



wwPDB EM Validation Summary Report ⓘ

Jul 1, 2024 – 09:53 PM JST

PDB ID : 8IYJ
EMDB ID : EMD-35823
Title : Cryo-EM structure of the 48-nm repeat doublet microtubule from mouse sperm
Authors : Zhou, L.N.; Gui, M.; Wu, J.P.
Deposited on : 2023-04-05
Resolution : 3.50 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev92
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1



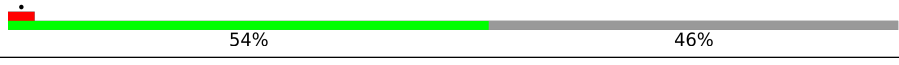

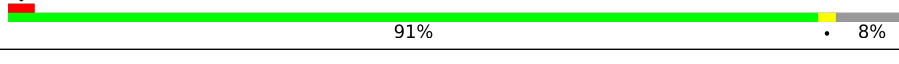
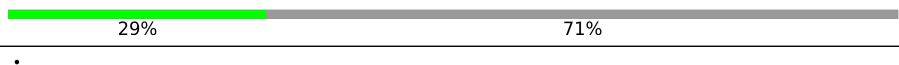
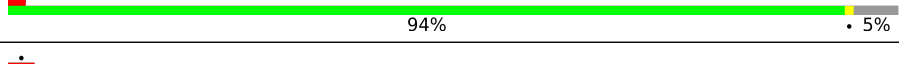
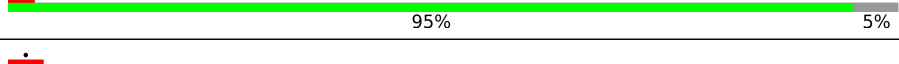
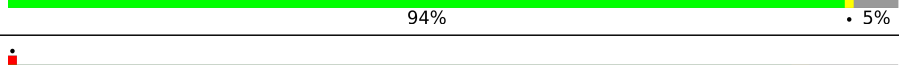
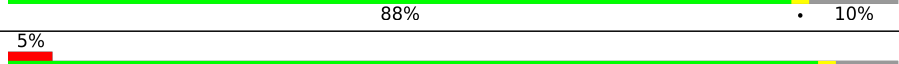
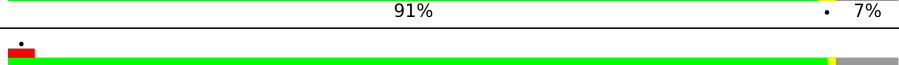
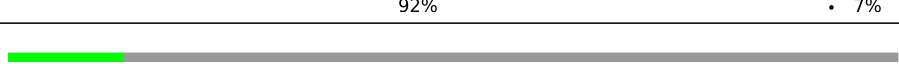
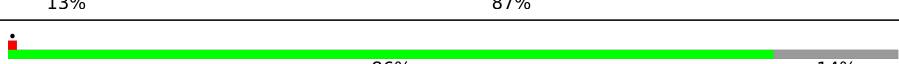
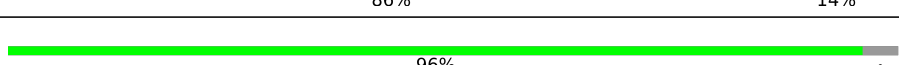
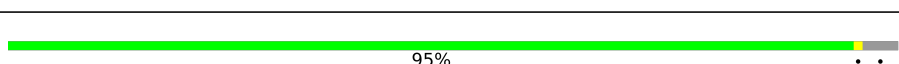
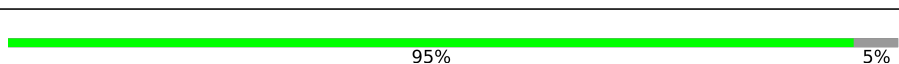

1 Overall quality at a glance

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

The reported resolution of this entry is 3.50 Å.

There are no overall percentile quality scores available for this entry.

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

Mol	Chain	Length	Quality of chain
1	0	228	 36% 64%
1	7	228	 61% 38%
2	1	853	 54% 46%
2	2	853	 31% 68%
3	3	514	 91% 8%
3	4	514	 29% 71%
4	5	395	 94% 5%
4	6	395	 95% 5%
4	j1	395	 94% 5%
5	8	196	 88% 10%
6	A	101	 5% 91% 7%
6	N1	101	 92% 7%
7	A0	418	 13% 87%
7	A1	418	 86% 14%
7	A2	418	 96%
7	A3	418	 95%
7	A4	418	 95% 5%

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Mol	Chain	Length	Quality of chain
7	A5	418	40% 60%
8	AA	450	97%
8	AC	450	97%
8	AE	450	97%
8	AG	450	98%
8	AI	450	96%
8	AK	450	97%
8	AM	450	97%
8	AO	450	98%
8	BC	450	96%
8	BE	450	97%
8	BG	450	96%
8	BI	450	97%
8	BK	450	96%
8	BM	450	96%
8	BO	450	96%
8	CC	450	97%
8	CE	450	97%
8	CG	450	97%
8	CI	450	97%
8	CK	450	97%
8	CM	450	97%
8	CO	450	97%
8	CQ	450	8% 97%
8	DC	450	96%

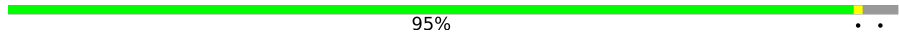
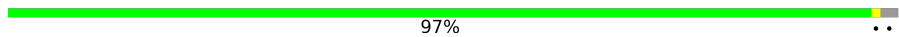
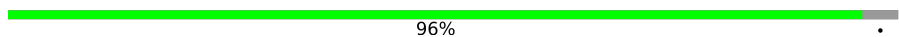
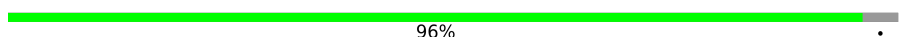
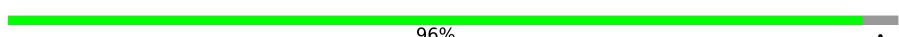
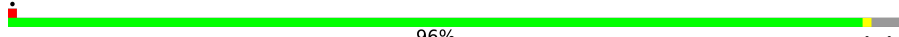




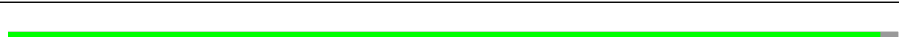


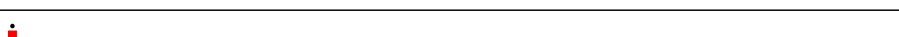
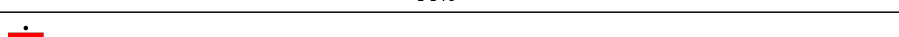
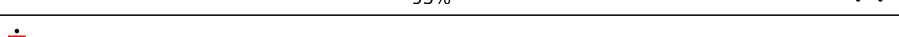
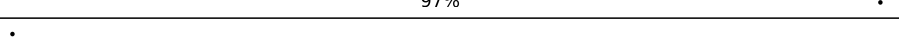
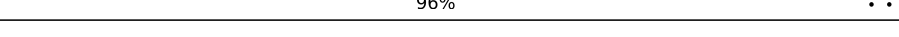
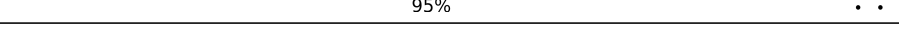
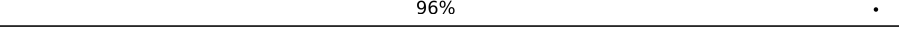
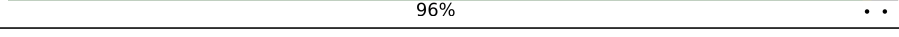
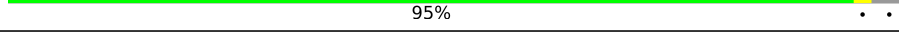
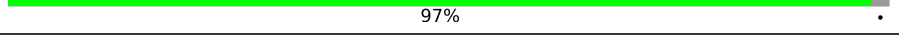
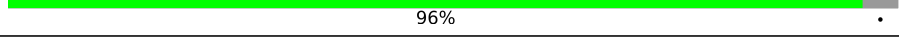
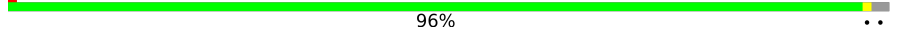
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Mol	Chain	Length	Quality of chain
8	DE	450	95%
8	DG	450	96%
8	DI	450	96%
8	DK	450	96%
8	DM	450	96%
8	DO	450	95%
8	DQ	450	95%
8	EA	450	97%
8	EC	450	97%
8	EE	450	97%
8	EG	450	97%
8	EI	450	97%
8	EK	450	98%
8	EM	450	98%
8	EO	450	97%
8	FA	450	94%
8	FC	450	95%
8	FE	450	96%
8	FG	450	94%
8	FI	450	95%
8	FK	450	95%
8	FM	450	95%
8	FO	450	95%
8	GA	450	95%
8	GC	450	95%

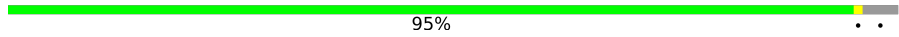
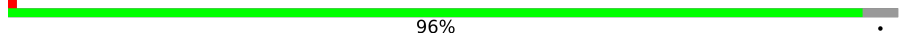
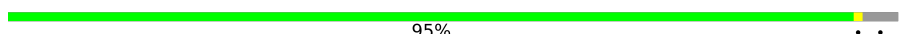
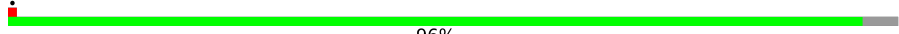


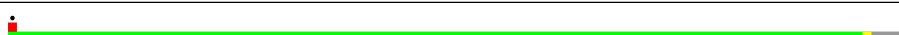
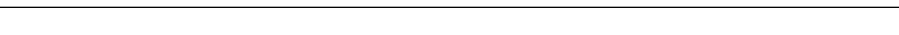
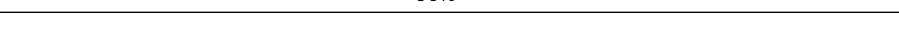
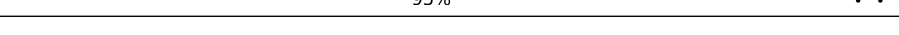
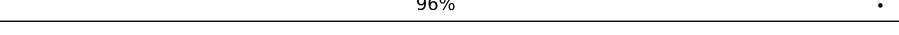
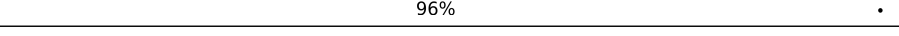

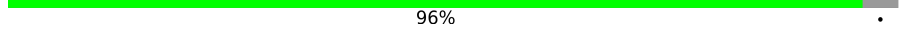
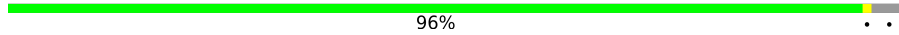
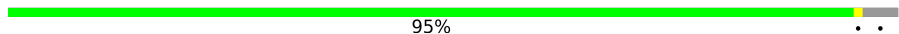
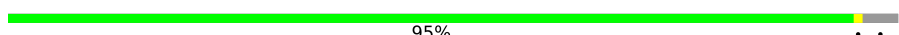
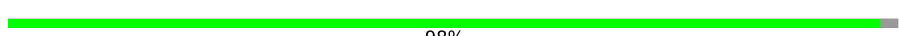





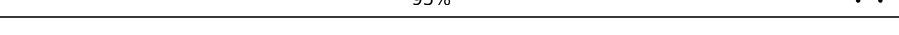
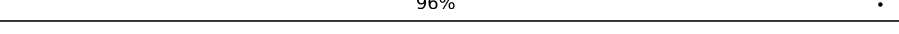
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Mol	Chain	Length	Quality of chain
8	GE	450	 95%
8	GG	450	 97%
8	GI	450	 96%
8	GK	450	 96%
8	GM	450	 96%
8	GO	450	 96%
8	HA	450	 94%
8	HC	450	 96%
8	HE	450	 97%
8	HG	450	 97%
8	HI	450	 98%
8	HK	450	 95%
8	HM	450	 96%
8	HO	450	 96%
8	IA	450	 95%
8	IC	450	 97%
8	IE	450	 96%
8	IG	450	 95%
8	II	450	 96%
8	IK	450	 96%
8	IM	450	 95%
8	IO	450	 97%
8	JC	450	 96%
8	JE	450	 96%
8	JG	450	 95% 5%

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Mol	Chain	Length	Quality of chain
8	JI	450	 95%
8	JK	450	 96%
8	JM	450	 95%
8	JO	450	 96%
8	JQ	450	 96%
8	KA	450	 96%
8	KC	450	 96%
8	KE	450	 96%
8	KG	450	 95%
8	KI	450	 96%
8	KK	450	 96%
8	KM	450	 95%
8	KO	450	 96%
8	LA	450	 96%
8	LC	450	 95%
8	LE	450	 95%
8	LG	450	 98%
8	LI	450	 98%
8	LK	450	 98%
8	LM	450	 96%
8	LO	450	 95%
8	MA	450	 95%
8	MC	450	 96%
8	ME	450	 97%
8	MG	450	 95%

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Mol	Chain	Length	Quality of chain
8	MI	450	96% .
8	MK	450	96% ..
8	MM	450	96% .
8	MO	450	94% . 5%
8	NA	450	5% 94% . 5%
8	NC	450	6% 95% 5%
8	NE	450	. 96% .
8	NG	450	. 96% .
8	NI	450	. 95% .
8	NK	450	. 95% ..
8	NM	450	. 95% ..
8	NO	450	. 95% ..
8	OA	450	19% 95% .
8	OC	450	6% 95% ..
8	OE	450	. 95% ..
8	OG	450	. 95% ..
8	OI	450	. 95% 5%
8	OK	450	. 96% .
8	OM	450	. 95% 5%
8	OO	450	5% 94% 6%
8	PC	450	. 94% . 5%
8	PE	450	. 94% 6%
8	PG	450	. 95% .
8	PI	450	. 95% .
8	PK	450	. 94% ..

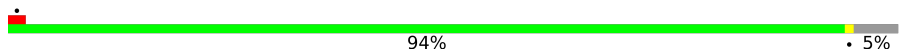
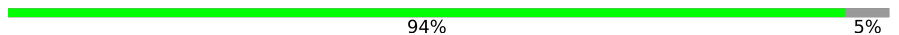
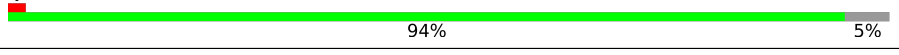
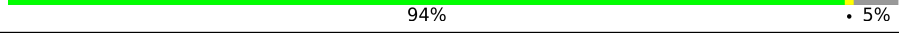
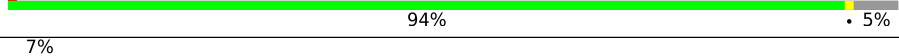
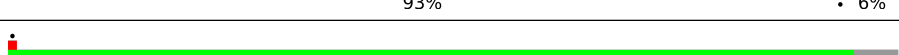

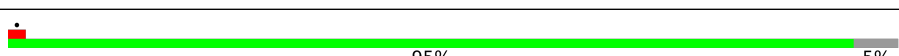
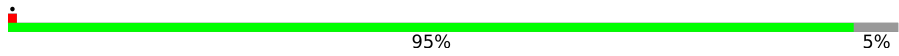
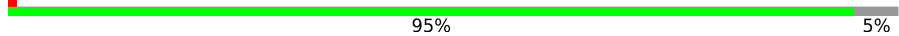
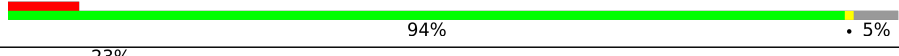
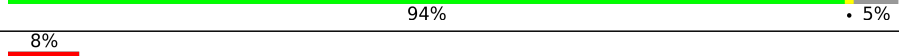
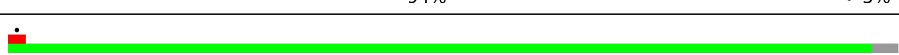
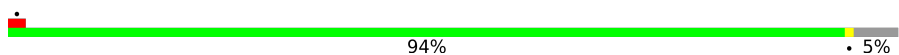
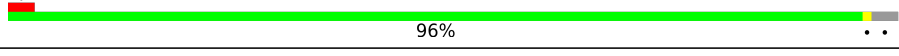
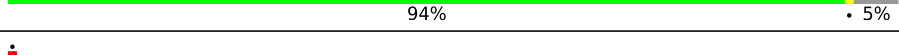
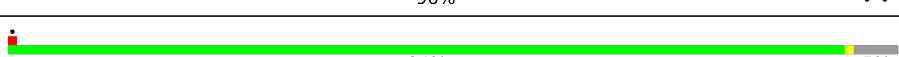
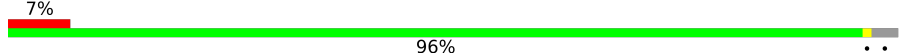
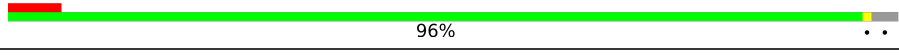
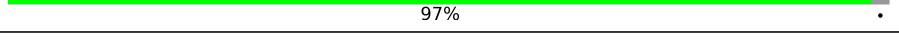
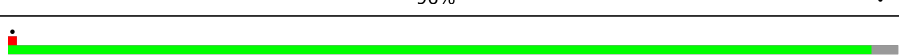




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Mol	Chain	Length	Quality of chain
8	PM	450	96%
8	PO	450	95%
8	QC	450	95%
8	QE	450	95%
8	QG	450	95%
8	QI	450	95%
8	QK	450	95%
8	QM	450	94%
8	QO	450	94%
8	RC	450	95%
8	RE	450	95%
8	RG	450	95%
8	RI	450	94%
8	RK	450	95%
8	RM	450	94%
8	RO	450	94%
8	SA	450	94%
8	SC	450	94%
8	SE	450	95%
8	SG	450	94%
8	SI	450	94%
8	SK	450	94%
8	SM	450	93%
8	TA	450	93%
8	TC	450	94%

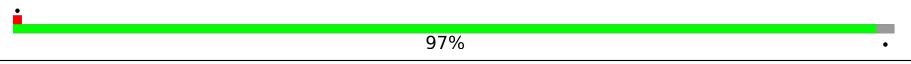
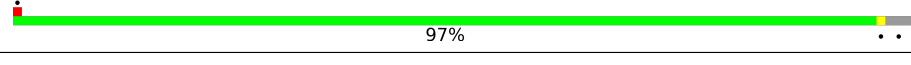
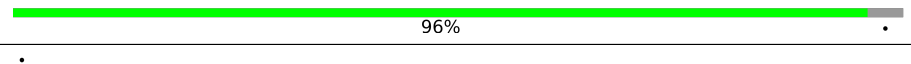
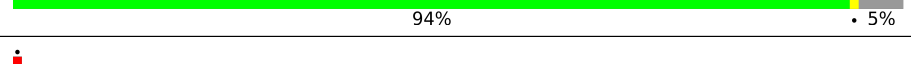
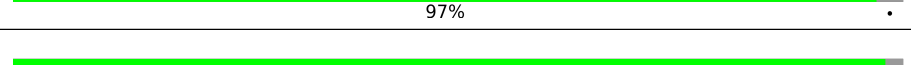
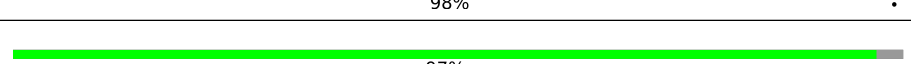
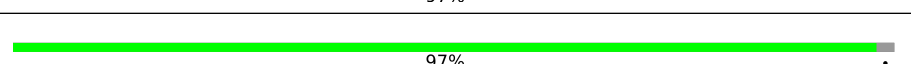
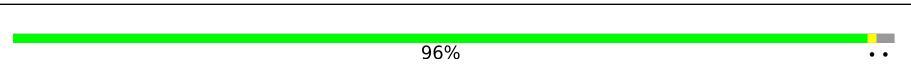
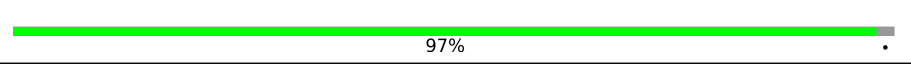
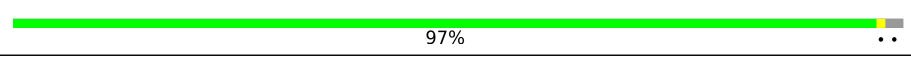
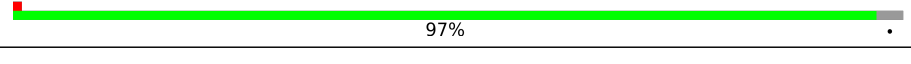
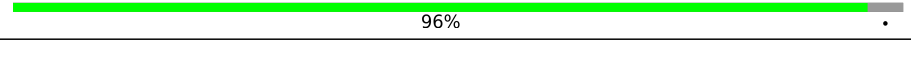
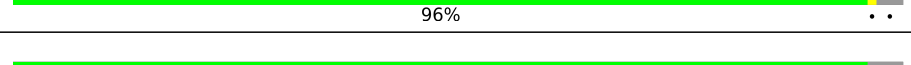
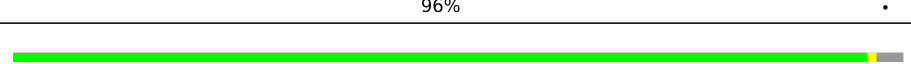
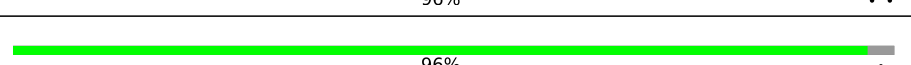
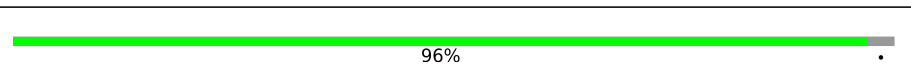
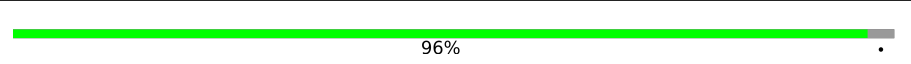
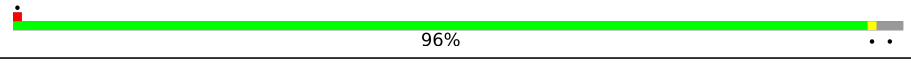
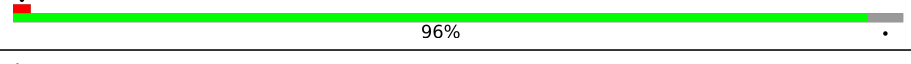
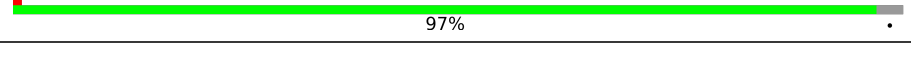
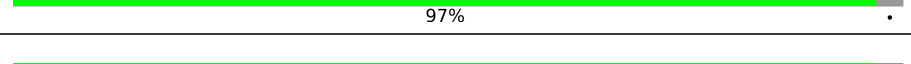
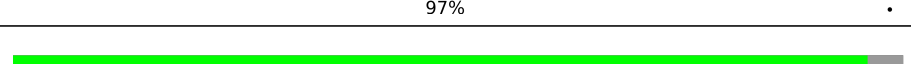
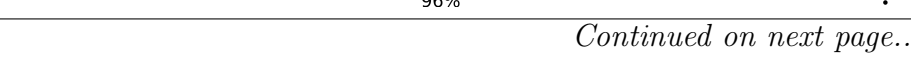


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Mol	Chain	Length	Quality of chain
8	TE	450	 94% • 5%
8	TG	450	 94% 5%
8	TI	450	 94% 5%
8	TK	450	 94% • 5%
8	TM	450	 94% • 5%
8	UA	450	 93% • 6%
8	UC	450	 95% 5%
8	UE	450	 95% 5%
8	UG	450	 95% 5%
8	UI	450	 95% 5%
8	UK	450	 95% 5%
8	UM	450	 94% • 5%
8	UO	450	 94% • 5%
8	VA	450	 94% • 5%
8	VC	450	 97% .
8	VE	450	 94% • 5%
8	VG	450	 96% • .
8	VI	450	 94% • 5%
8	VK	450	 96% • .
8	VM	450	 94% • 5%
8	VO	450	 96% • .
8	WA	450	 96% • .
8	WC	450	 97% .
8	WE	450	 96% .
8	WG	450	 97% .

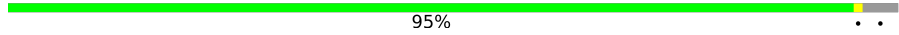
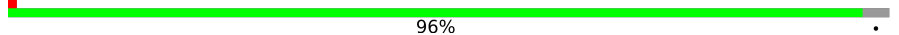
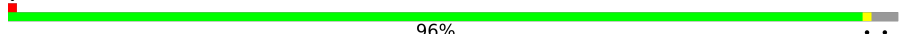
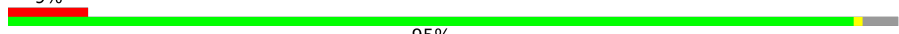


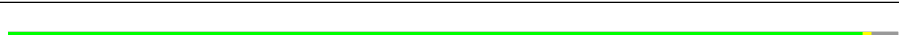
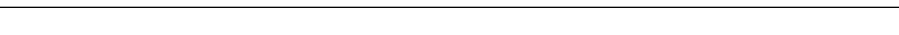
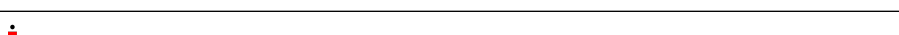
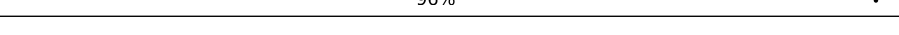
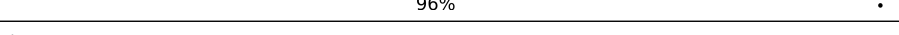
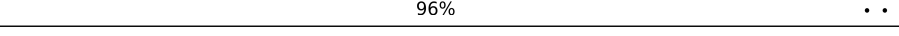
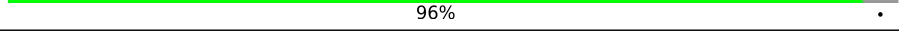
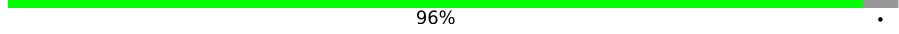
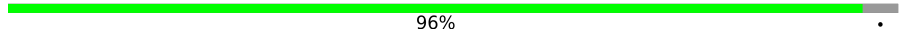
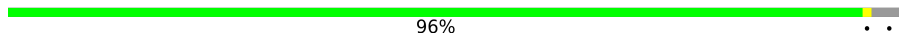
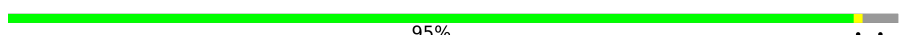
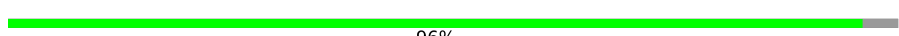





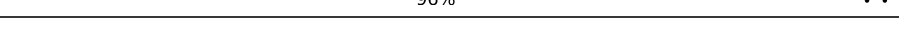
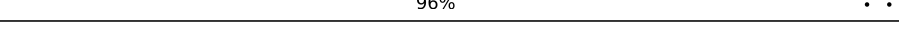
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Mol	Chain	Length	Quality of chain
8	WI	450	 97%
8	WK	450	 97%
8	WM	450	 96%
8	WO	450	 94% 5%
9	AB	445	 97%
9	AD	445	 98%
9	AF	445	 97%
9	AH	445	 97%
9	AJ	445	 96%
9	AL	445	 97%
9	AN	445	 97%
9	AP	445	 97%
9	BB	445	 96%
9	BD	445	 96%
9	BF	445	 96%
9	BH	445	 96%
9	BJ	445	 96%
9	BL	445	 96%
9	BN	445	 96%
9	BP	445	 96%
9	CB	445	 96%
9	CD	445	 97%
9	CF	445	 97%
9	CH	445	 97%
9	CJ	445	 96%

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Mol	Chain	Length	Quality of chain
9	CL	445	 95% ..
9	CN	445	 96% .
9	CP	445	 96% ..
9	DB	445	 95% ..
9	DD	445	 96% ..
9	DF	445	 96% .
9	DH	445	 96% ..
9	DJ	445	 96% ..
9	DL	445	 96% .
9	DN	445	 96% .
9	DP	445	 96% ..
9	EB	445	 96% .
9	ED	445	 96% .
9	EF	445	 96% .
9	EH	445	 96% ..
9	EJ	445	 95% ..
9	EL	445	 96% .
9	EN	445	 96% ..
9	FB	445	 96% ..
9	FD	445	 96% ..
9	FF	445	 96% .
9	FH	445	 96% ..
9	FJ	445	 96% ..
9	FL	445	 96% .
9	FN	445	 96% .

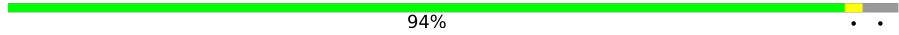
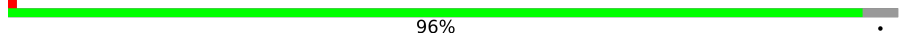
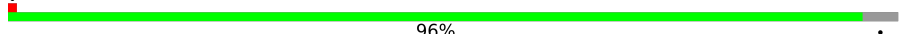
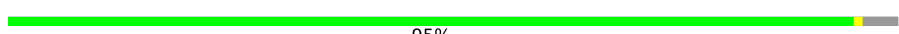


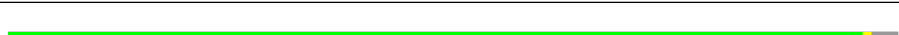
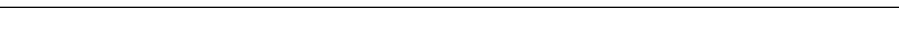
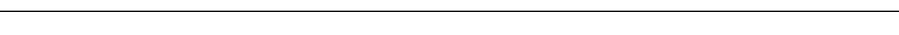
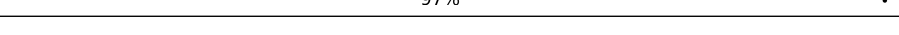
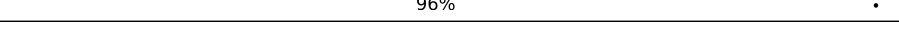
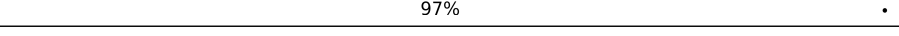
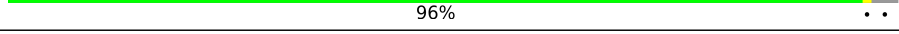
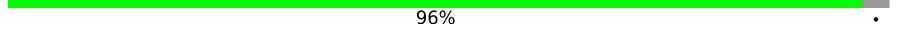
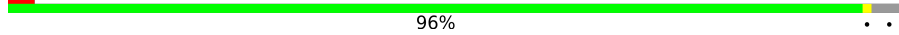
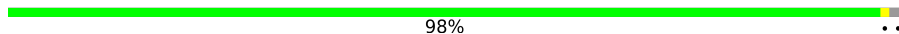
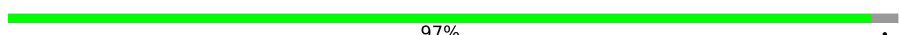
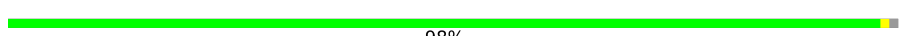





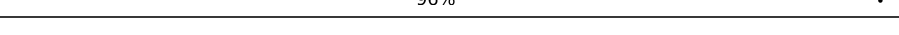
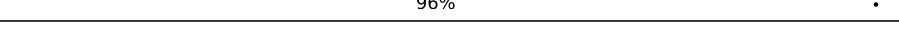
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Mol	Chain	Length	Quality of chain
9	GB	445	96%
9	GD	445	96%
9	GF	445	97%
9	GH	445	97%
9	GJ	445	97%
9	GL	445	96%
9	GN	445	96%
9	HB	445	96%
9	HD	445	95%
9	HF	445	96%
9	HH	445	96%
9	HJ	445	96%
9	HL	445	97%
9	HN	445	96%
9	HP	445	95%
9	IB	445	96%
9	ID	445	96%
9	IF	445	96%
9	IH	445	96%
9	IJ	445	96%
9	IL	445	96%
9	IN	445	96%
9	IP	445	96%
9	JB	445	96%
9	JD	445	96%

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Mol	Chain	Length	Quality of chain
9	JF	445	 94%
9	JH	445	 96%
9	JJ	445	 96%
9	JL	445	 95%
9	JN	445	 96%
9	JP	445	 96%
9	KB	445	 96%
9	KD	445	 96%
9	KF	445	 97%
9	KH	445	 96%
9	KJ	445	 97%
9	KL	445	 96%
9	KN	445	 96%
9	KP	445	 96%
9	LB	445	 98%
9	LD	445	 97%
9	LF	445	 98%
9	LH	445	 96%
9	LJ	445	 98%
9	LL	445	 96%
9	LN	445	 97%
9	LP	445	 96%
9	MB	445	 96%
9	MD	445	 96%
9	MF	445	 95%

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Mol	Chain	Length	Quality of chain
9	MH	445	96%
9	MJ	445	96%
9	ML	445	96%
9	MN	445	96%
9	MP	445	96%
9	NB	445	96%
9	ND	445	97%
9	NF	445	96%
9	NH	445	96%
9	NJ	445	96%
9	NL	445	96%
9	NN	445	96%
9	NP	445	96%
9	OB	445	95%
9	OD	445	96%
9	OF	445	96%
9	OH	445	95%
9	OJ	445	95%
9	OL	445	96%
9	ON	445	96%
9	OP	445	95%
9	PB	445	95%
9	PD	445	95%
9	PF	445	95%
9	PH	445	95%

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Mol	Chain	Length	Quality of chain
9	PJ	445	96%
9	PL	445	96%
9	PN	445	96%
9	PP	445	96%
9	QB	445	96%
9	QD	445	96%
9	QF	445	96%
9	QH	445	95%
9	QJ	445	95%
9	QL	445	96%
9	QN	445	95%
9	QP	445	95%
9	RD	445	96%
9	RF	445	96%
9	RH	445	96%
9	RJ	445	96%
9	RL	445	96%
9	RN	445	96%
9	RP	445	96%
9	SB	445	95%
9	SD	445	96%
9	SF	445	96%
9	SH	445	96%
9	SJ	445	95%
9	SL	445	95%

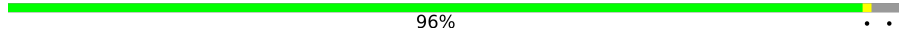
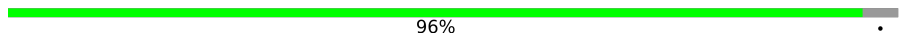
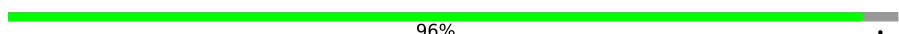
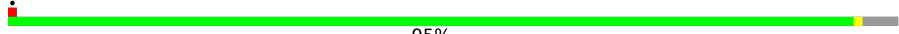


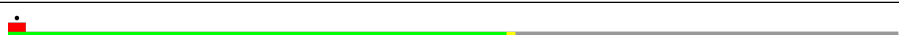
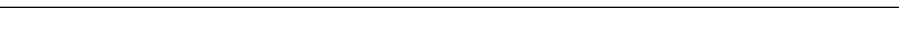
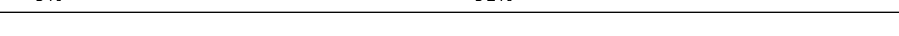
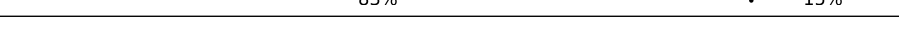
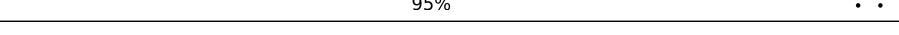
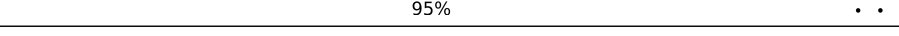



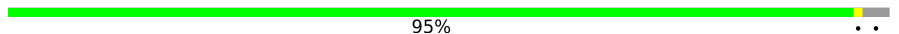
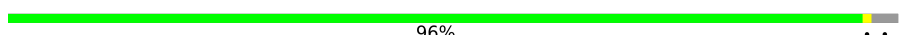
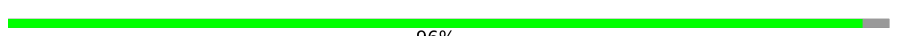







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Mol	Chain	Length	Quality of chain
9	SN	445	9% 96%
9	TB	445	95%
9	TD	445	95%
9	TF	445	95%
9	TH	445	95%
9	TJ	445	95%
9	TL	445	94%
9	TN	445	5% 95%
9	UB	445	95%
9	UD	445	96%
9	UF	445	96%
9	UH	445	96%
9	UJ	445	96%
9	UL	445	6% 96%
9	UN	445	10% 96%
9	VB	445	96%
9	VD	445	96%
9	VF	445	96%
9	VH	445	95%
9	VJ	445	95%
9	VL	445	95%
9	VN	445	95%
9	WB	445	96%
9	WD	445	96%
9	WF	445	96%



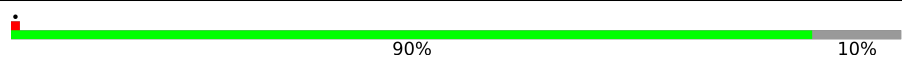
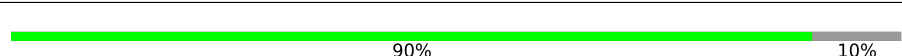
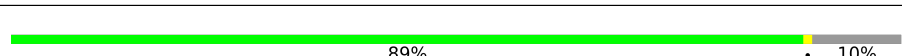
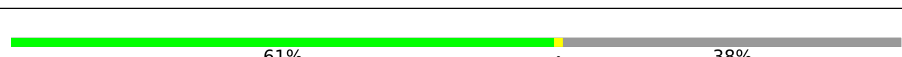
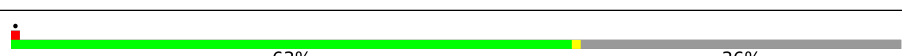
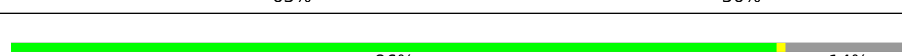
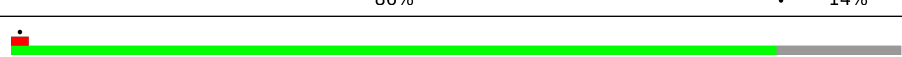

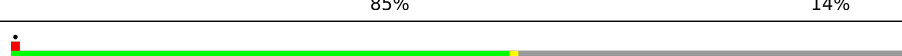
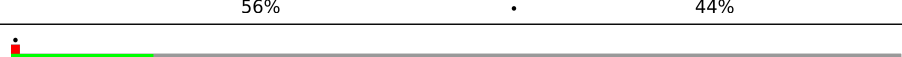

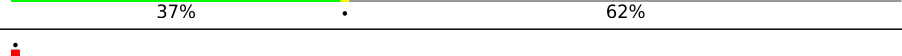
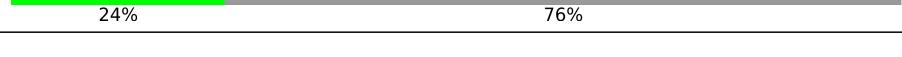
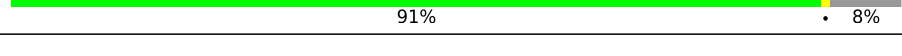
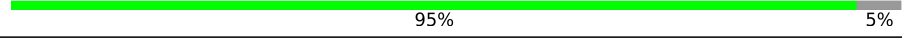
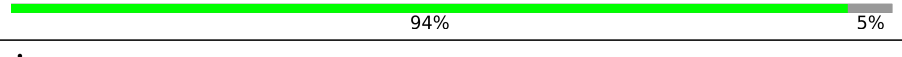
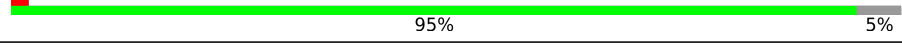


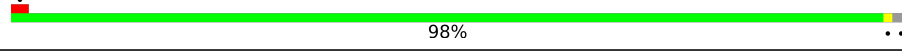
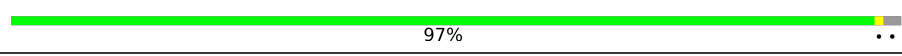
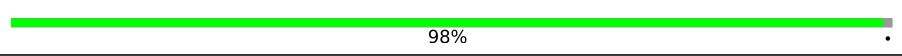

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Mol	Chain	Length	Quality of chain
9	WH	445	 96%
9	WJ	445	 96%
9	WL	445	 96%
9	WN	445	 95%
9	WP	445	 96%
10	B	491	 64% 35%
10	C	491	 56% 43%
11	B0	430	 9% 91%
11	B1	430	 83% 15%
11	B2	430	 95%
11	B3	430	 95%
11	B4	430	 96%
11	B5	430	 46% 53%
11	R0	430	 46% 54%
11	R1	430	 95%
11	R2	430	 96%
11	R3	430	 96%
11	R4	430	 85% 14%
11	R5	430	 10% 90%
12	C0	490	 36% 63%
12	C1	490	 83% 16%
12	C2	490	 83% 16%
12	C3	490	 83% 17%
12	C4	490	 74% 26%
12	C5	490	 10% 90%

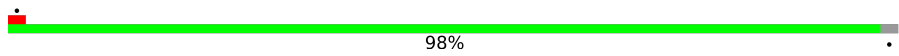
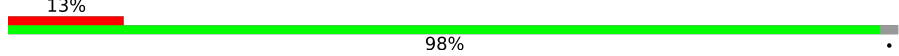
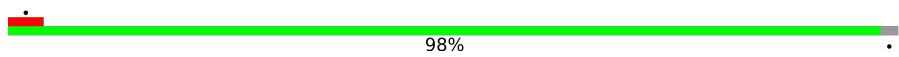










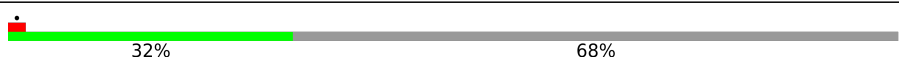
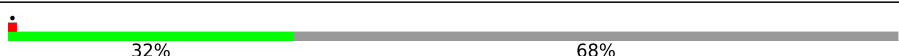
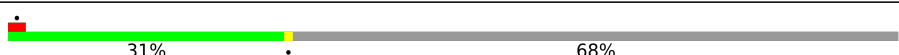
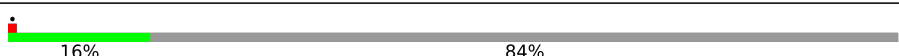



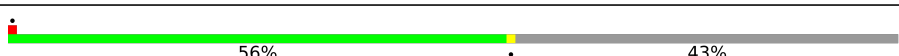



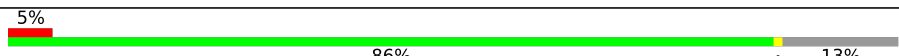
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Mol	Chain	Length	Quality of chain
12	C6	490	 9% 91%
12	S0	490	 65% 34%
12	S1	490	 90% 10%
12	S2	490	 90% 10%
12	S3	490	 89% 10%
12	S4	490	 61% 38%
12	S5	490	 63% 36%
12	S6	490	 86% 14%
12	S7	490	 86% 14%
12	S8	490	 85% 14%
12	S9	490	 56% 44%
13	D	470	 16% 84%
13	K3	470	 37% 62%
14	D0	447	 24% 76%
14	D1	447	 91% 8%
14	D2	447	 95% 5%
14	D3	447	 94% 5%
14	D4	447	 95% 5%
14	D5	447	 18% 81%
14	T0	447	 26% 73%
14	T1	447	 98% ..
14	T2	447	 97% ..
14	T3	447	 98% .
14	T4	447	 87% 12%
14	T5	447	 26% 73%


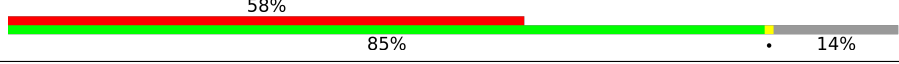
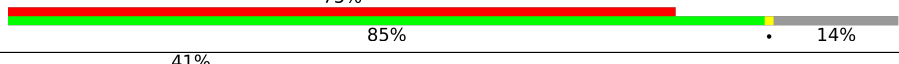


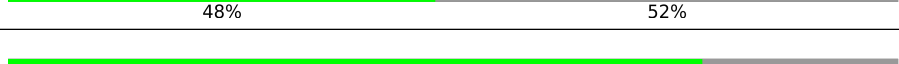
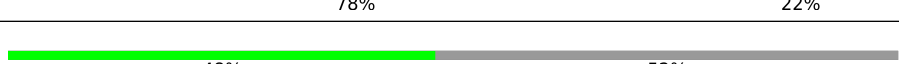
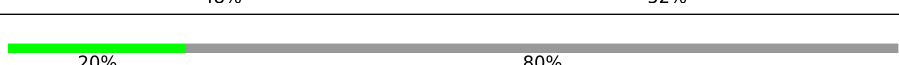
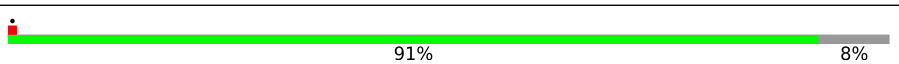

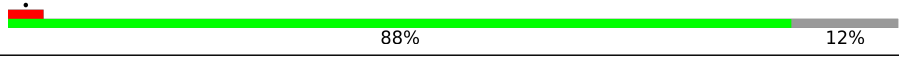
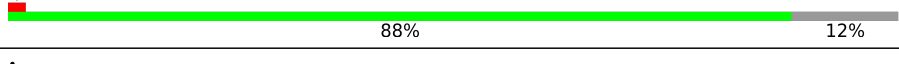
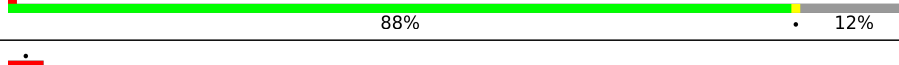
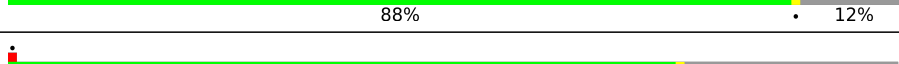

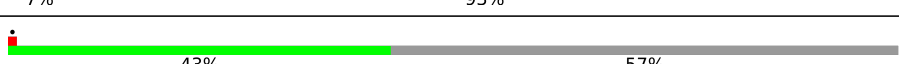









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Mol	Chain	Length	Quality of chain
15	E	303	 98%
15	F	303	 13% 98%
15	N2	303	 98%
16	G	122	 9% 74% 25%
17	H	319	 50% 49%
17	I	319	 55% 45%
17	J	319	 50% 50%
17	K	319	 54% 45%
17	L	319	 50% 49%
17	M	319	 54% 46%
17	N	319	 50% 49%
17	O7	319	 53% 46%
17	O8	319	 31% 68%
17	O9	319	 32% 68%
17	P8	319	 32% 68%
17	P9	319	 31% 68%
17	Z2	319	 16% 84%
17	Z3	319	 16% 84%
17	Z4	319	 16% 84%
17	Z5	319	 15% 84%
18	I1	166	 56% 43%
19	J1	283	 5% 39% 61%
19	J2	283	 7% 86% 13%
19	J3	283	 86% 13%
19	J4	283	 5% 86% 13%



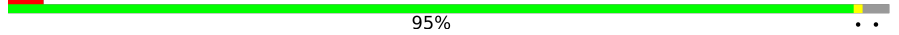
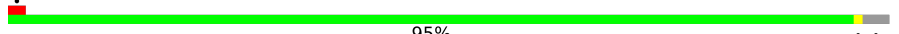

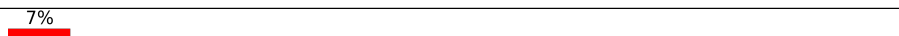
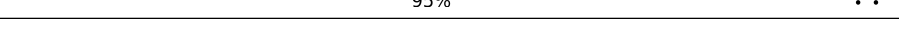

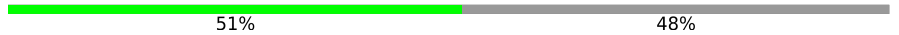


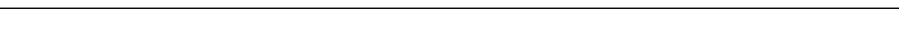
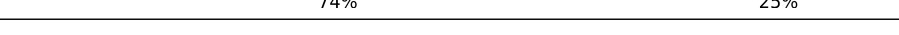
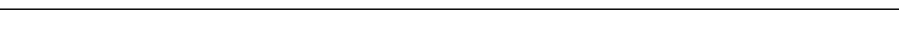











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Mol	Chain	Length	Quality of chain
19	J5	283	
20	K1	137	
20	K2	137	
21	L1	182	
22	M1	200	
22	M2	200	
22	M3	200	
22	M4	200	
23	O	379	
23	P	379	
23	Q	379	
24	O1	189	
24	O2	189	
24	O3	189	
24	O4	189	
25	O5	648	
25	O6	648	
25	T	648	
25	U	648	
25	V	648	
26	P1	131	
26	P2	131	
27	P3	180	
27	P4	180	
27	P5	180	






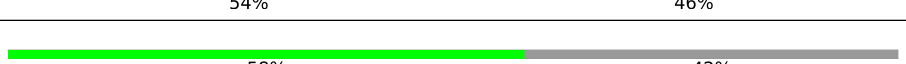
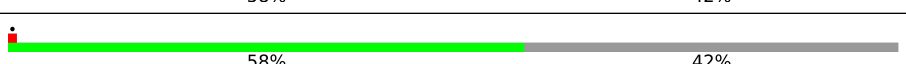
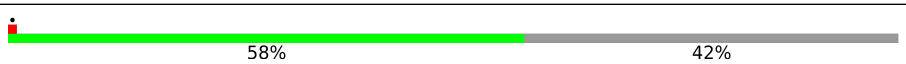

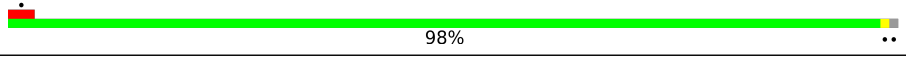
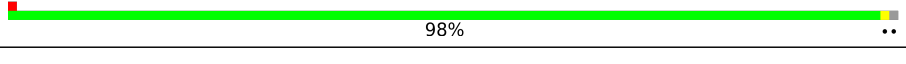
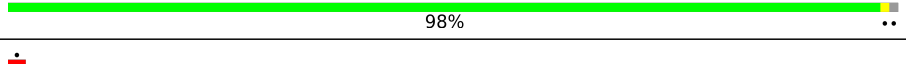
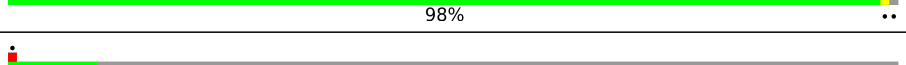
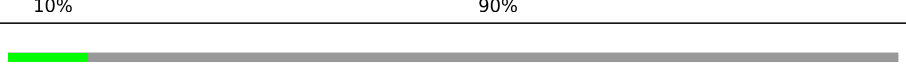
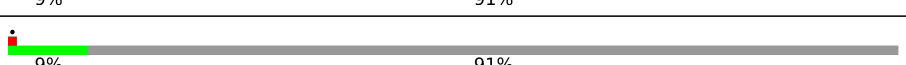
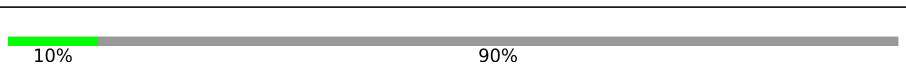


