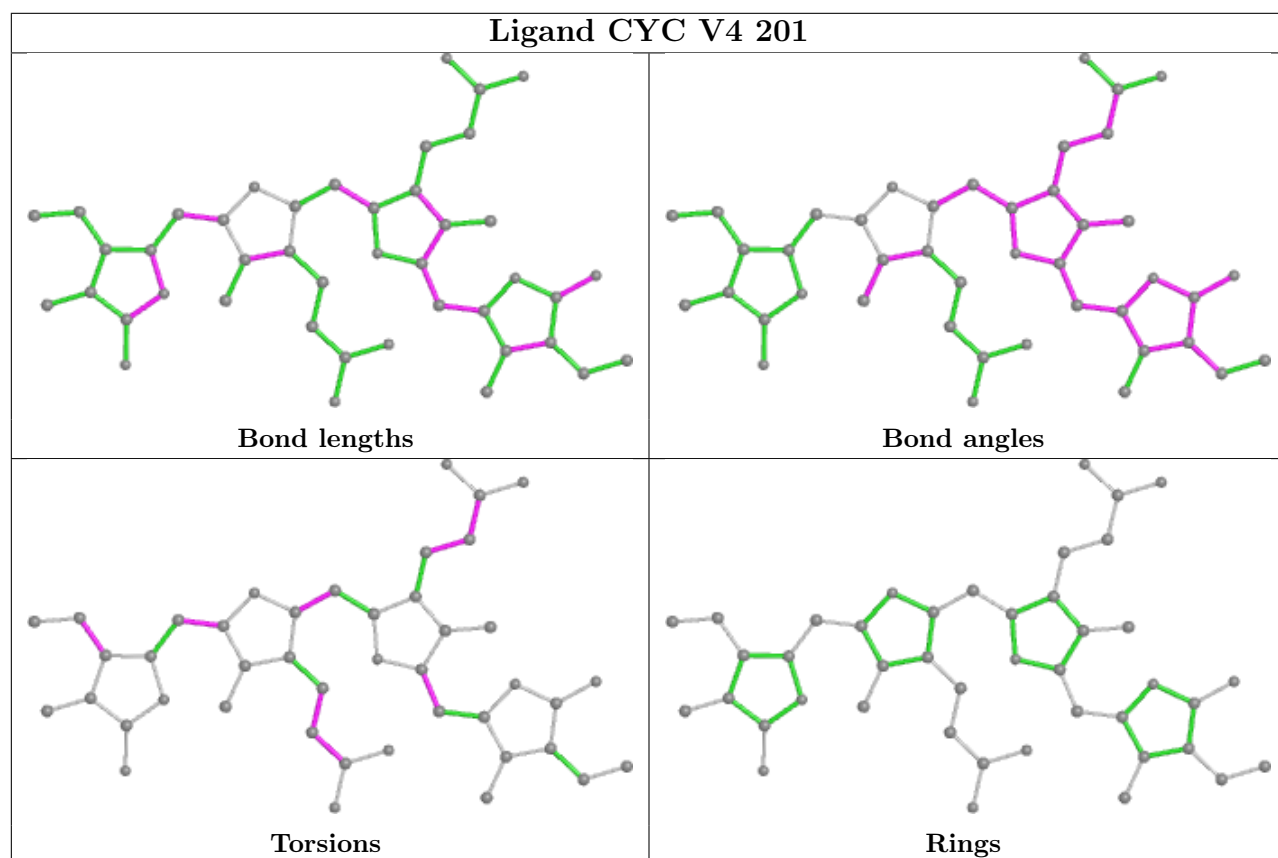
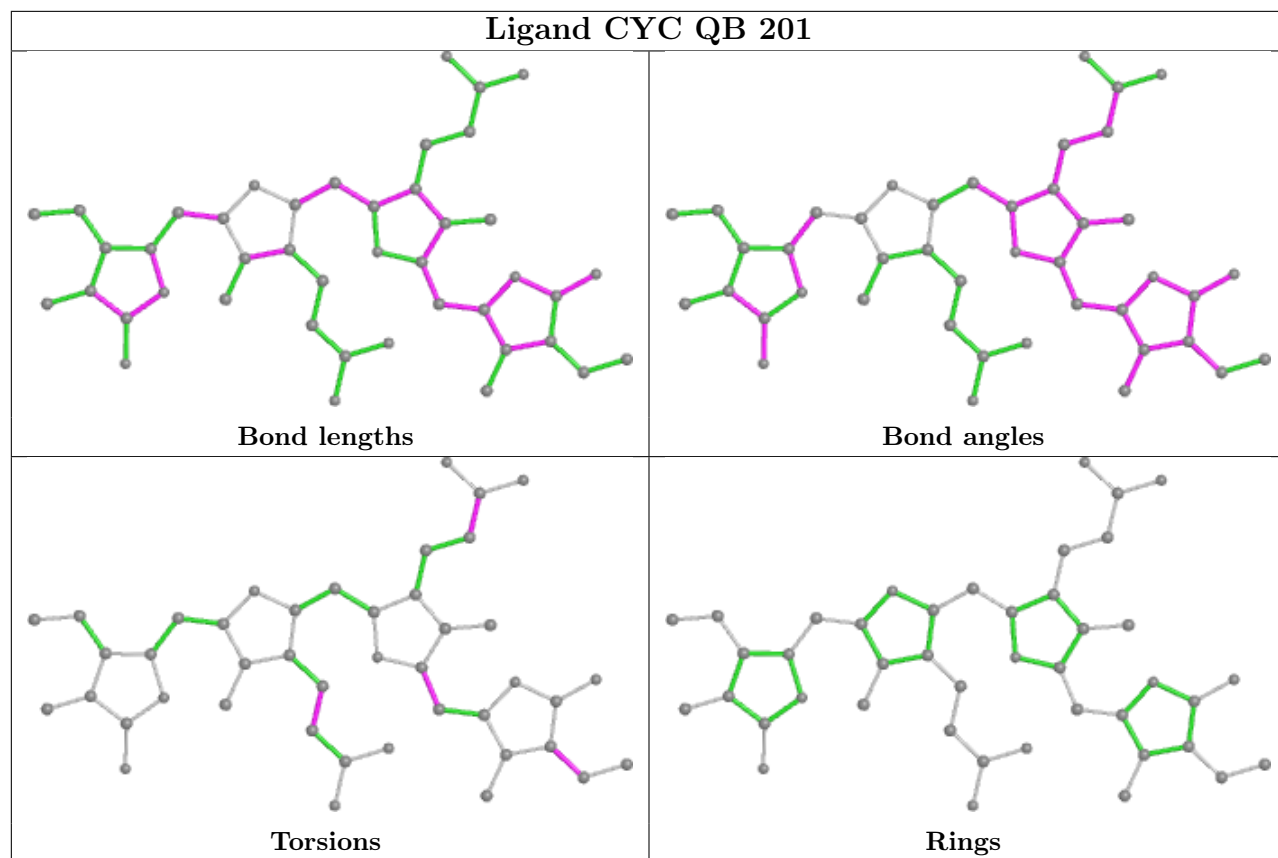


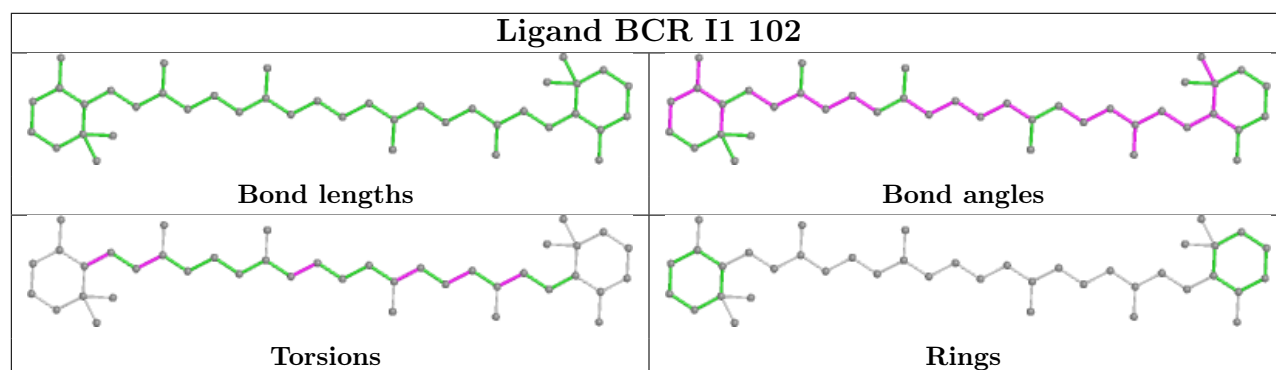
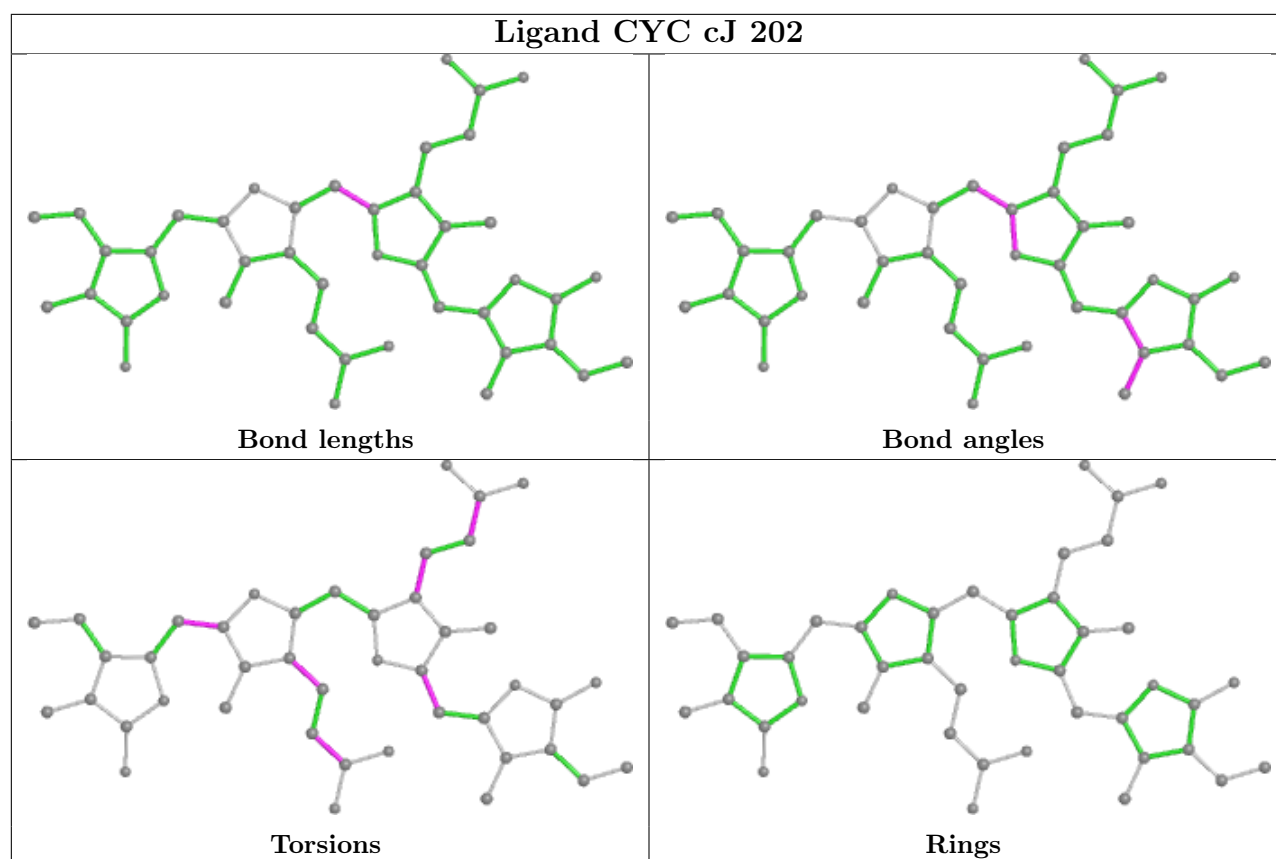




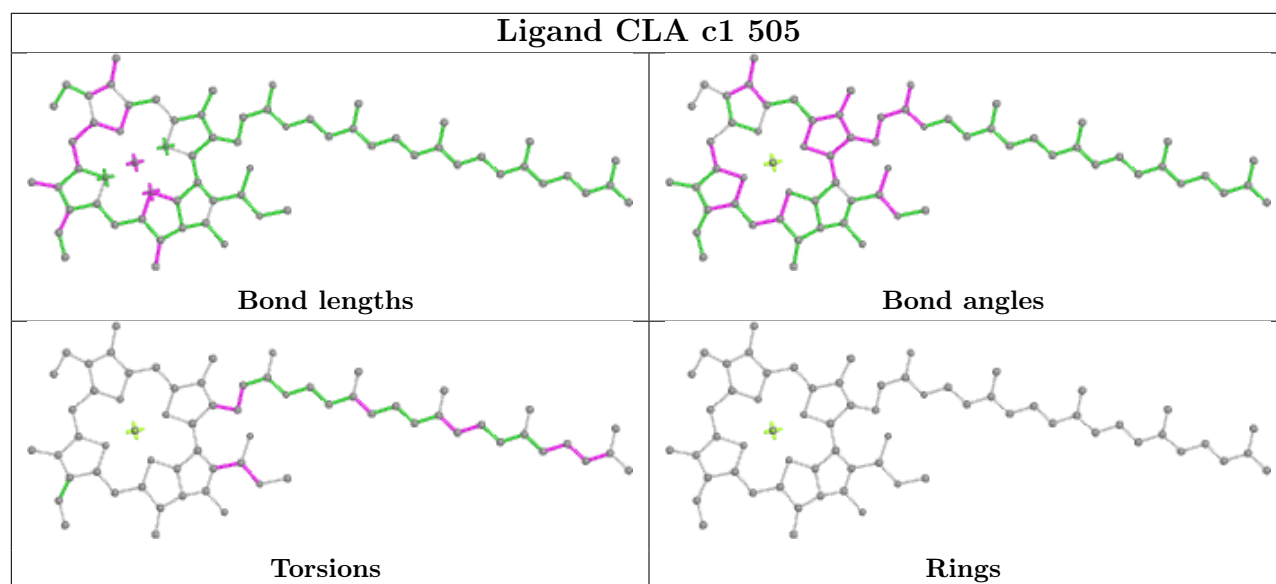
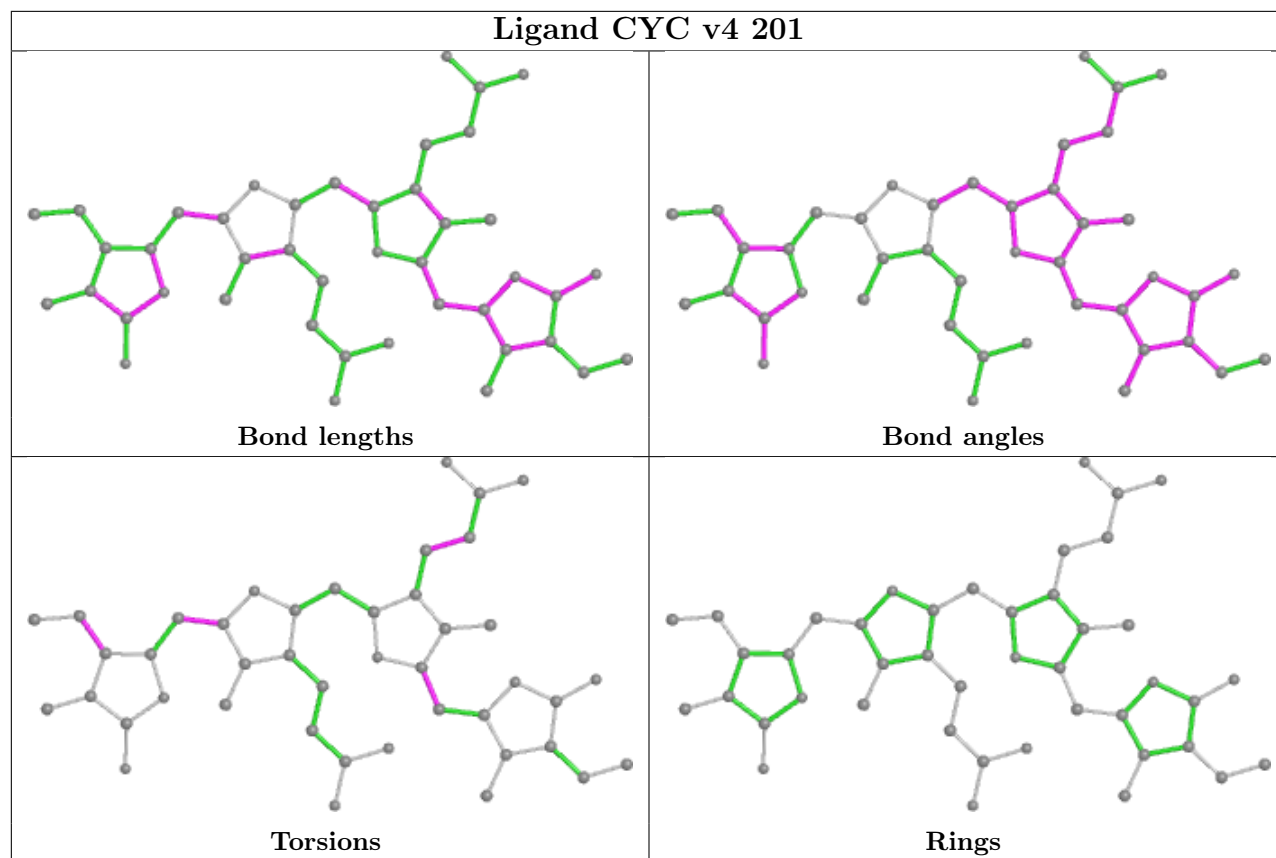


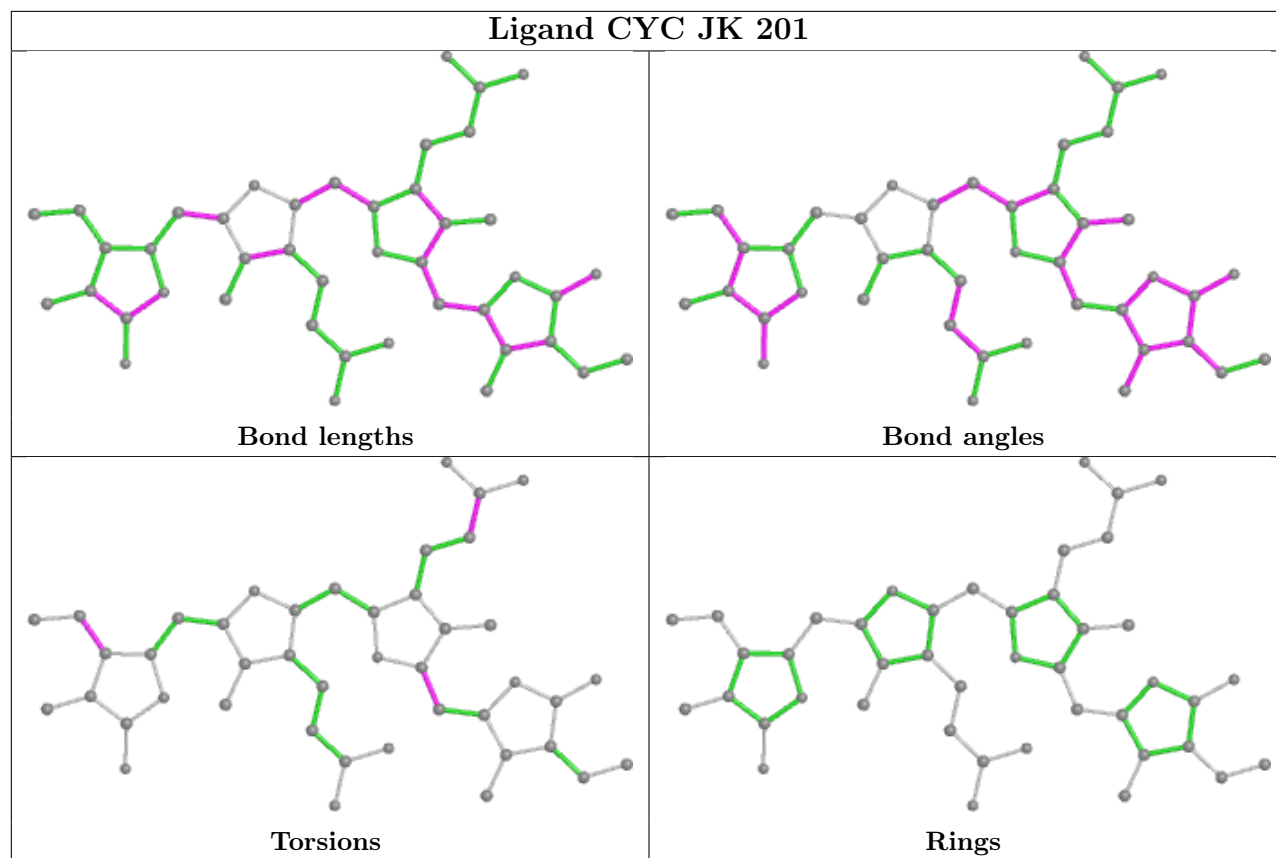


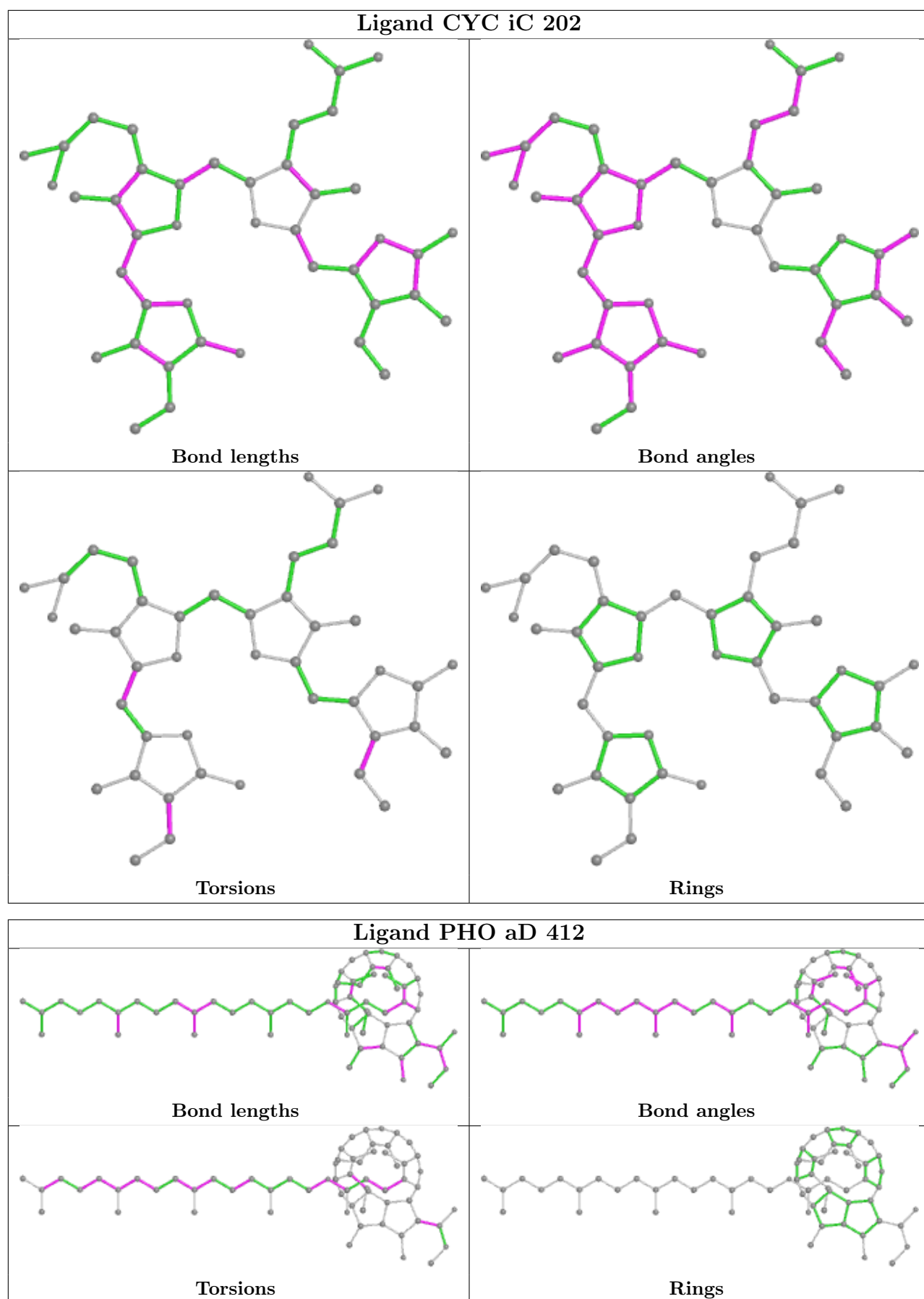


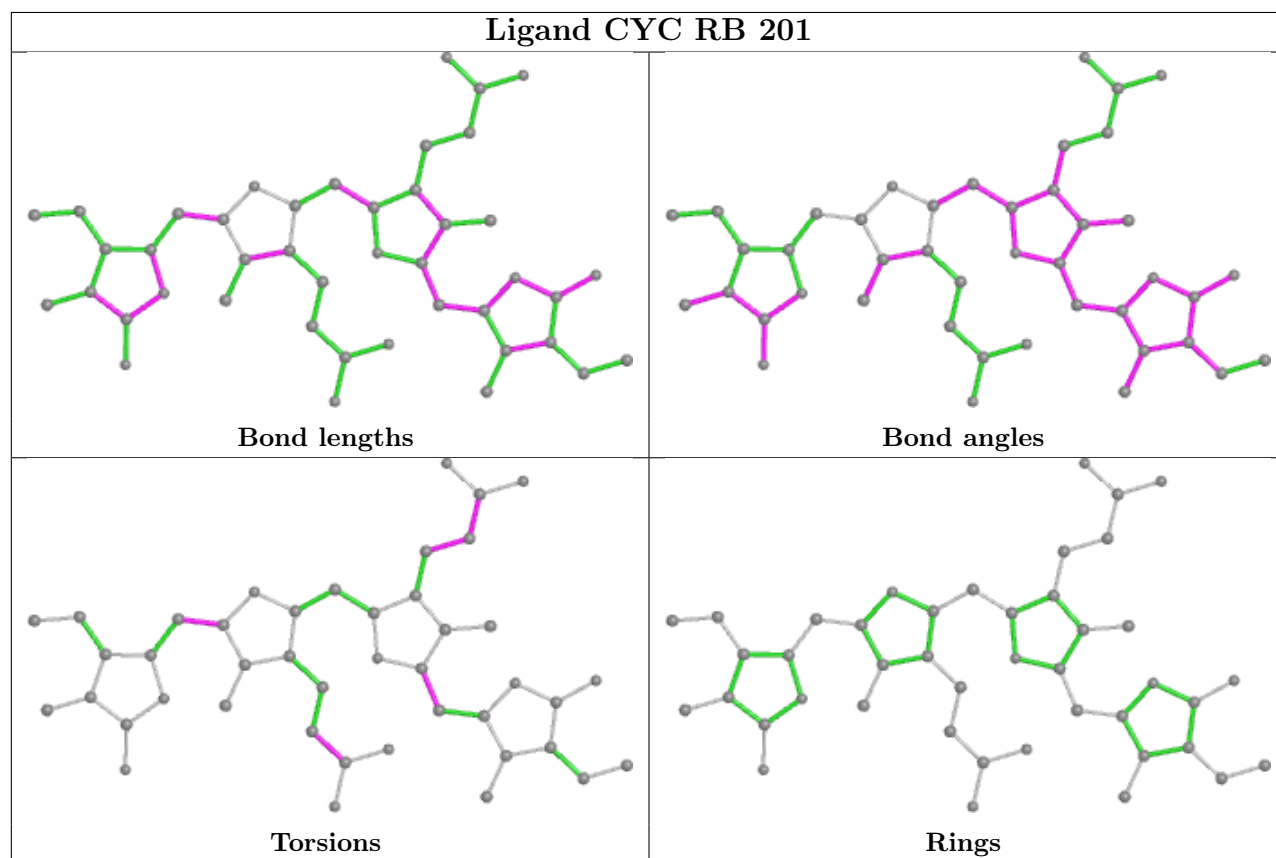
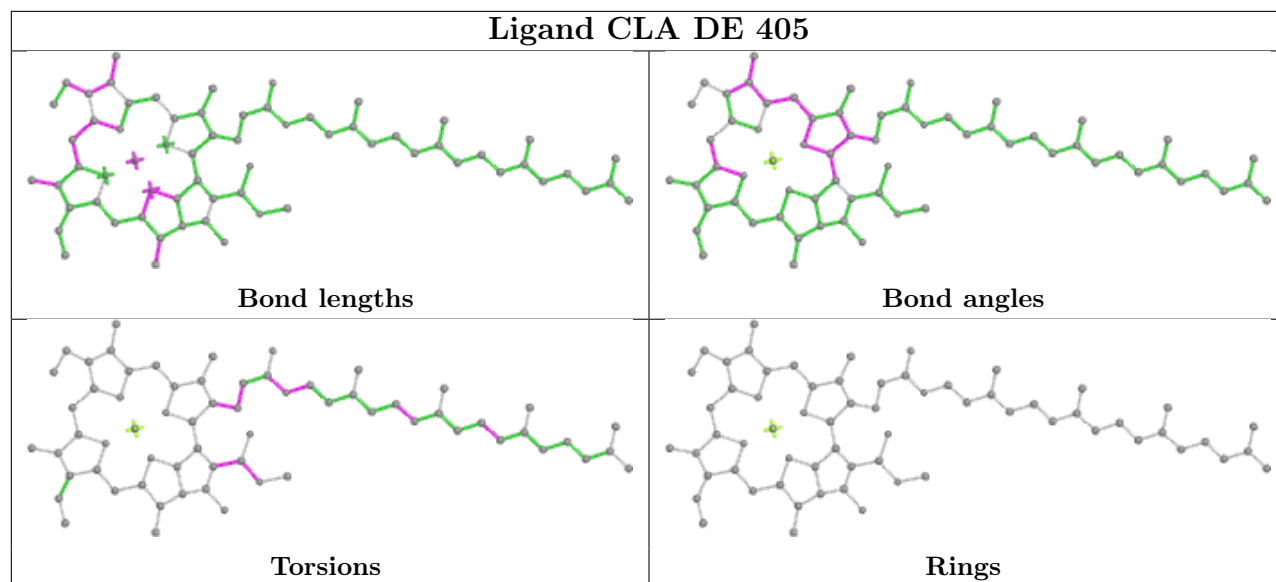


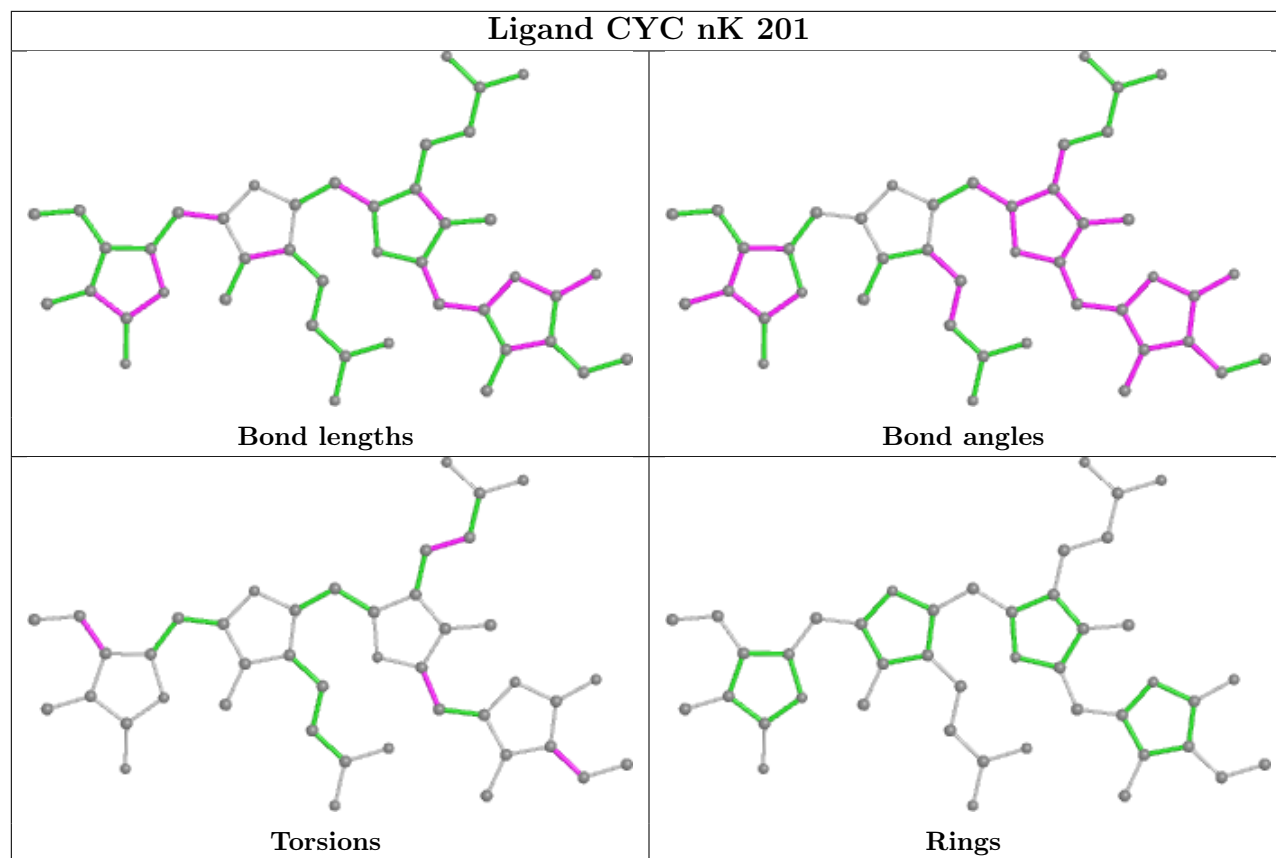


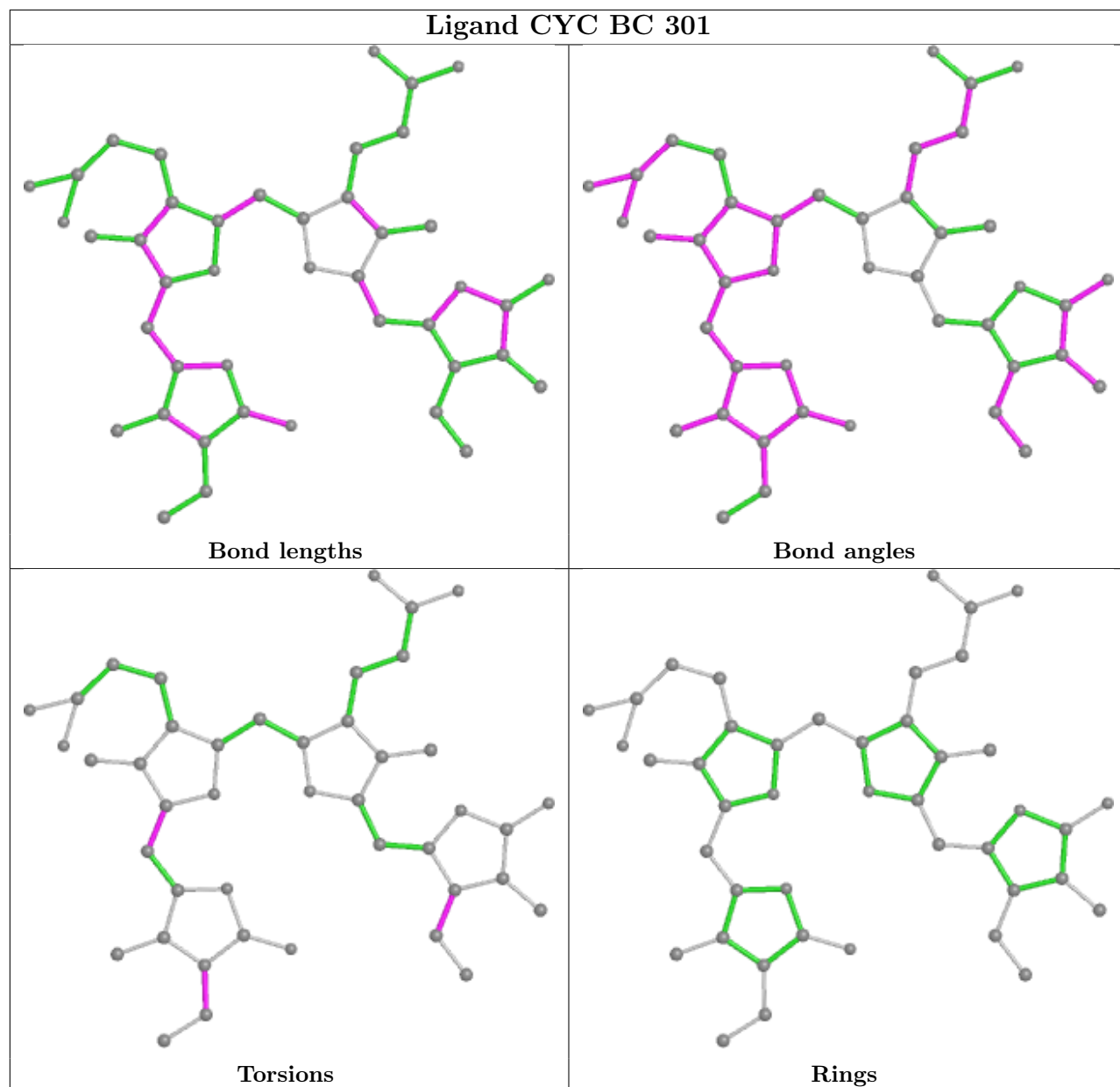


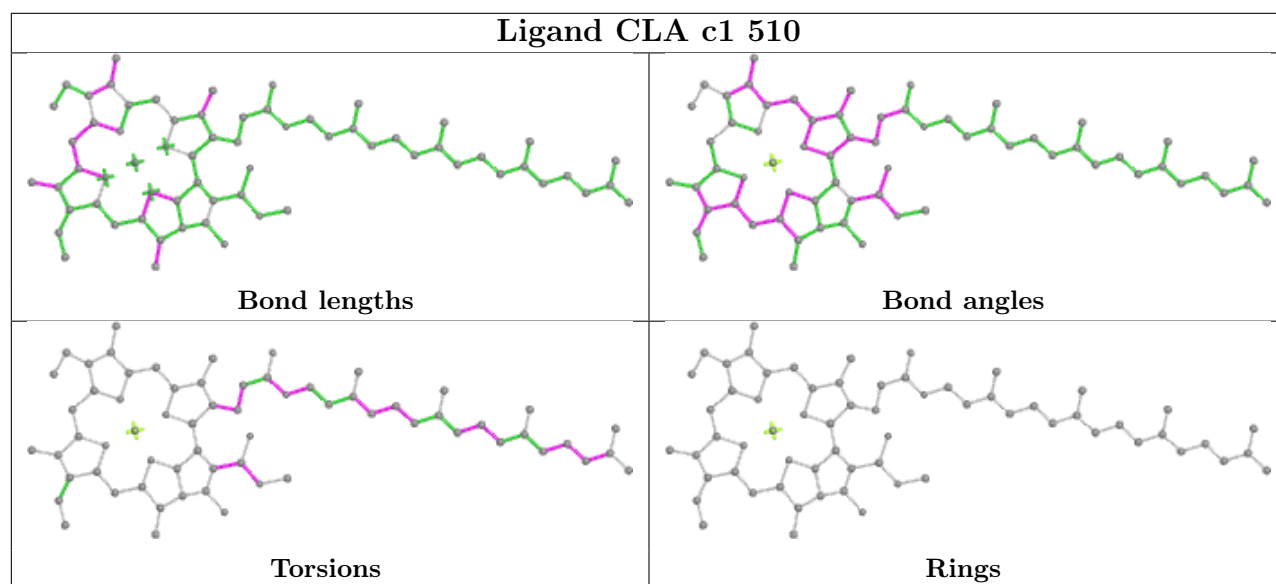
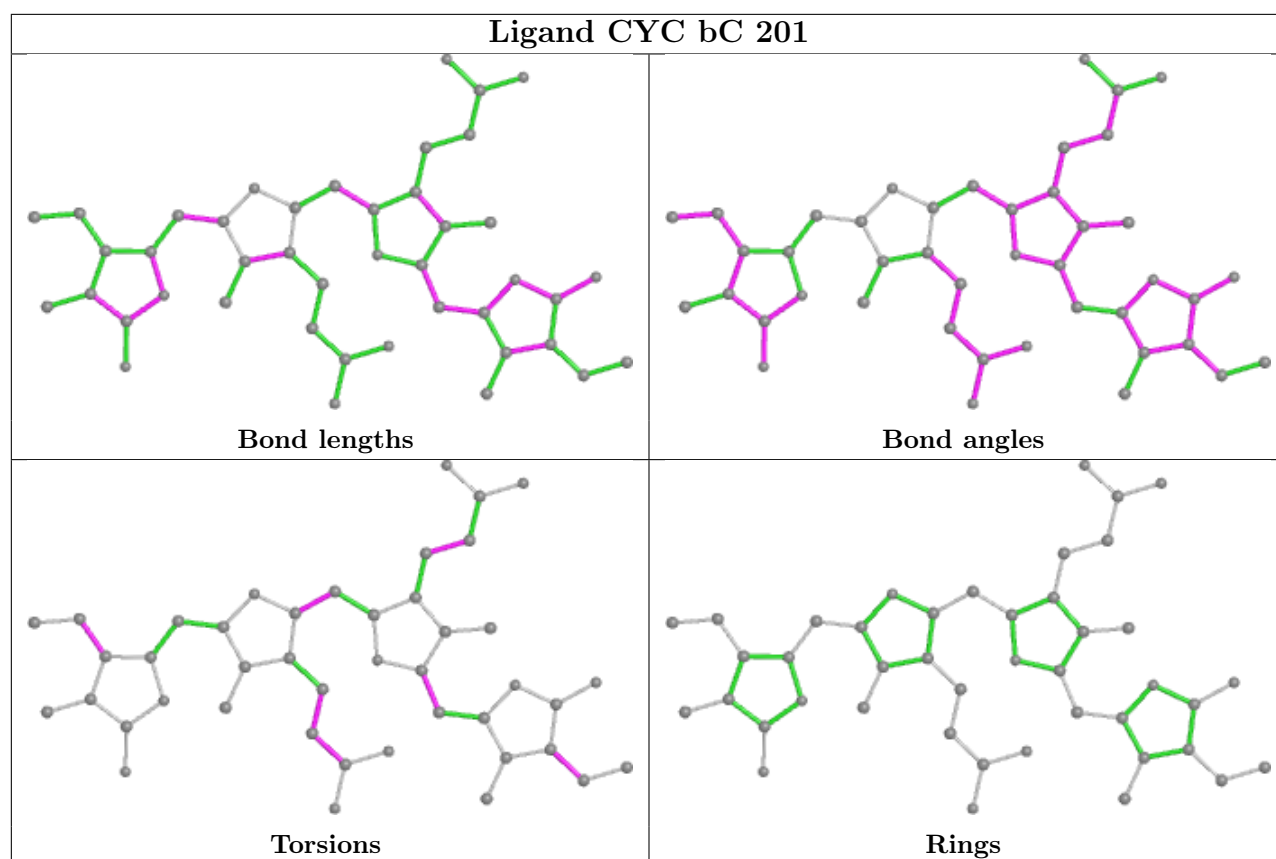


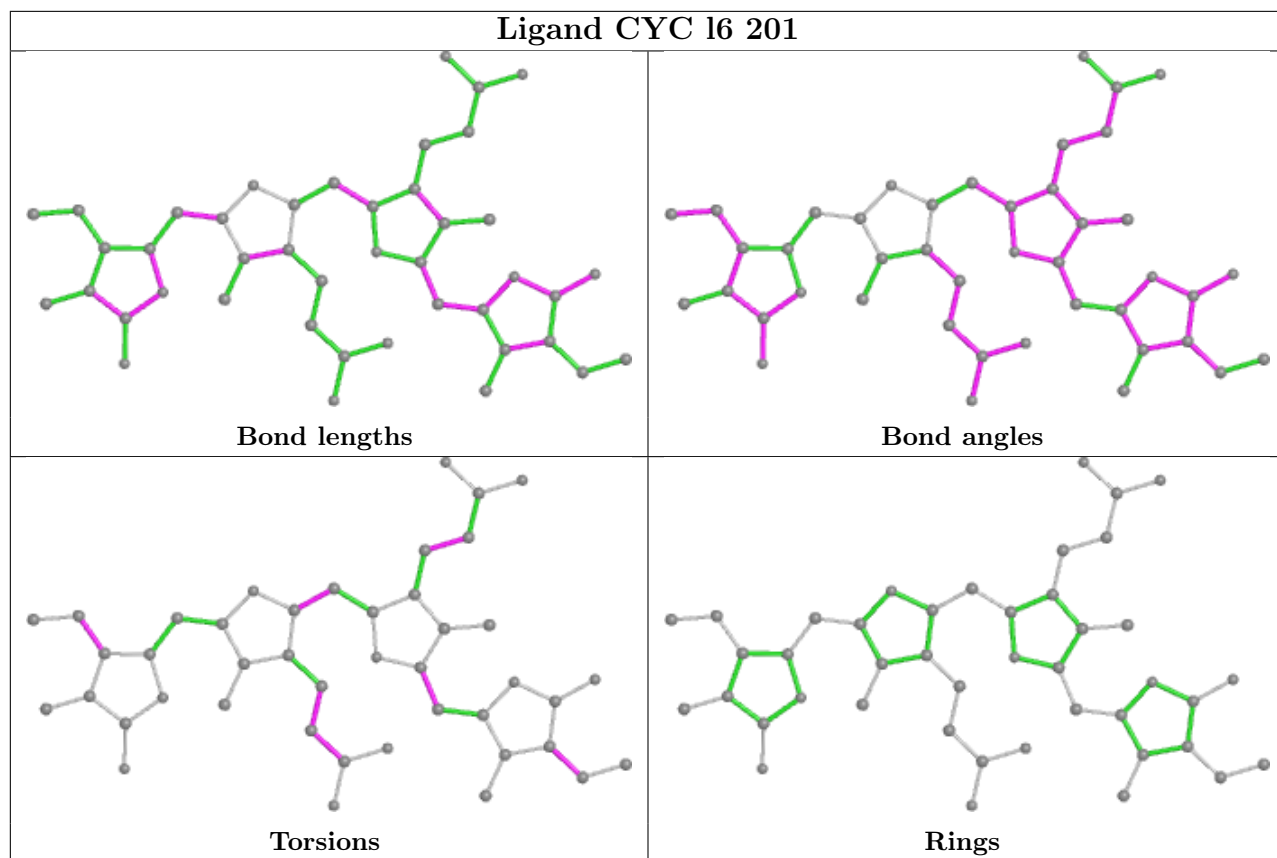




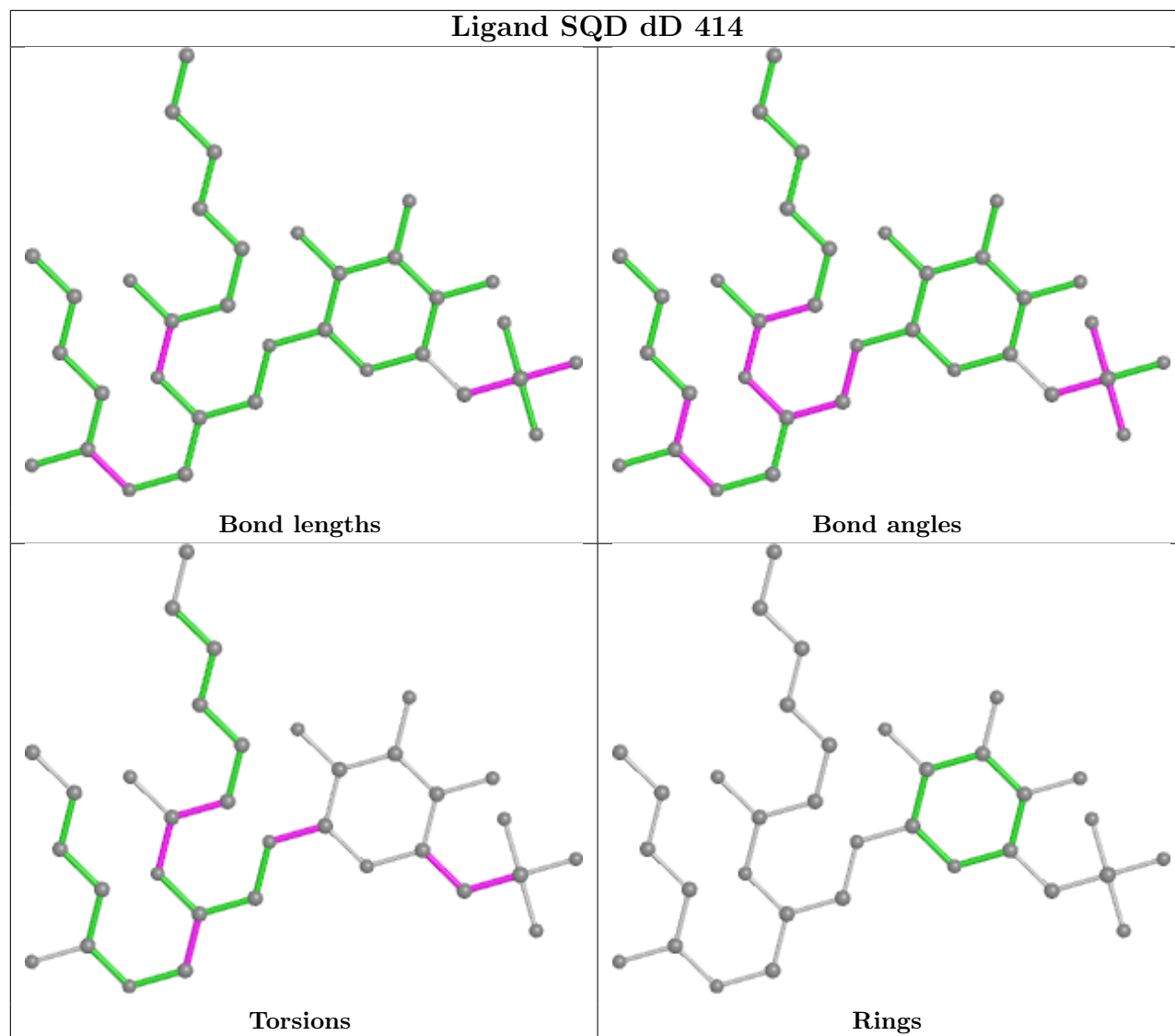


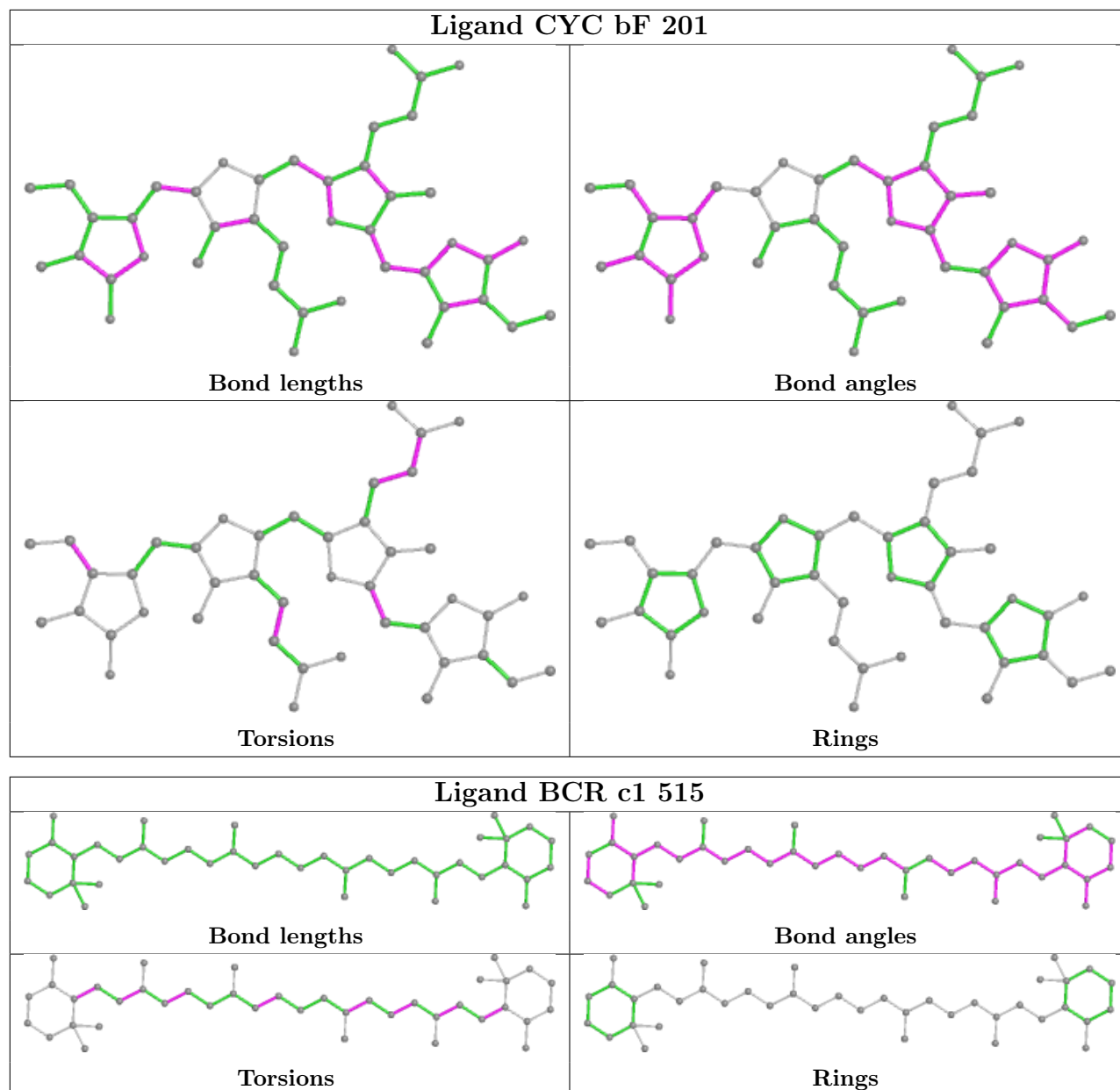


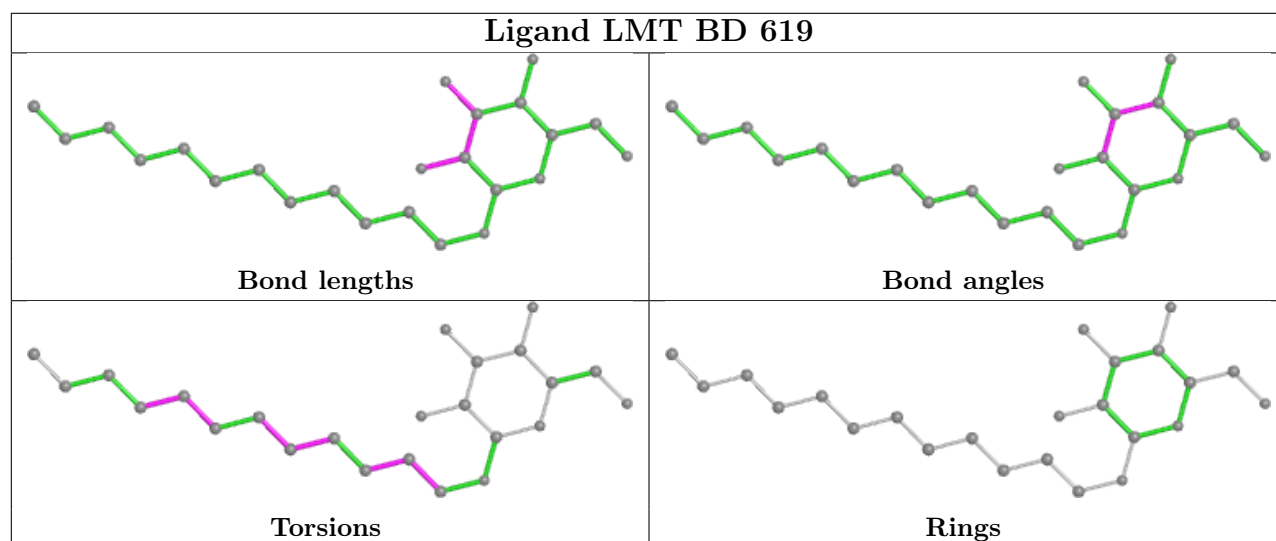
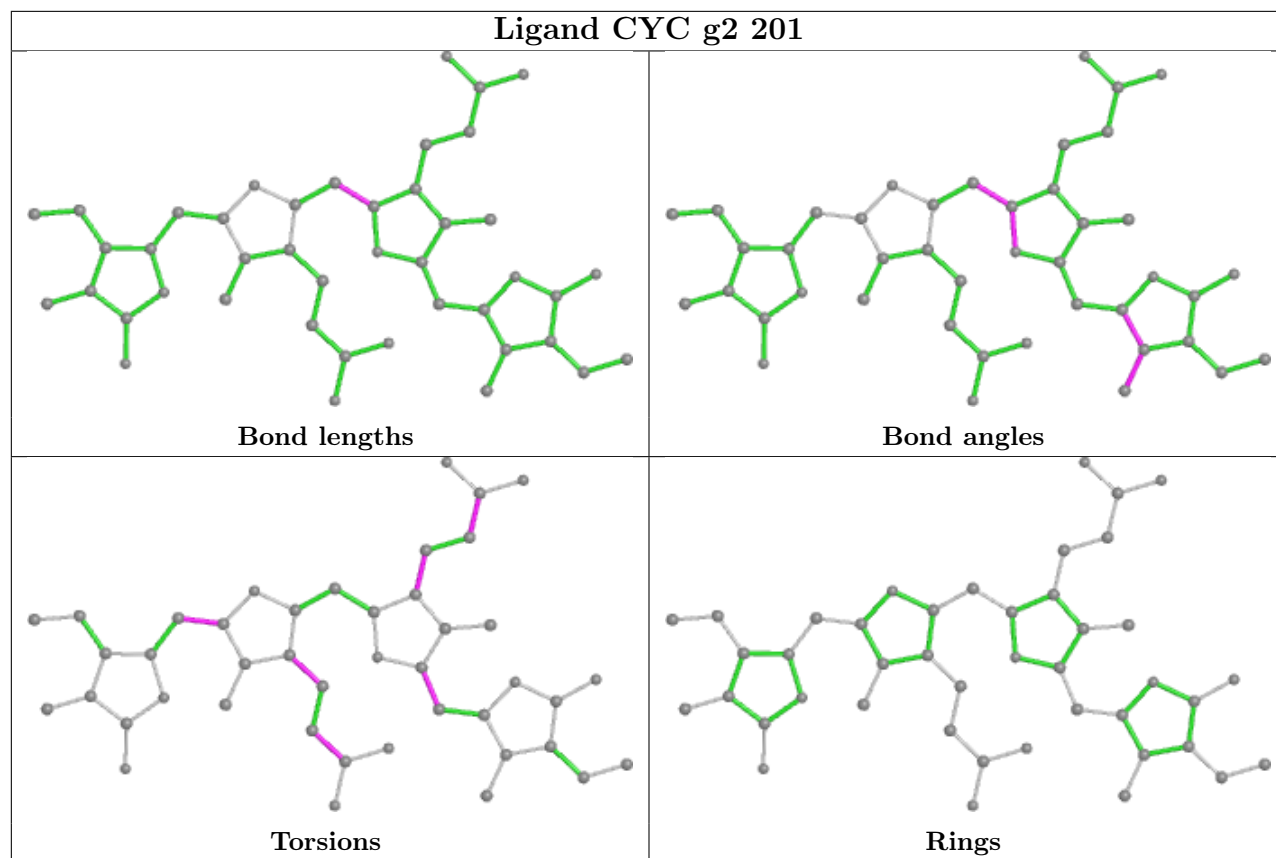


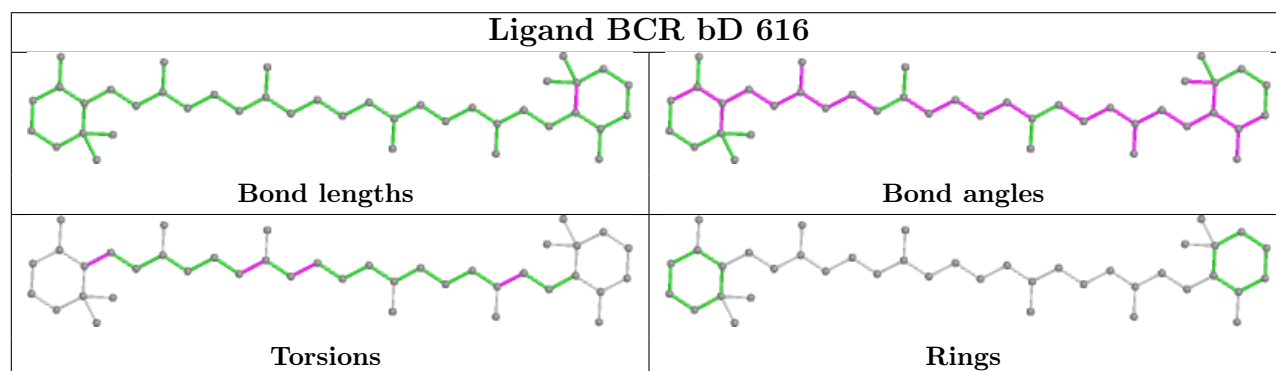
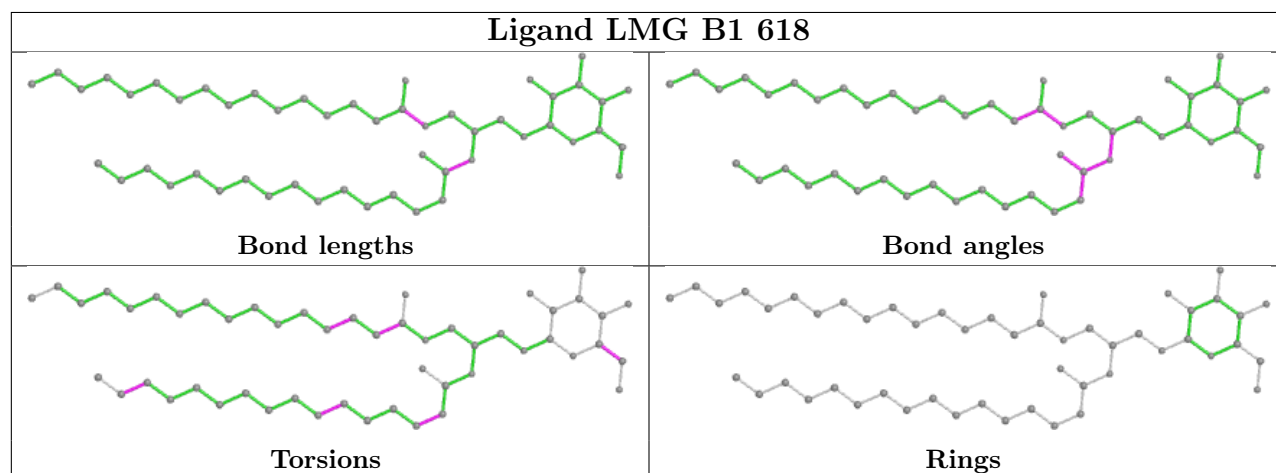
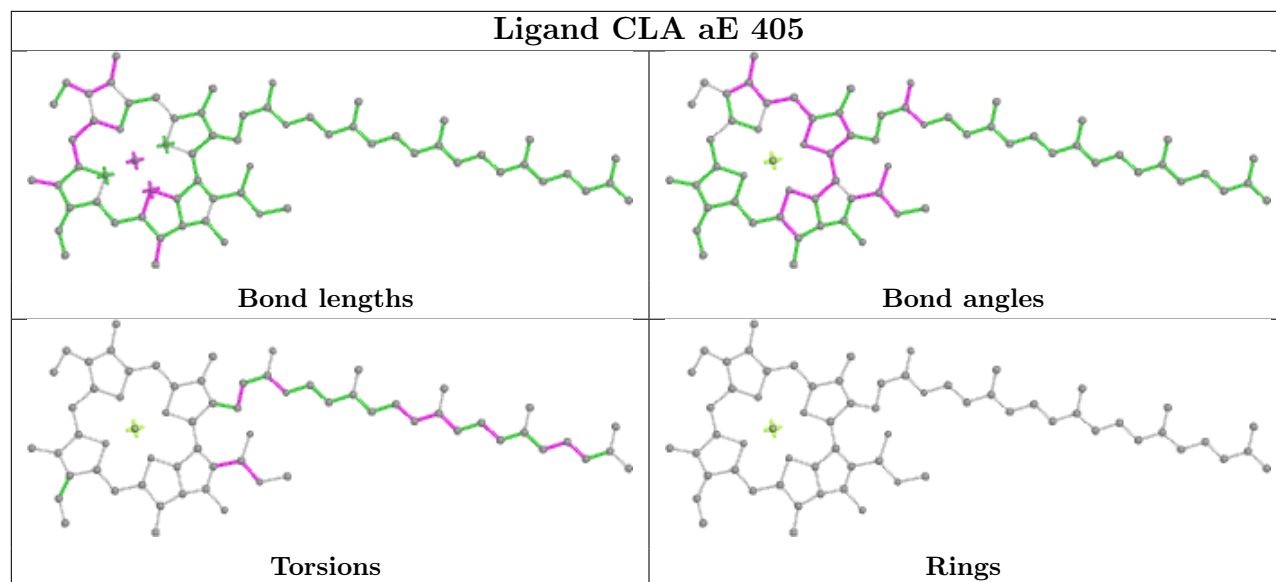


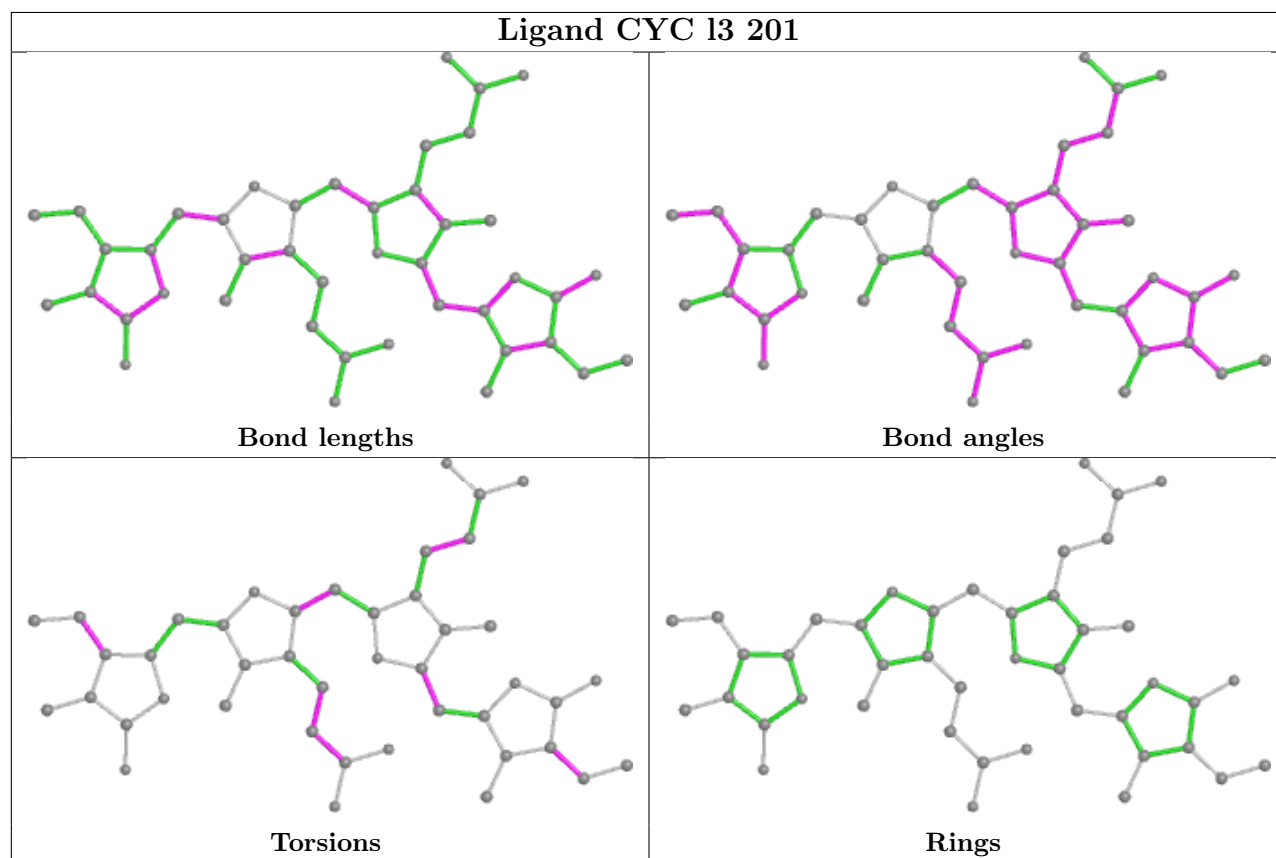
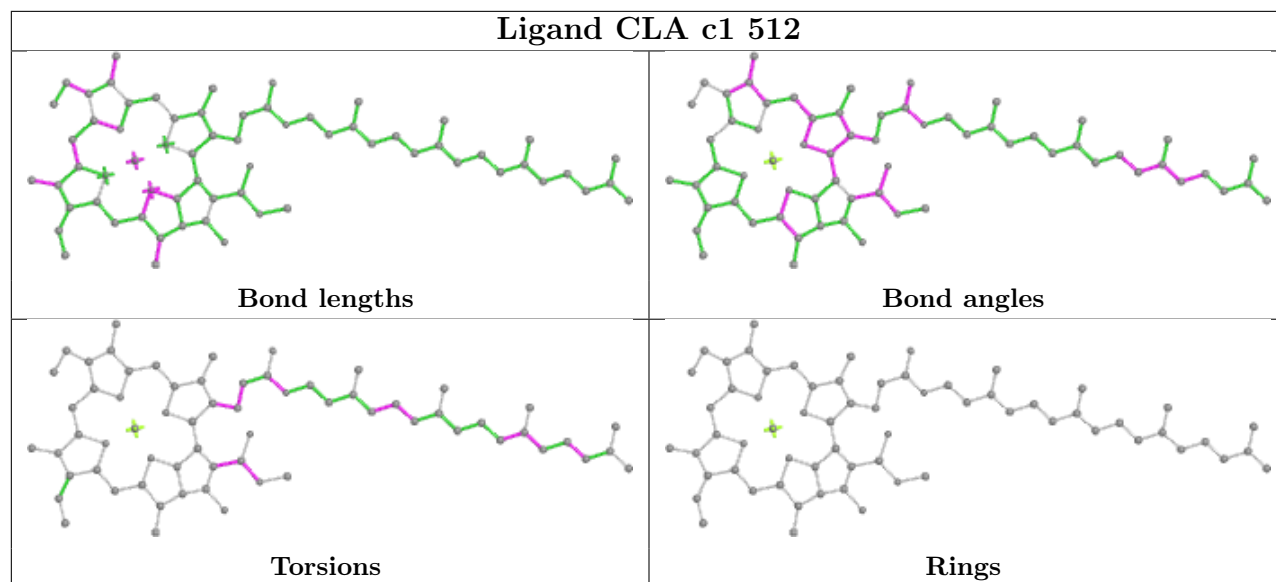


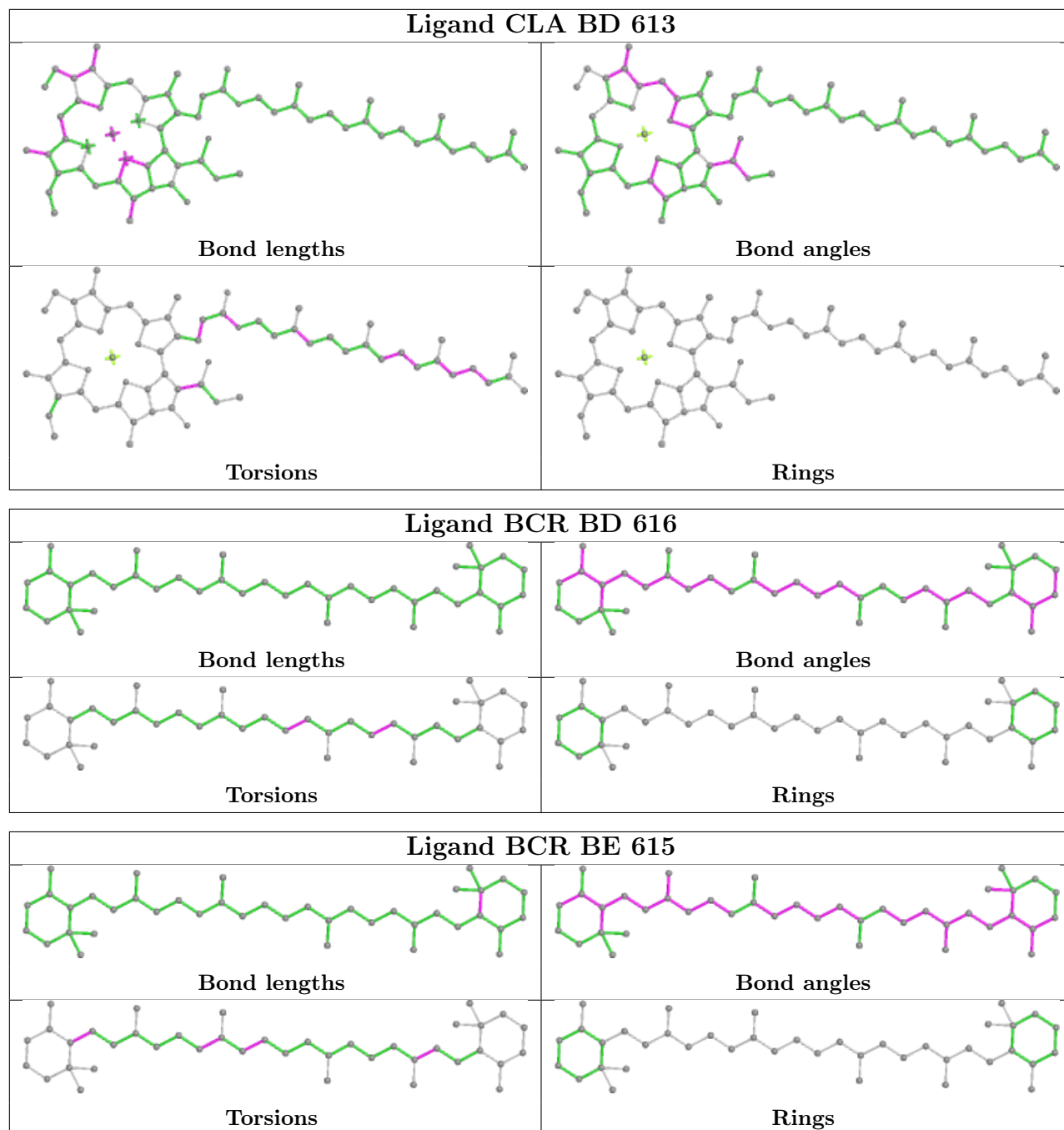


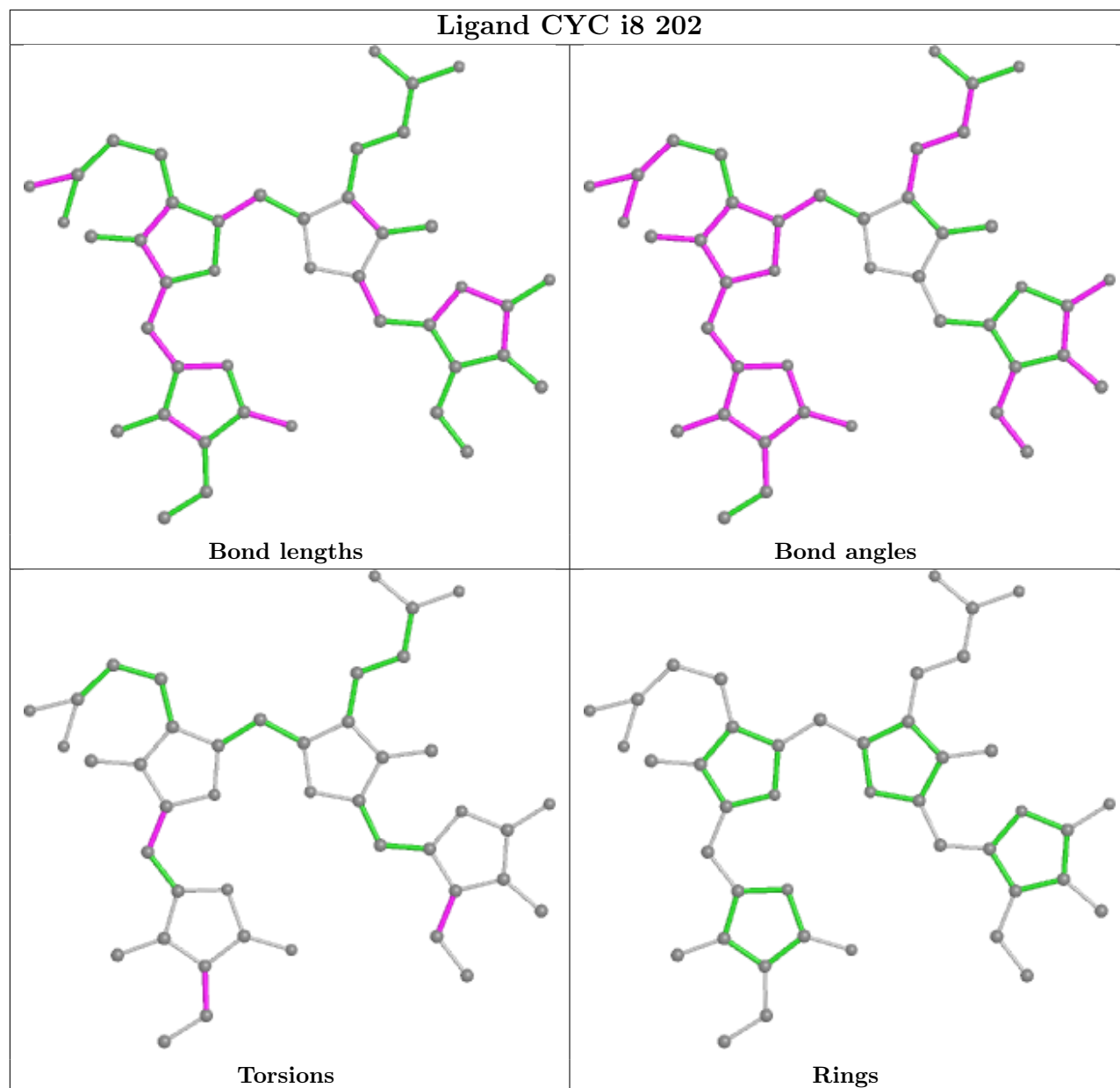


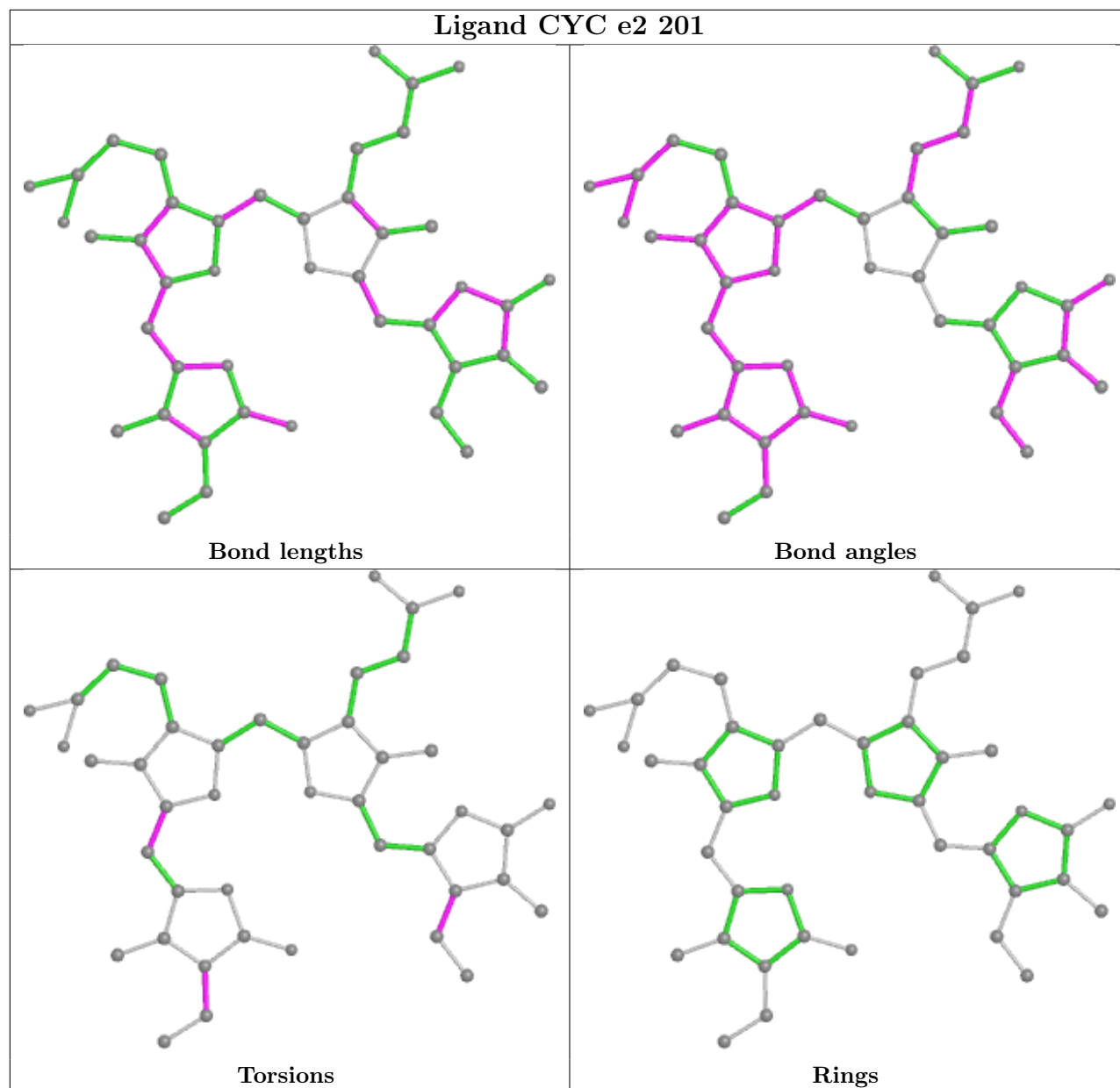




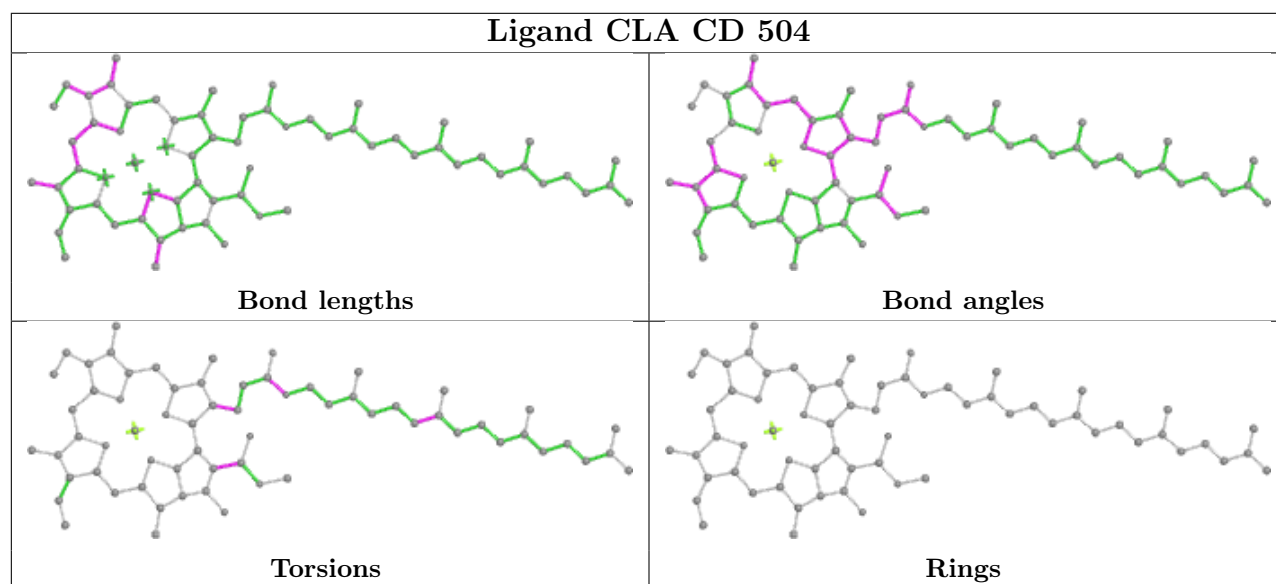
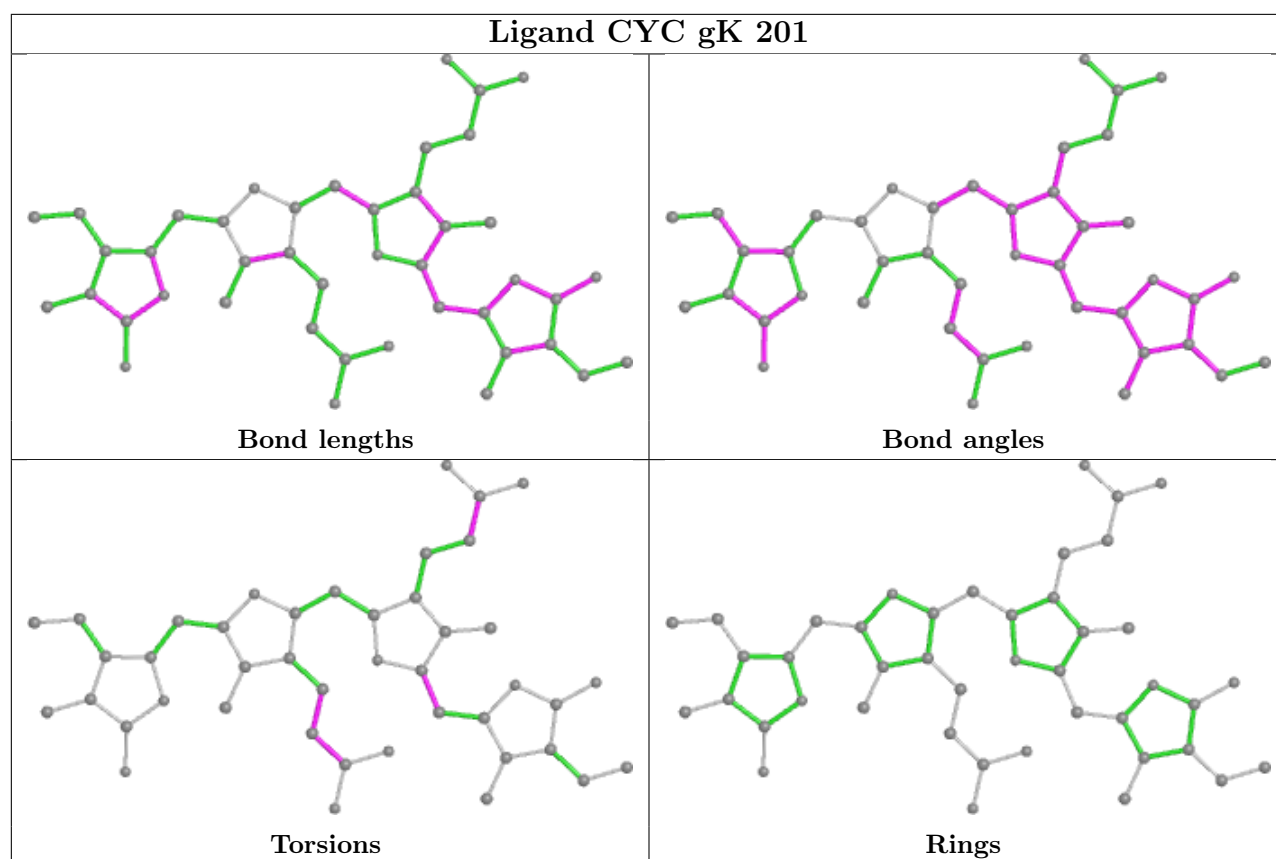


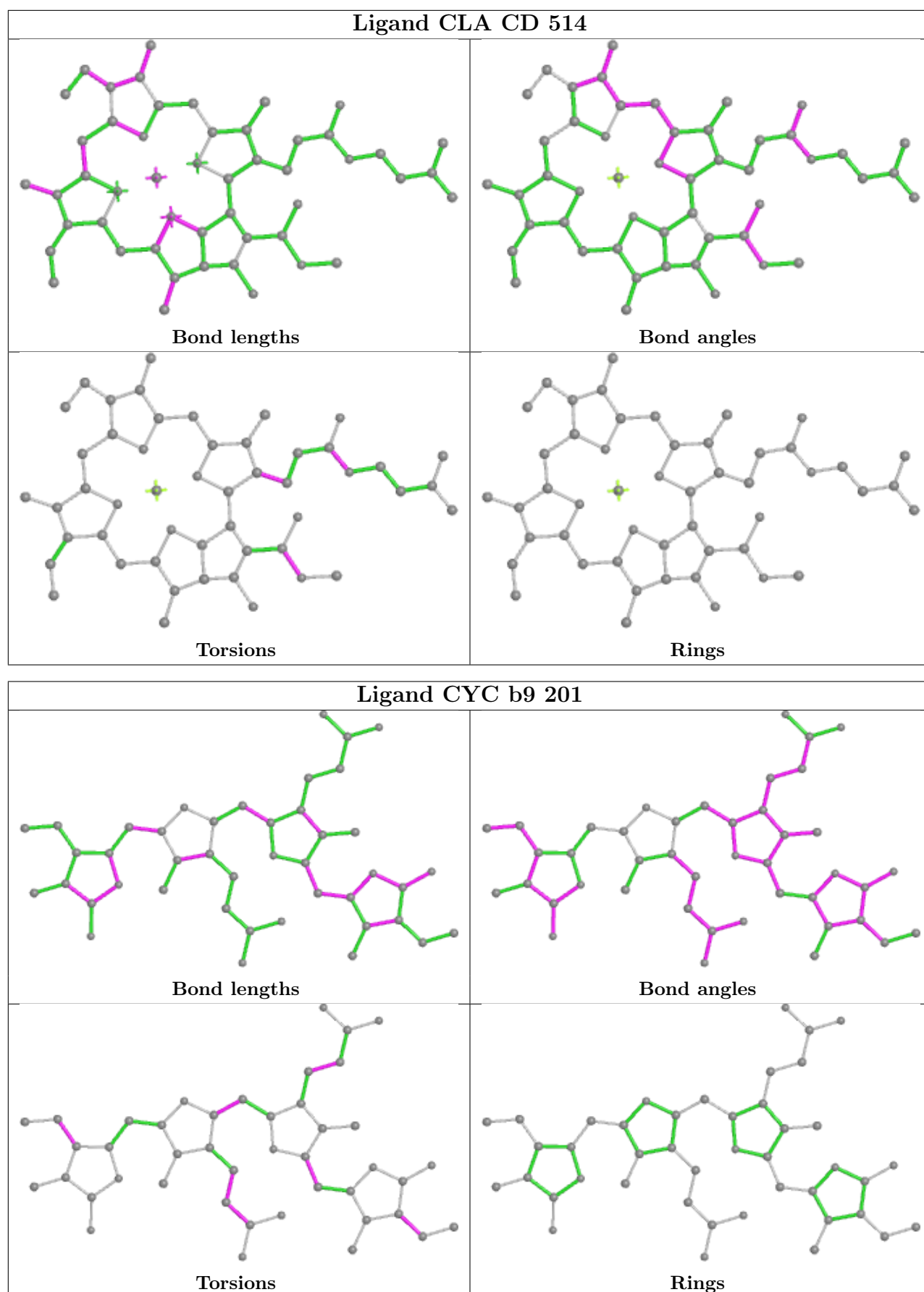


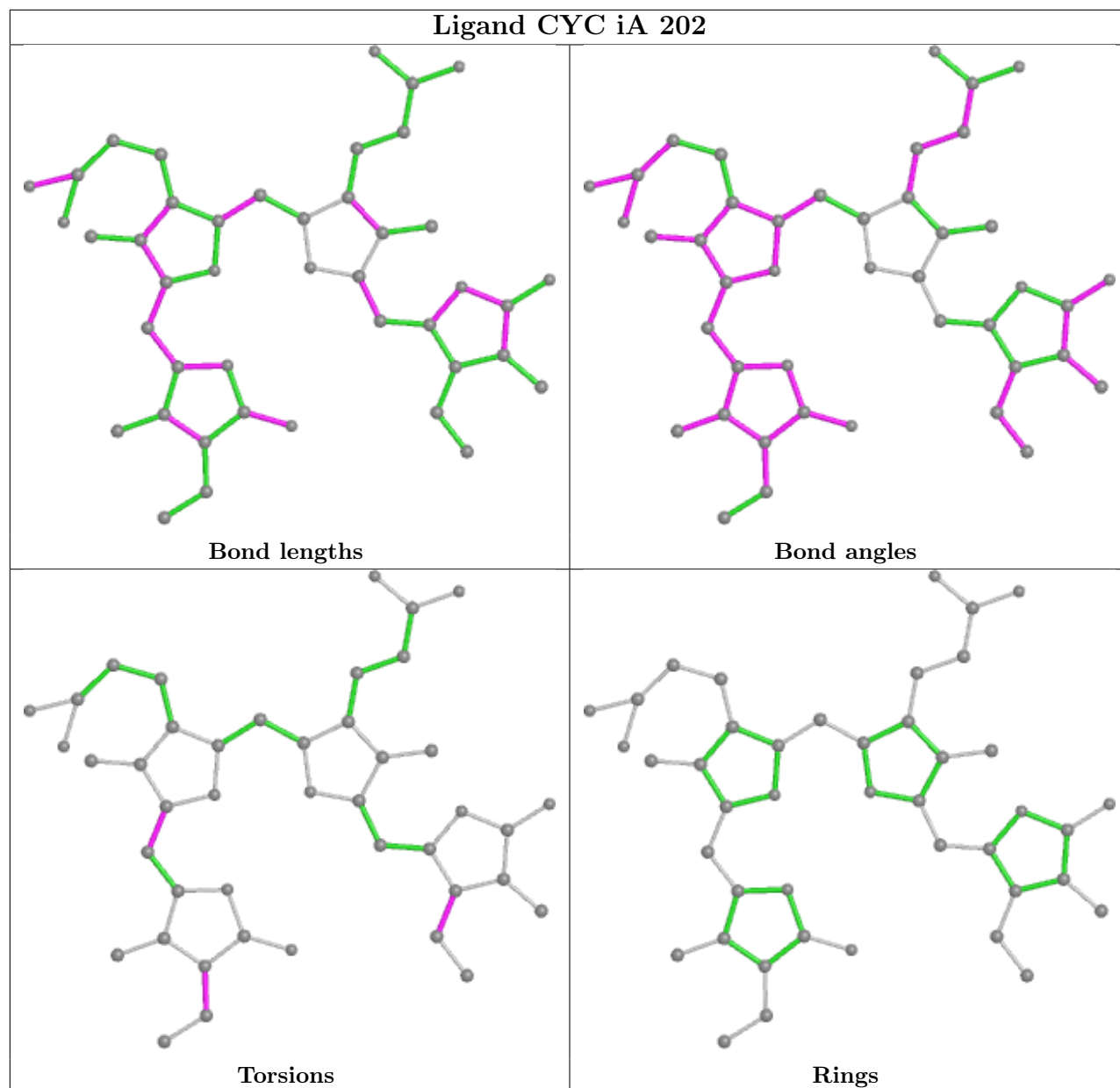


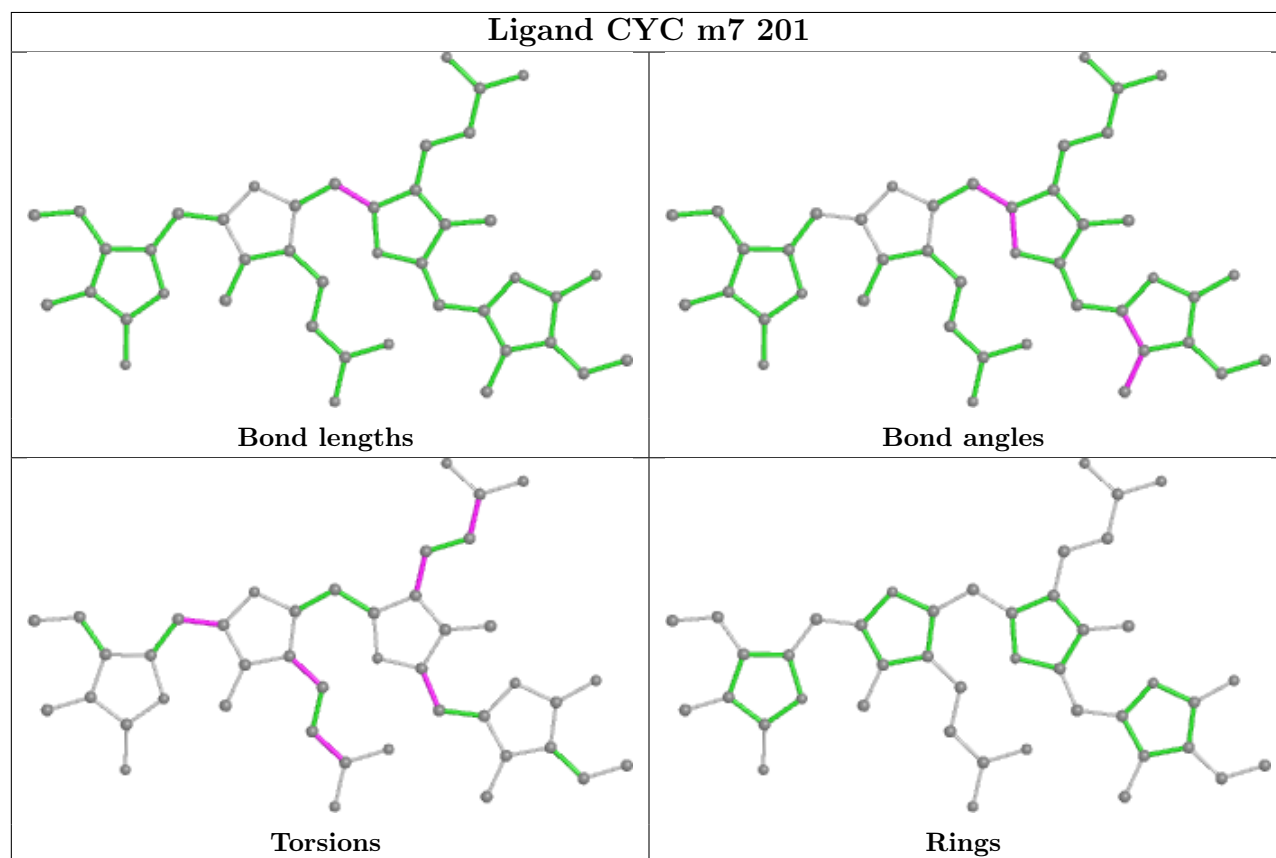
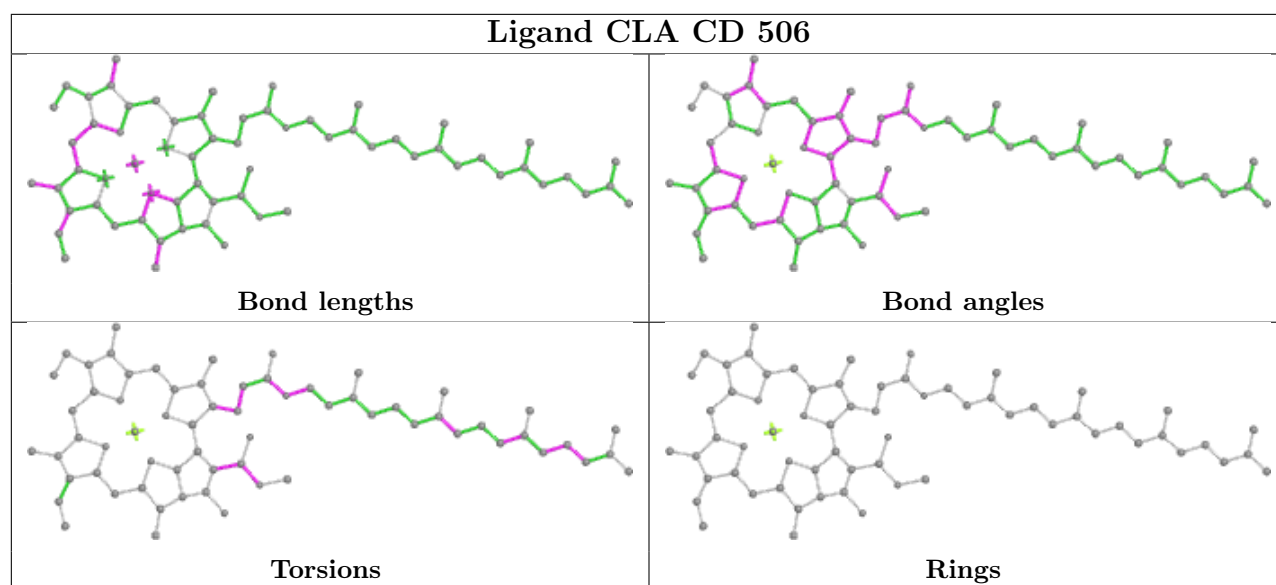


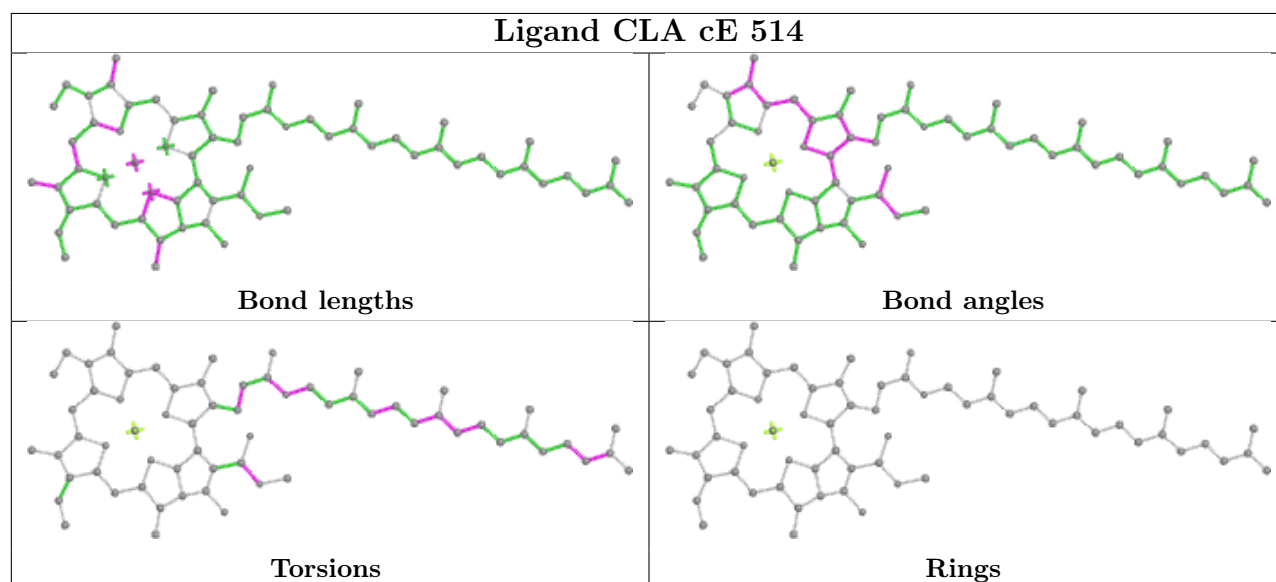
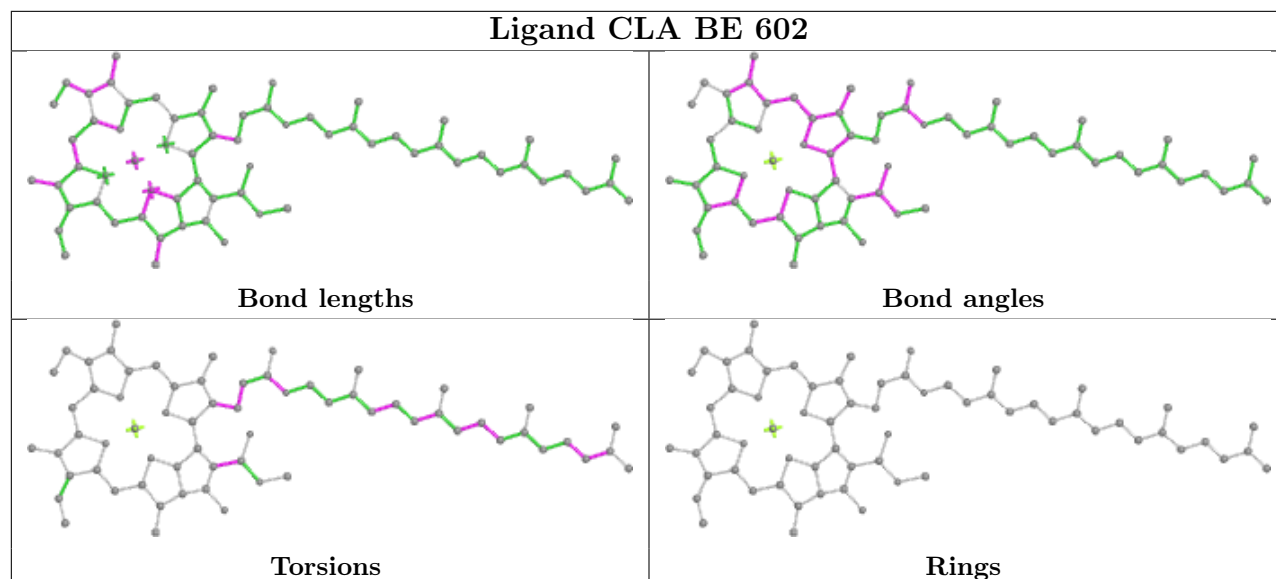
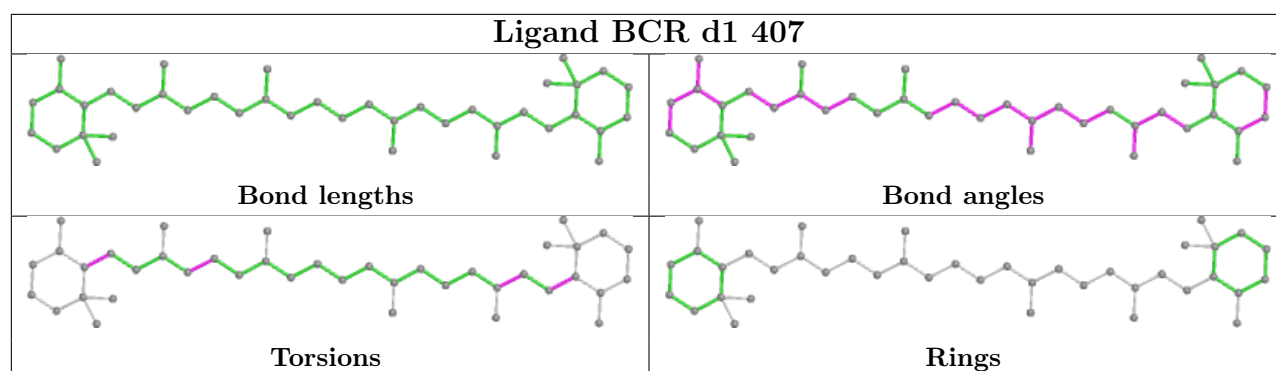


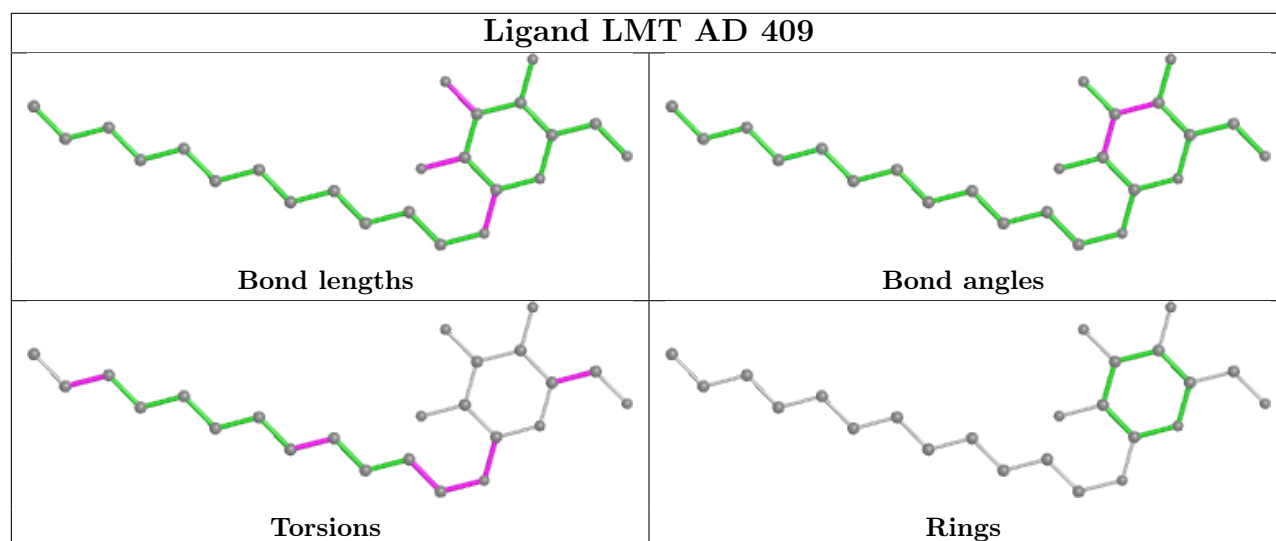
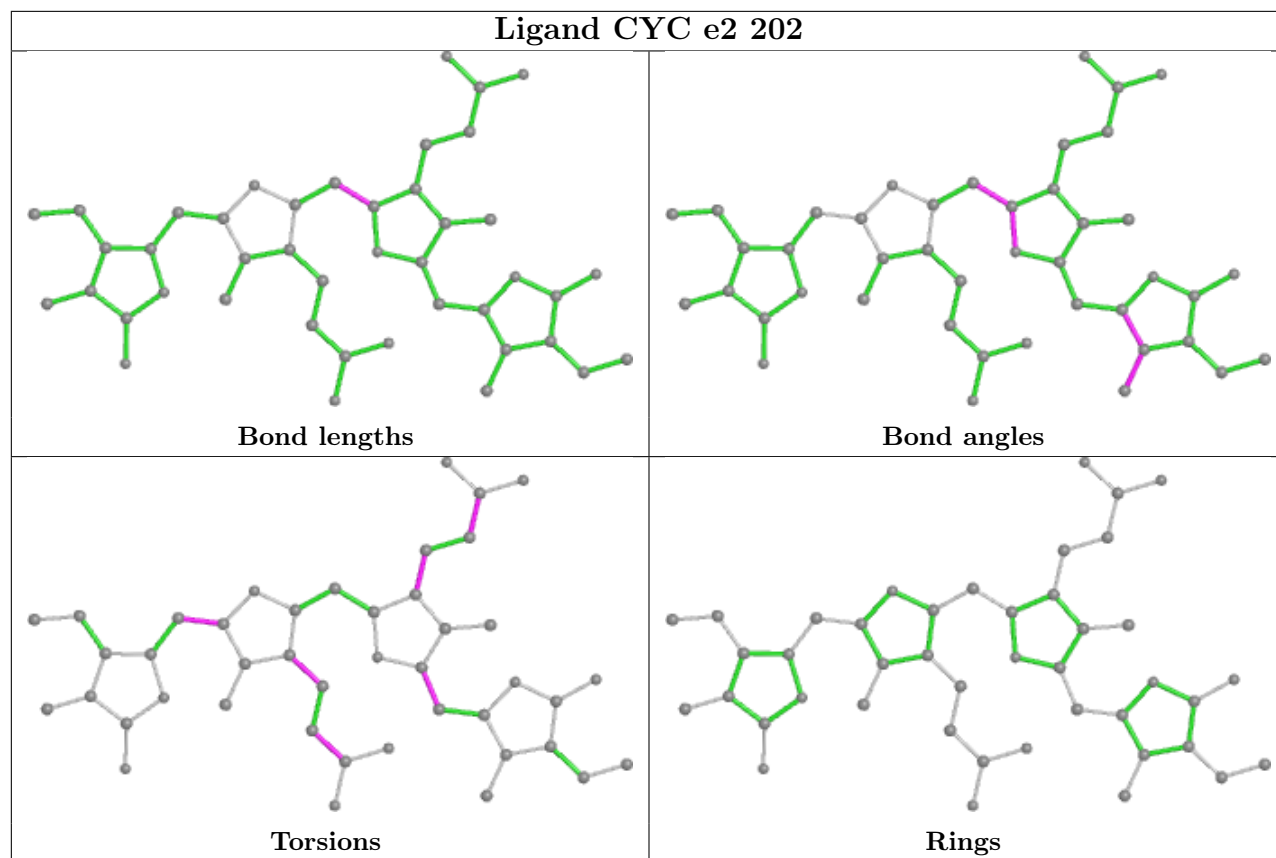


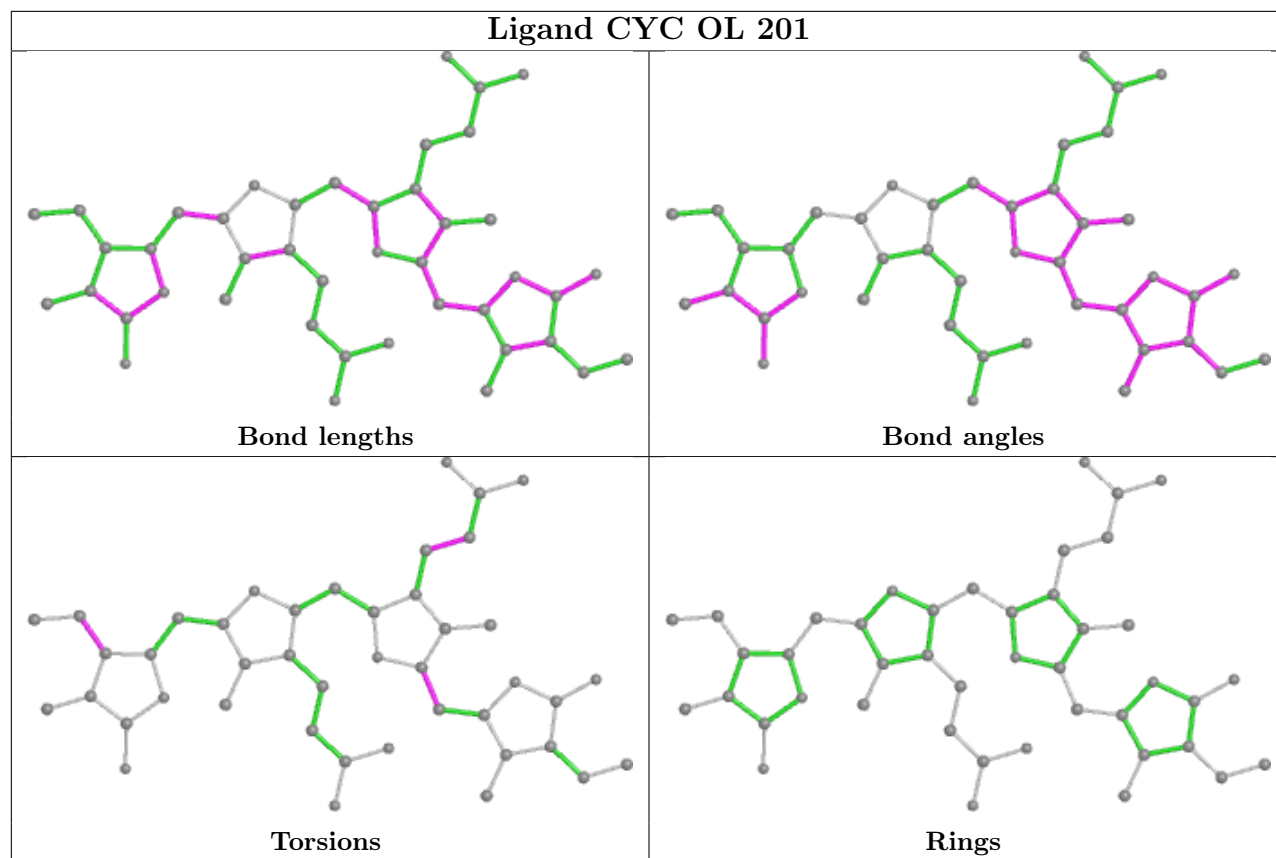


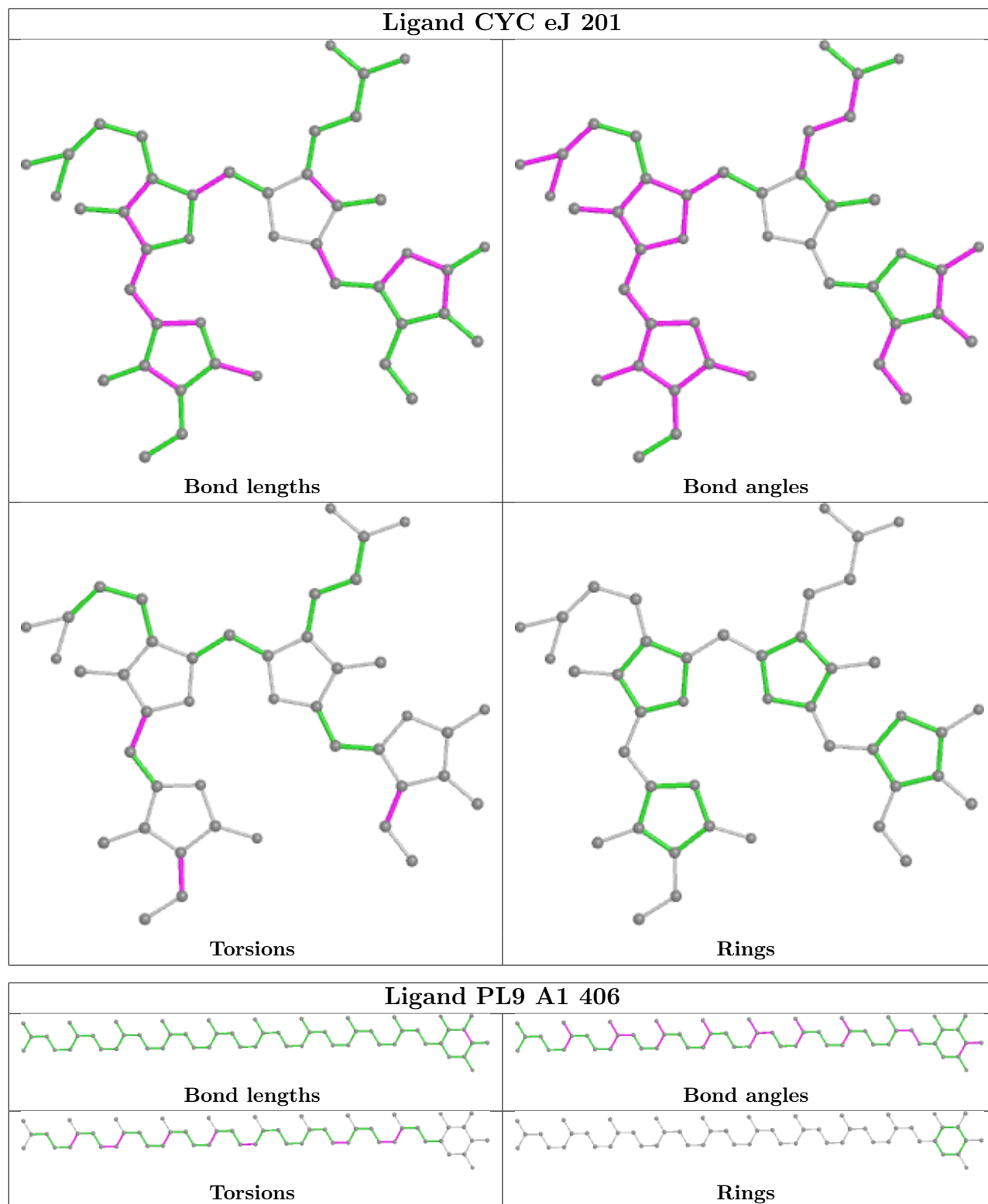




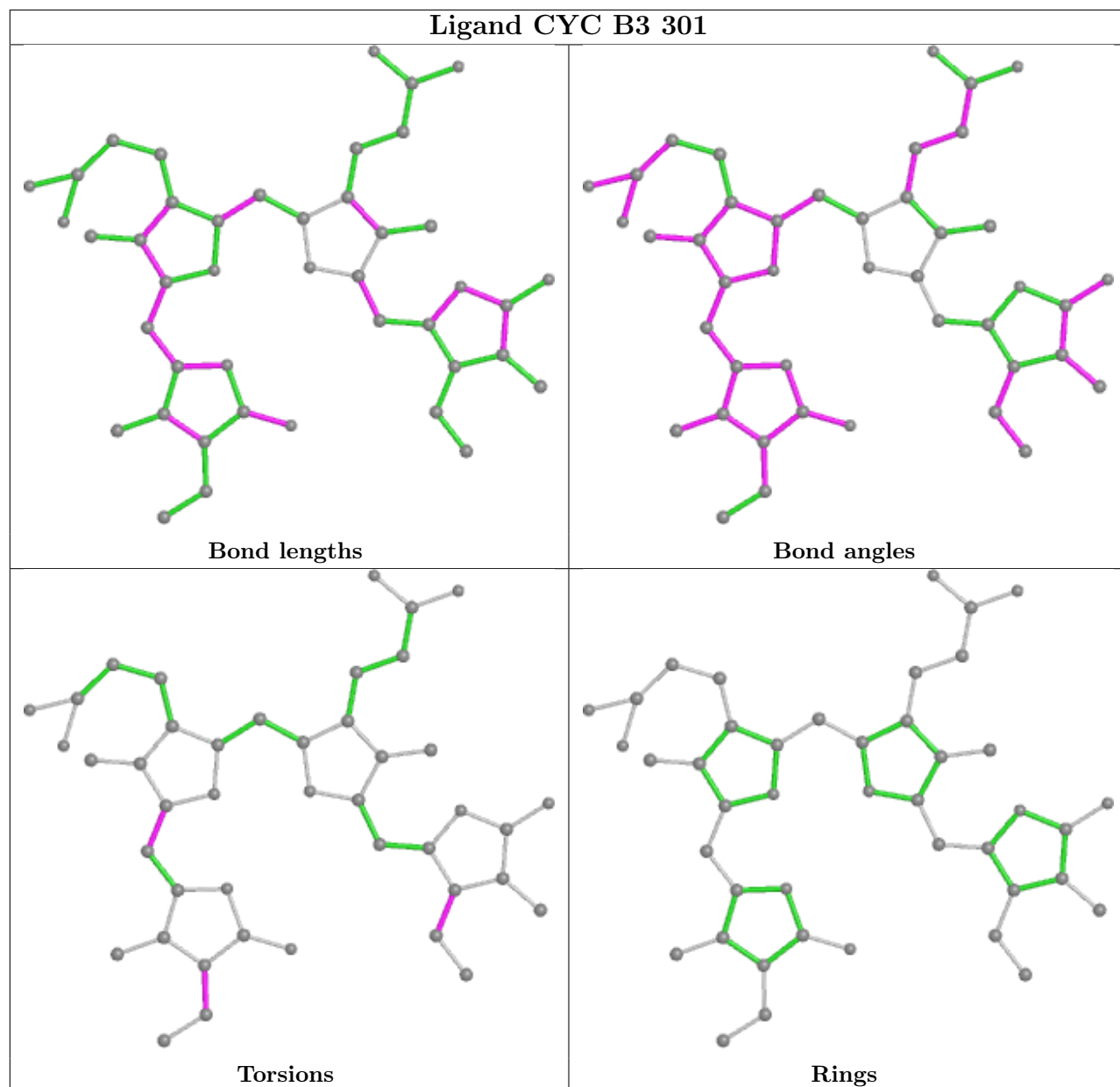


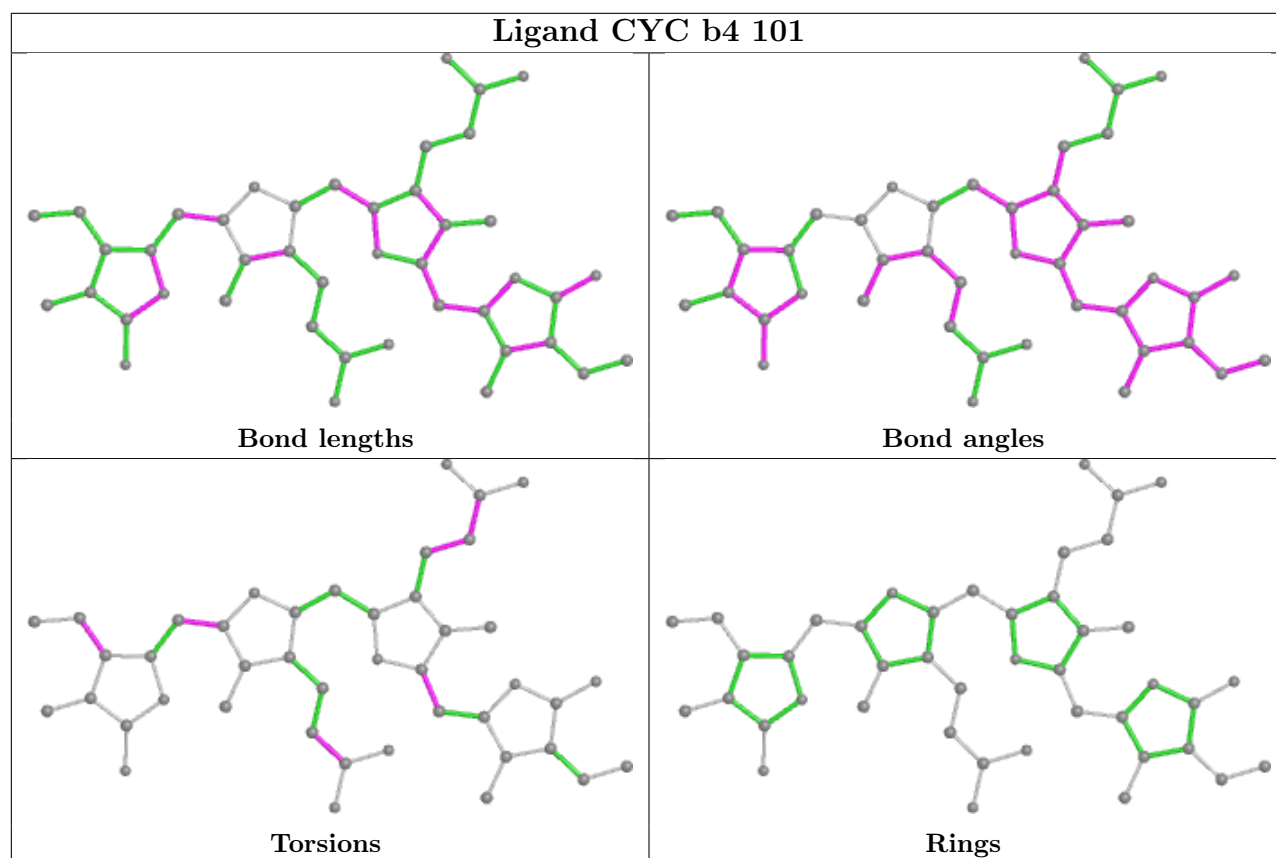
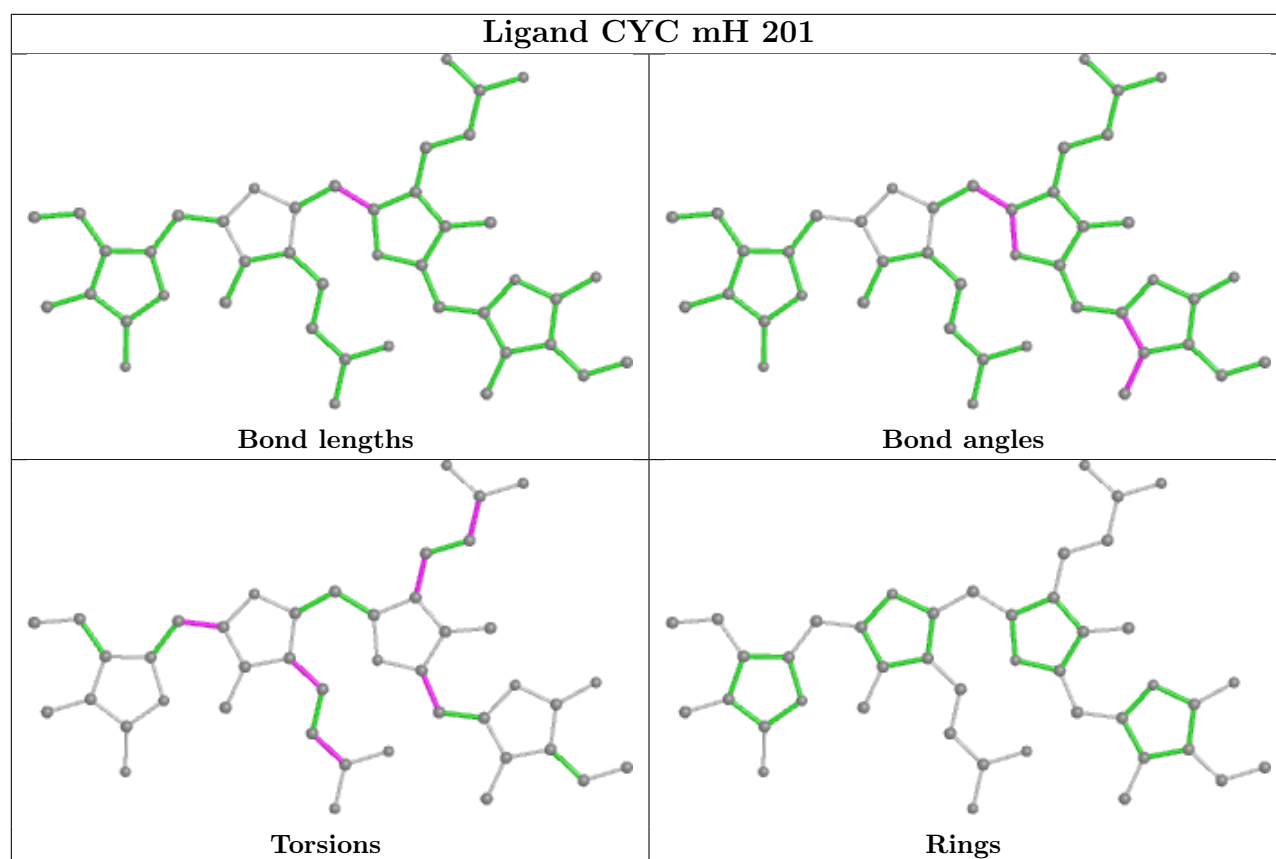


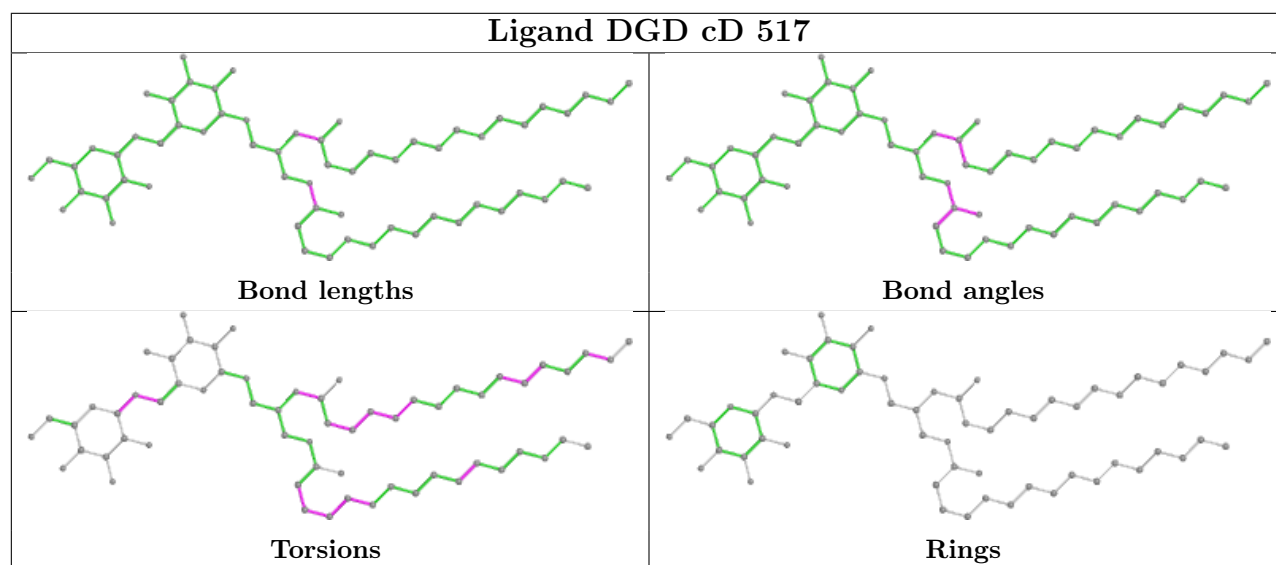
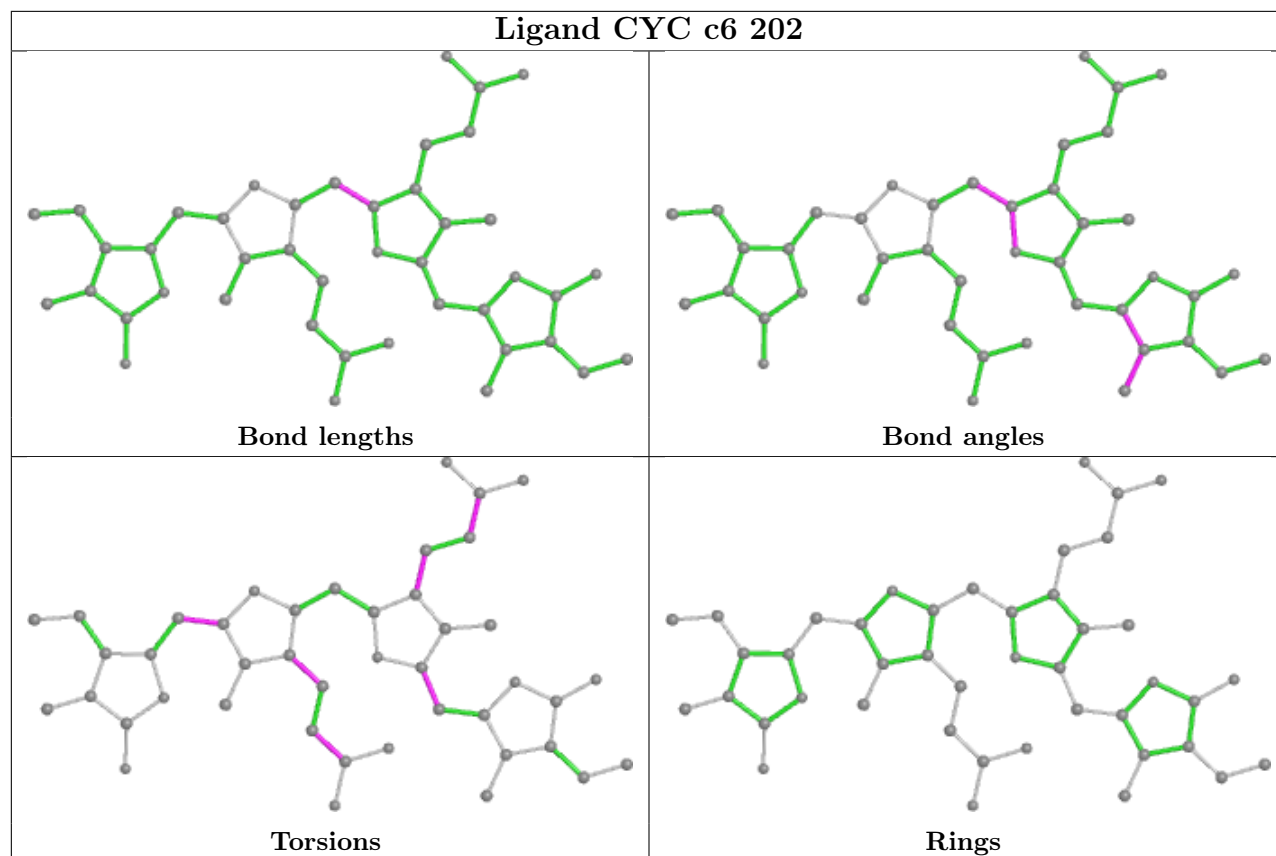


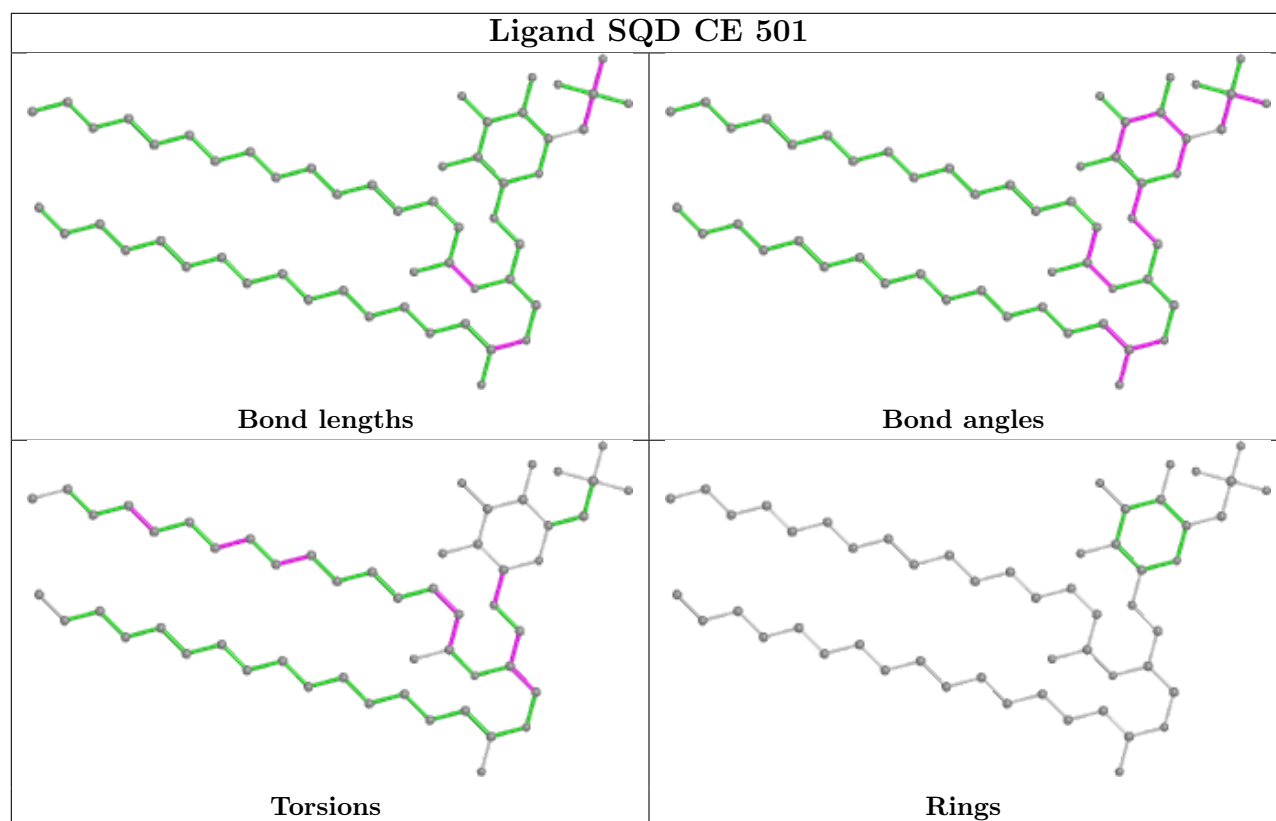
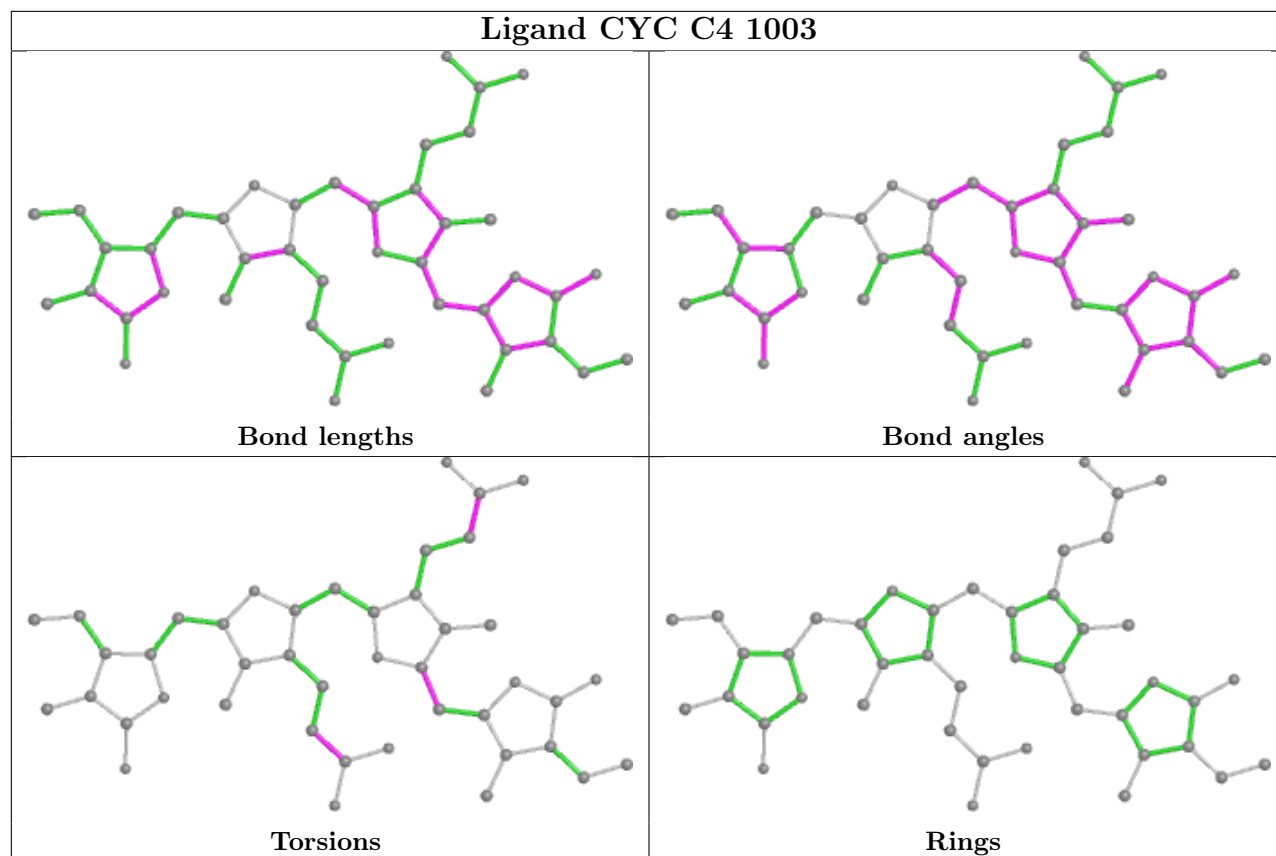


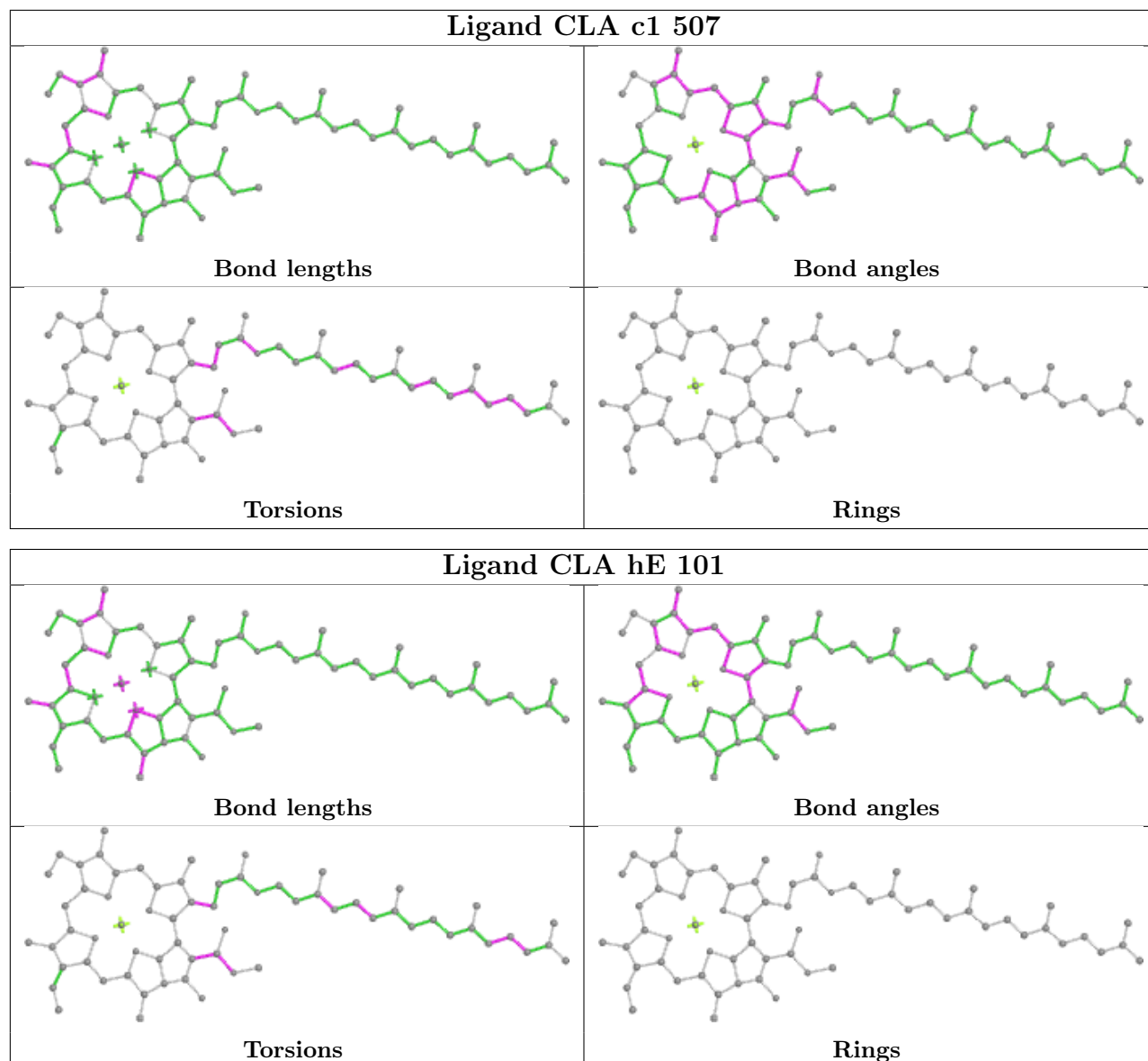


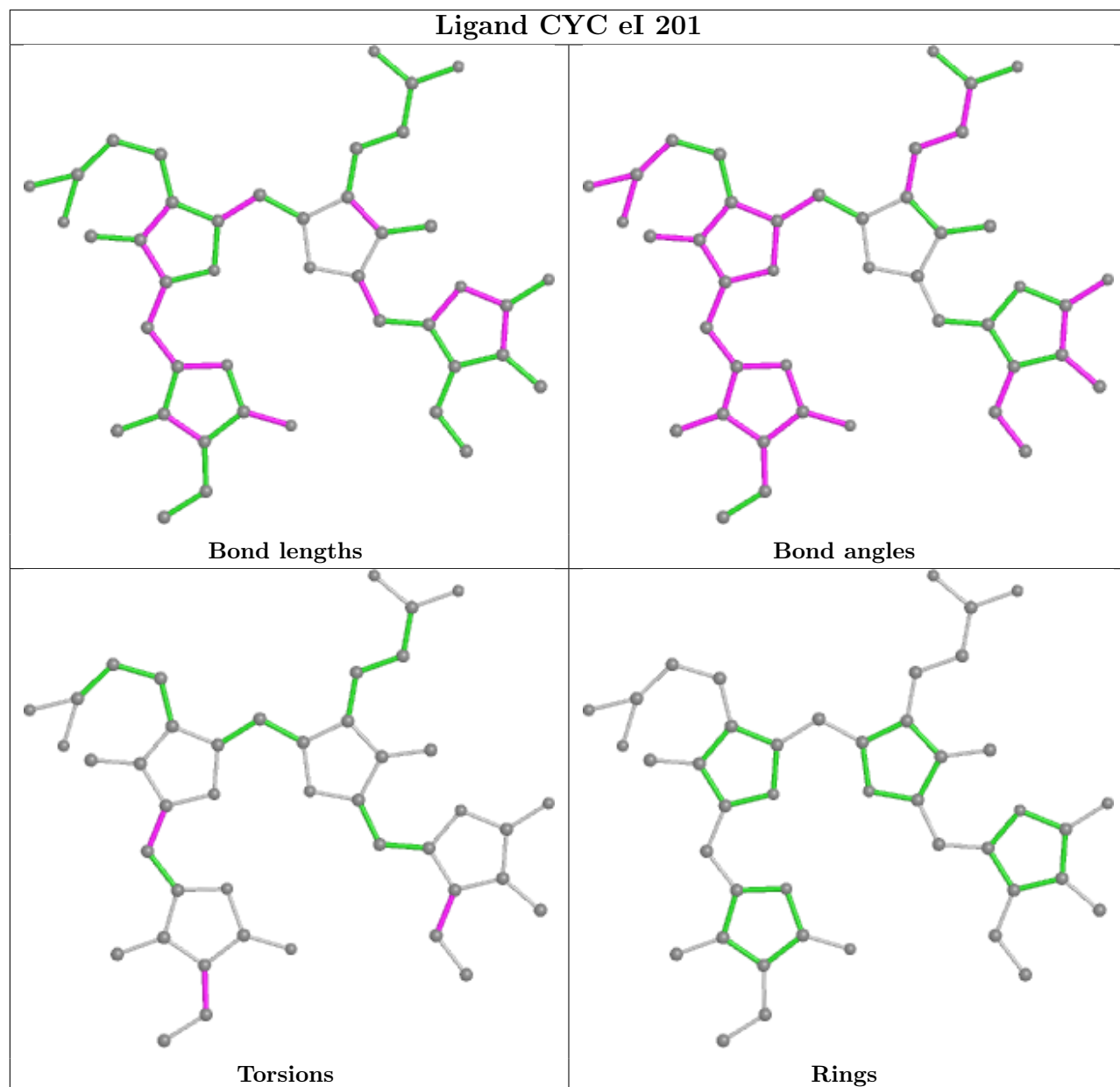


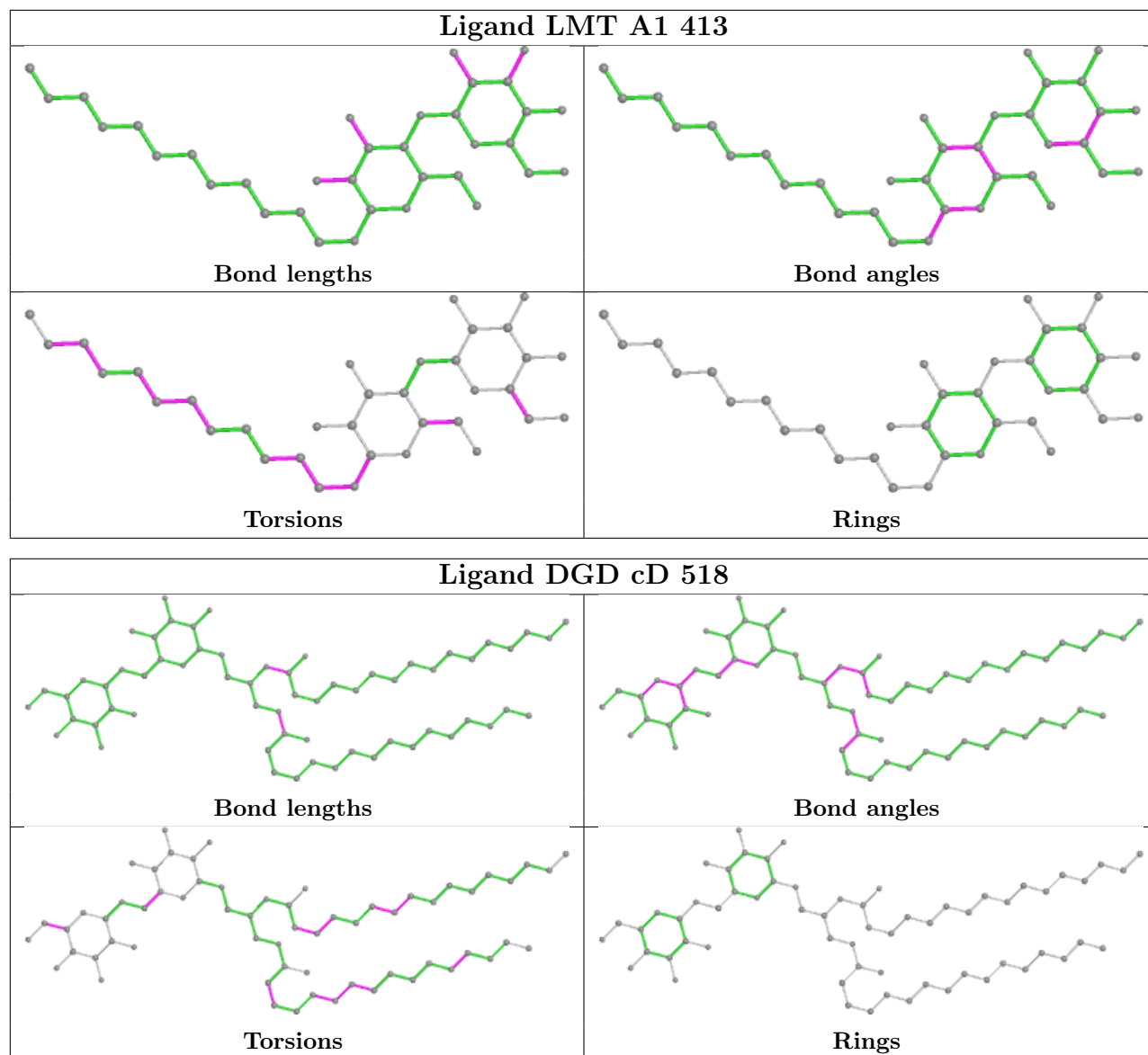


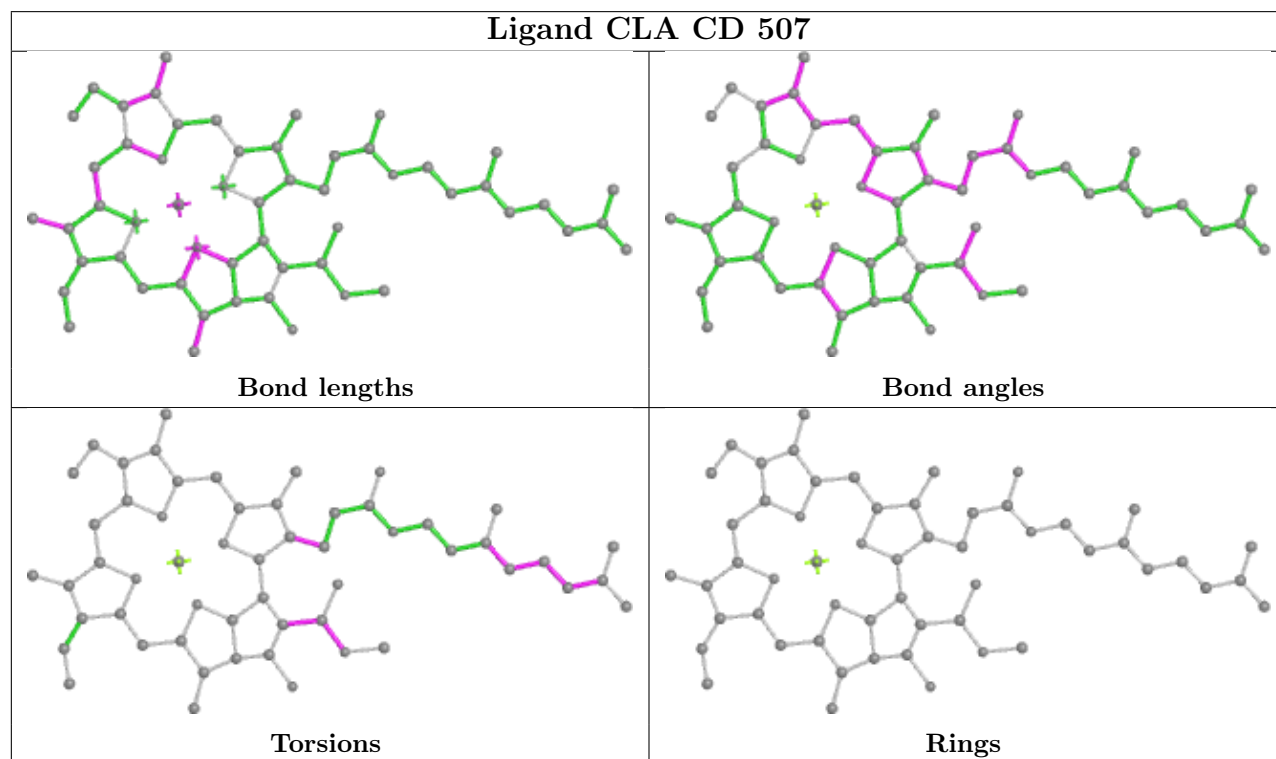
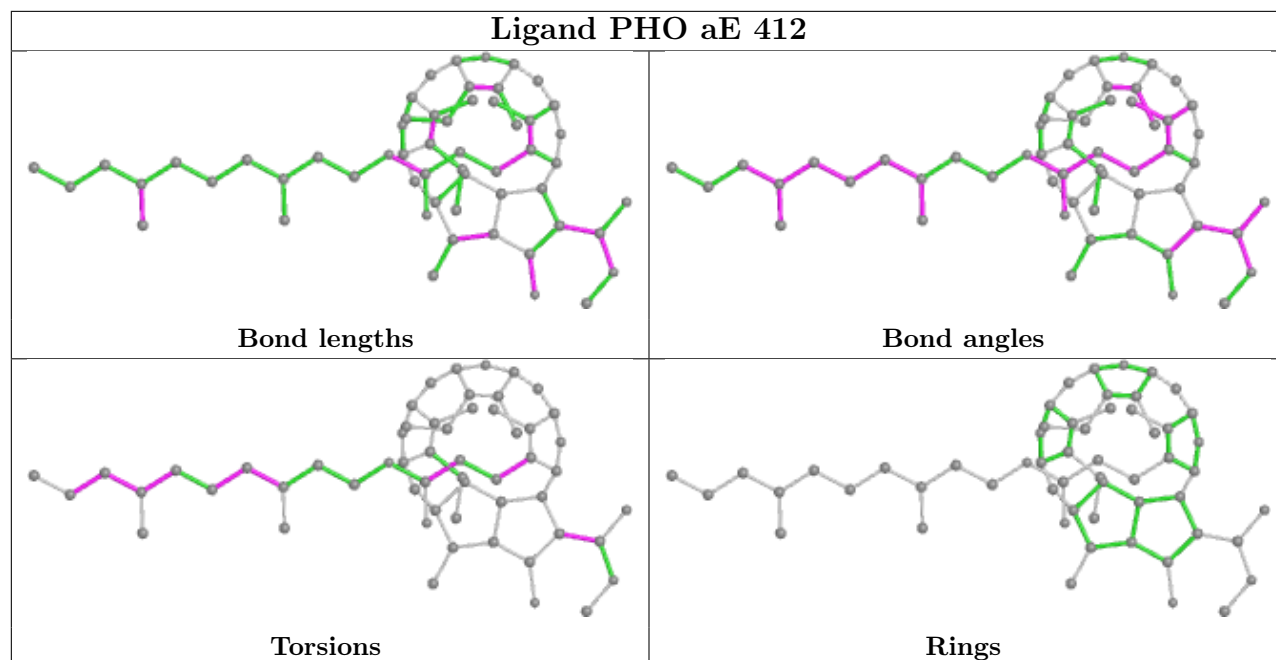




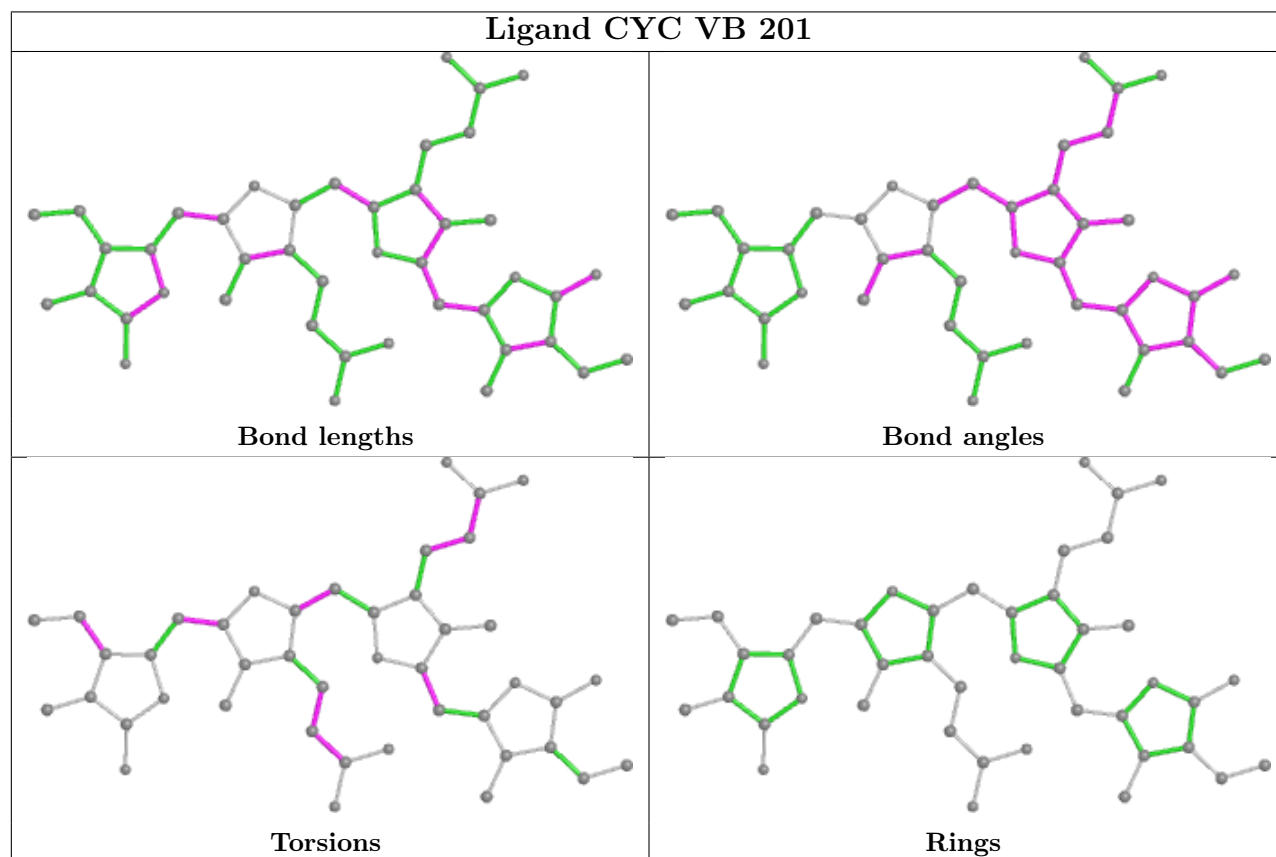
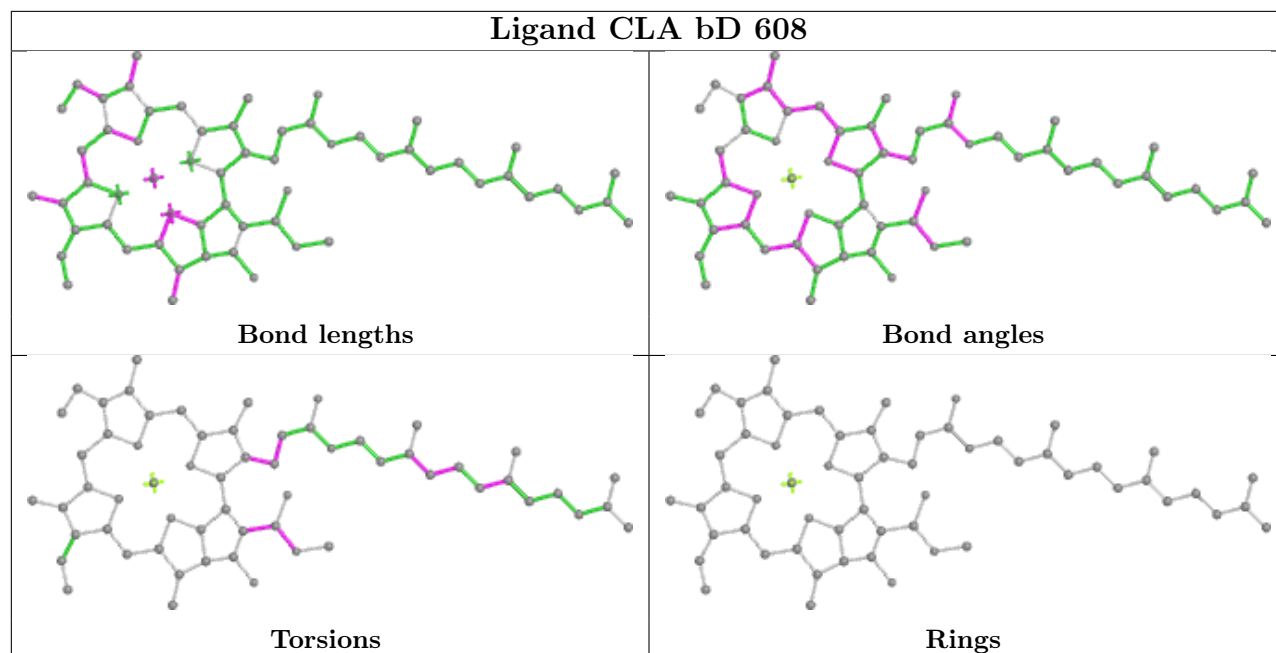


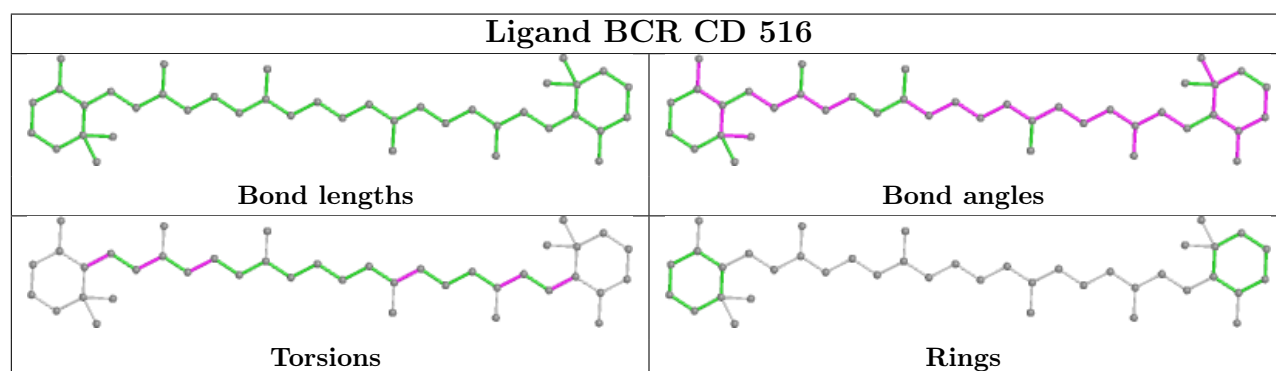
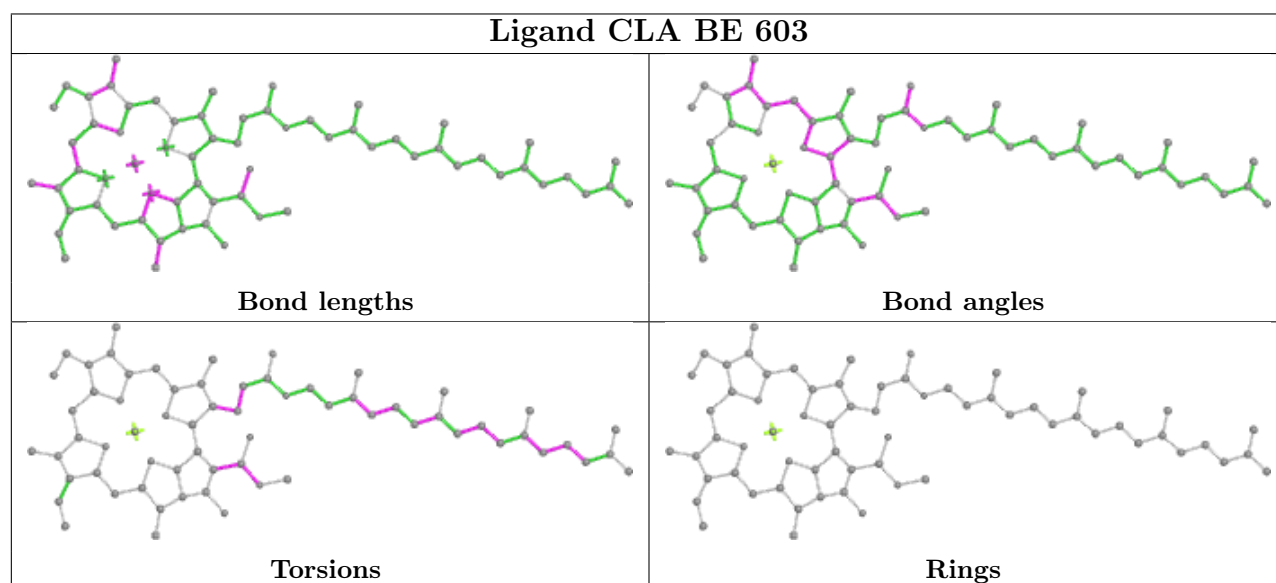
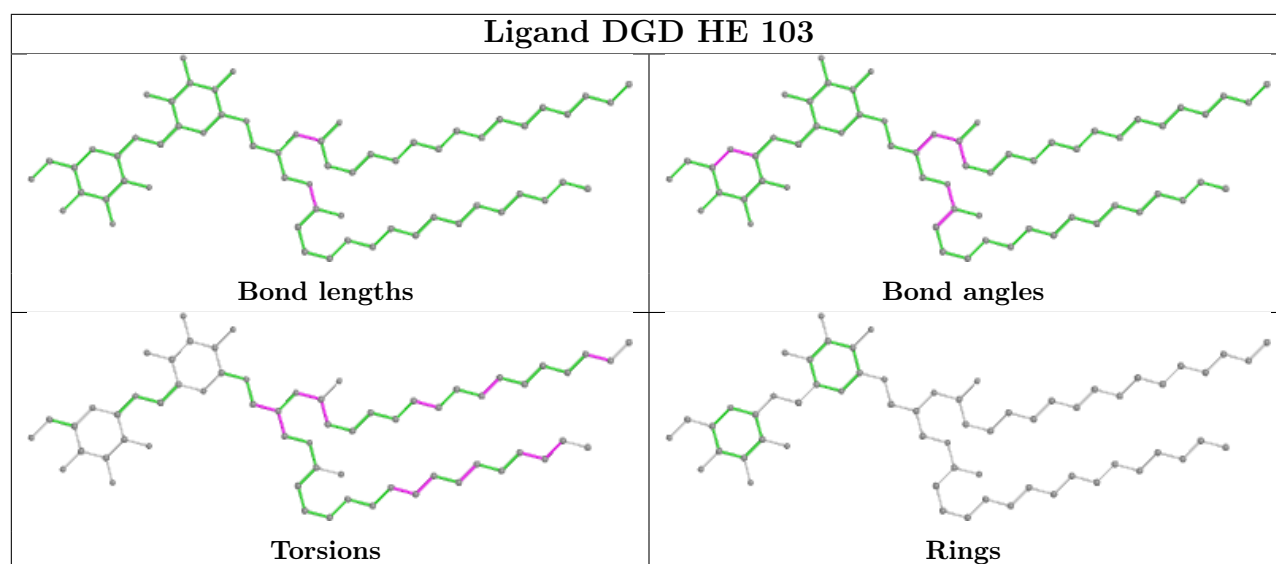


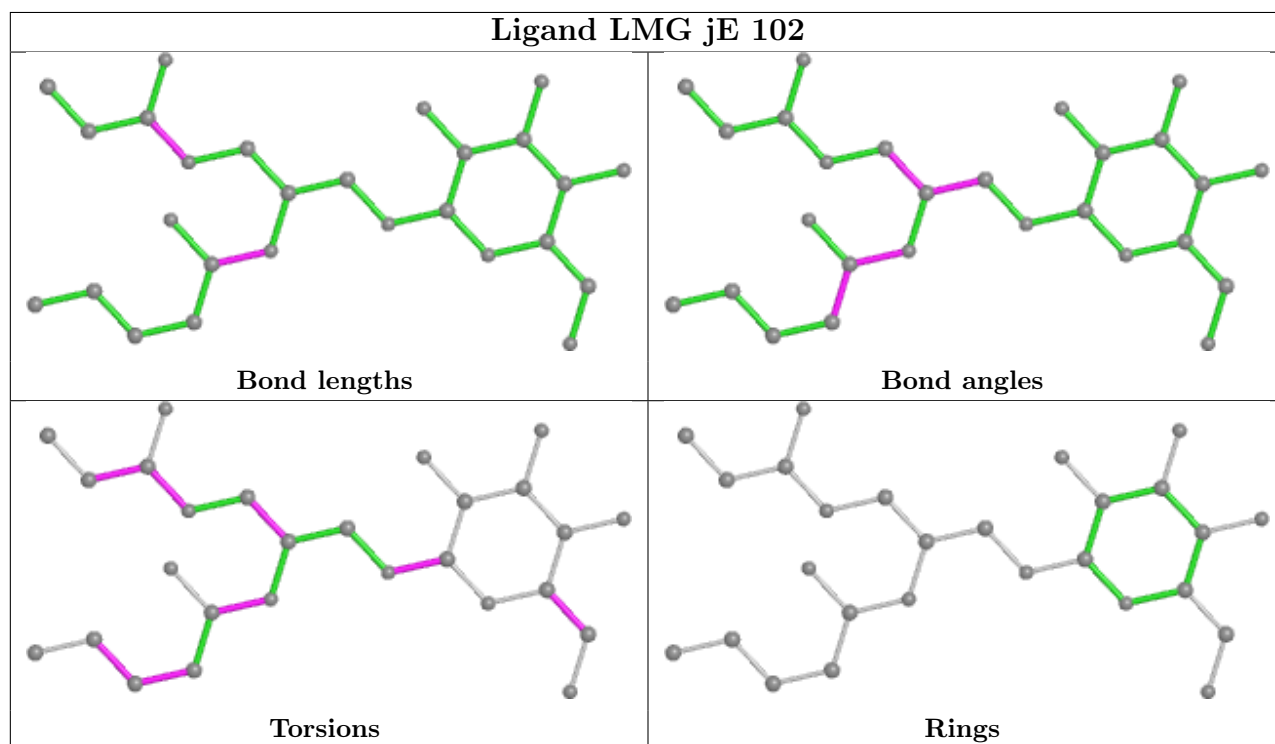
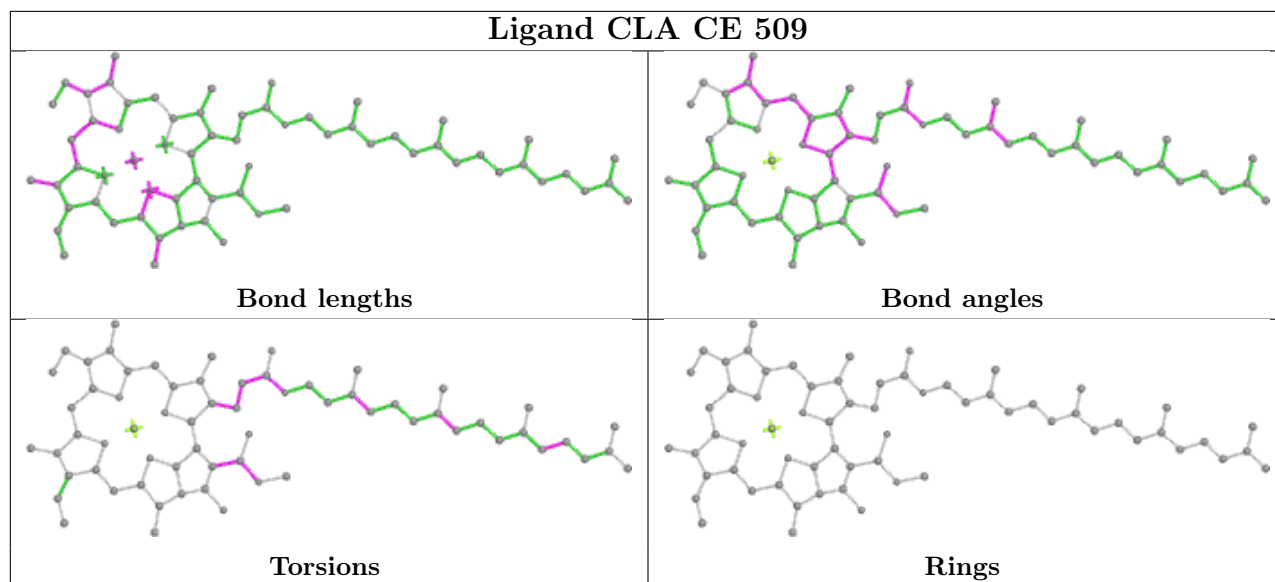


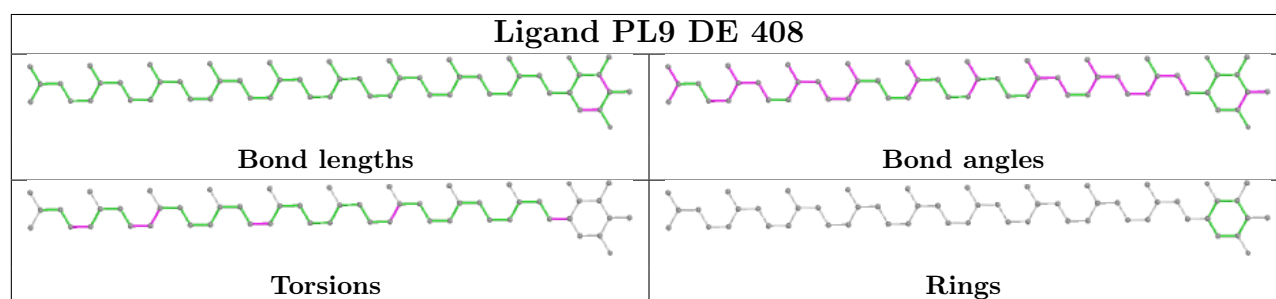
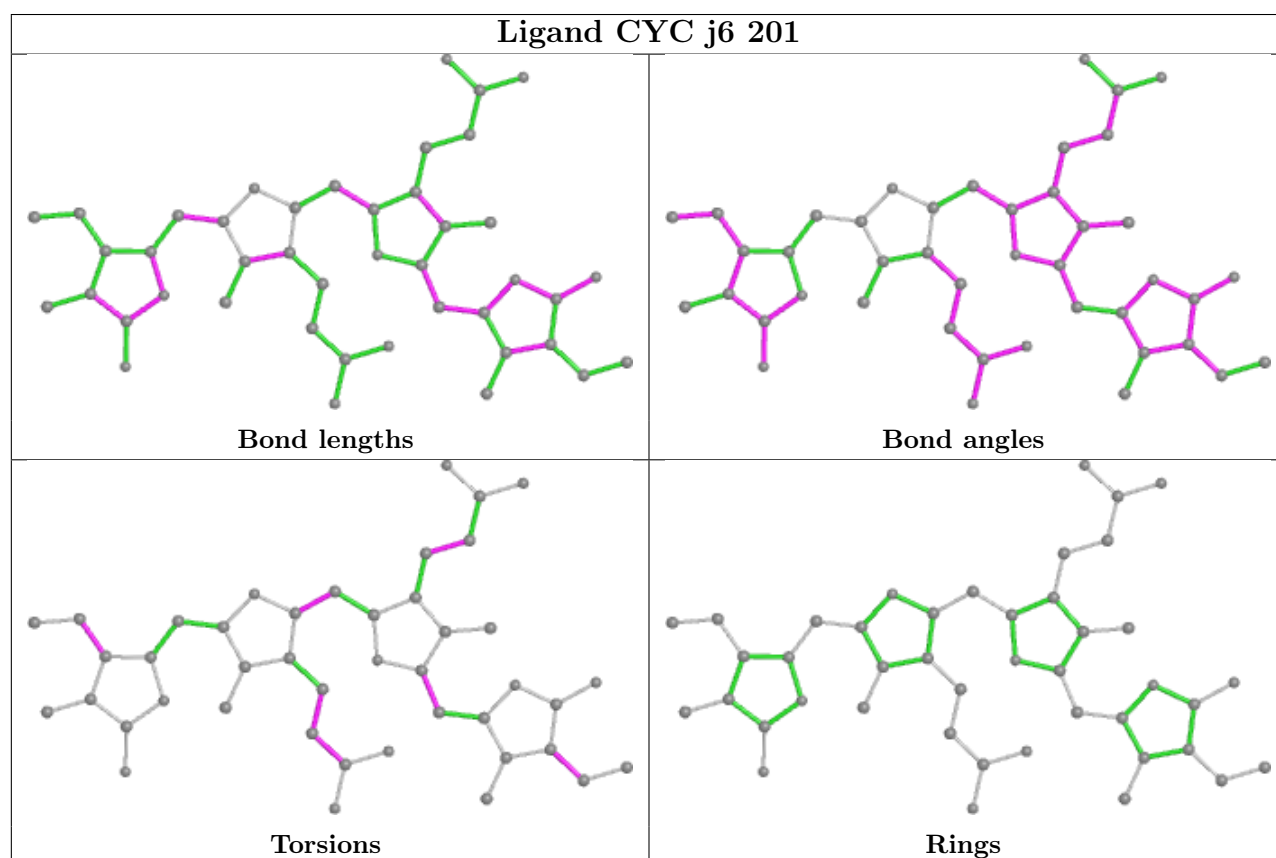
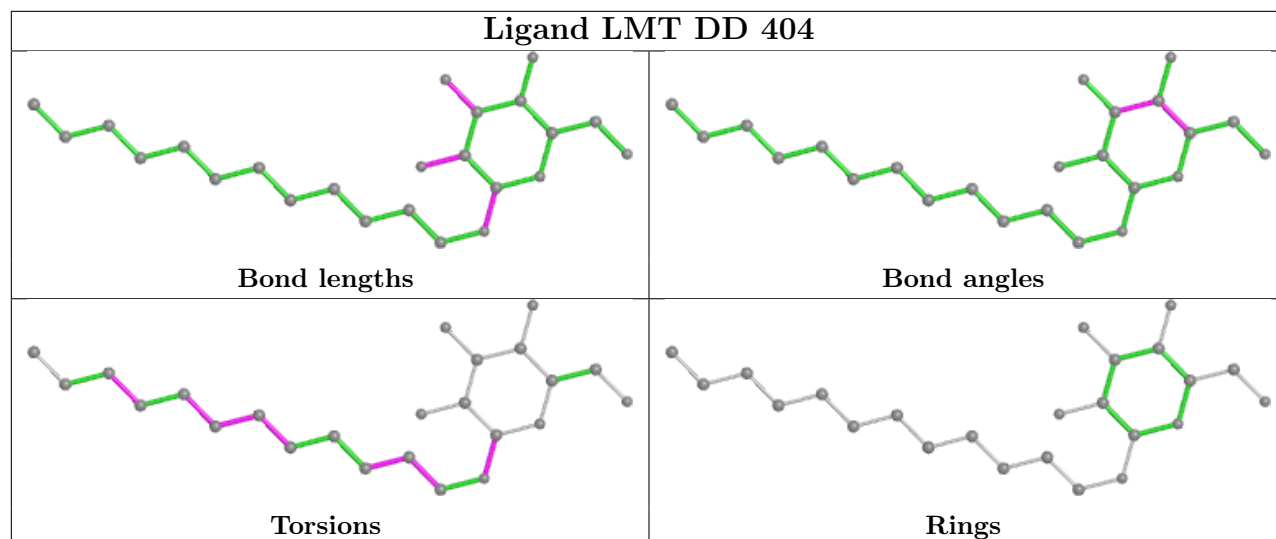


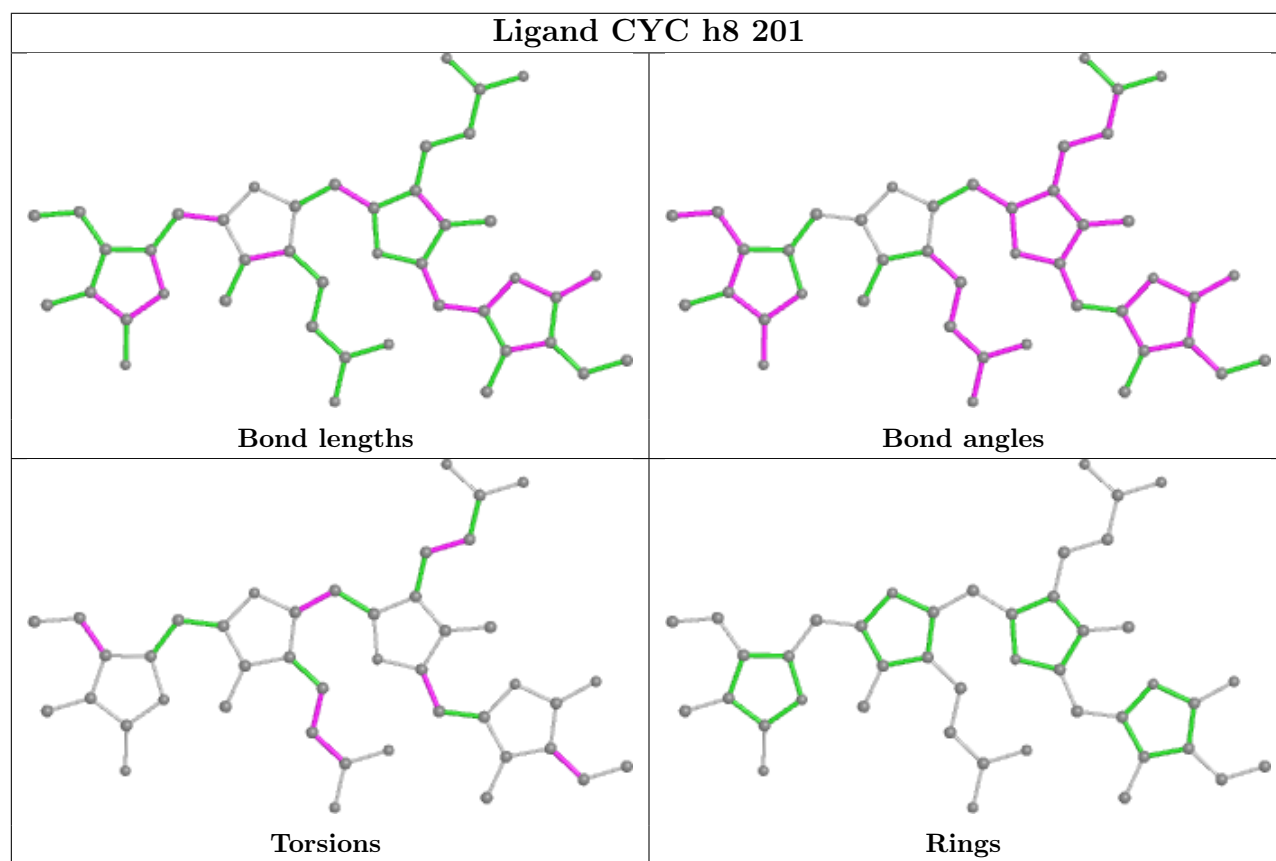
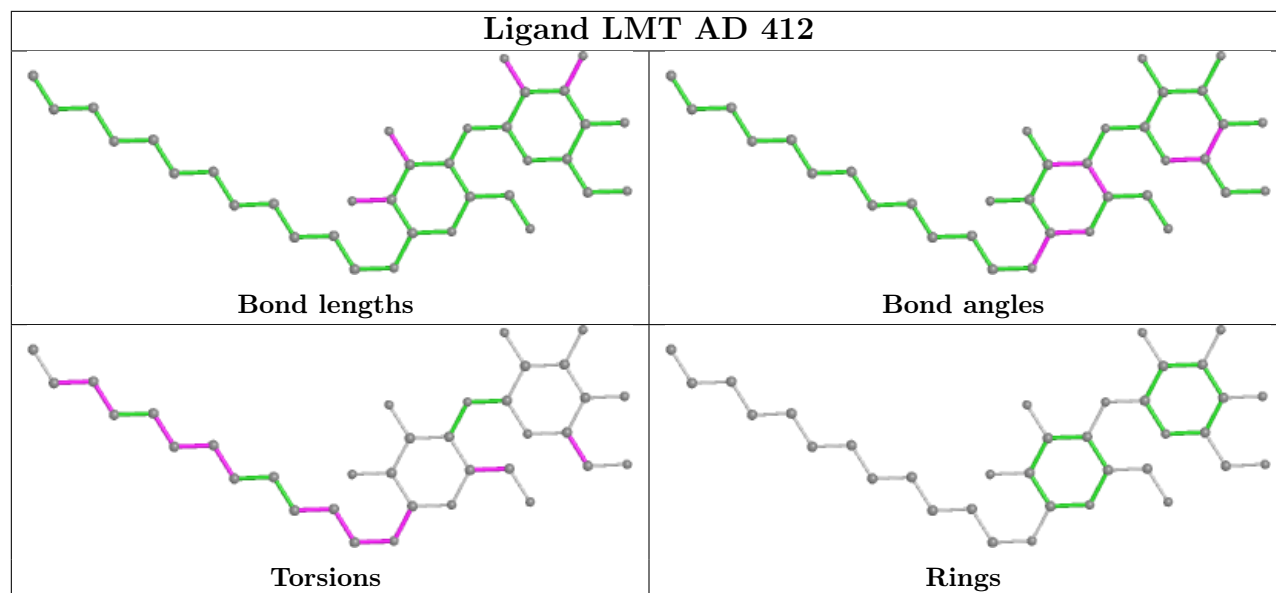


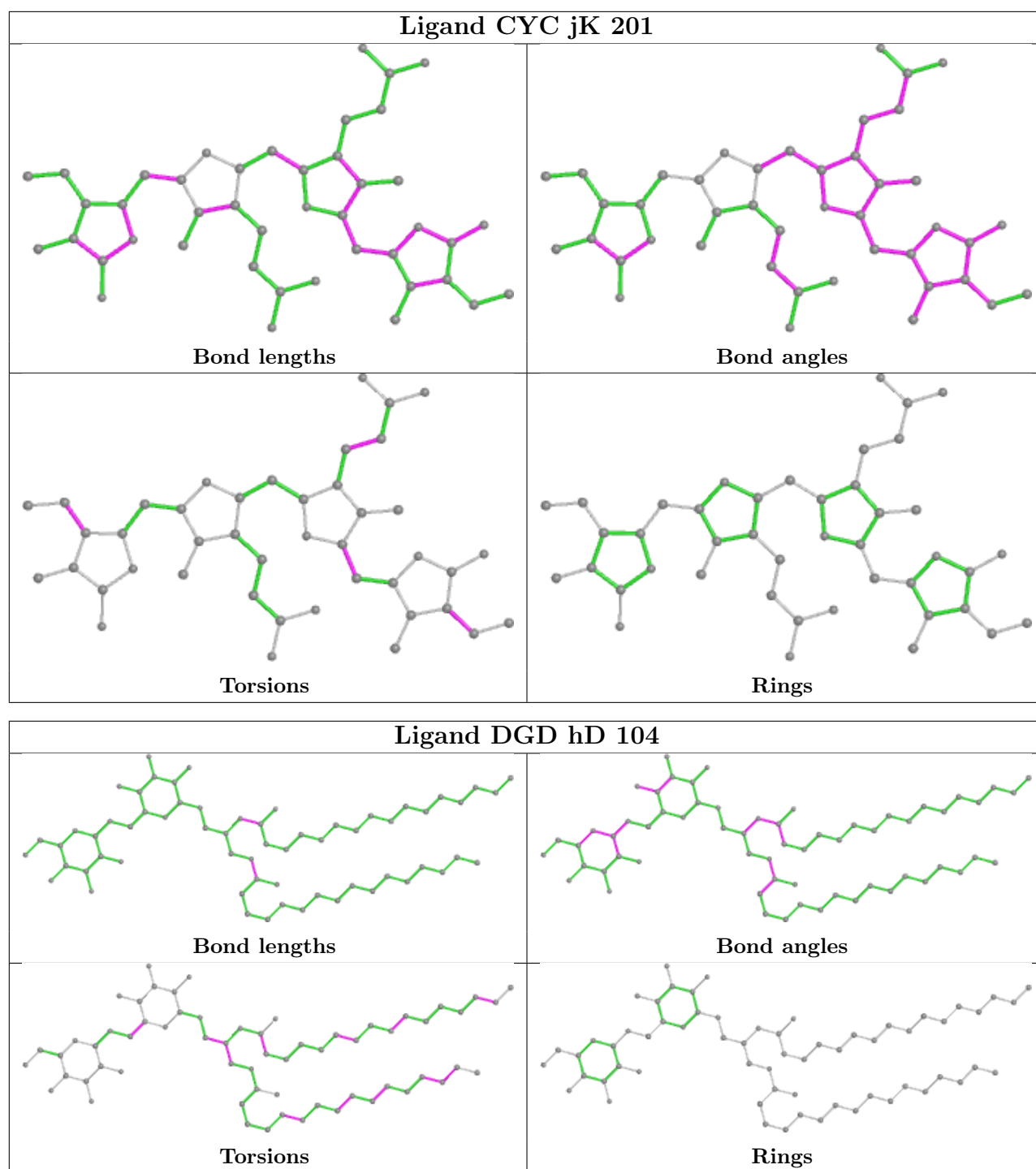


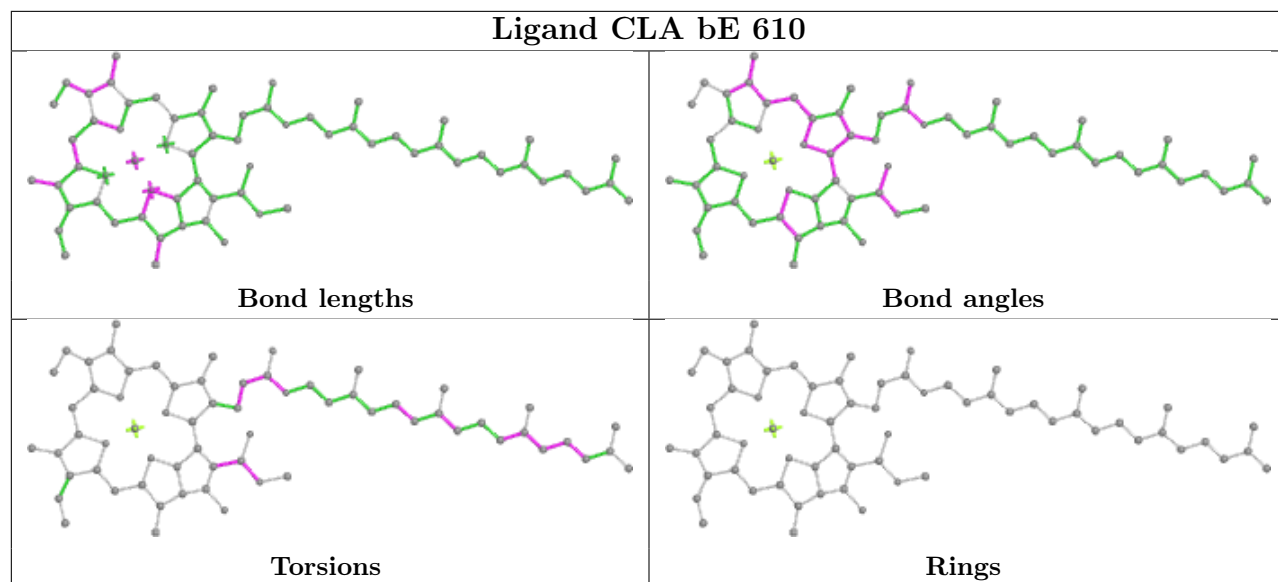


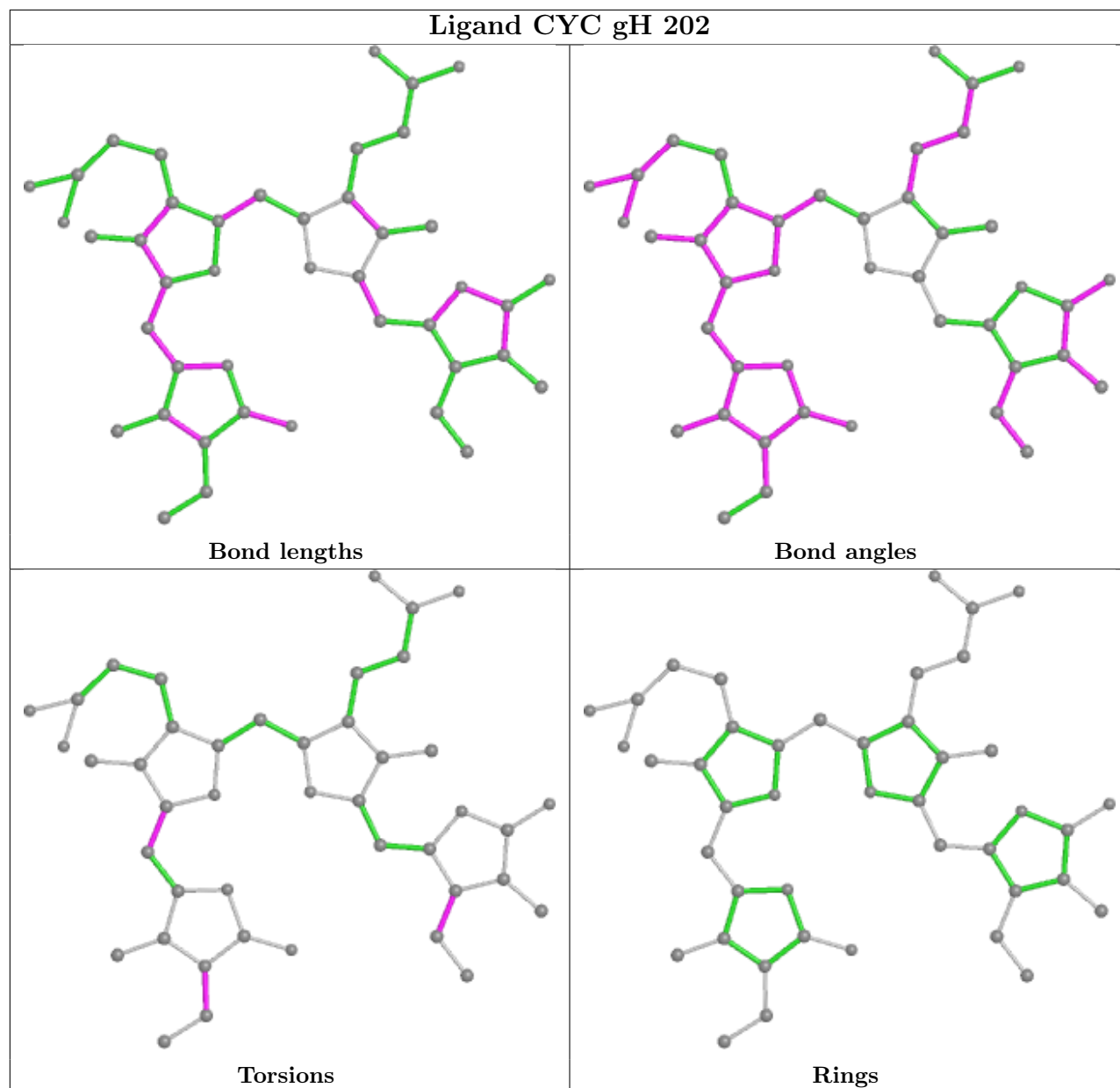




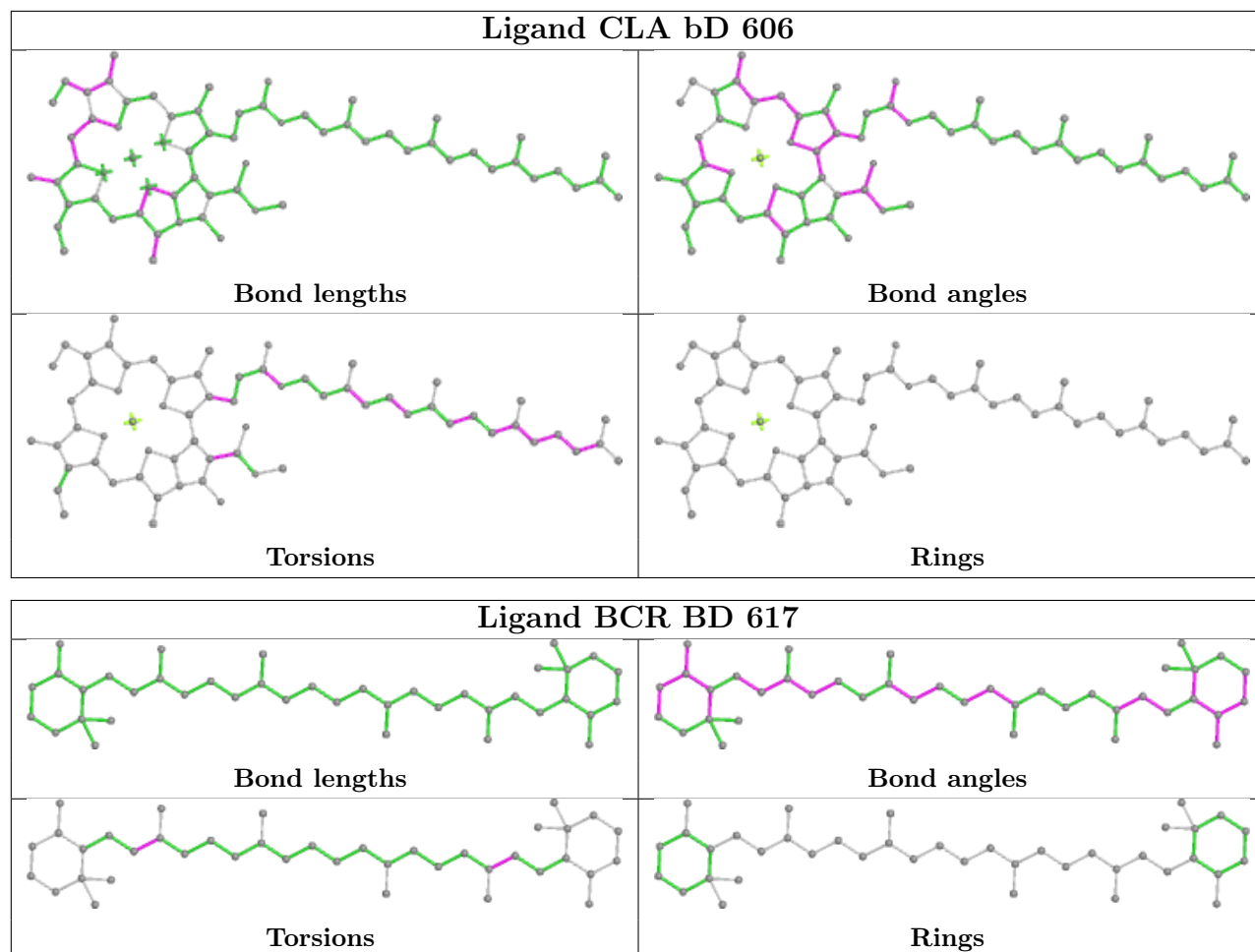


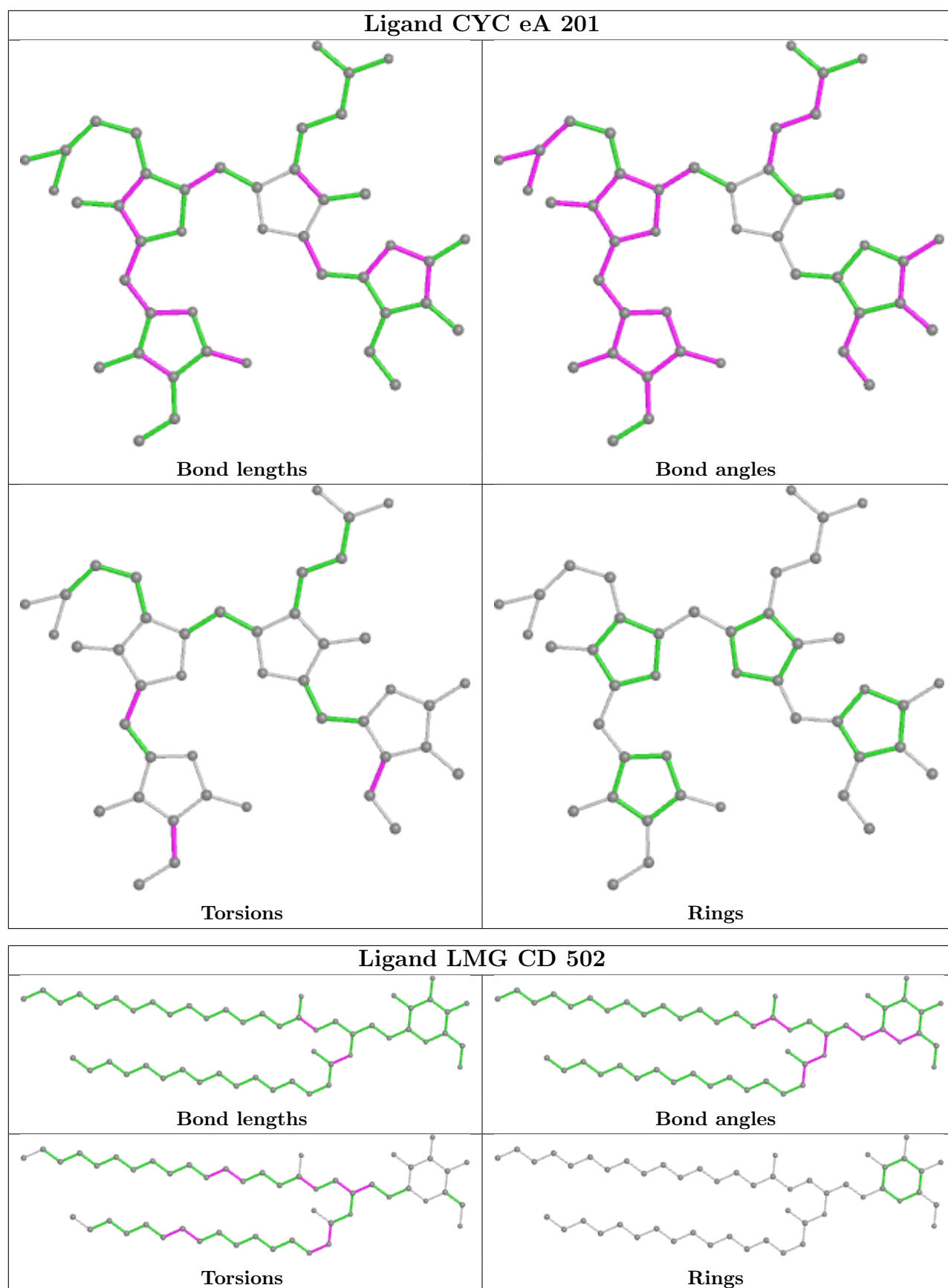


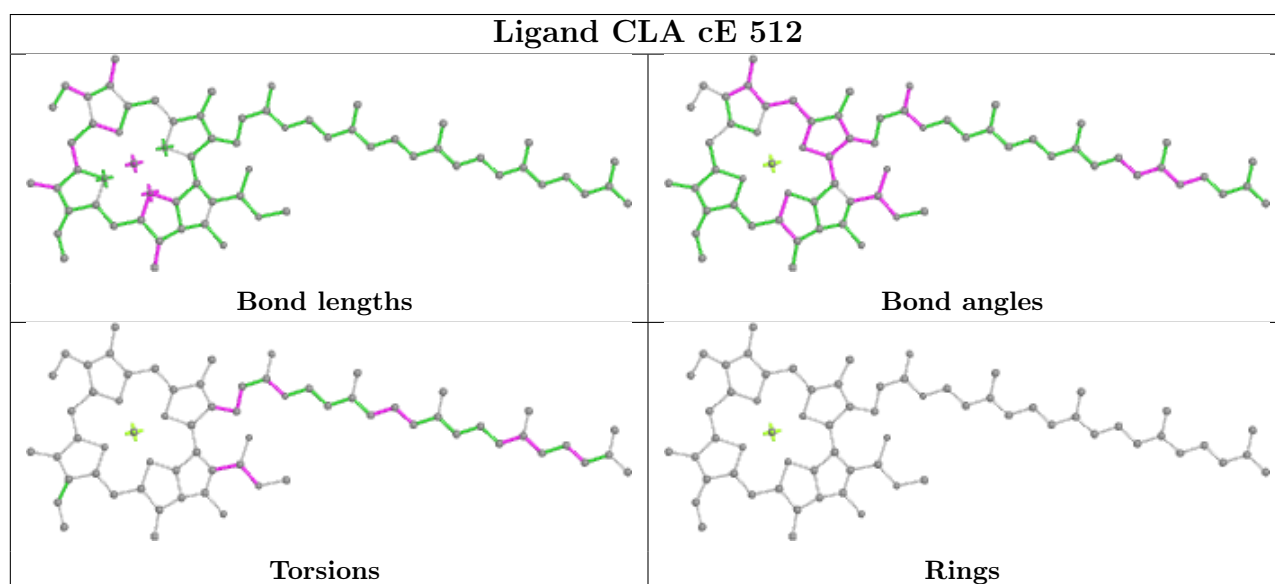
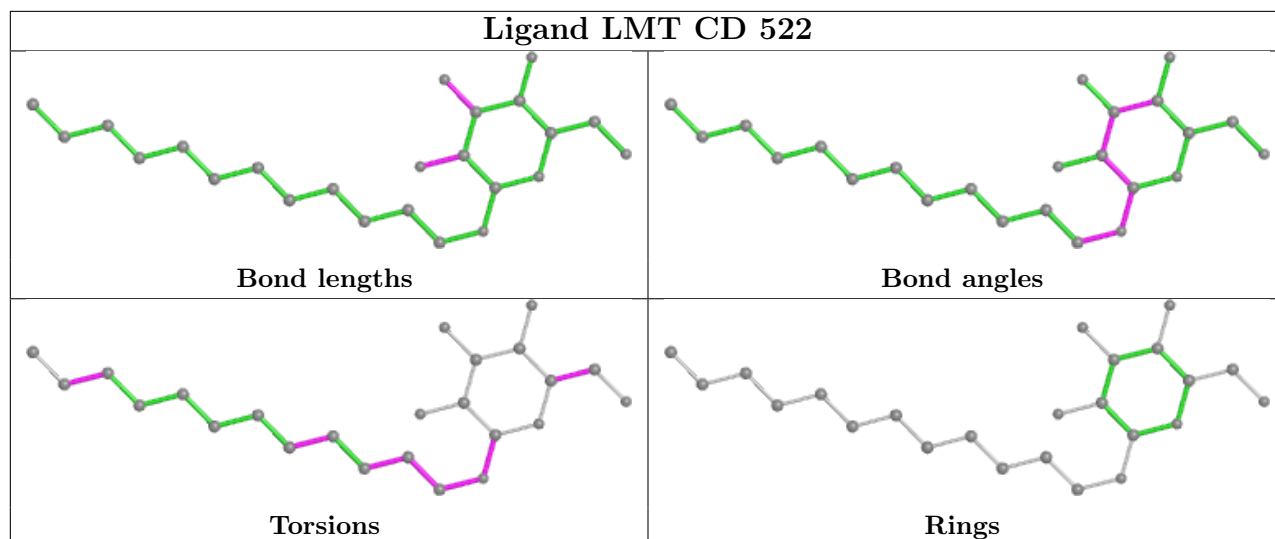


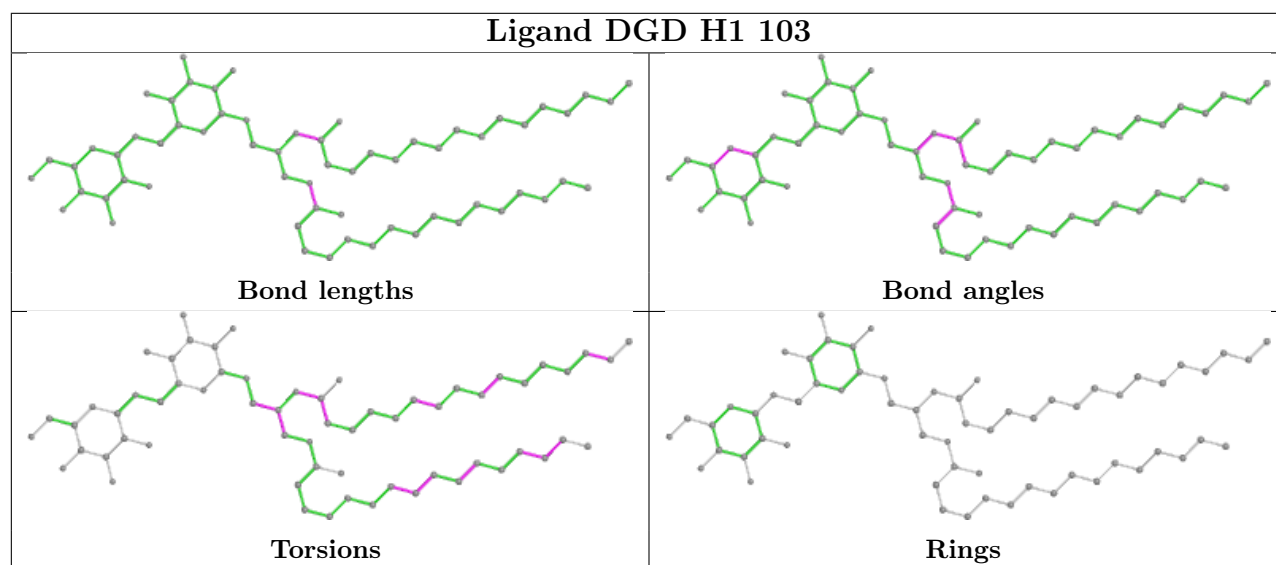
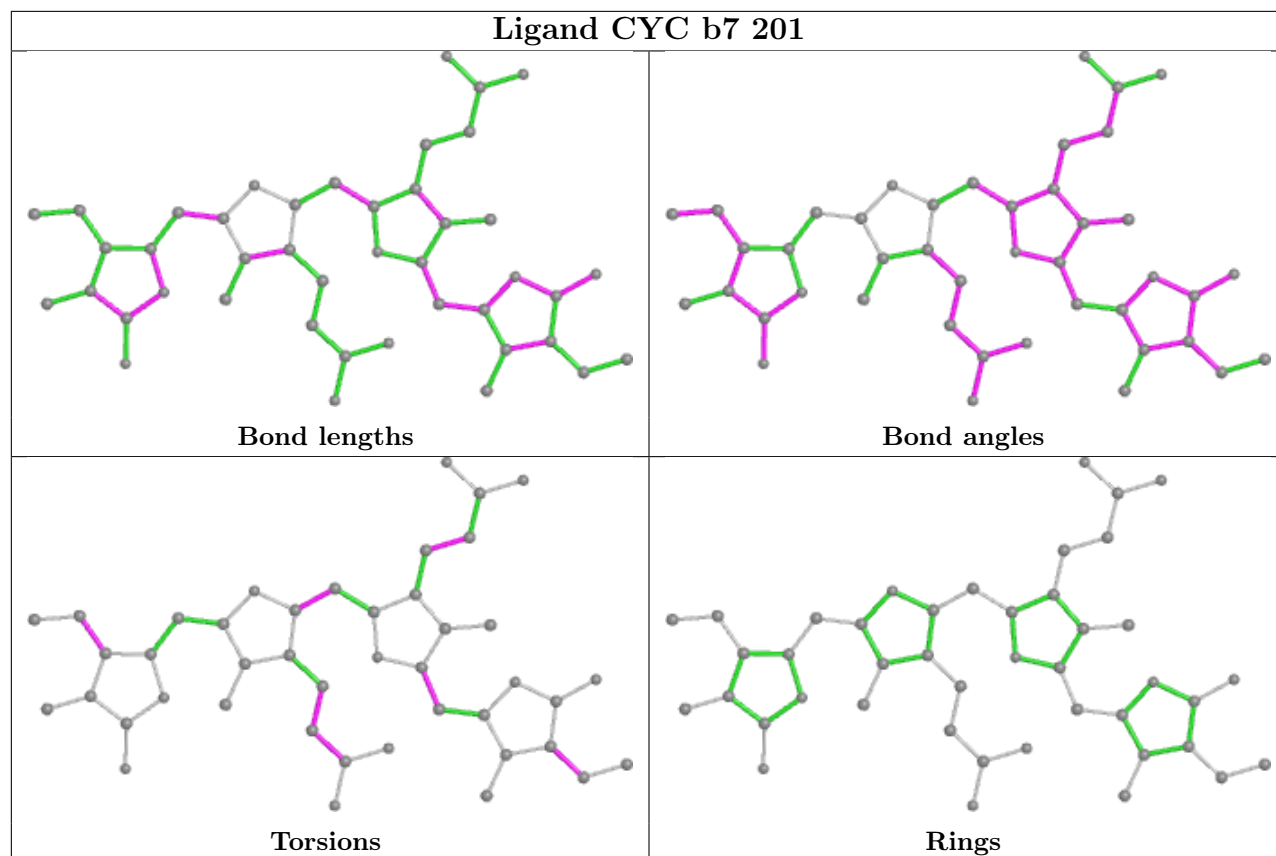


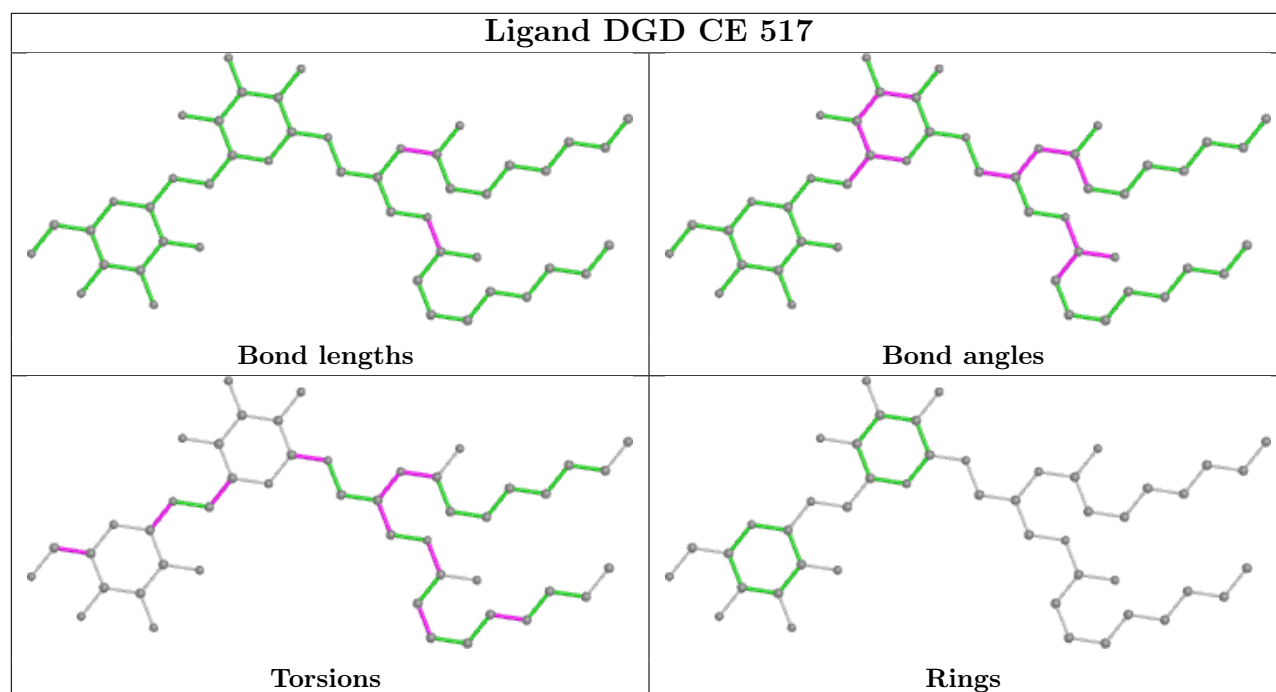
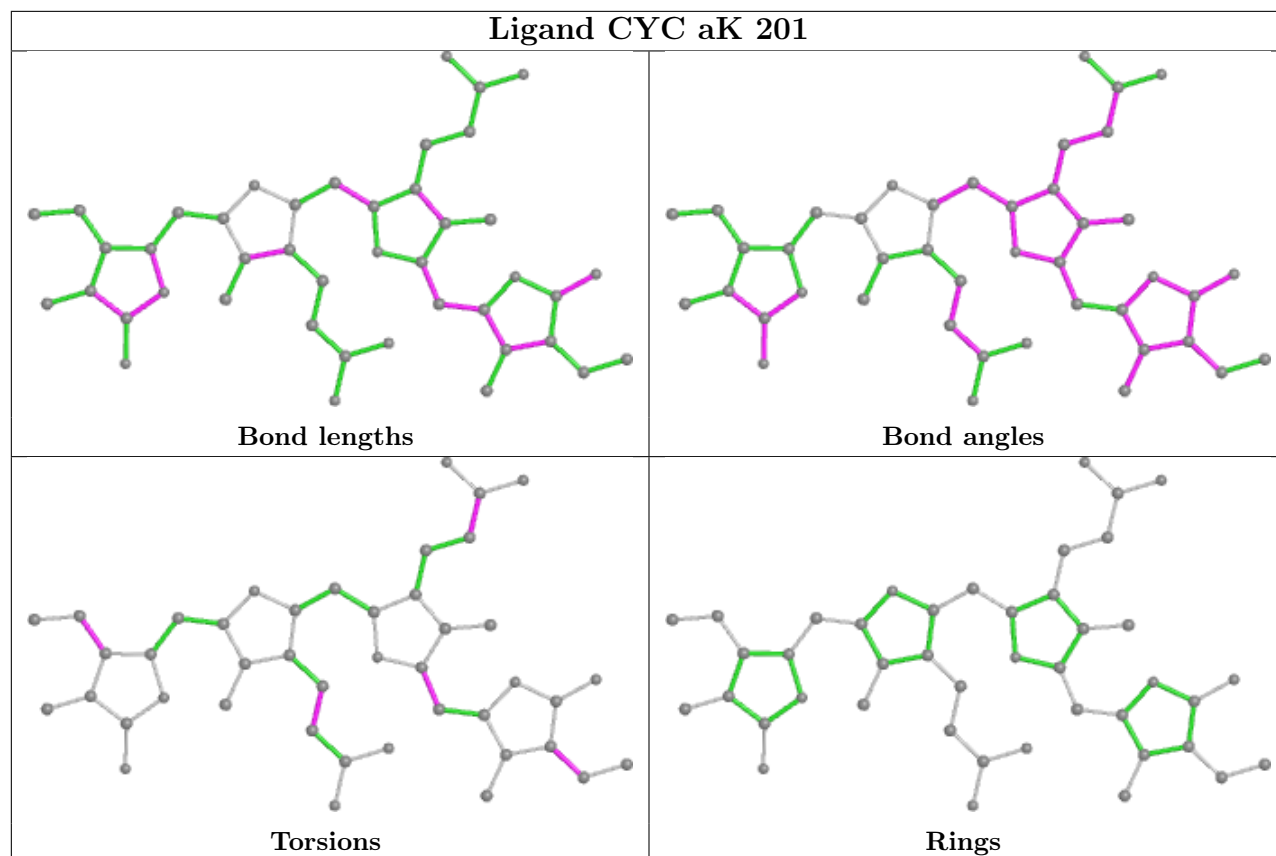


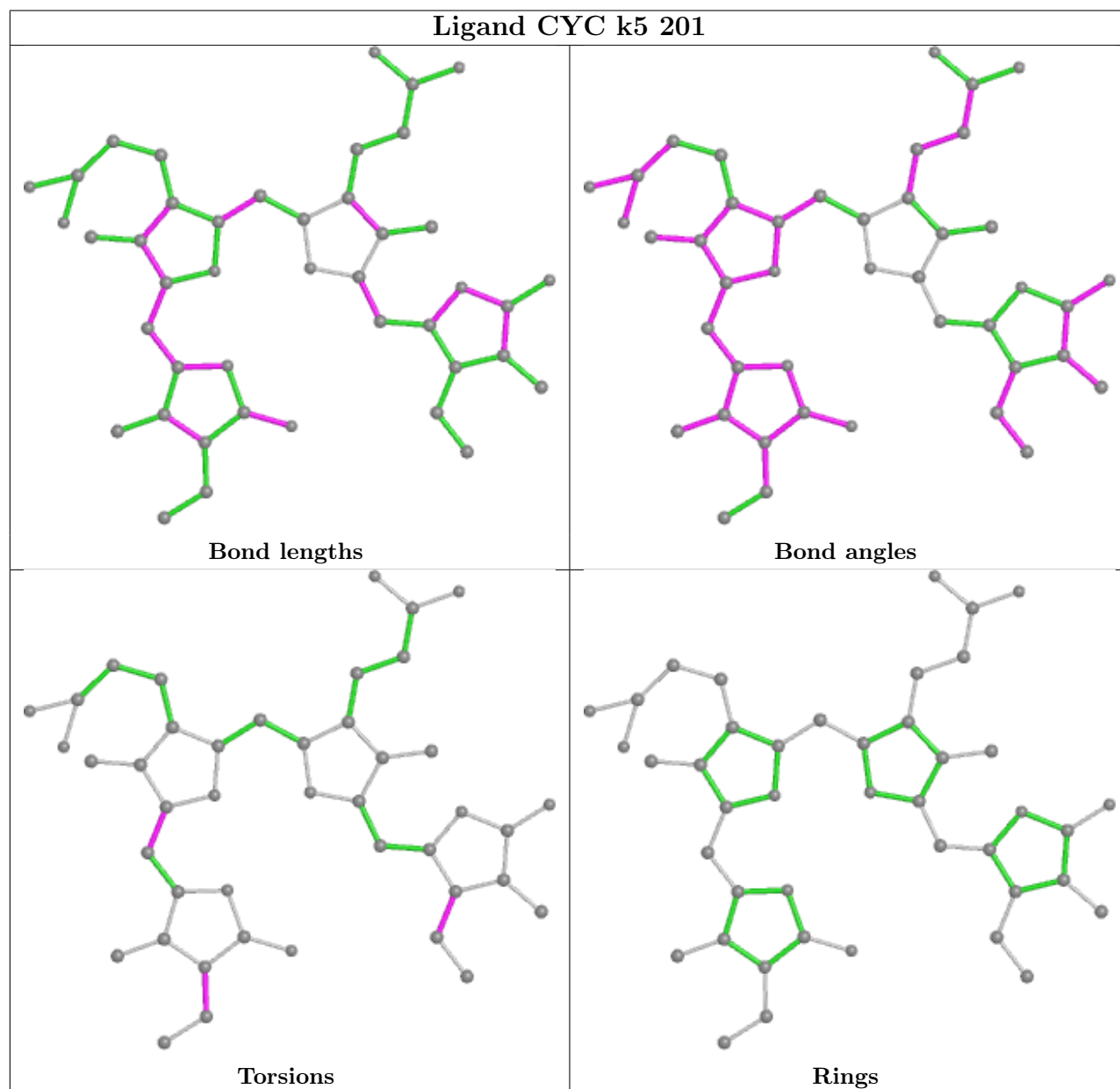
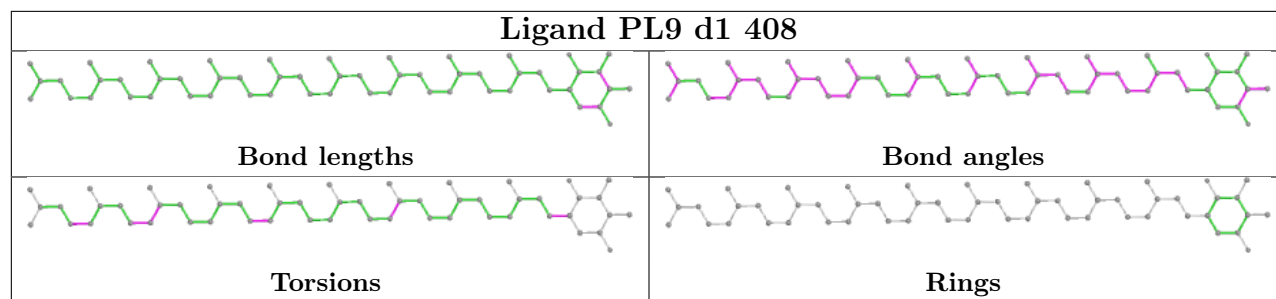


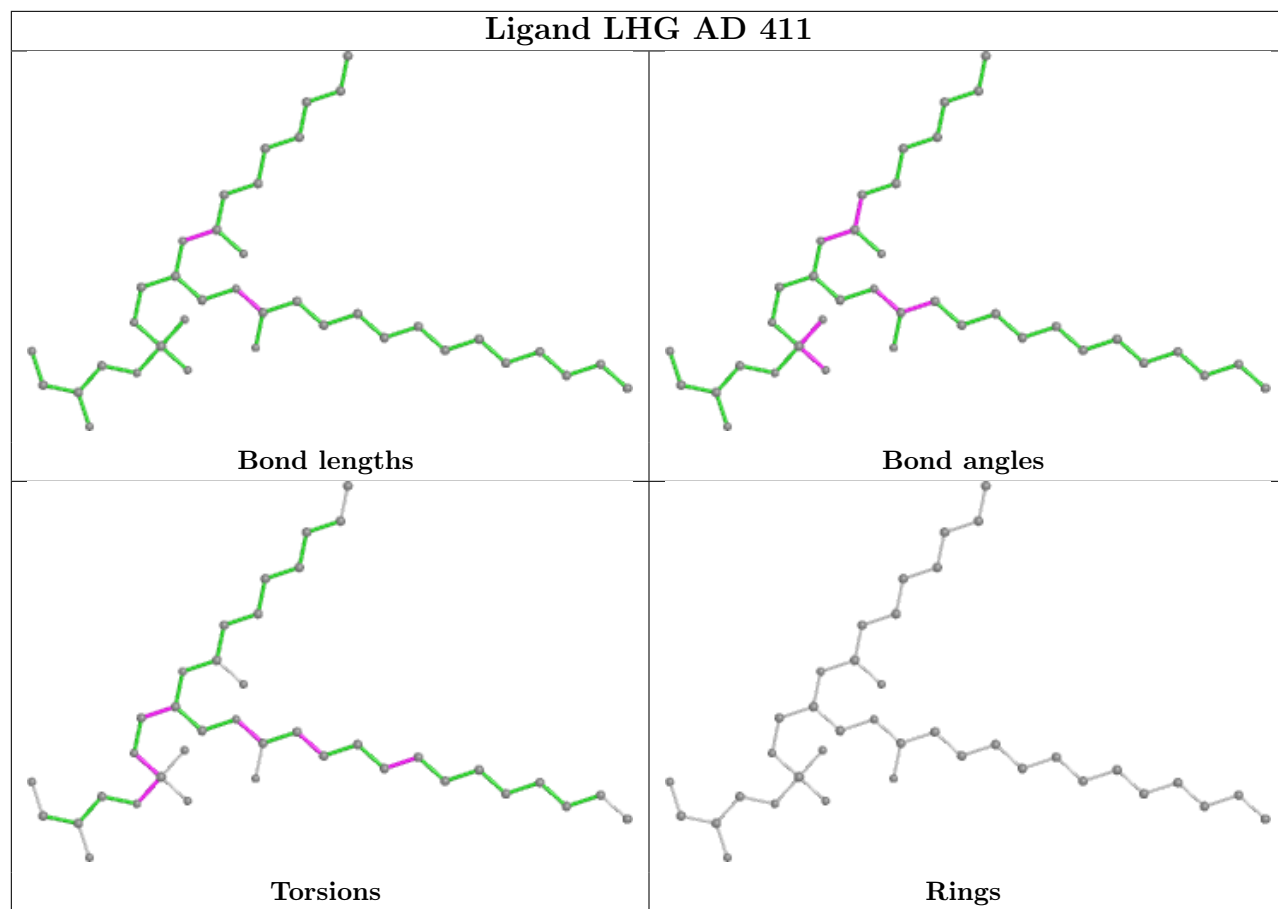


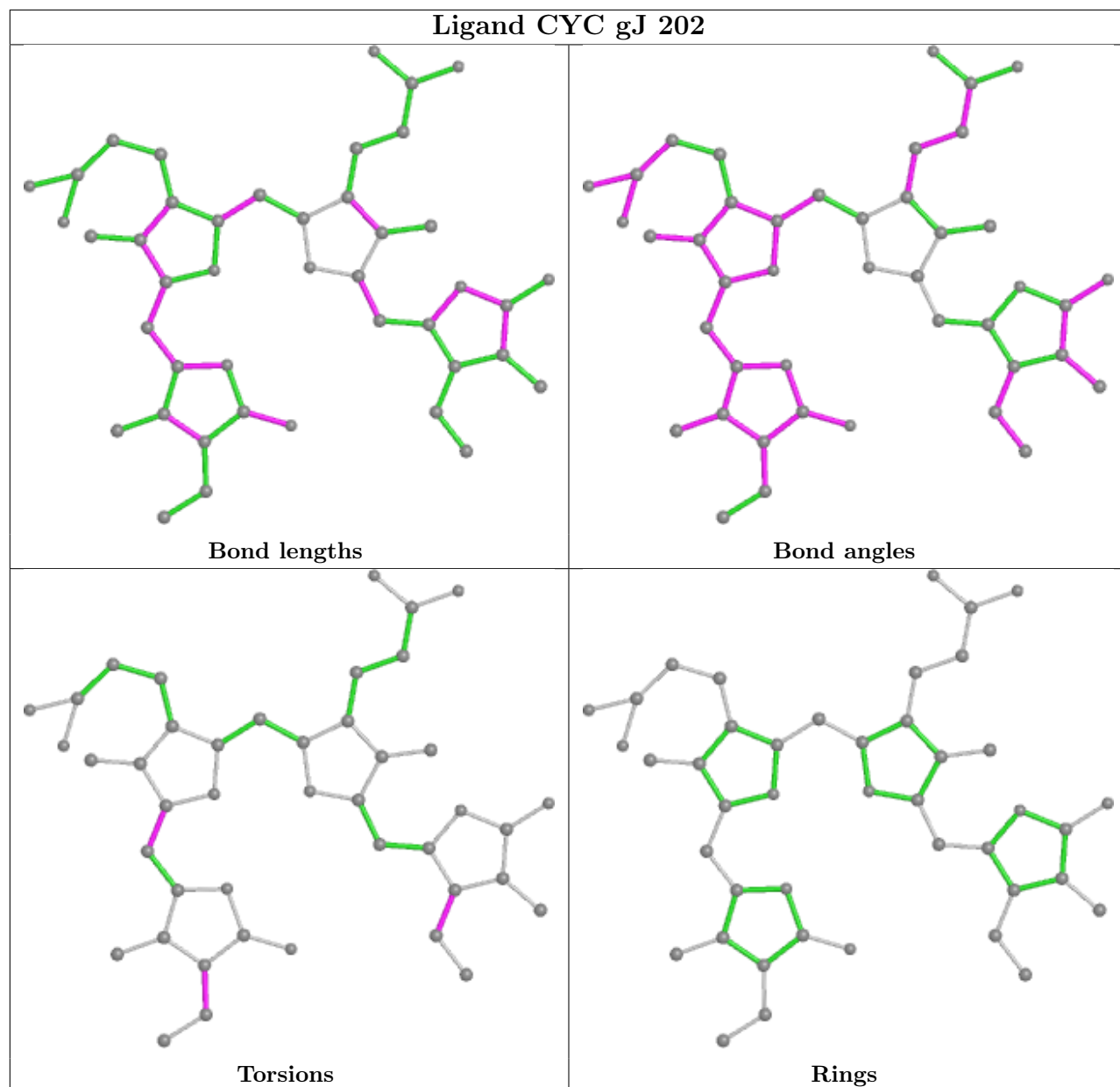




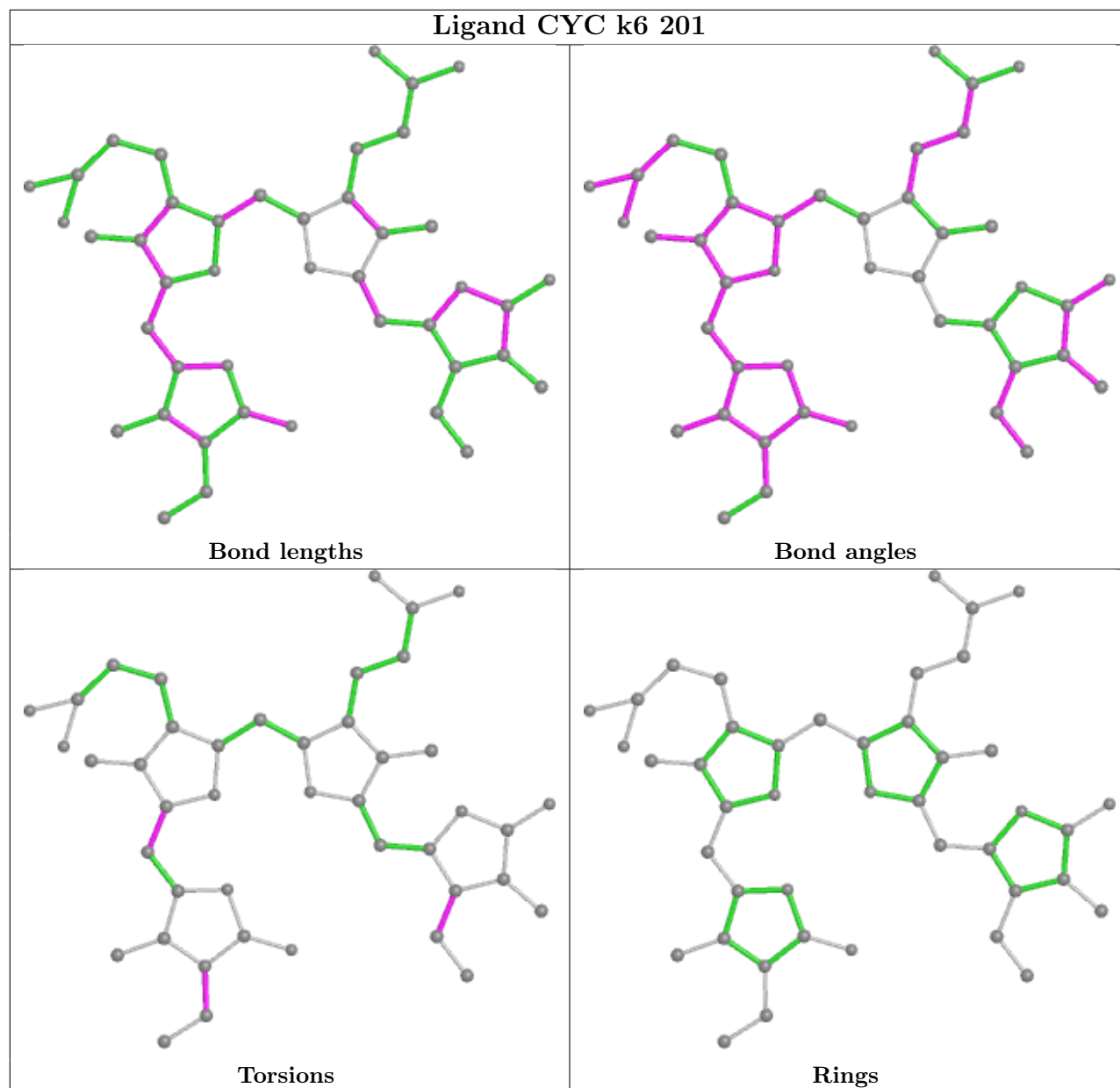


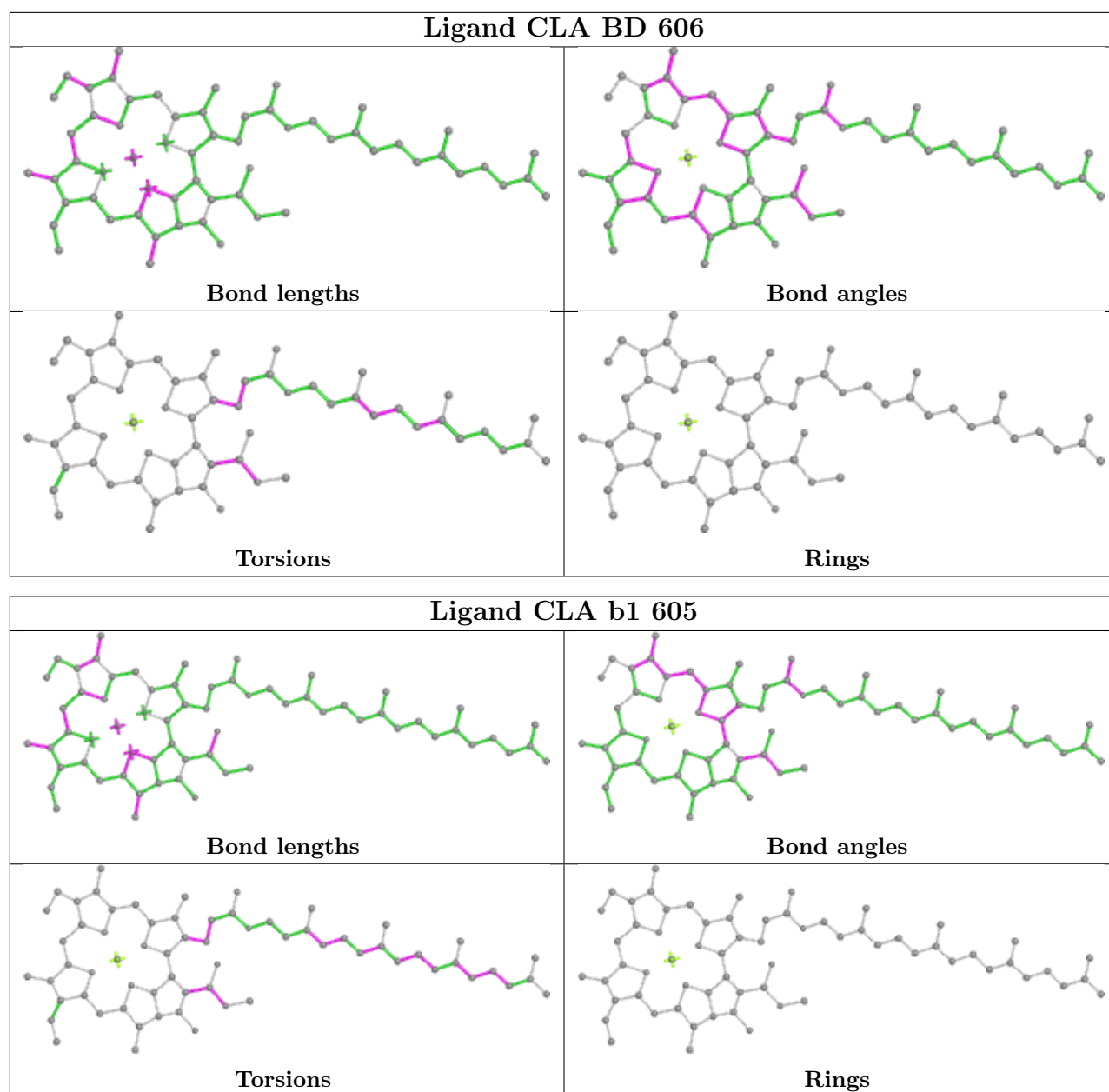


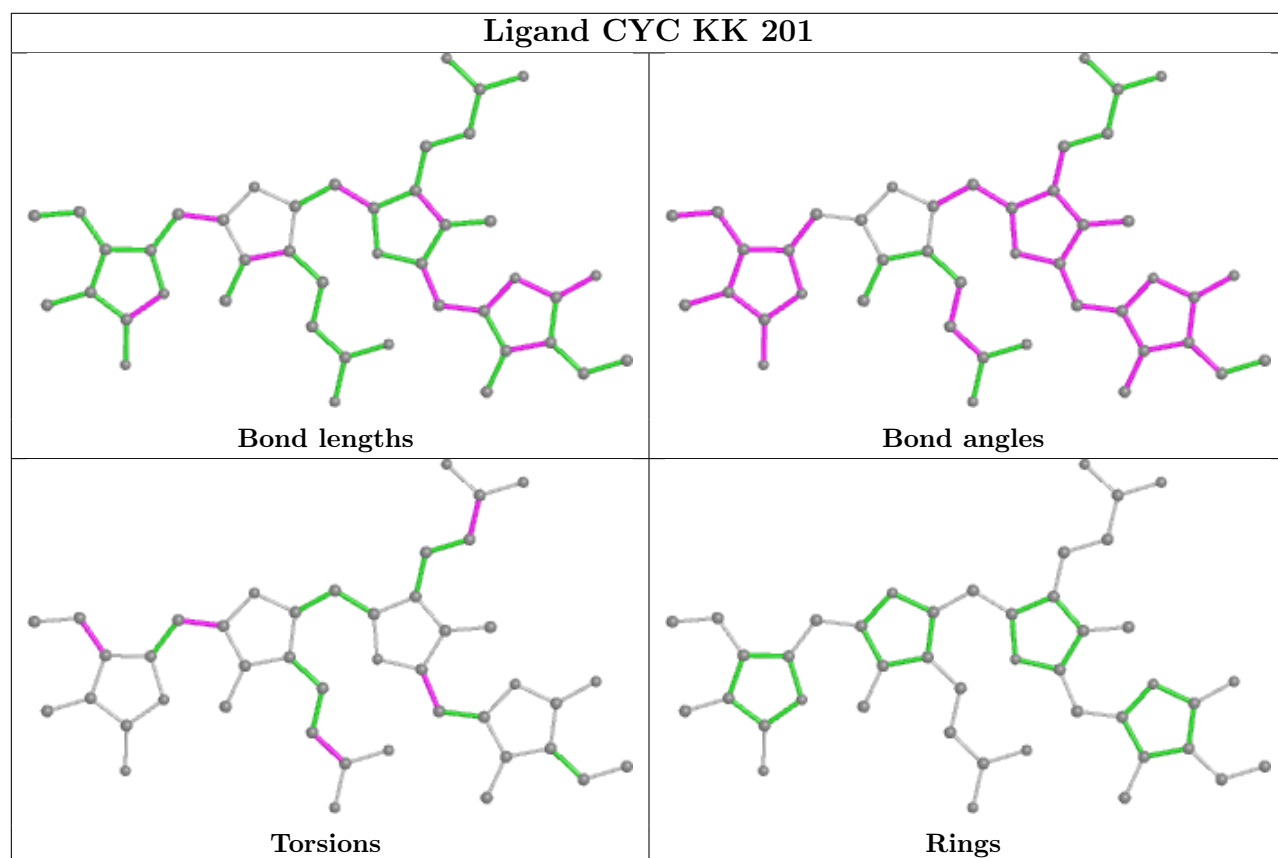
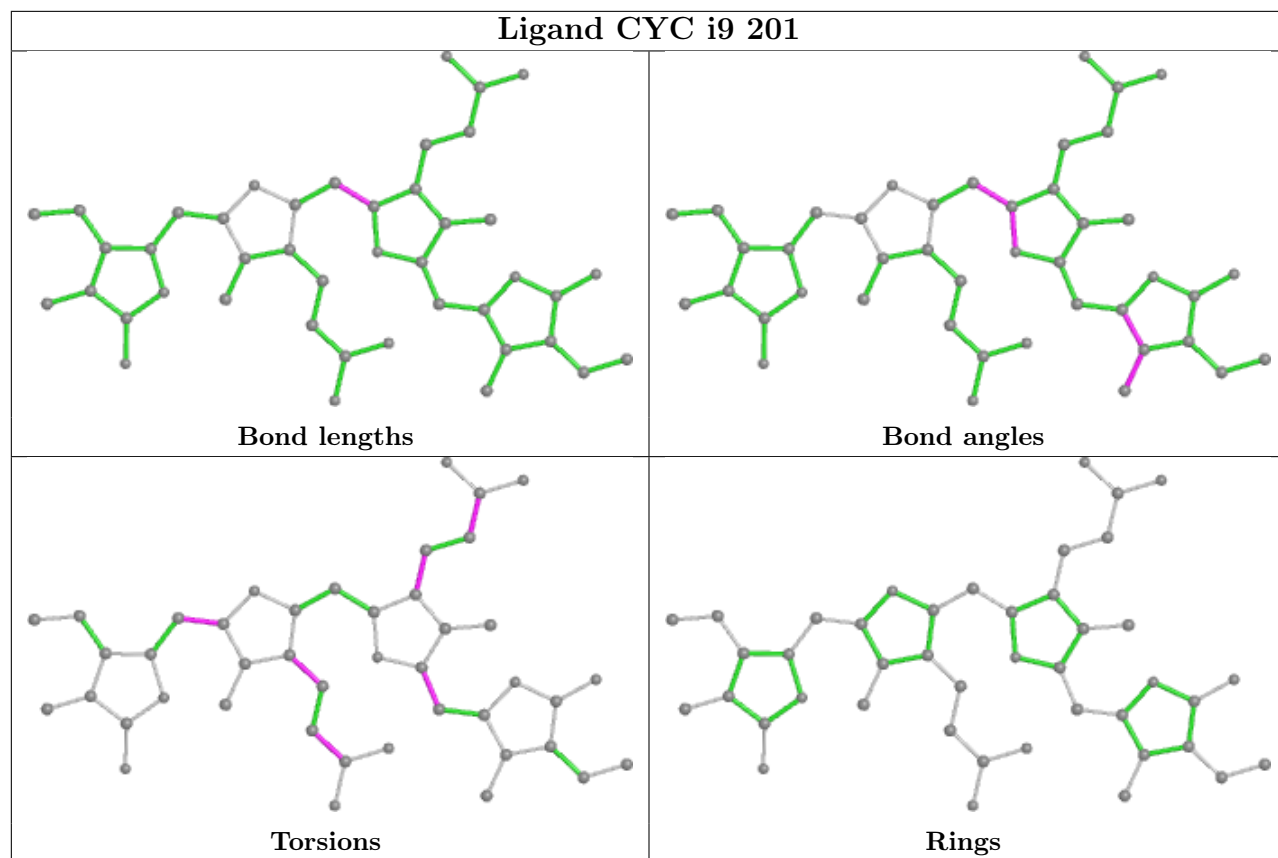


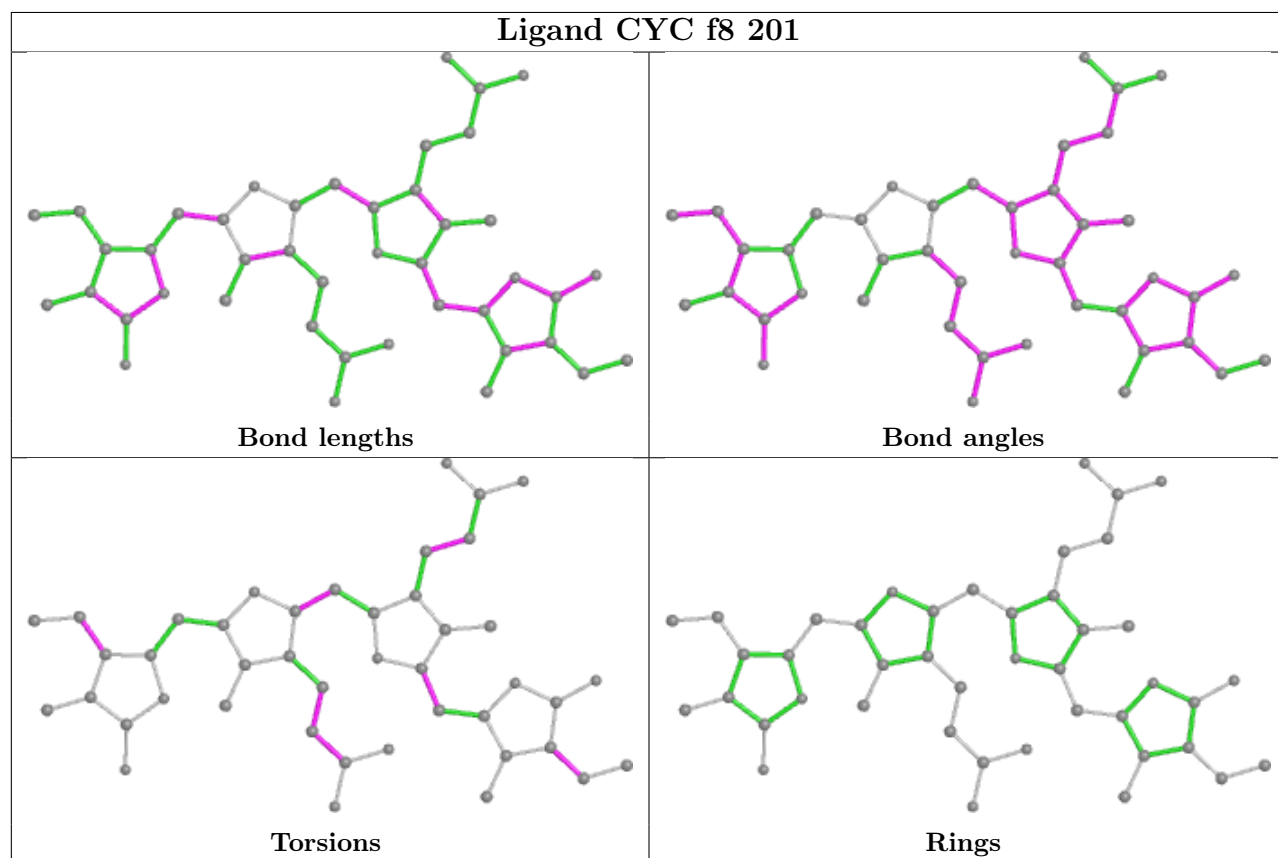
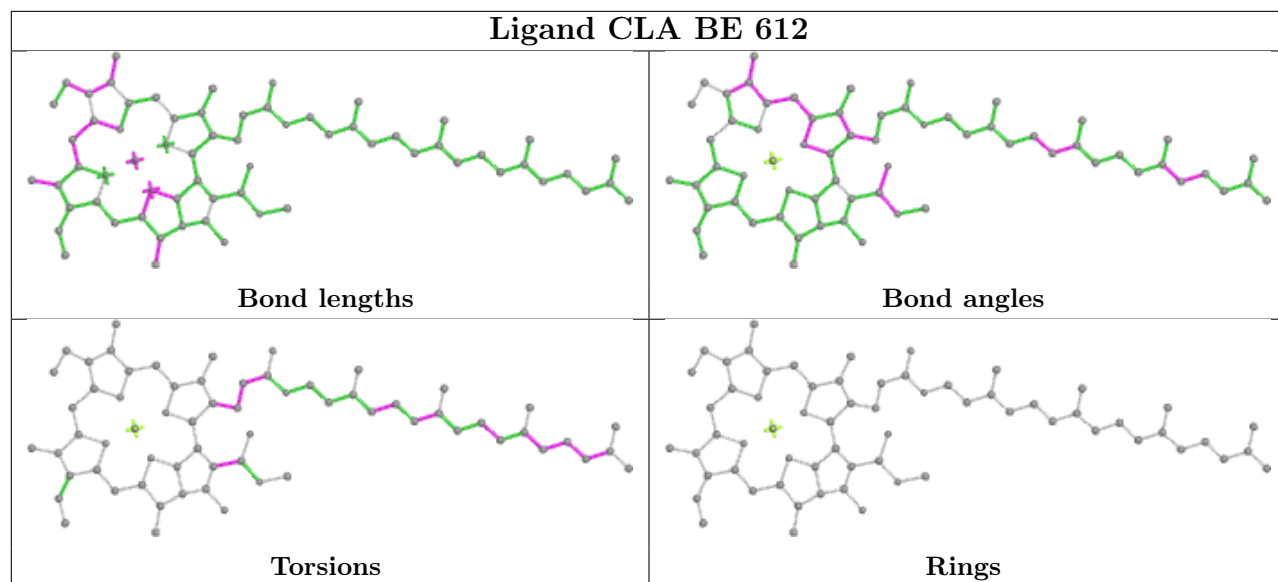


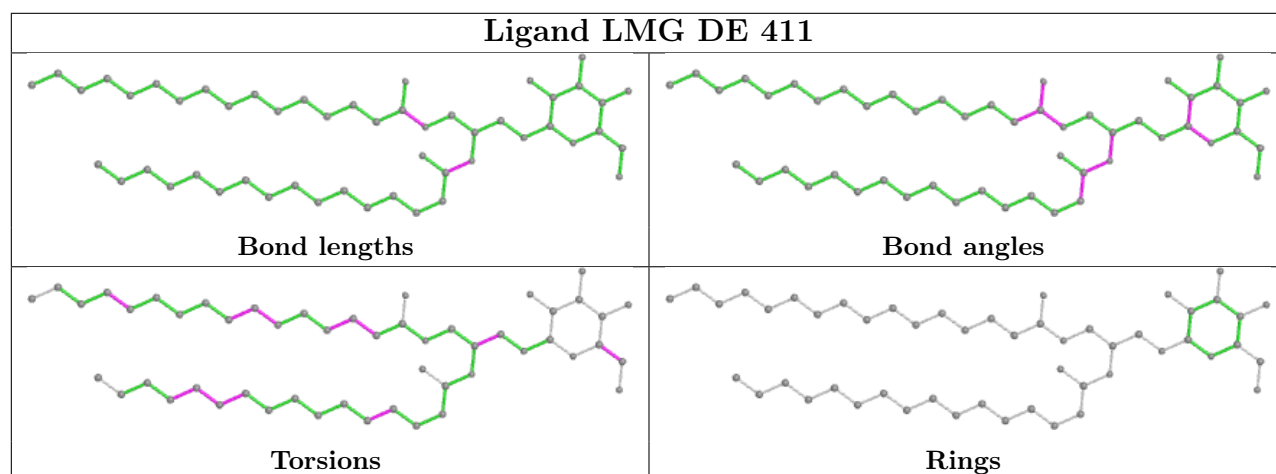
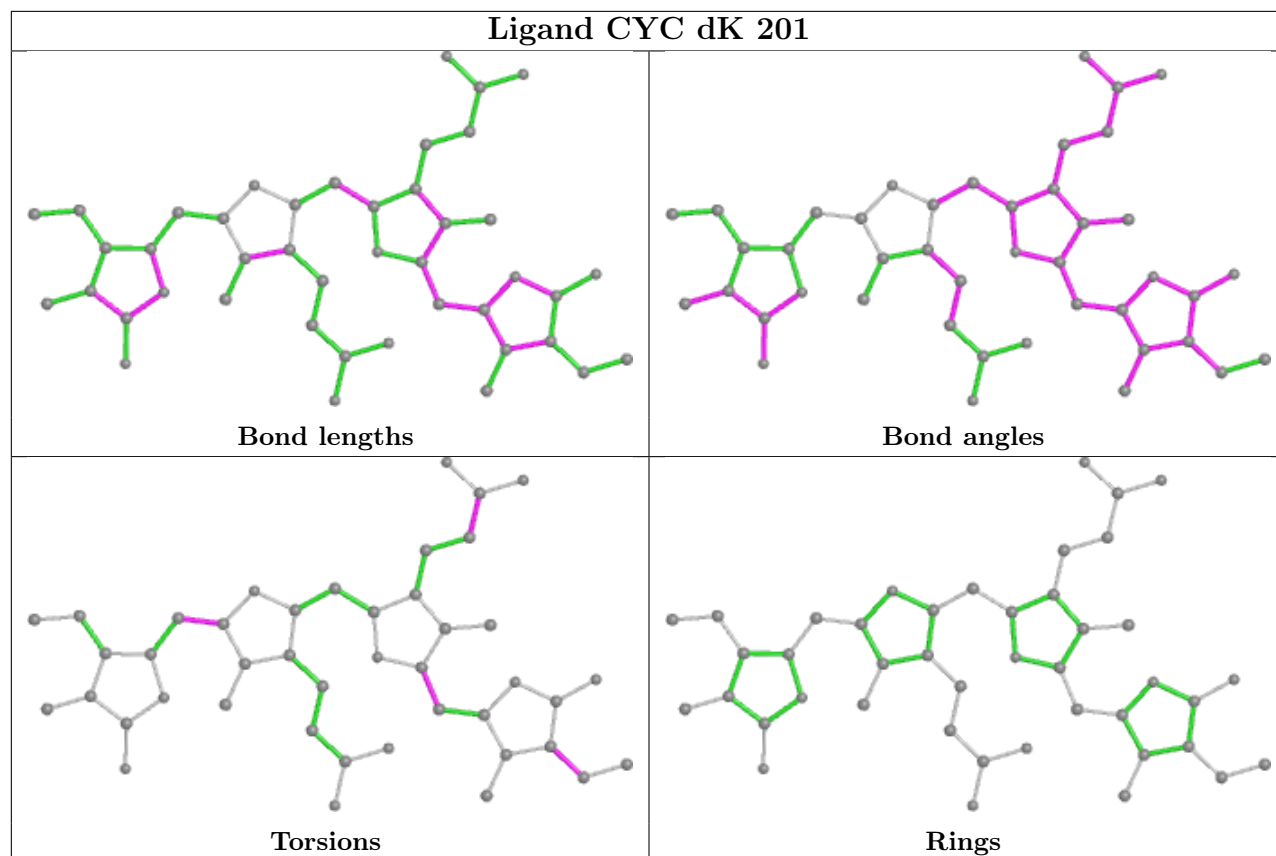


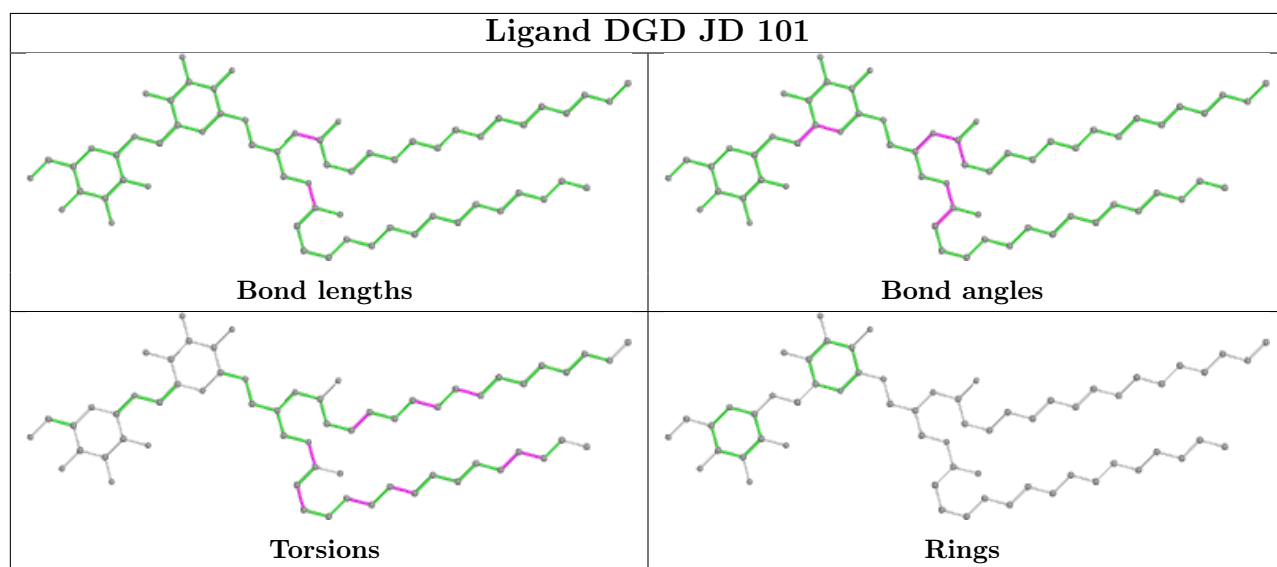
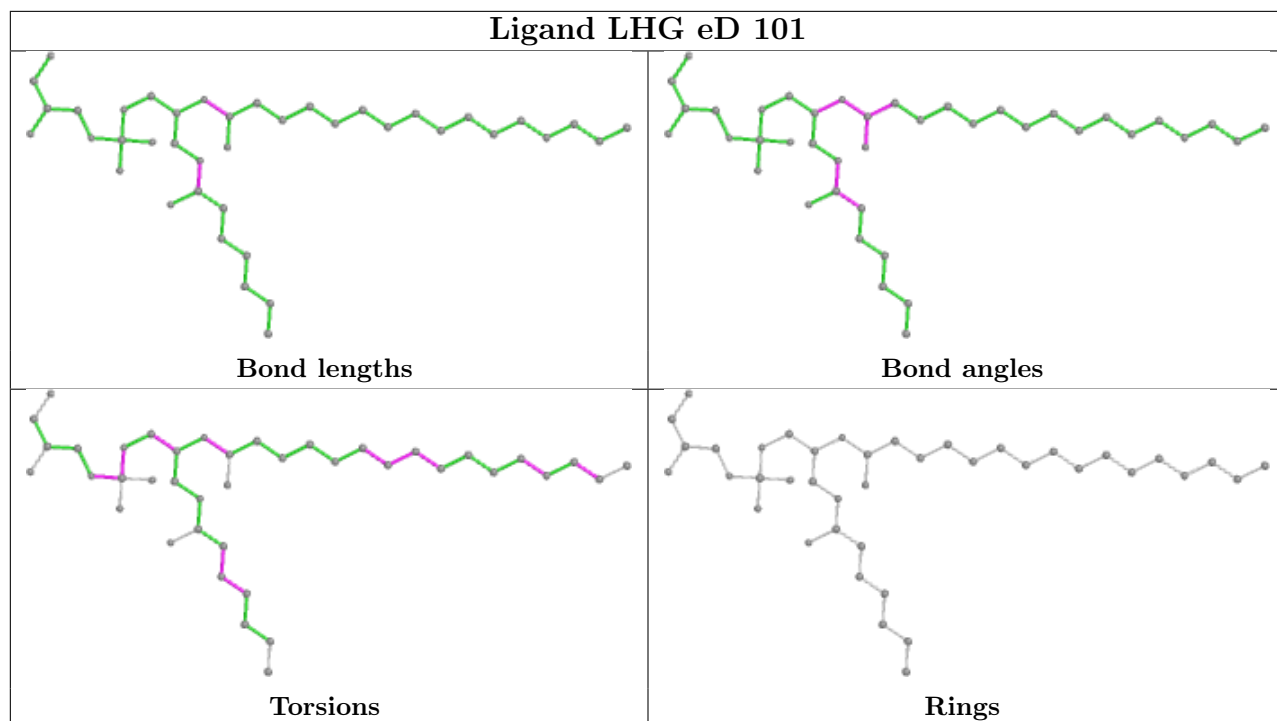


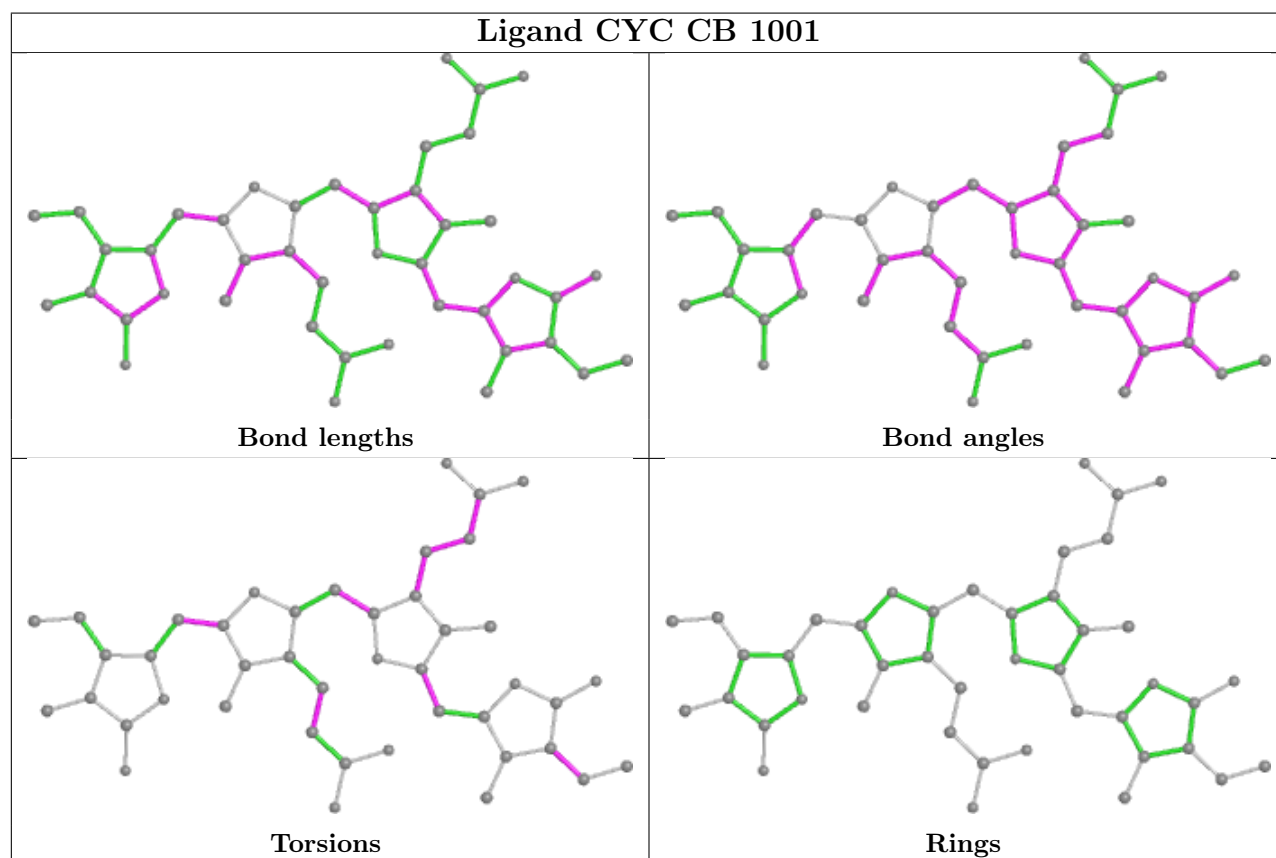
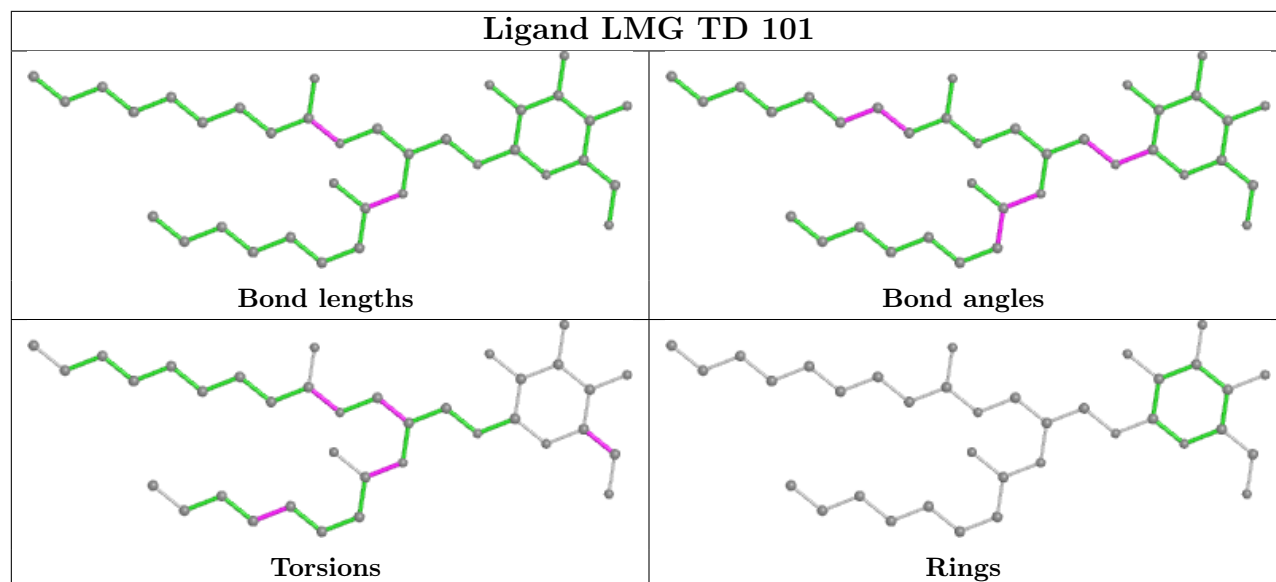


