



wwPDB EM Validation Summary Report ⓘ

Dec 13, 2022 – 04:32 PM EST

PDB ID : 7RRO
EMDB ID : EMD-24664
Title : Structure of the 48-nm repeat doublet microtubule from bovine tracheal cilia
Authors : Gui, M.; Anderson, J.R.; Botsch, J.J.; Meleppattu, S.; Singh, S.K.; Zhang, Q.;
Brown, A.
Deposited on : 2021-08-10
Resolution : 3.40 Å(reported)

This is a wwPDB EM Validation Summary Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

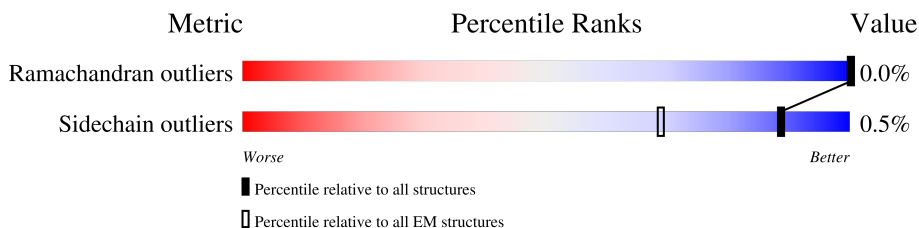
EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : **FAILED**
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.40 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.






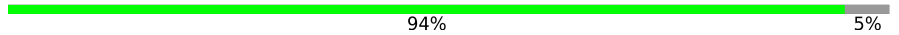
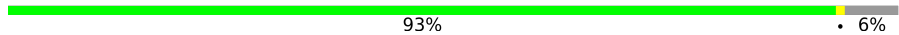


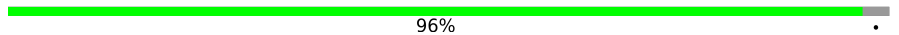
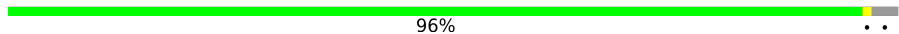
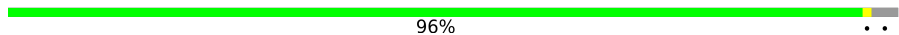
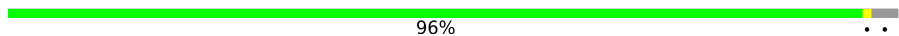
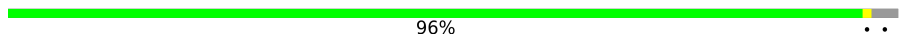
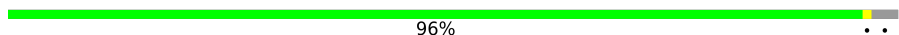
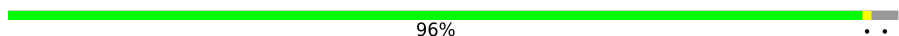
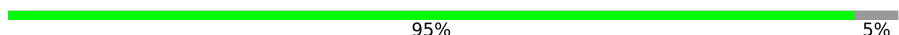
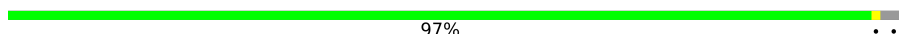
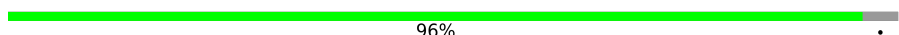
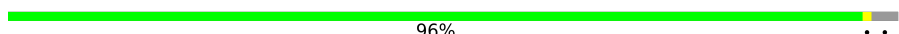
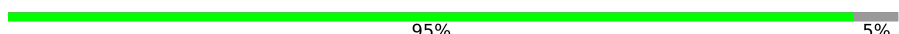
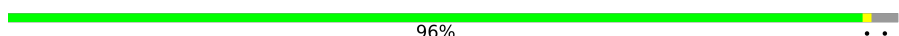
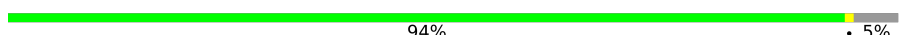
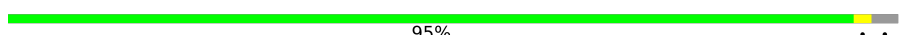
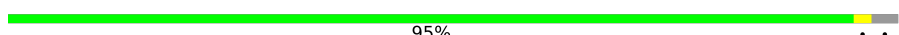

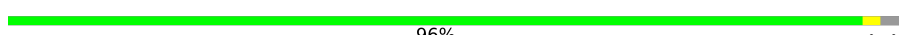
Metric	Whole archive (#Entries)	EM structures (#Entries)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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 ≥ 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 $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	0	232	
1	7	232	
2	1	877	
2	2	877	
3	3	514	
3	4	514	
4	5	377	
4	6	377	
5	8	196	
5	9	196	

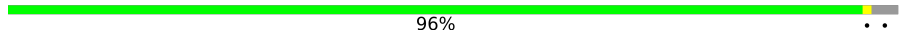
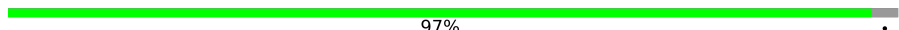
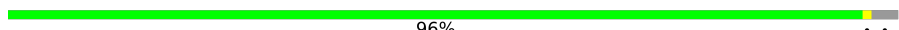

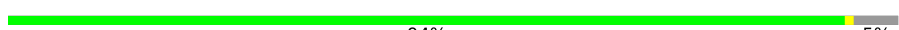





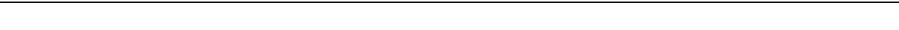

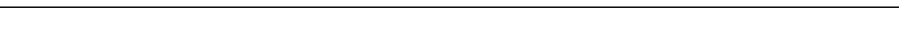
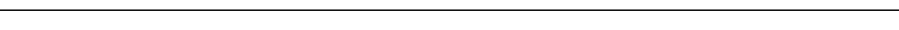
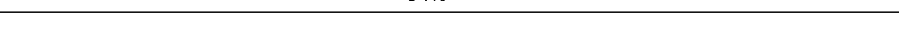
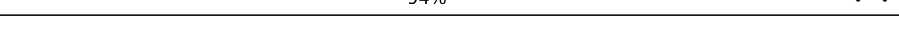
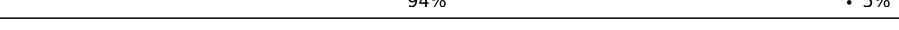
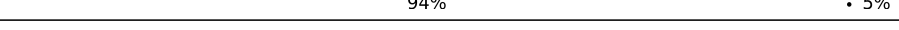
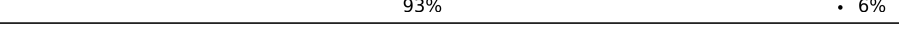
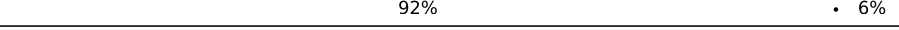
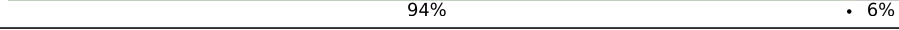
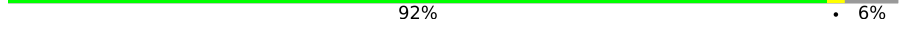
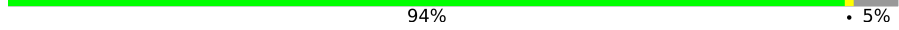
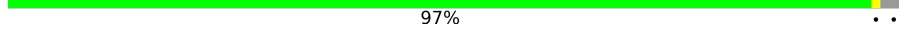
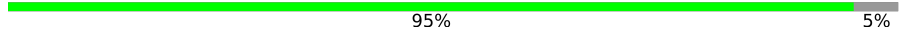
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Mol	Chain	Length	Quality of chain
6	A	494	
6	B	494	
7	A0	418	
7	A1	418	
7	A2	418	
7	A3	418	
7	A4	418	
8	AA	452	
8	AC	452	
8	AE	452	
8	AG	452	
8	AI	452	
8	AK	452	
8	AM	452	
8	BA	452	
8	BC	452	
8	BE	452	
8	BG	452	
8	BI	452	
8	BK	452	
8	BM	452	
8	CA	452	
8	CC	452	
8	CE	452	
8	CG	452	

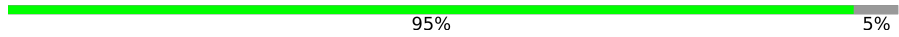
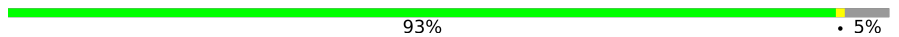
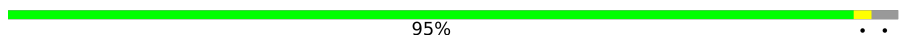
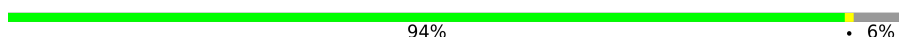

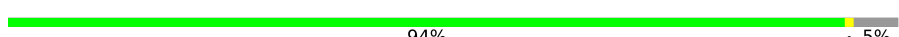
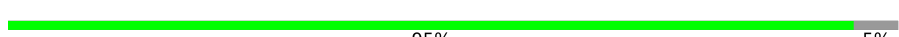



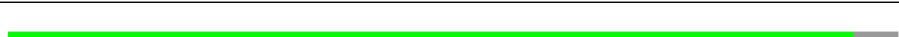


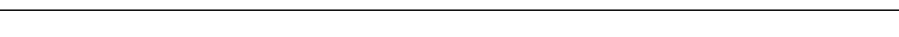
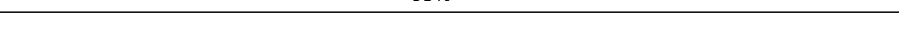
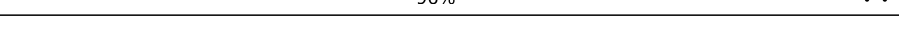
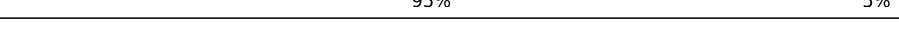
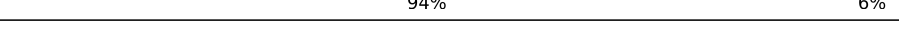
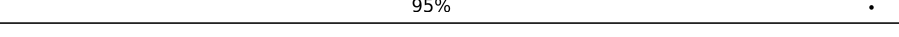
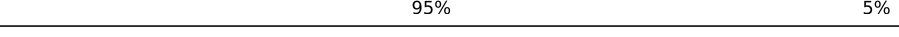
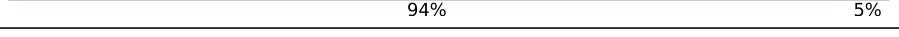
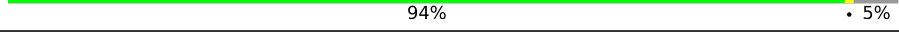
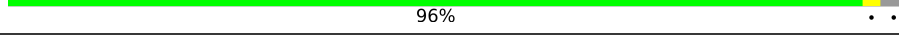
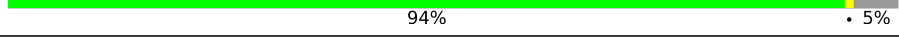
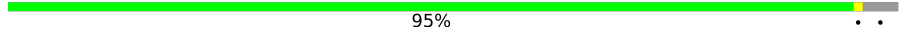
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Mol	Chain	Length	Quality of chain
8	CI	452	96% 
8	CK	452	97% 
8	CM	452	96% 
8	DA	452	87%  11%
8	DC	452	94%  5%
8	DE	452	94%  5%
8	DG	452	94%  5%
8	DI	452	94%  5%
8	DK	452	95%  5%
8	DM	452	93%  5%
8	EC	452	96%  ..
8	EE	452	96%  ..
8	EG	452	96%  .
8	EI	452	94%  ..
8	EK	452	94%  ..
8	EM	452	94%  5%
8	FC	452	94%  5%
8	FE	452	93%  6%
8	FG	452	92%  6%
8	FI	452	94%  6%
8	FK	452	92%  6%
8	FM	452	94%  5%
8	GC	452	97%  ..
8	GE	452	95%  5%
8	GG	452	97%  ..

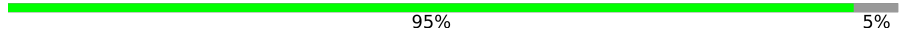
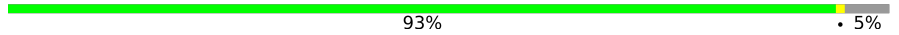
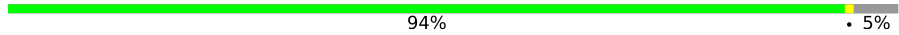
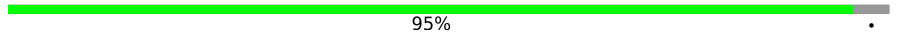

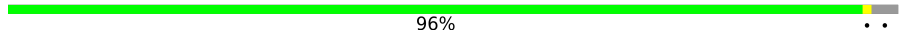
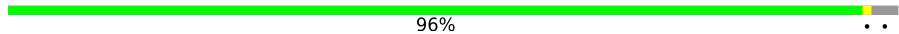
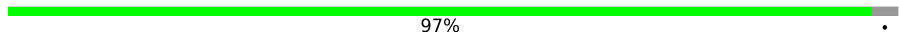
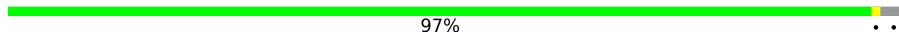
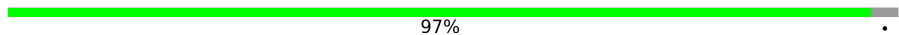
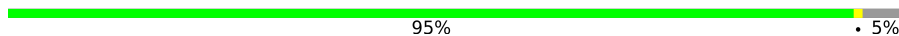
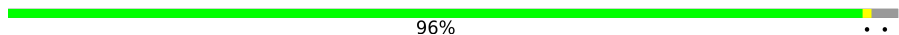
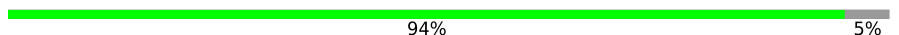
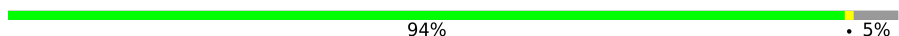
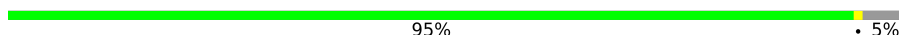
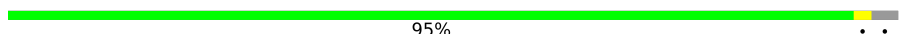
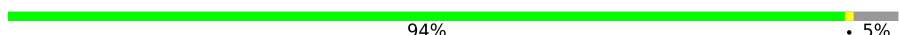
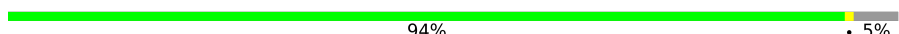
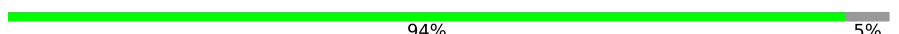

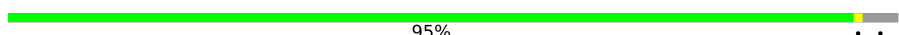
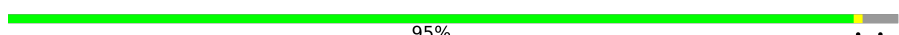
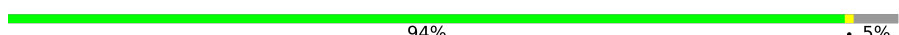
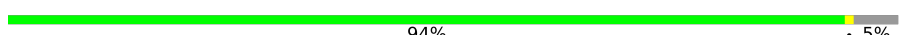
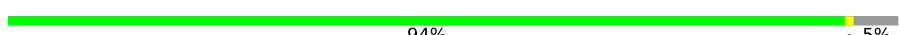
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Mol	Chain	Length	Quality of chain
8	GI	452	 95% 5%
8	GK	452	 93% 5%
8	GM	452	 95% 5%
8	HC	452	 94% 6%
8	HE	452	 94% 5%
8	HG	452	 94% 5%
8	HI	452	 95% 5%
8	HK	452	 95% 5%
8	HM	452	 94% 5%
8	HO	452	 85% 15%
8	IC	452	 95% 5%
8	IE	452	 95% 5%
8	IG	452	 97% 5%
8	II	452	 95% 5%
8	IK	452	 96% 5%
8	IM	452	 95% 5%
8	IO	452	 94% 6%
8	JC	452	 95% 5%
8	JE	452	 95% 5%
8	JG	452	 94% 5%
8	JI	452	 94% 5%
8	JK	452	 96% 5%
8	JM	452	 94% 5%
8	KC	452	 95% 5%
8	KE	452	 94% 5%

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Mol	Chain	Length	Quality of chain
8	KG	452	 95% 5%
8	KI	452	 93% 5%
8	KK	452	 94% 5%
8	KM	452	 95% .
8	KO	452	 90% 10%
8	LC	452	 96% ..
8	LE	452	 96% ..
8	LG	452	 97% .
8	LI	452	 97% ..
8	LK	452	 97% .
8	LM	452	 95% 5%
8	MC	452	 96% ..
8	ME	452	 94% 5%
8	MG	452	 94% 5%
8	MI	452	 95% 5%
8	MK	452	 95% ..
8	MM	452	 94% 5%
8	NA	452	 94% 5%
8	NC	452	 94% 5%
8	NE	452	 93% 5%
8	NG	452	 95% ..
8	NI	452	 95% ..
8	NK	452	 94% 5%
8	OA	452	 94% 5%
8	OC	452	 94% 5%

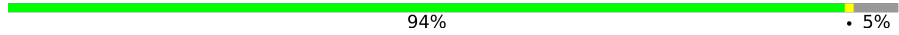
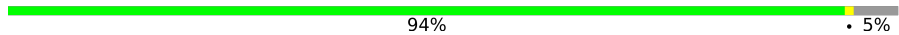
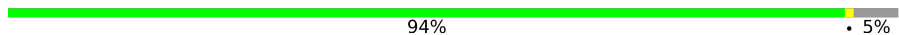
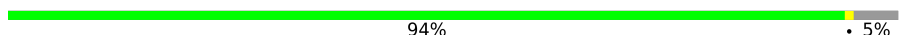
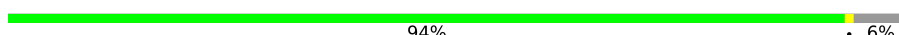
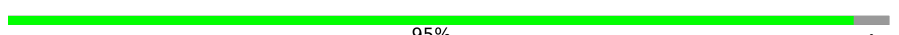
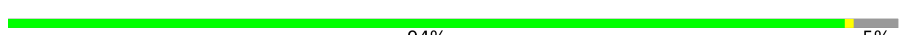




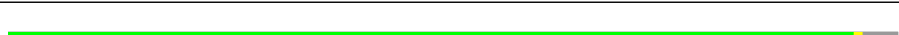

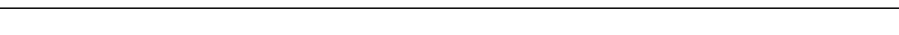
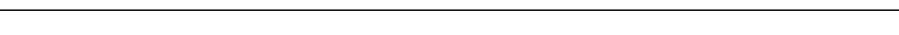
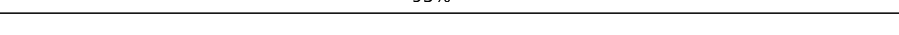
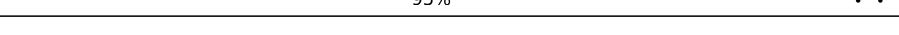
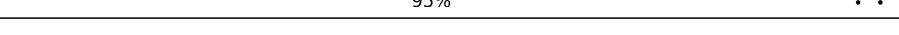
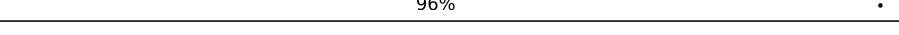
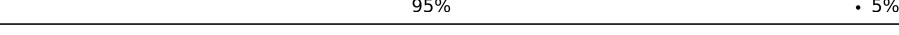
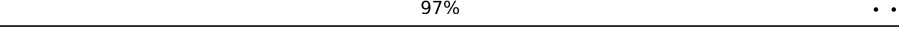
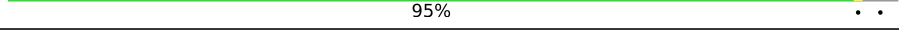
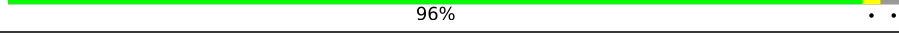
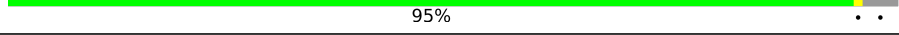
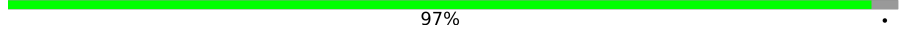
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Mol	Chain	Length	Quality of chain
8	OE	452	95% .
8	OG	452	95% . .
8	OI	452	94% . .
8	OK	452	94% . 5%
8	PA	452	94% . 5%
8	PC	452	95% . .
8	PE	452	94% . 5%
8	PG	452	94% . 5%
8	PI	452	94% . 6%
8	PK	452	94% . 5%
8	PM	452	94% . 5%
8	QA	452	93% . 5%
8	QC	452	94% . 5%
8	QE	452	94% . 5%
8	QG	452	94% . 5%
8	QI	452	94% . 5%
8	QK	452	94% . 5%
8	QM	452	94% . 5%
8	RA	452	94% . 5%
8	RC	452	94% . .
8	RE	452	94% . 5%
8	RG	452	94% . 5%
8	RI	452	95% 5%
8	RK	452	93% . 5%
8	RM	452	94% . 5%

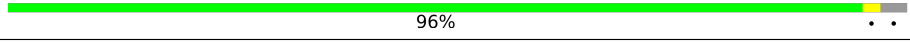
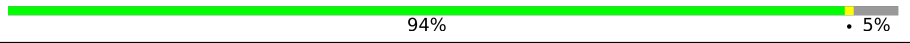
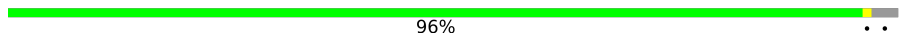
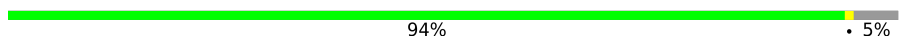
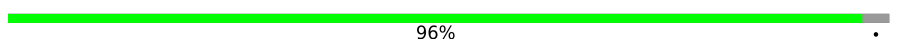
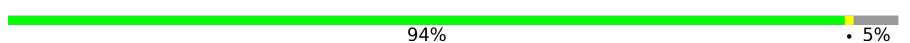
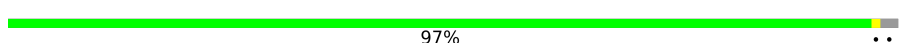
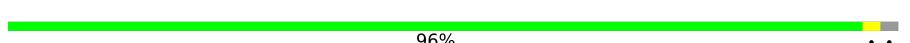
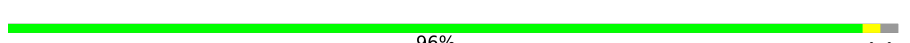
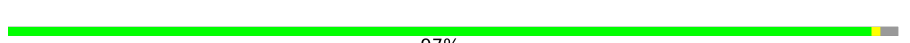
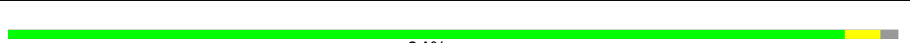
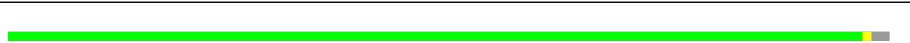



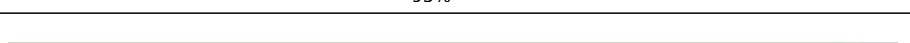
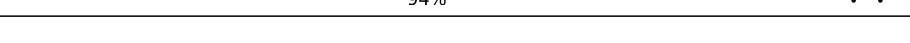
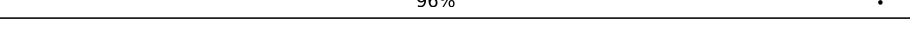
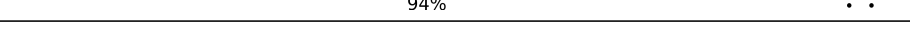
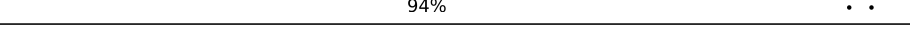
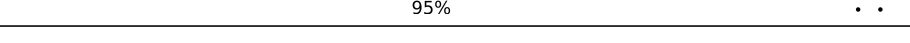
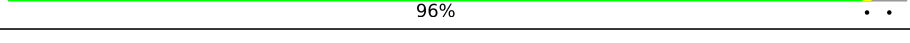
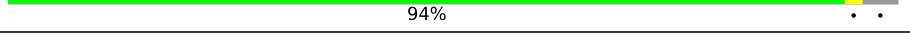
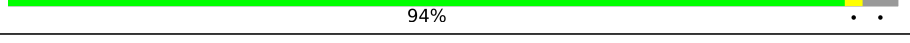
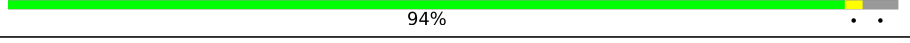
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Mol	Chain	Length	Quality of chain
8	SA	452	 94% . 5%
8	SC	452	 94% . 5%
8	SE	452	 94% . 5%
8	SG	452	 94% . 5%
8	SI	452	 94% . 6%
8	SK	452	 95% .
8	SM	452	 94% . 5%
8	TC	452	 93% . 5%
8	TE	452	 94% . .
8	TG	452	 94% . 5%
8	TI	452	 94% . 5%
8	TK	452	 95% . .
8	TM	452	 94% . 5%
8	UC	452	 95% . .
8	UE	452	 95% .
8	UG	452	 95% . .
8	UI	452	 95% . .
8	UK	452	 96% .
8	UM	452	 95% . 5%
8	VC	452	 97% . .
8	VE	452	 95% . .
8	VG	452	 96% . .
8	VI	452	 95% . .
8	VK	452	 97% .
8	VM	452	 94% . 5%

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Mol	Chain	Length	Quality of chain
8	WC	452	 96% ..
8	WE	452	 94% • 5% ..
8	WG	452	 96% ..
8	WI	452	 94% • 5% ..
8	WK	452	 96% .
8	WM	452	 94% • 5% ..
9	AB	445	 97% ..
9	AD	445	 96% ..
9	AF	445	 96% ..
9	AH	445	 97% ..
9	AJ	445	 94% ..
9	AL	445	 96% ..
9	BB	445	 95% ..
9	BD	445	 95% ..
9	BF	445	 95% ..
9	BH	445	 94% ..
9	BJ	445	 96% .
9	BL	445	 94% ..
9	CB	445	 94% ..
9	CD	445	 95% ..
9	CF	445	 96% ..
9	CH	445	 94% ..
9	CJ	445	 94% ..
9	CL	445	 94% ..
9	DB	445	 95% ..

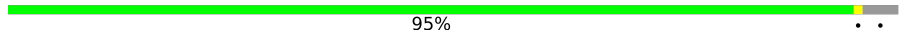
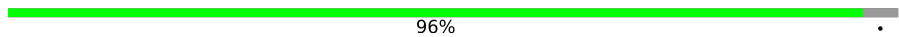
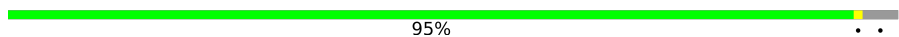
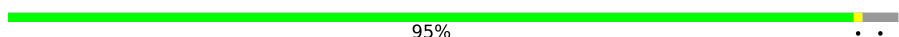
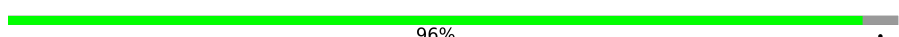
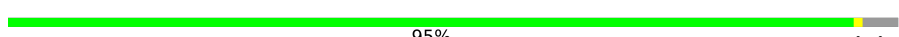
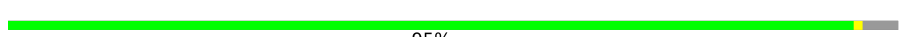



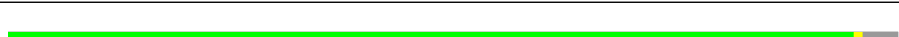


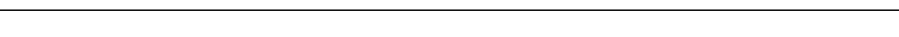
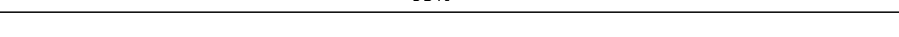
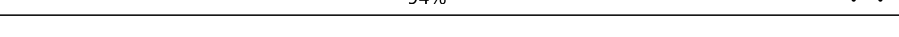
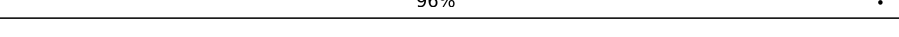
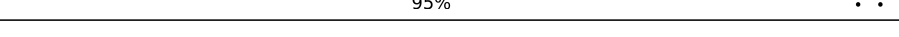
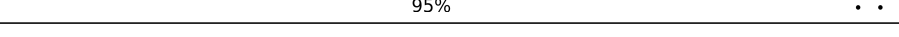
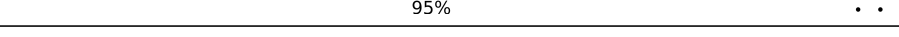
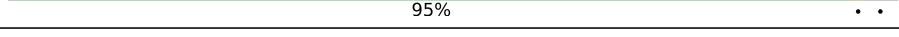
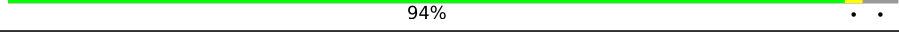
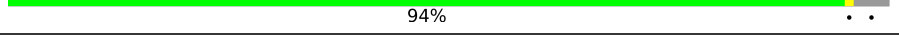
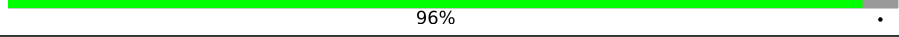

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Mol	Chain	Length	Quality of chain
9	DD	445	95%
9	DF	445	95%
9	DH	445	93%
9	DJ	445	95%
9	DL	445	94%
9	DN	445	86%
9	EB	445	94%
9	ED	445	94%
9	EF	445	95%
9	EH	445	94%
9	EJ	445	94%
9	EL	445	94%
9	EN	445	95%
9	FB	445	96%
9	FD	445	95%
9	FF	445	95%
9	FH	445	94%
9	FJ	445	95%
9	FL	445	93%
9	FN	445	96%
9	GB	445	96%
9	GD	445	96%
9	GF	445	95%
9	GH	445	94%
9	GJ	445	96%

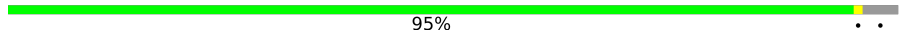
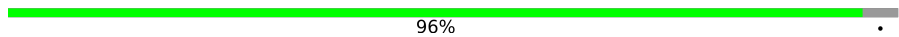
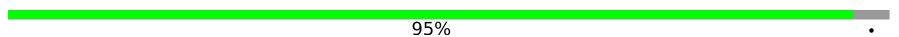
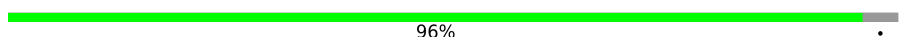

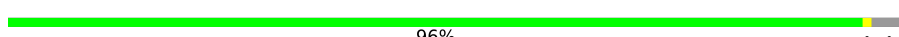
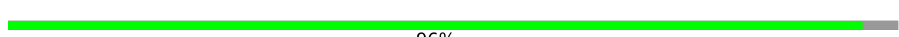



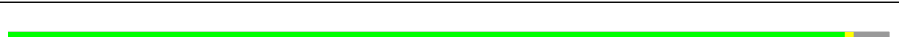


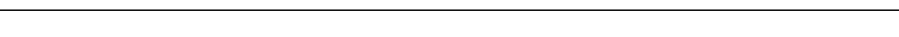
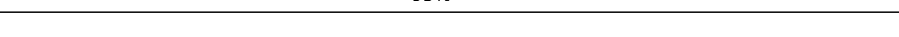
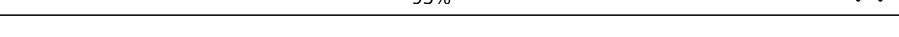
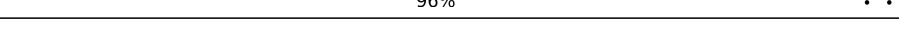
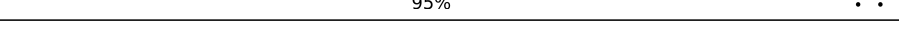
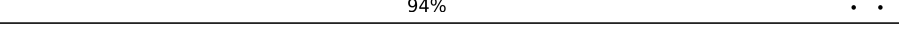
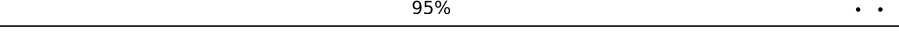
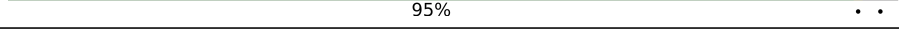
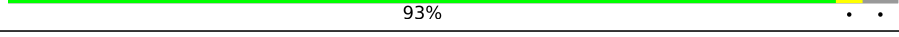
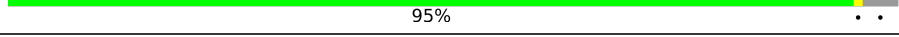
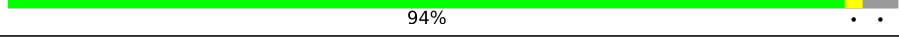
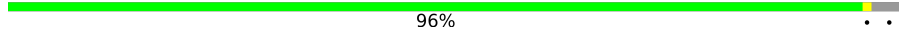
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Mol	Chain	Length	Quality of chain
9	GL	445	 95% ..
9	GN	445	 96% .
9	HB	445	 95% ..
9	HD	445	 95% ..
9	HF	445	 96% .
9	HH	445	 95% ..
9	HJ	445	 95% ..
9	HL	445	 94% ..
9	HN	445	 95% ..
9	IB	445	 82% 17% .
9	ID	445	 95% ..
9	IF	445	 95% ..
9	IH	445	 95% ..
9	IJ	445	 95% ..
9	IL	445	 94% ..
9	IN	445	 96% .
9	JB	445	 95% ..
9	JD	445	 95% ..
9	JF	445	 95% ..
9	JH	445	 95% ..
9	JJ	445	 94% ..
9	JL	445	 94% ..
9	JN	445	 96% .
9	KB	445	 90% 9% .
9	KD	445	 96% ..

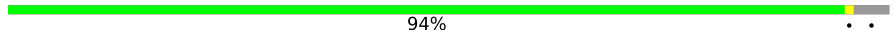

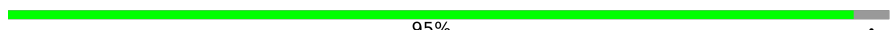
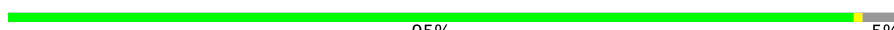
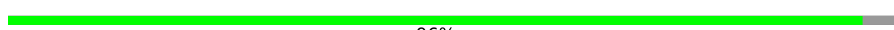





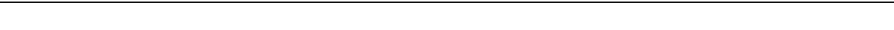

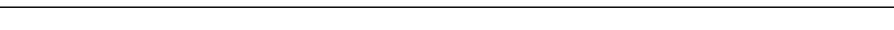
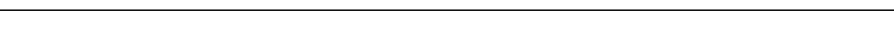
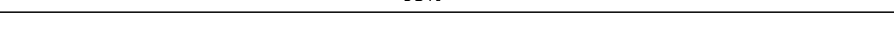
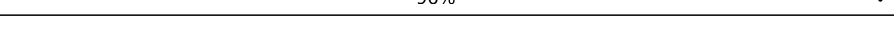
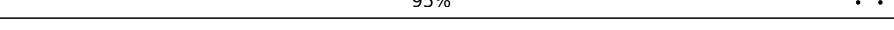
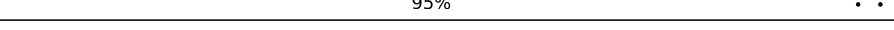
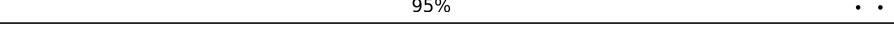
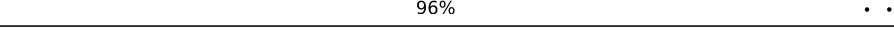
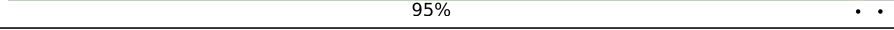
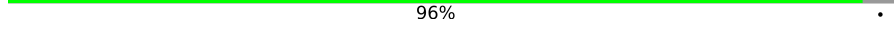
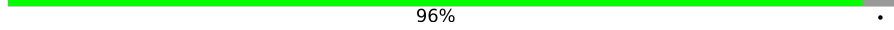
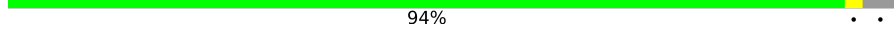
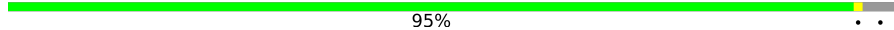
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Mol	Chain	Length	Quality of chain
9	KF	445	 95% ..
9	KH	445	 96% .
9	KJ	445	 95% .
9	KL	445	 96% .
9	KN	445	 95% ..
9	LB	445	 96% ..
9	LD	445	 96% .
9	LF	445	 96% .
9	LH	445	 96% ..
9	LJ	445	 96% .
9	LL	445	 94% ..
9	LN	445	 95% ..
9	MB	445	 93% ..
9	MD	445	 95% ..
9	MF	445	 95% ..
9	MH	445	 96% ..
9	MJ	445	 95% ..
9	ML	445	 94% ..
9	MN	445	 95% ..
9	N0	445	 95% ..
9	NB	445	 93% ..
9	ND	445	 95% ..
9	NF	445	 94% ..
9	NH	445	 96% ..
9	NJ	445	 96% ..

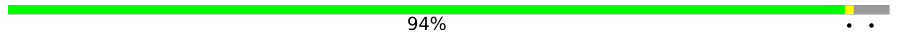
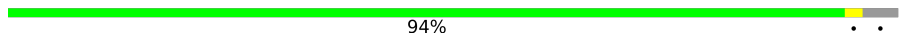
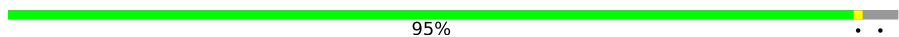
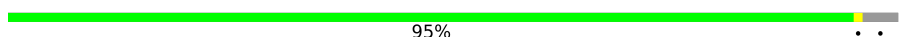
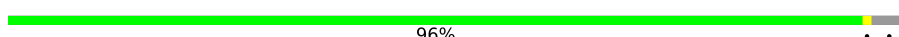
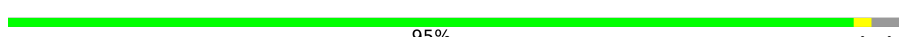
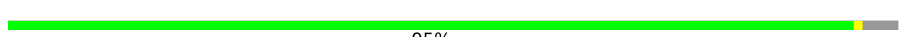



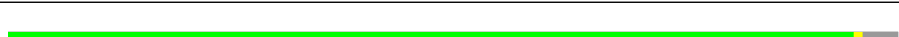


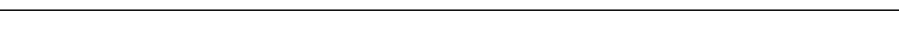
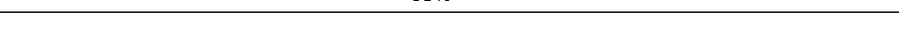
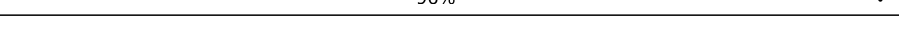
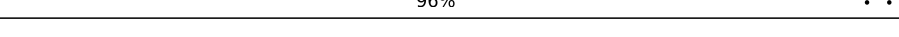
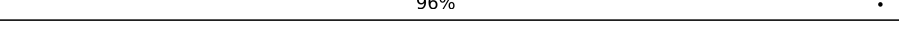
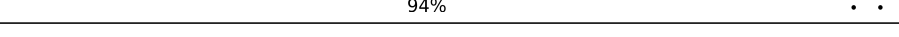
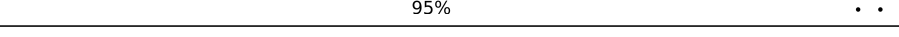
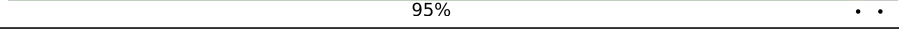
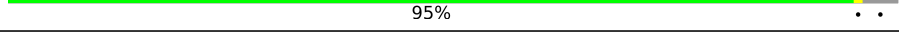
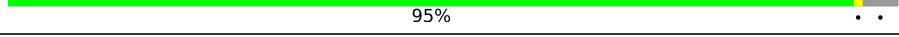
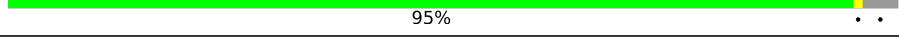
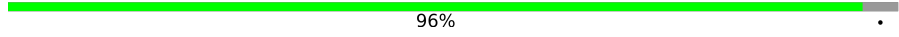
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Mol	Chain	Length	Quality of chain
9	NL	445	94% 
9	O0	445	92%  7%
9	OB	445	95% 
9	OD	445	95%  5%
9	OF	445	96% 
9	OH	445	96% 
9	OJ	445	95%  2%
9	OL	445	95%  5%
9	PB	445	95%  2%
9	PD	445	96% 
9	PF	445	95%  2%
9	PH	445	96% 
9	PJ	445	95%  2%
9	PL	445	93%  2%
9	QB	445	96% 
9	QD	445	95%  2%
9	QF	445	95%  2%
9	QH	445	95%  2%
9	QJ	445	96%  2%
9	QL	445	95%  2%
9	RB	445	96% 
9	RD	445	96% 
9	RF	445	94%  2%
9	RH	445	95%  2%
9	RJ	445	95%  2%

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Mol	Chain	Length	Quality of chain
9	RL	445	 94% ..
9	SB	445	 94% ..
9	SD	445	 95% ..
9	SF	445	 95% ..
9	SH	445	 96% ..
9	SJ	445	 95% ..
9	SL	445	 95% ..
9	TB	445	 95% ..
9	TD	445	 95% ..
9	TF	445	 95% ..
9	TH	445	 95% ..
9	TJ	445	 95% ..
9	TL	445	 94% ..
9	UB	445	 95% ..
9	UD	445	 96% .
9	UF	445	 96% ..
9	UH	445	 96% .
9	UJ	445	 94% ..
9	UL	445	 95% ..
9	UN	445	 95% ..
9	VB	445	 95% ..
9	VD	445	 95% ..
9	VF	445	 95% ..
9	VH	445	 96% .
9	VJ	445	 96% .









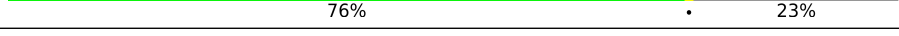

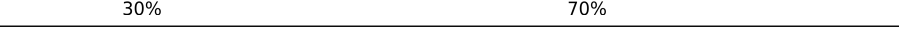
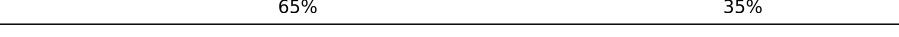
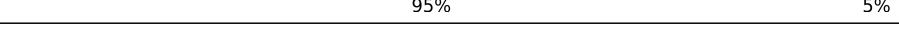
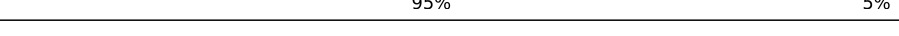

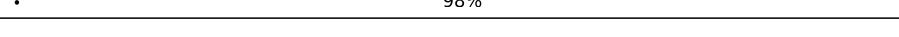
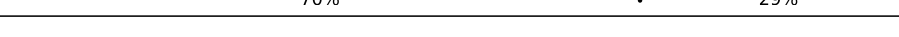
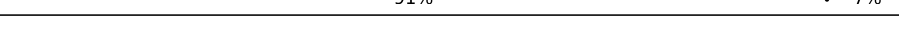
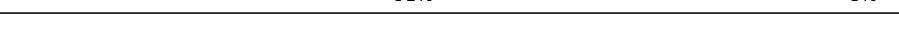






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Mol	Chain	Length	Quality of chain
9	VL	445	95% . .
9	VN	445	96% .
9	WB	445	95% . .
9	WD	445	94% . .
9	WF	445	95% . .
9	WH	445	96% .
9	WJ	445	95% . .
9	WL	445	95% . .
9	WN	445	95% . .
10	B0	430	44% 56%
10	B1	430	96% . .
10	B2	430	96% . .
10	B3	430	88% . 11%
10	B4	430	11% 89%
10	B5	430	12% 88%
10	B6	430	83% . 17%
10	B7	430	95% . .
10	B8	430	91% . 6%
10	B9	430	43% . 57%
11	C	101	87% . 10%
12	C0	490	6% 94%
12	C1	490	67% . 32%
12	C2	490	80% . 20%
12	C3	490	80% . 20%
12	C4	490	43% . 56%

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Mol	Chain	Length	Quality of chain
12	C5	490	 23% 77%
12	C6	490	 78% 21%
12	C7	490	 83% 16%
12	C8	490	 82% 17%
12	C9	490	 22% 77%
12	F0	490	 28% 72%
12	F1	490	 85% 14%
12	F2	490	 85% 14%
12	F3	490	 76% 23%
12	F4	490	 20% 80%
13	D	484	 30% 70%
14	D0	447	 65% 35%
14	D1	447	 95% 5%
14	D2	447	 95% 5%
14	D3	447	 70% 29%
14	D5	447	 98%
14	D6	447	 70% 29%
14	D7	447	 91% 7%
14	D8	447	 91% 8%
14	D9	447	 61% 38%
15	E	321	 79% 21%
15	F	321	 79% 21%
16	E0	208	 31% 67%
16	E1	208	 58% 39%
16	E2	208	 66% 31%









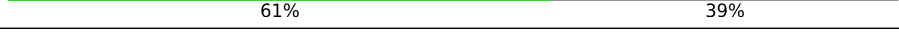
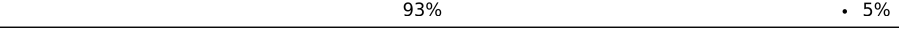
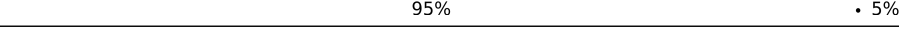
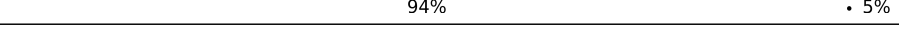
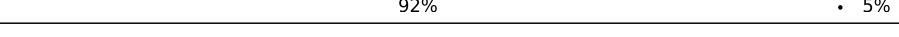
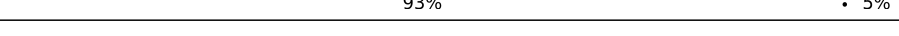
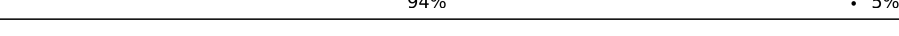
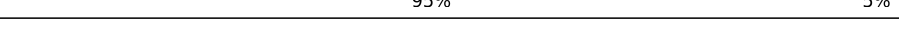
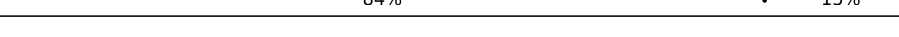

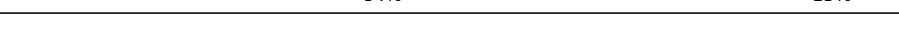






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Mol	Chain	Length	Quality of chain	
16	E3	208	68%	31%
17	G	120	78%	20%
18	H	274	31%	69%
18	I	274	55%	45%
18	J	274	55%	45%
18	K	274	55%	45%
18	L	274	55%	45%
18	M	274	55%	45%
18	N	274	57%	43%
19	H1	687	27%	72%
19	H2	687	35%	64%
19	H3	687	15%	85%
20	H4	621	30%	69%
20	H5	621	39%	60%
20	H6	621	20%	80%
21	H7	1044	55%	44%
21	H8	1044	55%	45%
21	H9	1044	34%	66%
22	I1	683	28%	72%
22	I2	683	28%	72%
23	I3	212	87%	12%
23	I4	212	88%	12%
24	O	377	8%	92%
24	P	377	97%	..
24	Q	377	10%	90%


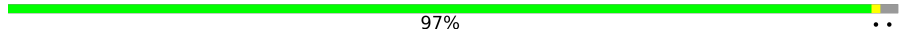
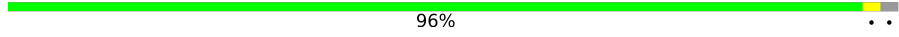
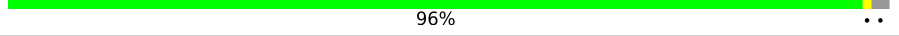




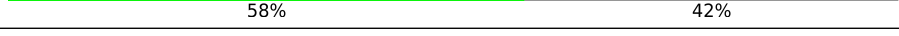


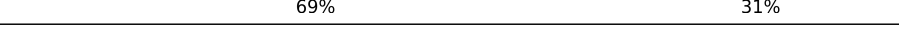

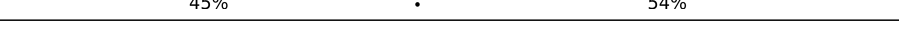


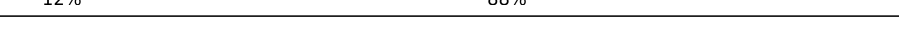

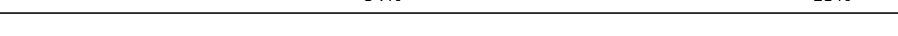
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Mol	Chain	Length	Quality of chain
24	R	377	 64% 34%
24	S	377	 45% 55%
25	T	640	 70% 29%
25	U	640	 70% 29%
25	V	640	 70% 29%
26	W	733	 75% 25%
26	X	733	 86% 13%
26	Y	733	 86% 13%
26	Z	733	 61% 39%
27	XA	193	 93% 5%
27	XB	193	 95% 5%
27	XC	193	 94% 5%
27	XD	193	 92% 5%
27	XE	193	 93% 5%
27	XF	193	 94% 5%
27	XG	193	 95% 5%
28	YB	257	 84% 15%
28	YC	257	 84% 15%
28	YD	257	 84% 15%
28	YE	257	 85% 15%
28	YF	257	 84% 15%
28	YG	257	 84% 15%
29	a	549	 30% 69%
29	b	549	 59% 40%
29	c	549	 50% 50%

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Mol	Chain	Length	Quality of chain
29	d	549	 38% 61%
30	e	623	 97%
30	f	623	 96%
30	g	623	 96%
31	h	259	 57% 43%
31	i	259	 89% 9%
31	j	259	 90% 9%
31	k	259	 90% 9%
32	l	196	 58% 42%
32	m	196	 58% 41%
32	n	196	 60% 40%
33	o	547	 69% 31%
33	p	547	 18% 82%
34	q	170	 45% 54%
34	r	170	 45% 54%
34	s	170	 46% 54%
35	t	1497	 12% 88%
36	y	136	 46% 54%
36	z	136	 84% 15%

2 Entry composition [i](#)

There are 39 unique types of molecules in this entry. The entry contains 1276281 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 Protein C9orf135 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	0	40	330	205	63	61	1	0	0
1	7	121	806	494	146	164	2	0	0

- Molecule 2 is a protein called EF-hand domain family member B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	1	152	921	570	172	178	1	0	0
2	2	292	1526	915	312	299		0	0

- Molecule 3 is a protein called Methyl-CpG binding domain protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	3	306	2295	1393	444	448	10	0	0
3	4	217	1855	1127	350	364	14	0	0

- Molecule 4 is a protein called Nucleoside diphosphate kinase 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	5	372	2533	1589	451	481	12	0	0
4	6	372	2947	1880	499	546	22	0	0

- Molecule 5 is a protein called Uncharacterized protein C1orf158 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	8	191	Total	C	N	O	S	0	0
			1607	1037	288	281	1		
5	9	35	Total	C	N	O		0	0
			287	181	51	55			

- Molecule 6 is a protein called Meiosis-specific nuclear structural protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	A	170	Total	C	N	O	S	0	0
			1427	869	270	281	7		
6	B	354	Total	C	N	O	S	0	0
			3044	1882	553	592	17		

- Molecule 7 is a protein called Tektin-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	A0	221	Total	C	N	O	S	0	0
			1797	1120	329	341	7		
7	A1	396	Total	C	N	O	S	0	0
			3258	2026	592	631	9		
7	A2	393	Total	C	N	O	S	0	0
			3238	2016	589	624	9		
7	A3	334	Total	C	N	O	S	0	0
			2759	1716	498	537	8		
7	A4	34	Total	C	N	O		0	0
			290	179	61	50			

- Molecule 8 is a protein called Tubulin alpha-1D chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AA	438	Total	C	N	O	S	0	0
			3422	2165	582	653	22		
8	AC	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	AE	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	AG	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	AI	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	AK	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	AM	439	3430	2170	583	654	23	0	0
8	BA	430	3372	2136	573	641	22	0	0
8	BC	440	3437	2175	584	655	23	0	0
8	BE	433	3396	2151	576	646	23	0	0
8	BG	440	3437	2175	584	655	23	0	0
8	BI	430	3374	2138	573	640	23	0	0
8	BK	439	3430	2170	583	654	23	0	0
8	BM	430	3372	2137	573	639	23	0	0
8	CA	438	3422	2165	582	653	22	0	0
8	CC	438	3424	2167	582	652	23	0	0
8	CE	438	3424	2167	582	652	23	0	0
8	CG	439	3430	2170	583	654	23	0	0
8	CI	439	3430	2170	583	654	23	0	0
8	CK	439	3430	2170	583	654	23	0	0
8	CM	439	3430	2170	583	654	23	0	0
8	DA	401	3140	1992	535	594	19	0	0
8	DC	429	3366	2134	572	637	23	0	0
8	DE	430	3372	2137	573	639	23	0	0
8	DG	431	3379	2142	574	640	23	0	0
8	DI	429	3364	2133	572	636	23	0	0
8	DK	430	3372	2137	573	639	23	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	DM	430	Total	C	N	O	S	0	0
			3372	2137	573	639	23		
8	EC	439	Total	C	N	O	S	0	0
			3430	2170	583	654	23		
8	EE	441	Total	C	N	O	S	0	0
			3446	2180	585	658	23		
8	EG	437	Total	C	N	O	S	0	0
			3416	2163	581	649	23		
8	EI	436	Total	C	N	O	S	0	0
			3408	2158	580	648	22		
8	EK	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	EM	428	Total	C	N	O	S	0	0
			3358	2130	571	634	23		
8	FC	431	Total	C	N	O	S	0	0
			3379	2142	574	640	23		
8	FE	425	Total	C	N	O	S	0	0
			3339	2118	568	631	22		
8	FG	426	Total	C	N	O	S	0	0
			3346	2123	569	632	22		
8	FI	427	Total	C	N	O	S	0	0
			3347	2121	570	633	23		
8	FK	424	Total	C	N	O	S	0	0
			3326	2109	566	629	22		
8	FM	429	Total	C	N	O	S	0	0
			3365	2132	572	638	23		
8	GC	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	GE	430	Total	C	N	O	S	0	0
			3371	2138	573	637	23		
8	GG	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	GI	429	Total	C	N	O	S	0	0
			3365	2135	572	635	23		
8	GK	429	Total	C	N	O	S	0	0
			3364	2133	572	636	23		
8	GM	439	Total	C	N	O	S	0	0
			3430	2170	583	654	23		
8	HC	427	Total	C	N	O	S	0	0
			3350	2126	570	631	23		
8	HE	430	Total	C	N	O	S	0	0
			3374	2138	573	640	23		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	HG	430	Total 3371	C 2138	N 573	O 637	S 23	0	0
8	HI	430	Total 3371	C 2138	N 573	O 637	S 23	0	0
8	HK	431	Total 3379	C 2142	N 574	O 640	S 23	0	0
8	HM	429	Total 3365	C 2132	N 572	O 638	S 23	0	0
8	HO	386	Total 3037	C 1926	N 518	O 572	S 21	0	0
8	IC	429	Total 3365	C 2135	N 572	O 635	S 23	0	0
8	IE	432	Total 3388	C 2147	N 575	O 643	S 23	0	0
8	IG	440	Total 3437	C 2175	N 584	O 655	S 23	0	0
8	II	432	Total 3387	C 2146	N 575	O 643	S 23	0	0
8	IK	440	Total 3437	C 2175	N 584	O 655	S 23	0	0
8	IM	431	Total 3378	C 2140	N 574	O 641	S 23	0	0
8	IO	427	Total 3350	C 2125	N 570	O 633	S 22	0	0
8	JC	432	Total 3384	C 2143	N 575	O 643	S 23	0	0
8	JE	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	JG	428	Total 3358	C 2130	N 571	O 634	S 23	0	0
8	JI	429	Total 3366	C 2134	N 572	O 637	S 23	0	0
8	JK	440	Total 3437	C 2175	N 584	O 655	S 23	0	0
8	JM	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	KC	432	Total 3384	C 2143	N 575	O 643	S 23	0	0
8	KE	431	Total 3380	C 2141	N 574	O 642	S 23	0	0
8	KG	430	Total 3370	C 2136	N 573	O 638	S 23	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	KI	428	Total	C	N	O	S	0	0
			3358	2130	571	634	23		
8	KK	430	Total	C	N	O	S	0	0
			3372	2137	573	639	23		
8	KM	432	Total	C	N	O	S	0	0
			3376	2138	575	641	22		
8	KO	408	Total	C	N	O	S	0	0
			3217	2040	546	608	23		
8	LC	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	LE	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	LG	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	LI	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	LK	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	LM	431	Total	C	N	O	S	0	0
			3378	2140	574	641	23		
8	MC	439	Total	C	N	O	S	0	0
			3430	2170	583	654	23		
8	ME	429	Total	C	N	O	S	0	0
			3366	2134	572	637	23		
8	MG	430	Total	C	N	O	S	0	0
			3372	2137	573	639	23		
8	MI	431	Total	C	N	O	S	0	0
			3379	2142	574	640	23		
8	MK	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	MM	431	Total	C	N	O	S	0	0
			3376	2138	574	642	22		
8	NA	430	Total	C	N	O	S	0	0
			3372	2136	573	641	22		
8	NC	429	Total	C	N	O	S	0	0
			3365	2135	572	635	23		
8	NE	430	Total	C	N	O	S	0	0
			3374	2140	573	638	23		
8	NG	432	Total	C	N	O	S	0	0
			3387	2146	575	643	23		
8	NI	432	Total	C	N	O	S	0	0
			3387	2146	575	643	23		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	NK	430	Total 3374	C 2138	N 573	O 640	S 23	0	0
8	OA	428	Total 3358	C 2129	N 571	O 636	S 22	0	0
8	OC	429	Total 3366	C 2134	N 572	O 637	S 23	0	0
8	OE	433	Total 3396	C 2151	N 576	O 646	S 23	0	0
8	OG	433	Total 3391	C 2148	N 576	O 644	S 23	0	0
8	OI	432	Total 3387	C 2146	N 575	O 643	S 23	0	0
8	OK	431	Total 3380	C 2141	N 574	O 642	S 23	0	0
8	PA	430	Total 3372	C 2136	N 573	O 641	S 22	0	0
8	PC	432	Total 3386	C 2144	N 575	O 644	S 23	0	0
8	PE	431	Total 3380	C 2143	N 574	O 640	S 23	0	0
8	PG	430	Total 3371	C 2138	N 573	O 637	S 23	0	0
8	PI	427	Total 3349	C 2123	N 570	O 634	S 22	0	0
8	PK	430	Total 3371	C 2138	N 573	O 637	S 23	0	0
8	PM	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	QA	431	Total 3376	C 2138	N 574	O 642	S 22	0	0
8	QC	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	QE	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	QG	431	Total 3380	C 2141	N 574	O 642	S 23	0	0
8	QI	429	Total 3366	C 2134	N 572	O 637	S 23	0	0
8	QK	431	Total 3380	C 2141	N 574	O 642	S 23	0	0
8	QM	431	Total 3378	C 2140	N 574	O 641	S 23	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	RA	429	Total 3364	C 2132	N 572	O 638	S 22	0	0
8	RC	432	Total 3387	C 2146	N 575	O 643	S 23	0	0
8	RE	428	Total 3358	C 2130	N 571	O 634	S 23	0	0
8	RG	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	RI	431	Total 3379	C 2142	N 574	O 640	S 23	0	0
8	RK	431	Total 3379	C 2142	N 574	O 640	S 23	0	0
8	RM	428	Total 3356	C 2128	N 571	O 635	S 22	0	0
8	SA	430	Total 3372	C 2136	N 573	O 641	S 22	0	0
8	SC	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	SE	431	Total 3381	C 2142	N 574	O 642	S 23	0	0
8	SG	431	Total 3379	C 2142	N 574	O 640	S 23	0	0
8	SI	427	Total 3358	C 2129	N 569	O 637	S 23	0	0
8	SK	432	Total 3387	C 2146	N 575	O 643	S 23	0	0
8	SM	431	Total 3378	C 2140	N 574	O 641	S 23	0	0
8	TC	430	Total 3371	C 2138	N 573	O 637	S 23	0	0
8	TE	432	Total 3388	C 2147	N 575	O 643	S 23	0	0
8	TG	430	Total 3371	C 2138	N 573	O 637	S 23	0	0
8	TI	430	Total 3371	C 2138	N 573	O 637	S 23	0	0
8	TK	432	Total 3387	C 2146	N 575	O 643	S 23	0	0
8	TM	430	Total 3372	C 2137	N 573	O 639	S 23	0	0
8	UC	433	Total 3393	C 2149	N 576	O 645	S 23	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	UE	432	Total	C	N	O	S	0	0
			3388	2147	575	643	23		
8	UG	433	Total	C	N	O	S	0	0
			3393	2149	576	645	23		
8	UI	433	Total	C	N	O	S	0	0
			3393	2149	576	645	23		
8	UK	433	Total	C	N	O	S	0	0
			3391	2148	576	644	23		
8	UM	431	Total	C	N	O	S	0	0
			3378	2140	574	641	23		
8	VC	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	VE	433	Total	C	N	O	S	0	0
			3396	2151	576	646	23		
8	VG	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	VI	433	Total	C	N	O	S	0	0
			3393	2149	576	645	23		
8	VK	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	VM	430	Total	C	N	O	S	0	0
			3372	2137	573	639	23		
8	WC	440	Total	C	N	O	S	0	0
			3437	2175	584	655	23		
8	WE	431	Total	C	N	O	S	0	0
			3380	2141	574	642	23		
8	WG	439	Total	C	N	O	S	0	0
			3430	2170	583	654	23		
8	WI	431	Total	C	N	O	S	0	0
			3380	2141	574	642	23		
8	WK	438	Total	C	N	O	S	0	0
			3424	2167	582	652	23		
8	WM	431	Total	C	N	O	S	0	0
			3378	2140	574	641	23		

- Molecule 9 is a protein called Tubulin beta-4B chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AB	436	Total	C	N	O	S	0	0
			3424	2150	584	664	26		
9	AD	436	Total	C	N	O	S	0	0
			3424	2150	584	664	26		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	AF	436	Total 3424	C 2150	N 584	O 664	S 26	0	0
9	AH	436	Total 3424	C 2150	N 584	O 664	S 26	0	0
9	AJ	436	Total 3424	C 2150	N 584	O 664	S 26	0	0
9	AL	435	Total 3416	C 2145	N 583	O 663	S 25	0	0
9	BB	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	BD	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	BF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	BH	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	BJ	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	BL	425	Total 3340	C 2100	N 573	O 642	S 25	0	0
9	CB	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	CD	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	CF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	CH	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	CJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	CL	425	Total 3340	C 2100	N 573	O 642	S 25	0	0
9	DB	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	DD	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	DF	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	DH	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	DJ	426	Total 3348	C 2105	N 574	O 643	S 26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	DL	425	Total 3340	C 2100	N 573	O 642	S 25	0	0
9	DN	387	Total 3035	C 1911	N 519	O 582	S 23	0	0
9	EB	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	ED	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	EF	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	EH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	EJ	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	EL	425	Total 3340	C 2100	N 573	O 642	S 25	0	0
9	EN	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	FB	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	FD	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	FF	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	FH	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	FJ	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	FL	425	Total 3340	C 2100	N 573	O 642	S 25	0	0
9	FN	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	GB	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	GD	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	GF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	GH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	GJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	GL	425	Total 3340	C 2100	N 573	O 642	S 25	0	0
9	GN	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	HB	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	HD	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	HF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	HH	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	HJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	HL	425	Total 3340	C 2100	N 573	O 642	S 25	0	0
9	HN	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	IB	370	Total 2905	C 1824	N 501	O 557	S 23	0	0
9	ID	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	IF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	IH	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	IJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	IL	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	IN	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	JB	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	JD	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	JF	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	JH	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	JJ	426	Total 3348	C 2105	N 574	O 643	S 26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	JL	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	JN	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	KB	403	Total 3165	C 1989	N 539	O 613	S 24	0	0
9	KD	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	KF	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	KH	429	Total 3368	C 2116	N 577	O 649	S 26	0	0
9	KJ	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	KL	429	Total 3368	C 2116	N 577	O 649	S 26	0	0
9	KN	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	LB	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	LD	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	LF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	LH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	LJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	LL	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	LN	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	MB	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	MD	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	MF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	MH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	MJ	426	Total 3348	C 2105	N 574	O 643	S 26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	ML	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	MN	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	N0	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	NB	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	ND	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	NF	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	NH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	NJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	NL	425	Total 3339	C 2100	N 572	O 641	S 26	0	0
9	O0	412	Total 3224	C 2024	N 553	O 623	S 24	0	0
9	OB	425	Total 3339	C 2100	N 572	O 641	S 26	0	0
9	OD	424	Total 3327	C 2091	N 571	O 639	S 26	0	0
9	OF	425	Total 3339	C 2100	N 572	O 641	S 26	0	0
9	OH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	OJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	OL	424	Total 3327	C 2091	N 571	O 639	S 26	0	0
9	PB	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	PD	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	PF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	PH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	PJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
9	PL	425	Total	C	N	O	S	0	0
			3340	2100	573	642	25		
9	QB	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	QD	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	QF	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	QH	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	QJ	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	QL	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	RB	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	RD	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	RF	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	RH	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	RJ	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	RL	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	SB	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	SD	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	SF	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	SH	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	SJ	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	SL	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	TB	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	TD	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	TF	428	3361	2112	576	647	26	0	0
9	TH	428	3361	2112	576	647	26	0	0
9	TJ	428	3361	2112	576	647	26	0	0
9	TL	426	3348	2105	574	643	26	0	0
9	UB	428	3361	2112	576	647	26	0	0
9	UD	427	3356	2109	575	646	26	0	0
9	UF	428	3361	2112	576	647	26	0	0
9	UH	428	3361	2112	576	647	26	0	0
9	UJ	428	3361	2112	576	647	26	0	0
9	UL	426	3348	2105	574	643	26	0	0
9	UN	428	3361	2112	576	647	26	0	0
9	VB	428	3361	2112	576	647	26	0	0
9	VD	427	3356	2109	575	646	26	0	0
9	VF	427	3356	2109	575	646	26	0	0
9	VH	428	3361	2112	576	647	26	0	0
9	VJ	428	3361	2112	576	647	26	0	0
9	VL	426	3348	2105	574	643	26	0	0
9	VN	428	3361	2112	576	647	26	0	0
9	WB	428	3361	2112	576	647	26	0	0
9	WD	427	3356	2109	575	646	26	0	0
9	WF	426	3348	2105	574	643	26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
9	WH	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	WJ	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	WL	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	WN	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		

- Molecule 10 is a protein called Tektin-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	B0	189	Total	C	N	O	S	0	0
			1538	941	290	301	6		
10	B1	416	Total	C	N	O	S	0	0
			3391	2090	627	660	14		
10	B2	416	Total	C	N	O	S	0	0
			3391	2090	627	660	14		
10	B3	383	Total	C	N	O	S	0	0
			3113	1920	568	610	15		
10	B4	49	Total	C	N	O	S	0	0
			406	248	79	77	2		
10	B5	51	Total	C	N	O	S	0	0
			419	257	81	79	2		
10	B6	358	Total	C	N	O	S	0	0
			2911	1793	534	570	14		
10	B7	414	Total	C	N	O	S	0	0
			3372	2080	621	657	14		
10	B8	403	Total	C	N	O	S	0	0
			3284	2025	607	638	14		
10	B9	187	Total	C	N	O	S	0	0
			1523	933	287	297	6		

- Molecule 11 is a protein called Uncharacterized protein C1orf189 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	C	91	Total	C	N	O	S	0	0
			785	495	151	133	6		

- Molecule 12 is a protein called Tektin-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	C0	30	Total	C	N	O		0	0
			261	157	50	54			
12	C1	334	Total	C	N	O	S	0	0
			2710	1667	493	537	13		
12	C2	394	Total	C	N	O	S	0	0
			3208	1974	588	631	15		
12	C3	394	Total	C	N	O	S	0	0
			3208	1974	588	631	15		
12	C4	215	Total	C	N	O	S	0	0
			1745	1083	314	335	13		
12	C5	113	Total	C	N	O	S	0	0
			908	559	165	181	3		
12	C6	385	Total	C	N	O	S	0	0
			3131	1925	573	618	15		
12	C7	413	Total	C	N	O	S	0	0
			3359	2066	615	661	17		
12	C8	407	Total	C	N	O	S	0	0
			3310	2039	602	653	16		
12	C9	112	Total	C	N	O	S	0	0
			926	559	177	187	3		
12	F0	139	Total	C	N	O	S	0	0
			1156	714	214	226	2		
12	F1	421	Total	C	N	O	S	0	0
			3433	2121	624	672	16		
12	F2	421	Total	C	N	O	S	0	0
			3433	2121	624	672	16		
12	F3	378	Total	C	N	O	S	0	0
			3064	1884	561	604	15		
12	F4	99	Total	C	N	O	S	0	0
			809	500	147	159	3		

- Molecule 13 is a protein called Sperm associated antigen 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	D	147	Total	C	N	O	S	0	0
			944	587	174	182	1		

- Molecule 14 is a protein called Tektin-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	D0	291	Total	C	N	O	S	0	0
			2377	1468	435	462	12		
14	D1	425	Total	C	N	O	S	0	0
			3483	2143	653	672	15		

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Mol	Chain	Residues	Atoms					AltConf	Trace
14	D2	425	Total	C	N	O	S	0	0
			3483	2143	653	672	15		
14	D3	316	Total	C	N	O	S	0	0
			2593	1603	483	495	12		
14	D5	9	Total	C	N	O	S	0	0
			77	46	18	12	1		
14	D6	319	Total	C	N	O	S	0	0
			2619	1617	489	501	12		
14	D7	414	Total	C	N	O	S	0	0
			3390	2085	634	656	15		
14	D8	413	Total	C	N	O	S	0	0
			3381	2080	632	654	15		
14	D9	277	Total	C	N	O	S	0	0
			2259	1395	410	443	11		

- Molecule 15 is a protein called Cilia and flagella associated protein 161.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	E	255	Total	C	N	O	S	0	0
			2055	1302	369	373	11		
15	F	255	Total	C	N	O	S	0	0
			2055	1302	369	373	11		

- Molecule 16 is a protein called TEKTIPI1.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	E0	68	Total	C	N	O	S	0	0
			581	371	113	96	1		
16	E1	127	Total	C	N	O	S	0	0
			1062	675	200	185	2		
16	E2	144	Total	C	N	O	S	0	0
			1202	766	220	214	2		
16	E3	144	Total	C	N	O	S	0	0
			1202	766	220	214	2		

- Molecule 17 is a protein called Pierce2.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	G	96	Total	C	N	O	S	0	0
			775	496	130	142	7		

- Molecule 18 is a protein called Protein FAM166B.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	H	84	Total	C	N	O	S	0	0
			647	421	111	110	5		
18	I	152	Total	C	N	O	S	0	0
			1188	780	201	201	6		
18	J	152	Total	C	N	O	S	0	0
			1188	780	201	201	6		
18	K	152	Total	C	N	O	S	0	0
			1188	780	201	201	6		
18	L	152	Total	C	N	O	S	0	0
			1188	780	201	201	6		
18	M	152	Total	C	N	O	S	0	0
			1188	780	201	201	6		
18	N	155	Total	C	N	O	S	0	0
			1218	797	209	206	6		

- Molecule 19 is a protein called Coiled-coil domain containing 114.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	H1	192	Total	C	N	O	S	0	0
			1571	959	306	300	6		
19	H2	250	Total	C	N	O	S	0	0
			2069	1261	414	386	8		
19	H3	105	Total	C	N	O	S	0	0
			880	530	182	164	4		

- Molecule 20 is a protein called Outer dynein arm-docking complex subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	H4	193	Total	C	N	O	S	0	0
			1625	1009	304	308	4		
20	H5	249	Total	C	N	O	S	0	0
			2097	1303	390	399	5		
20	H6	125	Total	C	N	O	S	0	0
			1060	666	198	195	1		

- Molecule 21 is a protein called Armadillo repeat containing 4.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	H7	580	Total	C	N	O	0	0
			2867	1707	580	580		
21	H8	579	Total	C	N	O	0	0
			2862	1704	579	579		

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Mol	Chain	Residues	Atoms				AltConf	Trace
21	H9	358	Total	C	N	O	0	0
			1768	1052	358	358		

- Molecule 22 is a protein called TTC25 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	I1	192	Total	C	N	O	S	0	0
			1300	812	232	249	7		
22	I2	192	Total	C	N	O	S	0	0
			1300	812	232	249	7		

- Molecule 23 is a protein called EF-hand calcium-binding domain-containing protein 1.

Mol	Chain	Residues	Atoms				AltConf	Trace
23	I3	186	Total	C	N	O	0	0
			921	549	186	186		
23	I4	187	Total	C	N	O	0	0
			925	551	187	187		

- Molecule 24 is a protein called RIB43A-like with coiled-coils protein 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	O	31	Total	C	N	O	0	0	
			270	170	58	42			
24	P	373	Total	C	N	O	S	0	0
			3104	1890	607	592	15		
24	Q	39	Total	C	N	O	S	0	0
			317	193	58	63	3		
24	R	249	Total	C	N	O	S	0	0
			2041	1239	395	397	10		
24	S	170	Total	C	N	O	S	0	0
			1412	857	277	271	7		

- Molecule 25 is a protein called EF-hand domain containing 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	T	452	Total	C	N	O	S	0	0
			3726	2406	627	678	15		
25	U	452	Total	C	N	O	S	0	0
			3726	2406	627	678	15		
25	V	452	Total	C	N	O	S	0	0
			3726	2406	627	678	15		

- Molecule 26 is a protein called EFHC2.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	W	553	Total	C	N	O	S	0	0
			4558	2931	763	841	23		
26	X	636	Total	C	N	O	S	0	0
			5234	3358	881	968	27		
26	Y	636	Total	C	N	O	S	0	0
			5234	3358	881	968	27		
26	Z	449	Total	C	N	O	S	0	0
			3691	2365	618	687	21		

- Molecule 27 is a protein called Cilia- and flagella-associated protein 20.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	XA	184	Total	C	N	O	S	0	0
			1532	984	268	273	7		
27	XB	184	Total	C	N	O	S	0	0
			1532	984	268	273	7		
27	XC	184	Total	C	N	O	S	0	0
			1532	984	268	273	7		
27	XD	184	Total	C	N	O	S	0	0
			1532	984	268	273	7		
27	XE	184	Total	C	N	O	S	0	0
			1532	984	268	273	7		
27	XF	184	Total	C	N	O	S	0	0
			1532	984	268	273	7		
27	XG	184	Total	C	N	O	S	0	0
			1532	984	268	273	7		

- Molecule 28 is a protein called PACRG protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	YB	219	Total	C	N	O	S	0	0
			1767	1144	298	316	9		
28	YC	219	Total	C	N	O	S	0	0
			1767	1144	298	316	9		
28	YD	219	Total	C	N	O	S	0	0
			1767	1144	298	316	9		
28	YE	219	Total	C	N	O	S	0	0
			1767	1144	298	316	9		
28	YF	219	Total	C	N	O	S	0	0
			1767	1144	298	316	9		
28	YG	219	Total	C	N	O	S	0	0
			1767	1144	298	316	9		

- Molecule 29 is a protein called Cilia and flagella associated protein 45.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	a	169	Total	C	N	O	S	0	0
			1426	879	270	269	8		
29	b	332	Total	C	N	O	S	0	0
			2854	1723	570	549	12		
29	c	277	Total	C	N	O	S	0	0
			2361	1445	446	455	15		
29	d	215	Total	C	N	O	S	0	0
			1830	1110	368	346	6		

- Molecule 30 is a protein called Cilia and flagella associated protein 52.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	e	610	Total	C	N	O	S	0	0
			4722	2990	823	877	32		
30	f	610	Total	C	N	O	S	0	0
			4722	2990	823	877	32		
30	g	610	Total	C	N	O	S	0	0
			4722	2990	823	877	32		

- Molecule 31 is a protein called Enkurin, TRPC channel interacting protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	h	148	Total	C	N	O	S	0	0
			1220	772	213	231	4		
31	i	235	Total	C	N	O	S	0	0
			1939	1242	336	354	7		
31	j	235	Total	C	N	O	S	0	0
			1939	1242	336	354	7		
31	k	235	Total	C	N	O	S	0	0
			1939	1242	336	354	7		

- Molecule 32 is a protein called Protein Flattop.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	l	114	Total	C	N	O	S	0	0
			894	569	162	161	2		
32	m	116	Total	C	N	O	S	0	0
			910	580	165	163	2		
32	n	118	Total	C	N	O	S	0	0
			928	590	169	167	2		

- Molecule 33 is a protein called Coiled-coil domain containing 173.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	o	378	Total	C	N	O	S	0	0
			2068	1246	415	405	2		
33	p	100	Total	C	N	O	S	0	0
			835	524	144	164	3		

- Molecule 34 is a protein called Chromosome 3 C1orf194 homolog.

Mol	Chain	Residues	Atoms				AltConf	Trace
34	q	79	Total	C	N	O	0	0
			631	395	116	120		
34	r	79	Total	C	N	O	0	0
			631	395	116	120		
34	s	79	Total	C	N	O	0	0
			631	395	116	120		

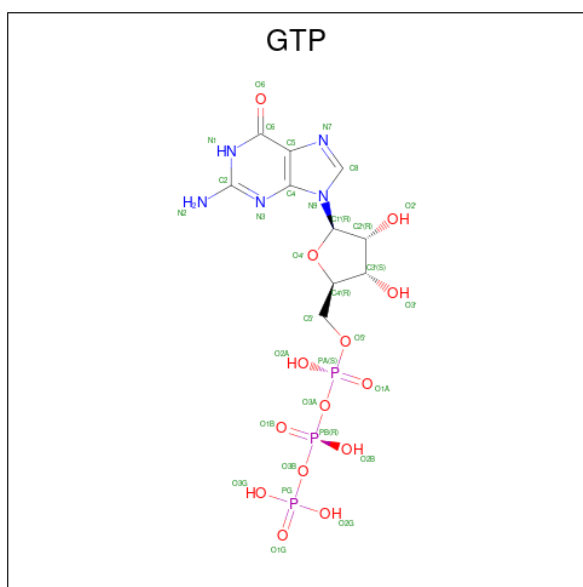
- Molecule 35 is a protein called EFCAB6.

Mol	Chain	Residues	Atoms				AltConf	Trace
35	t	178	Total	C	N	O	0	0
			882	526	178	178		

- Molecule 36 is a protein called Pierce1.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	y	63	Total	C	N	O	S	0	0
			515	329	88	94	4		
36	z	115	Total	C	N	O	S	0	0
			950	602	168	175	5		

- Molecule 37 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: C₁₀H₁₆N₅O₁₄P₃).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	AA	1	Total 32	10	5	14	3	0
37	AC	1	Total 32	10	5	14	3	0
37	AE	1	Total 32	10	5	14	3	0
37	AG	1	Total 32	10	5	14	3	0
37	AI	1	Total 32	10	5	14	3	0
37	AK	1	Total 32	10	5	14	3	0
37	AM	1	Total 32	10	5	14	3	0
37	BA	1	Total 32	10	5	14	3	0
37	BC	1	Total 32	10	5	14	3	0
37	BE	1	Total 32	10	5	14	3	0
37	BG	1	Total 32	10	5	14	3	0
37	BI	1	Total 32	10	5	14	3	0
37	BK	1	Total 32	10	5	14	3	0
37	BM	1	Total 32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	CA	1	Total 32	C 10	N 5	O 14	P 3	0
37	CC	1	Total 32	C 10	N 5	O 14	P 3	0
37	CE	1	Total 32	C 10	N 5	O 14	P 3	0
37	CG	1	Total 32	C 10	N 5	O 14	P 3	0
37	CI	1	Total 32	C 10	N 5	O 14	P 3	0
37	CK	1	Total 32	C 10	N 5	O 14	P 3	0
37	CM	1	Total 32	C 10	N 5	O 14	P 3	0
37	DA	1	Total 32	C 10	N 5	O 14	P 3	0
37	DC	1	Total 32	C 10	N 5	O 14	P 3	0
37	DE	1	Total 32	C 10	N 5	O 14	P 3	0
37	DG	1	Total 32	C 10	N 5	O 14	P 3	0
37	DI	1	Total 32	C 10	N 5	O 14	P 3	0
37	DK	1	Total 32	C 10	N 5	O 14	P 3	0
37	DM	1	Total 32	C 10	N 5	O 14	P 3	0
37	EC	1	Total 32	C 10	N 5	O 14	P 3	0
37	EE	1	Total 32	C 10	N 5	O 14	P 3	0
37	EG	1	Total 32	C 10	N 5	O 14	P 3	0
37	EI	1	Total 32	C 10	N 5	O 14	P 3	0
37	EK	1	Total 32	C 10	N 5	O 14	P 3	0
37	EM	1	Total 32	C 10	N 5	O 14	P 3	0
37	FC	1	Total 32	C 10	N 5	O 14	P 3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	FE	1	Total 32	C 10	N 5	O 14	P 3	0
37	FG	1	Total 32	C 10	N 5	O 14	P 3	0
37	FI	1	Total 32	C 10	N 5	O 14	P 3	0
37	FK	1	Total 32	C 10	N 5	O 14	P 3	0
37	FM	1	Total 32	C 10	N 5	O 14	P 3	0
37	GC	1	Total 32	C 10	N 5	O 14	P 3	0
37	GE	1	Total 32	C 10	N 5	O 14	P 3	0
37	GG	1	Total 32	C 10	N 5	O 14	P 3	0
37	GI	1	Total 32	C 10	N 5	O 14	P 3	0
37	GK	1	Total 32	C 10	N 5	O 14	P 3	0
37	GM	1	Total 32	C 10	N 5	O 14	P 3	0
37	HC	1	Total 32	C 10	N 5	O 14	P 3	0
37	HE	1	Total 32	C 10	N 5	O 14	P 3	0
37	HG	1	Total 32	C 10	N 5	O 14	P 3	0
37	HI	1	Total 32	C 10	N 5	O 14	P 3	0
37	HK	1	Total 32	C 10	N 5	O 14	P 3	0
37	HM	1	Total 32	C 10	N 5	O 14	P 3	0
37	HO	1	Total 32	C 10	N 5	O 14	P 3	0
37	IC	1	Total 32	C 10	N 5	O 14	P 3	0
37	IE	1	Total 32	C 10	N 5	O 14	P 3	0
37	IG	1	Total 32	C 10	N 5	O 14	P 3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	II	1	Total 32	C 10	N 5	O 14	P 3	0
37	IK	1	Total 32	C 10	N 5	O 14	P 3	0
37	IM	1	Total 32	C 10	N 5	O 14	P 3	0
37	IO	1	Total 32	C 10	N 5	O 14	P 3	0
37	JC	1	Total 32	C 10	N 5	O 14	P 3	0
37	JE	1	Total 32	C 10	N 5	O 14	P 3	0
37	JG	1	Total 32	C 10	N 5	O 14	P 3	0
37	JI	1	Total 32	C 10	N 5	O 14	P 3	0
37	JK	1	Total 32	C 10	N 5	O 14	P 3	0
37	JM	1	Total 32	C 10	N 5	O 14	P 3	0
37	KC	1	Total 32	C 10	N 5	O 14	P 3	0
37	KE	1	Total 32	C 10	N 5	O 14	P 3	0
37	KG	1	Total 32	C 10	N 5	O 14	P 3	0
37	KI	1	Total 32	C 10	N 5	O 14	P 3	0
37	KK	1	Total 32	C 10	N 5	O 14	P 3	0
37	KM	1	Total 32	C 10	N 5	O 14	P 3	0
37	KO	1	Total 32	C 10	N 5	O 14	P 3	0
37	LC	1	Total 32	C 10	N 5	O 14	P 3	0
37	LE	1	Total 32	C 10	N 5	O 14	P 3	0
37	LG	1	Total 32	C 10	N 5	O 14	P 3	0
37	LI	1	Total 32	C 10	N 5	O 14	P 3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	LK	1	Total 32	C 10	N 5	O 14	P 3	0
37	LM	1	Total 32	C 10	N 5	O 14	P 3	0
37	MC	1	Total 32	C 10	N 5	O 14	P 3	0
37	ME	1	Total 32	C 10	N 5	O 14	P 3	0
37	MG	1	Total 32	C 10	N 5	O 14	P 3	0
37	MI	1	Total 32	C 10	N 5	O 14	P 3	0
37	MK	1	Total 32	C 10	N 5	O 14	P 3	0
37	MM	1	Total 32	C 10	N 5	O 14	P 3	0
37	NA	1	Total 32	C 10	N 5	O 14	P 3	0
37	NC	1	Total 32	C 10	N 5	O 14	P 3	0
37	NE	1	Total 32	C 10	N 5	O 14	P 3	0
37	NG	1	Total 32	C 10	N 5	O 14	P 3	0
37	NI	1	Total 32	C 10	N 5	O 14	P 3	0
37	NK	1	Total 32	C 10	N 5	O 14	P 3	0
37	OA	1	Total 32	C 10	N 5	O 14	P 3	0
37	OC	1	Total 32	C 10	N 5	O 14	P 3	0
37	OE	1	Total 32	C 10	N 5	O 14	P 3	0
37	OG	1	Total 32	C 10	N 5	O 14	P 3	0
37	OI	1	Total 32	C 10	N 5	O 14	P 3	0
37	OK	1	Total 32	C 10	N 5	O 14	P 3	0
37	PA	1	Total 32	C 10	N 5	O 14	P 3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	PC	1	Total 32	C 10	N 5	O 14	P 3	0
37	PE	1	Total 32	C 10	N 5	O 14	P 3	0
37	PG	1	Total 32	C 10	N 5	O 14	P 3	0
37	PI	1	Total 32	C 10	N 5	O 14	P 3	0
37	PK	1	Total 32	C 10	N 5	O 14	P 3	0
37	PM	1	Total 32	C 10	N 5	O 14	P 3	0
37	QA	1	Total 32	C 10	N 5	O 14	P 3	0
37	QC	1	Total 32	C 10	N 5	O 14	P 3	0
37	QE	1	Total 32	C 10	N 5	O 14	P 3	0
37	QG	1	Total 32	C 10	N 5	O 14	P 3	0
37	QI	1	Total 32	C 10	N 5	O 14	P 3	0
37	QK	1	Total 32	C 10	N 5	O 14	P 3	0
37	QM	1	Total 32	C 10	N 5	O 14	P 3	0
37	RA	1	Total 32	C 10	N 5	O 14	P 3	0
37	RC	1	Total 32	C 10	N 5	O 14	P 3	0
37	RE	1	Total 32	C 10	N 5	O 14	P 3	0
37	RG	1	Total 32	C 10	N 5	O 14	P 3	0
37	RI	1	Total 32	C 10	N 5	O 14	P 3	0
37	RK	1	Total 32	C 10	N 5	O 14	P 3	0
37	RM	1	Total 32	C 10	N 5	O 14	P 3	0
37	SA	1	Total 32	C 10	N 5	O 14	P 3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	SC	1	Total 32	C 10	N 5	O 14	P 3	0
37	SE	1	Total 32	C 10	N 5	O 14	P 3	0
37	SG	1	Total 32	C 10	N 5	O 14	P 3	0
37	SI	1	Total 32	C 10	N 5	O 14	P 3	0
37	SK	1	Total 32	C 10	N 5	O 14	P 3	0
37	SM	1	Total 32	C 10	N 5	O 14	P 3	0
37	TC	1	Total 32	C 10	N 5	O 14	P 3	0
37	TE	1	Total 32	C 10	N 5	O 14	P 3	0
37	TG	1	Total 32	C 10	N 5	O 14	P 3	0
37	TI	1	Total 32	C 10	N 5	O 14	P 3	0
37	TK	1	Total 32	C 10	N 5	O 14	P 3	0
37	TM	1	Total 32	C 10	N 5	O 14	P 3	0
37	UC	1	Total 32	C 10	N 5	O 14	P 3	0
37	UE	1	Total 32	C 10	N 5	O 14	P 3	0
37	UG	1	Total 32	C 10	N 5	O 14	P 3	0
37	UI	1	Total 32	C 10	N 5	O 14	P 3	0
37	UK	1	Total 32	C 10	N 5	O 14	P 3	0
37	UM	1	Total 32	C 10	N 5	O 14	P 3	0
37	VC	1	Total 32	C 10	N 5	O 14	P 3	0
37	VE	1	Total 32	C 10	N 5	O 14	P 3	0
37	VG	1	Total 32	C 10	N 5	O 14	P 3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
37	VI	1	32	10	5	14	3	0
37	VK	1	32	10	5	14	3	0
37	VM	1	32	10	5	14	3	0
37	WC	1	32	10	5	14	3	0
37	WE	1	32	10	5	14	3	0
37	WG	1	32	10	5	14	3	0
37	WI	1	32	10	5	14	3	0
37	WK	1	32	10	5	14	3	0
37	WM	1	32	10	5	14	3	0

- Molecule 38 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
38	AA	1	1	1	0
38	AC	1	1	1	0
38	AE	1	1	1	0
38	AG	1	1	1	0
38	AI	1	1	1	0
38	AK	1	1	1	0
38	AM	1	1	1	0
38	BA	1	1	1	0
38	BC	1	1	1	0
38	BE	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
38	BG	1	1	1	0
38	BI	1	1	1	0
38	BK	1	1	1	0
38	BM	1	1	1	0
38	CA	1	1	1	0
38	CC	1	1	1	0
38	CE	1	1	1	0
38	CG	1	1	1	0
38	CI	1	1	1	0
38	CK	1	1	1	0
38	CM	1	1	1	0
38	DA	1	1	1	0
38	DC	1	1	1	0
38	DE	1	1	1	0
38	DG	1	1	1	0
38	DI	1	1	1	0
38	DK	1	1	1	0
38	DM	1	1	1	0
38	EC	1	1	1	0
38	EE	1	1	1	0
38	EG	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
38	EI	1	1	1	0
38	EK	1	1	1	0
38	EM	1	1	1	0
38	FC	1	1	1	0
38	FE	1	1	1	0
38	FG	1	1	1	0
38	FI	1	1	1	0
38	FK	1	1	1	0
38	FM	1	1	1	0
38	GC	1	1	1	0
38	GE	1	1	1	0
38	GG	1	1	1	0
38	GI	1	1	1	0
38	GK	1	1	1	0
38	GM	1	1	1	0
38	HC	1	1	1	0
38	HE	1	1	1	0
38	HG	1	1	1	0
38	HI	1	1	1	0
38	HK	1	1	1	0
38	HM	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
38	HO	1	1	1	0
38	IC	1	1	1	0
38	IE	1	1	1	0
38	IG	1	1	1	0
38	II	1	1	1	0
38	IK	1	1	1	0
38	IM	1	1	1	0
38	IO	1	1	1	0
38	JC	1	1	1	0
38	JE	1	1	1	0
38	JG	1	1	1	0
38	JI	1	1	1	0
38	JK	1	1	1	0
38	JM	1	1	1	0
38	KC	1	1	1	0
38	KE	1	1	1	0
38	KG	1	1	1	0
38	KI	1	1	1	0
38	KK	1	1	1	0
38	KM	1	1	1	0
38	KO	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
38	LC	1	1	1	0
38	LE	1	1	1	0
38	LG	1	1	1	0
38	LI	1	1	1	0
38	LK	1	1	1	0
38	LM	1	1	1	0
38	MC	1	1	1	0
38	ME	1	1	1	0
38	MG	1	1	1	0
38	MI	1	1	1	0
38	MK	1	1	1	0
38	MM	1	1	1	0
38	NA	1	1	1	0
38	NC	1	1	1	0
38	NE	1	1	1	0
38	NG	1	1	1	0
38	NI	1	1	1	0
38	NK	1	1	1	0
38	OA	1	1	1	0
38	OC	1	1	1	0
38	OE	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
38	OG	1	1	1	0
38	OI	1	1	1	0
38	OK	1	1	1	0
38	PA	1	1	1	0
38	PC	1	1	1	0
38	PE	1	1	1	0
38	PG	1	1	1	0
38	PI	1	1	1	0
38	PK	1	1	1	0
38	PM	1	1	1	0
38	QA	1	1	1	0
38	QC	1	1	1	0
38	QE	1	1	1	0
38	QG	1	1	1	0
38	QI	1	1	1	0
38	QK	1	1	1	0
38	QM	1	1	1	0
38	RA	1	1	1	0
38	RC	1	1	1	0
38	RE	1	1	1	0
38	RG	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
38	RI	1	1	1	0
38	RK	1	1	1	0
38	RM	1	1	1	0
38	SA	1	1	1	0
38	SC	1	1	1	0
38	SE	1	1	1	0
38	SG	1	1	1	0
38	SI	1	1	1	0
38	SK	1	1	1	0
38	SM	1	1	1	0
38	TC	1	1	1	0
38	TE	1	1	1	0
38	TG	1	1	1	0
38	TI	1	1	1	0
38	TK	1	1	1	0
38	TM	1	1	1	0
38	UC	1	1	1	0
38	UE	1	1	1	0
38	UG	1	1	1	0
38	UI	1	1	1	0
38	UK	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
38	UM	1	Total 1	Mg 1	0
38	VC	1	Total 1	Mg 1	0
38	VE	1	Total 1	Mg 1	0
38	VG	1	Total 1	Mg 1	0
38	VI	1	Total 1	Mg 1	0
38	VK	1	Total 1	Mg 1	0
38	VM	1	Total 1	Mg 1	0
38	WC	1	Total 1	Mg 1	0
38	WE	1	Total 1	Mg 1	0
38	WG	1	Total 1	Mg 1	0
38	WI	1	Total 1	Mg 1	0
38	WK	1	Total 1	Mg 1	0
38	WM	1	Total 1	Mg 1	0

- Molecule 39 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
39	CF	1	28	10	5	11	2	0
39	CH	1	28	10	5	11	2	0
39	CJ	1	28	10	5	11	2	0
39	CL	1	28	10	5	11	2	0
39	DB	1	28	10	5	11	2	0
39	DD	1	28	10	5	11	2	0
39	DF	1	28	10	5	11	2	0
39	DH	1	28	10	5	11	2	0
39	DJ	1	28	10	5	11	2	0
39	DL	1	28	10	5	11	2	0
39	DN	1	28	10	5	11	2	0
39	EB	1	28	10	5	11	2	0
39	ED	1	28	10	5	11	2	0
39	EF	1	28	10	5	11	2	0
39	EH	1	28	10	5	11	2	0
39	EJ	1	28	10	5	11	2	0
39	EL	1	28	10	5	11	2	0
39	EN	1	28	10	5	11	2	0
39	FB	1	28	10	5	11	2	0
39	FD	1	28	10	5	11	2	0
39	FF	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
39	FH	1	28	10	5	11	2	0
39	FJ	1	28	10	5	11	2	0
39	FL	1	28	10	5	11	2	0
39	FN	1	28	10	5	11	2	0
39	GB	1	28	10	5	11	2	0
39	GD	1	28	10	5	11	2	0
39	GF	1	28	10	5	11	2	0
39	GH	1	28	10	5	11	2	0
39	GJ	1	28	10	5	11	2	0
39	GL	1	28	10	5	11	2	0
39	GN	1	28	10	5	11	2	0
39	HB	1	28	10	5	11	2	0
39	HD	1	28	10	5	11	2	0
39	HF	1	28	10	5	11	2	0
39	HH	1	28	10	5	11	2	0
39	HJ	1	28	10	5	11	2	0
39	HL	1	28	10	5	11	2	0
39	HN	1	28	10	5	11	2	0
39	IB	1	28	10	5	11	2	0
39	ID	1	28	10	5	11	2	0
39	IF	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
39	IH	1	Total 28	C 10	N 5	O 11	P 2	0
39	IJ	1	Total 28	C 10	N 5	O 11	P 2	0
39	IL	1	Total 28	C 10	N 5	O 11	P 2	0
39	IN	1	Total 28	C 10	N 5	O 11	P 2	0
39	JB	1	Total 28	C 10	N 5	O 11	P 2	0
39	JD	1	Total 28	C 10	N 5	O 11	P 2	0
39	JF	1	Total 28	C 10	N 5	O 11	P 2	0
39	JH	1	Total 28	C 10	N 5	O 11	P 2	0
39	JJ	1	Total 28	C 10	N 5	O 11	P 2	0
39	JL	1	Total 28	C 10	N 5	O 11	P 2	0
39	JN	1	Total 28	C 10	N 5	O 11	P 2	0
39	KB	1	Total 28	C 10	N 5	O 11	P 2	0
39	KD	1	Total 28	C 10	N 5	O 11	P 2	0
39	KF	1	Total 28	C 10	N 5	O 11	P 2	0
39	KH	1	Total 28	C 10	N 5	O 11	P 2	0
39	KJ	1	Total 28	C 10	N 5	O 11	P 2	0
39	KL	1	Total 28	C 10	N 5	O 11	P 2	0
39	KN	1	Total 28	C 10	N 5	O 11	P 2	0
39	LB	1	Total 28	C 10	N 5	O 11	P 2	0
39	LD	1	Total 28	C 10	N 5	O 11	P 2	0
39	LF	1	Total 28	C 10	N 5	O 11	P 2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
39	LH	1	28	10	5	11	2	0
39	LJ	1	28	10	5	11	2	0
39	LL	1	28	10	5	11	2	0
39	LN	1	28	10	5	11	2	0
39	MB	1	28	10	5	11	2	0
39	MD	1	28	10	5	11	2	0
39	MF	1	28	10	5	11	2	0
39	MH	1	28	10	5	11	2	0
39	MJ	1	28	10	5	11	2	0
39	ML	1	28	10	5	11	2	0
39	MN	1	28	10	5	11	2	0
39	N0	1	28	10	5	11	2	0
39	NB	1	28	10	5	11	2	0
39	ND	1	28	10	5	11	2	0
39	NF	1	28	10	5	11	2	0
39	NH	1	28	10	5	11	2	0
39	NJ	1	28	10	5	11	2	0
39	NL	1	28	10	5	11	2	0
39	O0	1	28	10	5	11	2	0
39	OB	1	28	10	5	11	2	0
39	OD	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
39	OF	1	28	10	5	11	2	0
39	OH	1	28	10	5	11	2	0
39	OJ	1	28	10	5	11	2	0
39	OL	1	28	10	5	11	2	0
39	PB	1	28	10	5	11	2	0
39	PD	1	28	10	5	11	2	0
39	PF	1	28	10	5	11	2	0
39	PH	1	28	10	5	11	2	0
39	PJ	1	28	10	5	11	2	0
39	PL	1	28	10	5	11	2	0
39	QB	1	28	10	5	11	2	0
39	QD	1	28	10	5	11	2	0
39	QF	1	28	10	5	11	2	0
39	QH	1	28	10	5	11	2	0
39	QJ	1	28	10	5	11	2	0
39	QL	1	28	10	5	11	2	0
39	RB	1	28	10	5	11	2	0
39	RD	1	28	10	5	11	2	0
39	RF	1	28	10	5	11	2	0
39	RH	1	28	10	5	11	2	0
39	RJ	1	28	10	5	11	2	0

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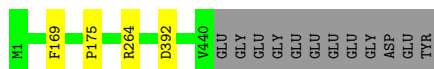
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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
39	RL	1	28	10	5	11	2	0
39	SB	1	28	10	5	11	2	0
39	SD	1	28	10	5	11	2	0
39	SF	1	28	10	5	11	2	0
39	SH	1	28	10	5	11	2	0
39	SJ	1	28	10	5	11	2	0
39	SL	1	28	10	5	11	2	0
39	TB	1	28	10	5	11	2	0
39	TD	1	28	10	5	11	2	0
39	TF	1	28	10	5	11	2	0
39	TH	1	28	10	5	11	2	0
39	TJ	1	28	10	5	11	2	0
39	TL	1	28	10	5	11	2	0
39	UB	1	28	10	5	11	2	0
39	UD	1	28	10	5	11	2	0
39	UF	1	28	10	5	11	2	0
39	UH	1	28	10	5	11	2	0
39	UJ	1	28	10	5	11	2	0
39	UL	1	28	10	5	11	2	0
39	UN	1	28	10	5	11	2	0
39	VB	1	28	10	5	11	2	0

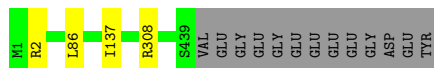
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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
39	VD	1	Total 28	10	5	11	2	0
39	VF	1	Total 28	10	5	11	2	0
39	VH	1	Total 28	10	5	11	2	0
39	VJ	1	Total 28	10	5	11	2	0
39	VL	1	Total 28	10	5	11	2	0
39	VN	1	Total 28	10	5	11	2	0
39	WB	1	Total 28	10	5	11	2	0
39	WD	1	Total 28	10	5	11	2	0
39	WF	1	Total 28	10	5	11	2	0
39	WH	1	Total 28	10	5	11	2	0
39	WJ	1	Total 28	10	5	11	2	0
39	WL	1	Total 28	10	5	11	2	0
39	WN	1	Total 28	10	5	11	2	0



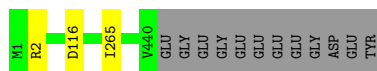
- Molecule 8: Tubulin alpha-1D chain



- Molecule 8: Tubulin alpha-1D chain



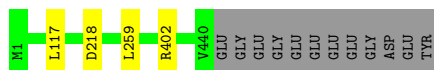
- Molecule 8: Tubulin alpha-1D chain



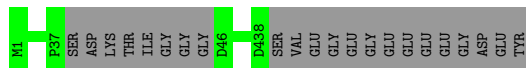
- Molecule 8: Tubulin alpha-1D chain



- Molecule 8: Tubulin alpha-1D chain

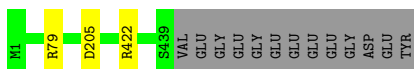


- Molecule 8: Tubulin alpha-1D chain



- Molecule 8: Tubulin alpha-1D chain





- Molecule 8: Tubulin alpha-1D chain

Chain BM: 94% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain CA: 95% 5%



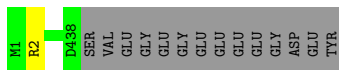
- Molecule 8: Tubulin alpha-1D chain

Chain CC: 95% 5%



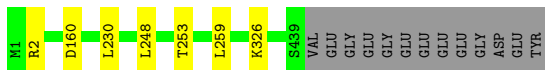
- Molecule 8: Tubulin alpha-1D chain

Chain CE: 97% 3%



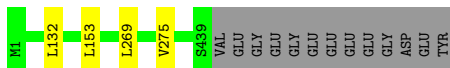
- Molecule 8: Tubulin alpha-1D chain

Chain CG: 96% 4%



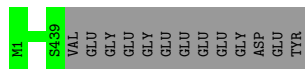
- Molecule 8: Tubulin alpha-1D chain

Chain CI: 96% 4%

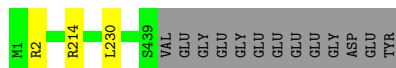


- Molecule 8: Tubulin alpha-1D chain

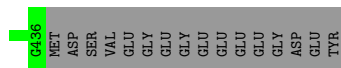
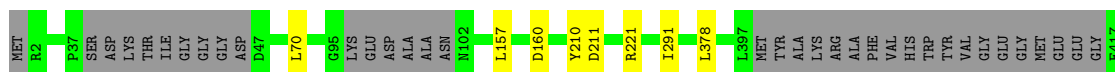
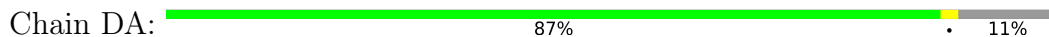
Chain CK: 97% 3%



• Molecule 8: Tubulin alpha-1D chain



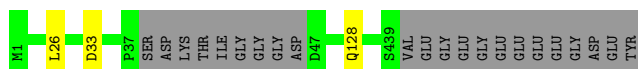
• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain

Chain DK:  95% 5%



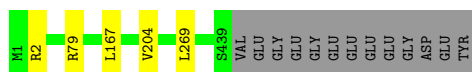
- Molecule 8: Tubulin alpha-1D chain

Chain DM:  93% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain EC:  96%



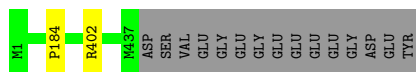
- Molecule 8: Tubulin alpha-1D chain

Chain EE:  96%



- Molecule 8: Tubulin alpha-1D chain

Chain EG:  96%



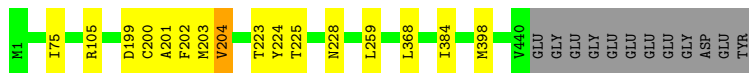
- Molecule 8: Tubulin alpha-1D chain

Chain EI:  94%



- Molecule 8: Tubulin alpha-1D chain

Chain EK:  94%



- Molecule 8: Tubulin alpha-1D chain

Chain EM:  94% • 5%



- Molecule 8: Tubulin alpha-1D chain

Chain FC:  94% • 5%



- Molecule 8: Tubulin alpha-1D chain

Chain FE:  93% • 6%



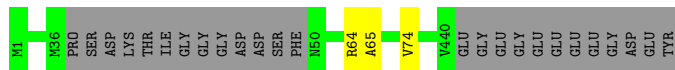
- Molecule 8: Tubulin alpha-1D chain

Chain FG:  92% • 6%



- Molecule 8: Tubulin alpha-1D chain

Chain FI:  94% • 6%



- Molecule 8: Tubulin alpha-1D chain

Chain FK:  92% • 6%

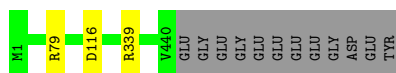


- Molecule 8: Tubulin alpha-1D chain

Chain FM:  94% • 5%



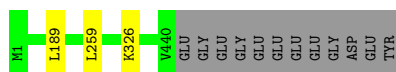
- Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain

Chain HE:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain HG:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain HI:  95% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain HK:  95% • 5%




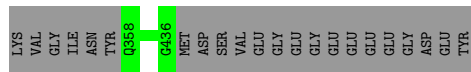
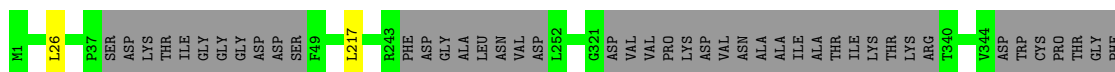
• Molecule 8: Tubulin alpha-1D chain

Chain HM:  94% • 5%



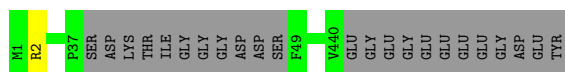
• Molecule 8: Tubulin alpha-1D chain

Chain HO:  85% 15%



• Molecule 8: Tubulin alpha-1D chain

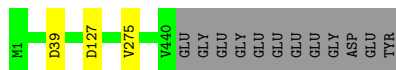
Chain IC:  95% • 5%



• Molecule 8: Tubulin alpha-1D chain



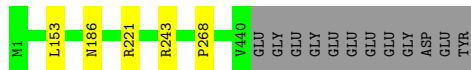
• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



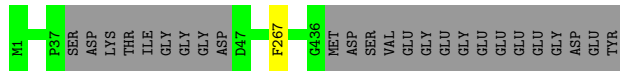
• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



• Molecule 8: Tubulin alpha-1D chain



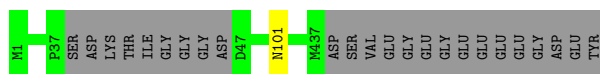
• Molecule 8: Tubulin alpha-1D chain

Chain JE:  95% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain JG:  94% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain JI:  94% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain JK:  96% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain JM:  94% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain KC:  95% 5%



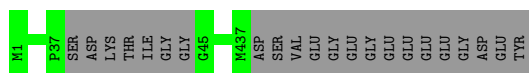
- Molecule 8: Tubulin alpha-1D chain

Chain KE:  94% 5%



- Molecule 8: Tubulin alpha-1D chain

Chain KG:  95% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain KI:  93% 5%



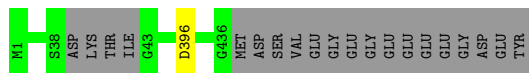
• Molecule 8: Tubulin alpha-1D chain

Chain KK:  94% 5%



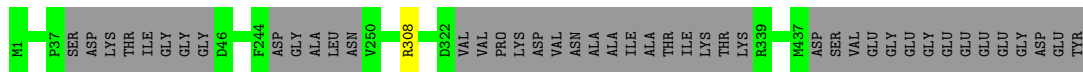
• Molecule 8: Tubulin alpha-1D chain

Chain KM:  95% .



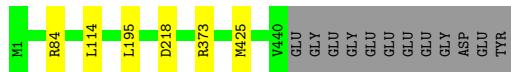
• Molecule 8: Tubulin alpha-1D chain

Chain KO:  90% 10%



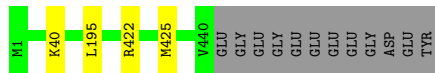
• Molecule 8: Tubulin alpha-1D chain

Chain LC:  96% ..



• Molecule 8: Tubulin alpha-1D chain

Chain LE:  96% ..



• Molecule 8: Tubulin alpha-1D chain

Chain MI:  95% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain MK:  95% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain MM:  94% • 5%



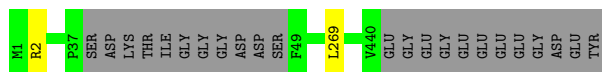
• Molecule 8: Tubulin alpha-1D chain

Chain NA:  94% • 5%



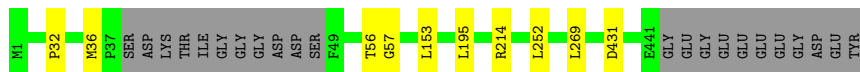
• Molecule 8: Tubulin alpha-1D chain

Chain NC:  94% • 5%

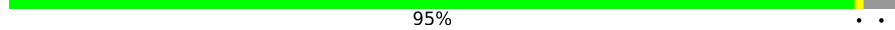


• Molecule 8: Tubulin alpha-1D chain

Chain NE:  93% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain NG:  95% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain NI:  95% . .



- Molecule 8: Tubulin alpha-1D chain

Chain NK:  94% . 5%



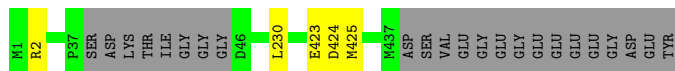
- Molecule 8: Tubulin alpha-1D chain

Chain OA:  94% . 5%



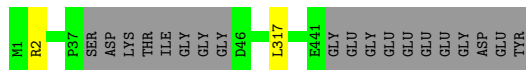
- Molecule 8: Tubulin alpha-1D chain

Chain OC:  94% . 5%



- Molecule 8: Tubulin alpha-1D chain

Chain OE:  95% .



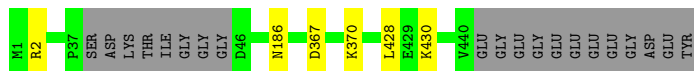
- Molecule 8: Tubulin alpha-1D chain

Chain OG:  95% . .



- Molecule 8: Tubulin alpha-1D chain

Chain OI:  94% . .



- Molecule 8: Tubulin alpha-1D chain

Chain OK:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain PA:  94% • 5%



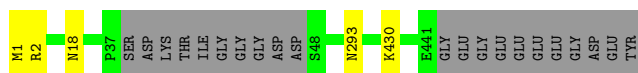
• Molecule 8: Tubulin alpha-1D chain

Chain PC:  95% • .



• Molecule 8: Tubulin alpha-1D chain

Chain PE:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain PG:  94% • 5%



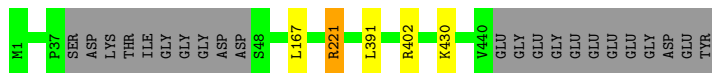
• Molecule 8: Tubulin alpha-1D chain

Chain PI:  94% • 6%



• Molecule 8: Tubulin alpha-1D chain

Chain PK:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain PM:  94% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain QA:  93% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain QC:  94% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain QE:  94% 5%



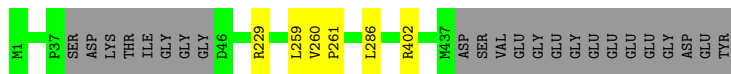
• Molecule 8: Tubulin alpha-1D chain

Chain QG:  94% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain QI:  94% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain QK:  94% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain QM:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain RA:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain RC:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain RE:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain RG:  94% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain RI:  95% 5%



• Molecule 8: Tubulin alpha-1D chain

Chain RK:  93% • 5%



• Molecule 8: Tubulin alpha-1D chain

Chain RM:  94% • 5%



- Molecule 8: Tubulin alpha-1D chain

Chain SA:  94% • 5%



- Molecule 8: Tubulin alpha-1D chain

Chain SC:  94% • 5%



- Molecule 8: Tubulin alpha-1D chain

Chain SE:  94% • 5%



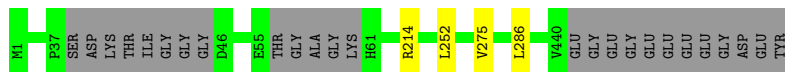
- Molecule 8: Tubulin alpha-1D chain

Chain SG:  94% • 5%



- Molecule 8: Tubulin alpha-1D chain

Chain SI:  94% • 6%



- Molecule 8: Tubulin alpha-1D chain

Chain SK:  95% •



- Molecule 8: Tubulin alpha-1D chain

Chain SM:  94% . 5%



- Molecule 8: Tubulin alpha-1D chain

Chain TC:  93% . 5%



- Molecule 8: Tubulin alpha-1D chain

Chain TE:  94% . .



- Molecule 8: Tubulin alpha-1D chain

Chain TG:  94% . 5%



- Molecule 8: Tubulin alpha-1D chain

Chain TI:  94% . 5%



- Molecule 8: Tubulin alpha-1D chain

Chain TK:  95% . .



- Molecule 8: Tubulin alpha-1D chain

Chain TM:  94% . 5%



- Molecule 8: Tubulin alpha-1D chain

Chain UC:  95% ..



- Molecule 8: Tubulin alpha-1D chain

Chain UE:  95% .



- Molecule 8: Tubulin alpha-1D chain

Chain UG:  95% ..



- Molecule 8: Tubulin alpha-1D chain

Chain UI:  95% ..



- Molecule 8: Tubulin alpha-1D chain

Chain UK:  96% .



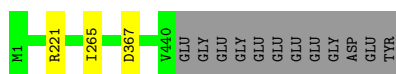
- Molecule 8: Tubulin alpha-1D chain

Chain UM:  95% . 5%





- Molecule 8: Tubulin alpha-1D chain

Chain VC:  97% ..