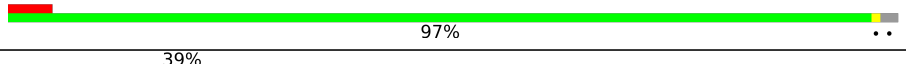
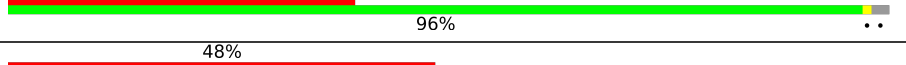
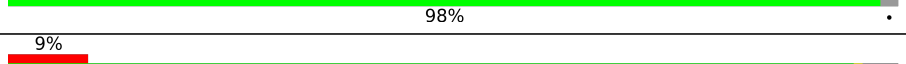
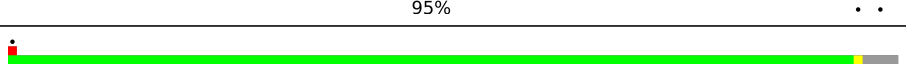
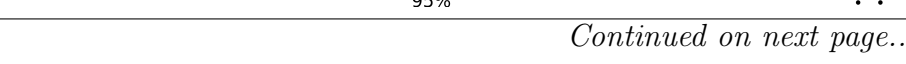


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Mol	Chain	Length	Quality of chain
27	P6	180	 85% 14%
27	P7	180	 29% 71%
28	Q1	206	 95%
28	Q2	206	 95%
28	Q3	206	 96%
28	Q4	206	 7% 95%
28	Q5	206	 8% 91%
29	R	377	 51% 48%
29	S	377	 85% 14%
30	U0	557	 63% 36%
30	U1	557	 74% 25%
30	U2	557	 73% 25%
30	U3	557	 74% 25%
30	U4	557	 36% 64%
30	U5	557	 8% 57% 43%
30	U6	557	 5% 73% 26%
30	U7	557	 73% 26%
30	U8	557	 8% 73% 26%
30	U9	557	 6% 32% 67%
30	V0	557	 26% 36% 63%
30	V1	557	 12% 69% 30%
30	V2	557	 69% 30%
30	V3	557	 11% 69% 30%
30	V4	557	 11% 51% 49%
30	V5	557	 52% 47%

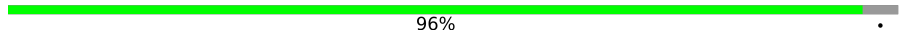
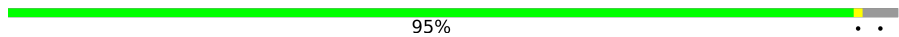
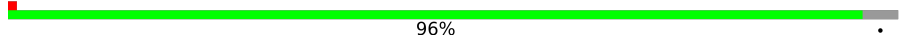
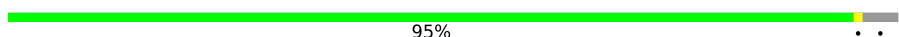
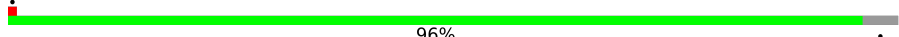
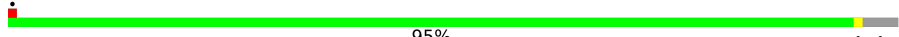




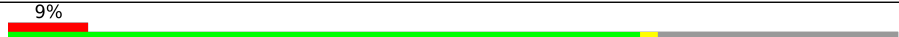


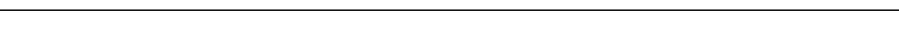
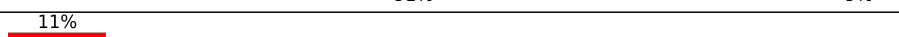
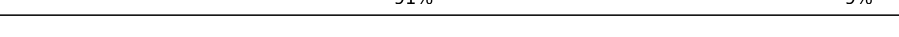
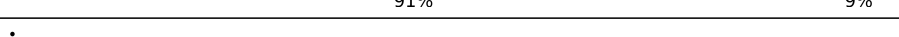
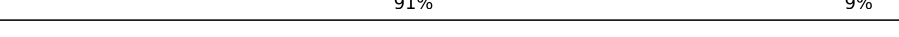

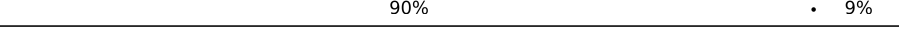





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Mol	Chain	Length	Quality of chain
30	V6	557	
30	V7	557	
30	V8	557	
30	V9	557	
30	W0	557	
30	W2	557	
30	W4	557	
30	W5	557	
30	W6	557	
30	W7	557	
31	W	750	
31	X	750	
31	Y	750	
31	Z	750	
32	X0	260	
32	X1	260	
32	X2	260	
32	X3	260	
33	X4	427	
33	X5	427	
34	X6	273	
34	X7	273	
34	X8	273	
35	XA	193	
35	XB	193	

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Mol	Chain	Length	Quality of chain
35	XC	193	 96%
35	XD	193	 95%
35	XE	193	 96%
35	XF	193	 95%
35	XG	193	 96%
35	XH	193	 95%
36	Y0	254	 24% 75%
36	Y1	254	 92% 6%
36	Y2	254	 88% 11%
36	Y3	254	 25% 75% 6%
36	Y4	254	 71% 27% 9%
36	Y5	254	 33% 67% 6%
37	YA	241	 90% 9% 10%
37	YB	241	 91% 9%
37	YC	241	 91% 9% 11%
37	YD	241	 91% 9%
37	YE	241	 91% 9%
37	YF	241	 90% 9%
37	YG	241	 90% 9%
37	YH	241	 90% 9%
38	Z1	216	 15% 85%
39	a	551	 52% 47% 11%
39	a6	551	 87% 13%
39	b	551	 43% 56% 16%
39	c	551	 74% 25% 17%







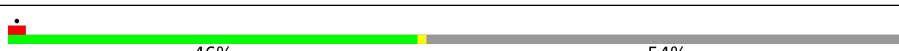

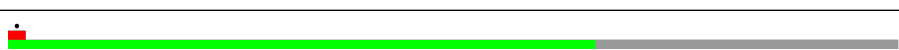
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Mol	Chain	Length	Quality of chain
39	d	551	8% 24% 75%
40	a1	229	68% 32%
40	a2	229	67% 32%
40	a3	229	67% 32%
40	a4	229	67% 32%
41	b1	499	25% 74%
41	b2	499	76% 24%
41	b3	499	76% 23%
41	b4	499	76% 23%
41	b5	499	66% 33%
42	e	620	98%
42	f	620	97%
42	g	620	98%
43	h	255	96%
43	i	255	95%
43	j	255	95%
43	k	255	96%
44	h1	141	67% 31%
44	h2	141	70% 30%
44	h3	141	70% 30%
44	h4	141	69% 30%
45	i1	189	61% 39%
45	l	189	61% 39%
45	m	189	61% 39%
45	n	189	60% 39%

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Mol	Chain	Length	Quality of chain
46	i2	1516	 12% 88%
46	i3	1516	 12% 88%
46	i4	1516	 12% 88%
47	o	547	 16% 36% 64%
47	p	547	 21% 70% 28%
48	q	168	 44% 55%
48	r	168	 46% 54%
48	s	168	 46% 54%
49	y	167	 66% 34%

2 Entry composition [i](#)

There are 52 unique types of molecules in this entry. The entry contains 1650085 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 Cilia- and flagella-associated protein 95.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	0	81	Total	C	N	O	S	0	0
			670	422	120	123	5		
1	7	141	Total	C	N	O	S	0	0
			1174	741	210	217	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	1	462	Total	C	N	O	S	0	0
			3738	2356	672	700	10		
2	2	270	Total	C	N	O	S	0	0
			2160	1381	385	386	8		

- Molecule 3 is a protein called Cilia- and flagella-associated protein 53.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	3	475	Total	C	N	O	S	0	0
			4023	2453	784	770	16		
3	4	148	Total	C	N	O	S	0	0
			1230	747	241	235	7		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	5	376	Total	C	N	O	S	0	0
			2975	1885	517	553	20		
4	6	376	Total	C	N	O	S	0	0
			2975	1885	517	553	20		
4	j1	376	Total	C	N	O	S	0	0
			2975	1885	517	553	20		

- Molecule 5 is a protein called Cilia- and flagella-associated protein 107.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	8	176	Total	C	N	O	S	0	0
			1470	949	257	259	5		

- Molecule 6 is a protein called Cilia- and flagella-associated protein 141.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	A	94	Total	C	N	O	S	0	0
			806	507	150	145	4		
6	N1	94	Total	C	N	O	S	0	0
			806	507	150	145	4		

- Molecule 7 is a protein called Tektin-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	A0	54	Total	C	N	O	S	0	0
			444	271	89	83	1		
7	A1	359	Total	C	N	O	S	0	0
			2935	1818	527	580	10		
7	A2	401	Total	C	N	O	S	0	0
			3288	2038	595	645	10		
7	A3	401	Total	C	N	O	S	0	0
			3288	2038	595	645	10		
7	A4	399	Total	C	N	O	S	0	0
			3274	2029	592	643	10		
7	A5	169	Total	C	N	O	S	0	0
			1400	868	252	279	1		

- Molecule 8 is a protein called Tubulin alpha-3 chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AA	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	AC	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	AE	440	Total	C	N	O	S	0	0
			3431	2174	583	652	22		
8	AG	441	Total	C	N	O	S	0	0
			3440	2179	584	655	22		
8	AI	440	Total	C	N	O	S	0	0
			3431	2174	583	652	22		
8	AK	438	Total	C	N	O	S	0	0
			3418	2166	581	649	22		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	AM	440	3431	2174	583	652	22	0	0
8	AO	440	3431	2174	583	652	22	0	0
8	BC	431	3374	2140	573	639	22	0	0
8	BE	441	3440	2179	584	655	22	0	0
8	BG	434	3396	2153	576	645	22	0	0
8	BI	441	3440	2179	584	655	22	0	0
8	BK	433	3390	2150	575	643	22	0	0
8	BM	439	3424	2169	582	651	22	0	0
8	BO	434	3396	2153	576	645	22	0	0
8	CC	439	3424	2169	582	651	22	0	0
8	CE	439	3424	2169	582	651	22	0	0
8	CG	439	3424	2169	582	651	22	0	0
8	CI	439	3424	2169	582	651	22	0	0
8	CK	439	3424	2169	582	651	22	0	0
8	CM	440	3431	2174	583	652	22	0	0
8	CO	439	3424	2169	582	651	22	0	0
8	CQ	437	3410	2162	580	646	22	0	0
8	DC	432	3382	2146	574	640	22	0	0
8	DE	430	3366	2136	572	636	22	0	0
8	DG	430	3366	2136	572	636	22	0	0
8	DI	431	3374	2142	573	637	22	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	DK	431	Total	C	N	O	S	0	0
			3373	2141	573	637	22		
8	DM	432	Total	C	N	O	S	0	0
			3380	2143	574	641	22		
8	DO	431	Total	C	N	O	S	0	0
			3372	2139	573	638	22		
8	DQ	429	Total	C	N	O	S	0	0
			3360	2133	571	634	22		
8	EA	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	EC	438	Total	C	N	O	S	0	0
			3418	2166	581	649	22		
8	EE	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	EG	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	EI	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	EK	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	EM	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	EO	437	Total	C	N	O	S	0	0
			3410	2162	580	646	22		
8	FA	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	FC	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	FE	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	FG	428	Total	C	N	O	S	0	0
			3351	2127	570	632	22		
8	FI	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	FK	431	Total	C	N	O	S	0	0
			3373	2141	573	637	22		
8	FM	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	FO	428	Total	C	N	O	S	0	0
			3355	2129	570	634	22		
8	GA	430	Total	C	N	O	S	0	0
			3368	2137	572	637	22		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	GC	431	Total 3373	C 2141	N 573	O 637	S 22	0	0
8	GE	431	Total 3373	C 2141	N 573	O 637	S 22	0	0
8	GG	440	Total 3431	C 2174	N 583	O 652	S 22	0	0
8	GI	433	Total 3387	C 2148	N 575	O 642	S 22	0	0
8	GK	433	Total 3387	C 2148	N 575	O 642	S 22	0	0
8	GM	434	Total 3395	C 2152	N 576	O 645	S 22	0	0
8	GO	434	Total 3395	C 2152	N 576	O 645	S 22	0	0
8	HA	431	Total 3371	C 2140	N 573	O 636	S 22	0	0
8	HC	434	Total 3389	C 2149	N 576	O 642	S 22	0	0
8	HE	440	Total 3431	C 2174	N 583	O 652	S 22	0	0
8	HG	440	Total 3431	C 2174	N 583	O 652	S 22	0	0
8	HI	440	Total 3431	C 2174	N 583	O 652	S 22	0	0
8	HK	430	Total 3366	C 2136	N 572	O 636	S 22	0	0
8	HM	434	Total 3389	C 2149	N 576	O 642	S 22	0	0
8	HO	432	Total 3381	C 2145	N 574	O 640	S 22	0	0
8	IA	432	Total 3380	C 2143	N 574	O 641	S 22	0	0
8	IC	440	Total 3431	C 2174	N 583	O 652	S 22	0	0
8	IE	441	Total 3440	C 2179	N 584	O 655	S 22	0	0
8	IG	433	Total 3387	C 2148	N 575	O 642	S 22	0	0
8	II	435	Total 3399	C 2154	N 577	O 646	S 22	0	0
8	IK	436	Total 3411	C 2162	N 579	O 648	S 22	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	IM	434	Total	C	N	O	S	0	0
			3391	2150	576	643	22		
8	IO	440	Total	C	N	O	S	0	0
			3431	2174	583	652	22		
8	JC	434	Total	C	N	O	S	0	0
			3388	2147	576	643	22		
8	JE	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	JG	429	Total	C	N	O	S	0	0
			3360	2133	571	634	22		
8	JI	433	Total	C	N	O	S	0	0
			3390	2150	575	643	22		
8	JK	432	Total	C	N	O	S	0	0
			3381	2145	574	640	22		
8	JM	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	JO	432	Total	C	N	O	S	0	0
			3379	2144	574	639	22		
8	JQ	435	Total	C	N	O	S	0	0
			3403	2158	578	645	22		
8	KA	432	Total	C	N	O	S	0	0
			3380	2143	574	641	22		
8	KC	433	Total	C	N	O	S	0	0
			3389	2149	576	642	22		
8	KE	434	Total	C	N	O	S	0	0
			3397	2153	577	645	22		
8	KG	432	Total	C	N	O	S	0	0
			3380	2143	574	641	22		
8	KI	431	Total	C	N	O	S	0	0
			3374	2140	573	639	22		
8	KK	431	Total	C	N	O	S	0	0
			3372	2139	573	638	22		
8	KM	432	Total	C	N	O	S	0	0
			3380	2143	574	641	22		
8	KO	433	Total	C	N	O	S	0	0
			3389	2149	576	642	22		
8	LA	434	Total	C	N	O	S	0	0
			3396	2153	576	645	22		
8	LC	431	Total	C	N	O	S	0	0
			3374	2140	573	639	22		
8	LE	433	Total	C	N	O	S	0	0
			3388	2149	575	642	22		

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	LG	441	Total	C	N	O	S	0	0
			3440	2179	584	655	22		
8	LI	441	Total	C	N	O	S	0	0
			3440	2179	584	655	22		
8	LK	441	Total	C	N	O	S	0	0
			3440	2179	584	655	22		
8	LM	435	Total	C	N	O	S	0	0
			3404	2157	577	648	22		
8	LO	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	MA	431	Total	C	N	O	S	0	0
			3374	2140	573	639	22		
8	MC	431	Total	C	N	O	S	0	0
			3374	2140	573	639	22		
8	ME	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	MG	432	Total	C	N	O	S	0	0
			3380	2143	574	641	22		
8	MI	432	Total	C	N	O	S	0	0
			3378	2142	574	640	22		
8	MK	433	Total	C	N	O	S	0	0
			3390	2150	575	643	22		
8	MM	432	Total	C	N	O	S	0	0
			3380	2143	574	641	22		
8	MO	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	NA	428	Total	C	N	O	S	0	0
			3353	2128	570	633	22		
8	NC	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	NE	434	Total	C	N	O	S	0	0
			3394	2152	576	644	22		
8	NG	432	Total	C	N	O	S	0	0
			3382	2146	574	640	22		
8	NI	431	Total	C	N	O	S	0	0
			3373	2141	573	637	22		
8	NK	431	Total	C	N	O	S	0	0
			3373	2141	573	637	22		
8	NM	432	Total	C	N	O	S	0	0
			3382	2146	574	640	22		
8	NO	432	Total	C	N	O	S	0	0
			3382	2146	574	640	22		

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	OA	431	Total	C	N	O	S	0	0
			3374	2140	573	639	22		
8	OC	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	OE	431	Total	C	N	O	S	0	0
			3372	2139	573	638	22		
8	OG	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	OI	429	Total	C	N	O	S	0	0
			3360	2133	571	634	22		
8	OK	431	Total	C	N	O	S	0	0
			3374	2140	573	639	22		
8	OM	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	OO	425	Total	C	N	O	S	0	0
			3330	2114	567	628	21		
8	PC	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	PE	425	Total	C	N	O	S	0	0
			3330	2115	566	628	21		
8	PG	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	PI	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	PK	430	Total	C	N	O	S	0	0
			3367	2135	572	638	22		
8	PM	432	Total	C	N	O	S	0	0
			3380	2143	574	641	22		
8	PO	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	QC	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	QE	430	Total	C	N	O	S	0	0
			3366	2136	572	636	22		
8	QG	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	QI	427	Total	C	N	O	S	0	0
			3345	2124	569	630	22		
8	QK	427	Total	C	N	O	S	0	0
			3345	2124	569	630	22		
8	QM	426	Total	C	N	O	S	0	0
			3338	2119	568	629	22		

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	QO	427	Total	C	N	O	S	0	0
			3345	2124	569	630	22		
8	RC	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	RE	428	Total	C	N	O	S	0	0
			3353	2128	570	633	22		
8	RG	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	RI	429	Total	C	N	O	S	0	0
			3360	2133	571	634	22		
8	RK	430	Total	C	N	O	S	0	0
			3368	2137	572	637	22		
8	RM	429	Total	C	N	O	S	0	0
			3361	2132	571	636	22		
8	RO	428	Total	C	N	O	S	0	0
			3353	2128	570	633	22		
8	SA	429	Total	C	N	O	S	0	0
			3359	2131	571	635	22		
8	SC	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	SE	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		
8	SG	427	Total	C	N	O	S	0	0
			3345	2124	569	630	22		
8	SI	429	Total	C	N	O	S	0	0
			3360	2133	571	634	22		
8	SK	427	Total	C	N	O	S	0	0
			3345	2124	569	630	22		
8	SM	425	Total	C	N	O	S	0	0
			3333	2118	567	626	22		
8	TA	426	Total	C	N	O	S	0	0
			3342	2121	568	631	22		
8	TC	426	Total	C	N	O	S	0	0
			3337	2120	568	627	22		
8	TE	429	Total	C	N	O	S	0	0
			3357	2130	571	634	22		
8	TG	426	Total	C	N	O	S	0	0
			3341	2122	568	629	22		
8	TI	427	Total	C	N	O	S	0	0
			3349	2126	569	632	22		
8	TK	428	Total	C	N	O	S	0	0
			3352	2129	570	631	22		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	TM	426	3341	2122	568	629	22	0	0
8	UA	424	3327	2112	566	627	22	0	0
8	UC	428	3351	2127	570	632	22	0	0
8	UE	428	3351	2127	570	632	22	0	0
8	UG	428	3353	2128	570	633	22	0	0
8	UI	428	3352	2129	570	631	22	0	0
8	UK	428	3353	2128	570	633	22	0	0
8	UM	429	3359	2131	571	635	22	0	0
8	UO	427	3347	2125	569	631	22	0	0
8	VA	427	3345	2124	569	630	22	0	0
8	VC	437	3410	2162	580	646	22	0	0
8	VE	429	3358	2132	571	633	22	0	0
8	VG	437	3410	2162	580	646	22	0	0
8	VI	429	3360	2133	571	634	22	0	0
8	VK	438	3418	2166	581	649	22	0	0
8	VM	429	3359	2131	571	635	22	0	0
8	VO	436	3403	2157	579	645	22	0	0
8	WA	436	3403	2157	579	645	22	0	0
8	WC	439	3424	2169	582	651	22	0	0
8	WE	433	3382	2144	575	641	22	0	0
8	WG	438	3418	2166	581	649	22	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	WI	439	Total	C	N	O	S	0	0
			3424	2169	582	651	22		
8	WK	438	Total	C	N	O	S	0	0
			3418	2166	581	649	22		
8	WM	431	Total	C	N	O	S	0	0
			3374	2140	573	639	22		
8	WO	429	Total	C	N	O	S	0	0
			3358	2132	571	633	22		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AB	432	Total	C	N	O	S	0	0
			3391	2129	580	656	26		
9	AD	435	Total	C	N	O	S	0	0
			3413	2141	583	663	26		
9	AF	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	AH	434	Total	C	N	O	S	0	0
			3404	2136	582	660	26		
9	AJ	434	Total	C	N	O	S	0	0
			3404	2136	582	660	26		
9	AL	434	Total	C	N	O	S	0	0
			3404	2136	582	660	26		
9	AN	434	Total	C	N	O	S	0	0
			3404	2136	582	660	26		
9	AP	432	Total	C	N	O	S	0	0
			3391	2129	580	656	26		
9	BB	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	BD	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	BF	429	Total	C	N	O	S	0	0
			3368	2116	577	649	26		
9	BH	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	BJ	431	Total	C	N	O	S	0	0
			3382	2124	579	653	26		
9	BL	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	BN	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	BP	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	CB	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	CD	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	CF	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	CH	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	CJ	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	CL	429	Total 3368	C 2116	N 577	O 649	S 26	0	0
9	CN	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	CP	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	DB	429	Total 3368	C 2116	N 577	O 649	S 26	0	0
9	DD	429	Total 3368	C 2116	N 577	O 649	S 26	0	0
9	DF	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	DH	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	DJ	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	DL	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	DN	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	DP	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	EB	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	ED	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	EF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	EH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
9	EJ	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	EL	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	EN	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	FB	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	FD	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	FF	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	FH	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	FJ	429	Total	C	N	O	S	0	0
			3368	2116	577	649	26		
9	FL	429	Total	C	N	O	S	0	0
			3368	2116	577	649	26		
9	FN	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	GB	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	GD	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	GF	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	GH	431	Total	C	N	O	S	0	0
			3382	2124	579	653	26		
9	GJ	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	GL	431	Total	C	N	O	S	0	0
			3382	2124	579	653	26		
9	GN	431	Total	C	N	O	S	0	0
			3382	2124	579	653	26		
9	HB	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	HD	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	HF	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	HH	431	Total	C	N	O	S	0	0
			3382	2124	579	653	26		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	HJ	430	3373	2119	578	650	26	0	0
9	HL	431	3382	2124	579	653	26	0	0
9	HN	430	3373	2119	578	650	26	0	0
9	HP	427	3356	2109	575	646	26	0	0
9	IB	430	3373	2119	578	650	26	0	0
9	ID	430	3373	2119	578	650	26	0	0
9	IF	430	3373	2119	578	650	26	0	0
9	IH	431	3382	2124	579	653	26	0	0
9	IJ	429	3368	2116	577	649	26	0	0
9	IL	431	3382	2124	579	653	26	0	0
9	IN	431	3382	2124	579	653	26	0	0
9	IP	431	3382	2124	579	653	26	0	0
9	JB	427	3356	2109	575	646	26	0	0
9	JD	427	3356	2109	575	646	26	0	0
9	JF	427	3356	2109	575	646	26	0	0
9	JH	427	3356	2109	575	646	26	0	0
9	JJ	427	3356	2109	575	646	26	0	0
9	JL	427	3356	2109	575	646	26	0	0
9	JN	426	3348	2105	574	643	26	0	0
9	JP	427	3356	2109	575	646	26	0	0
9	KB	430	3373	2119	578	650	26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	KD	431	3382	2124	579	653	26	0	0
9	KF	431	3382	2124	579	653	26	0	0
9	KH	431	3382	2124	579	653	26	0	0
9	KJ	430	3373	2119	578	650	26	0	0
9	KL	430	3373	2119	578	650	26	0	0
9	KN	430	3373	2119	578	650	26	0	0
9	KP	428	3361	2112	576	647	26	0	0
9	LB	437	3433	2155	585	667	26	0	0
9	LD	431	3382	2124	579	653	26	0	0
9	LF	439	3451	2165	587	673	26	0	0
9	LH	431	3382	2124	579	653	26	0	0
9	LJ	437	3433	2155	585	667	26	0	0
9	LL	428	3361	2112	576	647	26	0	0
9	LN	432	3391	2129	580	656	26	0	0
9	LP	429	3368	2116	577	649	26	0	0
9	MB	431	3382	2124	579	653	26	0	0
9	MD	431	3382	2124	579	653	26	0	0
9	MF	427	3356	2109	575	646	26	0	0
9	MH	431	3382	2124	579	653	26	0	0
9	MJ	430	3373	2119	578	650	26	0	0
9	ML	430	3373	2119	578	650	26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	MN	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	MP	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	NB	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	ND	431	Total 3382	C 2124	N 579	O 653	S 26	0	0
9	NF	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	NH	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	NJ	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	NL	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	NN	430	Total 3373	C 2119	N 578	O 650	S 26	0	0
9	NP	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	OB	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	OD	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	OF	429	Total 3368	C 2116	N 577	O 649	S 26	0	0
9	OH	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	OJ	429	Total 3368	C 2116	N 577	O 649	S 26	0	0
9	OL	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	ON	427	Total 3356	C 2109	N 575	O 646	S 26	0	0
9	OP	426	Total 3348	C 2105	N 574	O 643	S 26	0	0
9	PB	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	PD	428	Total 3361	C 2112	N 576	O 647	S 26	0	0
9	PF	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	PH	428	3361	2112	576	647	26	0	0
9	PJ	427	3356	2109	575	646	26	0	0
9	PL	428	3361	2112	576	647	26	0	0
9	PN	428	3361	2112	576	647	26	0	0
9	PP	427	3356	2109	575	646	26	0	0
9	QB	426	3348	2105	574	643	26	0	0
9	QD	427	3356	2109	575	646	26	0	0
9	QF	427	3356	2109	575	646	26	0	0
9	QH	427	3356	2109	575	646	26	0	0
9	QJ	427	3356	2109	575	646	26	0	0
9	QL	427	3356	2109	575	646	26	0	0
9	QN	427	3356	2109	575	646	26	0	0
9	QP	426	3348	2105	574	643	26	0	0
9	RD	428	3361	2112	576	647	26	0	0
9	RF	428	3361	2112	576	647	26	0	0
9	RH	428	3361	2112	576	647	26	0	0
9	RJ	428	3361	2112	576	647	26	0	0
9	RL	428	3361	2112	576	647	26	0	0
9	RN	427	3356	2109	575	646	26	0	0
9	RP	428	3361	2112	576	647	26	0	0
9	SB	426	3348	2105	574	643	26	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
9	SD	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	SF	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	SH	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	SJ	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	SL	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	SN	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	TB	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	TD	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	TF	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	TH	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	TJ	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	TL	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	TN	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	UB	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	UD	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	UF	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	UH	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	UJ	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	UL	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	UN	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	VB	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		

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Mol	Chain	Residues	Atoms					AltConf	Trace
9	VD	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	VF	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	VH	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	VJ	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	VL	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	VN	426	Total	C	N	O	S	0	0
			3348	2105	574	643	26		
9	WB	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	WD	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	WF	430	Total	C	N	O	S	0	0
			3373	2119	578	650	26		
9	WH	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	WJ	428	Total	C	N	O	S	0	0
			3361	2112	576	647	26		
9	WL	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	WN	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		
9	WP	427	Total	C	N	O	S	0	0
			3356	2109	575	646	26		

- Molecule 10 is a protein called Meiosis-specific nuclear structural protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	B	319	Total	C	N	O	S	0	0
			2769	1697	520	539	13		
10	C	279	Total	C	N	O	S	0	0
			2408	1493	445	459	11		

- Molecule 11 is a protein called Tektin-2.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	B0	39	Total	C	N	O	0	0
			334	203	66	65		

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Mol	Chain	Residues	Atoms					AltConf	Trace
11	B1	364	Total	C	N	O	S	0	0
			2984	1840	547	586	11		
11	B2	414	Total	C	N	O	S	0	0
			3401	2093	627	667	14		
11	B3	414	Total	C	N	O	S	0	0
			3401	2093	627	667	14		
11	B4	415	Total	C	N	O	S	0	0
			3412	2099	631	668	14		
11	B5	203	Total	C	N	O	S	0	0
			1675	1036	305	325	9		
11	R0	196	Total	C	N	O	S	0	0
			1612	996	294	313	9		
11	R1	415	Total	C	N	O	S	0	0
			3412	2099	631	668	14		
11	R2	415	Total	C	N	O	S	0	0
			3412	2099	631	668	14		
11	R3	415	Total	C	N	O	S	0	0
			3412	2099	631	668	14		
11	R4	369	Total	C	N	O	S	0	0
			3025	1864	555	595	11		
11	R5	43	Total	C	N	O		0	0
			366	224	73	69			

- Molecule 12 is a protein called Tektin-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	C0	179	Total	C	N	O	S	0	0
			1453	887	270	293	3		
12	C1	411	Total	C	N	O	S	0	0
			3354	2064	616	658	16		
12	C2	411	Total	C	N	O	S	0	0
			3354	2064	616	658	16		
12	C3	408	Total	C	N	O	S	0	0
			3332	2050	613	654	15		
12	C4	363	Total	C	N	O	S	0	0
			2944	1810	539	580	15		
12	C5	51	Total	C	N	O	S	0	0
			420	259	78	81	2		
12	C6	42	Total	C	N	O	S	0	0
			354	220	69	63	2		
12	S0	325	Total	C	N	O	S	0	0
			2675	1642	499	521	13		

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Mol	Chain	Residues	Atoms					AltConf	Trace
12	S1	441	Total	C	N	O	S	0	0
			3613	2223	669	705	16		
12	S2	441	Total	C	N	O	S	0	0
			3613	2223	669	705	16		
12	S3	441	Total	C	N	O	S	0	0
			3613	2223	669	705	16		
12	S4	303	Total	C	N	O	S	0	0
			2459	1515	446	485	13		
12	S5	313	Total	C	N	O	S	0	0
			2568	1581	472	504	11		
12	S6	422	Total	C	N	O	S	0	0
			3453	2130	633	676	14		
12	S7	422	Total	C	N	O	S	0	0
			3453	2130	633	676	14		
12	S8	420	Total	C	N	O	S	0	0
			3435	2117	631	673	14		
12	S9	276	Total	C	N	O	S	0	0
			2232	1370	409	440	13		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
13	D	77	Total	C	N	O	S	0	0
			622	393	112	116	1		
13	K3	179	Total	C	N	O	S	0	0
			1460	911	268	274	7		

- Molecule 14 is a protein called Tektin-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	D0	109	Total	C	N	O	S	0	0
			889	545	164	178	2		
14	D1	411	Total	C	N	O	S	0	0
			3370	2070	621	663	16		
14	D2	424	Total	C	N	O	S	0	0
			3480	2133	647	683	17		
14	D3	424	Total	C	N	O	S	0	0
			3480	2133	647	683	17		
14	D4	424	Total	C	N	O	S	0	0
			3480	2133	647	683	17		
14	D5	87	Total	C	N	O	S	0	0
			715	436	139	138	2		

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Mol	Chain	Residues	Atoms					AltConf	Trace
14	T0	119	Total	C	N	O	S	0	0
			957	588	173	193	3		
14	T1	440	Total	C	N	O	S	0	0
			3594	2206	664	706	18		
14	T2	440	Total	C	N	O	S	0	0
			3594	2206	664	706	18		
14	T3	441	Total	C	N	O	S	0	0
			3606	2215	665	708	18		
14	T4	395	Total	C	N	O	S	0	0
			3260	1997	608	639	16		
14	T5	119	Total	C	N	O	S	0	0
			975	600	180	191	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
15	E	298	Total	C	N	O	S	0	0
			2372	1486	423	446	17		
15	F	297	Total	C	N	O	S	0	0
			2363	1481	421	444	17		
15	N2	297	Total	C	N	O	S	0	0
			2363	1481	421	444	17		

- Molecule 16 is a protein called Piercer of microtubule wall 2 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	G	91	Total	C	N	O	S	0	0
			724	462	123	134	5		

- Molecule 17 is a protein called Protein FAM166A.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	H	162	Total	C	N	O	S	0	0
			1316	841	234	233	8		
17	I	175	Total	C	N	O	S	0	0
			1429	912	259	250	8		
17	J	161	Total	C	N	O	S	0	0
			1307	835	232	232	8		
17	K	174	Total	C	N	O	S	0	0
			1420	906	257	249	8		
17	L	162	Total	C	N	O	S	0	0
			1316	841	234	233	8		

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Mol	Chain	Residues	Atoms					AltConf	Trace
17	M	173	Total	C	N	O	S	0	0
			1413	902	256	247	8		
17	N	162	Total	C	N	O	S	0	0
			1316	841	234	233	8		
17	O7	173	Total	C	N	O	S	0	0
			1413	902	256	247	8		
17	O8	103	Total	C	N	O	S	0	0
			837	539	141	153	4		
17	O9	103	Total	C	N	O	S	0	0
			837	539	141	153	4		
17	P8	103	Total	C	N	O	S	0	0
			837	539	141	153	4		
17	P9	103	Total	C	N	O	S	0	0
			837	539	141	153	4		
17	Z2	51	Total	C	N	O	S	0	0
			412	265	74	69	4		
17	Z3	51	Total	C	N	O	S	0	0
			412	265	74	69	4		
17	Z4	51	Total	C	N	O	S	0	0
			412	265	74	69	4		
17	Z5	50	Total	C	N	O	S	0	0
			405	260	73	68	4		

- Molecule 18 is a protein called Cilia- and flagella-associated protein 68.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	I1	94	Total	C	N	O	S	0	0
			796	503	145	145	3		

- Molecule 19 is a protein called Cilia and flagella-associated protein 77.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	J1	111	Total	C	N	O	S	0	0
			934	596	177	158	3		
19	J2	247	Total	C	N	O	S	0	0
			2010	1269	377	353	11		
19	J3	247	Total	C	N	O	S	0	0
			2010	1269	377	353	11		
19	J4	245	Total	C	N	O	S	0	0
			1992	1259	374	348	11		
19	J5	126	Total	C	N	O	S	0	0
			1001	626	188	180	7		

- Molecule 20 is a protein called Family with sequence similarity 183, member B.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	K1	118	Total	C	N	O	S	0	0
			1009	640	187	181	1		
20	K2	118	Total	C	N	O	S	0	0
			1009	640	187	181	1		

- Molecule 21 is a protein called Cilia- and flagella-associated protein 90.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	L1	126	Total	C	N	O	S	0	0
			1034	652	193	187	2		

- Molecule 22 is a protein called Protein FAM166C.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	M1	96	Total	C	N	O		0	0
			826	529	148	149			
22	M2	96	Total	C	N	O		0	0
			826	529	148	149			
22	M3	156	Total	C	N	O	S	0	0
			1280	821	223	233	3		
22	M4	96	Total	C	N	O		0	0
			826	529	148	149			

- Molecule 23 is a protein called RIB43A-like with coiled-coils protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	O	74	Total	C	N	O	S	0	0
			627	386	124	115	2		
23	P	347	Total	C	N	O	S	0	0
			2875	1751	564	549	11		
23	Q	103	Total	C	N	O	S	0	0
			858	522	165	169	2		

- Molecule 24 is a protein called Dual specificity phosphatase 21.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	O1	166	Total	C	N	O	S	0	0
			1332	856	225	244	7		
24	O2	167	Total	C	N	O	S	0	0
			1344	865	226	246	7		

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Mol	Chain	Residues	Atoms					AltConf	Trace
24	O3	167	Total	C	N	O	S	0	0
			1344	865	226	246	7		
24	O4	167	Total	C	N	O	S	0	0
			1344	865	226	246	7		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
25	O5	491	Total	C	N	O	S	0	0
			4047	2608	682	740	17		
25	O6	48	Total	C	N	O	S	0	0
			383	240	73	69	1		
25	T	280	Total	C	N	O	S	0	0
			2365	1525	396	433	11		
25	U	503	Total	C	N	O	S	0	0
			4138	2671	694	756	17		
25	V	524	Total	C	N	O	S	0	0
			4299	2773	720	789	17		

- Molecule 26 is a protein called Testis expressed 49.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	P1	76	Total	C	N	O	S	0	0
			637	409	117	109	2		
26	P2	98	Total	C	N	O	S	0	0
			825	531	152	140	2		

- Molecule 27 is a protein called Testis-expressed sequence 37 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	P3	135	Total	C	N	O	S	0	0
			1103	719	187	190	7		
27	P4	155	Total	C	N	O	S	0	0
			1272	829	211	224	8		
27	P5	155	Total	C	N	O	S	0	0
			1272	829	211	224	8		
27	P6	154	Total	C	N	O	S	0	0
			1263	824	210	221	8		
27	P7	53	Total	C	N	O	S	0	0
			447	293	70	82	2		

- Molecule 28 is a protein called Tektin bundle-interacting protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	Q1	199	Total	C	N	O	S	0	0
			1634	1046	305	277	6		
28	Q2	199	Total	C	N	O	S	0	0
			1634	1046	305	277	6		
28	Q3	199	Total	C	N	O	S	0	0
			1634	1046	305	277	6		
28	Q4	199	Total	C	N	O	S	0	0
			1634	1046	305	277	6		
28	Q5	18	Total	C	N	O	S	0	0
			152	101	28	22	1		

- Molecule 29 is a protein called RIB43A-like with coiled-coils protein 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	R	195	Total	C	N	O	S	0	0
			1648	1010	324	304	10		
29	S	323	Total	C	N	O	S	0	0
			2728	1662	539	512	15		

- Molecule 30 is a protein called Tektin-5.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	U0	355	Total	C	N	O	S	0	0
			2897	1793	524	557	23		
30	U1	415	Total	C	N	O	S	0	0
			3396	2101	624	646	25		
30	U2	415	Total	C	N	O	S	0	0
			3396	2101	624	646	25		
30	U3	415	Total	C	N	O	S	0	0
			3396	2101	624	646	25		
30	U4	201	Total	C	N	O	S	0	0
			1664	1019	319	319	7		
30	U5	318	Total	C	N	O	S	0	0
			2607	1604	484	501	18		
30	U6	410	Total	C	N	O	S	0	0
			3360	2079	619	638	24		
30	U7	410	Total	C	N	O	S	0	0
			3360	2079	619	638	24		
30	U8	410	Total	C	N	O	S	0	0
			3360	2079	619	638	24		
30	U9	182	Total	C	N	O	S	0	0
			1486	932	266	275	13		
30	V0	208	Total	C	N	O	S	0	0
			1695	1061	300	319	15		

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Mol	Chain	Residues	Atoms					AltConf	Trace
30	V1	389	Total	C	N	O	S	0	0
			3185	1967	583	612	23		
30	V2	389	Total	C	N	O	S	0	0
			3185	1967	583	612	23		
30	V3	389	Total	C	N	O	S	0	0
			3185	1967	583	612	23		
30	V4	284	Total	C	N	O	S	0	0
			2325	1425	429	454	17		
30	V5	294	Total	C	N	O	S	0	0
			2408	1493	432	466	17		
30	V6	364	Total	C	N	O	S	0	0
			2980	1841	542	577	20		
30	V7	334	Total	C	N	O	S	0	0
			2736	1700	493	522	21		
30	V8	303	Total	C	N	O	S	0	0
			2477	1539	442	479	17		
30	V9	99	Total	C	N	O	S	0	0
			800	507	136	153	4		
30	W0	298	Total	C	N	O	S	0	0
			2447	1513	449	465	20		
30	W2	300	Total	C	N	O	S	0	0
			2458	1522	447	469	20		
30	W4	323	Total	C	N	O	S	0	0
			2662	1655	486	502	19		
30	W5	323	Total	C	N	O	S	0	0
			2662	1655	486	502	19		
30	W6	323	Total	C	N	O	S	0	0
			2662	1655	486	502	19		
30	W7	323	Total	C	N	O	S	0	0
			2662	1655	486	502	19		

- Molecule 31 is a protein called EF-hand domain-containing family member C2.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	W	741	Total	C	N	O	S	0	0
			6116	3950	1019	1119	28		
31	X	741	Total	C	N	O	S	0	0
			6116	3950	1019	1119	28		
31	Y	742	Total	C	N	O	S	0	0
			6124	3954	1021	1121	28		
31	Z	741	Total	C	N	O	S	0	0
			6116	3950	1019	1119	28		

- Molecule 32 is a protein called Spermatid-specific manchette-related protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	X0	25	Total	C	N	O	S	0	0
			200	124	34	38	4		
32	X1	24	Total	C	N	O	S	0	0
			192	118	33	37	4		
32	X2	24	Total	C	N	O	S	0	0
			192	118	33	37	4		
32	X3	25	Total	C	N	O	S	0	0
			200	124	34	38	4		

- Molecule 33 is a protein called Protein phosphatase 1 regulatory subunit 32.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	X4	330	Total	C	N	O	S	0	0
			2619	1638	471	509	1		
33	X5	133	Total	C	N	O	S	0	0
			1041	658	182	196	5		

- Molecule 34 is a protein called Testis-specific serine/threonine-protein kinase 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	X6	267	Total	C	N	O	S	0	0
			2097	1335	380	374	8		
34	X7	267	Total	C	N	O	S	0	0
			2097	1335	380	374	8		
34	X8	267	Total	C	N	O	S	0	0
			2097	1335	380	374	8		

- Molecule 35 is a protein called Cilia- and flagella-associated protein 20.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	XA	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		
35	XB	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		
35	XC	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		
35	XD	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		
35	XE	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		

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Mol	Chain	Residues	Atoms					AltConf	Trace
35	XF	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		
35	XG	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		
35	XH	185	Total	C	N	O	S	0	0
			1540	990	269	274	7		

- Molecule 36 is a protein called Outer dense fiber protein 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Y0	63	Total	C	N	O	S	0	0
			483	313	87	80	3		
36	Y1	240	Total	C	N	O	S	0	0
			1828	1176	317	327	8		
36	Y2	225	Total	C	N	O	S	0	0
			1711	1101	294	309	7		
36	Y3	63	Total	C	N	O	S	0	0
			483	313	87	80	3		
36	Y4	185	Total	C	N	O	S	0	0
			1412	910	241	255	6		
36	Y5	85	Total	C	N	O	S	0	0
			644	411	110	120	3		

- Molecule 37 is a protein called Parkin coregulated gene protein homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	YA	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		
37	YB	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		
37	YC	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		
37	YD	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		
37	YE	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		
37	YF	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		
37	YG	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		
37	YH	220	Total	C	N	O	S	0	0
			1775	1148	300	317	10		

- Molecule 38 is a protein called Testis, prostate and placenta-expressed protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
38	Z1	33	279	181	48	48	2	0	0

- Molecule 39 is a protein called Cilia- and flagella-associated protein 45.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
39	a	294	2499	1522	478	485	14	0	0
39	a6	70	572	363	99	108	2	0	0
39	b	244	2092	1266	420	399	7	0	0
39	c	413	3528	2141	692	680	15	0	0
39	d	135	1155	701	233	219	2	0	0

- Molecule 40 is a protein called Uncharacterized protein C10orf82 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
40	a1	156	1277	818	218	231	10	0	0
40	a2	156	1277	818	218	231	10	0	0
40	a3	156	1277	818	218	231	10	0	0
40	a4	156	1277	818	218	231	10	0	0

- Molecule 41 is a protein called Coiled-coil domain-containing protein 105.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
41	b1	132	1081	670	212	188	11	0	0
41	b2	381	3091	1915	598	555	23	0	0
41	b3	382	3102	1921	602	556	23	0	0
41	b4	382	3102	1921	602	556	23	0	0
41	b5	333	2705	1675	519	489	22	0	0

- Molecule 42 is a protein called Cilia- and flagella-associated protein 52.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	e	607	Total	C	N	O	S	0	0
			4689	2967	818	872	32		
42	f	607	Total	C	N	O	S	0	0
			4689	2967	818	872	32		
42	g	607	Total	C	N	O	S	0	0
			4689	2967	818	872	32		

- Molecule 43 is a protein called Enkurin.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	h	247	Total	C	N	O	S	0	0
			2014	1287	351	367	9		
43	i	245	Total	C	N	O	S	0	0
			1999	1279	349	362	9		
43	j	244	Total	C	N	O	S	0	0
			1993	1276	348	360	9		
43	k	245	Total	C	N	O	S	0	0
			1999	1279	349	362	9		

- Molecule 44 is a protein called Testis-expressed protein 43.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	h1	97	Total	C	N	O	S	0	0
			787	506	139	136	6		
44	h2	99	Total	C	N	O	S	0	0
			809	518	147	138	6		
44	h3	99	Total	C	N	O	S	0	0
			809	518	147	138	6		
44	h4	98	Total	C	N	O	S	0	0
			798	512	143	137	6		

- Molecule 45 is a protein called Protein Flattop.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	i1	116	Total	C	N	O	S	0	0
			909	579	162	165	3		
45	l	116	Total	C	N	O	S	0	0
			909	579	162	165	3		
45	m	116	Total	C	N	O	S	0	0
			909	579	162	165	3		
45	n	116	Total	C	N	O	S	0	0
			909	579	162	165	3		

- Molecule 46 is a protein called EF-hand calcium-binding domain-containing protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
46	i2	180	Total	C	N	O	S	0	0
			1500	956	263	271	10		
46	i3	180	Total	C	N	O	S	0	0
			1500	956	263	271	10		
46	i4	180	Total	C	N	O	S	0	0
			1500	956	263	271	10		

- Molecule 47 is a protein called Cilia- and flagella-associated protein 210.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
47	o	199	Total	C	N	O	S	0	0
			1688	1040	321	322	5		
47	p	395	Total	C	N	O	S	0	0
			3300	2045	601	643	11		

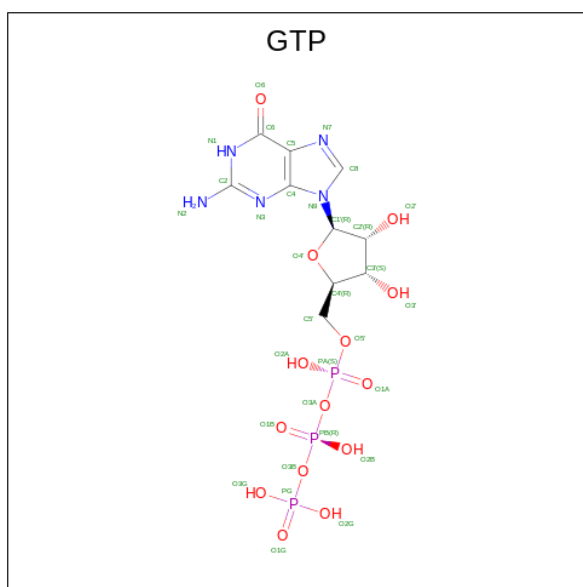
- Molecule 48 is a protein called Cilia- and flagella-associated protein 276.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
48	q	75	Total	C	N	O	0	0
			599	379	108	112		
48	r	78	Total	C	N	O	0	0
			625	395	114	116		
48	s	78	Total	C	N	O	0	0
			625	395	114	116		

- Molecule 49 is a protein called Piercer of microtubule wall 1 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
49	y	111	Total	C	N	O	S	0	0
			911	577	165	166	3		

- Molecule 50 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$).