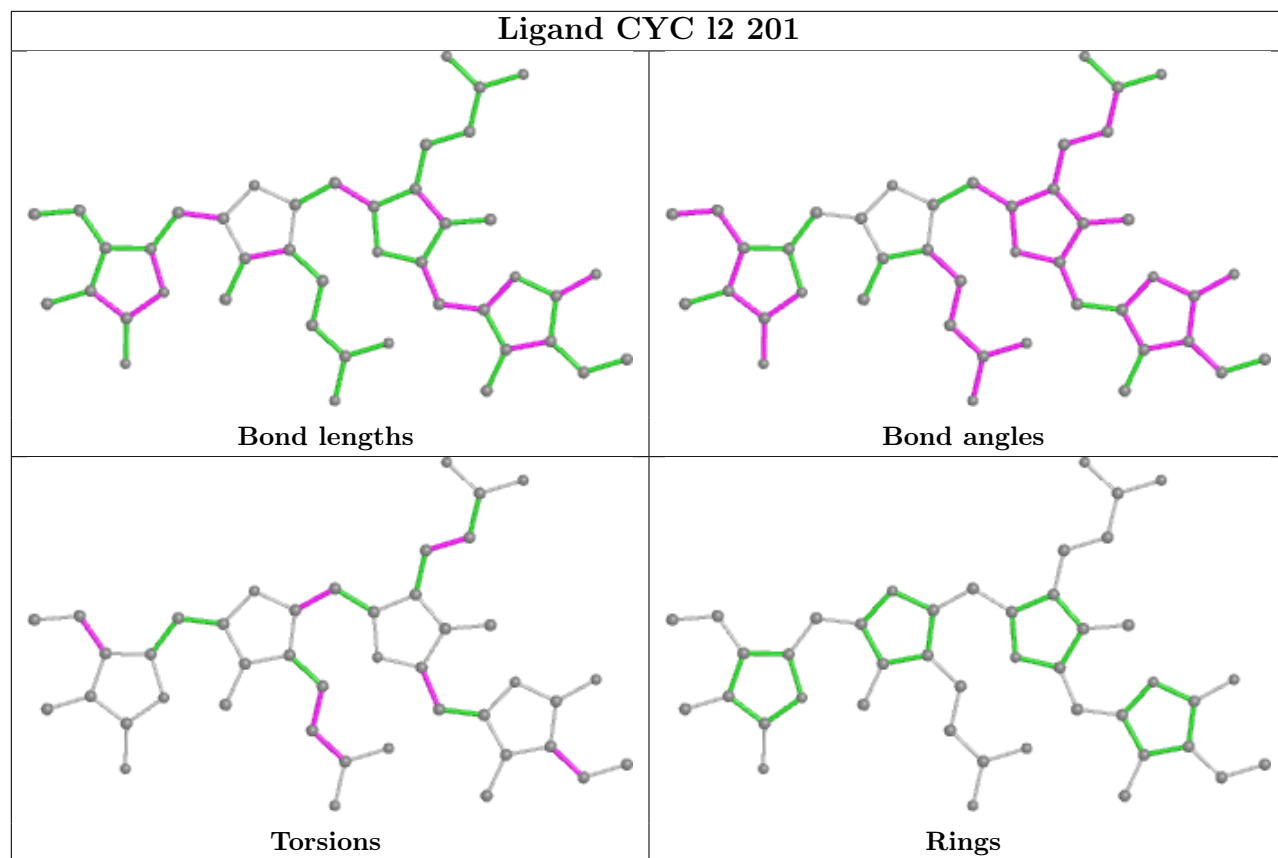




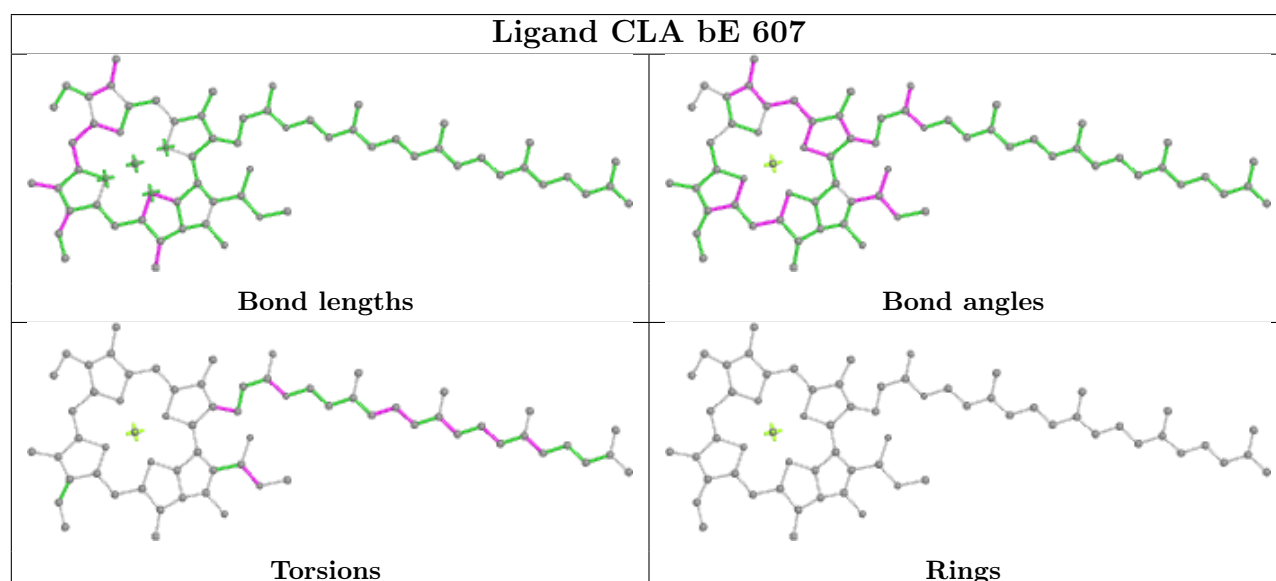
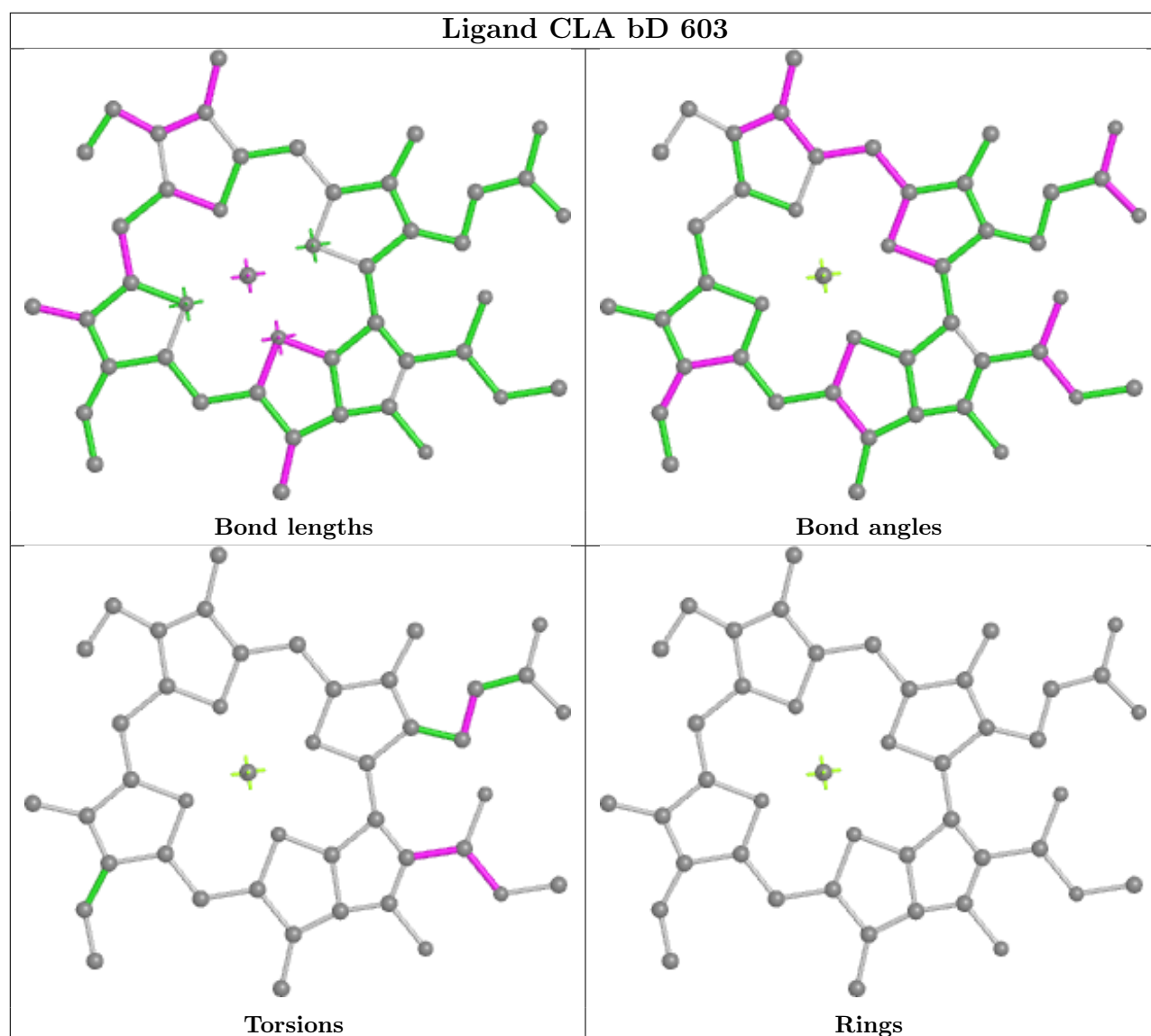


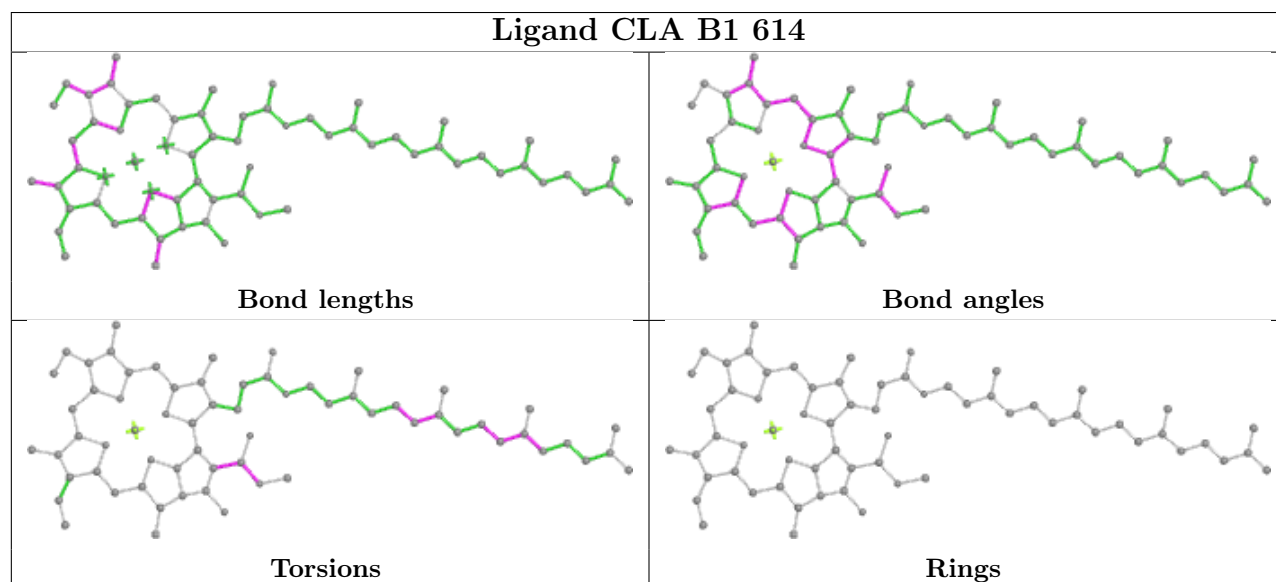
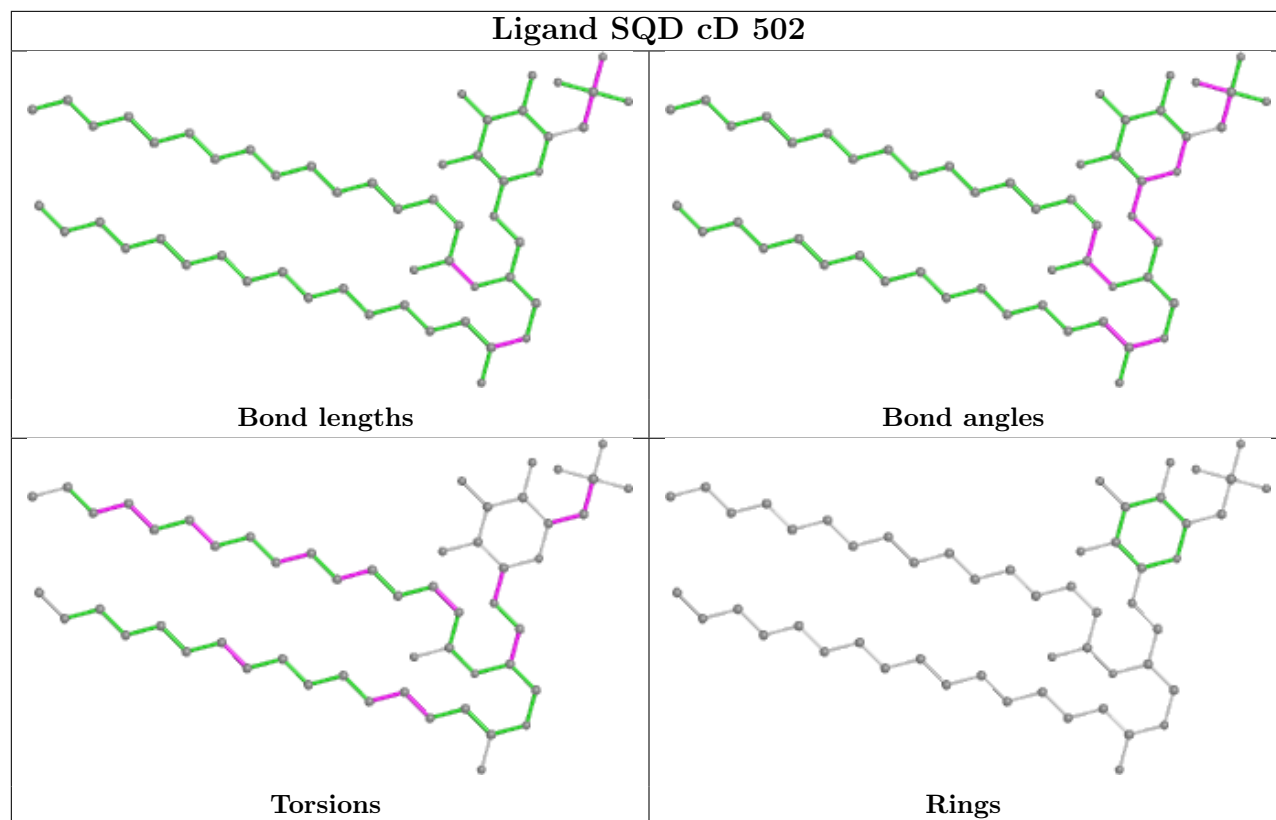


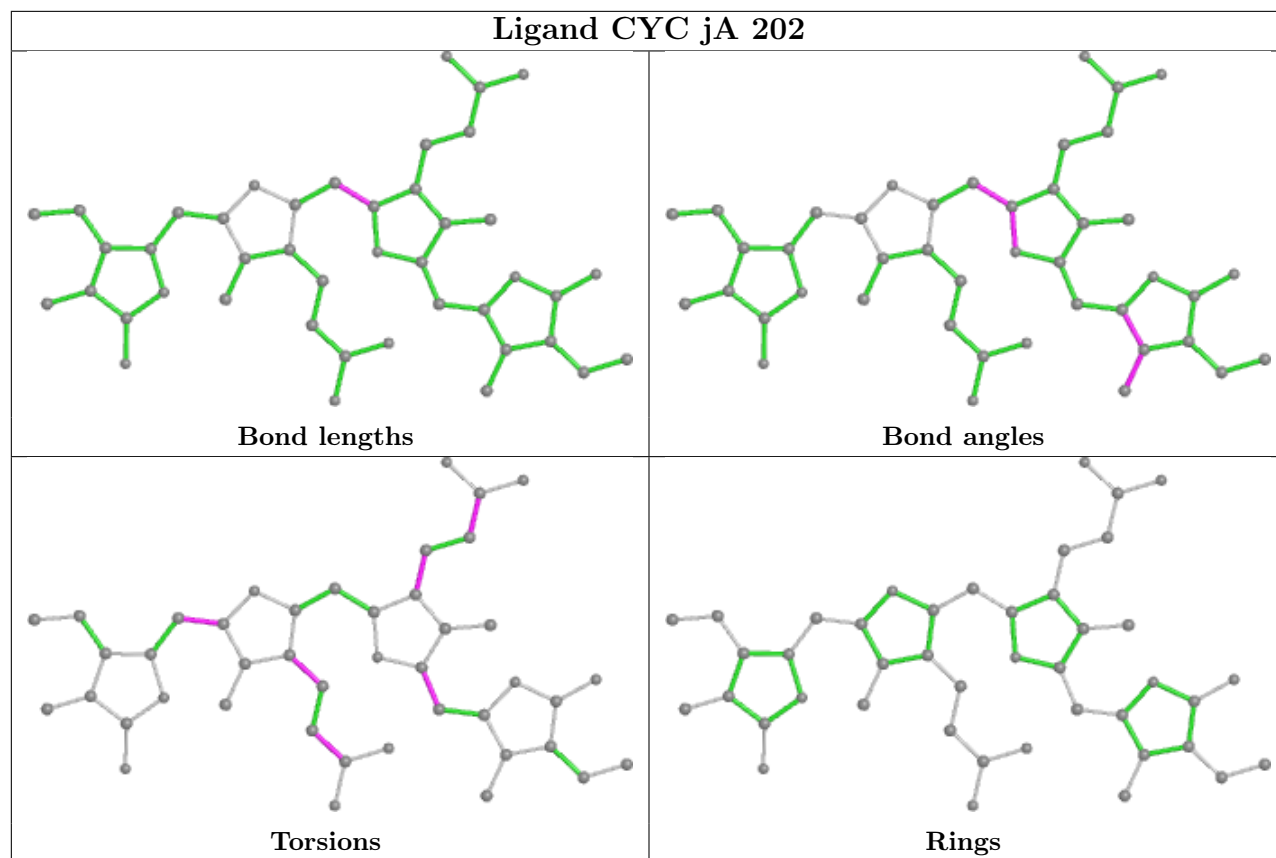


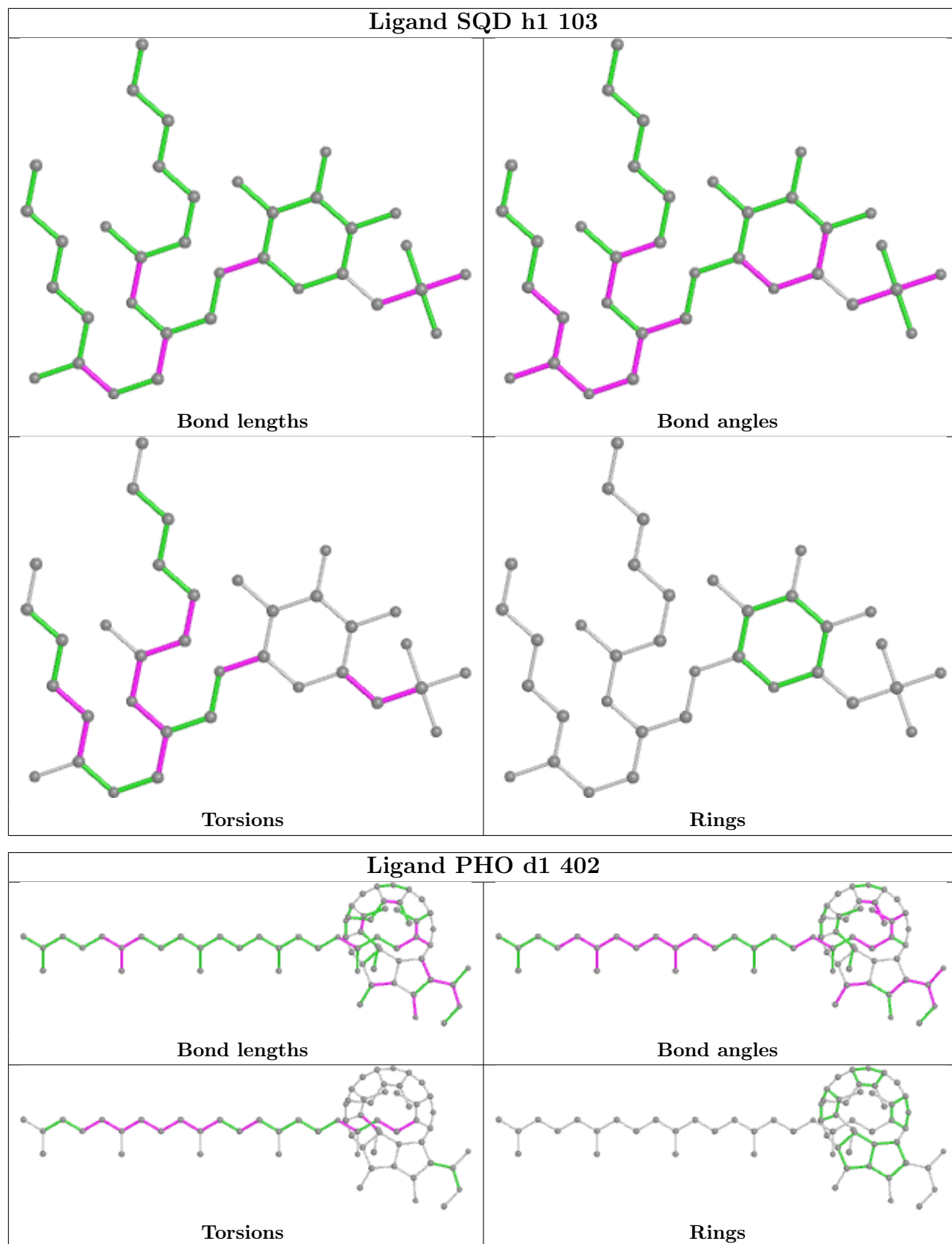


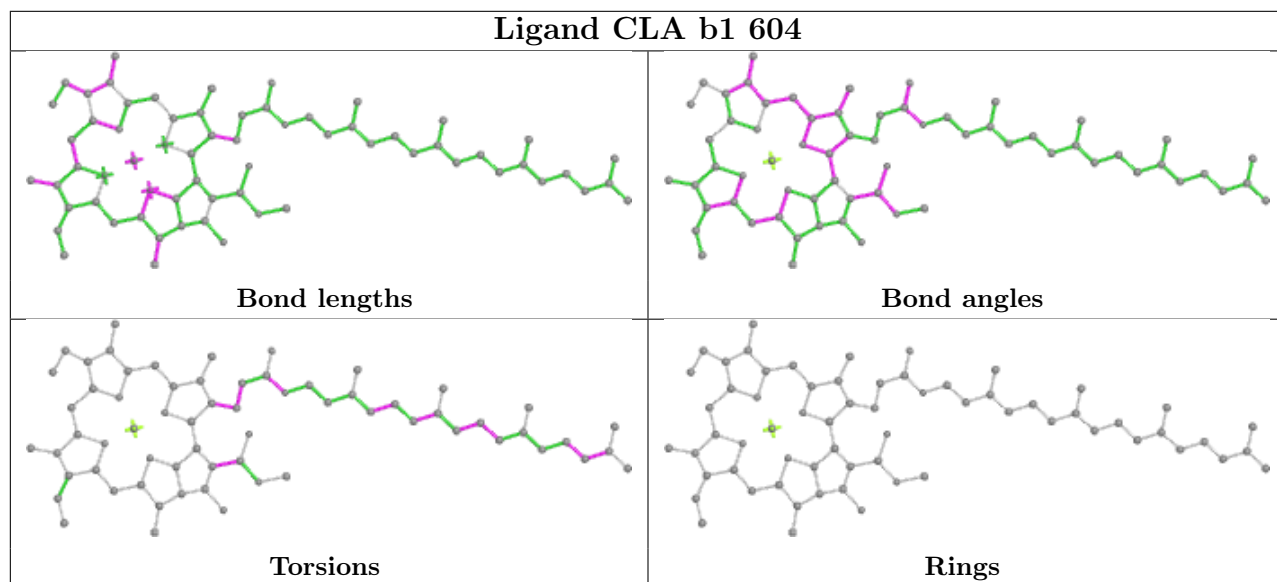
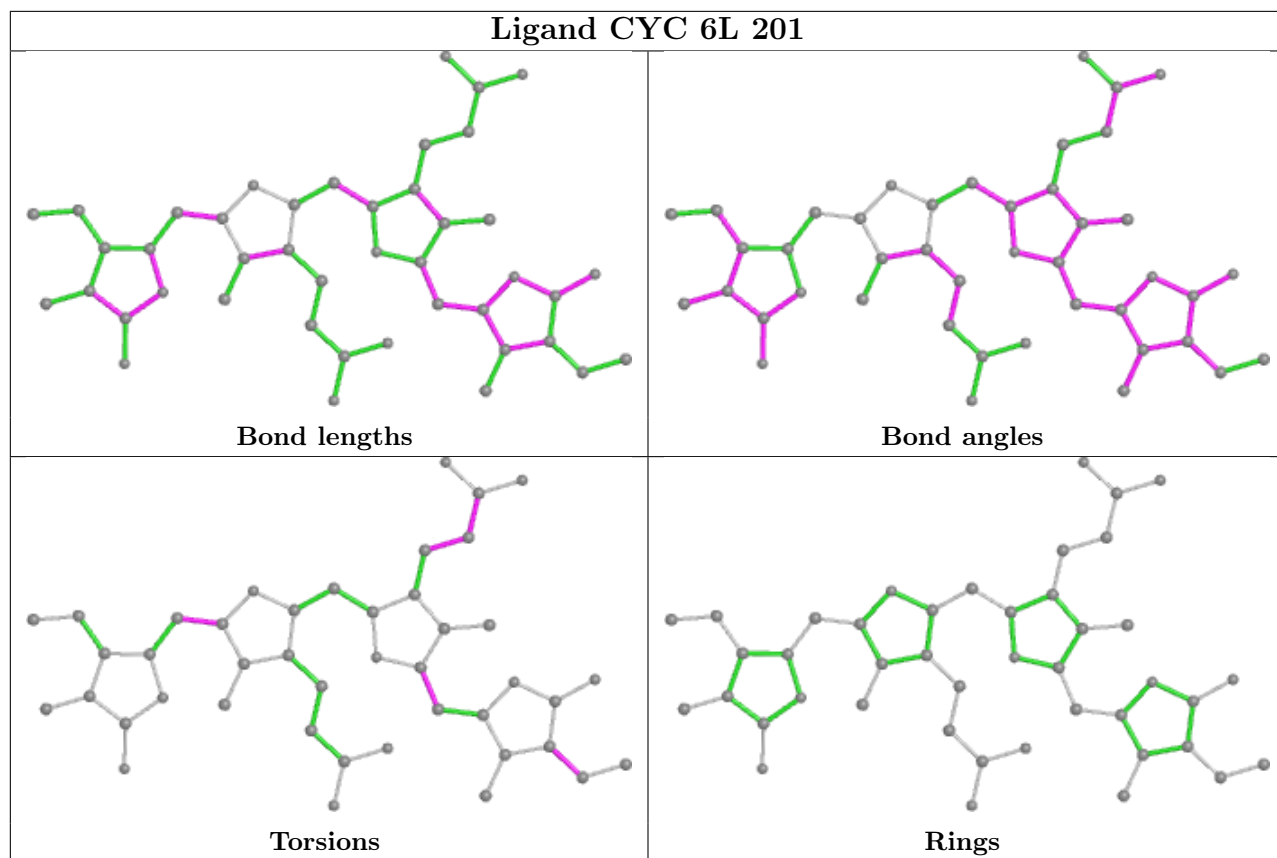


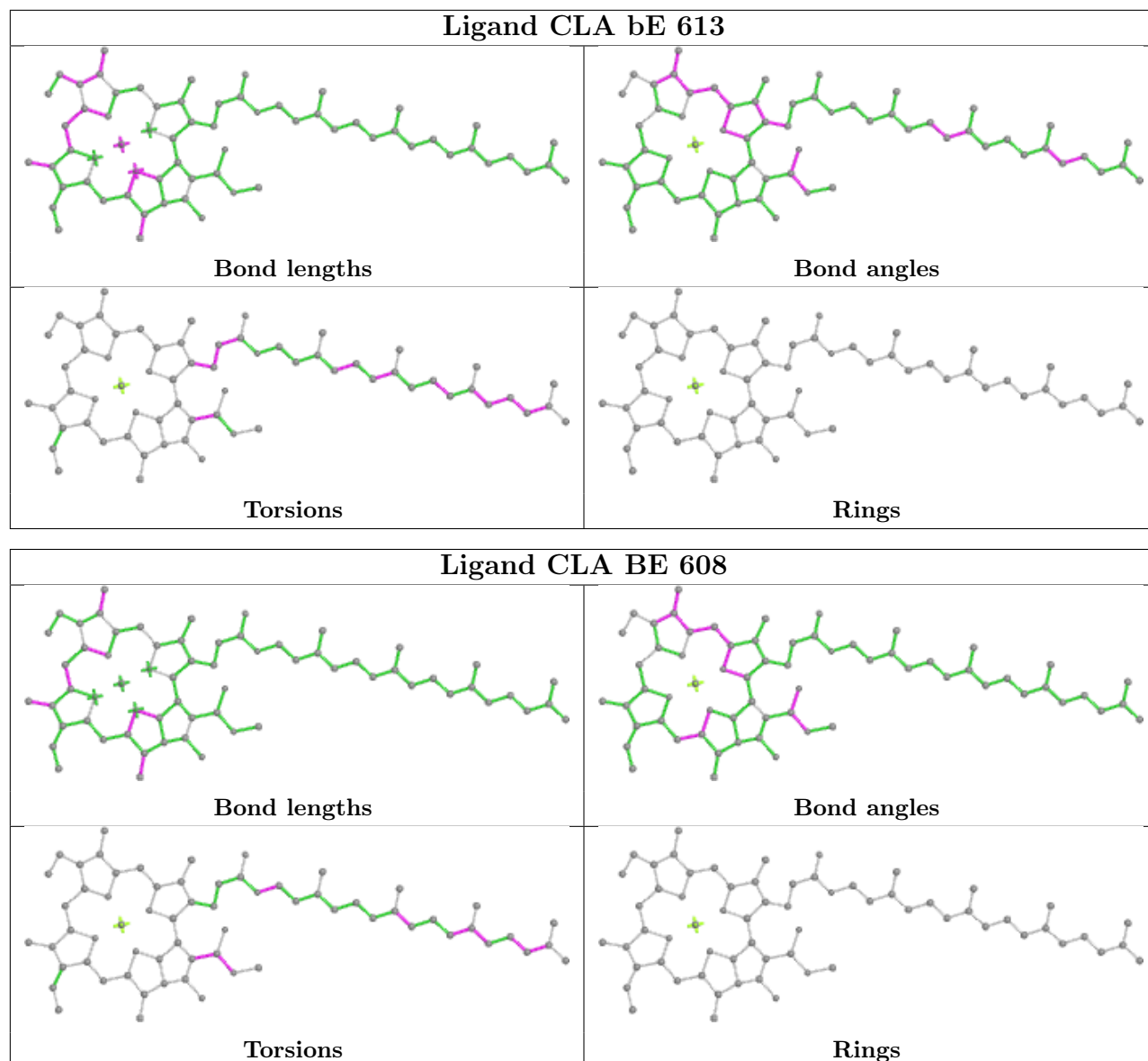


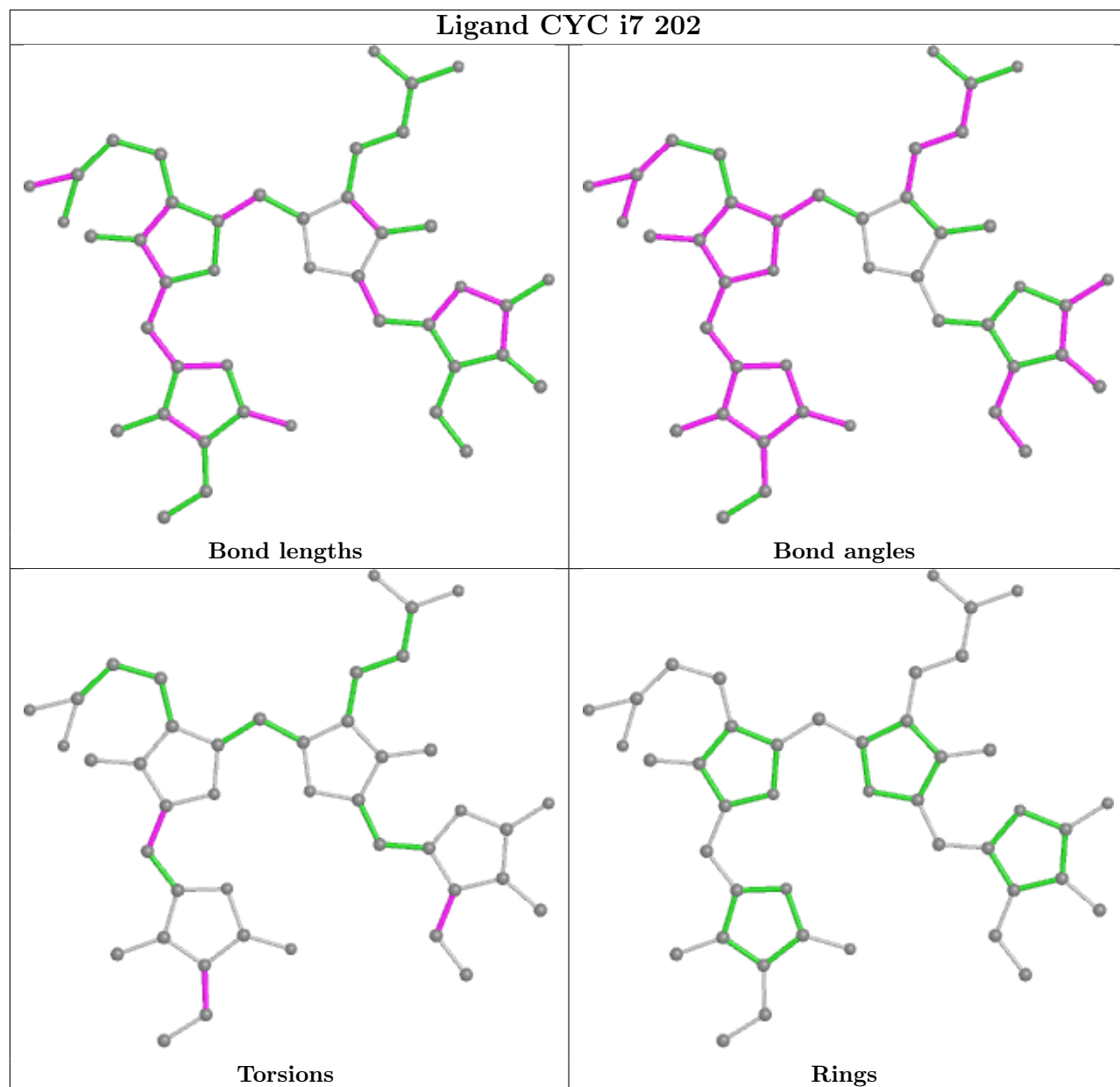


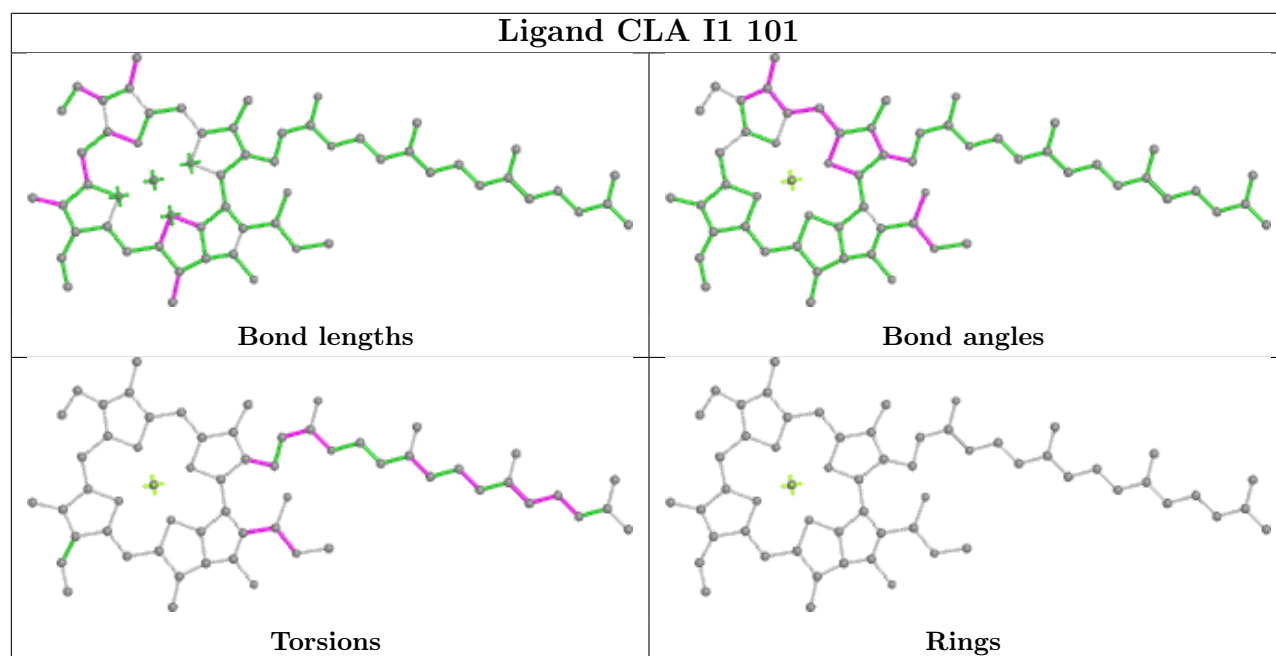
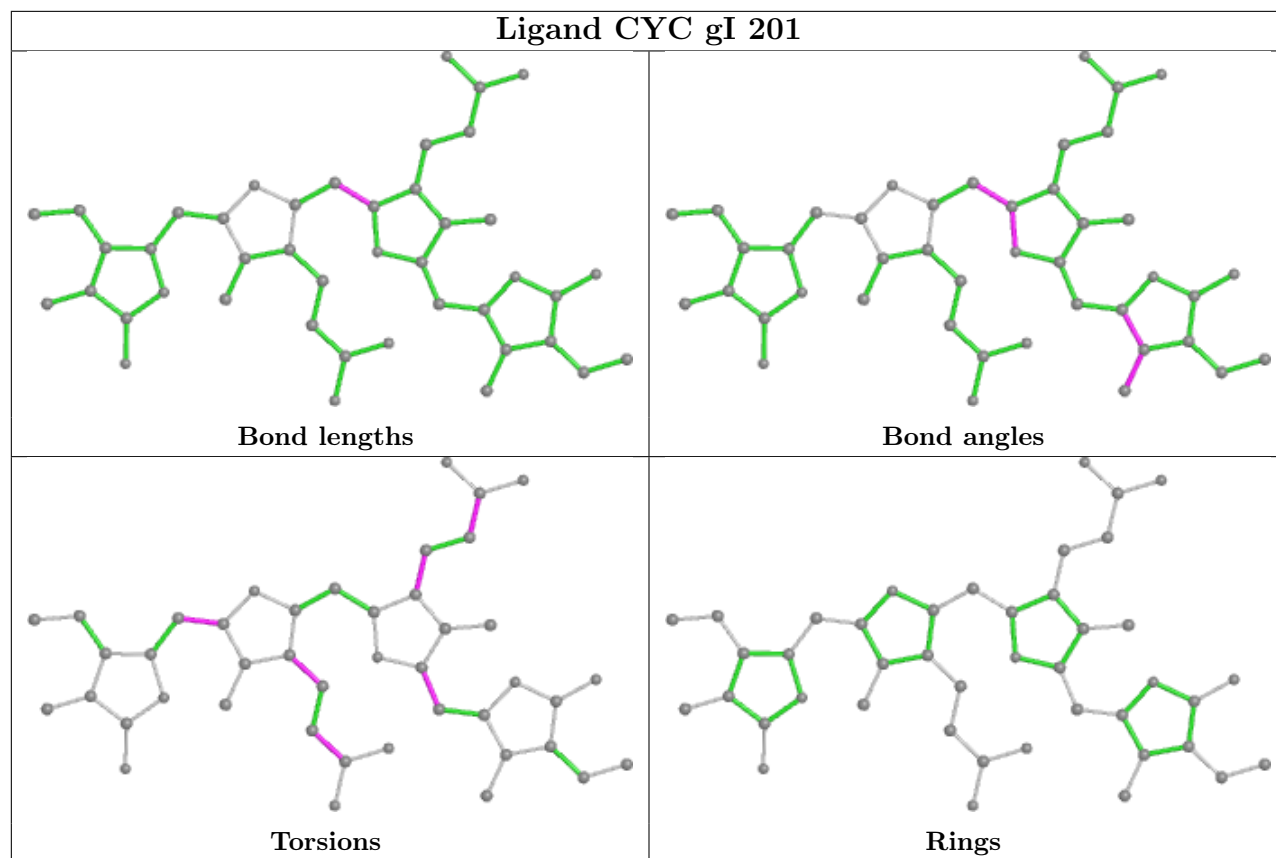




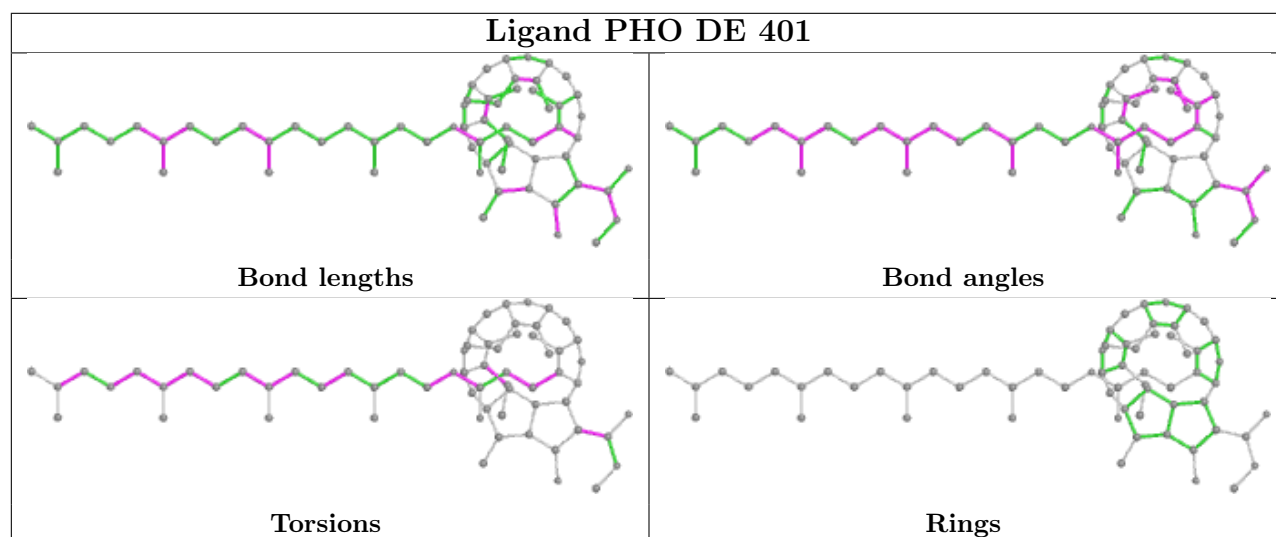
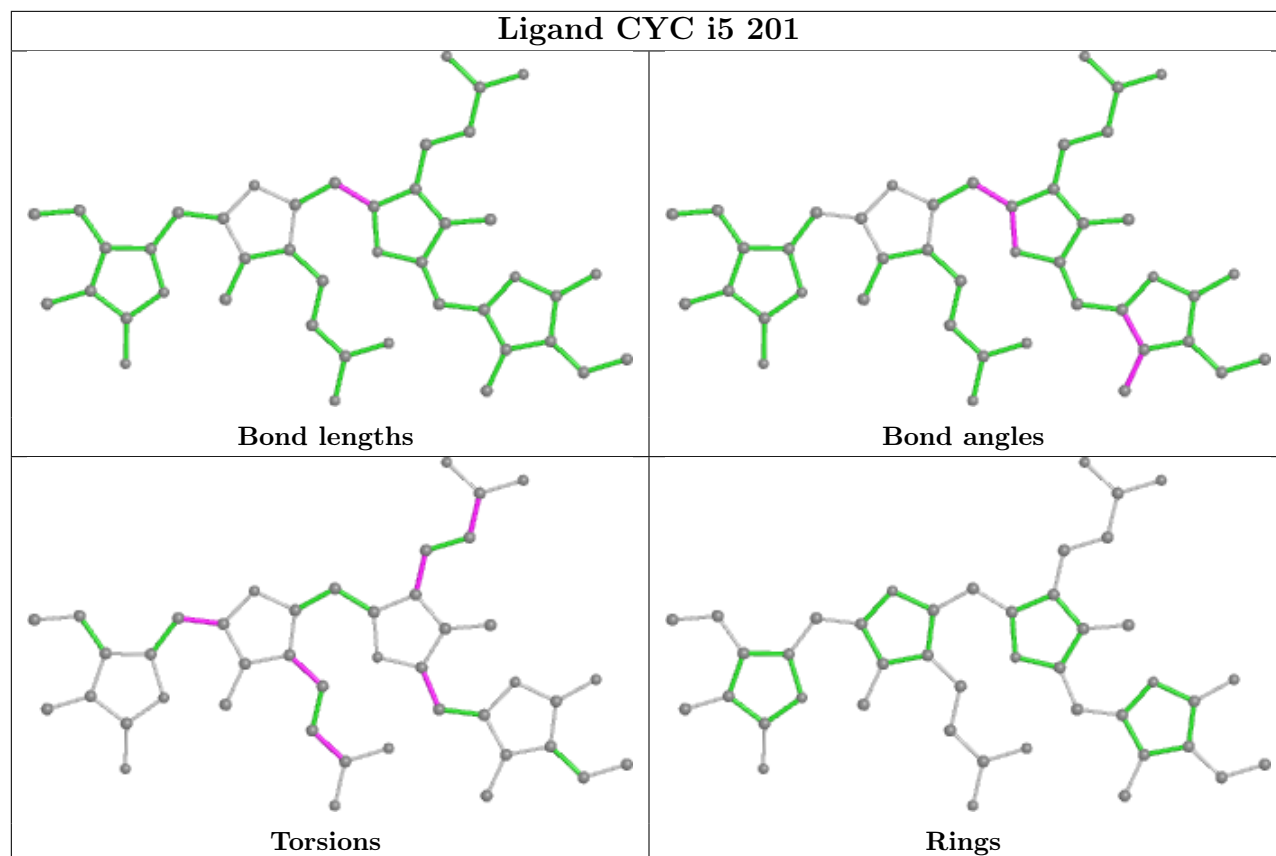


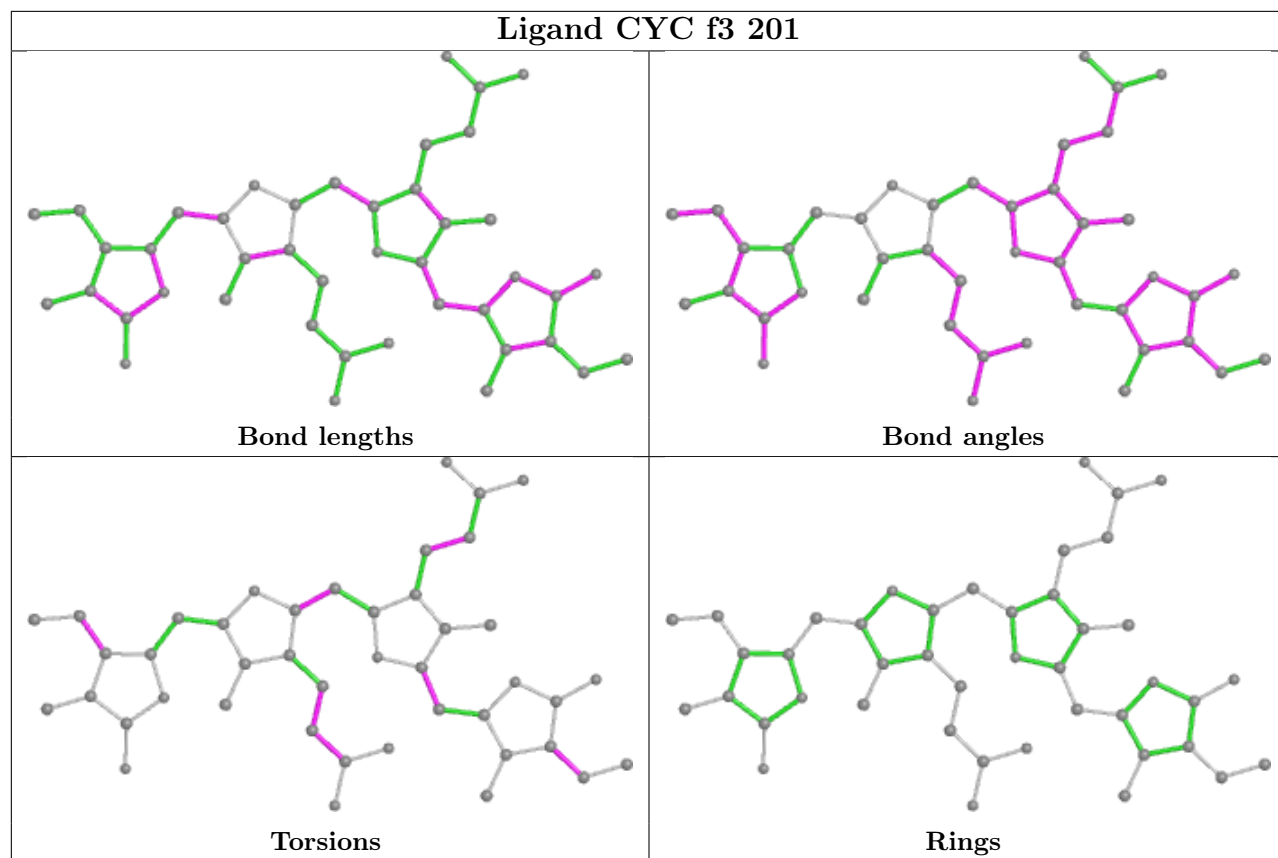


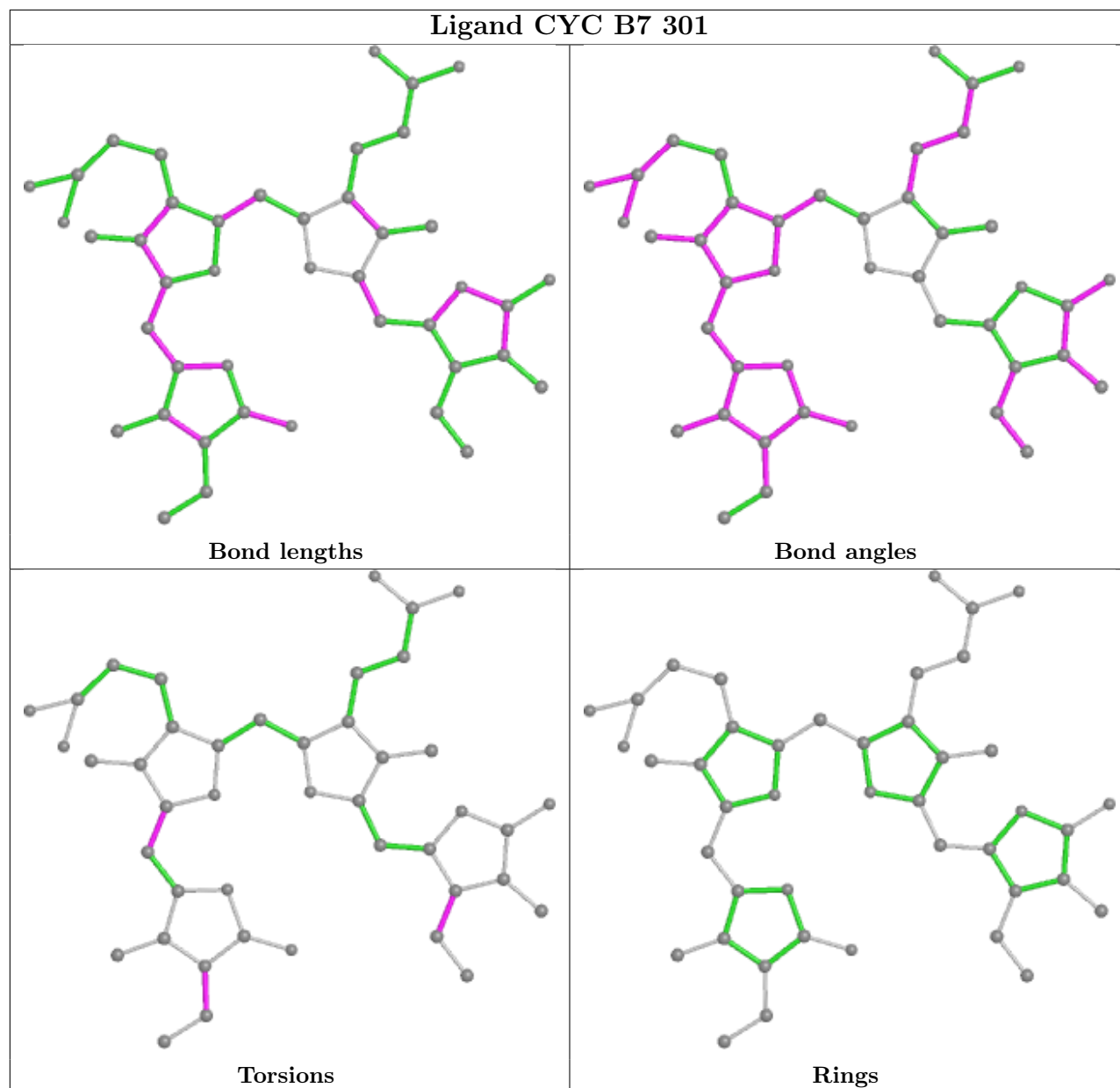


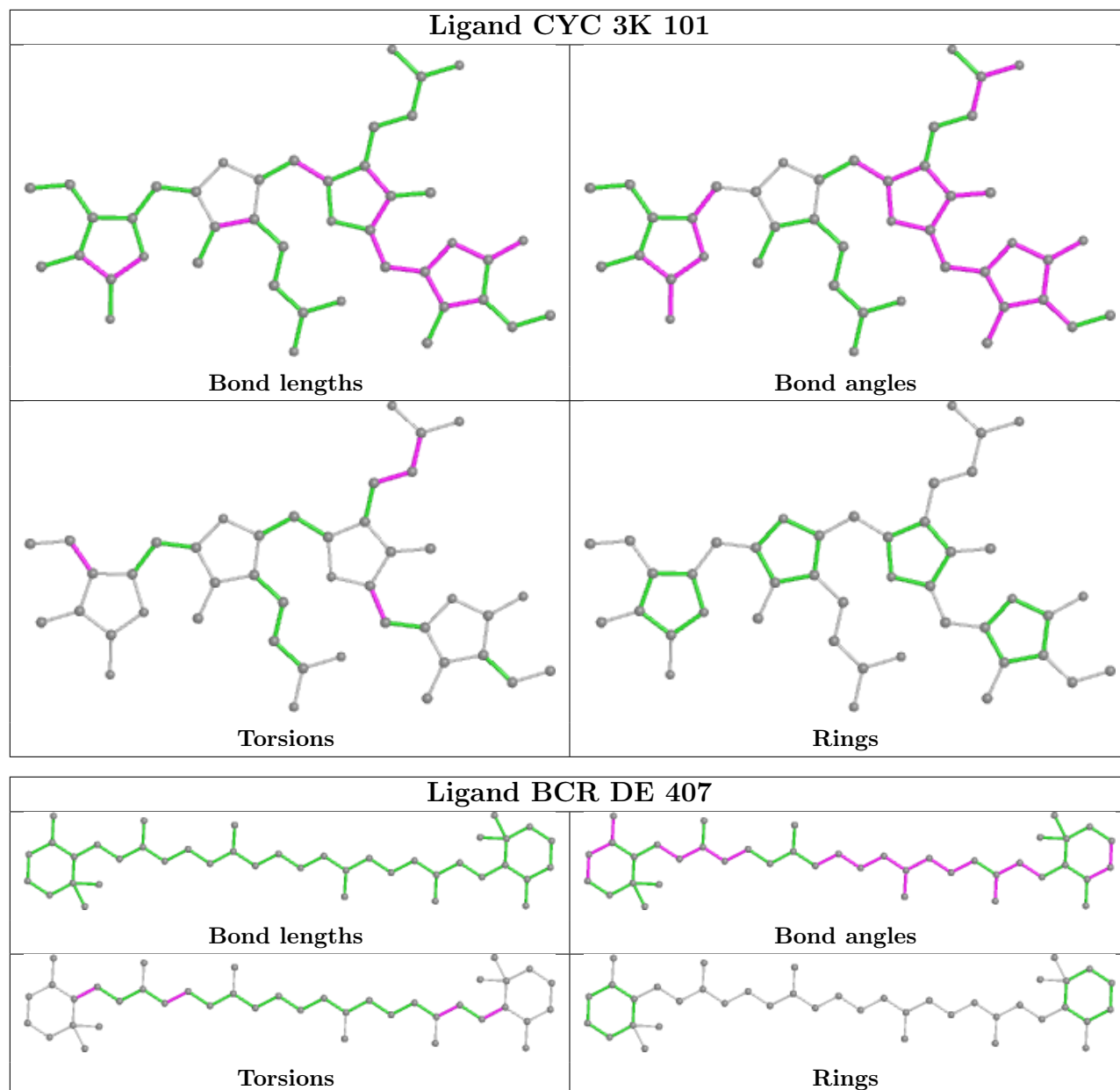


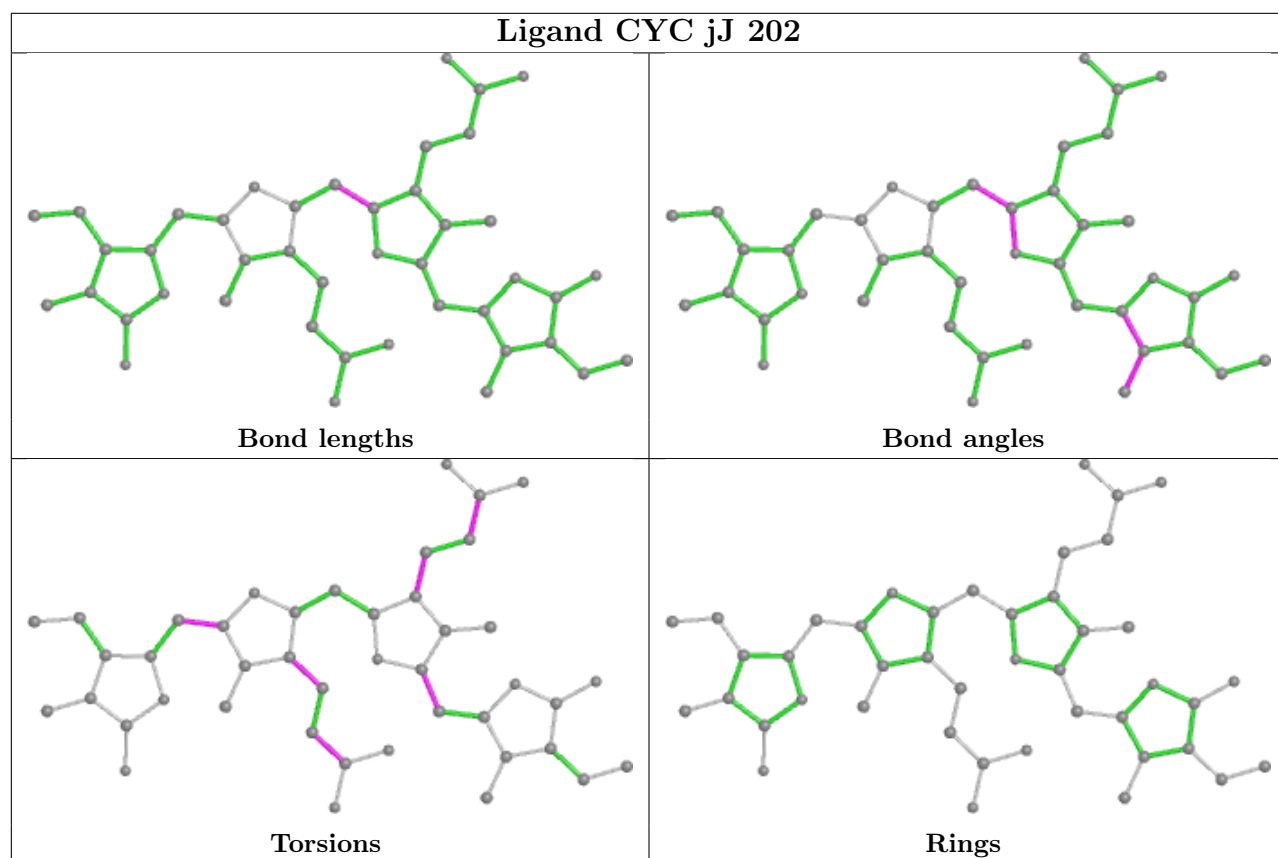
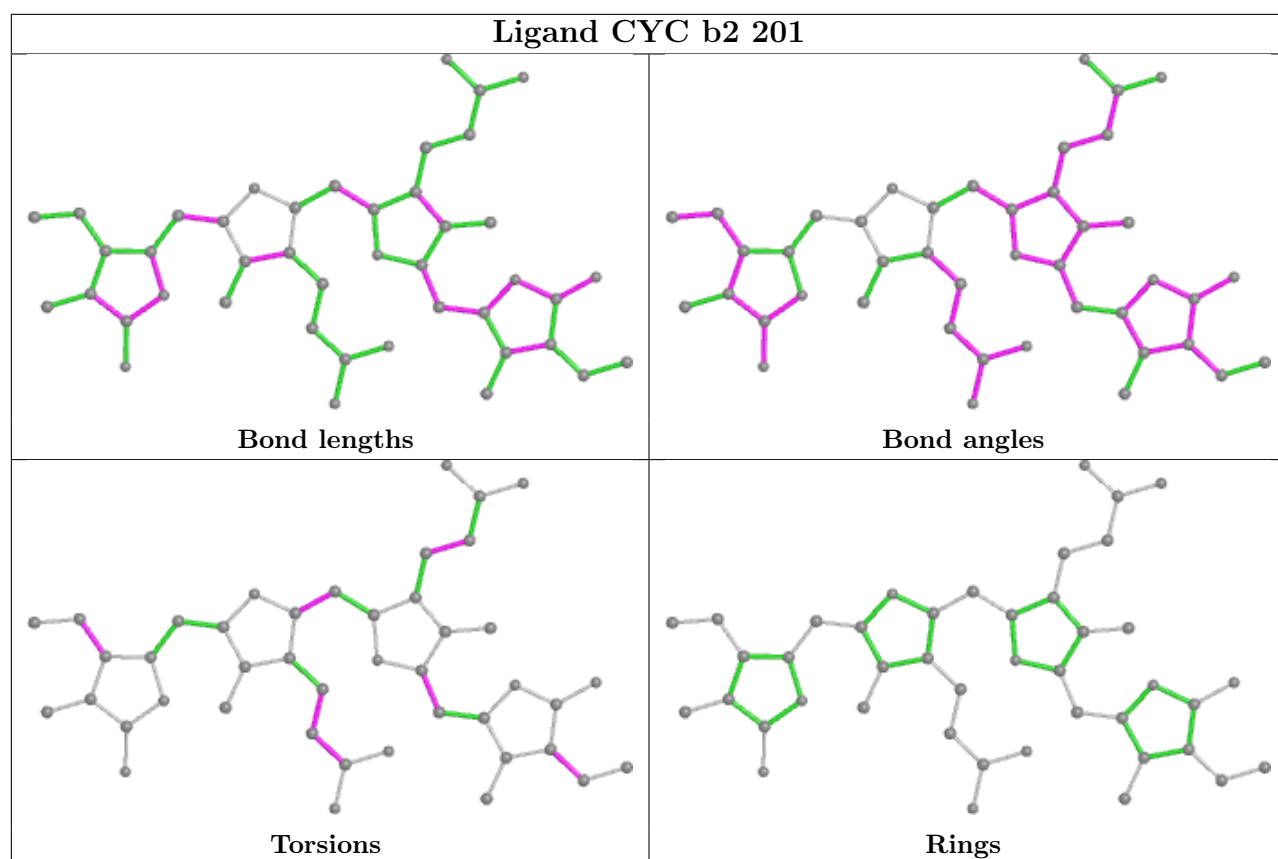


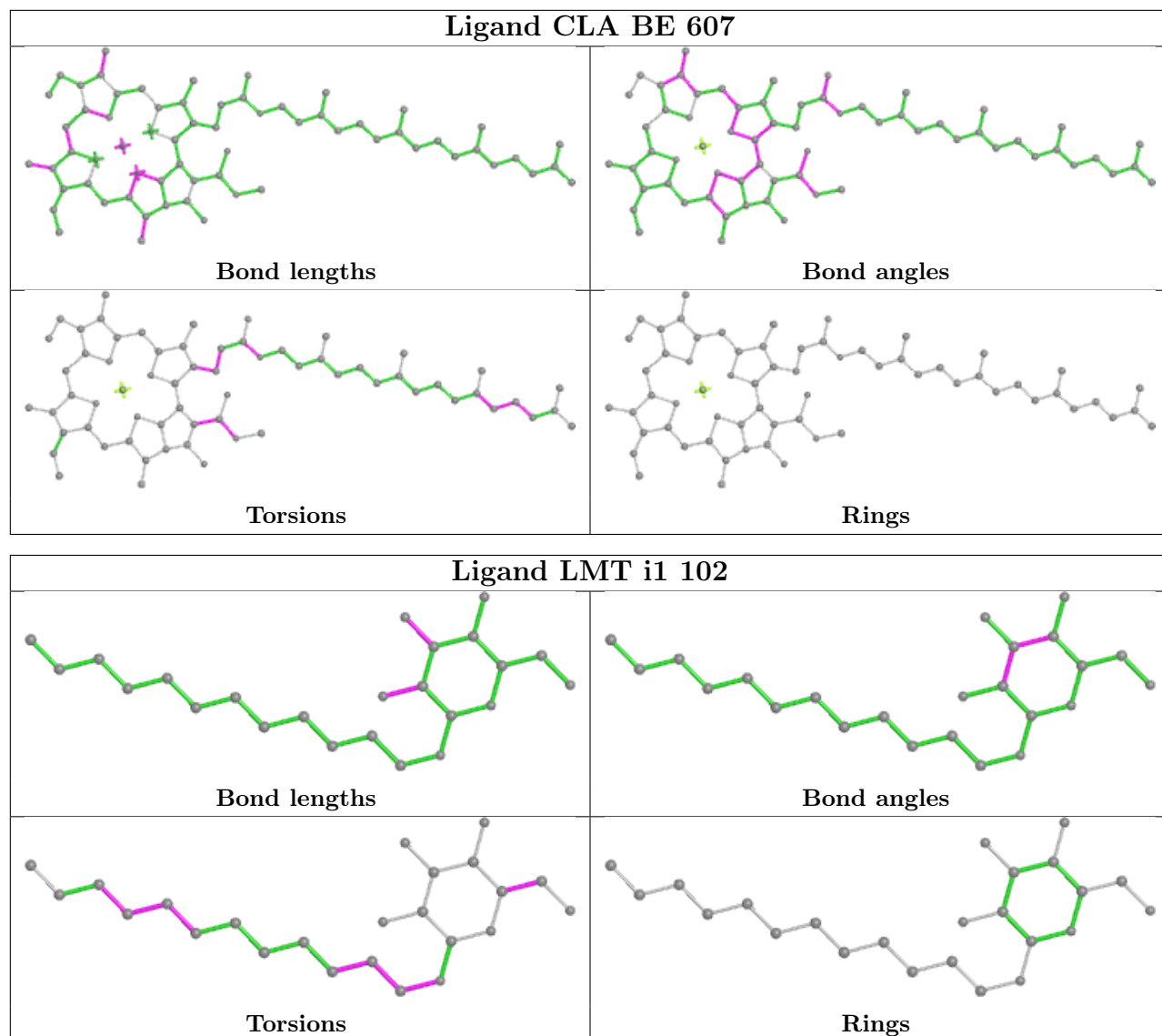


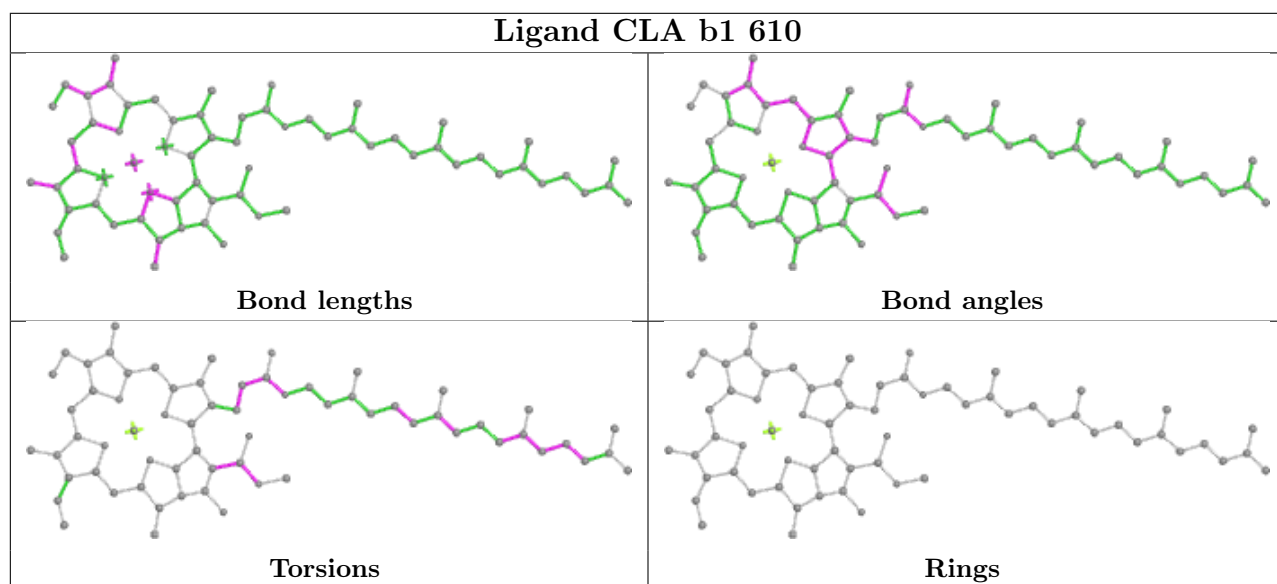
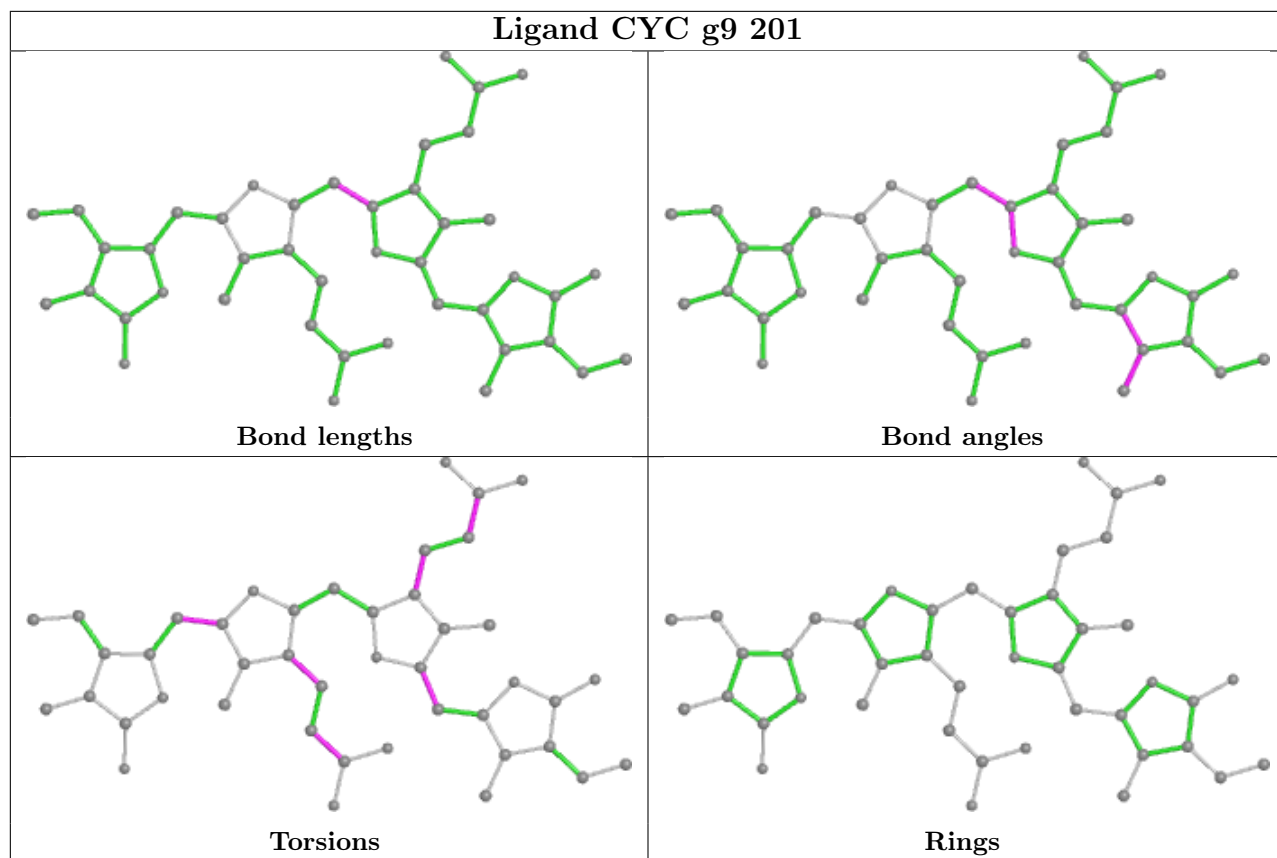


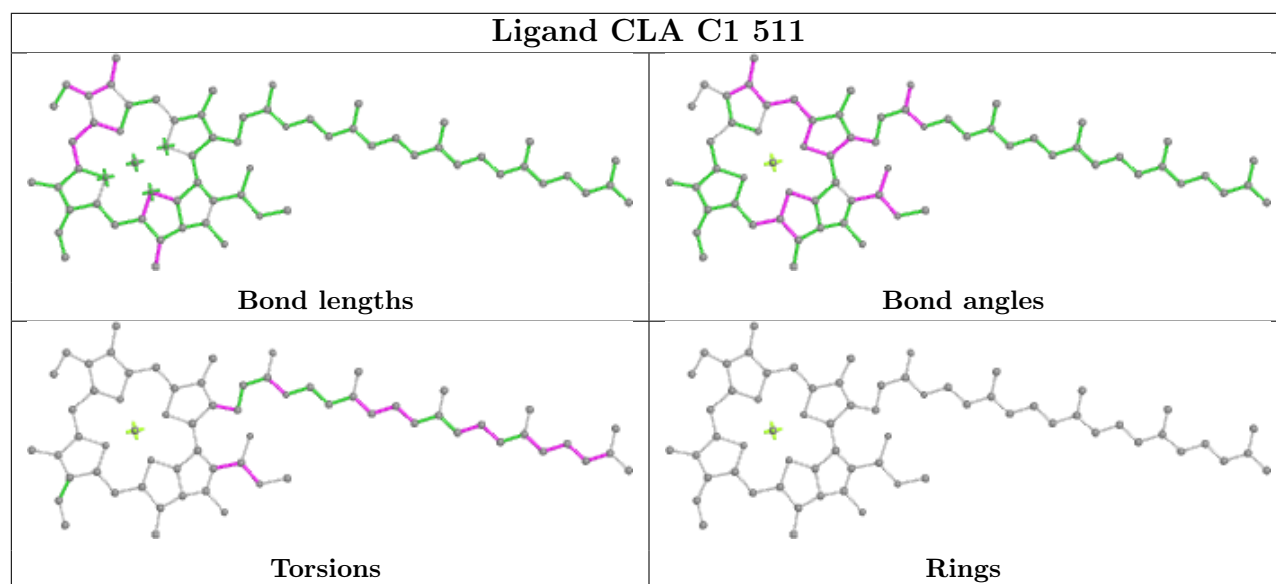
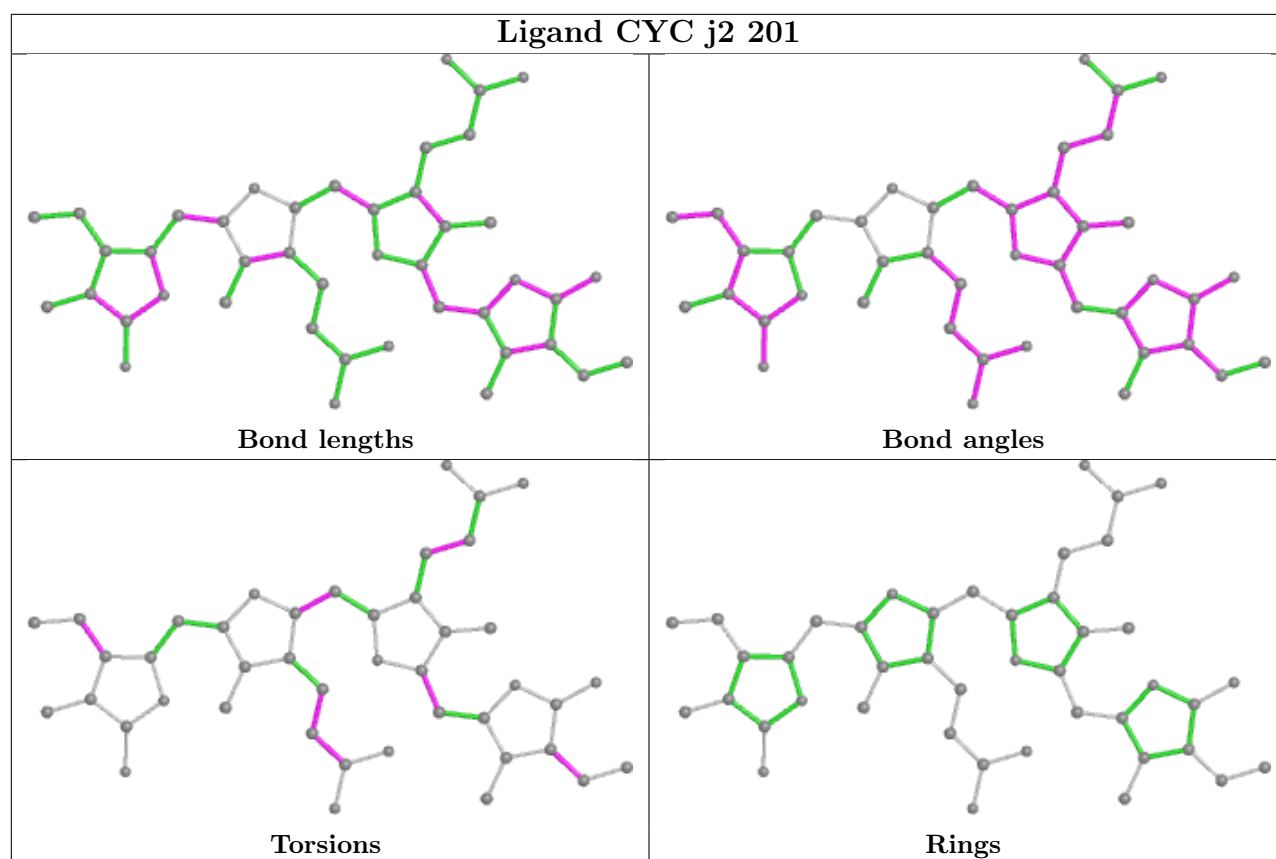




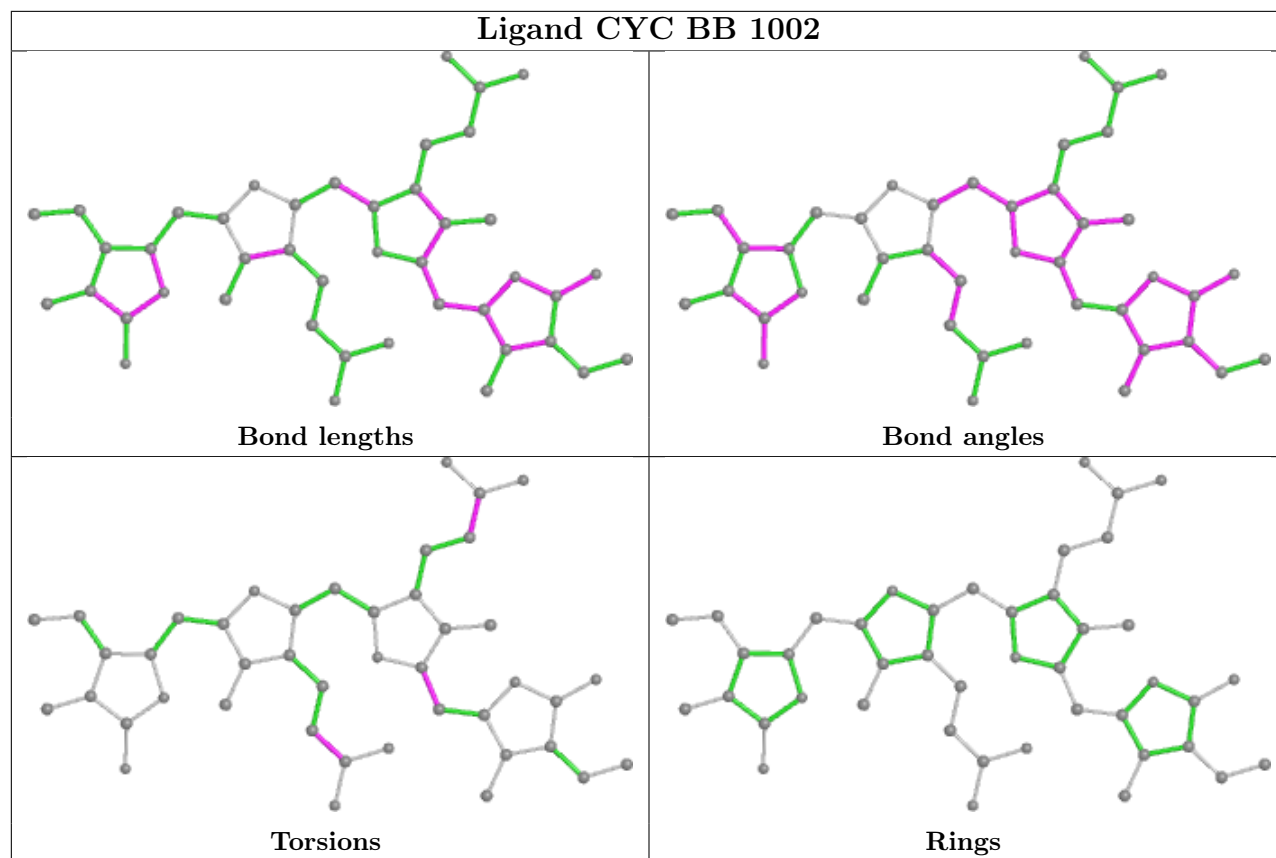


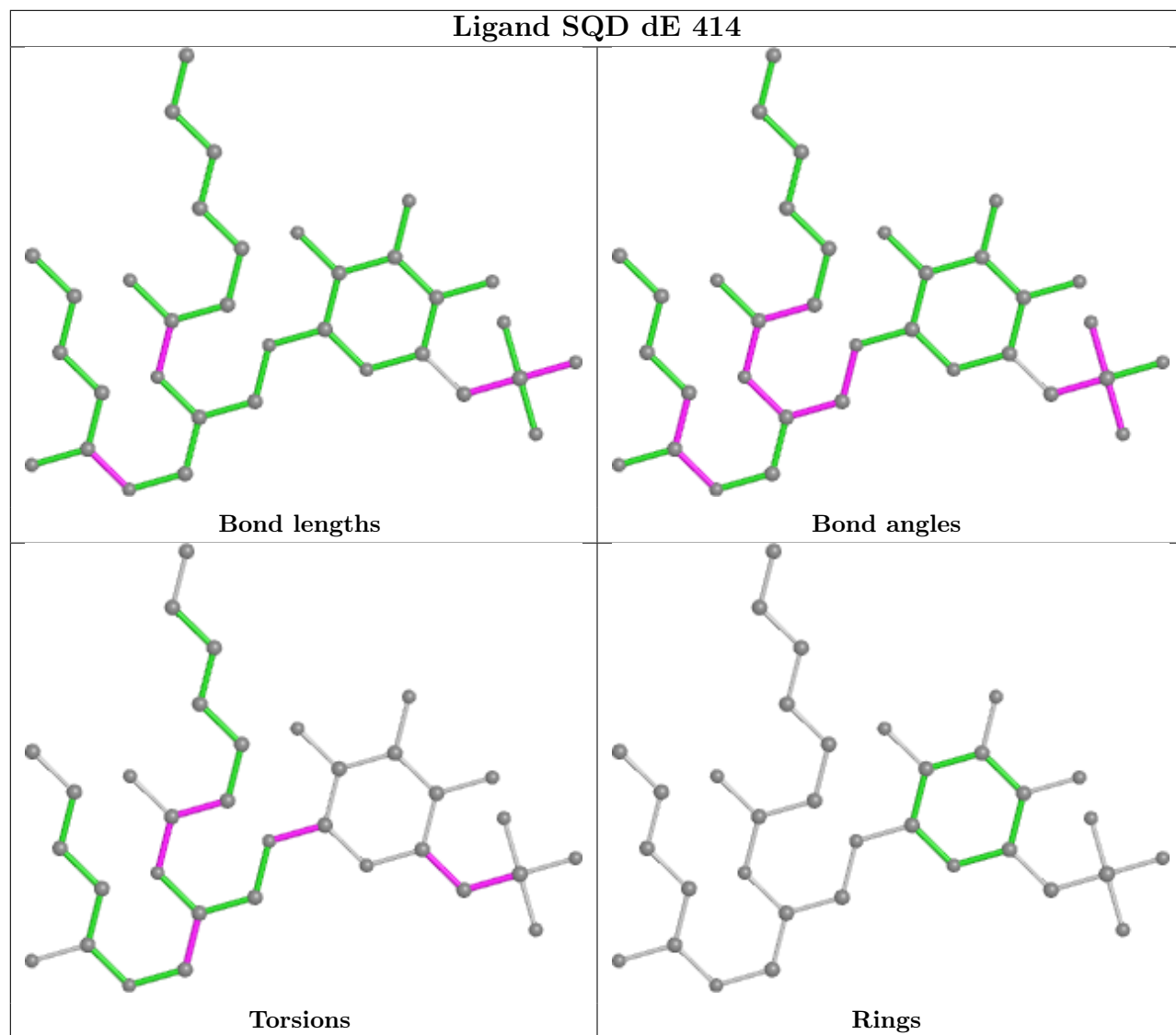


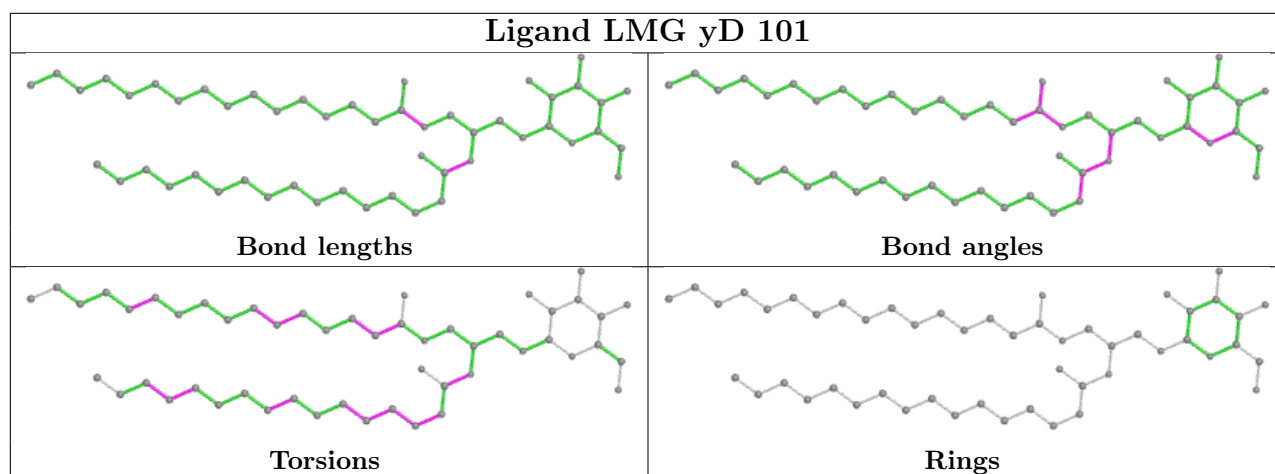
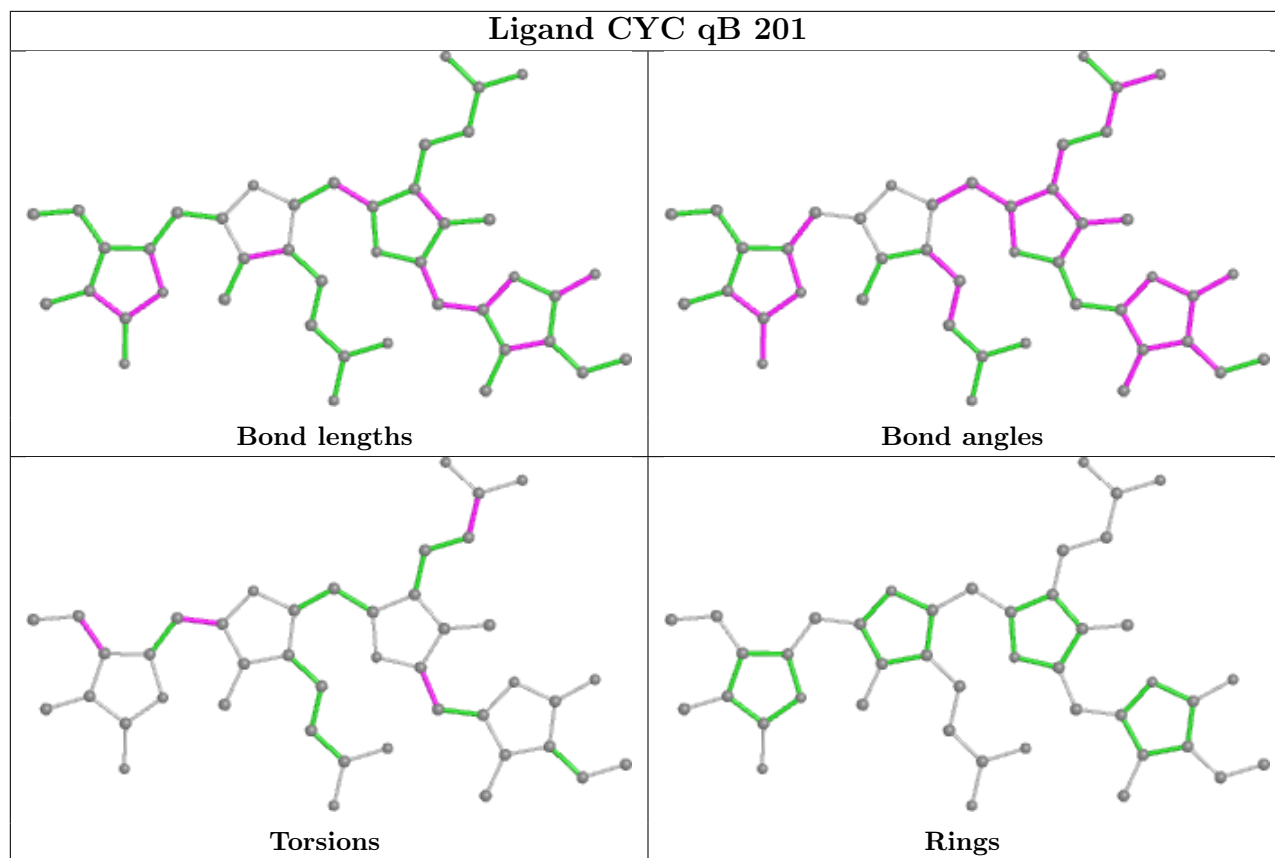


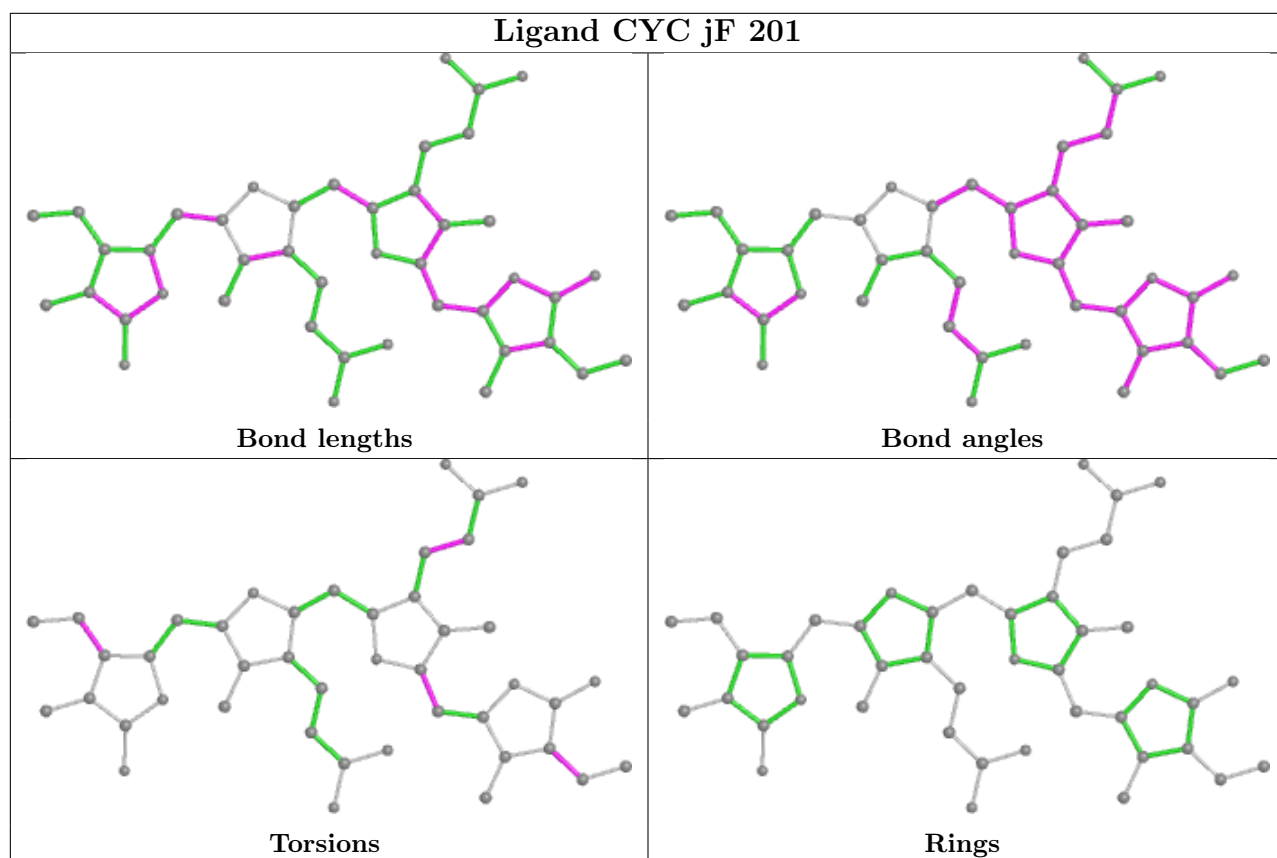
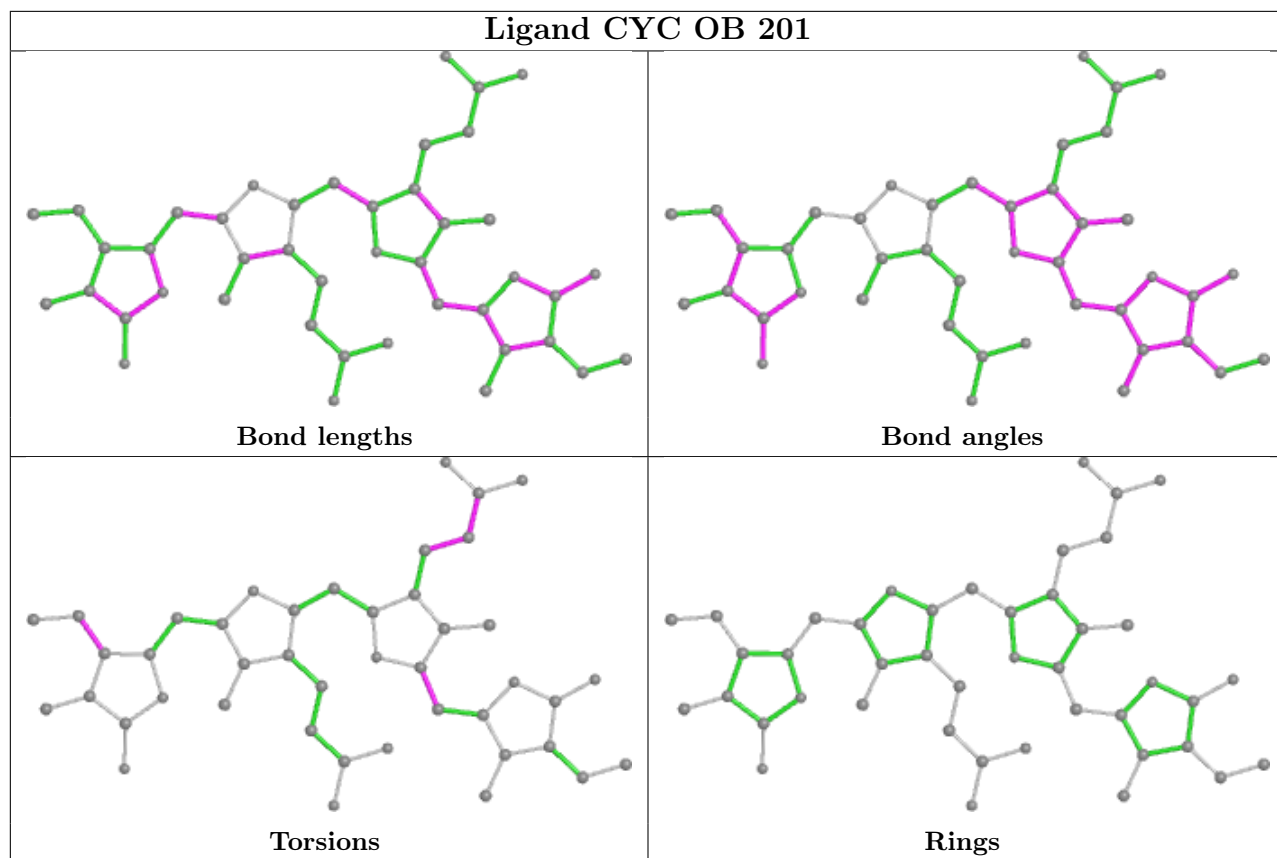


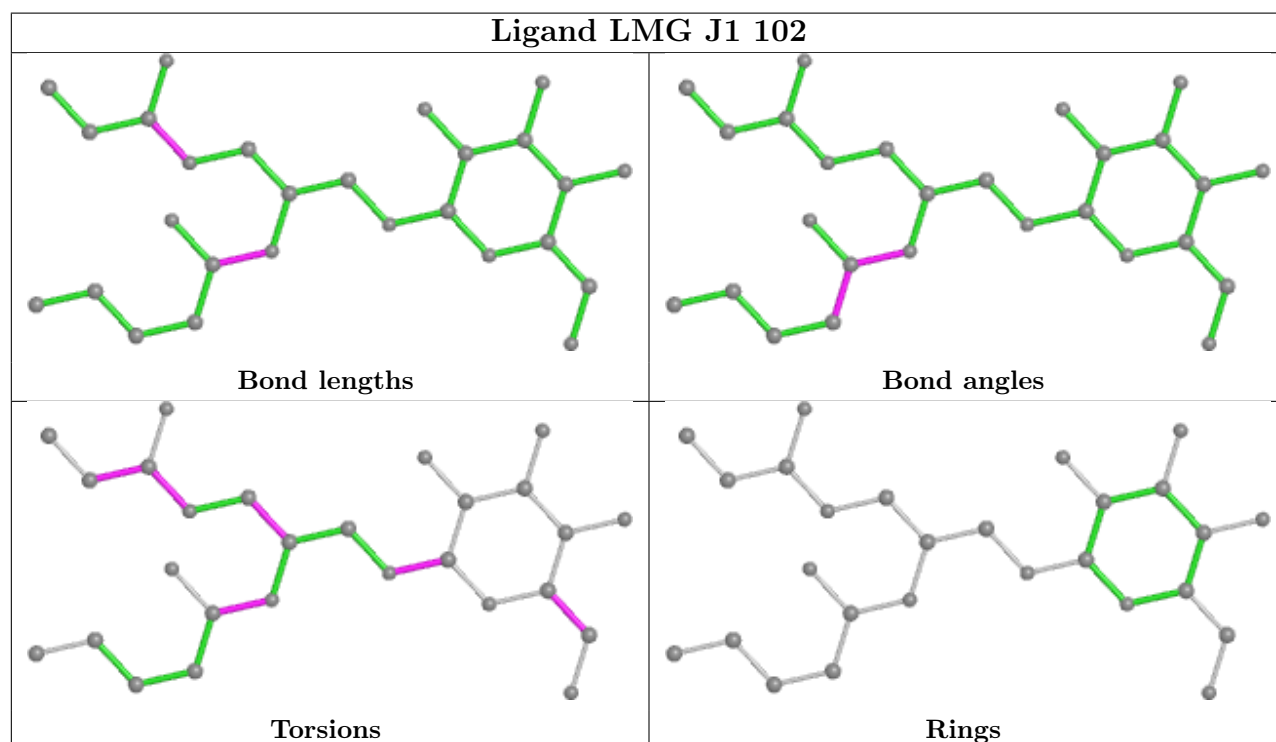
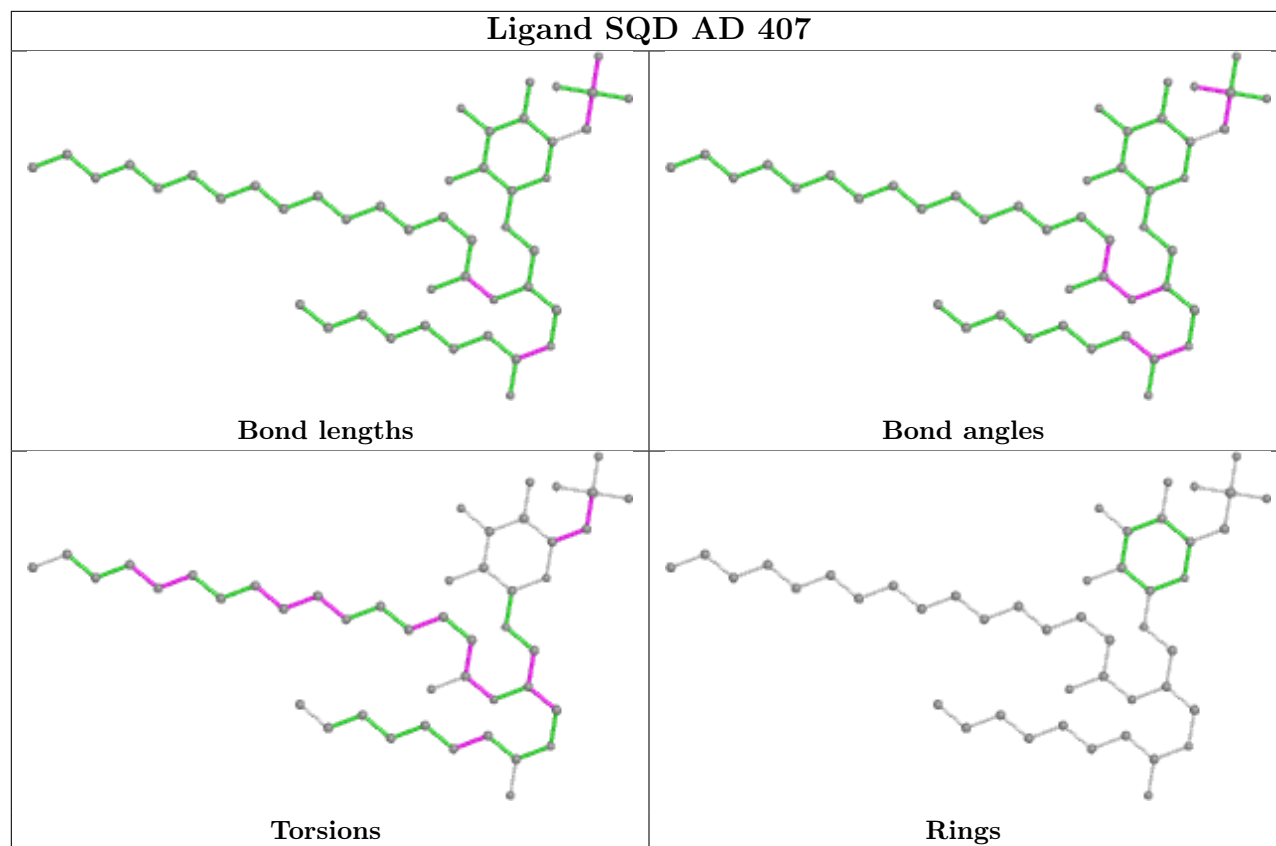


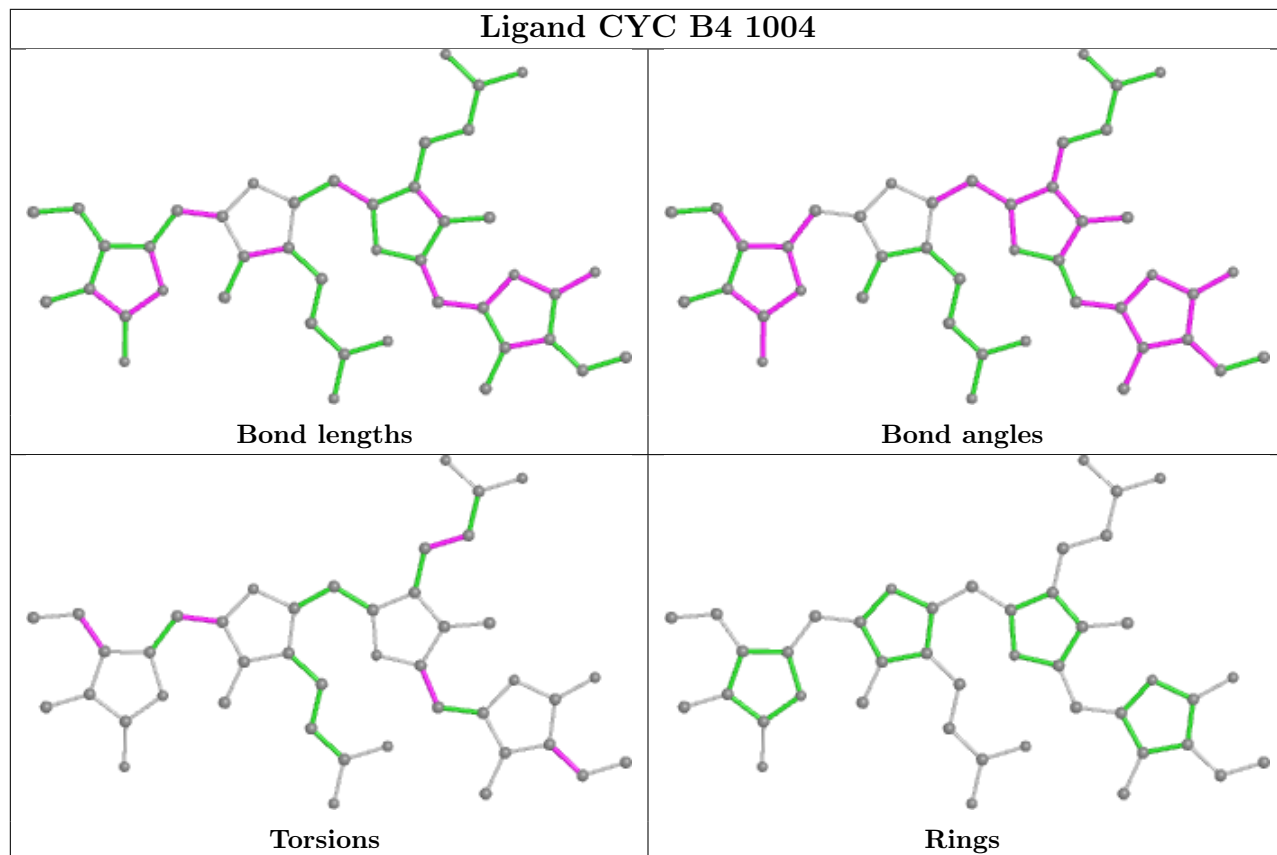
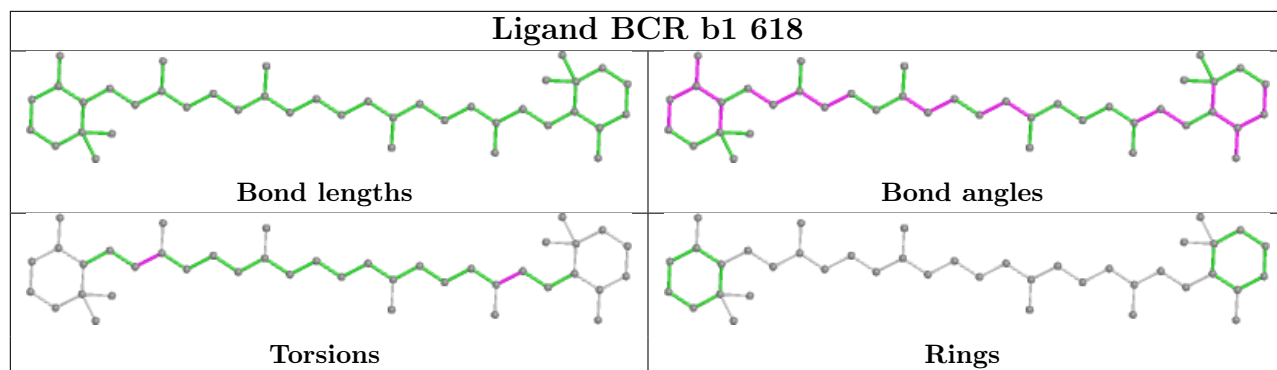


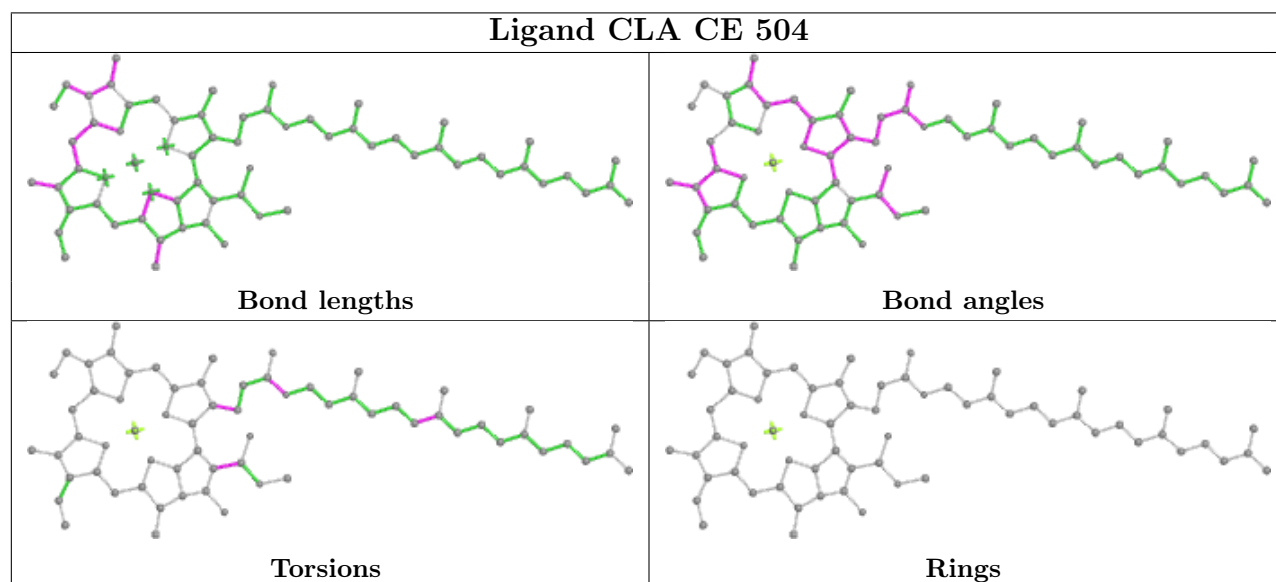
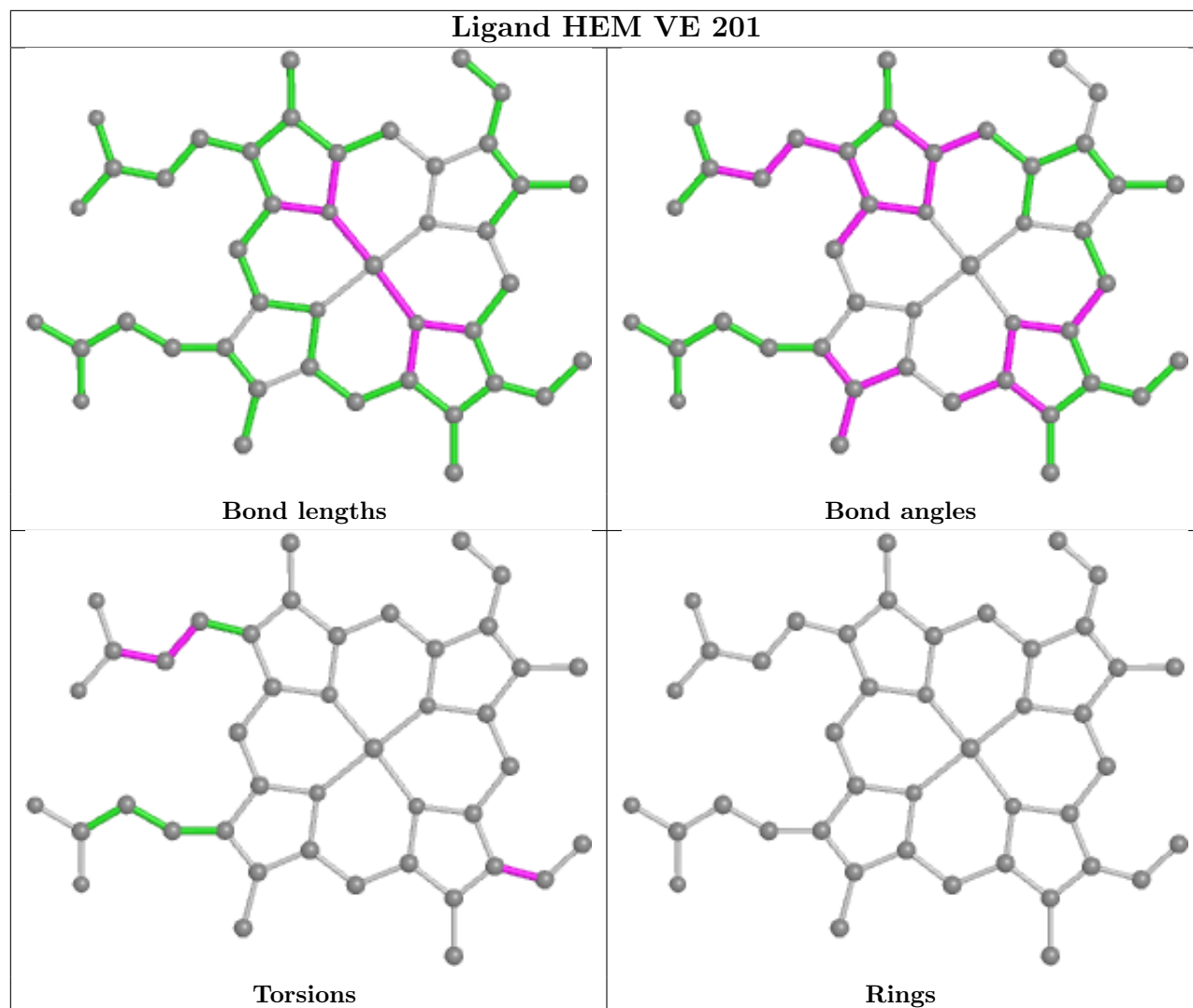


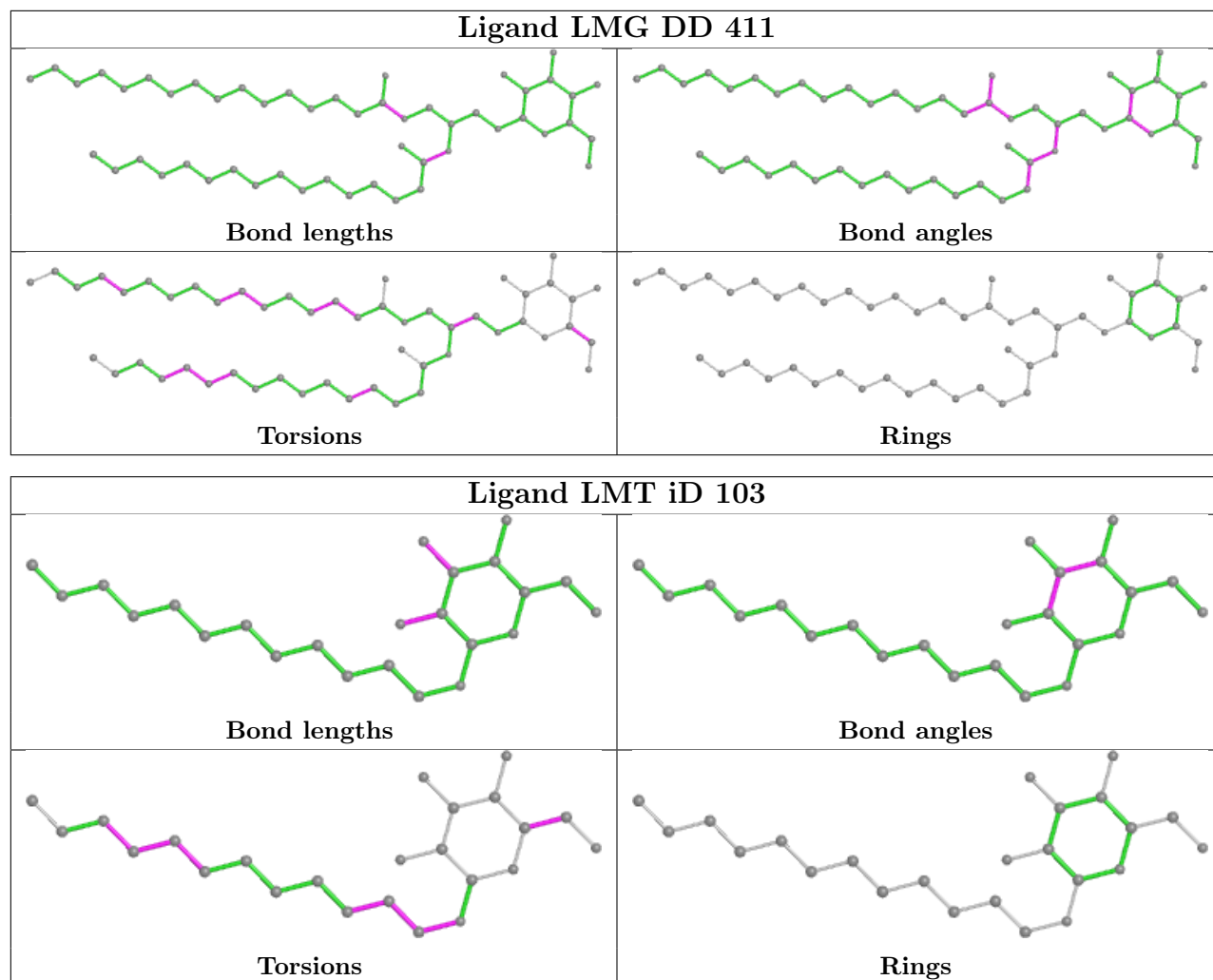




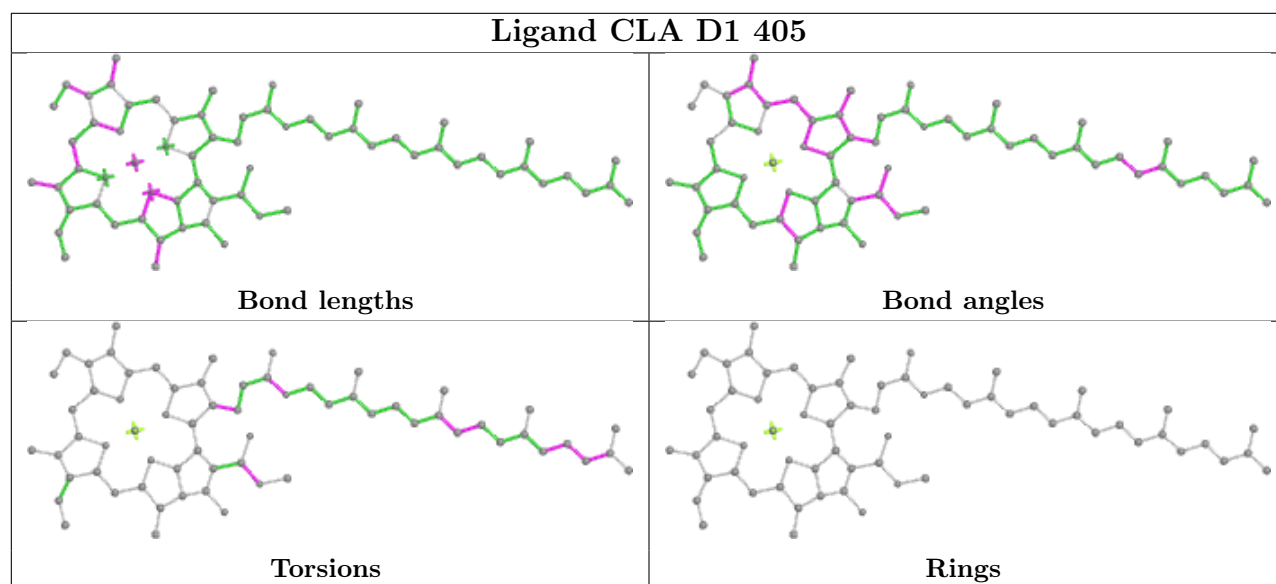
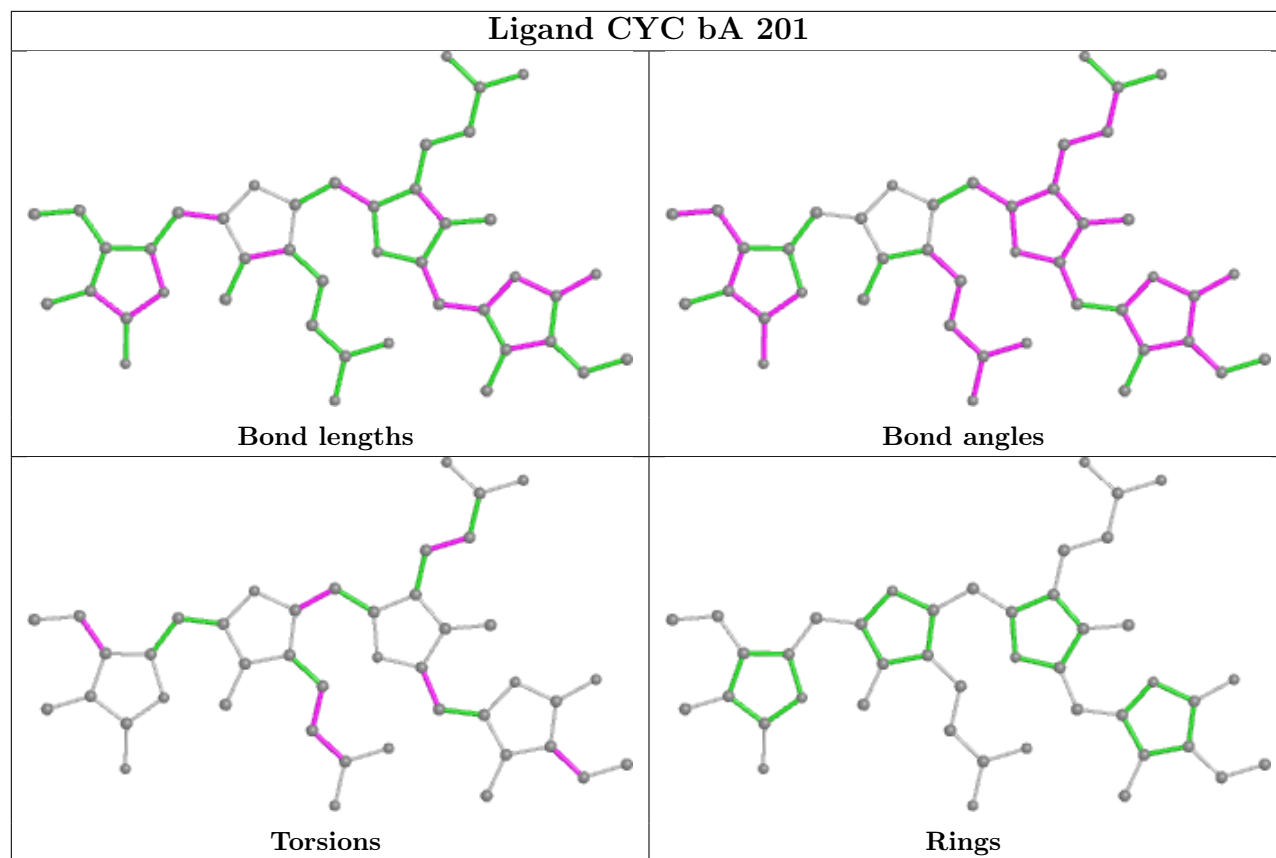


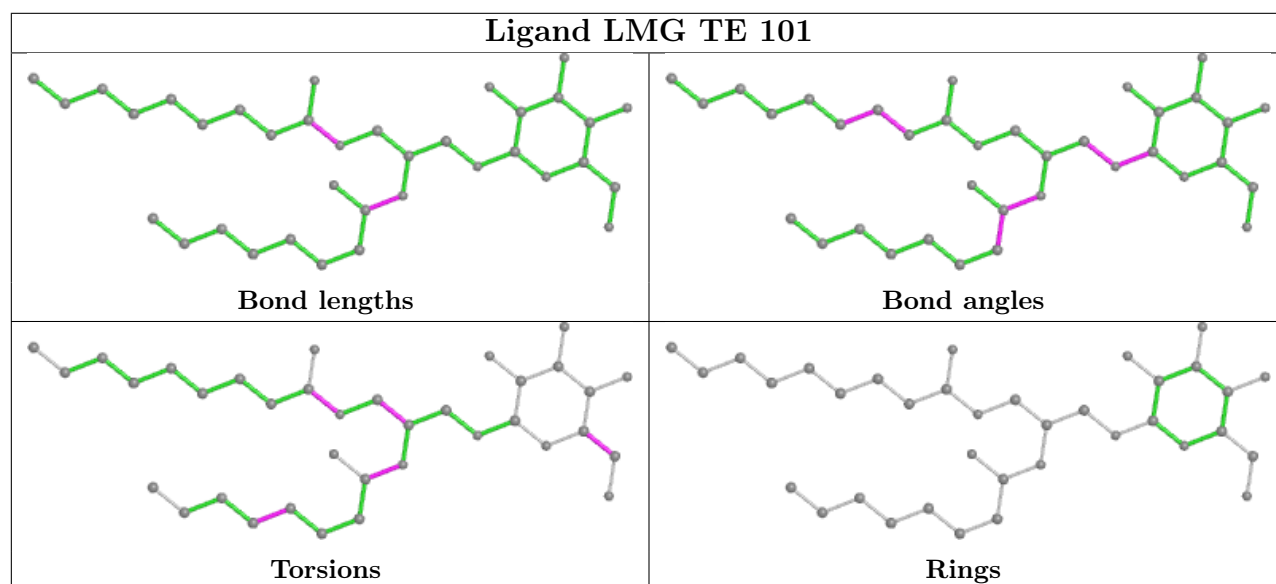
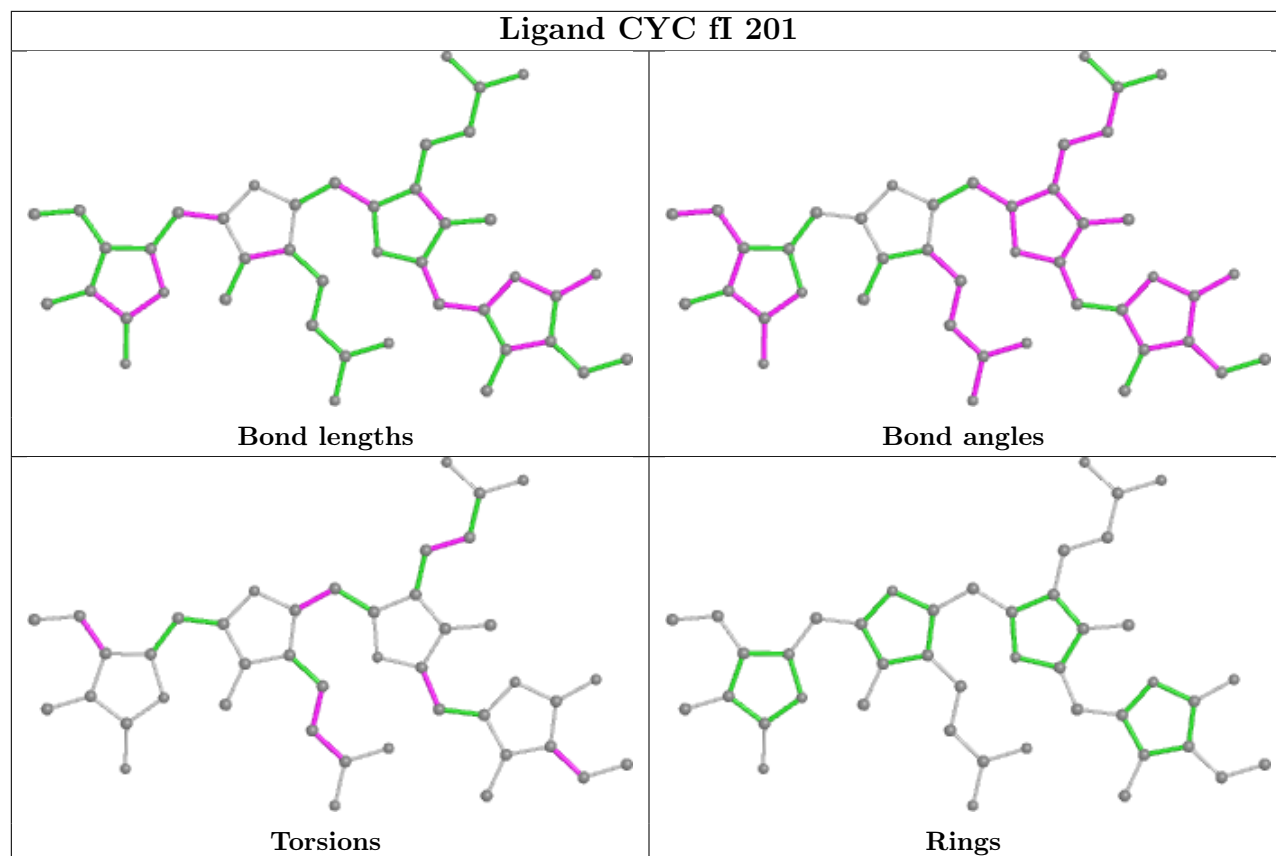


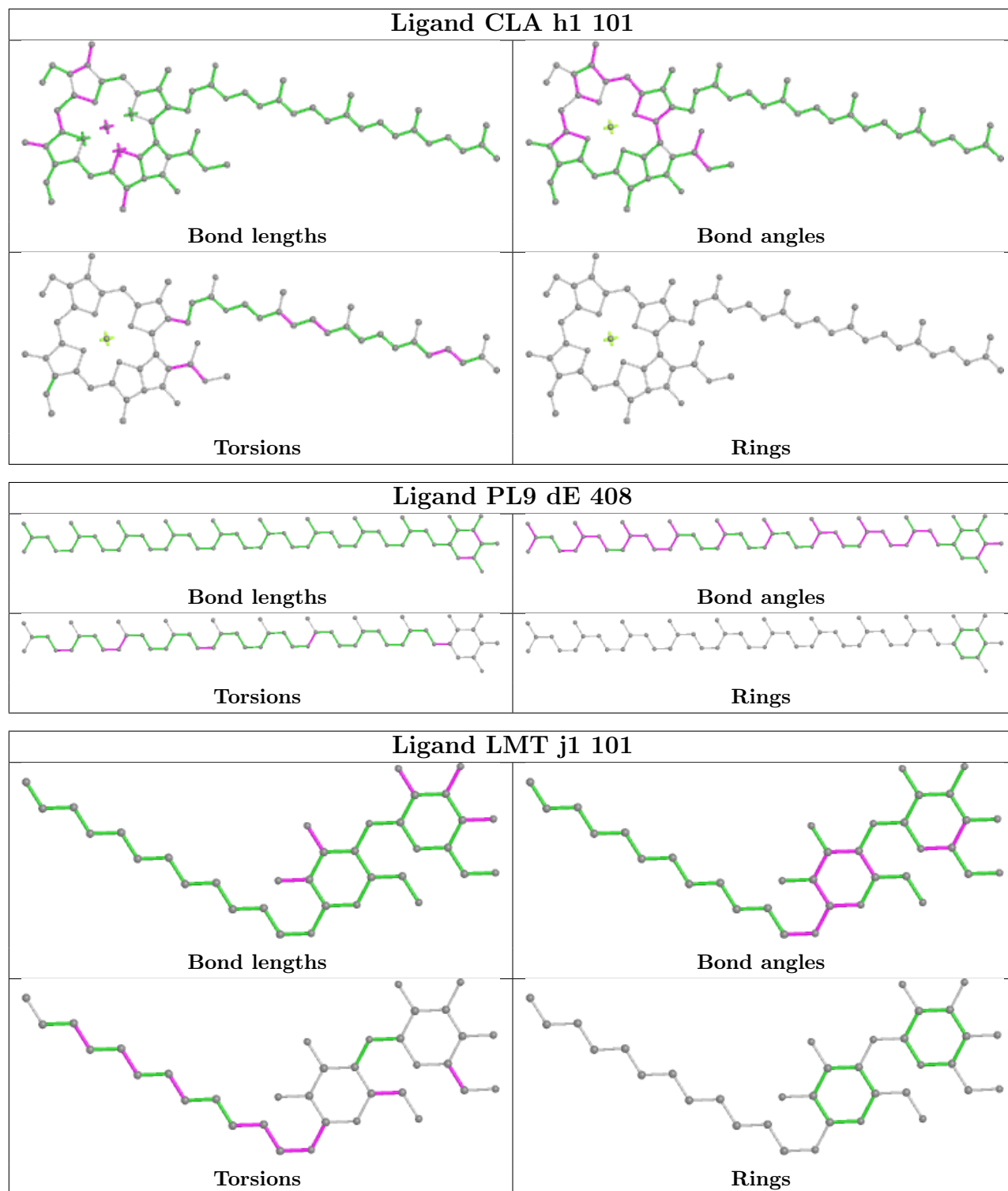


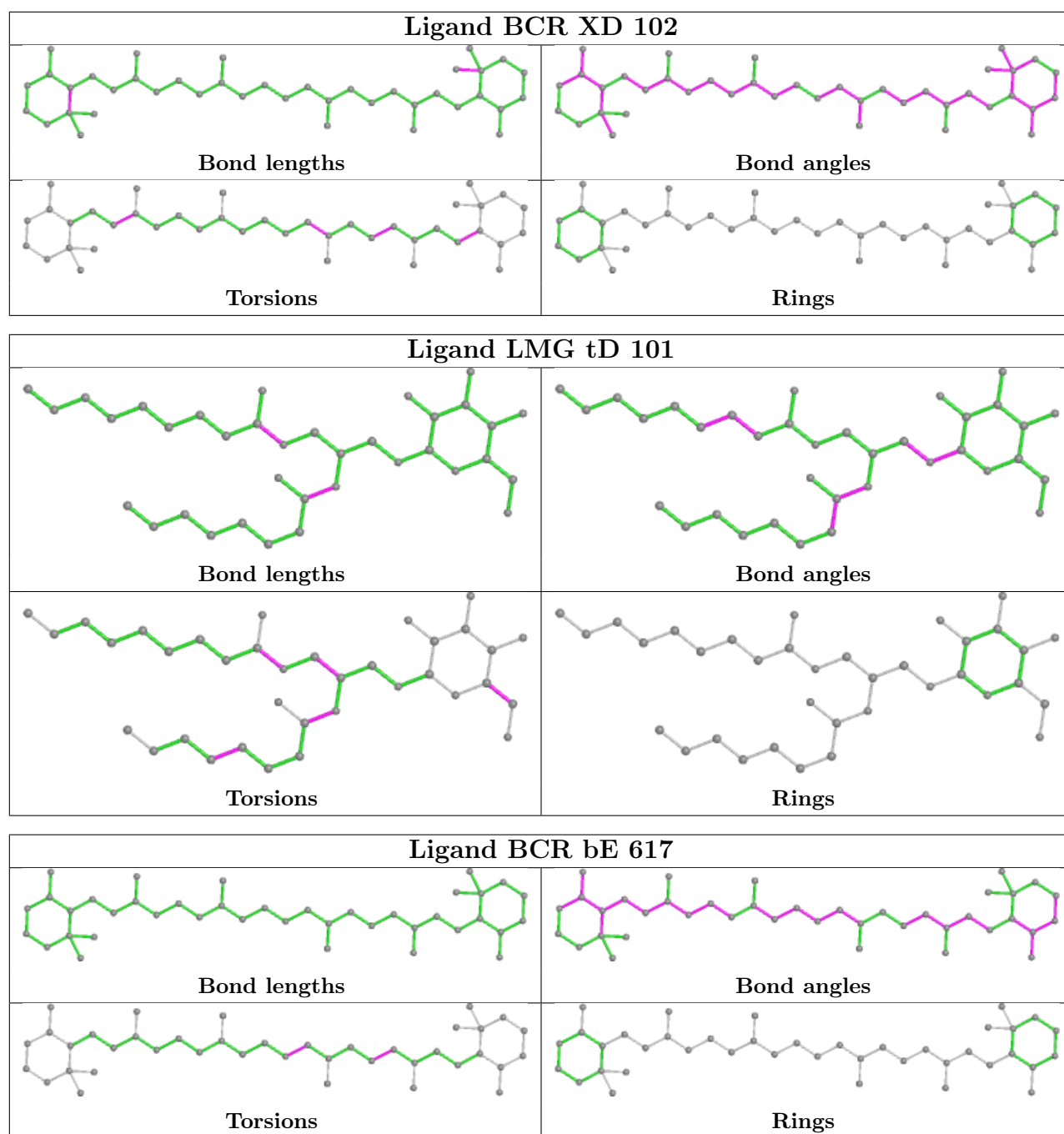


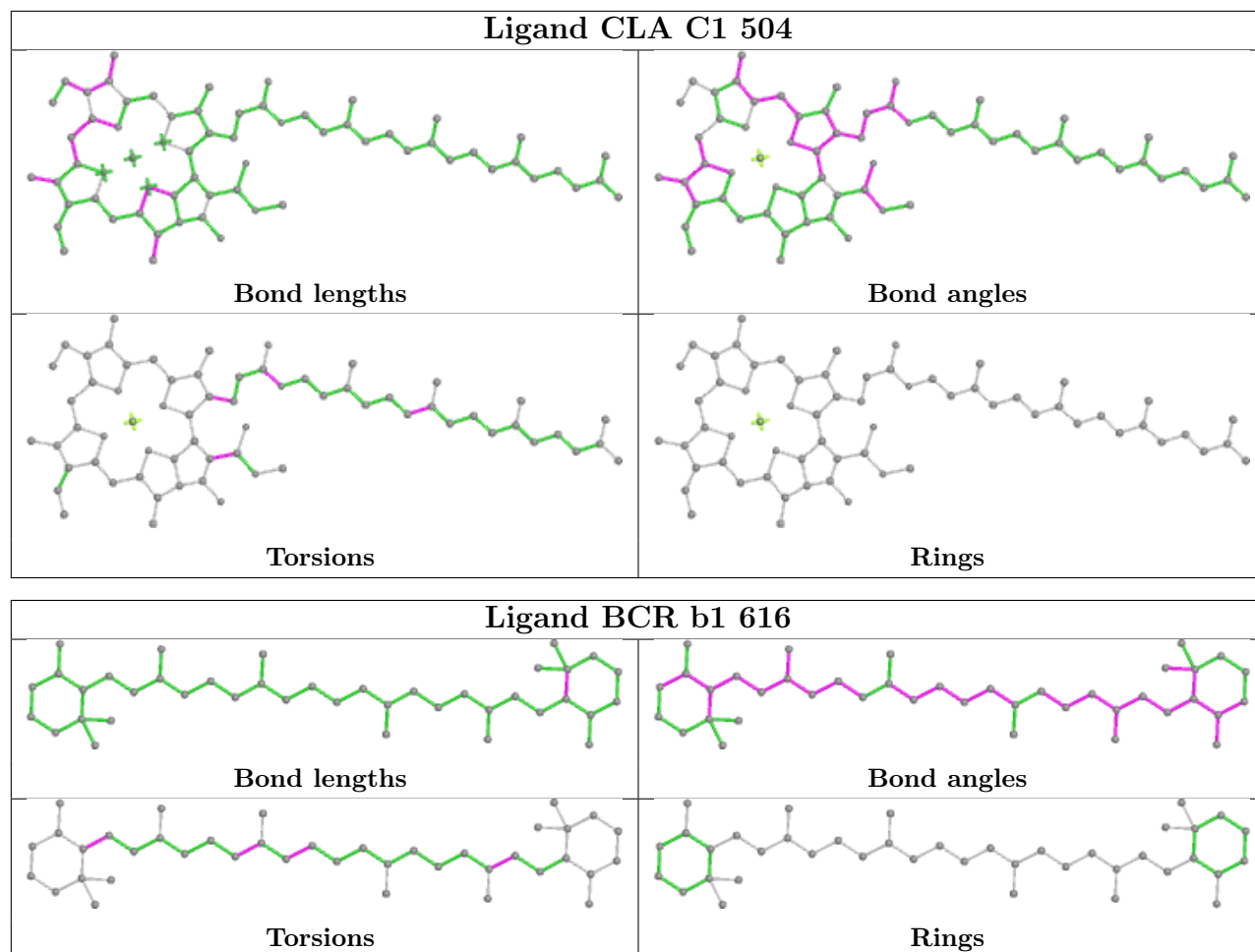


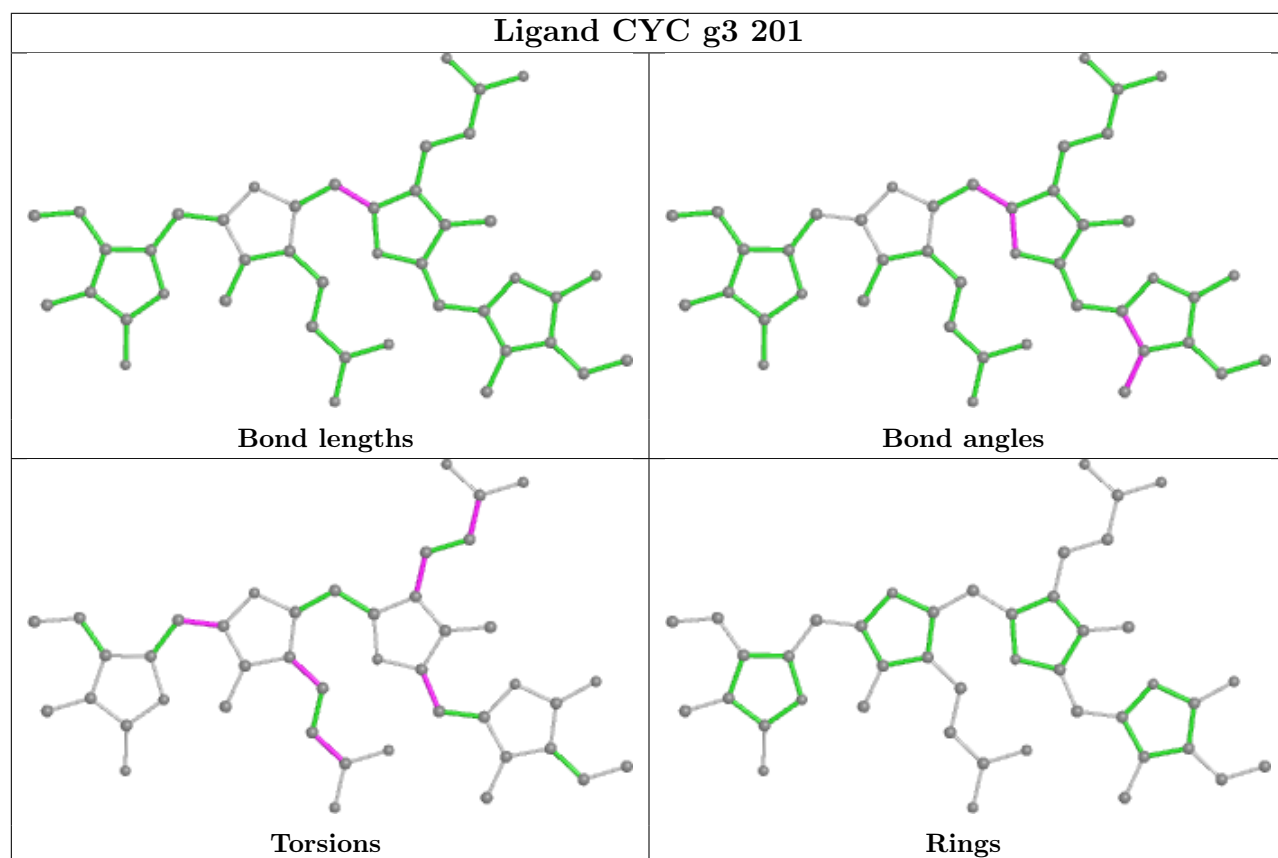
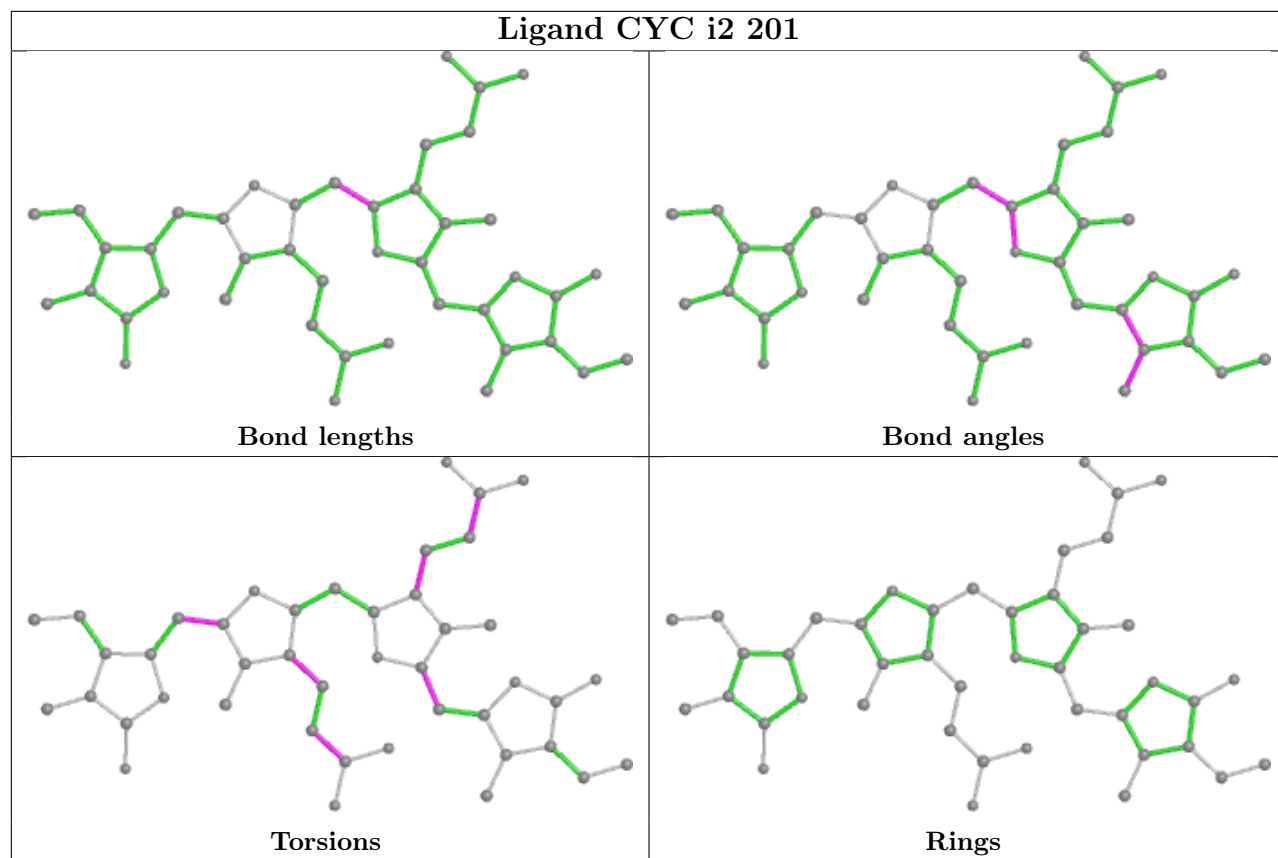


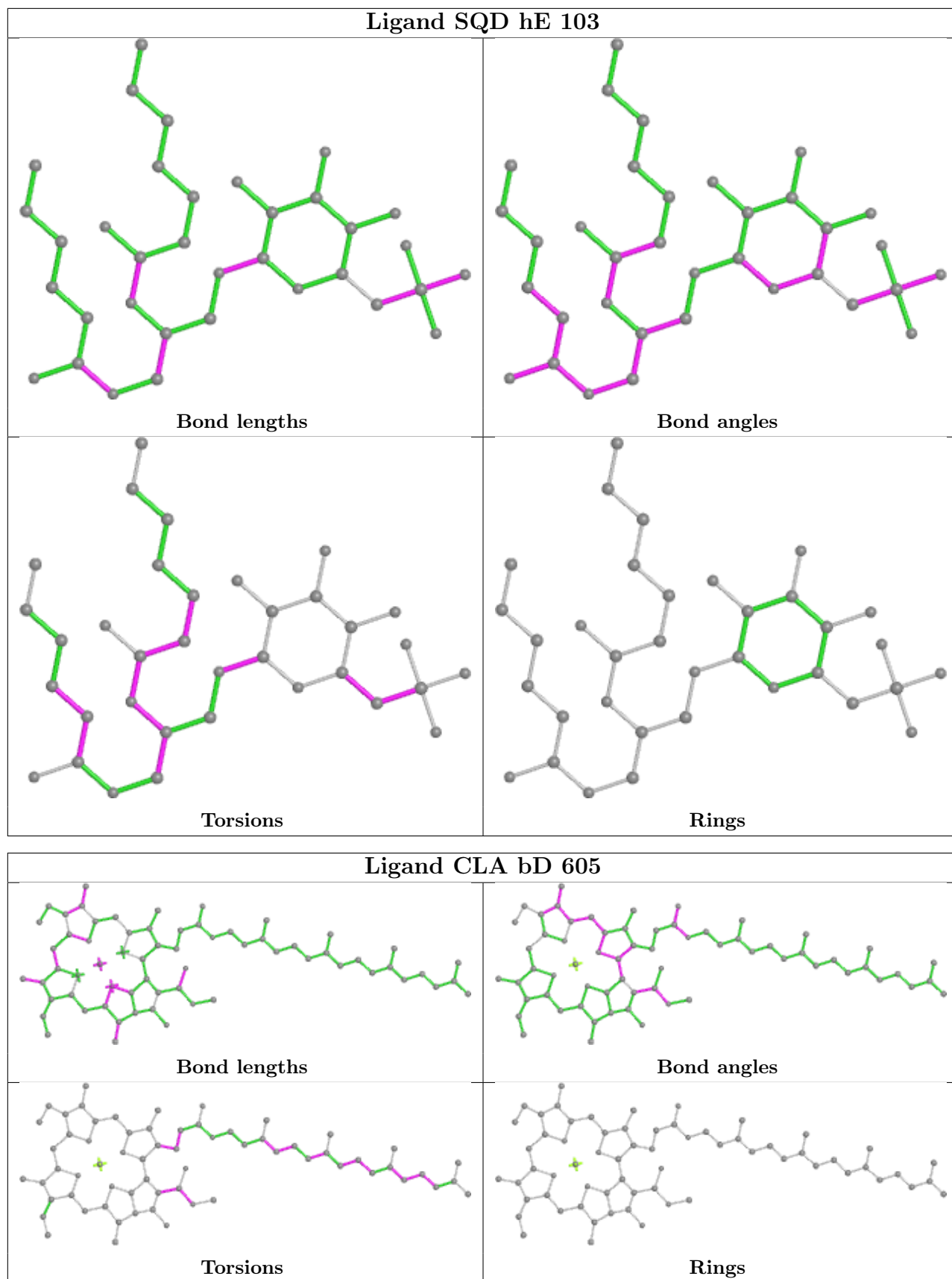


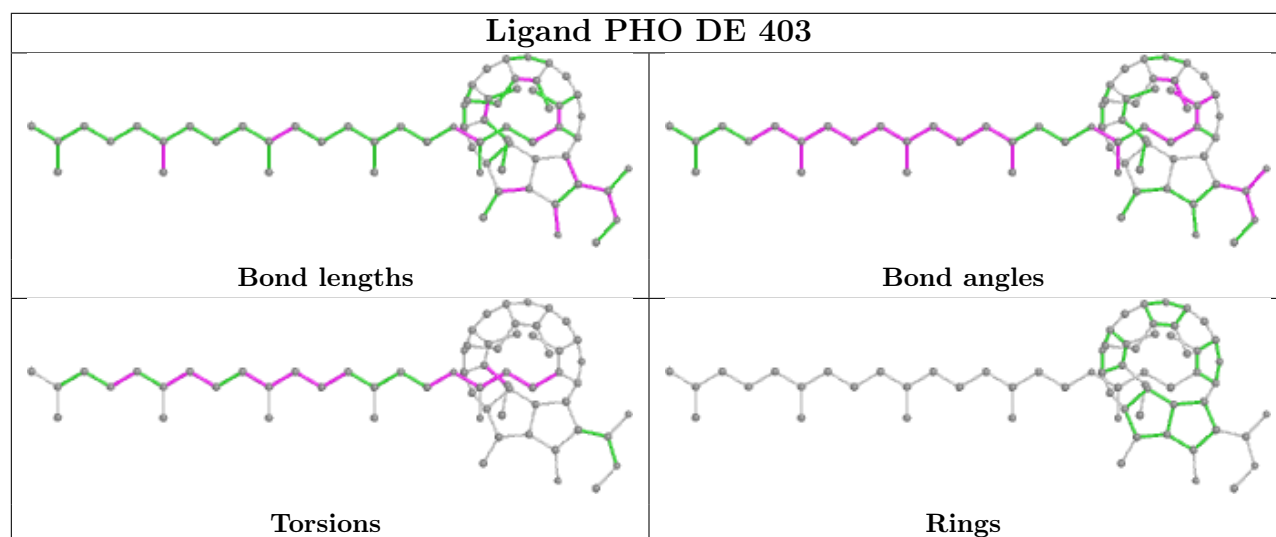
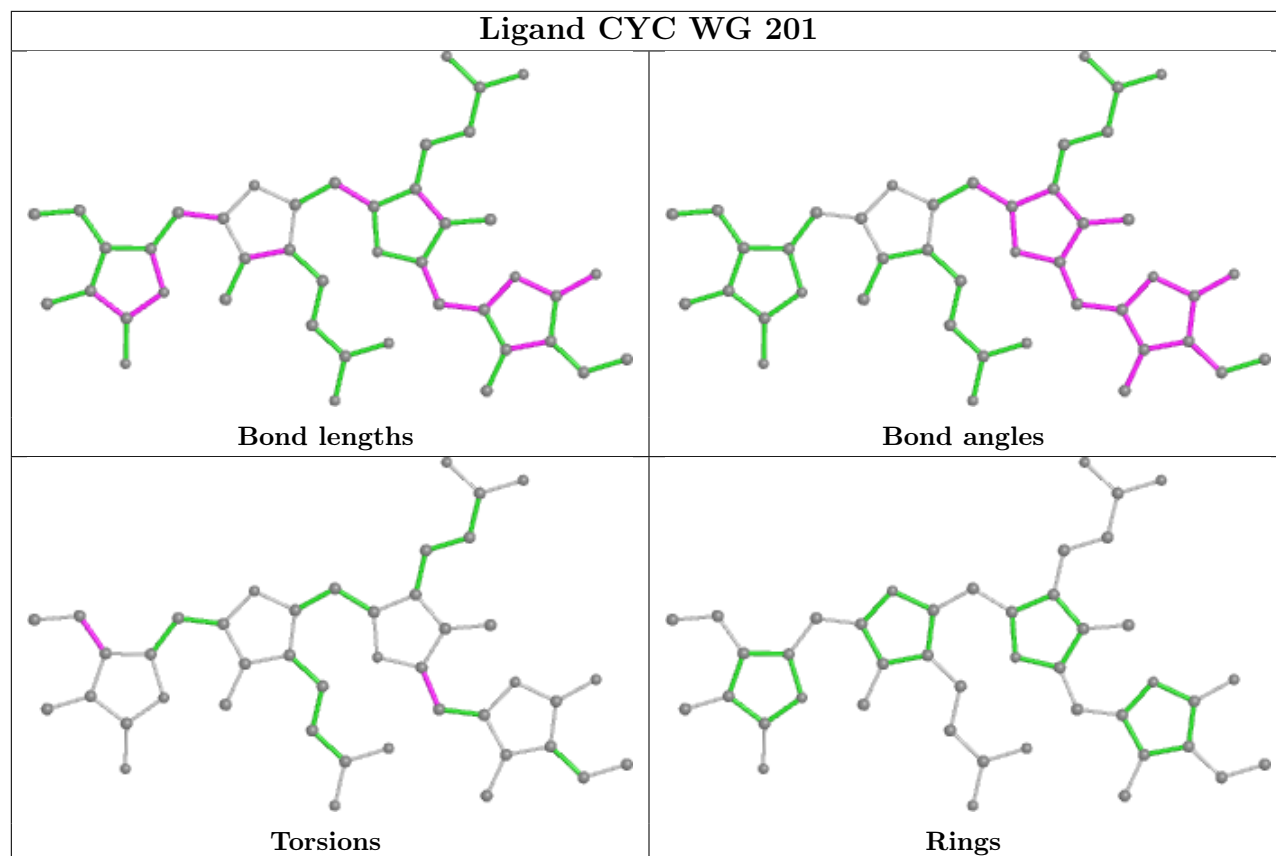




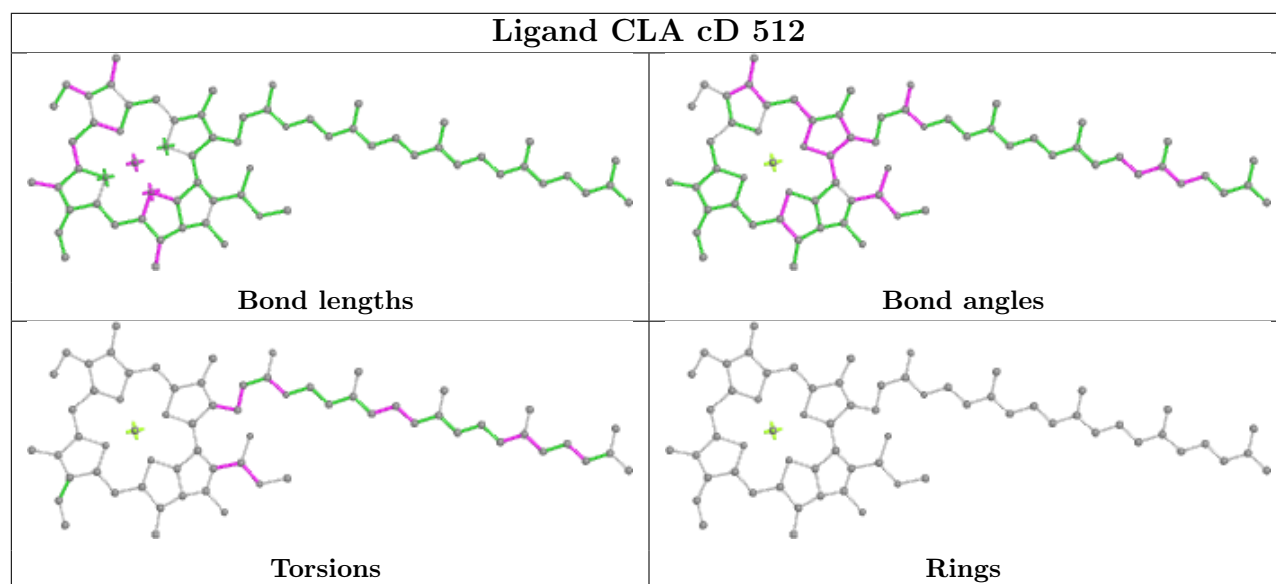
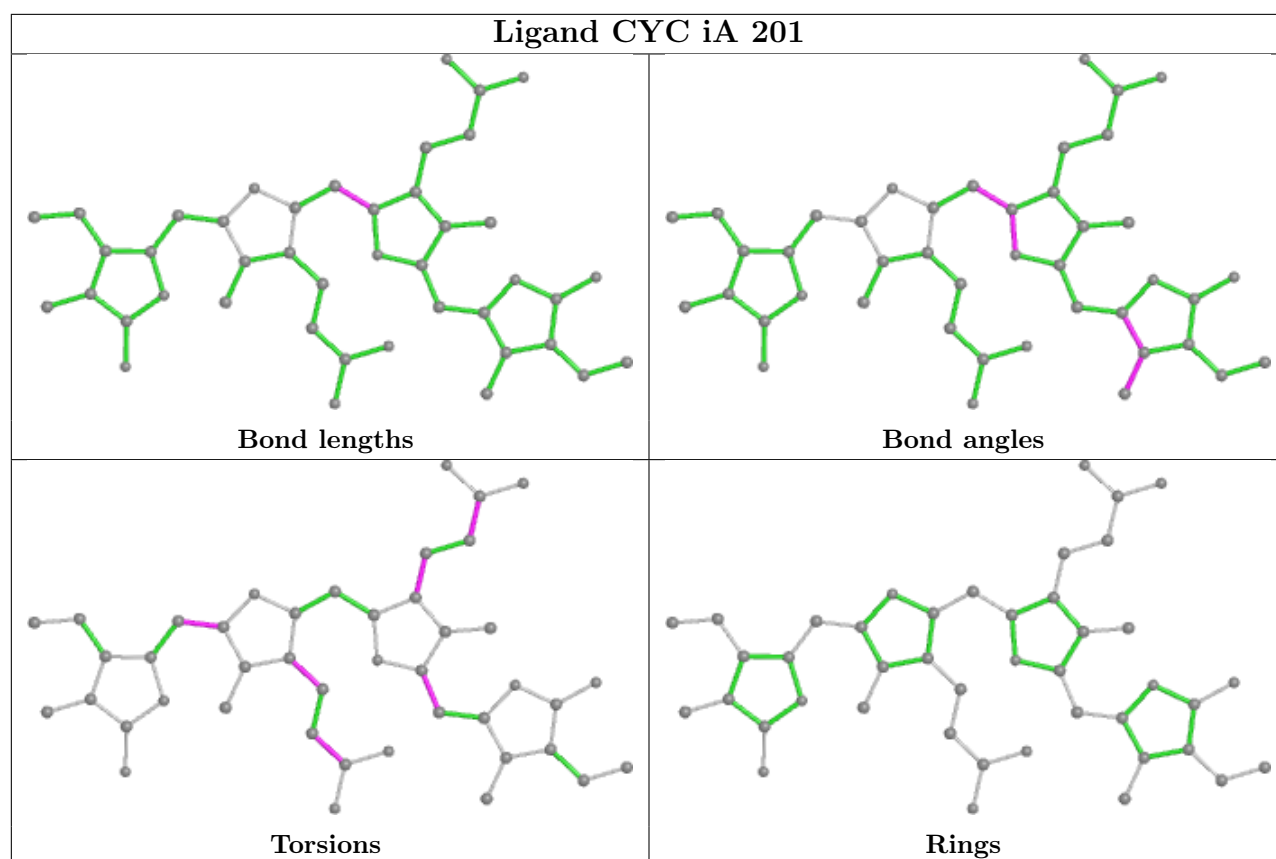


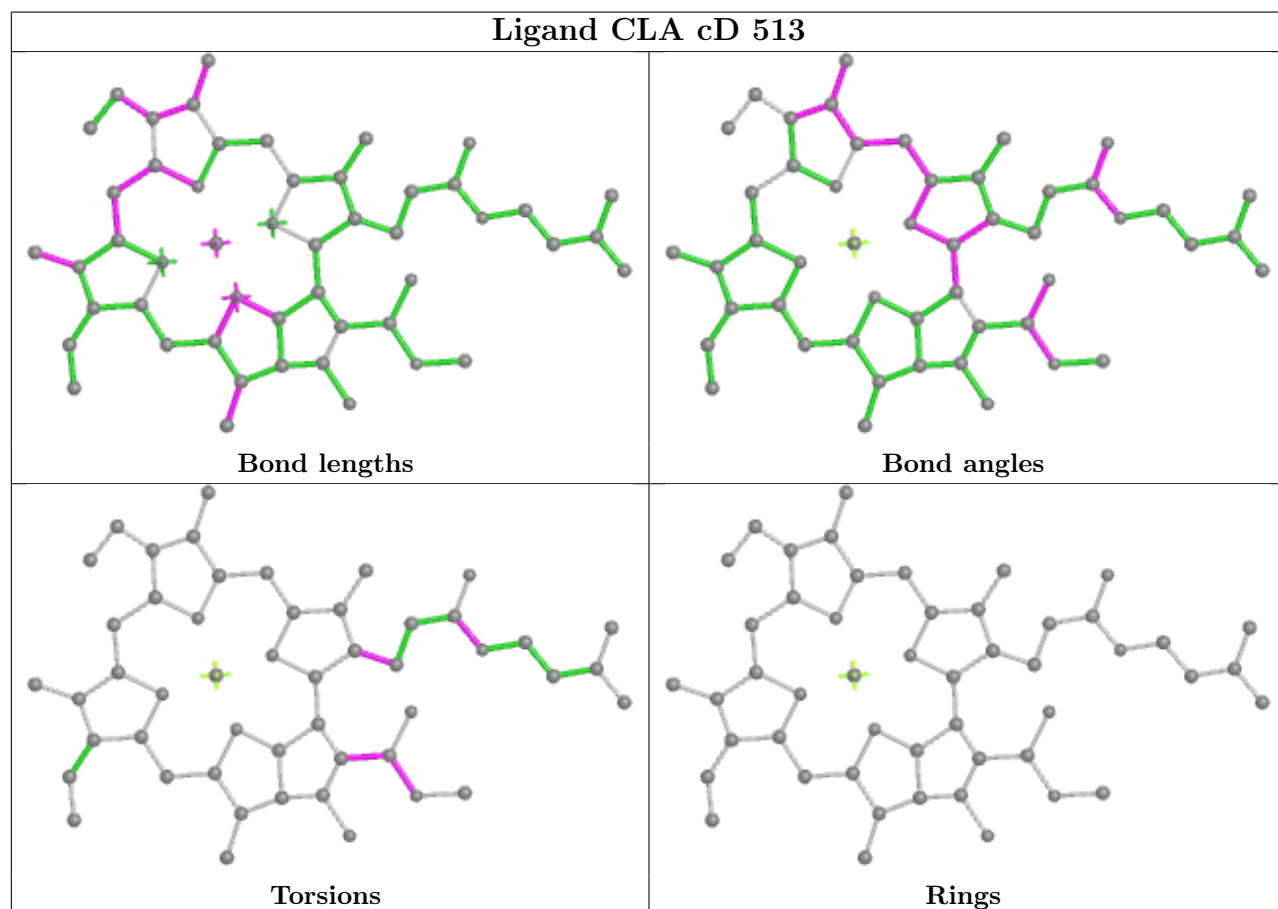
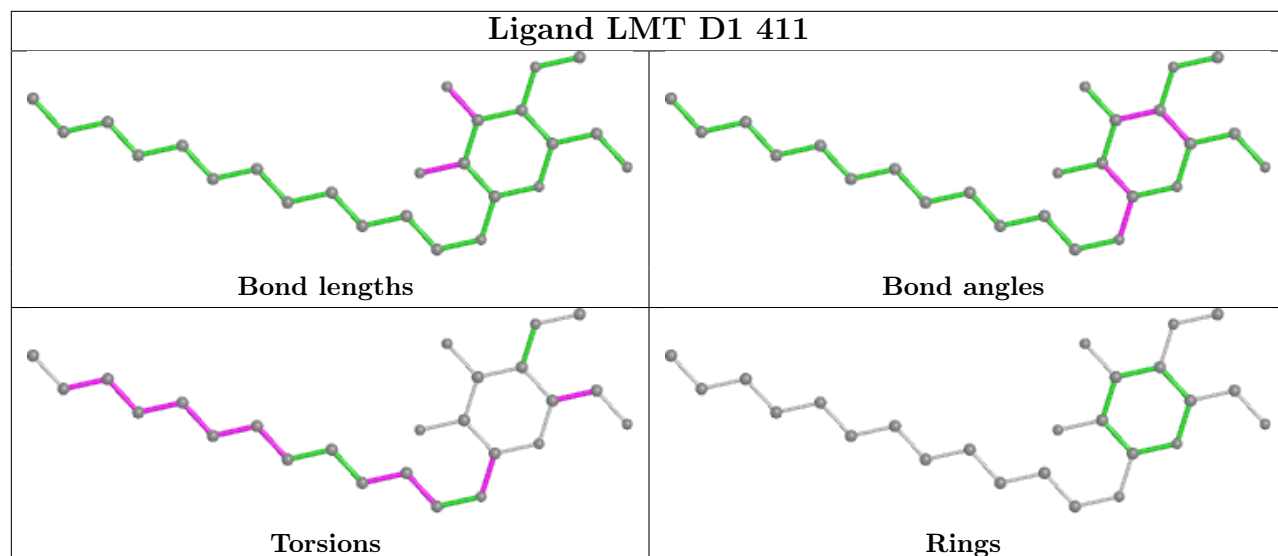


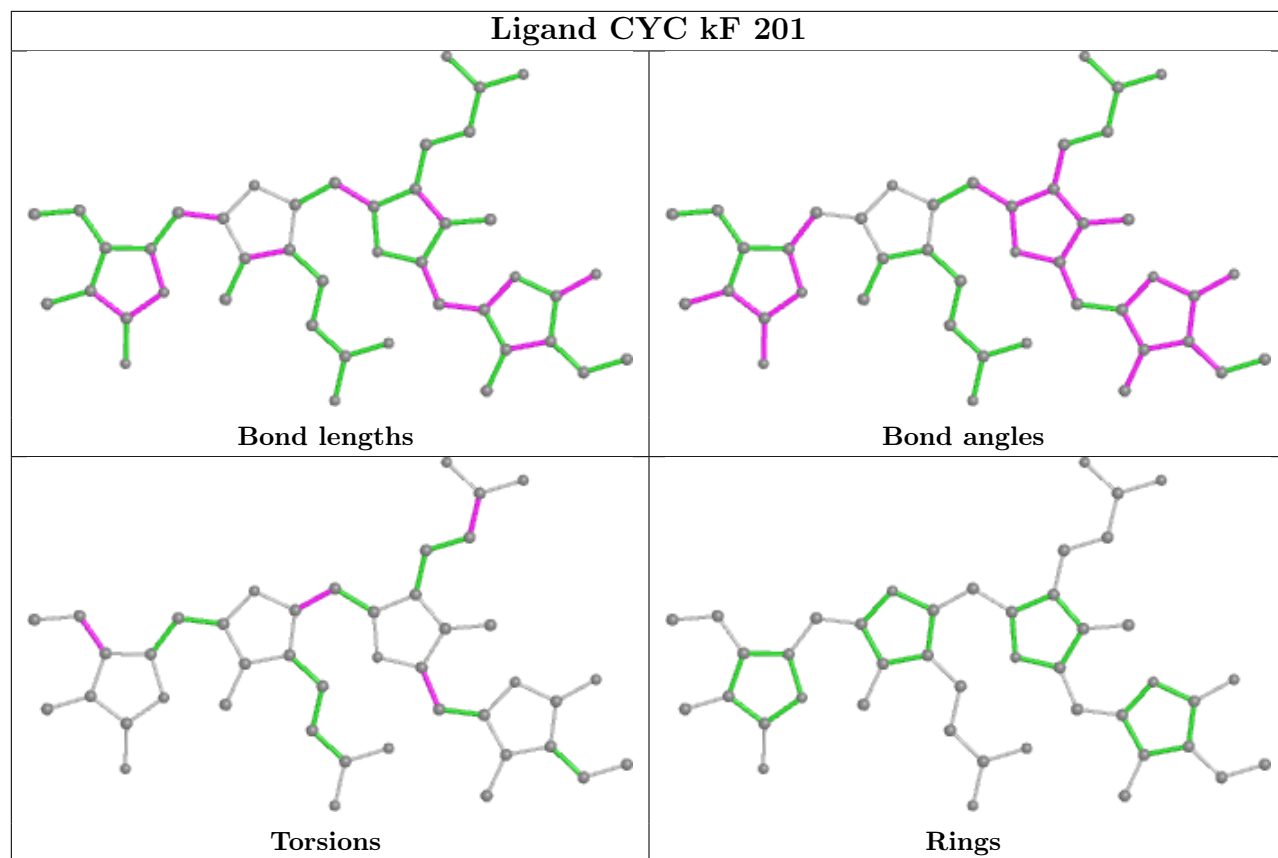


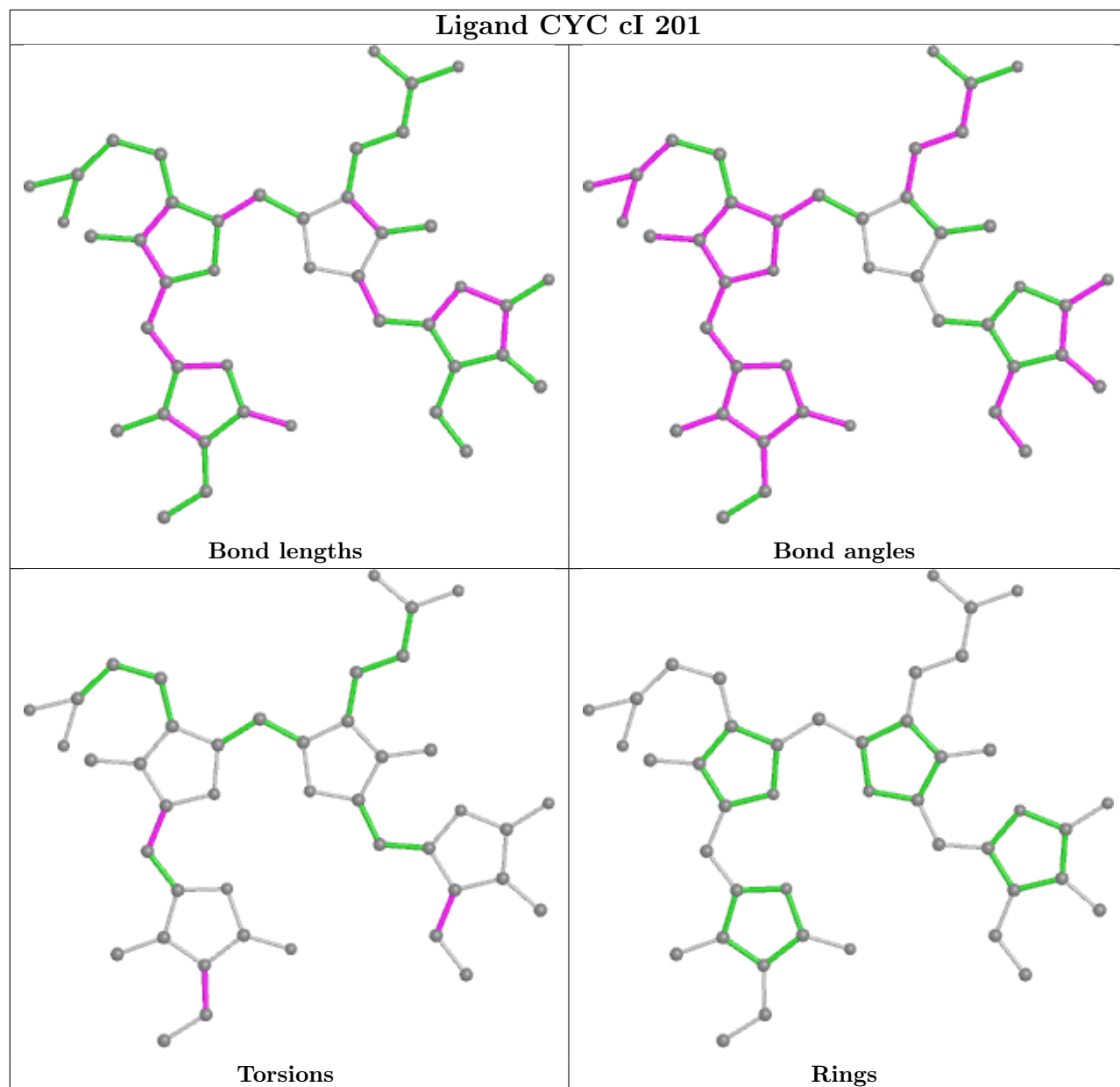


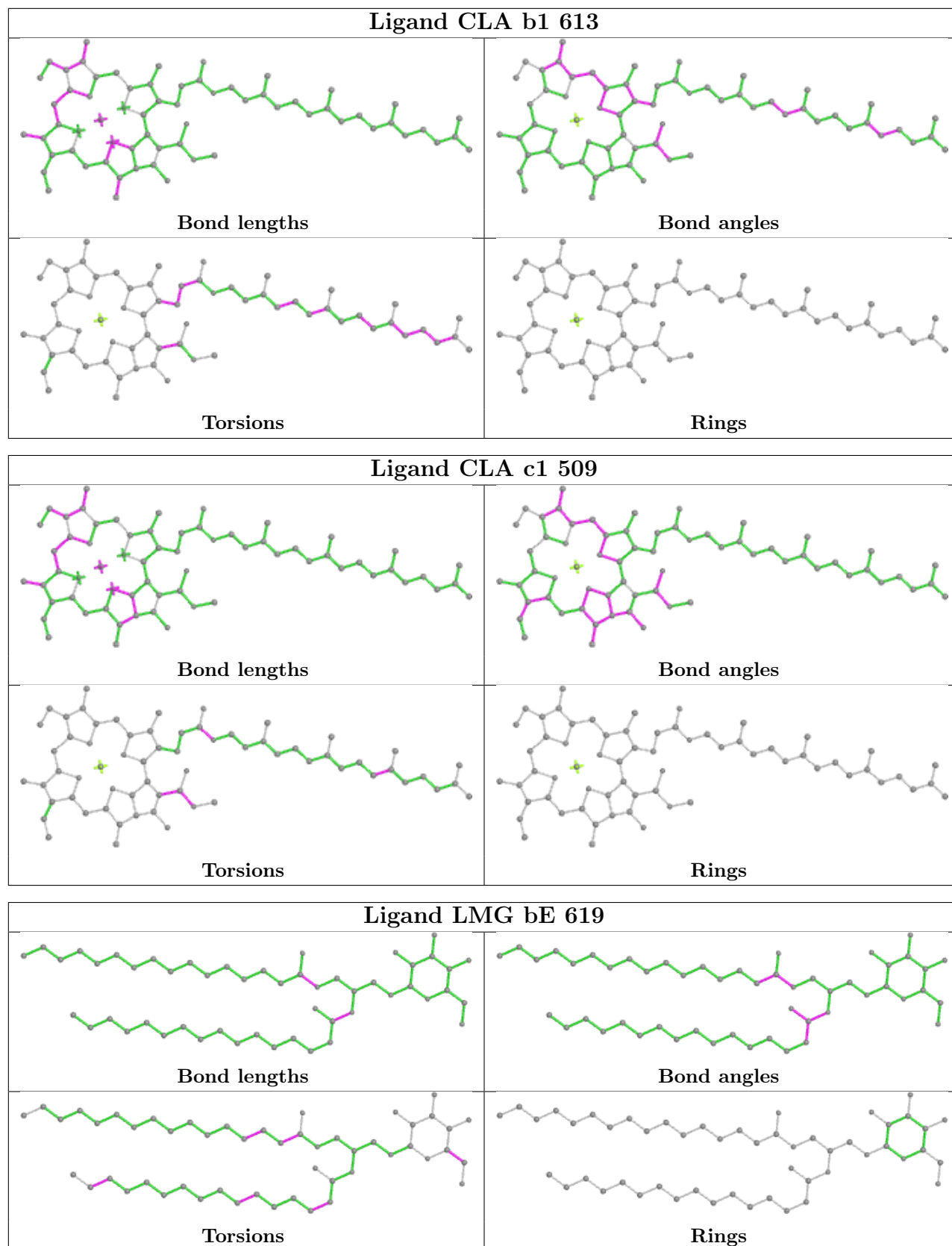


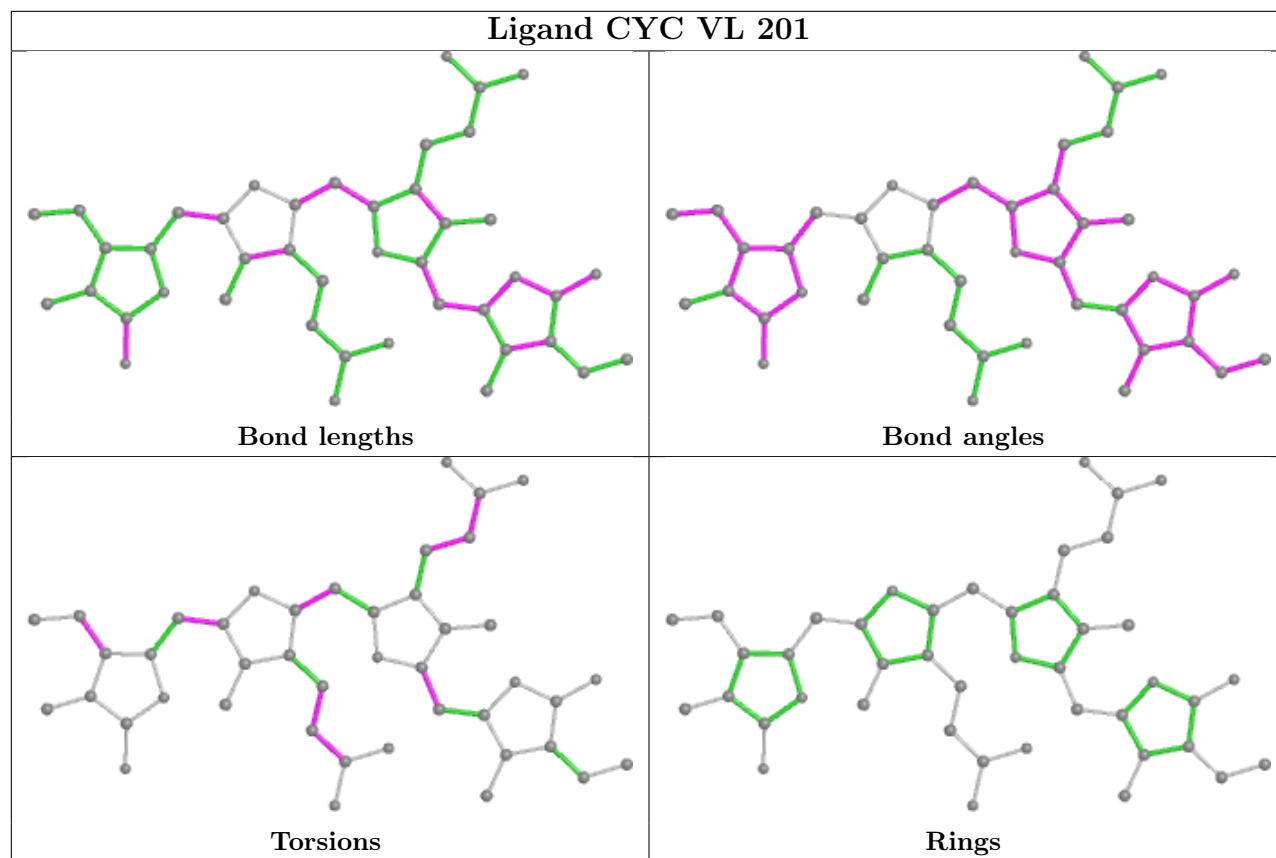


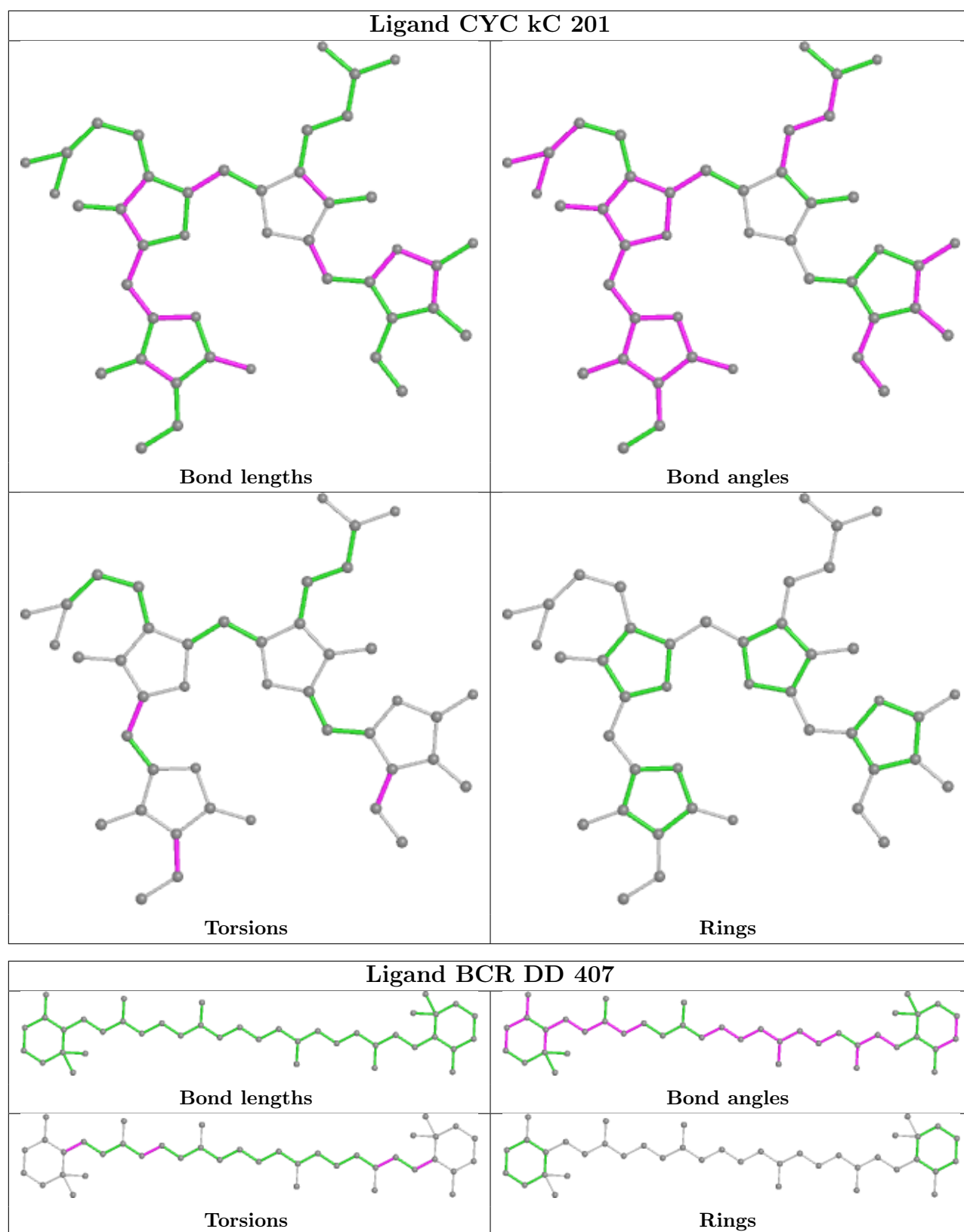


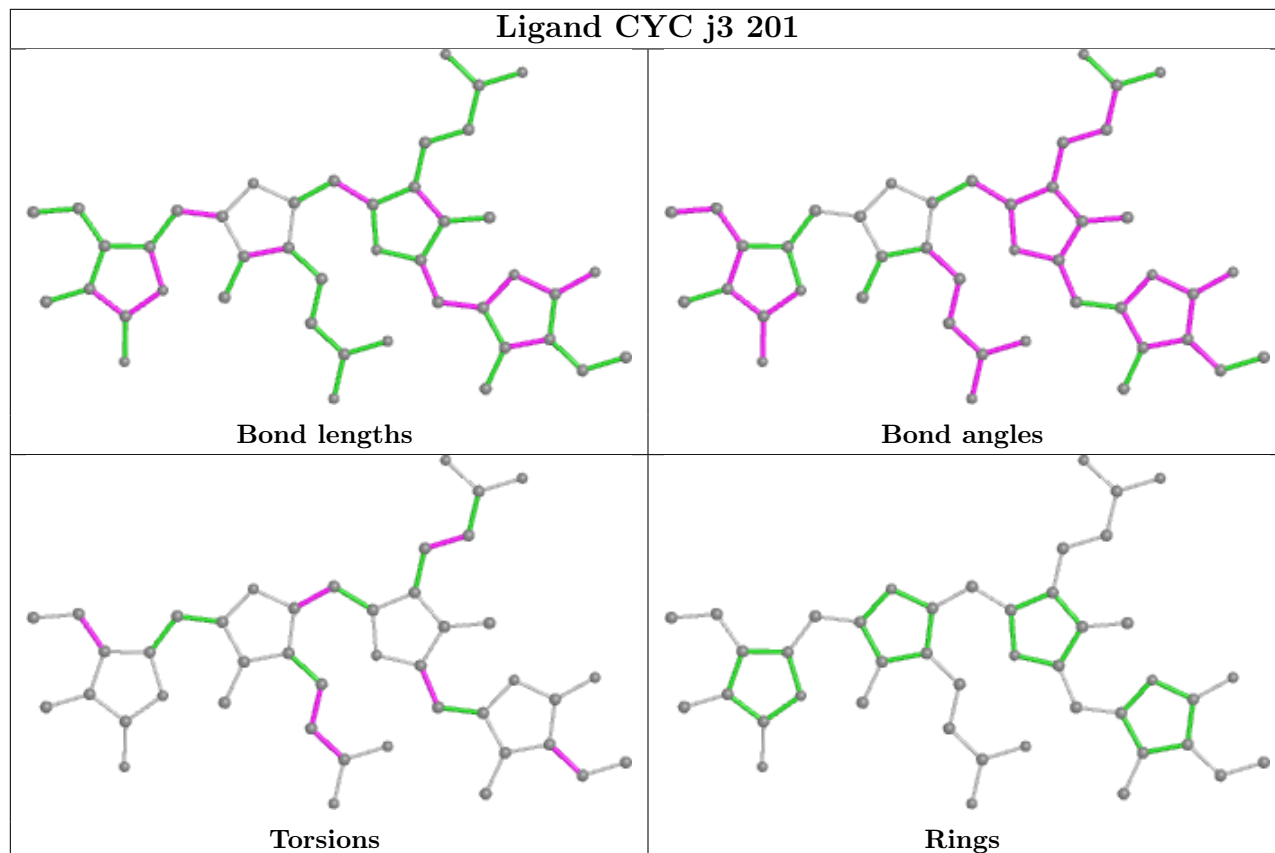
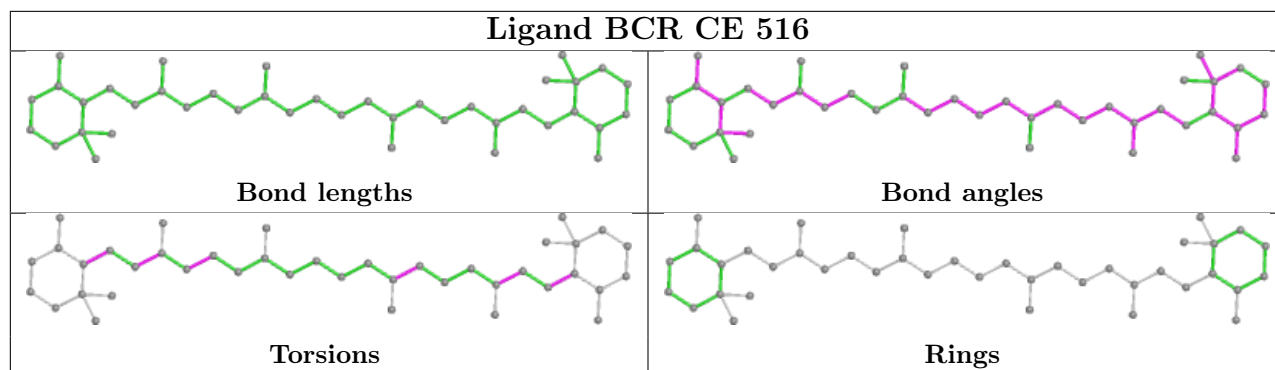




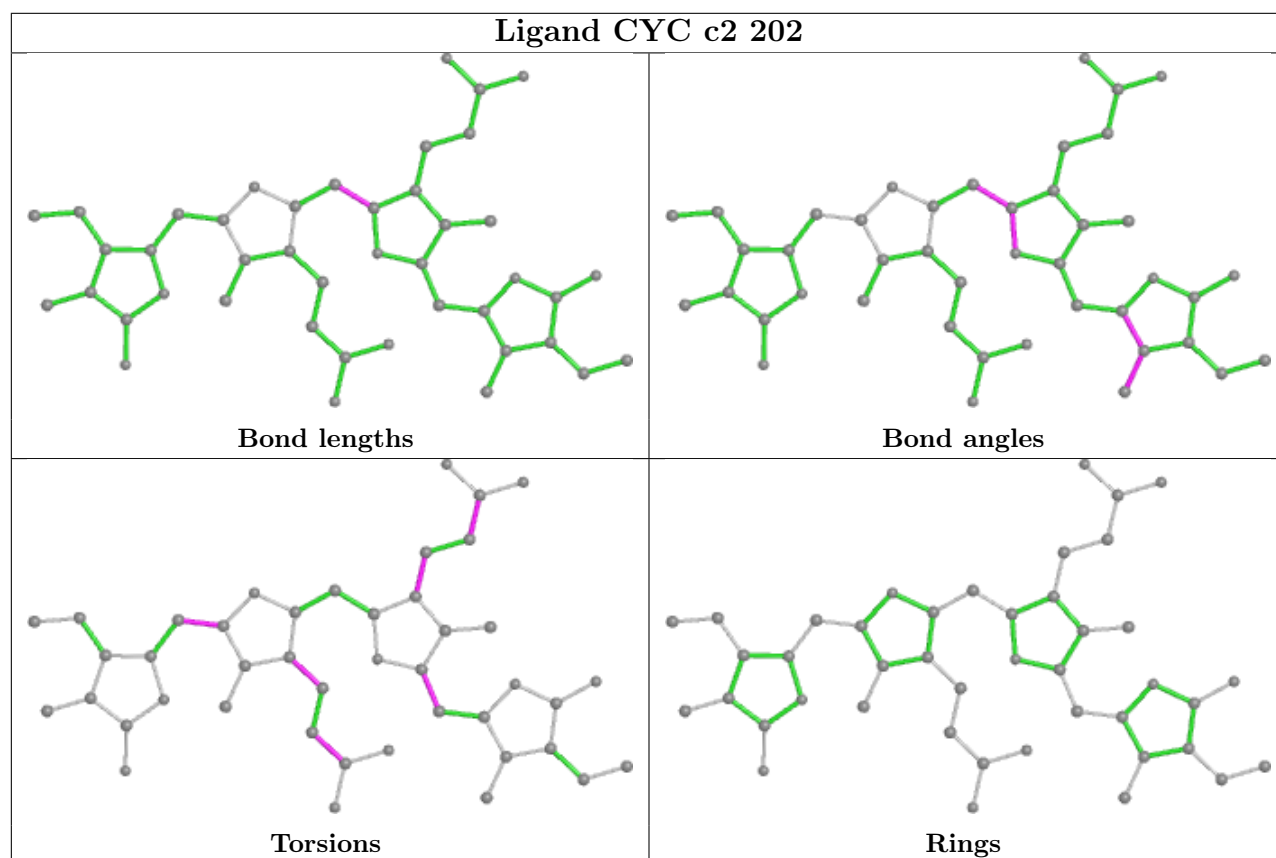
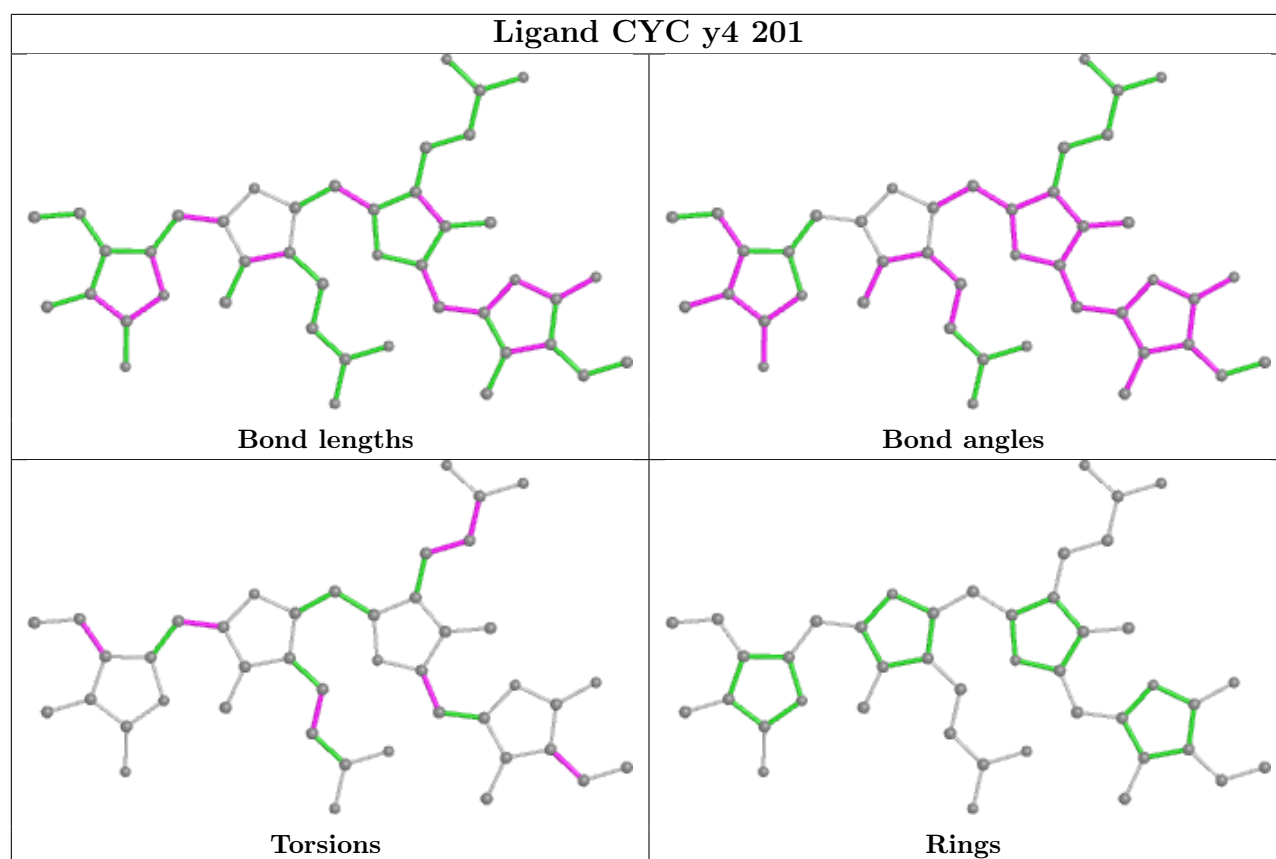


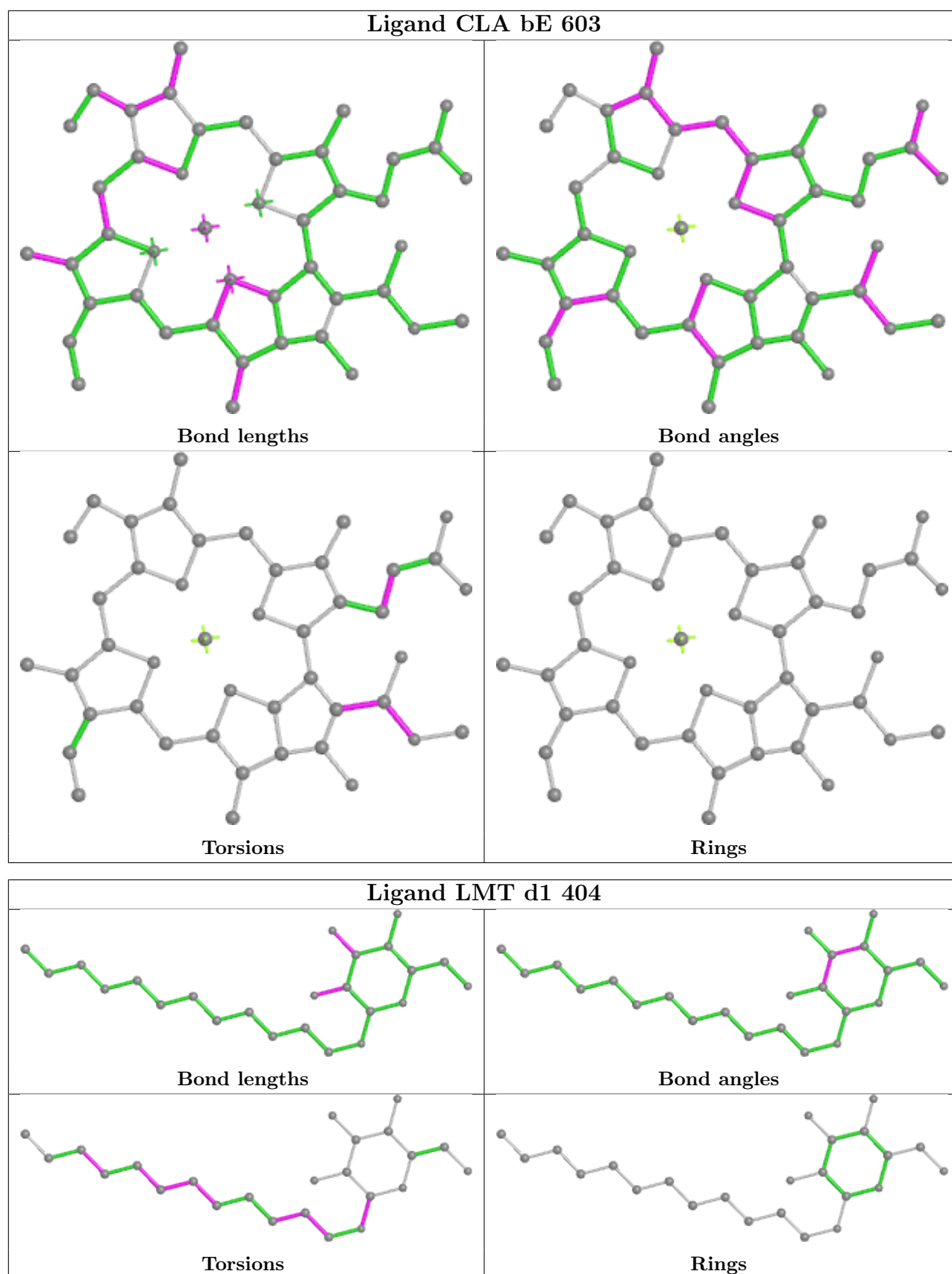


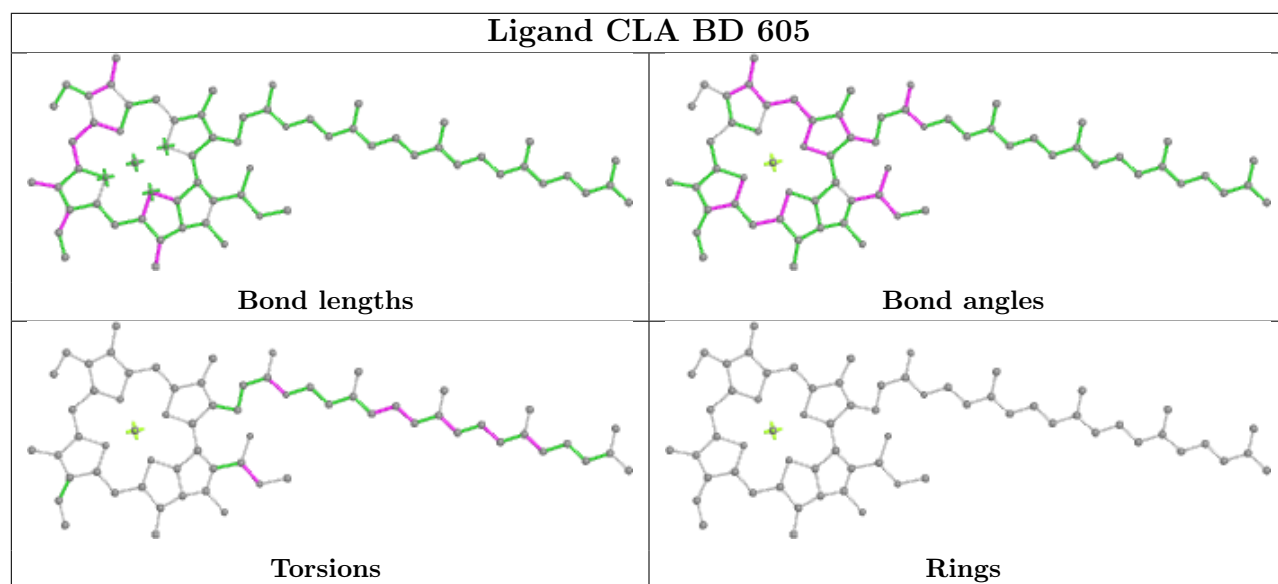
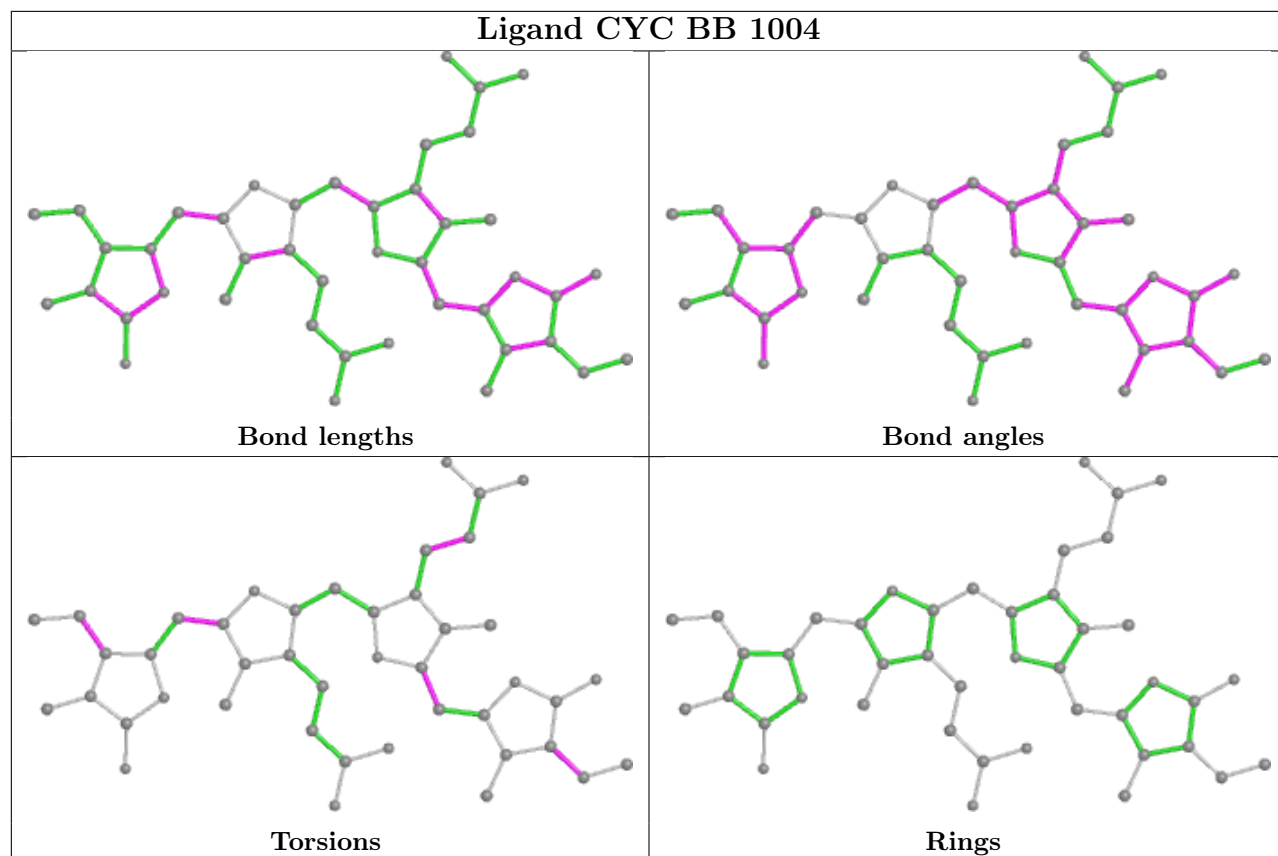


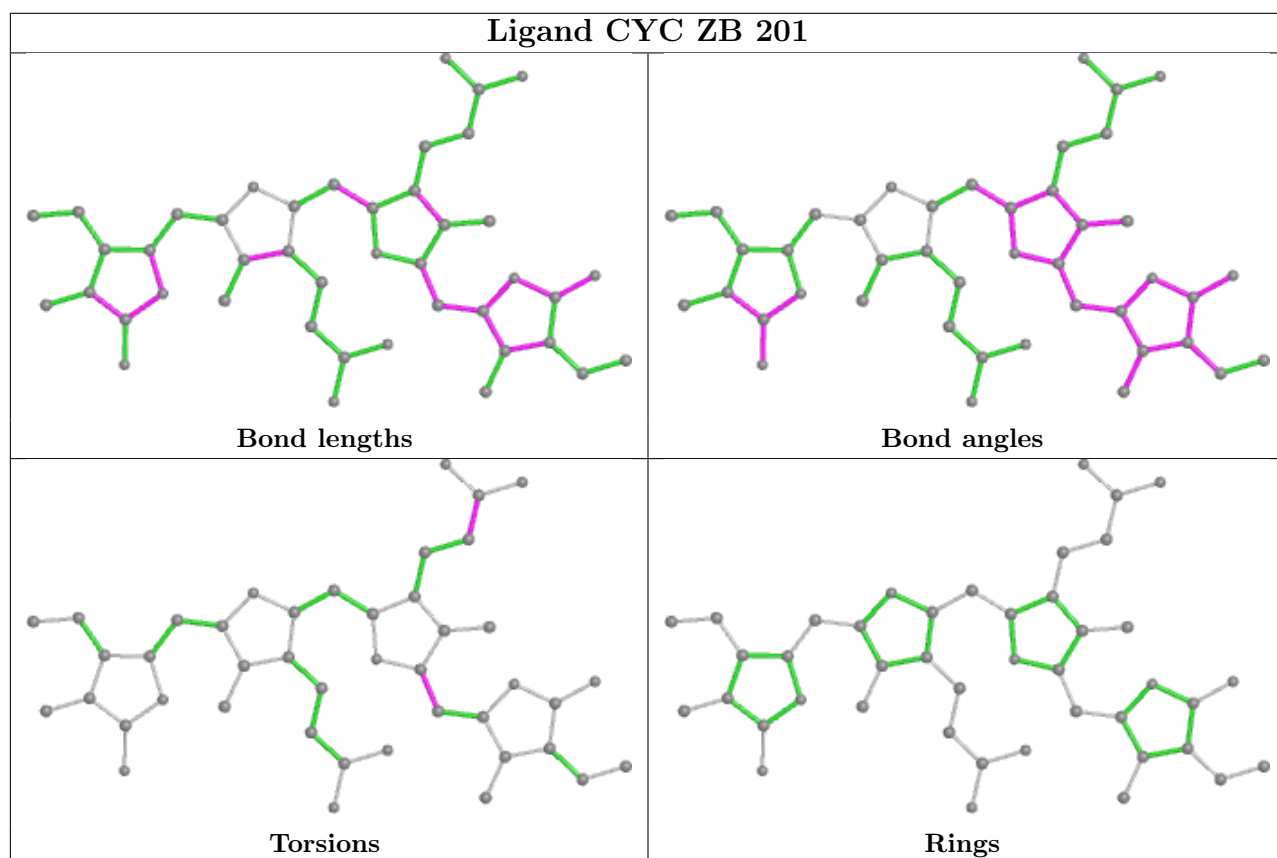
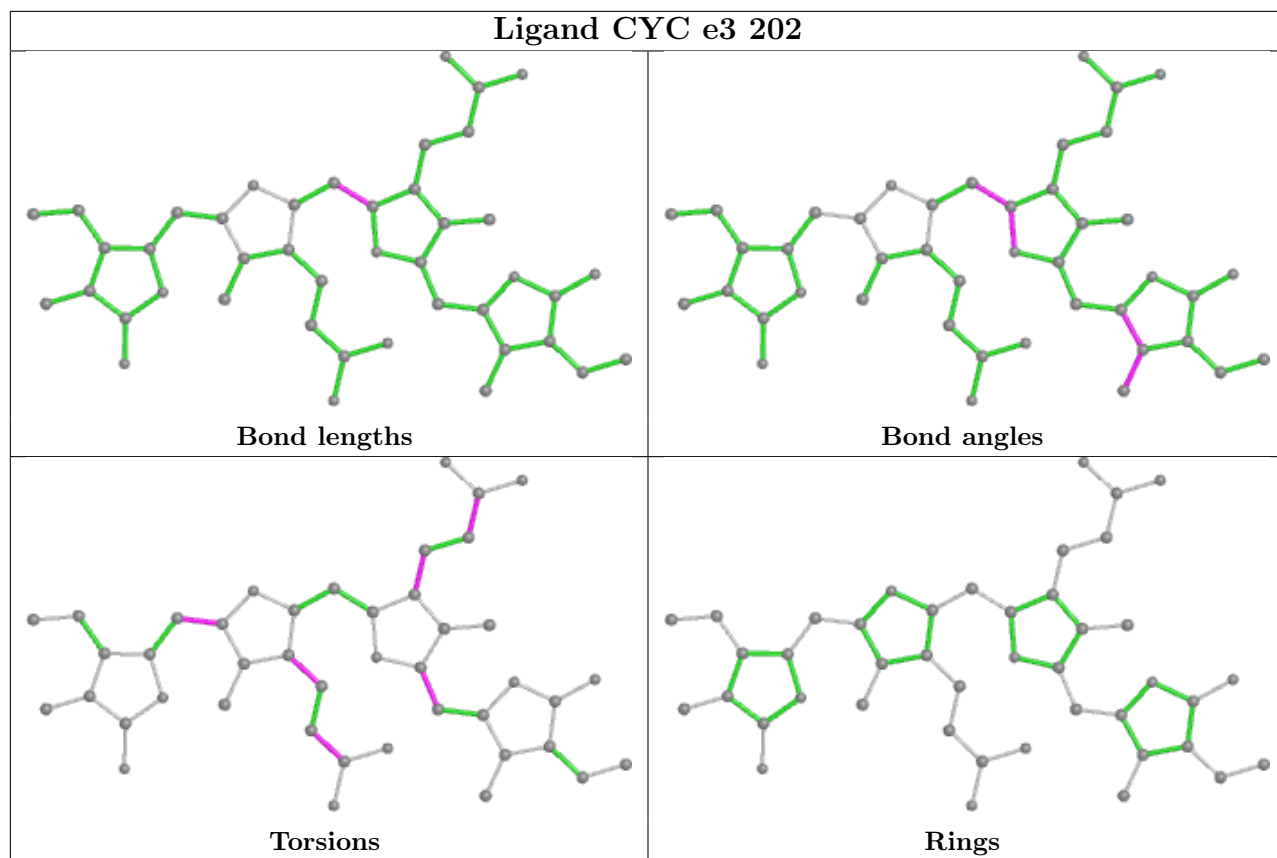


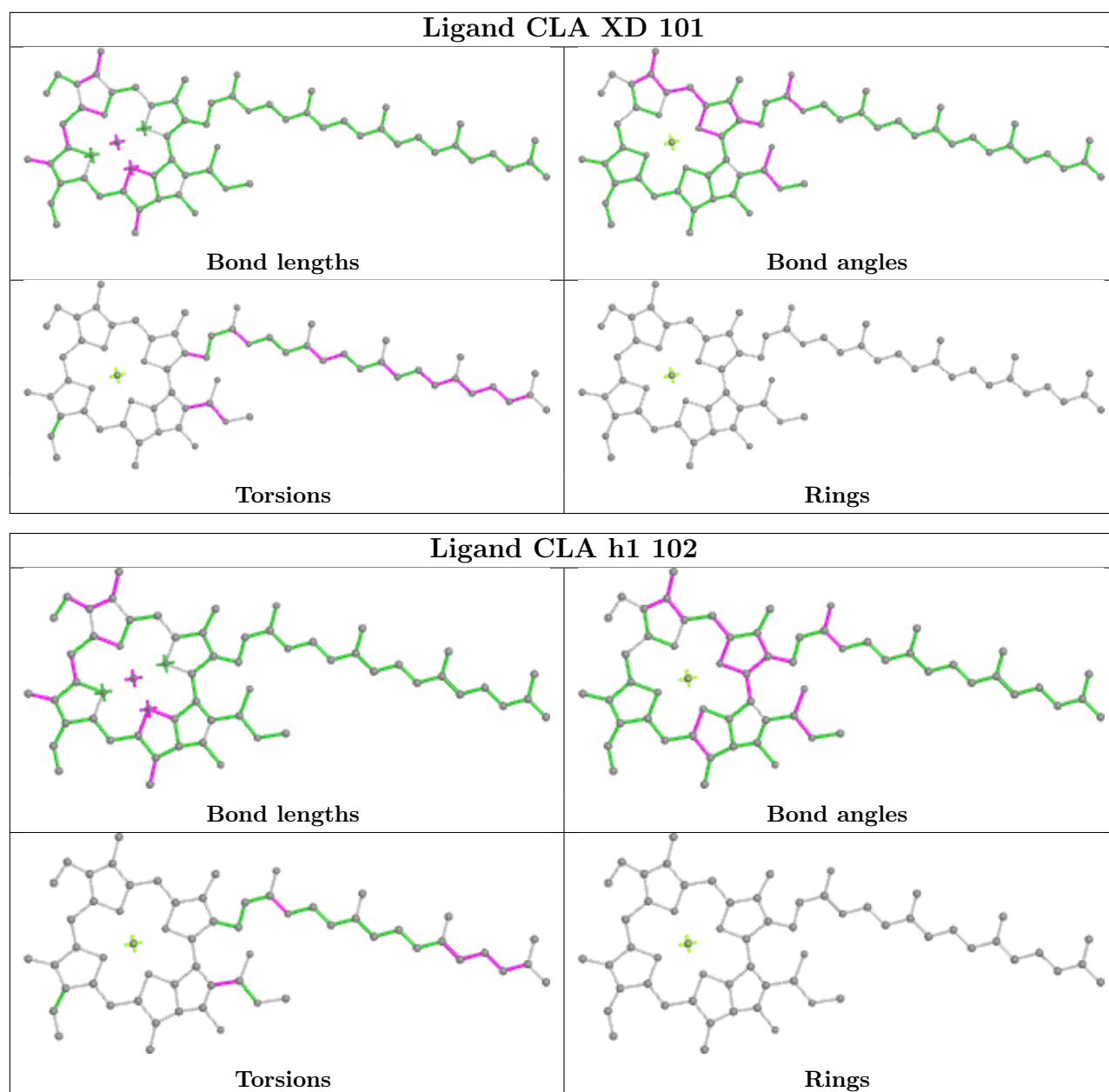


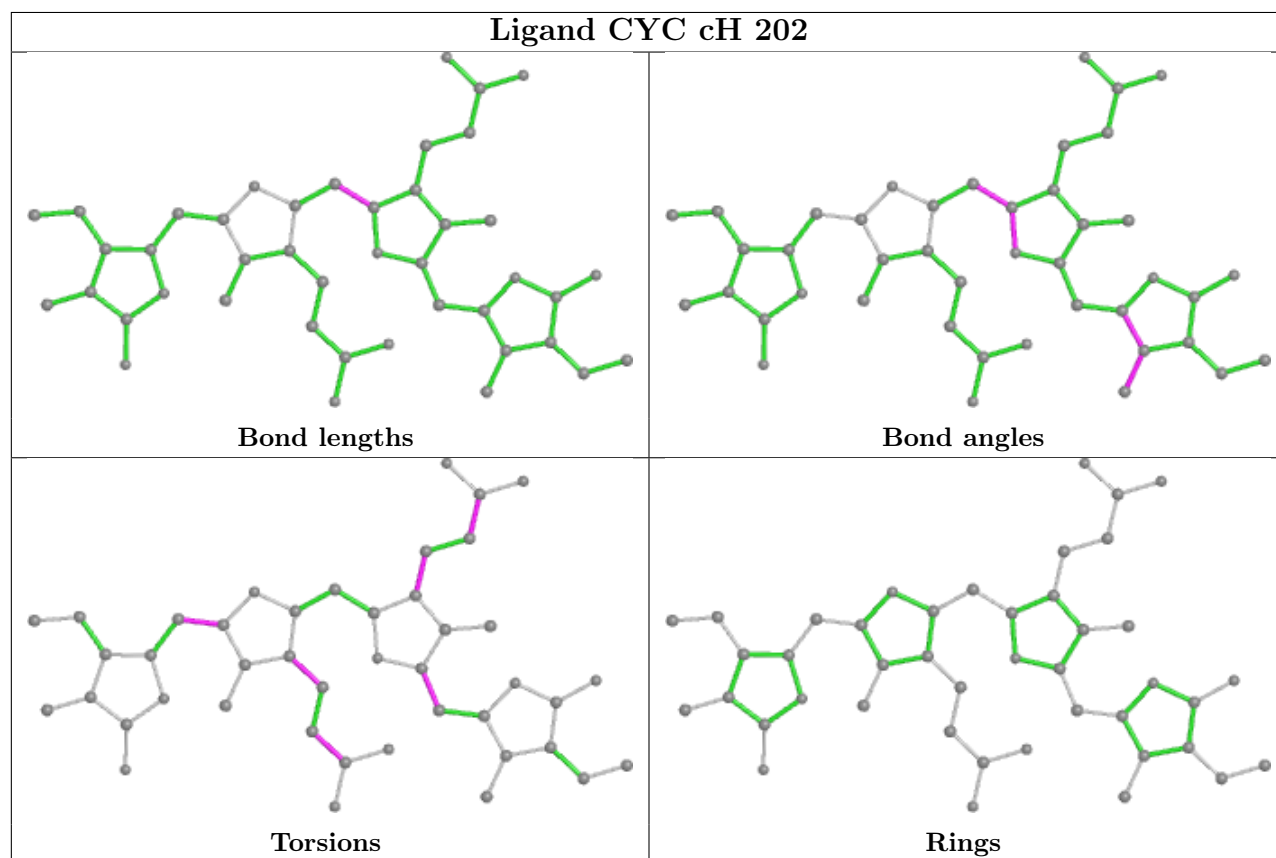
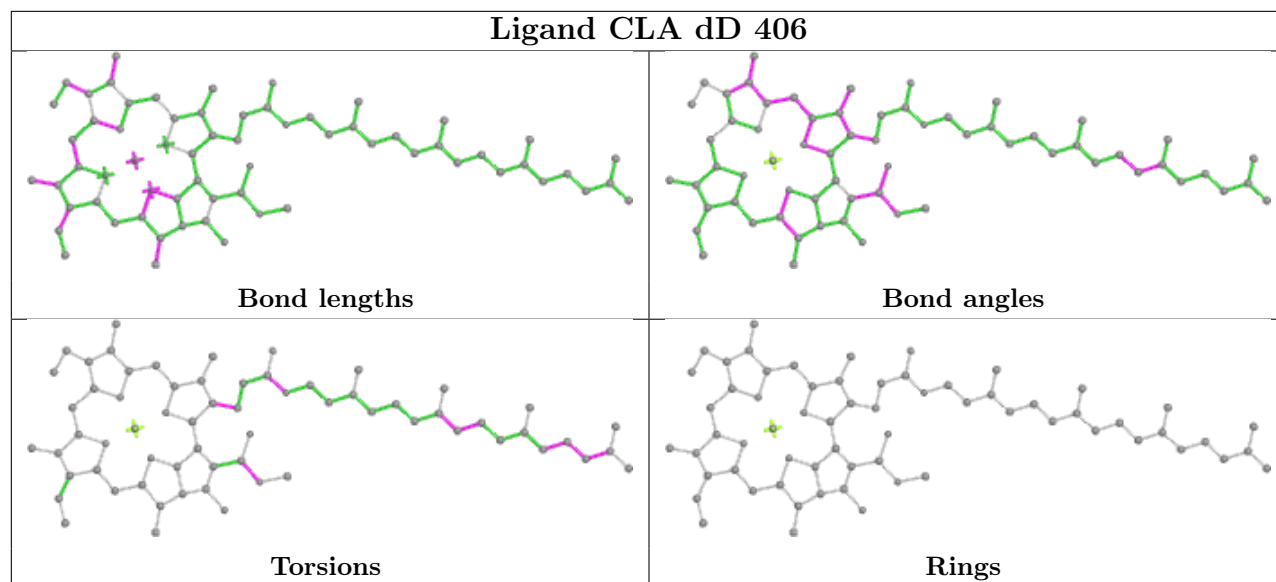


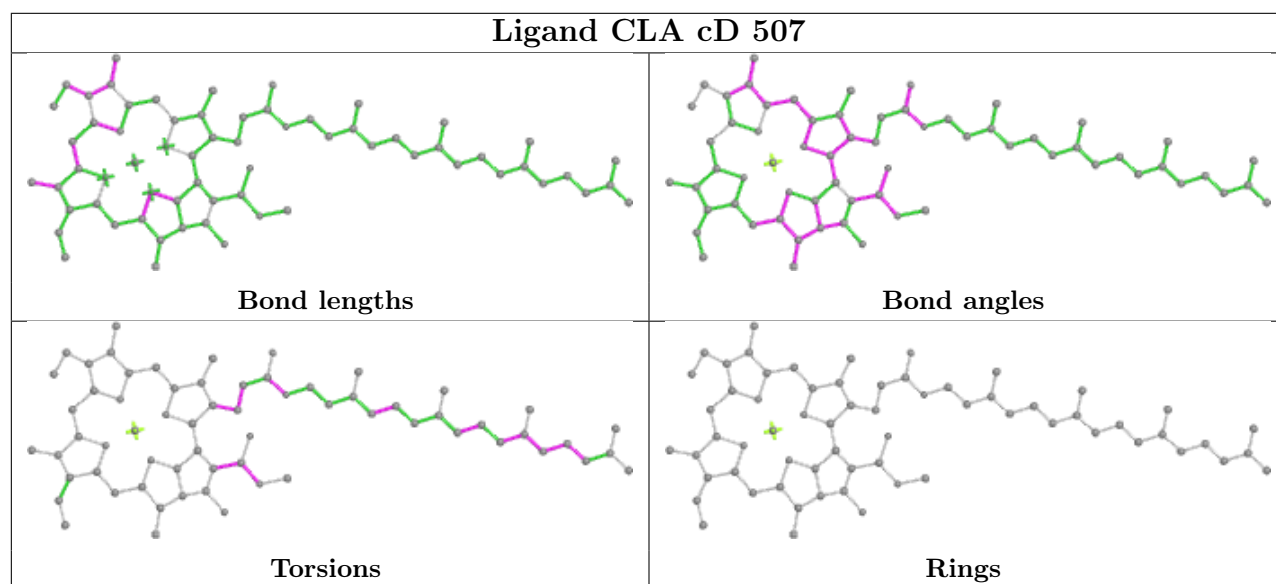
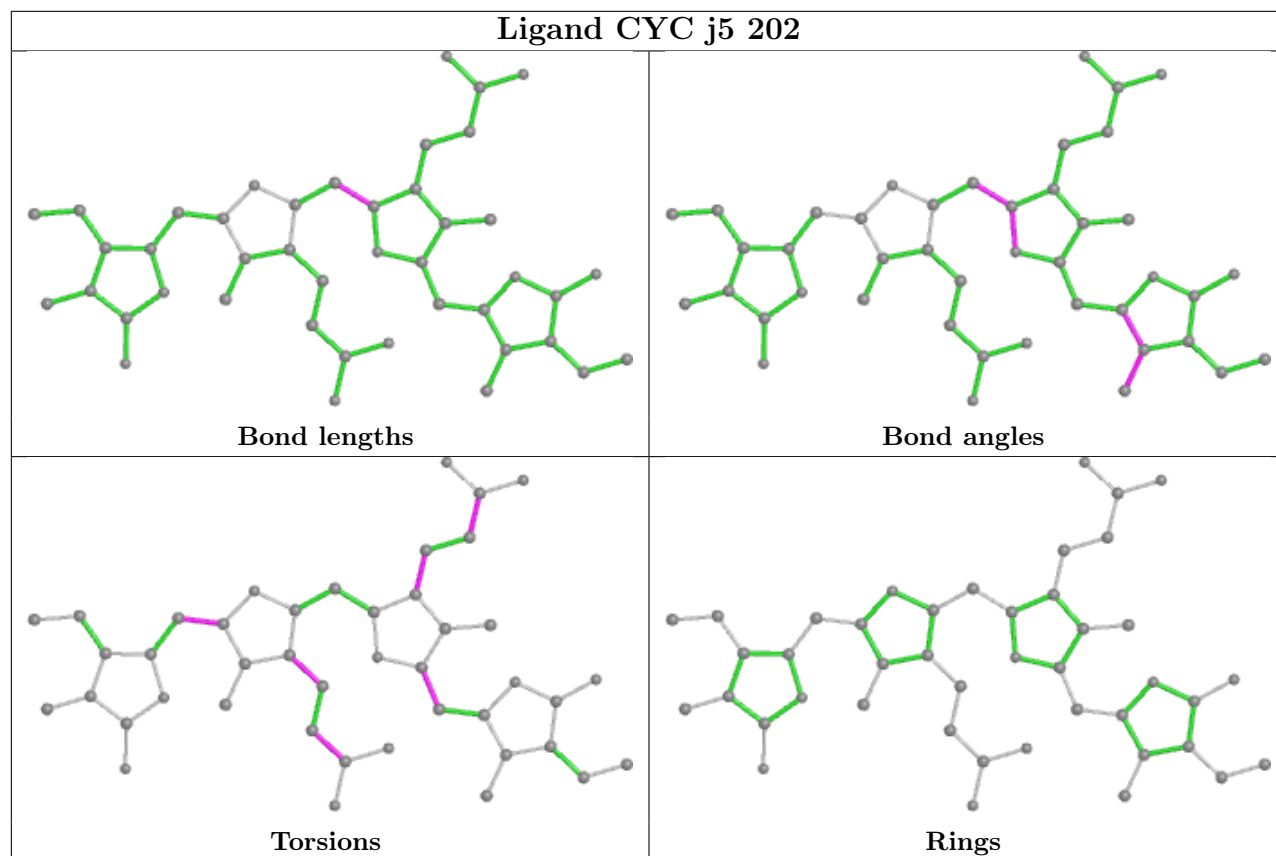


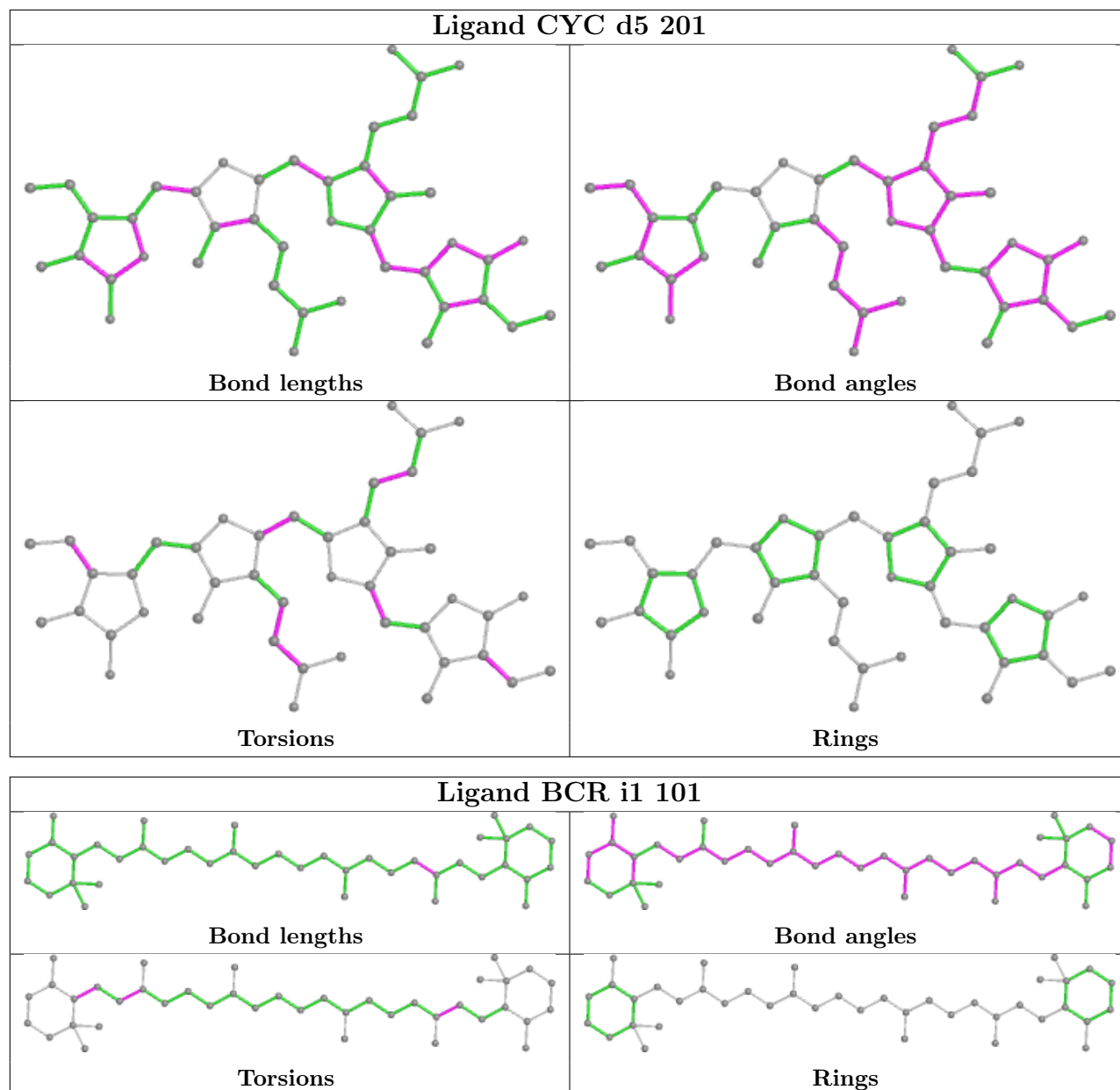




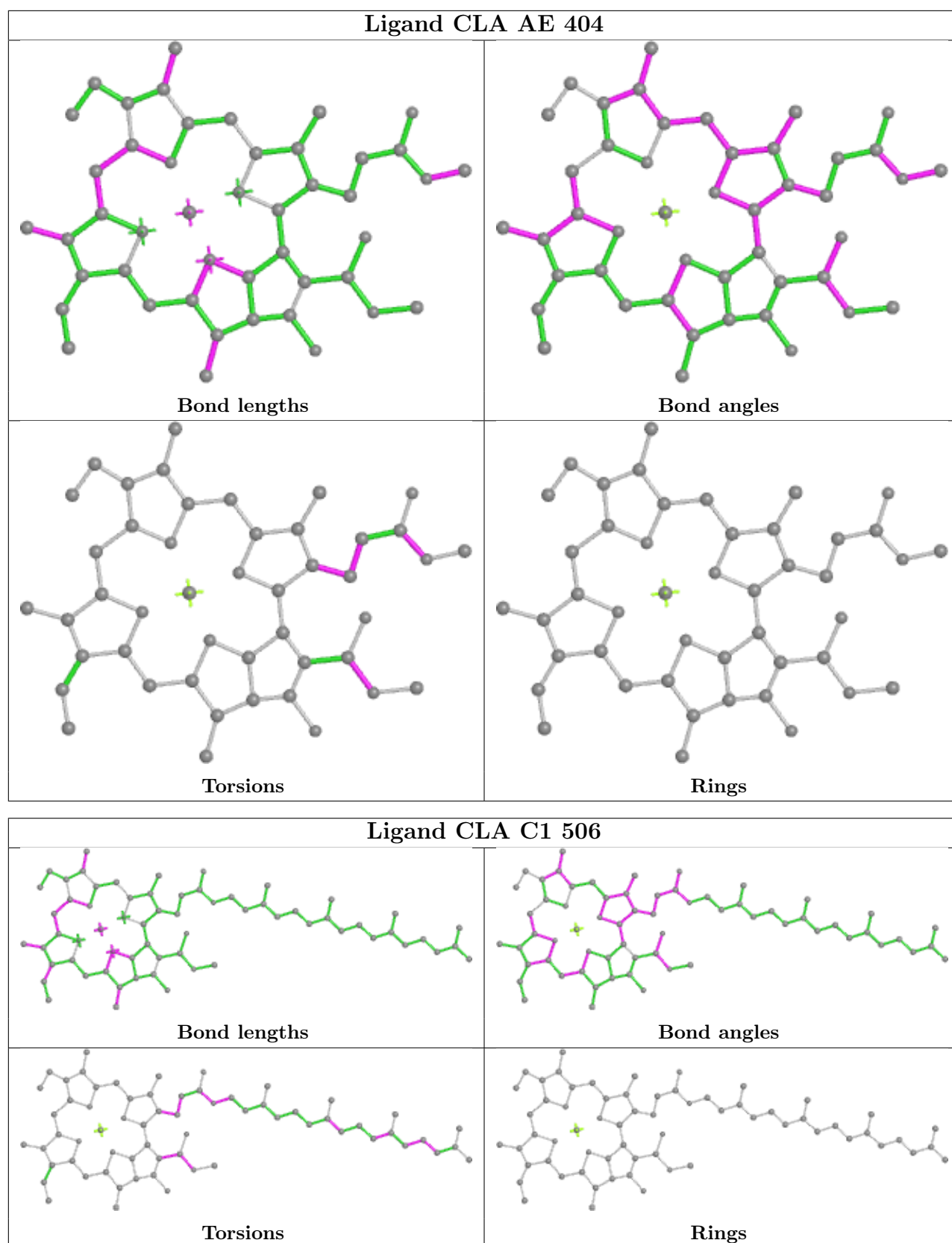


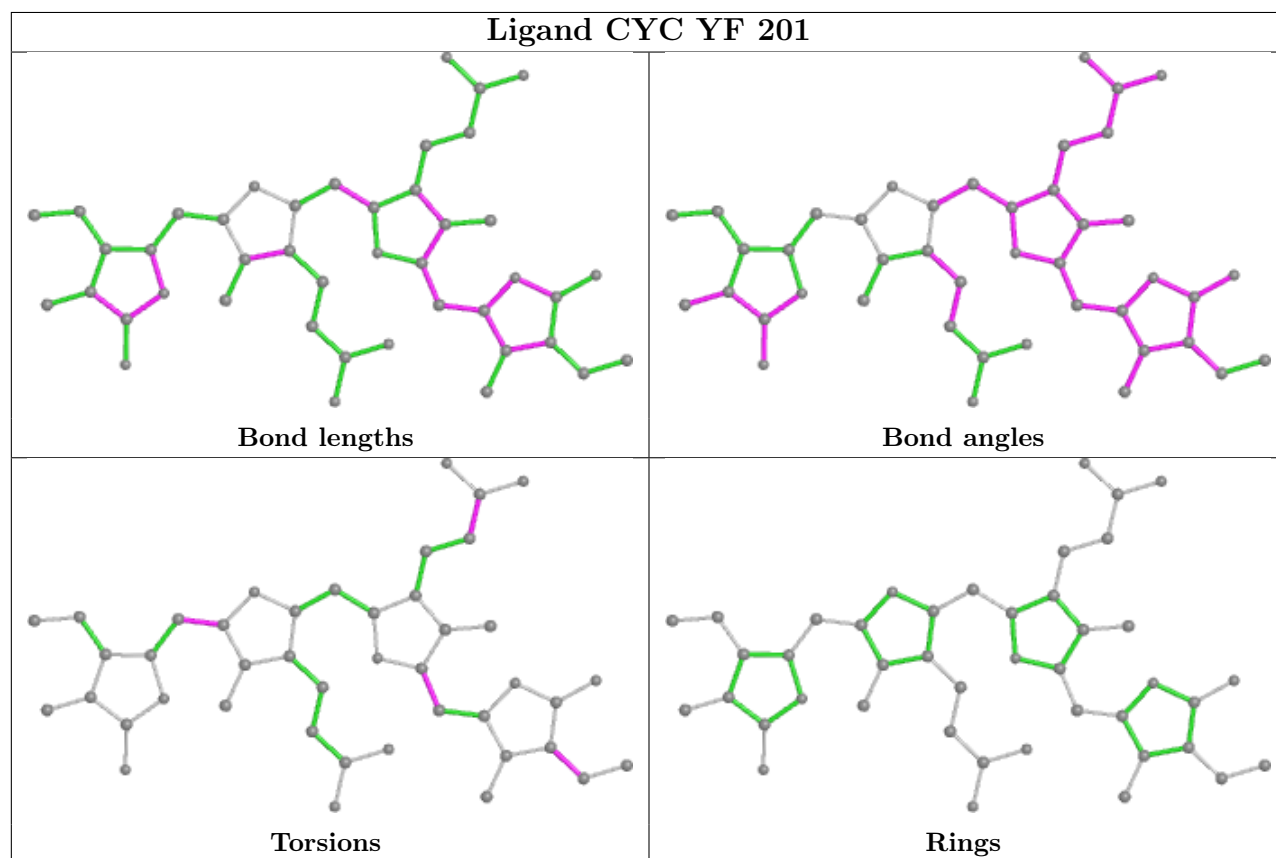
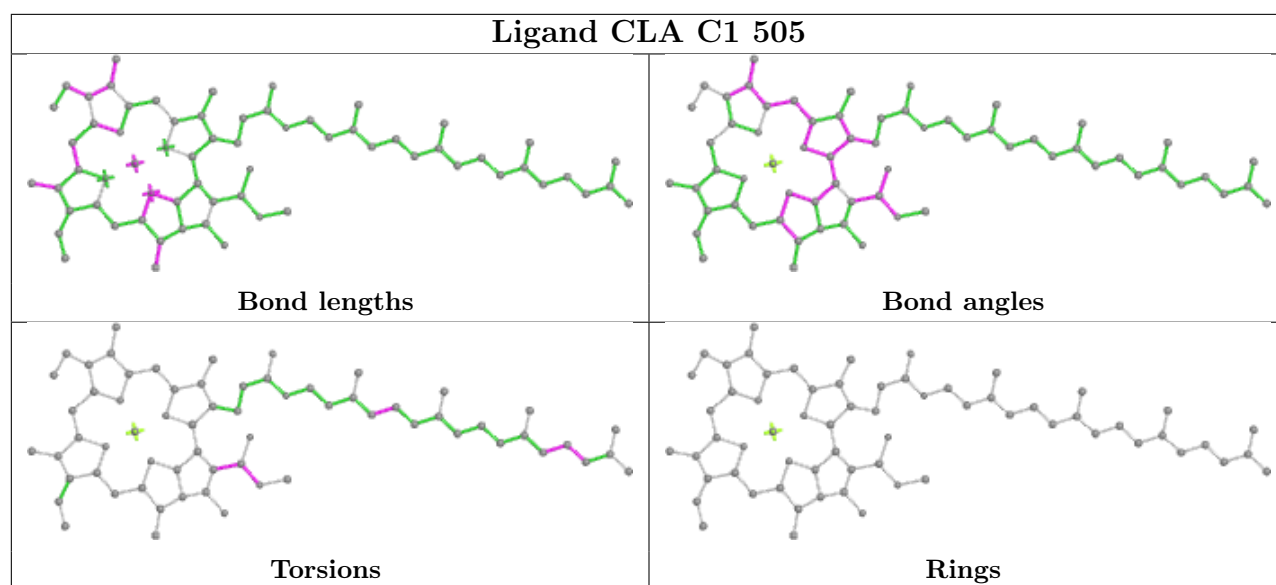


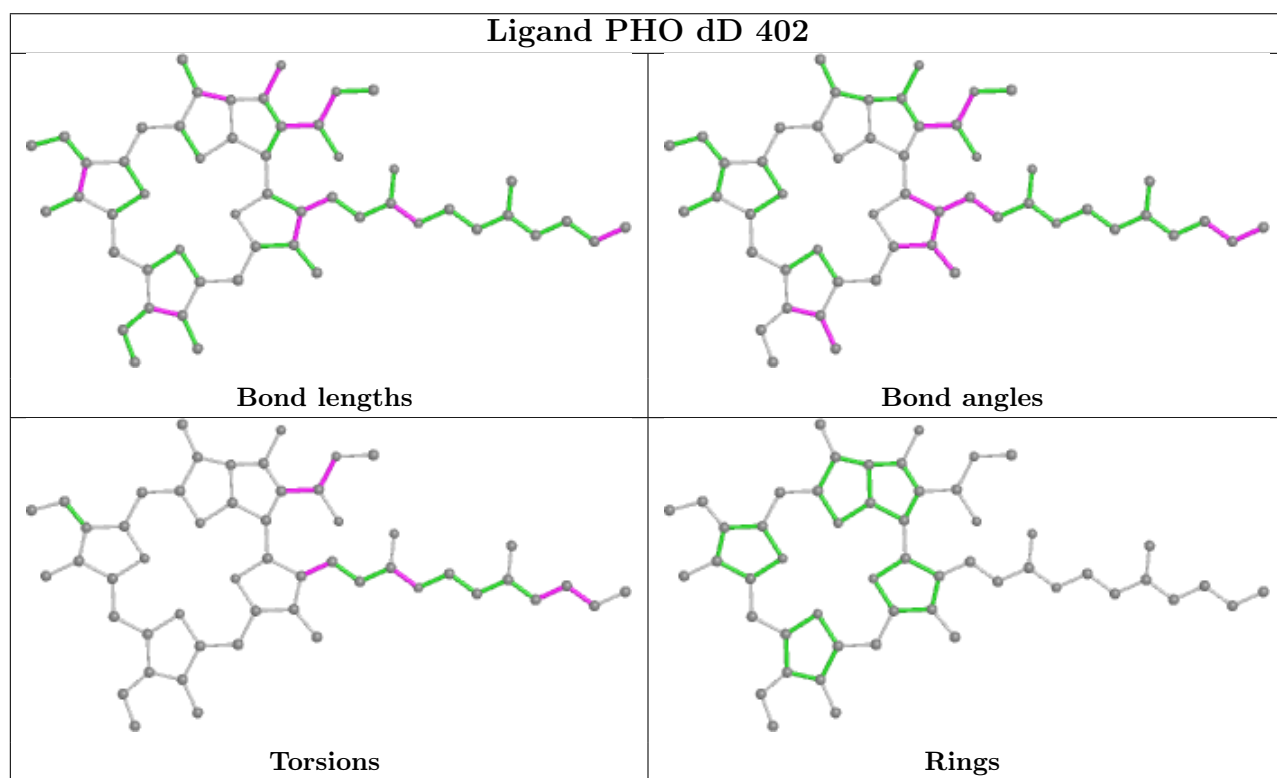
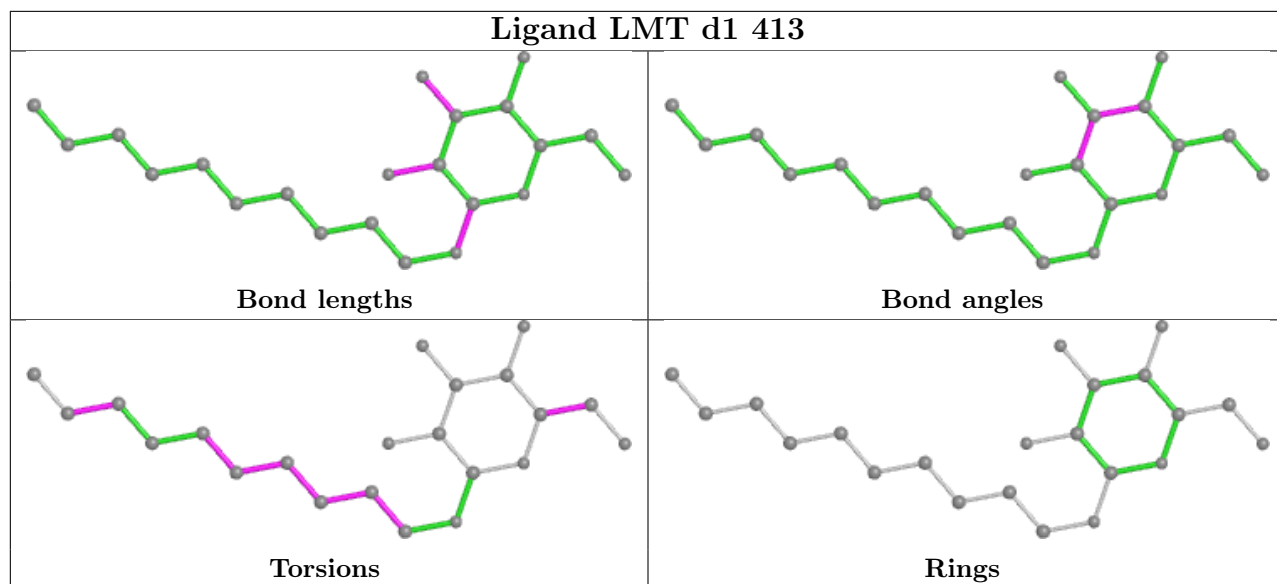


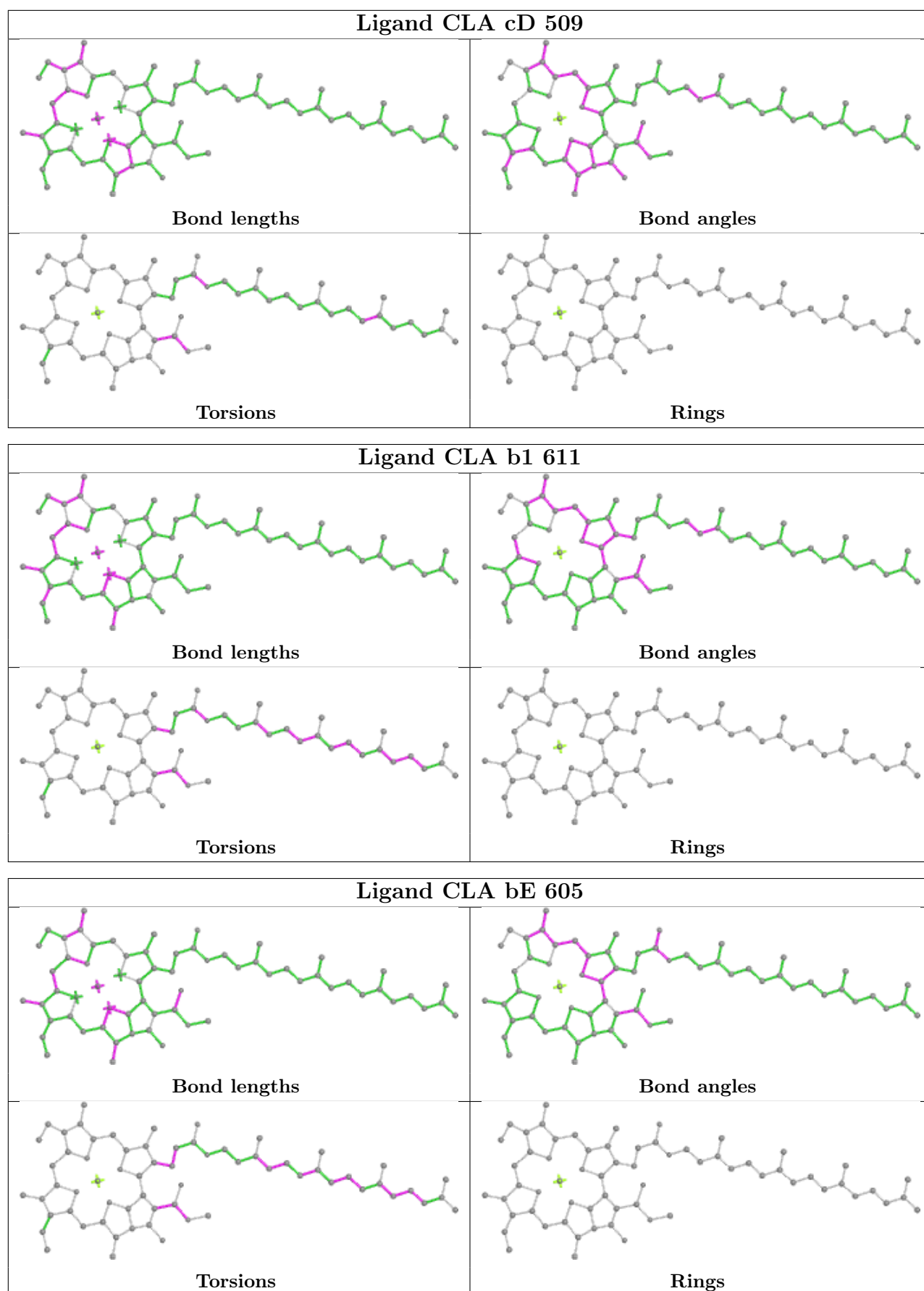


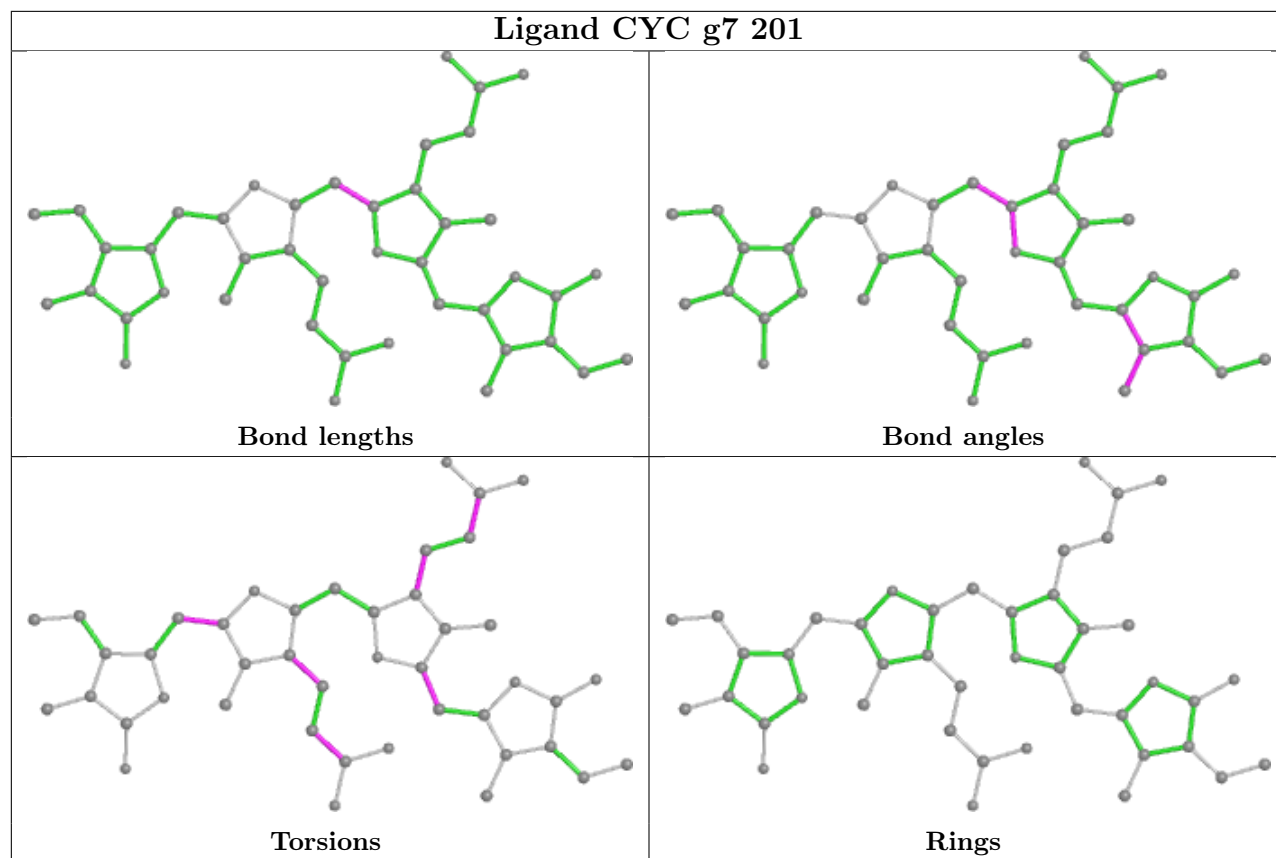


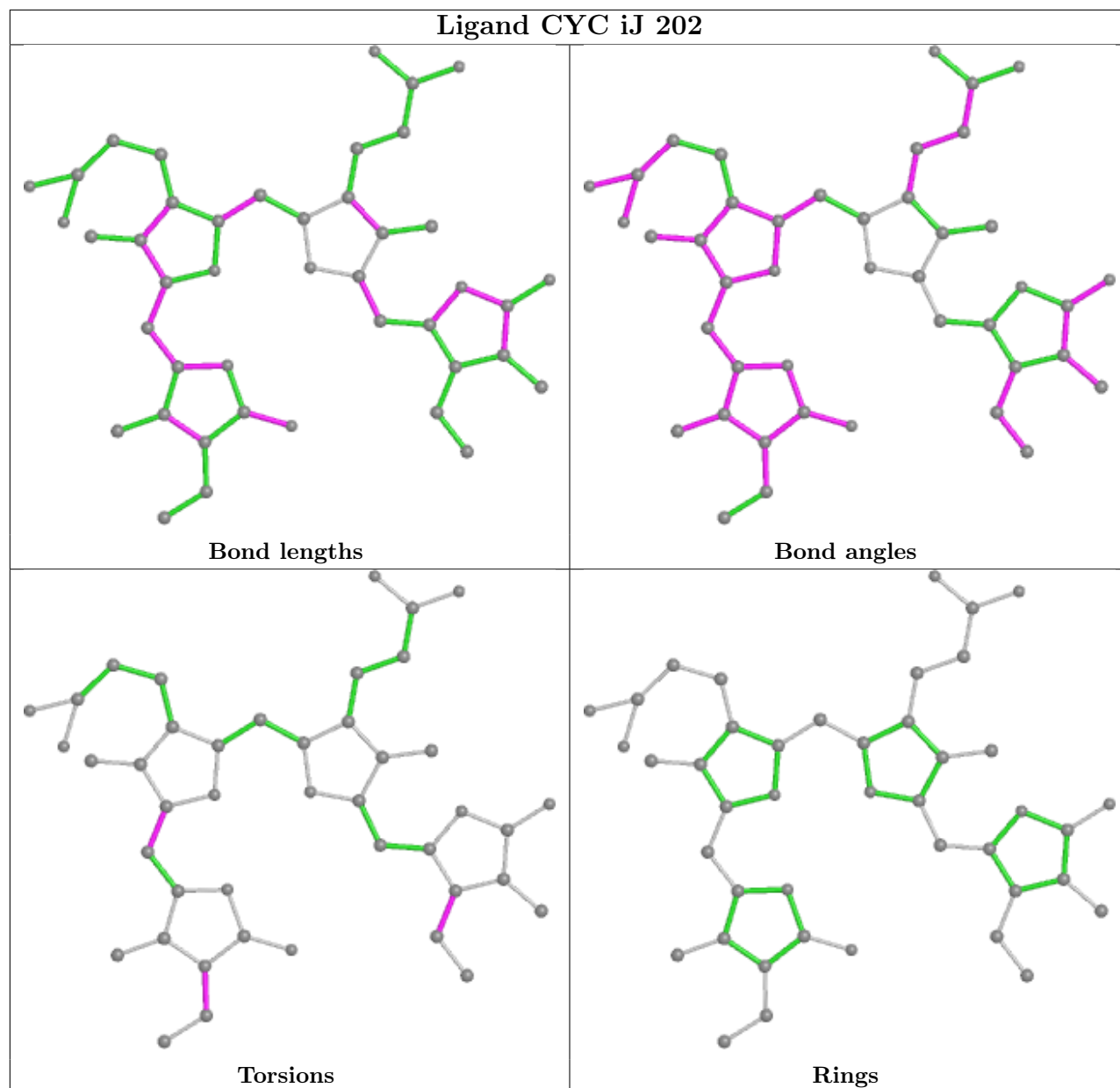


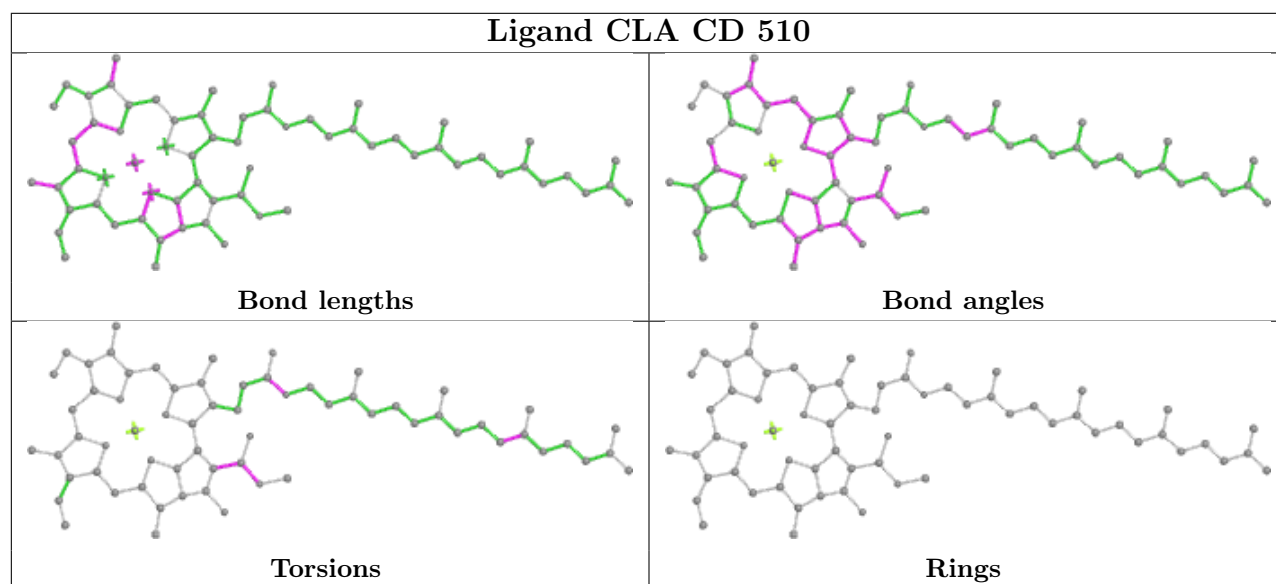
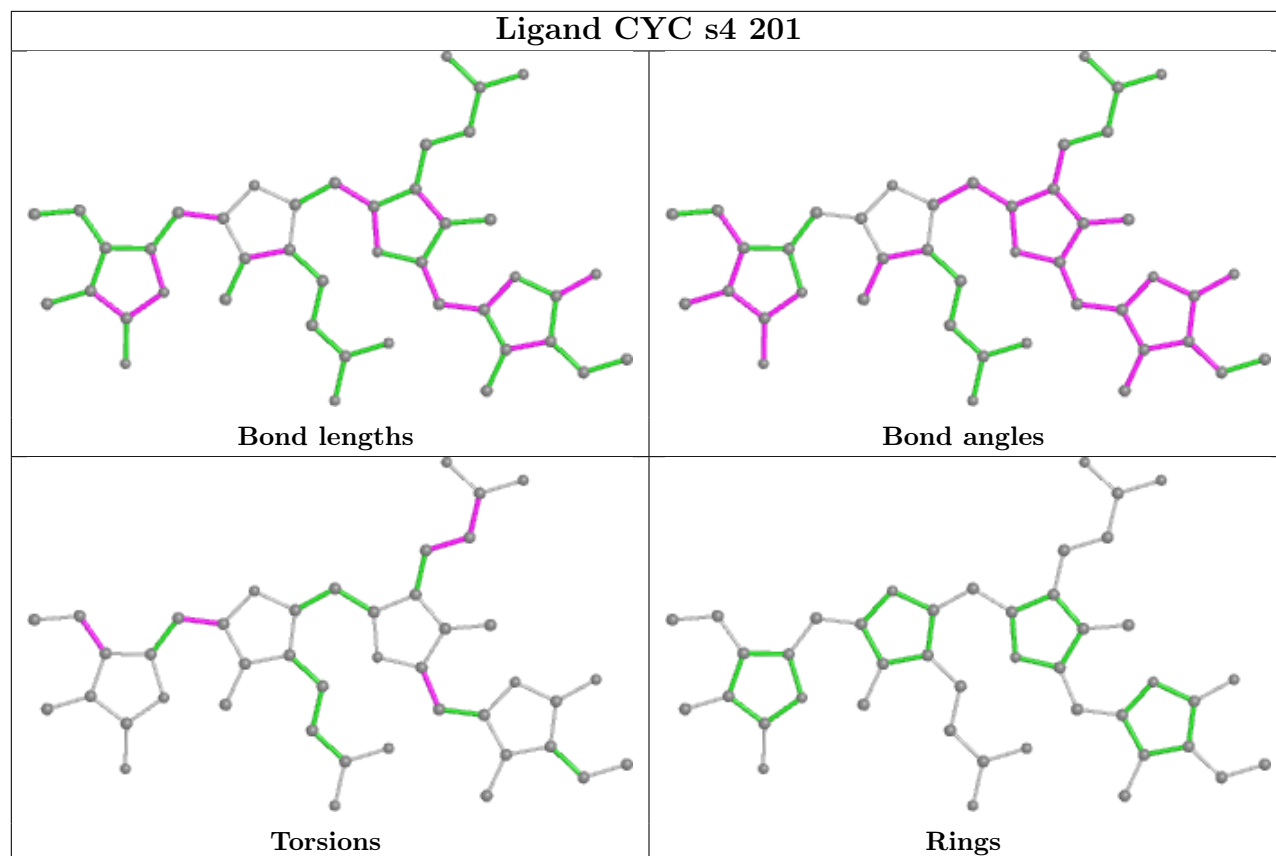


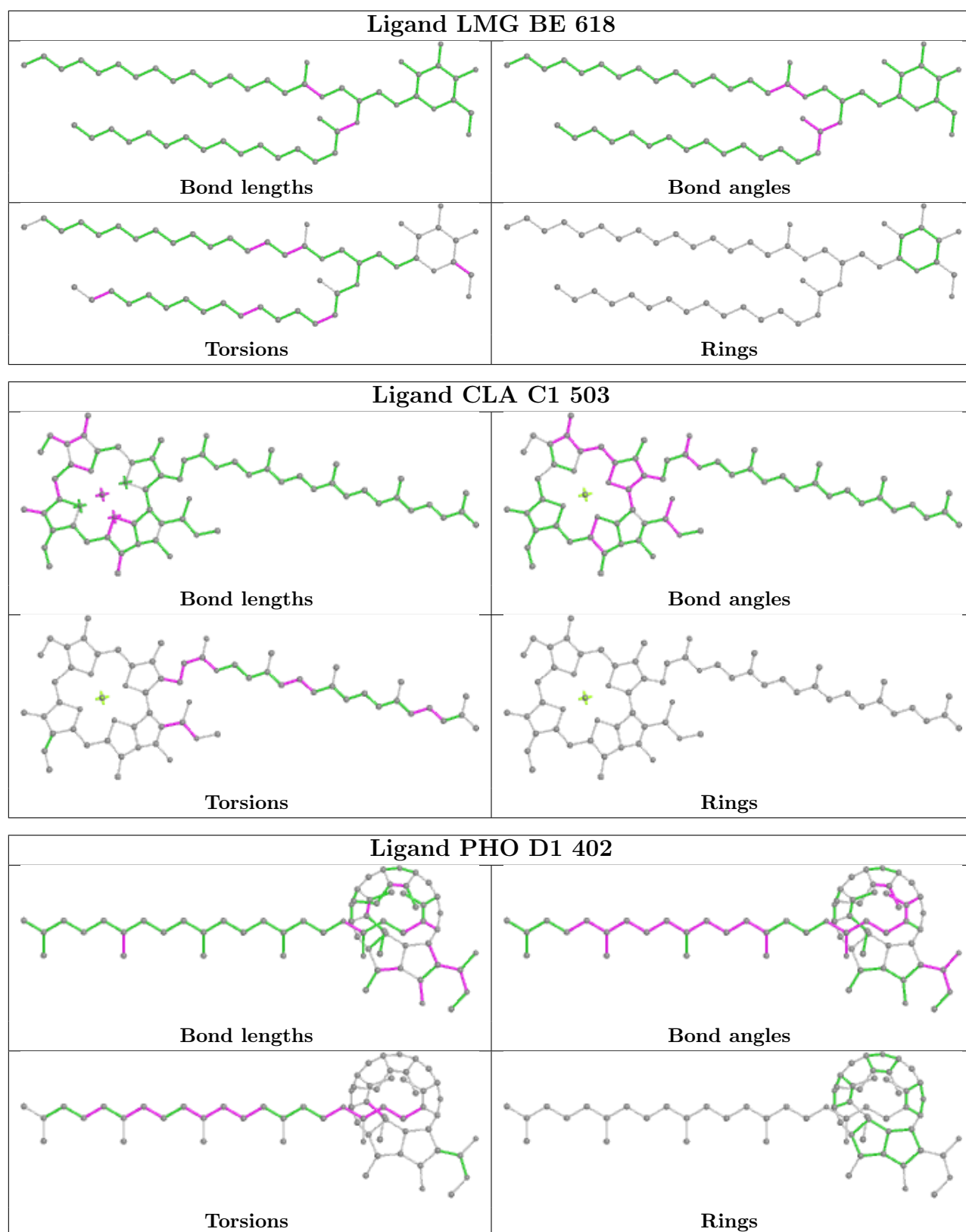




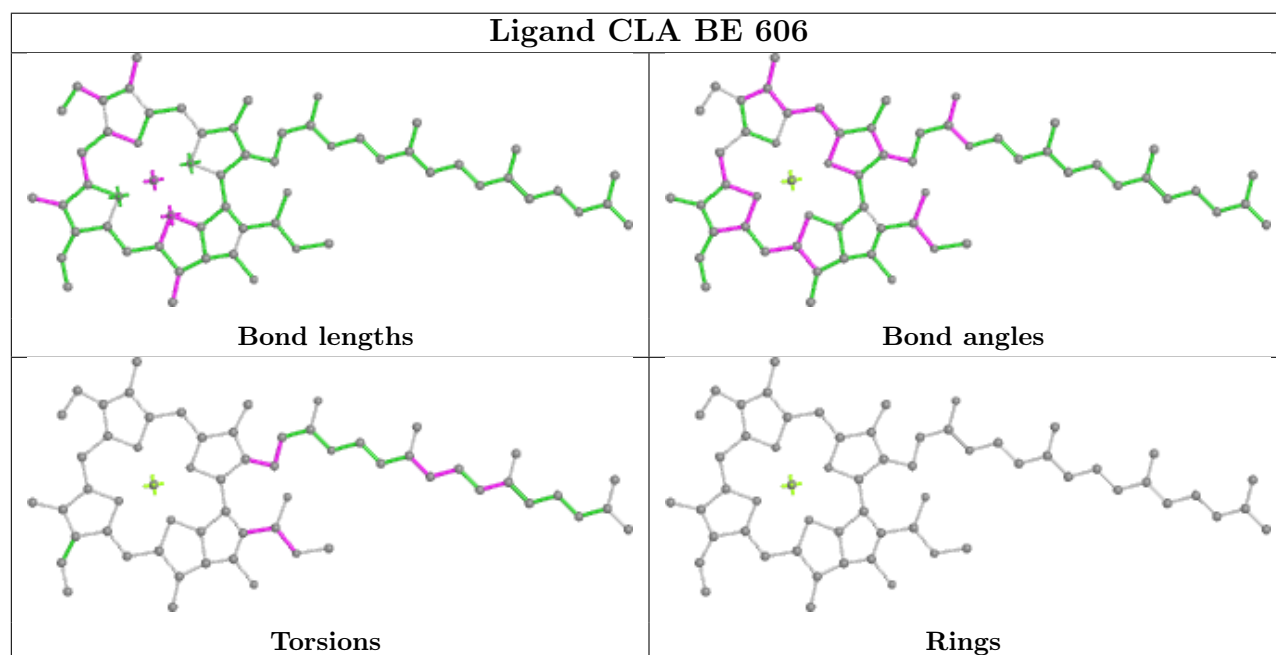
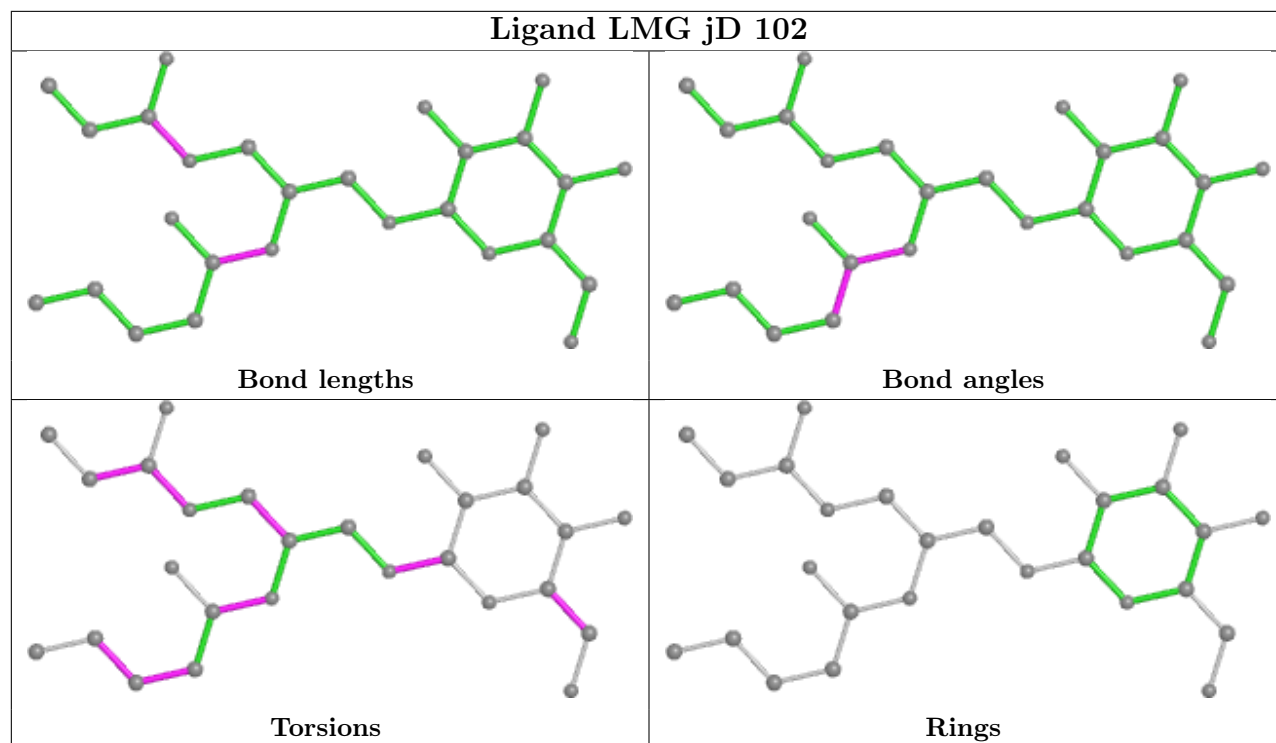