- Molecule 8: Tubulin alpha-1D chain

Chain VE:  95% 



- Molecule 8: Tubulin alpha-1D chain

Chain VG:  96% 



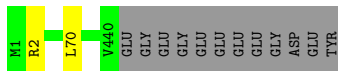
- Molecule 8: Tubulin alpha-1D chain

Chain VI:  95% 



- Molecule 8: Tubulin alpha-1D chain

Chain VK:  97% 



- Molecule 8: Tubulin alpha-1D chain

Chain VM:  94% 



- Molecule 8: Tubulin alpha-1D chain

Chain WC:  96% 



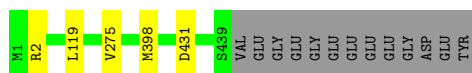
- Molecule 8: Tubulin alpha-1D chain

Chain WE:  94% 



- Molecule 8: Tubulin alpha-1D chain

Chain WG:  96%



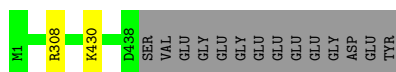
• Molecule 8: Tubulin alpha-1D chain

Chain WI:  94%



• Molecule 8: Tubulin alpha-1D chain

Chain WK:  96%



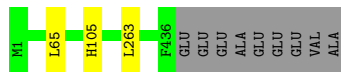
• Molecule 8: Tubulin alpha-1D chain

Chain WM:  94%



• Molecule 9: Tubulin beta-4B chain

Chain AB:  97%



• Molecule 9: Tubulin beta-4B chain

Chain AD:  96%



• Molecule 9: Tubulin beta-4B chain

Chain AF:  96%



• Molecule 9: Tubulin beta-4B chain

Chain AH:  97%



- Molecule 9: Tubulin beta-4B chain

Chain AJ: 94%



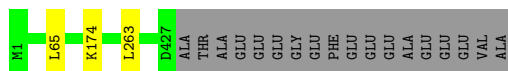
- Molecule 9: Tubulin beta-4B chain

Chain AL: 96%



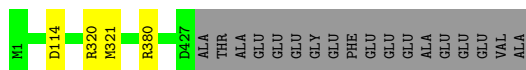
- Molecule 9: Tubulin beta-4B chain

Chain BB: 95%



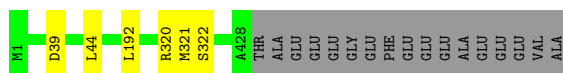
- Molecule 9: Tubulin beta-4B chain

Chain BD: 95%



- Molecule 9: Tubulin beta-4B chain

Chain BF: 95%



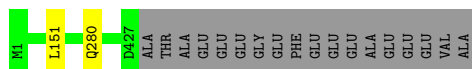
- Molecule 9: Tubulin beta-4B chain

Chain BH: 94%

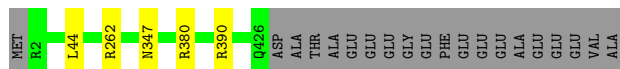


- Molecule 9: Tubulin beta-4B chain

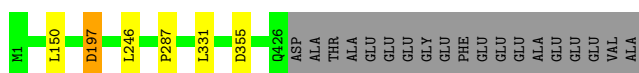
Chain BJ: 96%



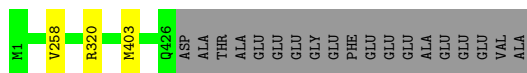
• Molecule 9: Tubulin beta-4B chain



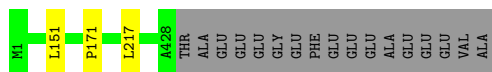
• Molecule 9: Tubulin beta-4B chain



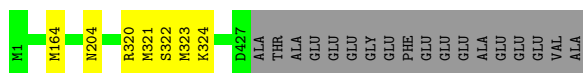
• Molecule 9: Tubulin beta-4B chain



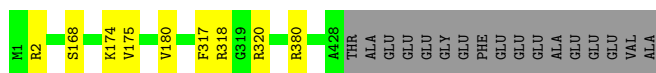
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain



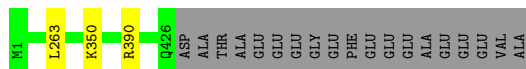
• Molecule 9: Tubulin beta-4B chain





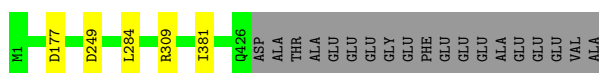
- Molecule 9: Tubulin beta-4B chain

Chain DB: 95%



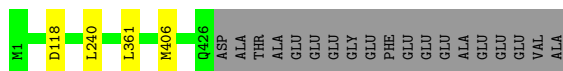
- Molecule 9: Tubulin beta-4B chain

Chain DD: 95%



- Molecule 9: Tubulin beta-4B chain

Chain DF: 95%



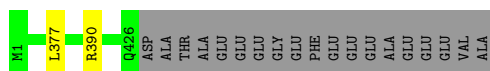
- Molecule 9: Tubulin beta-4B chain

Chain DH: 93%



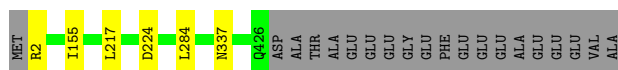
- Molecule 9: Tubulin beta-4B chain

Chain DJ: 95%



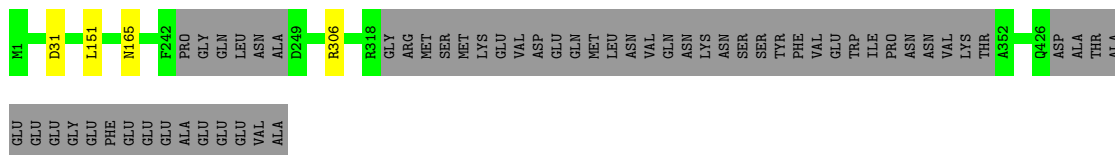
- Molecule 9: Tubulin beta-4B chain

Chain DL: 94%

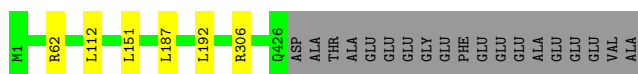


- Molecule 9: Tubulin beta-4B chain

Chain DN: 86% 13%



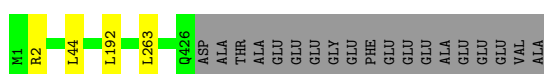
• Molecule 9: Tubulin beta-4B chain



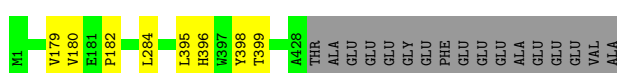
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain



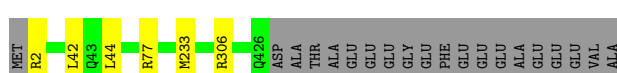
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

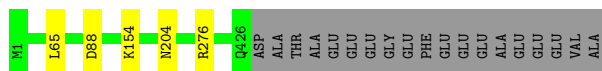


• Molecule 9: Tubulin beta-4B chain

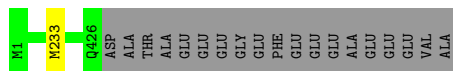


• Molecule 9: Tubulin beta-4B chain

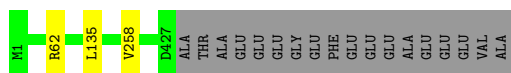




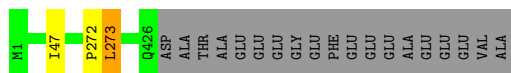
• Molecule 9: Tubulin beta-4B chain



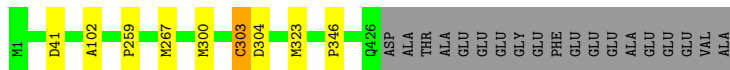
• Molecule 9: Tubulin beta-4B chain



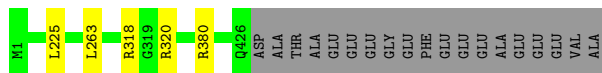
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

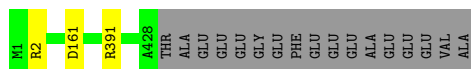


• Molecule 9: Tubulin beta-4B chain



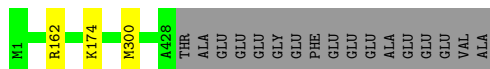
• Molecule 9: Tubulin beta-4B chain





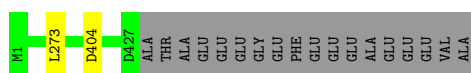
- Molecule 9: Tubulin beta-4B chain

Chain GB: 96%



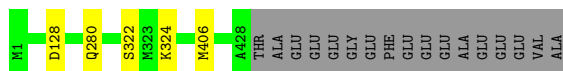
- Molecule 9: Tubulin beta-4B chain

Chain GD: 96%



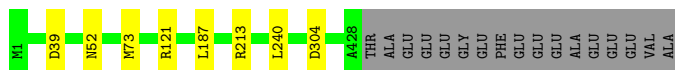
- Molecule 9: Tubulin beta-4B chain

Chain GF: 95%



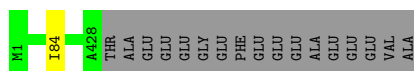
- Molecule 9: Tubulin beta-4B chain

Chain GH: 94%



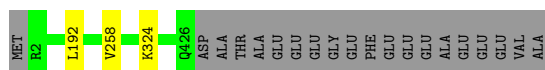
- Molecule 9: Tubulin beta-4B chain

Chain GJ: 96%



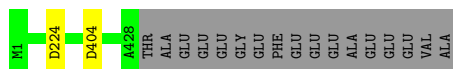
- Molecule 9: Tubulin beta-4B chain

Chain GL: 95%

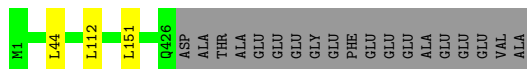


- Molecule 9: Tubulin beta-4B chain

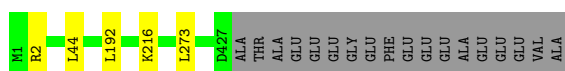
Chain GN: 96%



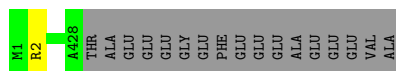
• Molecule 9: Tubulin beta-4B chain



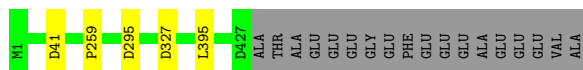
• Molecule 9: Tubulin beta-4B chain



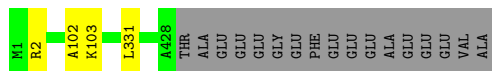
• Molecule 9: Tubulin beta-4B chain



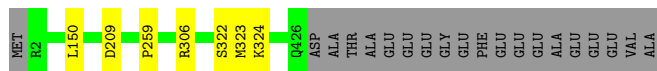
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

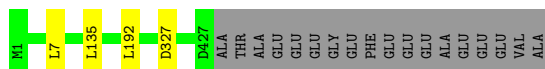


• Molecule 9: Tubulin beta-4B chain



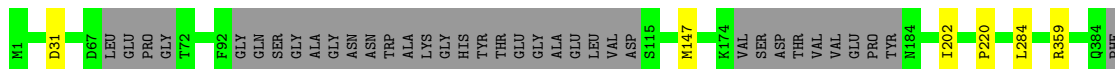
• Molecule 9: Tubulin beta-4B chain





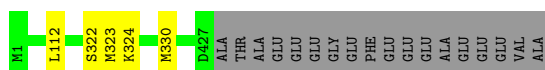
- Molecule 9: Tubulin beta-4B chain

Chain IB: 82% 17%



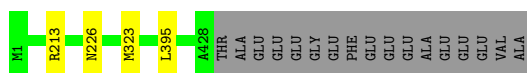
- Molecule 9: Tubulin beta-4B chain

Chain ID: 95%



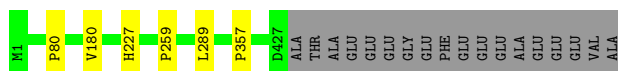
- Molecule 9: Tubulin beta-4B chain

Chain IF: 95%



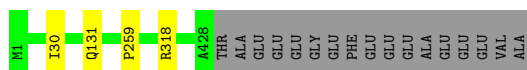
- Molecule 9: Tubulin beta-4B chain

Chain IH: 95%



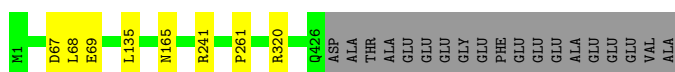
- Molecule 9: Tubulin beta-4B chain

Chain IJ: 95%



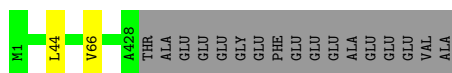
- Molecule 9: Tubulin beta-4B chain

Chain IL: 94%



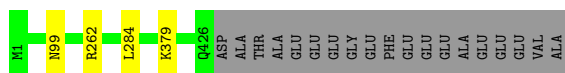
- Molecule 9: Tubulin beta-4B chain

Chain IN:  96%



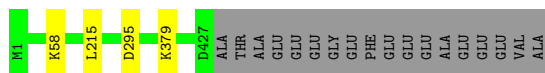
• Molecule 9: Tubulin beta-4B chain

Chain JB:  95%



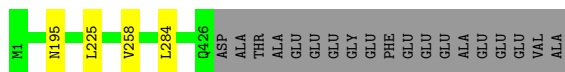
• Molecule 9: Tubulin beta-4B chain

Chain JD:  95%



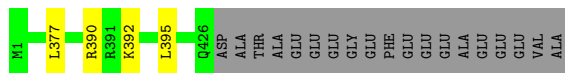
• Molecule 9: Tubulin beta-4B chain

Chain JF:  95%



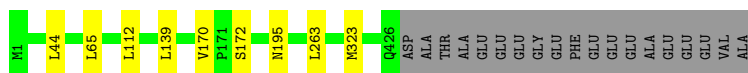
• Molecule 9: Tubulin beta-4B chain

Chain JH:  95%



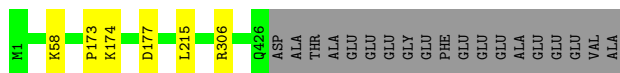
• Molecule 9: Tubulin beta-4B chain

Chain JJ:  94%



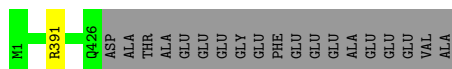
• Molecule 9: Tubulin beta-4B chain

Chain JL:  94%



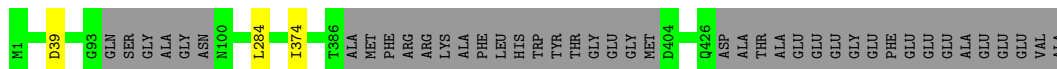
• Molecule 9: Tubulin beta-4B chain

Chain JN:  96%



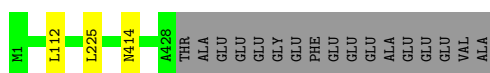
- Molecule 9: Tubulin beta-4B chain

Chain KB: 90% 9%



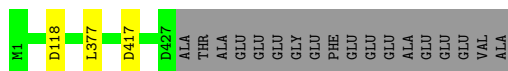
- Molecule 9: Tubulin beta-4B chain

Chain KD: 96%



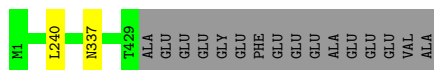
- Molecule 9: Tubulin beta-4B chain

Chain KF: 95%



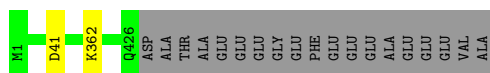
- Molecule 9: Tubulin beta-4B chain

Chain KH: 96%



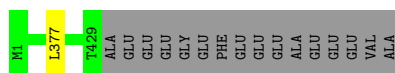
- Molecule 9: Tubulin beta-4B chain

Chain KJ: 95%



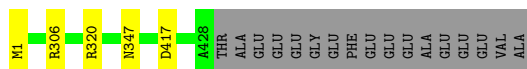
- Molecule 9: Tubulin beta-4B chain

Chain KL: 96%



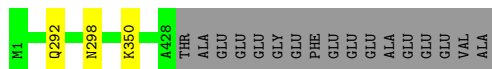
- Molecule 9: Tubulin beta-4B chain

Chain KN: 95%



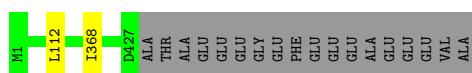
- Molecule 9: Tubulin beta-4B chain

Chain LB: 96%



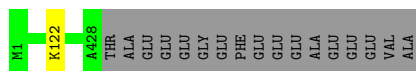
- Molecule 9: Tubulin beta-4B chain

Chain LD: 96%



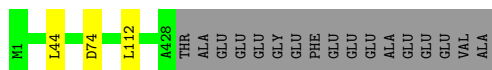
- Molecule 9: Tubulin beta-4B chain

Chain LF: 96%



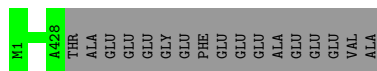
- Molecule 9: Tubulin beta-4B chain

Chain LH: 96%



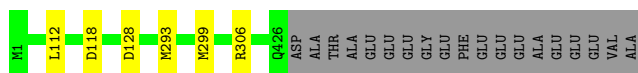
- Molecule 9: Tubulin beta-4B chain

Chain LJ: 96%



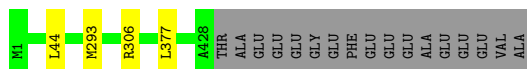
- Molecule 9: Tubulin beta-4B chain

Chain LL: 94%



- Molecule 9: Tubulin beta-4B chain

Chain LN: 95%



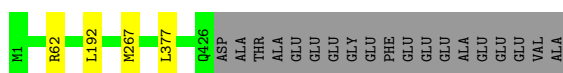
- Molecule 9: Tubulin beta-4B chain

Chain MB: 93%



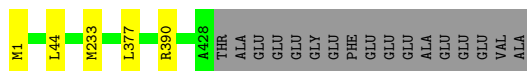
- Molecule 9: Tubulin beta-4B chain

Chain MD: 95%



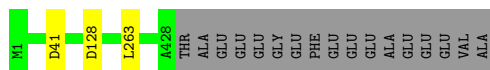
- Molecule 9: Tubulin beta-4B chain

Chain MF: 95%



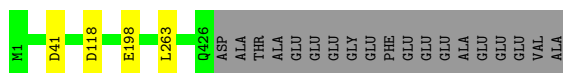
- Molecule 9: Tubulin beta-4B chain

Chain MH: 96%



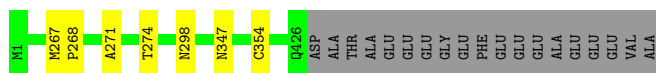
- Molecule 9: Tubulin beta-4B chain

Chain MJ: 95%



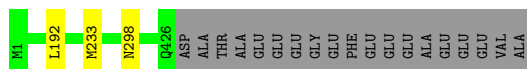
- Molecule 9: Tubulin beta-4B chain

Chain ML: 94%



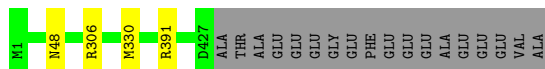
- Molecule 9: Tubulin beta-4B chain

Chain MN: 95%



- Molecule 9: Tubulin beta-4B chain

Chain N0: 95%



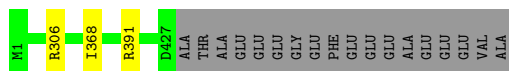
- Molecule 9: Tubulin beta-4B chain

Chain NB: 93%



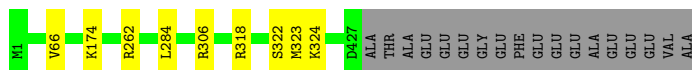
- Molecule 9: Tubulin beta-4B chain

Chain ND: 95%



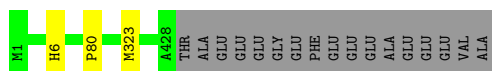
- Molecule 9: Tubulin beta-4B chain

Chain NF: 94%



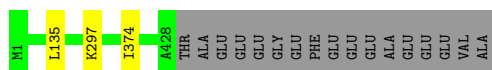
- Molecule 9: Tubulin beta-4B chain

Chain NH: 96%



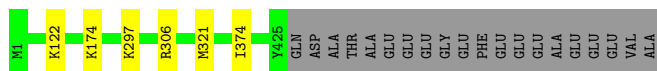
- Molecule 9: Tubulin beta-4B chain

Chain NJ: 96%

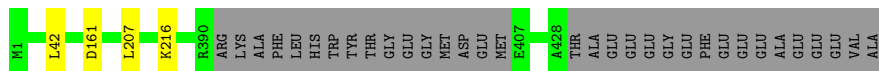


- Molecule 9: Tubulin beta-4B chain

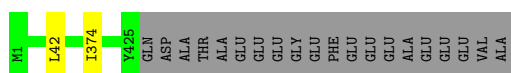
Chain NL: 94%



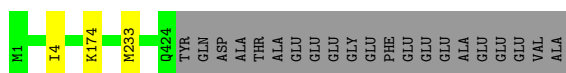
• Molecule 9: Tubulin beta-4B chain



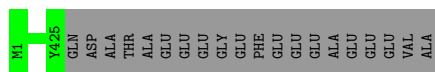
• Molecule 9: Tubulin beta-4B chain



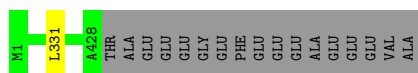
• Molecule 9: Tubulin beta-4B chain



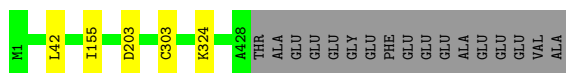
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

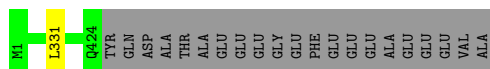


• Molecule 9: Tubulin beta-4B chain

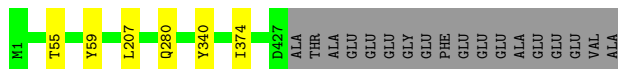


• Molecule 9: Tubulin beta-4B chain

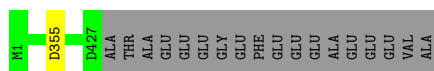




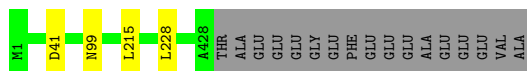
- Molecule 9: Tubulin beta-4B chain



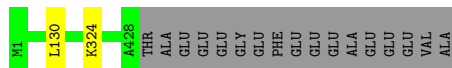
- Molecule 9: Tubulin beta-4B chain



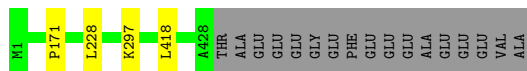
- Molecule 9: Tubulin beta-4B chain



- Molecule 9: Tubulin beta-4B chain



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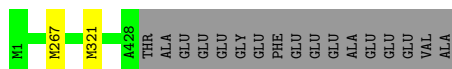


- Molecule 9: Tubulin beta-4B chain



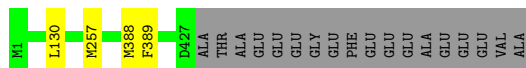
- Molecule 9: Tubulin beta-4B chain





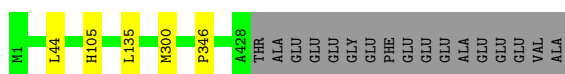
- Molecule 9: Tubulin beta-4B chain

Chain QD: 95%



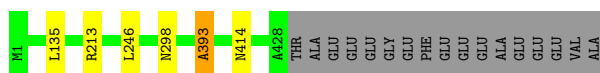
- Molecule 9: Tubulin beta-4B chain

Chain QF: 95%



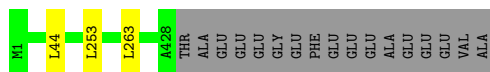
- Molecule 9: Tubulin beta-4B chain

Chain QH: 95%



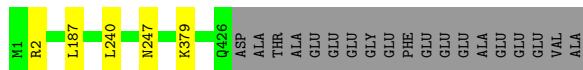
- Molecule 9: Tubulin beta-4B chain

Chain QJ: 96%



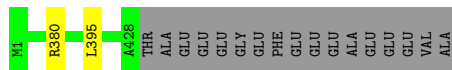
- Molecule 9: Tubulin beta-4B chain

Chain QL: 95%



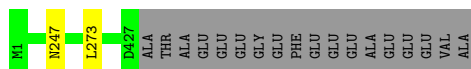
- Molecule 9: Tubulin beta-4B chain

Chain RB: 96%



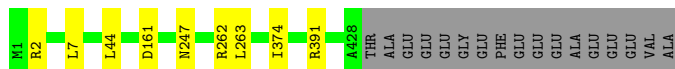
- Molecule 9: Tubulin beta-4B chain

Chain RD: 96%



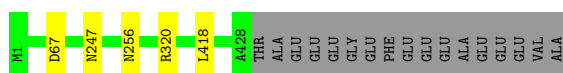
- Molecule 9: Tubulin beta-4B chain

Chain RF: 94%



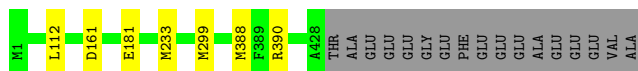
- Molecule 9: Tubulin beta-4B chain

Chain RH: 95%



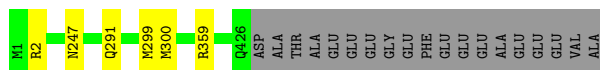
- Molecule 9: Tubulin beta-4B chain

Chain RJ: 95%



- Molecule 9: Tubulin beta-4B chain

Chain RL: 94%



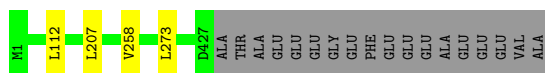
- Molecule 9: Tubulin beta-4B chain

Chain SB: 94%



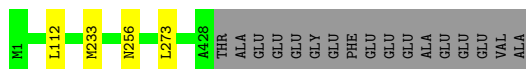
- Molecule 9: Tubulin beta-4B chain

Chain SD: 95%



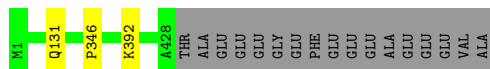
- Molecule 9: Tubulin beta-4B chain

Chain SF: 95%



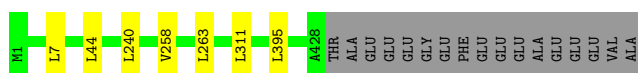
- Molecule 9: Tubulin beta-4B chain

Chain SH: 96%



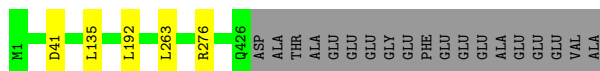
- Molecule 9: Tubulin beta-4B chain

Chain SJ: 95%



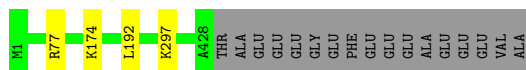
- Molecule 9: Tubulin beta-4B chain

Chain SL: 95%



- Molecule 9: Tubulin beta-4B chain

Chain TB: 95%



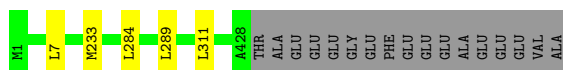
- Molecule 9: Tubulin beta-4B chain

Chain TD: 95%



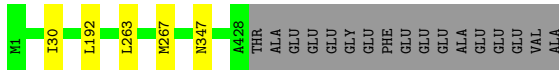
- Molecule 9: Tubulin beta-4B chain

Chain TF: 95%



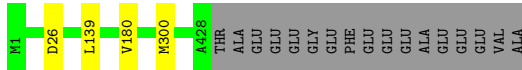
- Molecule 9: Tubulin beta-4B chain

Chain TH: 95%



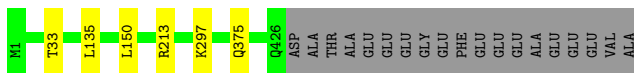
- Molecule 9: Tubulin beta-4B chain

Chain TJ: 95%



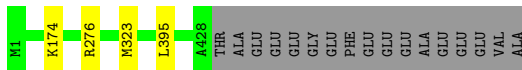
- Molecule 9: Tubulin beta-4B chain

Chain TL: 94%



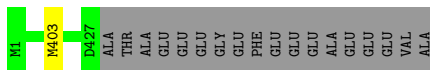
- Molecule 9: Tubulin beta-4B chain

Chain UB: 95%



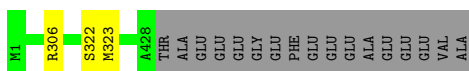
- Molecule 9: Tubulin beta-4B chain

Chain UD: 96%



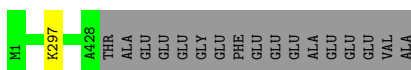
- Molecule 9: Tubulin beta-4B chain

Chain UF: 96%



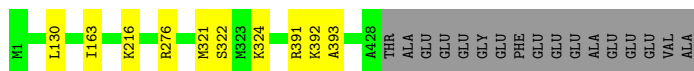
- Molecule 9: Tubulin beta-4B chain

Chain UH: 96%



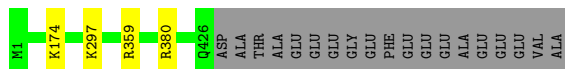
- Molecule 9: Tubulin beta-4B chain

Chain UJ: 94%



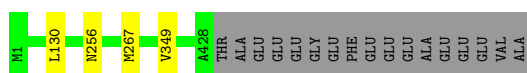
- Molecule 9: Tubulin beta-4B chain

Chain UL: 95%



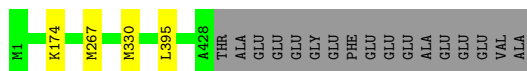
- Molecule 9: Tubulin beta-4B chain

Chain UN: 95%



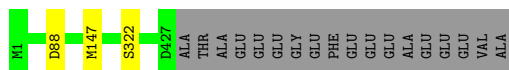
- Molecule 9: Tubulin beta-4B chain

Chain VB: 95%



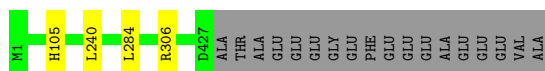
- Molecule 9: Tubulin beta-4B chain

Chain VD: 95%



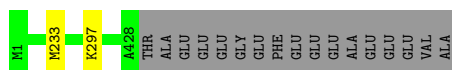
- Molecule 9: Tubulin beta-4B chain

Chain VF: 95%



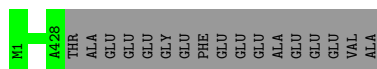
- Molecule 9: Tubulin beta-4B chain

Chain VH: 96%



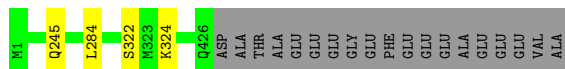
- Molecule 9: Tubulin beta-4B chain

Chain VJ: 96%



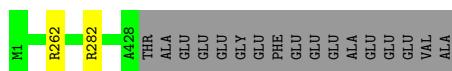
- Molecule 9: Tubulin beta-4B chain

Chain VL: 95%



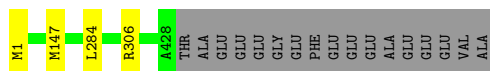
- Molecule 9: Tubulin beta-4B chain

Chain VN: 96%



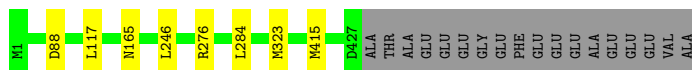
- Molecule 9: Tubulin beta-4B chain

Chain WB: 95%



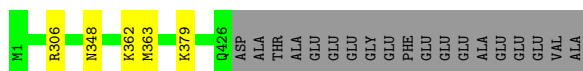
- Molecule 9: Tubulin beta-4B chain

Chain WD: 94%



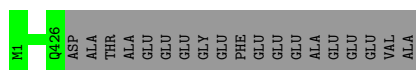
- Molecule 9: Tubulin beta-4B chain

Chain WF: 95%



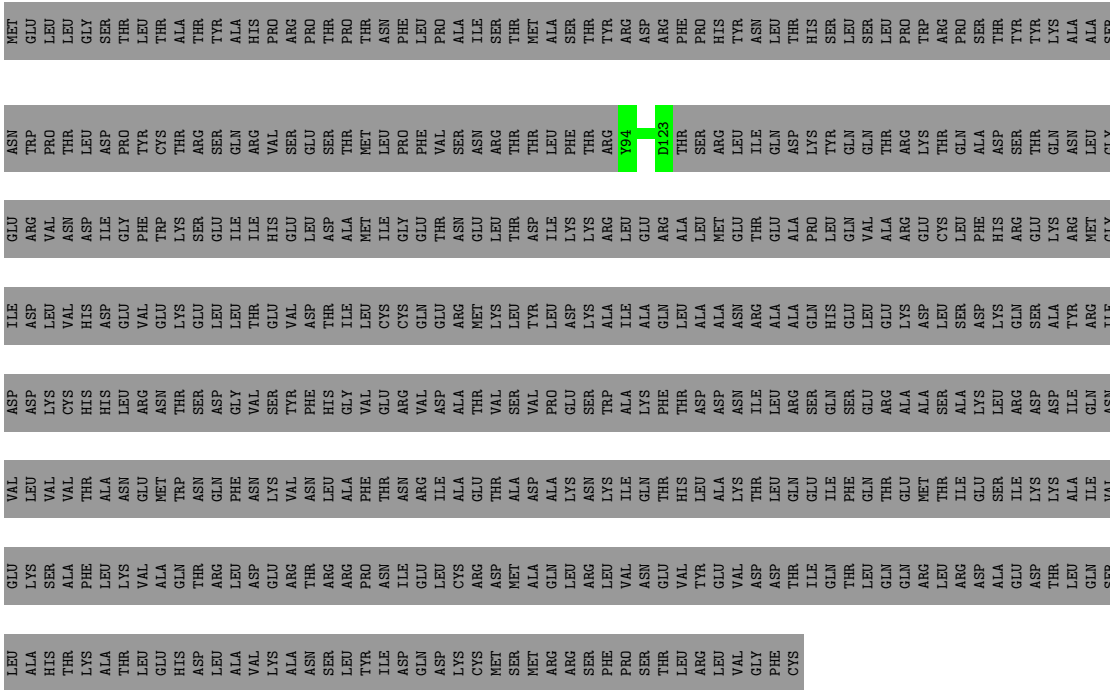
- Molecule 9: Tubulin beta-4B chain

Chain WH: 96%

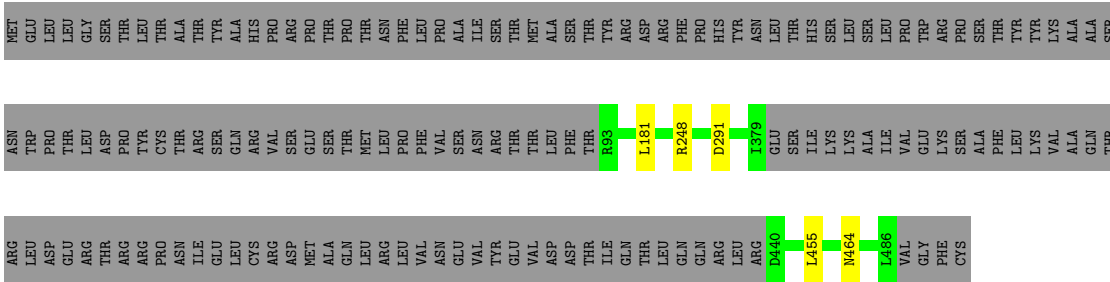


- Molecule 9: Tubulin beta-4B chain

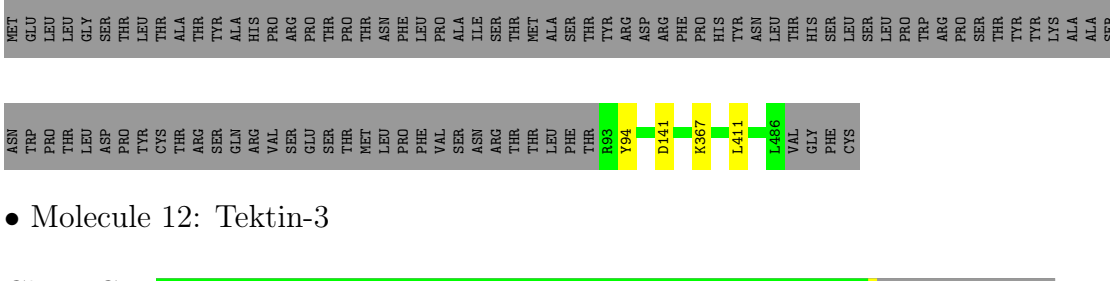
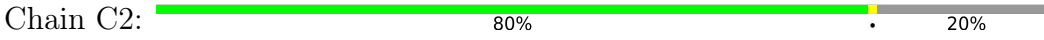
Chain WJ: 95%



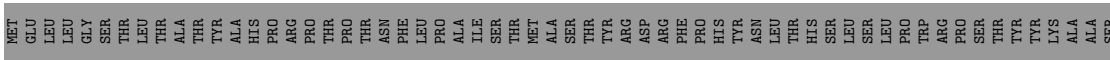
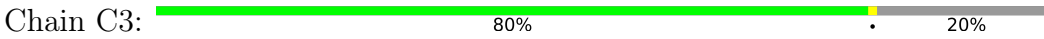
• Molecule 12: Tektin-3

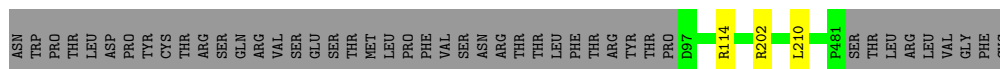


• Molecule 12: Tektin-3

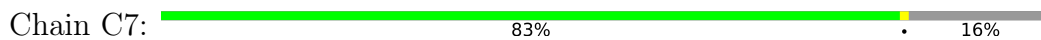


• Molecule 12: Tektin-3

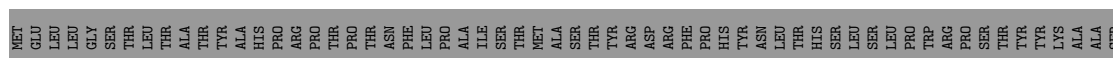
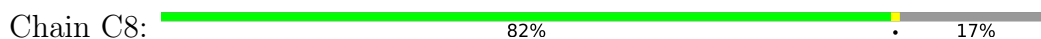




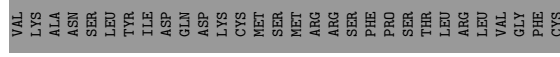
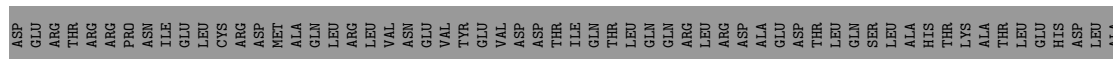
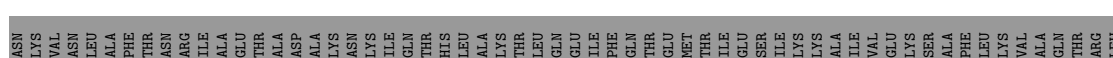
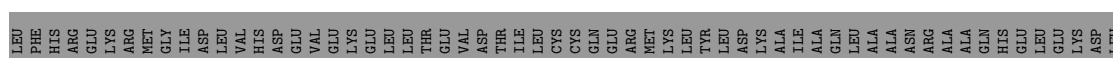
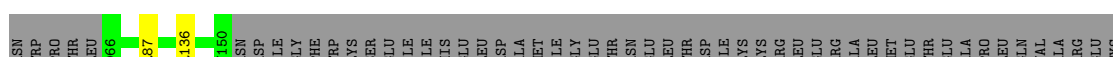
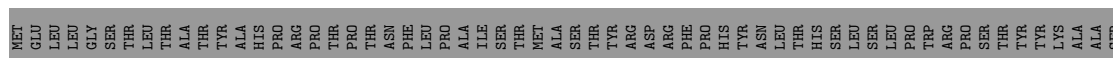
● Molecule 12: Tektin-3



● Molecule 12: Tektin-3



● Molecule 12: Tektin-3

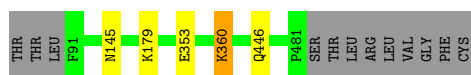
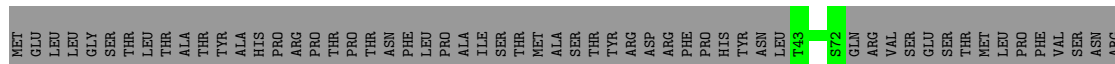


● Molecule 12: Tektin-3

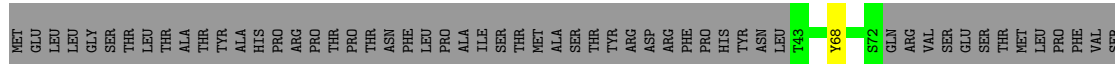
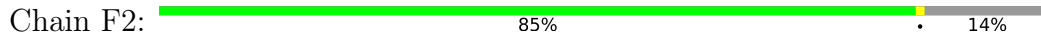




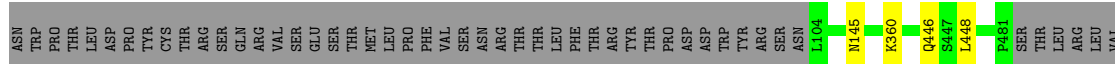
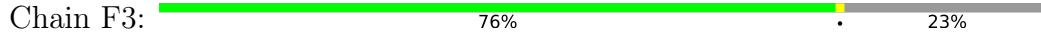
• Molecule 12: Tektin-3



• Molecule 12: Tektin-3



• Molecule 12: Tektin-3

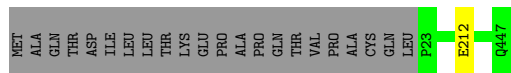


• Molecule 12: Tektin-3



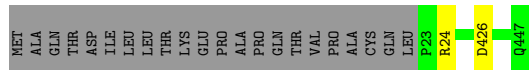
• Molecule 14: Tektin-4

Chain D1:  95% 5%



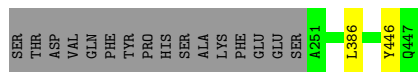
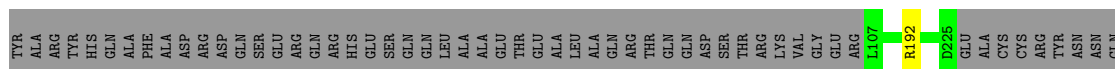
• Molecule 14: Tektin-4

Chain D2:  95% 5%



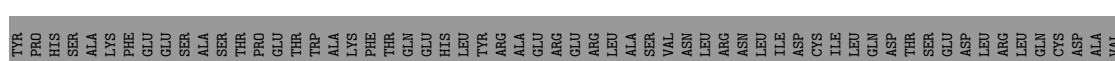
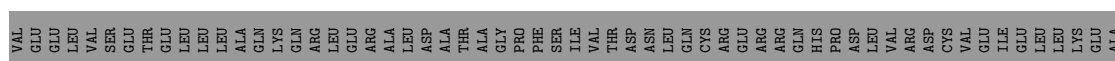
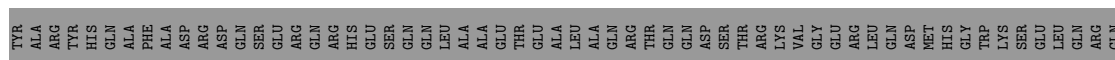
• Molecule 14: Tektin-4

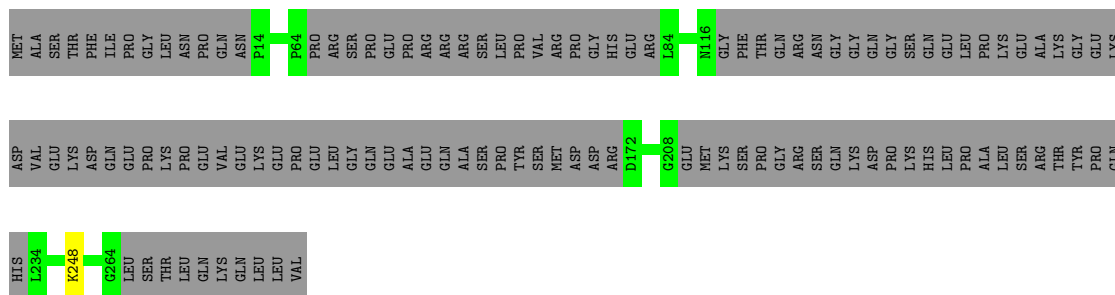
Chain D3:  70% 29%



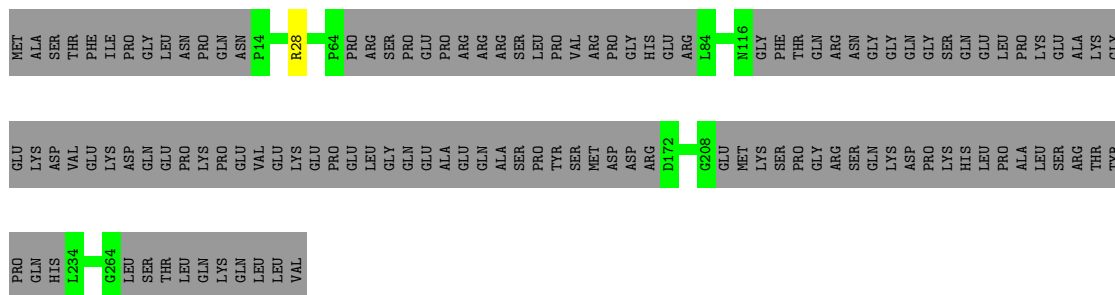
• Molecule 14: Tektin-4

Chain D5:  98%

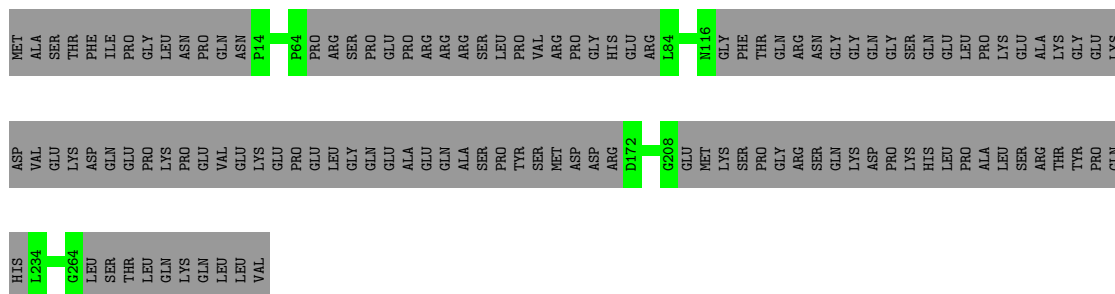




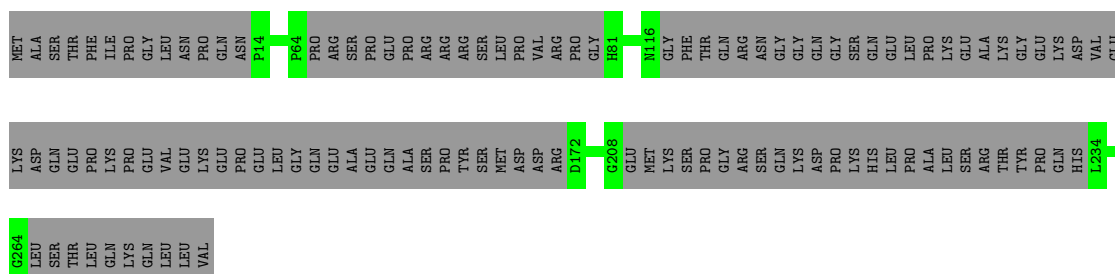
• Molecule 18: Protein FAM166B



• Molecule 18: Protein FAM166B



• Molecule 18: Protein FAM166B



• Molecule 19: Coiled-coil domain containing 114

LEU
ILE
LYS
GLU
LEU
ILE
ARG
MET
CYS
SER
HIS
GLY
GLU
ASP
ASN

• Molecule 25: EF-hand domain containing 1

Chain V: 70% 29%

MET VAL SER ASN PRO VAL H7 D50 R51 V64 ASN GLN LEU SER LEU GLN ASP TYR TYR ASN PHE ASP ARG VAL ARG ALA ALA PHE SER ASN

TYR ASN GLY PHE GLY LEU ILE GLU M414 L467 R502 L528 I631 ASN HIS ARG A84 R281 Y369 SER LYS LYS ALA GLU PRO PRO PRO PRO MET LYS GLN GLU LEU PRO GLU

ASP PRO VAL ARG ASP LEU ALA LEU ILE THR ASP ASN ARG VAL ILE ILE ARG THR PHE PHE LYS ILE CYS VAL TYR ASP MET THR ASP LYS ASP

SER LEU ILE LYS LEU ILE ARG MET CYS SER HIS GLY ASP LYS GLN ILE ASP TYR ASN PHE VAL ARG ALA PHE ASN

• Molecule 26: EFHC2

Chain W: 75% 25%

MET G2 N17 E188 LYS LEU ASP MET MET PRO ILE TYR CYS PRO VAL E200 P253 H254 N255 Y293 GLY TYR Y302 R335 K365 ALA PRO SER PRO PRO HIS VAL ILE R374 R402 ASN PHE LYS LYS VAL SER LYS ASP TYR GLY

ASN ILE SER N418 T419 L420 L628 E596 ASP PRO CYS PRO HIS ASN VAL VAL VAL PHE ALA ASP PHE ASP GLY GLN LEU LYS TYR ASN TYR PHE PHE CYS LEU LEU ASN MET VAL ILE ASP ARG VAL LYS LYS VAL TYR PRO ILE SER ASP ILE ARG

LEU CYS LYS SER ARG LEU PRO LEU ASP MET PRO TYR ILE TYR LEU LEU LEU SER GLY LEU LEU SER GLY PHE ASP VAL ASP VAL ASP GLU

TRP LEU MET PRO SER PRO ILE PRO VAL LYS TYR ILE TYR ASN ASN LEU LEU LEU LYS ASP VAL PHE PHE VAL GLY VAL ASP GLU

• Molecule 26: EFHC2

Chain X: 86% 13%

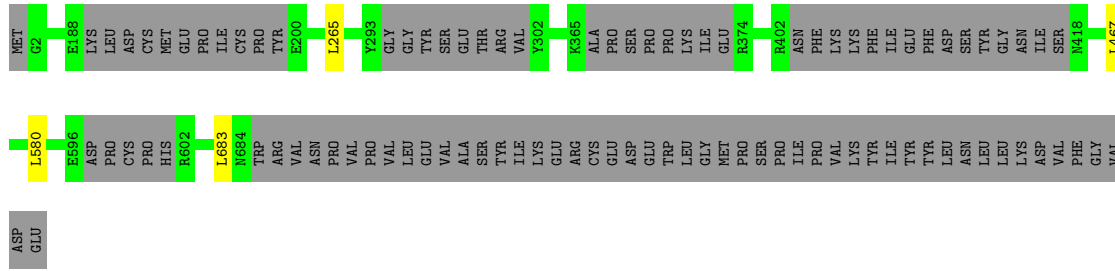
MET G2 E188 LYS LEU ASP CYS MET PRO PRO ILE TYR E200 D203 D223 L284 Y293 GLY TYR Y302 R335 K365 ALA PRO SER PRO HIS VAL ILE R374 R402 ASN PHE LYS LYS VAL TYR PHE ILE SER ASP ILE ARG

ASN ILE SER N418 V509 E596 ASP PRO CYS PRO HIS R602 L683 N684 TRP ARG VAL ASN PRO VAL VAL VAL VAL LEU LEU VAL VAL ASN SER TYR ILE LYS GLU ARG CYS GLU ASP TRP TRP GLY MET PRO SER PRO ILE VAL LYS TYR ILE TYR LEU ASN LEU LEU LYS ASP

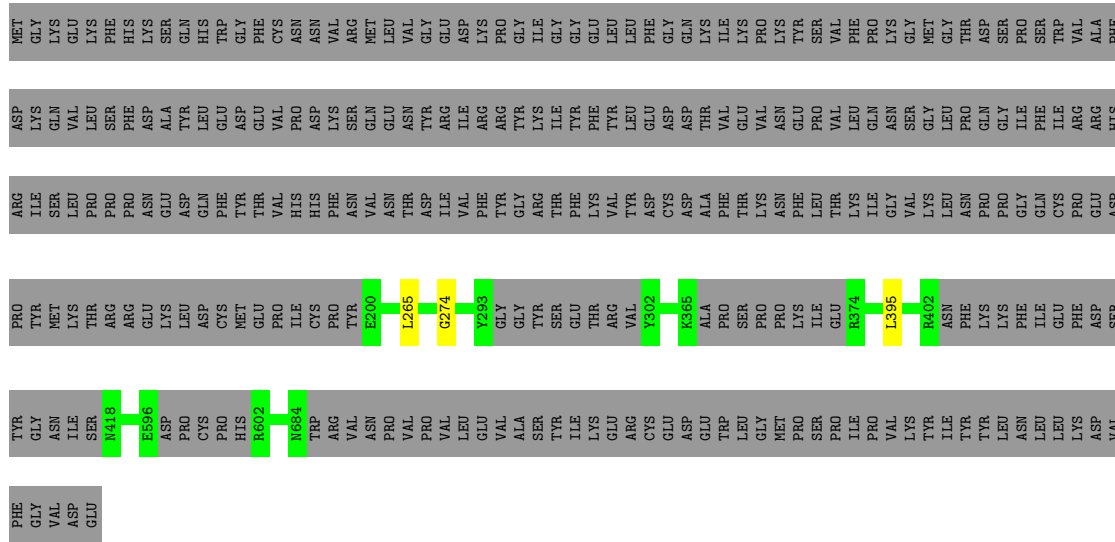
VAL PHE GLY VAL ASP GLU

• Molecule 26: EFHC2

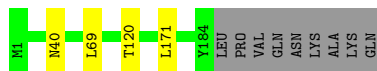
Chain Y: 86% 13%



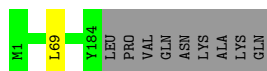
• Molecule 26: EFHC2



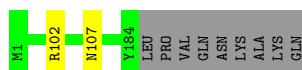
• Molecule 27: Cilia- and flagella-associated protein 20



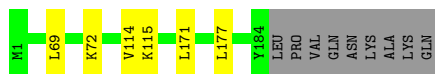
• Molecule 27: Cilia- and flagella-associated protein 20



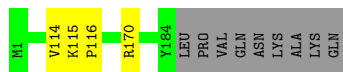
• Molecule 27: Cilia- and flagella-associated protein 20



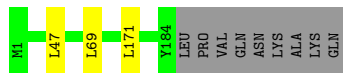
• Molecule 27: Cilia- and flagella-associated protein 20



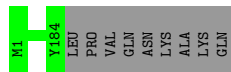
• Molecule 27: Cilia- and flagella-associated protein 20



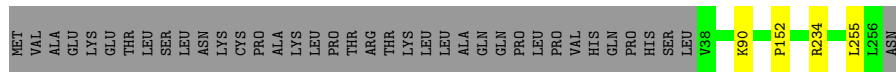
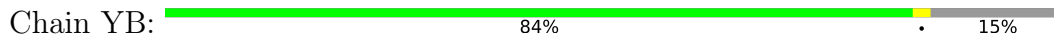
• Molecule 27: Cilia- and flagella-associated protein 20



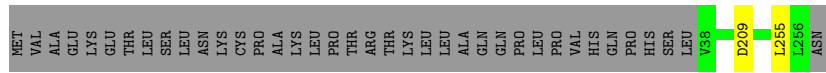
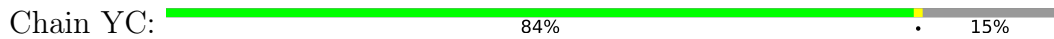
• Molecule 27: Cilia- and flagella-associated protein 20



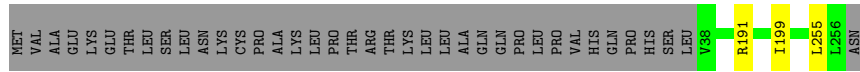
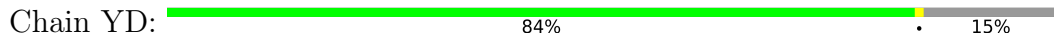
• Molecule 28: PACRG protein



• Molecule 28: PACRG protein



• Molecule 28: PACRG protein



• Molecule 28: PACRG protein

Chain f:  96%



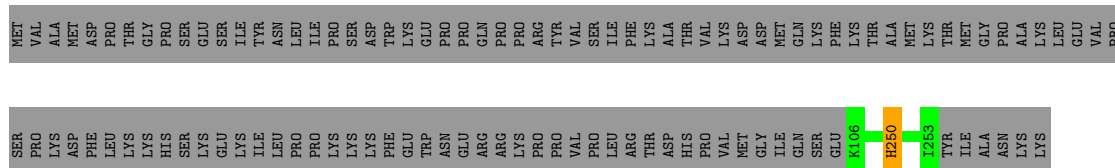
• Molecule 30: Cilia and flagella associated protein 52

Chain g:  96%




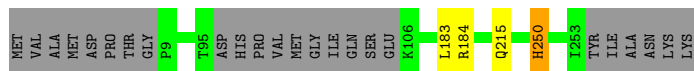
• Molecule 31: Enkurin, TRPC channel interacting protein

Chain h:  57% 43%




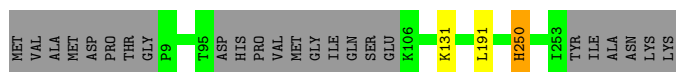
• Molecule 31: Enkurin, TRPC channel interacting protein

Chain i:  89% 9%



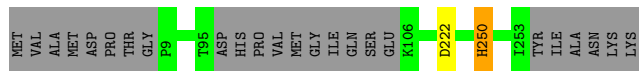
• Molecule 31: Enkurin, TRPC channel interacting protein

Chain j:  90% 9%



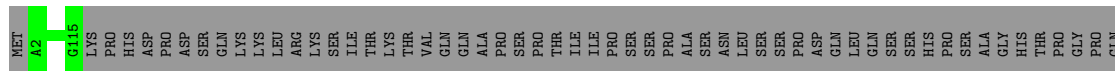
• Molecule 31: Enkurin, TRPC channel interacting protein

Chain k:  90% 9%



• Molecule 32: Protein Flattop

Chain l:  58% 42%




- Molecule 36: Pierce1

Chain y:  46% 54%

MET SER GLU TYR GLY ASP PRO LYS ALA CYS THR VAL HIS GLU PRO GLU MET GLU PRO LYS ALA GLY PRO PRO PRO PRO LYS THR SER ASP TRP TYR ARG VAL SER GLU ASP LEU PRO PRO ALA ARG PHE ASN ASN PRO ALA TRP PHE ARG GLY TYR ARG THR LYS GLU PRO PRO SER VAL TYR ARG THR ASN

GLN ALA TYR GLY SER ARG ALA PRO THR VAL HIS GLU MET E774 R86 D136

- Molecule 36: Pierce1

Chain z:  84% 15%

MET SER GLU ASP PRO LYS ALA CYS THR VAL HIS GLU PRO GLU PRO LYS ALA GLY PRO PRO PRO E22 D26 D136

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	80503	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	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: MG, GDP, GTP

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	0	0.37	0/337	0.56	0/452
1	7	0.39	0/820	0.60	1/1122 (0.1%)
2	1	0.33	0/933	0.56	0/1284
2	2	0.27	0/1528	0.48	0/2114
3	3	0.40	0/2303	0.58	2/3079 (0.1%)
3	4	0.43	0/1868	0.66	0/2471
4	5	0.33	0/2575	0.64	0/3508
4	6	0.35	0/3011	0.67	2/4065 (0.0%)
5	8	0.40	0/1671	0.74	2/2285 (0.1%)
5	9	0.34	0/294	0.54	0/398
6	A	0.38	0/1433	0.67	4/1901 (0.2%)
6	B	0.44	1/3071 (0.0%)	0.66	1/4071 (0.0%)
7	A0	0.43	0/1815	0.60	1/2442 (0.0%)
7	A1	0.44	0/3298	0.57	1/4442 (0.0%)
7	A2	0.45	0/3278	0.63	3/4415 (0.1%)
7	A3	0.43	0/2792	0.61	4/3754 (0.1%)
7	A4	0.42	0/296	0.59	0/397
8	AA	0.50	0/3500	0.73	1/4751 (0.0%)
8	AC	0.55	0/3515	0.73	4/4771 (0.1%)
8	AE	0.49	0/3515	0.70	4/4771 (0.1%)
8	AG	0.56	0/3515	0.75	6/4771 (0.1%)
8	AI	0.51	0/3515	0.67	3/4771 (0.1%)
8	AK	0.58	0/3515	0.71	3/4771 (0.1%)
8	AM	0.49	0/3508	0.66	2/4761 (0.0%)
8	BA	0.45	0/3449	0.69	1/4682 (0.0%)
8	BC	0.51	0/3515	0.69	2/4771 (0.0%)
8	BE	0.47	0/3473	0.68	1/4714 (0.0%)
8	BG	0.51	0/3515	0.72	3/4771 (0.1%)
8	BI	0.46	0/3451	0.66	0/4684
8	BK	0.53	0/3508	0.70	1/4761 (0.0%)
8	BM	0.46	0/3449	0.66	2/4681 (0.0%)
8	CA	0.40	0/3500	0.71	5/4751 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	CC	0.47	0/3502	0.69	5/4753 (0.1%)
8	CE	0.42	0/3502	0.64	0/4753
8	CG	0.49	0/3508	0.70	4/4761 (0.1%)
8	CI	0.42	0/3508	0.70	4/4761 (0.1%)
8	CK	0.45	0/3508	0.63	0/4761
8	CM	0.41	0/3508	0.67	2/4761 (0.0%)
8	DA	0.38	0/3209	0.74	7/4357 (0.2%)
8	DC	0.40	0/3443	0.68	1/4673 (0.0%)
8	DE	0.41	0/3449	0.69	2/4681 (0.0%)
8	DG	0.45	0/3456	0.74	6/4691 (0.1%)
8	DI	0.43	0/3441	0.73	4/4670 (0.1%)
8	DK	0.43	0/3449	0.72	1/4681 (0.0%)
8	DM	0.39	0/3449	0.69	3/4681 (0.1%)
8	EC	0.42	0/3508	0.70	3/4761 (0.1%)
8	EE	0.41	0/3524	0.72	3/4783 (0.1%)
8	EG	0.44	0/3494	0.72	1/4742 (0.0%)
8	EI	0.42	0/3486	0.77	7/4732 (0.1%)
8	EK	0.43	0/3515	0.76	6/4771 (0.1%)
8	EM	0.42	0/3435	0.70	2/4662 (0.0%)
8	FC	0.38	0/3456	0.70	2/4691 (0.0%)
8	FE	0.42	0/3415	0.74	5/4635 (0.1%)
8	FG	0.44	0/3423	0.78	6/4647 (0.1%)
8	FI	0.44	0/3422	0.79	2/4644 (0.0%)
8	FK	0.42	0/3401	0.76	5/4617 (0.1%)
8	FM	0.41	0/3441	0.73	4/4669 (0.1%)
8	GC	0.46	0/3515	0.66	1/4771 (0.0%)
8	GE	0.34	0/3448	0.62	0/4680
8	GG	0.42	0/3515	0.64	2/4771 (0.0%)
8	GI	0.43	0/3442	0.63	0/4672
8	GK	0.38	0/3440	0.66	4/4668 (0.1%)
8	GM	0.42	0/3508	0.65	6/4761 (0.1%)
8	HC	0.44	0/3427	0.67	2/4651 (0.0%)
8	HE	0.37	0/3451	0.63	3/4684 (0.1%)
8	HG	0.40	0/3448	0.64	1/4680 (0.0%)
8	HI	0.43	0/3448	0.64	0/4680
8	HK	0.36	0/3456	0.64	2/4691 (0.0%)
8	HM	0.42	0/3441	0.68	1/4669 (0.0%)
8	HO	0.45	0/3104	0.69	2/4206 (0.0%)
8	IC	0.41	0/3442	0.62	0/4672
8	IE	0.42	0/3465	0.66	1/4703 (0.0%)
8	IG	0.38	0/3515	0.67	3/4771 (0.1%)
8	II	0.42	0/3464	0.68	1/4702 (0.0%)
8	IK	0.39	0/3515	0.70	3/4771 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	IM	0.41	0/3455	0.70	1/4689 (0.0%)
8	IO	0.37	0/3427	0.64	1/4652 (0.0%)
8	JC	0.42	0/3460	0.69	2/4695 (0.0%)
8	JE	0.40	0/3449	0.66	0/4681
8	JG	0.39	0/3435	0.65	0/4662
8	JI	0.42	0/3443	0.70	4/4673 (0.1%)
8	JK	0.43	0/3515	0.75	6/4771 (0.1%)
8	JM	0.41	0/3449	0.69	3/4681 (0.1%)
8	KC	0.56	0/3461	0.73	2/4697 (0.0%)
8	KE	0.55	0/3457	0.71	3/4692 (0.1%)
8	KG	0.51	0/3447	0.66	0/4678
8	KI	0.56	0/3435	0.67	2/4662 (0.0%)
8	KK	0.53	0/3449	0.67	4/4681 (0.1%)
8	KM	0.58	0/3453	0.67	1/4686 (0.0%)
8	KO	0.49	0/3291	0.60	0/4462
8	LC	0.54	0/3515	0.69	5/4771 (0.1%)
8	LE	0.52	0/3515	0.67	2/4771 (0.0%)
8	LG	0.51	0/3515	0.63	2/4771 (0.0%)
8	LI	0.56	0/3515	0.67	2/4771 (0.0%)
8	LK	0.53	0/3515	0.66	1/4771 (0.0%)
8	LM	0.55	1/3455 (0.0%)	0.64	2/4689 (0.0%)
8	MC	0.47	0/3508	0.69	1/4761 (0.0%)
8	ME	0.44	0/3443	0.68	2/4673 (0.0%)
8	MG	0.44	0/3449	0.71	5/4681 (0.1%)
8	MI	0.46	0/3456	0.70	2/4691 (0.0%)
8	MK	0.45	0/3515	0.73	7/4771 (0.1%)
8	MM	0.47	0/3453	0.70	5/4687 (0.1%)
8	NA	0.36	0/3449	0.67	1/4682 (0.0%)
8	NC	0.37	0/3442	0.67	1/4672 (0.0%)
8	NE	0.38	0/3451	0.74	7/4684 (0.1%)
8	NG	0.36	0/3464	0.67	2/4702 (0.0%)
8	NI	0.35	0/3464	0.66	2/4702 (0.0%)
8	NK	0.36	0/3451	0.66	3/4684 (0.1%)
8	OA	0.37	0/3435	0.66	2/4663 (0.0%)
8	OC	0.38	0/3443	0.64	1/4673 (0.0%)
8	OE	0.35	0/3473	0.66	1/4714 (0.0%)
8	OG	0.37	0/3468	0.67	3/4707 (0.1%)
8	OI	0.35	0/3464	0.64	2/4702 (0.0%)
8	OK	0.37	0/3457	0.64	1/4692 (0.0%)
8	PA	0.33	0/3449	0.63	3/4682 (0.1%)
8	PC	0.38	0/3463	0.69	3/4700 (0.1%)
8	PE	0.36	0/3457	0.69	0/4692
8	PG	0.38	0/3448	0.68	4/4680 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	PI	0.35	0/3425	0.67	1/4648 (0.0%)
8	PK	0.38	0/3448	0.67	3/4680 (0.1%)
8	PM	0.32	0/3449	0.62	1/4681 (0.0%)
8	QA	0.33	0/3453	0.71	5/4687 (0.1%)
8	QC	0.37	0/3449	0.70	4/4681 (0.1%)
8	QE	0.33	0/3449	0.64	2/4681 (0.0%)
8	QG	0.38	0/3457	0.69	2/4692 (0.0%)
8	QI	0.34	0/3443	0.66	2/4673 (0.0%)
8	QK	0.36	0/3457	0.66	2/4692 (0.0%)
8	QM	0.33	0/3455	0.63	1/4689 (0.0%)
8	RA	0.33	0/3441	0.66	3/4671 (0.1%)
8	RC	0.36	0/3464	0.66	2/4702 (0.0%)
8	RE	0.37	0/3435	0.70	2/4662 (0.0%)
8	RG	0.36	0/3448	0.65	1/4679 (0.0%)
8	RI	0.32	0/3456	0.61	1/4691 (0.0%)
8	RK	0.38	0/3456	0.69	6/4691 (0.1%)
8	RM	0.37	0/3433	0.66	3/4660 (0.1%)
8	SA	0.32	0/3449	0.66	5/4682 (0.1%)
8	SC	0.38	0/3448	0.67	1/4679 (0.0%)
8	SE	0.36	0/3457	0.67	4/4691 (0.1%)
8	SG	0.40	0/3456	0.69	3/4691 (0.1%)
8	SI	0.36	0/3434	0.65	3/4661 (0.1%)
8	SK	0.37	0/3464	0.69	0/4702
8	SM	0.36	0/3455	0.64	2/4689 (0.0%)
8	TC	0.34	0/3448	0.68	5/4680 (0.1%)
8	TE	0.32	0/3465	0.65	3/4703 (0.1%)
8	TG	0.35	0/3448	0.71	7/4680 (0.1%)
8	TI	0.34	0/3448	0.63	1/4680 (0.0%)
8	TK	0.36	0/3464	0.70	2/4702 (0.0%)
8	TM	0.36	0/3449	0.70	3/4681 (0.1%)
8	UC	0.35	0/3470	0.62	3/4710 (0.1%)
8	UE	0.34	0/3465	0.67	1/4703 (0.0%)
8	UG	0.35	0/3470	0.63	1/4710 (0.0%)
8	UI	0.35	0/3470	0.62	0/4710
8	UK	0.38	0/3468	0.64	0/4707
8	UM	0.36	0/3455	0.66	2/4689 (0.0%)
8	VC	0.39	0/3515	0.68	4/4771 (0.1%)
8	VE	0.38	0/3473	0.65	1/4714 (0.0%)
8	VG	0.36	0/3515	0.63	0/4771
8	VI	0.38	0/3470	0.66	3/4710 (0.1%)
8	VK	0.37	0/3515	0.66	1/4771 (0.0%)
8	VM	0.40	0/3449	0.70	6/4681 (0.1%)
8	WC	0.42	0/3515	0.73	6/4771 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	WE	0.39	0/3457	0.66	4/4692 (0.1%)
8	WG	0.38	0/3508	0.69	4/4761 (0.1%)
8	WI	0.40	0/3457	0.66	1/4692 (0.0%)
8	WK	0.37	0/3502	0.62	0/4753
8	WM	0.42	0/3455	0.68	3/4689 (0.1%)
9	AB	0.55	0/3500	0.71	2/4742 (0.0%)
9	AD	0.52	0/3500	0.70	4/4742 (0.1%)
9	AF	0.57	0/3500	0.75	4/4742 (0.1%)
9	AH	0.52	0/3500	0.71	5/4742 (0.1%)
9	AJ	0.55	0/3500	0.73	7/4742 (0.1%)
9	AL	0.52	0/3492	0.70	5/4732 (0.1%)
9	BB	0.49	0/3431	0.69	2/4649 (0.0%)
9	BD	0.47	0/3431	0.69	2/4649 (0.0%)
9	BF	0.48	0/3436	0.70	3/4656 (0.1%)
9	BH	0.46	0/3431	0.64	2/4649 (0.0%)
9	BJ	0.47	0/3431	0.67	1/4649 (0.0%)
9	BL	0.48	0/3415	0.66	4/4628 (0.1%)
9	CB	0.46	0/3423	0.73	6/4638 (0.1%)
9	CD	0.47	0/3423	0.67	3/4638 (0.1%)
9	CF	0.47	0/3436	0.74	3/4656 (0.1%)
9	CH	0.49	0/3431	0.69	1/4649 (0.0%)
9	CJ	0.44	0/3436	0.67	1/4656 (0.0%)
9	CL	0.44	0/3415	0.65	2/4628 (0.0%)
9	DB	0.41	0/3423	0.70	2/4638 (0.0%)
9	DD	0.45	0/3423	0.74	5/4638 (0.1%)
9	DF	0.41	0/3423	0.74	4/4638 (0.1%)
9	DH	0.46	0/3423	0.79	7/4638 (0.2%)
9	DJ	0.40	0/3423	0.69	1/4638 (0.0%)
9	DL	0.43	0/3415	0.70	4/4628 (0.1%)
9	DN	0.35	0/3102	0.66	2/4201 (0.0%)
9	EB	0.39	0/3423	0.70	5/4638 (0.1%)
9	ED	0.43	0/3423	0.76	5/4638 (0.1%)
9	EF	0.39	0/3423	0.73	3/4638 (0.1%)
9	EH	0.44	0/3436	0.73	2/4656 (0.0%)
9	EJ	0.40	0/3423	0.72	2/4638 (0.0%)
9	EL	0.41	0/3415	0.73	4/4628 (0.1%)
9	EN	0.34	0/3423	0.69	3/4638 (0.1%)
9	FB	0.35	0/3423	0.65	1/4638 (0.0%)
9	FD	0.41	0/3431	0.72	3/4649 (0.1%)
9	FF	0.39	0/3423	0.66	1/4638 (0.0%)
9	FH	0.46	0/3423	0.78	6/4638 (0.1%)
9	FJ	0.38	0/3423	0.68	2/4638 (0.0%)
9	FL	0.41	0/3415	0.72	4/4628 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	FN	0.34	0/3436	0.64	1/4656 (0.0%)
9	GB	0.44	0/3436	0.65	1/4656 (0.0%)
9	GD	0.41	0/3431	0.68	2/4649 (0.0%)
9	GF	0.38	0/3436	0.63	2/4656 (0.0%)
9	GH	0.44	0/3436	0.70	6/4656 (0.1%)
9	GJ	0.40	0/3436	0.65	1/4656 (0.0%)
9	GL	0.36	0/3415	0.63	2/4628 (0.0%)
9	GN	0.45	0/3436	0.64	2/4656 (0.0%)
9	HB	0.42	0/3423	0.67	3/4638 (0.1%)
9	HD	0.40	0/3431	0.66	3/4649 (0.1%)
9	HF	0.36	0/3436	0.61	0/4656
9	HH	0.43	0/3431	0.68	4/4649 (0.1%)
9	HJ	0.39	0/3436	0.63	2/4656 (0.0%)
9	HL	0.36	0/3415	0.64	2/4628 (0.0%)
9	HN	0.43	0/3431	0.68	4/4649 (0.1%)
9	IB	0.38	0/2962	0.71	5/4007 (0.1%)
9	ID	0.44	0/3431	0.69	1/4649 (0.0%)
9	IF	0.38	0/3436	0.62	2/4656 (0.0%)
9	IH	0.41	0/3431	0.68	3/4649 (0.1%)
9	IJ	0.39	0/3436	0.66	1/4656 (0.0%)
9	IL	0.43	0/3423	0.67	1/4638 (0.0%)
9	IN	0.39	0/3436	0.70	1/4656 (0.0%)
9	JB	0.39	0/3423	0.67	1/4638 (0.0%)
9	JD	0.42	0/3431	0.68	2/4649 (0.0%)
9	JF	0.38	0/3423	0.67	3/4638 (0.1%)
9	JH	0.41	0/3423	0.68	2/4638 (0.0%)
9	JJ	0.40	0/3423	0.68	6/4638 (0.1%)
9	JL	0.43	0/3423	0.72	1/4638 (0.0%)
9	JN	0.39	0/3423	0.67	0/4638
9	KB	0.48	0/3232	0.72	3/4380 (0.1%)
9	KD	0.55	0/3436	0.65	2/4656 (0.0%)
9	KF	0.49	0/3431	0.65	3/4649 (0.1%)
9	KH	0.56	0/3443	0.63	1/4666 (0.0%)
9	KJ	0.50	0/3423	0.61	1/4638 (0.0%)
9	KL	0.58	0/3443	0.65	1/4666 (0.0%)
9	KN	0.51	0/3436	0.64	2/4656 (0.0%)
9	LB	0.47	0/3436	0.66	0/4656
9	LD	0.51	0/3431	0.68	2/4649 (0.0%)
9	LF	0.48	0/3436	0.65	1/4656 (0.0%)
9	LH	0.54	0/3436	0.66	3/4656 (0.1%)
9	LJ	0.50	0/3436	0.65	0/4656
9	LL	0.56	0/3423	0.70	6/4638 (0.1%)
9	LN	0.49	0/3436	0.64	3/4656 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	MB	0.44	0/3423	0.68	4/4638 (0.1%)
9	MD	0.46	0/3423	0.70	4/4638 (0.1%)
9	MF	0.40	0/3436	0.65	3/4656 (0.1%)
9	MH	0.44	0/3436	0.66	3/4656 (0.1%)
9	MJ	0.42	0/3423	0.68	3/4638 (0.1%)
9	ML	0.46	0/3423	0.75	3/4638 (0.1%)
9	MN	0.43	0/3423	0.70	2/4638 (0.0%)
9	NO	0.34	0/3431	0.63	1/4649 (0.0%)
9	NB	0.38	0/3436	0.70	2/4656 (0.0%)
9	ND	0.34	0/3431	0.66	0/4649
9	NF	0.37	0/3431	0.69	2/4649 (0.0%)
9	NH	0.33	0/3436	0.63	0/4656
9	NJ	0.36	0/3436	0.70	2/4656 (0.0%)
9	NL	0.34	0/3414	0.67	1/4626 (0.0%)
9	OO	0.38	0/3293	0.70	3/4463 (0.1%)
9	OB	0.37	0/3414	0.66	2/4626 (0.0%)
9	OD	0.34	0/3401	0.64	1/4608 (0.0%)
9	OF	0.40	0/3414	0.69	0/4626
9	OH	0.33	0/3436	0.63	1/4656 (0.0%)
9	OJ	0.36	0/3436	0.67	3/4656 (0.1%)
9	OL	0.36	0/3401	0.65	1/4608 (0.0%)
9	PB	0.36	0/3431	0.70	2/4649 (0.0%)
9	PD	0.35	0/3431	0.64	1/4649 (0.0%)
9	PF	0.38	0/3436	0.69	3/4656 (0.1%)
9	PH	0.36	0/3436	0.64	2/4656 (0.0%)
9	PJ	0.35	0/3436	0.67	3/4656 (0.1%)
9	PL	0.36	0/3415	0.72	4/4628 (0.1%)
9	QB	0.33	0/3436	0.64	1/4656 (0.0%)
9	QD	0.33	0/3431	0.64	1/4649 (0.0%)
9	QF	0.37	0/3436	0.70	4/4656 (0.1%)
9	QH	0.35	0/3436	0.67	3/4656 (0.1%)
9	QJ	0.34	0/3436	0.65	3/4656 (0.1%)
9	QL	0.35	0/3423	0.68	2/4638 (0.0%)
9	RB	0.33	0/3436	0.68	2/4656 (0.0%)
9	RD	0.34	0/3431	0.63	1/4649 (0.0%)
9	RF	0.35	0/3436	0.68	5/4656 (0.1%)
9	RH	0.36	0/3436	0.68	2/4656 (0.0%)
9	RJ	0.35	0/3436	0.69	4/4656 (0.1%)
9	RL	0.35	0/3423	0.64	1/4638 (0.0%)
9	SB	0.35	0/3436	0.66	1/4656 (0.0%)
9	SD	0.36	0/3431	0.67	4/4649 (0.1%)
9	SF	0.36	0/3436	0.68	3/4656 (0.1%)
9	SH	0.38	0/3436	0.68	0/4656

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	SJ	0.34	0/3436	0.71	7/4656 (0.2%)
9	SL	0.36	0/3423	0.68	5/4638 (0.1%)
9	TB	0.32	0/3436	0.66	1/4656 (0.0%)
9	TD	0.33	0/3431	0.67	2/4649 (0.0%)
9	TF	0.34	0/3436	0.67	5/4656 (0.1%)
9	TH	0.34	0/3436	0.64	4/4656 (0.1%)
9	TJ	0.35	0/3436	0.70	4/4656 (0.1%)
9	TL	0.36	0/3423	0.67	3/4638 (0.1%)
9	UB	0.33	0/3436	0.65	2/4656 (0.0%)
9	UD	0.35	0/3431	0.62	1/4649 (0.0%)
9	UF	0.34	0/3436	0.62	0/4656
9	UH	0.36	0/3436	0.64	0/4656
9	UJ	0.33	0/3436	0.65	3/4656 (0.1%)
9	UL	0.36	0/3423	0.67	1/4638 (0.0%)
9	UN	0.34	0/3436	0.64	2/4656 (0.0%)
9	VB	0.36	0/3436	0.68	4/4656 (0.1%)
9	VD	0.37	0/3431	0.65	2/4649 (0.0%)
9	VF	0.34	0/3431	0.62	2/4649 (0.0%)
9	VH	0.38	0/3436	0.66	2/4656 (0.0%)
9	VJ	0.34	0/3436	0.61	0/4656
9	VL	0.37	0/3423	0.66	1/4638 (0.0%)
9	VN	0.35	0/3436	0.63	0/4656
9	WB	0.38	0/3436	0.67	2/4656 (0.0%)
9	WD	0.42	0/3431	0.77	8/4649 (0.2%)
9	WF	0.37	0/3423	0.65	2/4638 (0.0%)
9	WH	0.42	0/3423	0.67	0/4638
9	WJ	0.37	0/3423	0.65	1/4638 (0.0%)
9	WL	0.41	0/3423	0.71	3/4638 (0.1%)
9	WN	0.40	0/3423	0.71	3/4638 (0.1%)
10	B0	0.40	0/1559	0.58	1/2100 (0.0%)
10	B1	0.44	0/3434	0.59	1/4630 (0.0%)
10	B2	0.44	0/3434	0.59	2/4630 (0.0%)
10	B3	0.42	0/3149	0.61	1/4243 (0.0%)
10	B4	0.39	0/410	0.56	0/552
10	B5	0.39	0/423	0.65	0/570
10	B6	0.39	0/2943	0.61	2/3961 (0.1%)
10	B7	0.38	0/3415	0.64	3/4605 (0.1%)
10	B8	0.40	0/3325	0.74	9/4480 (0.2%)
10	B9	0.41	0/1544	0.76	5/2080 (0.2%)
11	C	0.42	0/801	0.78	2/1073 (0.2%)
12	C0	0.31	0/267	0.63	0/362
12	C1	0.40	0/2747	0.63	4/3704 (0.1%)
12	C2	0.41	0/3249	0.62	3/4380 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
12	C3	0.40	0/3249	0.60	2/4380 (0.0%)
12	C4	0.44	0/1761	0.70	3/2370 (0.1%)
12	C5	0.37	0/914	0.55	0/1231
12	C6	0.38	0/3170	0.58	4/4272 (0.1%)
12	C7	0.39	0/3403	0.60	1/4589 (0.0%)
12	C8	0.38	0/3354	0.60	1/4523 (0.0%)
12	C9	0.35	0/942	0.62	1/1273 (0.1%)
12	F0	0.37	0/1186	0.61	0/1610
12	F1	0.42	0/3486	0.63	3/4708 (0.1%)
12	F2	0.43	0/3486	0.63	3/4708 (0.1%)
12	F3	0.41	0/3100	0.63	1/4176 (0.0%)
12	F4	0.42	0/815	0.67	2/1097 (0.2%)
13	D	0.33	0/961	0.59	1/1323 (0.1%)
14	D0	0.42	0/2416	0.57	1/3260 (0.0%)
14	D1	0.45	1/3537 (0.0%)	0.57	0/4765
14	D2	0.44	0/3537	0.61	1/4765 (0.0%)
14	D3	0.44	0/2627	0.62	2/3537 (0.1%)
14	D5	0.26	0/78	0.64	0/104
14	D6	0.39	0/2653	0.64	4/3571 (0.1%)
14	D7	0.41	0/3442	0.64	4/4637 (0.1%)
14	D8	0.37	0/3433	0.64	3/4625 (0.1%)
14	D9	0.38	0/2296	0.64	2/3098 (0.1%)
15	E	0.40	0/2105	0.67	1/2851 (0.0%)
15	F	0.42	0/2105	0.72	3/2851 (0.1%)
16	E0	0.41	0/603	0.77	2/819 (0.2%)
16	E1	0.35	0/1102	0.68	4/1503 (0.3%)
16	E2	0.33	0/1248	0.62	0/1705
16	E3	0.34	0/1248	0.63	0/1705
17	G	0.40	0/802	0.71	1/1094 (0.1%)
18	H	0.39	0/671	0.63	0/916
18	I	0.36	0/1230	0.66	1/1667 (0.1%)
18	J	0.40	0/1230	0.66	0/1667
18	K	0.37	0/1230	0.66	0/1667
18	L	0.39	0/1230	0.65	0/1667
18	M	0.35	0/1230	0.63	0/1667
18	N	0.38	0/1261	0.61	0/1708
19	H1	0.41	0/1584	0.71	3/2120 (0.1%)
19	H2	0.38	0/2085	0.74	6/2785 (0.2%)
19	H3	0.43	0/886	0.64	1/1180 (0.1%)
20	H4	0.41	0/1644	0.67	1/2200 (0.0%)
20	H5	0.39	0/2120	0.71	2/2840 (0.1%)
20	H6	0.41	0/1073	0.68	1/1440 (0.1%)
21	H7	0.29	0/2865	0.42	0/3988

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
21	H8	0.28	0/2860	0.41	0/3981
21	H9	0.24	0/1766	0.37	0/2456
22	I1	0.37	0/1318	0.61	1/1783 (0.1%)
22	I2	0.45	0/1318	0.70	0/1783
23	I3	0.25	0/919	0.39	0/1278
23	I4	0.25	0/923	0.38	0/1283
24	O	0.30	0/272	0.65	0/359
24	P	0.41	0/3142	0.68	7/4198 (0.2%)
24	Q	0.42	0/321	0.61	0/429
24	R	0.40	0/2063	0.61	2/2756 (0.1%)
24	S	0.37	0/1427	0.60	0/1907
25	T	0.46	0/3823	0.64	2/5172 (0.0%)
25	U	0.47	0/3823	0.70	4/5172 (0.1%)
25	V	0.44	0/3823	0.64	4/5172 (0.1%)
26	W	0.40	0/4670	0.67	2/6296 (0.0%)
26	X	0.40	0/5355	0.68	5/7211 (0.1%)
26	Y	0.40	0/5355	0.66	4/7211 (0.1%)
26	Z	0.36	0/3766	0.67	3/5063 (0.1%)
27	XA	0.43	0/1565	0.76	3/2111 (0.1%)
27	XB	0.50	0/1565	0.77	1/2111 (0.0%)
27	XC	0.42	0/1565	0.73	1/2111 (0.0%)
27	XD	0.45	0/1565	0.73	3/2111 (0.1%)
27	XE	0.39	0/1565	0.67	0/2111
27	XF	0.48	0/1565	0.72	3/2111 (0.1%)
27	XG	0.38	0/1565	0.68	0/2111
28	YB	0.44	0/1810	0.76	3/2446 (0.1%)
28	YC	0.40	0/1810	0.72	3/2446 (0.1%)
28	YD	0.44	0/1810	0.73	3/2446 (0.1%)
28	YE	0.40	0/1810	0.70	1/2446 (0.0%)
28	YF	0.43	0/1810	0.74	4/2446 (0.2%)
28	YG	0.36	0/1810	0.73	3/2446 (0.1%)
29	a	0.37	0/1432	0.63	0/1899
29	b	0.38	0/2869	0.67	2/3794 (0.1%)
29	c	0.38	0/2371	0.66	2/3139 (0.1%)
29	d	0.37	0/1842	0.59	2/2438 (0.1%)
30	e	0.37	0/4821	0.70	3/6527 (0.0%)
30	f	0.37	0/4821	0.69	2/6527 (0.0%)
30	g	0.39	0/4821	0.70	3/6527 (0.0%)
31	h	0.39	0/1239	0.69	1/1657 (0.1%)
31	i	0.36	0/1982	0.63	2/2659 (0.1%)
31	j	0.36	0/1982	0.64	3/2659 (0.1%)
31	k	0.37	0/1982	0.67	2/2659 (0.1%)
32	l	0.46	0/921	0.66	0/1253

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
32	m	0.48	0/938	0.70	1/1276 (0.1%)
32	n	0.43	0/957	0.62	1/1302 (0.1%)
33	o	0.33	0/2072	0.36	0/2868
33	p	0.39	0/847	0.63	1/1131 (0.1%)
34	q	0.40	0/646	0.68	1/871 (0.1%)
34	r	0.36	0/646	0.66	1/871 (0.1%)
34	s	0.39	0/646	0.74	1/871 (0.1%)
35	t	0.24	0/881	0.41	0/1227
36	y	0.41	0/530	0.62	0/718
36	z	0.41	0/981	0.67	1/1334 (0.1%)
All	All	0.41	3/1294189 (0.0%)	0.67	964/1753471 (0.1%)

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	7	0	1
11	C	0	1
29	b	0	1
31	h	0	1
31	i	0	1
31	j	0	1
31	k	0	1
All	All	0	7

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	D1	212	GLU	CB-CG	-6.00	1.40	1.52
8	LM	295	CYS	CB-SG	-5.89	1.72	1.81
6	B	462	TYR	CD2-CE2	-5.29	1.31	1.39

The worst 5 of 964 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	k	250	HIS	O-C-N	-12.58	102.58	122.70
31	i	250	HIS	O-C-N	-12.16	103.25	122.70
5	8	124	LEU	CB-CG-CD2	-10.99	92.31	111.00
8	AG	396	ASP	CB-CG-OD2	10.58	127.82	118.30
9	WL	118	ASP	CB-CG-OD1	10.46	127.71	118.30

There are no chirality outliers.

5 of 7 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	7	162	PRO	Mainchain
11	C	100	ARG	Mainchain
29	b	541	ASN	Mainchain
31	h	250	HIS	Mainchain
31	i	250	HIS	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	0	38/232 (16%)	36 (95%)	2 (5%)	0	100	100
1	7	117/232 (50%)	104 (89%)	11 (9%)	2 (2%)	9	34
2	1	148/877 (17%)	142 (96%)	6 (4%)	0	100	100
2	2	288/877 (33%)	258 (90%)	30 (10%)	0	100	100
3	3	304/514 (59%)	304 (100%)	0	0	100	100
3	4	215/514 (42%)	215 (100%)	0	0	100	100
4	5	370/377 (98%)	347 (94%)	23 (6%)	0	100	100
4	6	370/377 (98%)	348 (94%)	22 (6%)	0	100	100
5	8	189/196 (96%)	159 (84%)	29 (15%)	1 (0%)	29	61
5	9	33/196 (17%)	30 (91%)	3 (9%)	0	100	100
6	A	168/494 (34%)	167 (99%)	1 (1%)	0	100	100
6	B	352/494 (71%)	349 (99%)	3 (1%)	0	100	100
7	A0	217/418 (52%)	209 (96%)	8 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	A1	394/418 (94%)	383 (97%)	10 (2%)	1 (0%)	41	72
7	A2	391/418 (94%)	383 (98%)	7 (2%)	1 (0%)	41	72
7	A3	330/418 (79%)	320 (97%)	10 (3%)	0	100	100
7	A4	32/418 (8%)	31 (97%)	1 (3%)	0	100	100
8	AA	436/452 (96%)	399 (92%)	37 (8%)	0	100	100
8	AC	438/452 (97%)	407 (93%)	31 (7%)	0	100	100
8	AE	438/452 (97%)	413 (94%)	25 (6%)	0	100	100
8	AG	438/452 (97%)	413 (94%)	25 (6%)	0	100	100
8	AI	438/452 (97%)	408 (93%)	30 (7%)	0	100	100
8	AK	438/452 (97%)	410 (94%)	27 (6%)	1 (0%)	47	78
8	AM	437/452 (97%)	418 (96%)	19 (4%)	0	100	100
8	BA	426/452 (94%)	391 (92%)	35 (8%)	0	100	100
8	BC	438/452 (97%)	409 (93%)	29 (7%)	0	100	100
8	BE	429/452 (95%)	396 (92%)	33 (8%)	0	100	100
8	BG	438/452 (97%)	398 (91%)	40 (9%)	0	100	100
8	BI	426/452 (94%)	390 (92%)	36 (8%)	0	100	100
8	BK	437/452 (97%)	394 (90%)	43 (10%)	0	100	100
8	BM	426/452 (94%)	391 (92%)	35 (8%)	0	100	100
8	CA	436/452 (96%)	406 (93%)	30 (7%)	0	100	100
8	CC	436/452 (96%)	406 (93%)	30 (7%)	0	100	100
8	CE	436/452 (96%)	399 (92%)	37 (8%)	0	100	100
8	CG	437/452 (97%)	405 (93%)	32 (7%)	0	100	100
8	CI	437/452 (97%)	408 (93%)	29 (7%)	0	100	100
8	CK	437/452 (97%)	410 (94%)	27 (6%)	0	100	100
8	CM	437/452 (97%)	410 (94%)	27 (6%)	0	100	100
8	DA	393/452 (87%)	359 (91%)	34 (9%)	0	100	100
8	DC	425/452 (94%)	392 (92%)	33 (8%)	0	100	100
8	DE	426/452 (94%)	379 (89%)	47 (11%)	0	100	100
8	DG	427/452 (94%)	378 (88%)	49 (12%)	0	100	100
8	DI	425/452 (94%)	396 (93%)	29 (7%)	0	100	100
8	DK	426/452 (94%)	388 (91%)	38 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	DM	426/452 (94%)	400 (94%)	26 (6%)	0	100	100
8	EC	437/452 (97%)	395 (90%)	42 (10%)	0	100	100
8	EE	439/452 (97%)	395 (90%)	44 (10%)	0	100	100
8	EG	435/452 (96%)	390 (90%)	45 (10%)	0	100	100
8	EI	434/452 (96%)	387 (89%)	47 (11%)	0	100	100
8	EK	438/452 (97%)	383 (87%)	54 (12%)	1 (0%)	47	78
8	EM	424/452 (94%)	379 (89%)	44 (10%)	1 (0%)	47	78
8	FC	427/452 (94%)	395 (92%)	32 (8%)	0	100	100
8	FE	421/452 (93%)	372 (88%)	49 (12%)	0	100	100
8	FG	422/452 (93%)	381 (90%)	40 (10%)	1 (0%)	47	78
8	FI	423/452 (94%)	383 (90%)	40 (10%)	0	100	100
8	FK	420/452 (93%)	377 (90%)	43 (10%)	0	100	100
8	FM	425/452 (94%)	384 (90%)	41 (10%)	0	100	100
8	GC	438/452 (97%)	411 (94%)	27 (6%)	0	100	100
8	GE	426/452 (94%)	409 (96%)	17 (4%)	0	100	100
8	GG	438/452 (97%)	410 (94%)	28 (6%)	0	100	100
8	GI	425/452 (94%)	401 (94%)	24 (6%)	0	100	100
8	GK	425/452 (94%)	396 (93%)	27 (6%)	2 (0%)	29	61
8	GM	437/452 (97%)	405 (93%)	31 (7%)	1 (0%)	47	78
8	HC	423/452 (94%)	401 (95%)	22 (5%)	0	100	100
8	HE	426/452 (94%)	402 (94%)	24 (6%)	0	100	100
8	HG	426/452 (94%)	396 (93%)	30 (7%)	0	100	100
8	HI	426/452 (94%)	398 (93%)	28 (7%)	0	100	100
8	HK	427/452 (94%)	392 (92%)	35 (8%)	0	100	100
8	HM	425/452 (94%)	403 (95%)	22 (5%)	0	100	100
8	HO	376/452 (83%)	355 (94%)	21 (6%)	0	100	100
8	IC	425/452 (94%)	390 (92%)	35 (8%)	0	100	100
8	IE	428/452 (95%)	396 (92%)	32 (8%)	0	100	100
8	IG	438/452 (97%)	404 (92%)	34 (8%)	0	100	100
8	II	428/452 (95%)	381 (89%)	47 (11%)	0	100	100
8	IK	438/452 (97%)	391 (89%)	47 (11%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	IM	427/452 (94%)	378 (88%)	49 (12%)	0	100	100
8	IO	423/452 (94%)	396 (94%)	27 (6%)	0	100	100
8	JC	428/452 (95%)	394 (92%)	34 (8%)	0	100	100
8	JE	426/452 (94%)	399 (94%)	27 (6%)	0	100	100
8	JG	424/452 (94%)	391 (92%)	33 (8%)	0	100	100
8	JI	425/452 (94%)	394 (93%)	31 (7%)	0	100	100
8	JK	438/452 (97%)	399 (91%)	39 (9%)	0	100	100
8	JM	426/452 (94%)	379 (89%)	47 (11%)	0	100	100
8	KC	428/452 (95%)	394 (92%)	34 (8%)	0	100	100
8	KE	427/452 (94%)	394 (92%)	33 (8%)	0	100	100
8	KG	426/452 (94%)	404 (95%)	22 (5%)	0	100	100
8	KI	424/452 (94%)	396 (93%)	28 (7%)	0	100	100
8	KK	426/452 (94%)	405 (95%)	21 (5%)	0	100	100
8	KM	428/452 (95%)	399 (93%)	29 (7%)	0	100	100
8	KO	400/452 (88%)	371 (93%)	29 (7%)	0	100	100
8	LC	438/452 (97%)	407 (93%)	31 (7%)	0	100	100
8	LE	438/452 (97%)	406 (93%)	32 (7%)	0	100	100
8	LG	438/452 (97%)	407 (93%)	31 (7%)	0	100	100
8	LI	438/452 (97%)	405 (92%)	33 (8%)	0	100	100
8	LK	438/452 (97%)	413 (94%)	25 (6%)	0	100	100
8	LM	427/452 (94%)	398 (93%)	29 (7%)	0	100	100
8	MC	437/452 (97%)	393 (90%)	44 (10%)	0	100	100
8	ME	425/452 (94%)	398 (94%)	27 (6%)	0	100	100
8	MG	426/452 (94%)	396 (93%)	30 (7%)	0	100	100
8	MI	427/452 (94%)	385 (90%)	42 (10%)	0	100	100
8	MK	438/452 (97%)	398 (91%)	40 (9%)	0	100	100
8	MM	427/452 (94%)	384 (90%)	43 (10%)	0	100	100
8	NA	426/452 (94%)	393 (92%)	33 (8%)	0	100	100
8	NC	425/452 (94%)	391 (92%)	34 (8%)	0	100	100
8	NE	426/452 (94%)	397 (93%)	28 (7%)	1 (0%)	47	78
8	NG	428/452 (95%)	382 (89%)	46 (11%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	NI	428/452 (95%)	391 (91%)	37 (9%)	0	100	100
8	NK	426/452 (94%)	400 (94%)	26 (6%)	0	100	100
8	OA	424/452 (94%)	401 (95%)	23 (5%)	0	100	100
8	OC	425/452 (94%)	395 (93%)	30 (7%)	0	100	100
8	OE	429/452 (95%)	398 (93%)	31 (7%)	0	100	100
8	OG	429/452 (95%)	394 (92%)	35 (8%)	0	100	100
8	OI	428/452 (95%)	397 (93%)	31 (7%)	0	100	100
8	OK	427/452 (94%)	402 (94%)	25 (6%)	0	100	100
8	PA	426/452 (94%)	401 (94%)	25 (6%)	0	100	100
8	PC	428/452 (95%)	392 (92%)	36 (8%)	0	100	100
8	PE	427/452 (94%)	403 (94%)	24 (6%)	0	100	100
8	PG	426/452 (94%)	383 (90%)	42 (10%)	1 (0%)	47	78
8	PI	423/452 (94%)	399 (94%)	24 (6%)	0	100	100
8	PK	426/452 (94%)	399 (94%)	27 (6%)	0	100	100
8	PM	426/452 (94%)	401 (94%)	25 (6%)	0	100	100
8	QA	427/452 (94%)	396 (93%)	31 (7%)	0	100	100
8	QC	426/452 (94%)	396 (93%)	30 (7%)	0	100	100
8	QE	426/452 (94%)	398 (93%)	28 (7%)	0	100	100
8	QG	427/452 (94%)	393 (92%)	33 (8%)	1 (0%)	47	78
8	QI	425/452 (94%)	394 (93%)	30 (7%)	1 (0%)	47	78
8	QK	427/452 (94%)	392 (92%)	35 (8%)	0	100	100
8	QM	427/452 (94%)	397 (93%)	30 (7%)	0	100	100
8	RA	425/452 (94%)	395 (93%)	30 (7%)	0	100	100
8	RC	428/452 (95%)	393 (92%)	34 (8%)	1 (0%)	47	78
8	RE	424/452 (94%)	393 (93%)	31 (7%)	0	100	100
8	RG	426/452 (94%)	387 (91%)	39 (9%)	0	100	100
8	RI	427/452 (94%)	397 (93%)	30 (7%)	0	100	100
8	RK	427/452 (94%)	396 (93%)	31 (7%)	0	100	100
8	RM	424/452 (94%)	398 (94%)	26 (6%)	0	100	100
8	SA	426/452 (94%)	394 (92%)	32 (8%)	0	100	100
8	SC	426/452 (94%)	388 (91%)	38 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	SE	427/452 (94%)	402 (94%)	25 (6%)	0	100	100
8	SG	427/452 (94%)	388 (91%)	39 (9%)	0	100	100
8	SI	421/452 (93%)	385 (91%)	36 (9%)	0	100	100
8	SK	428/452 (95%)	397 (93%)	30 (7%)	1 (0%)	47	78
8	SM	427/452 (94%)	397 (93%)	30 (7%)	0	100	100
8	TC	426/452 (94%)	384 (90%)	42 (10%)	0	100	100
8	TE	428/452 (95%)	392 (92%)	36 (8%)	0	100	100
8	TG	426/452 (94%)	384 (90%)	42 (10%)	0	100	100
8	TI	426/452 (94%)	397 (93%)	29 (7%)	0	100	100
8	TK	428/452 (95%)	400 (94%)	28 (6%)	0	100	100
8	TM	426/452 (94%)	382 (90%)	44 (10%)	0	100	100
8	UC	429/452 (95%)	400 (93%)	29 (7%)	0	100	100
8	UE	428/452 (95%)	400 (94%)	28 (6%)	0	100	100
8	UG	429/452 (95%)	398 (93%)	31 (7%)	0	100	100
8	UI	429/452 (95%)	399 (93%)	30 (7%)	0	100	100
8	UK	429/452 (95%)	407 (95%)	22 (5%)	0	100	100
8	UM	427/452 (94%)	400 (94%)	27 (6%)	0	100	100
8	VC	438/452 (97%)	400 (91%)	38 (9%)	0	100	100
8	VE	429/452 (95%)	401 (94%)	28 (6%)	0	100	100
8	VG	438/452 (97%)	398 (91%)	40 (9%)	0	100	100
8	VI	429/452 (95%)	401 (94%)	28 (6%)	0	100	100
8	VK	438/452 (97%)	406 (93%)	32 (7%)	0	100	100
8	VM	426/452 (94%)	394 (92%)	32 (8%)	0	100	100
8	WC	438/452 (97%)	394 (90%)	43 (10%)	1 (0%)	47	78
8	WE	427/452 (94%)	391 (92%)	36 (8%)	0	100	100
8	WG	437/452 (97%)	403 (92%)	34 (8%)	0	100	100
8	WI	427/452 (94%)	400 (94%)	27 (6%)	0	100	100
8	WK	436/452 (96%)	404 (93%)	32 (7%)	0	100	100
8	WM	427/452 (94%)	397 (93%)	30 (7%)	0	100	100
9	AB	434/445 (98%)	404 (93%)	30 (7%)	0	100	100
9	AD	434/445 (98%)	402 (93%)	32 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	AF	434/445 (98%)	409 (94%)	25 (6%)	0	100	100
9	AH	434/445 (98%)	404 (93%)	30 (7%)	0	100	100
9	AJ	434/445 (98%)	408 (94%)	26 (6%)	0	100	100
9	AL	433/445 (97%)	411 (95%)	22 (5%)	0	100	100
9	BB	425/445 (96%)	398 (94%)	27 (6%)	0	100	100
9	BD	425/445 (96%)	393 (92%)	32 (8%)	0	100	100
9	BF	426/445 (96%)	391 (92%)	35 (8%)	0	100	100
9	BH	425/445 (96%)	398 (94%)	27 (6%)	0	100	100
9	BJ	425/445 (96%)	395 (93%)	30 (7%)	0	100	100
9	BL	423/445 (95%)	395 (93%)	28 (7%)	0	100	100
9	CB	424/445 (95%)	386 (91%)	37 (9%)	1 (0%)	47	78
9	CD	424/445 (95%)	392 (92%)	32 (8%)	0	100	100
9	CF	426/445 (96%)	393 (92%)	33 (8%)	0	100	100
9	CH	425/445 (96%)	390 (92%)	35 (8%)	0	100	100
9	CJ	426/445 (96%)	396 (93%)	30 (7%)	0	100	100
9	CL	423/445 (95%)	397 (94%)	25 (6%)	1 (0%)	47	78
9	DB	424/445 (95%)	393 (93%)	31 (7%)	0	100	100
9	DD	424/445 (95%)	384 (91%)	40 (9%)	0	100	100
9	DF	424/445 (95%)	383 (90%)	41 (10%)	0	100	100
9	DH	424/445 (95%)	375 (88%)	48 (11%)	1 (0%)	47	78
9	DJ	424/445 (95%)	387 (91%)	37 (9%)	0	100	100
9	DL	423/445 (95%)	391 (92%)	32 (8%)	0	100	100
9	DN	381/445 (86%)	358 (94%)	23 (6%)	0	100	100
9	EB	424/445 (95%)	392 (92%)	32 (8%)	0	100	100
9	ED	424/445 (95%)	383 (90%)	41 (10%)	0	100	100
9	EF	424/445 (95%)	379 (89%)	45 (11%)	0	100	100
9	EH	426/445 (96%)	377 (88%)	47 (11%)	2 (0%)	29	61
9	EJ	424/445 (95%)	386 (91%)	37 (9%)	1 (0%)	47	78
9	EL	423/445 (95%)	378 (89%)	45 (11%)	0	100	100
9	EN	424/445 (95%)	385 (91%)	39 (9%)	0	100	100
9	FB	424/445 (95%)	391 (92%)	33 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	FD	425/445 (96%)	388 (91%)	37 (9%)	0	100	100
9	FF	424/445 (95%)	373 (88%)	49 (12%)	2 (0%)	29	61
9	FH	424/445 (95%)	369 (87%)	53 (12%)	2 (0%)	29	61
9	FJ	424/445 (95%)	397 (94%)	27 (6%)	0	100	100
9	FL	423/445 (95%)	386 (91%)	37 (9%)	0	100	100
9	FN	426/445 (96%)	390 (92%)	36 (8%)	0	100	100
9	GB	426/445 (96%)	397 (93%)	29 (7%)	0	100	100
9	GD	425/445 (96%)	399 (94%)	26 (6%)	0	100	100
9	GF	426/445 (96%)	398 (93%)	28 (7%)	0	100	100
9	GH	426/445 (96%)	389 (91%)	37 (9%)	0	100	100
9	GJ	426/445 (96%)	398 (93%)	28 (7%)	0	100	100
9	GL	423/445 (95%)	394 (93%)	29 (7%)	0	100	100
9	GN	426/445 (96%)	400 (94%)	26 (6%)	0	100	100
9	HB	424/445 (95%)	397 (94%)	27 (6%)	0	100	100
9	HD	425/445 (96%)	397 (93%)	28 (7%)	0	100	100
9	HF	426/445 (96%)	405 (95%)	21 (5%)	0	100	100
9	HH	425/445 (96%)	393 (92%)	31 (7%)	1 (0%)	47	78
9	HJ	426/445 (96%)	402 (94%)	24 (6%)	0	100	100
9	HL	423/445 (95%)	395 (93%)	27 (6%)	1 (0%)	47	78
9	HN	425/445 (96%)	399 (94%)	26 (6%)	0	100	100
9	IB	360/445 (81%)	338 (94%)	22 (6%)	0	100	100
9	ID	425/445 (96%)	391 (92%)	34 (8%)	0	100	100
9	IF	426/445 (96%)	394 (92%)	32 (8%)	0	100	100
9	IH	425/445 (96%)	388 (91%)	35 (8%)	2 (0%)	29	61
9	IJ	426/445 (96%)	391 (92%)	34 (8%)	1 (0%)	47	78
9	IL	424/445 (95%)	384 (91%)	39 (9%)	1 (0%)	47	78
9	IN	426/445 (96%)	391 (92%)	35 (8%)	0	100	100
9	JB	424/445 (95%)	383 (90%)	41 (10%)	0	100	100
9	JD	425/445 (96%)	384 (90%)	41 (10%)	0	100	100
9	JF	424/445 (95%)	393 (93%)	31 (7%)	0	100	100
9	JH	424/445 (95%)	389 (92%)	35 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	JJ	424/445 (95%)	392 (92%)	32 (8%)	0	100	100
9	JL	424/445 (95%)	376 (89%)	47 (11%)	1 (0%)	47	78
9	JN	424/445 (95%)	390 (92%)	34 (8%)	0	100	100
9	KB	397/445 (89%)	378 (95%)	19 (5%)	0	100	100
9	KD	426/445 (96%)	397 (93%)	29 (7%)	0	100	100
9	KF	425/445 (96%)	398 (94%)	27 (6%)	0	100	100
9	KH	427/445 (96%)	406 (95%)	21 (5%)	0	100	100
9	KJ	424/445 (95%)	397 (94%)	27 (6%)	0	100	100
9	KL	427/445 (96%)	399 (93%)	28 (7%)	0	100	100
9	KN	426/445 (96%)	412 (97%)	14 (3%)	0	100	100
9	LB	426/445 (96%)	403 (95%)	23 (5%)	0	100	100
9	LD	425/445 (96%)	397 (93%)	28 (7%)	0	100	100
9	LF	426/445 (96%)	401 (94%)	25 (6%)	0	100	100
9	LH	426/445 (96%)	398 (93%)	28 (7%)	0	100	100
9	LJ	426/445 (96%)	401 (94%)	25 (6%)	0	100	100
9	LL	424/445 (95%)	398 (94%)	26 (6%)	0	100	100
9	LN	426/445 (96%)	401 (94%)	25 (6%)	0	100	100
9	MB	424/445 (95%)	390 (92%)	34 (8%)	0	100	100
9	MD	424/445 (95%)	384 (91%)	40 (9%)	0	100	100
9	MF	426/445 (96%)	392 (92%)	34 (8%)	0	100	100
9	MH	426/445 (96%)	395 (93%)	31 (7%)	0	100	100
9	MJ	424/445 (95%)	390 (92%)	34 (8%)	0	100	100
9	ML	424/445 (95%)	387 (91%)	37 (9%)	0	100	100
9	MN	424/445 (95%)	383 (90%)	41 (10%)	0	100	100
9	NO	425/445 (96%)	398 (94%)	27 (6%)	0	100	100
9	NB	426/445 (96%)	386 (91%)	40 (9%)	0	100	100
9	ND	425/445 (96%)	394 (93%)	31 (7%)	0	100	100
9	NF	425/445 (96%)	387 (91%)	38 (9%)	0	100	100
9	NH	426/445 (96%)	393 (92%)	32 (8%)	1 (0%)	47	78
9	NJ	426/445 (96%)	396 (93%)	30 (7%)	0	100	100
9	NL	423/445 (95%)	398 (94%)	25 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	O0	408/445 (92%)	383 (94%)	25 (6%)	0	100	100
9	OB	423/445 (95%)	395 (93%)	28 (7%)	0	100	100
9	OD	422/445 (95%)	402 (95%)	20 (5%)	0	100	100
9	OF	423/445 (95%)	390 (92%)	33 (8%)	0	100	100
9	OH	426/445 (96%)	399 (94%)	27 (6%)	0	100	100
9	OJ	426/445 (96%)	398 (93%)	28 (7%)	0	100	100
9	OL	422/445 (95%)	390 (92%)	32 (8%)	0	100	100
9	PB	425/445 (96%)	393 (92%)	31 (7%)	1 (0%)	47	78
9	PD	425/445 (96%)	395 (93%)	30 (7%)	0	100	100
9	PF	426/445 (96%)	400 (94%)	26 (6%)	0	100	100
9	PH	426/445 (96%)	397 (93%)	29 (7%)	0	100	100
9	PJ	426/445 (96%)	399 (94%)	27 (6%)	0	100	100
9	PL	423/445 (95%)	394 (93%)	29 (7%)	0	100	100
9	QB	426/445 (96%)	396 (93%)	30 (7%)	0	100	100
9	QD	425/445 (96%)	399 (94%)	26 (6%)	0	100	100
9	QF	426/445 (96%)	389 (91%)	37 (9%)	0	100	100
9	QH	426/445 (96%)	386 (91%)	39 (9%)	1 (0%)	47	78
9	QJ	426/445 (96%)	392 (92%)	34 (8%)	0	100	100
9	QL	424/445 (95%)	399 (94%)	25 (6%)	0	100	100
9	RB	426/445 (96%)	384 (90%)	42 (10%)	0	100	100
9	RD	425/445 (96%)	394 (93%)	31 (7%)	0	100	100
9	RF	426/445 (96%)	390 (92%)	36 (8%)	0	100	100
9	RH	426/445 (96%)	397 (93%)	29 (7%)	0	100	100
9	RJ	426/445 (96%)	397 (93%)	29 (7%)	0	100	100
9	RL	424/445 (95%)	386 (91%)	38 (9%)	0	100	100
9	SB	426/445 (96%)	385 (90%)	40 (9%)	1 (0%)	47	78
9	SD	425/445 (96%)	394 (93%)	31 (7%)	0	100	100
9	SF	426/445 (96%)	393 (92%)	33 (8%)	0	100	100
9	SH	426/445 (96%)	396 (93%)	29 (7%)	1 (0%)	47	78
9	SJ	426/445 (96%)	398 (93%)	28 (7%)	0	100	100
9	SL	424/445 (95%)	391 (92%)	33 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	TB	426/445 (96%)	393 (92%)	33 (8%)	0	100	100
9	TD	425/445 (96%)	394 (93%)	31 (7%)	0	100	100
9	TF	426/445 (96%)	392 (92%)	34 (8%)	0	100	100
9	TH	426/445 (96%)	405 (95%)	21 (5%)	0	100	100
9	TJ	426/445 (96%)	383 (90%)	43 (10%)	0	100	100
9	TL	424/445 (95%)	389 (92%)	35 (8%)	0	100	100
9	UB	426/445 (96%)	393 (92%)	33 (8%)	0	100	100
9	UD	425/445 (96%)	392 (92%)	33 (8%)	0	100	100
9	UF	426/445 (96%)	396 (93%)	30 (7%)	0	100	100
9	UH	426/445 (96%)	399 (94%)	27 (6%)	0	100	100
9	UJ	426/445 (96%)	392 (92%)	34 (8%)	0	100	100
9	UL	424/445 (95%)	383 (90%)	41 (10%)	0	100	100
9	UN	426/445 (96%)	404 (95%)	22 (5%)	0	100	100
9	VB	426/445 (96%)	384 (90%)	42 (10%)	0	100	100
9	VD	425/445 (96%)	393 (92%)	32 (8%)	0	100	100
9	VF	425/445 (96%)	395 (93%)	30 (7%)	0	100	100
9	VH	426/445 (96%)	400 (94%)	26 (6%)	0	100	100
9	VJ	426/445 (96%)	396 (93%)	30 (7%)	0	100	100
9	VL	424/445 (95%)	384 (91%)	40 (9%)	0	100	100
9	VN	426/445 (96%)	400 (94%)	26 (6%)	0	100	100
9	WB	426/445 (96%)	381 (89%)	45 (11%)	0	100	100
9	WD	425/445 (96%)	388 (91%)	37 (9%)	0	100	100
9	WF	424/445 (95%)	396 (93%)	28 (7%)	0	100	100
9	WH	424/445 (95%)	391 (92%)	33 (8%)	0	100	100
9	WJ	424/445 (95%)	399 (94%)	25 (6%)	0	100	100
9	WL	424/445 (95%)	386 (91%)	38 (9%)	0	100	100
9	WN	424/445 (95%)	397 (94%)	27 (6%)	0	100	100
10	B0	185/430 (43%)	181 (98%)	4 (2%)	0	100	100
10	B1	414/430 (96%)	406 (98%)	8 (2%)	0	100	100
10	B2	414/430 (96%)	397 (96%)	17 (4%)	0	100	100
10	B3	381/430 (89%)	367 (96%)	13 (3%)	1 (0%)	41	72

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	B4	47/430 (11%)	46 (98%)	1 (2%)	0	100	100
10	B5	49/430 (11%)	46 (94%)	3 (6%)	0	100	100
10	B6	356/430 (83%)	354 (99%)	2 (1%)	0	100	100
10	B7	412/430 (96%)	402 (98%)	10 (2%)	0	100	100
10	B8	401/430 (93%)	390 (97%)	11 (3%)	0	100	100
10	B9	183/430 (43%)	176 (96%)	7 (4%)	0	100	100
11	C	89/101 (88%)	89 (100%)	0	0	100	100
12	C0	28/490 (6%)	28 (100%)	0	0	100	100
12	C1	330/490 (67%)	320 (97%)	10 (3%)	0	100	100
12	C2	392/490 (80%)	387 (99%)	5 (1%)	0	100	100
12	C3	392/490 (80%)	378 (96%)	14 (4%)	0	100	100
12	C4	211/490 (43%)	203 (96%)	7 (3%)	1 (0%)	29	61
12	C5	111/490 (23%)	109 (98%)	2 (2%)	0	100	100
12	C6	383/490 (78%)	376 (98%)	7 (2%)	0	100	100
12	C7	411/490 (84%)	402 (98%)	8 (2%)	1 (0%)	47	78
12	C8	403/490 (82%)	395 (98%)	7 (2%)	1 (0%)	47	78
12	C9	108/490 (22%)	107 (99%)	1 (1%)	0	100	100
12	F0	133/490 (27%)	127 (96%)	6 (4%)	0	100	100
12	F1	417/490 (85%)	402 (96%)	15 (4%)	0	100	100
12	F2	417/490 (85%)	403 (97%)	14 (3%)	0	100	100
12	F3	376/490 (77%)	369 (98%)	7 (2%)	0	100	100
12	F4	97/490 (20%)	92 (95%)	5 (5%)	0	100	100
13	D	141/484 (29%)	128 (91%)	13 (9%)	0	100	100
14	D0	285/447 (64%)	280 (98%)	5 (2%)	0	100	100
14	D1	423/447 (95%)	409 (97%)	14 (3%)	0	100	100
14	D2	423/447 (95%)	413 (98%)	10 (2%)	0	100	100
14	D3	312/447 (70%)	308 (99%)	4 (1%)	0	100	100
14	D5	7/447 (2%)	7 (100%)	0	0	100	100
14	D6	315/447 (70%)	307 (98%)	8 (2%)	0	100	100
14	D7	412/447 (92%)	397 (96%)	14 (3%)	1 (0%)	47	78
14	D8	411/447 (92%)	401 (98%)	10 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	D9	271/447 (61%)	261 (96%)	10 (4%)	0	100	100
15	E	251/321 (78%)	230 (92%)	21 (8%)	0	100	100
15	F	251/321 (78%)	220 (88%)	30 (12%)	1 (0%)	34	67
16	E0	66/208 (32%)	60 (91%)	6 (9%)	0	100	100
16	E1	125/208 (60%)	112 (90%)	12 (10%)	1 (1%)	19	51
16	E2	142/208 (68%)	129 (91%)	12 (8%)	1 (1%)	22	55
16	E3	142/208 (68%)	129 (91%)	12 (8%)	1 (1%)	22	55
17	G	94/120 (78%)	86 (92%)	8 (8%)	0	100	100
18	H	80/274 (29%)	70 (88%)	10 (12%)	0	100	100
18	I	144/274 (53%)	139 (96%)	5 (4%)	0	100	100
18	J	144/274 (53%)	131 (91%)	13 (9%)	0	100	100
18	K	144/274 (53%)	131 (91%)	13 (9%)	0	100	100
18	L	144/274 (53%)	137 (95%)	7 (5%)	0	100	100
18	M	144/274 (53%)	136 (94%)	8 (6%)	0	100	100
18	N	147/274 (54%)	135 (92%)	12 (8%)	0	100	100
19	H1	190/687 (28%)	188 (99%)	2 (1%)	0	100	100
19	H2	248/687 (36%)	243 (98%)	5 (2%)	0	100	100
19	H3	103/687 (15%)	102 (99%)	1 (1%)	0	100	100
20	H4	191/621 (31%)	186 (97%)	5 (3%)	0	100	100
20	H5	247/621 (40%)	246 (100%)	1 (0%)	0	100	100
20	H6	123/621 (20%)	121 (98%)	2 (2%)	0	100	100
21	H7	576/1044 (55%)	541 (94%)	34 (6%)	1 (0%)	47	78
21	H8	575/1044 (55%)	543 (94%)	31 (5%)	1 (0%)	47	78
21	H9	354/1044 (34%)	338 (96%)	16 (4%)	0	100	100
22	I1	188/683 (28%)	176 (94%)	12 (6%)	0	100	100
22	I2	188/683 (28%)	181 (96%)	7 (4%)	0	100	100
23	I3	182/212 (86%)	174 (96%)	7 (4%)	1 (0%)	29	61
23	I4	183/212 (86%)	175 (96%)	7 (4%)	1 (0%)	29	61
24	O	29/377 (8%)	29 (100%)	0	0	100	100
24	P	371/377 (98%)	359 (97%)	12 (3%)	0	100	100
24	Q	37/377 (10%)	34 (92%)	3 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
24	R	247/377 (66%)	240 (97%)	7 (3%)	0	100	100
24	S	168/377 (45%)	167 (99%)	1 (1%)	0	100	100
25	T	446/640 (70%)	404 (91%)	41 (9%)	1 (0%)	47	78
25	U	446/640 (70%)	396 (89%)	50 (11%)	0	100	100
25	V	446/640 (70%)	405 (91%)	41 (9%)	0	100	100
26	W	543/733 (74%)	484 (89%)	58 (11%)	1 (0%)	47	78
26	X	624/733 (85%)	560 (90%)	64 (10%)	0	100	100
26	Y	624/733 (85%)	567 (91%)	57 (9%)	0	100	100
26	Z	439/733 (60%)	400 (91%)	39 (9%)	0	100	100
27	XA	182/193 (94%)	168 (92%)	14 (8%)	0	100	100
27	XB	182/193 (94%)	162 (89%)	20 (11%)	0	100	100
27	XC	182/193 (94%)	163 (90%)	19 (10%)	0	100	100
27	XD	182/193 (94%)	167 (92%)	15 (8%)	0	100	100
27	XE	182/193 (94%)	168 (92%)	13 (7%)	1 (0%)	29	61
27	XF	182/193 (94%)	165 (91%)	17 (9%)	0	100	100
27	XG	182/193 (94%)	168 (92%)	14 (8%)	0	100	100
28	YB	217/257 (84%)	194 (89%)	23 (11%)	0	100	100
28	YC	217/257 (84%)	196 (90%)	21 (10%)	0	100	100
28	YD	217/257 (84%)	196 (90%)	21 (10%)	0	100	100
28	YE	217/257 (84%)	202 (93%)	15 (7%)	0	100	100
28	YF	217/257 (84%)	201 (93%)	16 (7%)	0	100	100
28	YG	217/257 (84%)	198 (91%)	18 (8%)	1 (0%)	29	61
29	a	163/549 (30%)	162 (99%)	1 (1%)	0	100	100
29	b	330/549 (60%)	327 (99%)	3 (1%)	0	100	100
29	c	271/549 (49%)	271 (100%)	0	0	100	100
29	d	213/549 (39%)	209 (98%)	4 (2%)	0	100	100
30	e	608/623 (98%)	541 (89%)	67 (11%)	0	100	100
30	f	608/623 (98%)	530 (87%)	77 (13%)	1 (0%)	47	78
30	g	608/623 (98%)	536 (88%)	70 (12%)	2 (0%)	41	72
31	h	146/259 (56%)	139 (95%)	7 (5%)	0	100	100
31	i	231/259 (89%)	222 (96%)	9 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	j	231/259 (89%)	219 (95%)	12 (5%)	0	100	100
31	k	231/259 (89%)	224 (97%)	7 (3%)	0	100	100
32	l	112/196 (57%)	102 (91%)	10 (9%)	0	100	100
32	m	114/196 (58%)	106 (93%)	8 (7%)	0	100	100
32	n	116/196 (59%)	108 (93%)	8 (7%)	0	100	100
33	o	370/547 (68%)	367 (99%)	3 (1%)	0	100	100
33	p	98/547 (18%)	96 (98%)	2 (2%)	0	100	100
34	q	75/170 (44%)	70 (93%)	5 (7%)	0	100	100
34	r	75/170 (44%)	68 (91%)	7 (9%)	0	100	100
34	s	75/170 (44%)	67 (89%)	8 (11%)	0	100	100
35	t	176/1497 (12%)	162 (92%)	14 (8%)	0	100	100
36	y	61/136 (45%)	55 (90%)	6 (10%)	0	100	100
36	z	113/136 (83%)	108 (96%)	5 (4%)	0	100	100
All	All	160251/190211 (84%)	148753 (93%)	11437 (7%)	61 (0%)	100	100