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

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
50	BO	1	Total 32	C 10	N 5	O 14	P 3	0
50	CC	1	Total 32	C 10	N 5	O 14	P 3	0
50	CE	1	Total 32	C 10	N 5	O 14	P 3	0
50	CG	1	Total 32	C 10	N 5	O 14	P 3	0
50	CI	1	Total 32	C 10	N 5	O 14	P 3	0
50	CK	1	Total 32	C 10	N 5	O 14	P 3	0
50	CM	1	Total 32	C 10	N 5	O 14	P 3	0
50	CO	1	Total 32	C 10	N 5	O 14	P 3	0
50	CQ	1	Total 32	C 10	N 5	O 14	P 3	0
50	DC	1	Total 32	C 10	N 5	O 14	P 3	0
50	DE	1	Total 32	C 10	N 5	O 14	P 3	0
50	DG	1	Total 32	C 10	N 5	O 14	P 3	0
50	DI	1	Total 32	C 10	N 5	O 14	P 3	0
50	DK	1	Total 32	C 10	N 5	O 14	P 3	0
50	DM	1	Total 32	C 10	N 5	O 14	P 3	0
50	DO	1	Total 32	C 10	N 5	O 14	P 3	0
50	DQ	1	Total 32	C 10	N 5	O 14	P 3	0
50	EA	1	Total 32	C 10	N 5	O 14	P 3	0
50	EC	1	Total 32	C 10	N 5	O 14	P 3	0
50	EE	1	Total 32	C 10	N 5	O 14	P 3	0
50	EG	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	
50	EI	1	Total 32	C 10	N 5	O 14	P 3	0
50	EK	1	Total 32	C 10	N 5	O 14	P 3	0
50	EM	1	Total 32	C 10	N 5	O 14	P 3	0
50	EO	1	Total 32	C 10	N 5	O 14	P 3	0
50	FA	1	Total 32	C 10	N 5	O 14	P 3	0
50	FC	1	Total 32	C 10	N 5	O 14	P 3	0
50	FE	1	Total 32	C 10	N 5	O 14	P 3	0
50	FG	1	Total 32	C 10	N 5	O 14	P 3	0
50	FI	1	Total 32	C 10	N 5	O 14	P 3	0
50	FK	1	Total 32	C 10	N 5	O 14	P 3	0
50	FM	1	Total 32	C 10	N 5	O 14	P 3	0
50	FO	1	Total 32	C 10	N 5	O 14	P 3	0
50	GA	1	Total 32	C 10	N 5	O 14	P 3	0
50	GC	1	Total 32	C 10	N 5	O 14	P 3	0
50	GE	1	Total 32	C 10	N 5	O 14	P 3	0
50	GG	1	Total 32	C 10	N 5	O 14	P 3	0
50	GI	1	Total 32	C 10	N 5	O 14	P 3	0
50	GK	1	Total 32	C 10	N 5	O 14	P 3	0
50	GM	1	Total 32	C 10	N 5	O 14	P 3	0
50	GO	1	Total 32	C 10	N 5	O 14	P 3	0
50	HA	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	
50	HC	1	Total 32	C 10	N 5	O 14	P 3	0
50	HE	1	Total 32	C 10	N 5	O 14	P 3	0
50	HG	1	Total 32	C 10	N 5	O 14	P 3	0
50	HI	1	Total 32	C 10	N 5	O 14	P 3	0
50	HK	1	Total 32	C 10	N 5	O 14	P 3	0
50	HM	1	Total 32	C 10	N 5	O 14	P 3	0
50	HO	1	Total 32	C 10	N 5	O 14	P 3	0
50	IA	1	Total 32	C 10	N 5	O 14	P 3	0
50	IC	1	Total 32	C 10	N 5	O 14	P 3	0
50	IE	1	Total 32	C 10	N 5	O 14	P 3	0
50	IG	1	Total 32	C 10	N 5	O 14	P 3	0
50	II	1	Total 32	C 10	N 5	O 14	P 3	0
50	IK	1	Total 32	C 10	N 5	O 14	P 3	0
50	IM	1	Total 32	C 10	N 5	O 14	P 3	0
50	IO	1	Total 32	C 10	N 5	O 14	P 3	0
50	JC	1	Total 32	C 10	N 5	O 14	P 3	0
50	JE	1	Total 32	C 10	N 5	O 14	P 3	0
50	JG	1	Total 32	C 10	N 5	O 14	P 3	0
50	JI	1	Total 32	C 10	N 5	O 14	P 3	0
50	JK	1	Total 32	C 10	N 5	O 14	P 3	0
50	JM	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	
50	JO	1	Total 32	C 10	N 5	O 14	P 3	0
50	JQ	1	Total 32	C 10	N 5	O 14	P 3	0
50	KA	1	Total 32	C 10	N 5	O 14	P 3	0
50	KC	1	Total 32	C 10	N 5	O 14	P 3	0
50	KE	1	Total 32	C 10	N 5	O 14	P 3	0
50	KG	1	Total 32	C 10	N 5	O 14	P 3	0
50	KI	1	Total 32	C 10	N 5	O 14	P 3	0
50	KK	1	Total 32	C 10	N 5	O 14	P 3	0
50	KM	1	Total 32	C 10	N 5	O 14	P 3	0
50	KO	1	Total 32	C 10	N 5	O 14	P 3	0
50	LA	1	Total 32	C 10	N 5	O 14	P 3	0
50	LC	1	Total 32	C 10	N 5	O 14	P 3	0
50	LE	1	Total 32	C 10	N 5	O 14	P 3	0
50	LG	1	Total 32	C 10	N 5	O 14	P 3	0
50	LI	1	Total 32	C 10	N 5	O 14	P 3	0
50	LK	1	Total 32	C 10	N 5	O 14	P 3	0
50	LM	1	Total 32	C 10	N 5	O 14	P 3	0
50	LO	1	Total 32	C 10	N 5	O 14	P 3	0
50	MA	1	Total 32	C 10	N 5	O 14	P 3	0
50	MC	1	Total 32	C 10	N 5	O 14	P 3	0
50	ME	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
50	MG	1	32	10	5	14	3	0
50	MI	1	32	10	5	14	3	0
50	MK	1	32	10	5	14	3	0
50	MM	1	32	10	5	14	3	0
50	MO	1	32	10	5	14	3	0
50	NA	1	32	10	5	14	3	0
50	NC	1	32	10	5	14	3	0
50	NE	1	32	10	5	14	3	0
50	NG	1	32	10	5	14	3	0
50	NI	1	32	10	5	14	3	0
50	NK	1	32	10	5	14	3	0
50	NM	1	32	10	5	14	3	0
50	NO	1	32	10	5	14	3	0
50	OA	1	32	10	5	14	3	0
50	OC	1	32	10	5	14	3	0
50	OE	1	32	10	5	14	3	0
50	OG	1	32	10	5	14	3	0
50	OI	1	32	10	5	14	3	0
50	OK	1	32	10	5	14	3	0
50	OM	1	32	10	5	14	3	0
50	OO	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
50	PC	1	Total 32	C 10	N 5	O 14	P 3	0
50	PE	1	Total 32	C 10	N 5	O 14	P 3	0
50	PG	1	Total 32	C 10	N 5	O 14	P 3	0
50	PI	1	Total 32	C 10	N 5	O 14	P 3	0
50	PK	1	Total 32	C 10	N 5	O 14	P 3	0
50	PM	1	Total 32	C 10	N 5	O 14	P 3	0
50	PO	1	Total 32	C 10	N 5	O 14	P 3	0
50	QC	1	Total 32	C 10	N 5	O 14	P 3	0
50	QE	1	Total 32	C 10	N 5	O 14	P 3	0
50	QG	1	Total 32	C 10	N 5	O 14	P 3	0
50	QI	1	Total 32	C 10	N 5	O 14	P 3	0
50	QK	1	Total 32	C 10	N 5	O 14	P 3	0
50	QM	1	Total 32	C 10	N 5	O 14	P 3	0
50	QO	1	Total 32	C 10	N 5	O 14	P 3	0
50	RC	1	Total 32	C 10	N 5	O 14	P 3	0
50	RE	1	Total 32	C 10	N 5	O 14	P 3	0
50	RG	1	Total 32	C 10	N 5	O 14	P 3	0
50	RI	1	Total 32	C 10	N 5	O 14	P 3	0
50	RK	1	Total 32	C 10	N 5	O 14	P 3	0
50	RM	1	Total 32	C 10	N 5	O 14	P 3	0
50	RO	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	
50	SA	1	Total 32	C 10	N 5	O 14	P 3	0
50	SC	1	Total 32	C 10	N 5	O 14	P 3	0
50	SE	1	Total 32	C 10	N 5	O 14	P 3	0
50	SG	1	Total 32	C 10	N 5	O 14	P 3	0
50	SI	1	Total 32	C 10	N 5	O 14	P 3	0
50	SK	1	Total 32	C 10	N 5	O 14	P 3	0
50	SM	1	Total 32	C 10	N 5	O 14	P 3	0
50	TA	1	Total 32	C 10	N 5	O 14	P 3	0
50	TC	1	Total 32	C 10	N 5	O 14	P 3	0
50	TE	1	Total 32	C 10	N 5	O 14	P 3	0
50	TG	1	Total 32	C 10	N 5	O 14	P 3	0
50	TI	1	Total 32	C 10	N 5	O 14	P 3	0
50	TK	1	Total 32	C 10	N 5	O 14	P 3	0
50	TM	1	Total 32	C 10	N 5	O 14	P 3	0
50	UA	1	Total 32	C 10	N 5	O 14	P 3	0
50	UC	1	Total 32	C 10	N 5	O 14	P 3	0
50	UE	1	Total 32	C 10	N 5	O 14	P 3	0
50	UG	1	Total 32	C 10	N 5	O 14	P 3	0
50	UI	1	Total 32	C 10	N 5	O 14	P 3	0
50	UK	1	Total 32	C 10	N 5	O 14	P 3	0
50	UM	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	
50	UO	1	32	10	5	14	3	0
50	VA	1	32	10	5	14	3	0
50	VC	1	32	10	5	14	3	0
50	VE	1	32	10	5	14	3	0
50	VG	1	32	10	5	14	3	0
50	VI	1	32	10	5	14	3	0
50	VK	1	32	10	5	14	3	0
50	VM	1	32	10	5	14	3	0
50	VO	1	32	10	5	14	3	0
50	WA	1	32	10	5	14	3	0
50	WC	1	32	10	5	14	3	0
50	WE	1	32	10	5	14	3	0
50	WG	1	32	10	5	14	3	0
50	WI	1	32	10	5	14	3	0
50	WK	1	32	10	5	14	3	0
50	WM	1	32	10	5	14	3	0
50	WO	1	32	10	5	14	3	0

- Molecule 51 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
51	AA	1	Total	Mg	0
			1	1	
51	AC	1	Total	Mg	0
			1	1	

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Mol	Chain	Residues	Atoms		AltConf
51	AE	1	Total 1	Mg 1	0
51	AG	1	Total 1	Mg 1	0
51	AI	1	Total 1	Mg 1	0
51	AK	1	Total 1	Mg 1	0
51	AM	1	Total 1	Mg 1	0
51	AO	1	Total 1	Mg 1	0
51	BC	1	Total 1	Mg 1	0
51	BE	1	Total 1	Mg 1	0
51	BG	1	Total 1	Mg 1	0
51	BI	1	Total 1	Mg 1	0
51	BK	1	Total 1	Mg 1	0
51	BM	1	Total 1	Mg 1	0
51	BO	1	Total 1	Mg 1	0
51	CC	1	Total 1	Mg 1	0
51	CE	1	Total 1	Mg 1	0
51	CG	1	Total 1	Mg 1	0
51	CI	1	Total 1	Mg 1	0
51	CK	1	Total 1	Mg 1	0
51	CM	1	Total 1	Mg 1	0
51	CO	1	Total 1	Mg 1	0
51	CQ	1	Total 1	Mg 1	0

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Mol	Chain	Residues	Atoms		AltConf
51	DC	1	Total 1	Mg 1	0
51	DE	1	Total 1	Mg 1	0
51	DG	1	Total 1	Mg 1	0
51	DI	1	Total 1	Mg 1	0
51	DK	1	Total 1	Mg 1	0
51	DM	1	Total 1	Mg 1	0
51	DO	1	Total 1	Mg 1	0
51	DQ	1	Total 1	Mg 1	0
51	EA	1	Total 1	Mg 1	0
51	EC	1	Total 1	Mg 1	0
51	EE	1	Total 1	Mg 1	0
51	EG	1	Total 1	Mg 1	0
51	EI	1	Total 1	Mg 1	0
51	EK	1	Total 1	Mg 1	0
51	EM	1	Total 1	Mg 1	0
51	EO	1	Total 1	Mg 1	0
51	FA	1	Total 1	Mg 1	0
51	FC	1	Total 1	Mg 1	0
51	FE	1	Total 1	Mg 1	0
51	FG	1	Total 1	Mg 1	0
51	FI	1	Total 1	Mg 1	0

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Mol	Chain	Residues	Atoms		AltConf
51	FK	1	Total 1	Mg 1	0
51	FM	1	Total 1	Mg 1	0
51	FO	1	Total 1	Mg 1	0
51	GA	1	Total 1	Mg 1	0
51	GC	1	Total 1	Mg 1	0
51	GE	1	Total 1	Mg 1	0
51	GG	1	Total 1	Mg 1	0
51	GI	1	Total 1	Mg 1	0
51	GK	1	Total 1	Mg 1	0
51	GM	1	Total 1	Mg 1	0
51	GO	1	Total 1	Mg 1	0
51	HA	1	Total 1	Mg 1	0
51	HC	1	Total 1	Mg 1	0
51	HE	1	Total 1	Mg 1	0
51	HG	1	Total 1	Mg 1	0
51	HI	1	Total 1	Mg 1	0
51	HK	1	Total 1	Mg 1	0
51	HM	1	Total 1	Mg 1	0
51	HO	1	Total 1	Mg 1	0
51	IA	1	Total 1	Mg 1	0
51	IC	1	Total 1	Mg 1	0

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Mol	Chain	Residues	Atoms		AltConf
51	IE	1	Total 1	Mg 1	0
51	IG	1	Total 1	Mg 1	0
51	II	1	Total 1	Mg 1	0
51	IK	1	Total 1	Mg 1	0
51	IM	1	Total 1	Mg 1	0
51	IO	1	Total 1	Mg 1	0
51	JC	1	Total 1	Mg 1	0
51	JE	1	Total 1	Mg 1	0
51	JG	1	Total 1	Mg 1	0
51	JI	1	Total 1	Mg 1	0
51	JK	1	Total 1	Mg 1	0
51	JM	1	Total 1	Mg 1	0
51	JO	1	Total 1	Mg 1	0
51	JQ	1	Total 1	Mg 1	0
51	KA	1	Total 1	Mg 1	0
51	KC	1	Total 1	Mg 1	0
51	KE	1	Total 1	Mg 1	0
51	KG	1	Total 1	Mg 1	0
51	KI	1	Total 1	Mg 1	0
51	KK	1	Total 1	Mg 1	0
51	KM	1	Total 1	Mg 1	0

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Mol	Chain	Residues	Atoms		AltConf
51	KO	1	Total 1	Mg 1	0
51	LA	1	Total 1	Mg 1	0
51	LC	1	Total 1	Mg 1	0
51	LE	1	Total 1	Mg 1	0
51	LG	1	Total 1	Mg 1	0
51	LI	1	Total 1	Mg 1	0
51	LK	1	Total 1	Mg 1	0
51	LM	1	Total 1	Mg 1	0
51	LO	1	Total 1	Mg 1	0
51	MA	1	Total 1	Mg 1	0
51	MC	1	Total 1	Mg 1	0
51	ME	1	Total 1	Mg 1	0
51	MG	1	Total 1	Mg 1	0
51	MI	1	Total 1	Mg 1	0
51	MK	1	Total 1	Mg 1	0
51	MM	1	Total 1	Mg 1	0
51	MO	1	Total 1	Mg 1	0
51	NA	1	Total 1	Mg 1	0
51	NC	1	Total 1	Mg 1	0
51	NE	1	Total 1	Mg 1	0
51	NG	1	Total 1	Mg 1	0

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Mol	Chain	Residues	Atoms		AltConf
51	NI	1	Total 1	Mg 1	0
51	NK	1	Total 1	Mg 1	0
51	NM	1	Total 1	Mg 1	0
51	NO	1	Total 1	Mg 1	0
51	OA	1	Total 1	Mg 1	0
51	OC	1	Total 1	Mg 1	0
51	OE	1	Total 1	Mg 1	0
51	OG	1	Total 1	Mg 1	0
51	OI	1	Total 1	Mg 1	0
51	OK	1	Total 1	Mg 1	0
51	OM	1	Total 1	Mg 1	0
51	OO	1	Total 1	Mg 1	0
51	PC	1	Total 1	Mg 1	0
51	PE	1	Total 1	Mg 1	0
51	PG	1	Total 1	Mg 1	0
51	PI	1	Total 1	Mg 1	0
51	PK	1	Total 1	Mg 1	0
51	PM	1	Total 1	Mg 1	0
51	PO	1	Total 1	Mg 1	0
51	QC	1	Total 1	Mg 1	0
51	QE	1	Total 1	Mg 1	0

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Mol	Chain	Residues	Atoms		AltConf
51	QG	1	Total 1	Mg 1	0
51	QI	1	Total 1	Mg 1	0
51	QK	1	Total 1	Mg 1	0
51	QM	1	Total 1	Mg 1	0
51	QO	1	Total 1	Mg 1	0
51	RC	1	Total 1	Mg 1	0
51	RE	1	Total 1	Mg 1	0
51	RG	1	Total 1	Mg 1	0
51	RI	1	Total 1	Mg 1	0
51	RK	1	Total 1	Mg 1	0
51	RM	1	Total 1	Mg 1	0
51	RO	1	Total 1	Mg 1	0
51	SA	1	Total 1	Mg 1	0
51	SC	1	Total 1	Mg 1	0
51	SE	1	Total 1	Mg 1	0
51	SG	1	Total 1	Mg 1	0
51	SI	1	Total 1	Mg 1	0
51	SK	1	Total 1	Mg 1	0
51	SM	1	Total 1	Mg 1	0
51	TA	1	Total 1	Mg 1	0
51	TC	1	Total 1	Mg 1	0

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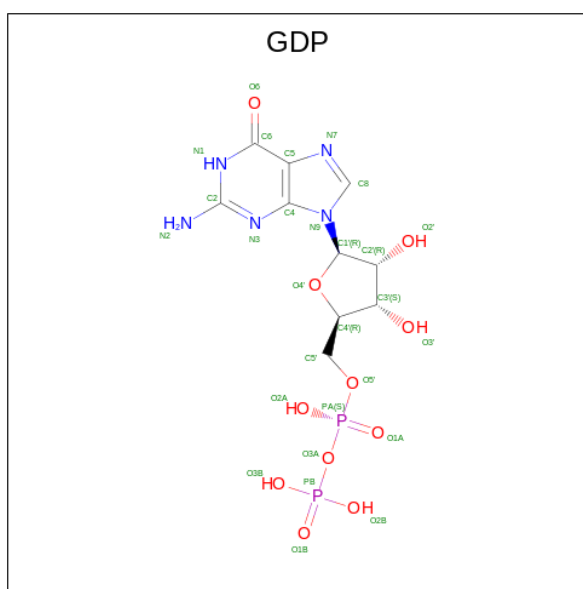
Mol	Chain	Residues	Atoms		AltConf
51	TE	1	Total 1	Mg 1	0
51	TG	1	Total 1	Mg 1	0
51	TI	1	Total 1	Mg 1	0
51	TK	1	Total 1	Mg 1	0
51	TM	1	Total 1	Mg 1	0
51	UA	1	Total 1	Mg 1	0
51	UC	1	Total 1	Mg 1	0
51	UE	1	Total 1	Mg 1	0
51	UG	1	Total 1	Mg 1	0
51	UI	1	Total 1	Mg 1	0
51	UK	1	Total 1	Mg 1	0
51	UM	1	Total 1	Mg 1	0
51	UO	1	Total 1	Mg 1	0
51	VA	1	Total 1	Mg 1	0
51	VC	1	Total 1	Mg 1	0
51	VE	1	Total 1	Mg 1	0
51	VG	1	Total 1	Mg 1	0
51	VI	1	Total 1	Mg 1	0
51	VK	1	Total 1	Mg 1	0
51	VM	1	Total 1	Mg 1	0
51	VO	1	Total 1	Mg 1	0

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Mol	Chain	Residues	Atoms		AltConf
51	WA	1	Total	Mg	0
			1	1	
51	WC	1	Total	Mg	0
			1	1	
51	WE	1	Total	Mg	0
			1	1	
51	WG	1	Total	Mg	0
			1	1	
51	WI	1	Total	Mg	0
			1	1	
51	WK	1	Total	Mg	0
			1	1	
51	WM	1	Total	Mg	0
			1	1	
51	WO	1	Total	Mg	0
			1	1	

- Molecule 52 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	
52	AH	1	28	10	5	11	2	0
52	AJ	1	28	10	5	11	2	0
52	AL	1	28	10	5	11	2	0
52	AN	1	28	10	5	11	2	0
52	AP	1	28	10	5	11	2	0
52	BB	1	28	10	5	11	2	0
52	BD	1	28	10	5	11	2	0
52	BF	1	28	10	5	11	2	0
52	BH	1	28	10	5	11	2	0
52	BJ	1	28	10	5	11	2	0
52	BL	1	28	10	5	11	2	0
52	BN	1	28	10	5	11	2	0
52	BP	1	28	10	5	11	2	0
52	CB	1	28	10	5	11	2	0
52	CD	1	28	10	5	11	2	0
52	CF	1	28	10	5	11	2	0
52	CH	1	28	10	5	11	2	0
52	CJ	1	28	10	5	11	2	0
52	CL	1	28	10	5	11	2	0
52	CN	1	28	10	5	11	2	0
52	CP	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
52	DB	1	Total 28	C 10	N 5	O 11	P 2	0
52	DD	1	Total 28	C 10	N 5	O 11	P 2	0
52	DF	1	Total 28	C 10	N 5	O 11	P 2	0
52	DH	1	Total 28	C 10	N 5	O 11	P 2	0
52	DJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	DL	1	Total 28	C 10	N 5	O 11	P 2	0
52	DN	1	Total 28	C 10	N 5	O 11	P 2	0
52	DP	1	Total 28	C 10	N 5	O 11	P 2	0
52	EB	1	Total 28	C 10	N 5	O 11	P 2	0
52	ED	1	Total 28	C 10	N 5	O 11	P 2	0
52	EF	1	Total 28	C 10	N 5	O 11	P 2	0
52	EH	1	Total 28	C 10	N 5	O 11	P 2	0
52	EJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	EL	1	Total 28	C 10	N 5	O 11	P 2	0
52	EN	1	Total 28	C 10	N 5	O 11	P 2	0
52	FB	1	Total 28	C 10	N 5	O 11	P 2	0
52	FD	1	Total 28	C 10	N 5	O 11	P 2	0
52	FF	1	Total 28	C 10	N 5	O 11	P 2	0
52	FH	1	Total 28	C 10	N 5	O 11	P 2	0
52	FJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	FL	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	
52	FN	1	Total 28	C 10	N 5	O 11	P 2	0
52	GB	1	Total 28	C 10	N 5	O 11	P 2	0
52	GD	1	Total 28	C 10	N 5	O 11	P 2	0
52	GF	1	Total 28	C 10	N 5	O 11	P 2	0
52	GH	1	Total 28	C 10	N 5	O 11	P 2	0
52	GJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	GL	1	Total 28	C 10	N 5	O 11	P 2	0
52	GN	1	Total 28	C 10	N 5	O 11	P 2	0
52	HB	1	Total 28	C 10	N 5	O 11	P 2	0
52	HD	1	Total 28	C 10	N 5	O 11	P 2	0
52	HF	1	Total 28	C 10	N 5	O 11	P 2	0
52	HH	1	Total 28	C 10	N 5	O 11	P 2	0
52	HJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	HL	1	Total 28	C 10	N 5	O 11	P 2	0
52	HN	1	Total 28	C 10	N 5	O 11	P 2	0
52	HP	1	Total 28	C 10	N 5	O 11	P 2	0
52	IB	1	Total 28	C 10	N 5	O 11	P 2	0
52	ID	1	Total 28	C 10	N 5	O 11	P 2	0
52	IF	1	Total 28	C 10	N 5	O 11	P 2	0
52	IH	1	Total 28	C 10	N 5	O 11	P 2	0
52	IJ	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	
52	IL	1	Total 28	C 10	N 5	O 11	P 2	0
52	IN	1	Total 28	C 10	N 5	O 11	P 2	0
52	IP	1	Total 28	C 10	N 5	O 11	P 2	0
52	JB	1	Total 28	C 10	N 5	O 11	P 2	0
52	JD	1	Total 28	C 10	N 5	O 11	P 2	0
52	JF	1	Total 28	C 10	N 5	O 11	P 2	0
52	JH	1	Total 28	C 10	N 5	O 11	P 2	0
52	JJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	JL	1	Total 28	C 10	N 5	O 11	P 2	0
52	JN	1	Total 28	C 10	N 5	O 11	P 2	0
52	JP	1	Total 28	C 10	N 5	O 11	P 2	0
52	KB	1	Total 28	C 10	N 5	O 11	P 2	0
52	KD	1	Total 28	C 10	N 5	O 11	P 2	0
52	KF	1	Total 28	C 10	N 5	O 11	P 2	0
52	KH	1	Total 28	C 10	N 5	O 11	P 2	0
52	KJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	KL	1	Total 28	C 10	N 5	O 11	P 2	0
52	KN	1	Total 28	C 10	N 5	O 11	P 2	0
52	KP	1	Total 28	C 10	N 5	O 11	P 2	0
52	LB	1	Total 28	C 10	N 5	O 11	P 2	0
52	LD	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	
52	LF	1	28	10	5	11	2	0
52	LH	1	28	10	5	11	2	0
52	LJ	1	28	10	5	11	2	0
52	LL	1	28	10	5	11	2	0
52	LN	1	28	10	5	11	2	0
52	LP	1	28	10	5	11	2	0
52	MB	1	28	10	5	11	2	0
52	MD	1	28	10	5	11	2	0
52	MF	1	28	10	5	11	2	0
52	MH	1	28	10	5	11	2	0
52	MJ	1	28	10	5	11	2	0
52	ML	1	28	10	5	11	2	0
52	MN	1	28	10	5	11	2	0
52	MP	1	28	10	5	11	2	0
52	NB	1	28	10	5	11	2	0
52	ND	1	28	10	5	11	2	0
52	NF	1	28	10	5	11	2	0
52	NH	1	28	10	5	11	2	0
52	NJ	1	28	10	5	11	2	0
52	NL	1	28	10	5	11	2	0
52	NN	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
52	NP	1	28	10	5	11	2	0
52	OB	1	28	10	5	11	2	0
52	OD	1	28	10	5	11	2	0
52	OF	1	28	10	5	11	2	0
52	OH	1	28	10	5	11	2	0
52	OJ	1	28	10	5	11	2	0
52	OL	1	28	10	5	11	2	0
52	ON	1	28	10	5	11	2	0
52	OP	1	28	10	5	11	2	0
52	PB	1	28	10	5	11	2	0
52	PD	1	28	10	5	11	2	0
52	PF	1	28	10	5	11	2	0
52	PH	1	28	10	5	11	2	0
52	PJ	1	28	10	5	11	2	0
52	PL	1	28	10	5	11	2	0
52	PN	1	28	10	5	11	2	0
52	PP	1	28	10	5	11	2	0
52	QB	1	28	10	5	11	2	0
52	QD	1	28	10	5	11	2	0
52	QF	1	28	10	5	11	2	0
52	QH	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
52	QJ	1	28	10	5	11	2	0
52	QL	1	28	10	5	11	2	0
52	QN	1	28	10	5	11	2	0
52	QP	1	28	10	5	11	2	0
52	RD	1	28	10	5	11	2	0
52	RF	1	28	10	5	11	2	0
52	RH	1	28	10	5	11	2	0
52	RJ	1	28	10	5	11	2	0
52	RL	1	28	10	5	11	2	0
52	RN	1	28	10	5	11	2	0
52	RP	1	28	10	5	11	2	0
52	SB	1	28	10	5	11	2	0
52	SD	1	28	10	5	11	2	0
52	SF	1	28	10	5	11	2	0
52	SH	1	28	10	5	11	2	0
52	SJ	1	28	10	5	11	2	0
52	SL	1	28	10	5	11	2	0
52	SN	1	28	10	5	11	2	0
52	TB	1	28	10	5	11	2	0
52	TD	1	28	10	5	11	2	0
52	TF	1	28	10	5	11	2	0

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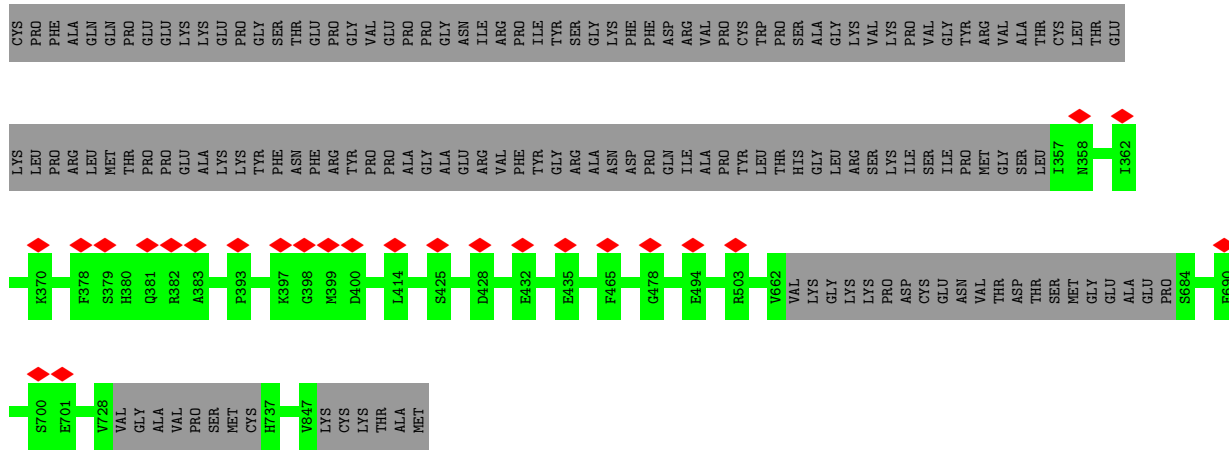
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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
52	TH	1	28	10	5	11	2	0
52	TJ	1	28	10	5	11	2	0
52	TL	1	28	10	5	11	2	0
52	TN	1	28	10	5	11	2	0
52	UB	1	28	10	5	11	2	0
52	UD	1	28	10	5	11	2	0
52	UF	1	28	10	5	11	2	0
52	UH	1	28	10	5	11	2	0
52	UJ	1	28	10	5	11	2	0
52	UL	1	28	10	5	11	2	0
52	UN	1	28	10	5	11	2	0
52	VB	1	28	10	5	11	2	0
52	VD	1	28	10	5	11	2	0
52	VF	1	28	10	5	11	2	0
52	VH	1	28	10	5	11	2	0
52	VJ	1	28	10	5	11	2	0
52	VL	1	28	10	5	11	2	0
52	VN	1	28	10	5	11	2	0
52	WB	1	28	10	5	11	2	0
52	WD	1	28	10	5	11	2	0
52	WF	1	28	10	5	11	2	0

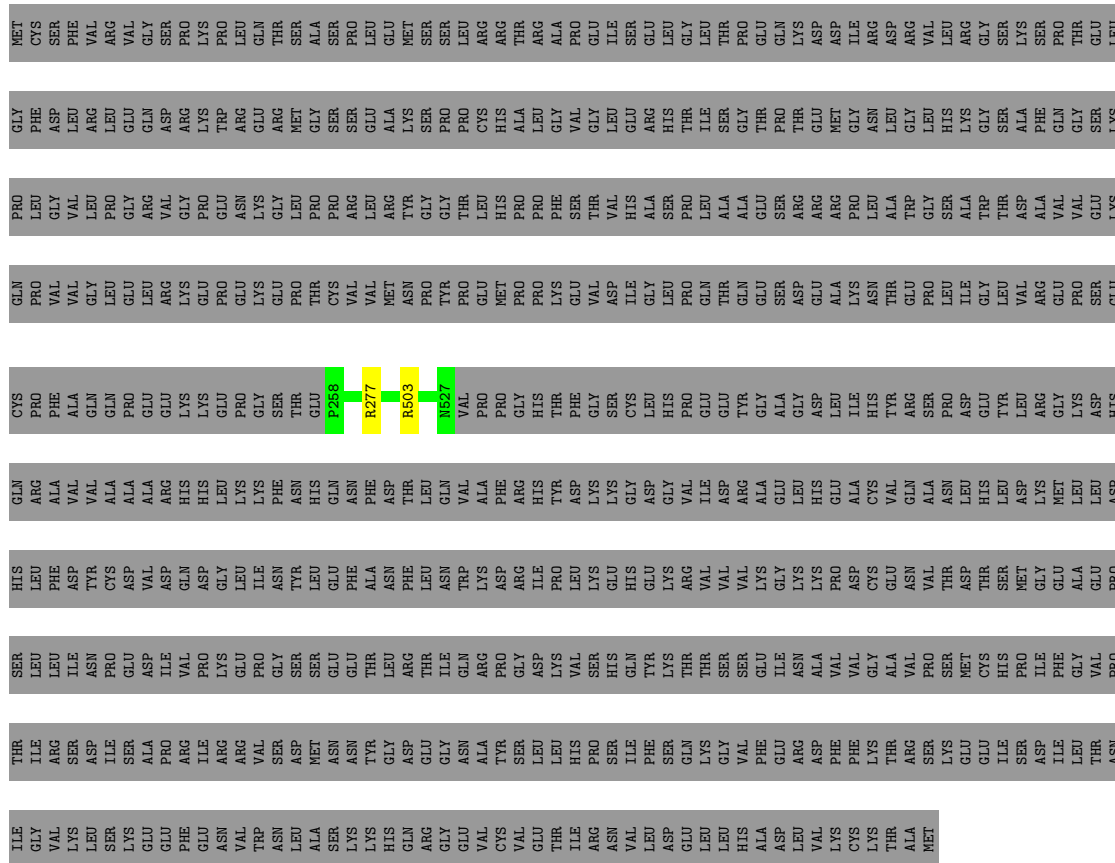
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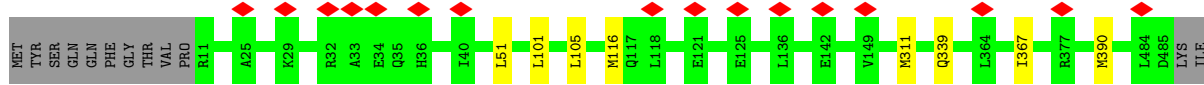
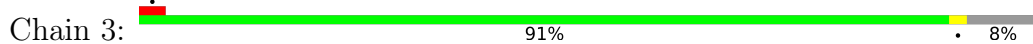
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
52	WH	1	Total 28	C 10	N 5	O 11	P 2	0
52	WJ	1	Total 28	C 10	N 5	O 11	P 2	0
52	WL	1	Total 28	C 10	N 5	O 11	P 2	0
52	WN	1	Total 28	C 10	N 5	O 11	P 2	0
52	WP	1	Total 28	C 10	N 5	O 11	P 2	0



• Molecule 2: EF-hand domain-containing family member B



• Molecule 3: Cilia- and flagella-associated protein 53



ILE
ARG
ALA
GLU
ALA
ILE
CYS

• Molecule 7: Tektin-1



MET
A2
D89
G402
ASP
ASP
HIS
GLY
ALA
TRP
GLU
GLY
GLY
ILE
ARG
ALA
GLU
ALA
ILE
CYS

• Molecule 7: Tektin-1



MET
A2
D78
E202
K203
V204
L232
L389
G402
ASP
ASP
HIS
GLY
ALA
TRP
GLU
GLY
GLY
ILE
ARG
ALA
GLU
ALA
ILE
CYS

• Molecule 7: Tektin-1



MET
ALA
LYS
L4
E202
K203
D264
G402
ASP
ASP
HIS
GLY
ALA
TRP
GLY
GLY
ILE
ARG
ALA
ILE
CYS

• Molecule 7: Tektin-1



MET
A2
D90
LEU
THR
LYR
THR
THR
THR
ARG
LEU
SER
GLU
ARG
SER
LEU
LEU
LEU
SER
TYR
LYS
GLU
PRO
LEU
LEU
HIS
ILE
THR
GLU
GLY
CYS
LEU
GLU
TYR
ARG
GLY
VAL
ASP
LEU
VAL
HIS
ASP
VAL
PHE
VAL
ILE
ASN
GLN
GLY
LEU
LEU
GLN
LYS
GLU
THR
LYS
GLU
ALA
ASP
ALA
ILE
ILE
HIS
GLY
VAL

MET
ASN
LEU
LEU
ILE
ARG
THR
LEU
GLU
THR
SER
THR
G186
V204
L232
K239
THR
LEU
LEU
ALA
VAL
ASP
GLN
ILE
LEU
SER
GLN
THR
ALA
ASN
ASP
LEU
ARG
ARG
GLN
VAL
GLU
GLY
ASP
VAL
VAL
ASP
GLU
LEU
LEU
CYS
LEU
THR
LYS
THR
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THR
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ASN
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ASN
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ASP
ALA
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ASN
LEU
ILE
LYS

ASP
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GLU
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MET
GLU
GLU
ILE
ALA
SER
THR
GLU
GLY
ASN
MET
MET
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LEU
GLU
ASN
ALA
VAL
GLN
GLN
GLN
GLY
GLY
ALA
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VAL
ALA
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LEU
VAL
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GLY
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SER
ILE
PRO
LYS

GLU
ILE
GLN
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ASN
HIS
ASN
VAL
TRP
VAL
GLU
ALA
ARG
LEU
LEU
LYS
GLU
THR
LEU
ALA
GLN
ALA
GLN
THR
GLN
TYR
ARG
GLY
GLN
PRO
ALA
LEU
LEU
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TYR
ILE
ASP
VAL
GLN
VAL
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ARG
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GLN
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SER
ILE
PRO
PRO

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ALA
ALA
ILE
CYS

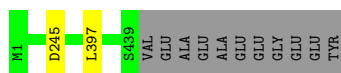
• Molecule 8: Tubulin alpha-3 chain



K1
M36
I83
D367
S439
VAL
GLU
ALA
ALA
ALA
GLU
GLY
GLU
GLU
TYR

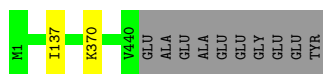
• Molecule 8: Tubulin alpha-3 chain

Chain AC:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain AE:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain AG:  98%



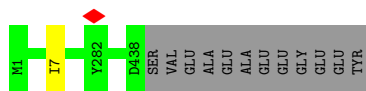
- Molecule 8: Tubulin alpha-3 chain

Chain AI:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain AK:  97%



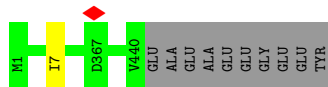
- Molecule 8: Tubulin alpha-3 chain

Chain AM:  97%



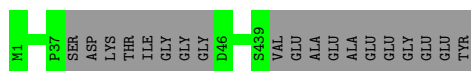
- Molecule 8: Tubulin alpha-3 chain

Chain AO:  98%



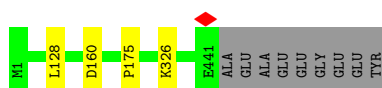
- Molecule 8: Tubulin alpha-3 chain

Chain BC:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain BE:  97%



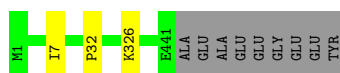
- Molecule 8: Tubulin alpha-3 chain

Chain BG:  96%



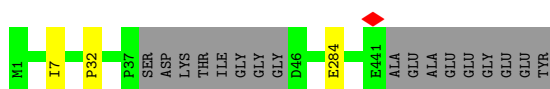
- Molecule 8: Tubulin alpha-3 chain

Chain BI:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain BK:  96%



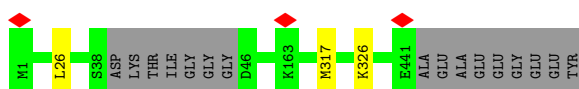
- Molecule 8: Tubulin alpha-3 chain

Chain BM:  96%



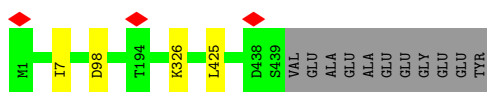
- Molecule 8: Tubulin alpha-3 chain

Chain BO:  96%



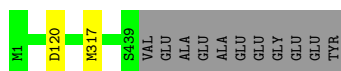
- Molecule 8: Tubulin alpha-3 chain

Chain CC:  97%



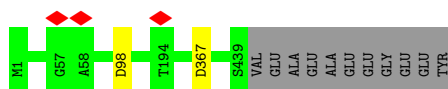
- Molecule 8: Tubulin alpha-3 chain

Chain CE:  97%



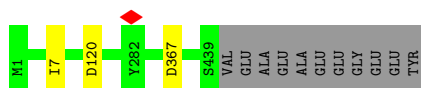
- Molecule 8: Tubulin alpha-3 chain

Chain CG:  97%



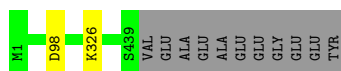
- Molecule 8: Tubulin alpha-3 chain

Chain CI:  97%



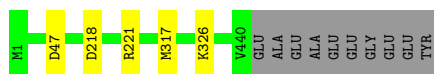
- Molecule 8: Tubulin alpha-3 chain

Chain CK:  97%



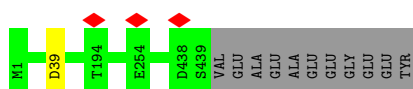
- Molecule 8: Tubulin alpha-3 chain

Chain CM:  97%

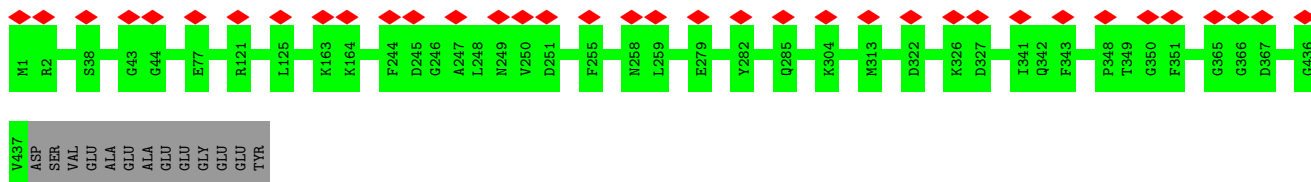


- Molecule 8: Tubulin alpha-3 chain

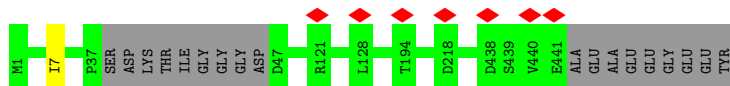
Chain CO:  97%



- Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



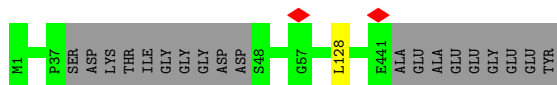
• Molecule 8: Tubulin alpha-3 chain



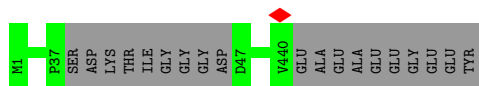
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

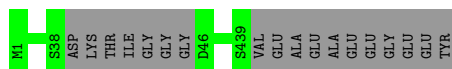


• Molecule 8: Tubulin alpha-3 chain

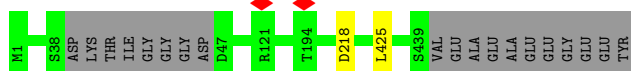


• Molecule 8: Tubulin alpha-3 chain

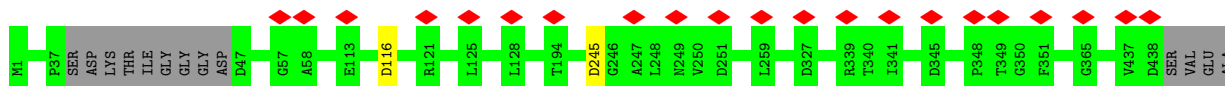




• Molecule 8: Tubulin alpha-3 chain



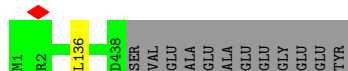
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



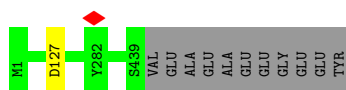
• Molecule 8: Tubulin alpha-3 chain



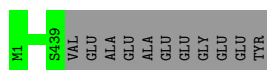
• Molecule 8: Tubulin alpha-3 chain



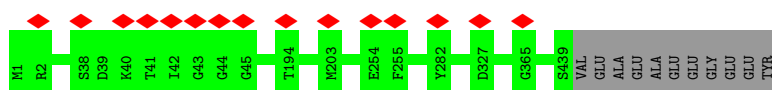
• Molecule 8: Tubulin alpha-3 chain



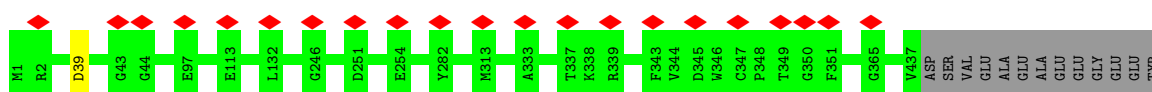
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



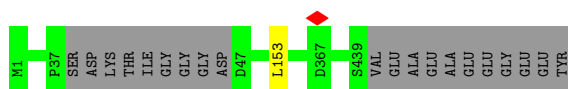
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

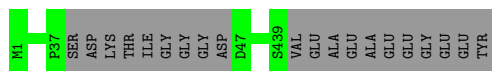


• Molecule 8: Tubulin alpha-3 chain

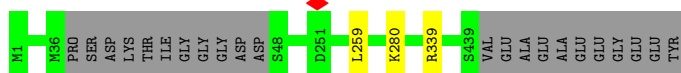


• Molecule 8: Tubulin alpha-3 chain





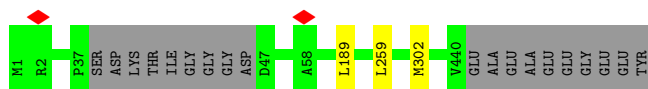
• Molecule 8: Tubulin alpha-3 chain



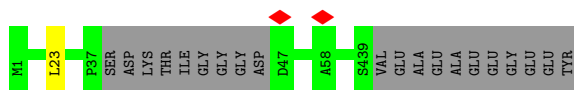
• Molecule 8: Tubulin alpha-3 chain



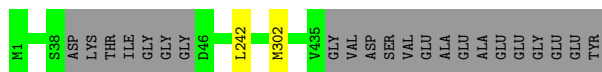
• Molecule 8: Tubulin alpha-3 chain



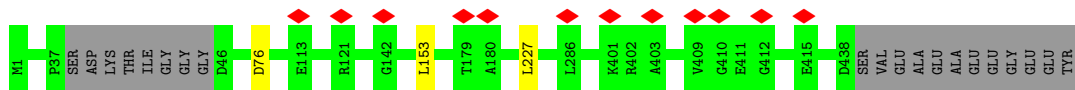
• Molecule 8: Tubulin alpha-3 chain



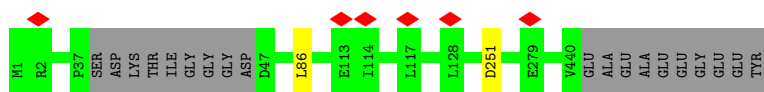
• Molecule 8: Tubulin alpha-3 chain



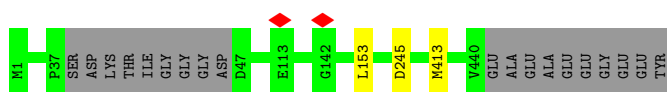
• Molecule 8: Tubulin alpha-3 chain



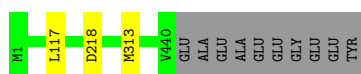
• Molecule 8: Tubulin alpha-3 chain



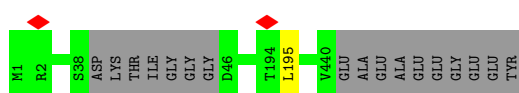
• Molecule 8: Tubulin alpha-3 chain



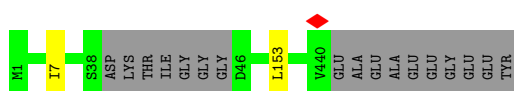
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

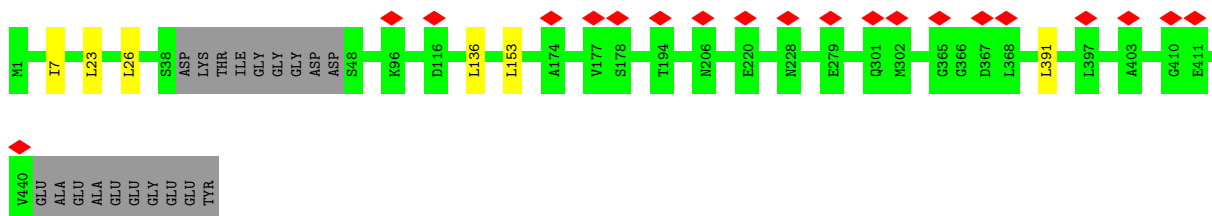


• Molecule 8: Tubulin alpha-3 chain



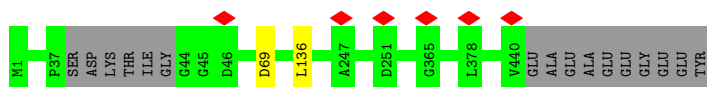
• Molecule 8: Tubulin alpha-3 chain

Chain HA:  94%



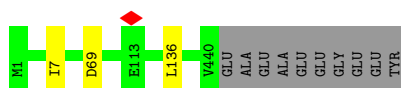
• Molecule 8: Tubulin alpha-3 chain

Chain HC:  96%



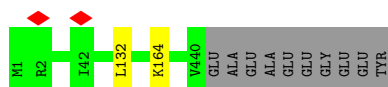
• Molecule 8: Tubulin alpha-3 chain

Chain HE:  97%



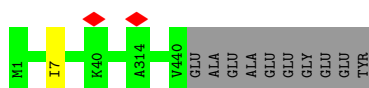
• Molecule 8: Tubulin alpha-3 chain

Chain HG:  97%



• Molecule 8: Tubulin alpha-3 chain

Chain HI:  98%

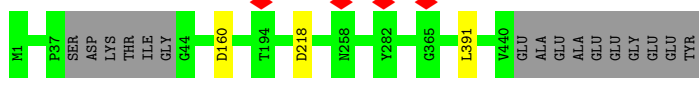


• Molecule 8: Tubulin alpha-3 chain

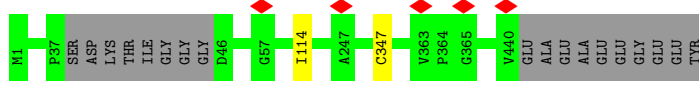
Chain HK:  95%



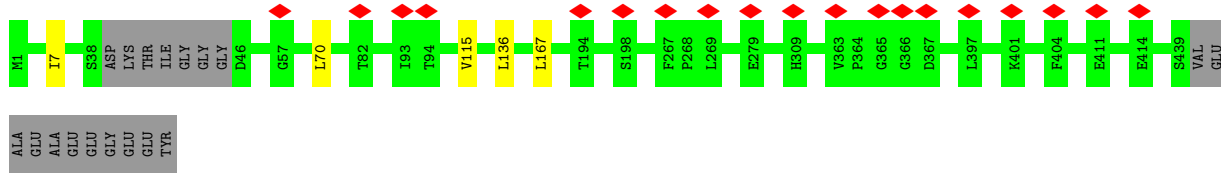
• Molecule 8: Tubulin alpha-3 chain



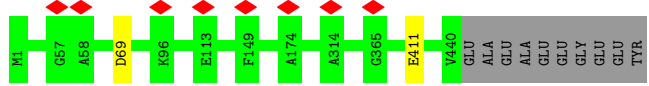
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



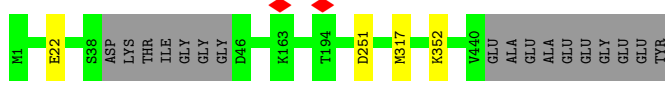
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

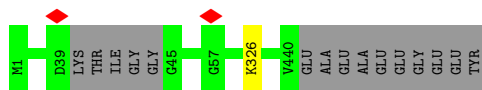


• Molecule 8: Tubulin alpha-3 chain

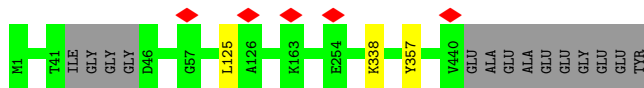


• Molecule 8: Tubulin alpha-3 chain

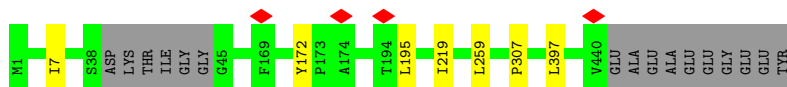




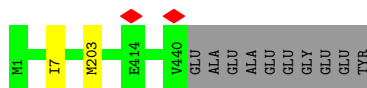
- Molecule 8: Tubulin alpha-3 chain



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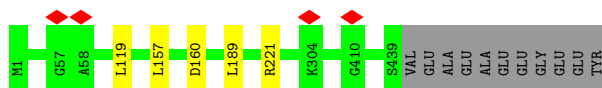
- Molecule 8: Tubulin alpha-3 chain



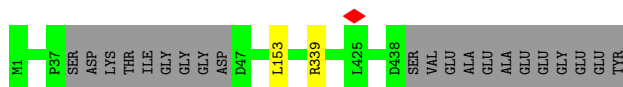
- Molecule 8: Tubulin alpha-3 chain



- Molecule 8: Tubulin alpha-3 chain

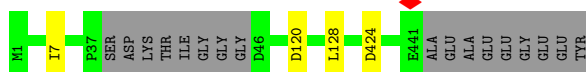


- Molecule 8: Tubulin alpha-3 chain



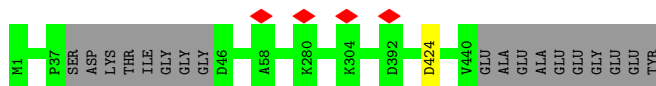
- Molecule 8: Tubulin alpha-3 chain

Chain JI:  95%



- Molecule 8: Tubulin alpha-3 chain

Chain JK:  96%



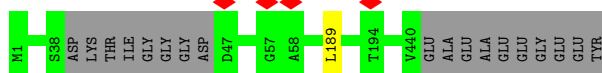
- Molecule 8: Tubulin alpha-3 chain

Chain JM:  95%



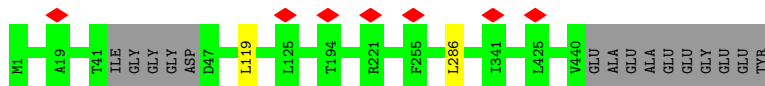
- Molecule 8: Tubulin alpha-3 chain

Chain JO:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain JQ:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain KA:  96%