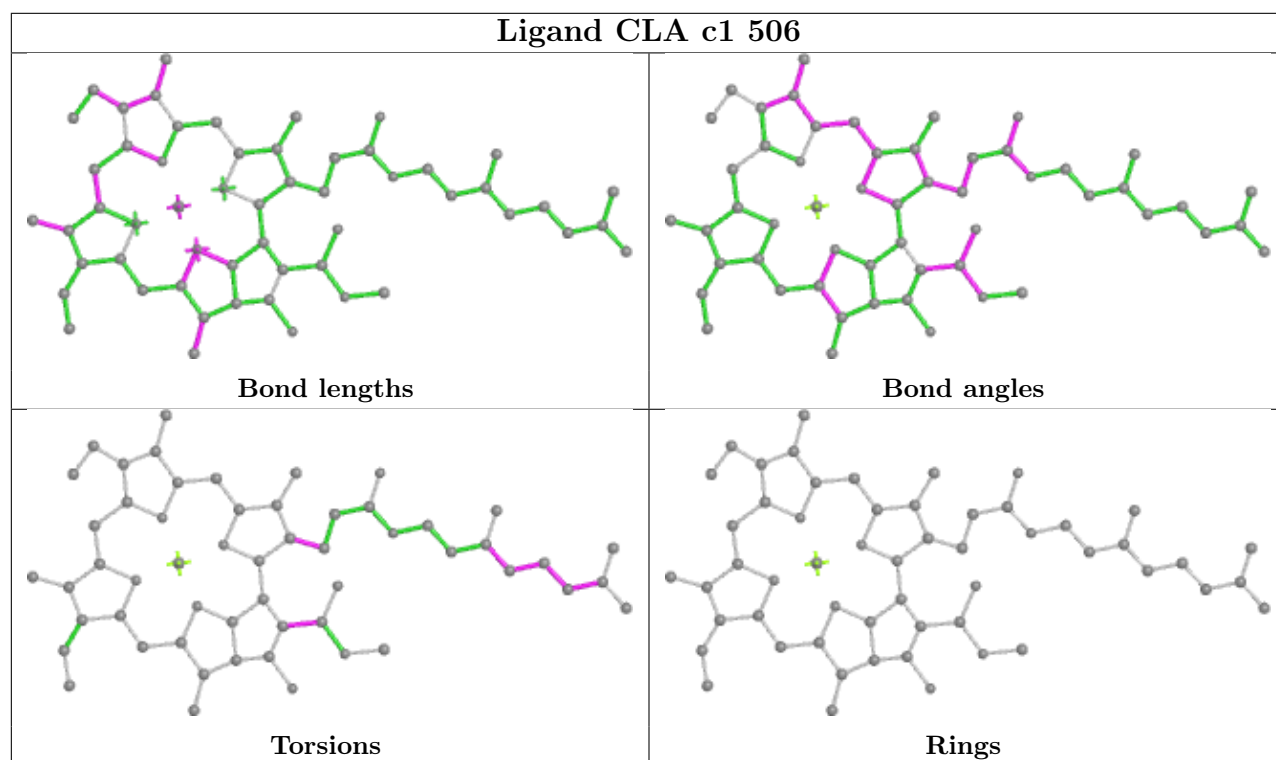
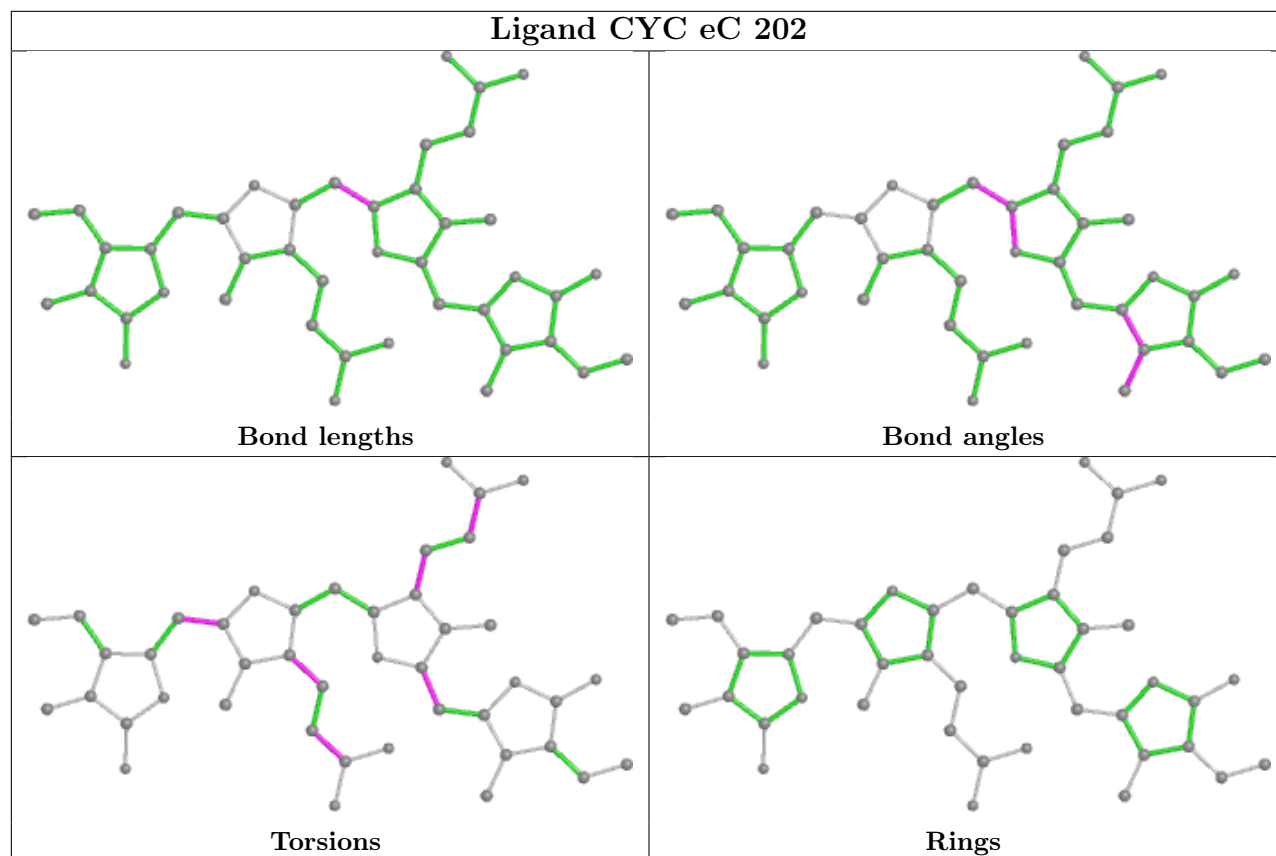


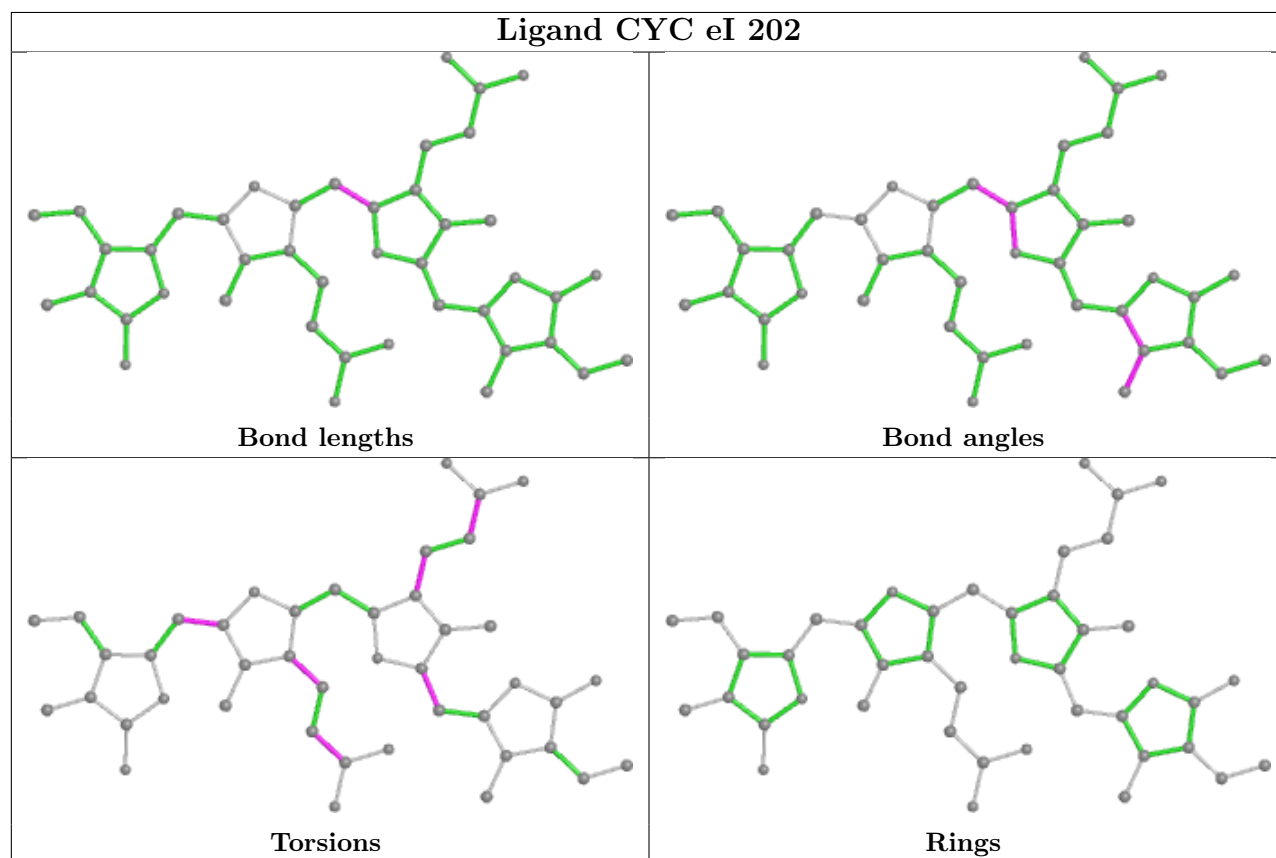
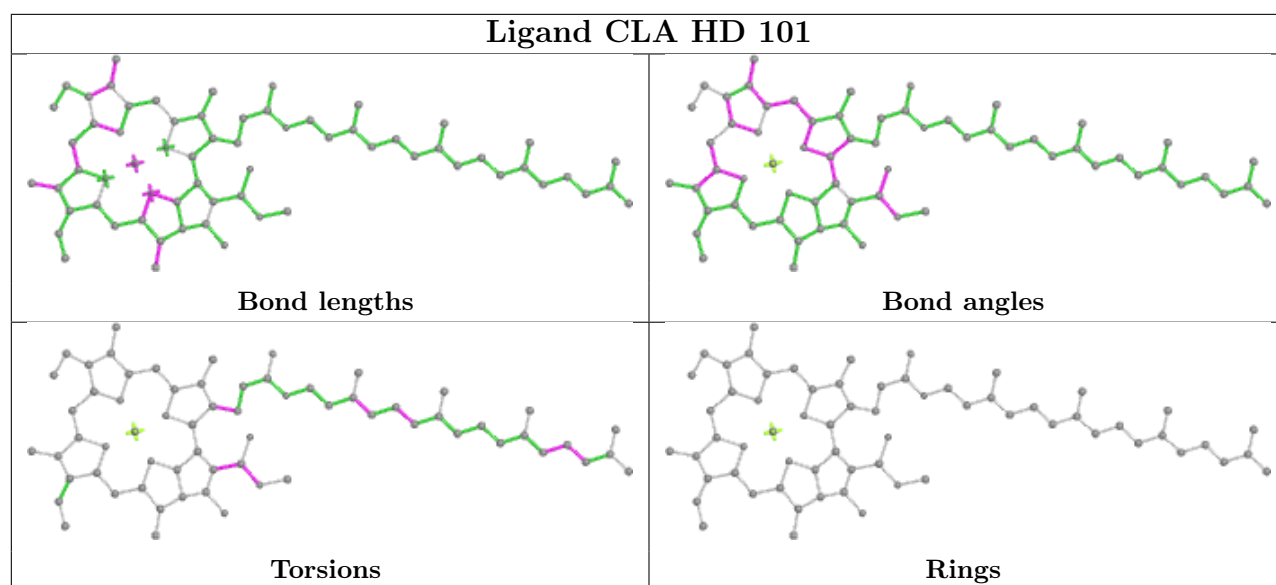


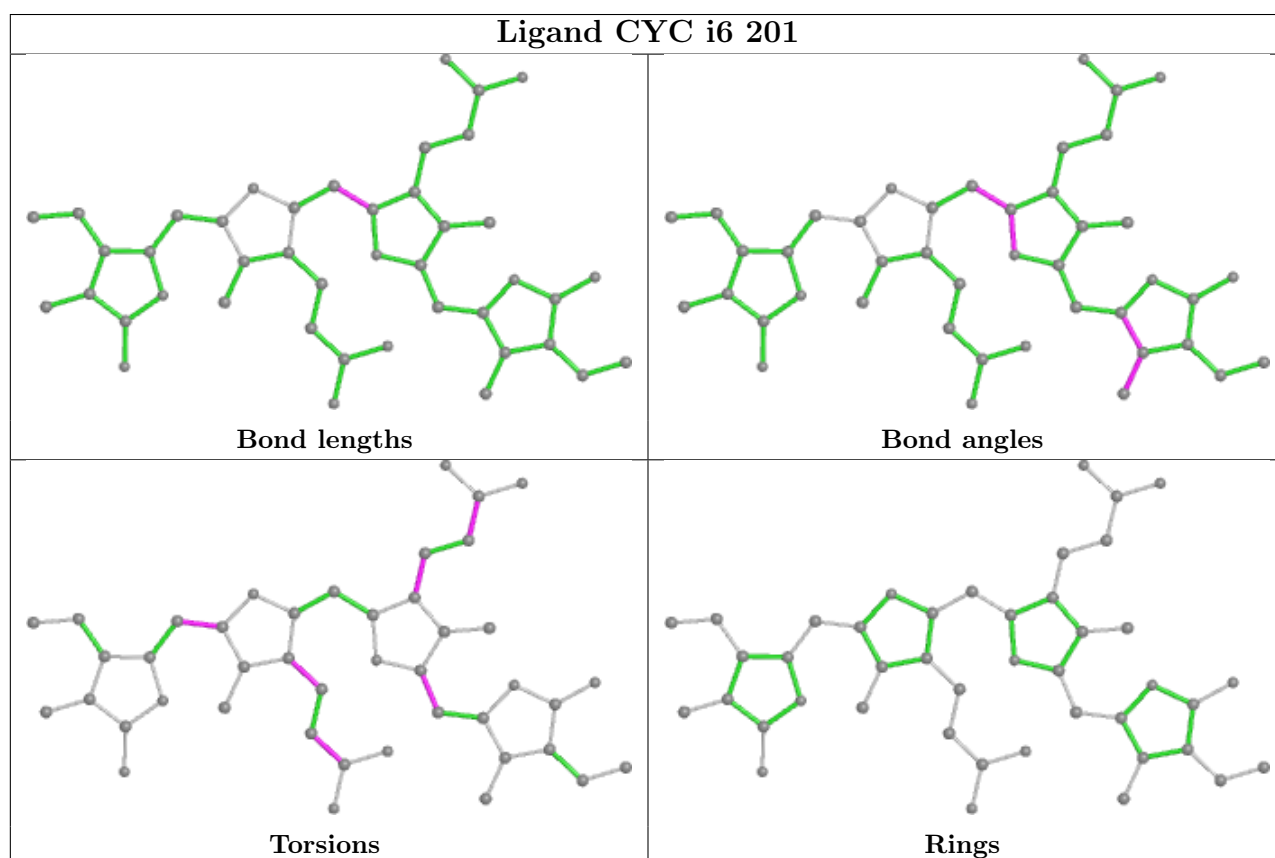
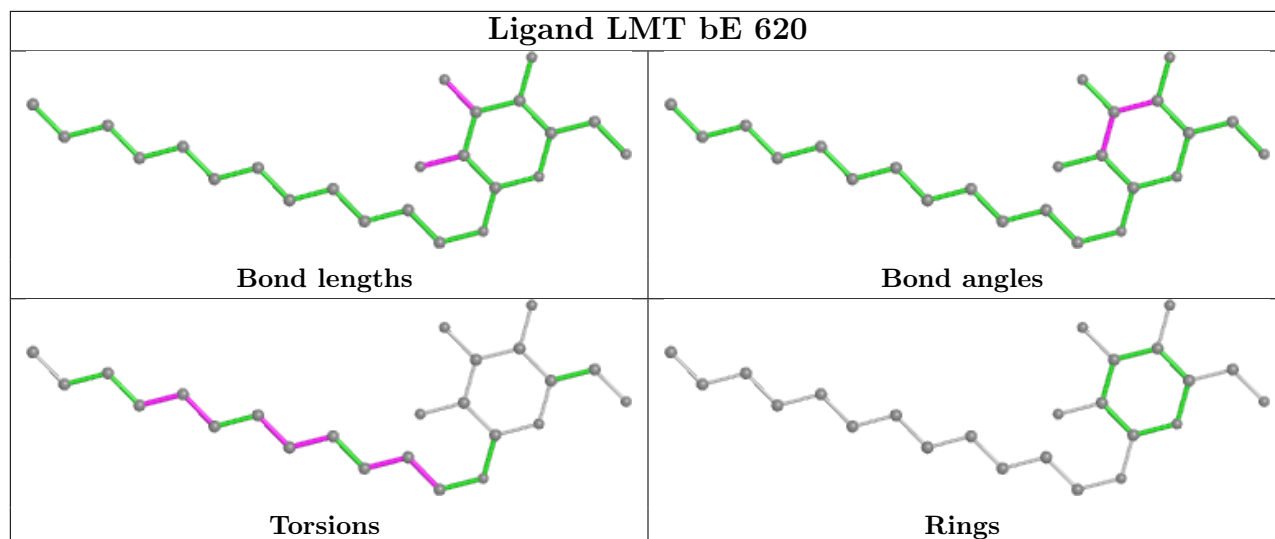


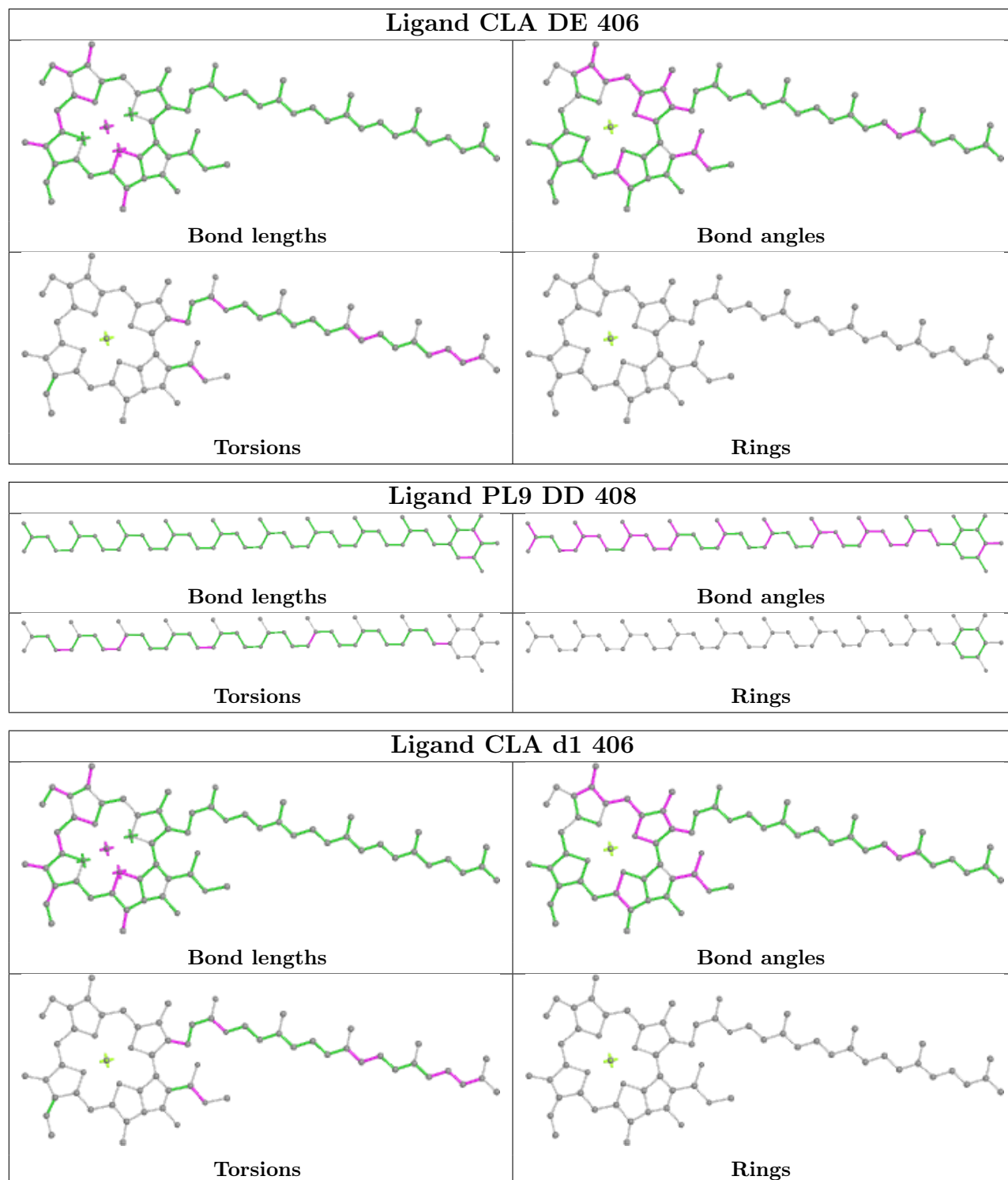


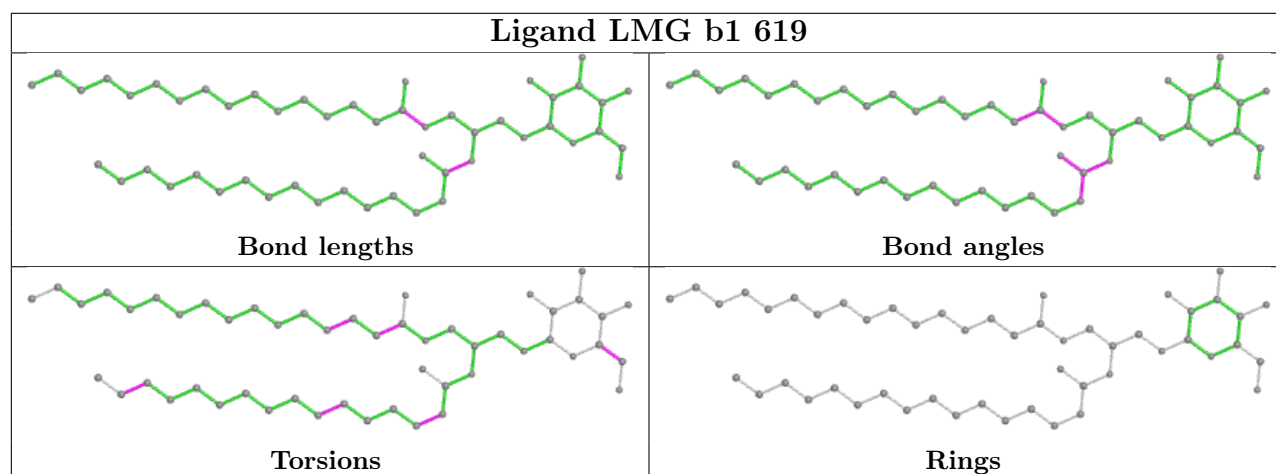
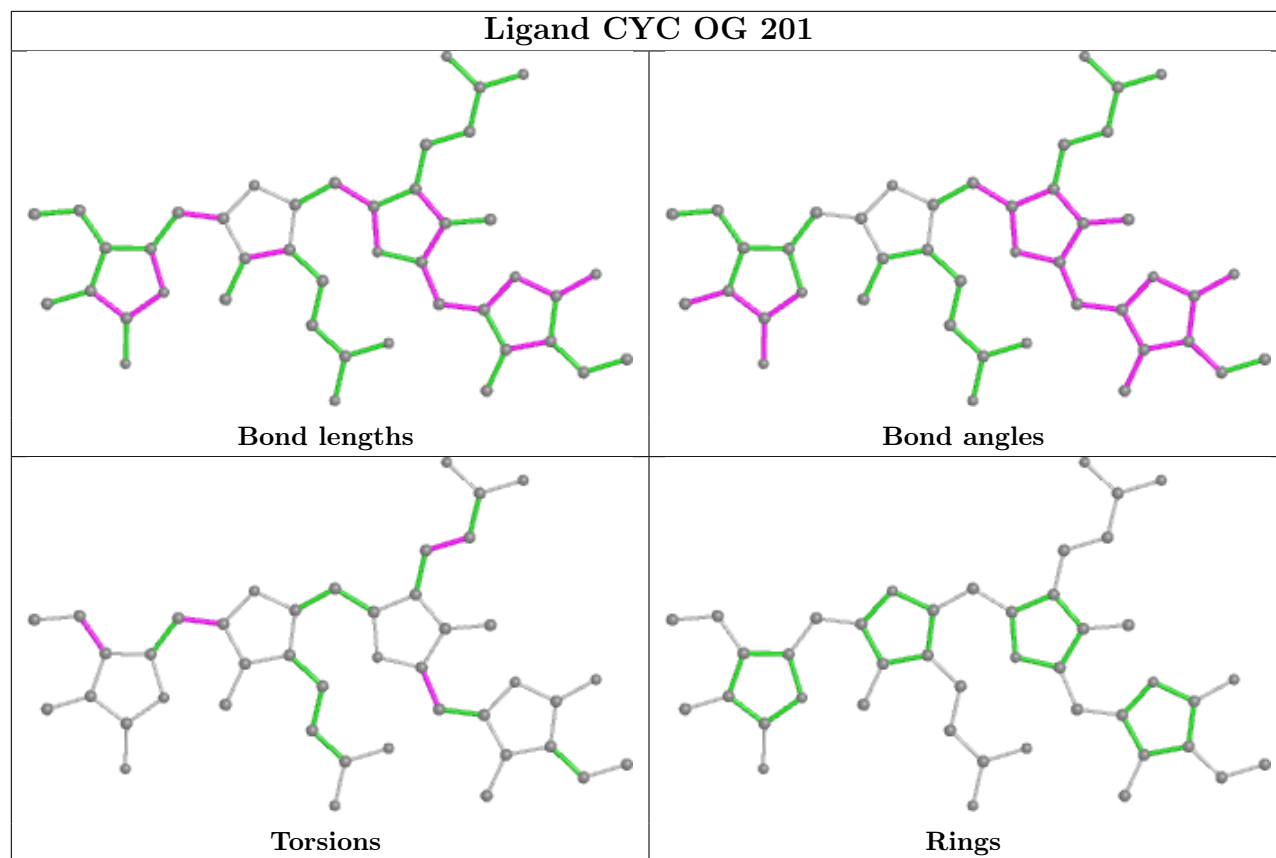


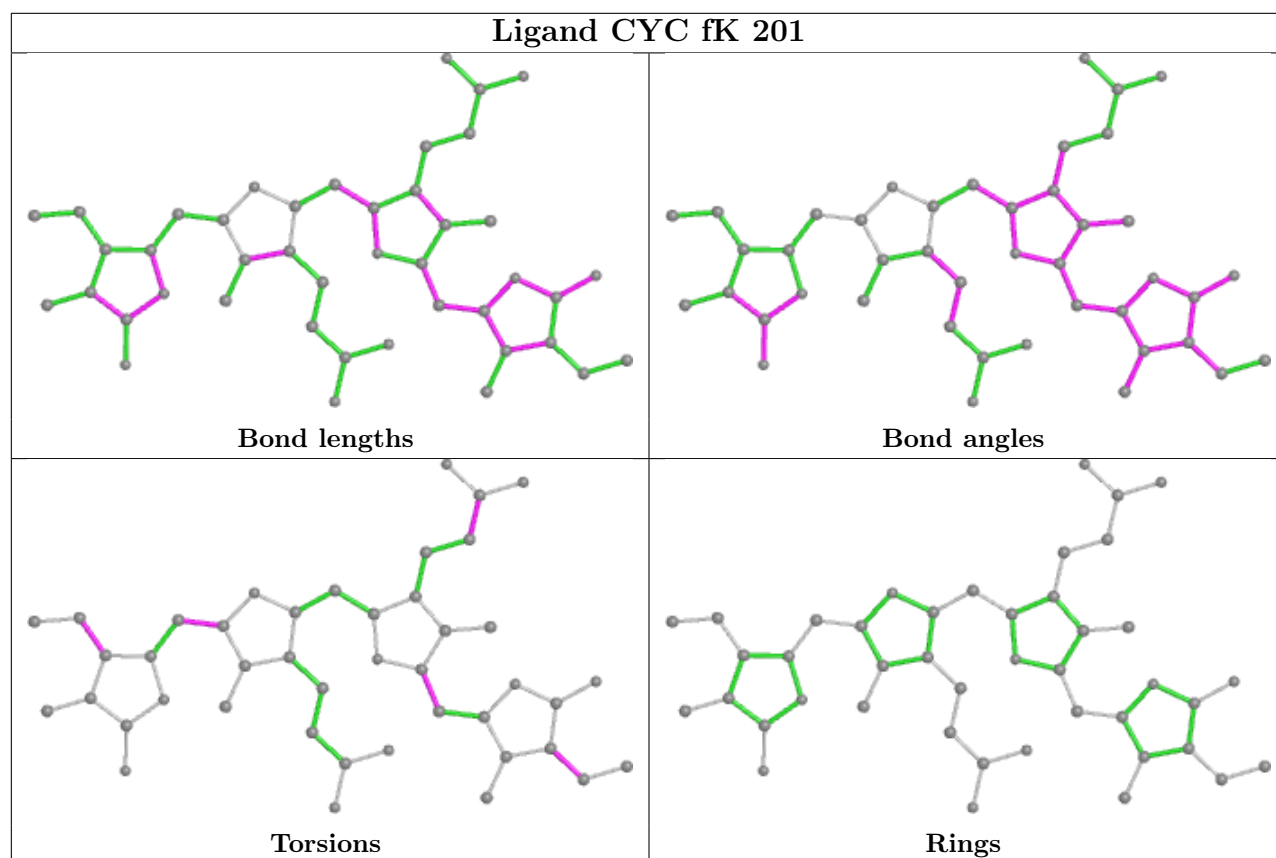
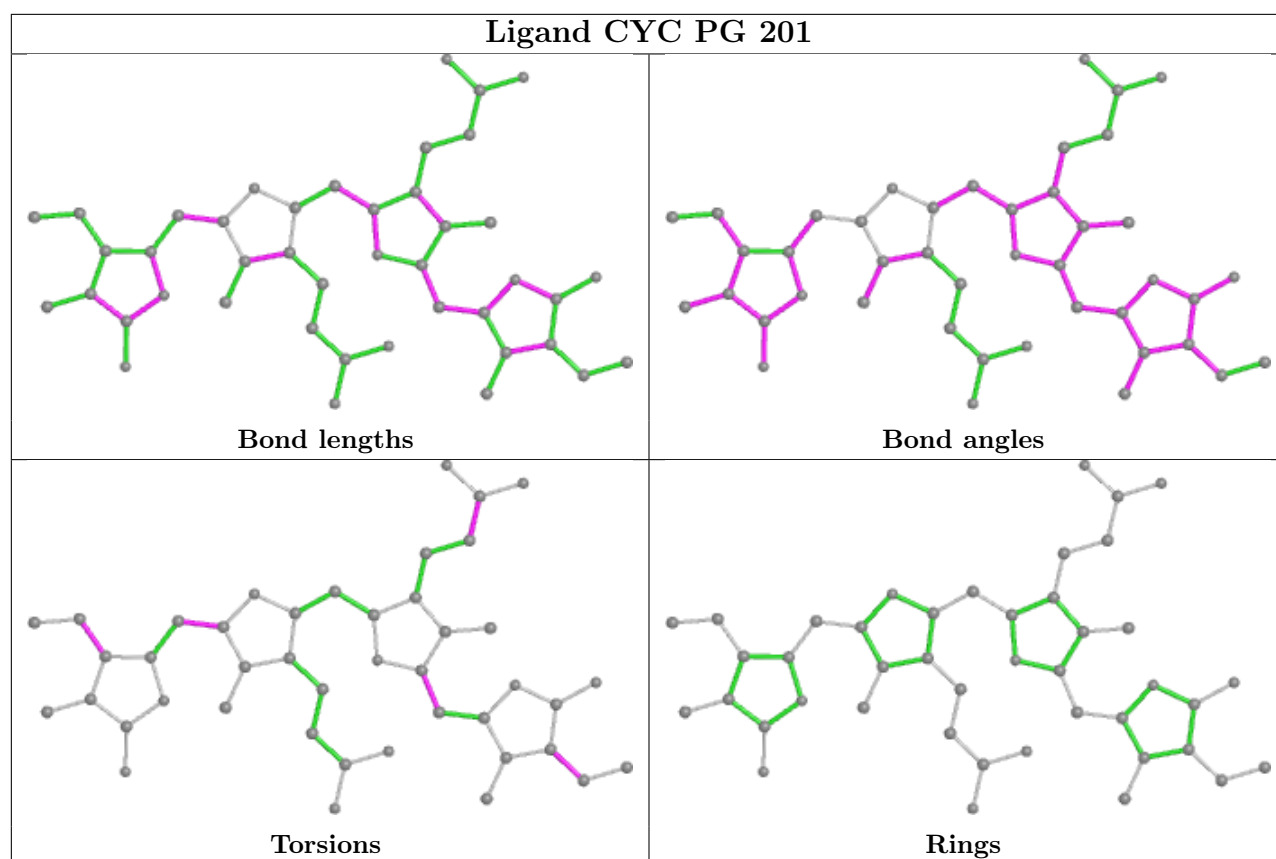


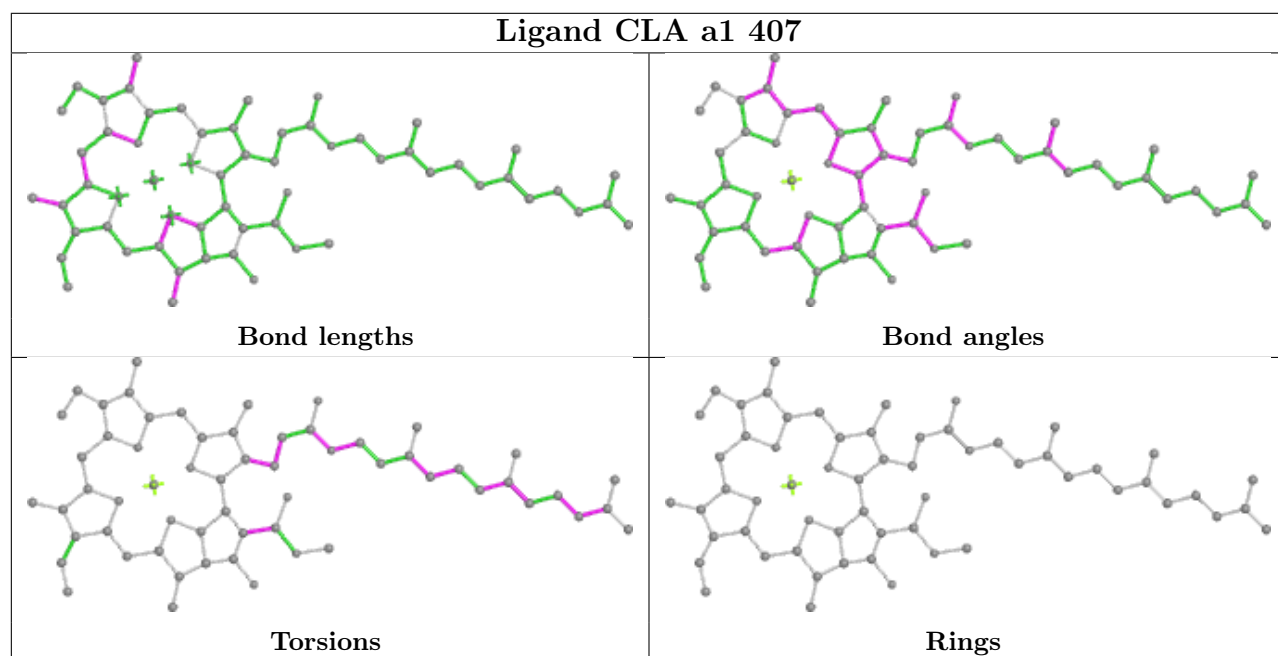
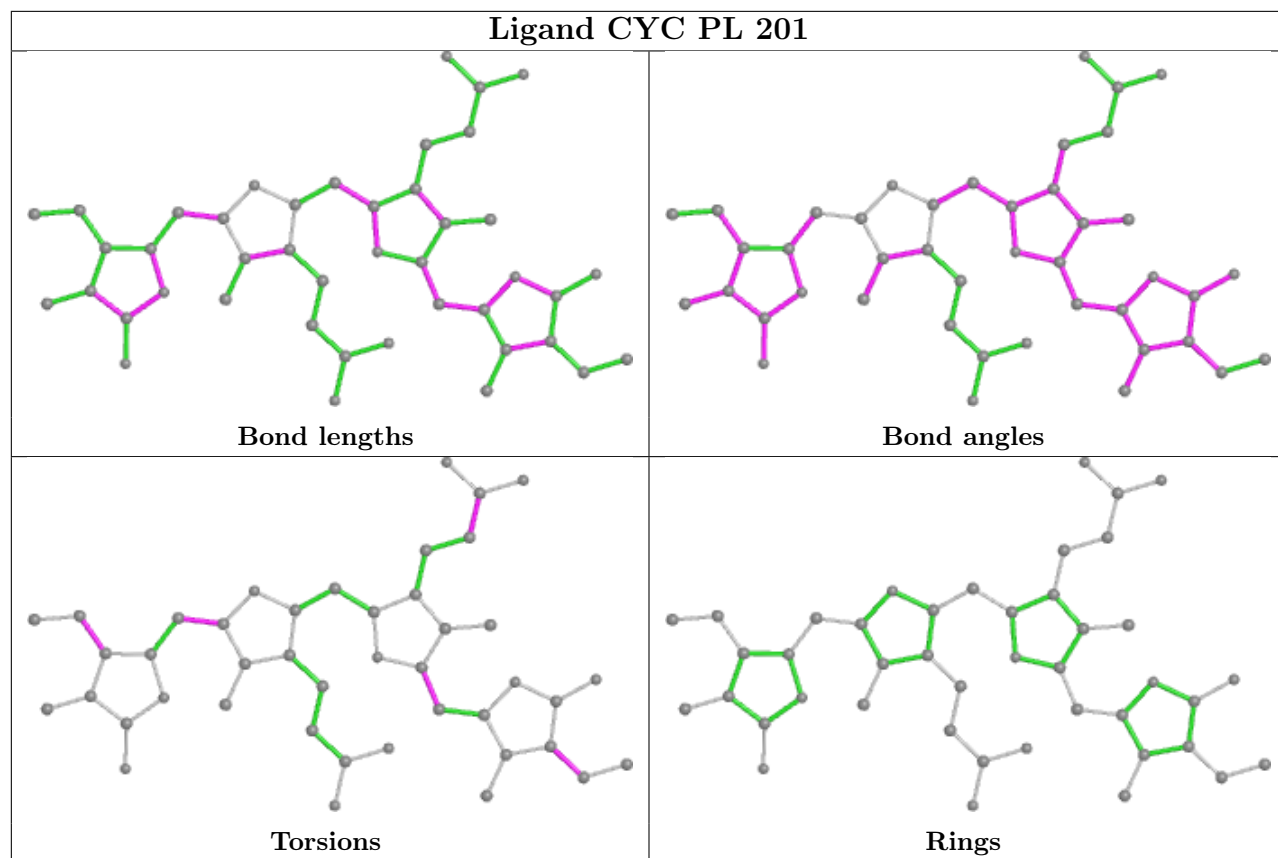




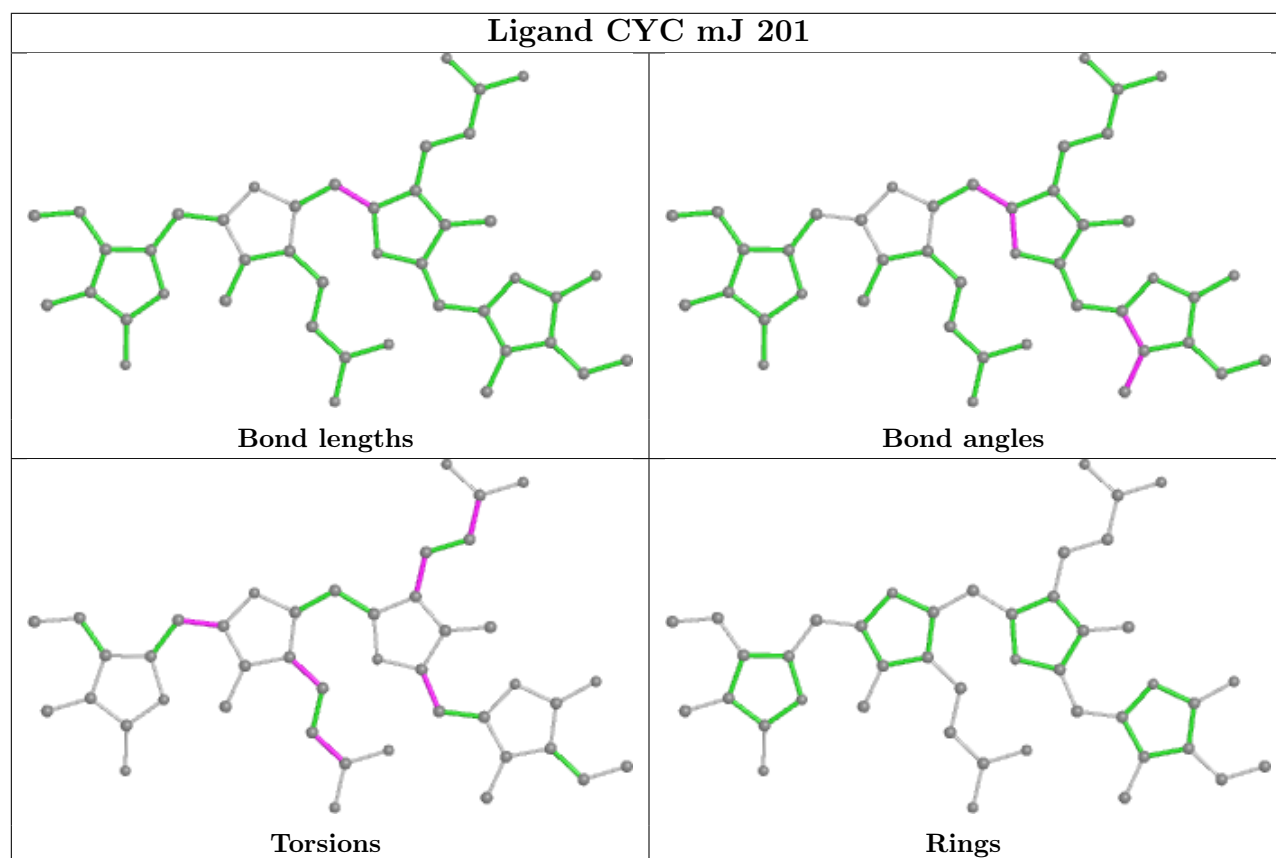
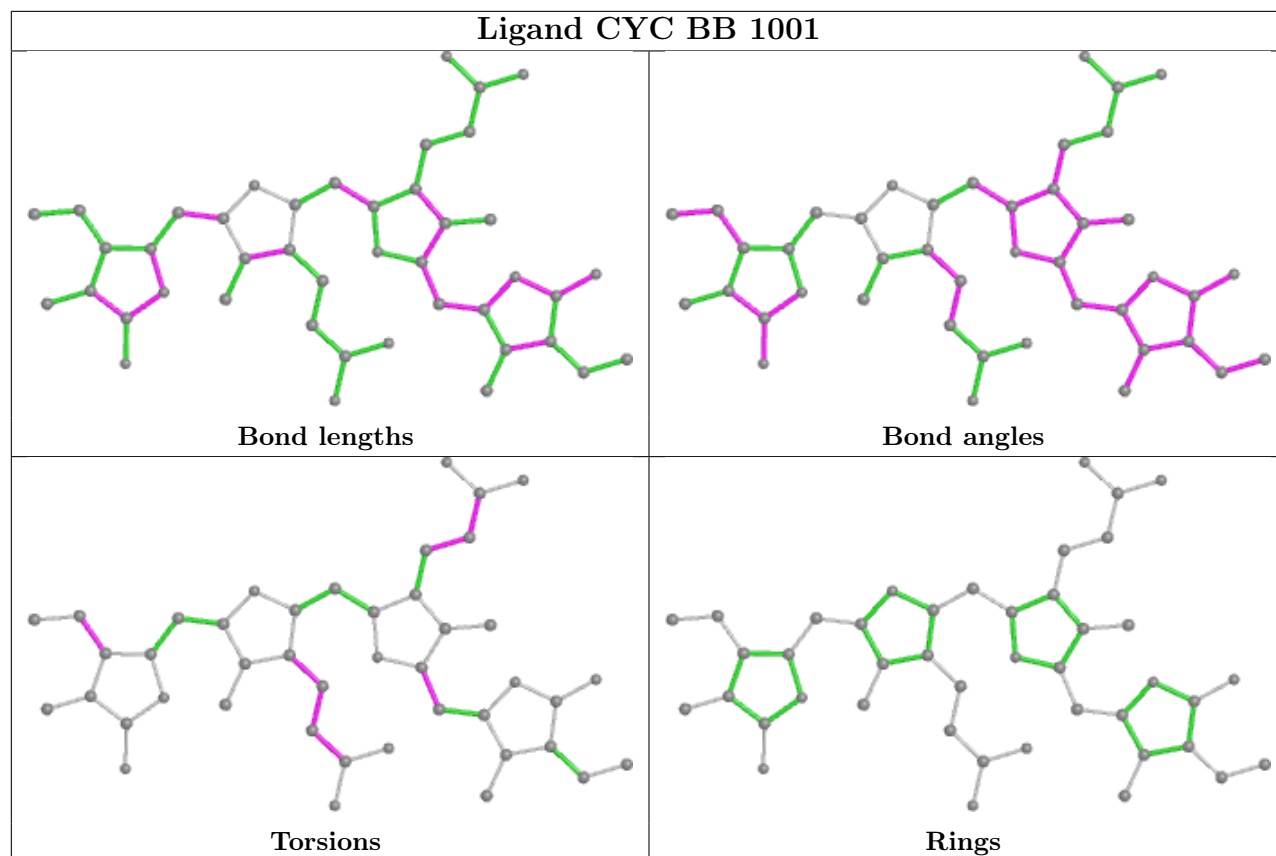


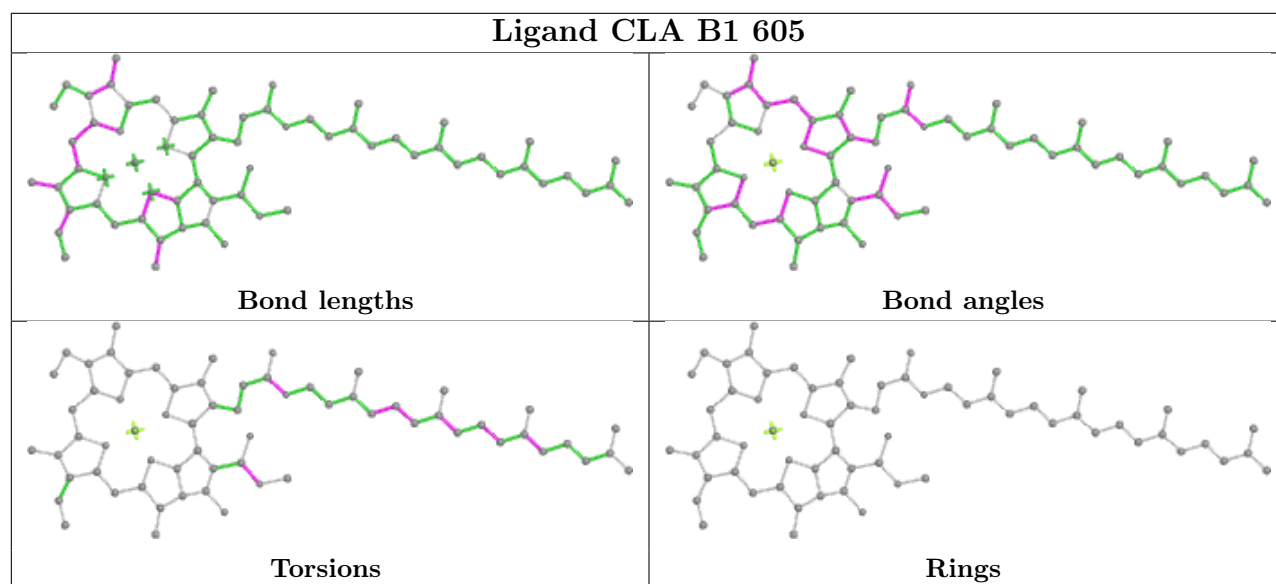
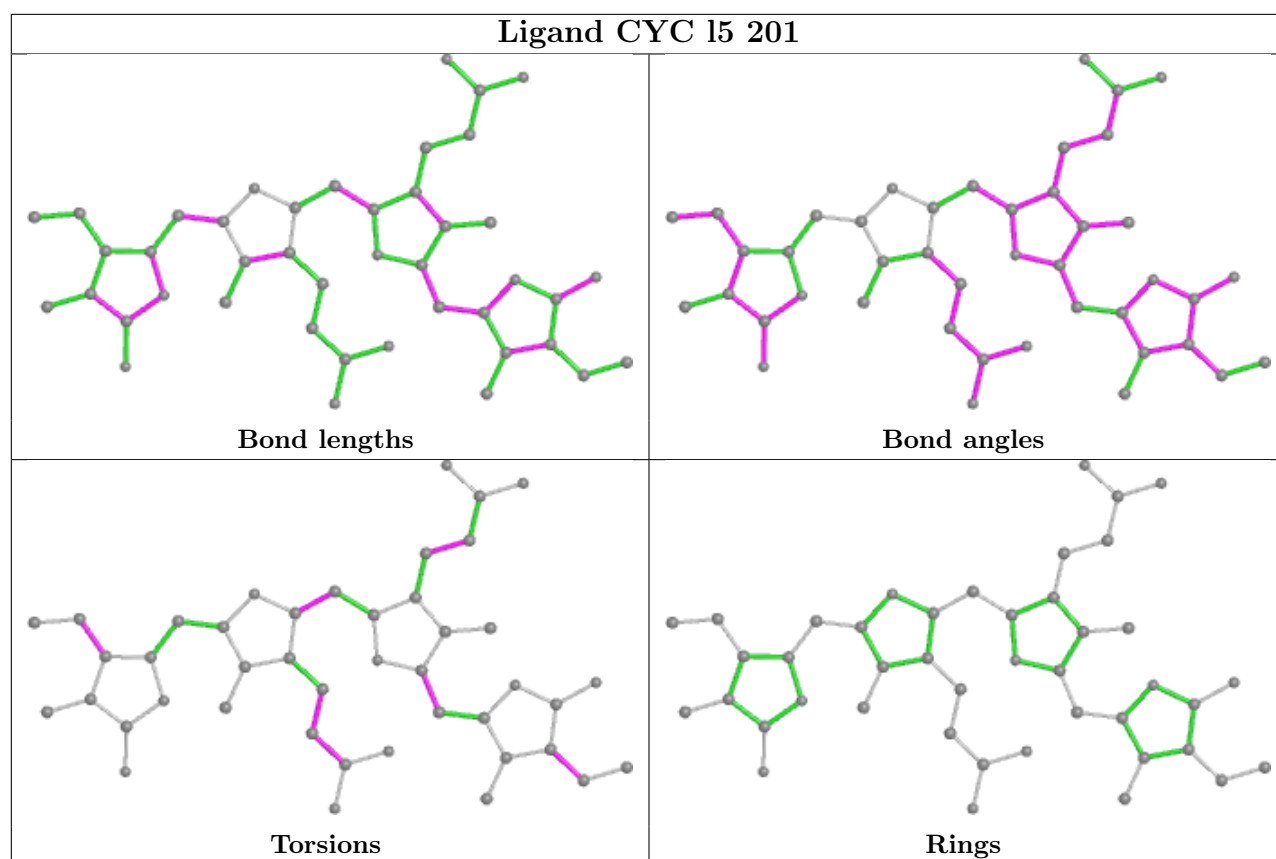


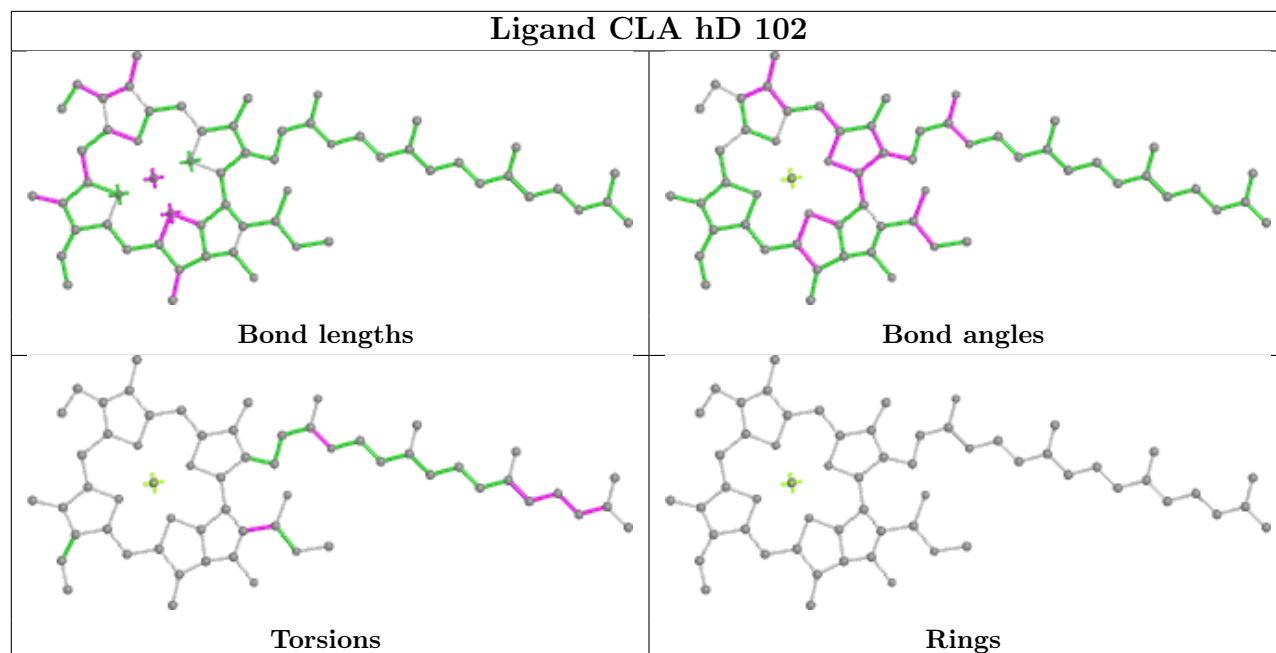


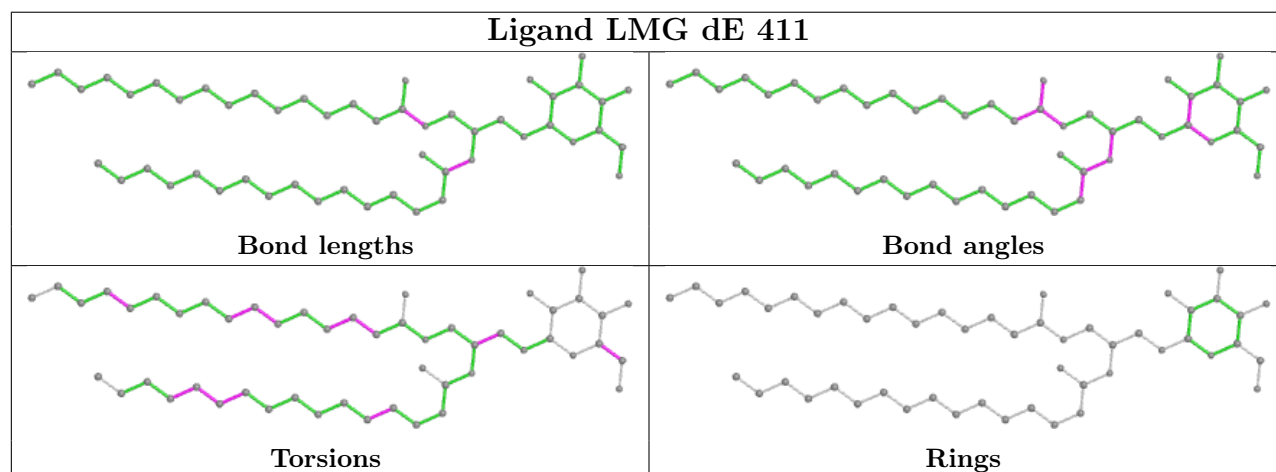
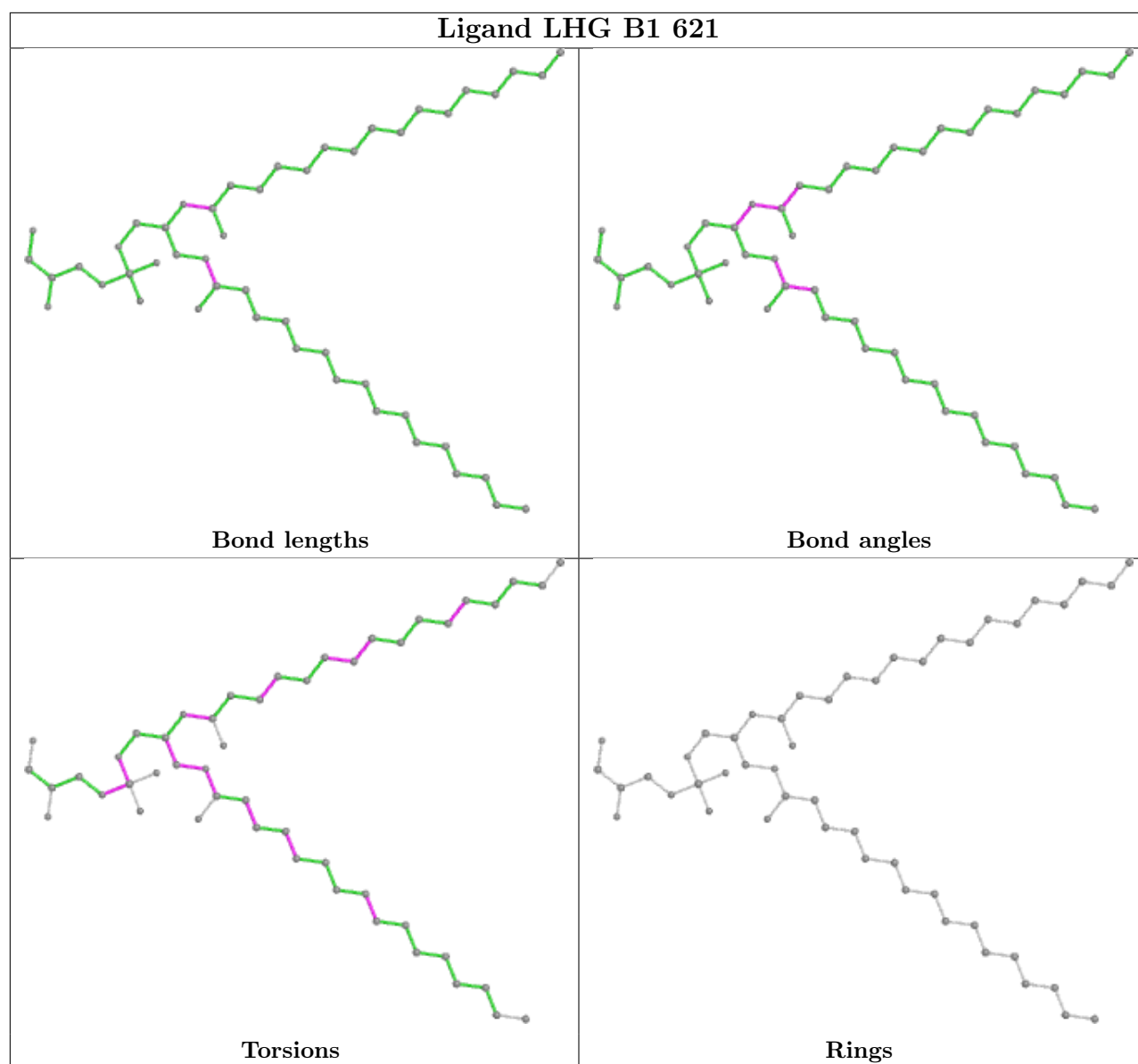


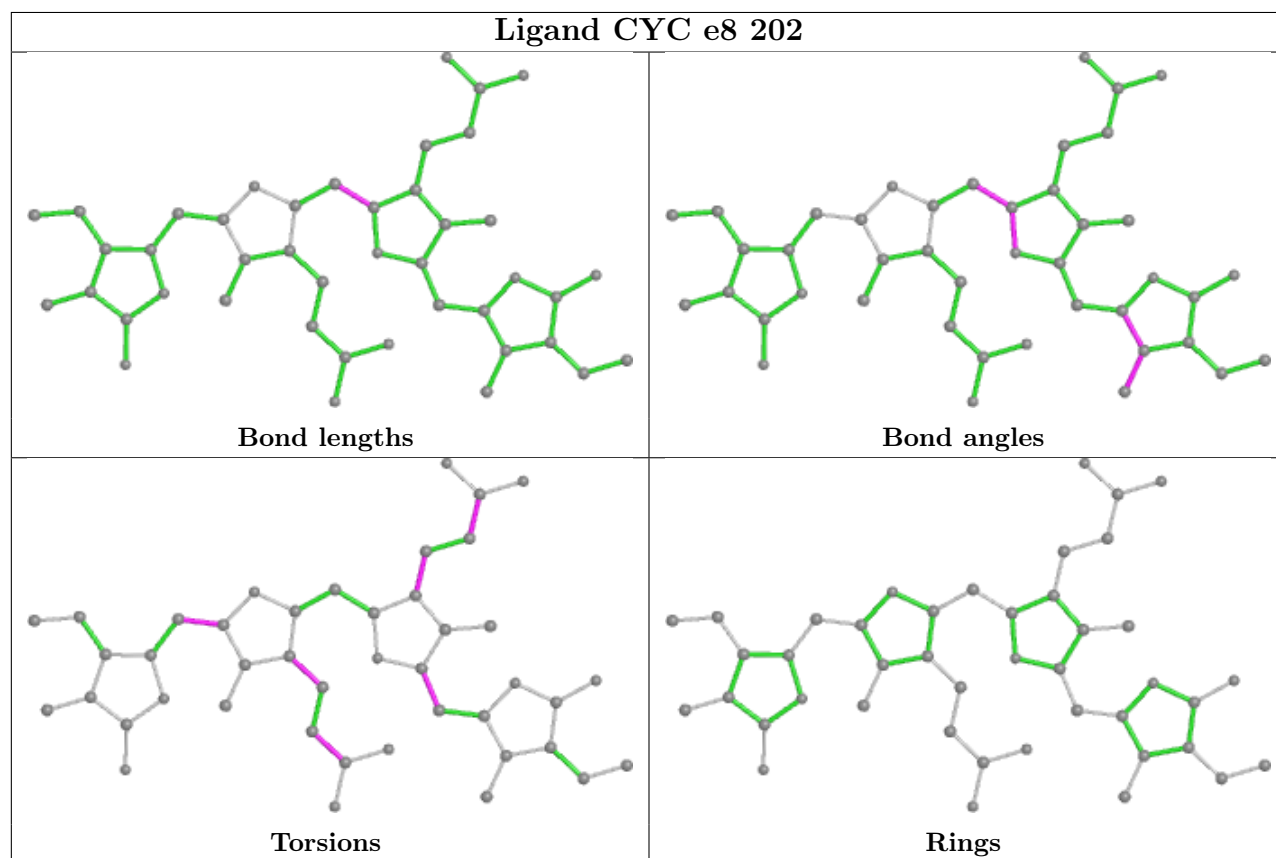
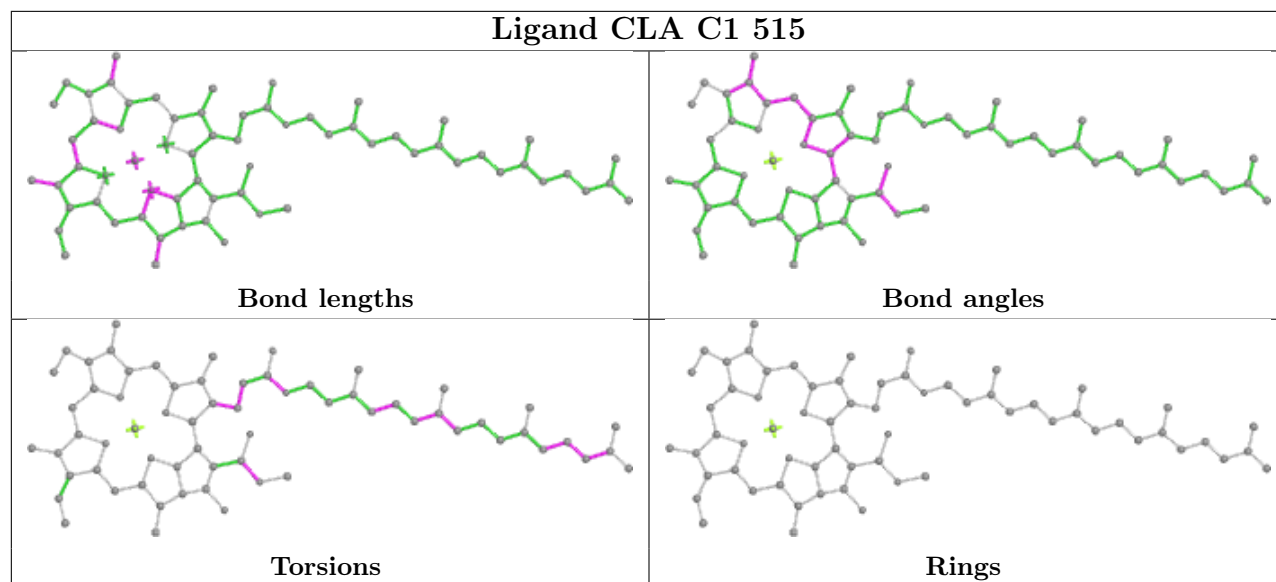


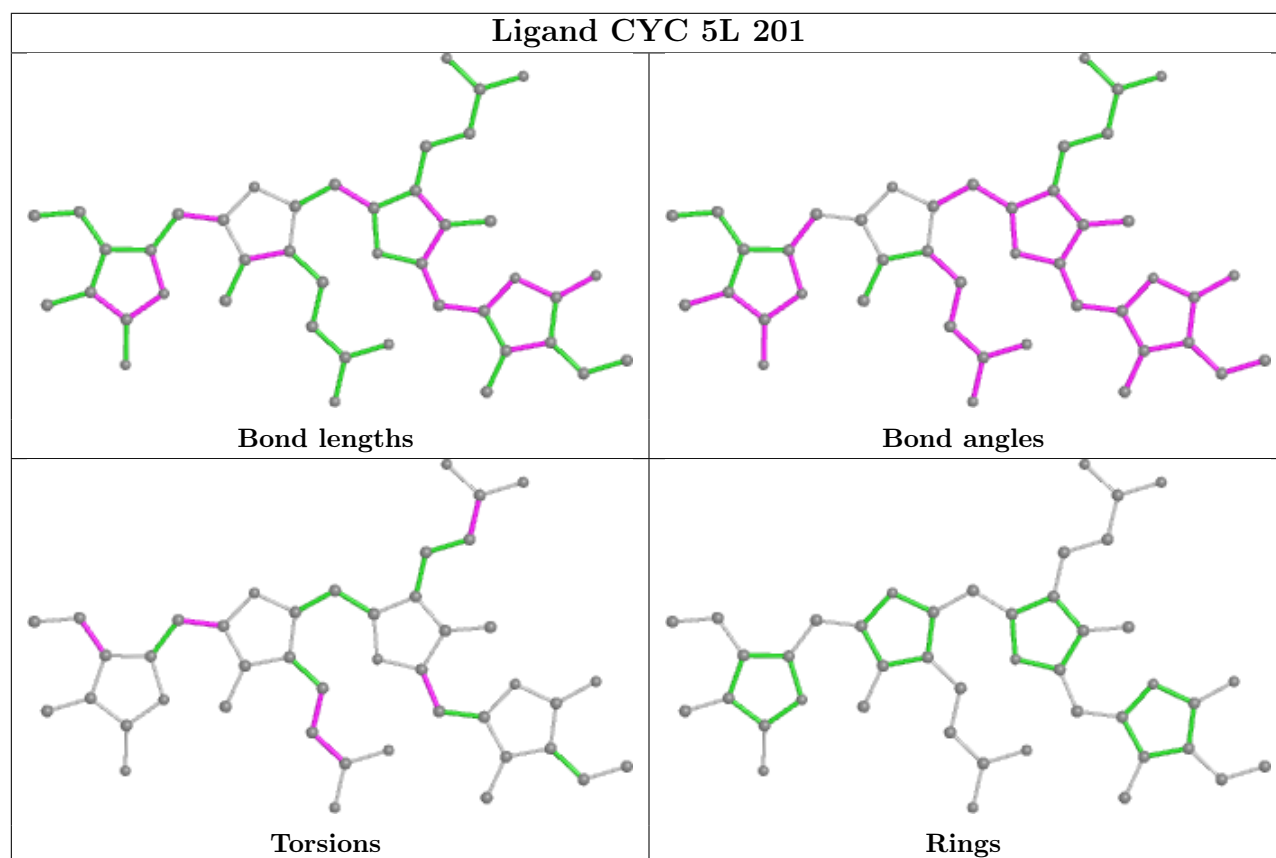
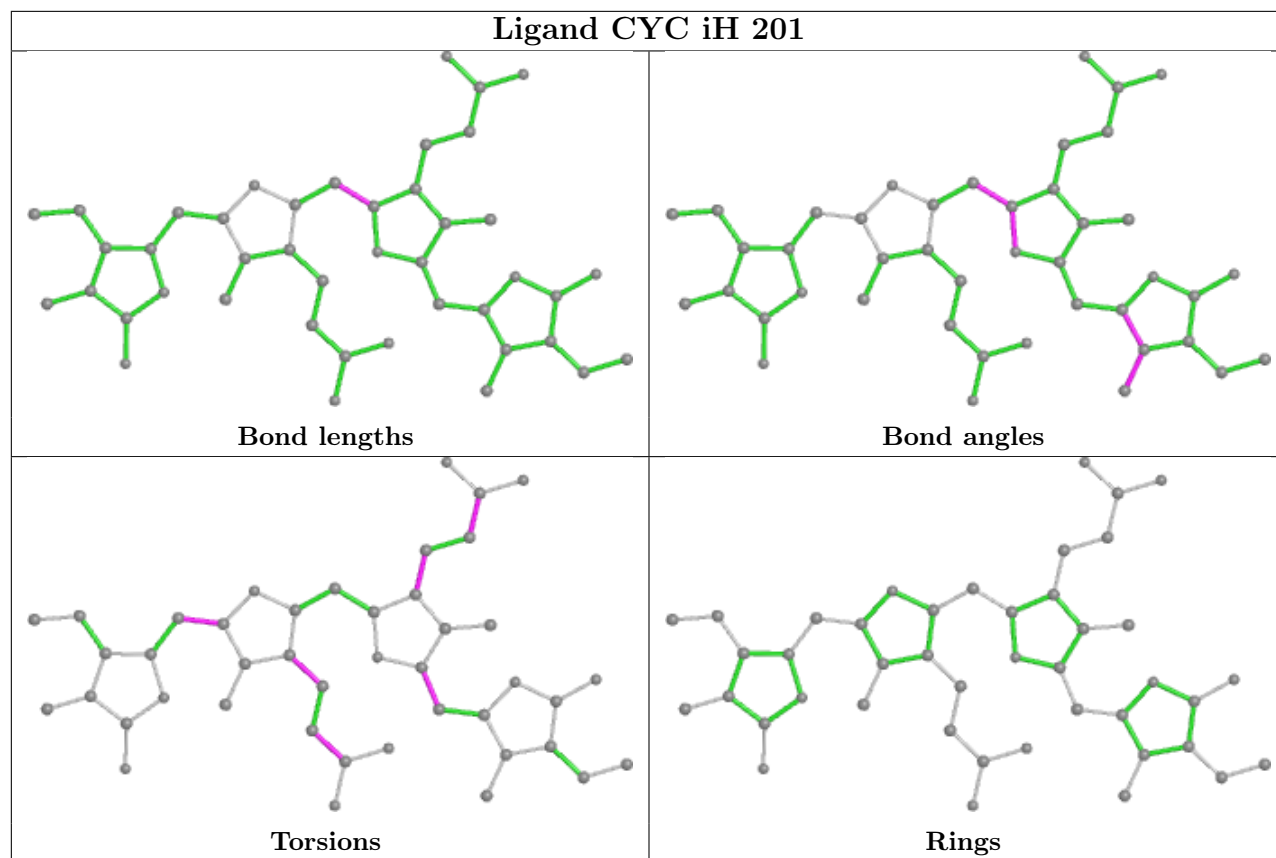


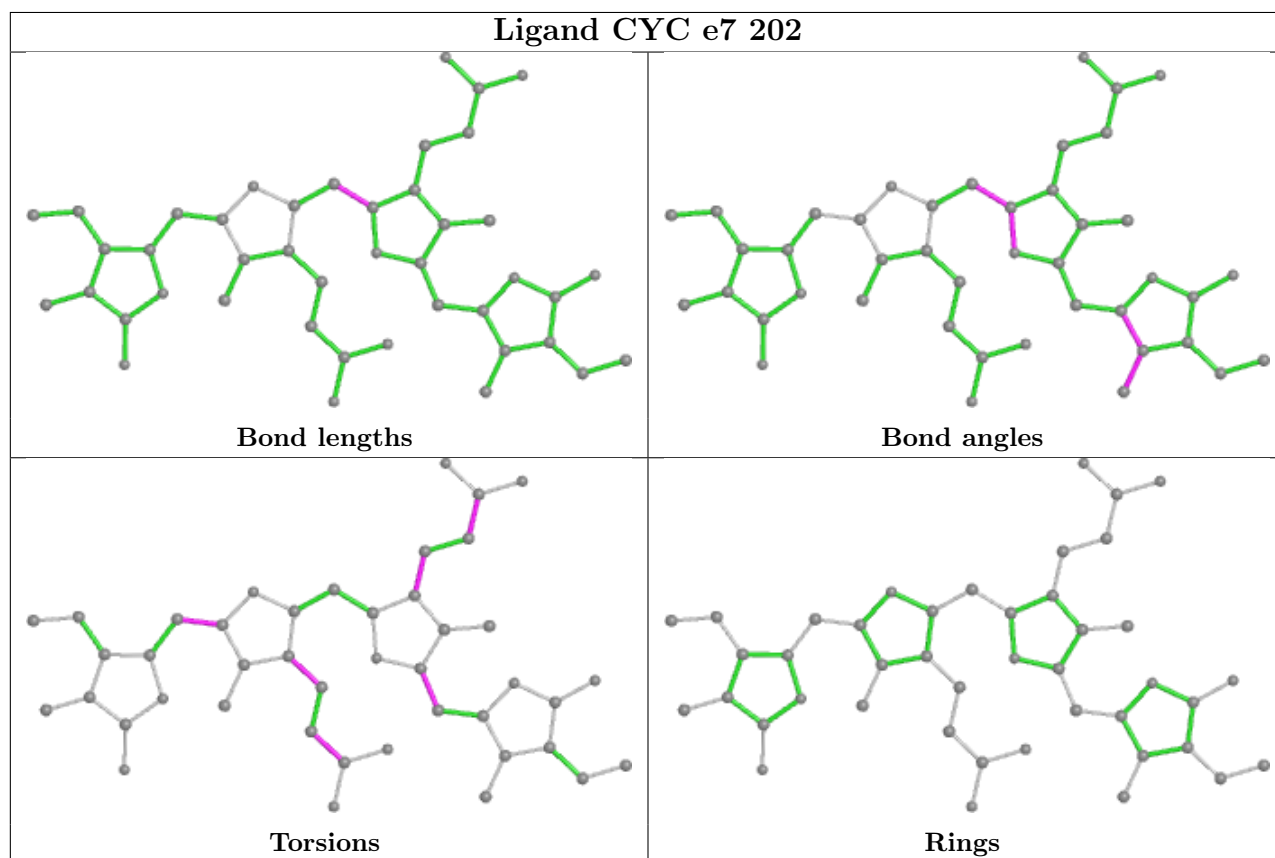
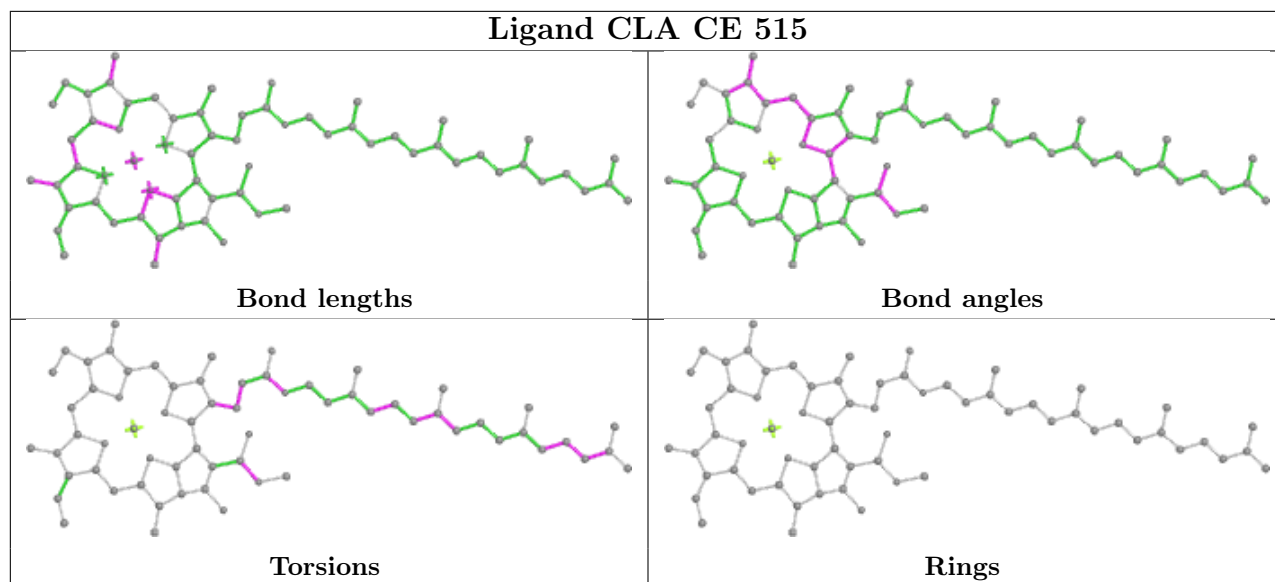


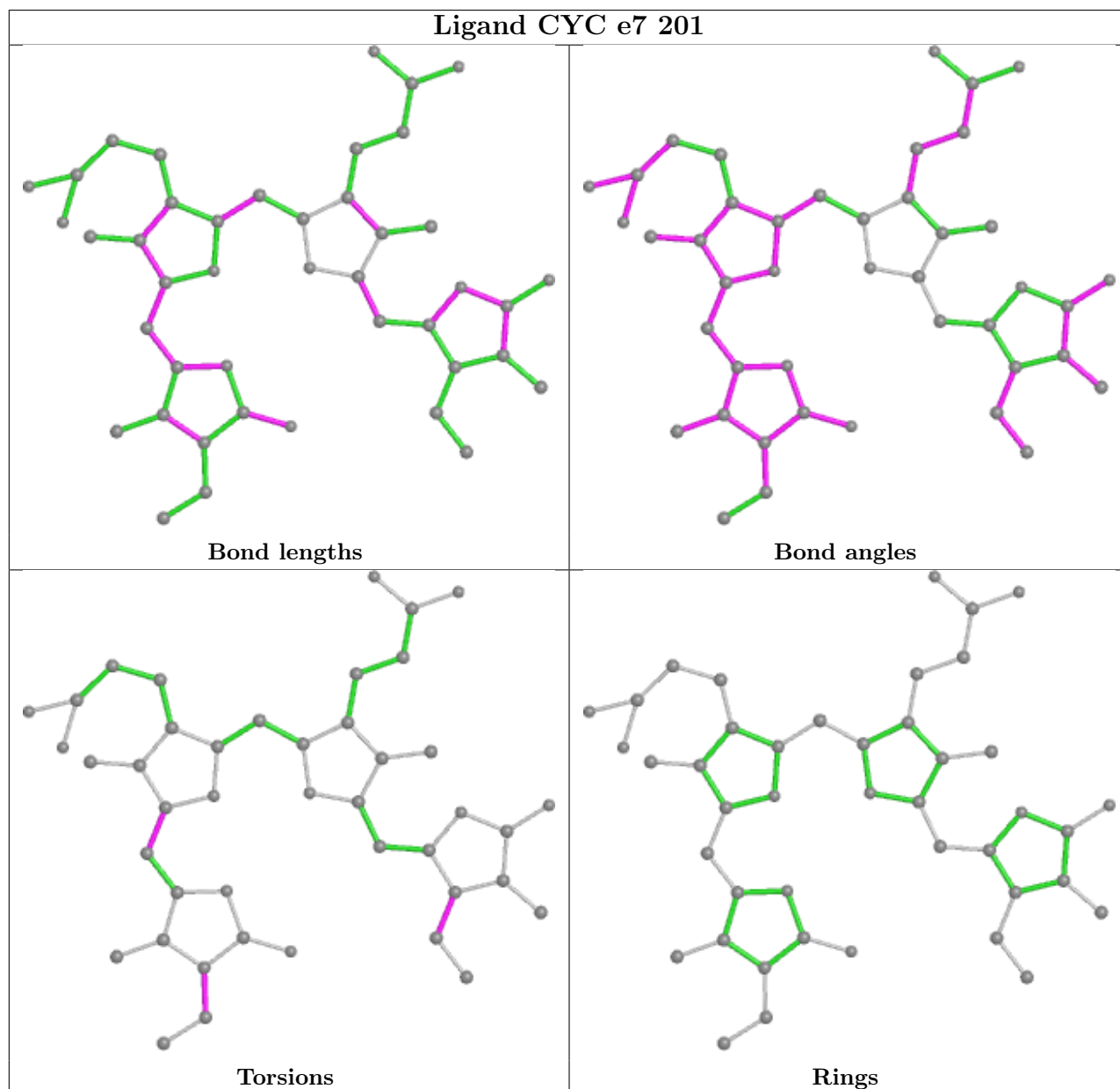
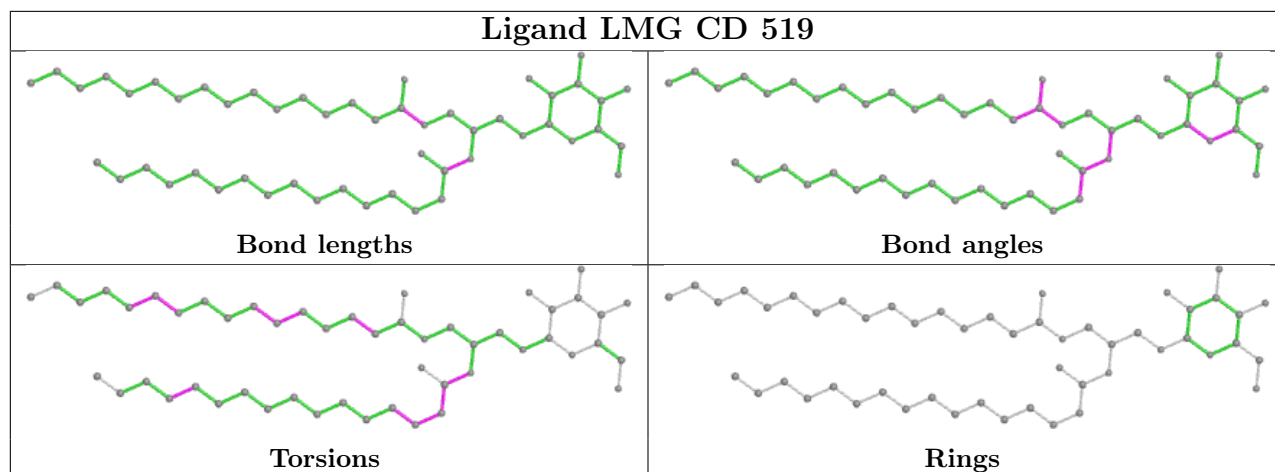




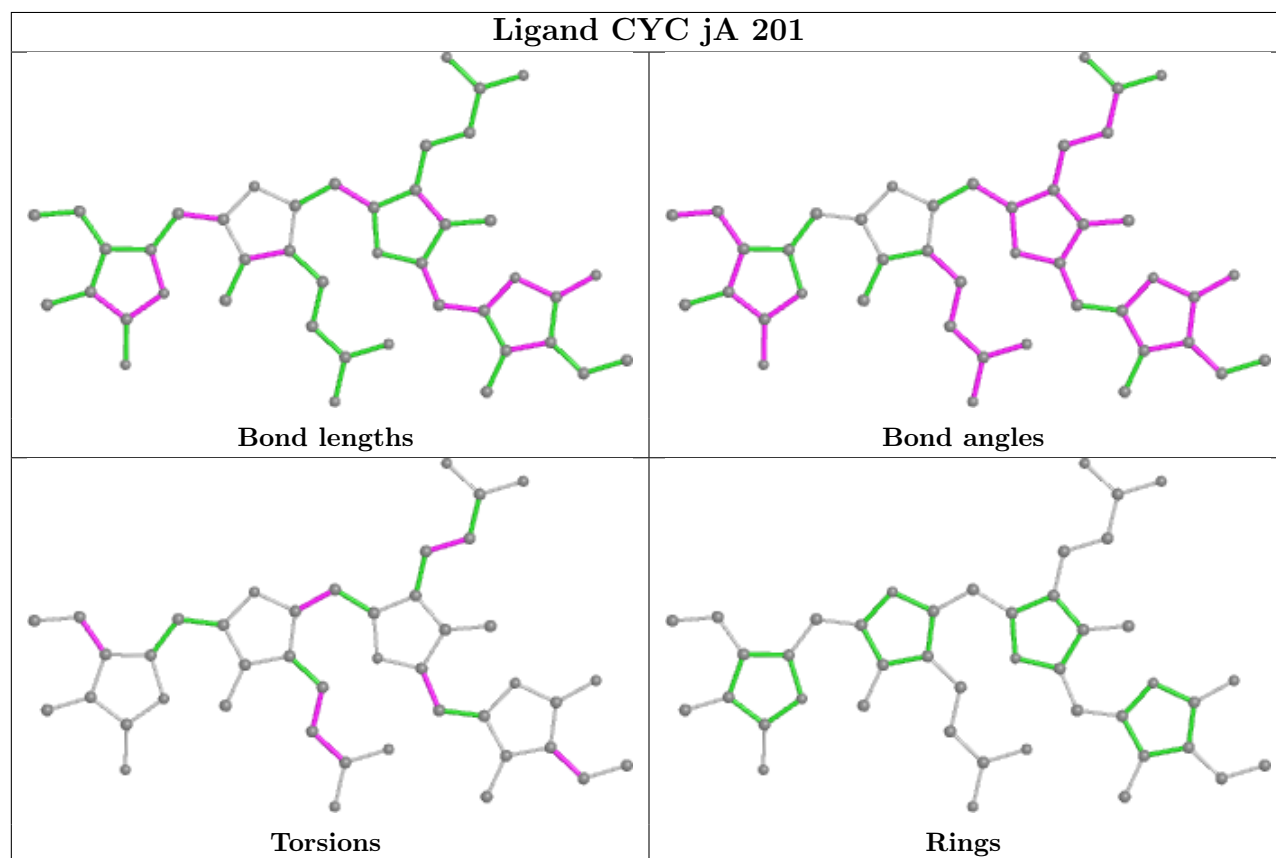
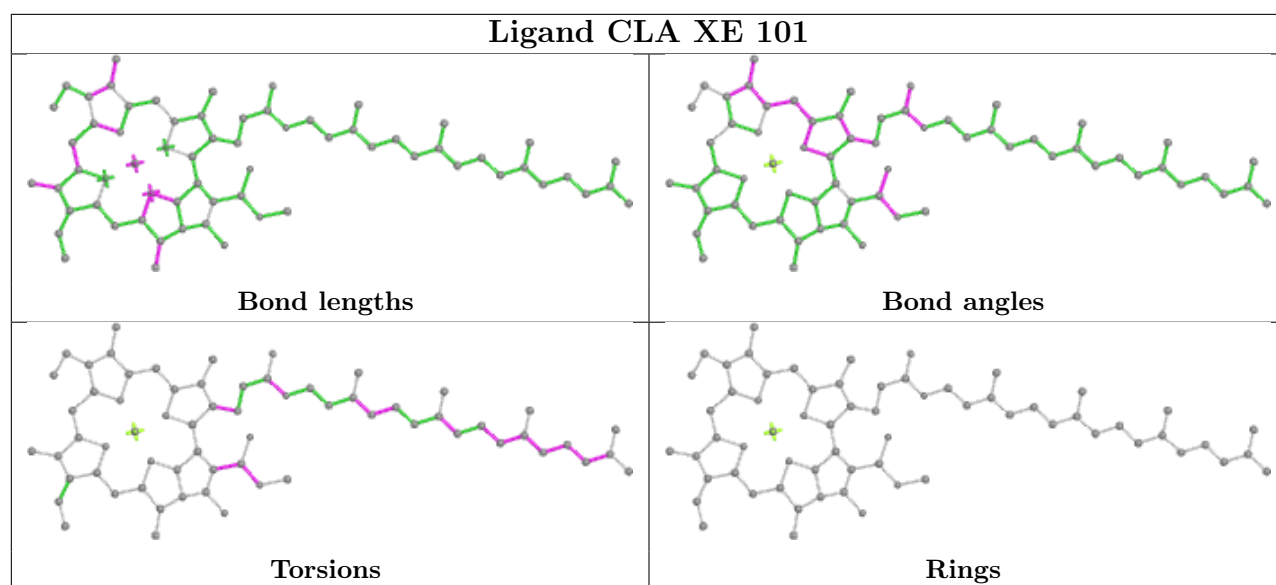


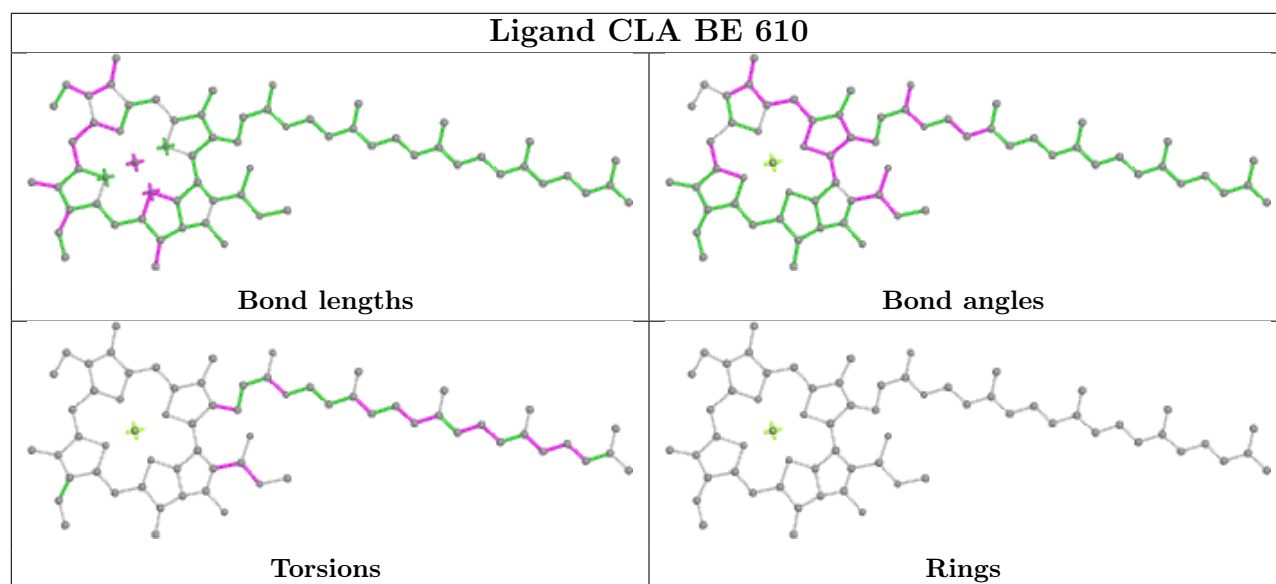
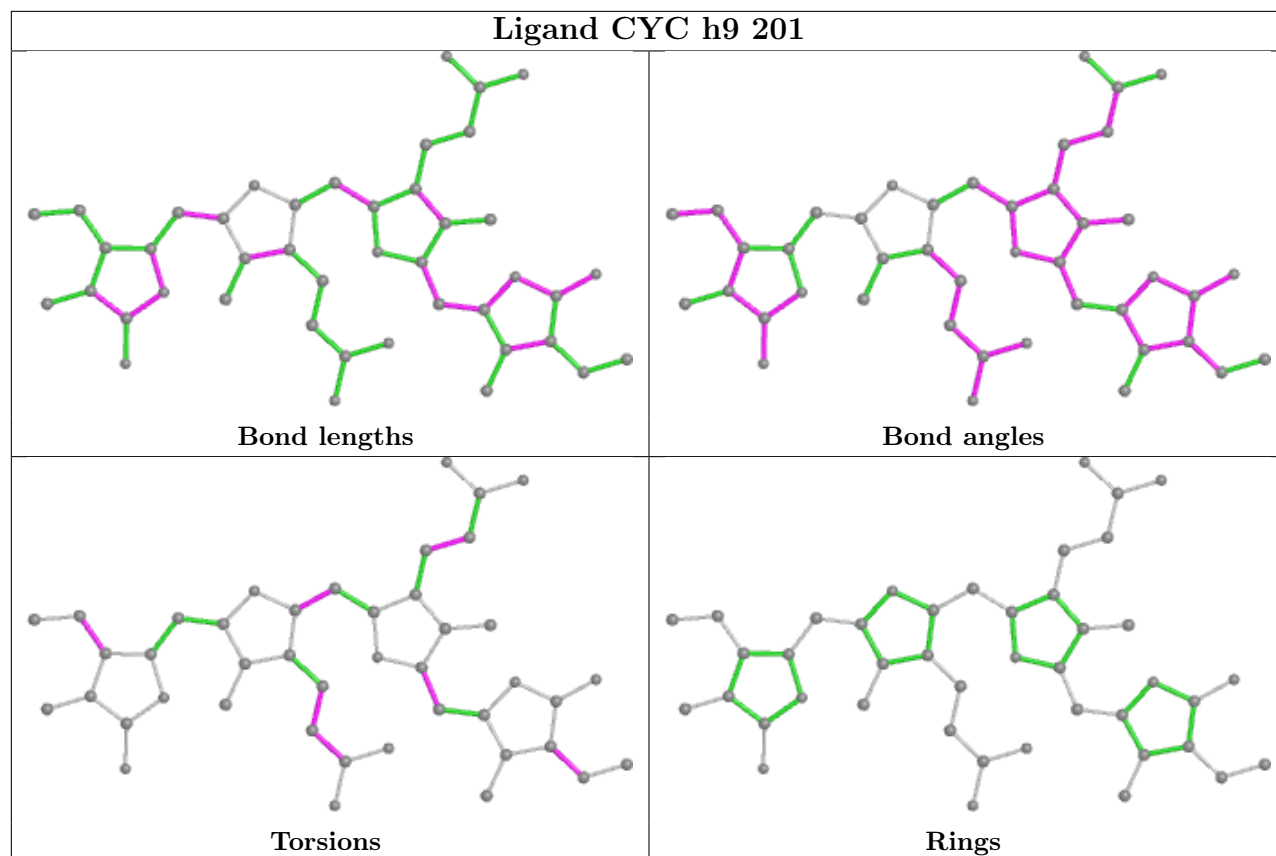


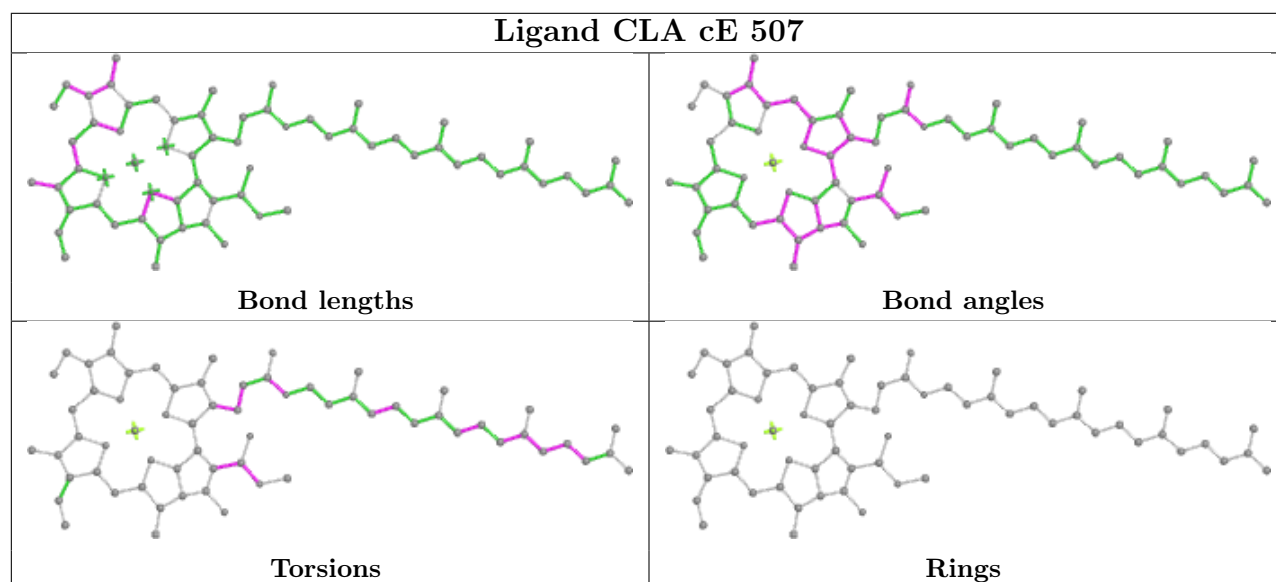
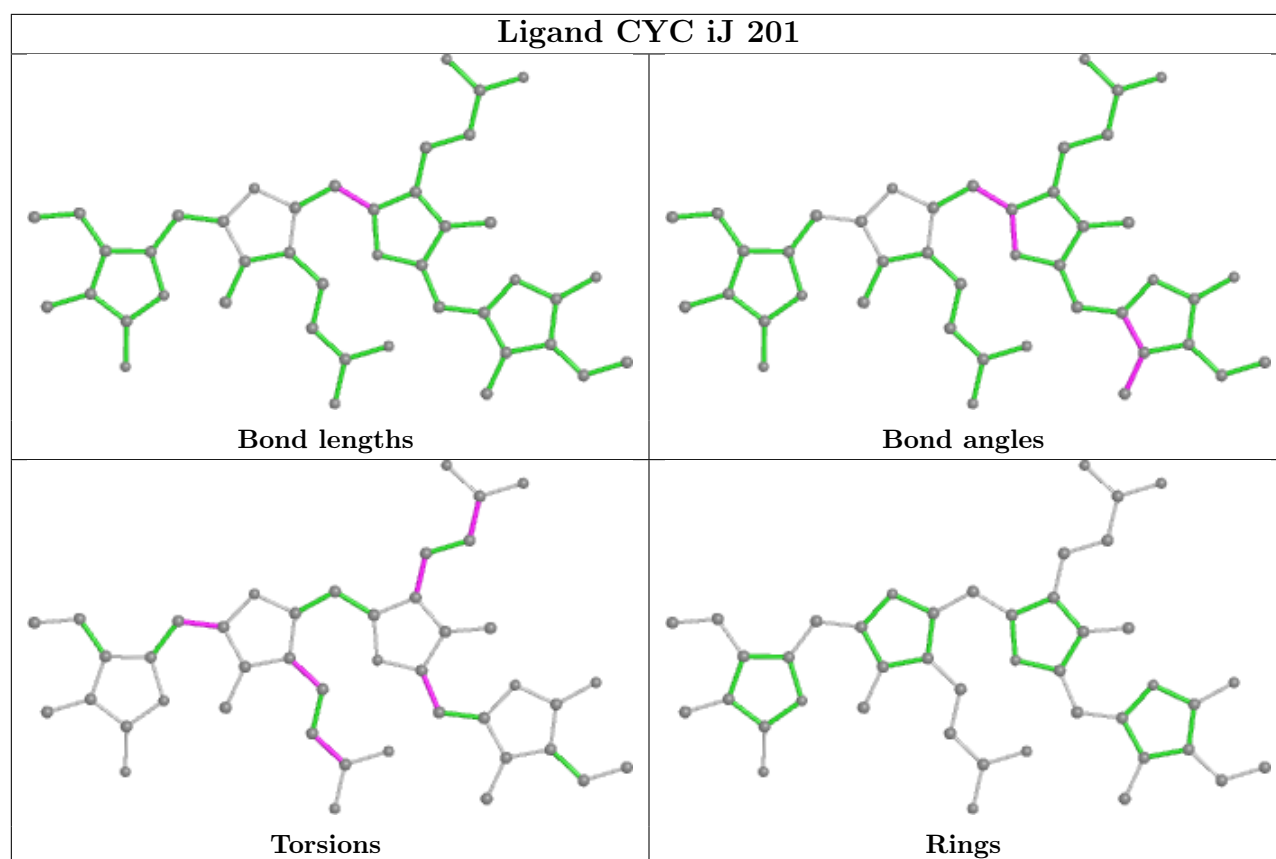


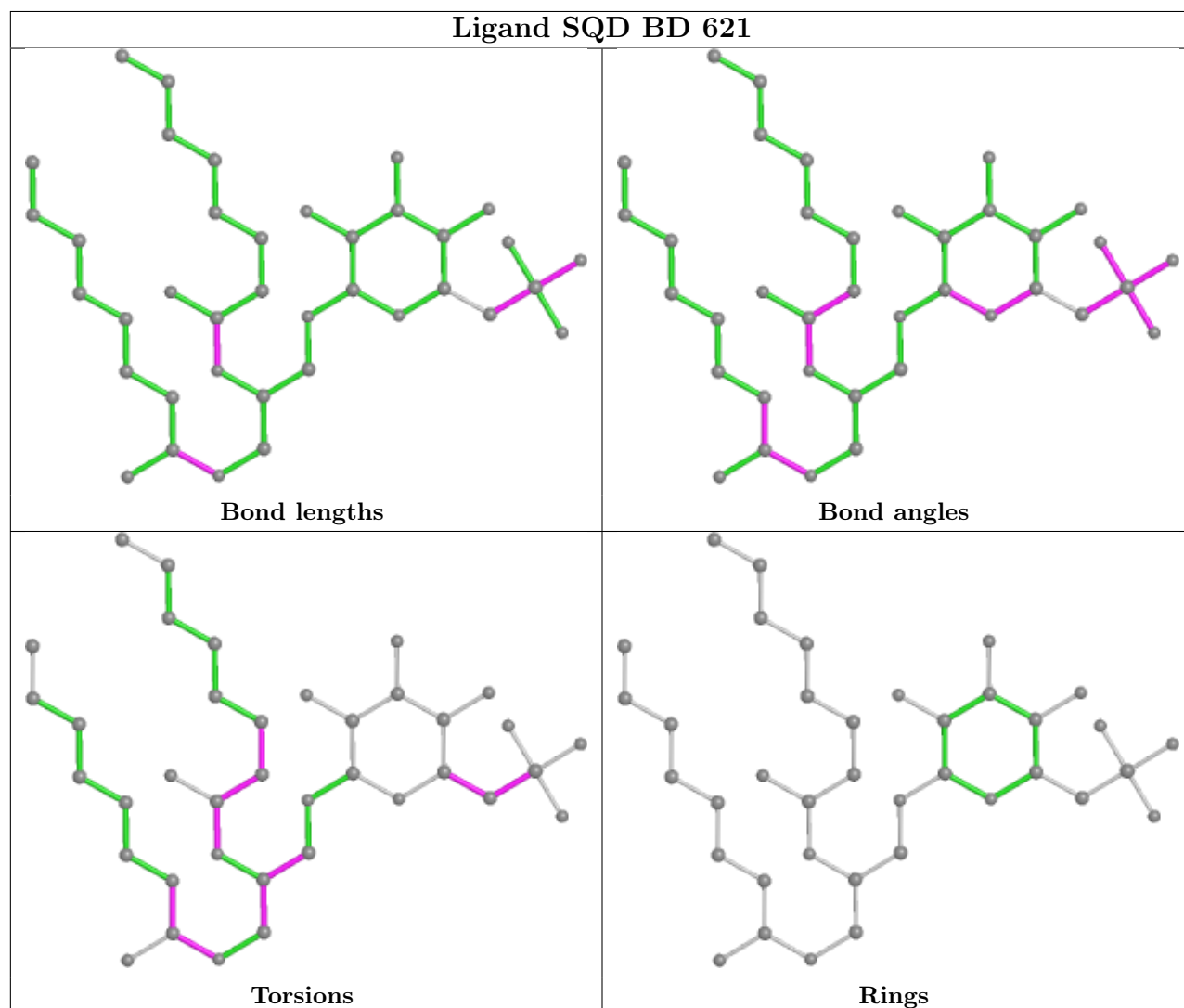
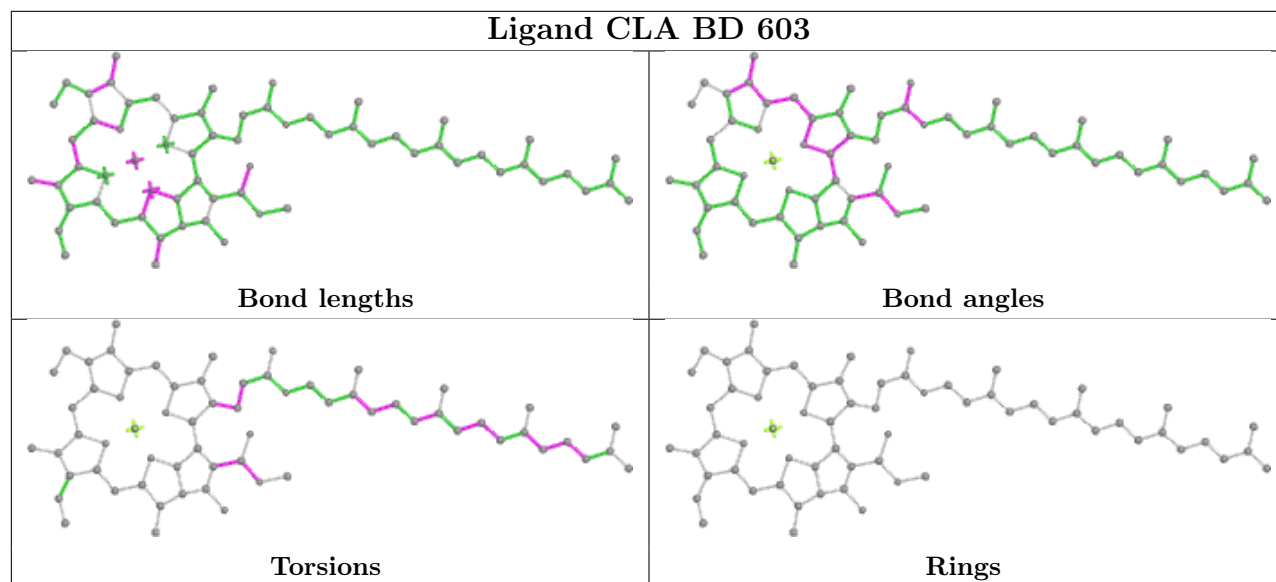


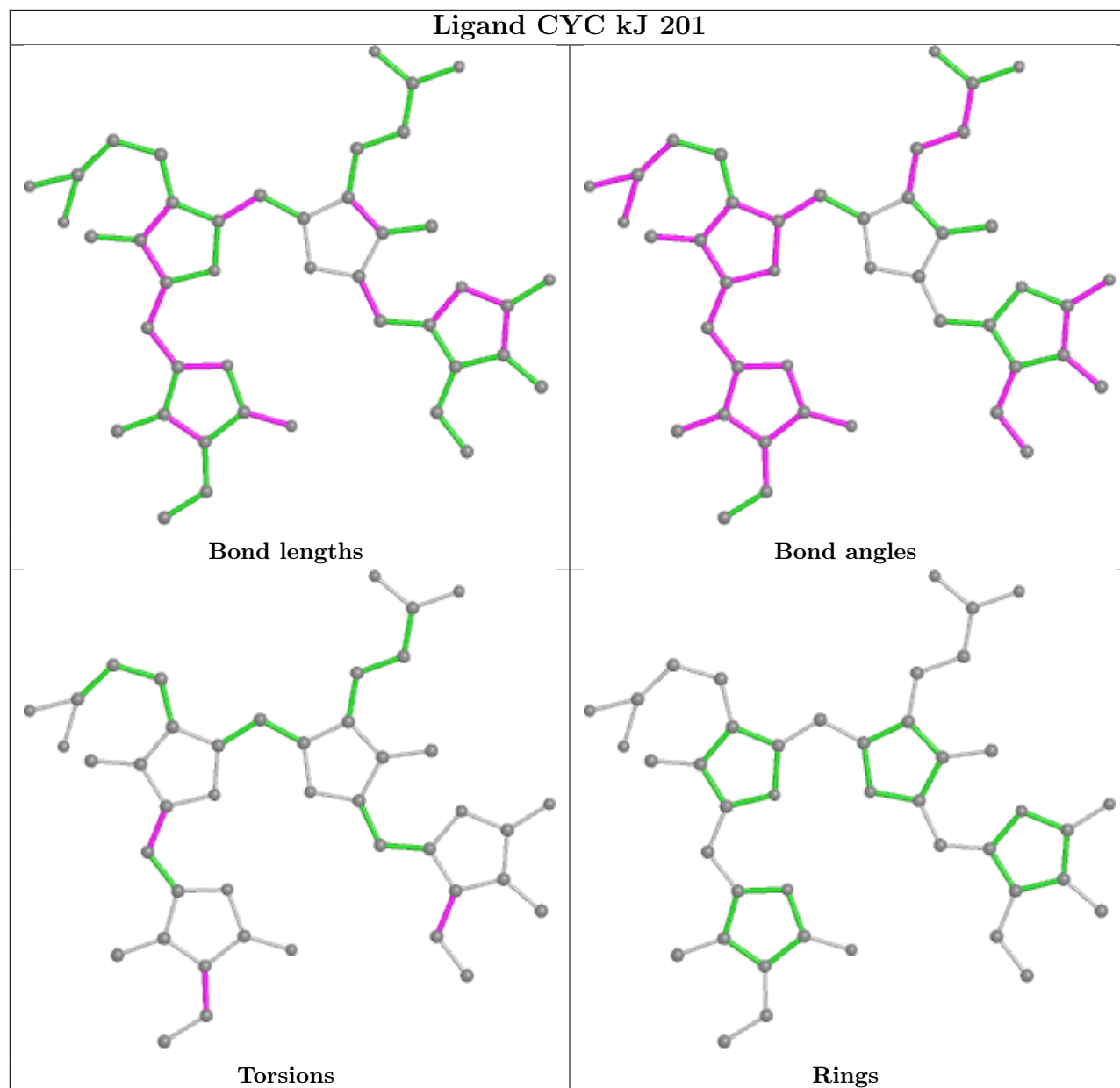


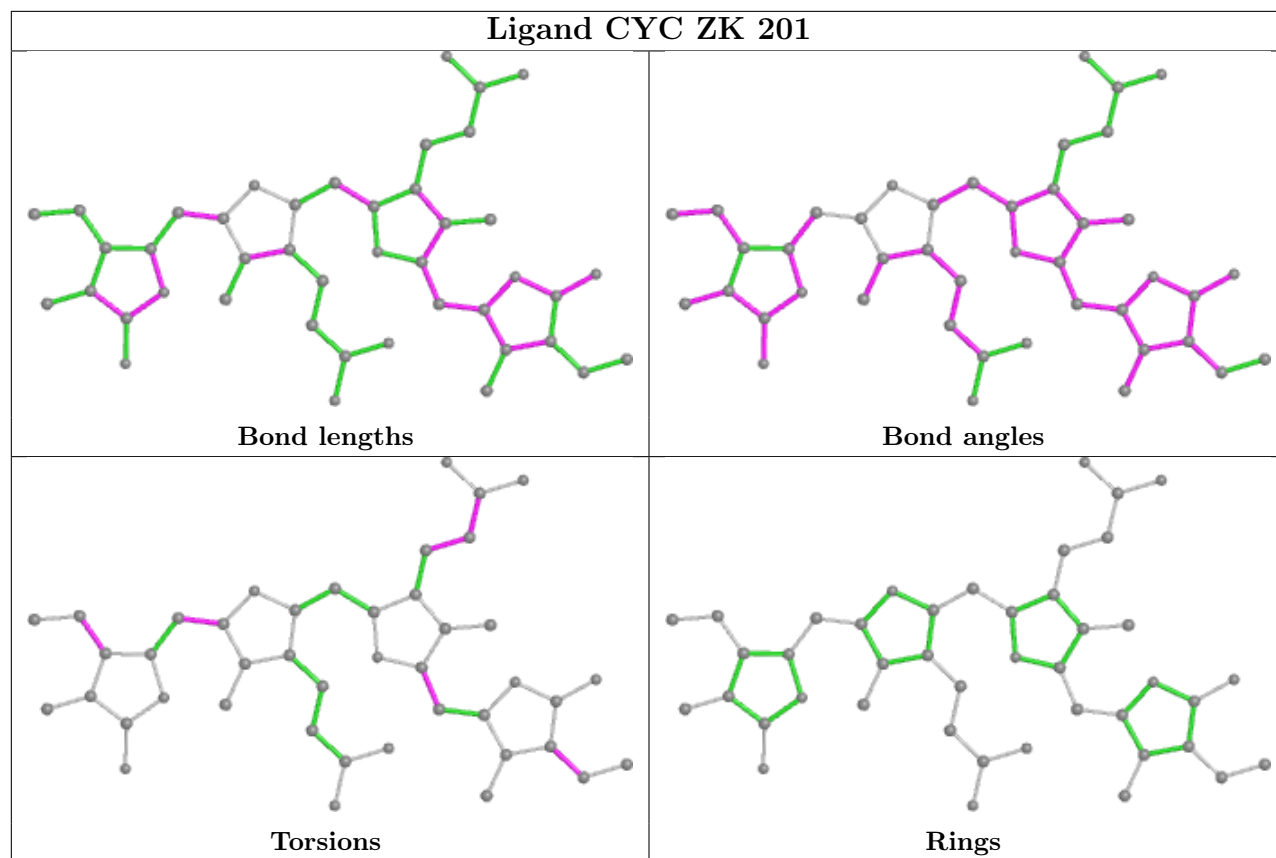


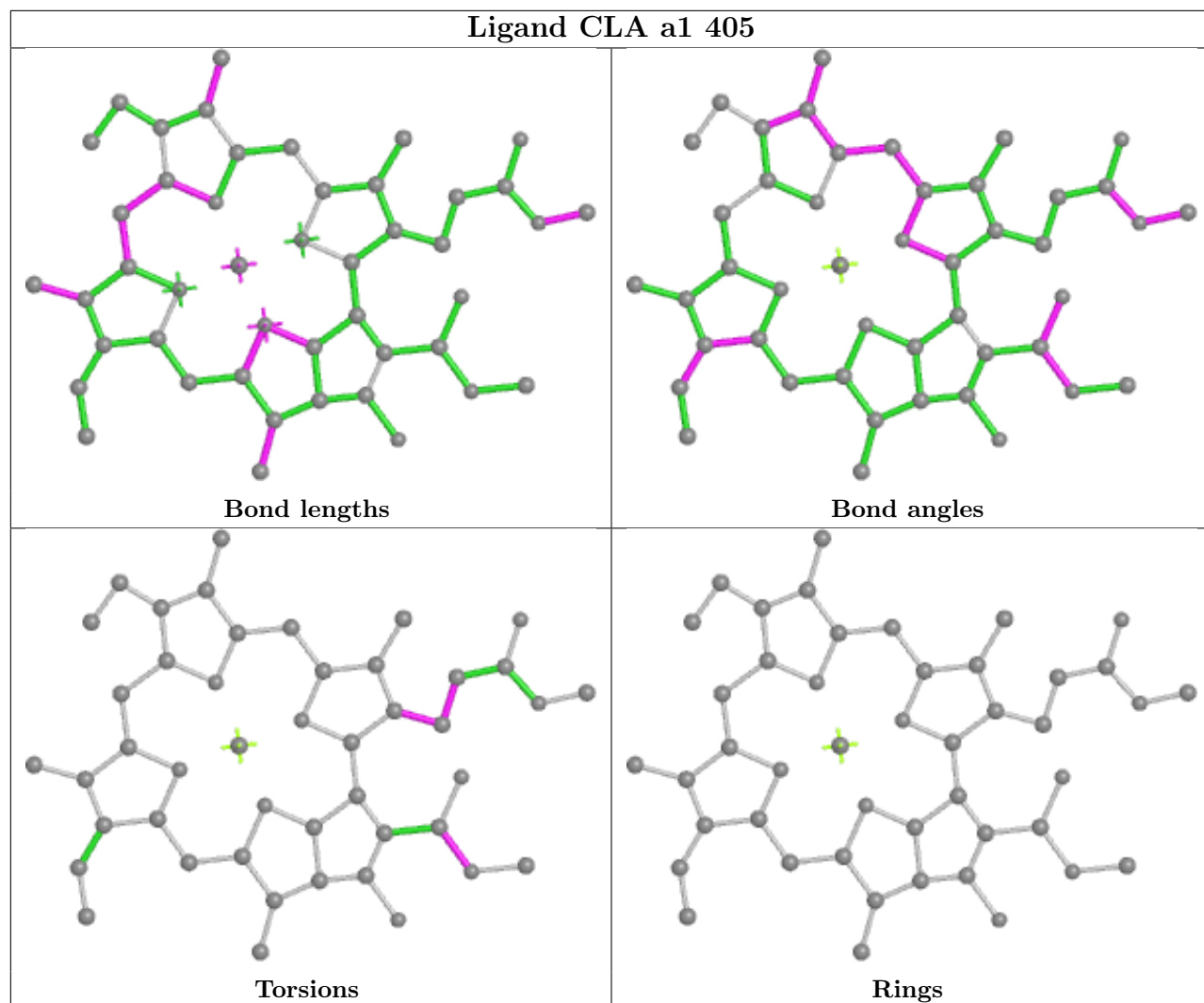


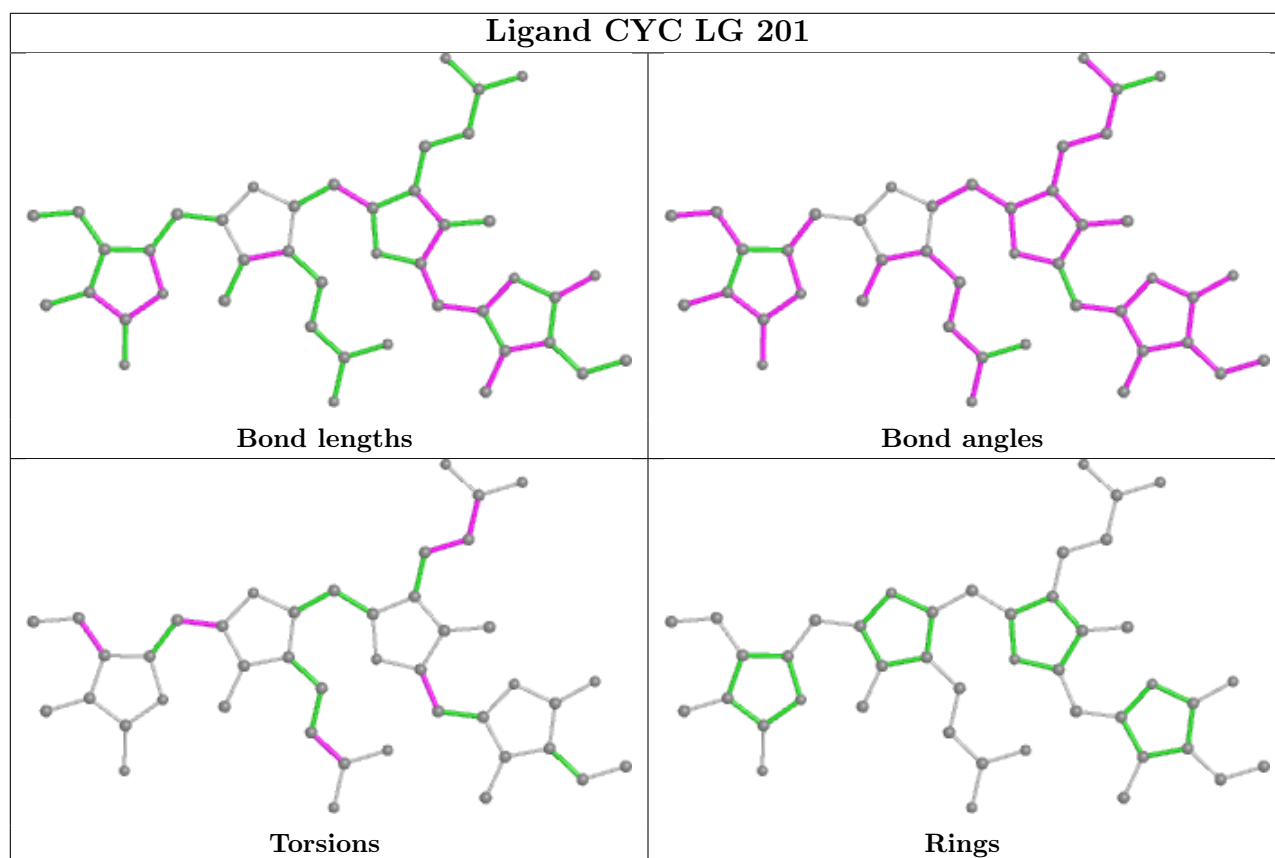
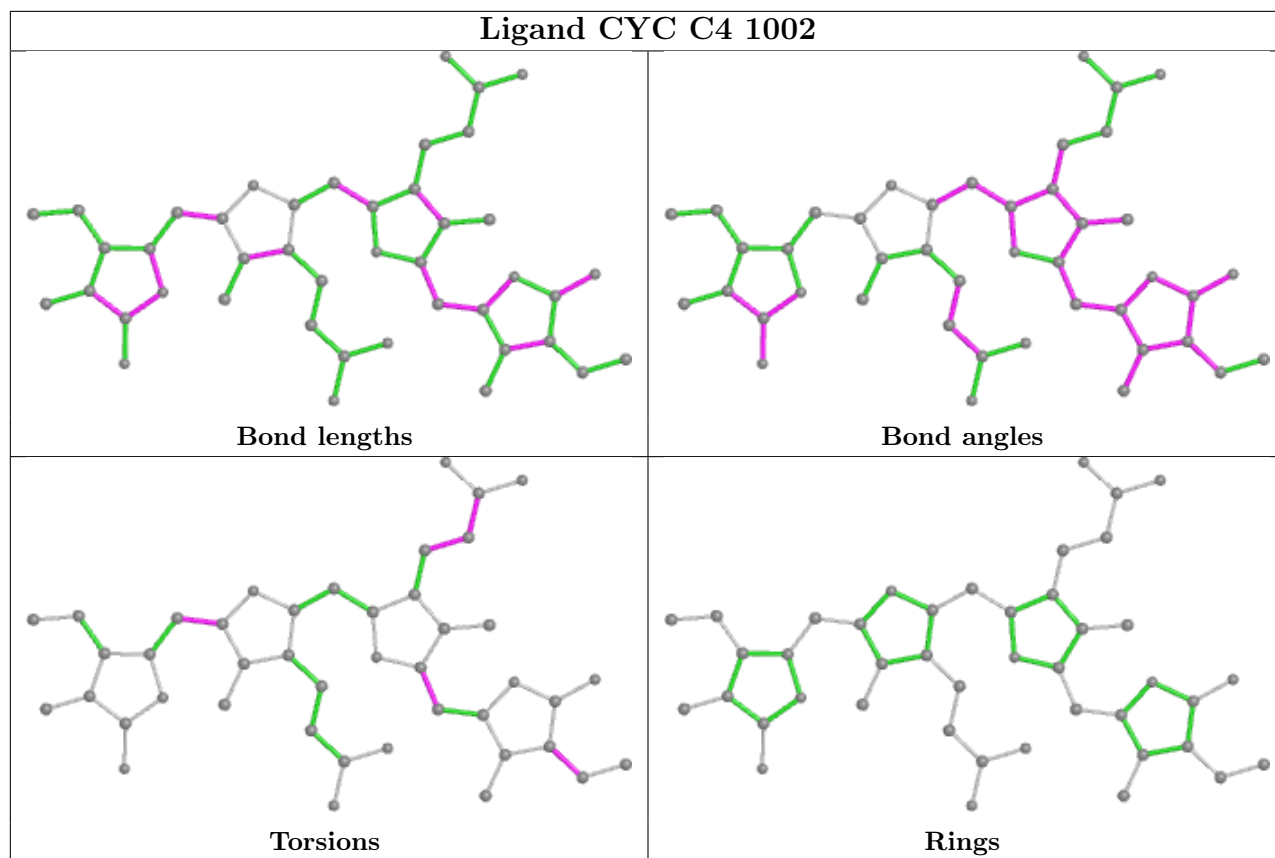




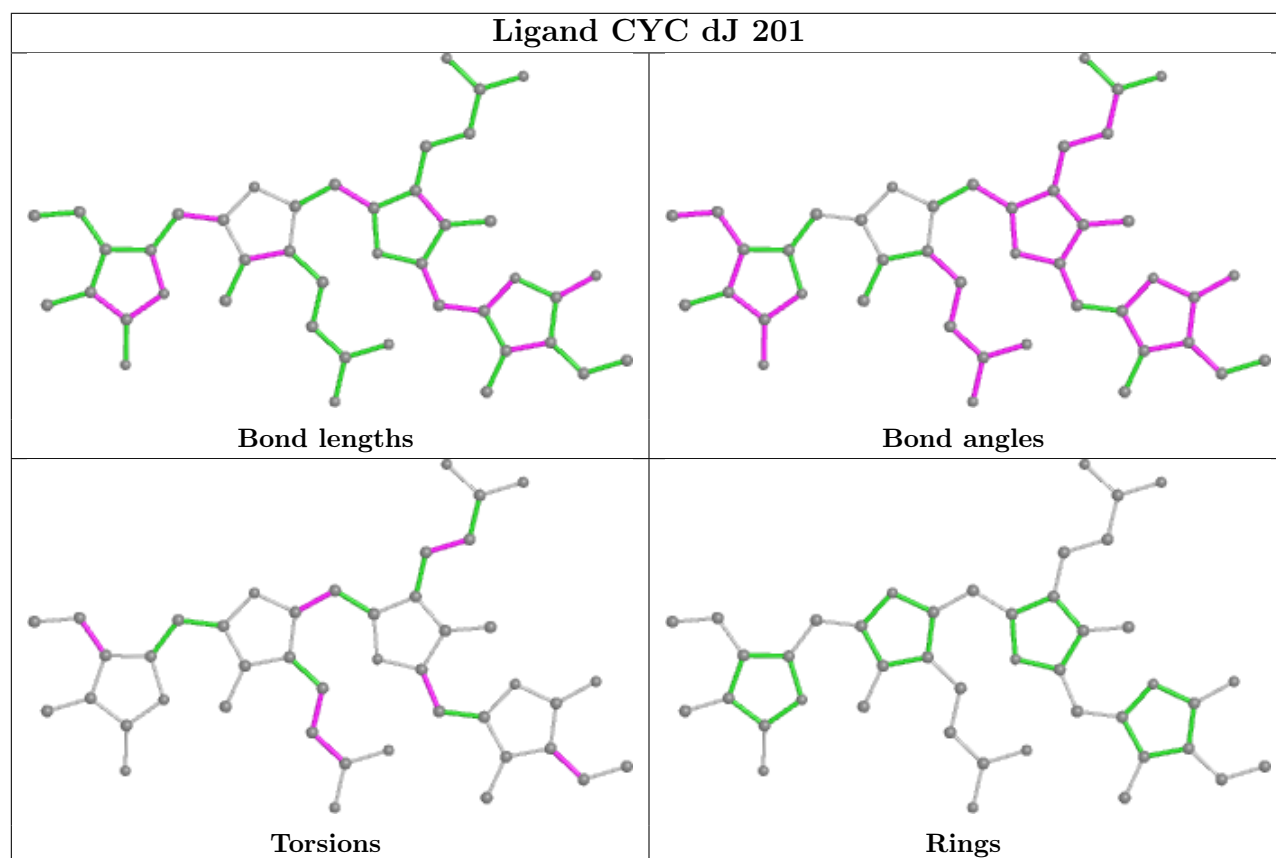
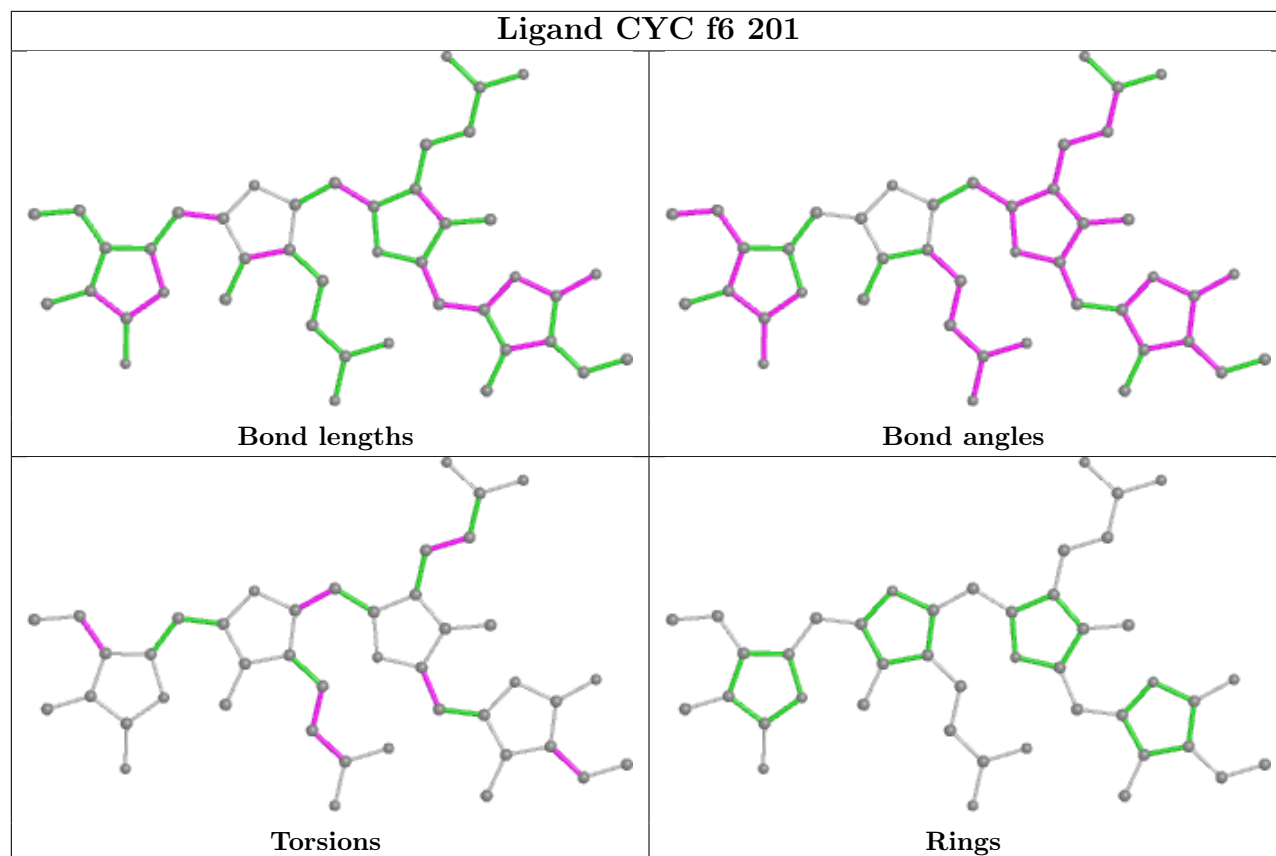


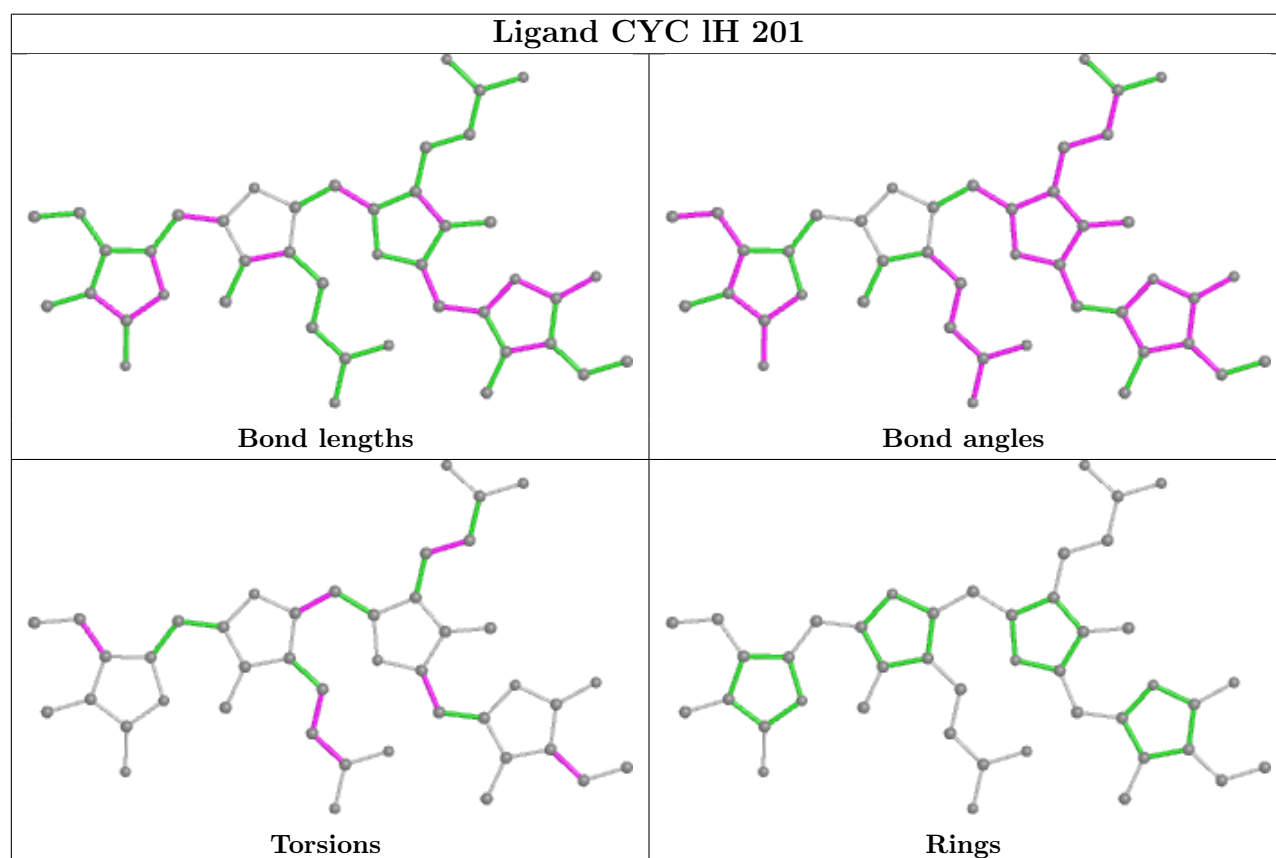
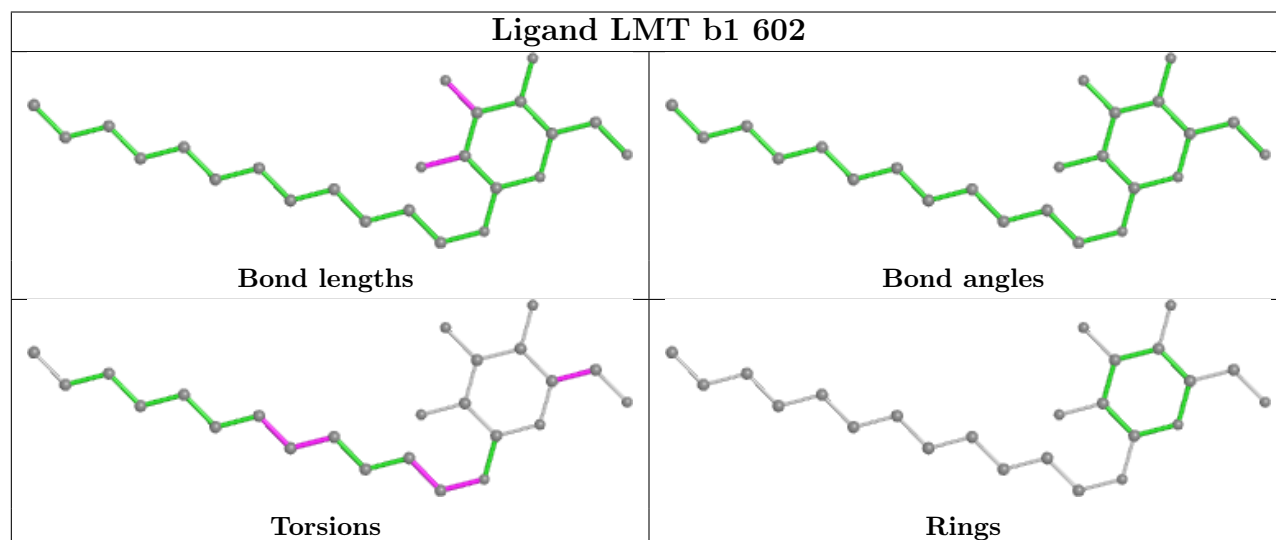
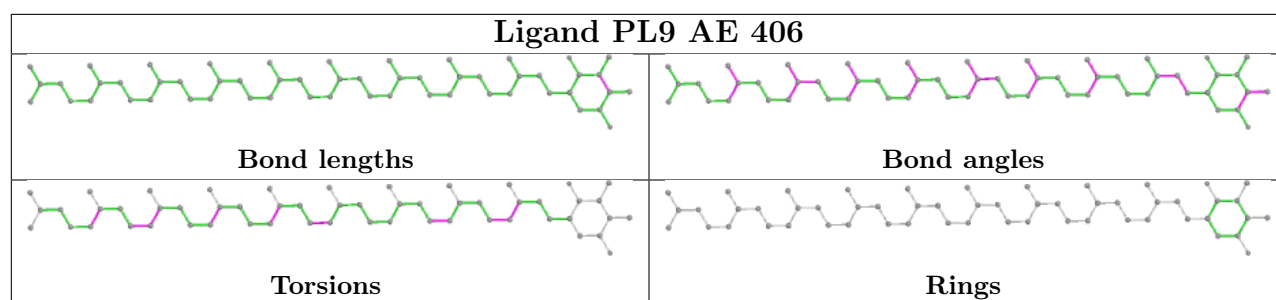


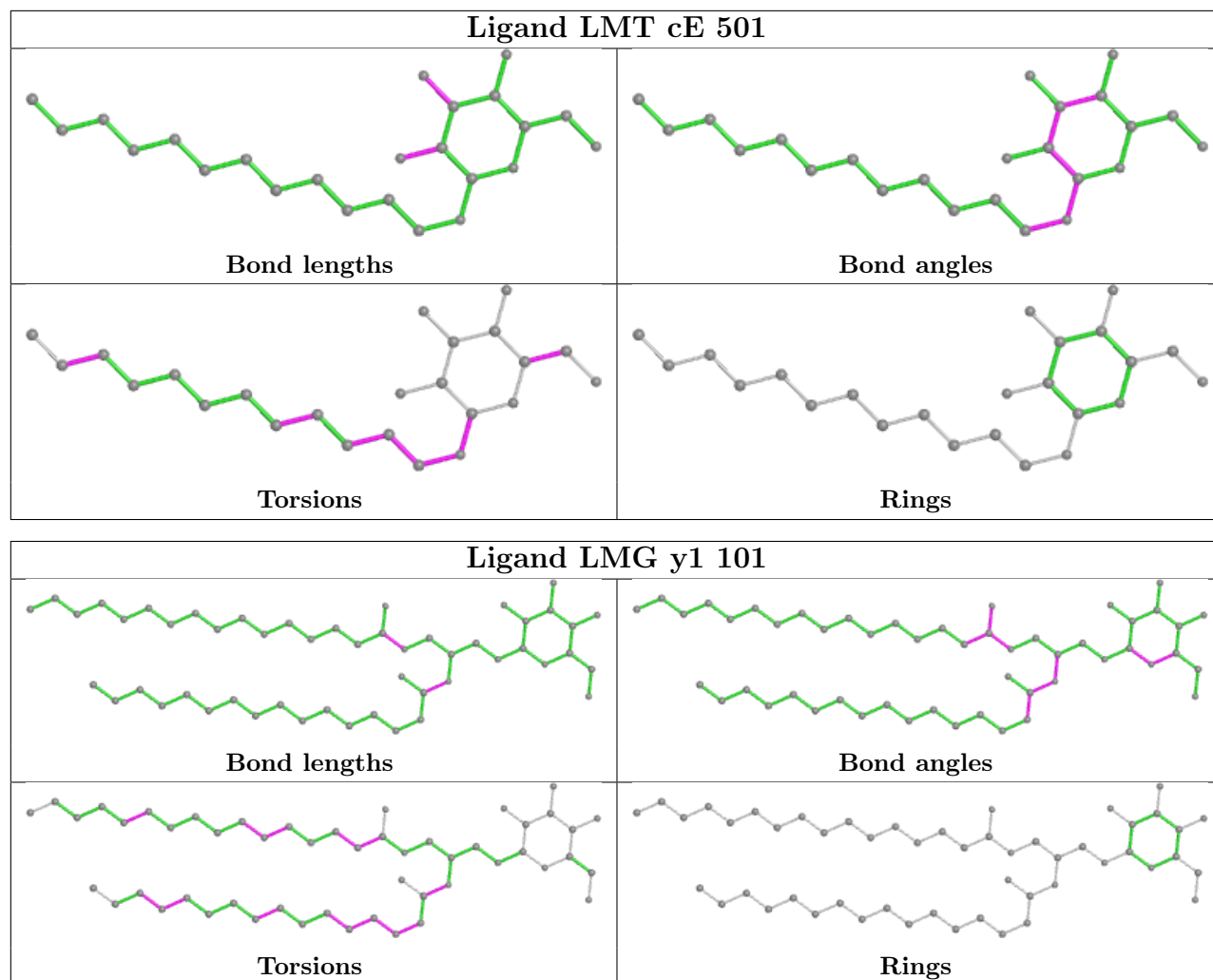


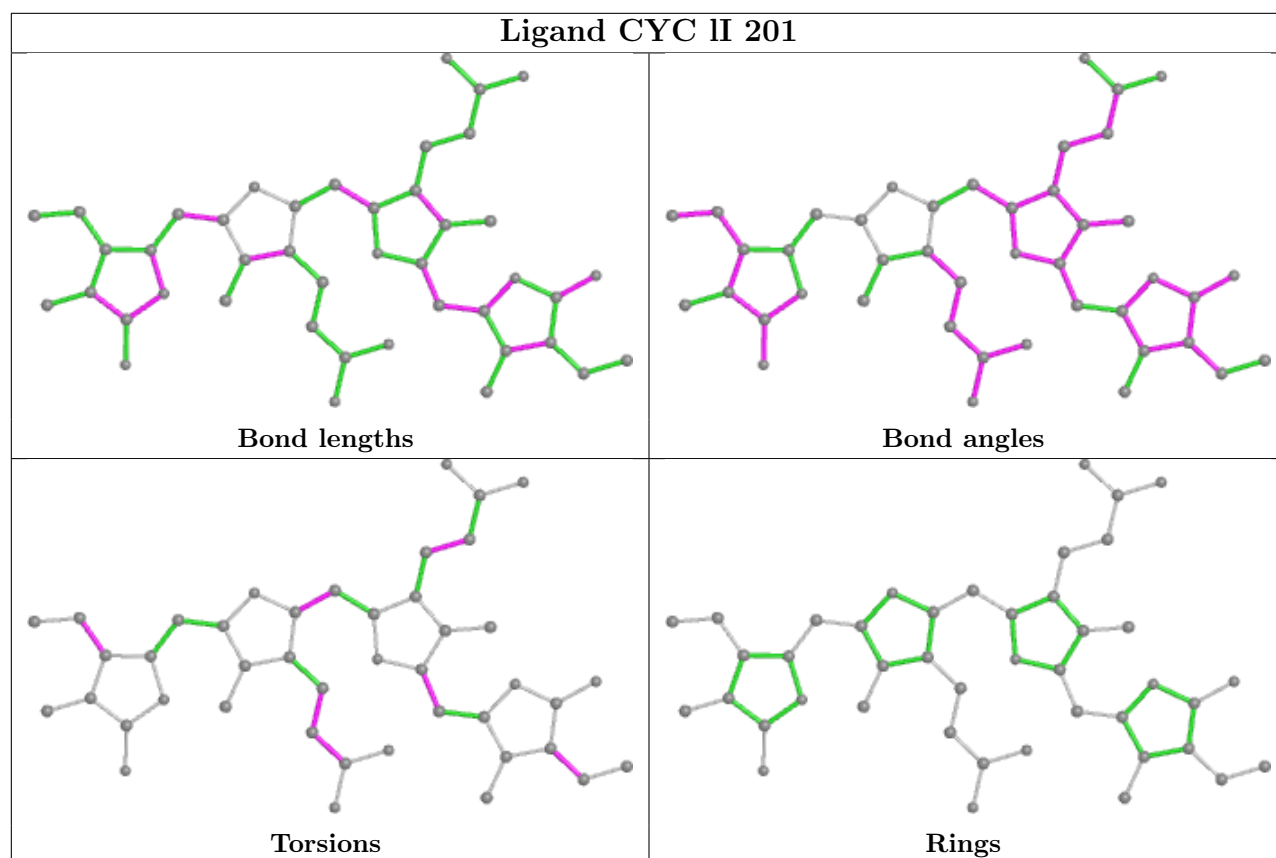
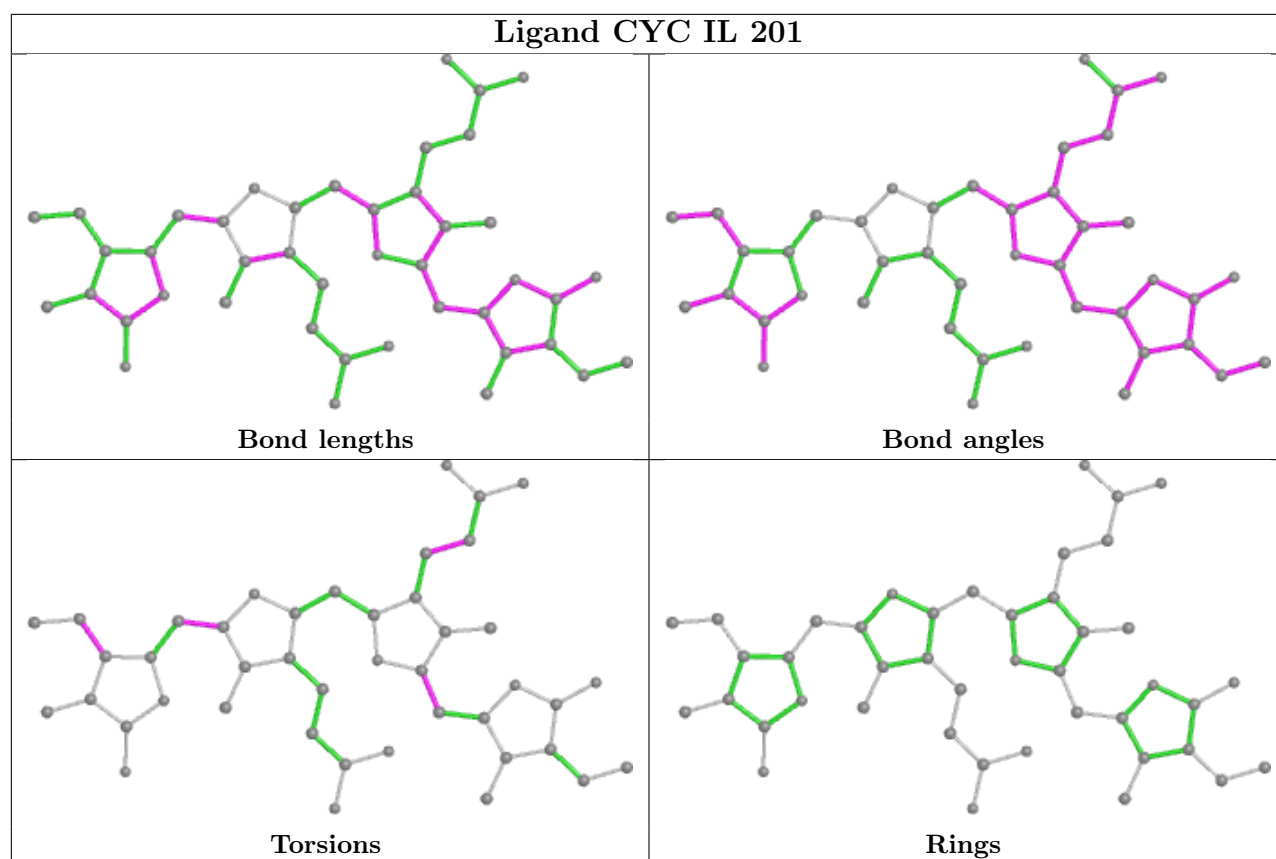


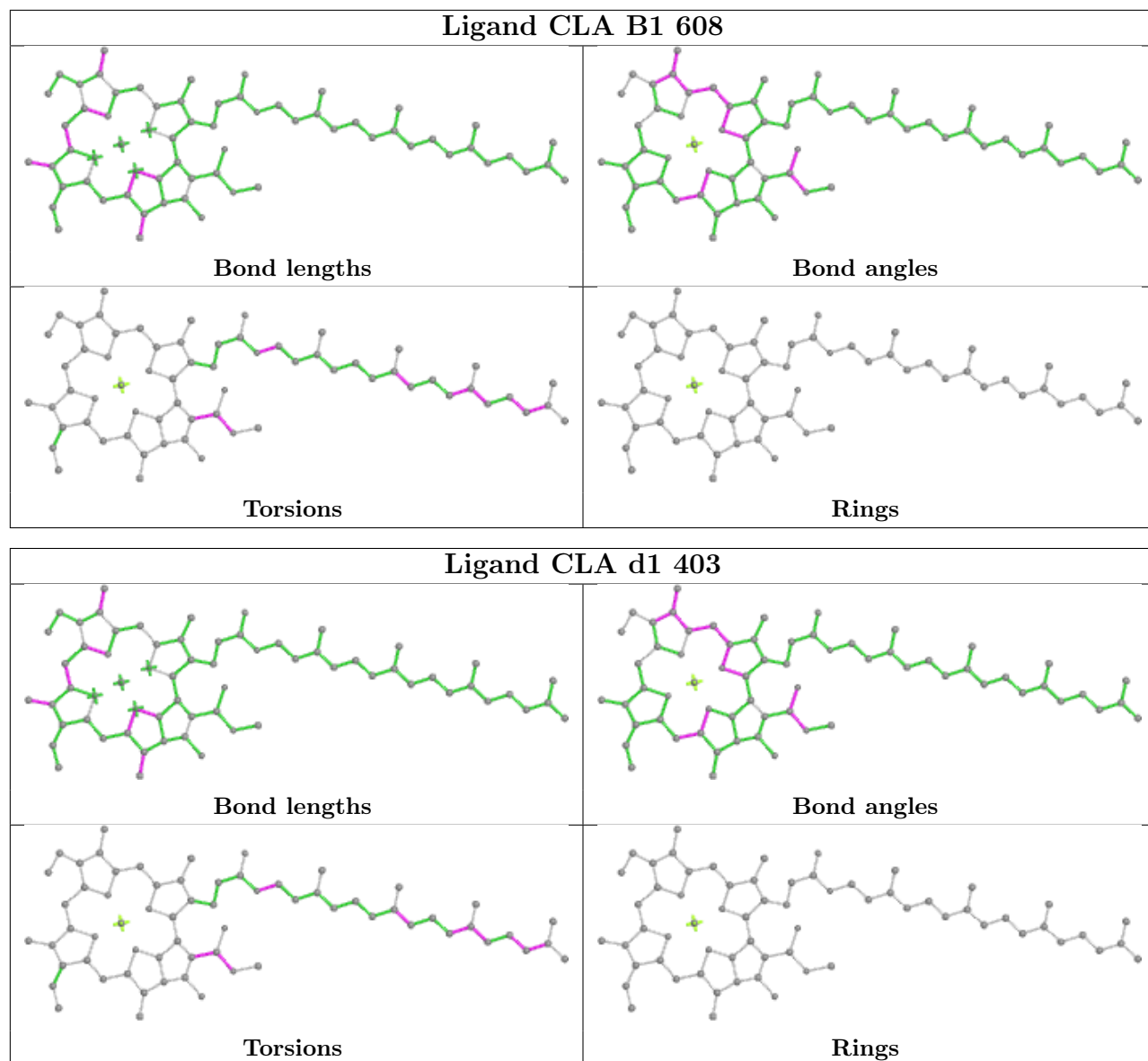


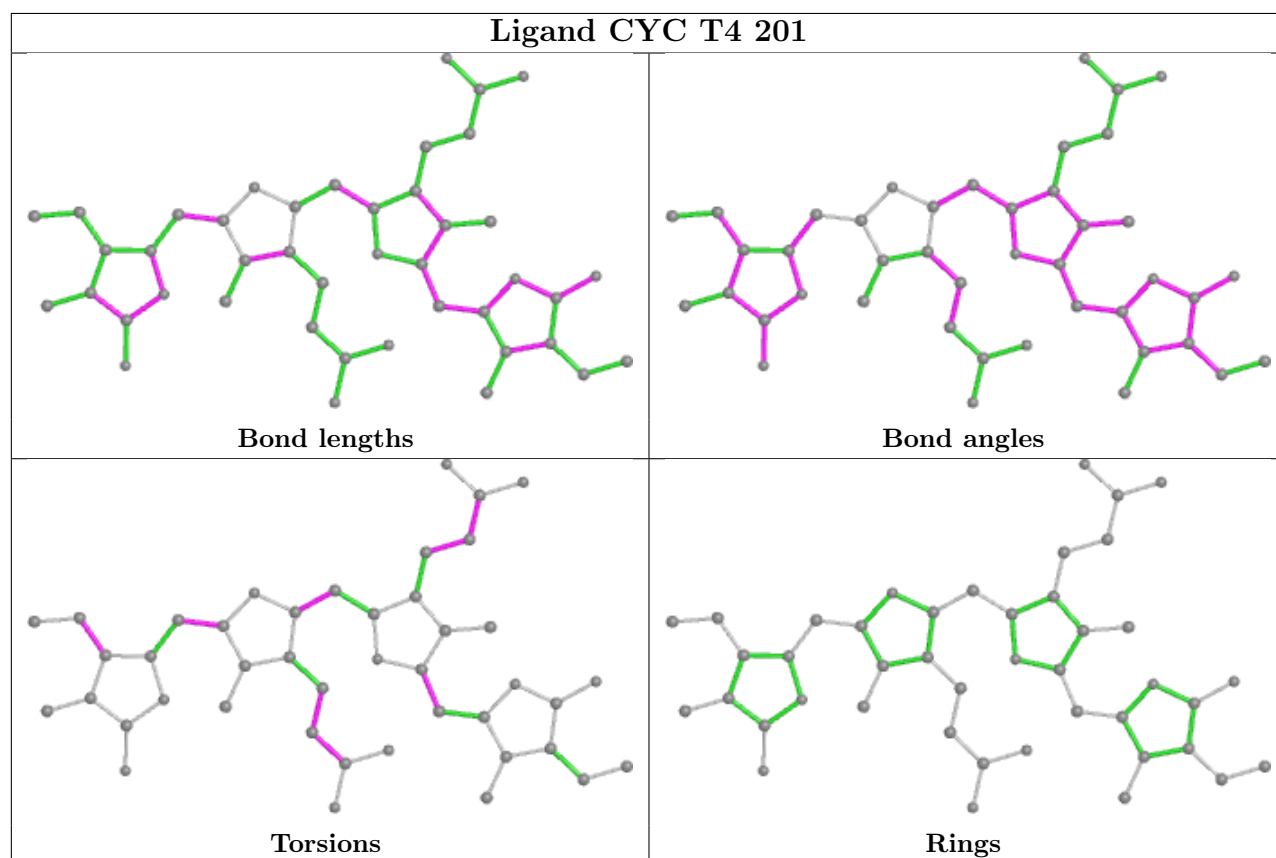
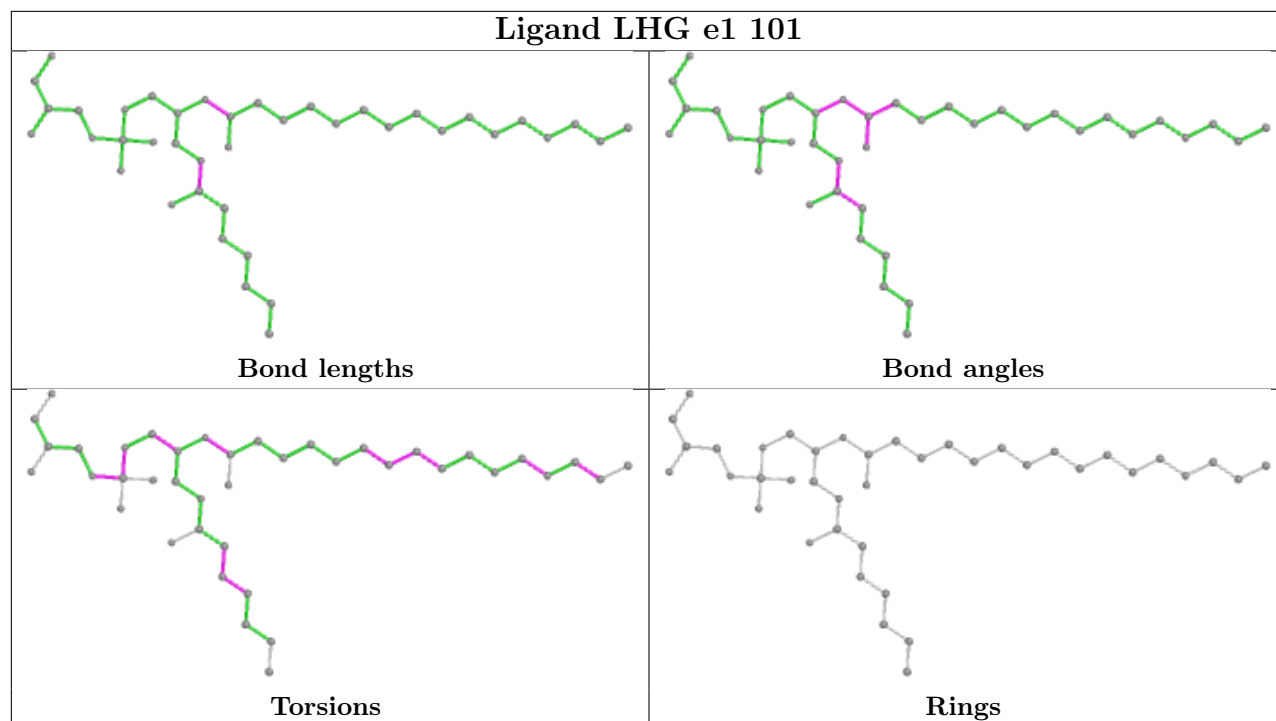


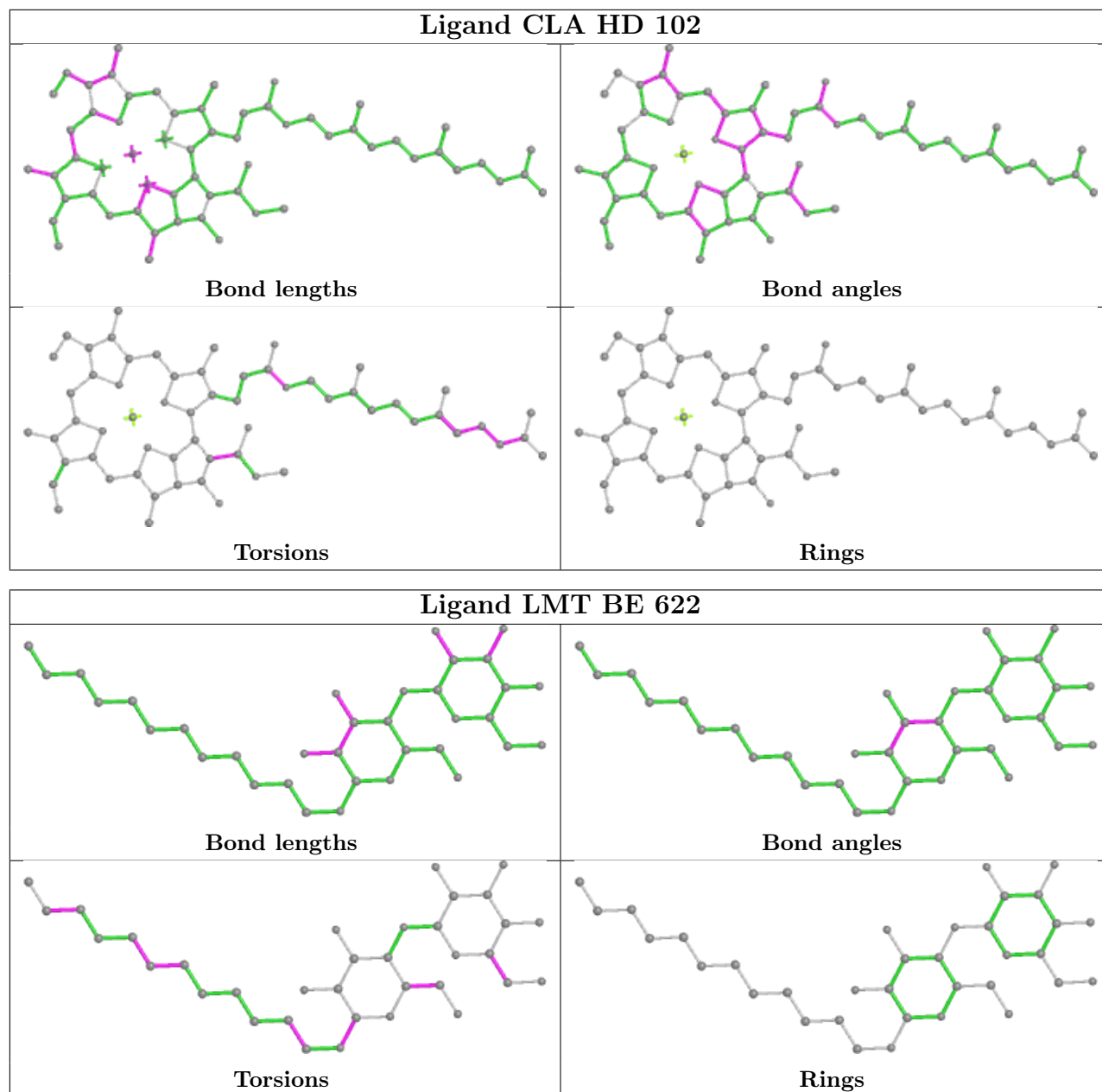


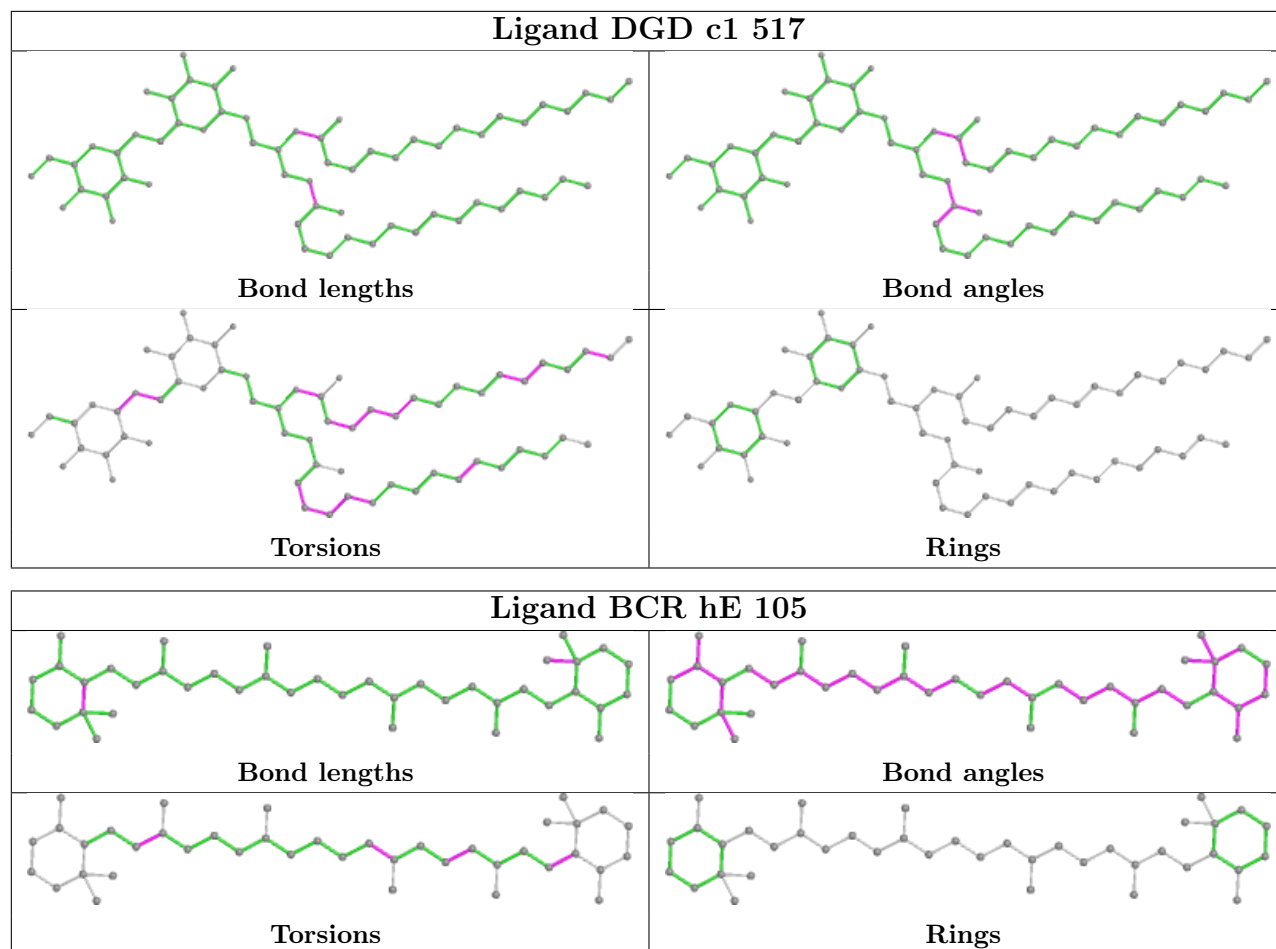




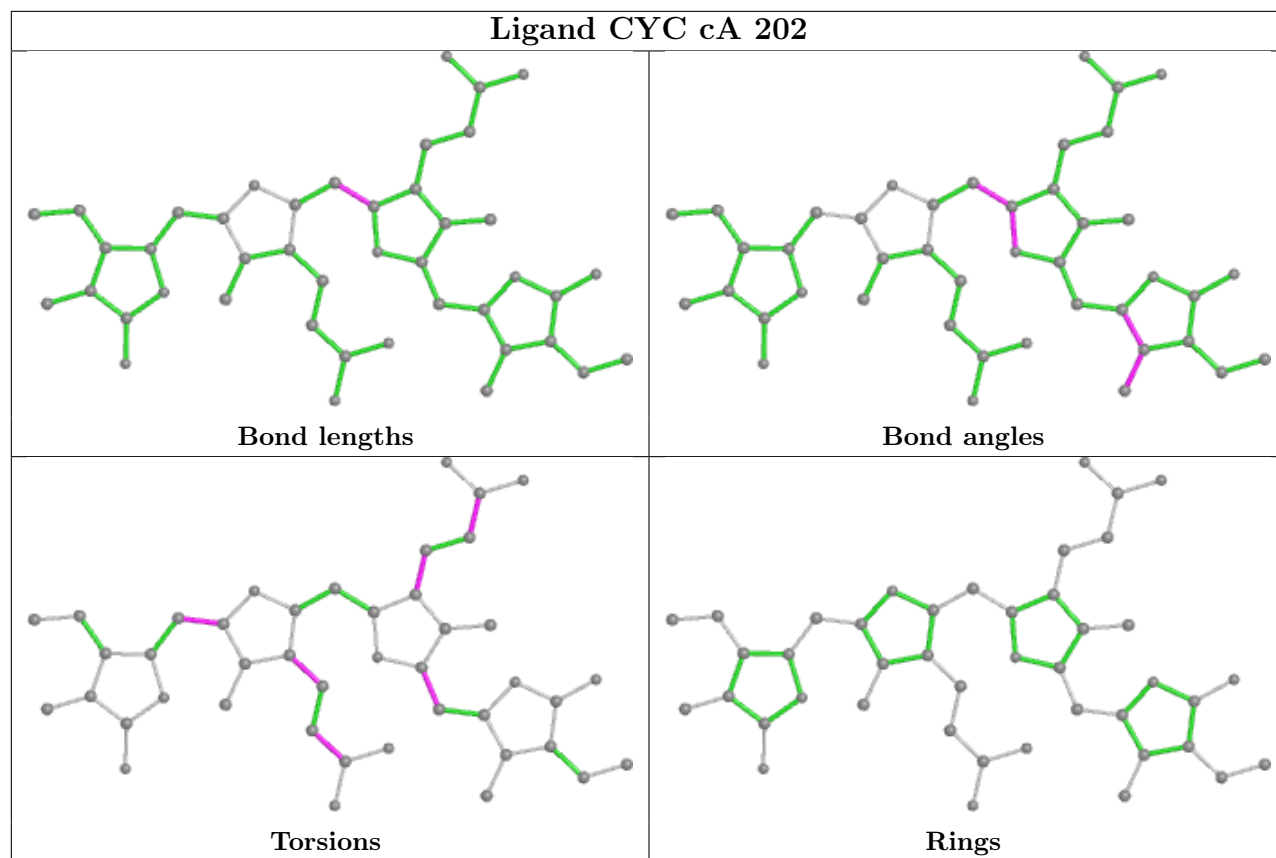


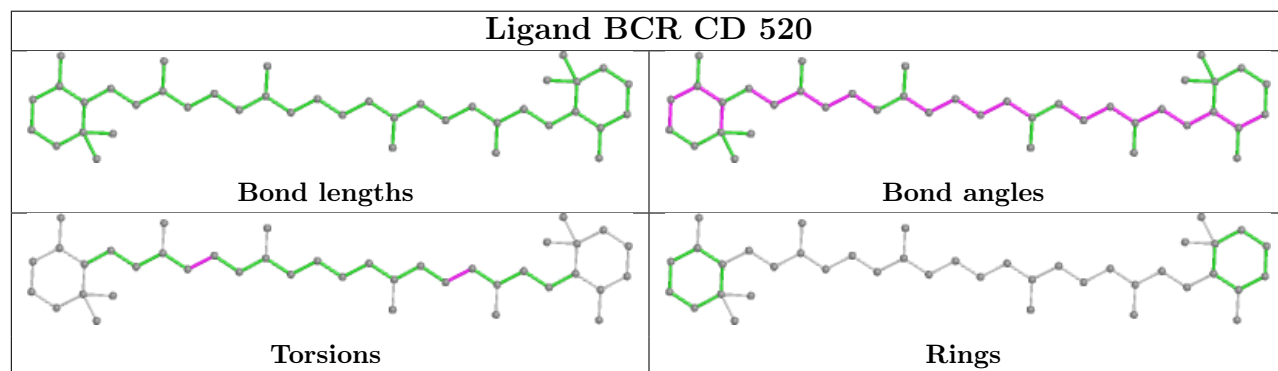
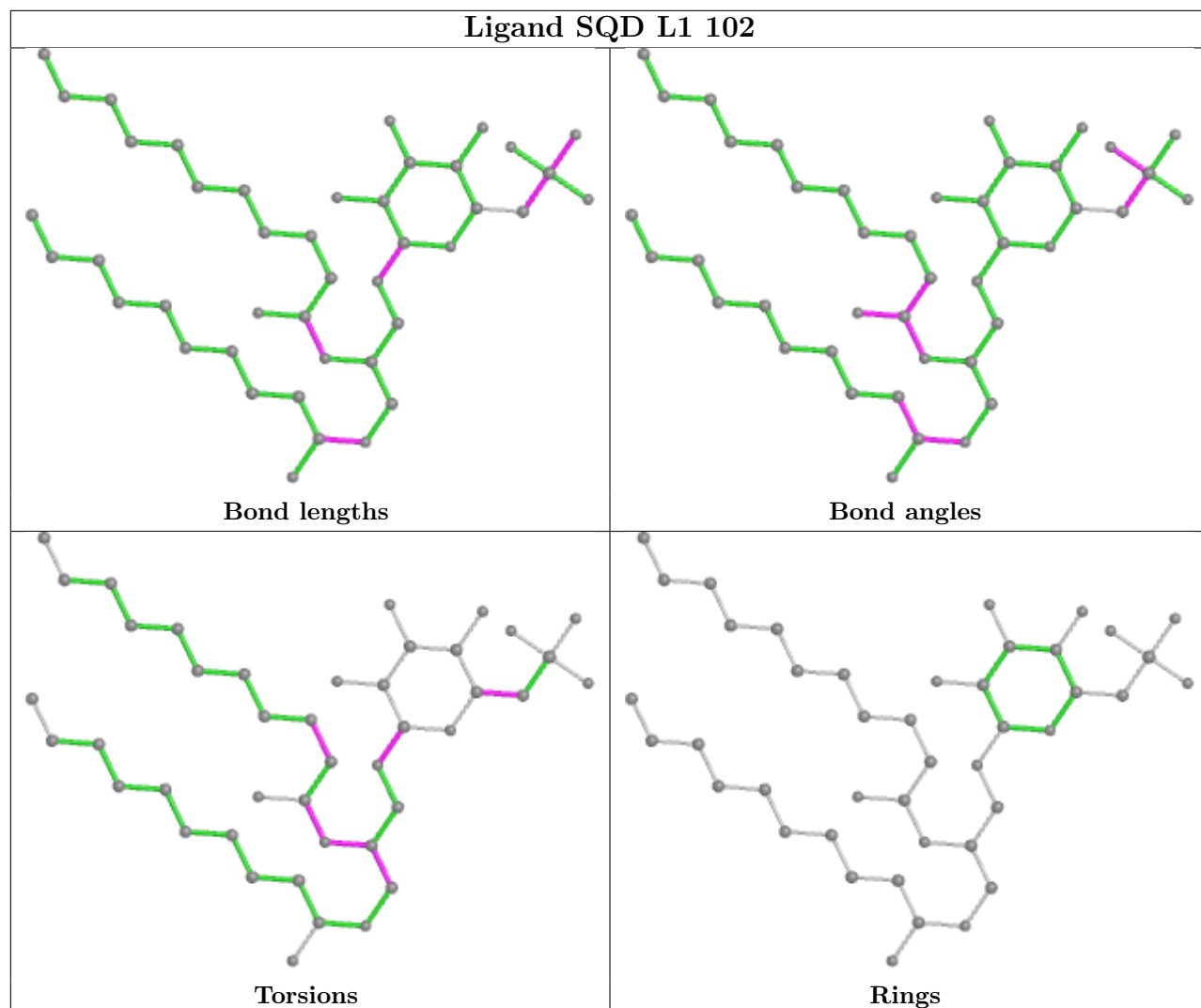


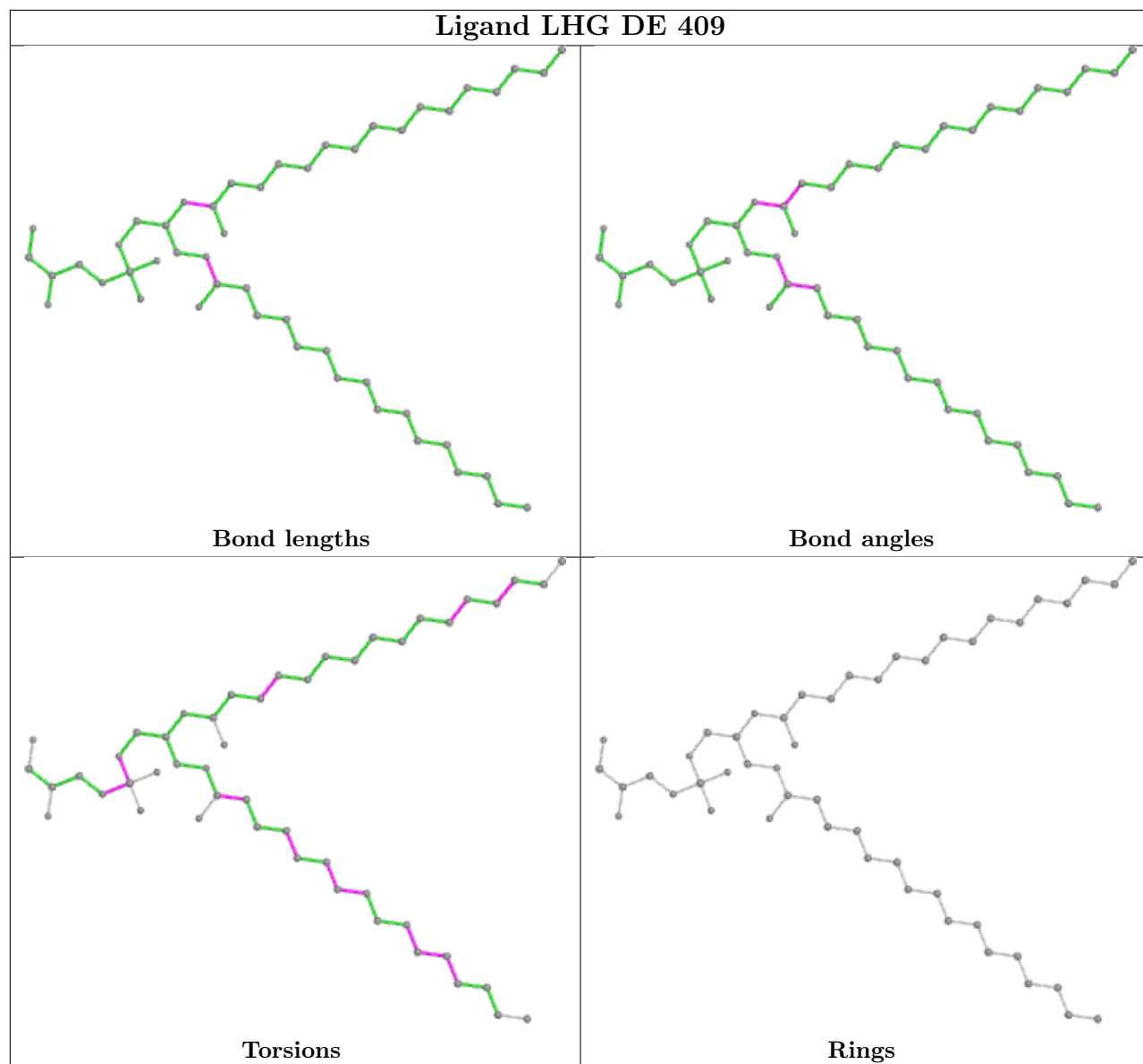


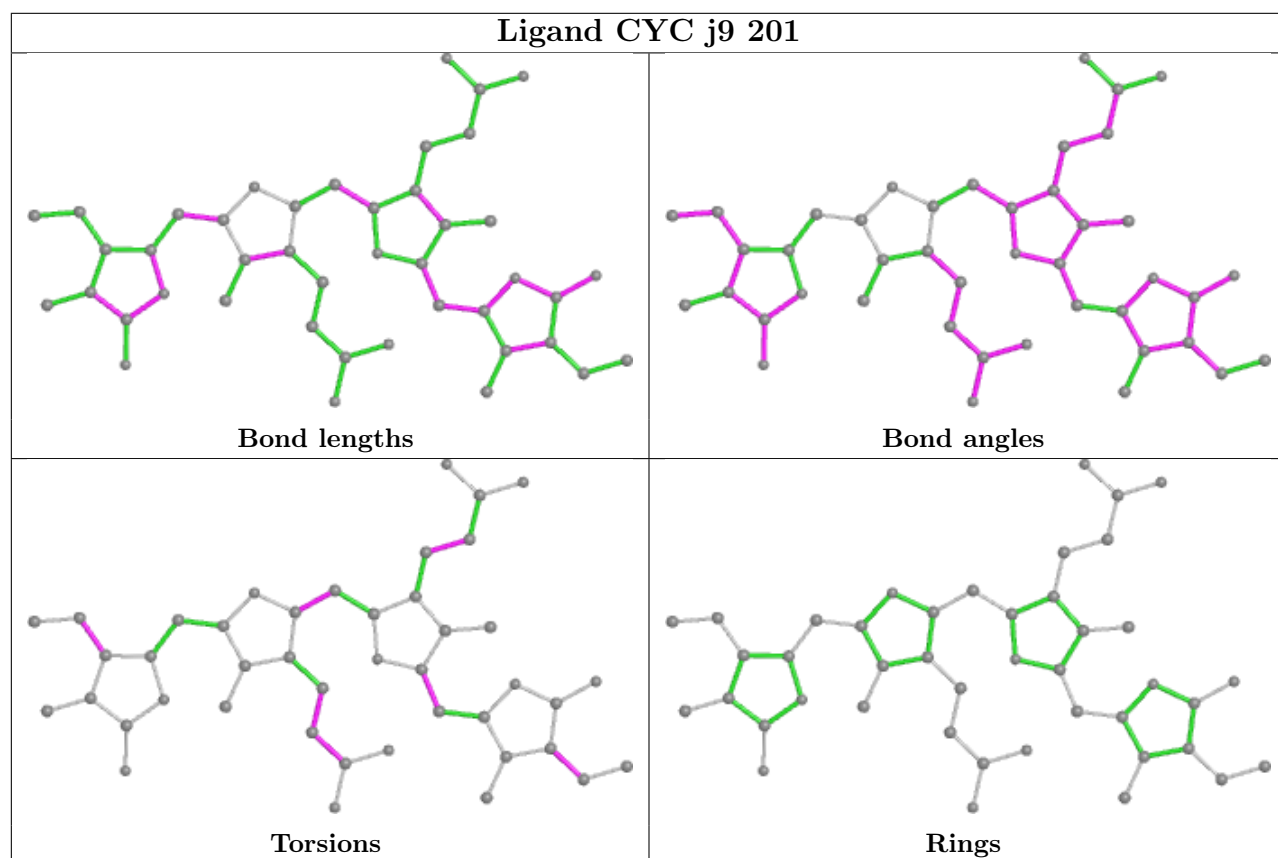
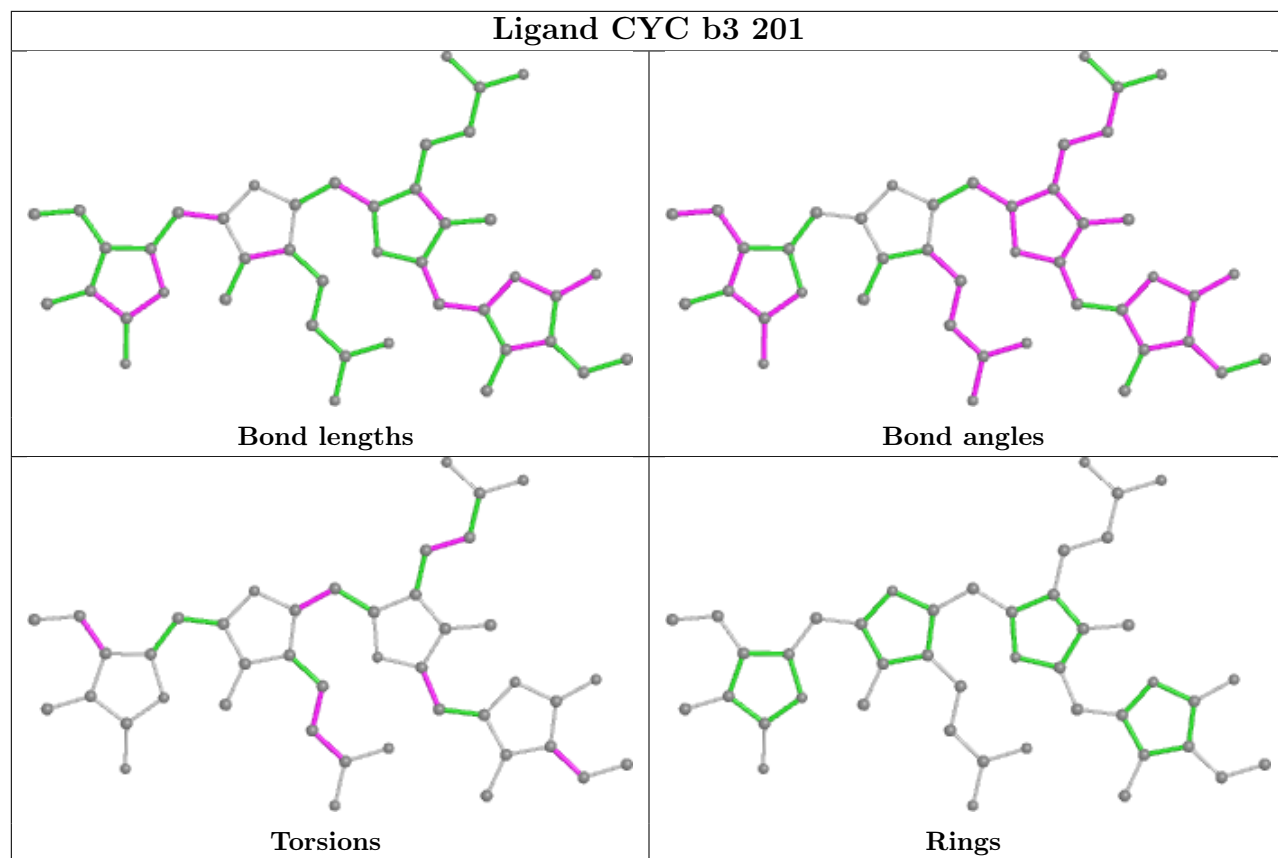


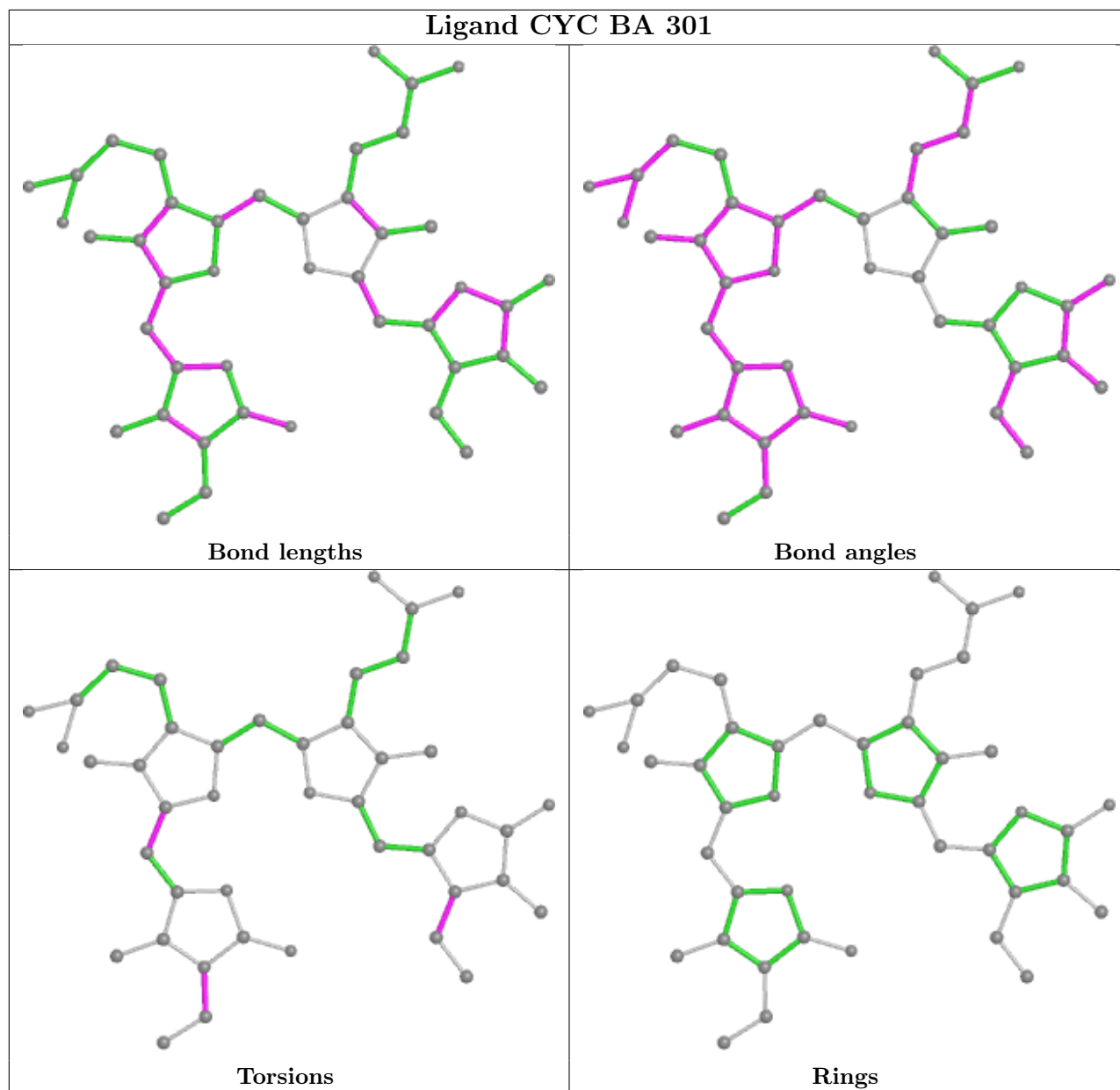
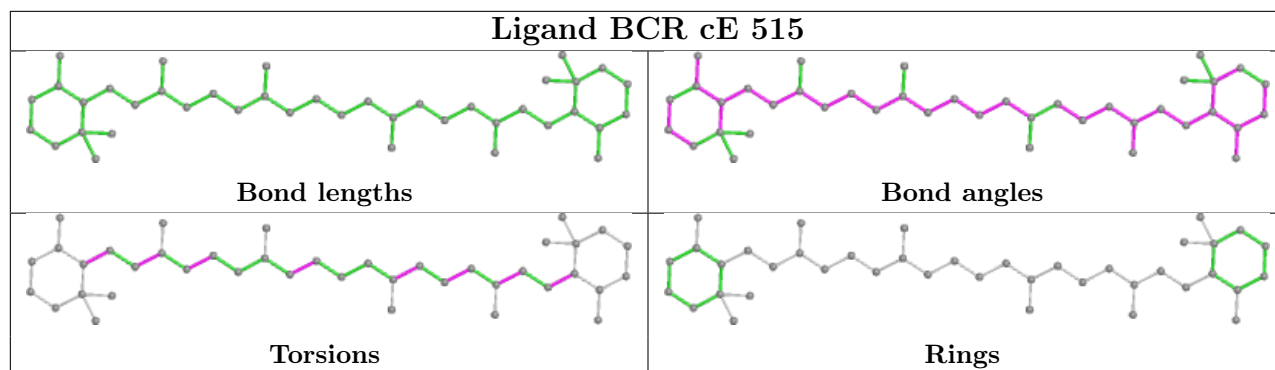


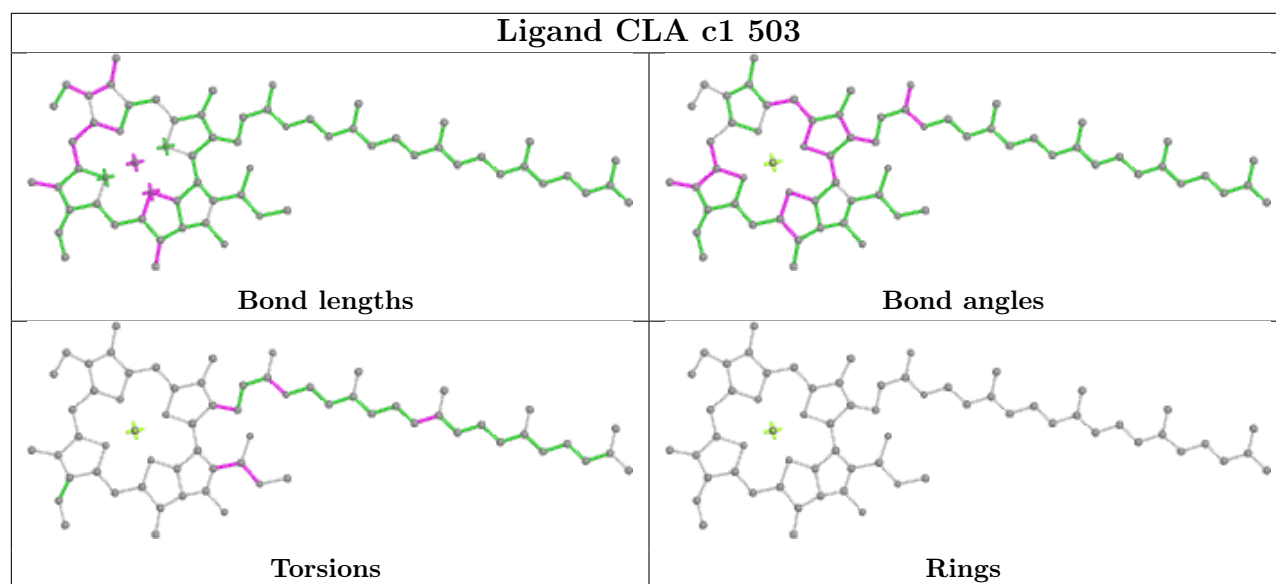
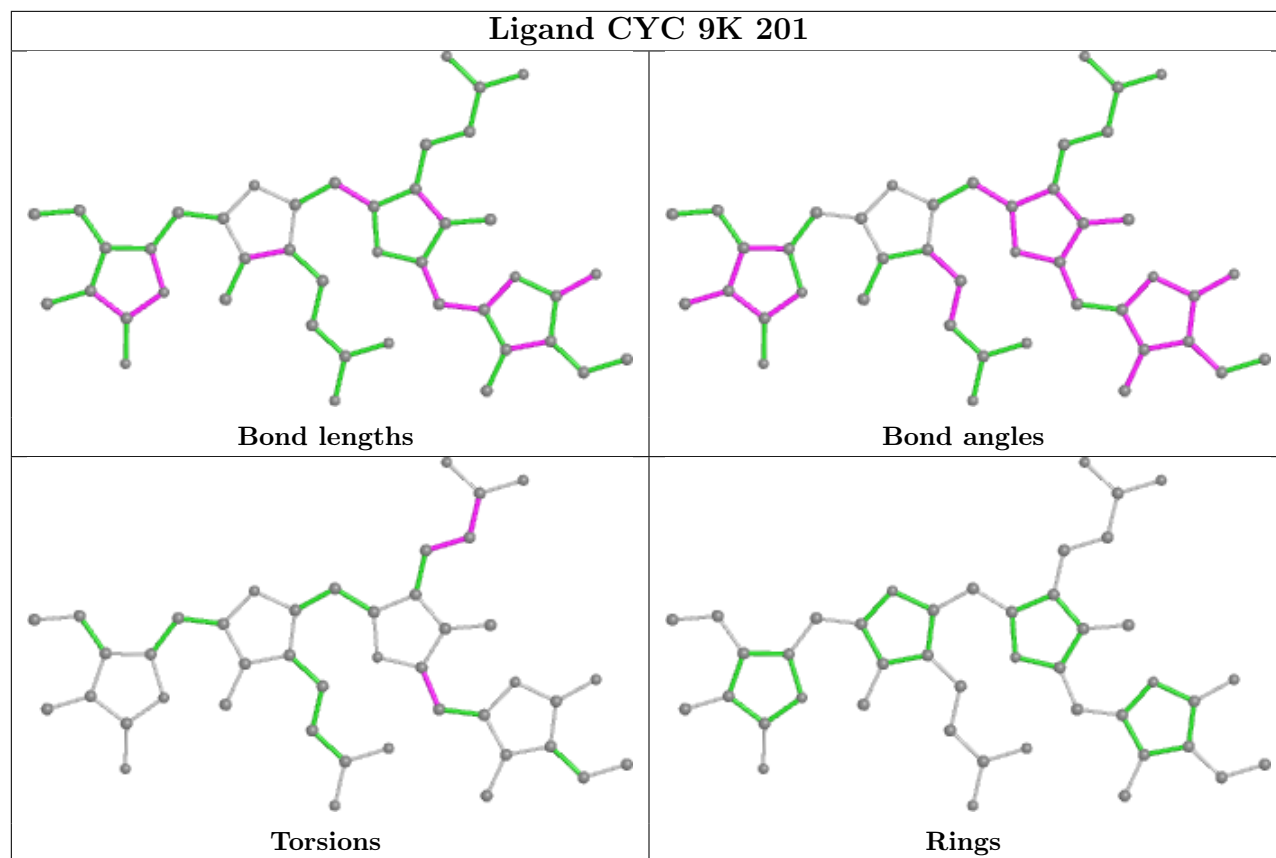


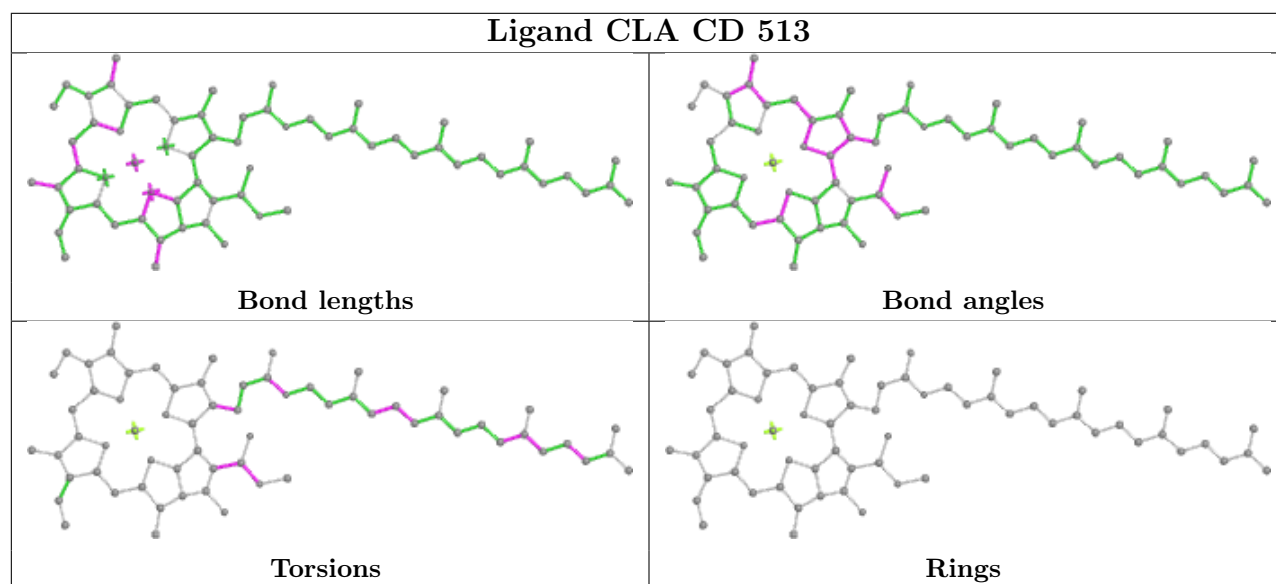
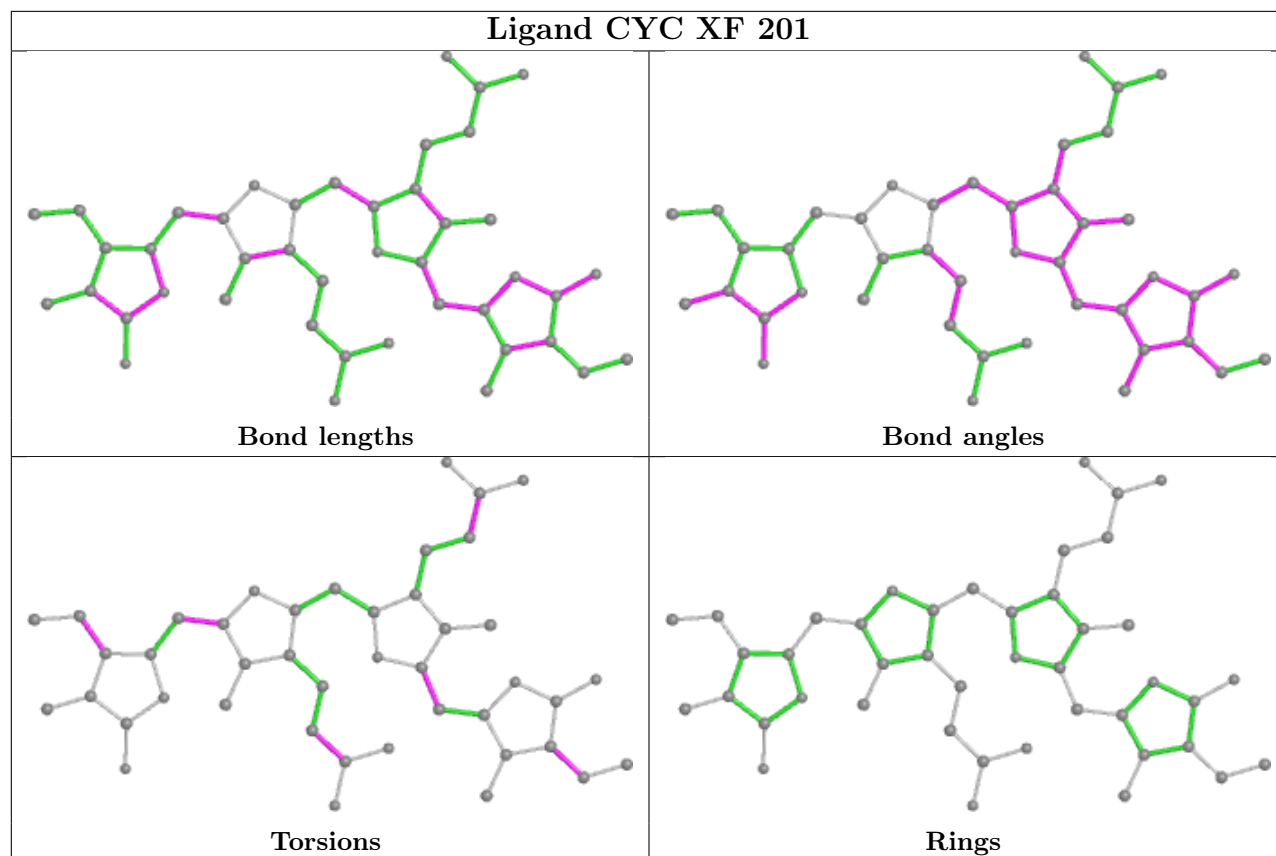


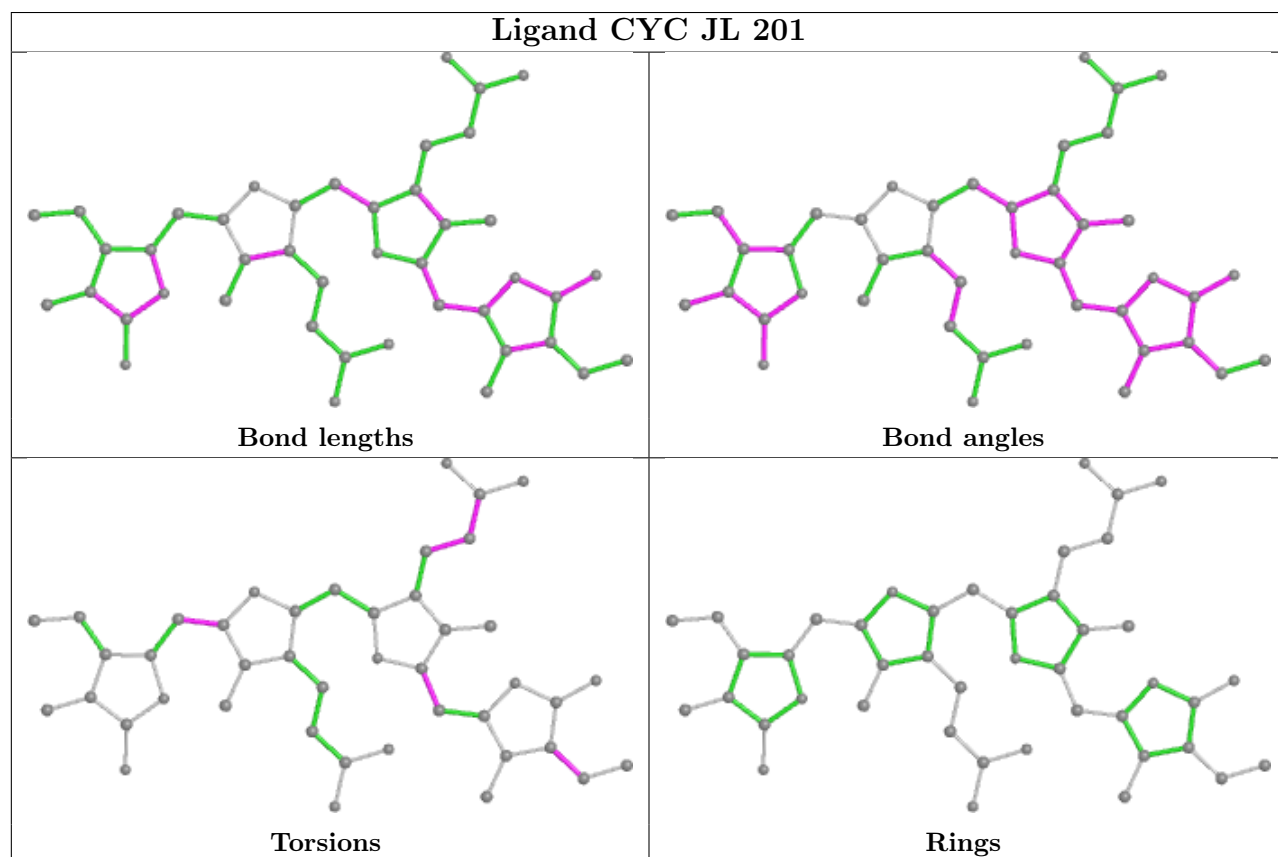
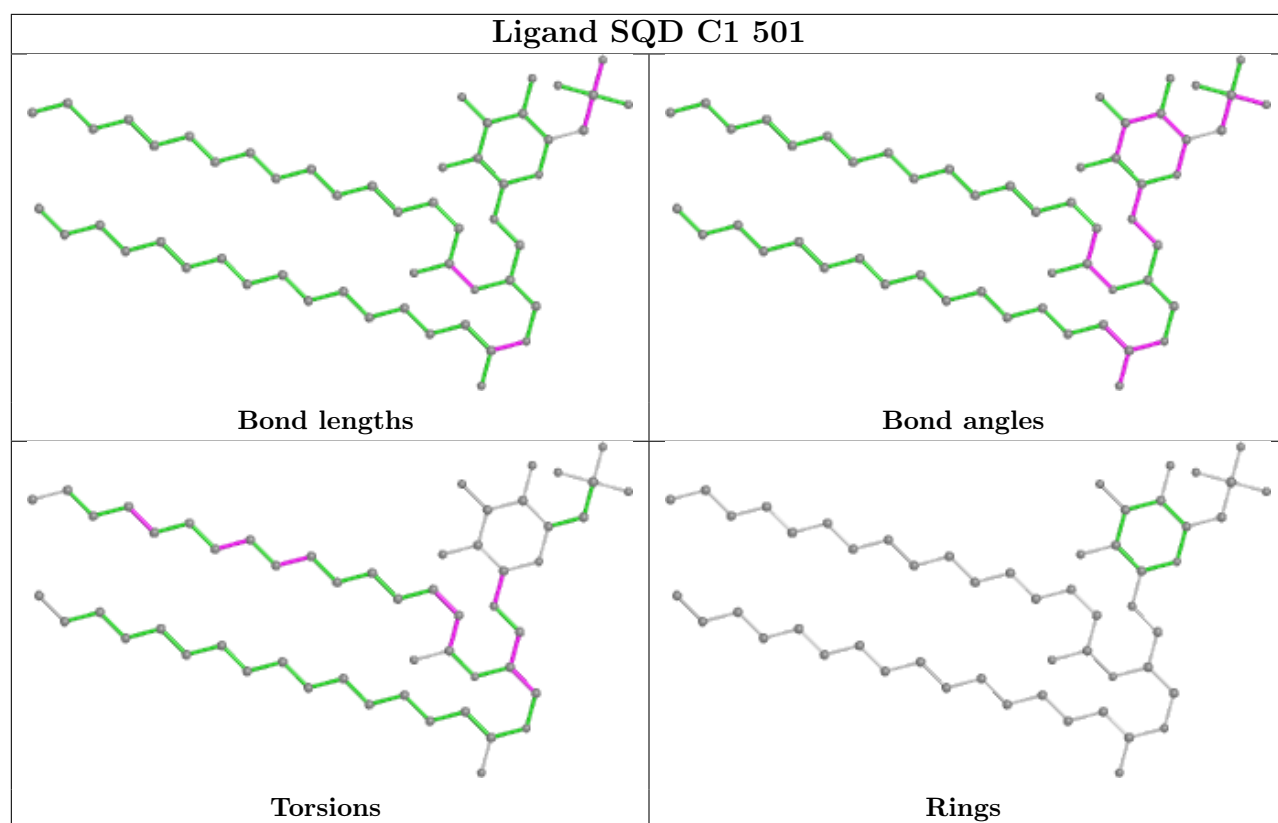




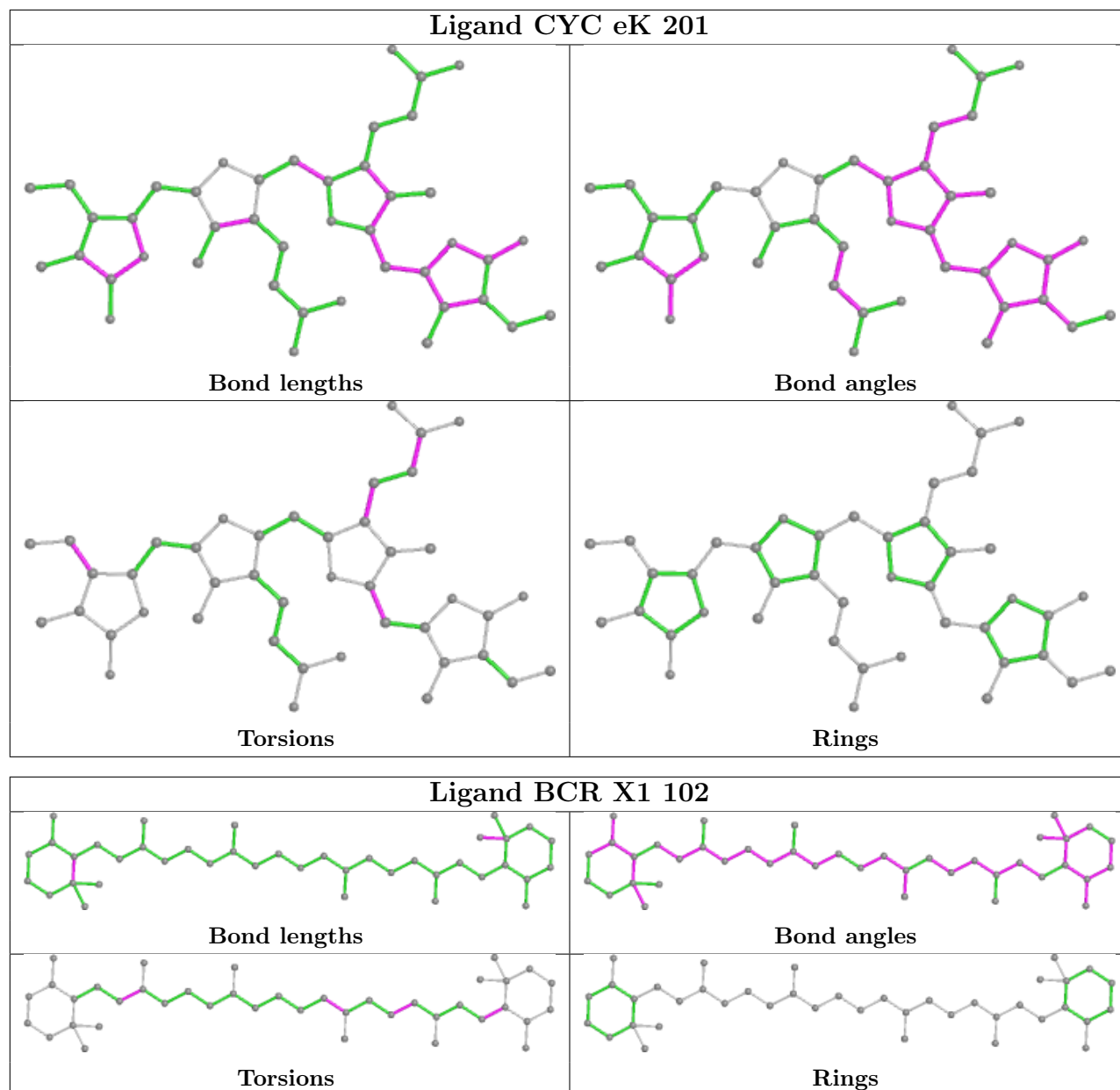


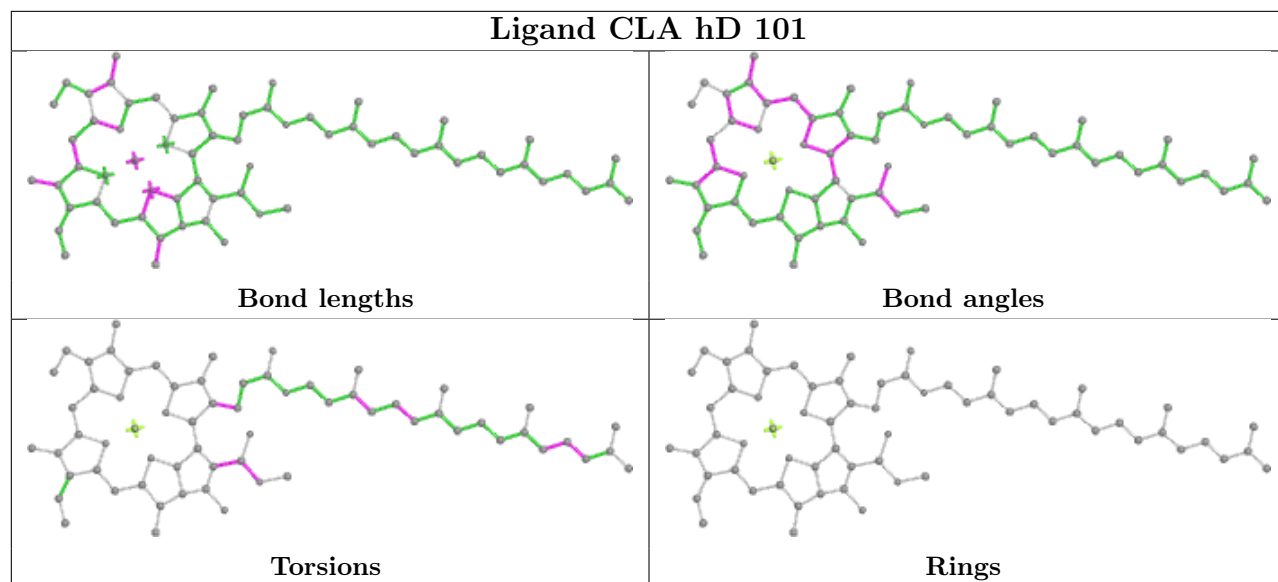


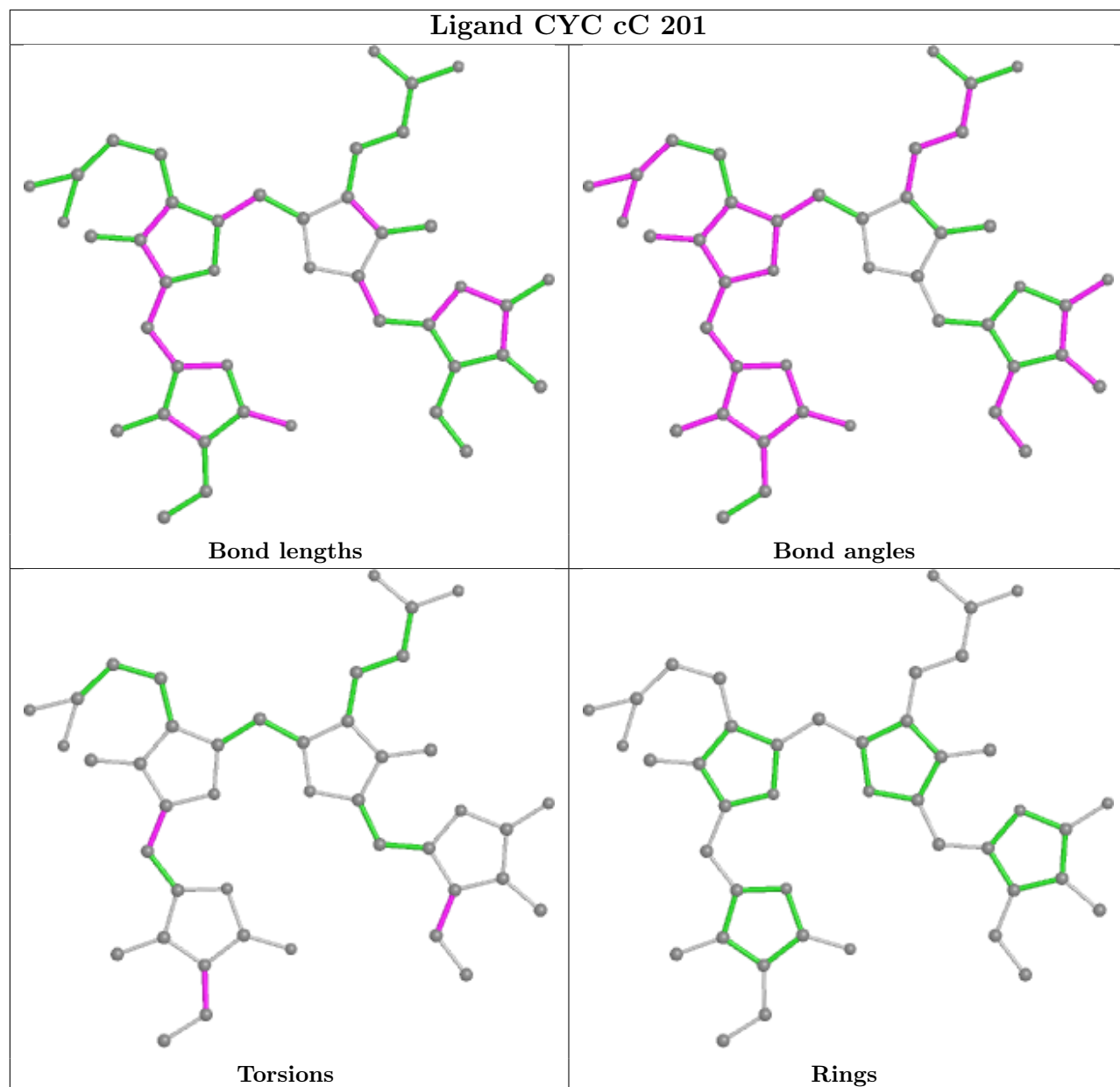


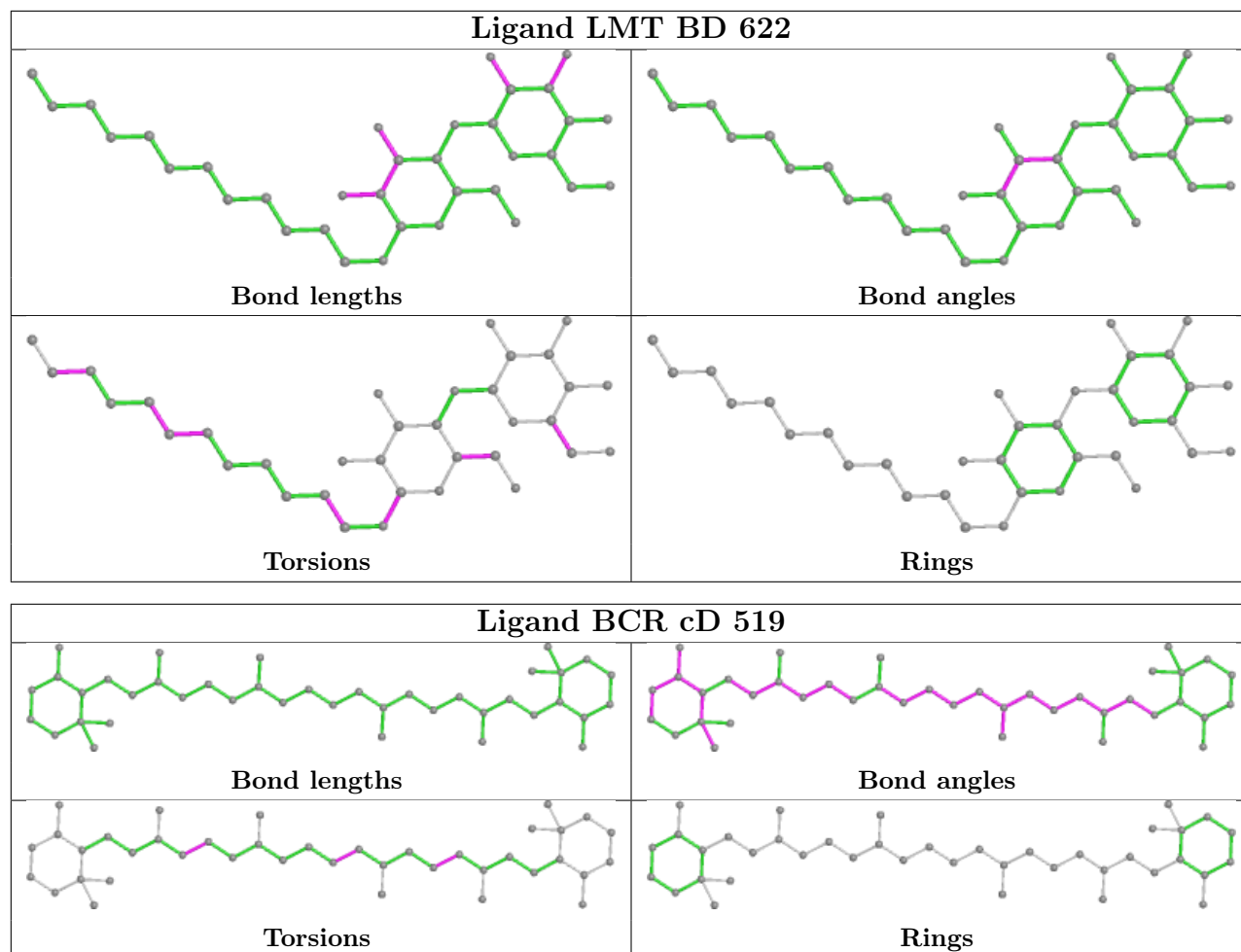


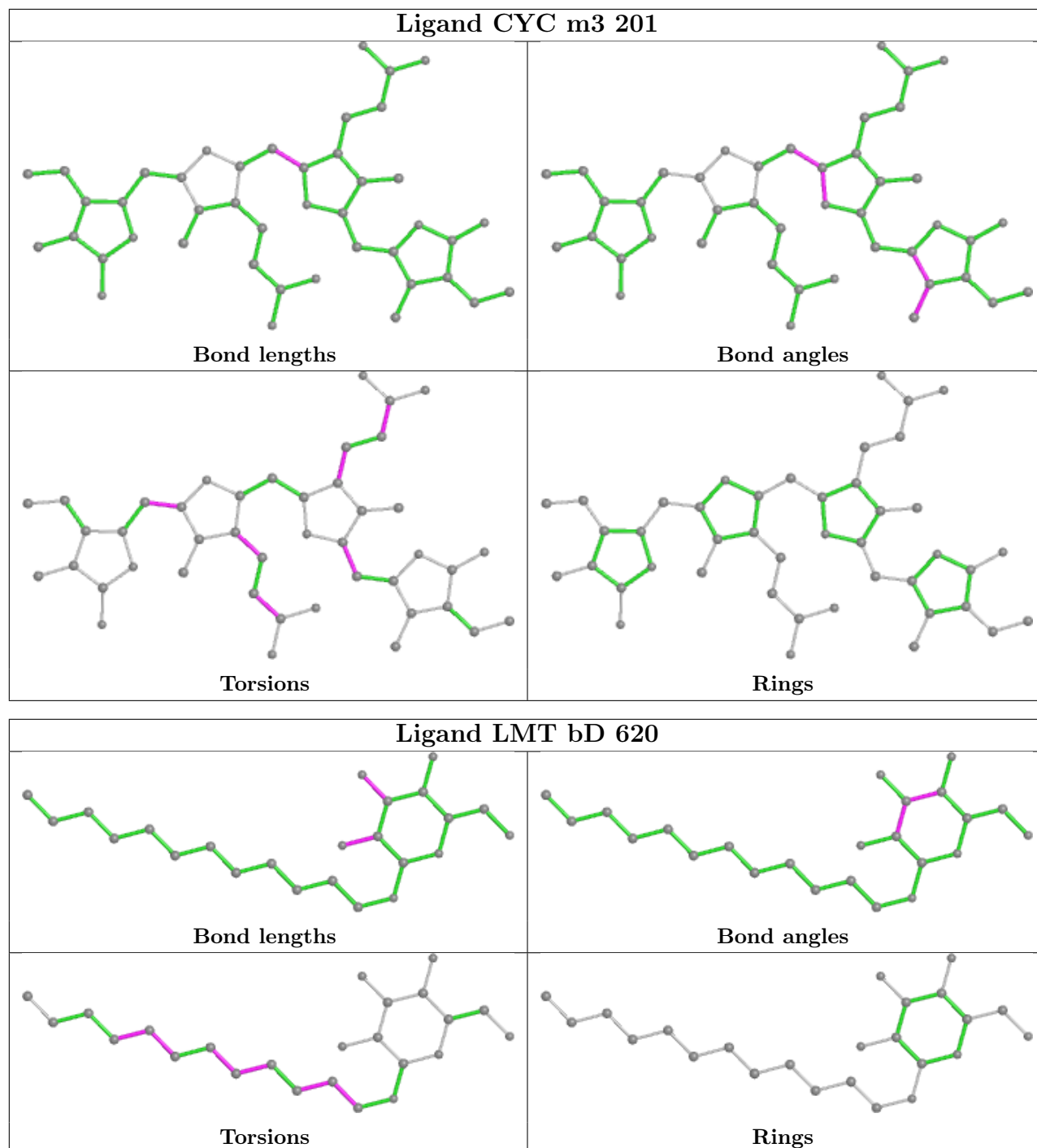


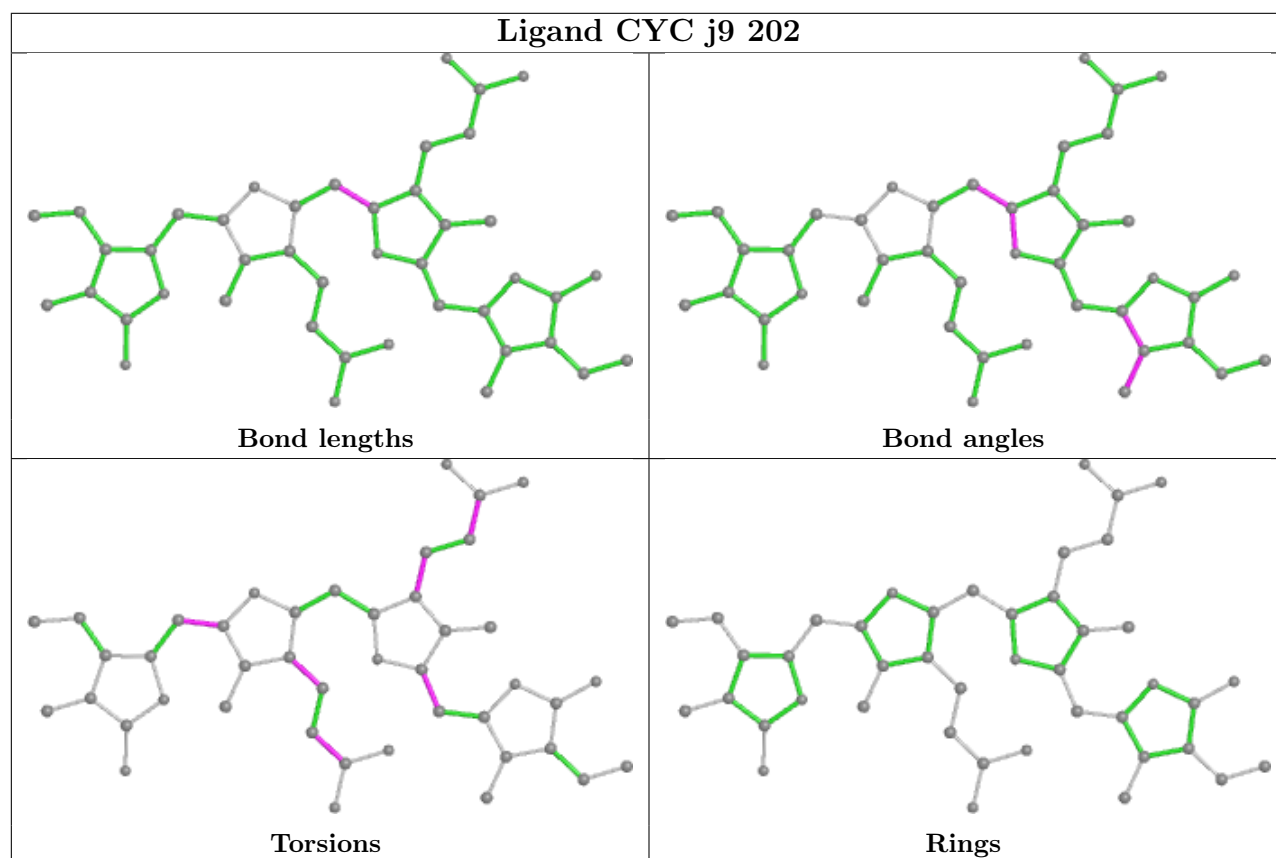
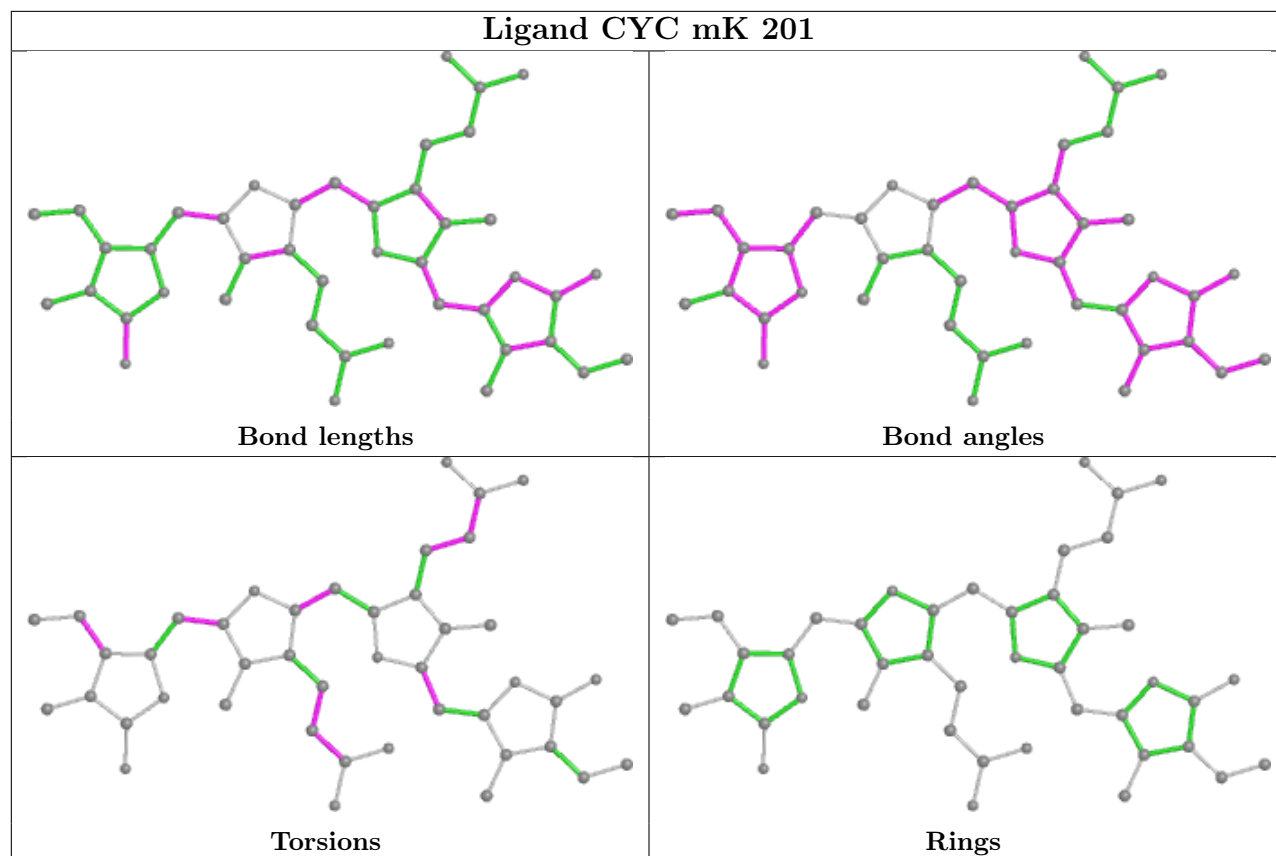


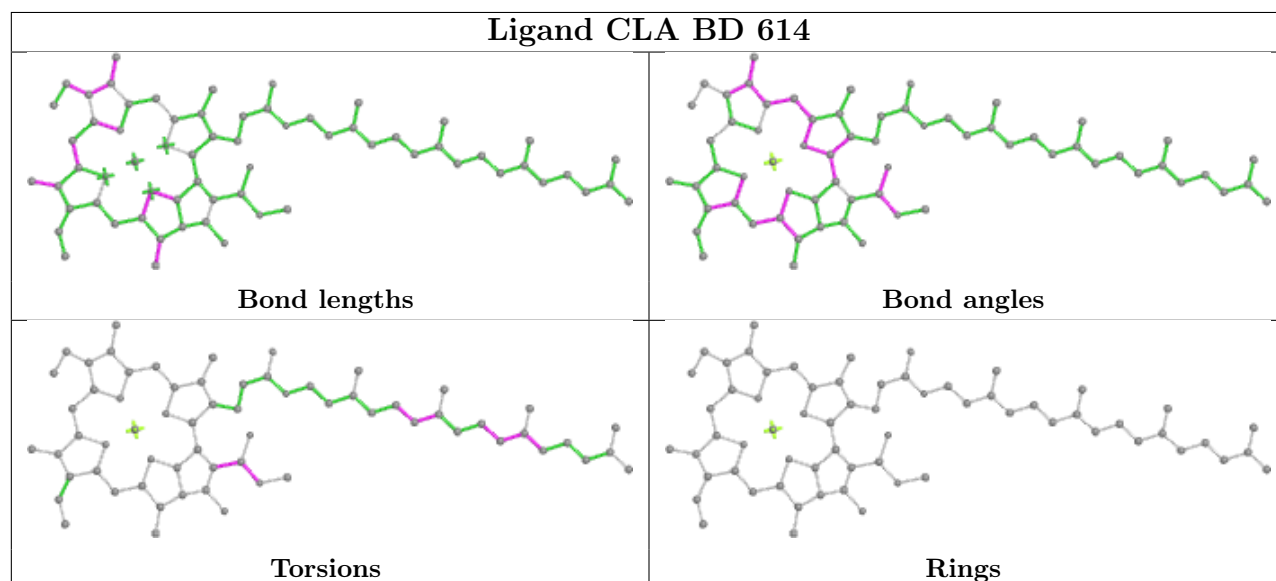
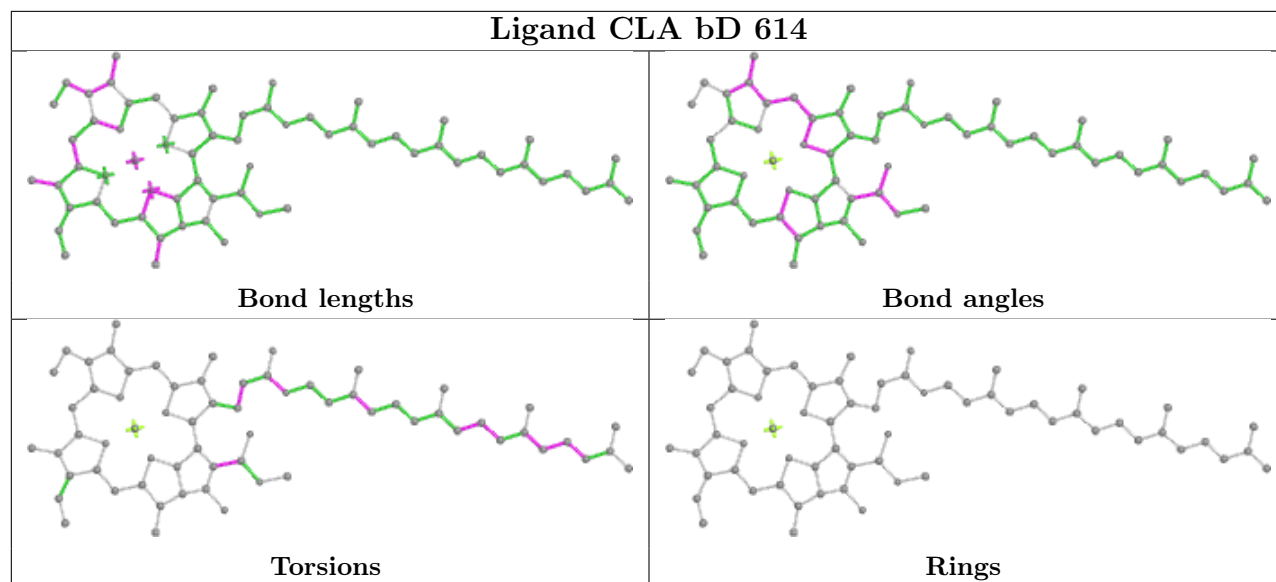


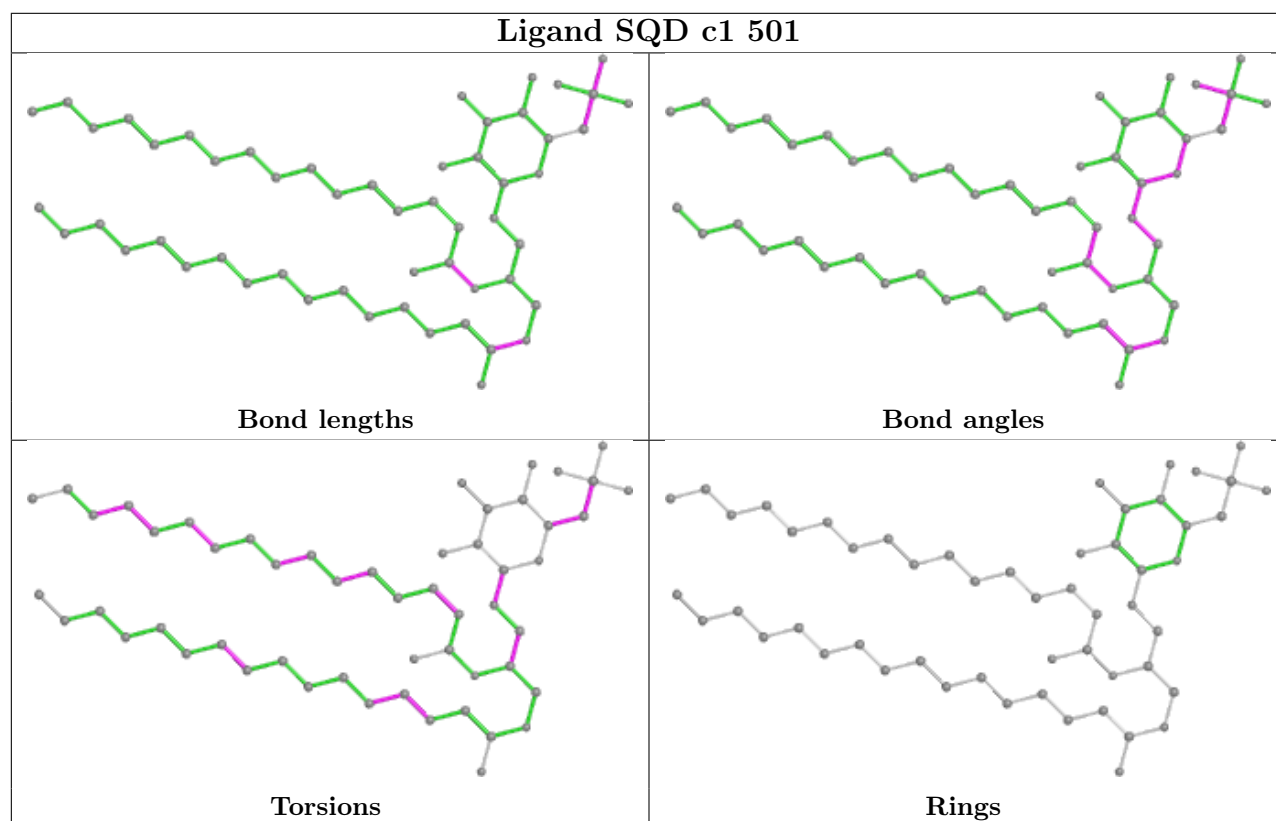
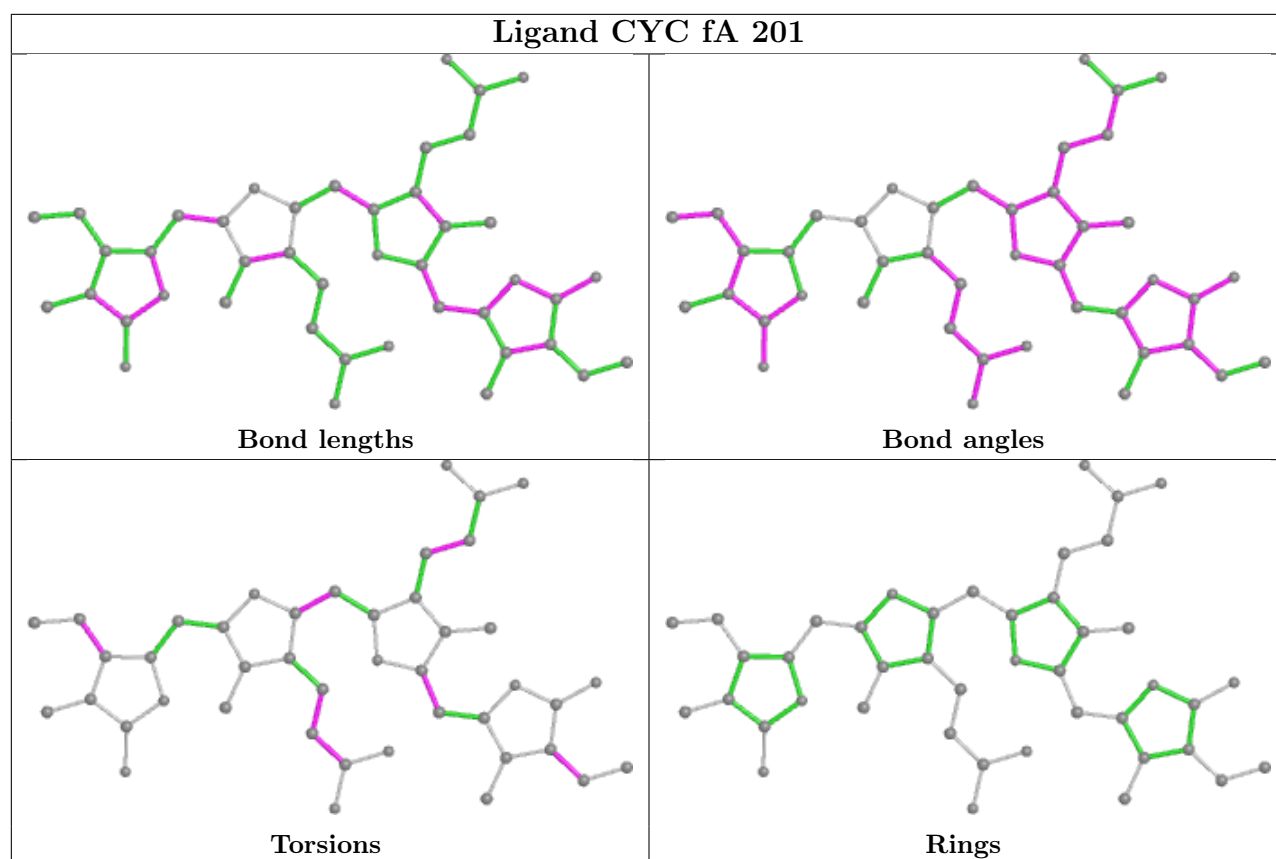




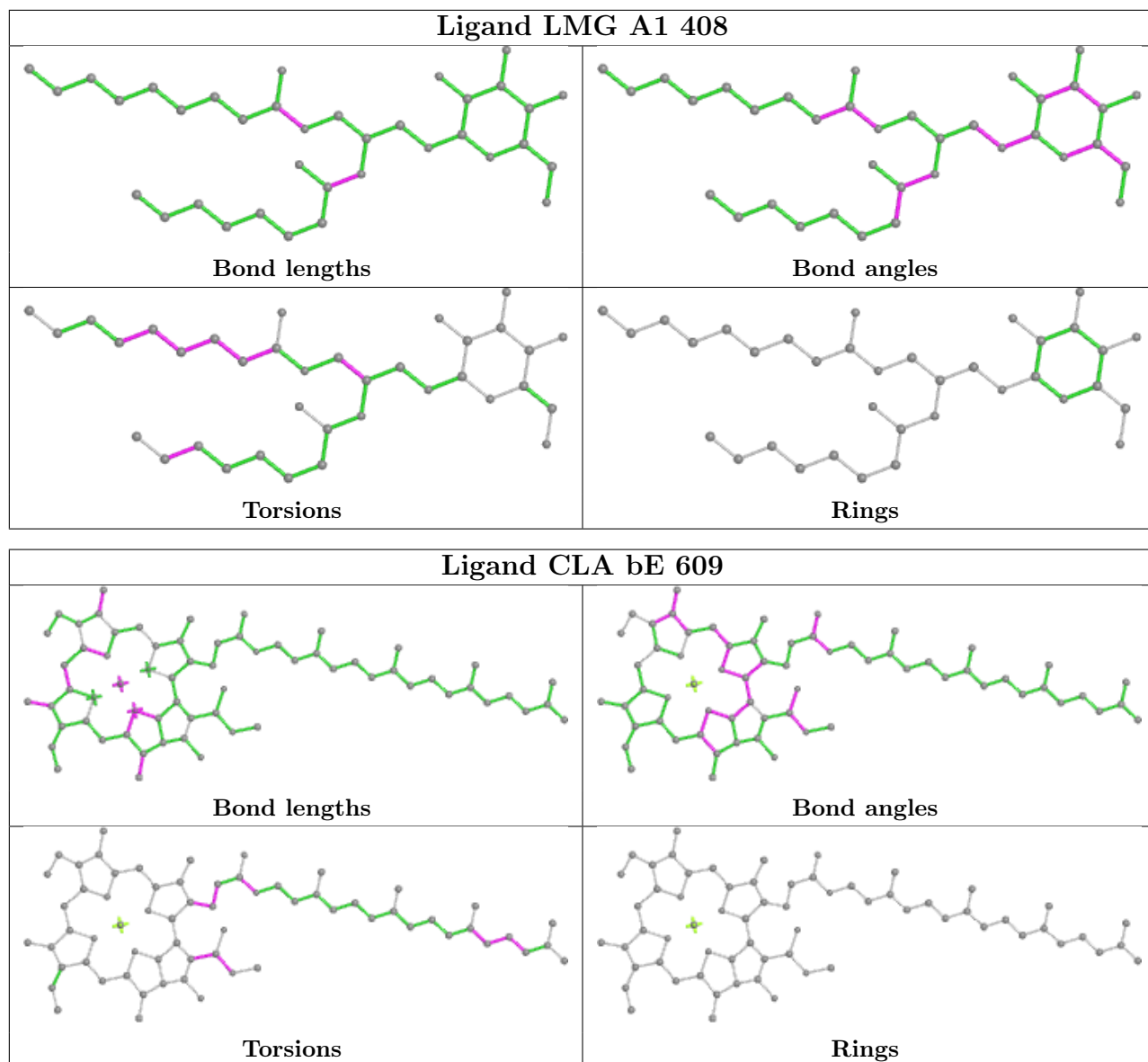


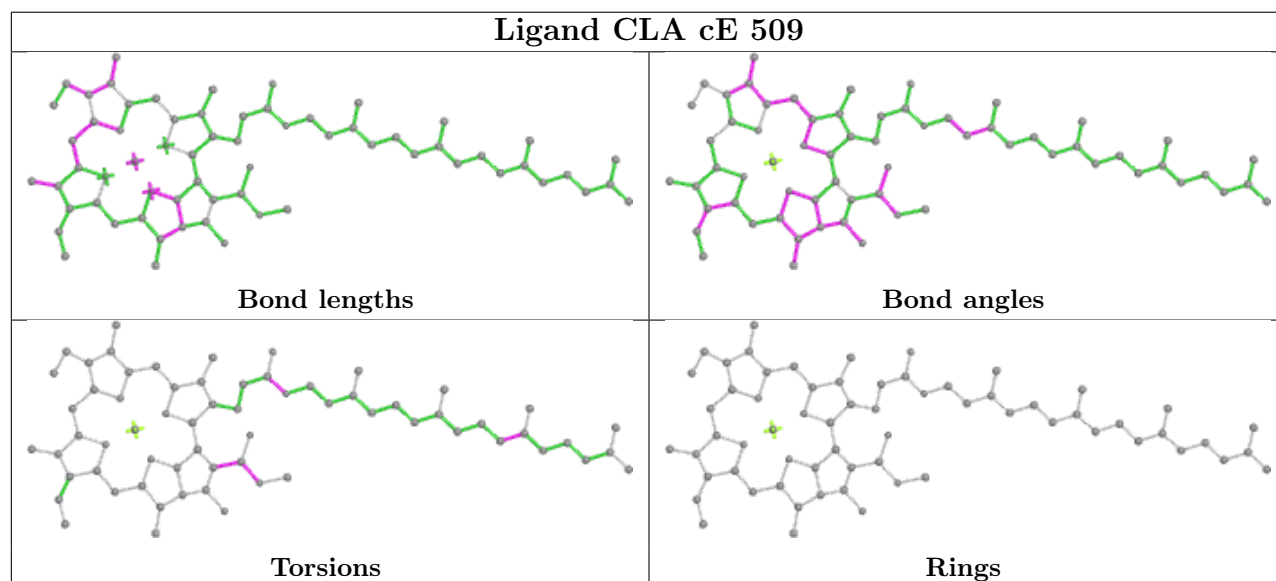
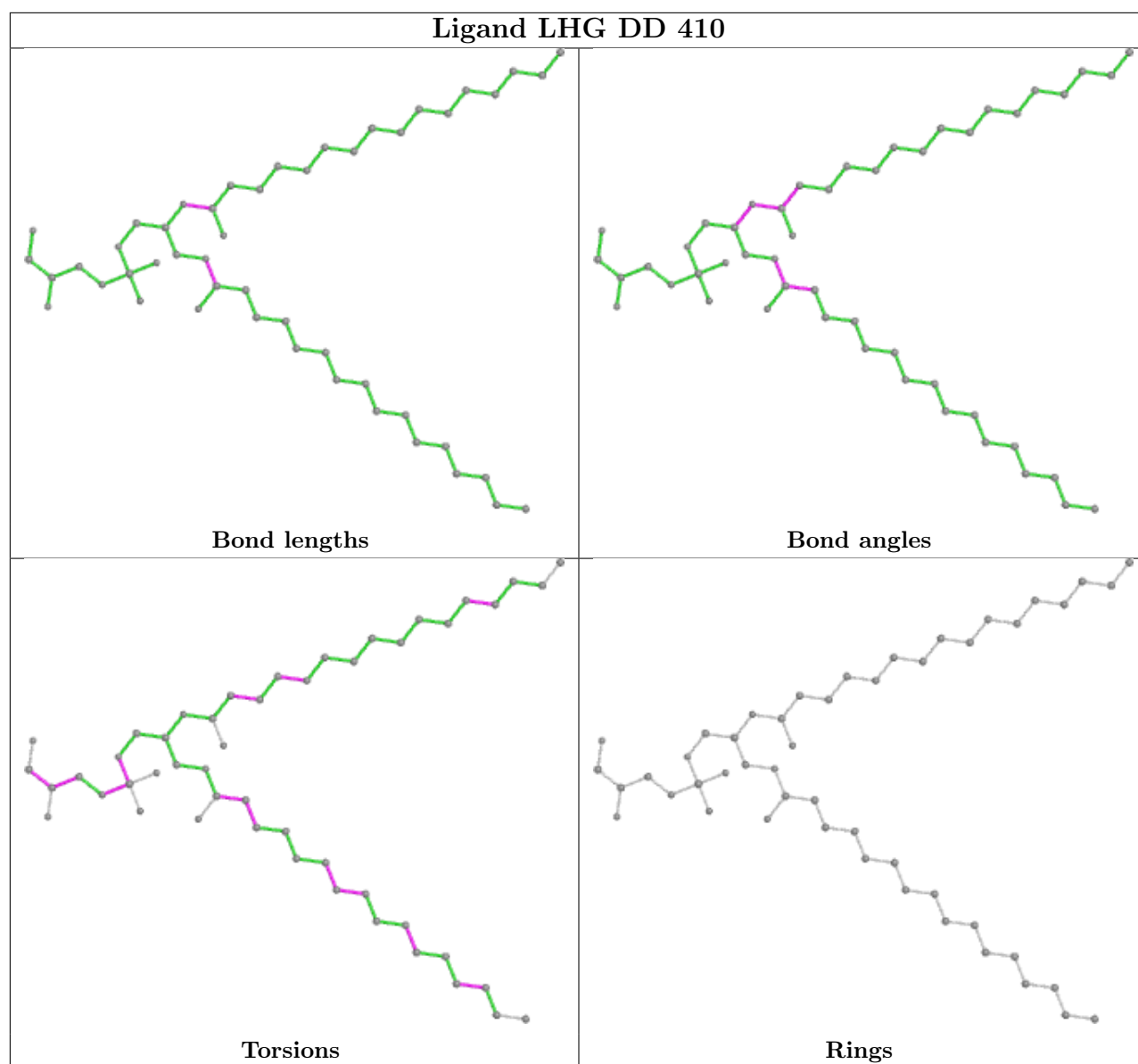


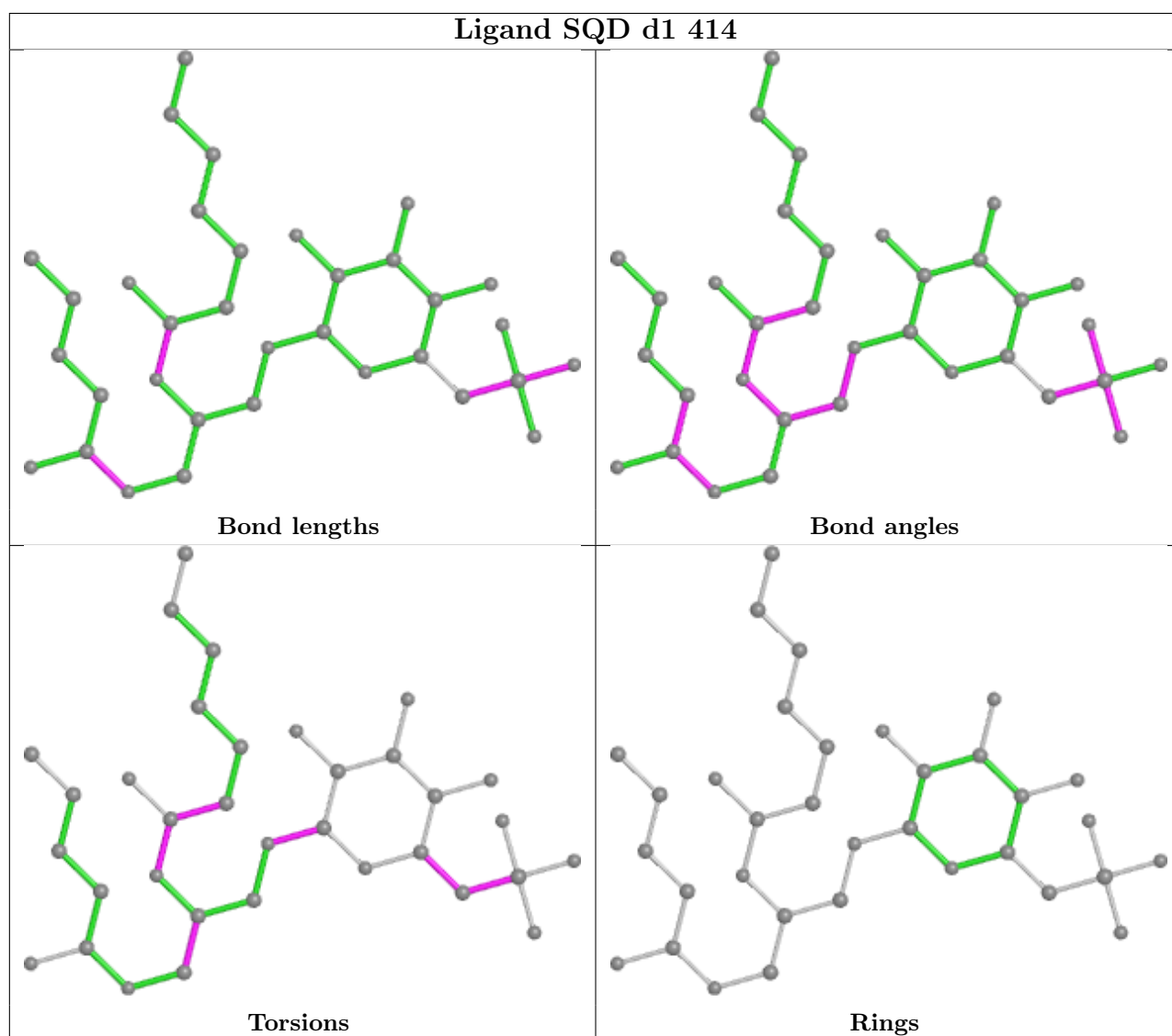
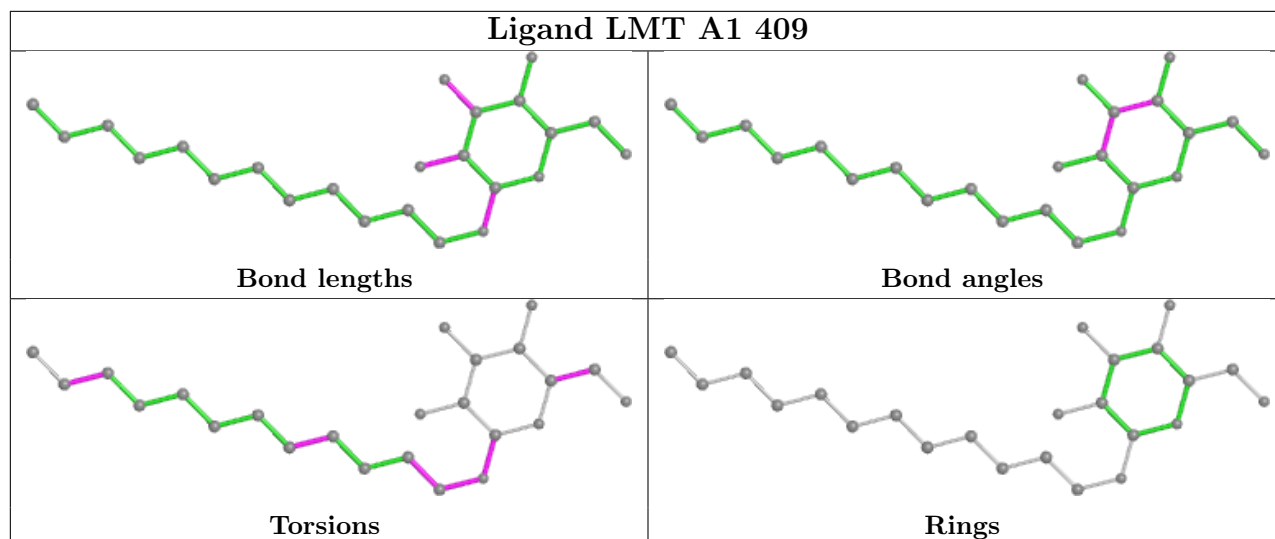


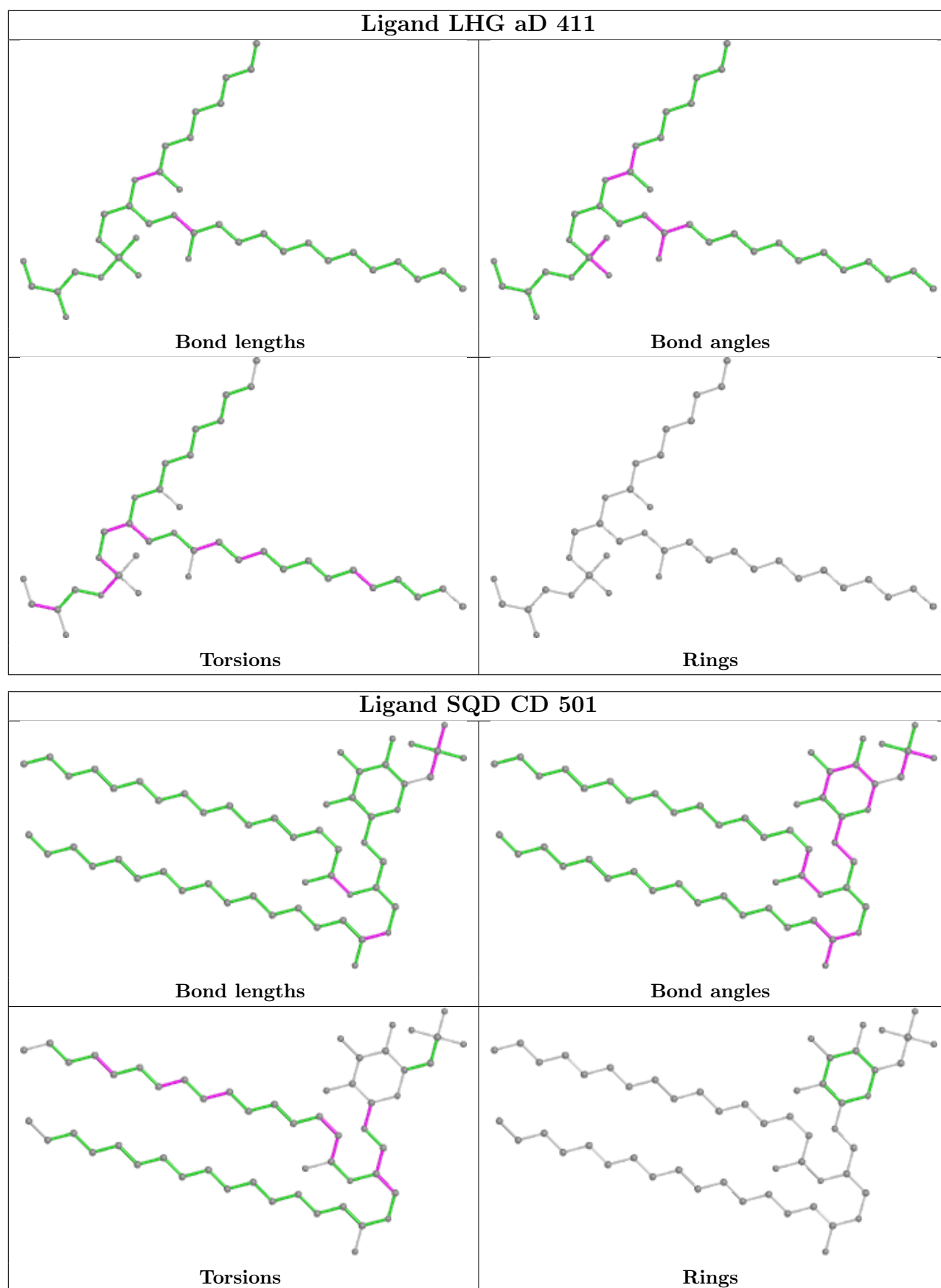


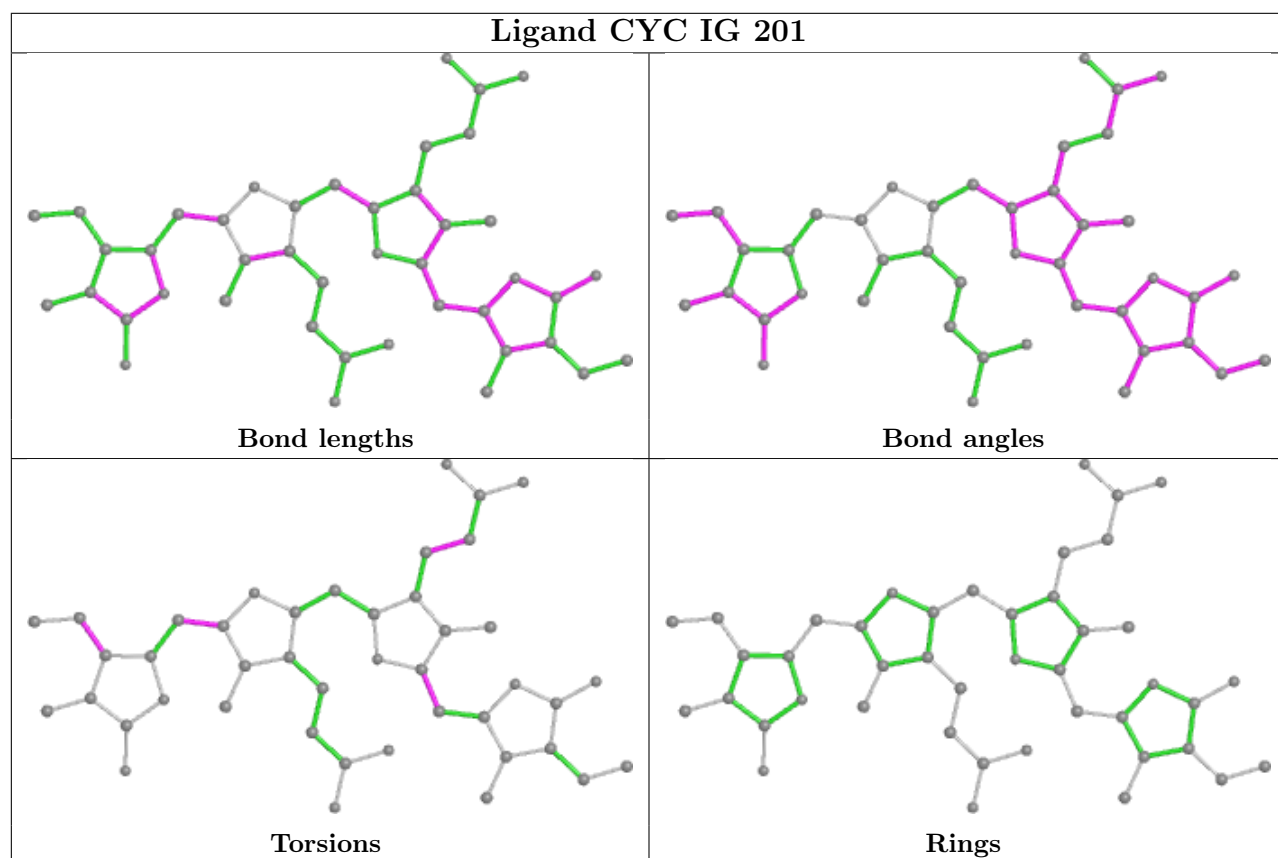
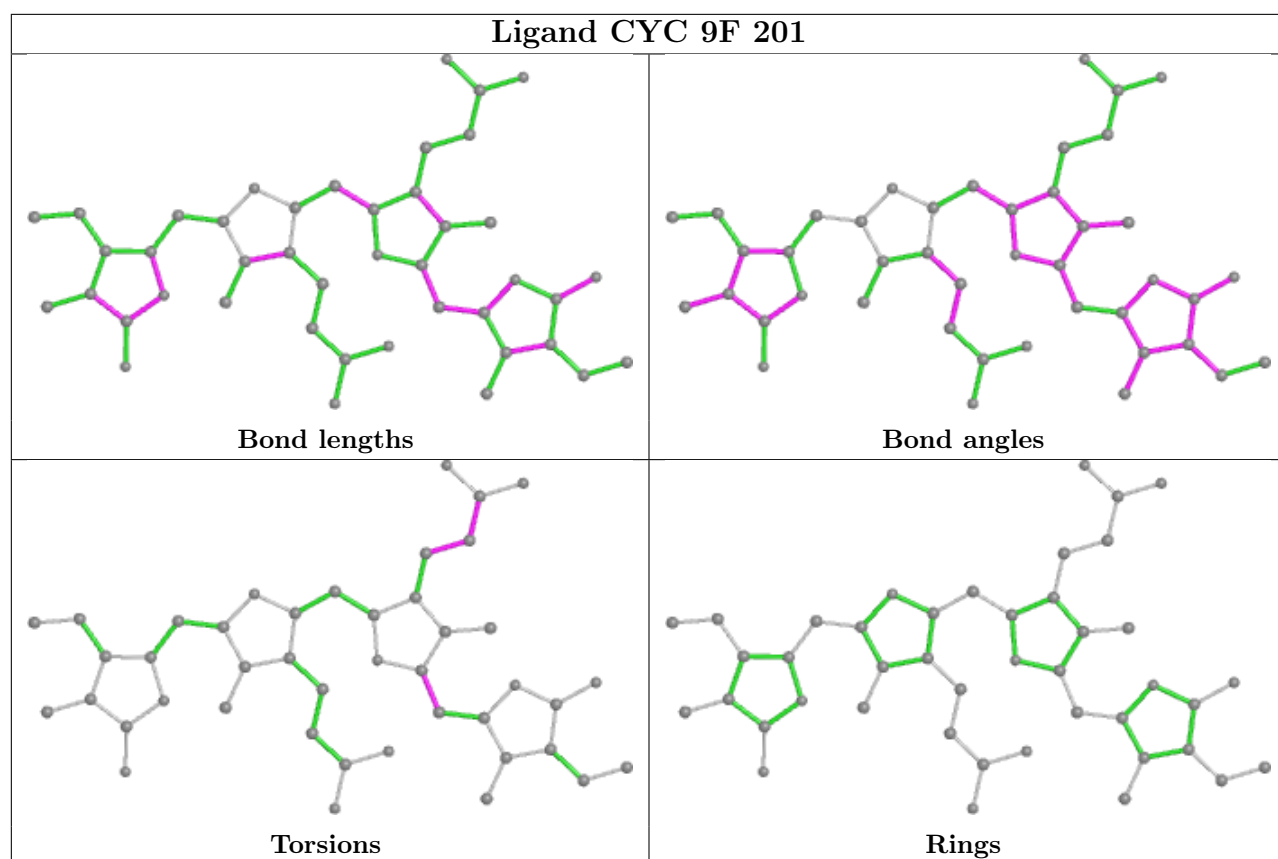


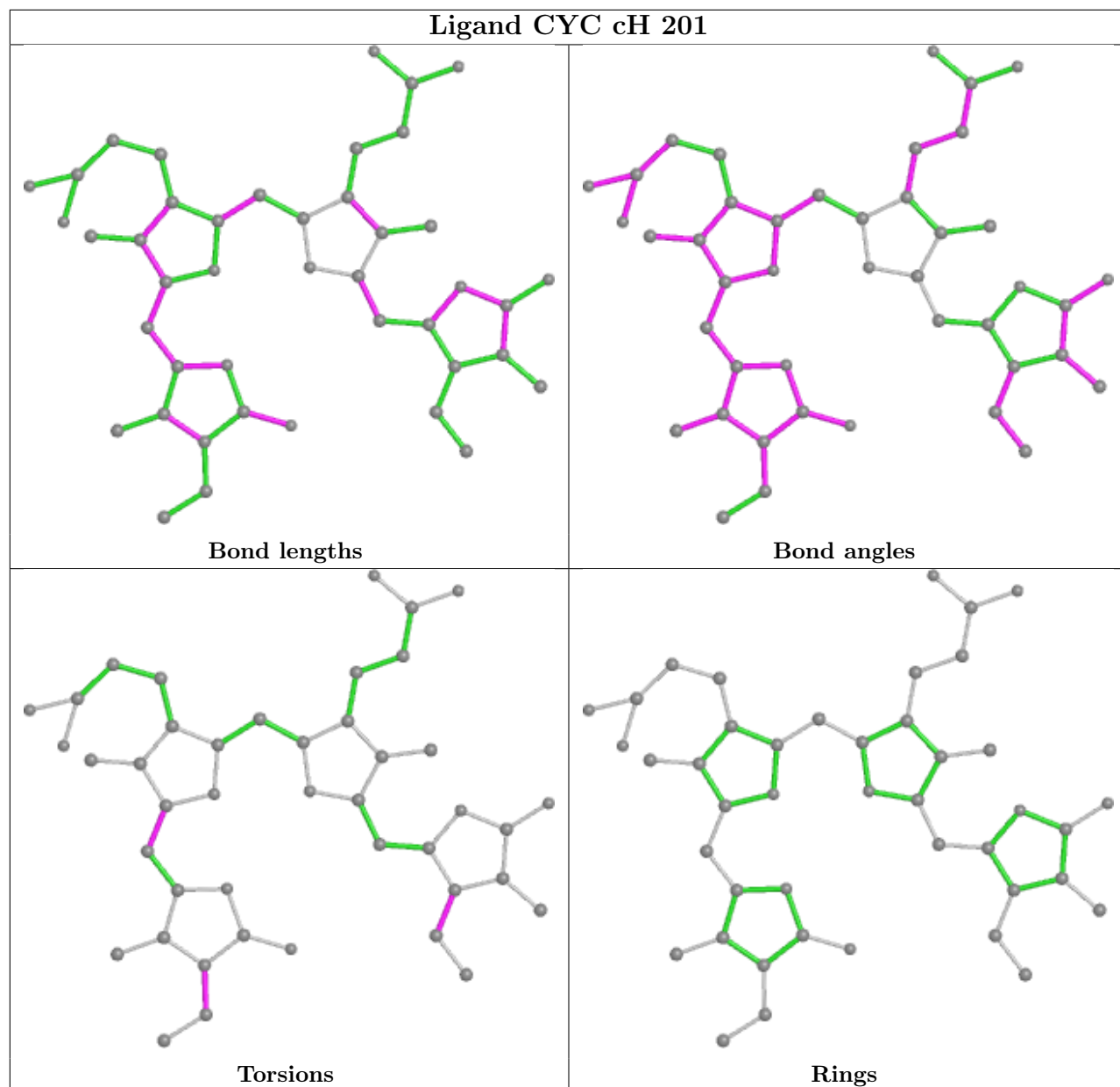


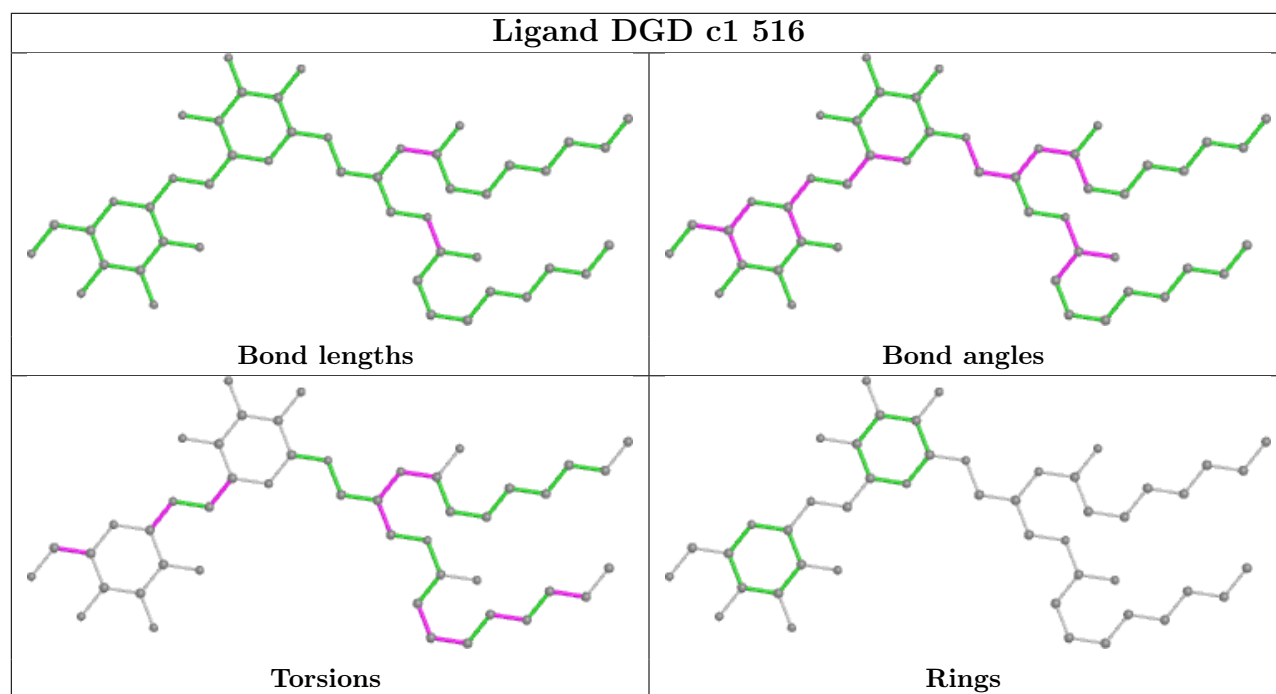
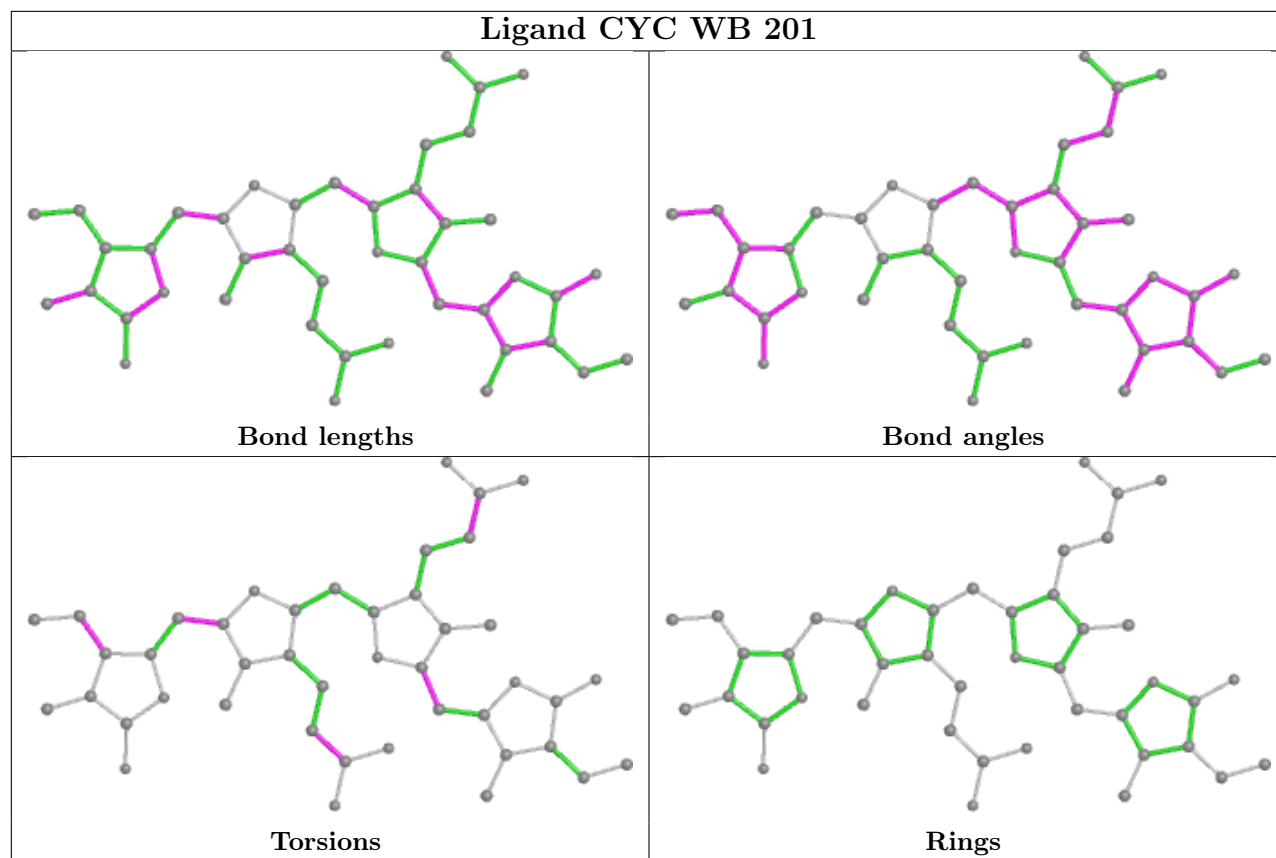