5 of 61 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
9	EH	180	VAL
8	GK	224	TYR
8	GM	130	THR
9	QH	393	ALA
8	SK	268	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	0	36/208 (17%)	36 (100%)	0	100	100
1	7	57/208 (27%)	56 (98%)	1 (2%)	59	79
2	1	47/750 (6%)	47 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	2	20/750 (3%)	20 (100%)	0	100	100
3	3	199/469 (42%)	199 (100%)	0	100	100
3	4	200/469 (43%)	198 (99%)	2 (1%)	76	88
4	5	191/324 (59%)	186 (97%)	5 (3%)	46	72
4	6	319/324 (98%)	313 (98%)	6 (2%)	57	78
5	8	177/182 (97%)	172 (97%)	5 (3%)	43	70
5	9	33/182 (18%)	33 (100%)	0	100	100
6	A	151/451 (34%)	150 (99%)	1 (1%)	84	92
6	B	321/451 (71%)	319 (99%)	2 (1%)	86	94
7	A0	201/382 (53%)	200 (100%)	1 (0%)	88	94
7	A1	366/382 (96%)	364 (100%)	2 (0%)	88	94
7	A2	364/382 (95%)	361 (99%)	3 (1%)	81	91
7	A3	311/382 (81%)	311 (100%)	0	100	100
7	A4	29/382 (8%)	29 (100%)	0	100	100
8	AA	368/379 (97%)	367 (100%)	1 (0%)	92	97
8	AC	370/379 (98%)	368 (100%)	2 (0%)	88	94
8	AE	370/379 (98%)	370 (100%)	0	100	100
8	AG	370/379 (98%)	370 (100%)	0	100	100
8	AI	370/379 (98%)	368 (100%)	2 (0%)	88	94
8	AK	370/379 (98%)	370 (100%)	0	100	100
8	AM	369/379 (97%)	367 (100%)	2 (0%)	88	94
8	BA	363/379 (96%)	363 (100%)	0	100	100
8	BC	370/379 (98%)	369 (100%)	1 (0%)	92	97
8	BE	366/379 (97%)	366 (100%)	0	100	100
8	BG	370/379 (98%)	369 (100%)	1 (0%)	92	97
8	BI	363/379 (96%)	363 (100%)	0	100	100
8	BK	369/379 (97%)	367 (100%)	2 (0%)	88	94
8	BM	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	CA	368/379 (97%)	366 (100%)	2 (0%)	88	94
8	CC	368/379 (97%)	366 (100%)	2 (0%)	88	94
8	CE	368/379 (97%)	367 (100%)	1 (0%)	92	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	CG	369/379 (97%)	366 (99%)	3 (1%)	81	91
8	CI	369/379 (97%)	369 (100%)	0	100	100
8	CK	369/379 (97%)	369 (100%)	0	100	100
8	CM	369/379 (97%)	368 (100%)	1 (0%)	92	97
8	DA	341/379 (90%)	340 (100%)	1 (0%)	92	97
8	DC	362/379 (96%)	360 (99%)	2 (1%)	86	94
8	DE	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	DG	364/379 (96%)	364 (100%)	0	100	100
8	DI	362/379 (96%)	362 (100%)	0	100	100
8	DK	363/379 (96%)	363 (100%)	0	100	100
8	DM	363/379 (96%)	357 (98%)	6 (2%)	60	80
8	EC	369/379 (97%)	367 (100%)	2 (0%)	88	94
8	EE	371/379 (98%)	368 (99%)	3 (1%)	81	91
8	EG	367/379 (97%)	366 (100%)	1 (0%)	92	97
8	EI	366/379 (97%)	359 (98%)	7 (2%)	57	78
8	EK	370/379 (98%)	360 (97%)	10 (3%)	44	70
8	EM	361/379 (95%)	358 (99%)	3 (1%)	81	91
8	FC	364/379 (96%)	362 (100%)	2 (0%)	88	94
8	FE	359/379 (95%)	358 (100%)	1 (0%)	92	97
8	FG	360/379 (95%)	358 (99%)	2 (1%)	86	94
8	FI	360/379 (95%)	359 (100%)	1 (0%)	92	97
8	FK	358/379 (94%)	356 (99%)	2 (1%)	86	94
8	FM	362/379 (96%)	362 (100%)	0	100	100
8	GC	370/379 (98%)	368 (100%)	2 (0%)	88	94
8	GE	363/379 (96%)	363 (100%)	0	100	100
8	GG	370/379 (98%)	369 (100%)	1 (0%)	92	97
8	GI	362/379 (96%)	362 (100%)	0	100	100
8	GK	362/379 (96%)	359 (99%)	3 (1%)	81	91
8	GM	369/379 (97%)	367 (100%)	2 (0%)	88	94
8	HC	360/379 (95%)	358 (99%)	2 (1%)	86	94
8	HE	363/379 (96%)	362 (100%)	1 (0%)	92	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	HG	363/379 (96%)	360 (99%)	3 (1%)	81	91
8	HI	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	HK	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	HM	362/379 (96%)	360 (99%)	2 (1%)	86	94
8	HO	326/379 (86%)	326 (100%)	0	100	100
8	IC	362/379 (96%)	361 (100%)	1 (0%)	92	97
8	IE	365/379 (96%)	365 (100%)	0	100	100
8	IG	370/379 (98%)	370 (100%)	0	100	100
8	II	365/379 (96%)	362 (99%)	3 (1%)	81	91
8	IK	370/379 (98%)	368 (100%)	2 (0%)	88	94
8	IM	364/379 (96%)	364 (100%)	0	100	100
8	IO	360/379 (95%)	360 (100%)	0	100	100
8	JC	364/379 (96%)	364 (100%)	0	100	100
8	JE	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	JG	361/379 (95%)	360 (100%)	1 (0%)	92	97
8	JI	362/379 (96%)	361 (100%)	1 (0%)	92	97
8	JK	370/379 (98%)	369 (100%)	1 (0%)	92	97
8	JM	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	KC	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	KE	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	KG	362/379 (96%)	362 (100%)	0	100	100
8	KI	361/379 (95%)	357 (99%)	4 (1%)	73	86
8	KK	363/379 (96%)	363 (100%)	0	100	100
8	KM	362/379 (96%)	362 (100%)	0	100	100
8	KO	346/379 (91%)	345 (100%)	1 (0%)	92	97
8	LC	370/379 (98%)	369 (100%)	1 (0%)	92	97
8	LE	370/379 (98%)	368 (100%)	2 (0%)	88	94
8	LG	370/379 (98%)	370 (100%)	0	100	100
8	LI	370/379 (98%)	369 (100%)	1 (0%)	92	97
8	LK	370/379 (98%)	370 (100%)	0	100	100
8	LM	364/379 (96%)	364 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	MC	369/379 (97%)	367 (100%)	2 (0%)	88	94
8	ME	362/379 (96%)	362 (100%)	0	100	100
8	MG	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	MI	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	MK	370/379 (98%)	368 (100%)	2 (0%)	88	94
8	MM	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	NA	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	NC	362/379 (96%)	361 (100%)	1 (0%)	92	97
8	NE	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	NG	365/379 (96%)	364 (100%)	1 (0%)	92	97
8	NI	365/379 (96%)	363 (100%)	2 (0%)	88	94
8	NK	363/379 (96%)	363 (100%)	0	100	100
8	OA	361/379 (95%)	358 (99%)	3 (1%)	81	91
8	OC	362/379 (96%)	358 (99%)	4 (1%)	73	86
8	OE	366/379 (97%)	365 (100%)	1 (0%)	92	97
8	OG	365/379 (96%)	364 (100%)	1 (0%)	92	97
8	OI	365/379 (96%)	361 (99%)	4 (1%)	73	86
8	OK	364/379 (96%)	361 (99%)	3 (1%)	81	91
8	PA	363/379 (96%)	360 (99%)	3 (1%)	81	91
8	PC	365/379 (96%)	364 (100%)	1 (0%)	92	97
8	PE	364/379 (96%)	359 (99%)	5 (1%)	67	83
8	PG	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	PI	360/379 (95%)	358 (99%)	2 (1%)	86	94
8	PK	363/379 (96%)	360 (99%)	3 (1%)	81	91
8	PM	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	QA	363/379 (96%)	359 (99%)	4 (1%)	73	86
8	QC	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	QE	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	QG	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	QI	362/379 (96%)	359 (99%)	3 (1%)	81	91
8	QK	364/379 (96%)	362 (100%)	2 (0%)	88	94

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	QM	364/379 (96%)	358 (98%)	6 (2%)	62	81
8	RA	362/379 (96%)	362 (100%)	0	100	100
8	RC	365/379 (96%)	363 (100%)	2 (0%)	88	94
8	RE	361/379 (95%)	358 (99%)	3 (1%)	81	91
8	RG	363/379 (96%)	360 (99%)	3 (1%)	81	91
8	RI	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	RK	364/379 (96%)	361 (99%)	3 (1%)	81	91
8	RM	361/379 (95%)	359 (99%)	2 (1%)	86	94
8	SA	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	SC	363/379 (96%)	360 (99%)	3 (1%)	81	91
8	SE	364/379 (96%)	362 (100%)	2 (0%)	88	94
8	SG	364/379 (96%)	361 (99%)	3 (1%)	81	91
8	SI	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	SK	365/379 (96%)	365 (100%)	0	100	100
8	SM	364/379 (96%)	362 (100%)	2 (0%)	88	94
8	TC	363/379 (96%)	358 (99%)	5 (1%)	67	83
8	TE	365/379 (96%)	363 (100%)	2 (0%)	88	94
8	TG	363/379 (96%)	363 (100%)	0	100	100
8	TI	363/379 (96%)	361 (99%)	2 (1%)	86	94
8	TK	365/379 (96%)	363 (100%)	2 (0%)	88	94
8	TM	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	UC	366/379 (97%)	364 (100%)	2 (0%)	88	94
8	UE	365/379 (96%)	364 (100%)	1 (0%)	92	97
8	UG	366/379 (97%)	364 (100%)	2 (0%)	88	94
8	UI	366/379 (97%)	362 (99%)	4 (1%)	73	86
8	UK	365/379 (96%)	364 (100%)	1 (0%)	92	97
8	UM	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	VC	370/379 (98%)	370 (100%)	0	100	100
8	VE	366/379 (97%)	363 (99%)	3 (1%)	81	91
8	VG	370/379 (98%)	363 (98%)	7 (2%)	57	78
8	VI	366/379 (97%)	365 (100%)	1 (0%)	92	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	VK	370/379 (98%)	369 (100%)	1 (0%)	92	97
8	VM	363/379 (96%)	362 (100%)	1 (0%)	92	97
8	WC	370/379 (98%)	368 (100%)	2 (0%)	88	94
8	WE	364/379 (96%)	363 (100%)	1 (0%)	92	97
8	WG	369/379 (97%)	368 (100%)	1 (0%)	92	97
8	WI	364/379 (96%)	361 (99%)	3 (1%)	81	91
8	WK	368/379 (97%)	366 (100%)	2 (0%)	88	94
8	WM	364/379 (96%)	362 (100%)	2 (0%)	88	94
9	AB	373/380 (98%)	372 (100%)	1 (0%)	92	97
9	AD	373/380 (98%)	370 (99%)	3 (1%)	81	91
9	AF	373/380 (98%)	369 (99%)	4 (1%)	73	86
9	AH	373/380 (98%)	373 (100%)	0	100	100
9	AJ	373/380 (98%)	364 (98%)	9 (2%)	49	74
9	AL	372/380 (98%)	370 (100%)	2 (0%)	88	94
9	BB	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	BD	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	BF	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	BH	367/380 (97%)	361 (98%)	6 (2%)	62	81
9	BJ	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	BL	365/380 (96%)	364 (100%)	1 (0%)	92	97
9	CB	366/380 (96%)	366 (100%)	0	100	100
9	CD	366/380 (96%)	366 (100%)	0	100	100
9	CF	367/380 (97%)	367 (100%)	0	100	100
9	CH	367/380 (97%)	361 (98%)	6 (2%)	62	81
9	CJ	367/380 (97%)	359 (98%)	8 (2%)	52	75
9	CL	365/380 (96%)	361 (99%)	4 (1%)	73	86
9	DB	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	DD	366/380 (96%)	366 (100%)	0	100	100
9	DF	366/380 (96%)	366 (100%)	0	100	100
9	DH	366/380 (96%)	359 (98%)	7 (2%)	57	78
9	DJ	366/380 (96%)	365 (100%)	1 (0%)	92	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	DL	365/380 (96%)	363 (100%)	2 (0%)	88	94
9	DN	330/380 (87%)	328 (99%)	2 (1%)	86	94
9	EB	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	ED	366/380 (96%)	362 (99%)	4 (1%)	73	86
9	EF	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	EH	367/380 (97%)	363 (99%)	4 (1%)	73	86
9	EJ	366/380 (96%)	362 (99%)	4 (1%)	73	86
9	EL	365/380 (96%)	362 (99%)	3 (1%)	81	91
9	EN	366/380 (96%)	364 (100%)	2 (0%)	88	94
9	FB	366/380 (96%)	366 (100%)	0	100	100
9	FD	367/380 (97%)	367 (100%)	0	100	100
9	FF	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	FH	366/380 (96%)	364 (100%)	2 (0%)	88	94
9	FJ	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	FL	365/380 (96%)	360 (99%)	5 (1%)	67	83
9	FN	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	GB	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	GD	367/380 (97%)	367 (100%)	0	100	100
9	GF	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	GH	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	GJ	367/380 (97%)	367 (100%)	0	100	100
9	GL	365/380 (96%)	364 (100%)	1 (0%)	92	97
9	GN	367/380 (97%)	367 (100%)	0	100	100
9	HB	366/380 (96%)	366 (100%)	0	100	100
9	HD	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	HF	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	HH	367/380 (97%)	367 (100%)	0	100	100
9	HJ	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	HL	365/380 (96%)	361 (99%)	4 (1%)	73	86
9	HN	367/380 (97%)	367 (100%)	0	100	100
9	IB	322/380 (85%)	321 (100%)	1 (0%)	92	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	ID	367/380 (97%)	363 (99%)	4 (1%)	73	86
9	IF	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	IH	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	IJ	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	IL	366/380 (96%)	360 (98%)	6 (2%)	62	81
9	IN	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	JB	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	JD	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	JF	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	JH	366/380 (96%)	364 (100%)	2 (0%)	88	94
9	JJ	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	JL	366/380 (96%)	362 (99%)	4 (1%)	73	86
9	JN	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	KB	350/380 (92%)	350 (100%)	0	100	100
9	KD	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	KF	367/380 (97%)	367 (100%)	0	100	100
9	KH	368/380 (97%)	367 (100%)	1 (0%)	92	97
9	KJ	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	KL	368/380 (97%)	368 (100%)	0	100	100
9	KN	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	LB	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	LD	367/380 (97%)	367 (100%)	0	100	100
9	LF	367/380 (97%)	367 (100%)	0	100	100
9	LH	367/380 (97%)	367 (100%)	0	100	100
9	LJ	367/380 (97%)	367 (100%)	0	100	100
9	LL	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	LN	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	MB	366/380 (96%)	359 (98%)	7 (2%)	57	78
9	MD	366/380 (96%)	366 (100%)	0	100	100
9	MF	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	MH	367/380 (97%)	367 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	MJ	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	ML	366/380 (96%)	362 (99%)	4 (1%)	73	86
9	MN	366/380 (96%)	365 (100%)	1 (0%)	92	97
9	NO	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	NB	367/380 (97%)	354 (96%)	13 (4%)	36	65
9	ND	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	NF	367/380 (97%)	360 (98%)	7 (2%)	57	78
9	NH	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	NJ	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	NL	365/380 (96%)	360 (99%)	5 (1%)	67	83
9	OO	354/380 (93%)	353 (100%)	1 (0%)	92	97
9	OB	365/380 (96%)	365 (100%)	0	100	100
9	OD	364/380 (96%)	362 (100%)	2 (0%)	88	94
9	OF	365/380 (96%)	365 (100%)	0	100	100
9	OH	367/380 (97%)	367 (100%)	0	100	100
9	OJ	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	OL	364/380 (96%)	364 (100%)	0	100	100
9	PB	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	PD	367/380 (97%)	367 (100%)	0	100	100
9	PF	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	PH	367/380 (97%)	367 (100%)	0	100	100
9	PJ	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	PL	365/380 (96%)	358 (98%)	7 (2%)	57	78
9	QB	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	QD	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	QF	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	QH	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	QJ	367/380 (97%)	367 (100%)	0	100	100
9	QL	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	RB	367/380 (97%)	367 (100%)	0	100	100
9	RD	367/380 (97%)	366 (100%)	1 (0%)	92	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	RF	367/380 (97%)	363 (99%)	4 (1%)	73	86
9	RH	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	RJ	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	RL	366/380 (96%)	361 (99%)	5 (1%)	67	83
9	SB	367/380 (97%)	361 (98%)	6 (2%)	62	81
9	SD	367/380 (97%)	367 (100%)	0	100	100
9	SF	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	SH	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	SJ	367/380 (97%)	367 (100%)	0	100	100
9	SL	366/380 (96%)	366 (100%)	0	100	100
9	TB	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	TD	367/380 (97%)	363 (99%)	4 (1%)	73	86
9	TF	367/380 (97%)	367 (100%)	0	100	100
9	TH	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	TJ	367/380 (97%)	367 (100%)	0	100	100
9	TL	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	UB	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	UD	367/380 (97%)	367 (100%)	0	100	100
9	UF	367/380 (97%)	364 (99%)	3 (1%)	81	91
9	UH	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	UJ	367/380 (97%)	360 (98%)	7 (2%)	57	78
9	UL	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	UN	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	VB	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	VD	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	VF	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	VH	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	VJ	367/380 (97%)	367 (100%)	0	100	100
9	VL	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	VN	367/380 (97%)	365 (100%)	2 (0%)	88	94
9	WB	367/380 (97%)	365 (100%)	2 (0%)	88	94

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	WD	367/380 (97%)	366 (100%)	1 (0%)	92	97
9	WF	366/380 (96%)	363 (99%)	3 (1%)	81	91
9	WH	366/380 (96%)	366 (100%)	0	100	100
9	WJ	366/380 (96%)	364 (100%)	2 (0%)	88	94
9	WL	366/380 (96%)	366 (100%)	0	100	100
9	WN	366/380 (96%)	364 (100%)	2 (0%)	88	94
10	B0	171/386 (44%)	171 (100%)	0	100	100
10	B1	373/386 (97%)	370 (99%)	3 (1%)	81	91
10	B2	373/386 (97%)	370 (99%)	3 (1%)	81	91
10	B3	344/386 (89%)	343 (100%)	1 (0%)	92	97
10	B4	44/386 (11%)	44 (100%)	0	100	100
10	B5	45/386 (12%)	45 (100%)	0	100	100
10	B6	319/386 (83%)	318 (100%)	1 (0%)	92	97
10	B7	371/386 (96%)	367 (99%)	4 (1%)	73	86
10	B8	360/386 (93%)	356 (99%)	4 (1%)	73	86
10	B9	169/386 (44%)	169 (100%)	0	100	100
11	C	83/92 (90%)	83 (100%)	0	100	100
12	C0	30/444 (7%)	30 (100%)	0	100	100
12	C1	300/444 (68%)	299 (100%)	1 (0%)	92	97
12	C2	356/444 (80%)	355 (100%)	1 (0%)	92	97
12	C3	356/444 (80%)	355 (100%)	1 (0%)	92	97
12	C4	196/444 (44%)	196 (100%)	0	100	100
12	C5	101/444 (23%)	101 (100%)	0	100	100
12	C6	347/444 (78%)	346 (100%)	1 (0%)	92	97
12	C7	375/444 (84%)	371 (99%)	4 (1%)	73	86
12	C8	369/444 (83%)	368 (100%)	1 (0%)	92	97
12	C9	107/444 (24%)	105 (98%)	2 (2%)	57	78
12	F0	129/444 (29%)	129 (100%)	0	100	100
12	F1	381/444 (86%)	378 (99%)	3 (1%)	81	91
12	F2	381/444 (86%)	380 (100%)	1 (0%)	92	97
12	F3	340/444 (77%)	337 (99%)	3 (1%)	78	90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	F4	91/444 (20%)	91 (100%)	0	100	100
13	D	65/397 (16%)	65 (100%)	0	100	100
14	D0	255/394 (65%)	255 (100%)	0	100	100
14	D1	375/394 (95%)	375 (100%)	0	100	100
14	D2	375/394 (95%)	374 (100%)	1 (0%)	92	97
14	D3	283/394 (72%)	282 (100%)	1 (0%)	91	95
14	D5	9/394 (2%)	9 (100%)	0	100	100
14	D6	286/394 (73%)	283 (99%)	3 (1%)	76	88
14	D7	365/394 (93%)	361 (99%)	4 (1%)	73	86
14	D8	364/394 (92%)	362 (100%)	2 (0%)	88	94
14	D9	242/394 (61%)	241 (100%)	1 (0%)	91	95
15	E	223/281 (79%)	222 (100%)	1 (0%)	91	95
15	F	223/281 (79%)	223 (100%)	0	100	100
16	E0	58/178 (33%)	57 (98%)	1 (2%)	60	80
16	E1	106/178 (60%)	104 (98%)	2 (2%)	57	78
16	E2	122/178 (68%)	117 (96%)	5 (4%)	30	59
16	E3	122/178 (68%)	121 (99%)	1 (1%)	81	91
17	G	91/114 (80%)	90 (99%)	1 (1%)	73	86
18	H	69/231 (30%)	69 (100%)	0	100	100
18	I	123/231 (53%)	123 (100%)	0	100	100
18	J	123/231 (53%)	123 (100%)	0	100	100
18	K	123/231 (53%)	122 (99%)	1 (1%)	81	91
18	L	123/231 (53%)	122 (99%)	1 (1%)	81	91
18	M	123/231 (53%)	123 (100%)	0	100	100
18	N	126/231 (54%)	126 (100%)	0	100	100
19	H1	174/611 (28%)	171 (98%)	3 (2%)	60	80
19	H2	229/611 (38%)	227 (99%)	2 (1%)	78	90
19	H3	97/611 (16%)	97 (100%)	0	100	100
20	H4	174/551 (32%)	170 (98%)	4 (2%)	50	74
20	H5	226/551 (41%)	224 (99%)	2 (1%)	78	90
20	H6	115/551 (21%)	115 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
22	I1	97/593 (16%)	97 (100%)	0	100	100
22	I2	97/593 (16%)	97 (100%)	0	100	100
24	O	28/335 (8%)	28 (100%)	0	100	100
24	P	332/335 (99%)	332 (100%)	0	100	100
24	Q	36/335 (11%)	36 (100%)	0	100	100
24	R	217/335 (65%)	213 (98%)	4 (2%)	59	79
24	S	153/335 (46%)	153 (100%)	0	100	100
25	T	409/574 (71%)	404 (99%)	5 (1%)	71	85
25	U	409/574 (71%)	408 (100%)	1 (0%)	93	98
25	V	409/574 (71%)	407 (100%)	2 (0%)	88	94
26	W	506/672 (75%)	502 (99%)	4 (1%)	81	91
26	X	582/672 (87%)	581 (100%)	1 (0%)	93	98
26	Y	582/672 (87%)	582 (100%)	0	100	100
26	Z	412/672 (61%)	412 (100%)	0	100	100
27	XA	172/180 (96%)	171 (99%)	1 (1%)	86	94
27	XB	172/180 (96%)	172 (100%)	0	100	100
27	XC	172/180 (96%)	171 (99%)	1 (1%)	86	94
27	XD	172/180 (96%)	169 (98%)	3 (2%)	60	80
27	XE	172/180 (96%)	169 (98%)	3 (2%)	60	80
27	XF	172/180 (96%)	172 (100%)	0	100	100
27	XG	172/180 (96%)	172 (100%)	0	100	100
28	YB	192/227 (85%)	191 (100%)	1 (0%)	88	94
28	YC	192/227 (85%)	192 (100%)	0	100	100
28	YD	192/227 (85%)	192 (100%)	0	100	100
28	YE	192/227 (85%)	192 (100%)	0	100	100
28	YF	192/227 (85%)	192 (100%)	0	100	100
28	YG	192/227 (85%)	192 (100%)	0	100	100
29	a	157/495 (32%)	155 (99%)	2 (1%)	69	84
29	b	299/495 (60%)	293 (98%)	6 (2%)	55	77
29	c	256/495 (52%)	256 (100%)	0	100	100
29	d	187/495 (38%)	183 (98%)	4 (2%)	53	76

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	e	516/527 (98%)	514 (100%)	2 (0%)	91	95
30	f	516/527 (98%)	508 (98%)	8 (2%)	62	81
30	g	516/527 (98%)	510 (99%)	6 (1%)	71	85
31	h	135/238 (57%)	135 (100%)	0	100	100
31	i	218/238 (92%)	216 (99%)	2 (1%)	78	90
31	j	218/238 (92%)	218 (100%)	0	100	100
31	k	218/238 (92%)	218 (100%)	0	100	100
32	l	95/168 (56%)	95 (100%)	0	100	100
32	m	97/168 (58%)	95 (98%)	2 (2%)	53	76
32	n	99/168 (59%)	98 (99%)	1 (1%)	76	88
33	o	49/486 (10%)	49 (100%)	0	100	100
33	p	88/486 (18%)	88 (100%)	0	100	100
34	q	69/152 (45%)	67 (97%)	2 (3%)	42	69
34	r	69/152 (45%)	68 (99%)	1 (1%)	67	83
34	s	69/152 (45%)	69 (100%)	0	100	100
36	y	59/122 (48%)	58 (98%)	1 (2%)	60	80
36	z	105/122 (86%)	105 (100%)	0	100	100
All	All	135879/158917 (86%)	135160 (100%)	719 (0%)	89	94

5 of 719 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
8	PI	221	ARG
8	TC	2	ARG
8	PM	308	ARG
8	PG	216	ASN
9	RF	247	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 315 such sidechains are listed below:

Mol	Chain	Res	Type
8	SC	139	HIS
9	WF	334	GLN
9	SJ	15	GLN
9	UJ	6	HIS

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Mol	Chain	Res	Type
30	f	41	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 451 ligands modelled in this entry, 149 are monoatomic - leaving 302 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
37	GTP	SK	501	-	26,34,34	1.32	3 (11%)	32,54,54	1.82	6 (18%)
37	GTP	HK	501	-	26,34,34	1.26	2 (7%)	32,54,54	1.60	6 (18%)
39	GDP	MF	502	-	24,30,30	1.06	1 (4%)	30,47,47	1.29	3 (10%)
37	GTP	AI	501	-	26,34,34	1.37	3 (11%)	32,54,54	1.62	6 (18%)
37	GTP	SE	501	-	26,34,34	1.29	3 (11%)	32,54,54	1.73	7 (21%)
37	GTP	CC	501	-	26,34,34	1.24	3 (11%)	32,54,54	1.74	7 (21%)
39	GDP	FH	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.23	4 (13%)
39	GDP	WJ	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.29	3 (10%)
39	GDP	KH	502	-	24,30,30	1.09	1 (4%)	30,47,47	1.43	4 (13%)
37	GTP	NC	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.65	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
39	GDP	HB	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.54	4 (13%)
37	GTP	VI	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.92	6 (18%)
37	GTP	IG	501	-	26,34,34	1.17	1 (3%)	32,54,54	1.89	8 (25%)
39	GDP	EB	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.40	4 (13%)
39	GDP	OH	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.43	5 (16%)
37	GTP	GC	501	-	26,34,34	1.40	4 (15%)	32,54,54	1.85	7 (21%)
37	GTP	HC	501	-	26,34,34	1.28	2 (7%)	32,54,54	1.72	7 (21%)
39	GDP	FB	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.29	3 (10%)
39	GDP	QB	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.28	4 (13%)
37	GTP	NE	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.72	7 (21%)
37	GTP	GM	501	-	26,34,34	1.32	3 (11%)	32,54,54	1.81	7 (21%)
37	GTP	RM	501	-	26,34,34	1.24	1 (3%)	32,54,54	1.73	7 (21%)
39	GDP	RJ	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.43	5 (16%)
39	GDP	UL	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.41	3 (10%)
39	GDP	HL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.41	4 (13%)
37	GTP	HO	501	-	26,34,34	1.24	2 (7%)	32,54,54	1.80	7 (21%)
37	GTP	GG	501	-	26,34,34	1.38	2 (7%)	32,54,54	1.84	7 (21%)
37	GTP	OE	501	-	26,34,34	1.25	2 (7%)	32,54,54	1.67	7 (21%)
37	GTP	QA	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.57	7 (21%)
39	GDP	LF	502	-	24,30,30	1.09	1 (4%)	30,47,47	1.29	3 (10%)
39	GDP	OJ	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.36	4 (13%)
37	GTP	VG	501	-	26,34,34	1.21	2 (7%)	32,54,54	1.67	7 (21%)
39	GDP	VD	502	-	24,30,30	1.04	1 (4%)	30,47,47	1.51	5 (16%)
39	GDP	UJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.43	5 (16%)
37	GTP	DC	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.48	6 (18%)
37	GTP	FG	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.60	7 (21%)
37	GTP	VM	501	-	26,34,34	1.25	2 (7%)	32,54,54	1.82	7 (21%)
39	GDP	UB	502	-	24,30,30	1.04	2 (8%)	30,47,47	1.38	3 (10%)
37	GTP	LG	501	-	26,34,34	1.42	1 (3%)	32,54,54	1.61	6 (18%)
37	GTP	NA	501	-	26,34,34	1.27	1 (3%)	32,54,54	1.63	7 (21%)
39	GDP	DL	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.34	4 (13%)
39	GDP	KD	502	-	24,30,30	1.12	1 (4%)	30,47,47	1.31	4 (13%)
39	GDP	IH	502	-	24,30,30	1.09	1 (4%)	30,47,47	1.38	5 (16%)
39	GDP	CF	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.40	5 (16%)
39	GDP	GJ	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.37	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
37	GTP	CG	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.78	7 (21%)
39	GDP	TJ	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.26	4 (13%)
37	GTP	WG	501	-	26,34,34	1.21	2 (7%)	32,54,54	1.66	7 (21%)
37	GTP	OA	501	-	26,34,34	1.23	2 (7%)	32,54,54	1.64	7 (21%)
37	GTP	JE	501	-	26,34,34	1.28	2 (7%)	32,54,54	1.61	6 (18%)
39	GDP	KF	502	-	24,30,30	1.08	1 (4%)	30,47,47	1.31	4 (13%)
39	GDP	GD	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.40	4 (13%)
39	GDP	VB	502	-	24,30,30	0.90	0	30,47,47	1.51	4 (13%)
39	GDP	LL	502	-	24,30,30	1.12	1 (4%)	30,47,47	1.24	5 (16%)
39	GDP	SH	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.47	4 (13%)
39	GDP	FJ	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.52	7 (23%)
37	GTP	II	501	-	26,34,34	1.19	1 (3%)	32,54,54	1.68	7 (21%)
39	GDP	EN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.26	4 (13%)
37	GTP	TG	501	-	26,34,34	1.18	1 (3%)	32,54,54	1.46	8 (25%)
37	GTP	TI	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.44	6 (18%)
39	GDP	SB	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.34	5 (16%)
39	GDP	UD	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.35	4 (13%)
39	GDP	TL	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.17	4 (13%)
39	GDP	DF	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.37	4 (13%)
37	GTP	PE	501	-	26,34,34	1.23	2 (7%)	32,54,54	1.82	7 (21%)
39	GDP	BD	502	-	24,30,30	1.04	1 (4%)	30,47,47	1.46	4 (13%)
39	GDP	KB	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.39	3 (10%)
37	GTP	CE	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.64	6 (18%)
37	GTP	HE	501	-	26,34,34	1.29	2 (7%)	32,54,54	1.73	7 (21%)
37	GTP	LK	501	-	26,34,34	1.39	2 (7%)	32,54,54	1.57	6 (18%)
39	GDP	DJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.27	5 (16%)
37	GTP	DA	501	-	26,34,34	1.11	2 (7%)	32,54,54	1.56	5 (15%)
37	GTP	KM	501	-	26,34,34	1.49	4 (15%)	32,54,54	1.57	6 (18%)
39	GDP	NF	502	-	24,30,30	0.91	0	30,47,47	1.47	4 (13%)
39	GDP	AD	502	-	24,30,30	0.97	2 (8%)	30,47,47	1.47	5 (16%)
39	GDP	BJ	502	-	24,30,30	1.06	1 (4%)	30,47,47	1.47	4 (13%)
39	GDP	IF	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.37	5 (16%)
39	GDP	WF	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.33	4 (13%)
37	GTP	SC	501	-	26,34,34	1.30	2 (7%)	32,54,54	1.66	7 (21%)
37	GTP	RI	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.81	9 (28%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
37	GTP	EE	501	-	26,34,34	1.30	1 (3%)	32,54,54	1.57	6 (18%)
37	GTP	WE	501	-	26,34,34	1.27	2 (7%)	32,54,54	1.66	6 (18%)
39	GDP	IB	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.38	4 (13%)
37	GTP	IM	501	-	26,34,34	1.30	2 (7%)	32,54,54	1.75	8 (25%)
39	GDP	MD	502	-	24,30,30	1.14	1 (4%)	30,47,47	1.29	2 (6%)
39	GDP	OL	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.56	5 (16%)
39	GDP	RF	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.21	3 (10%)
37	GTP	PG	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.61	10 (31%)
37	GTP	AK	501	-	26,34,34	1.40	3 (11%)	32,54,54	1.70	7 (21%)
39	GDP	EF	502	-	24,30,30	1.12	1 (4%)	30,47,47	1.26	4 (13%)
37	GTP	FI	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.91	8 (25%)
37	GTP	WK	501	-	26,34,34	1.17	1 (3%)	32,54,54	1.62	6 (18%)
39	GDP	RL	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.39	5 (16%)
39	GDP	AH	502	-	24,30,30	1.11	1 (4%)	30,47,47	1.51	5 (16%)
39	GDP	OD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.36	4 (13%)
37	GTP	JC	501	-	26,34,34	1.25	2 (7%)	32,54,54	1.70	8 (25%)
37	GTP	DE	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.65	8 (25%)
39	GDP	AB	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.35	4 (13%)
39	GDP	NB	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	HD	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.41	5 (16%)
37	GTP	OI	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.76	7 (21%)
37	GTP	RA	501	-	26,34,34	1.21	2 (7%)	32,54,54	1.64	7 (21%)
39	GDP	FF	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.35	4 (13%)
39	GDP	GL	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	JL	502	-	24,30,30	1.06	1 (4%)	30,47,47	1.29	6 (20%)
39	GDP	UN	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.33	4 (13%)
39	GDP	RB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.36	4 (13%)
39	GDP	CL	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.42	4 (13%)
39	GDP	QH	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.33	4 (13%)
37	GTP	UI	501	-	26,34,34	1.25	2 (7%)	32,54,54	1.76	7 (21%)
37	GTP	BM	501	-	26,34,34	1.36	3 (11%)	32,54,54	1.64	6 (18%)
37	GTP	EM	501	-	26,34,34	1.32	3 (11%)	32,54,54	1.68	6 (18%)
39	GDP	TD	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.26	4 (13%)
39	GDP	AJ	502	-	24,30,30	1.13	1 (4%)	30,47,47	1.45	5 (16%)
37	GTP	QE	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.85	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
39	GDP	DD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.36	4 (13%)
37	GTP	KI	501	-	26,34,34	1.50	3 (11%)	32,54,54	1.63	8 (25%)
37	GTP	VC	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.83	7 (21%)
39	GDP	AL	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.42	5 (16%)
37	GTP	JK	501	-	26,34,34	1.31	2 (7%)	32,54,54	1.72	7 (21%)
39	GDP	IJ	502	-	24,30,30	1.04	1 (4%)	30,47,47	1.56	4 (13%)
39	GDP	JB	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.28	3 (10%)
39	GDP	LJ	502	-	24,30,30	1.09	1 (4%)	30,47,47	1.41	5 (16%)
39	GDP	SD	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.34	4 (13%)
39	GDP	TB	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.30	4 (13%)
37	GTP	AG	501	-	26,34,34	1.39	4 (15%)	32,54,54	1.63	8 (25%)
37	GTP	PA	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.71	8 (25%)
37	GTP	FE	501	-	26,34,34	1.23	3 (11%)	32,54,54	1.95	8 (25%)
37	GTP	SM	501	-	26,34,34	1.33	1 (3%)	32,54,54	1.68	7 (21%)
37	GTP	GI	501	-	26,34,34	1.27	1 (3%)	32,54,54	1.76	7 (21%)
37	GTP	VK	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.66	7 (21%)
37	GTP	BA	501	-	26,34,34	1.32	2 (7%)	32,54,54	1.78	7 (21%)
37	GTP	NG	501	-	26,34,34	1.26	1 (3%)	32,54,54	1.54	9 (28%)
39	GDP	JH	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.30	3 (10%)
39	GDP	TF	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.42	4 (13%)
39	GDP	VL	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.36	5 (16%)
37	GTP	UM	501	-	26,34,34	1.21	2 (7%)	32,54,54	1.79	7 (21%)
39	GDP	PJ	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.37	4 (13%)
39	GDP	FN	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.23	3 (10%)
37	GTP	LM	501	-	26,34,34	1.45	4 (15%)	32,54,54	1.66	7 (21%)
37	GTP	RK	501	-	26,34,34	1.33	3 (11%)	32,54,54	1.55	7 (21%)
37	GTP	UE	501	-	26,34,34	1.20	1 (3%)	32,54,54	1.72	6 (18%)
37	GTP	EI	501	-	26,34,34	1.35	3 (11%)	32,54,54	1.87	8 (25%)
39	GDP	CH	502	-	24,30,30	1.04	1 (4%)	30,47,47	1.58	5 (16%)
39	GDP	ID	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.44	4 (13%)
39	GDP	MB	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.64	6 (20%)
37	GTP	CA	501	-	26,34,34	1.25	2 (7%)	32,54,54	1.75	7 (21%)
37	GTP	NI	501	-	26,34,34	1.24	2 (7%)	32,54,54	1.64	7 (21%)
39	GDP	WL	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.44	5 (16%)
39	GDP	DN	502	-	24,30,30	1.02	2 (8%)	30,47,47	1.34	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
39	GDP	SL	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.34	4 (13%)
37	GTP	AE	501	-	26,34,34	1.41	3 (11%)	32,54,54	1.65	7 (21%)
37	GTP	TE	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.45	7 (21%)
39	GDP	BH	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.46	4 (13%)
39	GDP	PD	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.37	5 (16%)
37	GTP	AA	501	-	26,34,34	1.35	3 (11%)	32,54,54	1.64	9 (28%)
37	GTP	JM	501	-	26,34,34	1.26	2 (7%)	32,54,54	1.56	7 (21%)
39	GDP	KJ	502	-	24,30,30	1.06	1 (4%)	30,47,47	1.37	4 (13%)
37	GTP	UC	501	-	26,34,34	1.26	2 (7%)	32,54,54	1.73	6 (18%)
37	GTP	LE	501	-	26,34,34	1.40	2 (7%)	32,54,54	1.67	6 (18%)
39	GDP	PF	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.39	4 (13%)
39	GDP	FL	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.38	4 (13%)
39	GDP	SF	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.43	5 (16%)
37	GTP	QK	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.49	5 (15%)
37	GTP	SA	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.68	7 (21%)
37	GTP	BE	501	-	26,34,34	1.37	3 (11%)	32,54,54	1.69	7 (21%)
39	GDP	N0	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.37	4 (13%)
39	GDP	UF	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.39	4 (13%)
39	GDP	HJ	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.31	4 (13%)
39	GDP	KN	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.44	4 (13%)
39	GDP	HN	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.58	5 (16%)
39	GDP	DB	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.45	6 (20%)
39	GDP	QJ	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.32	4 (13%)
37	GTP	QM	501	-	26,34,34	1.25	2 (7%)	32,54,54	1.53	7 (21%)
39	GDP	LB	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.45	4 (13%)
37	GTP	PC	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.53	6 (18%)
39	GDP	CD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.52	4 (13%)
39	GDP	NH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.44	4 (13%)
39	GDP	QD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.26	4 (13%)
39	GDP	VH	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.29	5 (16%)
37	GTP	PM	501	-	26,34,34	1.32	2 (7%)	32,54,54	1.58	7 (21%)
39	GDP	JF	502	-	24,30,30	1.08	1 (4%)	30,47,47	1.26	4 (13%)
39	GDP	ED	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	NJ	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	4 (13%)
37	GTP	OK	501	-	26,34,34	1.30	3 (11%)	32,54,54	1.71	8 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
37	GTP	BI	501	-	26,34,34	1.35	2 (7%)	32,54,54	1.67	8 (25%)
39	GDP	FD	502	-	24,30,30	1.08	1 (4%)	30,47,47	1.36	3 (10%)
39	GDP	GN	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.47	4 (13%)
37	GTP	CM	501	-	26,34,34	1.24	2 (7%)	32,54,54	1.82	7 (21%)
39	GDP	UH	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.47	3 (10%)
39	GDP	AF	502	-	24,30,30	1.16	2 (8%)	30,47,47	1.41	4 (13%)
37	GTP	VE	501	-	26,34,34	1.26	2 (7%)	32,54,54	1.87	7 (21%)
39	GDP	IN	502	-	24,30,30	1.04	1 (4%)	30,47,47	1.31	6 (20%)
39	GDP	OF	502	-	24,30,30	0.89	0	30,47,47	1.33	6 (20%)
37	GTP	OC	501	-	26,34,34	1.35	4 (15%)	32,54,54	1.80	7 (21%)
37	GTP	EC	501	-	26,34,34	1.28	1 (3%)	32,54,54	1.76	6 (18%)
37	GTP	FM	501	-	26,34,34	1.26	3 (11%)	32,54,54	1.69	10 (31%)
37	GTP	ME	501	-	26,34,34	1.37	2 (7%)	32,54,54	1.77	6 (18%)
37	GTP	MG	501	-	26,34,34	1.23	1 (3%)	32,54,54	1.59	6 (18%)
39	GDP	CB	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.46	5 (16%)
37	GTP	MC	501	-	26,34,34	1.43	3 (11%)	32,54,54	1.70	6 (18%)
37	GTP	WI	501	-	26,34,34	1.26	2 (7%)	32,54,54	1.61	5 (15%)
39	GDP	EJ	502	-	24,30,30	1.06	1 (4%)	30,47,47	1.43	3 (10%)
39	GDP	KL	502	-	24,30,30	1.04	1 (4%)	30,47,47	1.35	4 (13%)
39	GDP	LD	502	-	24,30,30	1.15	1 (4%)	30,47,47	1.34	3 (10%)
39	GDP	JJ	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.35	5 (16%)
37	GTP	RC	501	-	26,34,34	1.31	2 (7%)	32,54,54	1.64	7 (21%)
37	GTP	UG	501	-	26,34,34	1.29	1 (3%)	32,54,54	1.65	7 (21%)
39	GDP	RH	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.40	5 (16%)
39	GDP	RD	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.39	4 (13%)
37	GTP	BK	501	-	26,34,34	1.37	4 (15%)	32,54,54	1.70	7 (21%)
37	GTP	QI	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.67	9 (28%)
37	GTP	SI	501	-	26,34,34	1.22	1 (3%)	32,54,54	1.84	6 (18%)
37	GTP	AC	501	-	26,34,34	1.42	3 (11%)	32,54,54	1.69	7 (21%)
39	GDP	JN	502	-	24,30,30	1.07	1 (4%)	30,47,47	1.38	5 (16%)
39	GDP	MN	502	-	24,30,30	1.09	1 (4%)	30,47,47	1.34	4 (13%)
37	GTP	EK	501	-	26,34,34	1.25	1 (3%)	32,54,54	1.56	6 (18%)
37	GTP	UK	501	-	26,34,34	1.23	2 (7%)	32,54,54	1.55	8 (25%)
39	GDP	VJ	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.26	4 (13%)
39	GDP	EL	502	-	24,30,30	1.13	1 (4%)	30,47,47	1.32	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
39	GDP	WD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.39	6 (20%)
37	GTP	QC	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	7 (21%)
37	GTP	JG	501	-	26,34,34	1.32	3 (11%)	32,54,54	1.57	7 (21%)
37	GTP	GK	501	-	26,34,34	1.31	2 (7%)	32,54,54	1.82	7 (21%)
37	GTP	KK	501	-	26,34,34	1.48	4 (15%)	32,54,54	1.65	7 (21%)
37	GTP	PI	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.80	6 (18%)
37	GTP	PK	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.71	8 (25%)
37	GTP	TM	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.52	8 (25%)
39	GDP	ML	502	-	24,30,30	1.18	2 (8%)	30,47,47	1.32	4 (13%)
37	GTP	DG	501	-	26,34,34	1.25	2 (7%)	32,54,54	1.72	7 (21%)
39	GDP	TH	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.27	4 (13%)
39	GDP	DH	502	-	24,30,30	1.06	1 (4%)	30,47,47	1.26	3 (10%)
39	GDP	WB	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.27	4 (13%)
39	GDP	IL	502	-	24,30,30	1.12	1 (4%)	30,47,47	1.45	6 (20%)
37	GTP	KO	501	-	26,34,34	1.41	3 (11%)	32,54,54	1.57	7 (21%)
37	GTP	FK	501	-	26,34,34	1.27	2 (7%)	32,54,54	1.67	8 (25%)
37	GTP	QG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.54	6 (18%)
39	GDP	QL	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.39	5 (16%)
37	GTP	CI	501	-	26,34,34	1.25	3 (11%)	32,54,54	1.74	7 (21%)
37	GTP	AM	501	-	26,34,34	1.44	4 (15%)	32,54,54	1.62	6 (18%)
37	GTP	EG	501	-	26,34,34	1.26	1 (3%)	32,54,54	1.67	7 (21%)
37	GTP	IO	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.86	6 (18%)
37	GTP	MK	501	-	26,34,34	1.38	2 (7%)	32,54,54	1.74	9 (28%)
37	GTP	RE	501	-	26,34,34	1.22	1 (3%)	32,54,54	1.76	7 (21%)
37	GTP	WC	501	-	26,34,34	1.21	2 (7%)	32,54,54	1.55	7 (21%)
39	GDP	BL	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.38	4 (13%)
37	GTP	KG	501	-	26,34,34	1.55	3 (11%)	32,54,54	1.75	9 (28%)
39	GDP	GB	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.46	4 (13%)
39	GDP	GF	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.30	4 (13%)
39	GDP	ND	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.48	4 (13%)
37	GTP	DM	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.59	6 (18%)
37	GTP	IE	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.66	7 (21%)
39	GDP	PL	502	-	24,30,30	1.02	2 (8%)	30,47,47	1.30	3 (10%)
39	GDP	SJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.50	5 (16%)
37	GTP	KC	501	-	26,34,34	1.55	3 (11%)	32,54,54	1.83	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
37	GTP	BG	501	-	26,34,34	1.35	2 (7%)	32,54,54	1.78	8 (25%)
39	GDP	WN	502	-	24,30,30	1.08	1 (4%)	30,47,47	1.41	4 (13%)
37	GTP	HI	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.66	7 (21%)
37	GTP	KE	501	-	26,34,34	1.51	3 (11%)	32,54,54	1.49	5 (15%)
37	GTP	TC	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.67	7 (21%)
39	GDP	OB	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.36	4 (13%)
37	GTP	NK	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.62	8 (25%)
37	GTP	RG	501	-	26,34,34	1.34	3 (11%)	32,54,54	1.64	6 (18%)
39	GDP	CJ	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.53	6 (20%)
39	GDP	EH	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.30	4 (13%)
37	GTP	IK	501	-	26,34,34	1.24	2 (7%)	32,54,54	1.64	7 (21%)
37	GTP	WM	501	-	26,34,34	1.24	1 (3%)	32,54,54	1.61	6 (18%)
37	GTP	HG	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.73	7 (21%)
39	GDP	NL	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.44	4 (13%)
39	GDP	PH	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.35	5 (16%)
39	GDP	WH	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.55	5 (16%)
37	GTP	DI	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.63	7 (21%)
39	GDP	LH	502	-	24,30,30	1.11	1 (4%)	30,47,47	1.40	4 (13%)
37	GTP	LC	501	-	26,34,34	1.31	2 (7%)	32,54,54	1.71	7 (21%)
37	GTP	LI	501	-	26,34,34	1.43	2 (7%)	32,54,54	1.63	6 (18%)
37	GTP	GE	501	-	26,34,34	1.27	1 (3%)	32,54,54	1.79	7 (21%)
37	GTP	CK	501	-	26,34,34	1.21	1 (3%)	32,54,54	1.66	6 (18%)
37	GTP	HM	501	-	26,34,34	1.21	2 (7%)	32,54,54	1.67	7 (21%)
37	GTP	TK	501	-	26,34,34	1.25	1 (3%)	32,54,54	1.49	7 (21%)
39	GDP	BB	502	-	24,30,30	0.87	0	30,47,47	1.78	8 (26%)
39	GDP	BF	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.37	5 (16%)
39	GDP	HF	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.39	4 (13%)
39	GDP	HH	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.37	3 (10%)
37	GTP	MM	501	-	26,34,34	1.37	1 (3%)	32,54,54	1.51	7 (21%)
37	GTP	OG	501	-	26,34,34	1.27	2 (7%)	32,54,54	1.77	8 (25%)
37	GTP	DK	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.51	6 (18%)
39	GDP	O0	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.39	4 (13%)
37	GTP	FC	501	-	26,34,34	1.24	1 (3%)	32,54,54	1.63	7 (21%)
39	GDP	QF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
37	GTP	MI	501	-	26,34,34	1.35	2 (7%)	32,54,54	1.79	9 (28%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
39	GDP	VN	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	GH	502	-	24,30,30	1.04	1 (4%)	30,47,47	1.48	4 (13%)
39	GDP	LN	502	-	24,30,30	1.09	2 (8%)	30,47,47	1.32	3 (10%)
37	GTP	IC	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.63	7 (21%)
37	GTP	JI	501	-	26,34,34	1.34	2 (7%)	32,54,54	1.69	7 (21%)
39	GDP	MJ	502	-	24,30,30	1.06	1 (4%)	30,47,47	1.46	5 (16%)
39	GDP	VF	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.38	4 (13%)
37	GTP	SG	501	-	26,34,34	1.28	3 (11%)	32,54,54	1.44	5 (15%)
39	GDP	PB	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.38	4 (13%)
37	GTP	BC	501	-	26,34,34	1.35	2 (7%)	32,54,54	1.71	7 (21%)
39	GDP	JD	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.32	6 (20%)
39	GDP	MH	502	-	24,30,30	1.05	1 (4%)	30,47,47	1.35	4 (13%)

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
37	GTP	SK	501	-	-	6/18/38/38	0/3/3/3
37	GTP	HK	501	-	-	5/18/38/38	0/3/3/3
39	GDP	MF	502	-	-	2/12/32/32	0/3/3/3
37	GTP	AI	501	-	-	1/18/38/38	0/3/3/3
37	GTP	SE	501	-	-	6/18/38/38	0/3/3/3
37	GTP	CC	501	-	-	4/18/38/38	0/3/3/3
39	GDP	FH	502	-	-	4/12/32/32	0/3/3/3
39	GDP	WJ	502	-	-	4/12/32/32	0/3/3/3
39	GDP	KH	502	-	-	4/12/32/32	0/3/3/3
37	GTP	NC	501	-	-	6/18/38/38	0/3/3/3
39	GDP	HB	502	-	-	3/12/32/32	0/3/3/3
37	GTP	VI	501	-	-	4/18/38/38	0/3/3/3
37	GTP	IG	501	-	-	3/18/38/38	0/3/3/3
39	GDP	EB	502	-	-	4/12/32/32	0/3/3/3
39	GDP	OH	502	-	-	2/12/32/32	0/3/3/3
37	GTP	GC	501	-	-	6/18/38/38	0/3/3/3
37	GTP	HC	501	-	-	5/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	FB	502	-	-	3/12/32/32	0/3/3/3
39	GDP	QB	502	-	-	5/12/32/32	0/3/3/3
37	GTP	NE	501	-	-	6/18/38/38	0/3/3/3
37	GTP	GM	501	-	-	5/18/38/38	0/3/3/3
37	GTP	RM	501	-	-	3/18/38/38	0/3/3/3
39	GDP	RJ	502	-	-	2/12/32/32	0/3/3/3
39	GDP	UL	502	-	-	3/12/32/32	0/3/3/3
39	GDP	HL	502	-	-	1/12/32/32	0/3/3/3
37	GTP	HO	501	-	-	6/18/38/38	0/3/3/3
37	GTP	GG	501	-	-	7/18/38/38	0/3/3/3
37	GTP	OE	501	-	-	7/18/38/38	0/3/3/3
37	GTP	QA	501	-	-	5/18/38/38	0/3/3/3
39	GDP	LF	502	-	-	2/12/32/32	0/3/3/3
39	GDP	OJ	502	-	-	2/12/32/32	0/3/3/3
37	GTP	VG	501	-	-	3/18/38/38	0/3/3/3
39	GDP	VD	502	-	-	2/12/32/32	0/3/3/3
39	GDP	UJ	502	-	-	5/12/32/32	0/3/3/3
37	GTP	DC	501	-	-	6/18/38/38	0/3/3/3
37	GTP	FG	501	-	-	5/18/38/38	0/3/3/3
37	GTP	VM	501	-	-	3/18/38/38	0/3/3/3
39	GDP	UB	502	-	-	5/12/32/32	0/3/3/3
37	GTP	LG	501	-	-	4/18/38/38	0/3/3/3
37	GTP	NA	501	-	-	7/18/38/38	0/3/3/3
39	GDP	DL	502	-	-	3/12/32/32	0/3/3/3
39	GDP	KD	502	-	-	5/12/32/32	0/3/3/3
39	GDP	IH	502	-	-	6/12/32/32	0/3/3/3
39	GDP	CF	502	-	-	6/12/32/32	0/3/3/3
39	GDP	GJ	502	-	-	2/12/32/32	0/3/3/3
37	GTP	CG	501	-	-	4/18/38/38	0/3/3/3
39	GDP	TJ	502	-	-	2/12/32/32	0/3/3/3
37	GTP	WG	501	-	-	5/18/38/38	0/3/3/3
37	GTP	OA	501	-	-	6/18/38/38	0/3/3/3
37	GTP	JE	501	-	-	2/18/38/38	0/3/3/3
39	GDP	KF	502	-	-	3/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	GD	502	-	-	1/12/32/32	0/3/3/3
39	GDP	VB	502	-	-	5/12/32/32	0/3/3/3
39	GDP	LL	502	-	-	3/12/32/32	0/3/3/3
39	GDP	SH	502	-	-	0/12/32/32	0/3/3/3
39	GDP	FJ	502	-	-	3/12/32/32	0/3/3/3
37	GTP	II	501	-	-	4/18/38/38	0/3/3/3
39	GDP	EN	502	-	-	5/12/32/32	0/3/3/3
37	GTP	TG	501	-	-	7/18/38/38	0/3/3/3
37	GTP	TI	501	-	-	5/18/38/38	0/3/3/3
39	GDP	SB	502	-	-	1/12/32/32	0/3/3/3
39	GDP	UD	502	-	-	2/12/32/32	0/3/3/3
39	GDP	TL	502	-	-	3/12/32/32	0/3/3/3
39	GDP	DF	502	-	-	4/12/32/32	0/3/3/3
37	GTP	PE	501	-	-	6/18/38/38	0/3/3/3
39	GDP	BD	502	-	-	5/12/32/32	0/3/3/3
39	GDP	KB	502	-	-	3/12/32/32	0/3/3/3
37	GTP	CE	501	-	-	4/18/38/38	0/3/3/3
37	GTP	HE	501	-	-	6/18/38/38	0/3/3/3
37	GTP	LK	501	-	-	9/18/38/38	0/3/3/3
39	GDP	DJ	502	-	-	2/12/32/32	0/3/3/3
37	GTP	DA	501	-	-	3/18/38/38	0/3/3/3
37	GTP	KM	501	-	-	4/18/38/38	0/3/3/3
39	GDP	NF	502	-	-	4/12/32/32	0/3/3/3
39	GDP	AD	502	-	-	3/12/32/32	0/3/3/3
39	GDP	BJ	502	-	-	7/12/32/32	0/3/3/3
39	GDP	IF	502	-	-	0/12/32/32	0/3/3/3
39	GDP	WF	502	-	-	2/12/32/32	0/3/3/3
37	GTP	SC	501	-	-	4/18/38/38	0/3/3/3
37	GTP	RI	501	-	-	4/18/38/38	0/3/3/3
37	GTP	EE	501	-	-	6/18/38/38	0/3/3/3
37	GTP	WE	501	-	-	6/18/38/38	0/3/3/3
39	GDP	IB	502	-	-	6/12/32/32	0/3/3/3
37	GTP	IM	501	-	-	6/18/38/38	0/3/3/3
39	GDP	MD	502	-	-	4/12/32/32	0/3/3/3
39	GDP	OL	502	-	-	3/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	RF	502	-	-	1/12/32/32	0/3/3/3
37	GTP	PG	501	-	-	4/18/38/38	0/3/3/3
37	GTP	AK	501	-	-	2/18/38/38	0/3/3/3
39	GDP	EF	502	-	-	5/12/32/32	0/3/3/3
37	GTP	FI	501	-	-	5/18/38/38	0/3/3/3
37	GTP	WK	501	-	-	8/18/38/38	0/3/3/3
39	GDP	RL	502	-	-	2/12/32/32	0/3/3/3
39	GDP	AH	502	-	-	1/12/32/32	0/3/3/3
39	GDP	OD	502	-	-	1/12/32/32	0/3/3/3
37	GTP	JC	501	-	-	0/18/38/38	0/3/3/3
37	GTP	DE	501	-	-	8/18/38/38	0/3/3/3
39	GDP	AB	502	-	-	4/12/32/32	0/3/3/3
39	GDP	NB	502	-	-	3/12/32/32	0/3/3/3
39	GDP	HD	502	-	-	2/12/32/32	0/3/3/3
37	GTP	OI	501	-	-	6/18/38/38	0/3/3/3
37	GTP	RA	501	-	-	7/18/38/38	0/3/3/3
39	GDP	FF	502	-	-	0/12/32/32	0/3/3/3
39	GDP	GL	502	-	-	1/12/32/32	0/3/3/3
39	GDP	JL	502	-	-	2/12/32/32	0/3/3/3
39	GDP	UN	502	-	-	2/12/32/32	0/3/3/3
39	GDP	RB	502	-	-	4/12/32/32	0/3/3/3
39	GDP	CL	502	-	-	5/12/32/32	0/3/3/3
39	GDP	QH	502	-	-	0/12/32/32	0/3/3/3
37	GTP	UI	501	-	-	6/18/38/38	0/3/3/3
37	GTP	BM	501	-	-	3/18/38/38	0/3/3/3
37	GTP	EM	501	-	-	6/18/38/38	0/3/3/3
39	GDP	TD	502	-	-	2/12/32/32	0/3/3/3
39	GDP	AJ	502	-	-	3/12/32/32	0/3/3/3
37	GTP	QE	501	-	-	3/18/38/38	0/3/3/3
39	GDP	DD	502	-	-	7/12/32/32	0/3/3/3
37	GTP	KI	501	-	-	8/18/38/38	0/3/3/3
37	GTP	VC	501	-	-	6/18/38/38	0/3/3/3
39	GDP	AL	502	-	-	1/12/32/32	0/3/3/3
37	GTP	JK	501	-	-	4/18/38/38	0/3/3/3
39	GDP	IJ	502	-	-	3/12/32/32	0/3/3/3
39	GDP	JB	502	-	-	1/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	LJ	502	-	-	5/12/32/32	0/3/3/3
39	GDP	SD	502	-	-	1/12/32/32	0/3/3/3
39	GDP	TB	502	-	-	6/12/32/32	0/3/3/3
37	GTP	AG	501	-	-	5/18/38/38	0/3/3/3
37	GTP	PA	501	-	-	7/18/38/38	0/3/3/3
37	GTP	FE	501	-	-	5/18/38/38	0/3/3/3
37	GTP	SM	501	-	-	7/18/38/38	0/3/3/3
37	GTP	GI	501	-	-	4/18/38/38	0/3/3/3
37	GTP	VK	501	-	-	5/18/38/38	0/3/3/3
37	GTP	BA	501	-	-	6/18/38/38	0/3/3/3
37	GTP	NG	501	-	-	4/18/38/38	0/3/3/3
39	GDP	JH	502	-	-	2/12/32/32	0/3/3/3
39	GDP	TF	502	-	-	1/12/32/32	0/3/3/3
39	GDP	VL	502	-	-	4/12/32/32	0/3/3/3
37	GTP	UM	501	-	-	2/18/38/38	0/3/3/3
39	GDP	PJ	502	-	-	4/12/32/32	0/3/3/3
39	GDP	FN	502	-	-	2/12/32/32	0/3/3/3
37	GTP	LM	501	-	-	4/18/38/38	0/3/3/3
37	GTP	RK	501	-	-	2/18/38/38	0/3/3/3
37	GTP	UE	501	-	-	5/18/38/38	0/3/3/3
37	GTP	EI	501	-	-	6/18/38/38	0/3/3/3
39	GDP	CH	502	-	-	4/12/32/32	0/3/3/3
39	GDP	ID	502	-	-	6/12/32/32	0/3/3/3
39	GDP	MB	502	-	-	0/12/32/32	0/3/3/3
37	GTP	CA	501	-	-	3/18/38/38	0/3/3/3
37	GTP	NI	501	-	-	7/18/38/38	0/3/3/3
39	GDP	WL	502	-	-	5/12/32/32	0/3/3/3
39	GDP	DN	502	-	-	3/12/32/32	0/3/3/3
39	GDP	SL	502	-	-	3/12/32/32	0/3/3/3
37	GTP	AE	501	-	-	4/18/38/38	0/3/3/3
37	GTP	TE	501	-	-	3/18/38/38	0/3/3/3
39	GDP	BH	502	-	-	4/12/32/32	0/3/3/3
39	GDP	PD	502	-	-	4/12/32/32	0/3/3/3
37	GTP	AA	501	-	-	4/18/38/38	0/3/3/3
37	GTP	JM	501	-	-	2/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	KJ	502	-	-	3/12/32/32	0/3/3/3
37	GTP	UC	501	-	-	5/18/38/38	0/3/3/3
37	GTP	LE	501	-	-	6/18/38/38	0/3/3/3
39	GDP	PF	502	-	-	3/12/32/32	0/3/3/3
39	GDP	FL	502	-	-	5/12/32/32	0/3/3/3
39	GDP	SF	502	-	-	0/12/32/32	0/3/3/3
37	GTP	QK	501	-	-	7/18/38/38	0/3/3/3
37	GTP	SA	501	-	-	3/18/38/38	0/3/3/3
37	GTP	BE	501	-	-	4/18/38/38	0/3/3/3
39	GDP	N0	502	-	-	5/12/32/32	0/3/3/3
39	GDP	UF	502	-	-	4/12/32/32	0/3/3/3
39	GDP	HJ	502	-	-	3/12/32/32	0/3/3/3
39	GDP	KN	502	-	-	3/12/32/32	0/3/3/3
39	GDP	HN	502	-	-	1/12/32/32	0/3/3/3
39	GDP	DB	502	-	-	1/12/32/32	0/3/3/3
39	GDP	QJ	502	-	-	3/12/32/32	0/3/3/3
37	GTP	QM	501	-	-	3/18/38/38	0/3/3/3
39	GDP	LB	502	-	-	1/12/32/32	0/3/3/3
37	GTP	PC	501	-	-	1/18/38/38	0/3/3/3
39	GDP	CD	502	-	-	2/12/32/32	0/3/3/3
39	GDP	NH	502	-	-	4/12/32/32	0/3/3/3
39	GDP	QD	502	-	-	2/12/32/32	0/3/3/3
39	GDP	VH	502	-	-	4/12/32/32	0/3/3/3
37	GTP	PM	501	-	-	3/18/38/38	0/3/3/3
39	GDP	JF	502	-	-	0/12/32/32	0/3/3/3
39	GDP	ED	502	-	-	4/12/32/32	0/3/3/3
39	GDP	NJ	502	-	-	2/12/32/32	0/3/3/3
37	GTP	OK	501	-	-	6/18/38/38	0/3/3/3
37	GTP	BI	501	-	-	4/18/38/38	0/3/3/3
39	GDP	FD	502	-	-	6/12/32/32	0/3/3/3
39	GDP	GN	502	-	-	4/12/32/32	0/3/3/3
37	GTP	CM	501	-	-	7/18/38/38	0/3/3/3
39	GDP	UH	502	-	-	4/12/32/32	0/3/3/3
39	GDP	AF	502	-	-	6/12/32/32	0/3/3/3
37	GTP	VE	501	-	-	4/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	IN	502	-	-	4/12/32/32	0/3/3/3
39	GDP	OF	502	-	-	3/12/32/32	0/3/3/3
37	GTP	OC	501	-	-	6/18/38/38	0/3/3/3
37	GTP	EC	501	-	-	6/18/38/38	0/3/3/3
37	GTP	FM	501	-	-	5/18/38/38	0/3/3/3
37	GTP	ME	501	-	-	4/18/38/38	0/3/3/3
37	GTP	MG	501	-	-	4/18/38/38	0/3/3/3
39	GDP	CB	502	-	-	3/12/32/32	0/3/3/3
37	GTP	MC	501	-	-	5/18/38/38	0/3/3/3
37	GTP	WI	501	-	-	6/18/38/38	0/3/3/3
39	GDP	EJ	502	-	-	4/12/32/32	0/3/3/3
39	GDP	KL	502	-	-	1/12/32/32	0/3/3/3
39	GDP	LD	502	-	-	7/12/32/32	0/3/3/3
39	GDP	JJ	502	-	-	0/12/32/32	0/3/3/3
37	GTP	RC	501	-	-	6/18/38/38	0/3/3/3
37	GTP	UG	501	-	-	6/18/38/38	0/3/3/3
39	GDP	RH	502	-	-	1/12/32/32	0/3/3/3
39	GDP	RD	502	-	-	2/12/32/32	0/3/3/3
37	GTP	BK	501	-	-	5/18/38/38	0/3/3/3
37	GTP	QI	501	-	-	3/18/38/38	0/3/3/3
37	GTP	SI	501	-	-	3/18/38/38	0/3/3/3
37	GTP	AC	501	-	-	4/18/38/38	0/3/3/3
39	GDP	JN	502	-	-	3/12/32/32	0/3/3/3
39	GDP	MN	502	-	-	3/12/32/32	0/3/3/3
37	GTP	EK	501	-	-	6/18/38/38	0/3/3/3
37	GTP	UK	501	-	-	2/18/38/38	0/3/3/3
39	GDP	VJ	502	-	-	3/12/32/32	0/3/3/3
39	GDP	EL	502	-	-	4/12/32/32	0/3/3/3
39	GDP	WD	502	-	-	4/12/32/32	0/3/3/3
37	GTP	QC	501	-	-	3/18/38/38	0/3/3/3
37	GTP	JG	501	-	-	6/18/38/38	0/3/3/3
37	GTP	GK	501	-	-	4/18/38/38	0/3/3/3
37	GTP	KK	501	-	-	7/18/38/38	0/3/3/3
37	GTP	PI	501	-	-	5/18/38/38	0/3/3/3
37	GTP	PK	501	-	-	7/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
37	GTP	TM	501	-	-	5/18/38/38	0/3/3/3
39	GDP	ML	502	-	-	3/12/32/32	0/3/3/3
37	GTP	DG	501	-	-	5/18/38/38	0/3/3/3
39	GDP	TH	502	-	-	2/12/32/32	0/3/3/3
39	GDP	DH	502	-	-	3/12/32/32	0/3/3/3
39	GDP	WB	502	-	-	1/12/32/32	0/3/3/3
39	GDP	IL	502	-	-	0/12/32/32	0/3/3/3
37	GTP	KO	501	-	-	5/18/38/38	0/3/3/3
37	GTP	FK	501	-	-	8/18/38/38	0/3/3/3
37	GTP	QG	501	-	-	3/18/38/38	0/3/3/3
39	GDP	QL	502	-	-	1/12/32/32	0/3/3/3
37	GTP	CI	501	-	-	7/18/38/38	0/3/3/3
37	GTP	AM	501	-	-	4/18/38/38	0/3/3/3
37	GTP	EG	501	-	-	8/18/38/38	0/3/3/3
37	GTP	IO	501	-	-	3/18/38/38	0/3/3/3
37	GTP	MK	501	-	-	6/18/38/38	0/3/3/3
37	GTP	RE	501	-	-	3/18/38/38	0/3/3/3
37	GTP	WC	501	-	-	1/18/38/38	0/3/3/3
39	GDP	BL	502	-	-	1/12/32/32	0/3/3/3
37	GTP	KG	501	-	-	5/18/38/38	0/3/3/3
39	GDP	GB	502	-	-	2/12/32/32	0/3/3/3
39	GDP	GF	502	-	-	6/12/32/32	0/3/3/3
39	GDP	ND	502	-	-	4/12/32/32	0/3/3/3
37	GTP	DM	501	-	-	2/18/38/38	0/3/3/3
37	GTP	IE	501	-	-	2/18/38/38	0/3/3/3
39	GDP	PL	502	-	-	7/12/32/32	0/3/3/3
39	GDP	SJ	502	-	-	2/12/32/32	0/3/3/3
37	GTP	KC	501	-	-	10/18/38/38	0/3/3/3
37	GTP	BG	501	-	-	6/18/38/38	0/3/3/3
39	GDP	WN	502	-	-	7/12/32/32	0/3/3/3
37	GTP	HI	501	-	-	4/18/38/38	0/3/3/3
37	GTP	KE	501	-	-	5/18/38/38	0/3/3/3
37	GTP	TC	501	-	-	9/18/38/38	0/3/3/3
39	GDP	OB	502	-	-	4/12/32/32	0/3/3/3
37	GTP	NK	501	-	-	1/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
37	GTP	RG	501	-	-	3/18/38/38	0/3/3/3
39	GDP	CJ	502	-	-	6/12/32/32	0/3/3/3
39	GDP	EH	502	-	-	6/12/32/32	0/3/3/3
37	GTP	IK	501	-	-	5/18/38/38	0/3/3/3
37	GTP	WM	501	-	-	6/18/38/38	0/3/3/3
37	GTP	HG	501	-	-	4/18/38/38	0/3/3/3
39	GDP	NL	502	-	-	3/12/32/32	0/3/3/3
39	GDP	PH	502	-	-	0/12/32/32	0/3/3/3
39	GDP	WH	502	-	-	2/12/32/32	0/3/3/3
37	GTP	DI	501	-	-	6/18/38/38	0/3/3/3
39	GDP	LH	502	-	-	5/12/32/32	0/3/3/3
37	GTP	LC	501	-	-	1/18/38/38	0/3/3/3
37	GTP	LI	501	-	-	7/18/38/38	0/3/3/3
37	GTP	GE	501	-	-	6/18/38/38	0/3/3/3
37	GTP	CK	501	-	-	5/18/38/38	0/3/3/3
37	GTP	HM	501	-	-	1/18/38/38	0/3/3/3
37	GTP	TK	501	-	-	5/18/38/38	0/3/3/3
39	GDP	BB	502	-	-	5/12/32/32	0/3/3/3
39	GDP	BF	502	-	-	5/12/32/32	0/3/3/3
39	GDP	HF	502	-	-	1/12/32/32	0/3/3/3
39	GDP	HH	502	-	-	6/12/32/32	0/3/3/3
37	GTP	MM	501	-	-	7/18/38/38	0/3/3/3
37	GTP	OG	501	-	-	0/18/38/38	0/3/3/3
37	GTP	DK	501	-	-	3/18/38/38	0/3/3/3
39	GDP	O0	502	-	-	1/12/32/32	0/3/3/3
37	GTP	FC	501	-	-	8/18/38/38	0/3/3/3
39	GDP	QF	502	-	-	0/12/32/32	0/3/3/3
37	GTP	MI	501	-	-	8/18/38/38	0/3/3/3
39	GDP	VN	502	-	-	0/12/32/32	0/3/3/3
39	GDP	GH	502	-	-	4/12/32/32	0/3/3/3
39	GDP	LN	502	-	-	3/12/32/32	0/3/3/3
37	GTP	IC	501	-	-	7/18/38/38	0/3/3/3
37	GTP	JI	501	-	-	4/18/38/38	0/3/3/3
39	GDP	MJ	502	-	-	2/12/32/32	0/3/3/3
39	GDP	VF	502	-	-	3/12/32/32	0/3/3/3
37	GTP	SG	501	-	-	7/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	PB	502	-	-	5/12/32/32	0/3/3/3
37	GTP	BC	501	-	-	7/18/38/38	0/3/3/3
39	GDP	JD	502	-	-	1/12/32/32	0/3/3/3
39	GDP	MH	502	-	-	3/12/32/32	0/3/3/3

The worst 5 of 472 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	KC	501	GTP	C5-C6	-5.53	1.36	1.47
37	KG	501	GTP	C5-C6	-5.44	1.36	1.47
37	KE	501	GTP	C5-C6	-5.19	1.36	1.47
37	KI	501	GTP	C5-C6	-5.14	1.37	1.47
37	KM	501	GTP	C5-C6	-5.14	1.37	1.47

The worst 5 of 1688 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	GC	501	GTP	PA-O3A-PB	-5.48	114.03	132.83
37	IG	501	GTP	PA-O3A-PB	-5.45	114.12	132.83
39	IJ	502	GDP	PA-O3A-PB	-5.44	114.15	132.83
37	VI	501	GTP	PA-O3A-PB	-5.40	114.31	132.83
39	HN	502	GDP	PA-O3A-PB	-5.37	114.41	132.83

There are no chirality outliers.

5 of 1189 torsion outliers are listed below:

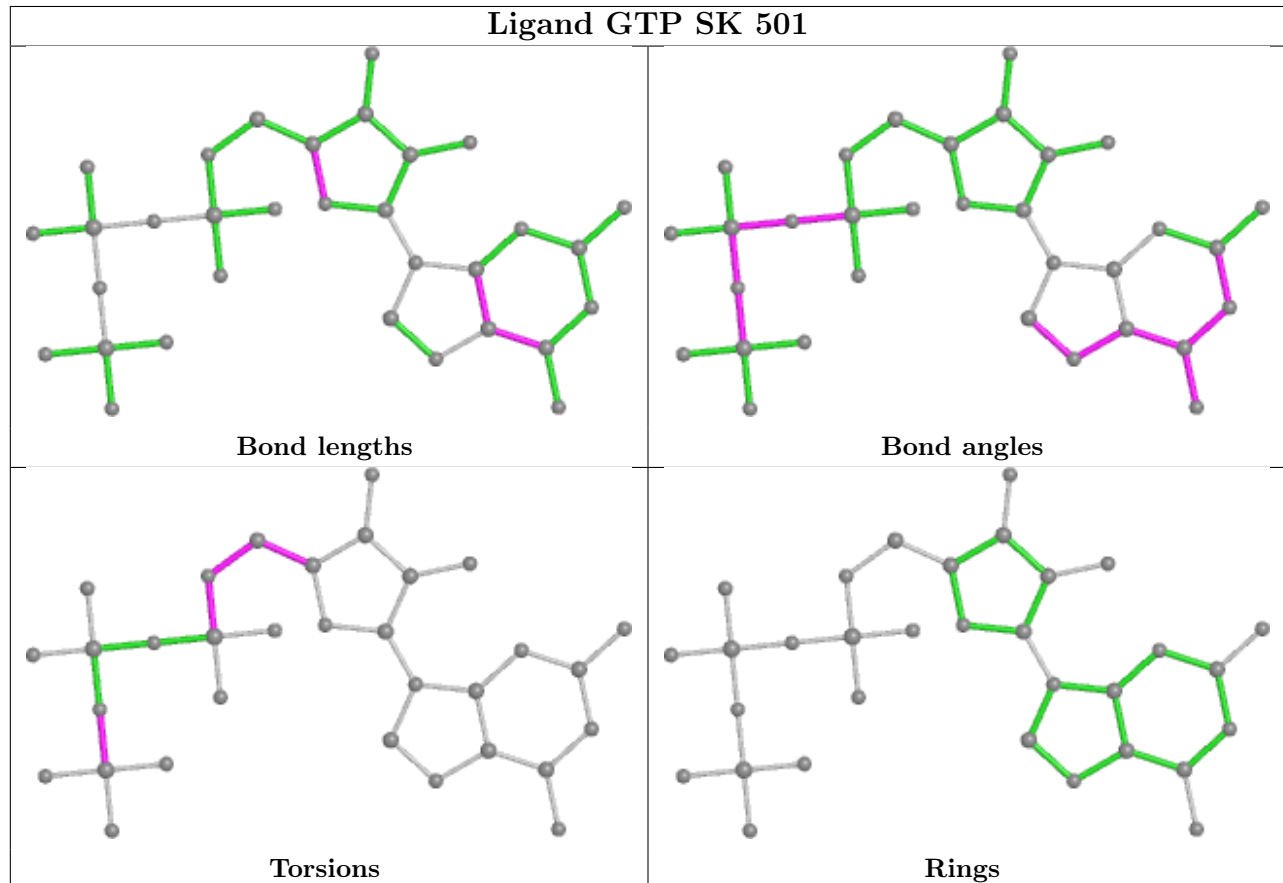
Mol	Chain	Res	Type	Atoms
37	AA	501	GTP	C5'-O5'-PA-O1A
37	AA	501	GTP	C5'-O5'-PA-O2A
37	AC	501	GTP	C5'-O5'-PA-O3A
37	AE	501	GTP	C5'-O5'-PA-O3A
37	AG	501	GTP	C5'-O5'-PA-O3A

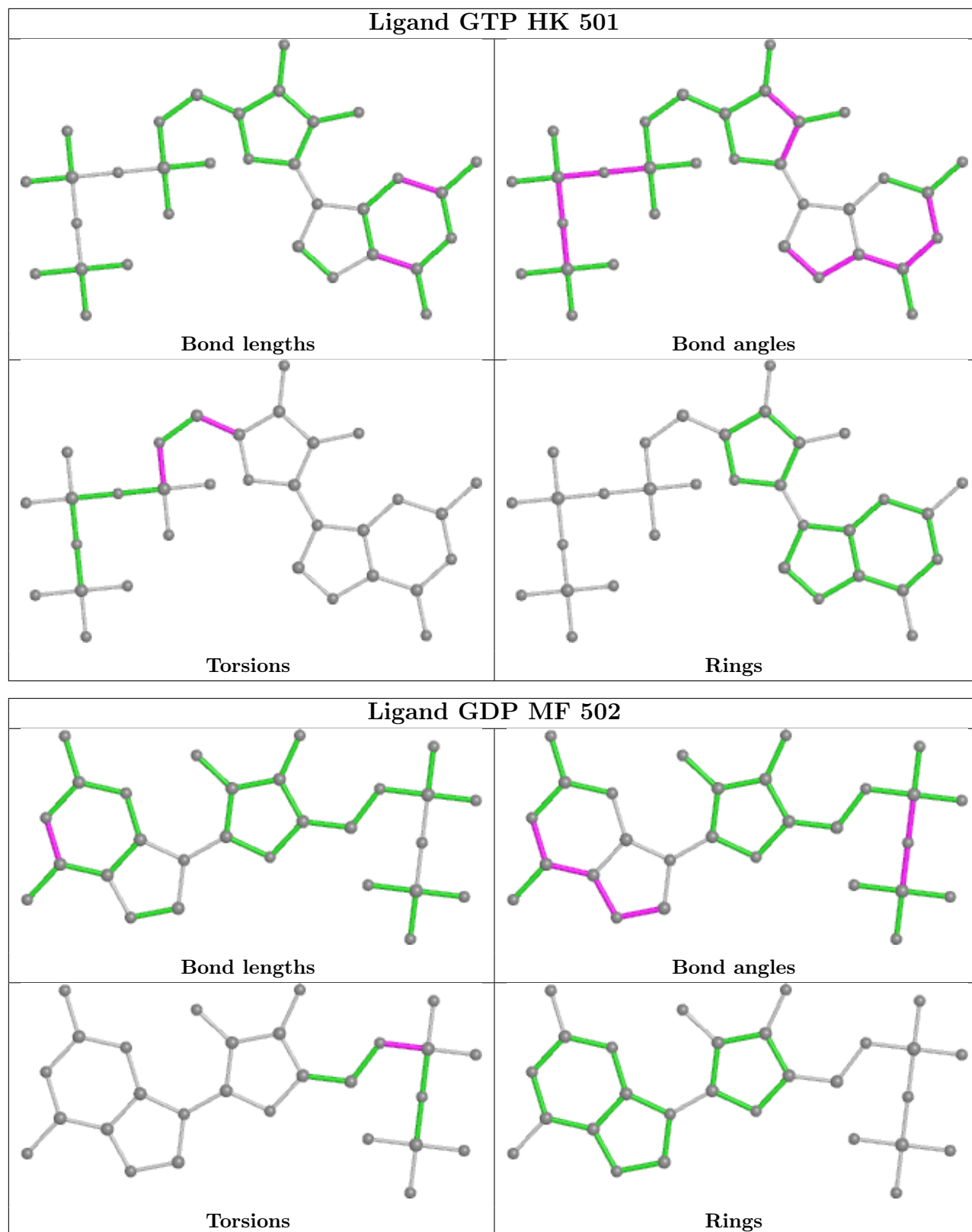
There are no ring outliers.

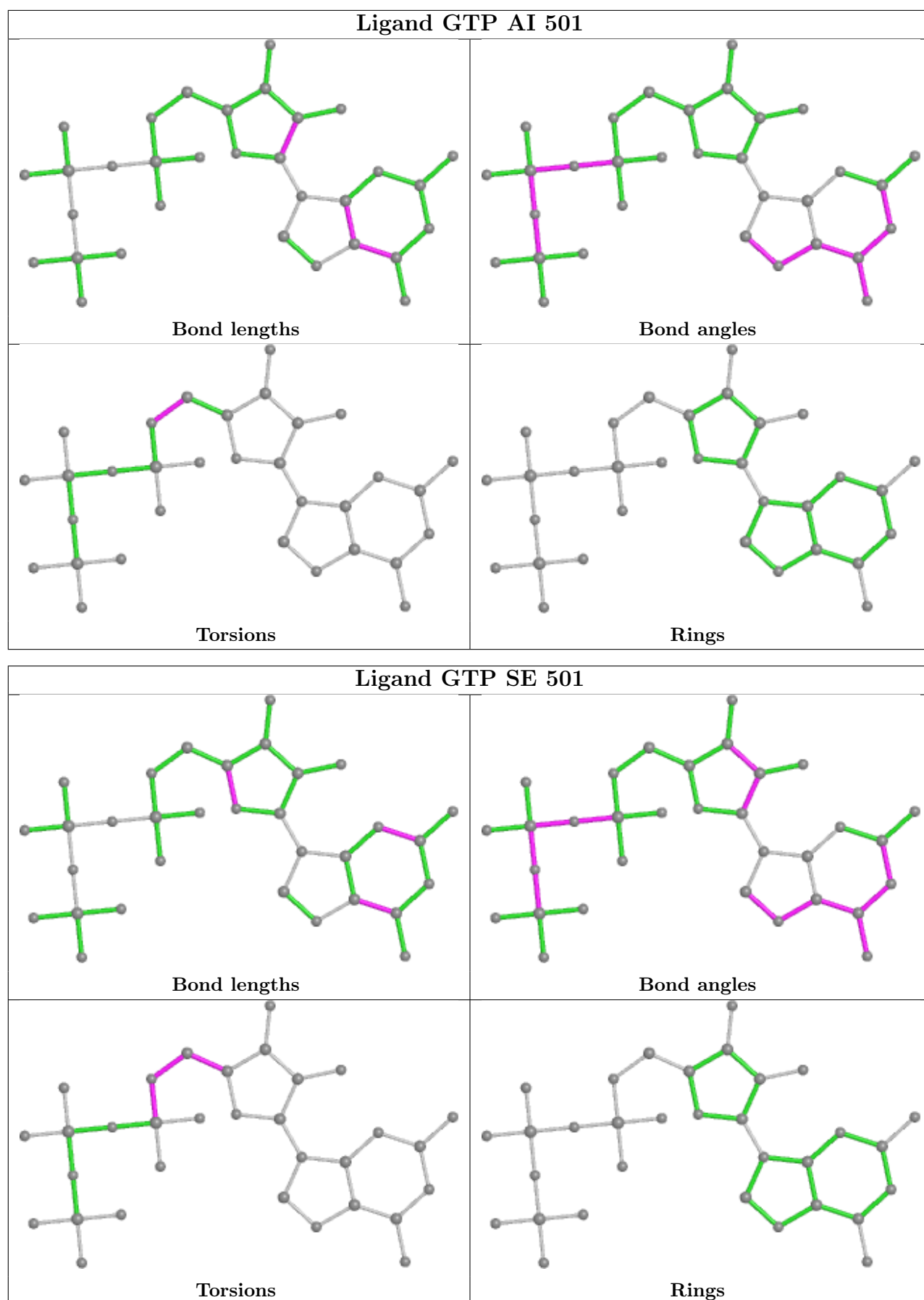
No monomer is involved in short contacts.

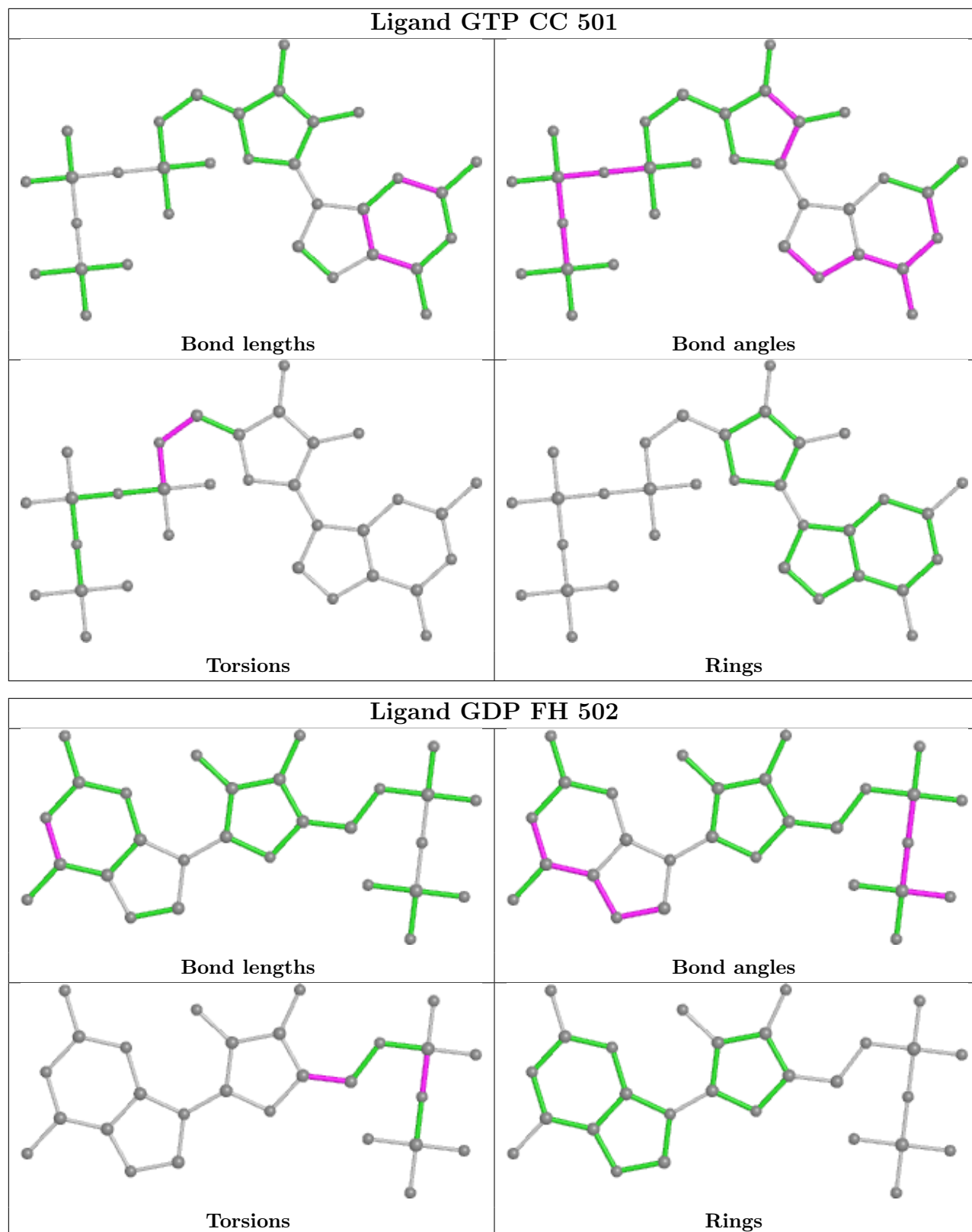
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

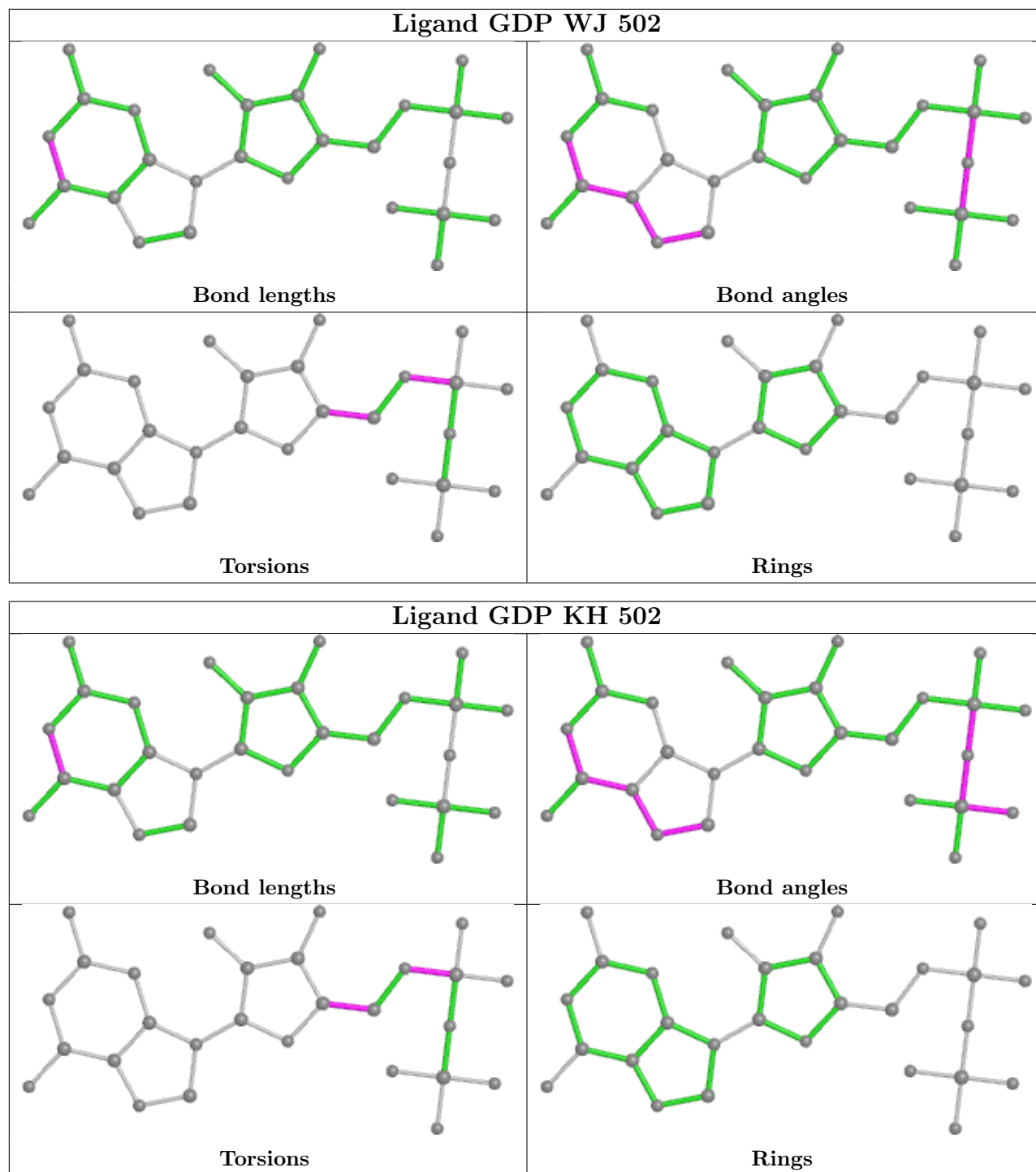
Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD 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.

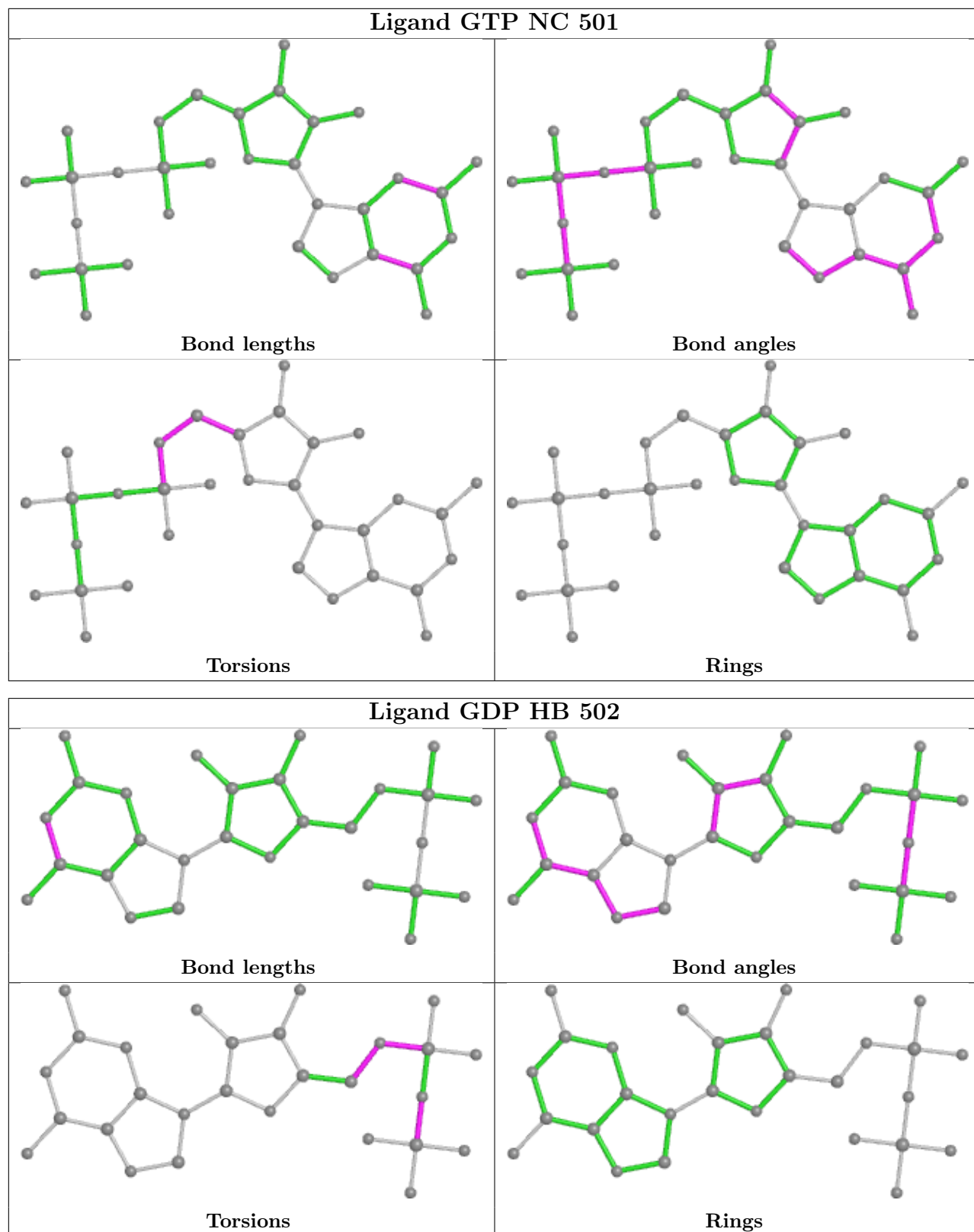


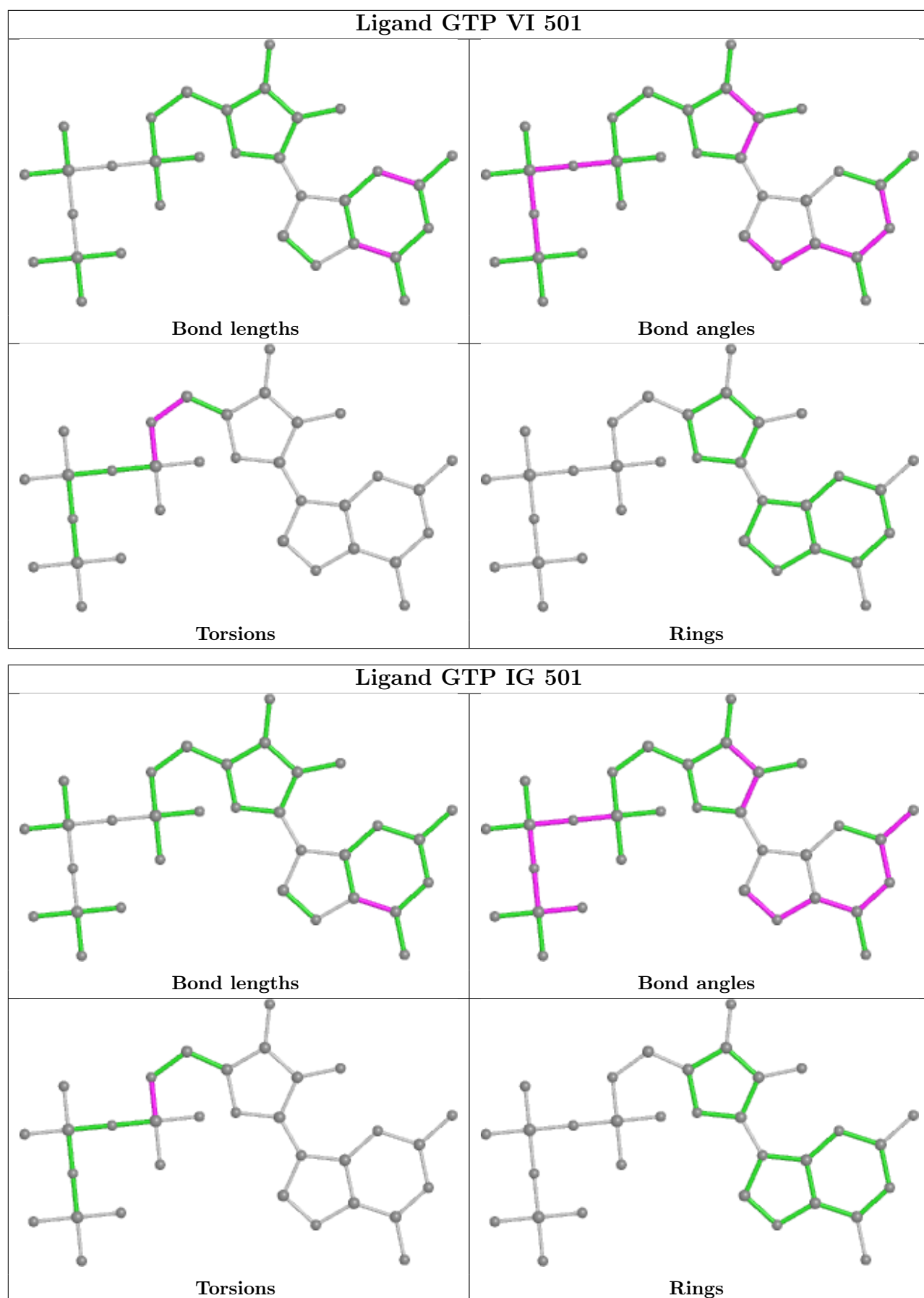


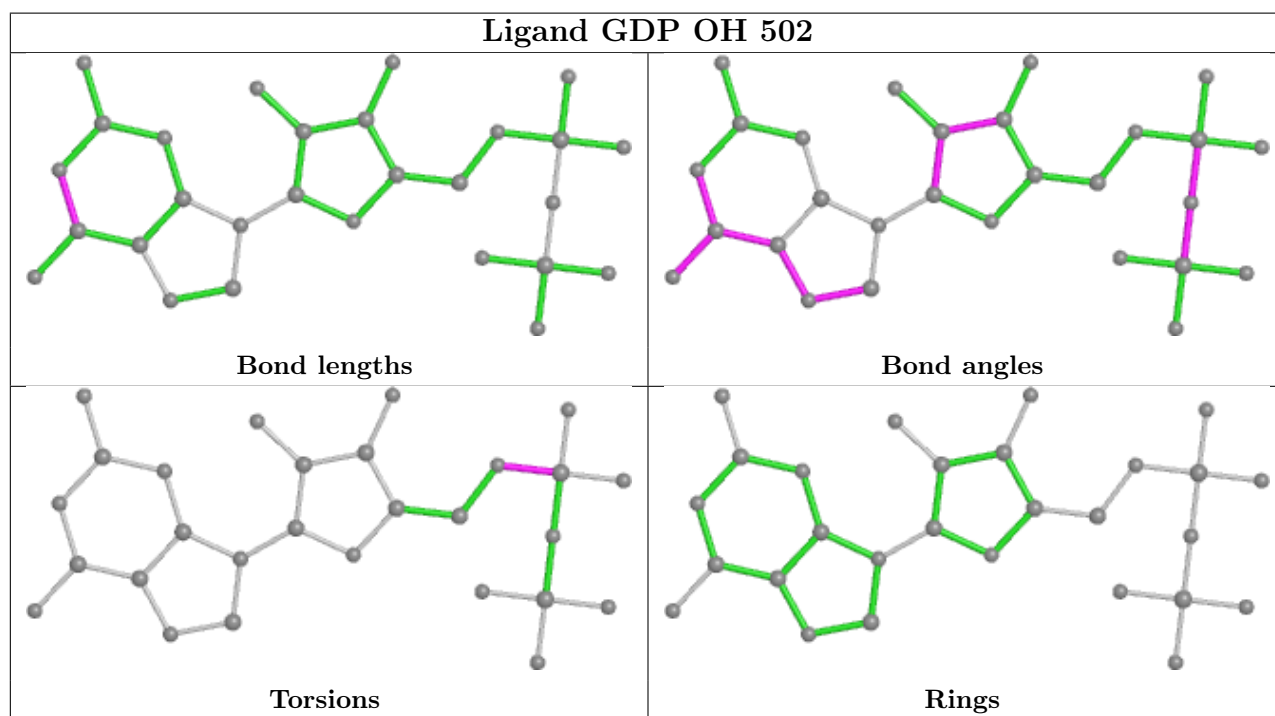
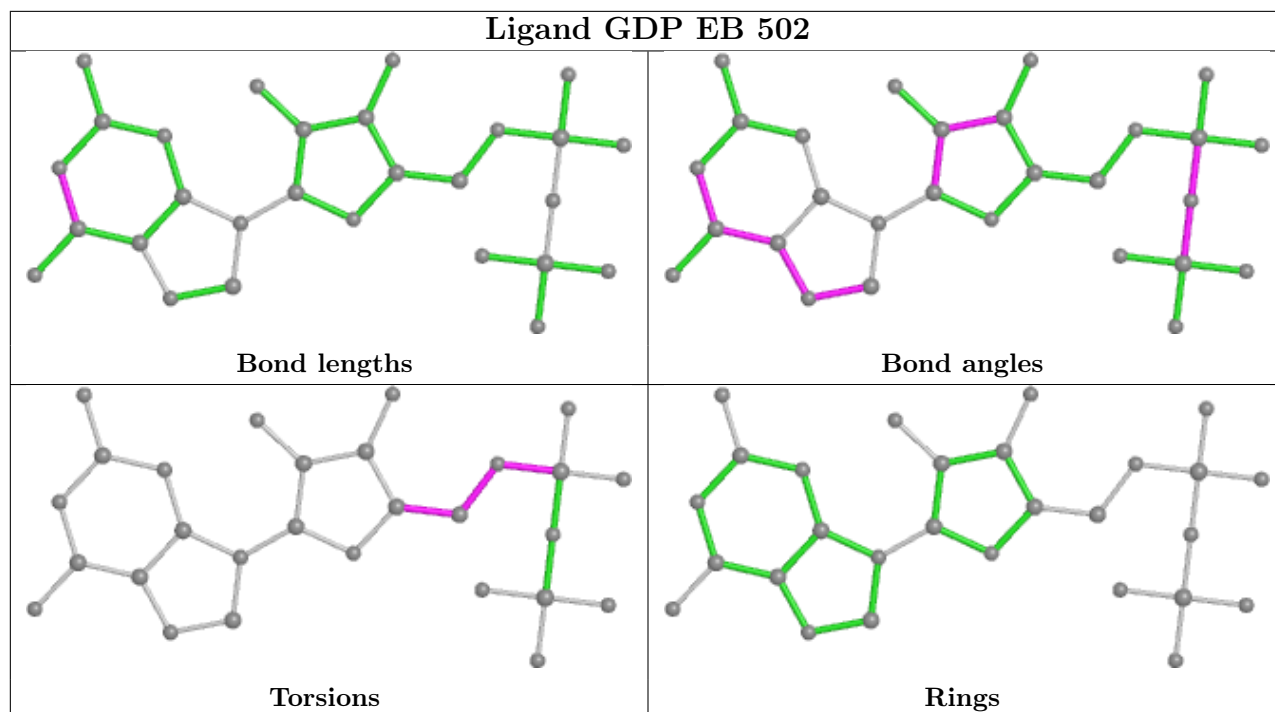


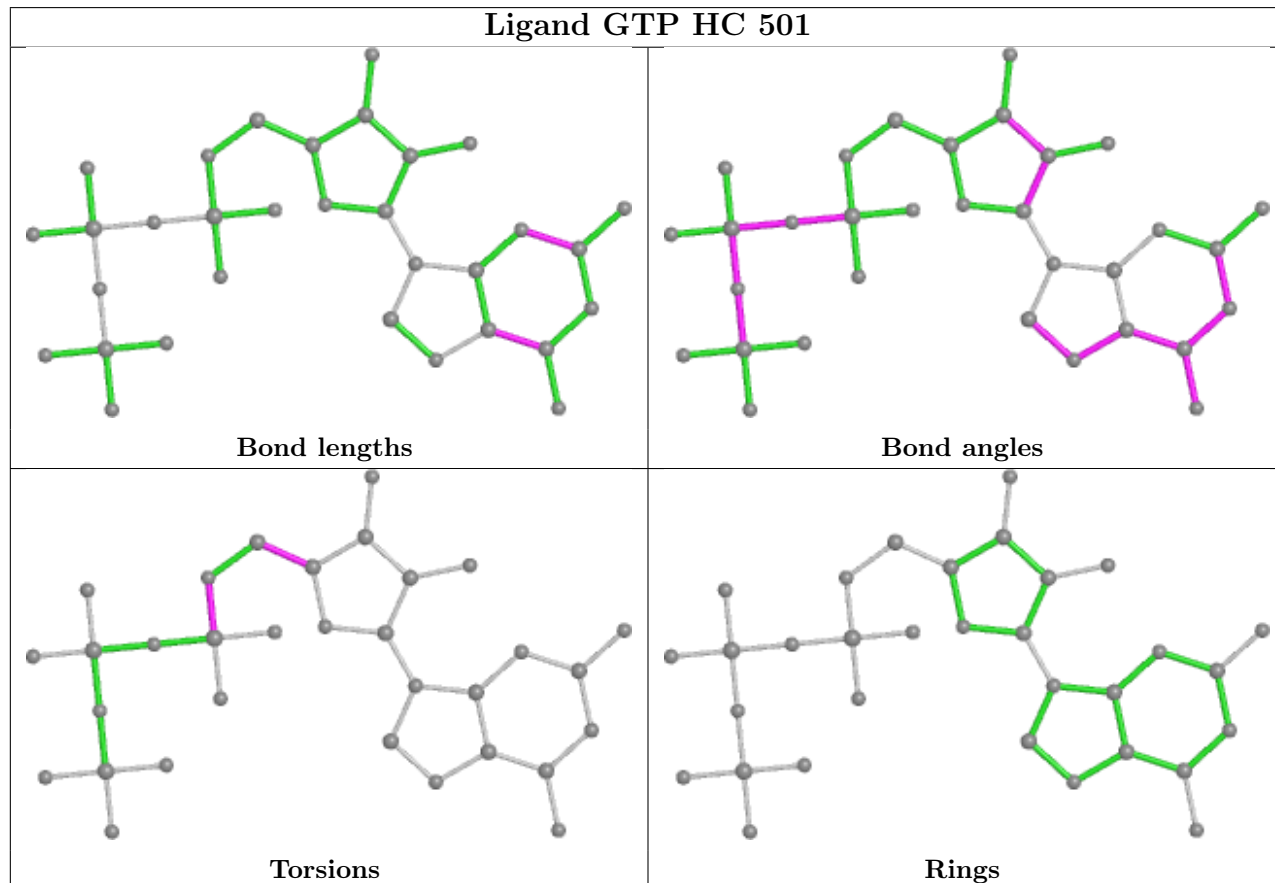
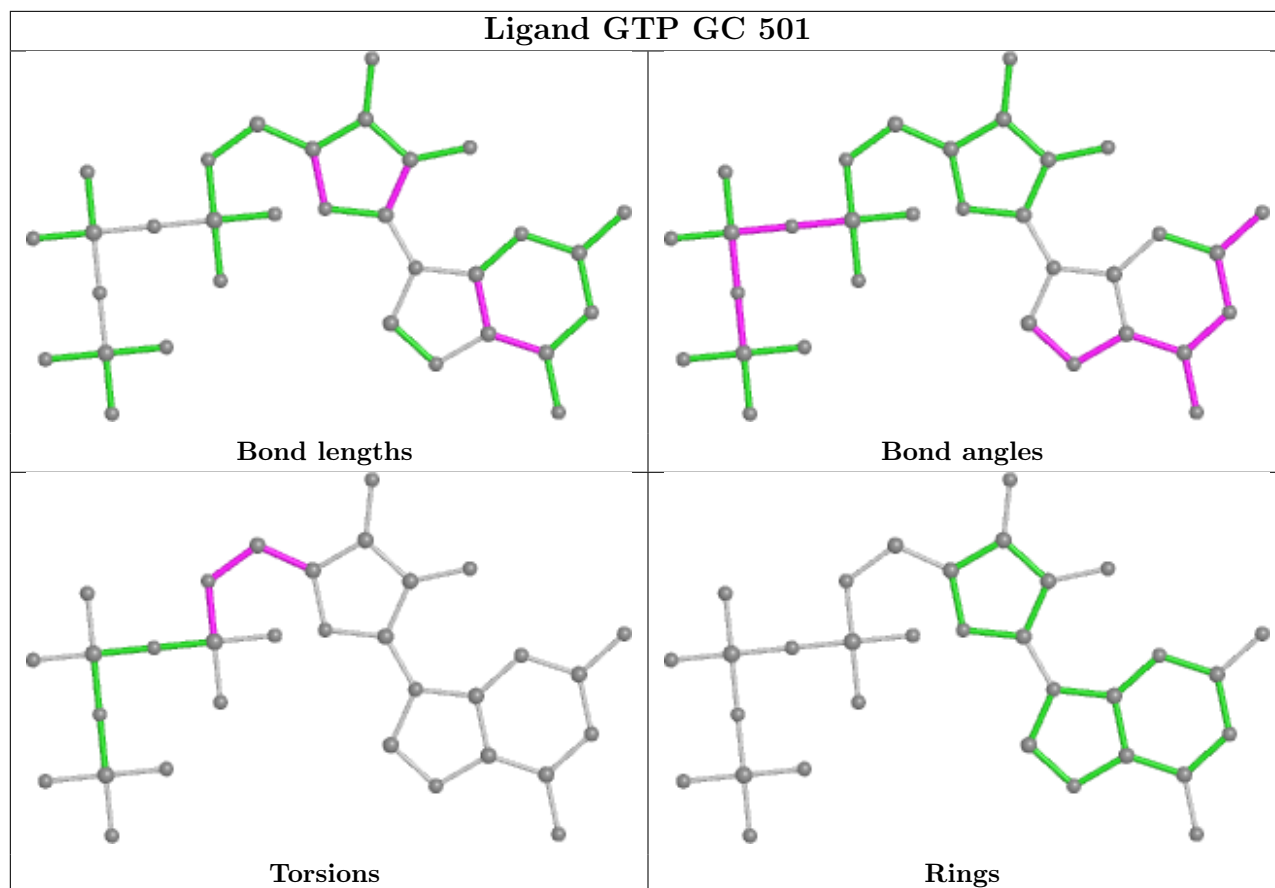