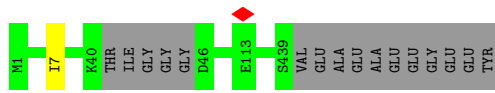
- Molecule 8: Tubulin alpha-3 chain

Chain KC:  96%



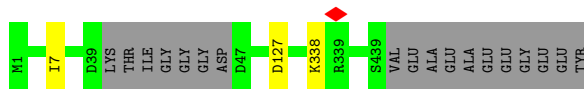
• Molecule 8: Tubulin alpha-3 chain

Chain KE:  96%



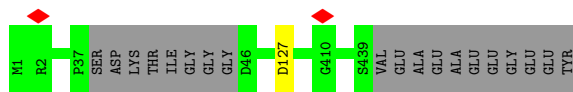
• Molecule 8: Tubulin alpha-3 chain

Chain KG:  95%



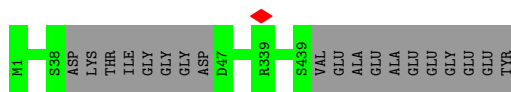
• Molecule 8: Tubulin alpha-3 chain

Chain KI:  96%



• Molecule 8: Tubulin alpha-3 chain

Chain KK:  96%



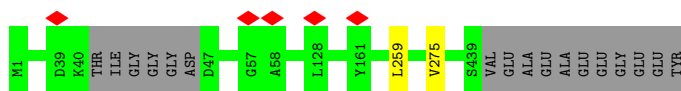
• Molecule 8: Tubulin alpha-3 chain

Chain KM:  95%



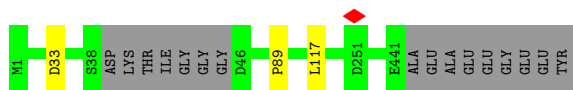
• Molecule 8: Tubulin alpha-3 chain

Chain KO:  96%



• Molecule 8: Tubulin alpha-3 chain

Chain LA:  96%



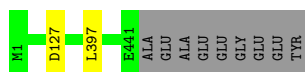
• Molecule 8: Tubulin alpha-3 chain



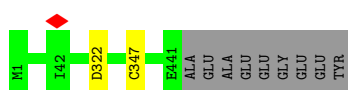
• Molecule 8: Tubulin alpha-3 chain



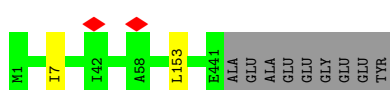
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



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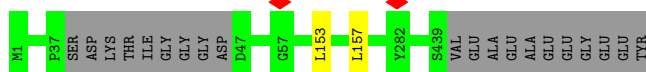


• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

Chain LO:  95%



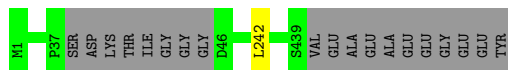
- Molecule 8: Tubulin alpha-3 chain

Chain MA:  95%



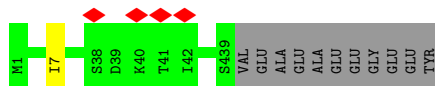
- Molecule 8: Tubulin alpha-3 chain

Chain MC:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain ME:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain MG:  95%



- Molecule 8: Tubulin alpha-3 chain

Chain MI:  96%



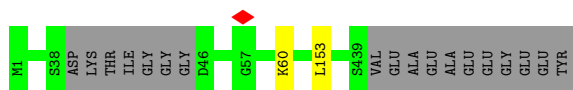
- Molecule 8: Tubulin alpha-3 chain

Chain MK:  96%



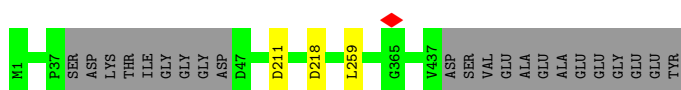
- Molecule 8: Tubulin alpha-3 chain

Chain MM:  96%



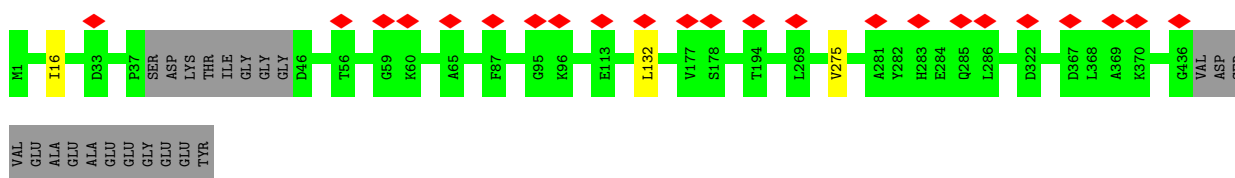
• Molecule 8: Tubulin alpha-3 chain

Chain MO:  94%



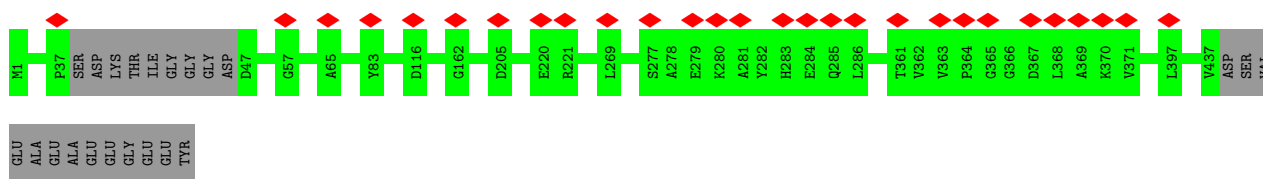
• Molecule 8: Tubulin alpha-3 chain

Chain NA:  94%



• Molecule 8: Tubulin alpha-3 chain

Chain NC:  95%



• Molecule 8: Tubulin alpha-3 chain

Chain NE:  96%



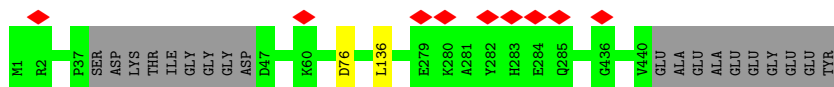
• Molecule 8: Tubulin alpha-3 chain

Chain NG:  96%



• Molecule 8: Tubulin alpha-3 chain

Chain NI:  95%



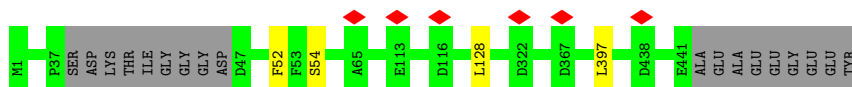
• Molecule 8: Tubulin alpha-3 chain

Chain NK:  95%



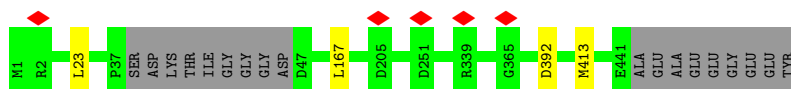
• Molecule 8: Tubulin alpha-3 chain

Chain NM:  95%



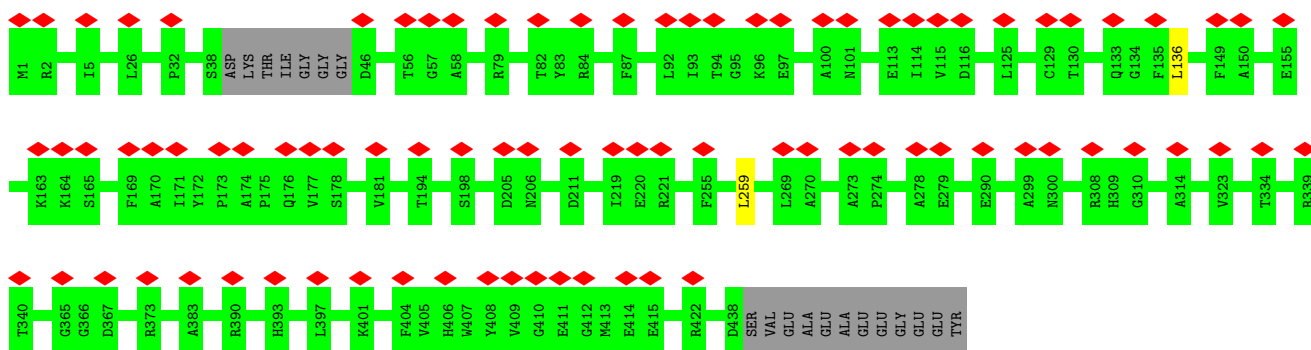
• Molecule 8: Tubulin alpha-3 chain

Chain NO:  95%



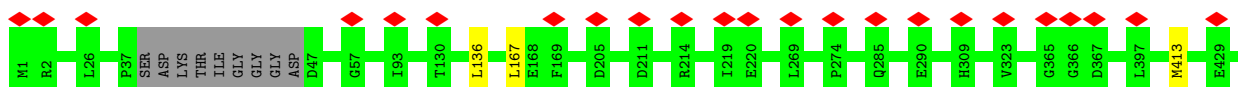
• Molecule 8: Tubulin alpha-3 chain

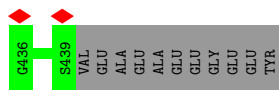
Chain OA:  19% 95%



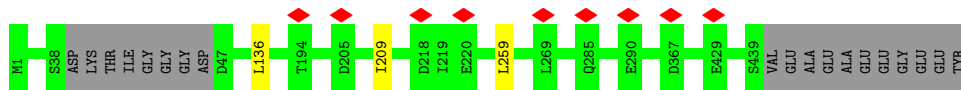
• Molecule 8: Tubulin alpha-3 chain

Chain OC:  6% 95%

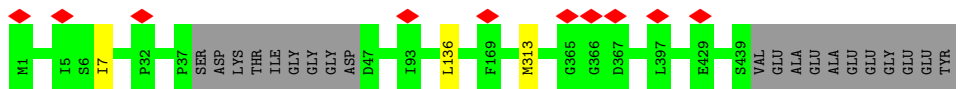




• Molecule 8: Tubulin alpha-3 chain



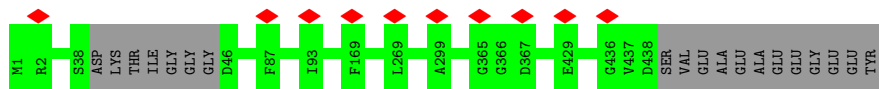
• Molecule 8: Tubulin alpha-3 chain



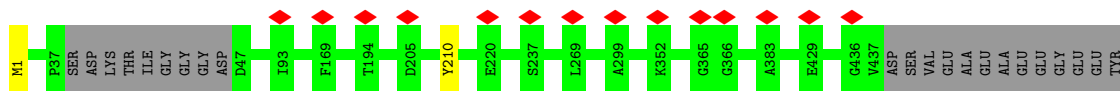
• Molecule 8: Tubulin alpha-3 chain



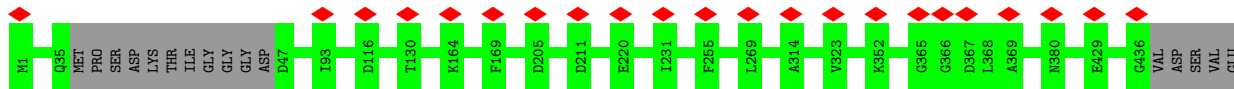
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



ALA
GLU
ALA
GLU
GLU
GLU
TYR

• Molecule 8: Tubulin alpha-3 chain

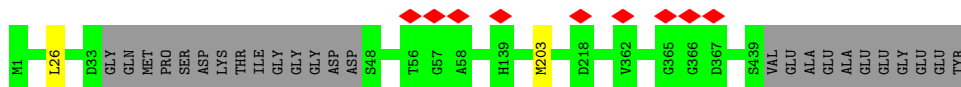
Chain PC: 94% 5%



ALA
GLU
ALA
GLU
GLU
GLU
TYR

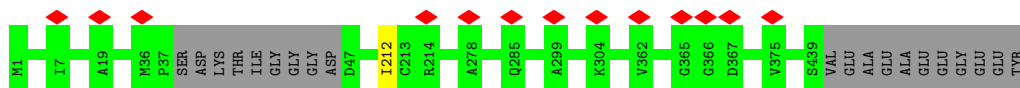
• Molecule 8: Tubulin alpha-3 chain

Chain PE: 94% 6%



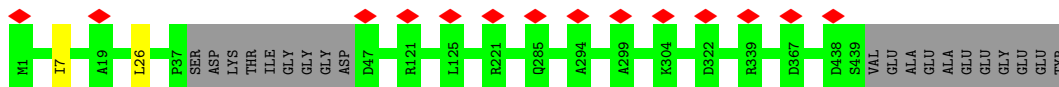
• Molecule 8: Tubulin alpha-3 chain

Chain PG: 95%



• Molecule 8: Tubulin alpha-3 chain

Chain PI: 95%



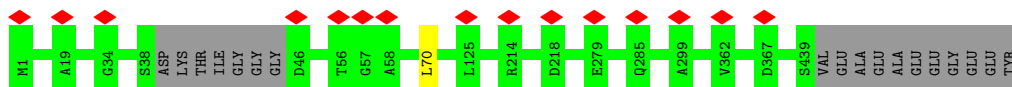
• Molecule 8: Tubulin alpha-3 chain

Chain PK: 94%

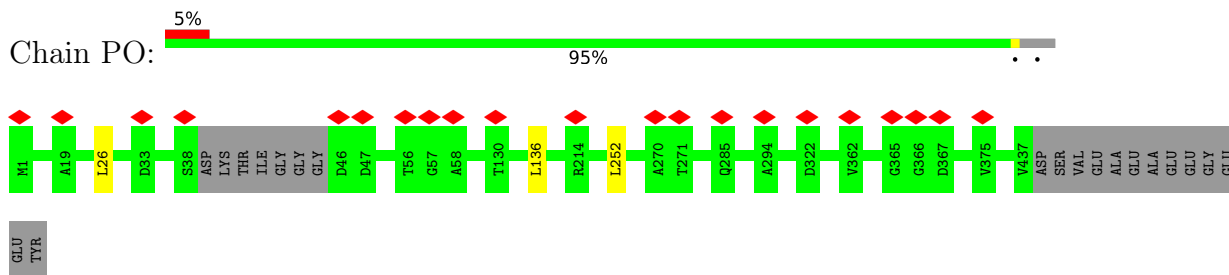


• Molecule 8: Tubulin alpha-3 chain

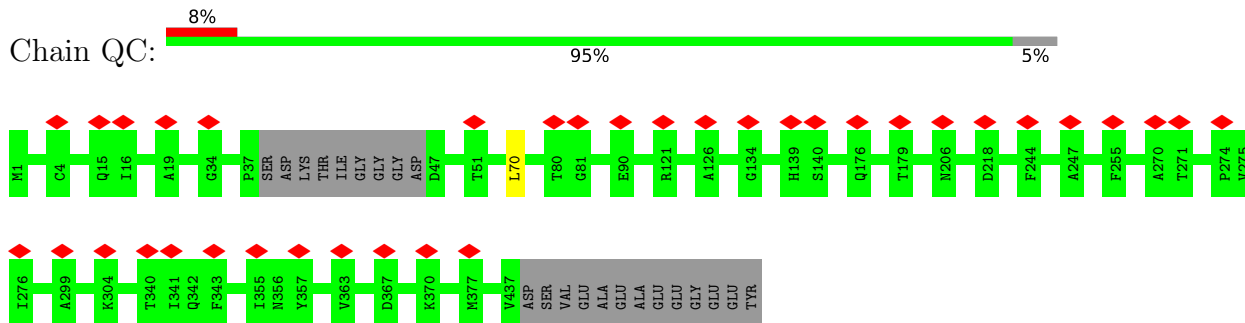
Chain PM: 96%



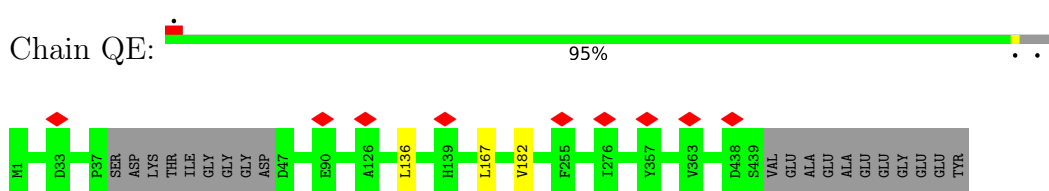
• Molecule 8: Tubulin alpha-3 chain



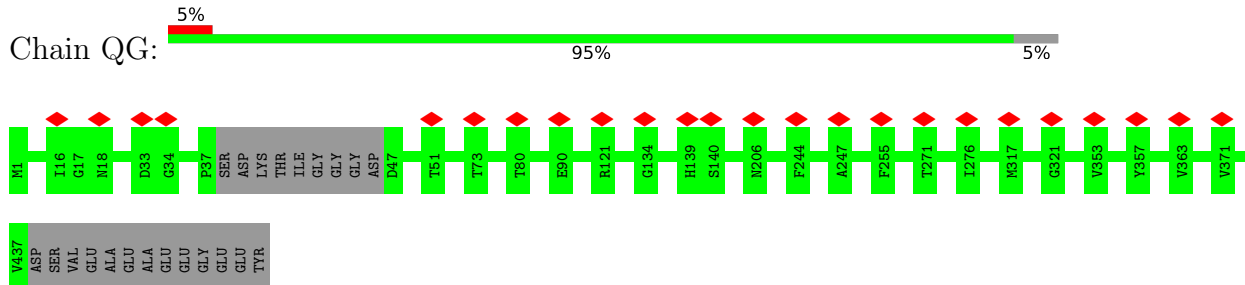
• Molecule 8: Tubulin alpha-3 chain



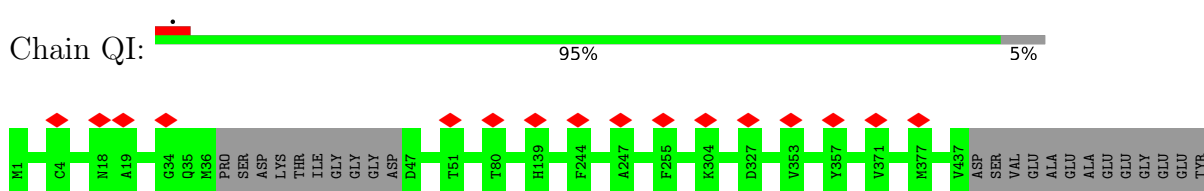
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

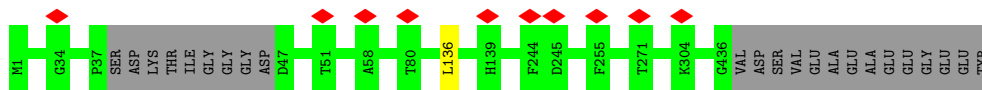


• Molecule 8: Tubulin alpha-3 chain



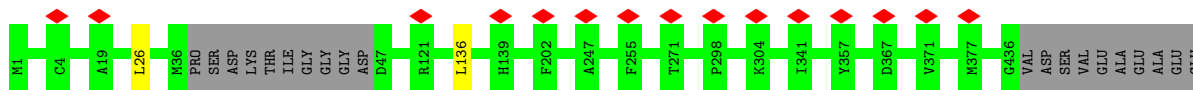
• Molecule 8: Tubulin alpha-3 chain





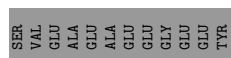
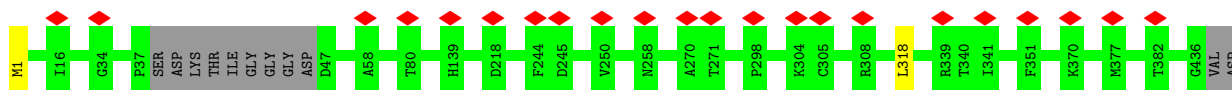
- Molecule 8: Tubulin alpha-3 chain

Chain QM: 94% 5%



- Molecule 8: Tubulin alpha-3 chain

Chain QO: 94% 5% 5%



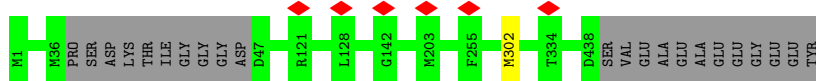
- Molecule 8: Tubulin alpha-3 chain

Chain RC: 95% 5%



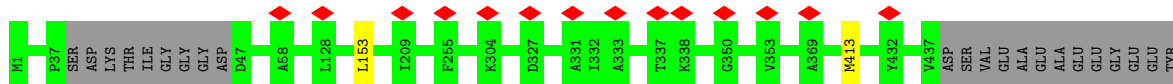
- Molecule 8: Tubulin alpha-3 chain

Chain RE: 95% 5%



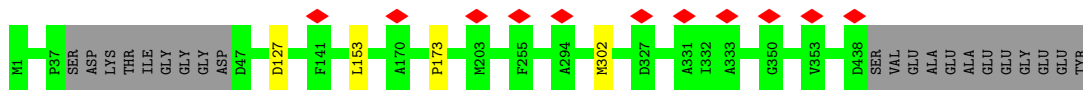
- Molecule 8: Tubulin alpha-3 chain

Chain RG: 95% 5%

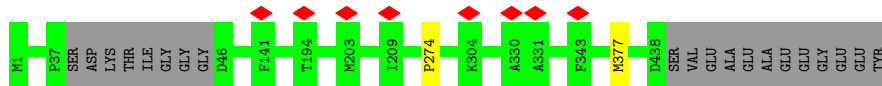


- Molecule 8: Tubulin alpha-3 chain

Chain RI: 94% 5%



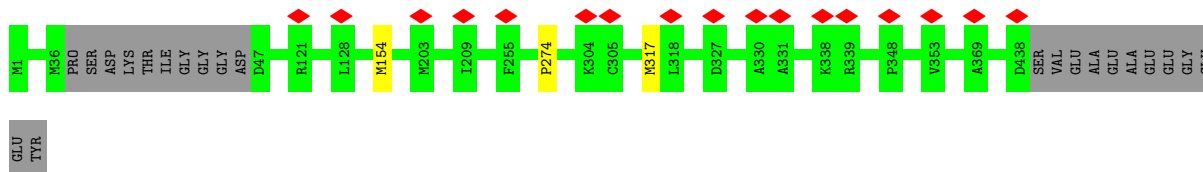
• Molecule 8: Tubulin alpha-3 chain



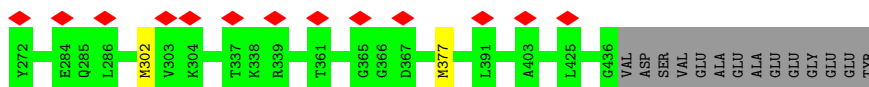
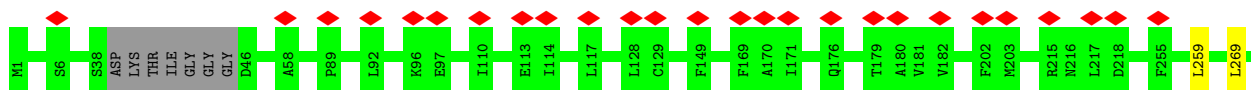
• Molecule 8: Tubulin alpha-3 chain



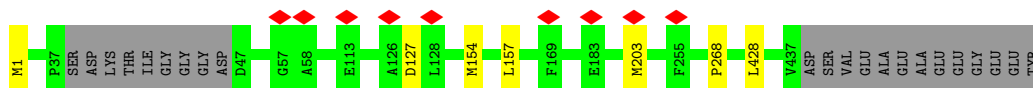
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

Chain SE:  95% 5%



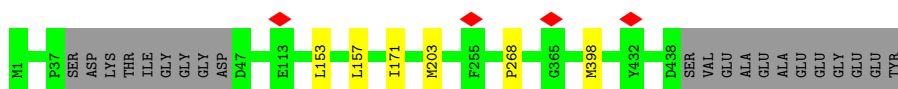
• Molecule 8: Tubulin alpha-3 chain

Chain SG:  94% 5%



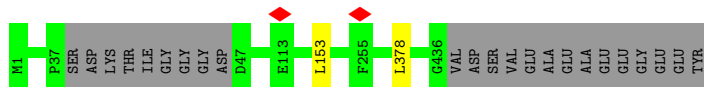
• Molecule 8: Tubulin alpha-3 chain

Chain SI:  94% 5%



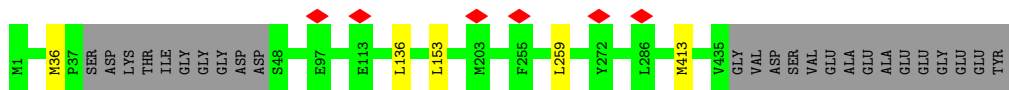
• Molecule 8: Tubulin alpha-3 chain

Chain SK:  94% 5%



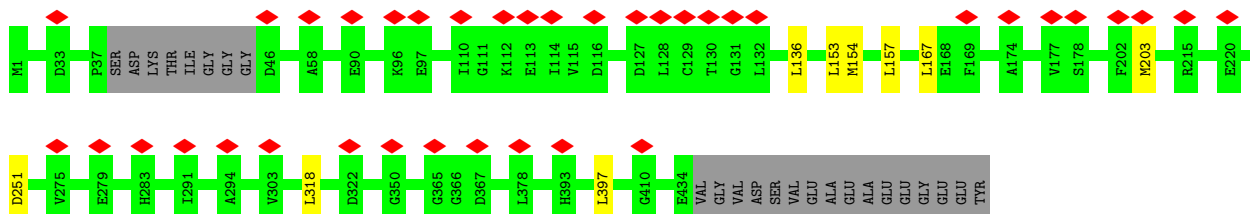
• Molecule 8: Tubulin alpha-3 chain

Chain SM:  93% 6%



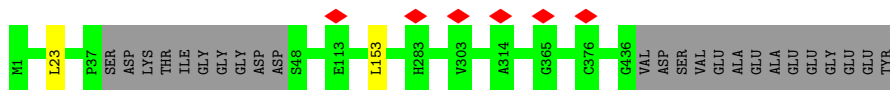
• Molecule 8: Tubulin alpha-3 chain

Chain TA:  8% 93% 5%

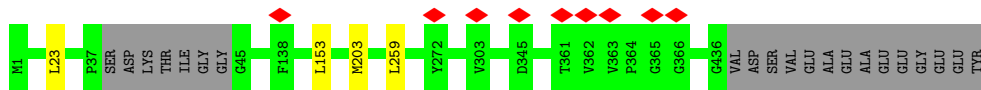


• Molecule 8: Tubulin alpha-3 chain

Chain TC:  94% 5%



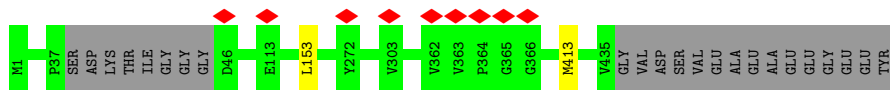
• Molecule 8: Tubulin alpha-3 chain



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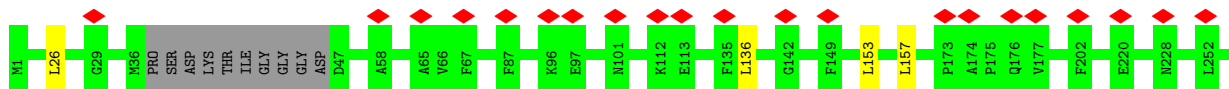
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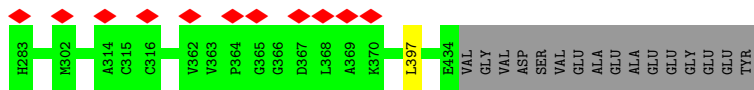


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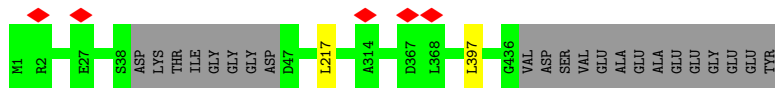


• Molecule 8: Tubulin alpha-3 chain

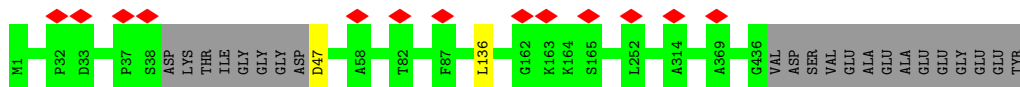




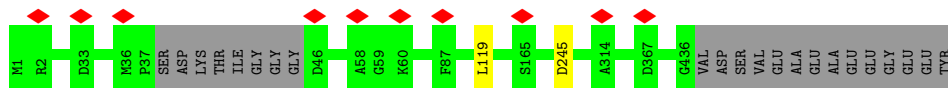
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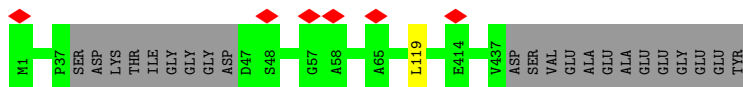
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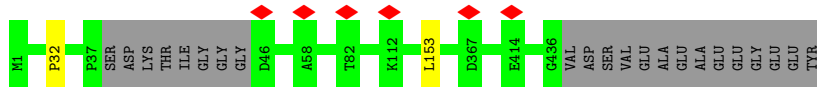
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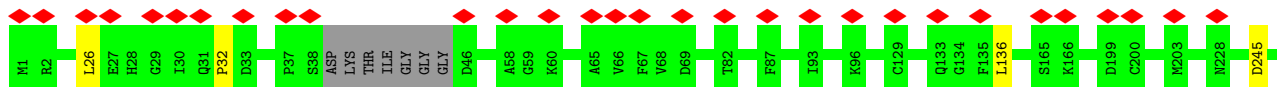
• Molecule 8: Tubulin alpha-3 chain

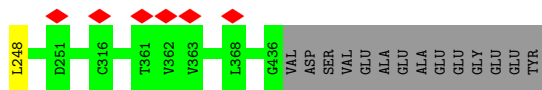


• Molecule 8: Tubulin alpha-3 chain

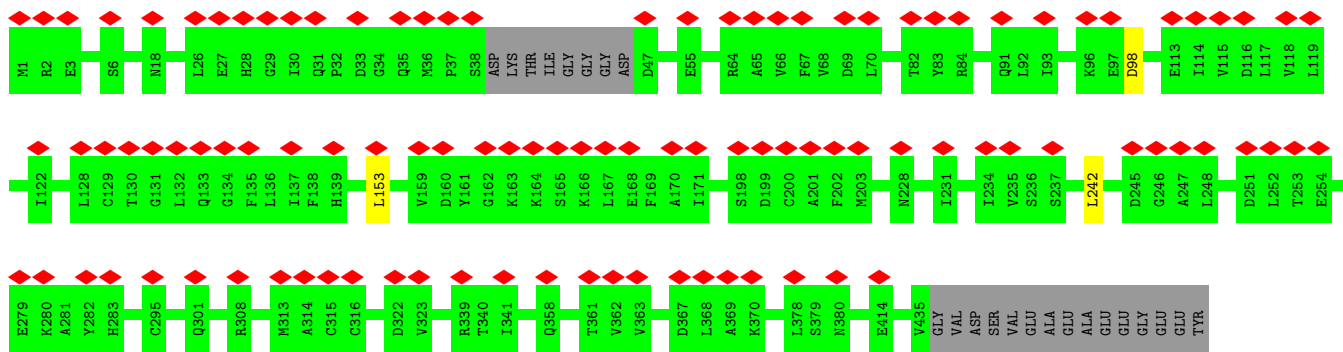


• Molecule 8: Tubulin alpha-3 chain

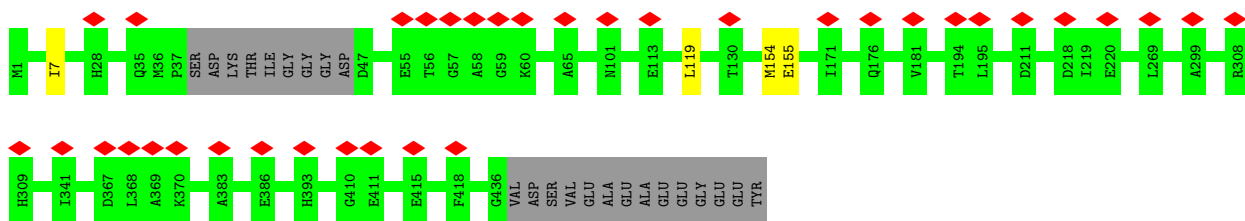




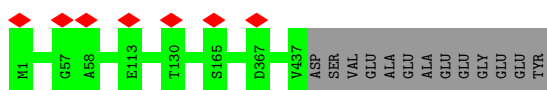
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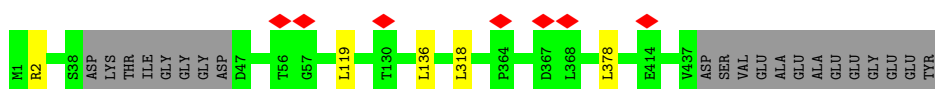
• Molecule 8: Tubulin alpha-3 chain



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• Molecule 8: Tubulin alpha-3 chain



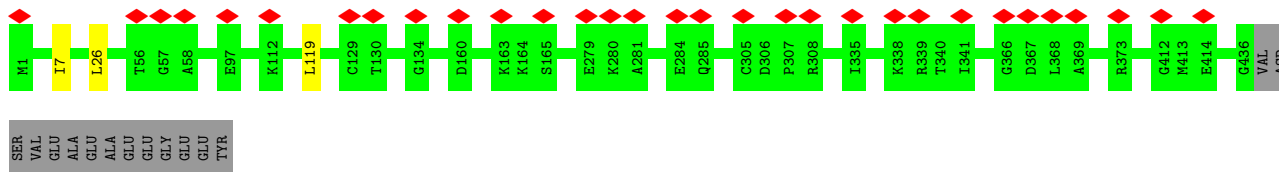
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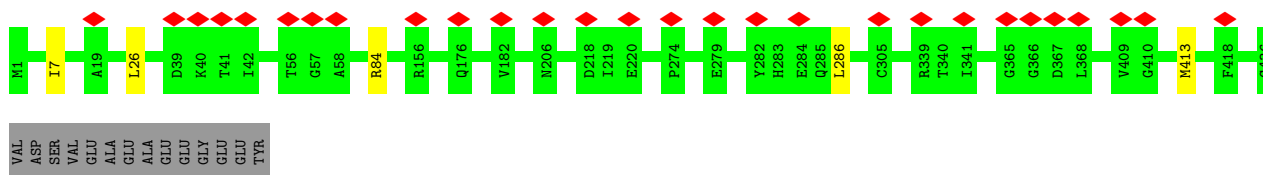
• Molecule 8: Tubulin alpha-3 chain



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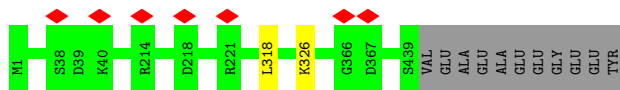


• Molecule 8: Tubulin alpha-3 chain



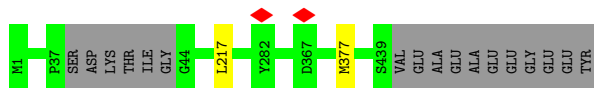
• Molecule 8: Tubulin alpha-3 chain





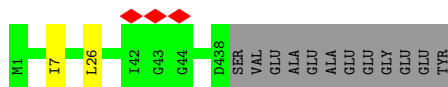
- Molecule 8: Tubulin alpha-3 chain

Chain WE: 96%



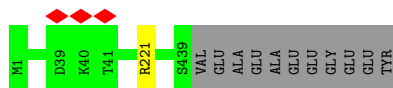
- Molecule 8: Tubulin alpha-3 chain

Chain WG: 97%



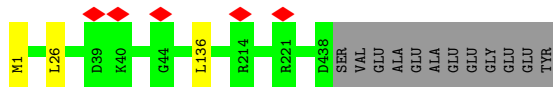
- Molecule 8: Tubulin alpha-3 chain

Chain WI: 97%



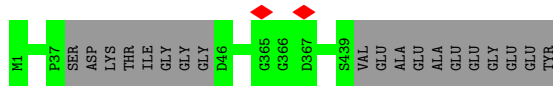
- Molecule 8: Tubulin alpha-3 chain

Chain WK: 97%



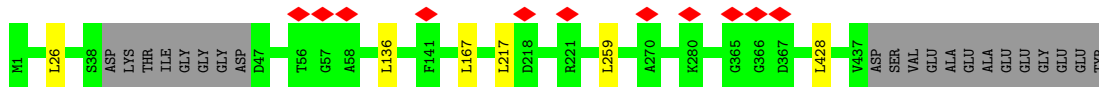
- Molecule 8: Tubulin alpha-3 chain

Chain WM: 96%



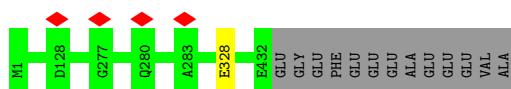
- Molecule 8: Tubulin alpha-3 chain

Chain WO: 94% 5%



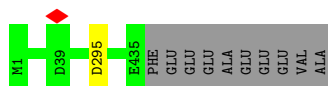
- Molecule 9: Tubulin beta-4B chain

Chain AB:  97%



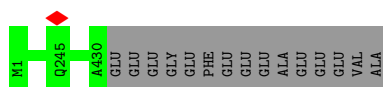
- Molecule 9: Tubulin beta-4B chain

Chain AD:  98%



- Molecule 9: Tubulin beta-4B chain

Chain AF:  97%



- Molecule 9: Tubulin beta-4B chain

Chain AH:  97%



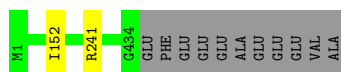
- Molecule 9: Tubulin beta-4B chain

Chain AJ:  96%



- Molecule 9: Tubulin beta-4B chain

Chain AL:  97%



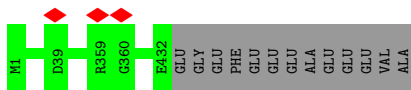
- Molecule 9: Tubulin beta-4B chain

Chain AN:  97%



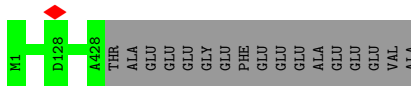
- Molecule 9: Tubulin beta-4B chain

Chain AP:  97%



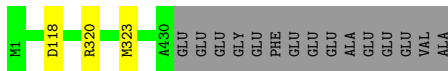
- Molecule 9: Tubulin beta-4B chain

Chain BB:  96%



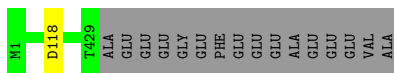
- Molecule 9: Tubulin beta-4B chain

Chain BD:  96%



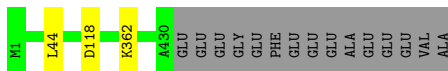
- Molecule 9: Tubulin beta-4B chain

Chain BF:  96%



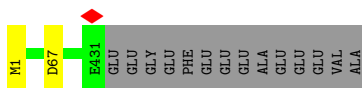
- Molecule 9: Tubulin beta-4B chain

Chain BH:  96%



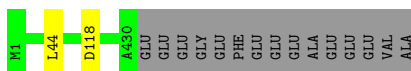
- Molecule 9: Tubulin beta-4B chain

Chain BJ:  96%



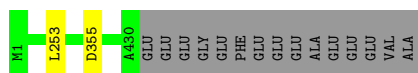
- Molecule 9: Tubulin beta-4B chain

Chain BL:  96%



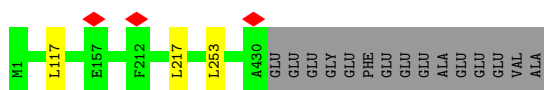
- Molecule 9: Tubulin beta-4B chain

Chain BN:  96%



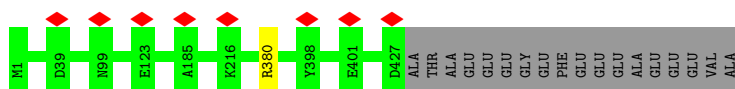
• Molecule 9: Tubulin beta-4B chain

Chain BP:  96%



• Molecule 9: Tubulin beta-4B chain

Chain CB:  96%



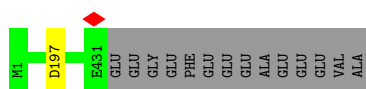
• Molecule 9: Tubulin beta-4B chain

Chain CD:  97%



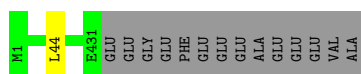
• Molecule 9: Tubulin beta-4B chain

Chain CF:  97%



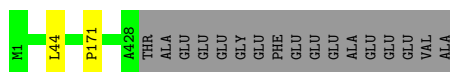
• Molecule 9: Tubulin beta-4B chain

Chain CH:  97%



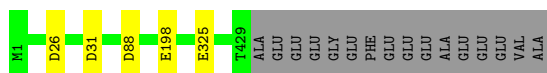
• Molecule 9: Tubulin beta-4B chain

Chain CJ:  96%



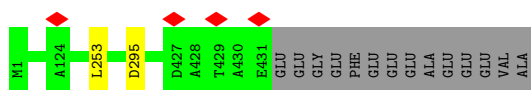
• Molecule 9: Tubulin beta-4B chain

Chain CL:  95%



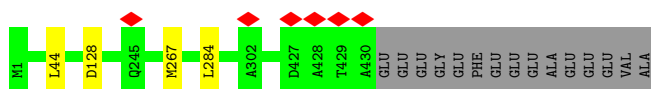
• Molecule 9: Tubulin beta-4B chain

Chain CN:  96%



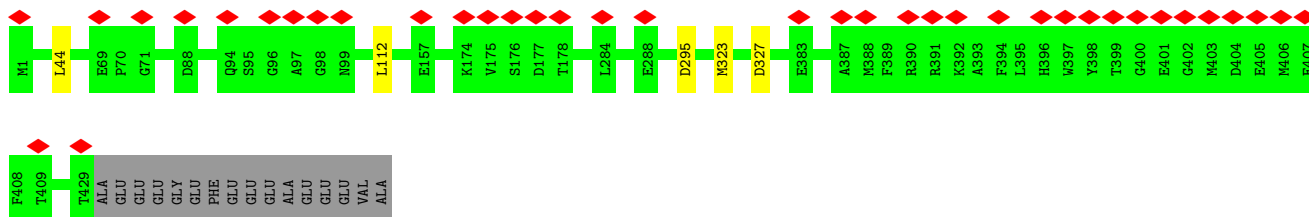
• Molecule 9: Tubulin beta-4B chain

Chain CP:  96%



• Molecule 9: Tubulin beta-4B chain

Chain DB:  95%



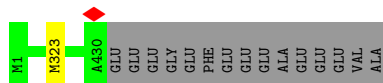
• Molecule 9: Tubulin beta-4B chain

Chain DD:  96%



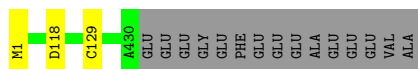
• Molecule 9: Tubulin beta-4B chain

Chain DF:  96%

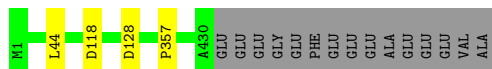


• Molecule 9: Tubulin beta-4B chain

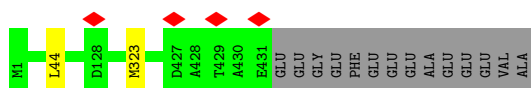
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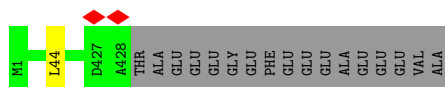
• Molecule 9: Tubulin beta-4B chain



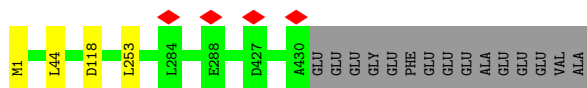
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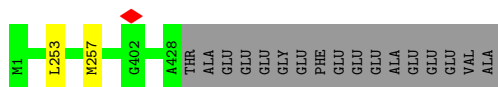
• Molecule 9: Tubulin beta-4B chain



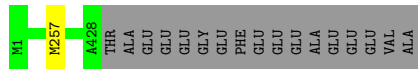
• Molecule 9: Tubulin beta-4B chain



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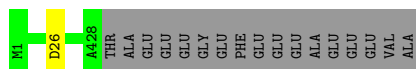


• Molecule 9: Tubulin beta-4B chain



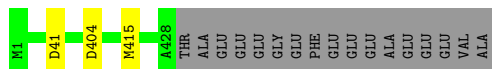
• Molecule 9: Tubulin beta-4B chain





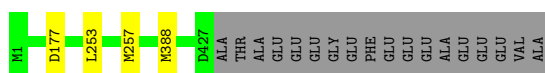
- Molecule 9: Tubulin beta-4B chain

Chain EH: 96%



- Molecule 9: Tubulin beta-4B chain

Chain EJ: 95%



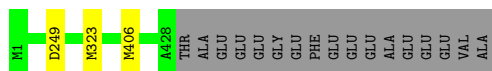
- Molecule 9: Tubulin beta-4B chain

Chain EL: 96%



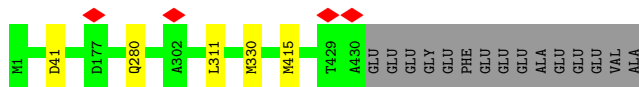
- Molecule 9: Tubulin beta-4B chain

Chain EN: 96%



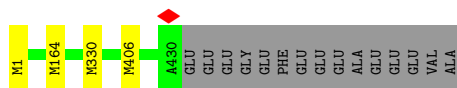
- Molecule 9: Tubulin beta-4B chain

Chain FB: 96%



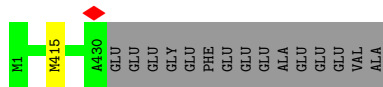
- Molecule 9: Tubulin beta-4B chain

Chain FD: 96%



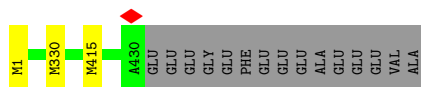
- Molecule 9: Tubulin beta-4B chain

Chain FF: 96%



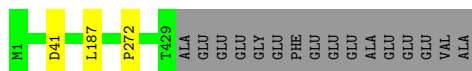
- Molecule 9: Tubulin beta-4B chain

Chain FH: 96%



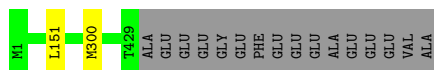
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Chain FJ: 96%



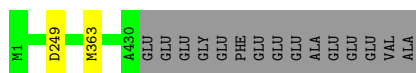
- Molecule 9: Tubulin beta-4B chain

Chain FL: 96%



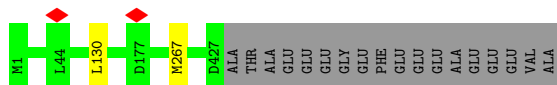
- Molecule 9: Tubulin beta-4B chain

Chain FN: 96%



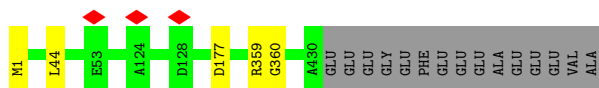
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Chain GB: 96%



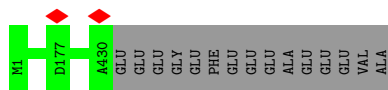
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Chain GD: 96%



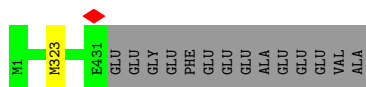
- Molecule 9: Tubulin beta-4B chain

Chain GF: 97%



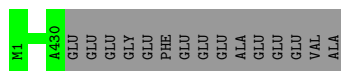
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Chain GH: 97%



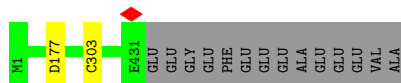
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Chain GJ: 97%



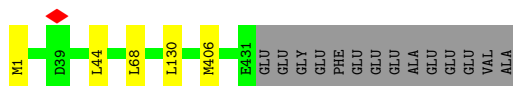
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Chain GL: 96%



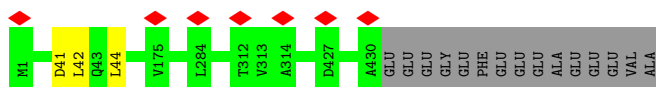
- Molecule 9: Tubulin beta-4B chain

Chain GN: 96%



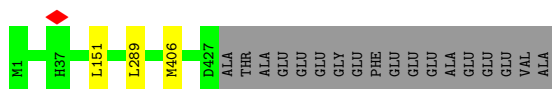
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Chain HB: 96%



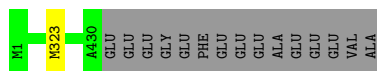
- Molecule 9: Tubulin beta-4B chain

Chain HD: 95%



- Molecule 9: Tubulin beta-4B chain

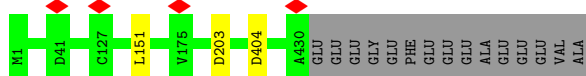
Chain HF: 96%



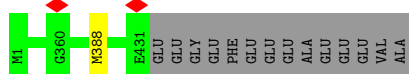
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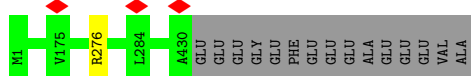
• Molecule 9: Tubulin beta-4B chain



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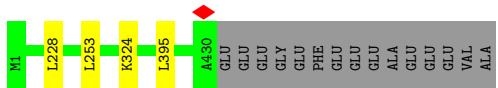
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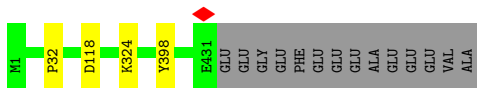
- Molecule 9: Tubulin beta-4B chain

Chain IF: 96%



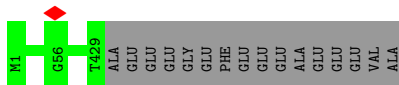
- Molecule 9: Tubulin beta-4B chain

Chain IH: 96%



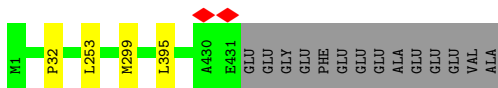
- Molecule 9: Tubulin beta-4B chain

Chain IJ: 96%



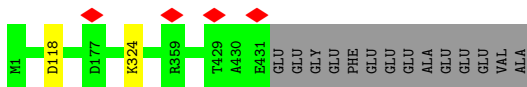
- Molecule 9: Tubulin beta-4B chain

Chain IL: 96%



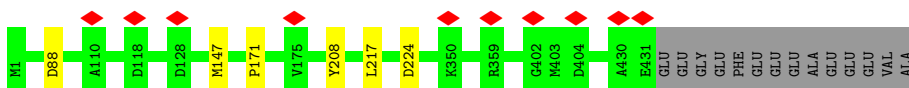
- Molecule 9: Tubulin beta-4B chain

Chain IN: 96%

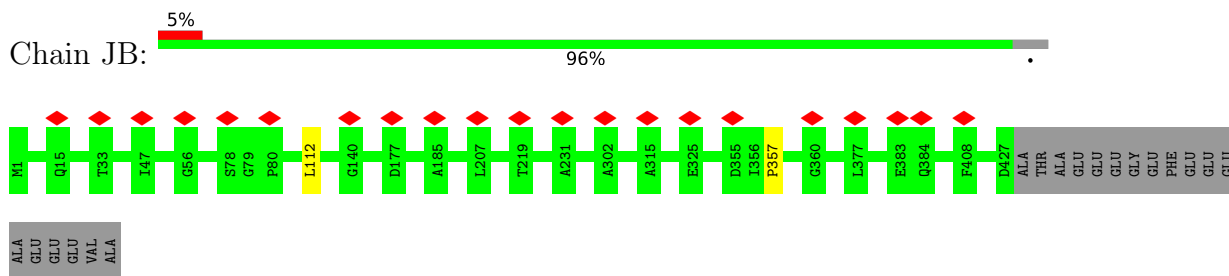


- Molecule 9: Tubulin beta-4B chain

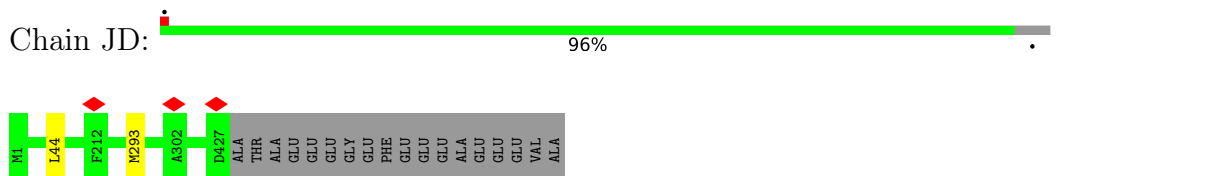
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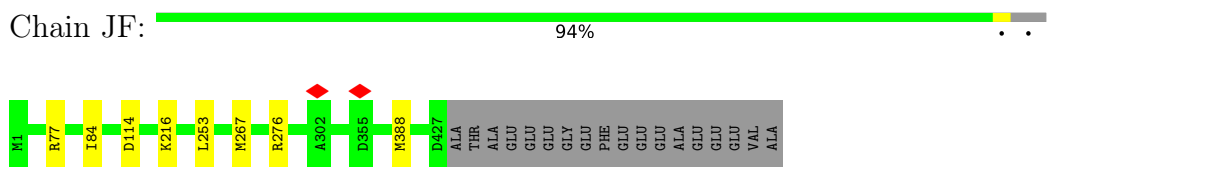
- Molecule 9: Tubulin beta-4B chain