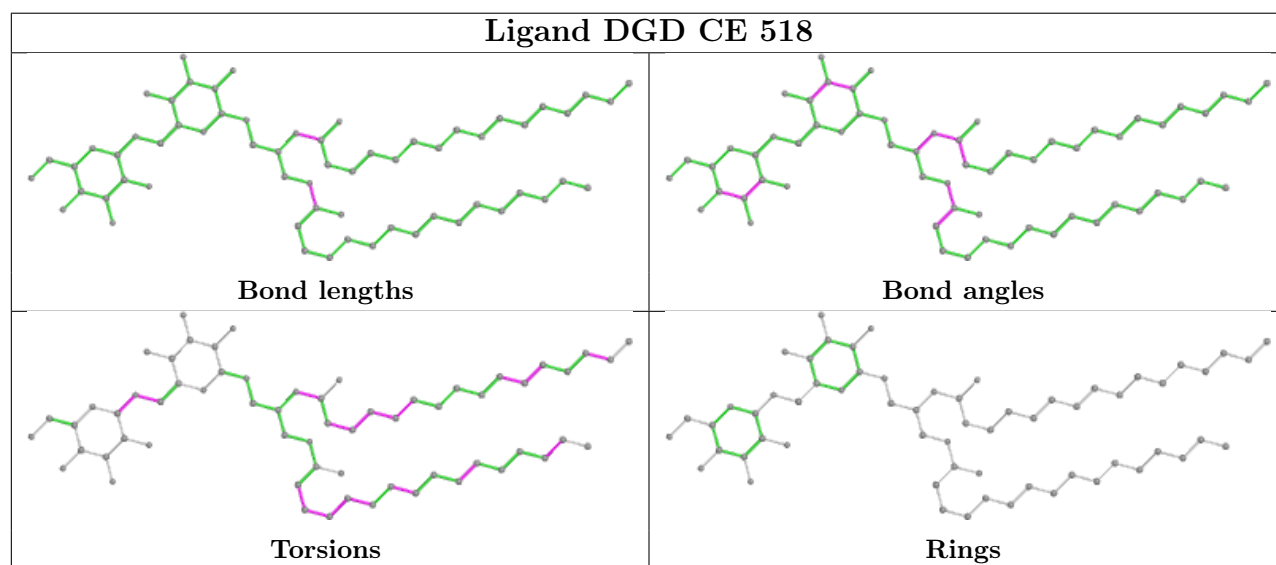
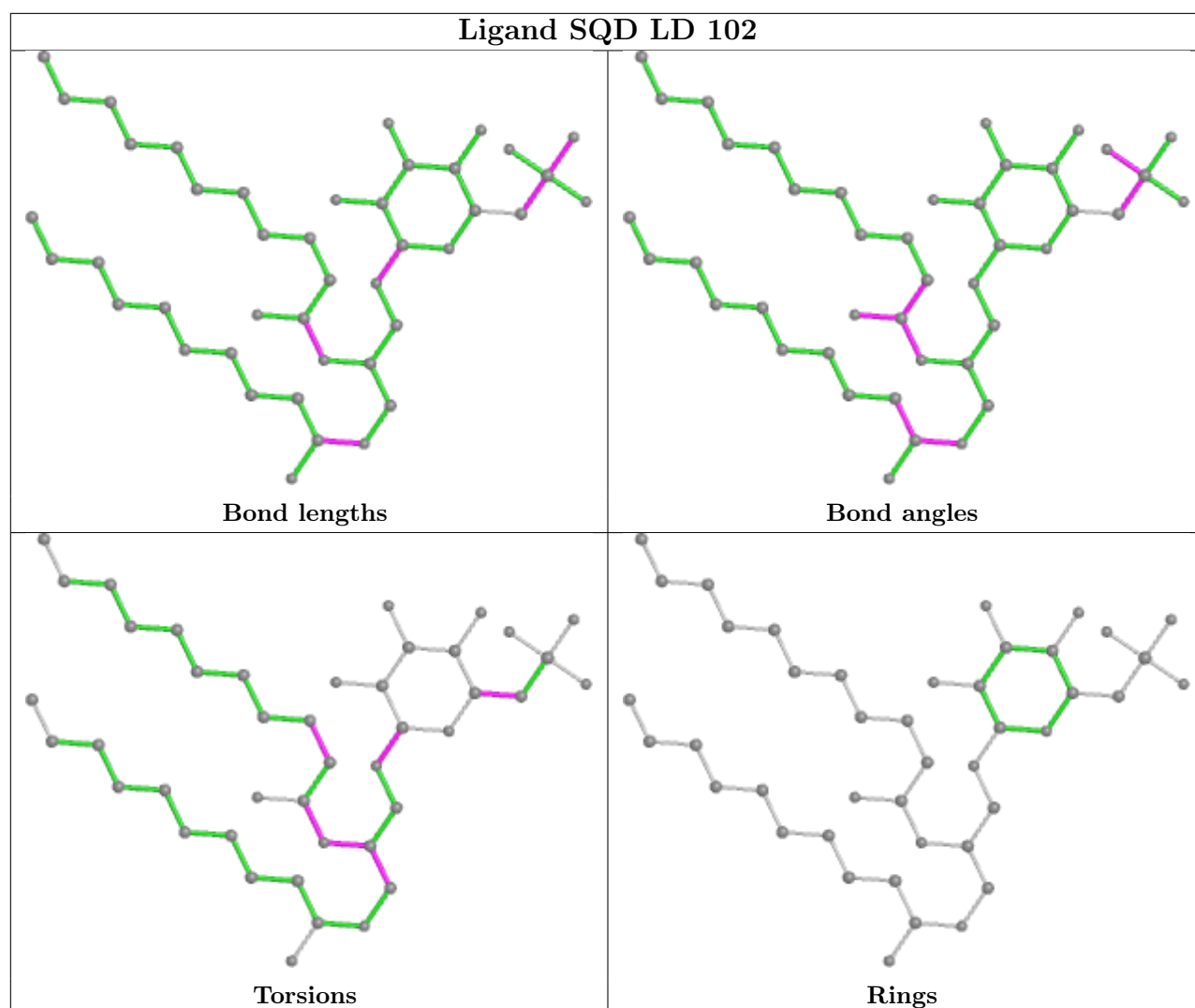




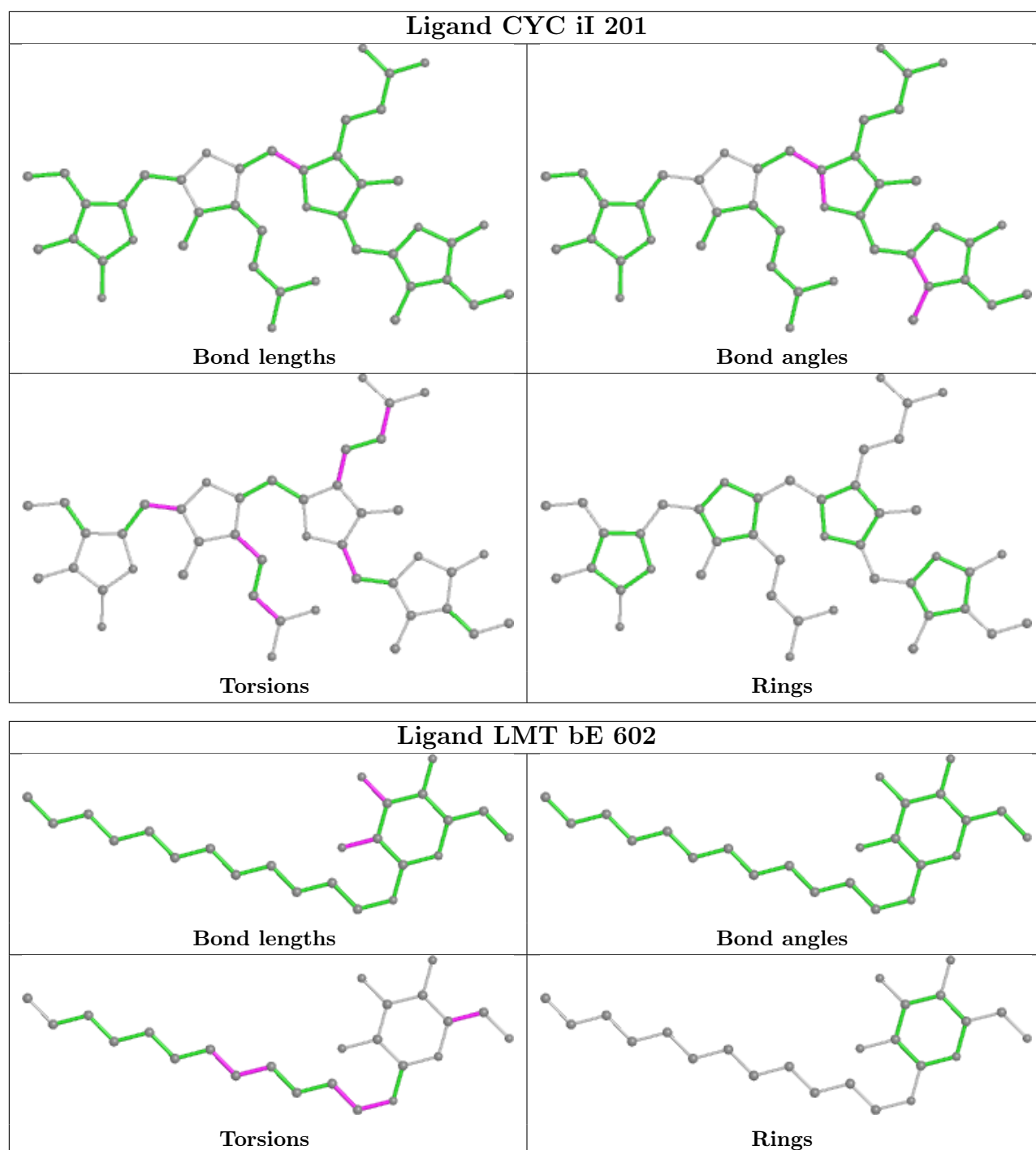


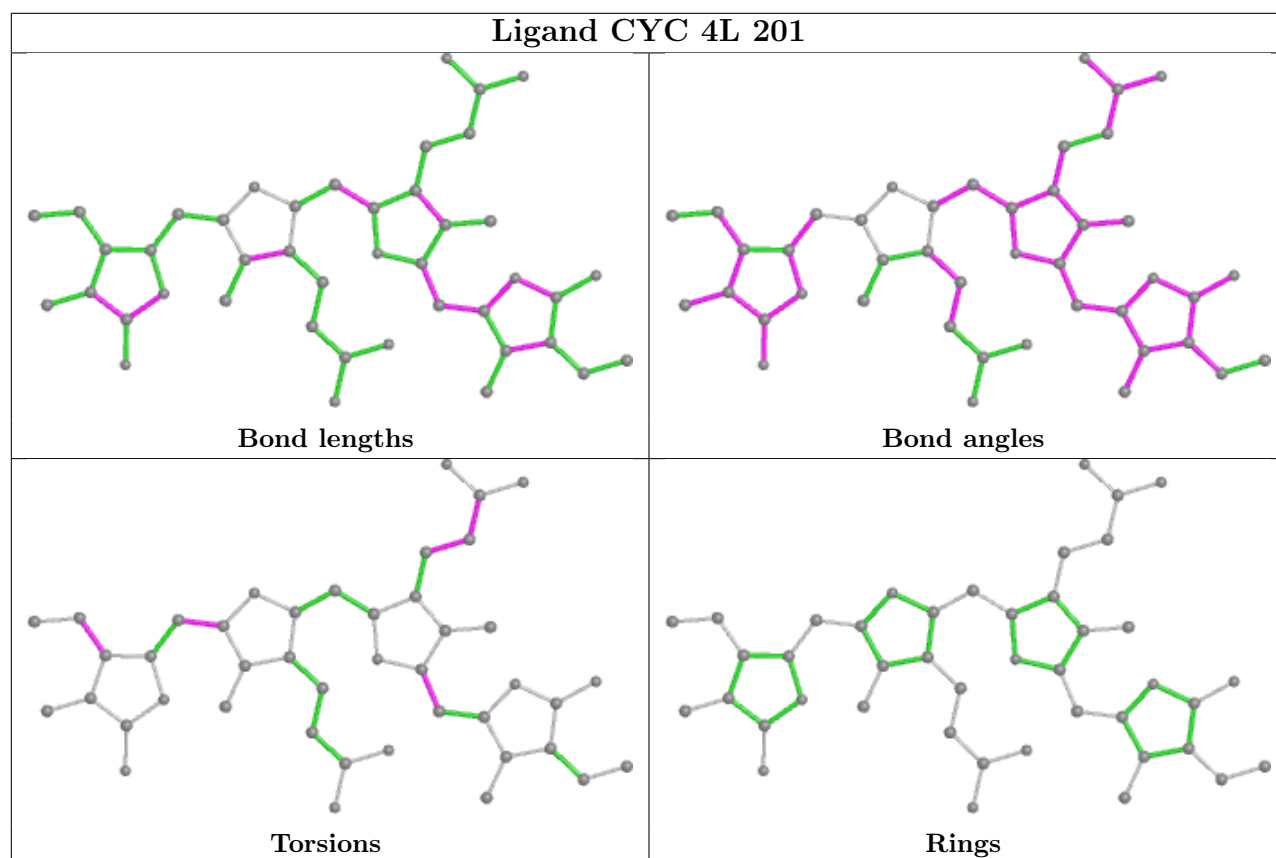
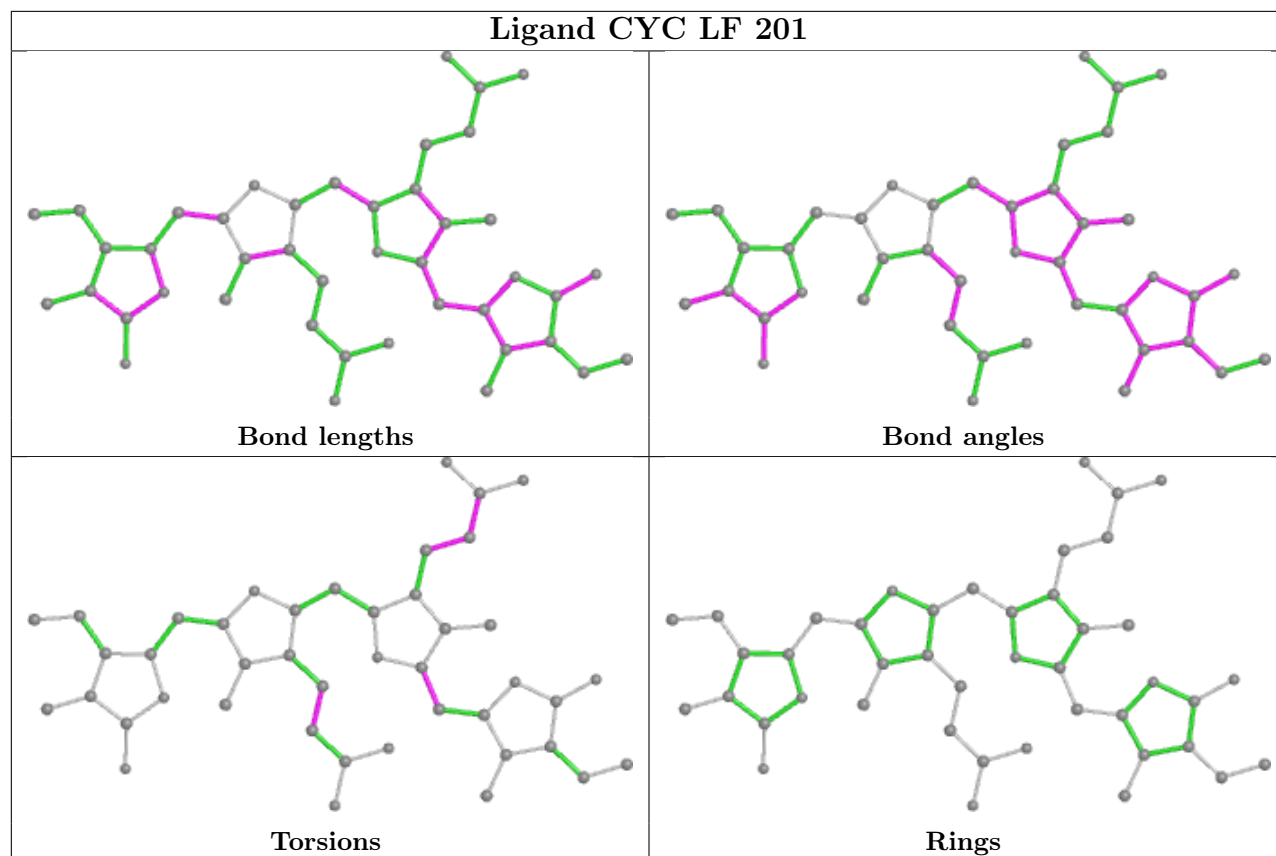


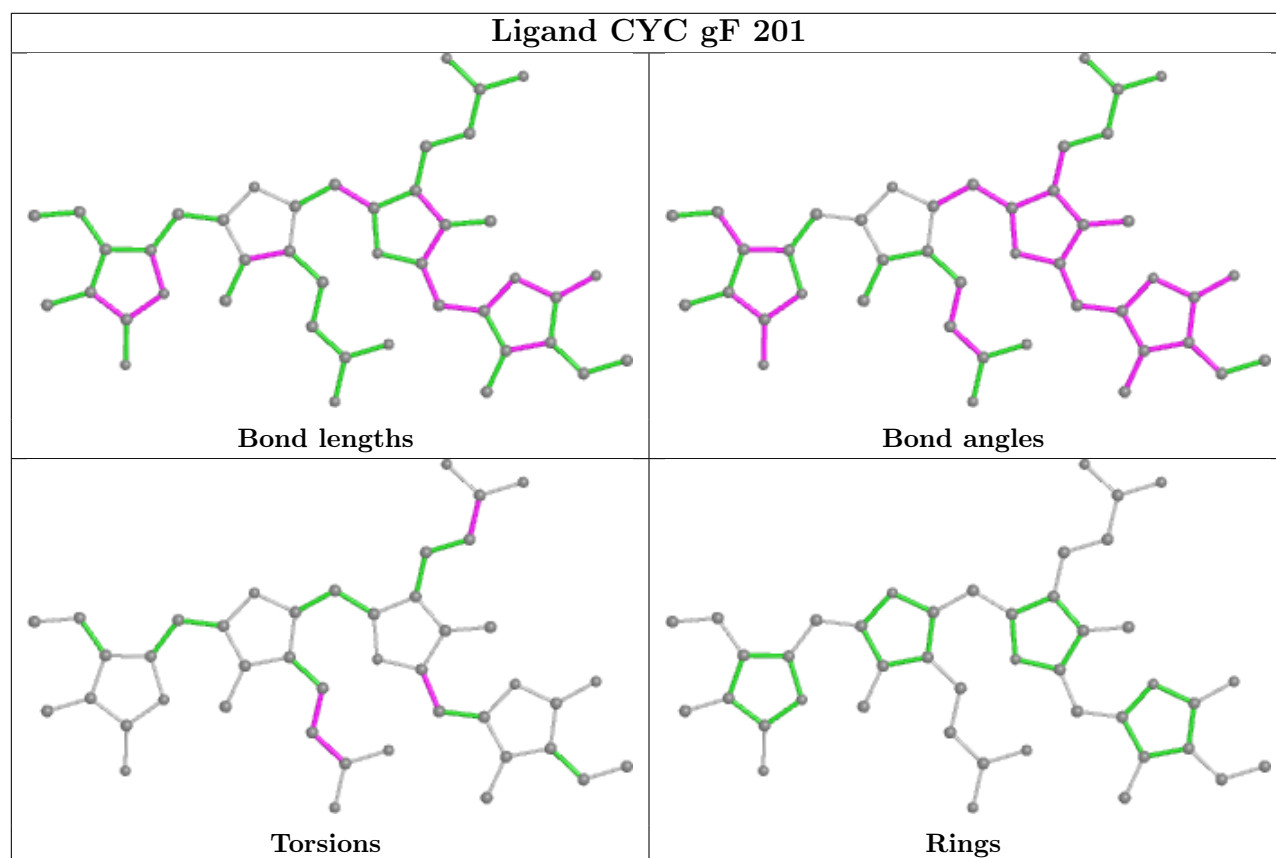
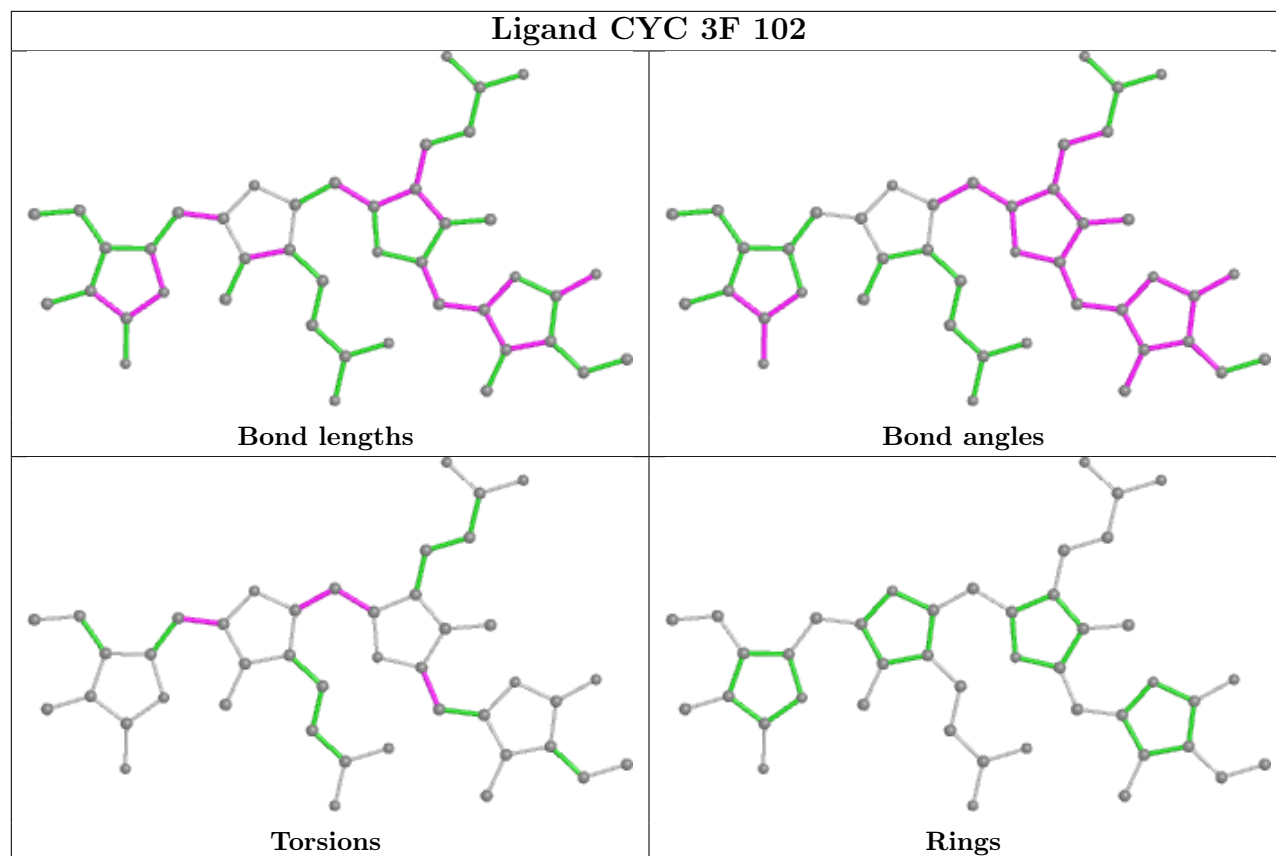


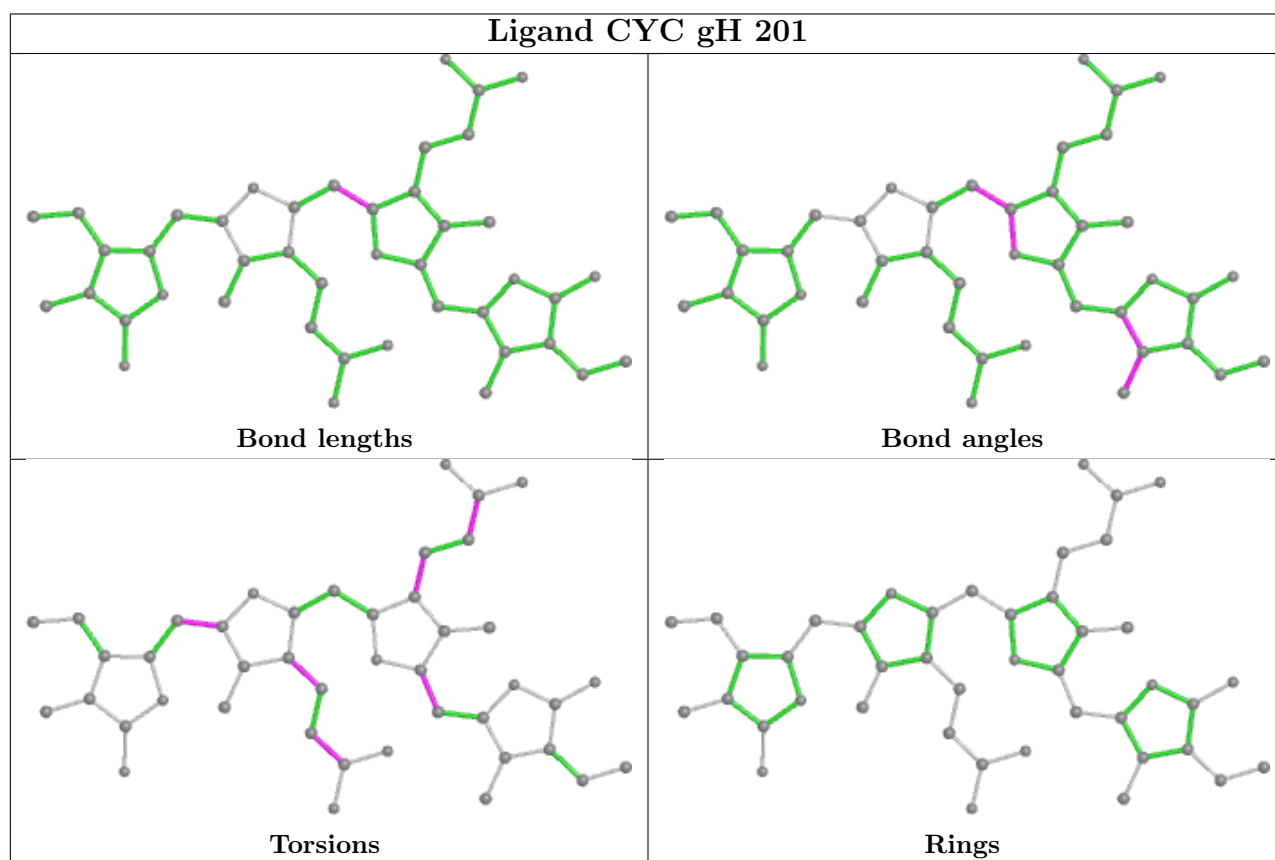
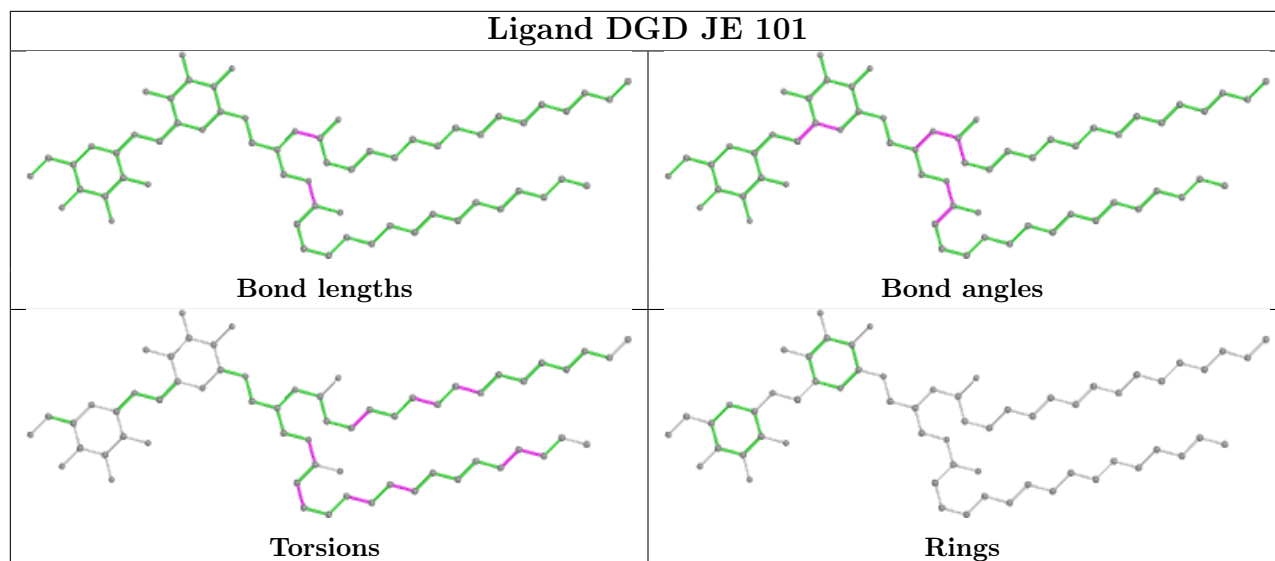


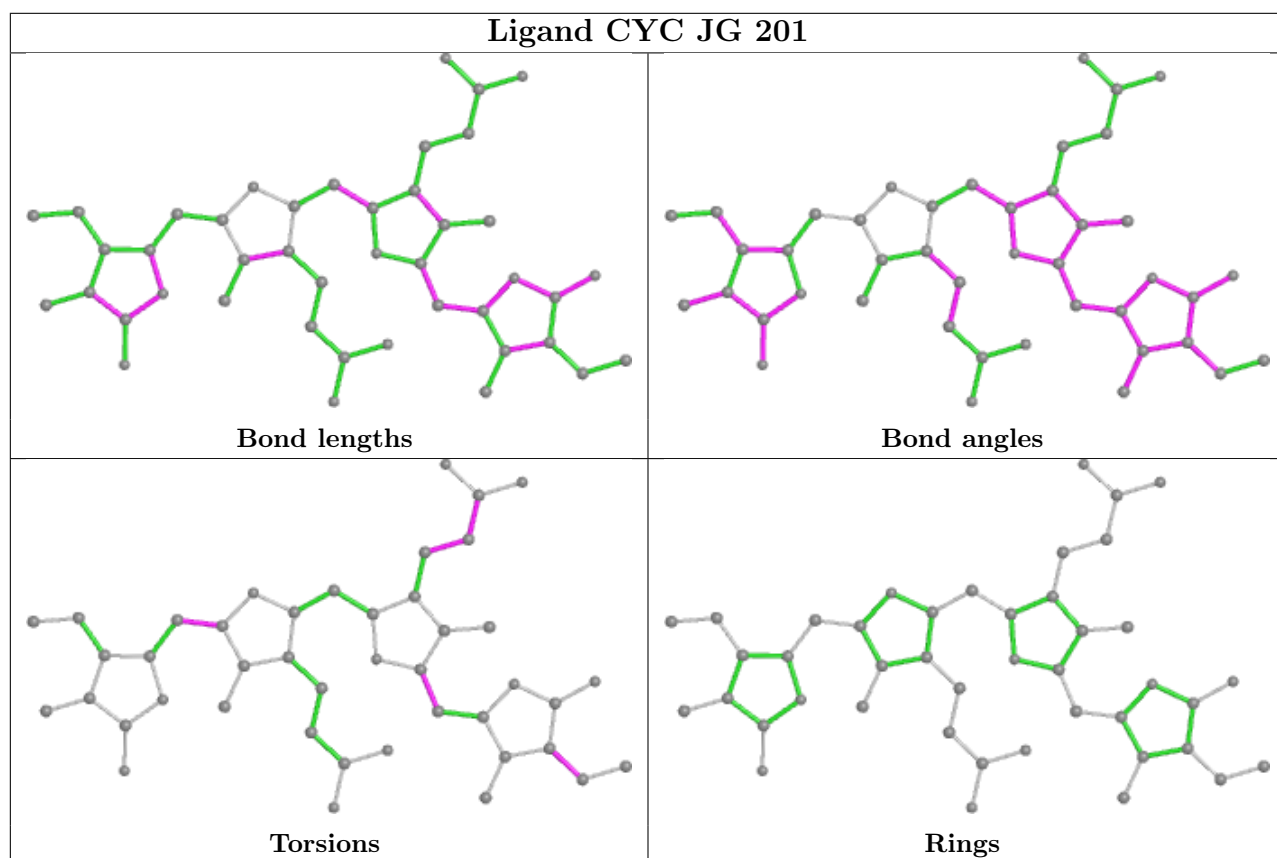
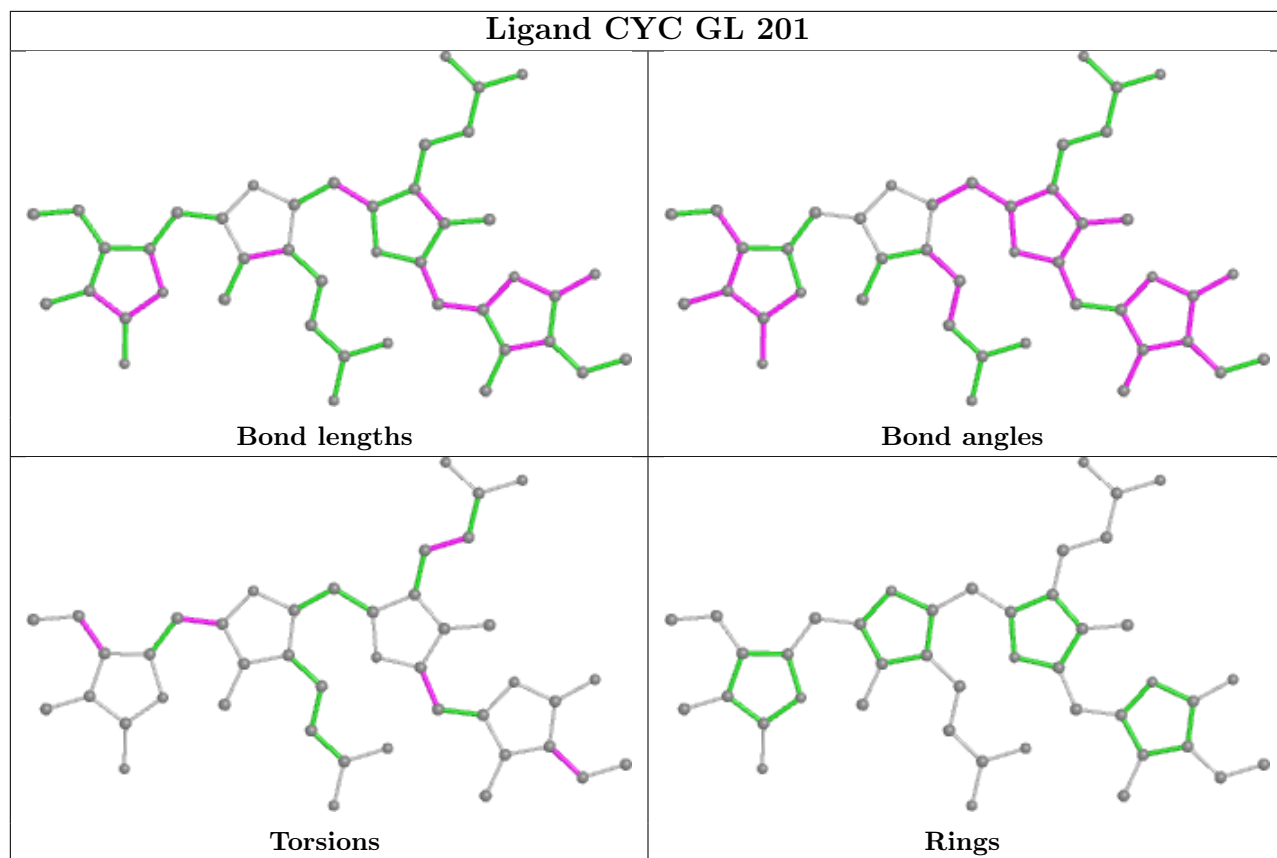


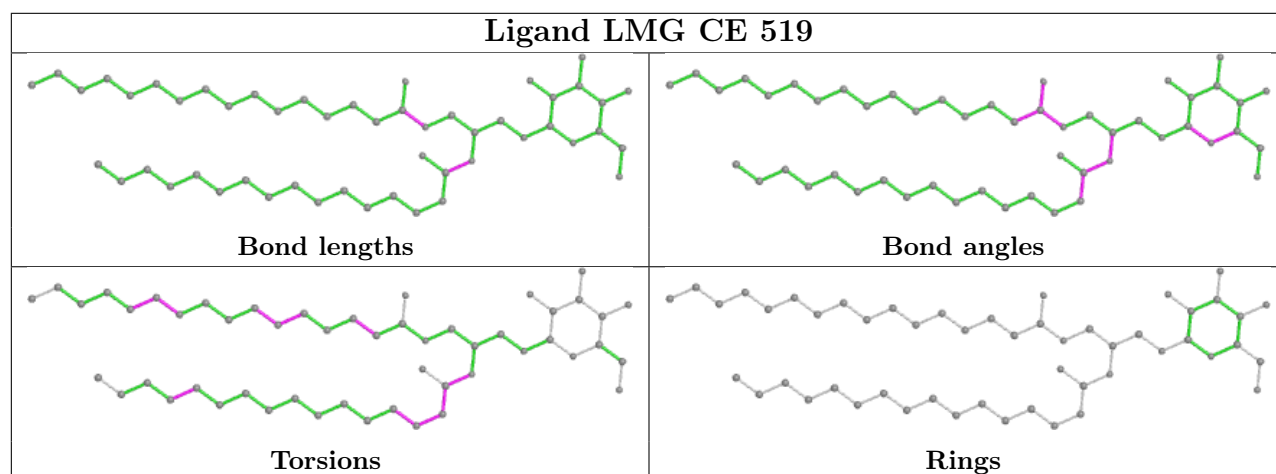
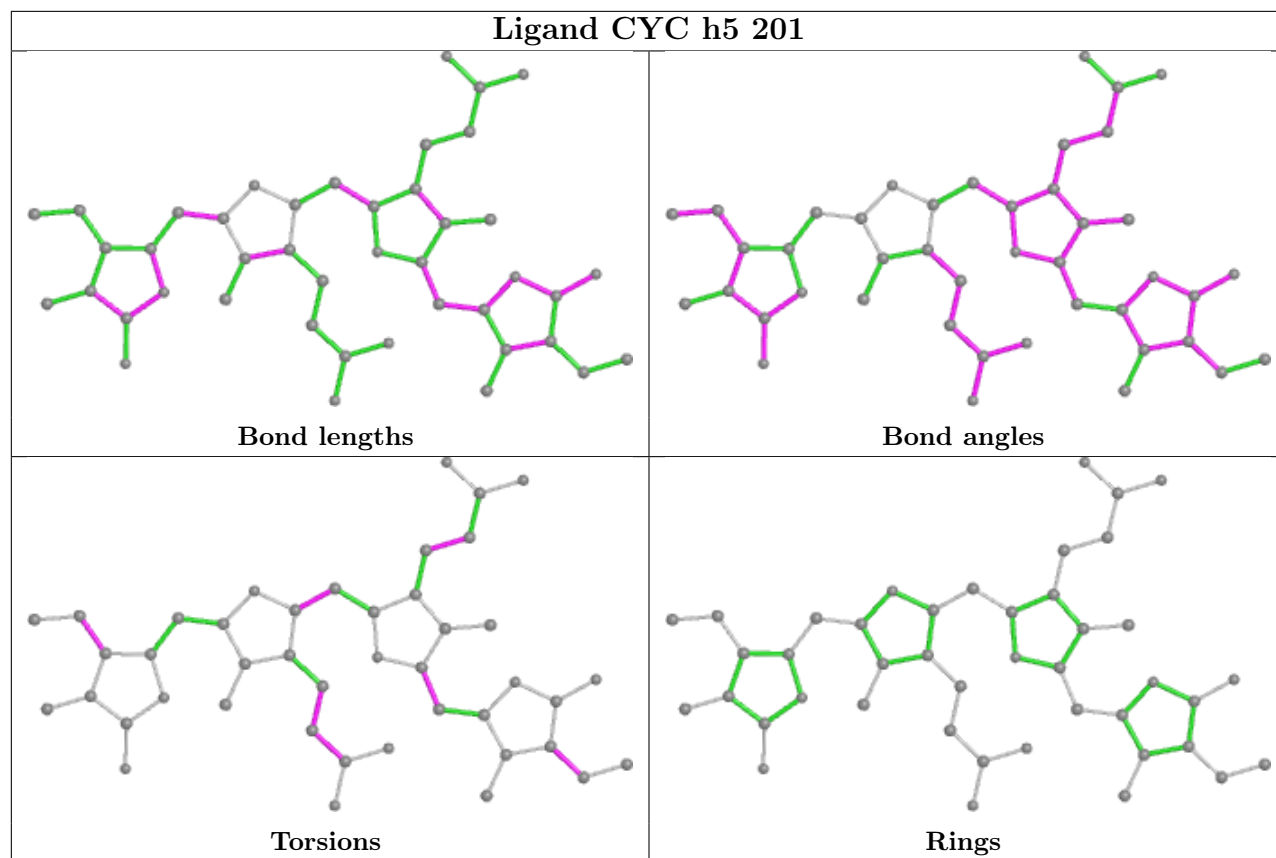


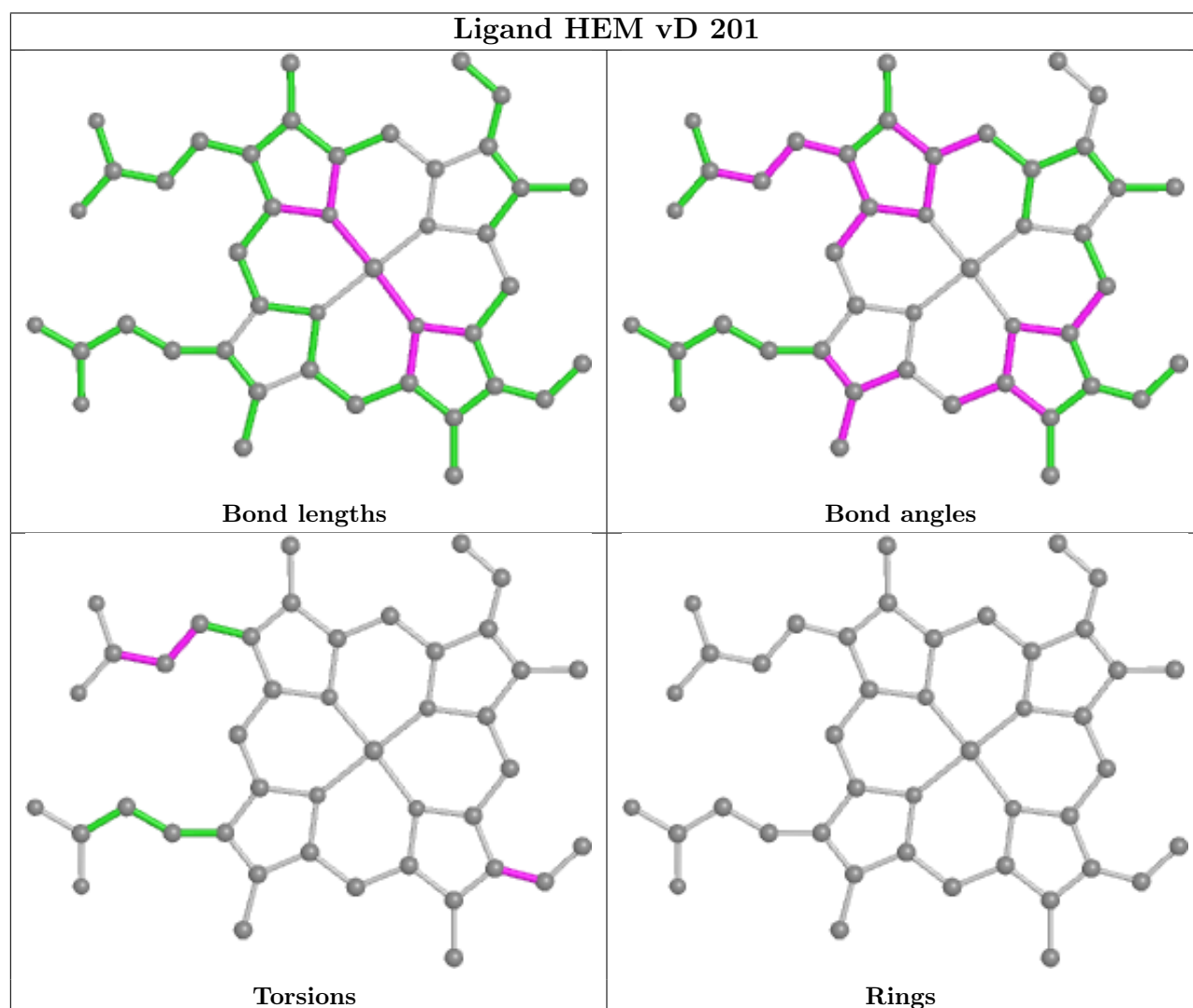
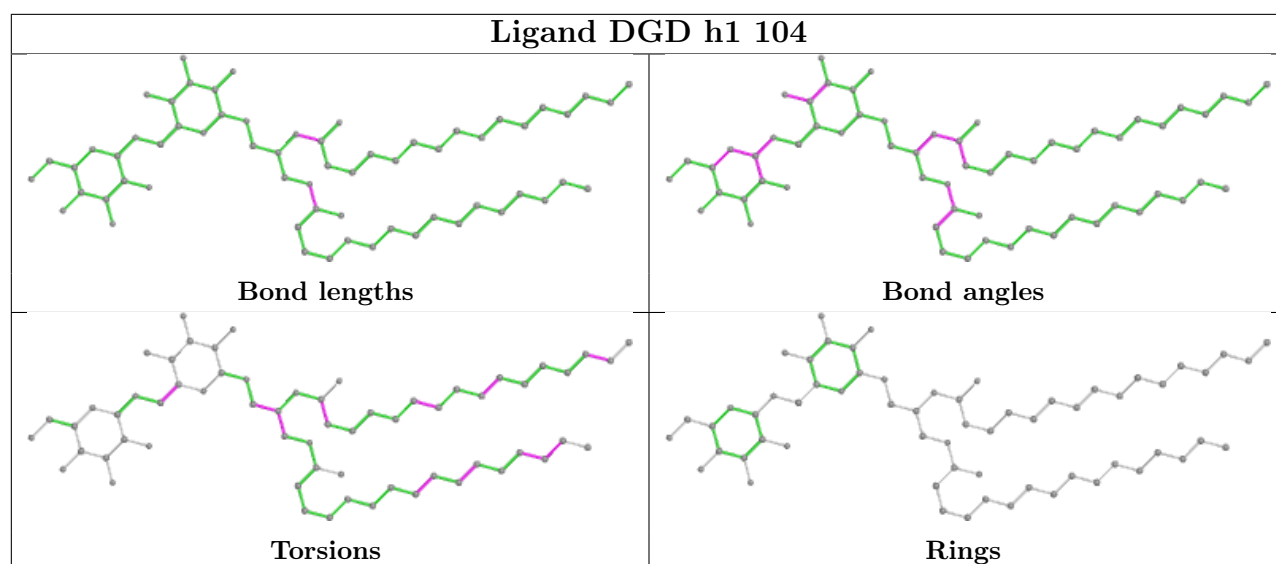


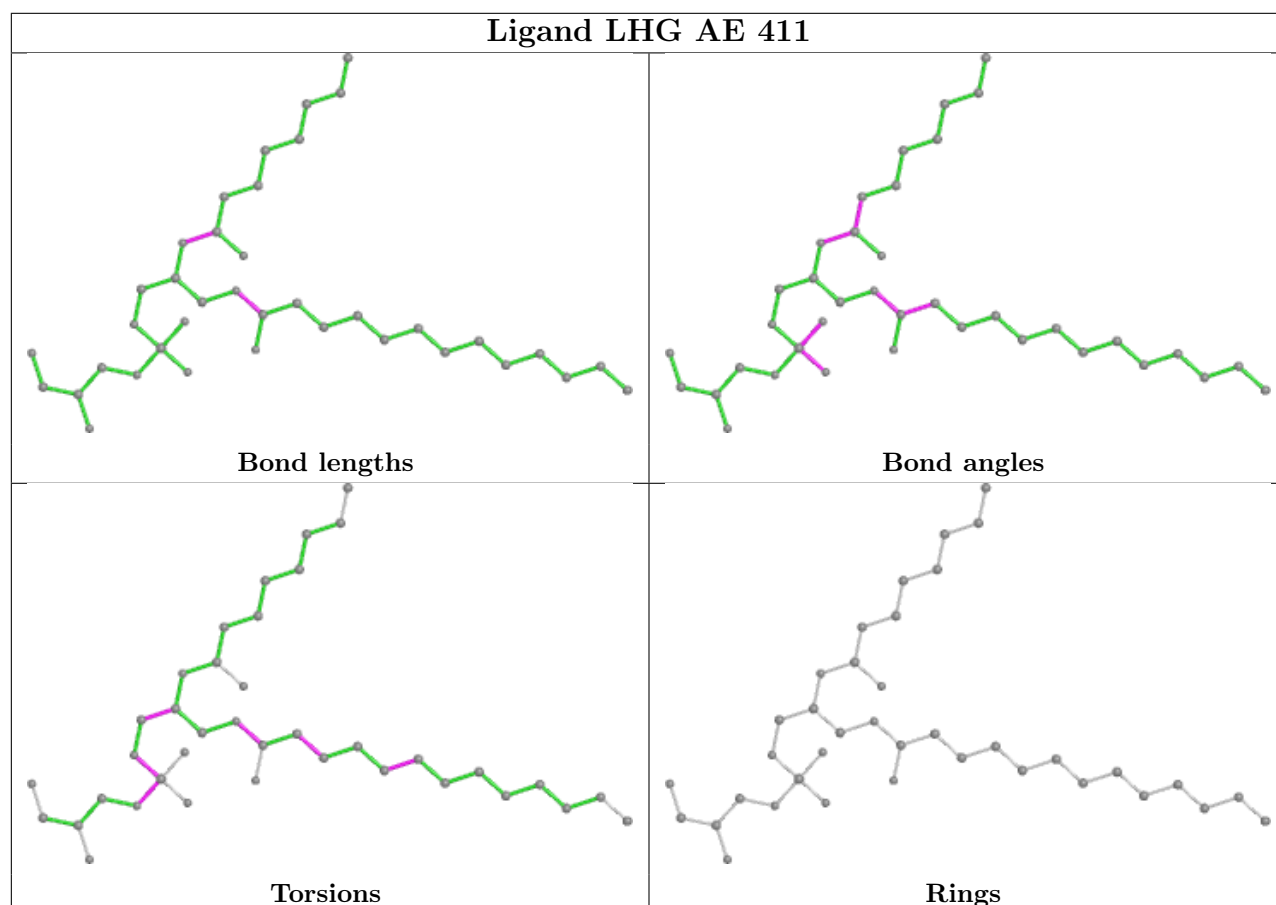
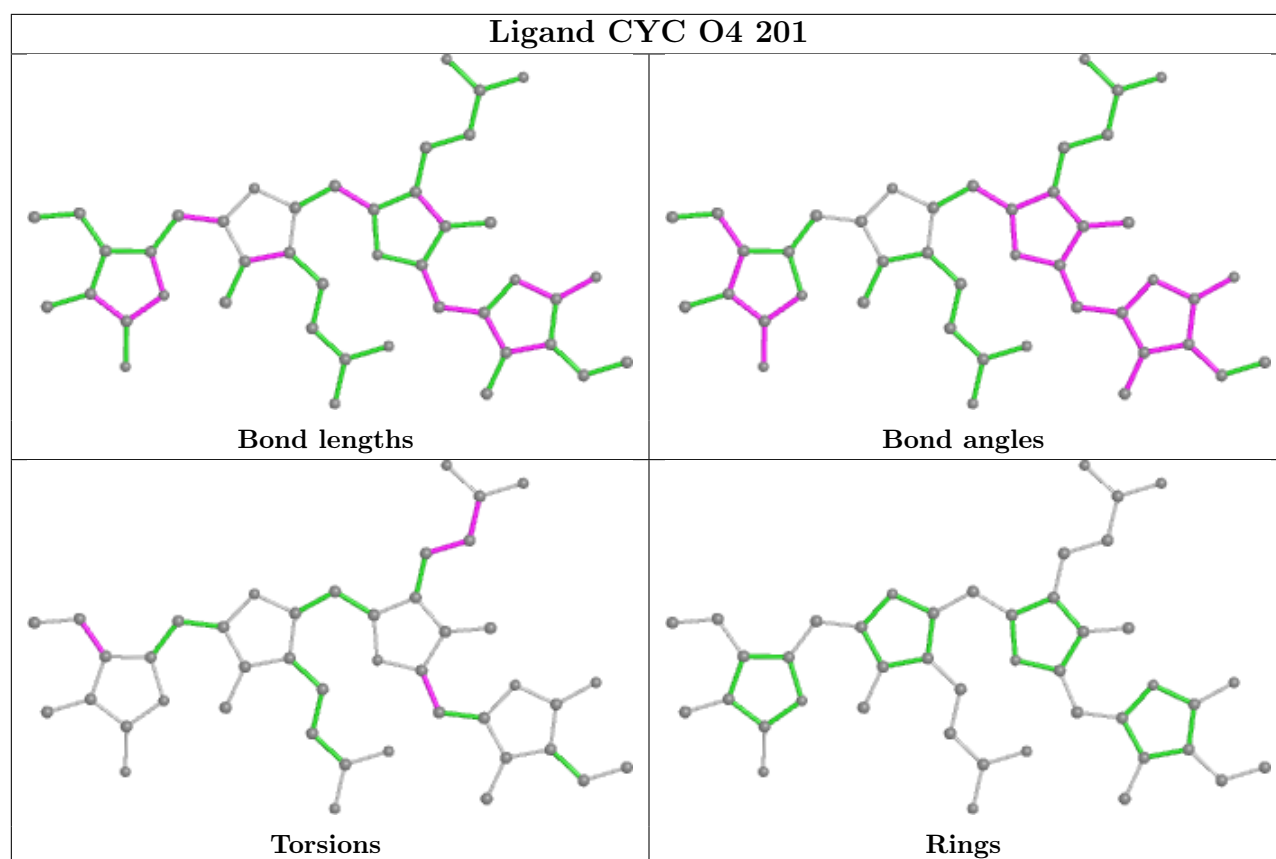




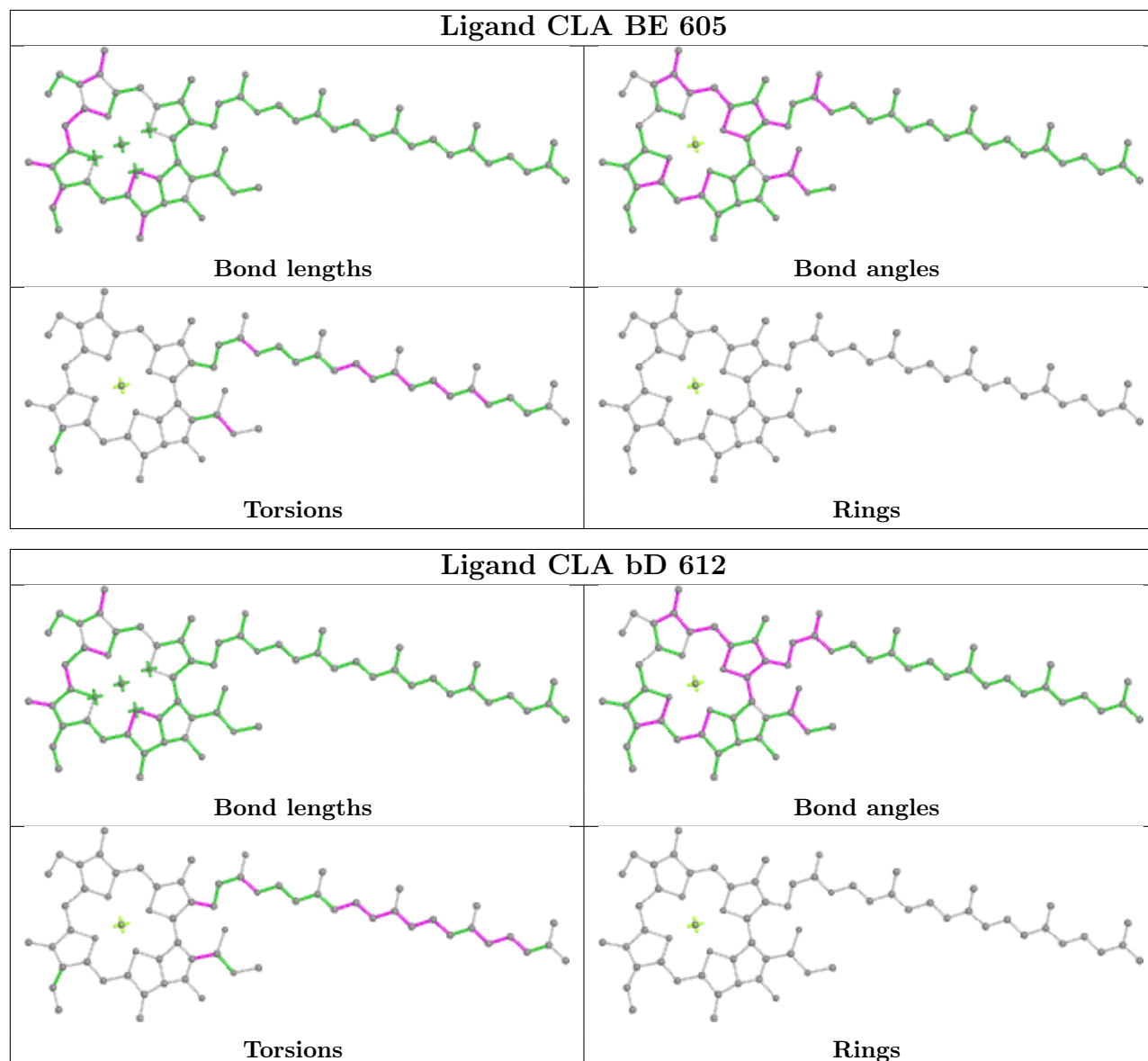


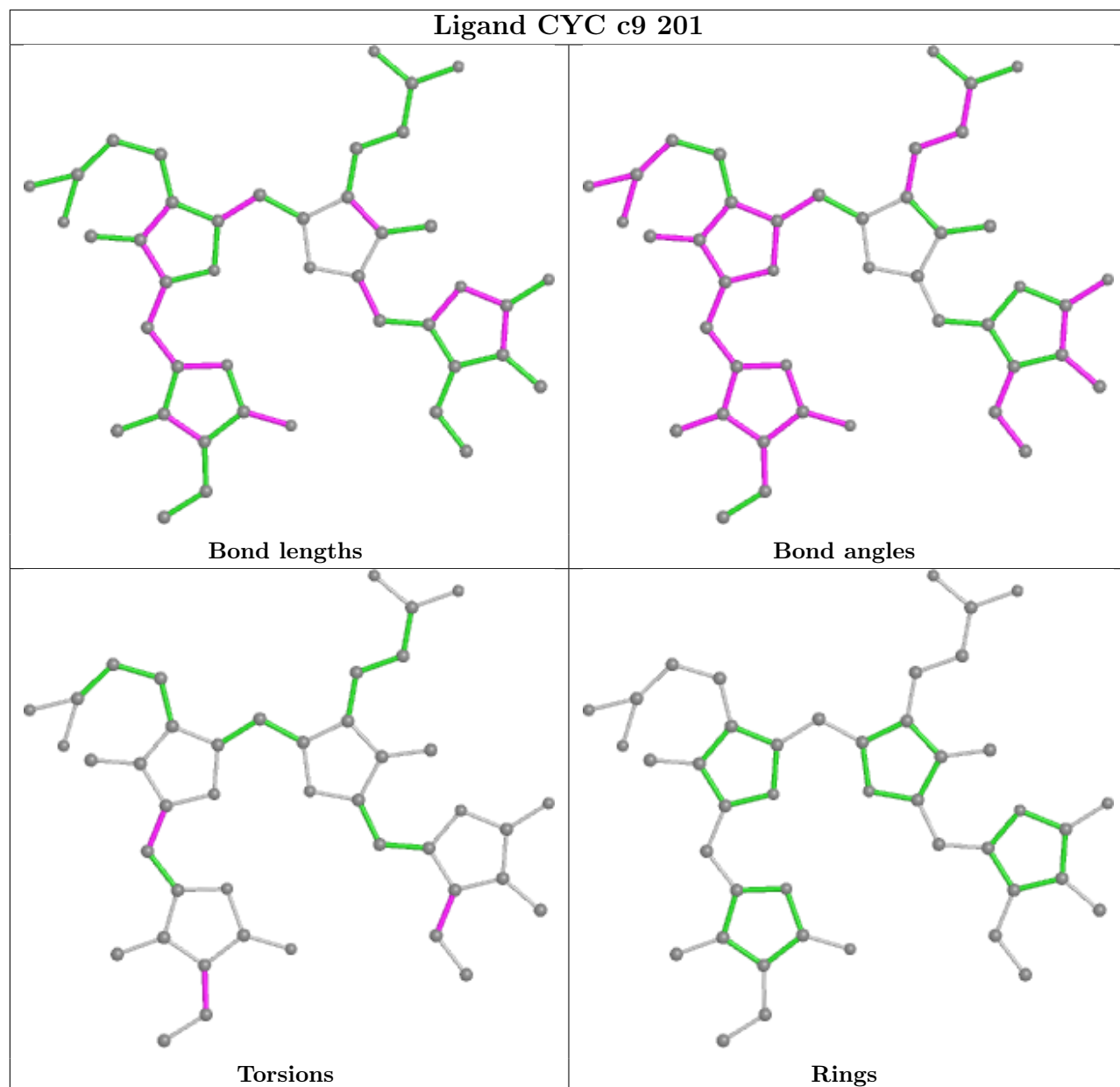


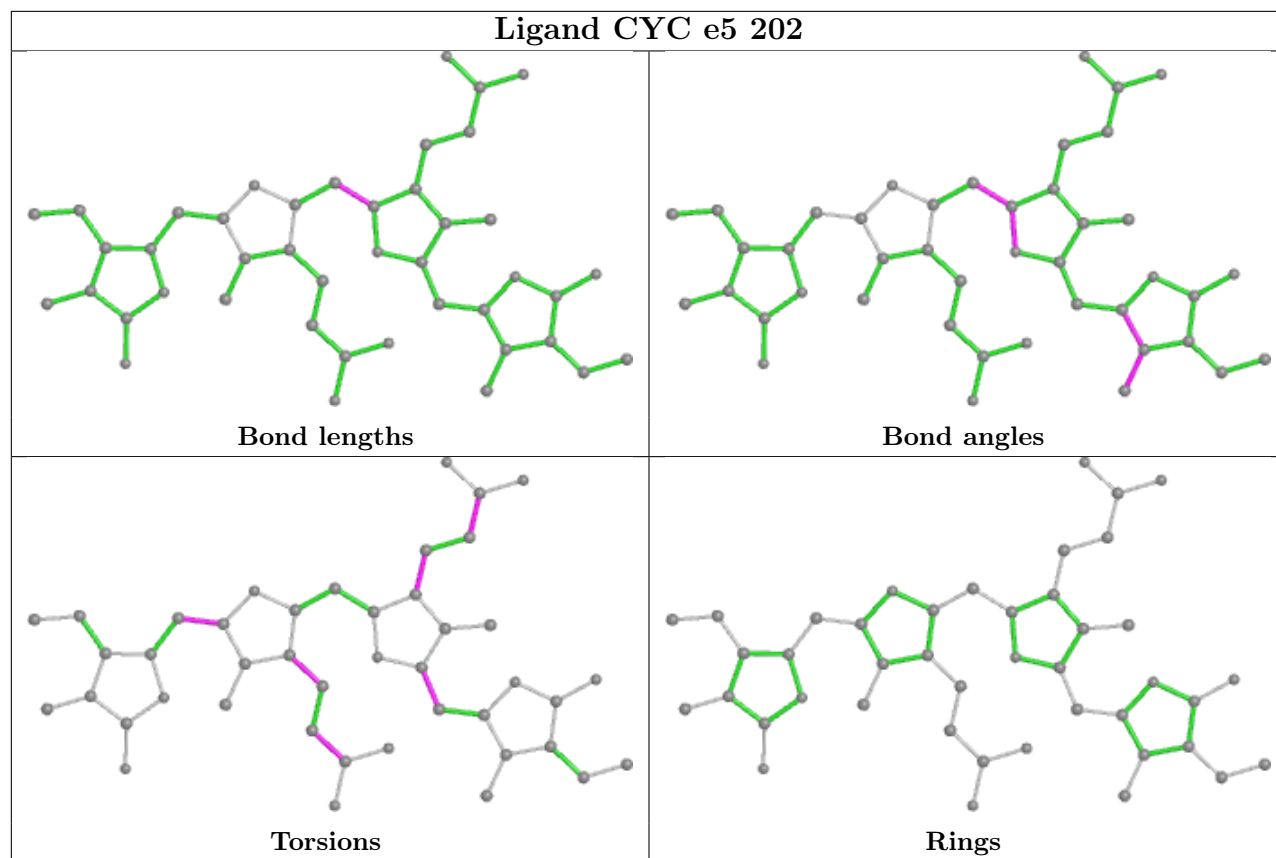


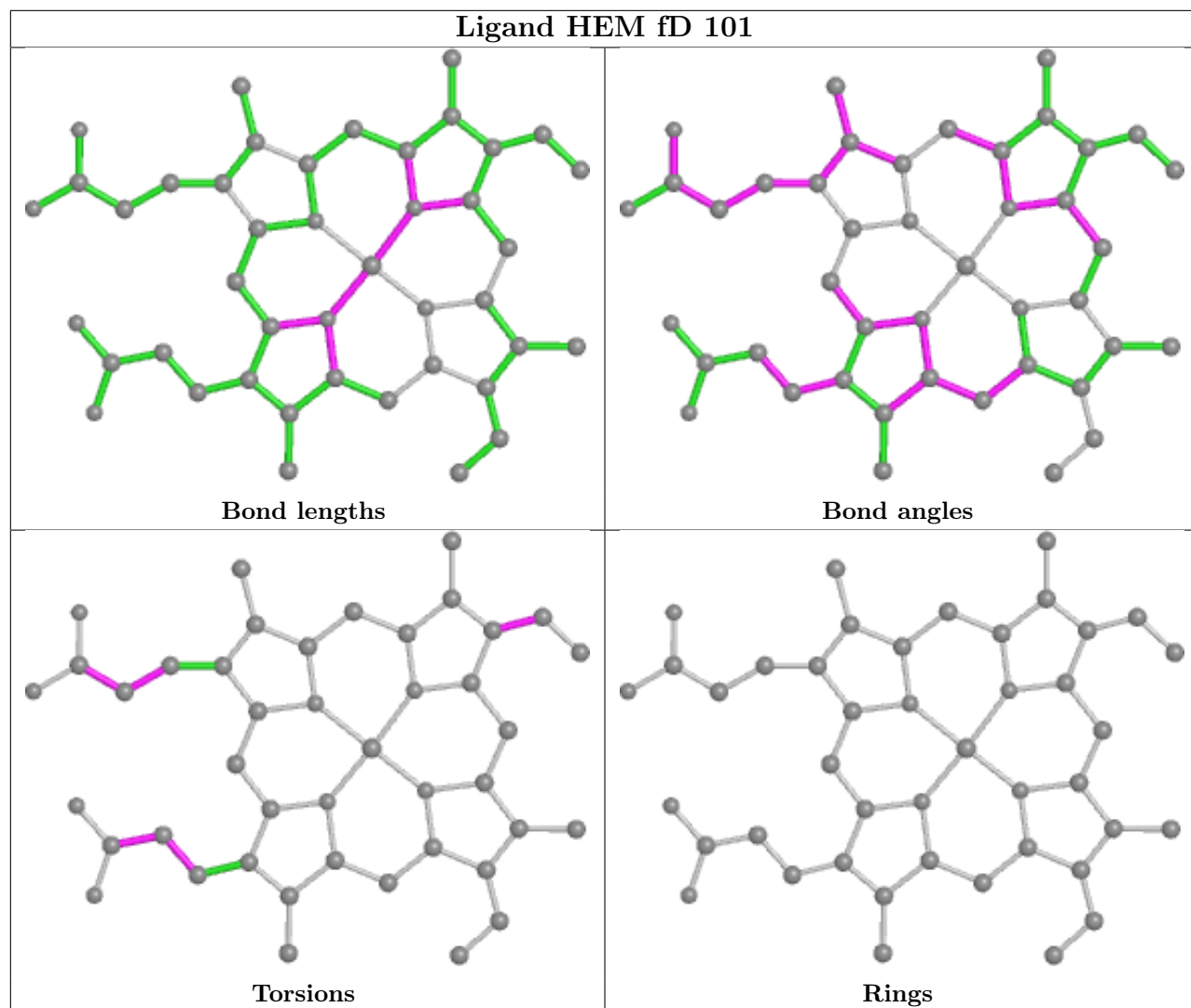


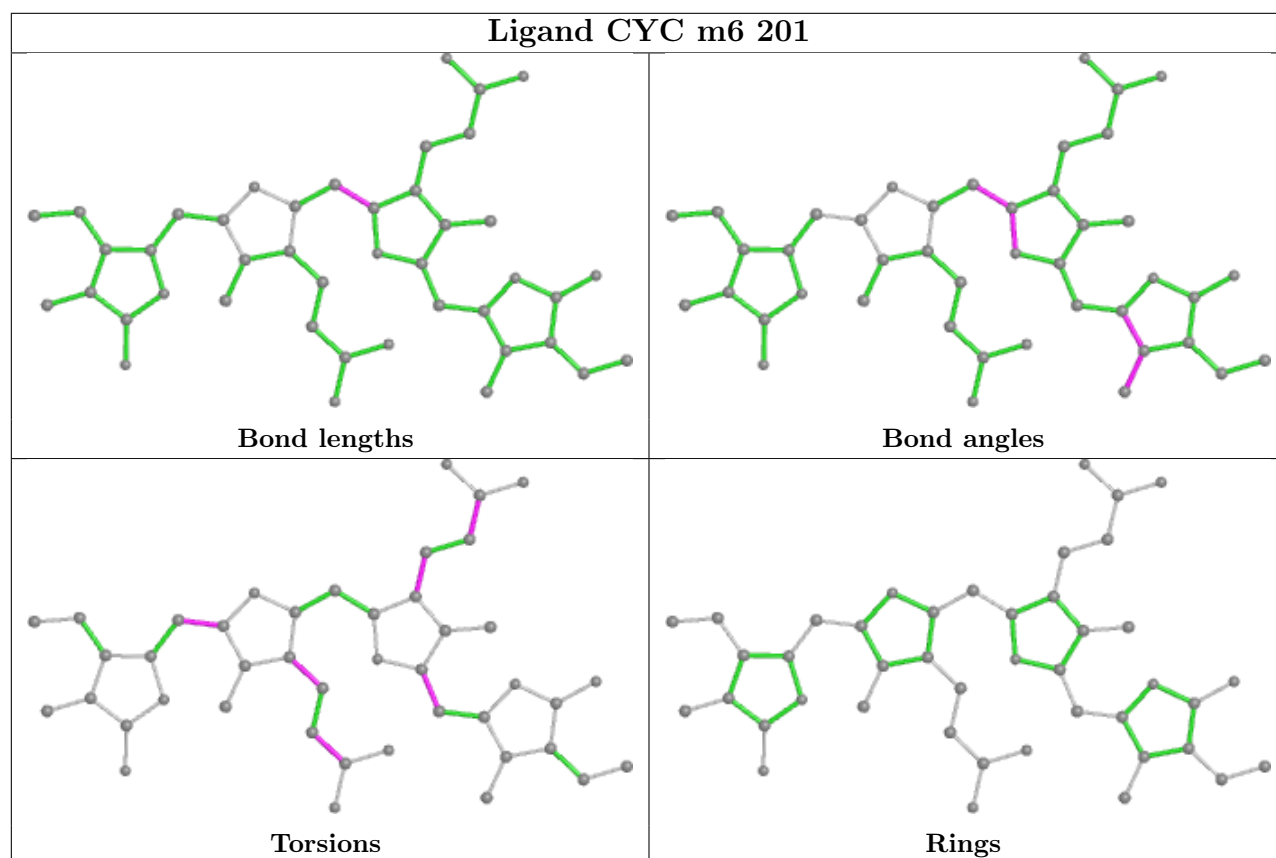
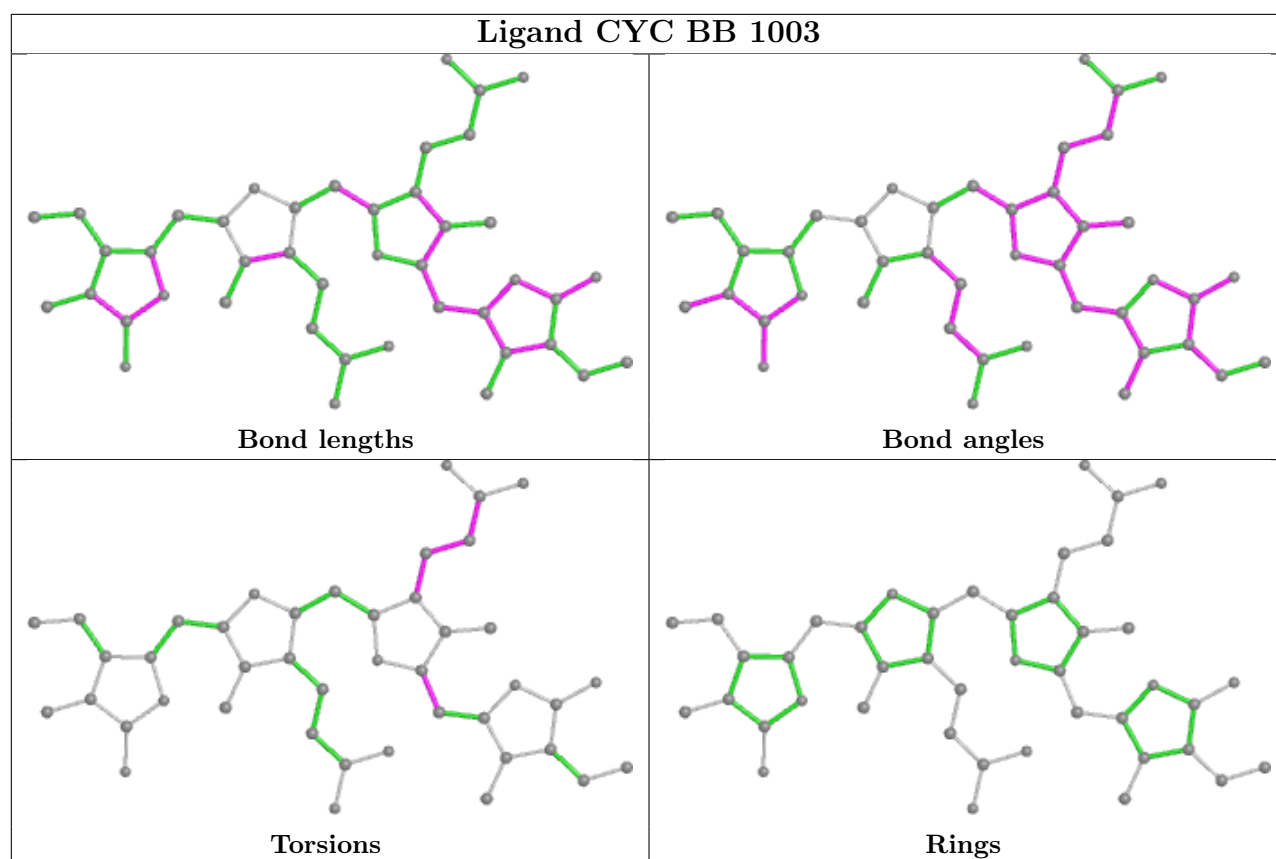


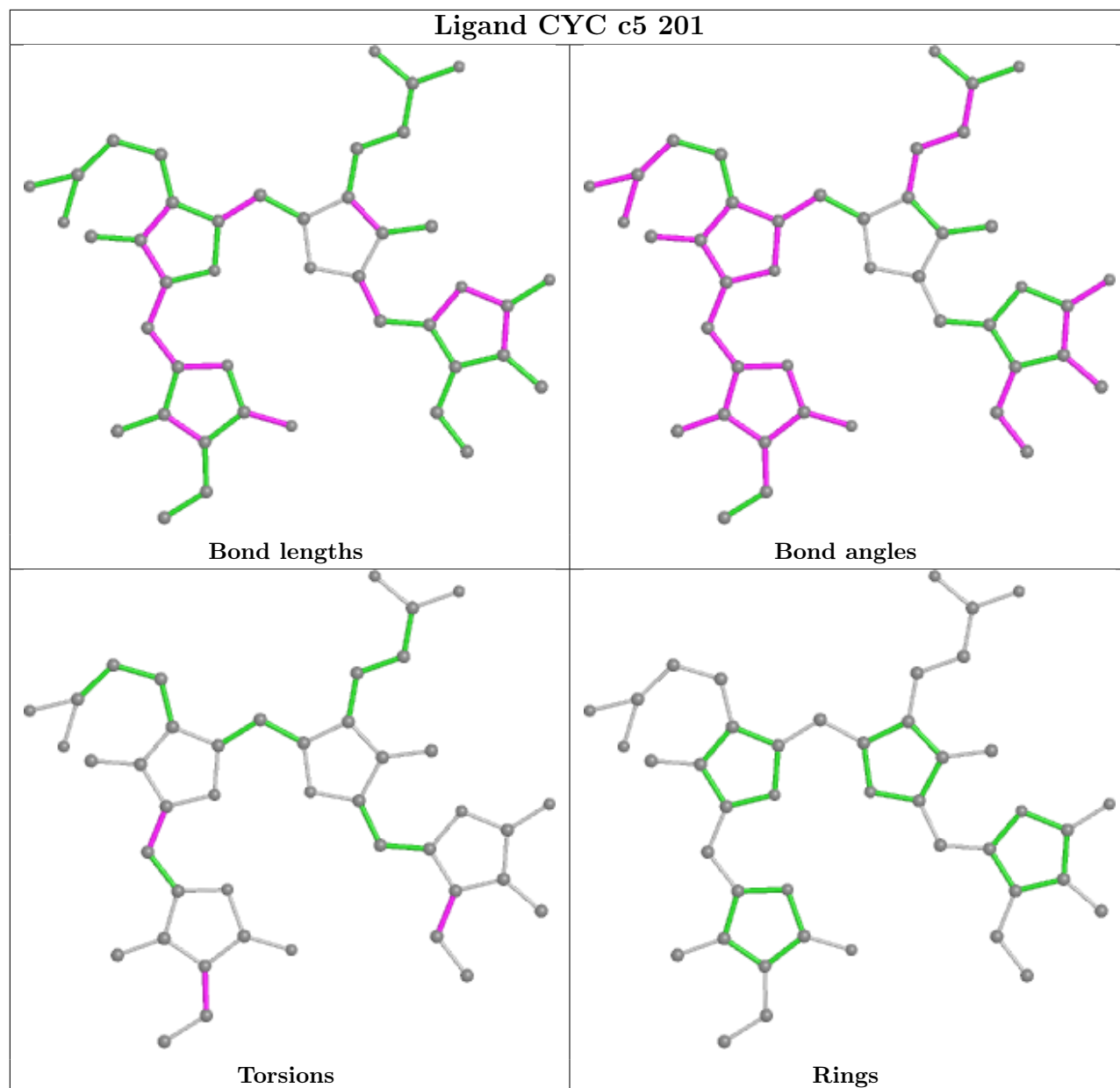


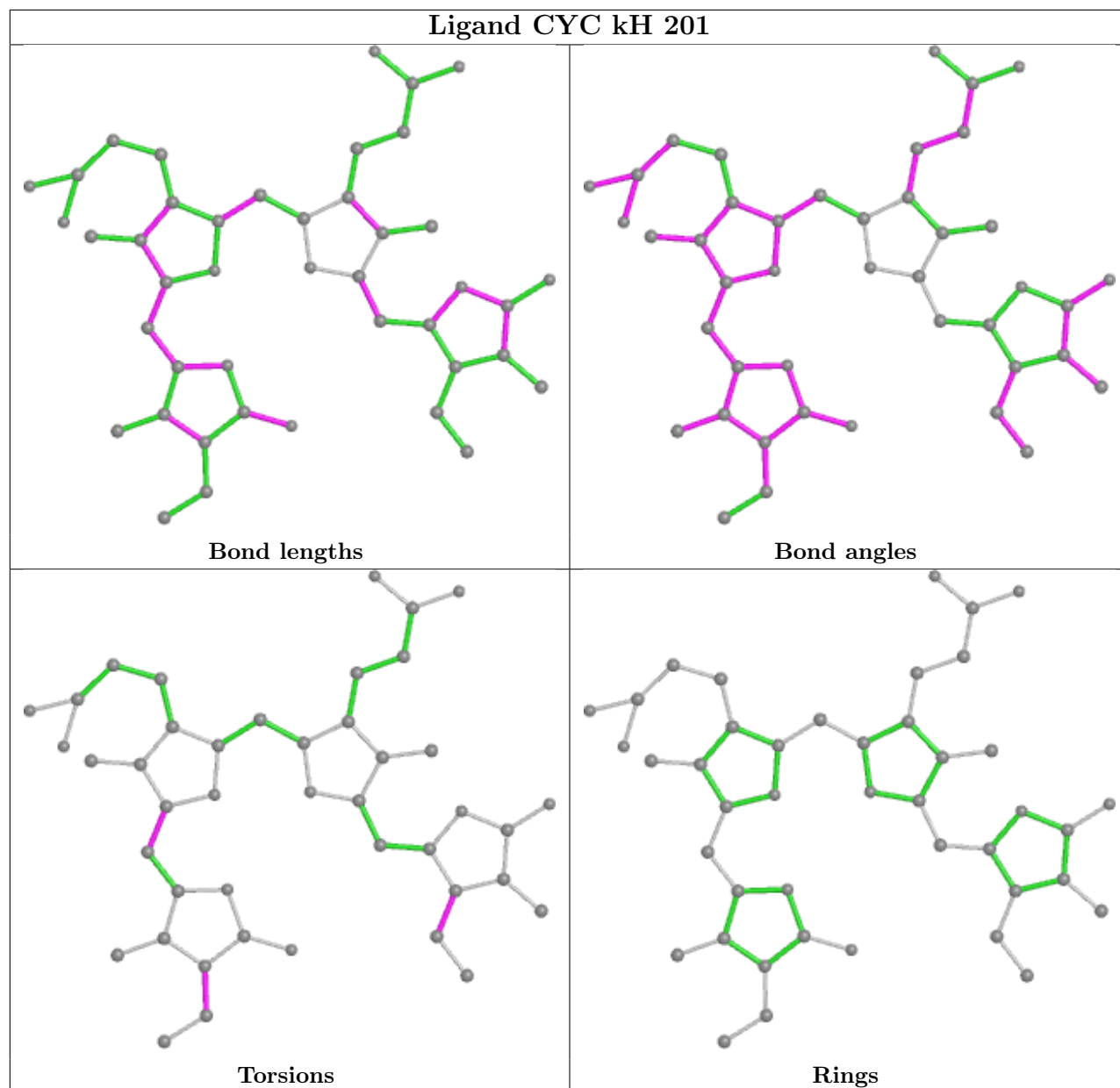


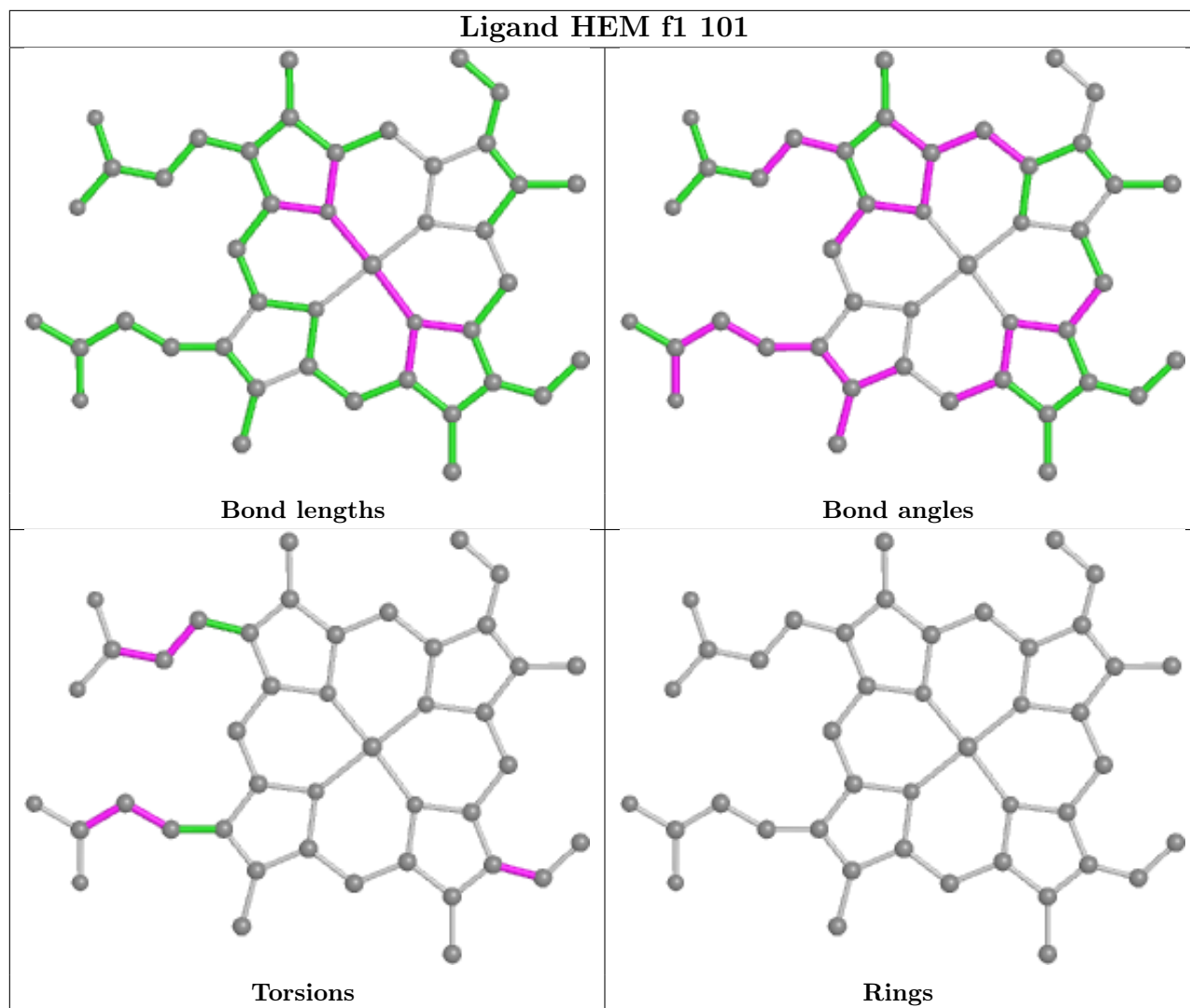




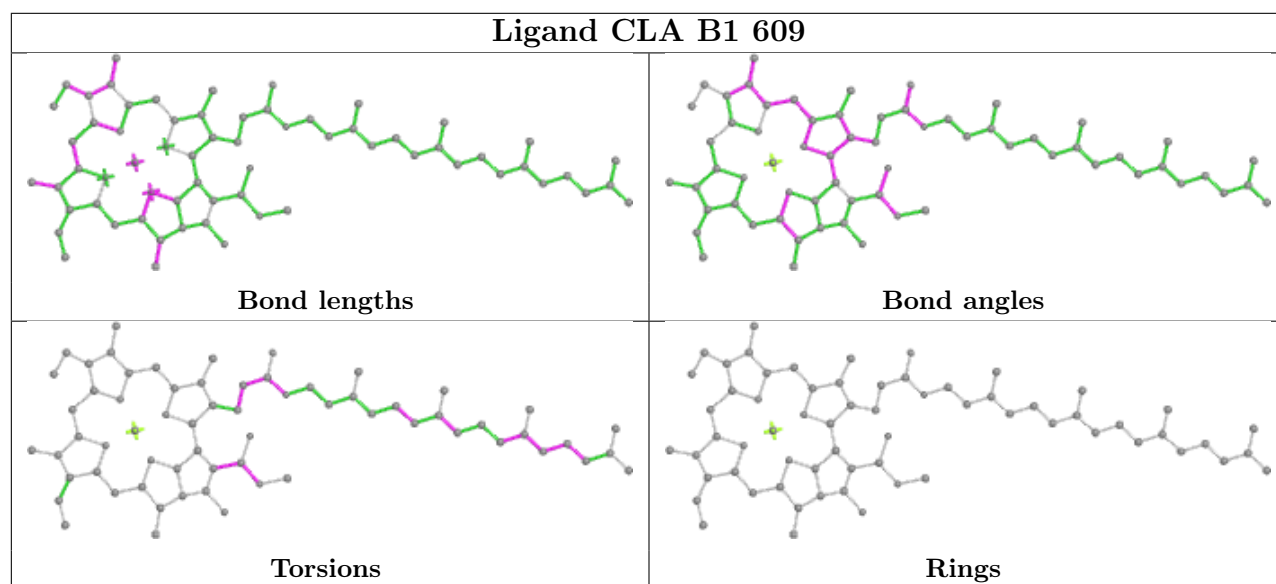
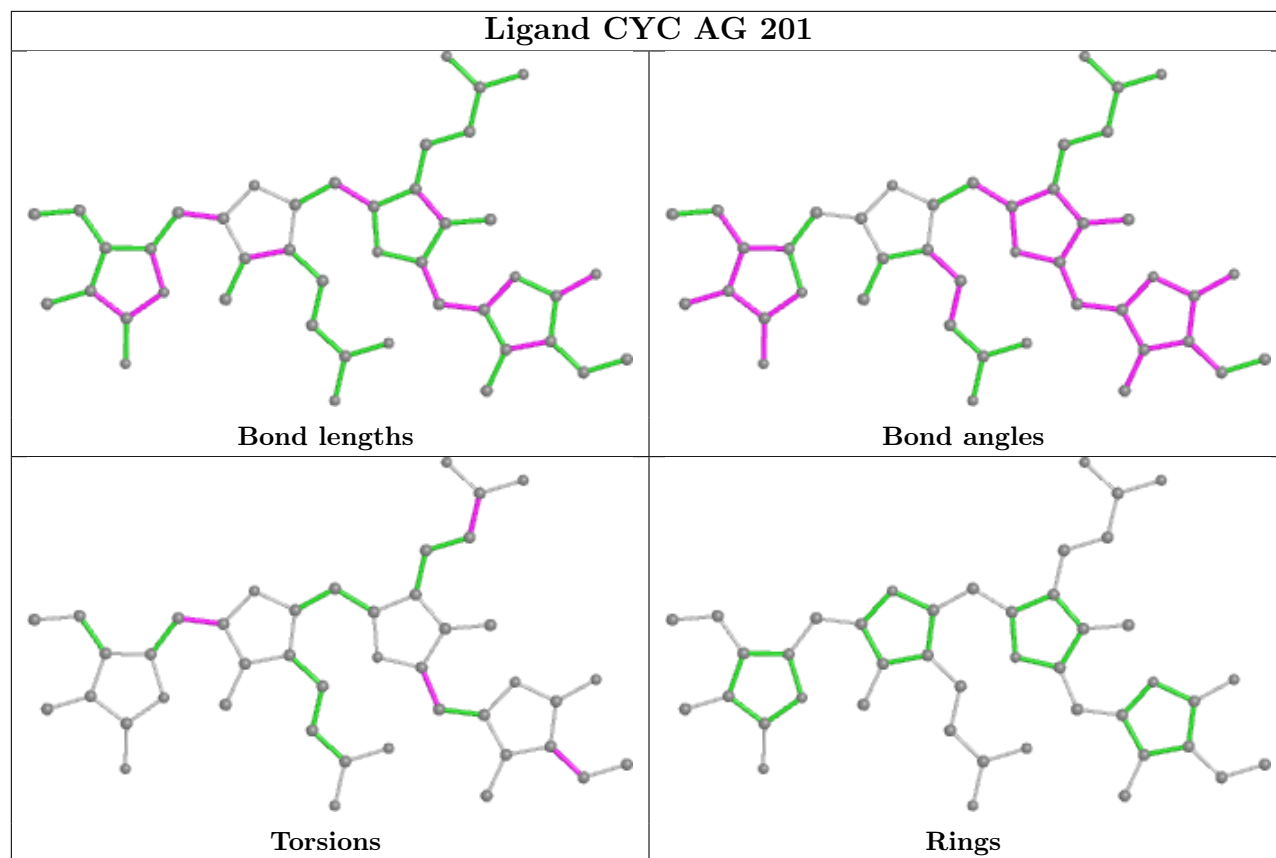


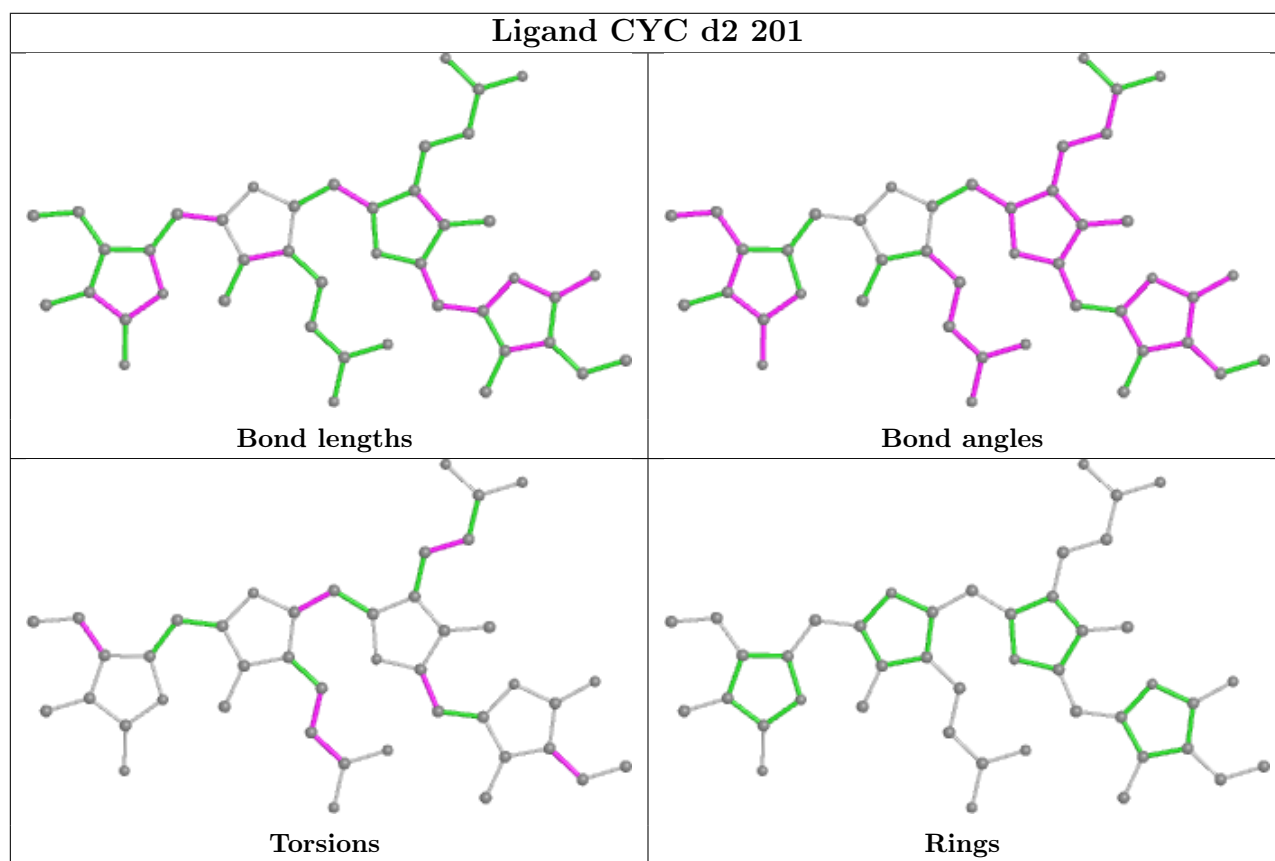
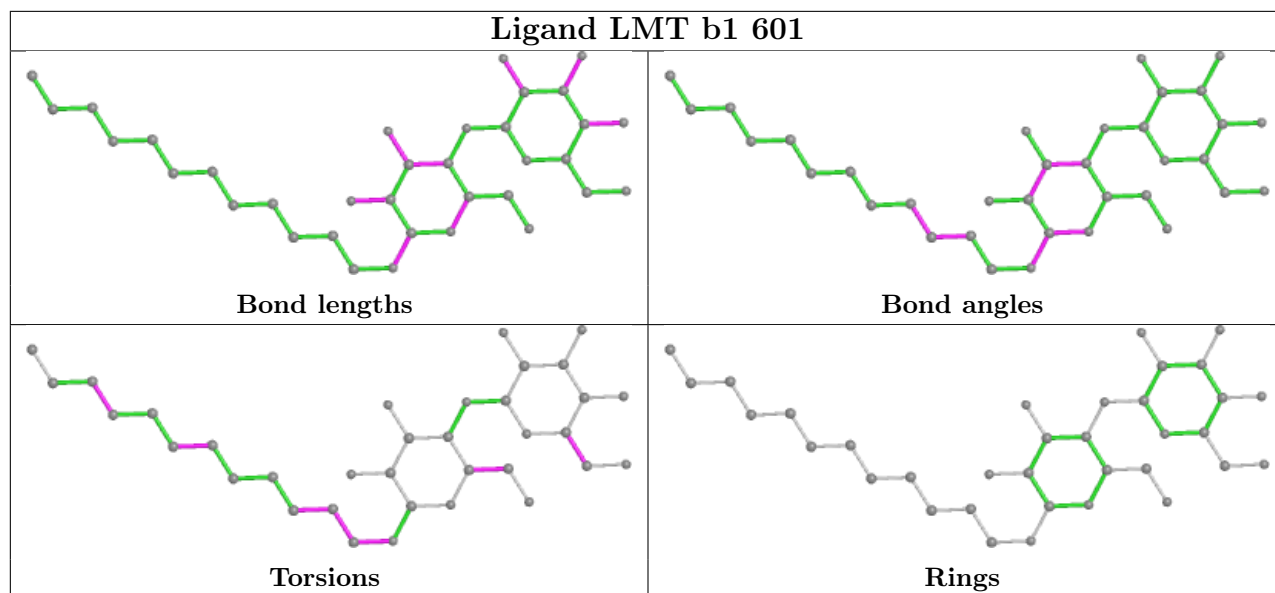


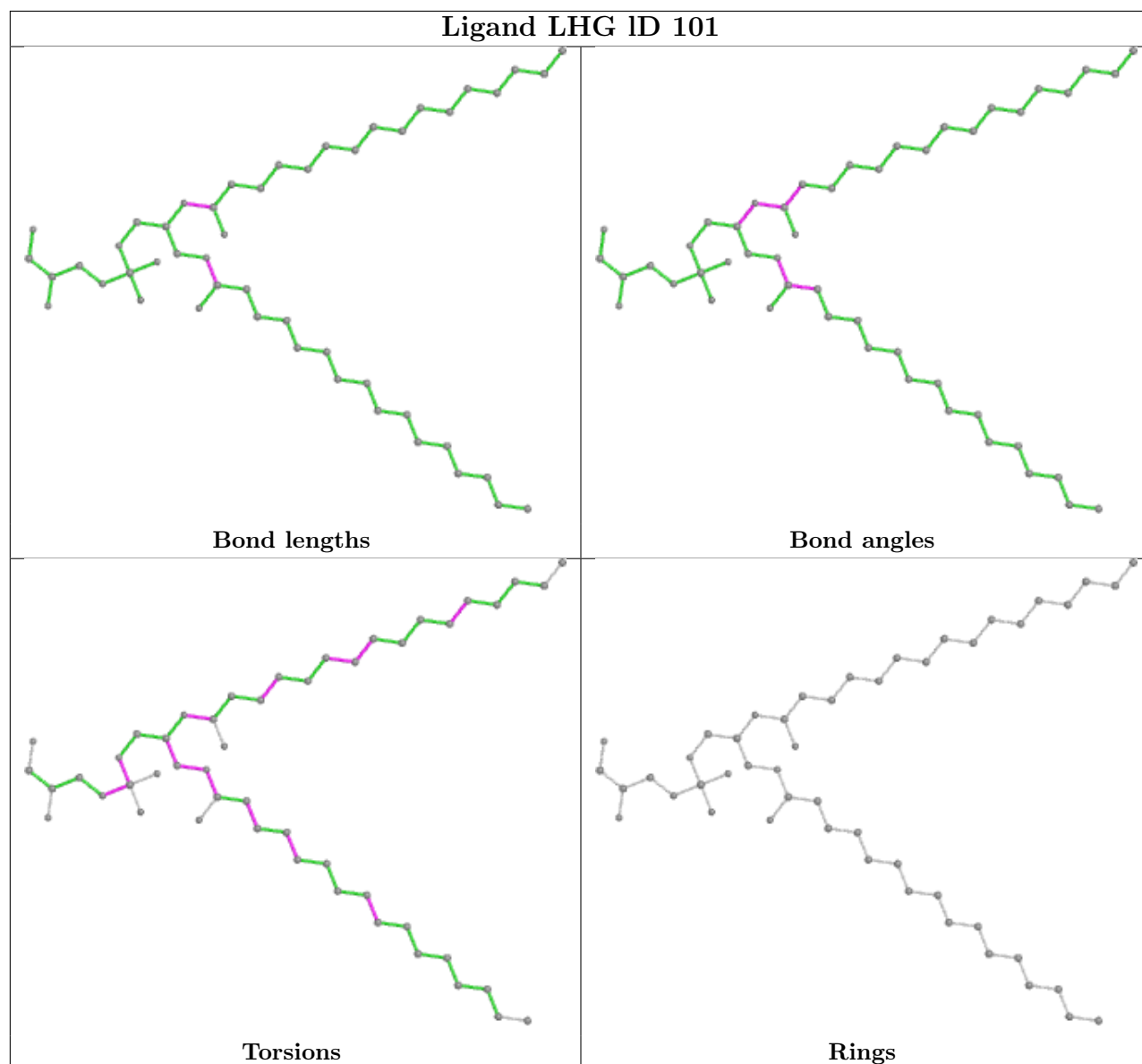
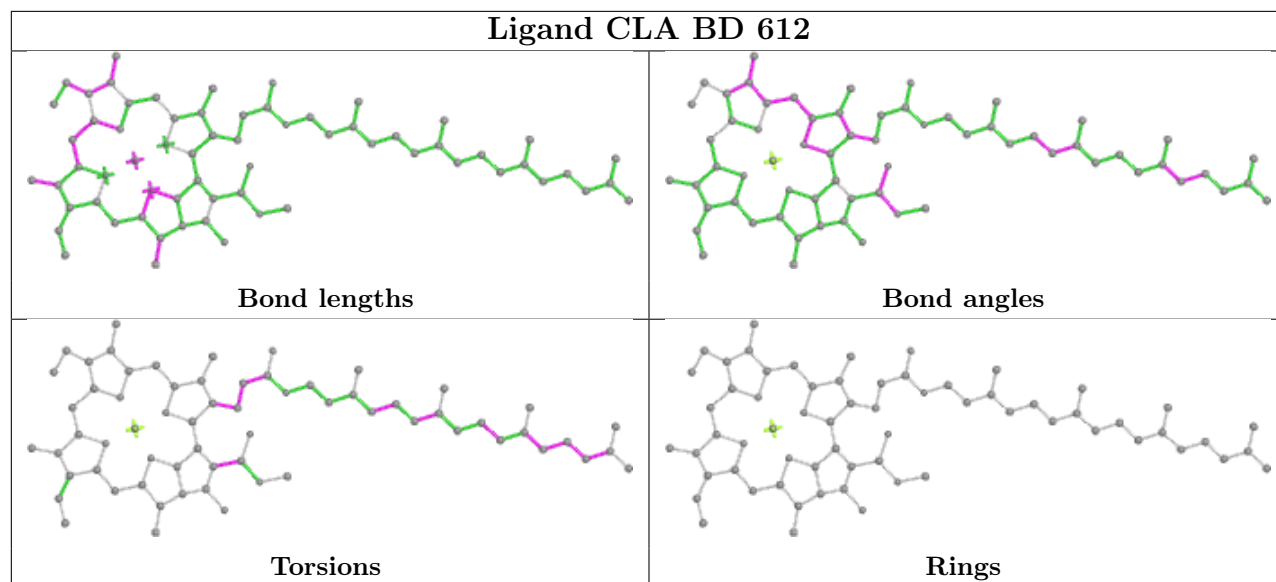


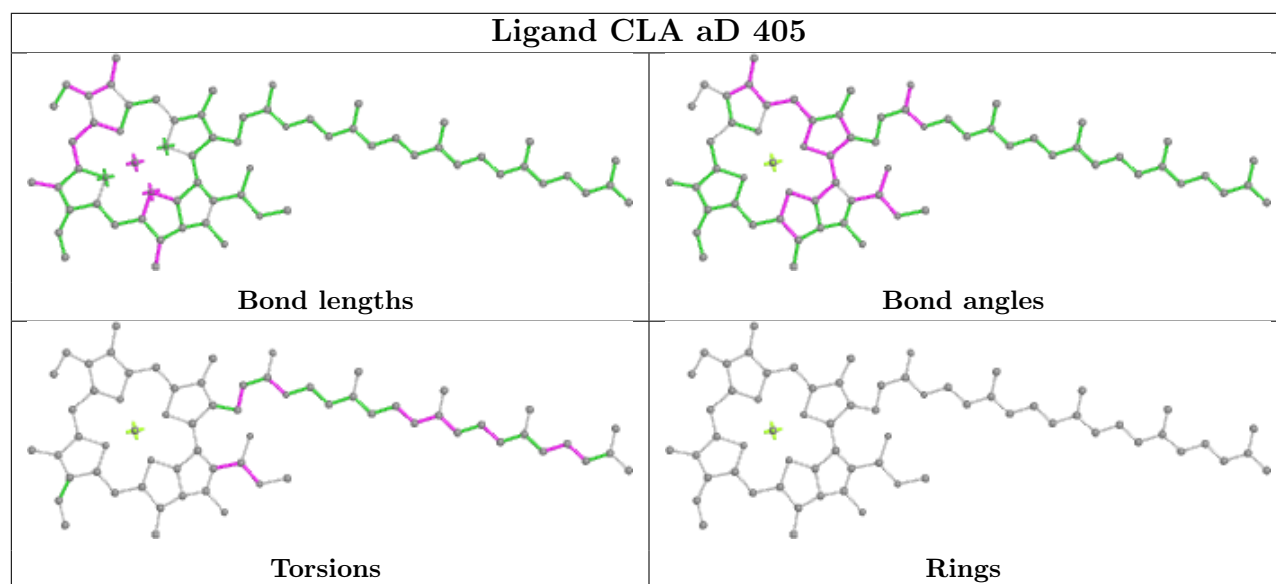
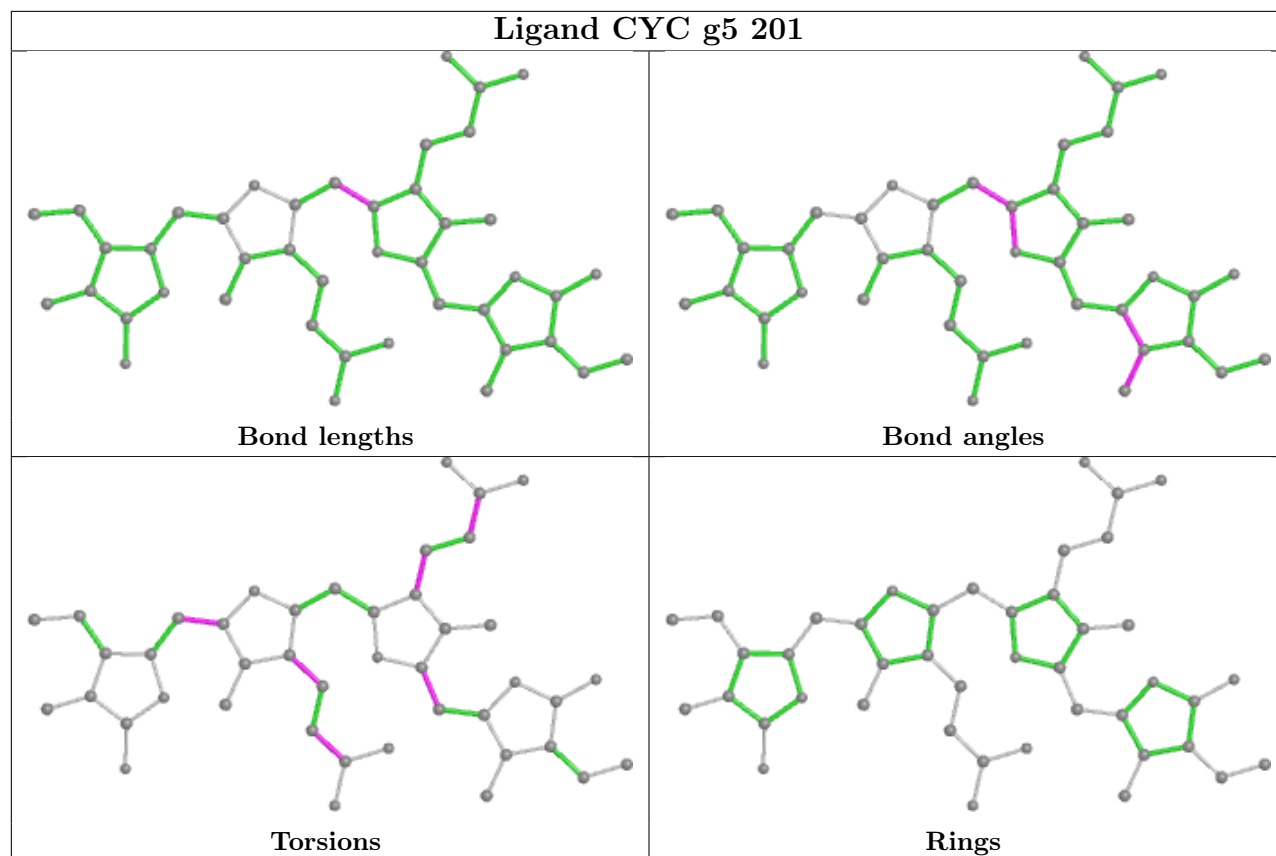


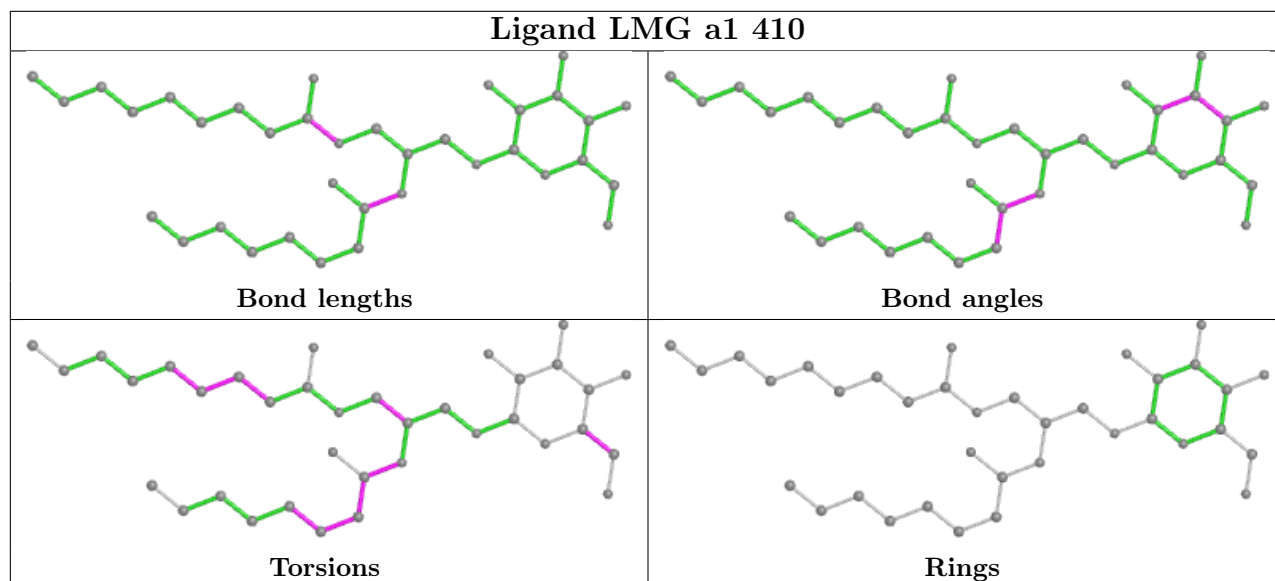
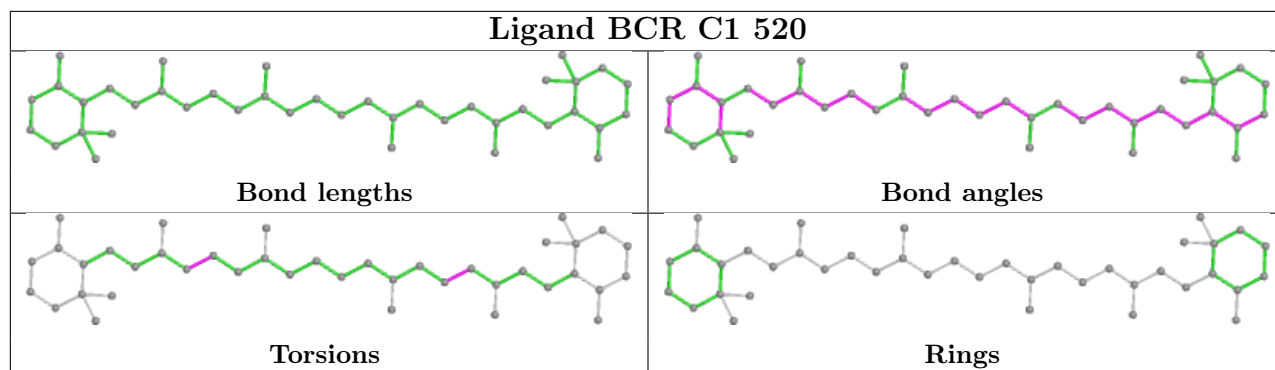


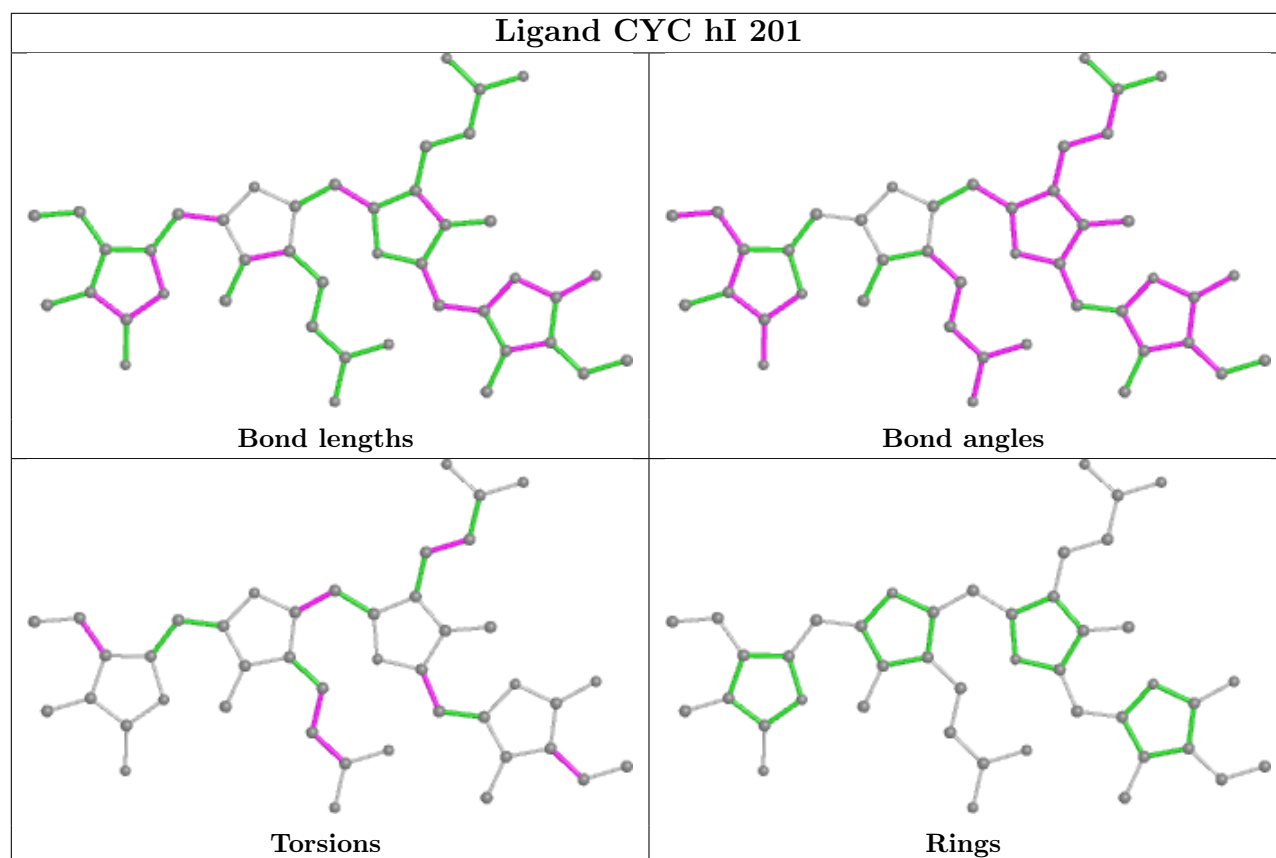
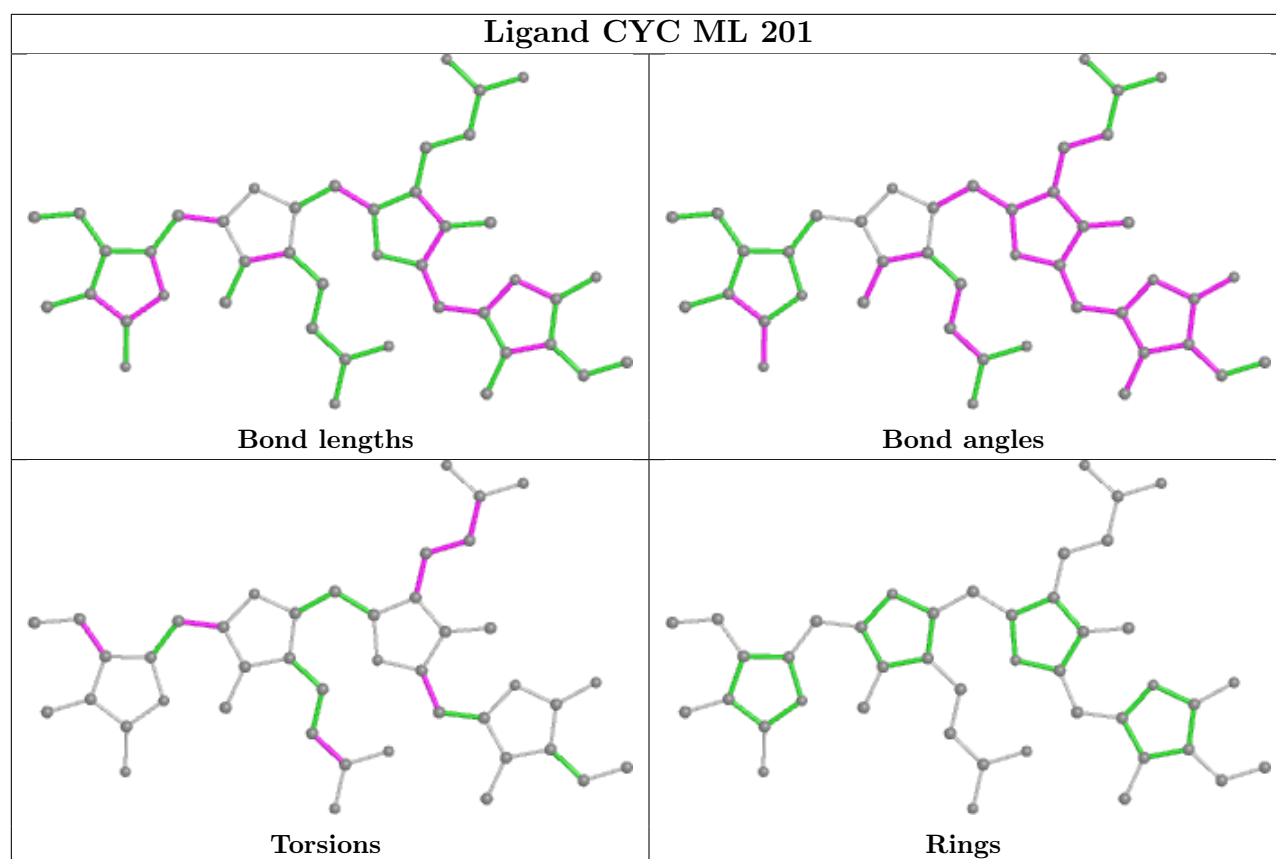


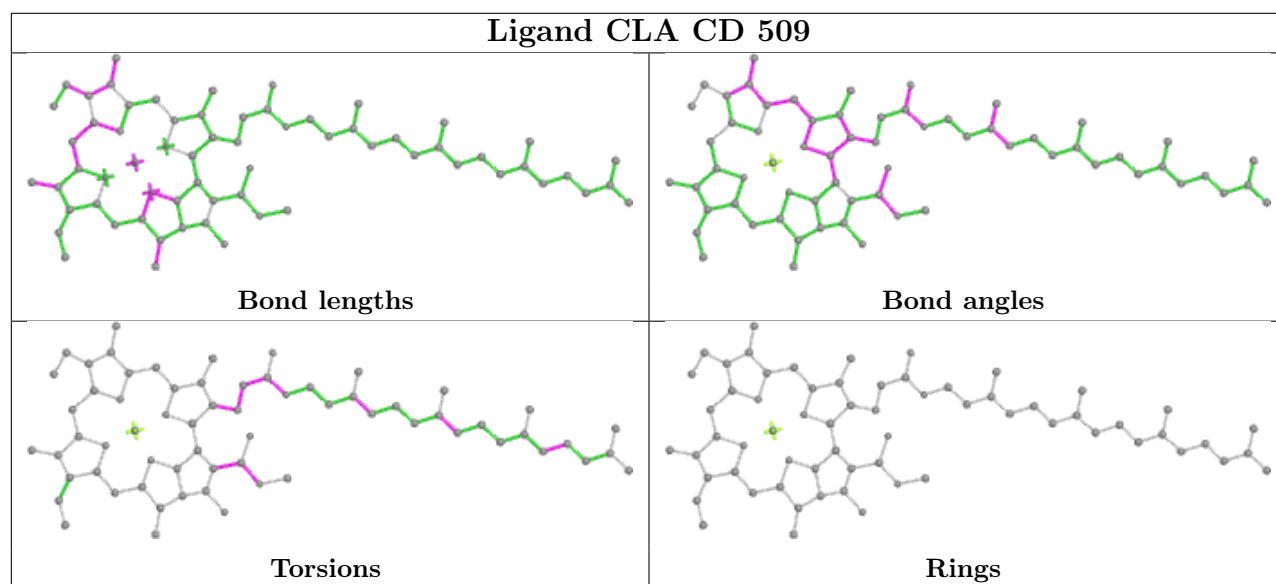
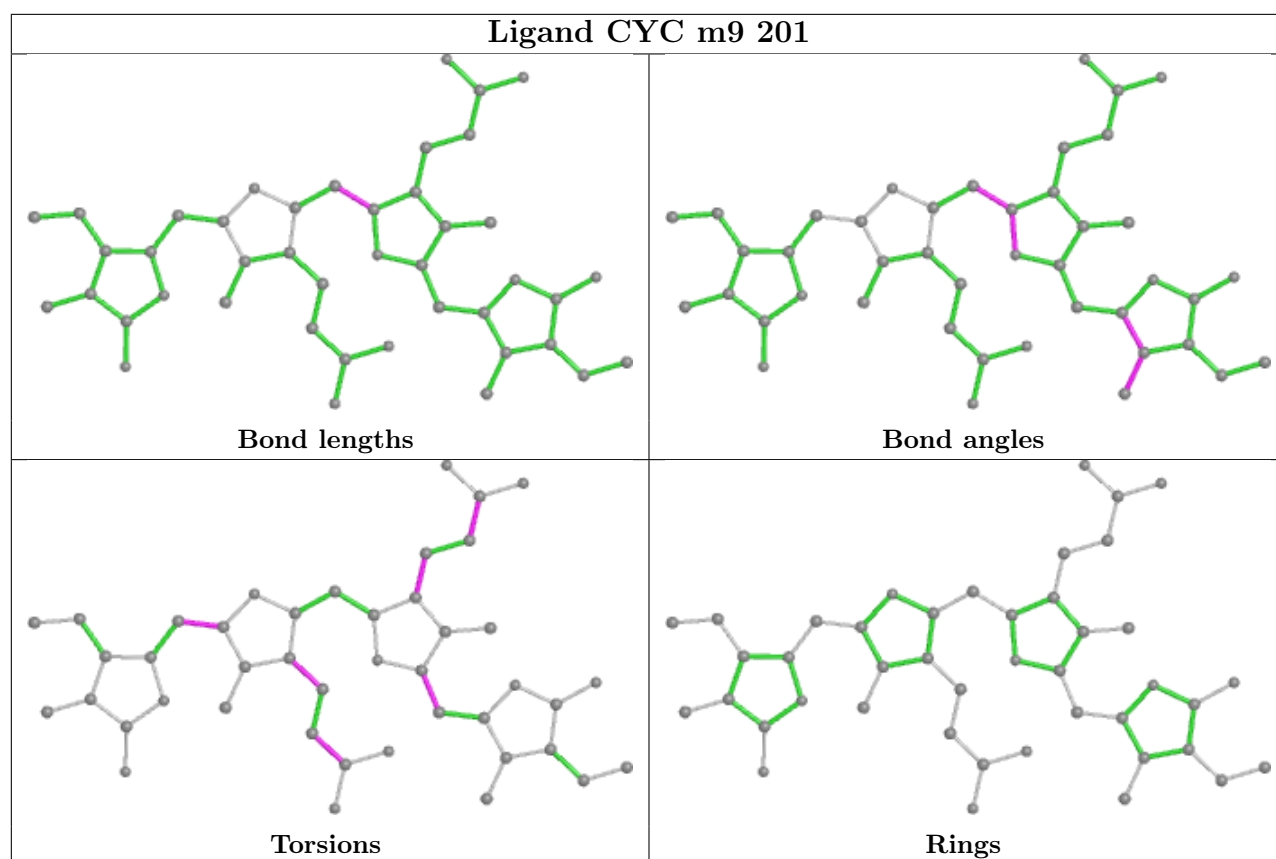


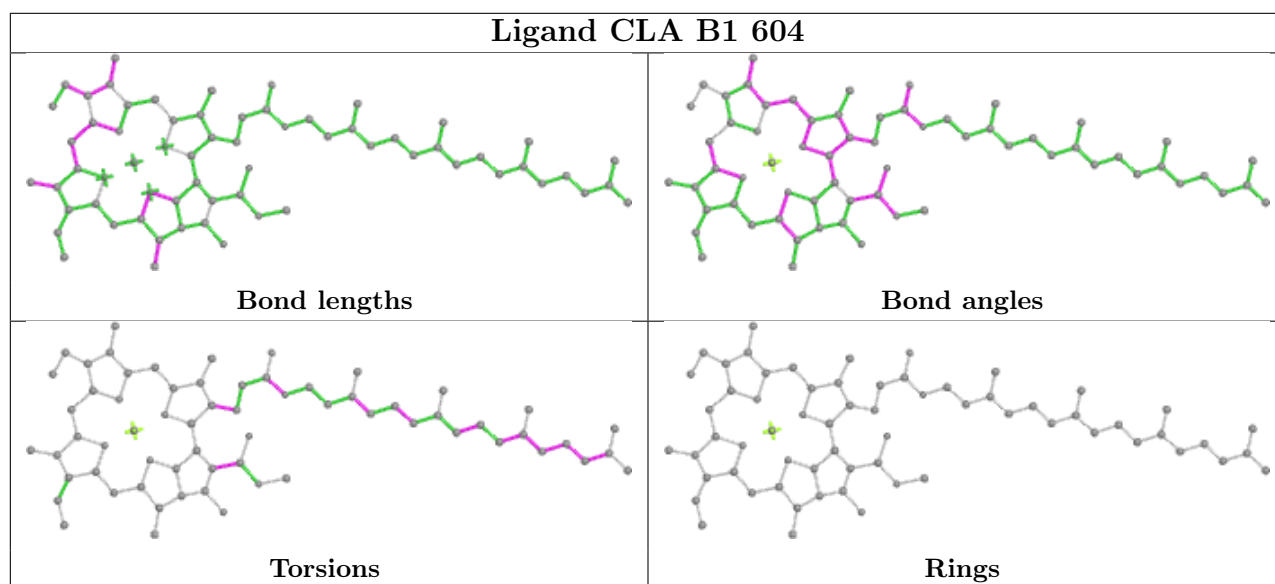
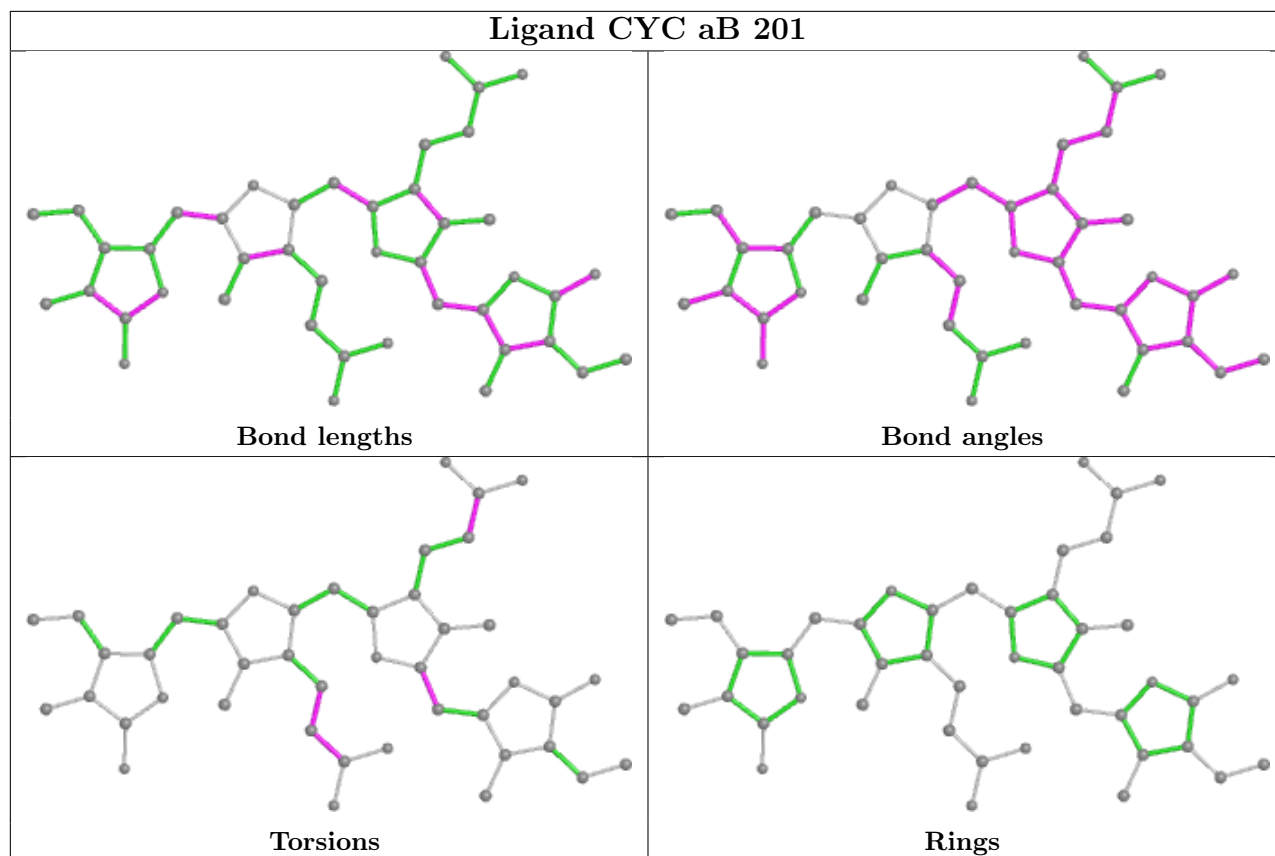




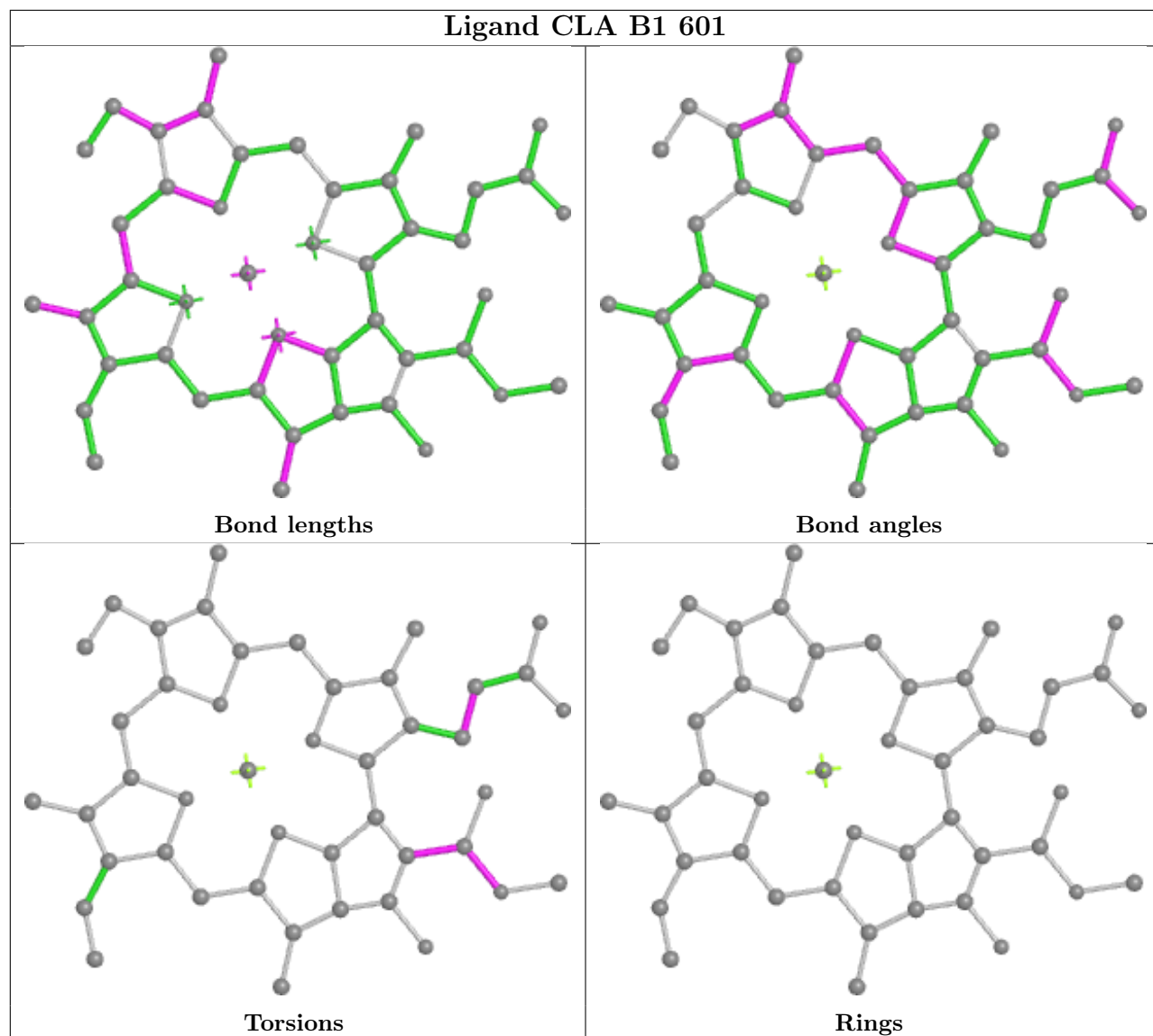


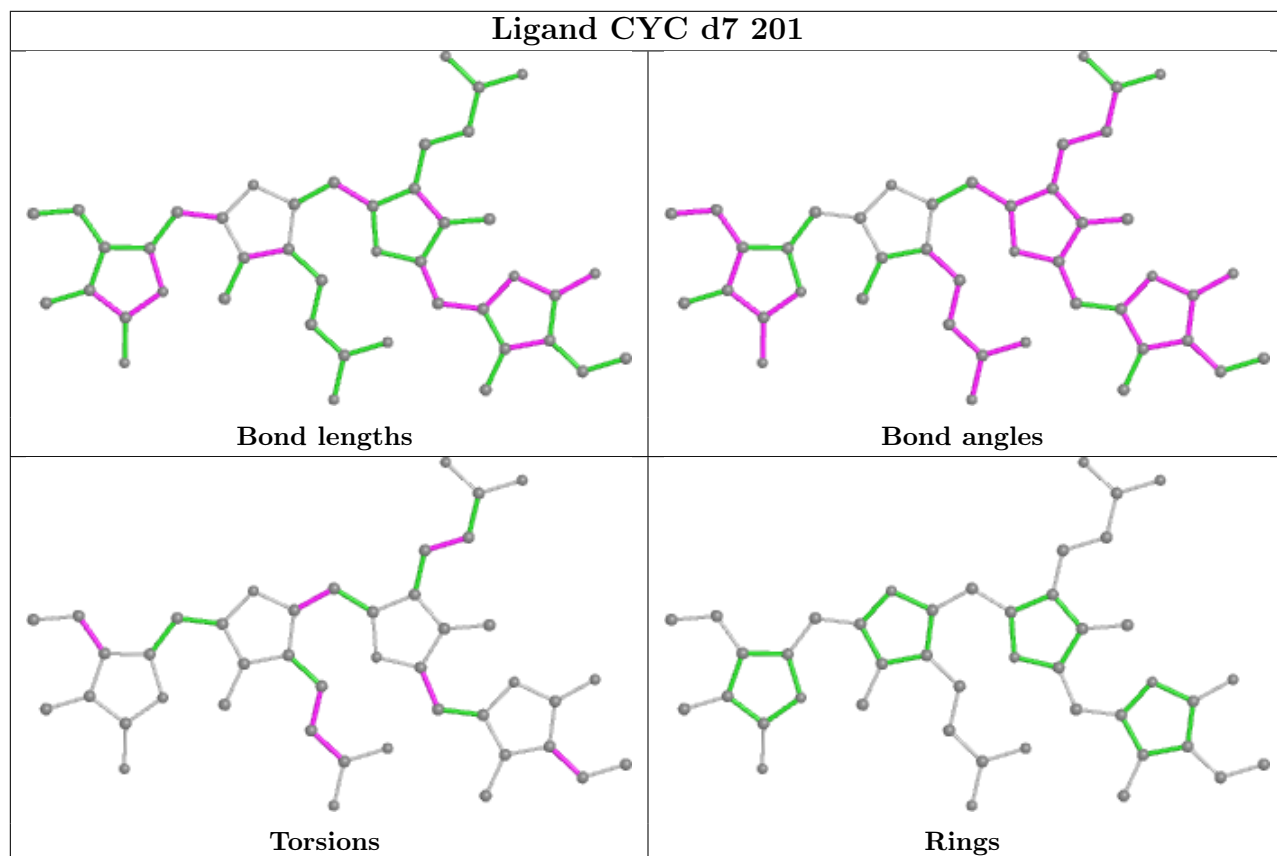
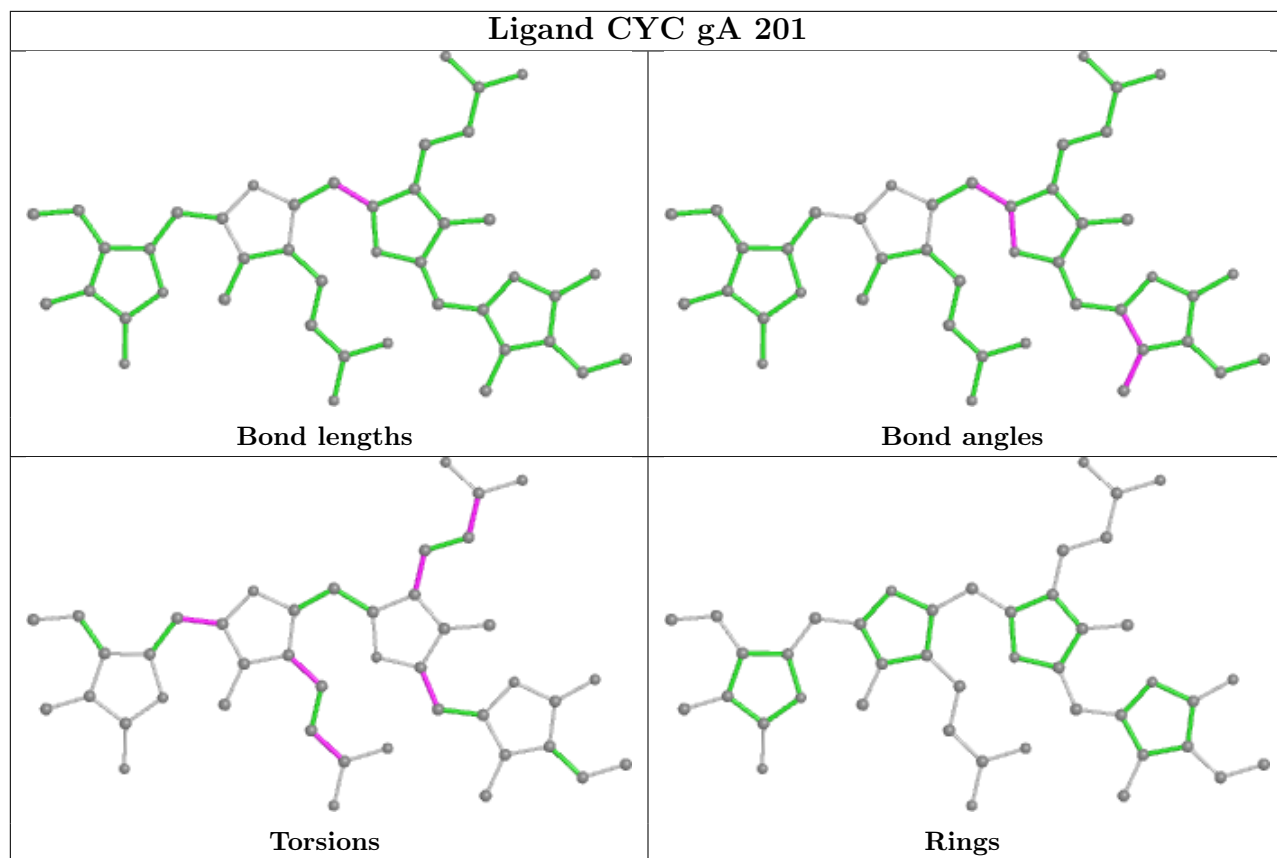


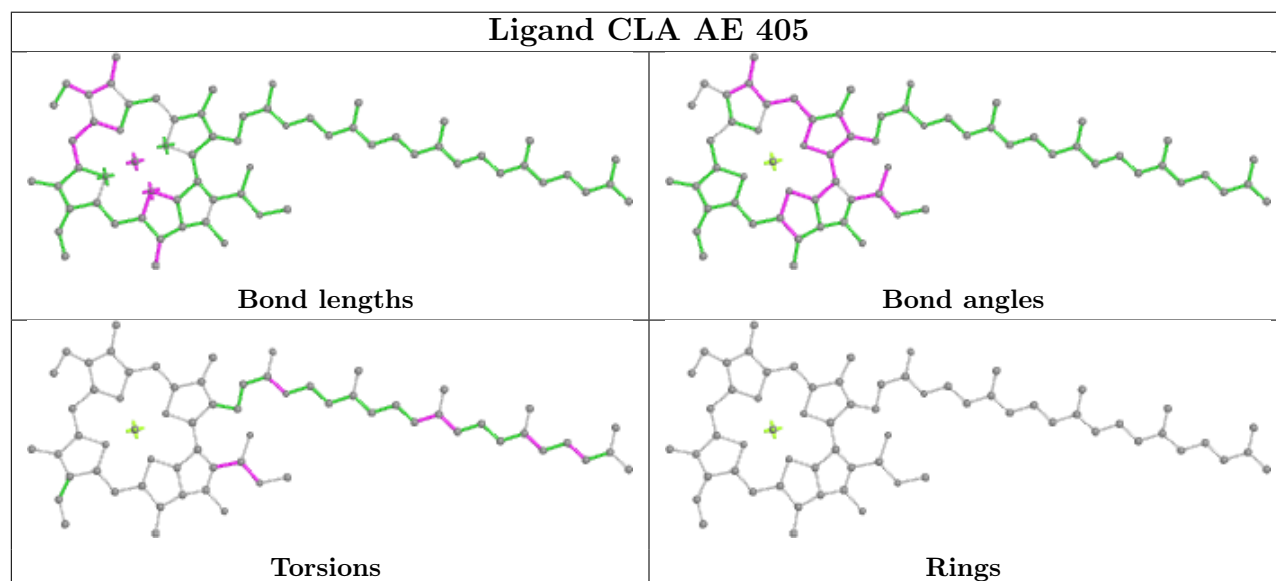
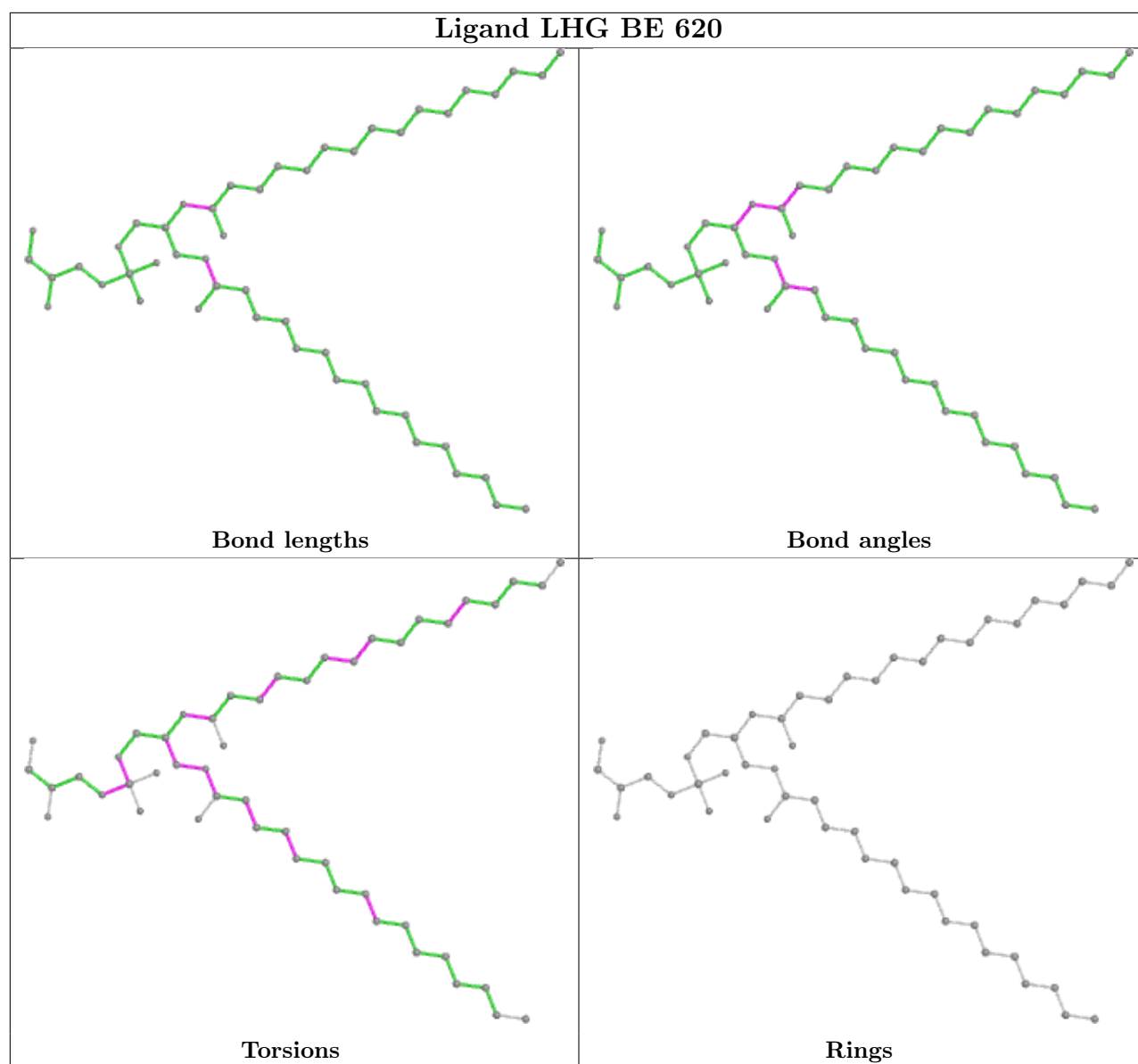


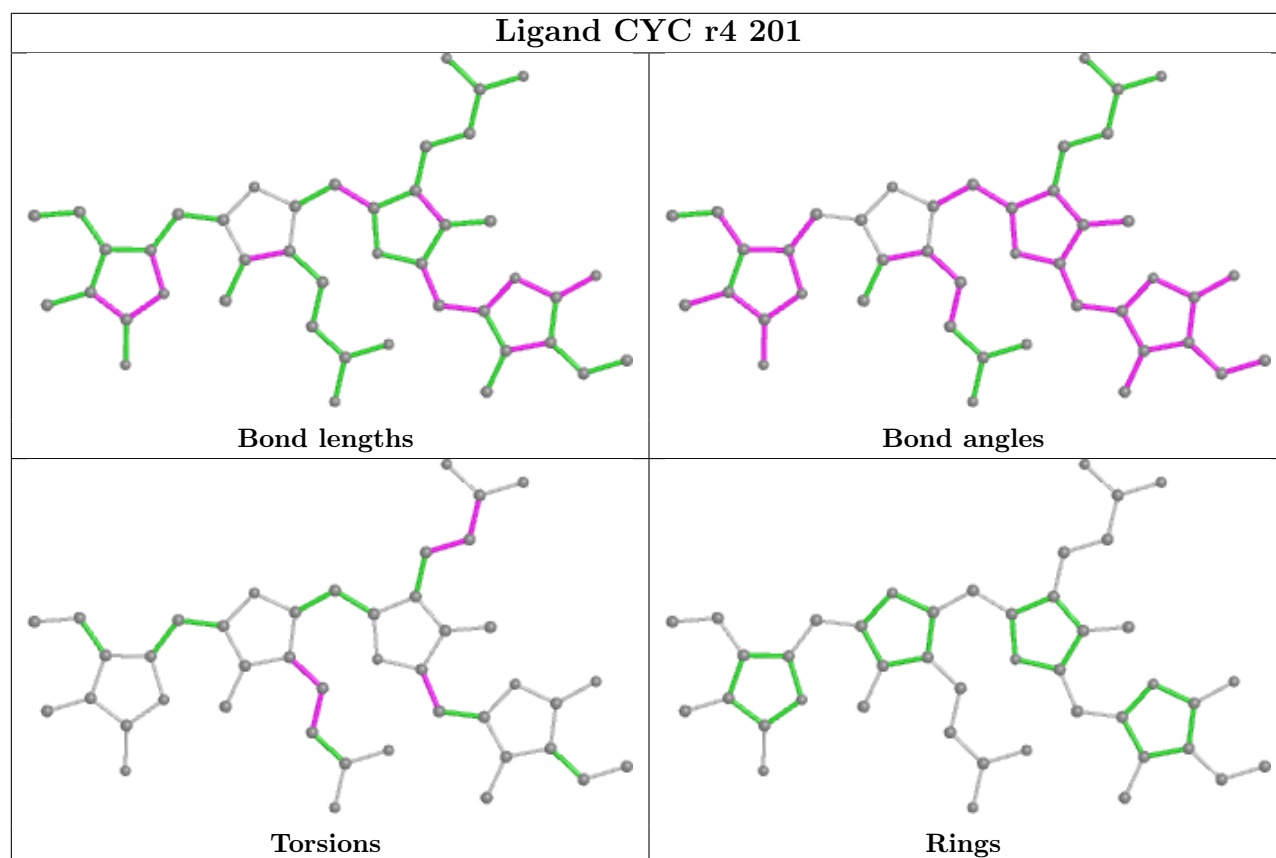
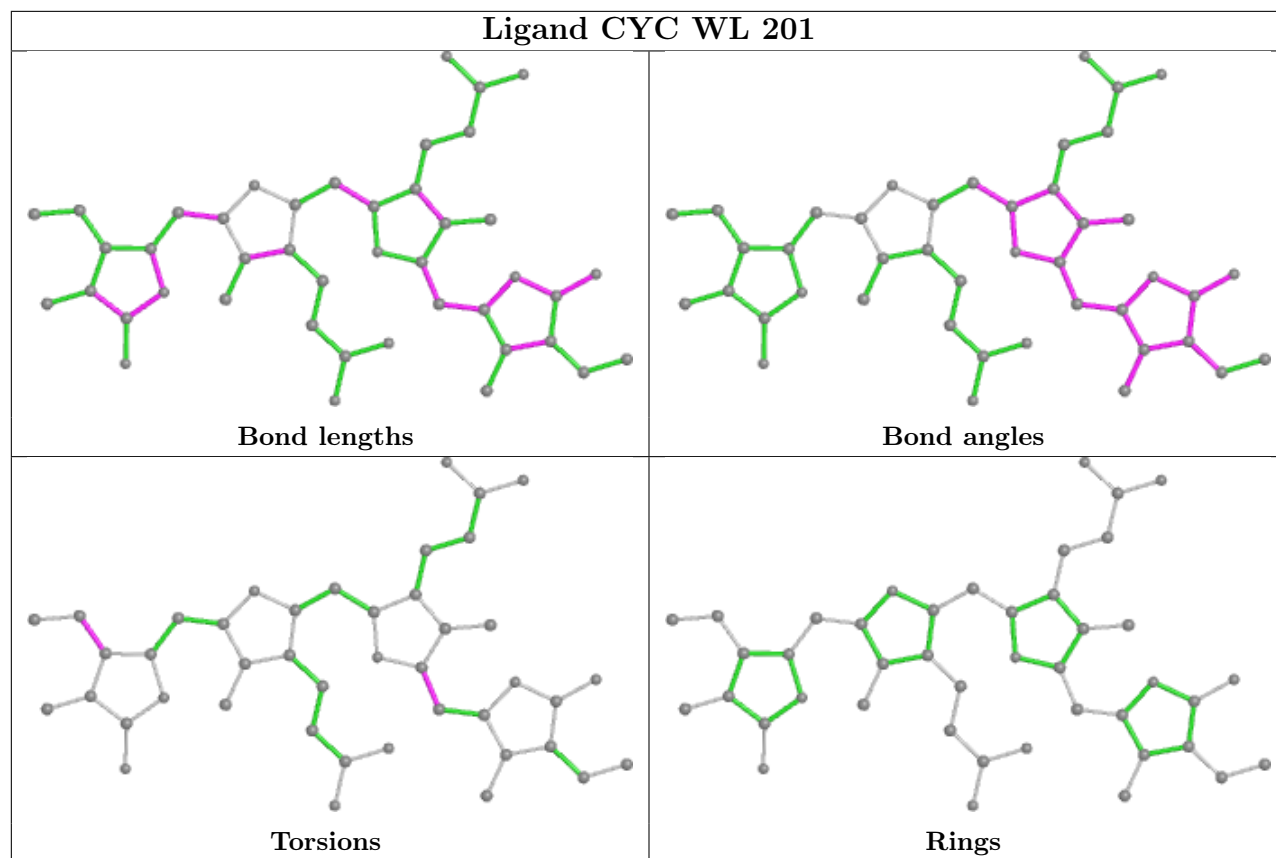


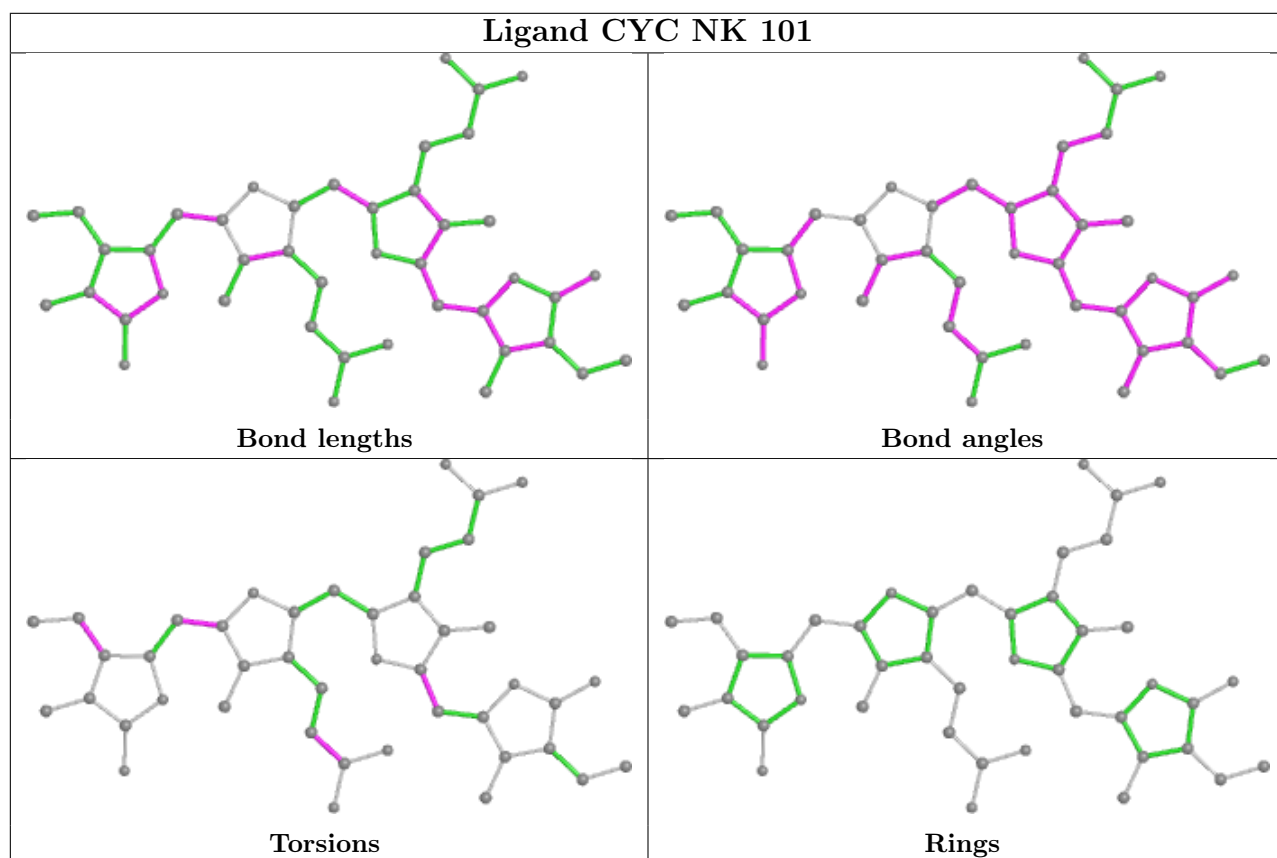
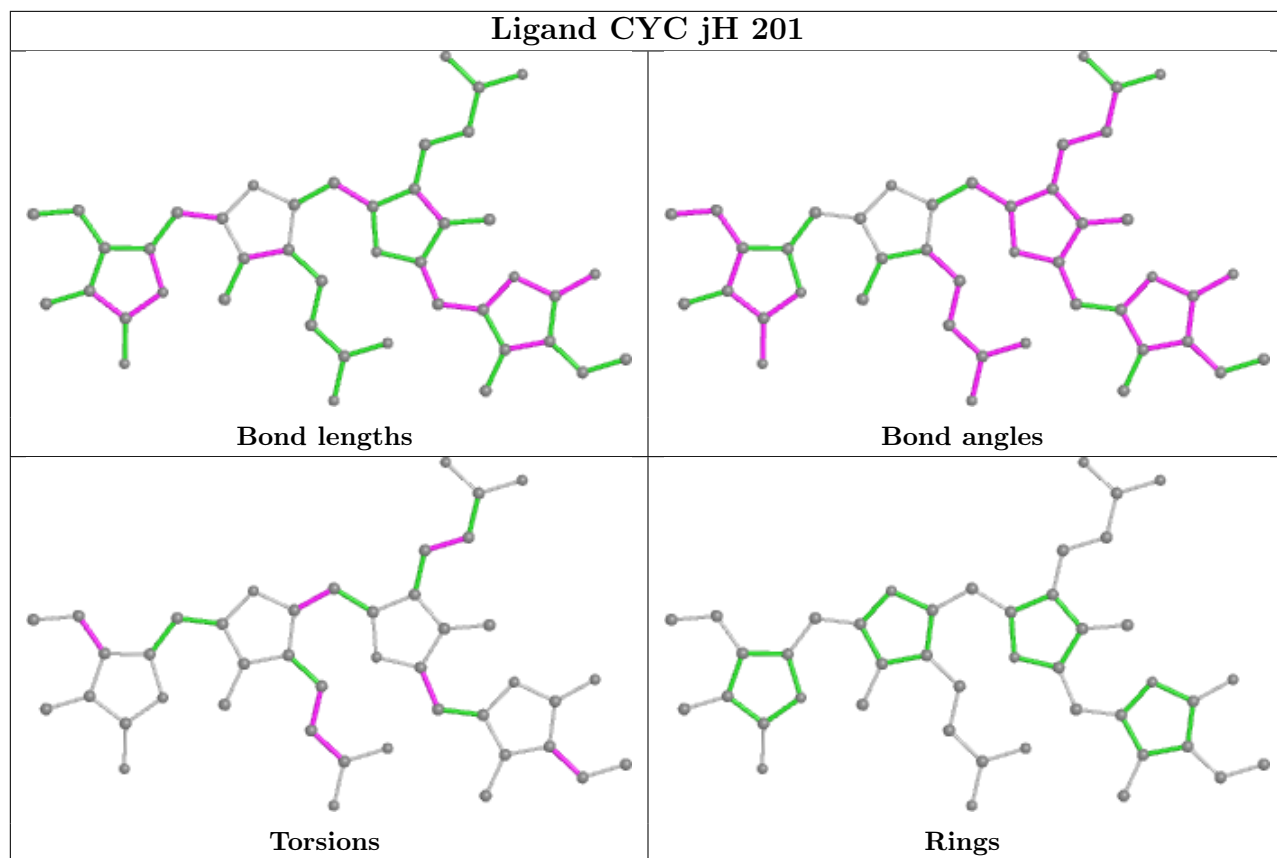


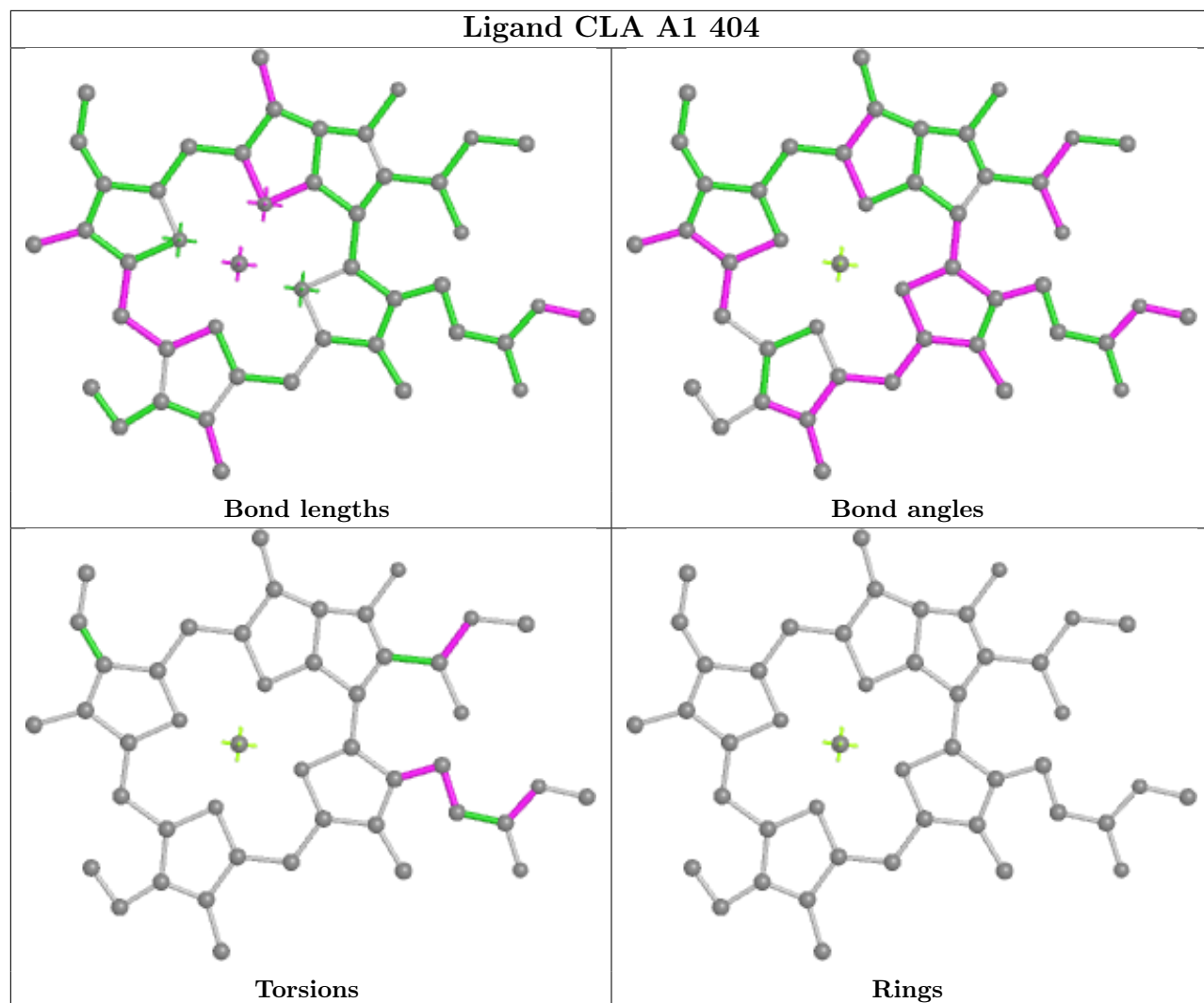


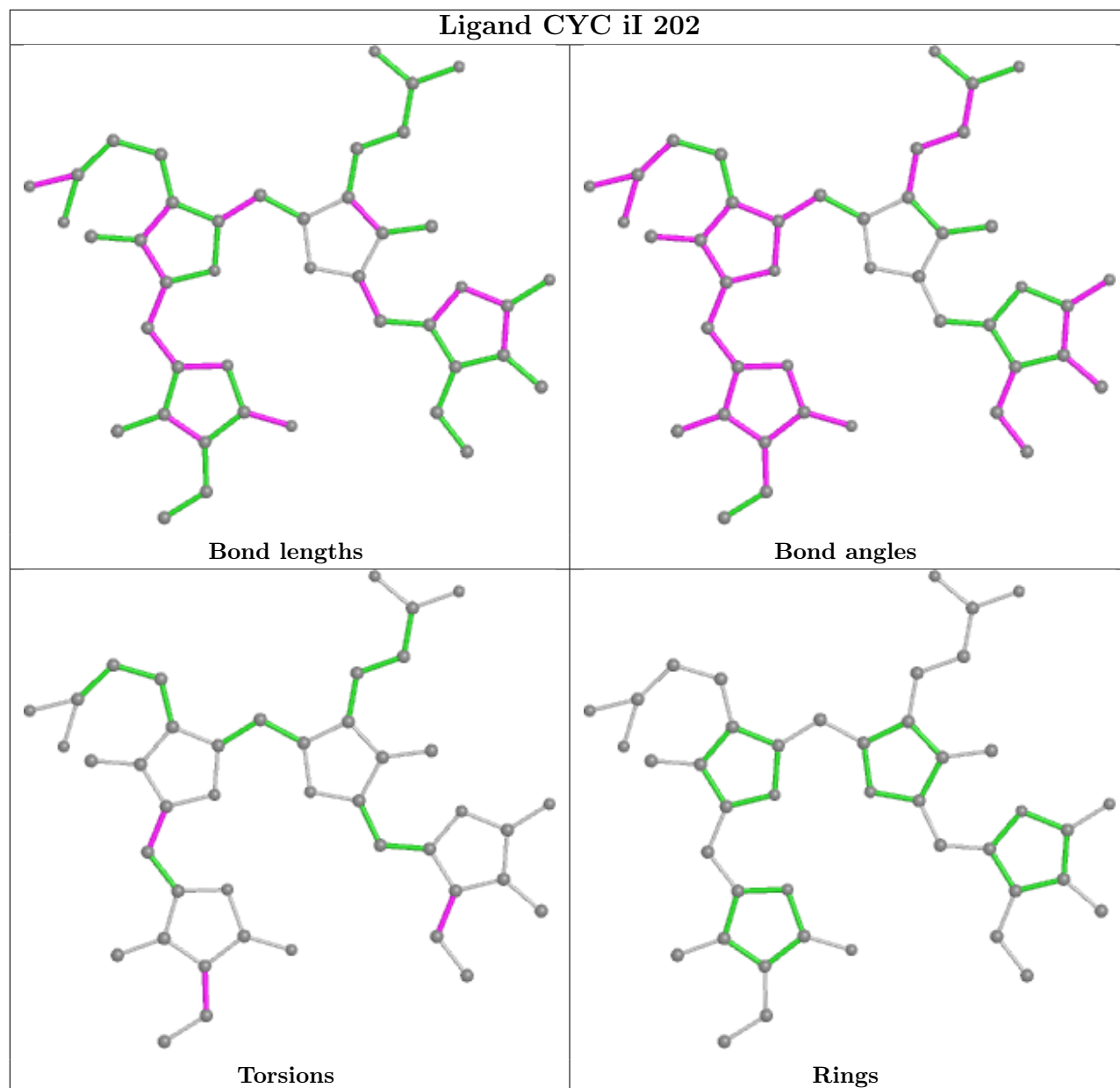


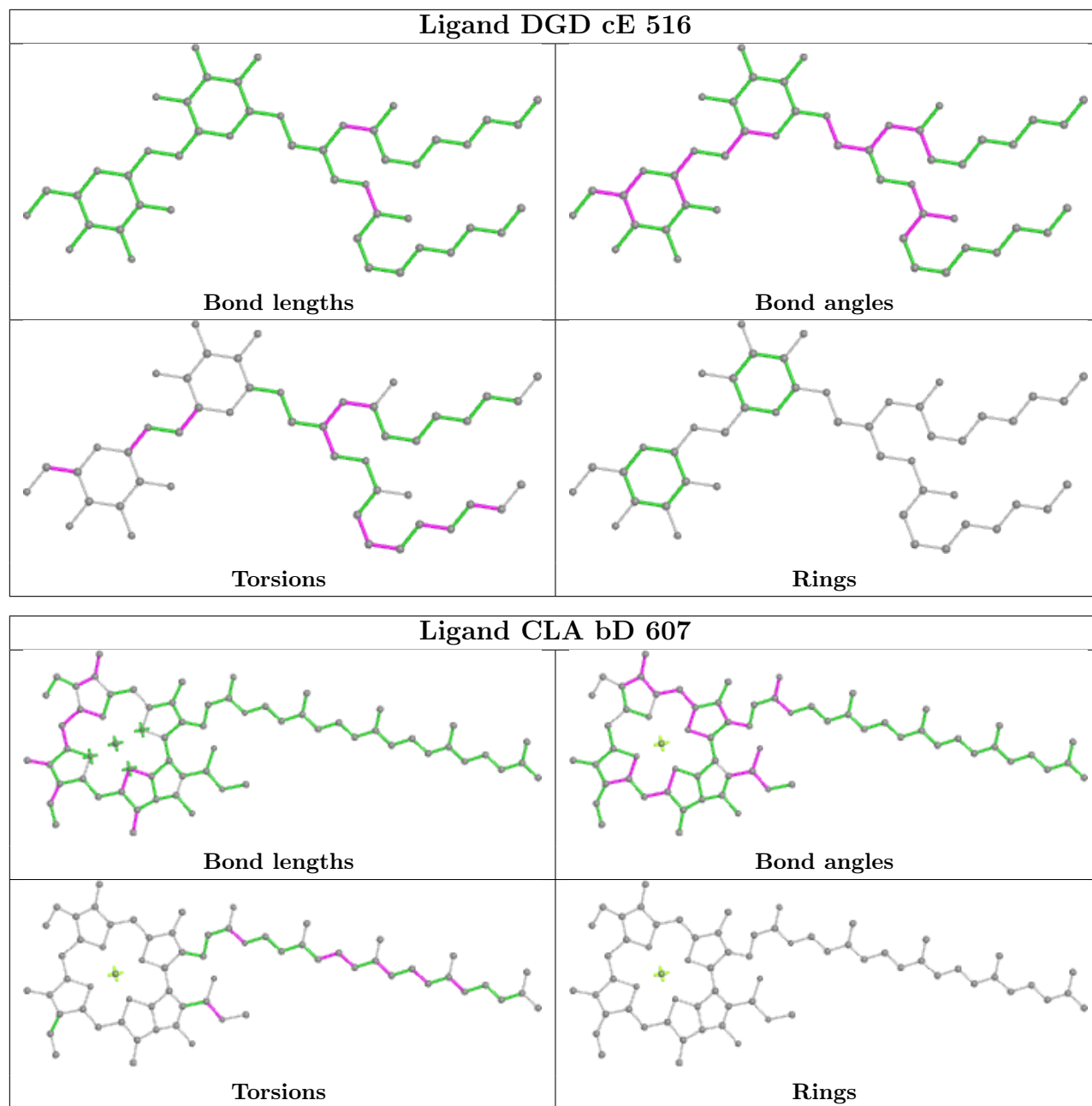




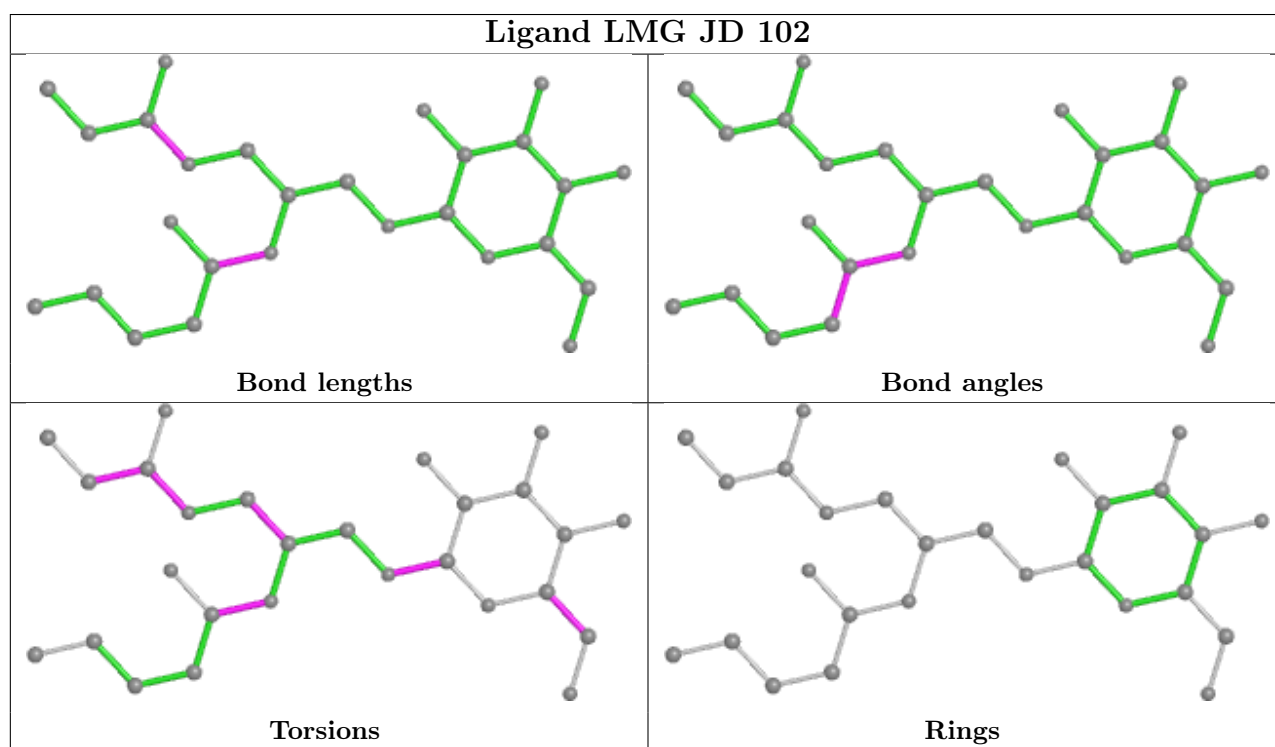
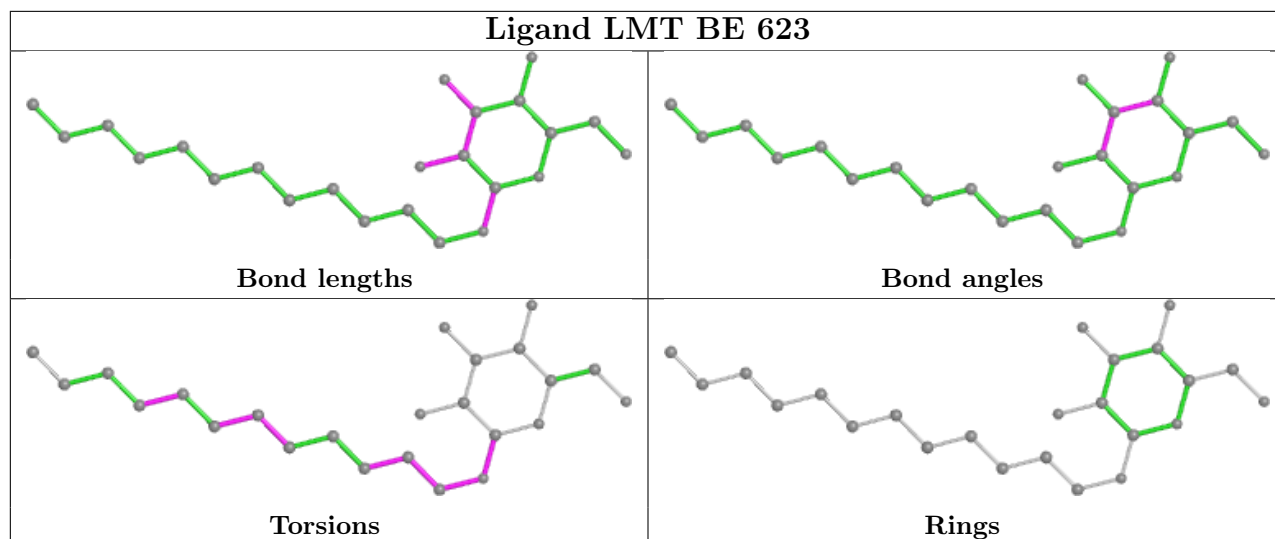


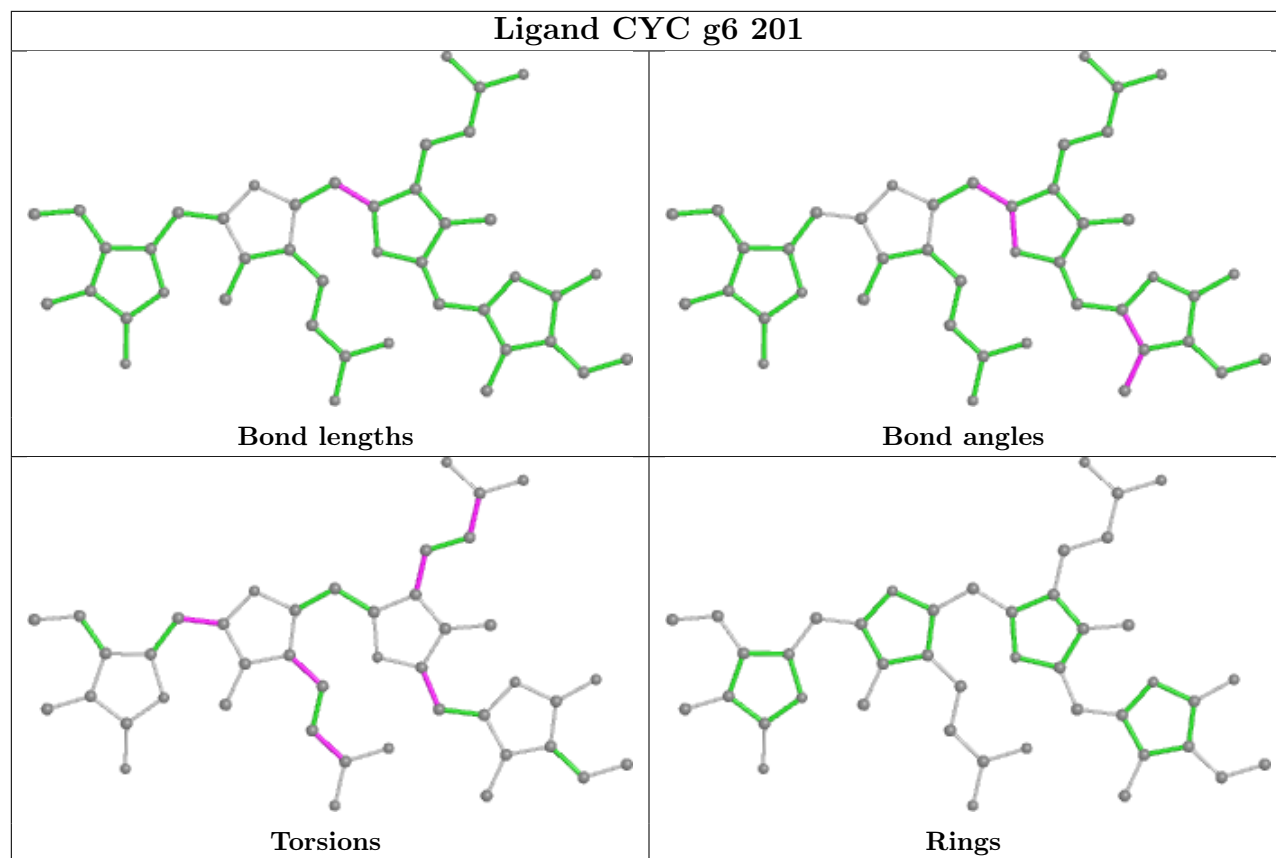


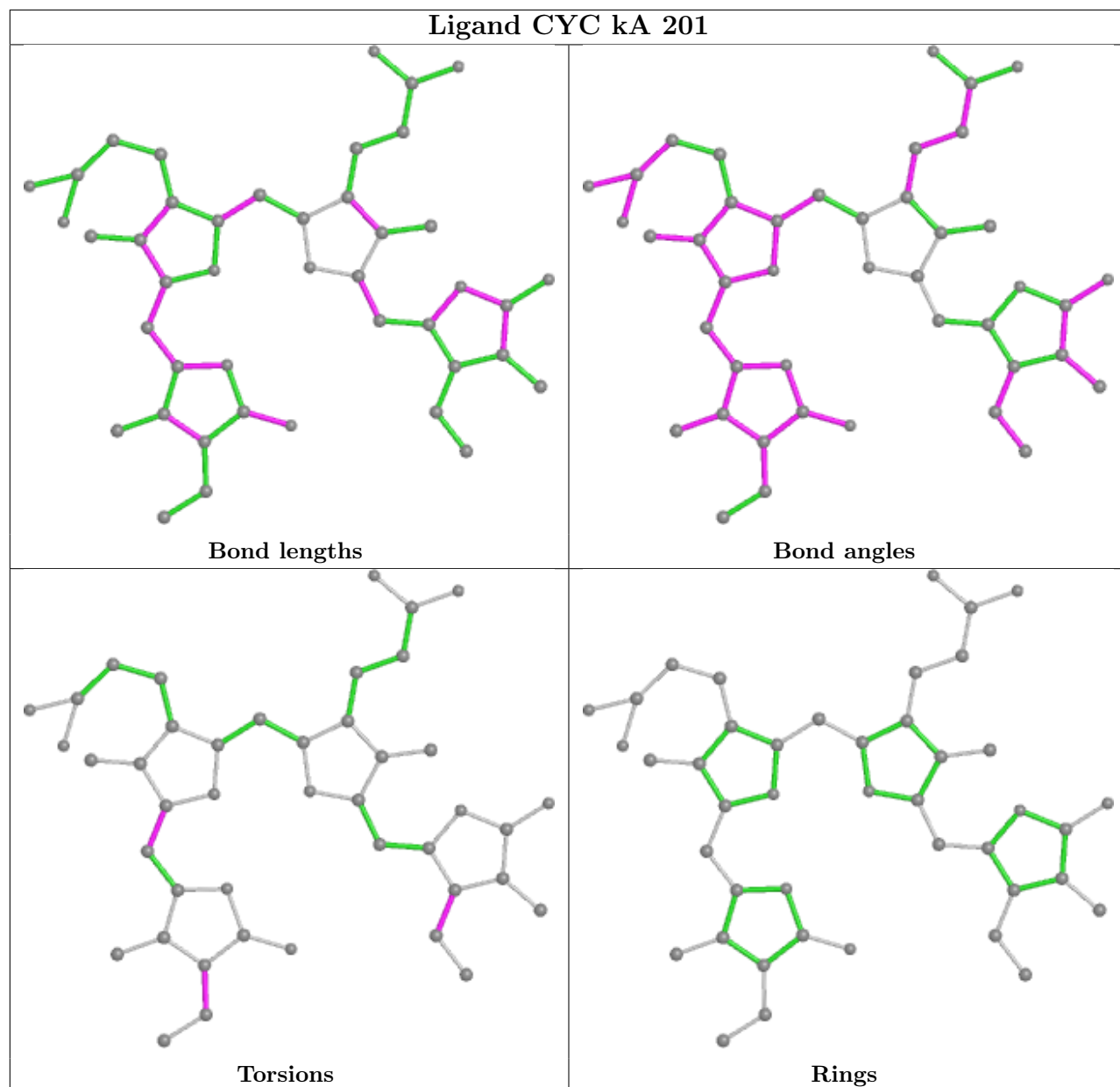


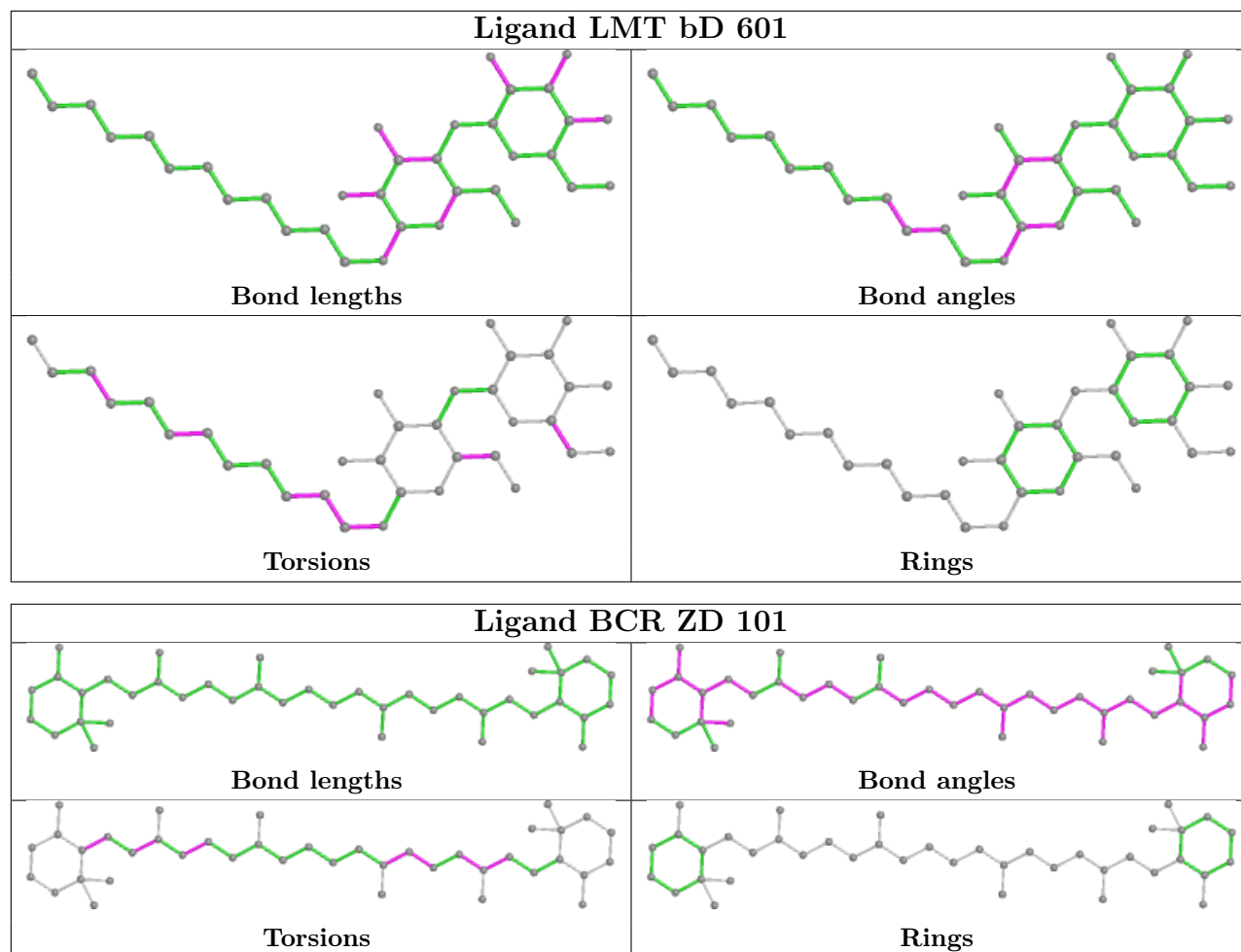


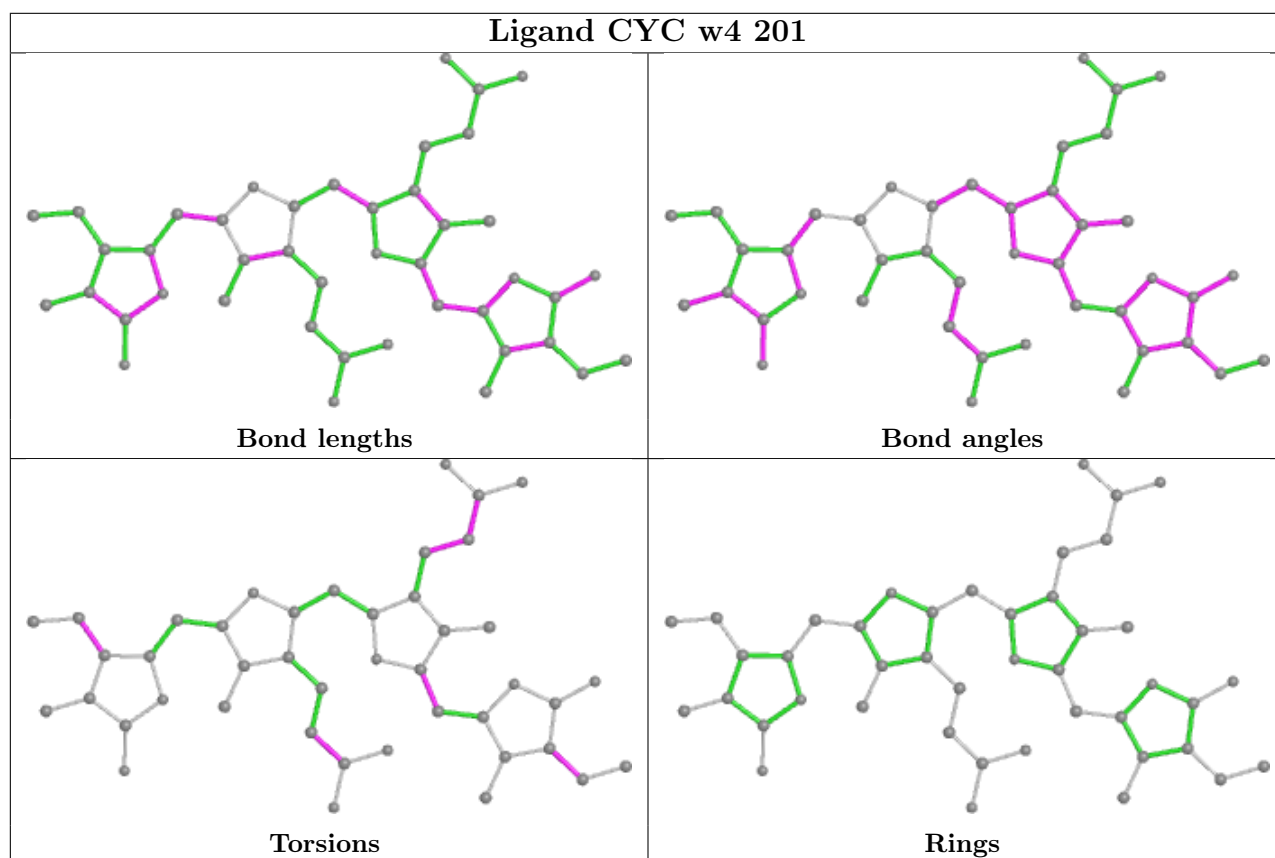
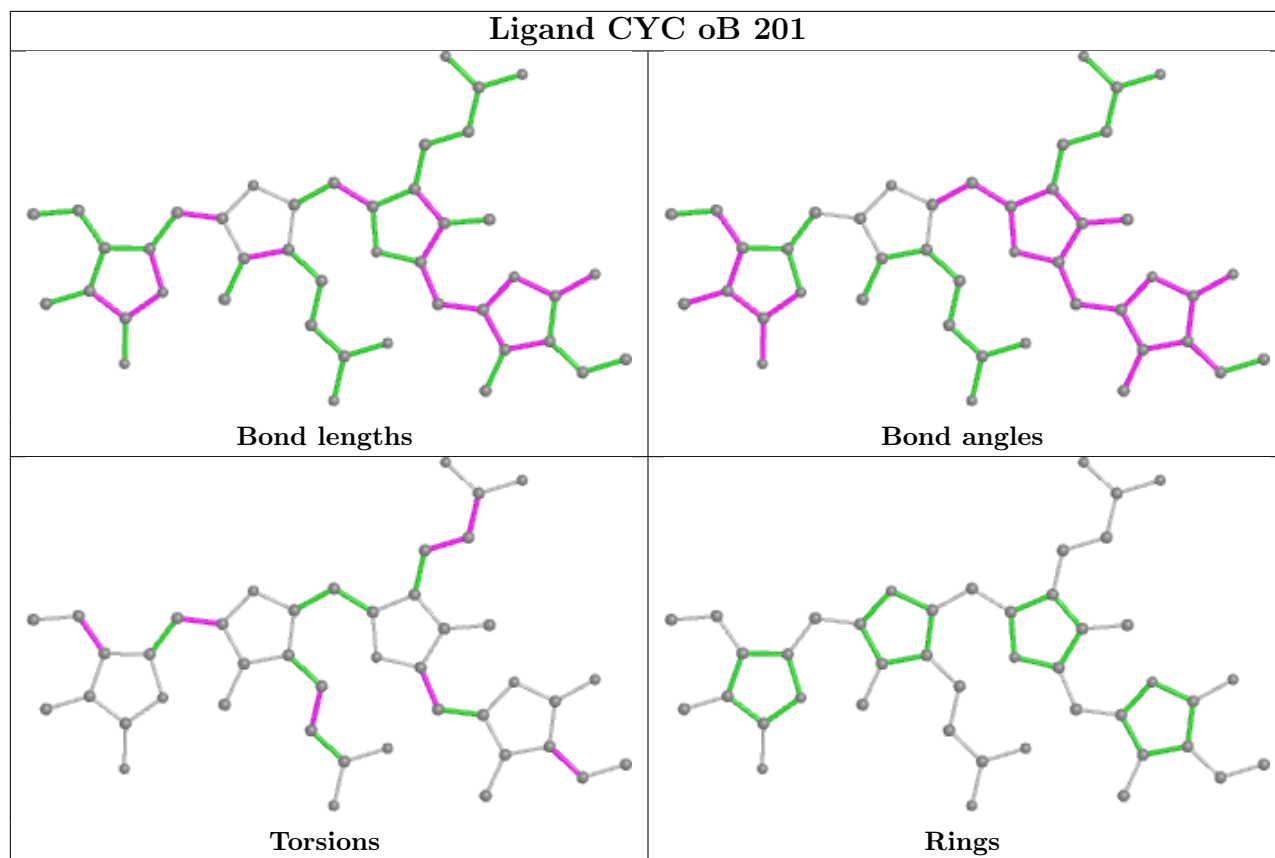


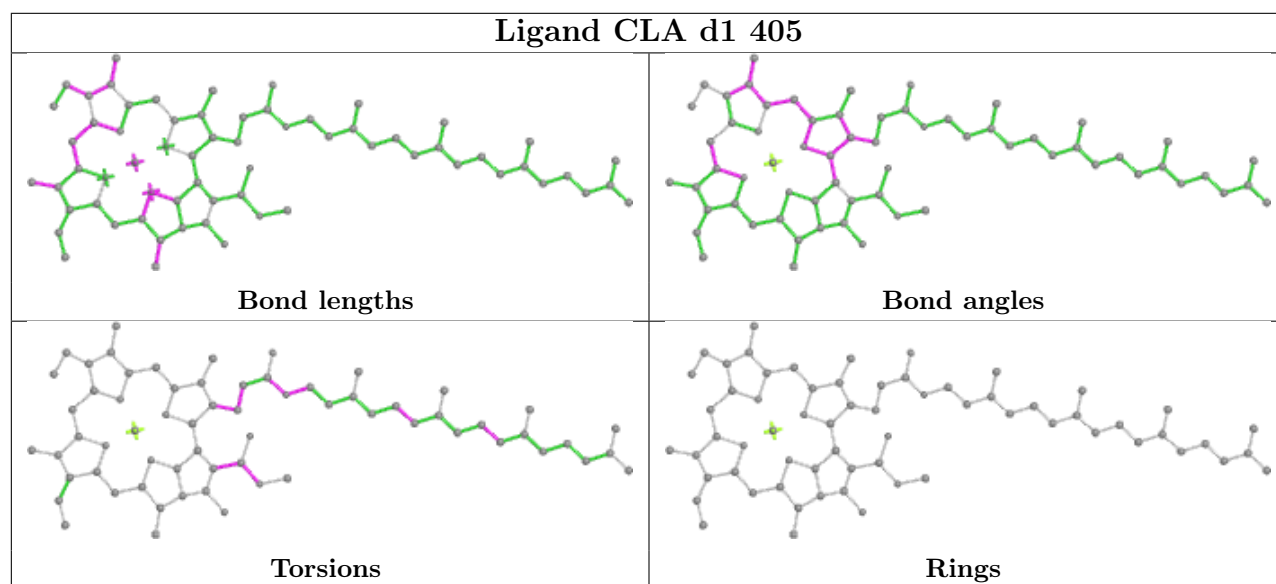
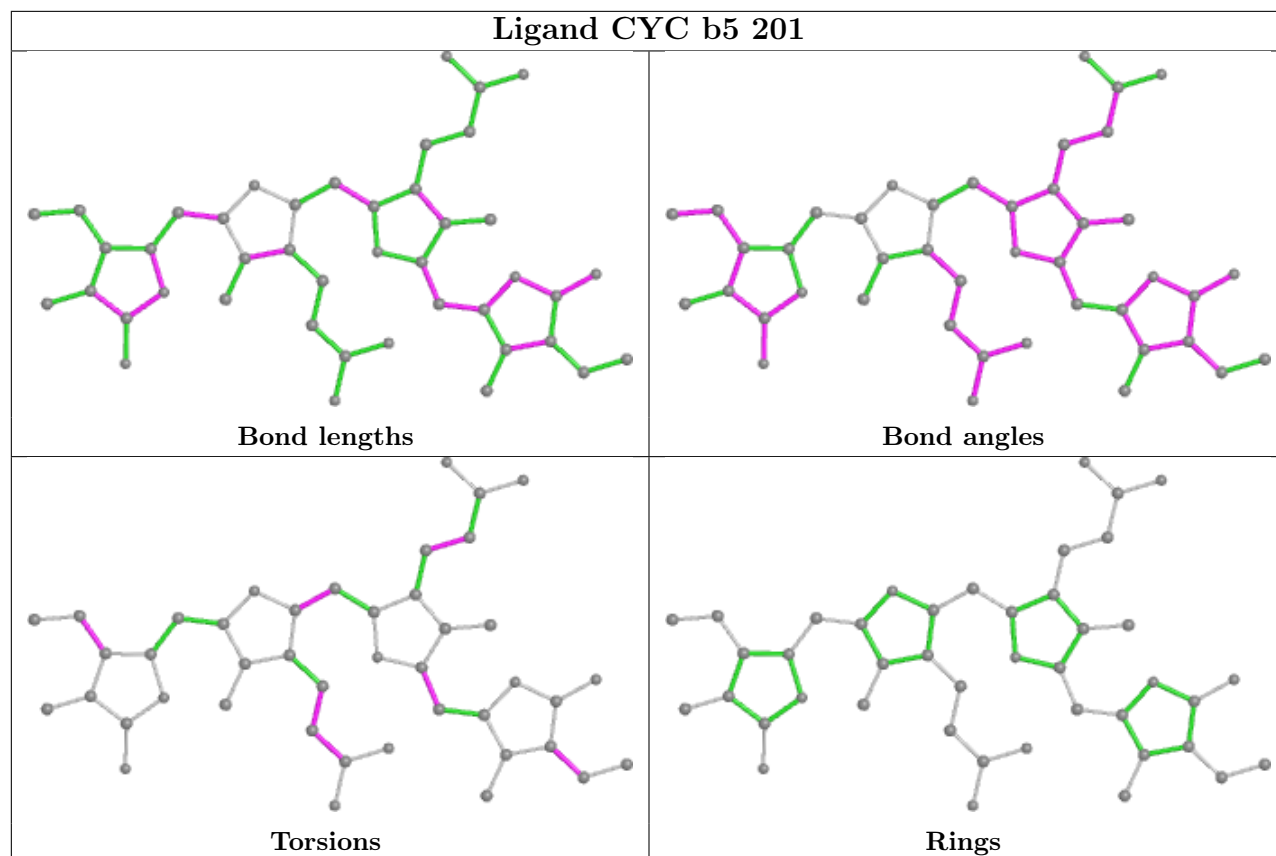


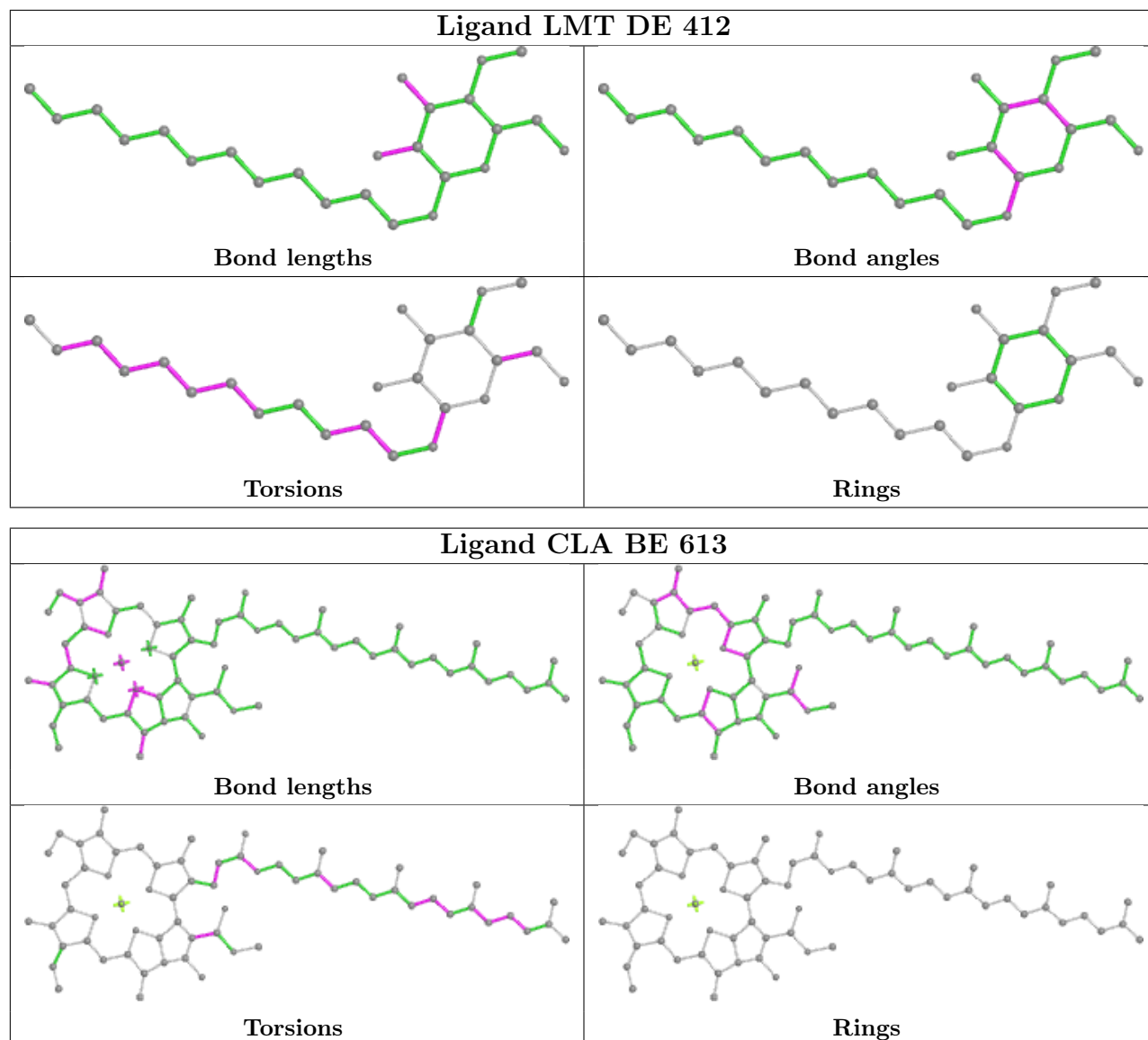


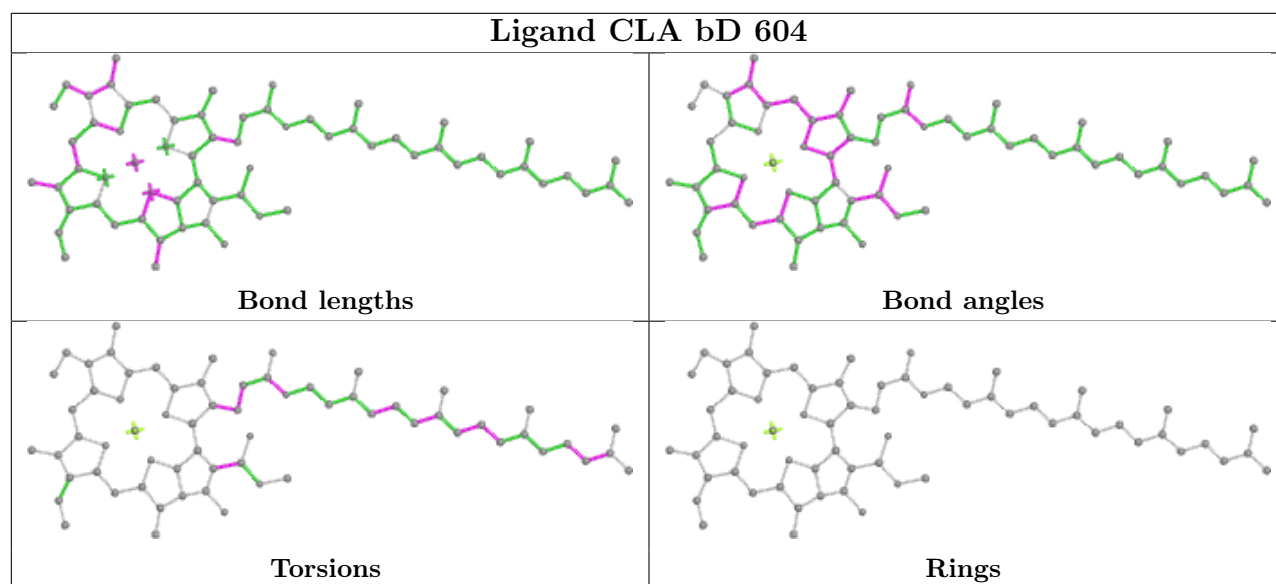
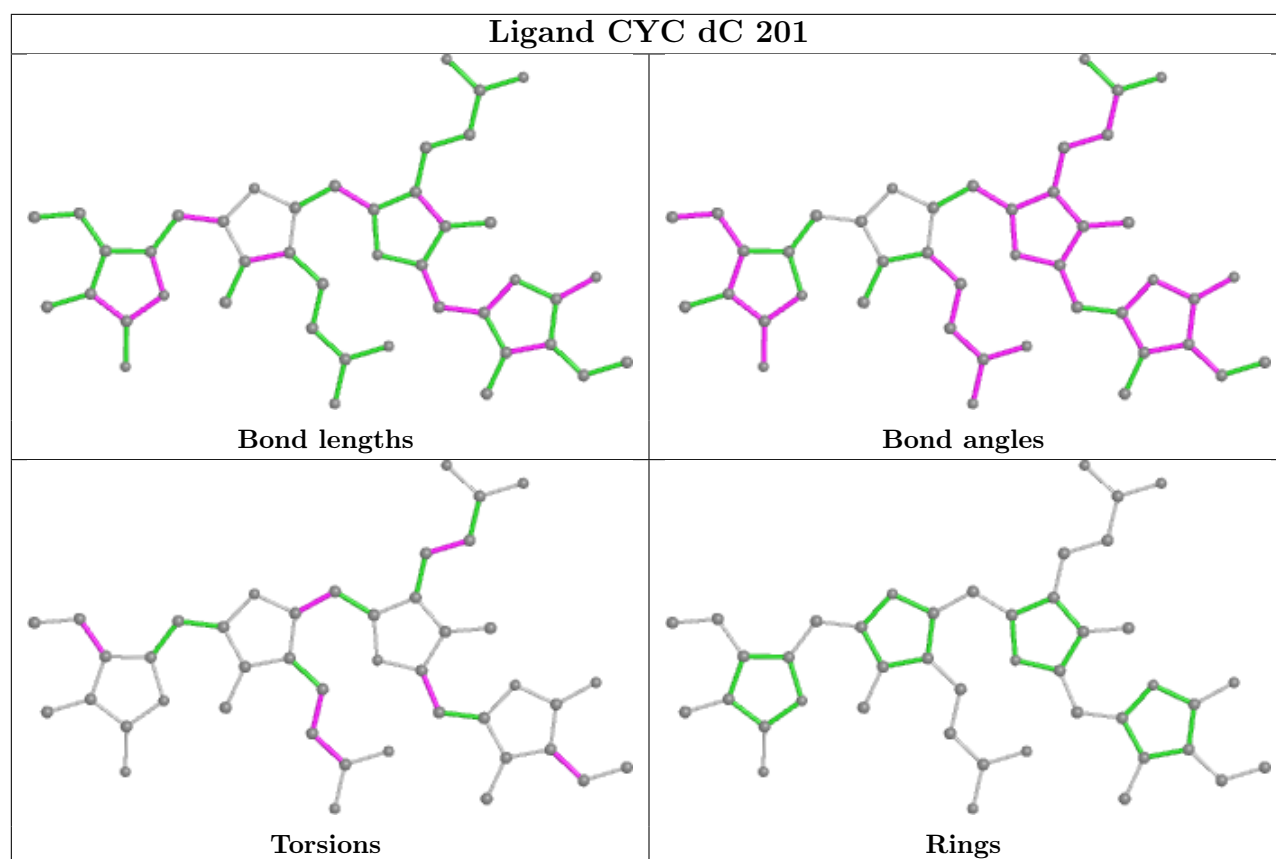




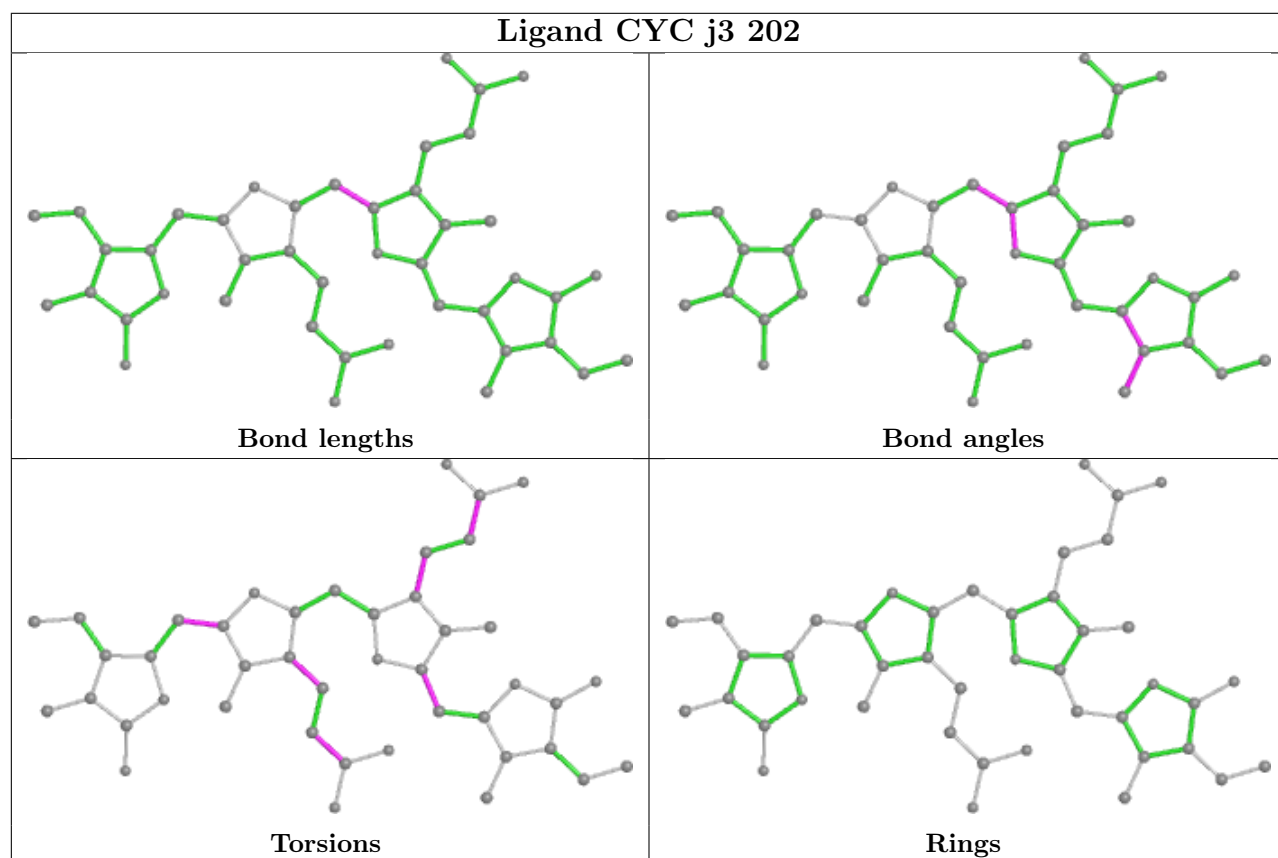
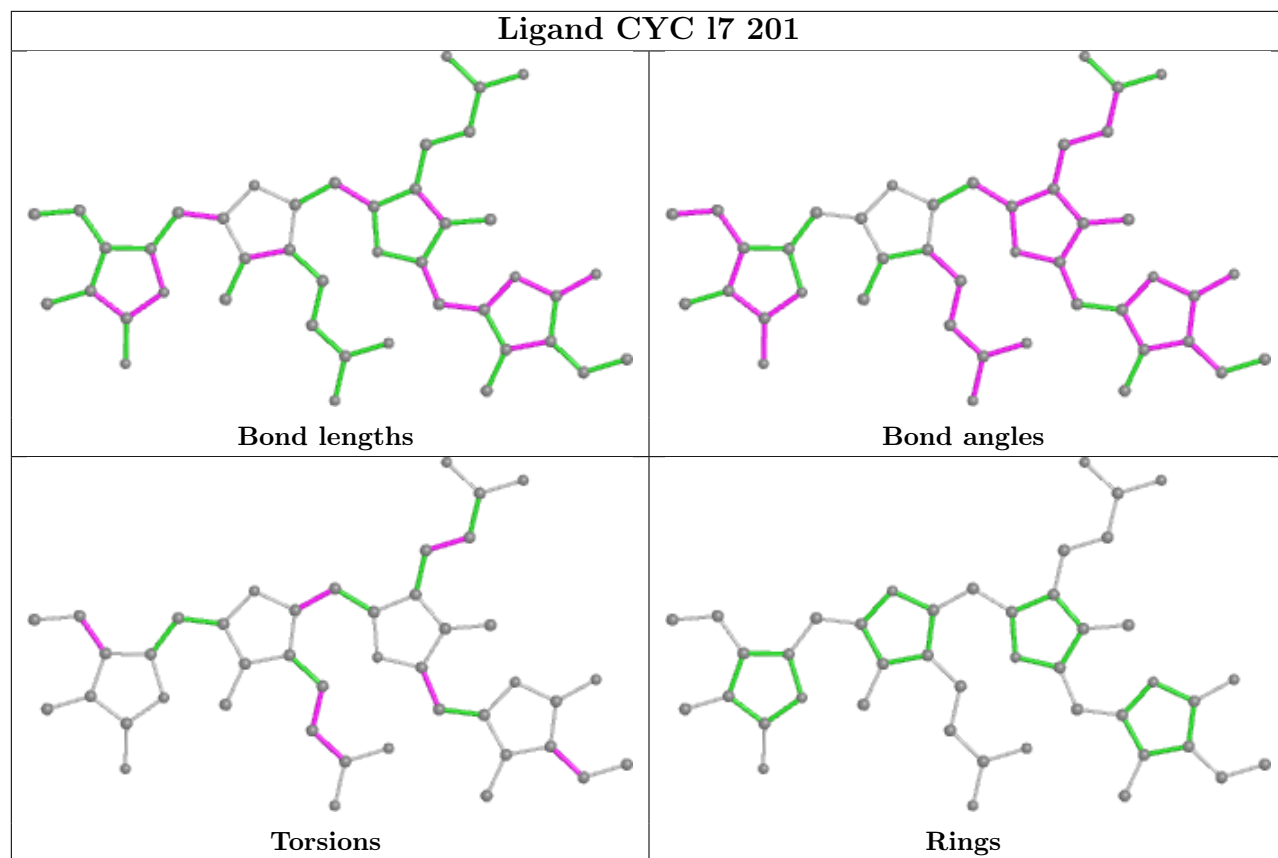


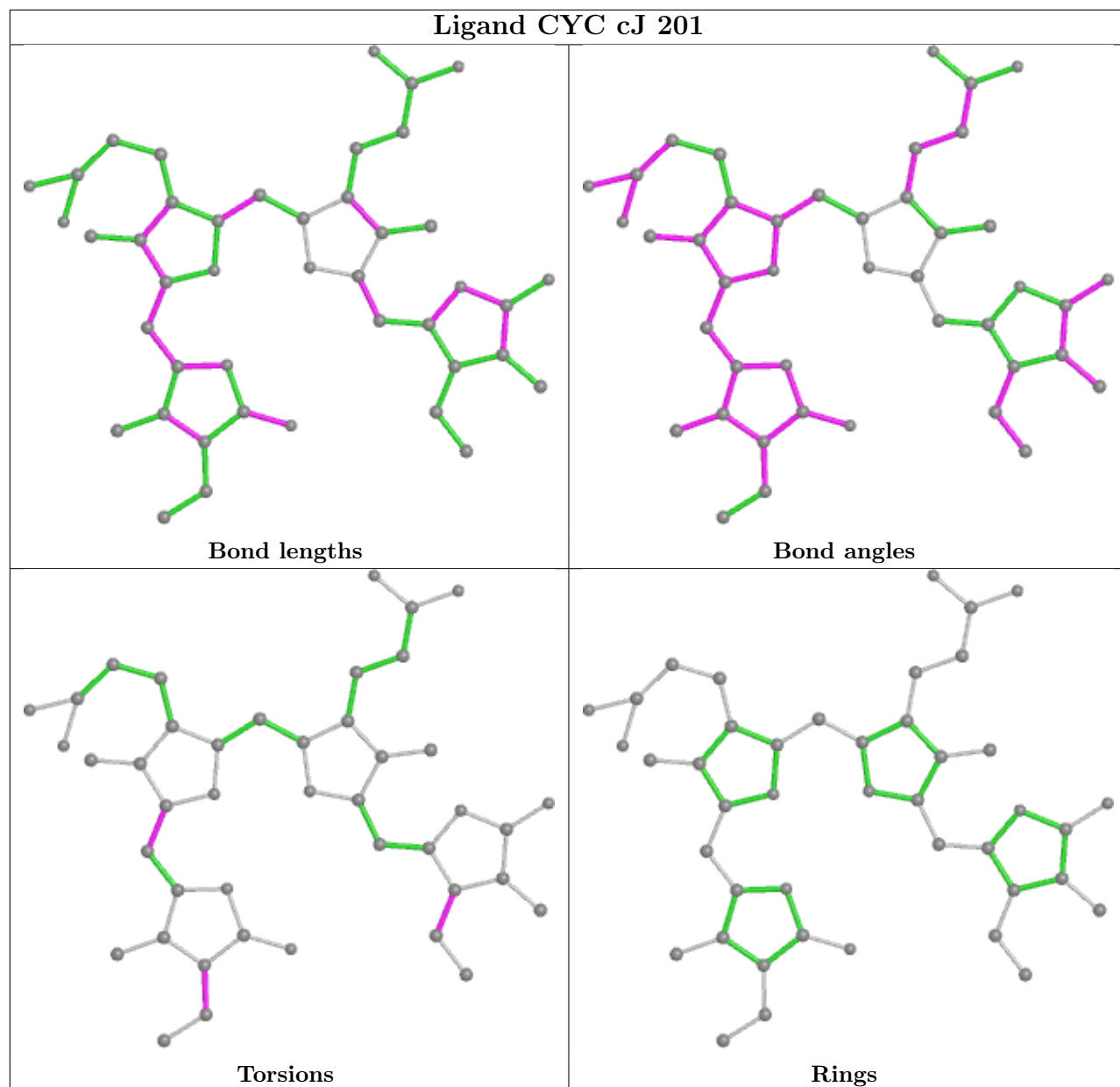


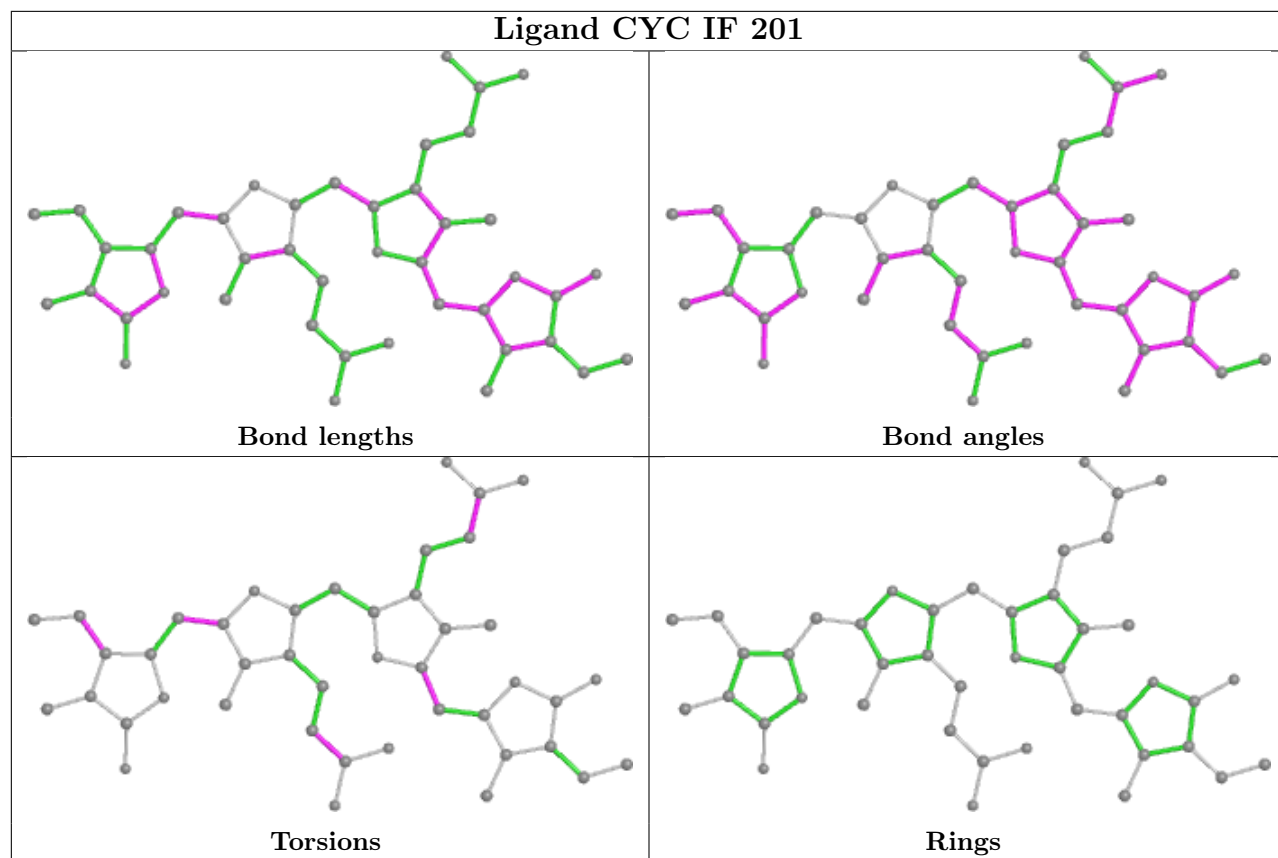


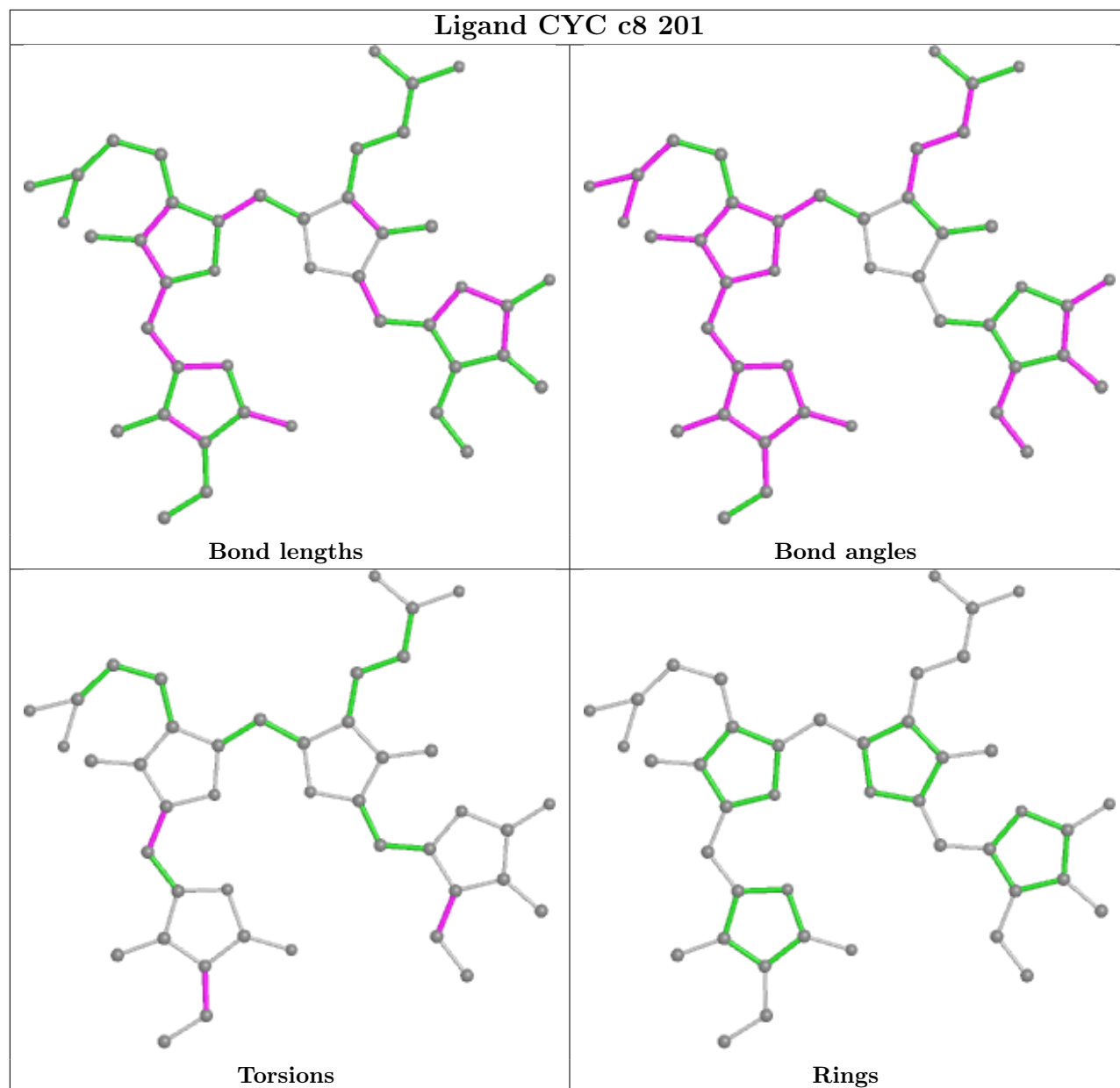


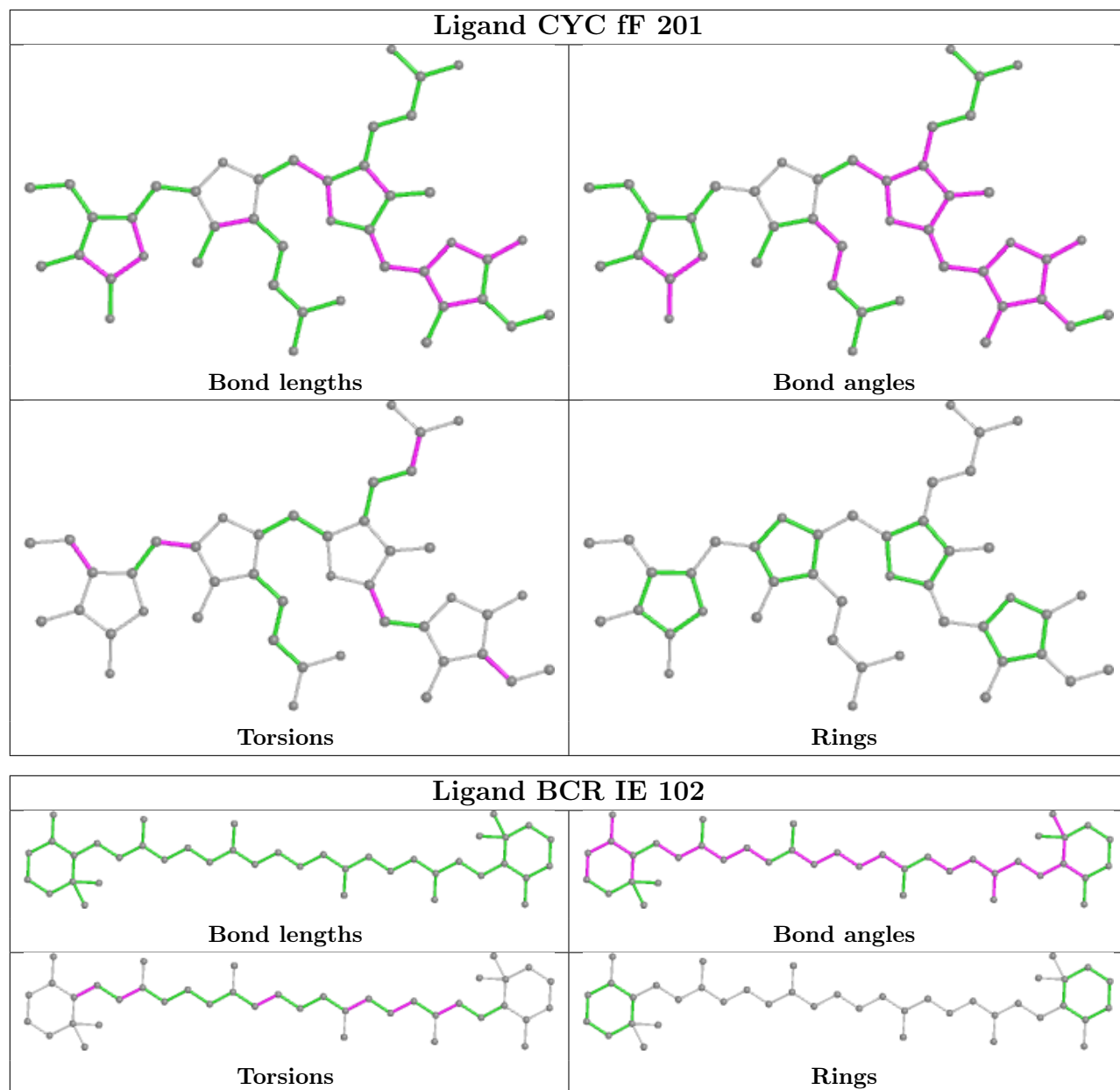


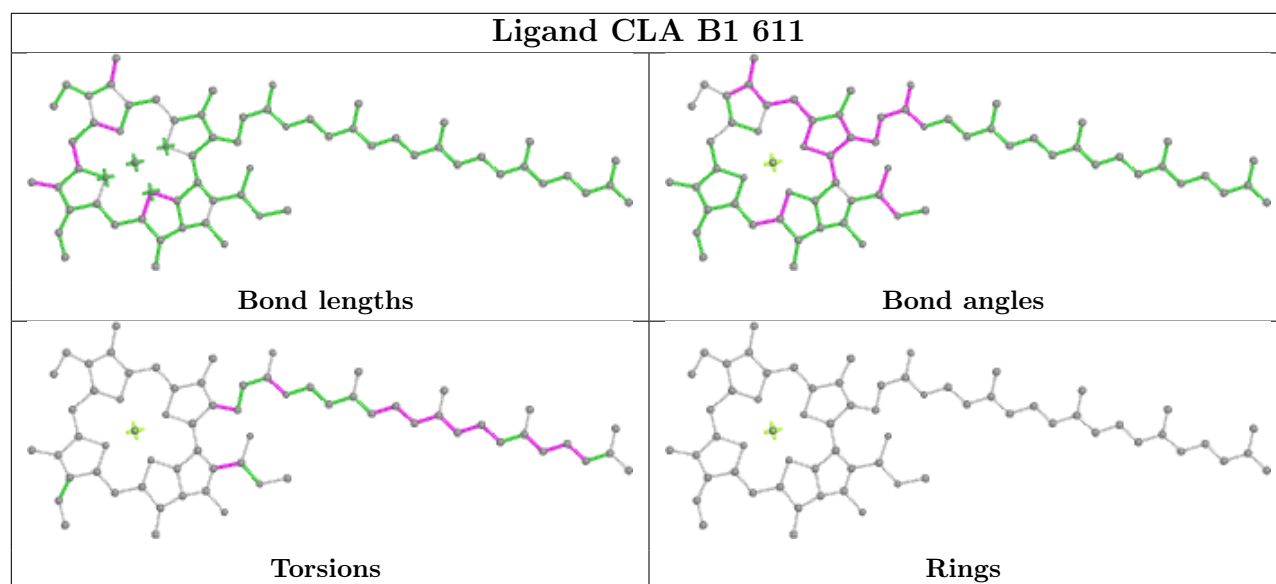
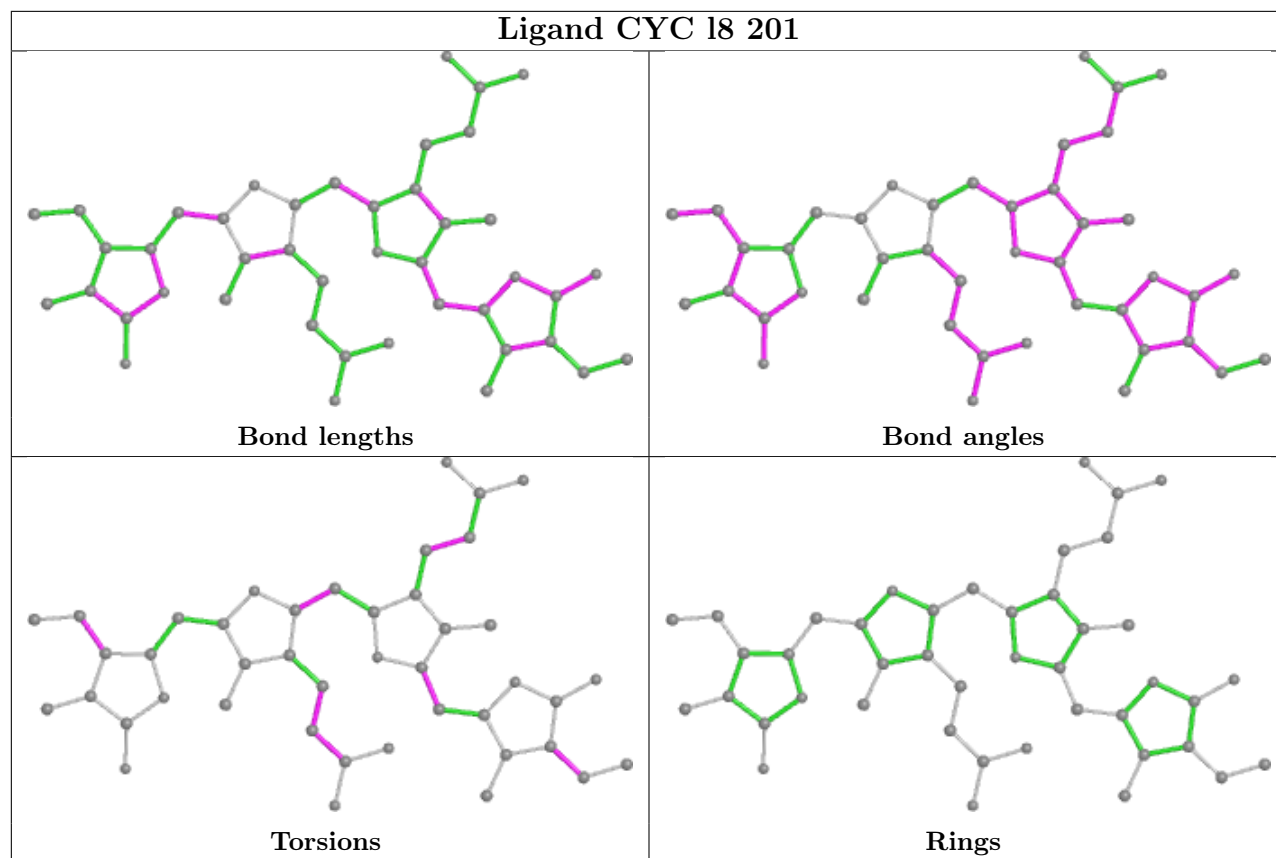


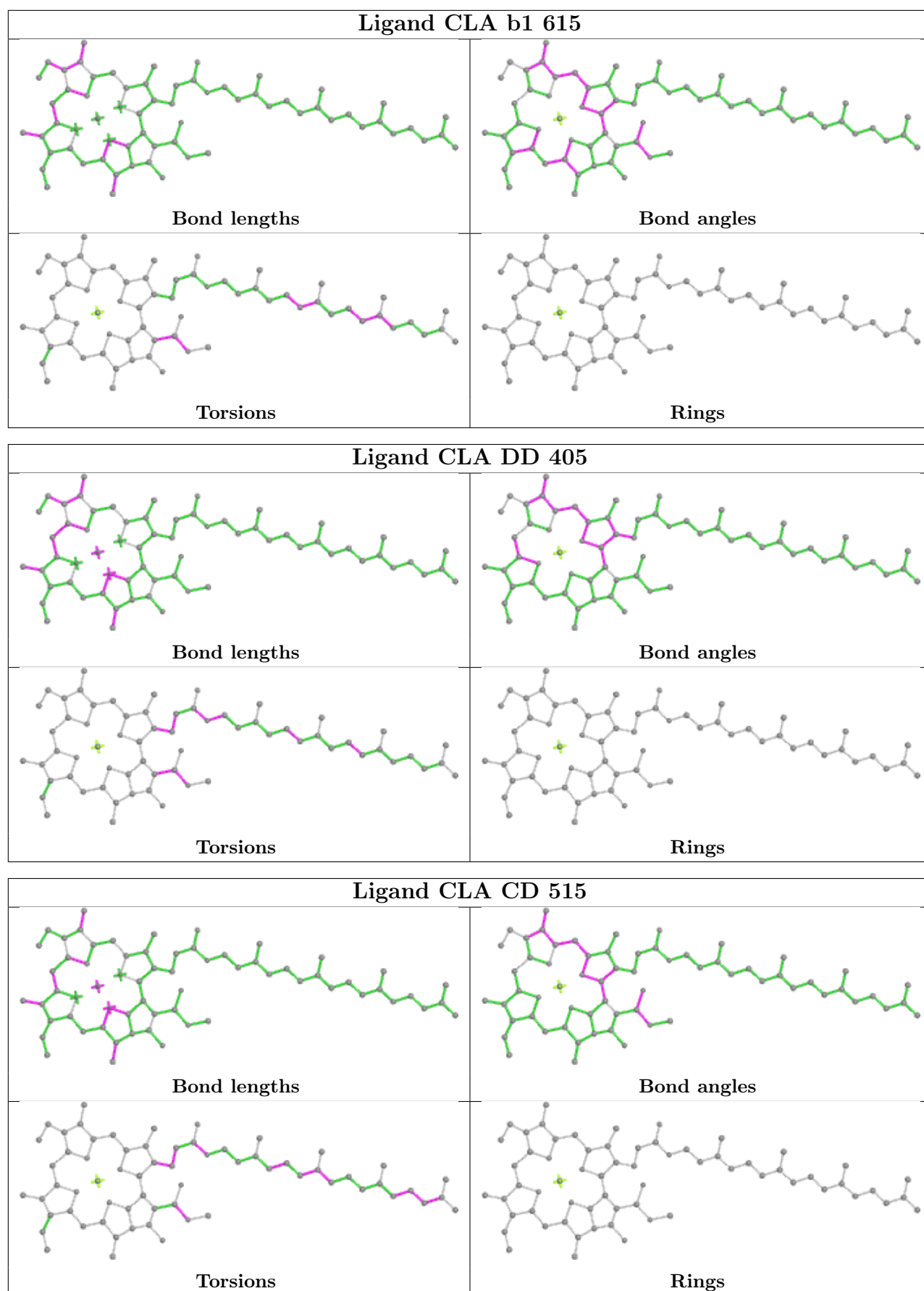


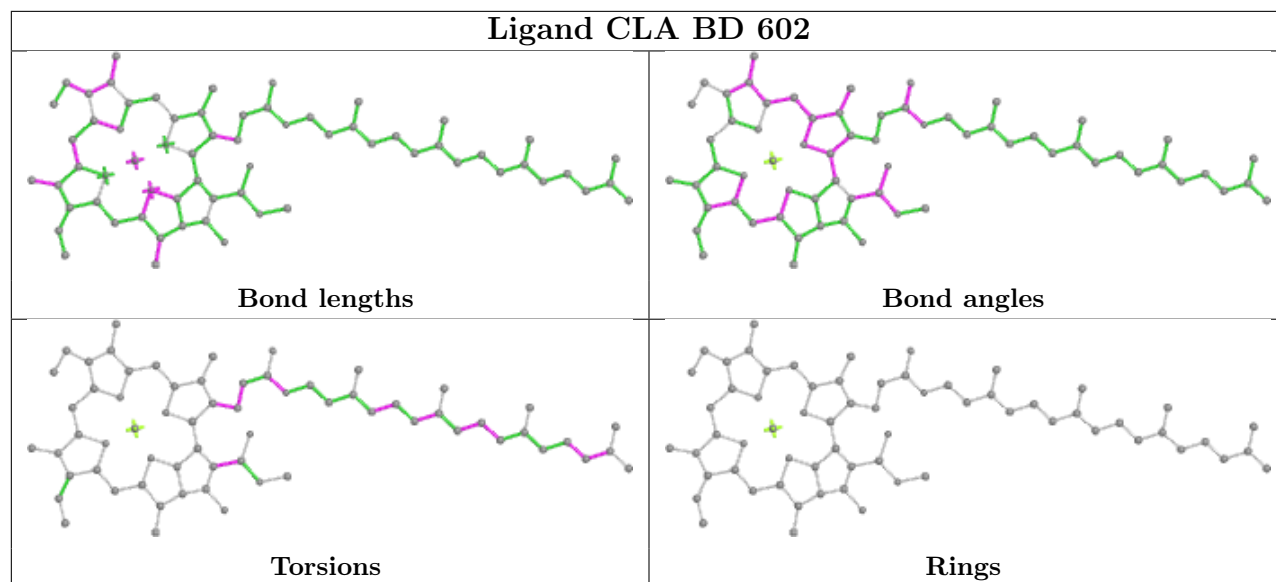




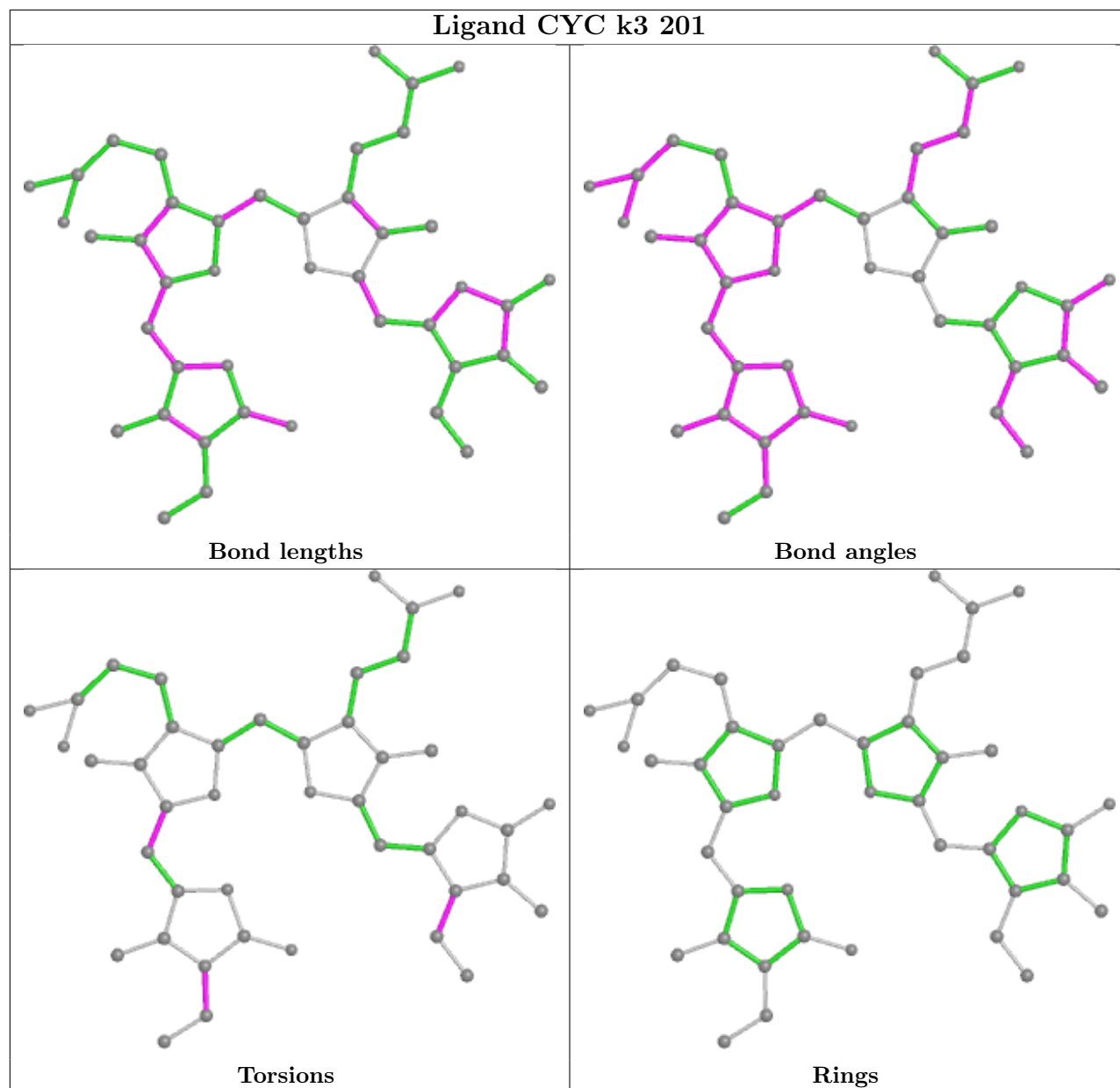


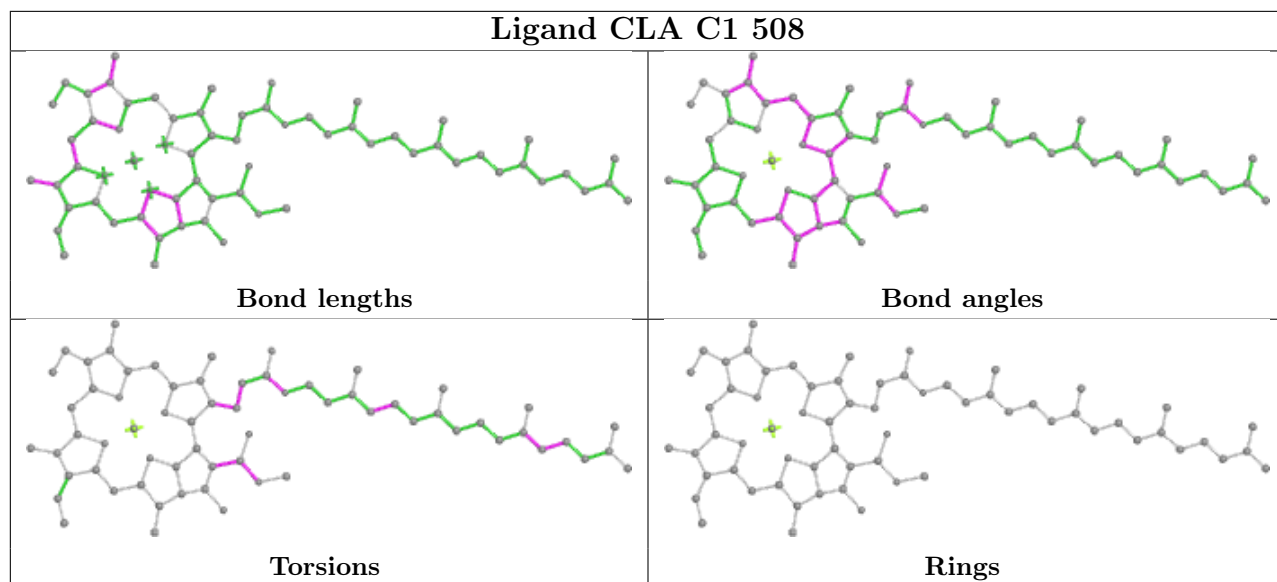


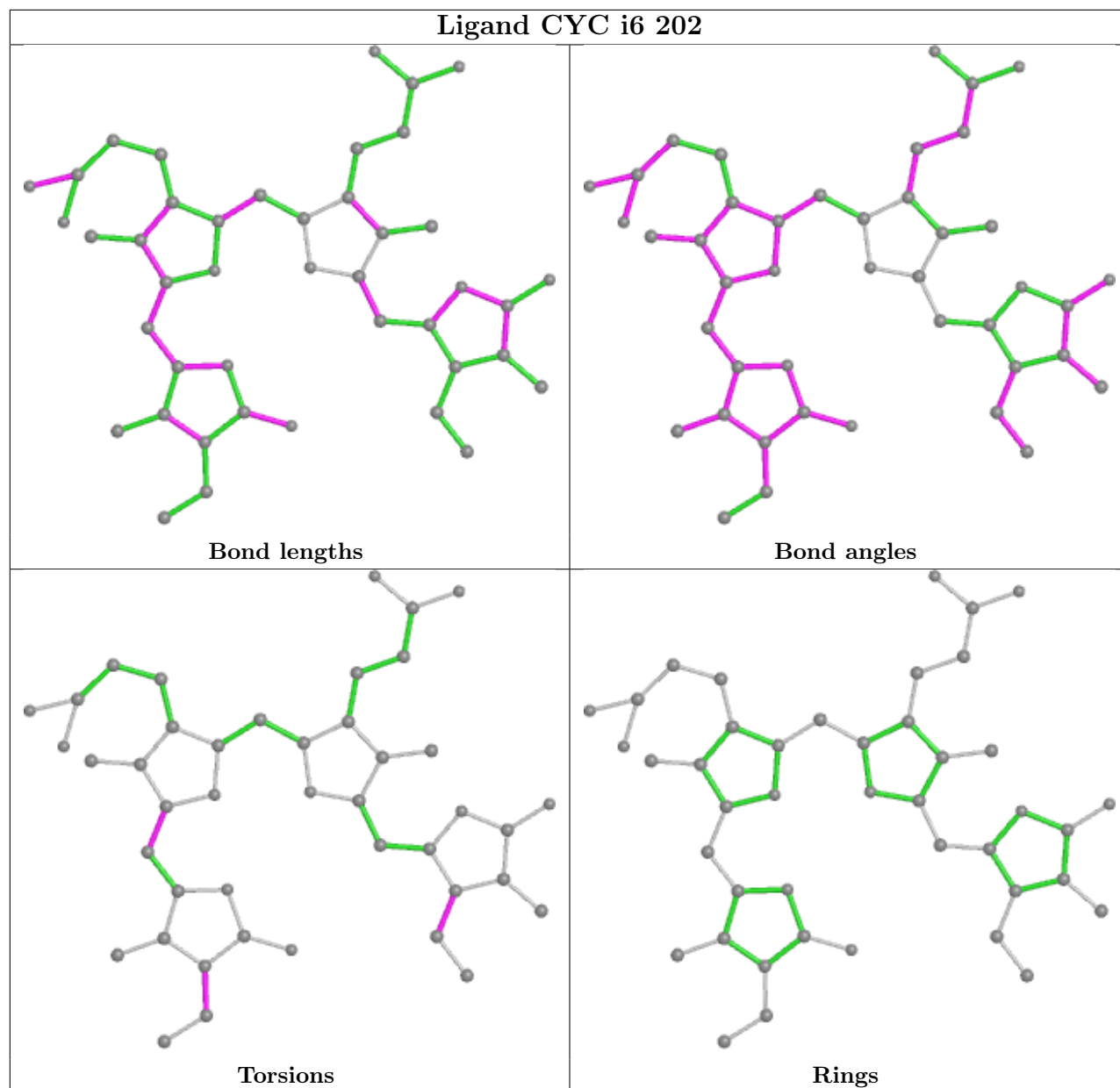


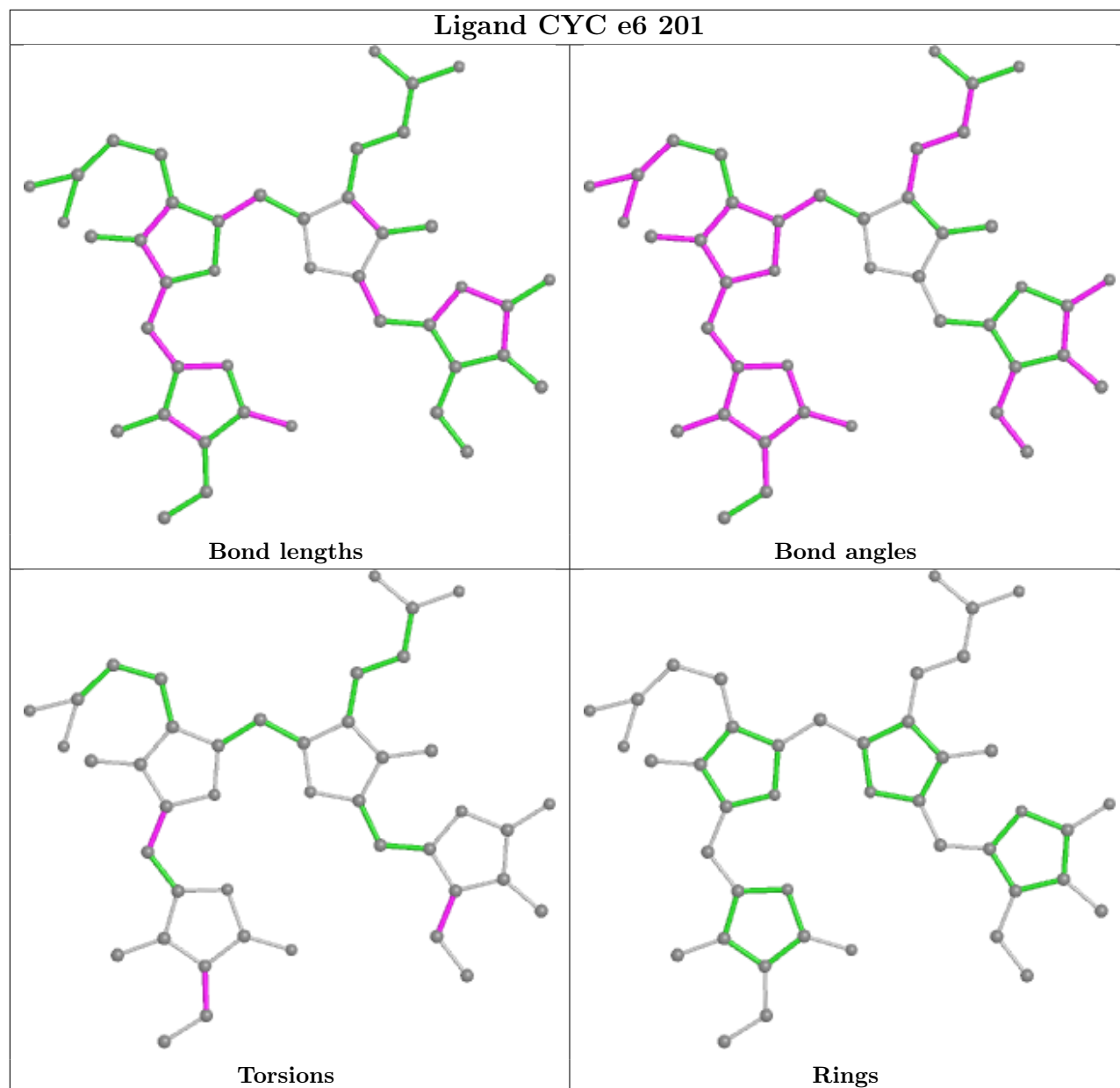


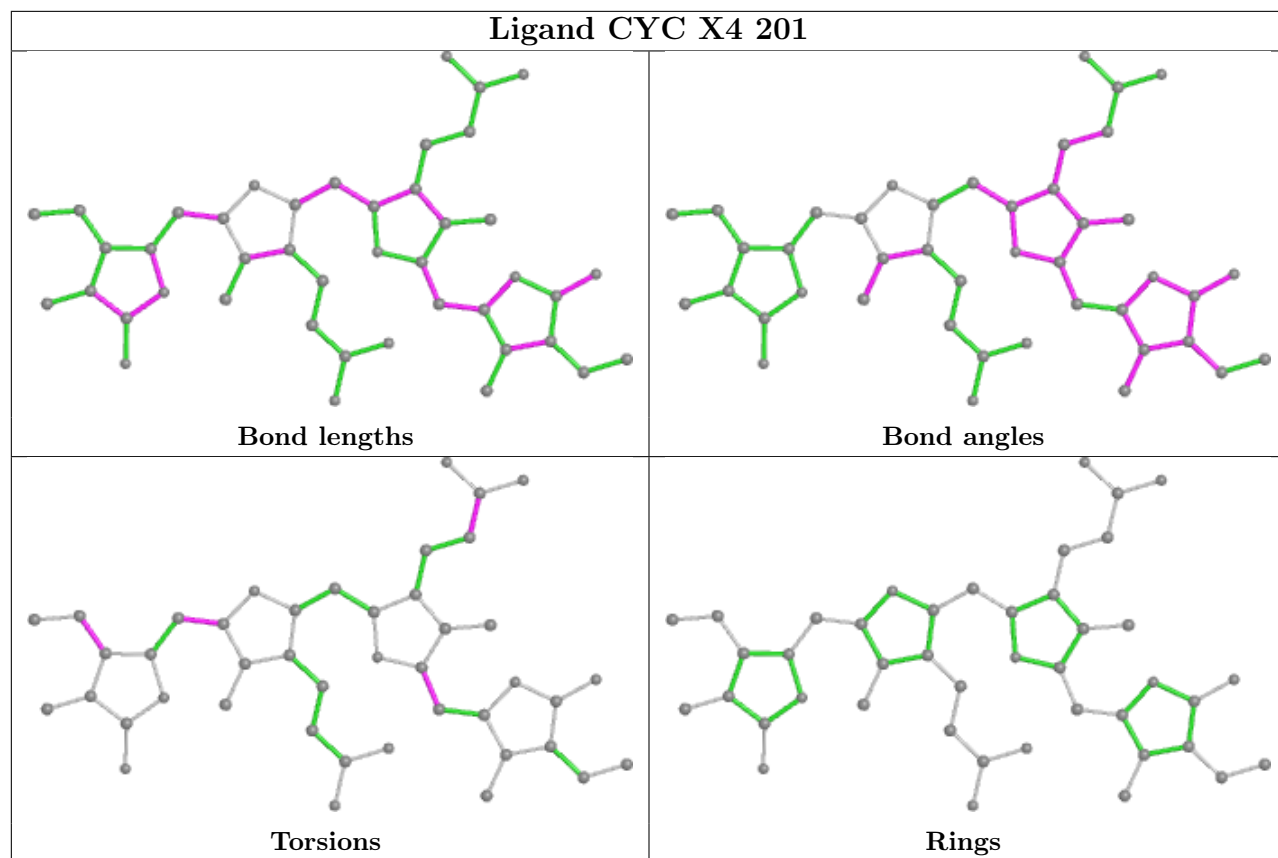


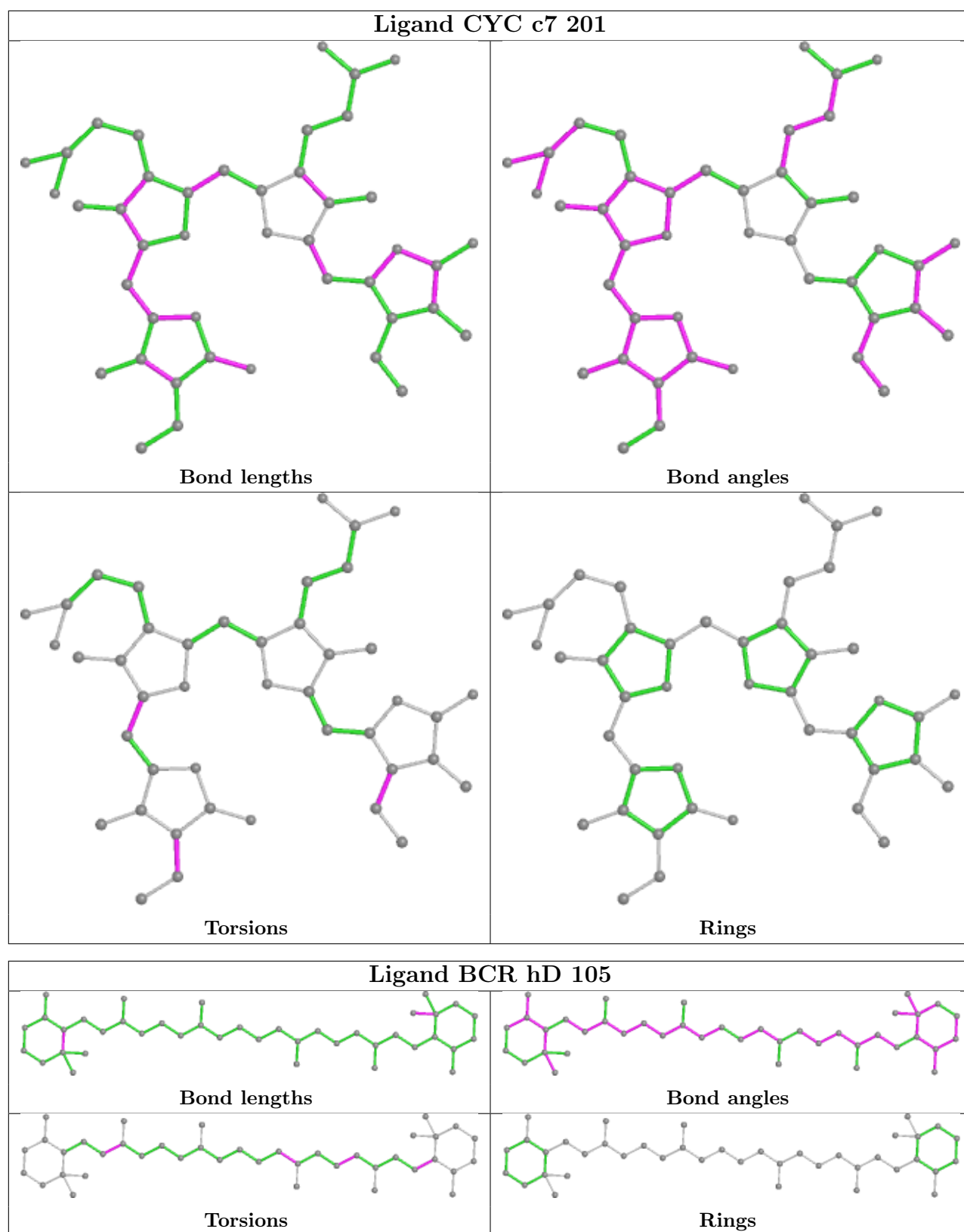


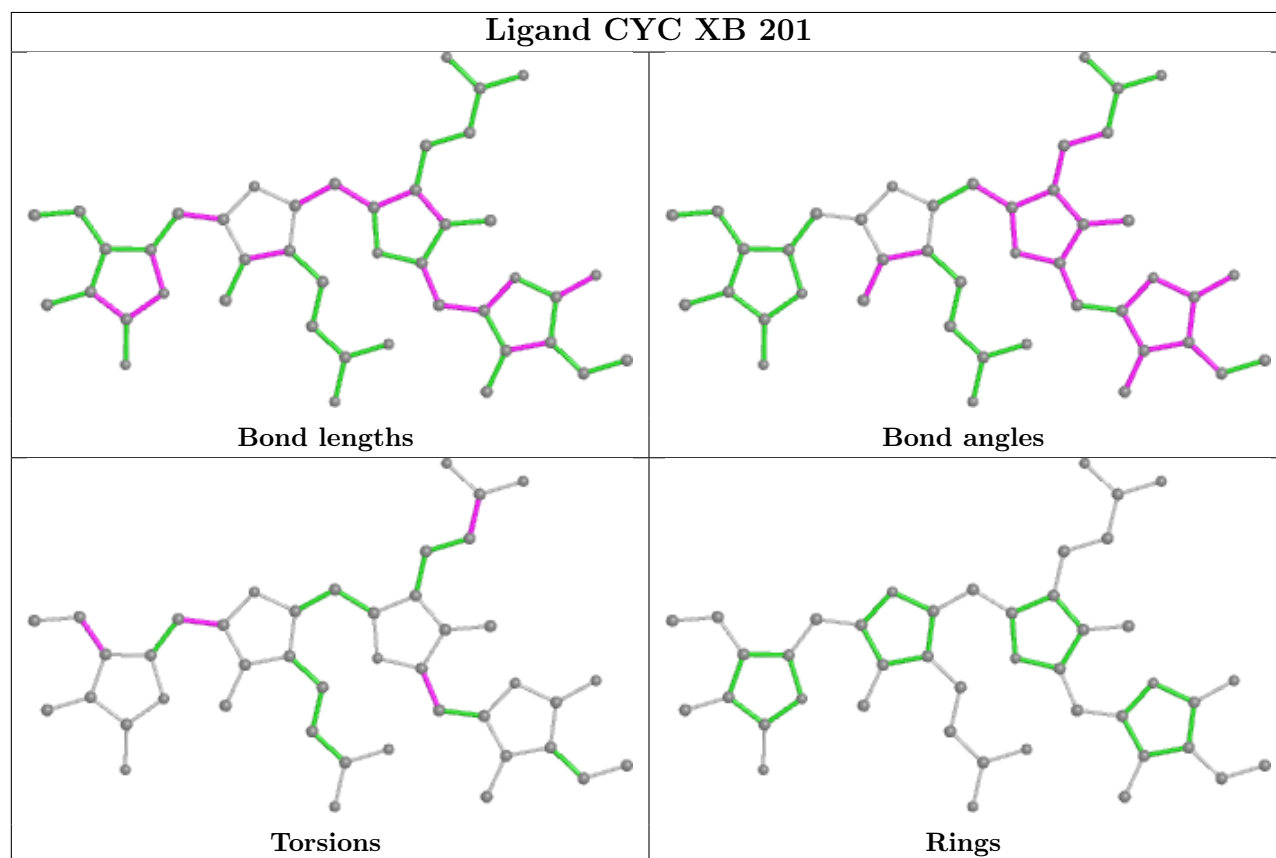
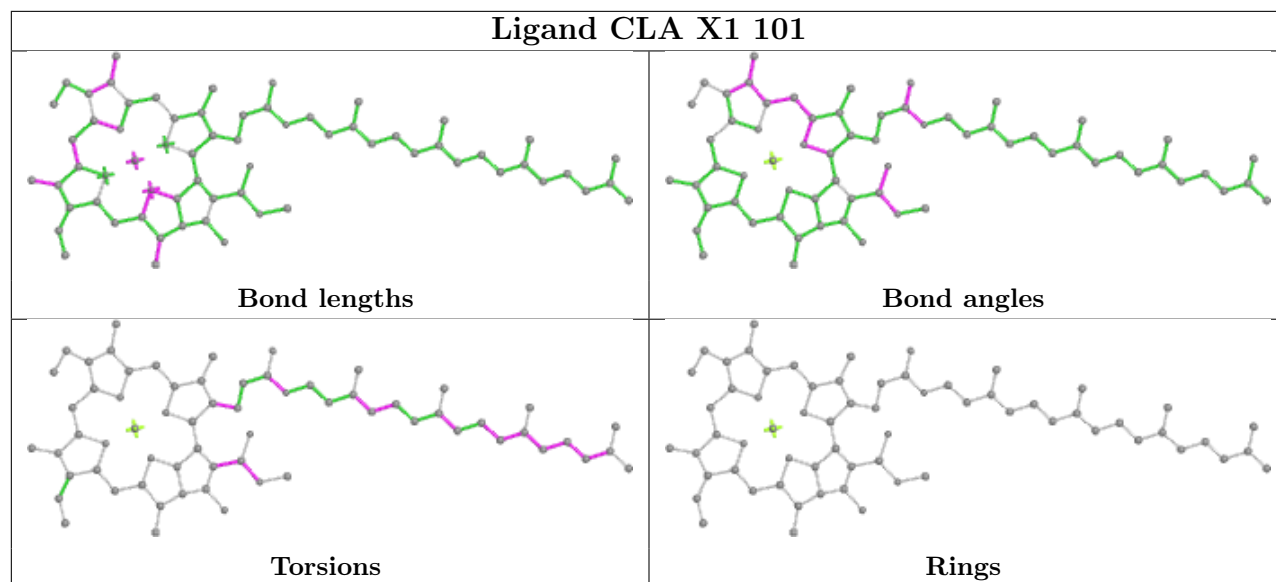


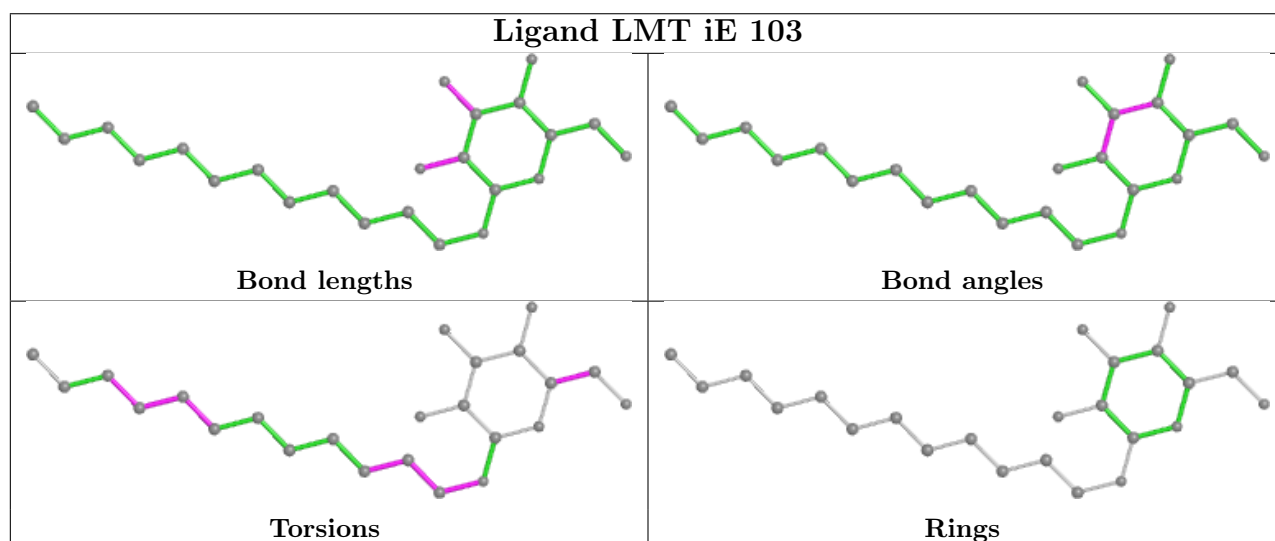
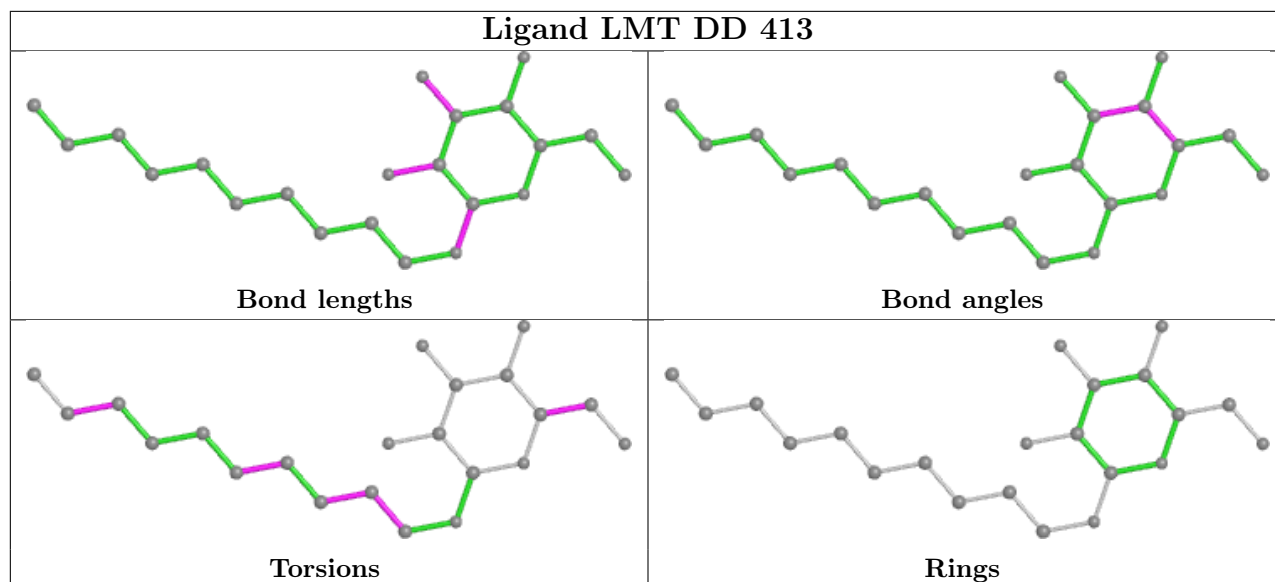