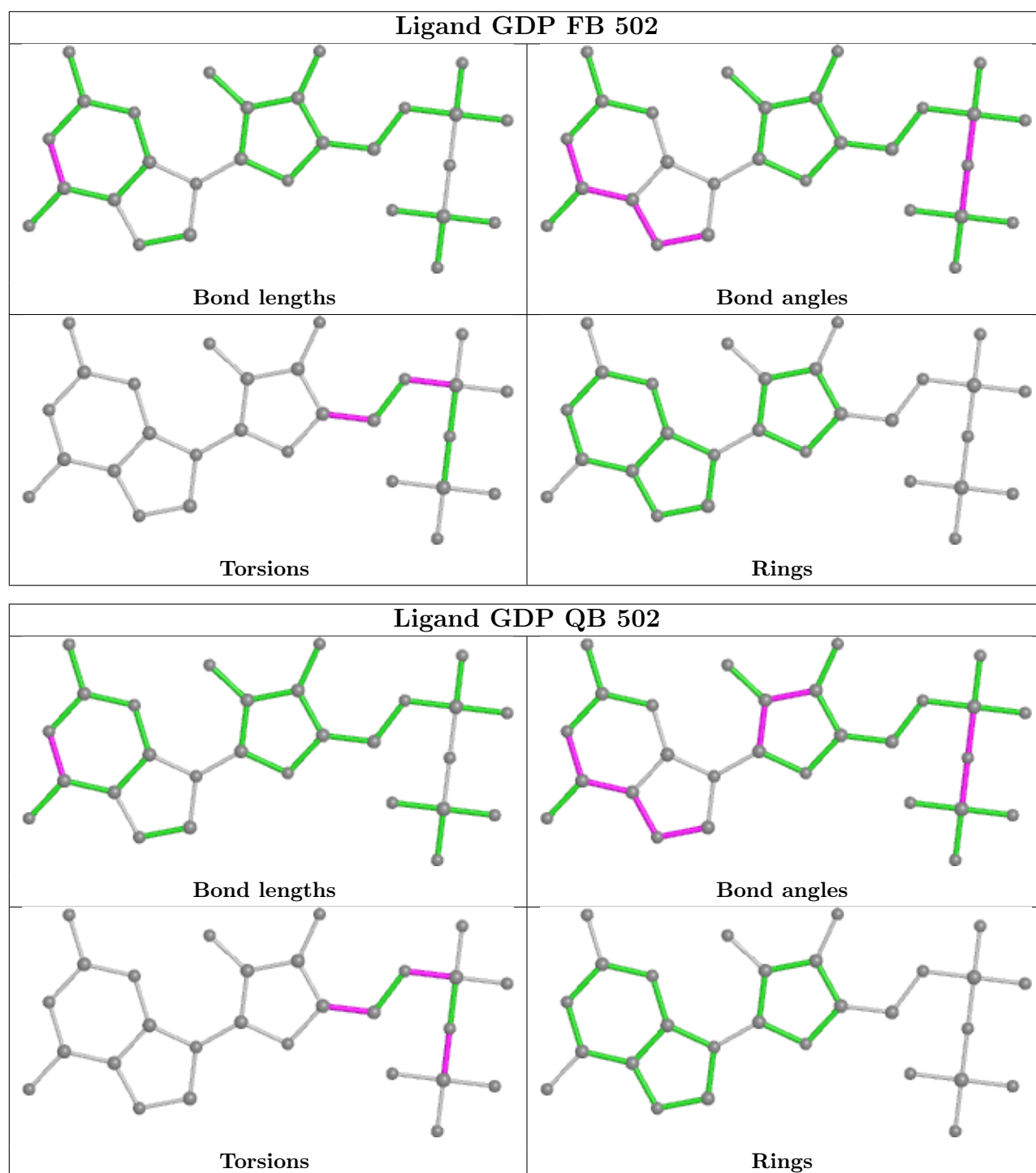


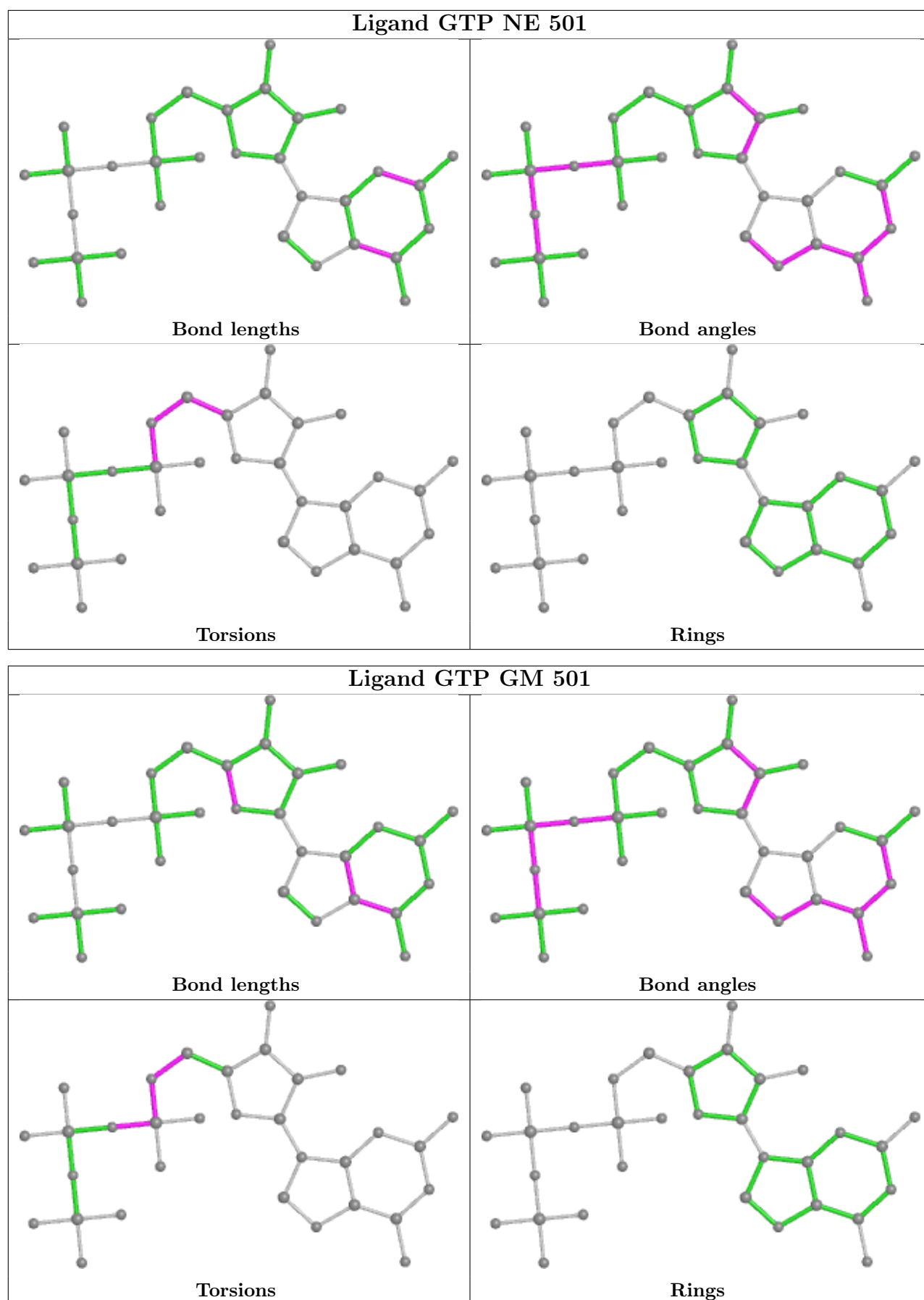


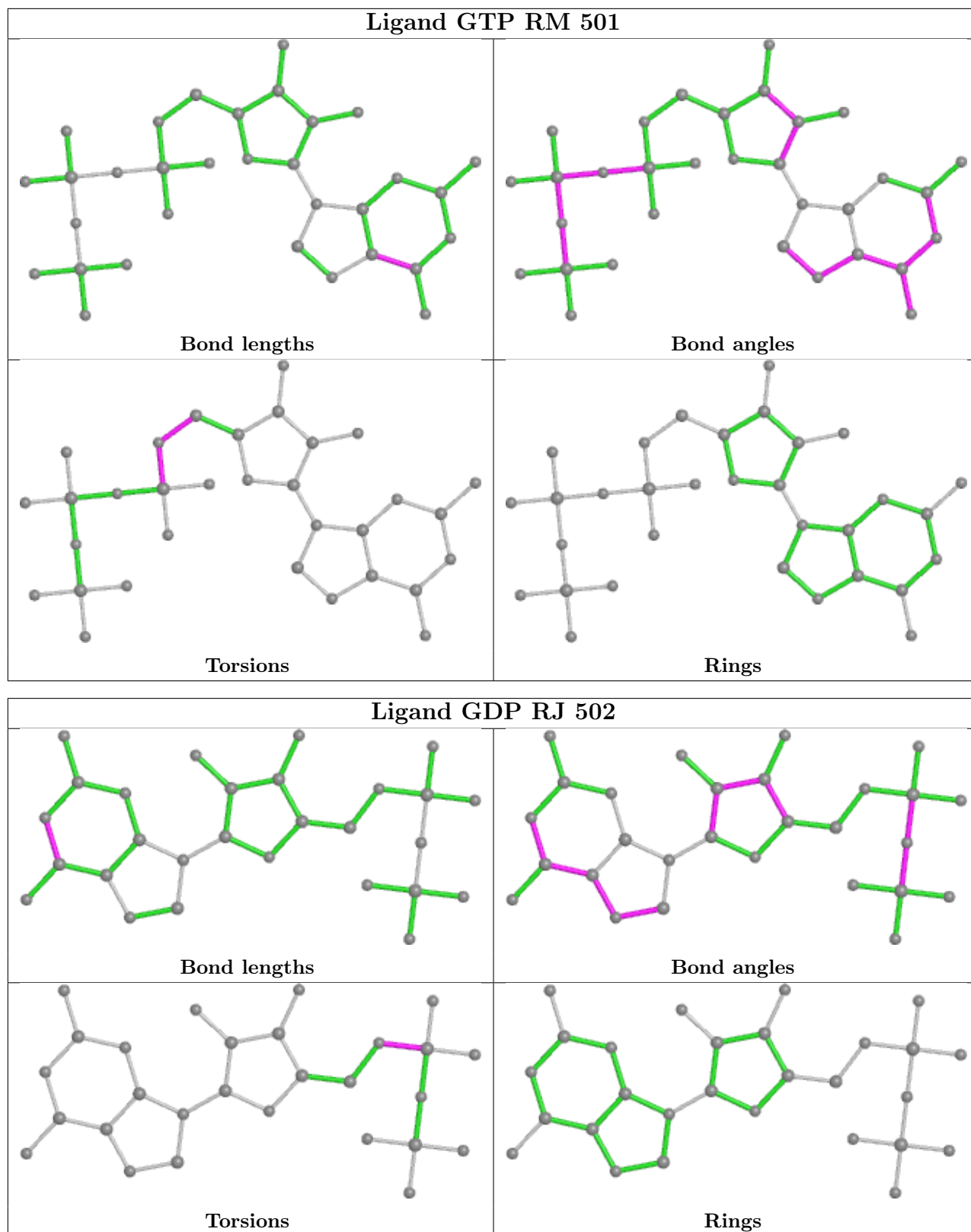


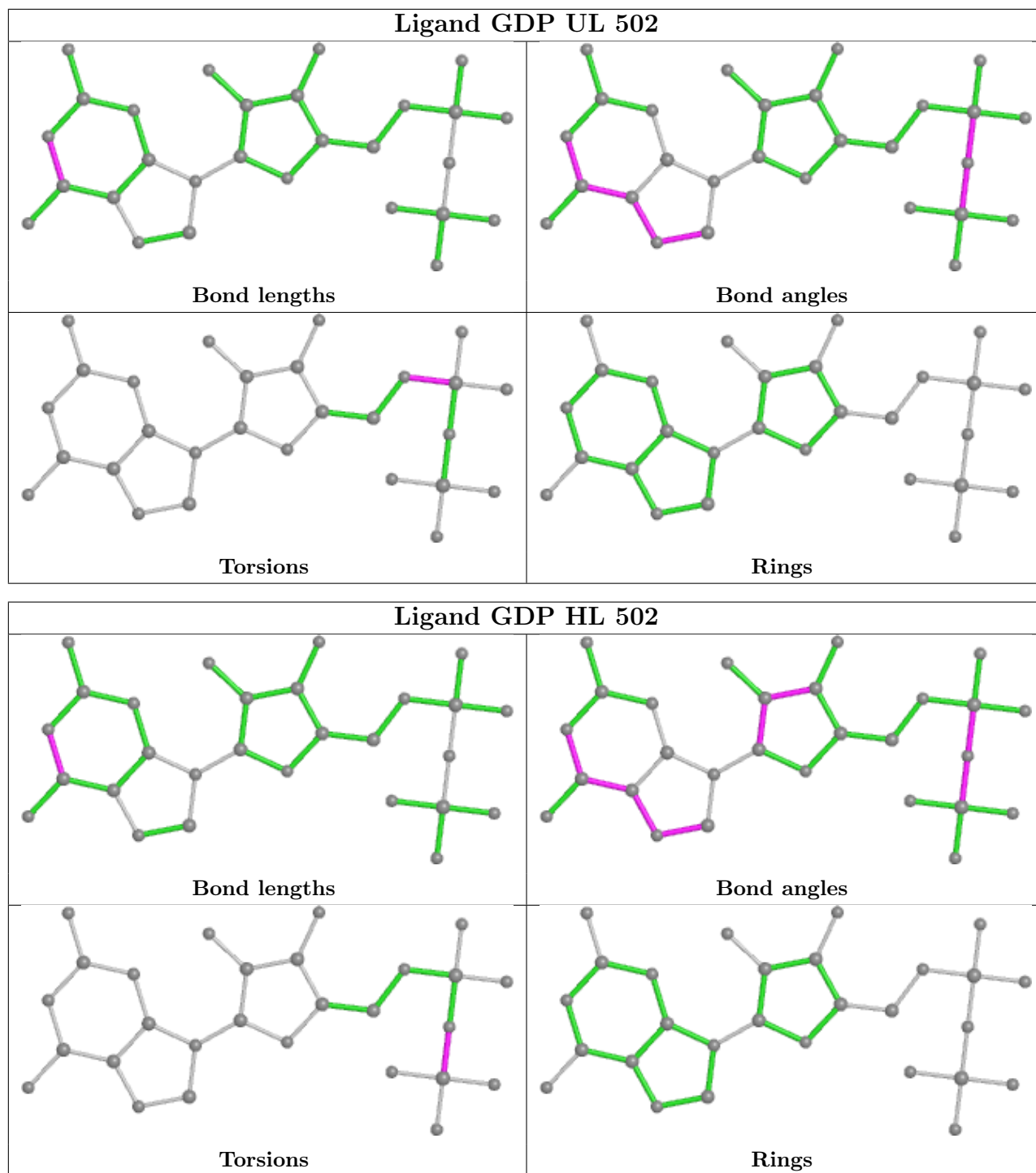


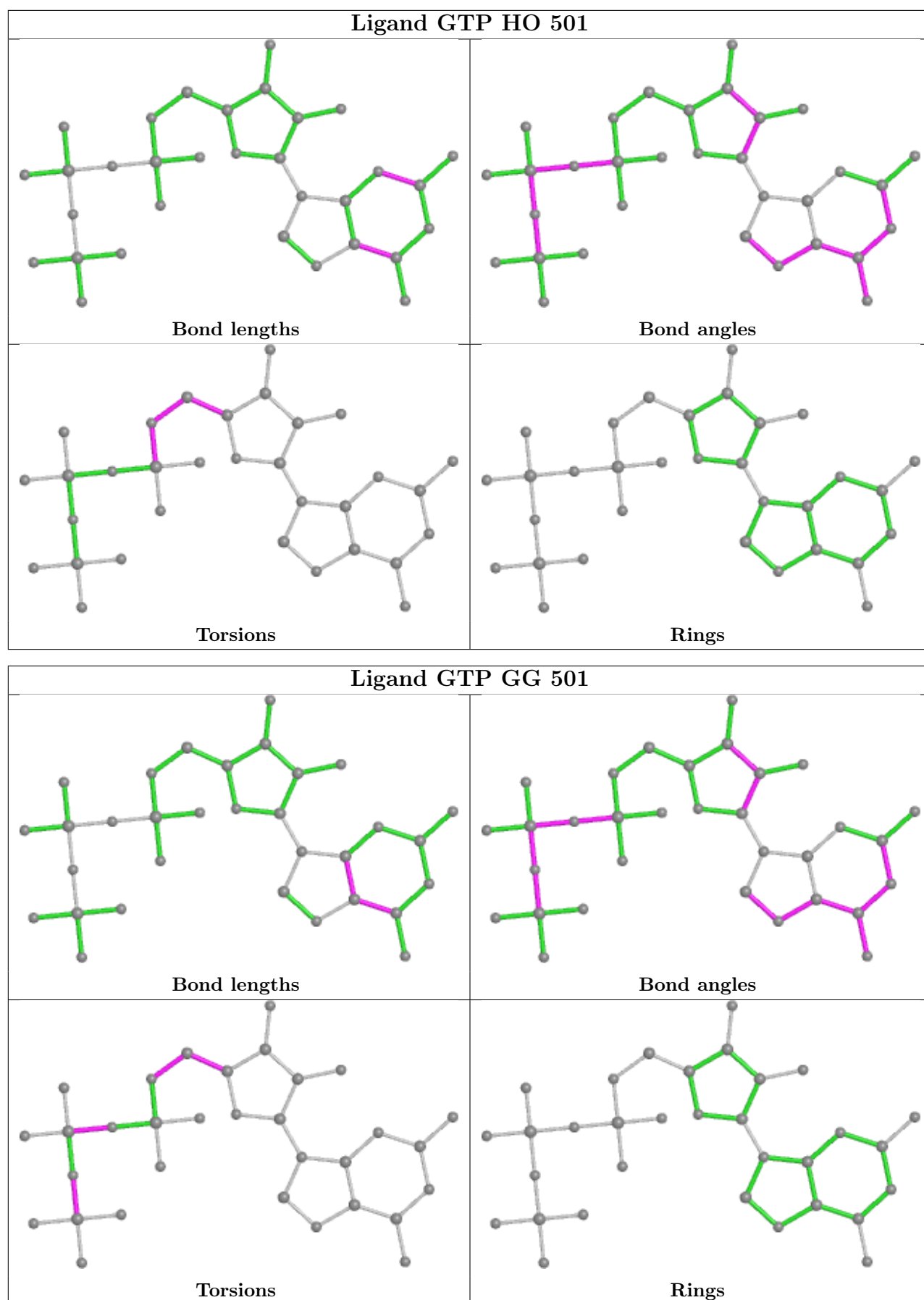


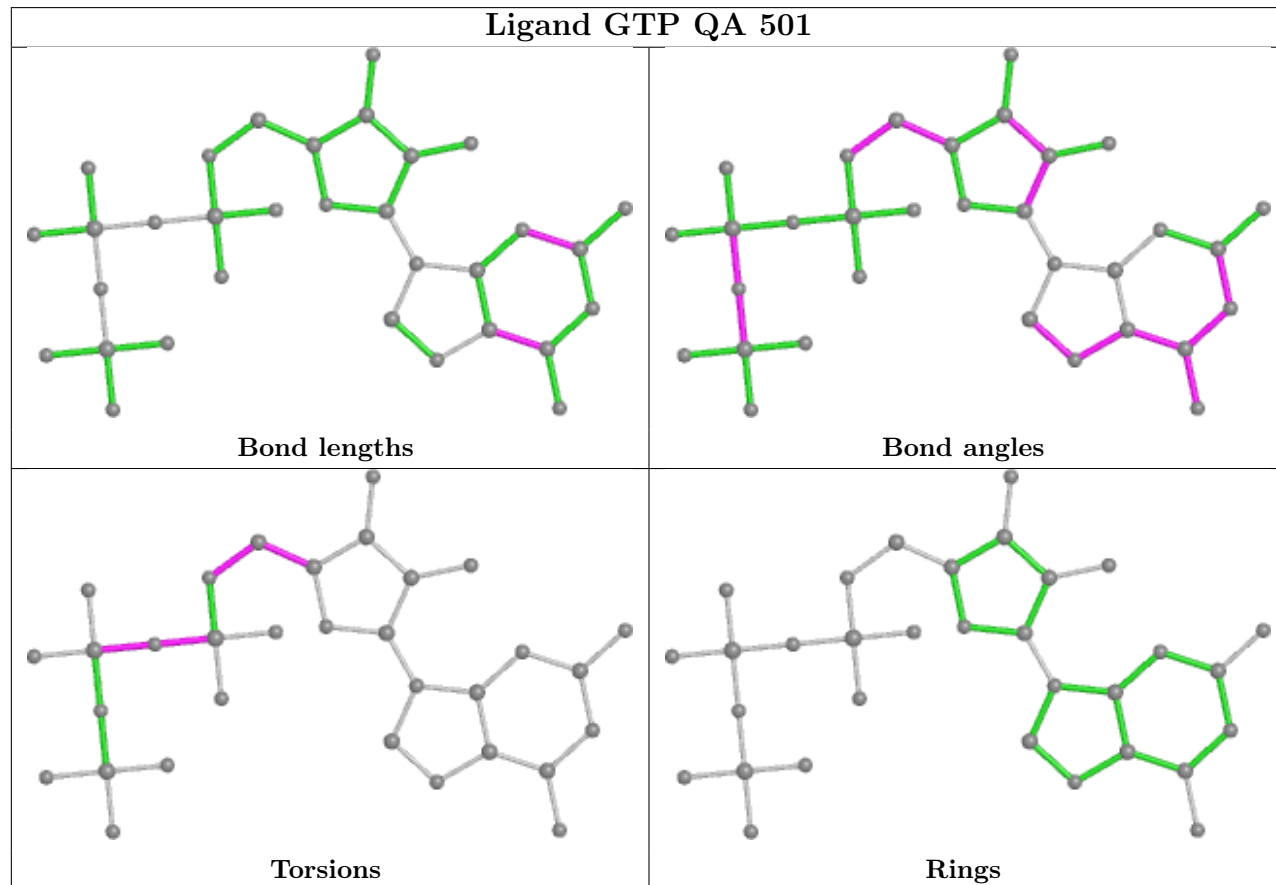
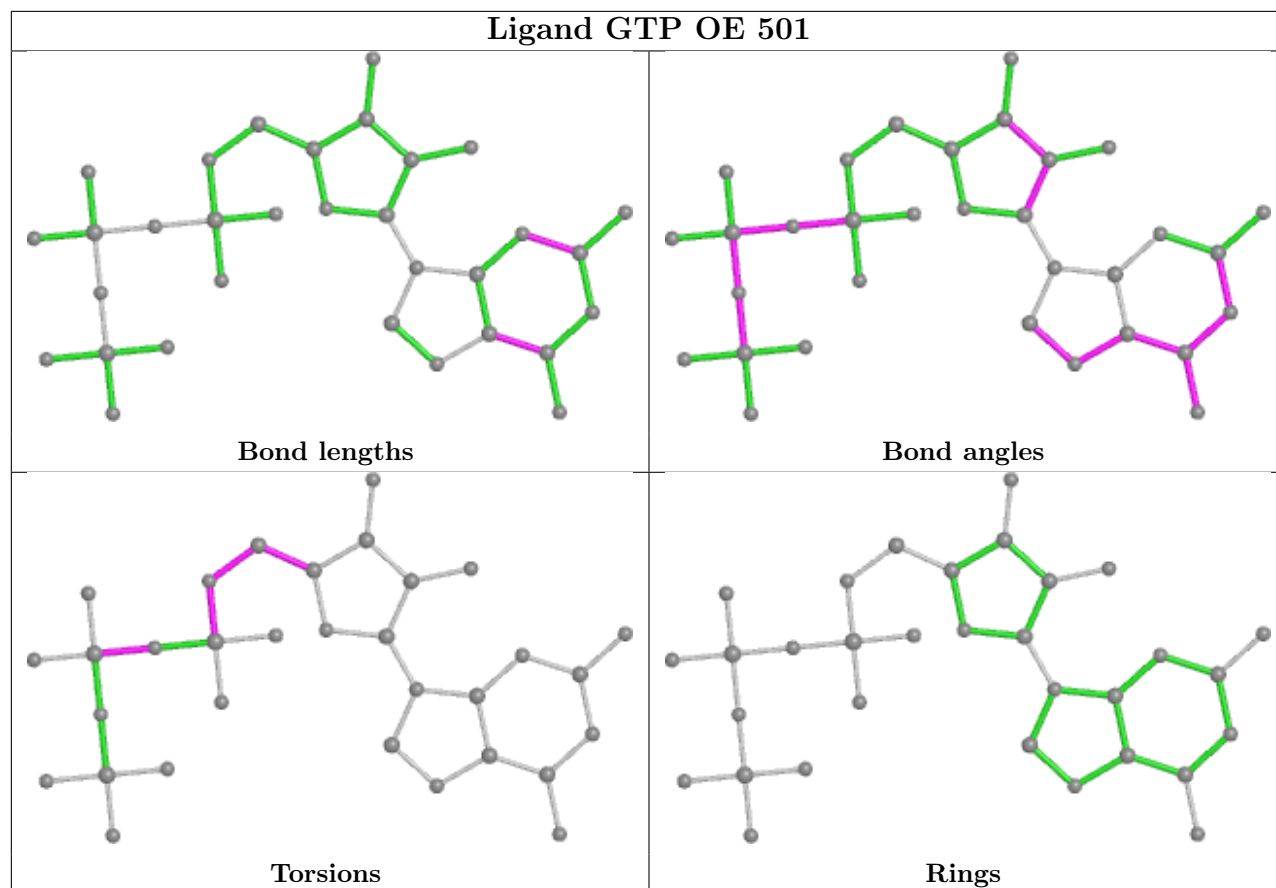


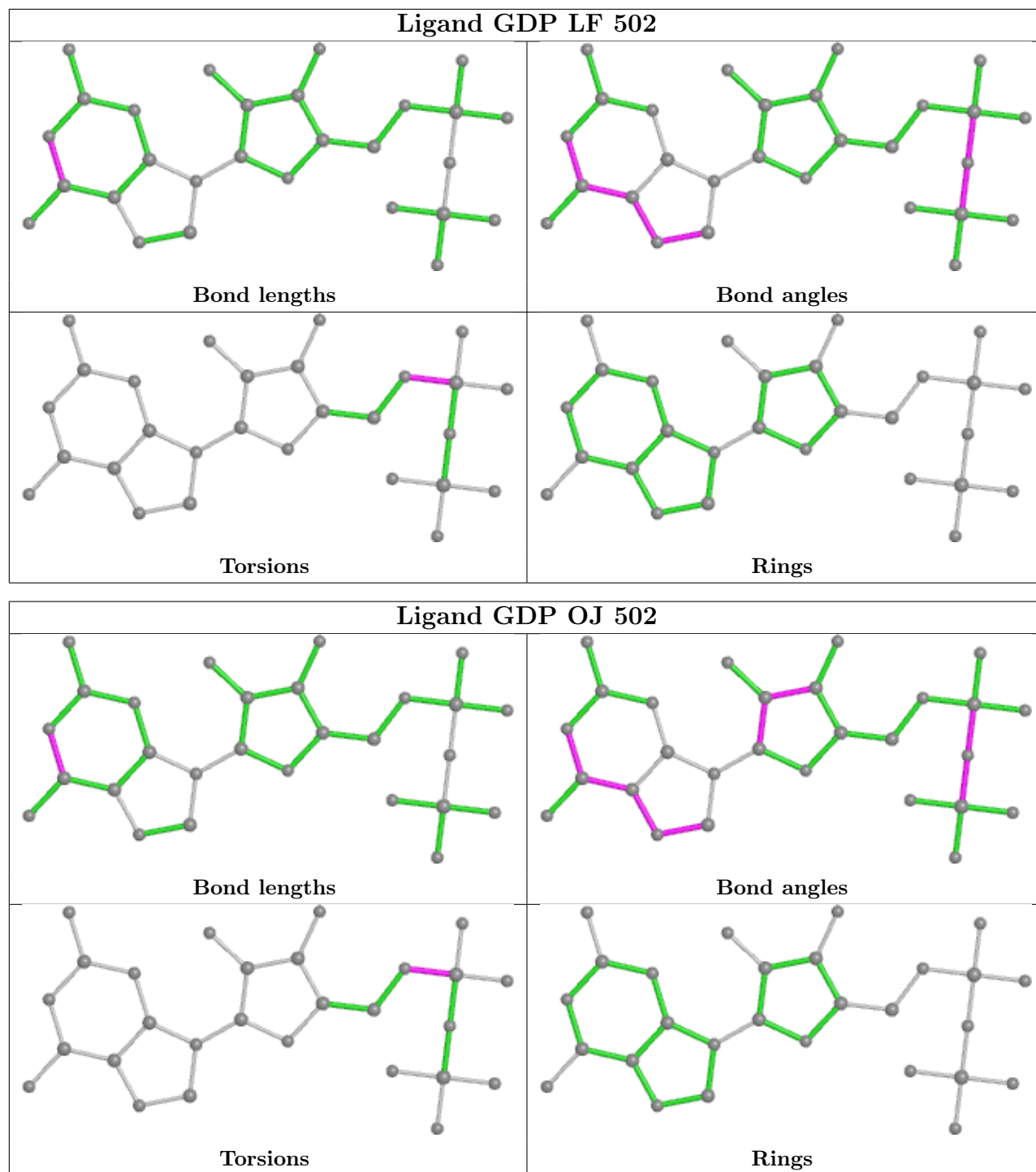


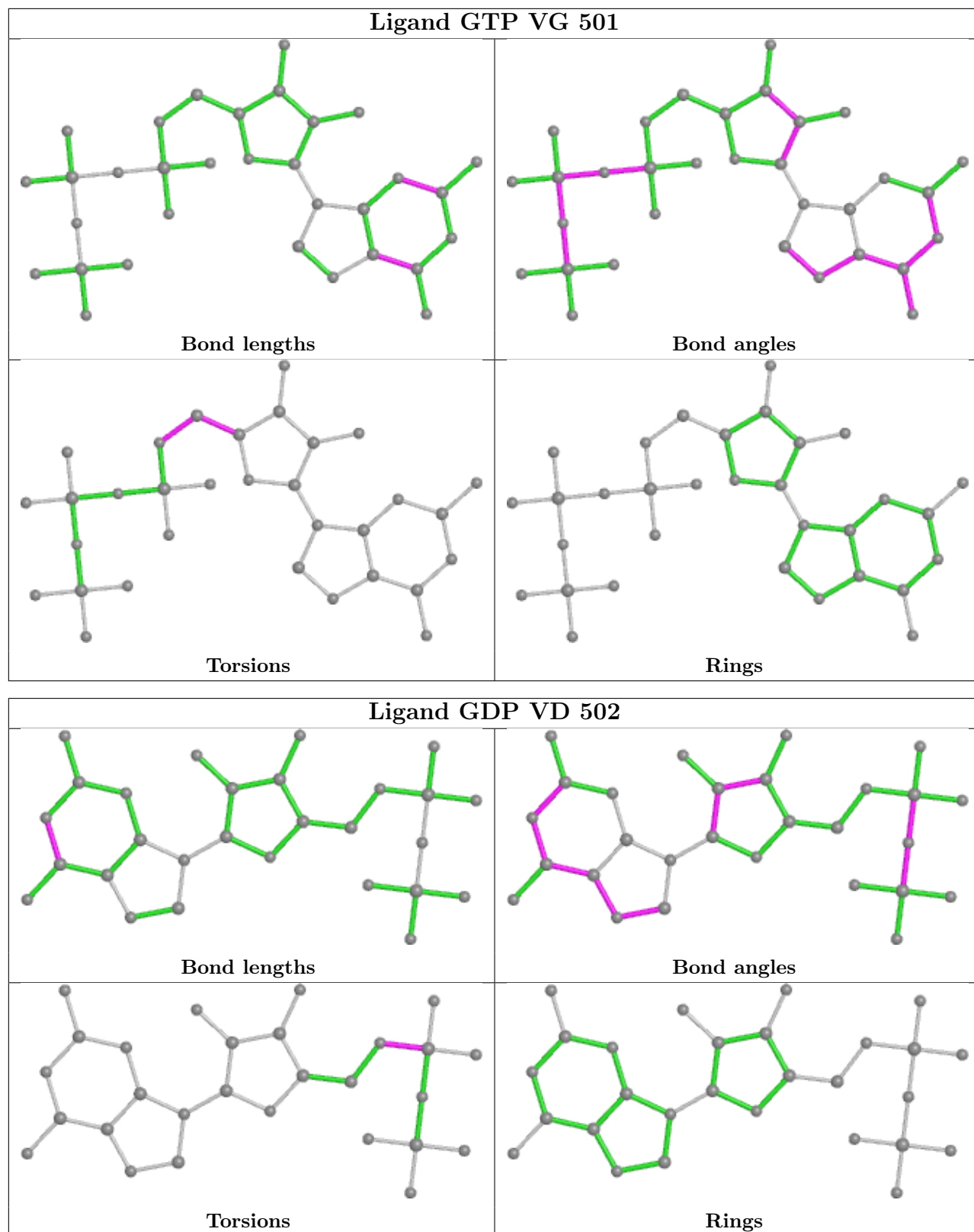


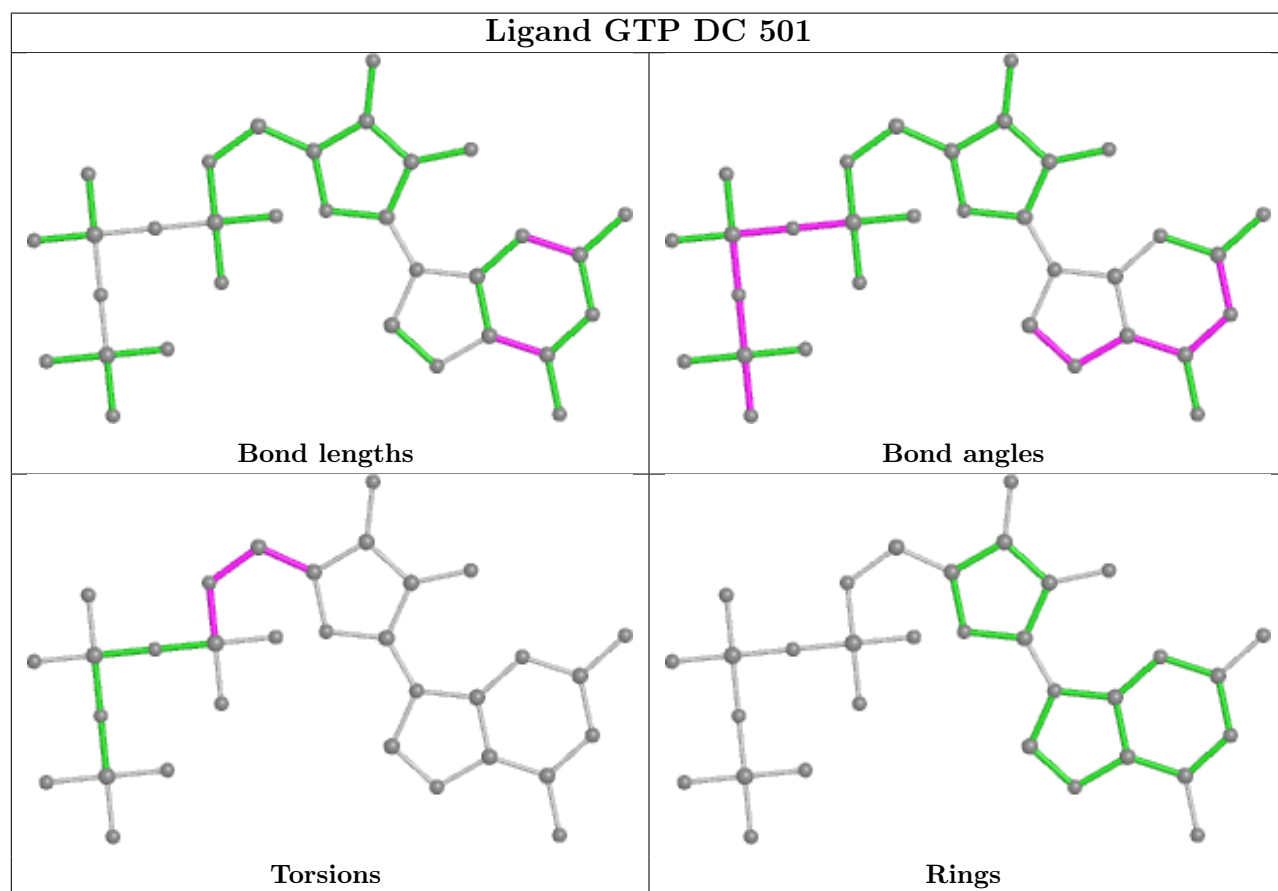
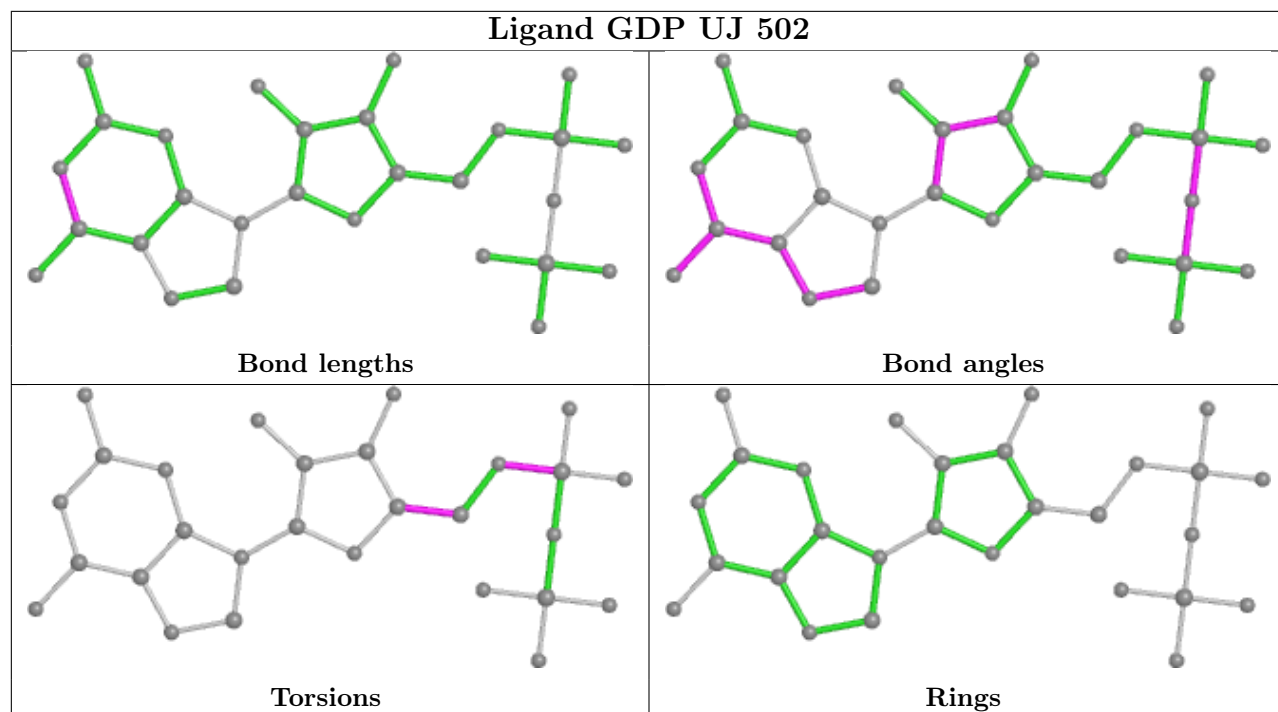


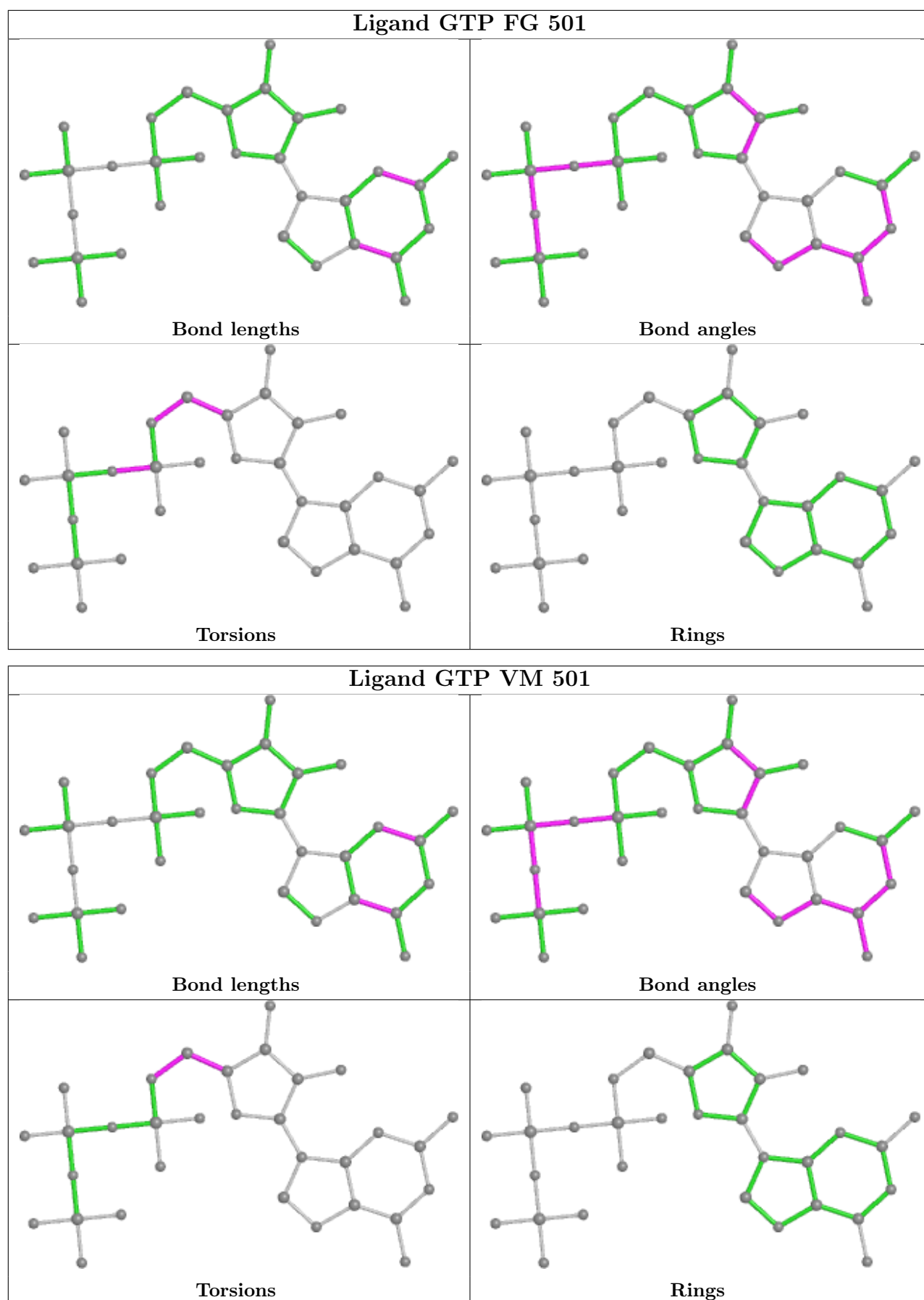


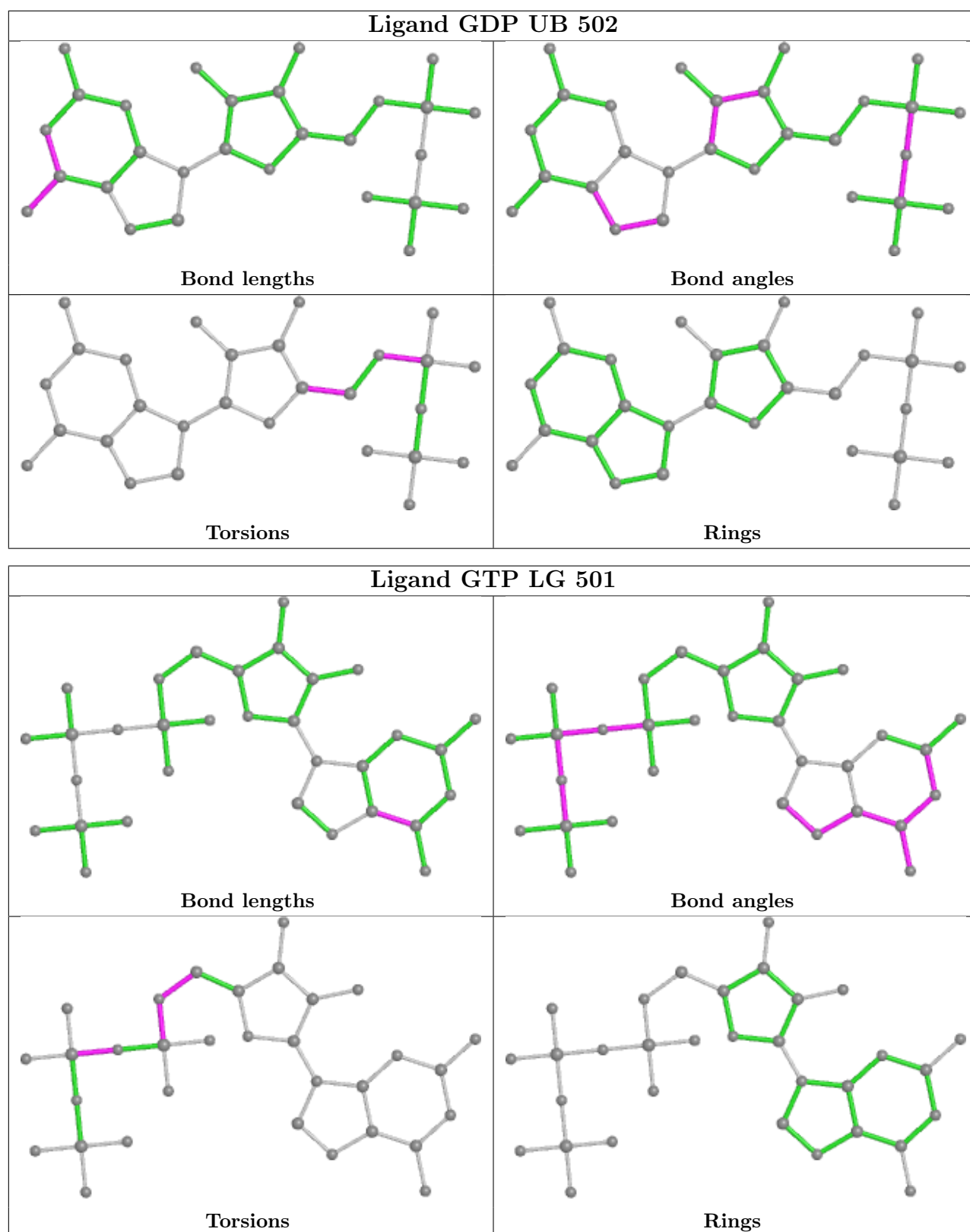


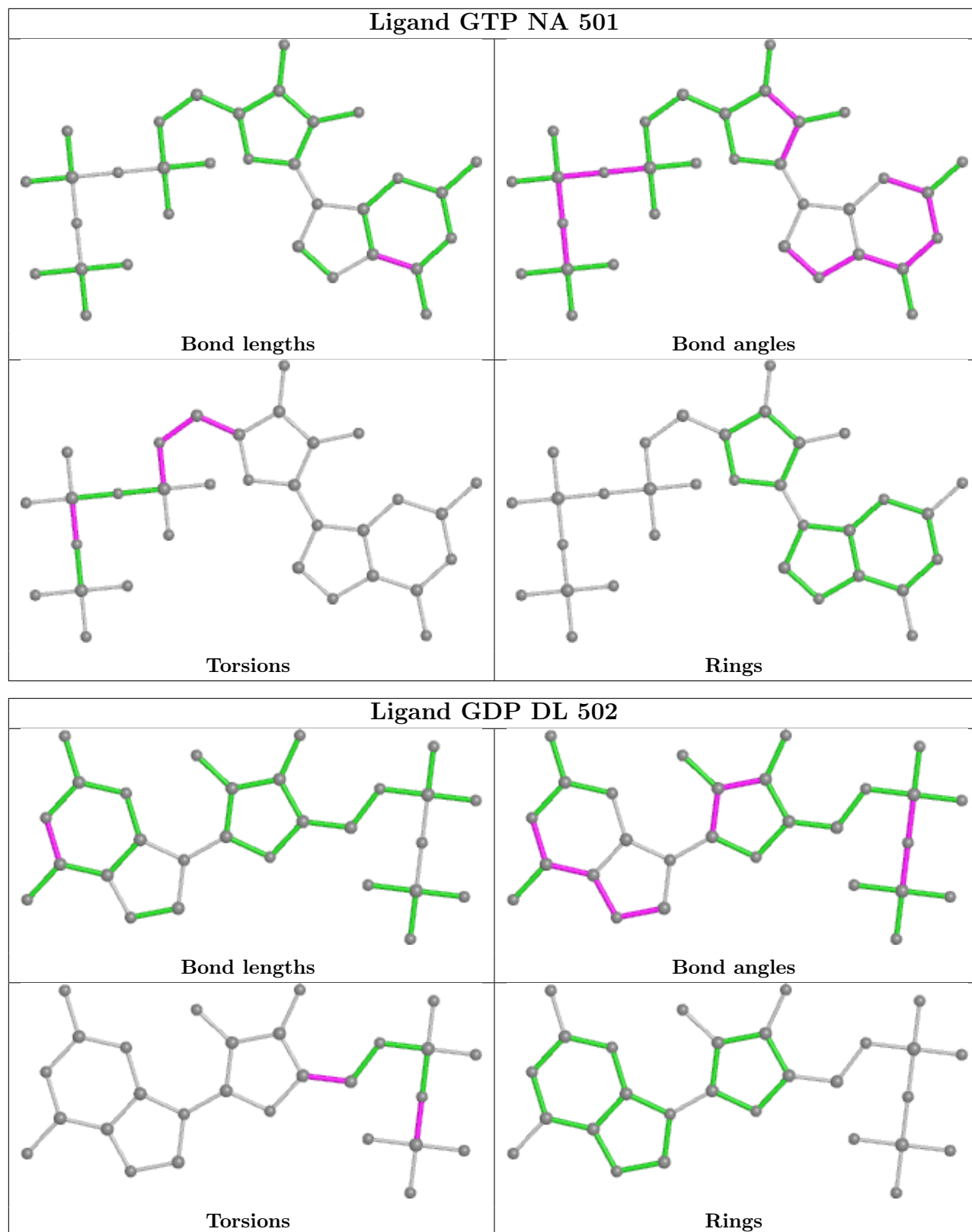


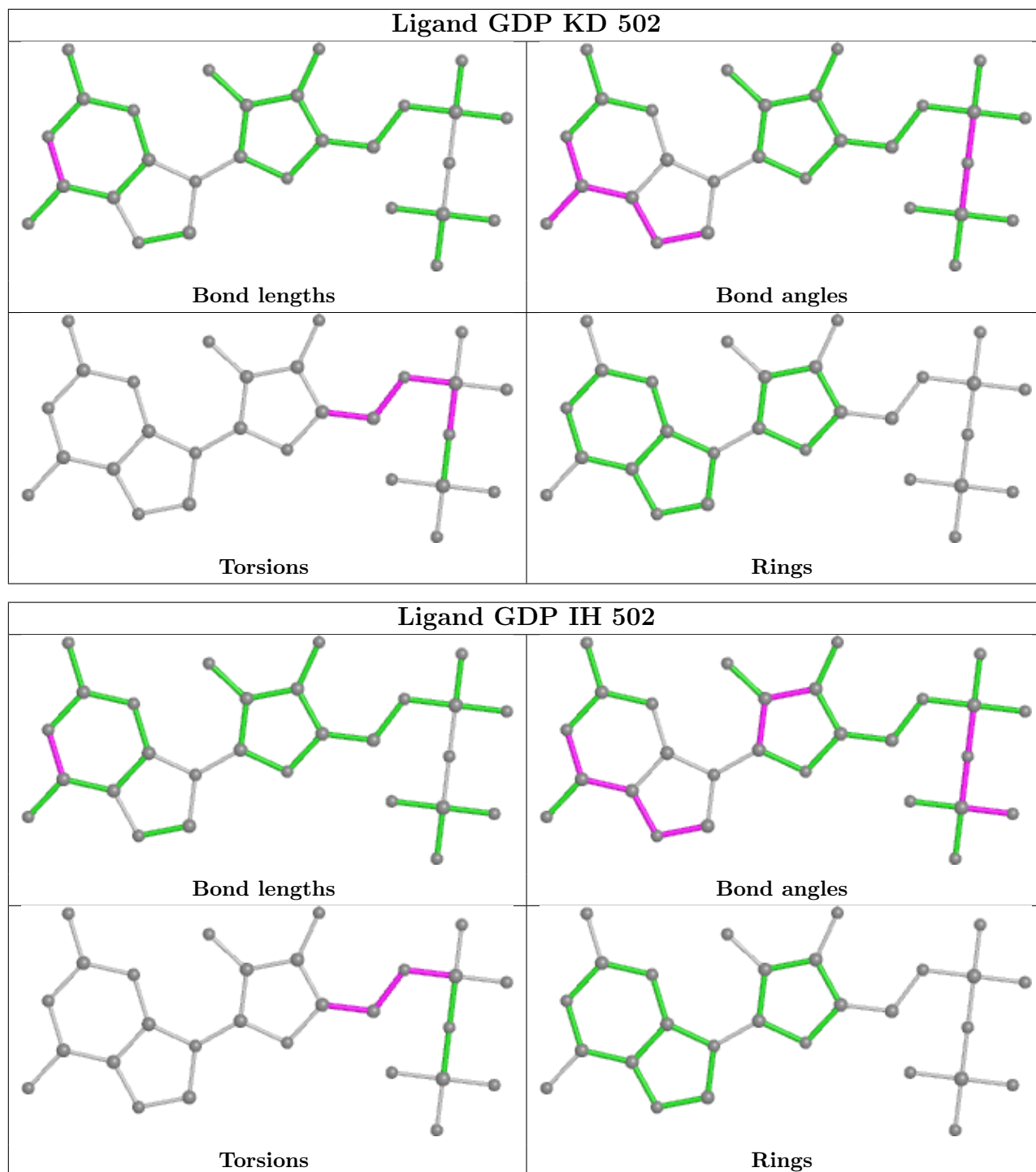


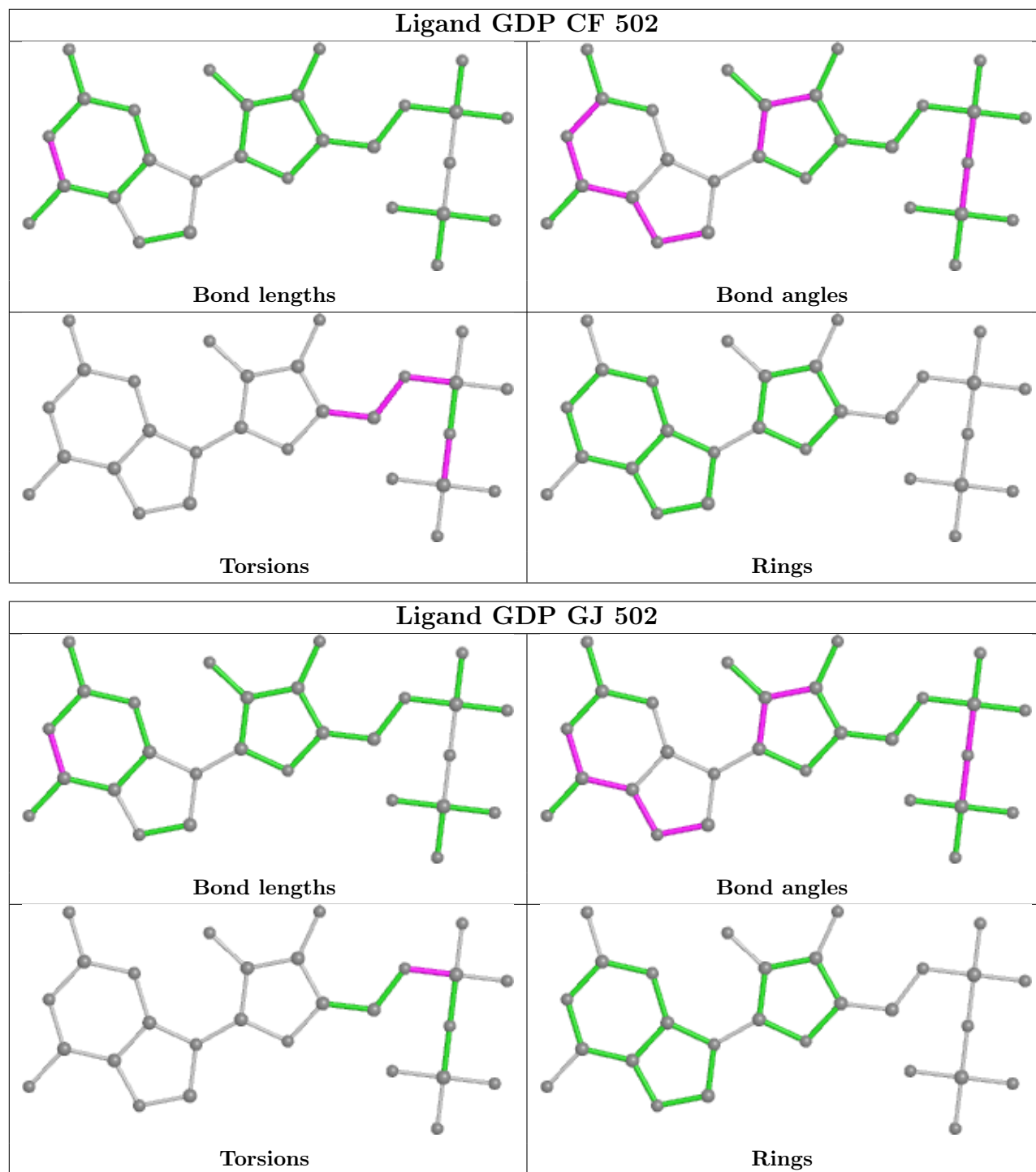


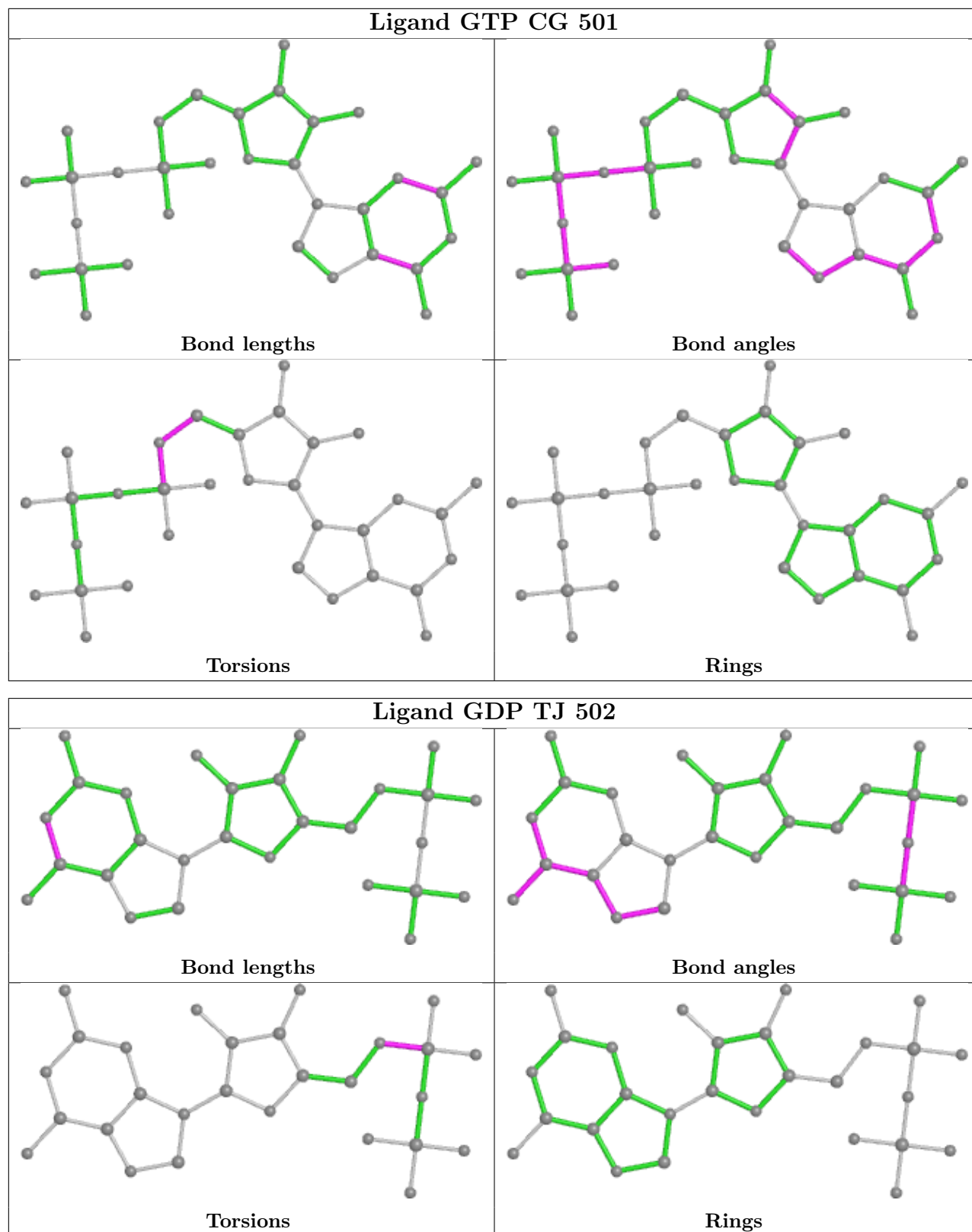


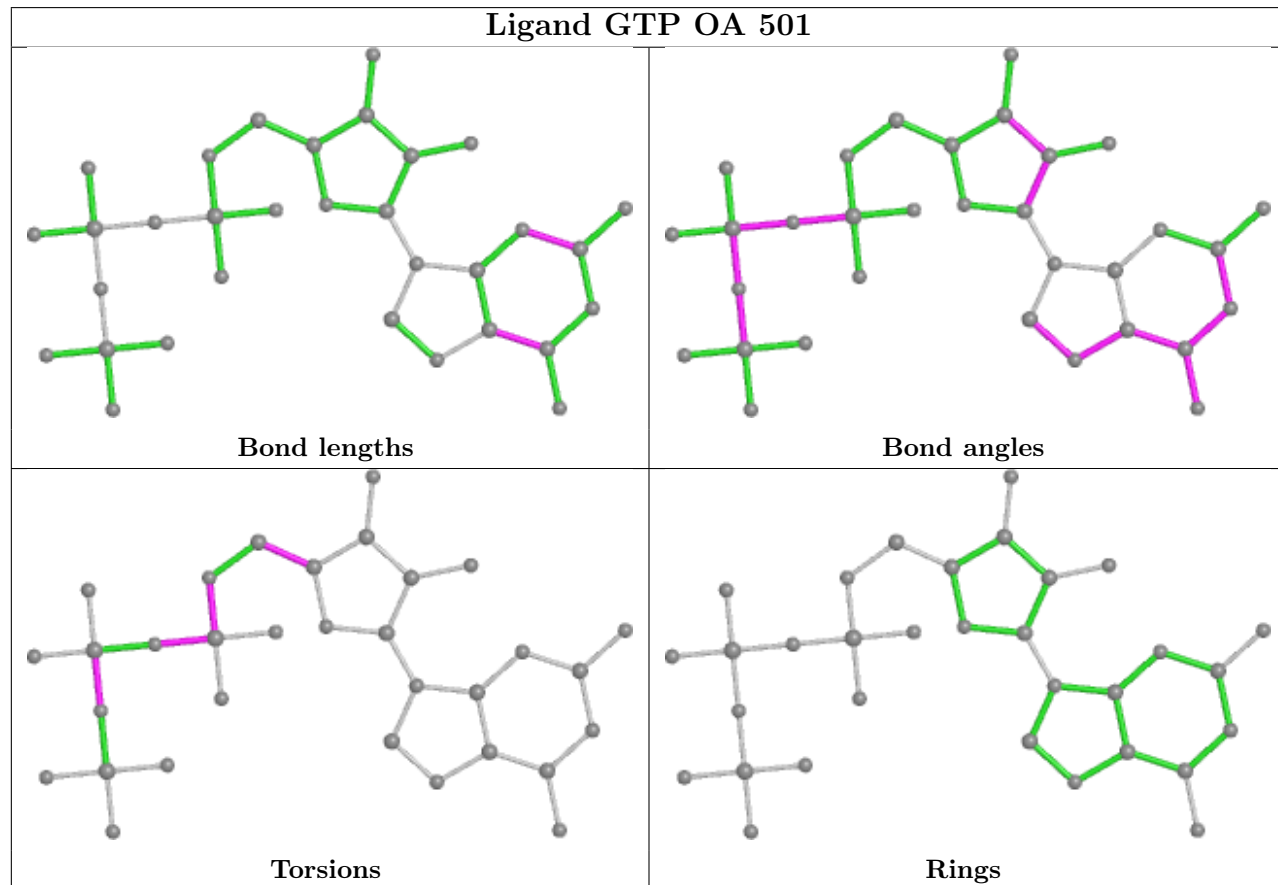
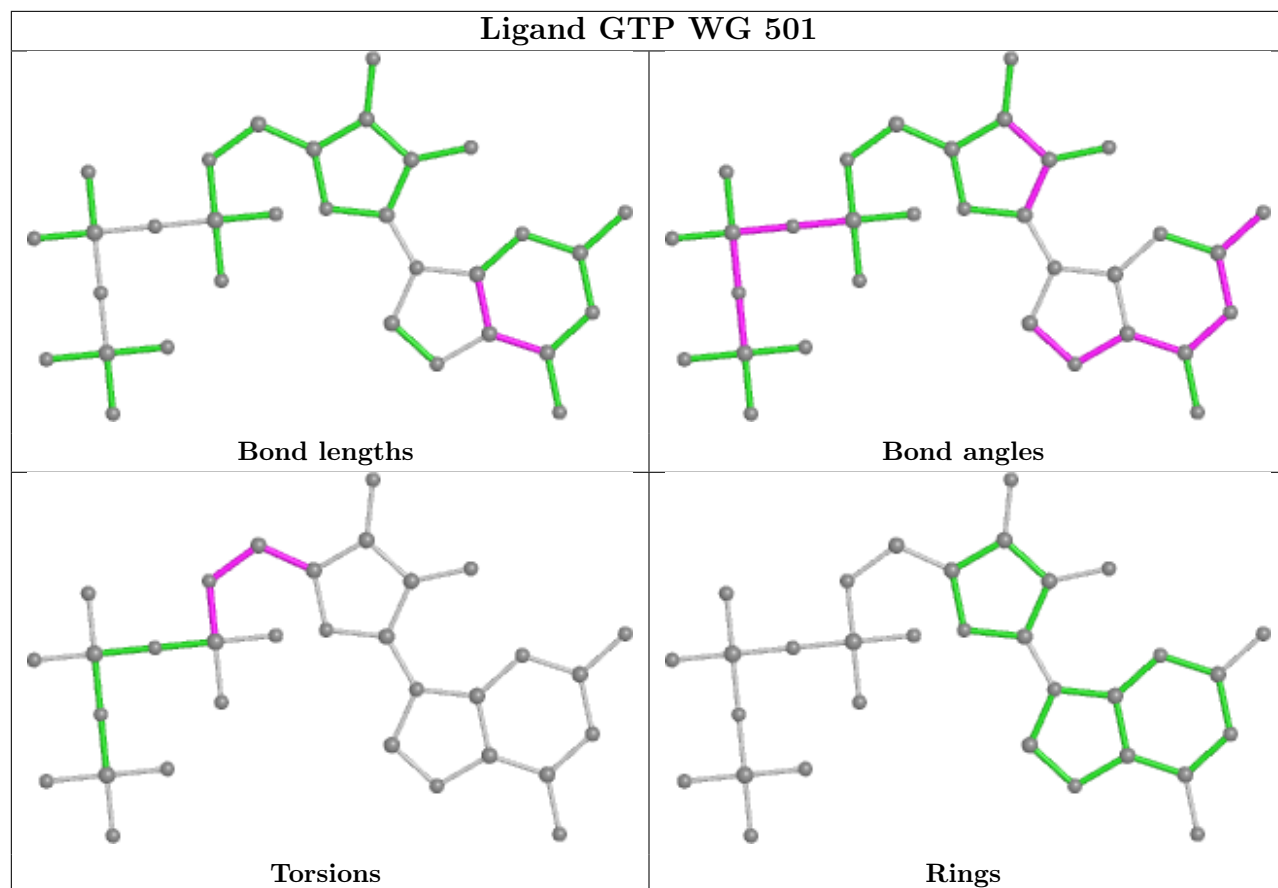


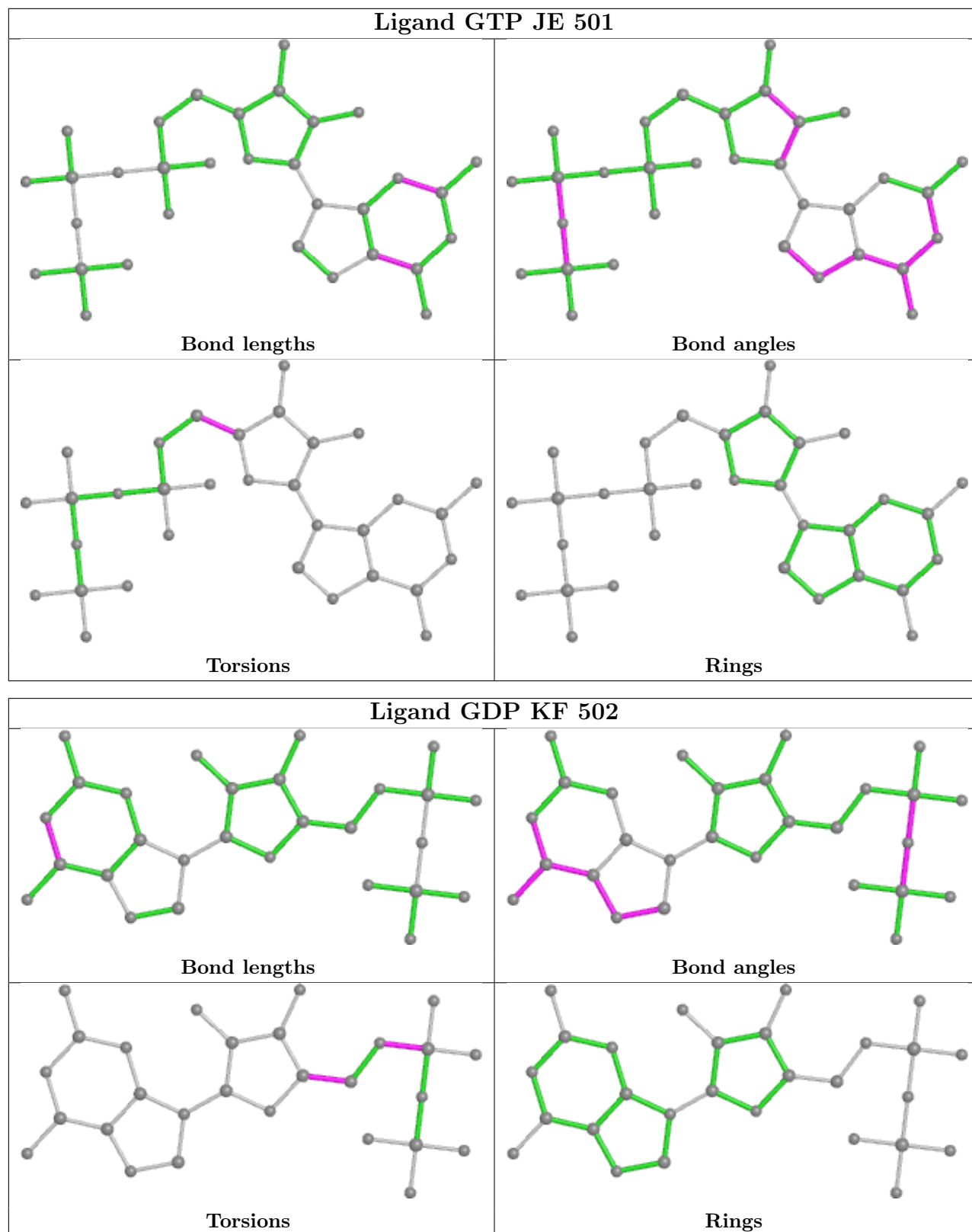


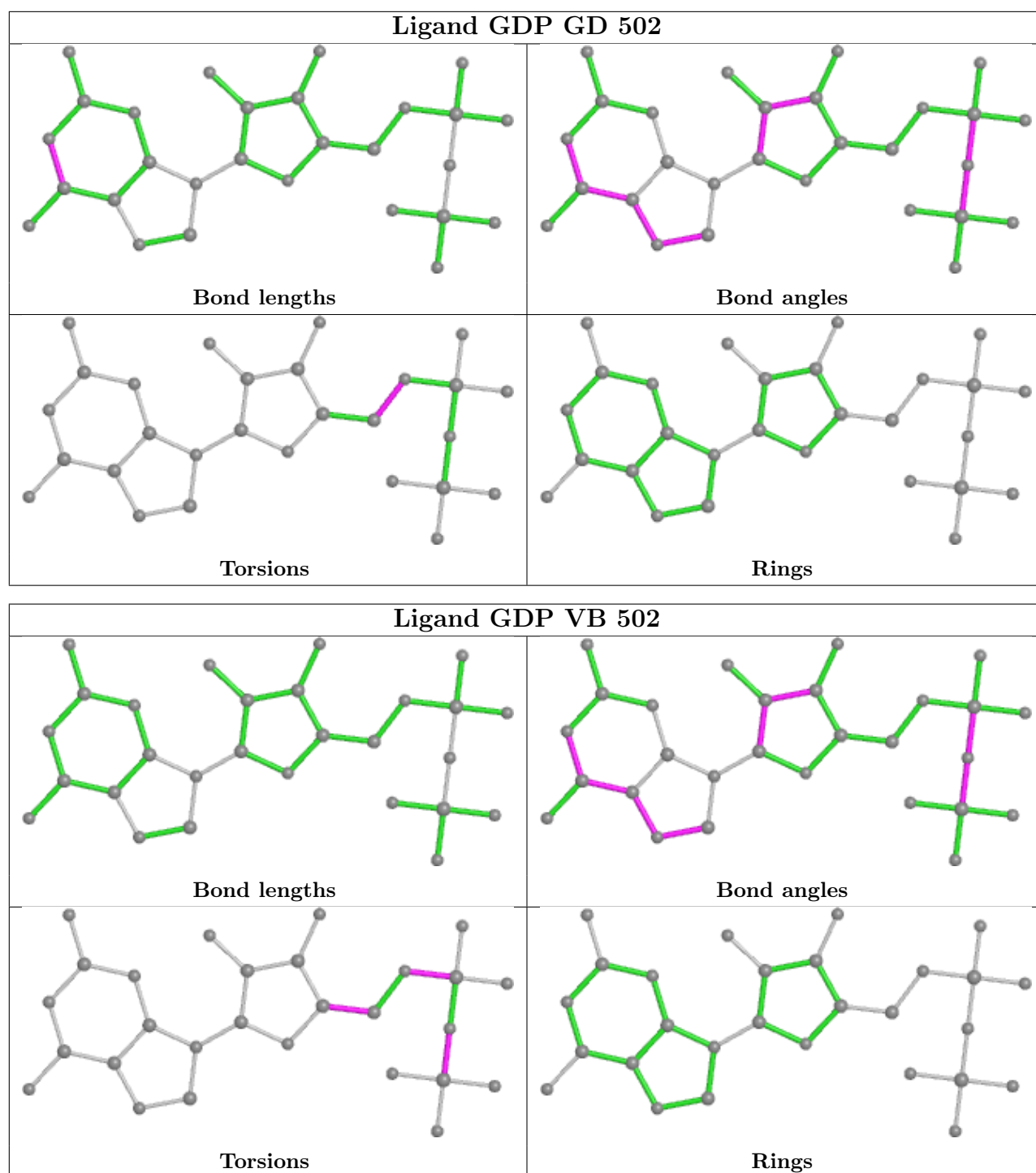


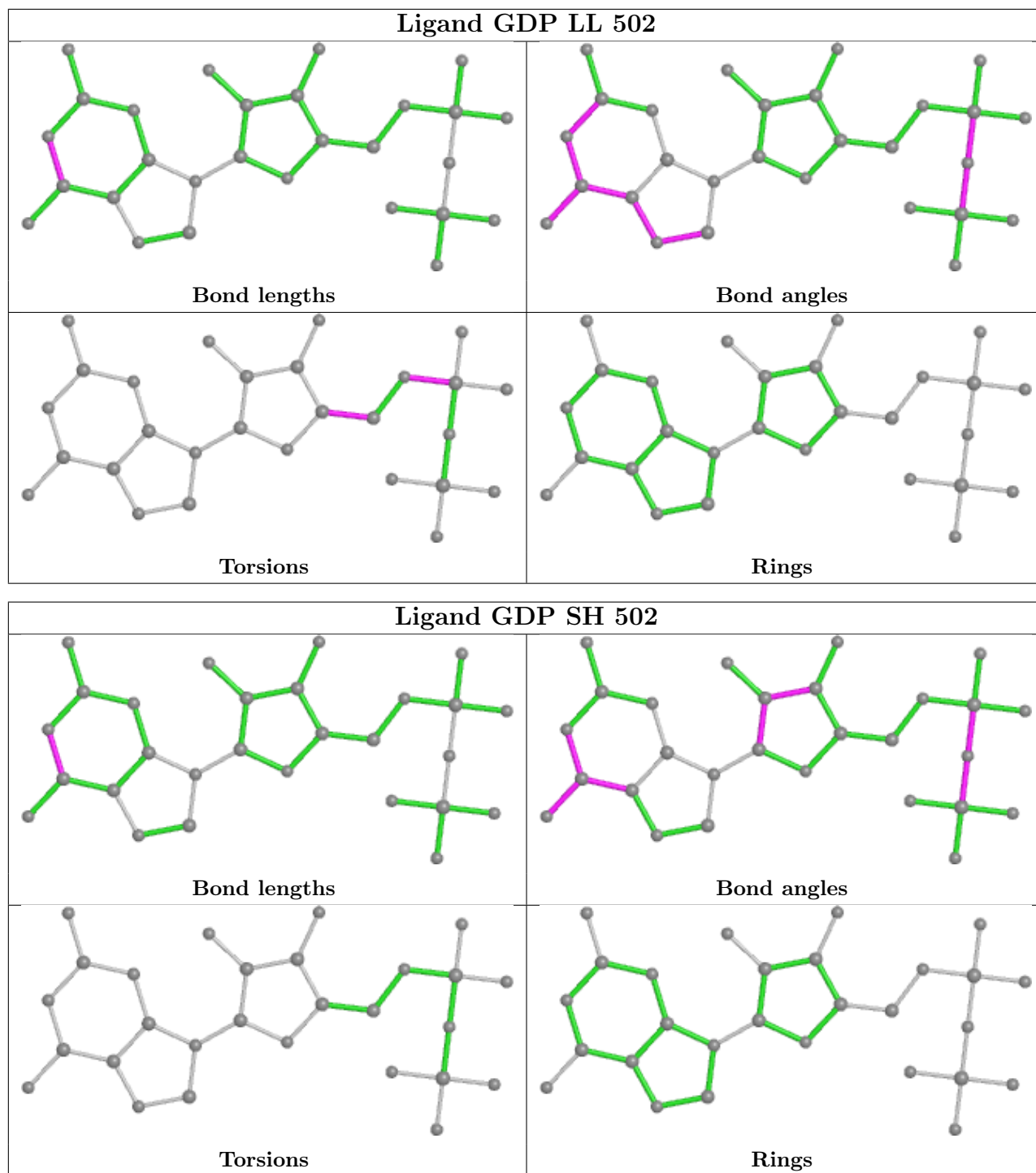


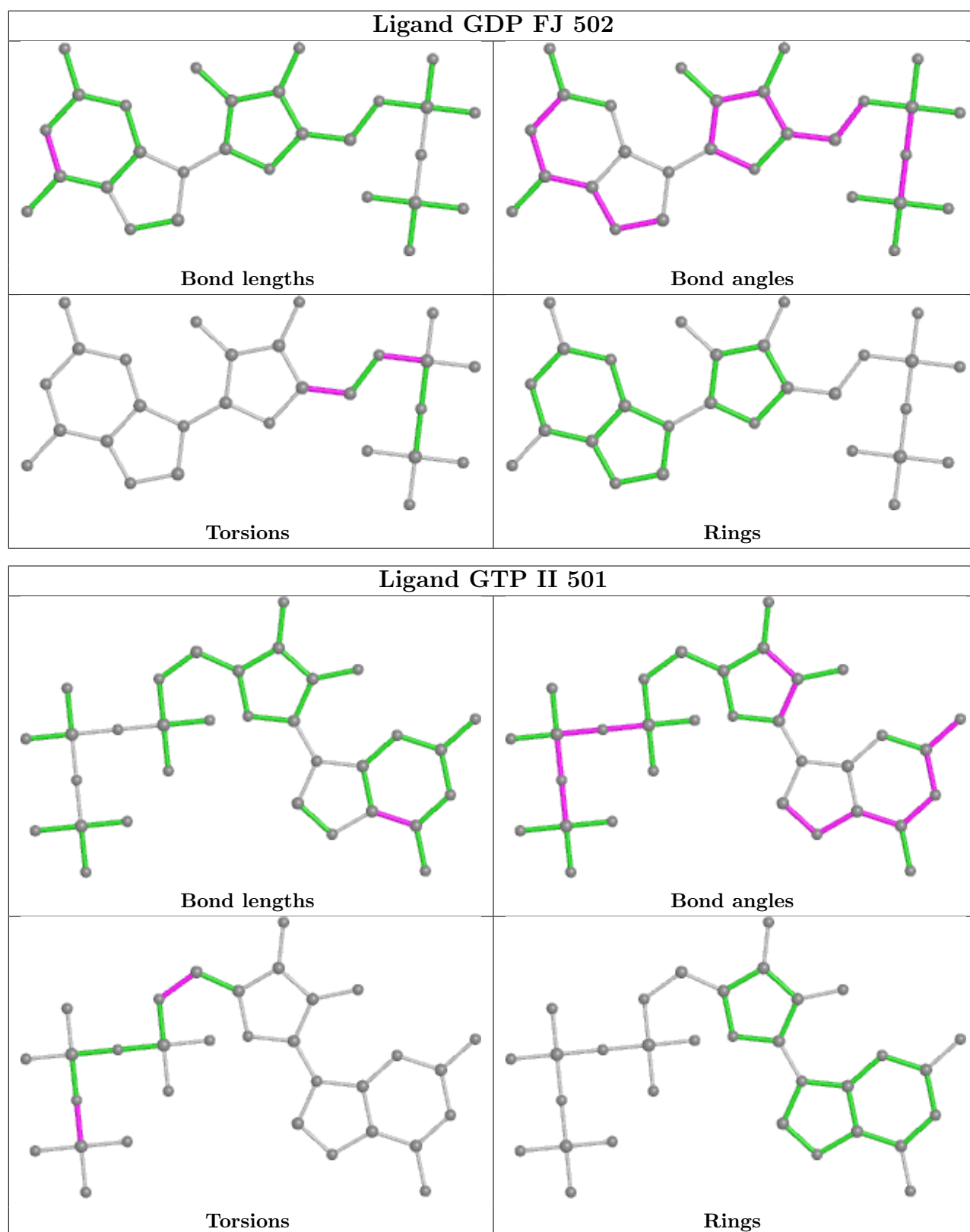


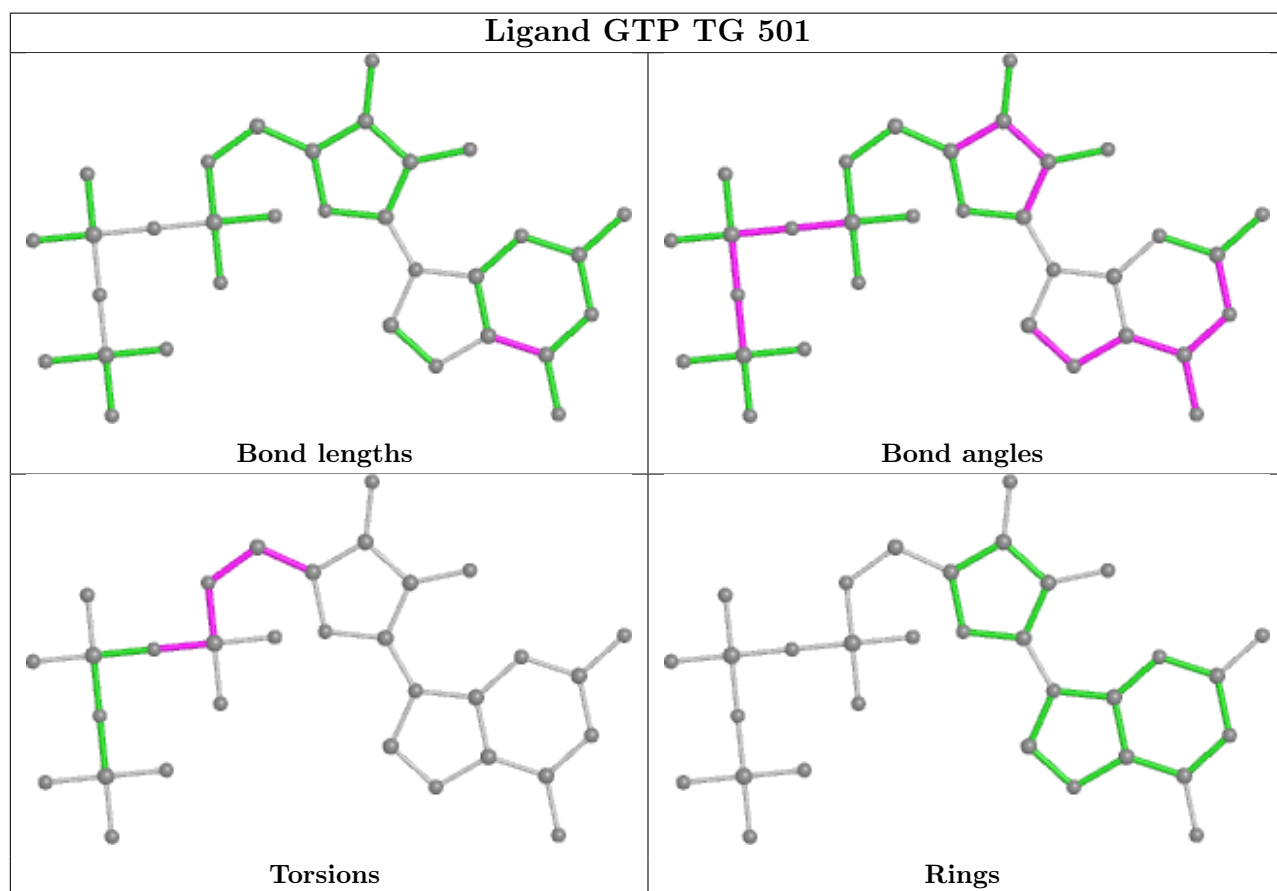
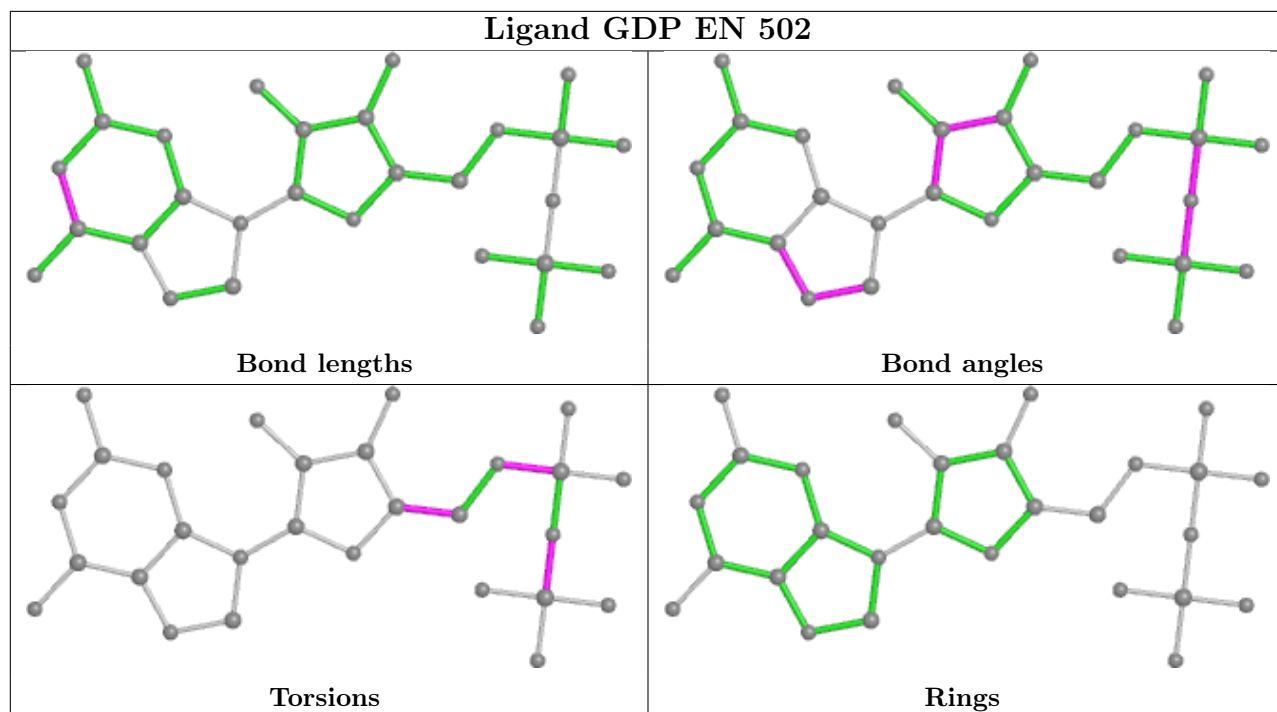


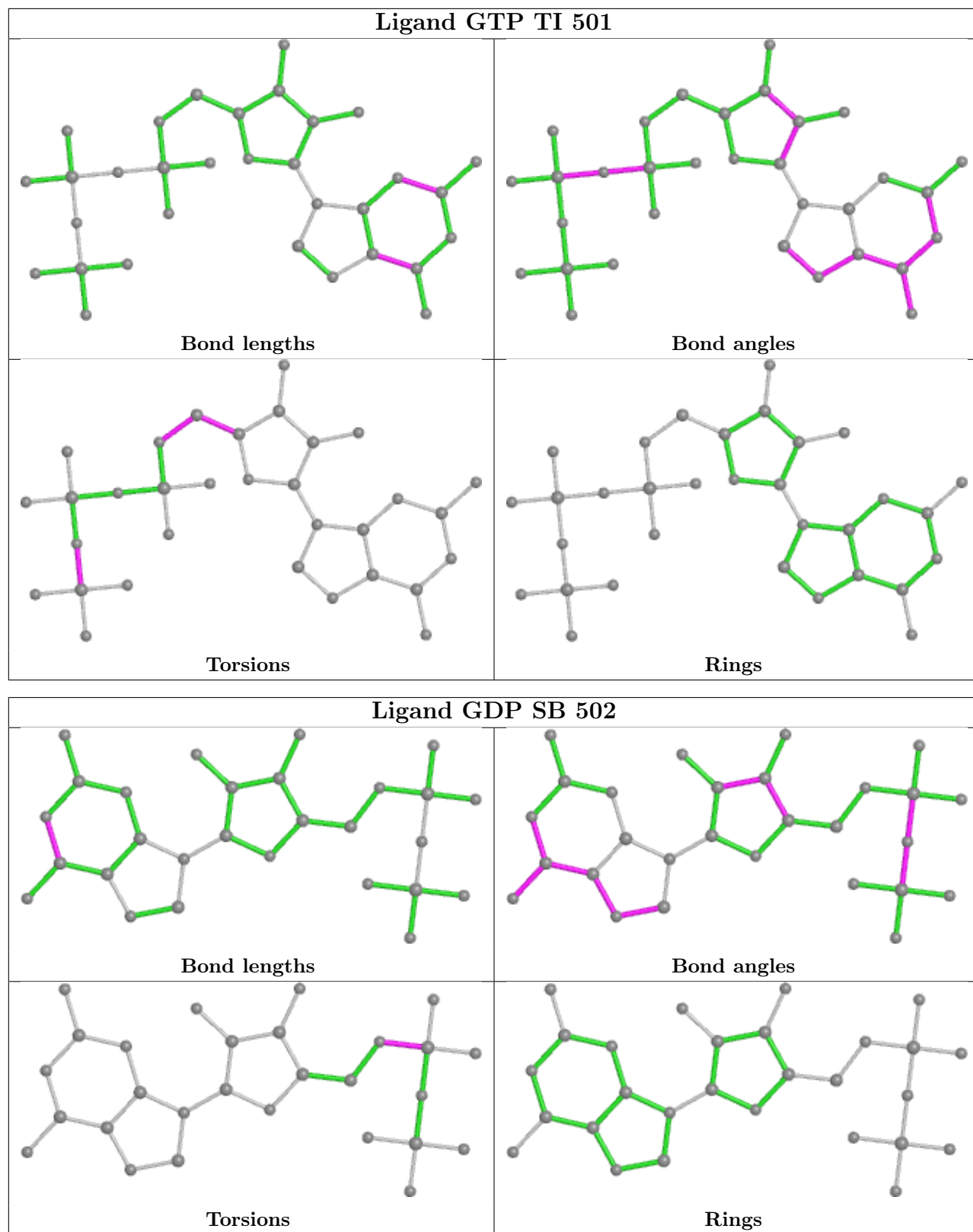


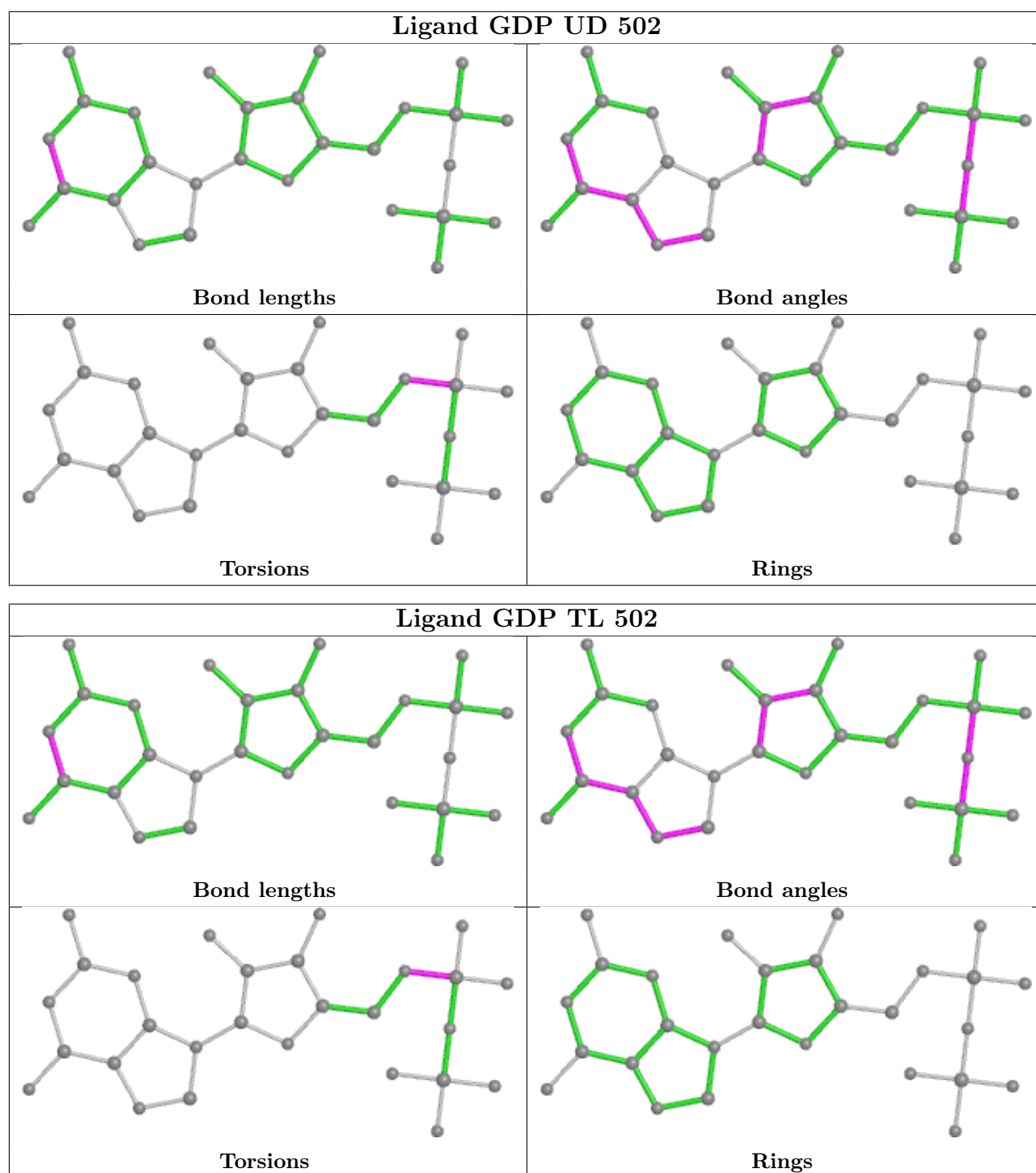


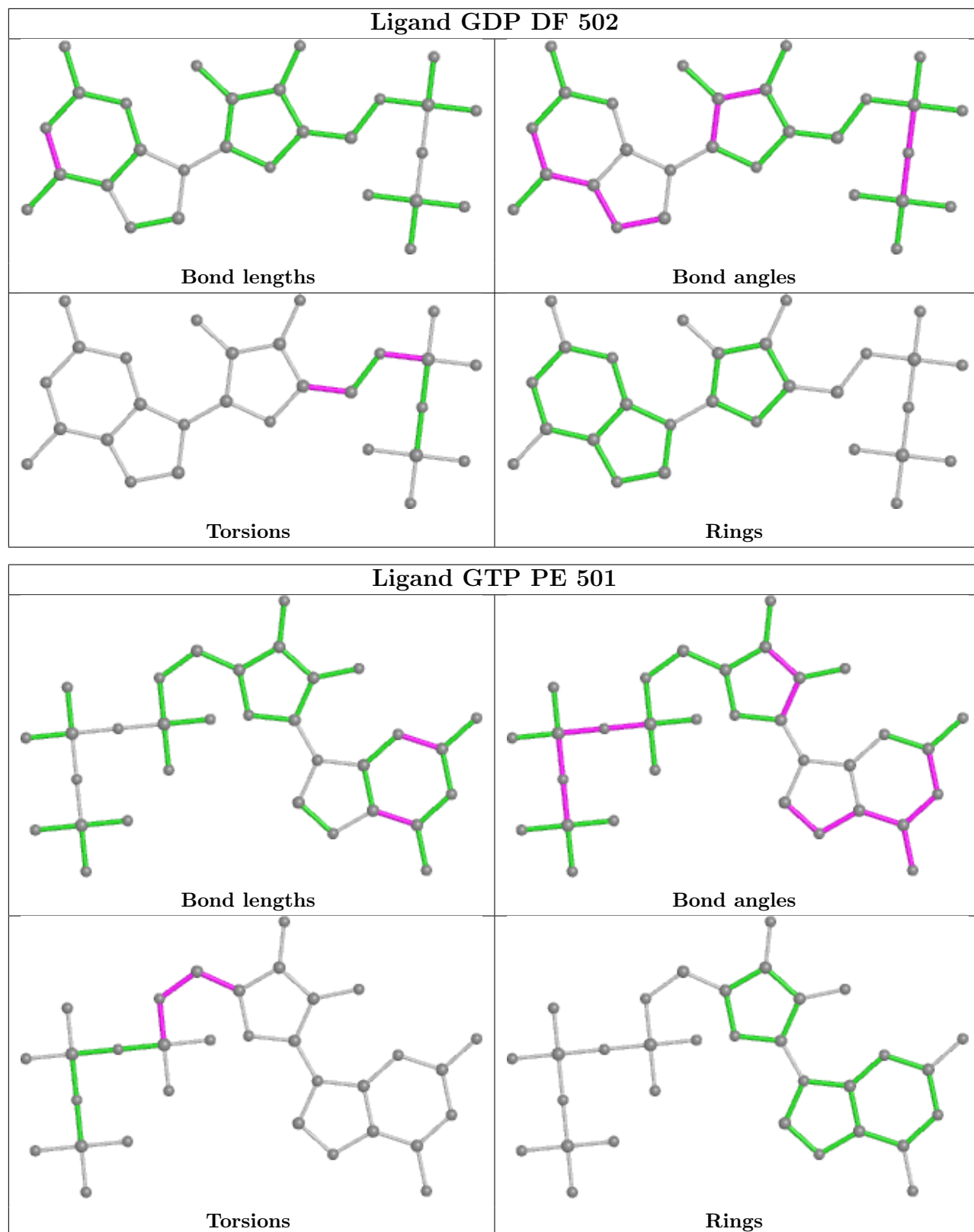


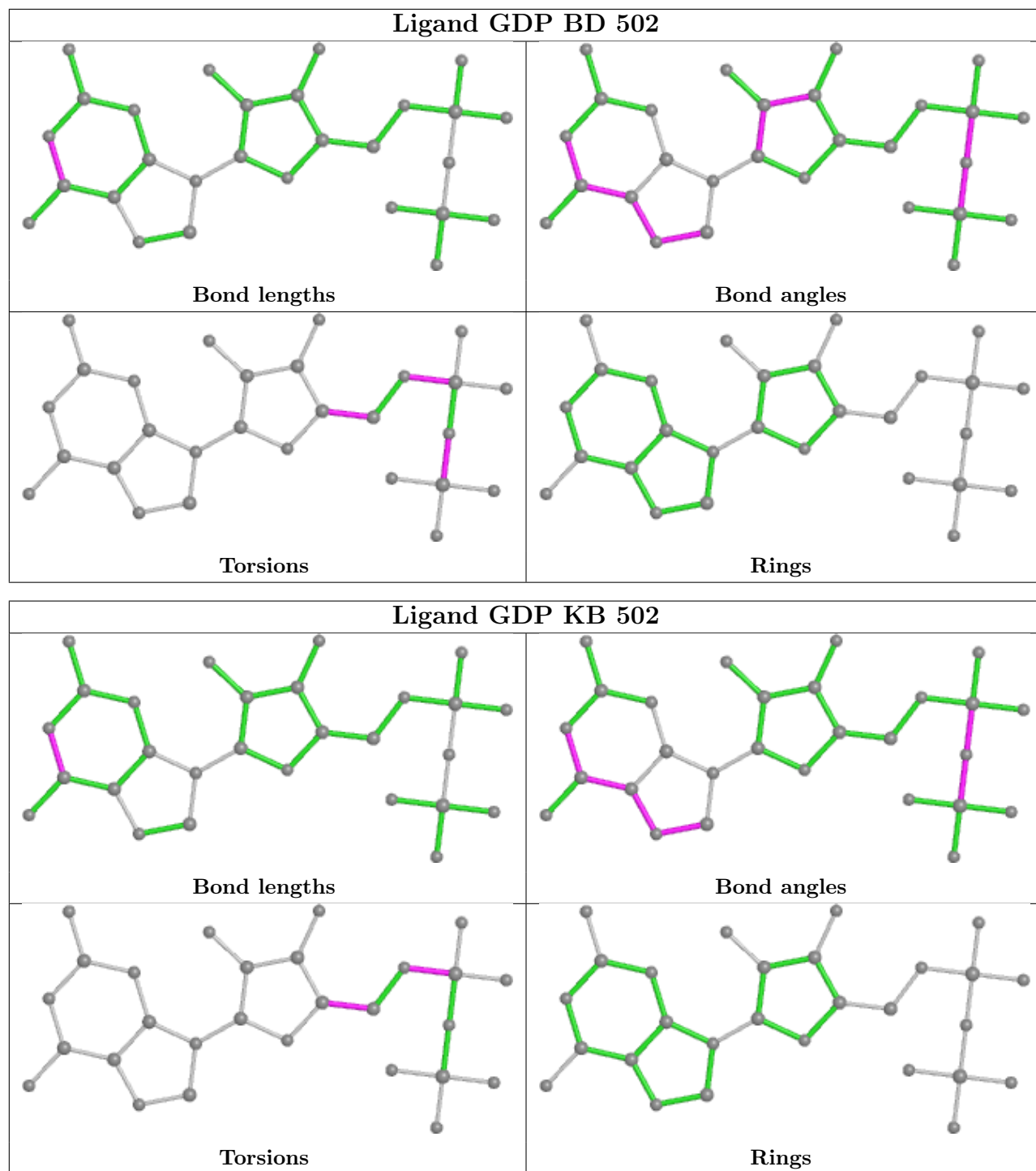


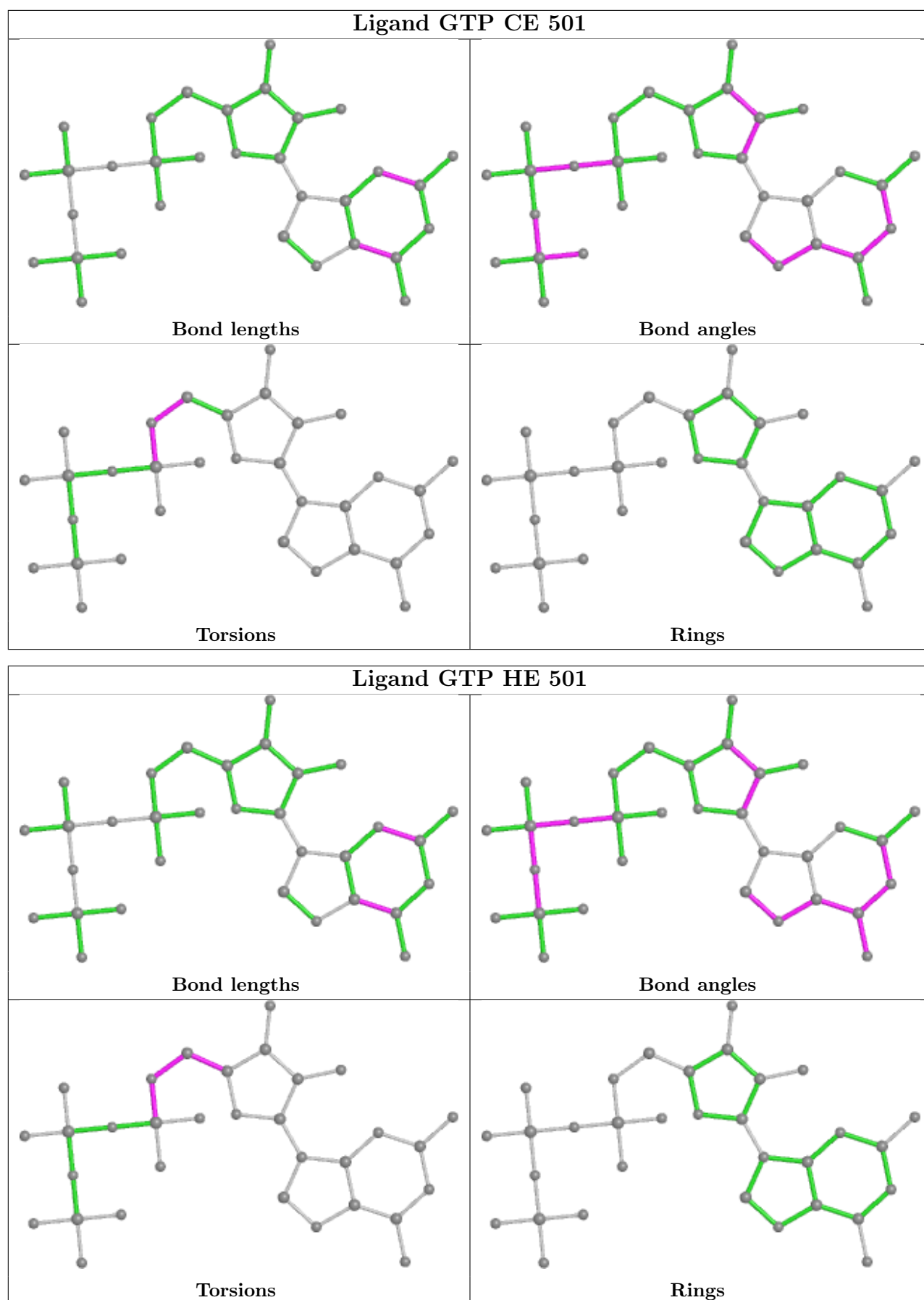


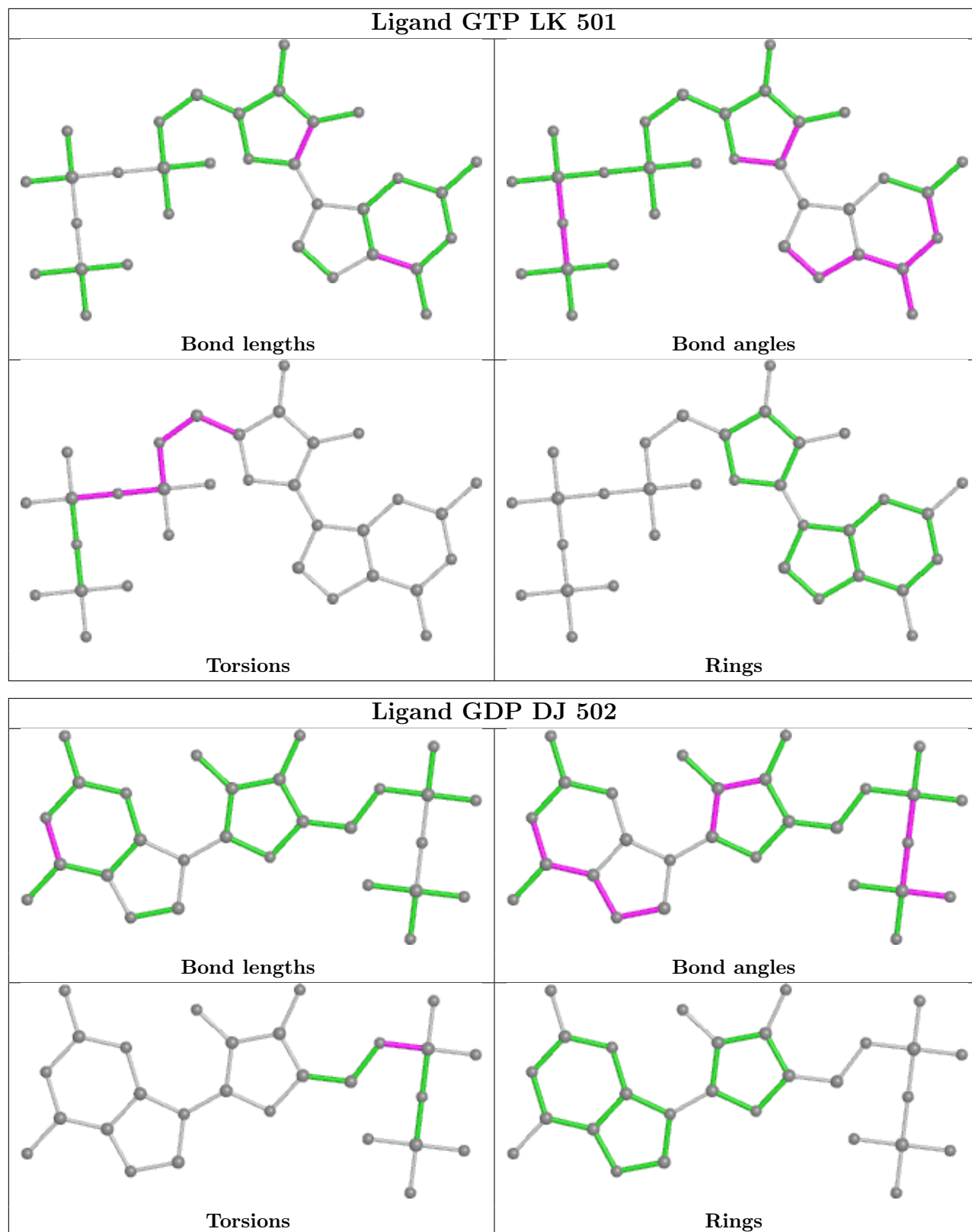


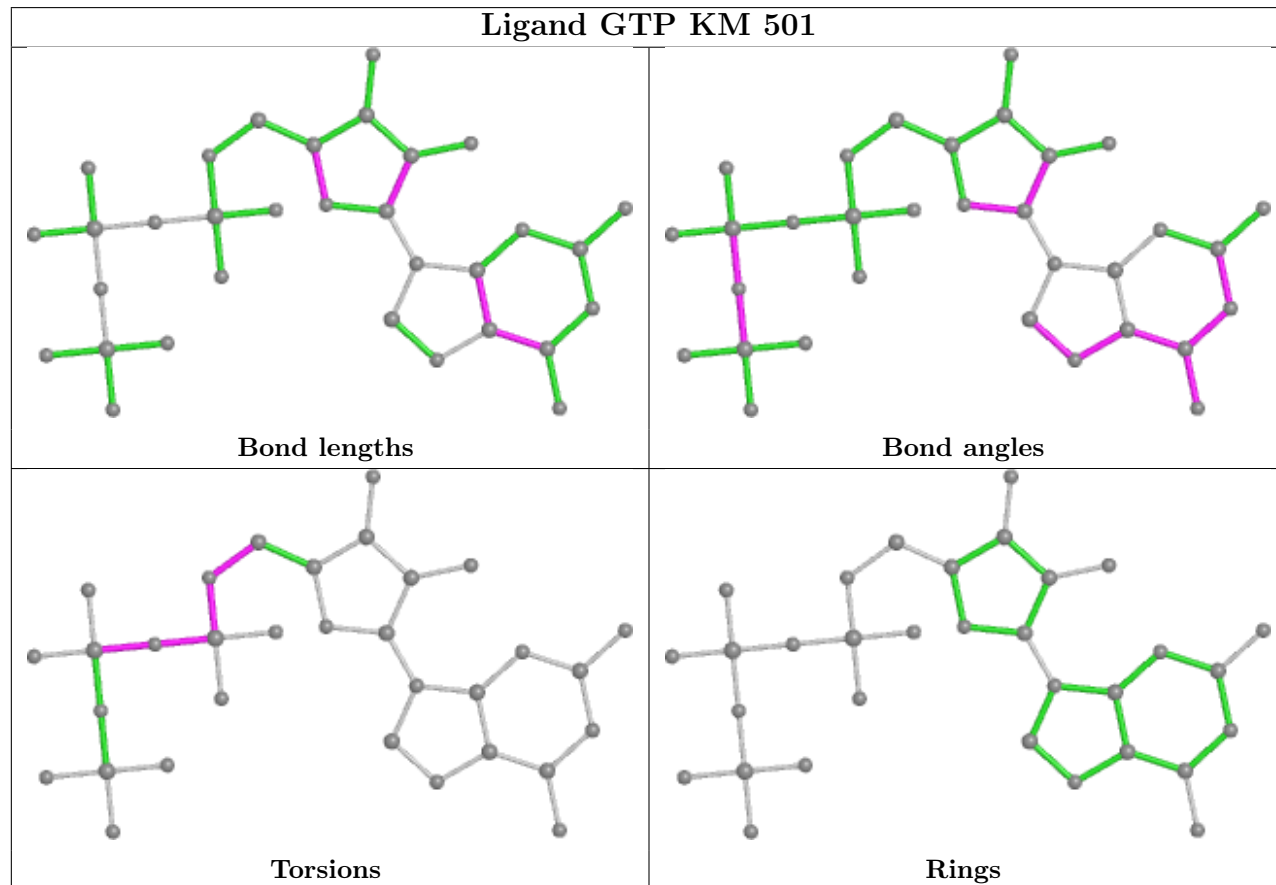
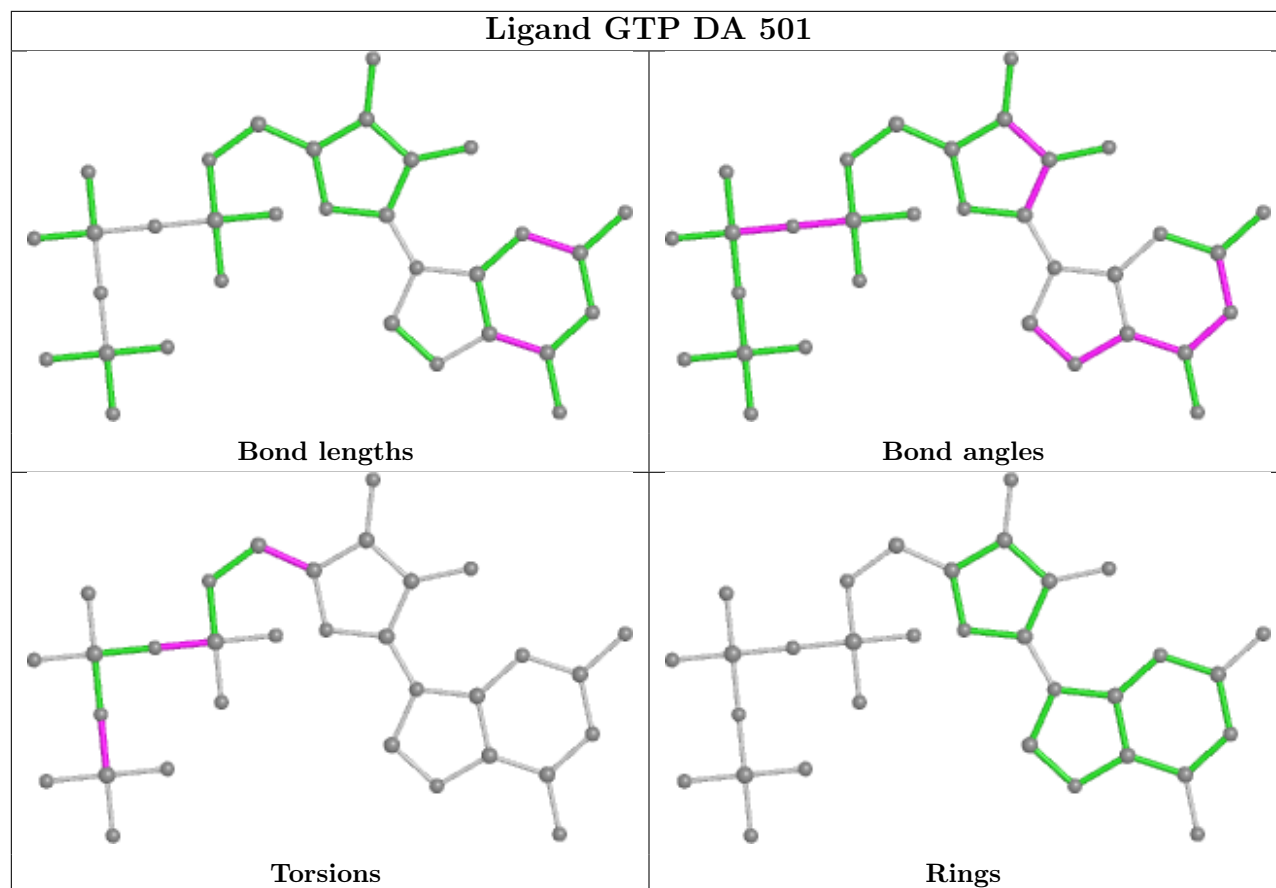