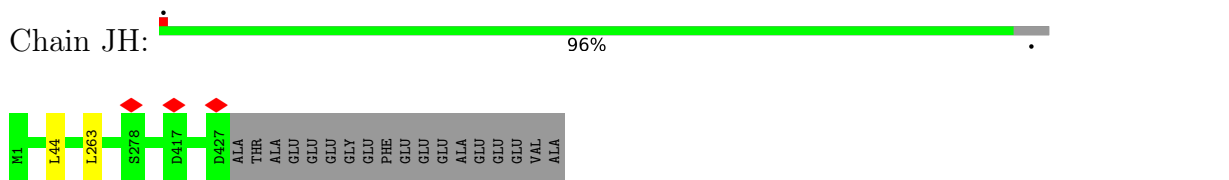
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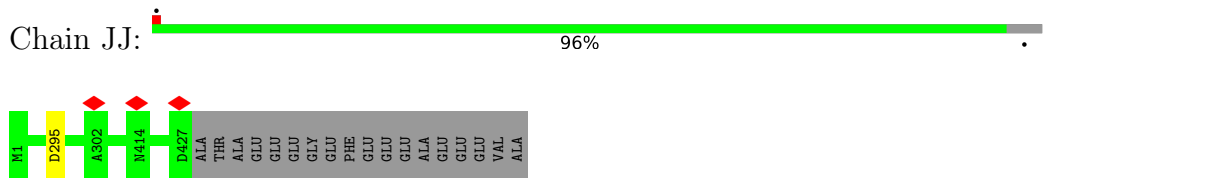
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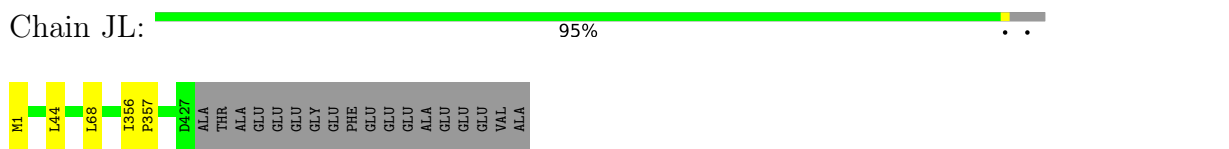
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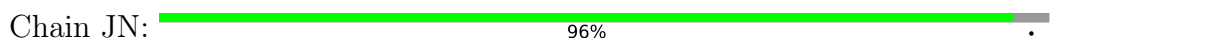
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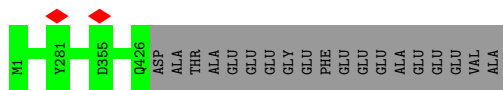


• Molecule 9: Tubulin beta-4B chain



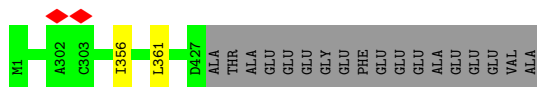
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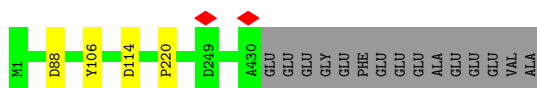
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Chain JP: 96%



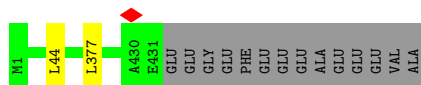
- Molecule 9: Tubulin beta-4B chain

Chain KB: 96%



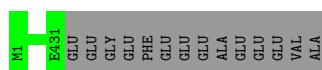
- Molecule 9: Tubulin beta-4B chain

Chain KD: 96%



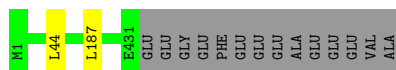
- Molecule 9: Tubulin beta-4B chain

Chain KF: 97%



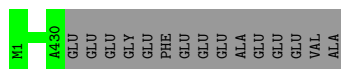
- Molecule 9: Tubulin beta-4B chain

Chain KH: 96%



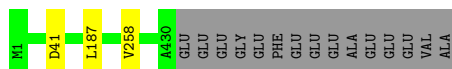
- Molecule 9: Tubulin beta-4B chain

Chain KJ: 97%

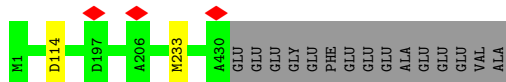


- Molecule 9: Tubulin beta-4B chain

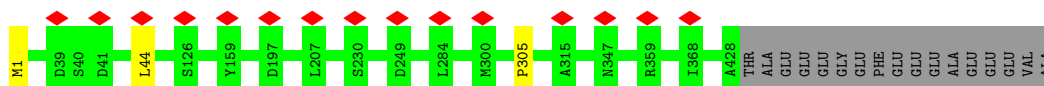
Chain KL: 96%



- Molecule 9: Tubulin beta-4B chain



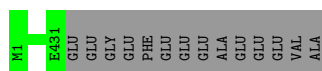
- Molecule 9: Tubulin beta-4B chain



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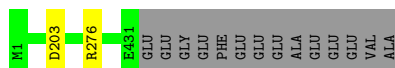
- Molecule 9: Tubulin beta-4B chain



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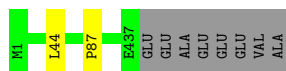


- Molecule 9: Tubulin beta-4B chain



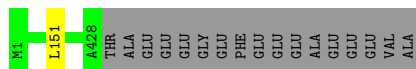
- Molecule 9: Tubulin beta-4B chain





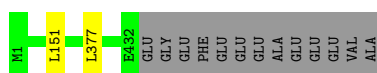
- Molecule 9: Tubulin beta-4B chain

Chain LL: 96%



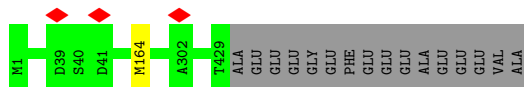
- Molecule 9: Tubulin beta-4B chain

Chain LN: 97%



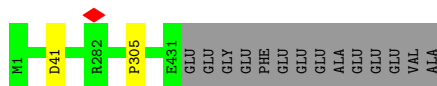
- Molecule 9: Tubulin beta-4B chain

Chain LP: 96%



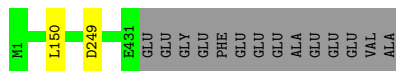
- Molecule 9: Tubulin beta-4B chain

Chain MB: 96%



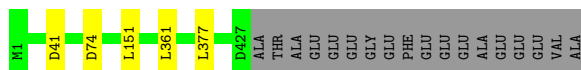
- Molecule 9: Tubulin beta-4B chain

Chain MD: 96%



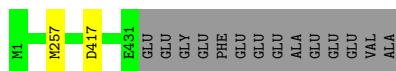
- Molecule 9: Tubulin beta-4B chain

Chain MF: 95%

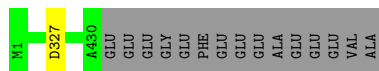


- Molecule 9: Tubulin beta-4B chain

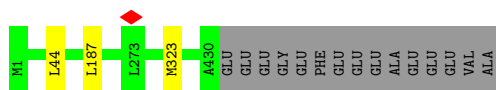
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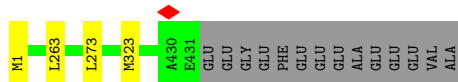
• Molecule 9: Tubulin beta-4B chain



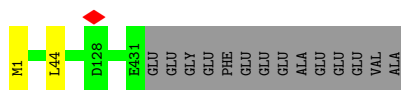
• Molecule 9: Tubulin beta-4B chain



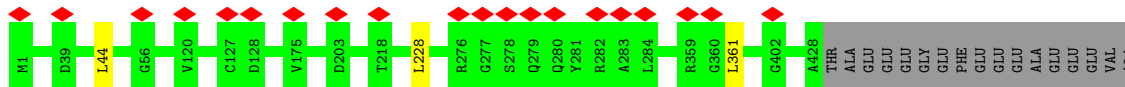
• Molecule 9: Tubulin beta-4B chain



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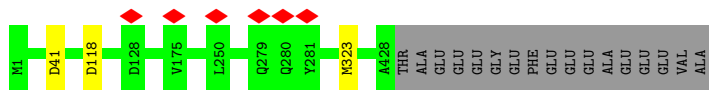


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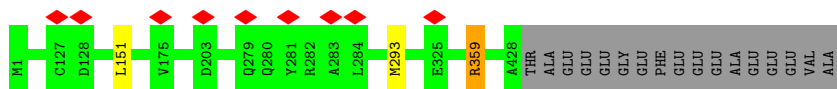
• Molecule 9: Tubulin beta-4B chain



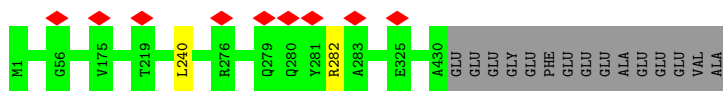
• Molecule 9: Tubulin beta-4B chain



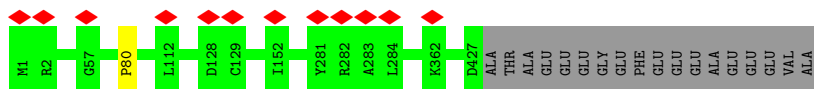
• Molecule 9: Tubulin beta-4B chain



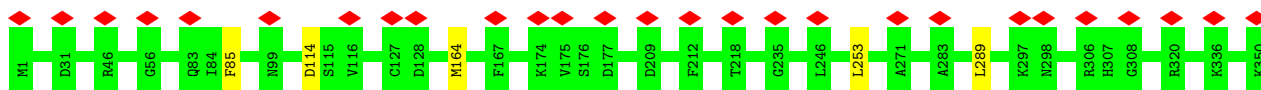
• Molecule 9: Tubulin beta-4B chain

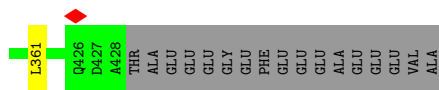


• Molecule 9: Tubulin beta-4B chain



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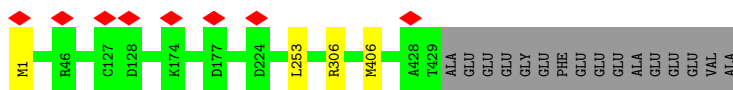




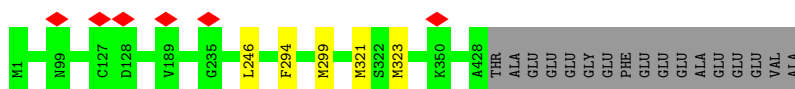
• Molecule 9: Tubulin beta-4B chain



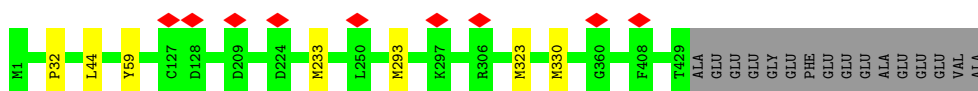
• Molecule 9: Tubulin beta-4B chain



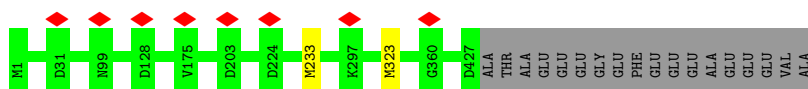
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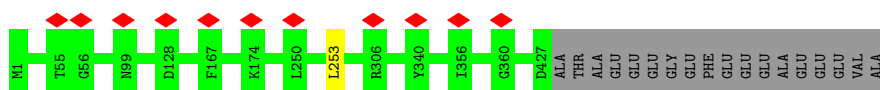
• Molecule 9: Tubulin beta-4B chain



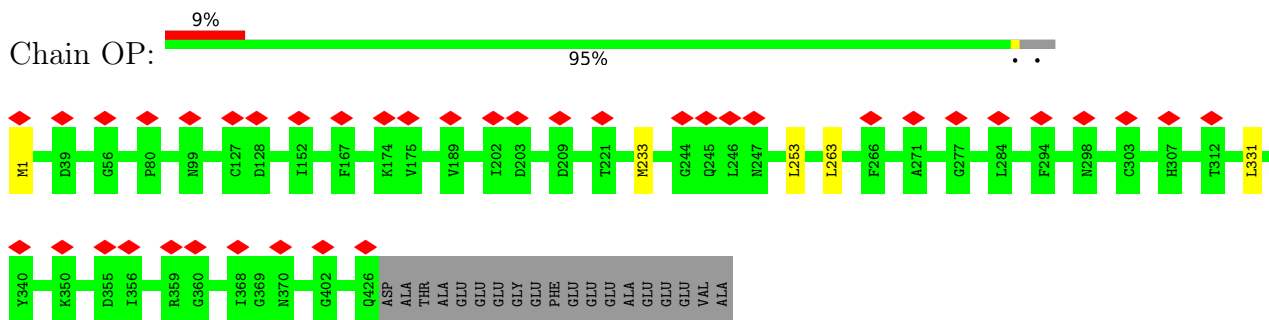
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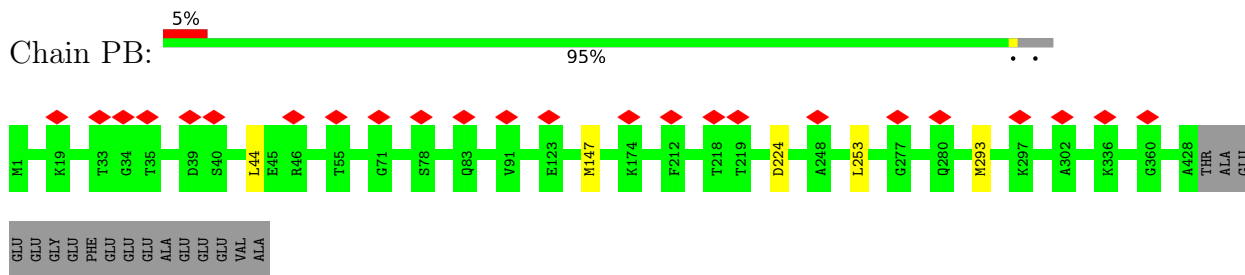
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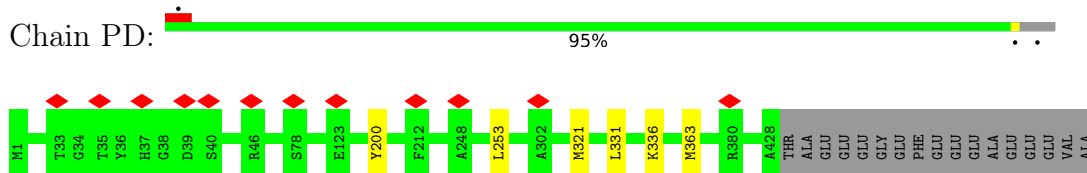
• Molecule 9: Tubulin beta-4B chain



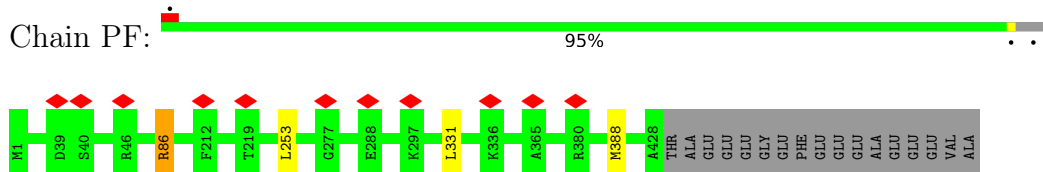
• Molecule 9: Tubulin beta-4B chain



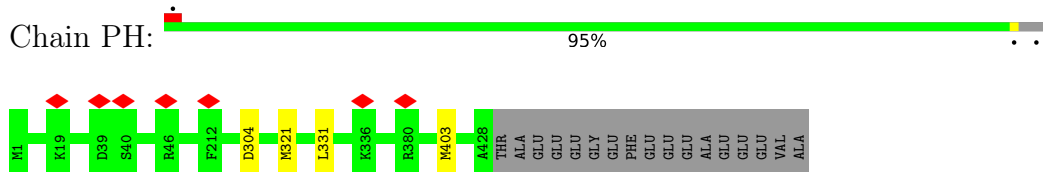
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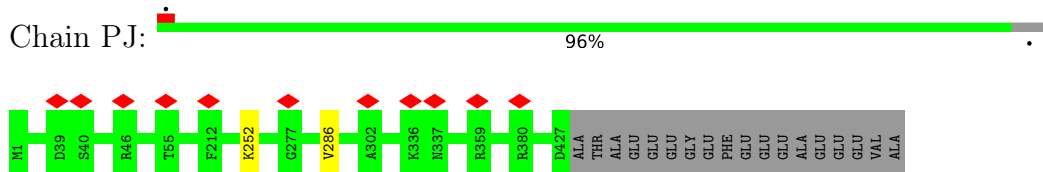
• Molecule 9: Tubulin beta-4B chain



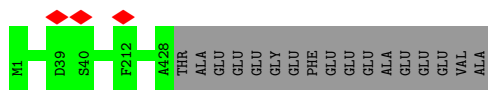
• Molecule 9: Tubulin beta-4B chain



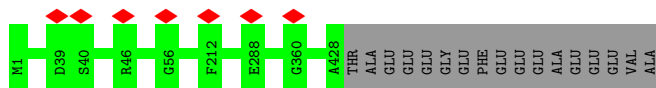
• Molecule 9: Tubulin beta-4B chain



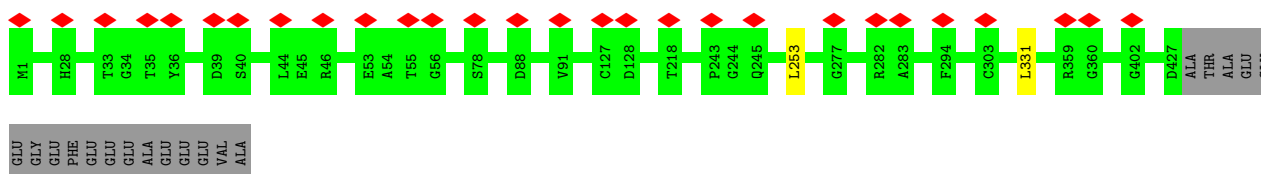
• Molecule 9: Tubulin beta-4B chain



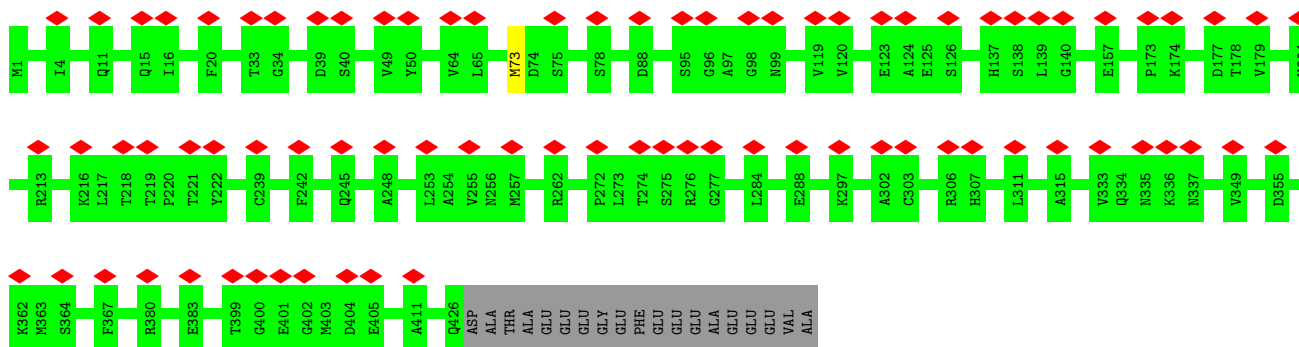
• Molecule 9: Tubulin beta-4B chain



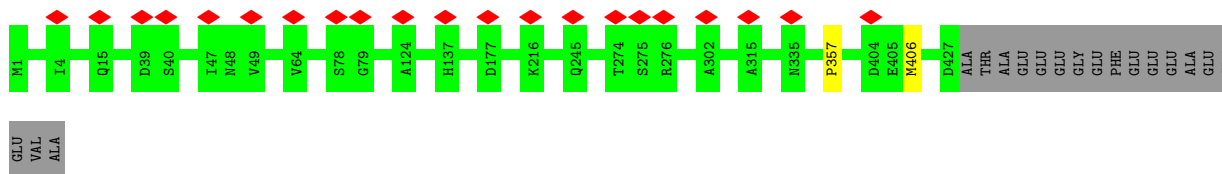
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

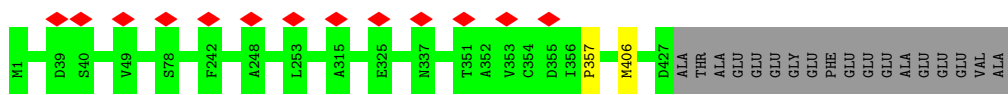


• Molecule 9: Tubulin beta-4B chain



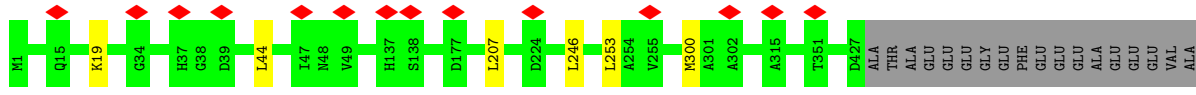
• Molecule 9: Tubulin beta-4B chain

Chain QF:  96%



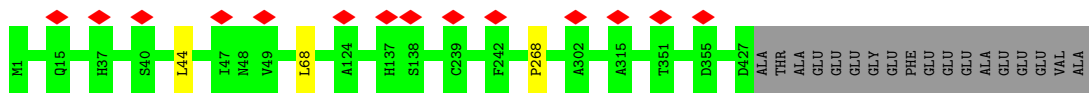
• Molecule 9: Tubulin beta-4B chain

Chain QH:  95%



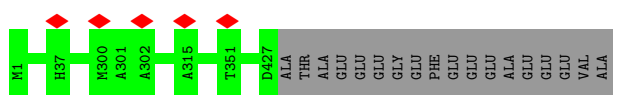
• Molecule 9: Tubulin beta-4B chain

Chain QJ:  95%



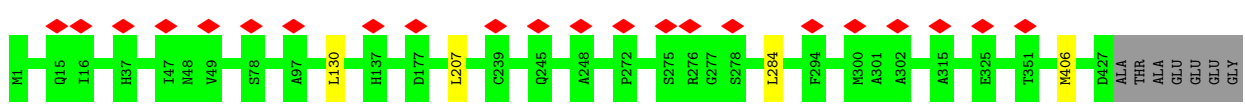
• Molecule 9: Tubulin beta-4B chain

Chain QL:  96%



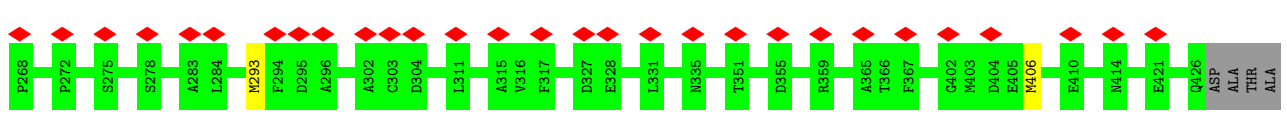
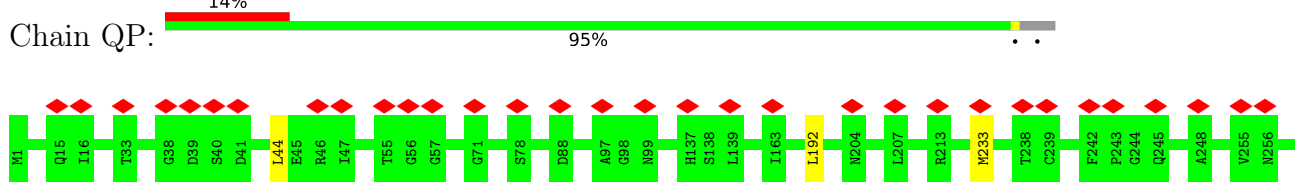
• Molecule 9: Tubulin beta-4B chain

Chain QN:  5% 95%



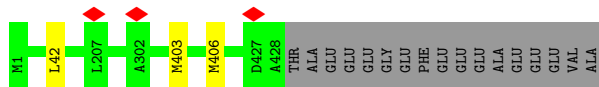
• Molecule 9: Tubulin beta-4B chain

Chain QP:  14% 95%

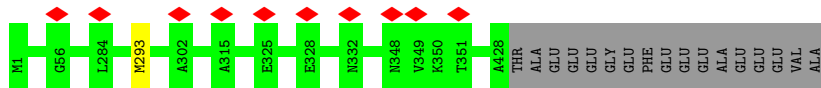


GLU
GLU
GLY
GLU
PHE
GLU
GLU
GLU
ALA
GLU
GLU
VAL
ALA

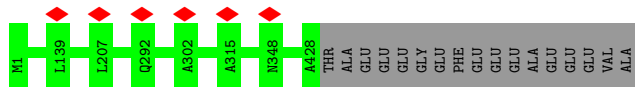
• Molecule 9: Tubulin beta-4B chain



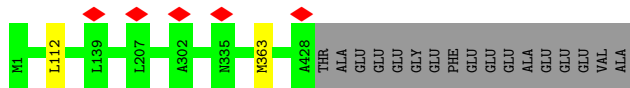
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain



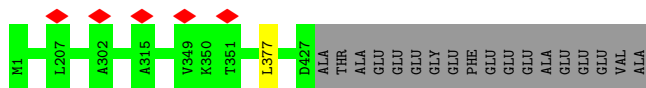
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

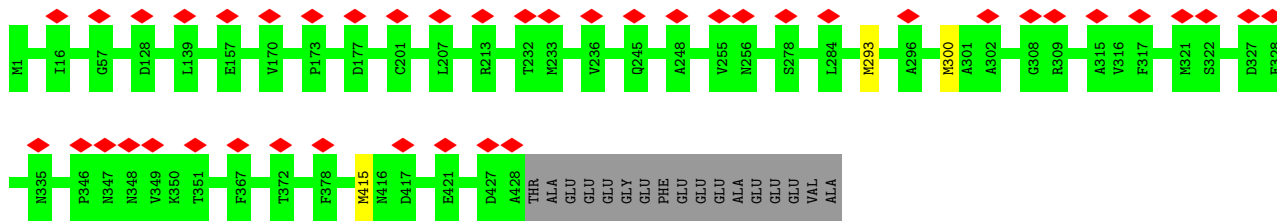


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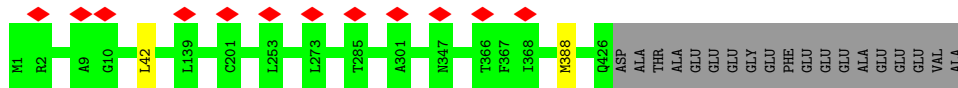


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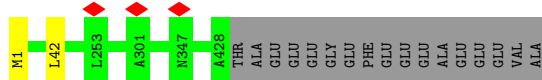




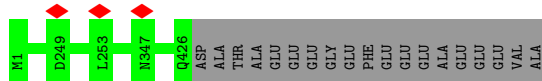
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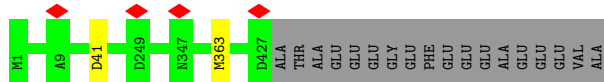
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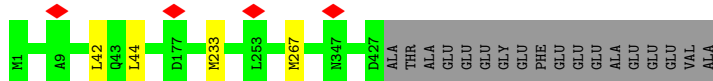
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

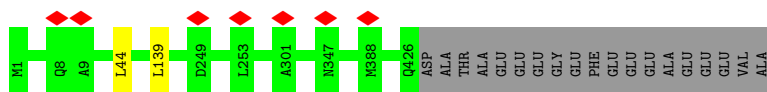


• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

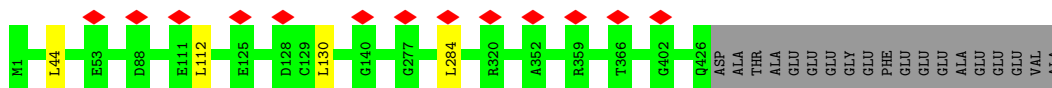




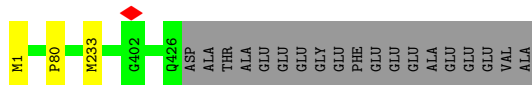
- Molecule 9: Tubulin beta-4B chain



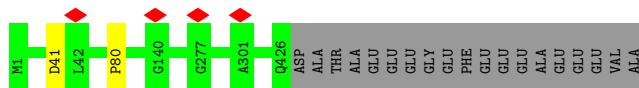
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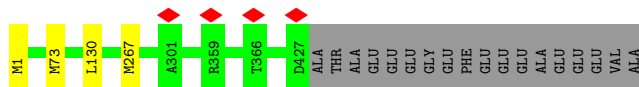
- Molecule 9: Tubulin beta-4B chain



- Molecule 9: Tubulin beta-4B chain

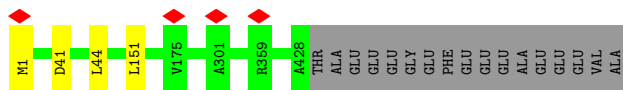


- Molecule 9: Tubulin beta-4B chain

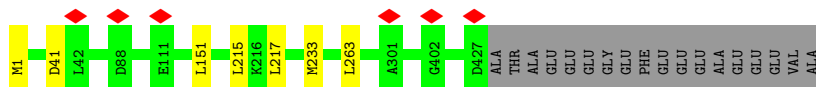


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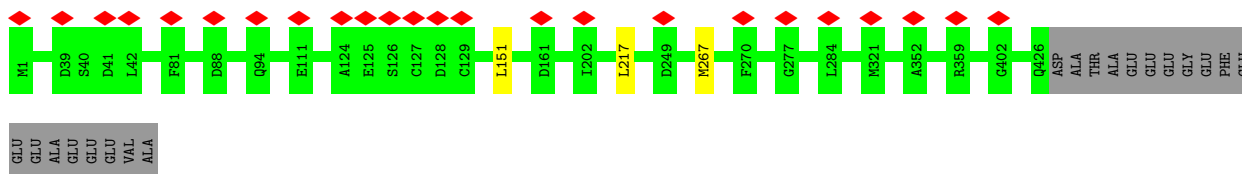




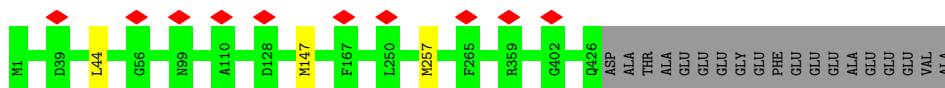
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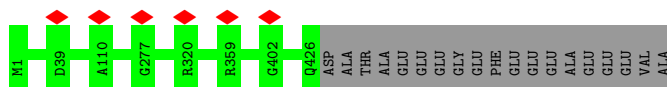
• Molecule 9: Tubulin beta-4B chain



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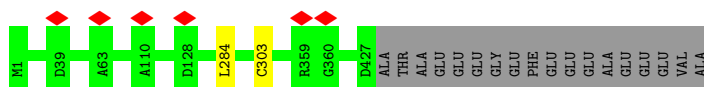
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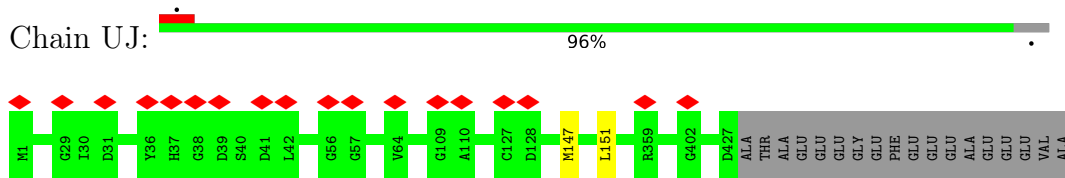
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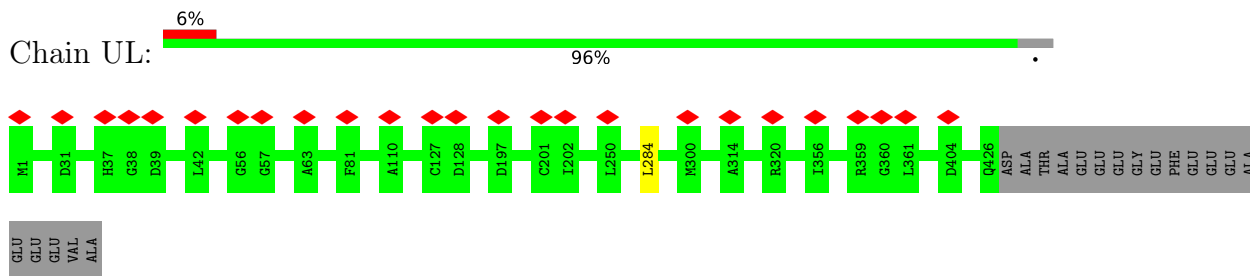
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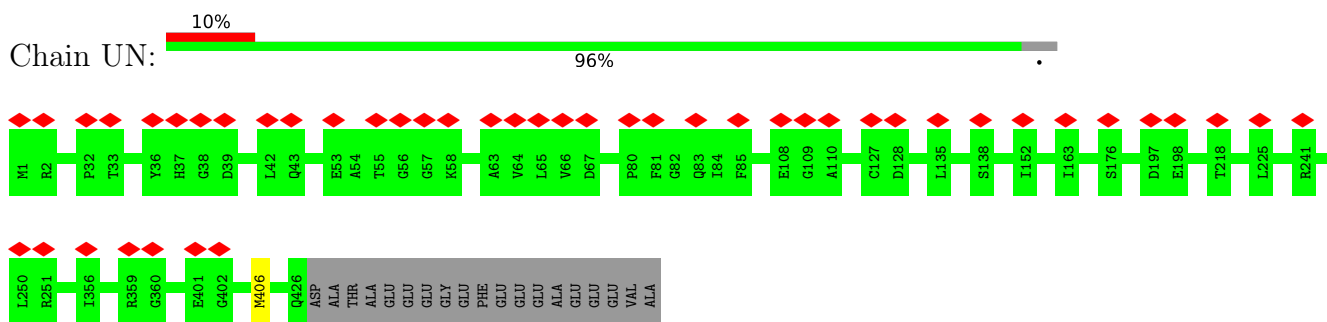
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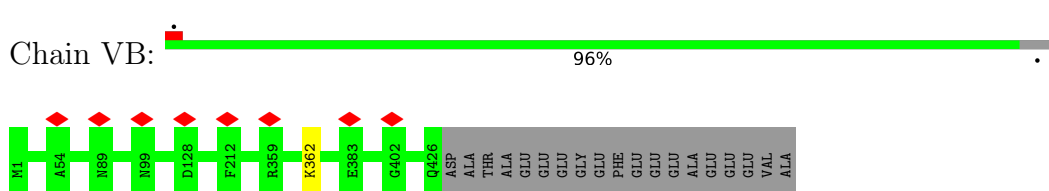
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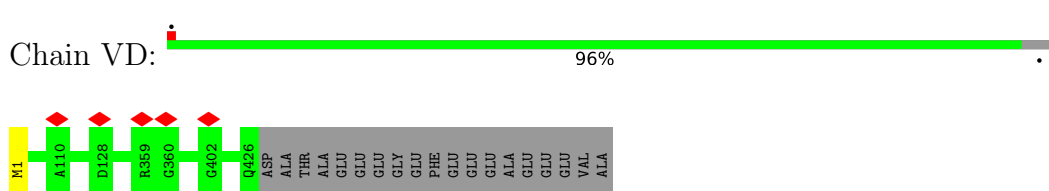
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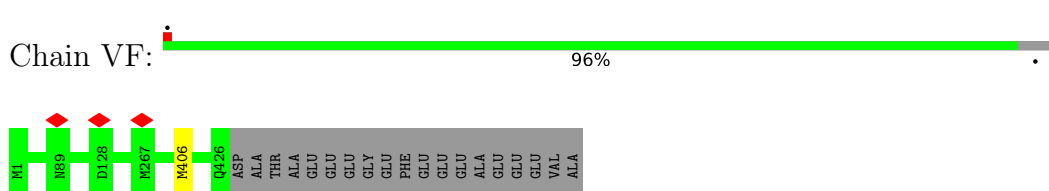
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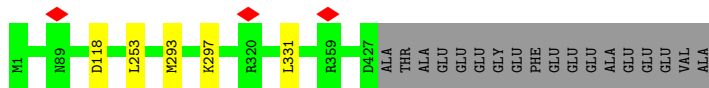
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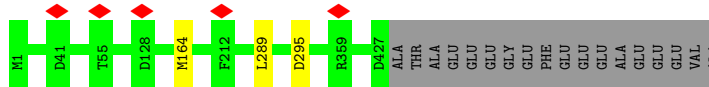
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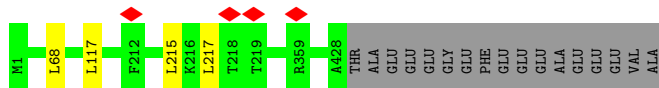
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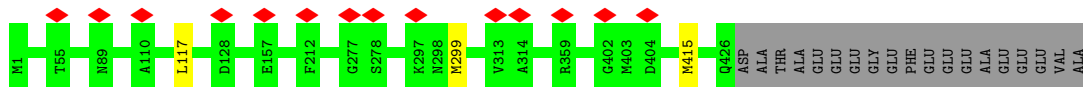
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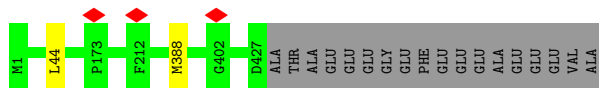
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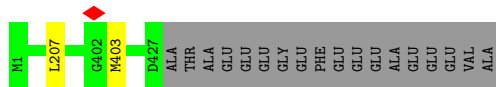
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

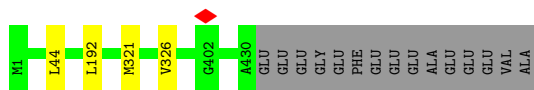


• Molecule 9: Tubulin beta-4B chain

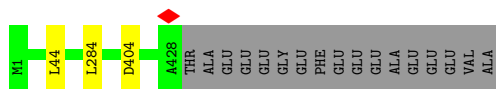


• Molecule 9: Tubulin beta-4B chain

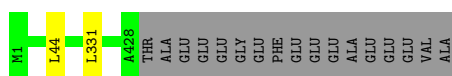




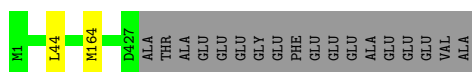
• Molecule 9: Tubulin beta-4B chain



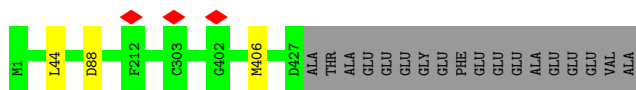
• Molecule 9: Tubulin beta-4B chain



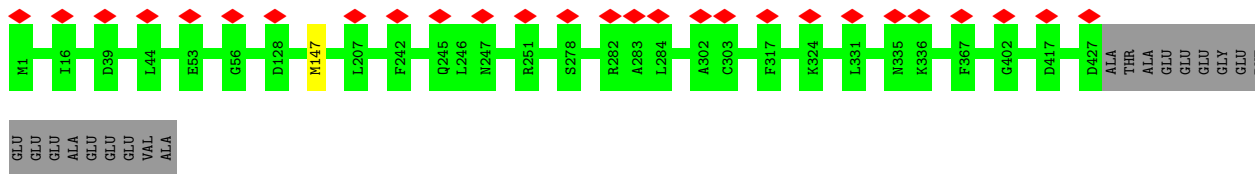
• Molecule 9: Tubulin beta-4B chain



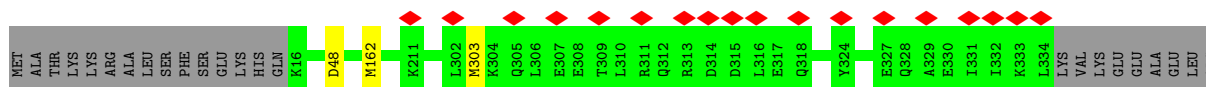
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

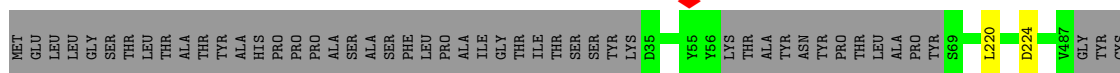


• Molecule 10: Meiosis-specific nuclear structural protein 1




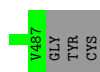
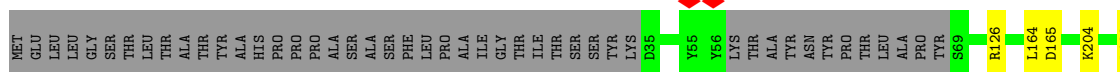
• Molecule 12: Tektin-3

Chain S2:  90% 10%



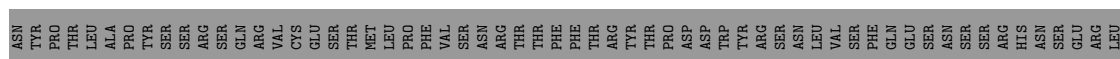
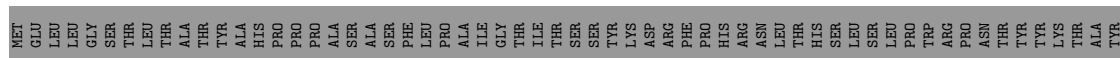
• Molecule 12: Tektin-3

Chain S3:  89% 10%



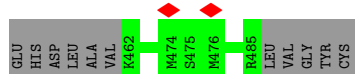
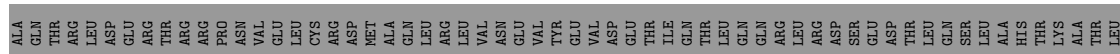
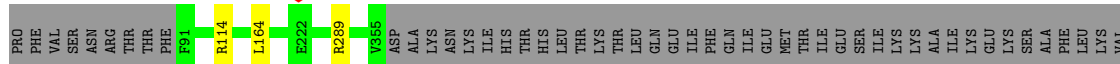
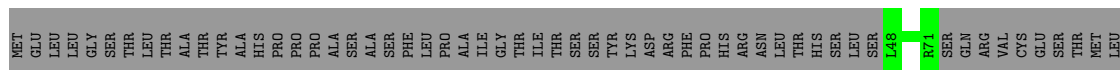
• Molecule 12: Tektin-3

Chain S4:  61% 38%




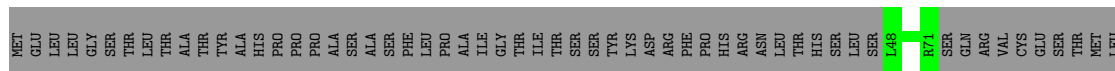
• Molecule 12: Tektin-3

Chain S5:  63% 36%




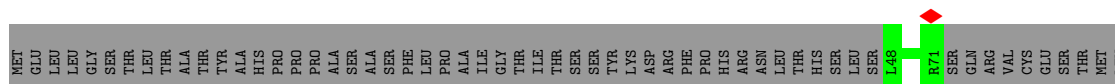
• Molecule 12: Tektin-3

Chain S6:  86% 14%




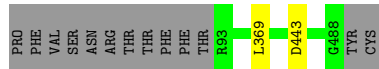
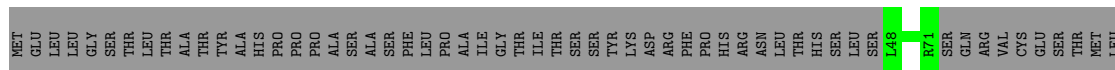
• Molecule 12: Tektin-3

Chain S7:  86% 14%



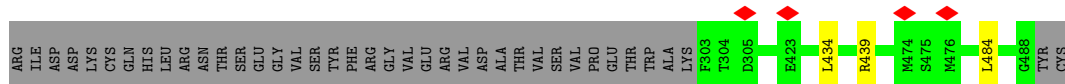
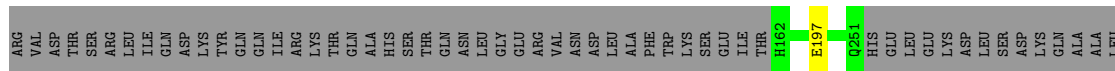
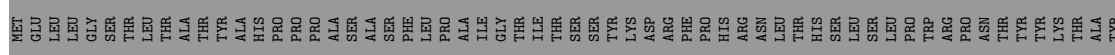
• Molecule 12: Tektin-3

Chain S8:  85% 14%



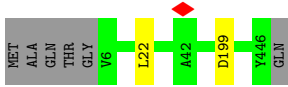
• Molecule 12: Tektin-3

Chain S9:  56% 44%

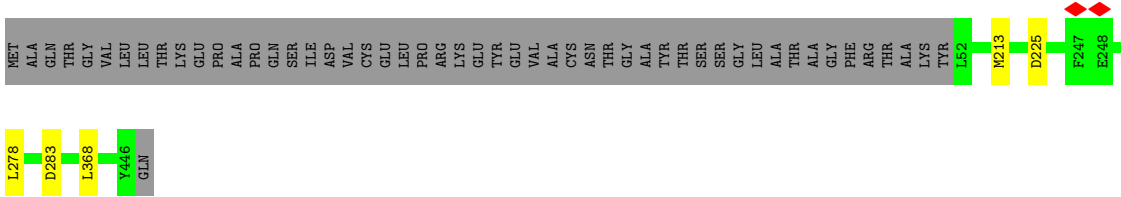
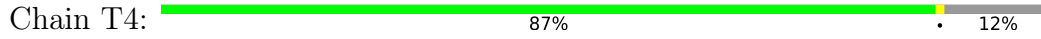


• Molecule 13: Sperm-associated antigen 8

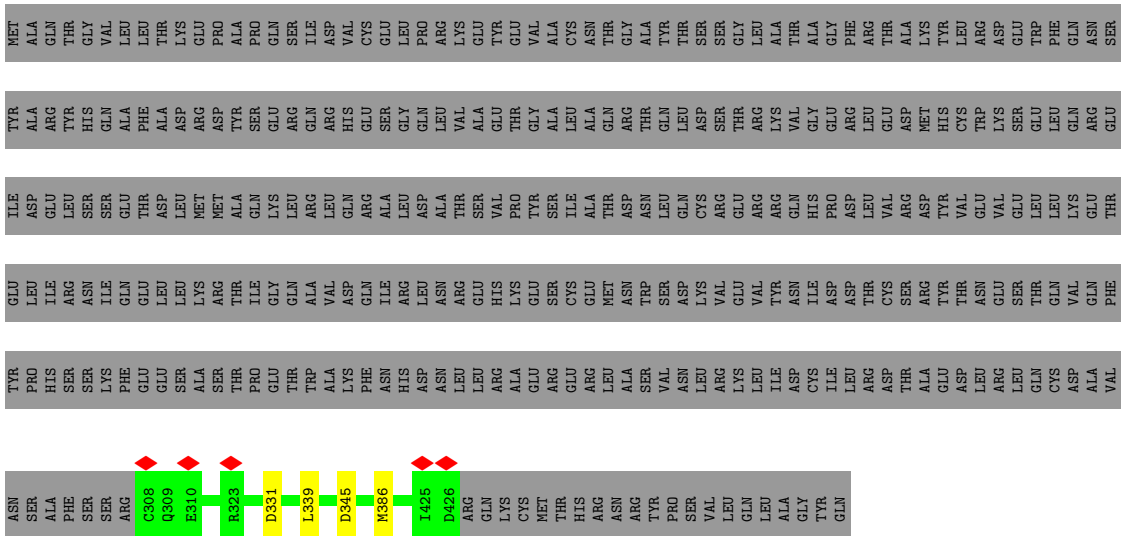
Chain D:  16% 84%



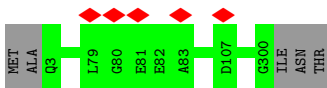
• Molecule 14: Tektin-4



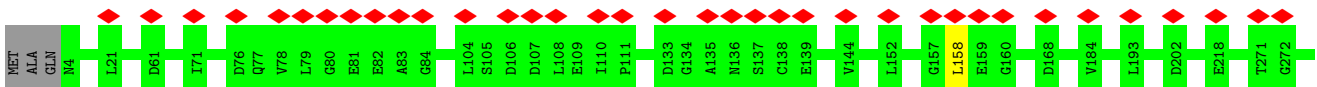
• Molecule 14: Tektin-4

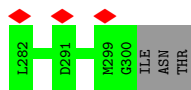


• Molecule 15: Cilia- and flagella-associated protein 161

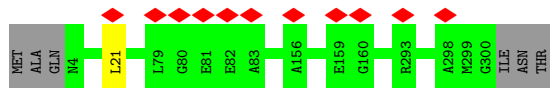


• Molecule 15: Cilia- and flagella-associated protein 161

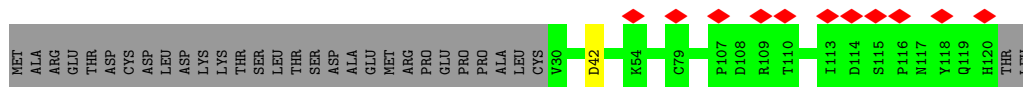




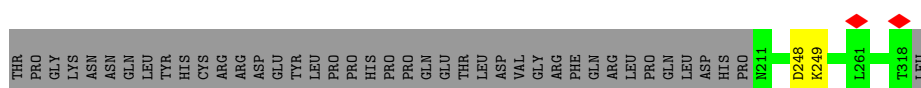
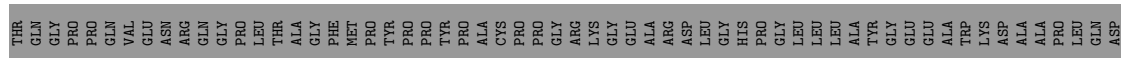
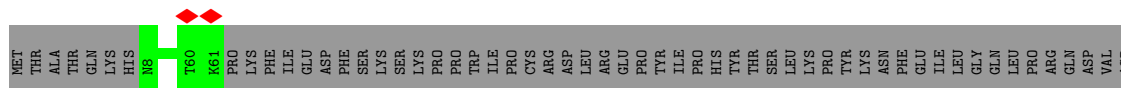
• Molecule 15: Cilia- and flagella-associated protein 161