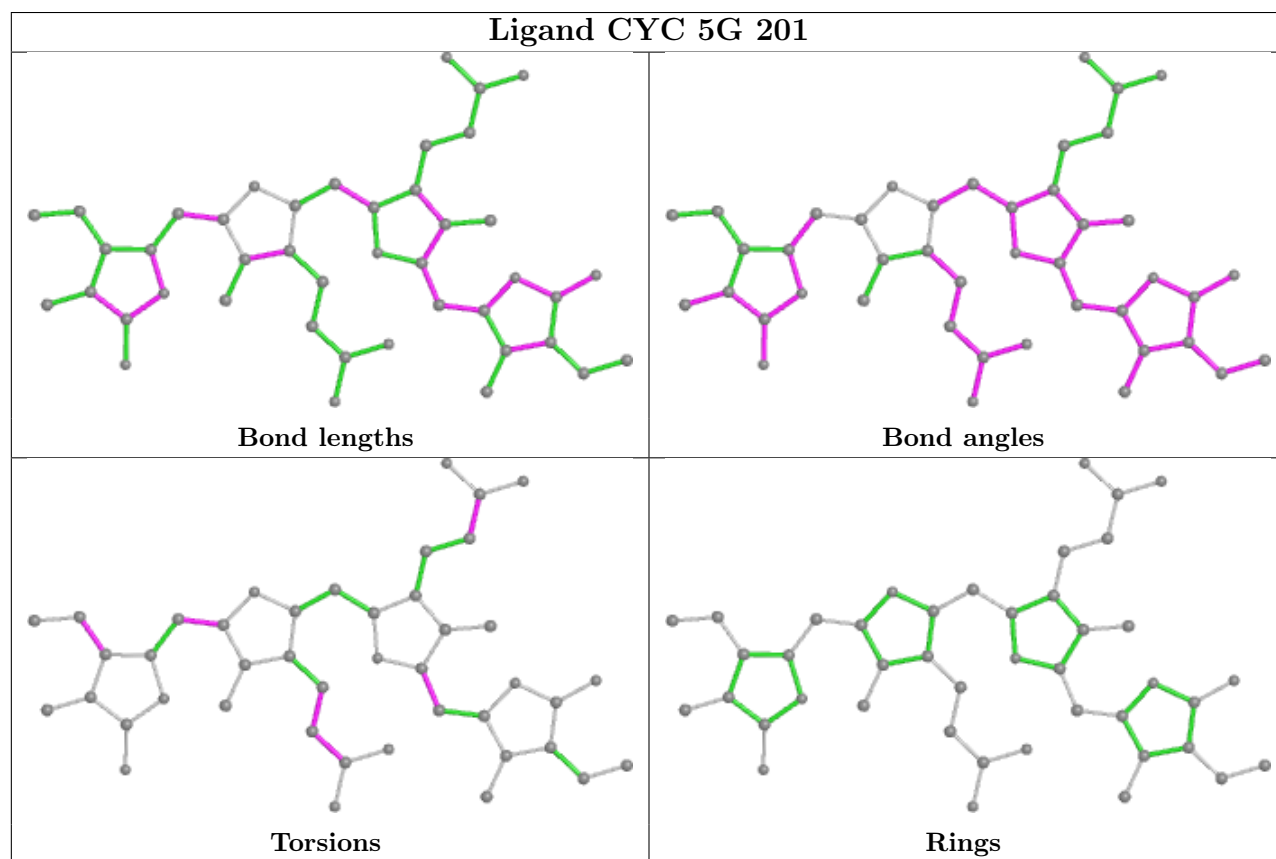
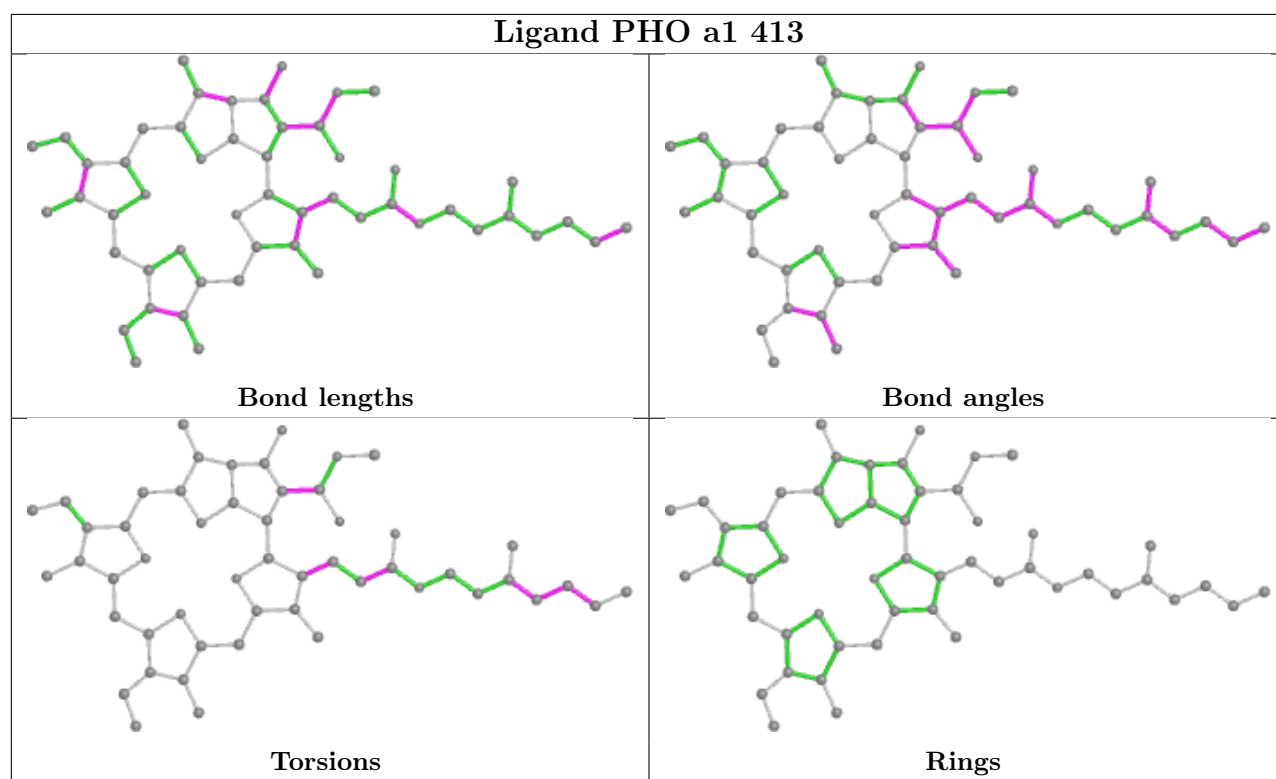


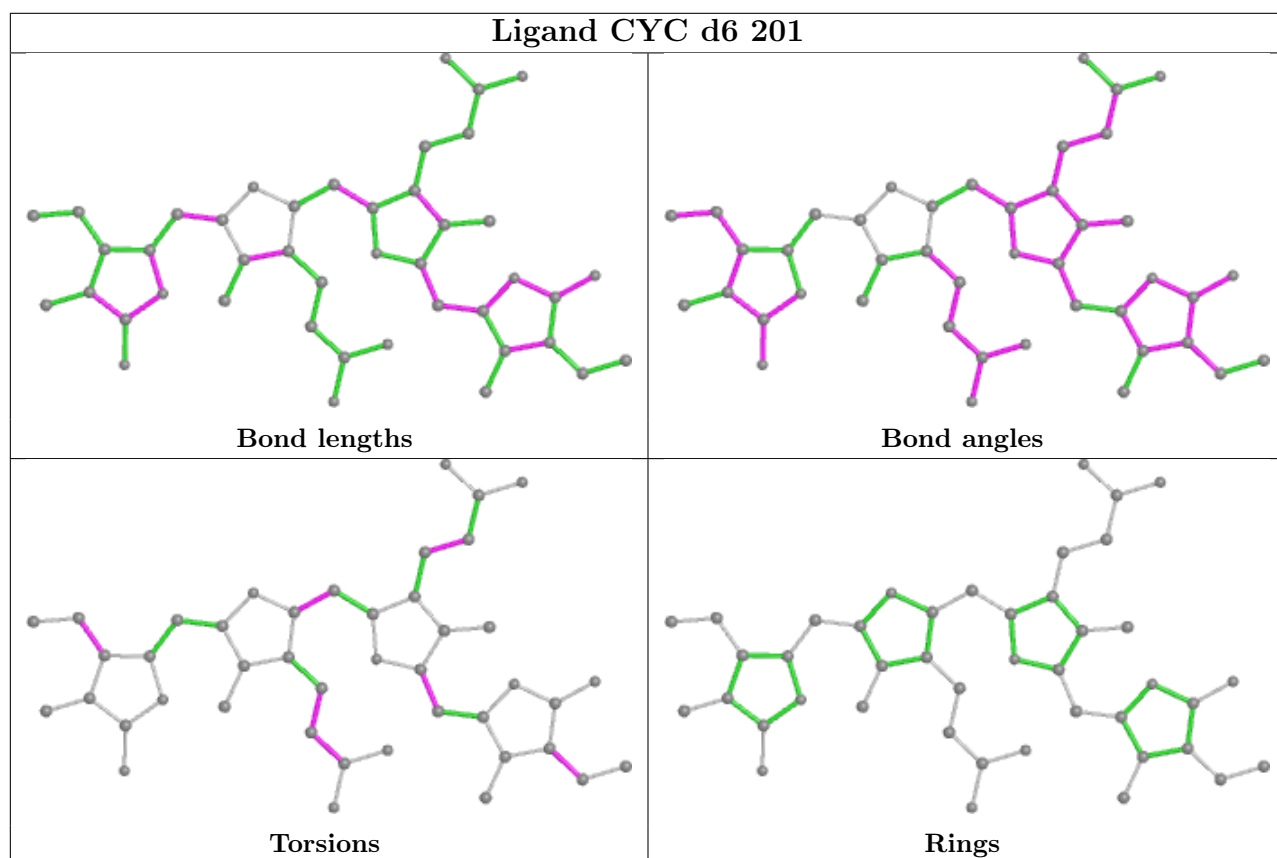
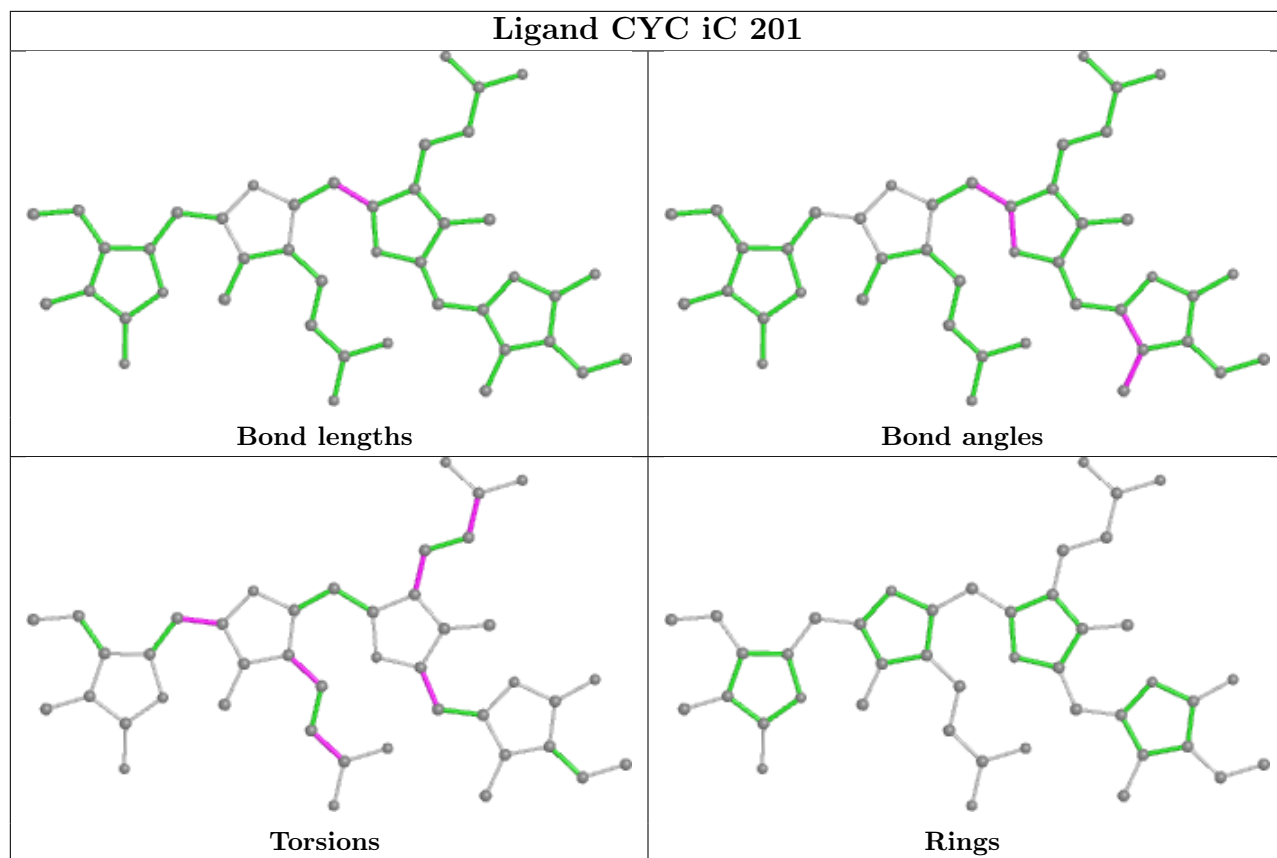


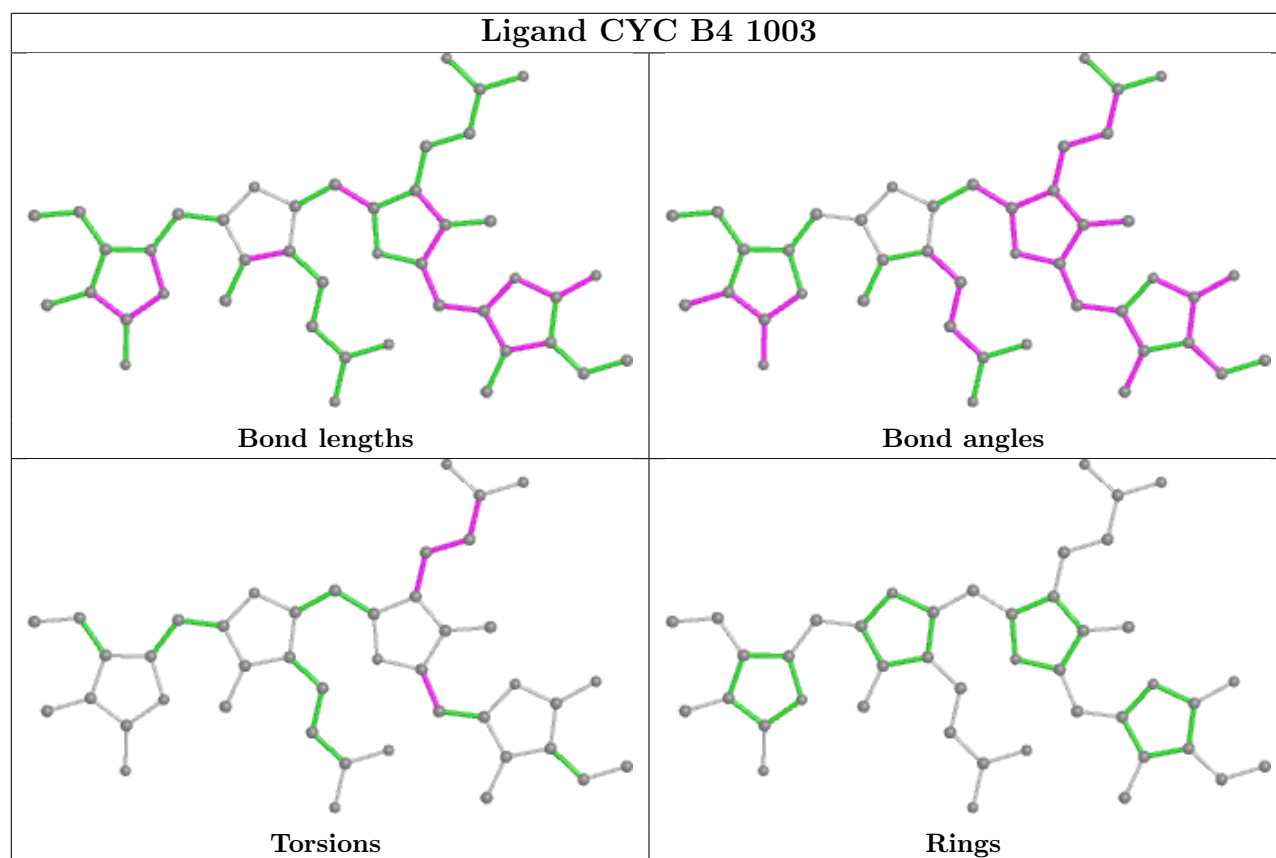
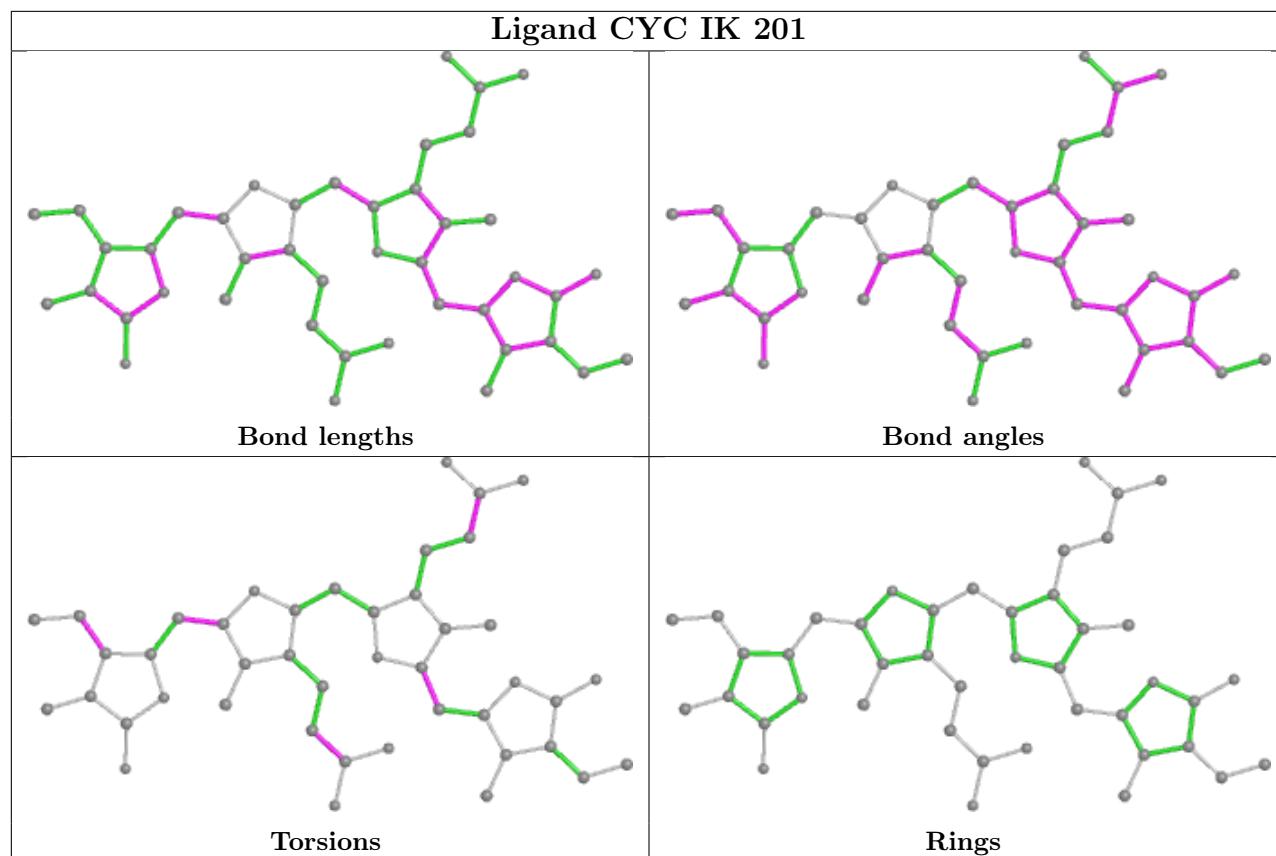


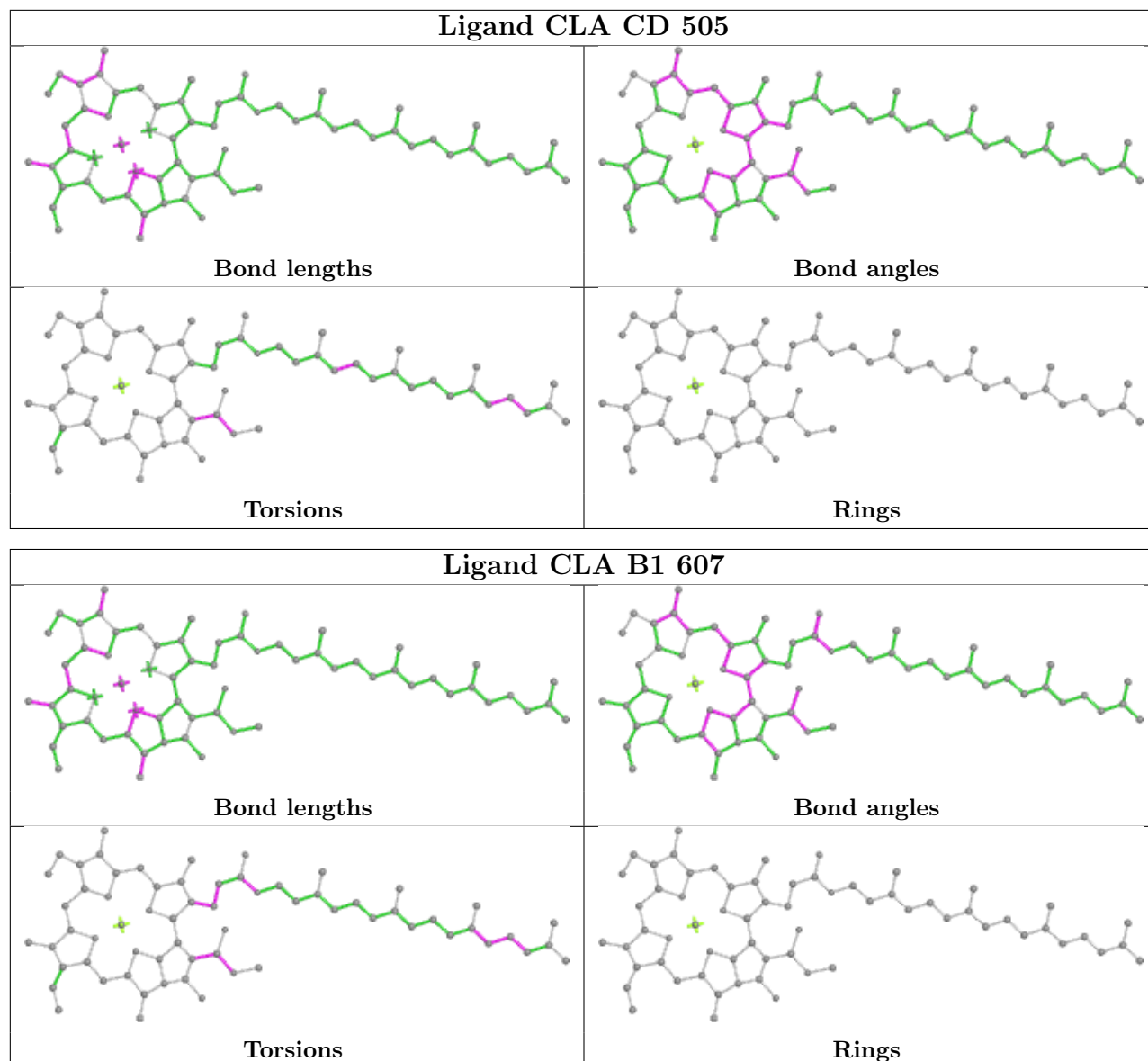


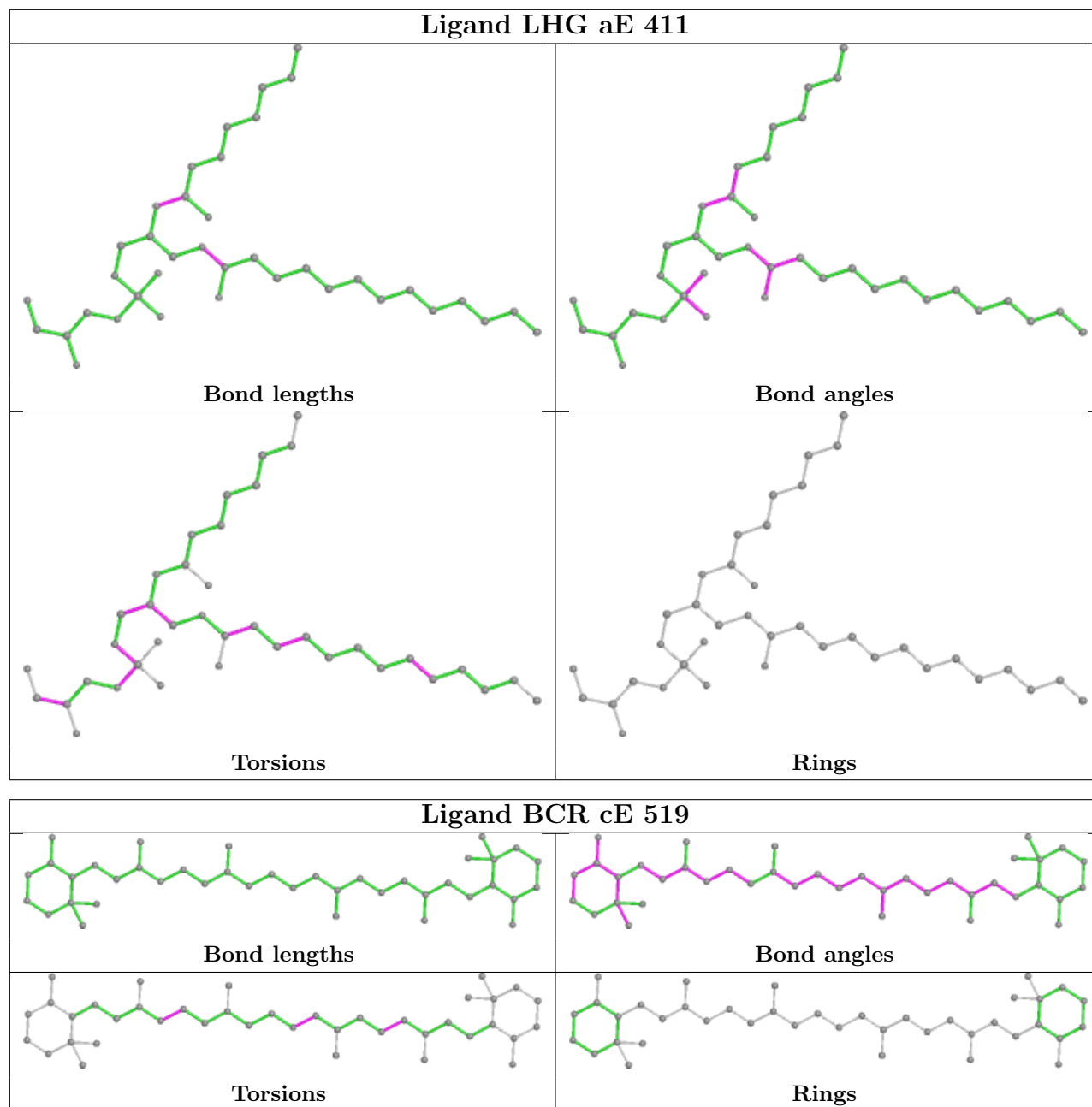


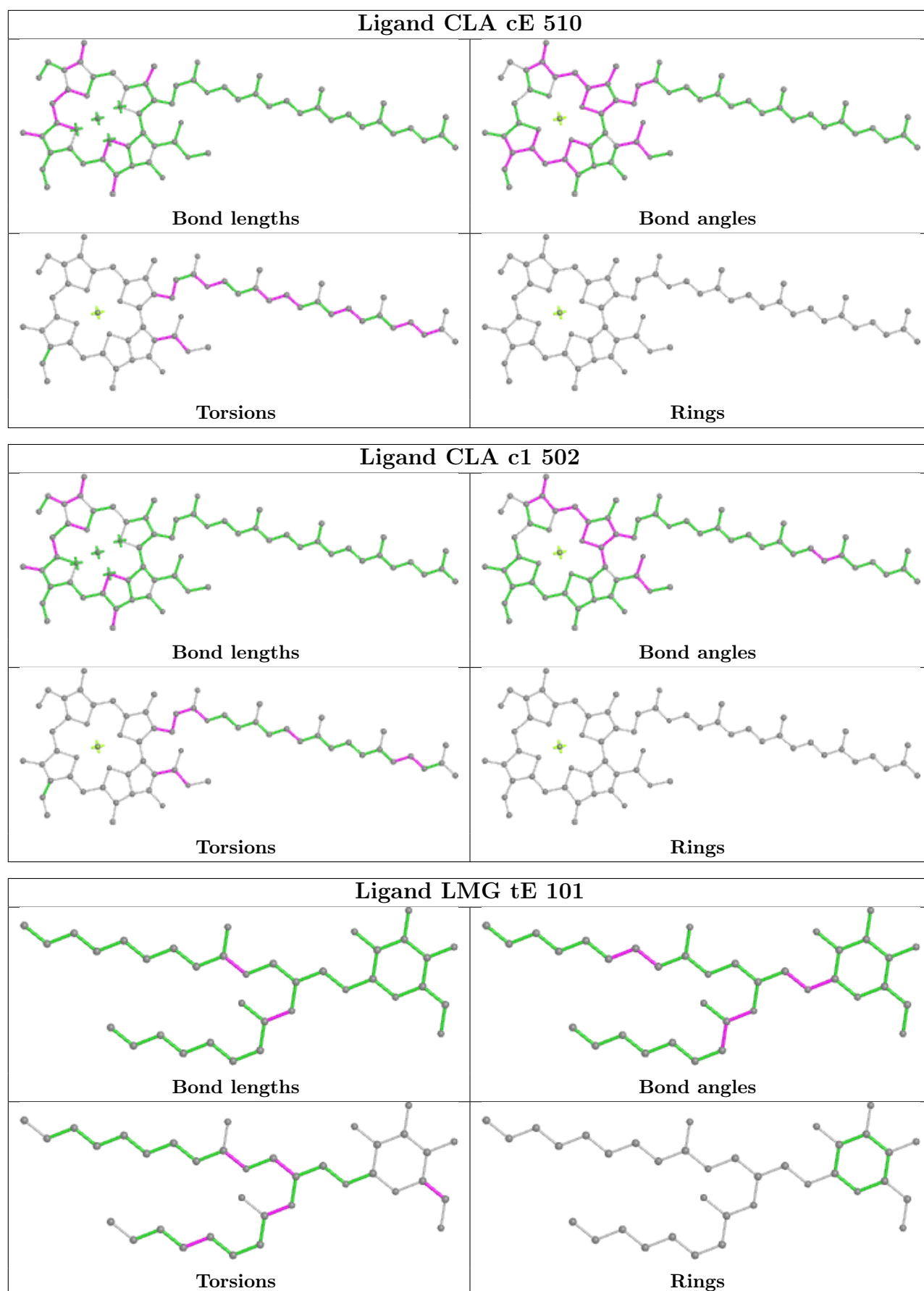


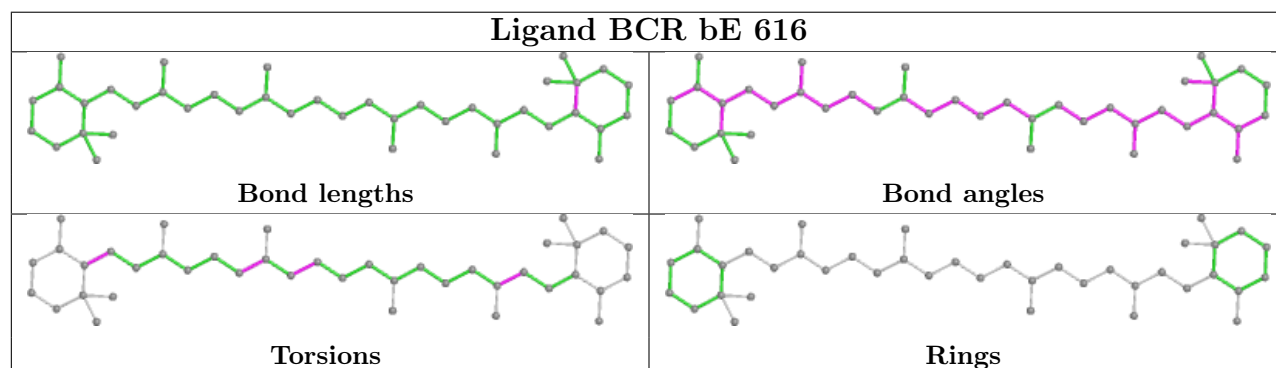
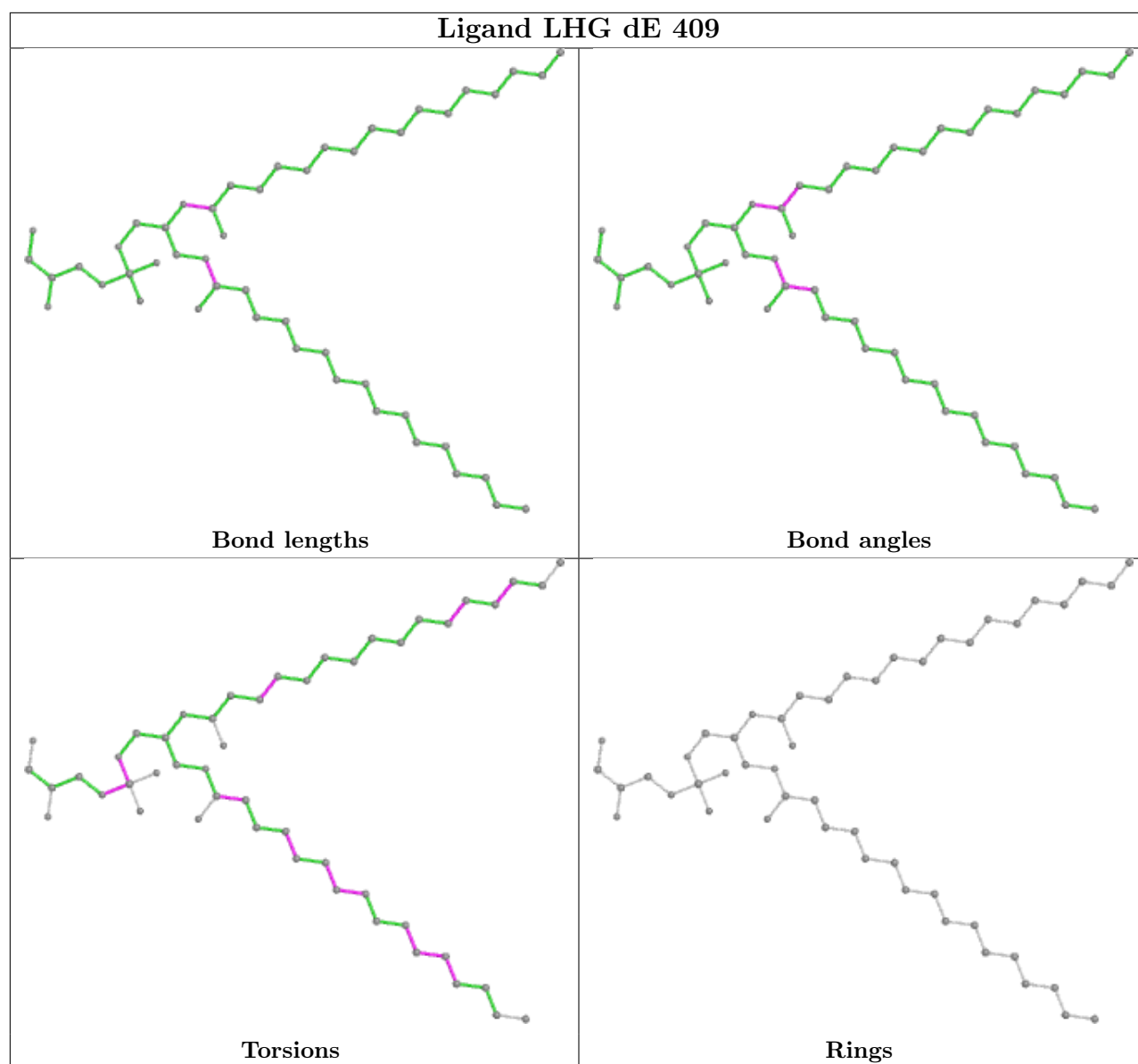


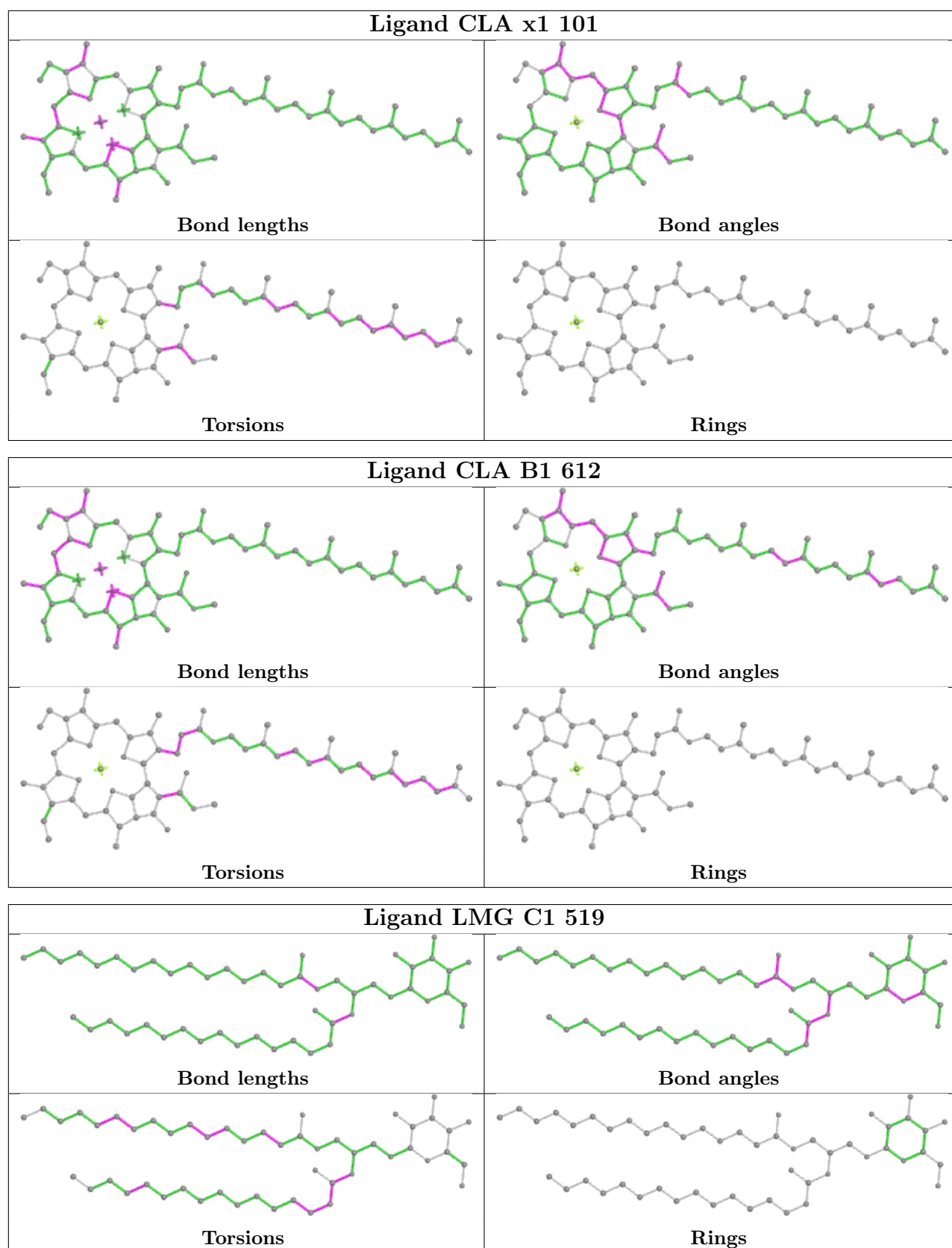




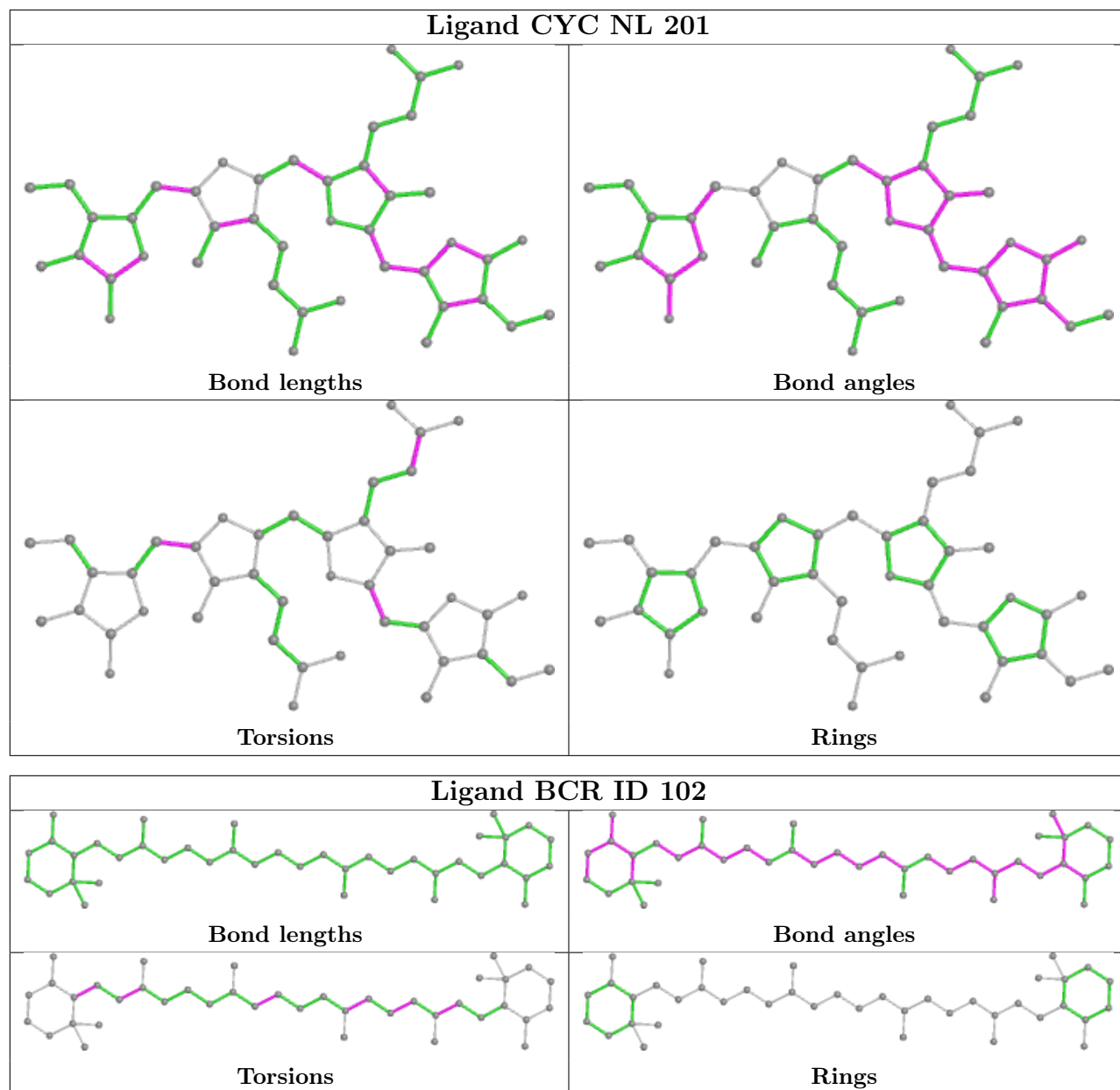


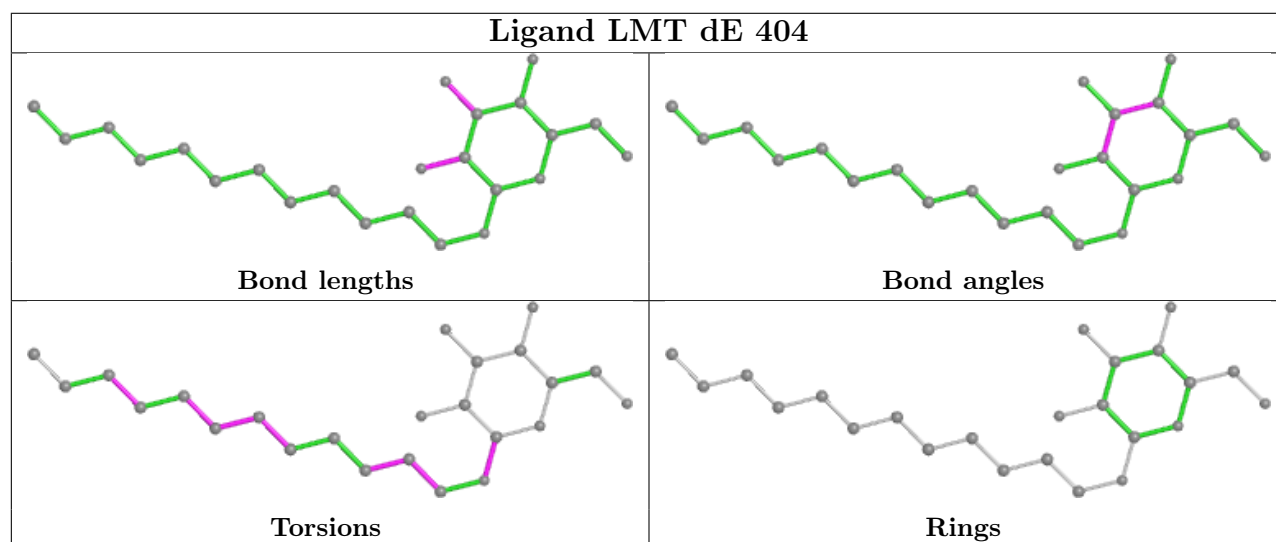
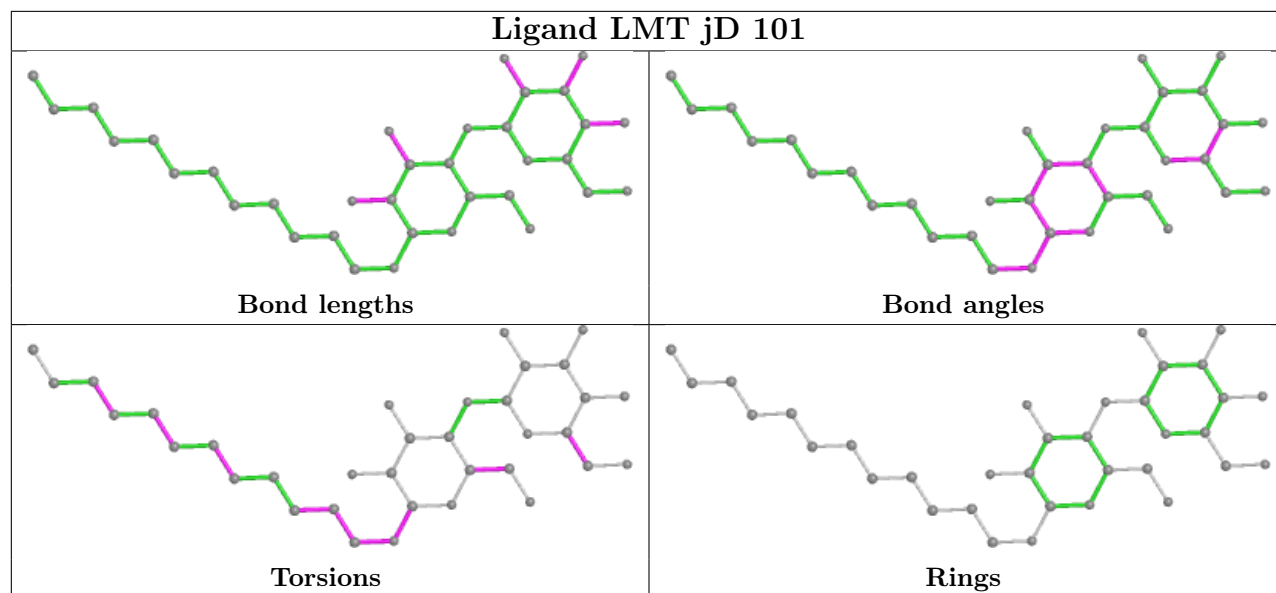


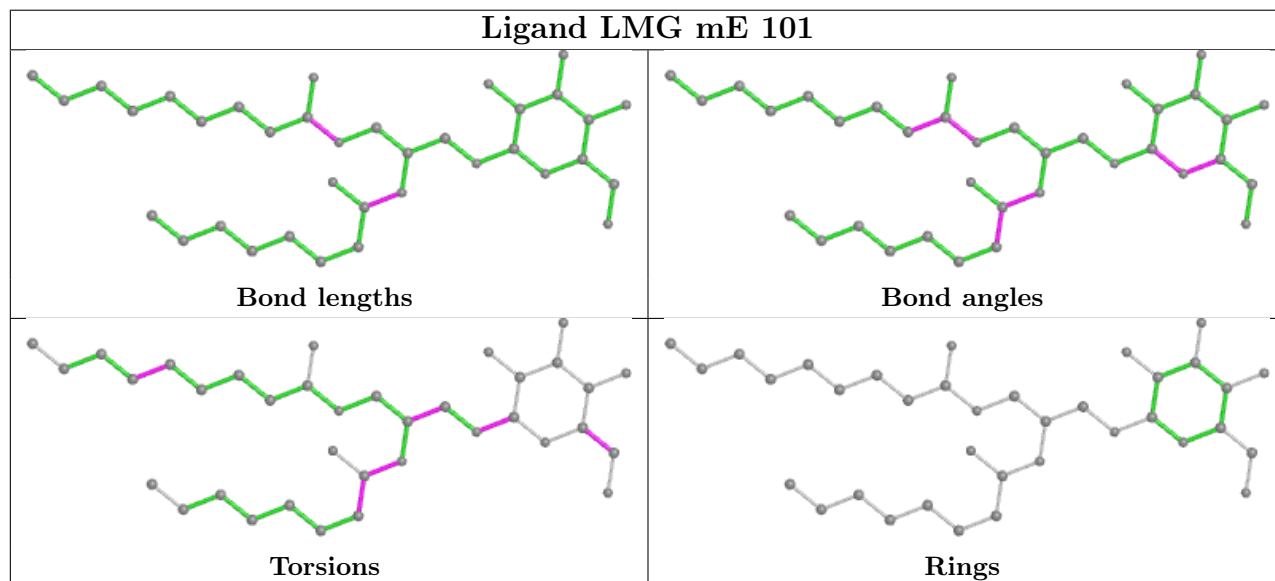
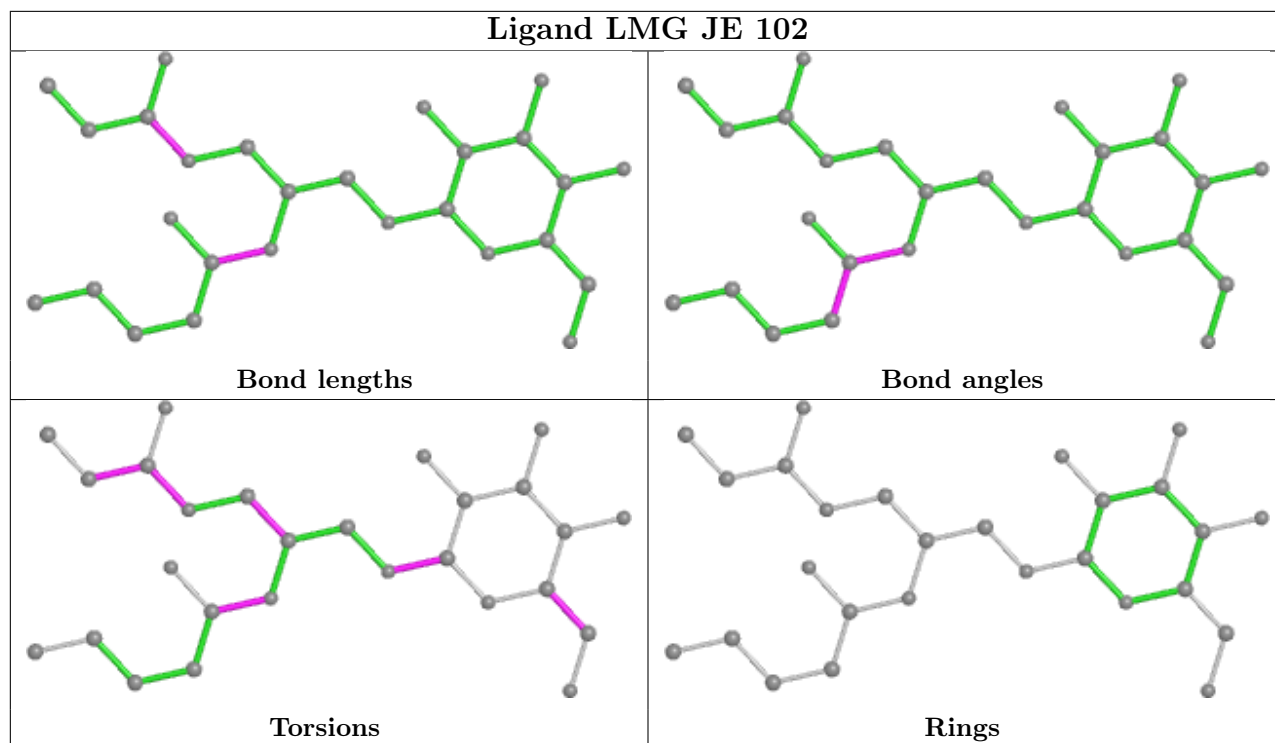


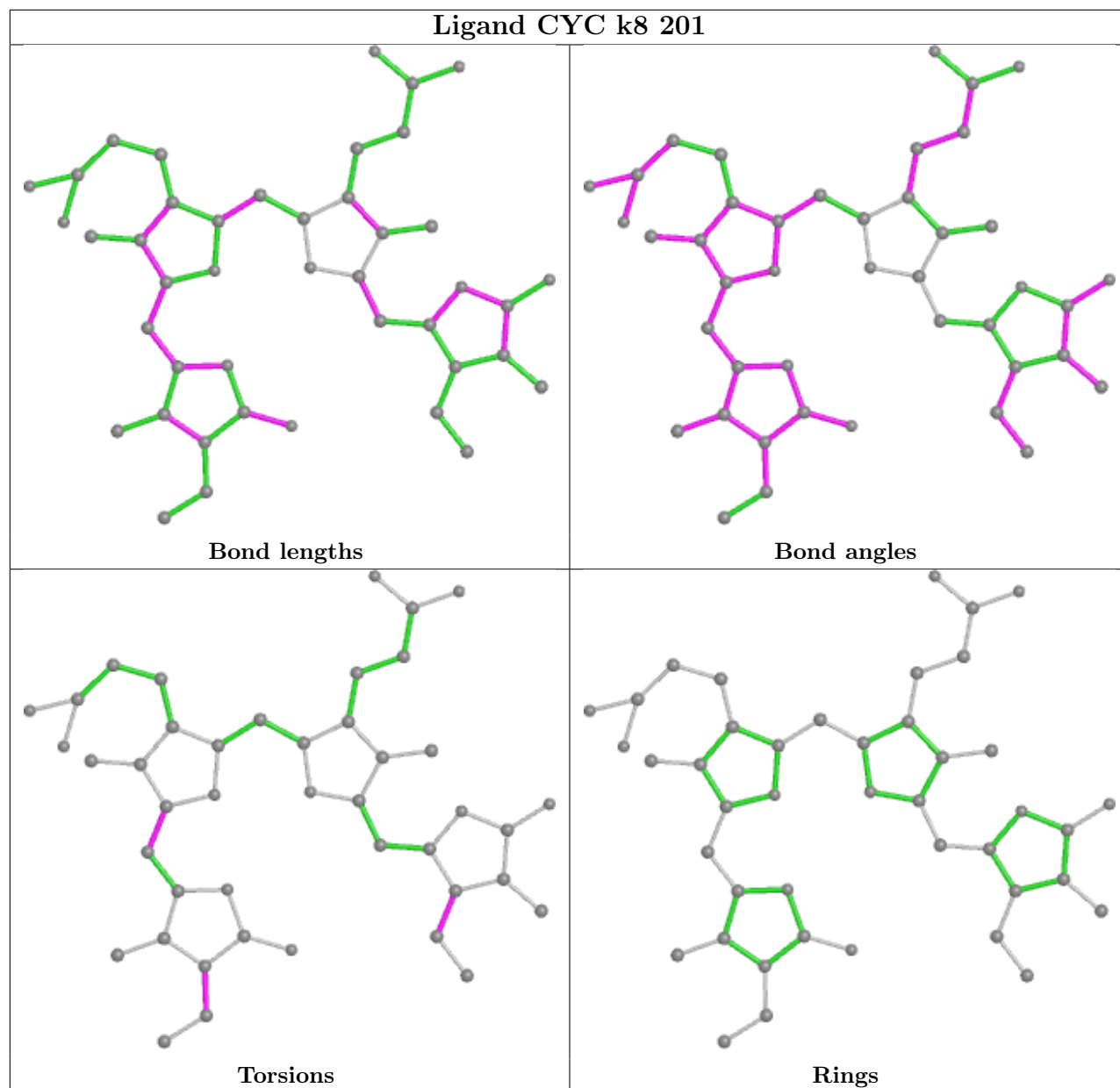


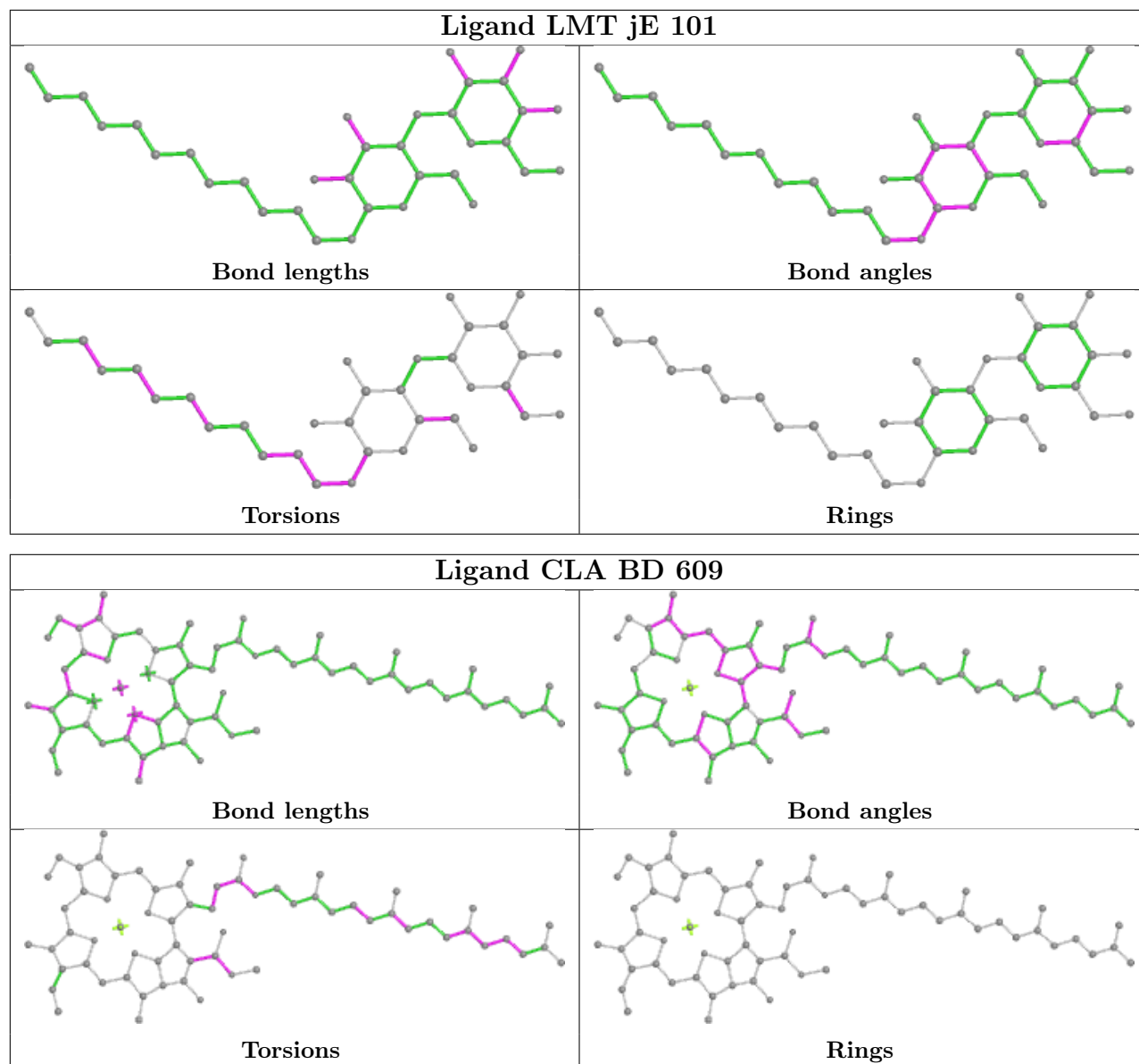


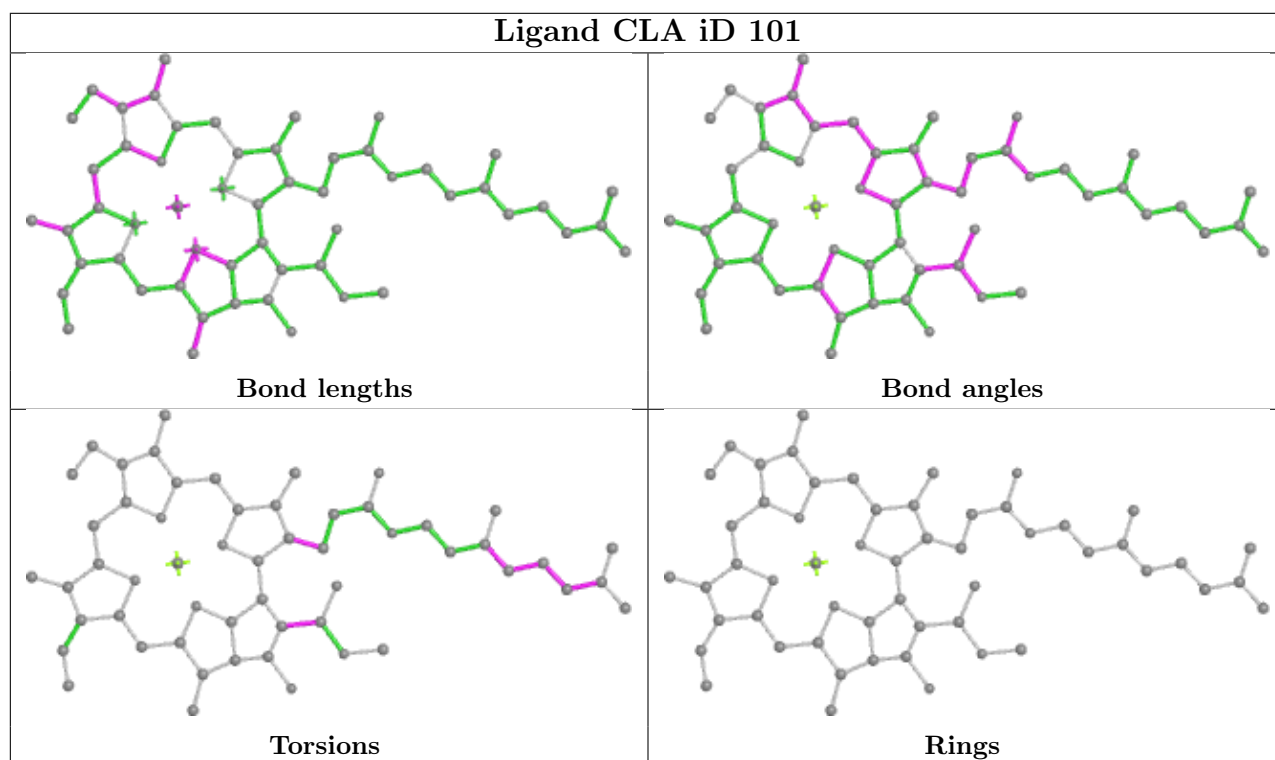
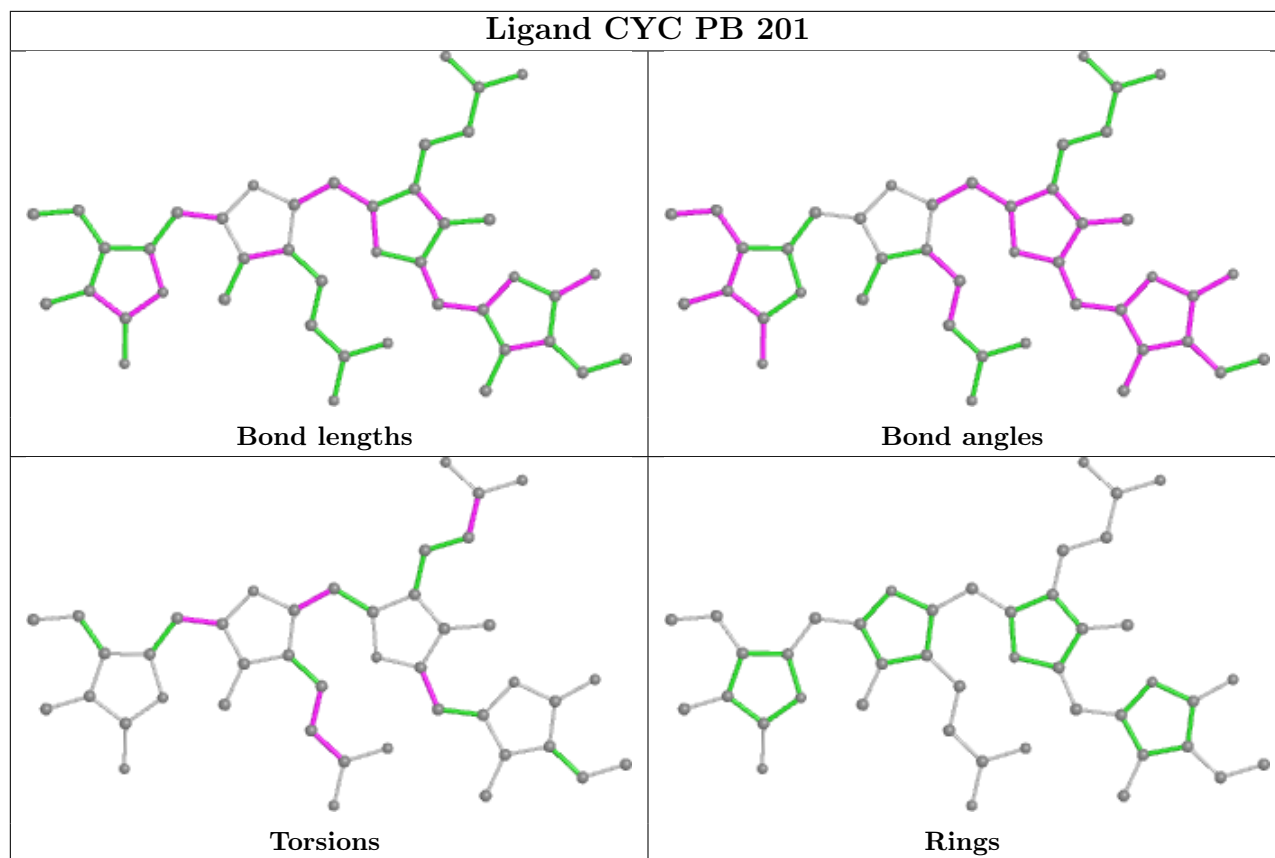


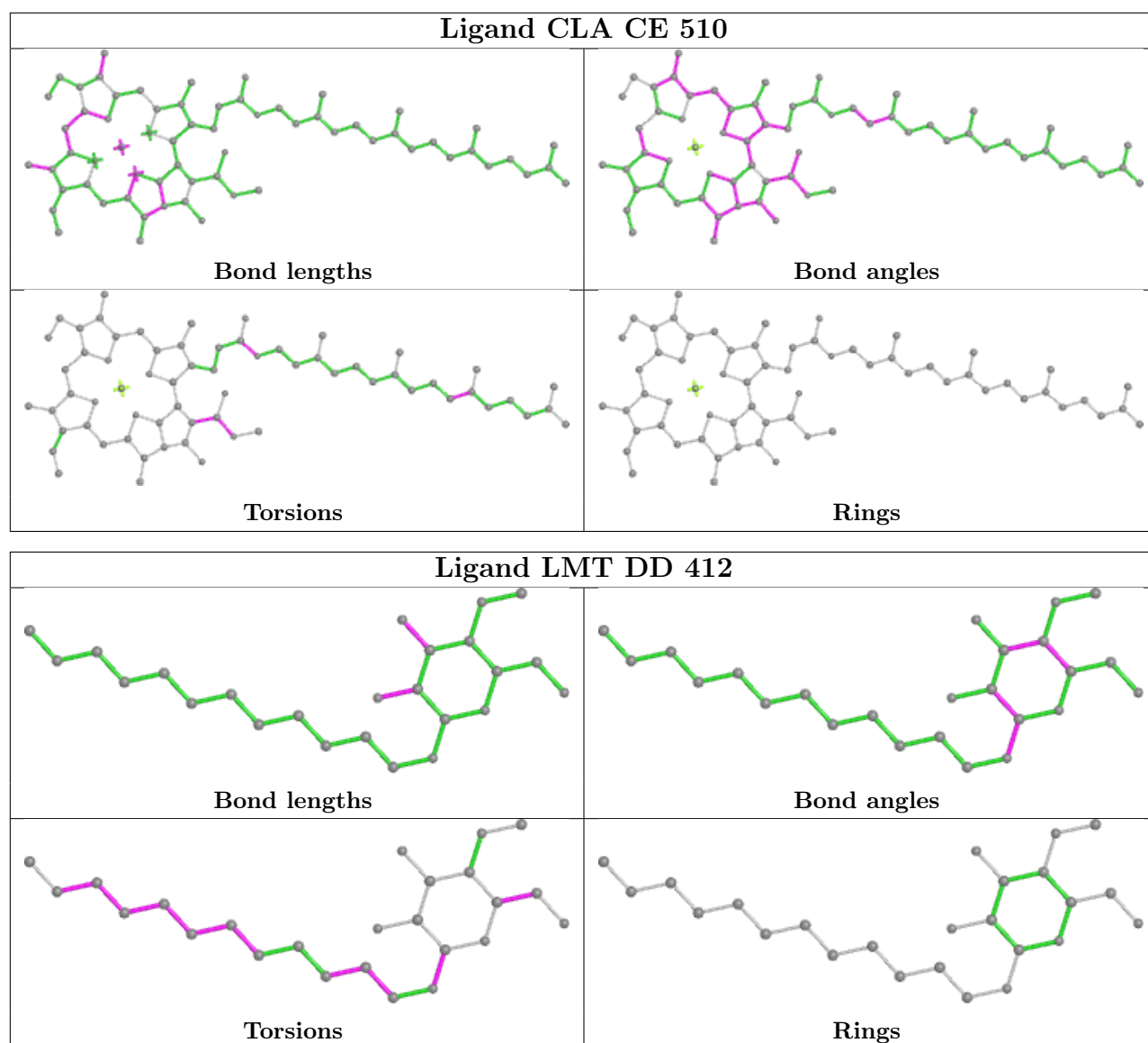


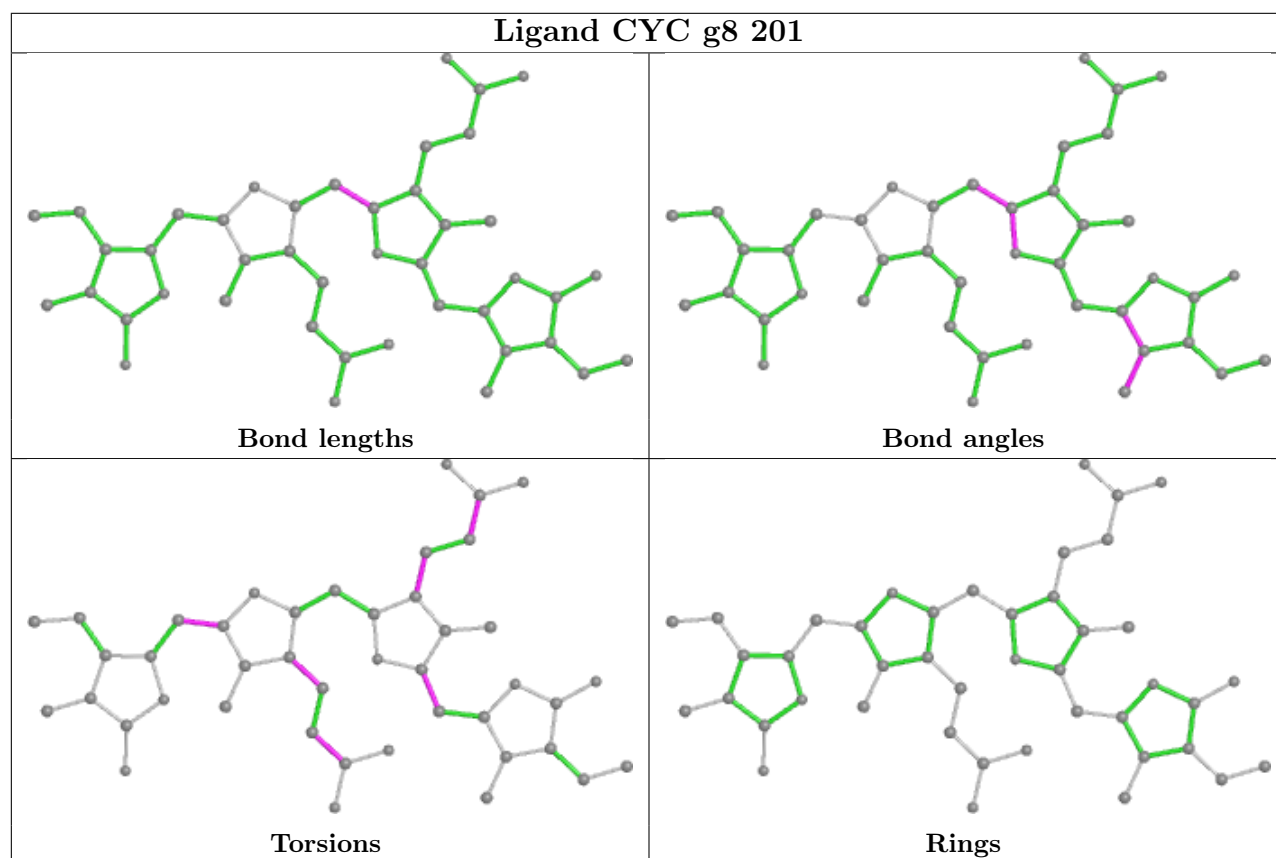
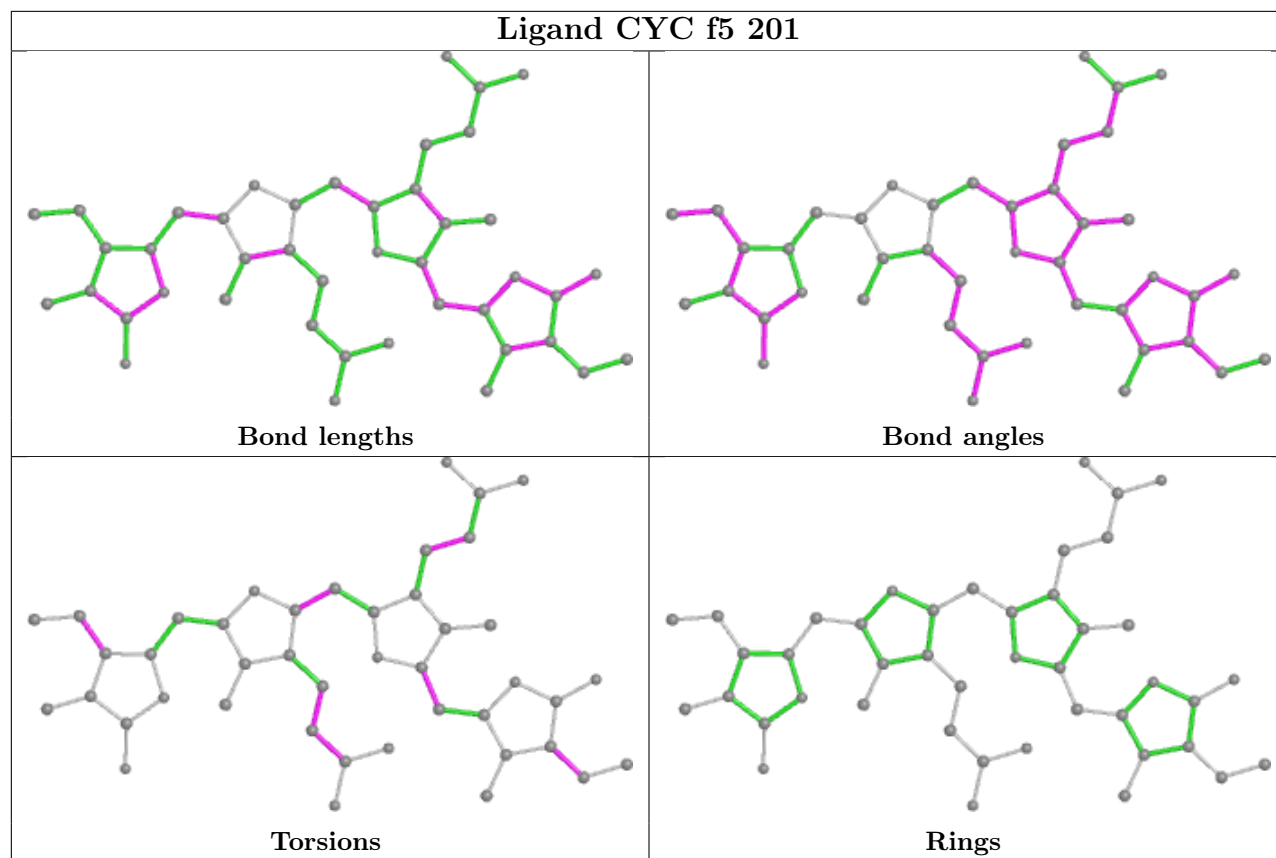




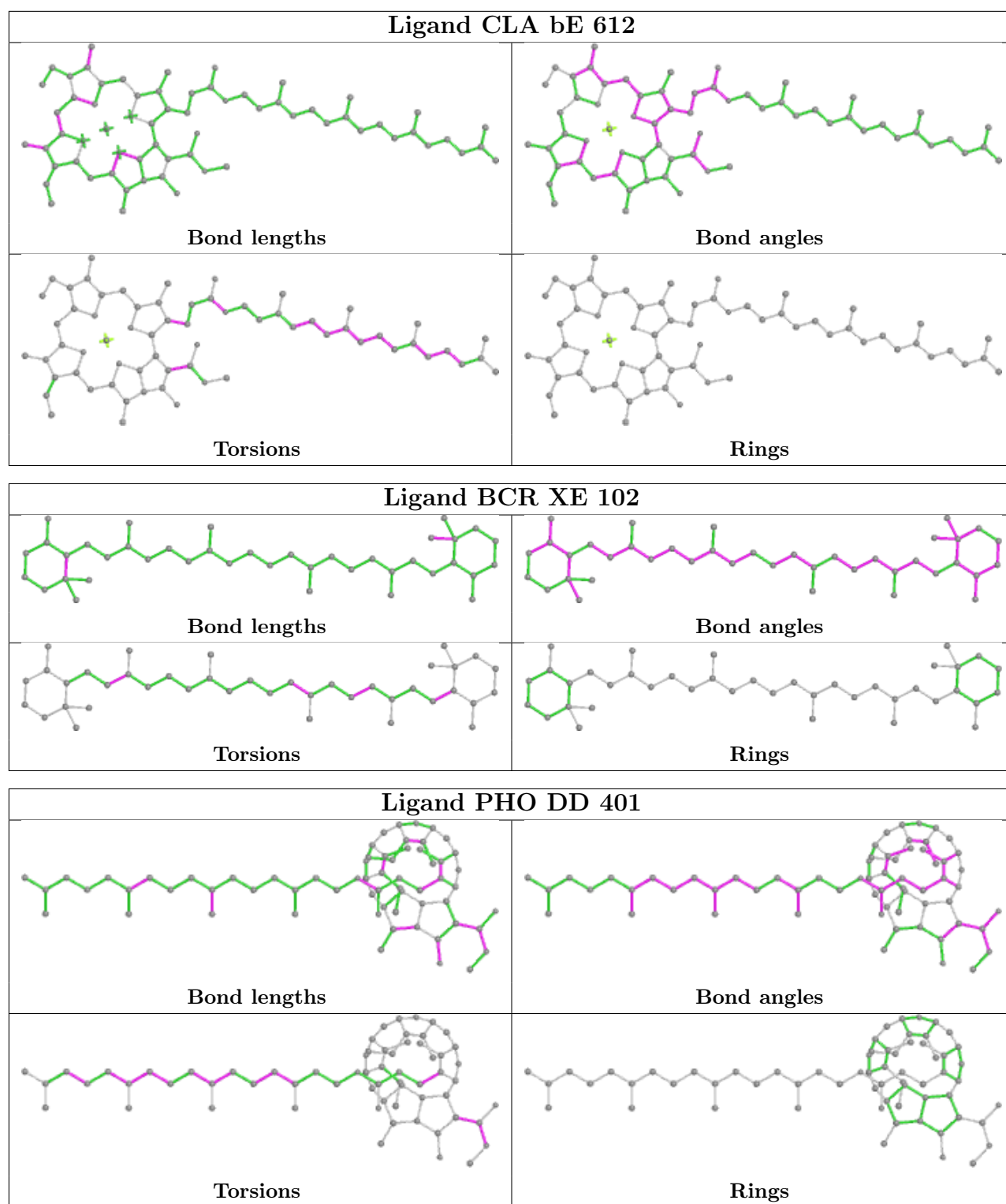


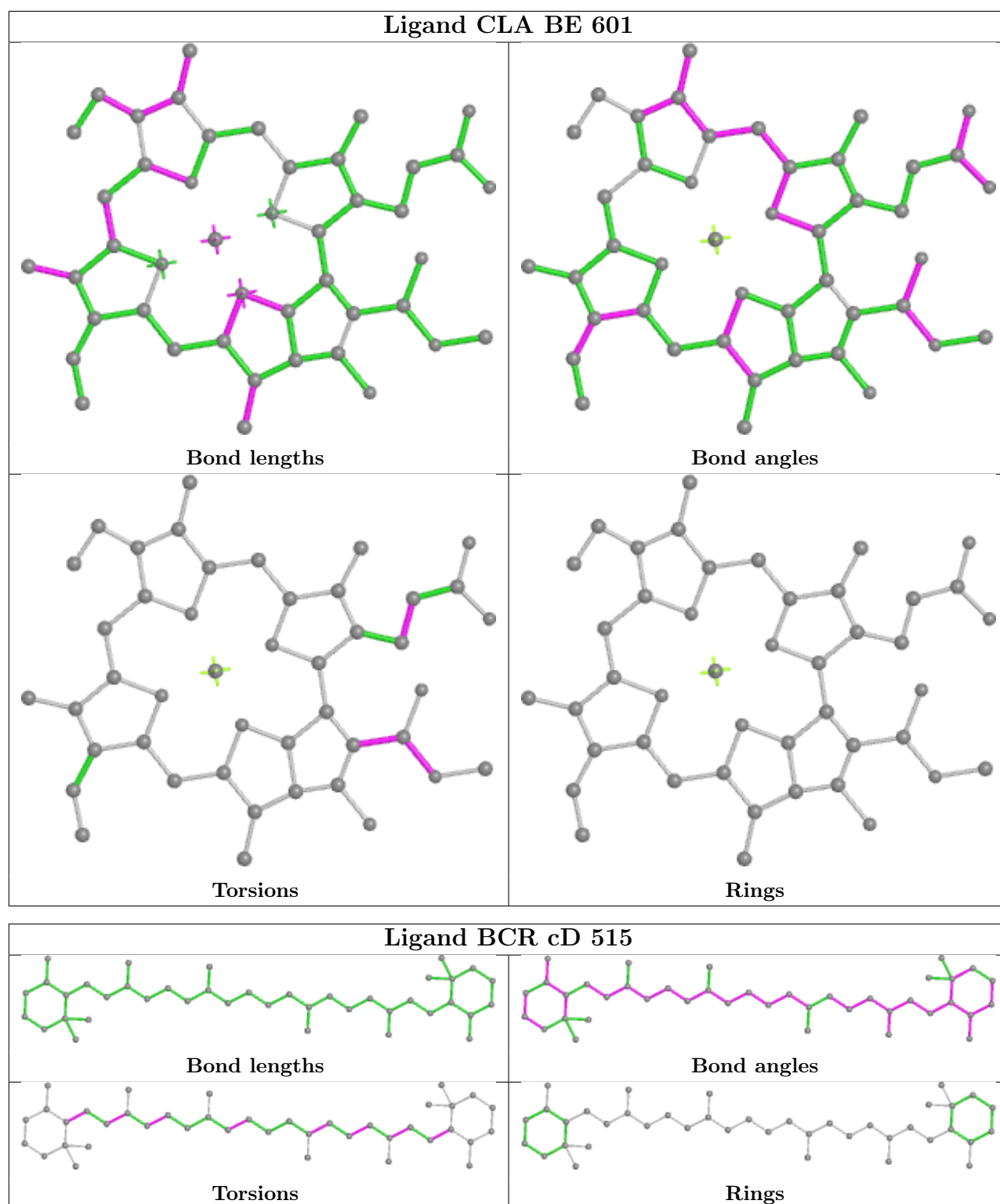


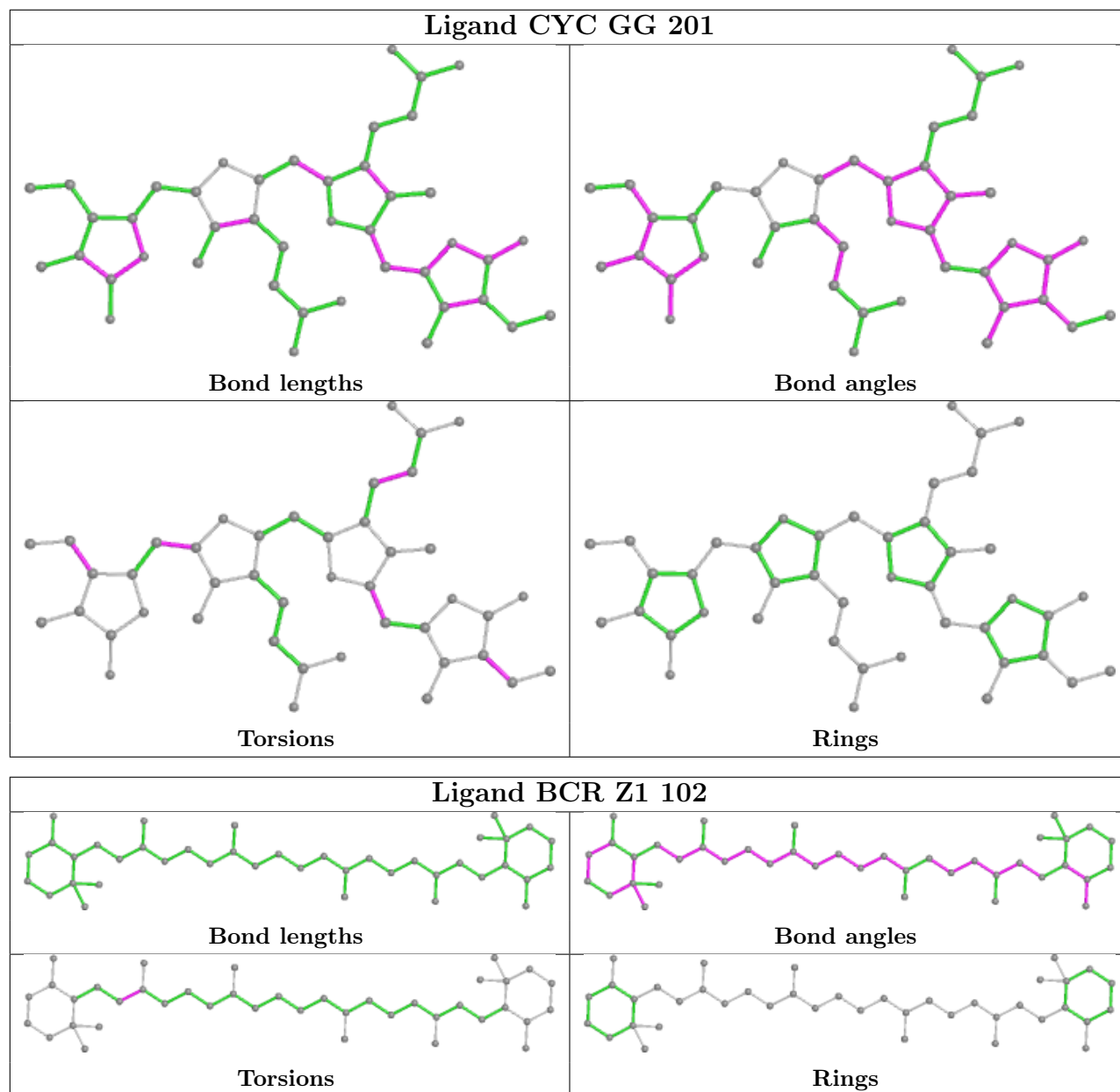


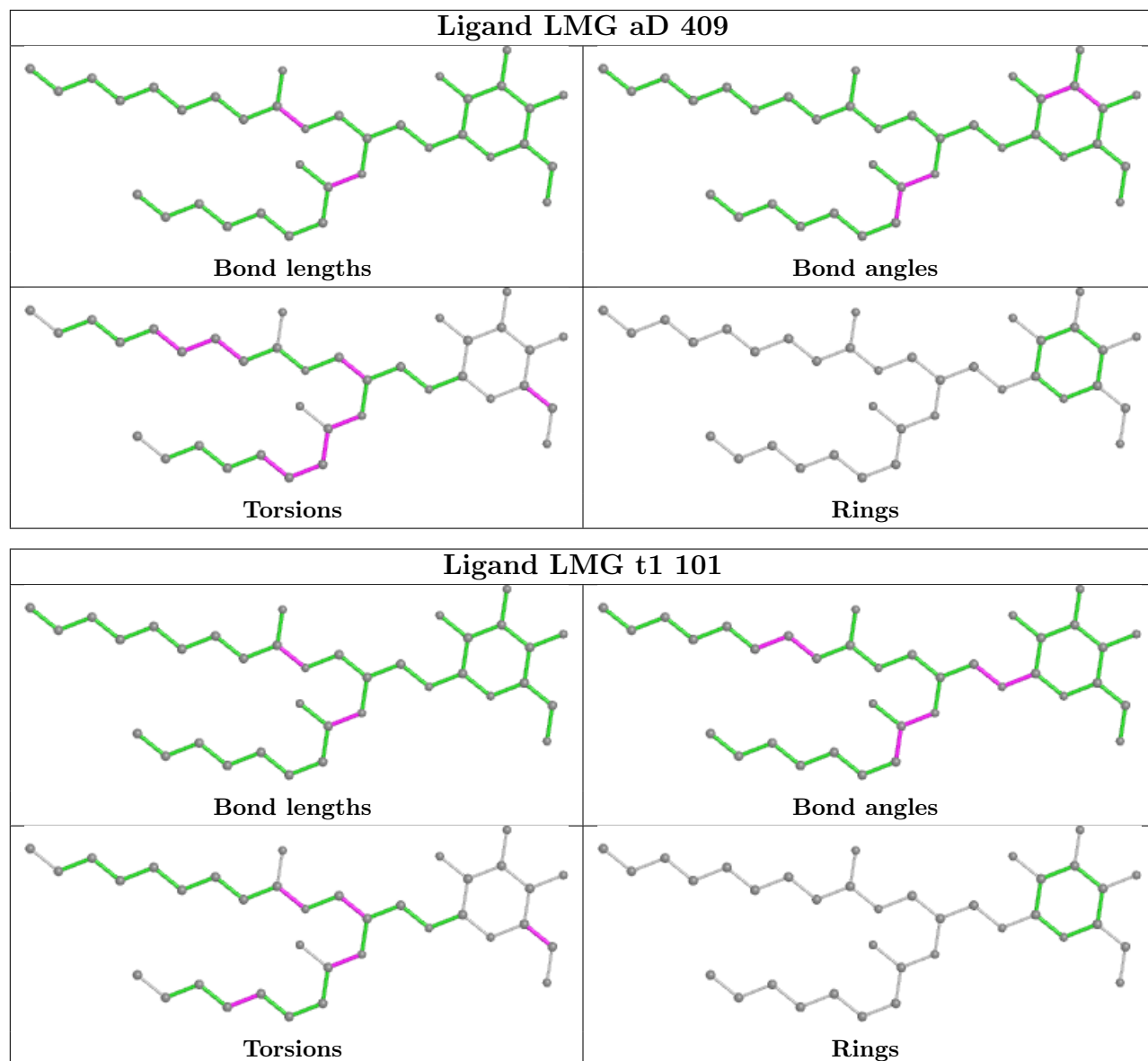


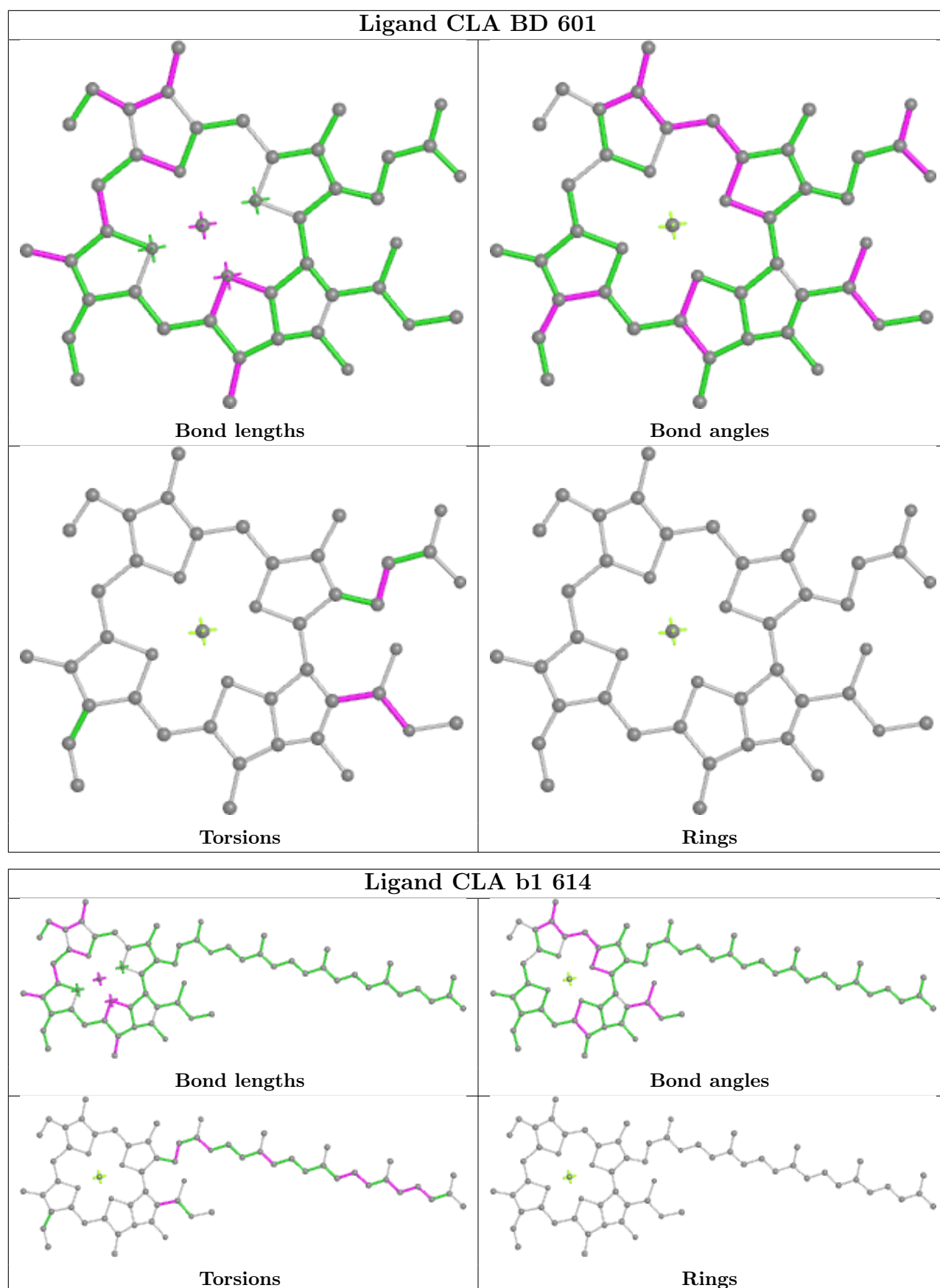


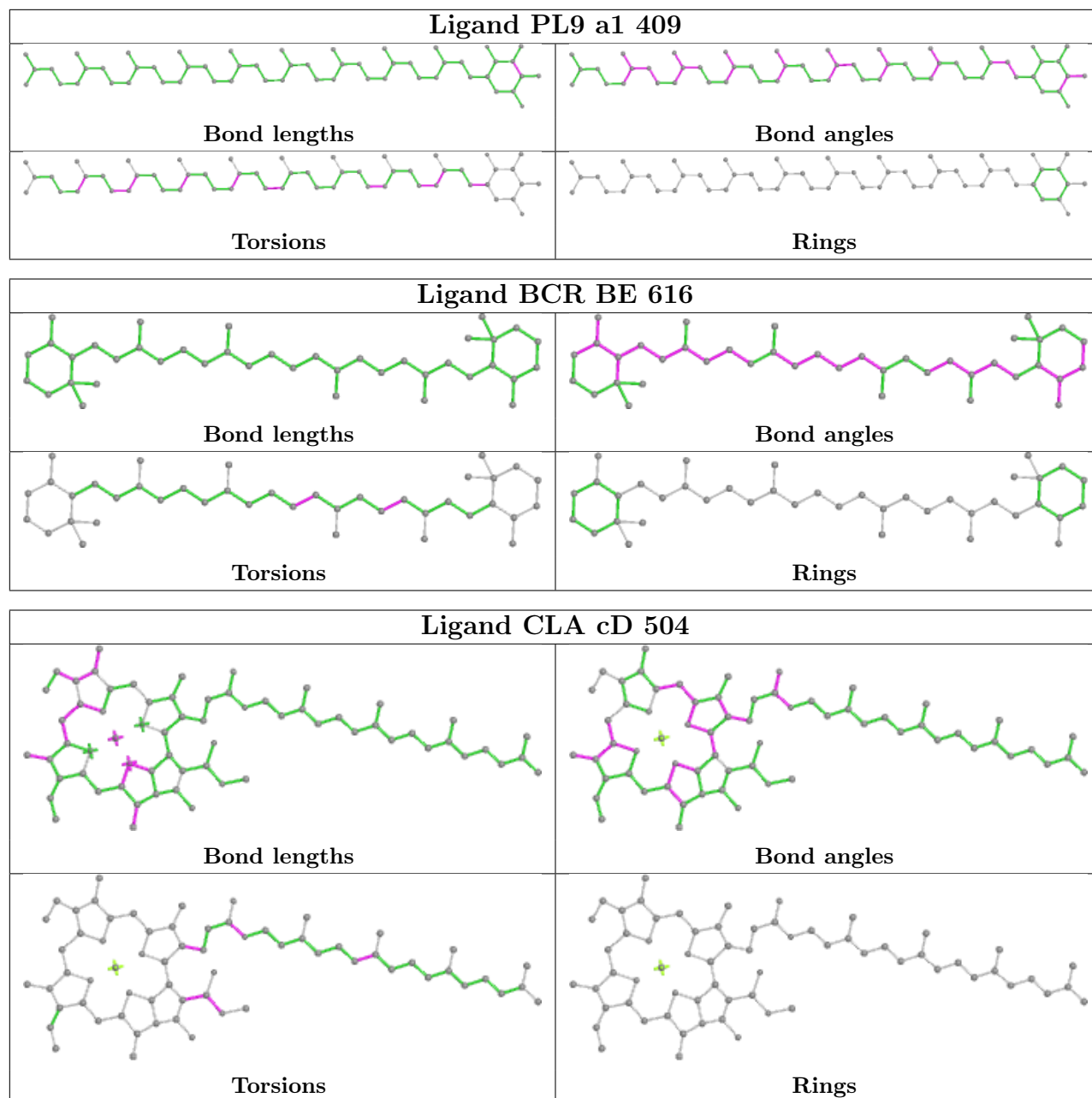


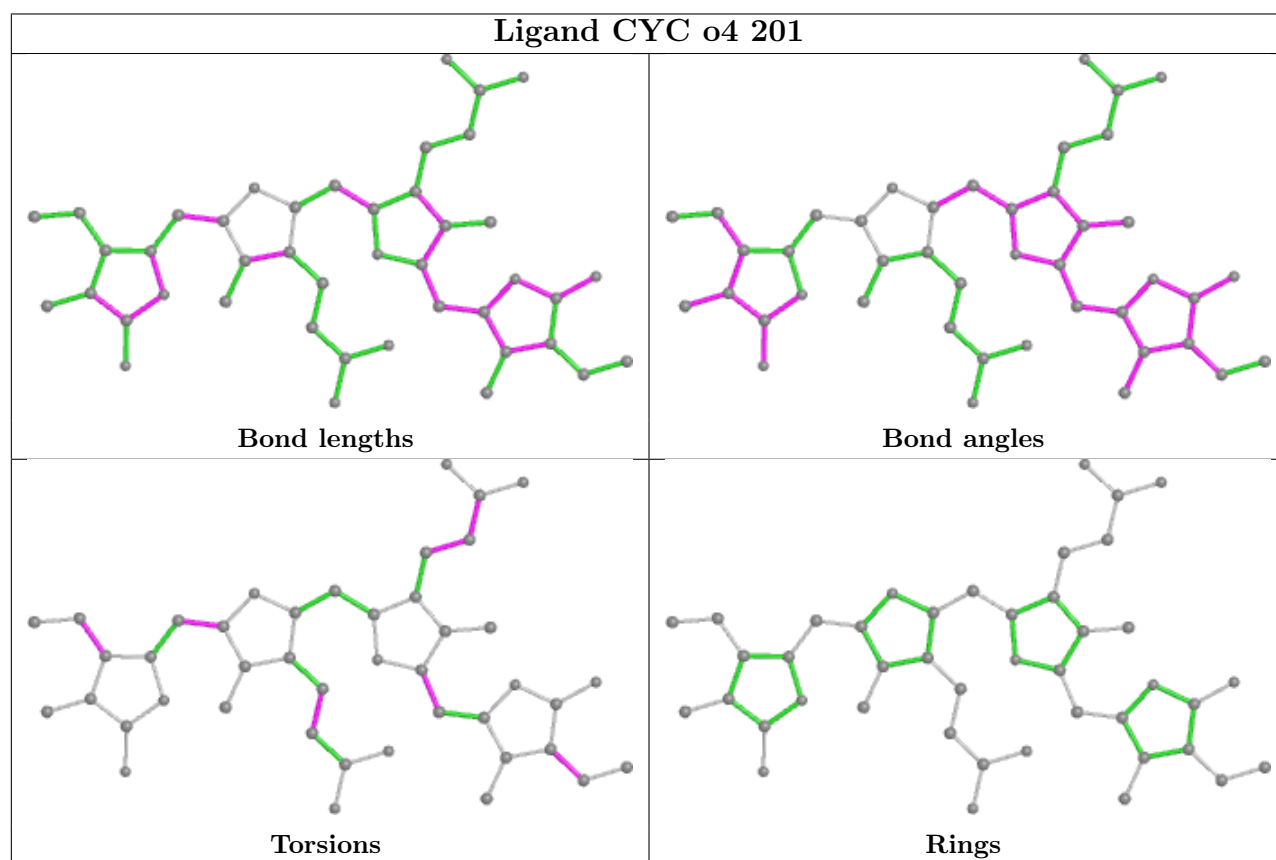
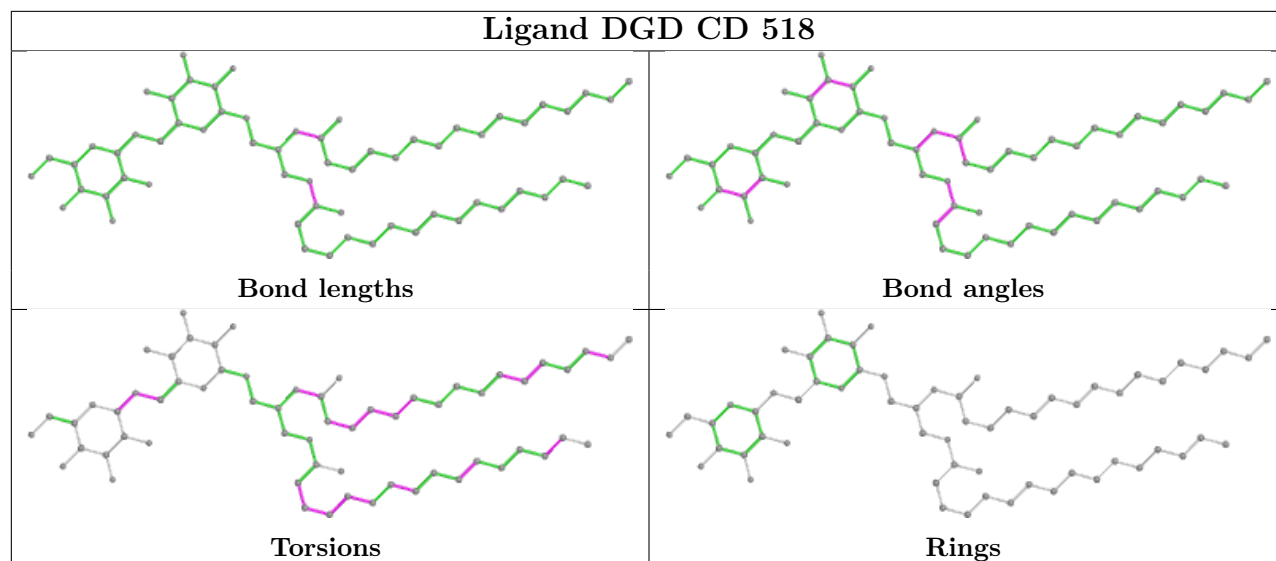


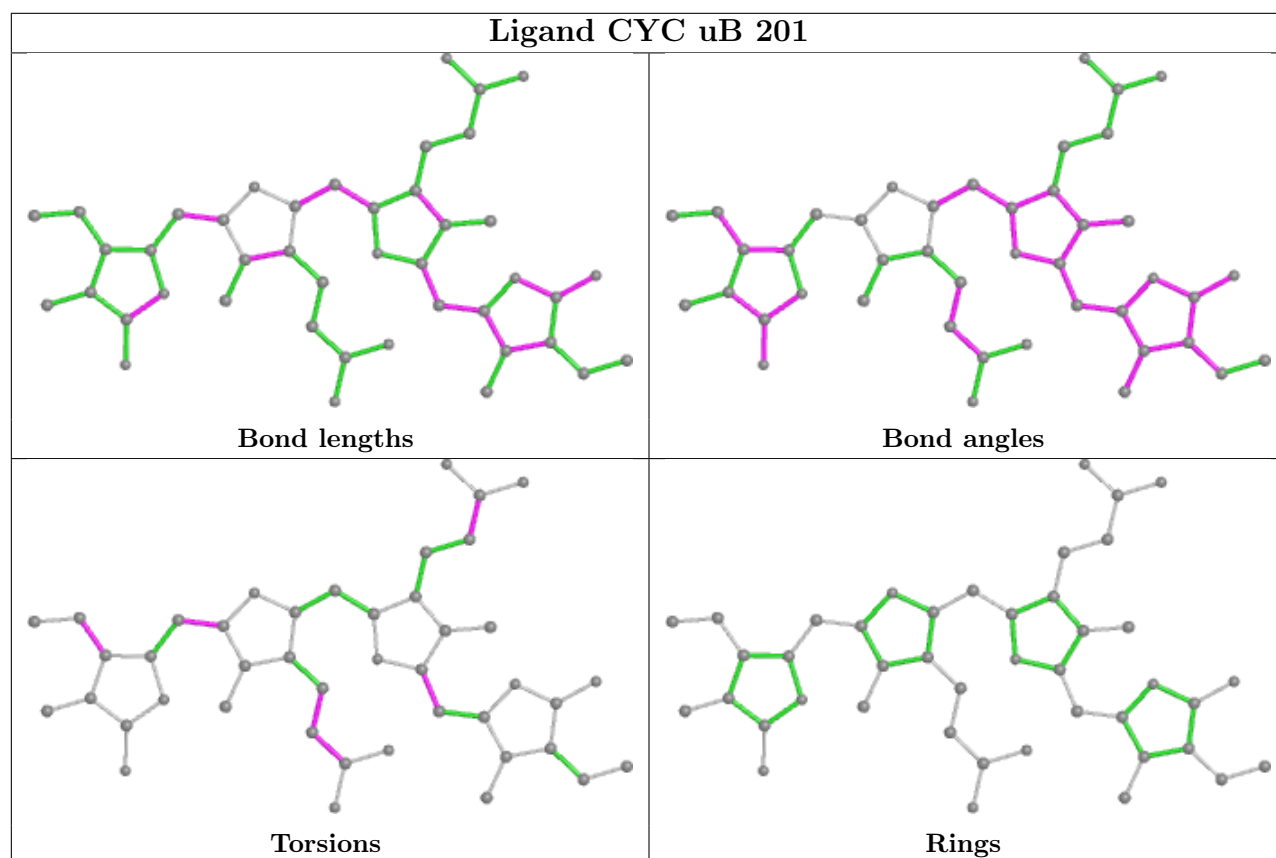
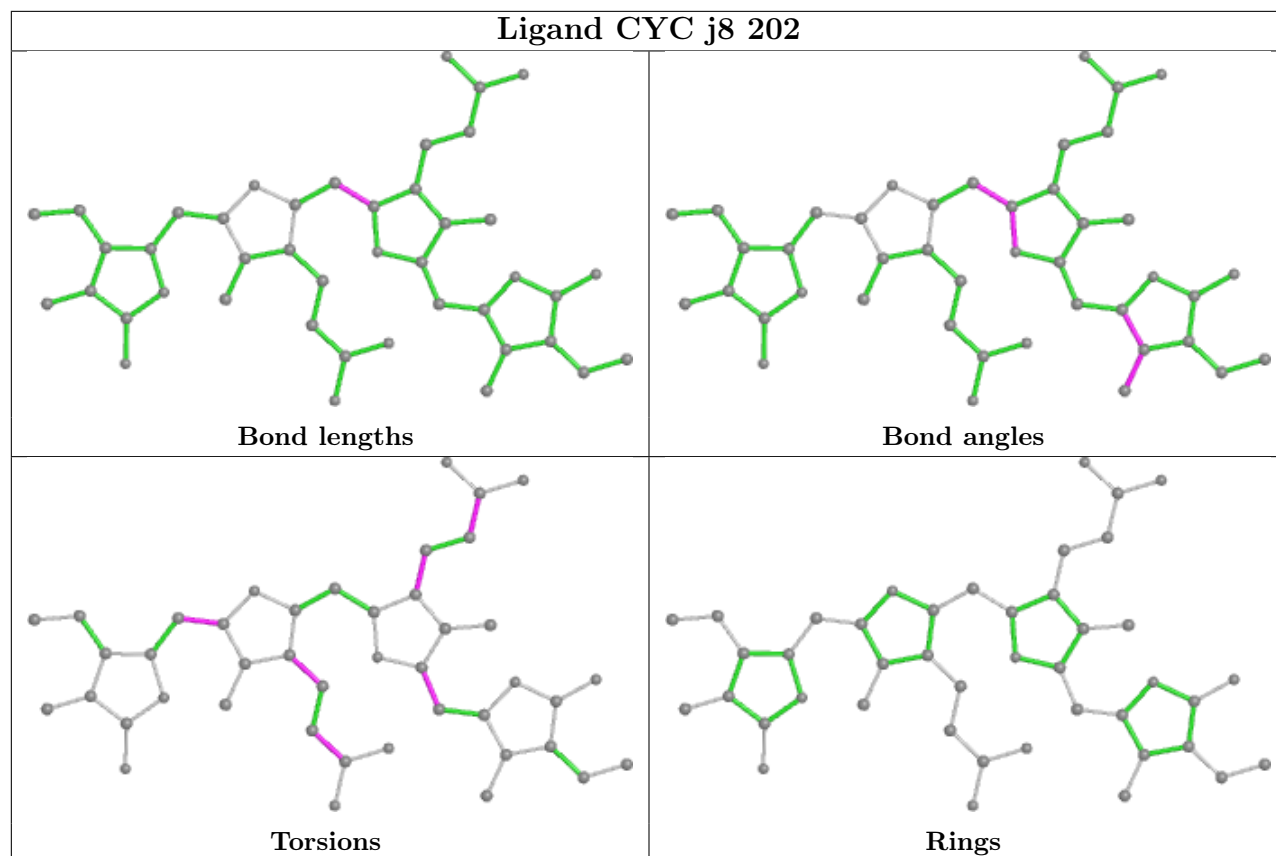




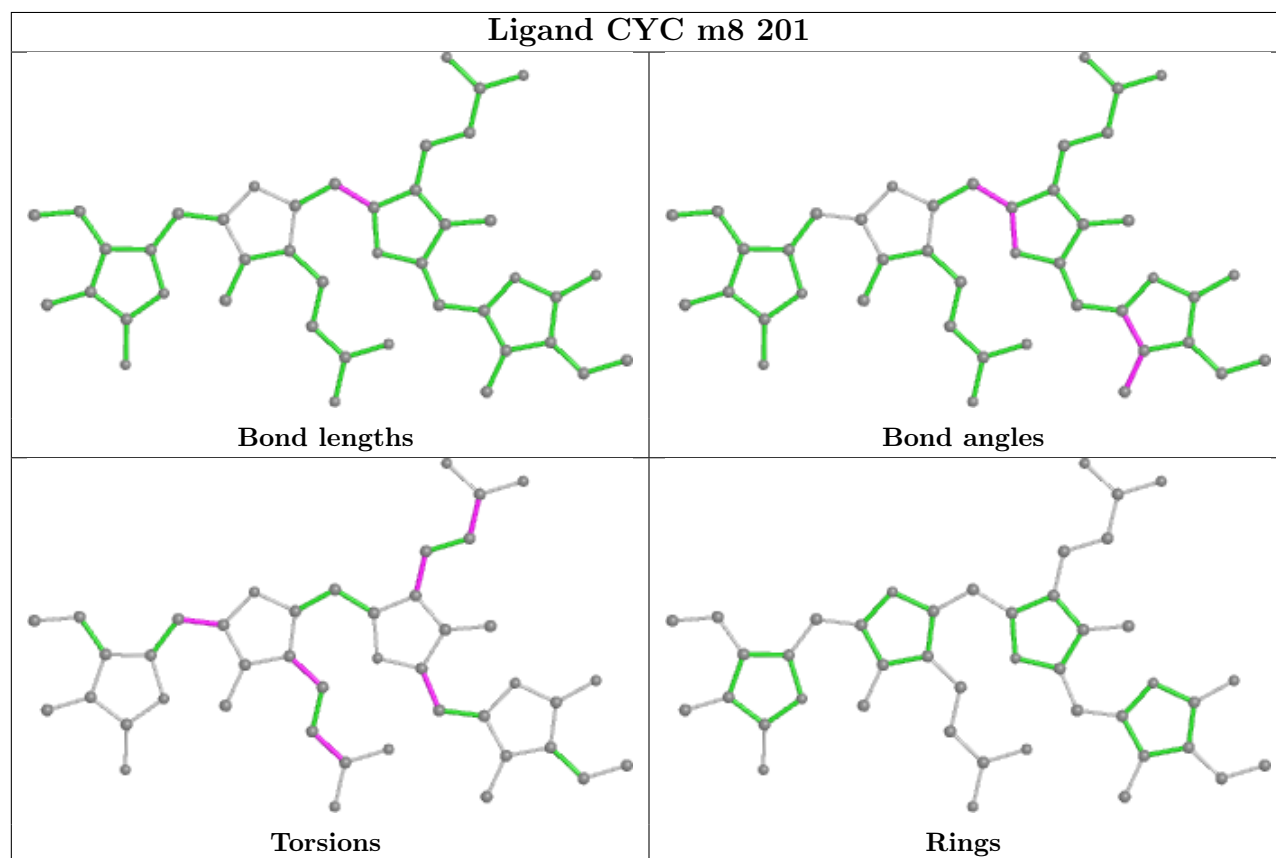
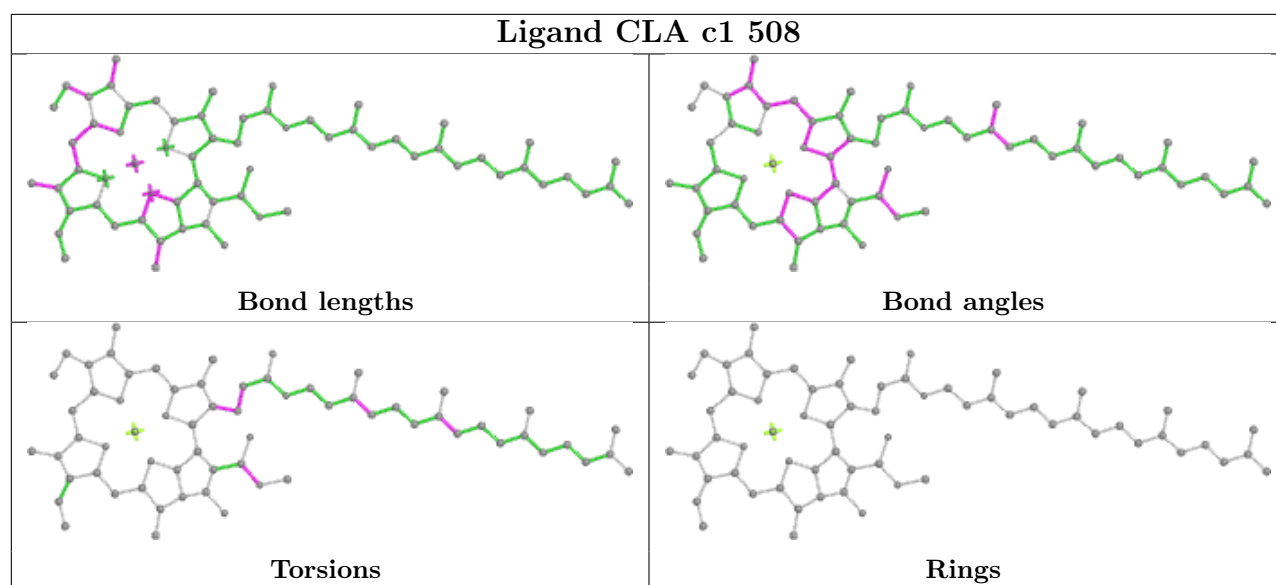


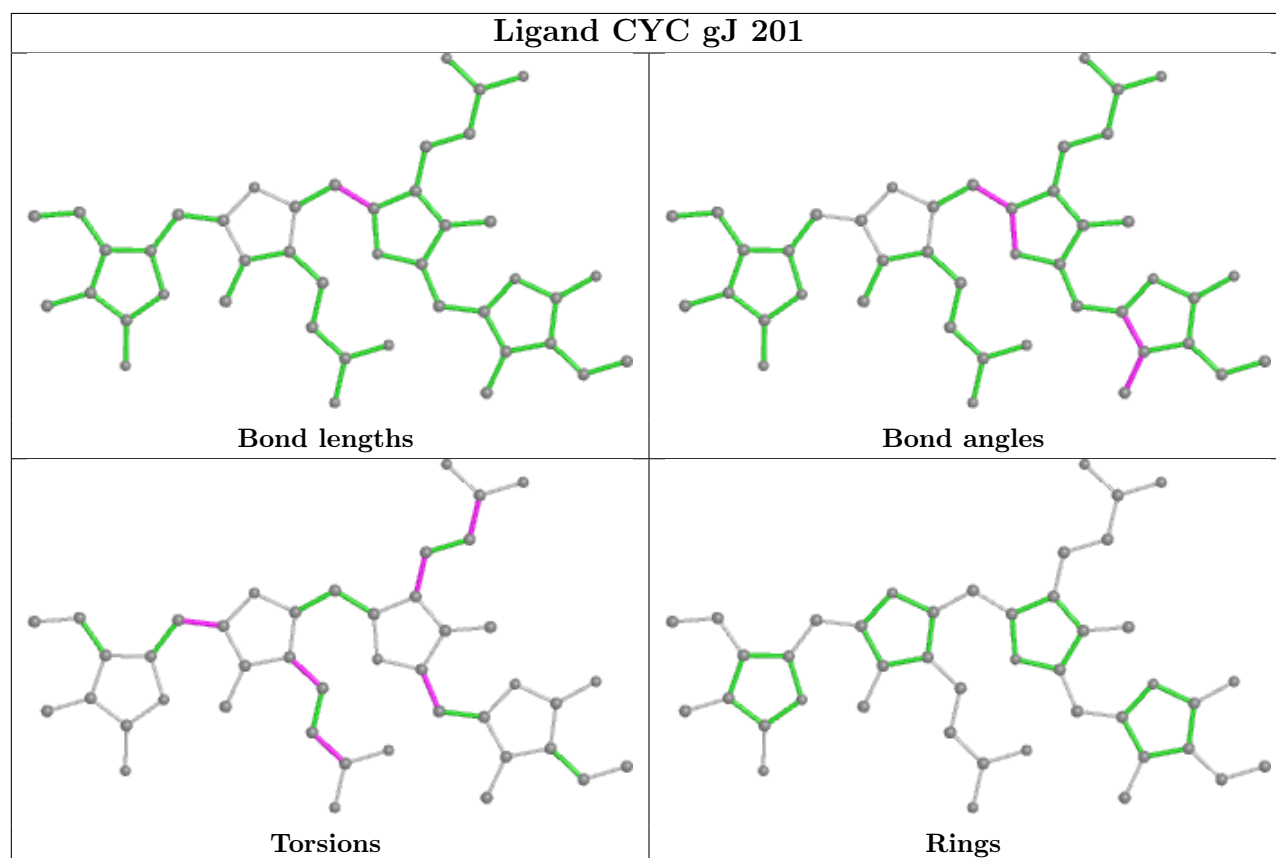
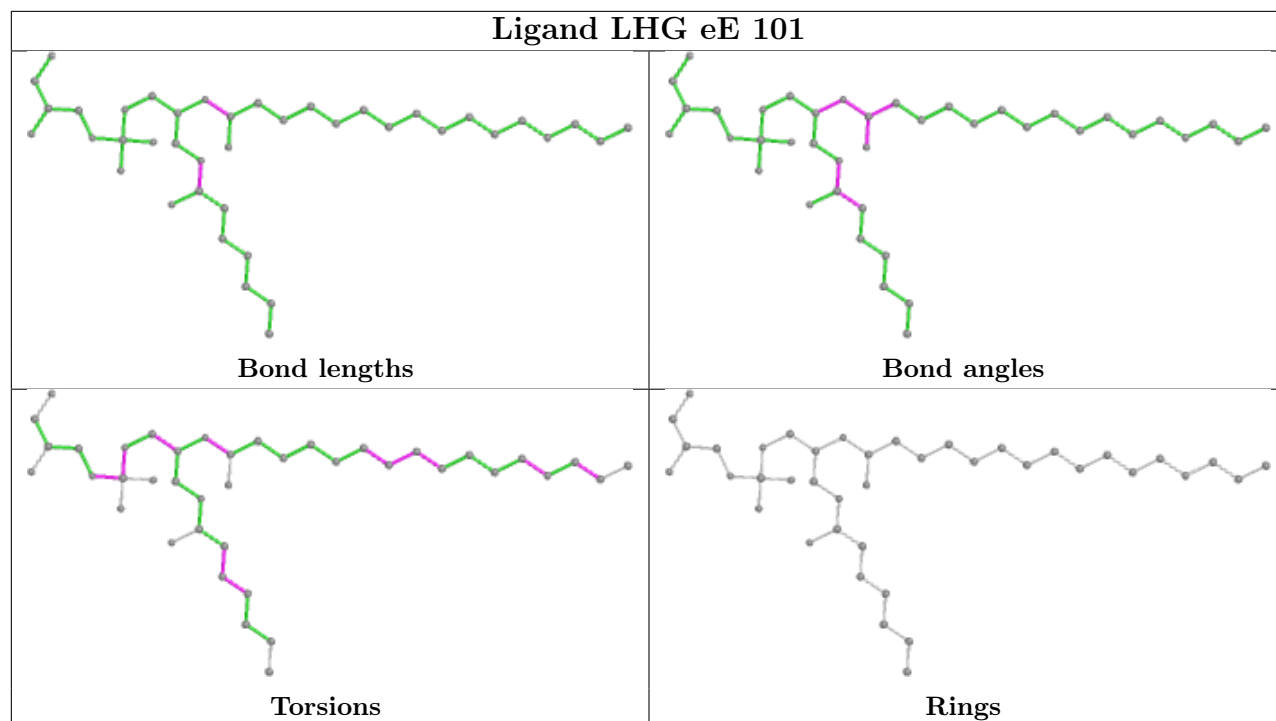


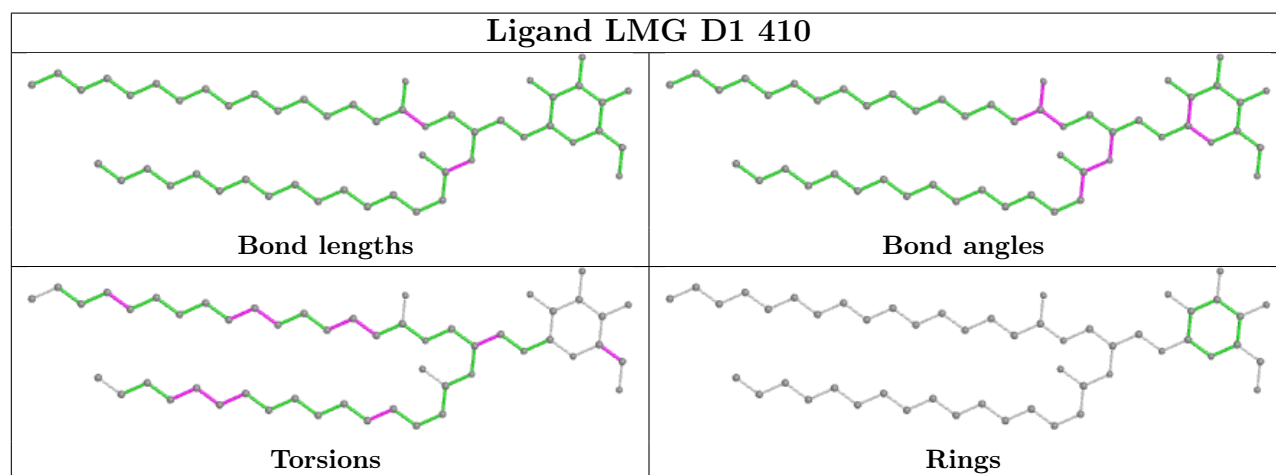
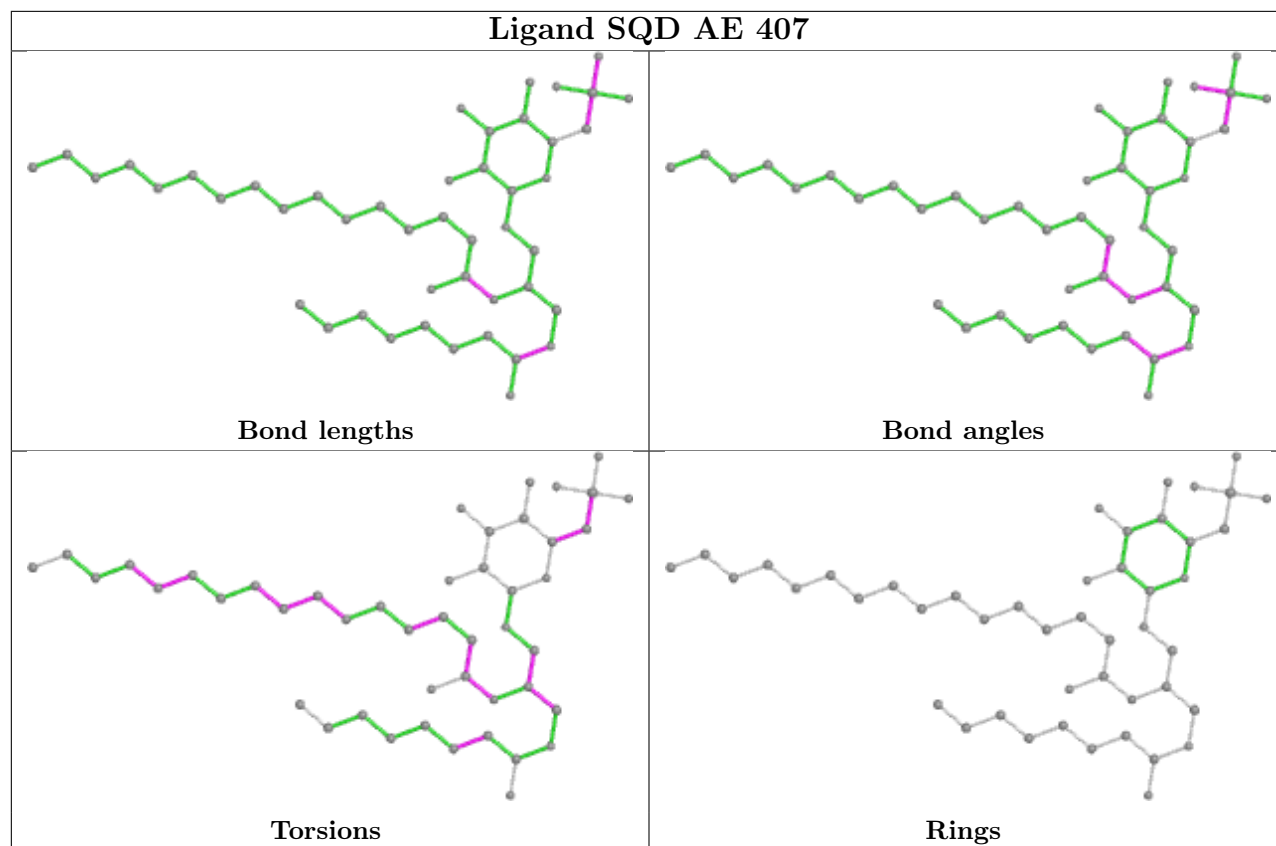


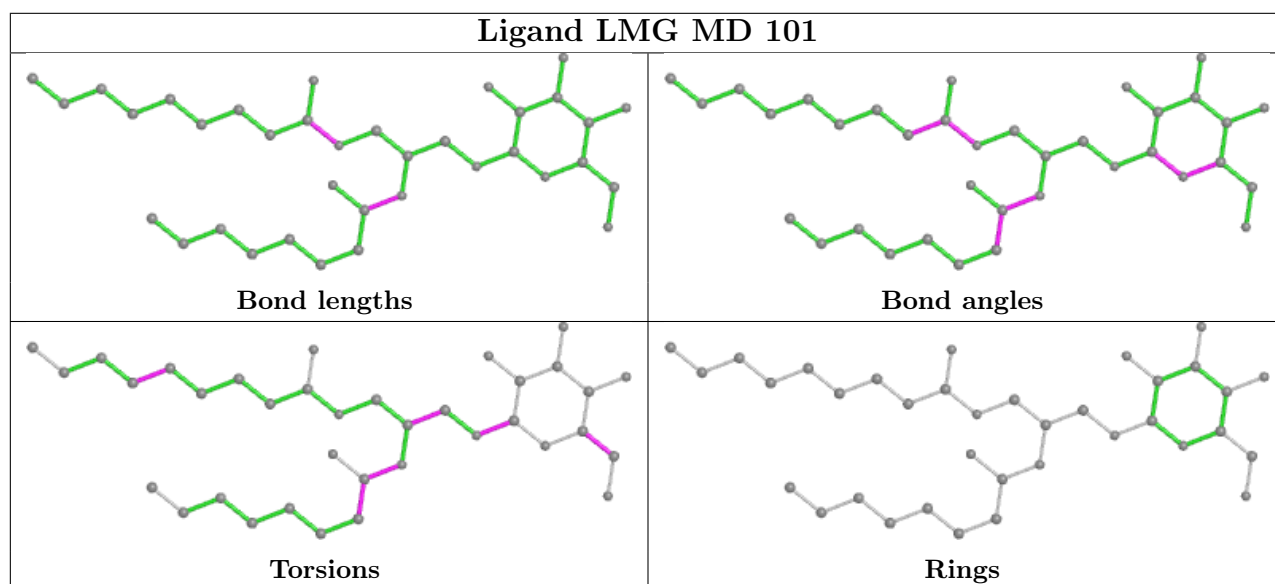
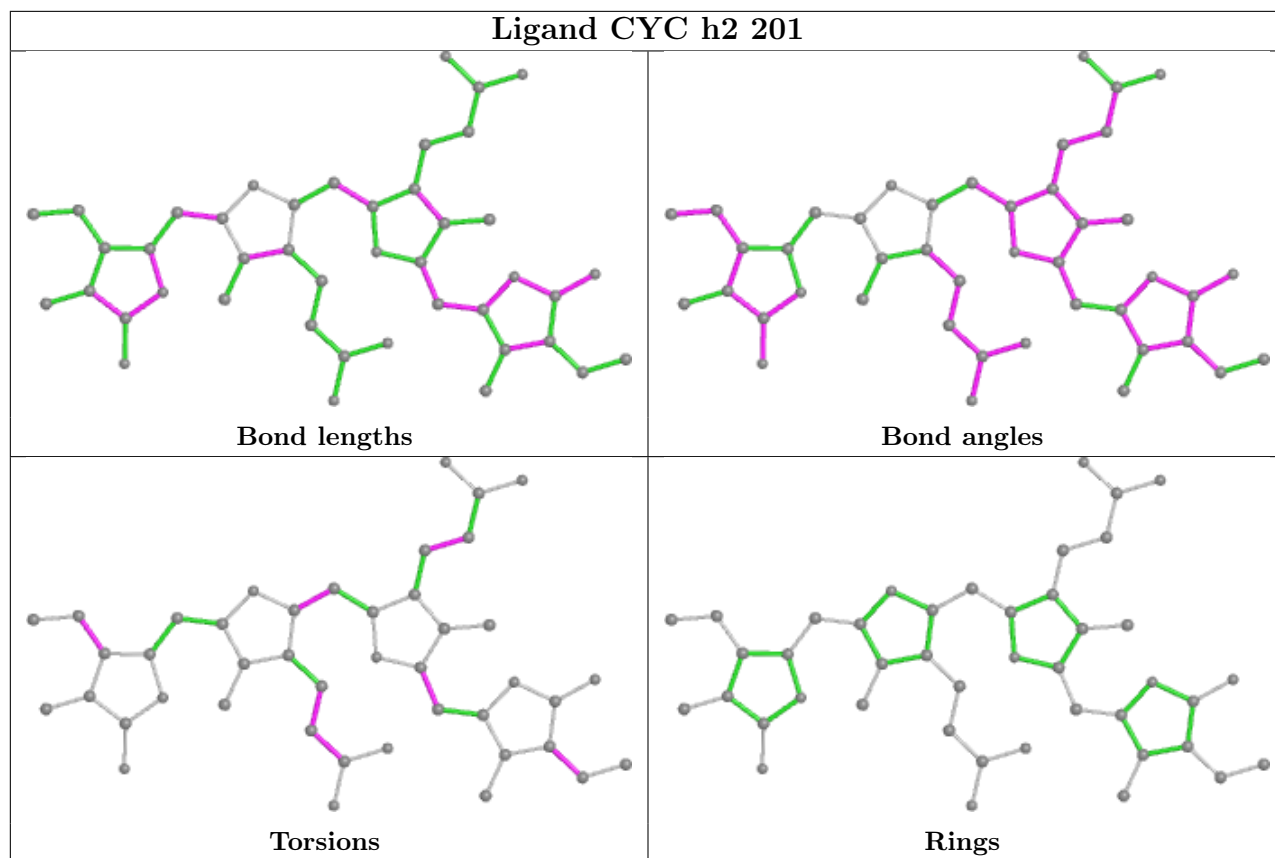


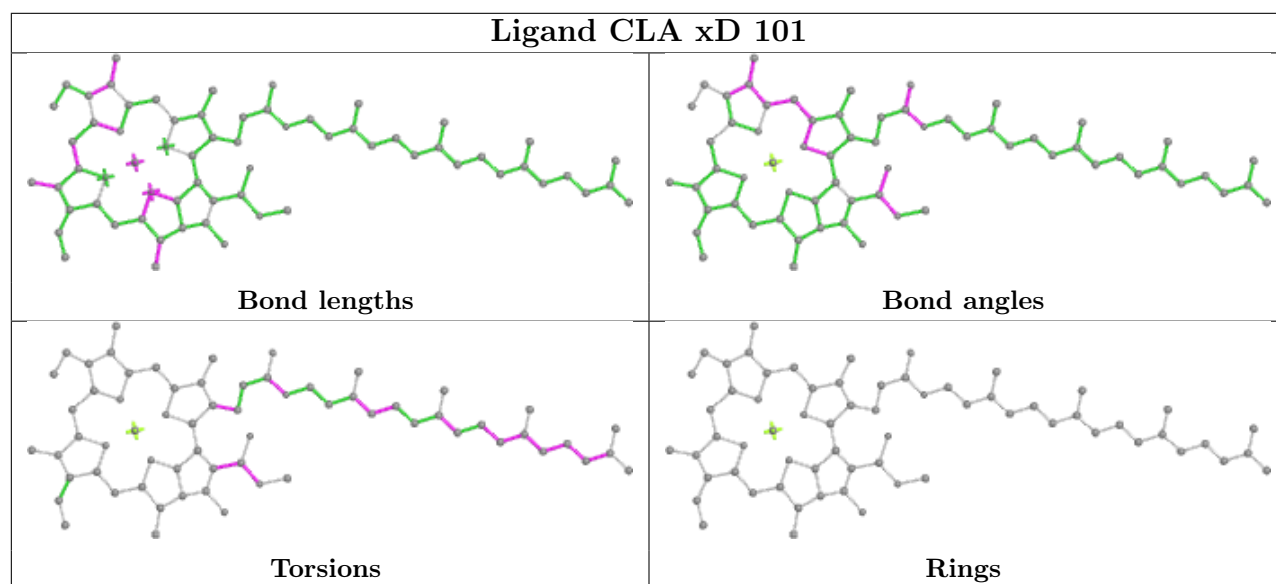
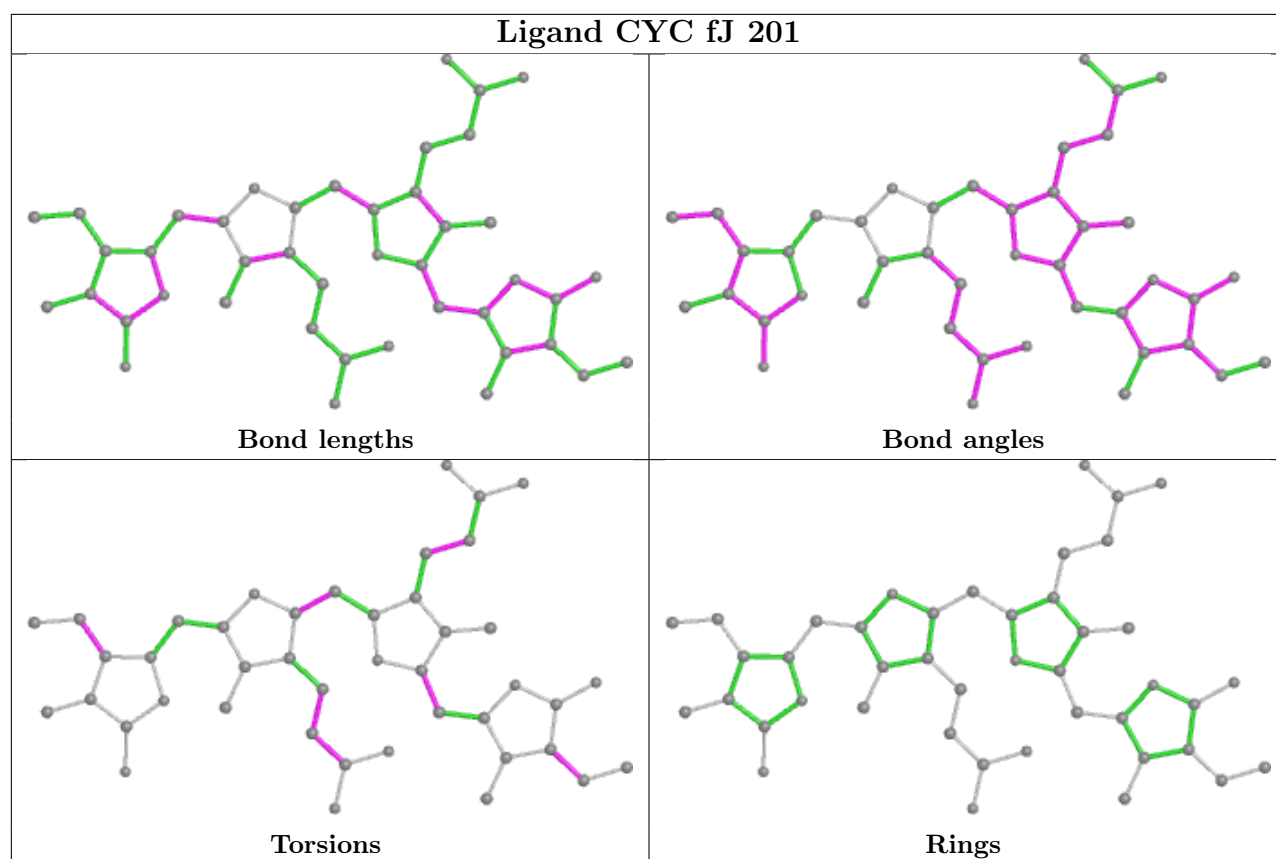


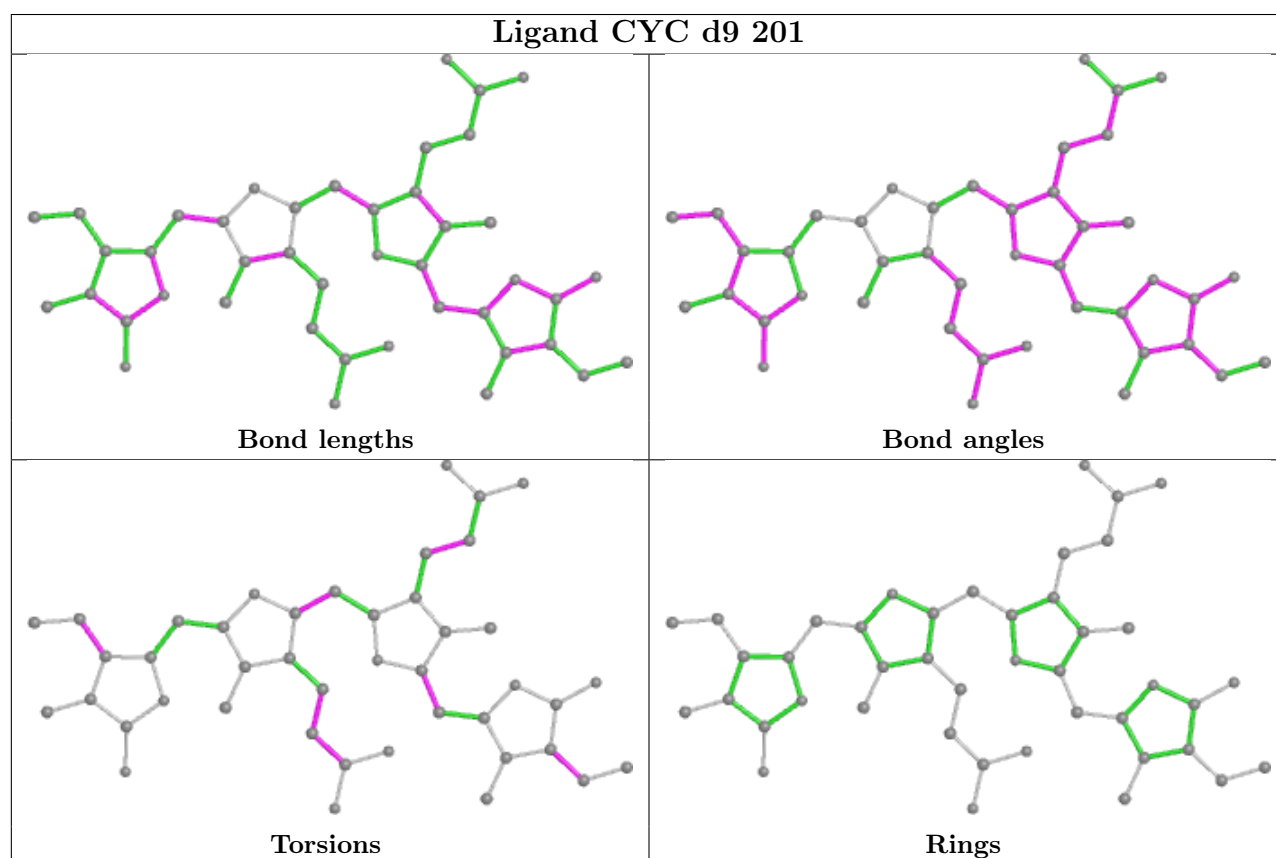
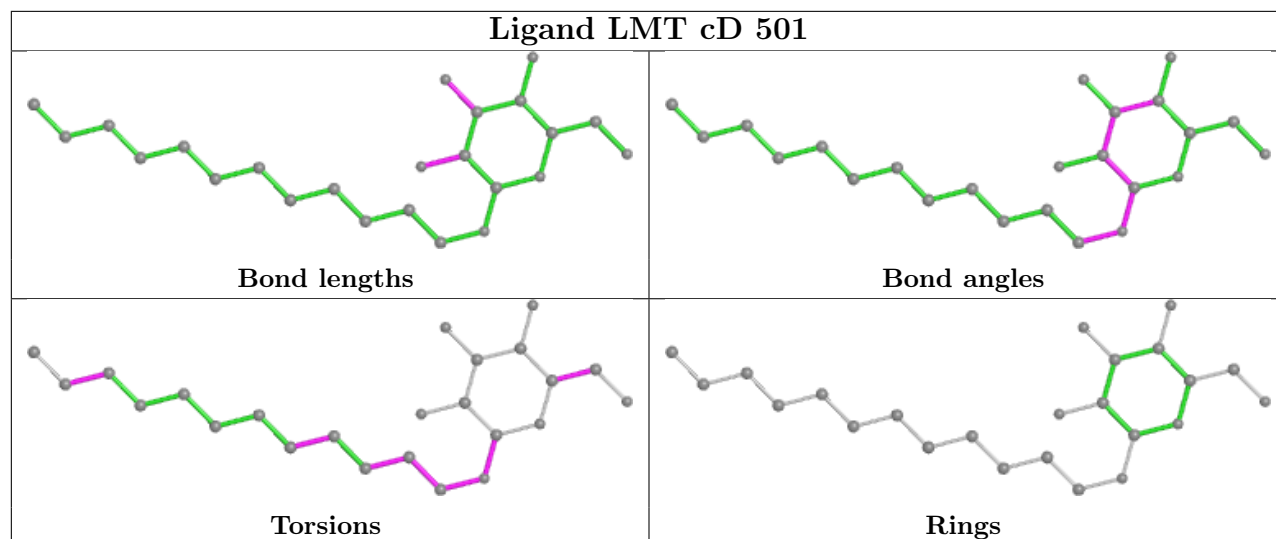


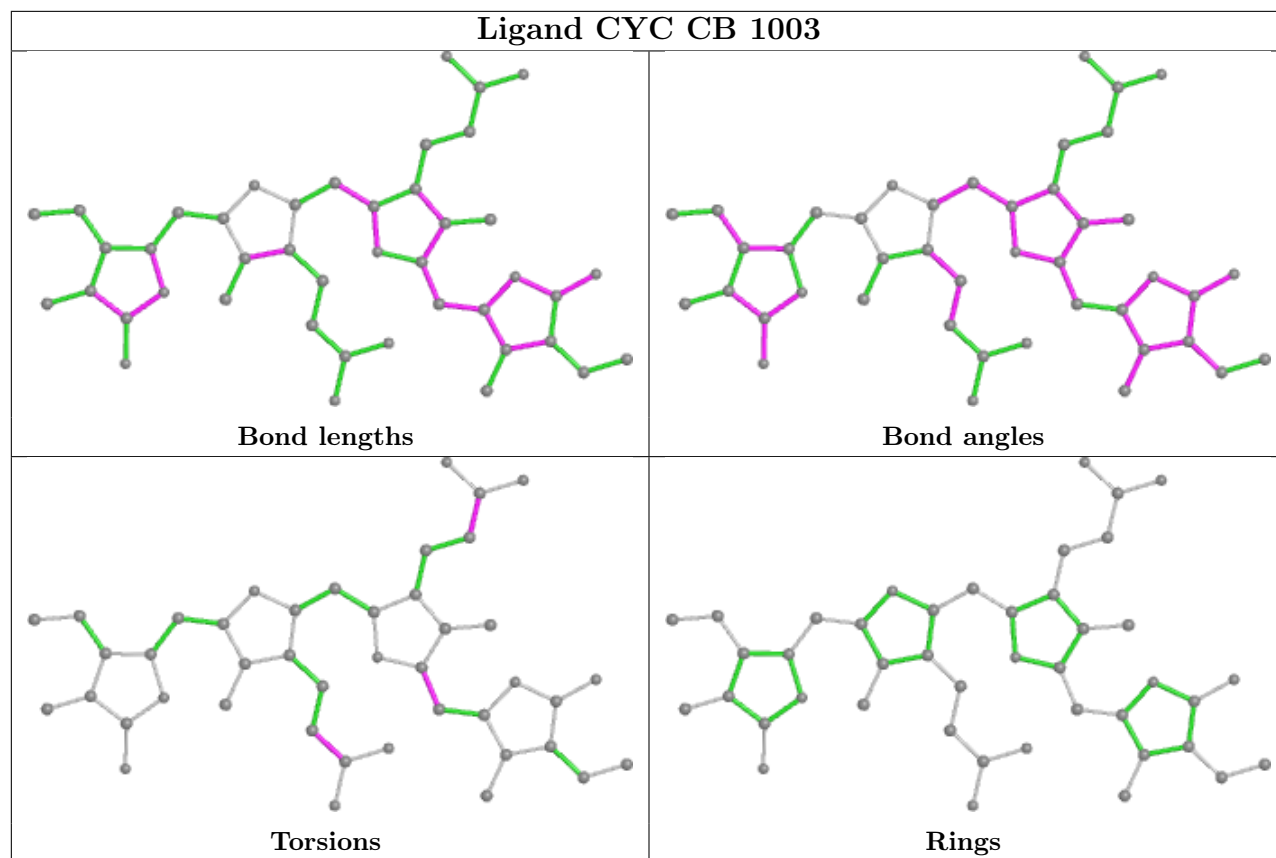


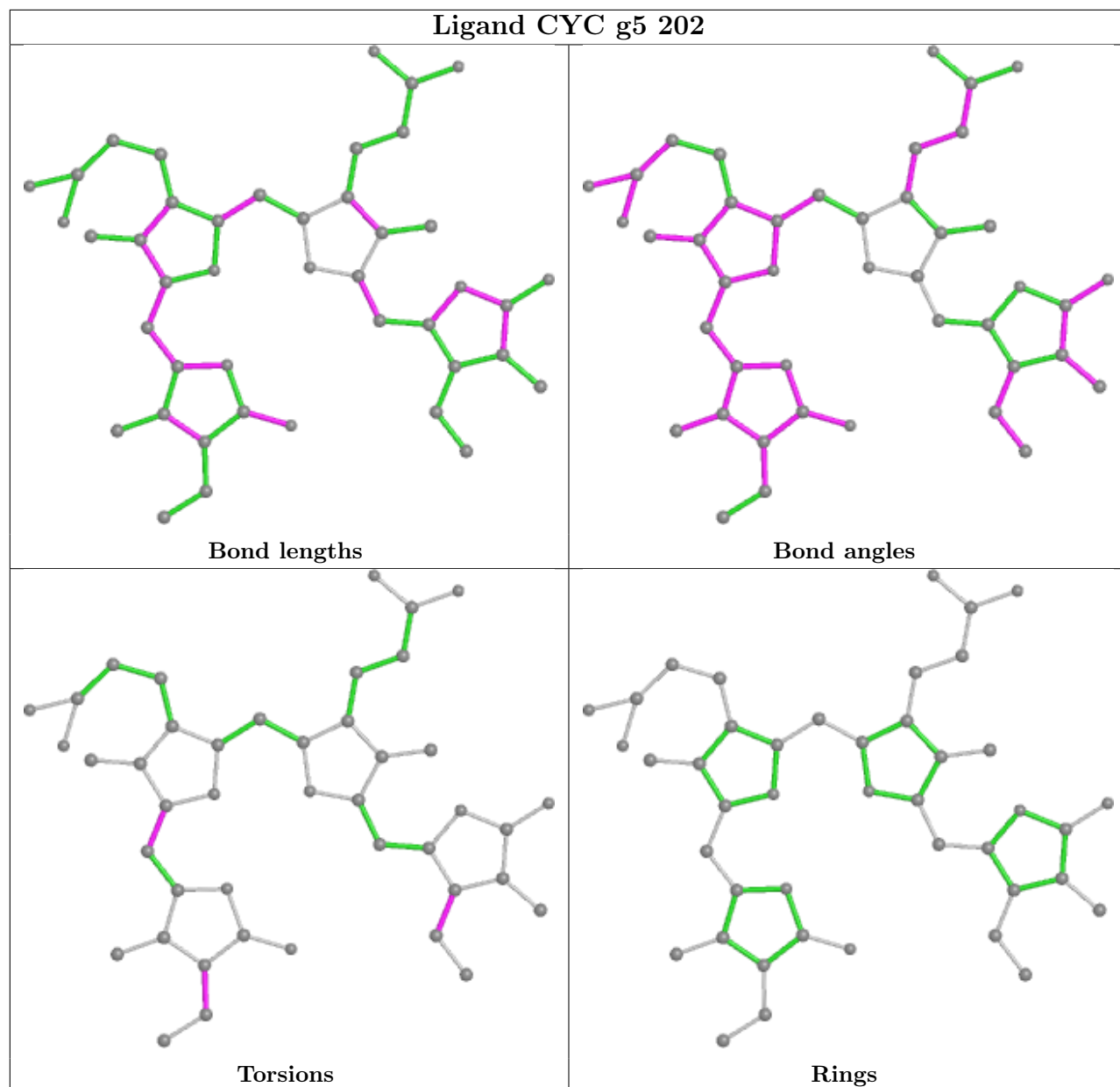




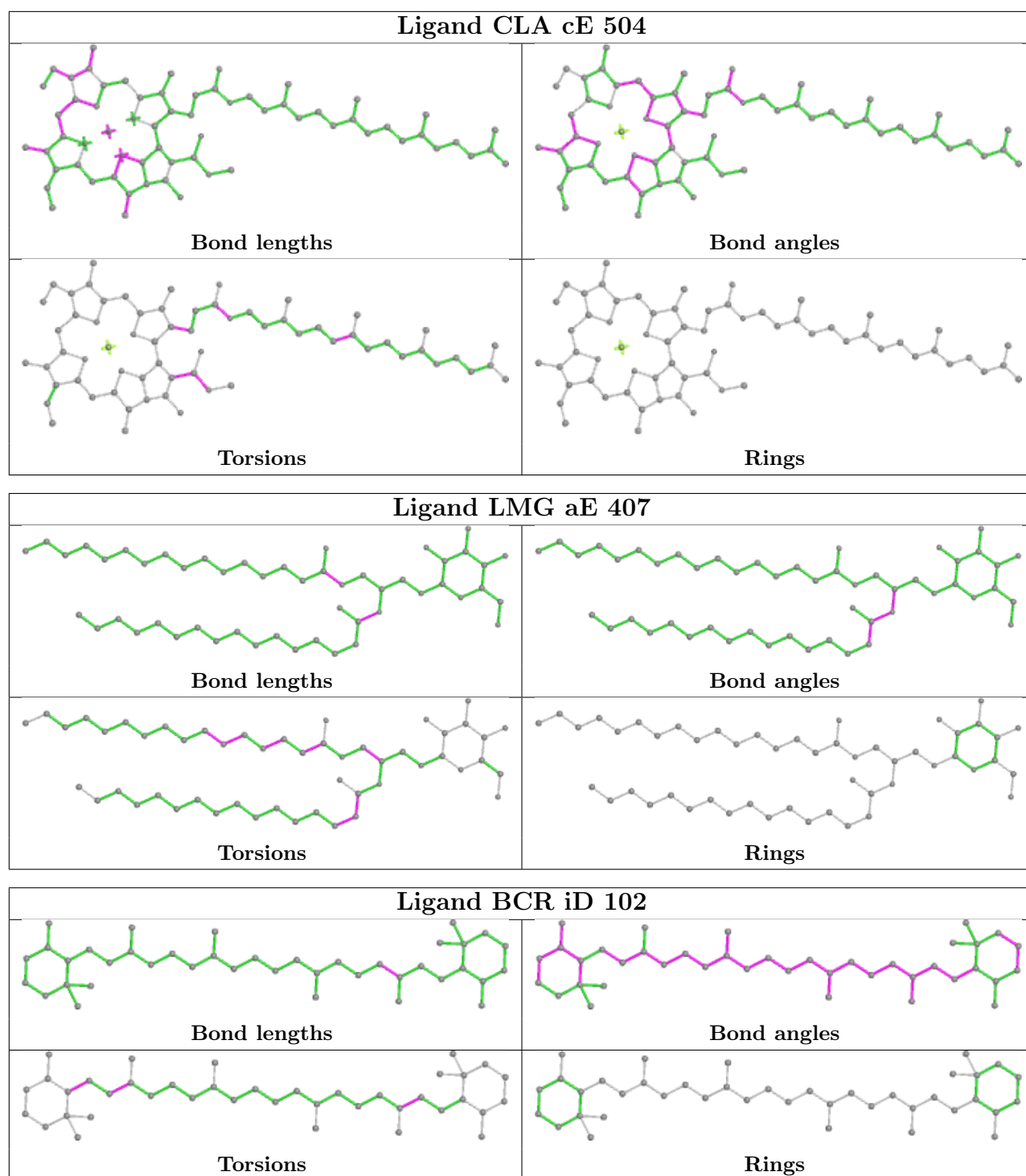


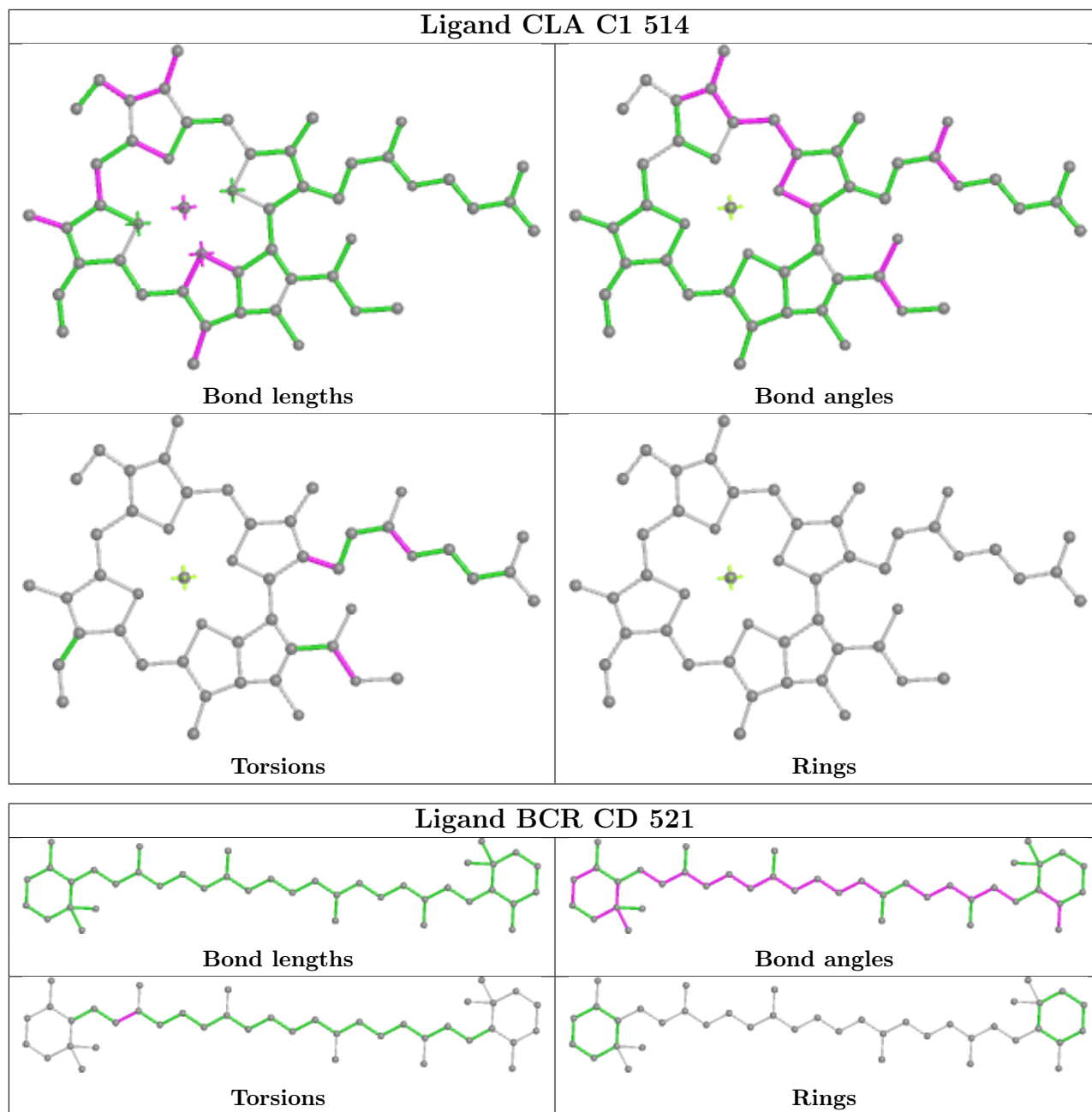


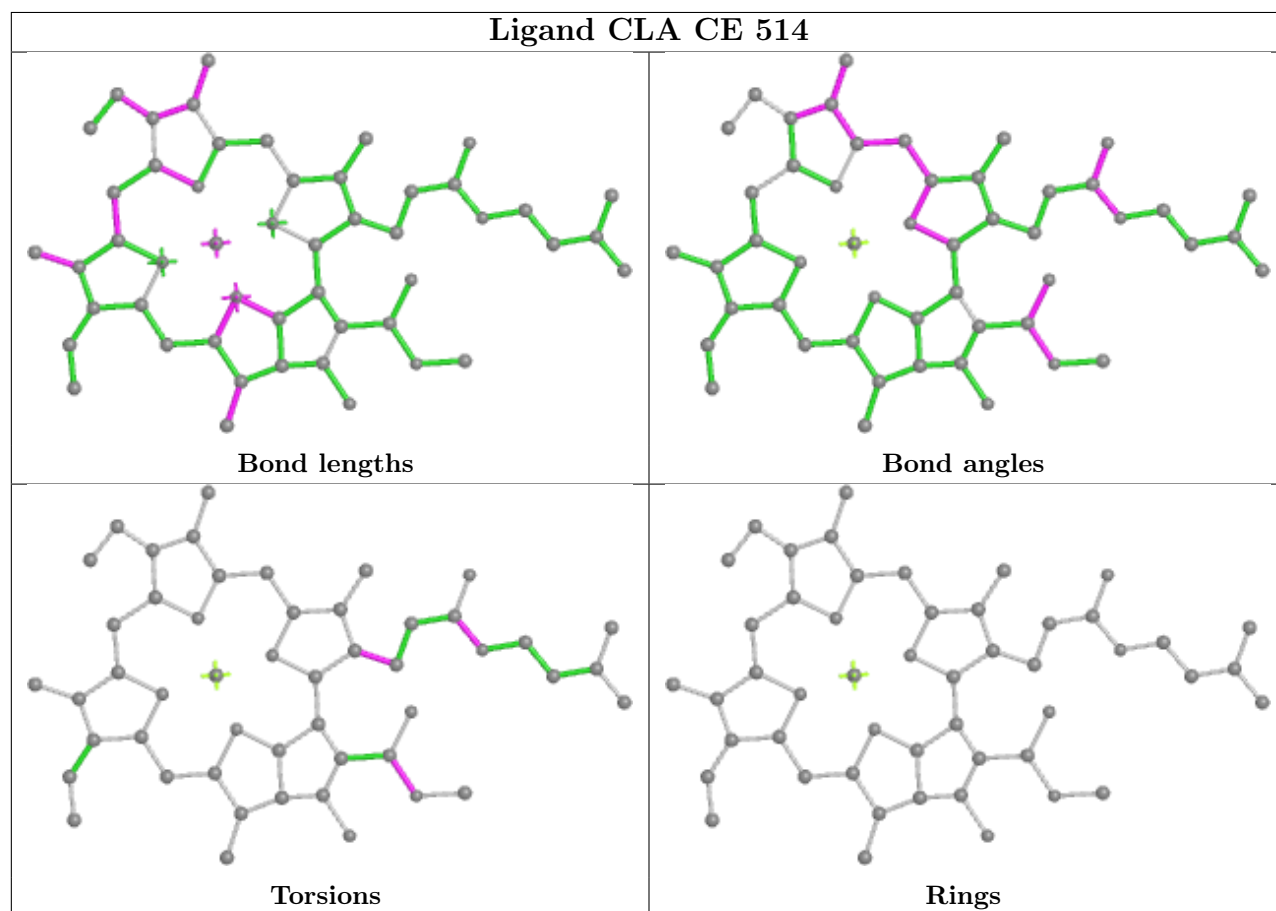
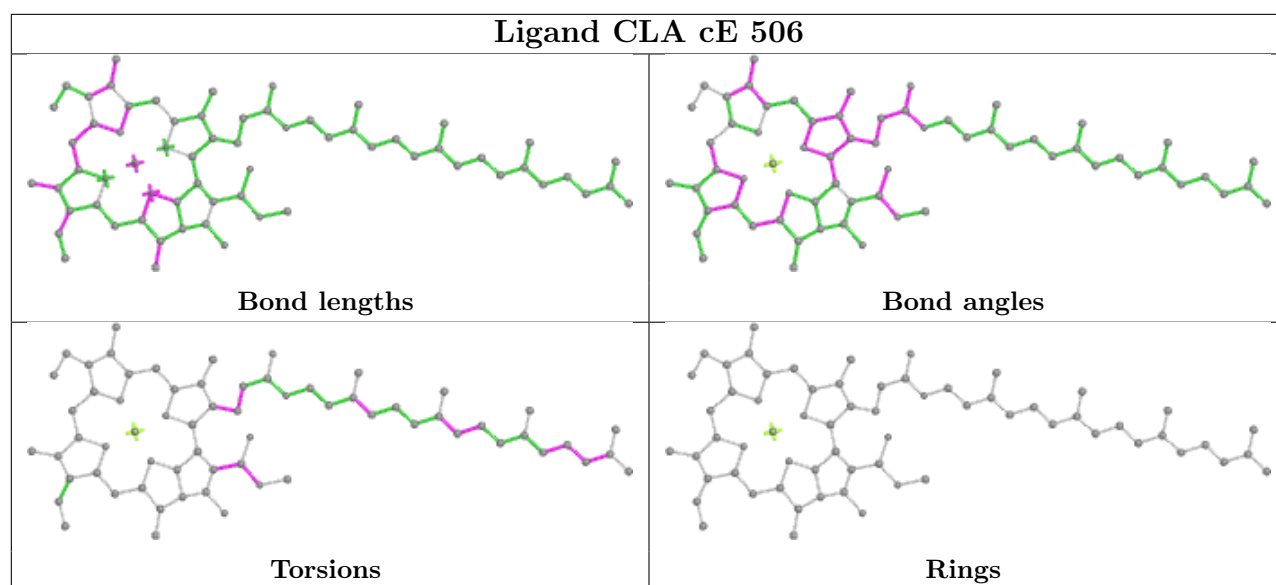


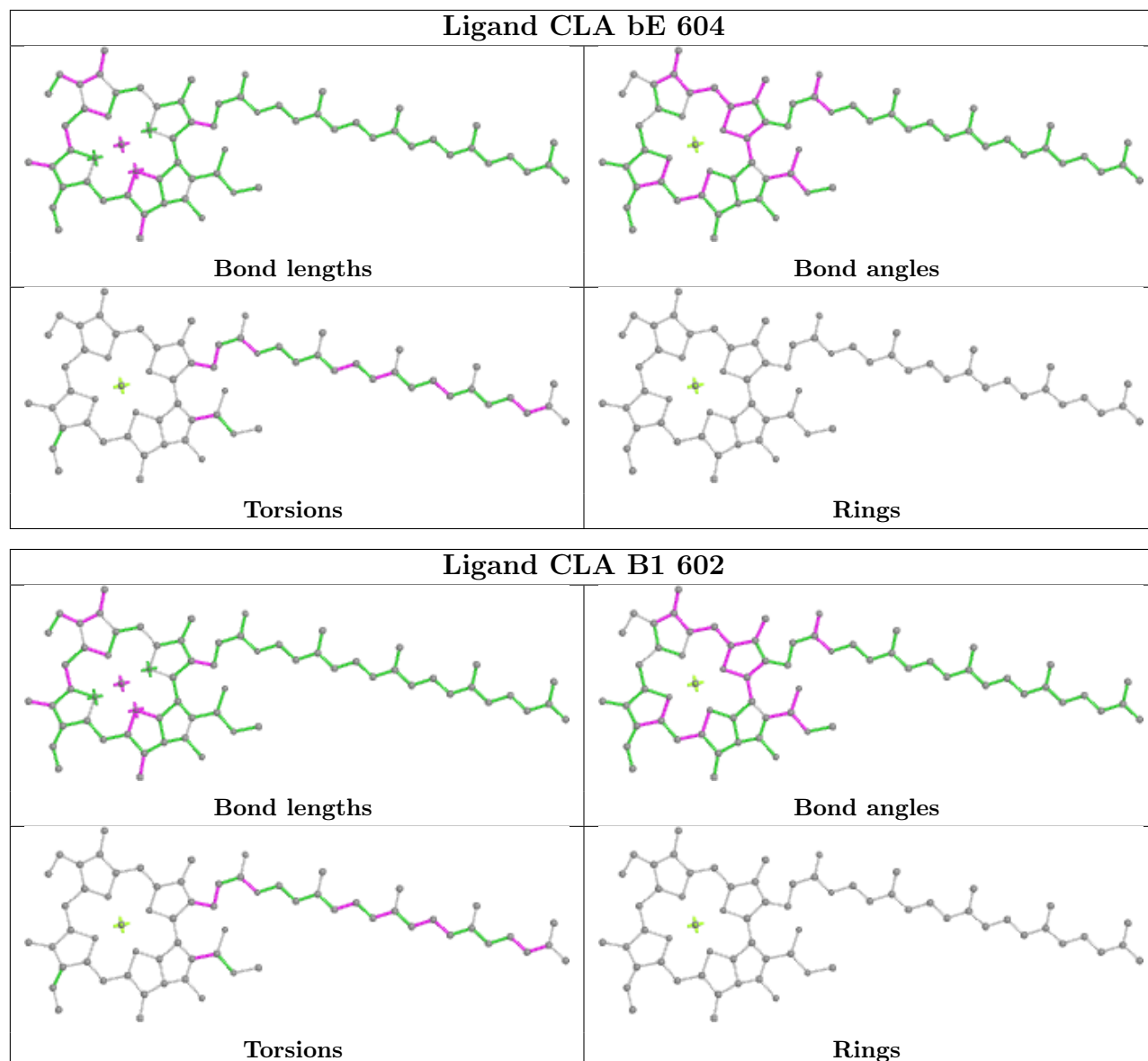


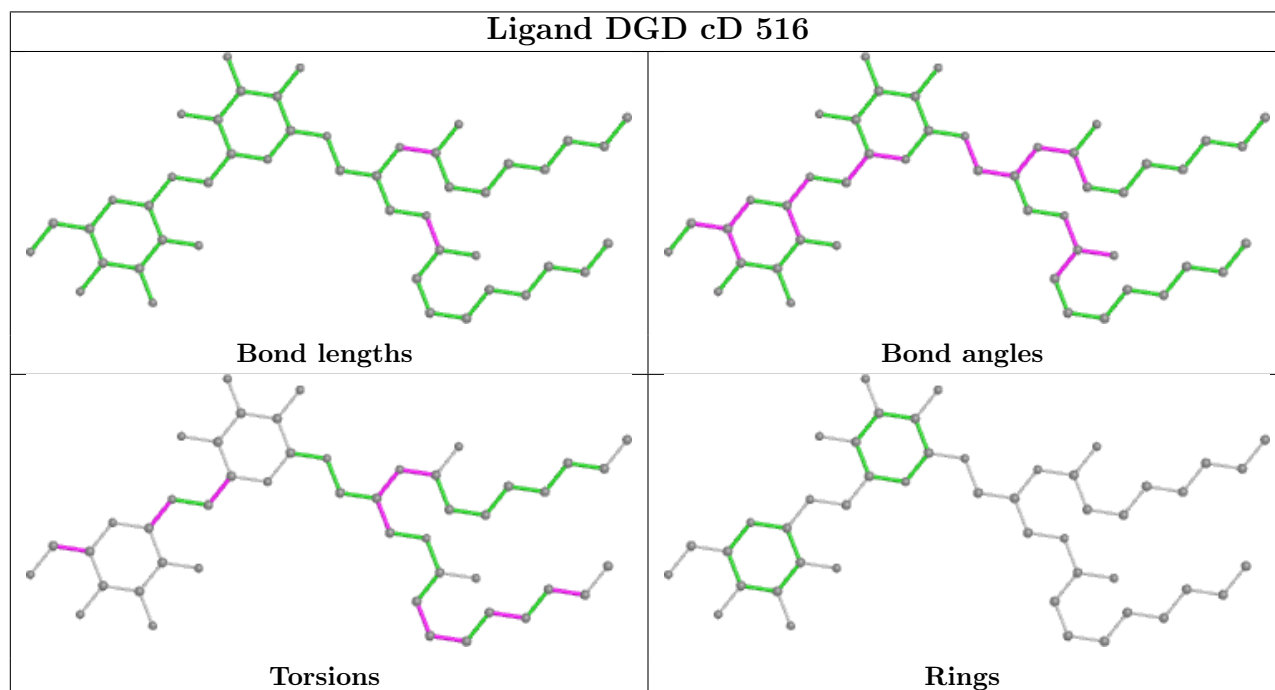
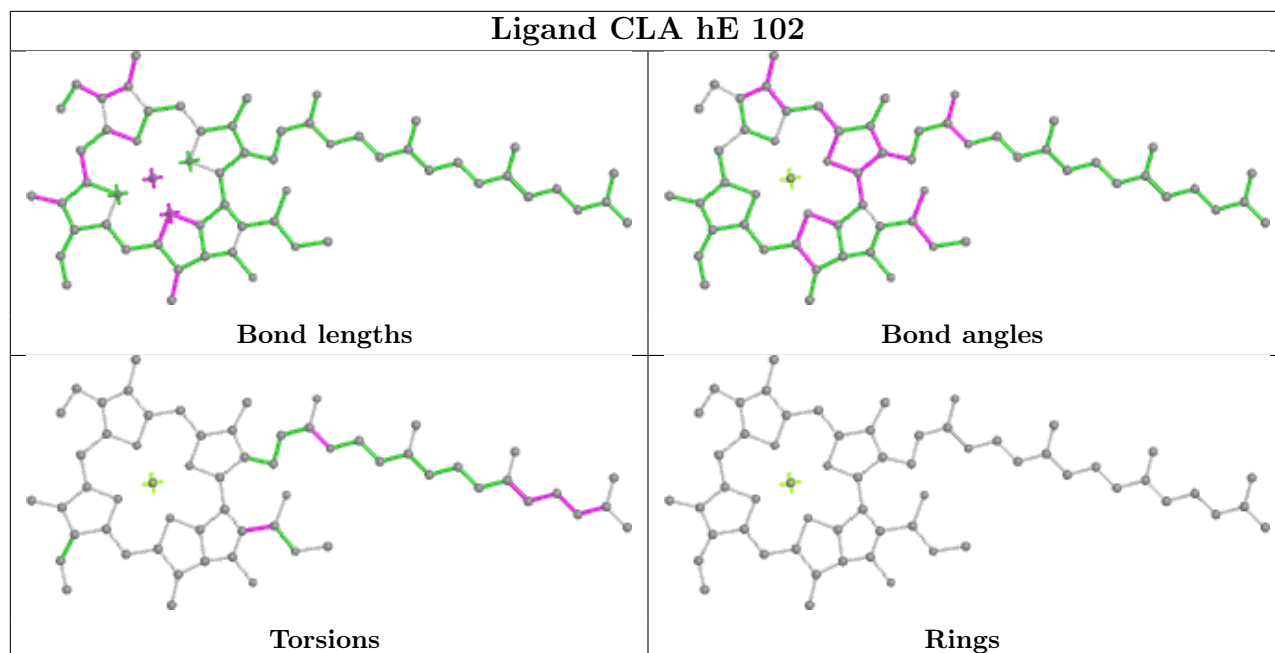


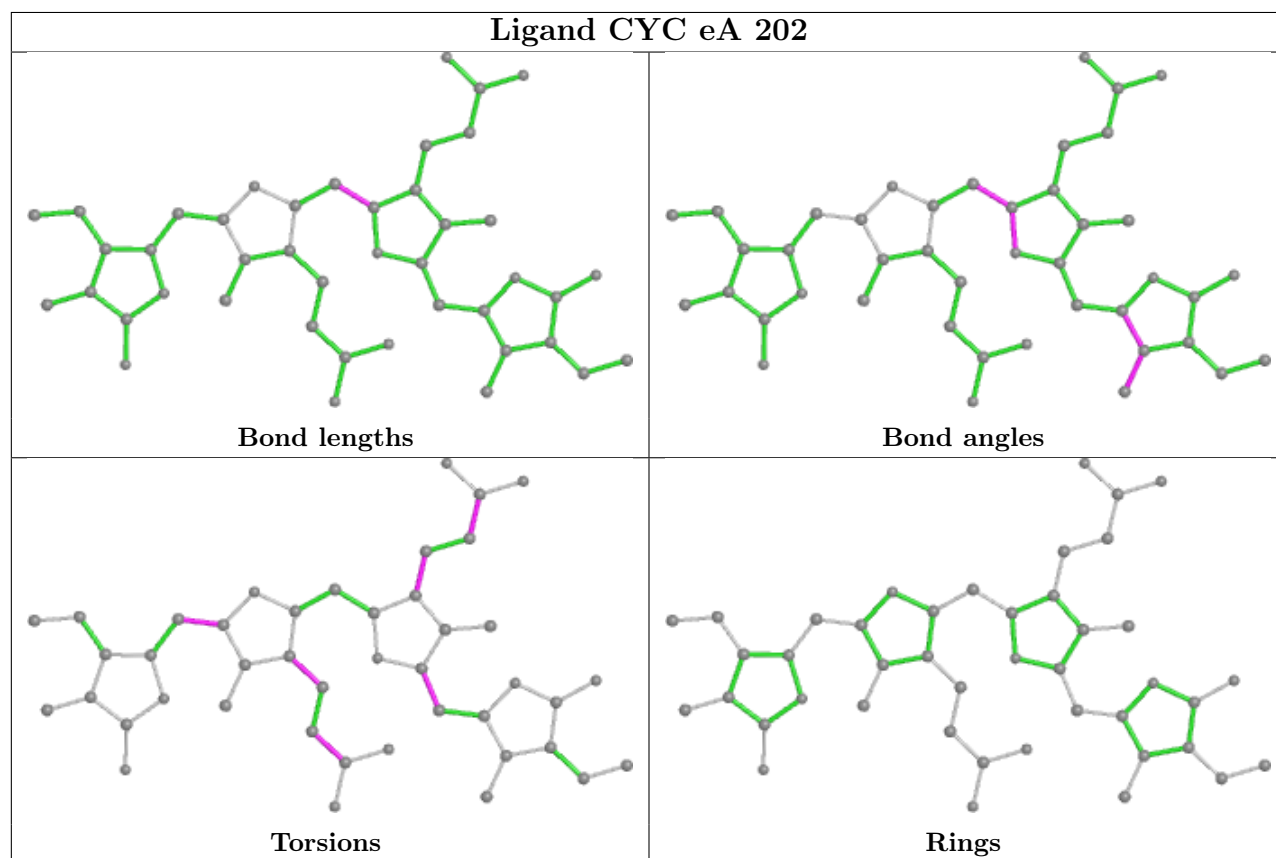
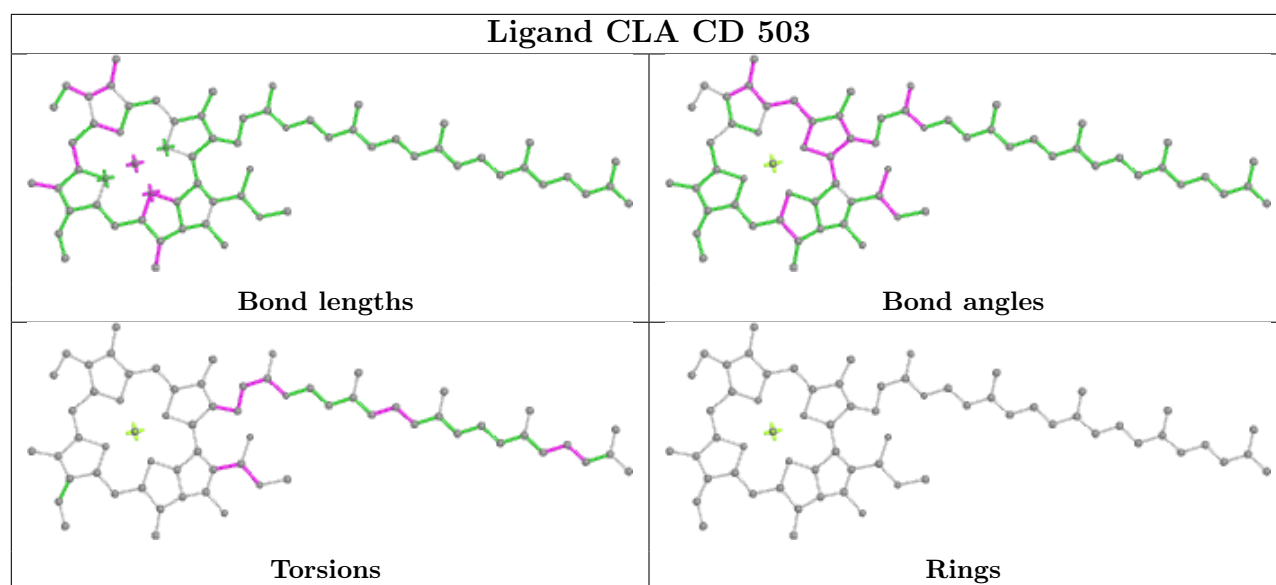


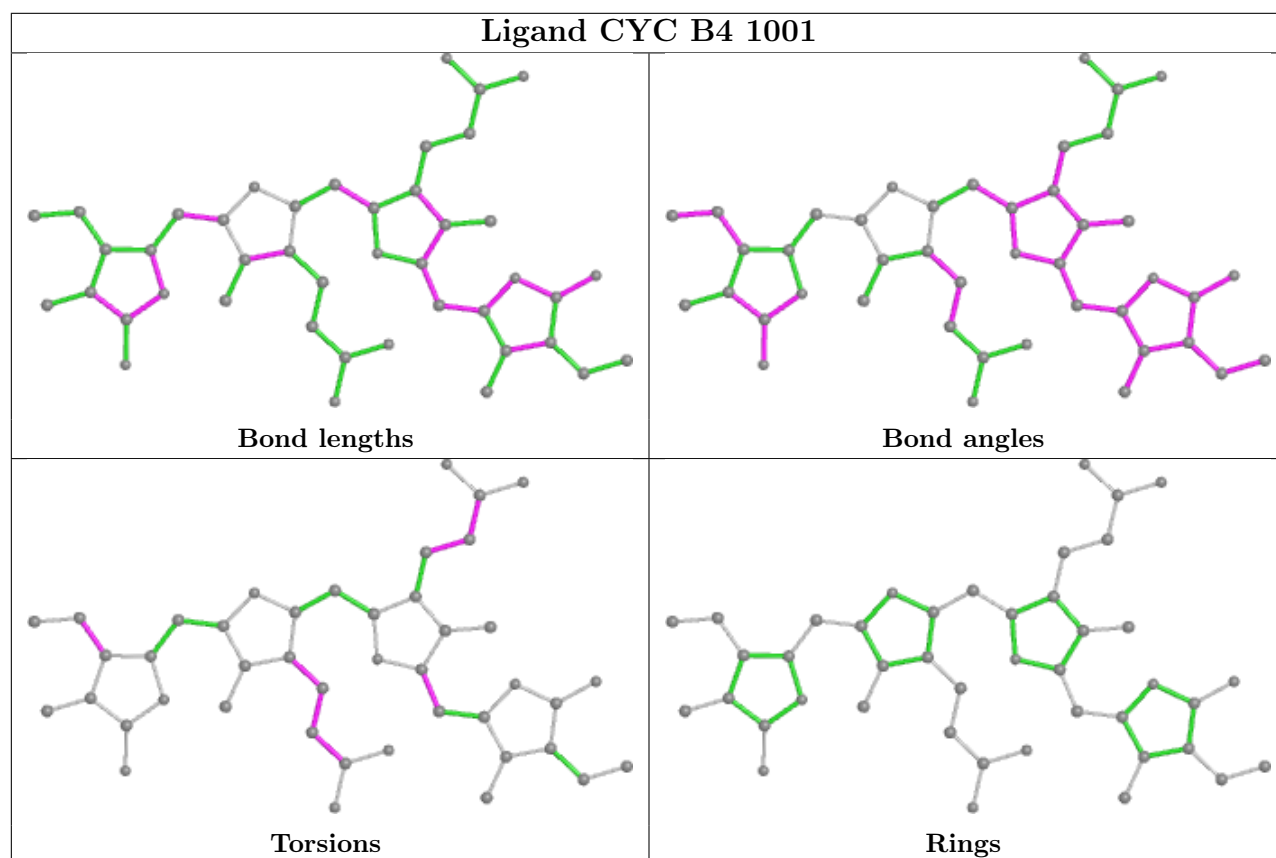
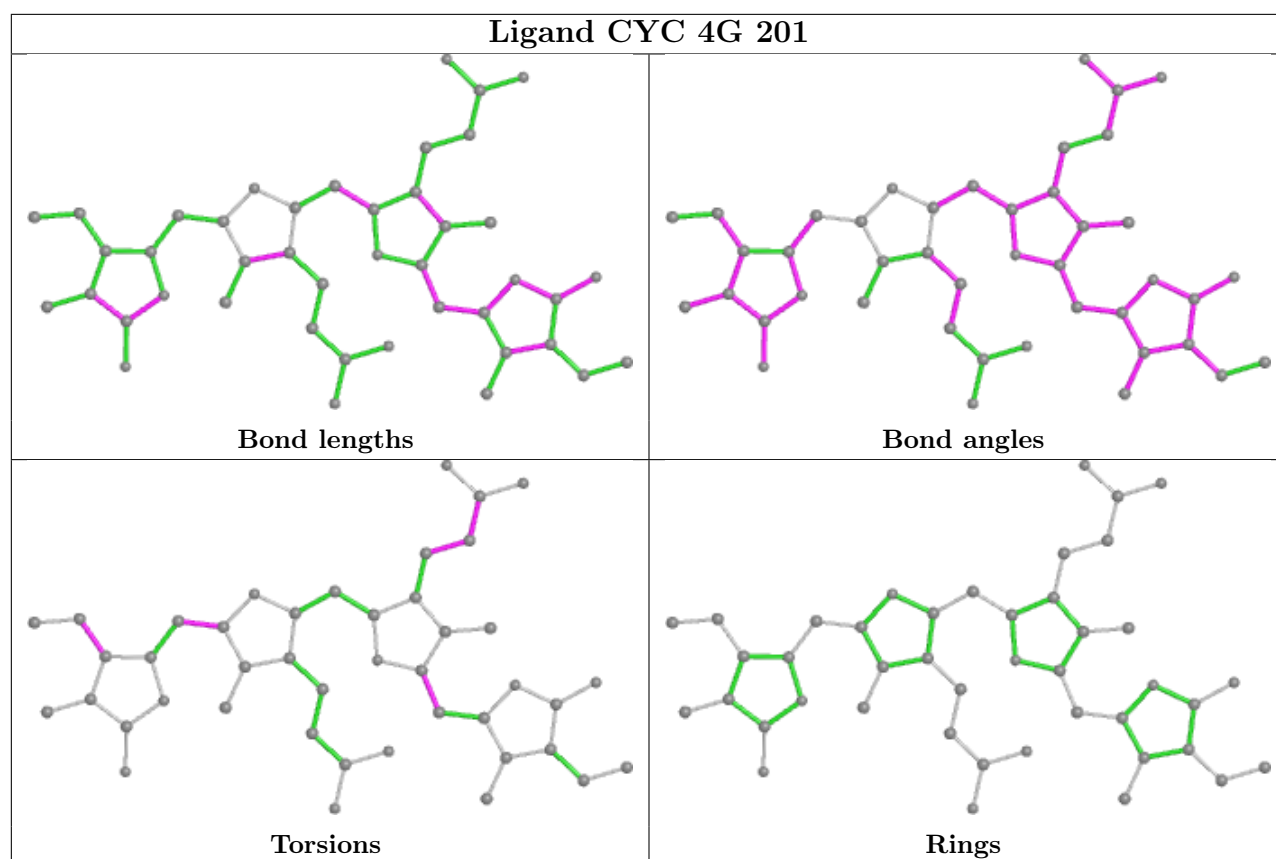


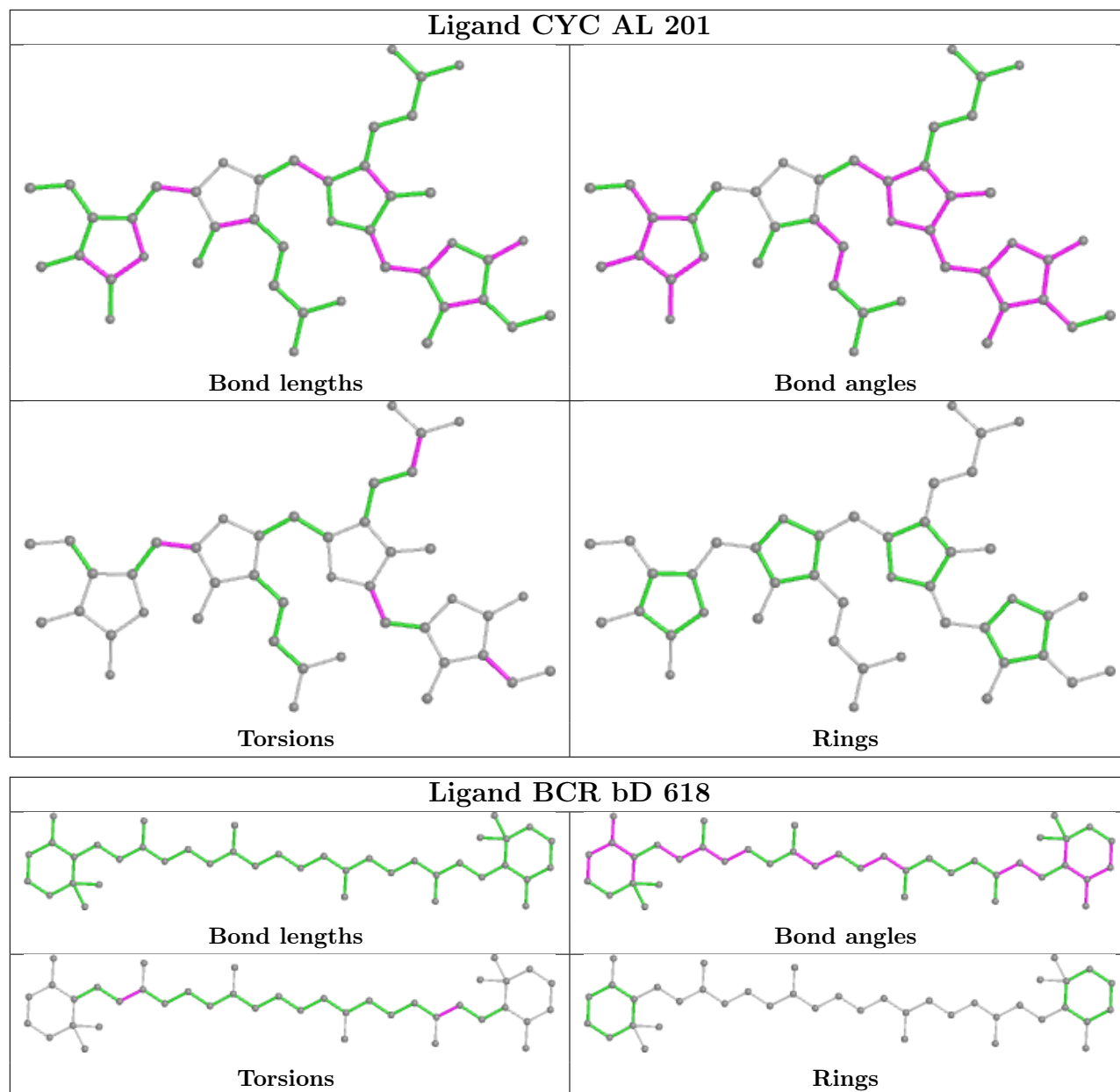




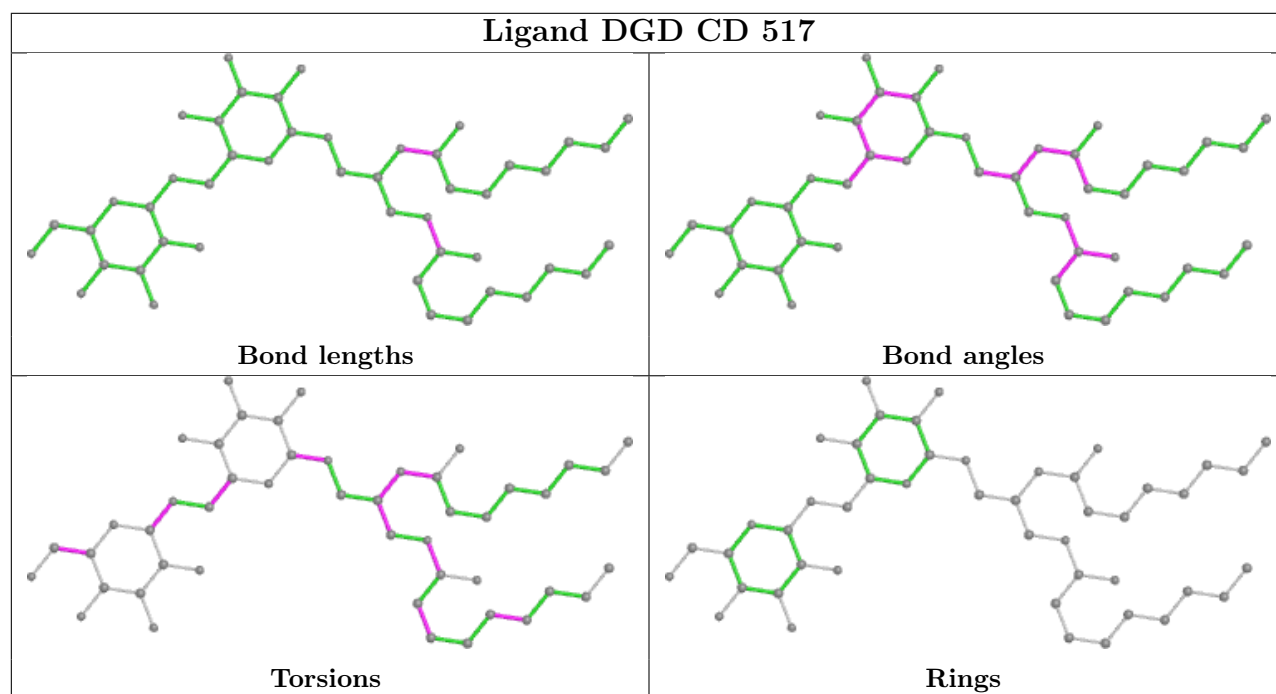
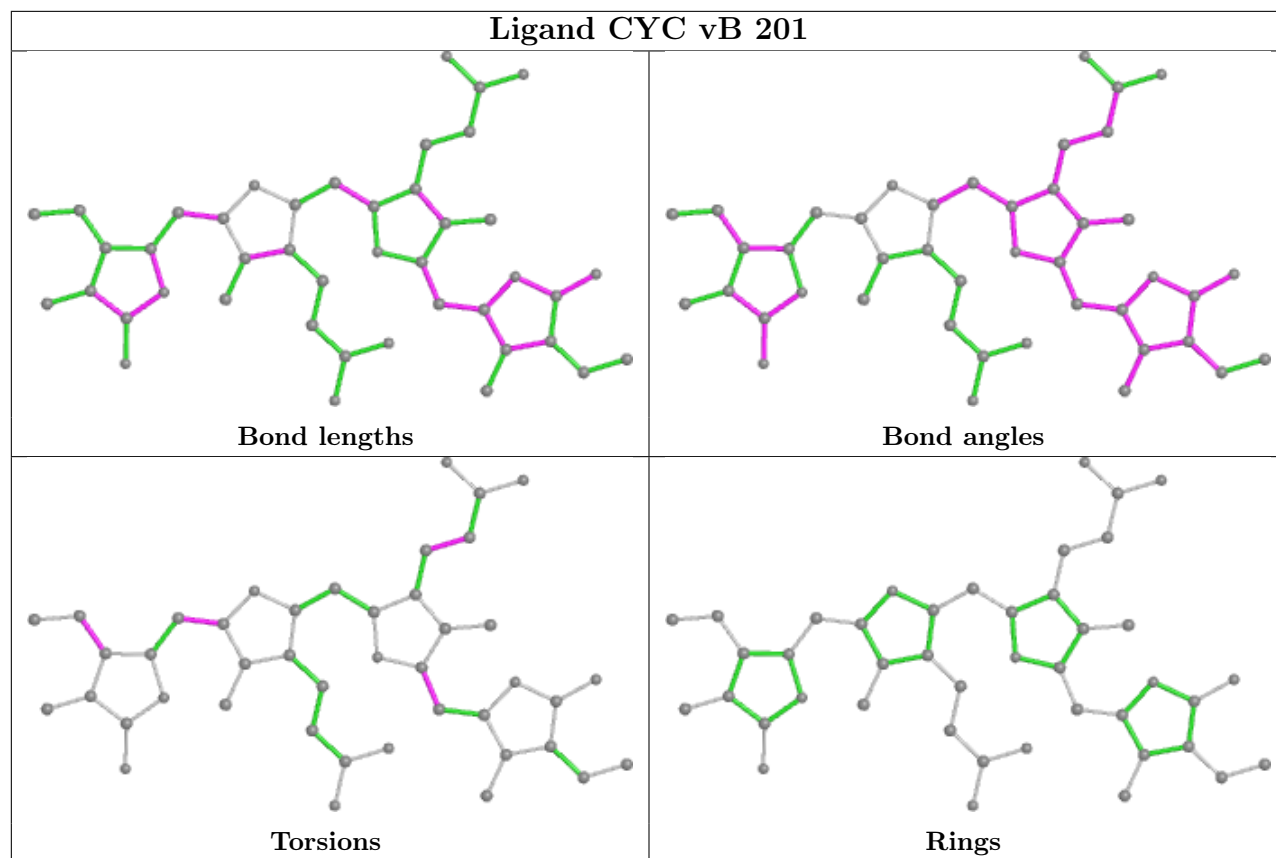


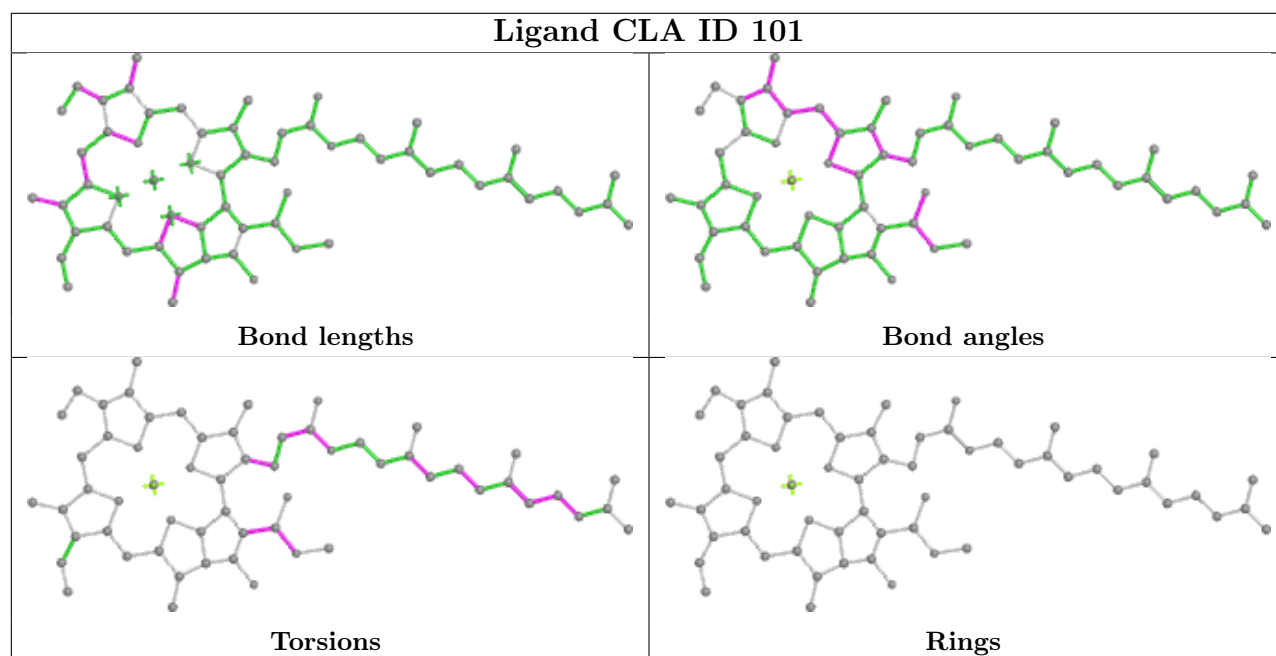
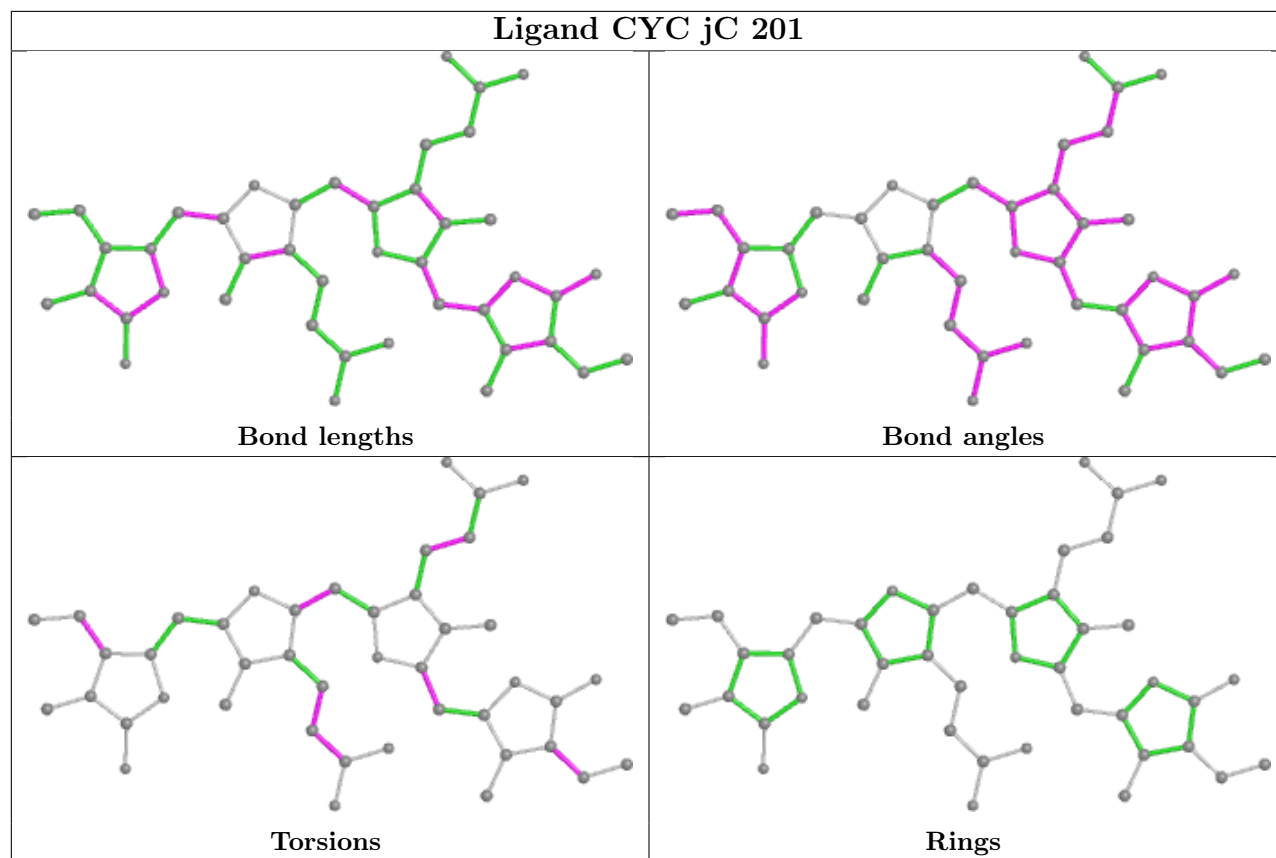


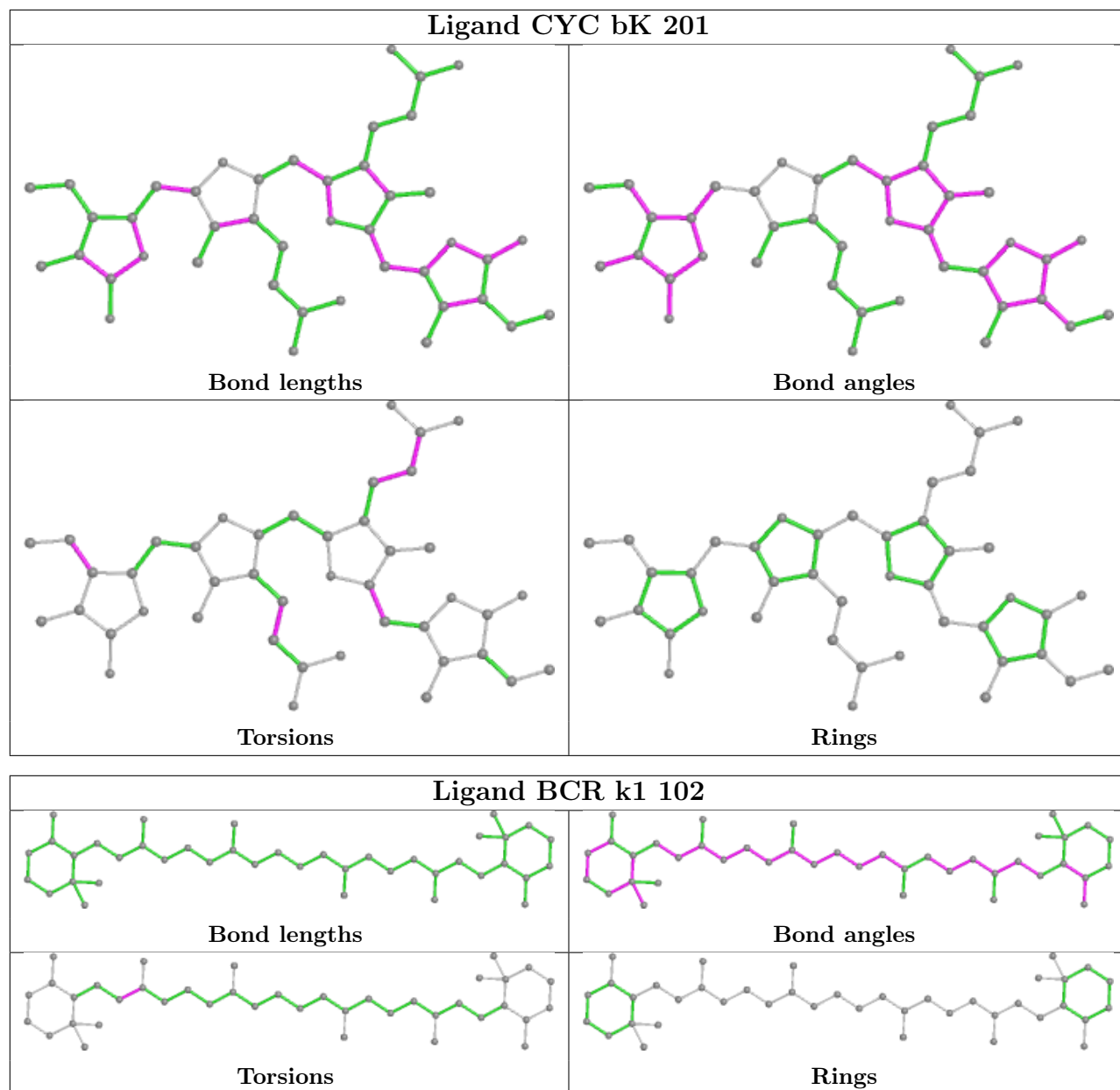


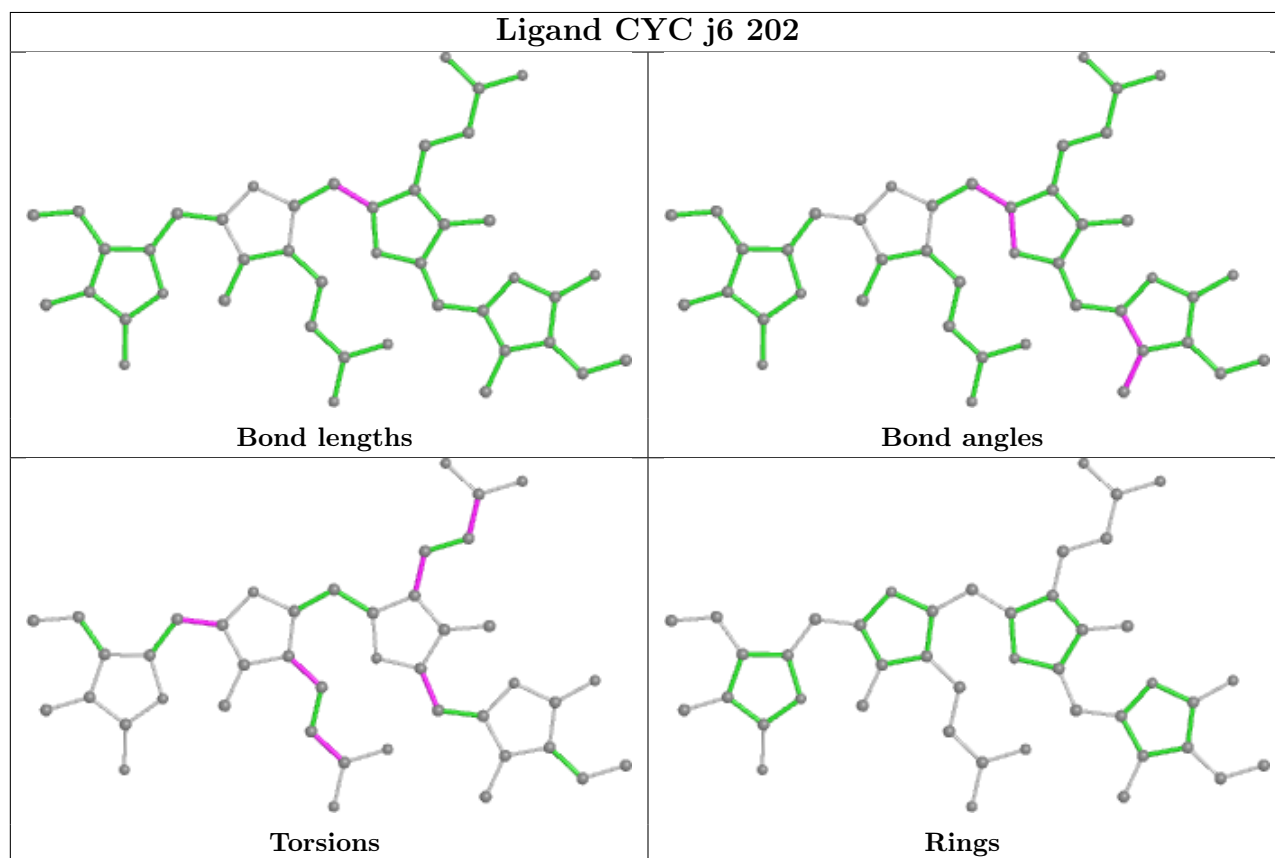
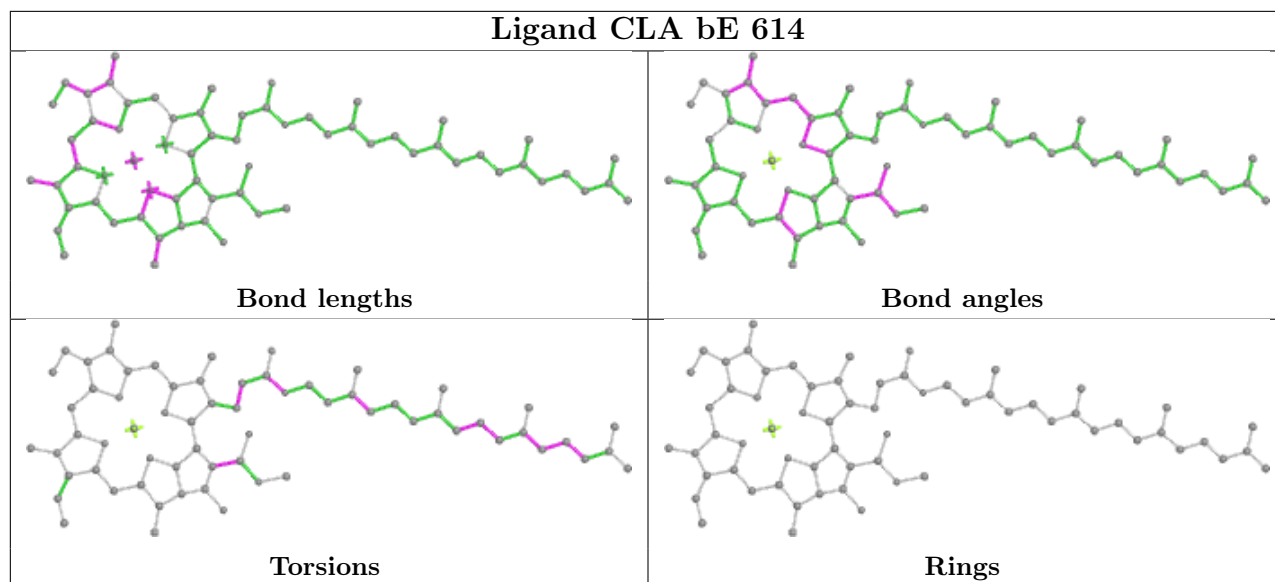


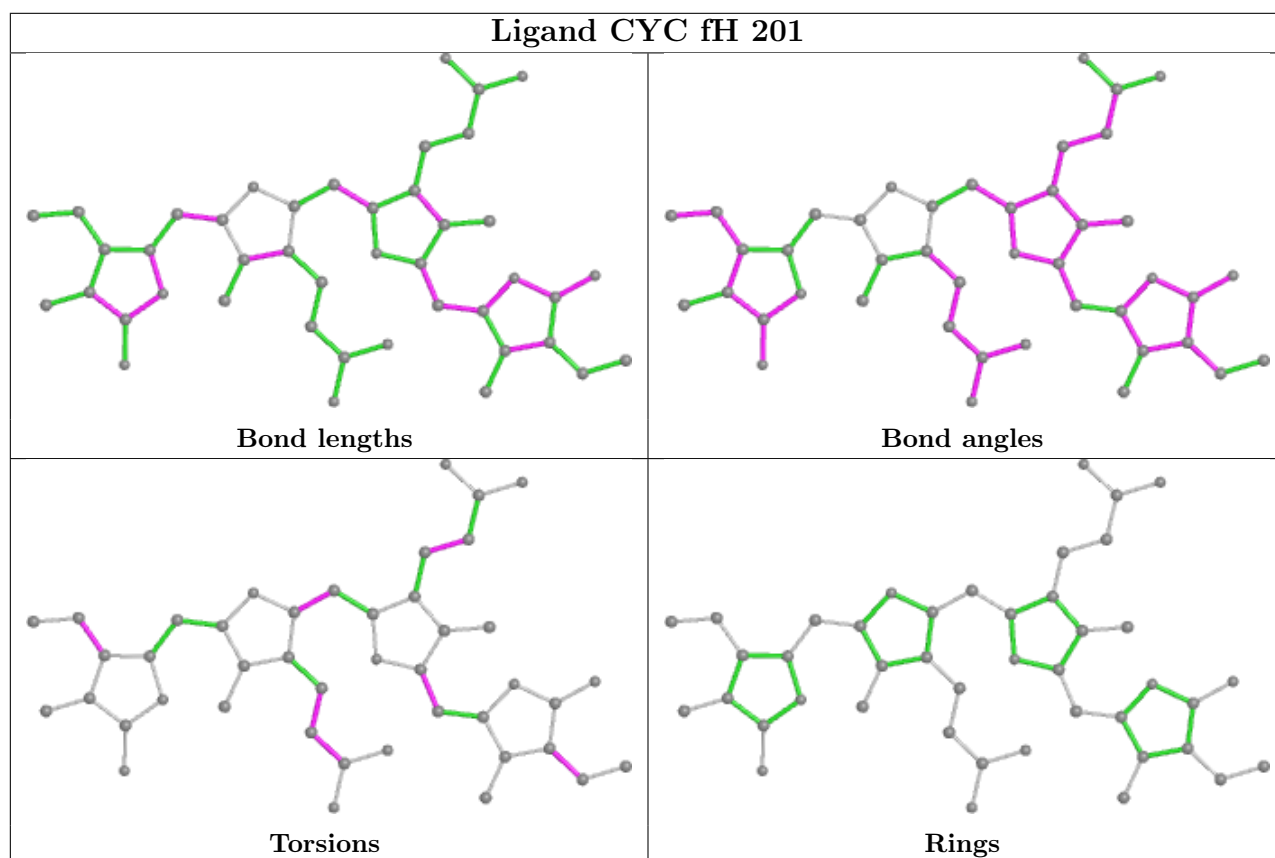
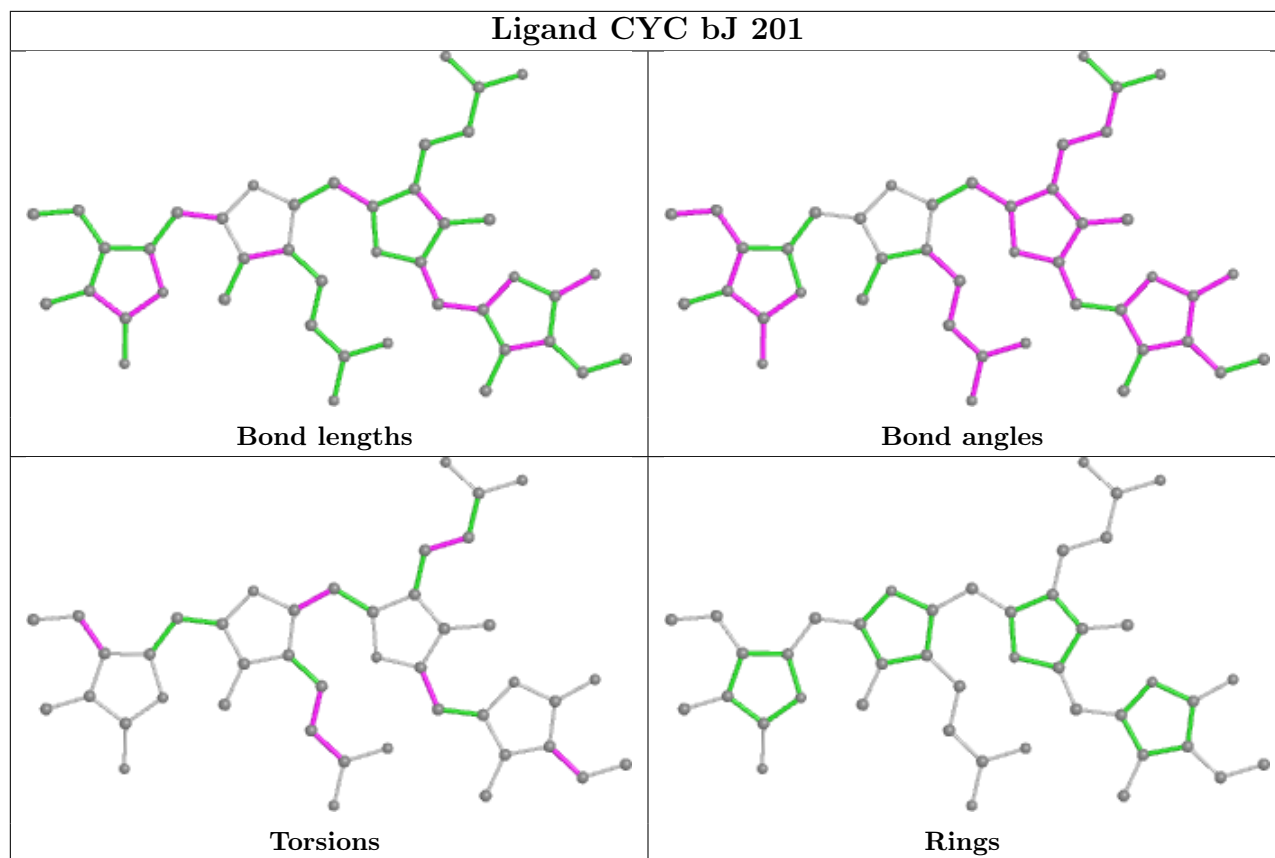


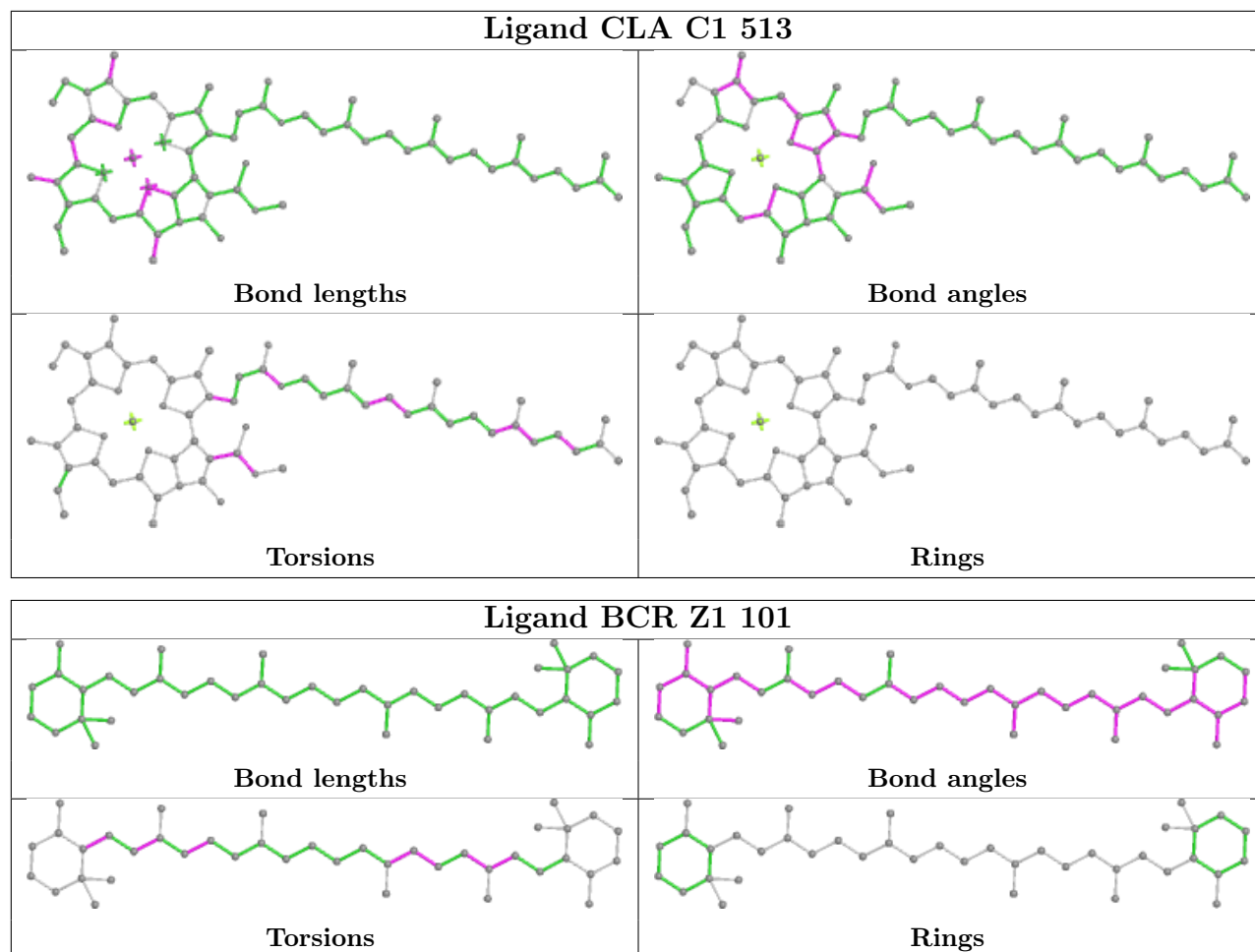


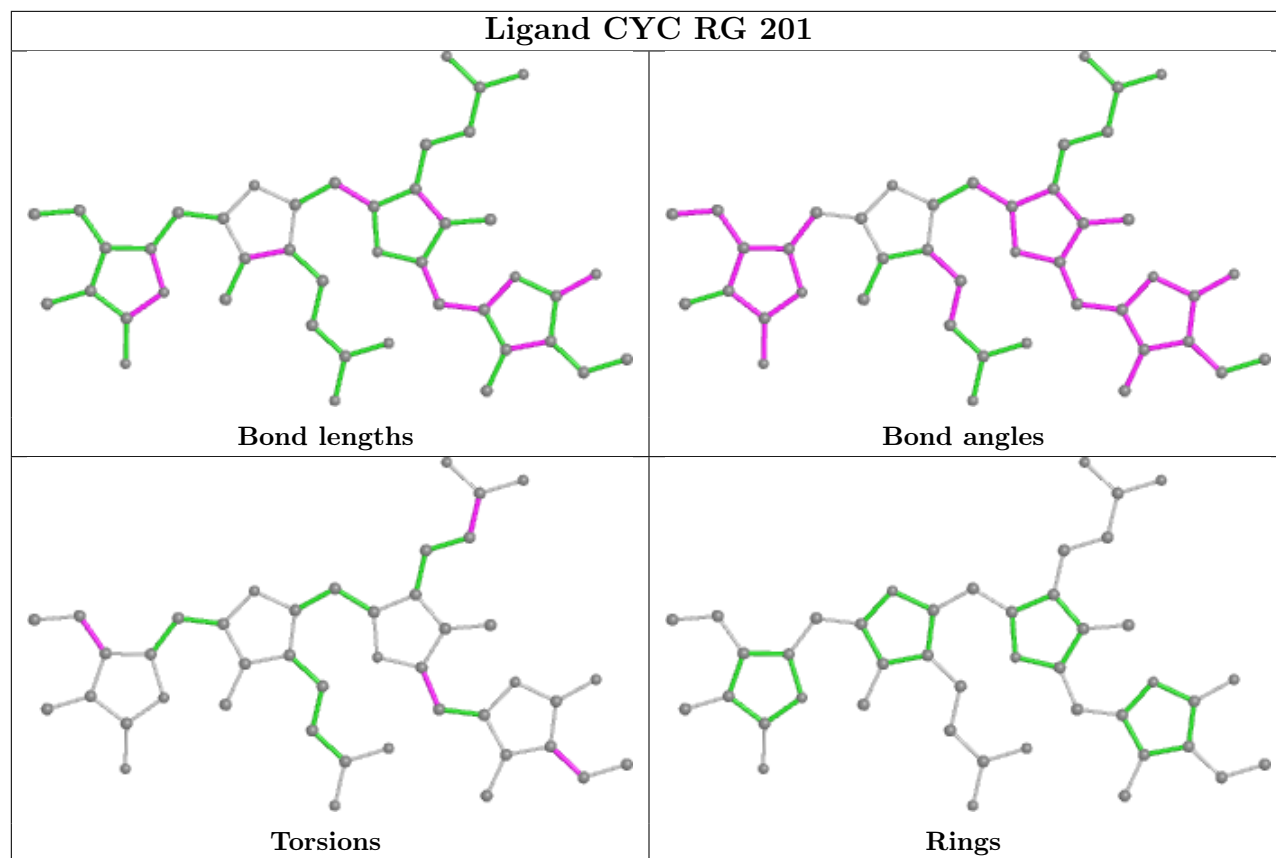


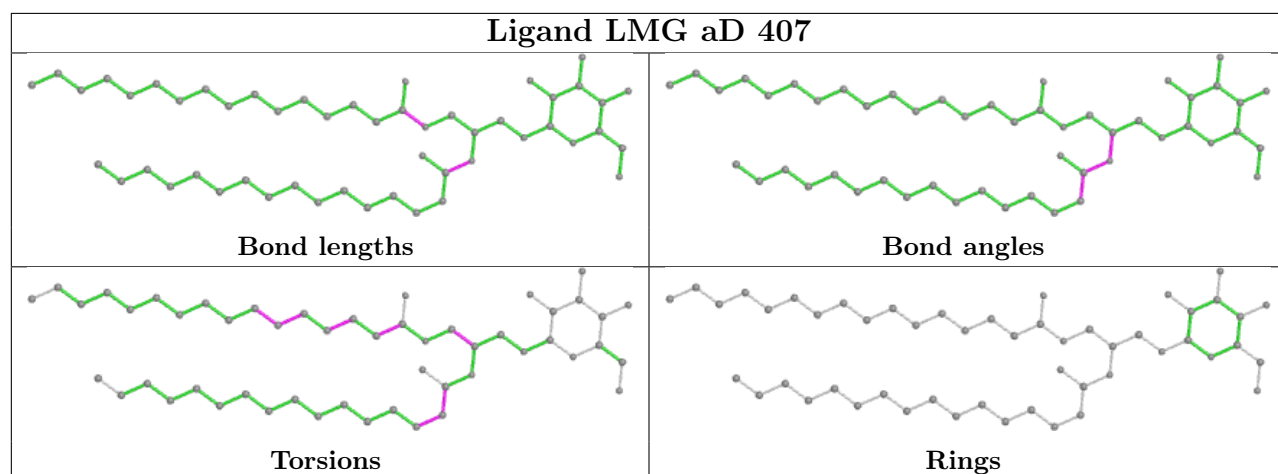
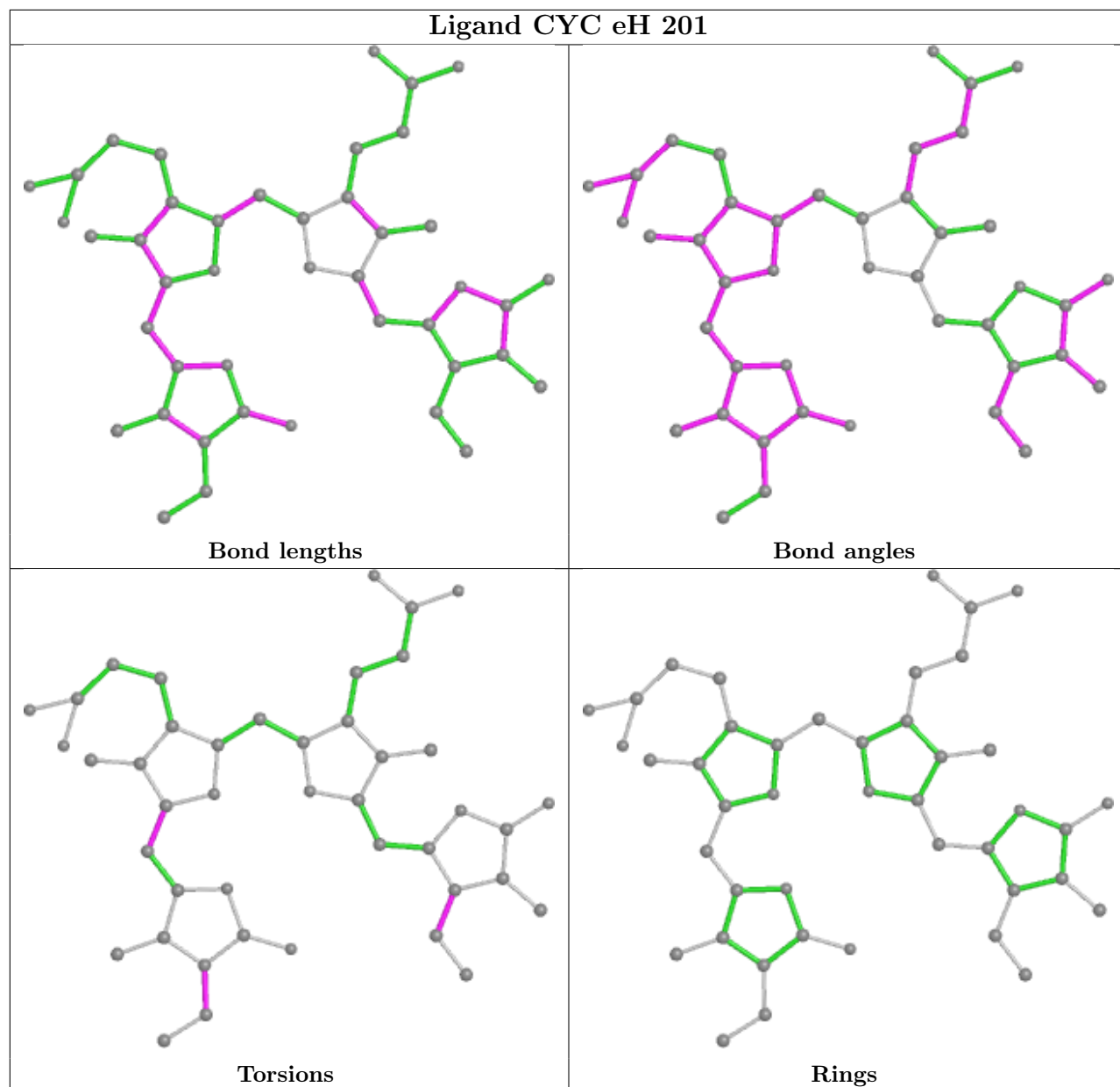




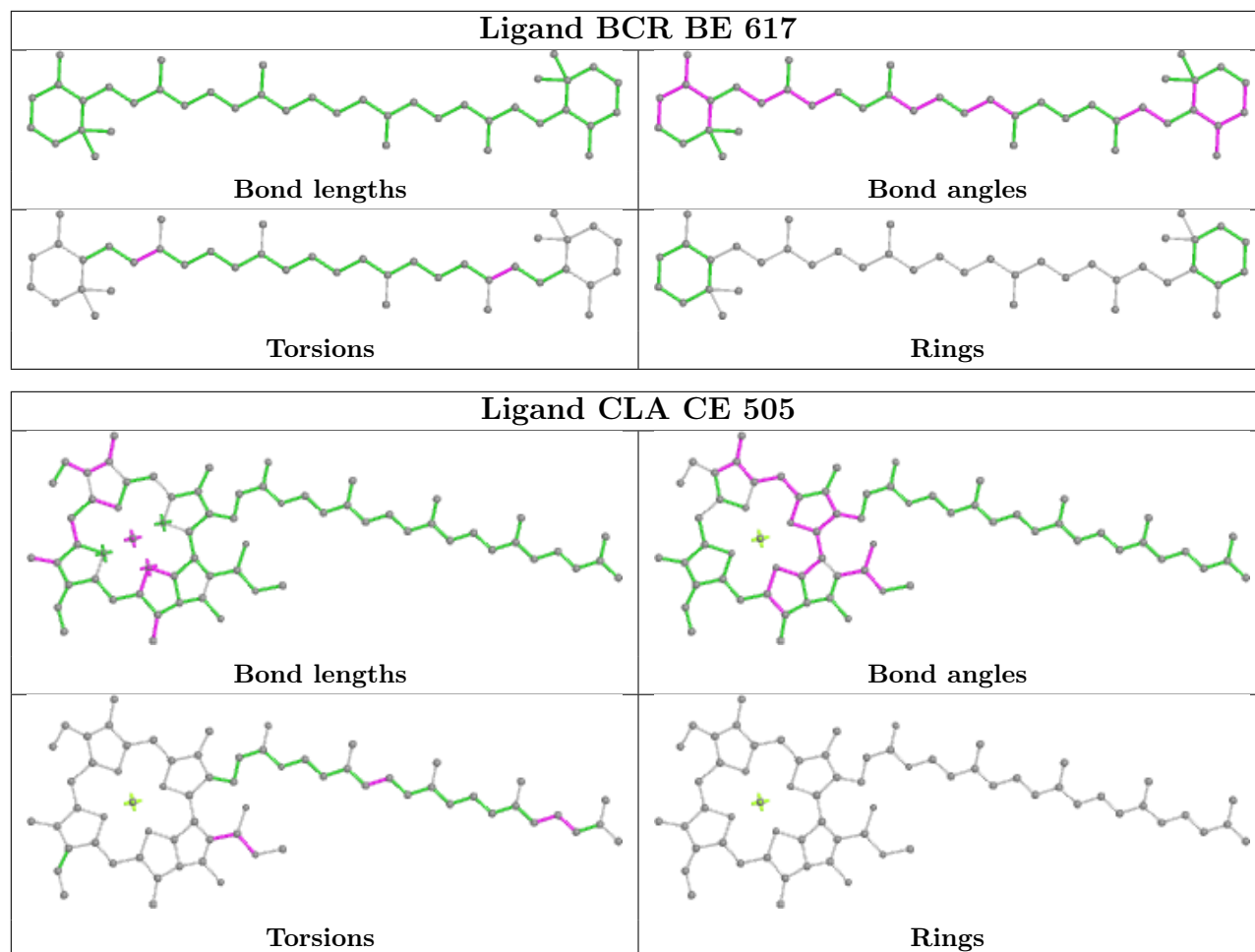


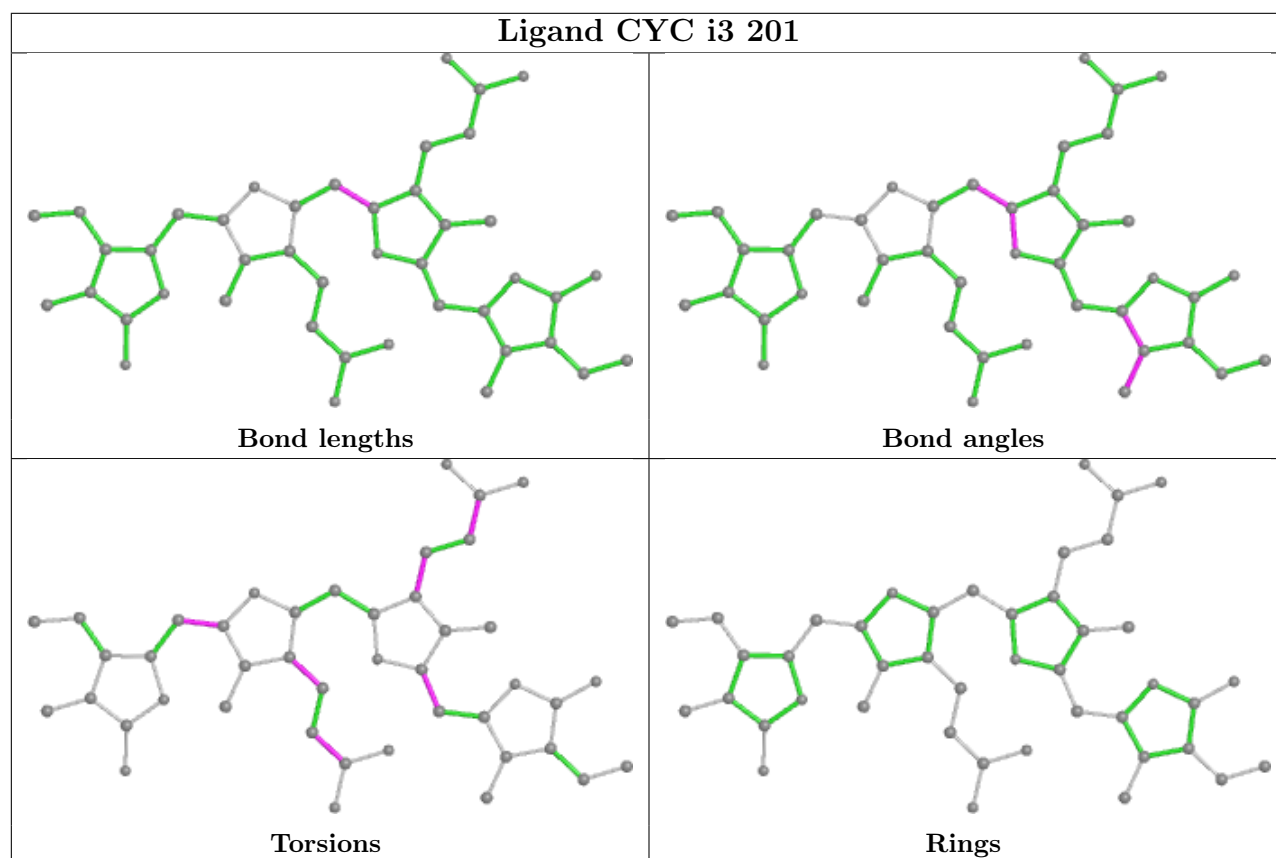
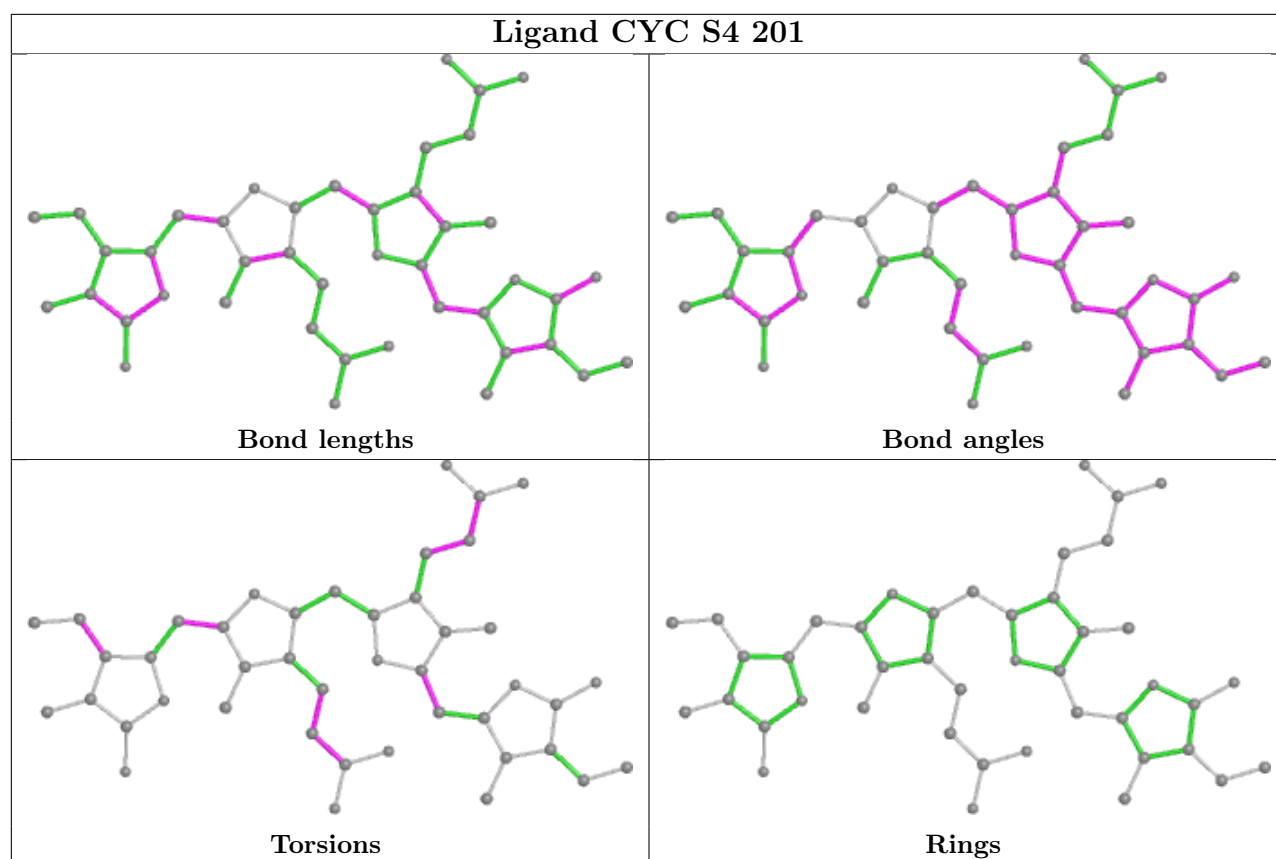


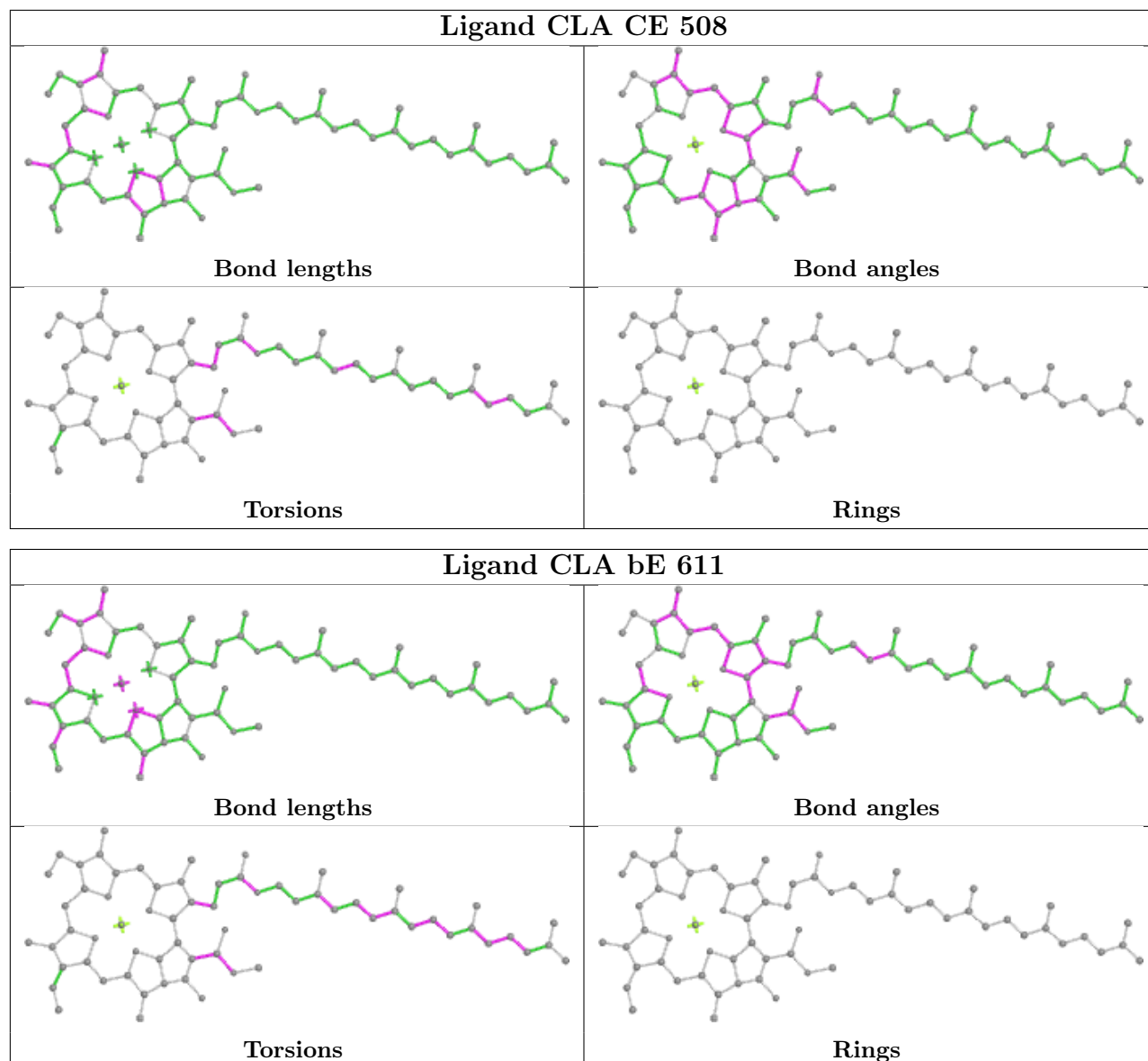


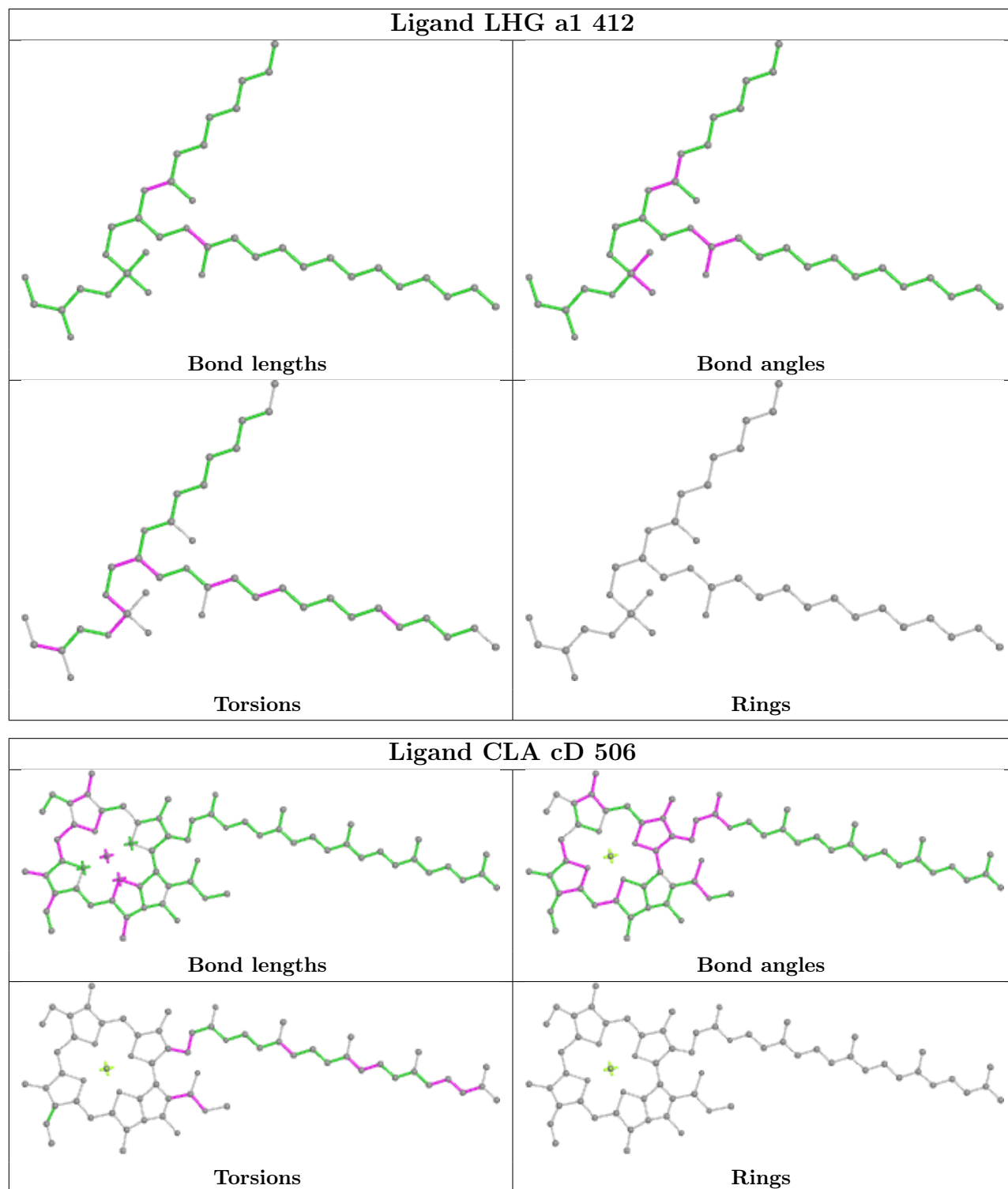


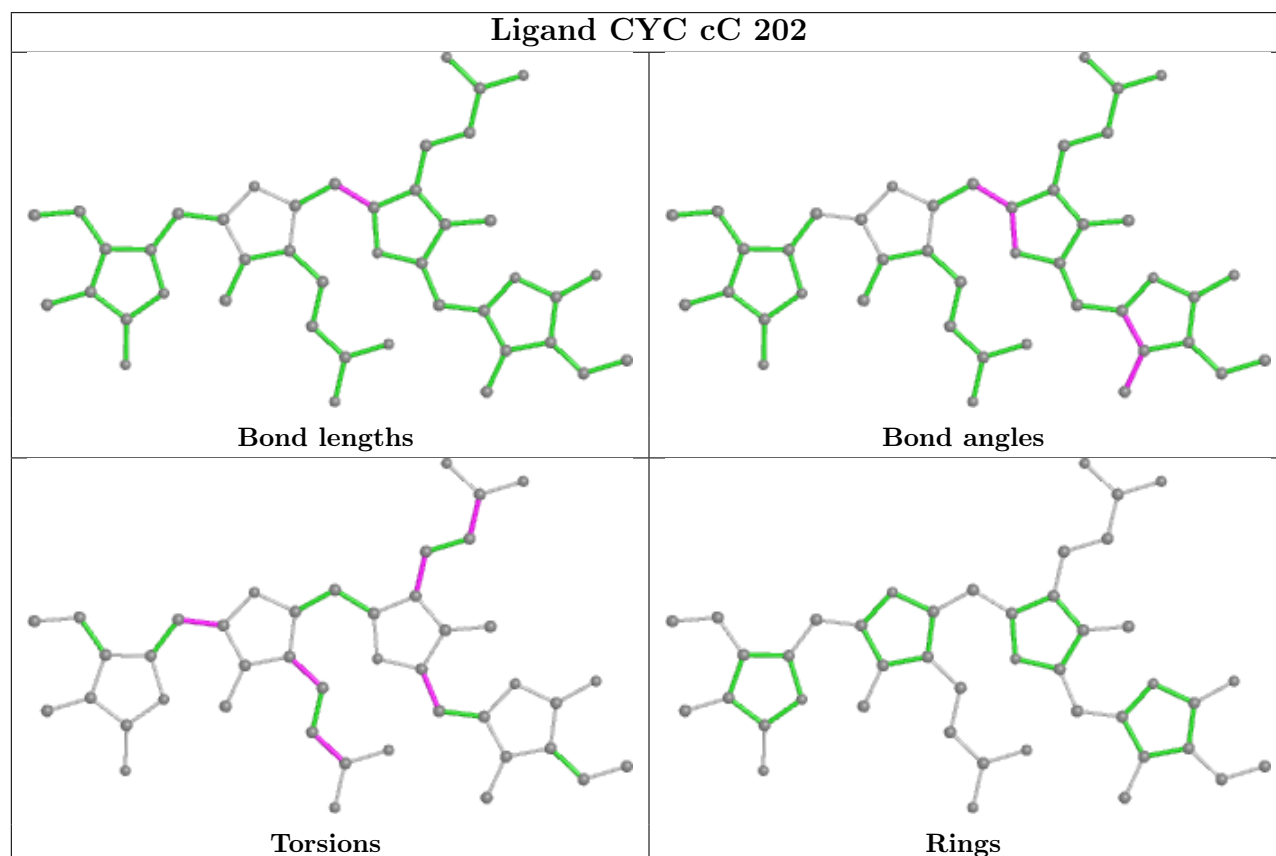
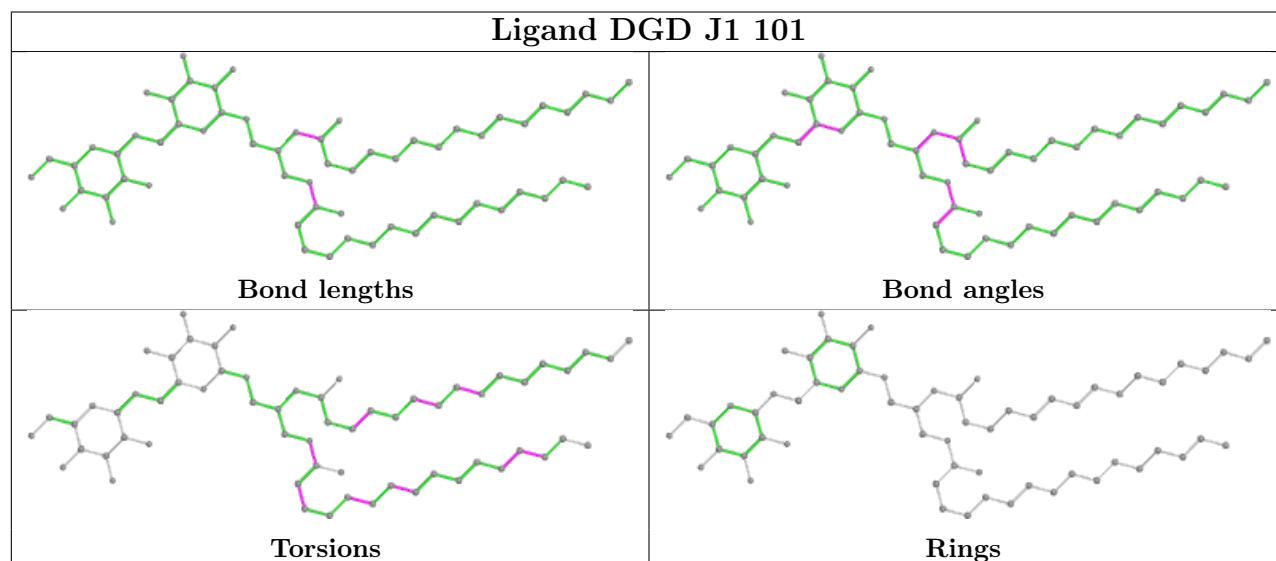
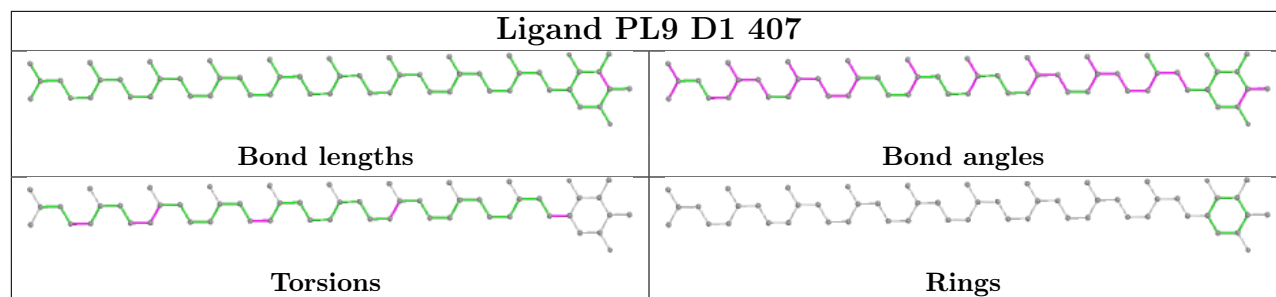


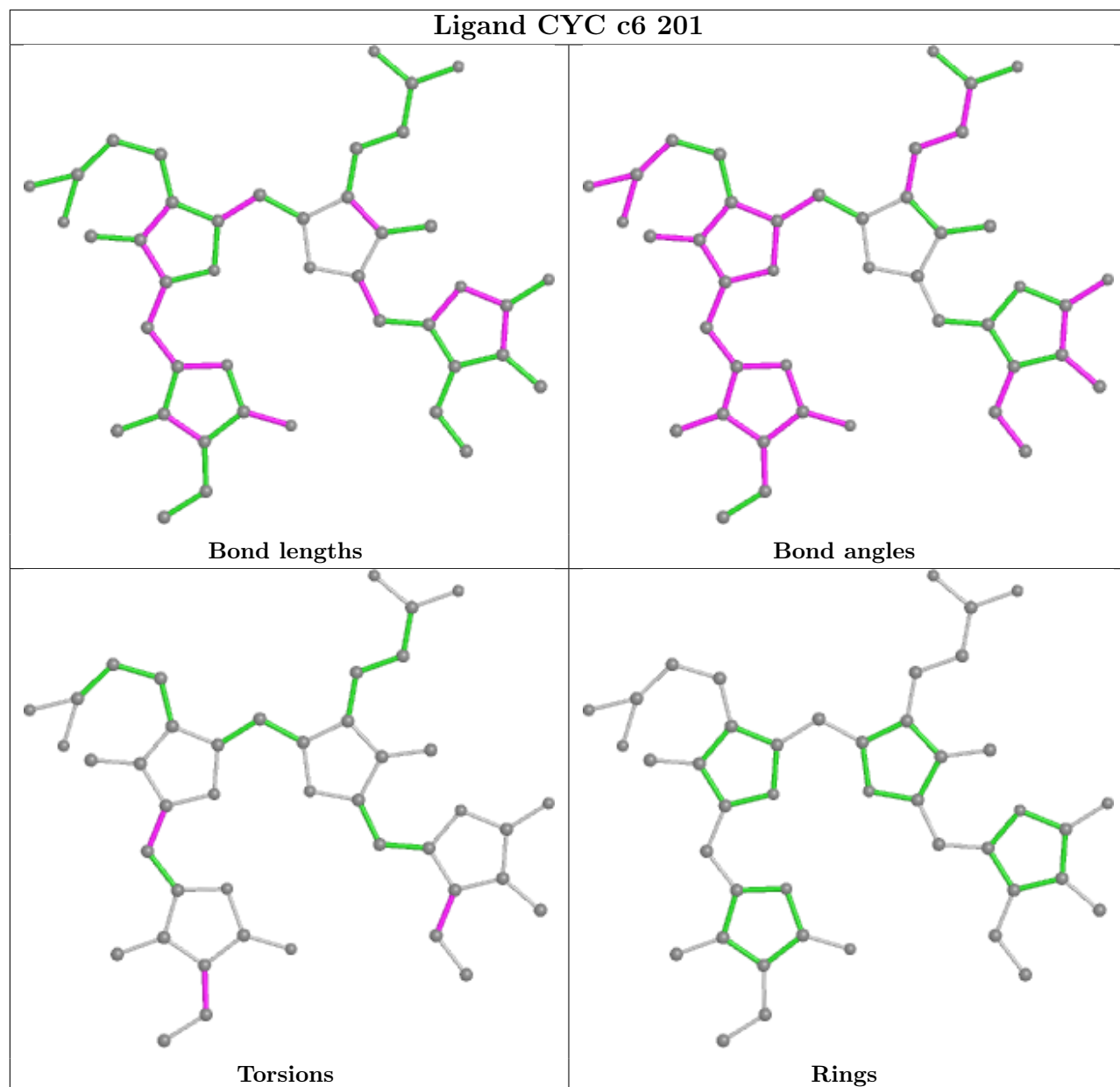


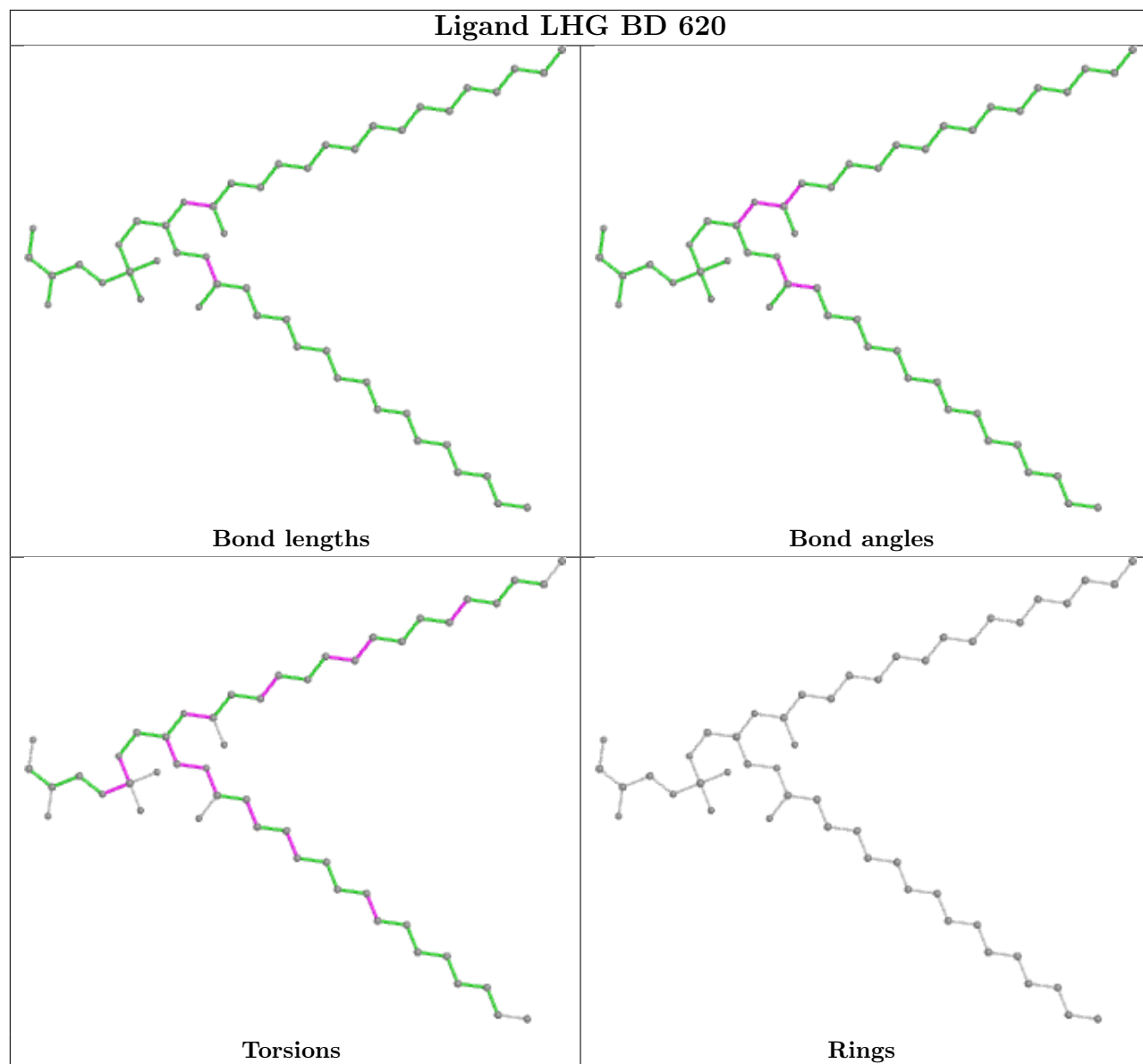


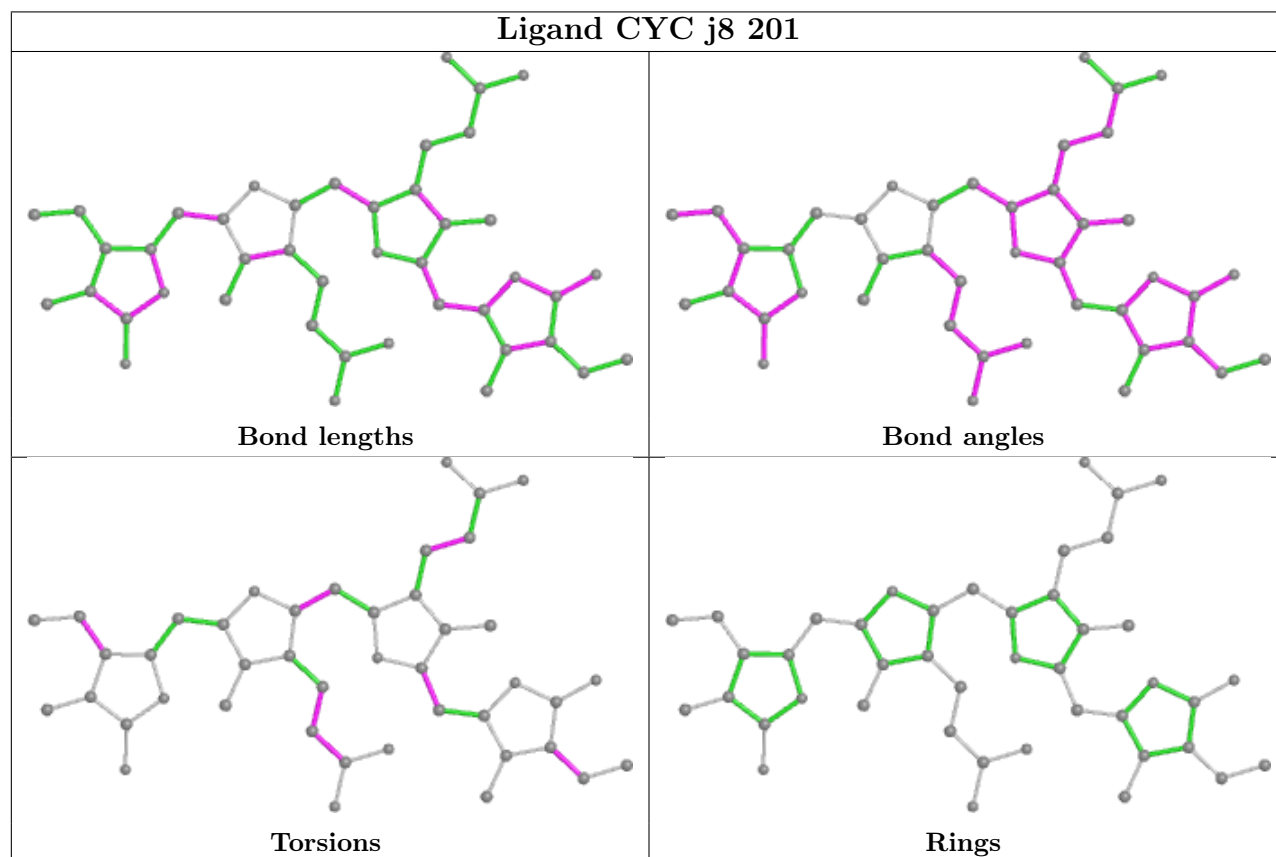
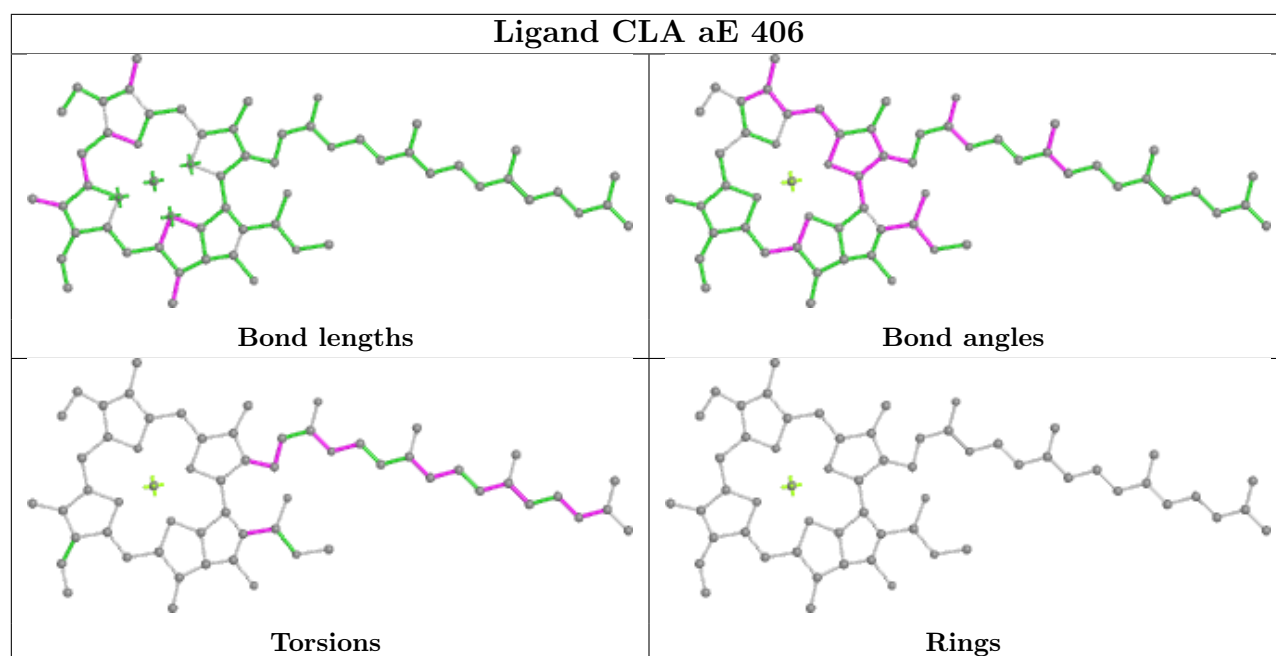