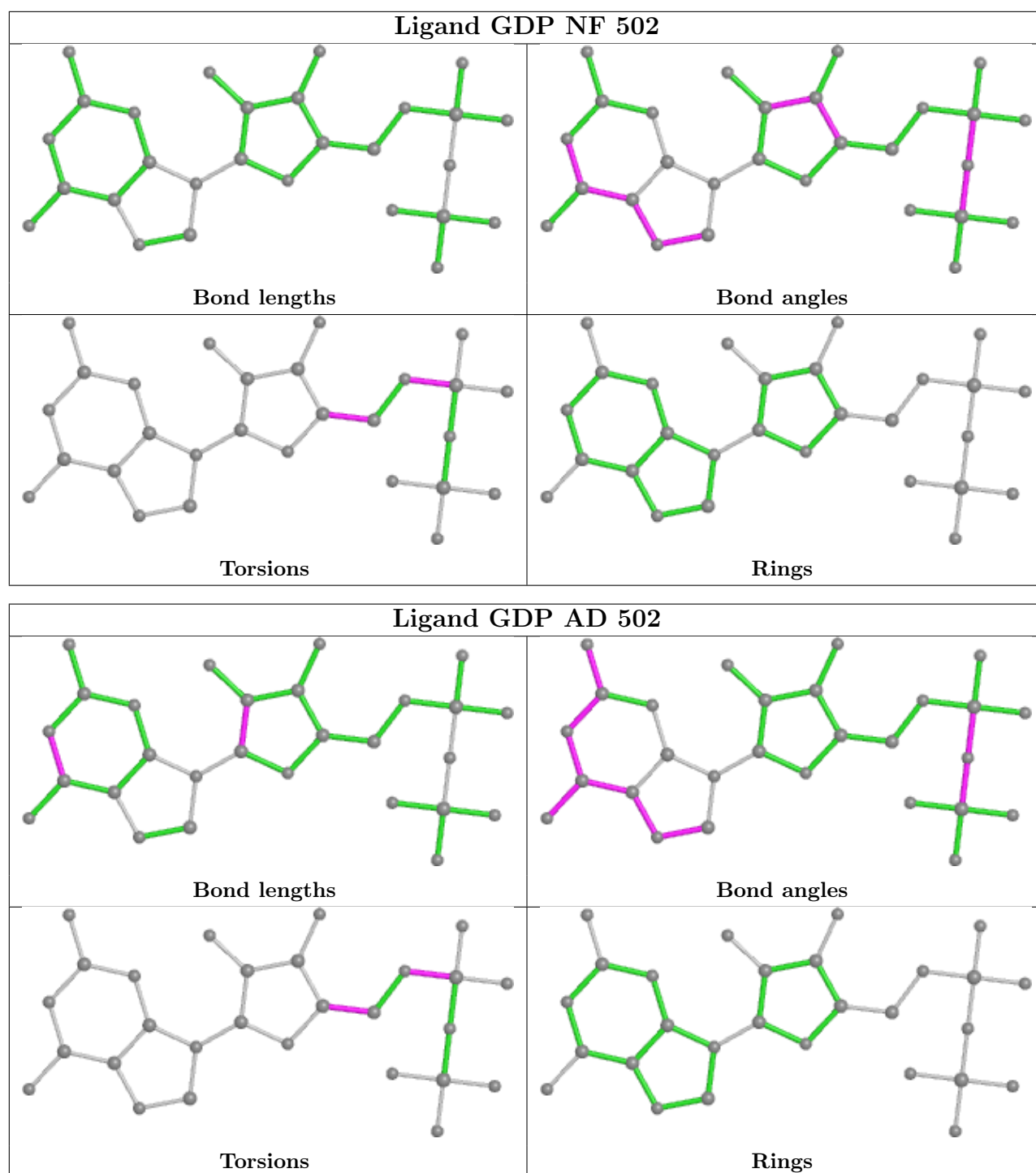


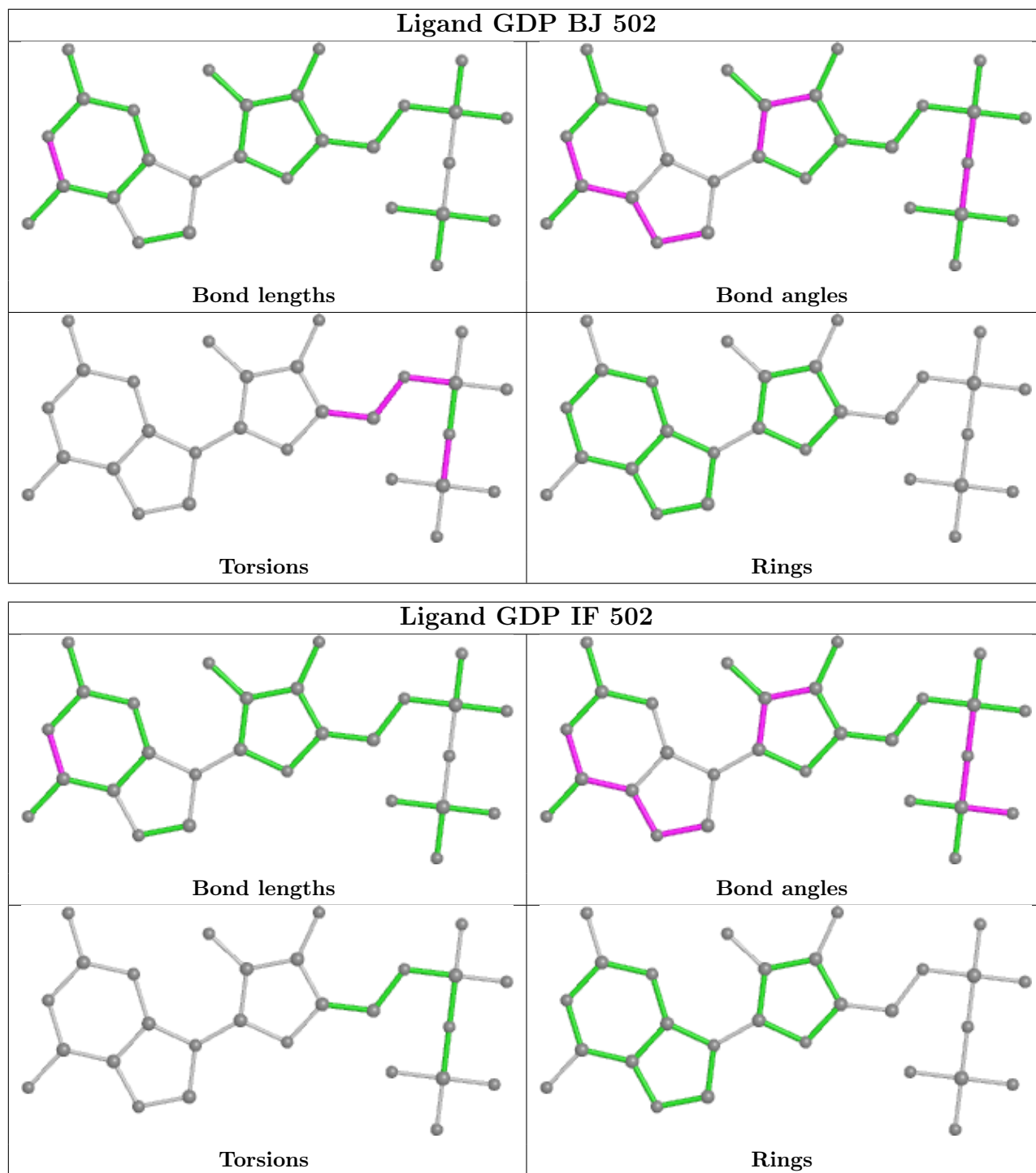


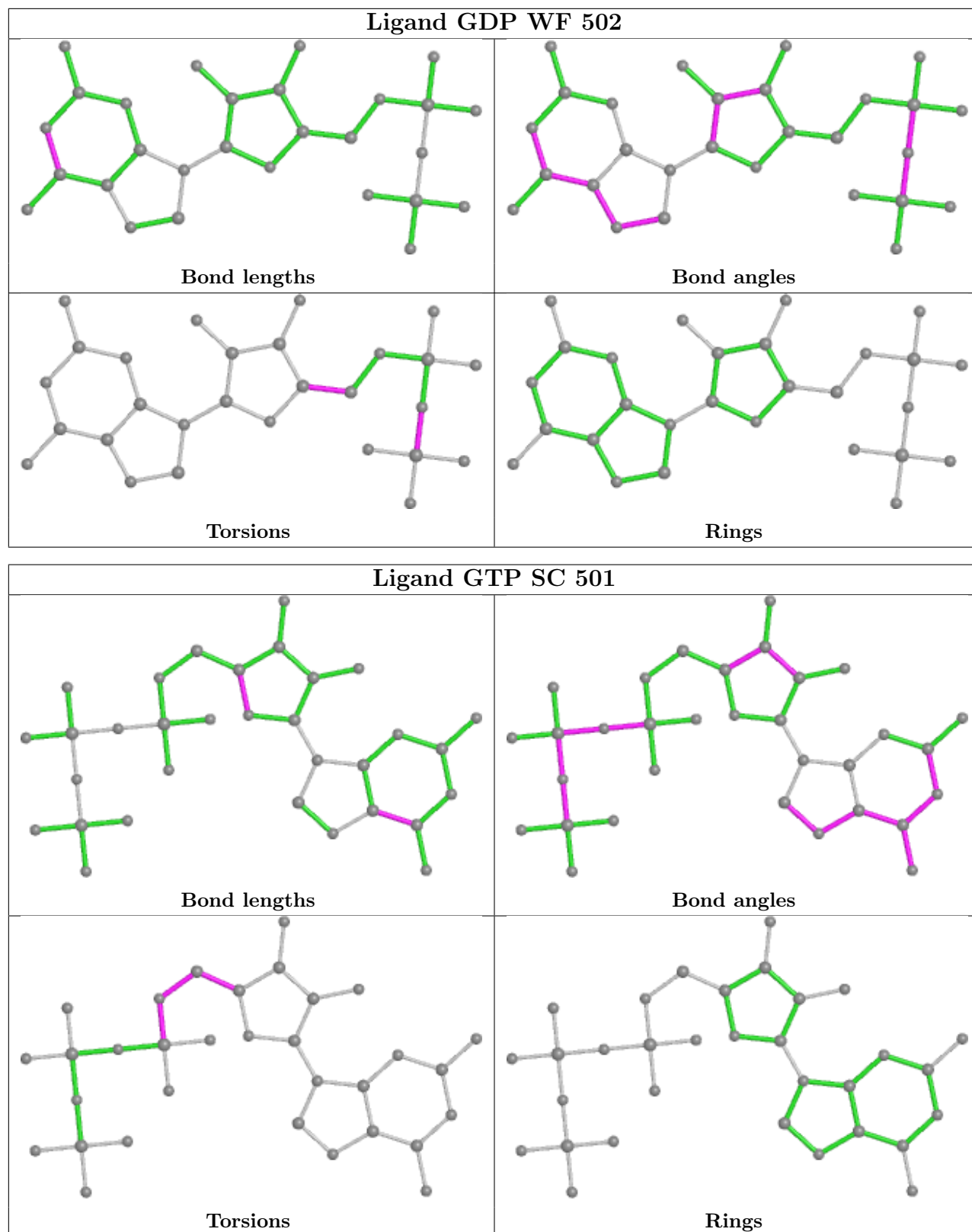


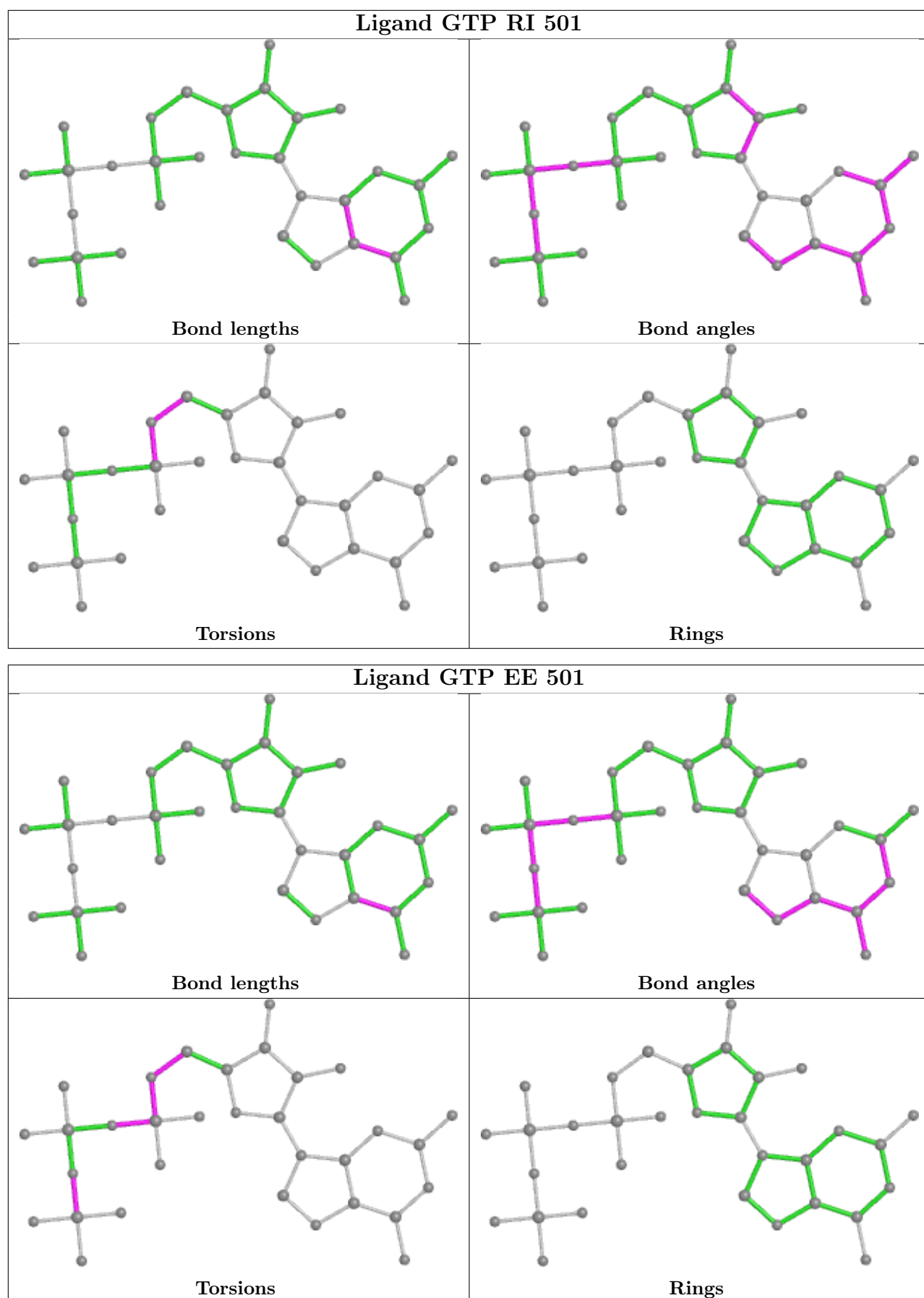


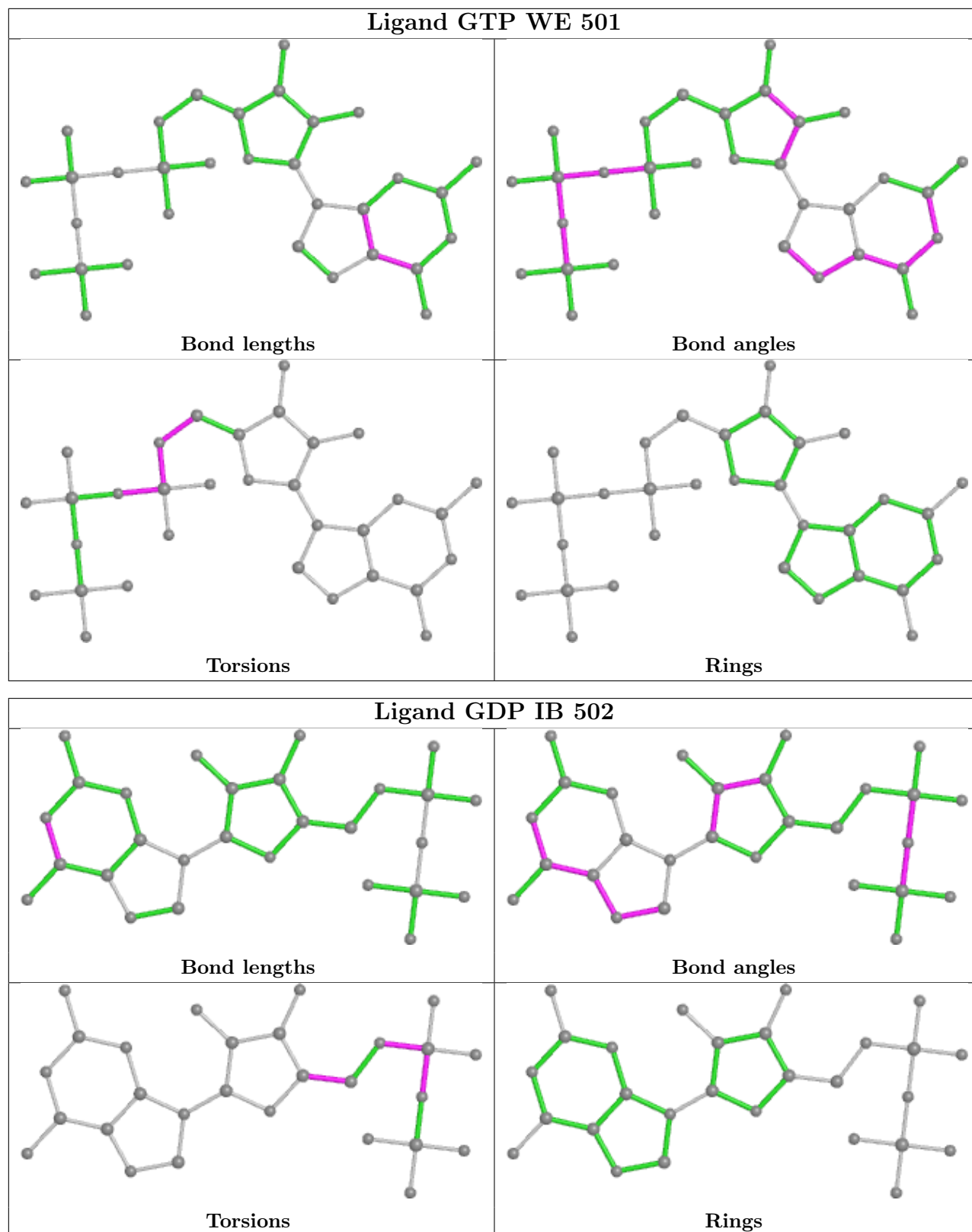


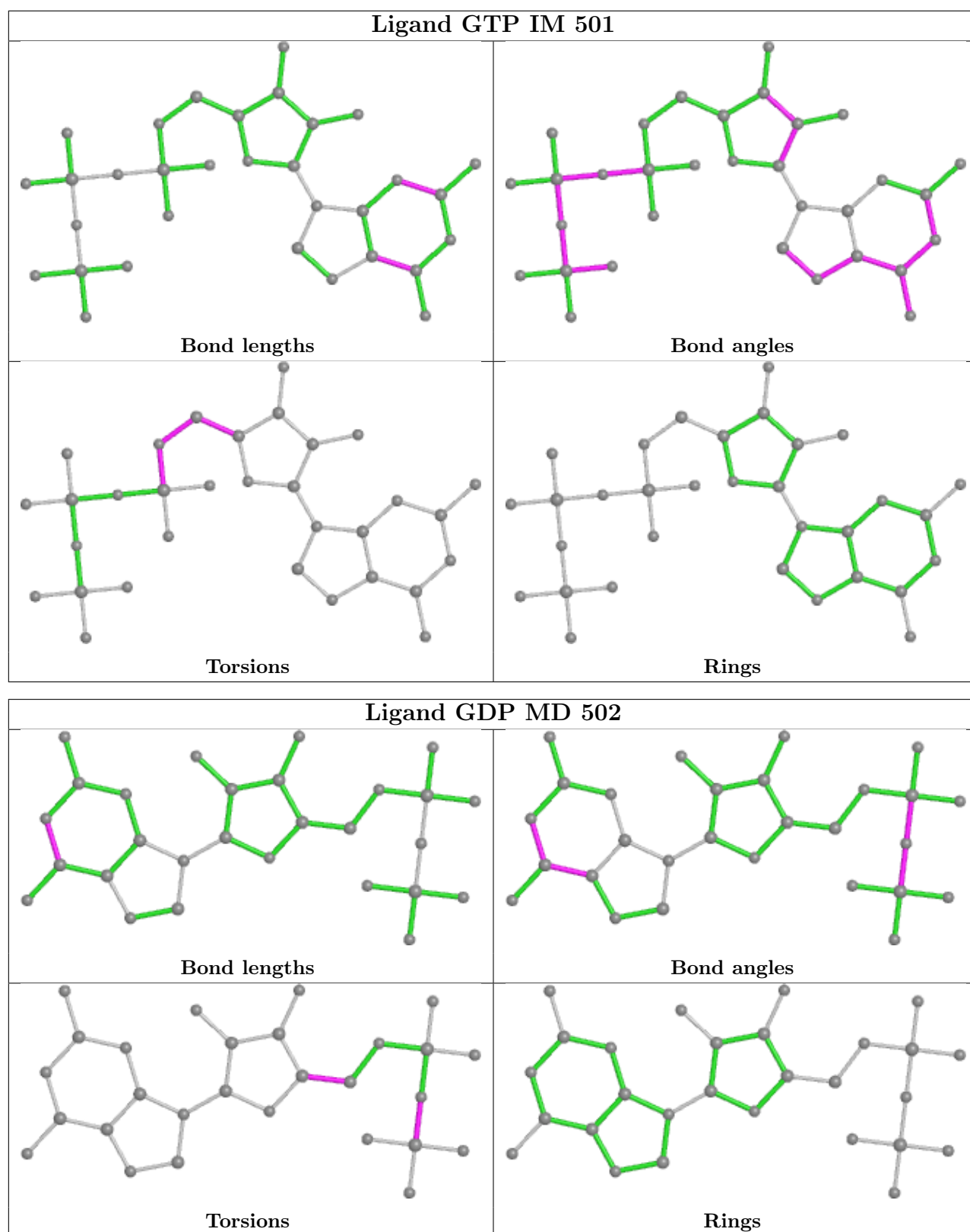


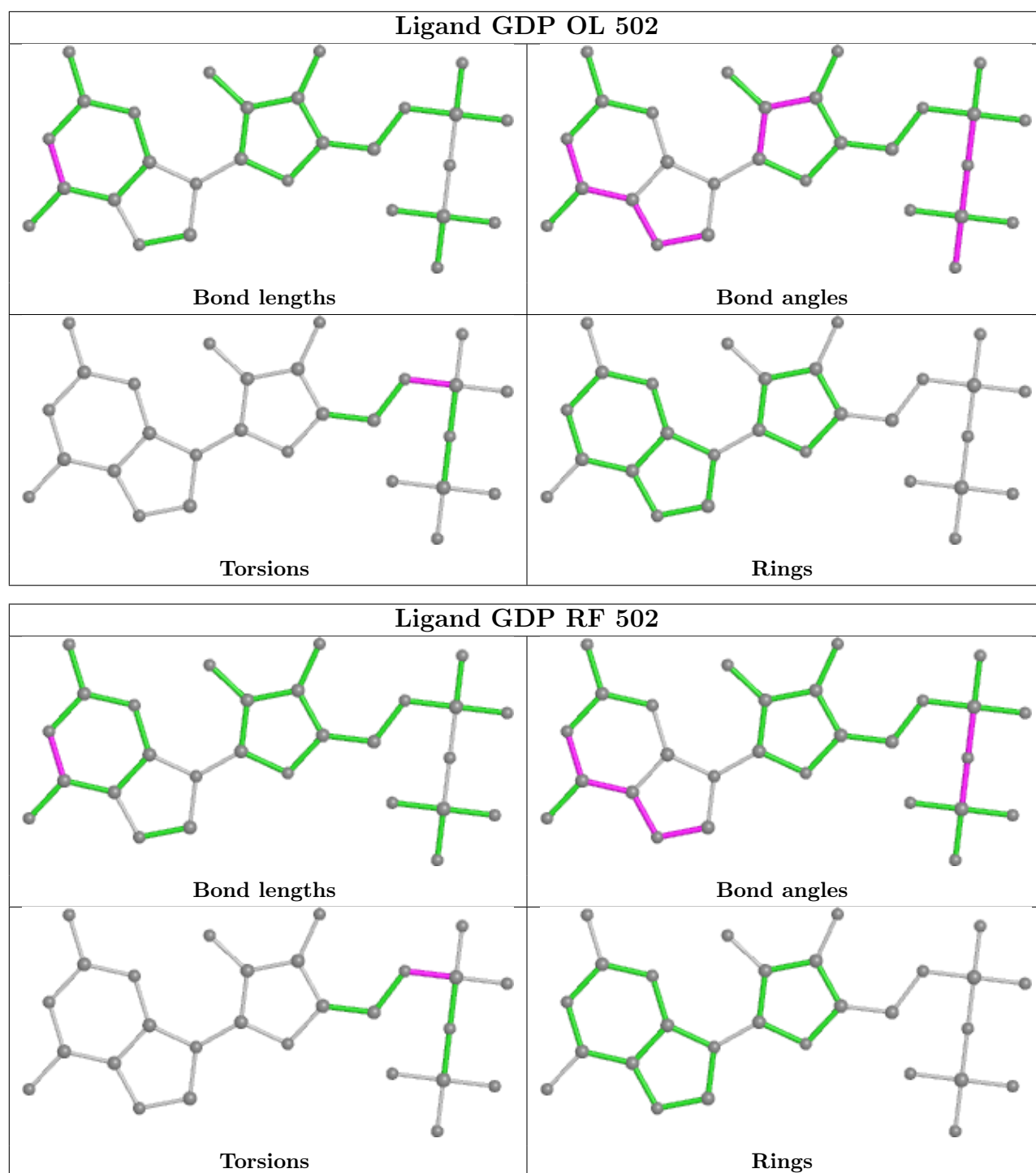


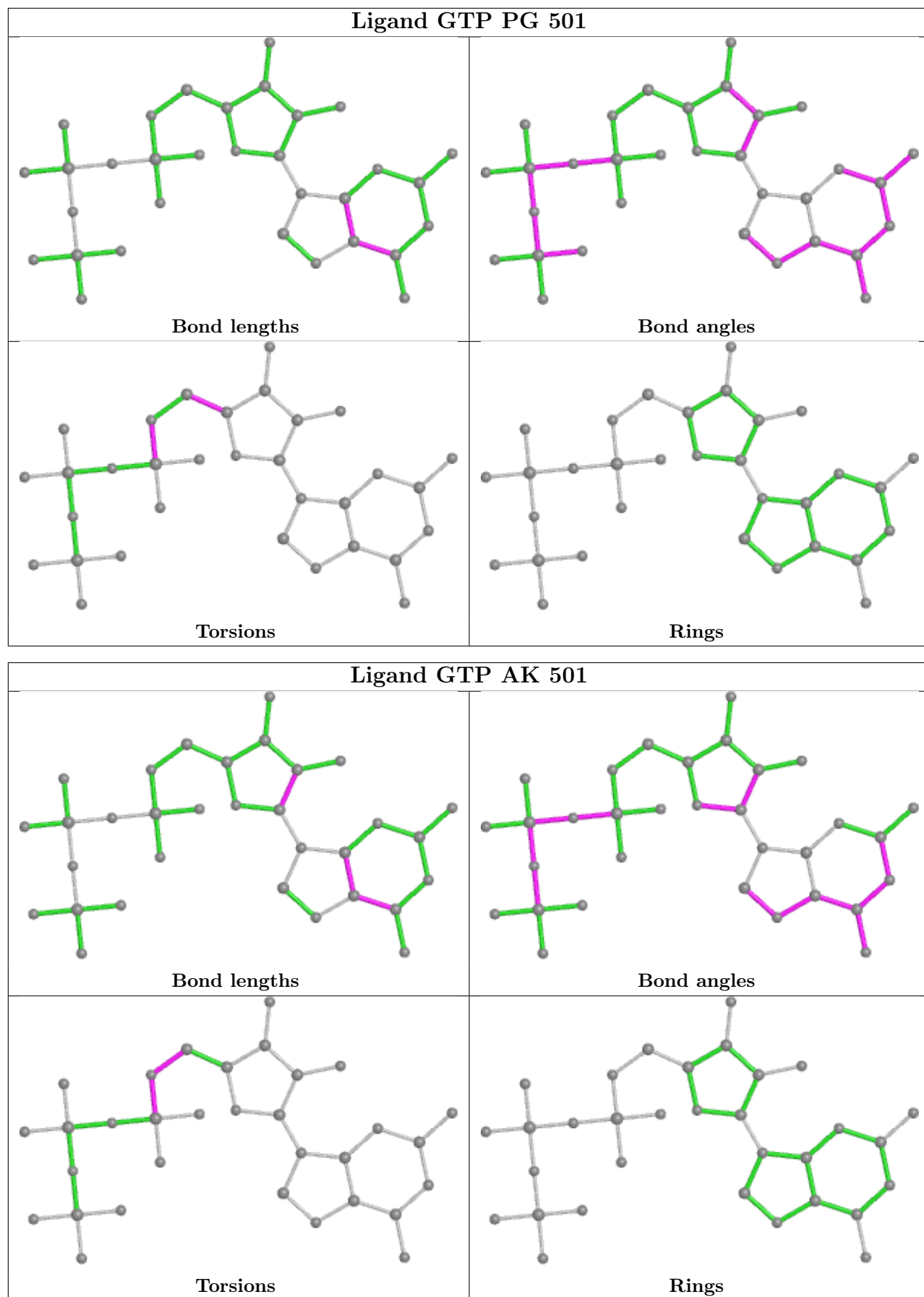


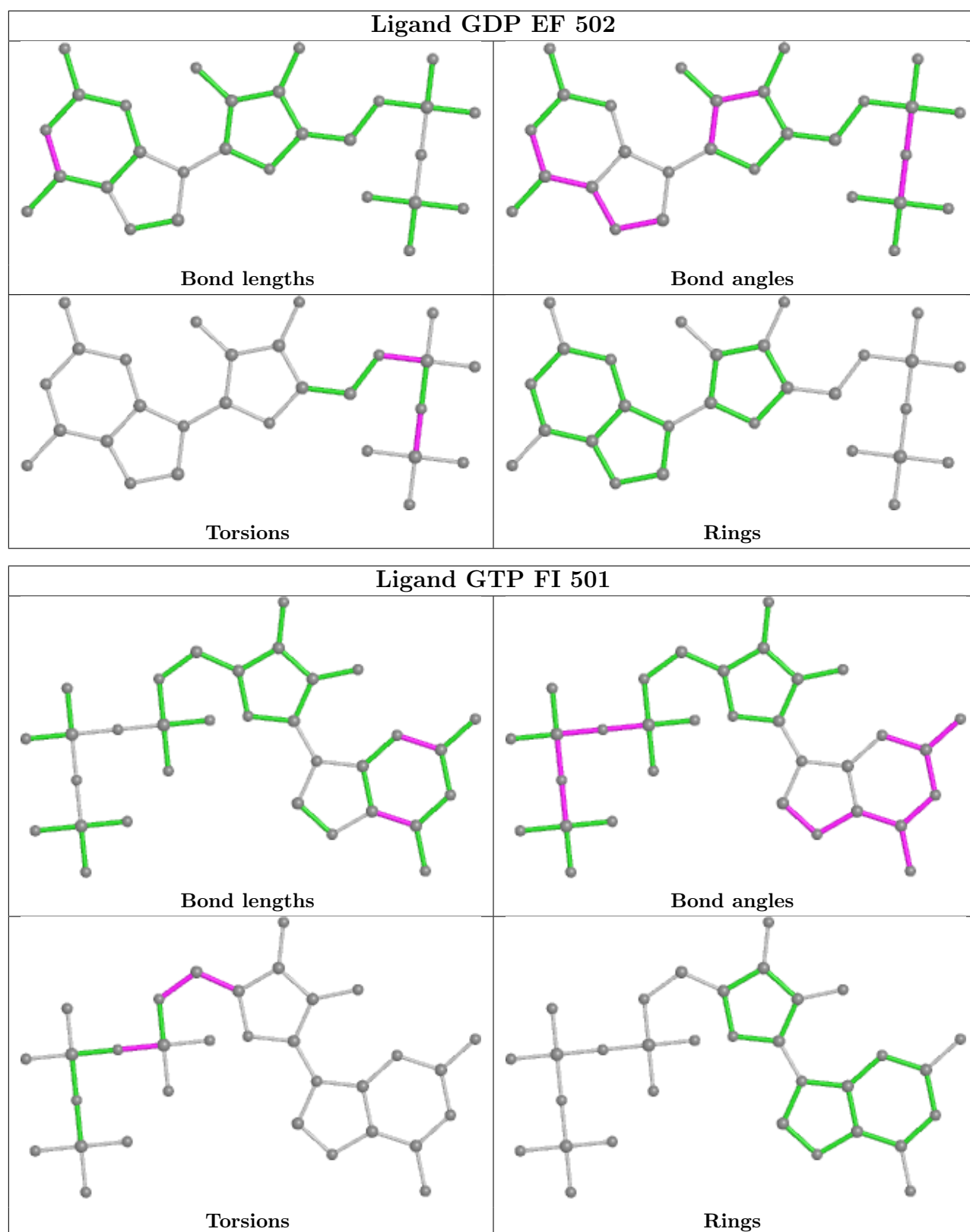


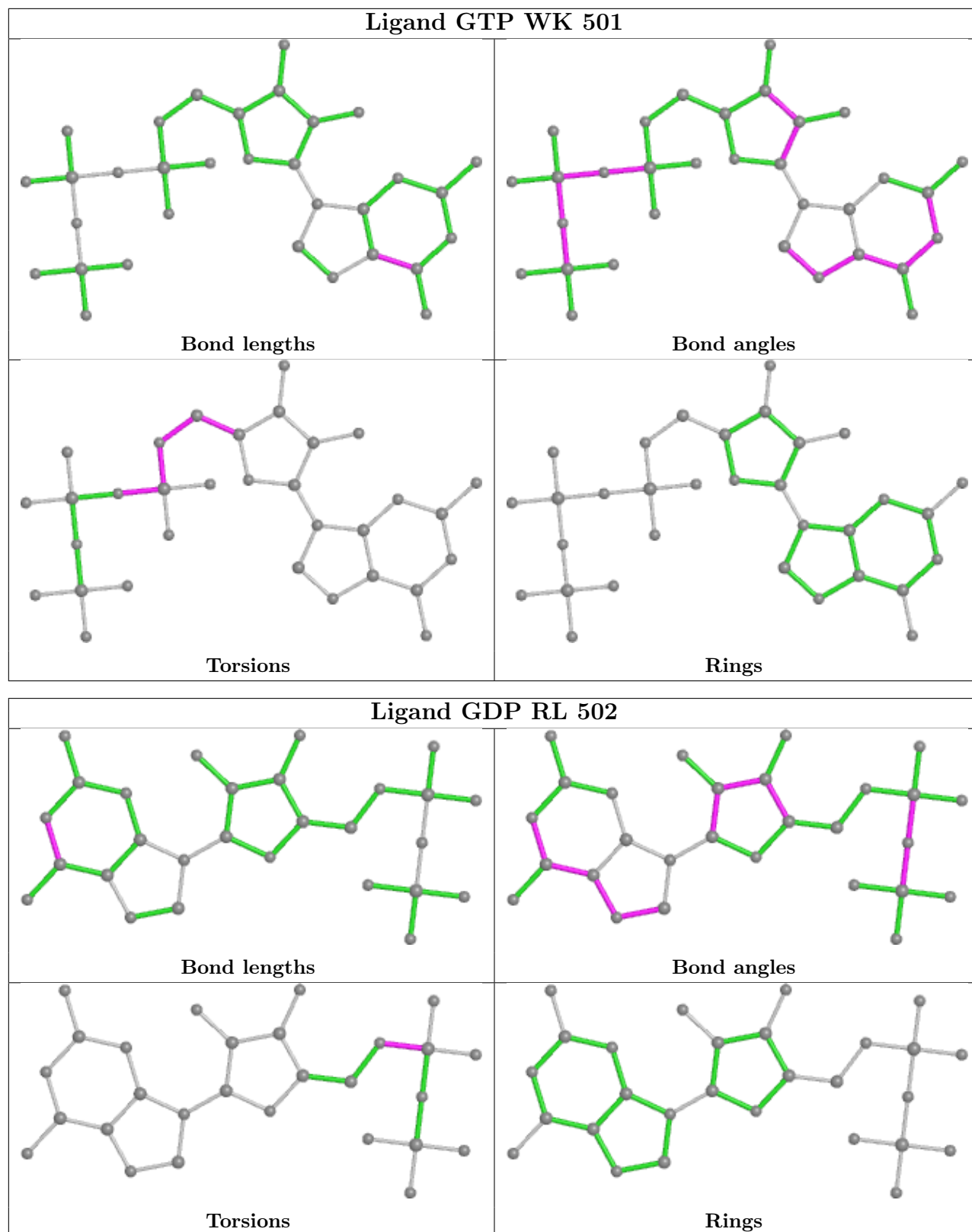


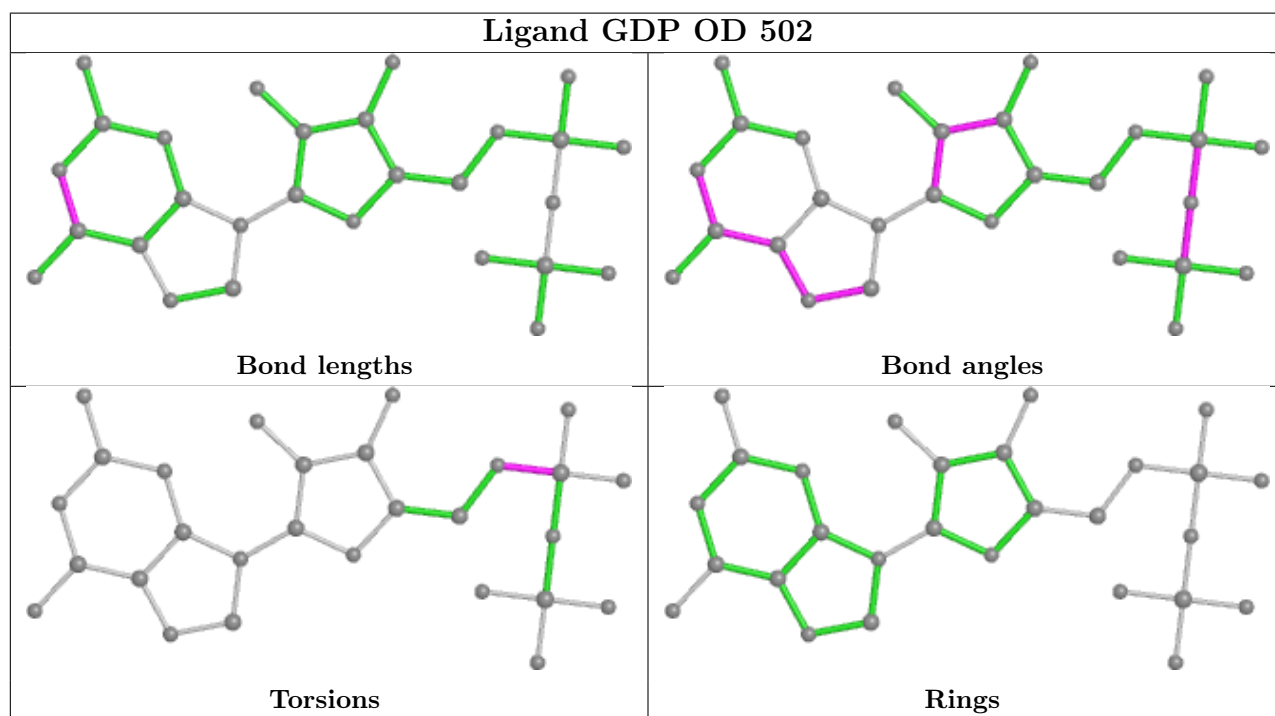
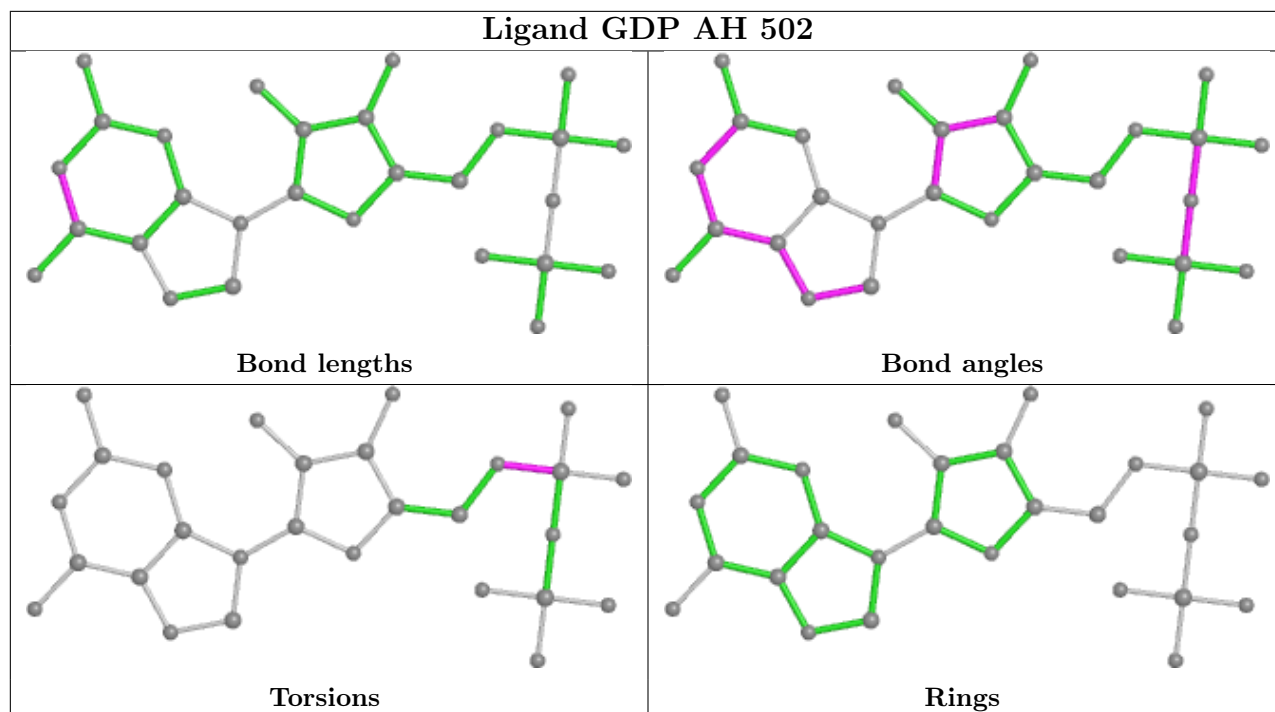


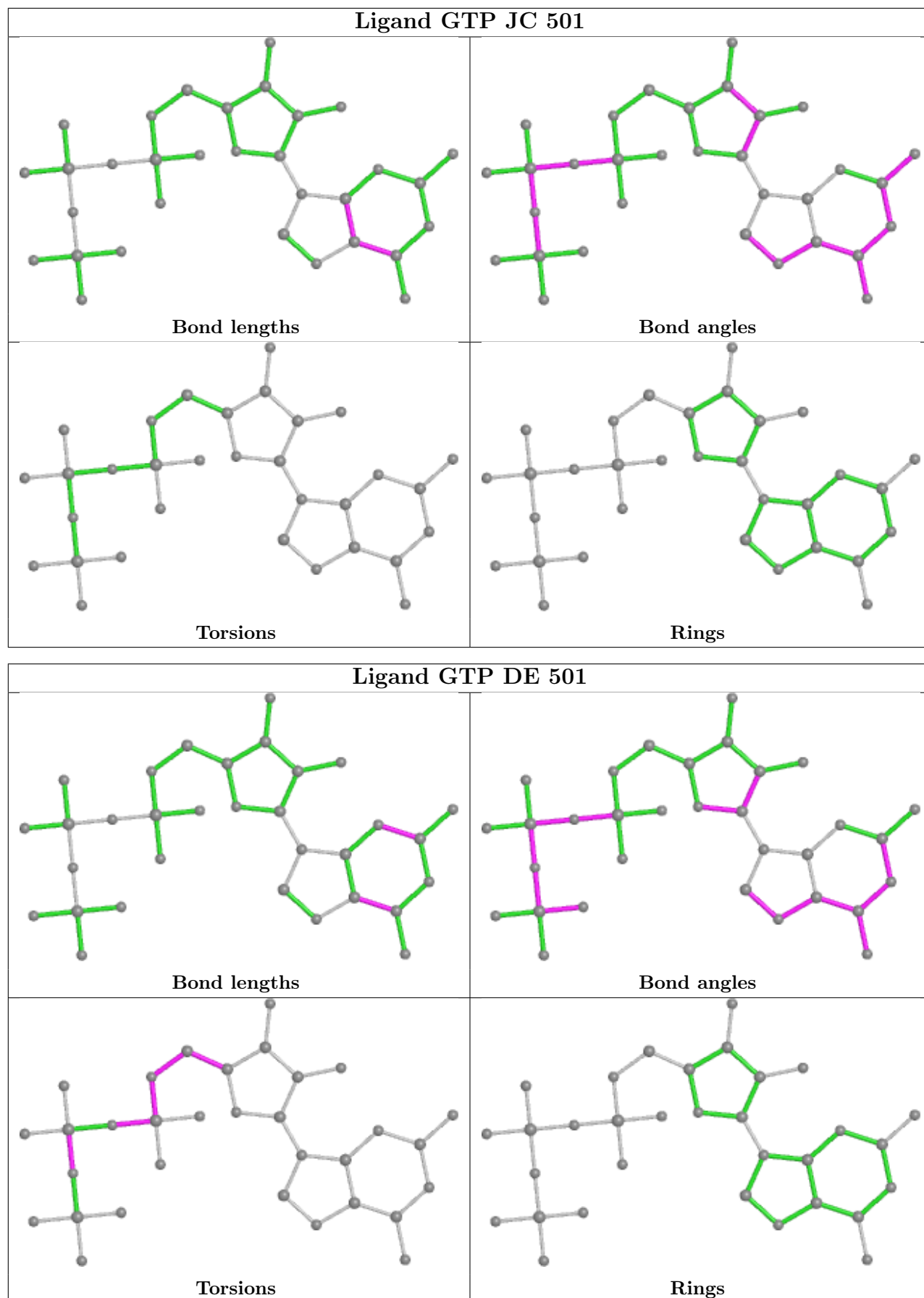


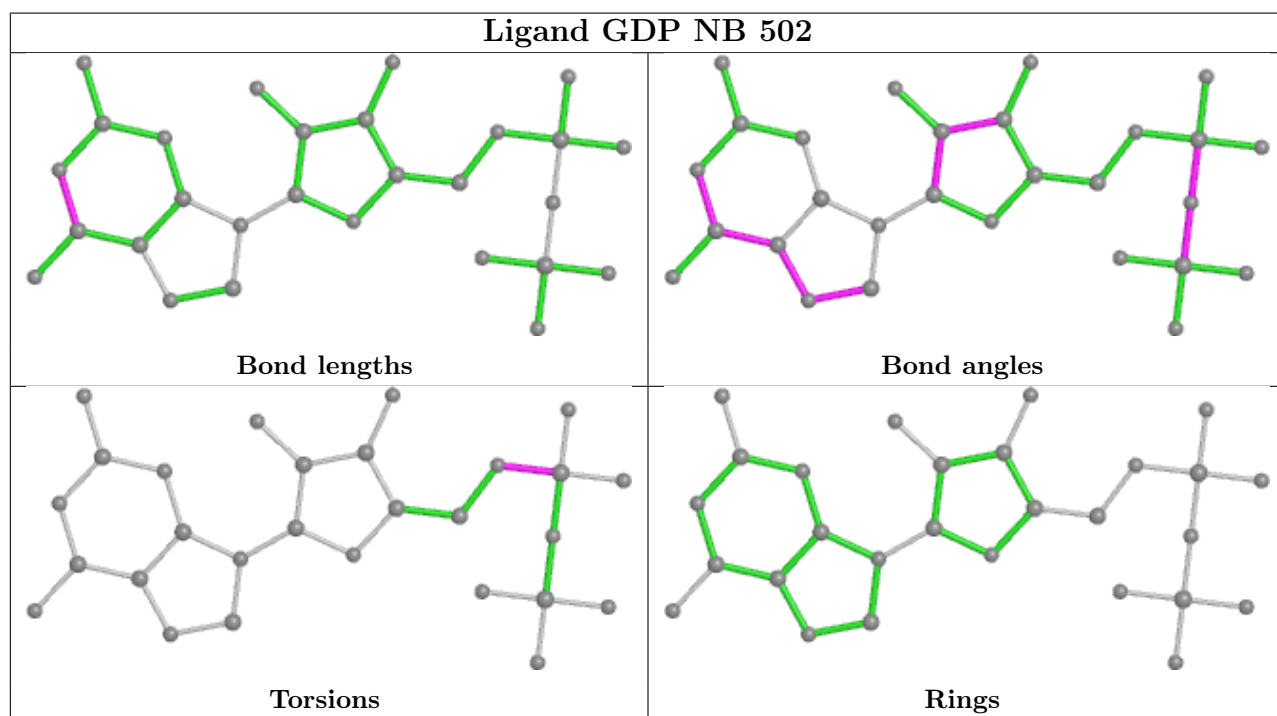
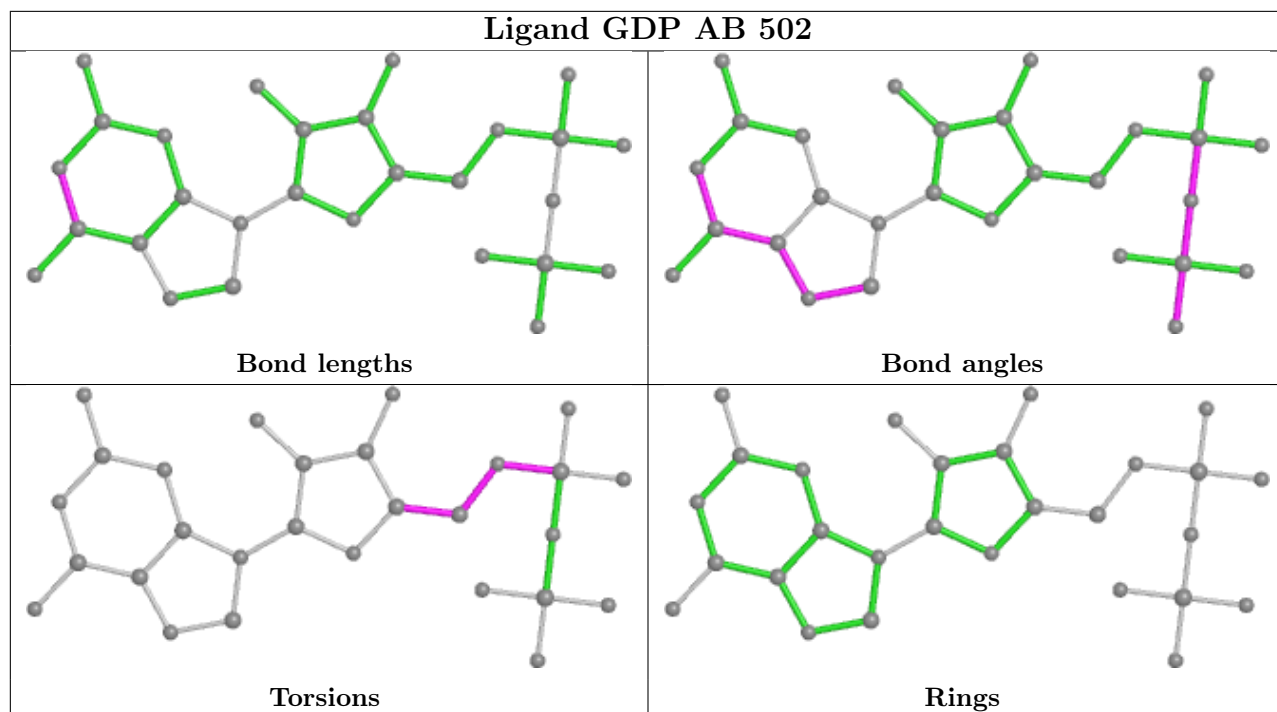


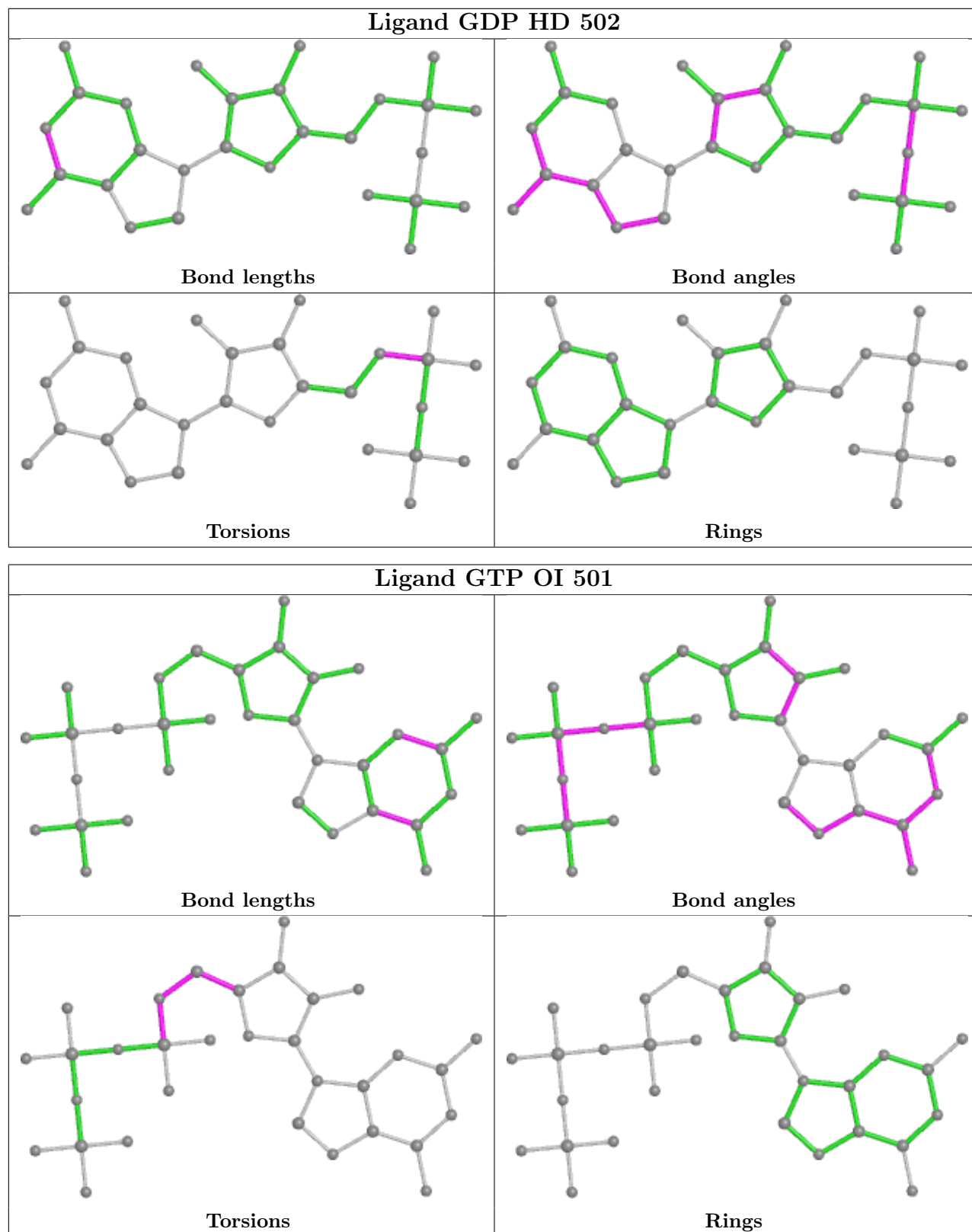


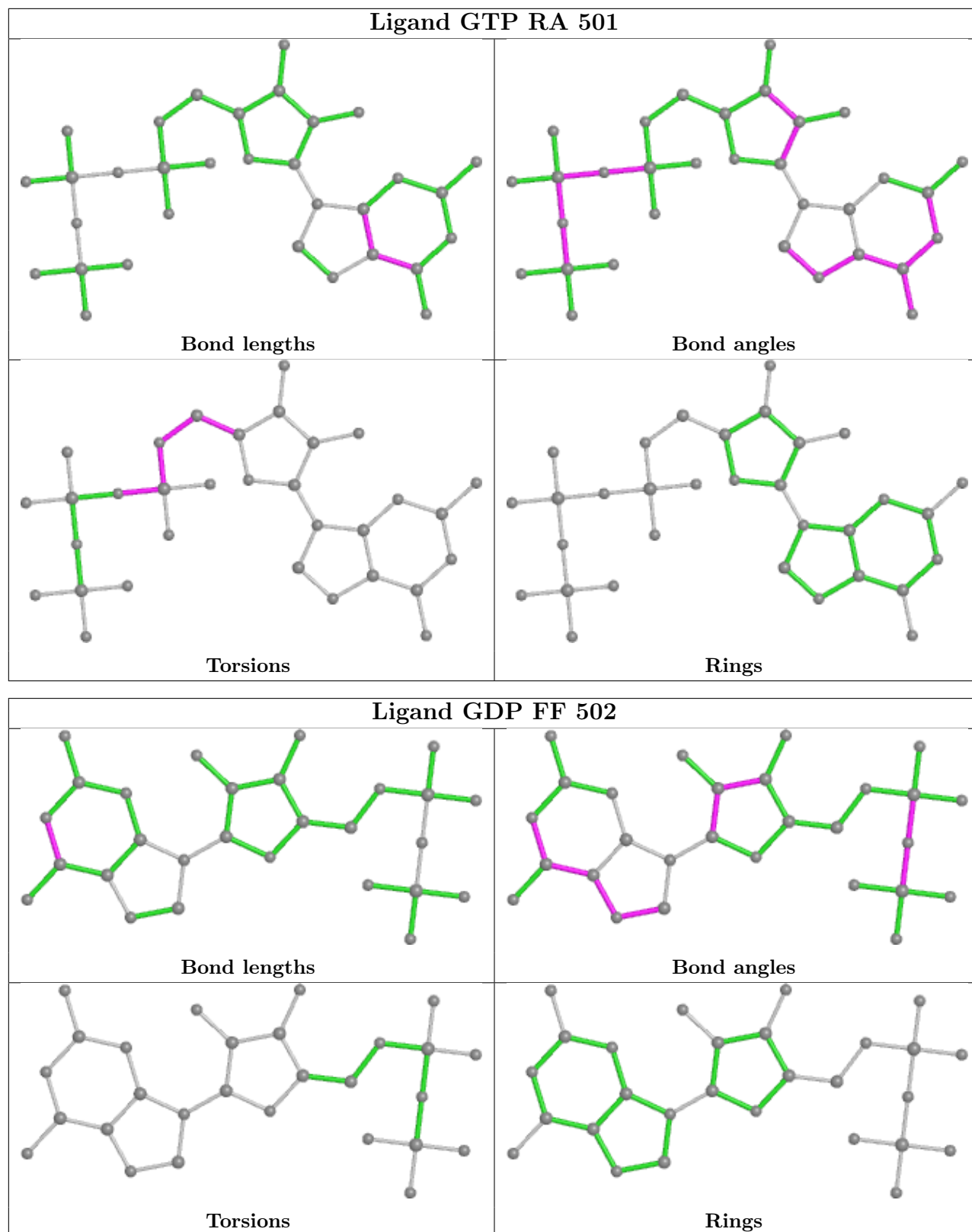


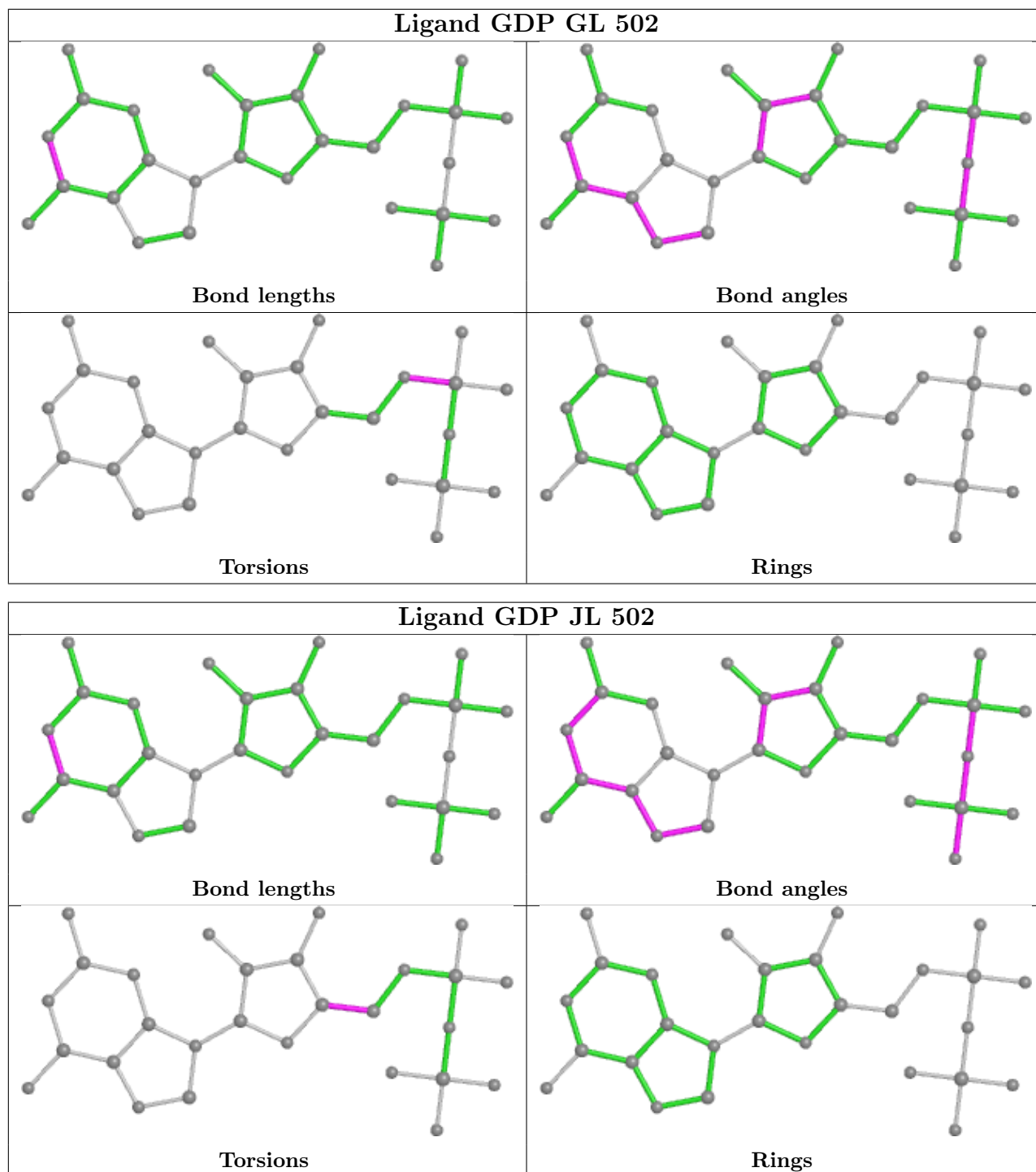


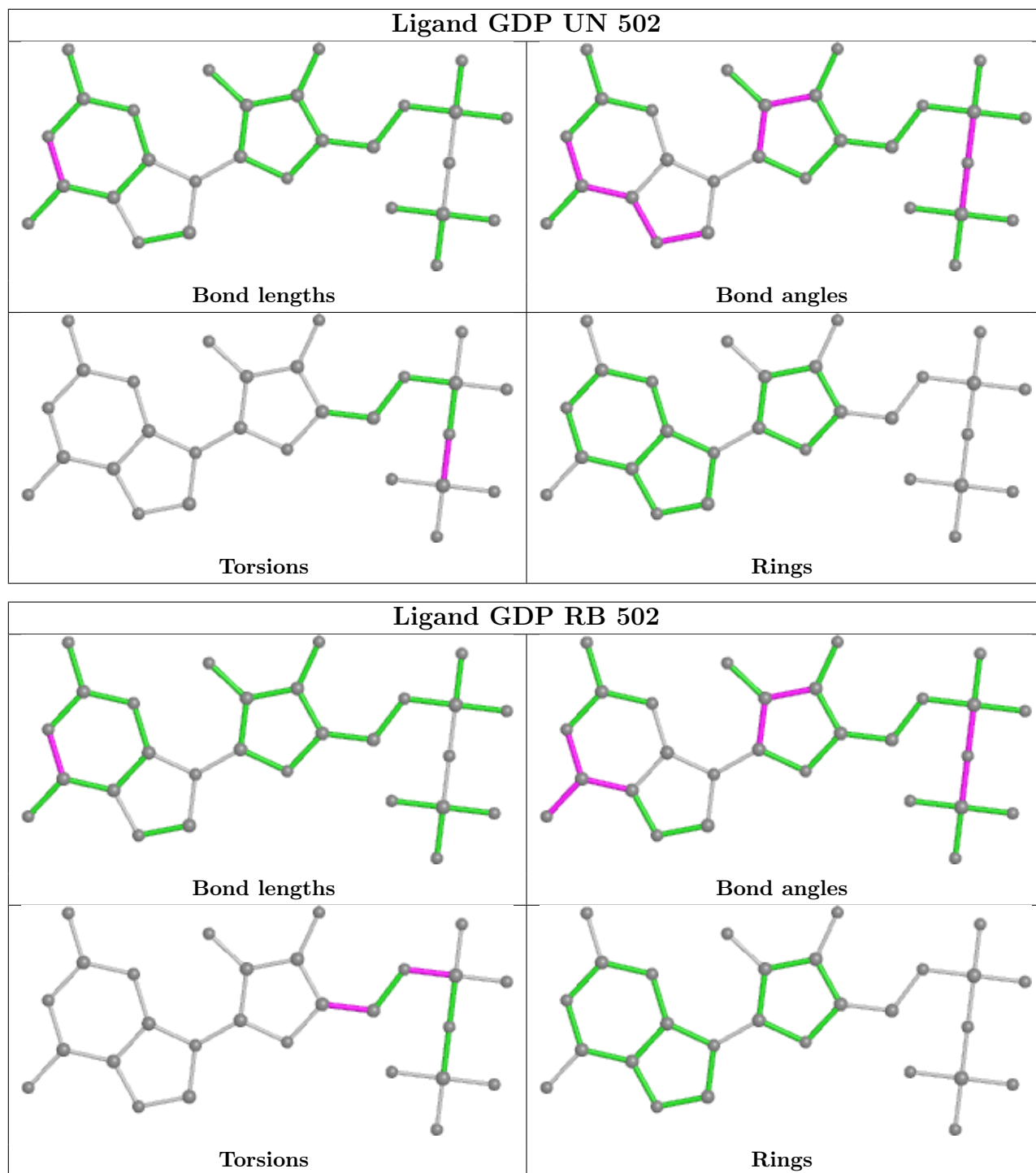


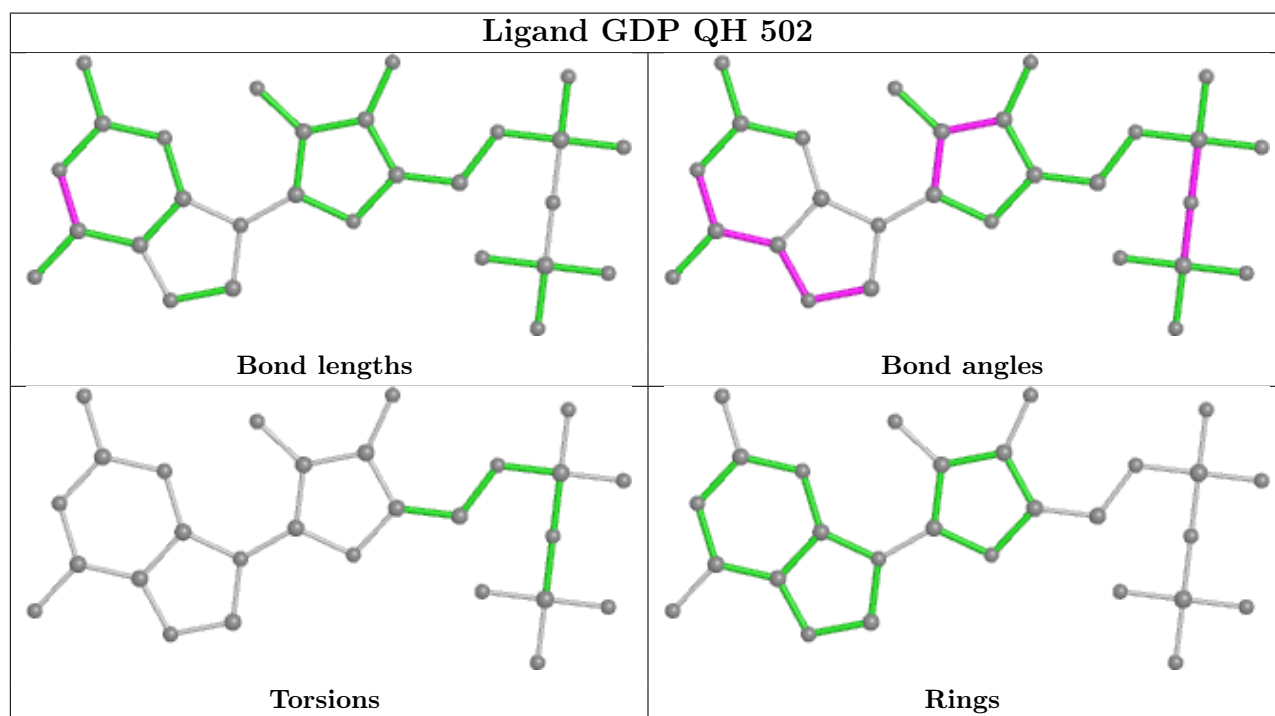
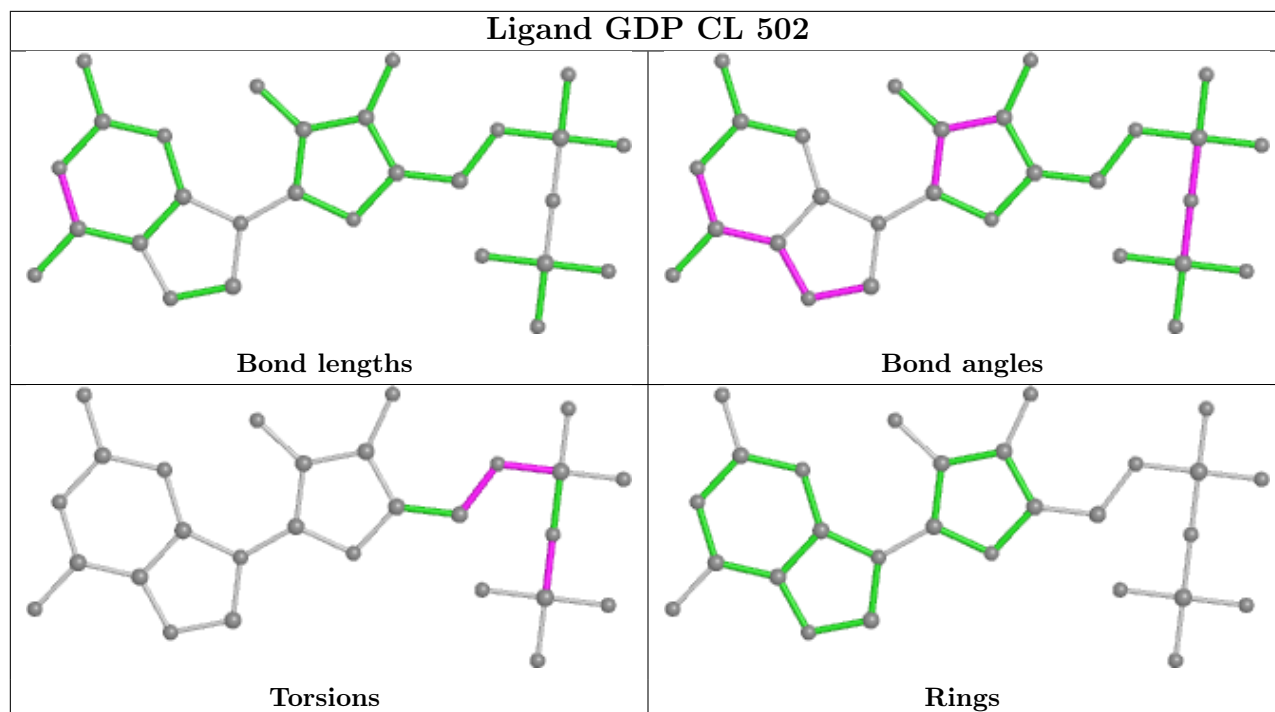


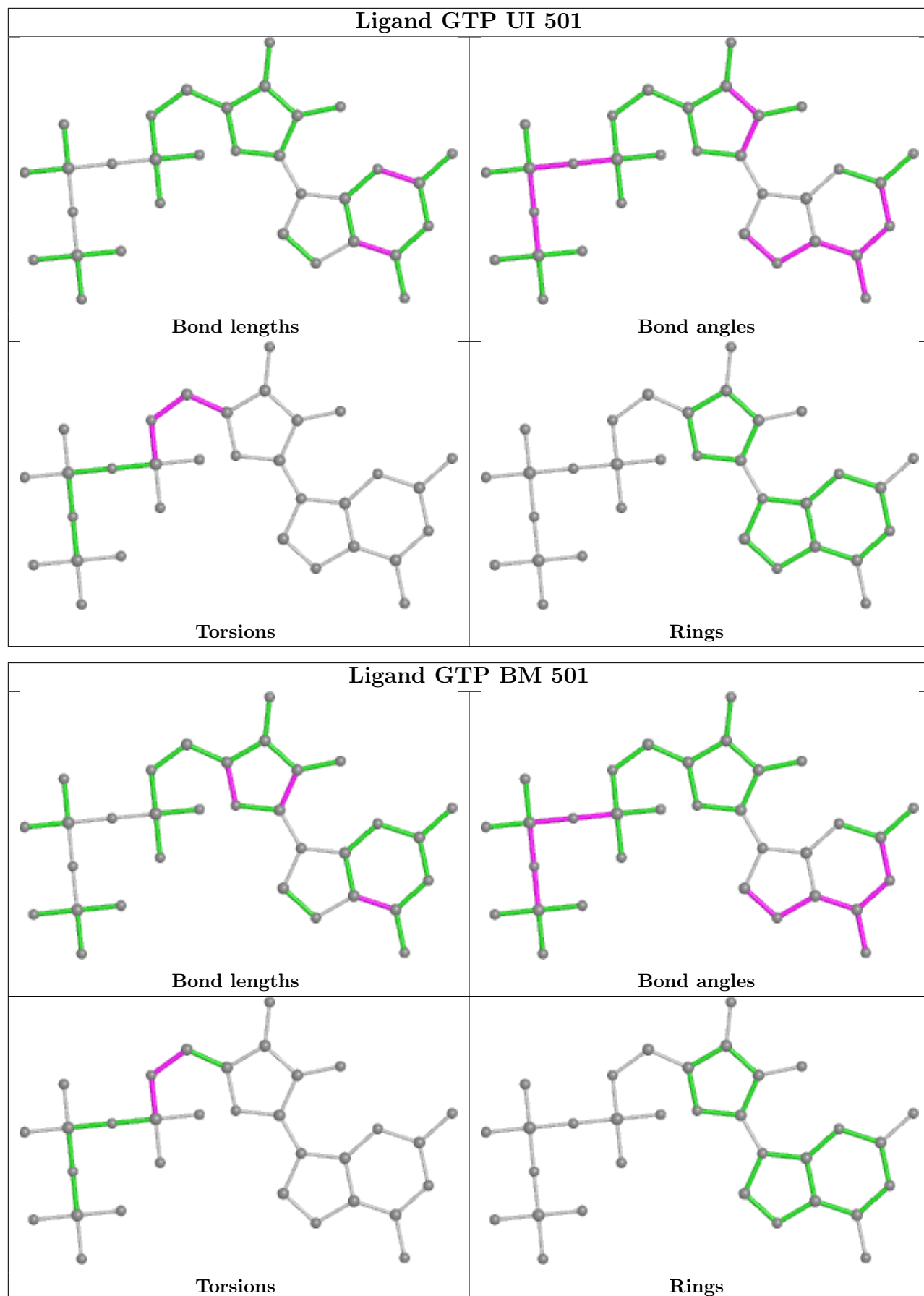


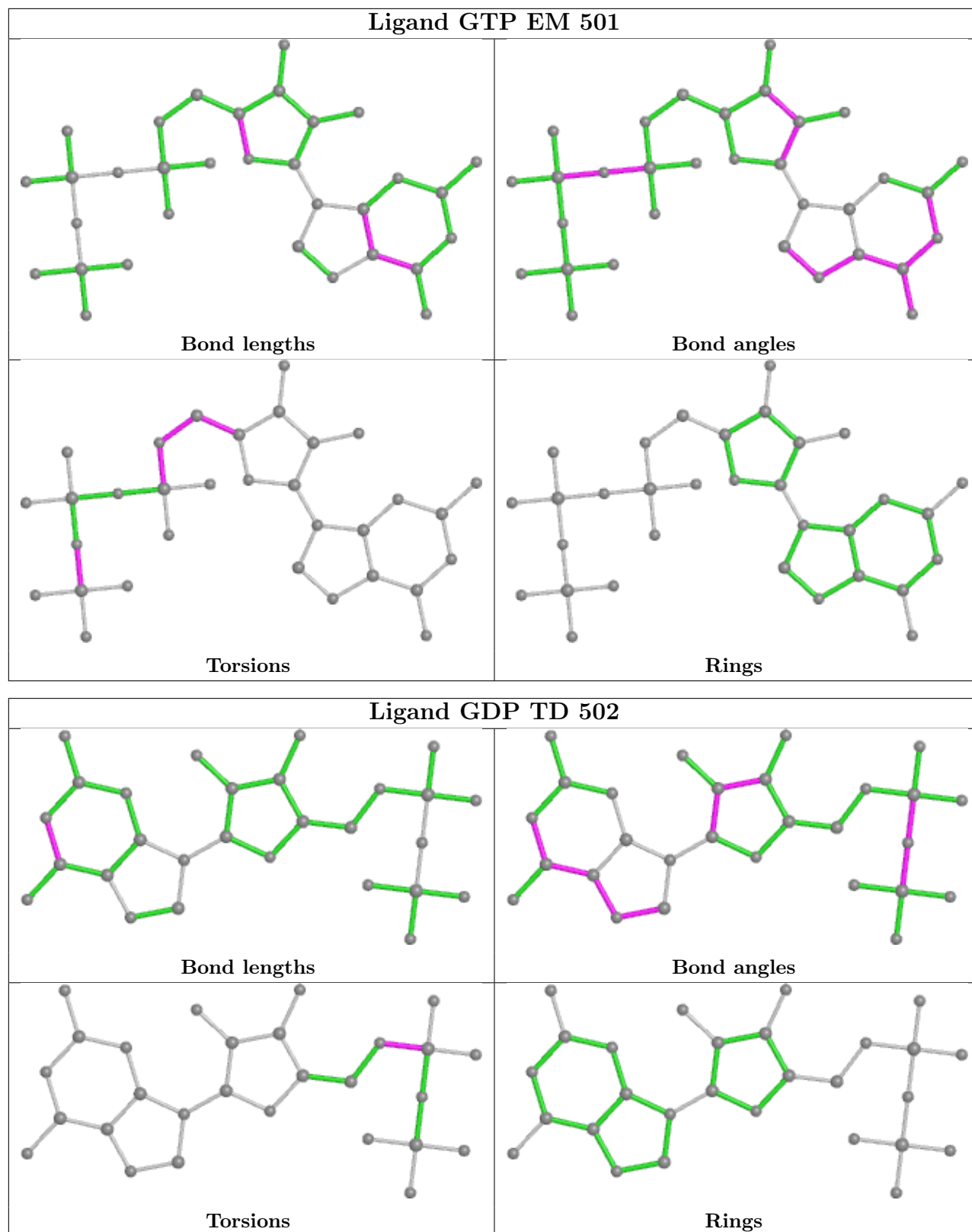


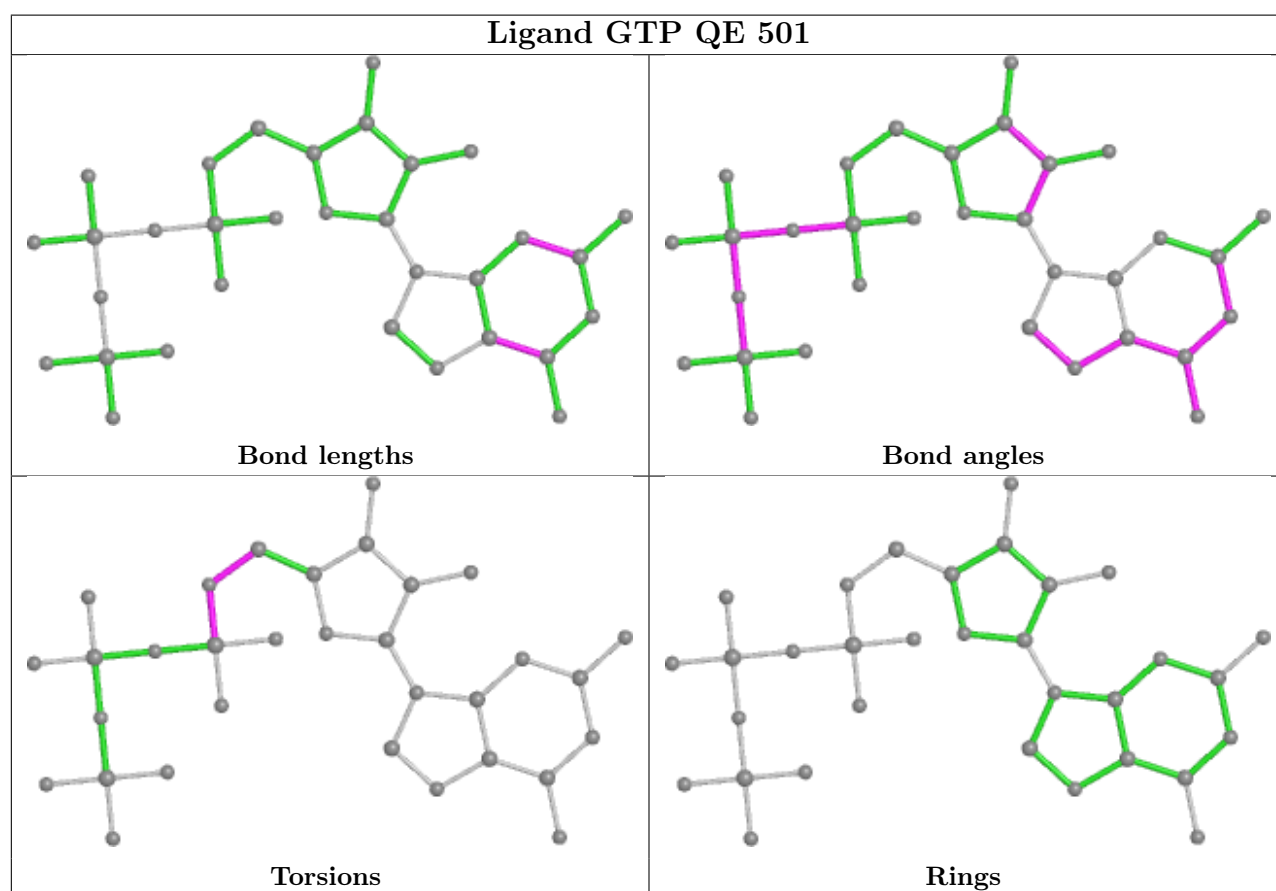
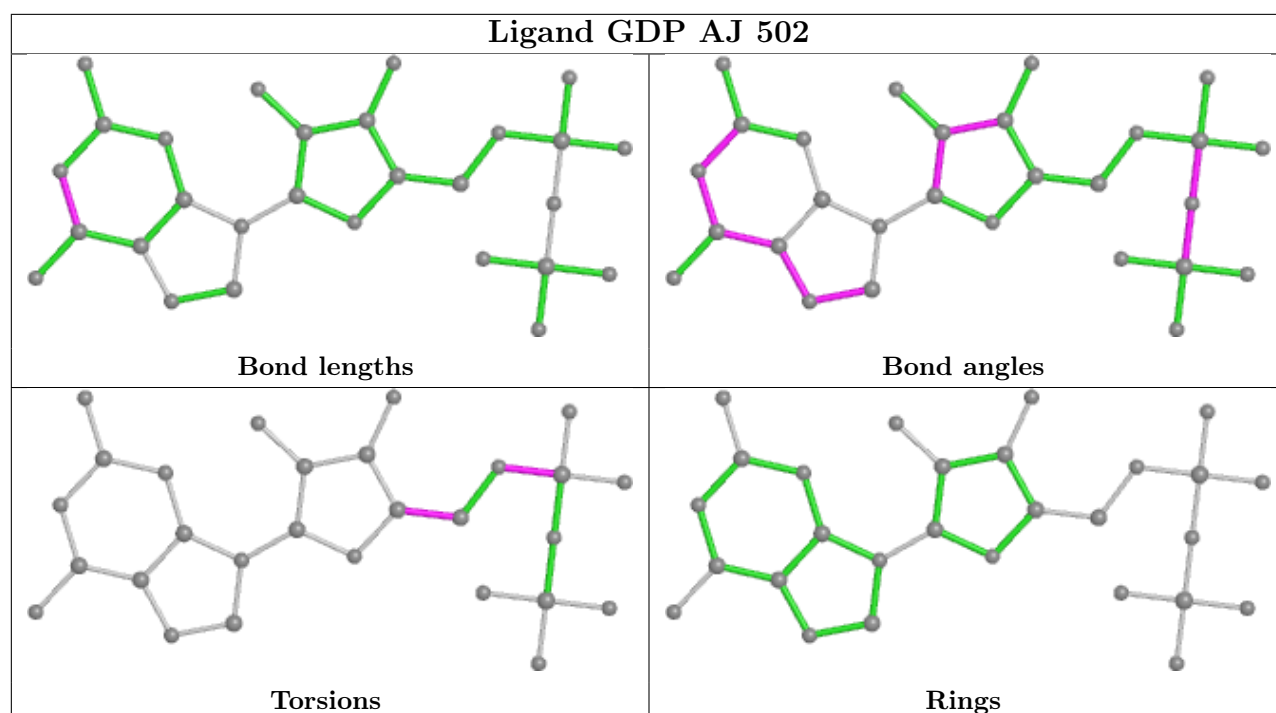


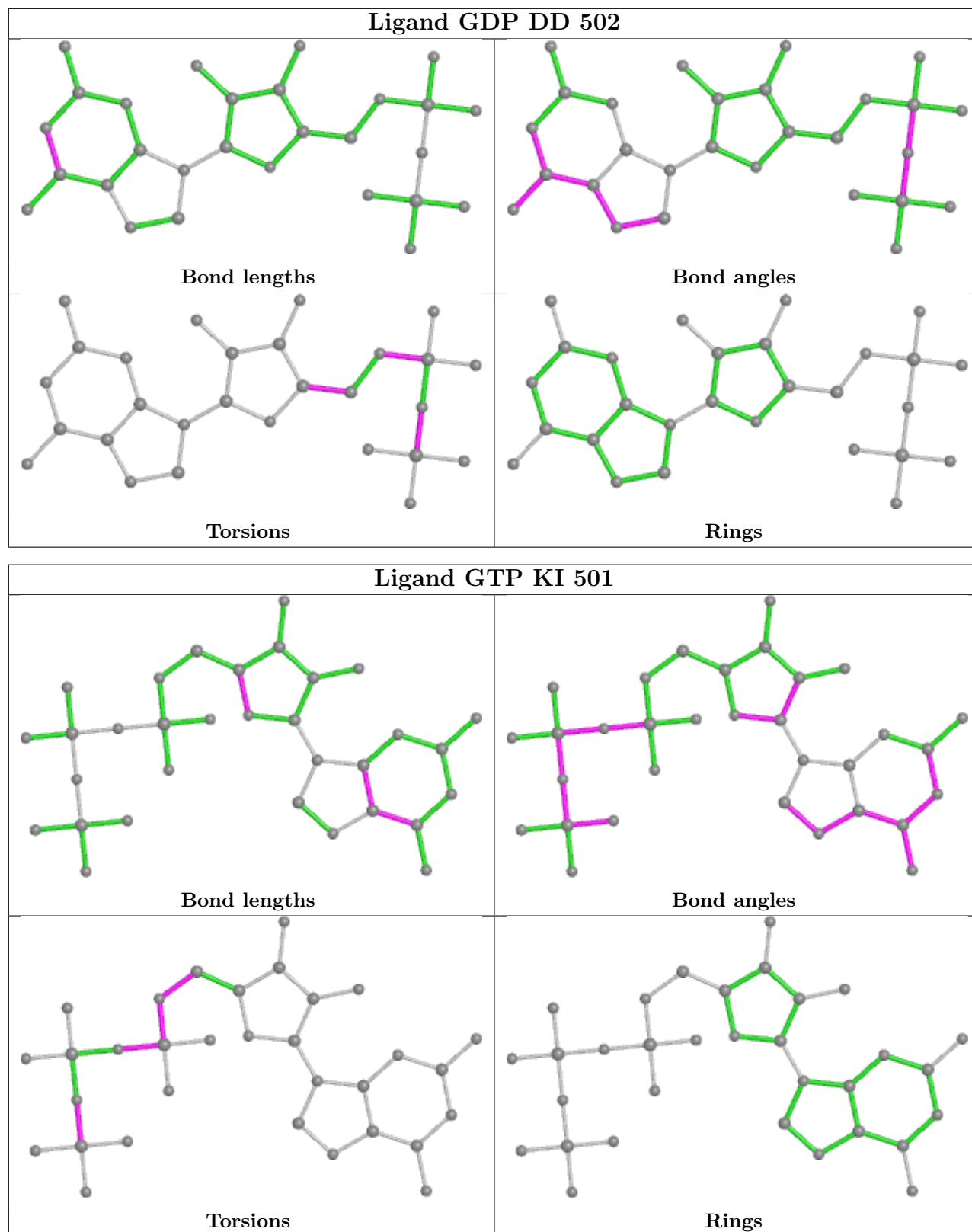


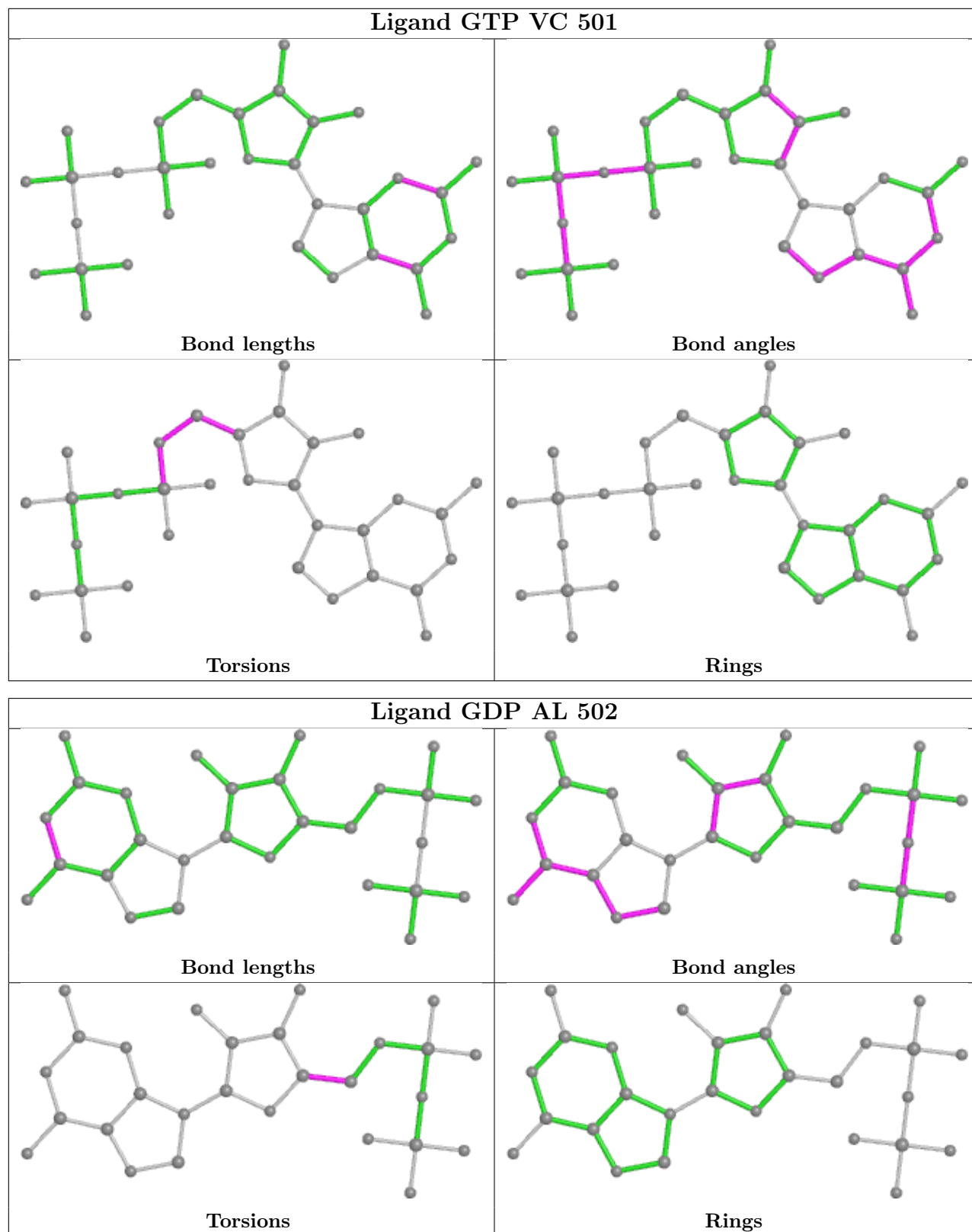


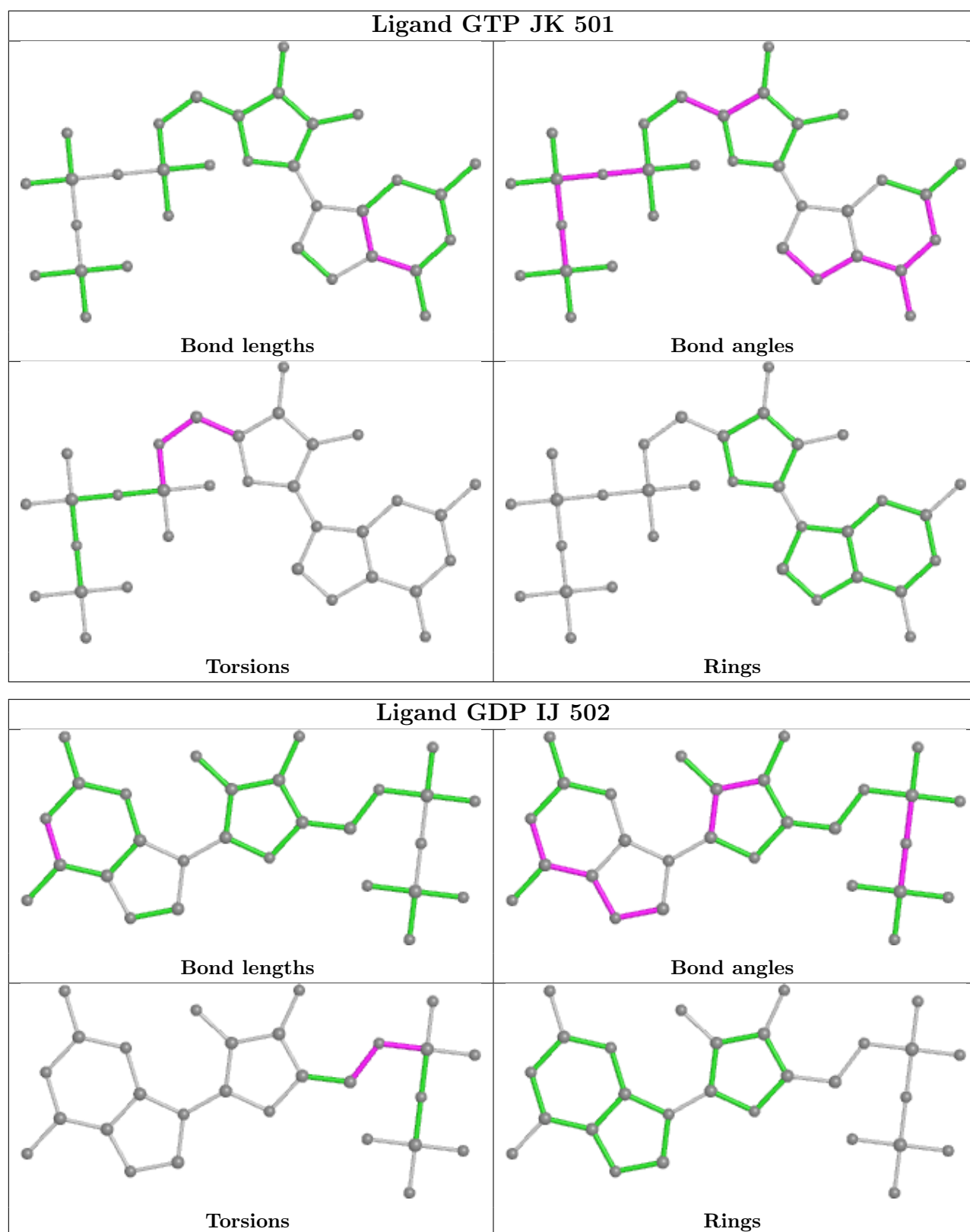


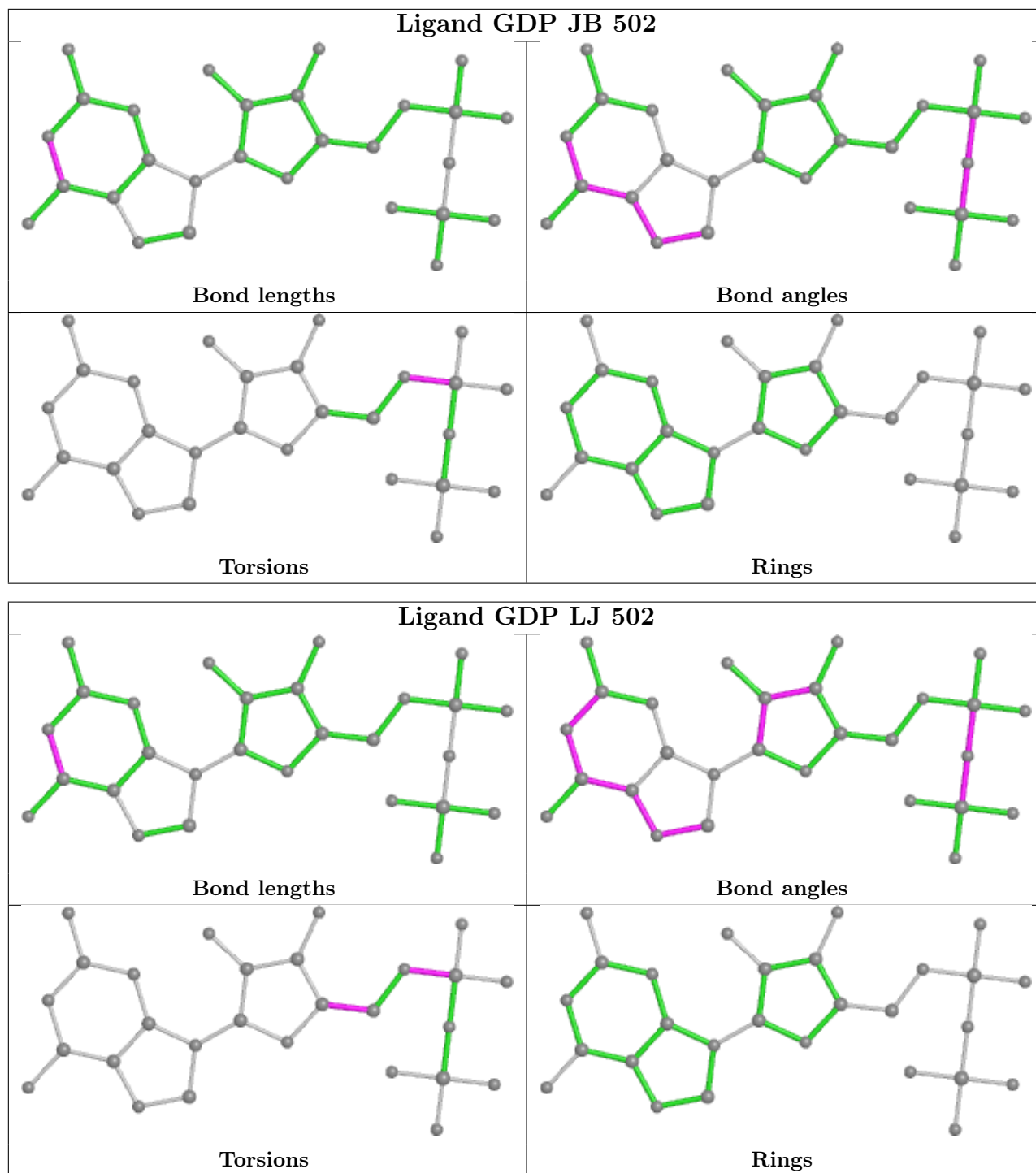


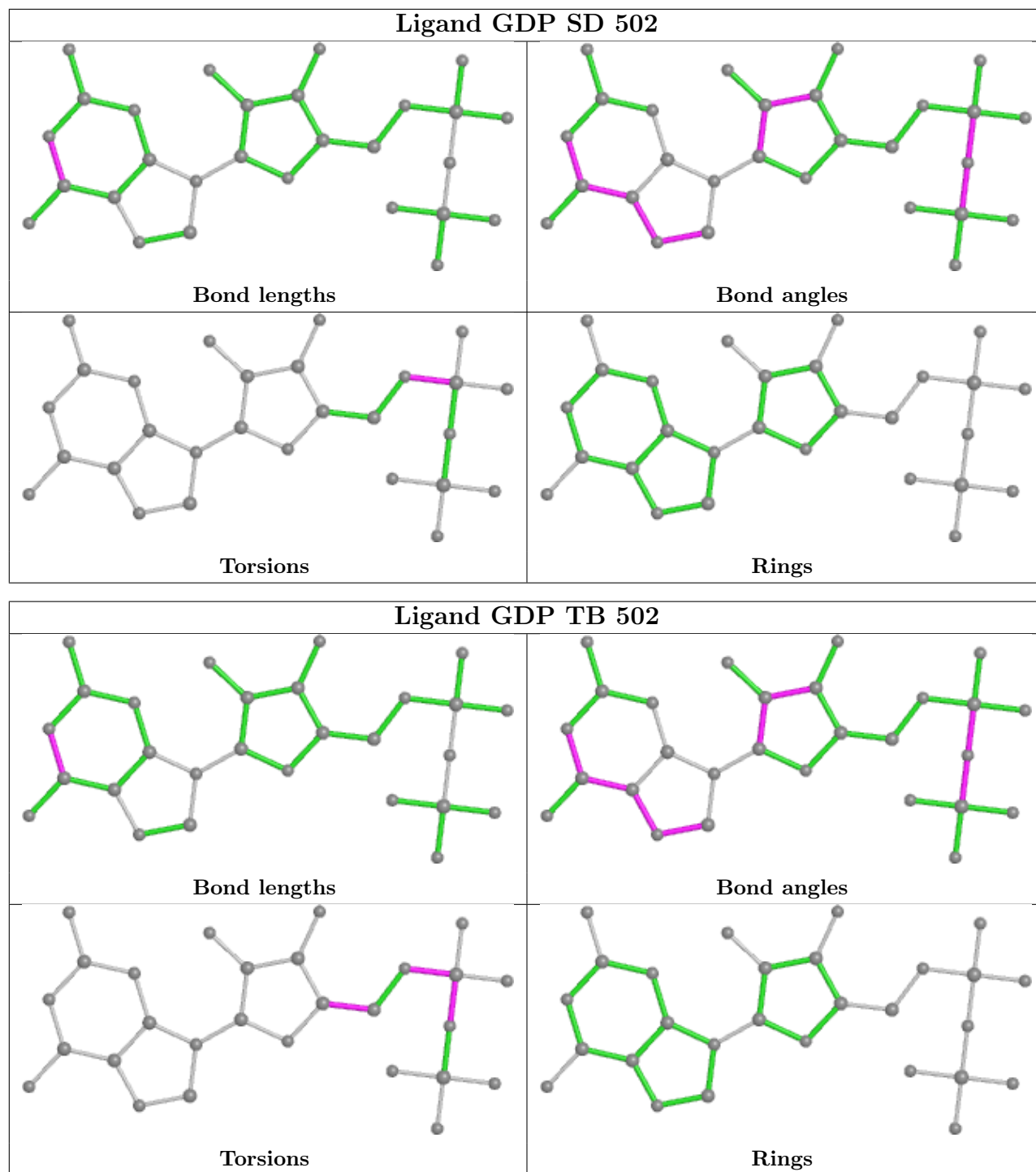


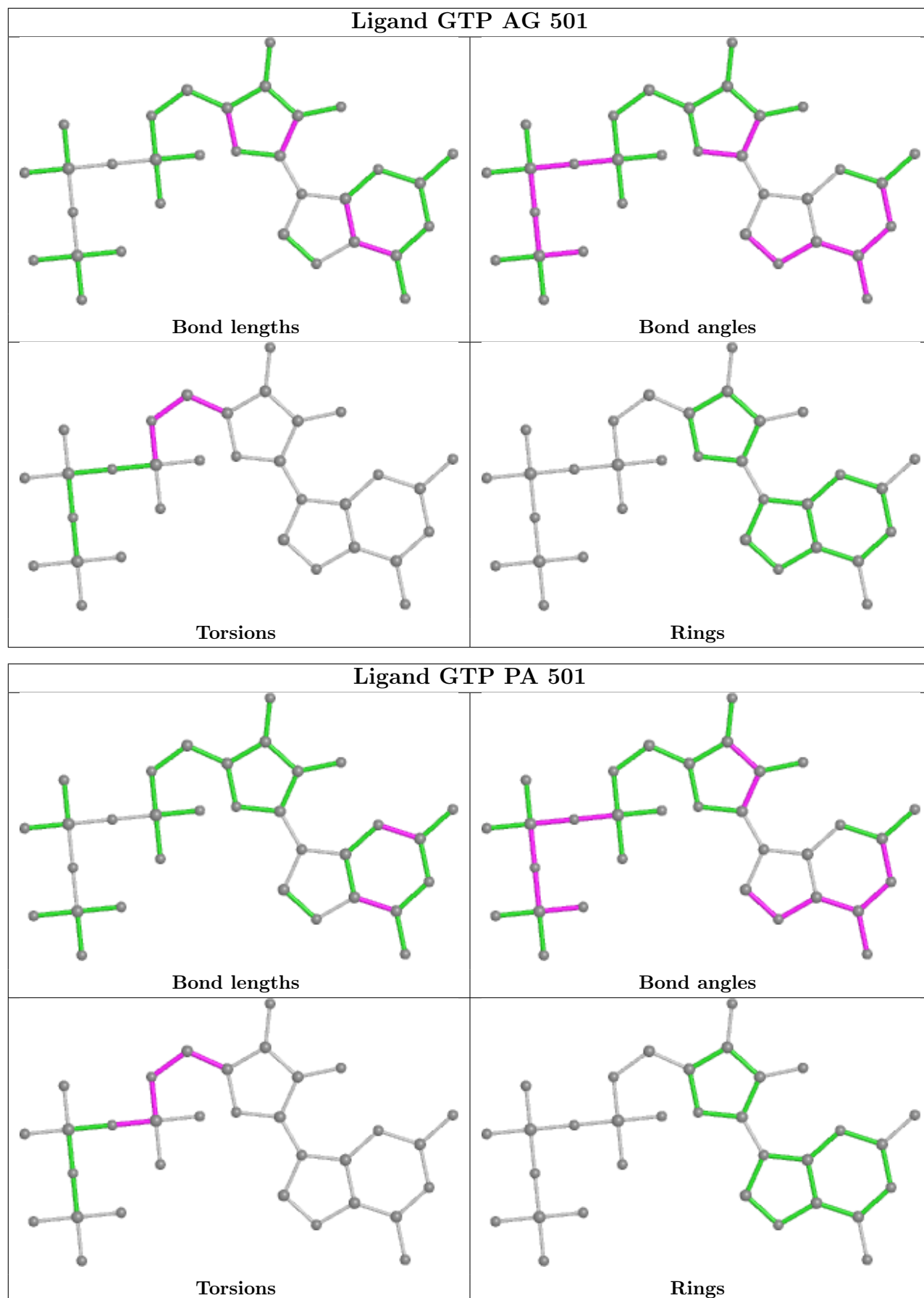


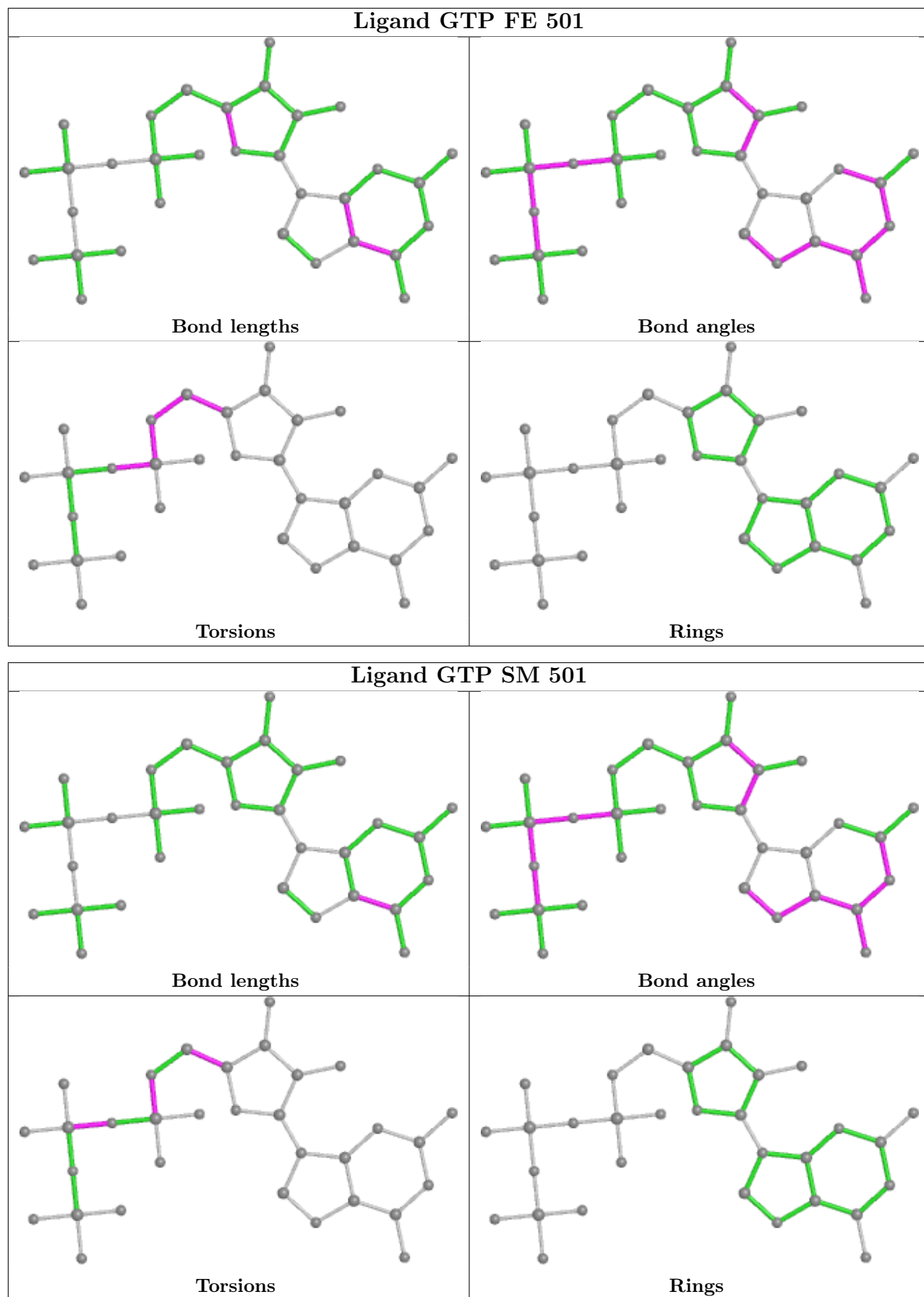


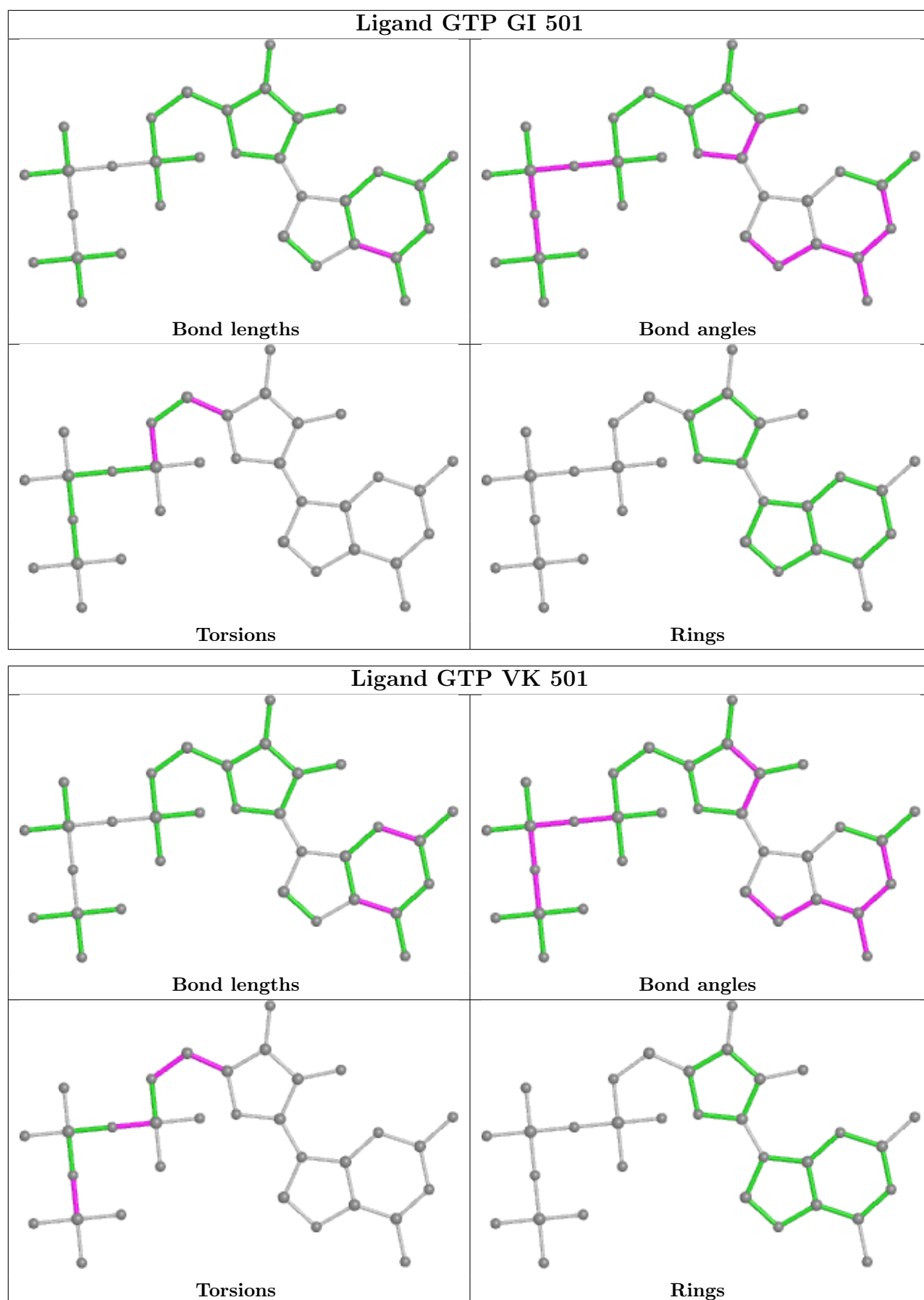


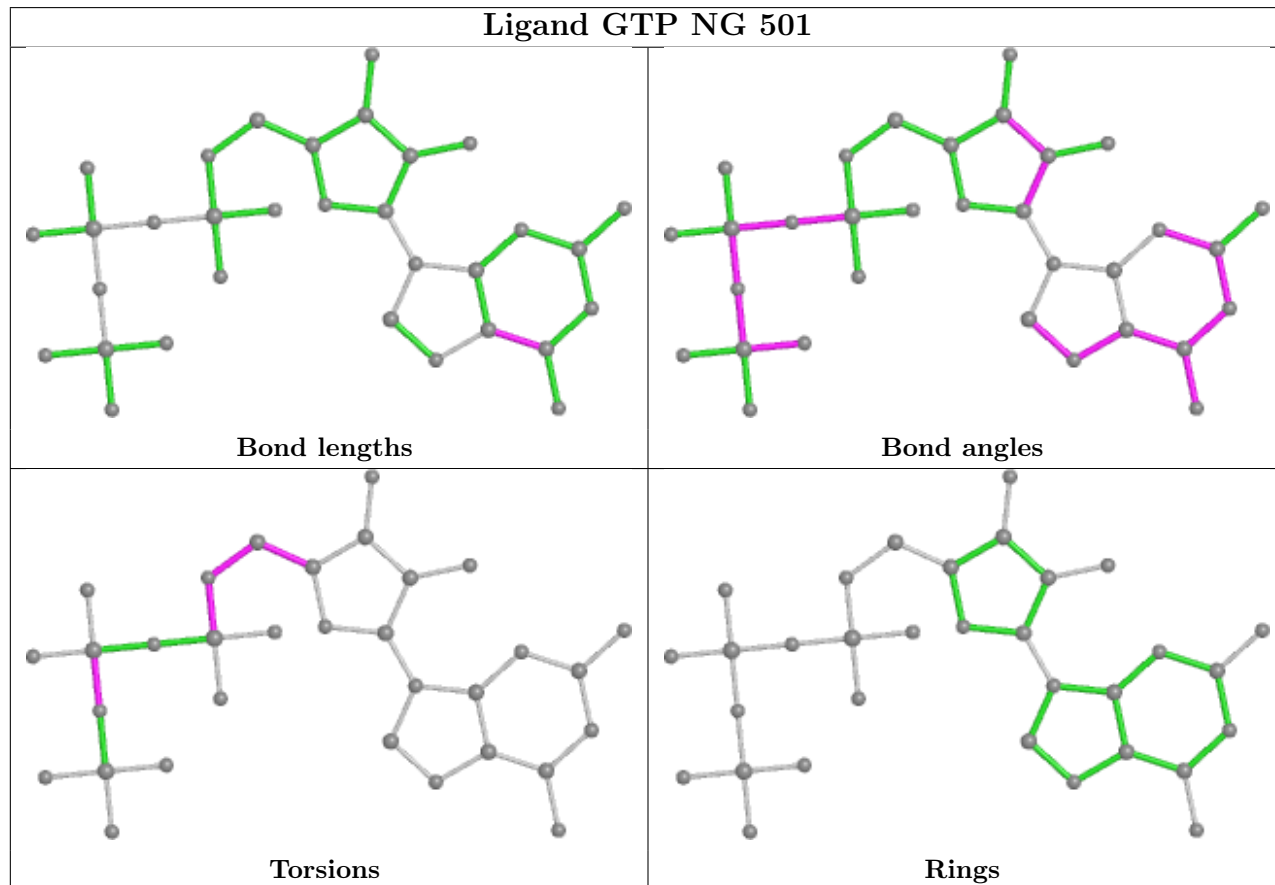
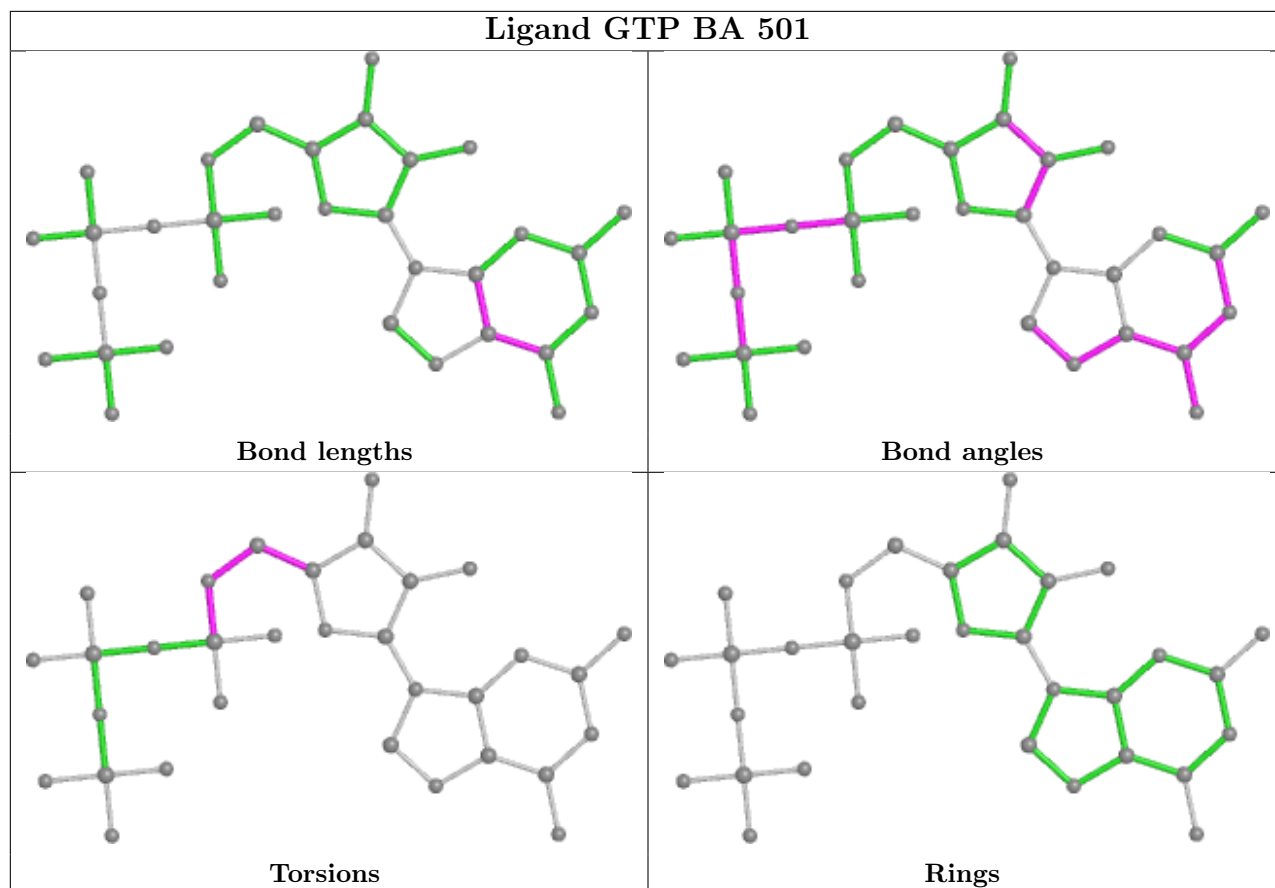


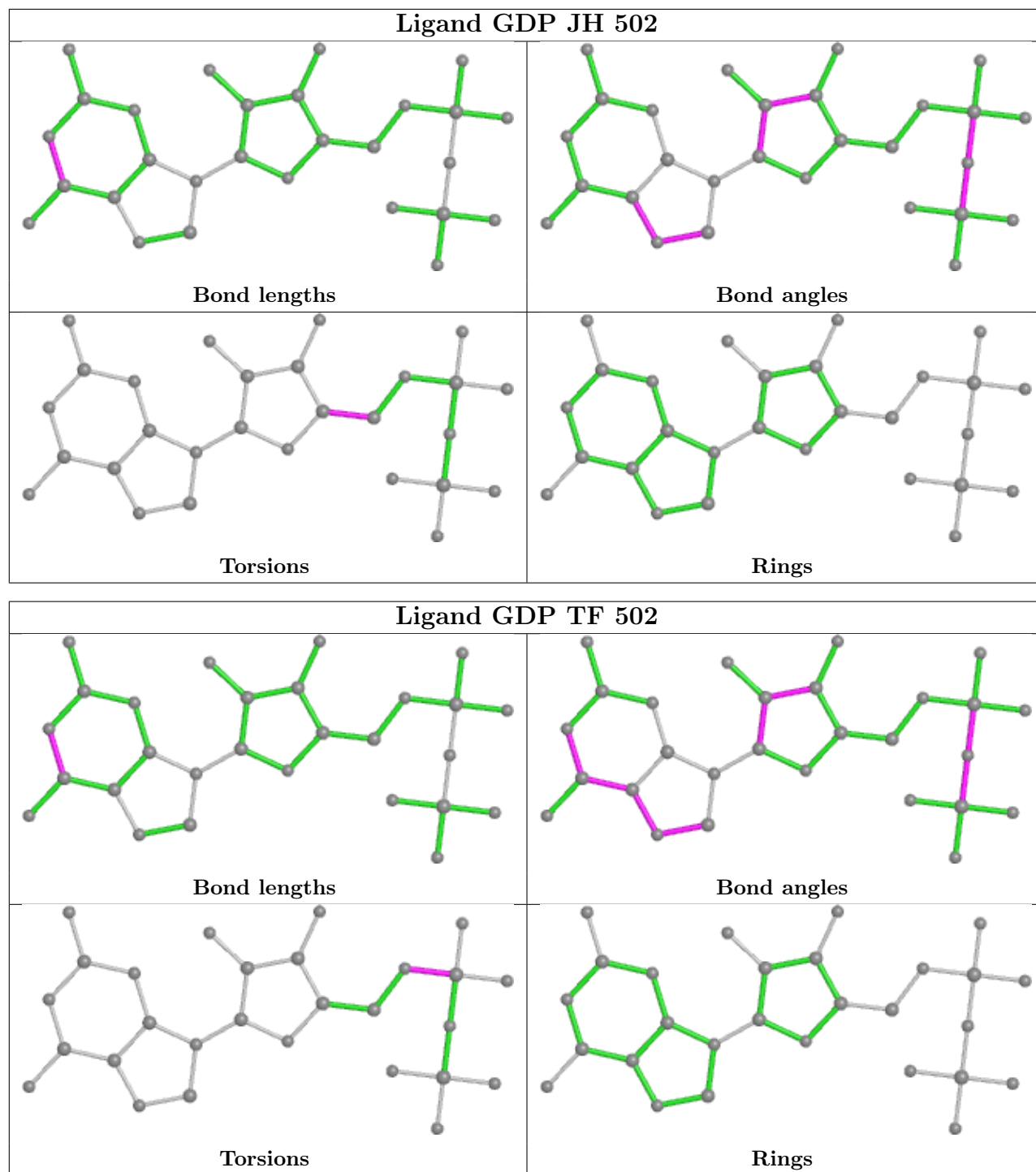


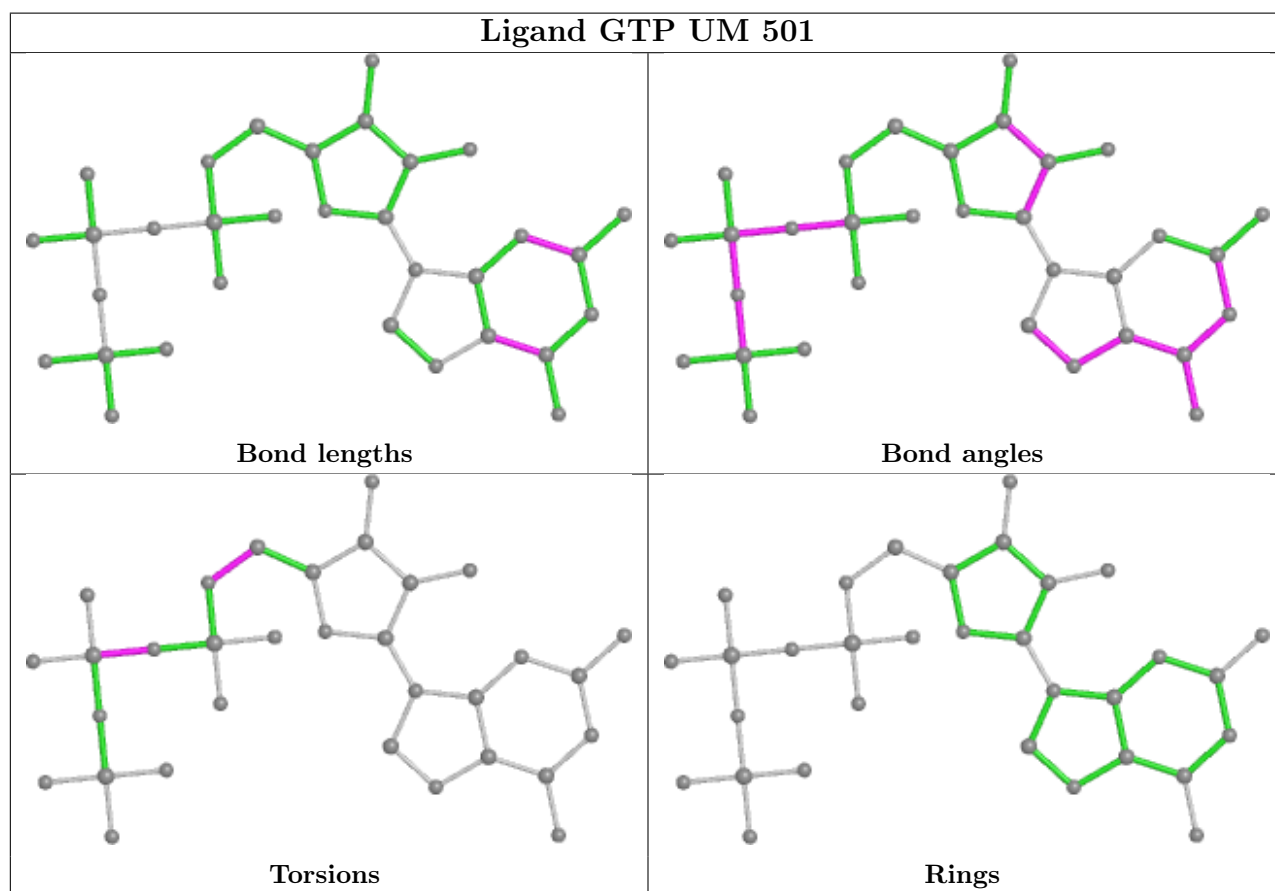
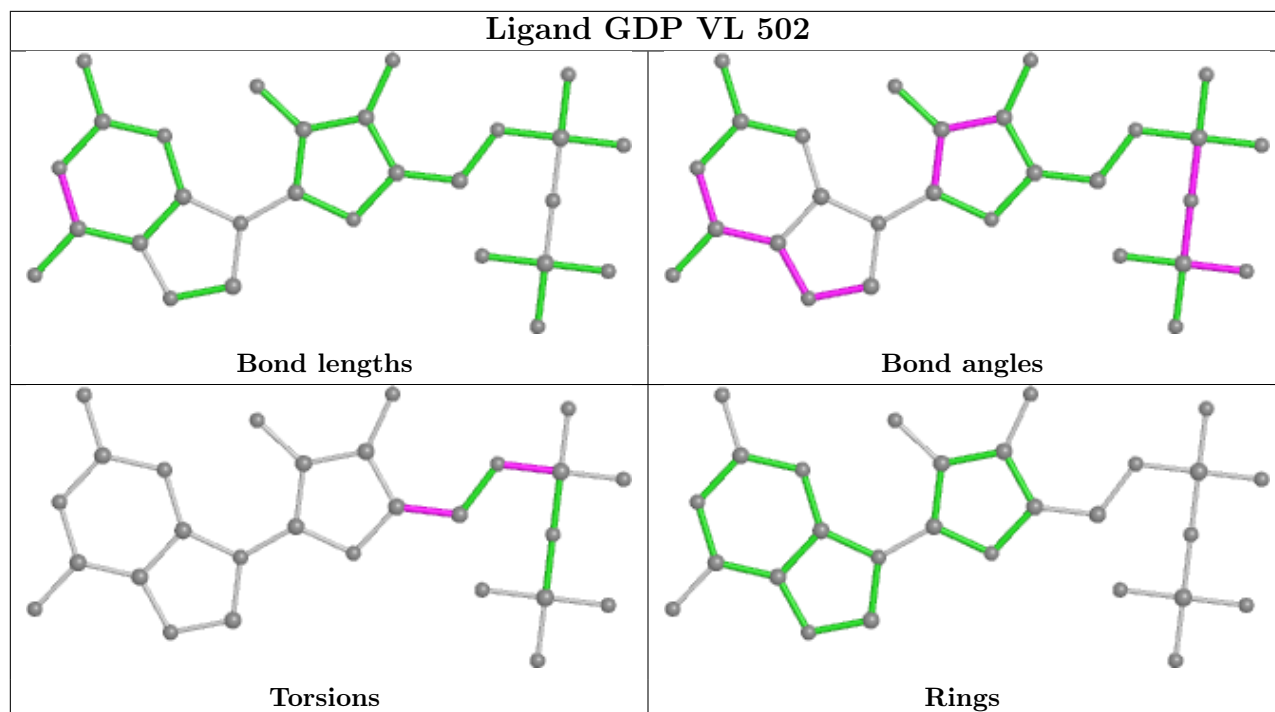