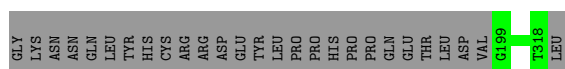
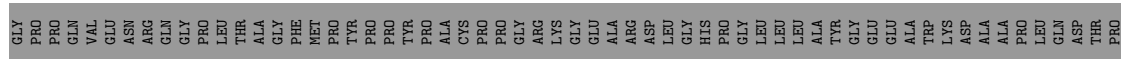
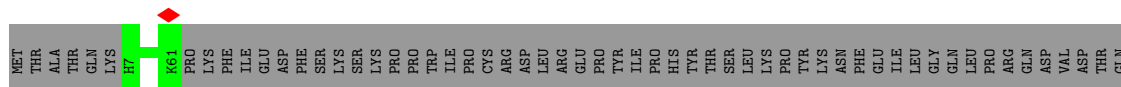
• Molecule 16: Piercer of microtubule wall 2 protein



• Molecule 17: Protein FAM166A

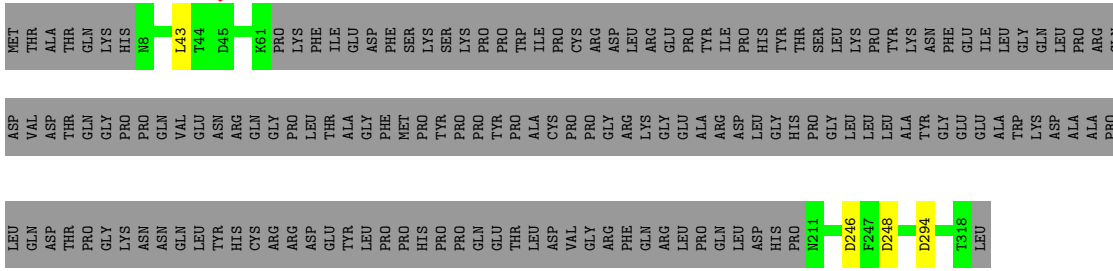


• Molecule 17: Protein FAM166A



• Molecule 17: Protein FAM166A

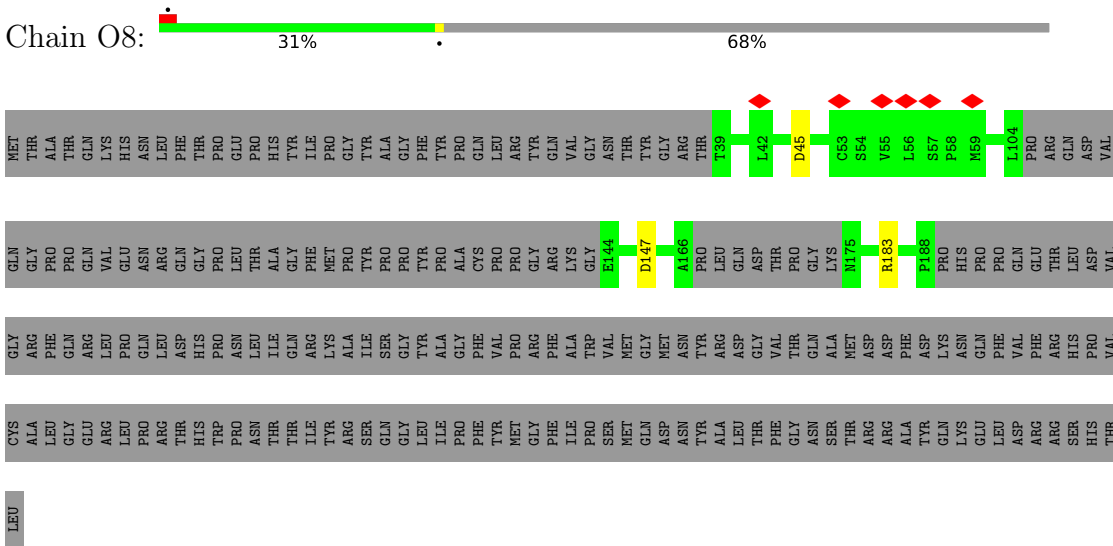




• Molecule 17: Protein FAM166A



• Molecule 17: Protein FAM166A



• Molecule 17: Protein FAM166A

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

- Molecule 18: Cilia- and flagella-associated protein 68

Chain I1: 56% 43%

MET ALA VAL SER PRO CYS SER ASN HIS THR TYR ALA LEU THR PHE ARG GLN ASN ASN ASN VAL CYS TYR TYR ASP ASP ARG ARG ARG ARG ARG HIS THR LEU W54 K94 P87 S147

GLU PRO GLN SER THR HIS TYR SER CYS CYS VAL THR ASP PRO SER VAL VAL GLN SER

- Molecule 19: Cilia and flagella-associated protein 77

Chain J1: 5% 39% 61%

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

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

ILE ALA MET ASN ARG GLY ALA VAL THR ALA GLU ASN ASN LEU TYR ARG GLU ASN ASP ILE ILE ASN ASP GLN GLY ARG ARG GLN LYS GLU PRO PRO ILE THR TRP ASN PRO ASN MET MET PHE THR GLY ILE R172 L190 A201 I202 K203 M204 E205

K206 K208 K209 V210 L211 L212 G213 K214 H282 PRO

- Molecule 19: Cilia and flagella-associated protein 77

Chain J2: 7% 86% 13%

MET PRO ASP PRO ALA LYS PRO GLY LYS ASP LEU THR ALA TRP LYS LYS LYS GLN PRO VAL VAL HIS ARG T24 V25 S26 L36 D40 I41 R42 K65 A66 R72 Y85 G94 K107 Q108 Q109 P110 T111 C112 M150 D151 Q152 E153 ASP ARG ARG GLN LYS GLU PRO

PRO PRO ILE PRO N166 Y187 M204 I211 L212 G213 L232 H282 PRO

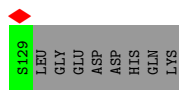
- Molecule 19: Cilia and flagella-associated protein 77

Chain J3: 86% 13%

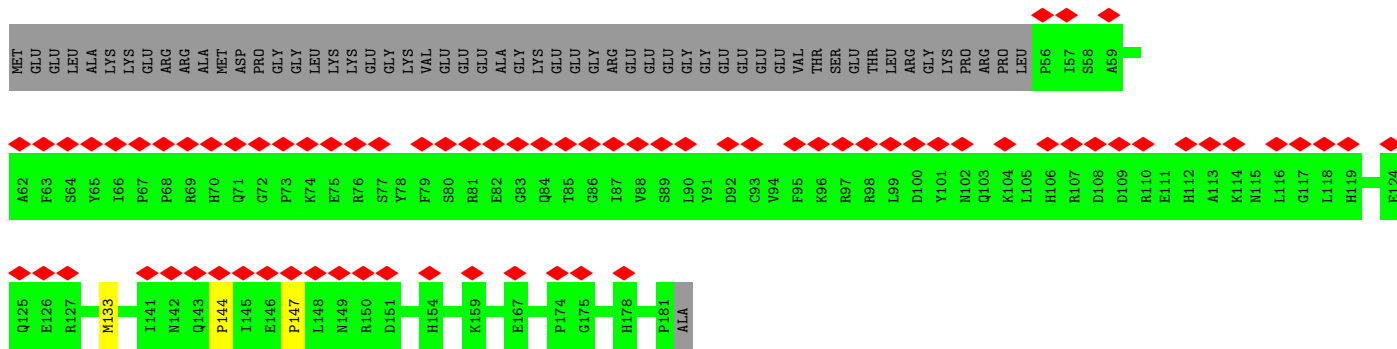
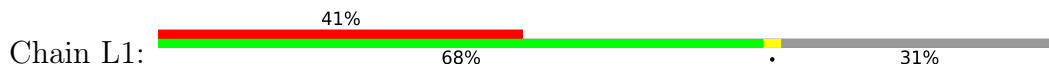
MET PRO ASP PRO ALA LYS PRO GLY LYS ASP LEU THR ALA TRP LYS LYS LYS GLN PRO VAL VAL HIS ARG T24 I41 D55 L66 L87 E153 ASP ARG ARG GLN LYS GLU PRO PRO PRO PRO PRO PRO M166 F169 R172 K207 V210 H282 PRO

- Molecule 19: Cilia and flagella-associated protein 77

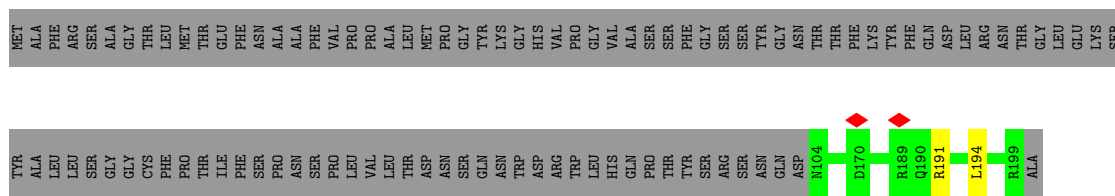
Chain J4: 5% 86% 13%



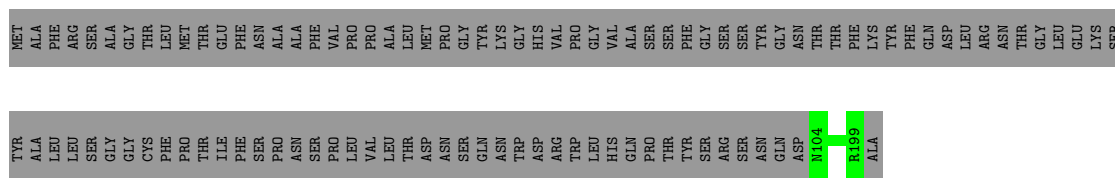
• Molecule 21: Cilia- and flagella-associated protein 90



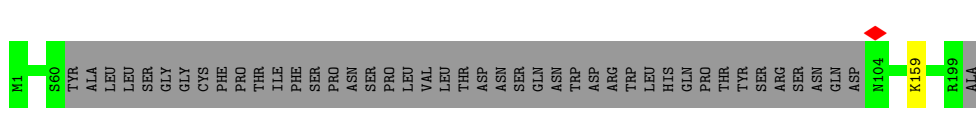
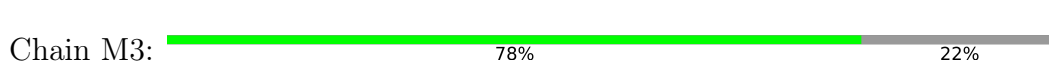
• Molecule 22: Protein FAM166C



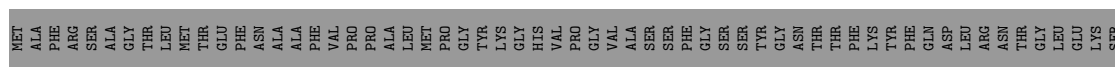
• Molecule 22: Protein FAM166C

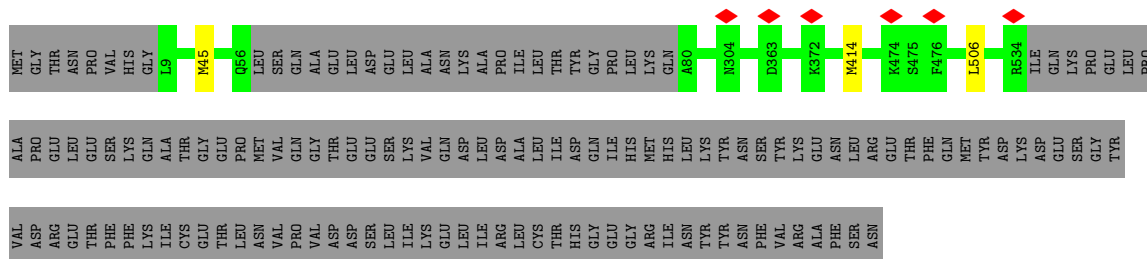


• Molecule 22: Protein FAM166C

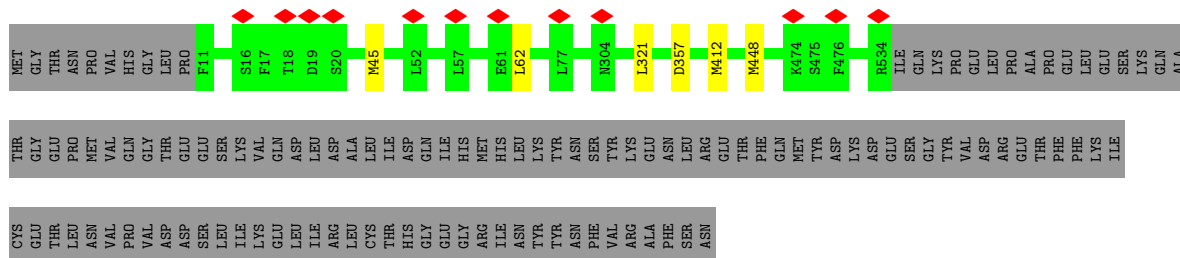
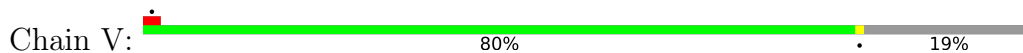


• Molecule 22: Protein FAM166C

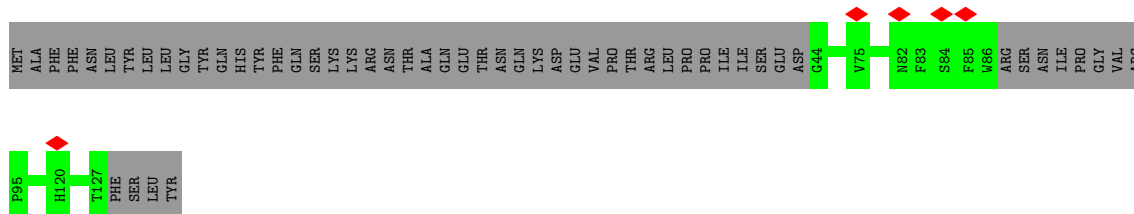




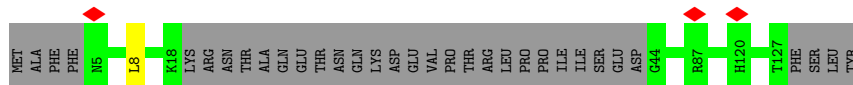
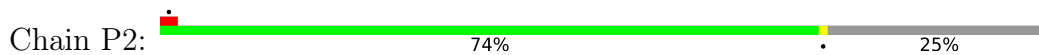
• Molecule 25: EF-hand domain-containing protein 1



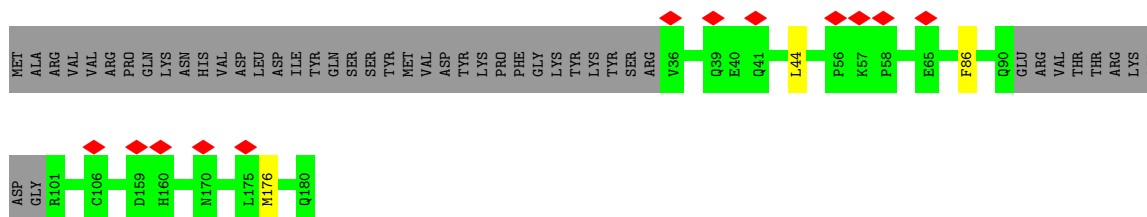
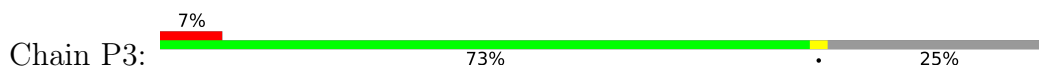
• Molecule 26: Testis expressed 49



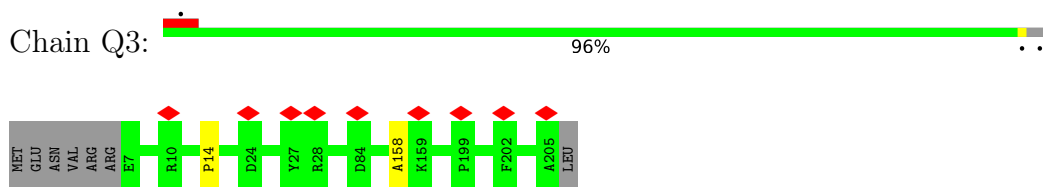
• Molecule 26: Testis expressed 49



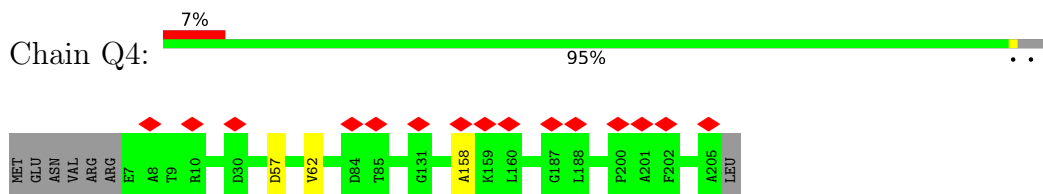
• Molecule 27: Testis-expressed sequence 37 protein



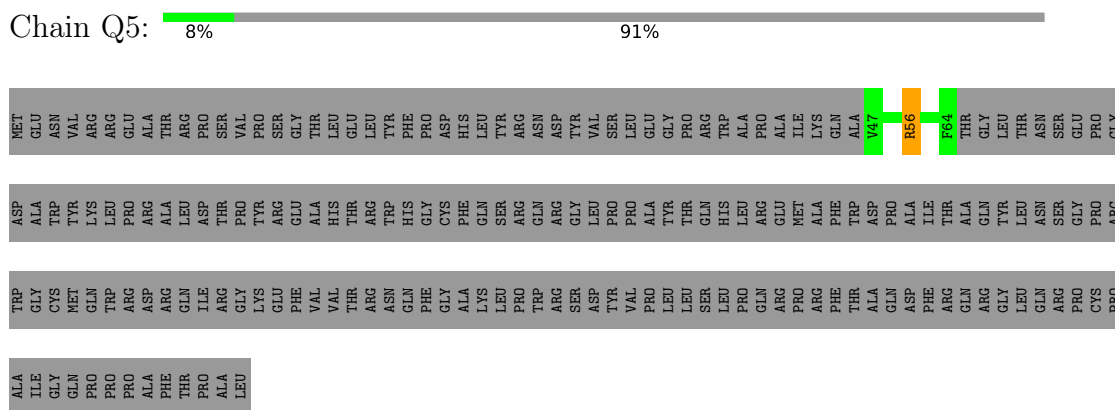
• Molecule 28: Tektin bundle-interacting protein 1



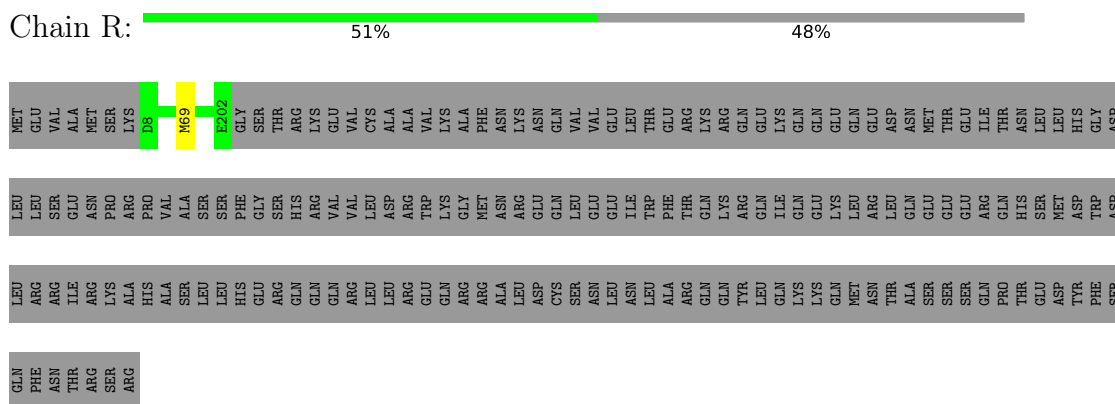
• Molecule 28: Tektin bundle-interacting protein 1



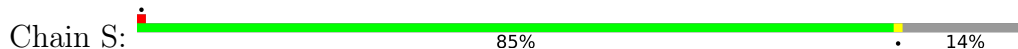
• Molecule 28: Tektin bundle-interacting protein 1

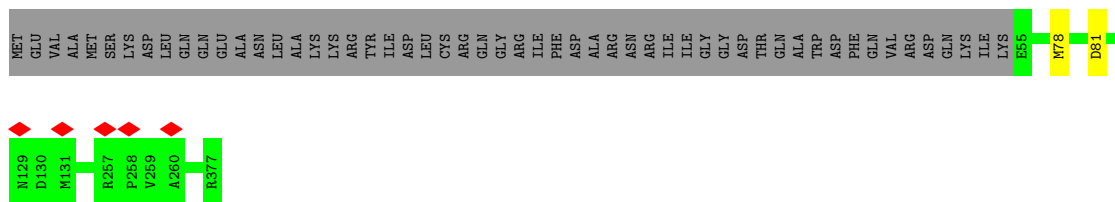


• Molecule 29: RIB43A-like with coiled-coils protein 2

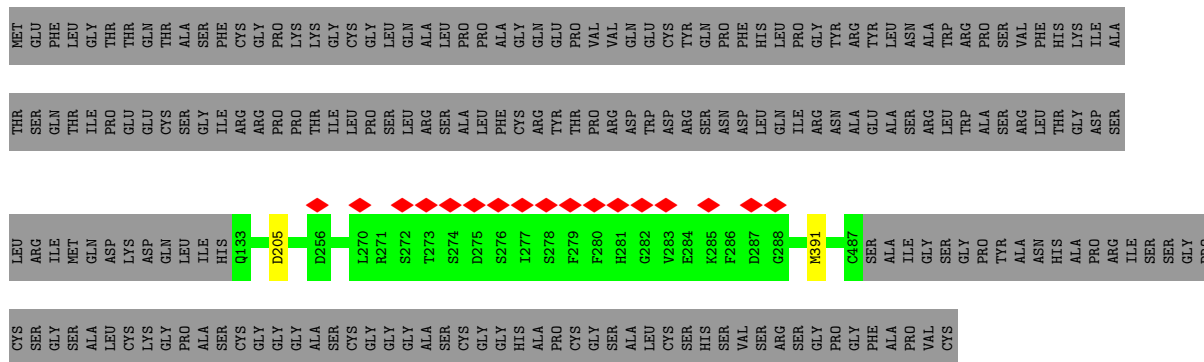


• Molecule 29: RIB43A-like with coiled-coils protein 2

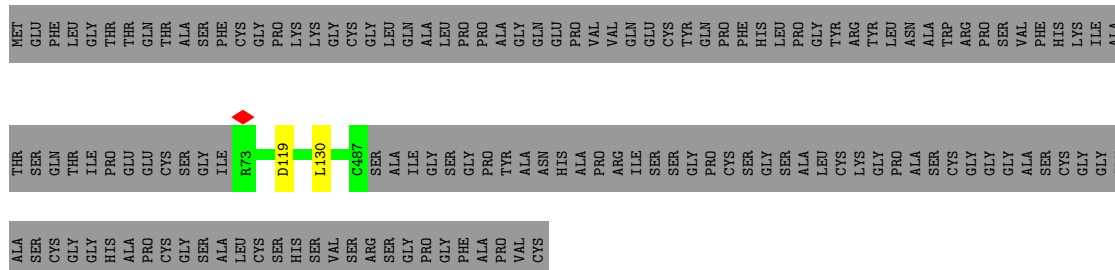
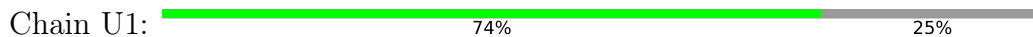




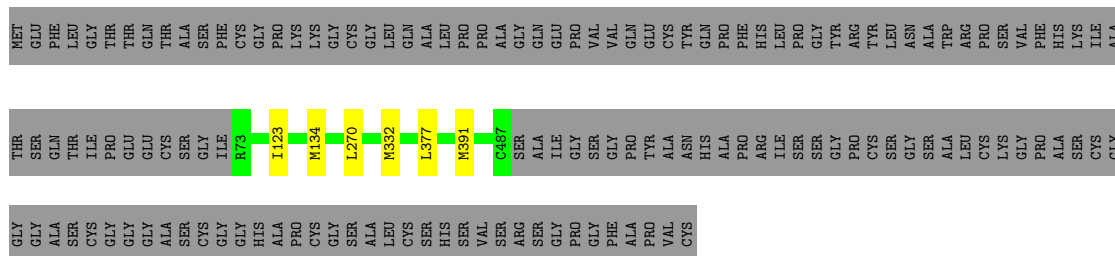
• Molecule 30: Tektin-5



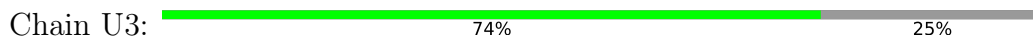
• Molecule 30: Tektin-5

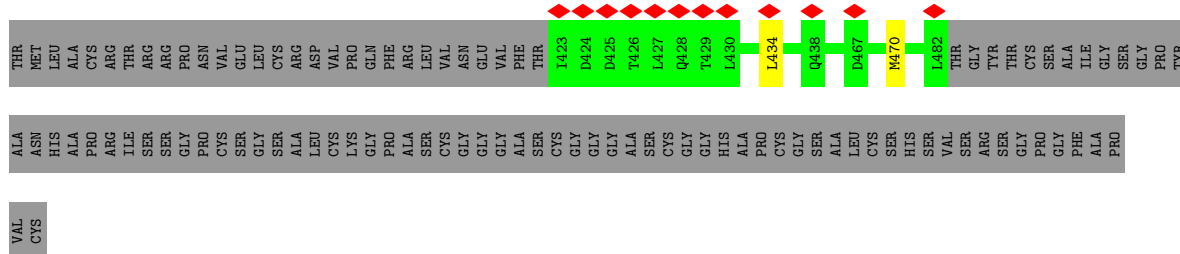


• Molecule 30: Tektin-5

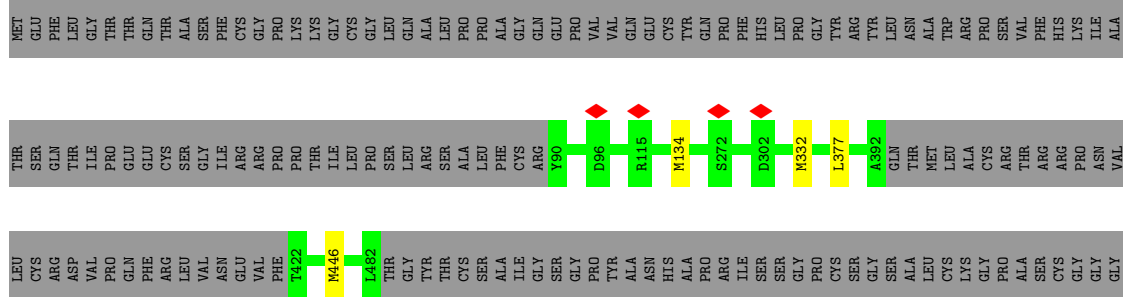


• Molecule 30: Tektin-5

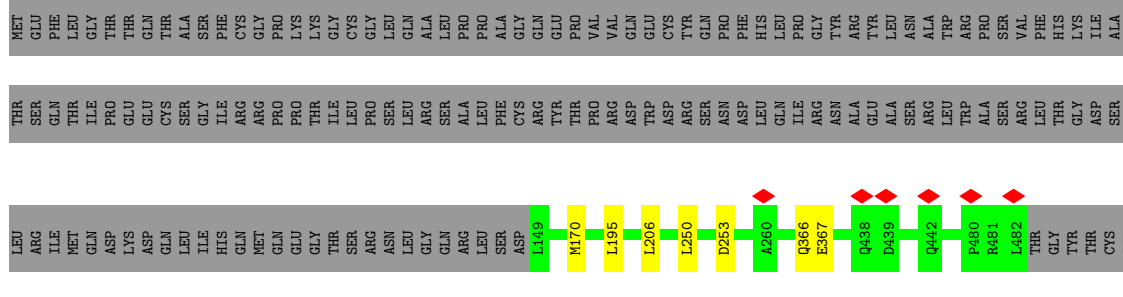




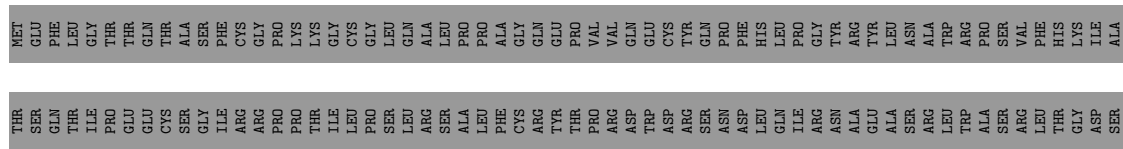
• Molecule 30: Tektin-5

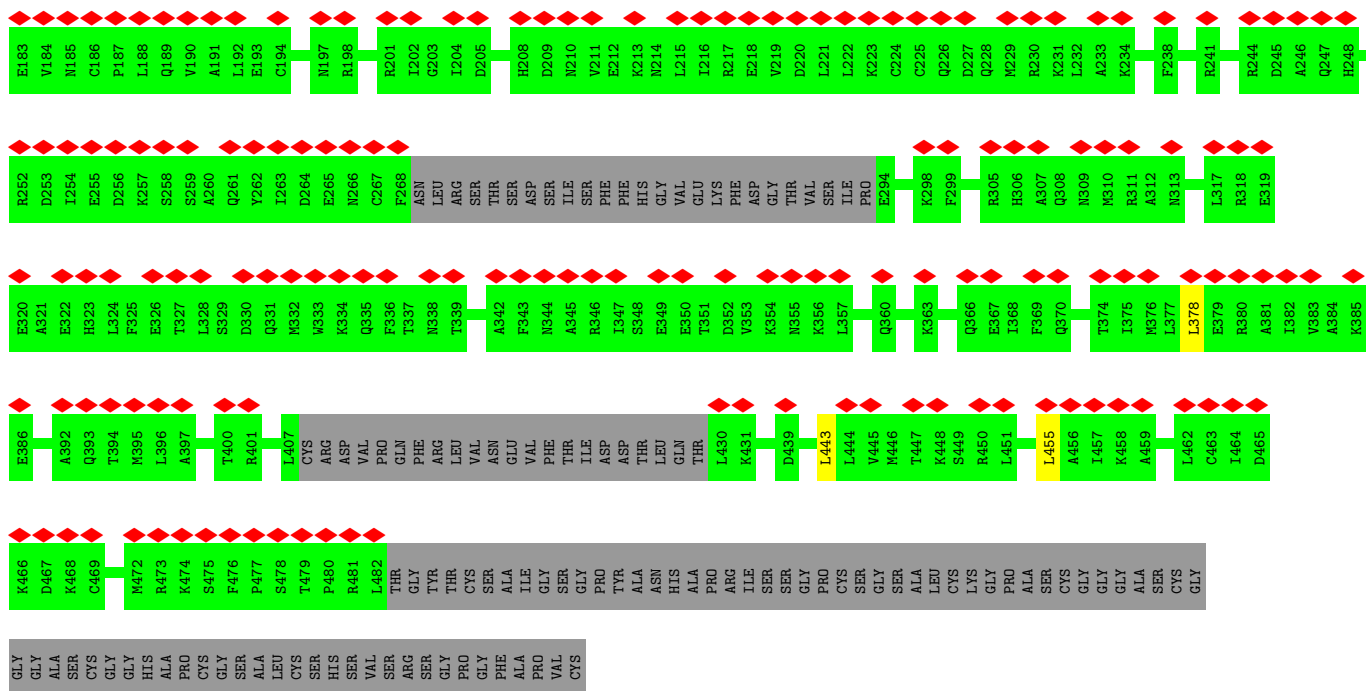


• Molecule 30: Tektin-5

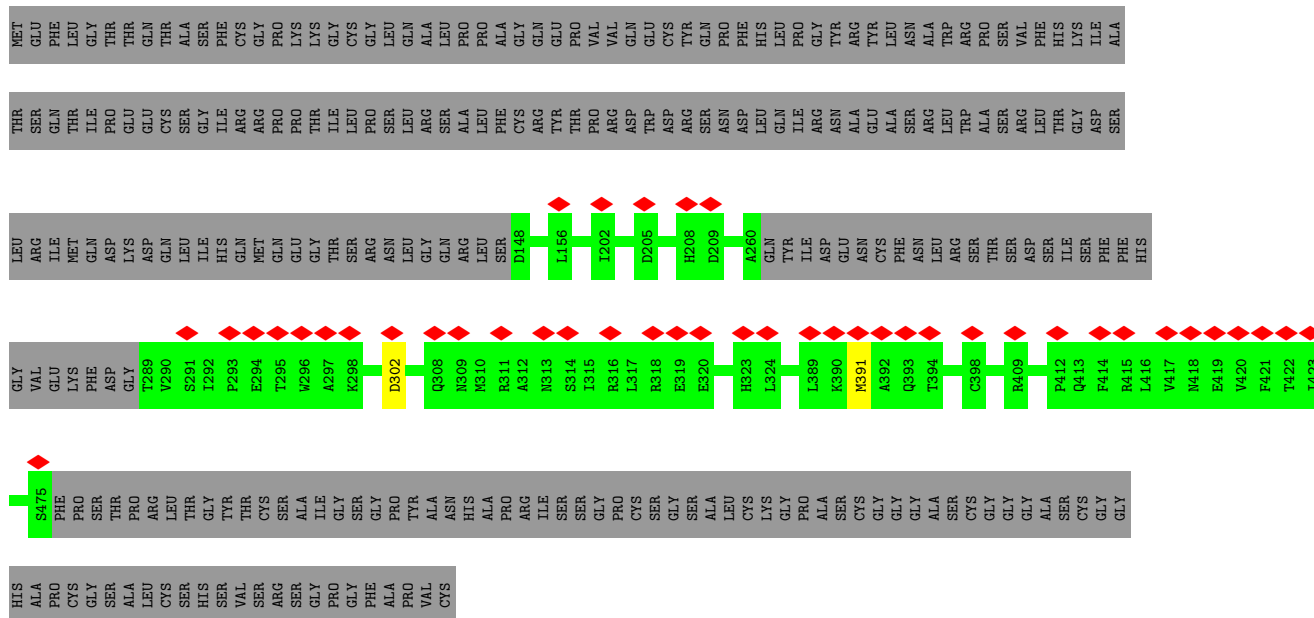


• Molecule 30: Tektin-5

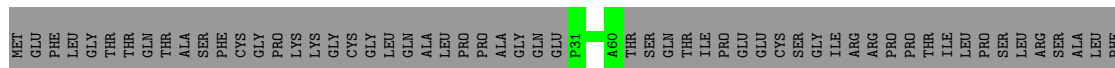


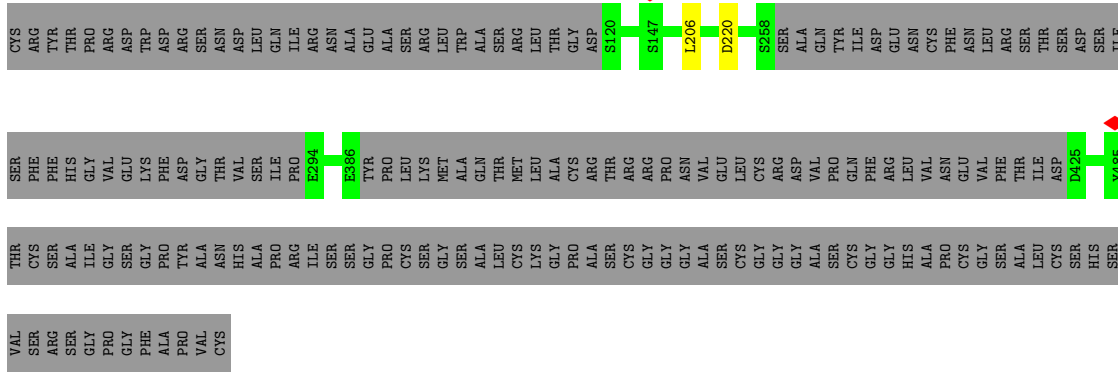


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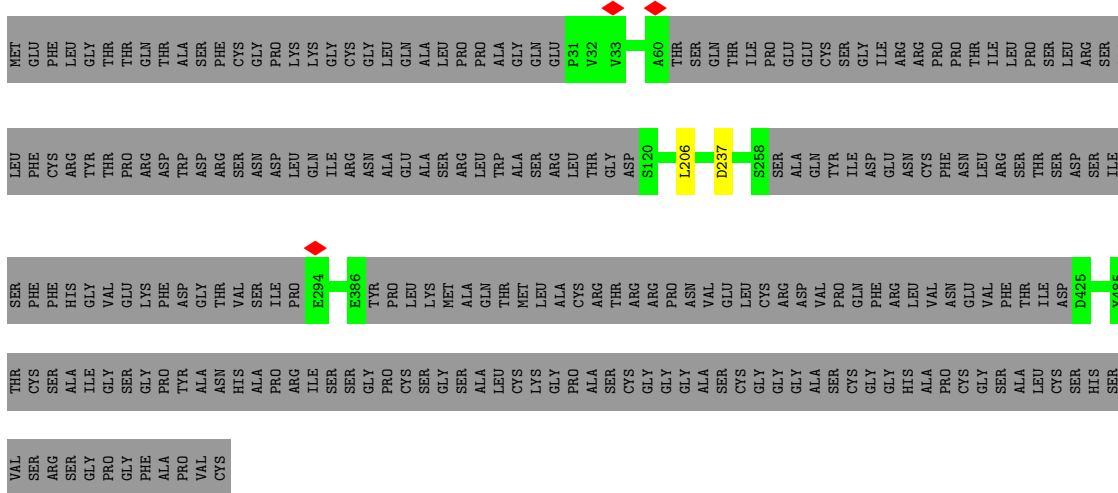


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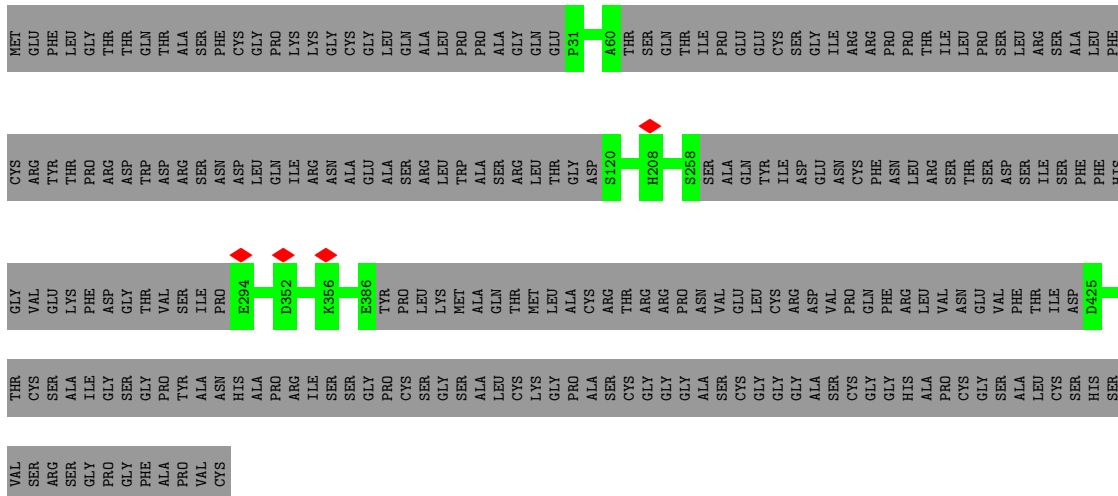




• Molecule 30: Tektin-5

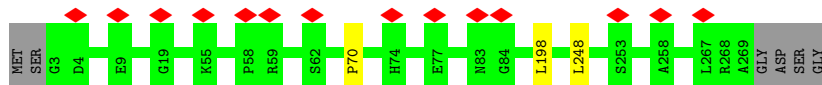


• Molecule 30: Tektin-5

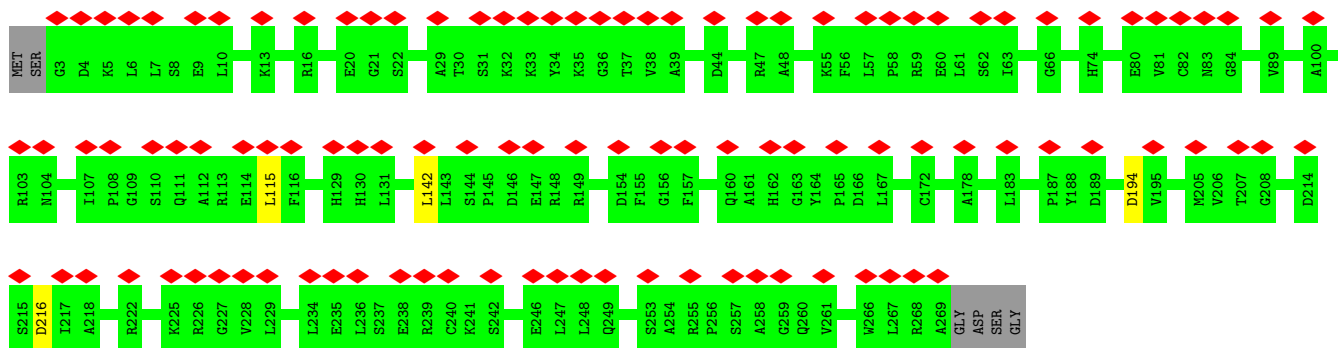
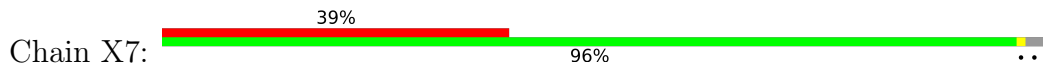


SER VAL ASP PRO PHE TYR ARG ASP MET PRO HIS SER SER ARG TYR PRO ALA SER SER

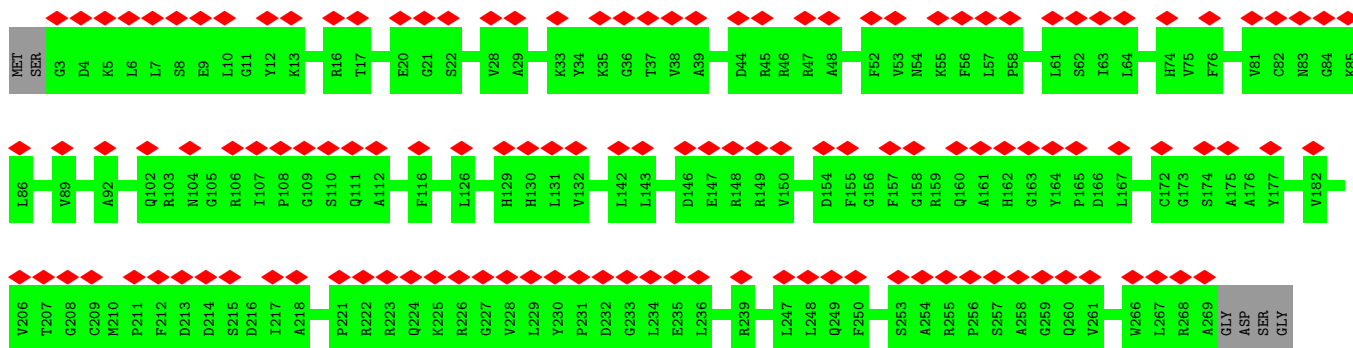
- Molecule 34: Testis-specific serine/threonine-protein kinase 6



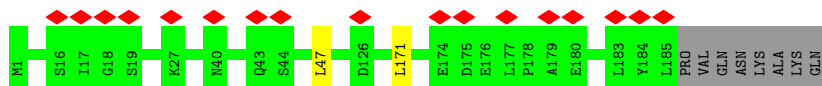
- Molecule 34: Testis-specific serine/threonine-protein kinase 6



- Molecule 34: Testis-specific serine/threonine-protein kinase 6

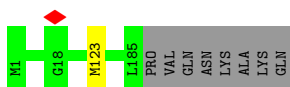


- Molecule 35: Cilia- and flagella-associated protein 20



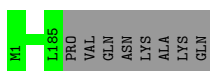
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XB:  95%



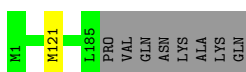
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XC:  96%



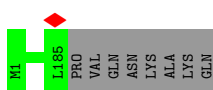
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XD:  95%



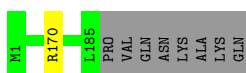
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XE:  96%



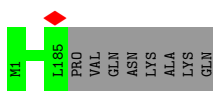
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XF:  95%



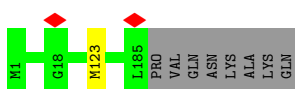
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XG:  96%

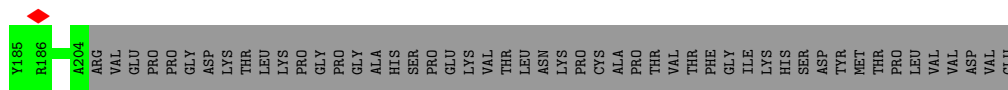


- Molecule 35: Cilia- and flagella-associated protein 20

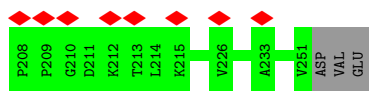
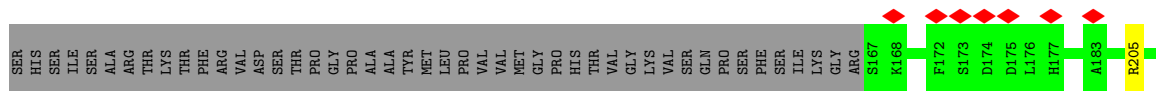
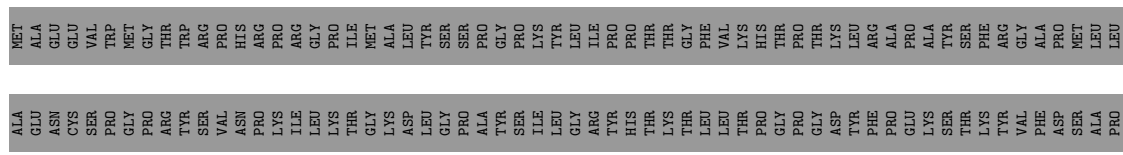
Chain XH:  95%



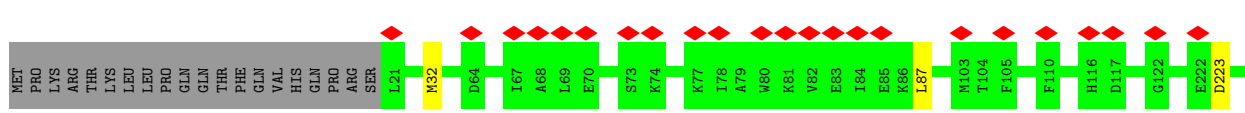
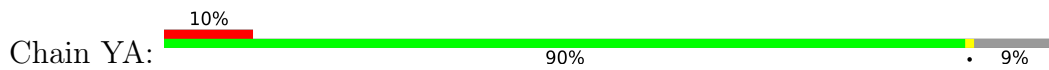
- Molecule 36: Outer dense fiber protein 3



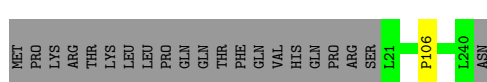
• Molecule 36: Outer dense fiber protein 3



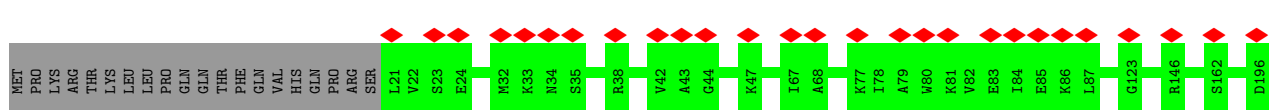
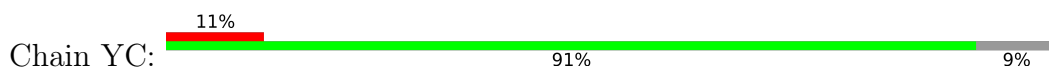
• Molecule 37: Parkin coregulated gene protein homolog



• Molecule 37: Parkin coregulated gene protein homolog

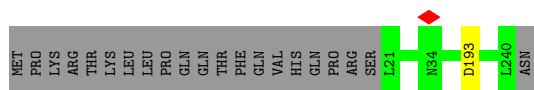


• Molecule 37: Parkin coregulated gene protein homolog



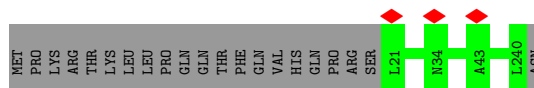
• Molecule 37: Parkin coregulated gene protein homolog

Chain YD:  91% 9%



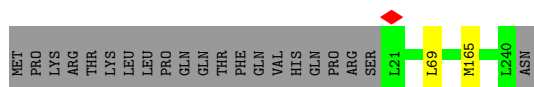
- Molecule 37: Parkin coregulated gene protein homolog

Chain YE:  91% 9%



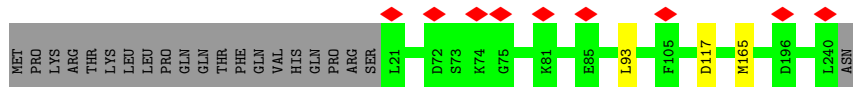
- Molecule 37: Parkin coregulated gene protein homolog

Chain YF:  90% 9%



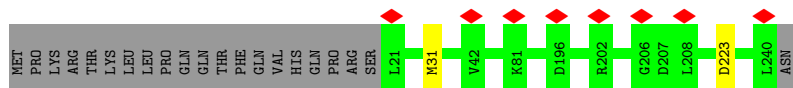
- Molecule 37: Parkin coregulated gene protein homolog

Chain YG:  90% 9%



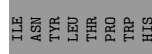
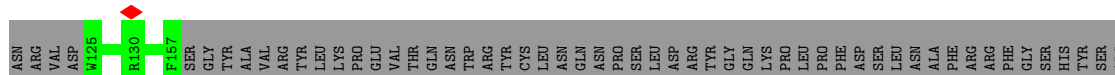
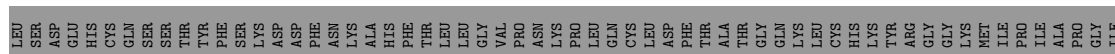
- Molecule 37: Parkin coregulated gene protein homolog