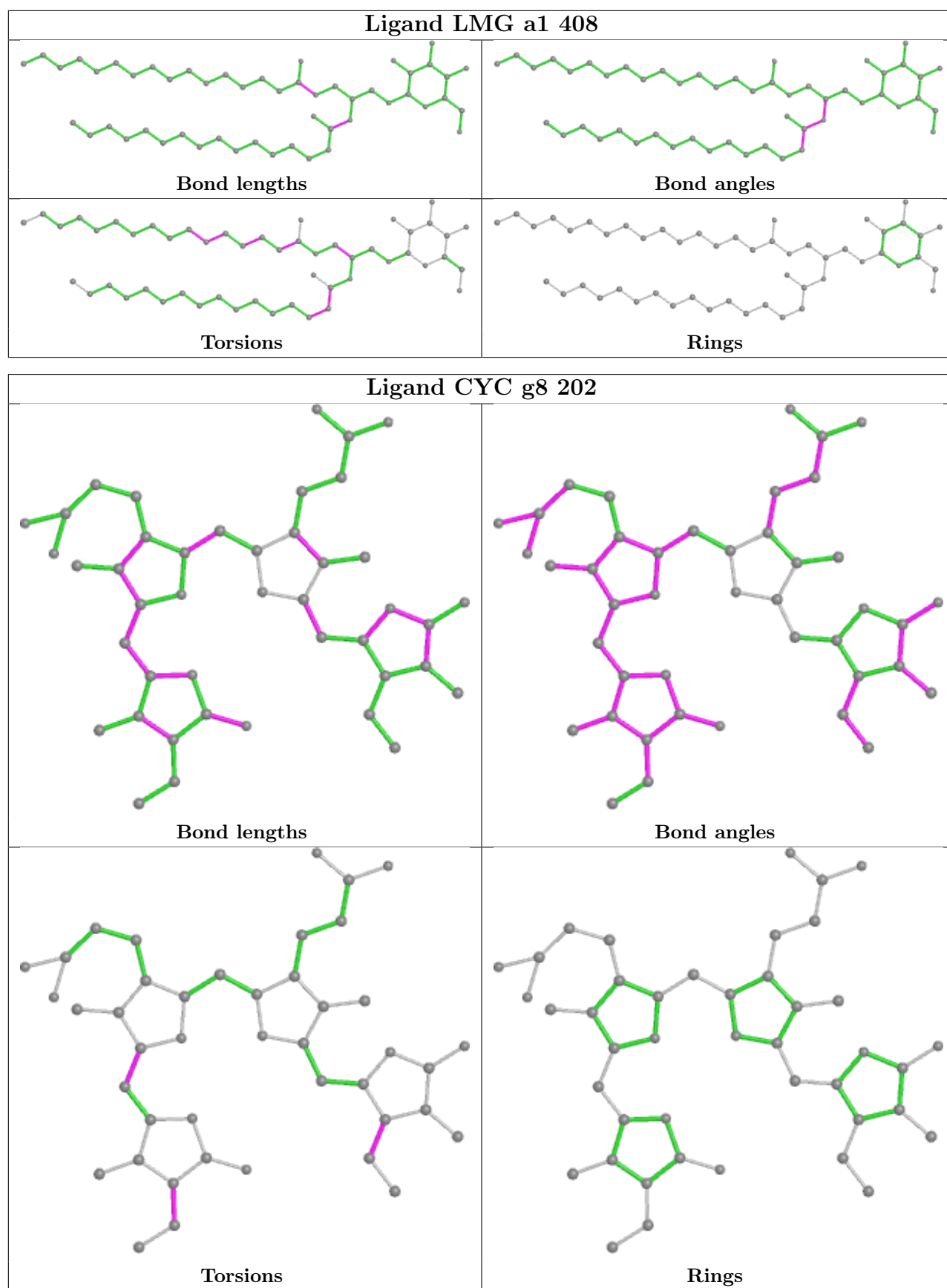


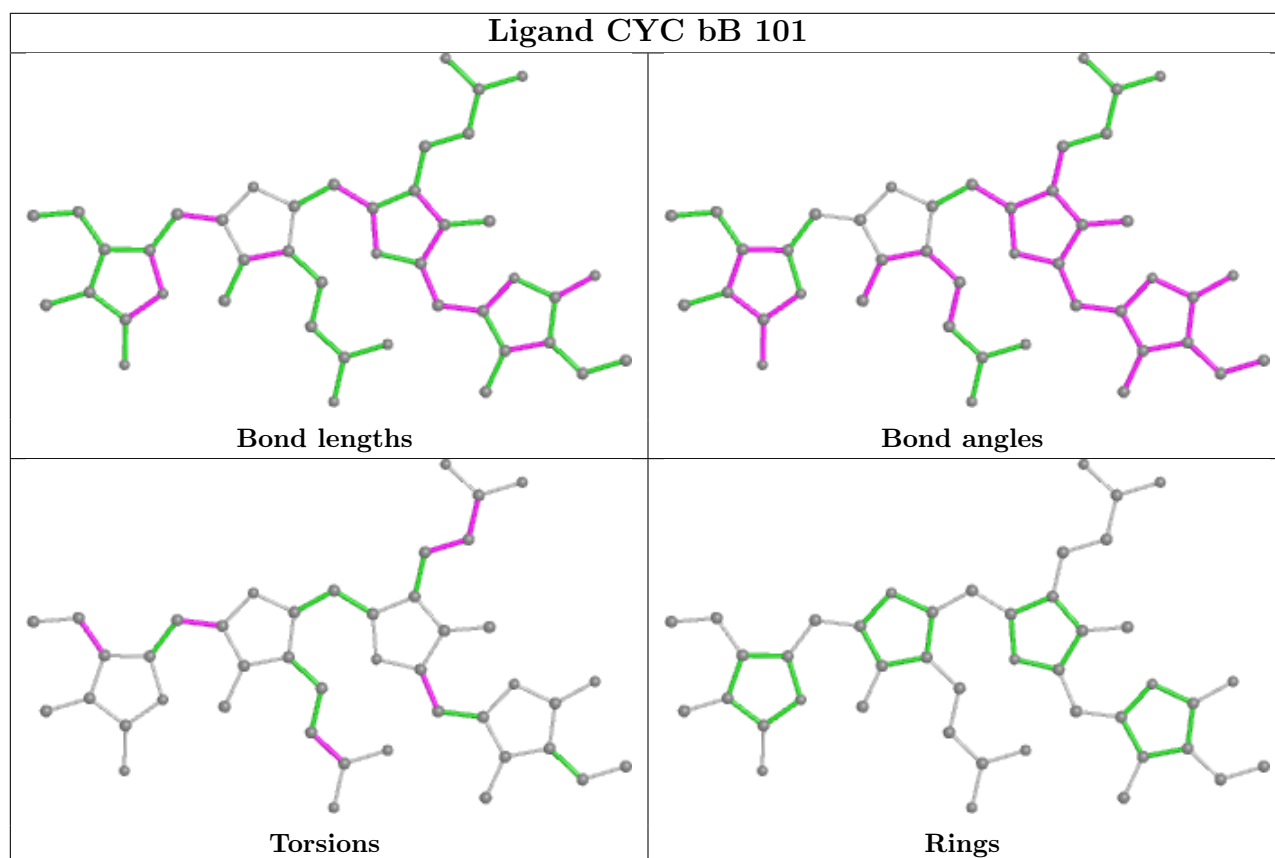
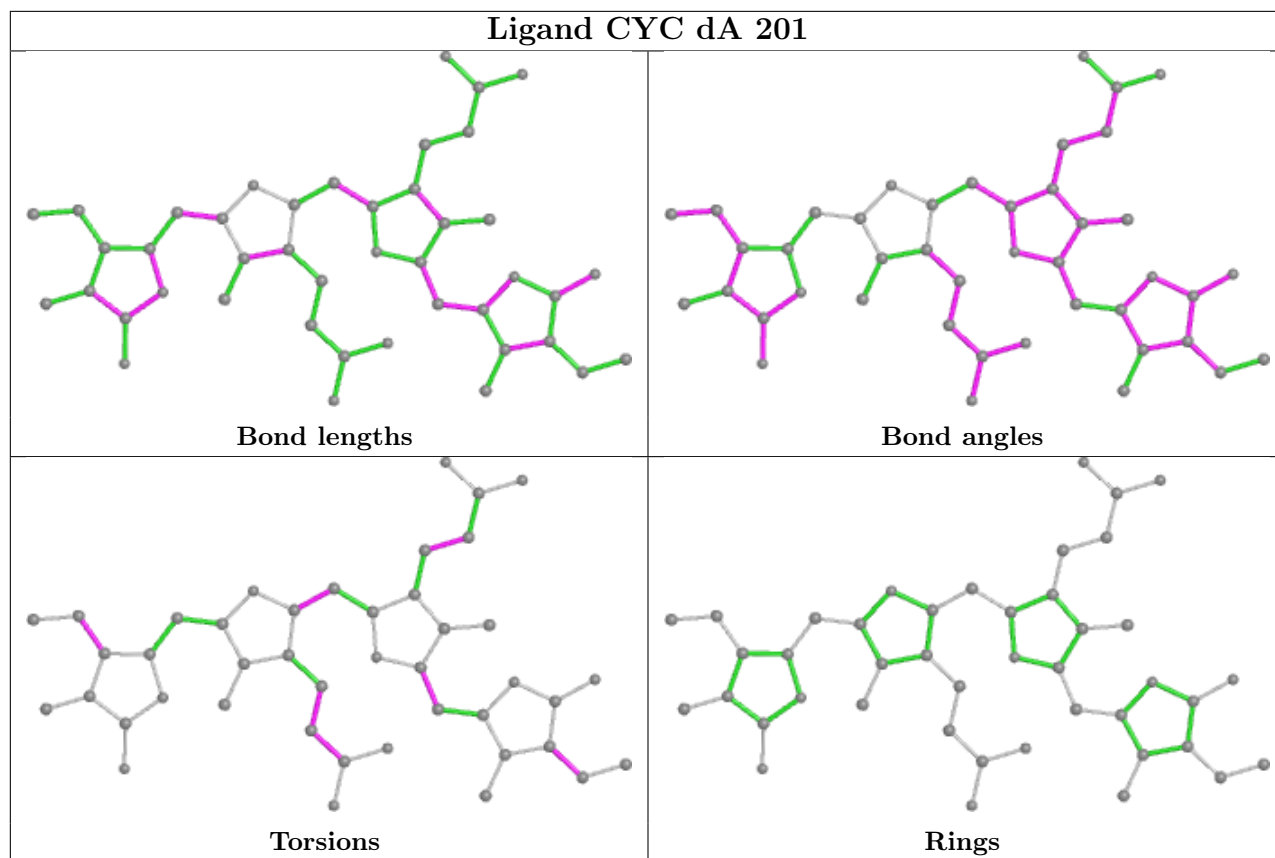


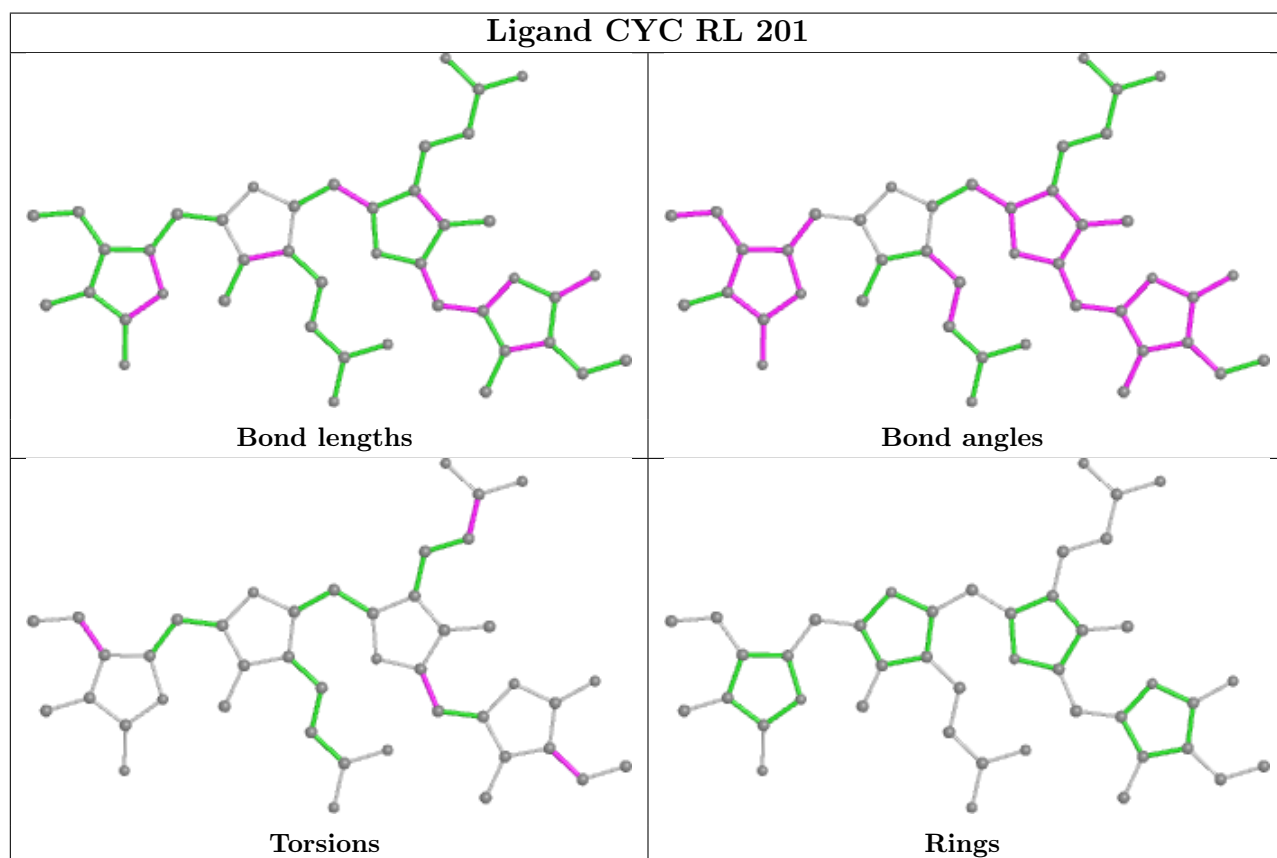
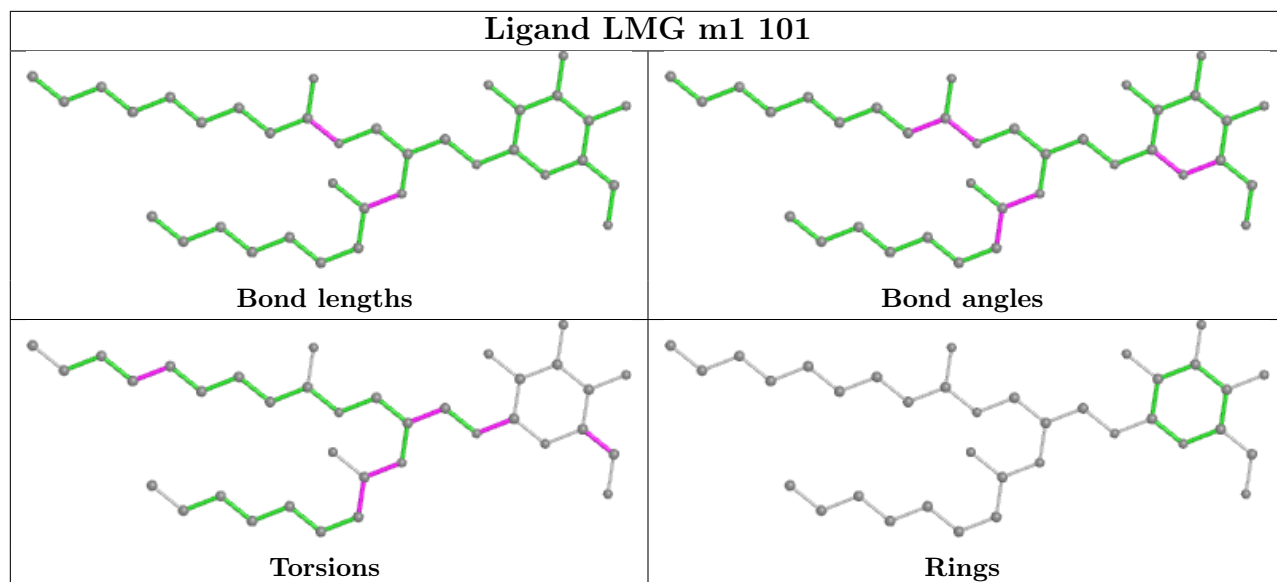


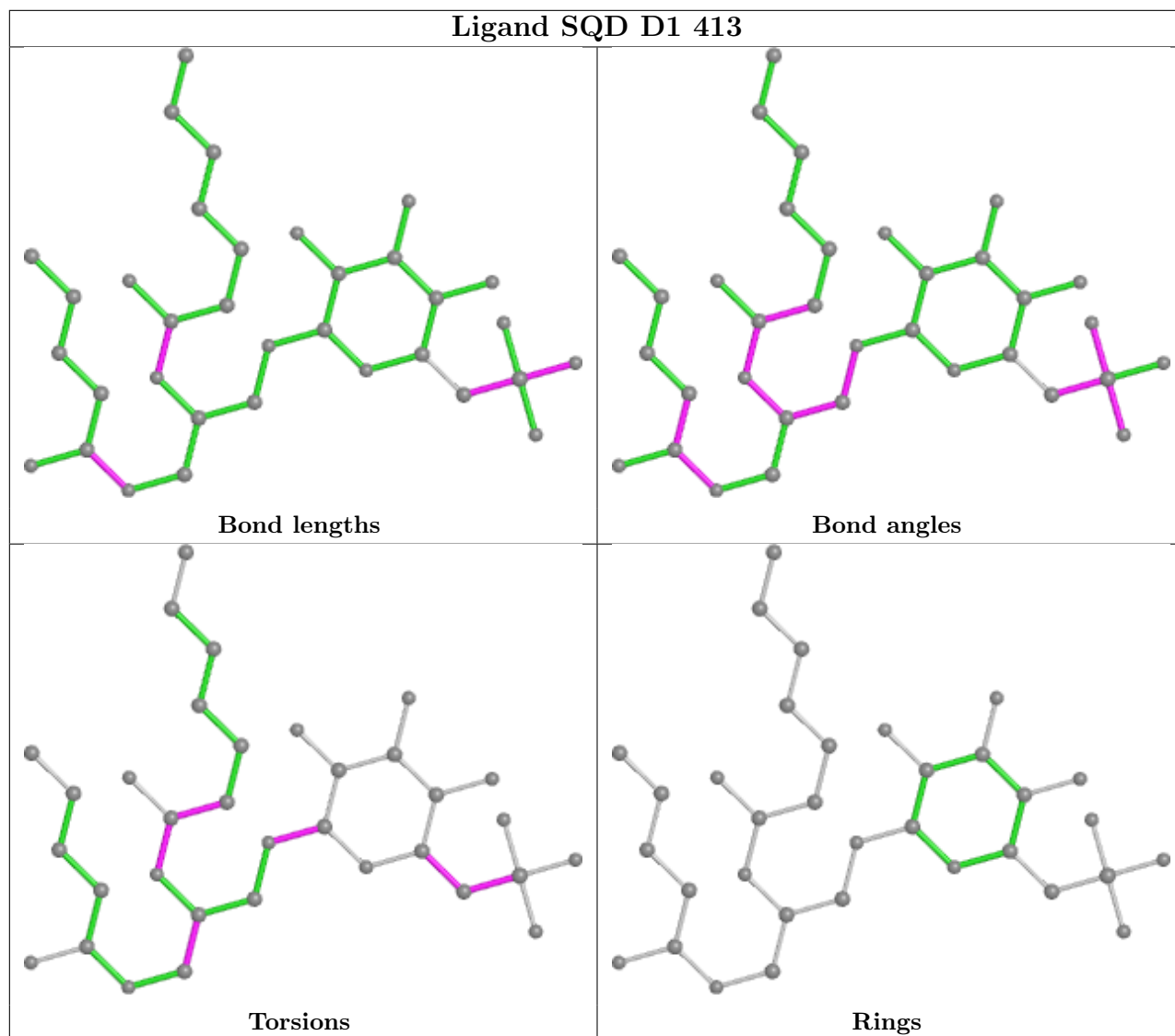
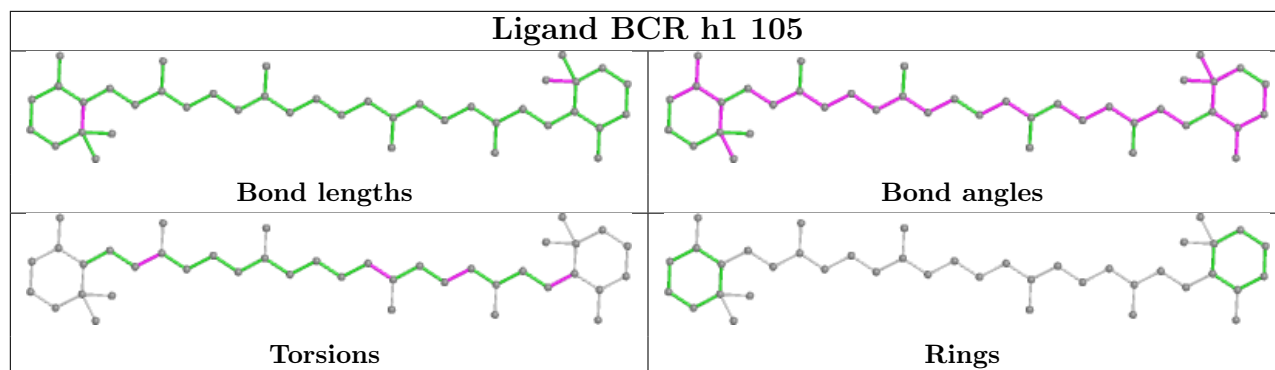


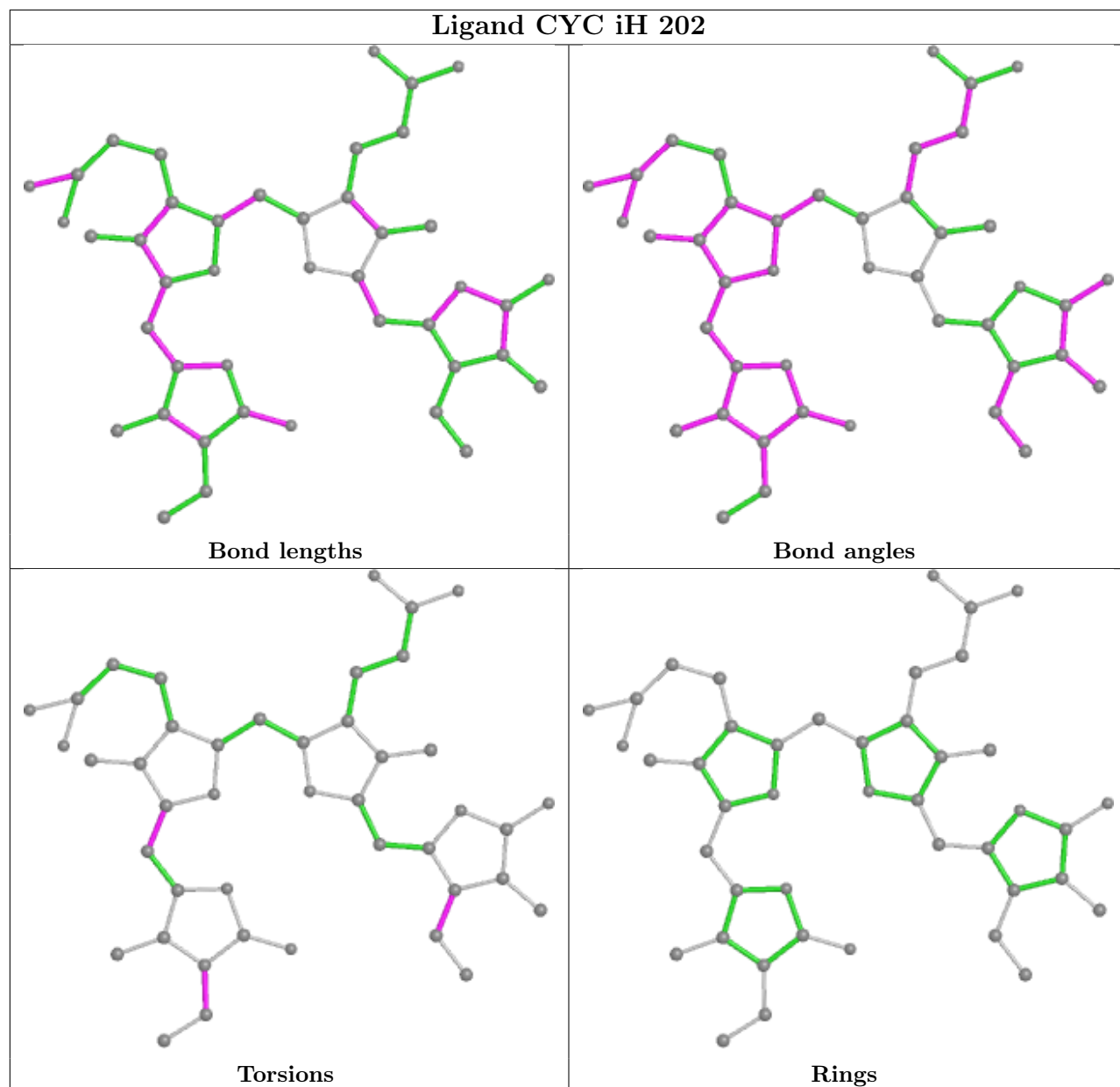


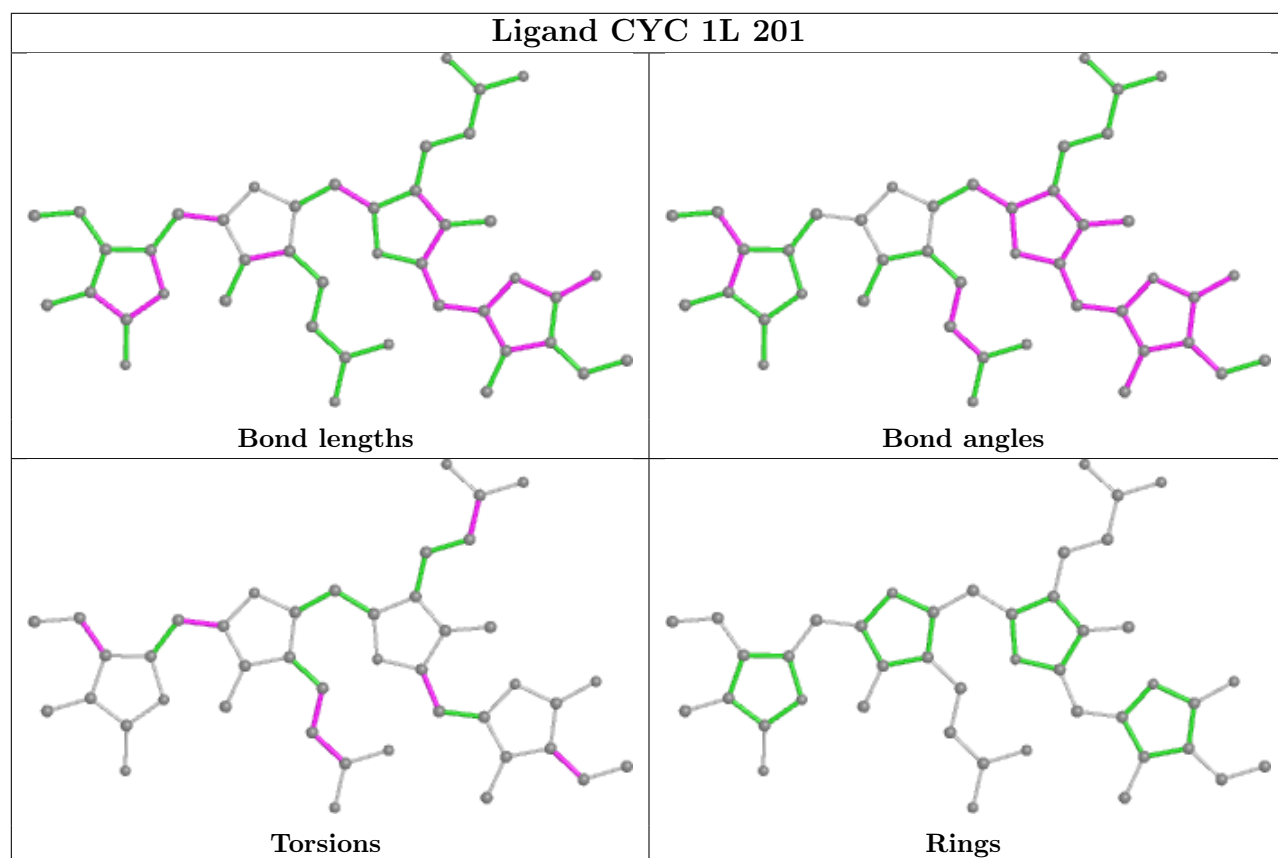
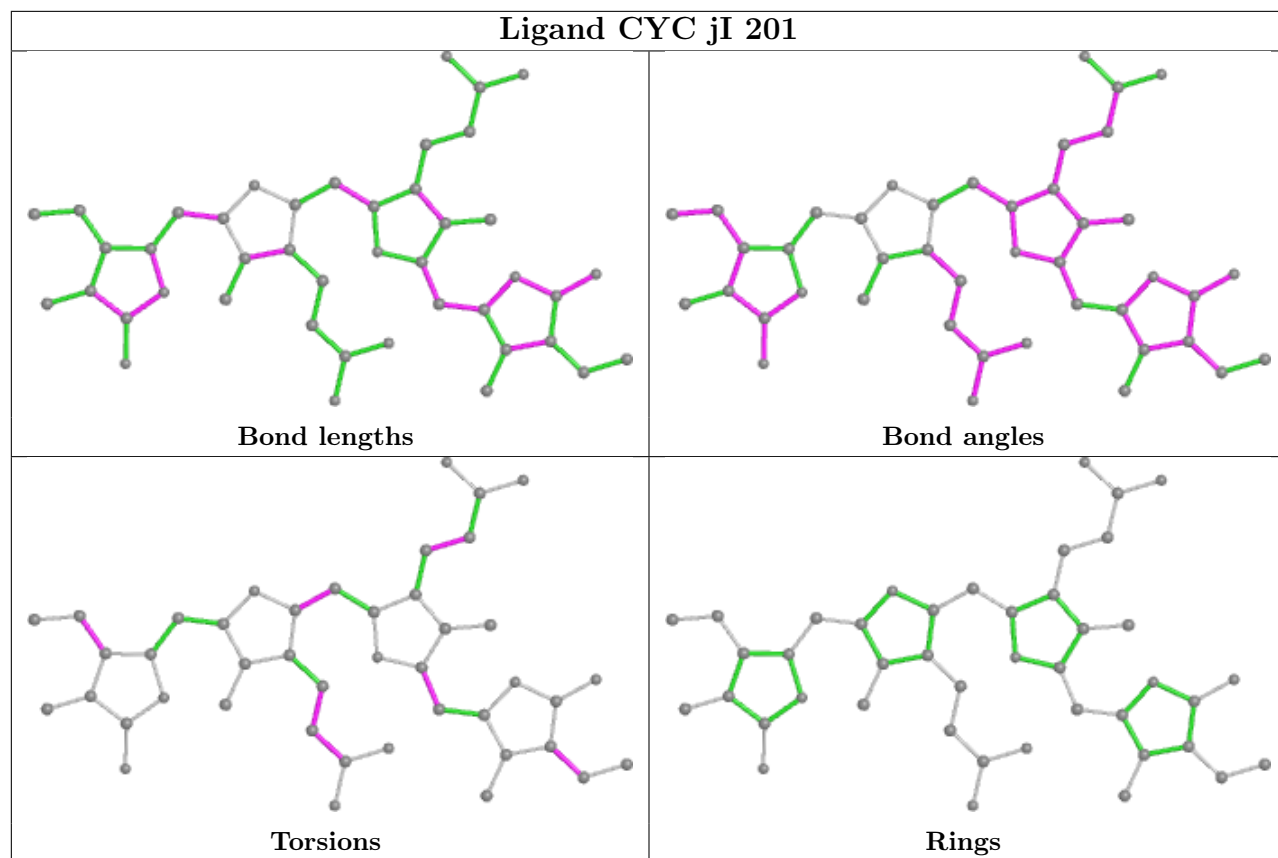


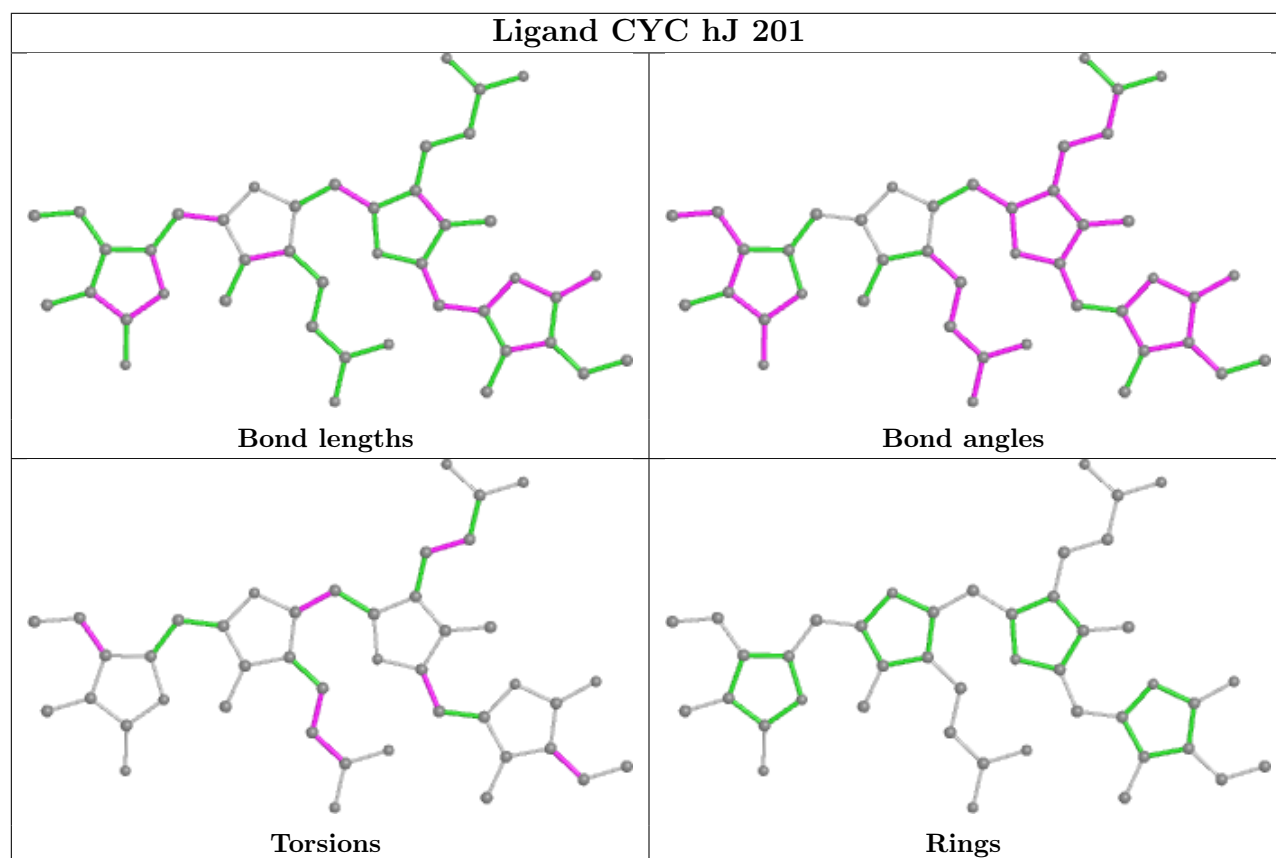
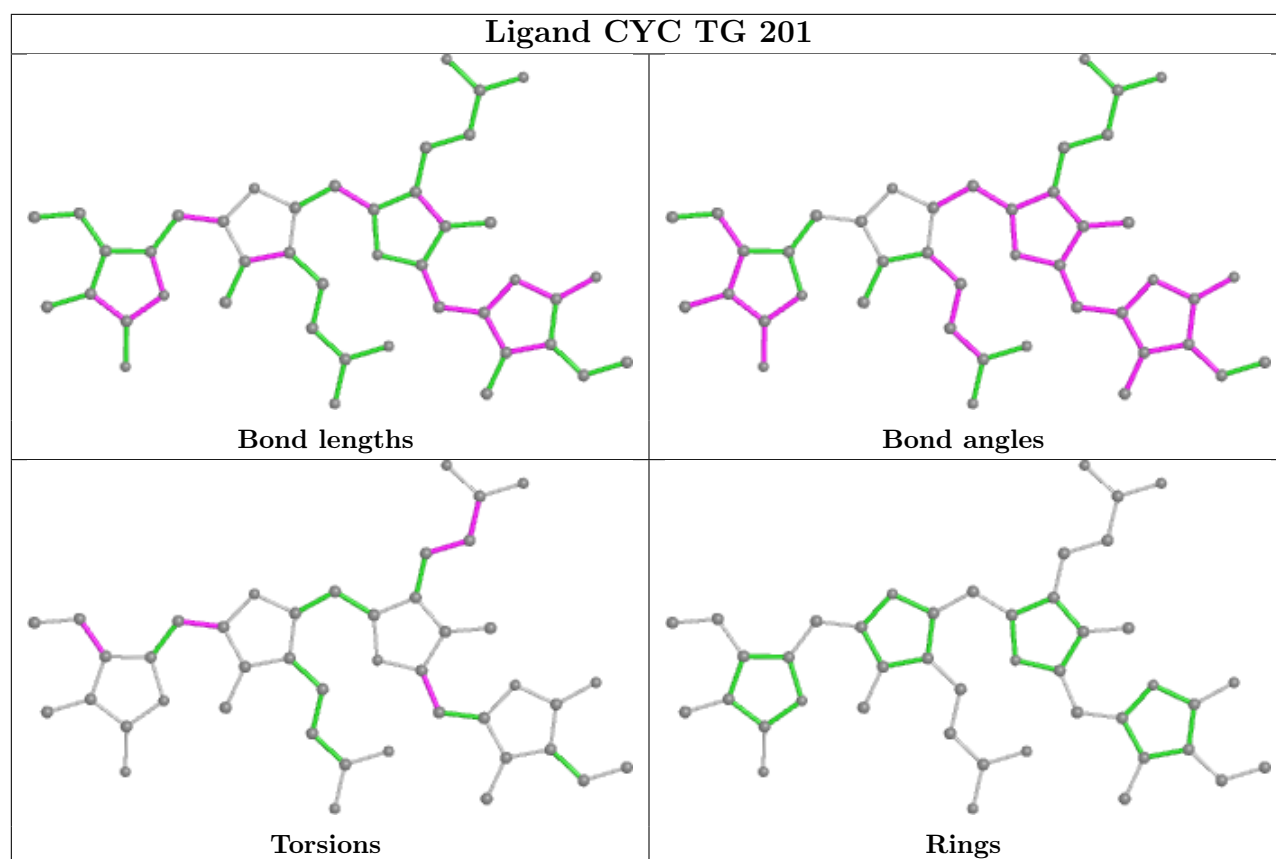


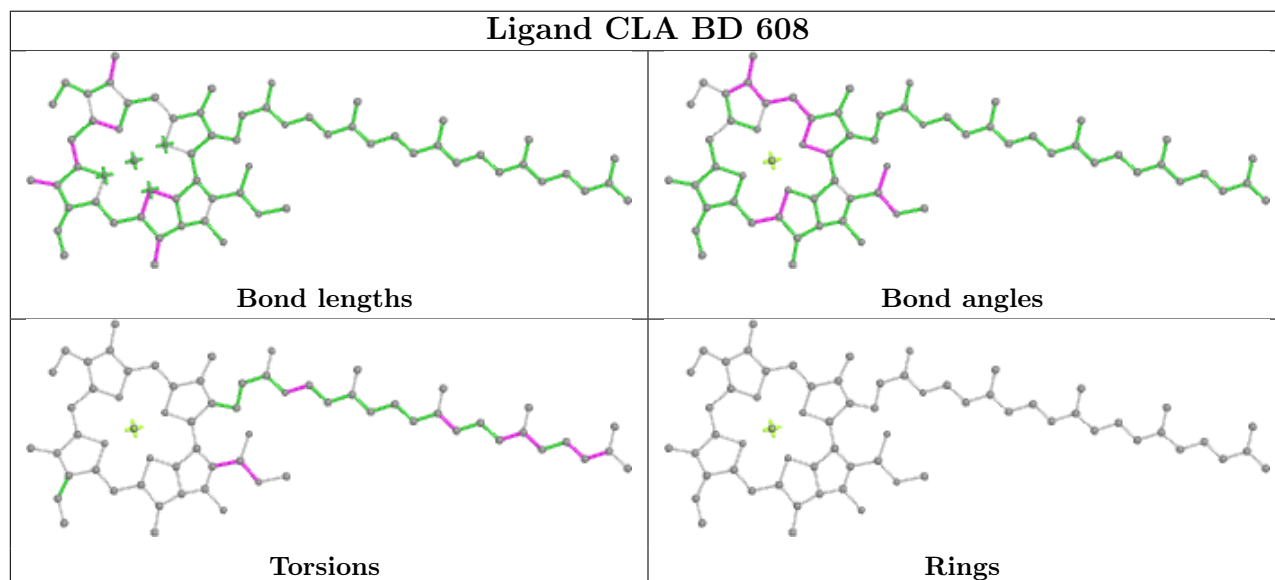
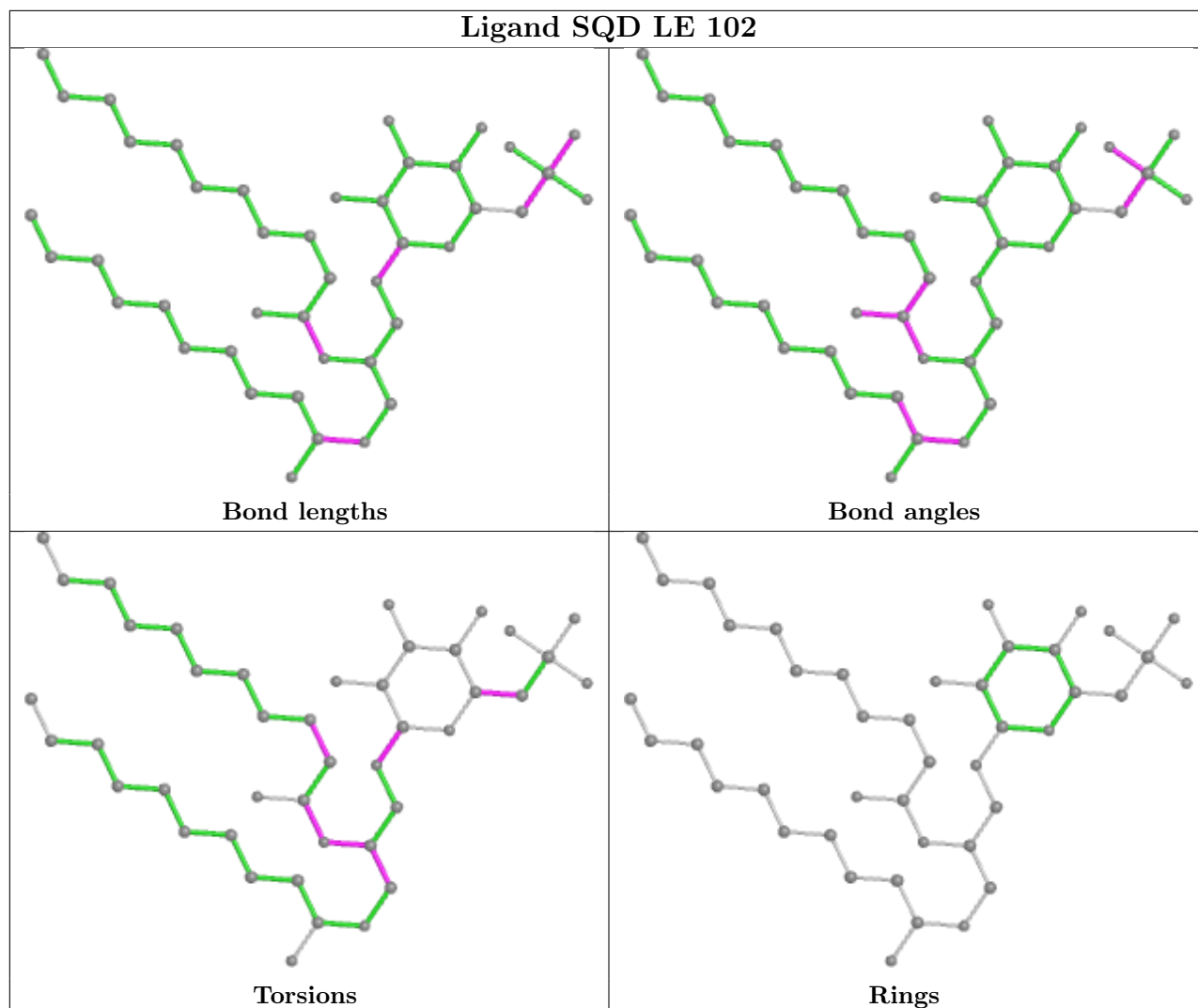




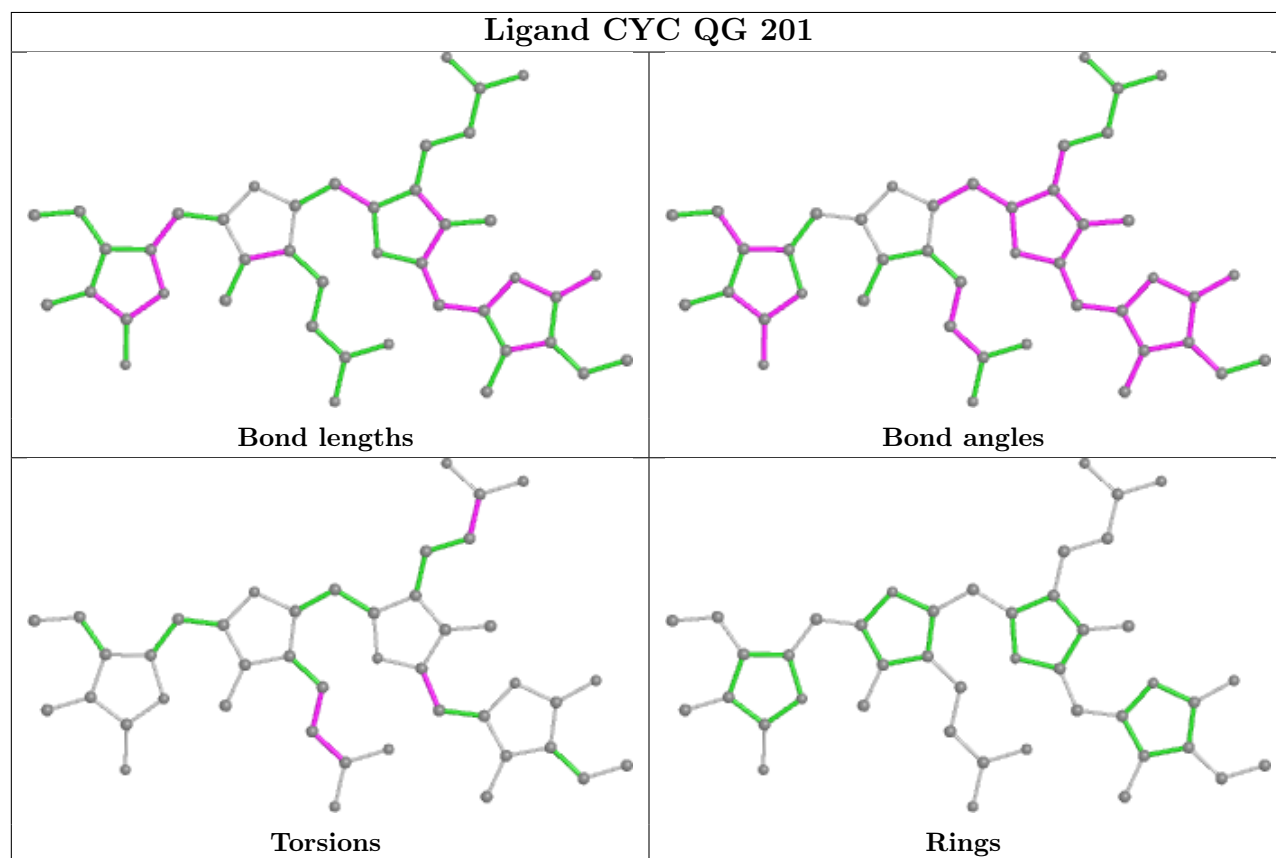
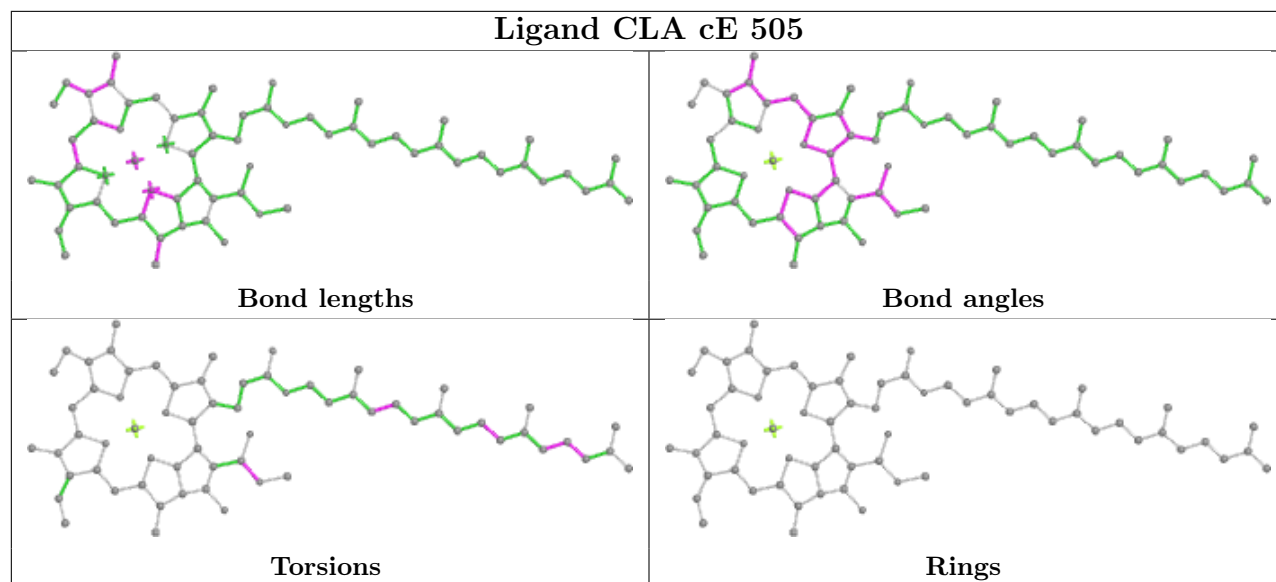


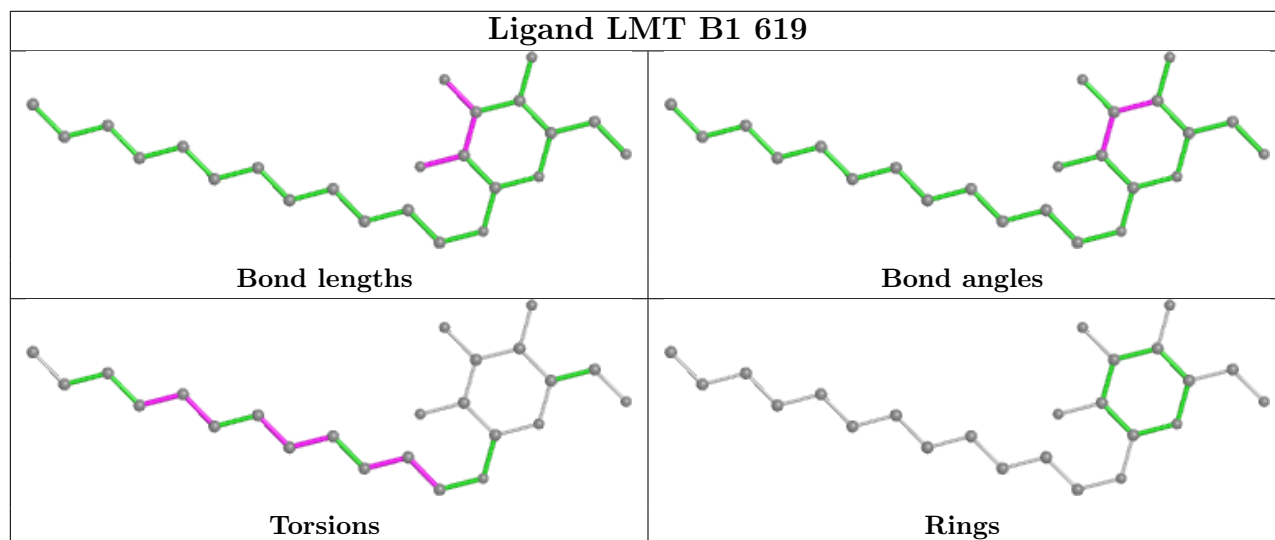
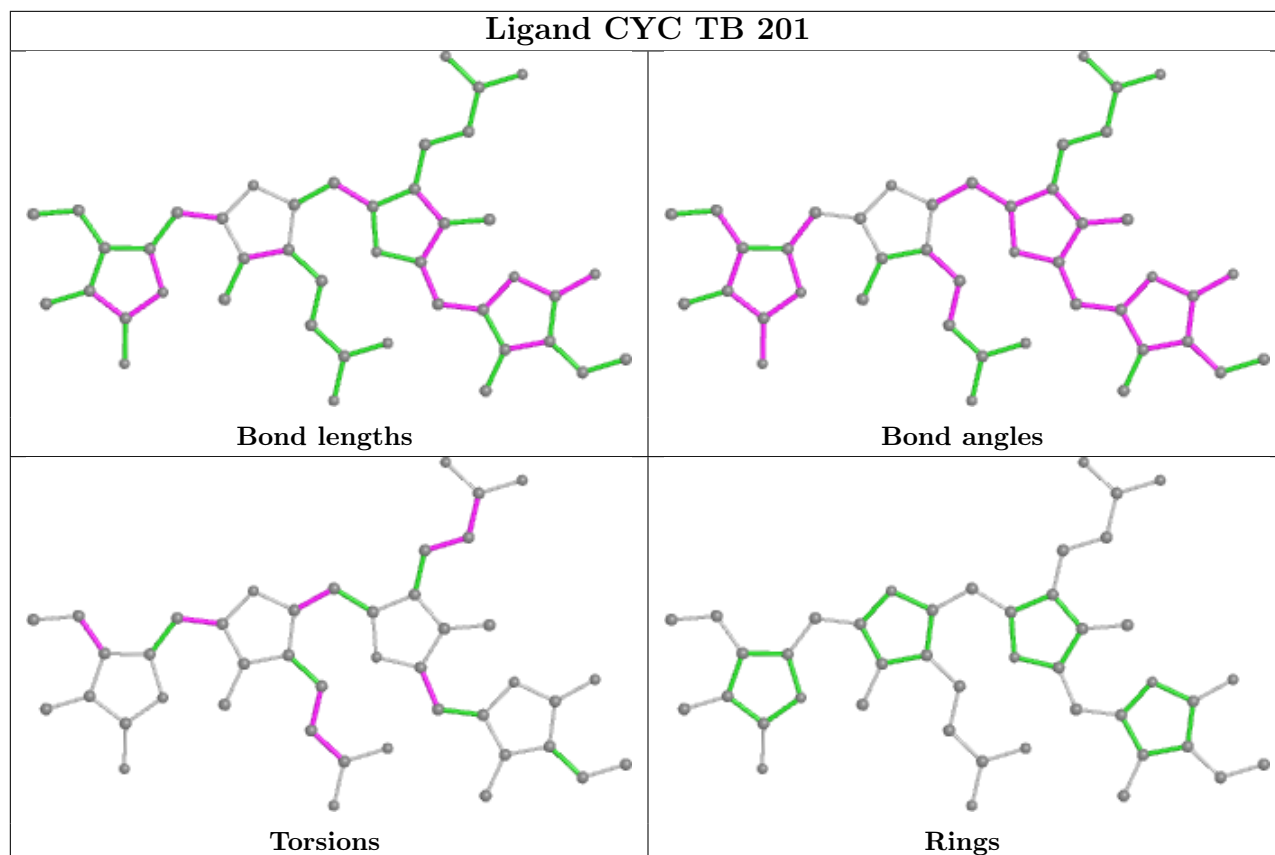
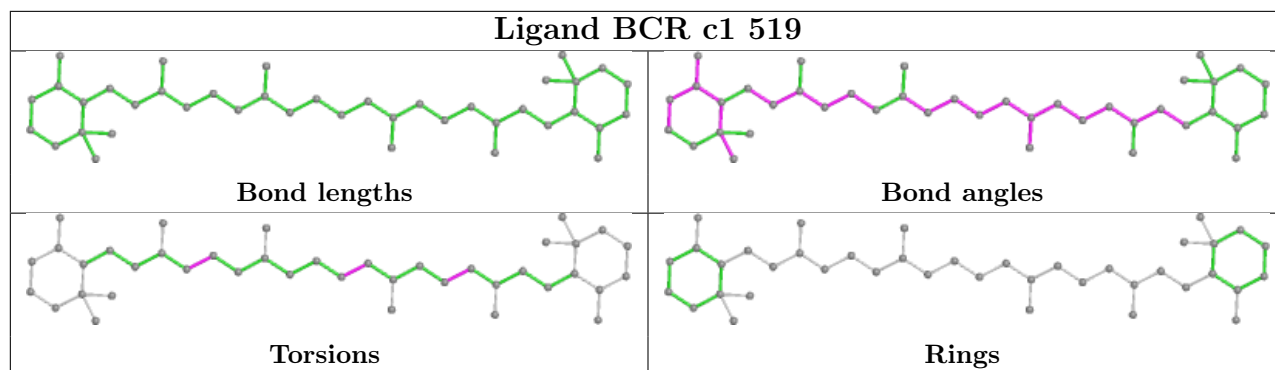


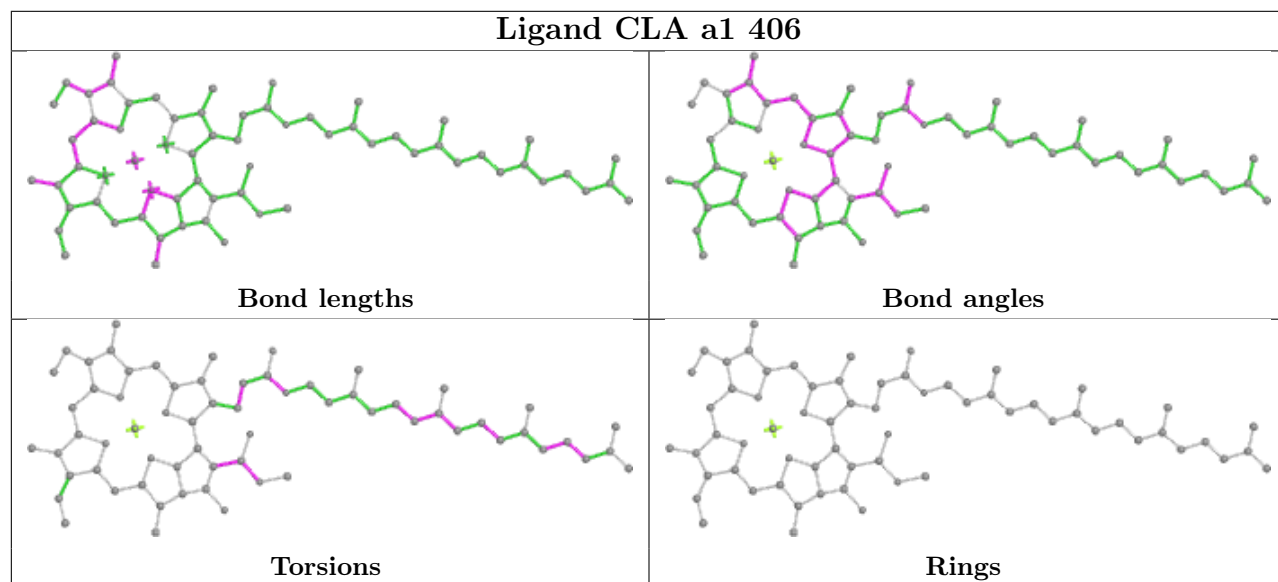
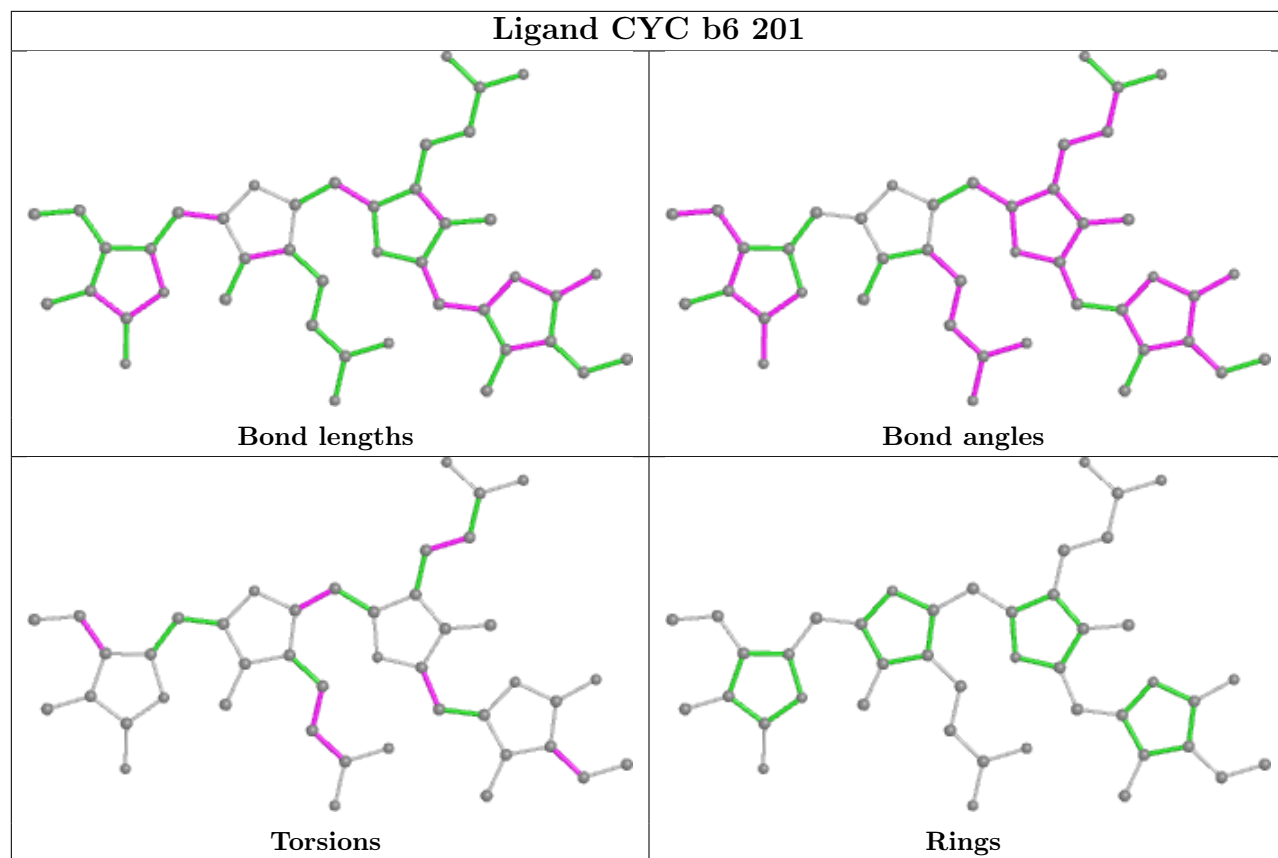


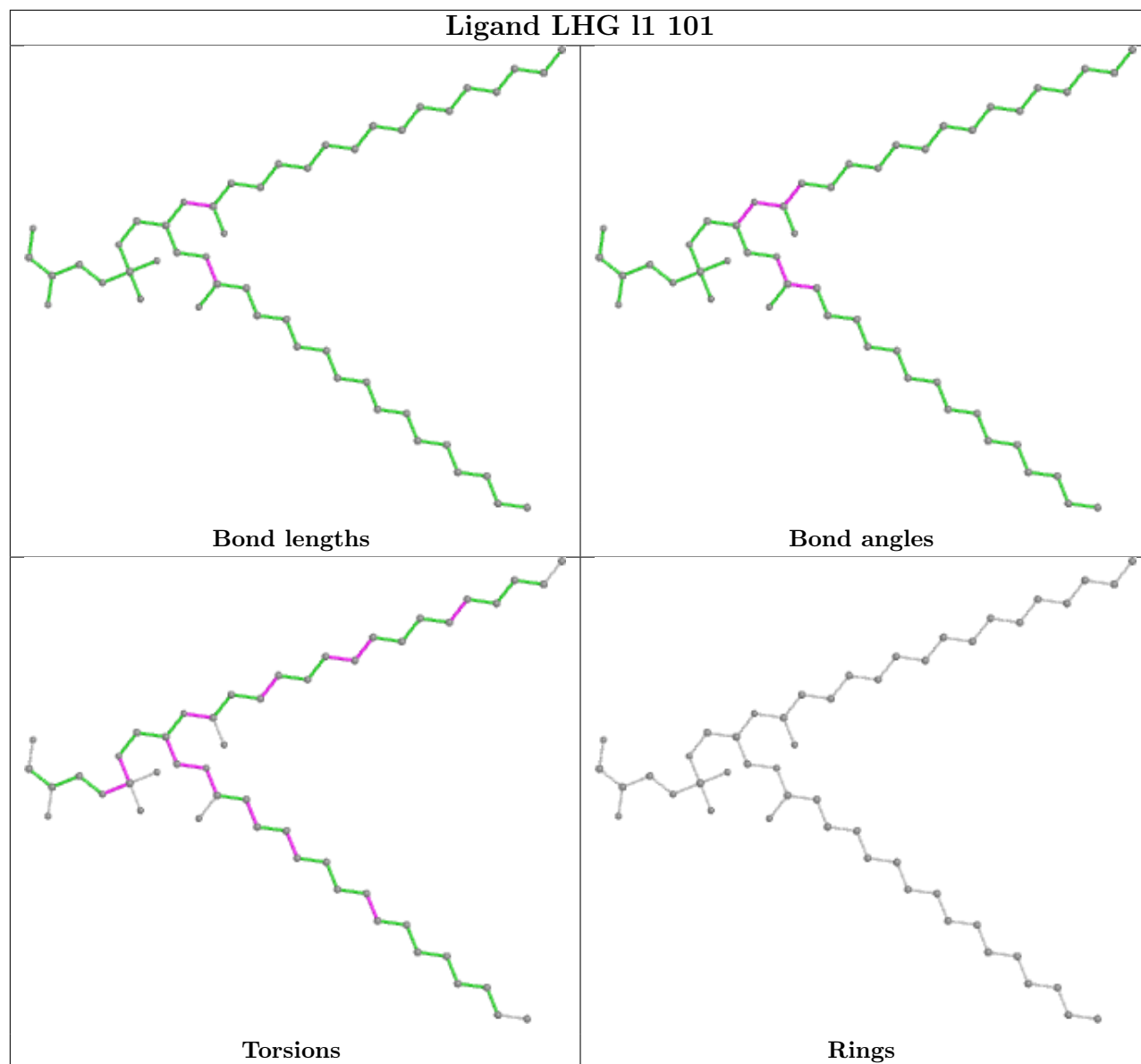


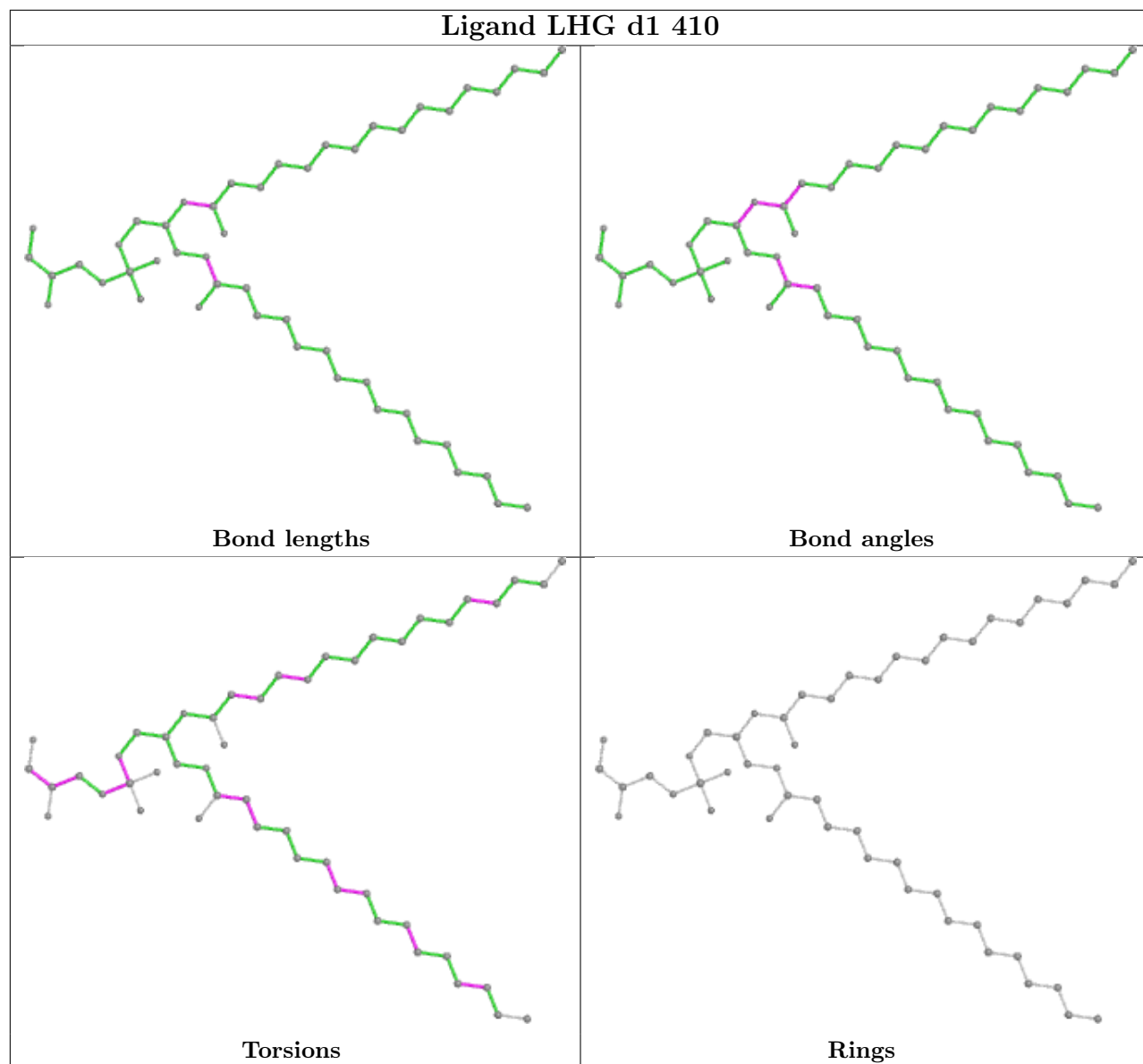


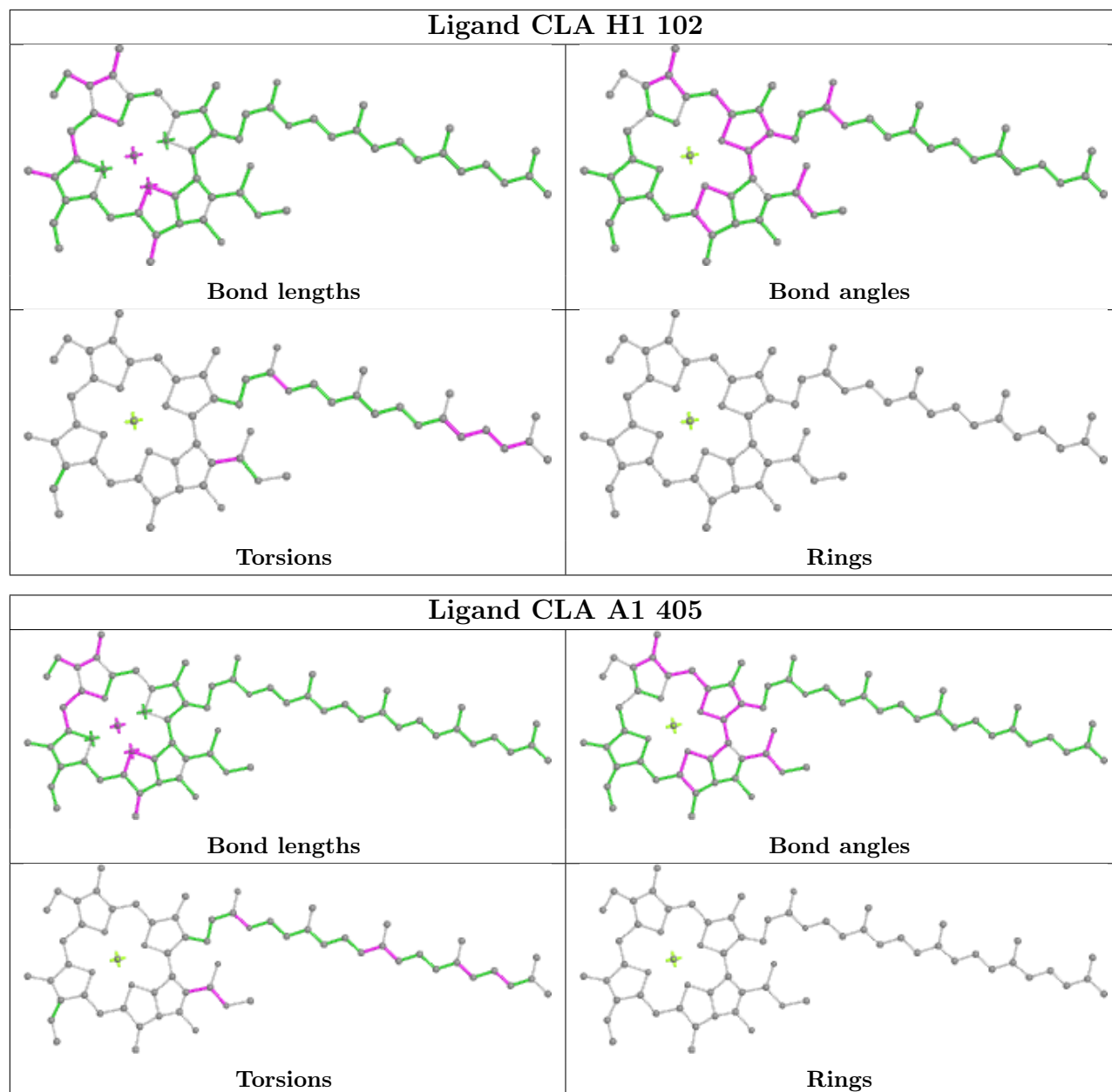


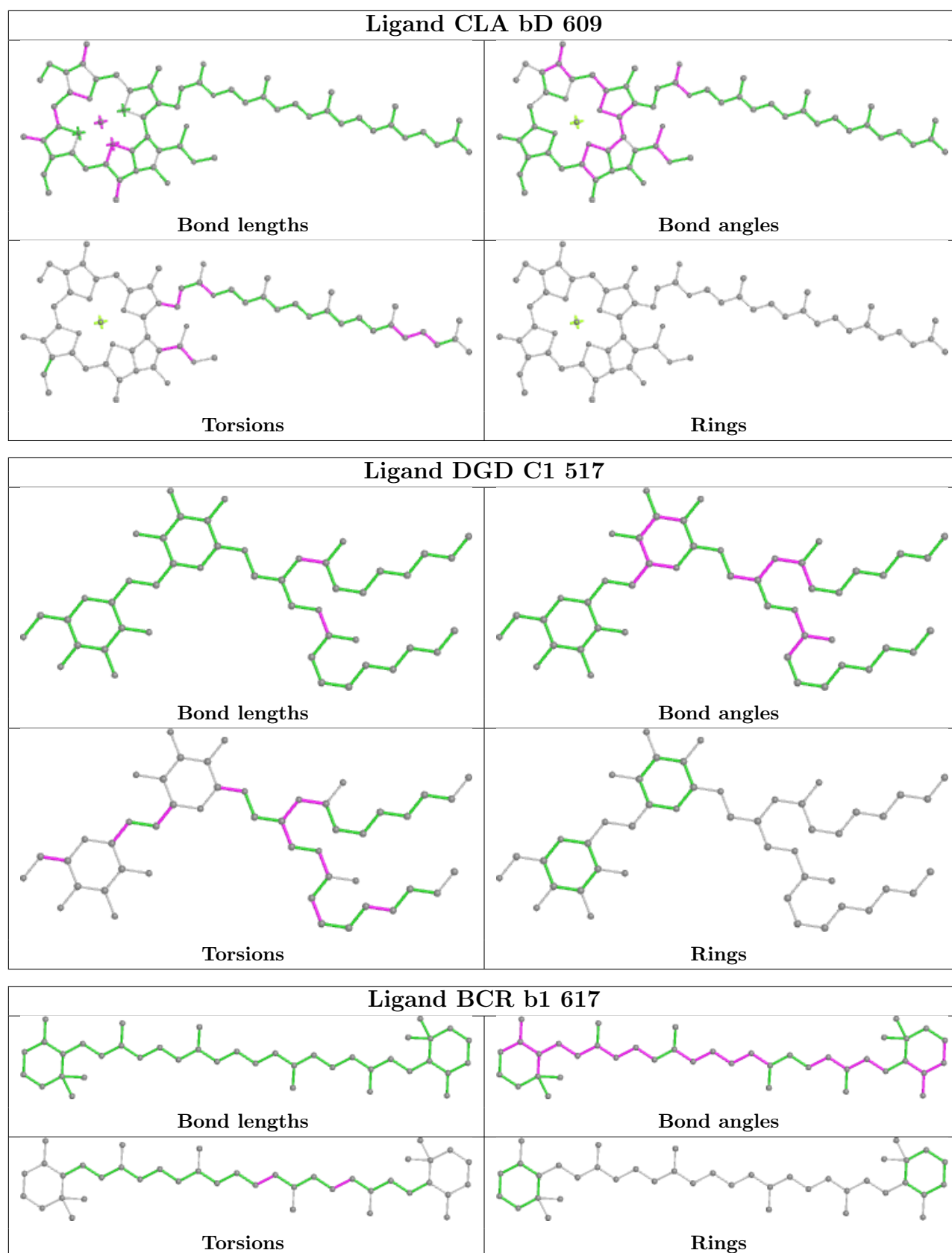


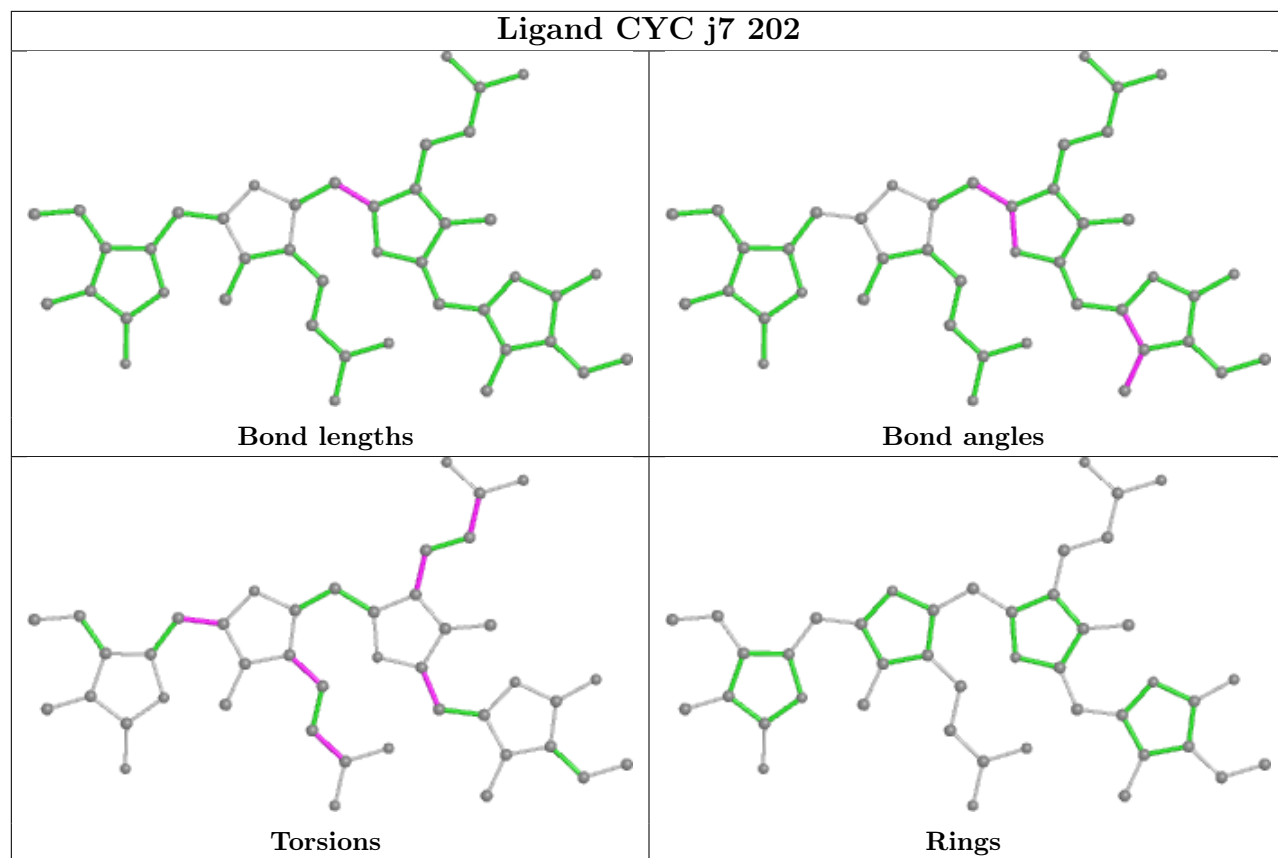




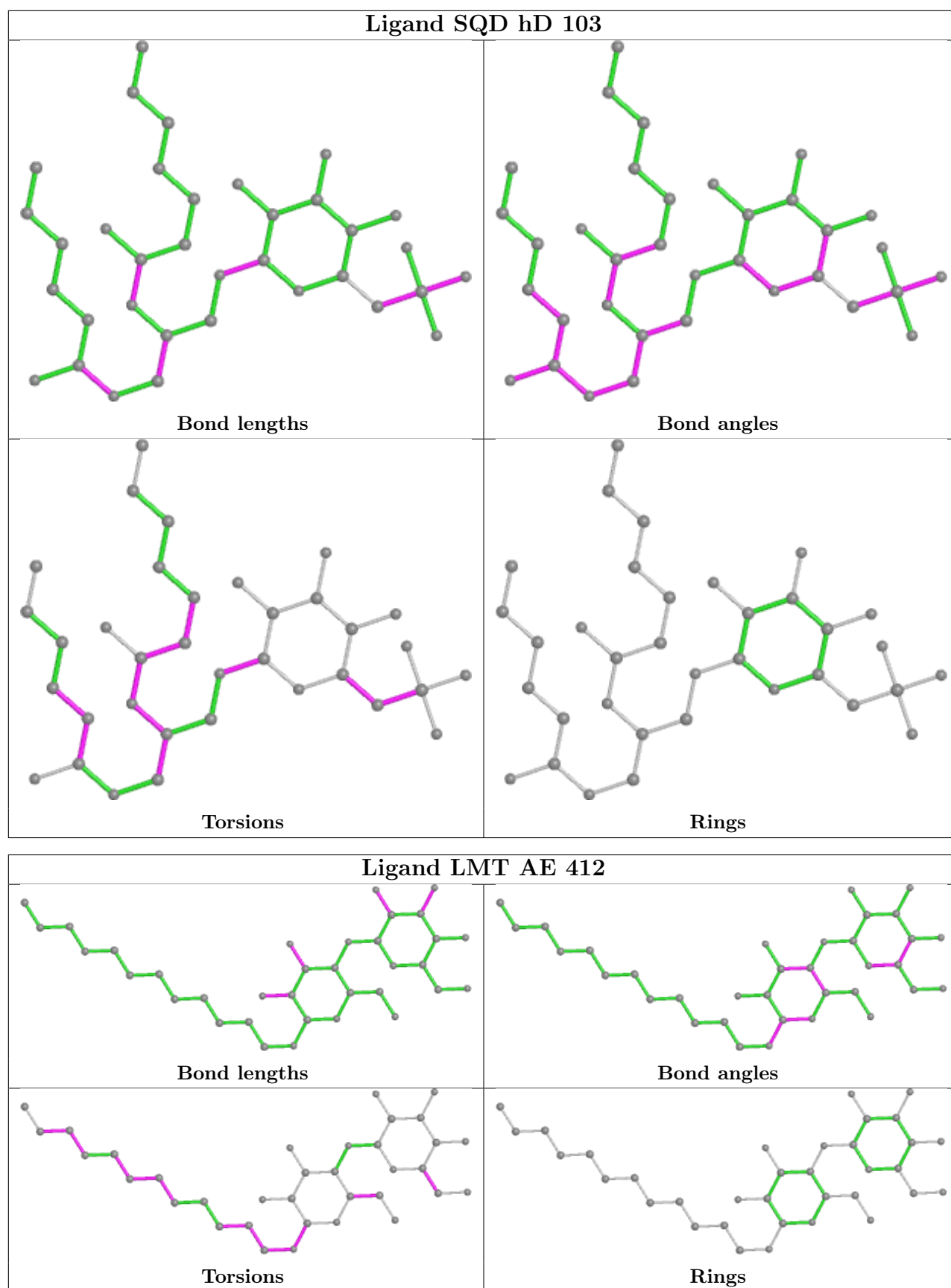


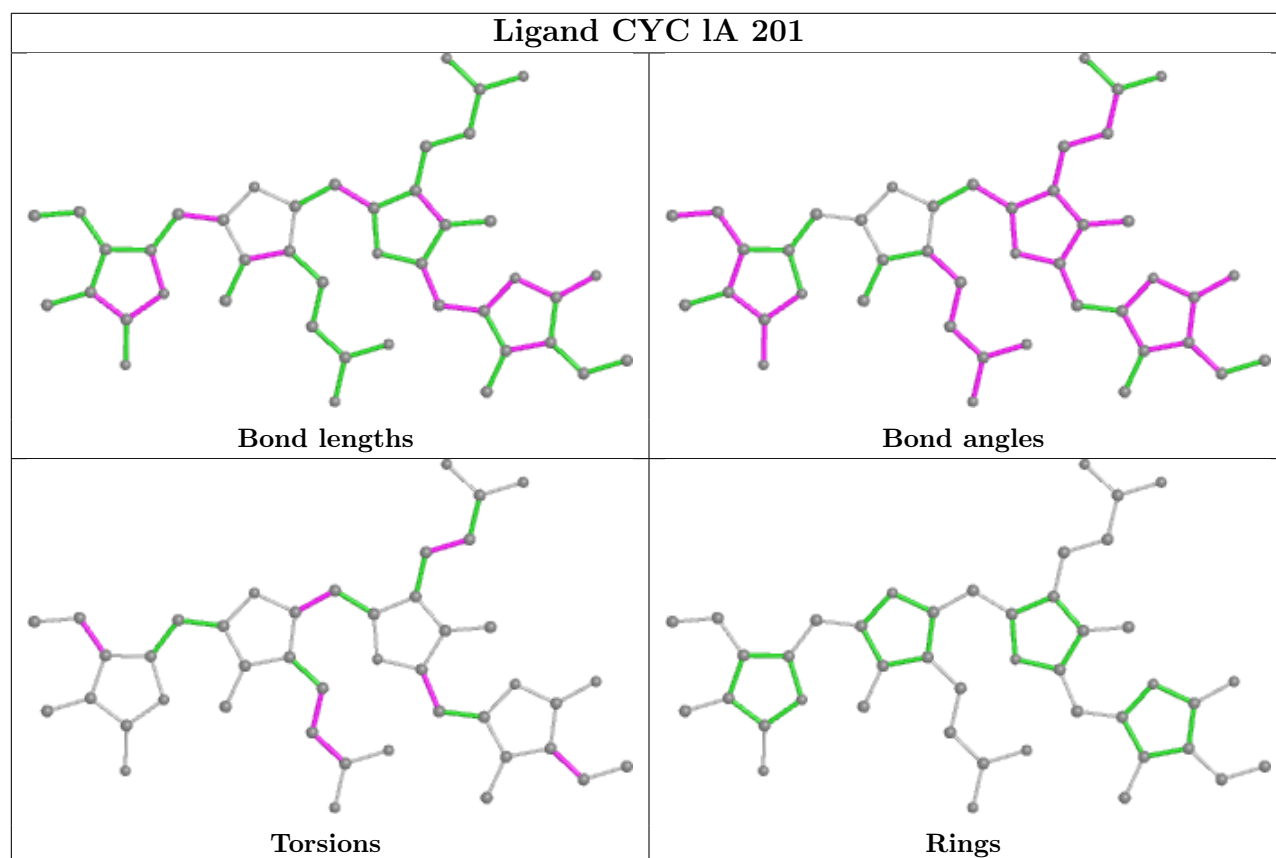
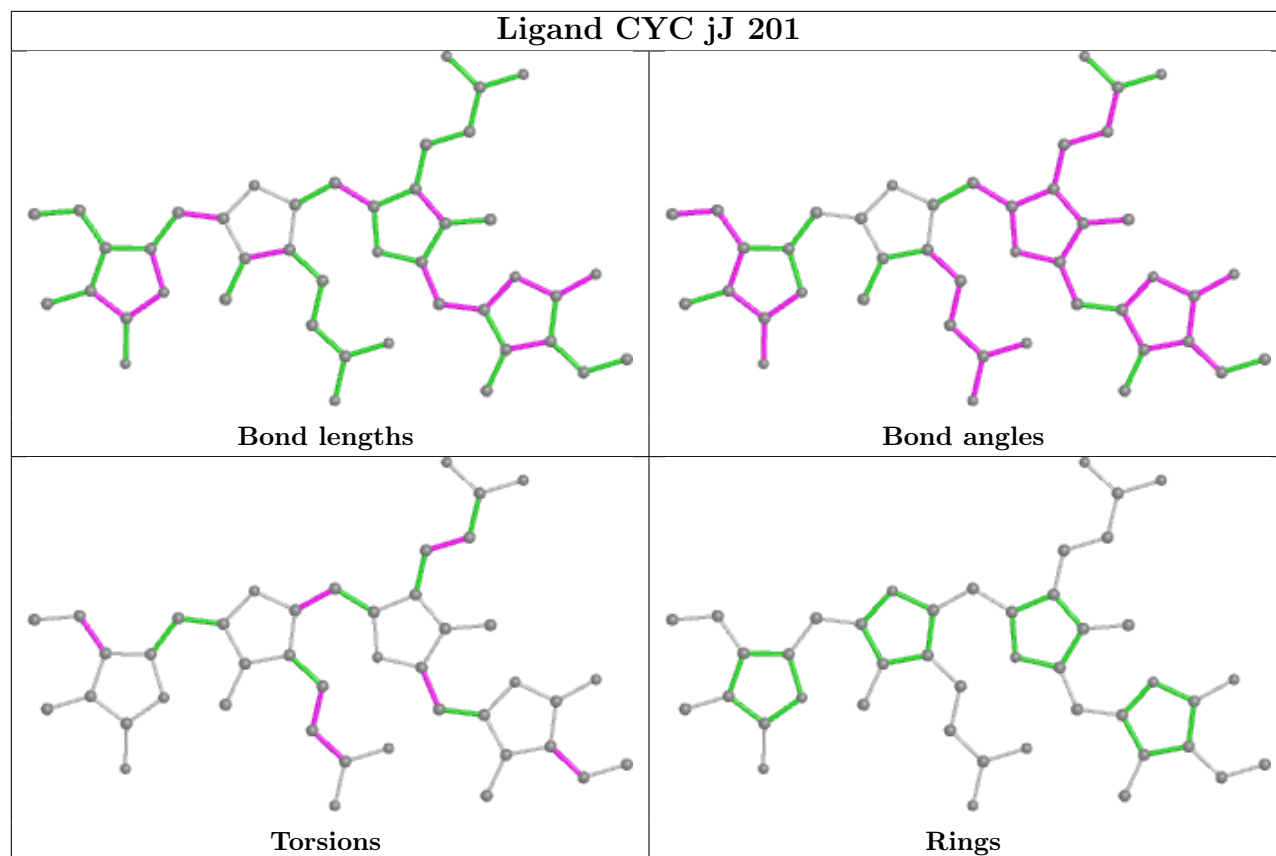


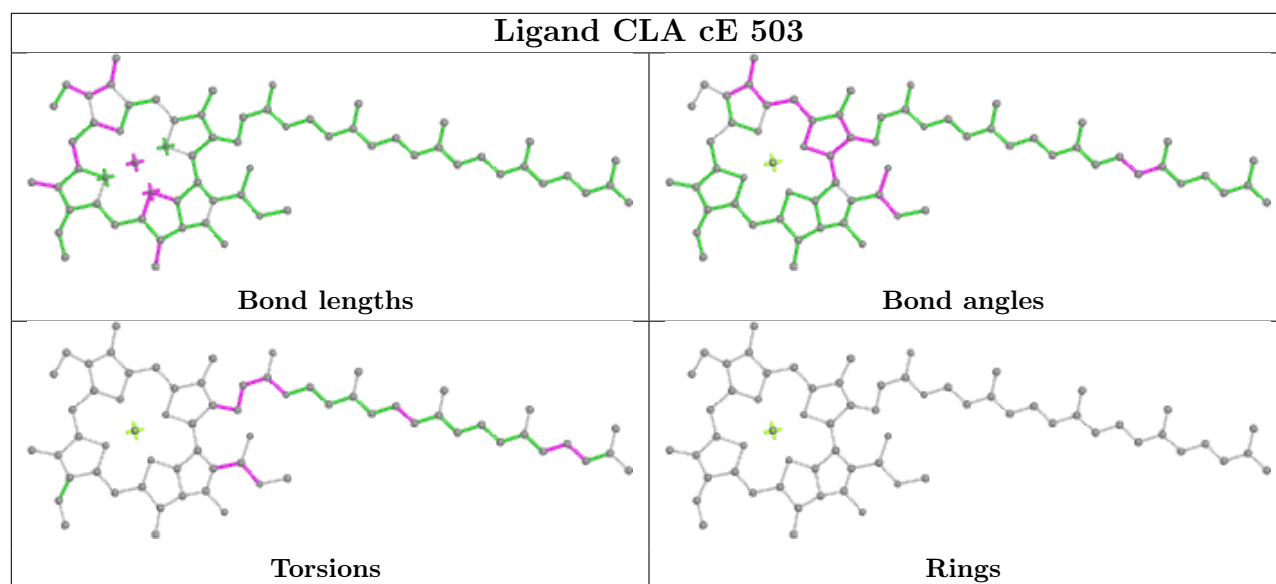
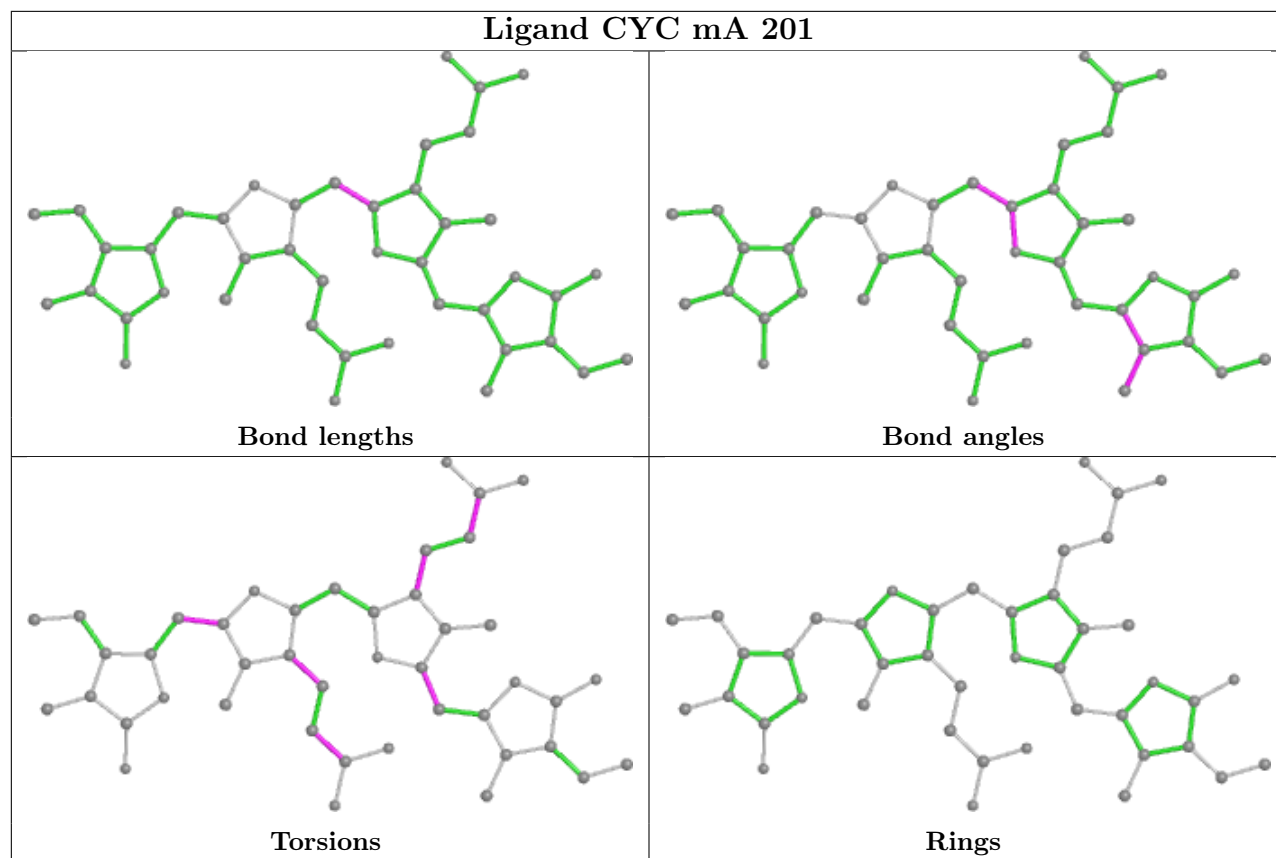


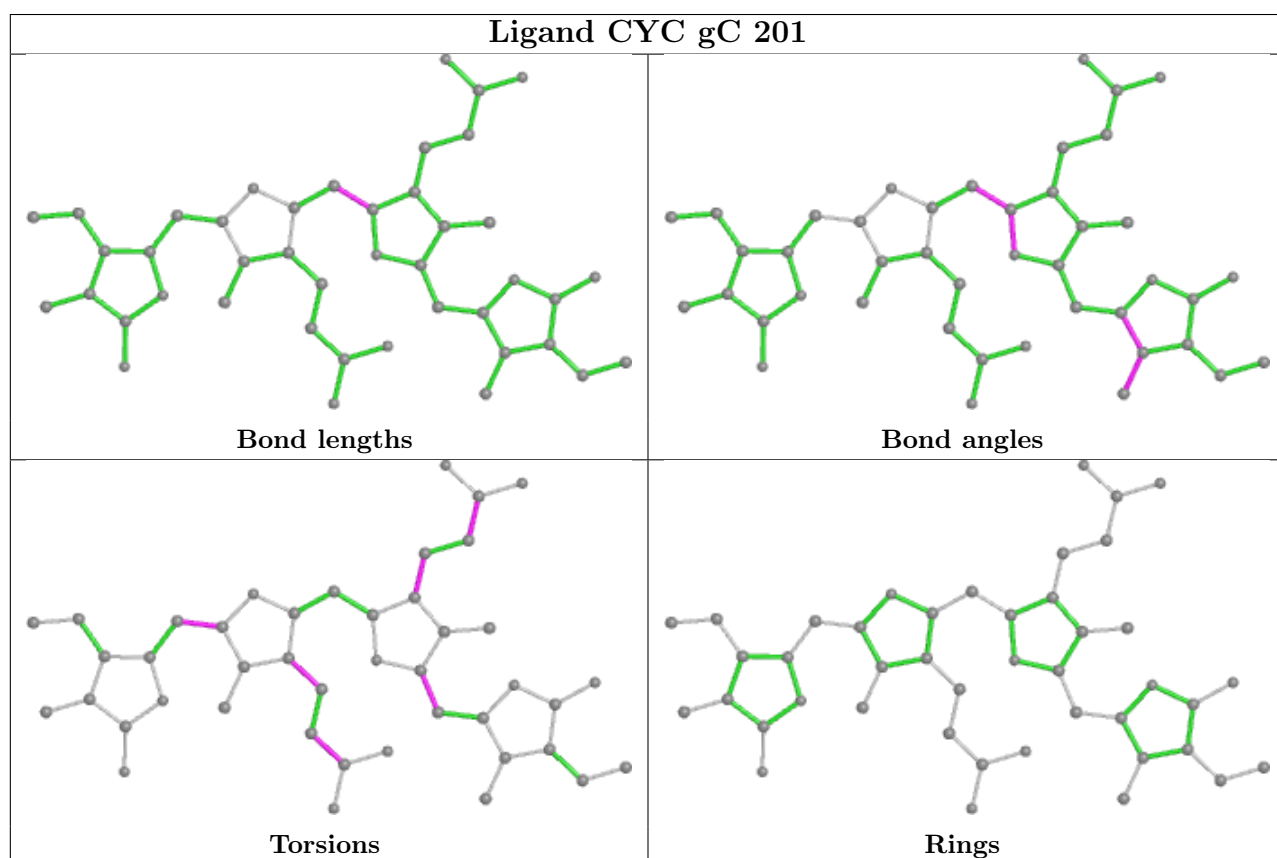
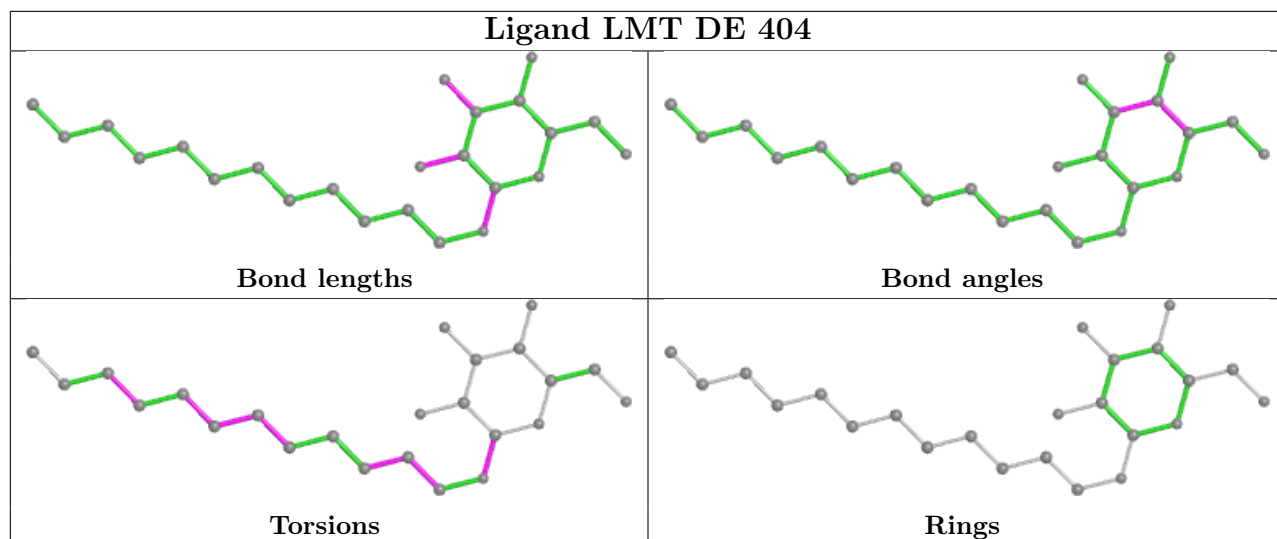


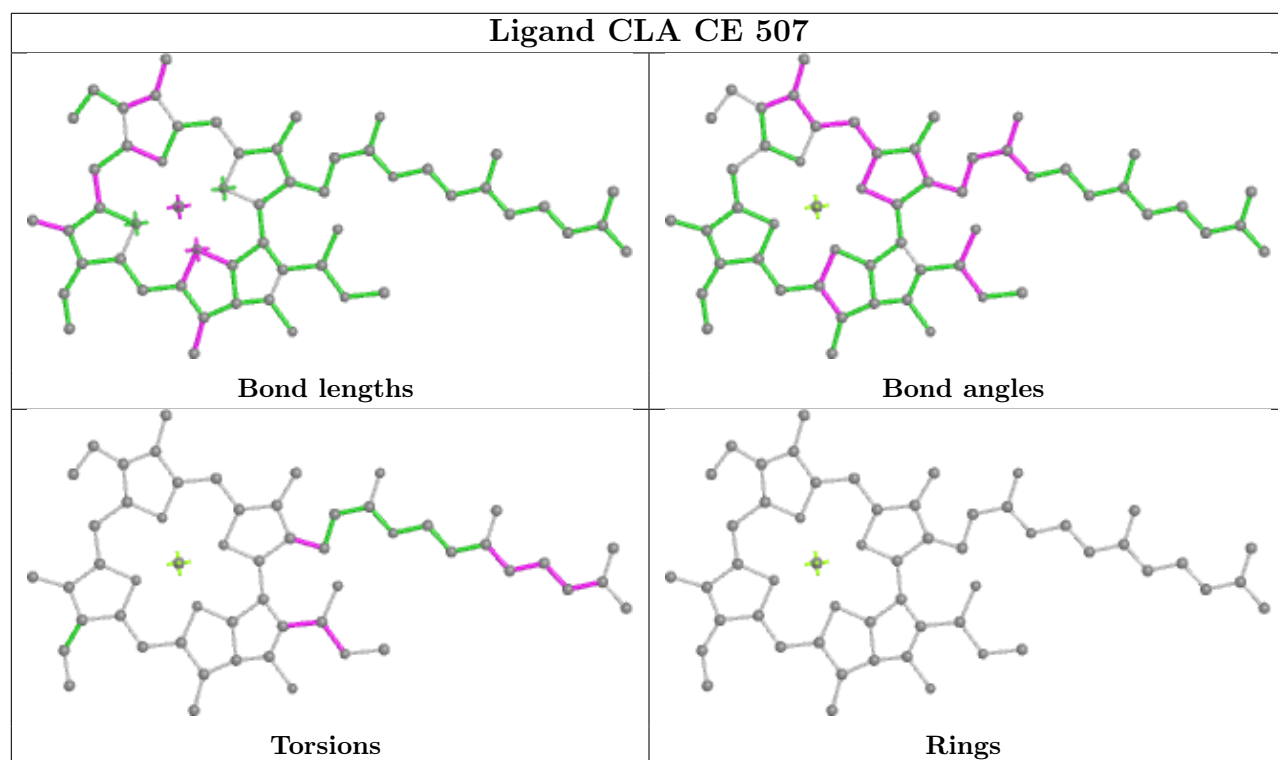
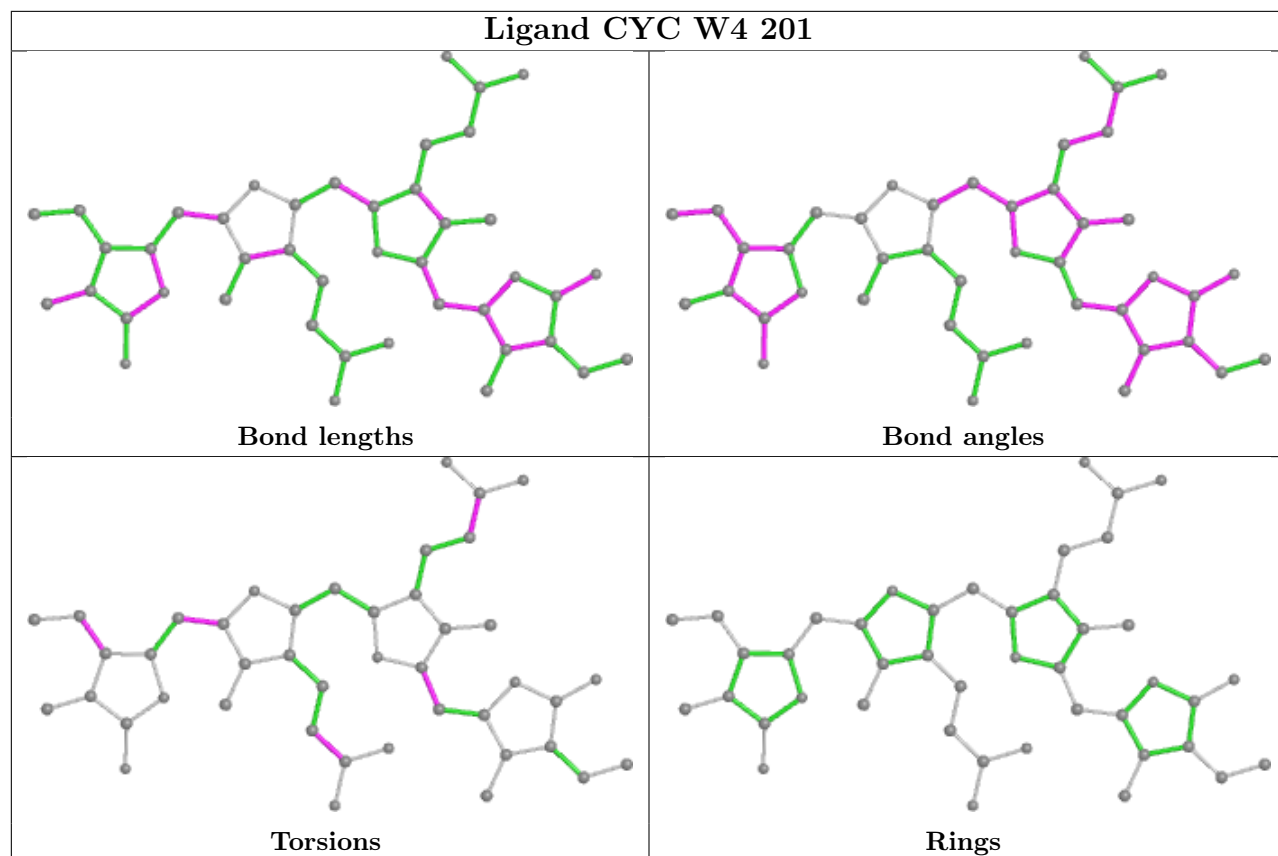


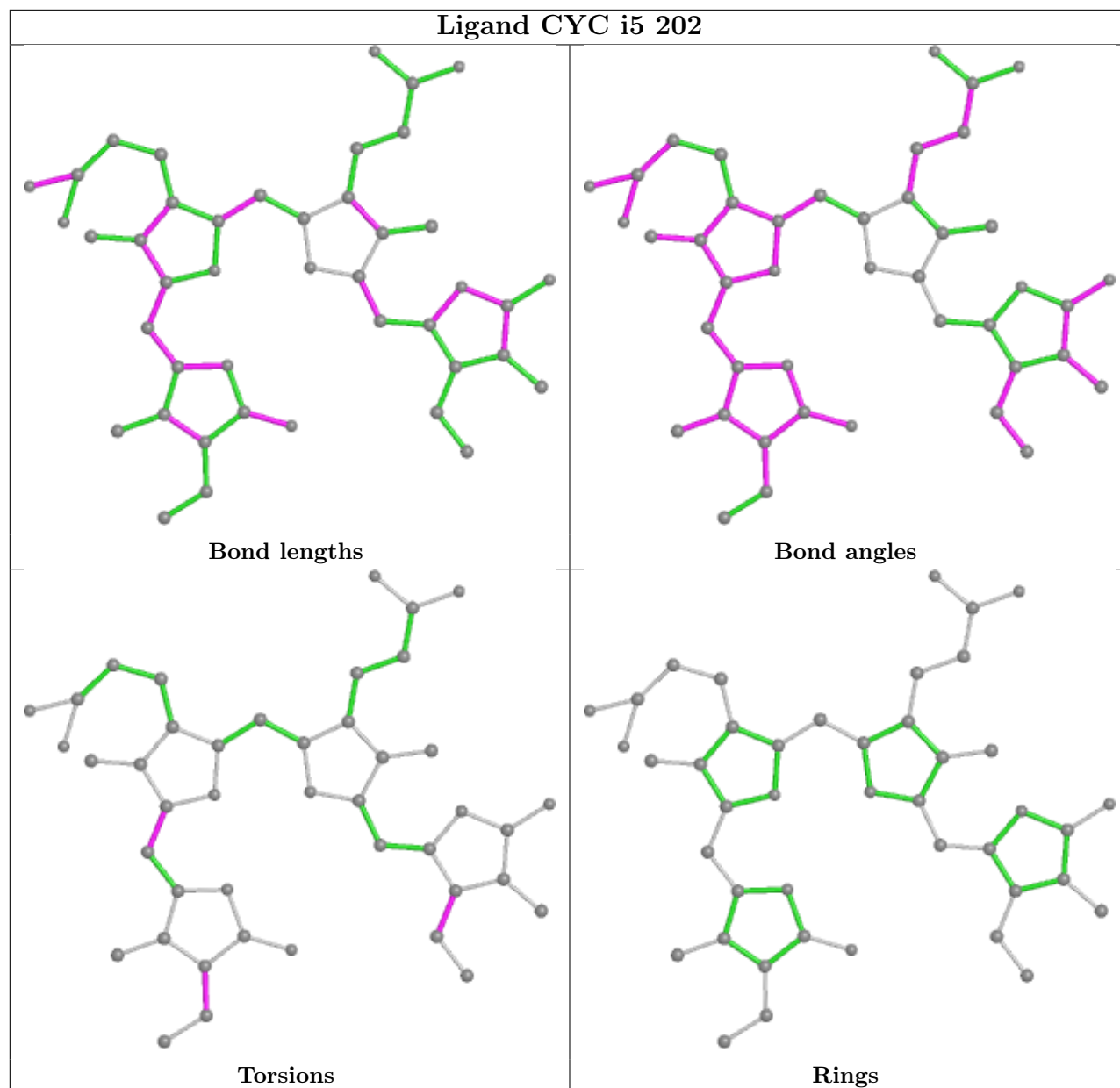


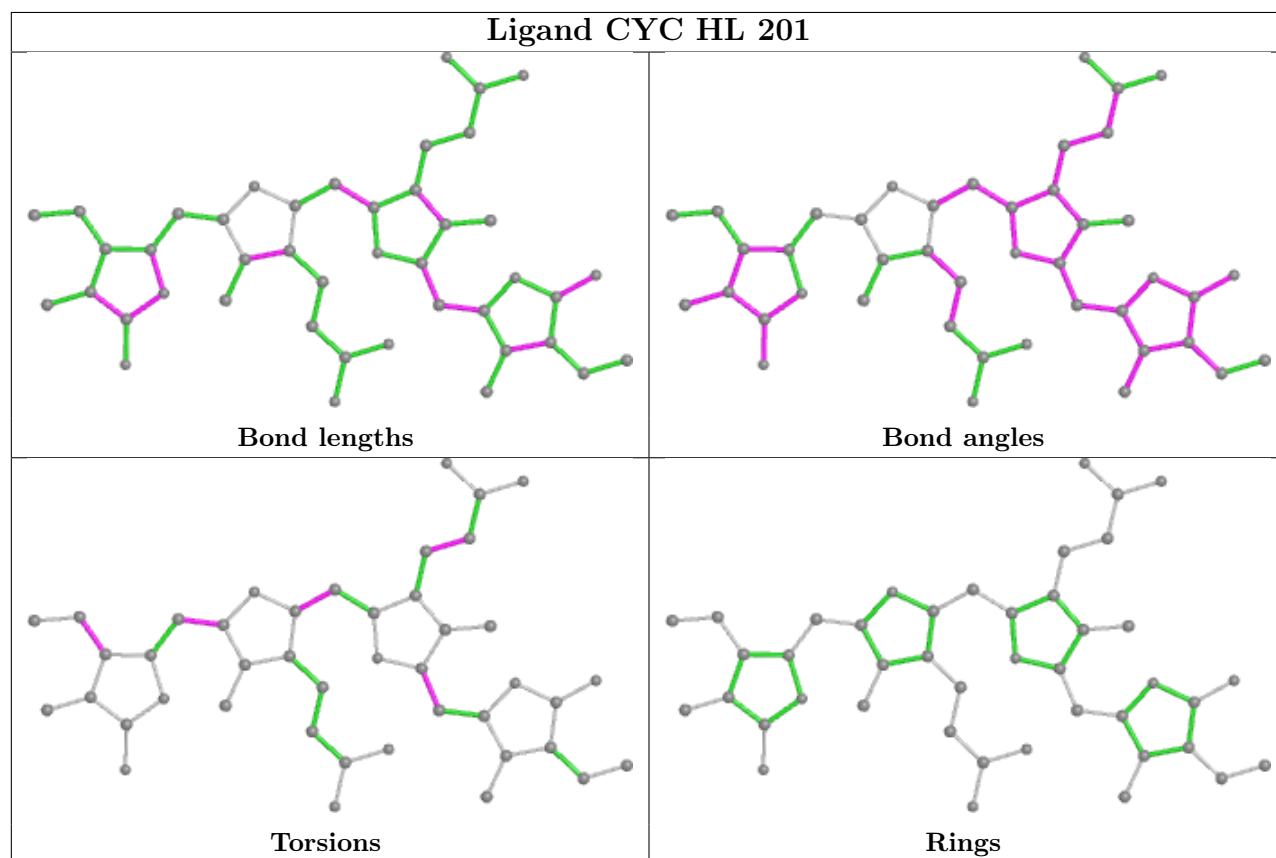
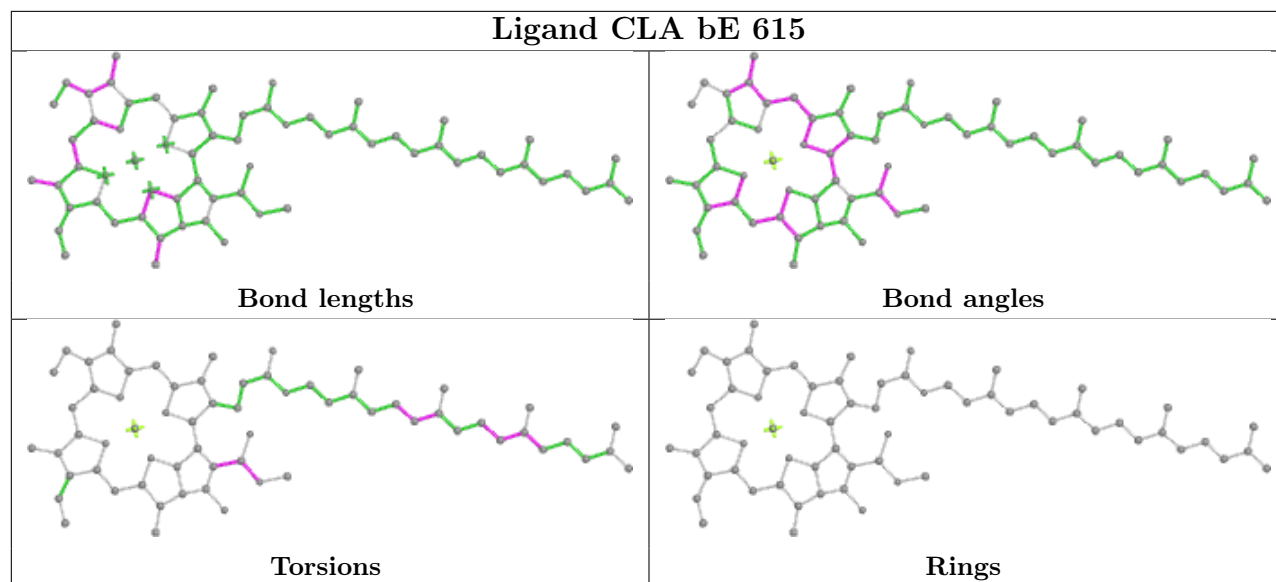


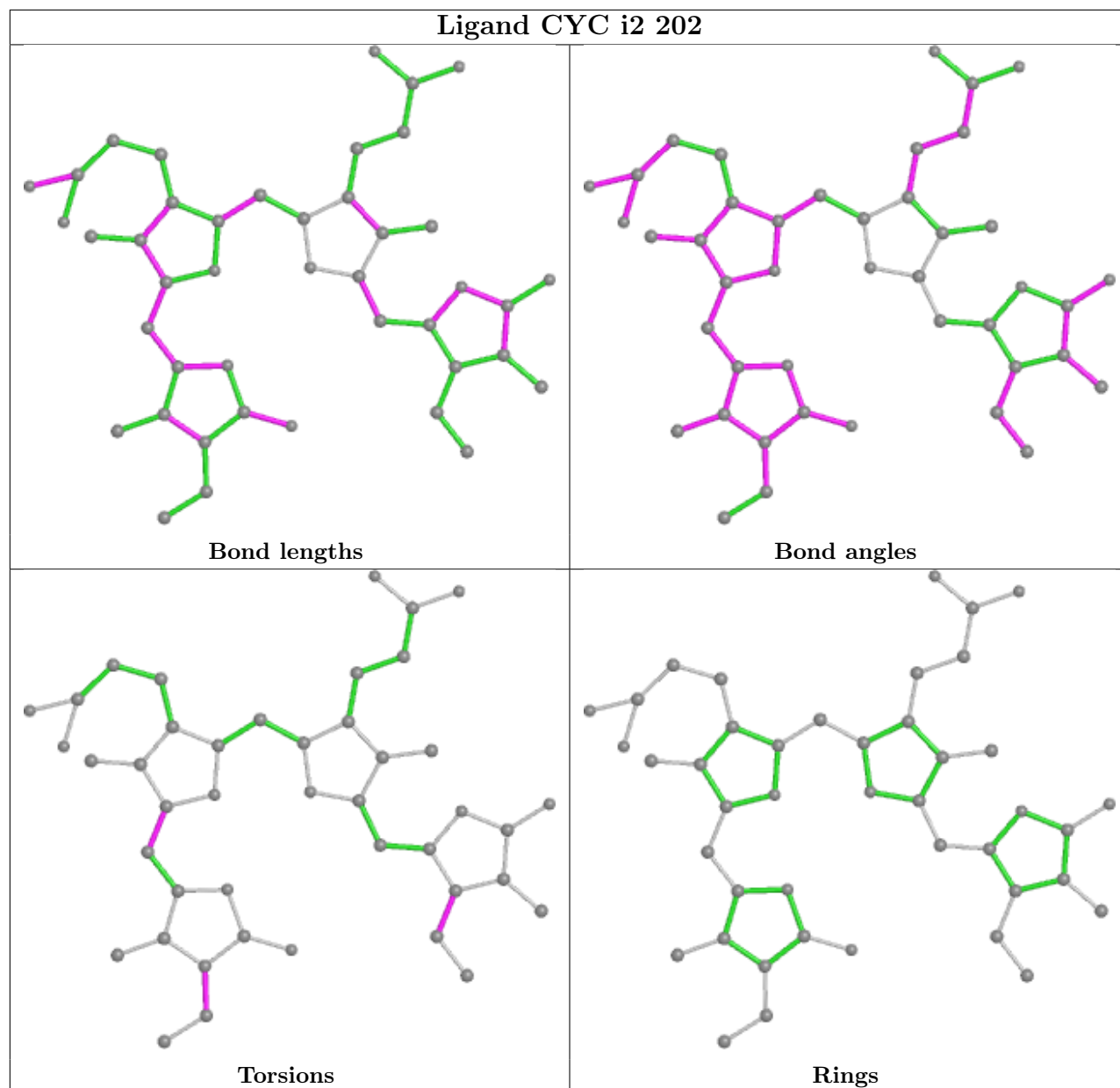




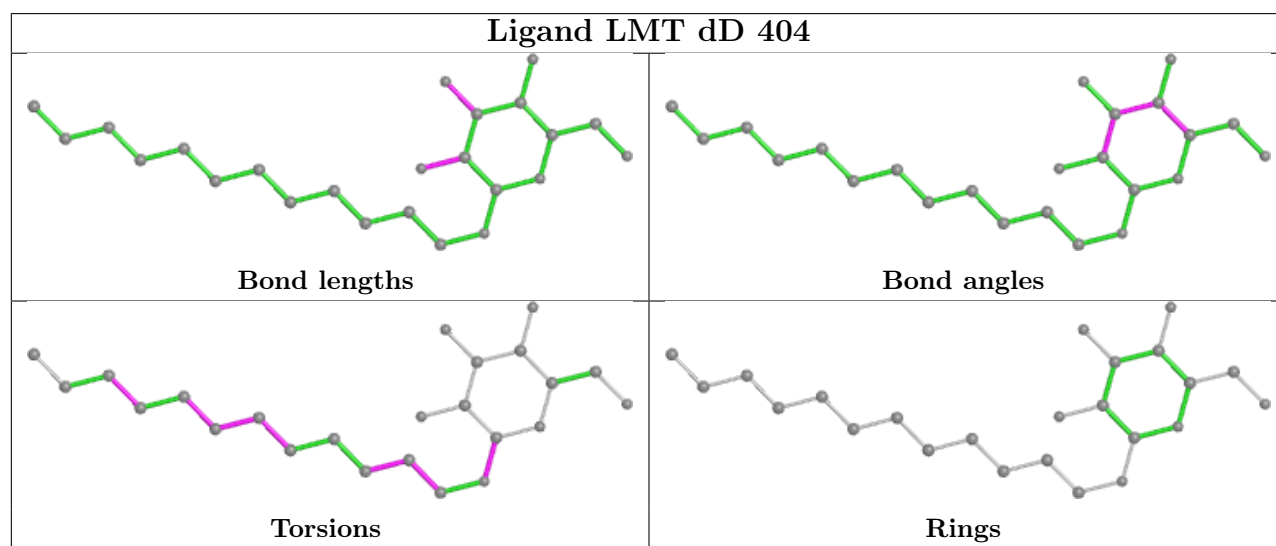
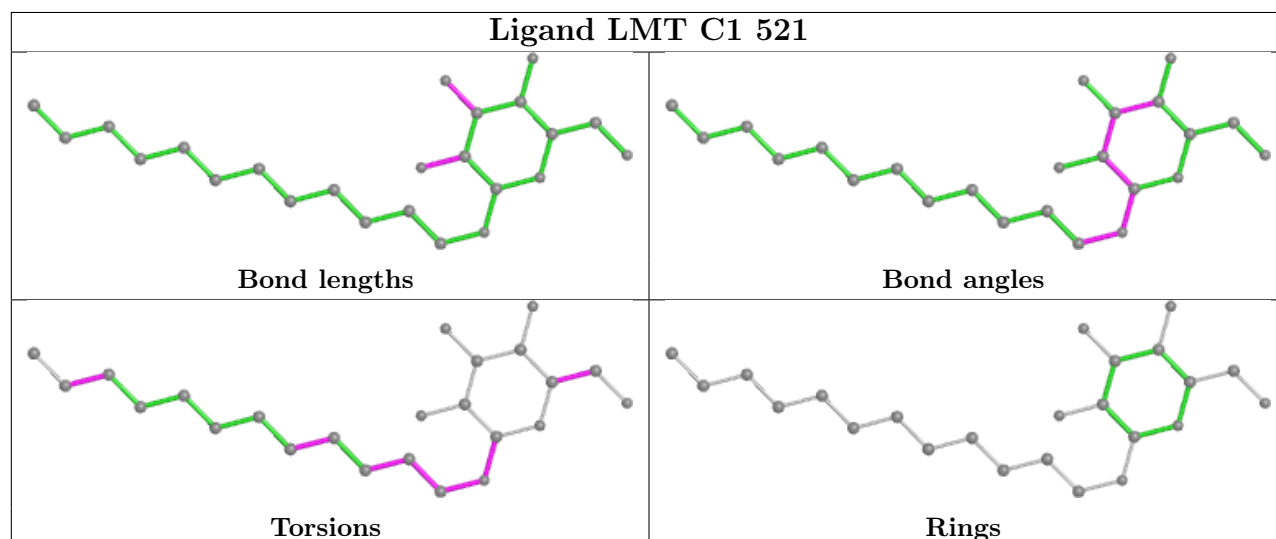
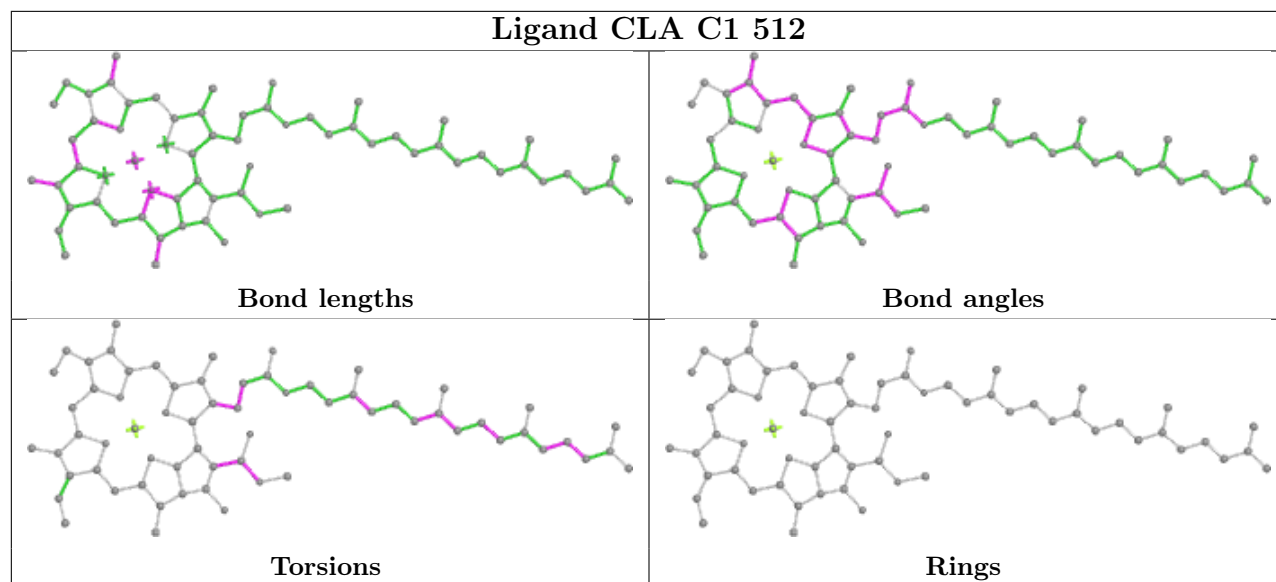


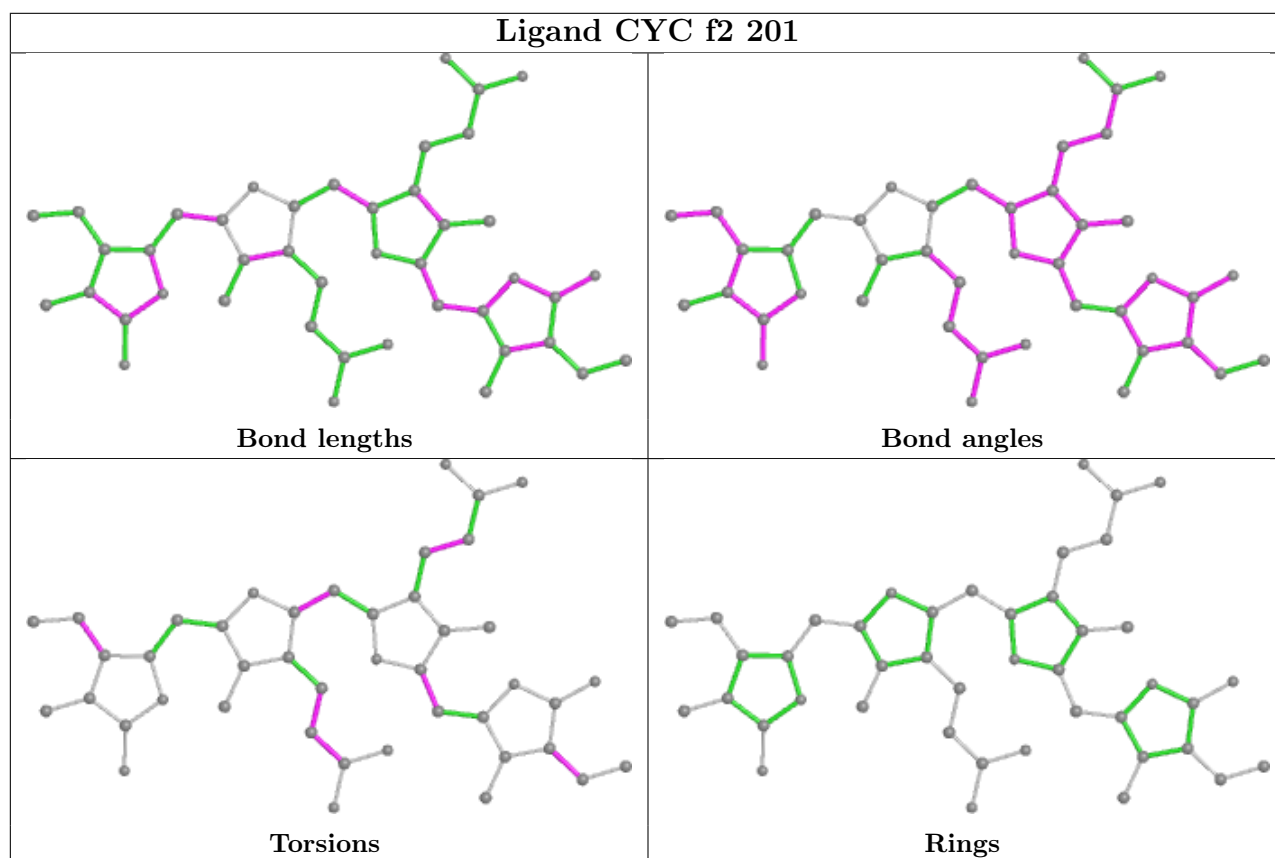
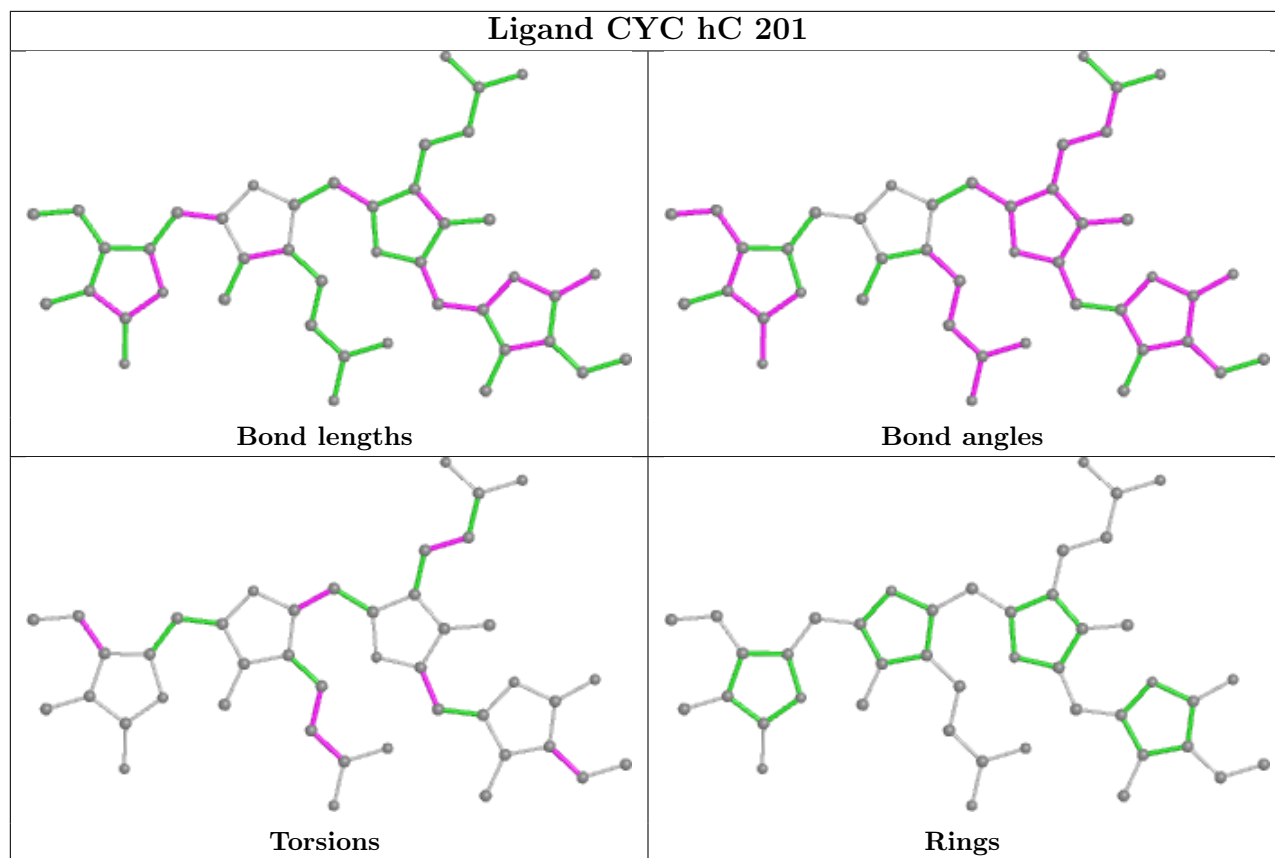


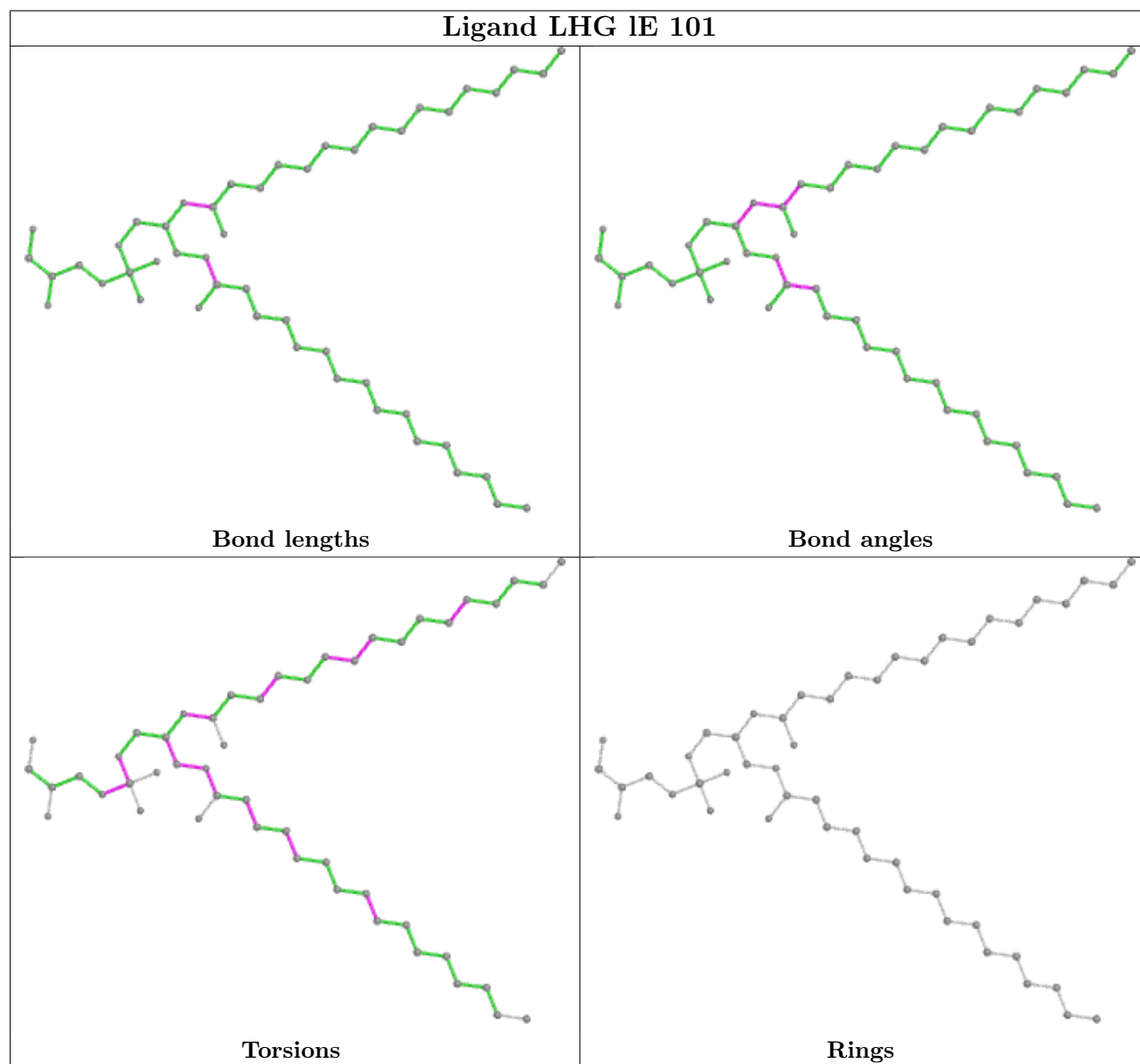
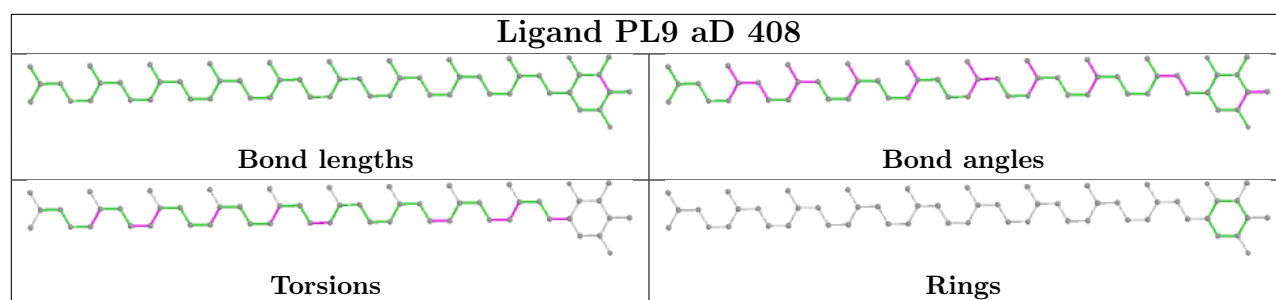


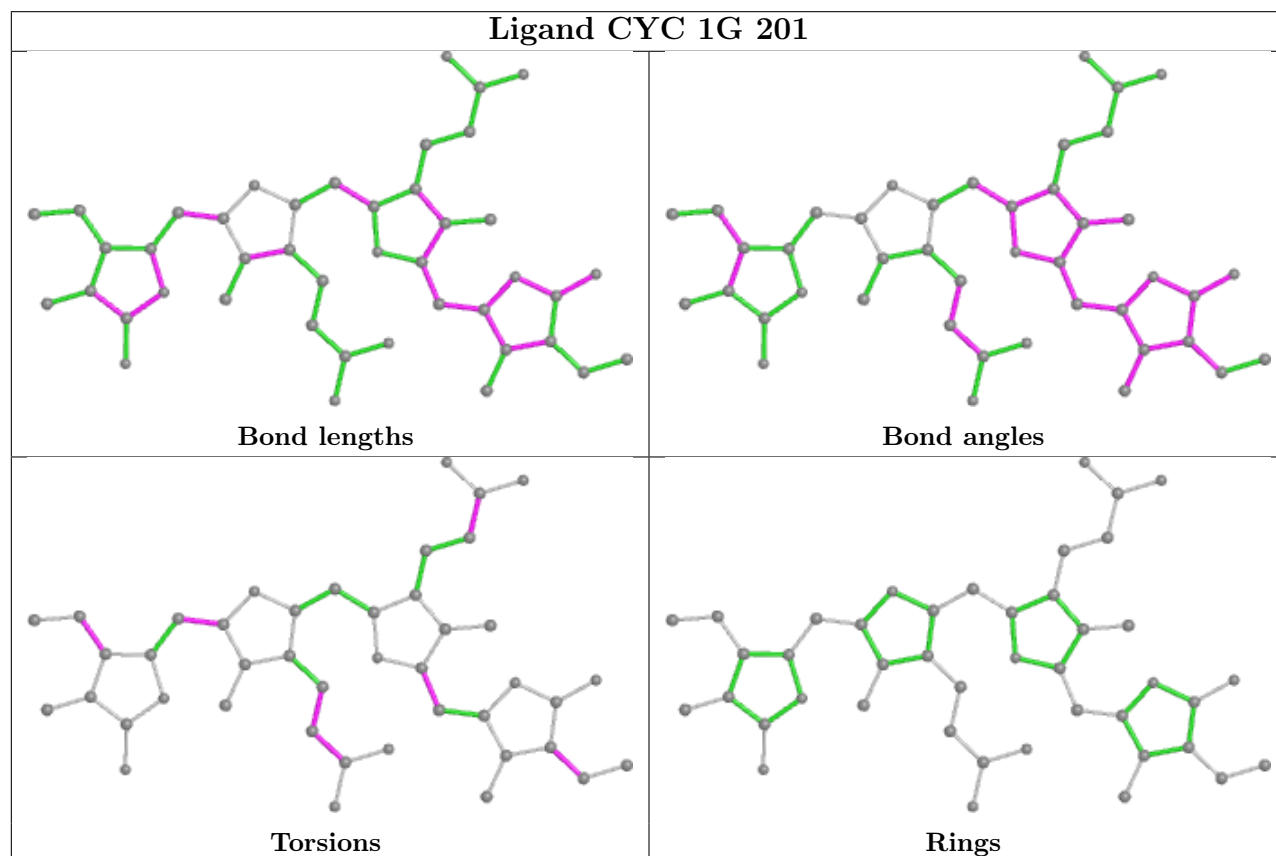
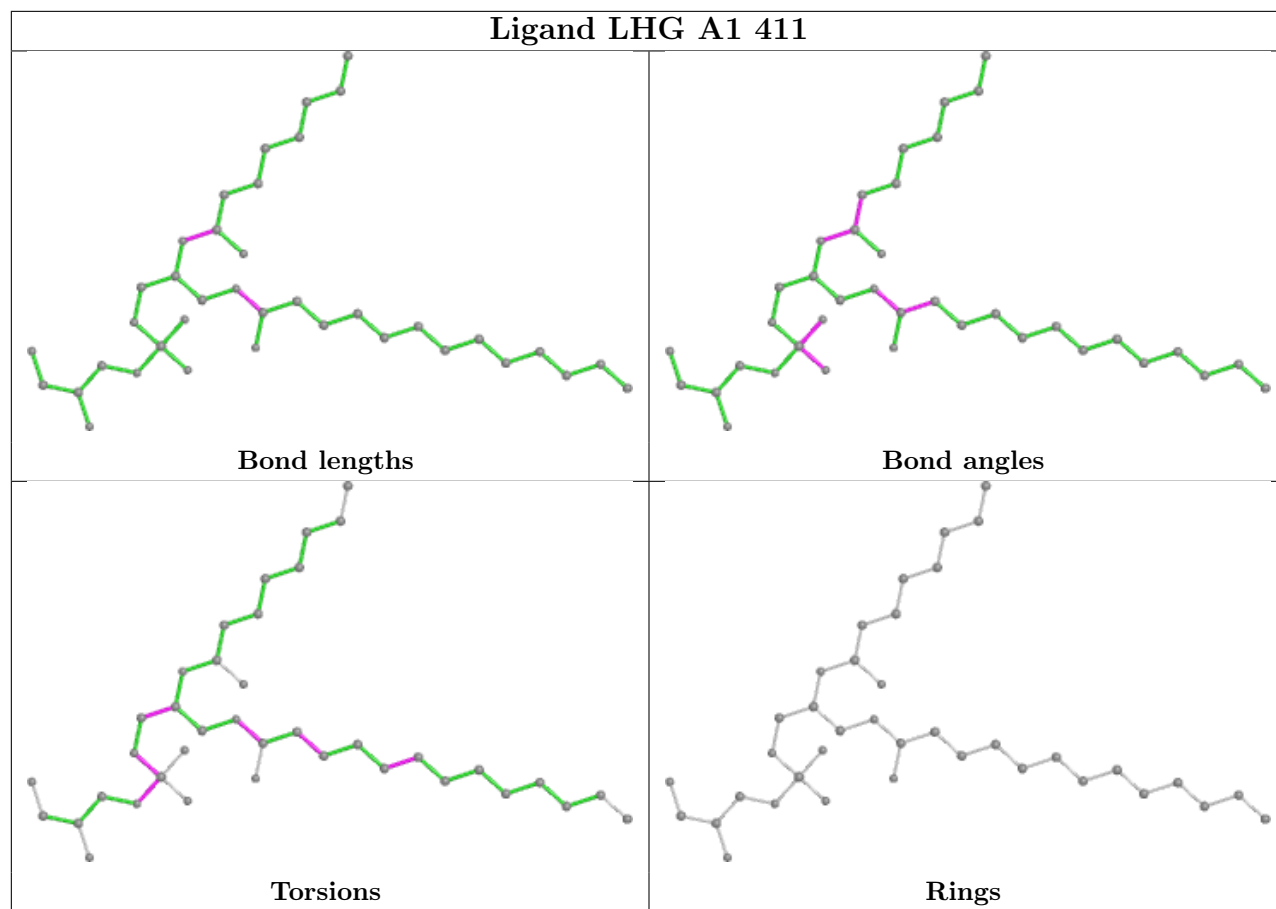


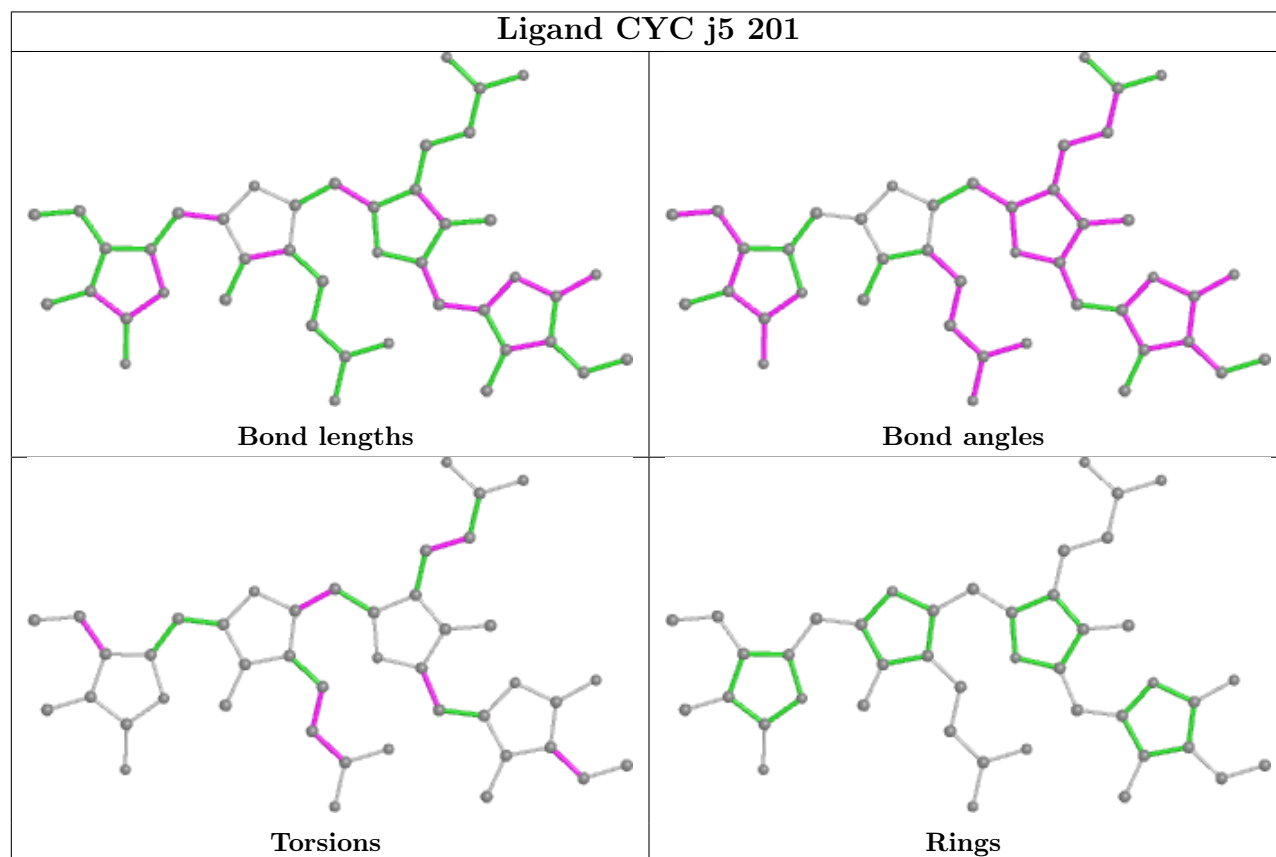
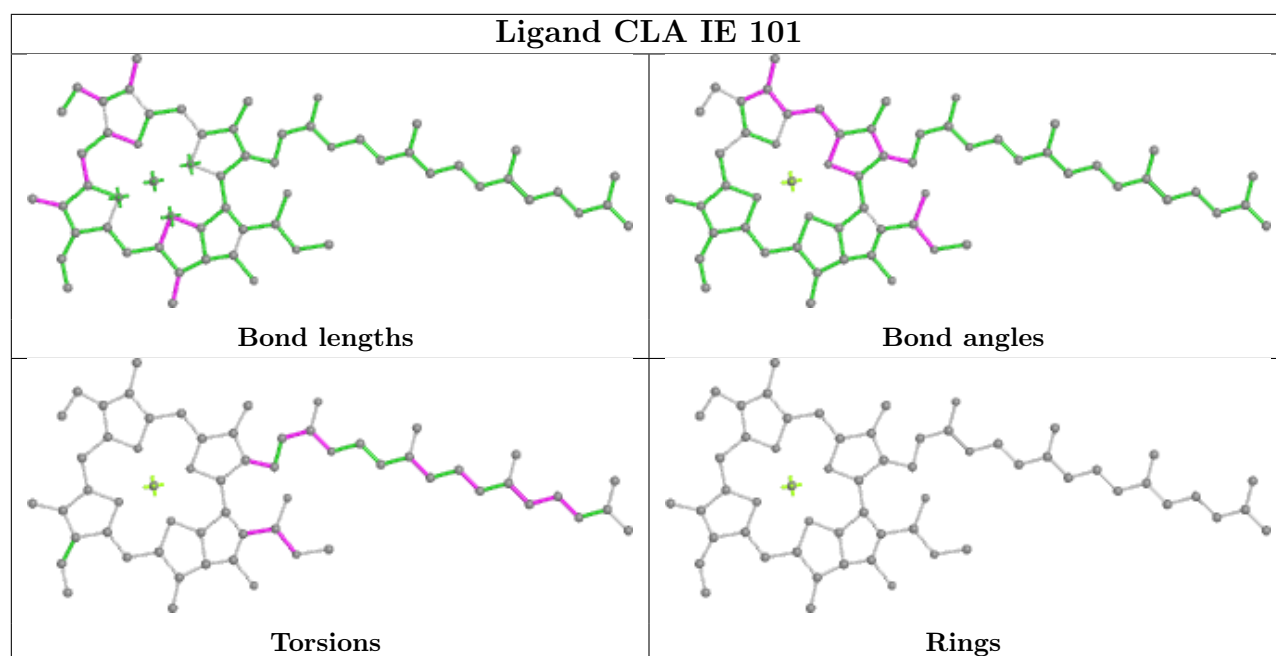


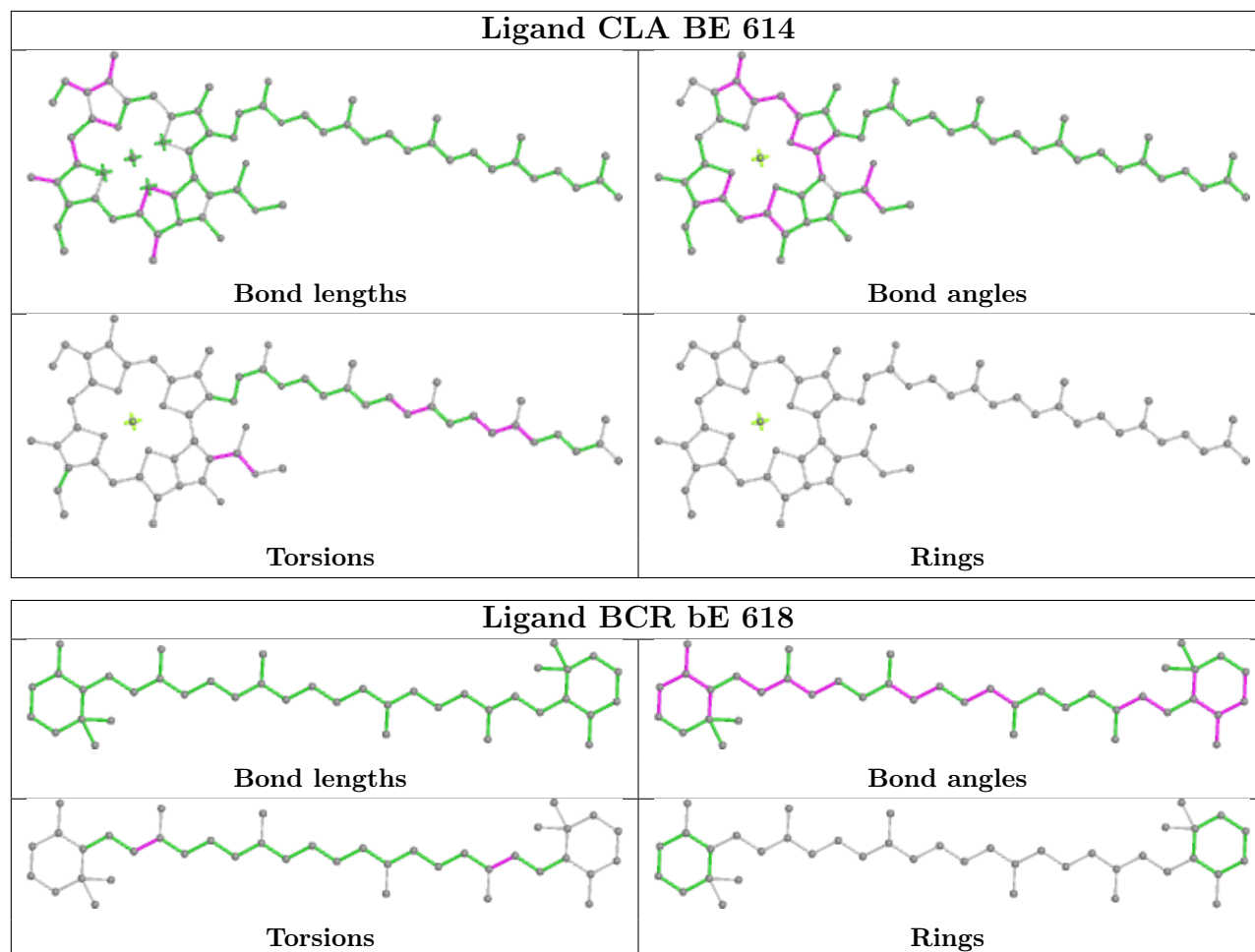


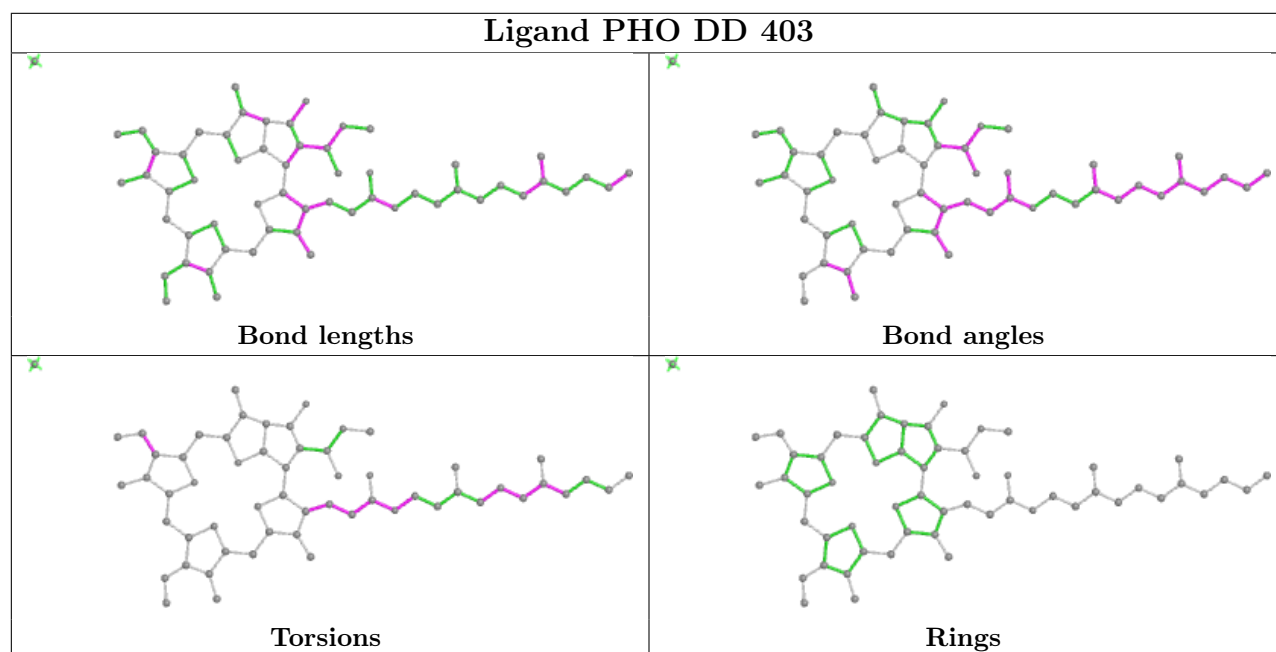
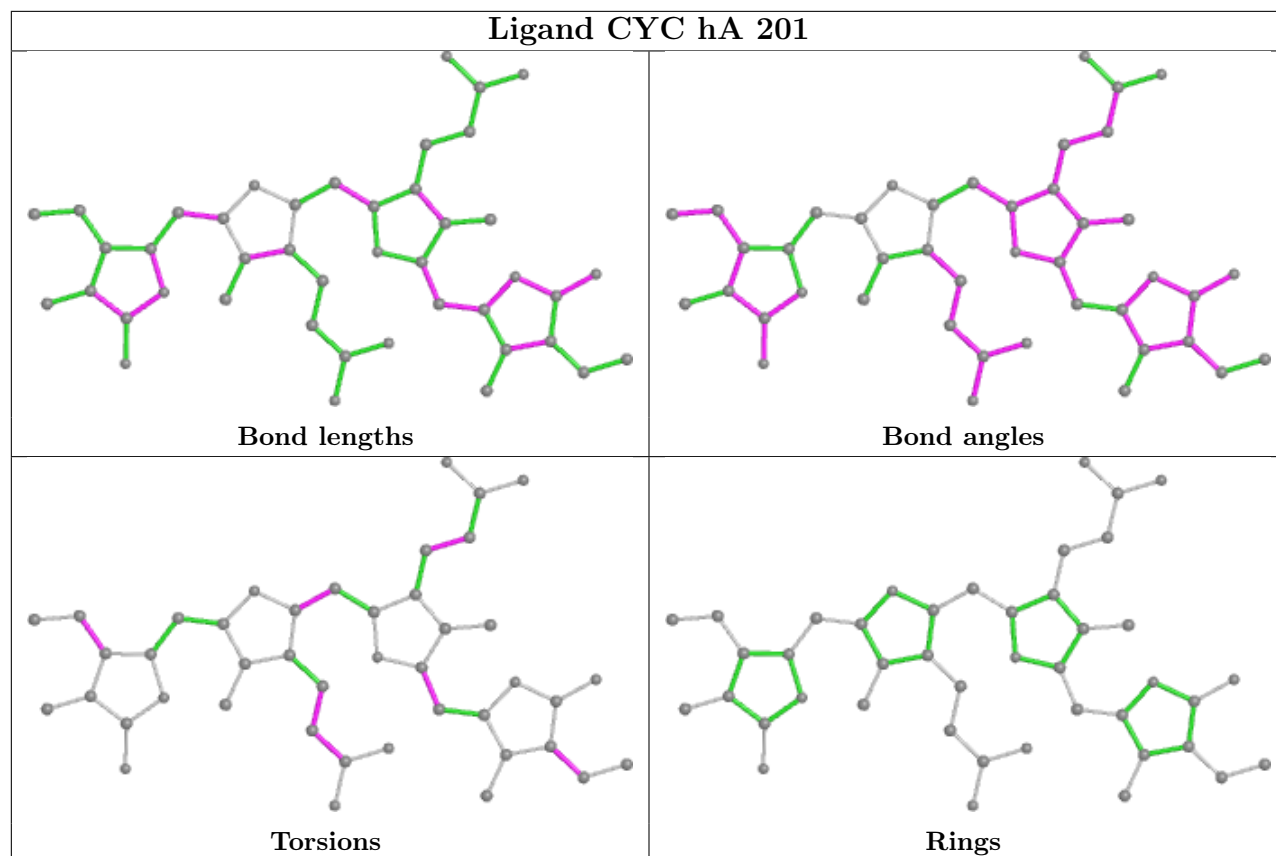


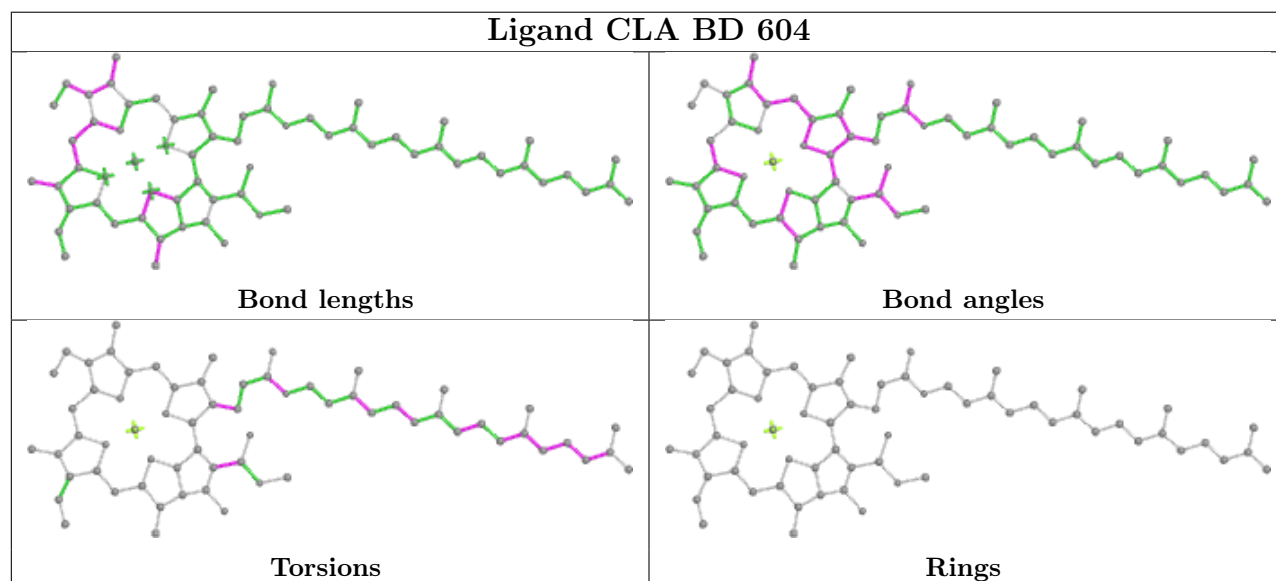
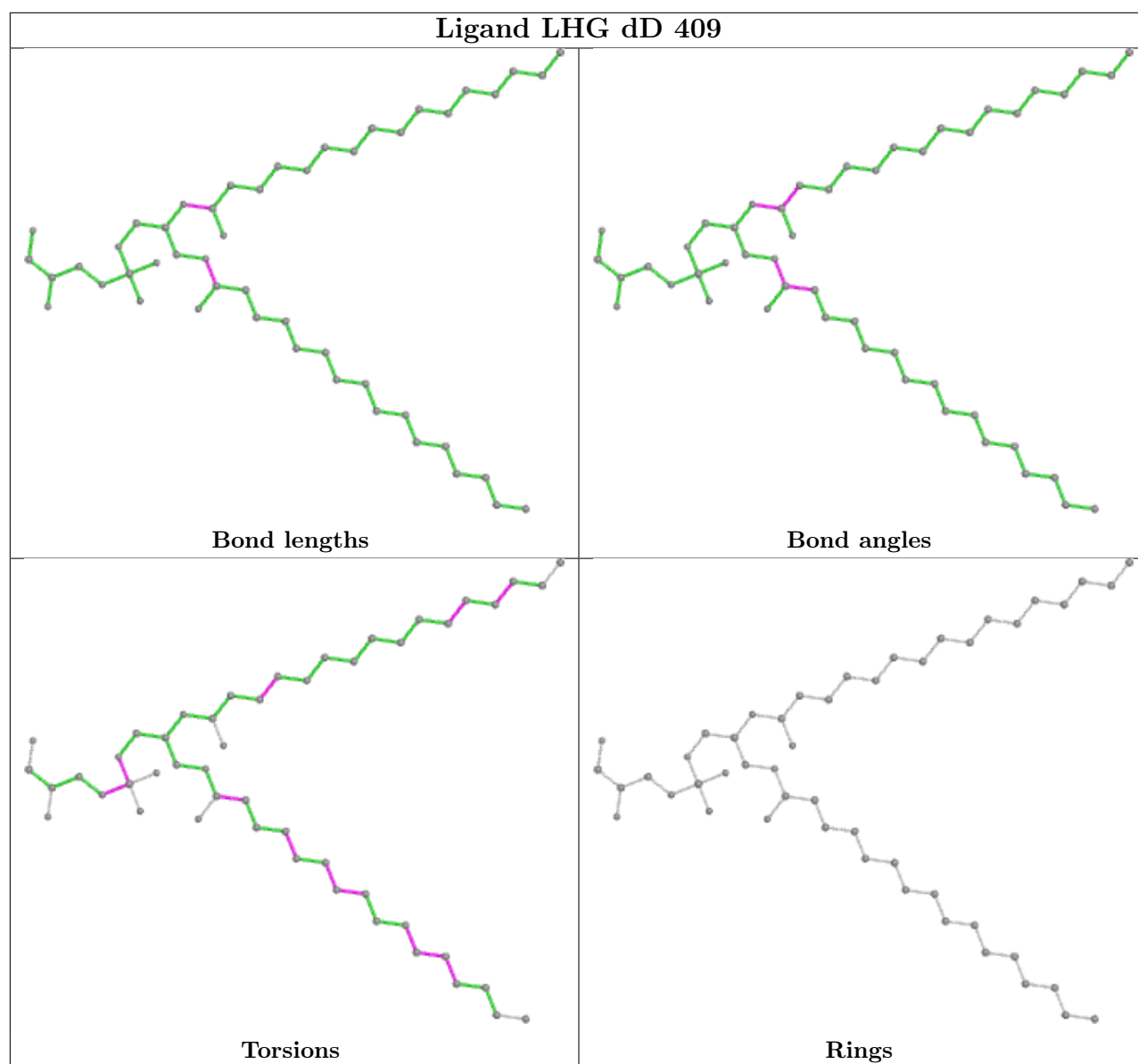




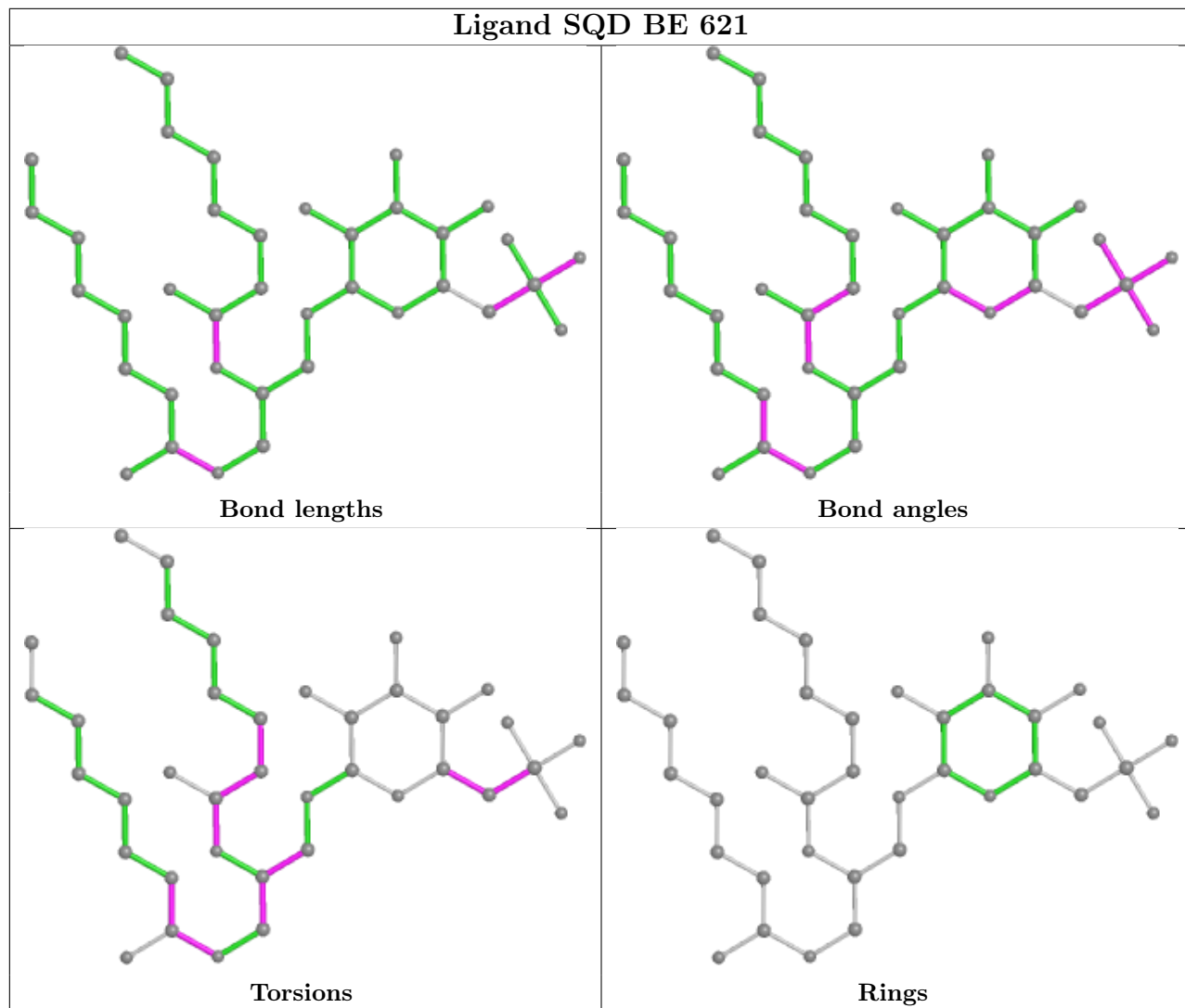
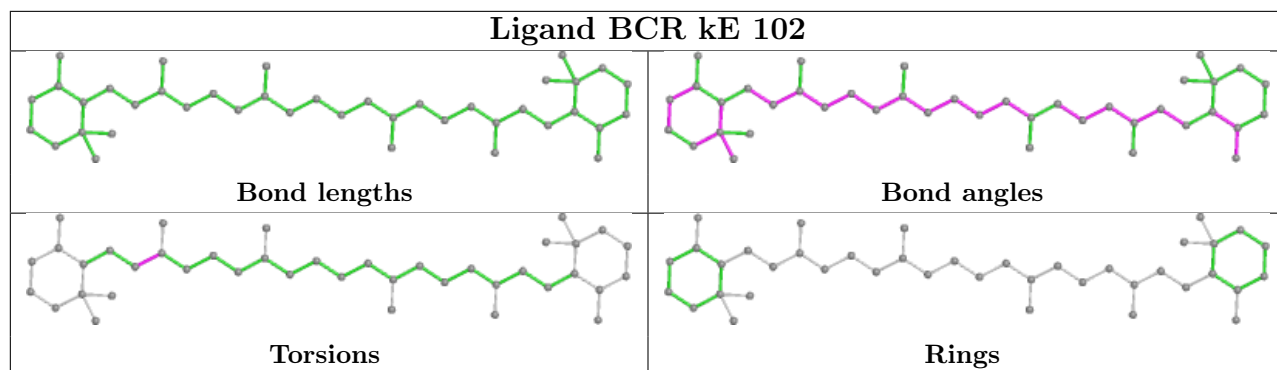


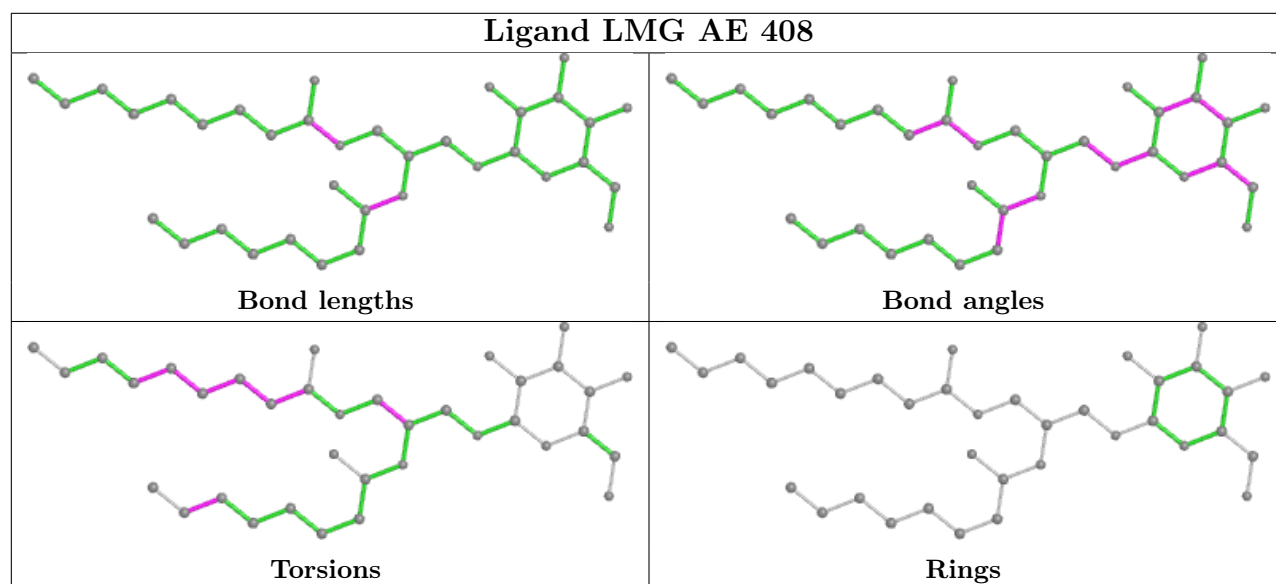
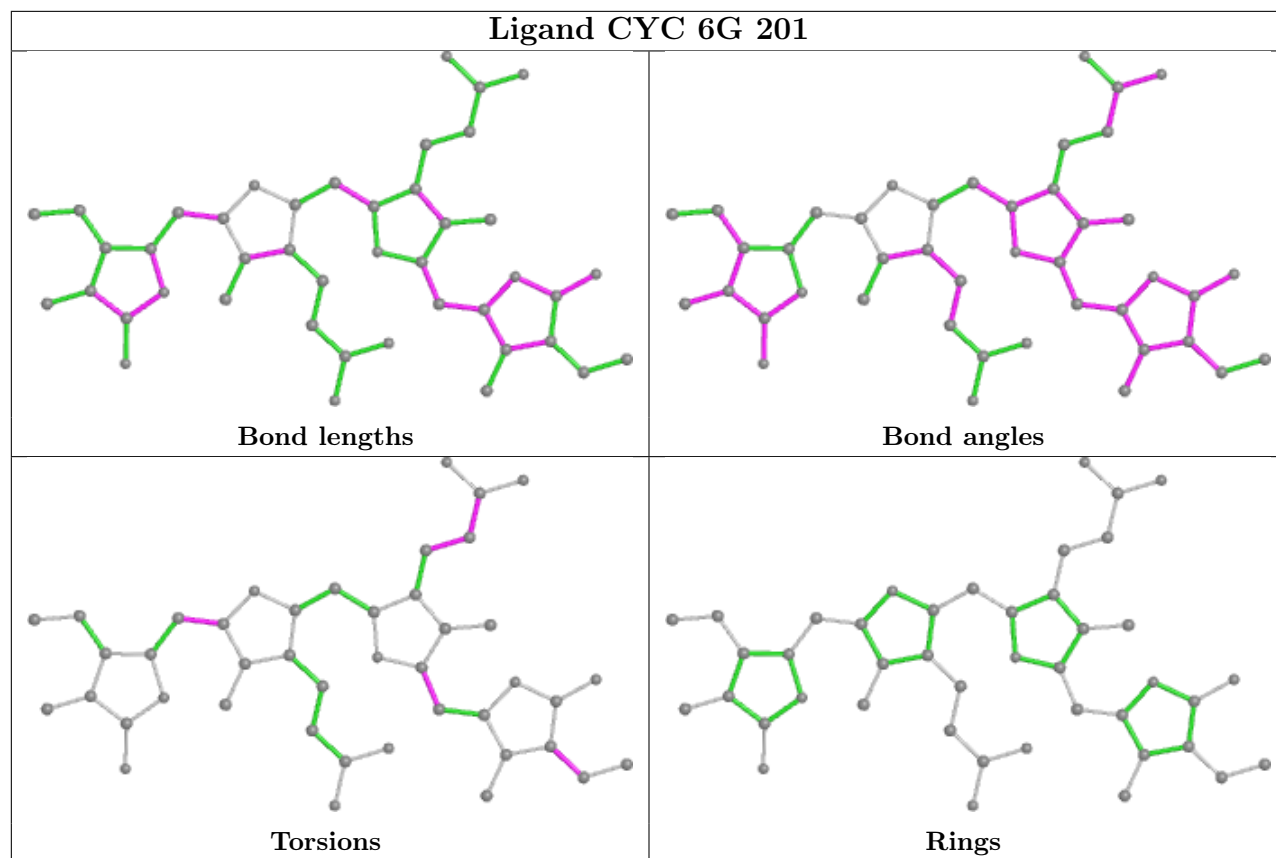


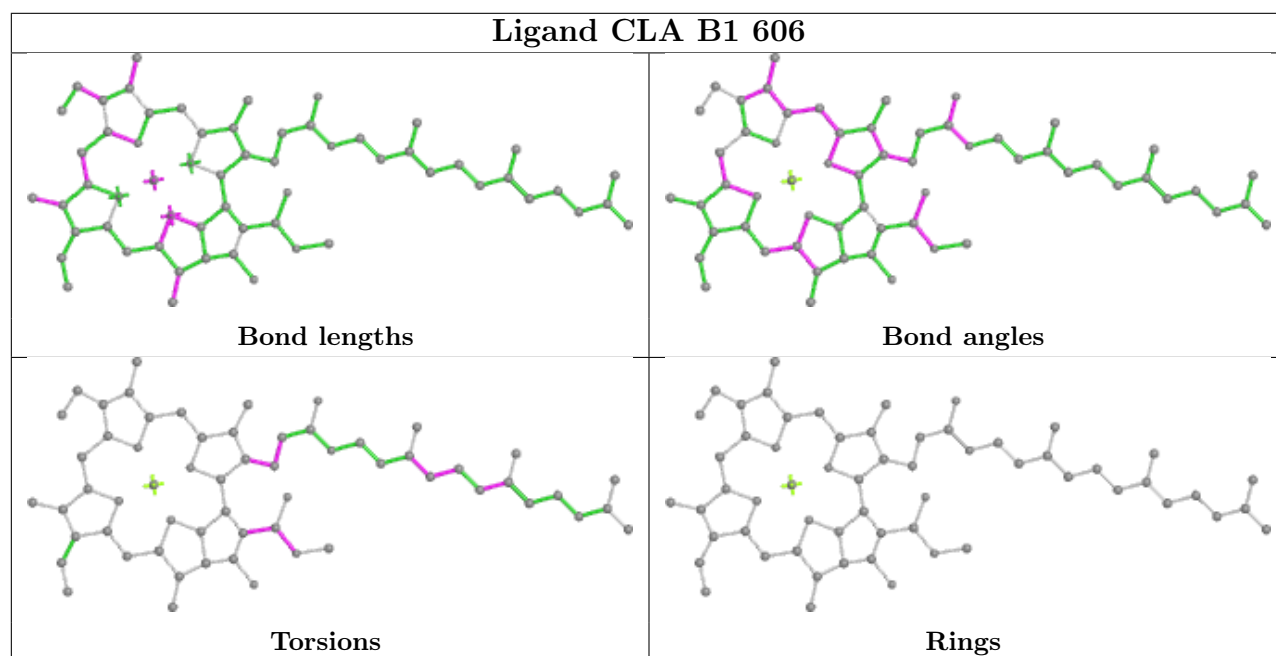
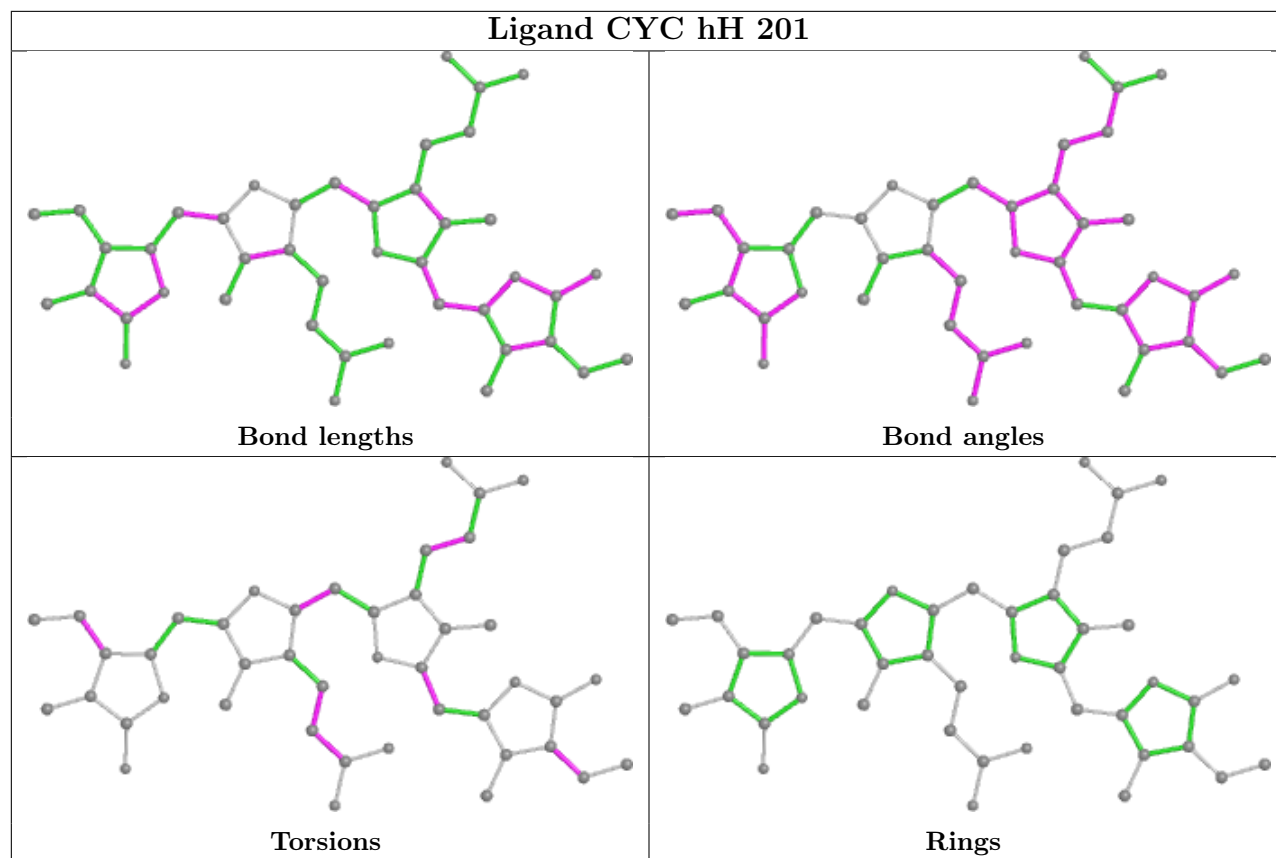


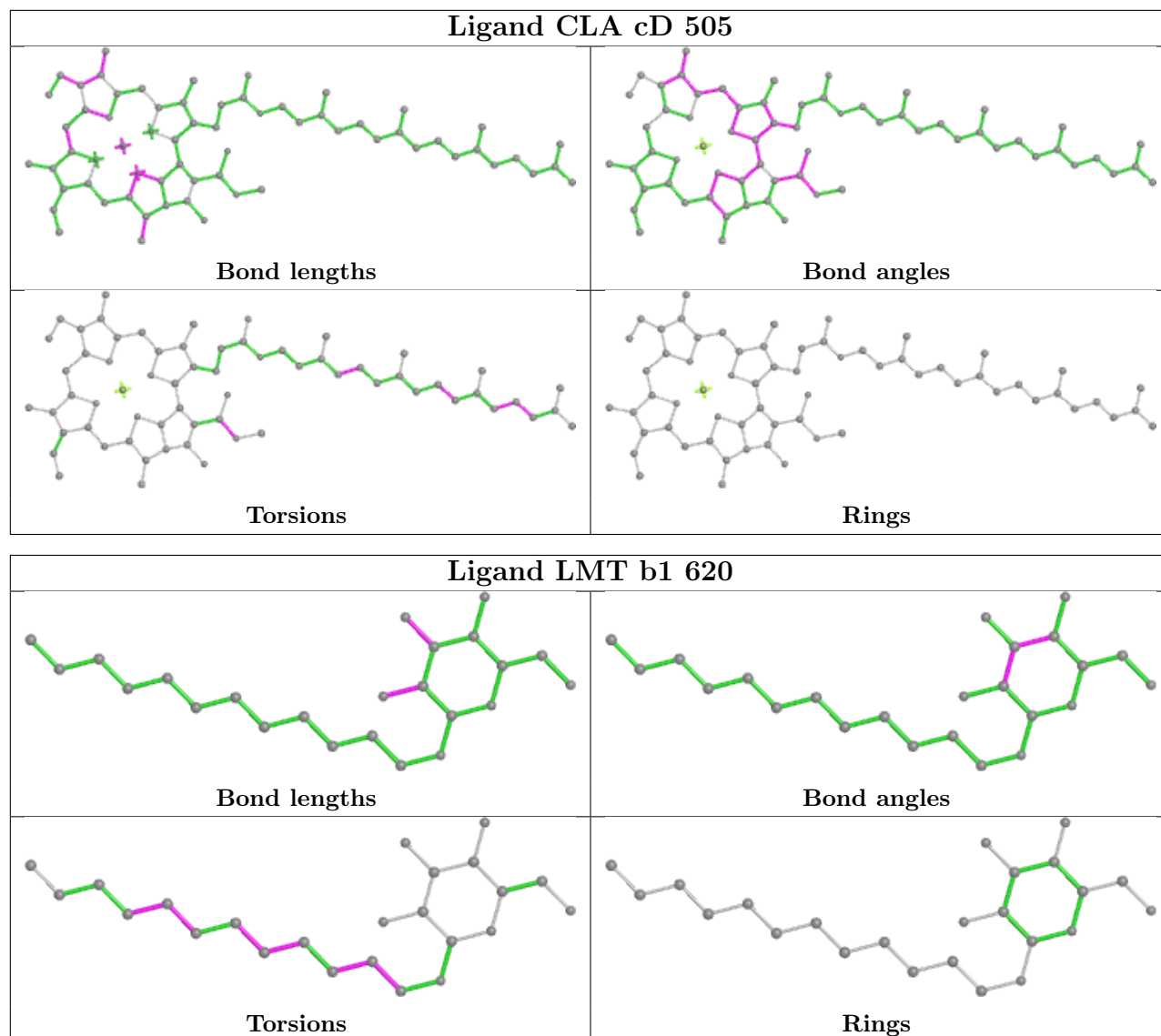


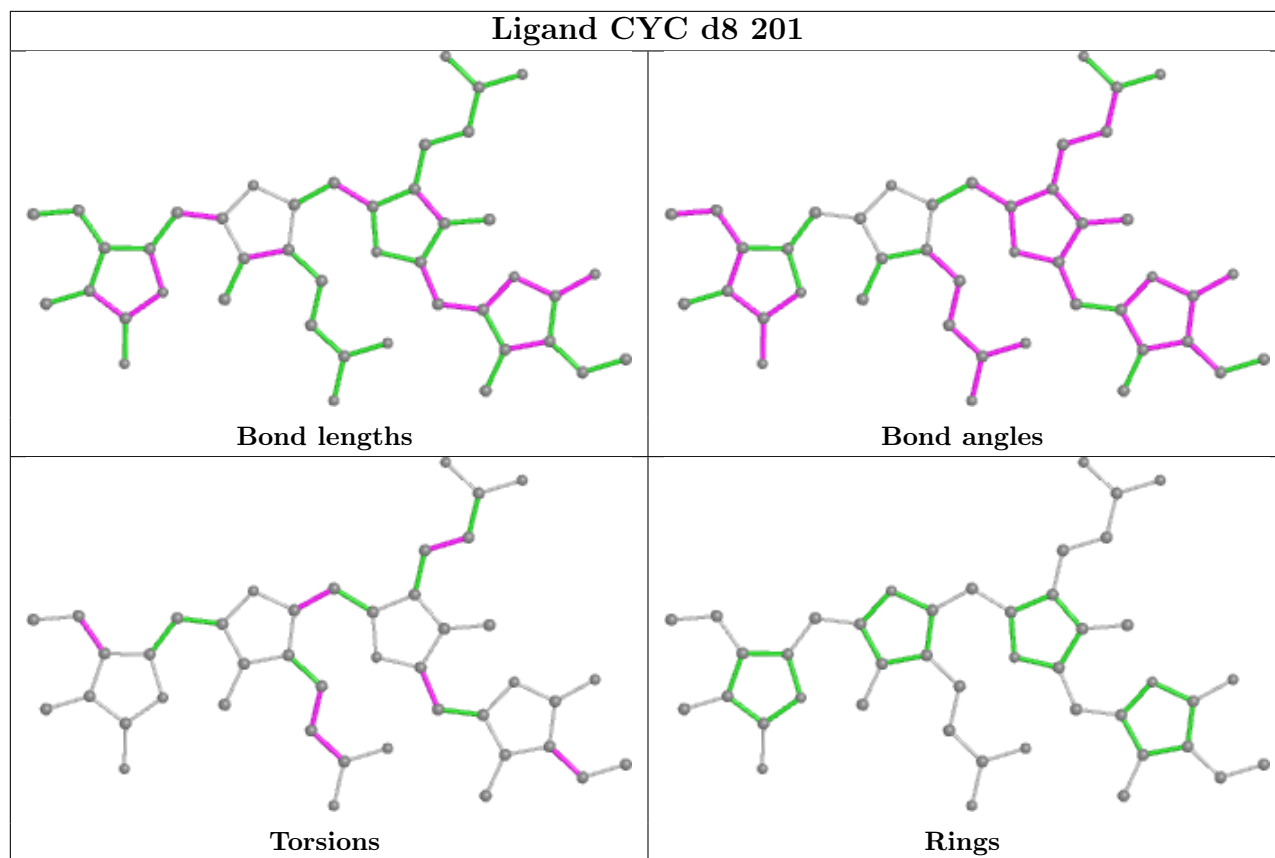


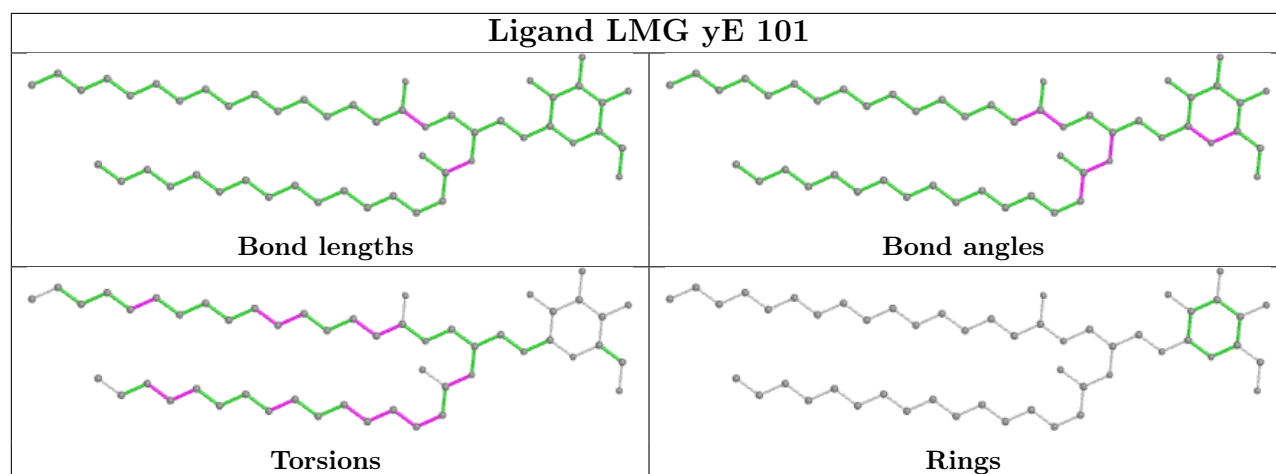
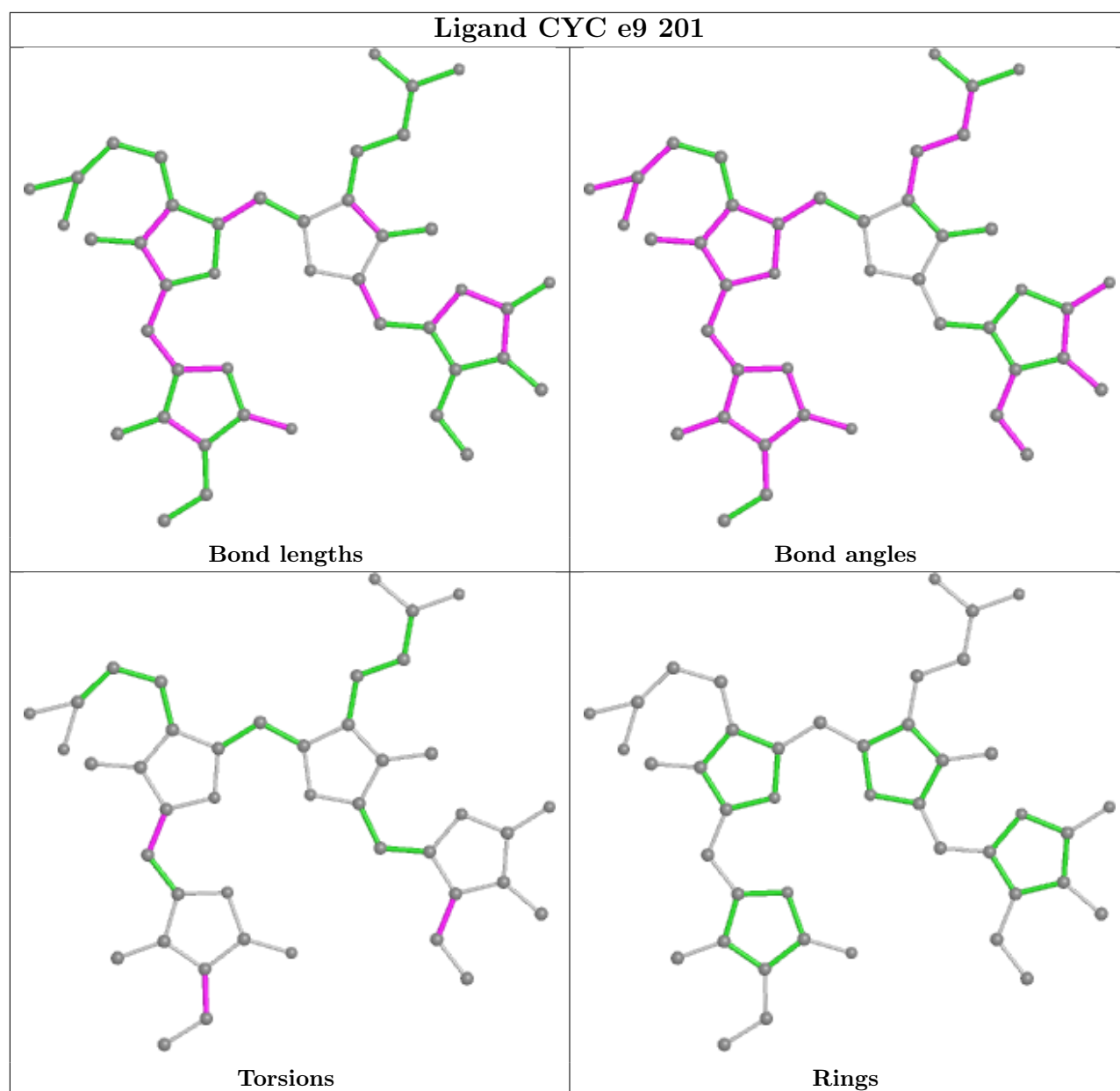


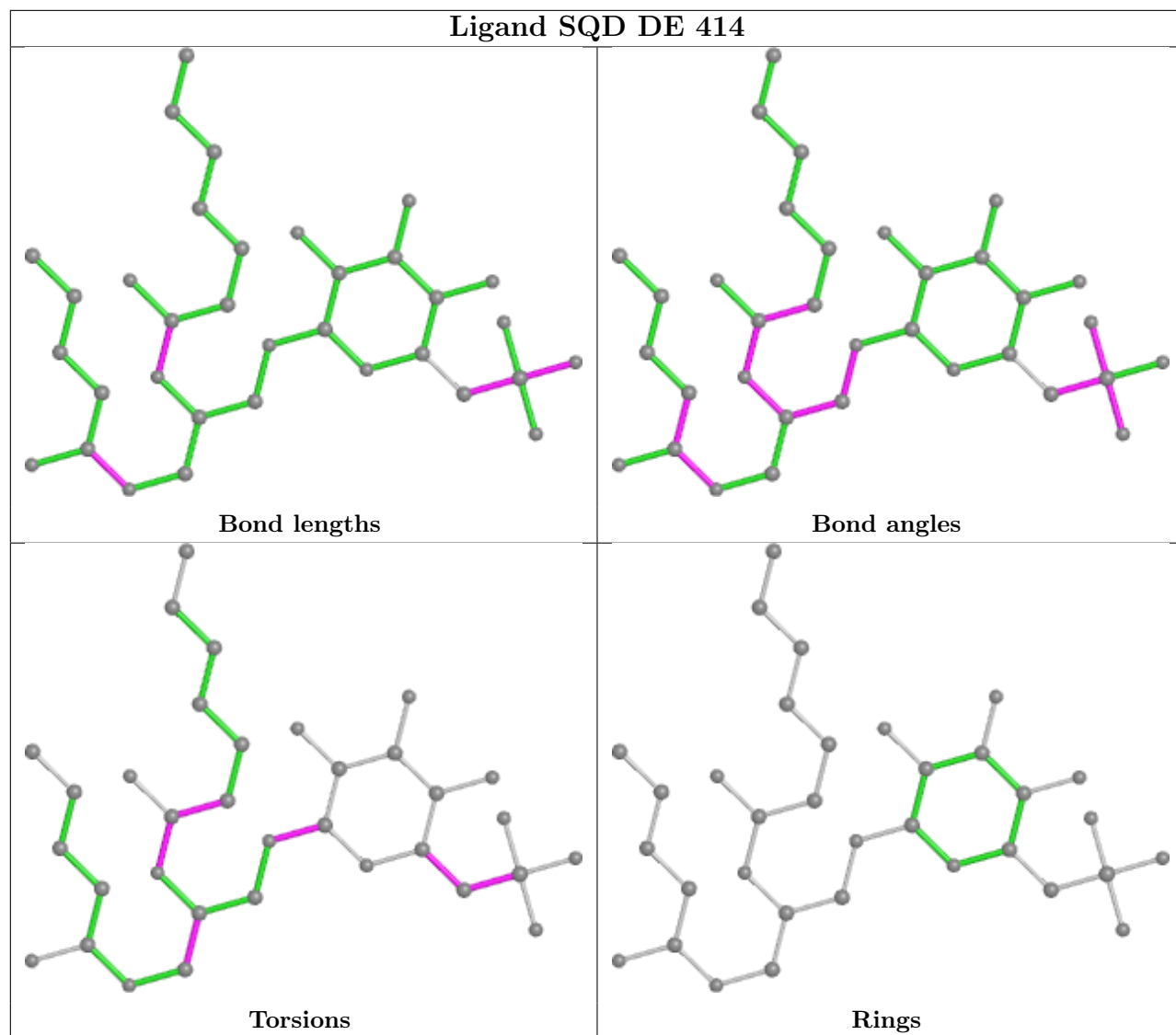


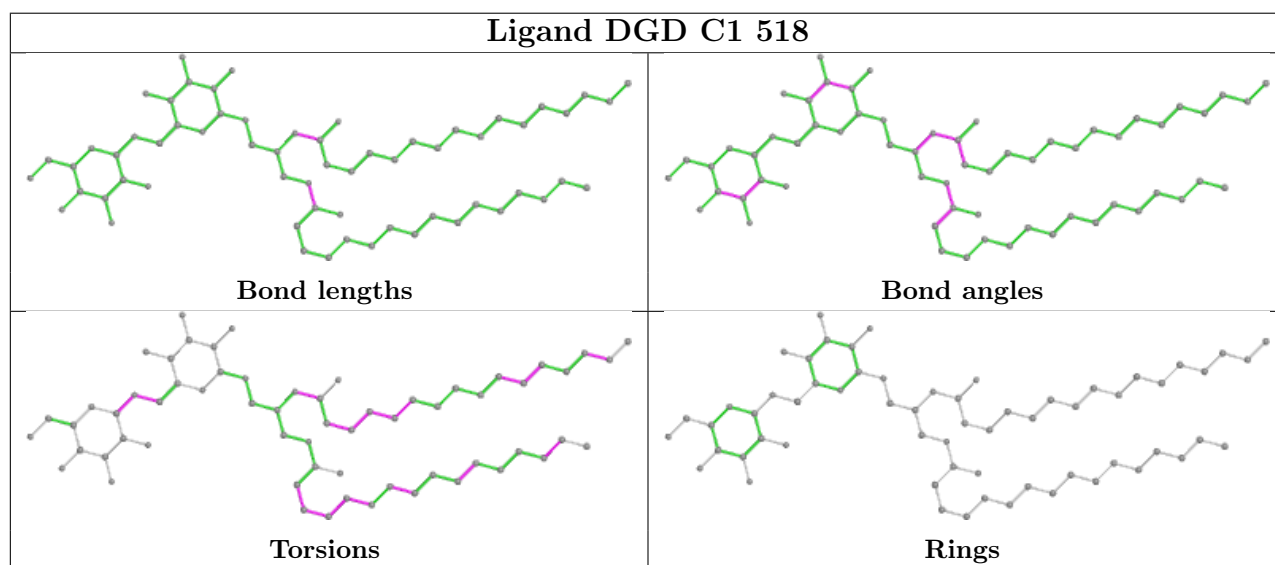
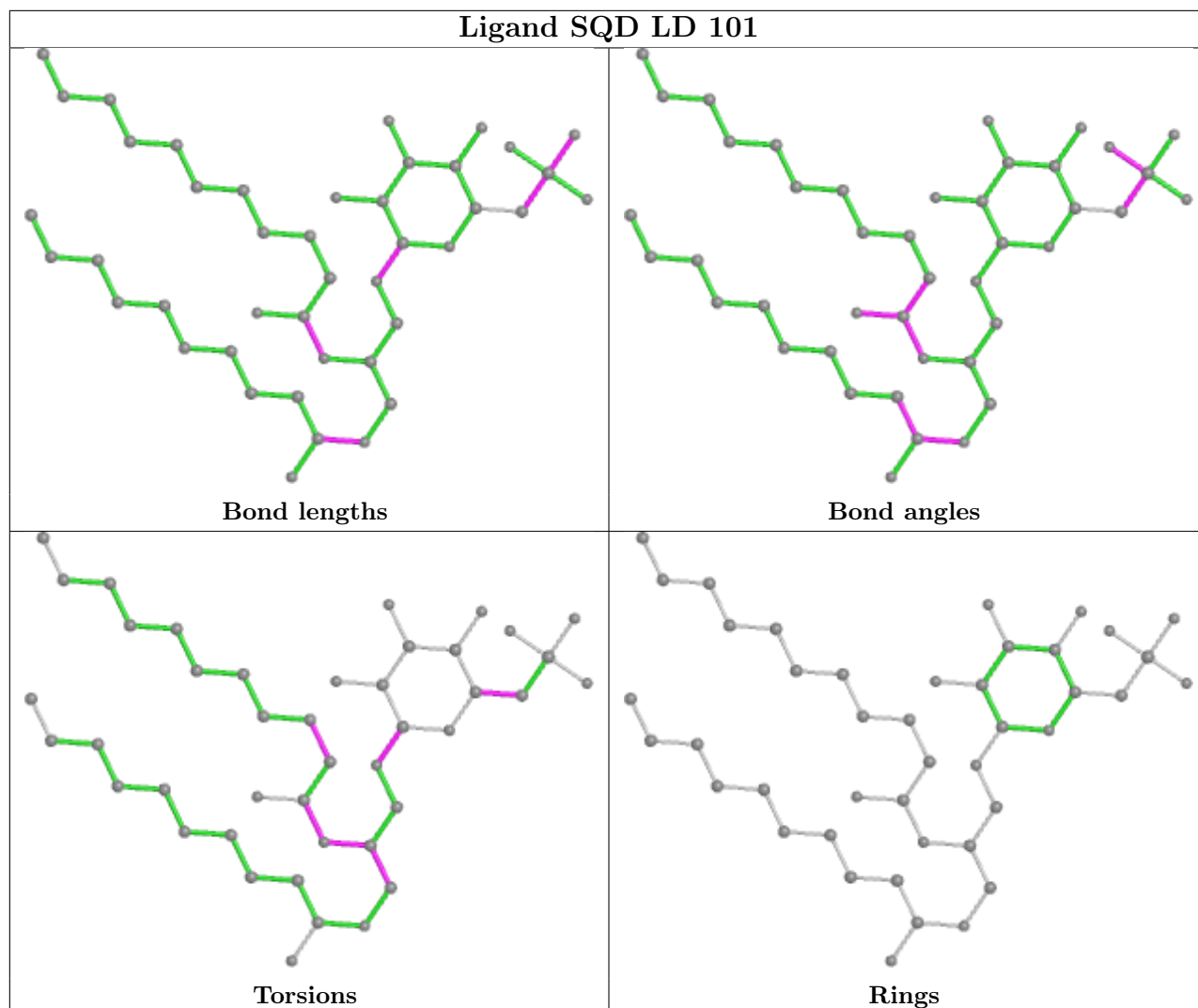




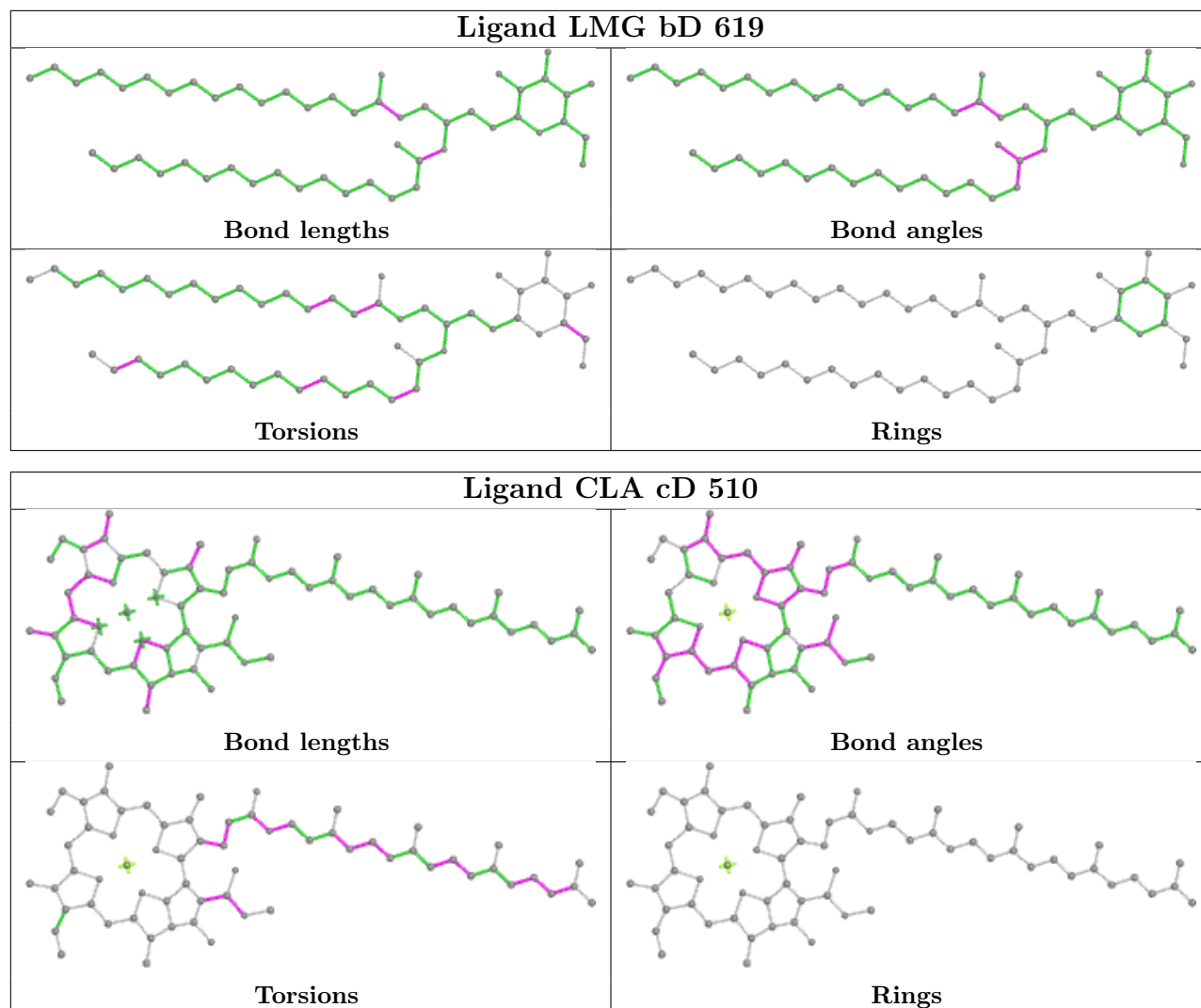


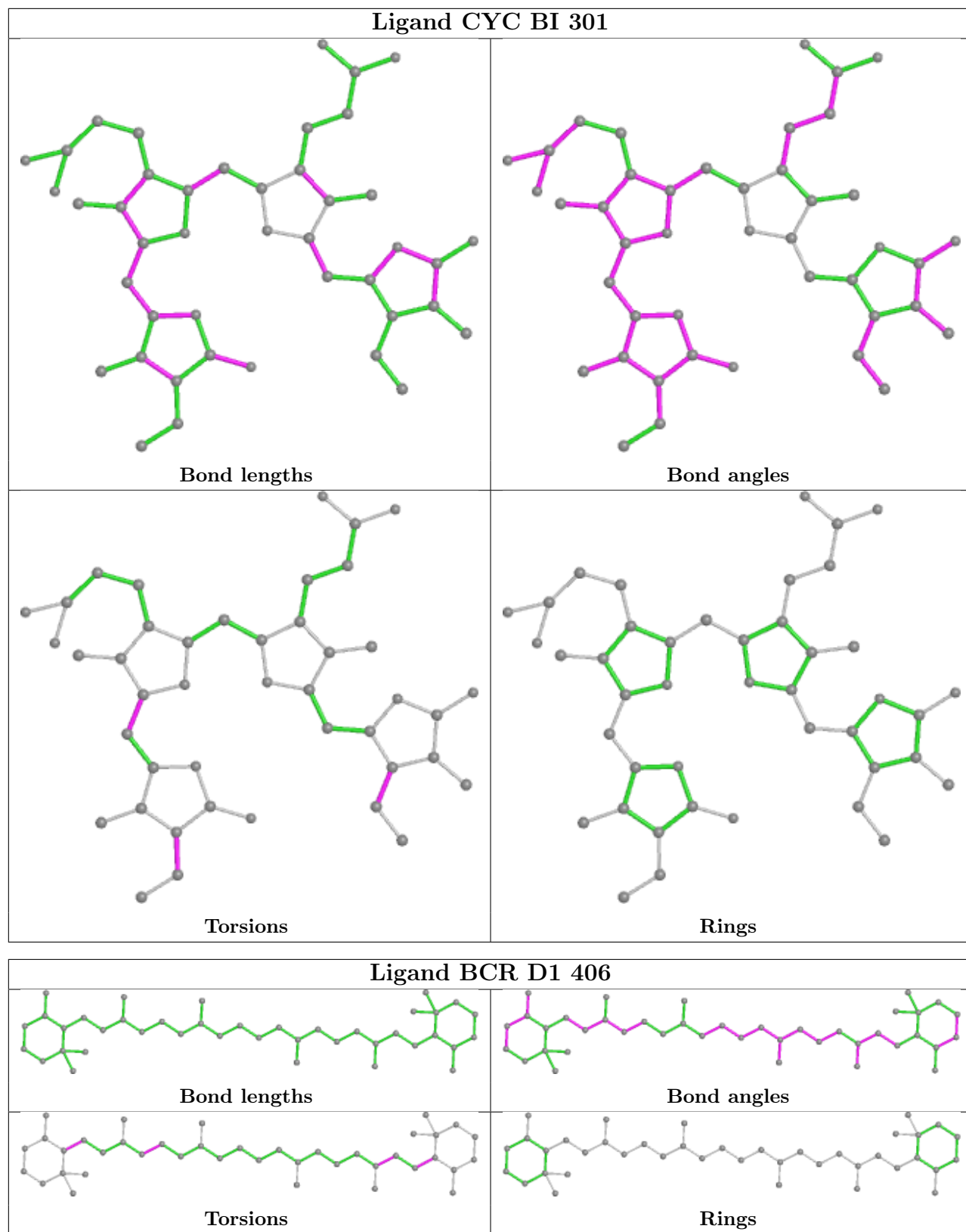


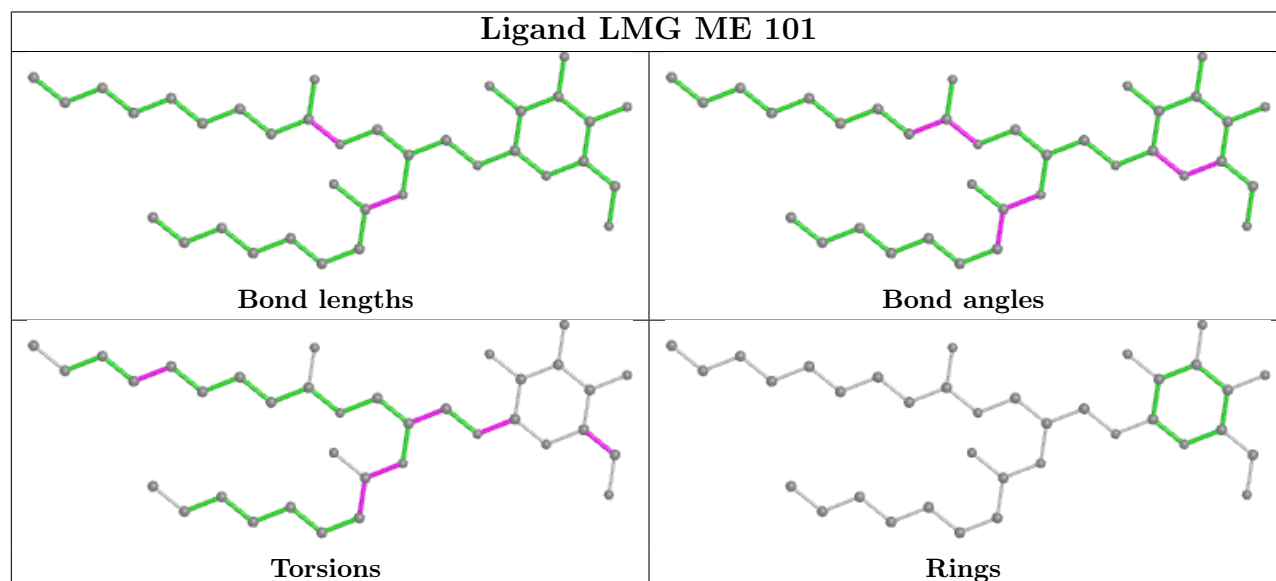
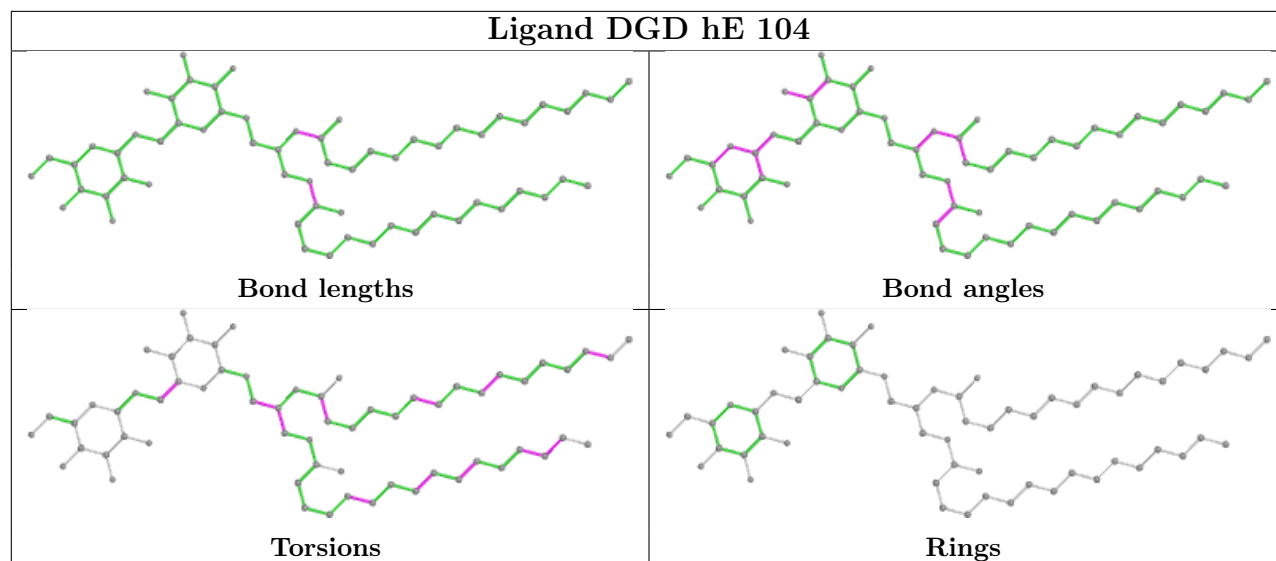


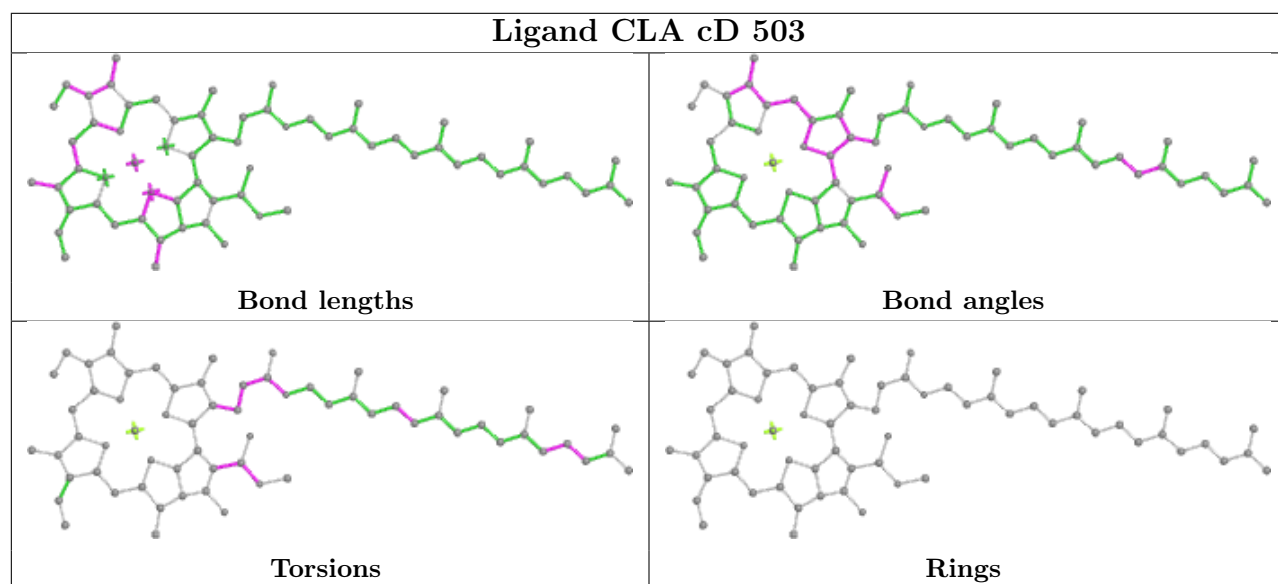
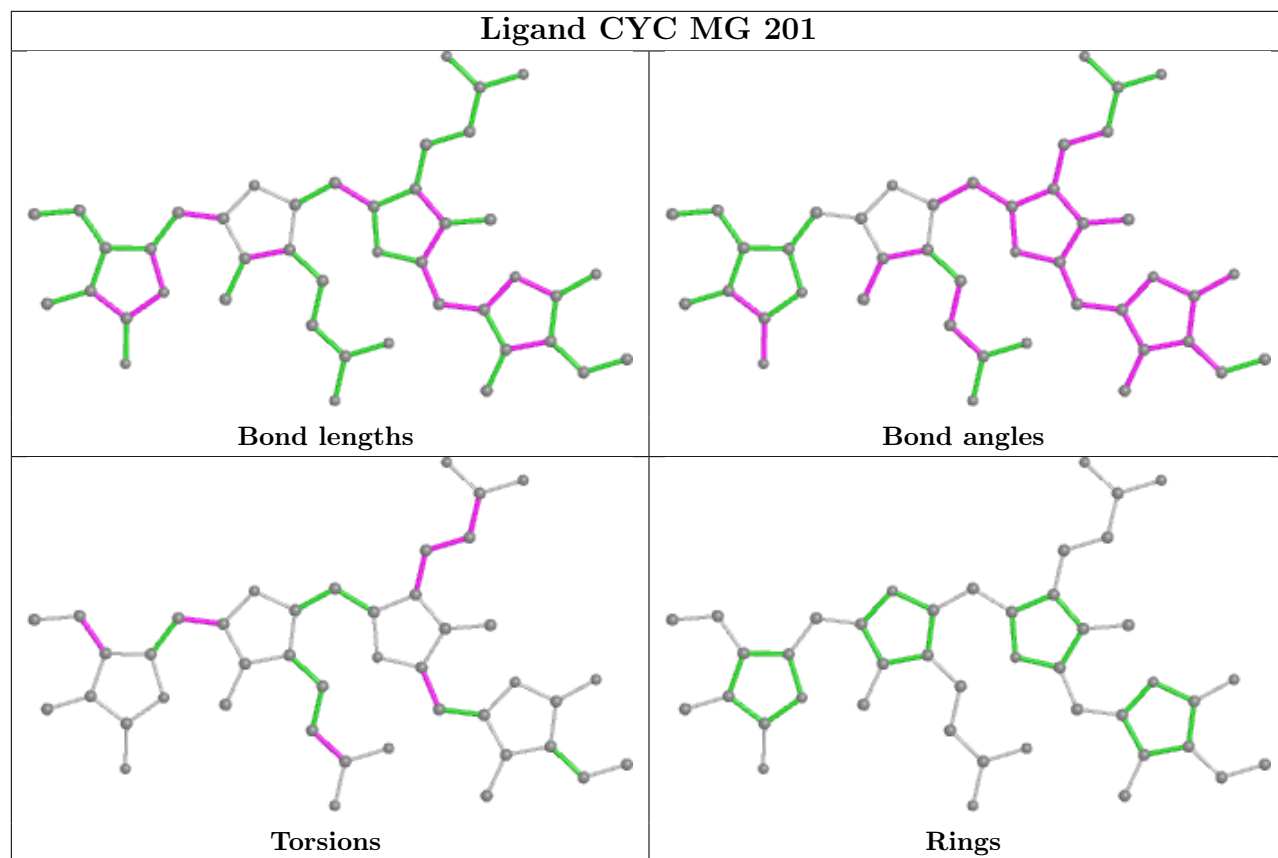


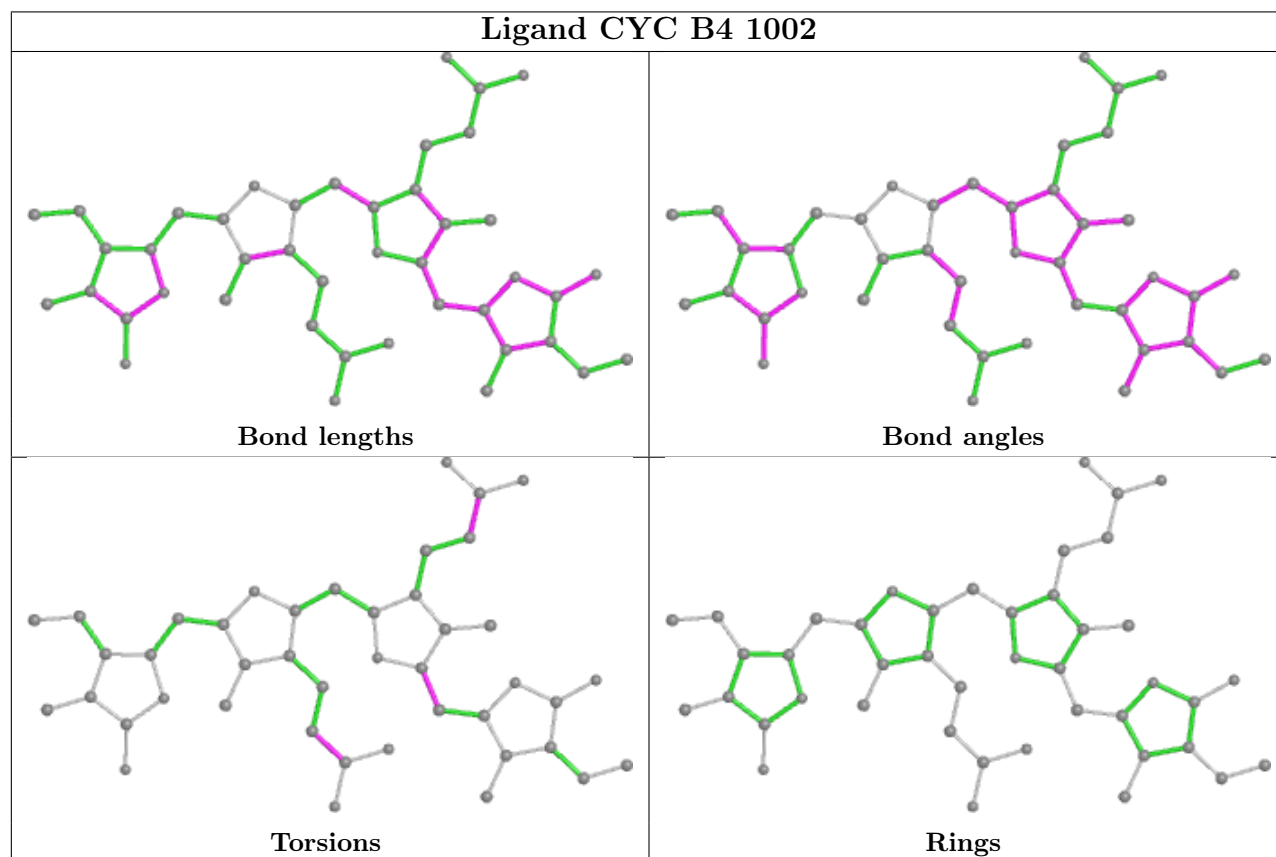
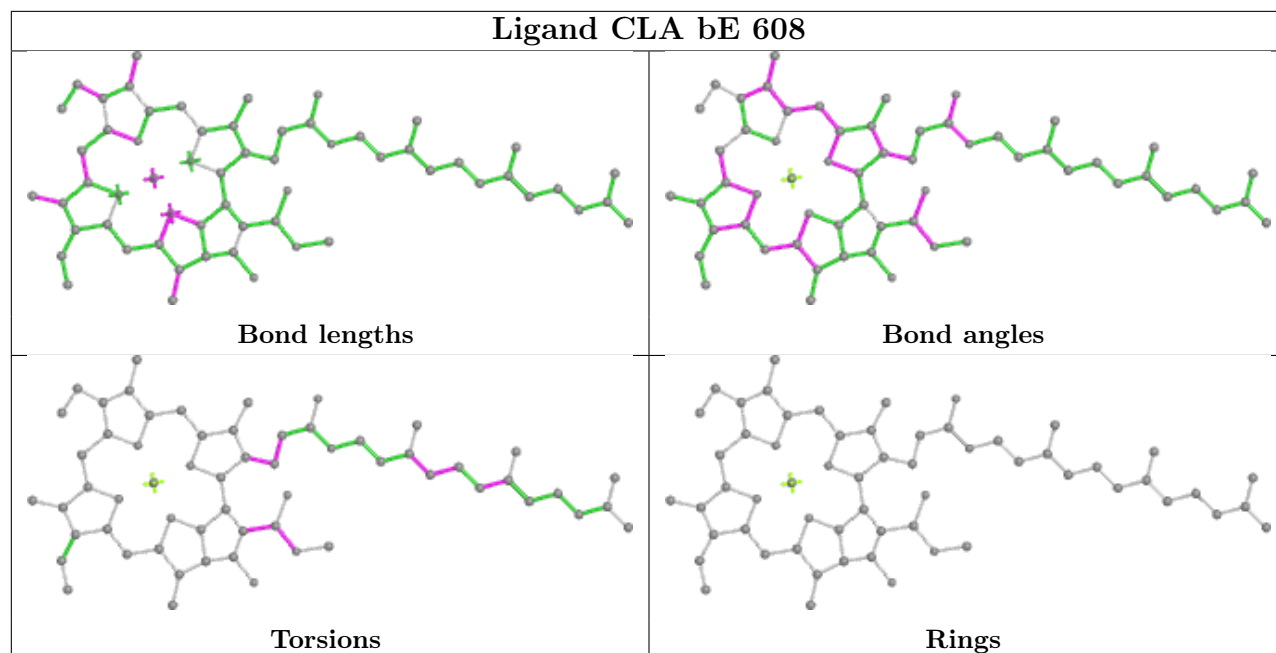


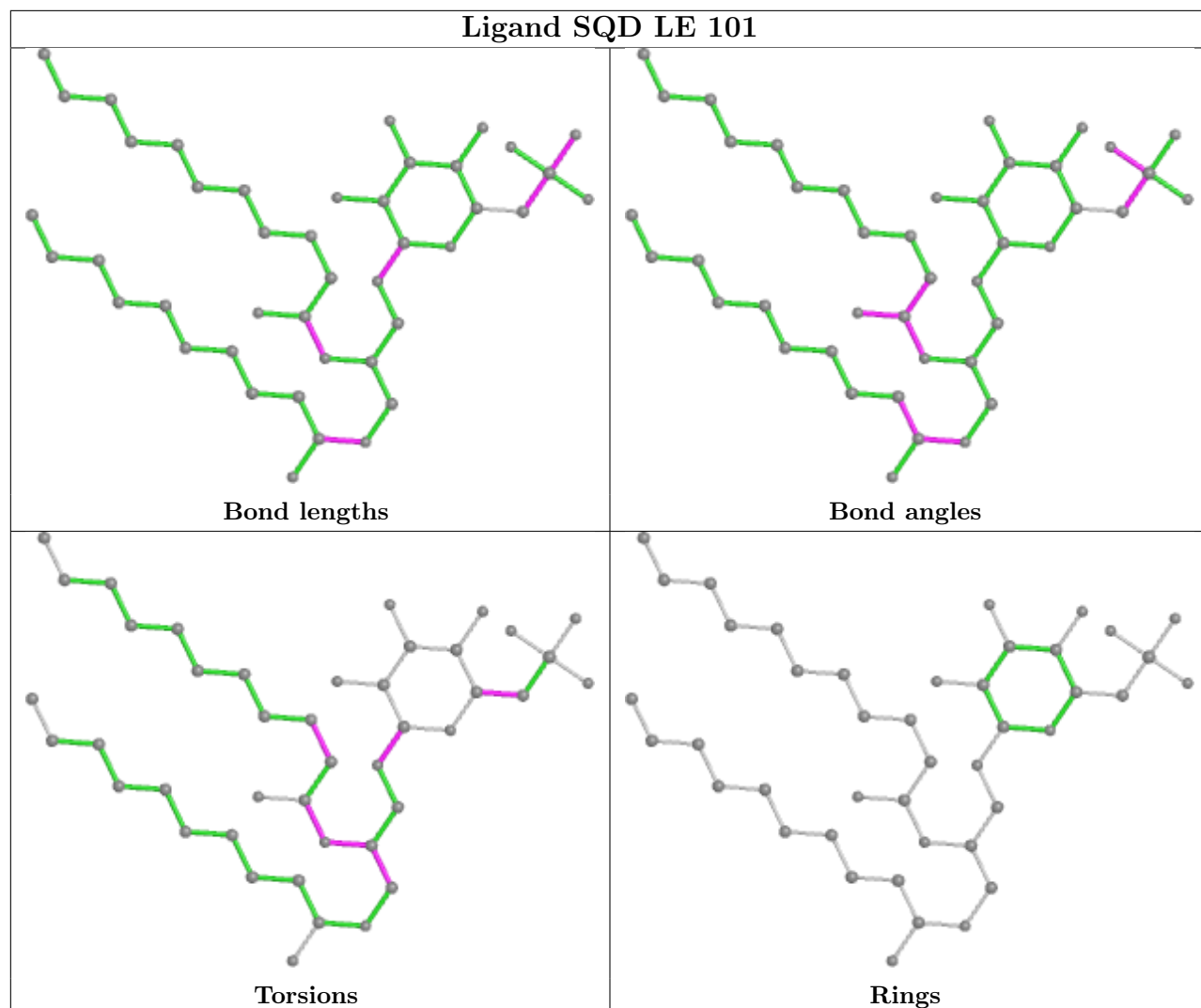


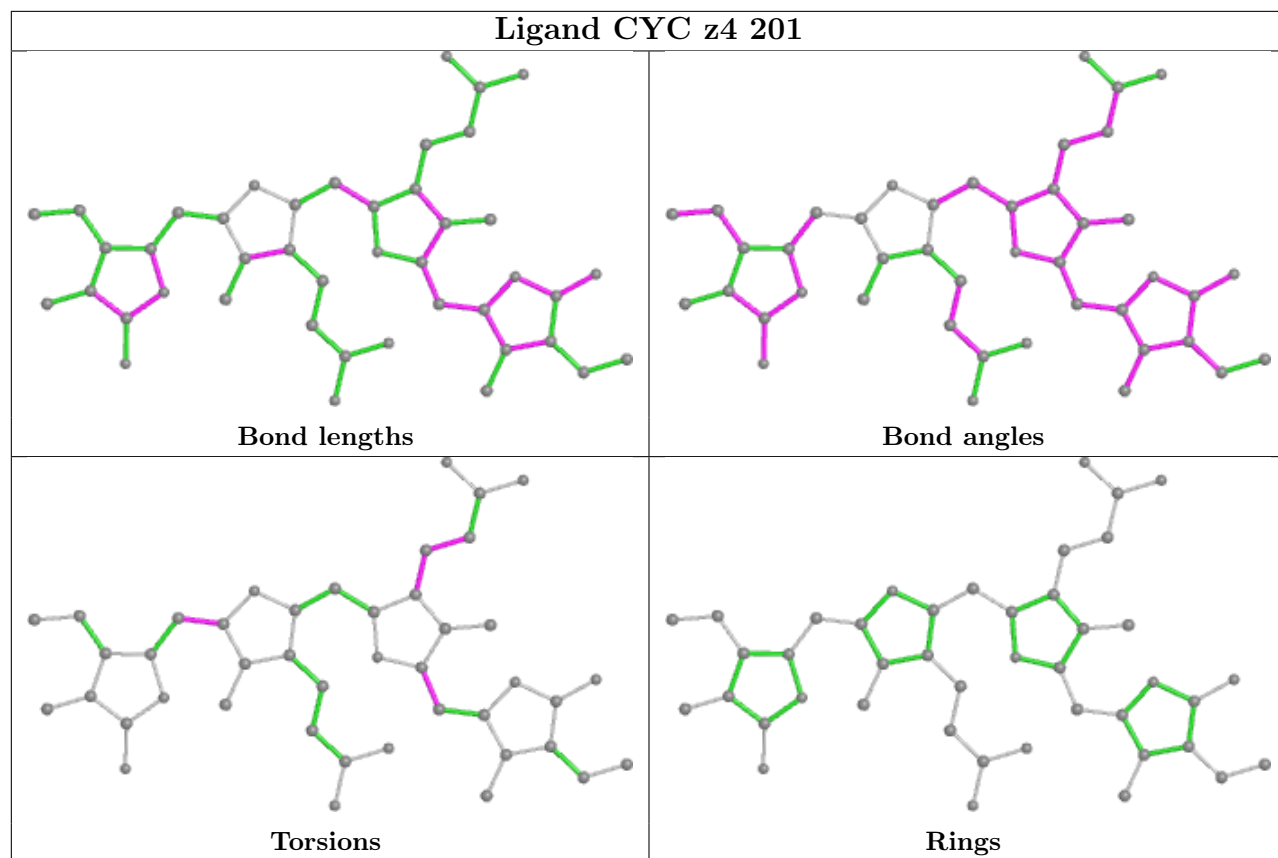


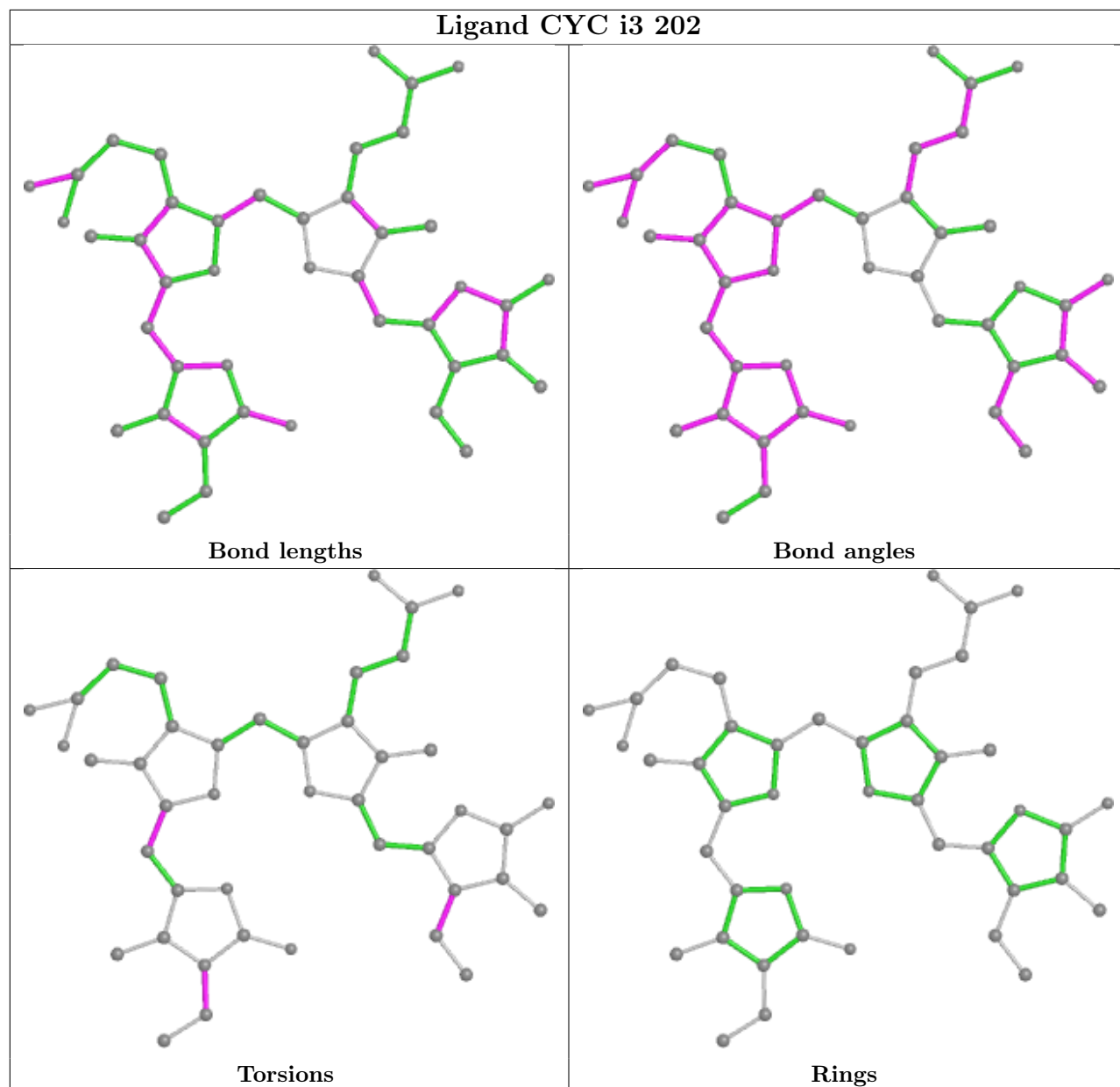




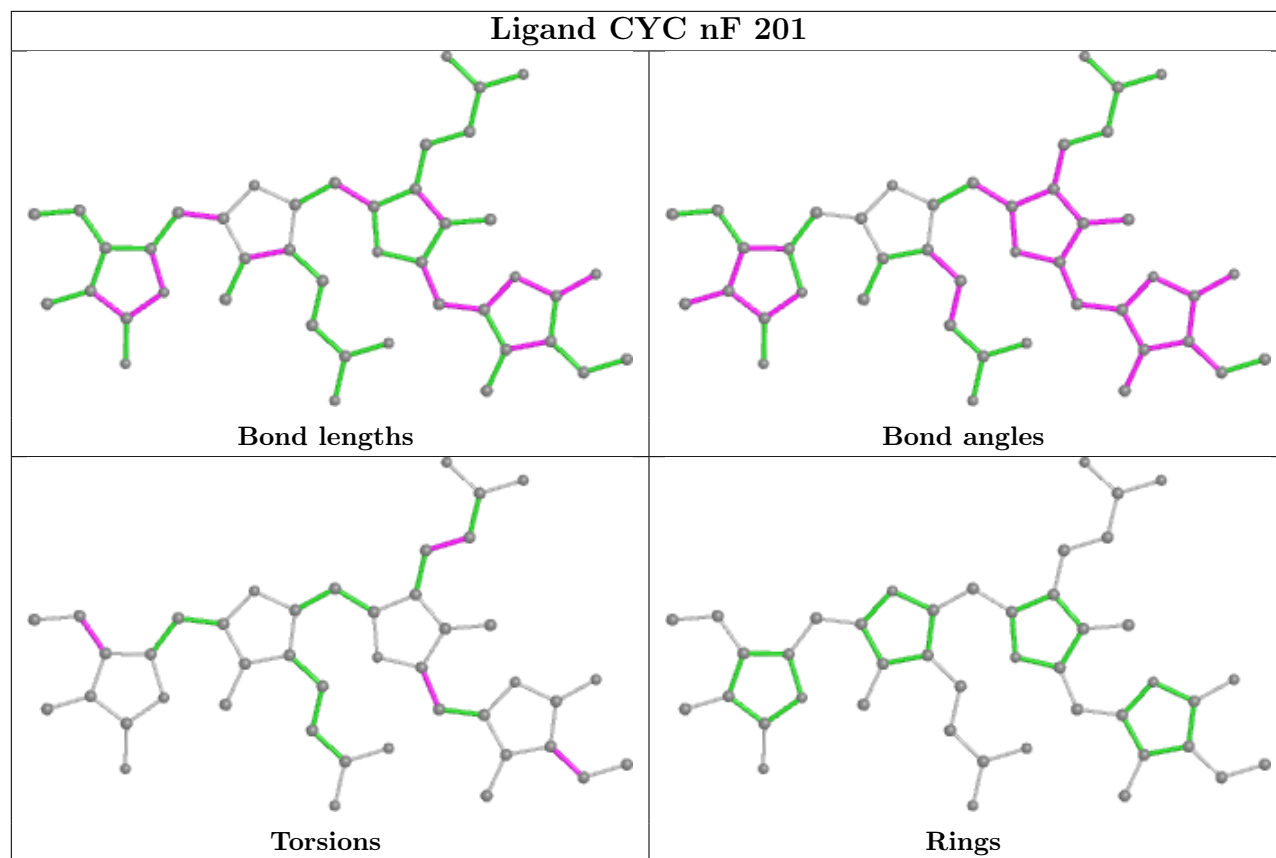


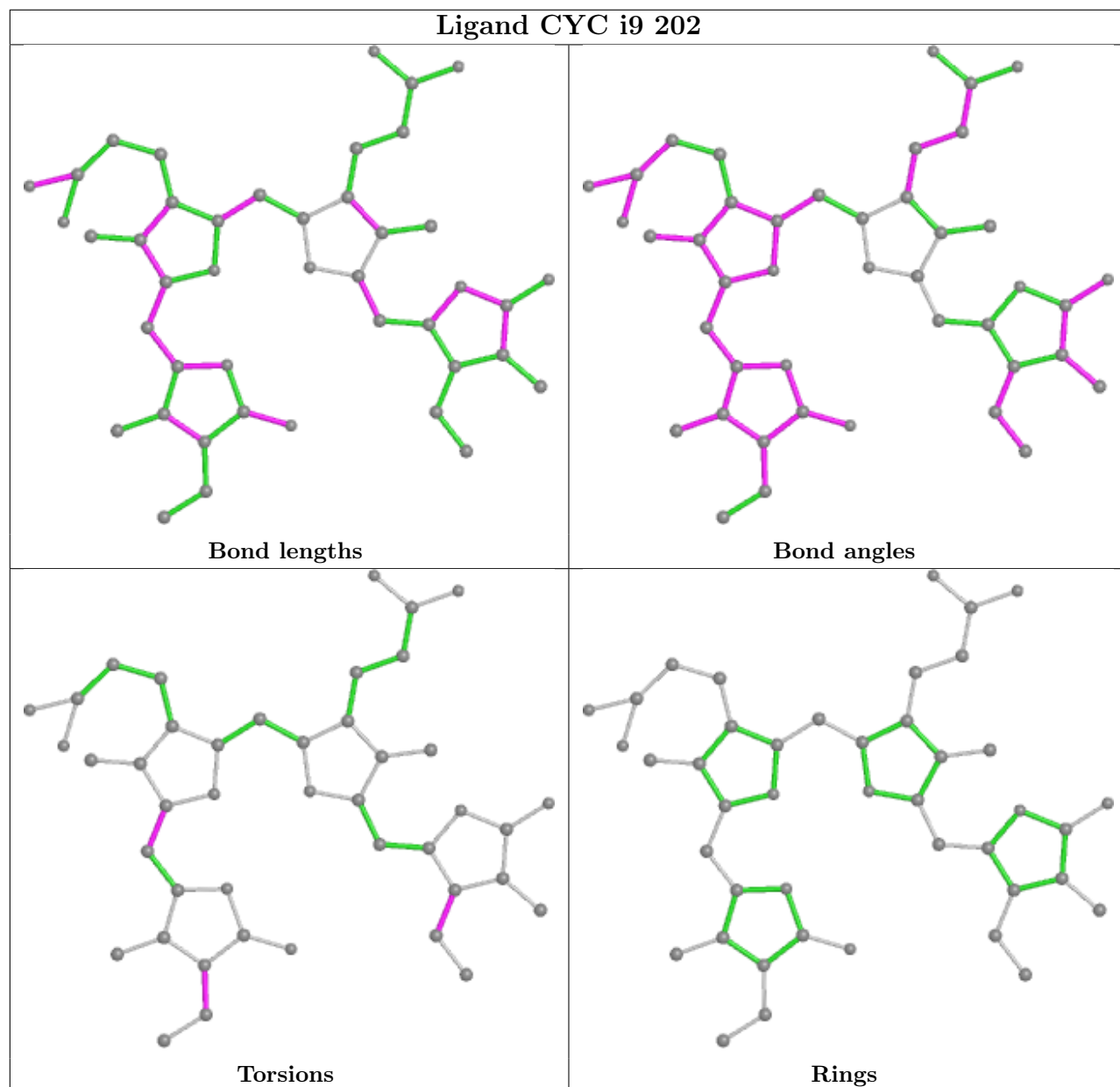


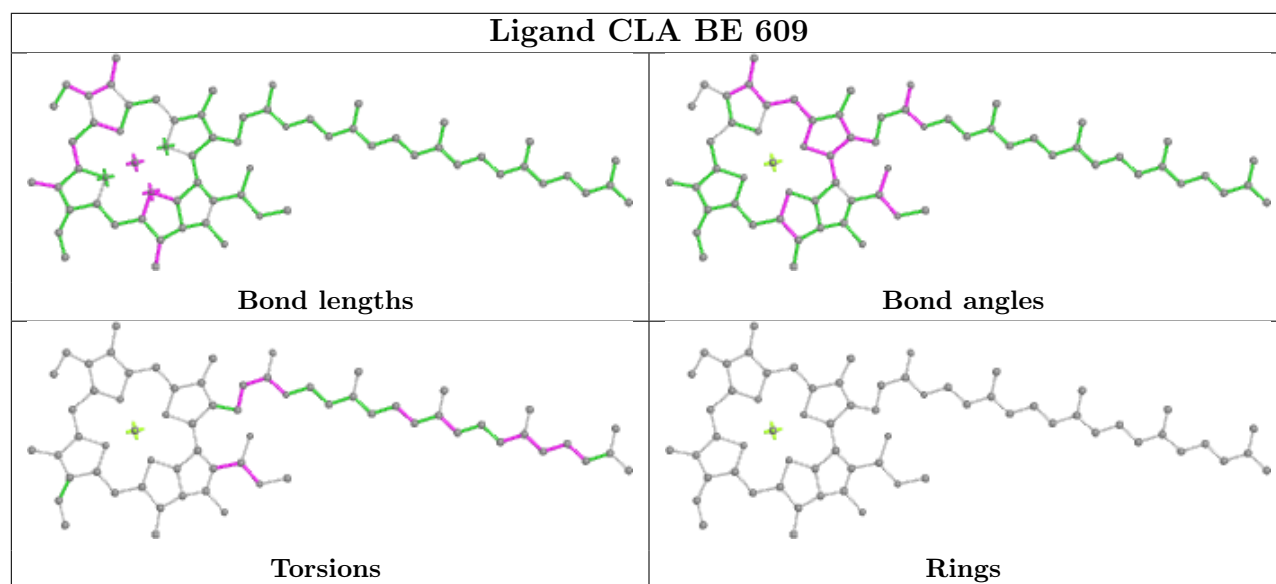
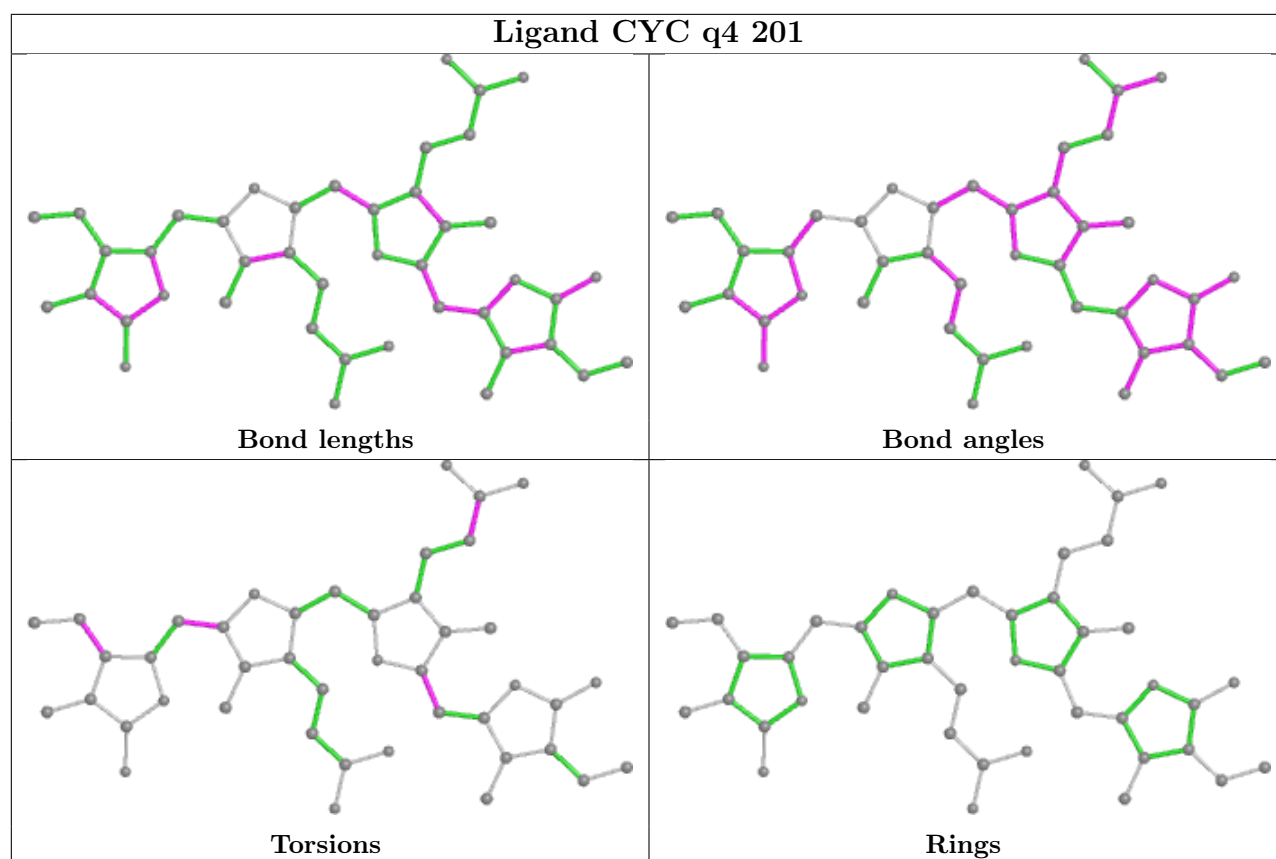


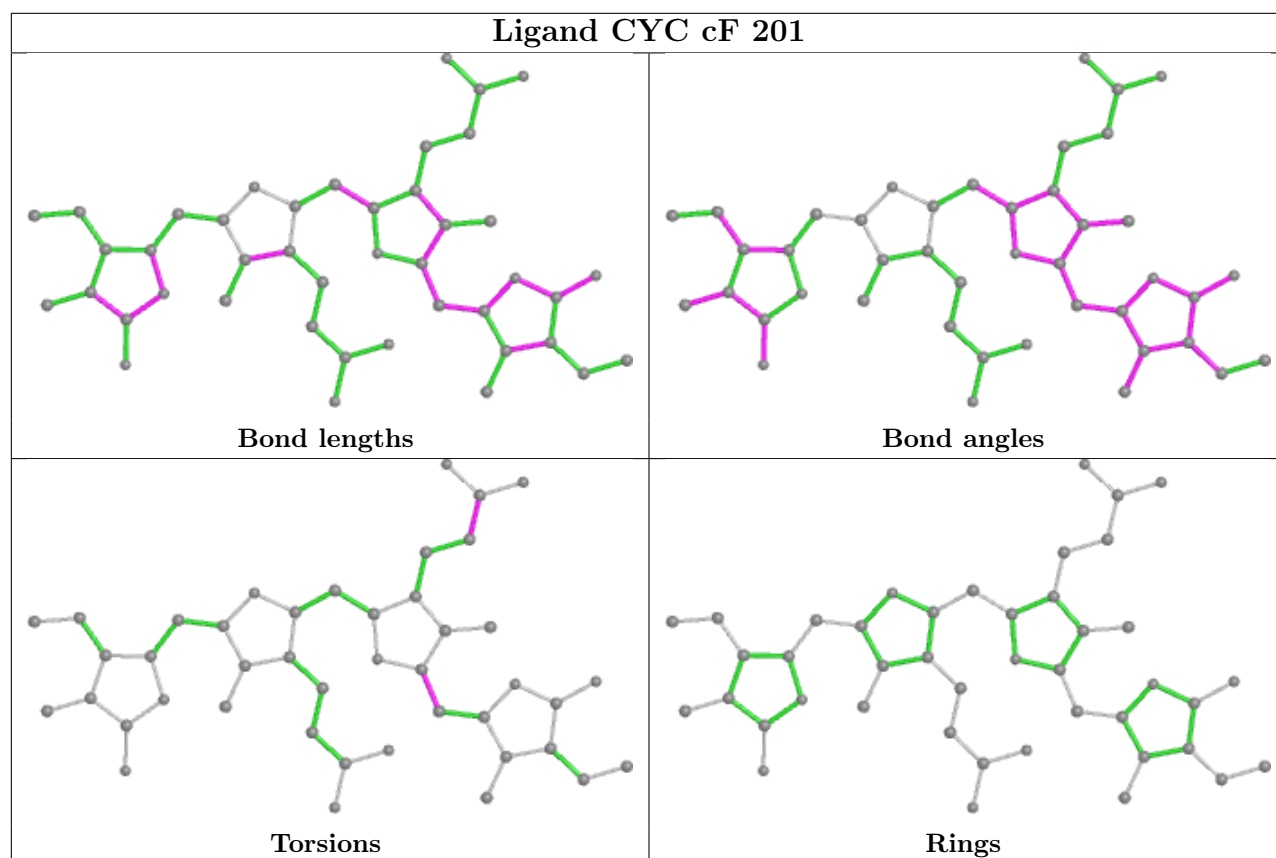
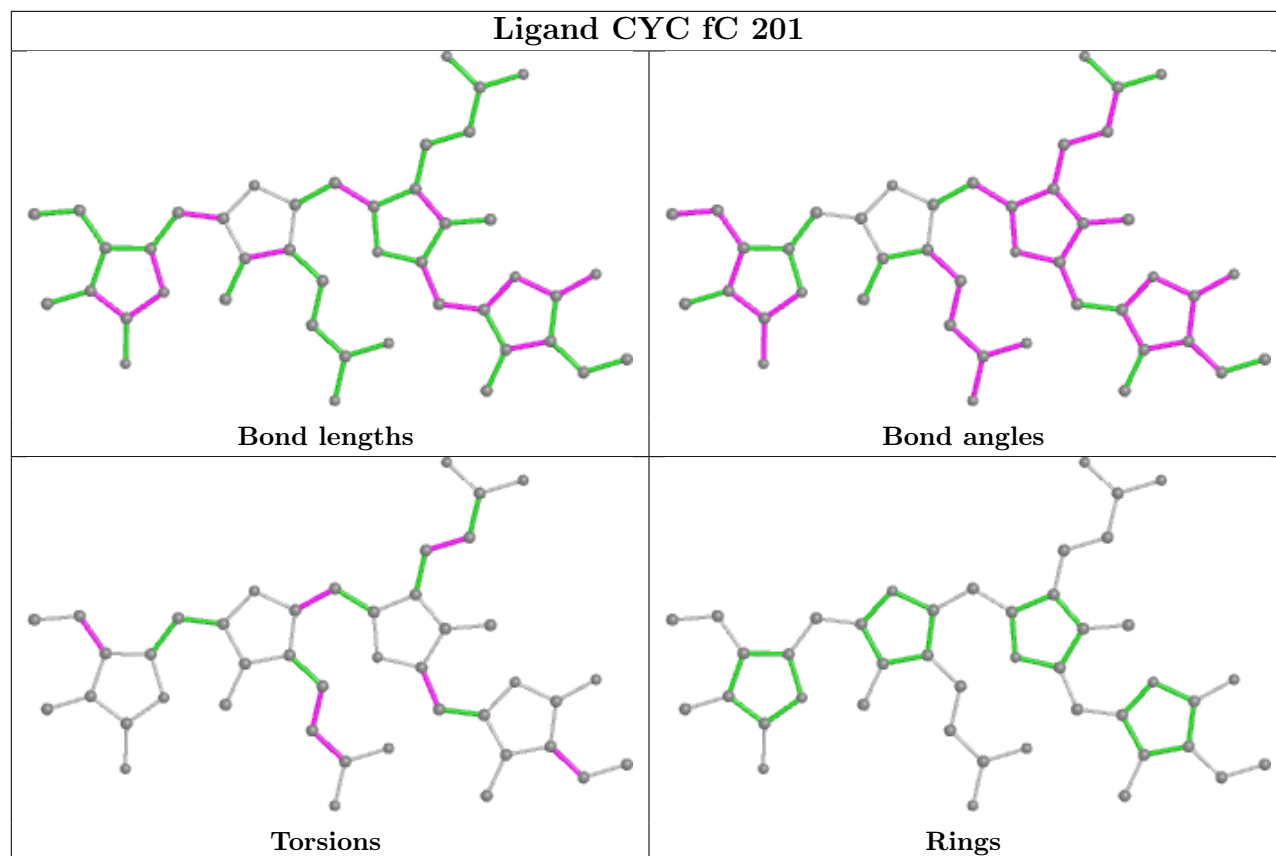


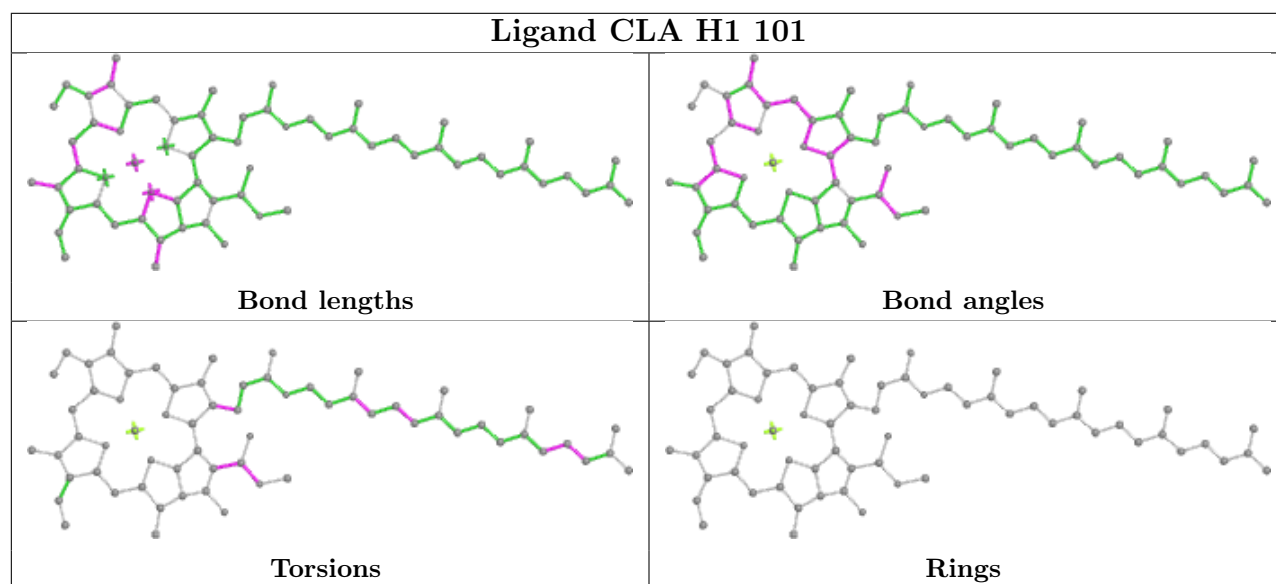
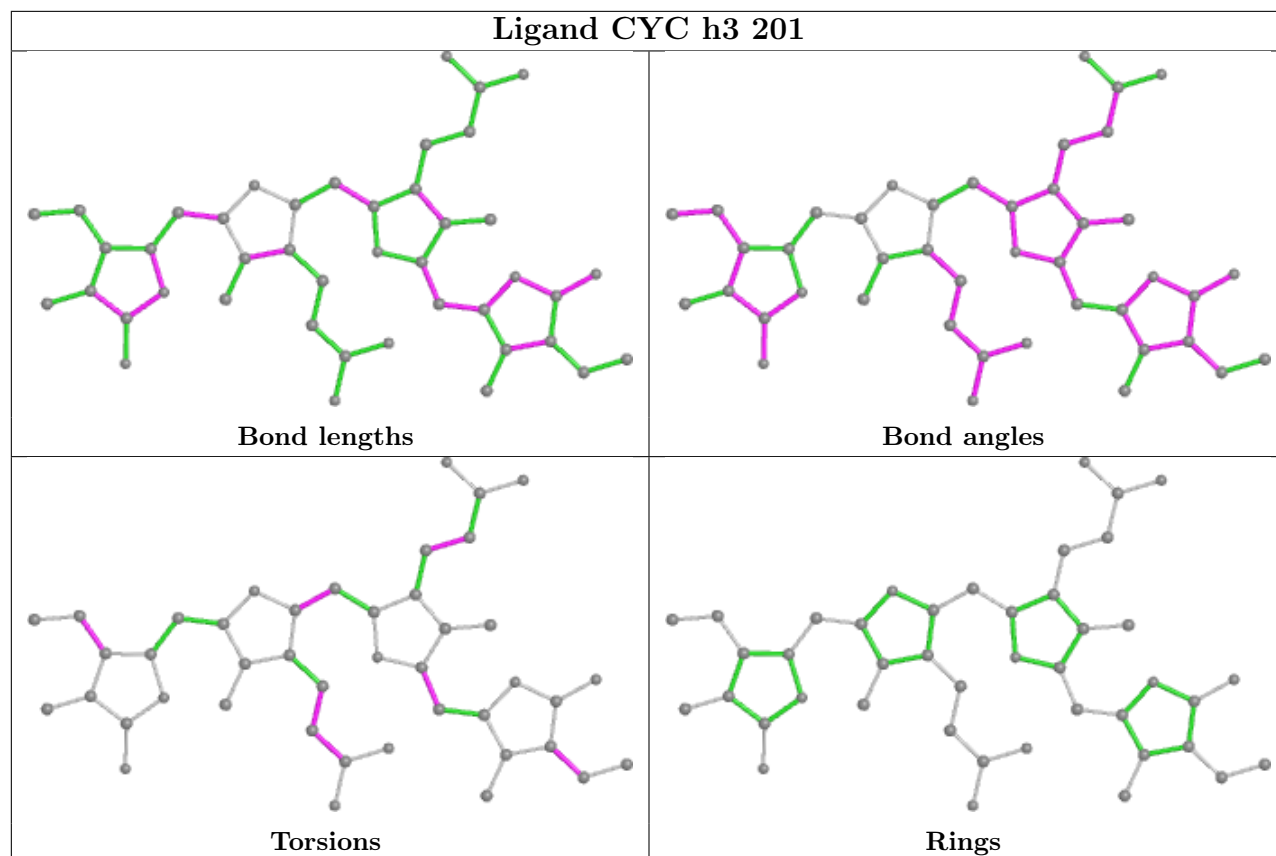


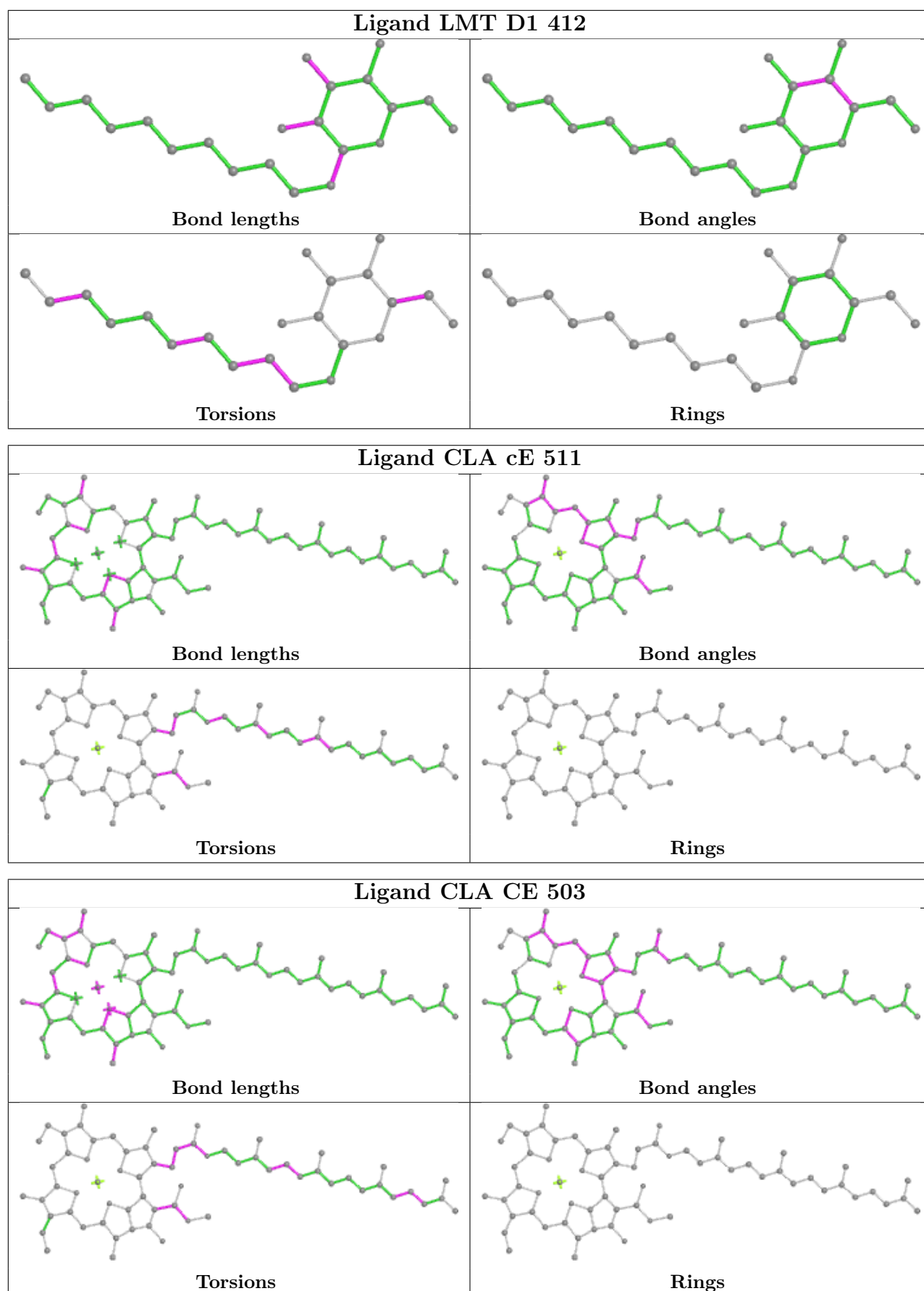


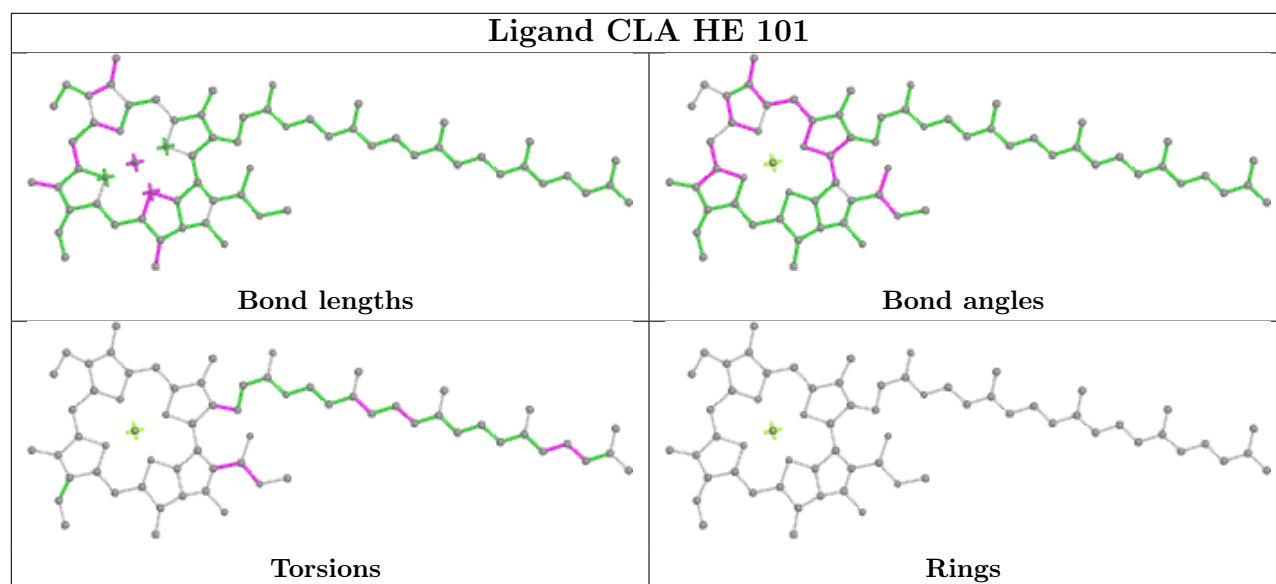
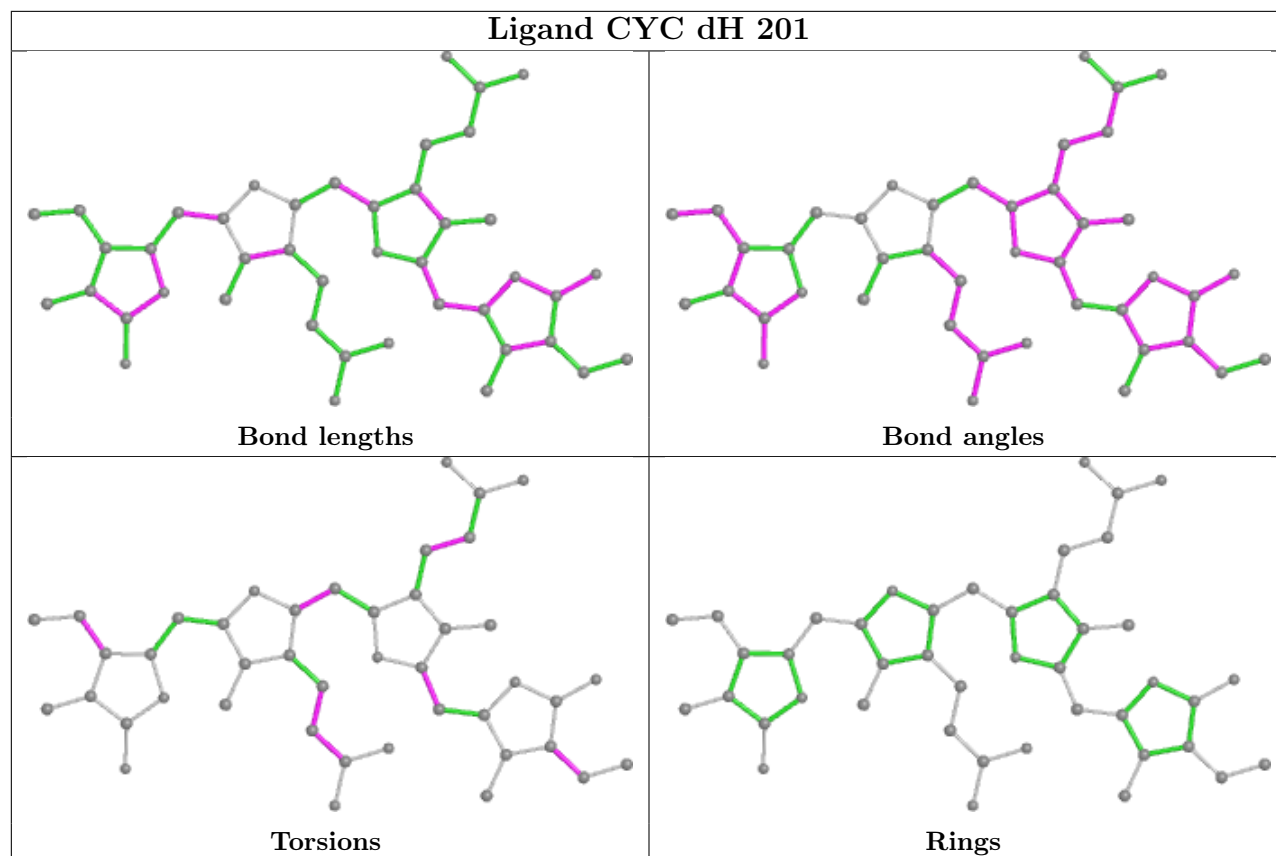