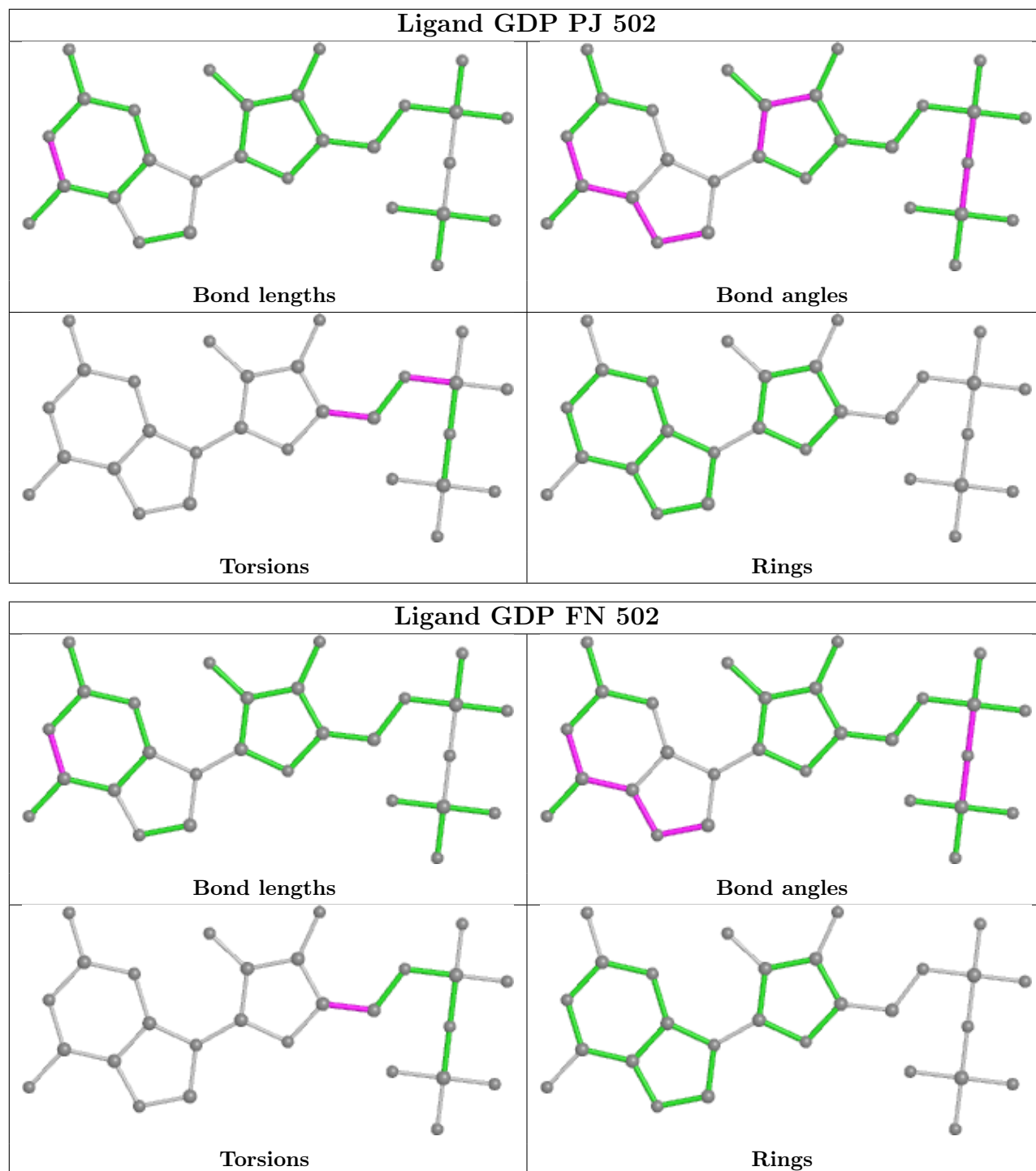


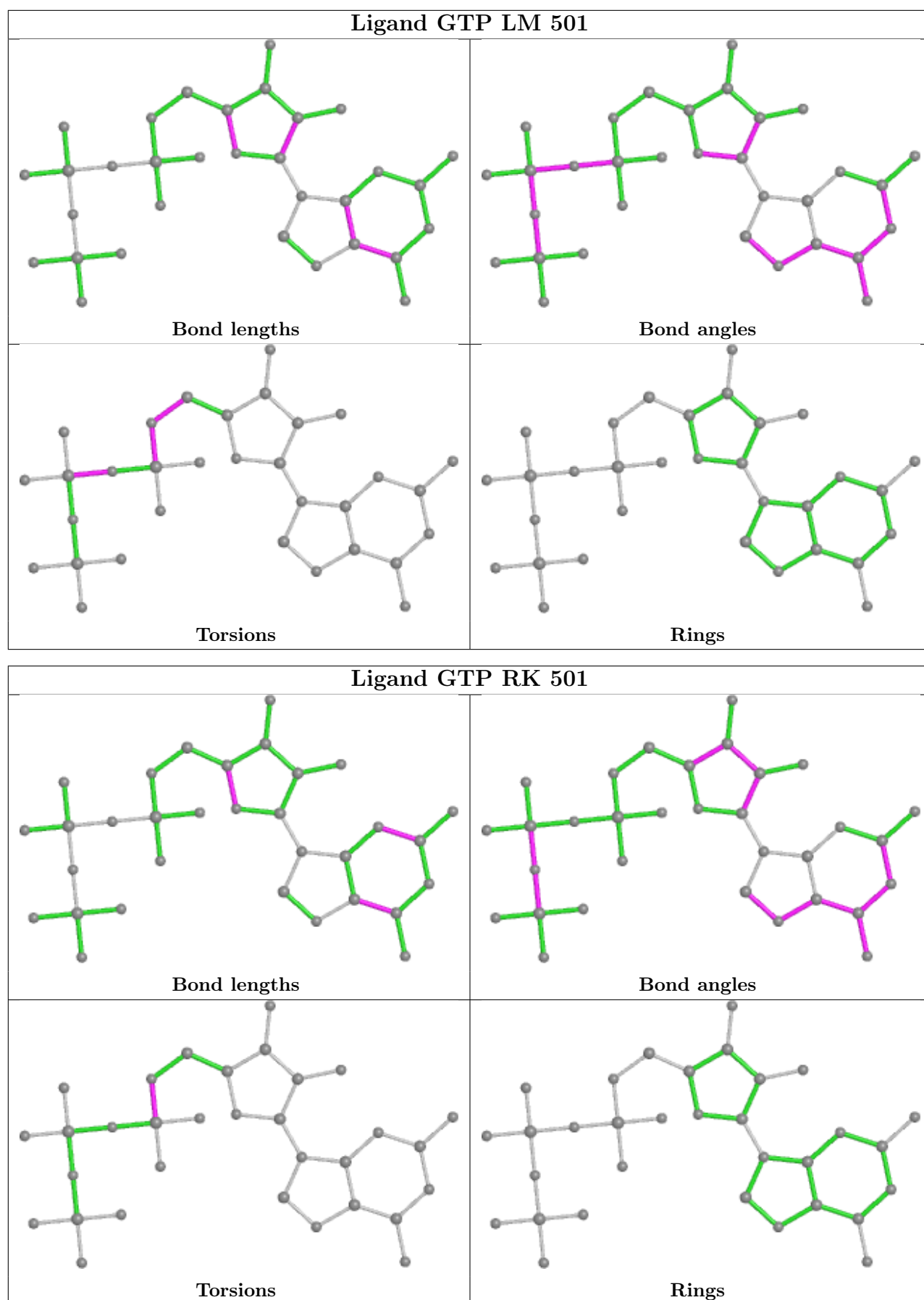


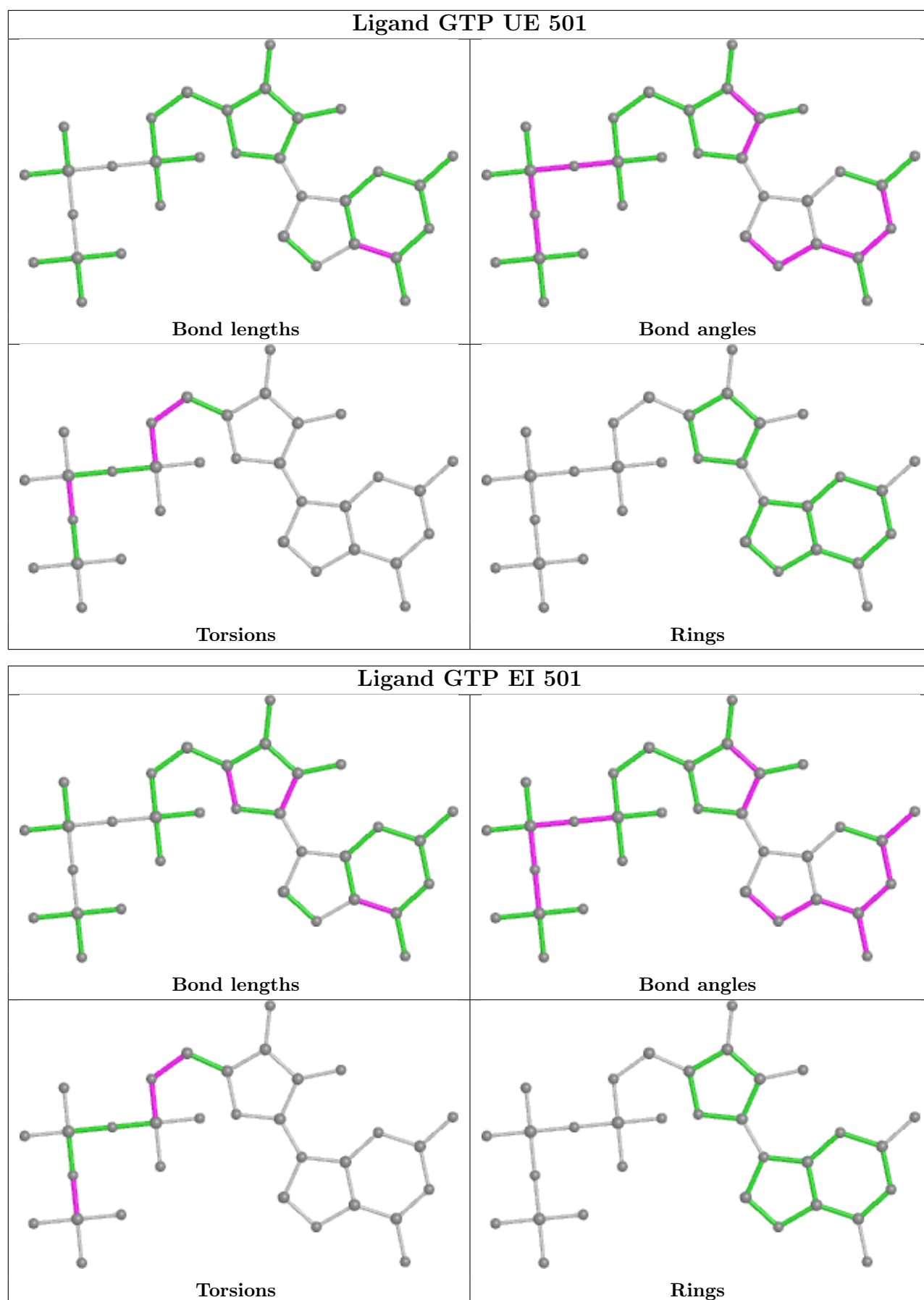


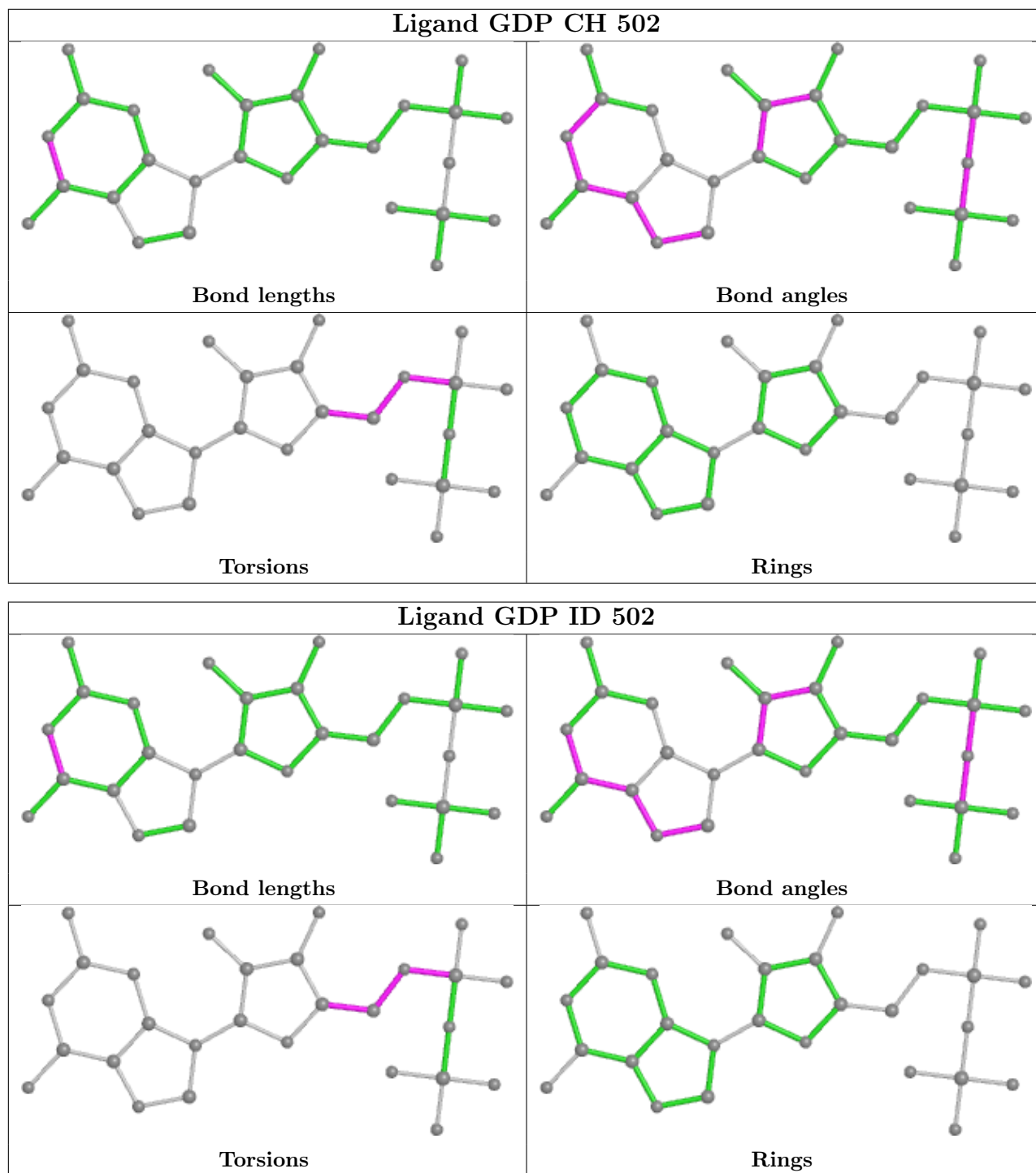


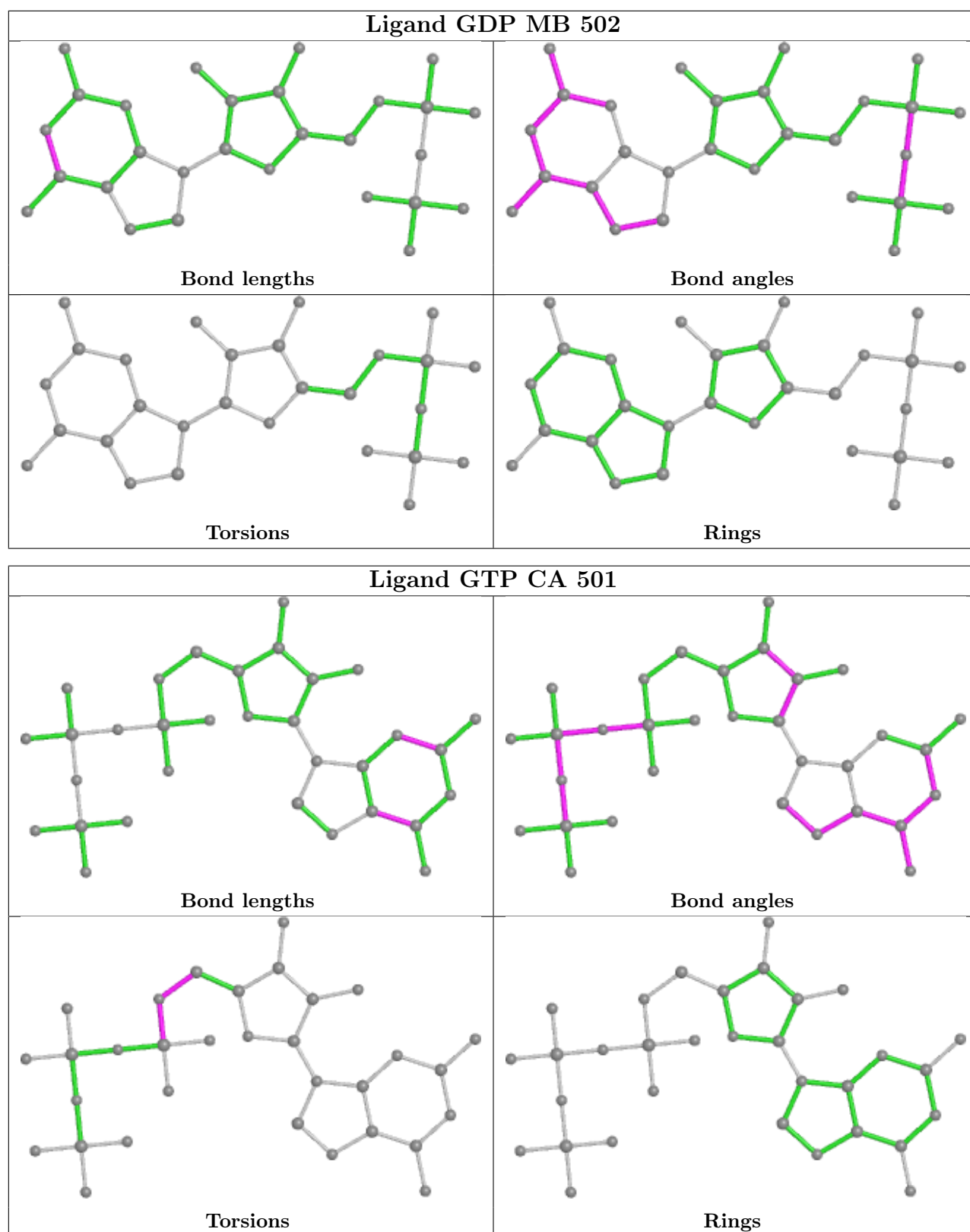


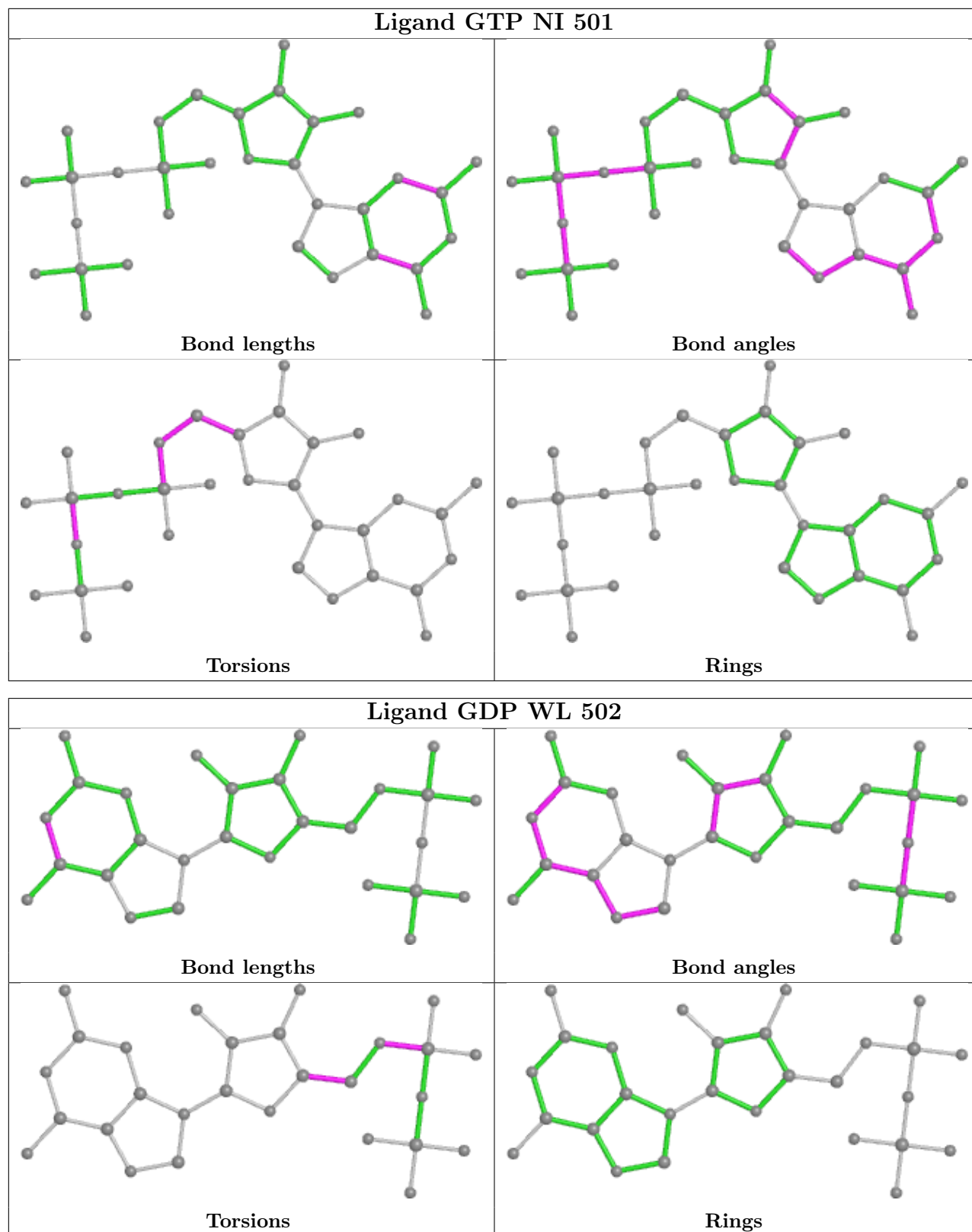


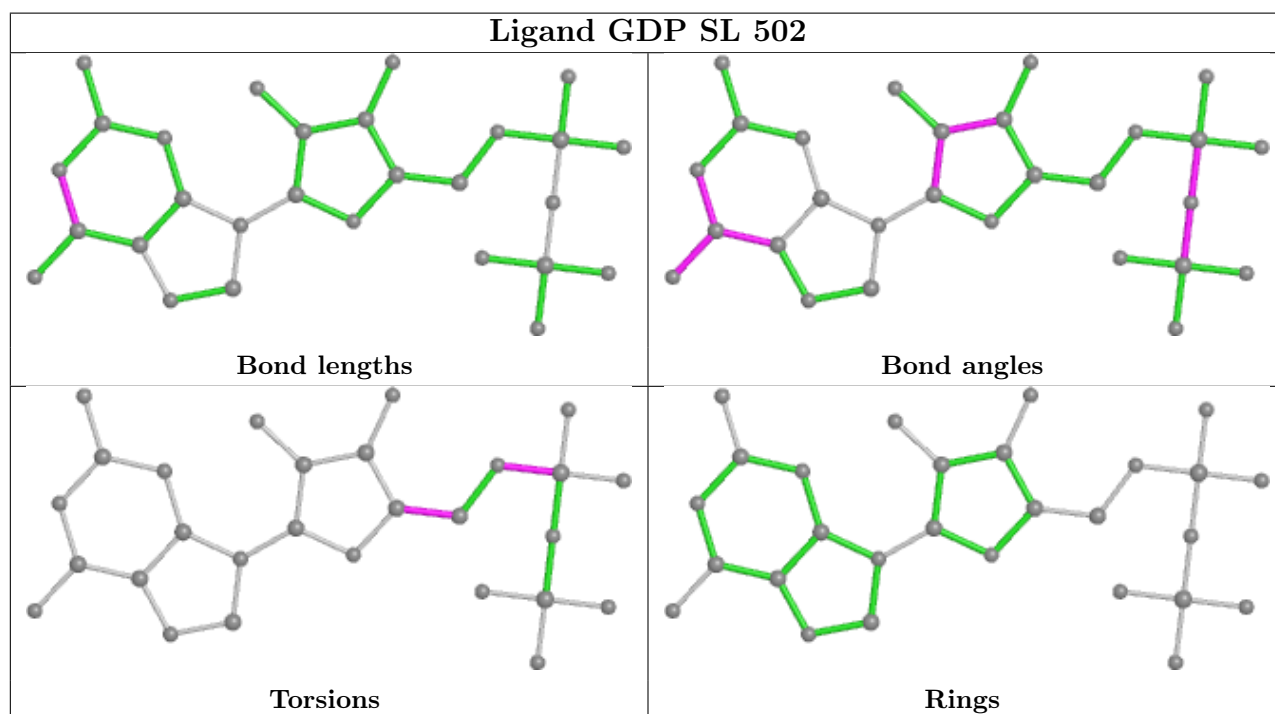
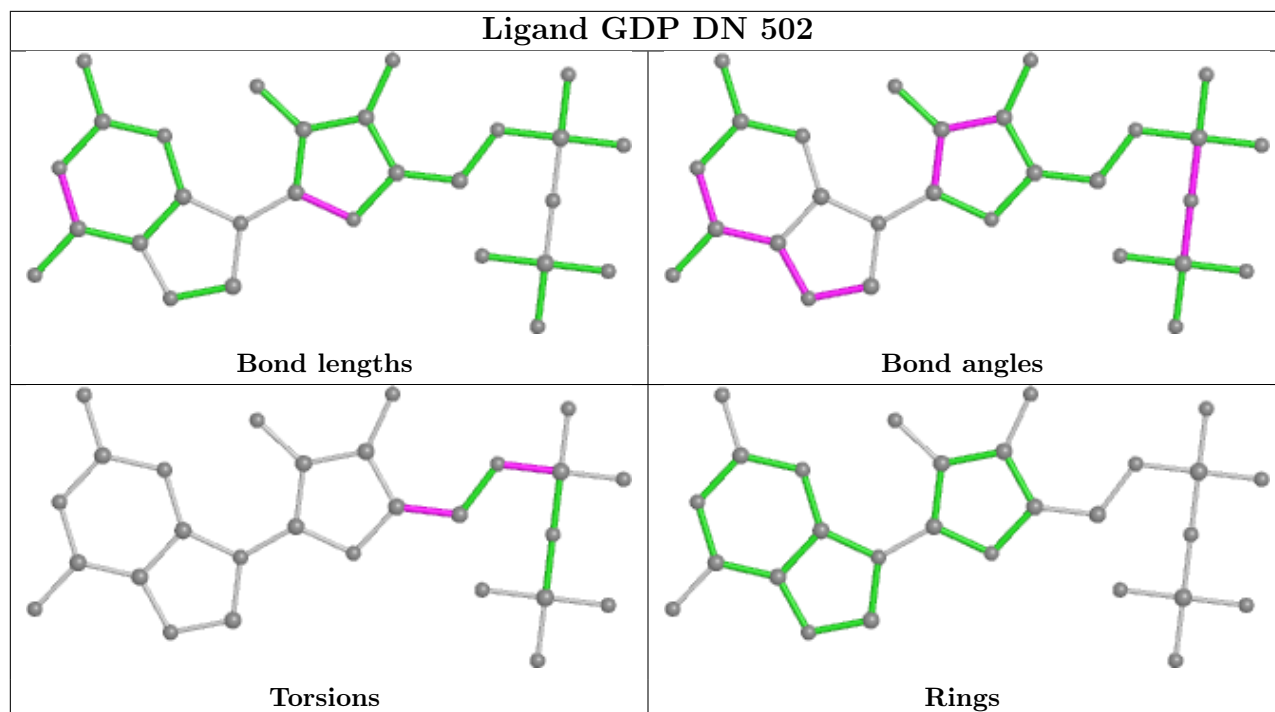


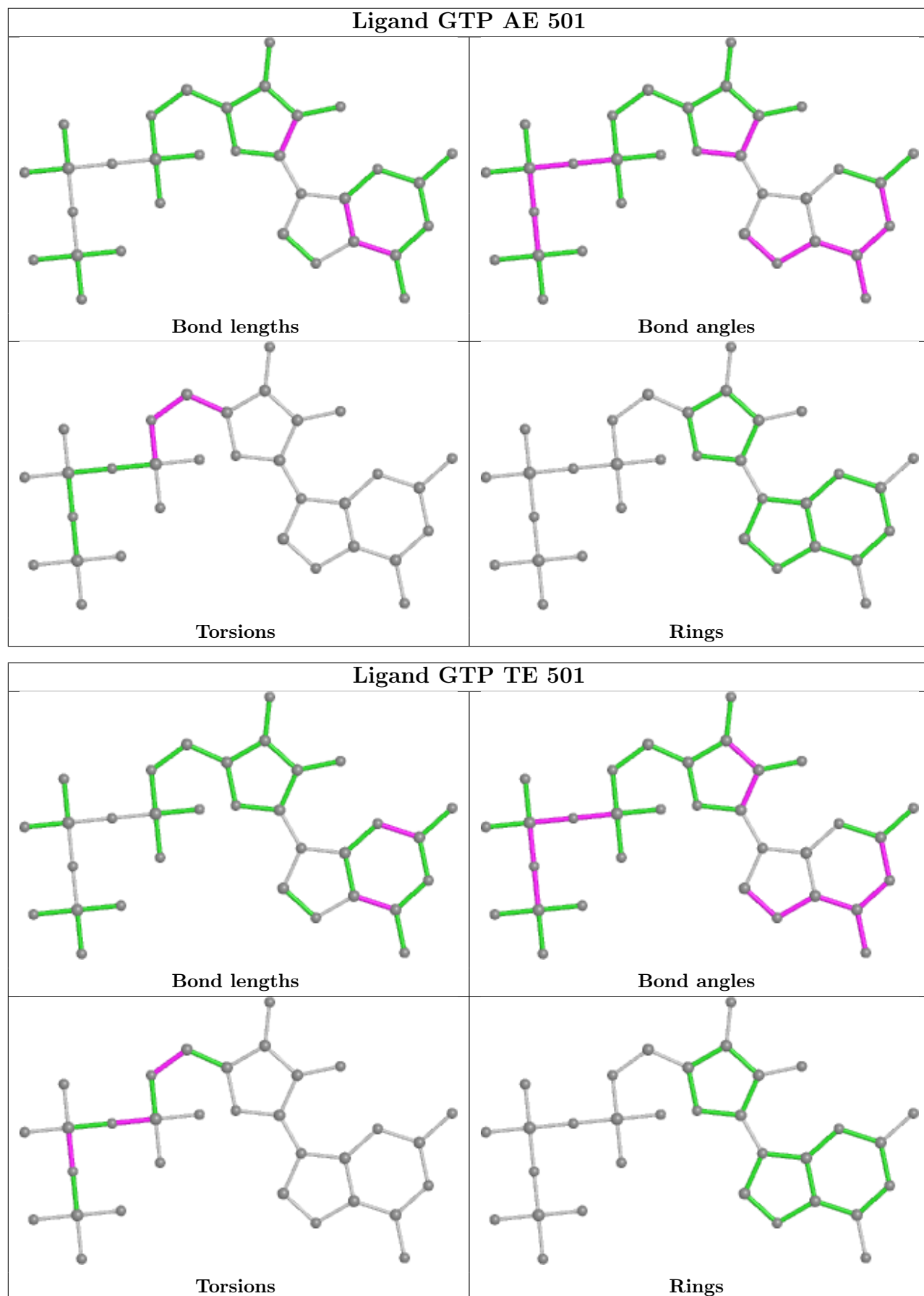


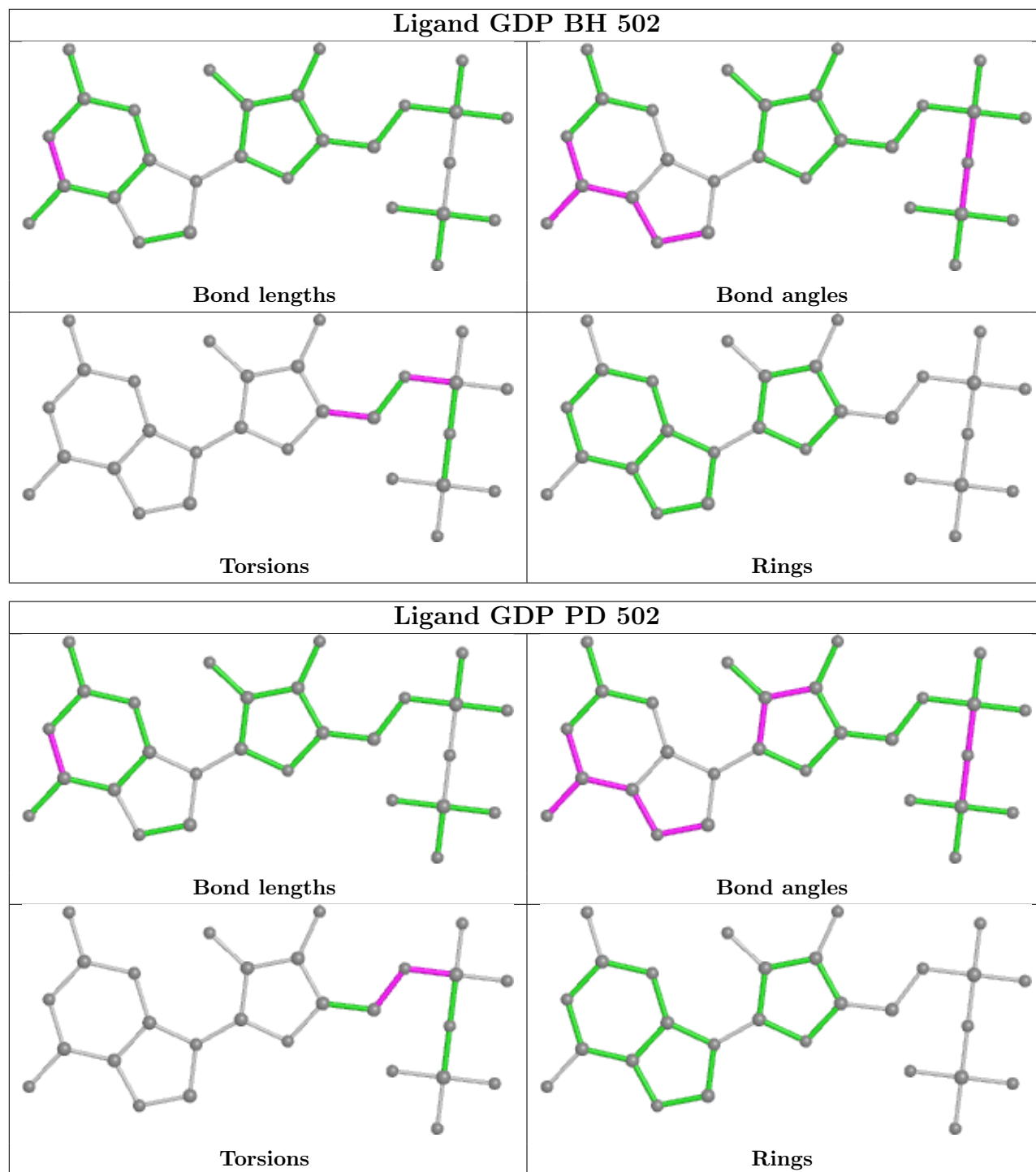


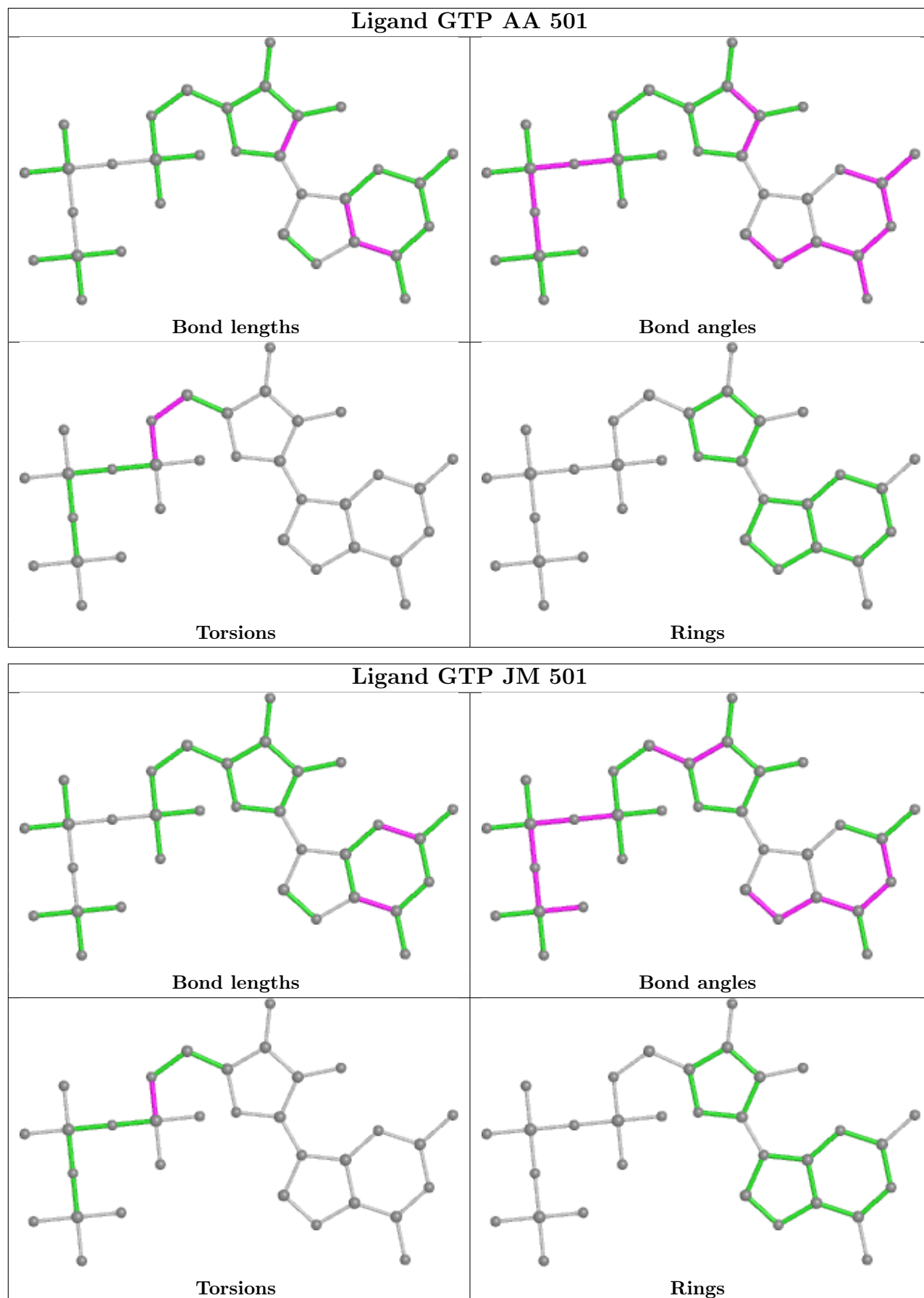


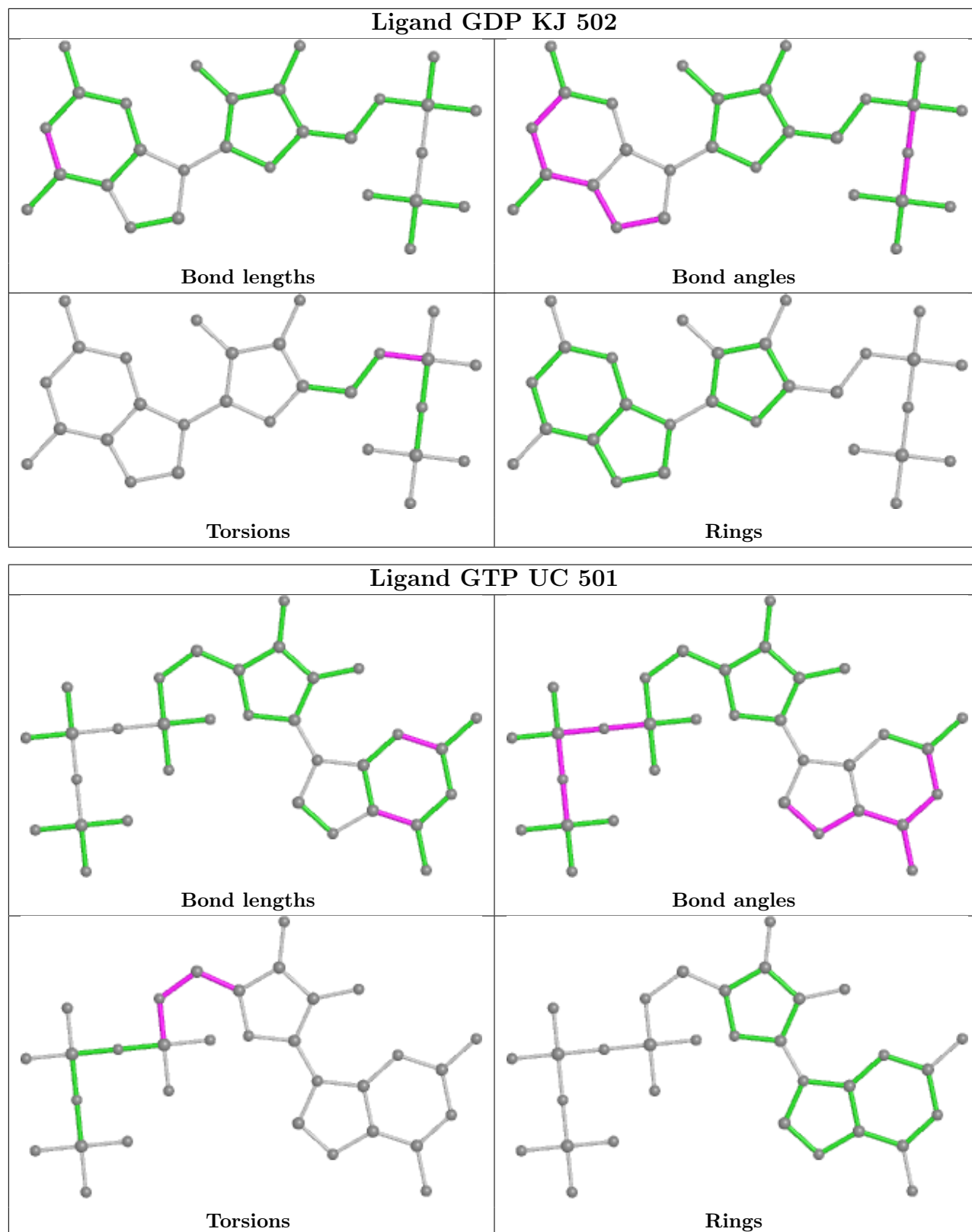


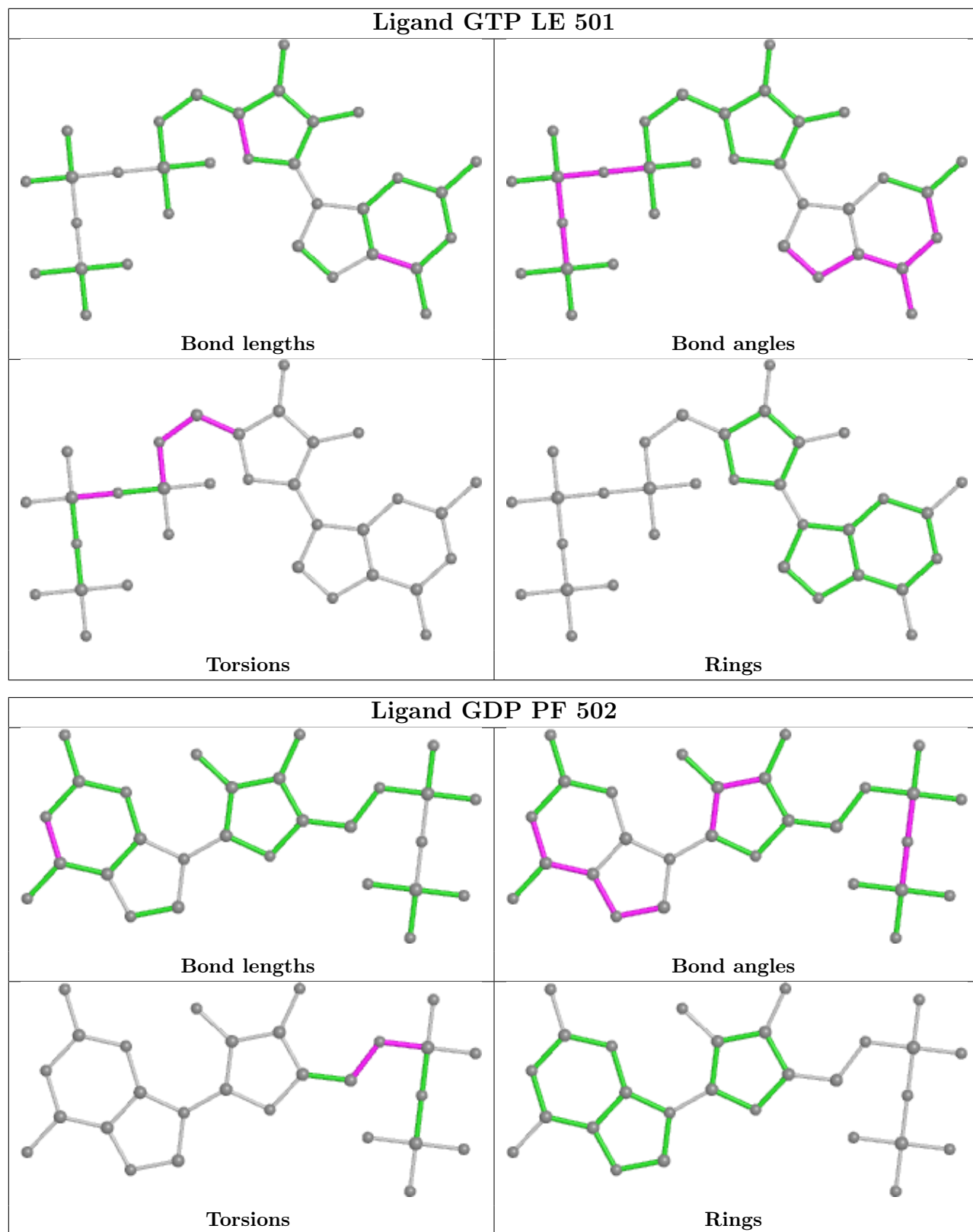


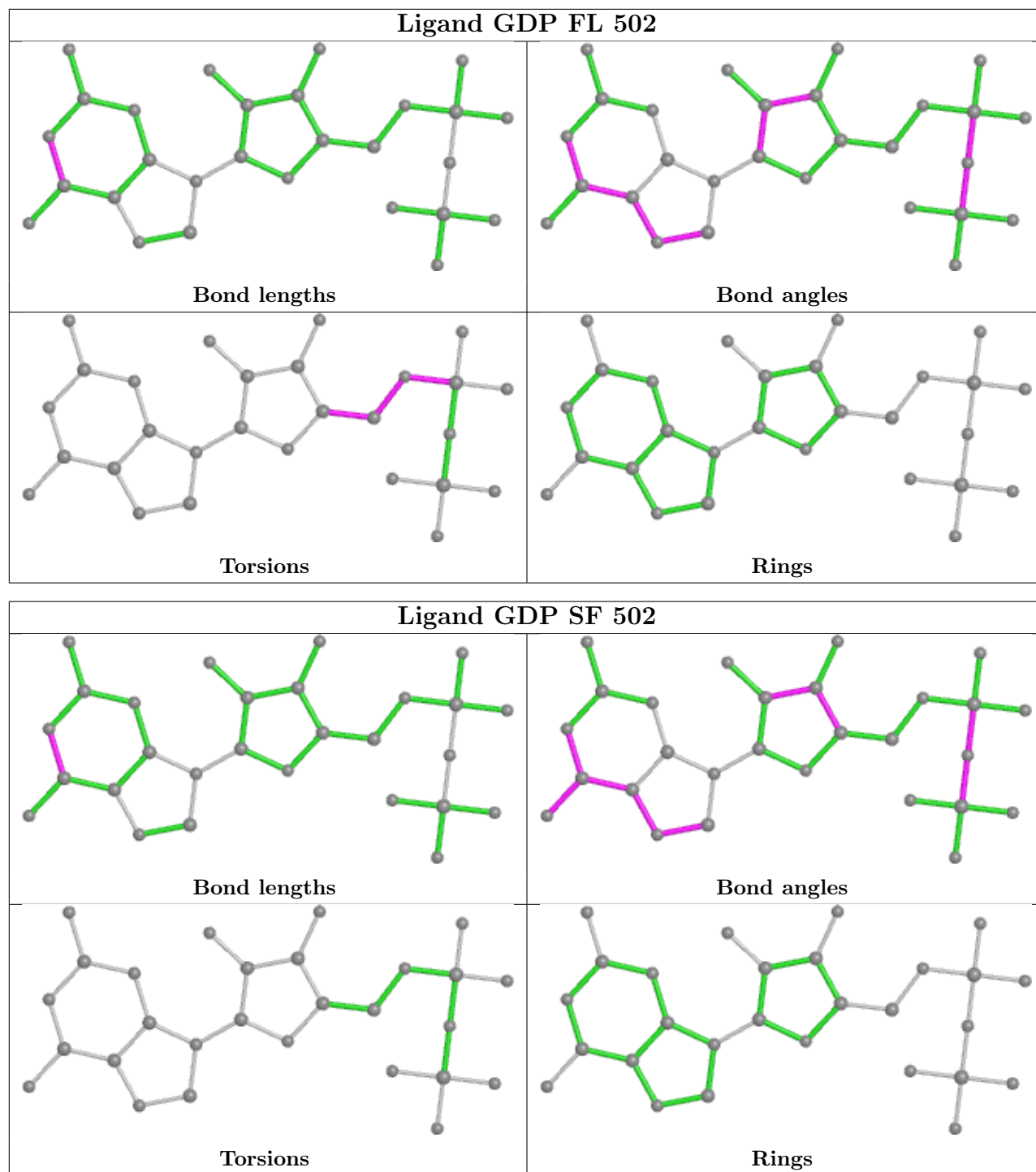


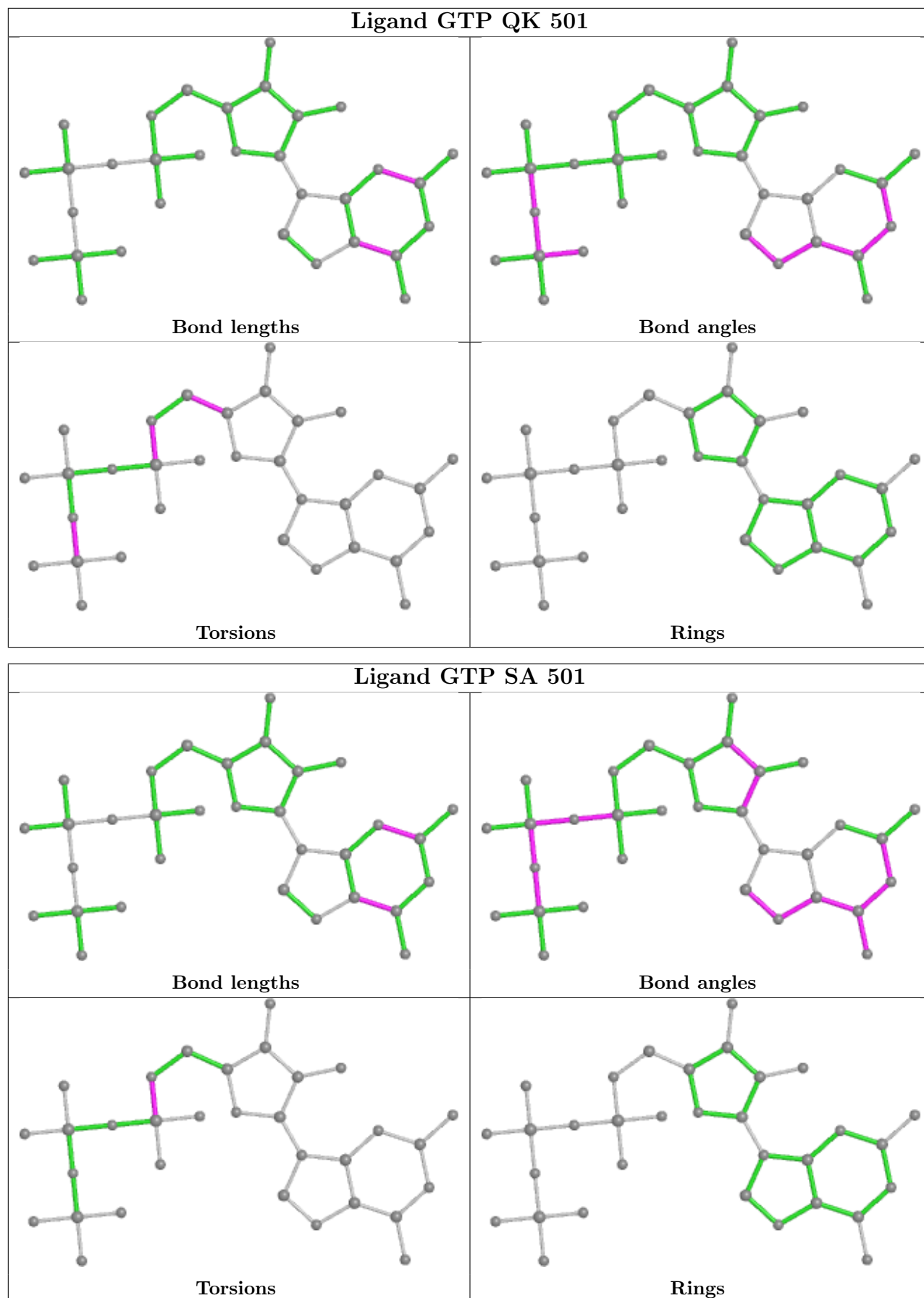


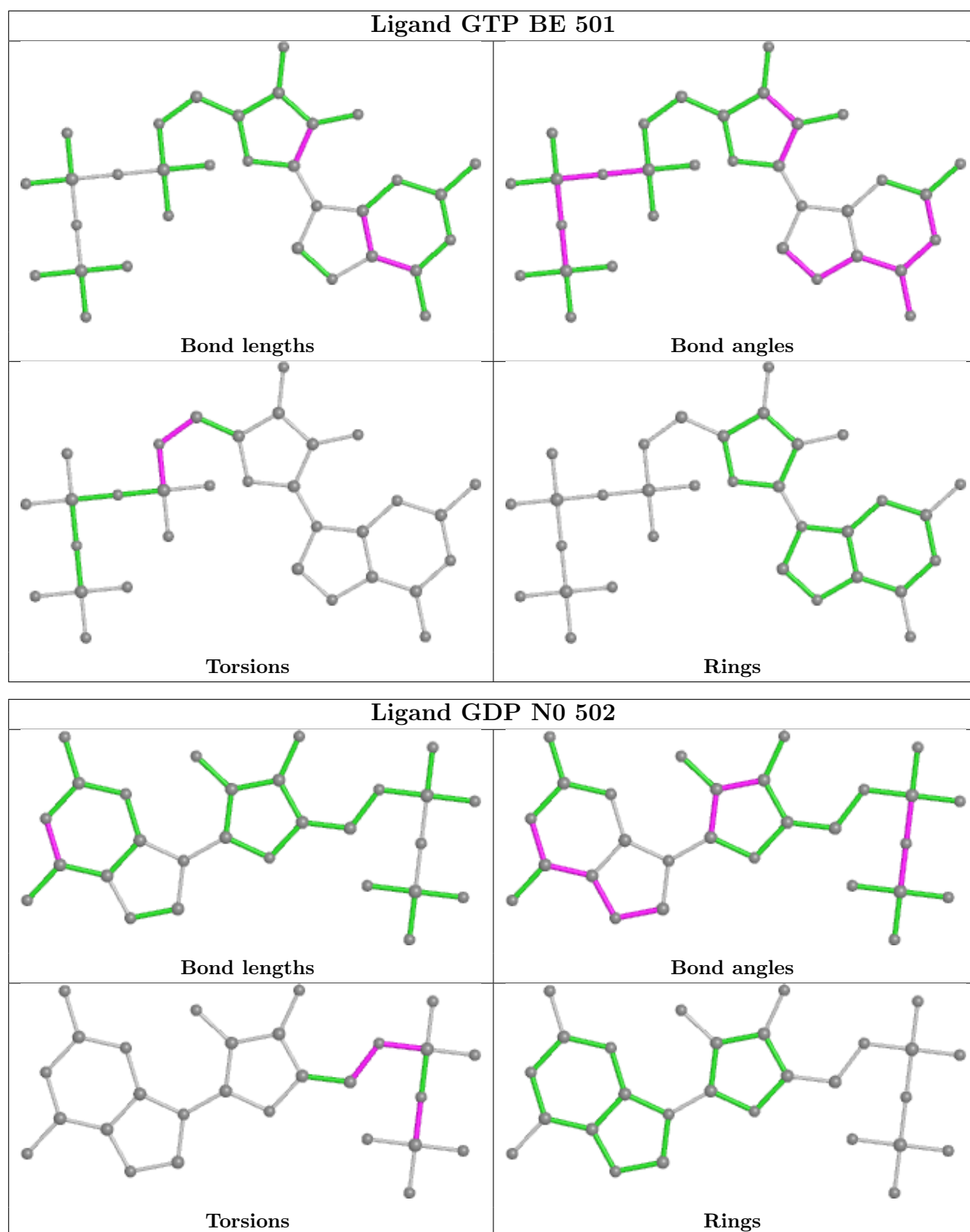


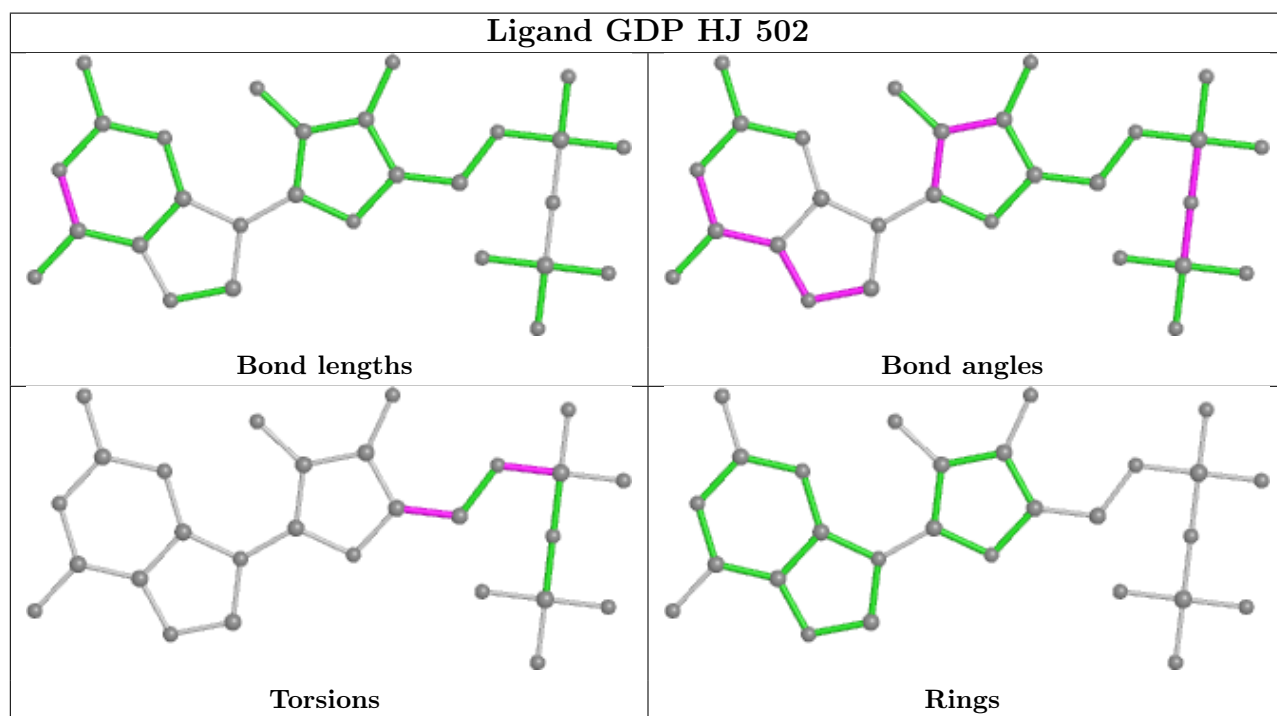
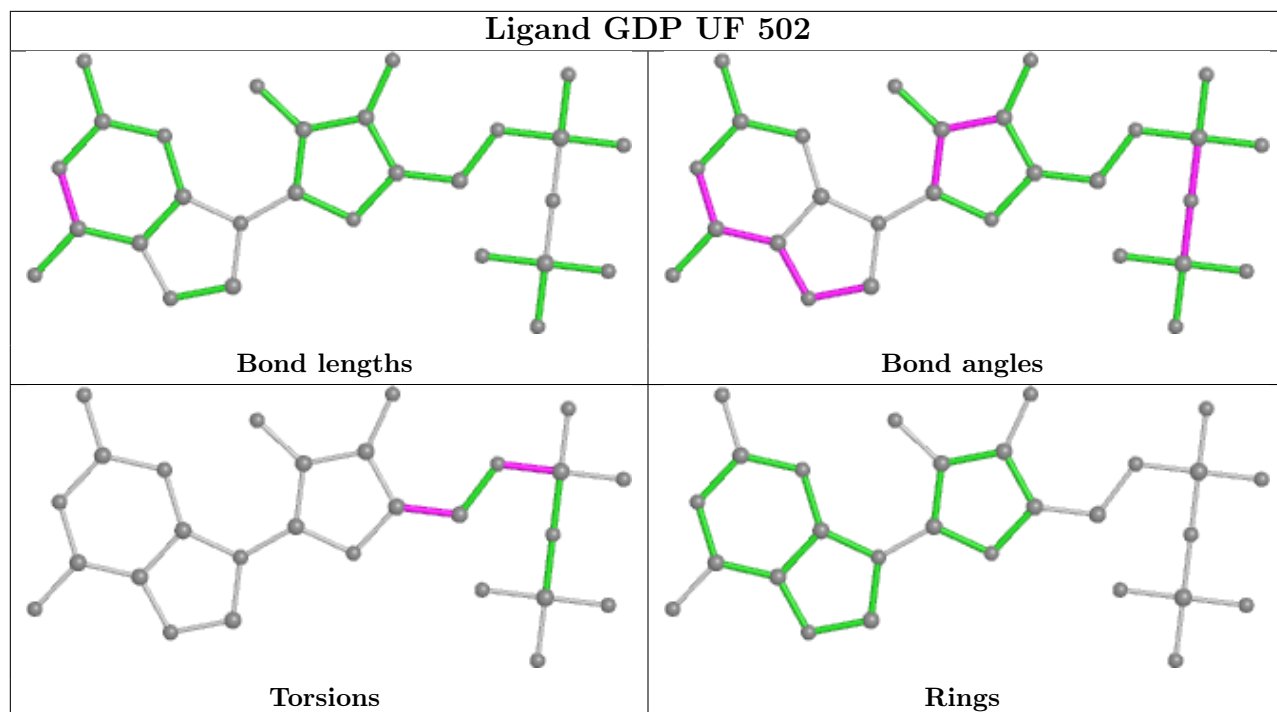


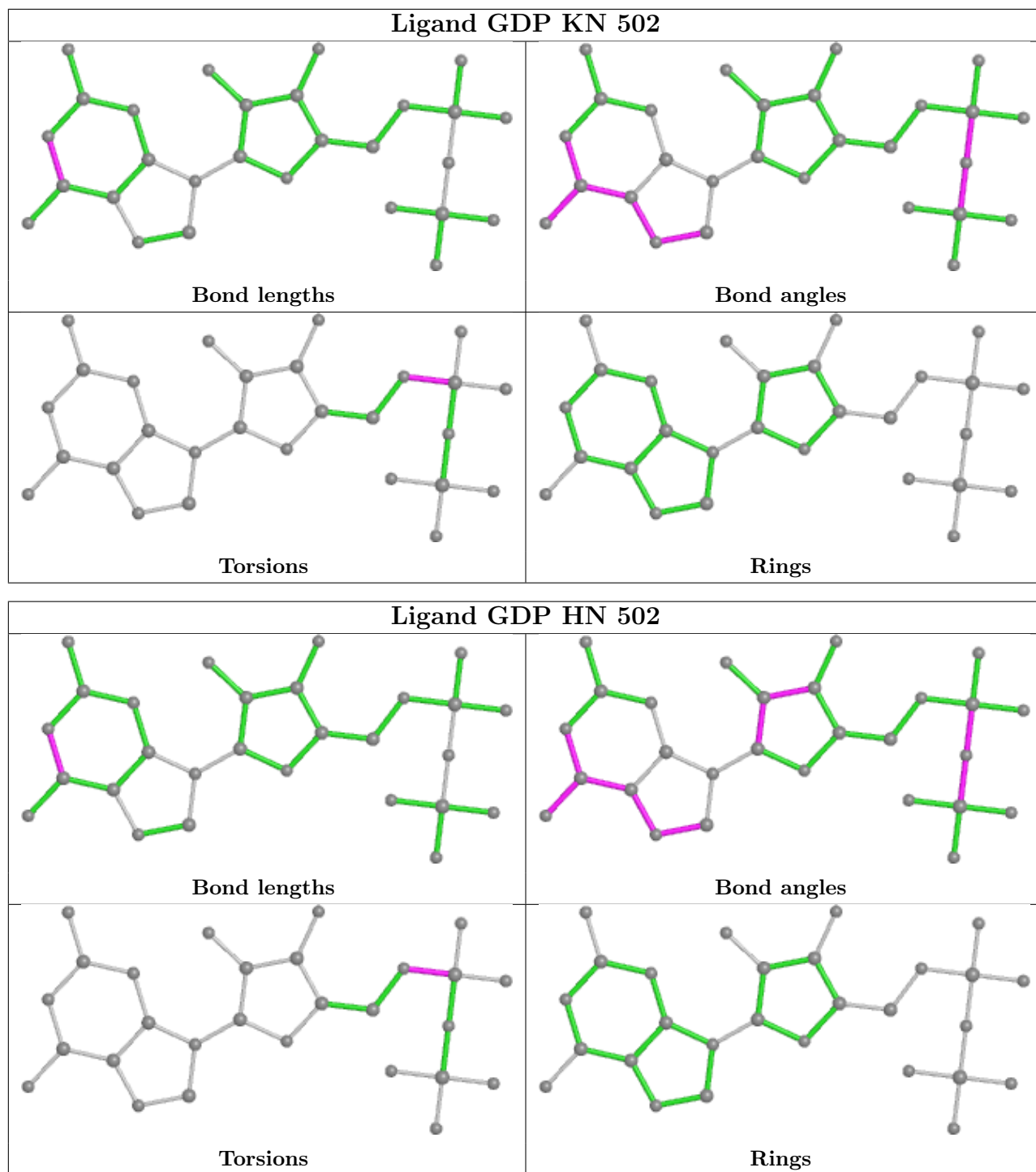


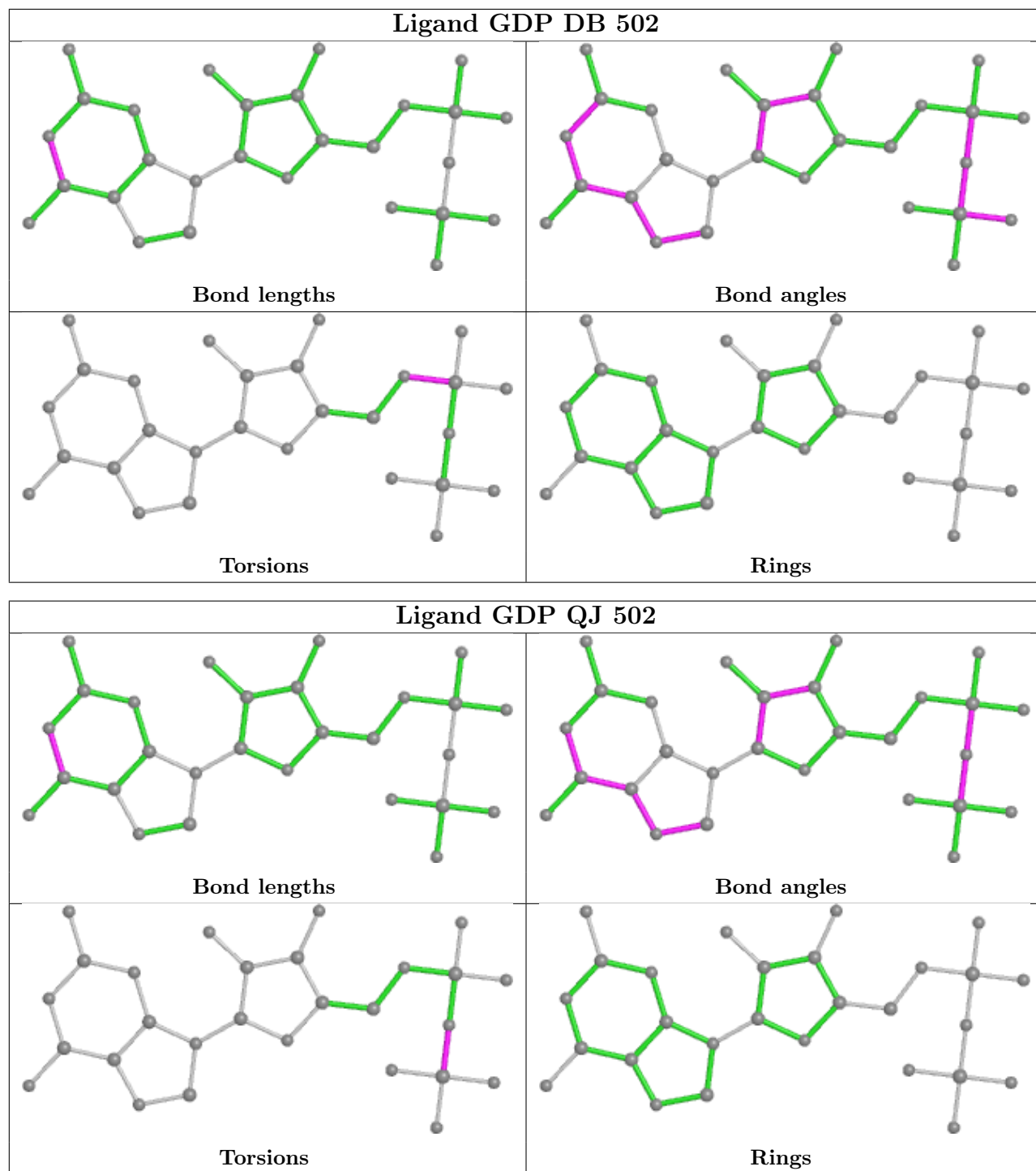


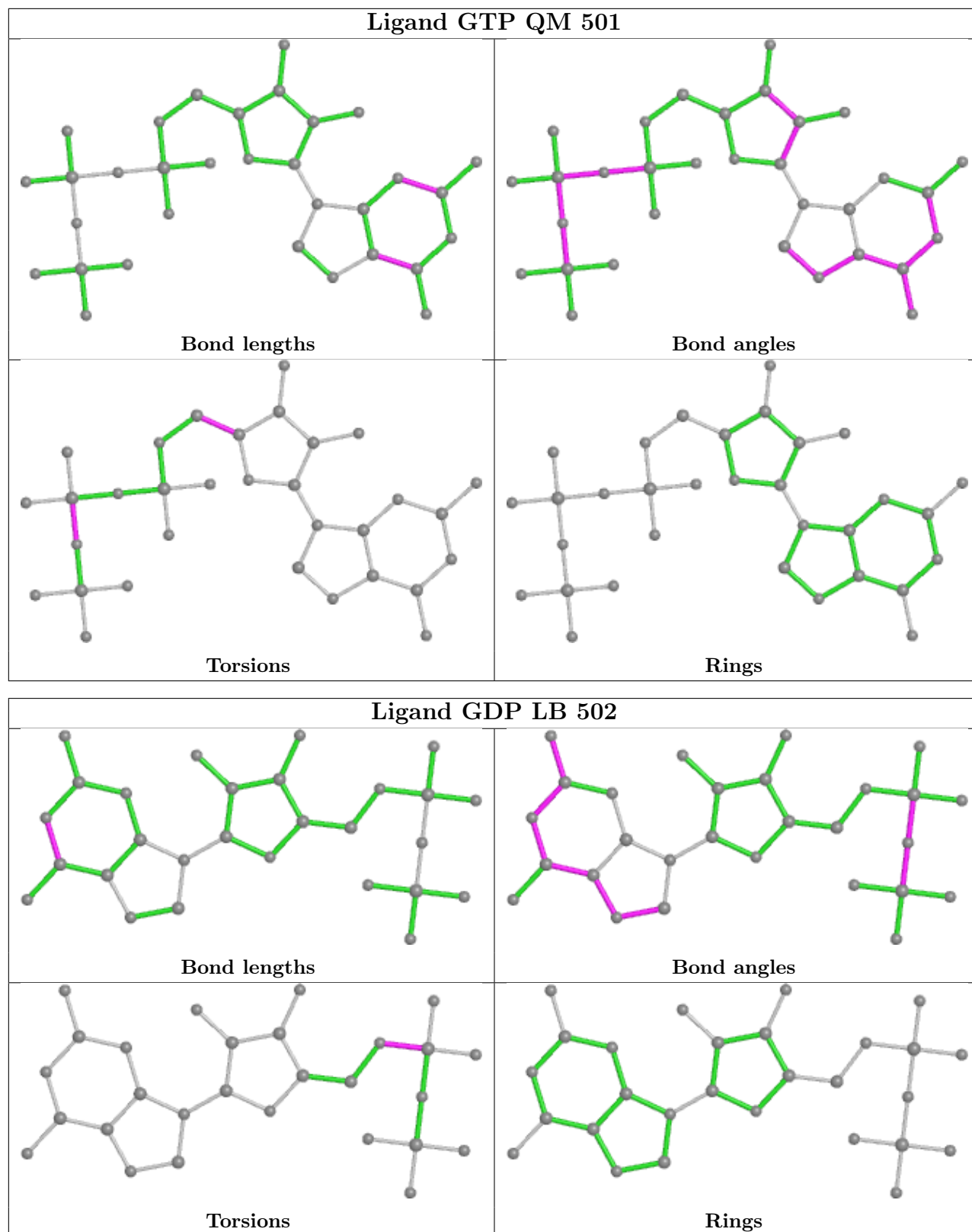


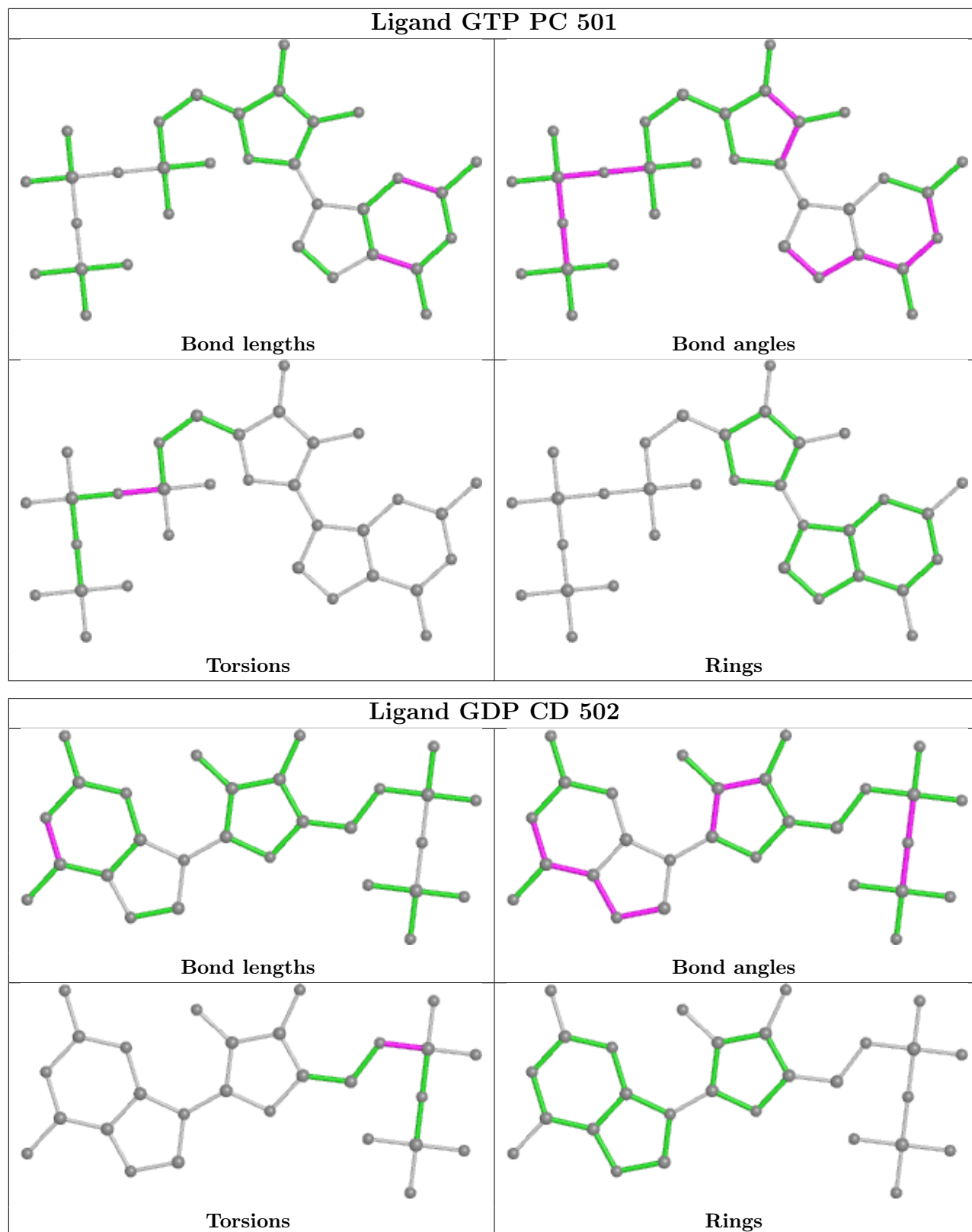


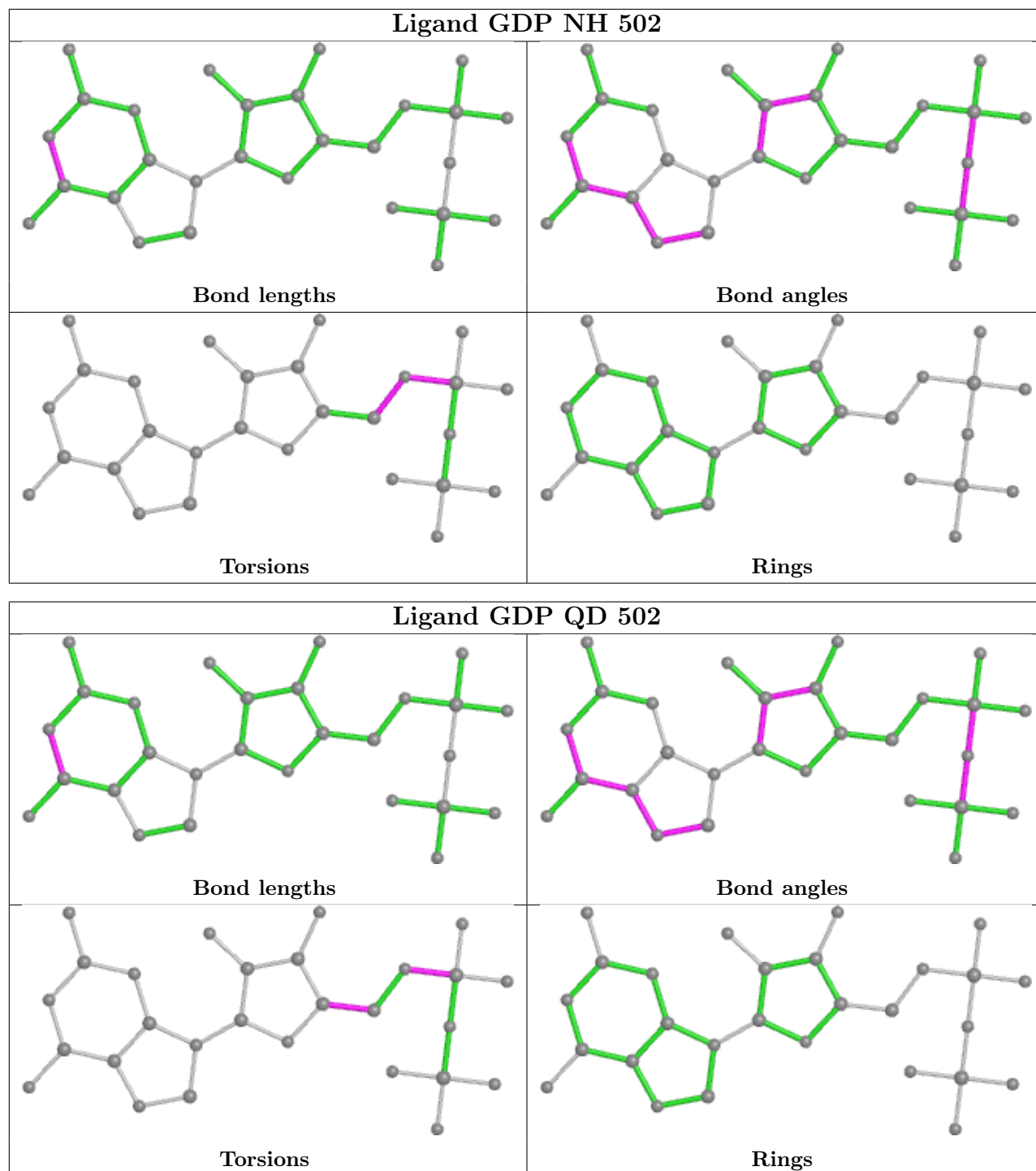


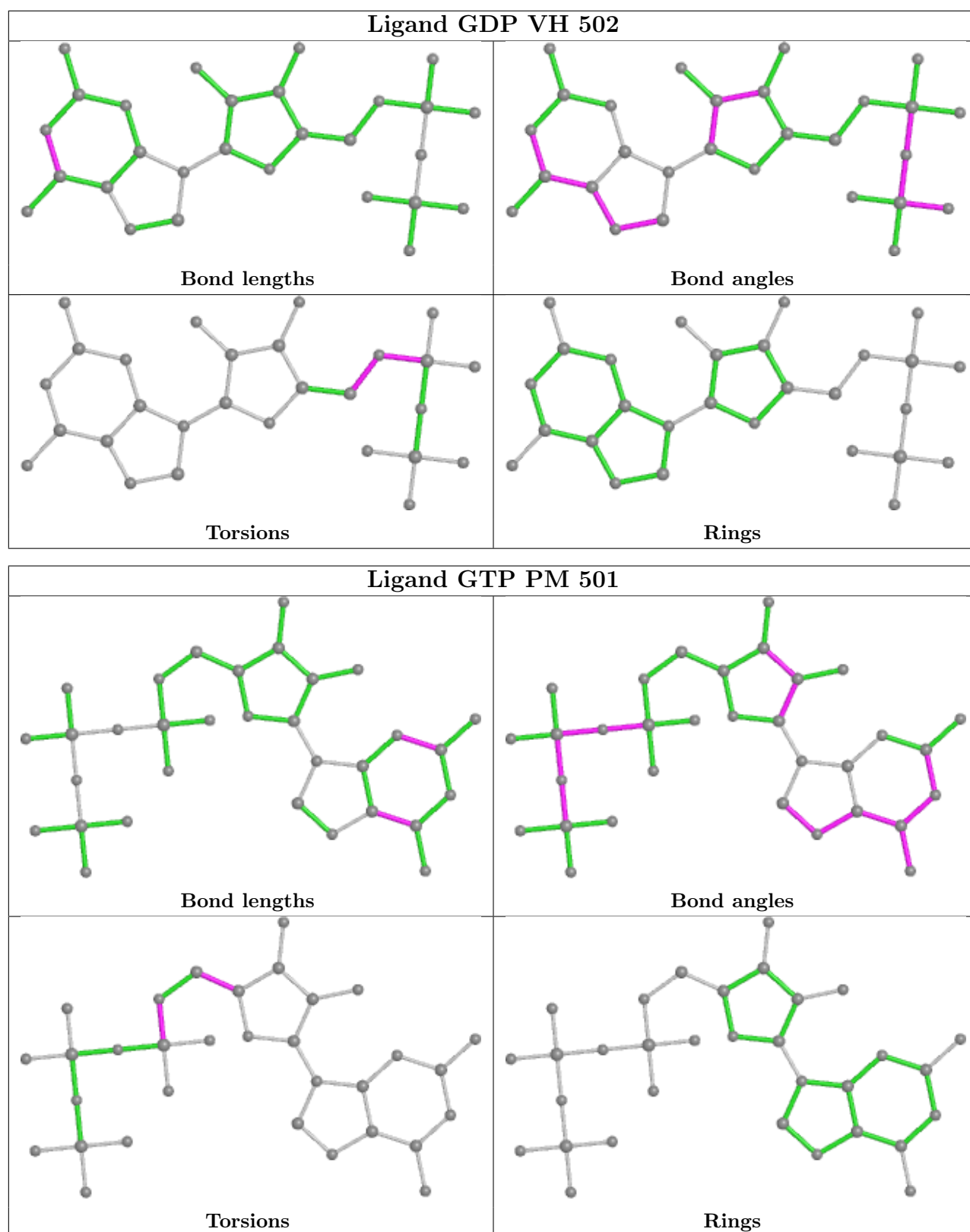


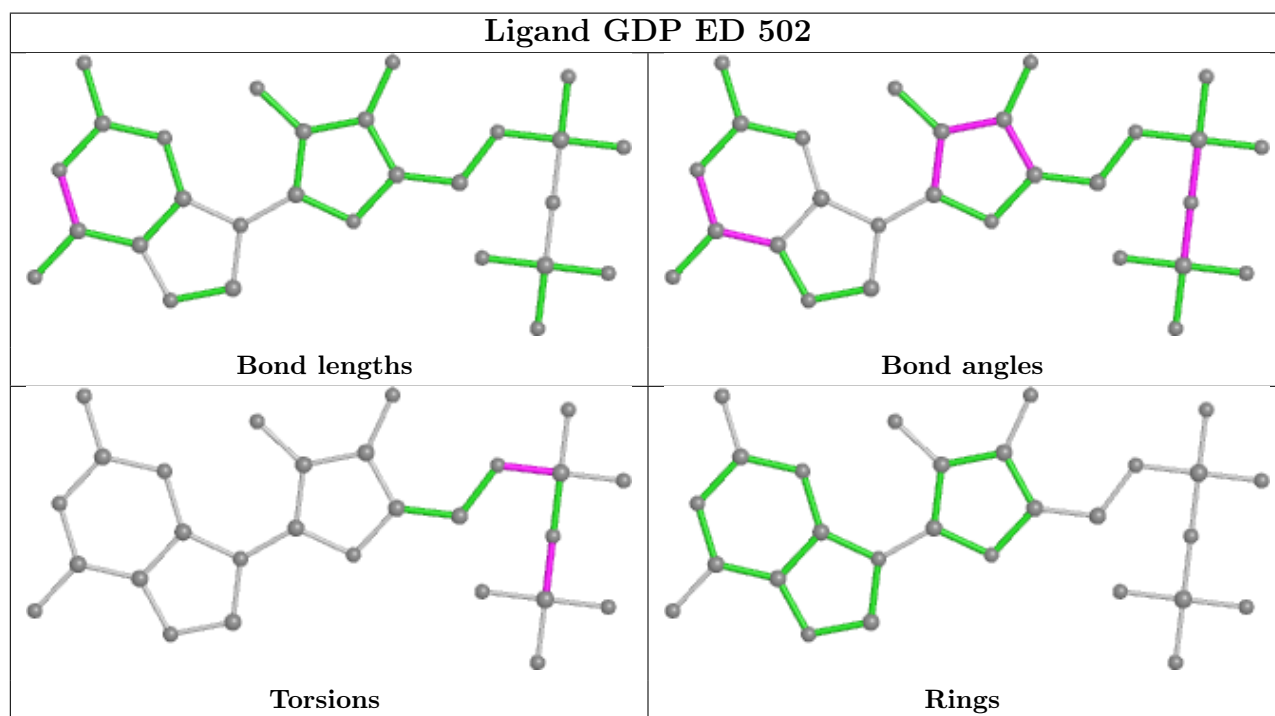
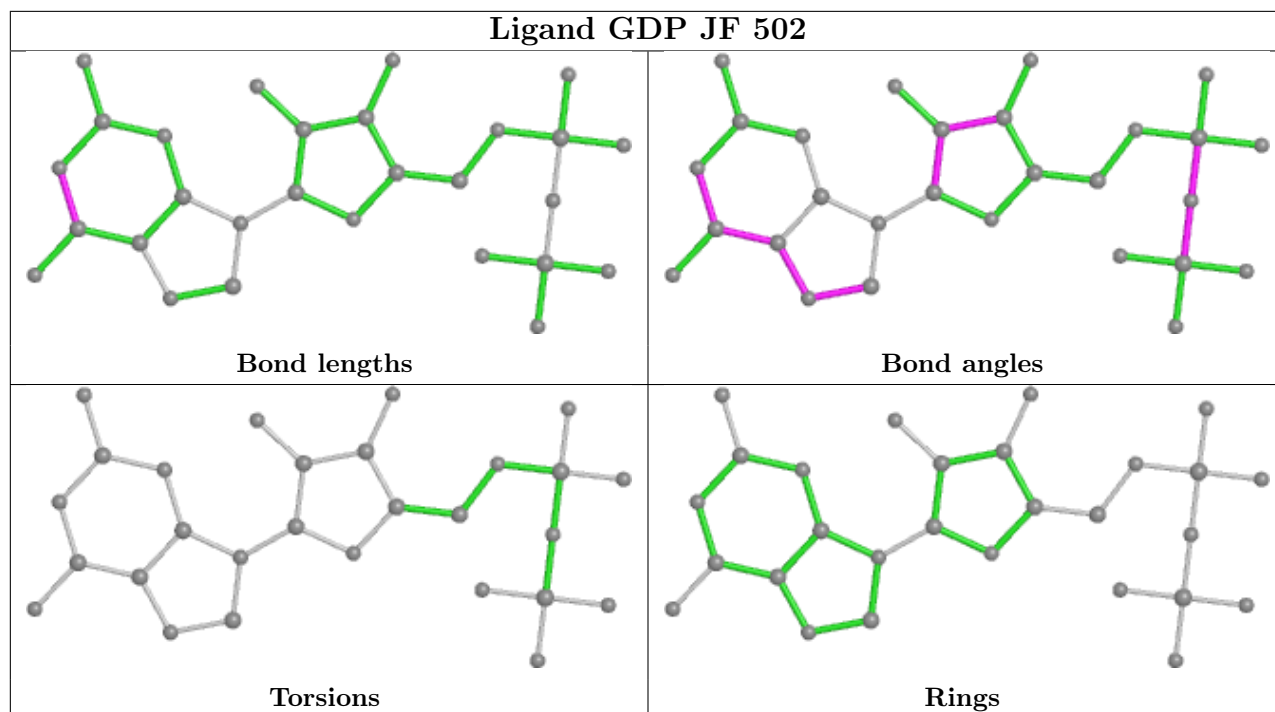


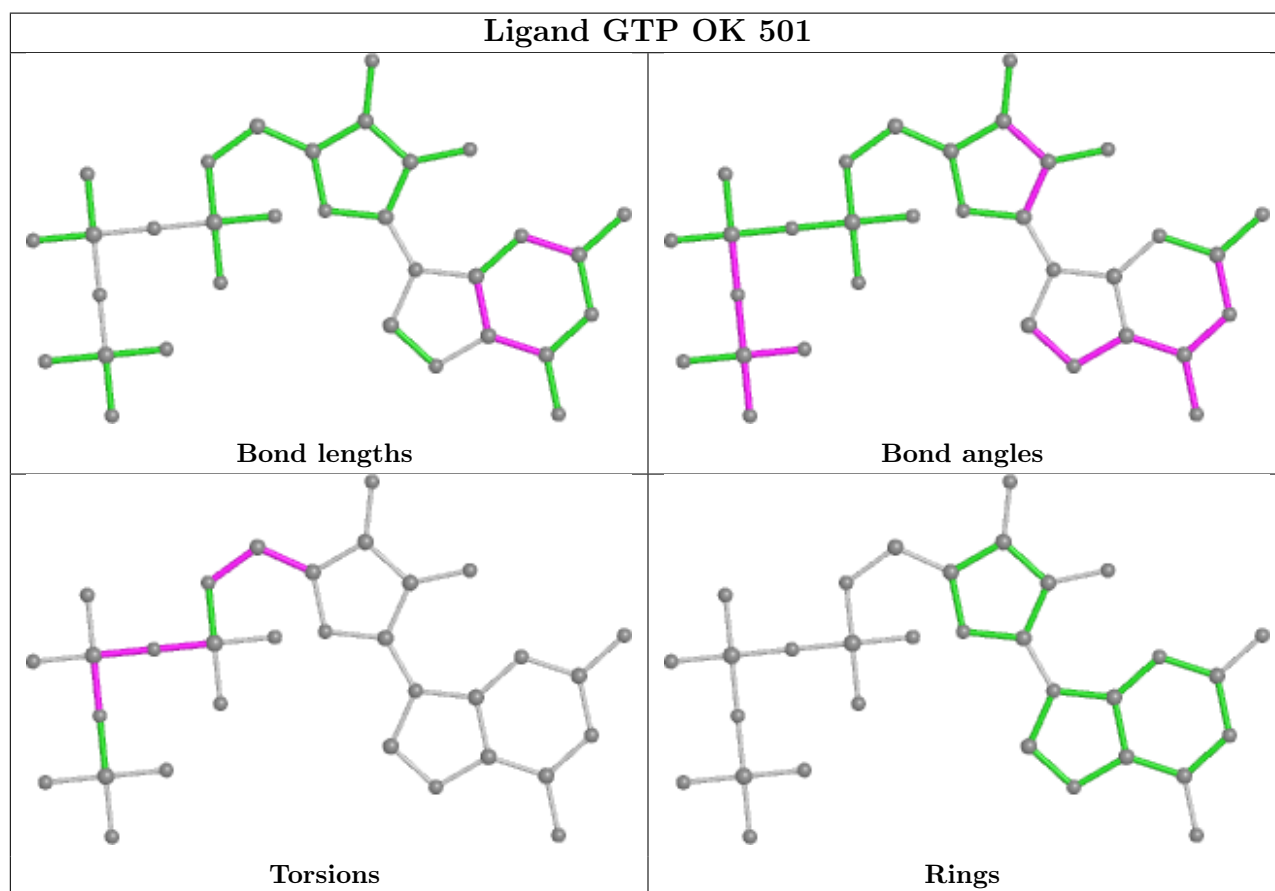
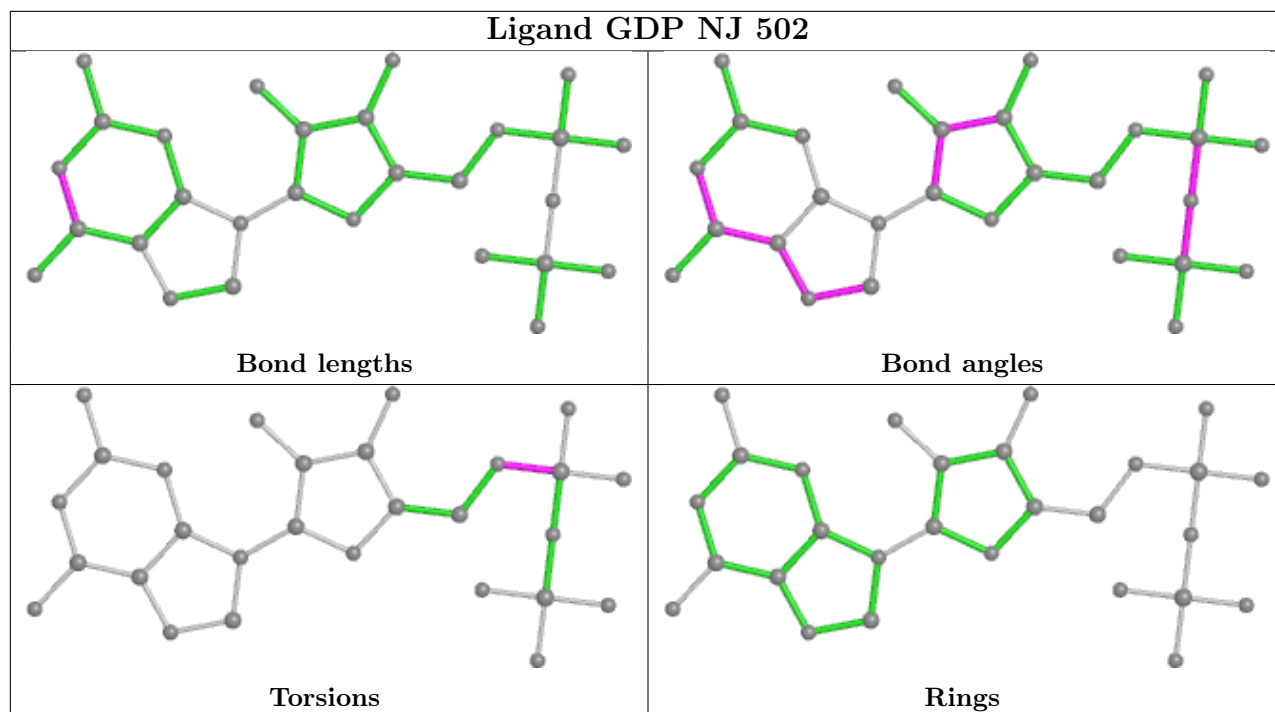


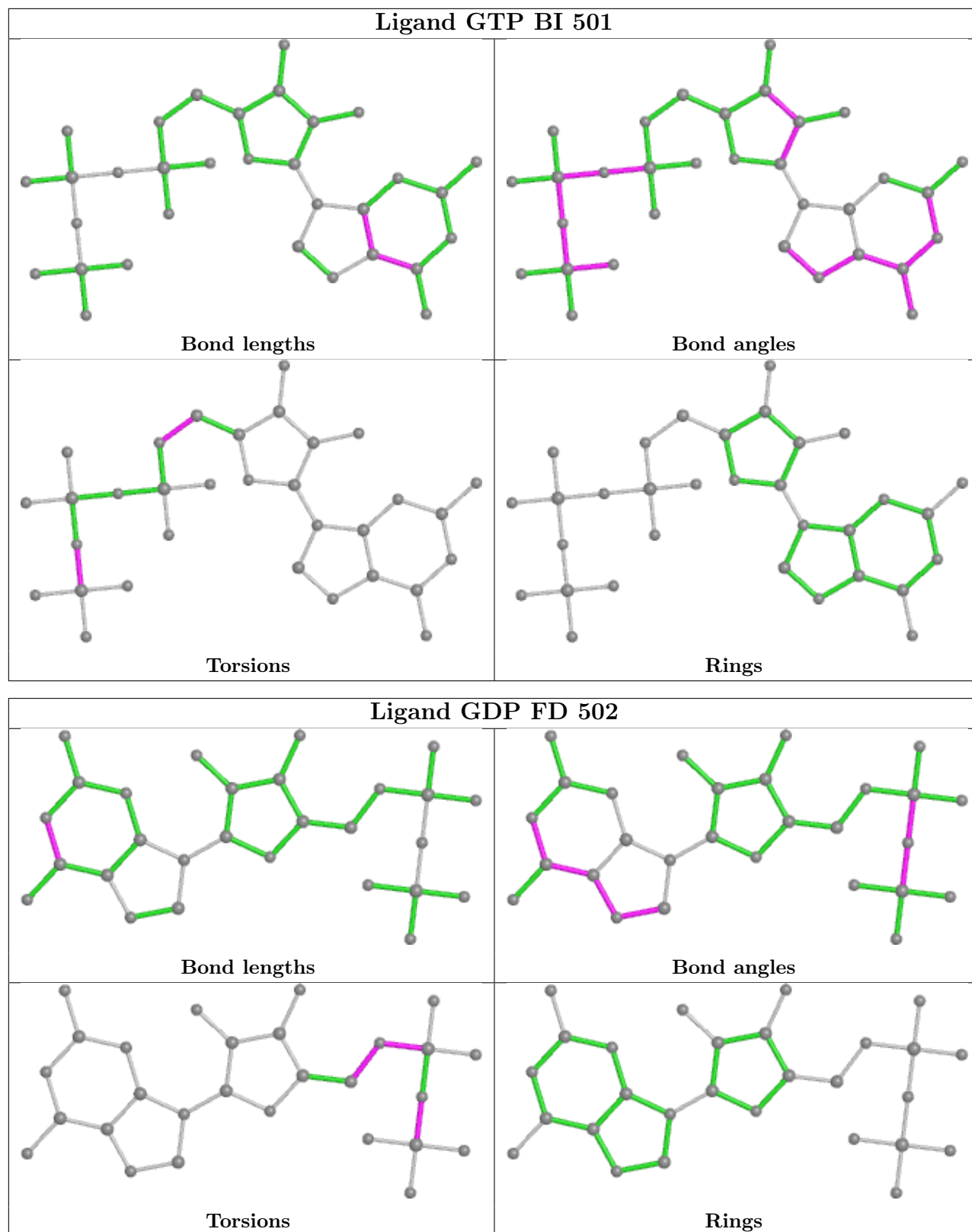


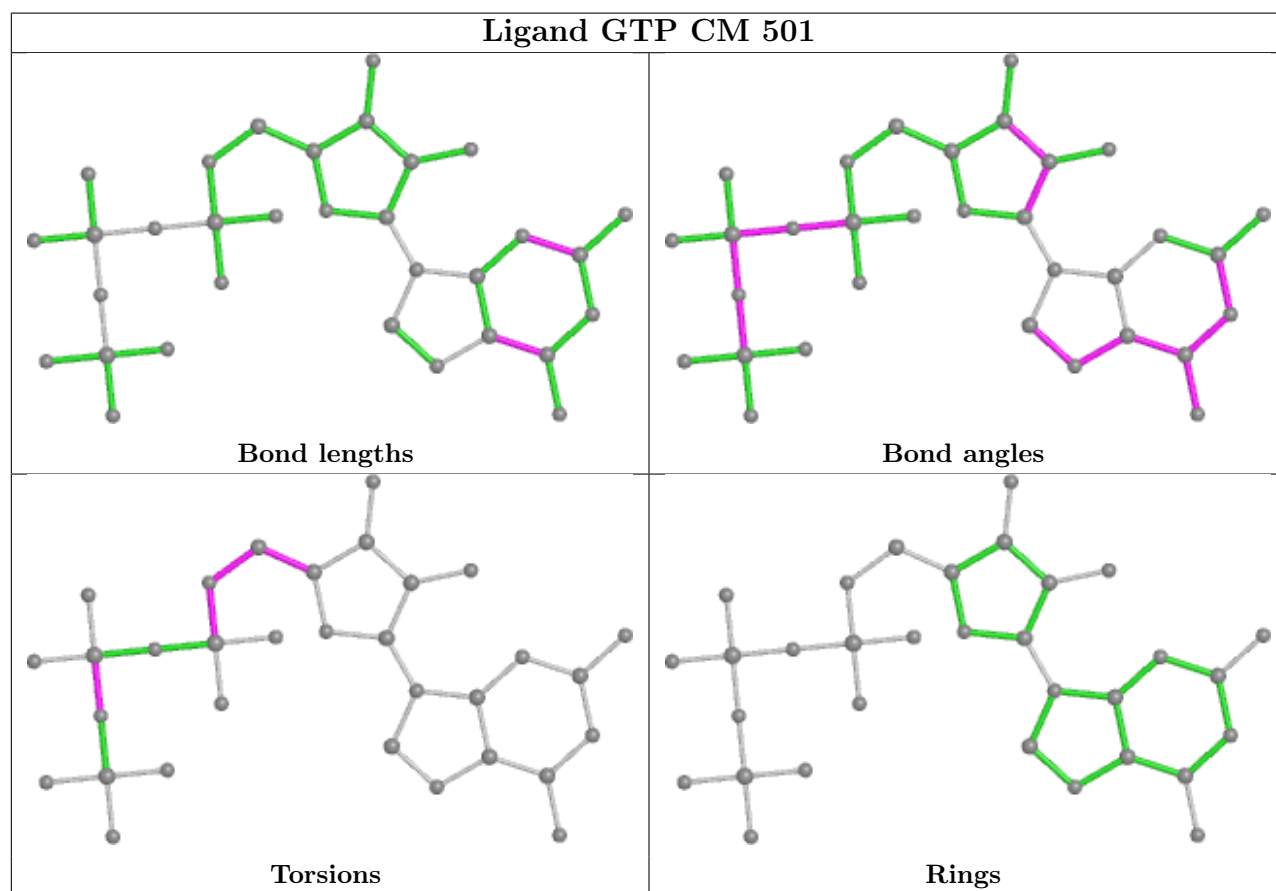
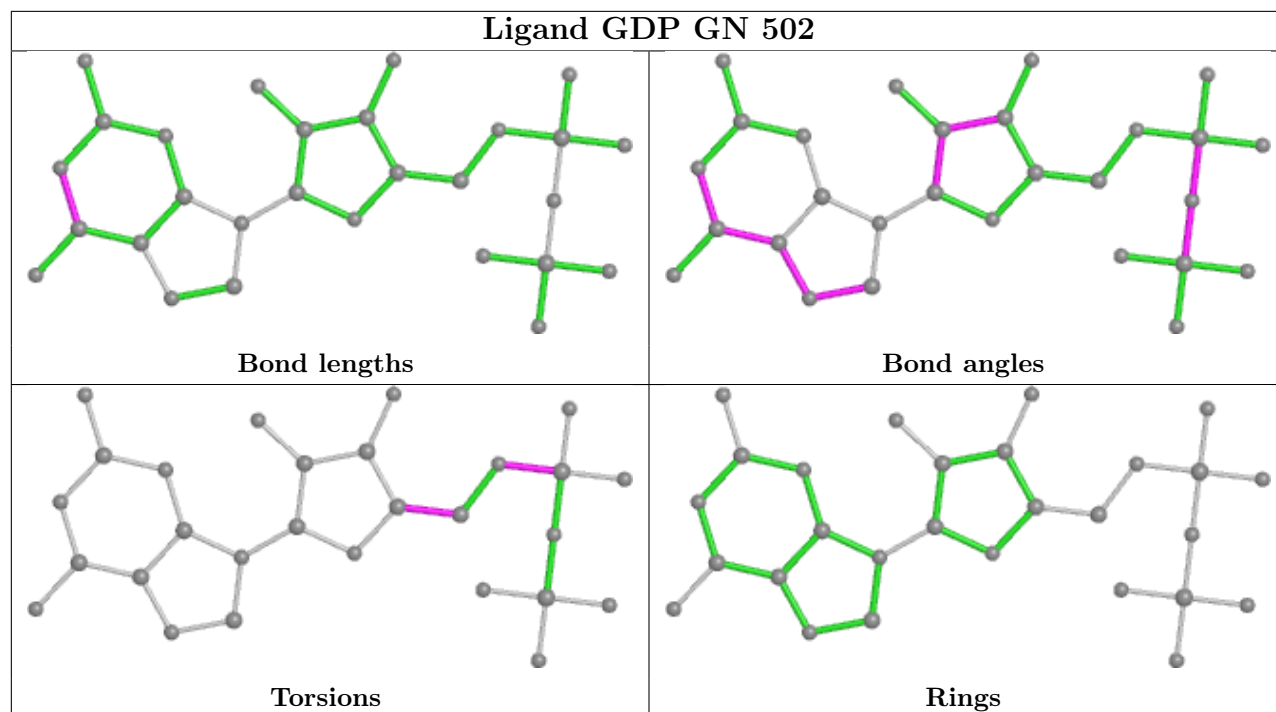


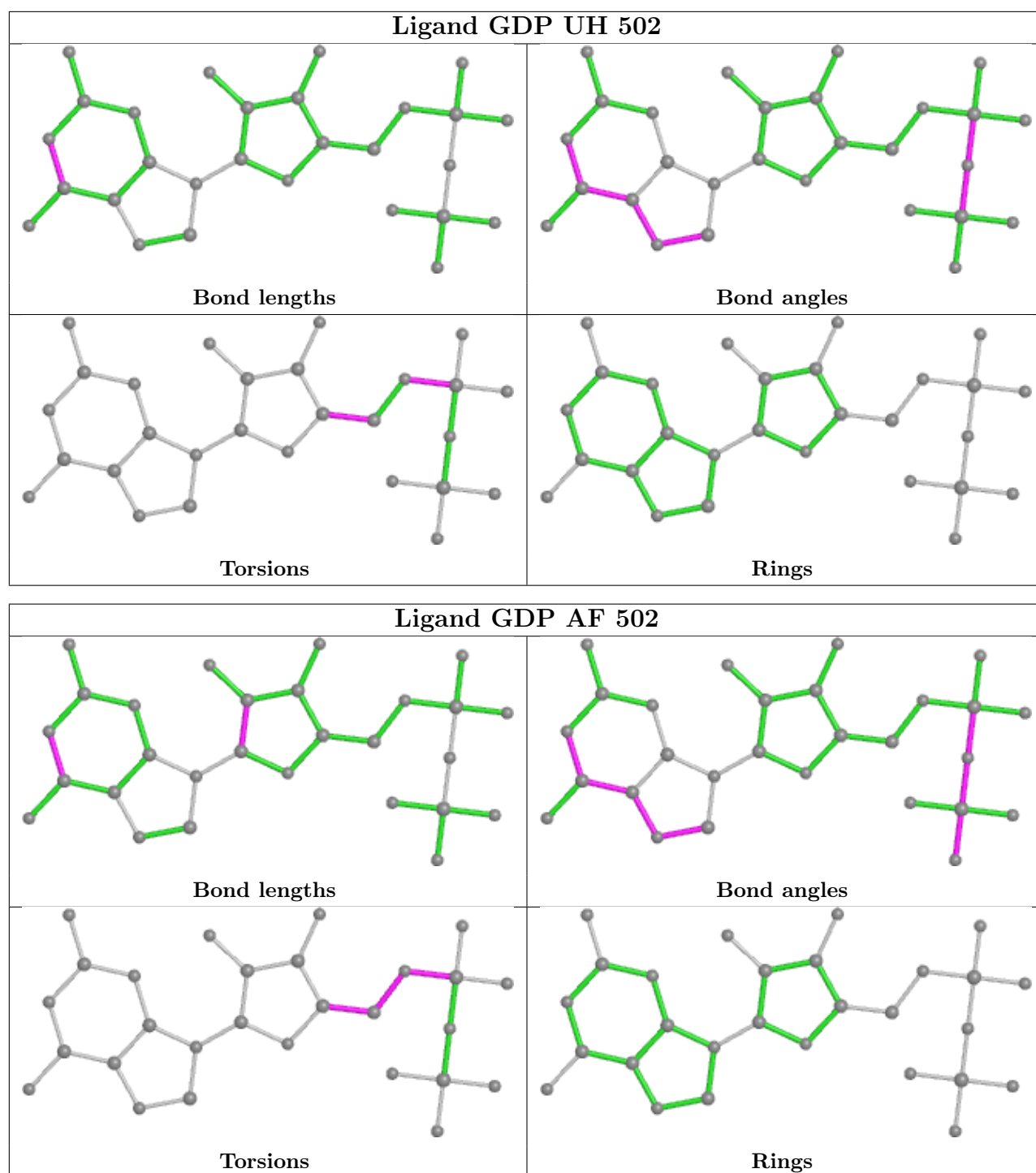


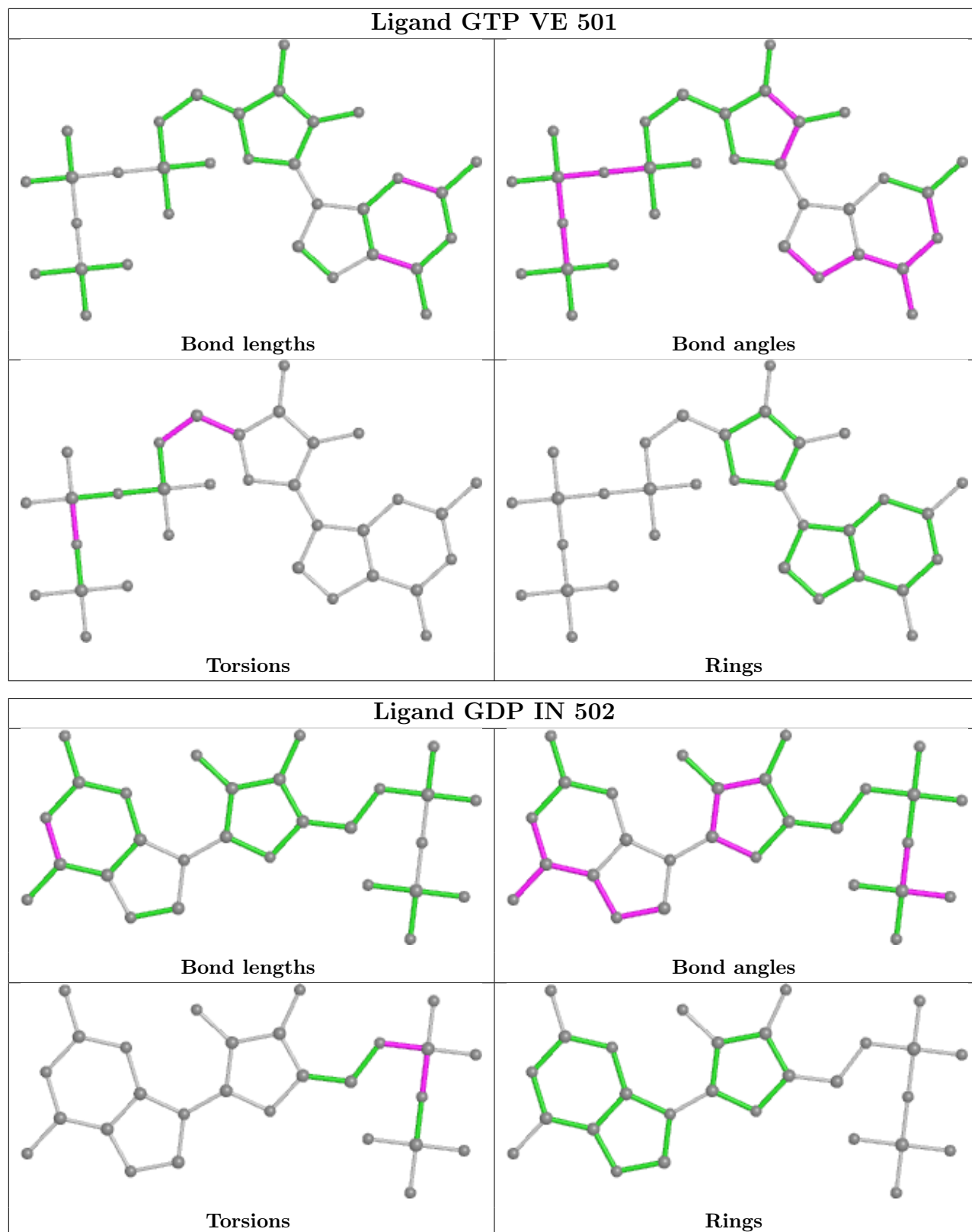


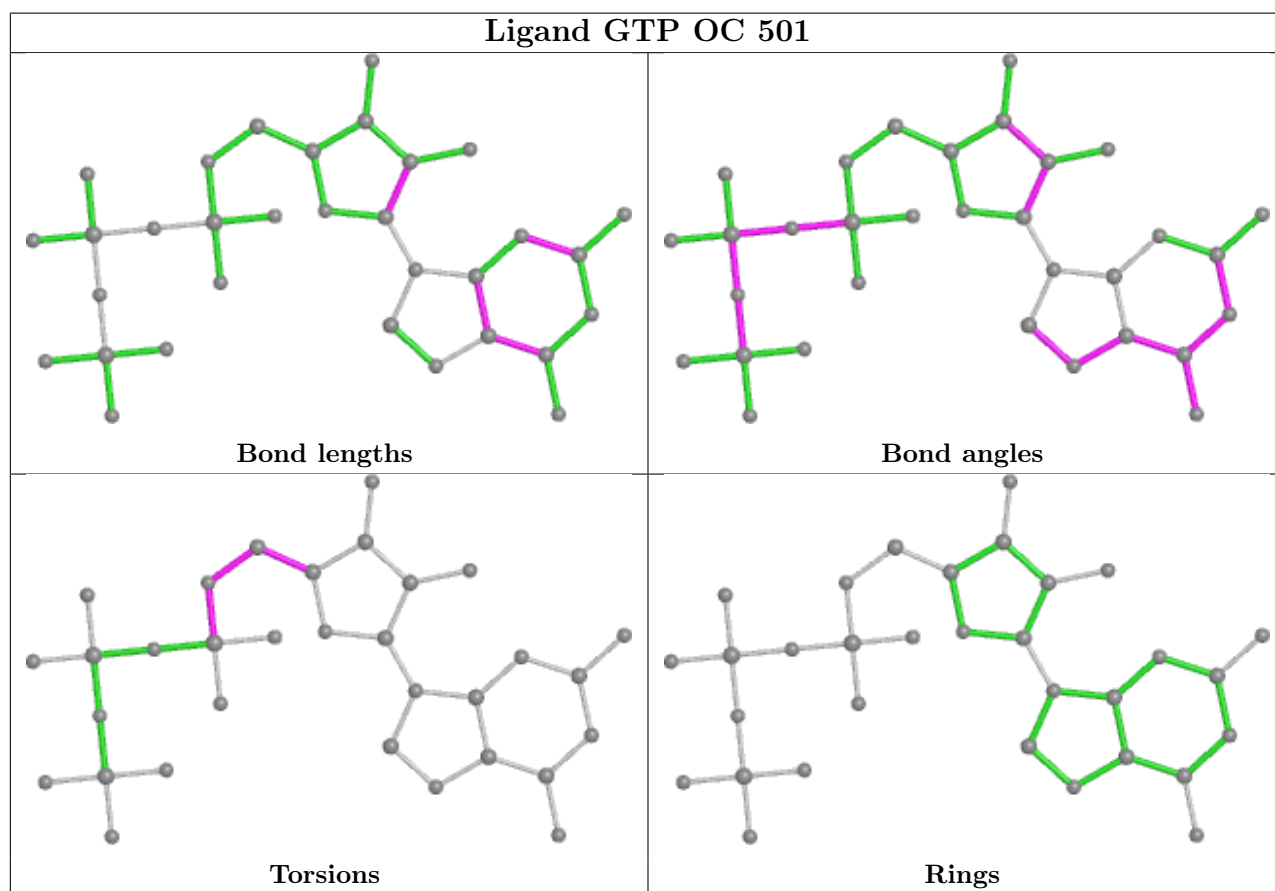
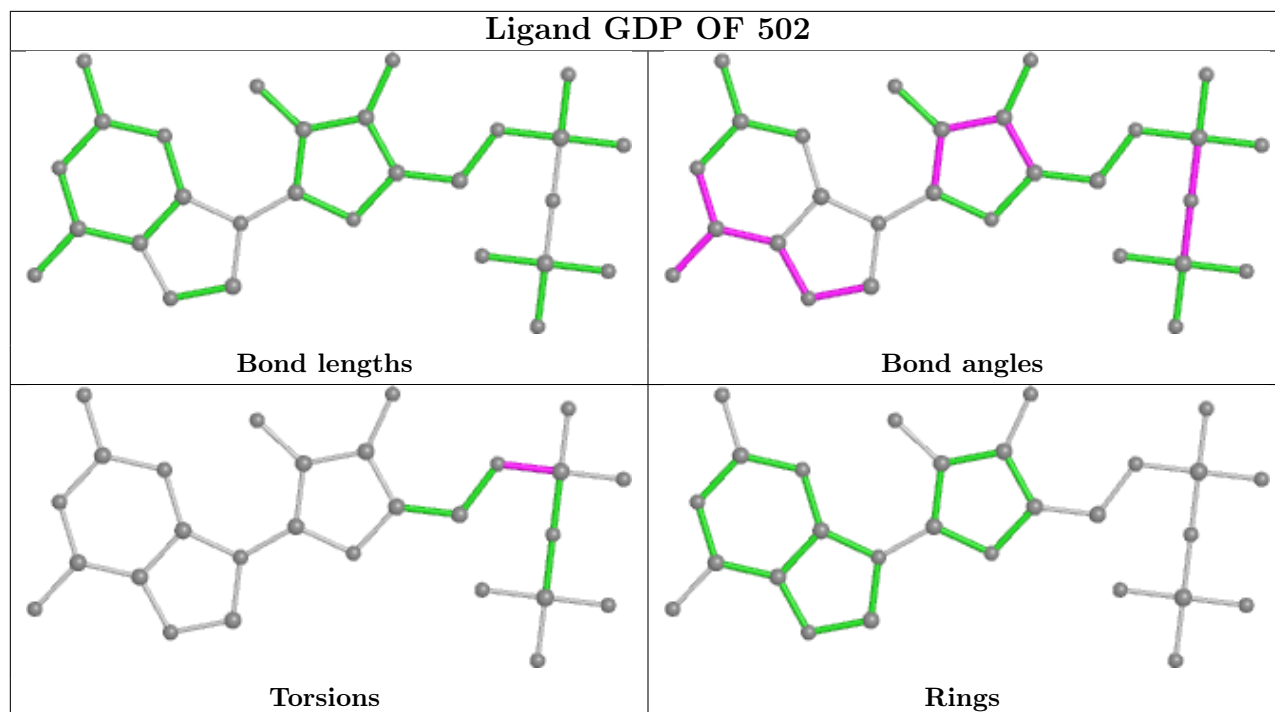