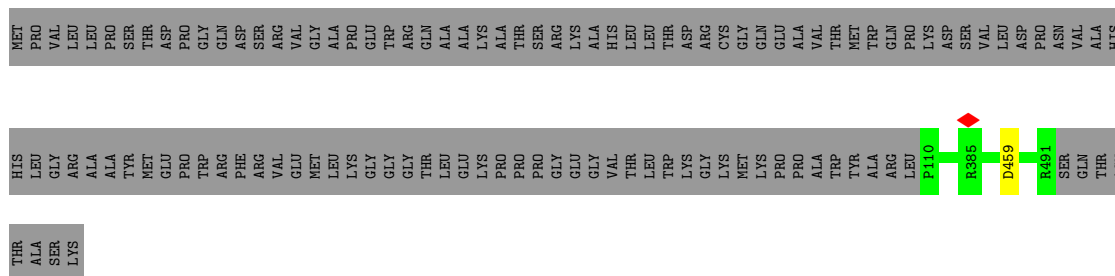
Chain YH:  90% 9%



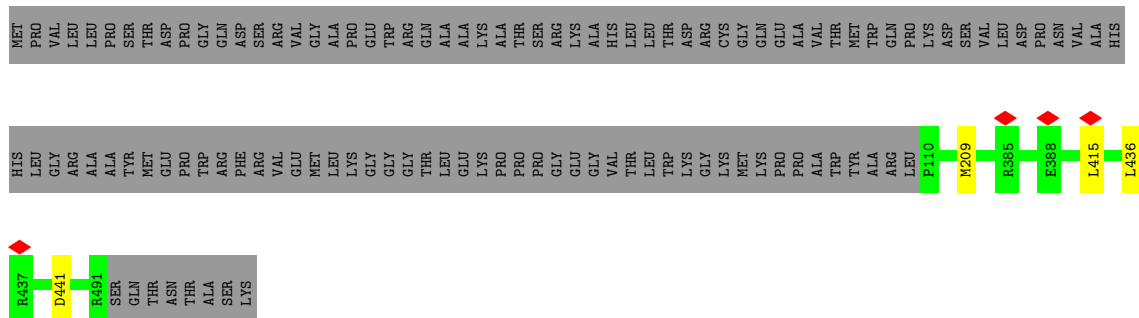
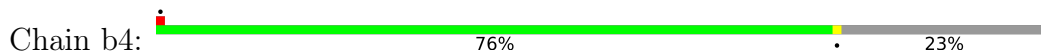
- Molecule 38: Testis, prostate and placenta-expressed protein

Chain Z1:  15% 85%

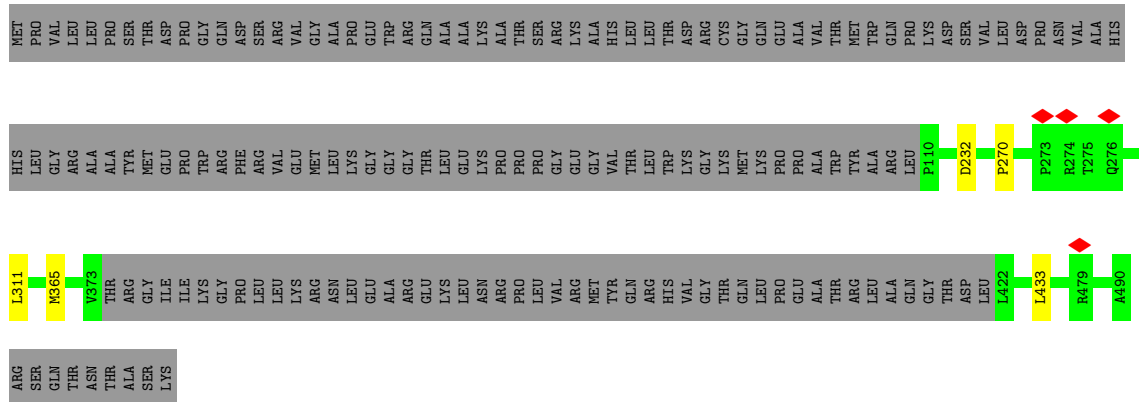




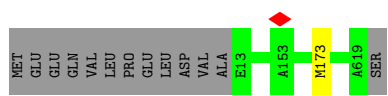
• Molecule 41: Coiled-coil domain-containing protein 105



• Molecule 41: Coiled-coil domain-containing protein 105

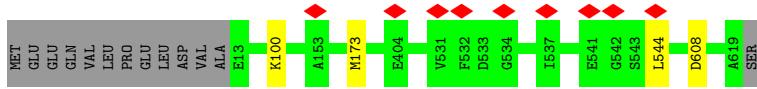


• Molecule 42: Cilia- and flagella-associated protein 52

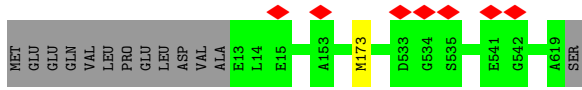


• Molecule 42: Cilia- and flagella-associated protein 52

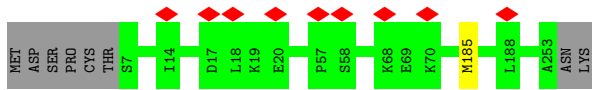




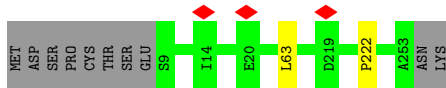
- Molecule 42: Cilia- and flagella-associated protein 52



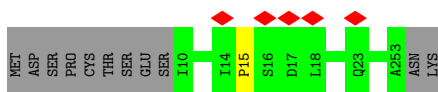
- Molecule 43: Enkurin



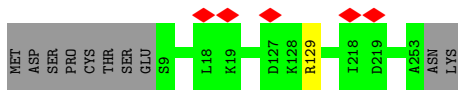
- Molecule 43: Enkurin



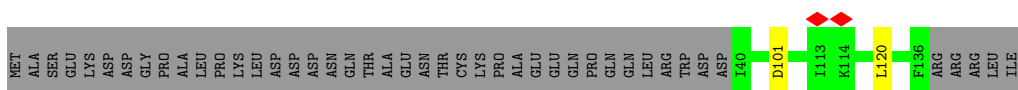
- Molecule 43: Enkurin



- Molecule 43: Enkurin

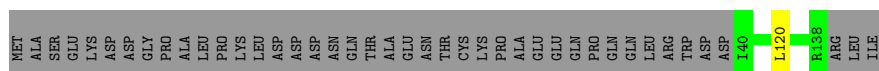


- Molecule 44: Testis-expressed protein 43



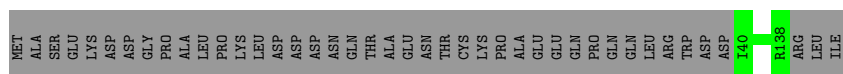
- Molecule 44: Testis-expressed protein 43

Chain h2:  70% 30%



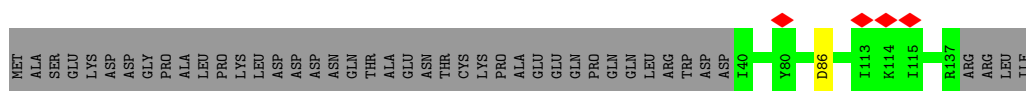
• Molecule 44: Testis-expressed protein 43

Chain h3:  70% 30%



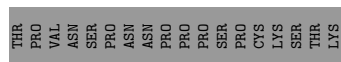
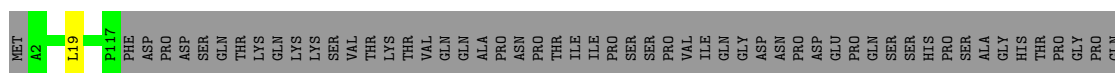
• Molecule 44: Testis-expressed protein 43

Chain h4:  69% 30%



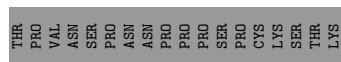
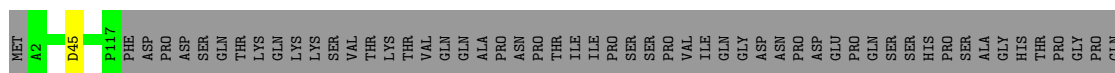
• Molecule 45: Protein Flattop

Chain i1:  61% 39%



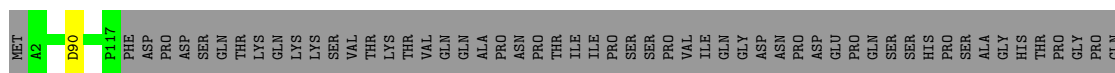
• Molecule 45: Protein Flattop

Chain l:  61% 39%

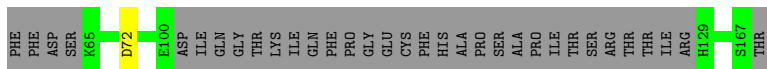


• Molecule 45: Protein Flattop

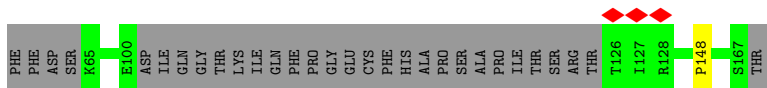
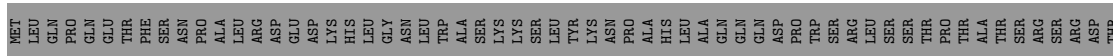
Chain m:  61% 39%



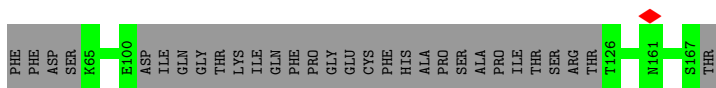
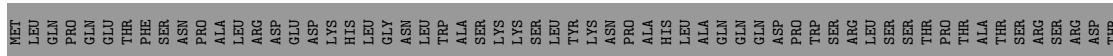
• Molecule 45: Protein Flattop



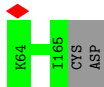
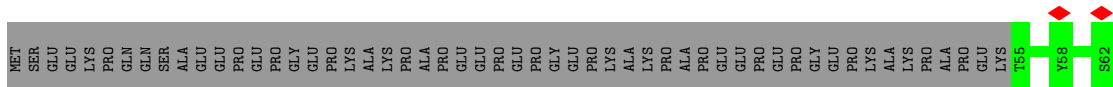
- Molecule 48: Cilia- and flagella-associated protein 276



- Molecule 48: Cilia- and flagella-associated protein 276



- Molecule 49: Piercer of microtubule wall 1 protein



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	95290	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 ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2600	Depositor
Magnification	81000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	2.821	Depositor
Minimum map value	0.000	Depositor
Average map value	0.073	Depositor
Map value standard deviation	0.176	Depositor
Recommended contour level	0.3	Depositor
Map size (Å)	576.11, 463.062, 869.60004	wwPDB
Map dimensions	530, 426, 800	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.087, 1.087, 1.087	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, GTP, GDP

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	0.39	0/685	0.78	0/918
1	7	0.35	0/1206	0.72	2/1629 (0.1%)
2	1	0.33	0/3827	0.59	0/5169
2	2	0.37	0/2224	0.65	0/3010
3	3	0.35	0/4056	0.64	7/5386 (0.1%)
3	4	0.33	0/1237	0.67	1/1646 (0.1%)
4	5	0.31	0/3038	0.58	2/4102 (0.0%)
4	6	0.29	0/3038	0.57	0/4102
4	j1	0.34	0/3038	0.67	2/4102 (0.0%)
5	8	0.33	0/1523	0.75	4/2073 (0.2%)
6	A	0.35	0/819	0.74	2/1097 (0.2%)
6	N1	0.44	0/819	0.71	1/1097 (0.1%)
7	A0	0.34	0/449	0.61	0/605
7	A1	0.32	0/2965	0.55	0/3994
7	A2	0.34	0/3327	0.54	1/4483 (0.0%)
7	A3	0.36	0/3327	0.58	3/4483 (0.1%)
7	A4	0.34	0/3313	0.56	1/4465 (0.0%)
7	A5	0.36	0/1419	0.59	1/1910 (0.1%)
8	AA	0.27	0/3502	0.56	1/4755 (0.0%)
8	AC	0.30	0/3502	0.55	2/4755 (0.0%)
8	AE	0.35	0/3509	0.64	2/4765 (0.0%)
8	AG	0.37	1/3518 (0.0%)	0.59	1/4777 (0.0%)
8	AI	0.35	0/3509	0.64	6/4765 (0.1%)
8	AK	0.33	0/3496	0.56	1/4747 (0.0%)
8	AM	0.34	0/3509	0.60	1/4765 (0.0%)
8	AO	0.32	0/3509	0.60	1/4765 (0.0%)
8	BC	0.29	0/3451	0.54	0/4686
8	BE	0.34	0/3518	0.64	5/4777 (0.1%)
8	BG	0.32	0/3473	0.57	0/4716
8	BI	0.35	0/3518	0.61	3/4777 (0.1%)
8	BK	0.33	0/3467	0.60	3/4708 (0.1%)
8	BM	0.33	0/3502	0.63	6/4755 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	BO	0.33	0/3473	0.62	3/4716 (0.1%)
8	CC	0.31	0/3502	0.57	5/4755 (0.1%)
8	CE	0.30	0/3502	0.58	2/4755 (0.0%)
8	CG	0.30	0/3502	0.57	2/4755 (0.0%)
8	CI	0.32	0/3502	0.58	3/4755 (0.1%)
8	CK	0.32	0/3502	0.56	2/4755 (0.0%)
8	CM	0.34	0/3509	0.63	4/4765 (0.1%)
8	CO	0.29	0/3502	0.55	1/4755 (0.0%)
8	CQ	0.31	0/3488	0.59	0/4736
8	DC	0.32	0/3459	0.57	1/4697 (0.0%)
8	DE	0.29	0/3443	0.56	3/4675 (0.1%)
8	DG	0.31	0/3443	0.54	0/4675
8	DI	0.31	0/3451	0.57	1/4686 (0.0%)
8	DK	0.29	0/3450	0.52	0/4685
8	DM	0.29	0/3457	0.54	0/4694
8	DO	0.28	0/3449	0.55	2/4683 (0.0%)
8	DQ	0.27	0/3437	0.56	2/4667 (0.0%)
8	EA	0.32	1/3502 (0.0%)	0.58	1/4755 (0.0%)
8	EC	0.28	0/3496	0.55	1/4747 (0.0%)
8	EE	0.27	0/3502	0.52	0/4755
8	EG	0.28	0/3502	0.55	1/4755 (0.0%)
8	EI	0.30	0/3502	0.56	1/4755 (0.0%)
8	EK	0.30	0/3502	0.54	0/4755
8	EM	0.27	0/3502	0.52	0/4755
8	EO	0.28	0/3488	0.57	1/4736 (0.0%)
8	FA	0.32	0/3443	0.62	4/4675 (0.1%)
8	FC	0.30	0/3443	0.58	1/4675 (0.0%)
8	FE	0.27	0/3443	0.53	0/4675
8	FG	0.30	0/3427	0.60	3/4652 (0.1%)
8	FI	0.33	0/3443	0.57	3/4675 (0.1%)
8	FK	0.27	0/3450	0.55	3/4685 (0.1%)
8	FM	0.28	0/3443	0.56	1/4675 (0.0%)
8	FO	0.28	0/3432	0.59	2/4660 (0.0%)
8	GA	0.27	0/3445	0.55	3/4678 (0.1%)
8	GC	0.30	0/3450	0.60	2/4685 (0.0%)
8	GE	0.33	0/3450	0.62	3/4685 (0.1%)
8	GG	0.34	0/3509	0.62	3/4765 (0.1%)
8	GI	0.30	0/3464	0.58	1/4704 (0.0%)
8	GK	0.31	0/3464	0.61	2/4704 (0.0%)
8	GM	0.31	0/3472	0.61	2/4715 (0.0%)
8	GO	0.30	0/3472	0.63	4/4715 (0.1%)
8	HA	0.30	0/3448	0.63	6/4682 (0.1%)
8	HC	0.33	0/3466	0.65	2/4706 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	HE	0.32	0/3509	0.64	3/4765 (0.1%)
8	HG	0.36	1/3509 (0.0%)	0.60	1/4765 (0.0%)
8	HI	0.33	0/3509	0.59	1/4765 (0.0%)
8	HK	0.32	0/3443	0.64	4/4675 (0.1%)
8	HM	0.36	0/3466	0.66	3/4706 (0.1%)
8	HO	0.34	0/3458	0.66	2/4696 (0.0%)
8	IA	0.30	0/3457	0.64	5/4694 (0.1%)
8	IC	0.36	2/3509 (0.1%)	0.65	1/4765 (0.0%)
8	IE	0.33	0/3518	0.67	7/4777 (0.1%)
8	IG	0.43	2/3464 (0.1%)	0.68	4/4704 (0.1%)
8	II	0.38	0/3476	0.62	1/4720 (0.0%)
8	IK	0.38	1/3488 (0.0%)	0.64	2/4736 (0.0%)
8	IM	0.39	1/3468 (0.0%)	0.69	8/4709 (0.2%)
8	IO	0.35	0/3509	0.67	2/4765 (0.0%)
8	JC	0.30	0/3465	0.59	2/4704 (0.0%)
8	JE	0.35	0/3502	0.67	5/4755 (0.1%)
8	JG	0.33	0/3437	0.60	2/4667 (0.0%)
8	JI	0.37	0/3467	0.67	4/4708 (0.1%)
8	JK	0.33	0/3458	0.60	1/4696 (0.0%)
8	JM	0.32	0/3443	0.59	3/4675 (0.1%)
8	JO	0.35	0/3456	0.65	1/4693 (0.0%)
8	JQ	0.31	0/3480	0.64	2/4725 (0.0%)
8	KA	0.31	0/3457	0.58	2/4694 (0.0%)
8	KC	0.32	0/3466	0.59	3/4705 (0.1%)
8	KE	0.34	0/3474	0.60	1/4716 (0.0%)
8	KG	0.33	0/3457	0.58	3/4694 (0.1%)
8	KI	0.35	0/3451	0.59	1/4686 (0.0%)
8	KK	0.30	0/3449	0.57	0/4683
8	KM	0.33	0/3457	0.64	5/4694 (0.1%)
8	KO	0.34	0/3466	0.62	2/4705 (0.0%)
8	LA	0.31	0/3473	0.61	3/4716 (0.1%)
8	LC	0.34	0/3451	0.60	3/4686 (0.1%)
8	LE	0.37	1/3465 (0.0%)	0.61	5/4705 (0.1%)
8	LG	0.33	0/3518	0.57	2/4777 (0.0%)
8	LI	0.34	0/3518	0.58	2/4777 (0.0%)
8	LK	0.33	0/3518	0.58	2/4777 (0.0%)
8	LM	0.30	0/3481	0.57	2/4727 (0.0%)
8	LO	0.32	0/3443	0.59	2/4675 (0.0%)
8	MA	0.27	0/3451	0.57	3/4686 (0.1%)
8	MC	0.32	0/3451	0.56	1/4686 (0.0%)
8	ME	0.32	0/3502	0.56	1/4755 (0.0%)
8	MG	0.32	0/3457	0.57	3/4694 (0.1%)
8	MI	0.34	0/3455	0.57	1/4691 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	MK	0.37	0/3467	0.59	3/4708 (0.1%)
8	MM	0.31	0/3457	0.57	2/4694 (0.0%)
8	MO	0.29	0/3429	0.58	3/4656 (0.1%)
8	NA	0.28	0/3430	0.58	3/4657 (0.1%)
8	NC	0.27	0/3429	0.54	0/4656
8	NE	0.30	0/3471	0.58	2/4713 (0.0%)
8	NG	0.32	0/3459	0.61	1/4697 (0.0%)
8	NI	0.33	0/3450	0.60	2/4685 (0.0%)
8	NK	0.34	0/3450	0.69	4/4685 (0.1%)
8	NM	0.34	1/3459 (0.0%)	0.63	3/4697 (0.1%)
8	NO	0.31	0/3459	0.63	4/4697 (0.1%)
8	OA	0.28	0/3451	0.58	2/4686 (0.0%)
8	OC	0.28	0/3443	0.59	3/4675 (0.1%)
8	OE	0.31	0/3449	0.60	3/4683 (0.1%)
8	OG	0.30	0/3443	0.58	3/4675 (0.1%)
8	OI	0.33	1/3437 (0.0%)	0.58	1/4667 (0.0%)
8	OK	0.32	0/3451	0.59	0/4686
8	OM	0.31	1/3429 (0.0%)	0.58	1/4656 (0.0%)
8	OO	0.31	0/3406	0.62	0/4624
8	PC	0.33	1/3429 (0.0%)	0.61	4/4656 (0.1%)
8	PE	0.29	0/3406	0.57	2/4625 (0.0%)
8	PG	0.28	0/3443	0.57	1/4675 (0.0%)
8	PI	0.33	0/3443	0.60	2/4675 (0.0%)
8	PK	0.32	1/3443 (0.0%)	0.62	4/4674 (0.1%)
8	PM	0.31	0/3457	0.60	2/4694 (0.0%)
8	PO	0.29	0/3443	0.60	3/4675 (0.1%)
8	QC	0.28	0/3429	0.59	1/4656 (0.0%)
8	QE	0.33	1/3443 (0.0%)	0.60	2/4675 (0.0%)
8	QG	0.29	0/3429	0.55	0/4656
8	QI	0.29	0/3421	0.58	0/4644
8	QK	0.28	0/3422	0.56	1/4646 (0.0%)
8	QM	0.30	0/3414	0.61	2/4634 (0.0%)
8	QO	0.29	0/3422	0.59	2/4646 (0.0%)
8	RC	0.27	0/3429	0.56	1/4656 (0.0%)
8	RE	0.28	0/3429	0.57	1/4655 (0.0%)
8	RG	0.27	0/3429	0.57	3/4656 (0.1%)
8	RI	0.29	0/3437	0.58	4/4667 (0.1%)
8	RK	0.30	0/3445	0.58	2/4678 (0.0%)
8	RM	0.33	1/3437 (0.0%)	0.59	3/4666 (0.1%)
8	RO	0.30	0/3429	0.61	4/4655 (0.1%)
8	SA	0.27	0/3436	0.58	4/4665 (0.1%)
8	SC	0.34	1/3429 (0.0%)	0.64	8/4656 (0.2%)
8	SE	0.29	0/3429	0.59	1/4656 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	SG	0.29	0/3422	0.60	5/4646 (0.1%)
8	SI	0.37	2/3437 (0.1%)	0.69	7/4667 (0.1%)
8	SK	0.29	0/3422	0.58	2/4646 (0.0%)
8	SM	0.30	0/3410	0.64	6/4630 (0.1%)
8	TA	0.31	0/3419	0.66	9/4642 (0.2%)
8	TC	0.31	0/3414	0.63	2/4635 (0.0%)
8	TE	0.31	0/3434	0.62	4/4662 (0.1%)
8	TG	0.27	0/3418	0.56	1/4641 (0.0%)
8	TI	0.32	0/3426	0.58	2/4652 (0.0%)
8	TK	0.27	0/3429	0.57	3/4656 (0.1%)
8	TM	0.29	0/3418	0.63	5/4641 (0.1%)
8	UA	0.30	0/3403	0.65	6/4619 (0.1%)
8	UC	0.28	0/3428	0.59	2/4654 (0.0%)
8	UE	0.28	0/3428	0.59	2/4654 (0.0%)
8	UG	0.27	0/3430	0.58	2/4657 (0.0%)
8	UI	0.30	0/3429	0.57	1/4656 (0.0%)
8	UK	0.28	0/3430	0.61	2/4657 (0.0%)
8	UM	0.30	0/3436	0.62	5/4665 (0.1%)
8	UO	0.28	0/3424	0.60	3/4649 (0.1%)
8	VA	0.28	0/3422	0.57	4/4646 (0.1%)
8	VC	0.28	0/3488	0.56	0/4736
8	VE	0.30	0/3435	0.59	4/4664 (0.1%)
8	VG	0.31	0/3488	0.64	6/4736 (0.1%)
8	VI	0.32	0/3437	0.66	4/4667 (0.1%)
8	VK	0.31	0/3496	0.60	4/4747 (0.1%)
8	VM	0.32	0/3435	0.61	4/4663 (0.1%)
8	VO	0.28	0/3481	0.58	3/4726 (0.1%)
8	WA	0.32	0/3481	0.61	5/4726 (0.1%)
8	WC	0.28	0/3502	0.59	2/4755 (0.0%)
8	WE	0.28	0/3459	0.60	3/4696 (0.1%)
8	WG	0.28	0/3496	0.57	2/4747 (0.0%)
8	WI	0.28	0/3502	0.55	0/4755
8	WK	0.29	0/3496	0.57	3/4747 (0.1%)
8	WM	0.28	0/3451	0.57	0/4686
8	WO	0.29	0/3435	0.61	6/4664 (0.1%)
9	AB	0.30	0/3466	0.58	1/4697 (0.0%)
9	AD	0.31	0/3488	0.59	1/4726 (0.0%)
9	AF	0.32	0/3448	0.56	0/4673
9	AH	0.34	0/3479	0.59	2/4714 (0.0%)
9	AJ	0.38	0/3479	0.64	5/4714 (0.1%)
9	AL	0.34	0/3479	0.60	1/4714 (0.0%)
9	AN	0.32	0/3479	0.62	3/4714 (0.1%)
9	AP	0.30	0/3466	0.57	0/4697

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	BB	0.28	0/3436	0.55	0/4656
9	BD	0.29	0/3448	0.57	2/4673 (0.0%)
9	BF	0.32	0/3443	0.57	1/4666 (0.0%)
9	BH	0.34	0/3448	0.59	3/4673 (0.1%)
9	BJ	0.33	0/3457	0.58	2/4685 (0.0%)
9	BL	0.32	0/3448	0.59	2/4673 (0.0%)
9	BN	0.31	0/3448	0.59	2/4673 (0.0%)
9	BP	0.28	0/3448	0.58	3/4673 (0.1%)
9	CB	0.31	0/3431	0.61	1/4649 (0.0%)
9	CD	0.29	0/3457	0.60	2/4685 (0.0%)
9	CF	0.30	0/3457	0.56	1/4685 (0.0%)
9	CH	0.30	0/3457	0.57	1/4685 (0.0%)
9	CJ	0.29	0/3436	0.55	2/4656 (0.0%)
9	CL	0.35	2/3443 (0.1%)	0.62	4/4666 (0.1%)
9	CN	0.29	0/3457	0.56	2/4685 (0.0%)
9	CP	0.29	0/3448	0.58	4/4673 (0.1%)
9	DB	0.28	0/3443	0.59	5/4666 (0.1%)
9	DD	0.29	0/3443	0.59	4/4666 (0.1%)
9	DF	0.28	0/3448	0.55	1/4673 (0.0%)
9	DH	0.30	1/3448 (0.0%)	0.56	2/4673 (0.0%)
9	DJ	0.29	0/3448	0.56	4/4673 (0.1%)
9	DL	0.28	0/3457	0.56	3/4685 (0.1%)
9	DN	0.28	0/3436	0.56	1/4656 (0.0%)
9	DP	0.27	0/3448	0.59	4/4673 (0.1%)
9	EB	0.31	0/3436	0.58	3/4656 (0.1%)
9	ED	0.28	0/3436	0.56	1/4656 (0.0%)
9	EF	0.29	0/3436	0.58	1/4656 (0.0%)
9	EH	0.28	0/3436	0.57	3/4656 (0.1%)
9	EJ	0.29	0/3431	0.58	4/4649 (0.1%)
9	EL	0.28	0/3436	0.57	2/4656 (0.0%)
9	EN	0.28	0/3436	0.59	3/4656 (0.1%)
9	FB	0.31	0/3448	0.64	5/4673 (0.1%)
9	FD	0.29	0/3448	0.58	4/4673 (0.1%)
9	FF	0.28	0/3448	0.57	1/4673 (0.0%)
9	FH	0.28	0/3448	0.58	3/4673 (0.1%)
9	FJ	0.30	0/3443	0.57	3/4666 (0.1%)
9	FL	0.29	0/3443	0.58	2/4666 (0.0%)
9	FN	0.29	0/3448	0.58	2/4673 (0.0%)
9	GB	0.29	0/3431	0.59	2/4649 (0.0%)
9	GD	0.31	1/3448 (0.0%)	0.61	4/4673 (0.1%)
9	GF	0.29	0/3448	0.56	0/4673
9	GH	0.28	0/3457	0.57	1/4685 (0.0%)
9	GJ	0.30	0/3448	0.57	0/4673

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	GL	0.35	1/3457 (0.0%)	0.59	1/4685 (0.0%)
9	GN	0.31	0/3457	0.61	5/4685 (0.1%)
9	HB	0.31	0/3448	0.65	3/4673 (0.1%)
9	HD	0.33	0/3431	0.62	3/4649 (0.1%)
9	HF	0.32	0/3448	0.61	2/4673 (0.0%)
9	HH	0.31	0/3457	0.61	5/4685 (0.1%)
9	HJ	0.33	0/3448	0.66	3/4673 (0.1%)
9	HL	0.33	0/3457	0.62	1/4685 (0.0%)
9	HN	0.33	0/3448	0.60	0/4673
9	HP	0.33	0/3431	0.64	5/4649 (0.1%)
9	IB	0.34	0/3448	0.67	4/4673 (0.1%)
9	ID	0.32	0/3448	0.64	3/4673 (0.1%)
9	IF	0.36	1/3448 (0.0%)	0.63	3/4673 (0.1%)
9	IH	0.37	0/3457	0.69	5/4685 (0.1%)
9	IJ	0.31	0/3443	0.56	0/4666
9	IL	0.39	1/3457 (0.0%)	0.69	5/4685 (0.1%)
9	IN	0.35	0/3457	0.63	2/4685 (0.0%)
9	IP	0.37	1/3457 (0.0%)	0.74	7/4685 (0.1%)
9	JB	0.31	0/3431	0.61	3/4649 (0.1%)
9	JD	0.34	0/3431	0.66	2/4649 (0.0%)
9	JF	0.37	0/3431	0.69	7/4649 (0.2%)
9	JH	0.34	0/3431	0.63	2/4649 (0.0%)
9	JJ	0.34	0/3431	0.62	1/4649 (0.0%)
9	JL	0.34	0/3431	0.69	5/4649 (0.1%)
9	JN	0.34	0/3423	0.60	0/4638
9	JP	0.33	0/3431	0.62	2/4649 (0.0%)
9	KB	0.36	1/3448 (0.0%)	0.63	3/4673 (0.1%)
9	KD	0.34	0/3457	0.62	2/4685 (0.0%)
9	KF	0.31	0/3457	0.55	0/4685
9	KH	0.31	0/3457	0.60	2/4685 (0.0%)
9	KJ	0.31	0/3448	0.58	0/4673
9	KL	0.32	0/3448	0.63	3/4673 (0.1%)
9	KN	0.33	0/3448	0.60	2/4673 (0.0%)
9	KP	0.33	0/3436	0.64	4/4656 (0.1%)
9	LB	0.33	0/3509	0.63	3/4754 (0.1%)
9	LD	0.31	0/3457	0.55	0/4685
9	LF	0.34	0/3527	0.63	4/4778 (0.1%)
9	LH	0.33	0/3457	0.57	1/4685 (0.0%)
9	LJ	0.33	0/3509	0.60	2/4754 (0.0%)
9	LL	0.31	0/3436	0.57	1/4656 (0.0%)
9	LN	0.30	0/3466	0.58	2/4697 (0.0%)
9	LP	0.27	0/3443	0.54	1/4666 (0.0%)
9	MB	0.30	0/3457	0.59	2/4685 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	MD	0.34	0/3457	0.58	2/4685 (0.0%)
9	MF	0.31	0/3431	0.59	5/4649 (0.1%)
9	MH	0.32	0/3457	0.58	2/4685 (0.0%)
9	MJ	0.33	0/3448	0.57	1/4673 (0.0%)
9	ML	0.32	0/3448	0.59	3/4673 (0.1%)
9	MN	0.30	0/3457	0.59	4/4685 (0.1%)
9	MP	0.31	0/3457	0.57	2/4685 (0.0%)
9	NB	0.28	0/3436	0.60	3/4656 (0.1%)
9	ND	0.29	0/3457	0.57	0/4685
9	NF	0.35	0/3436	0.65	4/4656 (0.1%)
9	NH	0.32	0/3431	0.60	1/4649 (0.0%)
9	NJ	0.33	0/3448	0.66	4/4673 (0.1%)
9	NL	0.34	0/3436	0.64	3/4656 (0.1%)
9	NN	0.31	0/3448	0.62	1/4673 (0.0%)
9	NP	0.28	0/3431	0.56	1/4649 (0.0%)
9	OB	0.33	0/3436	0.64	6/4656 (0.1%)
9	OD	0.29	0/3436	0.60	2/4656 (0.0%)
9	OF	0.34	0/3443	0.61	3/4666 (0.1%)
9	OH	0.37	2/3436 (0.1%)	0.64	5/4656 (0.1%)
9	OJ	0.36	0/3443	0.72	8/4666 (0.2%)
9	OL	0.31	0/3431	0.61	2/4649 (0.0%)
9	ON	0.31	0/3431	0.59	1/4649 (0.0%)
9	OP	0.31	0/3423	0.66	6/4638 (0.1%)
9	PB	0.30	1/3436 (0.0%)	0.60	4/4656 (0.1%)
9	PD	0.33	0/3436	0.67	7/4656 (0.2%)
9	PF	0.28	0/3436	0.60	4/4656 (0.1%)
9	PH	0.32	0/3436	0.62	4/4656 (0.1%)
9	PJ	0.30	0/3431	0.62	2/4649 (0.0%)
9	PL	0.29	0/3436	0.57	0/4656
9	PN	0.29	0/3436	0.58	0/4656
9	PP	0.27	0/3431	0.56	2/4649 (0.0%)
9	QB	0.31	0/3423	0.63	1/4638 (0.0%)
9	QD	0.29	0/3431	0.60	2/4649 (0.0%)
9	QF	0.28	0/3431	0.59	2/4649 (0.0%)
9	QH	0.32	0/3431	0.64	6/4649 (0.1%)
9	QJ	0.30	0/3431	0.61	3/4649 (0.1%)
9	QL	0.28	0/3431	0.56	0/4649
9	QN	0.29	0/3431	0.62	4/4649 (0.1%)
9	QP	0.30	0/3423	0.60	5/4638 (0.1%)
9	RD	0.28	0/3436	0.58	3/4656 (0.1%)
9	RF	0.28	0/3436	0.57	1/4656 (0.0%)
9	RH	0.28	0/3436	0.54	0/4656
9	RJ	0.29	0/3436	0.57	2/4656 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	RL	0.31	0/3436	0.60	2/4656 (0.0%)
9	RN	0.28	0/3431	0.56	1/4649 (0.0%)
9	RP	0.27	0/3436	0.56	3/4656 (0.1%)
9	SB	0.28	0/3423	0.58	2/4638 (0.0%)
9	SD	0.29	0/3436	0.58	2/4656 (0.0%)
9	SF	0.33	0/3423	0.59	0/4638
9	SH	0.29	0/3431	0.61	2/4649 (0.0%)
9	SJ	0.30	0/3431	0.63	4/4649 (0.1%)
9	SL	0.29	0/3423	0.60	2/4638 (0.0%)
9	SN	0.28	0/3423	0.59	2/4638 (0.0%)
9	TB	0.30	0/3423	0.62	4/4638 (0.1%)
9	TD	0.31	1/3423 (0.0%)	0.63	4/4638 (0.1%)
9	TF	0.28	0/3423	0.58	2/4638 (0.0%)
9	TH	0.29	0/3431	0.61	5/4649 (0.1%)
9	TJ	0.28	0/3436	0.60	4/4656 (0.1%)
9	TL	0.32	0/3431	0.63	7/4649 (0.2%)
9	TN	0.29	0/3423	0.59	3/4638 (0.1%)
9	UB	0.28	0/3423	0.64	4/4638 (0.1%)
9	UD	0.27	0/3423	0.55	0/4638
9	UF	0.29	0/3423	0.60	1/4638 (0.0%)
9	UH	0.30	1/3431 (0.0%)	0.59	1/4649 (0.0%)
9	UJ	0.30	0/3431	0.60	2/4649 (0.0%)
9	UL	0.28	0/3423	0.57	1/4638 (0.0%)
9	UN	0.27	0/3423	0.58	1/4638 (0.0%)
9	VB	0.27	0/3423	0.53	1/4638 (0.0%)
9	VD	0.26	0/3423	0.58	1/4638 (0.0%)
9	VF	0.29	0/3423	0.60	1/4638 (0.0%)
9	VH	0.28	0/3431	0.62	5/4649 (0.1%)
9	VJ	0.30	0/3431	0.62	3/4649 (0.1%)
9	VL	0.28	0/3436	0.57	4/4656 (0.1%)
9	VN	0.29	0/3423	0.64	3/4638 (0.1%)
9	WB	0.30	0/3431	0.58	2/4649 (0.0%)
9	WD	0.28	0/3431	0.56	2/4649 (0.0%)
9	WF	0.32	1/3448 (0.0%)	0.62	3/4673 (0.1%)
9	WH	0.29	0/3436	0.60	3/4656 (0.1%)
9	WJ	0.29	0/3436	0.60	2/4656 (0.0%)
9	WL	0.30	0/3431	0.58	3/4649 (0.1%)
9	WN	0.29	0/3431	0.61	3/4649 (0.1%)
9	WP	0.30	0/3431	0.59	1/4649 (0.0%)
10	B	0.33	0/2787	0.64	3/3696 (0.1%)
10	C	0.37	0/2427	0.70	6/3218 (0.2%)
11	B0	0.43	0/340	0.81	0/457
11	B1	0.35	0/3018	0.65	6/4069 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
11	B2	0.37	0/3440	0.66	6/4638 (0.1%)
11	B3	0.39	1/3440 (0.0%)	0.64	4/4638 (0.1%)
11	B4	0.35	2/3451 (0.1%)	0.61	3/4652 (0.1%)
11	B5	0.38	0/1691	0.76	4/2274 (0.2%)
11	R0	0.34	0/1625	0.62	0/2184
11	R1	0.32	0/3451	0.63	5/4652 (0.1%)
11	R2	0.33	0/3451	0.62	3/4652 (0.1%)
11	R3	0.36	0/3451	0.62	1/4652 (0.0%)
11	R4	0.37	0/3059	0.68	4/4124 (0.1%)
11	R5	0.41	0/372	0.79	0/500
12	C0	0.35	0/1476	0.59	1/1991 (0.1%)
12	C1	0.39	2/3399 (0.1%)	0.58	1/4581 (0.0%)
12	C2	0.35	0/3399	0.57	2/4581 (0.0%)
12	C3	0.35	0/3376	0.57	2/4550 (0.0%)
12	C4	0.33	0/2978	0.56	2/4010 (0.0%)
12	C5	0.38	0/422	0.81	1/567 (0.2%)
12	C6	0.31	0/364	0.71	0/493
12	S0	0.36	0/2719	0.69	5/3665 (0.1%)
12	S1	0.30	0/3666	0.55	1/4944 (0.0%)
12	S2	0.32	0/3666	0.59	2/4944 (0.0%)
12	S3	0.38	0/3666	0.65	5/4944 (0.1%)
12	S4	0.34	0/2485	0.61	3/3344 (0.1%)
12	S5	0.33	0/2610	0.59	2/3522 (0.1%)
12	S6	0.32	0/3504	0.58	2/4728 (0.0%)
12	S7	0.38	0/3504	0.62	2/4728 (0.0%)
12	S8	0.40	0/3485	0.65	2/4702 (0.0%)
12	S9	0.38	0/2252	0.70	3/3028 (0.1%)
13	D	0.31	0/642	0.70	1/879 (0.1%)
13	K3	0.31	0/1500	0.71	4/2037 (0.2%)
14	D0	0.34	0/906	0.63	1/1219 (0.1%)
14	D1	0.37	0/3416	0.61	3/4598 (0.1%)
14	D2	0.36	0/3529	0.60	1/4752 (0.0%)
14	D3	0.36	0/3529	0.60	1/4752 (0.0%)
14	D4	0.36	0/3529	0.61	1/4752 (0.0%)
14	D5	0.54	1/720 (0.1%)	0.98	7/965 (0.7%)
14	T0	0.44	1/976 (0.1%)	0.76	1/1319 (0.1%)
14	T1	0.29	0/3645	0.62	4/4913 (0.1%)
14	T2	0.38	1/3645 (0.0%)	0.68	6/4913 (0.1%)
14	T3	0.36	0/3658	0.62	2/4931 (0.0%)
14	T4	0.37	0/3305	0.65	5/4450 (0.1%)
14	T5	0.42	0/983	0.87	6/1319 (0.5%)
15	E	0.33	0/2415	0.63	0/3259
15	F	0.29	0/2406	0.62	1/3247 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
15	N2	0.30	0/2406	0.60	1/3247 (0.0%)
16	G	0.32	0/747	0.66	1/1015 (0.1%)
17	H	0.36	0/1356	0.68	2/1840 (0.1%)
17	I	0.31	0/1474	0.65	0/2000
17	J	0.36	0/1347	0.57	0/1829
17	K	0.33	0/1465	0.66	2/1989 (0.1%)
17	L	0.34	0/1356	0.63	1/1840 (0.1%)
17	M	0.35	0/1458	0.65	0/1979
17	N	0.34	0/1356	0.74	5/1840 (0.3%)
17	O7	0.37	0/1458	0.71	3/1979 (0.2%)
17	O8	0.33	0/862	0.68	2/1170 (0.2%)
17	O9	0.36	0/862	0.66	1/1170 (0.1%)
17	P8	0.35	0/862	0.65	1/1170 (0.1%)
17	P9	0.35	0/862	0.72	3/1170 (0.3%)
17	Z2	0.31	0/424	0.65	1/571 (0.2%)
17	Z3	0.33	0/424	0.66	0/571
17	Z4	0.32	0/424	0.59	0/571
17	Z5	0.36	0/416	0.78	1/560 (0.2%)
18	I1	0.49	1/826 (0.1%)	0.82	2/1123 (0.2%)
19	J1	0.32	0/958	0.77	2/1287 (0.2%)
19	J2	0.40	1/2055 (0.0%)	0.73	3/2772 (0.1%)
19	J3	0.34	0/2055	0.69	3/2772 (0.1%)
19	J4	0.38	0/2037	0.71	3/2748 (0.1%)
19	J5	0.35	0/1021	0.77	3/1382 (0.2%)
20	K1	0.31	0/1038	0.68	1/1407 (0.1%)
20	K2	0.28	0/1038	0.58	1/1407 (0.1%)
21	L1	0.37	1/1063 (0.1%)	0.78	3/1435 (0.2%)
22	M1	0.33	0/849	0.69	2/1148 (0.2%)
22	M2	0.38	0/849	0.67	0/1148
22	M3	0.37	0/1316	0.68	1/1778 (0.1%)
22	M4	0.43	1/849 (0.1%)	0.70	0/1148
23	O	0.33	0/635	0.66	0/846
23	P	0.36	0/2911	0.61	1/3896 (0.0%)
23	Q	0.36	0/868	0.78	5/1161 (0.4%)
24	O1	0.29	0/1366	0.54	0/1862
24	O2	0.31	0/1379	0.55	0/1880
24	O3	0.31	0/1379	0.55	0/1880
24	O4	0.33	0/1379	0.61	1/1880 (0.1%)
25	O5	0.32	0/4158	0.61	4/5631 (0.1%)
25	O6	0.31	0/393	0.77	0/531
25	T	0.30	0/2429	0.60	3/3285 (0.1%)
25	U	0.35	0/4253	0.61	3/5764 (0.1%)
25	V	0.33	0/4417	0.66	9/5988 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
26	P1	0.31	0/658	0.58	0/892
26	P2	0.37	0/852	0.70	1/1155 (0.1%)
27	P3	0.43	0/1145	0.71	3/1564 (0.2%)
27	P4	0.33	0/1319	0.65	2/1799 (0.1%)
27	P5	0.39	0/1319	0.61	0/1799
27	P6	0.43	0/1310	0.65	1/1787 (0.1%)
27	P7	0.37	0/460	0.68	1/621 (0.2%)
28	Q1	0.36	0/1696	0.77	5/2315 (0.2%)
28	Q2	0.44	1/1696 (0.1%)	0.72	3/2315 (0.1%)
28	Q3	0.36	0/1696	0.69	1/2315 (0.0%)
28	Q4	0.38	0/1696	0.75	2/2315 (0.1%)
28	Q5	0.49	0/158	0.81	1/213 (0.5%)
29	R	0.31	0/1674	0.63	1/2232 (0.0%)
29	S	0.34	0/2770	0.66	2/3701 (0.1%)
30	U0	0.32	0/2934	0.57	2/3946 (0.1%)
30	U1	0.29	0/3444	0.60	2/4637 (0.0%)
30	U2	0.29	0/3444	0.63	6/4637 (0.1%)
30	U3	0.33	0/3444	0.59	2/4637 (0.0%)
30	U4	0.31	0/1691	0.61	1/2271 (0.0%)
30	U5	0.33	0/2646	0.65	4/3557 (0.1%)
30	U6	0.29	0/3407	0.59	4/4586 (0.1%)
30	U7	0.32	0/3407	0.61	4/4586 (0.1%)
30	U8	0.35	0/3407	0.70	5/4586 (0.1%)
30	U9	0.32	0/1499	0.64	2/2018 (0.1%)
30	V0	0.39	1/1713 (0.1%)	0.82	7/2307 (0.3%)
30	V1	0.28	0/3226	0.61	2/4339 (0.0%)
30	V2	0.30	0/3226	0.64	4/4339 (0.1%)
30	V3	0.37	0/3226	0.73	7/4339 (0.2%)
30	V4	0.40	0/2357	0.65	1/3165 (0.0%)
30	V5	0.34	0/2437	0.67	7/3274 (0.2%)
30	V6	0.32	0/3018	0.62	4/4057 (0.1%)
30	V7	0.39	1/2772 (0.0%)	0.69	7/3729 (0.2%)
30	V8	0.35	0/2507	0.67	3/3371 (0.1%)
30	V9	0.41	0/804	0.80	0/1080
30	W0	0.36	0/2473	0.72	5/3317 (0.2%)
30	W2	0.36	0/2484	0.65	2/3338 (0.1%)
30	W4	0.26	0/2697	0.57	2/3621 (0.1%)
30	W5	0.29	0/2697	0.61	2/3621 (0.1%)
30	W6	0.27	0/2697	0.54	0/3621
30	W7	0.31	0/2697	0.63	2/3621 (0.1%)
31	W	0.32	0/6283	0.61	4/8495 (0.0%)
31	X	0.32	0/6283	0.60	5/8495 (0.1%)
31	Y	0.33	0/6291	0.60	4/8506 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
31	Z	0.33	1/6283 (0.0%)	0.61	4/8495 (0.0%)
32	X0	0.33	0/206	0.63	0/278
32	X1	0.35	0/198	0.73	1/266 (0.4%)
32	X2	0.33	0/198	0.64	0/266
32	X3	0.29	0/206	0.70	0/278
33	X4	0.32	0/2694	0.66	3/3661 (0.1%)
33	X5	0.35	0/1072	0.68	1/1454 (0.1%)
34	X6	0.35	0/2144	0.66	3/2899 (0.1%)
34	X7	0.34	0/2144	0.70	4/2899 (0.1%)
34	X8	0.29	0/2144	0.64	0/2899
35	XA	0.29	0/1573	0.63	2/2122 (0.1%)
35	XB	0.29	0/1573	0.62	1/2122 (0.0%)
35	XC	0.26	0/1573	0.57	0/2122
35	XD	0.28	0/1573	0.62	1/2122 (0.0%)
35	XE	0.34	0/1573	0.59	0/2122
35	XF	0.30	0/1573	0.61	0/2122
35	XG	0.31	0/1573	0.61	0/2122
35	XH	0.31	0/1573	0.63	1/2122 (0.0%)
36	Y0	0.36	0/503	0.75	1/688 (0.1%)
36	Y1	0.39	0/1890	0.83	6/2576 (0.2%)
36	Y2	0.30	0/1767	0.62	2/2408 (0.1%)
36	Y3	0.31	0/503	0.66	0/688
36	Y4	0.37	0/1458	0.86	6/1984 (0.3%)
36	Y5	0.38	0/663	0.73	0/903
37	YA	0.31	0/1817	0.63	3/2455 (0.1%)
37	YB	0.31	0/1817	0.59	1/2455 (0.0%)
37	YC	0.27	0/1817	0.50	0/2455
37	YD	0.34	1/1817 (0.1%)	0.57	1/2455 (0.0%)
37	YE	0.31	0/1817	0.61	0/2455
37	YF	0.28	0/1817	0.62	3/2455 (0.1%)
37	YG	0.30	0/1817	0.63	5/2455 (0.2%)
37	YH	0.29	0/1817	0.61	2/2455 (0.1%)
38	Z1	0.36	0/288	0.75	0/387
39	a	0.34	0/2512	0.74	5/3331 (0.2%)
39	a6	0.29	0/575	0.62	1/767 (0.1%)
39	b	0.40	0/2105	0.81	5/2785 (0.2%)
39	c	0.33	0/3549	0.72	4/4707 (0.1%)
39	d	0.37	1/1162 (0.1%)	0.69	0/1538
40	a1	0.29	0/1313	0.60	1/1779 (0.1%)
40	a2	0.39	1/1313 (0.1%)	0.62	1/1779 (0.1%)
40	a3	0.33	0/1313	0.63	2/1779 (0.1%)
40	a4	0.37	0/1313	0.71	2/1779 (0.1%)
41	b1	0.40	0/1095	0.83	6/1465 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
41	b2	0.38	1/3141 (0.0%)	0.66	4/4226 (0.1%)
41	b3	0.29	0/3152	0.62	1/4240 (0.0%)
41	b4	0.35	0/3152	0.67	4/4240 (0.1%)
41	b5	0.34	0/2749	0.69	5/3697 (0.1%)
42	e	0.28	0/4786	0.58	1/6472 (0.0%)
42	f	0.30	0/4786	0.64	5/6472 (0.1%)
42	g	0.29	0/4786	0.60	1/6472 (0.0%)
43	h	0.31	0/2057	0.58	1/2757 (0.0%)
43	i	0.29	0/2042	0.59	2/2737 (0.1%)
43	j	0.32	0/2036	0.59	1/2729 (0.0%)
43	k	0.35	2/2042 (0.1%)	0.61	1/2737 (0.0%)
44	h1	0.39	0/809	0.76	3/1091 (0.3%)
44	h2	0.45	0/831	0.71	1/1119 (0.1%)
44	h3	0.39	0/831	0.69	0/1119
44	h4	0.32	0/820	0.70	1/1105 (0.1%)
45	i1	0.30	0/937	0.60	1/1281 (0.1%)
45	l	0.36	0/937	0.59	1/1281 (0.1%)
45	m	0.31	0/937	0.56	1/1281 (0.1%)
45	n	0.32	0/937	0.65	3/1281 (0.2%)
46	i2	0.28	0/1526	0.58	1/2039 (0.0%)
46	i3	0.33	0/1526	0.64	2/2039 (0.1%)
46	i4	0.29	0/1526	0.61	0/2039
47	o	0.38	0/1707	0.77	3/2264 (0.1%)
47	p	0.40	2/3334 (0.1%)	0.70	10/4428 (0.2%)
48	q	0.31	0/614	0.63	1/827 (0.1%)
48	r	0.40	0/640	0.69	1/862 (0.1%)
48	s	0.32	0/640	0.55	0/862
49	y	0.36	0/942	0.67	0/1279
All	All	0.32	59/1674605 (0.0%)	0.61	1363/2267788 (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
2	2	0	2
3	3	0	1
4	5	0	1
4	j1	0	1
8	AM	0	1
8	CM	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	EE	0	1
8	FA	0	1
8	IE	0	1
8	JE	0	1
8	JM	0	1
8	NG	0	1
8	VE	0	1
8	VM	0	1
8	WI	0	1
9	AJ	0	1
9	AL	0	1
9	BD	0	1
9	HN	0	1
9	IB	0	1
9	JF	0	1
9	LF	0	1
9	LH	0	1
9	NL	0	1
9	NN	0	1
9	OF	0	1
9	PF	0	1
11	B5	0	1
12	S0	0	1
12	S3	0	1
12	S5	0	1
12	S6	0	1
12	S9	0	1
14	D3	0	1
14	T2	0	1
17	O8	0	1
22	M1	0	1
24	O3	0	1
25	O5	0	1
28	Q1	0	1
28	Q2	0	1
28	Q3	0	1
28	Q4	0	1
28	Q5	0	1
30	U3	0	1
30	U8	0	1
31	Z	0	1
35	XF	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
36	Y5	0	1
40	a4	0	1
46	i3	0	1
All	All	0	52

The worst 5 of 59 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	p	483	TYR	CD2-CE2	-9.30	1.25	1.39
9	OH	294	PHE	CD1-CE1	-8.75	1.21	1.39
8	LE	175	PRO	CG-CD	-8.32	1.23	1.50
18	I1	87	PRO	CG-CD	-8.13	1.23	1.50
19	J2	187	TYR	CD1-CE1	-7.27	1.28	1.39

The worst 5 of 1363 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	IP	217	LEU	CB-CG-CD1	-15.19	85.19	111.00
42	f	544	LEU	CB-CG-CD2	-14.72	85.97	111.00
36	Y4	89	ILE	CG1-CB-CG2	-13.71	81.25	111.40
8	IG	352	LYS	CD-CE-NZ	-13.40	80.88	111.70
30	V0	403	PRO	CA-N-CD	-13.16	93.07	111.50

There are no chirality outliers.