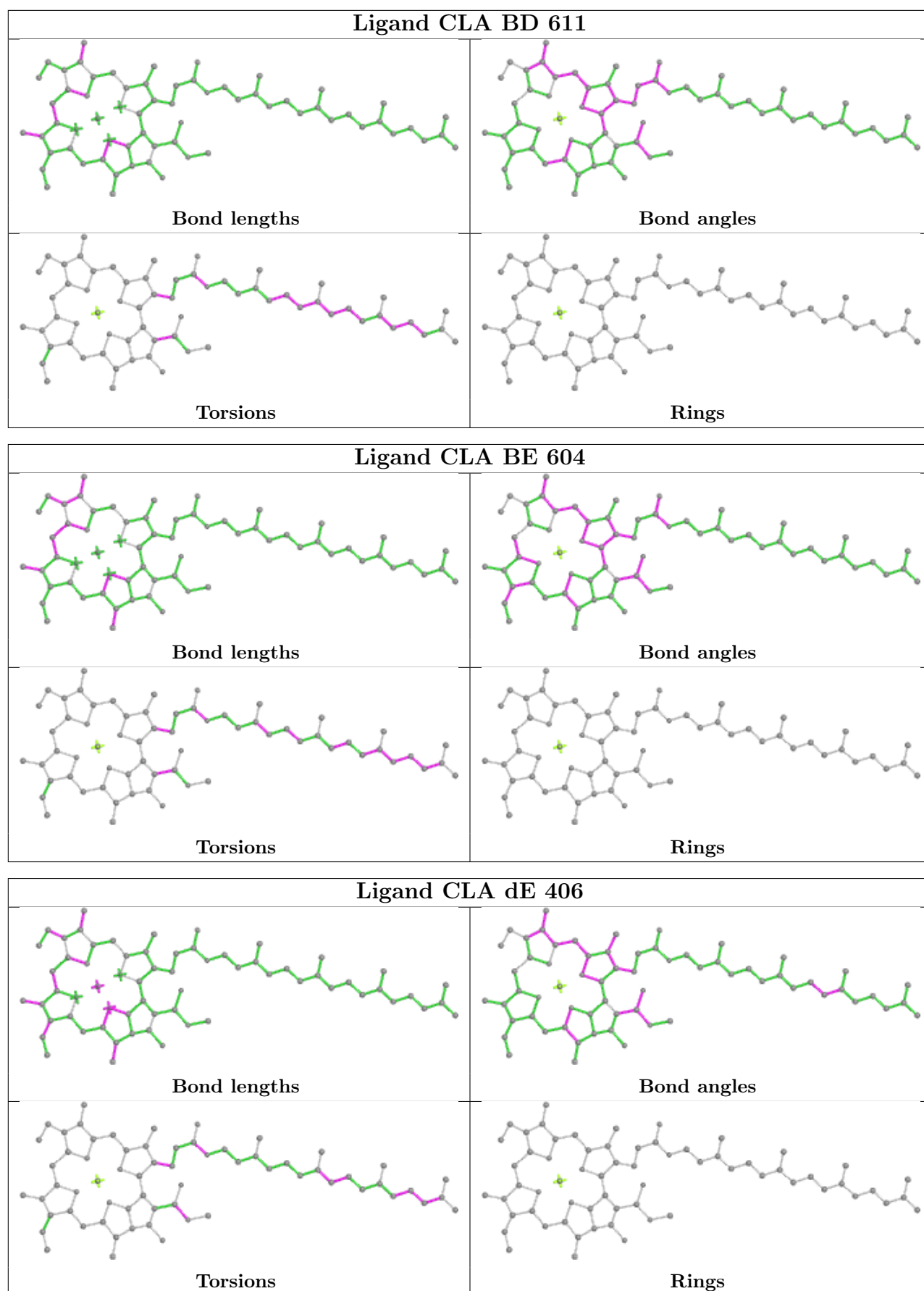




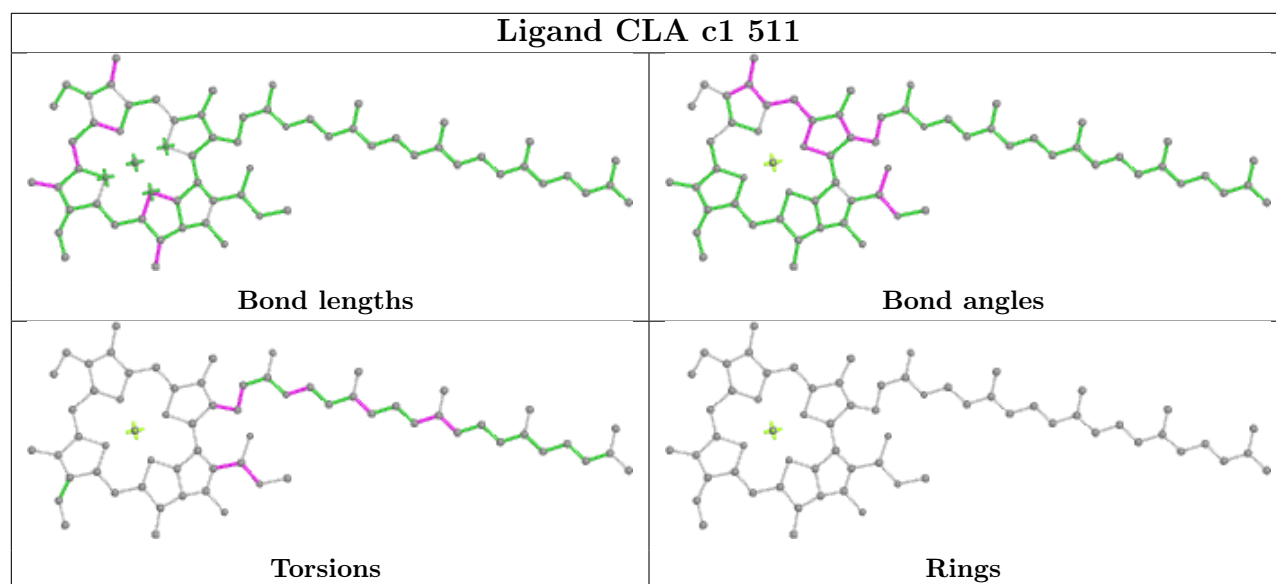
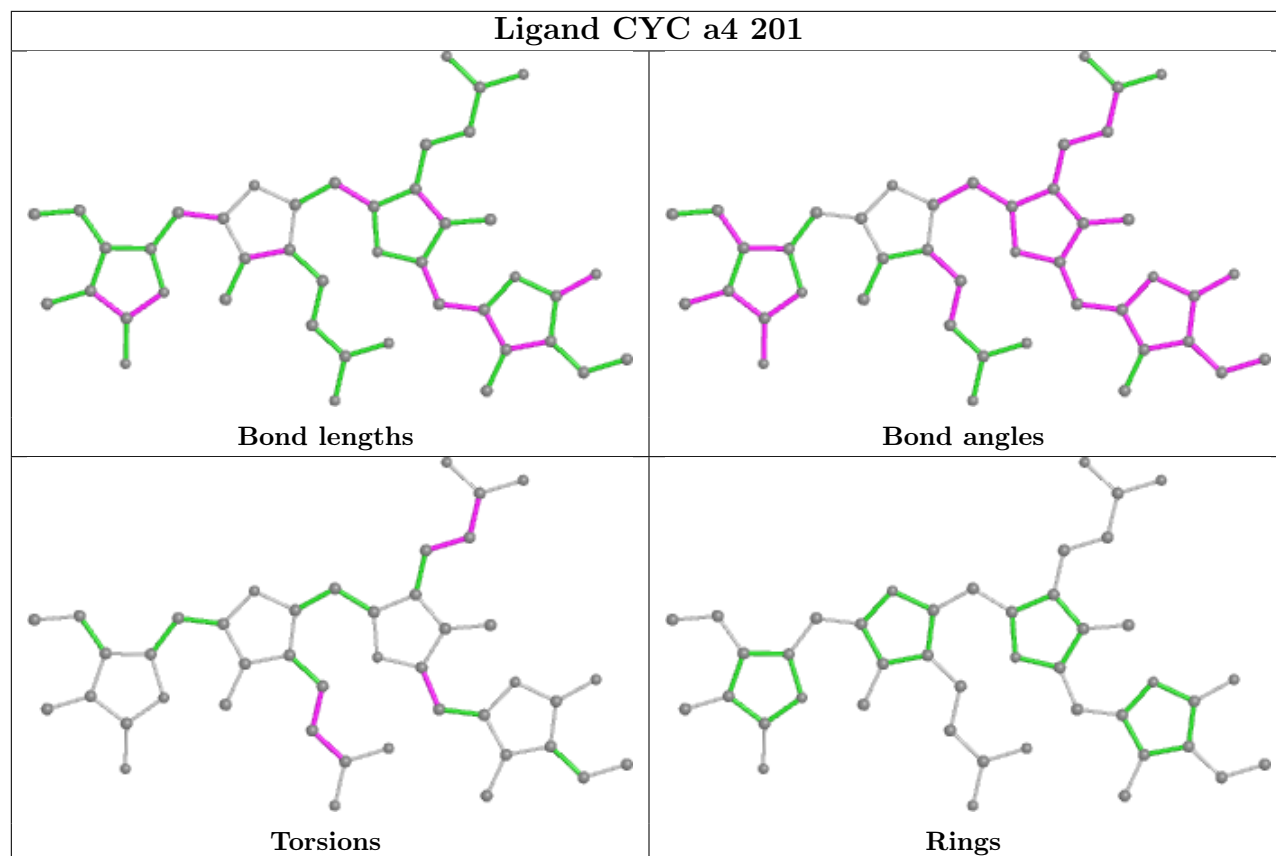


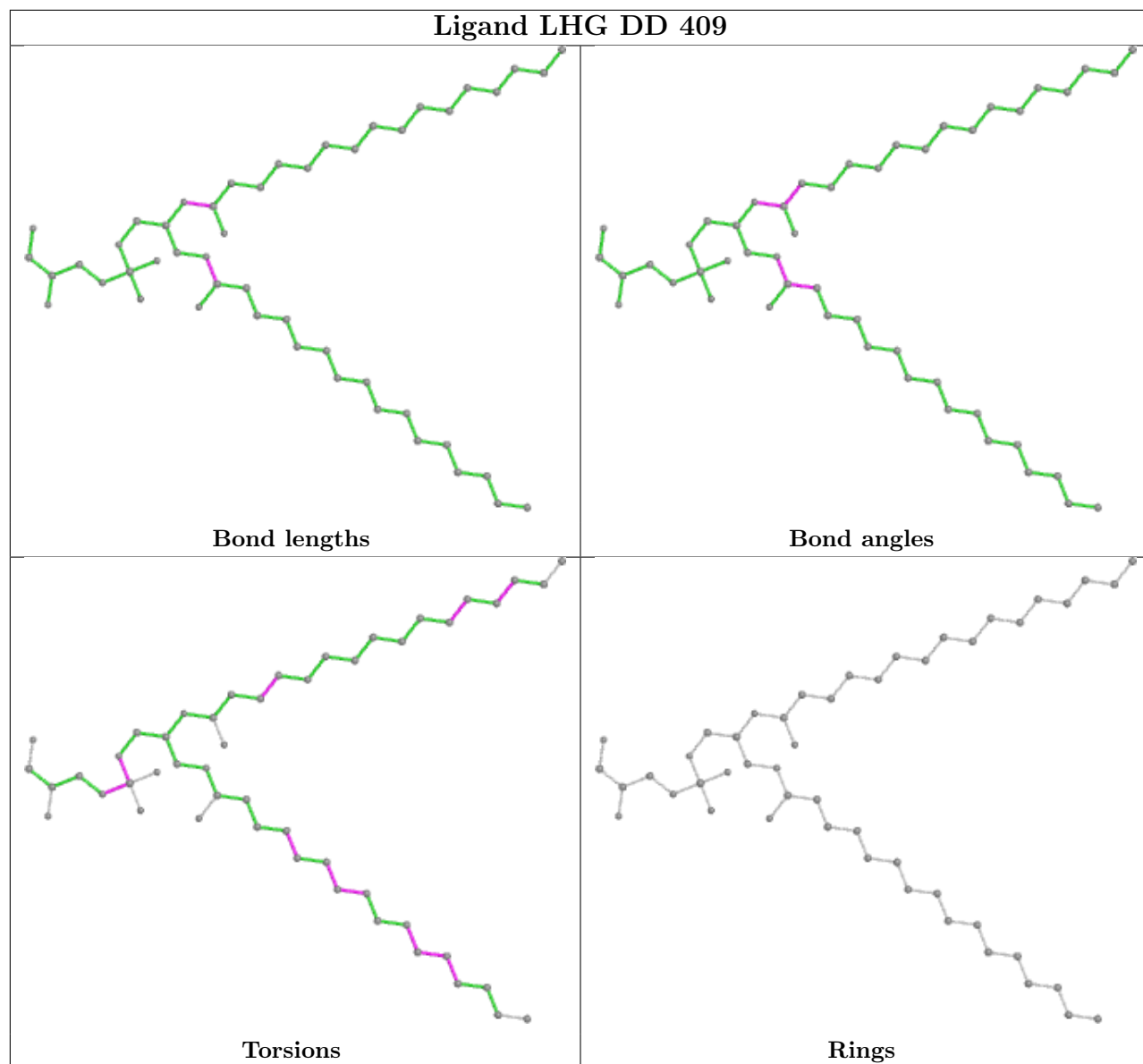


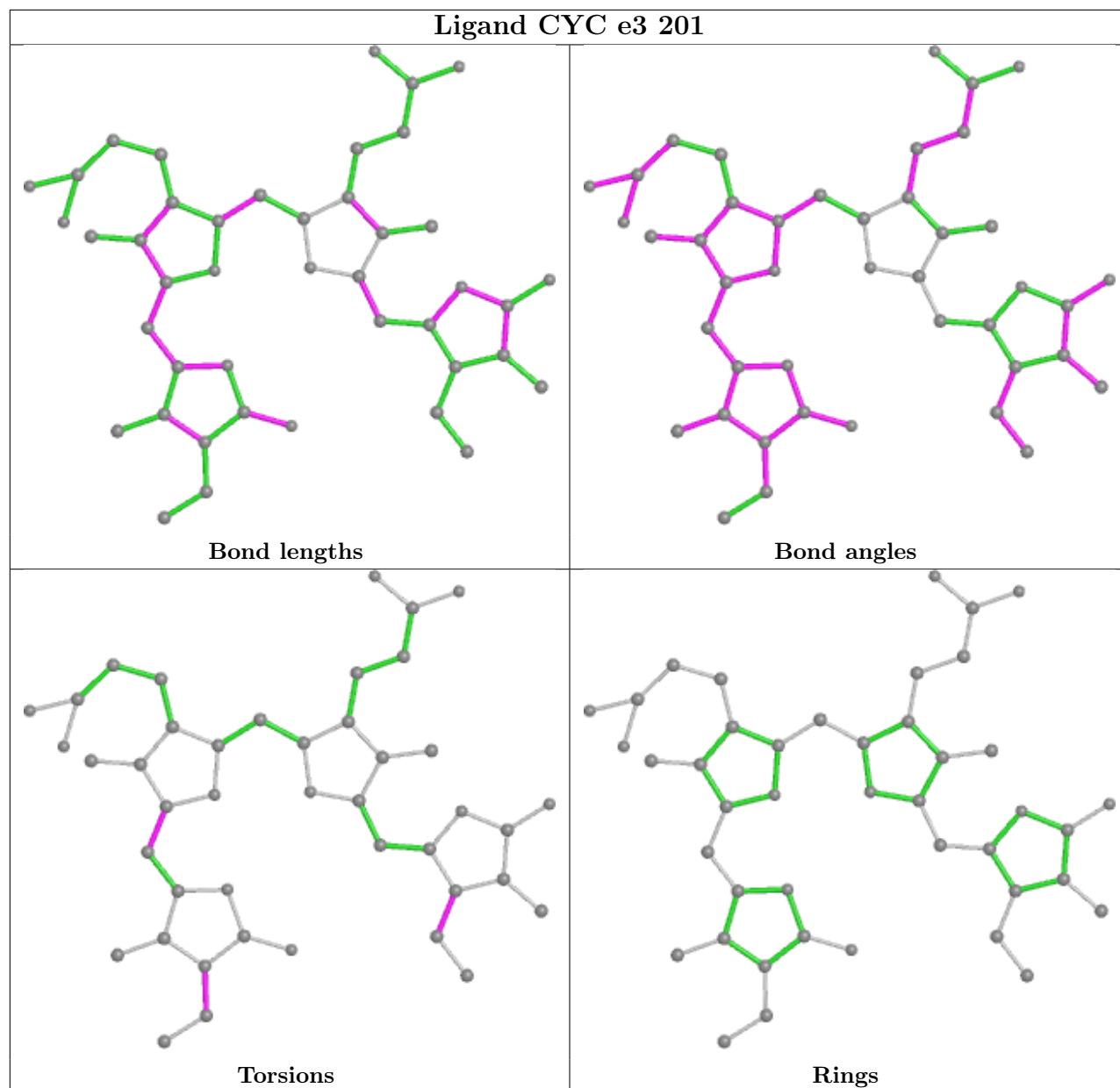


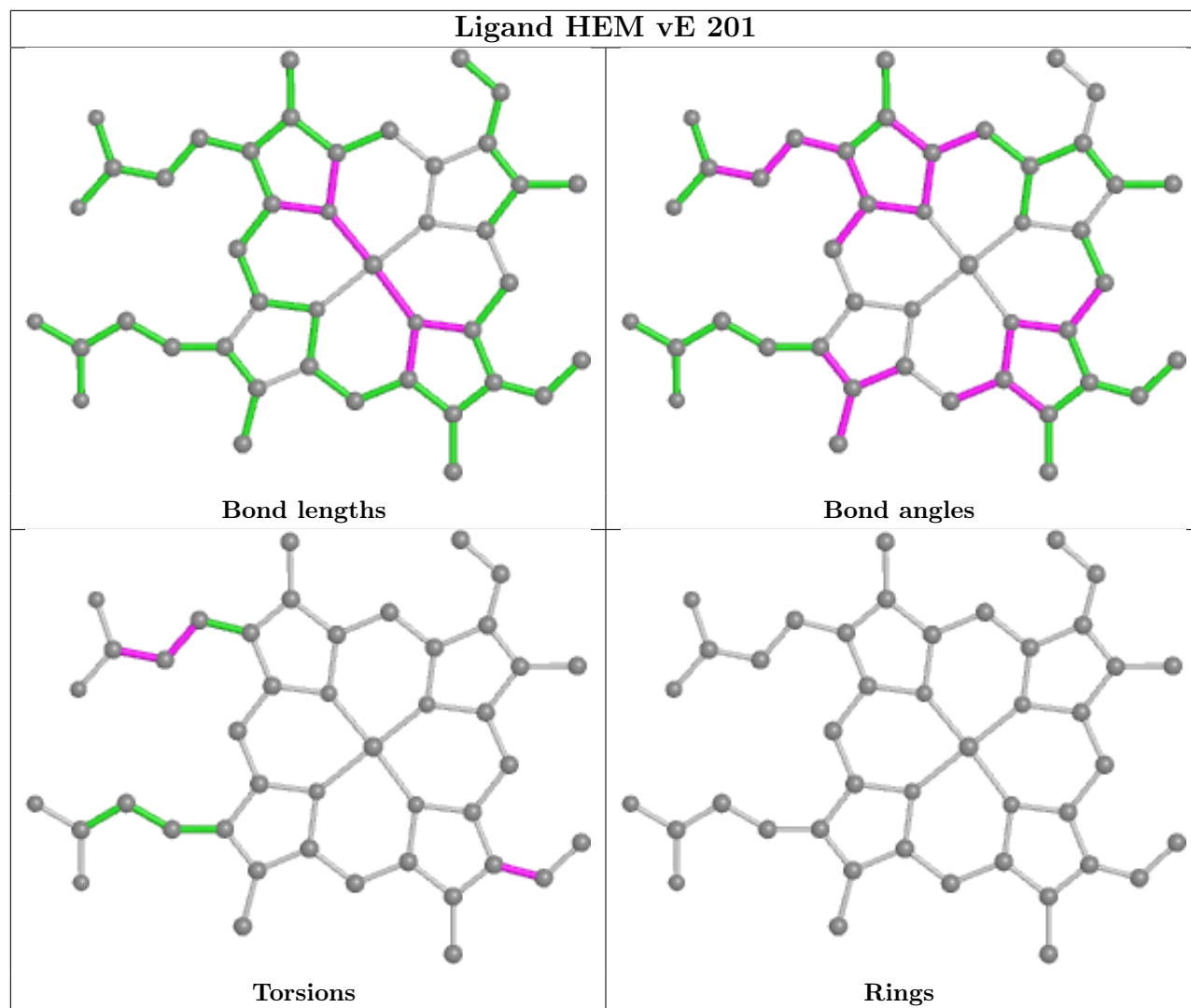


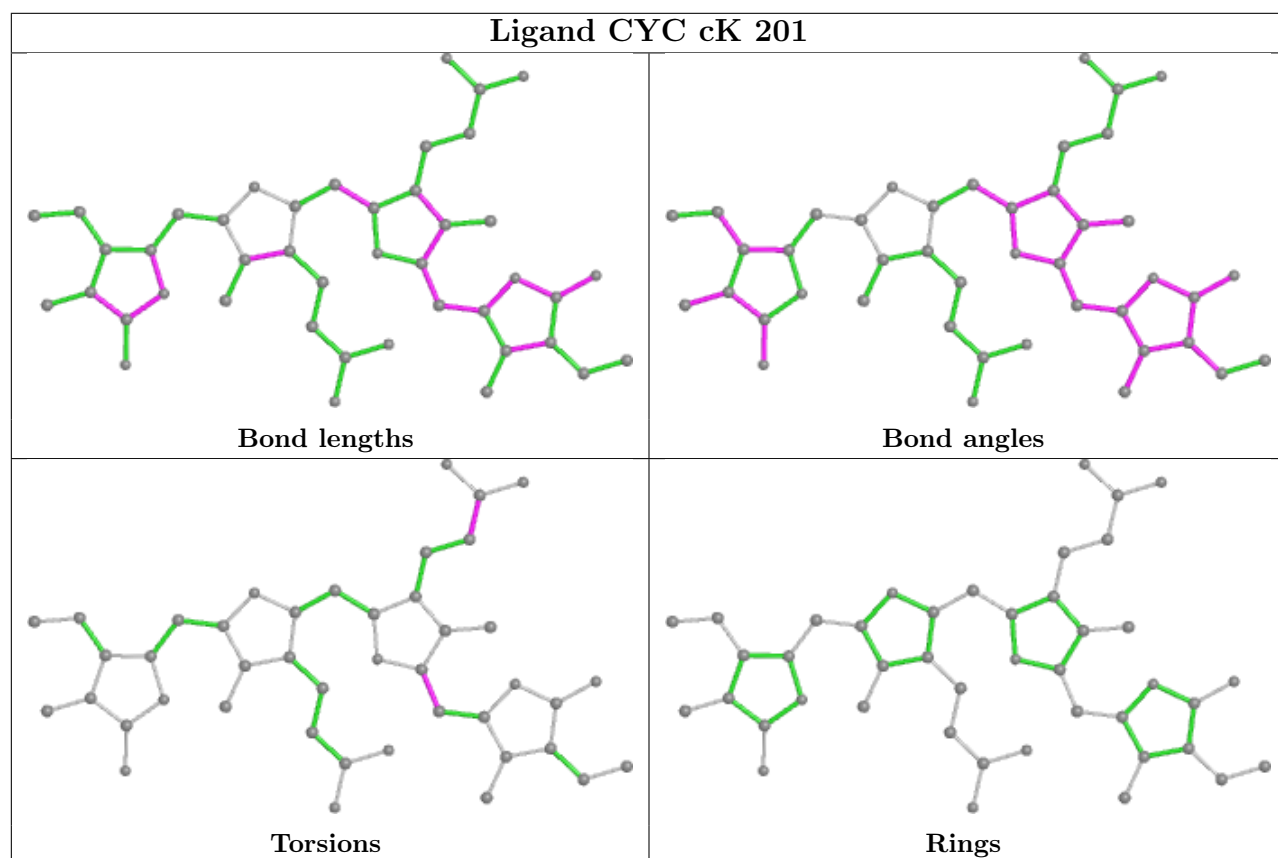
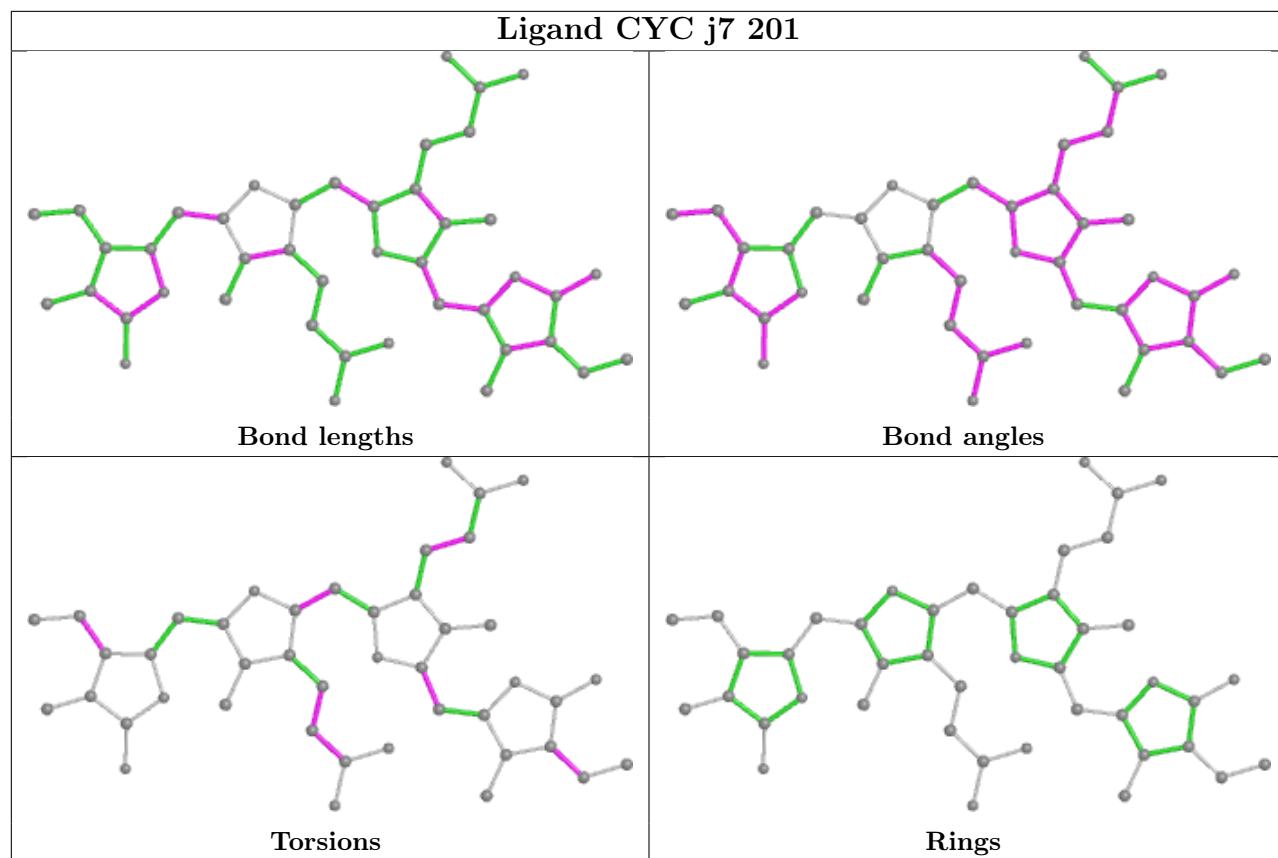


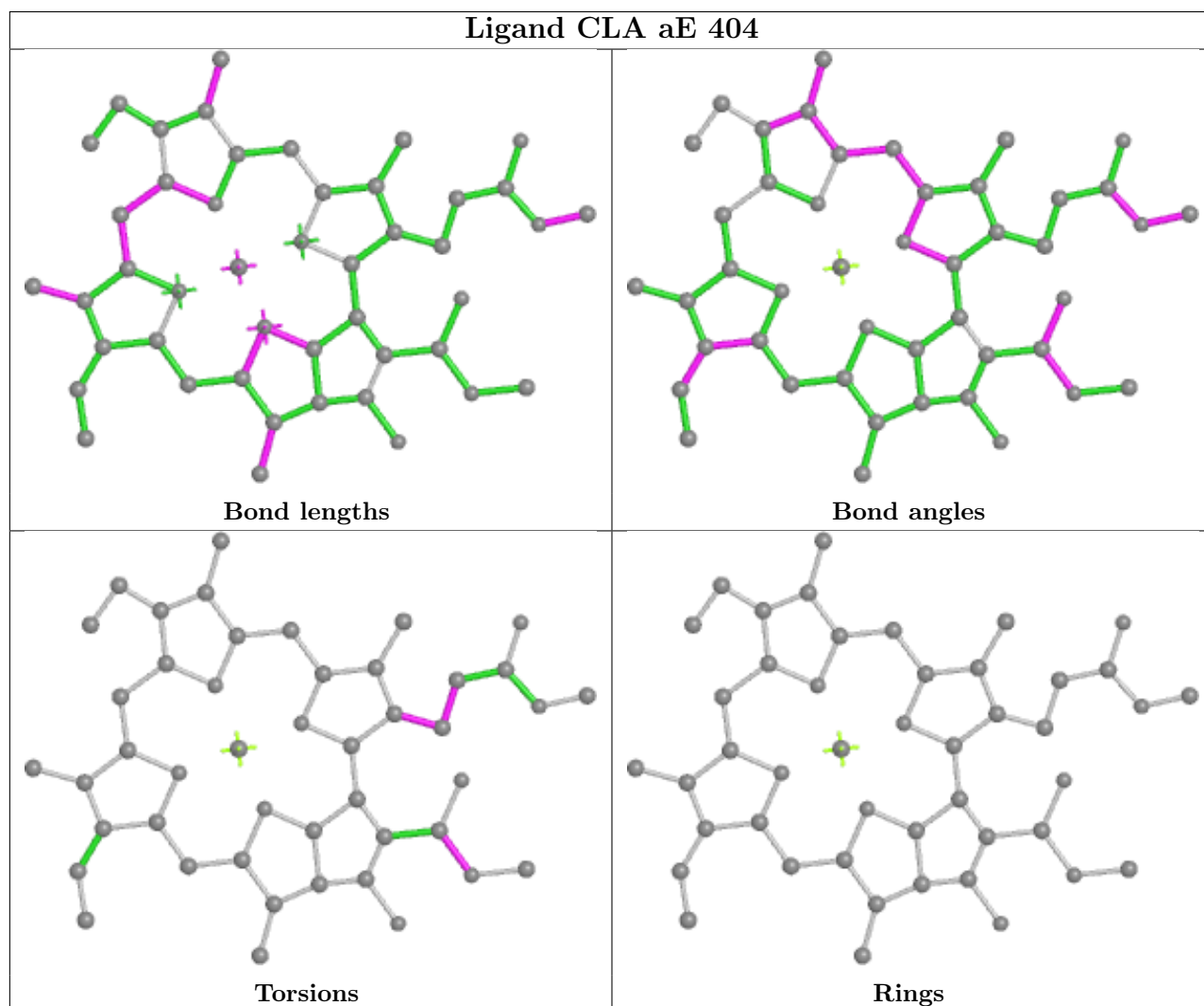
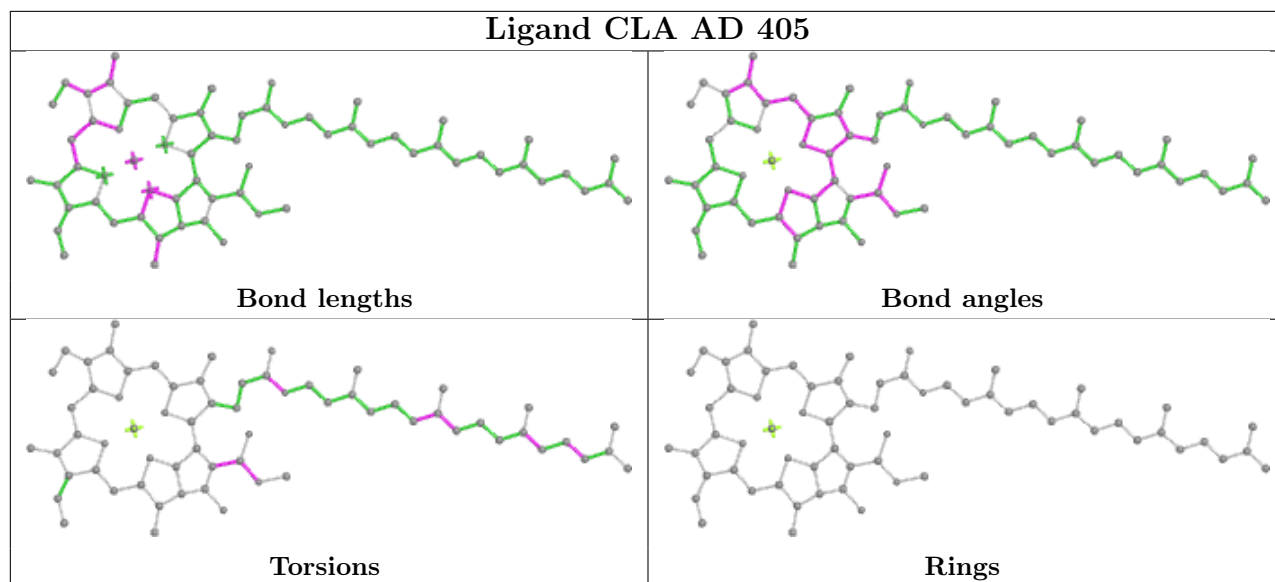


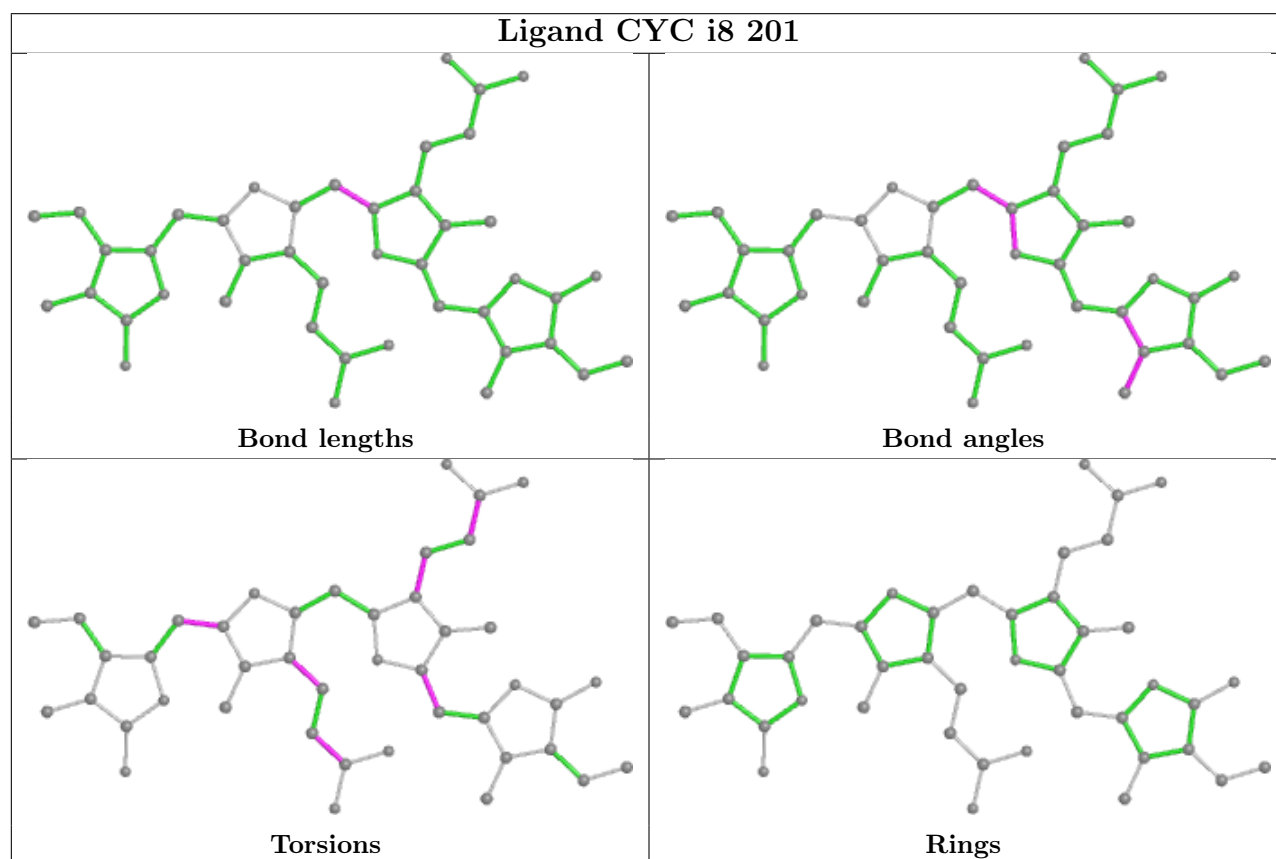
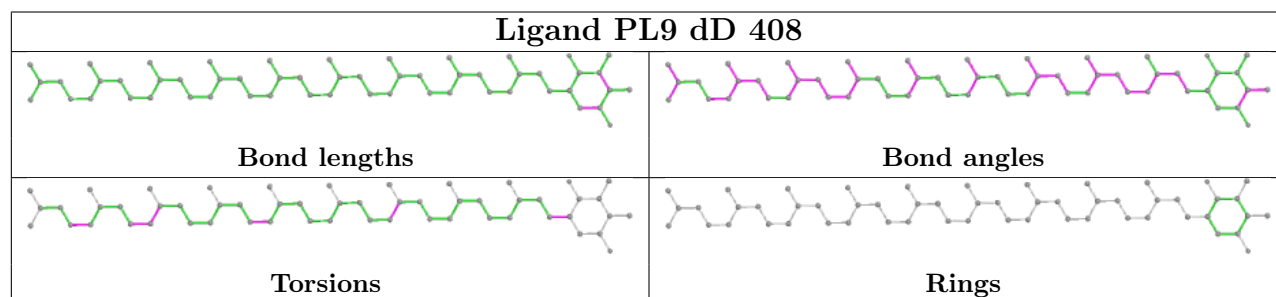
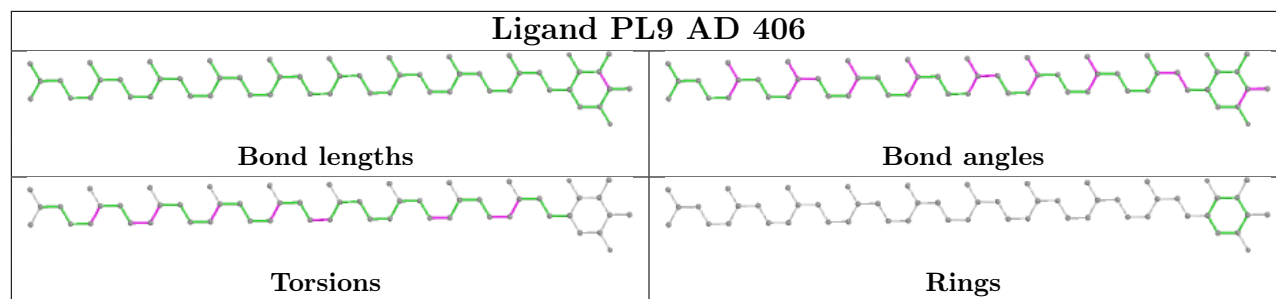


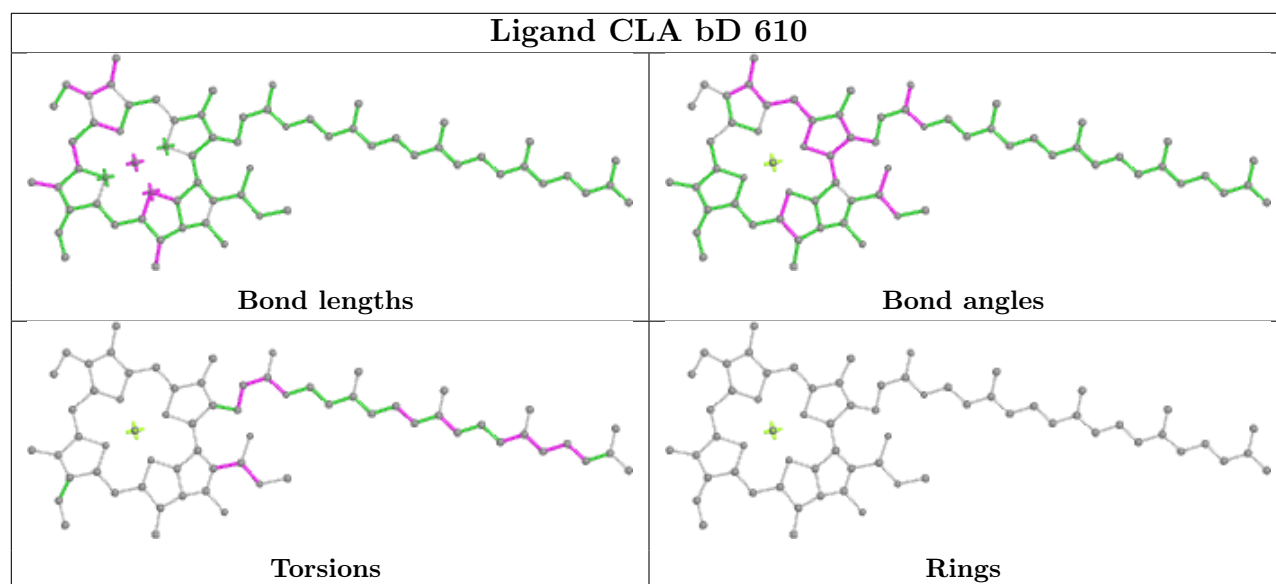
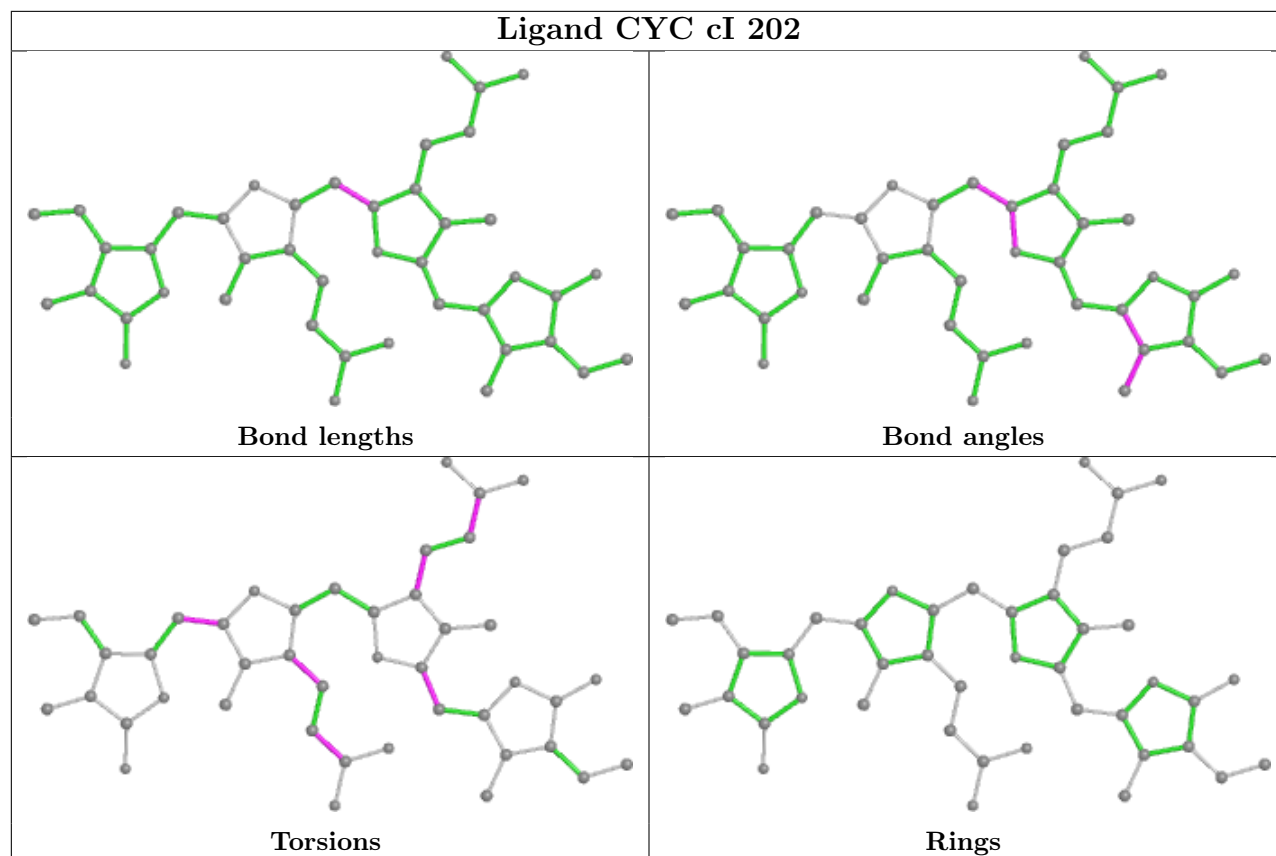




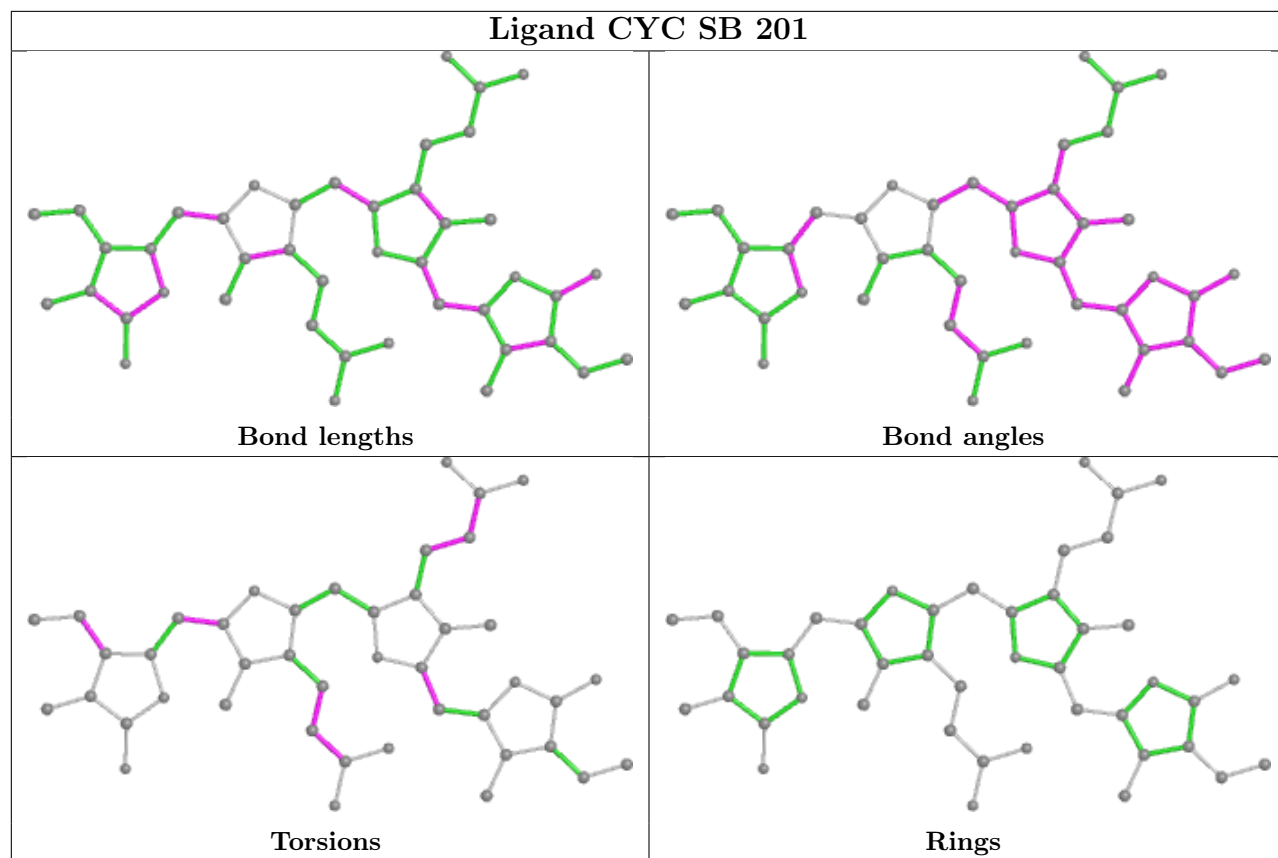


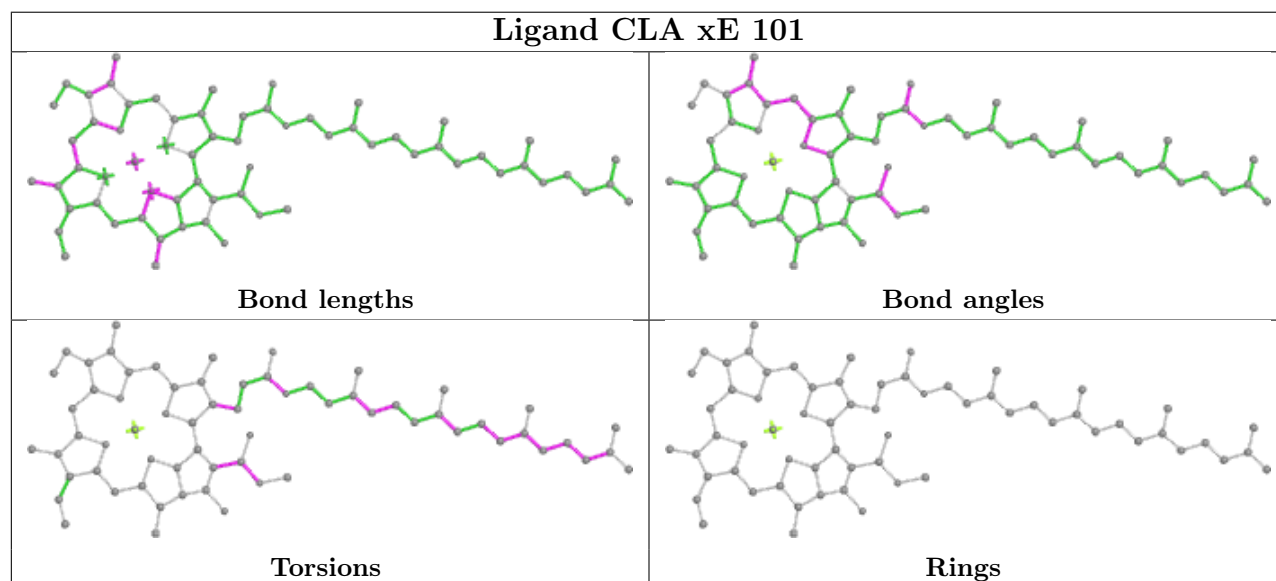
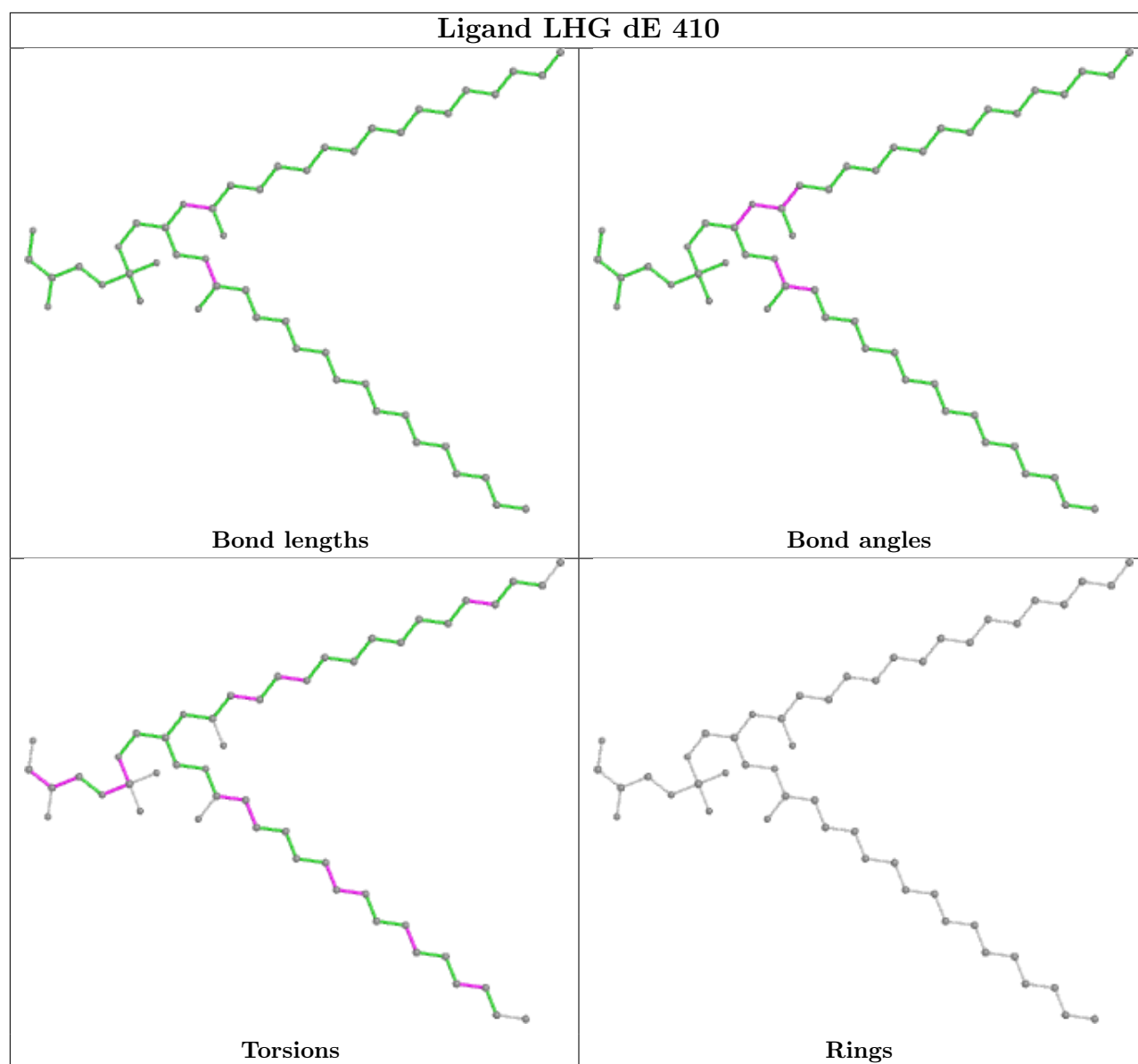


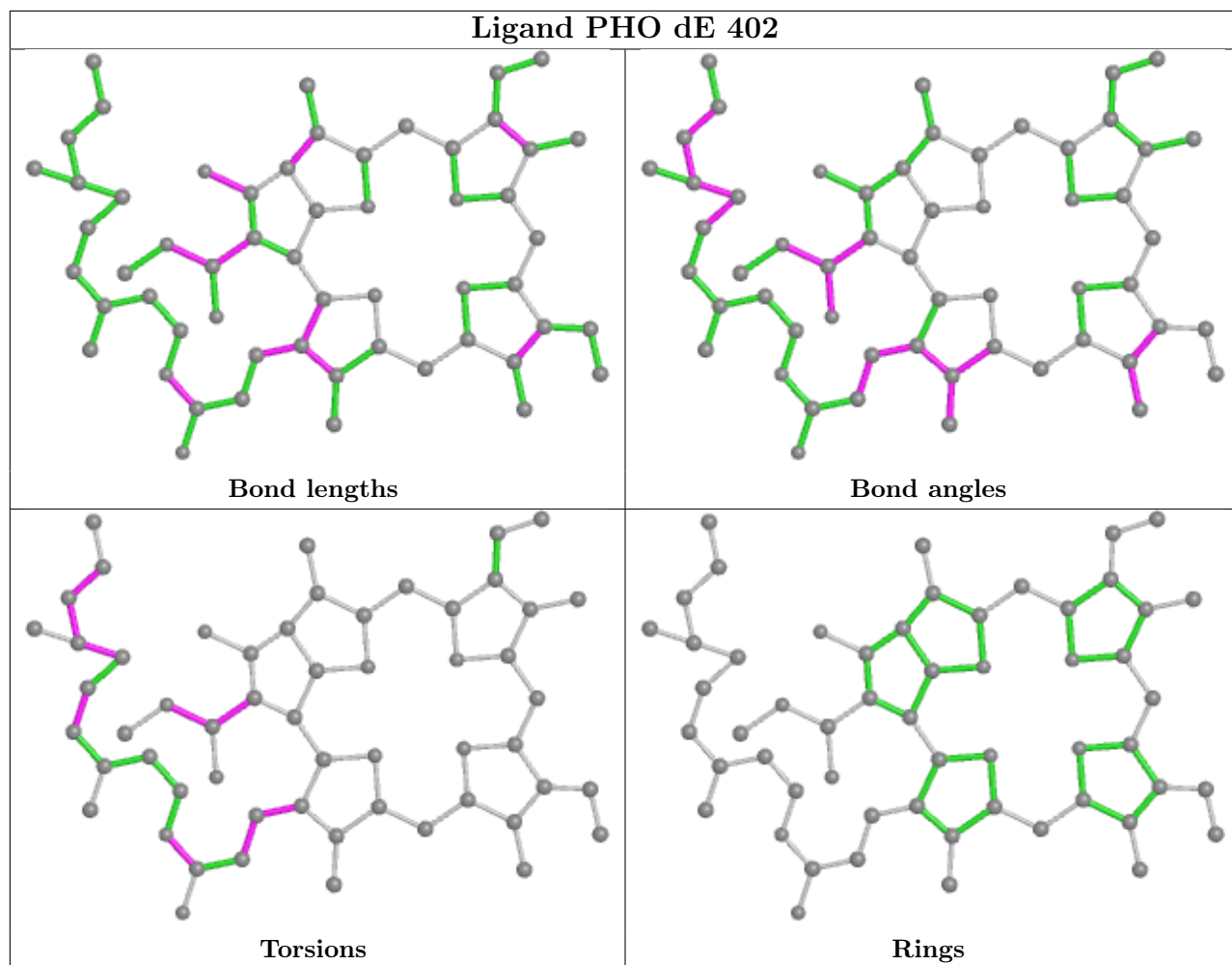


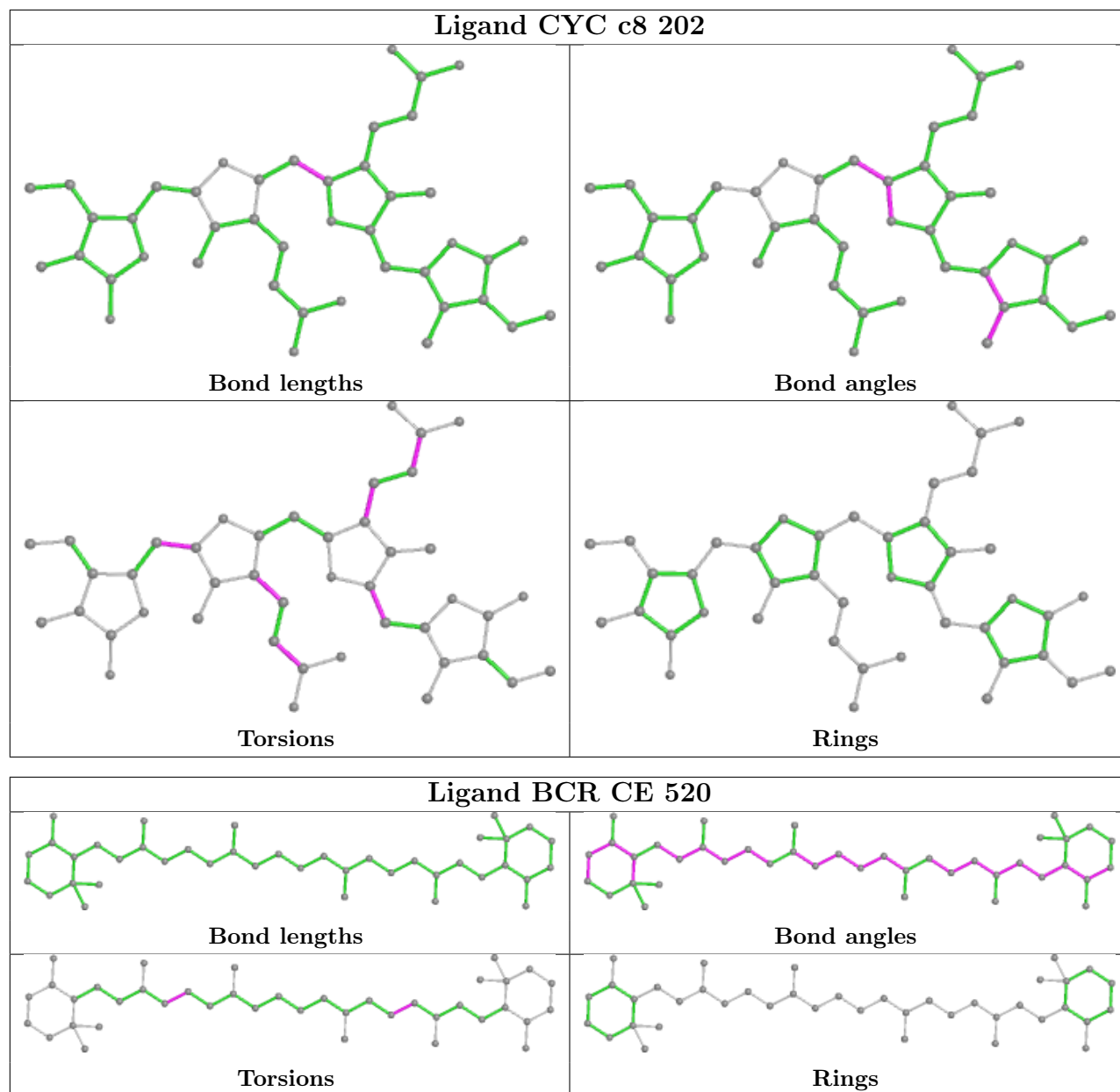


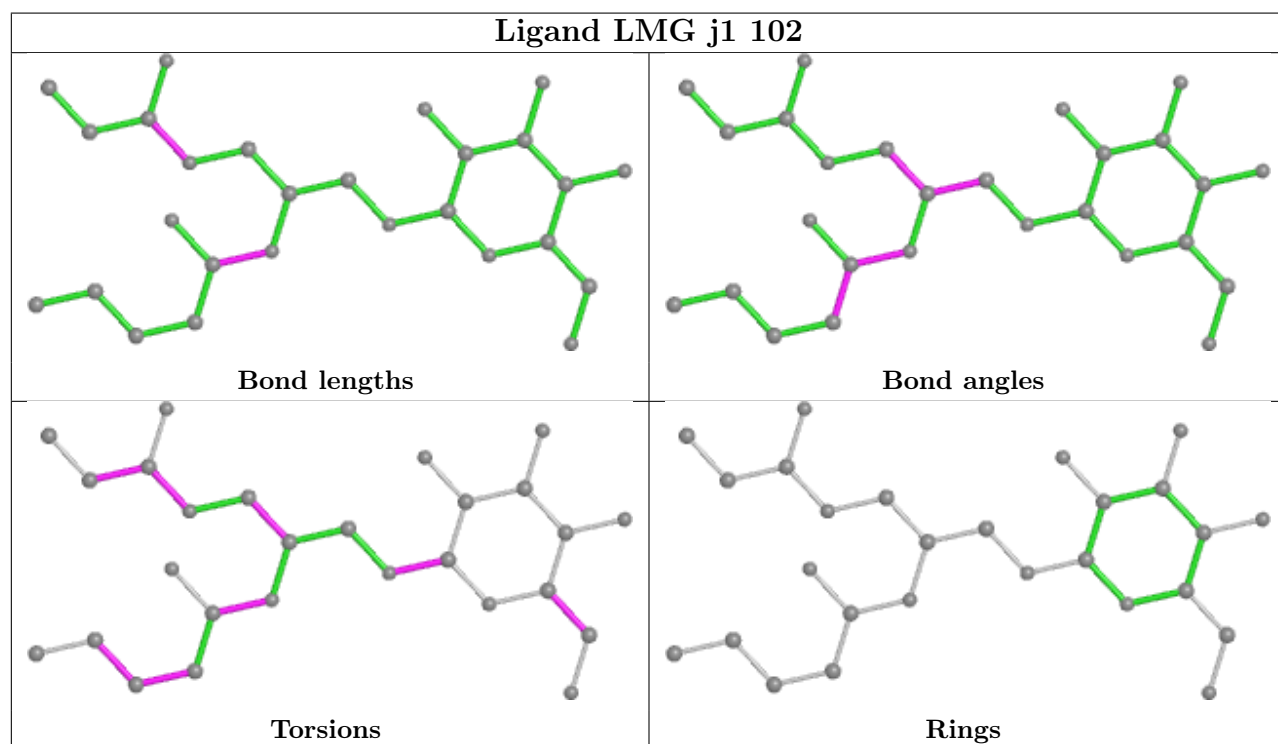
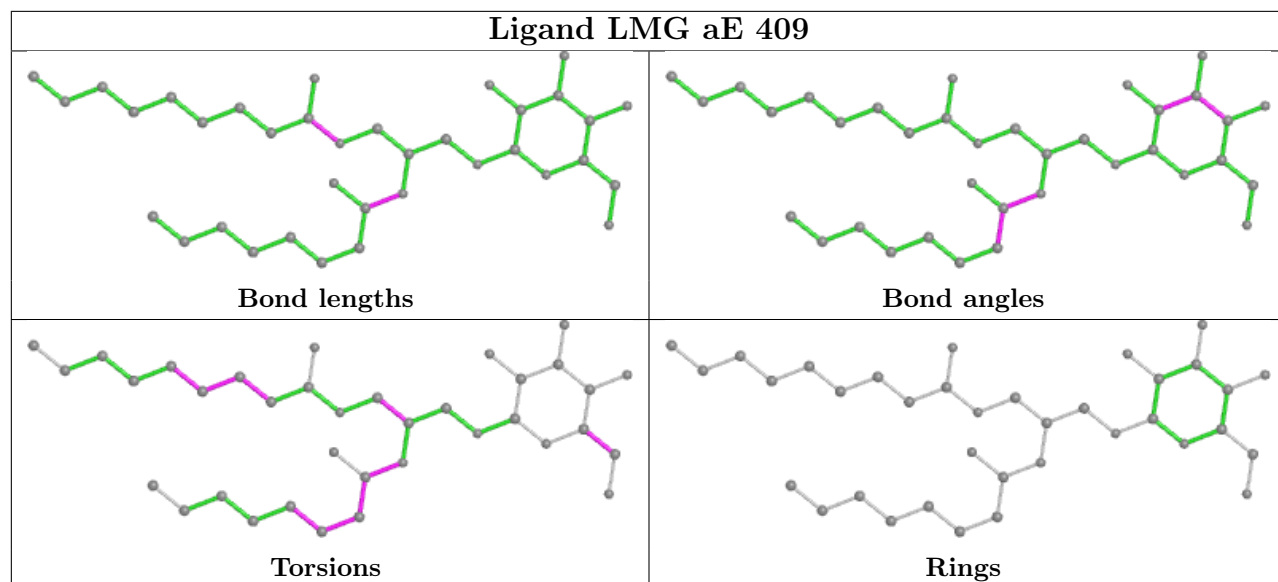


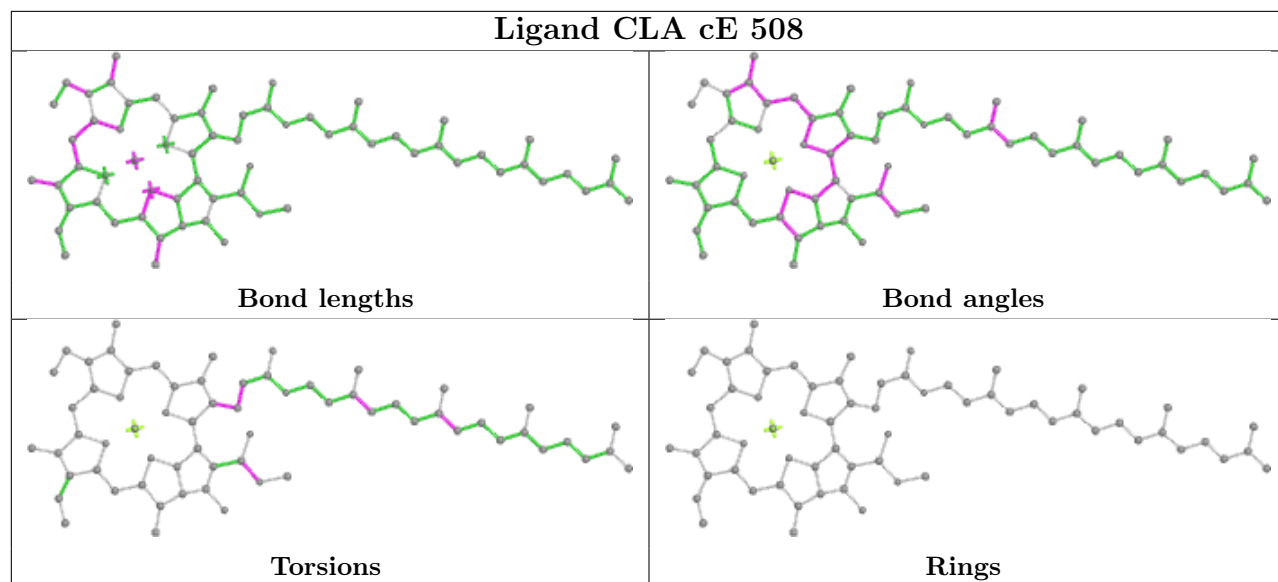


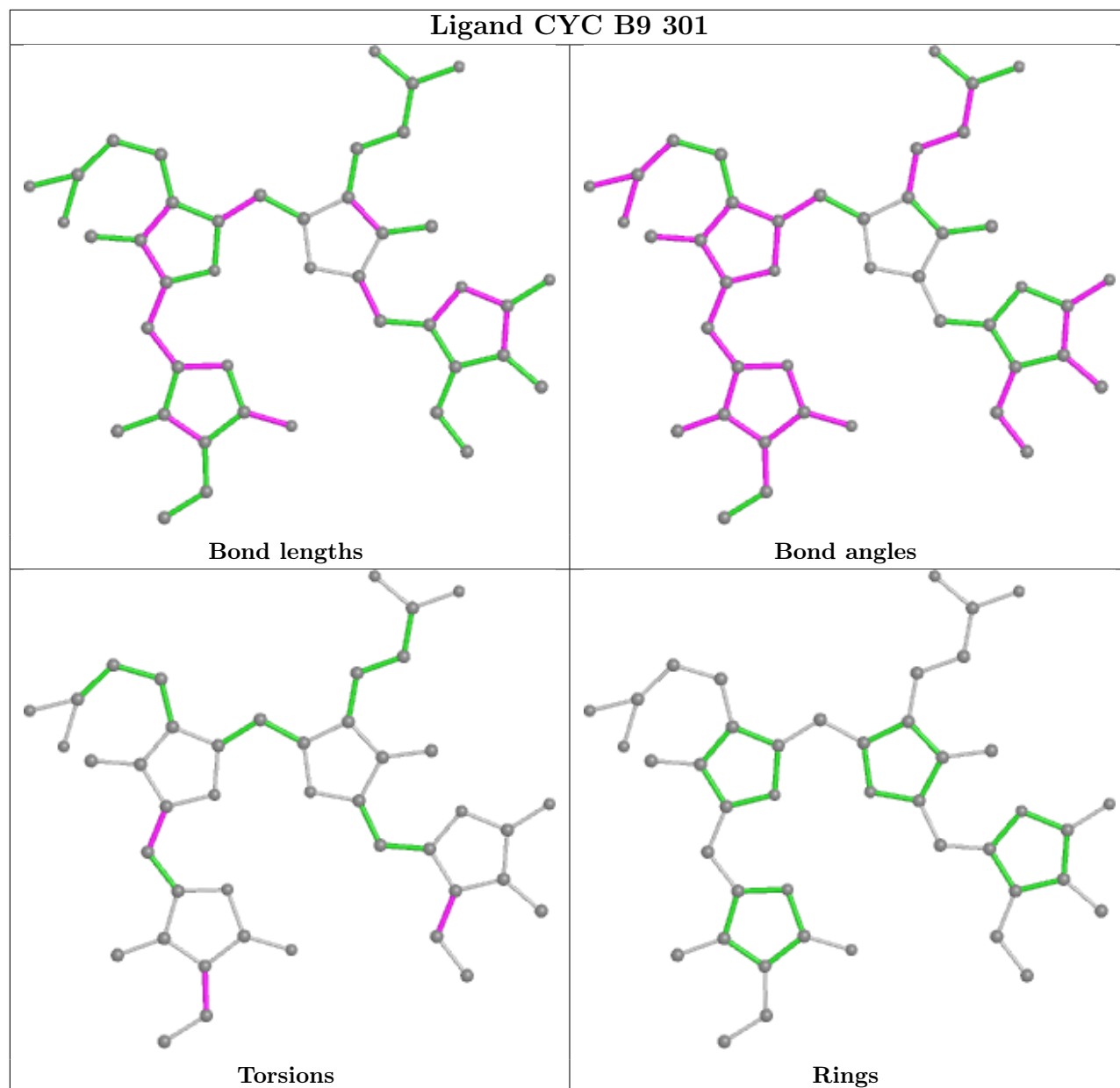


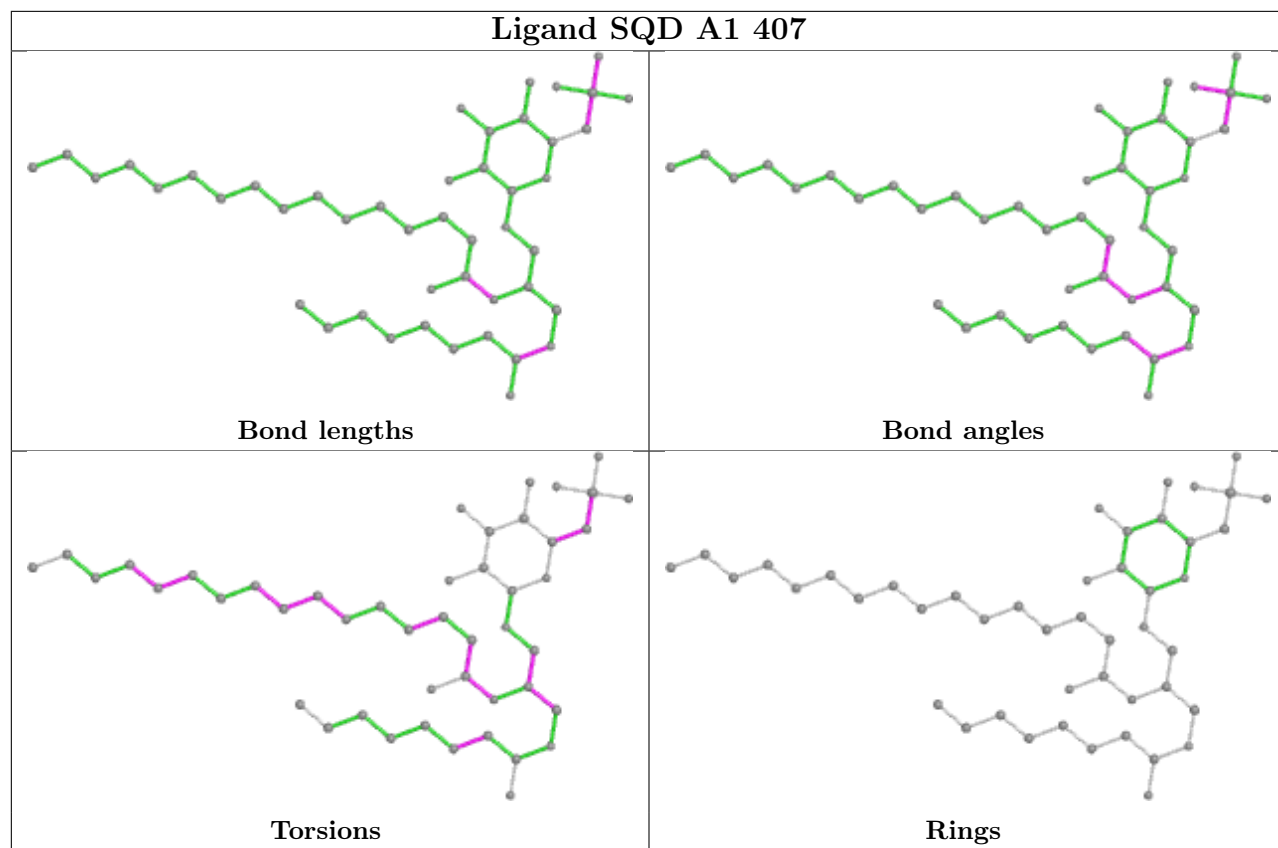




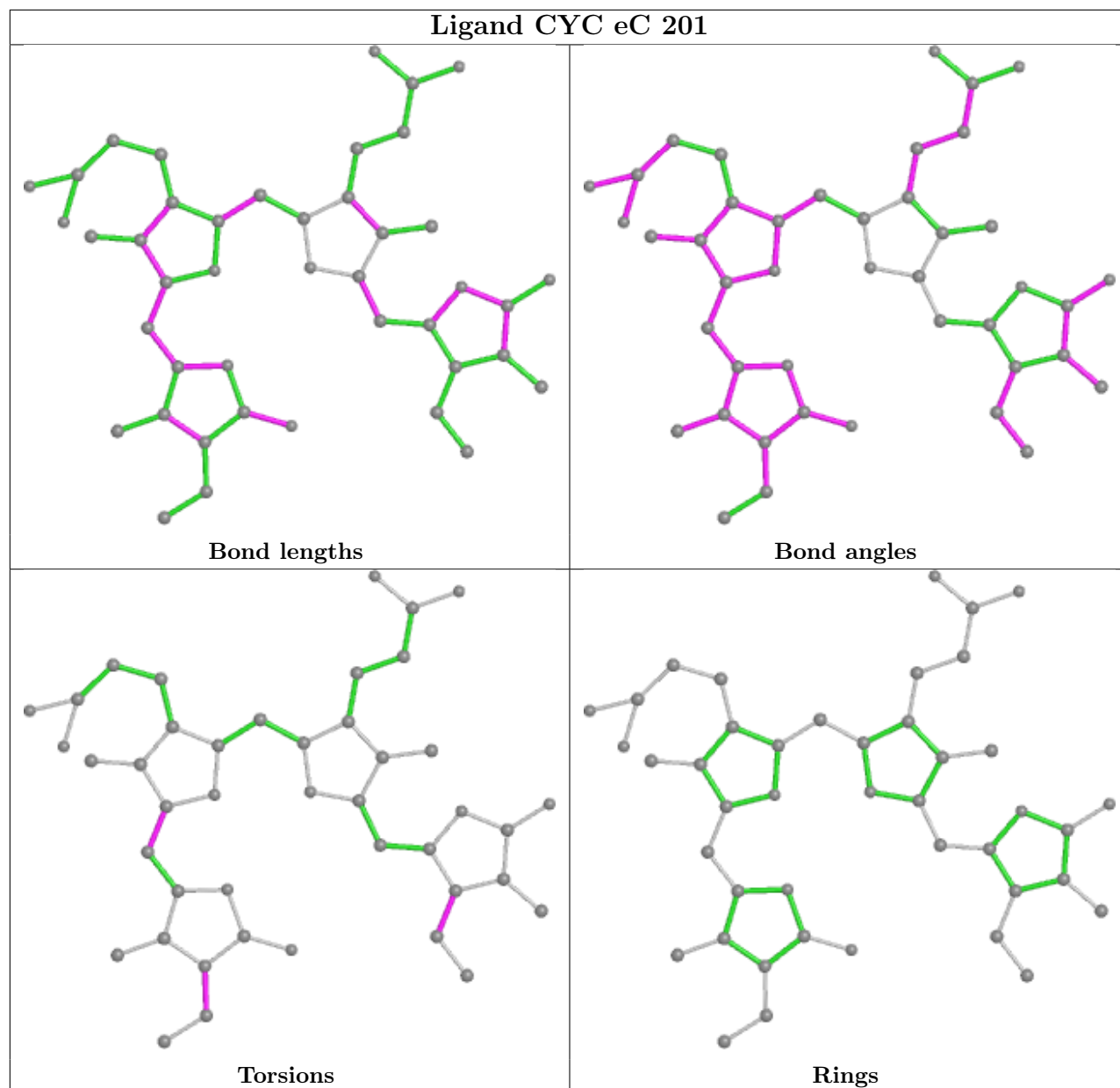


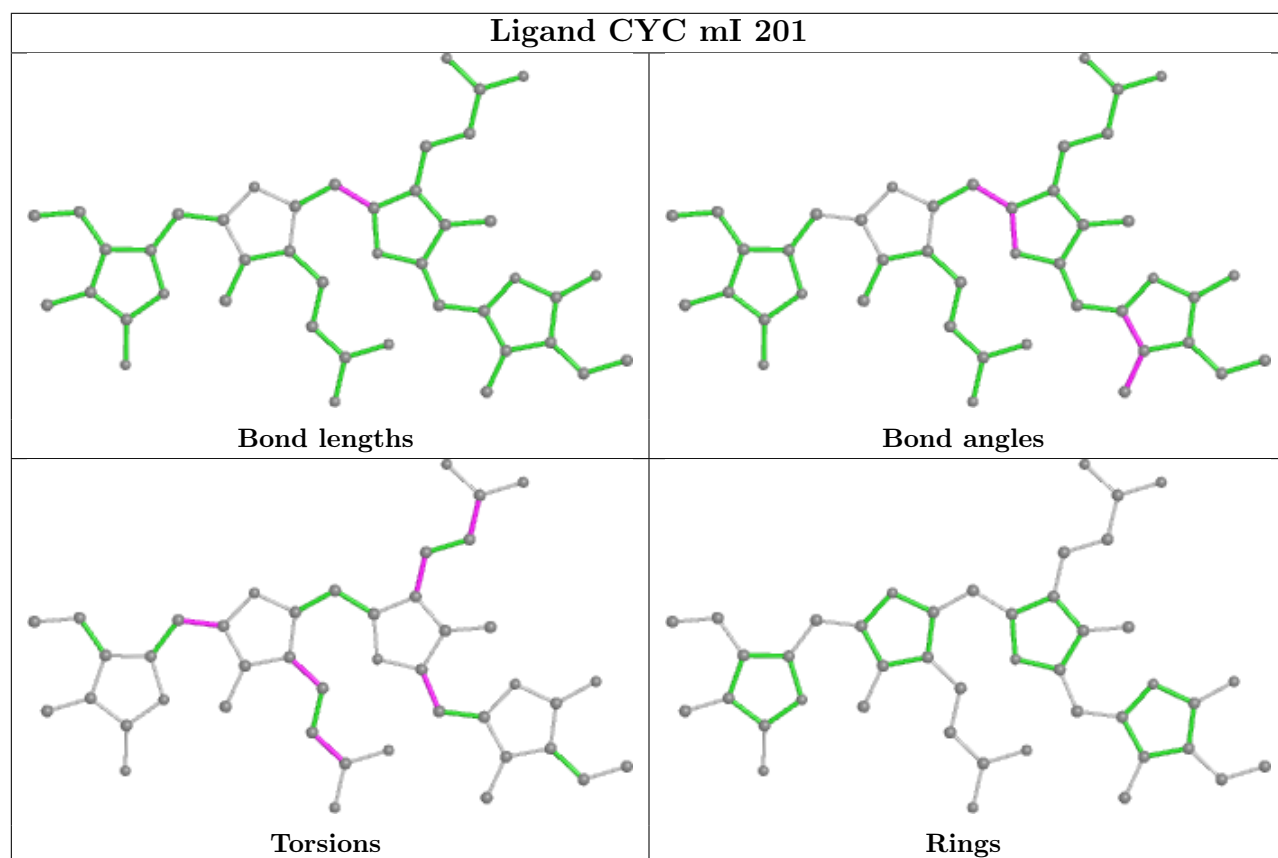
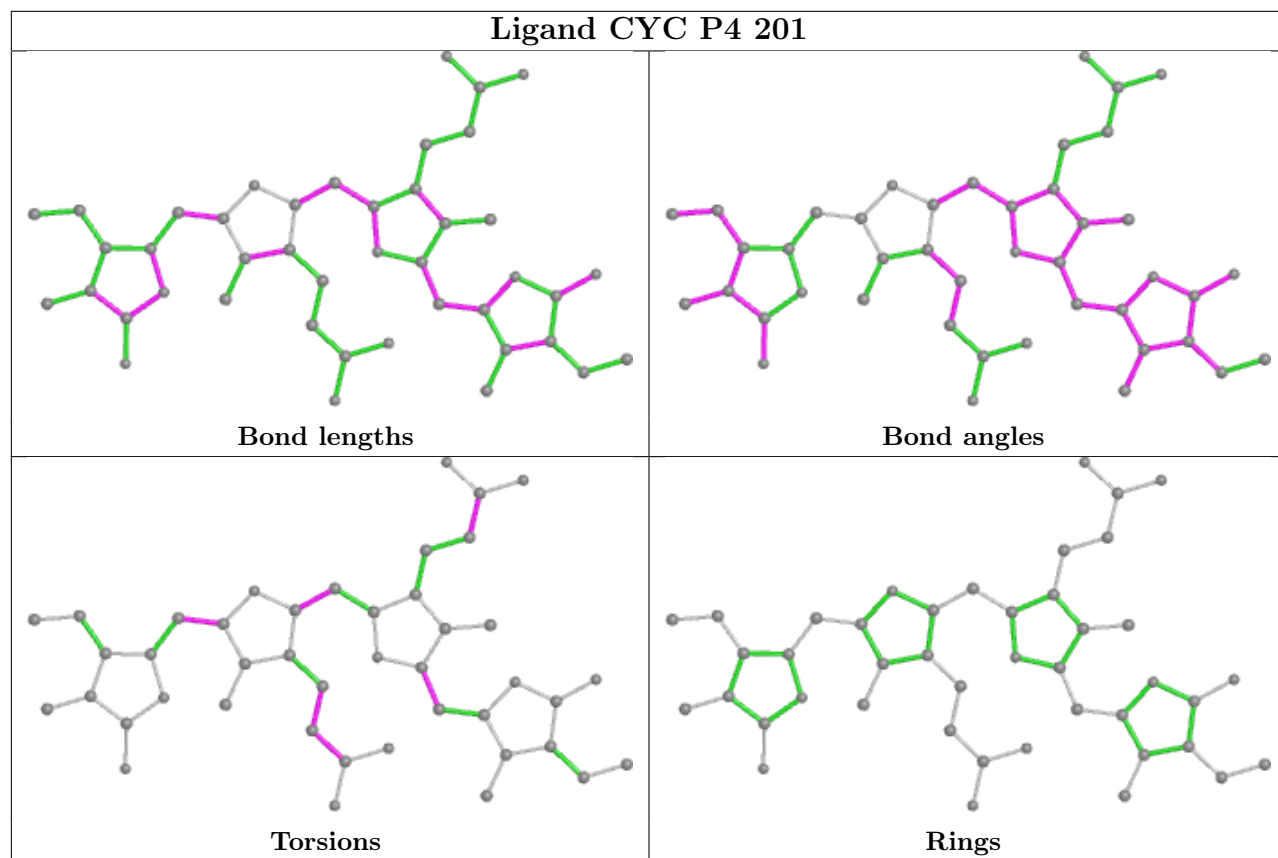


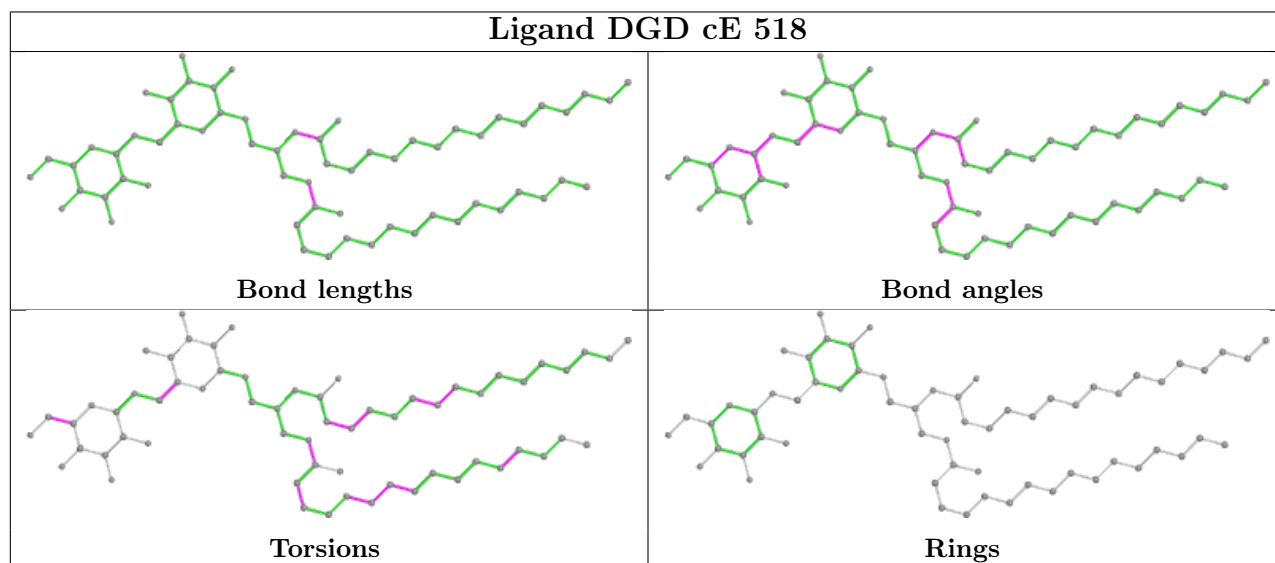
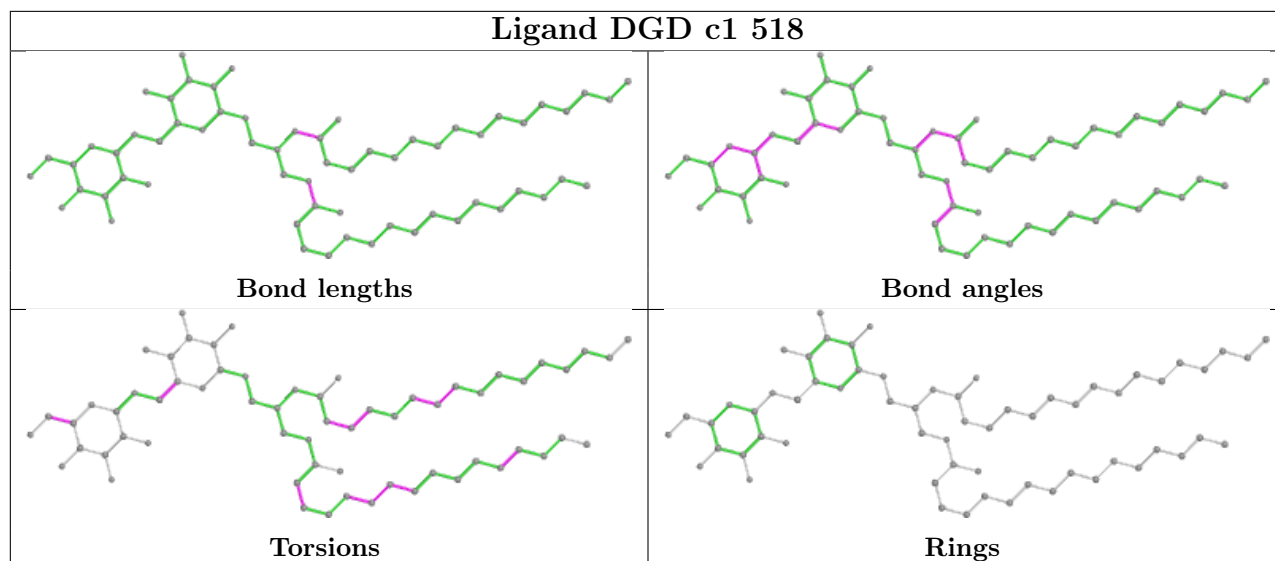


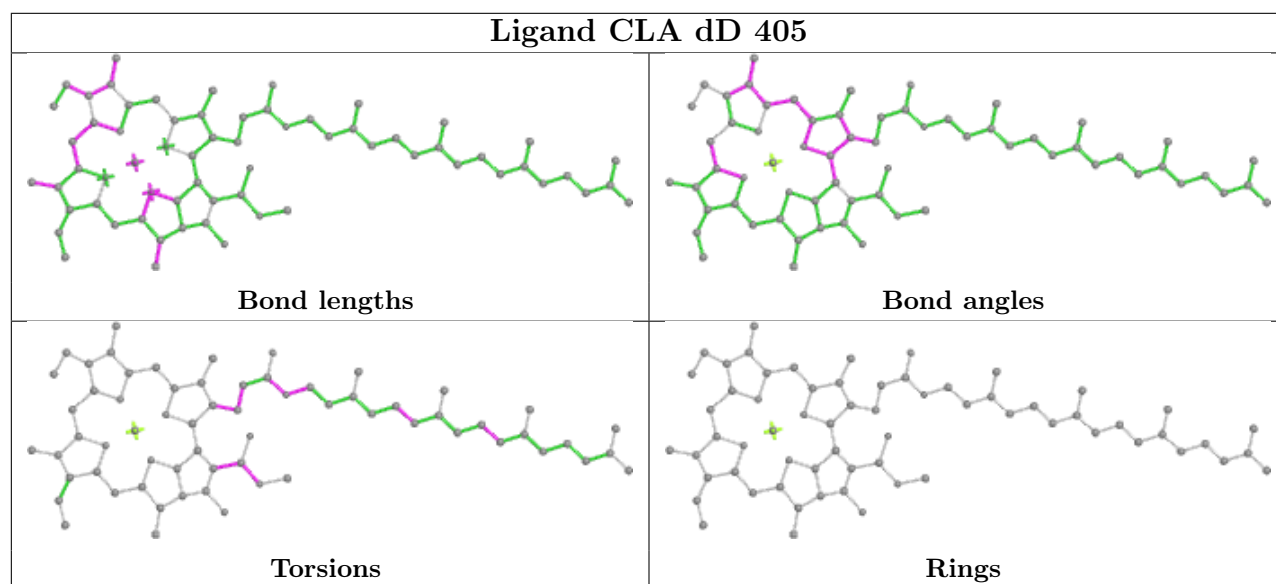
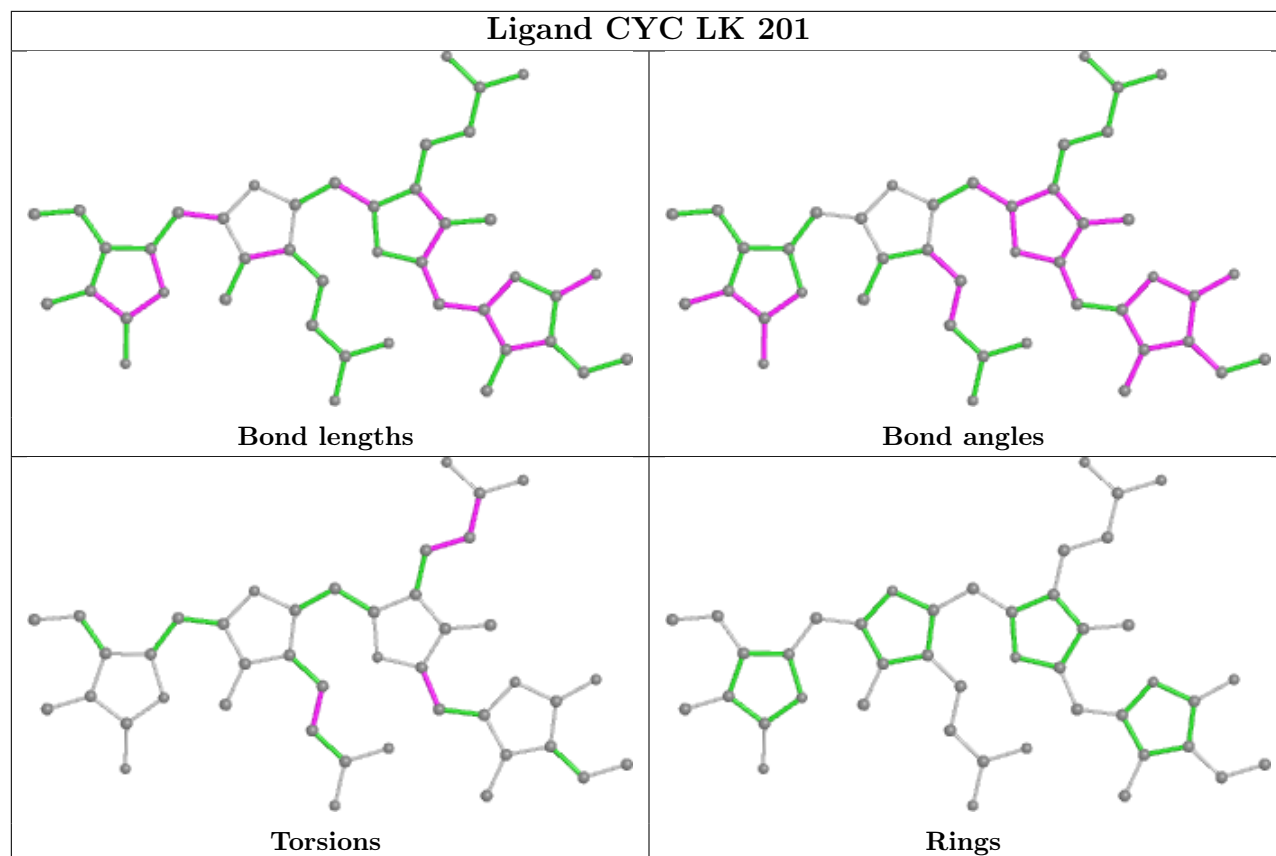


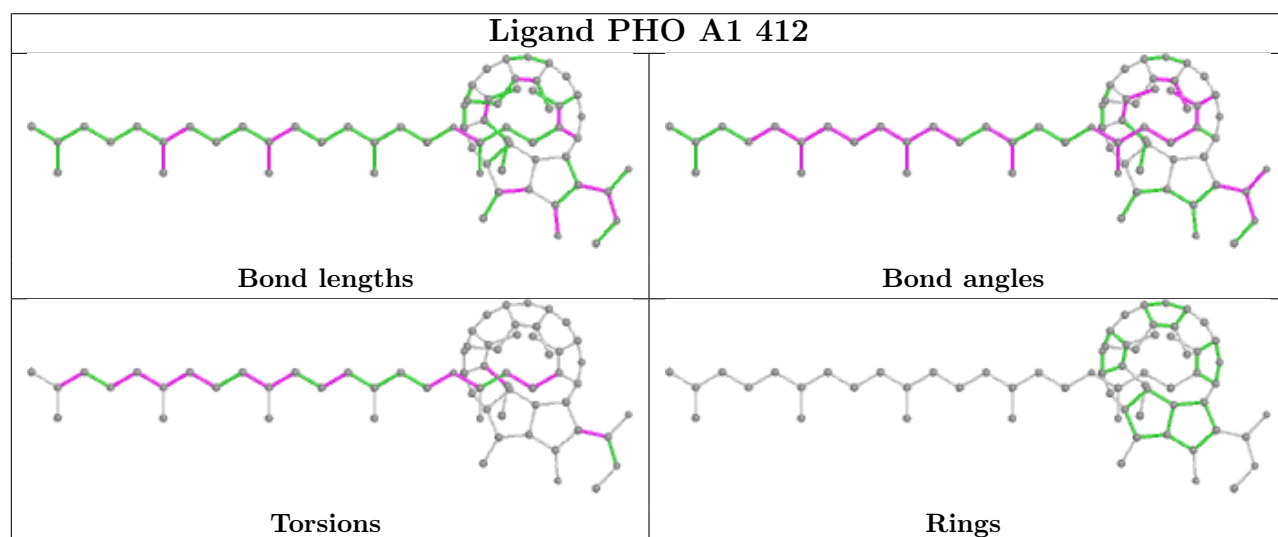
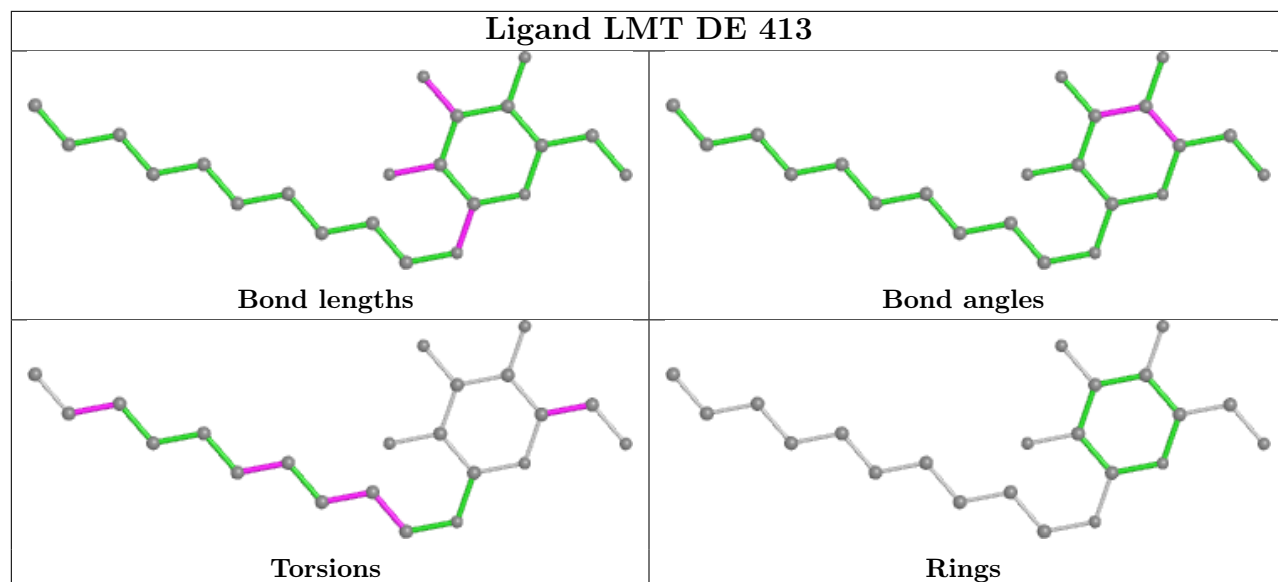


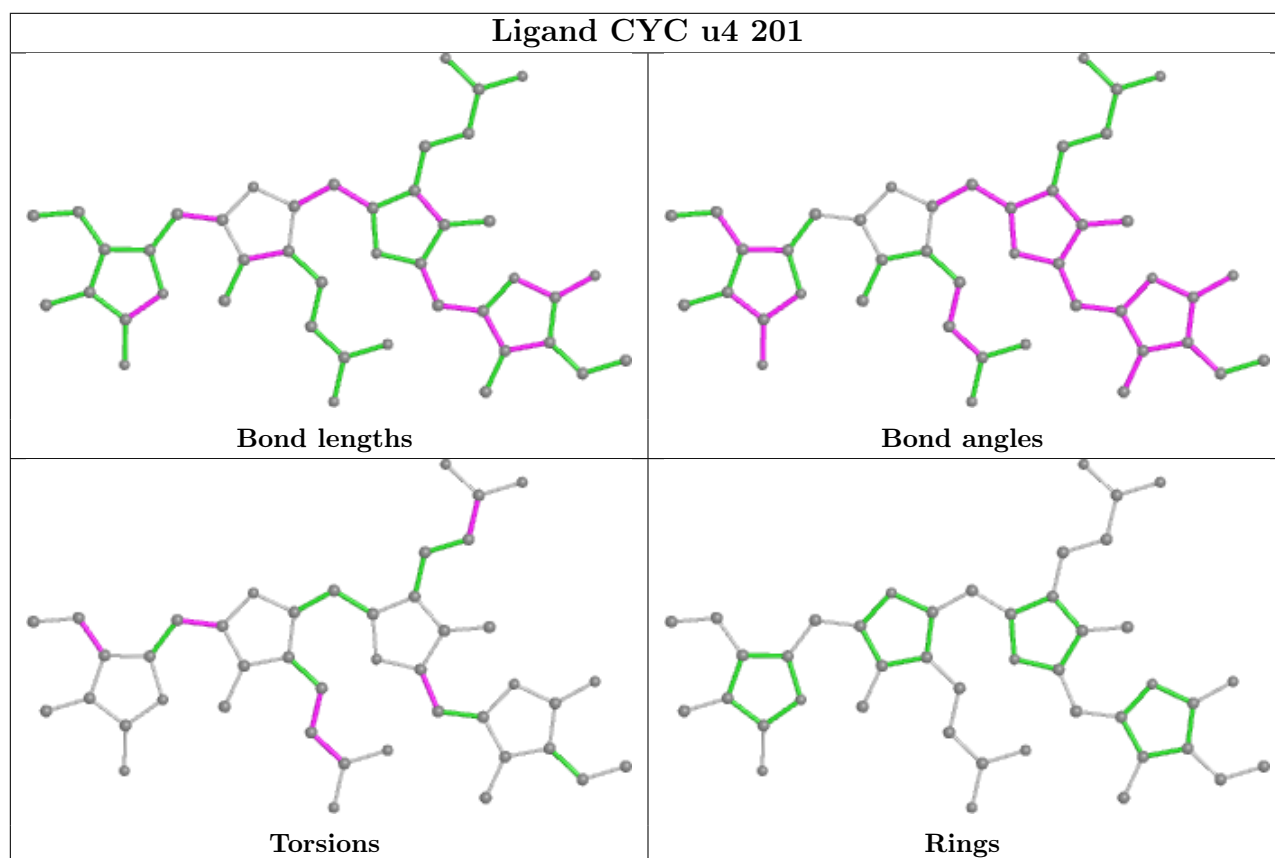
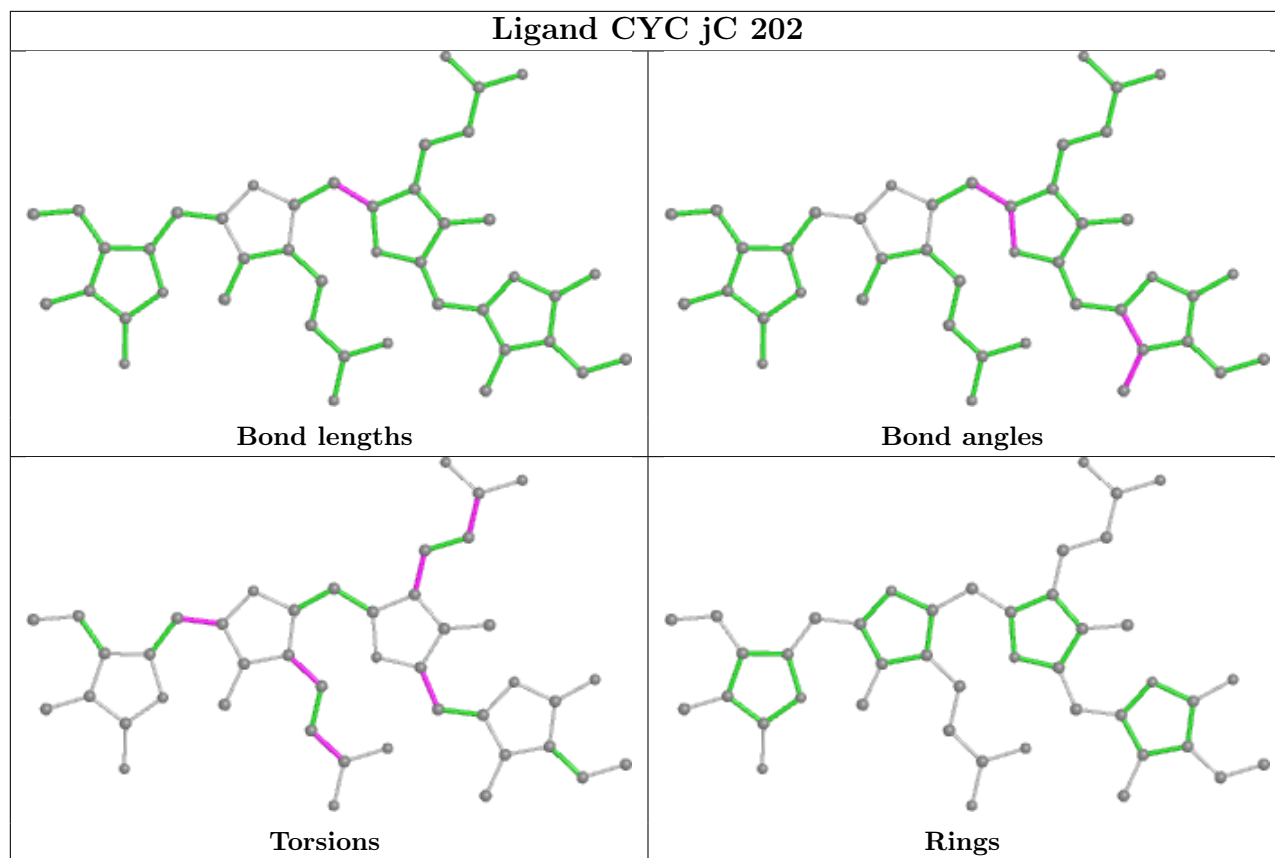


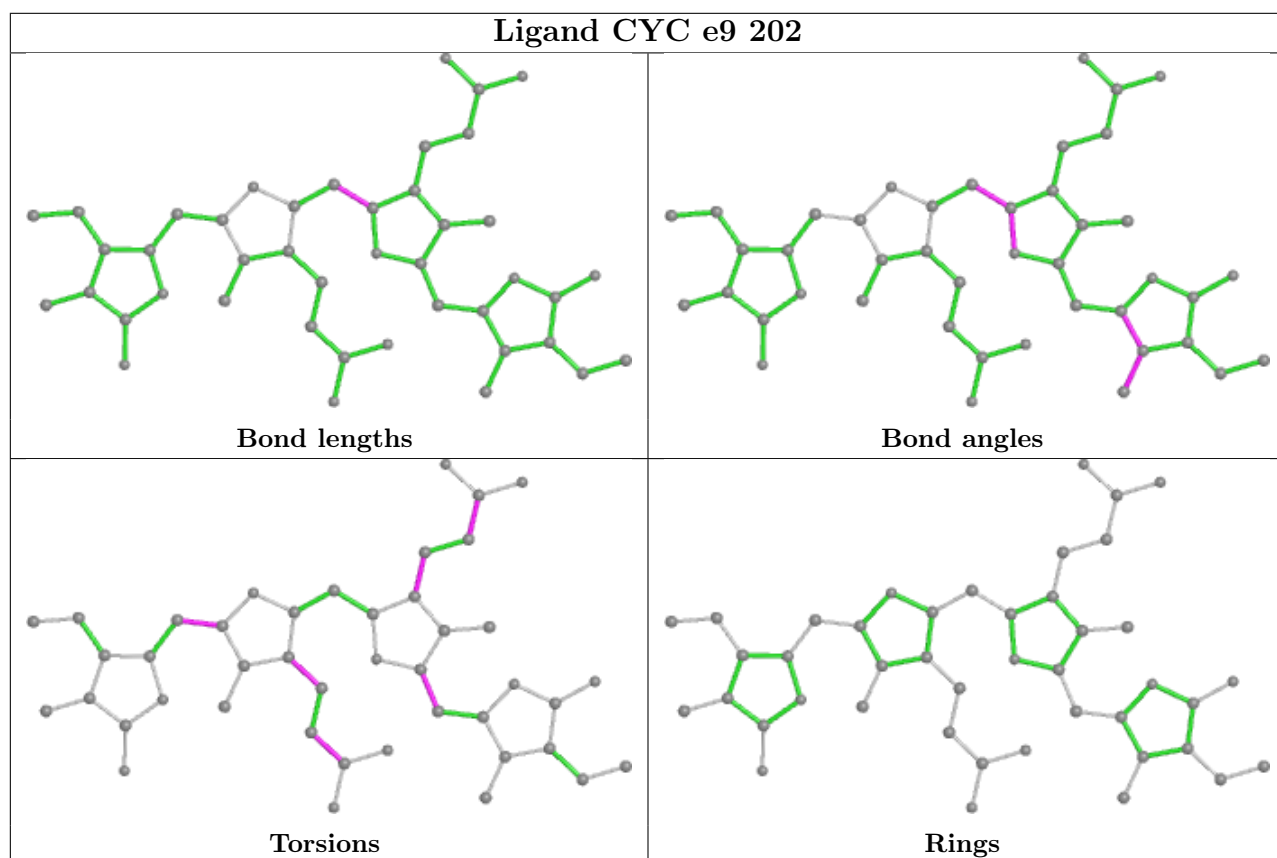
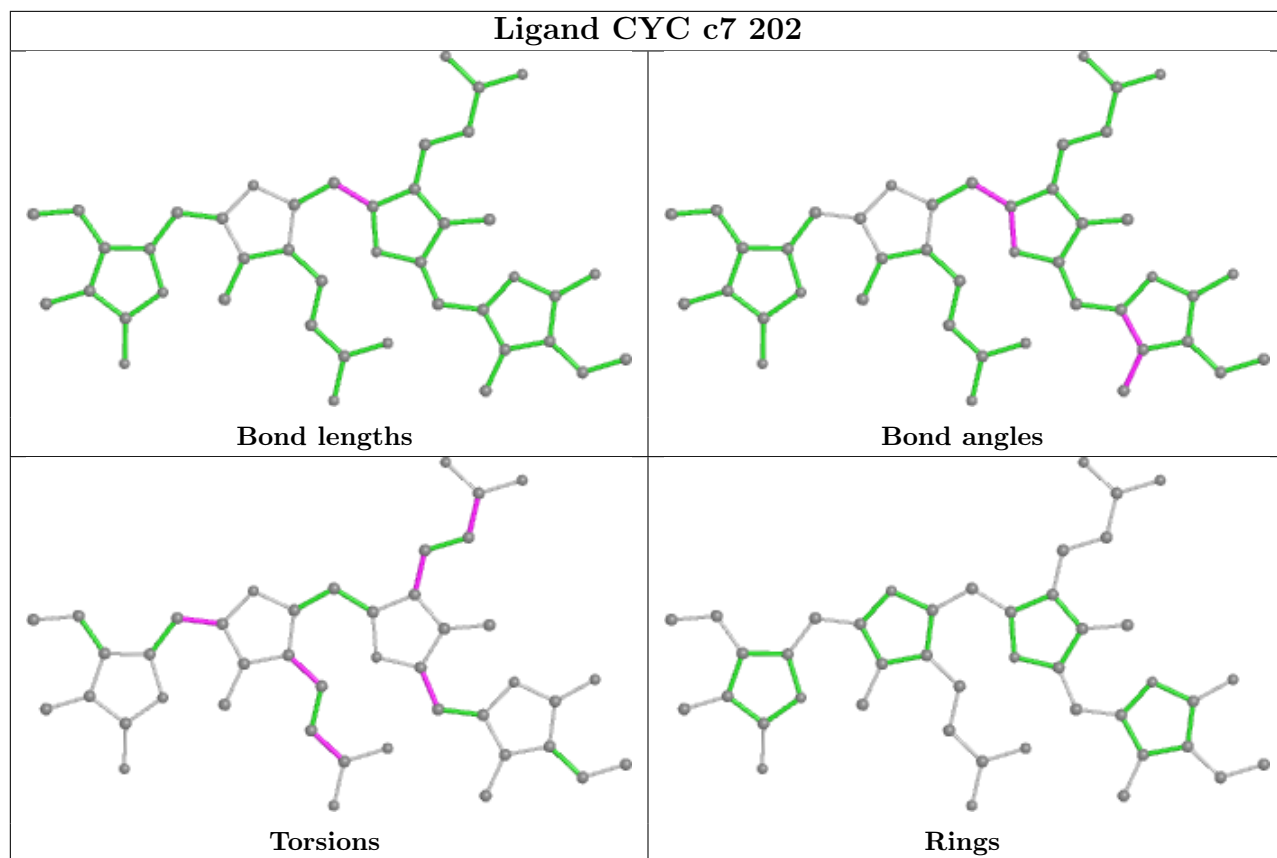


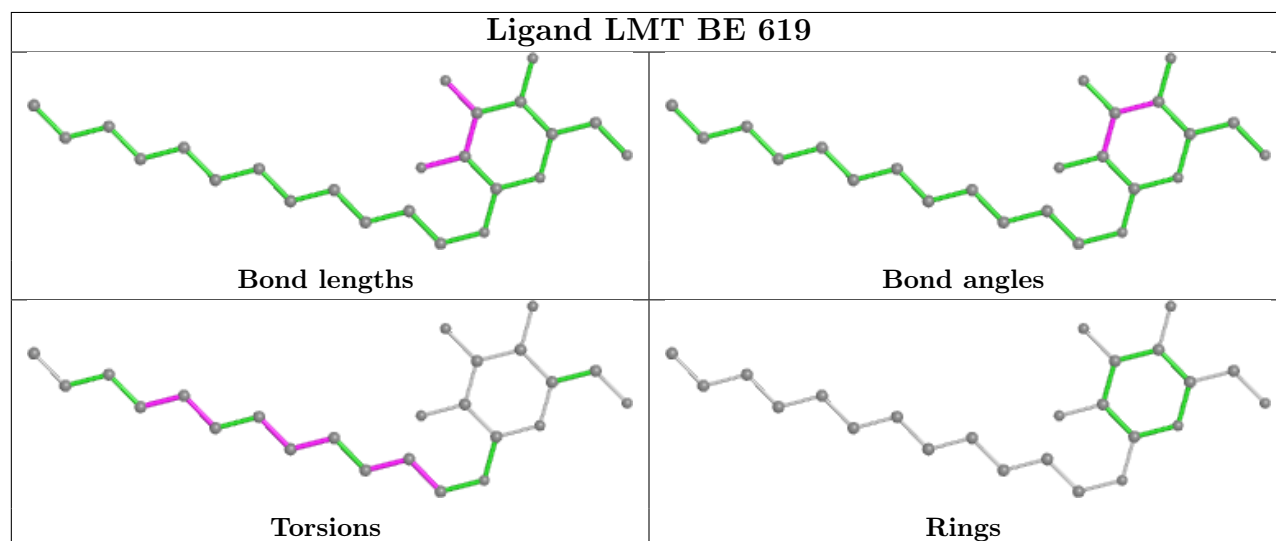
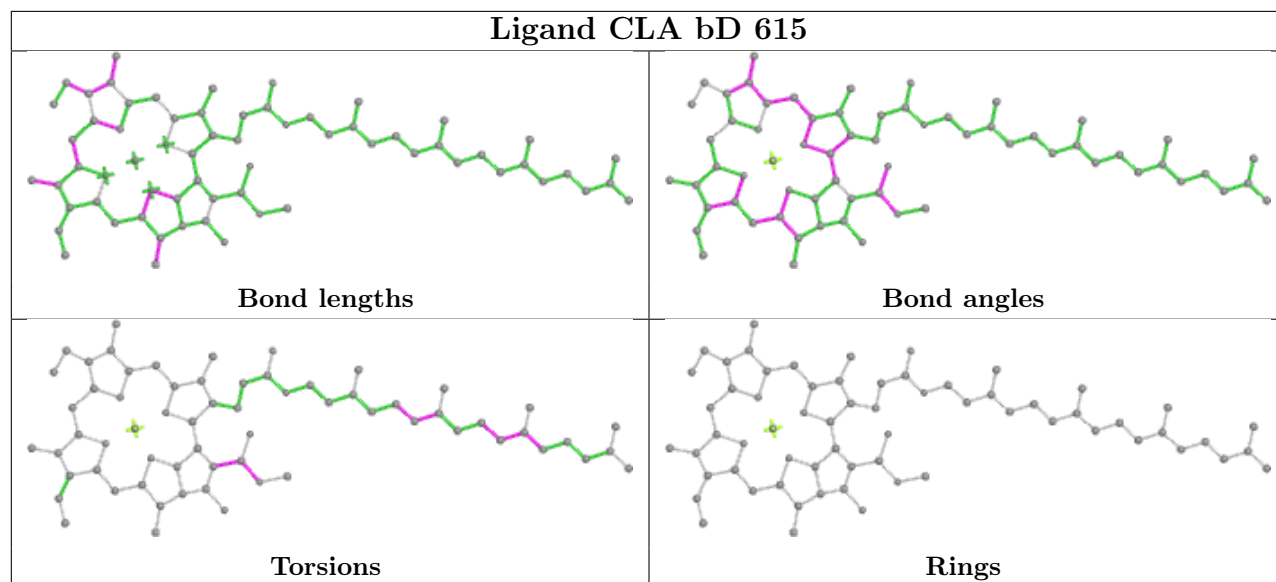




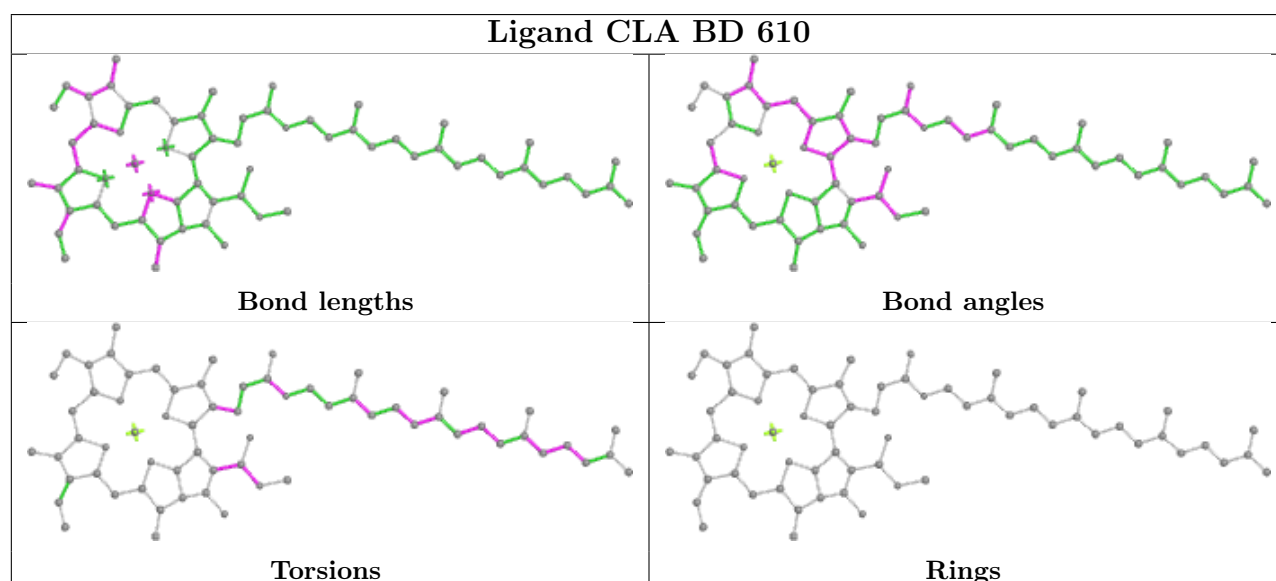
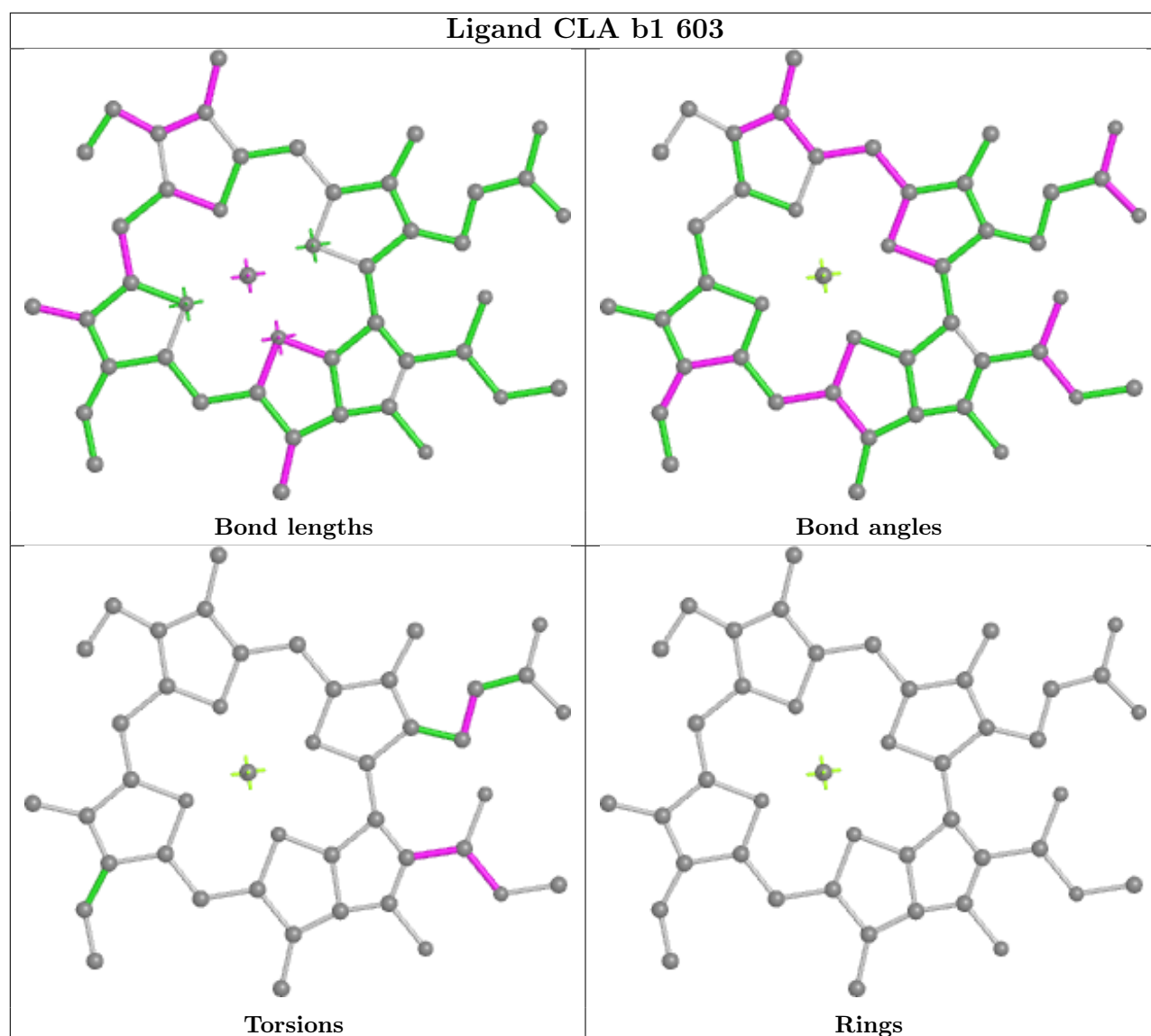


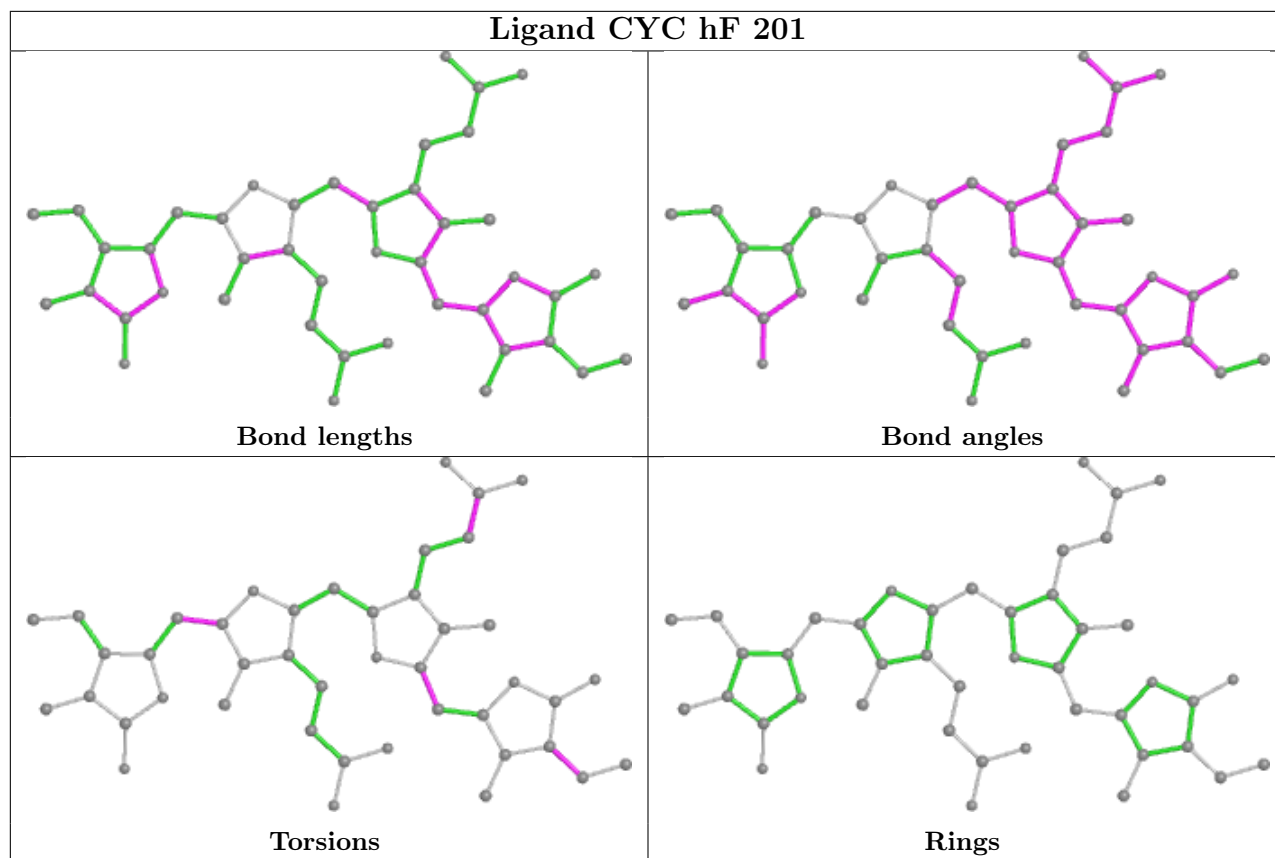


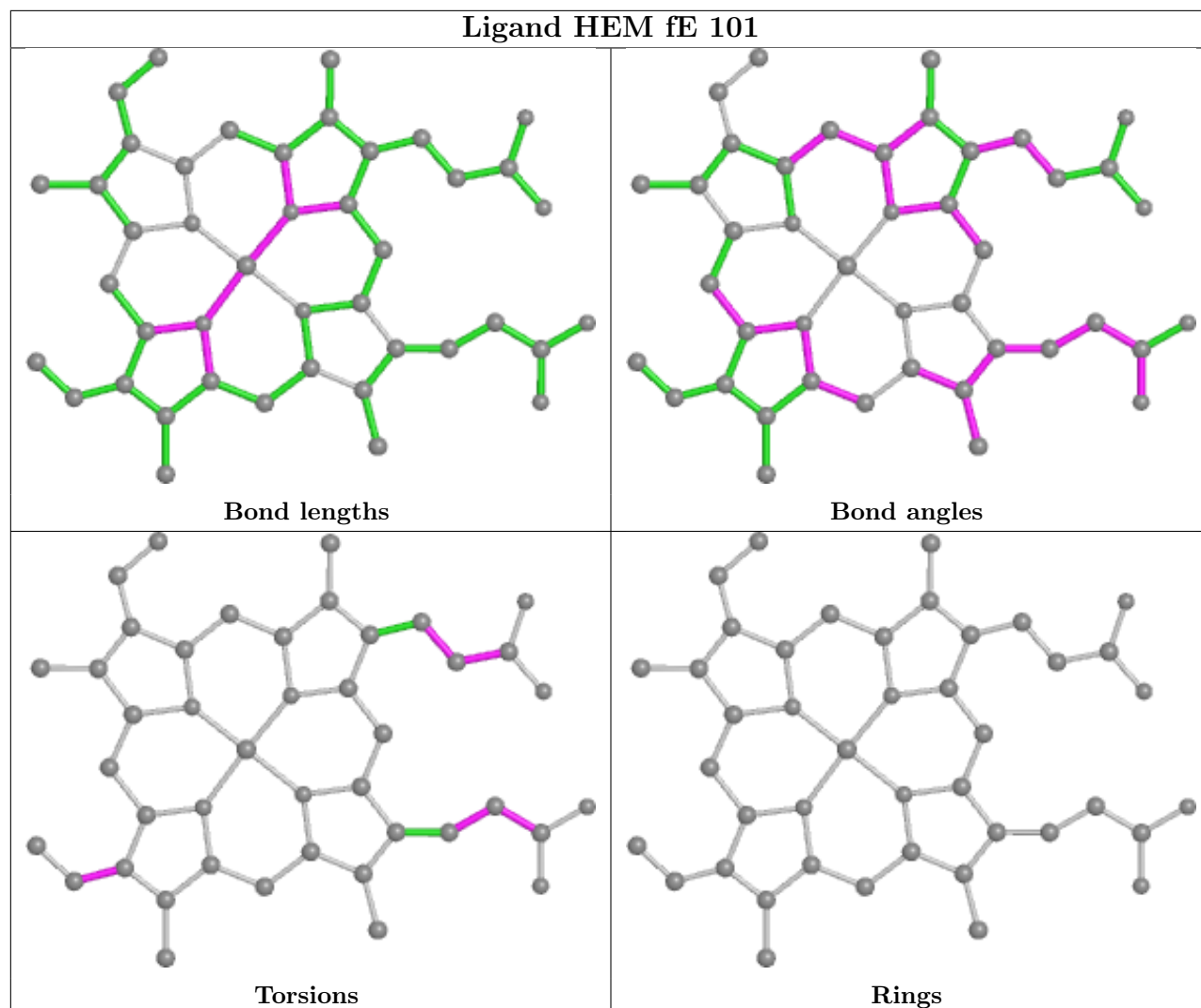


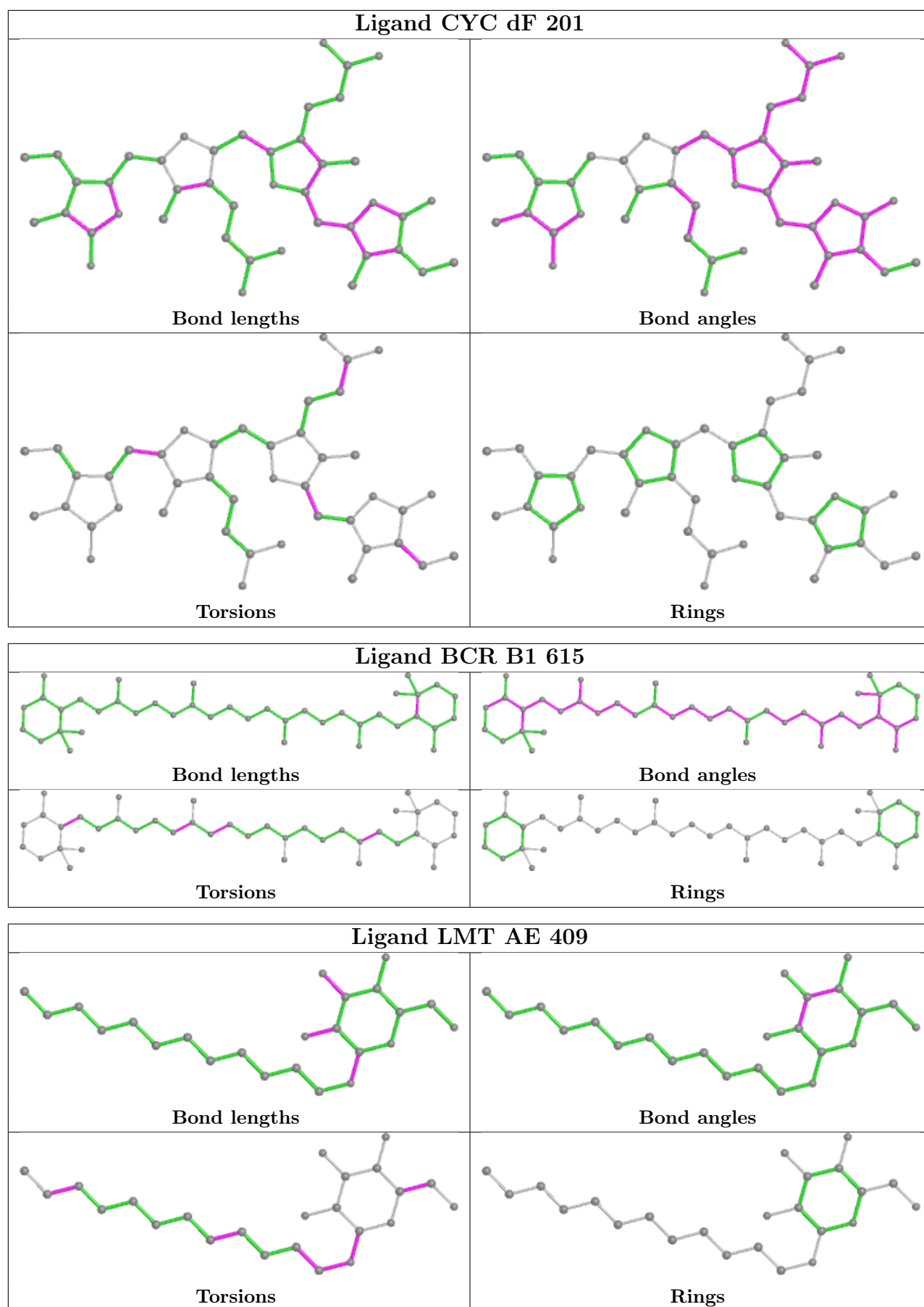


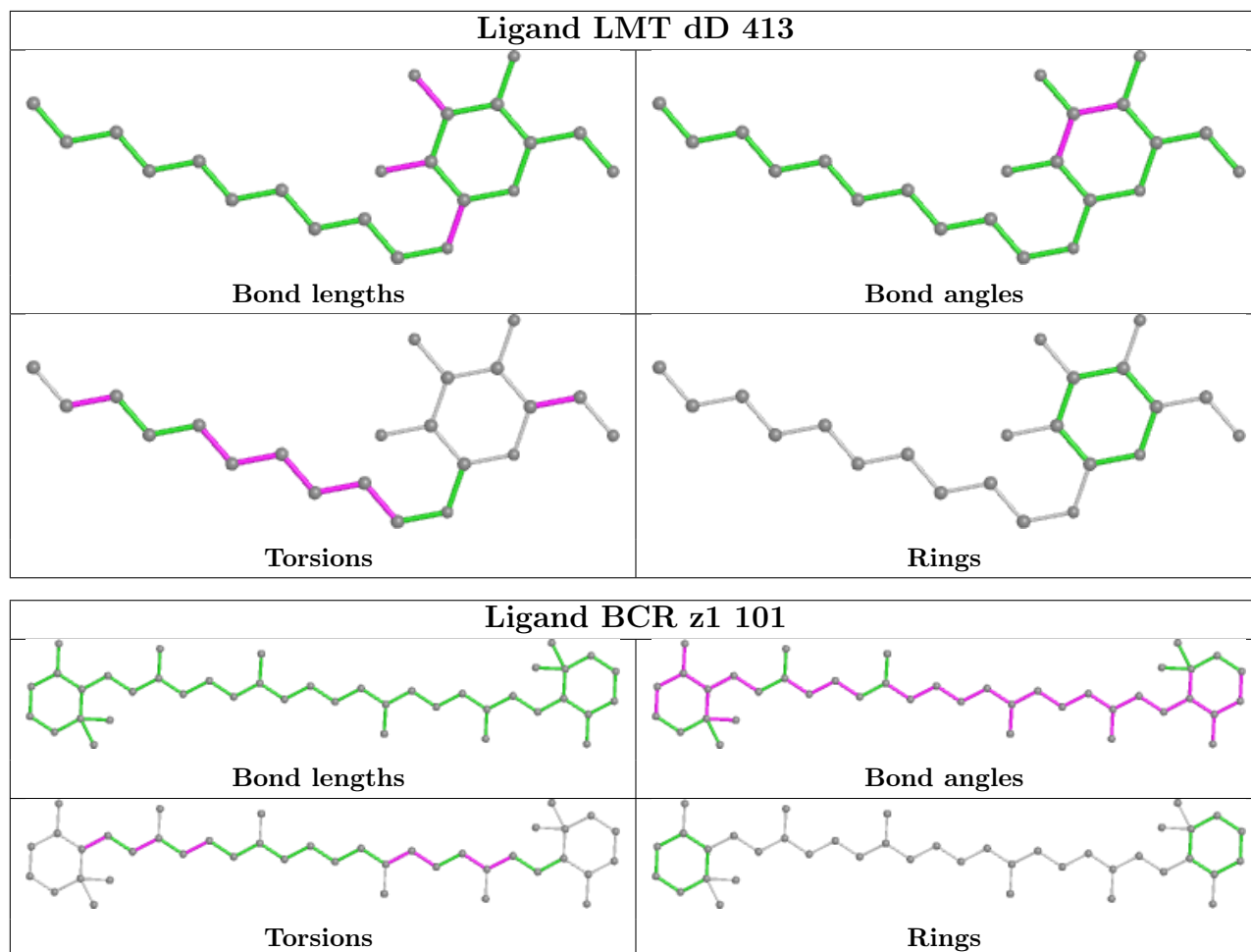


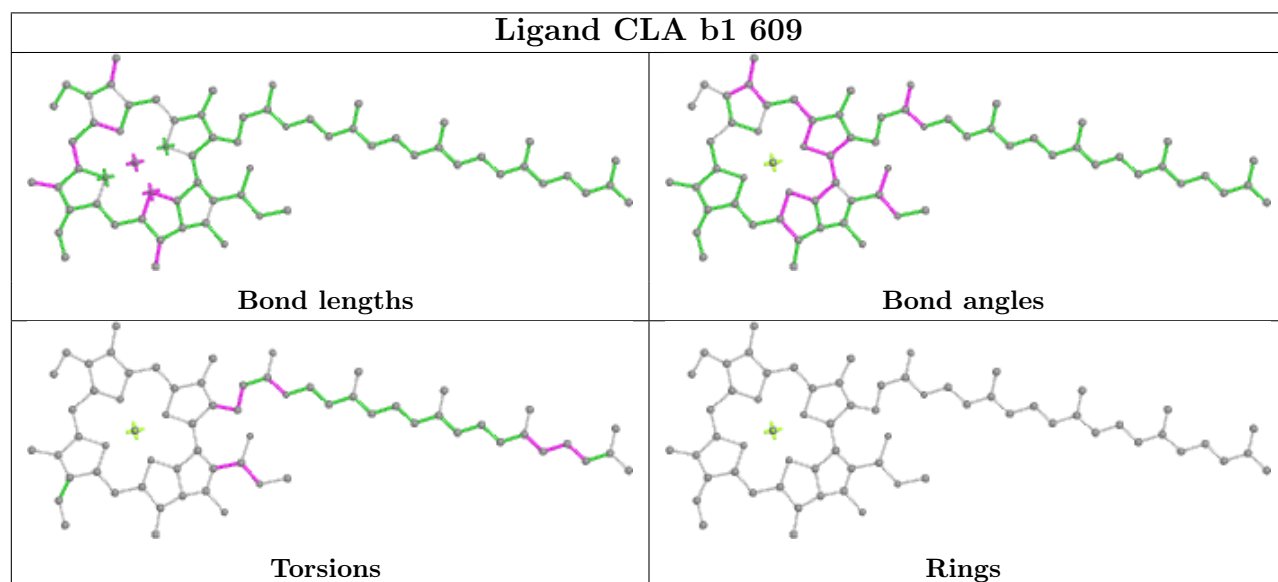
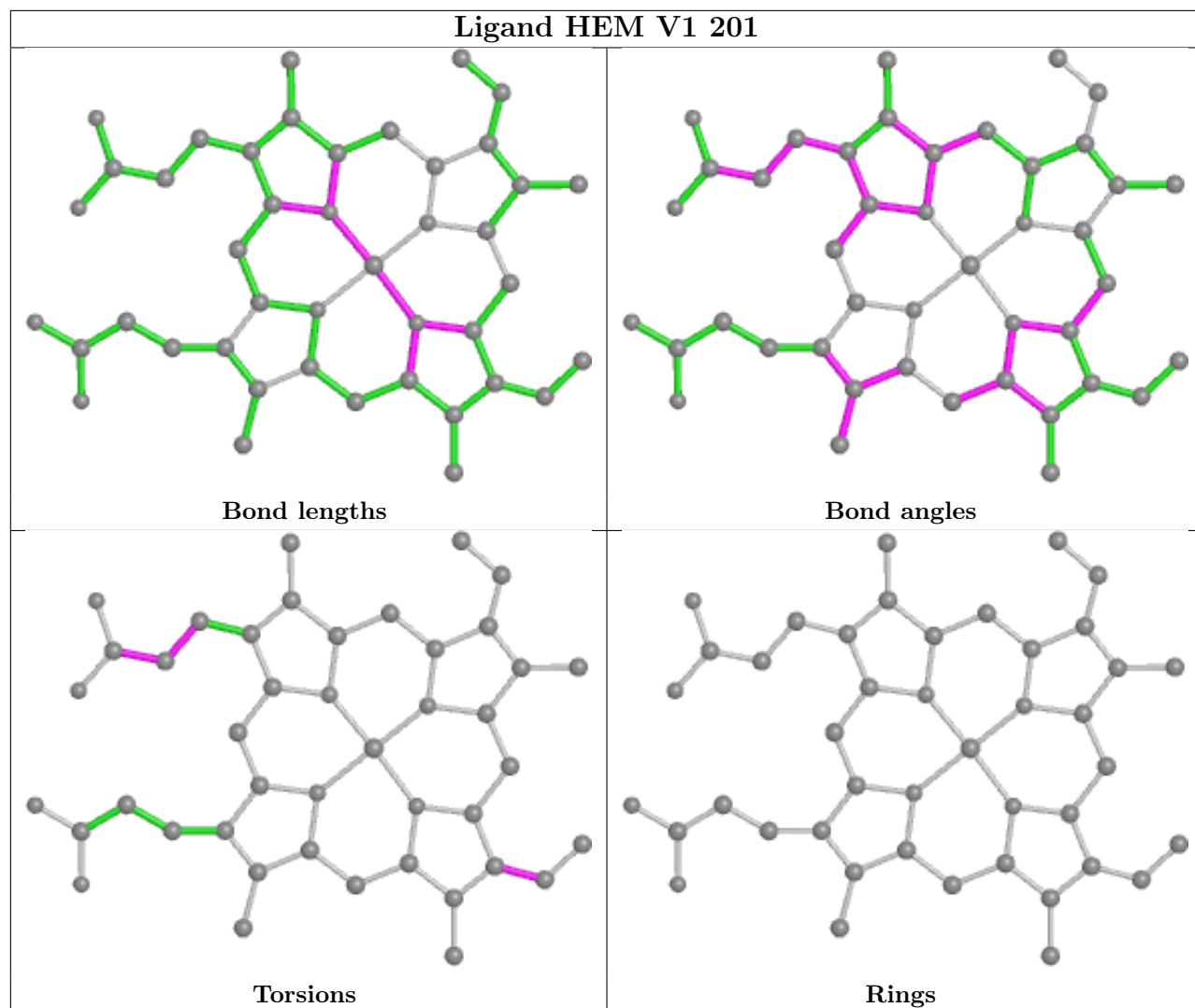


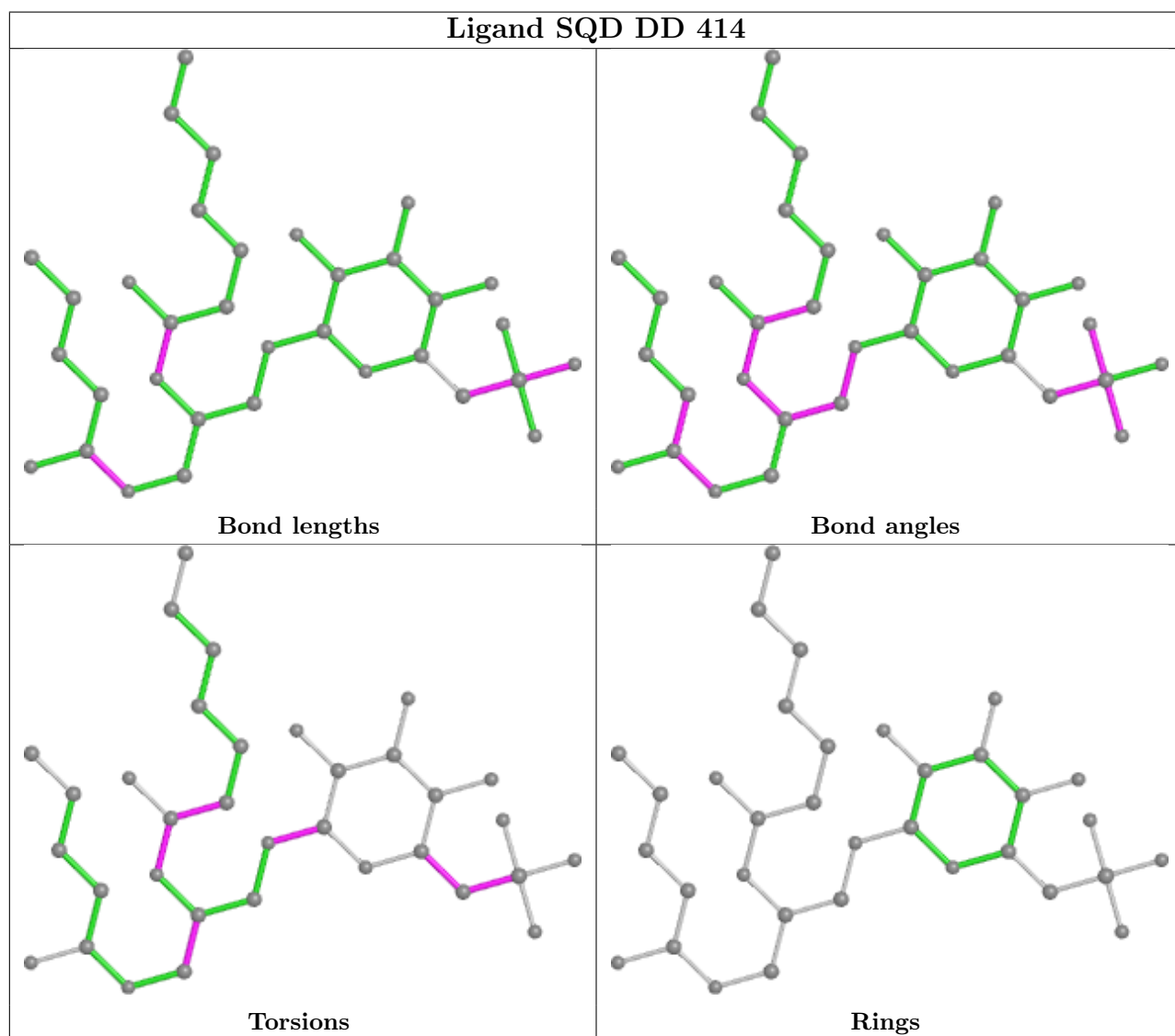
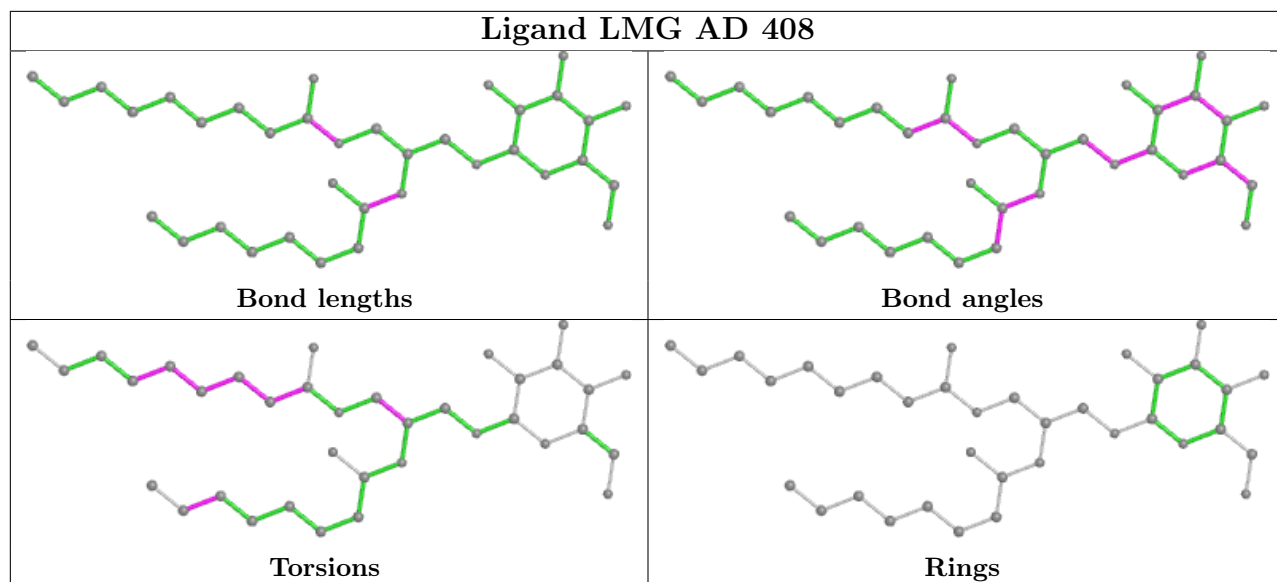


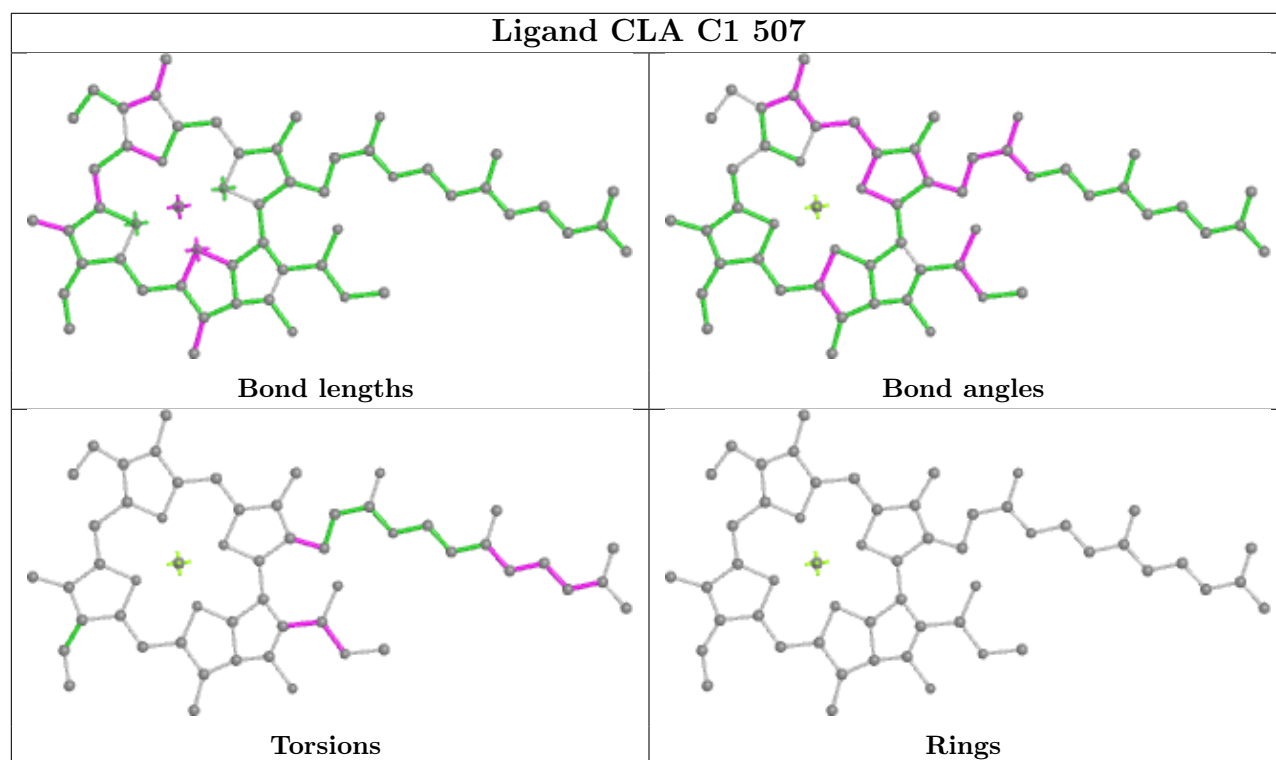
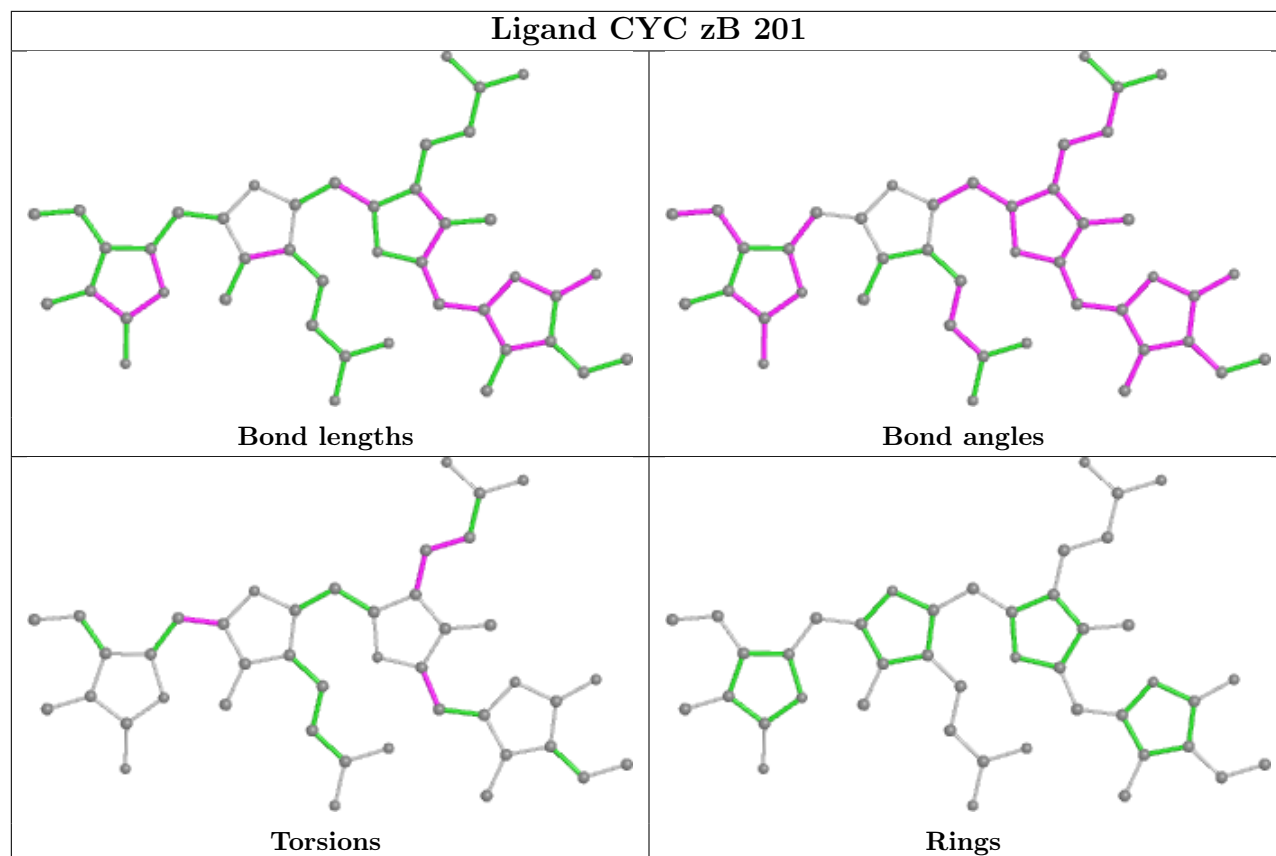




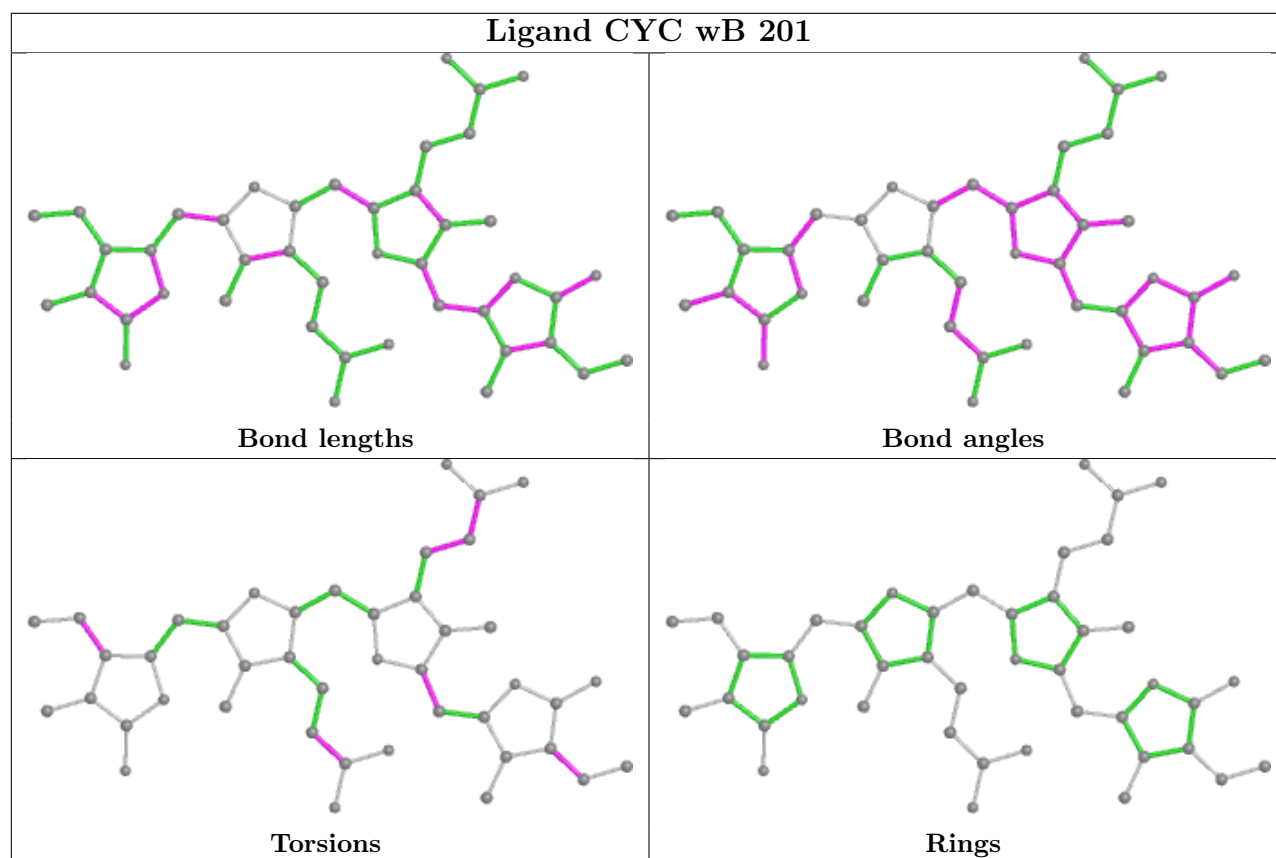
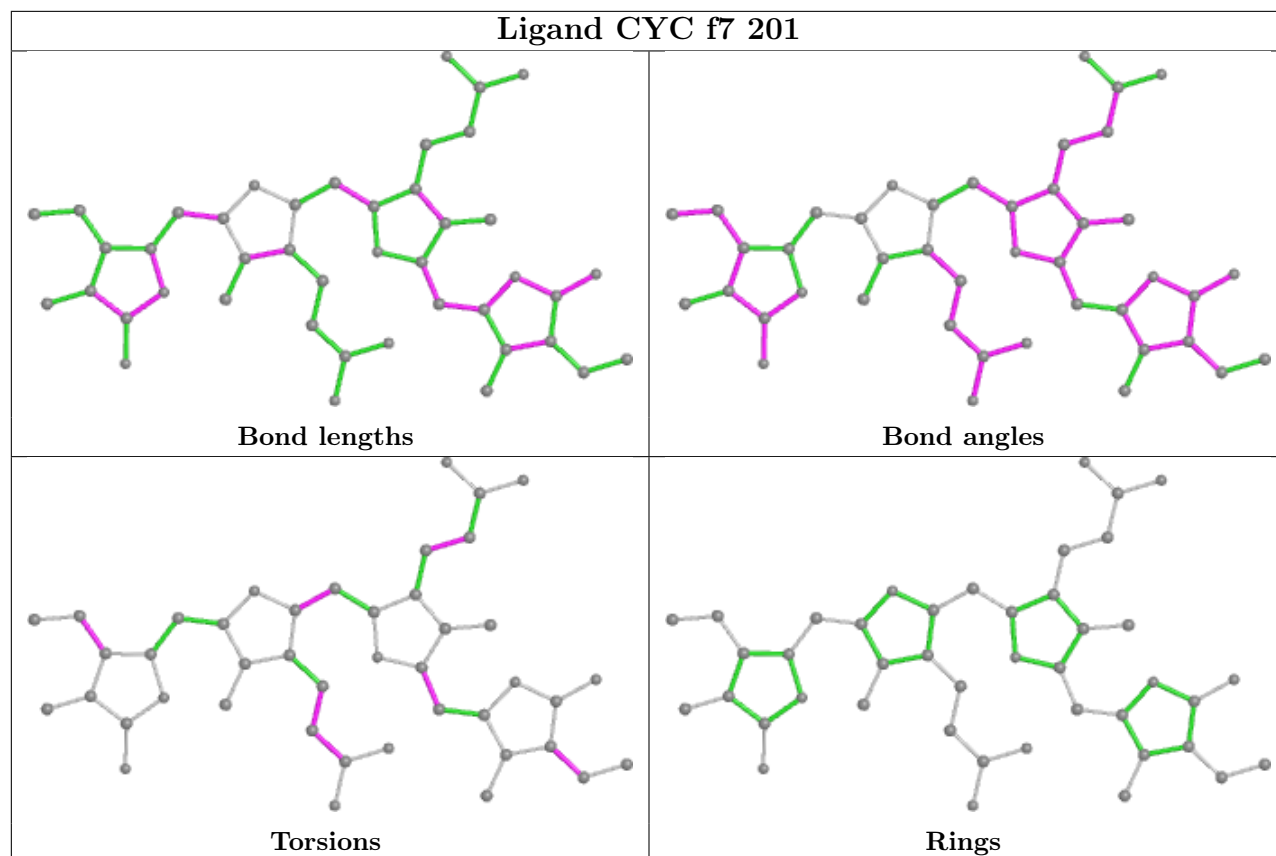


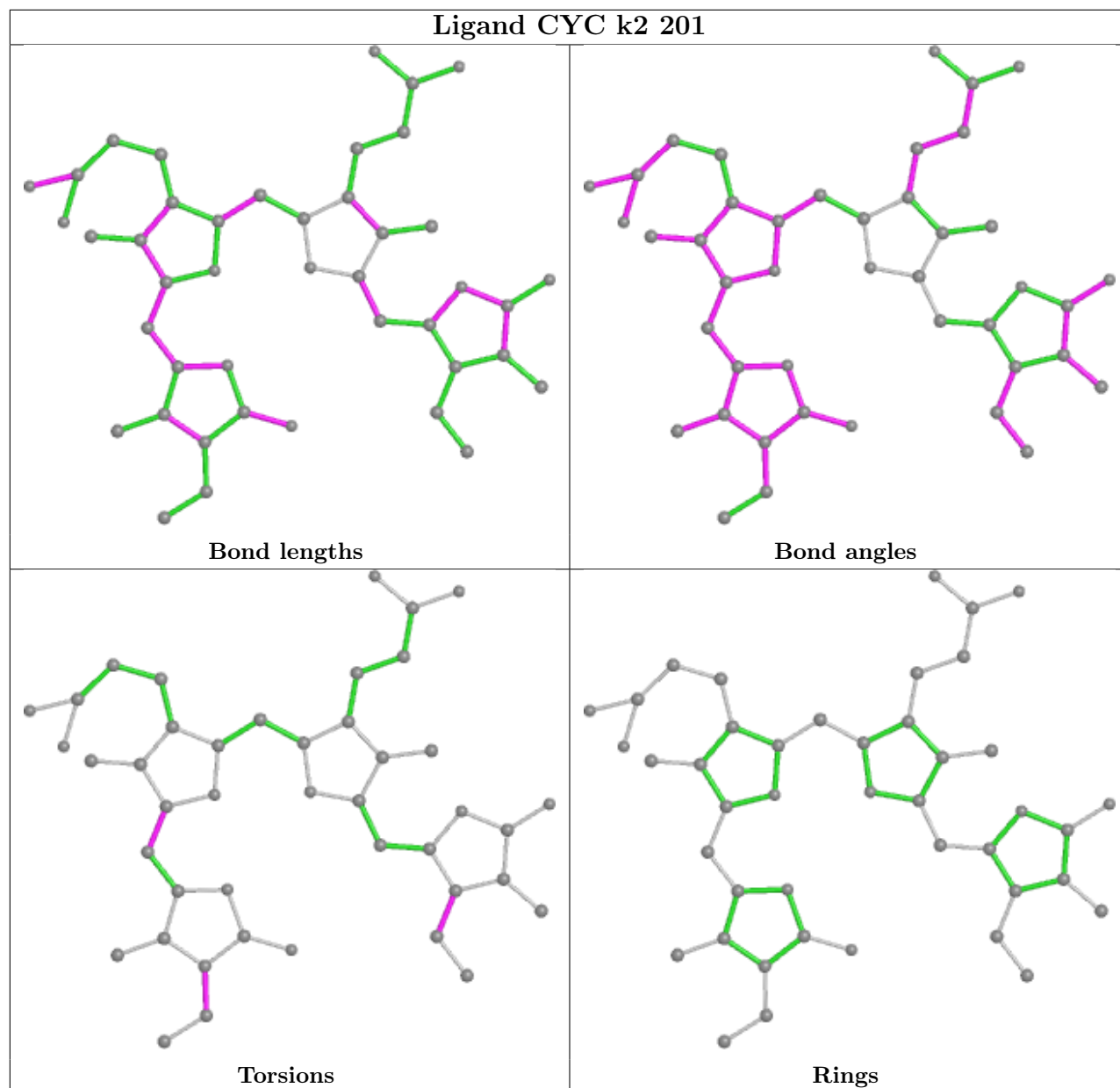


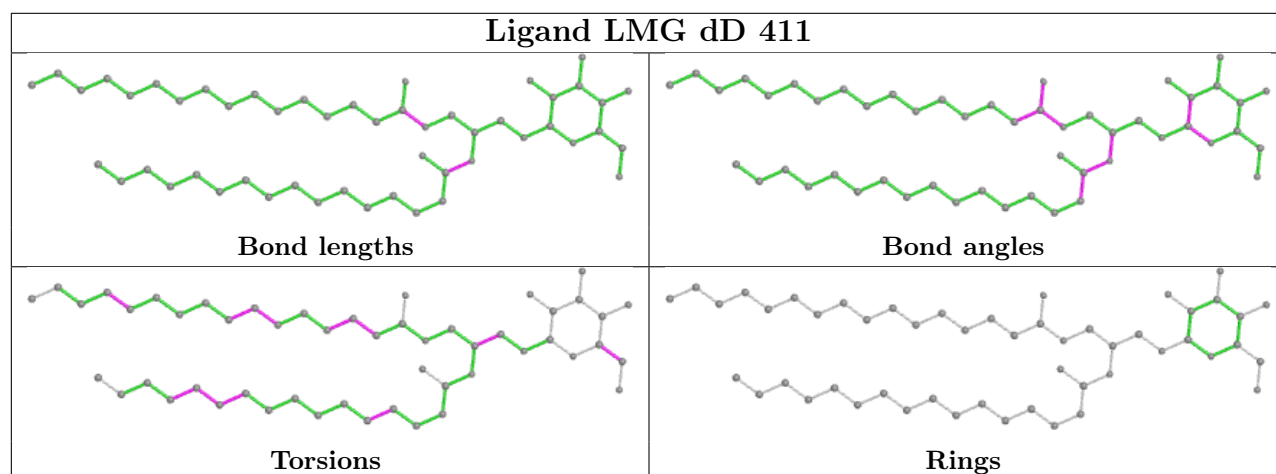
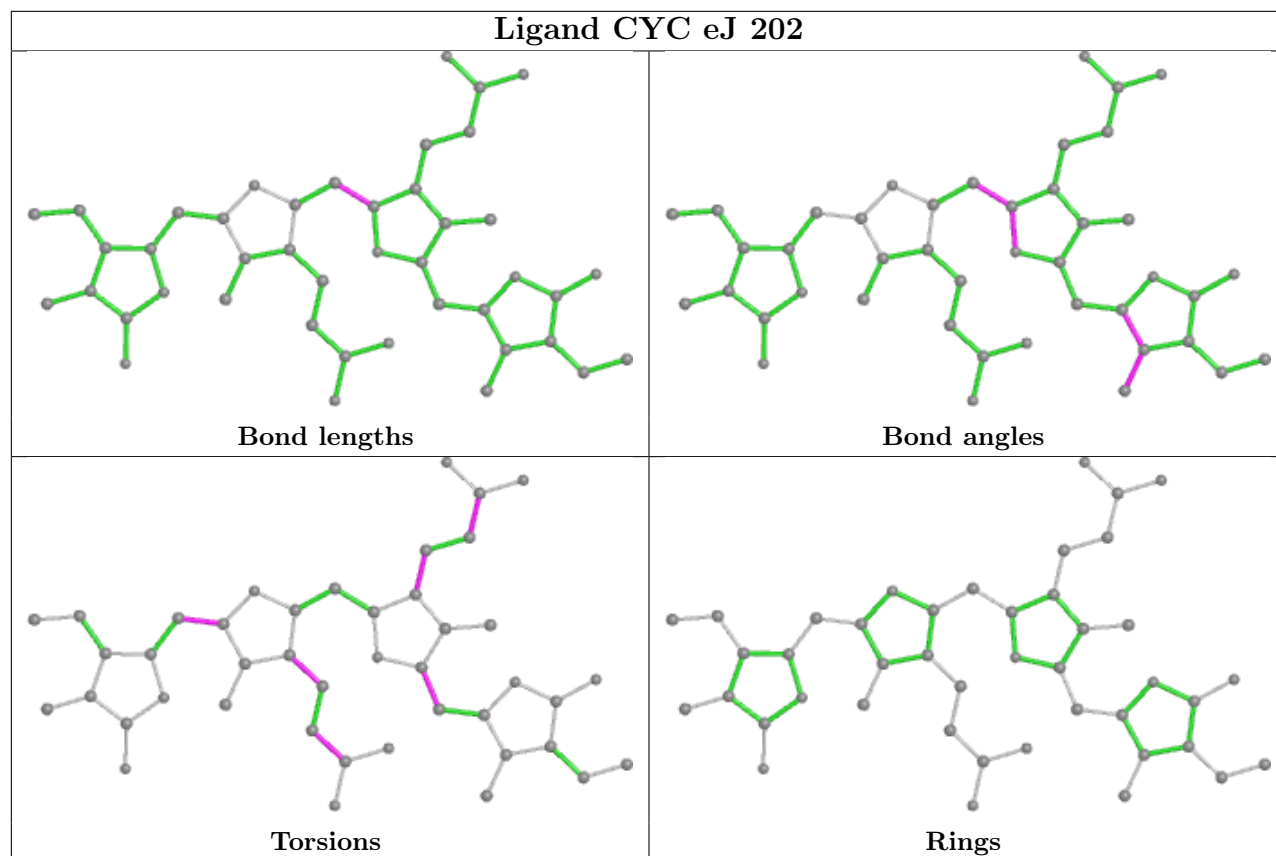


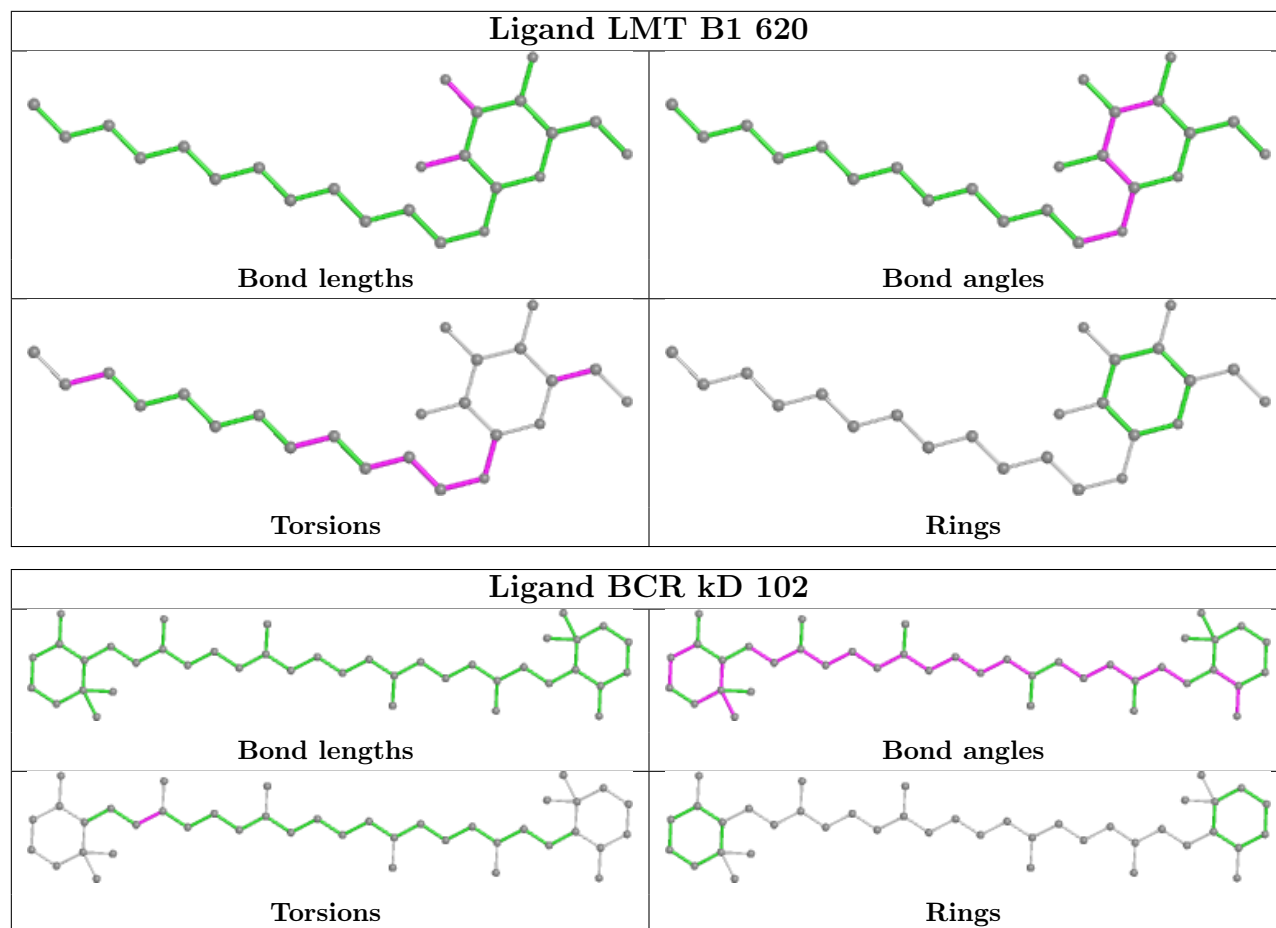


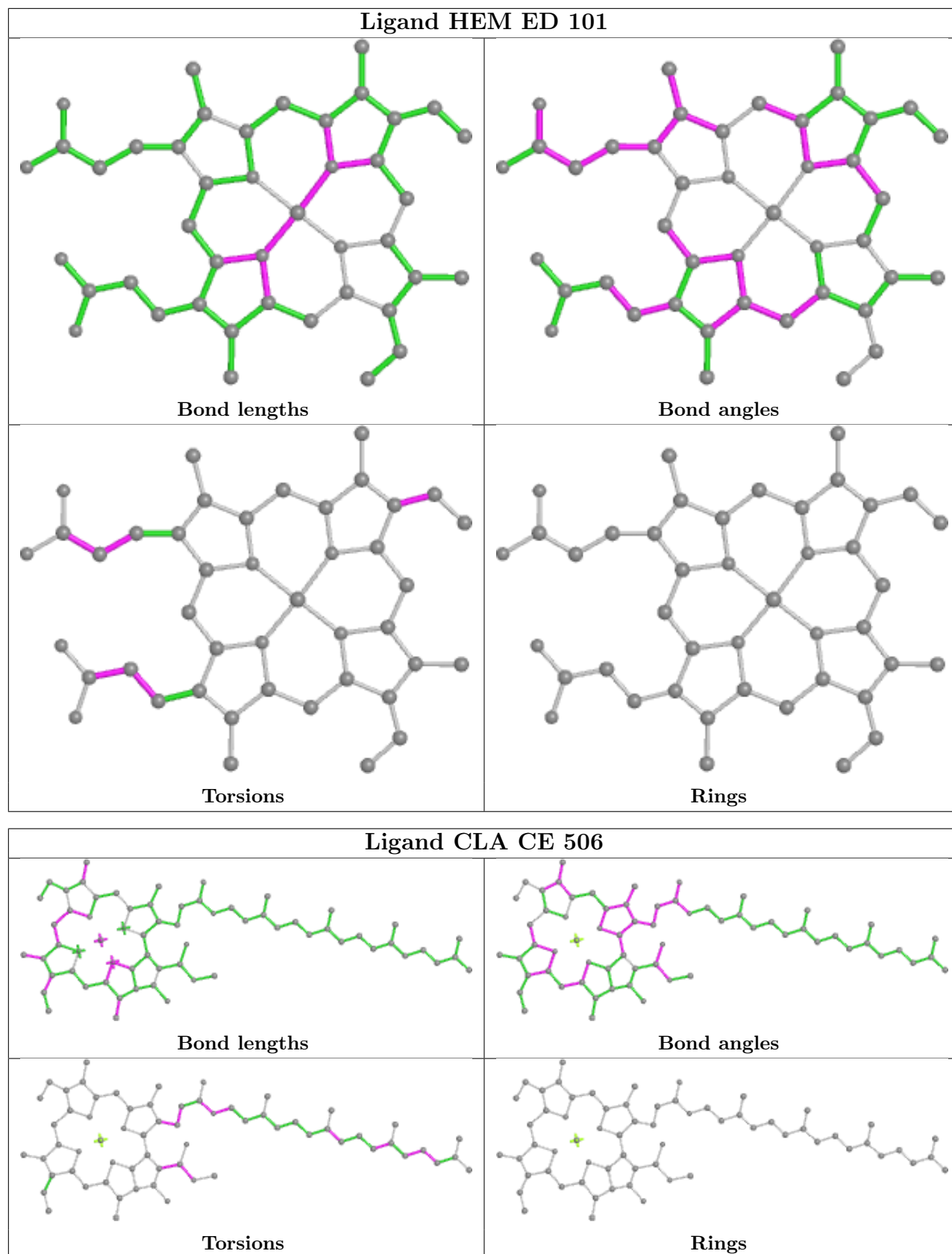


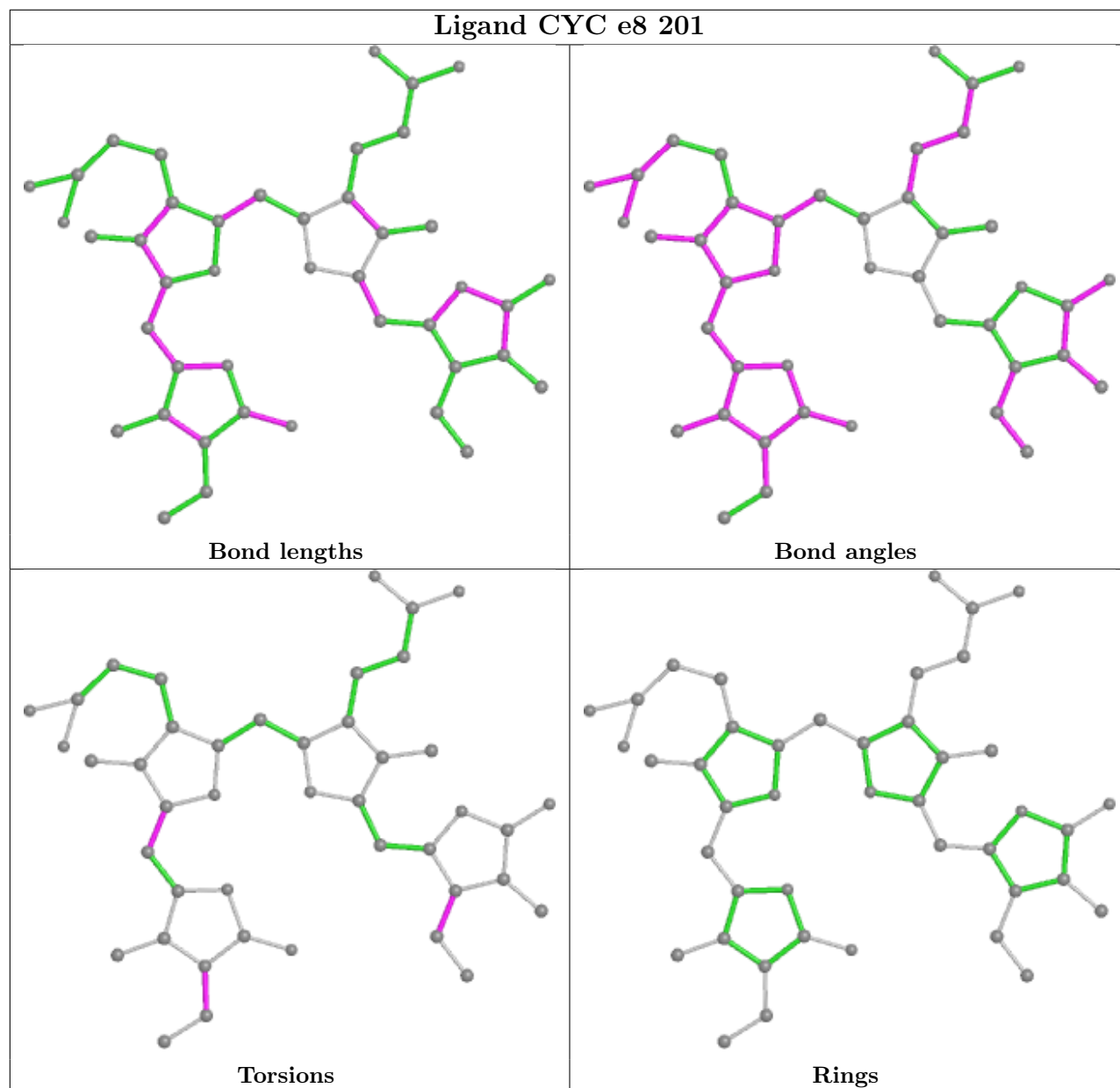


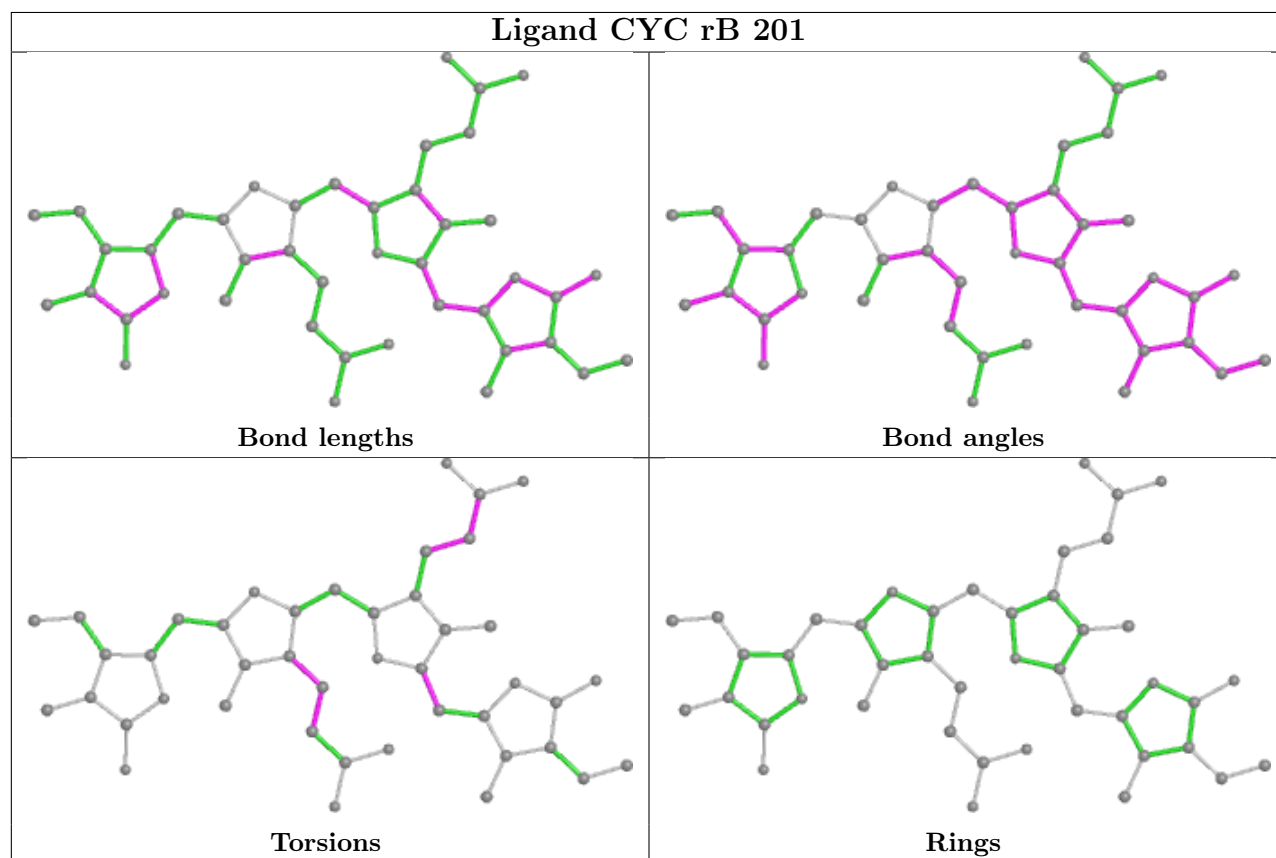
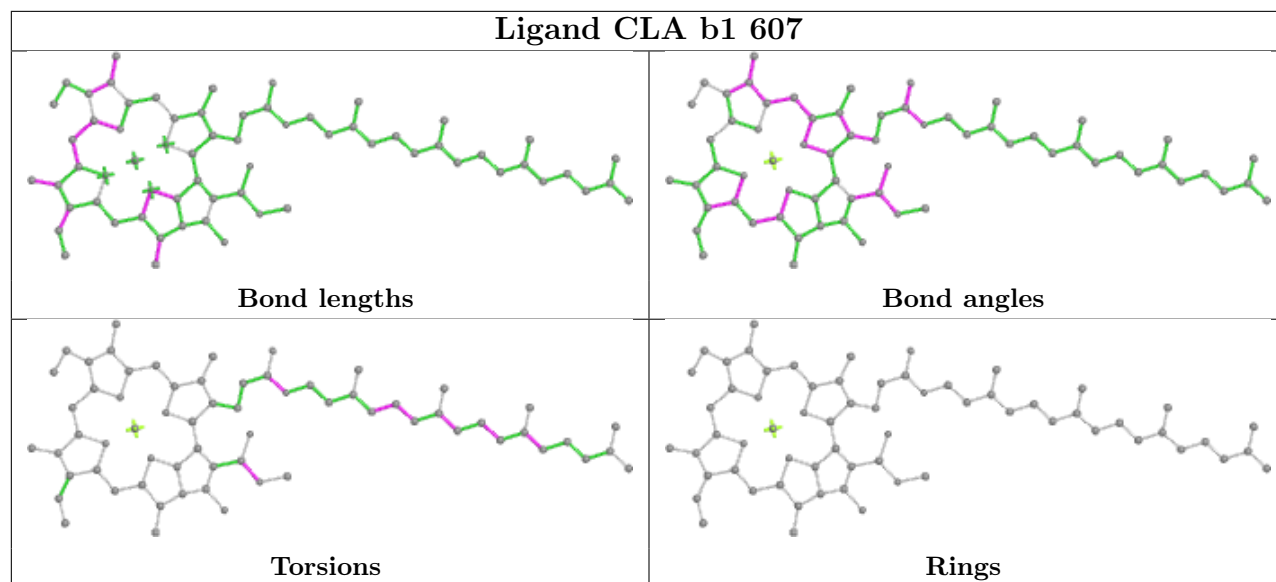


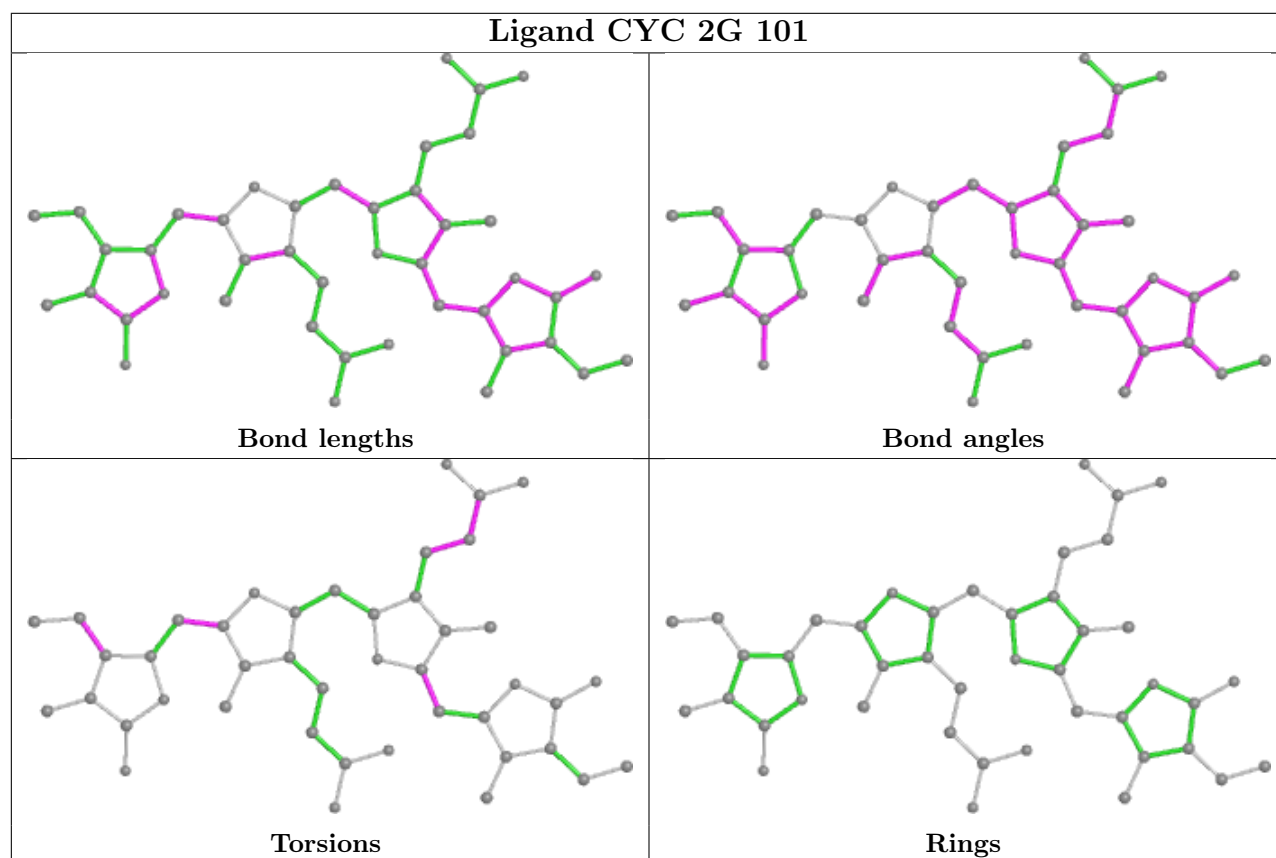
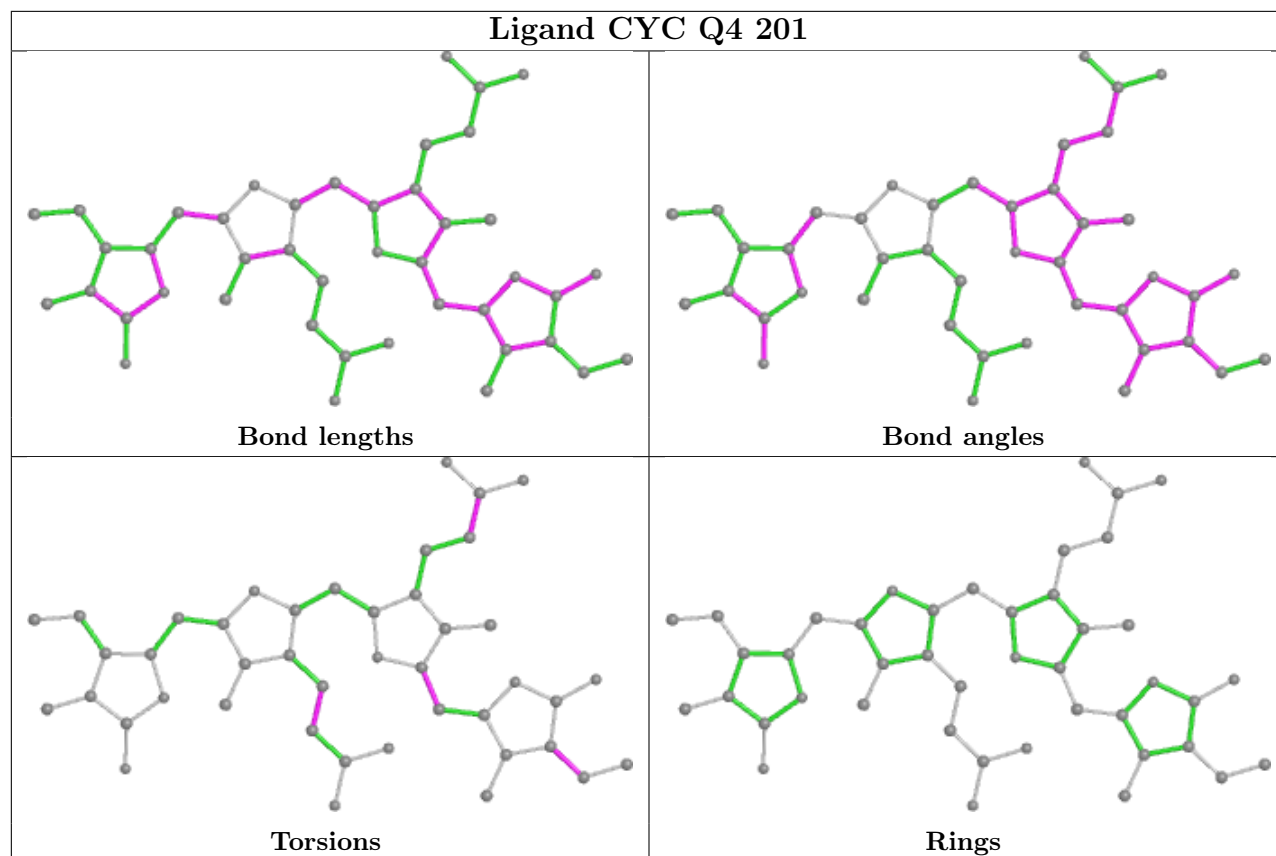




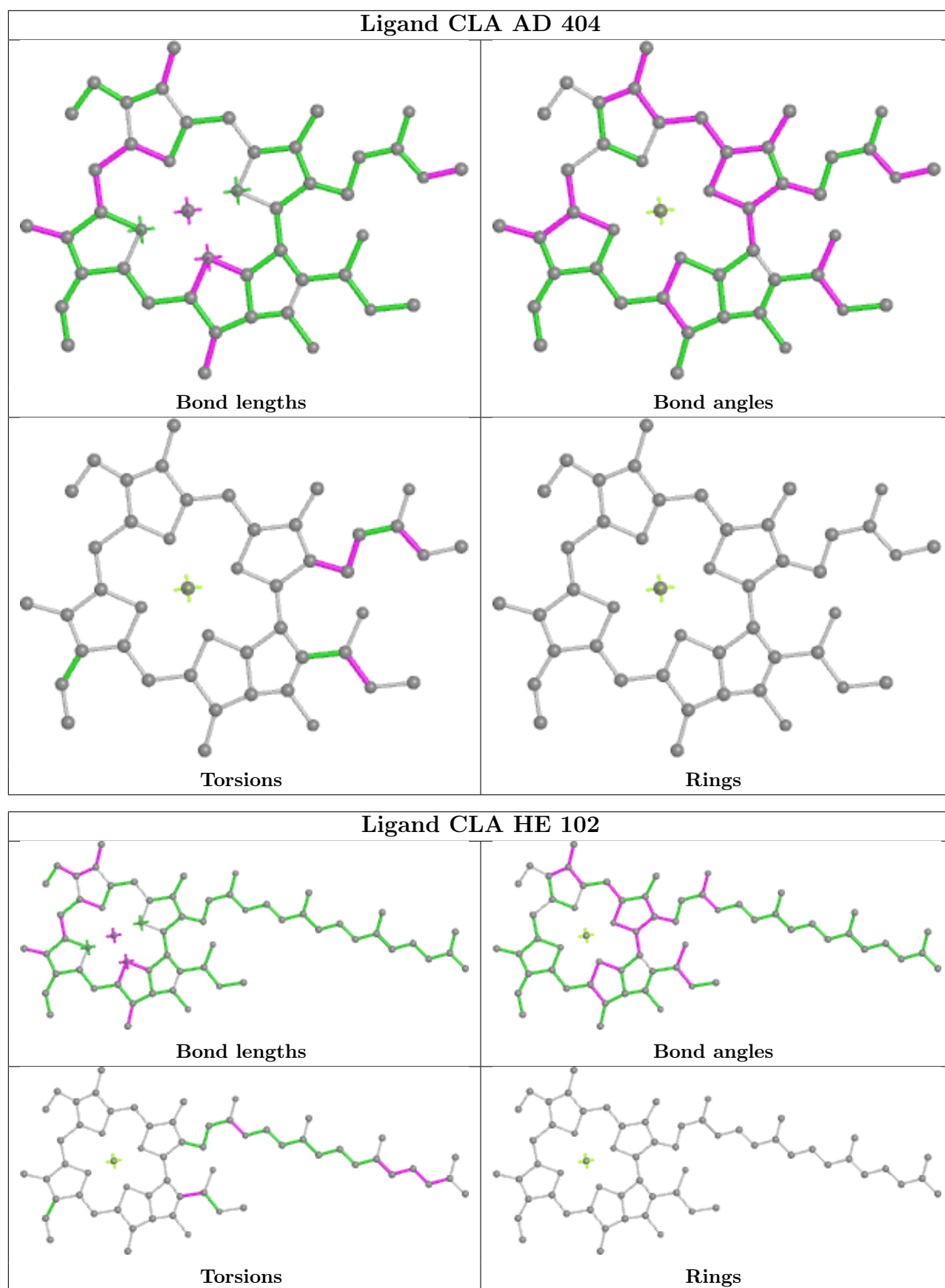


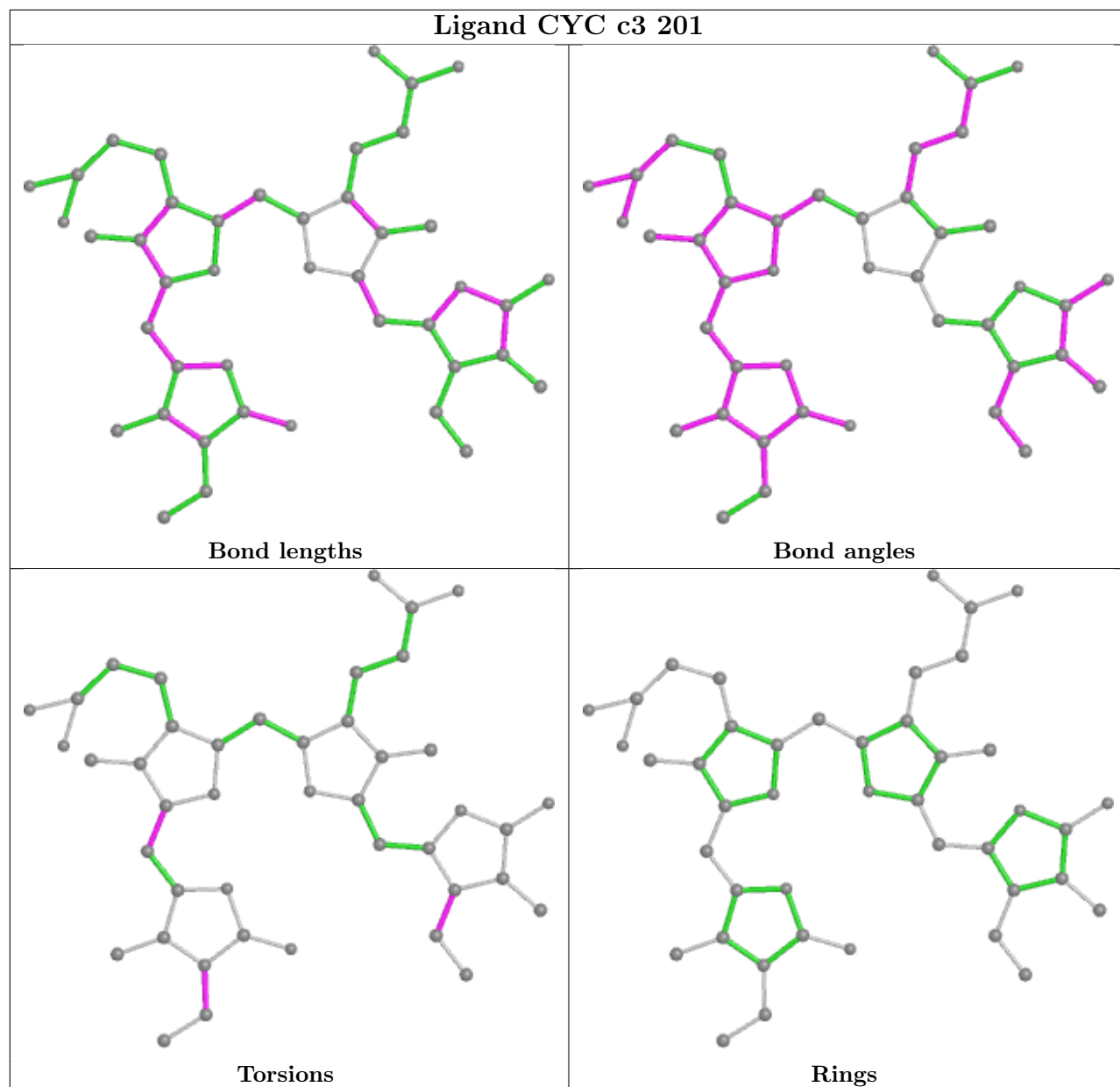


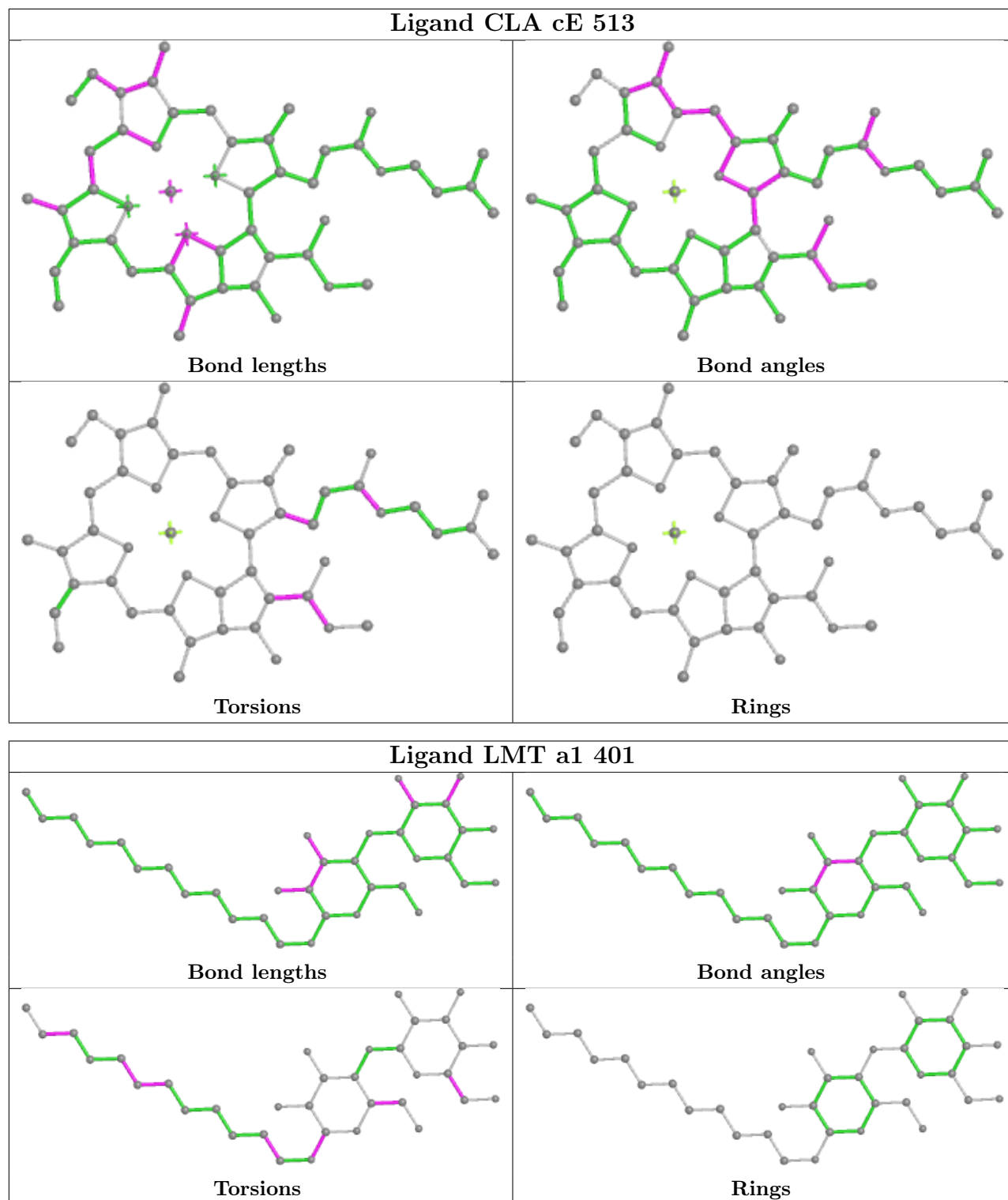


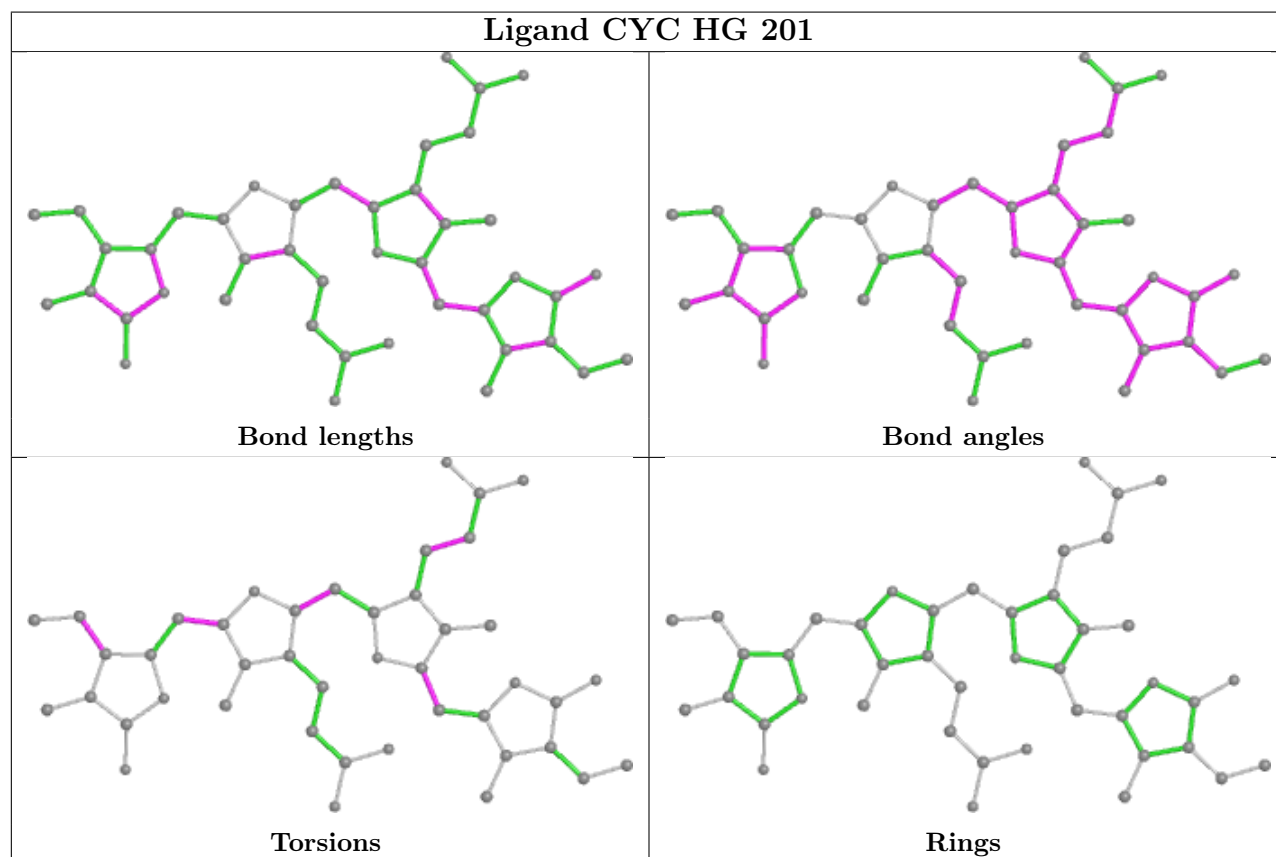
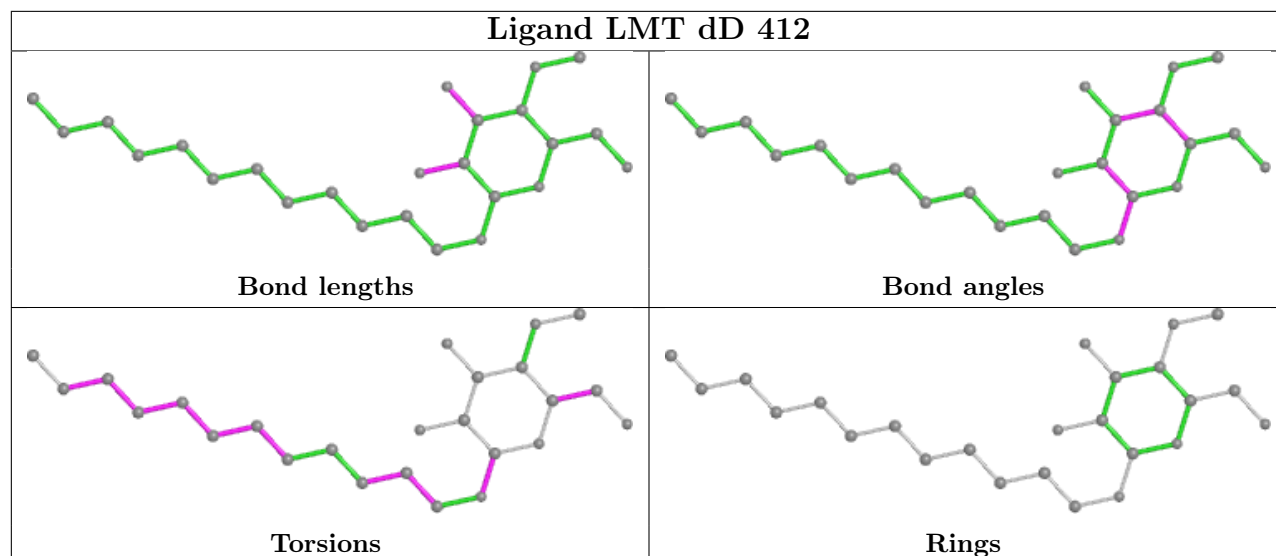


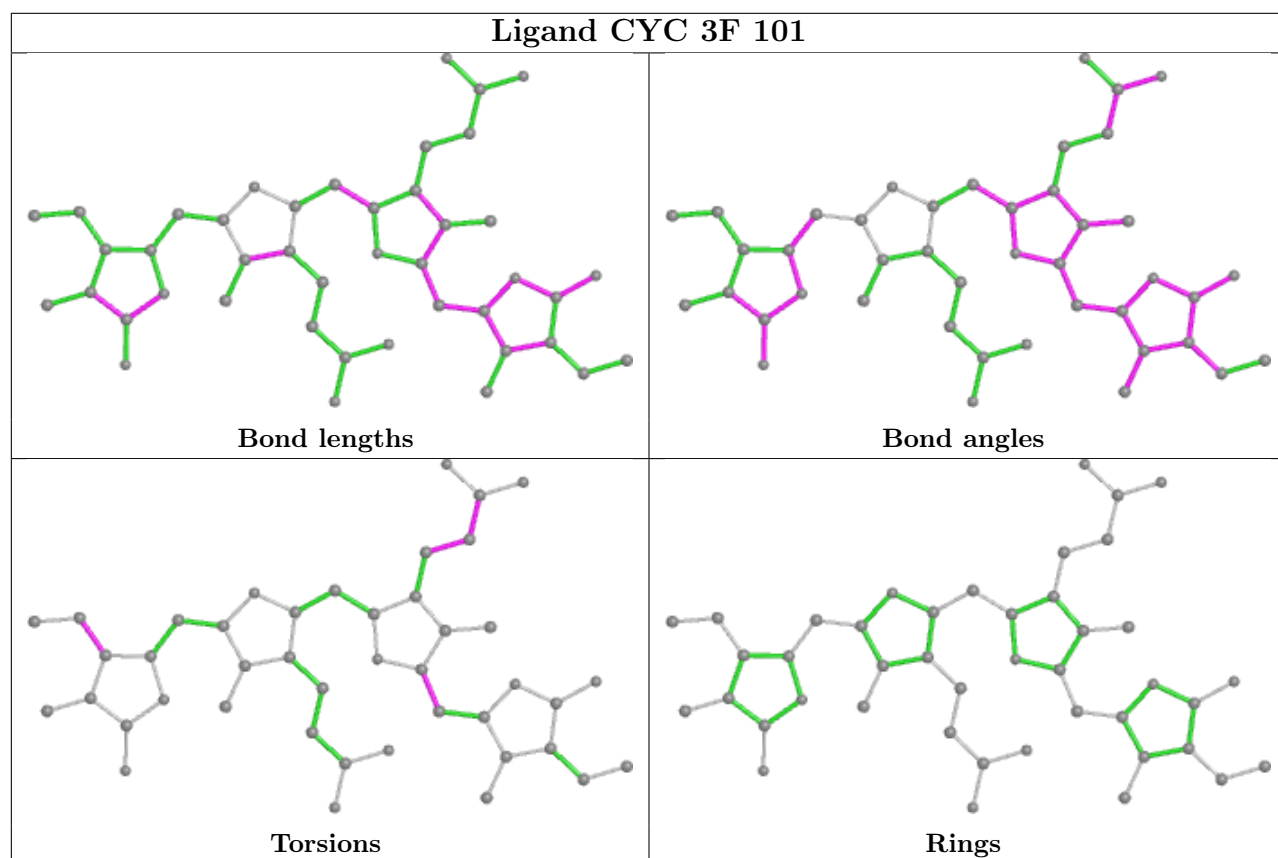
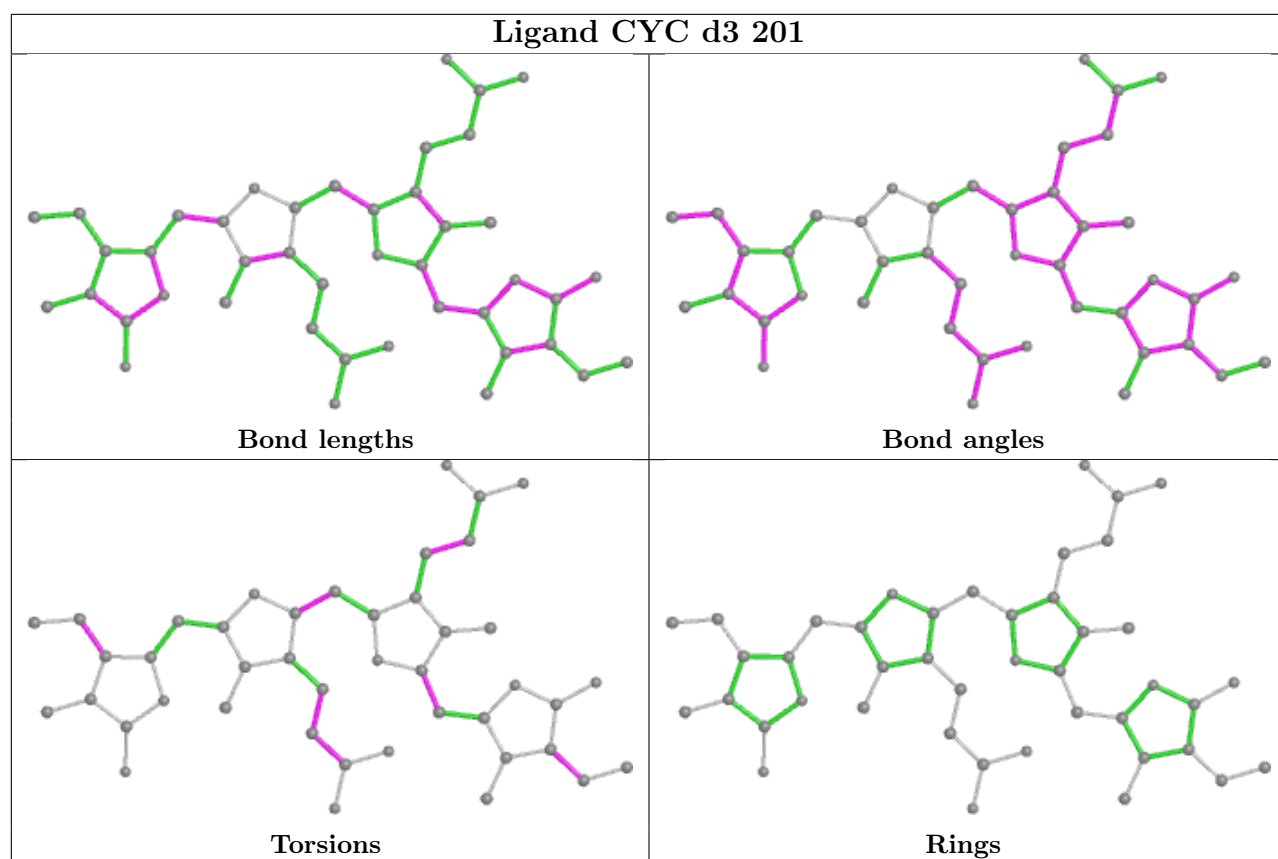


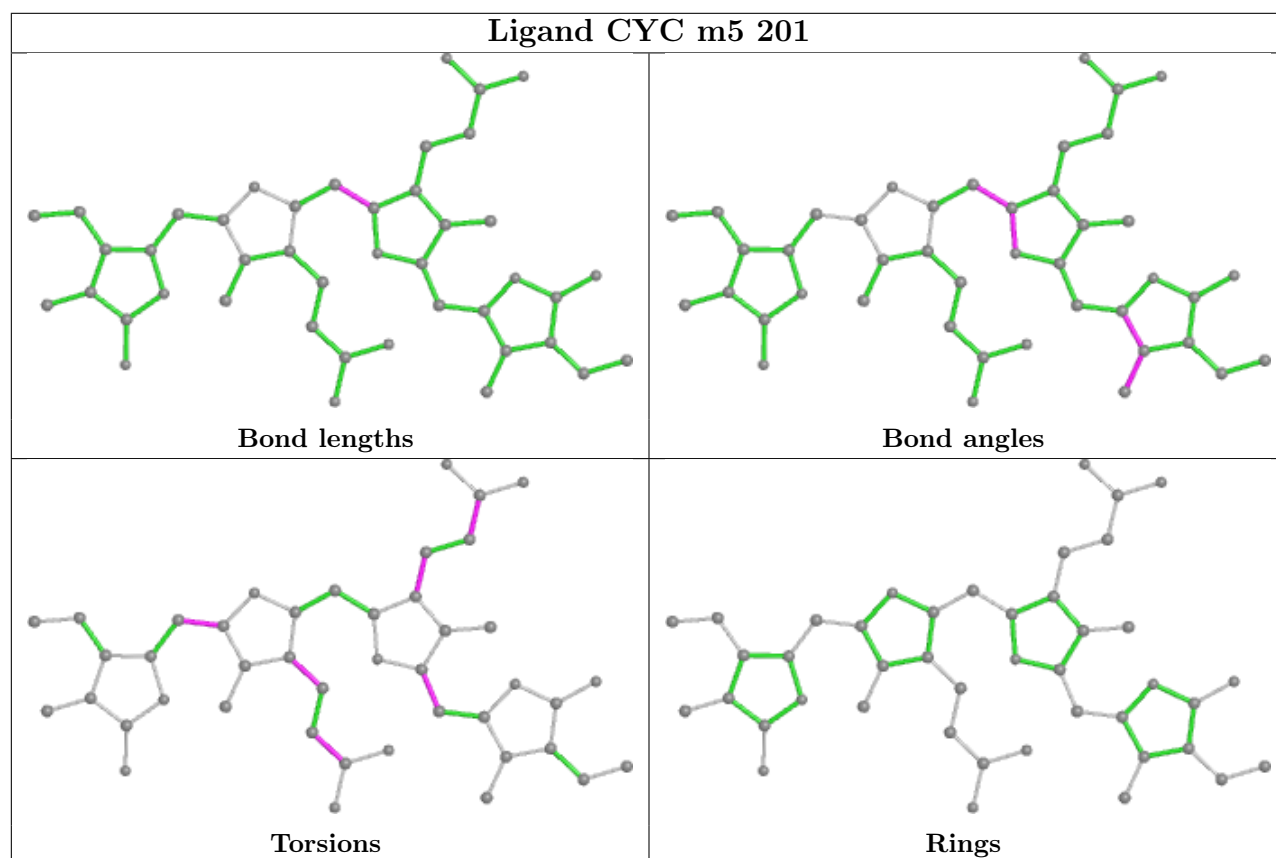
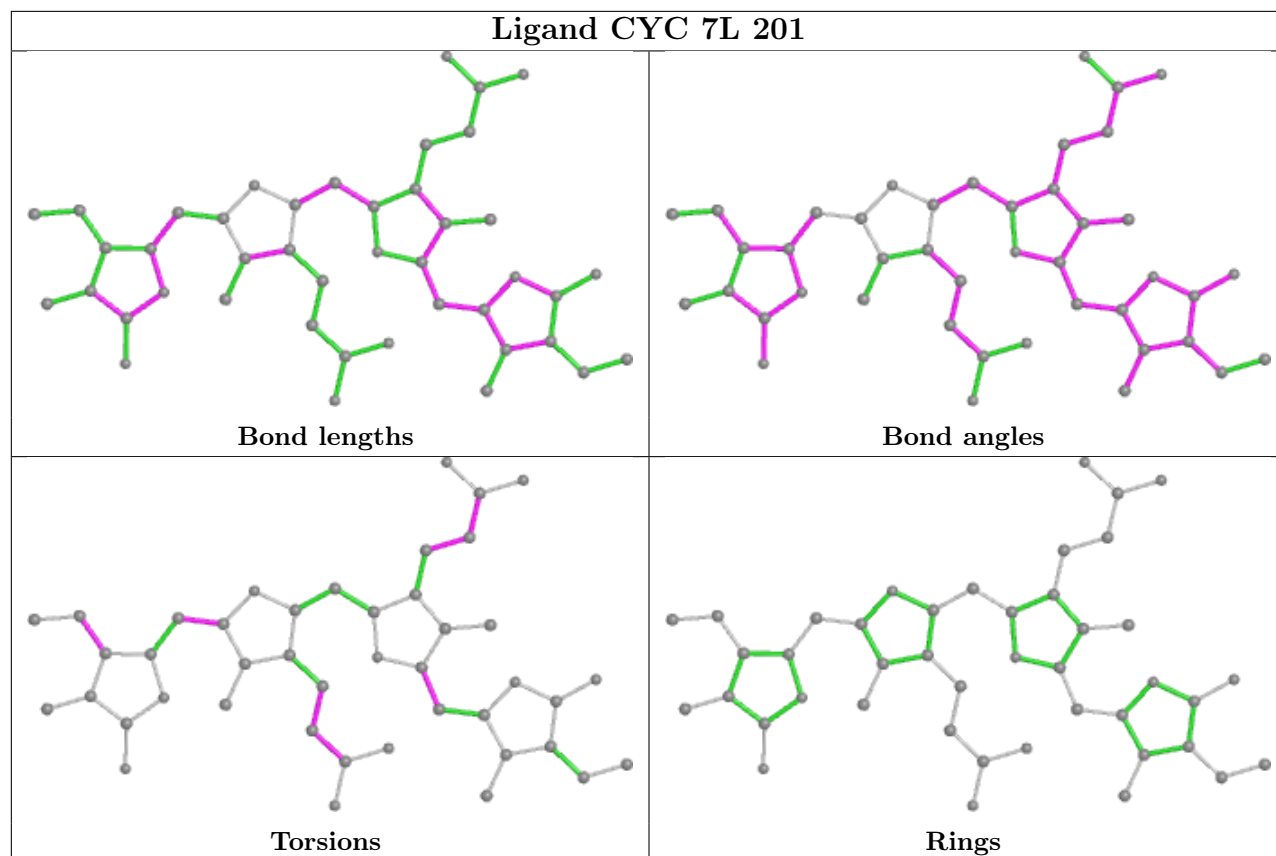


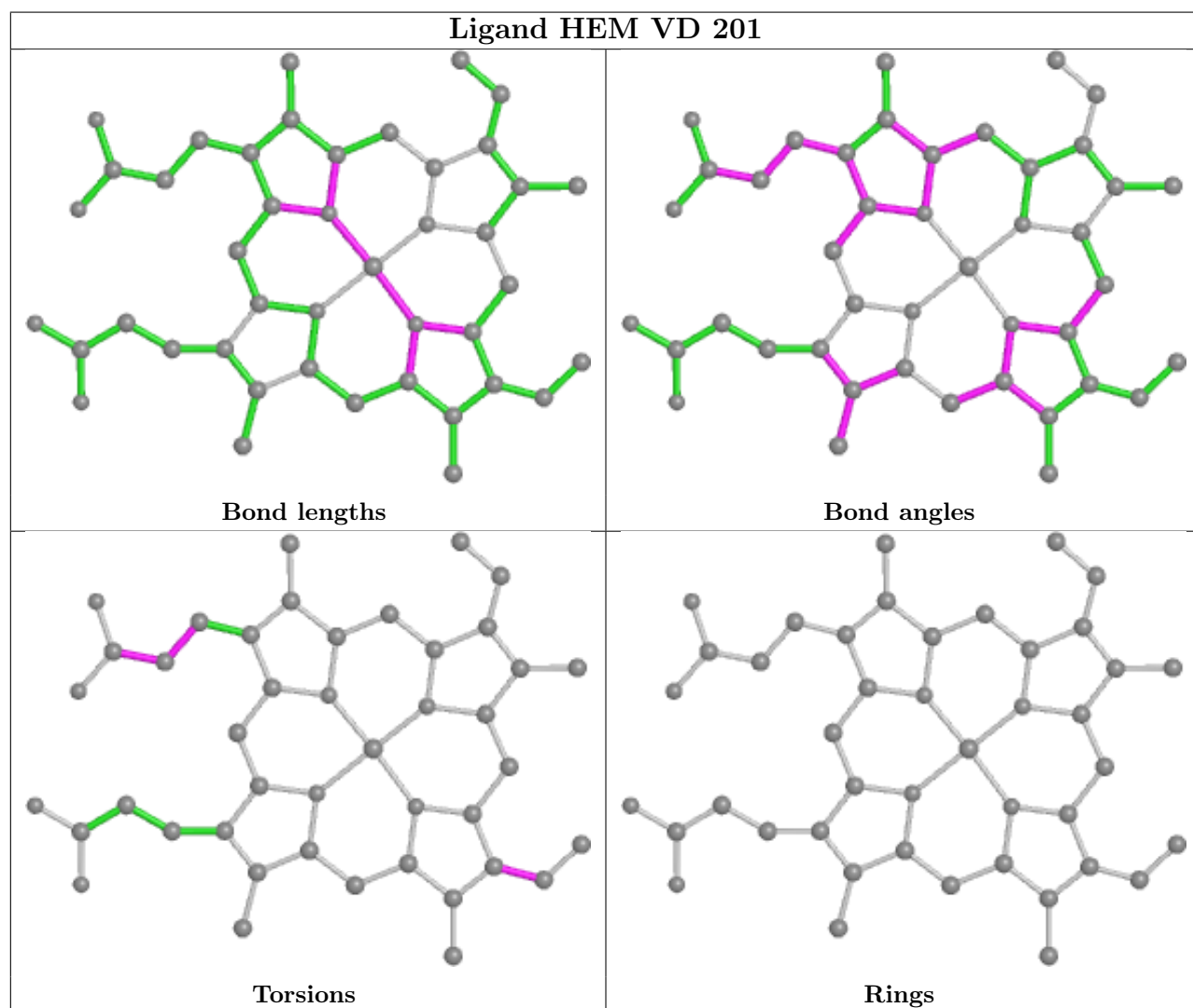
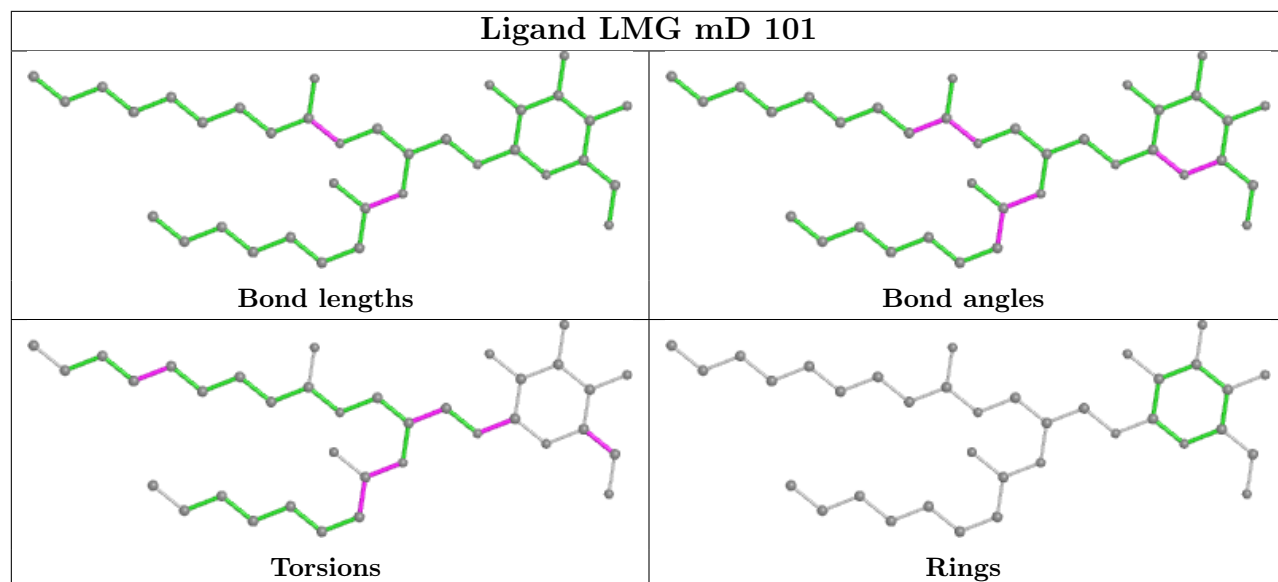


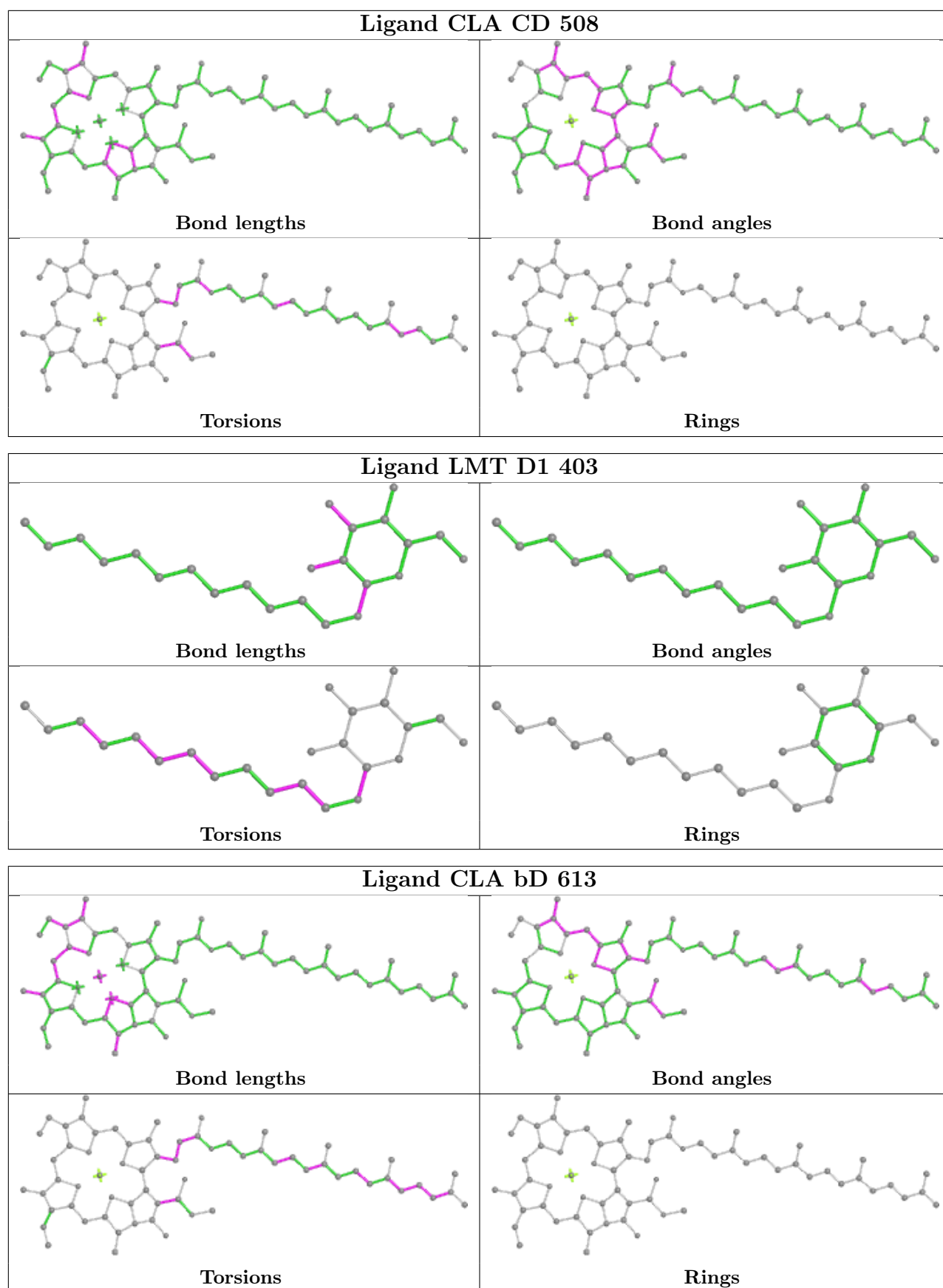




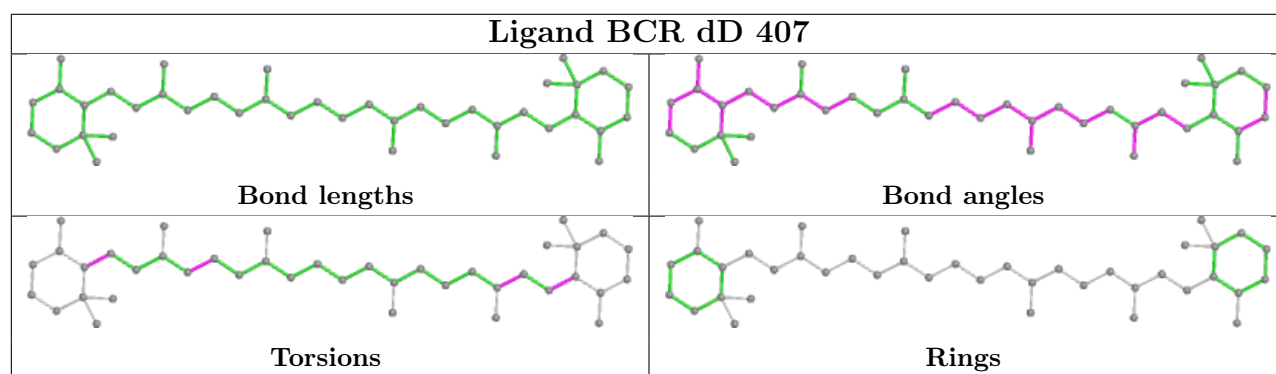
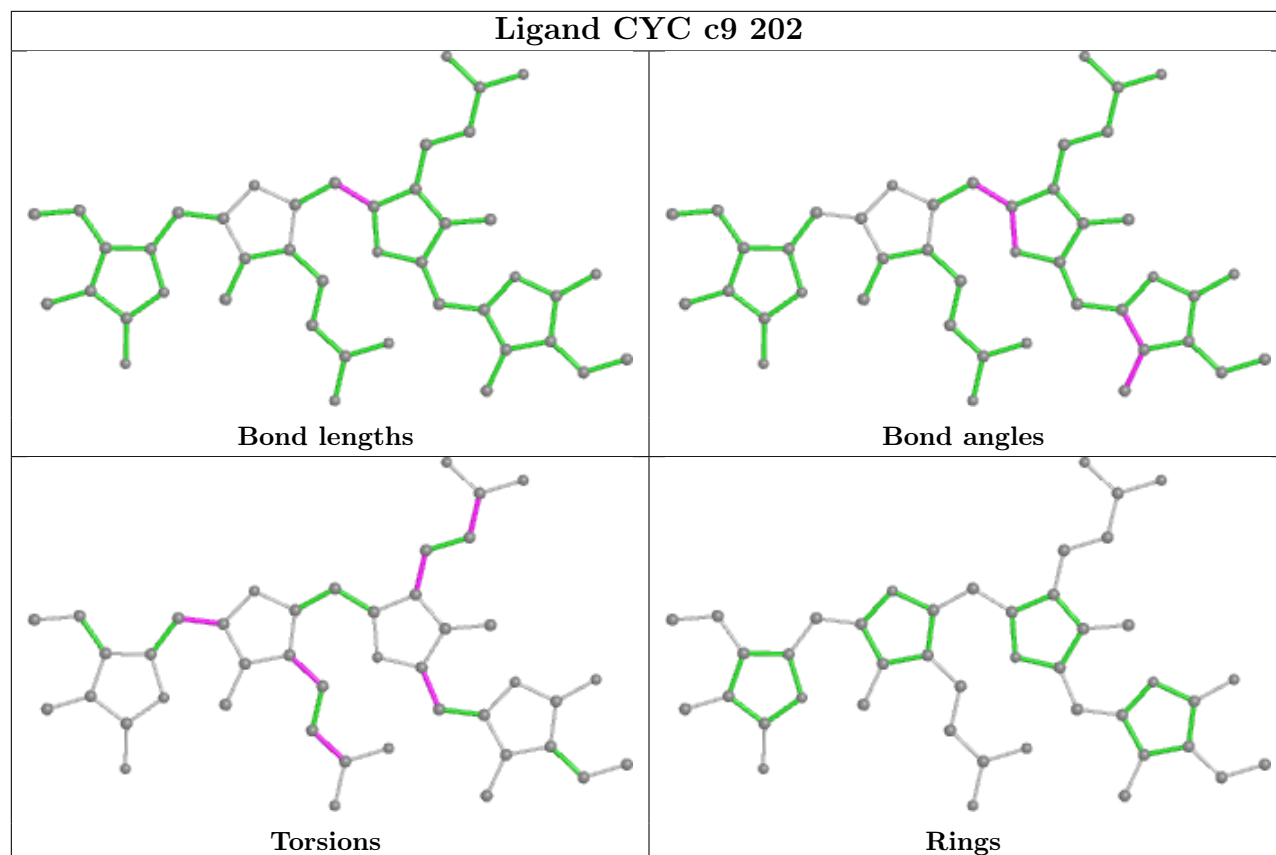
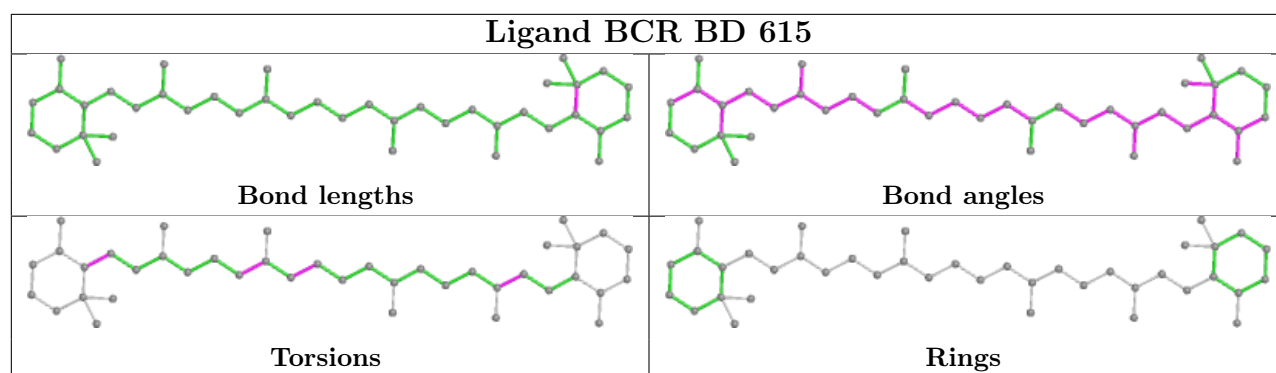


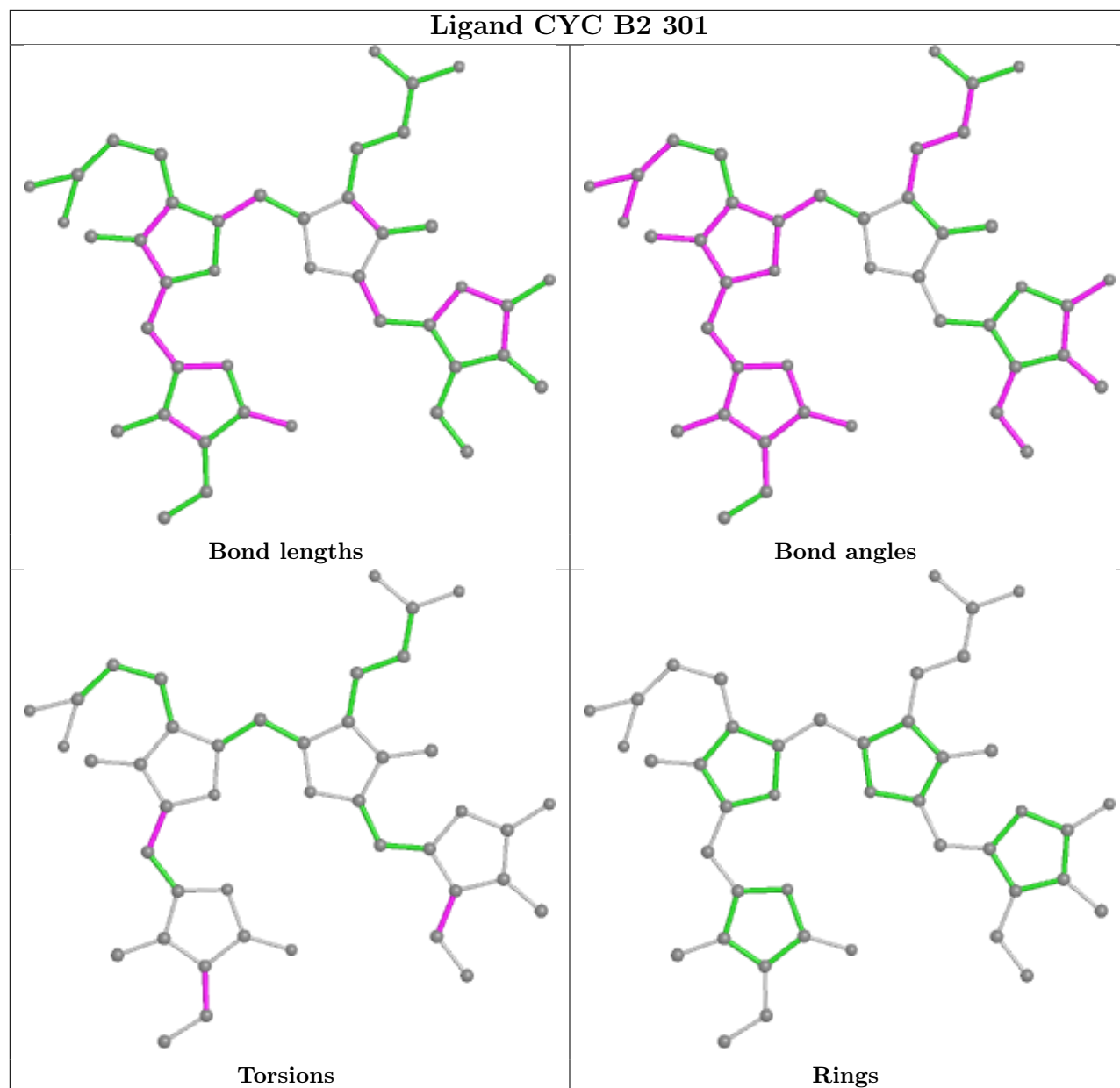


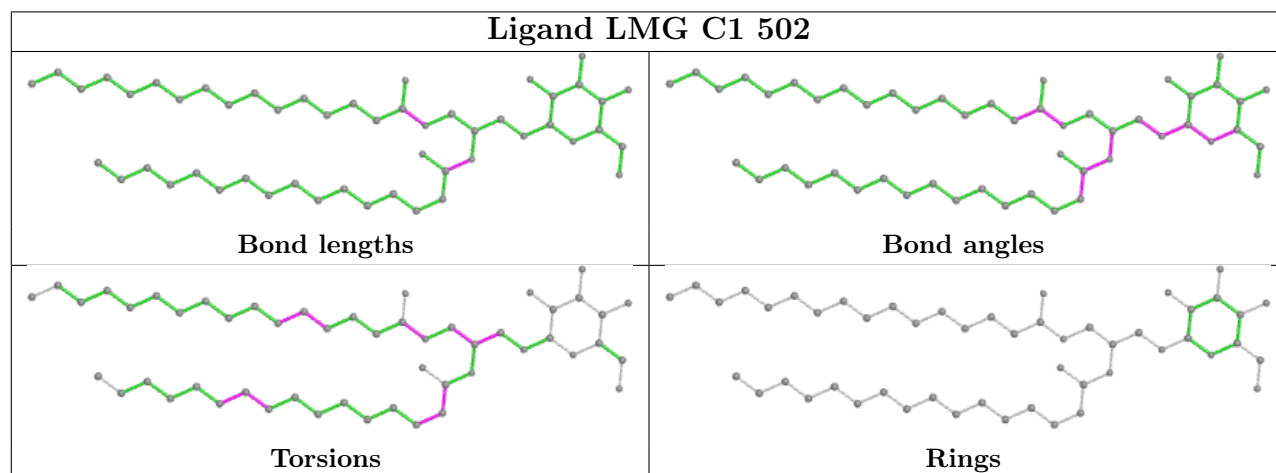
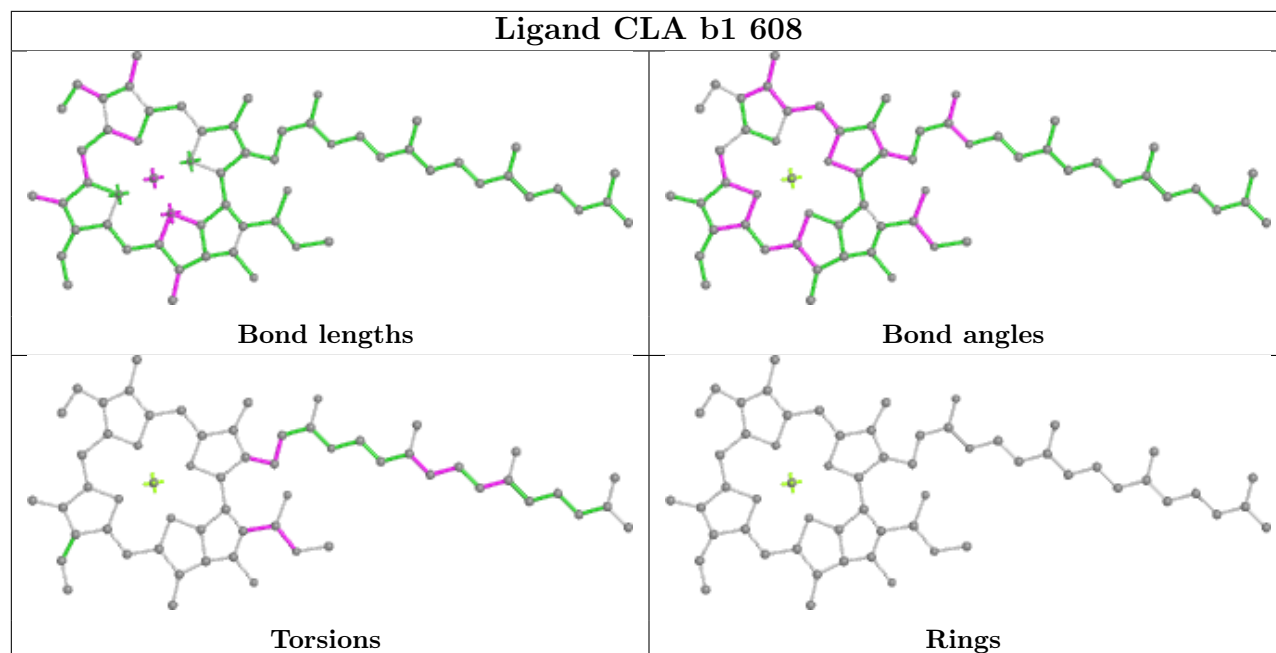


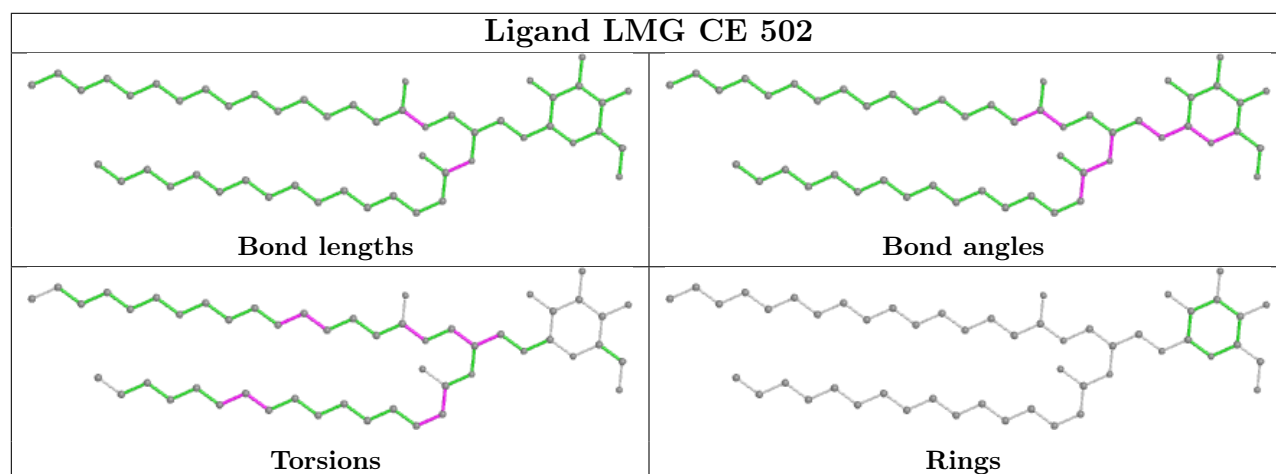
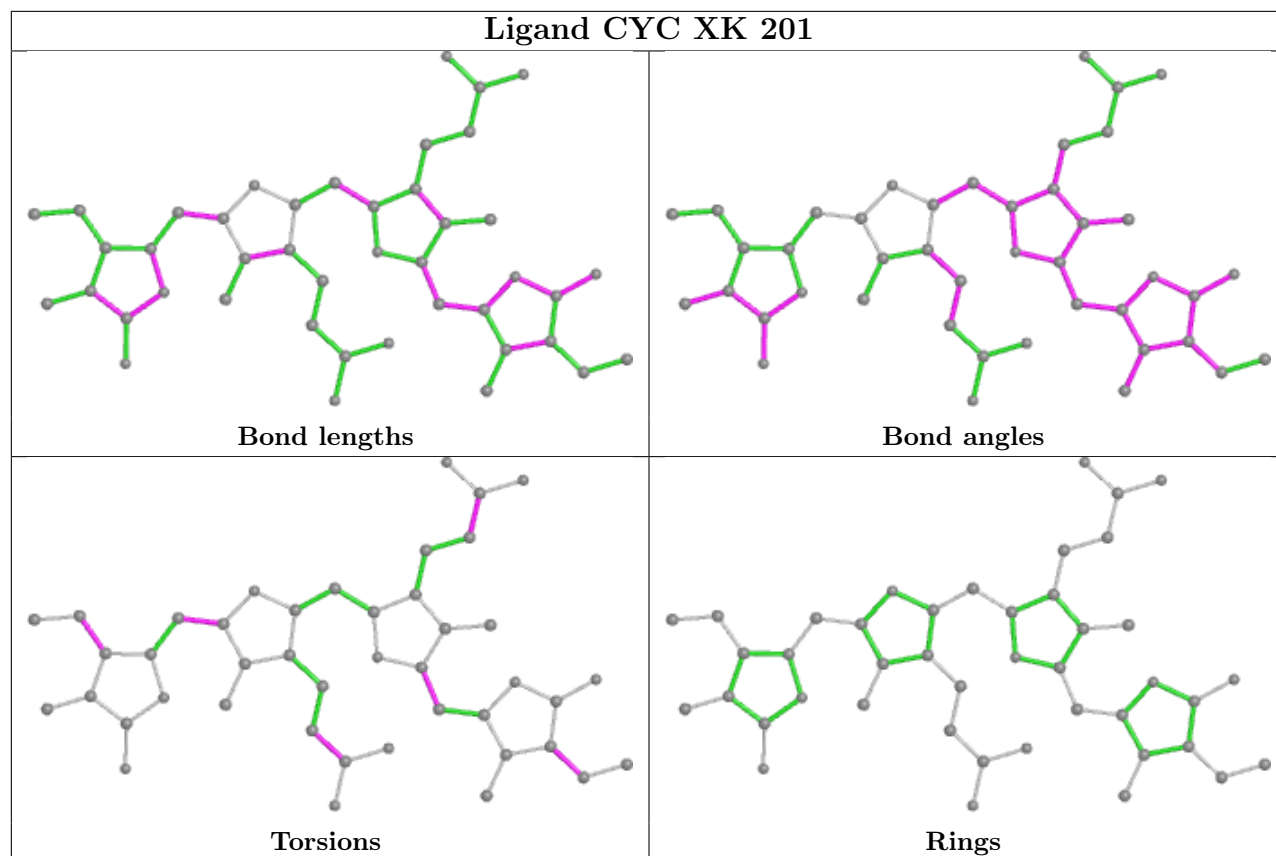


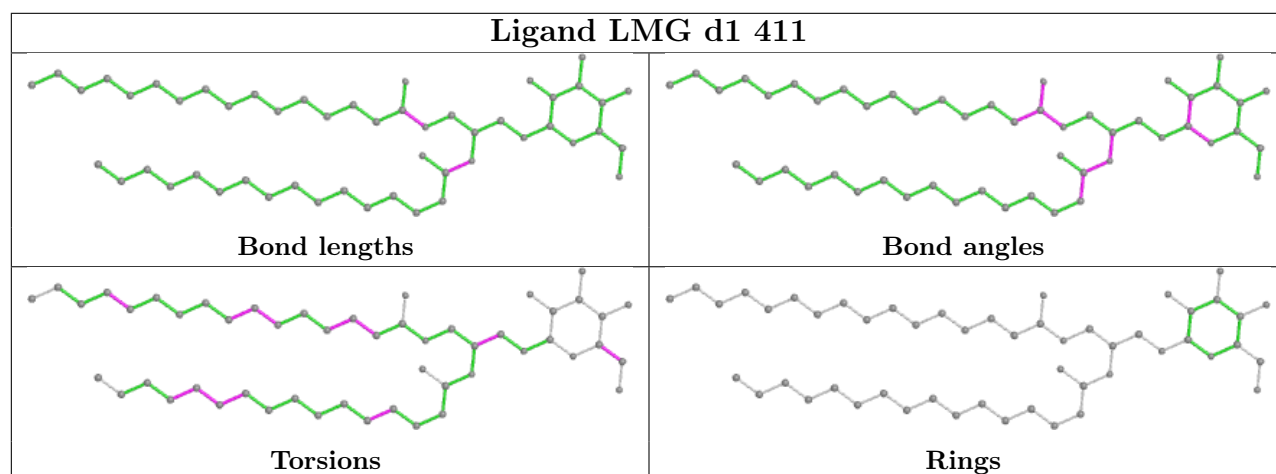
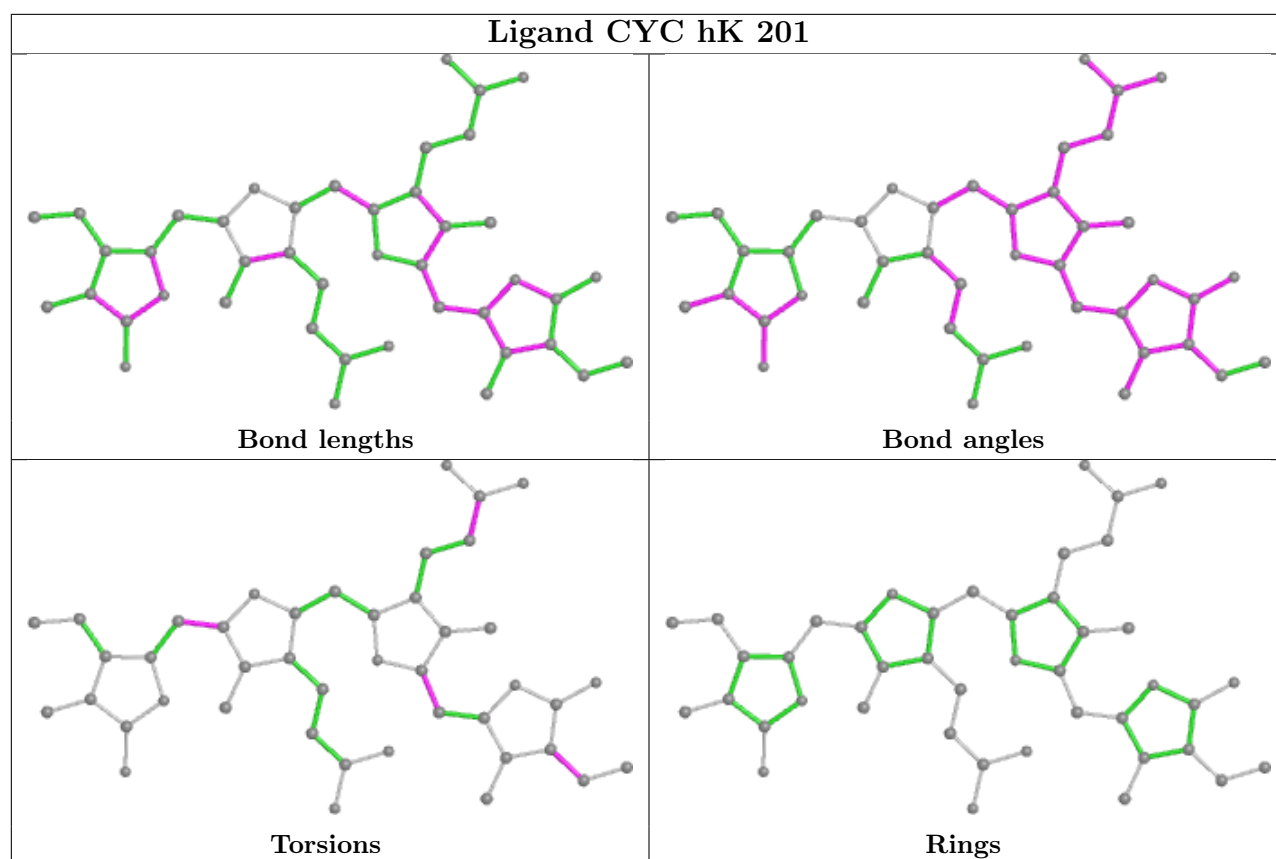


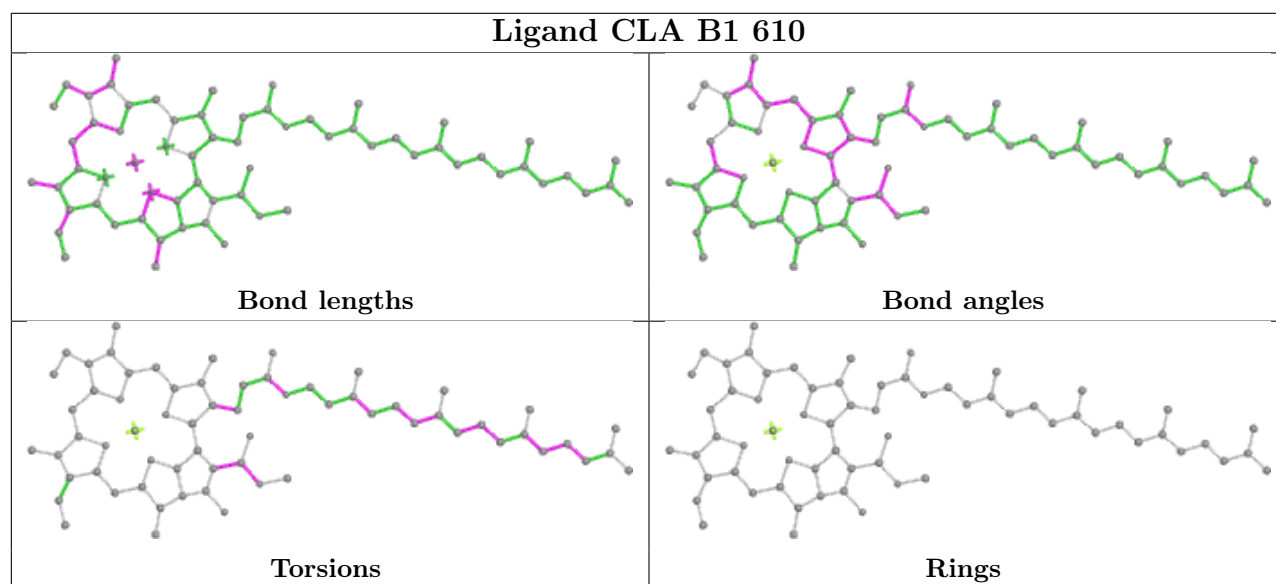
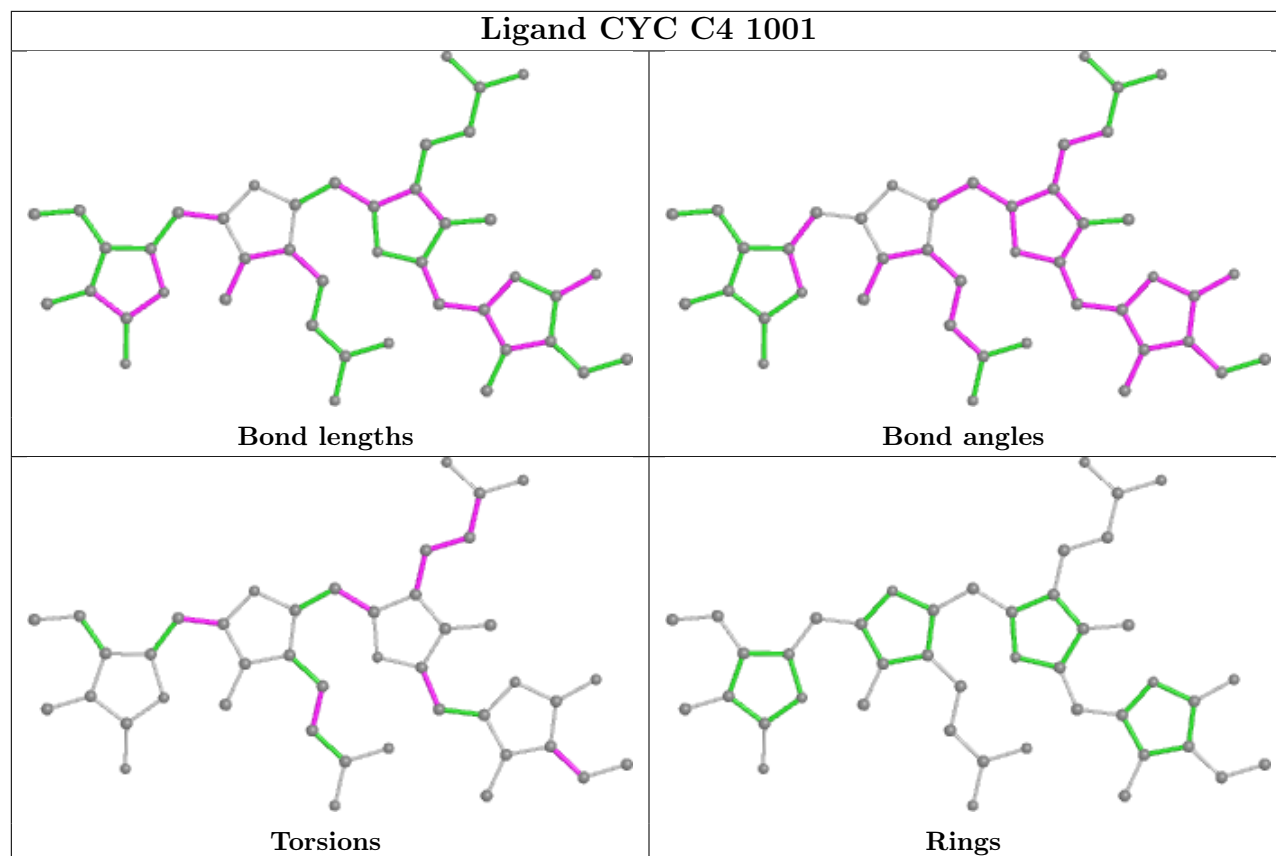