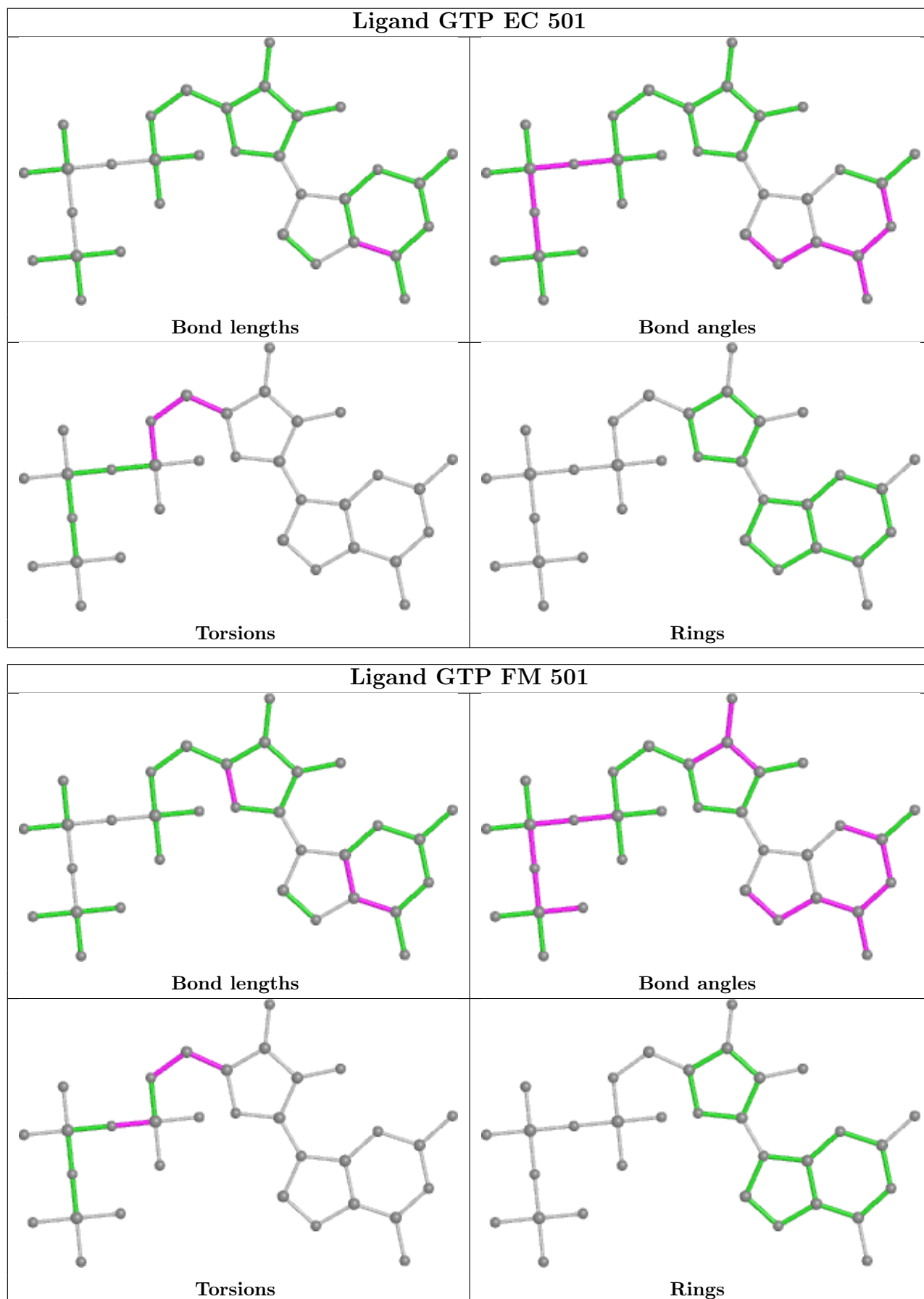


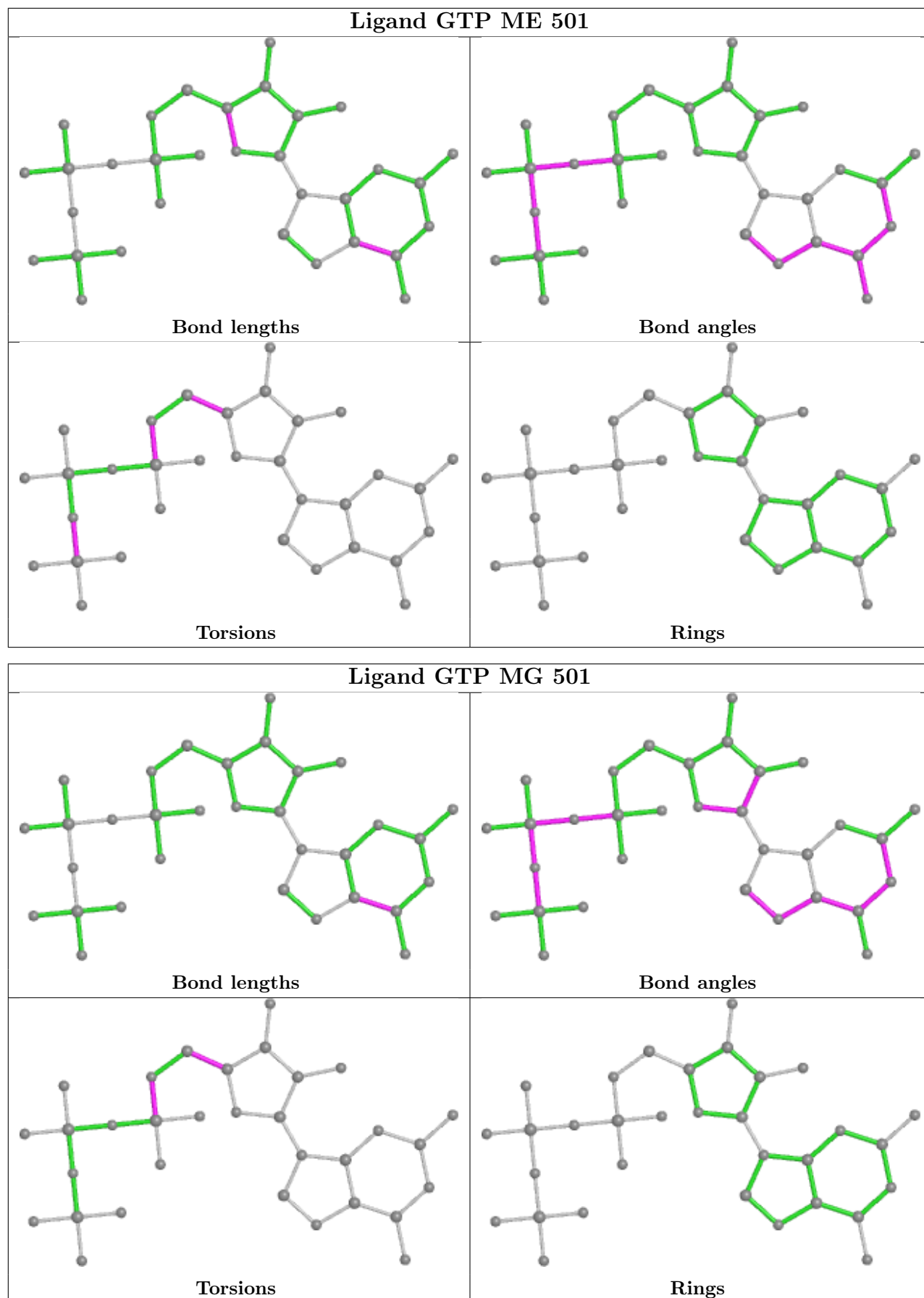


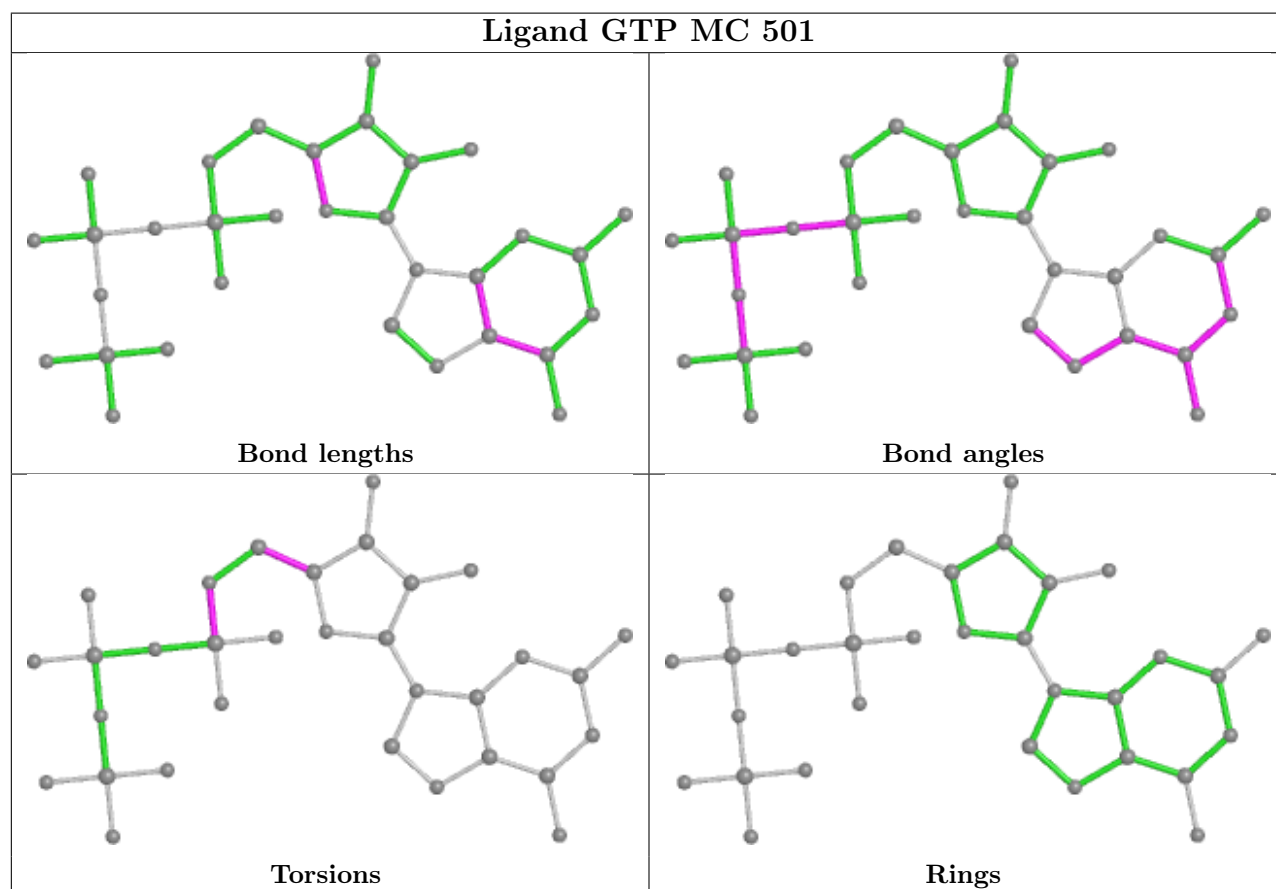
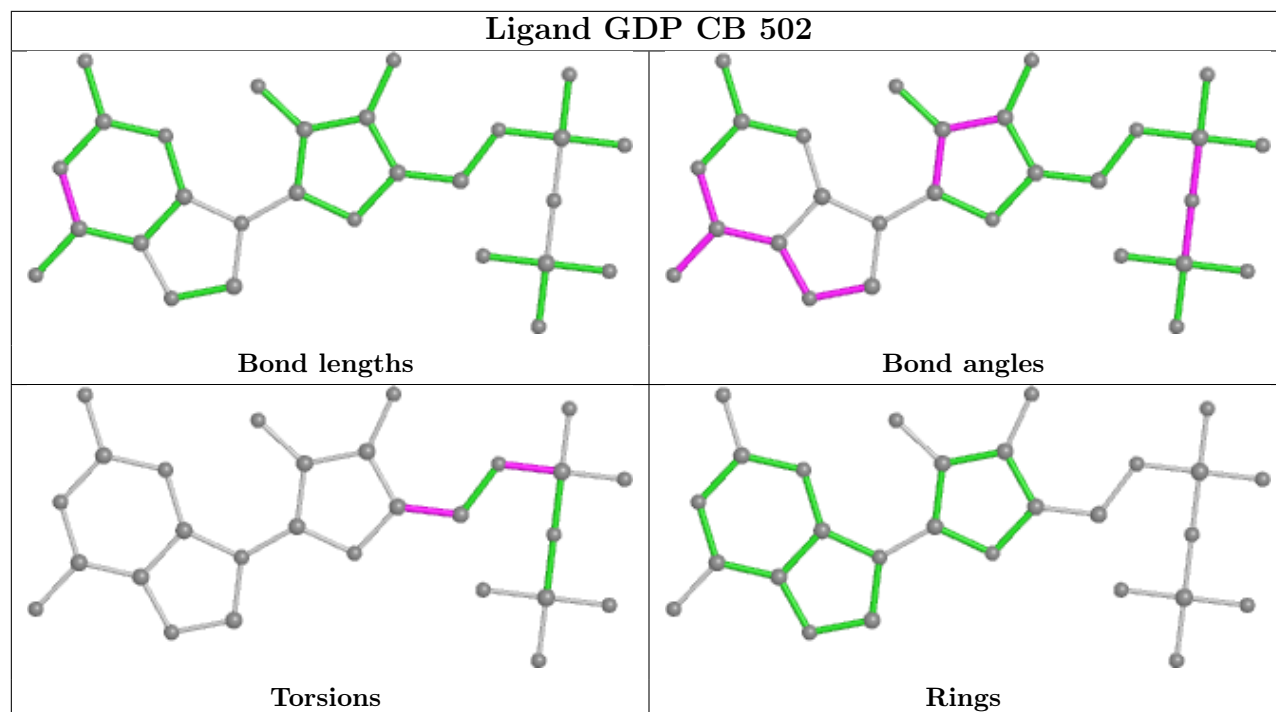


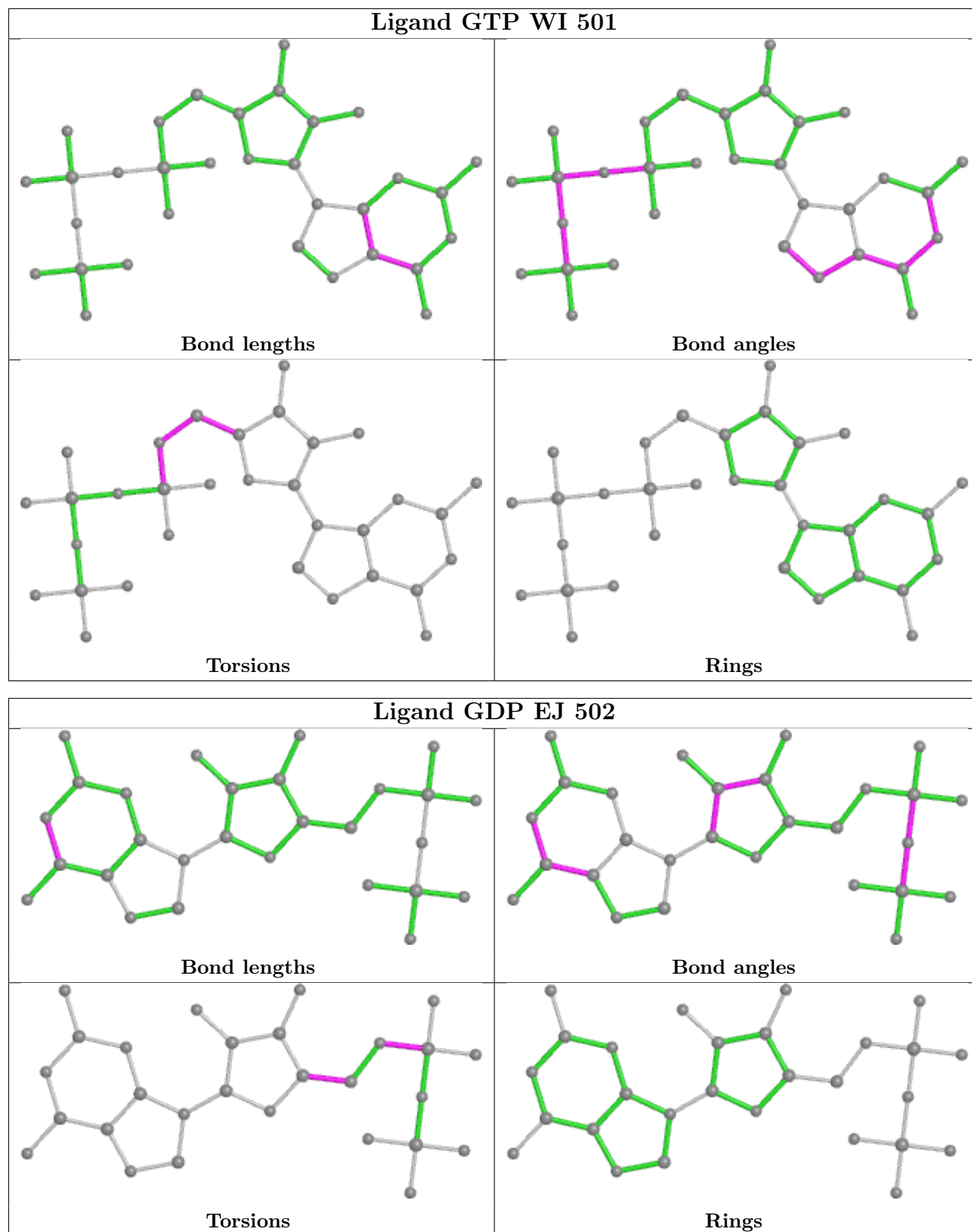


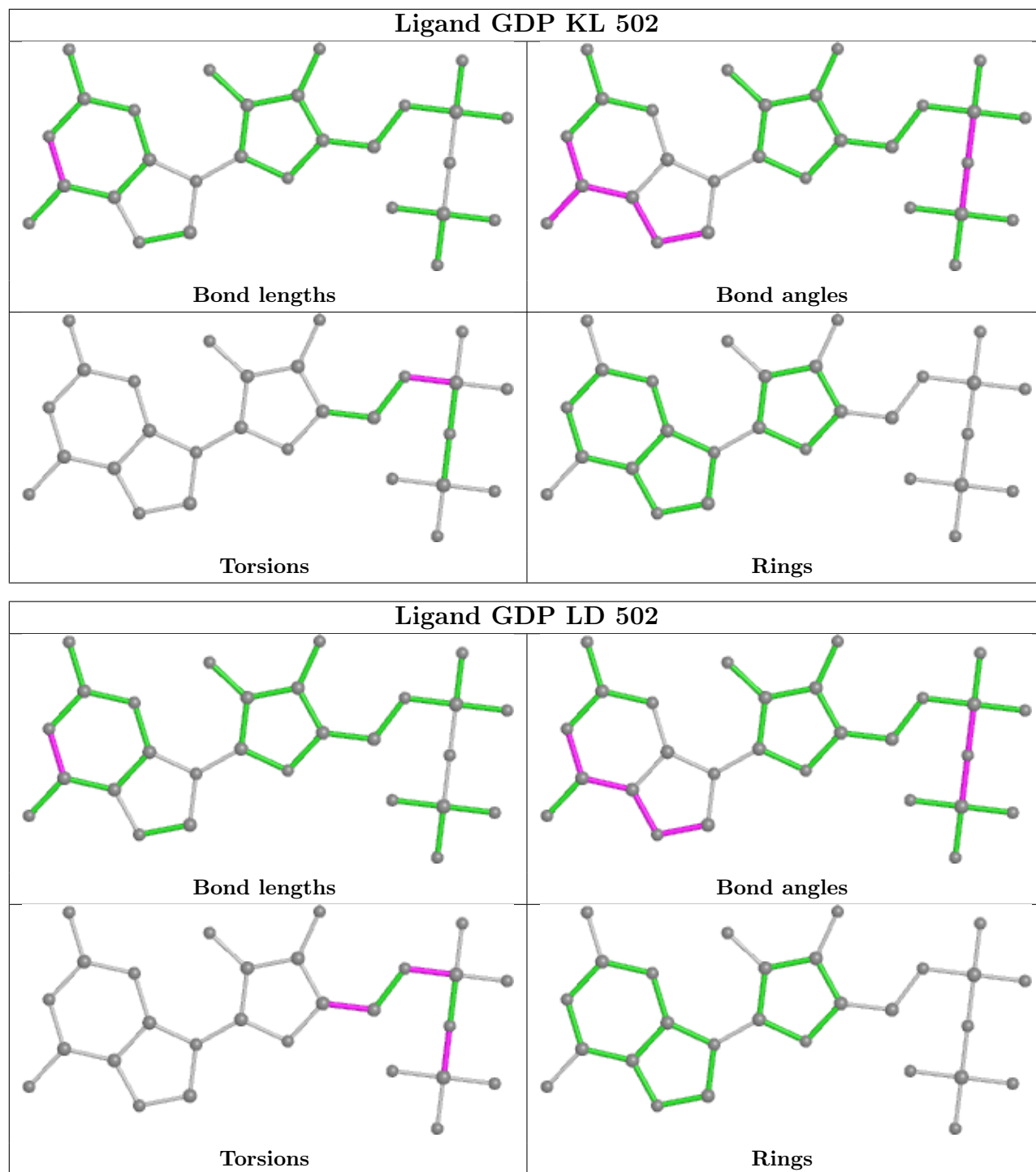


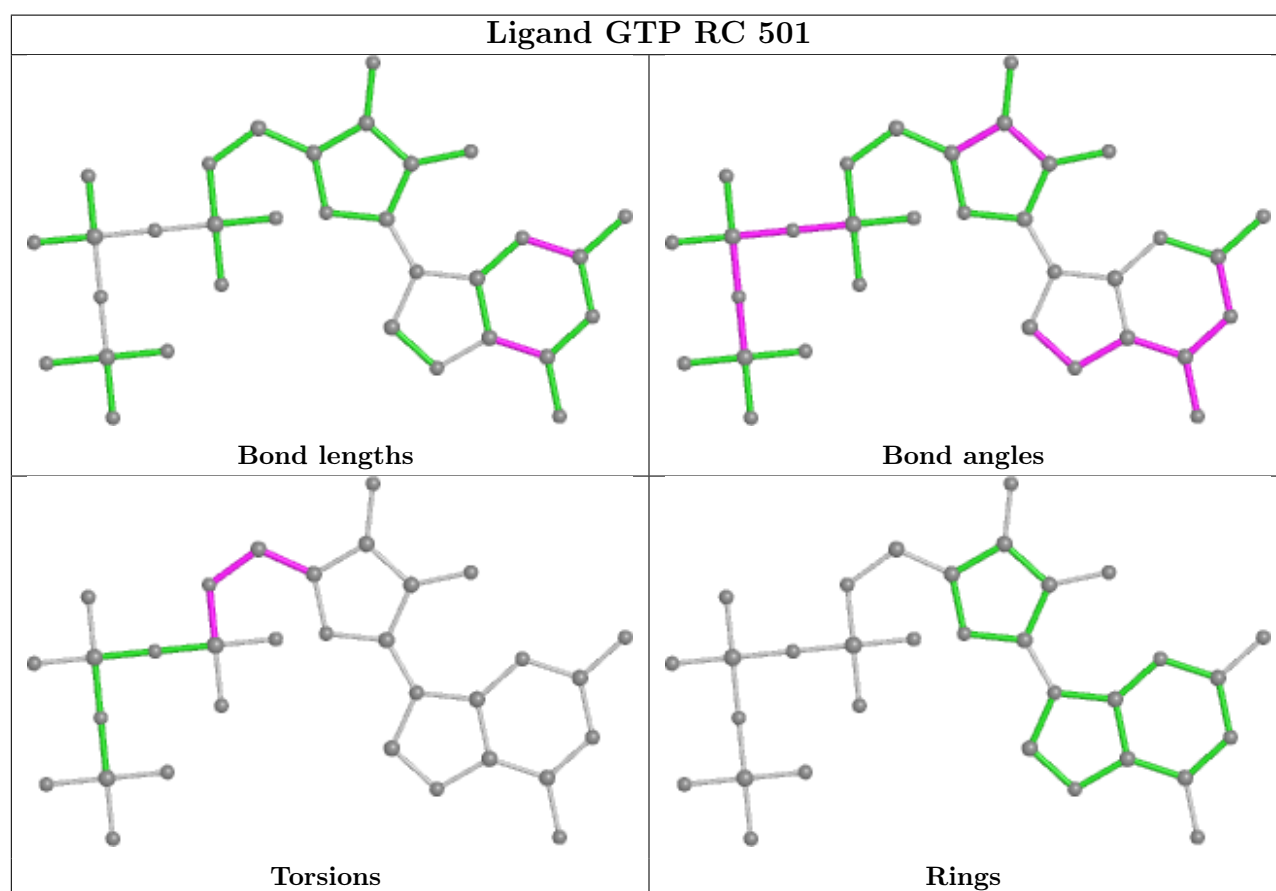
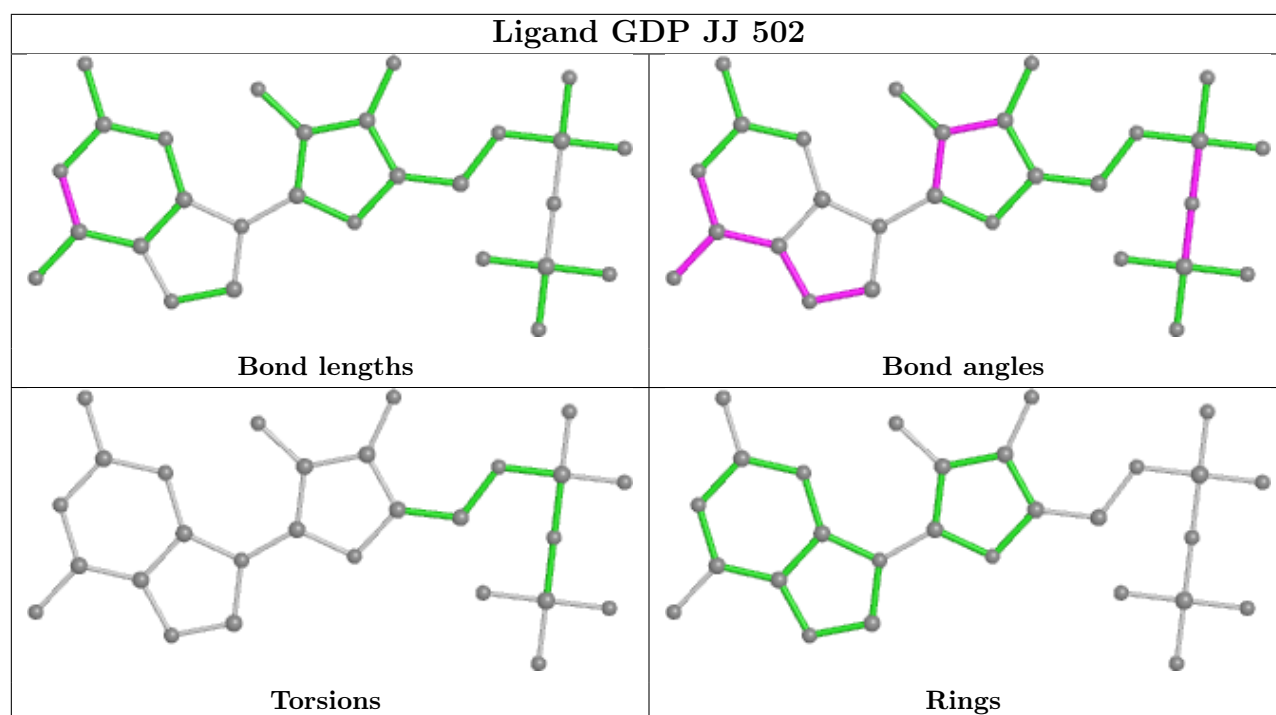


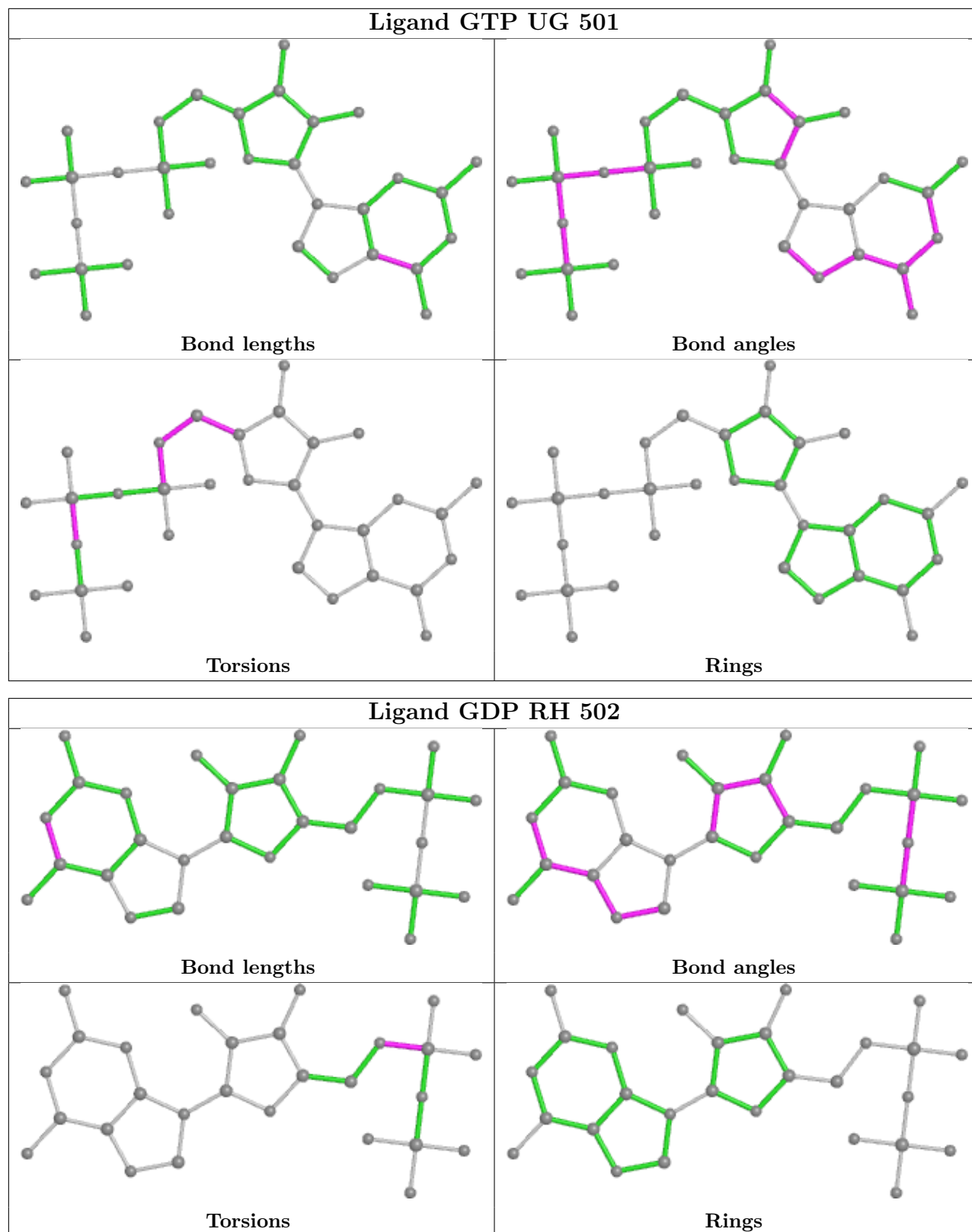


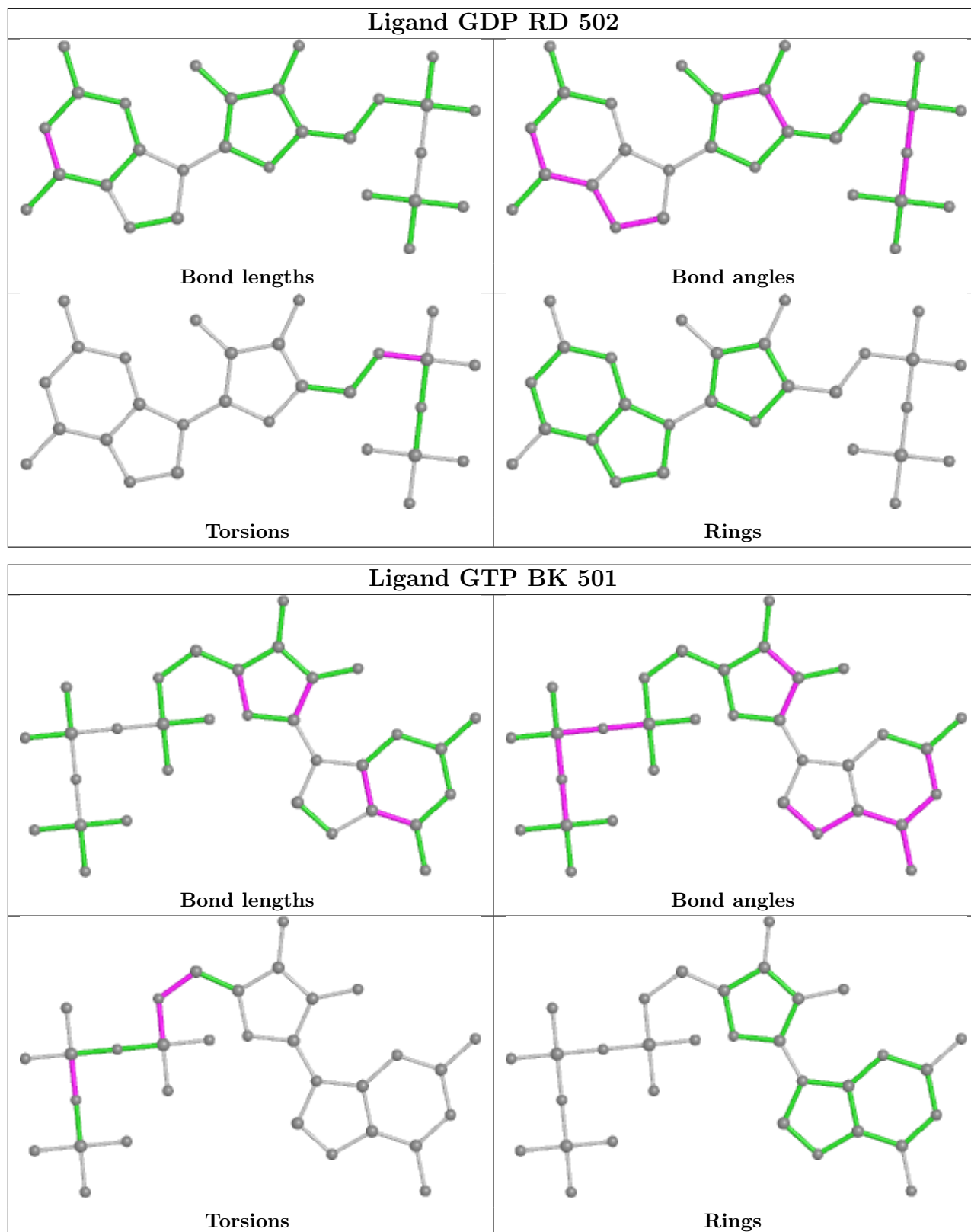


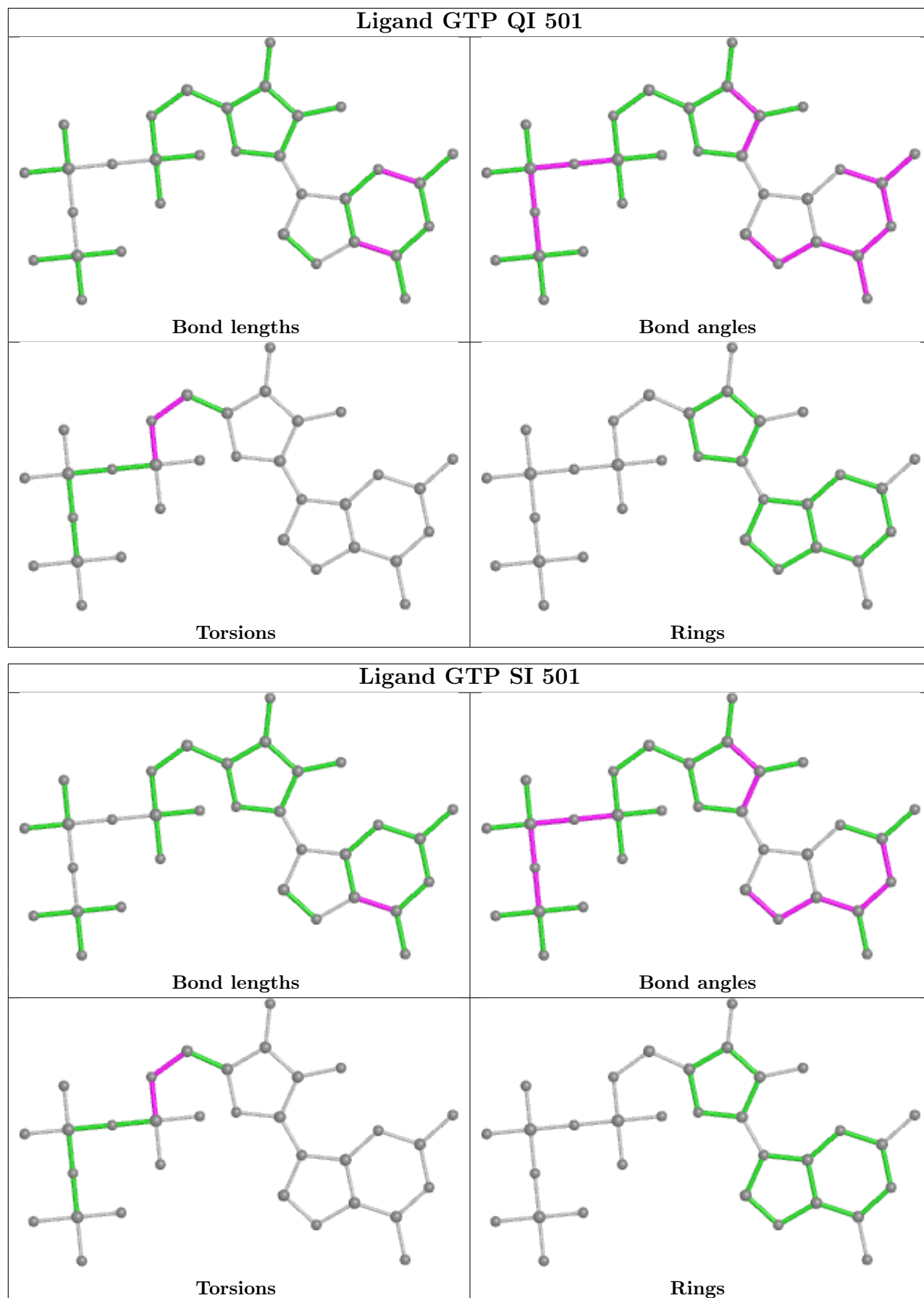


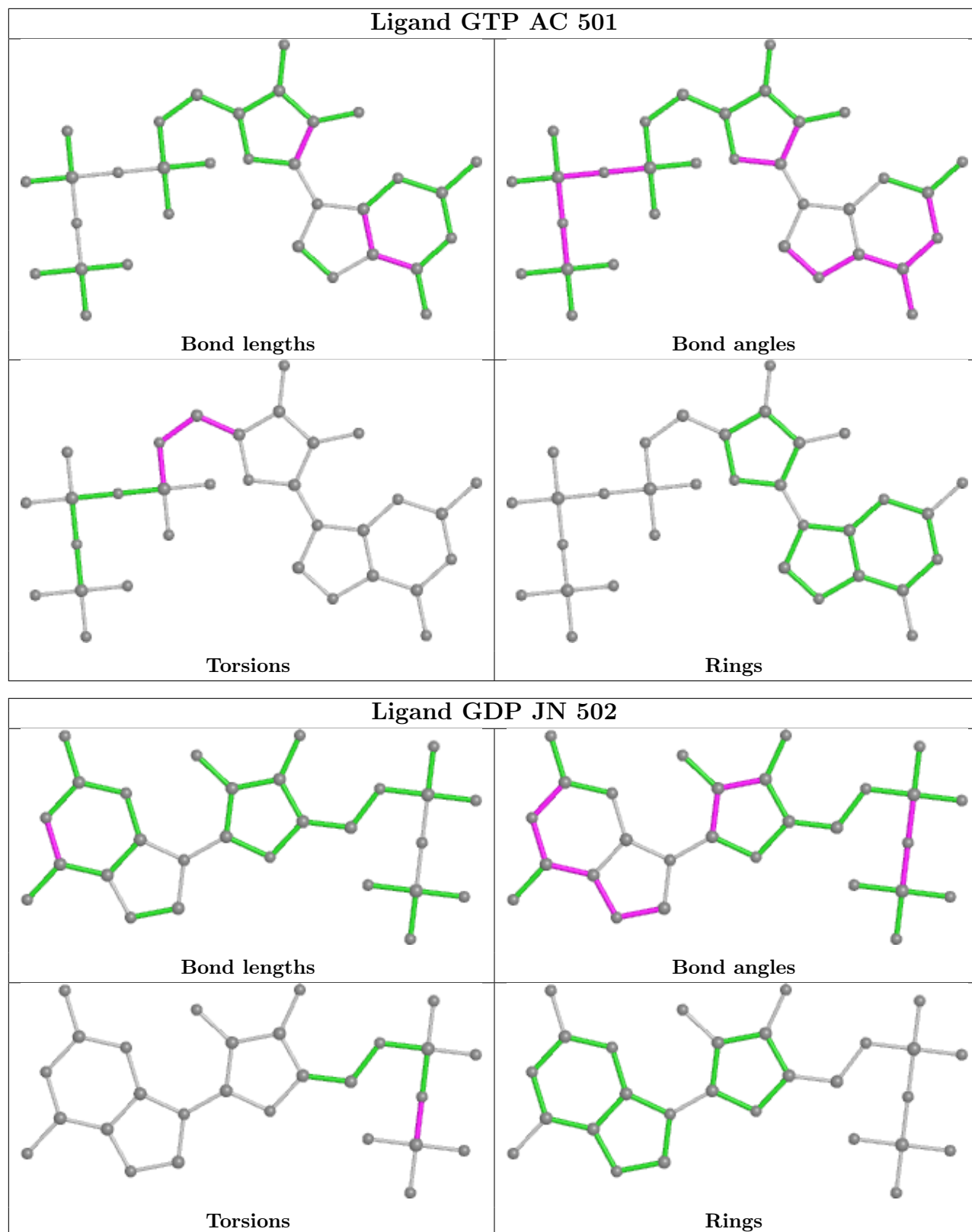


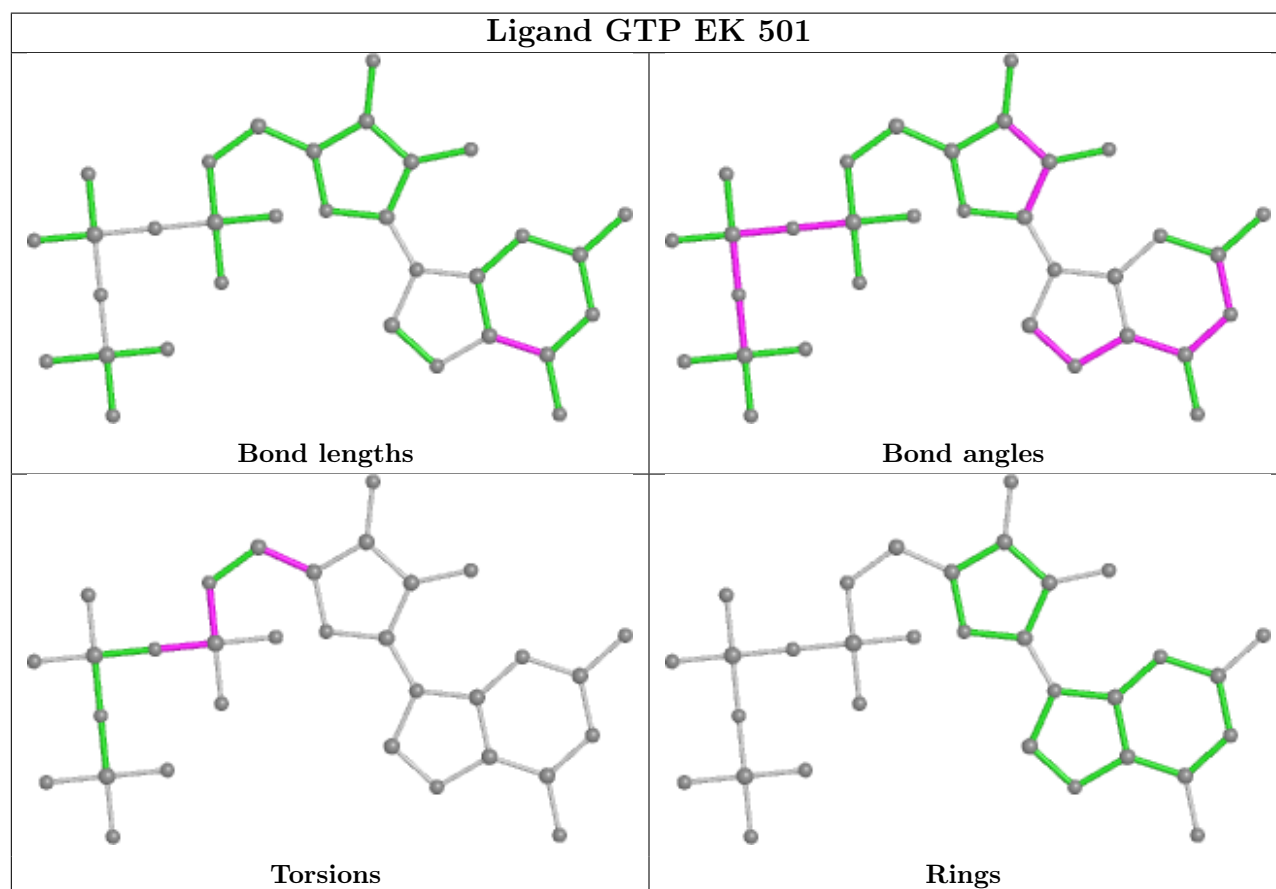
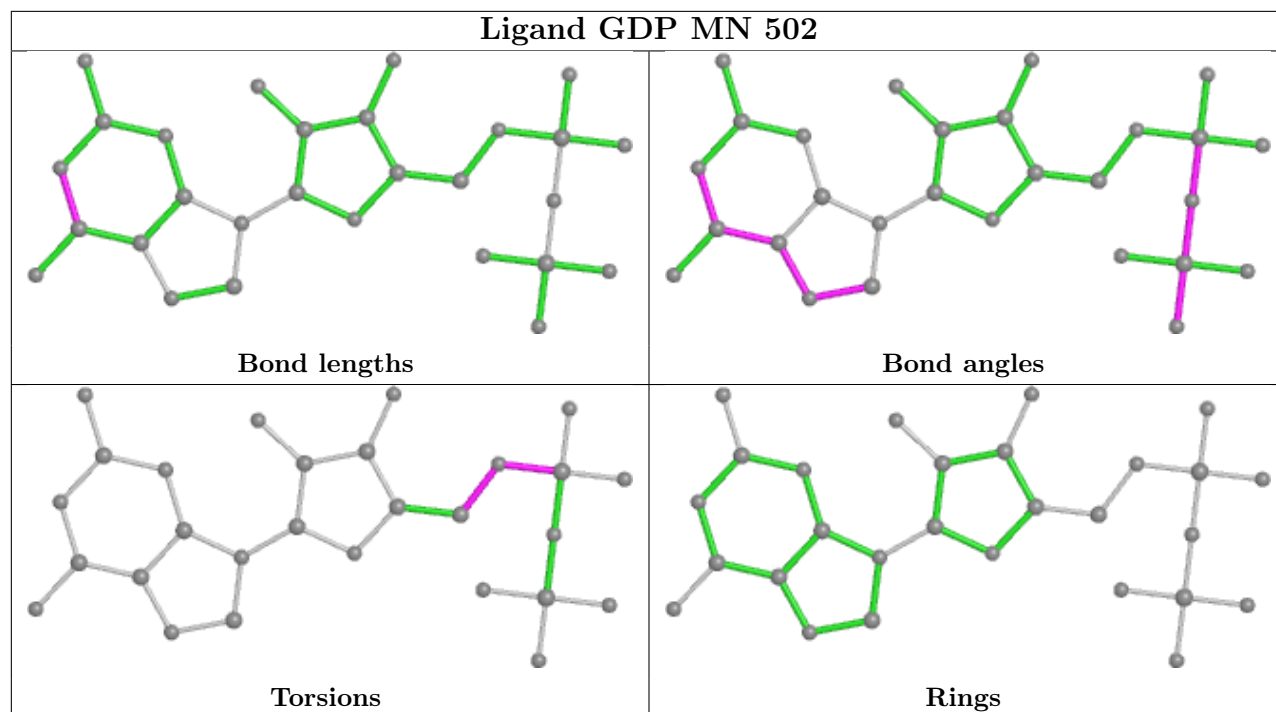


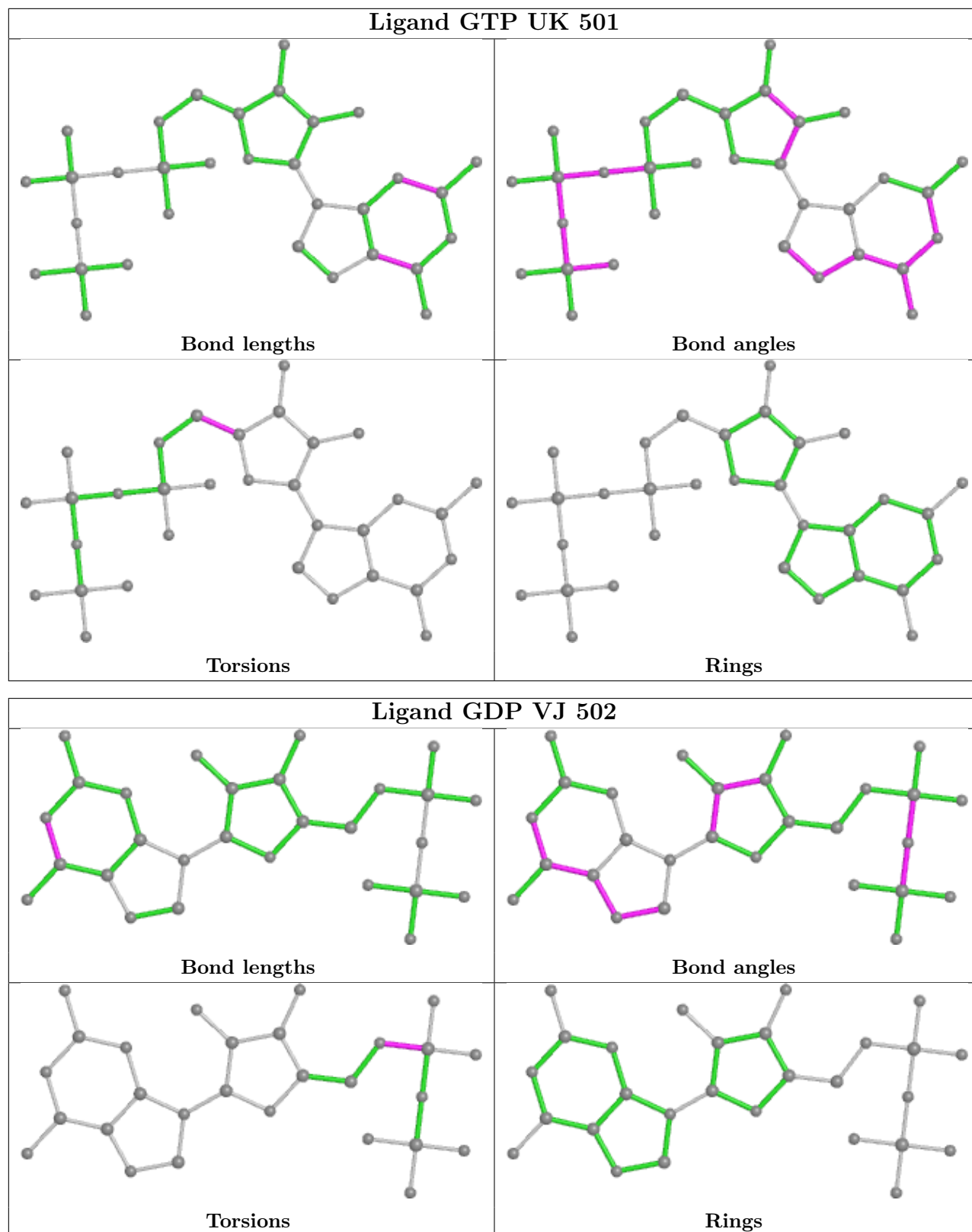


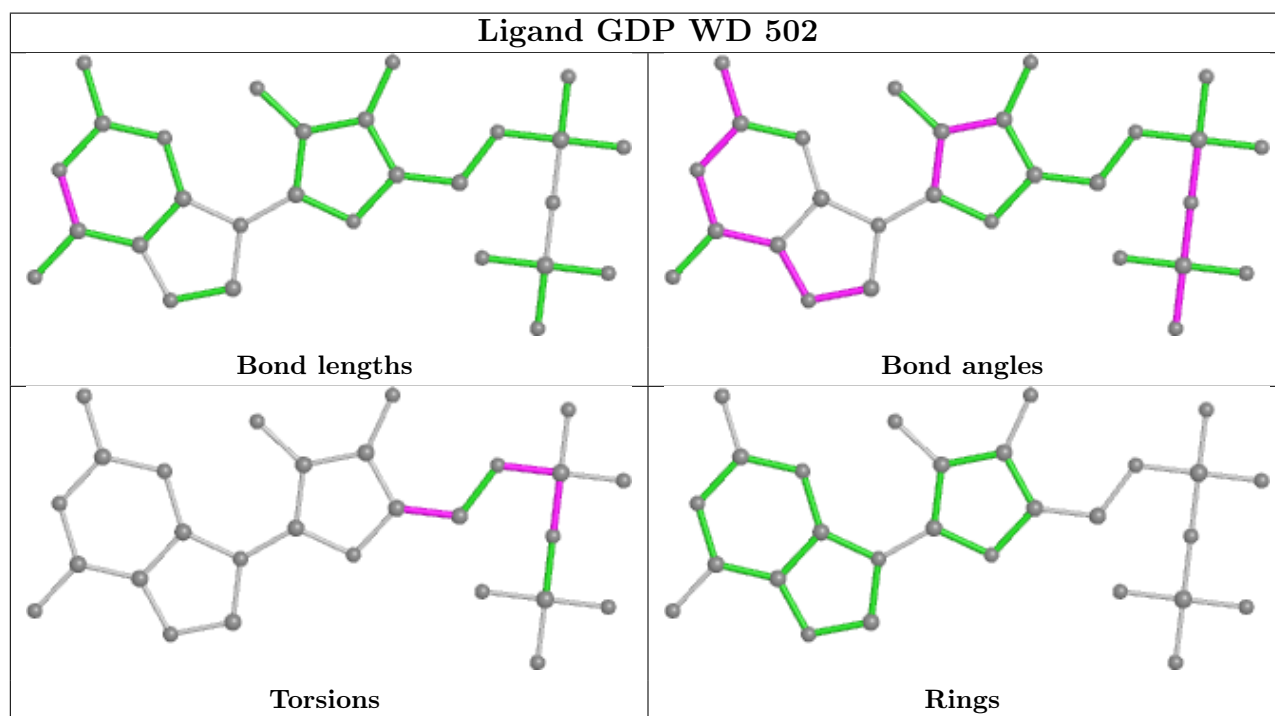
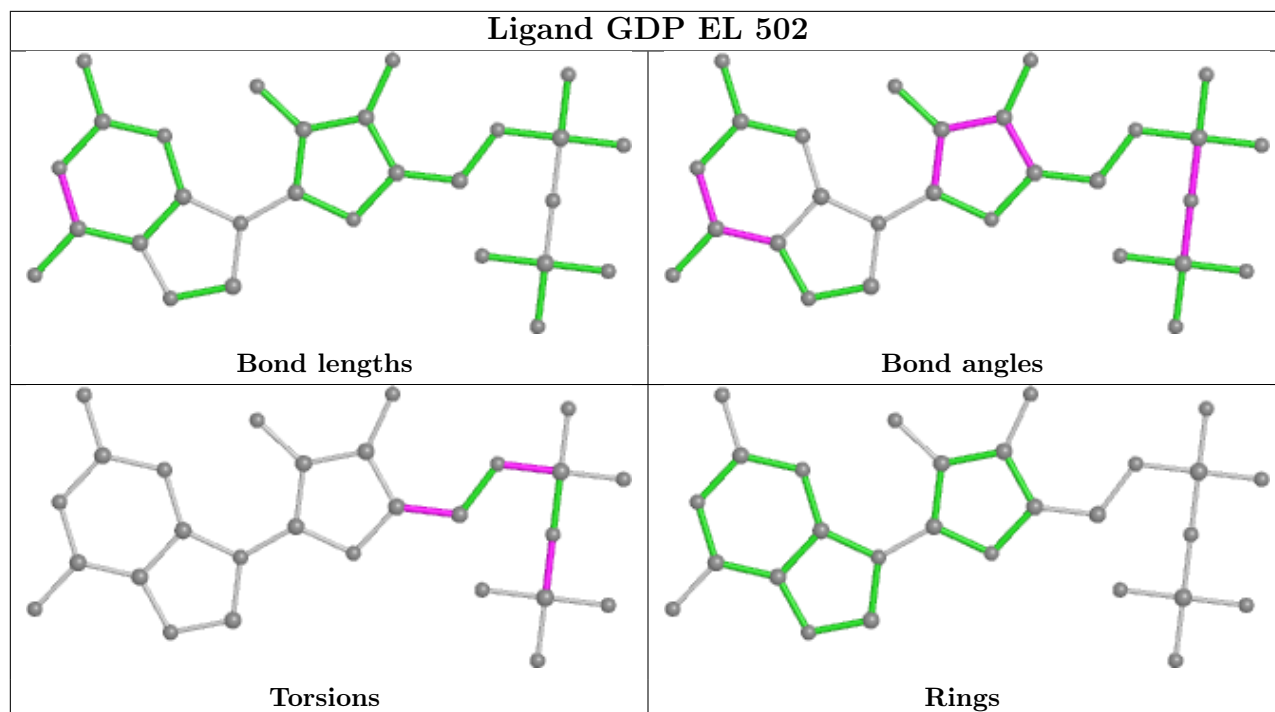


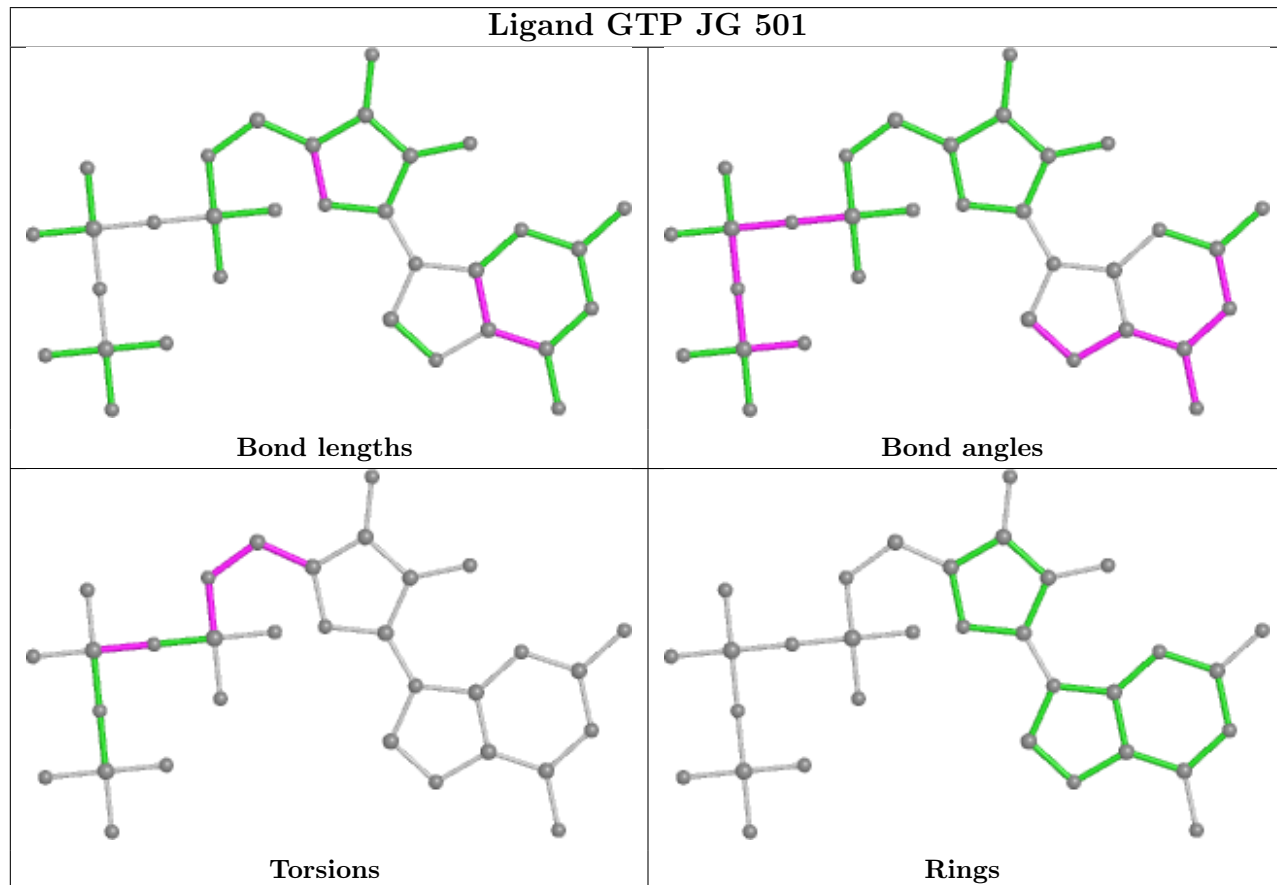
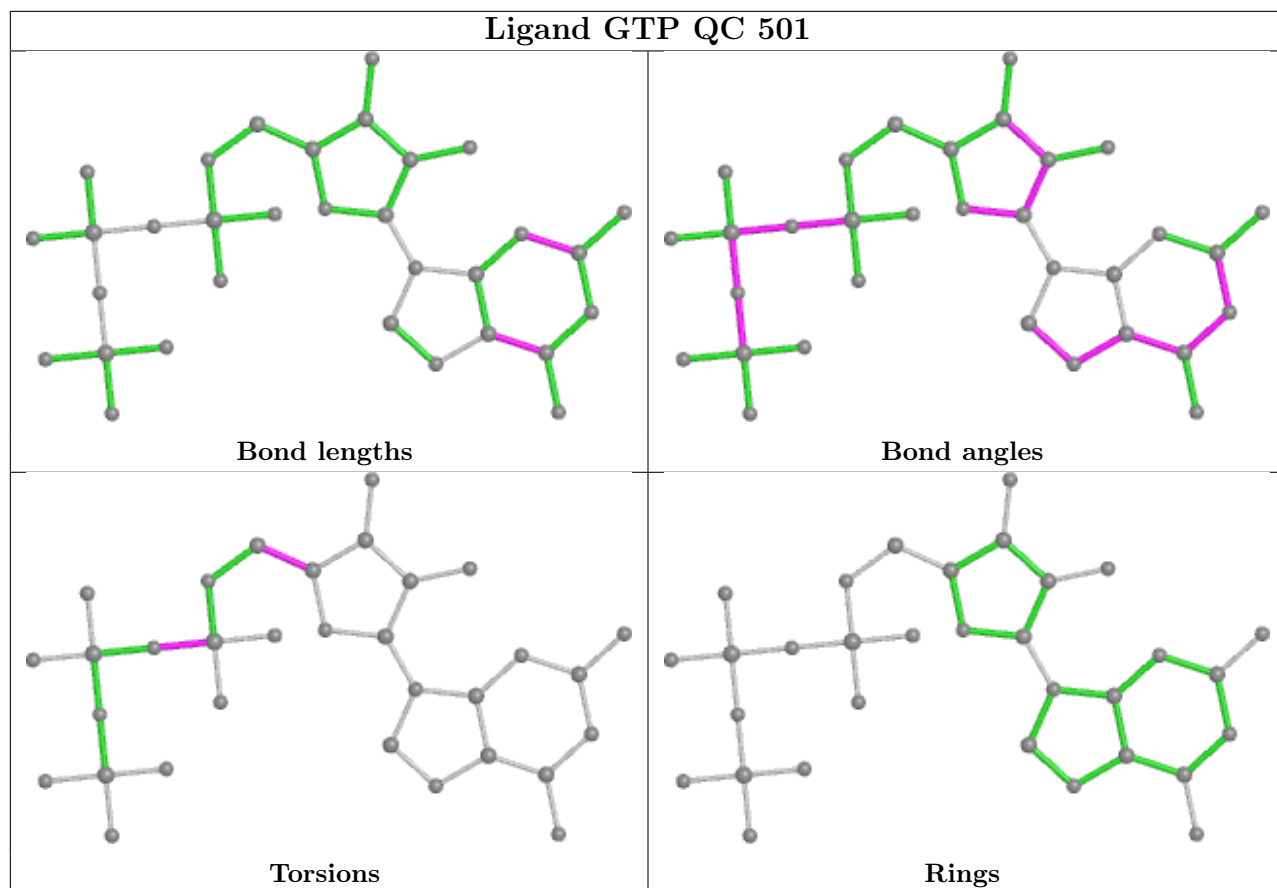


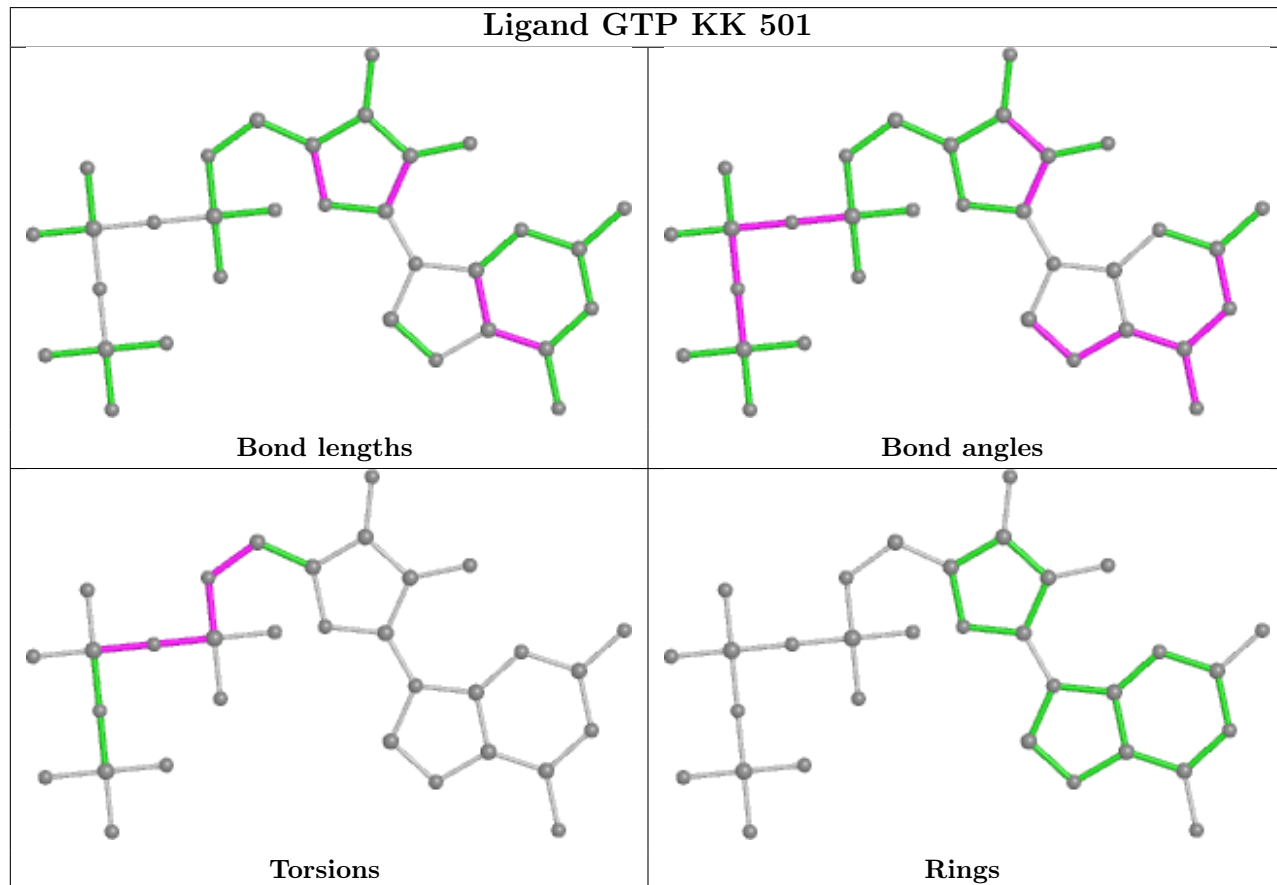
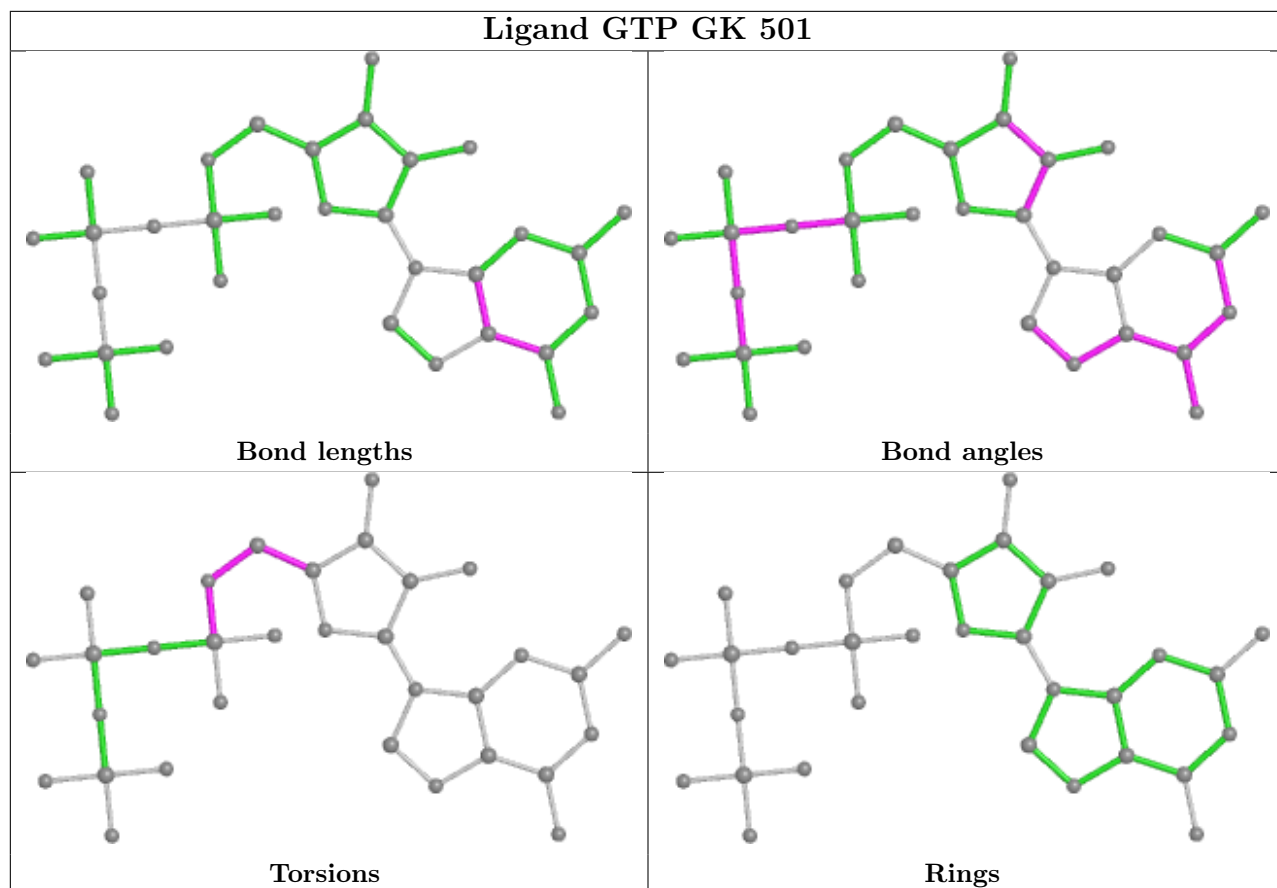


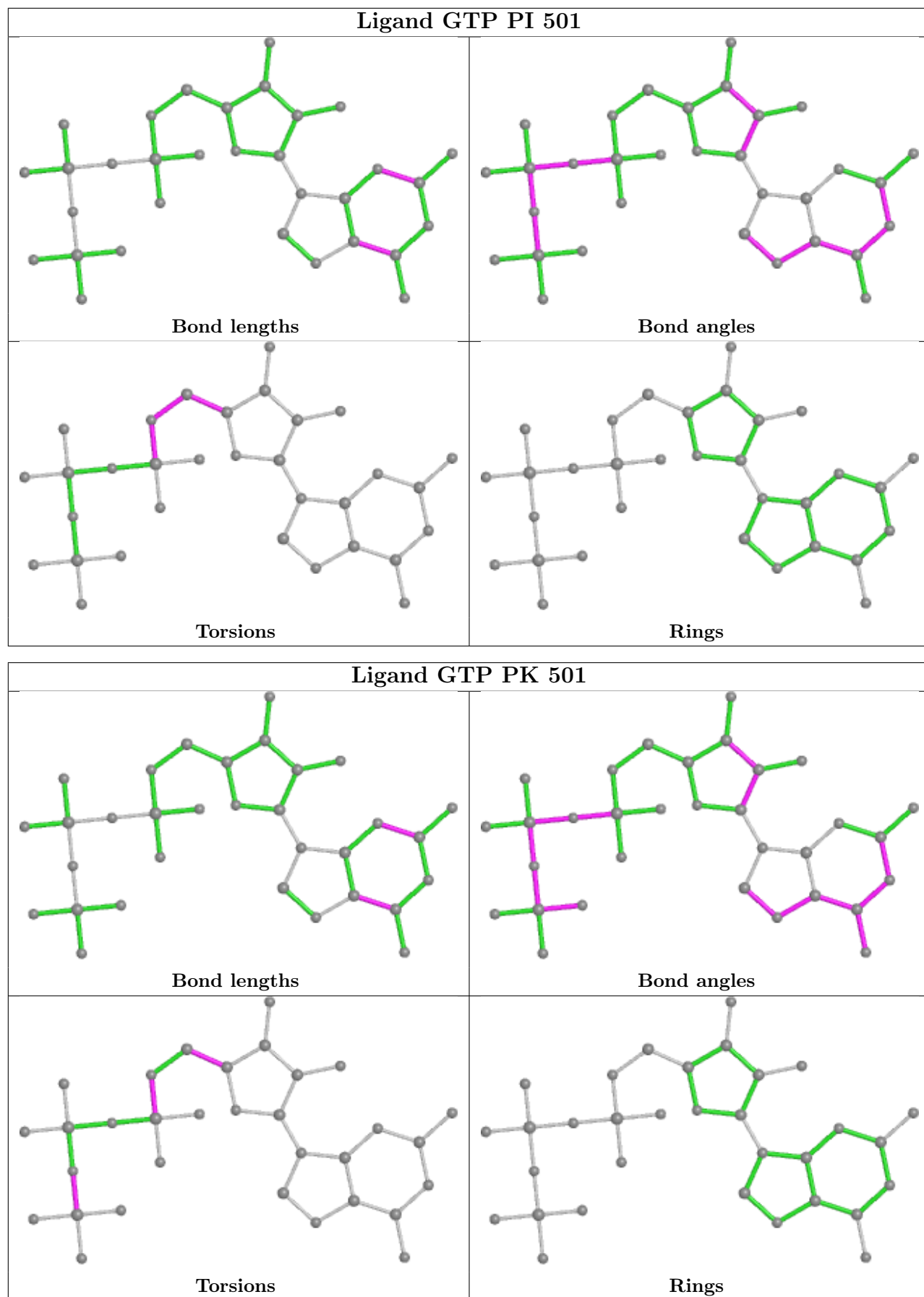


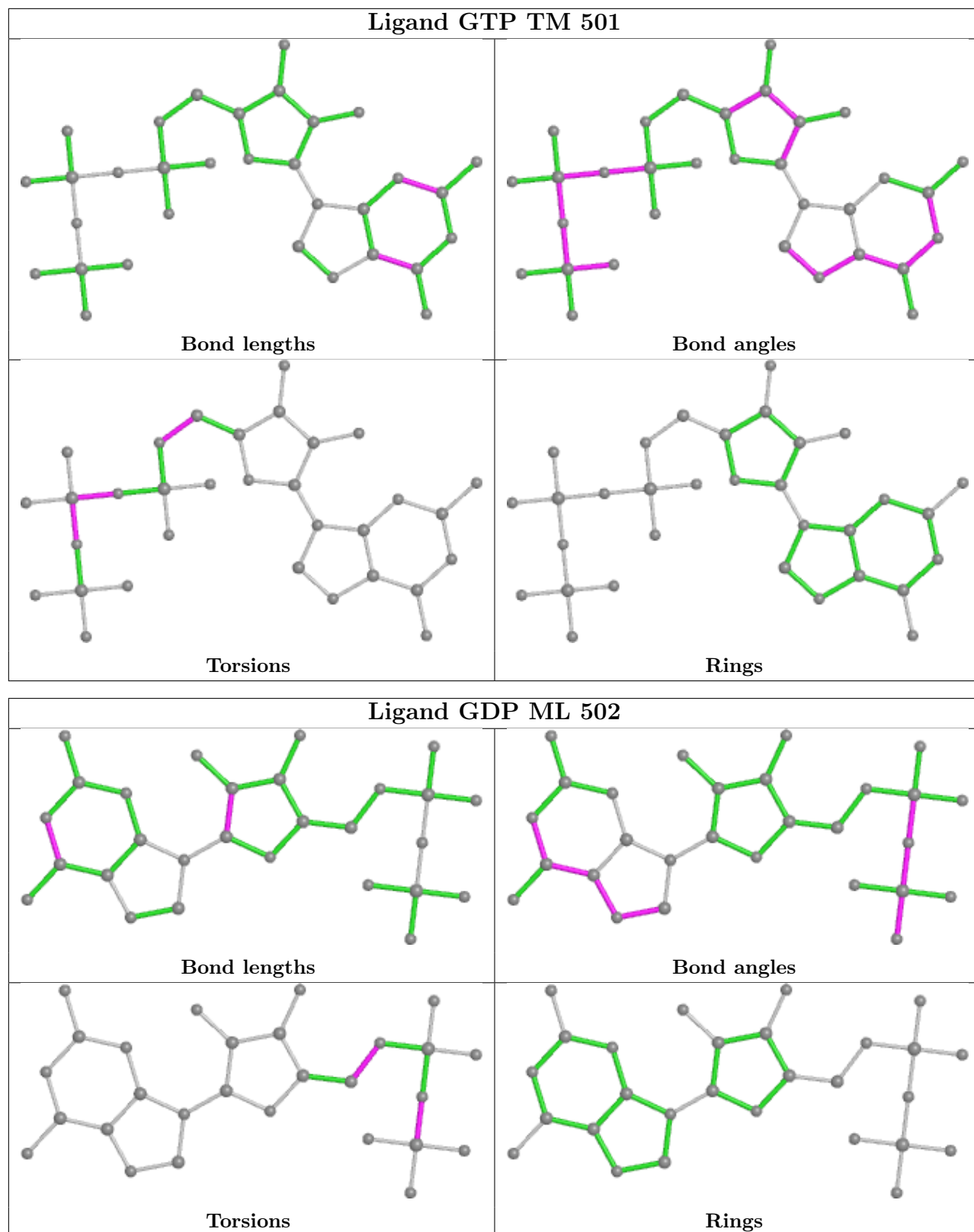


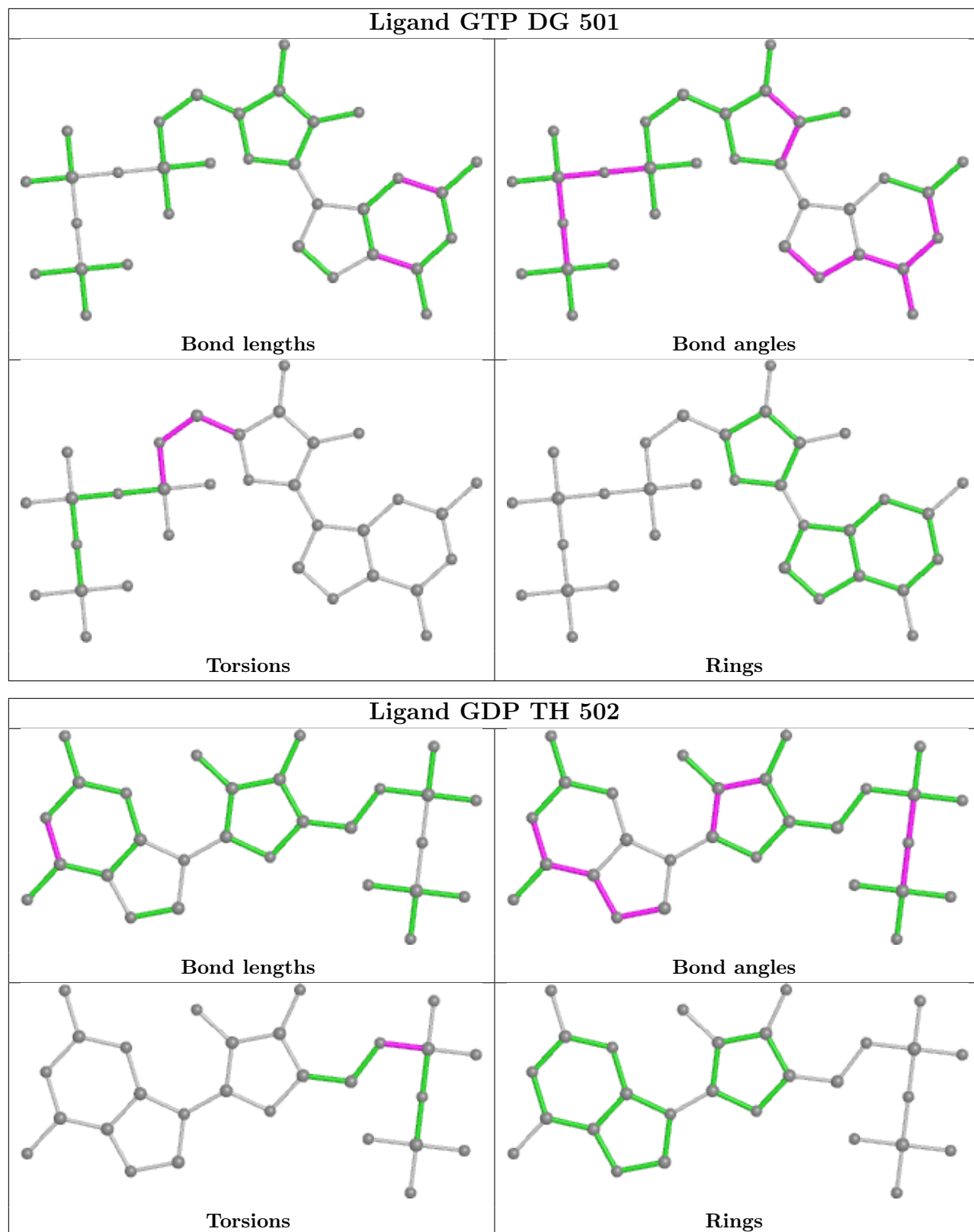


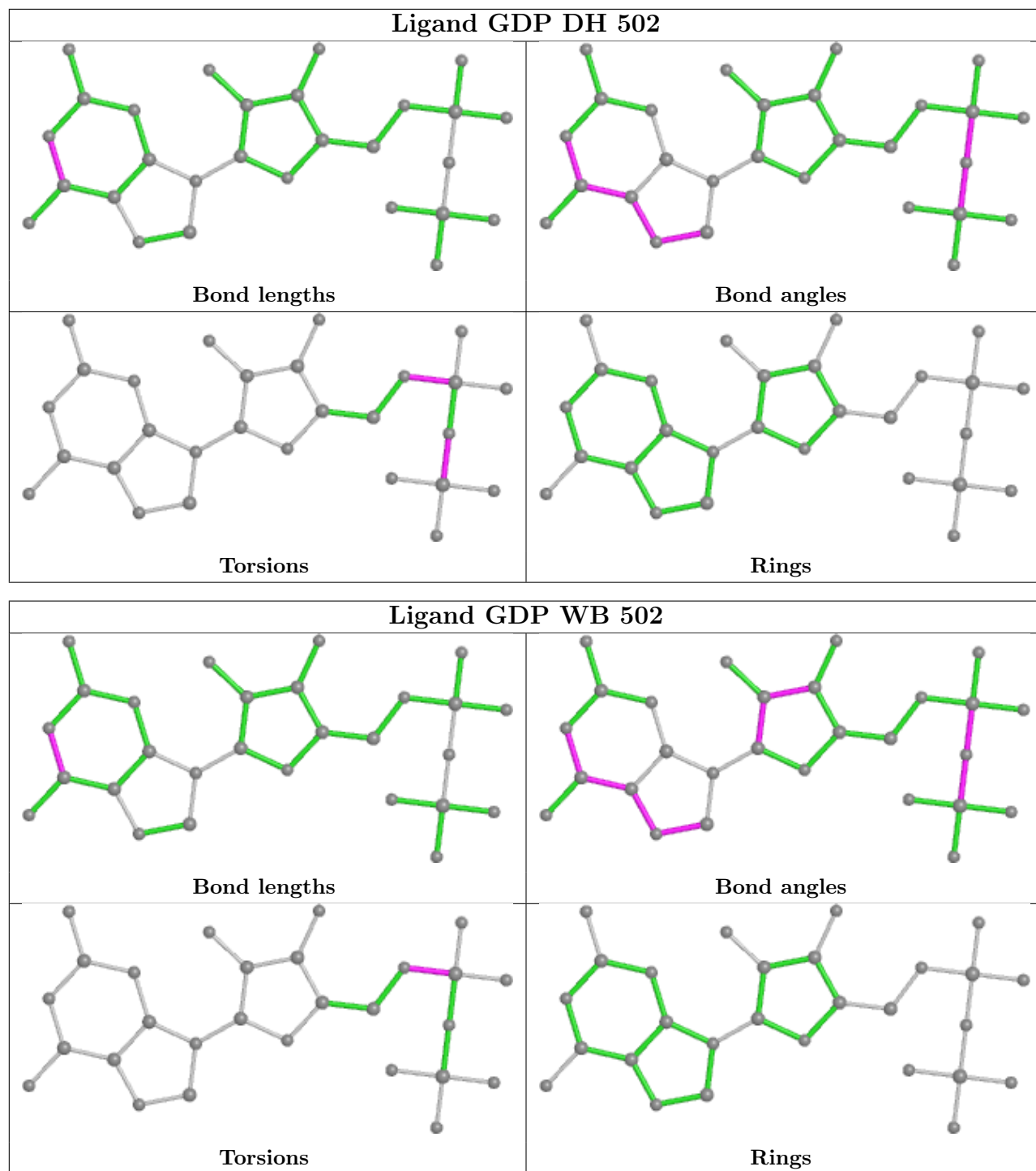


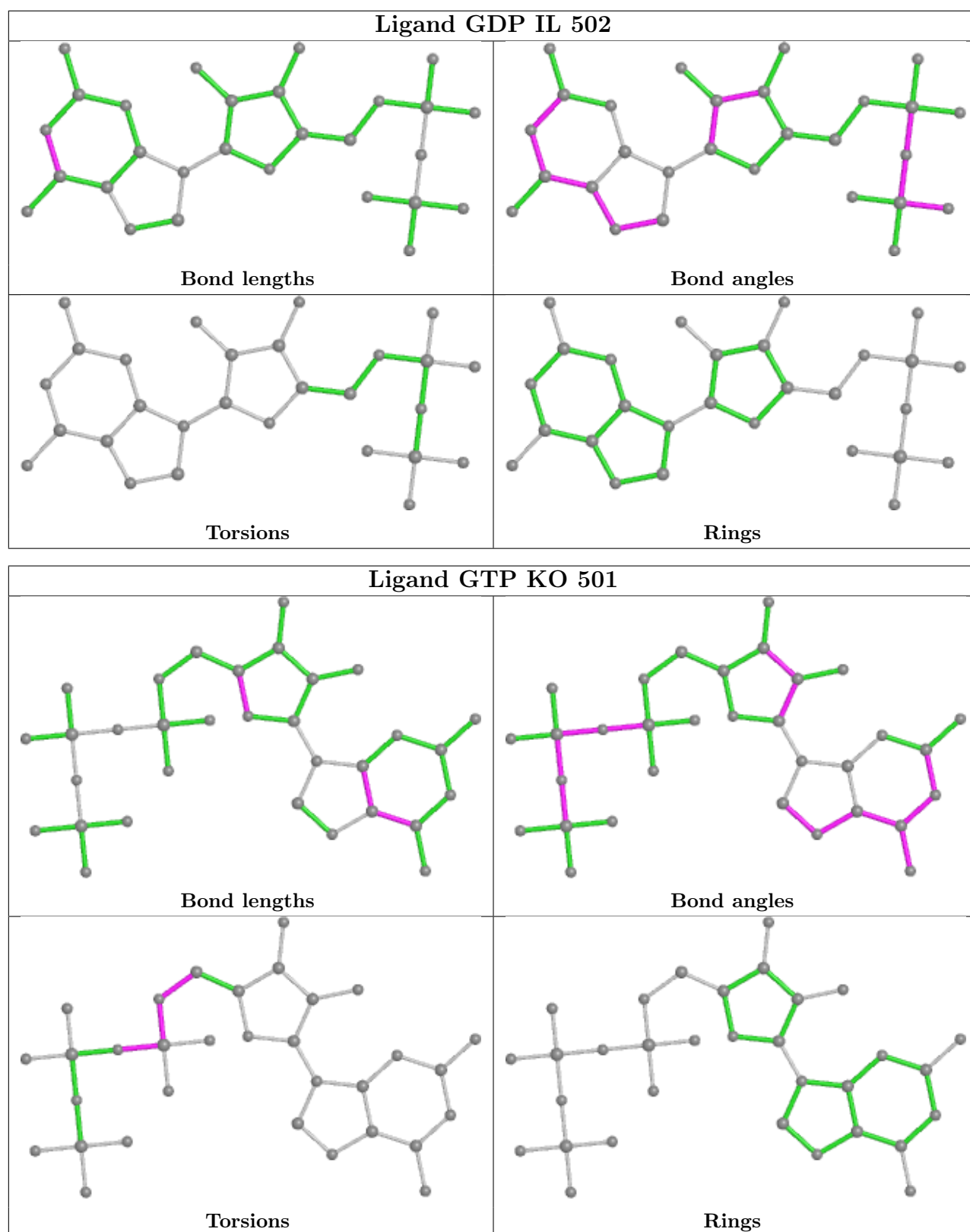


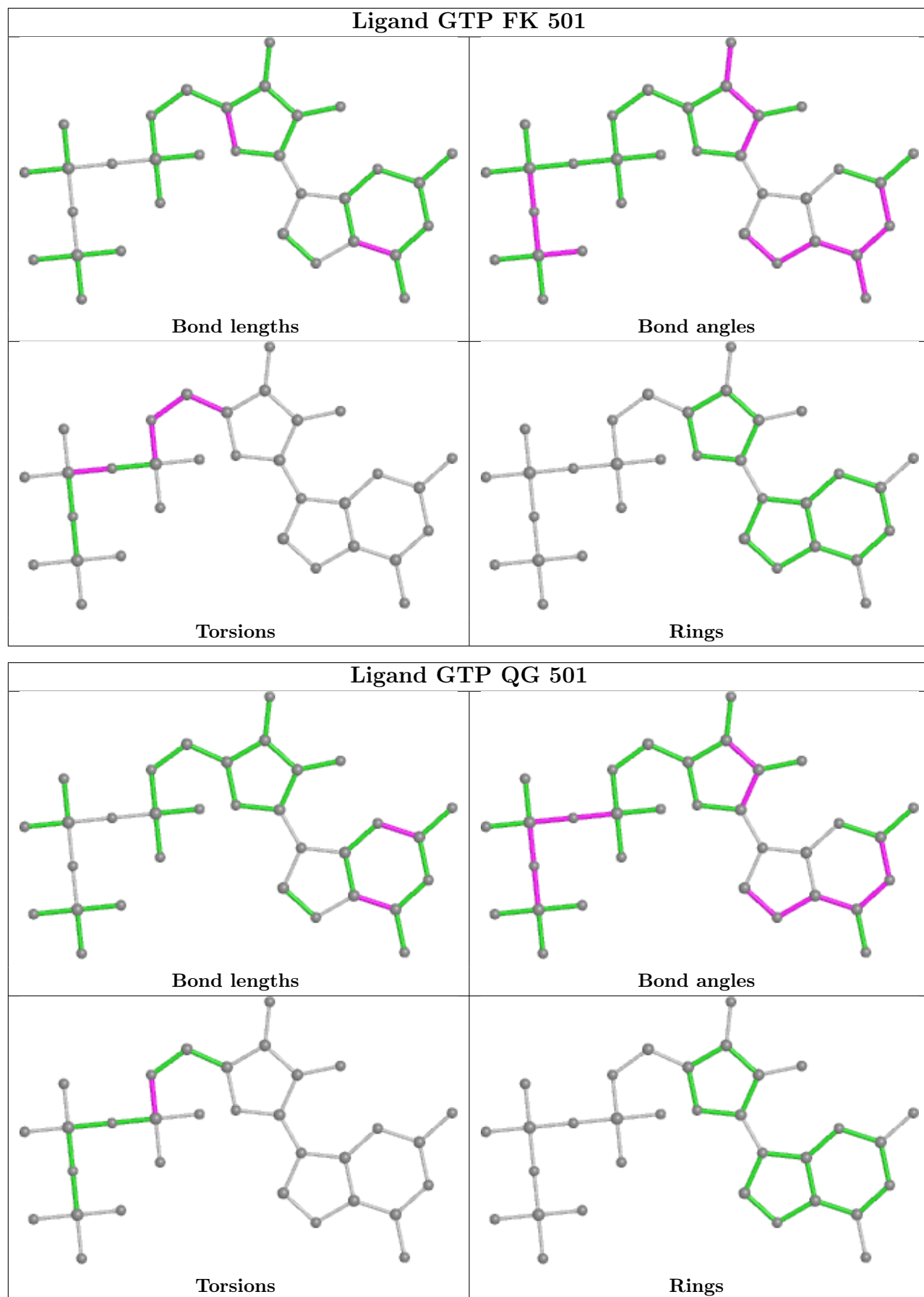


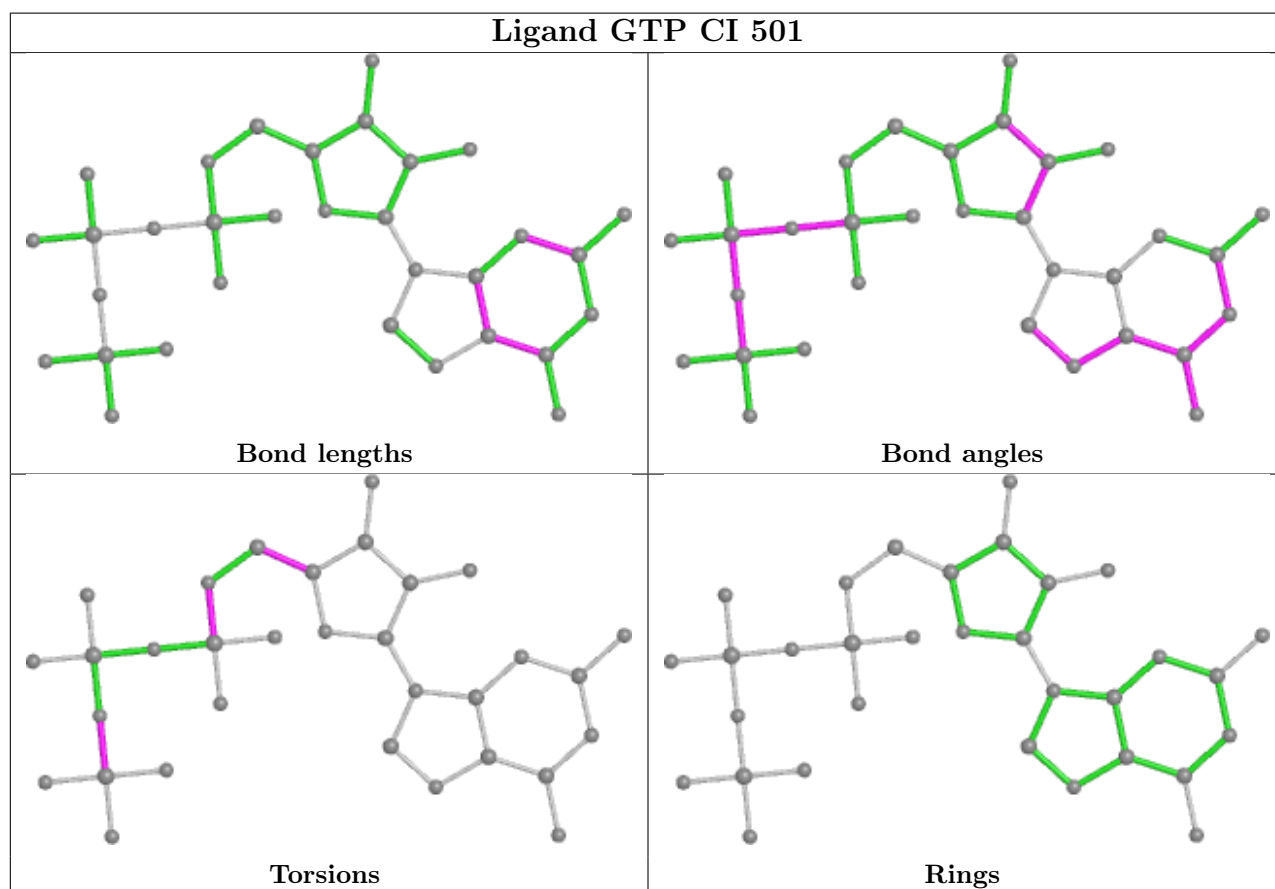
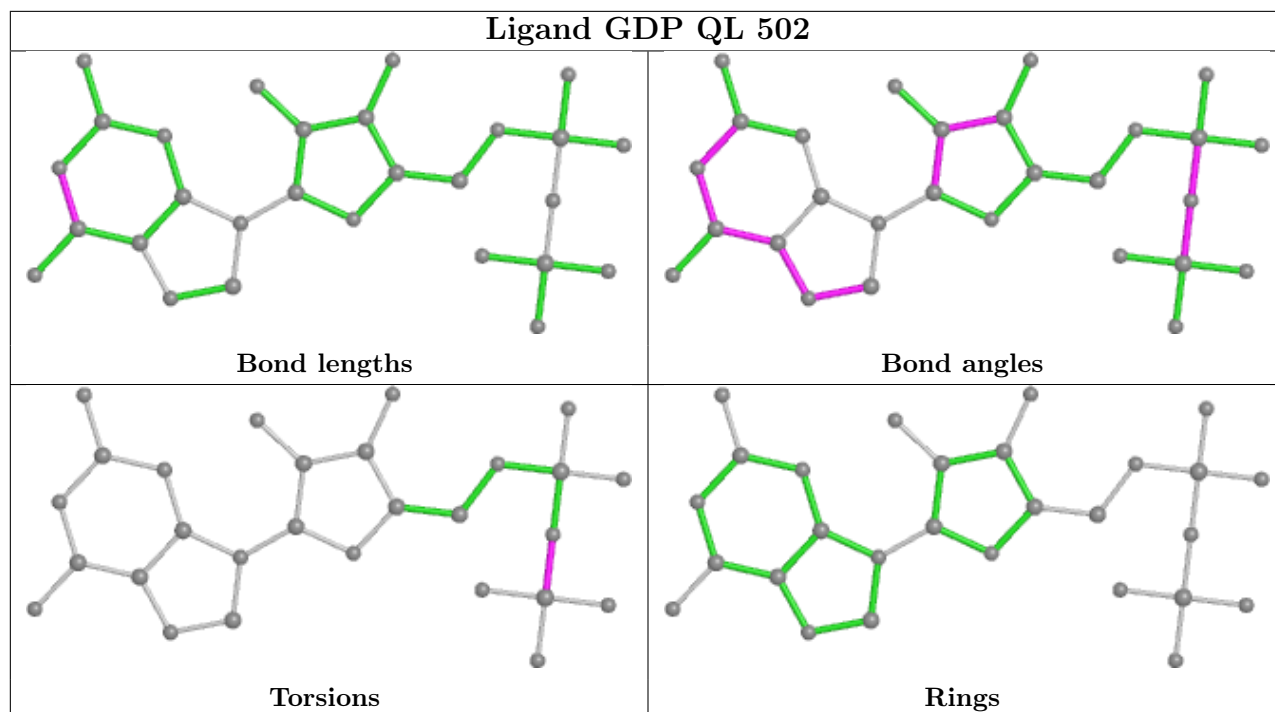


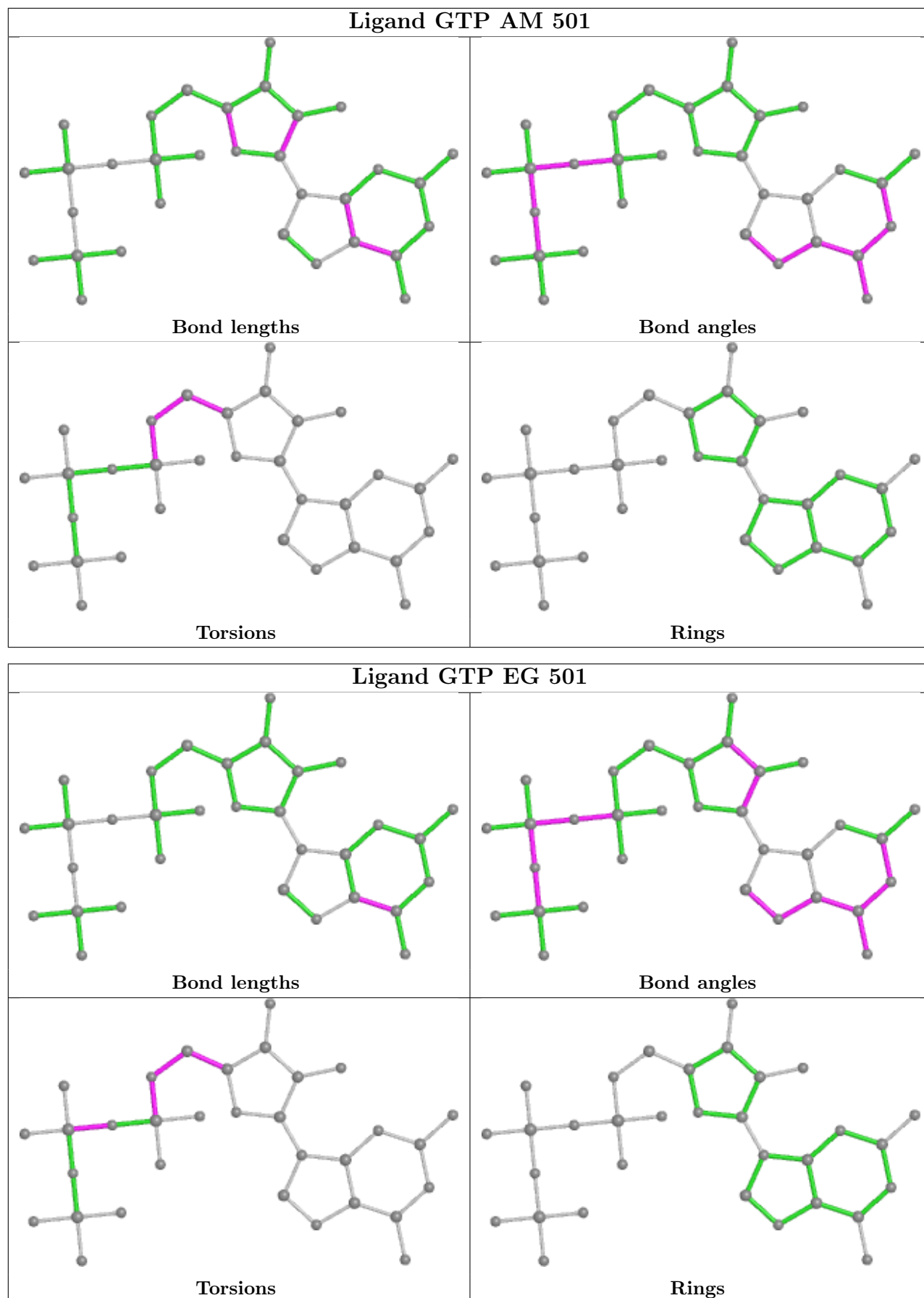


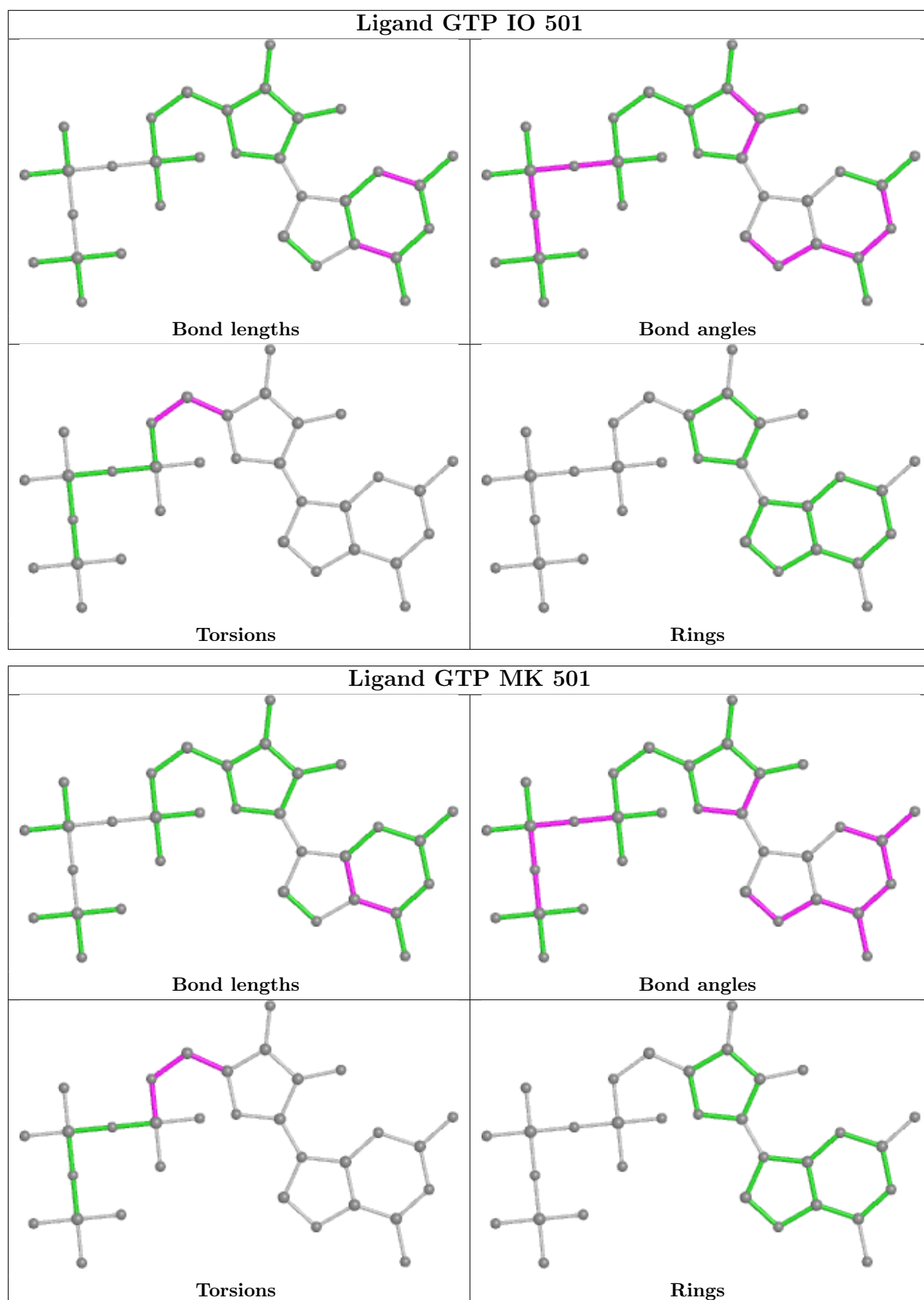


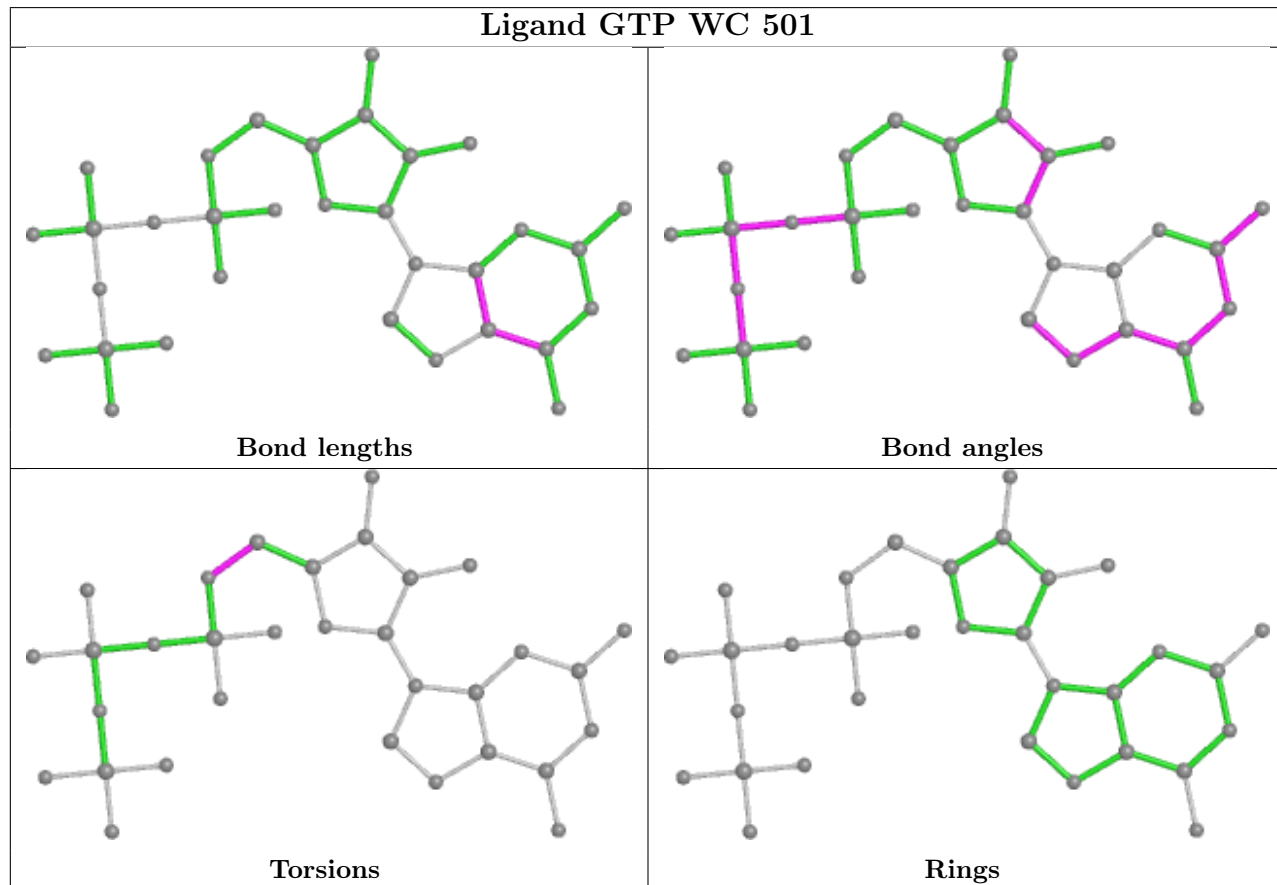
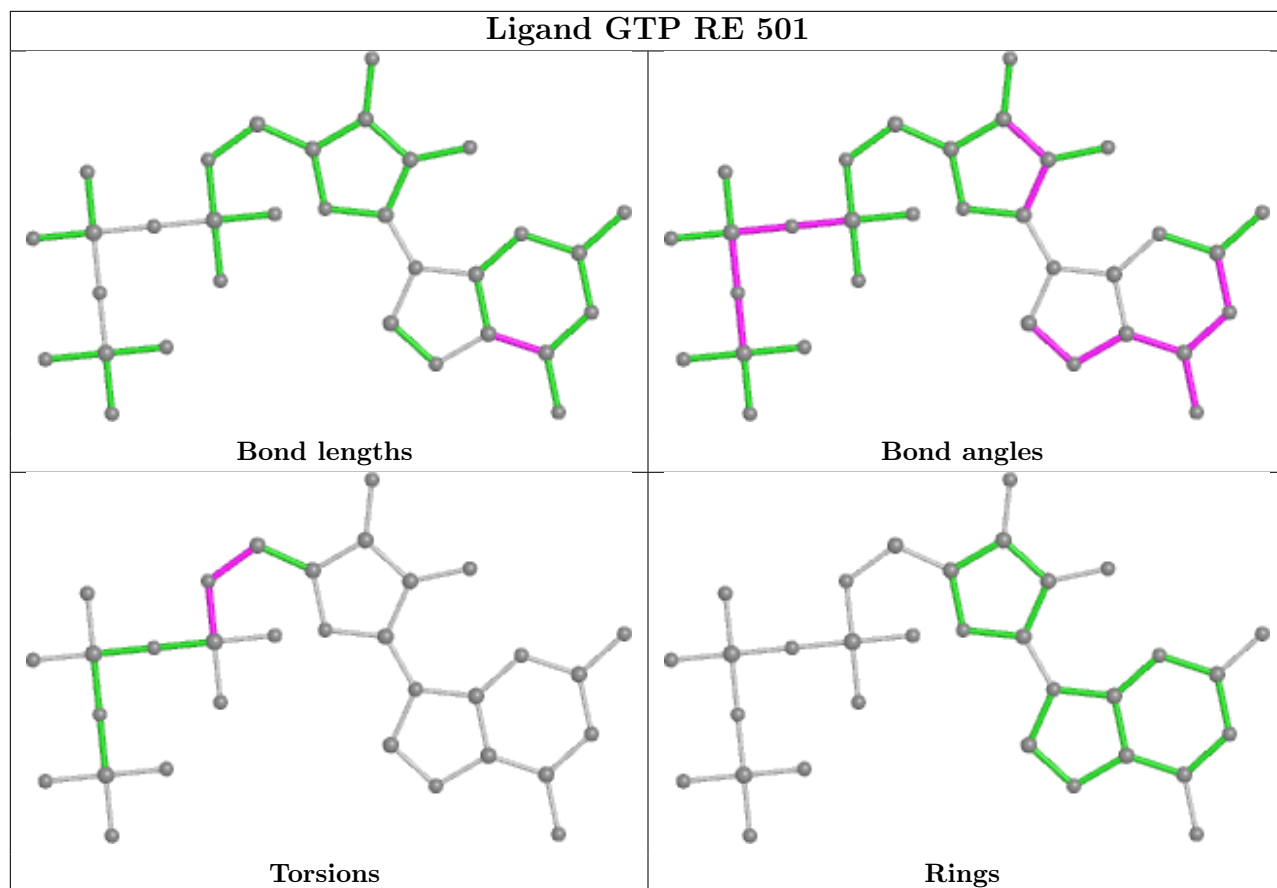


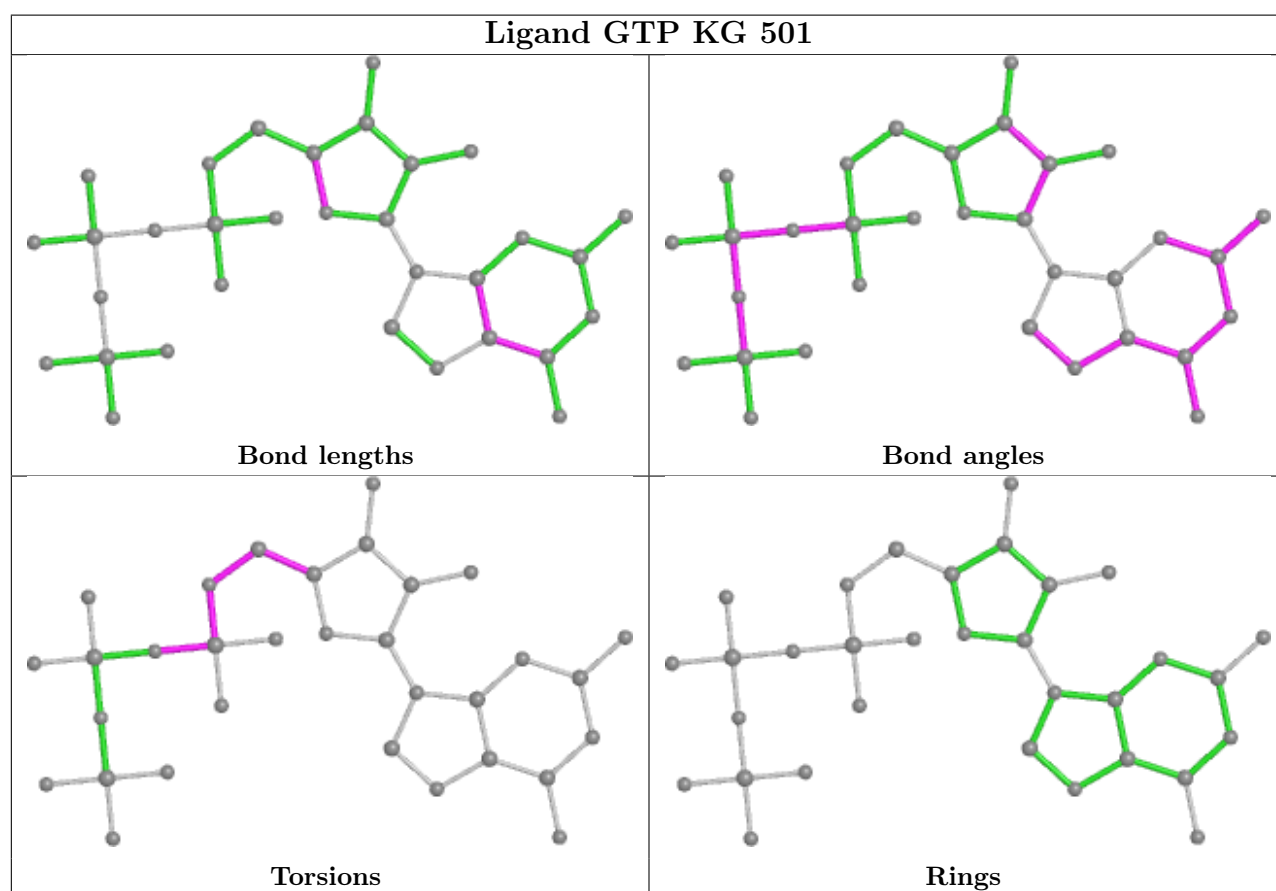
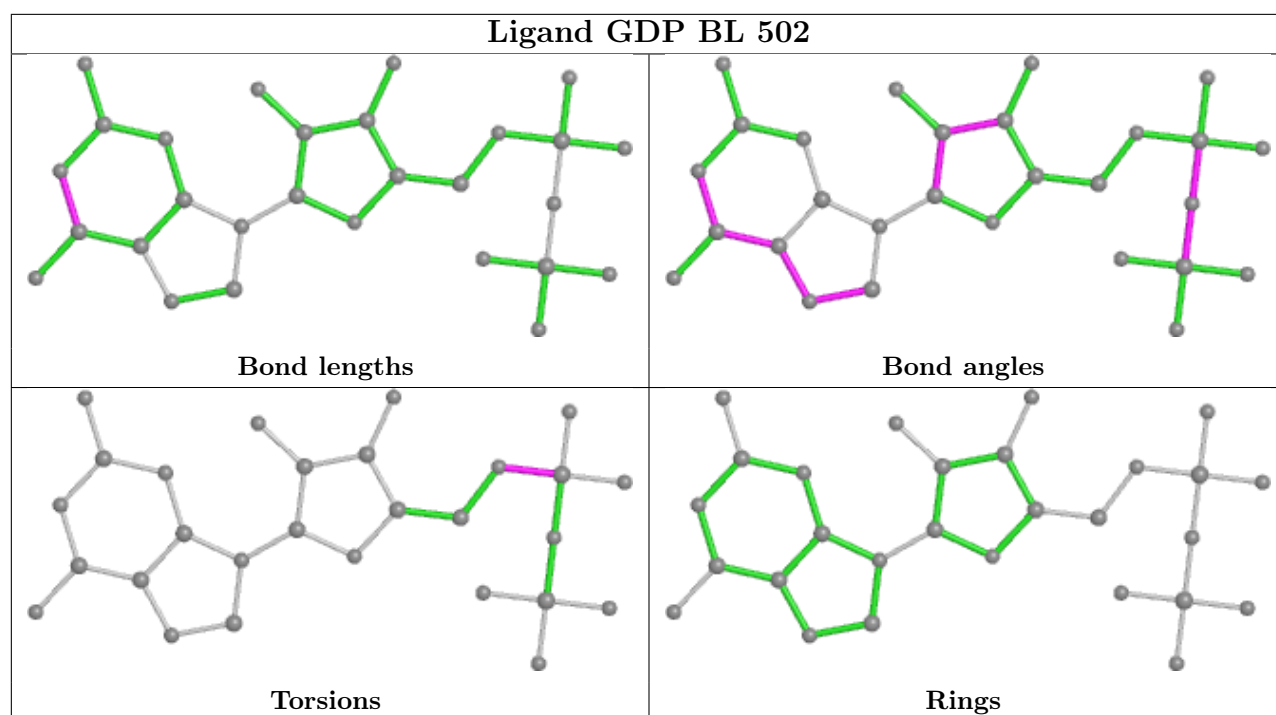