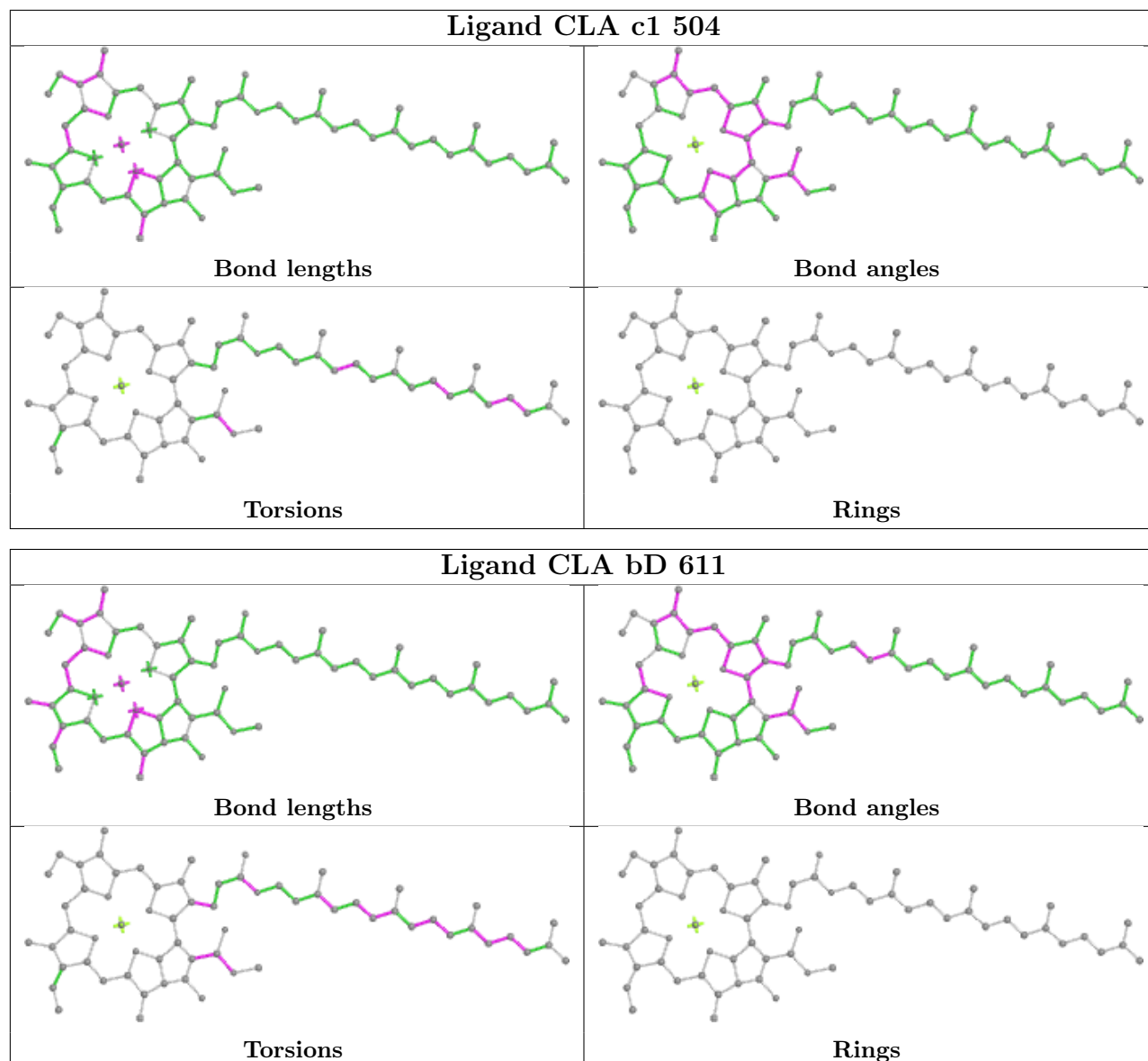


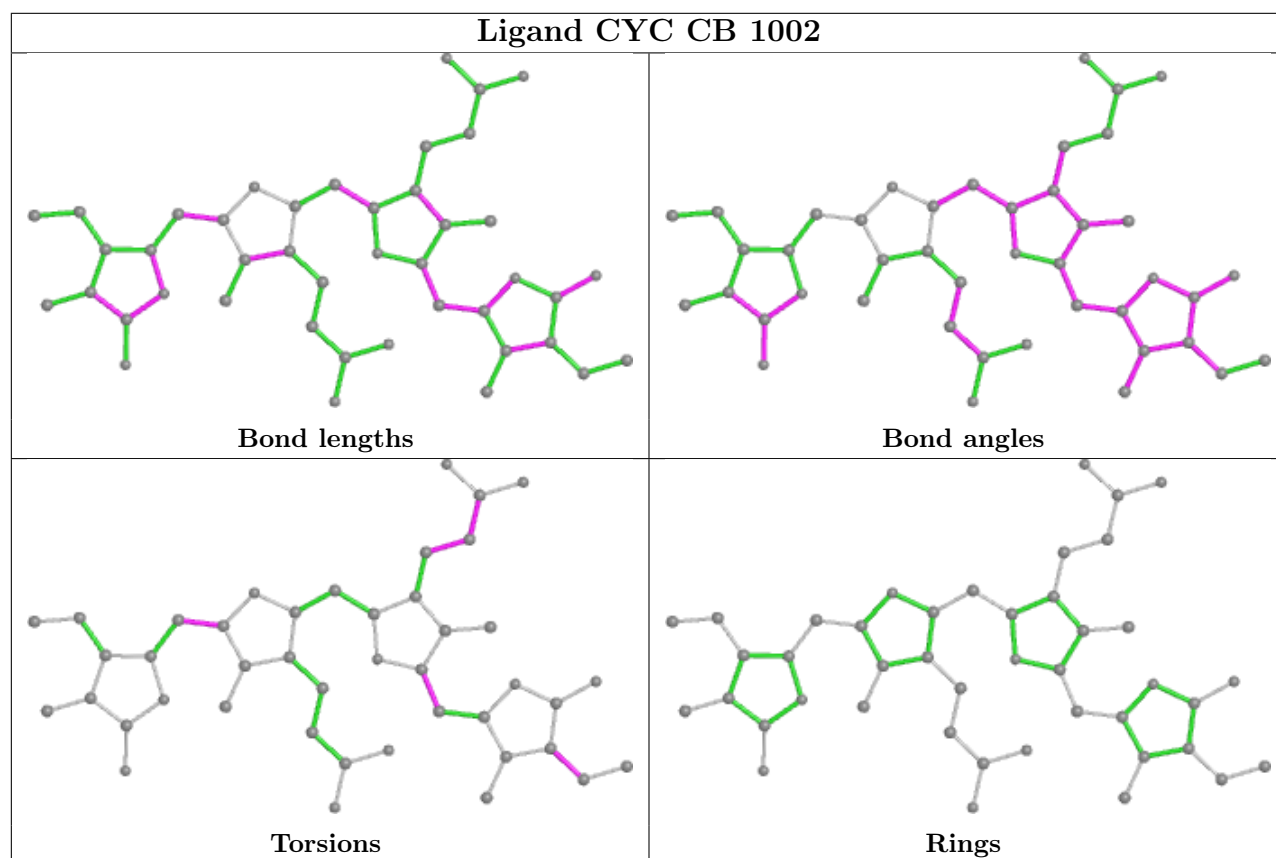
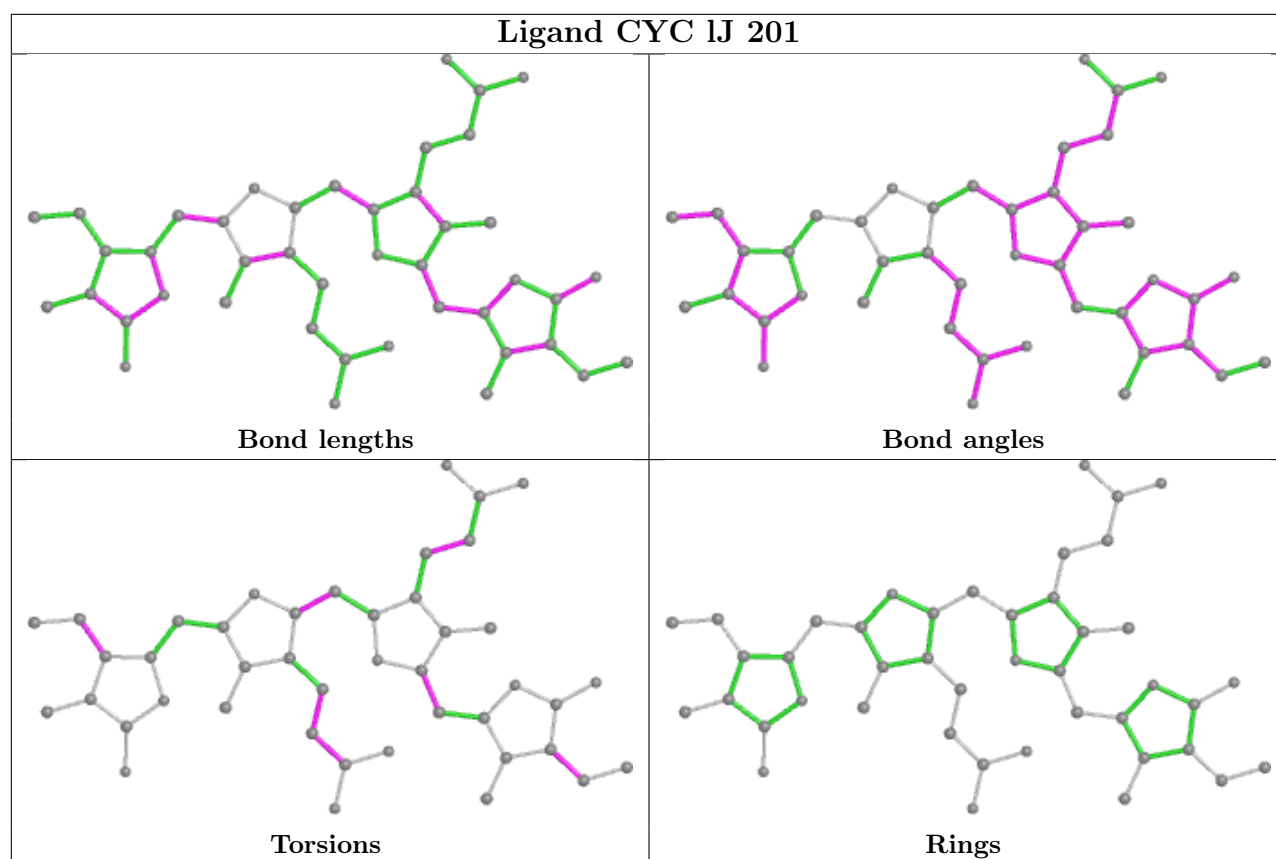




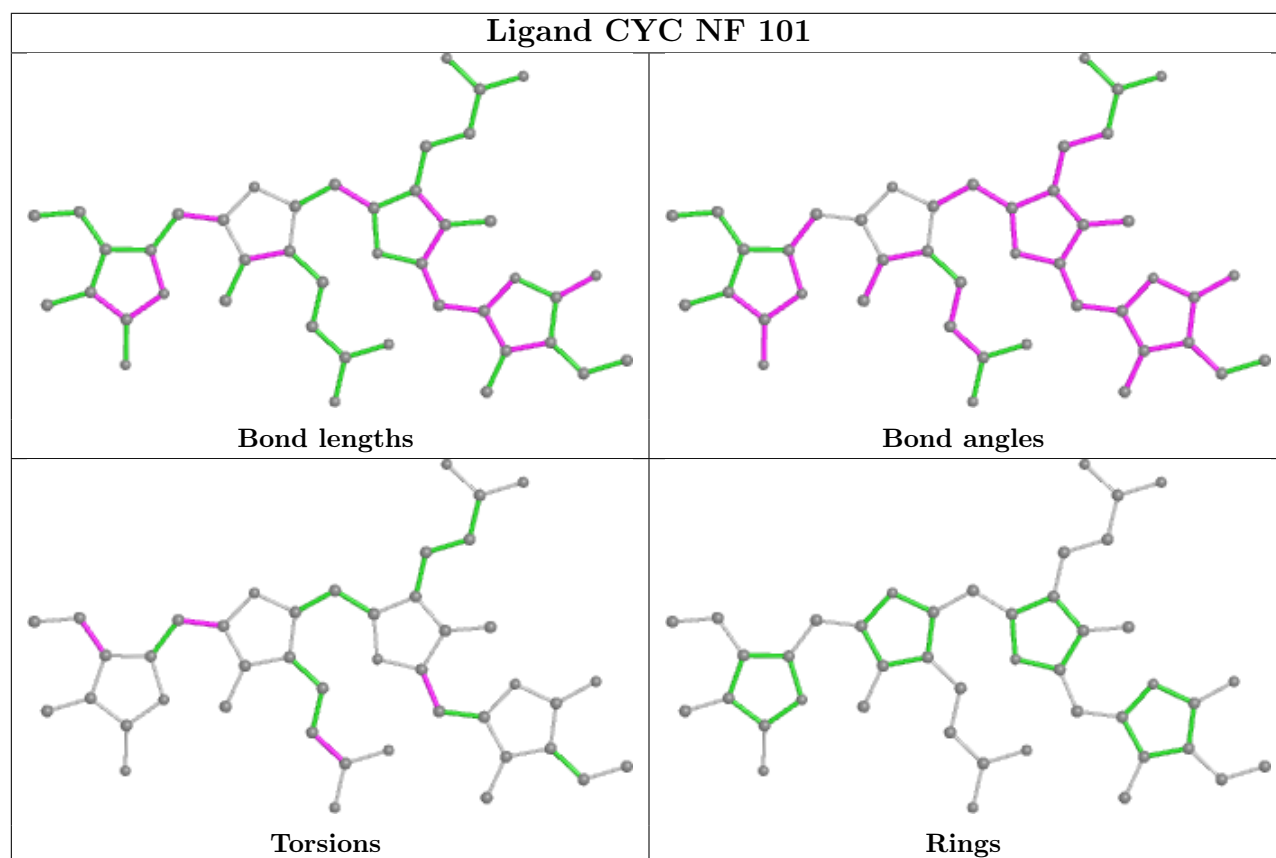
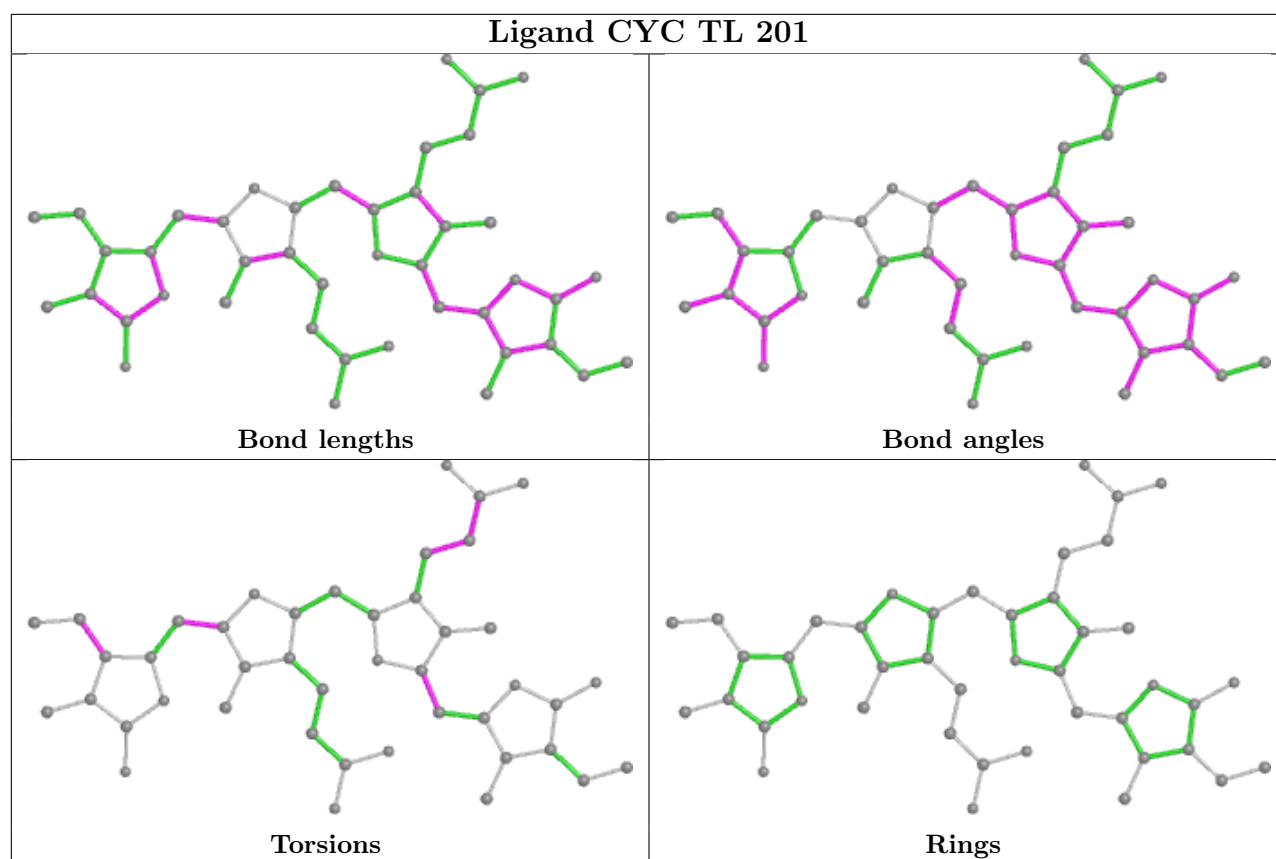


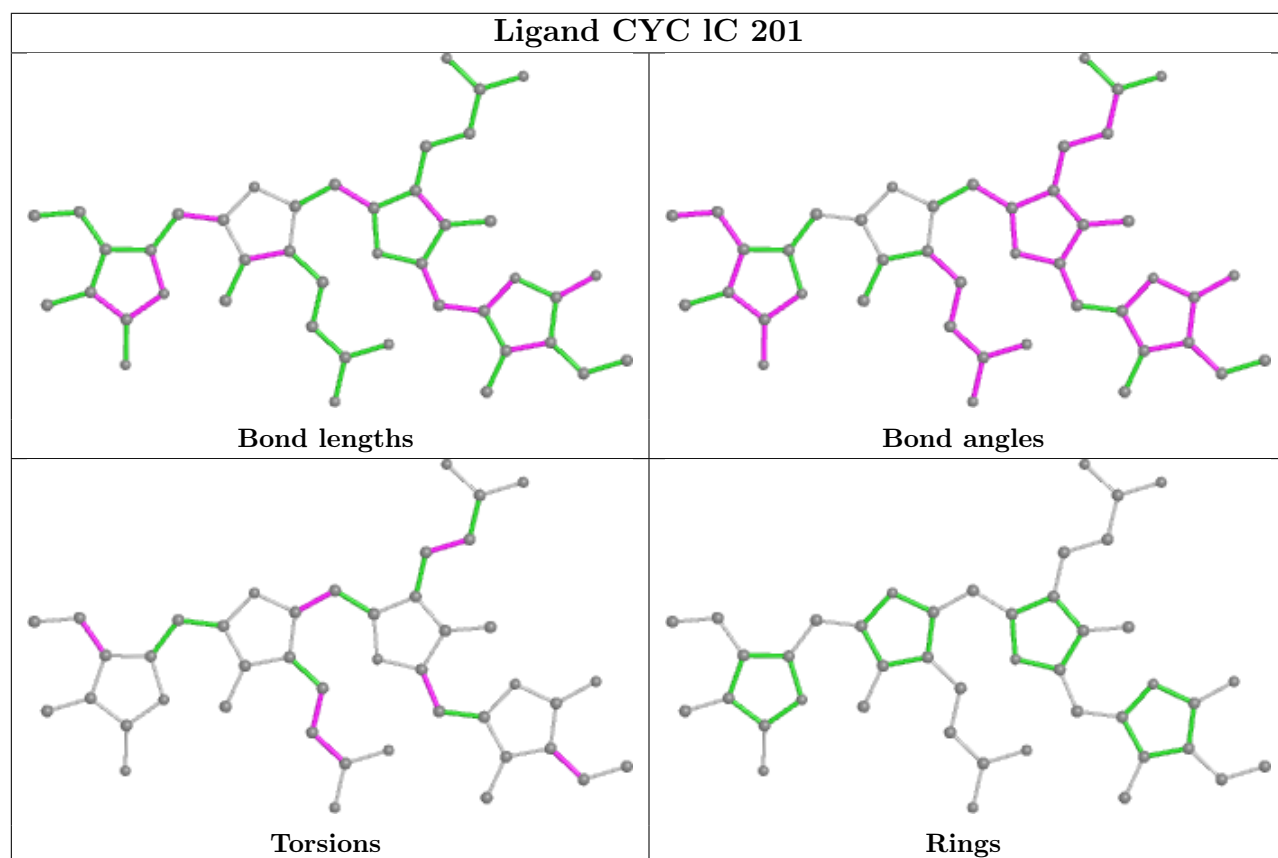
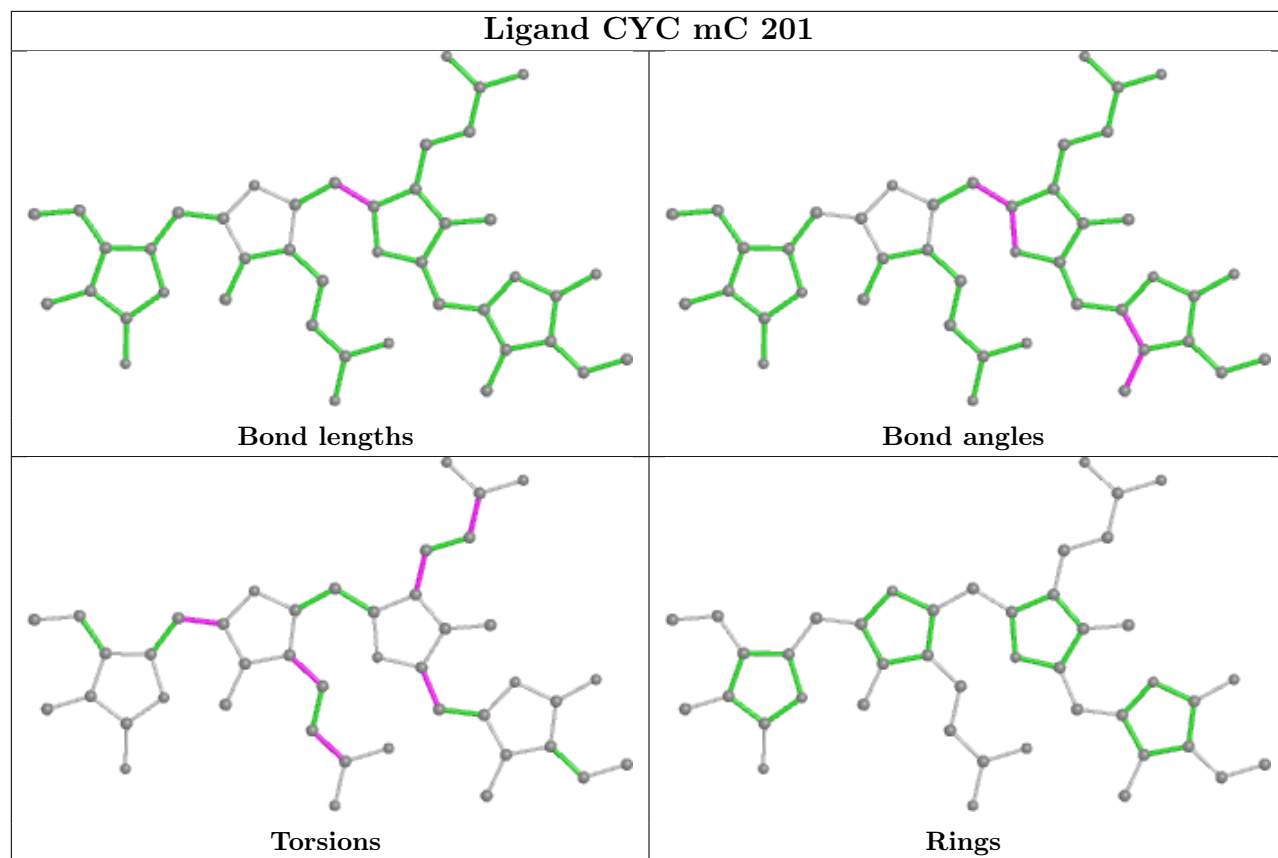


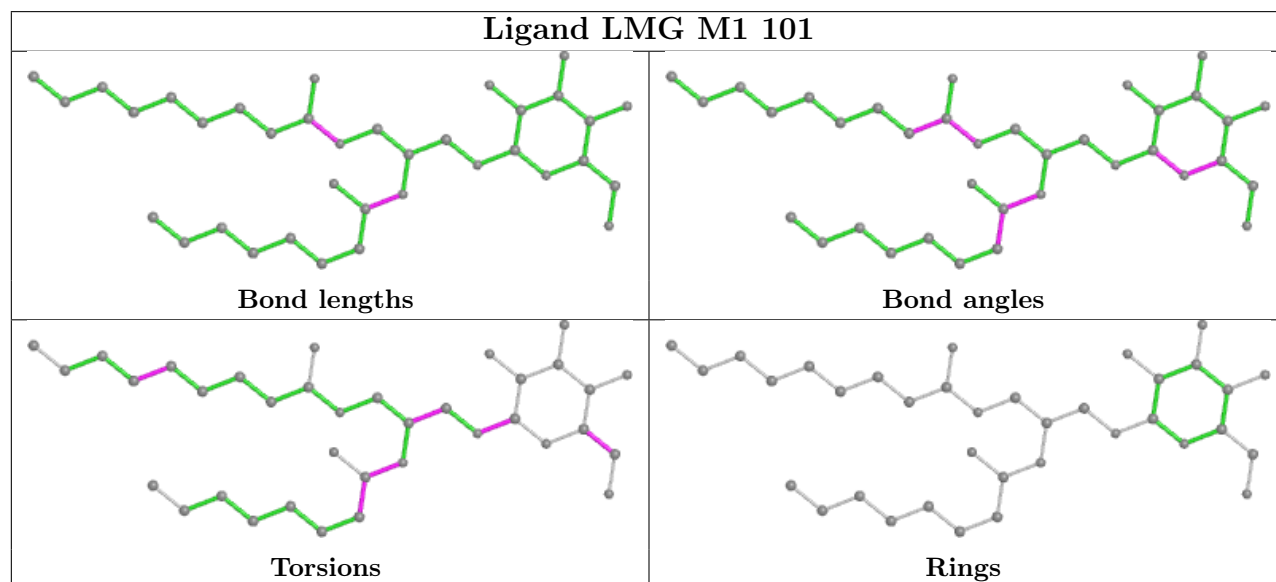
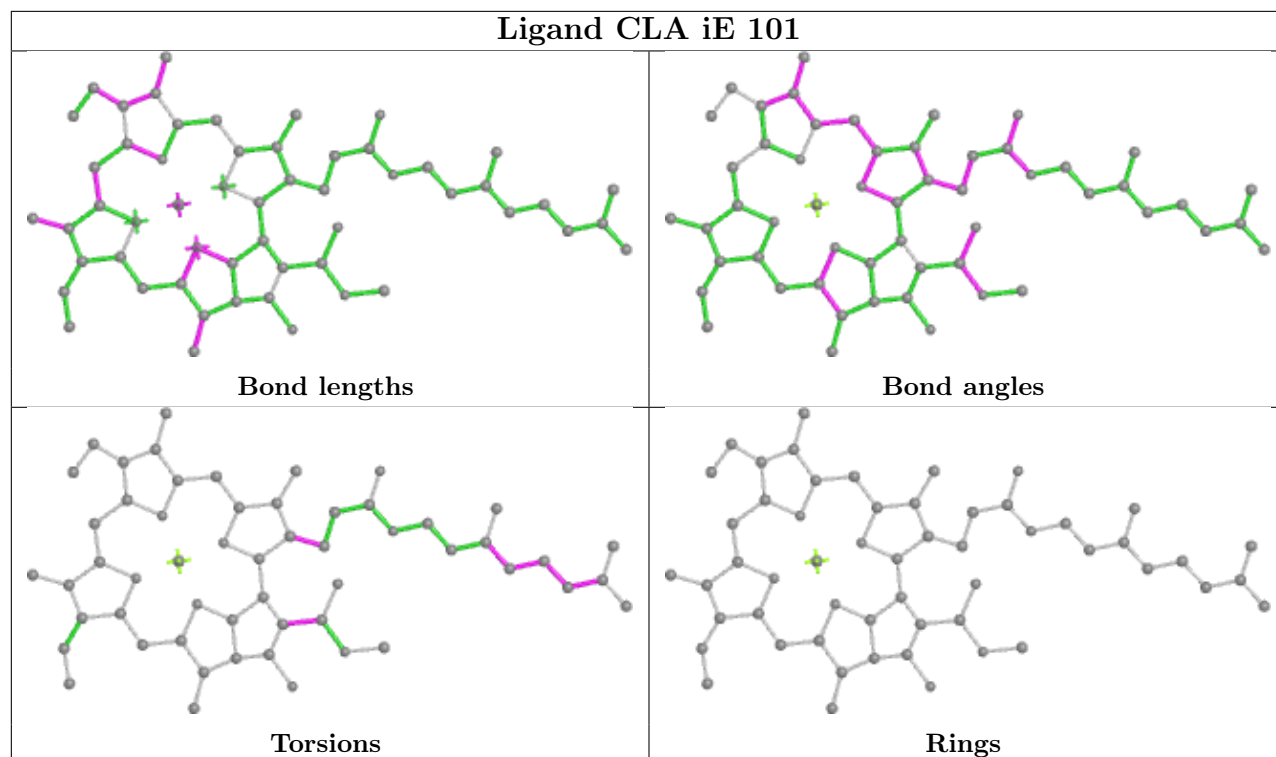


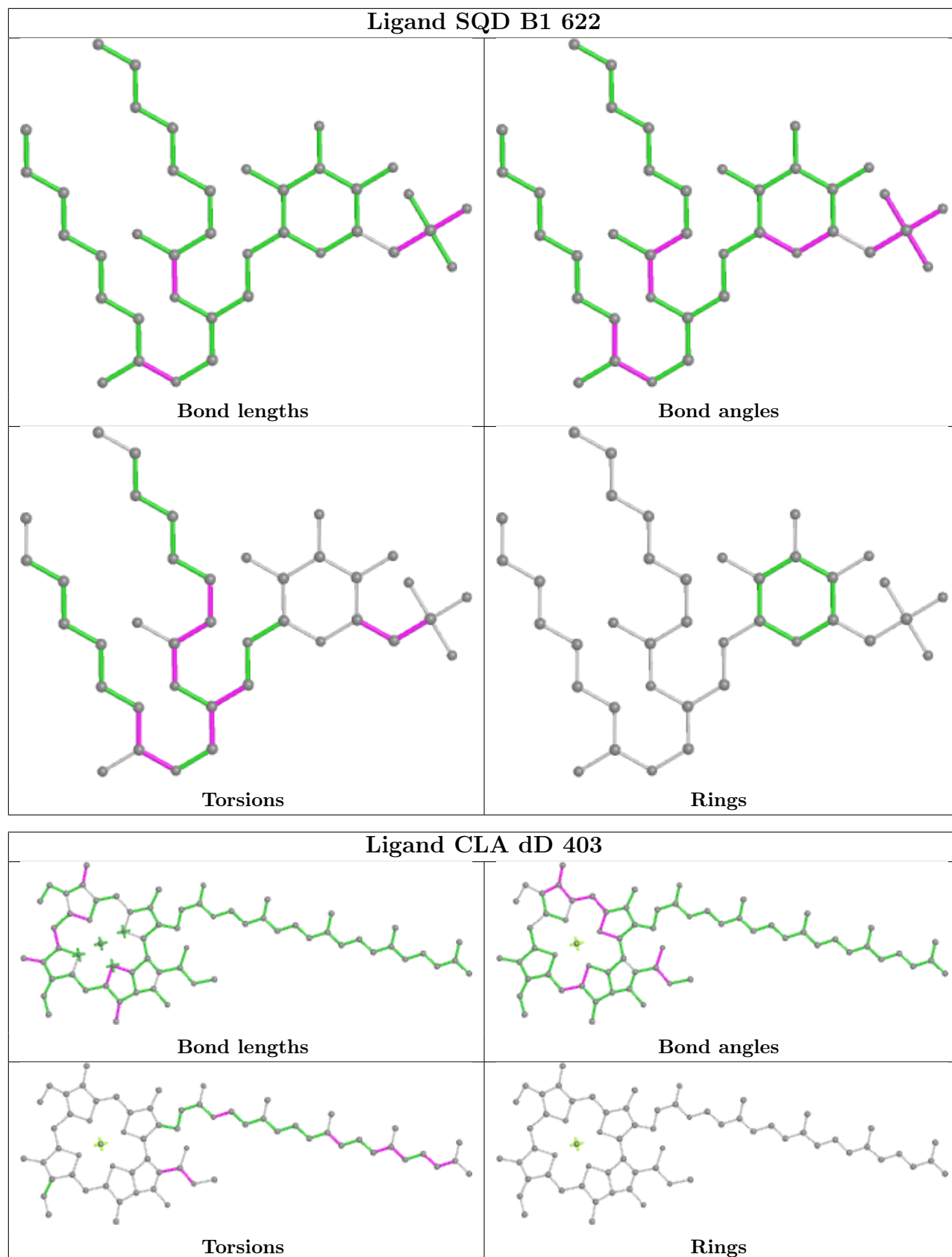


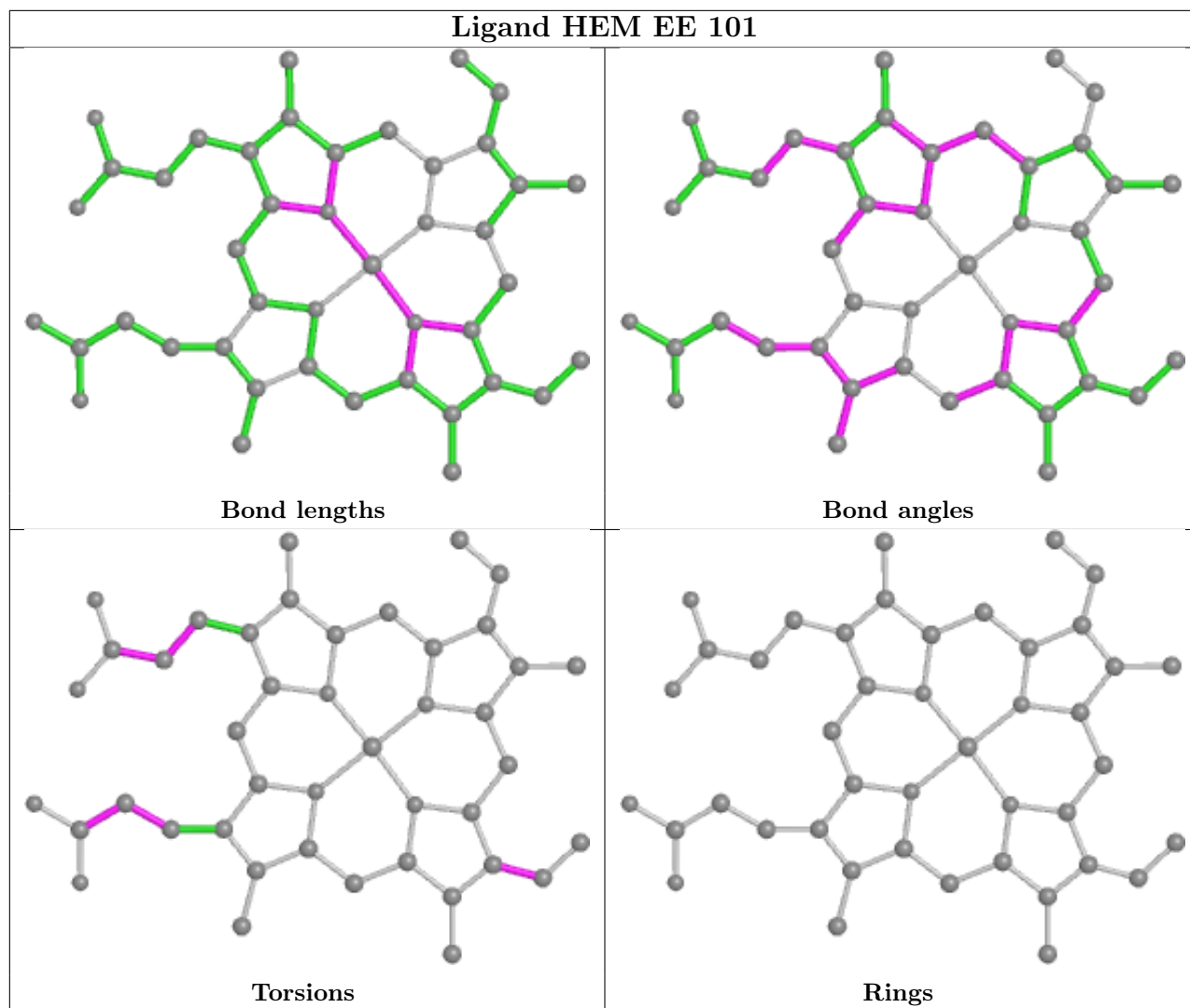
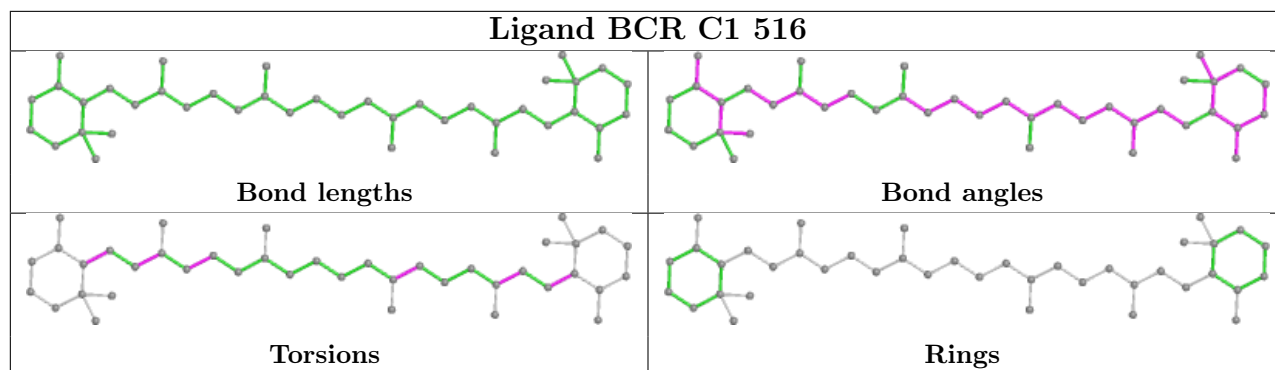


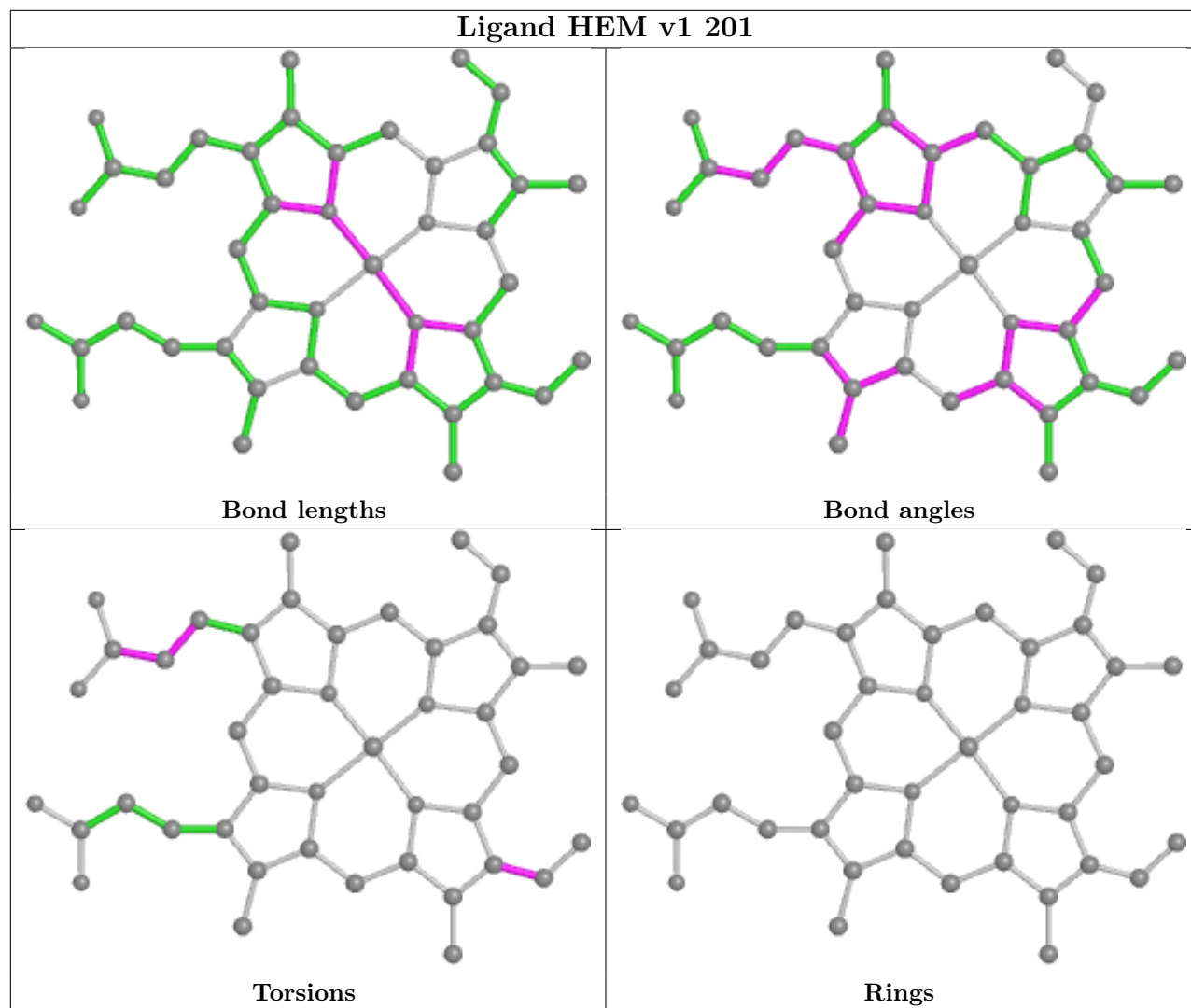
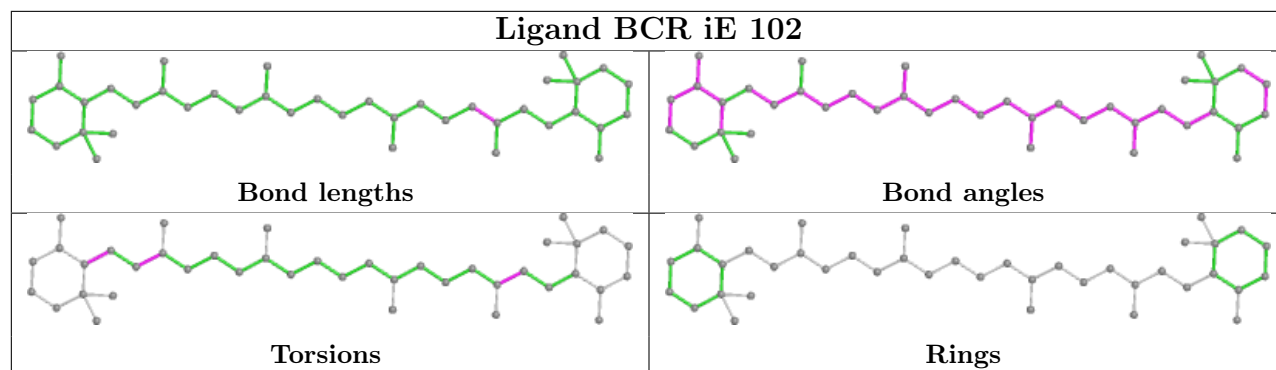


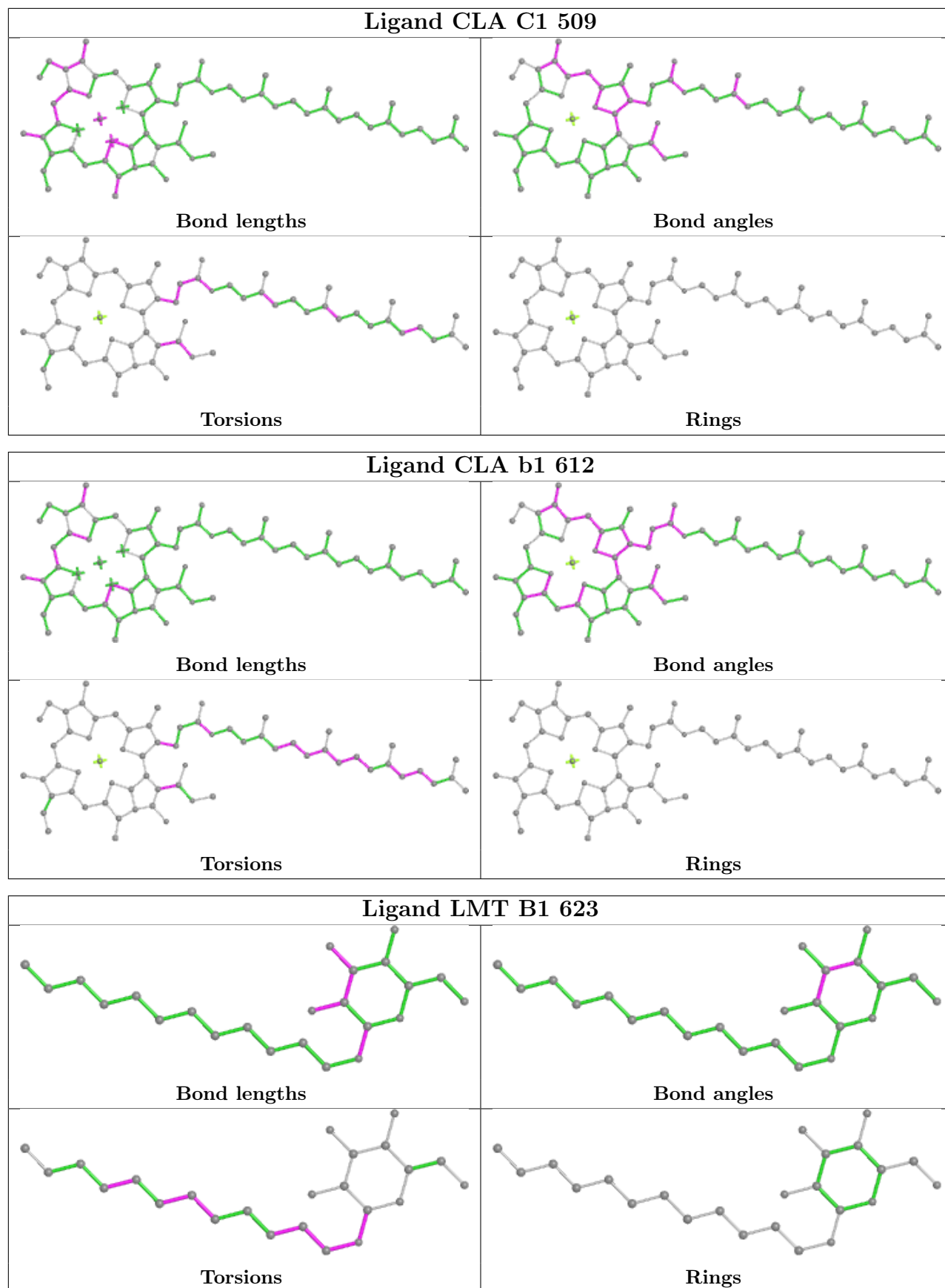


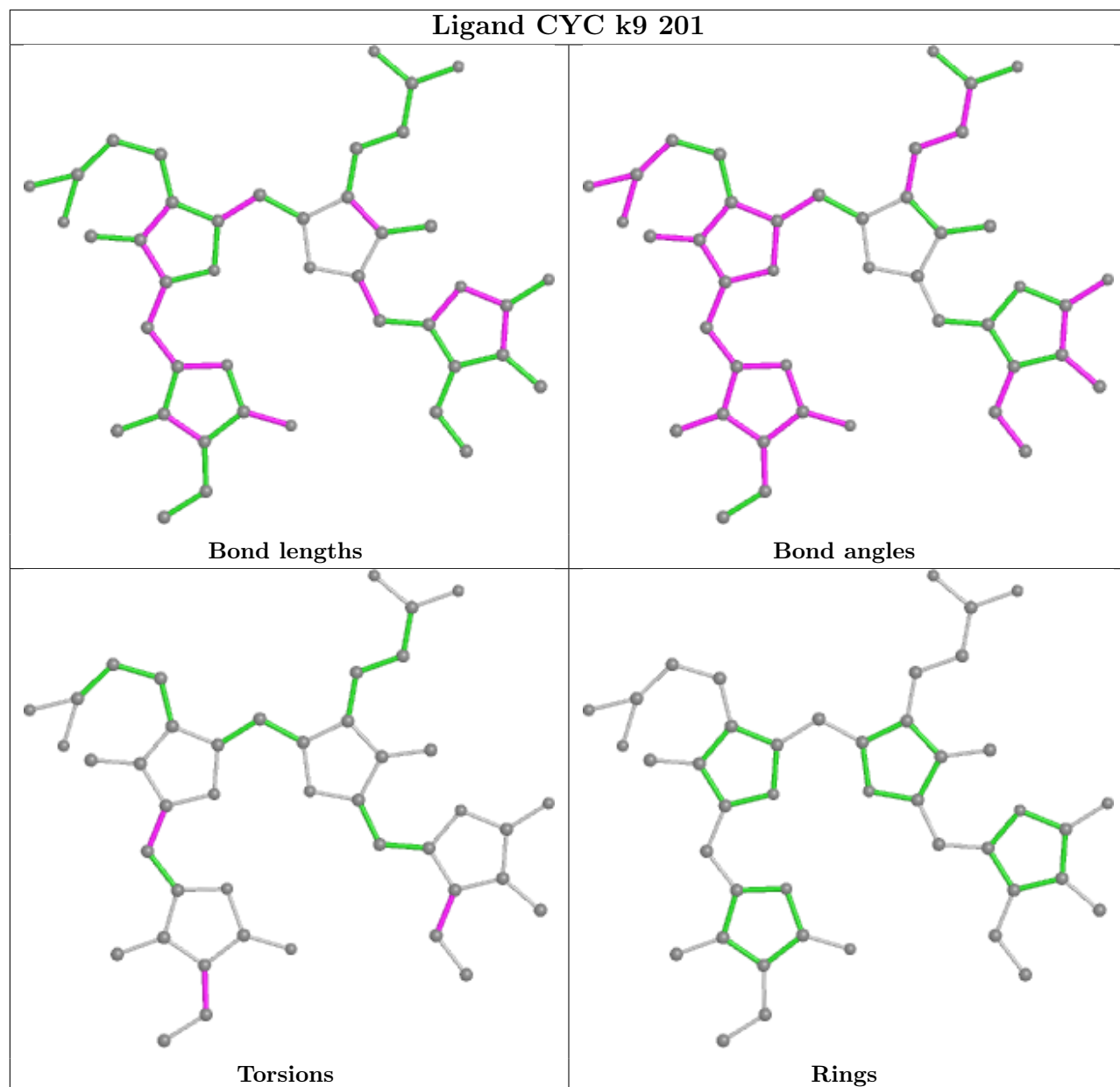




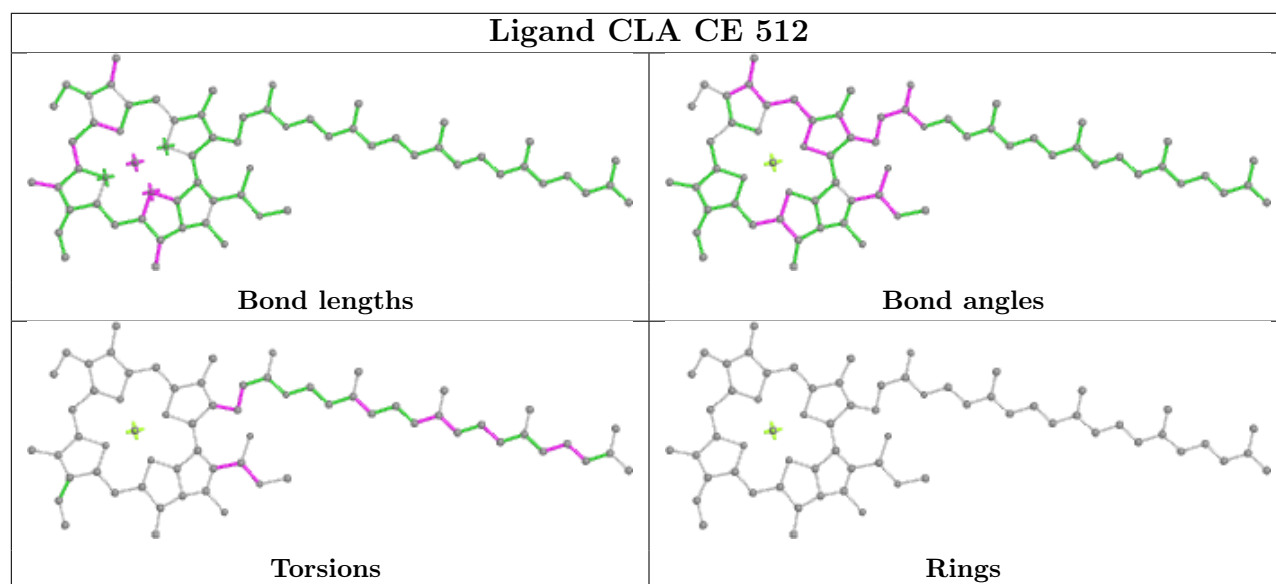
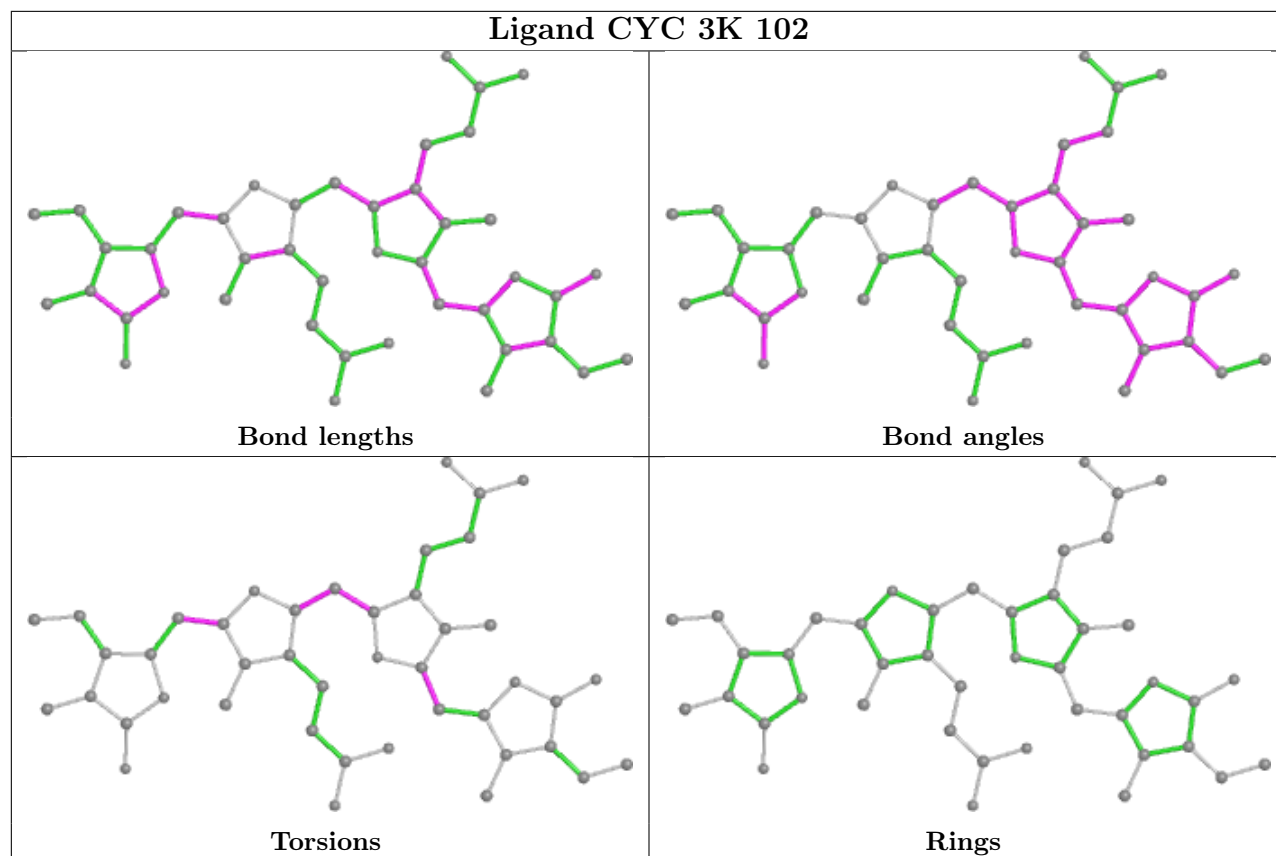


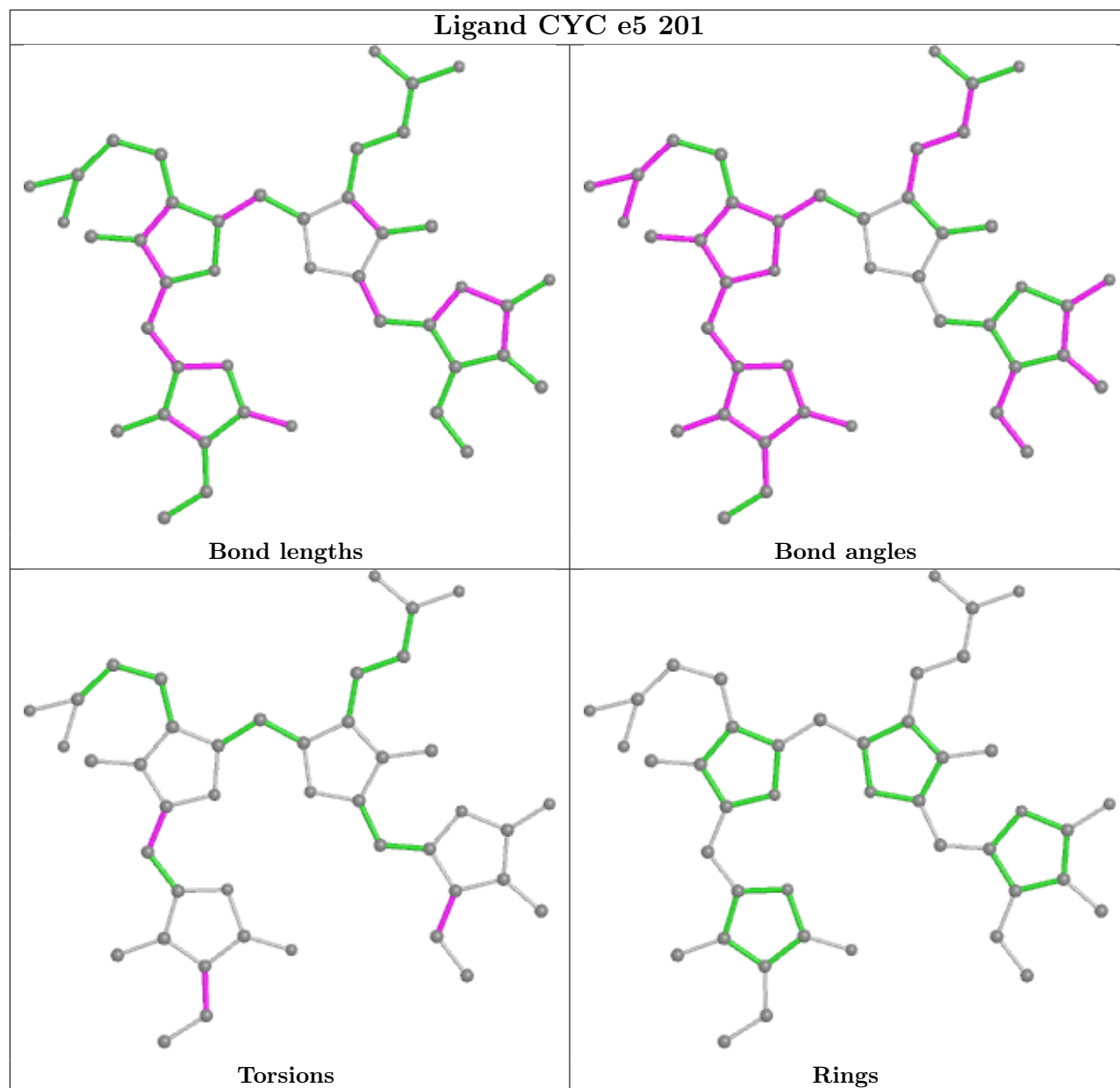


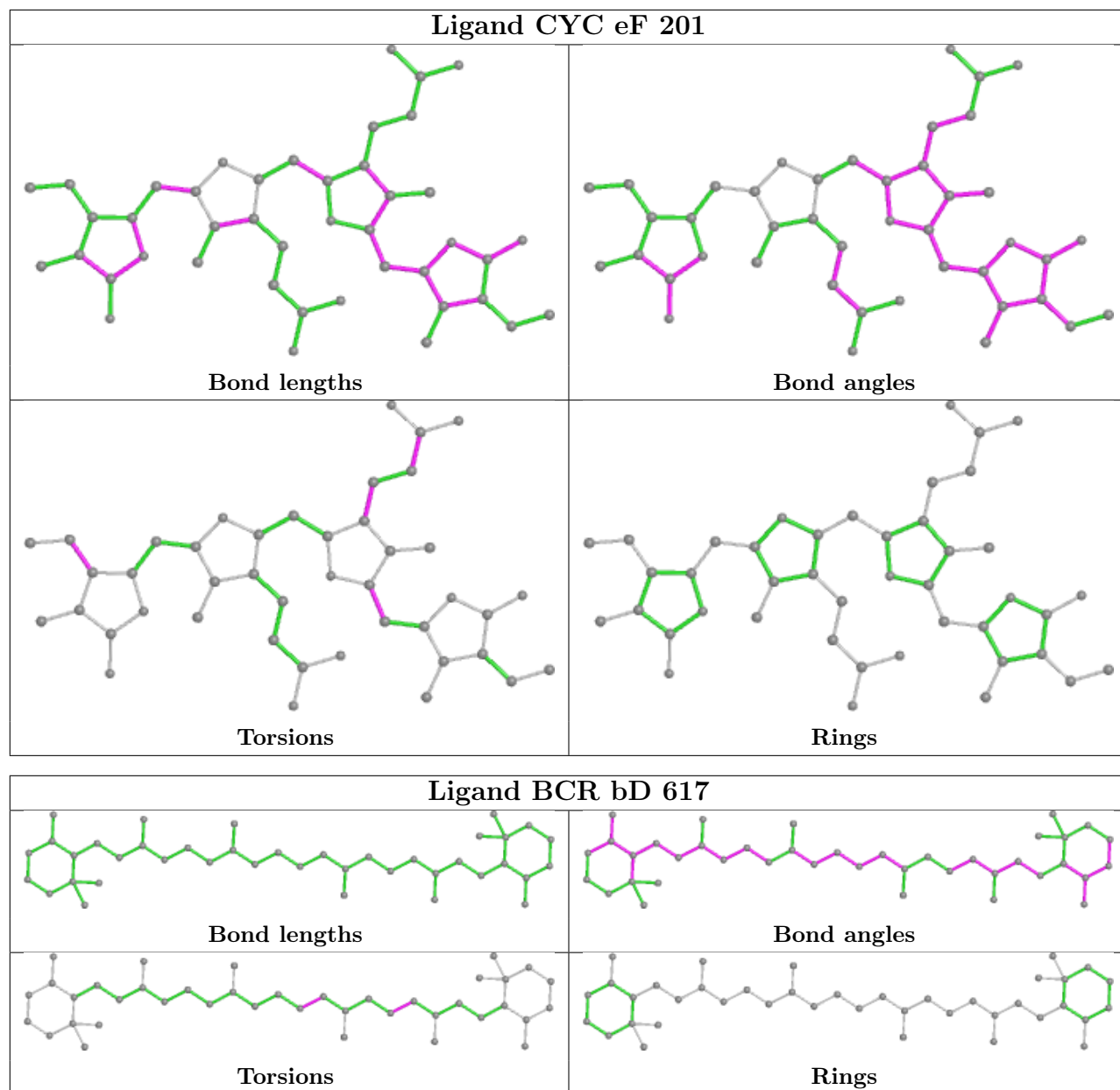


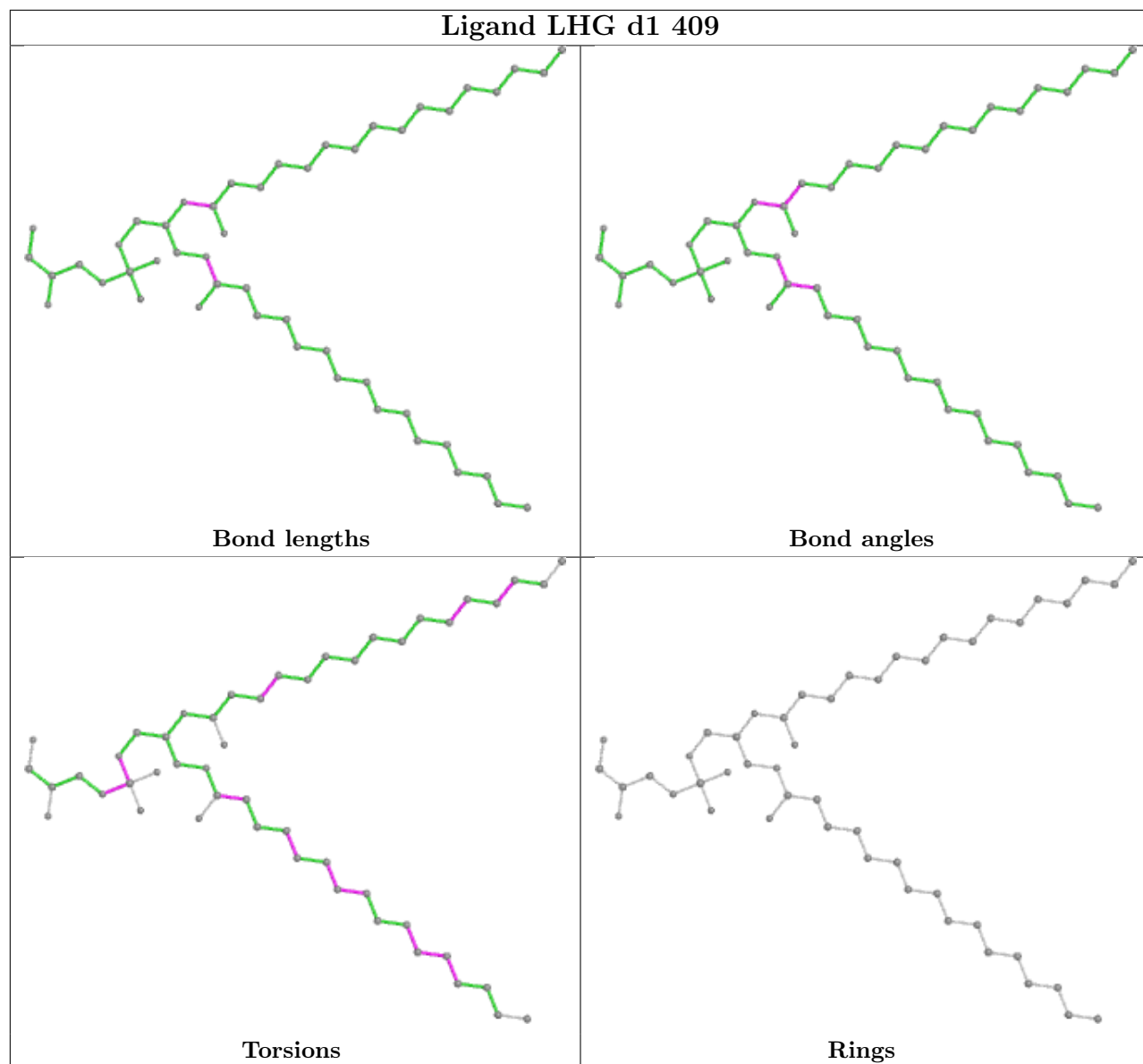


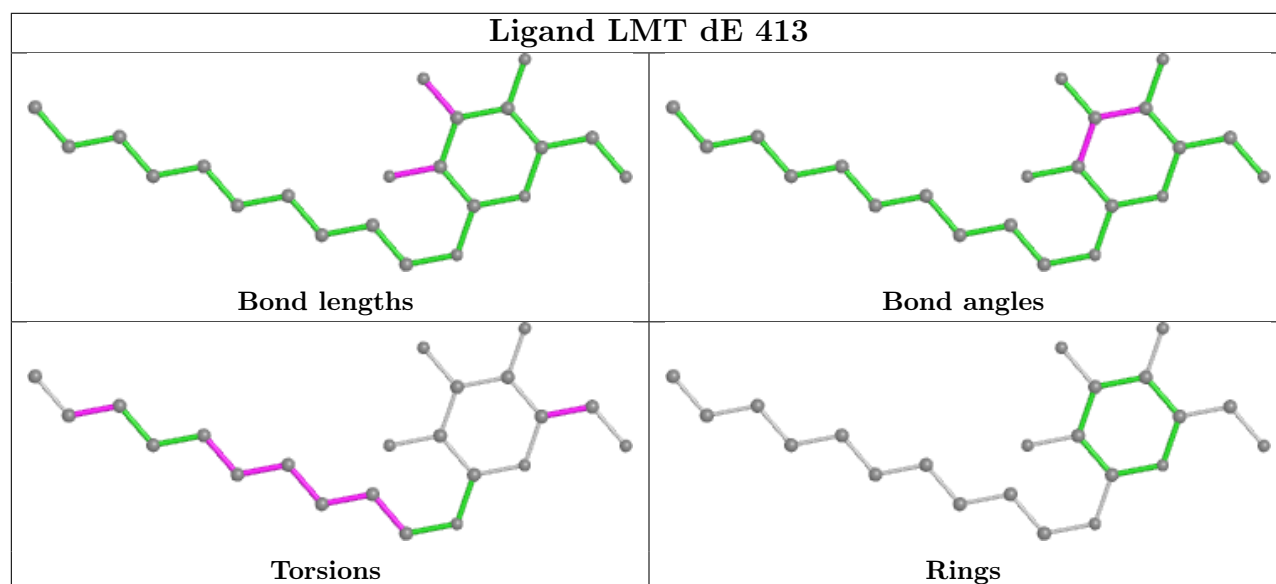
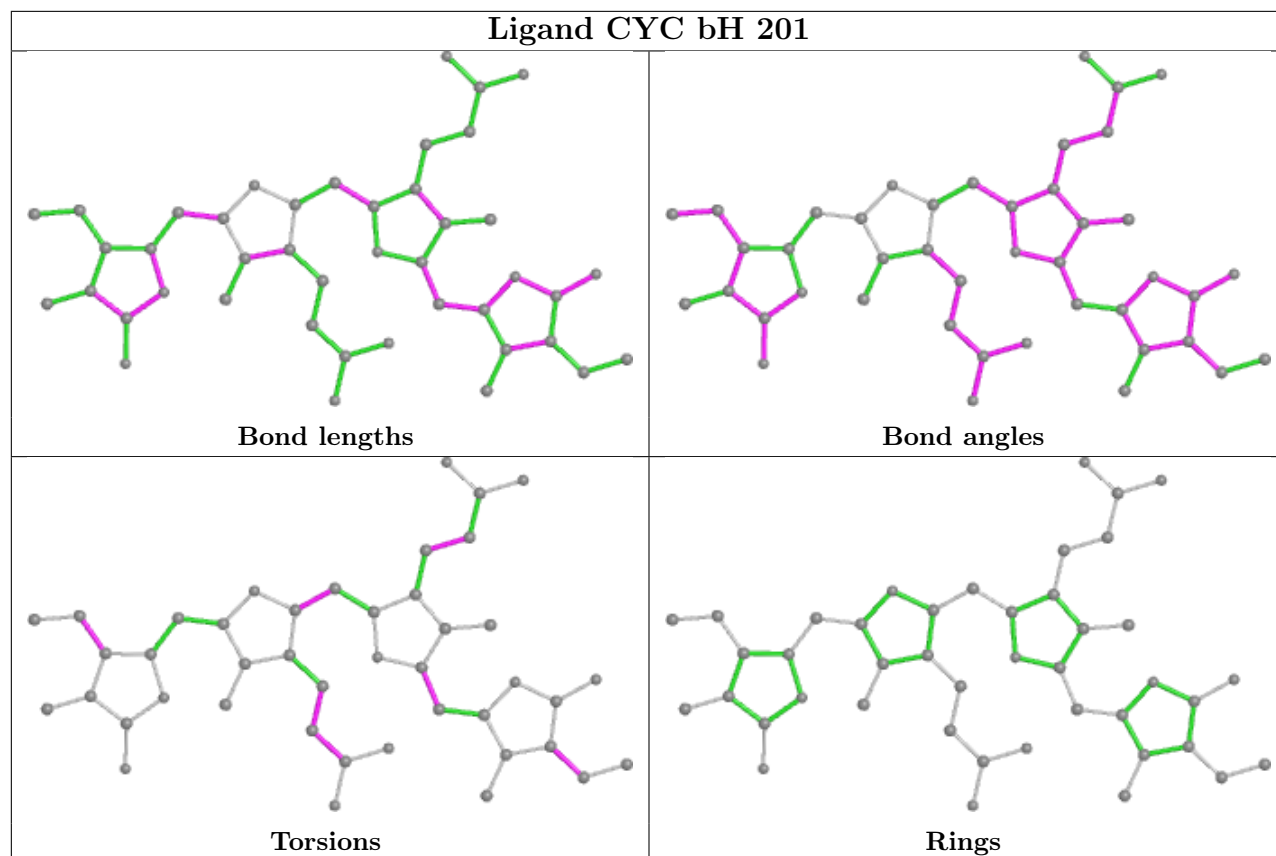


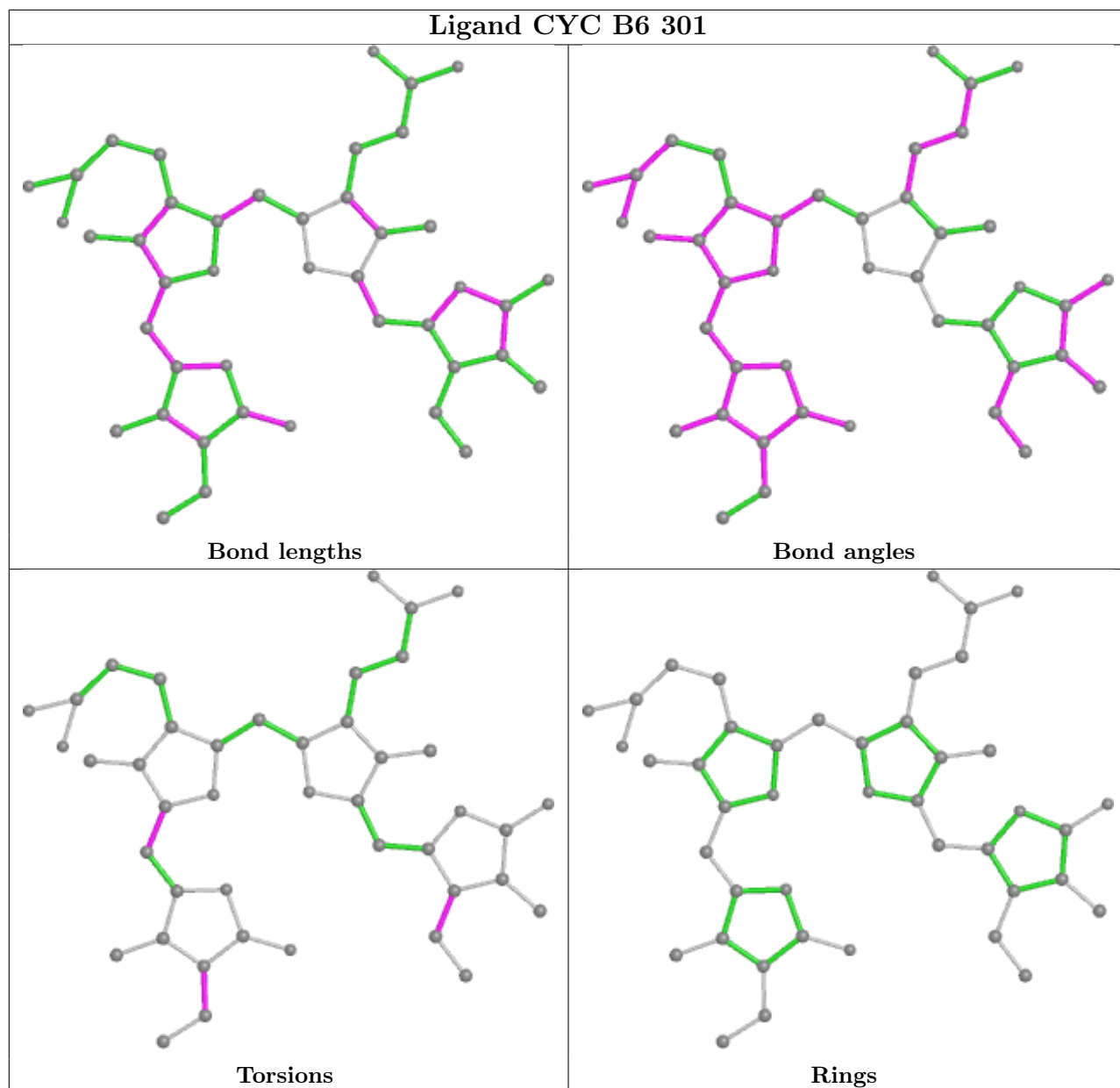


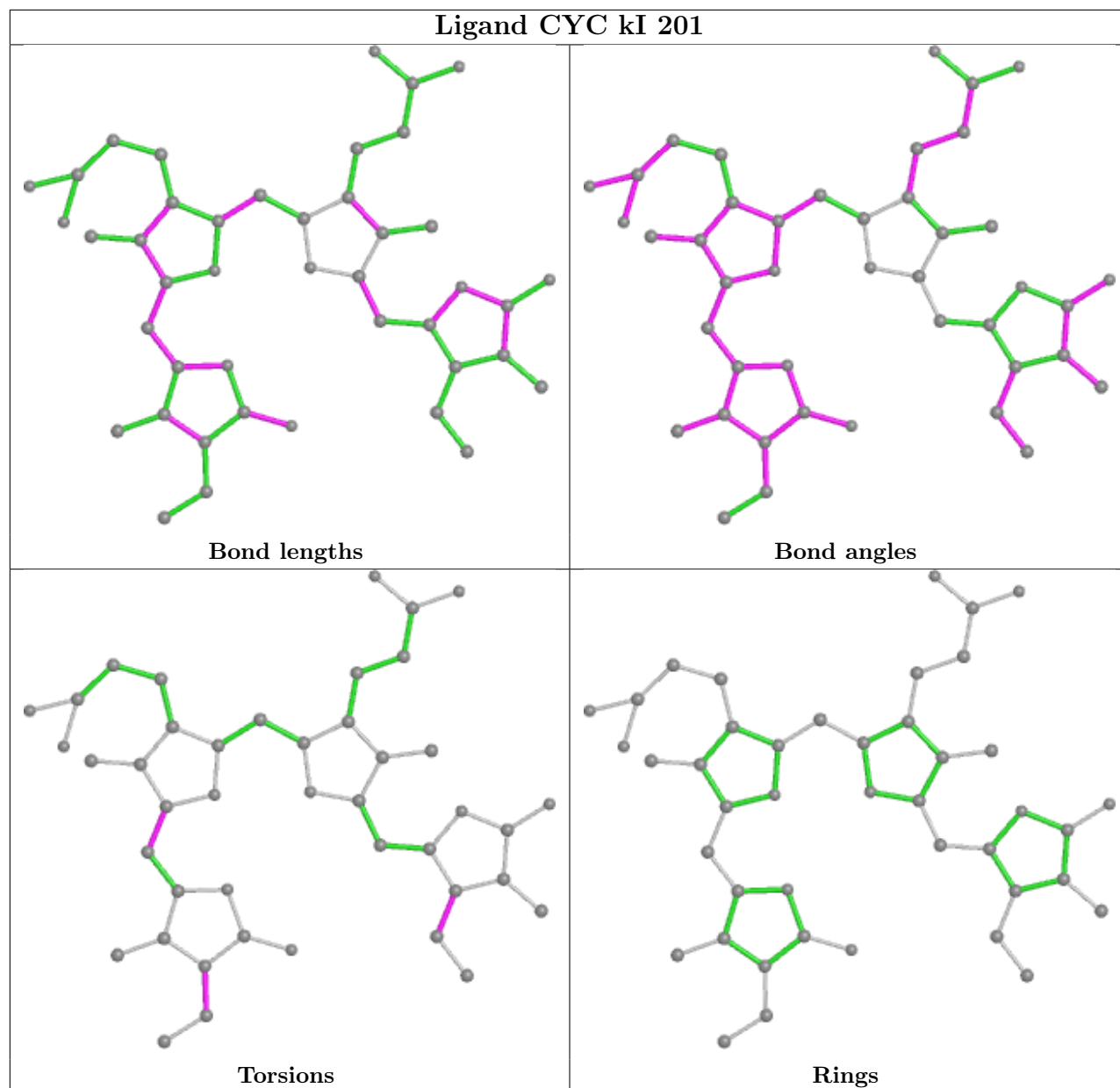


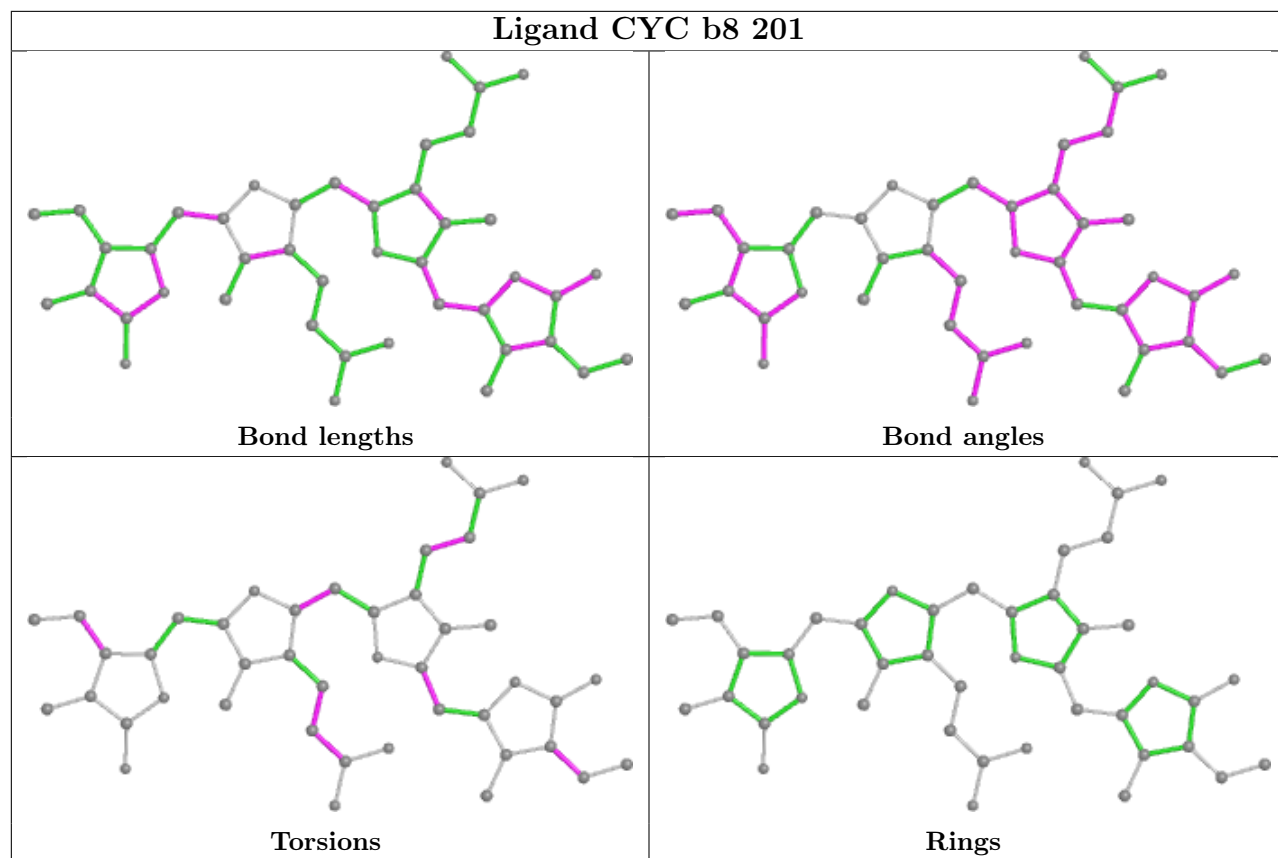




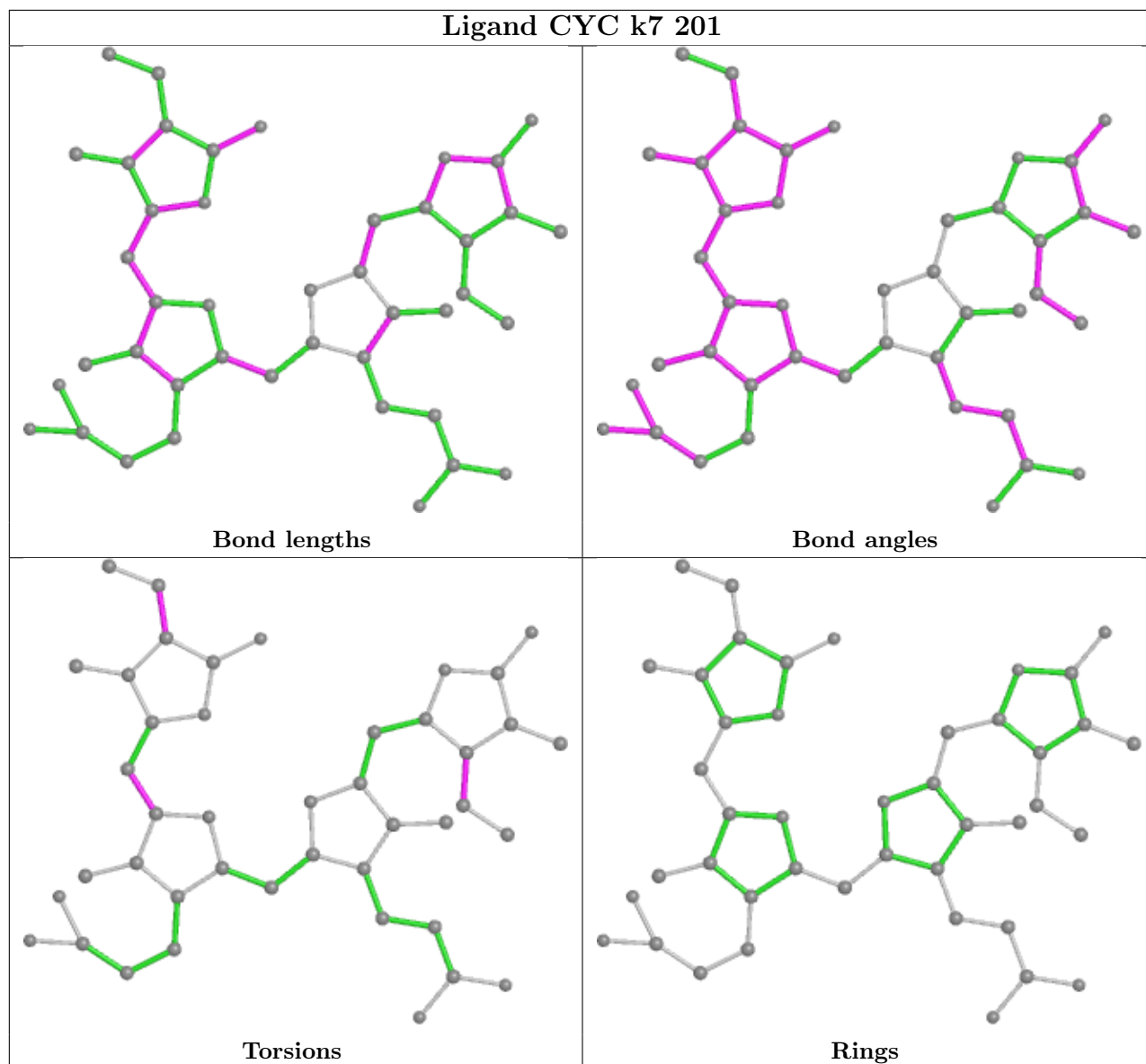


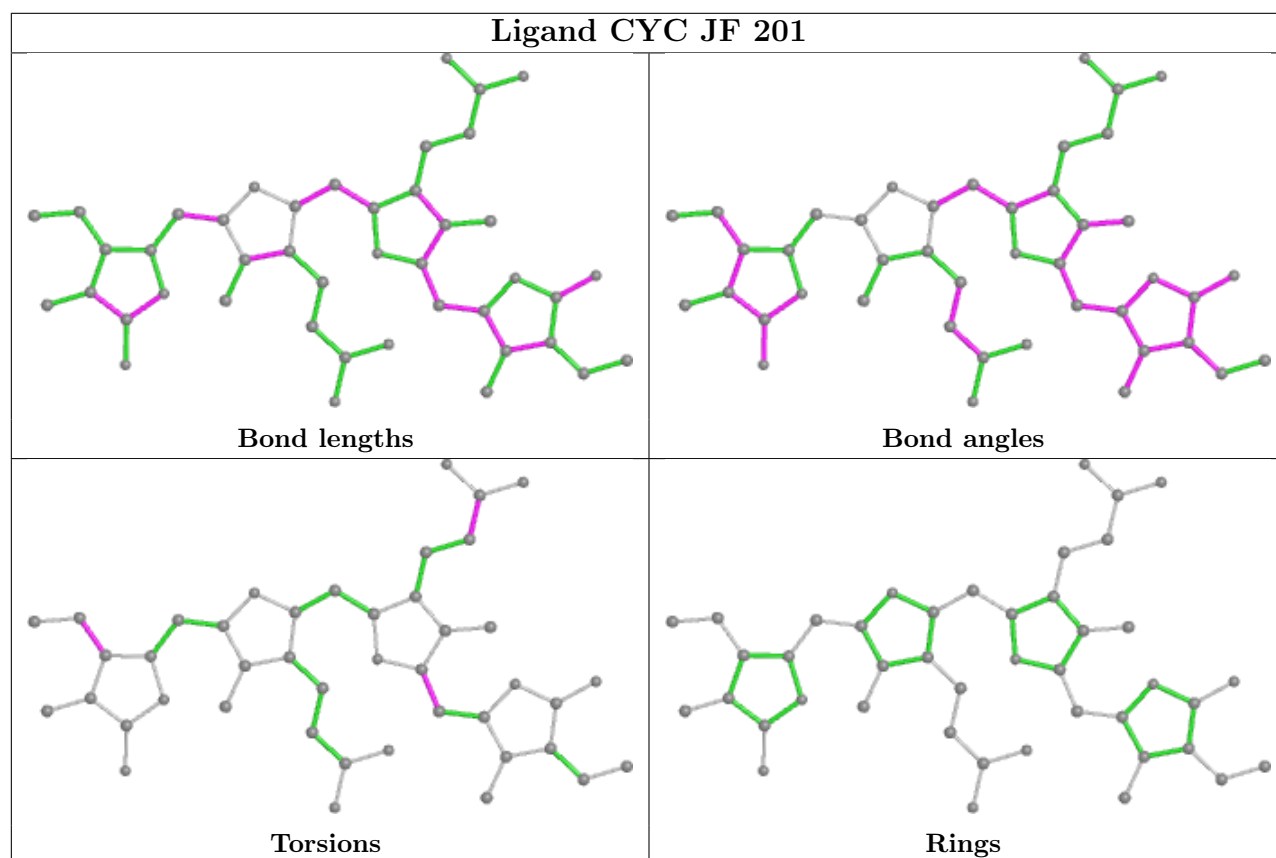
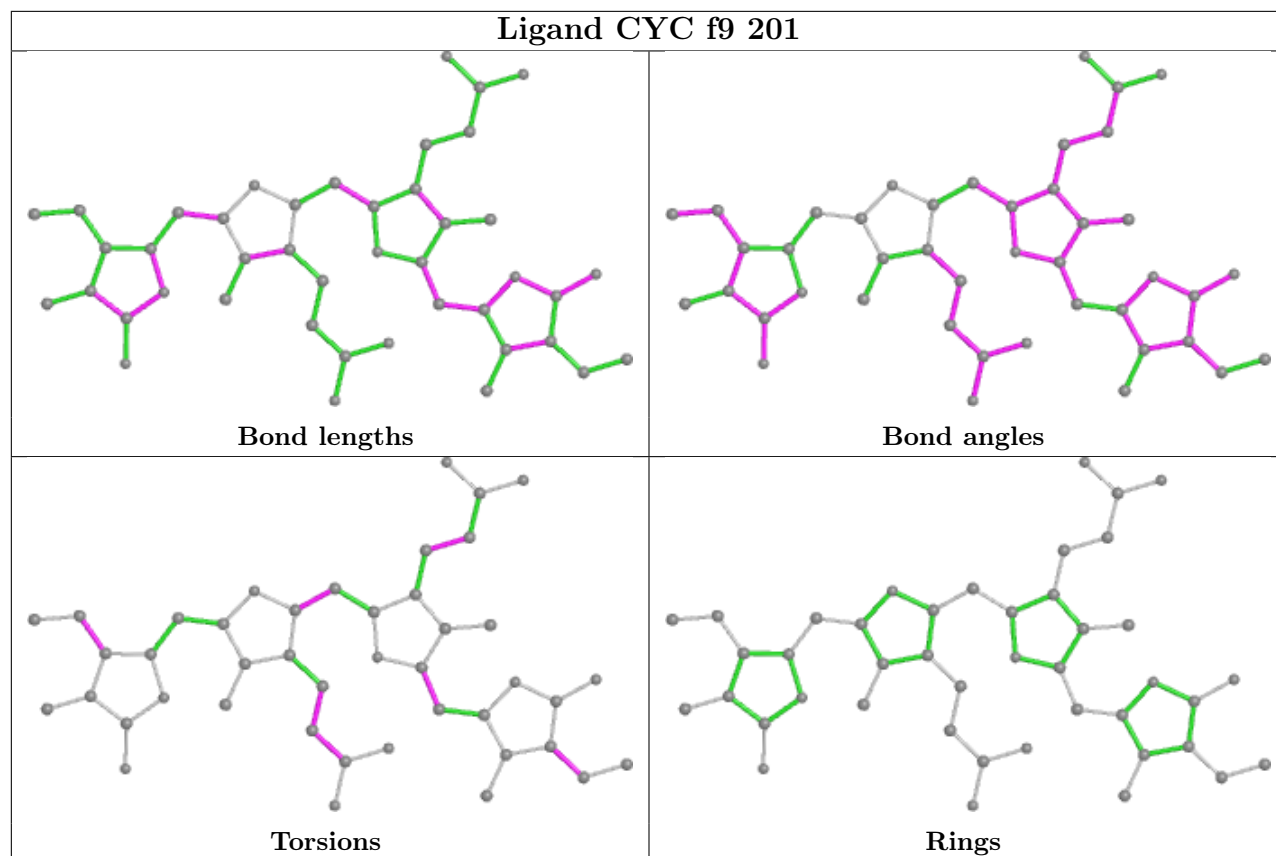


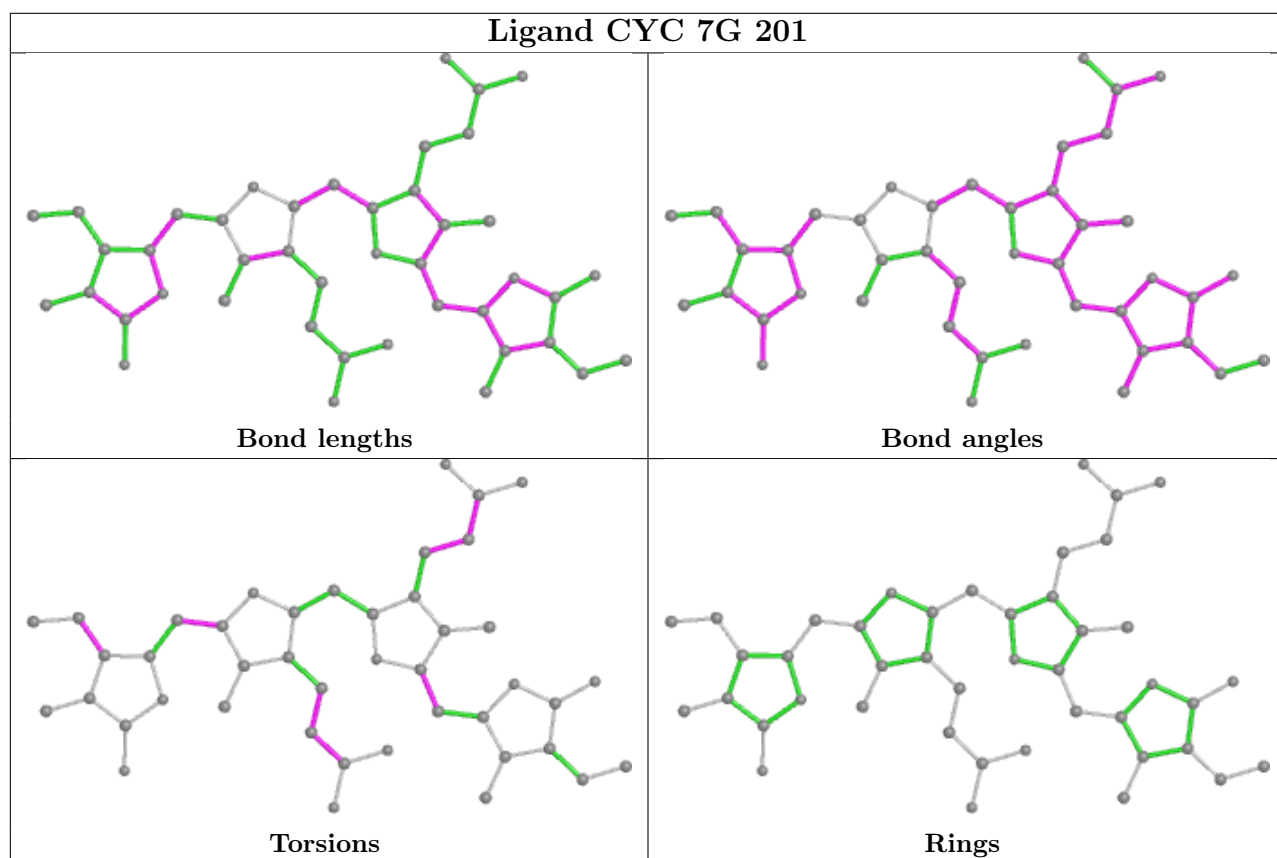
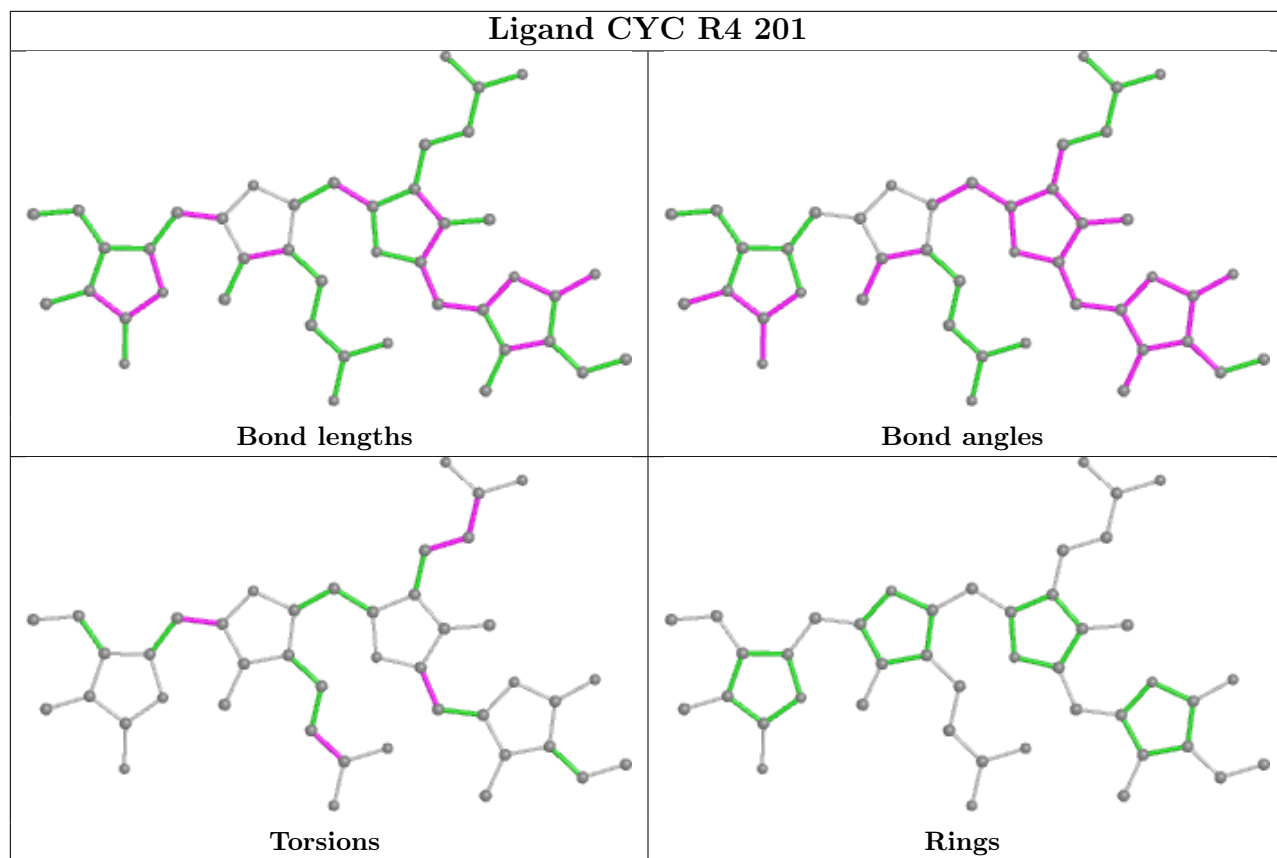


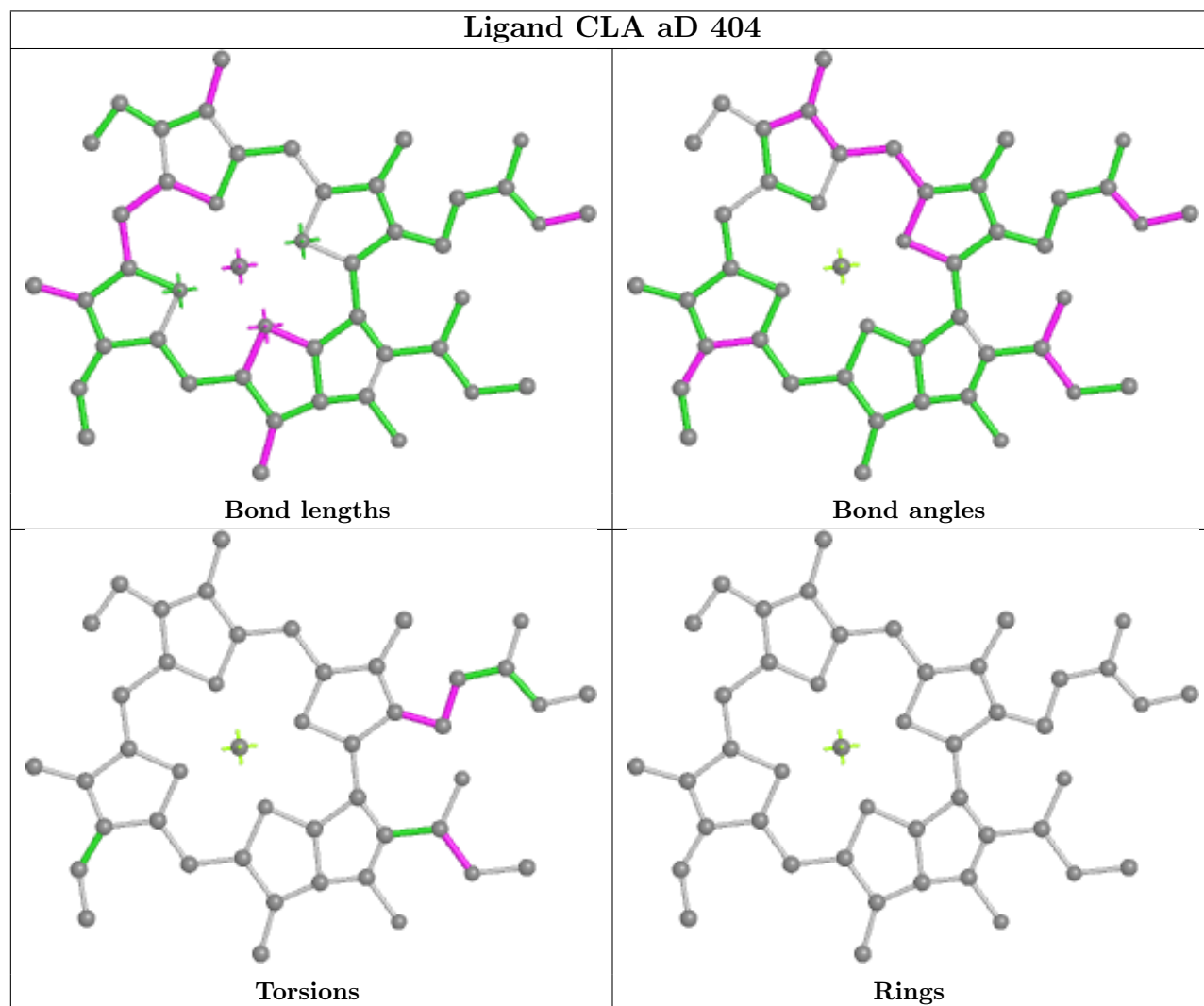
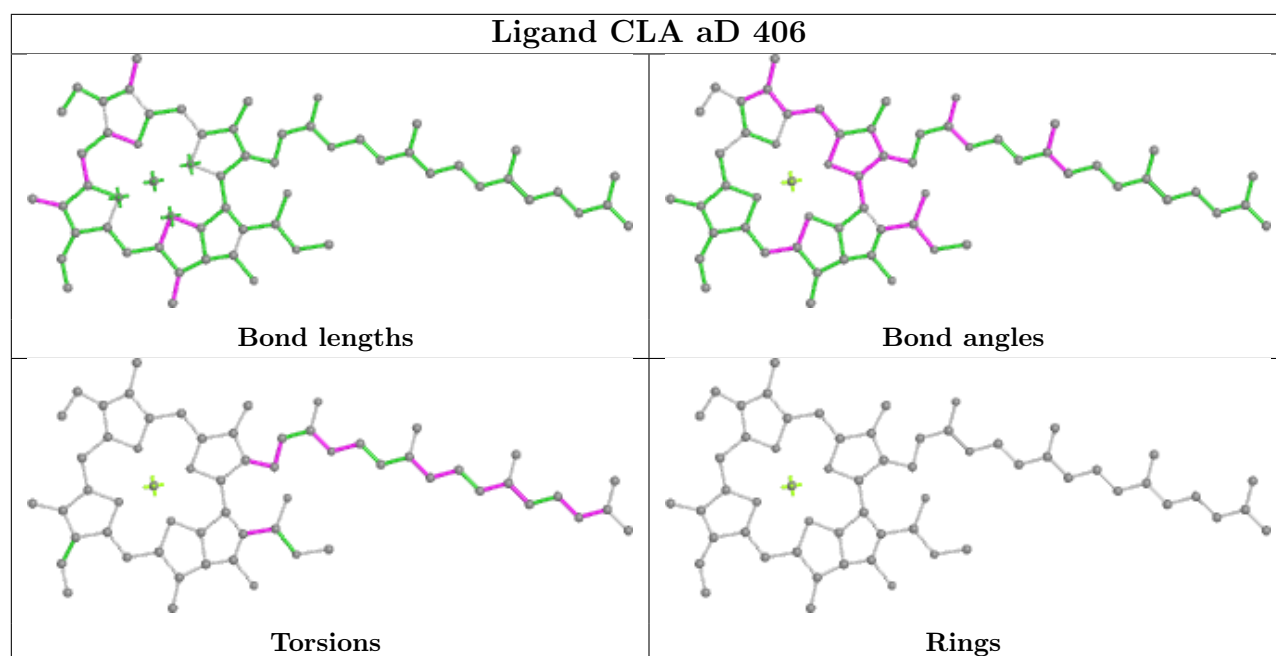


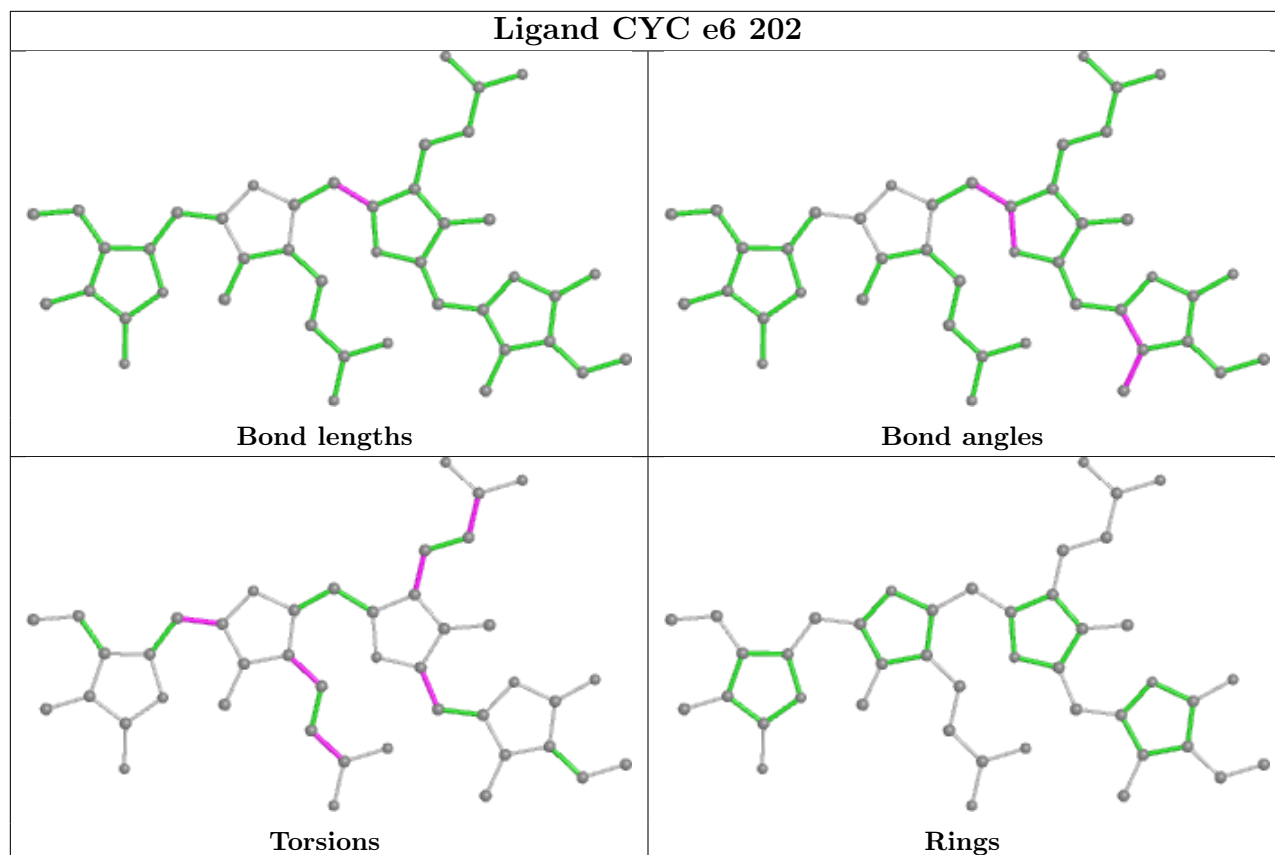
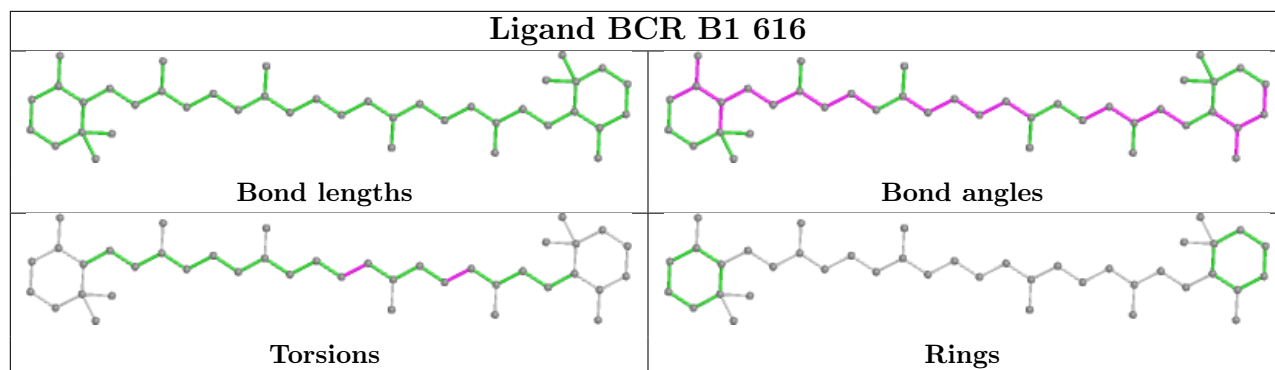


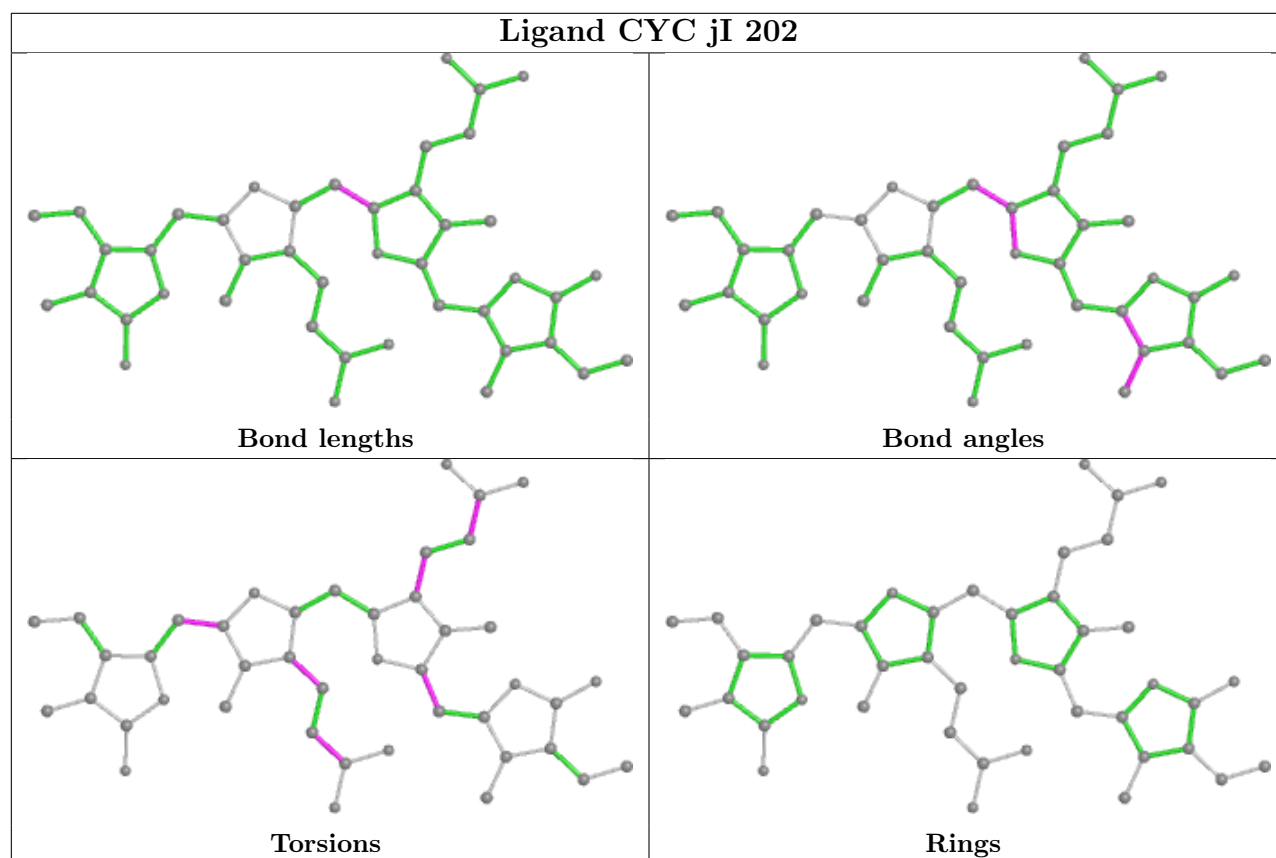
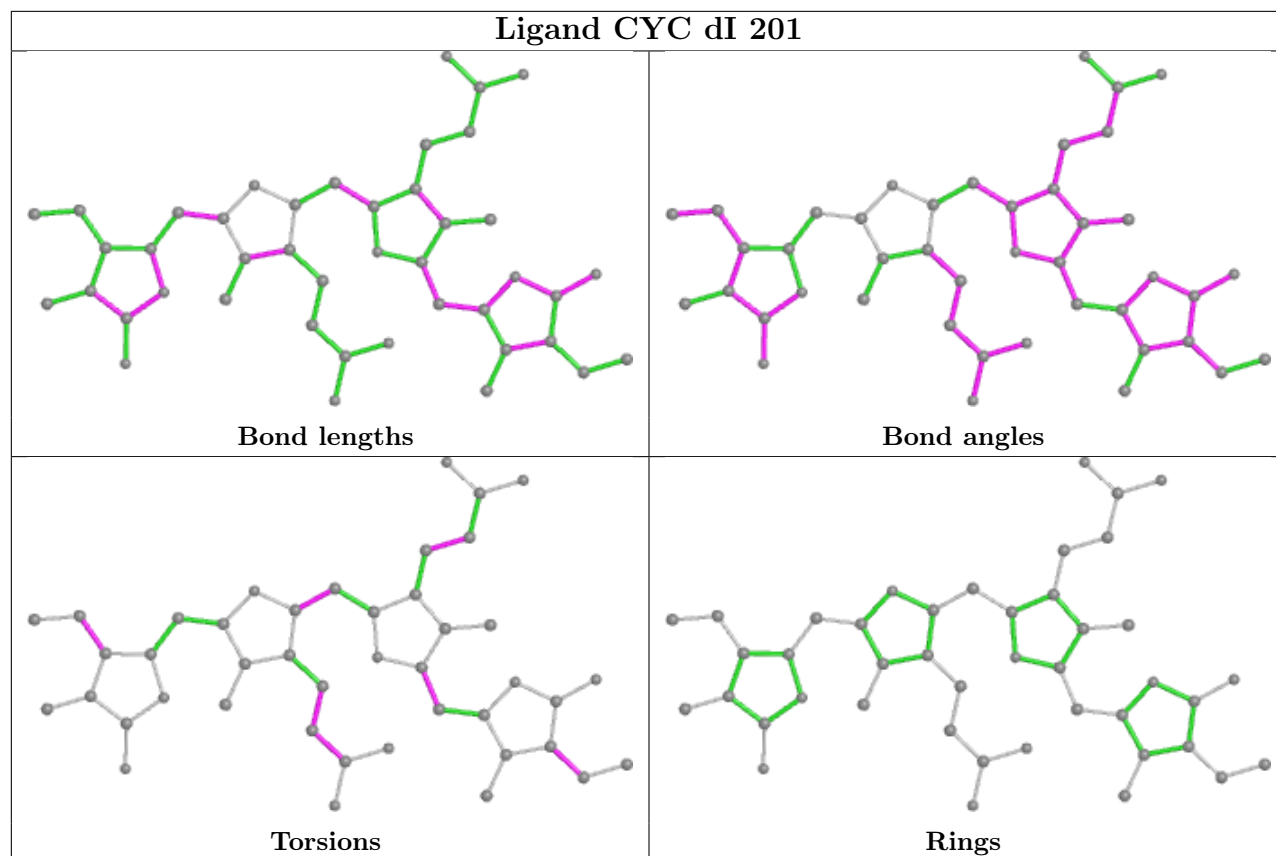


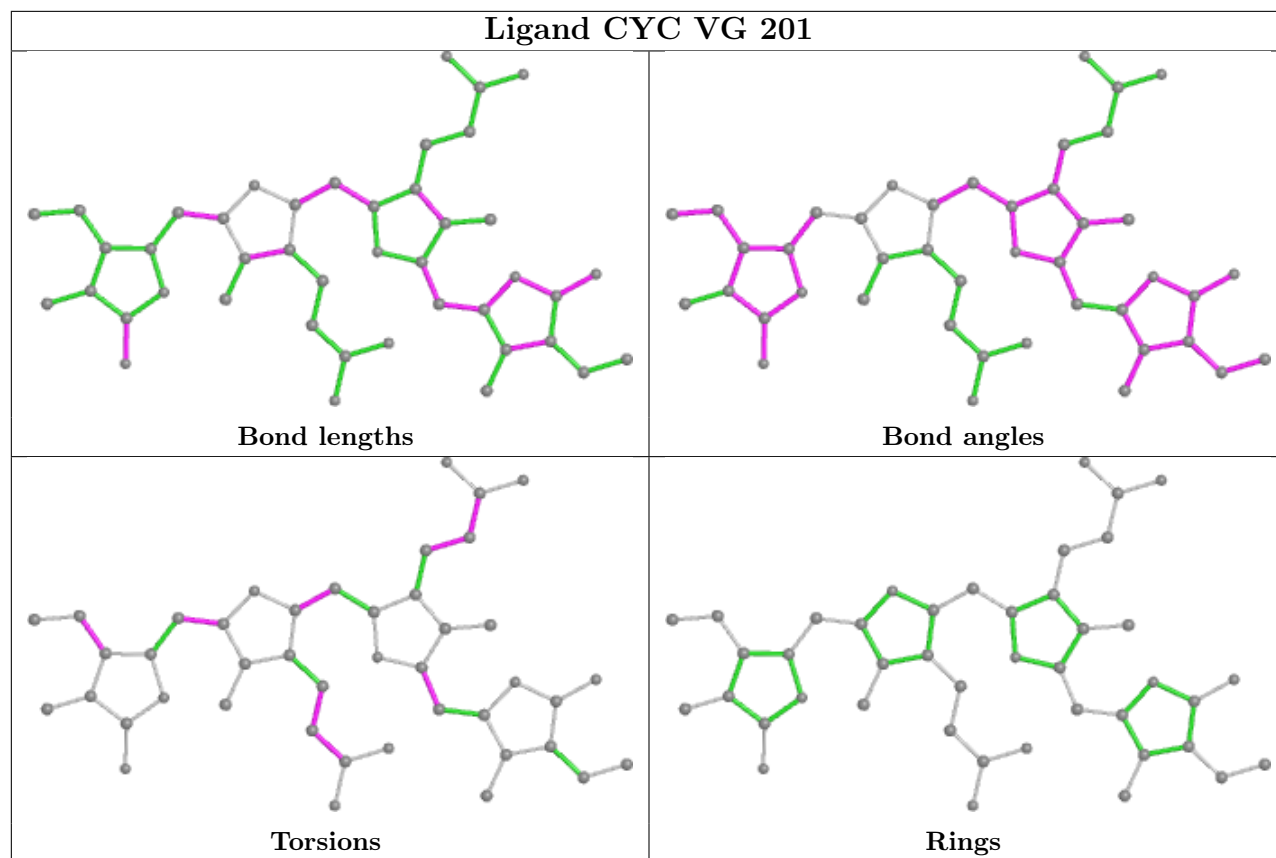


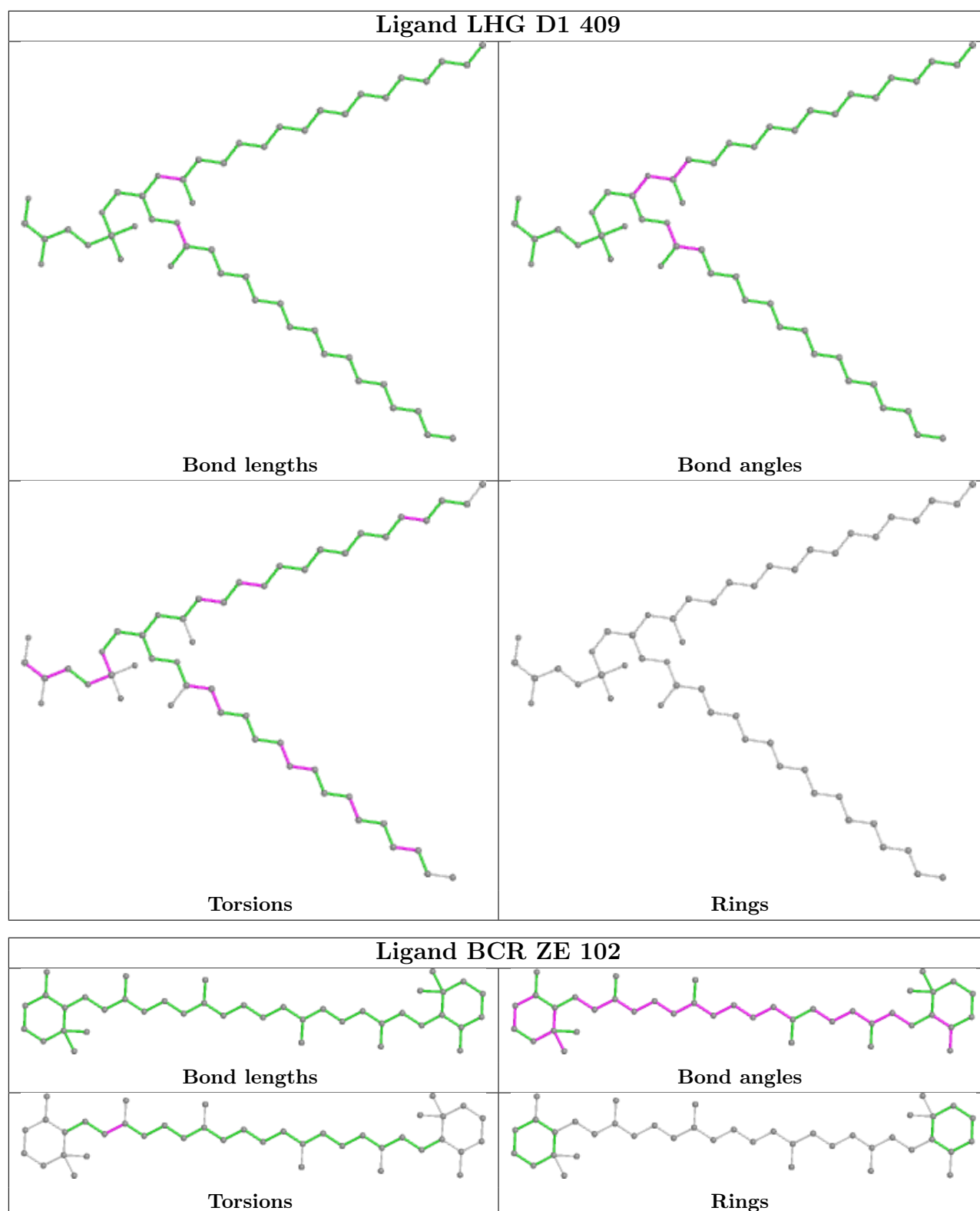




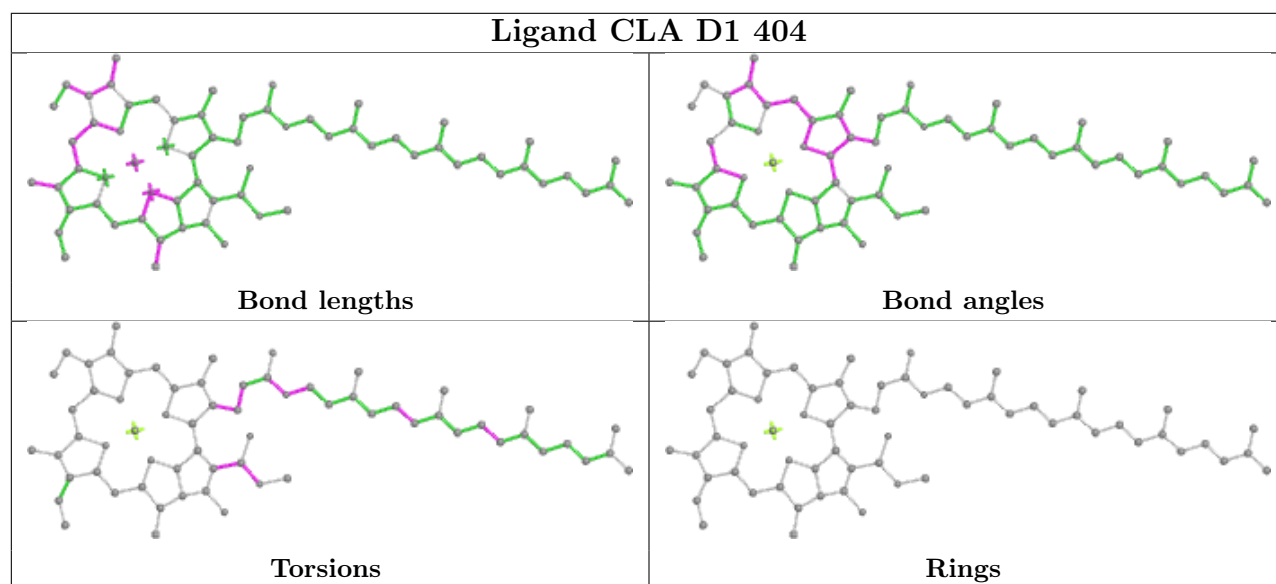
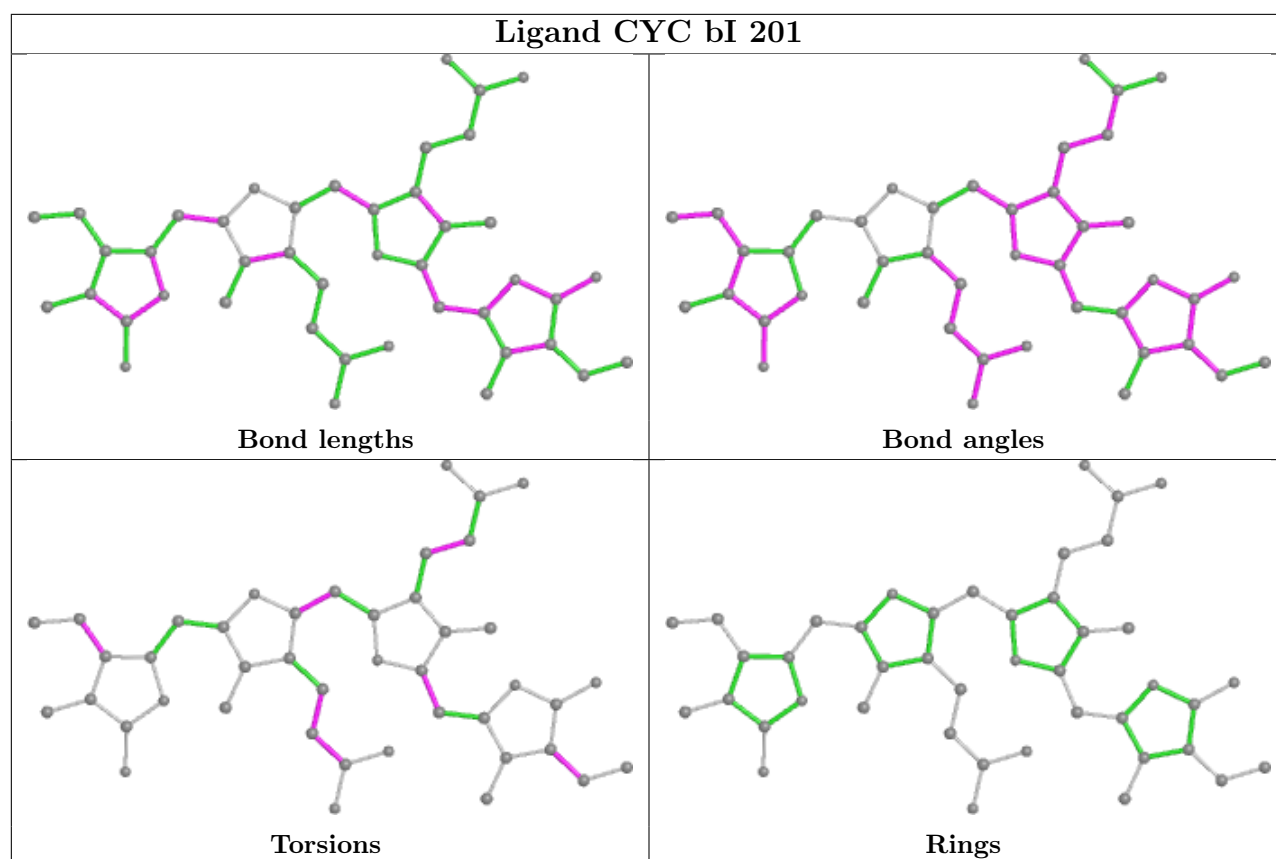


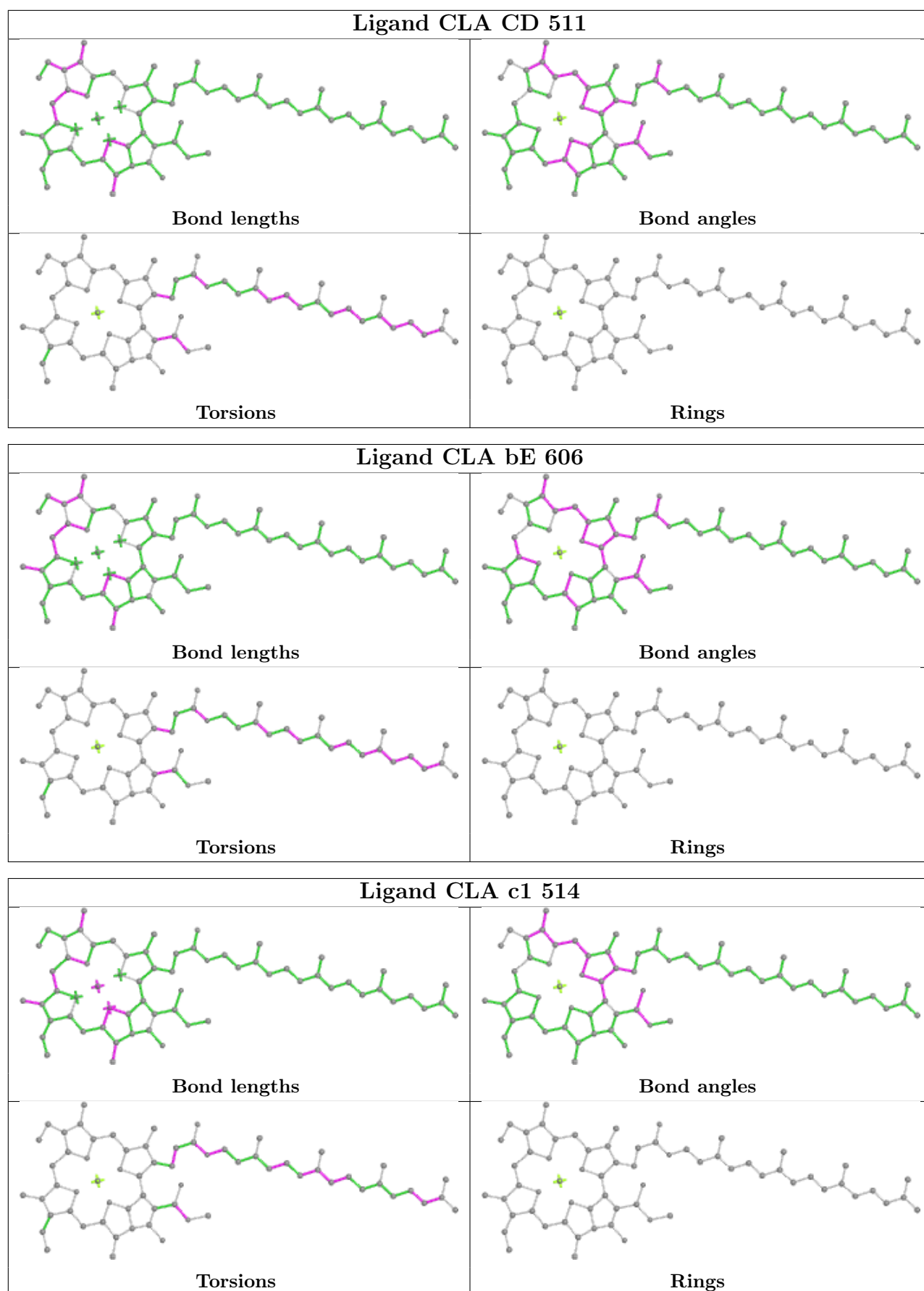


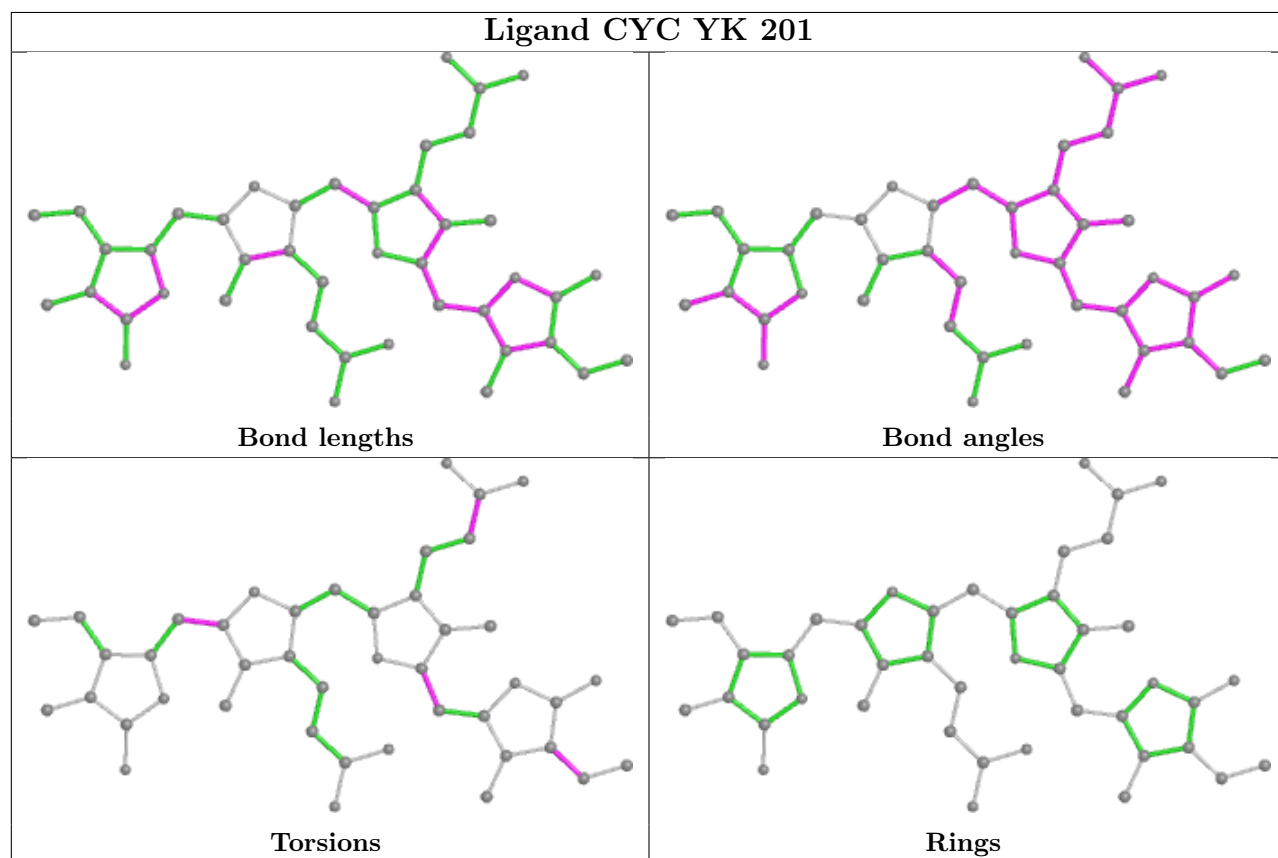
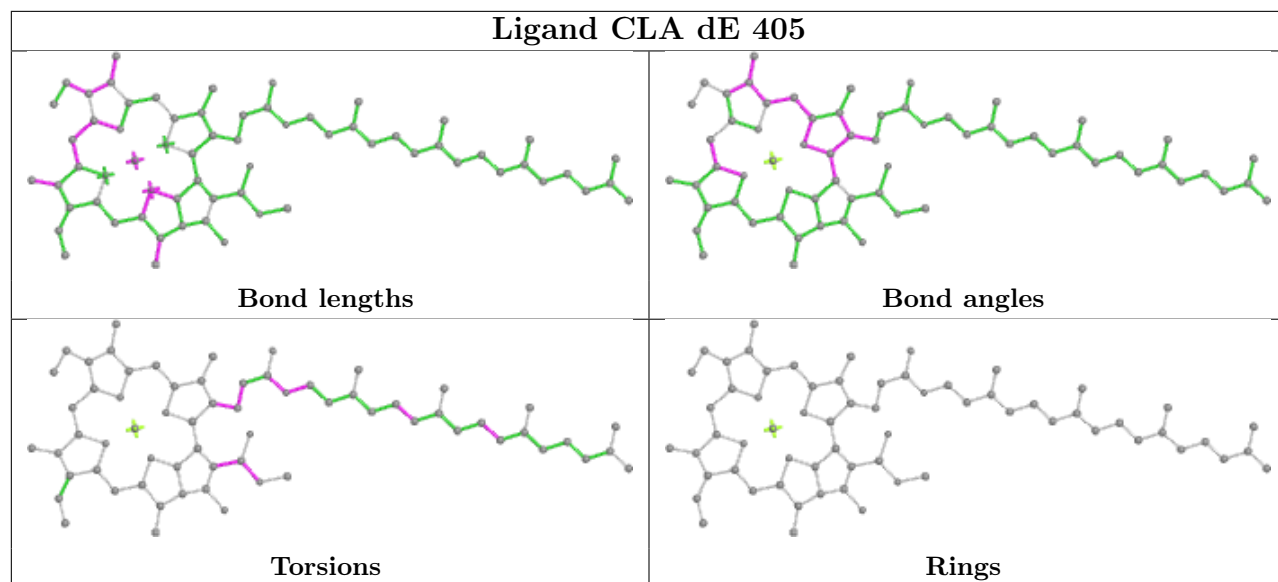


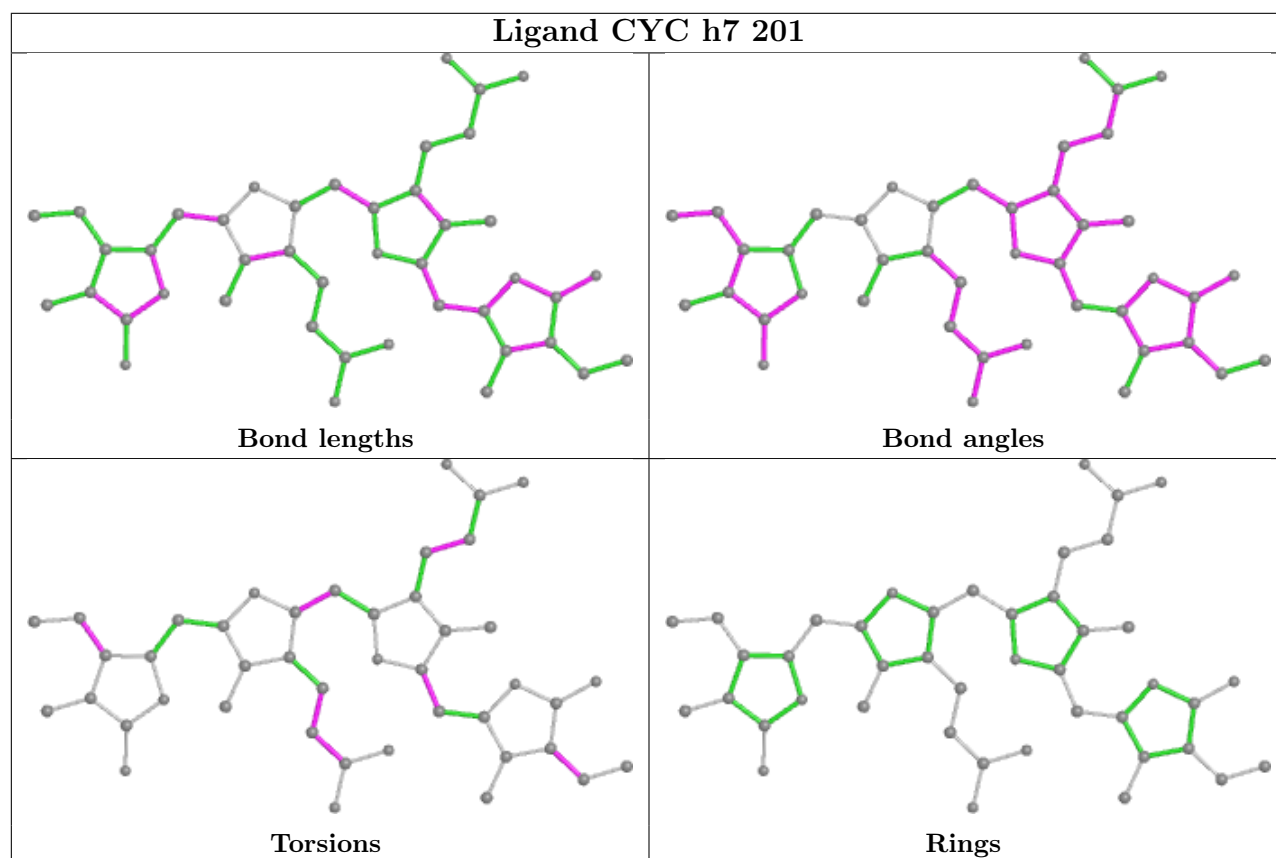
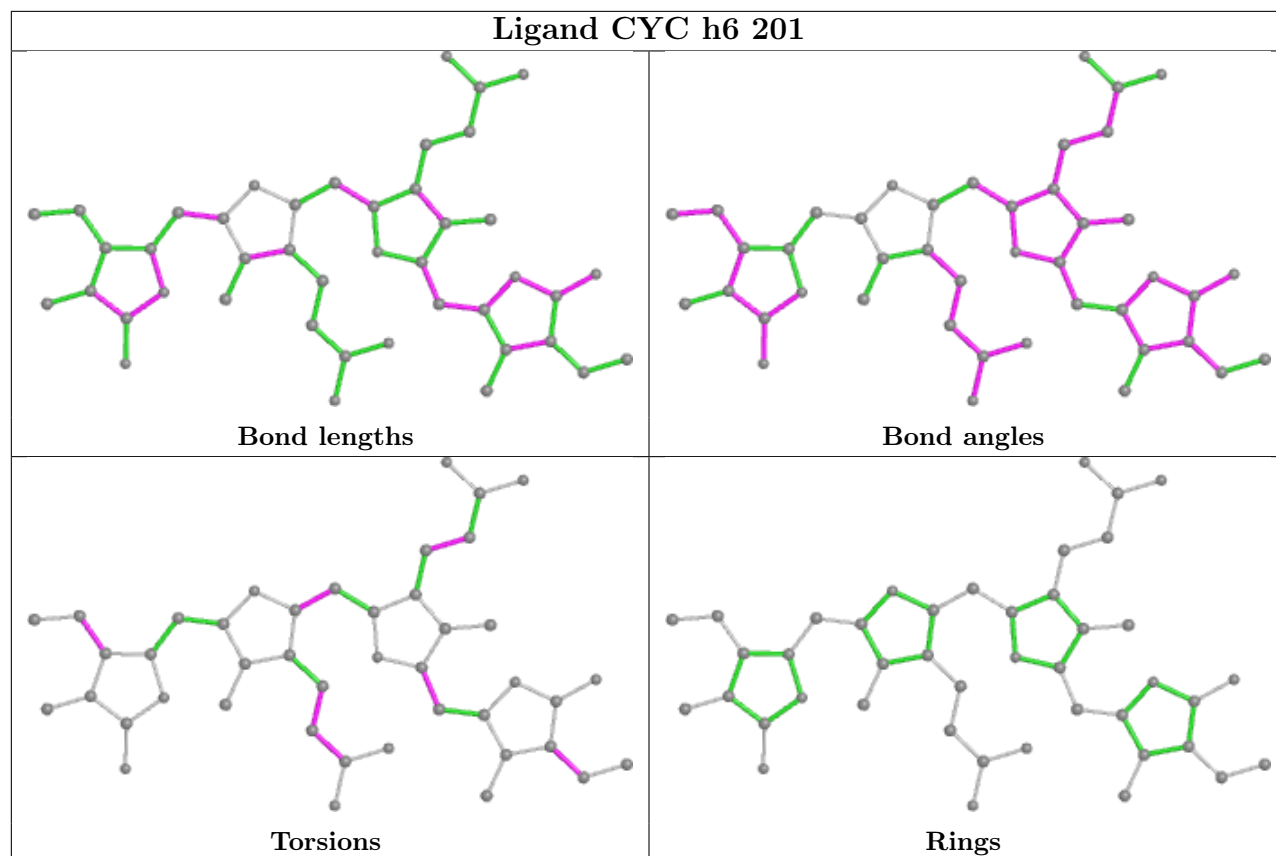


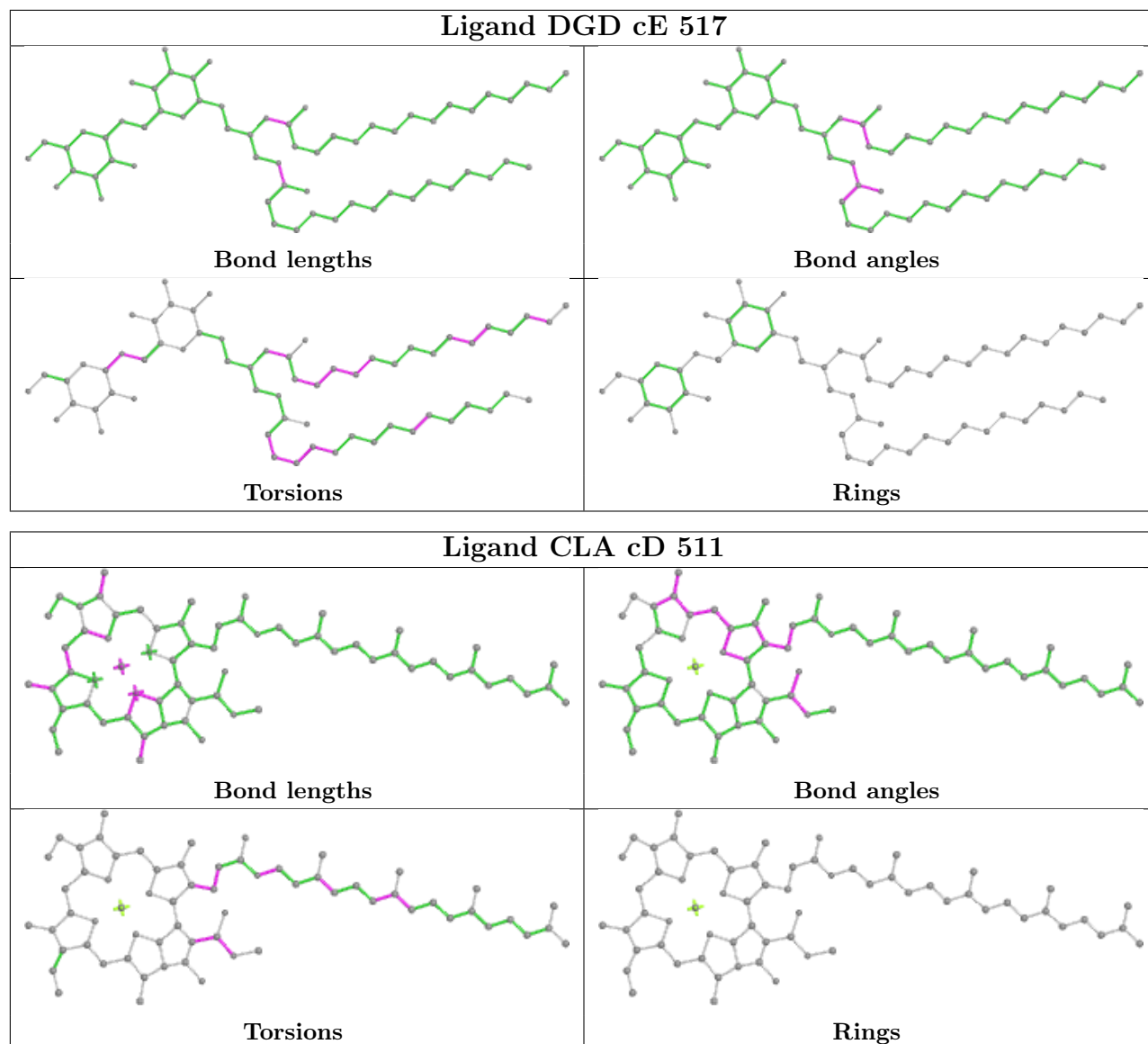


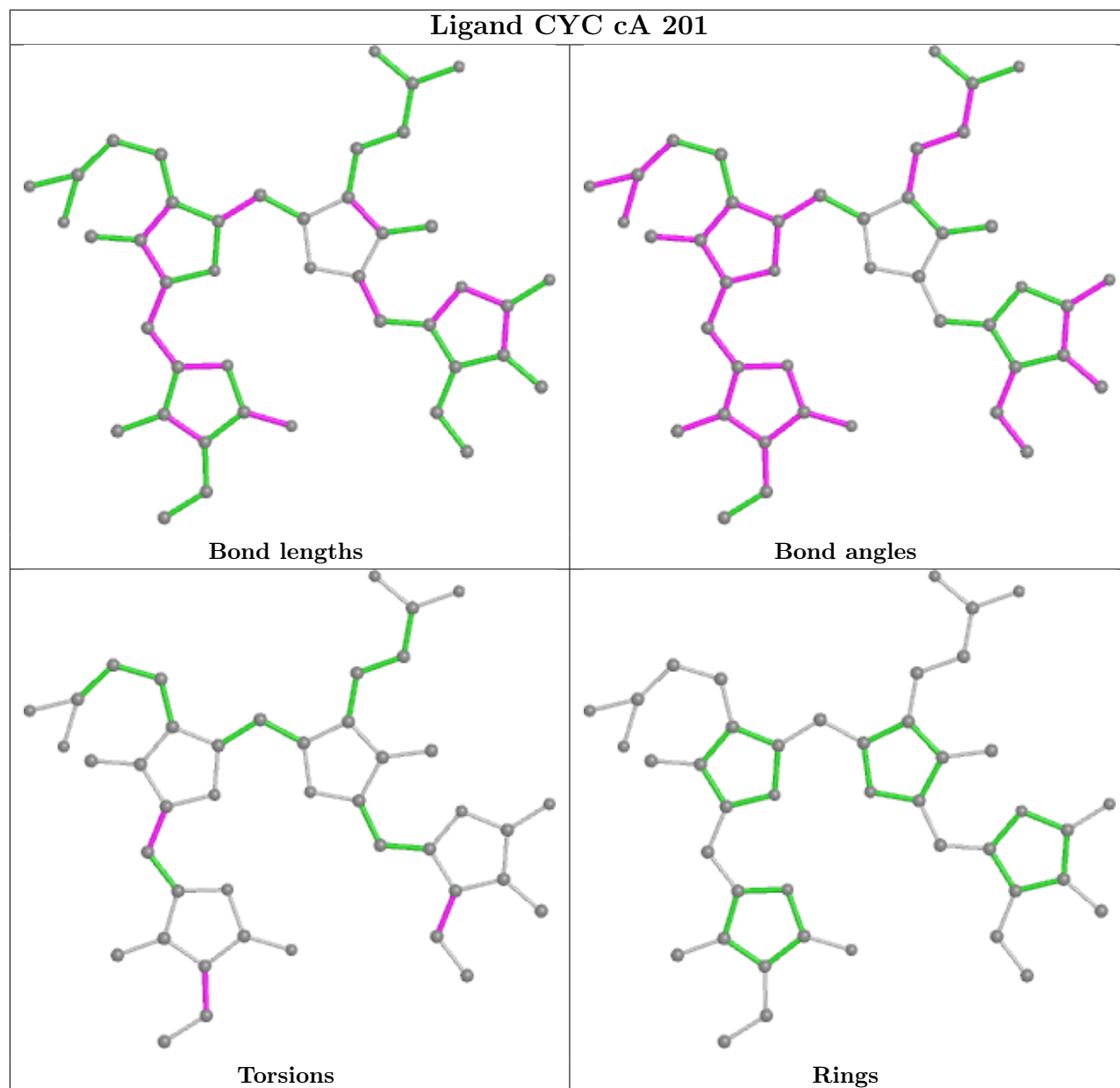


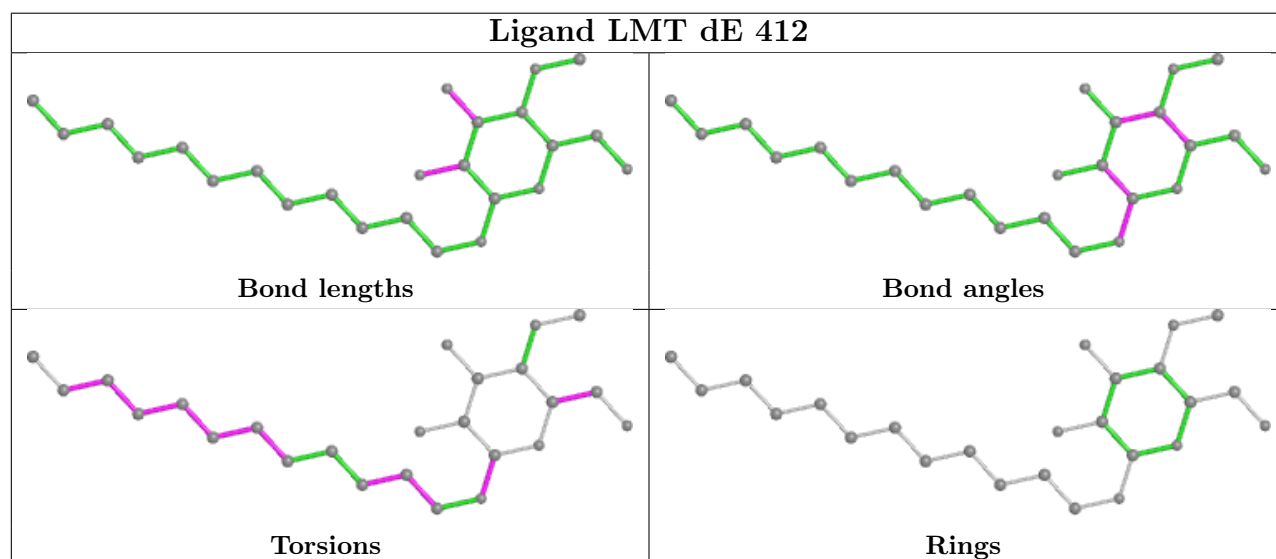
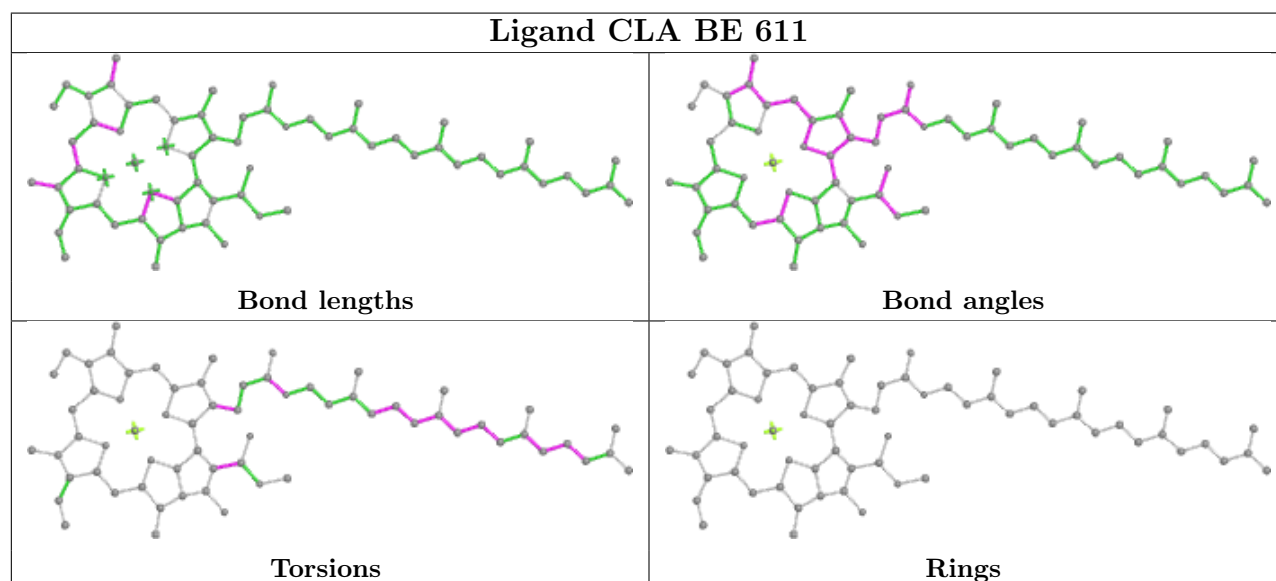
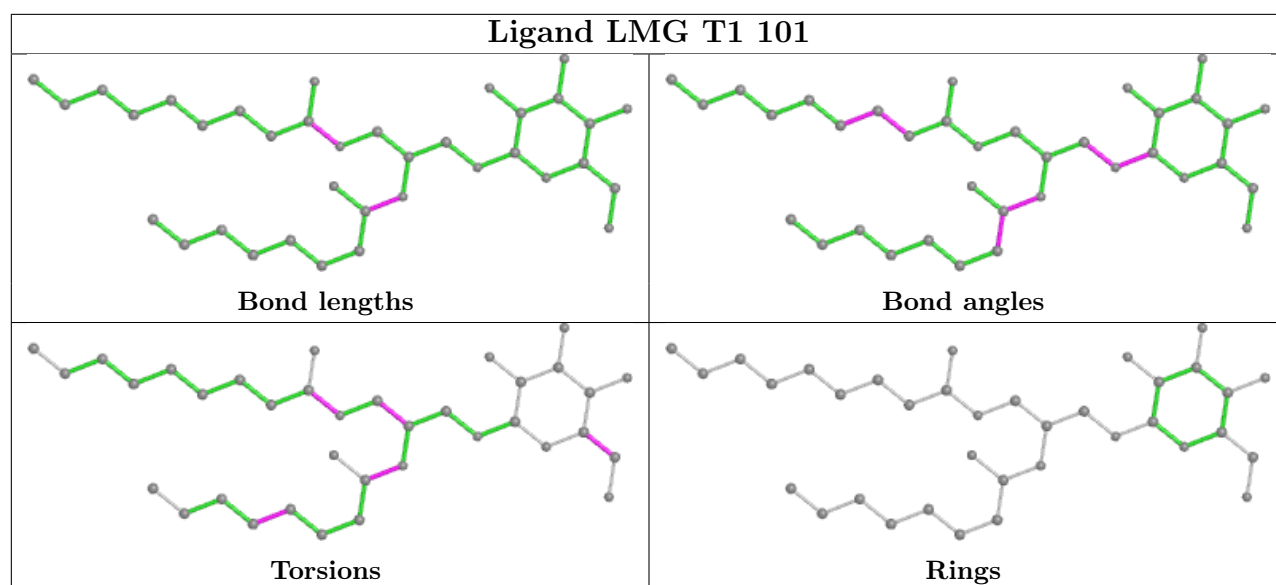


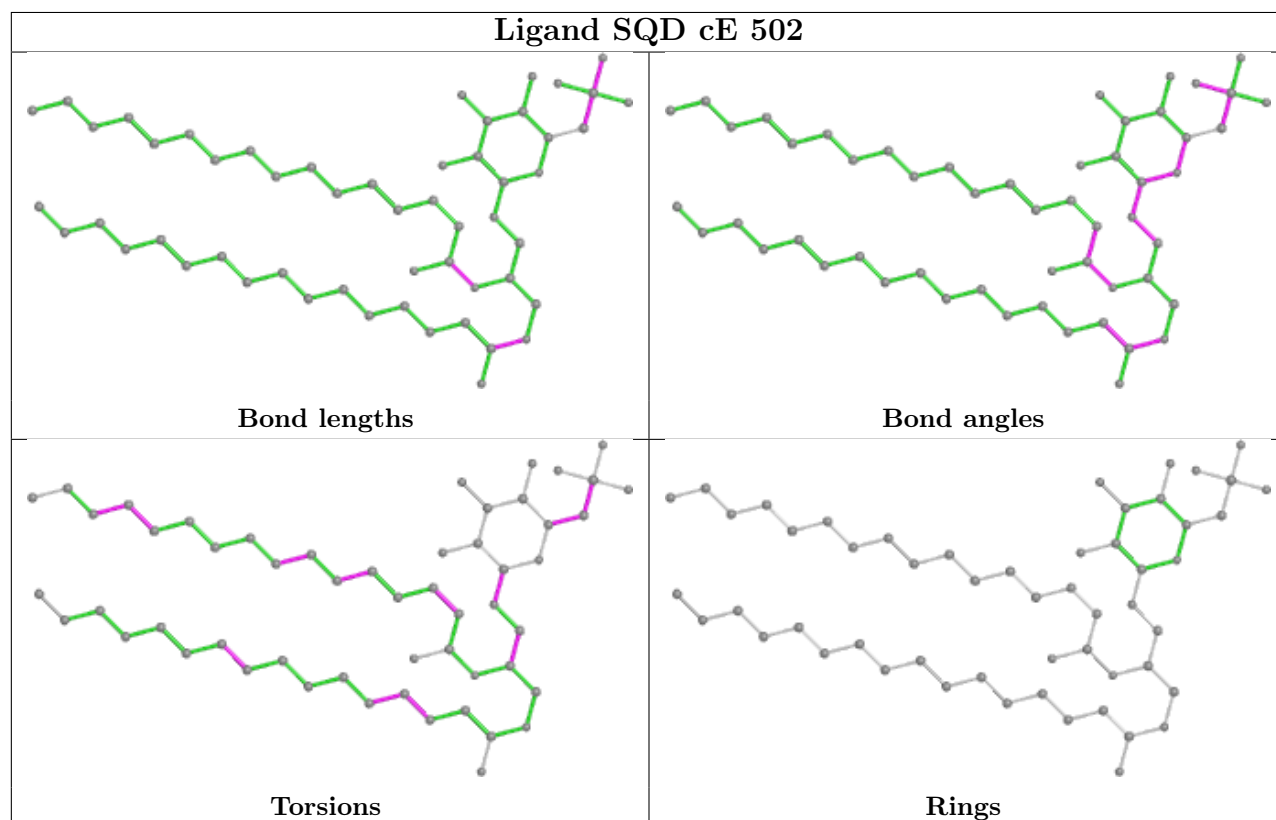
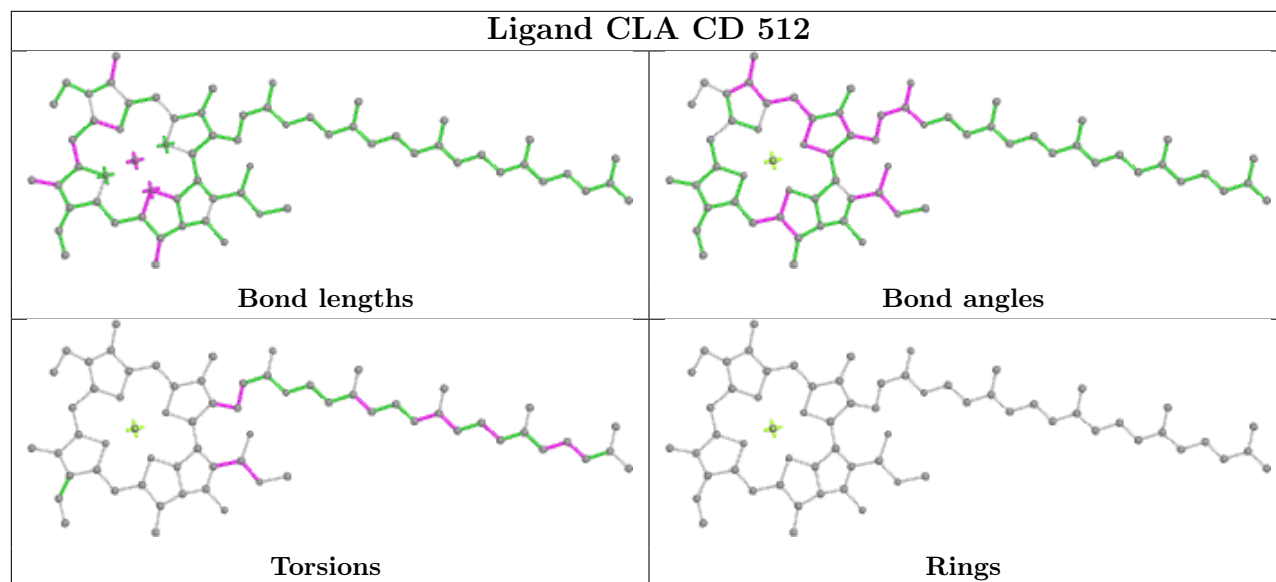




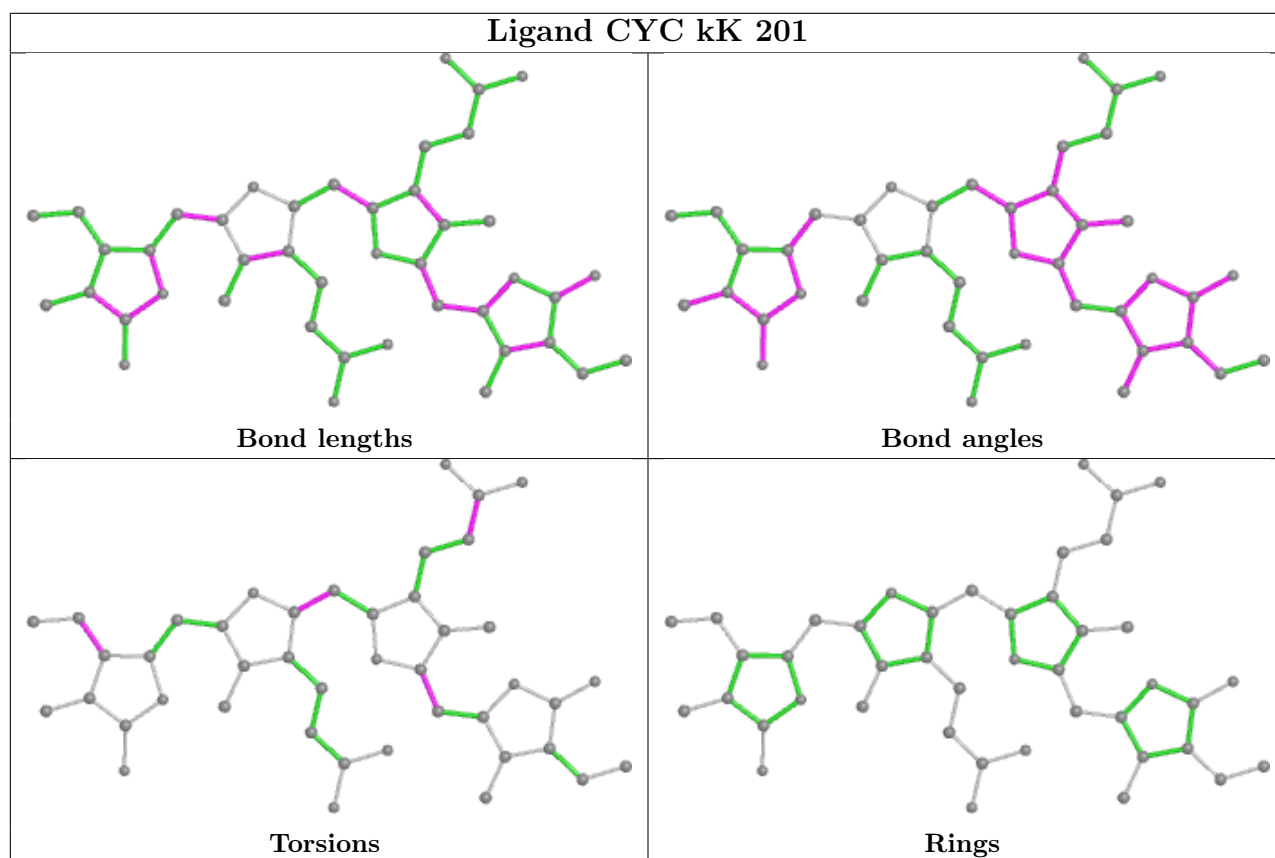
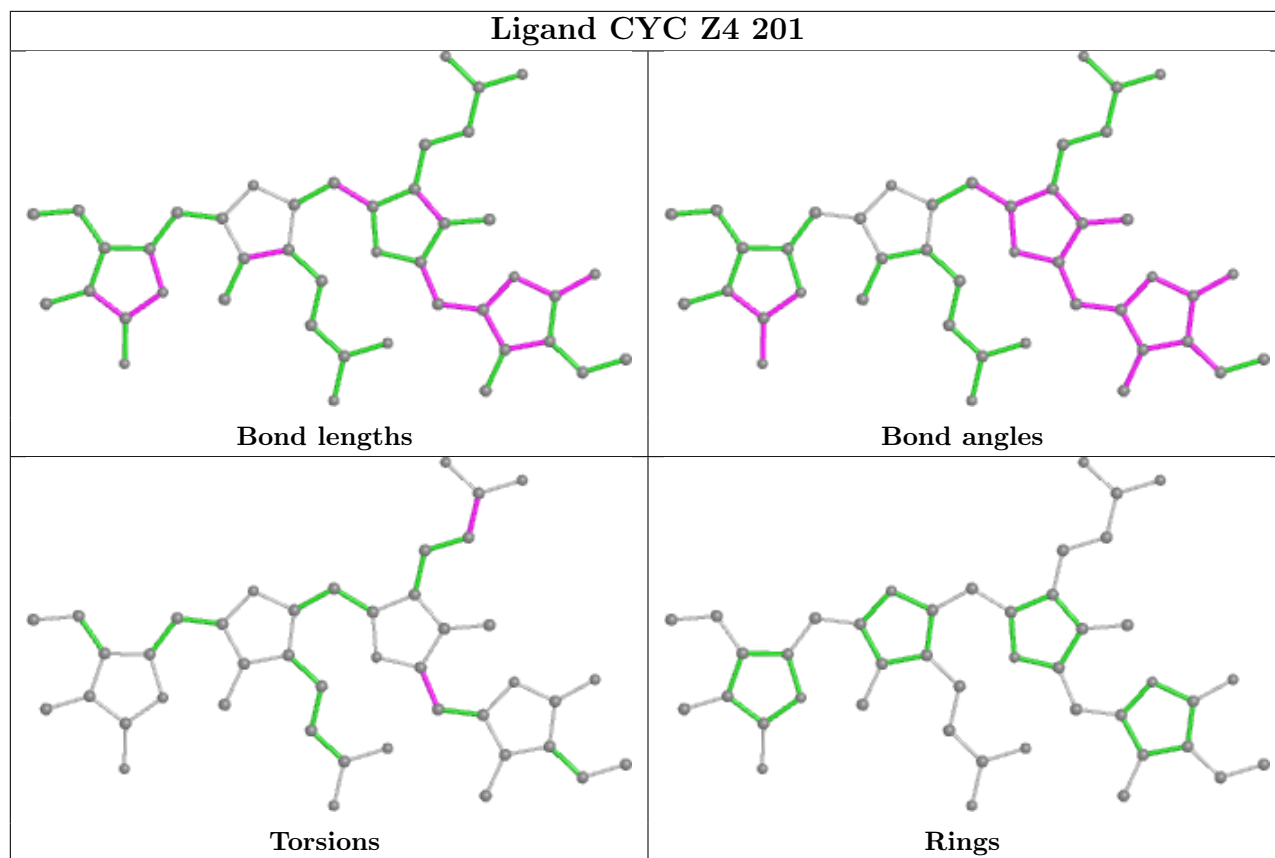


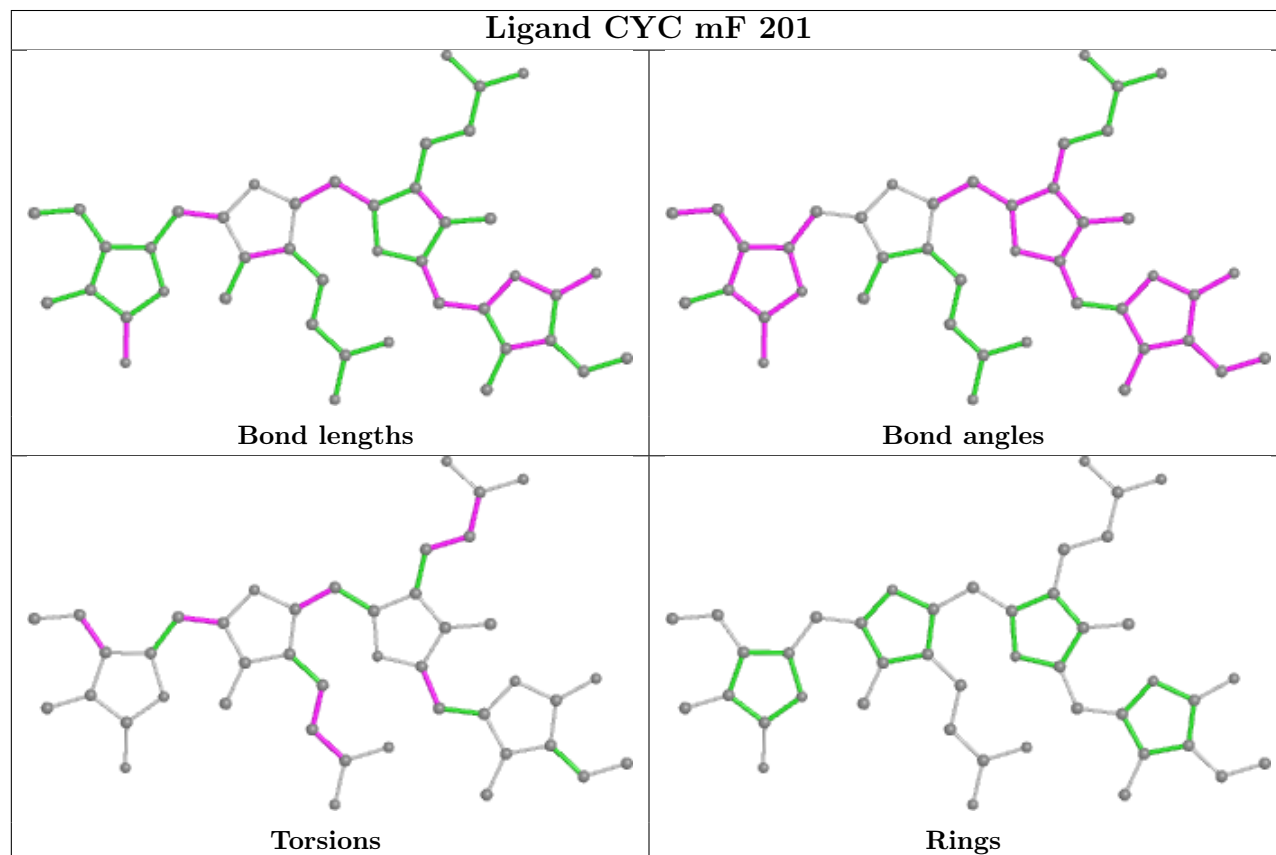
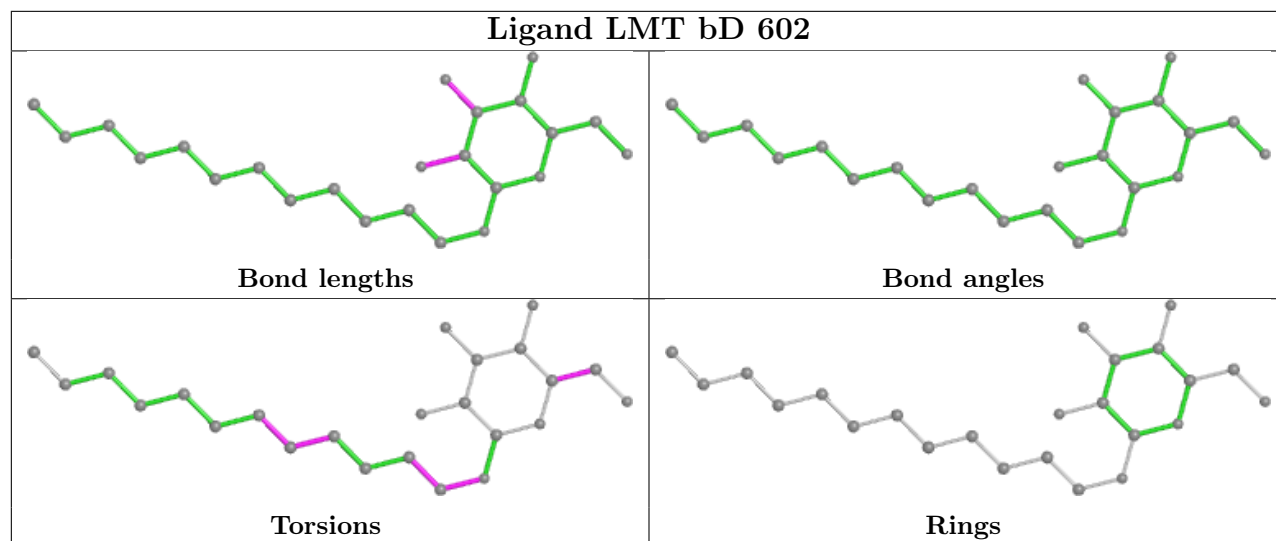
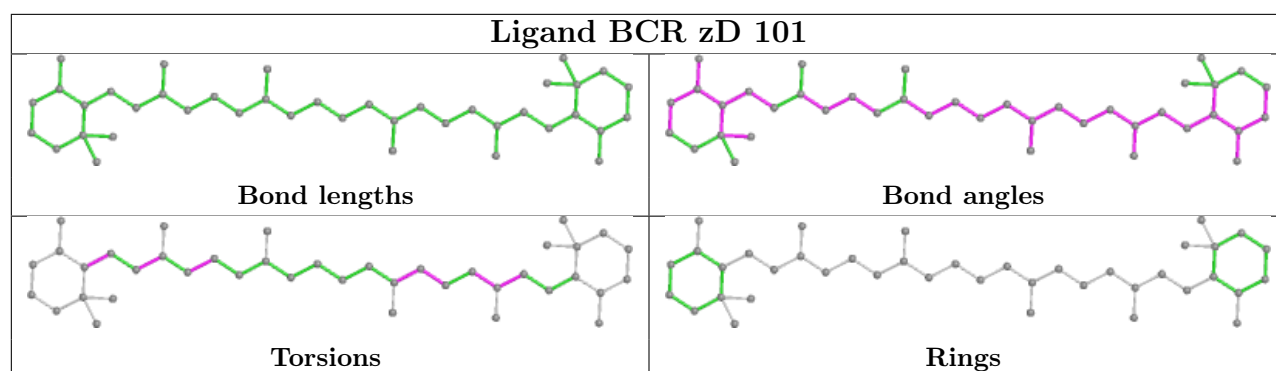


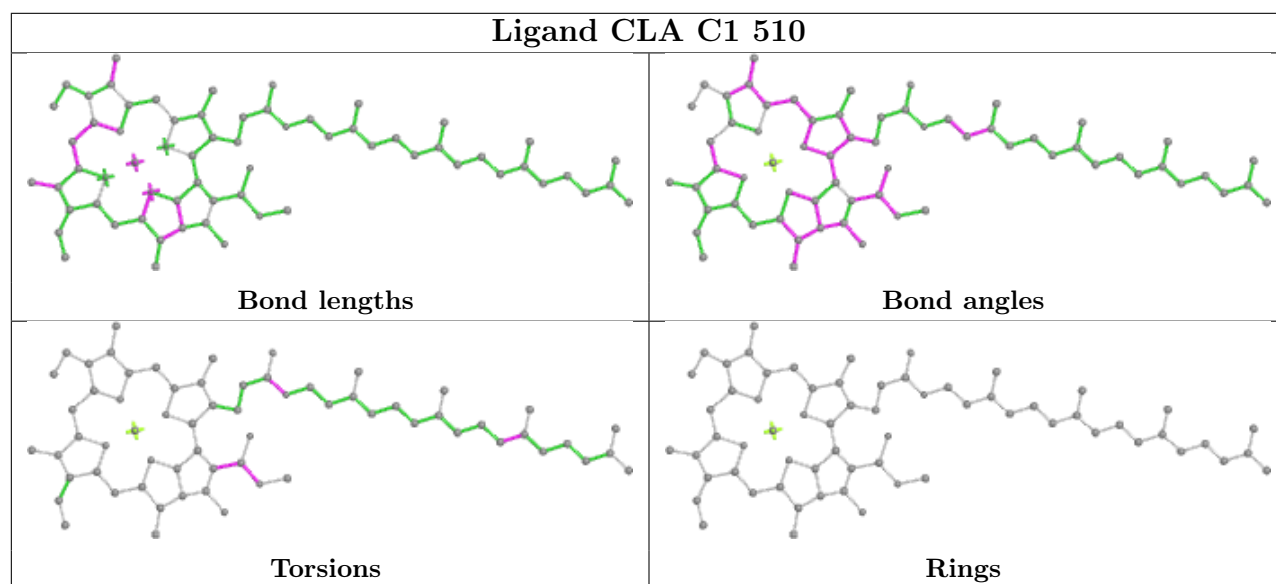
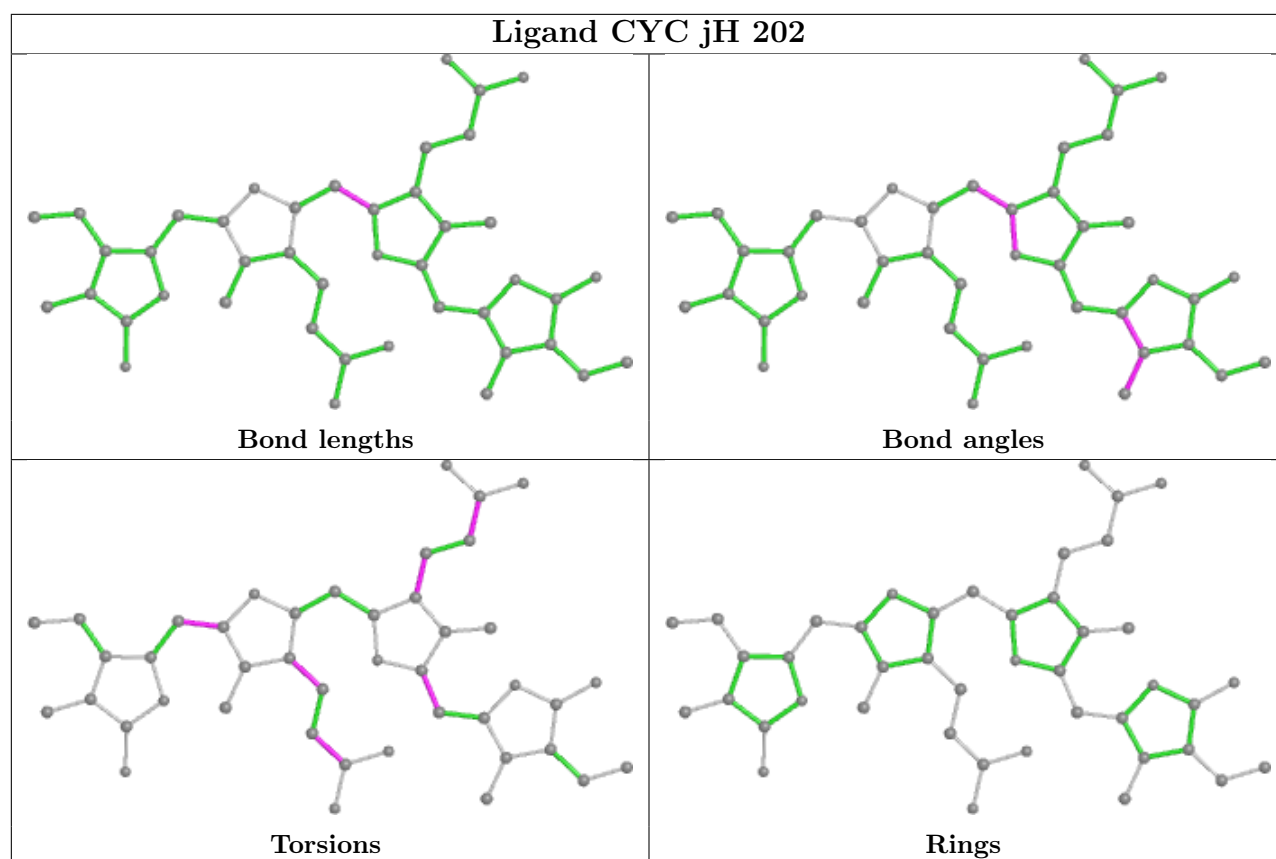


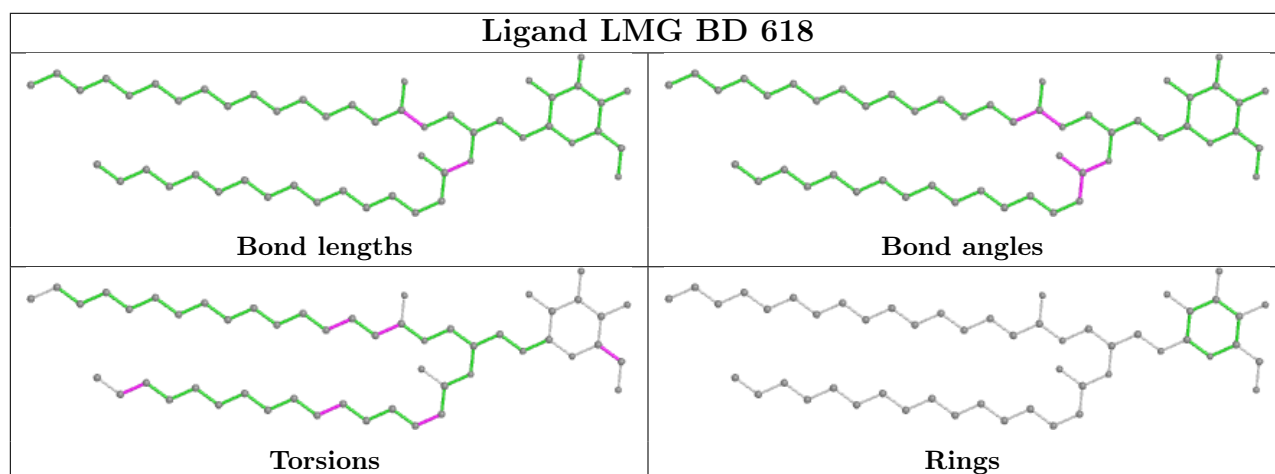
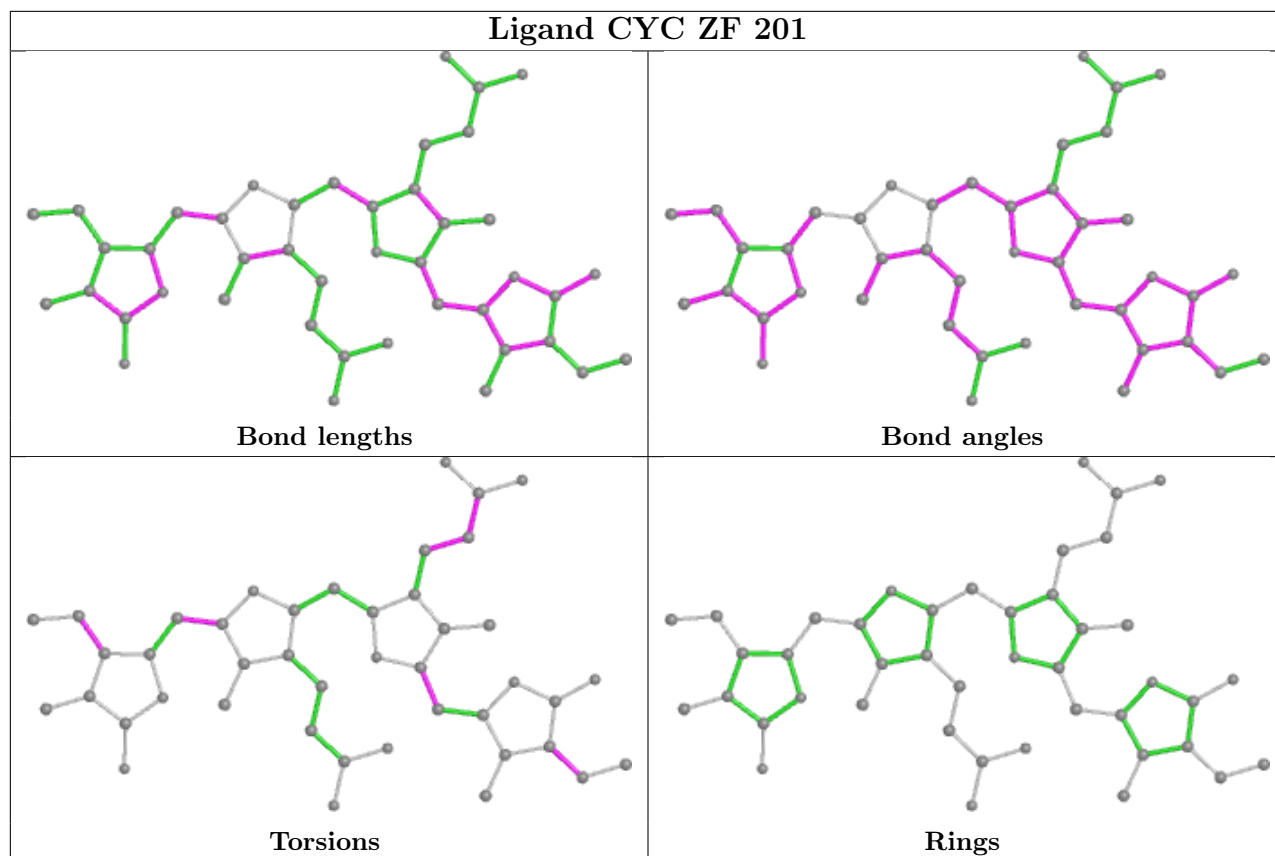


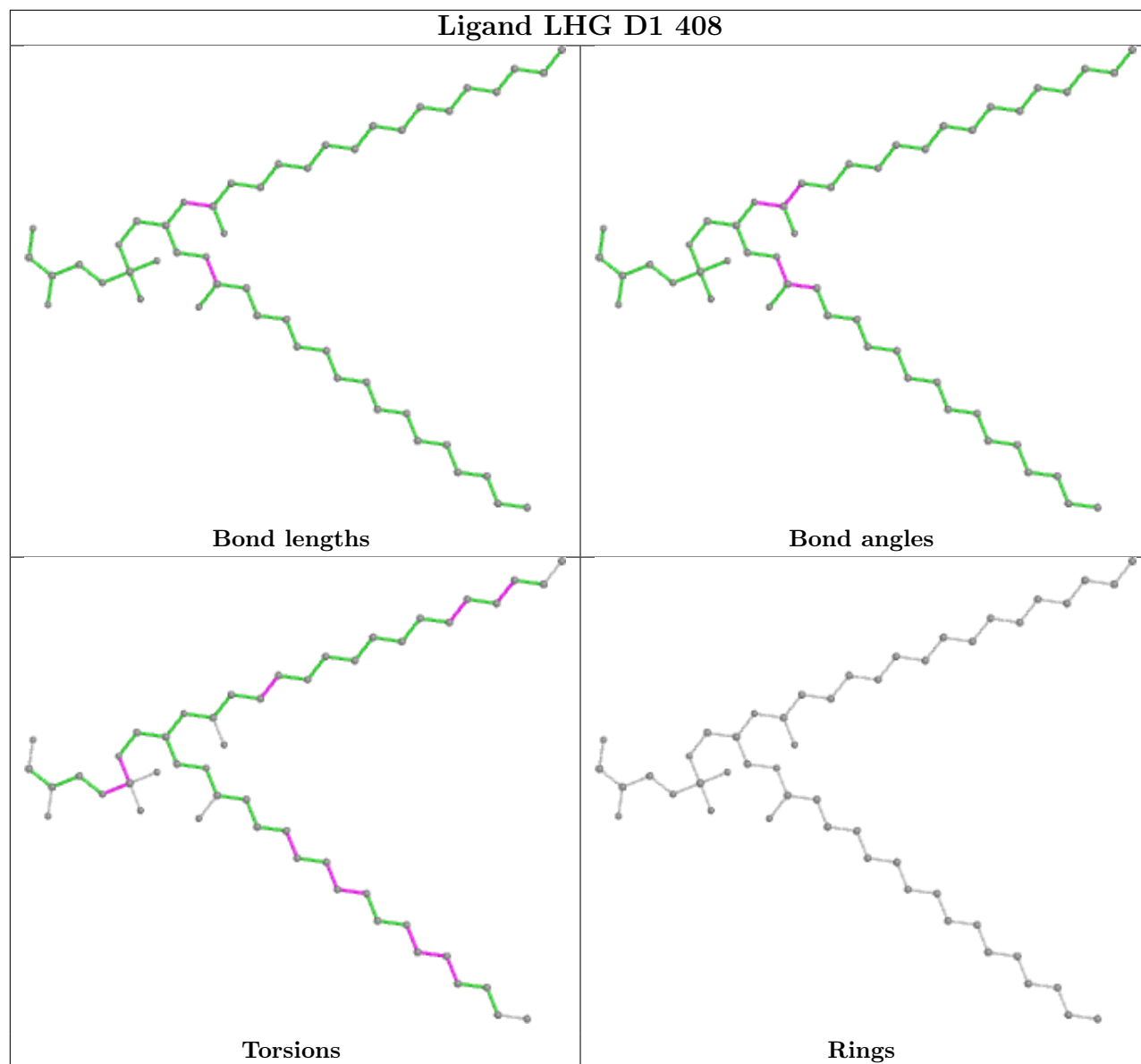


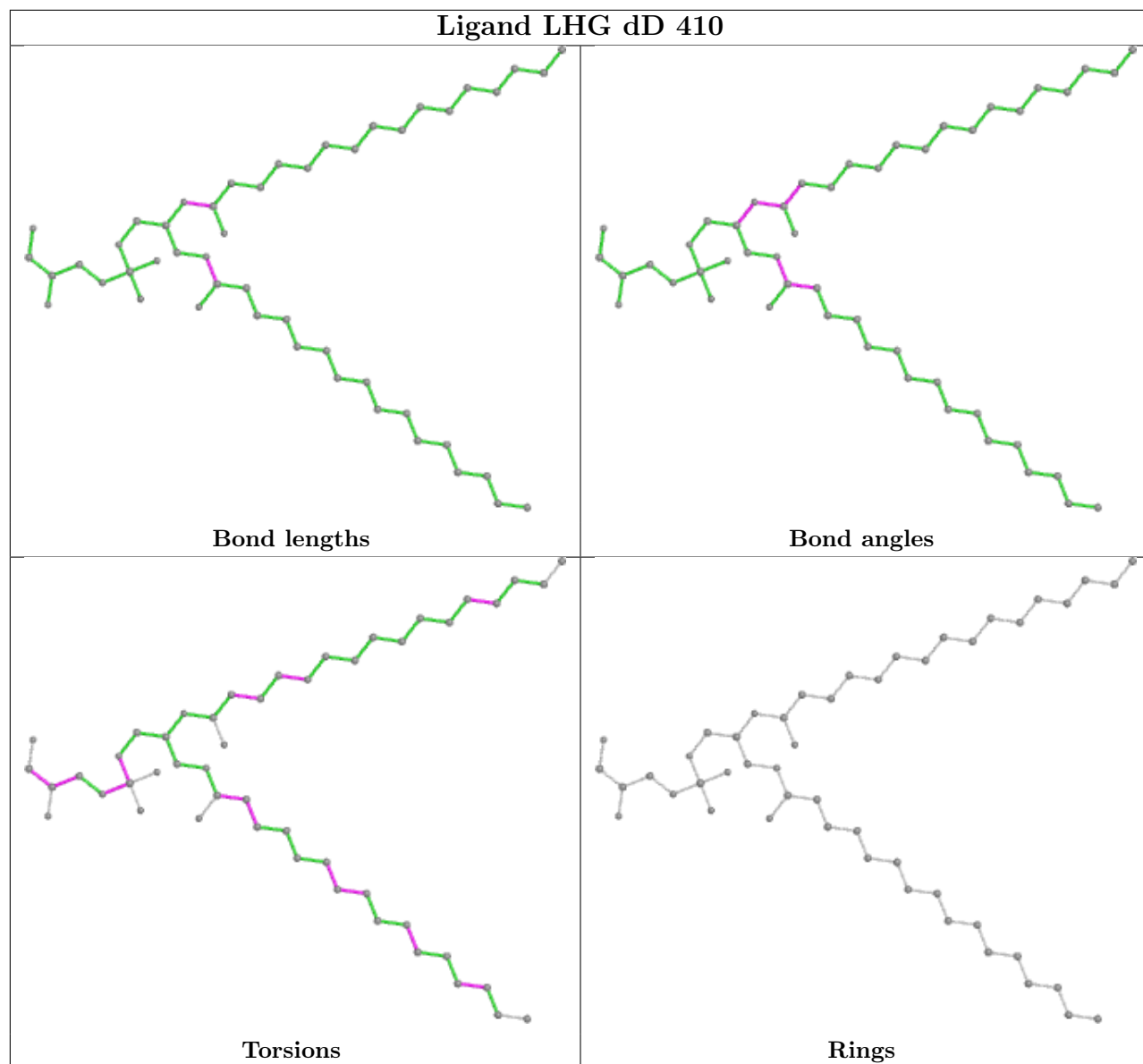


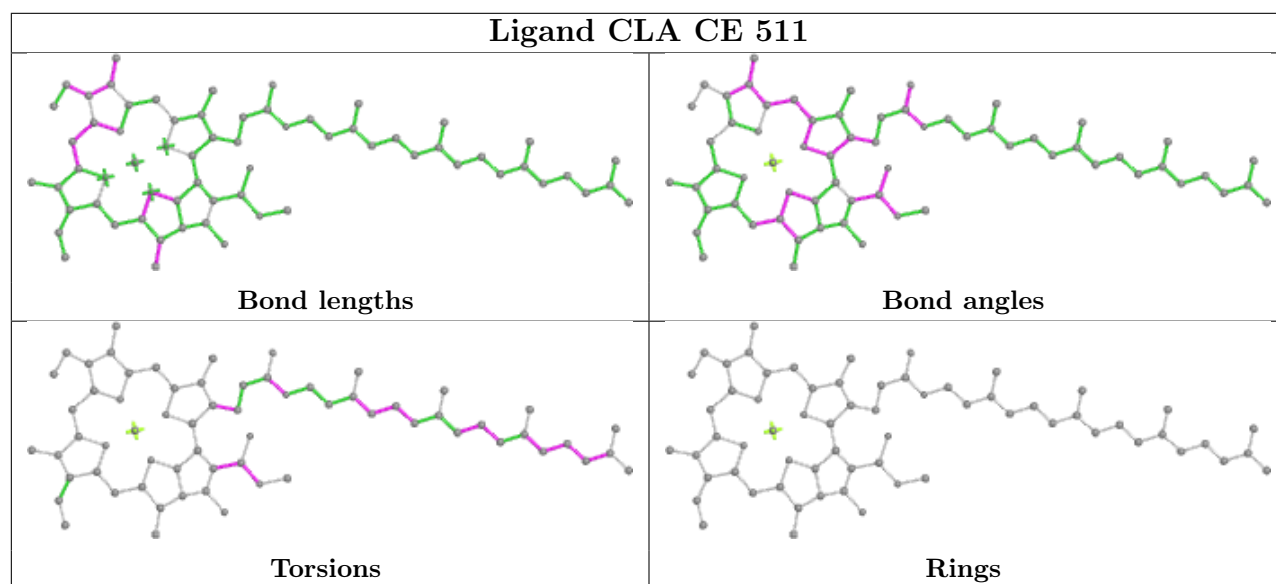
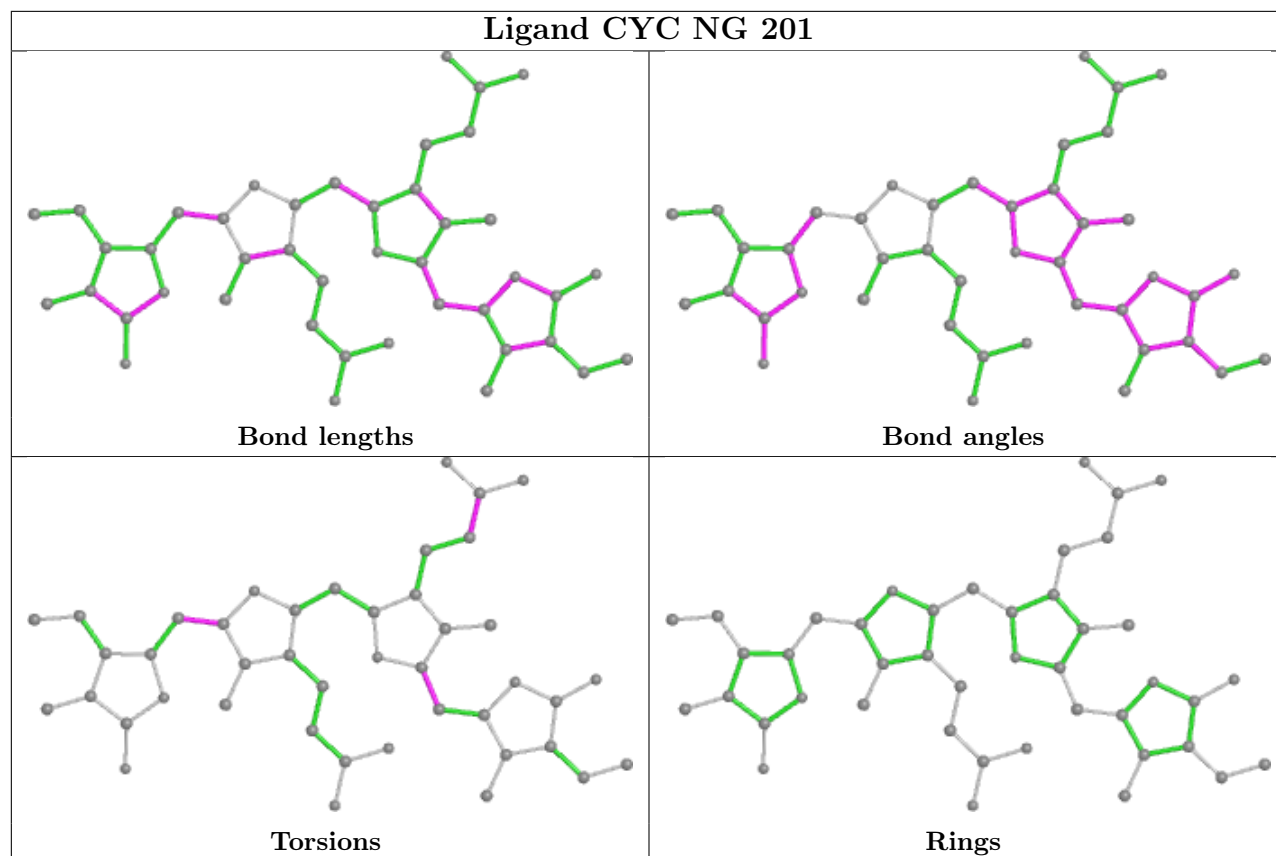


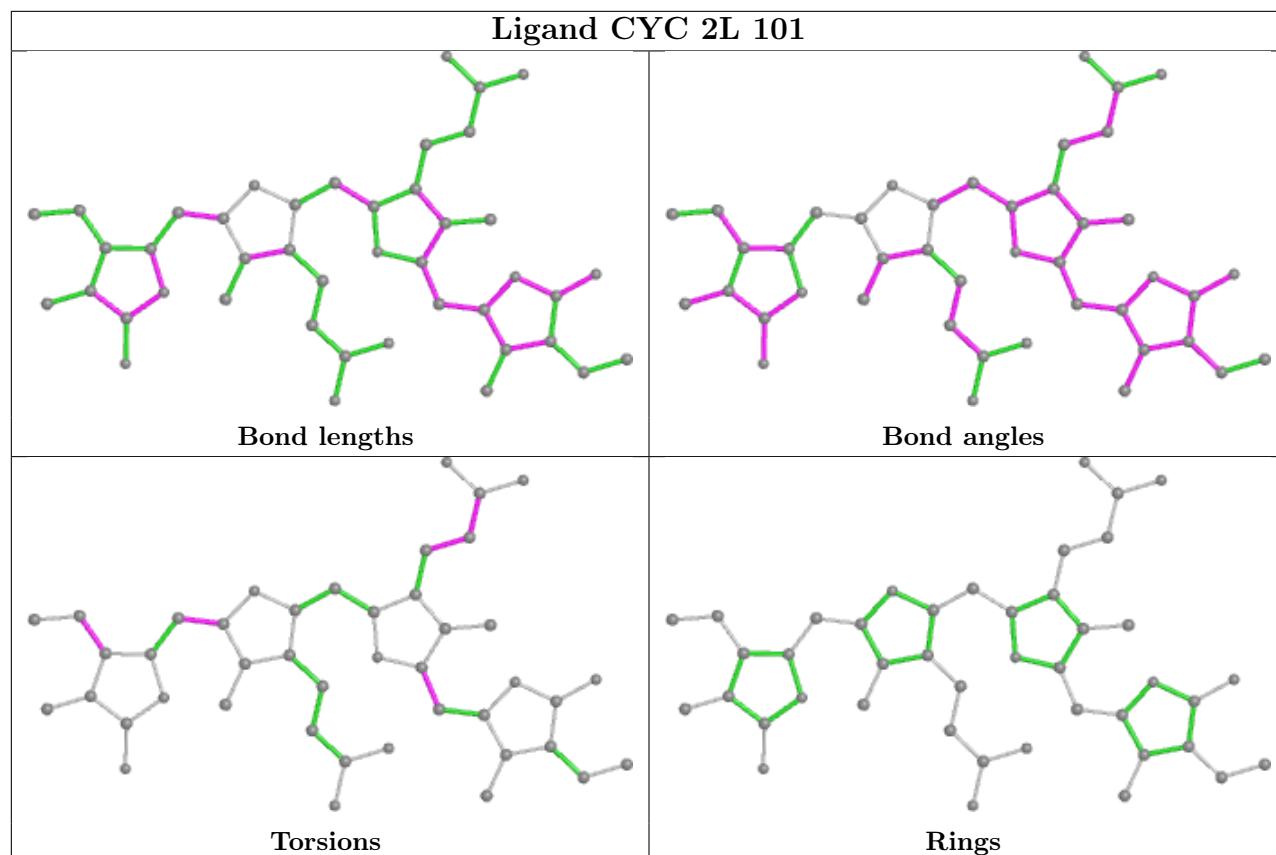
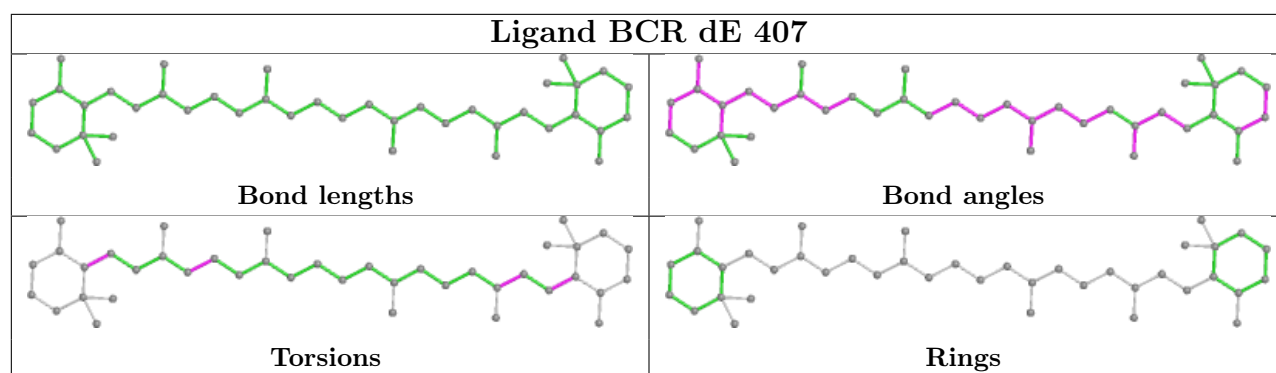




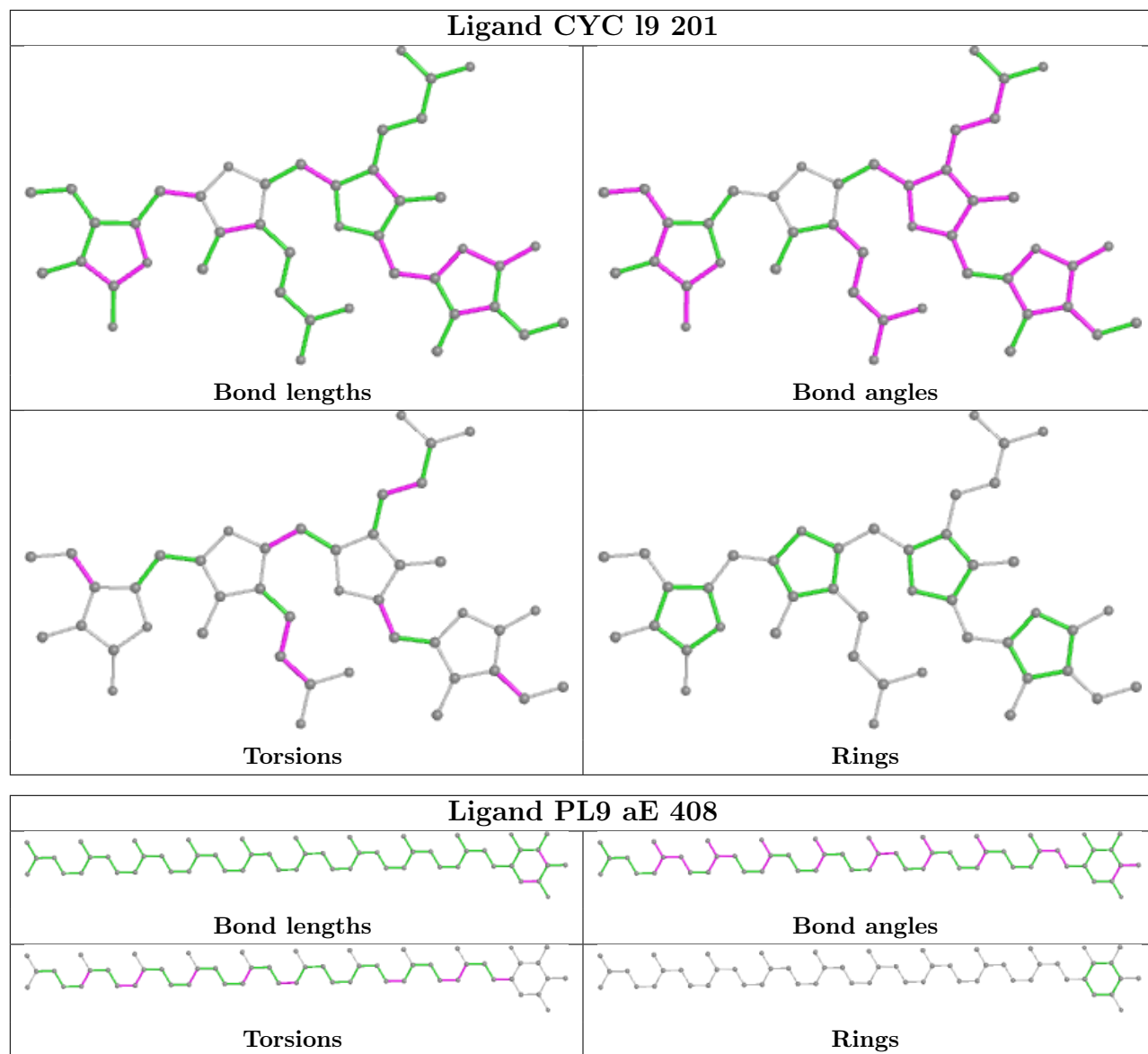


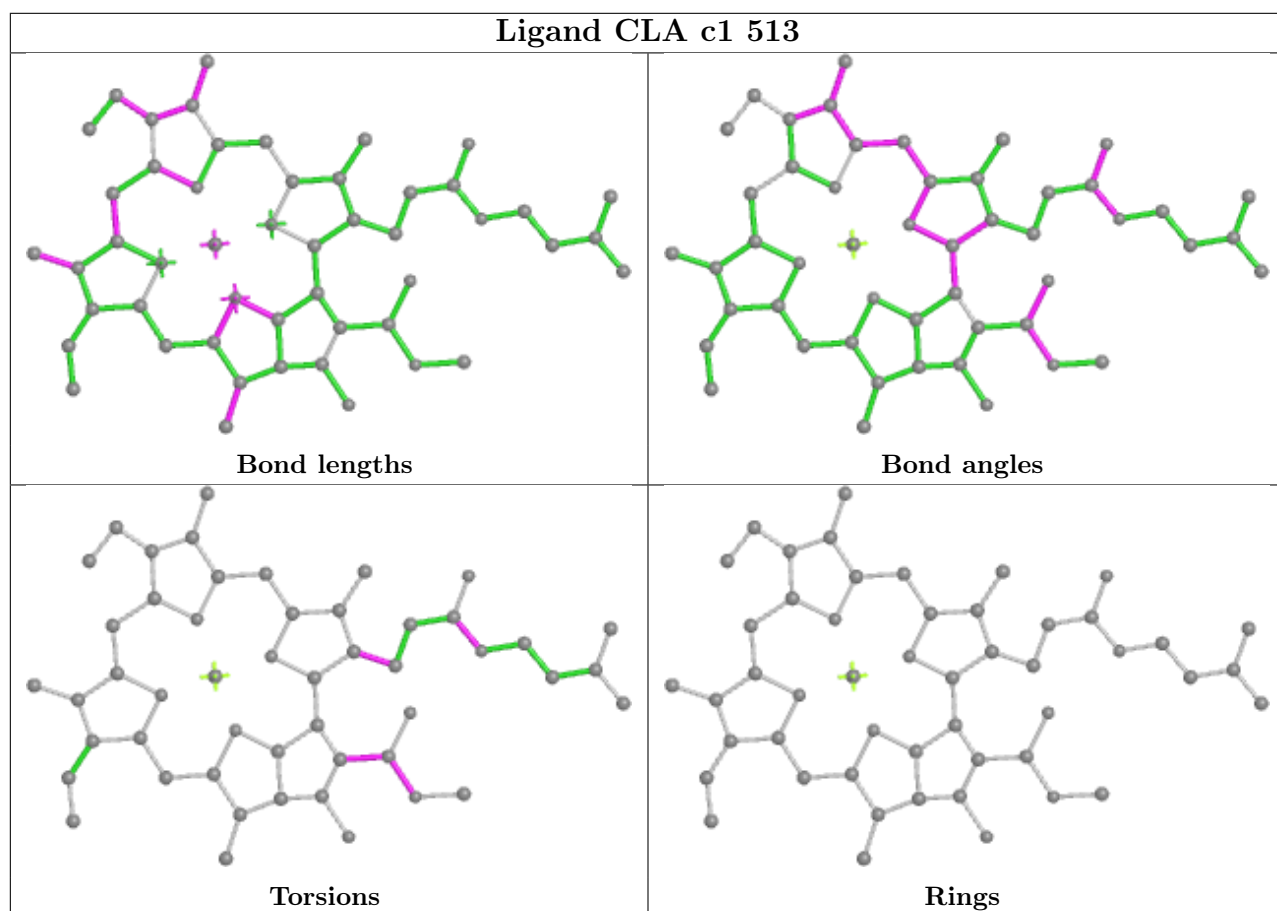
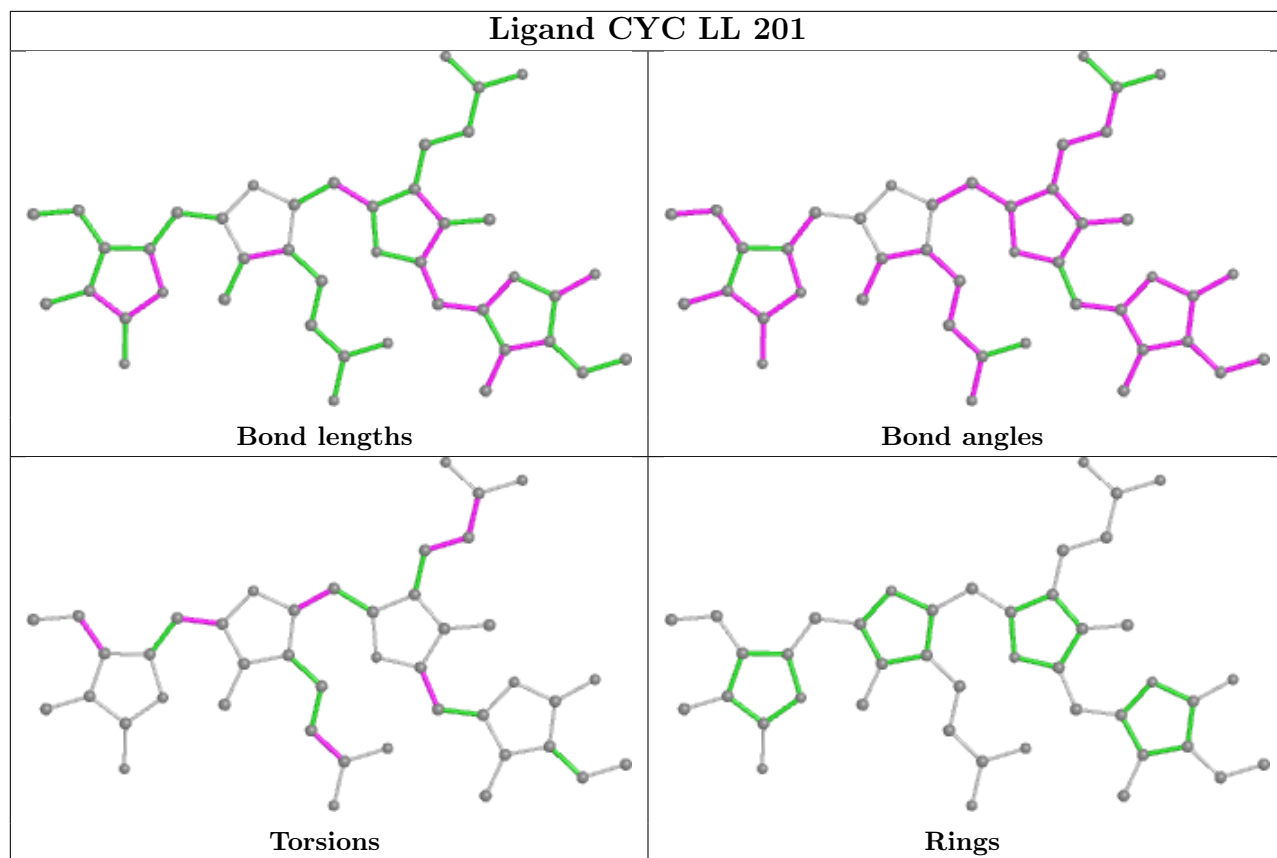


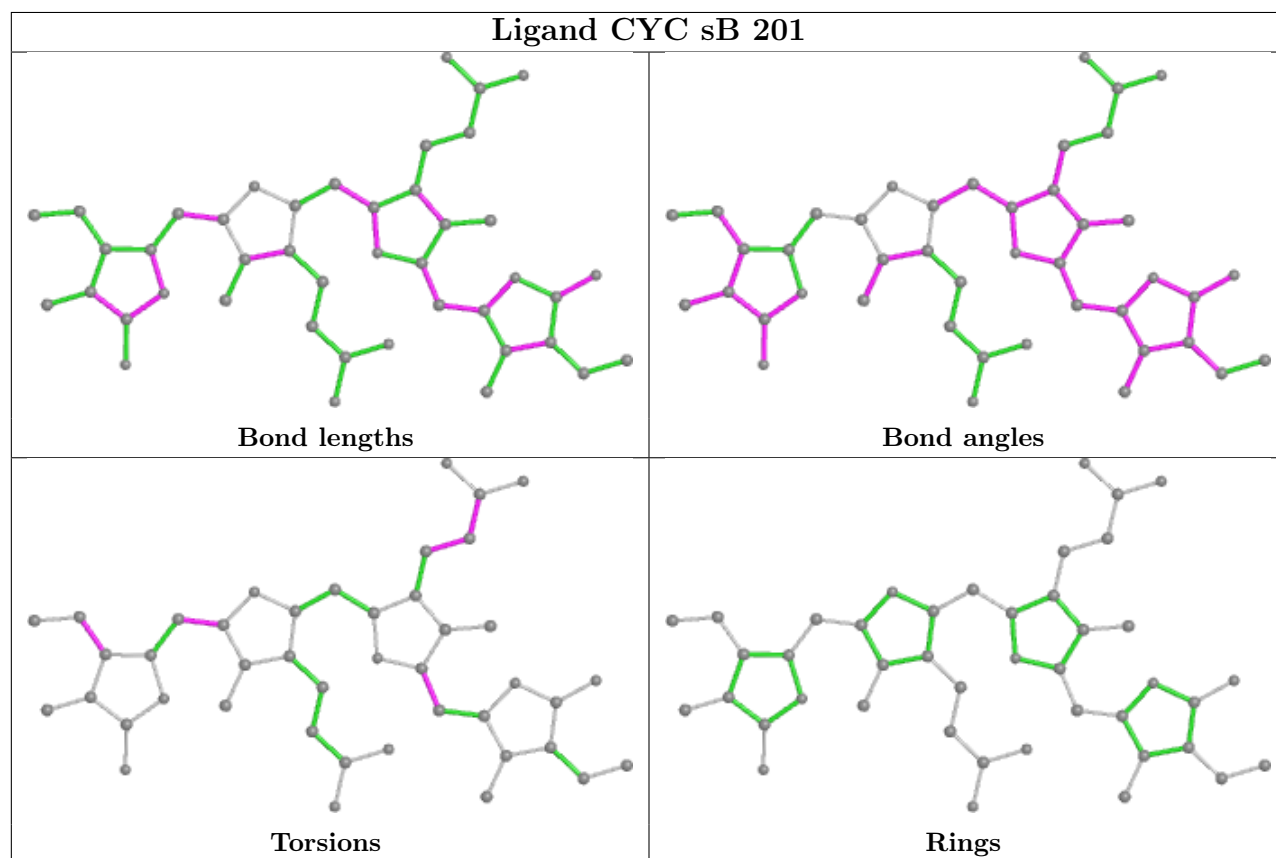
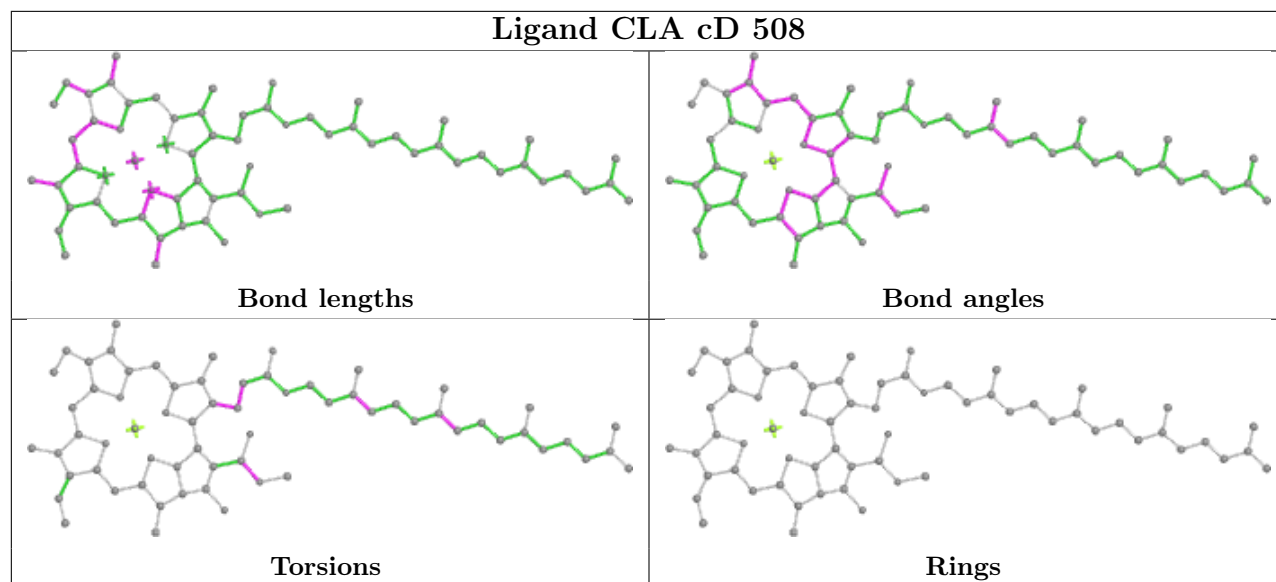


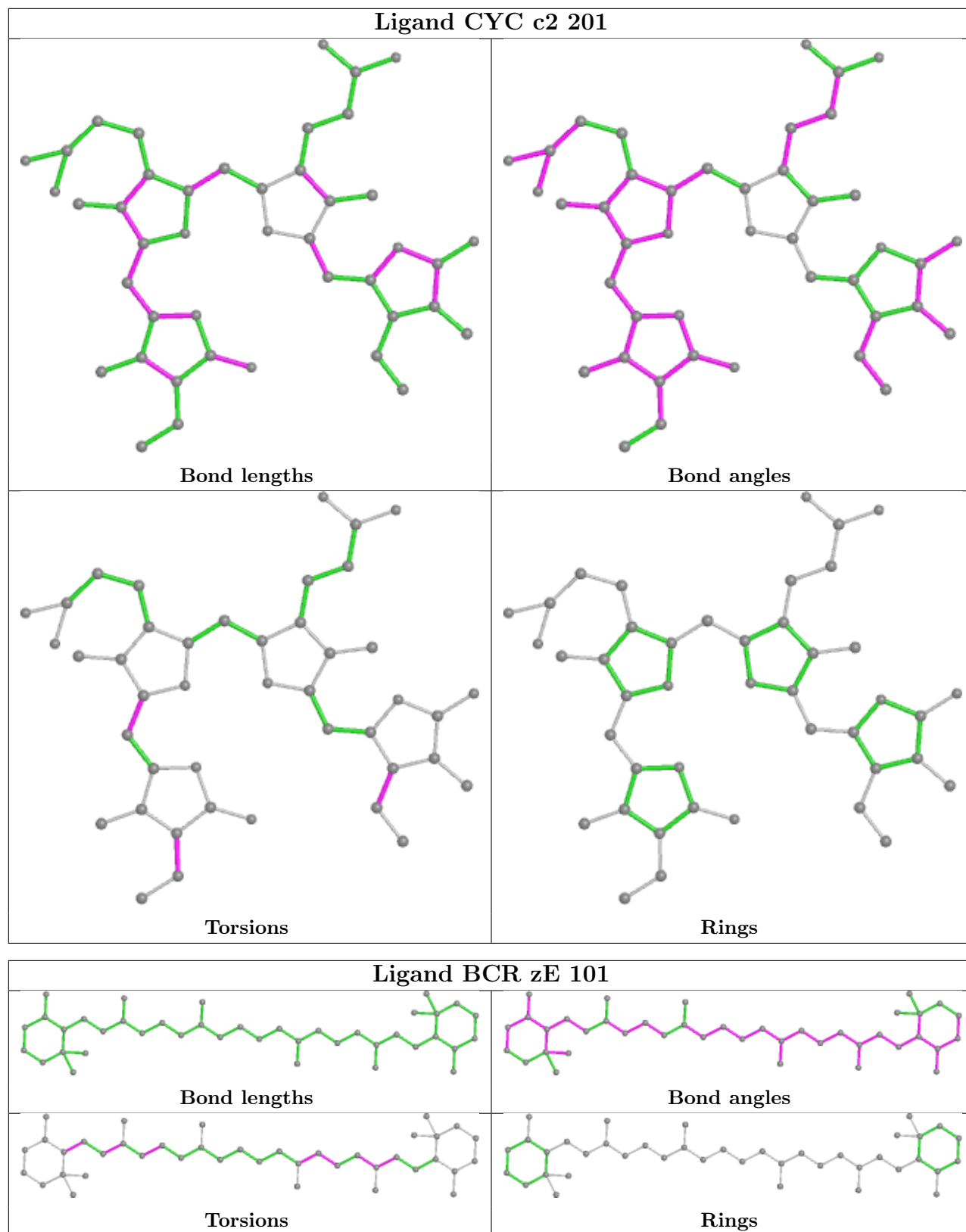


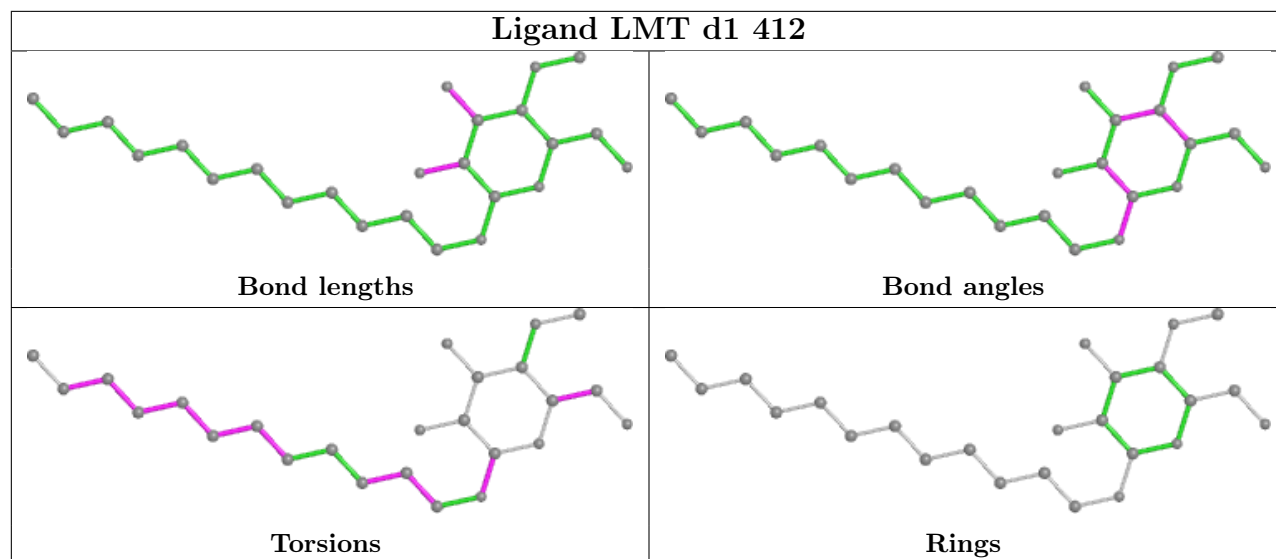












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

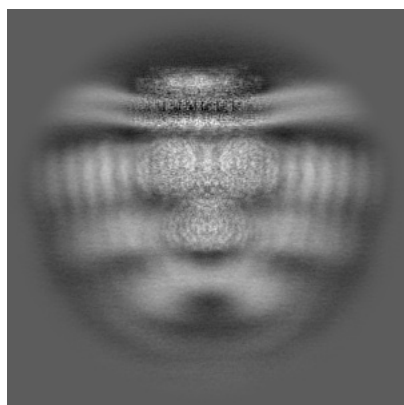
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-37749. These allow visual inspection of the internal detail of the map and identification of artifacts.

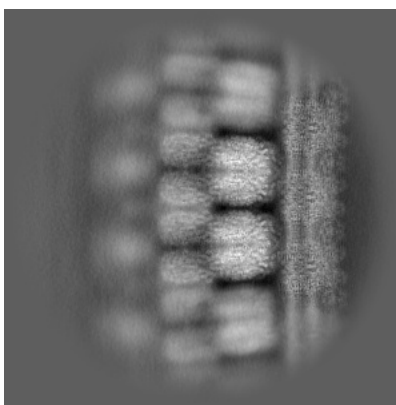
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

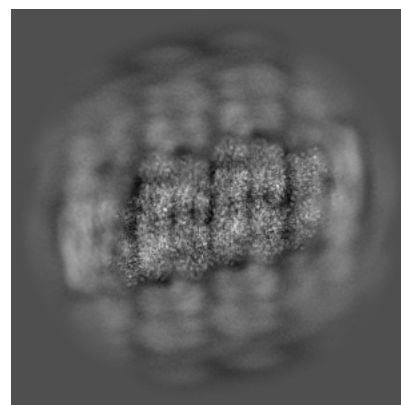
#### 6.1.1 Primary map



X



Y

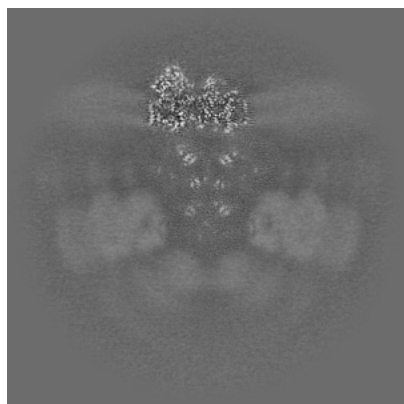


Z

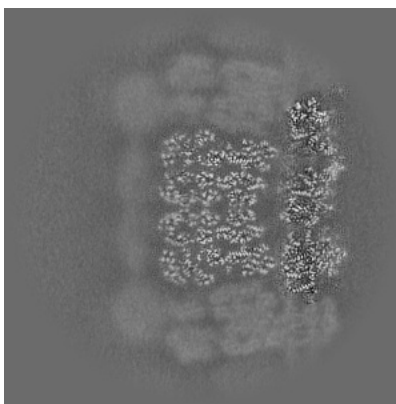
The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

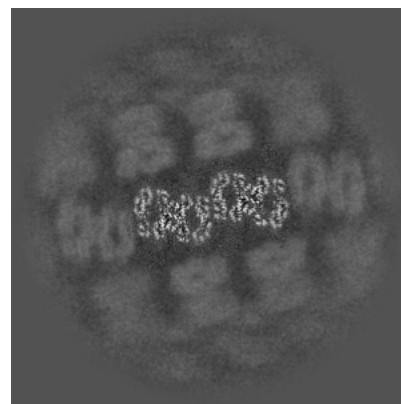
#### 6.2.1 Primary map



X Index: 200



Y Index: 200

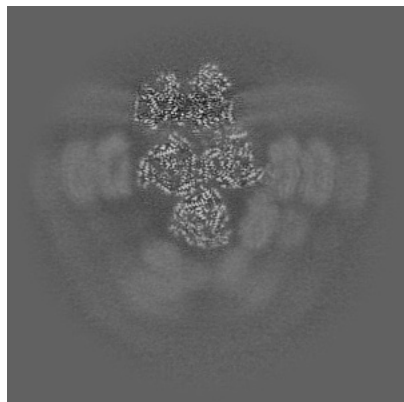


Z Index: 200

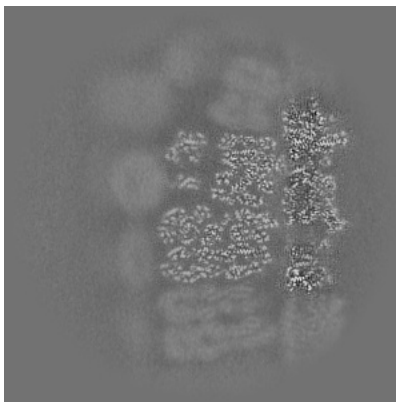
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

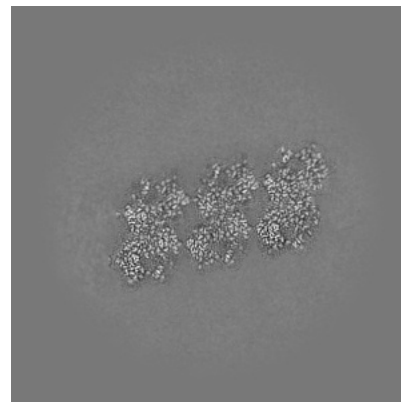
### 6.3.1 Primary map



X Index: 152



Y Index: 180

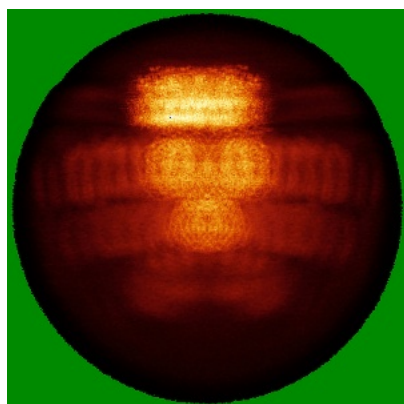


Z Index: 291

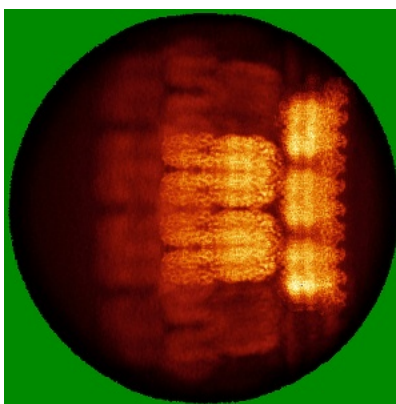
The images above show the largest variance slices of the map in three orthogonal directions.

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

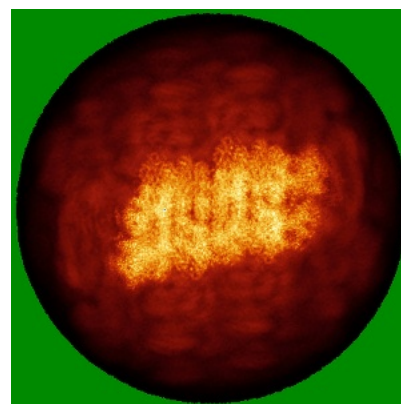
### 6.4.1 Primary map



X



Y



Z

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



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.16. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

## 6.6 Mask visualisation [i](#)

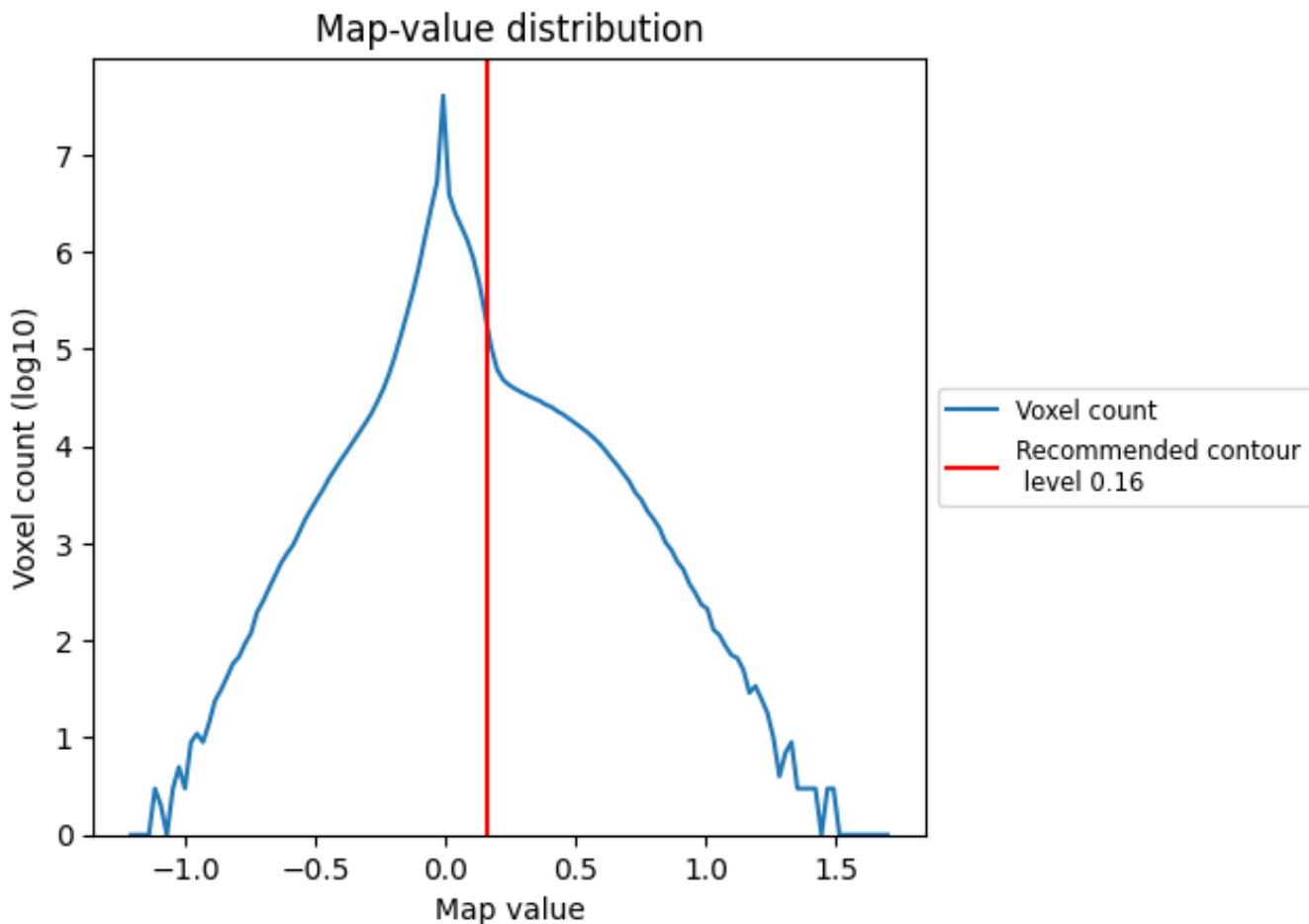
This section was not generated. No masks/segmentation were deposited.



## 7 Map analysis [i](#)

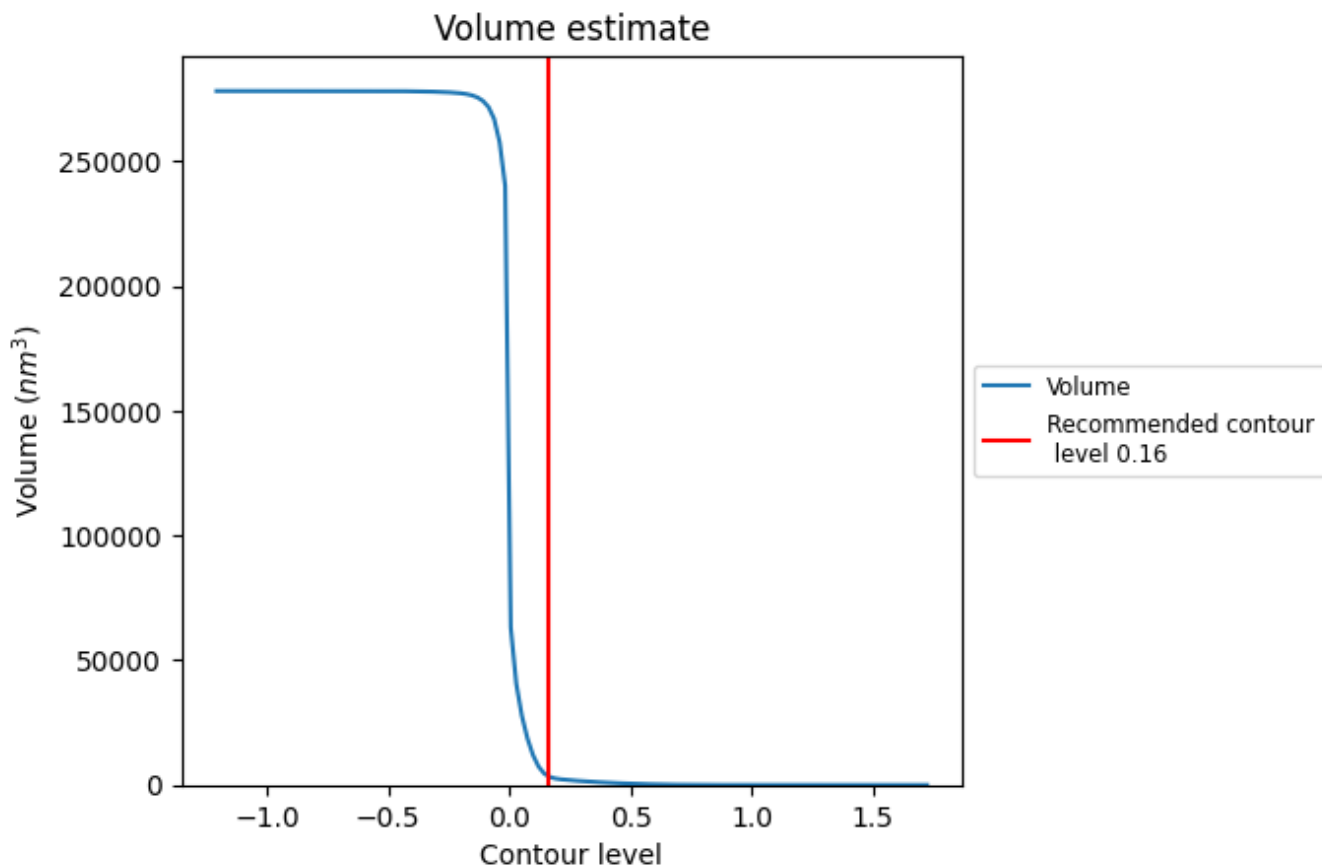
This section contains the results of statistical analysis of the map.

### 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.

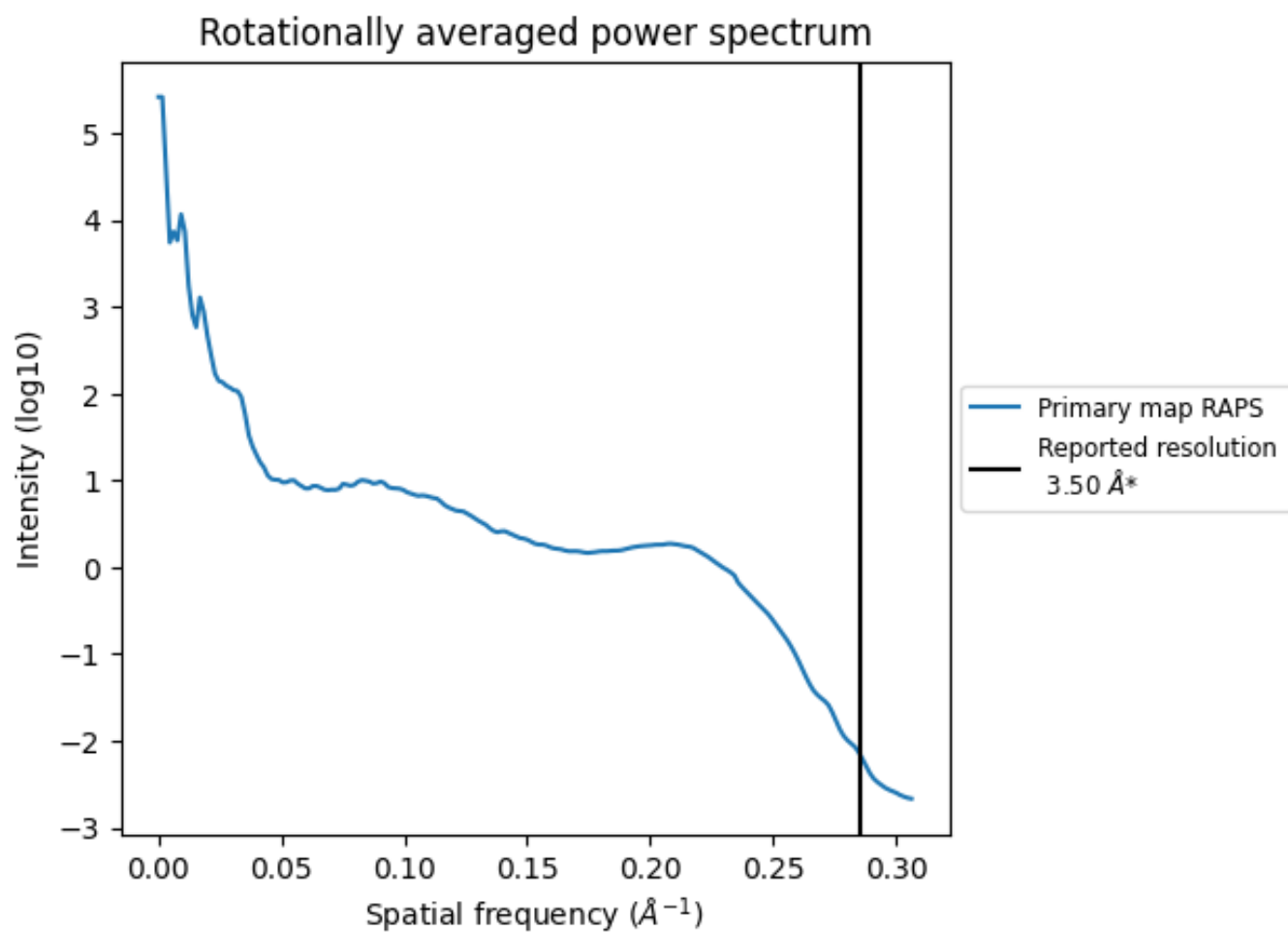
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 3581 nm<sup>3</sup>; this corresponds to an approximate mass of 3235 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 0.286 Å<sup>-1</sup>

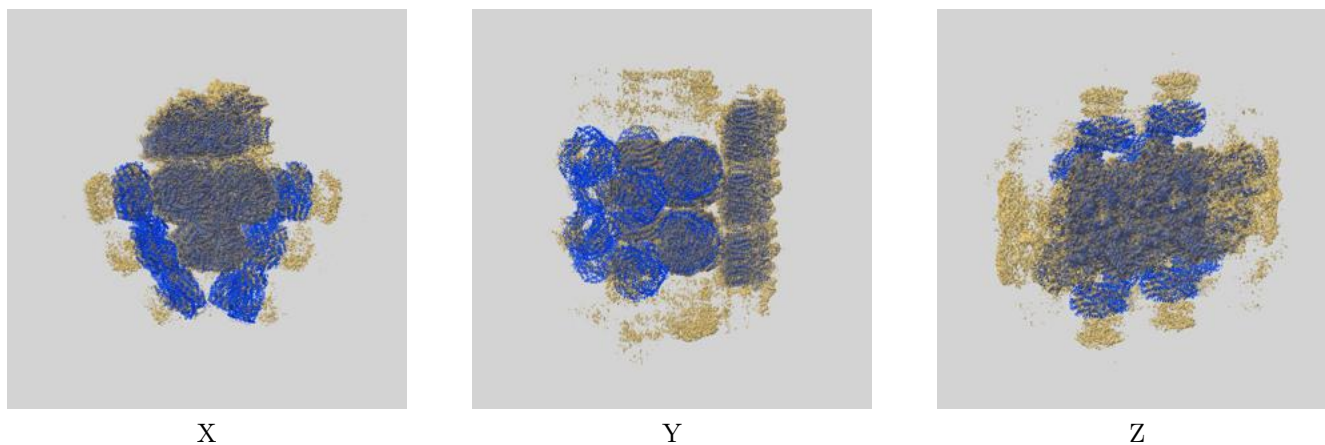
## 8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

## 9 Map-model fit [i](#)

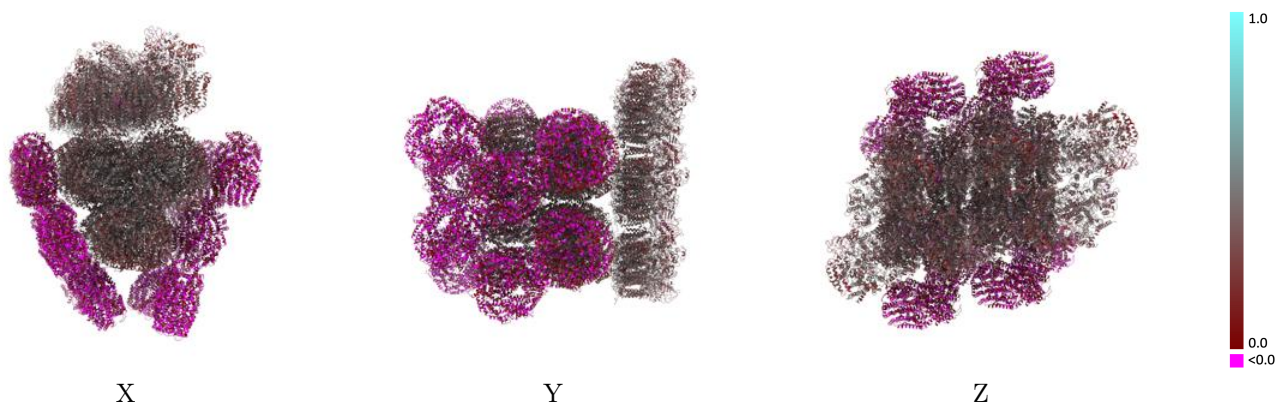
This section contains information regarding the fit between EMDB map EMD-37749 and PDB model 8WQL. Per-residue inclusion information can be found in section [3](#) on page [99](#).

### 9.1 Map-model overlay [i](#)



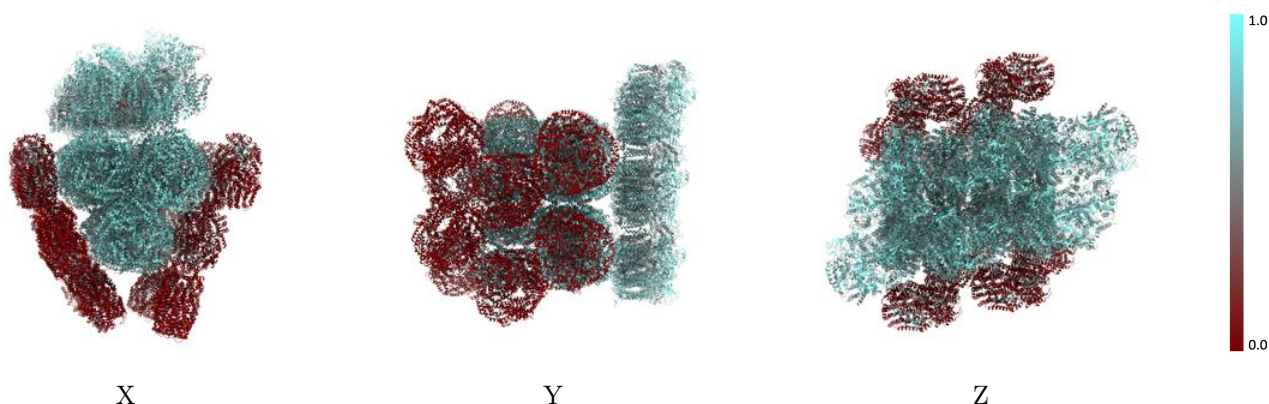
The images above show the 3D surface view of the map at the recommended contour level 0.16 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



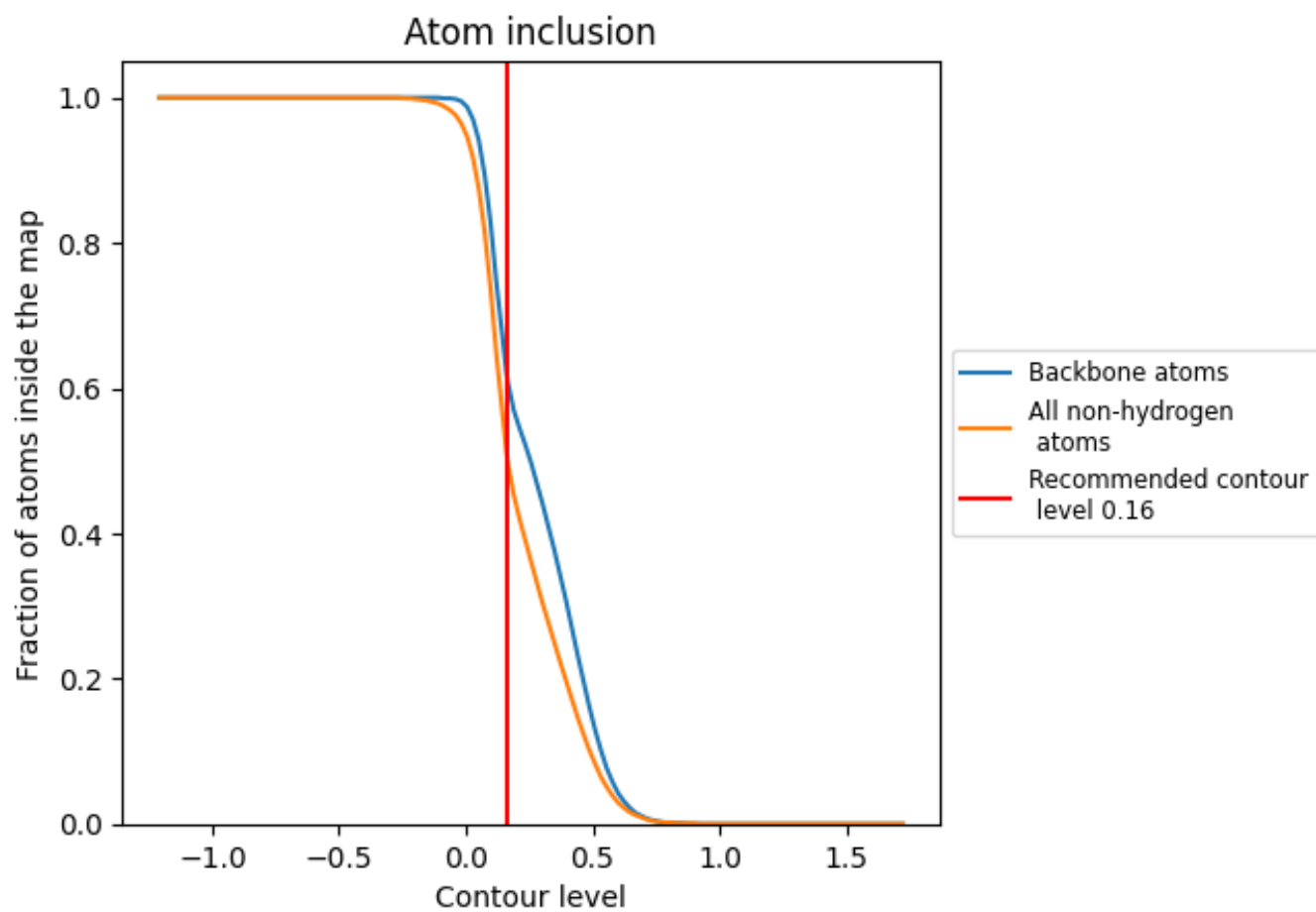
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.16).







































































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 62% of all backbone atoms, 51% 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 (0.16) and Q-score for the entire model and for each chain.





















































































Chain	Atom inclusion	Q-score
All	 0.5110	 0.2640
1G	 0.7400	 0.3490
1L	 0.7520	 0.3550
2G	 0.7450	 0.4140
2L	 0.7550	 0.4180
3F	 0.7550	 0.4110
3K	 0.7630	 0.4170
4G	 0.7210	 0.3480
4L	 0.7350	 0.3610
5G	 0.7590	 0.3770
5L	 0.7840	 0.3990
6G	 0.7310	 0.3910
6L	 0.7440	 0.4080
7G	 0.7730	 0.3670
7L	 0.7720	 0.3720
8G	 0.7440	 0.4210
8L	 0.7730	 0.4300
9F	 0.7650	 0.3630
9K	 0.7710	 0.3670
A1	 0.6720	 0.3960
AD	 0.6470	 0.3870
AE	 0.6800	 0.3980
AG	 0.7730	 0.3430
AL	 0.7720	 0.3470
B1	 0.6740	 0.3850
B2	 0.1420	 0.0840
B3	 0.1830	 0.0720
B4	 0.7730	 0.4060
B5	 0.2070	 0.0720
B6	 0.1130	 0.0450
B7	 0.1570	 0.0740
B8	 0.2250	 0.1140
B9	 0.1650	 0.0990
BA	 0.1760	 0.0460
BB	 0.7750	 0.4030



*Continued on next page...*























































































*Continued from previous page...*

Chain	Atom inclusion	Q-score
BC	 0.1550	 0.0670
BD	 0.6680	 0.3910
BE	 0.6670	 0.3850
BG	 0.6940	 0.3580
BH	 0.2280	 0.1160
BI	 0.1520	 0.0970
BJ	 0.2150	 0.1020
BL	 0.6650	 0.3460
C1	 0.6850	 0.3980
C4	 0.7650	 0.3960
CB	 0.7720	 0.3990
CD	 0.6720	 0.3920
CE	 0.6880	 0.3960
D1	 0.6680	 0.4020
DD	 0.6520	 0.4000
DE	 0.6580	 0.4000
E1	 0.7070	 0.3750
ED	 0.7080	 0.3790
EE	 0.7040	 0.3680
EF	 0.7200	 0.4300
EK	 0.6850	 0.4090
F1	 0.6750	 0.3500
FD	 0.6930	 0.3490
FE	 0.6970	 0.3510
GG	 0.7580	 0.4100
GL	 0.7670	 0.4190
H1	 0.4490	 0.3060
HD	 0.5490	 0.3530
HE	 0.5540	 0.3450
HG	 0.7820	 0.4130
HL	 0.7800	 0.4220
I1	 0.6410	 0.4170
ID	 0.6220	 0.4200
IE	 0.6560	 0.4250
IF	 0.7490	 0.3590
IG	 0.6930	 0.3160
IK	 0.7710	 0.3780
IL	 0.7070	 0.3200
J1	 0.5950	 0.3900
JD	 0.5750	 0.3870
JE	 0.5630	 0.3870
JF	 0.7470	 0.3460

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Chain	Atom inclusion	Q-score
JG	 0.8060	 0.4140
JK	 0.7450	 0.3650
JL	 0.7910	 0.4010
K1	 0.6320	 0.3750
KD	 0.6530	 0.3590
KE	 0.6840	 0.3760
KF	 0.7760	 0.3870
KG	 0.8000	 0.3840
KK	 0.7970	 0.4040
KL	 0.7990	 0.3830
L1	 0.5850	 0.3930
LD	 0.5750	 0.3990
LE	 0.6110	 0.3920
LF	 0.7260	 0.3830
LG	 0.7880	 0.4270
LK	 0.7520	 0.4020
LL	 0.7940	 0.4300
M1	 0.5390	 0.3770
MD	 0.5050	 0.3690
ME	 0.5420	 0.3760
MF	 0.7770	 0.3660
MG	 0.8010	 0.3990
MK	 0.7780	 0.3760
ML	 0.7920	 0.3960
NF	 0.7540	 0.4360
NG	 0.7280	 0.3660
NK	 0.7660	 0.4430
NL	 0.7500	 0.3830
O1	 0.7140	 0.2770
O4	 0.6500	 0.2890
OB	 0.6570	 0.2970
OD	 0.7170	 0.2720
OE	 0.7250	 0.2720
OG	 0.7680	 0.4150
OL	 0.7770	 0.4260
P4	 0.7040	 0.3210
PB	 0.7190	 0.3270
PG	 0.7590	 0.4210
PL	 0.7840	 0.4270
Q1	 0.6200	 0.2630
Q4	 0.6980	 0.3240
QB	 0.7050	 0.3320





















































































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Chain	Atom inclusion	Q-score
QD	0.6270	0.2670
QE	0.6320	0.2670
QG	0.8050	0.4120
QL	0.7970	0.4050
R1	0.5950	0.2720
R4	0.7450	0.3290
RB	0.7510	0.3410
RD	0.5990	0.2640
RE	0.5950	0.2730
RG	0.7180	0.3850
RL	0.7530	0.4060
S1	0.7620	0.4420
S4	0.7210	0.3530
SB	0.7450	0.3730
SD	0.7660	0.4730
SE	0.7530	0.4360
SG	0.7370	0.3430
SL	0.7450	0.3610
T1	0.6130	0.4170
T4	0.7210	0.3200
TB	0.7260	0.3280
TD	0.5660	0.4020
TE	0.6130	0.4180
TG	0.7400	0.3370
TL	0.7490	0.3410
U1	0.8120	0.3100
U4	0.7070	0.3790
UB	0.7340	0.3840
UD	0.8120	0.3070
UE	0.8150	0.3120
UG	0.8280	0.3690
UL	0.8230	0.3720
V1	0.8210	0.3480
V4	0.6450	0.2890
VB	0.6510	0.3000
VD	0.8270	0.3510
VE	0.8230	0.3480
VG	0.7860	0.3570
VL	0.7910	0.3600
W4	0.7190	0.3040
WB	0.7290	0.3100
WG	0.7680	0.3990





















































































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Chain	Atom inclusion	Q-score
WL	 0.7970	 0.4150
X1	 0.5700	 0.3430
X4	 0.6830	 0.3140
XB	 0.7000	 0.3280
XD	 0.5890	 0.3420
XE	 0.5380	 0.3320
XF	 0.7370	 0.3780
XK	 0.7490	 0.3900
Y1	 0.5950	 0.3020
Y4	 0.7620	 0.3330
YB	 0.7840	 0.3470
YD	 0.5950	 0.3020
YE	 0.6030	 0.2970
YF	 0.7950	 0.4050
YK	 0.7910	 0.4040
Z1	 0.6090	 0.3380
Z4	 0.7170	 0.3480
ZB	 0.7360	 0.3590
ZD	 0.6100	 0.3260
ZE	 0.6160	 0.3390
ZF	 0.7970	 0.3880
ZK	 0.7950	 0.3880
a1	 0.6520	 0.3830
a4	 0.7310	 0.3170
aB	 0.7460	 0.3210
aD	 0.6320	 0.3760
aE	 0.6490	 0.3790
aF	 0.7910	 0.4360
aK	 0.7950	 0.4380
b1	 0.7170	 0.4050
b2	 0.2980	 0.0820
b3	 0.0320	 0.0320
b4	 0.6960	 0.3800
b5	 0.3290	 0.1090
b6	 0.1440	 0.0370
b7	 0.0690	 0.0160
b8	 0.2240	 0.1080
b9	 0.2320	 0.0690
bA	 0.0280	 0.0080
bB	 0.7140	 0.3860
bC	 0.0890	 0.0100
bD	 0.6840	 0.3990

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Chain	Atom inclusion	Q-score
bE	 0.7240	 0.4070
bF	 0.7660	 0.4210
bH	 0.3360	 0.0970
bI	 0.1920	 0.0620
bJ	 0.2330	 0.0800
bK	 0.7740	 0.4250
c1	 0.6350	 0.3730
c2	 0.0840	 0.1140
c3	 0.0220	 0.0220
c5	 0.1710	 0.0930
c6	 0.0450	 -0.0150
c7	 0.0160	 0.0220
c8	 0.1370	 0.0680
c9	 0.0910	 0.0990
cA	 0.0710	 0.0260
cC	 0.0260	 0.0040
cD	 0.6340	 0.3750
cE	 0.6200	 0.3690
cF	 0.7960	 0.4210
cH	 0.1790	 0.0810
cI	 0.0480	 0.0970
cJ	 0.1920	 0.0970
cK	 0.7890	 0.4190
d1	 0.6770	 0.4100
d2	 0.0040	 0.0360
d3	 0.0350	 0.0430
d5	 0.1730	 0.0460
d6	 0.0120	 0.0350
d7	 0.0160	 0.0020
d8	 0.3140	 0.0650
d9	 0.0080	 0.0520
dA	 0.0110	 0.0220
dC	 0.0110	 0.0250
dD	 0.6460	 0.4050
dE	 0.6680	 0.4050
dF	 0.7160	 0.3690
dH	 0.1800	 0.0580
dI	 0.0000	 0.0560
dJ	 0.3450	 0.0550
dK	 0.7300	 0.3760
e1	 0.6770	 0.3620
e2	 0.0060	 0.0730

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Chain	Atom inclusion	Q-score
e3	0.0310	0.0170
e5	0.0420	0.0260
e6	0.0010	0.0370
e7	0.0130	0.0200
e8	0.0680	0.0450
e9	0.0110	0.0960
eA	0.0200	0.0250
eC	0.0060	0.0170
eD	0.6570	0.3590
eE	0.6690	0.3660
eF	0.7640	0.4260
eH	0.0340	0.0280
eI	0.0020	0.0380
eJ	0.0620	0.0250
eK	0.7630	0.4250
f1	0.6960	0.3810
f2	0.0500	0.0240
f3	0.0910	0.0390
f5	0.0530	0.0170
f6	0.0220	0.0070
f7	0.0090	0.0120
f8	0.1180	0.0260
f9	0.0630	0.0270
fA	0.0520	0.0250
fC	0.0330	0.0200
fD	0.6690	0.3860
fE	0.6900	0.3830
fF	0.7490	0.4150
fH	0.1310	0.0430
fI	0.0770	0.0420
fJ	0.1320	0.0360
fK	0.7580	0.4170
g2	0.1030	0.0850
g3	0.0560	0.0150
g5	0.1900	0.0860
g6	0.0580	0.0420
g7	0.0540	0.0250
g8	0.2150	0.1120
g9	0.1010	0.0670
gA	0.0650	0.0110
gC	0.0930	0.0250
gF	0.7970	0.4170

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Chain	Atom inclusion	Q-score
gH	0.2460	0.0970
gI	0.0730	0.0680
gJ	0.2260	0.0960
gK	0.7970	0.4160
h1	0.6380	0.3710
h2	0.1390	0.0470
h3	0.0090	0.0060
h5	0.2470	0.0580
h6	0.0820	0.0440
h7	0.0120	0.0200
h8	0.1780	0.0330
h9	0.0880	0.0500
hA	0.0030	0.0130
hC	0.0120	-0.0050
hD	0.5840	0.3690
hE	0.6500	0.3820
hF	0.7990	0.4100
hH	0.2410	0.0410
hI	0.0280	0.0400
hJ	0.2420	0.0500
hK	0.7950	0.4070
i1	0.6410	0.3930
i2	0.1350	0.0610
i3	0.0140	0.0110
i5	0.1160	0.0780
i6	0.0600	0.0110
i7	0.0270	0.0220
i8	0.0730	0.0830
i9	0.1030	0.0550
iA	0.0030	0.0050
iC	0.0610	0.0300
iD	0.6140	0.4150
iE	0.5890	0.3860
iF	0.7290	0.3840
iH	0.1100	0.0860
iI	0.1050	0.0620
iJ	0.0920	0.0540
iK	0.7460	0.4010
j1	0.4480	0.3120
j2	0.1540	0.0490
j3	0.0560	0.0210
j5	0.1460	0.0780

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























































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Chain	Atom inclusion	Q-score
j6	0.0850	0.0220
j7	0.0440	0.0110
j8	0.1580	0.0620
j9	0.1630	0.0270
jA	0.0720	0.0190
jC	0.0520	0.0140
jD	0.4540	0.3130
jE	0.4630	0.3170
jF	0.7470	0.3620
jH	0.2430	0.0500
jI	0.1630	0.0510
jJ	0.1650	0.0620
jK	0.7640	0.3730
k1	0.6110	0.3840
k2	0.0530	0.0420
k3	0.0390	-0.0050
k5	0.0350	0.0360
k6	0.0230	0.0040
k7	0.0030	0.0050
k8	0.0370	0.0420
k9	0.0730	0.0570
kA	0.0240	0.0040
kC	0.0120	0.0380
kD	0.6200	0.3920
kE	0.5980	0.3840
kF	0.7380	0.3360
kH	0.1100	0.0570
kI	0.0400	0.0220
kJ	0.0640	0.0280
kK	0.7460	0.3500
l1	0.6740	0.4040
l2	0.0200	0.0320
l3	0.0820	0.0180
l5	0.0840	0.0280
l6	0.0050	0.0340
l7	0.0160	0.0150
l8	0.1510	0.0330
l9	0.0120	0.0440
lA	0.0430	0.0140
lC	0.0170	0.0080
lD	0.6260	0.3990
lE	0.6490	0.4090

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Chain	Atom inclusion	Q-score
lF	 0.8310	 0.3620
lH	 0.0950	 0.0280
lI	 0.0040	 0.0300
lJ	 0.1880	 0.0400
lK	 0.8370	 0.3730
m1	 0.5740	 0.4010
m2	 0.0410	 0.0300
m3	 0.0620	 0.0080
m5	 0.1630	 0.0330
m6	 0.0110	 0.0080
m7	 0.0190	 -0.0060
m8	 0.1510	 0.0440
m9	 0.0190	 0.0450
mA	 0.0480	 0.0450
mC	 0.0310	 -0.0070
mD	 0.5050	 0.3970
mE	 0.5200	 0.3850
mF	 0.7870	 0.3570
mH	 0.1540	 0.0550
mI	 0.0110	 0.0290
mJ	 0.2580	 0.0470
mK	 0.7940	 0.3610
nF	 0.7580	 0.3850
nK	 0.7810	 0.4020
o1	 0.7250	 0.2560
o4	 0.6810	 0.3260
oB	 0.6860	 0.3230
oD	 0.7190	 0.2590
oE	 0.7220	 0.2600
p4	 0.7260	 0.3460
pB	 0.7270	 0.3420
q1	 0.5990	 0.2270
q4	 0.7180	 0.3320
qB	 0.7270	 0.3420
qD	 0.5960	 0.2120
qE	 0.5880	 0.2160
r1	 0.6890	 0.2880
r4	 0.8250	 0.4180
rB	 0.8240	 0.4220
rD	 0.6380	 0.2880
rE	 0.6610	 0.2890
s4	 0.7950	 0.4020

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Chain	Atom inclusion	Q-score
sB	 0.8120	 0.4140
t1	 0.5610	 0.3880
t4	 0.7840	 0.3840
tB	 0.7810	 0.3800
tD	 0.5190	 0.3830
tE	 0.5450	 0.3790
u1	 0.8020	 0.3030
u4	 0.6660	 0.3140
uB	 0.6820	 0.3210
uD	 0.7980	 0.2960
uE	 0.8040	 0.3060
v1	 0.7800	 0.3290
v4	 0.7180	 0.3480
vB	 0.7250	 0.3490
vD	 0.7790	 0.3190
vE	 0.7720	 0.3230
w4	 0.7360	 0.3460
wB	 0.7400	 0.3420
x1	 0.6020	 0.3240
x4	 0.8150	 0.4220
xB	 0.8270	 0.4210
xD	 0.5960	 0.3180
xE	 0.6290	 0.3330
y1	 0.4900	 0.3490
y4	 0.7920	 0.3980
yB	 0.8080	 0.4130
yD	 0.4830	 0.3580
yE	 0.4930	 0.3500
z1	 0.5840	 0.3230
z4	 0.7830	 0.3890
zB	 0.7780	 0.3860
zD	 0.5820	 0.3180
zE	 0.5630	 0.3120