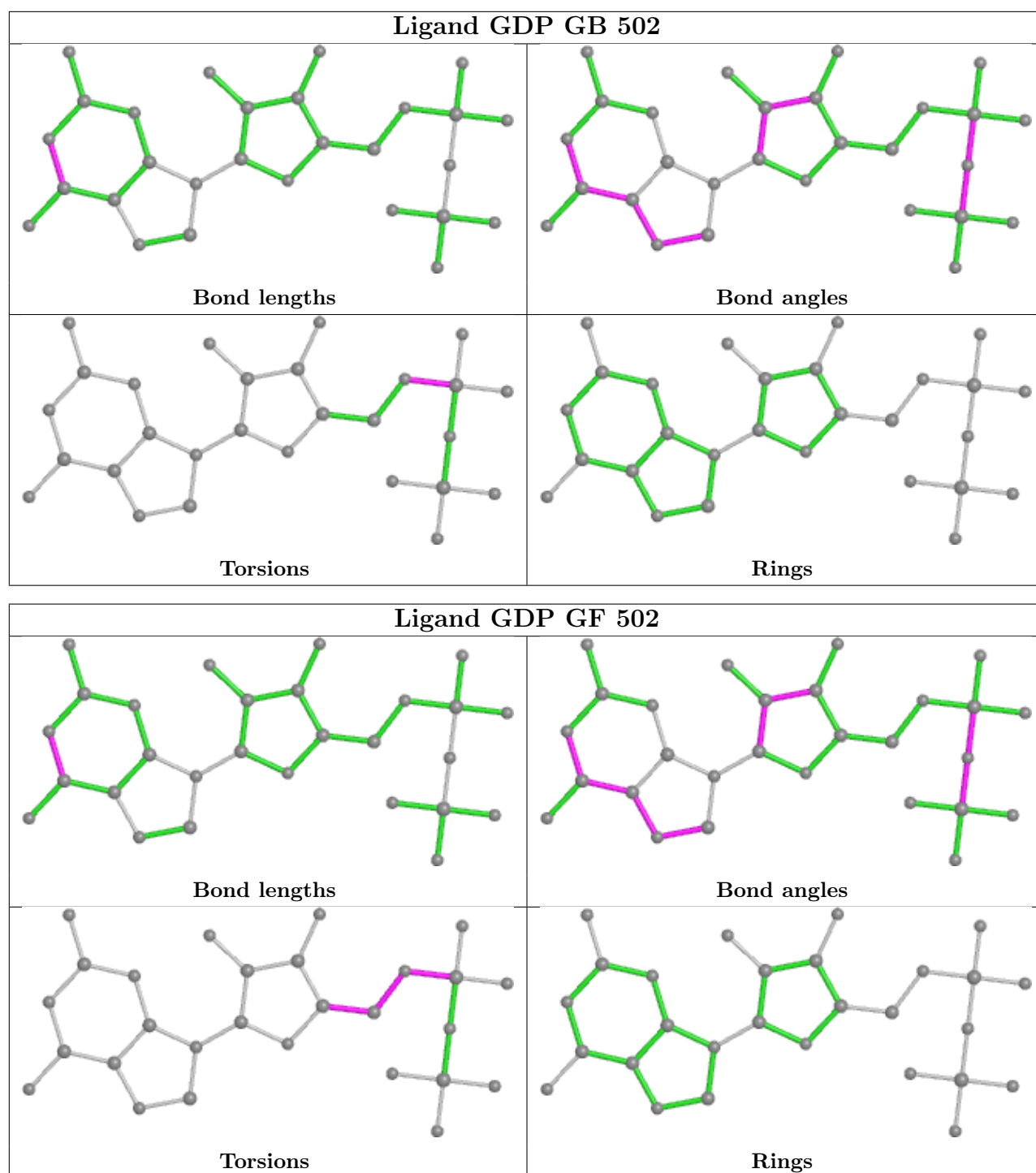


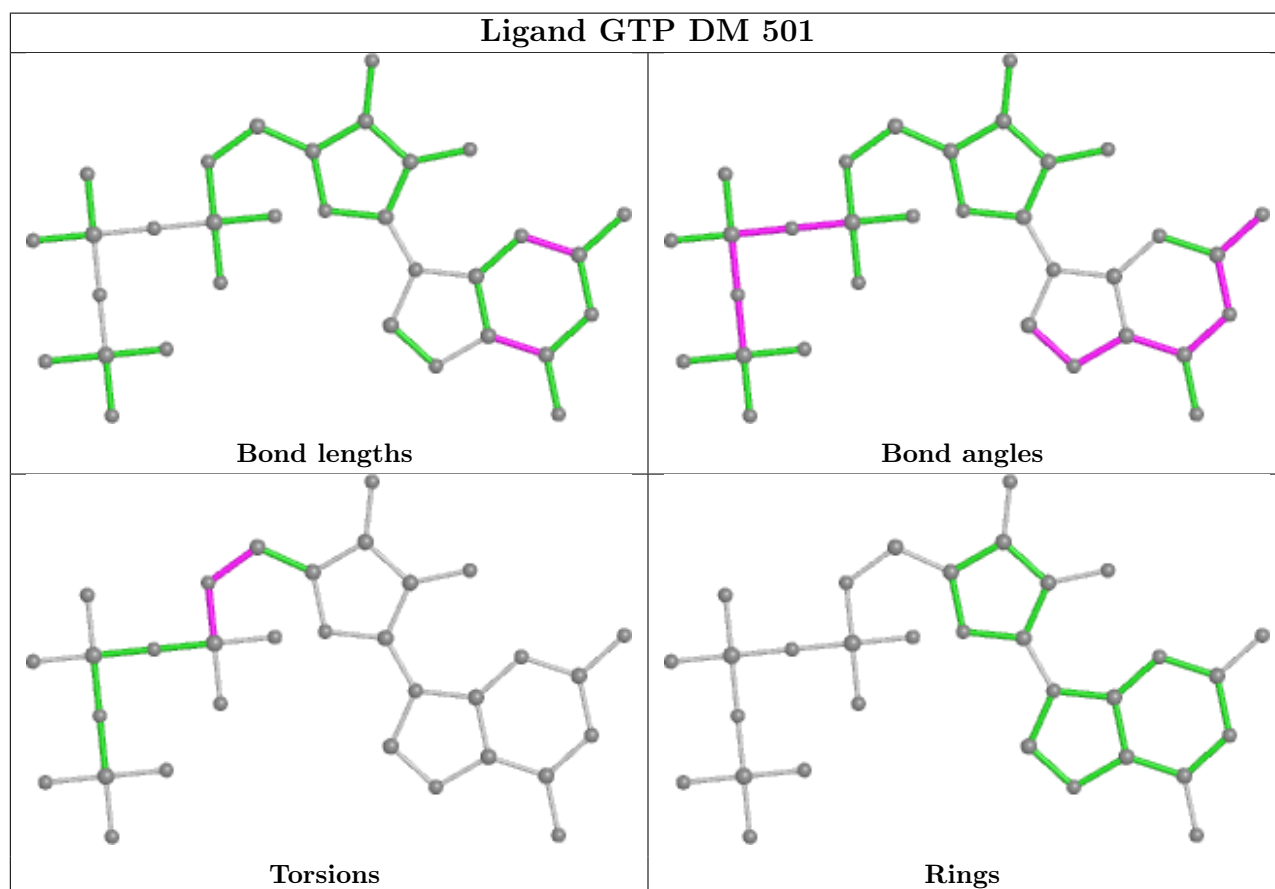
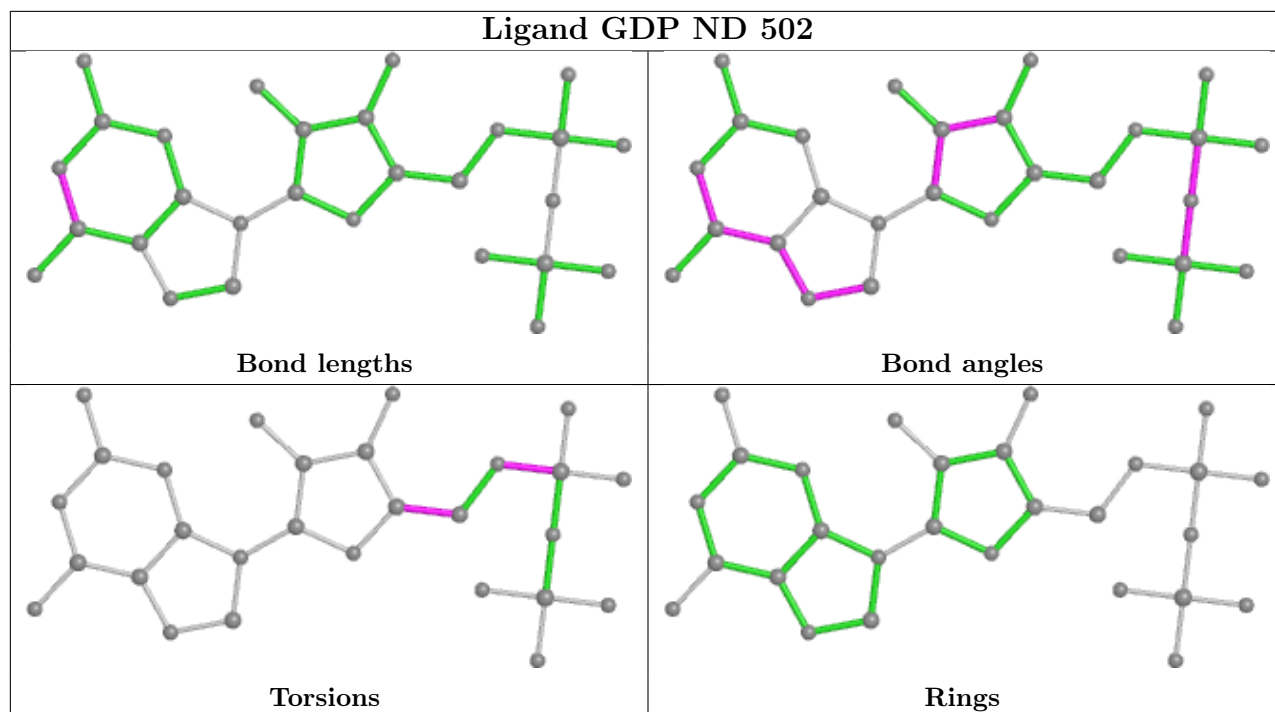


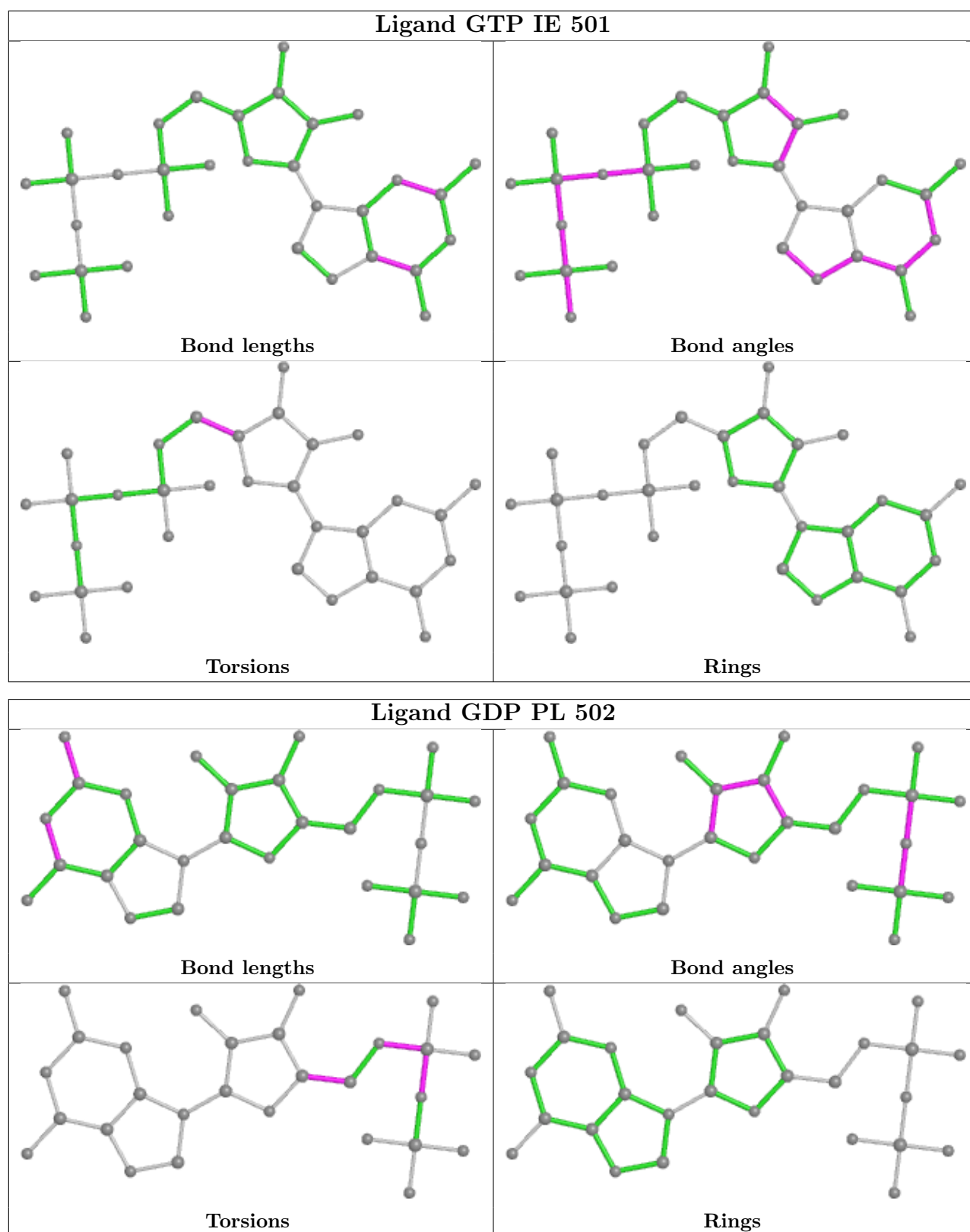


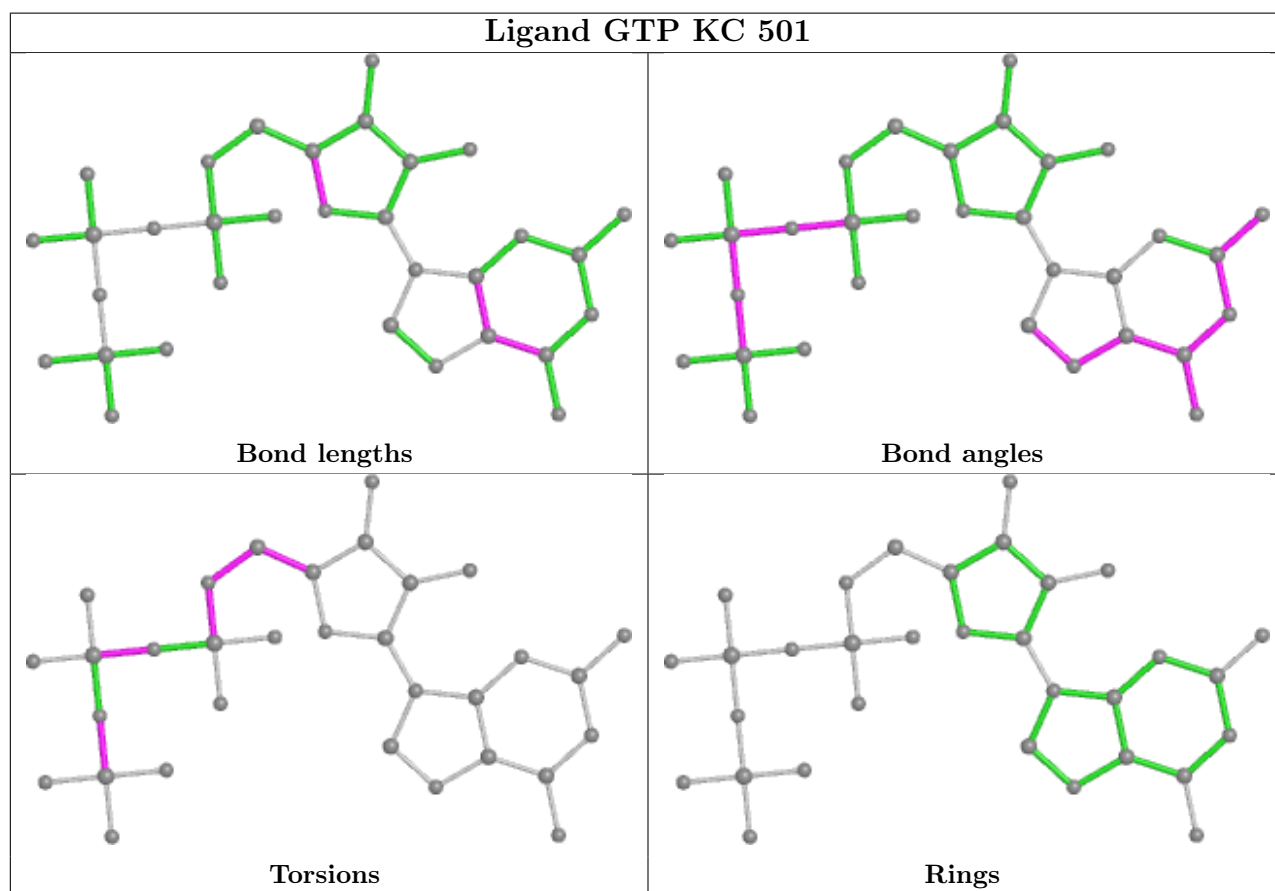
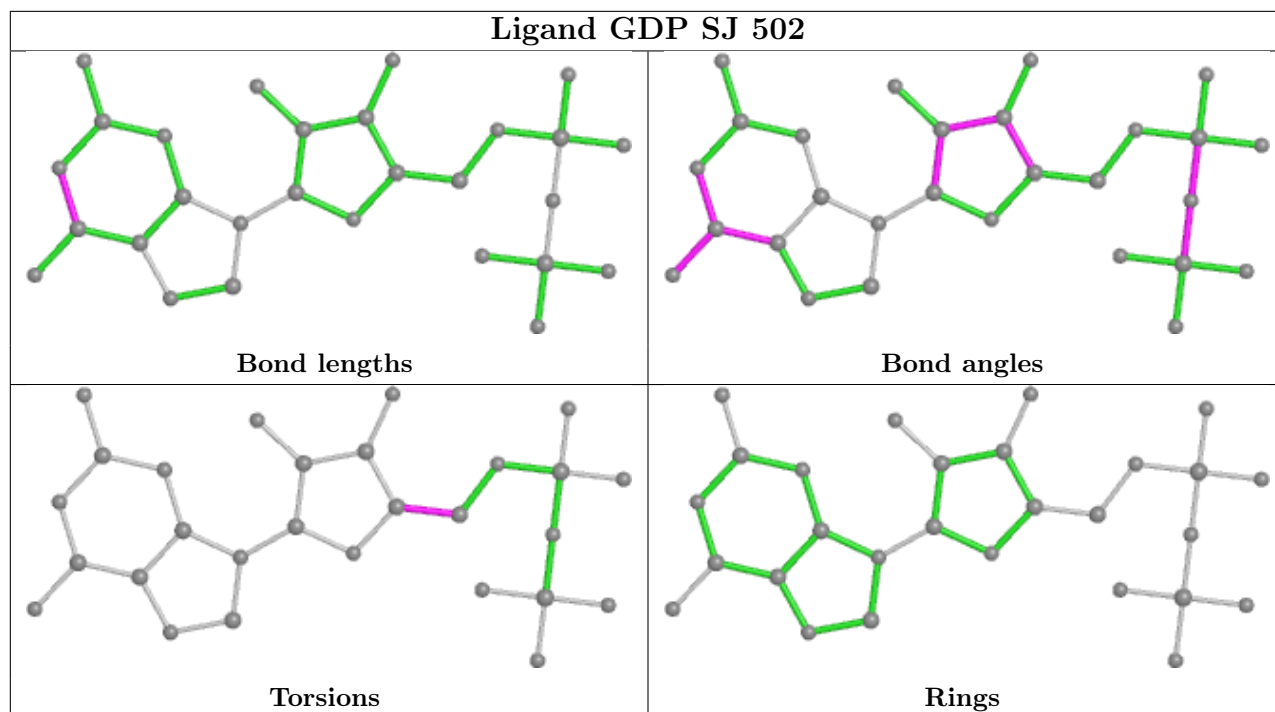


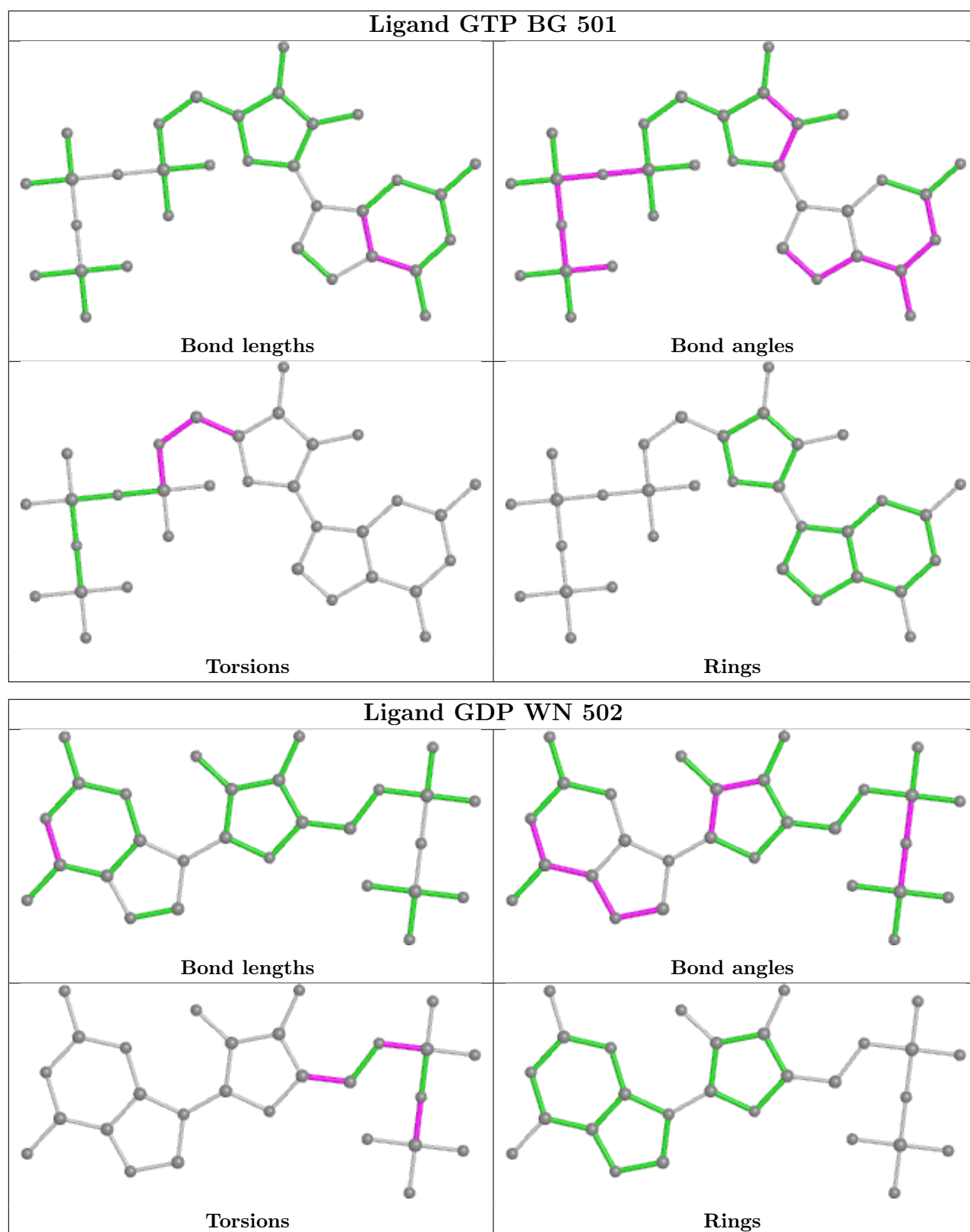


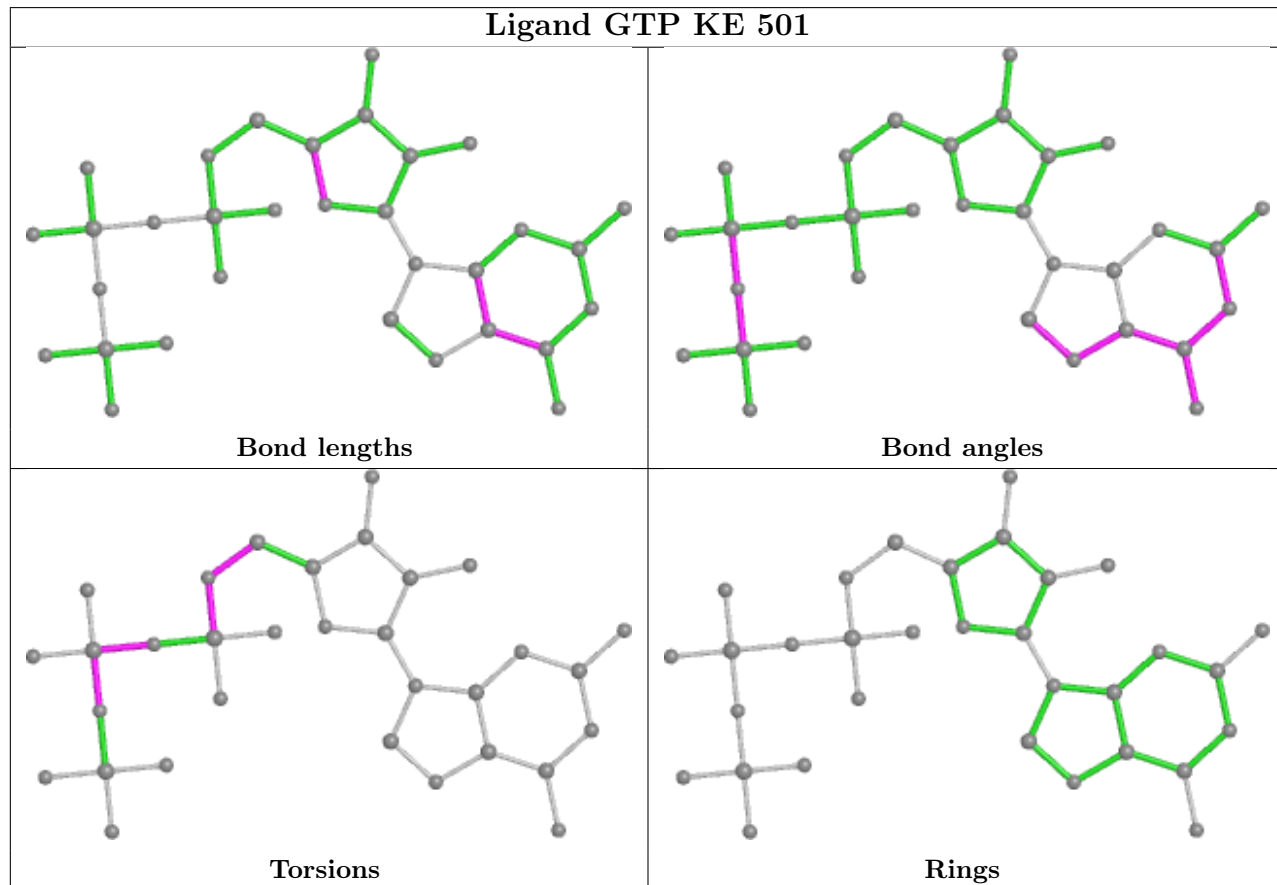
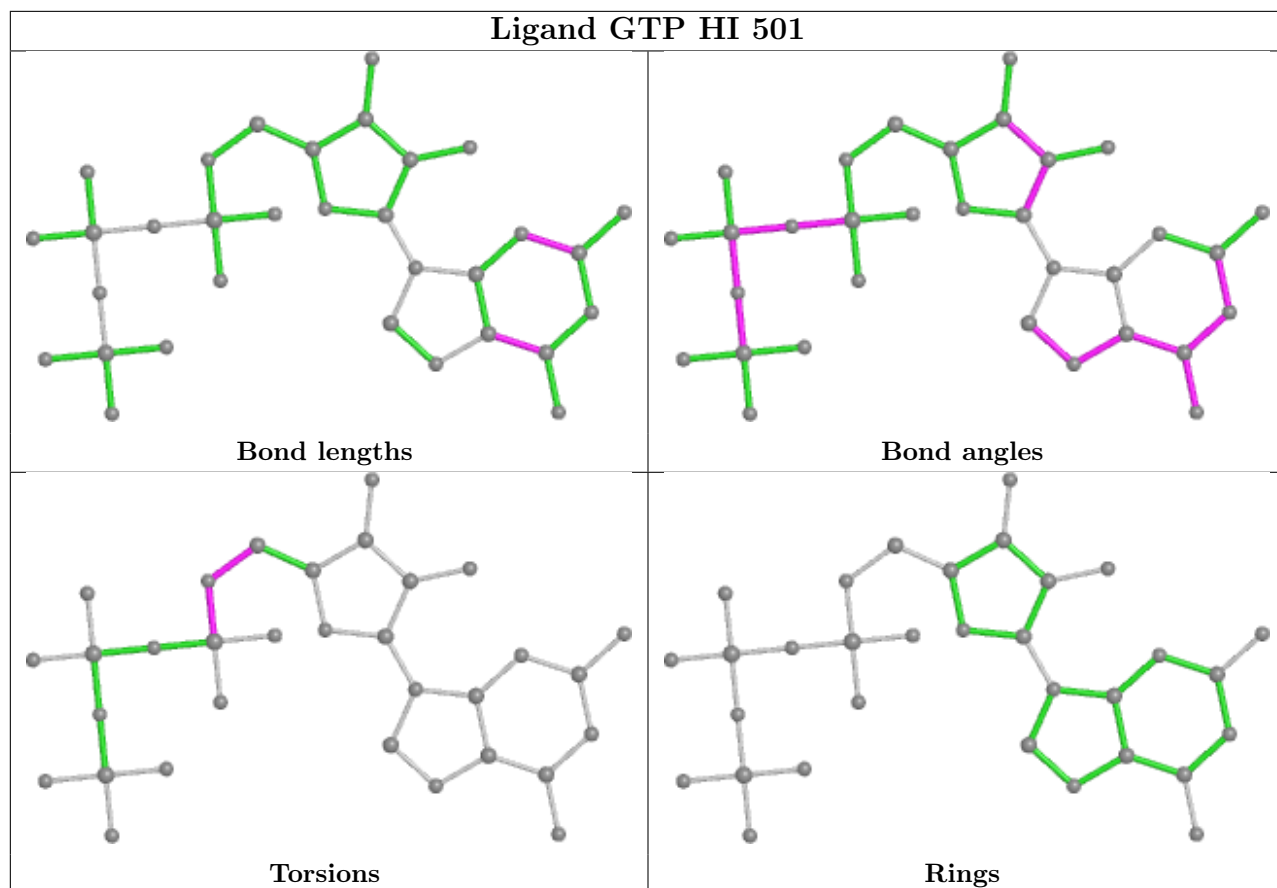


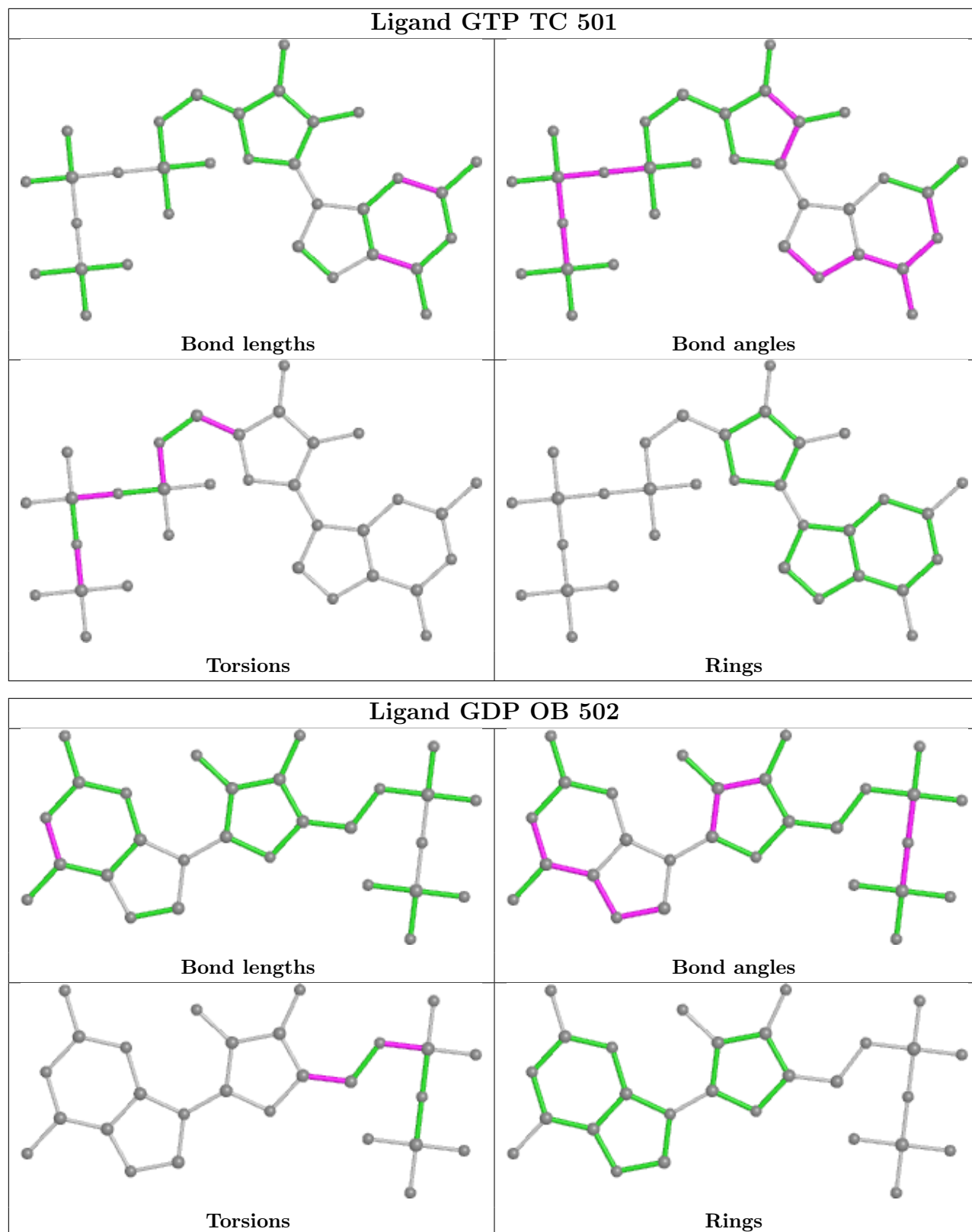


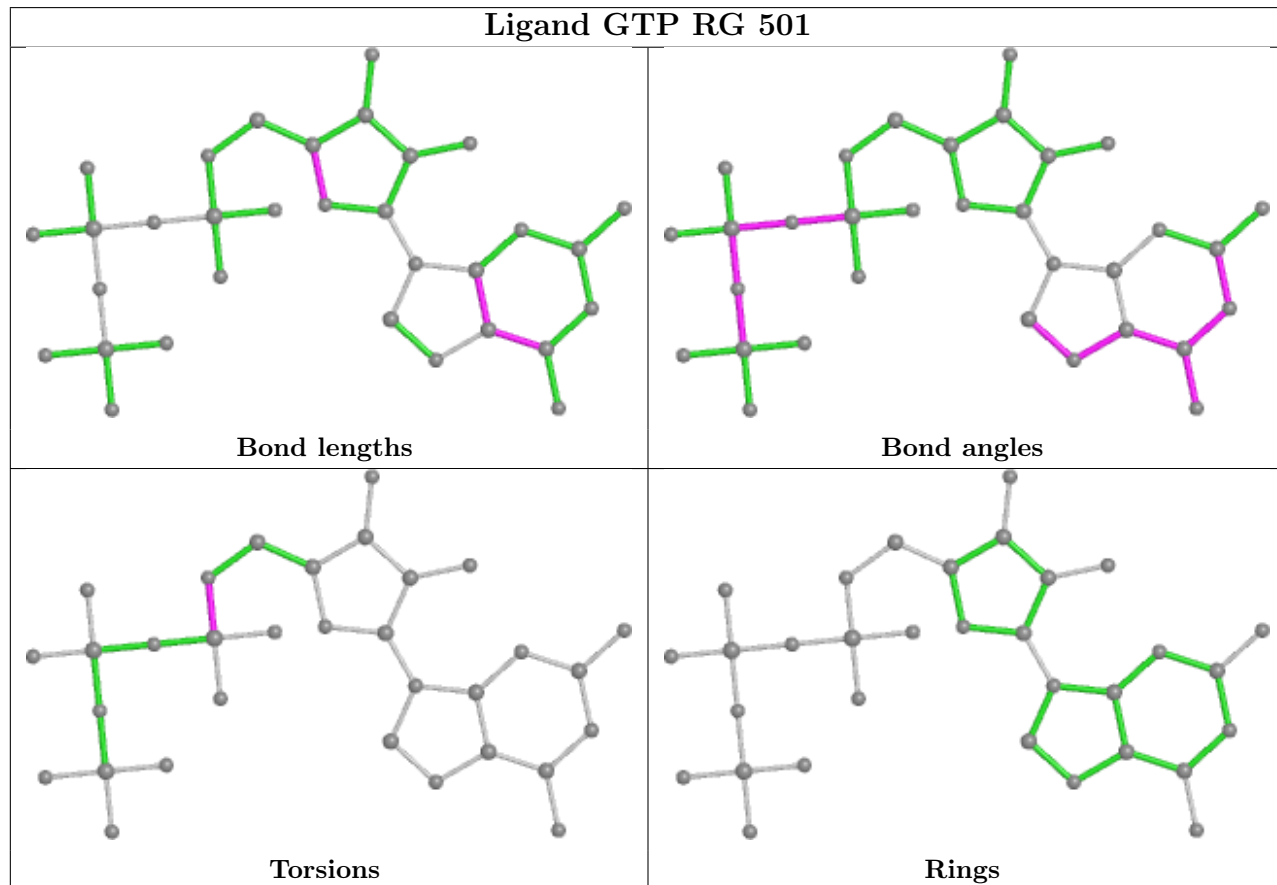
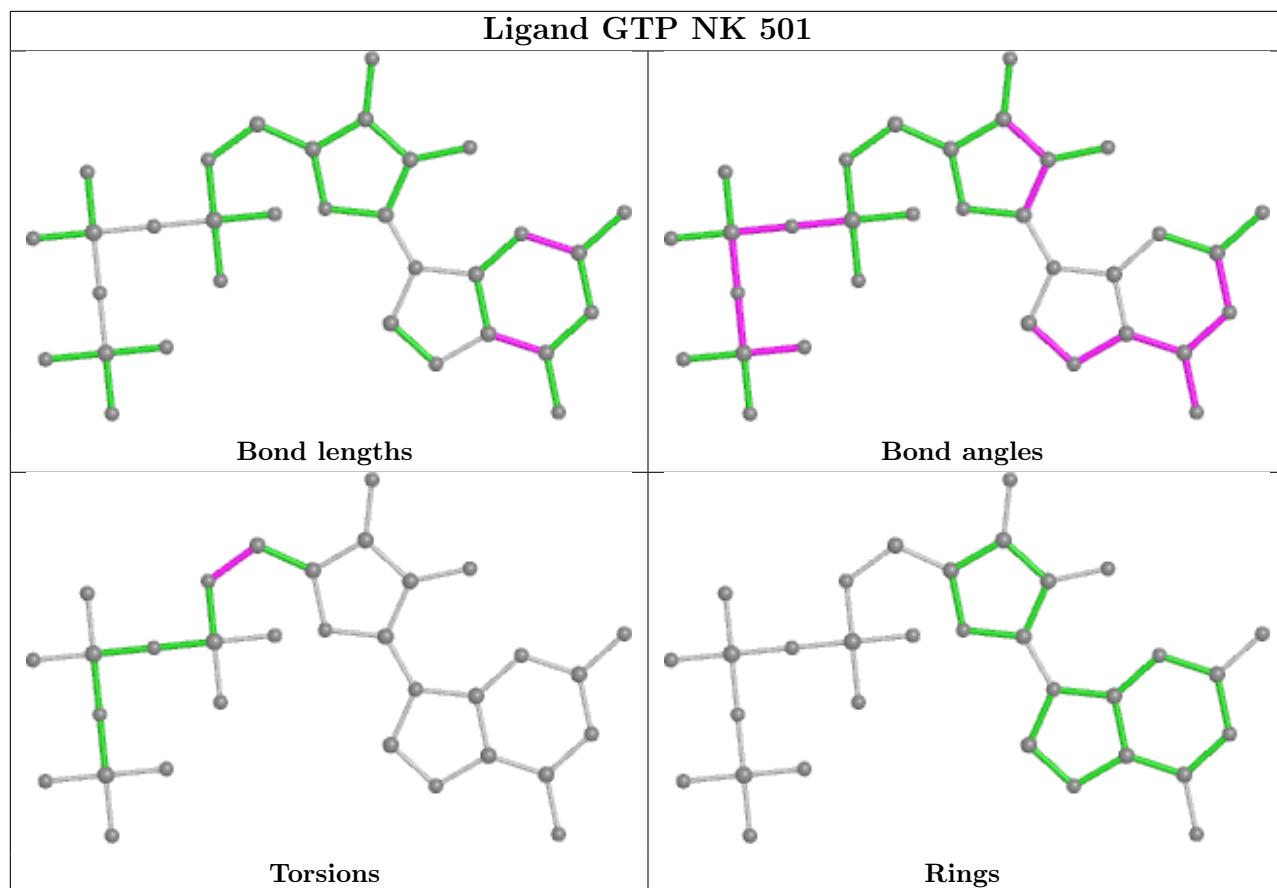


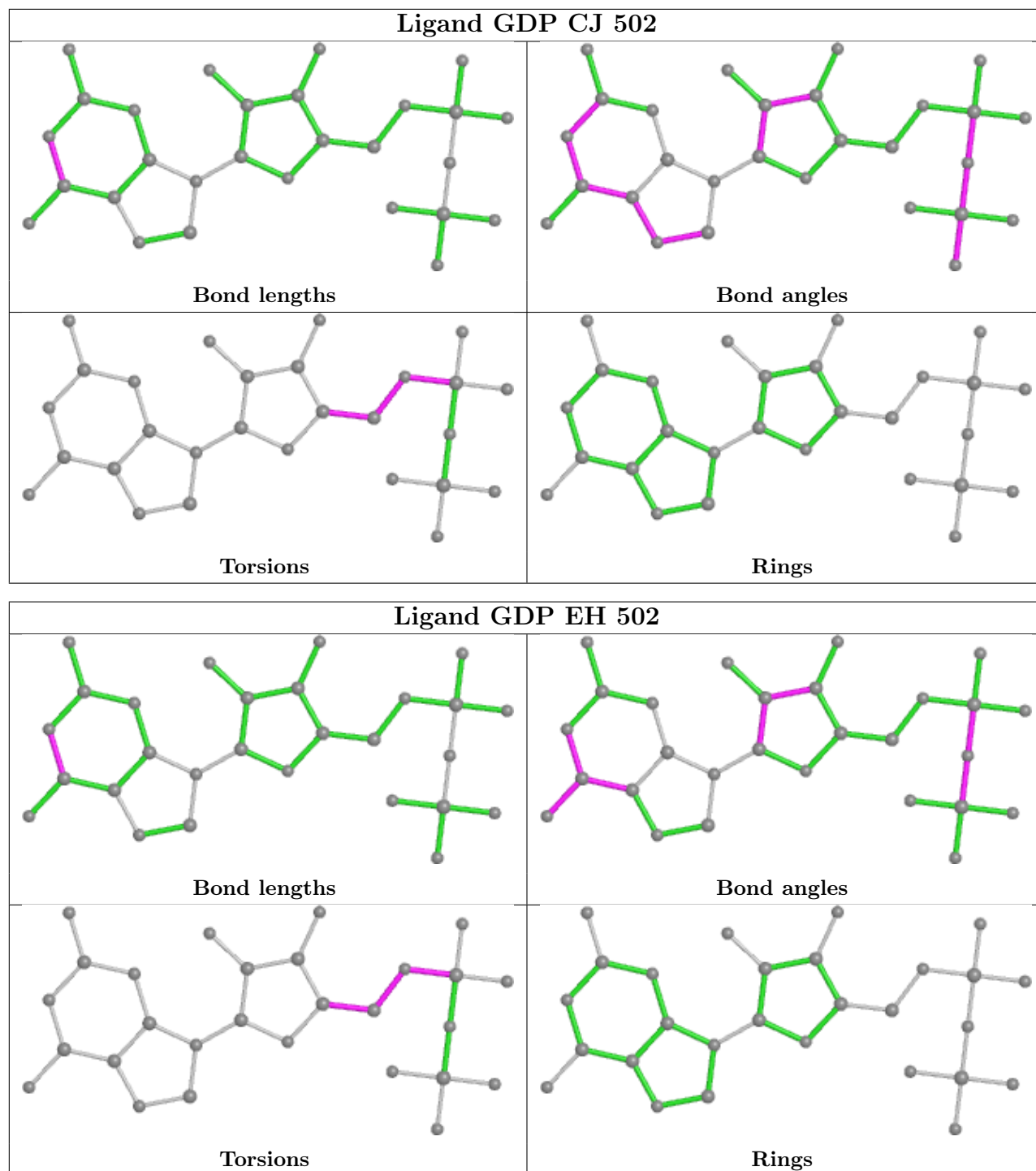


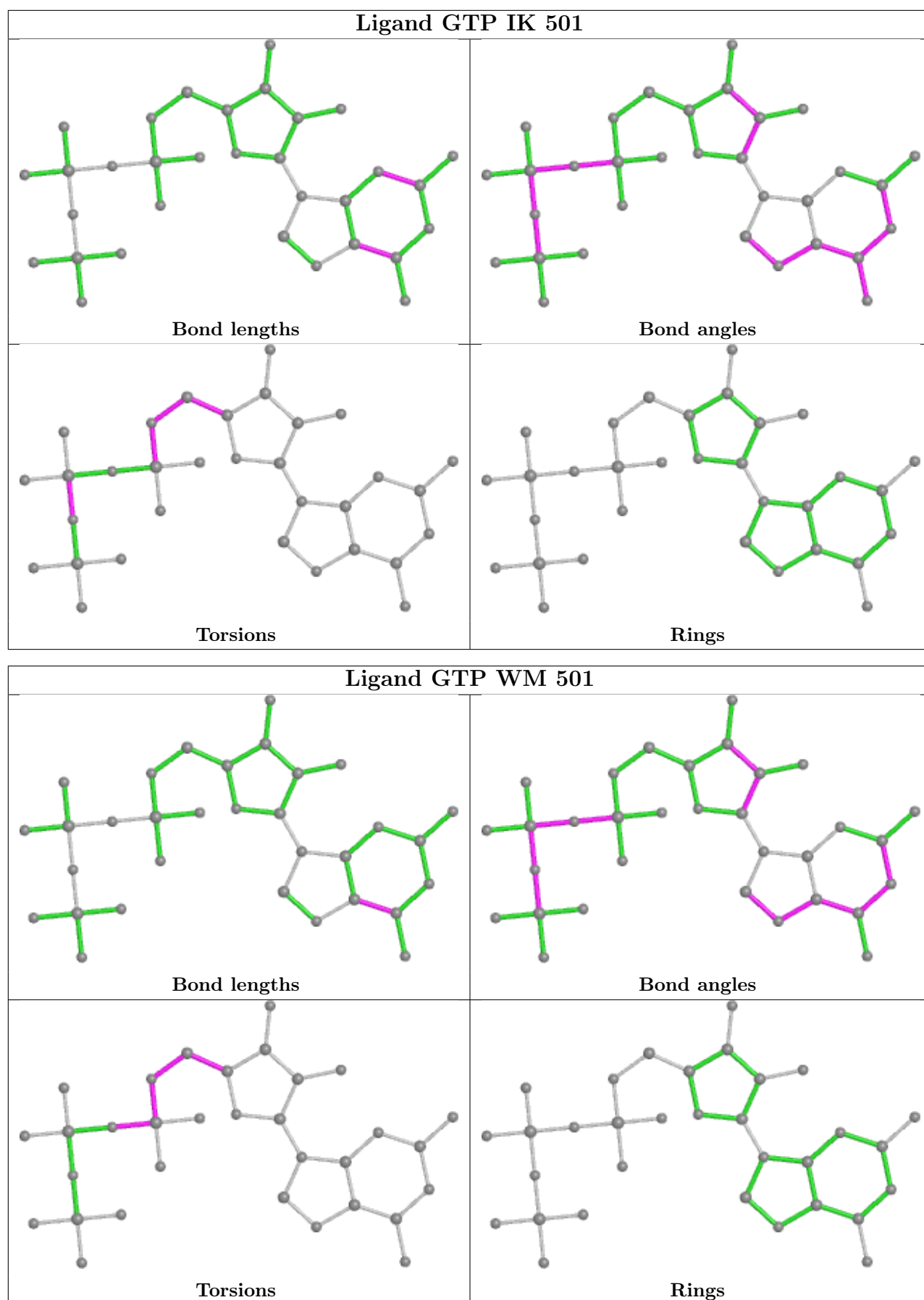


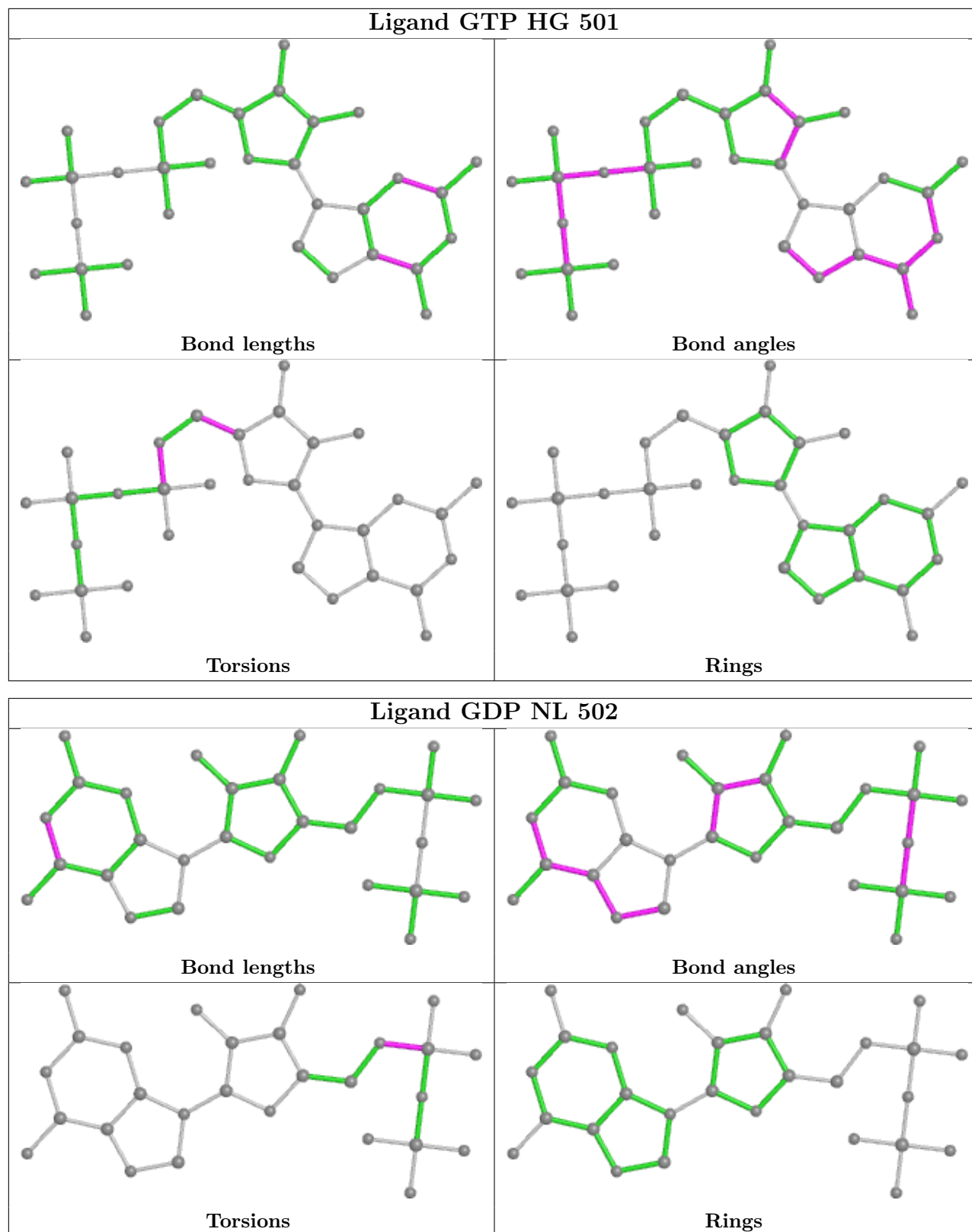


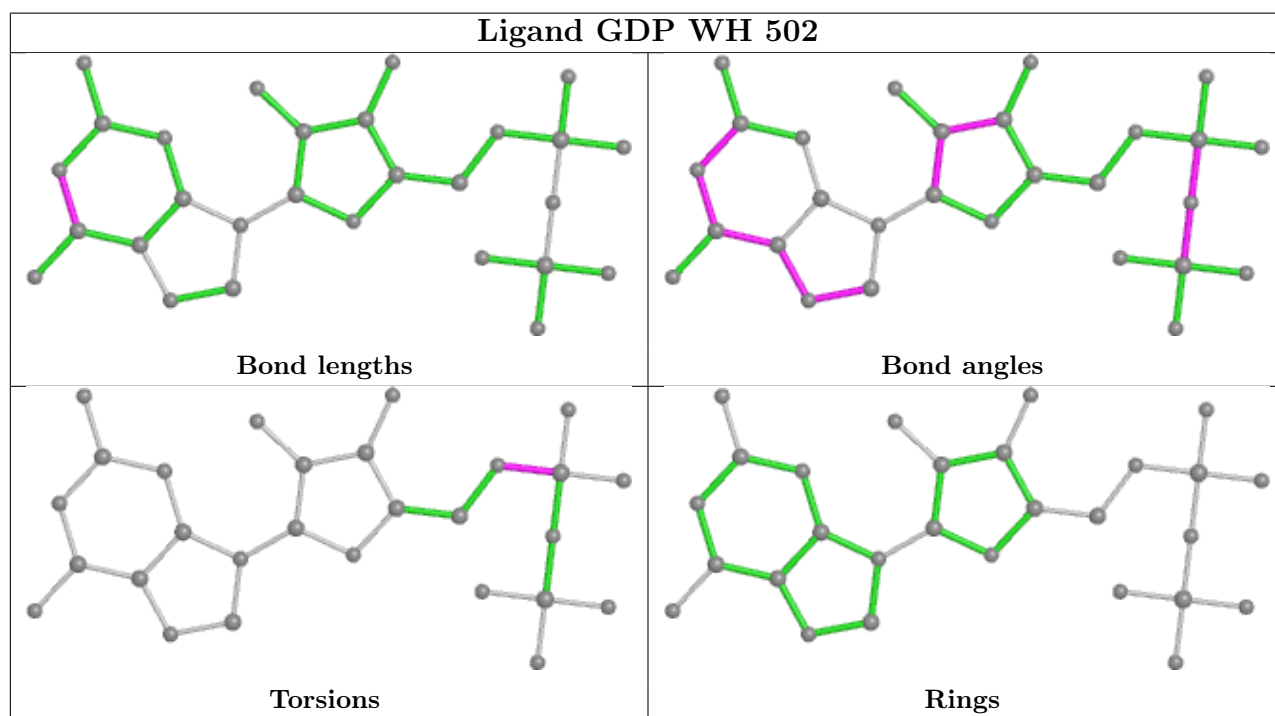
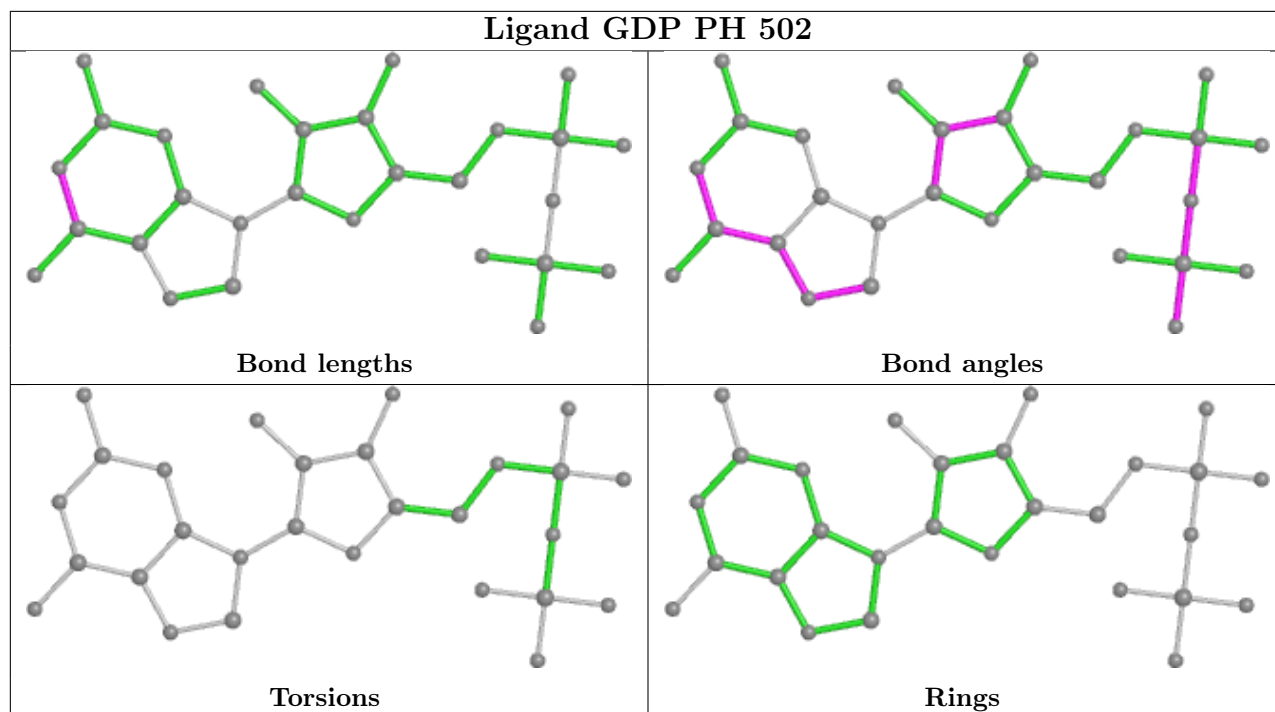


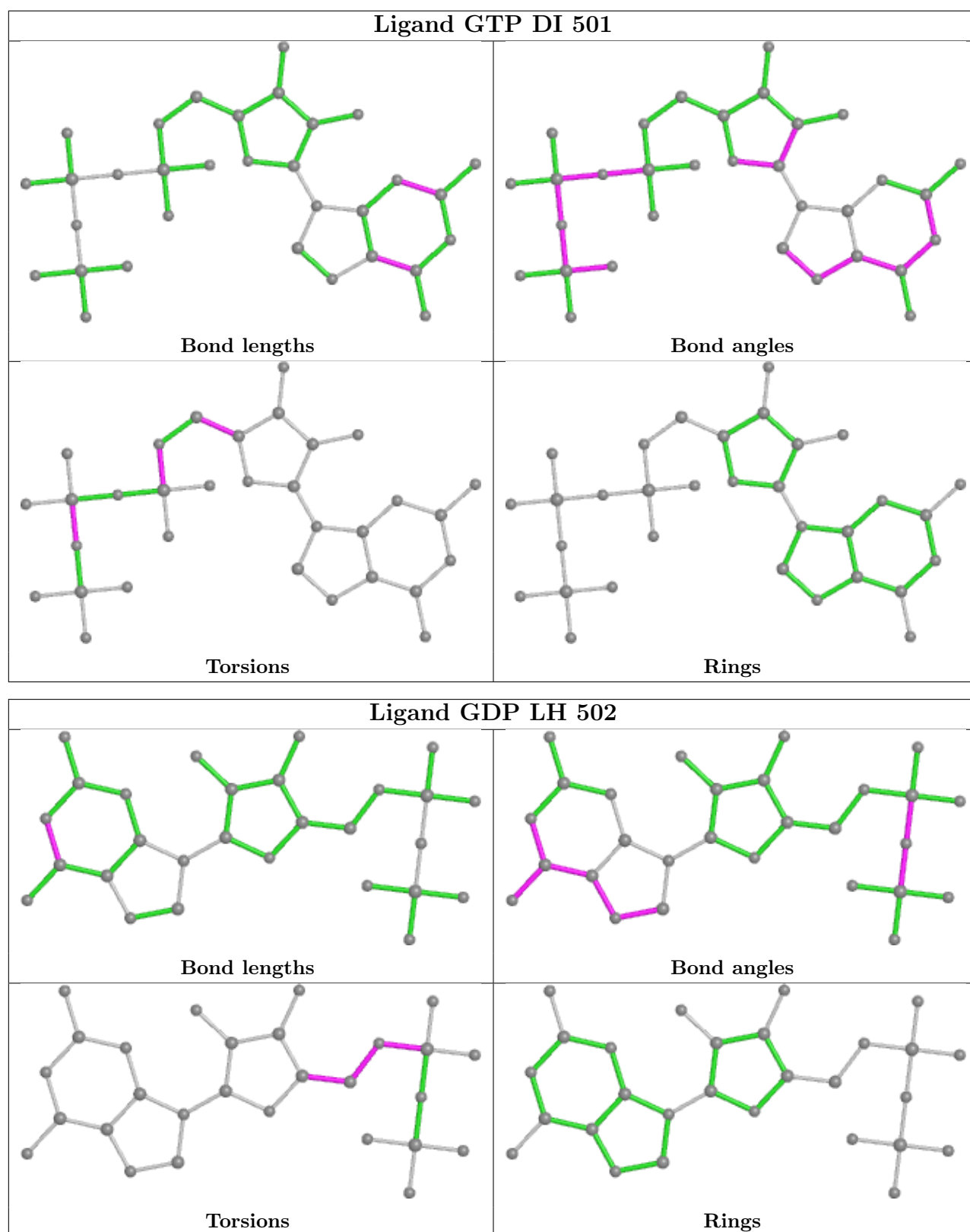


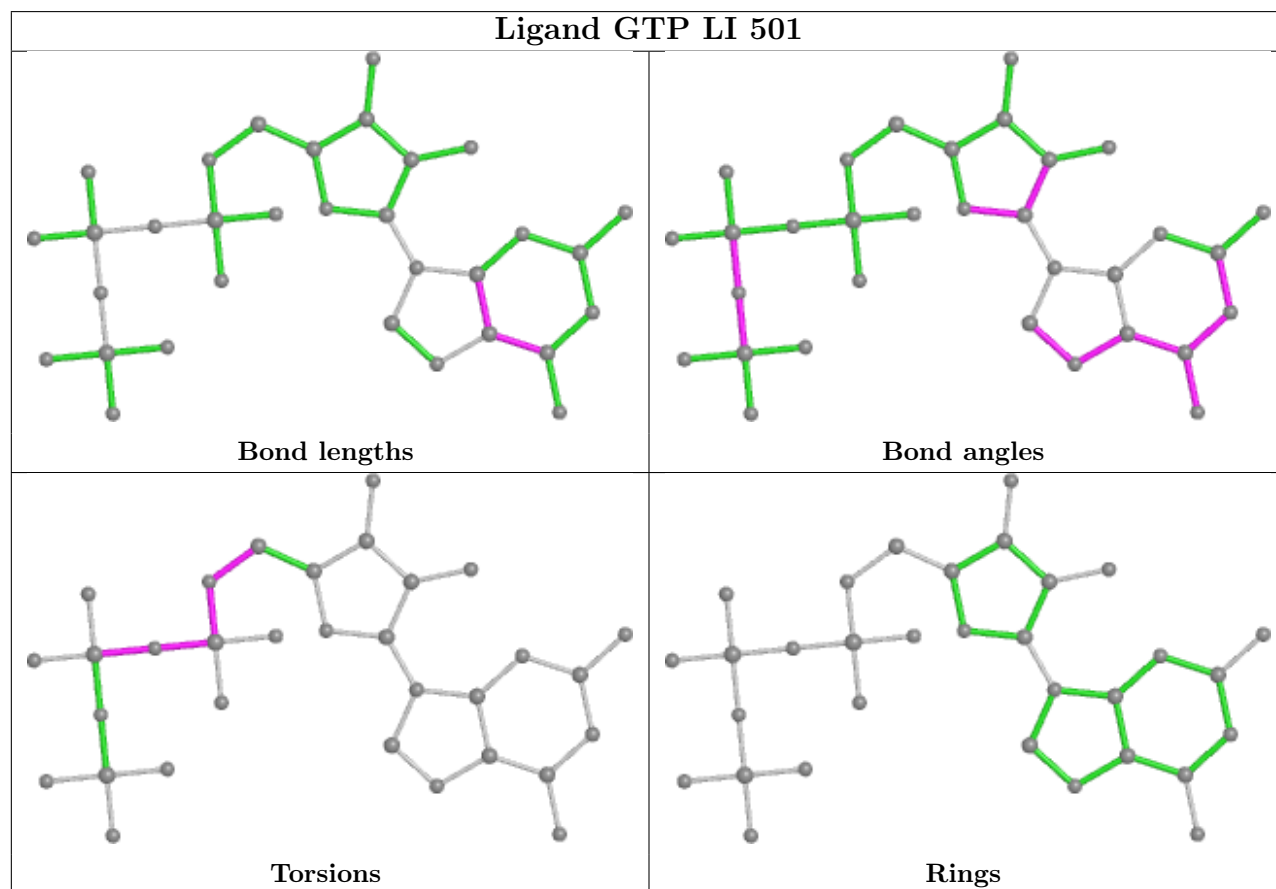
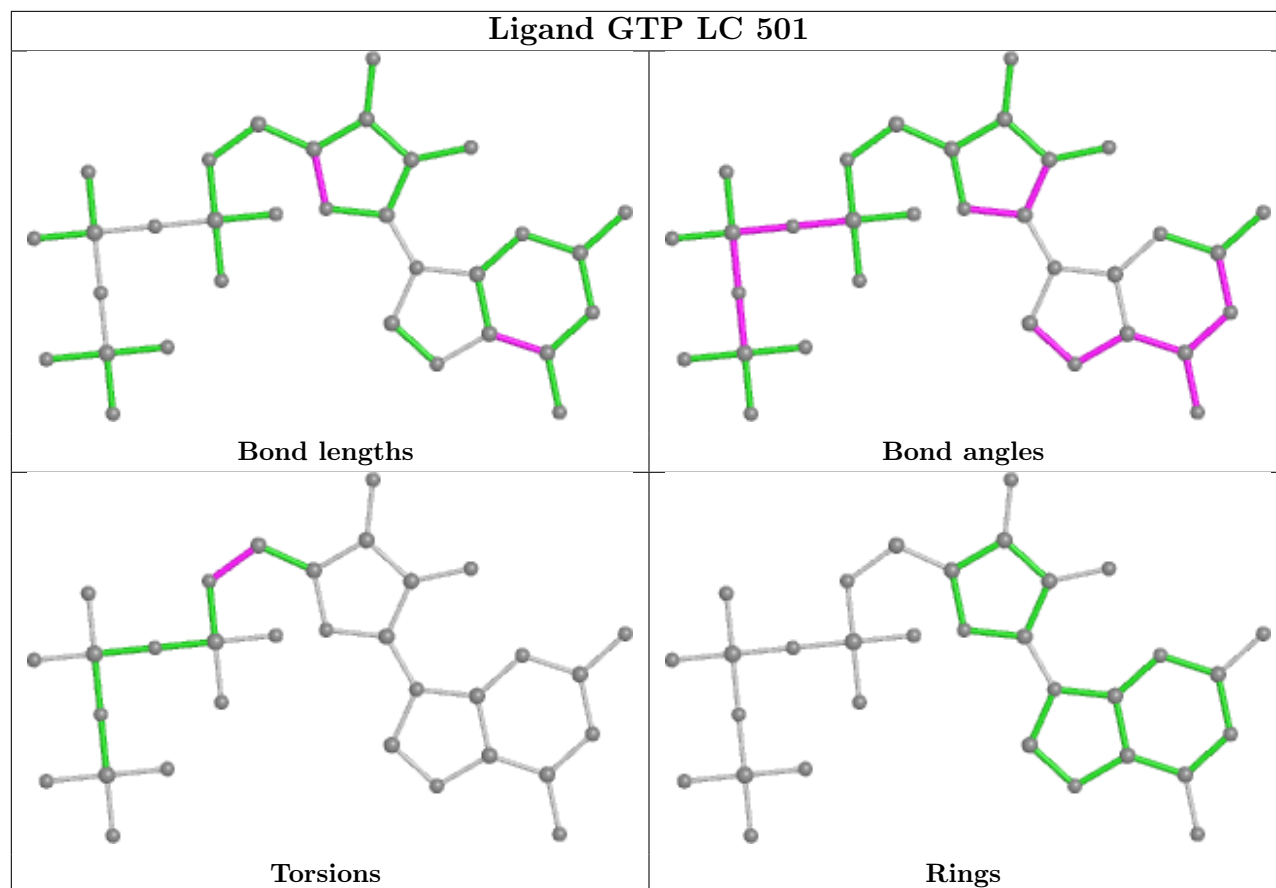


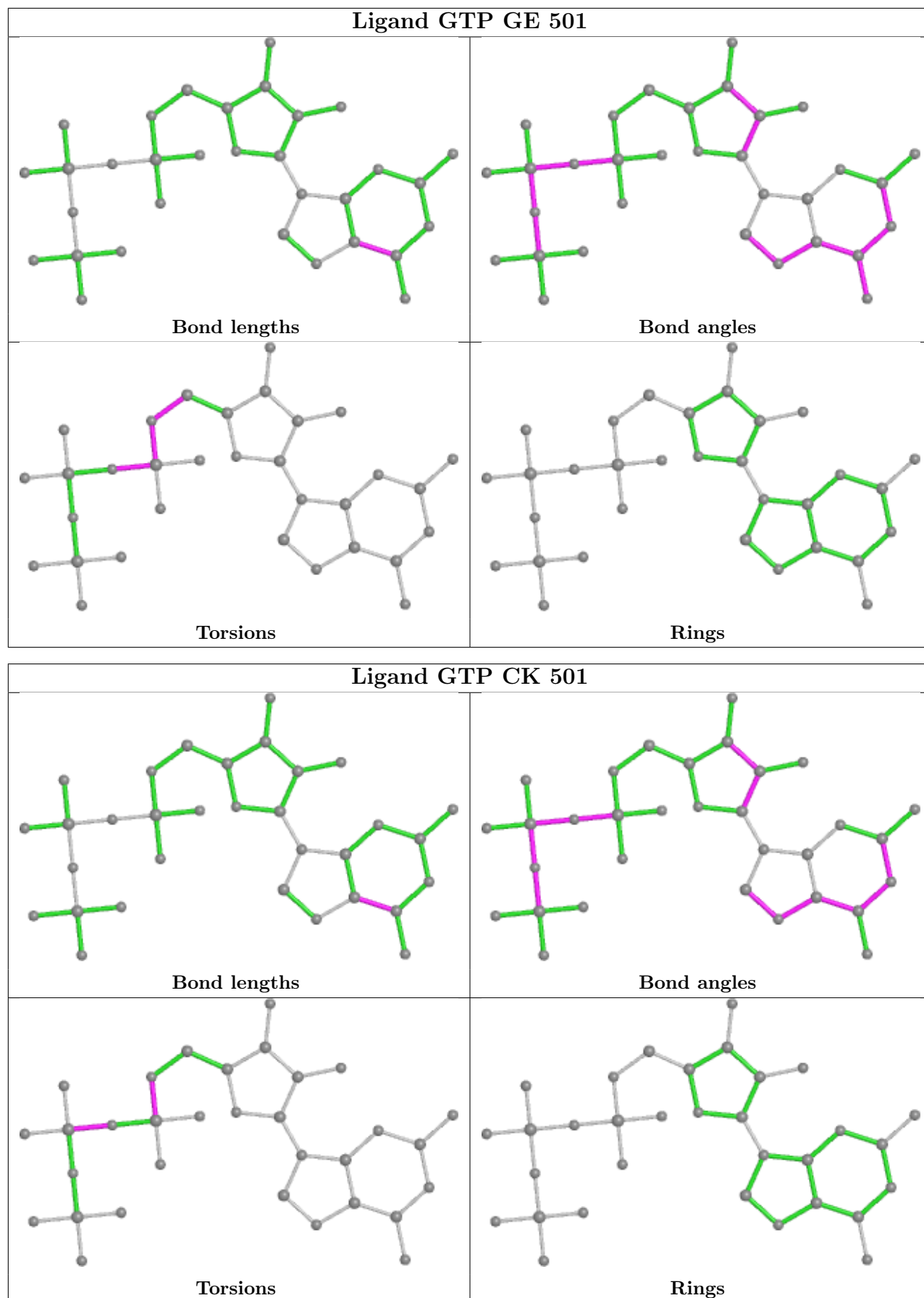


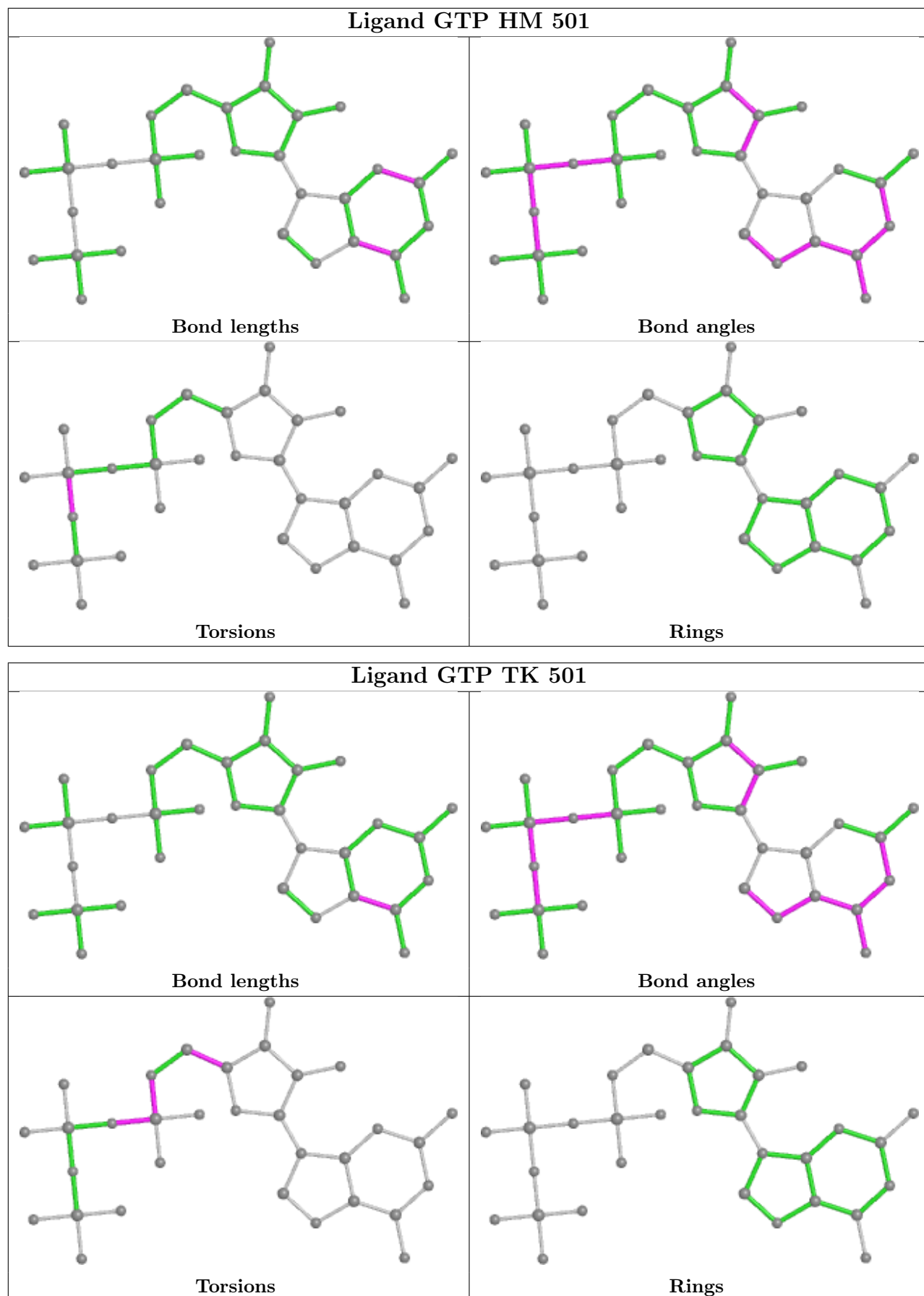


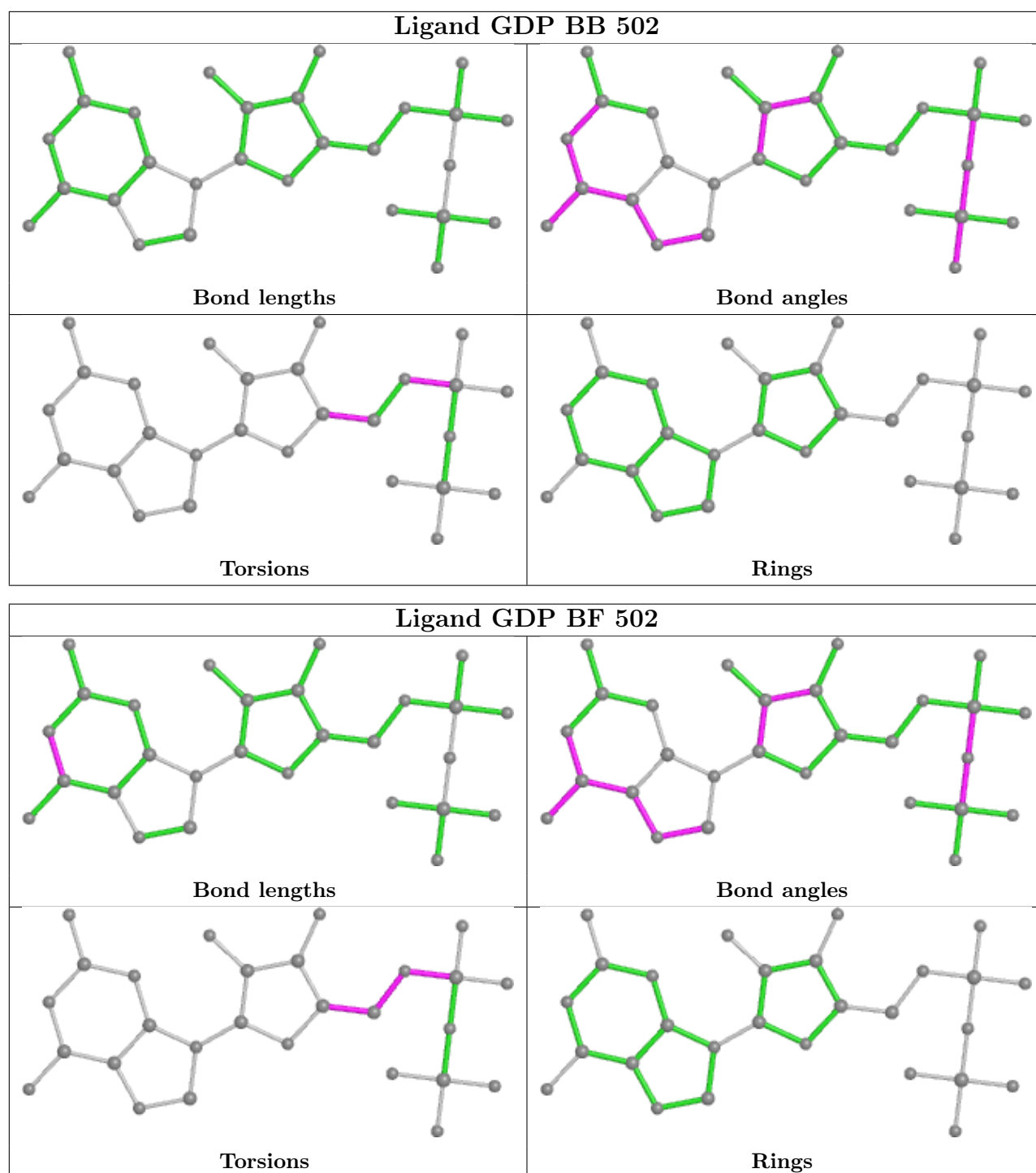


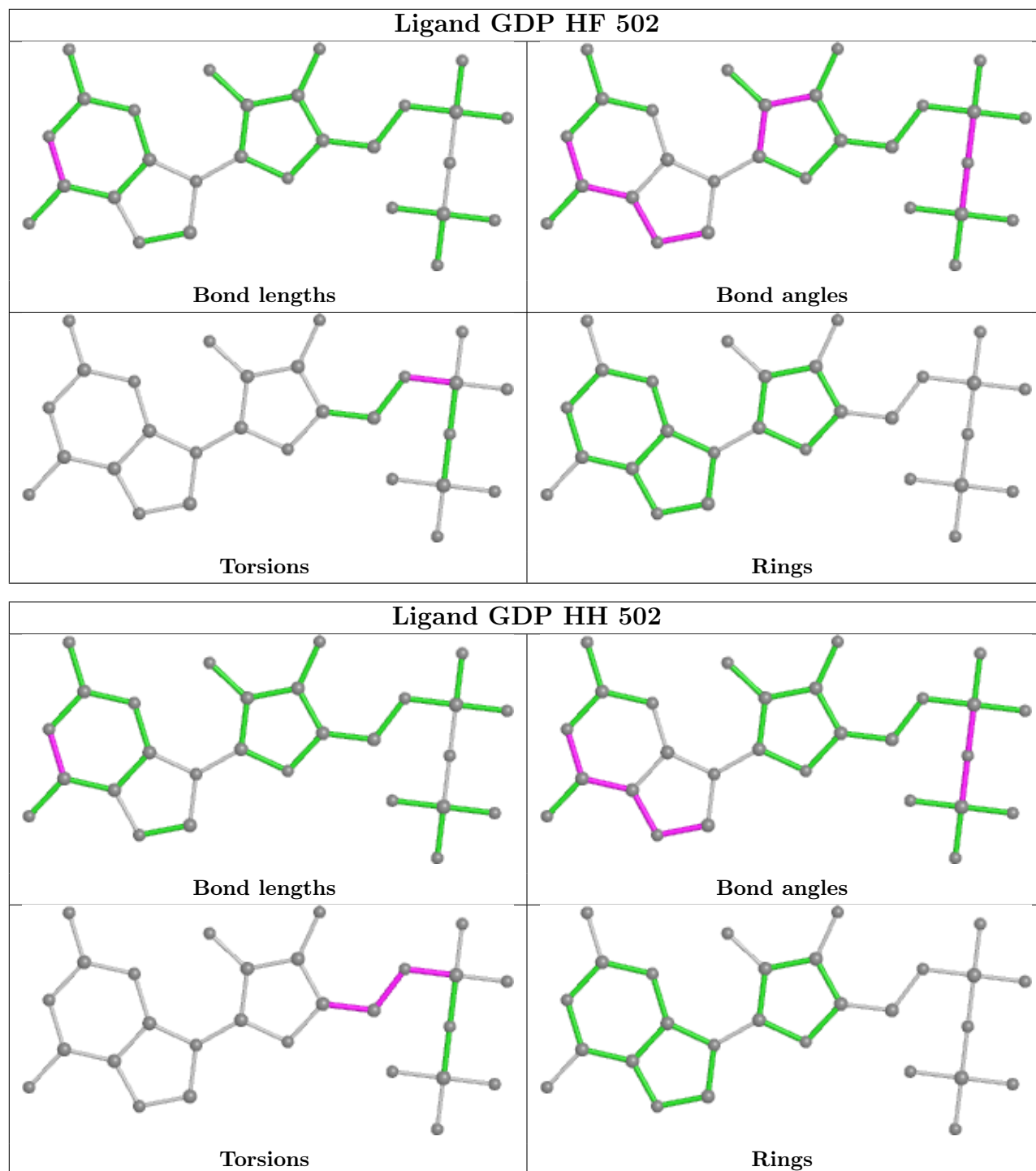


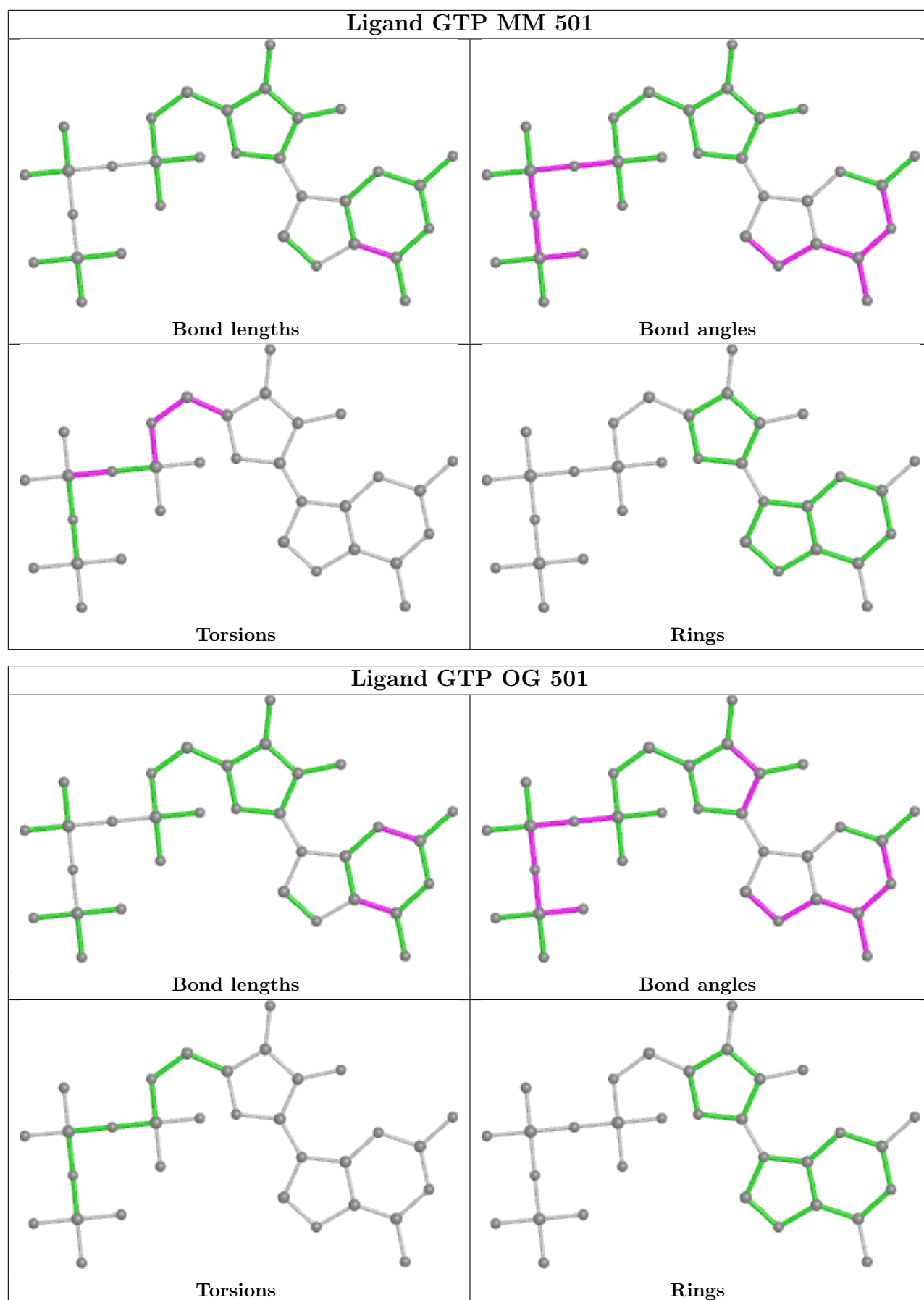


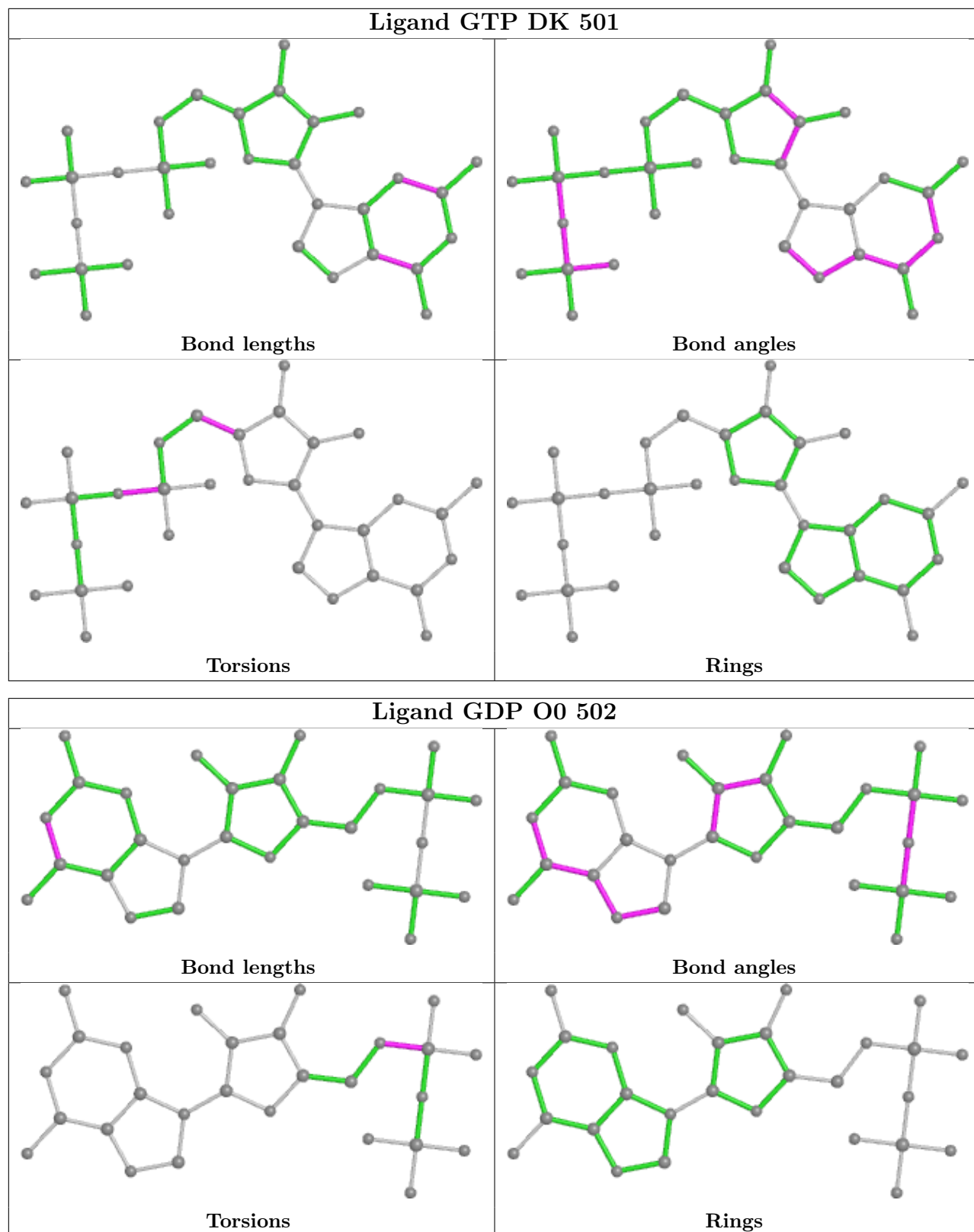


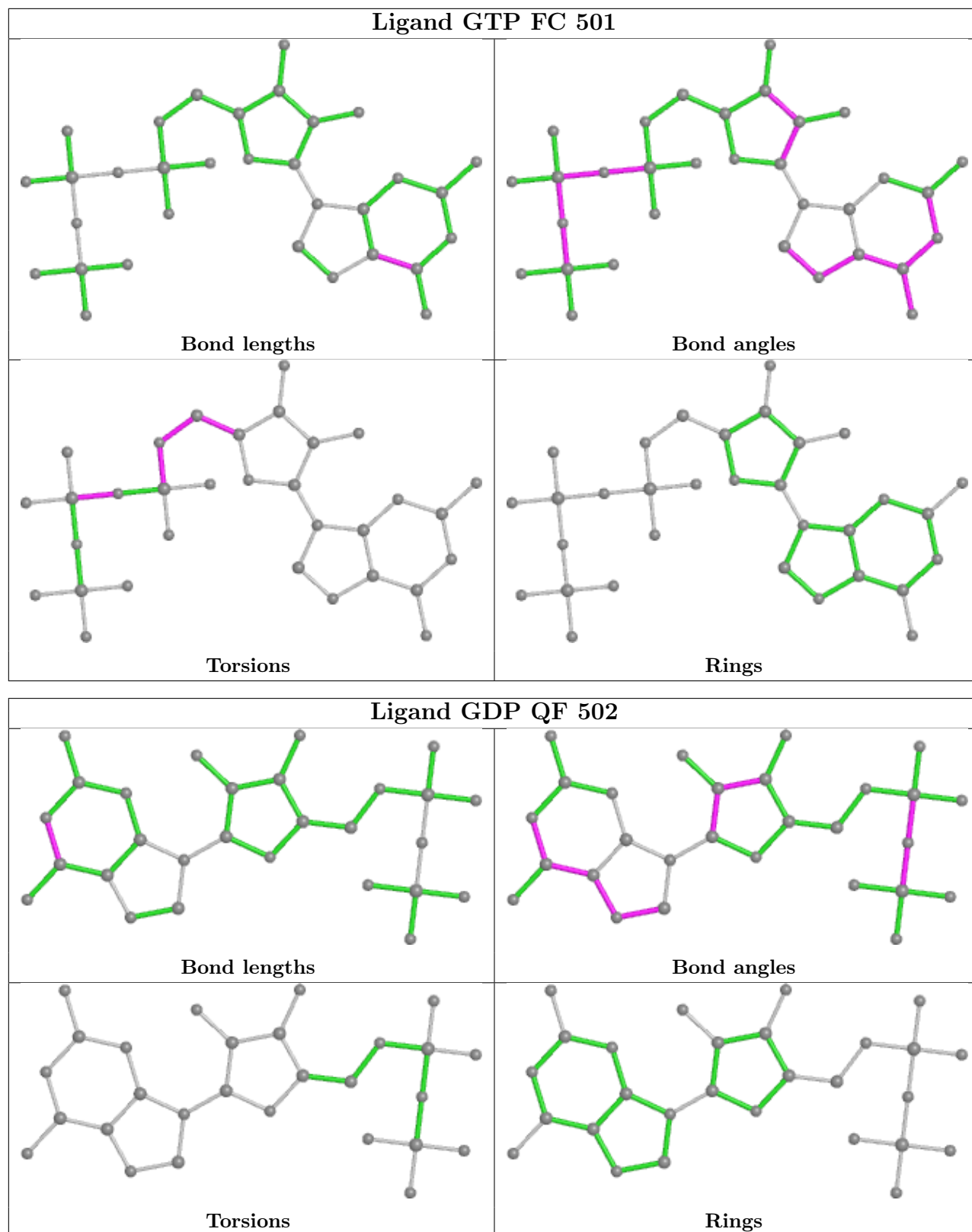


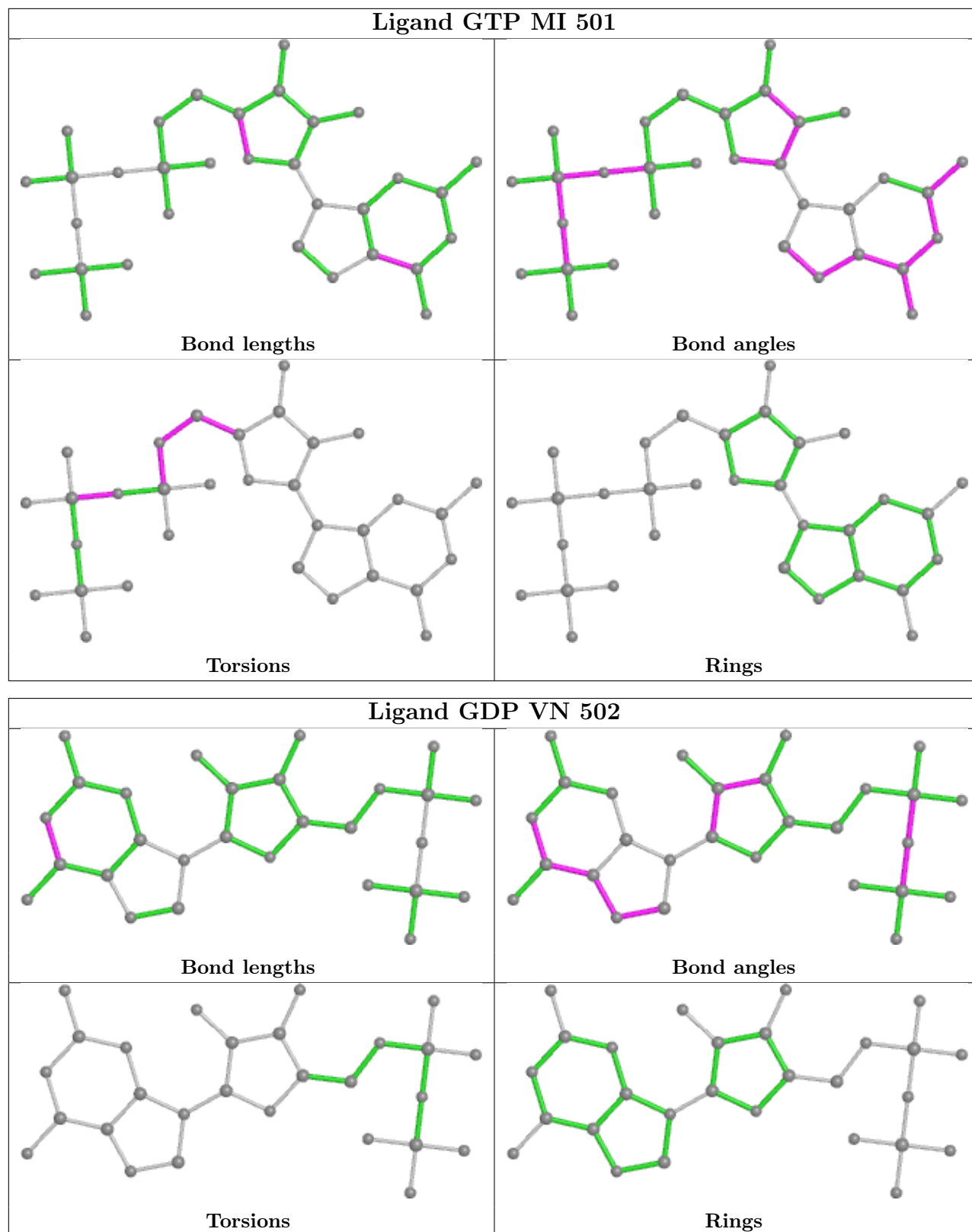


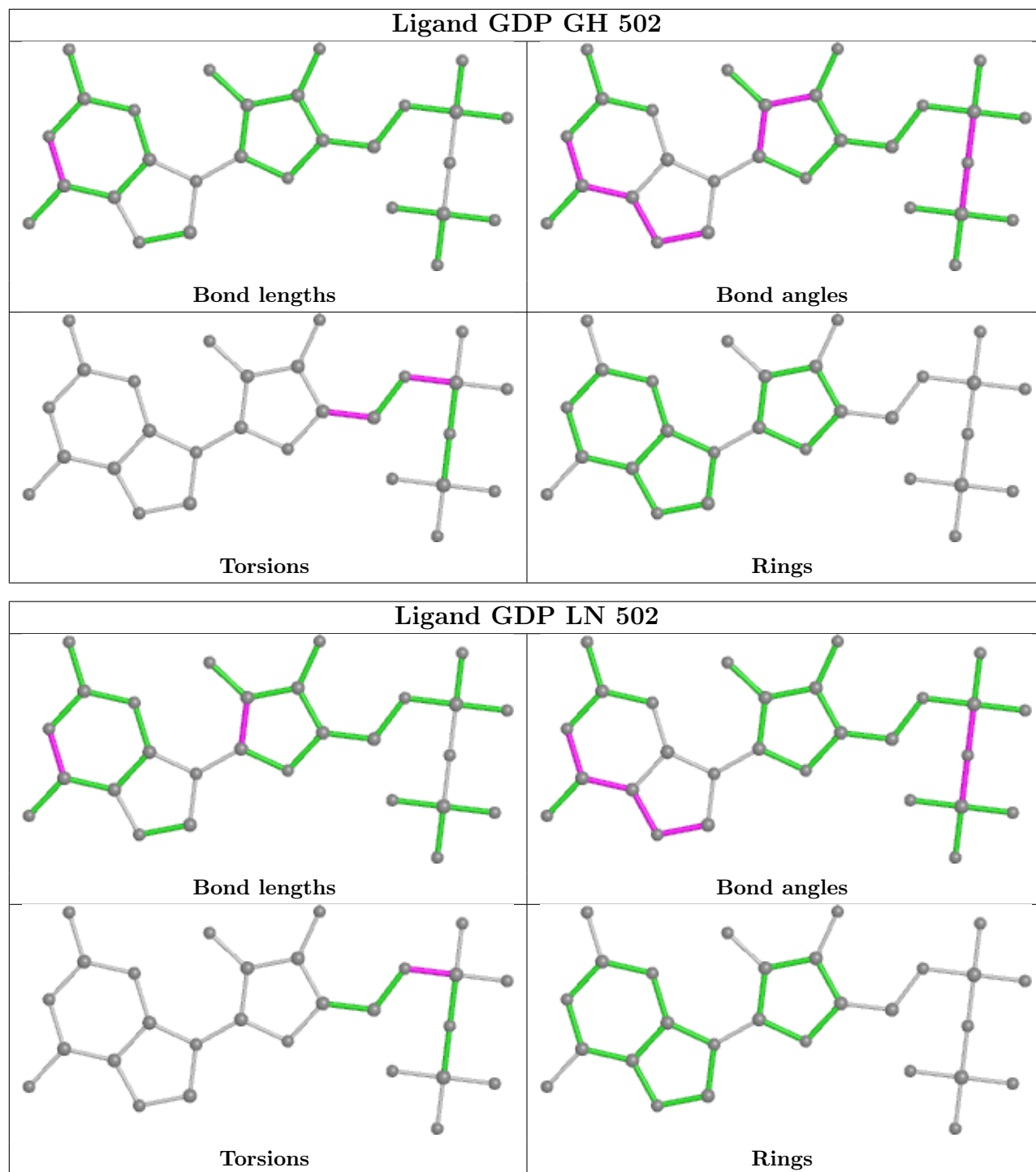


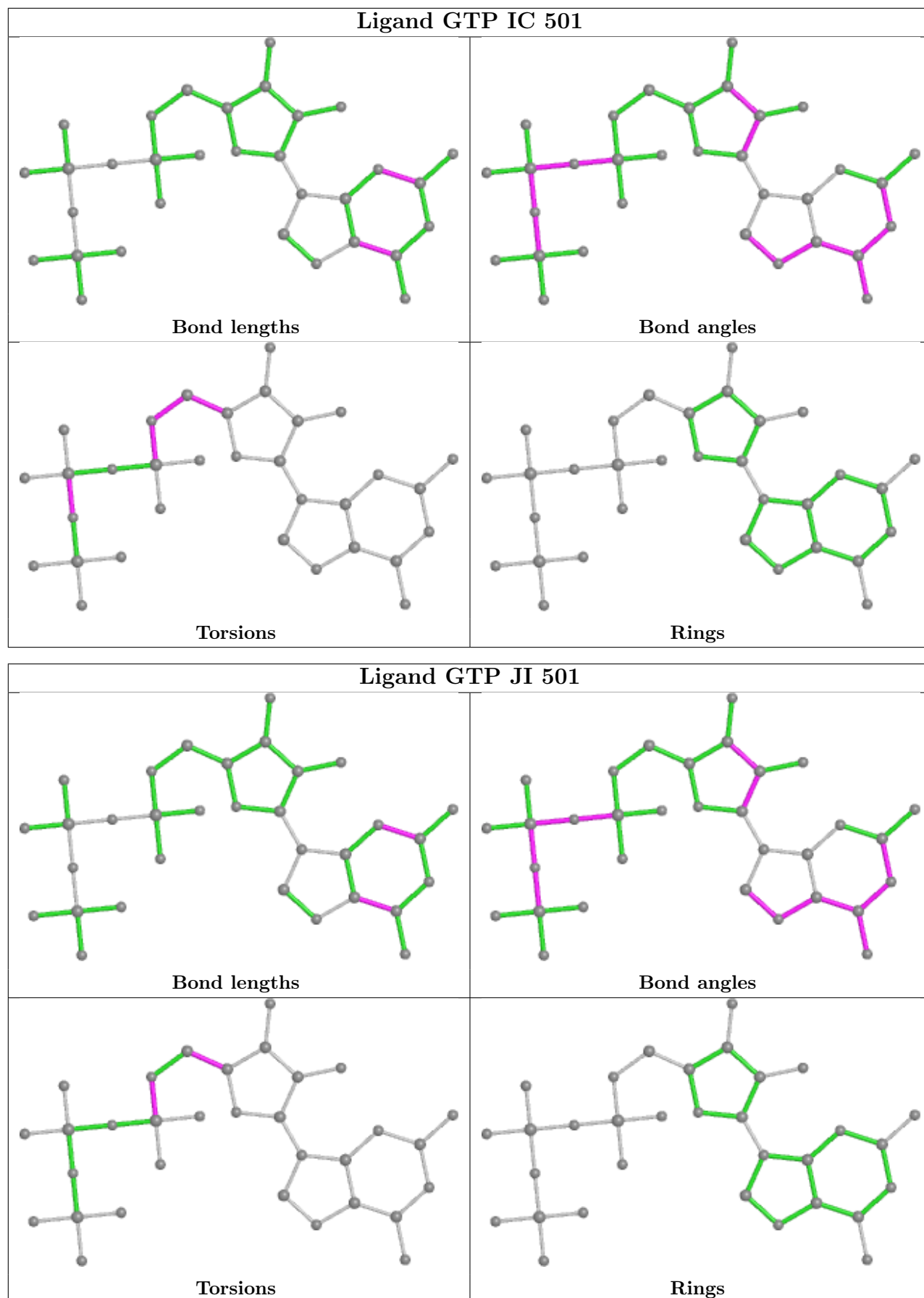


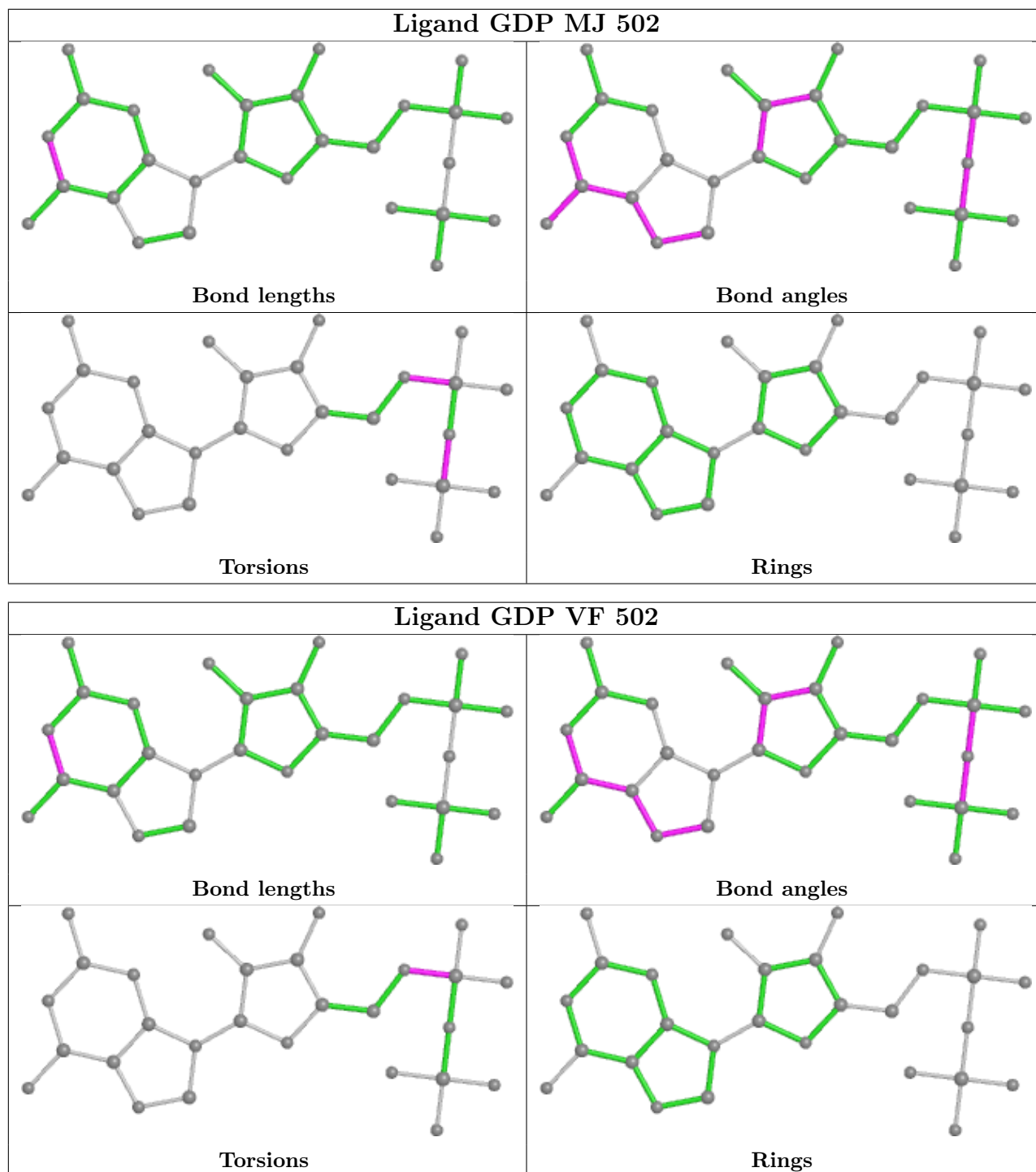


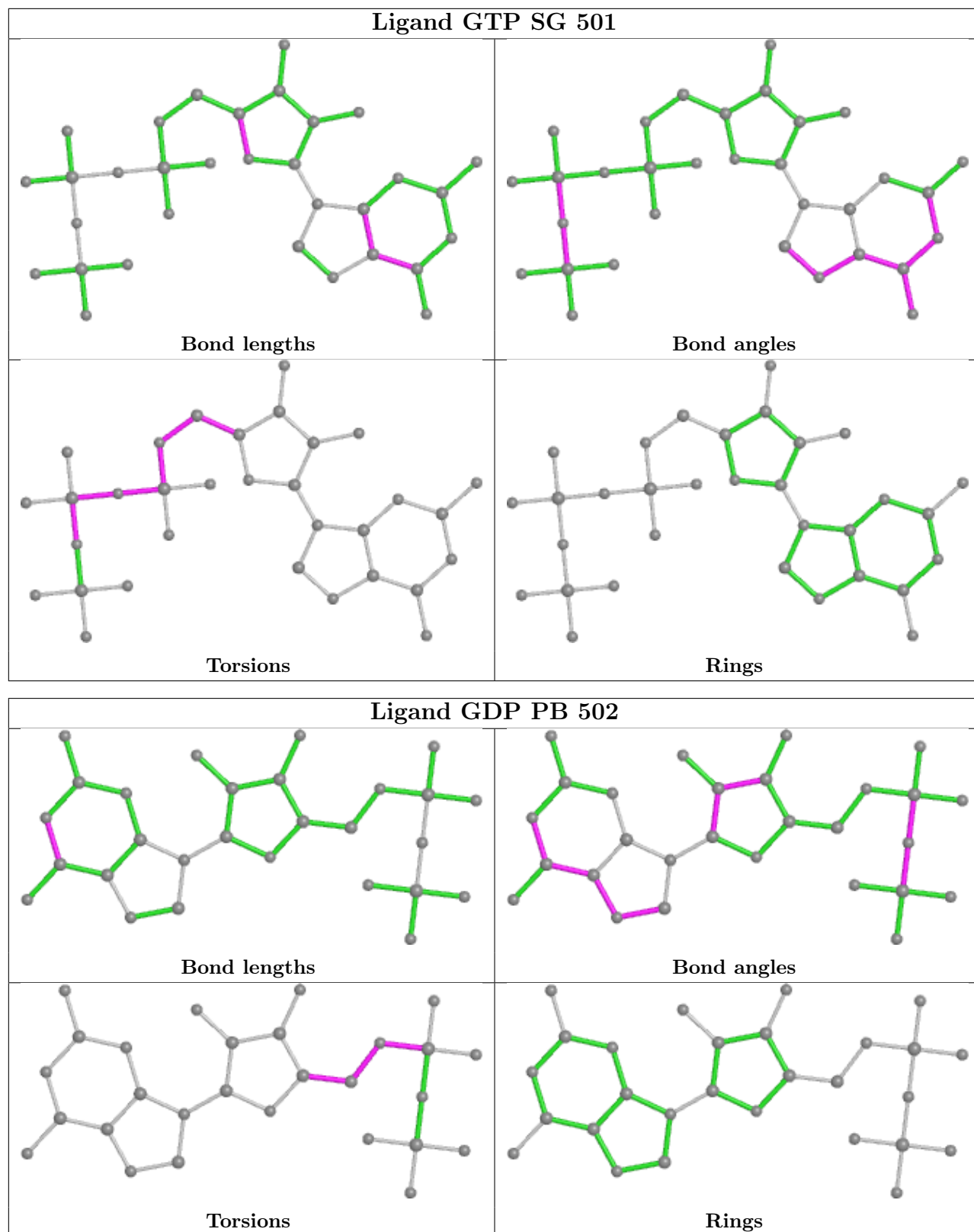


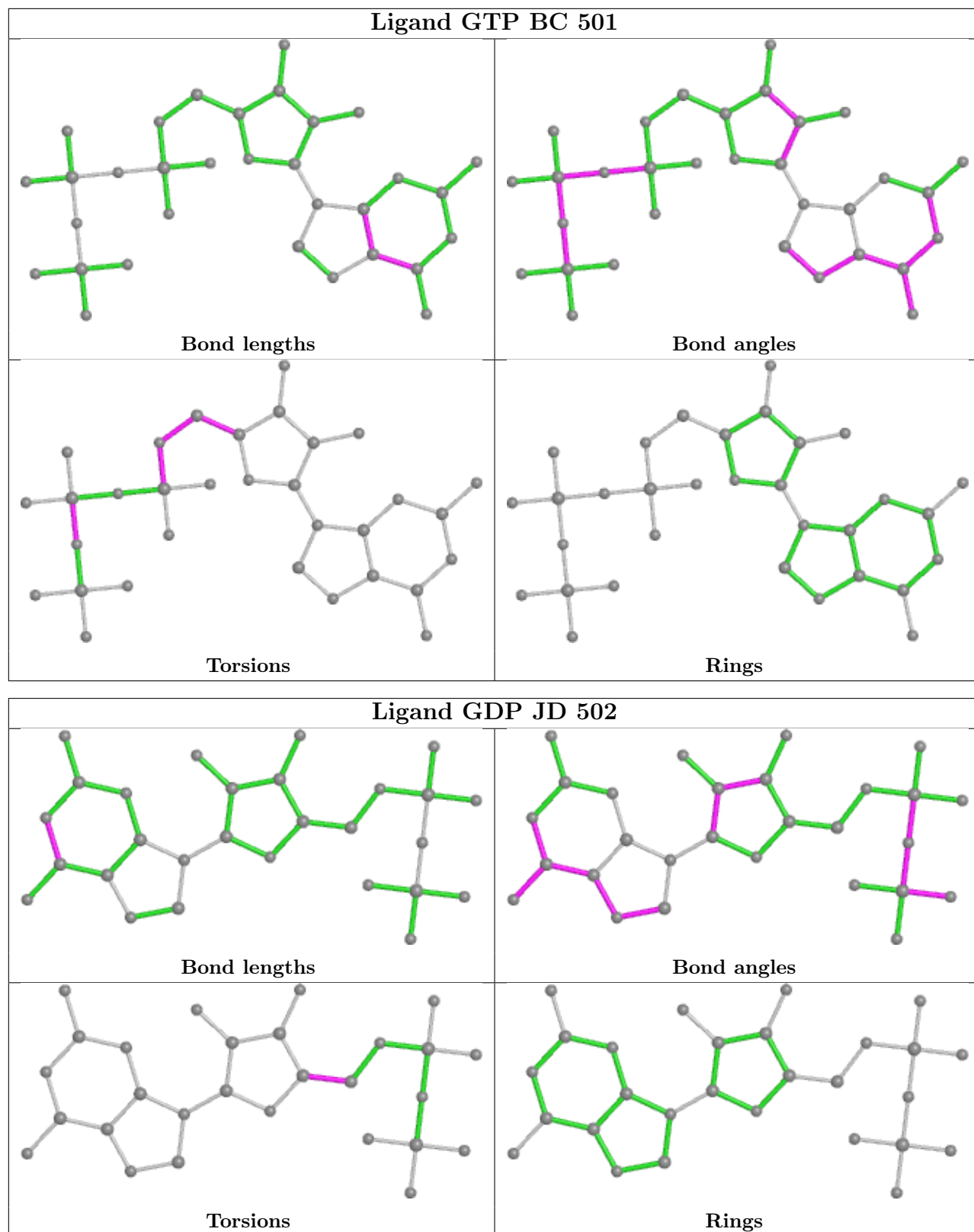


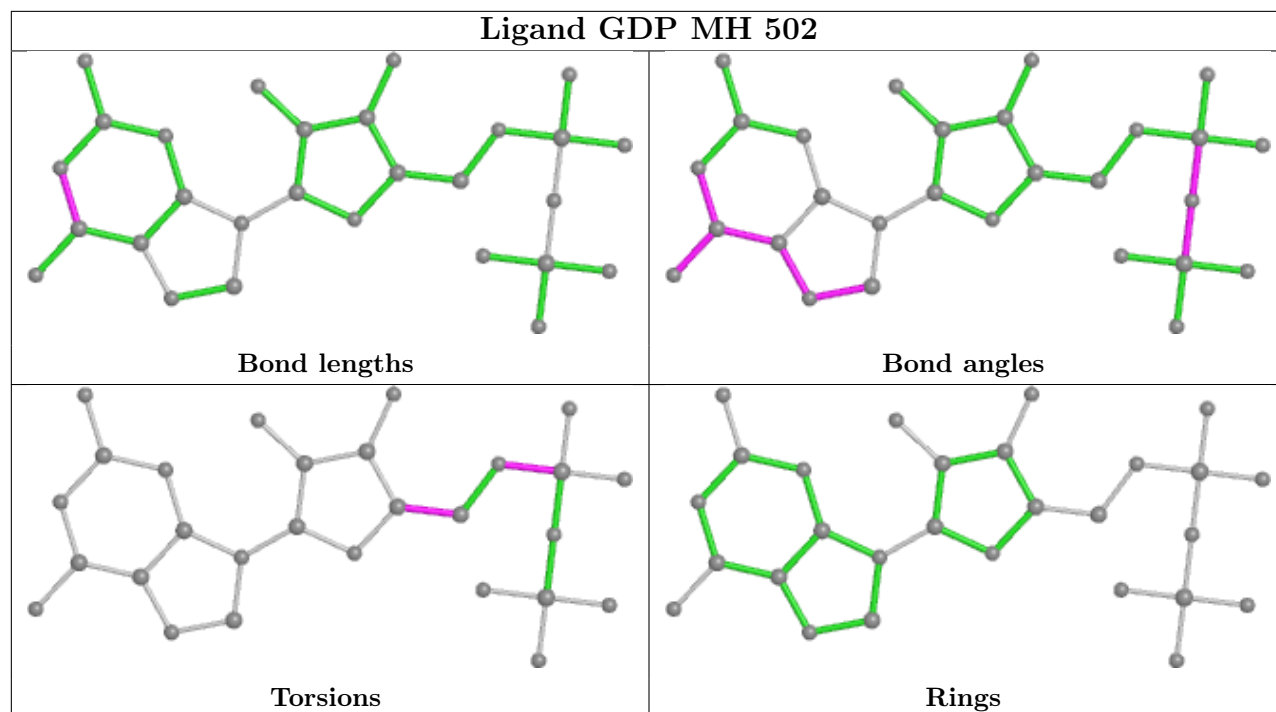












5.7 Other polymers [i](#)

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

This section contains visualisations of the EMDB entry EMD-24664. 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

This section was not generated.

6.2 Central slices

This section was not generated.

6.3 Largest variance slices

This section was not generated.

6.4 Orthogonal surface views

This section was not generated.

6.5 Mask visualisation

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

7 Map analysis

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

7.1 Map-value distribution

This section was not generated.

7.2 Volume estimate versus contour level

This section was not generated.

7.3 Rotationally averaged power spectrum

This section was not generated. The rotationally averaged power spectrum had issues being displayed.

8 Fourier-Shell correlation

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

9 Map-model fit

This section was not generated.