5 of 52 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	2	277	ARG	Sidechain
2	2	503	ARG	Sidechain
3	3	339	GLN	Mainchain
4	5	62	ARG	Sidechain
9	AJ	262	ARG	Sidechain

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](#)

There are no protein backbone outliers to report in this entry.

5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

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 532 ligands modelled in this entry, 178 are monoatomic - leaving 354 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
52	GDP	PH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	RL	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	HI	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	QN	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	EO	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.55	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
52	GDP	MH	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	UF	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	VJ	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.27	4 (13%)
50	GTP	SC	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.52	7 (21%)
50	GTP	CC	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	DQ	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.57	7 (21%)
50	GTP	PC	501	-	26,34,34	1.11	2 (7%)	32,54,54	1.55	6 (18%)
50	GTP	AI	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.64	7 (21%)
52	GDP	CB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	HE	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	PE	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.57	6 (18%)
50	GTP	TE	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.54	7 (21%)
50	GTP	DK	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	AA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	SF	502	-	24,30,30	0.91	1 (4%)	30,47,47	1.34	5 (16%)
50	GTP	VK	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	RM	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.54	7 (21%)
50	GTP	NK	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	QC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	QI	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.60	6 (18%)
52	GDP	BB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	WB	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	WC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.58	7 (21%)
52	GDP	KP	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	VD	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.34	4 (13%)
50	GTP	KM	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.54	7 (21%)
50	GTP	EK	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	LH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	5 (16%)
52	GDP	VH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	GI	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	LF	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.40	4 (13%)
50	GTP	FI	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.58	7 (21%)
52	GDP	PB	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	OK	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	LD	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.31	5 (16%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
52	GDP	MF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.38	4 (13%)
52	GDP	TN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	UJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.26	4 (13%)
50	GTP	CG	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.60	7 (21%)
52	GDP	JP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.26	4 (13%)
50	GTP	UC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.60	7 (21%)
50	GTP	JK	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.67	7 (21%)
52	GDP	GJ	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.25	5 (16%)
50	GTP	WI	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	WH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	CI	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	MG	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	RD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.32	4 (13%)
52	GDP	HH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.33	4 (13%)
50	GTP	KG	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	AF	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	LL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.33	5 (16%)
50	GTP	KC	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	KL	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	RF	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	AO	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	MJ	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.43	4 (13%)
52	GDP	VN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.27	4 (13%)
50	GTP	AC	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	RN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	WF	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.27	4 (13%)
50	GTP	RK	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	VF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	EN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	QD	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	OE	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.57	6 (18%)
50	GTP	KK	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	JN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	4 (13%)
52	GDP	WJ	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.27	4 (13%)
50	GTP	BC	501	-	26,34,34	1.11	2 (7%)	32,54,54	1.61	6 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
50	GTP	GO	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.56	6 (18%)
52	GDP	OH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	GG	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.54	6 (18%)
52	GDP	KF	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.33	5 (16%)
52	GDP	IH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	WL	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	CP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	DL	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.28	5 (16%)
50	GTP	PM	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.57	6 (18%)
50	GTP	BO	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.60	7 (21%)
52	GDP	NH	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.43	4 (13%)
50	GTP	JE	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	PN	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.28	4 (13%)
52	GDP	NF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.36	4 (13%)
52	GDP	MN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.33	4 (13%)
50	GTP	EI	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	BH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.34	4 (13%)
52	GDP	QH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.23	4 (13%)
52	GDP	PL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	HK	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.57	7 (21%)
50	GTP	SI	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.52	7 (21%)
50	GTP	NG	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.65	7 (21%)
50	GTP	GM	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	FK	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.55	7 (21%)
52	GDP	KD	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.33	4 (13%)
52	GDP	GD	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.24	4 (13%)
52	GDP	WN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.26	4 (13%)
52	GDP	HB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	TB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.34	5 (16%)
52	GDP	GL	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.34	4 (13%)
52	GDP	PD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	UH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.34	4 (13%)
50	GTP	JG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	6 (18%)
52	GDP	EF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	5 (16%)
50	GTP	QK	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.58	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
52	GDP	QP	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.32	5 (16%)
52	GDP	OB	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.36	4 (13%)
52	GDP	TD	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	TH	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	OC	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.61	7 (21%)
50	GTP	MM	501	-	26,34,34	1.17	1 (3%)	32,54,54	1.65	7 (21%)
50	GTP	JQ	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	AN	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.35	4 (13%)
52	GDP	BP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	CH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.33	4 (13%)
52	GDP	AP	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.33	4 (13%)
52	GDP	HP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.26	4 (13%)
50	GTP	BK	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.60	7 (21%)
50	GTP	NI	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.63	7 (21%)
52	GDP	IN	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.33	4 (13%)
52	GDP	IF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	TL	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	EE	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	FN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.33	4 (13%)
52	GDP	JH	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.36	4 (13%)
50	GTP	QO	501	-	26,34,34	1.10	1 (3%)	32,54,54	1.56	6 (18%)
50	GTP	VE	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.58	7 (21%)
52	GDP	EL	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	WM	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.58	7 (21%)
52	GDP	OP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.33	4 (13%)
50	GTP	DO	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.57	7 (21%)
50	GTP	SK	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.54	7 (21%)
52	GDP	DF	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	RJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	LK	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.60	7 (21%)
52	GDP	BF	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.34	4 (13%)
52	GDP	SD	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	CQ	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	LG	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.62	7 (21%)
50	GTP	GE	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
50	GTP	EA	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	VC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	GN	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	IO	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.65	6 (18%)
50	GTP	VO	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.58	7 (21%)
50	GTP	MK	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	DJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	CO	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	KB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.36	4 (13%)
50	GTP	AG	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.62	7 (21%)
50	GTP	CM	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.60	7 (21%)
52	GDP	IL	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	IG	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.63	6 (18%)
50	GTP	GA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	JO	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.69	7 (21%)
50	GTP	FM	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	TG	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.57	7 (21%)
50	GTP	TM	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.55	7 (21%)
52	GDP	KH	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	NB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	WP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	EJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	NA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	MP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.33	4 (13%)
50	GTP	UA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	MO	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	UL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	TJ	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	PP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	VM	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	AH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.36	4 (13%)
52	GDP	GH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.34	4 (13%)
50	GTP	DC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.58	7 (21%)
52	GDP	ML	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	5 (16%)
52	GDP	JJ	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.34	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
52	GDP	EB	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.27	5 (16%)
52	GDP	SL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	EH	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	HA	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.53	7 (21%)
52	GDP	KJ	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.40	5 (16%)
52	GDP	ED	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	NJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.41	4 (13%)
50	GTP	KO	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	GF	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.28	5 (16%)
52	GDP	SN	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	TA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.53	7 (21%)
50	GTP	SG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.51	6 (18%)
52	GDP	BL	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.32	4 (13%)
52	GDP	UB	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.33	4 (13%)
50	GTP	BG	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.63	7 (21%)
50	GTP	MC	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.51	6 (18%)
52	GDP	QB	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	UE	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.54	6 (18%)
52	GDP	JF	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.29	3 (10%)
50	GTP	SM	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.53	7 (21%)
50	GTP	JC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	FB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	OA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.55	7 (21%)
52	GDP	CJ	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.36	4 (13%)
50	GTP	PO	501	-	26,34,34	1.11	2 (7%)	32,54,54	1.58	6 (18%)
52	GDP	AJ	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.34	4 (13%)
50	GTP	QE	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	LN	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.34	4 (13%)
50	GTP	ME	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.64	6 (18%)
50	GTP	SE	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.52	7 (21%)
50	GTP	RI	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	DM	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	QG	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.58	7 (21%)
50	GTP	LE	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	BE	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.61	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
50	GTP	NO	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	EG	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	HN	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	OD	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	CD	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	TK	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	FG	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	CF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	KN	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	LA	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	UI	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.55	7 (21%)
52	GDP	BJ	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	MI	501	-	26,34,34	1.20	1 (3%)	32,54,54	1.59	7 (21%)
50	GTP	UG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.58	7 (21%)
52	GDP	VB	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	GC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.54	6 (18%)
50	GTP	WK	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.57	6 (18%)
50	GTP	UO	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	DN	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	RP	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	RG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	IC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	KA	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	UM	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	WO	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	DP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	4 (13%)
52	GDP	ND	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	NL	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	HC	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	JM	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.62	6 (18%)
50	GTP	NM	501	-	26,34,34	1.13	1 (3%)	32,54,54	1.60	7 (21%)
52	GDP	NN	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.34	4 (13%)
50	GTP	RE	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	IM	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.62	7 (21%)
50	GTP	NC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.58	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
50	GTP	AE	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.60	7 (21%)
52	GDP	AL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.38	4 (13%)
52	GDP	AD	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.37	4 (13%)
50	GTP	AM	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	UD	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	HL	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.32	4 (13%)
50	GTP	PI	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.61	7 (21%)
50	GTP	WA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.54	7 (21%)
50	GTP	DG	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	PJ	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.32	4 (13%)
50	GTP	IA	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	CE	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	IE	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.57	7 (21%)
50	GTP	TC	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	FL	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.36	4 (13%)
50	GTP	QM	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.55	7 (21%)
52	GDP	DB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	JB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	RH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	IJ	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	NE	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.52	7 (21%)
50	GTP	OG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	FJ	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.30	3 (10%)
52	GDP	MB	502	-	24,30,30	0.90	1 (4%)	30,47,47	1.25	4 (13%)
50	GTP	OI	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.57	6 (18%)
52	GDP	FH	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.32	4 (13%)
50	GTP	LO	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	OM	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	AK	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.62	7 (21%)
50	GTP	PK	501	-	26,34,34	1.11	2 (7%)	32,54,54	1.55	6 (18%)
50	GTP	II	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.62	7 (21%)
52	GDP	UN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	4 (13%)
52	GDP	SH	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	DH	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.28	4 (13%)
52	GDP	IP	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.43	5 (16%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
50	GTP	EC	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.61	7 (21%)
50	GTP	MA	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.53	7 (21%)
50	GTP	LC	501	-	26,34,34	1.22	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	LI	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.60	7 (21%)
50	GTP	VA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	UK	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.57	7 (21%)
52	GDP	TF	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	LB	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	KI	501	-	26,34,34	1.20	2 (7%)	32,54,54	1.55	7 (21%)
50	GTP	SA	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.54	7 (21%)
52	GDP	QL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	VI	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.57	6 (18%)
50	GTP	RO	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
50	GTP	FE	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.54	7 (21%)
52	GDP	HF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	FO	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	WG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	ID	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	LJ	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.38	4 (13%)
52	GDP	SB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	JI	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	CN	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	PG	501	-	26,34,34	1.09	1 (3%)	32,54,54	1.62	7 (21%)
50	GTP	HO	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.58	8 (25%)
52	GDP	BN	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.28	4 (13%)
52	GDP	LP	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.25	4 (13%)
52	GDP	JL	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.27	4 (13%)
50	GTP	CK	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.67	7 (21%)
52	GDP	BD	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	OO	501	-	26,34,34	1.12	2 (7%)	32,54,54	1.60	7 (21%)
52	GDP	FF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
50	GTP	BM	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	IB	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.29	4 (13%)
52	GDP	MD	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.28	4 (13%)
50	GTP	BI	501	-	26,34,34	1.18	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
50	GTP	WE	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.56	7 (21%)
52	GDP	QF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.26	4 (13%)
50	GTP	GK	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.53	7 (21%)
50	GTP	LM	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.55	7 (21%)
52	GDP	DD	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	OJ	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.37	6 (20%)
52	GDP	HJ	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.23	4 (13%)
52	GDP	OF	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.33	4 (13%)
52	GDP	CL	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.30	4 (13%)
52	GDP	FD	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.32	4 (13%)
50	GTP	FC	501	-	26,34,34	1.18	2 (7%)	32,54,54	1.60	7 (21%)
50	GTP	HG	501	-	26,34,34	1.19	2 (7%)	32,54,54	1.62	7 (21%)
52	GDP	AB	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.29	4 (13%)
50	GTP	FA	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.54	7 (21%)
50	GTP	DE	501	-	26,34,34	1.15	2 (7%)	32,54,54	1.59	7 (21%)
50	GTP	HM	501	-	26,34,34	1.17	2 (7%)	32,54,54	1.59	7 (21%)
52	GDP	JD	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.27	4 (13%)
52	GDP	ON	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.28	5 (16%)
50	GTP	IK	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.64	7 (21%)
50	GTP	VG	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.58	7 (21%)
52	GDP	GB	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.24	4 (13%)
52	GDP	HD	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.26	4 (13%)
52	GDP	OL	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.32	4 (13%)
50	GTP	DI	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.61	7 (21%)
52	GDP	QJ	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.24	4 (13%)
52	GDP	SJ	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	NP	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.32	4 (13%)
52	GDP	PF	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.30	4 (13%)
50	GTP	TI	501	-	26,34,34	1.14	2 (7%)	32,54,54	1.54	7 (21%)
50	GTP	KE	501	-	26,34,34	1.19	1 (3%)	32,54,54	1.53	7 (21%)
50	GTP	RC	501	-	26,34,34	1.13	2 (7%)	32,54,54	1.54	7 (21%)
50	GTP	EM	501	-	26,34,34	1.16	2 (7%)	32,54,54	1.54	7 (21%)
52	GDP	VL	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.31	4 (13%)
52	GDP	WD	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.29	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
52	GDP	PH	502	-	-	1/12/32/32	0/3/3/3
52	GDP	RL	502	-	-	0/12/32/32	0/3/3/3
50	GTP	HI	501	-	-	9/18/38/38	0/3/3/3
52	GDP	QN	502	-	-	1/12/32/32	0/3/3/3
50	GTP	EO	501	-	-	8/18/38/38	0/3/3/3
52	GDP	MH	502	-	-	4/12/32/32	0/3/3/3
52	GDP	UF	502	-	-	0/12/32/32	0/3/3/3
52	GDP	VJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	SC	501	-	-	7/18/38/38	0/3/3/3
50	GTP	CC	501	-	-	8/18/38/38	0/3/3/3
50	GTP	DQ	501	-	-	8/18/38/38	0/3/3/3
50	GTP	PC	501	-	-	8/18/38/38	0/3/3/3
50	GTP	AI	501	-	-	9/18/38/38	0/3/3/3
52	GDP	CB	502	-	-	1/12/32/32	0/3/3/3
50	GTP	HE	501	-	-	7/18/38/38	0/3/3/3
50	GTP	PE	501	-	-	7/18/38/38	0/3/3/3
50	GTP	TE	501	-	-	8/18/38/38	0/3/3/3
50	GTP	DK	501	-	-	6/18/38/38	0/3/3/3
50	GTP	AA	501	-	-	8/18/38/38	0/3/3/3
52	GDP	SF	502	-	-	2/12/32/32	0/3/3/3
50	GTP	VK	501	-	-	7/18/38/38	0/3/3/3
50	GTP	RM	501	-	-	7/18/38/38	0/3/3/3
50	GTP	NK	501	-	-	9/18/38/38	0/3/3/3
50	GTP	QC	501	-	-	8/18/38/38	0/3/3/3
50	GTP	QI	501	-	-	8/18/38/38	0/3/3/3
52	GDP	BB	502	-	-	0/12/32/32	0/3/3/3
52	GDP	WB	502	-	-	0/12/32/32	0/3/3/3
50	GTP	WC	501	-	-	7/18/38/38	0/3/3/3
52	GDP	KP	502	-	-	2/12/32/32	0/3/3/3
52	GDP	VD	502	-	-	1/12/32/32	0/3/3/3
50	GTP	KM	501	-	-	5/18/38/38	0/3/3/3
50	GTP	EK	501	-	-	6/18/38/38	0/3/3/3
52	GDP	LH	502	-	-	3/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
52	GDP	VH	502	-	-	1/12/32/32	0/3/3/3
50	GTP	GI	501	-	-	4/18/38/38	0/3/3/3
52	GDP	LF	502	-	-	2/12/32/32	0/3/3/3
50	GTP	FI	501	-	-	6/18/38/38	0/3/3/3
52	GDP	PB	502	-	-	1/12/32/32	0/3/3/3
50	GTP	OK	501	-	-	8/18/38/38	0/3/3/3
52	GDP	LD	502	-	-	3/12/32/32	0/3/3/3
52	GDP	MF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	TN	502	-	-	1/12/32/32	0/3/3/3
52	GDP	UJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	CG	501	-	-	6/18/38/38	0/3/3/3
52	GDP	JP	502	-	-	0/12/32/32	0/3/3/3
50	GTP	UC	501	-	-	8/18/38/38	0/3/3/3
50	GTP	JK	501	-	-	4/18/38/38	0/3/3/3
52	GDP	GJ	502	-	-	3/12/32/32	0/3/3/3
50	GTP	WI	501	-	-	6/18/38/38	0/3/3/3
52	GDP	WH	502	-	-	0/12/32/32	0/3/3/3
50	GTP	CI	501	-	-	5/18/38/38	0/3/3/3
50	GTP	MG	501	-	-	6/18/38/38	0/3/3/3
52	GDP	RD	502	-	-	0/12/32/32	0/3/3/3
52	GDP	HH	502	-	-	0/12/32/32	0/3/3/3
50	GTP	KG	501	-	-	5/18/38/38	0/3/3/3
52	GDP	AF	502	-	-	0/12/32/32	0/3/3/3
52	GDP	LL	502	-	-	3/12/32/32	0/3/3/3
50	GTP	KC	501	-	-	5/18/38/38	0/3/3/3
52	GDP	KL	502	-	-	1/12/32/32	0/3/3/3
52	GDP	RF	502	-	-	0/12/32/32	0/3/3/3
50	GTP	AO	501	-	-	8/18/38/38	0/3/3/3
52	GDP	MJ	502	-	-	1/12/32/32	0/3/3/3
52	GDP	VN	502	-	-	1/12/32/32	0/3/3/3
50	GTP	AC	501	-	-	6/18/38/38	0/3/3/3
52	GDP	RN	502	-	-	0/12/32/32	0/3/3/3
52	GDP	WF	502	-	-	1/12/32/32	0/3/3/3
50	GTP	RK	501	-	-	9/18/38/38	0/3/3/3
52	GDP	VF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	EN	502	-	-	1/12/32/32	0/3/3/3
52	GDP	QD	502	-	-	0/12/32/32	0/3/3/3
50	GTP	OE	501	-	-	8/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
50	GTP	KK	501	-	-	6/18/38/38	0/3/3/3
52	GDP	JN	502	-	-	1/12/32/32	0/3/3/3
52	GDP	WJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	BC	501	-	-	8/18/38/38	0/3/3/3
50	GTP	GO	501	-	-	6/18/38/38	0/3/3/3
52	GDP	OH	502	-	-	2/12/32/32	0/3/3/3
50	GTP	GG	501	-	-	6/18/38/38	0/3/3/3
52	GDP	KF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	IH	502	-	-	0/12/32/32	0/3/3/3
52	GDP	WL	502	-	-	1/12/32/32	0/3/3/3
52	GDP	CP	502	-	-	1/12/32/32	0/3/3/3
52	GDP	DL	502	-	-	2/12/32/32	0/3/3/3
50	GTP	PM	501	-	-	8/18/38/38	0/3/3/3
50	GTP	BO	501	-	-	8/18/38/38	0/3/3/3
52	GDP	NH	502	-	-	2/12/32/32	0/3/3/3
50	GTP	JE	501	-	-	6/18/38/38	0/3/3/3
52	GDP	PN	502	-	-	3/12/32/32	0/3/3/3
52	GDP	NF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	MN	502	-	-	2/12/32/32	0/3/3/3
50	GTP	EI	501	-	-	7/18/38/38	0/3/3/3
52	GDP	BH	502	-	-	1/12/32/32	0/3/3/3
52	GDP	QH	502	-	-	1/12/32/32	0/3/3/3
52	GDP	PL	502	-	-	0/12/32/32	0/3/3/3
50	GTP	HK	501	-	-	7/18/38/38	0/3/3/3
50	GTP	SI	501	-	-	8/18/38/38	0/3/3/3
50	GTP	NG	501	-	-	9/18/38/38	0/3/3/3
50	GTP	GM	501	-	-	6/18/38/38	0/3/3/3
50	GTP	FK	501	-	-	8/18/38/38	0/3/3/3
52	GDP	KD	502	-	-	2/12/32/32	0/3/3/3
52	GDP	GD	502	-	-	2/12/32/32	0/3/3/3
52	GDP	WN	502	-	-	0/12/32/32	0/3/3/3
52	GDP	HB	502	-	-	2/12/32/32	0/3/3/3
52	GDP	TB	502	-	-	1/12/32/32	0/3/3/3
52	GDP	GL	502	-	-	1/12/32/32	0/3/3/3
52	GDP	PD	502	-	-	1/12/32/32	0/3/3/3
52	GDP	UH	502	-	-	1/12/32/32	0/3/3/3
50	GTP	JG	501	-	-	6/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
52	GDP	EF	502	-	-	1/12/32/32	0/3/3/3
50	GTP	QK	501	-	-	8/18/38/38	0/3/3/3
52	GDP	QP	502	-	-	0/12/32/32	0/3/3/3
52	GDP	OB	502	-	-	4/12/32/32	0/3/3/3
52	GDP	TD	502	-	-	1/12/32/32	0/3/3/3
52	GDP	TH	502	-	-	1/12/32/32	0/3/3/3
50	GTP	OC	501	-	-	8/18/38/38	0/3/3/3
50	GTP	MM	501	-	-	9/18/38/38	0/3/3/3
50	GTP	JQ	501	-	-	6/18/38/38	0/3/3/3
52	GDP	AN	502	-	-	0/12/32/32	0/3/3/3
52	GDP	BP	502	-	-	1/12/32/32	0/3/3/3
52	GDP	CH	502	-	-	0/12/32/32	0/3/3/3
52	GDP	AP	502	-	-	1/12/32/32	0/3/3/3
52	GDP	HP	502	-	-	1/12/32/32	0/3/3/3
50	GTP	BK	501	-	-	7/18/38/38	0/3/3/3
50	GTP	NI	501	-	-	8/18/38/38	0/3/3/3
52	GDP	IN	502	-	-	1/12/32/32	0/3/3/3
52	GDP	IF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	TL	502	-	-	1/12/32/32	0/3/3/3
50	GTP	EE	501	-	-	7/18/38/38	0/3/3/3
52	GDP	FN	502	-	-	1/12/32/32	0/3/3/3
52	GDP	JH	502	-	-	0/12/32/32	0/3/3/3
50	GTP	QO	501	-	-	7/18/38/38	0/3/3/3
50	GTP	VE	501	-	-	7/18/38/38	0/3/3/3
52	GDP	EL	502	-	-	1/12/32/32	0/3/3/3
50	GTP	WM	501	-	-	6/18/38/38	0/3/3/3
52	GDP	OP	502	-	-	1/12/32/32	0/3/3/3
50	GTP	DO	501	-	-	8/18/38/38	0/3/3/3
50	GTP	SK	501	-	-	8/18/38/38	0/3/3/3
52	GDP	DF	502	-	-	0/12/32/32	0/3/3/3
52	GDP	RJ	502	-	-	0/12/32/32	0/3/3/3
50	GTP	LK	501	-	-	7/18/38/38	0/3/3/3
52	GDP	BF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	SD	502	-	-	2/12/32/32	0/3/3/3
50	GTP	CQ	501	-	-	8/18/38/38	0/3/3/3
50	GTP	LG	501	-	-	7/18/38/38	0/3/3/3
50	GTP	GE	501	-	-	7/18/38/38	0/3/3/3
50	GTP	EA	501	-	-	7/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
50	GTP	VC	501	-	-	8/18/38/38	0/3/3/3
52	GDP	GN	502	-	-	1/12/32/32	0/3/3/3
50	GTP	IO	501	-	-	8/18/38/38	0/3/3/3
50	GTP	VO	501	-	-	8/18/38/38	0/3/3/3
50	GTP	MK	501	-	-	6/18/38/38	0/3/3/3
52	GDP	DJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	CO	501	-	-	8/18/38/38	0/3/3/3
52	GDP	KB	502	-	-	2/12/32/32	0/3/3/3
50	GTP	AG	501	-	-	6/18/38/38	0/3/3/3
50	GTP	CM	501	-	-	5/18/38/38	0/3/3/3
52	GDP	IL	502	-	-	0/12/32/32	0/3/3/3
50	GTP	IG	501	-	-	8/18/38/38	0/3/3/3
50	GTP	GA	501	-	-	8/18/38/38	0/3/3/3
50	GTP	JO	501	-	-	6/18/38/38	0/3/3/3
50	GTP	FM	501	-	-	8/18/38/38	0/3/3/3
50	GTP	TG	501	-	-	8/18/38/38	0/3/3/3
50	GTP	TM	501	-	-	9/18/38/38	0/3/3/3
52	GDP	KH	502	-	-	1/12/32/32	0/3/3/3
52	GDP	NB	502	-	-	1/12/32/32	0/3/3/3
52	GDP	WP	502	-	-	1/12/32/32	0/3/3/3
52	GDP	EJ	502	-	-	0/12/32/32	0/3/3/3
50	GTP	NA	501	-	-	8/18/38/38	0/3/3/3
52	GDP	MP	502	-	-	2/12/32/32	0/3/3/3
50	GTP	UA	501	-	-	8/18/38/38	0/3/3/3
50	GTP	MO	501	-	-	6/18/38/38	0/3/3/3
52	GDP	UL	502	-	-	1/12/32/32	0/3/3/3
52	GDP	TJ	502	-	-	1/12/32/32	0/3/3/3
52	GDP	PP	502	-	-	1/12/32/32	0/3/3/3
50	GTP	VM	501	-	-	7/18/38/38	0/3/3/3
52	GDP	AH	502	-	-	1/12/32/32	0/3/3/3
52	GDP	GH	502	-	-	1/12/32/32	0/3/3/3
50	GTP	DC	501	-	-	7/18/38/38	0/3/3/3
52	GDP	ML	502	-	-	3/12/32/32	0/3/3/3
52	GDP	JJ	502	-	-	2/12/32/32	0/3/3/3
52	GDP	EB	502	-	-	1/12/32/32	0/3/3/3
52	GDP	SL	502	-	-	2/12/32/32	0/3/3/3
52	GDP	EH	502	-	-	1/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
50	GTP	HA	501	-	-	9/18/38/38	0/3/3/3
52	GDP	KJ	502	-	-	1/12/32/32	0/3/3/3
52	GDP	ED	502	-	-	1/12/32/32	0/3/3/3
52	GDP	NJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	KO	501	-	-	5/18/38/38	0/3/3/3
52	GDP	GF	502	-	-	0/12/32/32	0/3/3/3
52	GDP	SN	502	-	-	1/12/32/32	0/3/3/3
50	GTP	TA	501	-	-	8/18/38/38	0/3/3/3
50	GTP	SG	501	-	-	8/18/38/38	0/3/3/3
52	GDP	BL	502	-	-	2/12/32/32	0/3/3/3
52	GDP	UB	502	-	-	1/12/32/32	0/3/3/3
50	GTP	BG	501	-	-	6/18/38/38	0/3/3/3
50	GTP	MC	501	-	-	6/18/38/38	0/3/3/3
52	GDP	QB	502	-	-	1/12/32/32	0/3/3/3
50	GTP	UE	501	-	-	8/18/38/38	0/3/3/3
52	GDP	JF	502	-	-	0/12/32/32	0/3/3/3
50	GTP	SM	501	-	-	7/18/38/38	0/3/3/3
50	GTP	JC	501	-	-	7/18/38/38	0/3/3/3
52	GDP	FB	502	-	-	1/12/32/32	0/3/3/3
50	GTP	OA	501	-	-	7/18/38/38	0/3/3/3
52	GDP	CJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	PO	501	-	-	8/18/38/38	0/3/3/3
52	GDP	AJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	QE	501	-	-	7/18/38/38	0/3/3/3
52	GDP	LN	502	-	-	1/12/32/32	0/3/3/3
50	GTP	ME	501	-	-	4/18/38/38	0/3/3/3
50	GTP	SE	501	-	-	6/18/38/38	0/3/3/3
50	GTP	RI	501	-	-	7/18/38/38	0/3/3/3
50	GTP	DM	501	-	-	8/18/38/38	0/3/3/3
50	GTP	QG	501	-	-	8/18/38/38	0/3/3/3
50	GTP	LE	501	-	-	5/18/38/38	0/3/3/3
50	GTP	BE	501	-	-	8/18/38/38	0/3/3/3
50	GTP	NO	501	-	-	9/18/38/38	0/3/3/3
50	GTP	EG	501	-	-	7/18/38/38	0/3/3/3
52	GDP	HN	502	-	-	0/12/32/32	0/3/3/3
52	GDP	OD	502	-	-	3/12/32/32	0/3/3/3
52	GDP	CD	502	-	-	1/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
50	GTP	TK	501	-	-	8/18/38/38	0/3/3/3
50	GTP	FG	501	-	-	6/18/38/38	0/3/3/3
52	GDP	CF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	KN	502	-	-	1/12/32/32	0/3/3/3
50	GTP	LA	501	-	-	6/18/38/38	0/3/3/3
50	GTP	UI	501	-	-	8/18/38/38	0/3/3/3
52	GDP	BJ	502	-	-	0/12/32/32	0/3/3/3
50	GTP	MI	501	-	-	5/18/38/38	0/3/3/3
50	GTP	UG	501	-	-	9/18/38/38	0/3/3/3
52	GDP	VB	502	-	-	4/12/32/32	0/3/3/3
50	GTP	GC	501	-	-	6/18/38/38	0/3/3/3
50	GTP	WK	501	-	-	6/18/38/38	0/3/3/3
50	GTP	UO	501	-	-	7/18/38/38	0/3/3/3
52	GDP	DN	502	-	-	1/12/32/32	0/3/3/3
52	GDP	RP	502	-	-	0/12/32/32	0/3/3/3
50	GTP	RG	501	-	-	7/18/38/38	0/3/3/3
50	GTP	IC	501	-	-	7/18/38/38	0/3/3/3
50	GTP	KA	501	-	-	5/18/38/38	0/3/3/3
50	GTP	UM	501	-	-	8/18/38/38	0/3/3/3
50	GTP	WO	501	-	-	6/18/38/38	0/3/3/3
52	GDP	DP	502	-	-	4/12/32/32	0/3/3/3
52	GDP	ND	502	-	-	2/12/32/32	0/3/3/3
52	GDP	NL	502	-	-	1/12/32/32	0/3/3/3
50	GTP	HC	501	-	-	9/18/38/38	0/3/3/3
50	GTP	JM	501	-	-	6/18/38/38	0/3/3/3
50	GTP	NM	501	-	-	8/18/38/38	0/3/3/3
52	GDP	NN	502	-	-	4/12/32/32	0/3/3/3
50	GTP	RE	501	-	-	8/18/38/38	0/3/3/3
50	GTP	IM	501	-	-	7/18/38/38	0/3/3/3
50	GTP	NC	501	-	-	6/18/38/38	0/3/3/3
50	GTP	AE	501	-	-	9/18/38/38	0/3/3/3
52	GDP	AL	502	-	-	1/12/32/32	0/3/3/3
52	GDP	AD	502	-	-	1/12/32/32	0/3/3/3
50	GTP	AM	501	-	-	9/18/38/38	0/3/3/3
52	GDP	UD	502	-	-	4/12/32/32	0/3/3/3
52	GDP	HL	502	-	-	1/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
50	GTP	PI	501	-	-	8/18/38/38	0/3/3/3
50	GTP	WA	501	-	-	8/18/38/38	0/3/3/3
50	GTP	DG	501	-	-	8/18/38/38	0/3/3/3
52	GDP	PJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	IA	501	-	-	8/18/38/38	0/3/3/3
50	GTP	CE	501	-	-	6/18/38/38	0/3/3/3
50	GTP	IE	501	-	-	8/18/38/38	0/3/3/3
50	GTP	TC	501	-	-	8/18/38/38	0/3/3/3
52	GDP	FL	502	-	-	0/12/32/32	0/3/3/3
50	GTP	QM	501	-	-	8/18/38/38	0/3/3/3
52	GDP	DB	502	-	-	1/12/32/32	0/3/3/3
52	GDP	JB	502	-	-	1/12/32/32	0/3/3/3
52	GDP	RH	502	-	-	1/12/32/32	0/3/3/3
52	GDP	IJ	502	-	-	1/12/32/32	0/3/3/3
50	GTP	NE	501	-	-	7/18/38/38	0/3/3/3
50	GTP	OG	501	-	-	8/18/38/38	0/3/3/3
52	GDP	FJ	502	-	-	1/12/32/32	0/3/3/3
52	GDP	MB	502	-	-	1/12/32/32	0/3/3/3
50	GTP	OI	501	-	-	8/18/38/38	0/3/3/3
52	GDP	FH	502	-	-	1/12/32/32	0/3/3/3
50	GTP	LO	501	-	-	6/18/38/38	0/3/3/3
50	GTP	OM	501	-	-	8/18/38/38	0/3/3/3
50	GTP	AK	501	-	-	6/18/38/38	0/3/3/3
50	GTP	PK	501	-	-	7/18/38/38	0/3/3/3
50	GTP	II	501	-	-	7/18/38/38	0/3/3/3
52	GDP	UN	502	-	-	1/12/32/32	0/3/3/3
52	GDP	SH	502	-	-	1/12/32/32	0/3/3/3
52	GDP	DH	502	-	-	0/12/32/32	0/3/3/3
52	GDP	IP	502	-	-	1/12/32/32	0/3/3/3
50	GTP	EC	501	-	-	7/18/38/38	0/3/3/3
50	GTP	MA	501	-	-	6/18/38/38	0/3/3/3
50	GTP	LC	501	-	-	6/18/38/38	0/3/3/3
50	GTP	LI	501	-	-	7/18/38/38	0/3/3/3
50	GTP	VA	501	-	-	8/18/38/38	0/3/3/3
50	GTP	UK	501	-	-	9/18/38/38	0/3/3/3
52	GDP	TF	502	-	-	1/12/32/32	0/3/3/3
52	GDP	LB	502	-	-	1/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
50	GTP	KI	501	-	-	7/18/38/38	0/3/3/3
50	GTP	SA	501	-	-	8/18/38/38	0/3/3/3
52	GDP	QL	502	-	-	0/12/32/32	0/3/3/3
50	GTP	VI	501	-	-	8/18/38/38	0/3/3/3
50	GTP	RO	501	-	-	8/18/38/38	0/3/3/3
50	GTP	FE	501	-	-	5/18/38/38	0/3/3/3
52	GDP	HF	502	-	-	0/12/32/32	0/3/3/3
50	GTP	FO	501	-	-	9/18/38/38	0/3/3/3
50	GTP	WG	501	-	-	8/18/38/38	0/3/3/3
52	GDP	ID	502	-	-	0/12/32/32	0/3/3/3
52	GDP	LJ	502	-	-	1/12/32/32	0/3/3/3
52	GDP	SB	502	-	-	1/12/32/32	0/3/3/3
50	GTP	JI	501	-	-	8/18/38/38	0/3/3/3
52	GDP	CN	502	-	-	1/12/32/32	0/3/3/3
50	GTP	PG	501	-	-	8/18/38/38	0/3/3/3
50	GTP	HO	501	-	-	7/18/38/38	0/3/3/3
52	GDP	BN	502	-	-	0/12/32/32	0/3/3/3
52	GDP	LP	502	-	-	1/12/32/32	0/3/3/3
52	GDP	JL	502	-	-	1/12/32/32	0/3/3/3
50	GTP	CK	501	-	-	5/18/38/38	0/3/3/3
52	GDP	BD	502	-	-	1/12/32/32	0/3/3/3
50	GTP	OO	501	-	-	9/18/38/38	0/3/3/3
52	GDP	FF	502	-	-	1/12/32/32	0/3/3/3
50	GTP	BM	501	-	-	7/18/38/38	0/3/3/3
52	GDP	IB	502	-	-	2/12/32/32	0/3/3/3
52	GDP	MD	502	-	-	4/12/32/32	0/3/3/3
50	GTP	BI	501	-	-	7/18/38/38	0/3/3/3
50	GTP	WE	501	-	-	7/18/38/38	0/3/3/3
52	GDP	QF	502	-	-	1/12/32/32	0/3/3/3
50	GTP	GK	501	-	-	7/18/38/38	0/3/3/3
50	GTP	LM	501	-	-	6/18/38/38	0/3/3/3
52	GDP	DD	502	-	-	1/12/32/32	0/3/3/3
52	GDP	OJ	502	-	-	4/12/32/32	0/3/3/3
52	GDP	HJ	502	-	-	0/12/32/32	0/3/3/3
52	GDP	OF	502	-	-	3/12/32/32	0/3/3/3
52	GDP	CL	502	-	-	1/12/32/32	0/3/3/3
52	GDP	FD	502	-	-	0/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
50	GTP	FC	501	-	-	7/18/38/38	0/3/3/3
50	GTP	HG	501	-	-	9/18/38/38	0/3/3/3
52	GDP	AB	502	-	-	0/12/32/32	0/3/3/3
50	GTP	FA	501	-	-	7/18/38/38	0/3/3/3
50	GTP	DE	501	-	-	7/18/38/38	0/3/3/3
50	GTP	HM	501	-	-	7/18/38/38	0/3/3/3
52	GDP	JD	502	-	-	1/12/32/32	0/3/3/3
52	GDP	ON	502	-	-	2/12/32/32	0/3/3/3
50	GTP	IK	501	-	-	7/18/38/38	0/3/3/3
50	GTP	VG	501	-	-	8/18/38/38	0/3/3/3
52	GDP	GB	502	-	-	1/12/32/32	0/3/3/3
52	GDP	HD	502	-	-	1/12/32/32	0/3/3/3
52	GDP	OL	502	-	-	1/12/32/32	0/3/3/3
50	GTP	DI	501	-	-	7/18/38/38	0/3/3/3
52	GDP	QJ	502	-	-	0/12/32/32	0/3/3/3
52	GDP	SJ	502	-	-	2/12/32/32	0/3/3/3
52	GDP	NP	502	-	-	1/12/32/32	0/3/3/3
52	GDP	PF	502	-	-	1/12/32/32	0/3/3/3
50	GTP	TI	501	-	-	8/18/38/38	0/3/3/3
50	GTP	KE	501	-	-	7/18/38/38	0/3/3/3
50	GTP	RC	501	-	-	8/18/38/38	0/3/3/3
50	GTP	EM	501	-	-	7/18/38/38	0/3/3/3
52	GDP	VL	502	-	-	1/12/32/32	0/3/3/3
52	GDP	WD	502	-	-	1/12/32/32	0/3/3/3

The worst 5 of 526 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	LC	501	GTP	C5-C6	-4.36	1.38	1.47
50	NG	501	GTP	C5-C6	-4.35	1.38	1.47
50	HG	501	GTP	C5-C6	-4.29	1.38	1.47
50	KI	501	GTP	C5-C6	-4.28	1.38	1.47
50	LG	501	GTP	C5-C6	-4.28	1.38	1.47

The worst 5 of 1944 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	MJ	502	GDP	PA-O3A-PB	-4.58	117.09	132.83
52	LF	502	GDP	PA-O3A-PB	-4.52	117.31	132.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	II	501	GTP	PB-O3B-PG	-4.51	117.34	132.83
52	KB	502	GDP	PA-O3A-PB	-4.39	117.75	132.83
50	MM	501	GTP	PA-O3A-PB	-4.34	117.94	132.83

There are no chirality outliers.

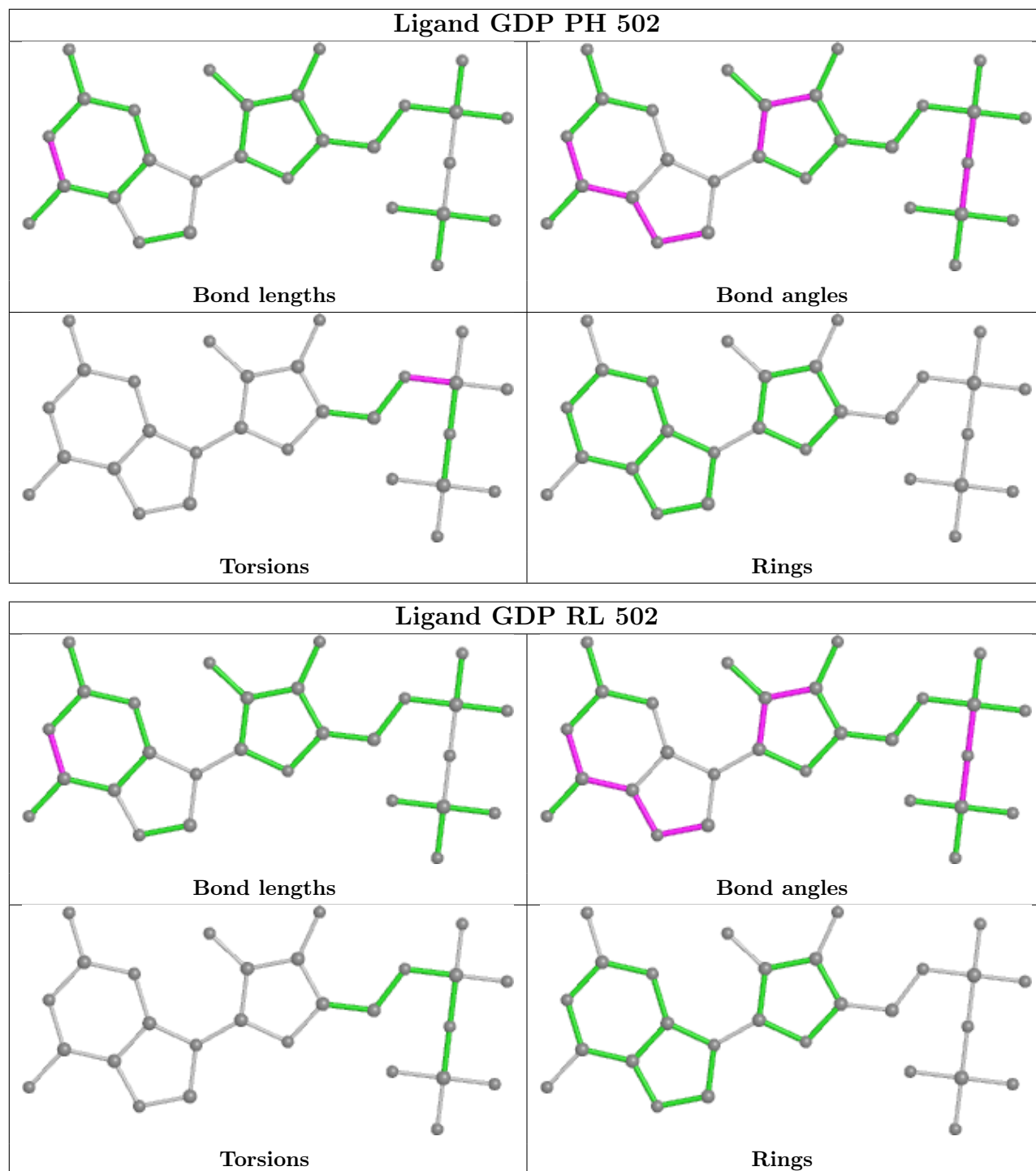
5 of 1477 torsion outliers are listed below:

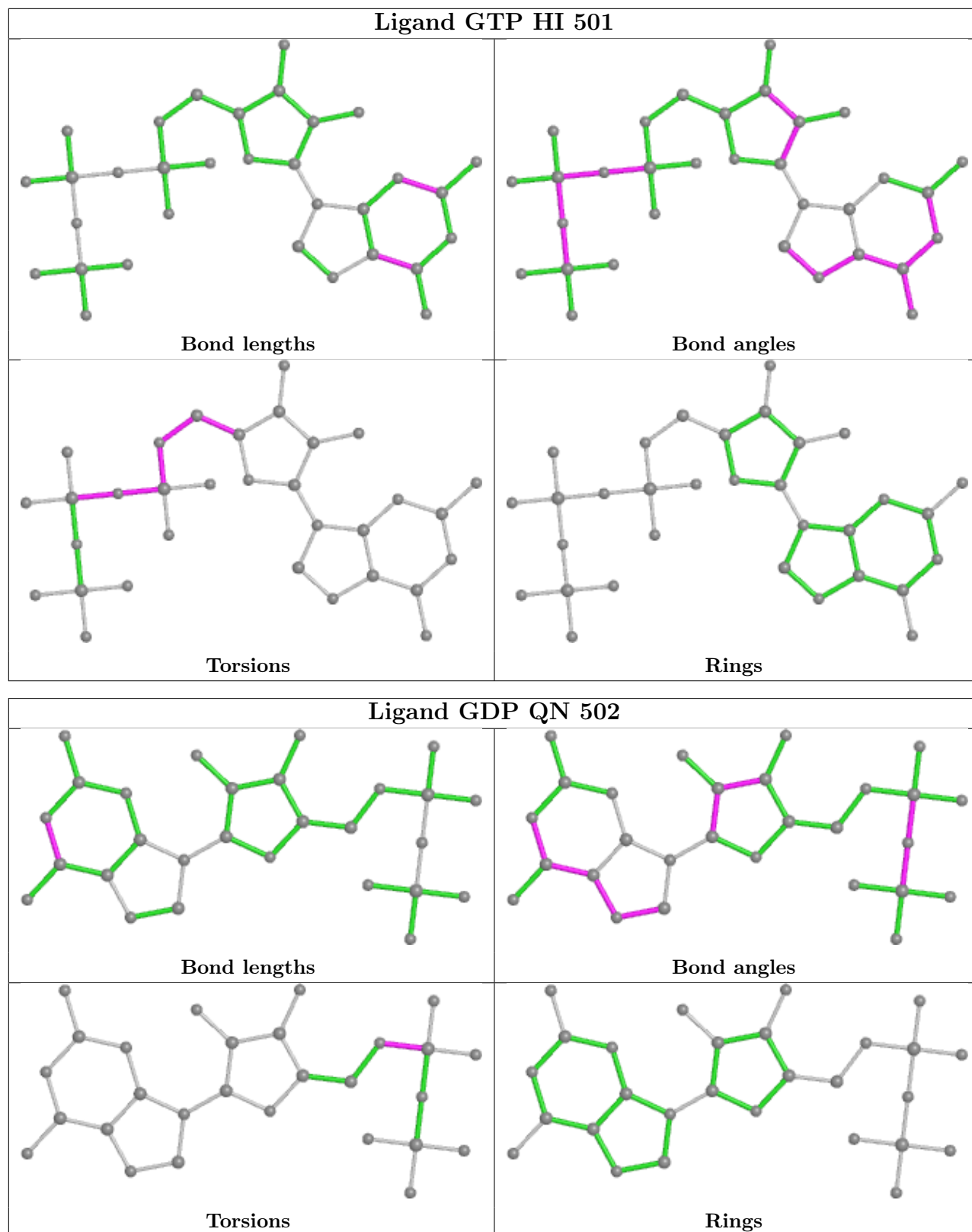
Mol	Chain	Res	Type	Atoms
50	AA	501	GTP	C5'-O5'-PA-O1A
50	AA	501	GTP	C5'-O5'-PA-O2A
50	AC	501	GTP	C5'-O5'-PA-O1A
50	AC	501	GTP	C5'-O5'-PA-O2A
50	AE	501	GTP	PB-O3A-PA-O5'

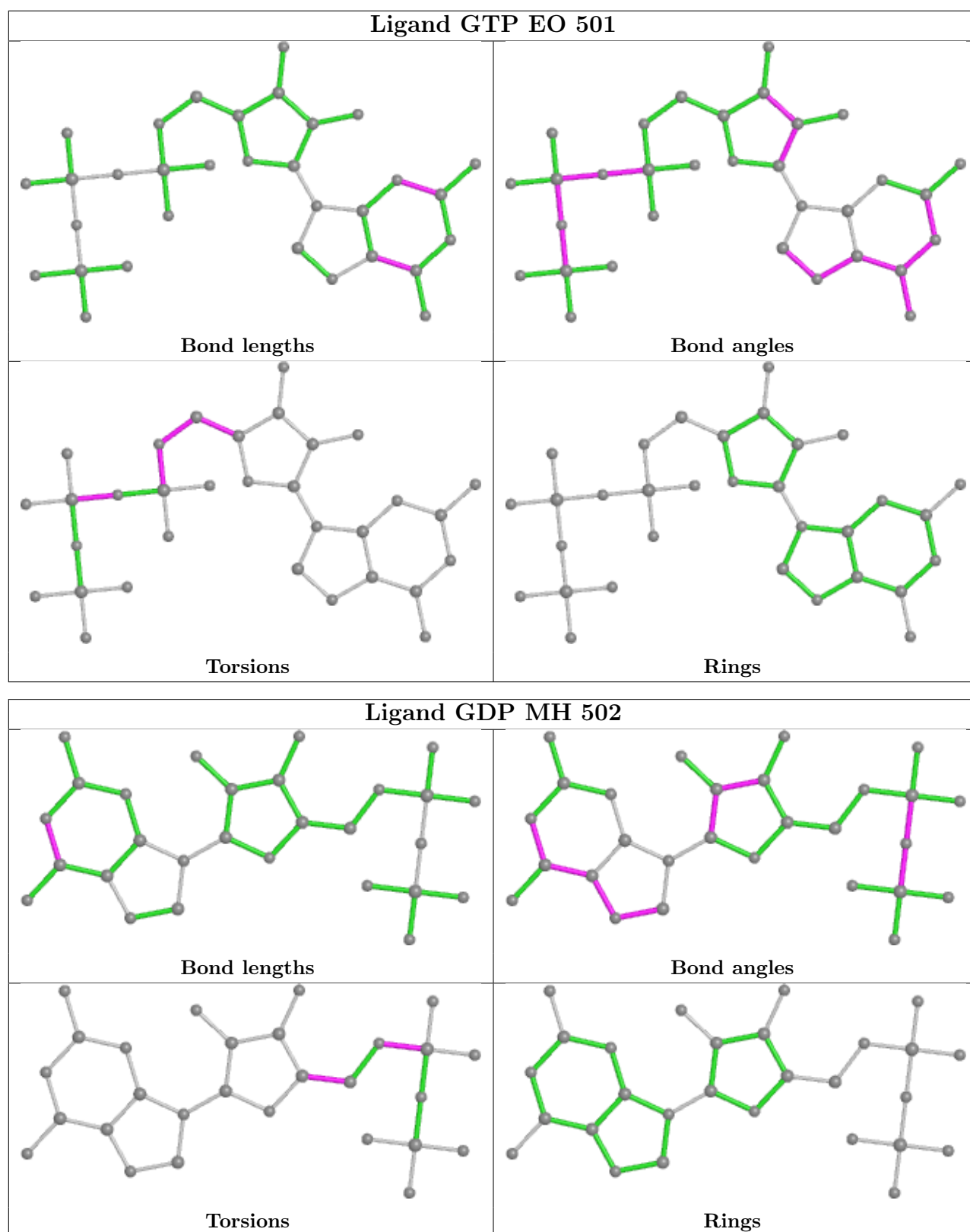
There are no ring outliers.

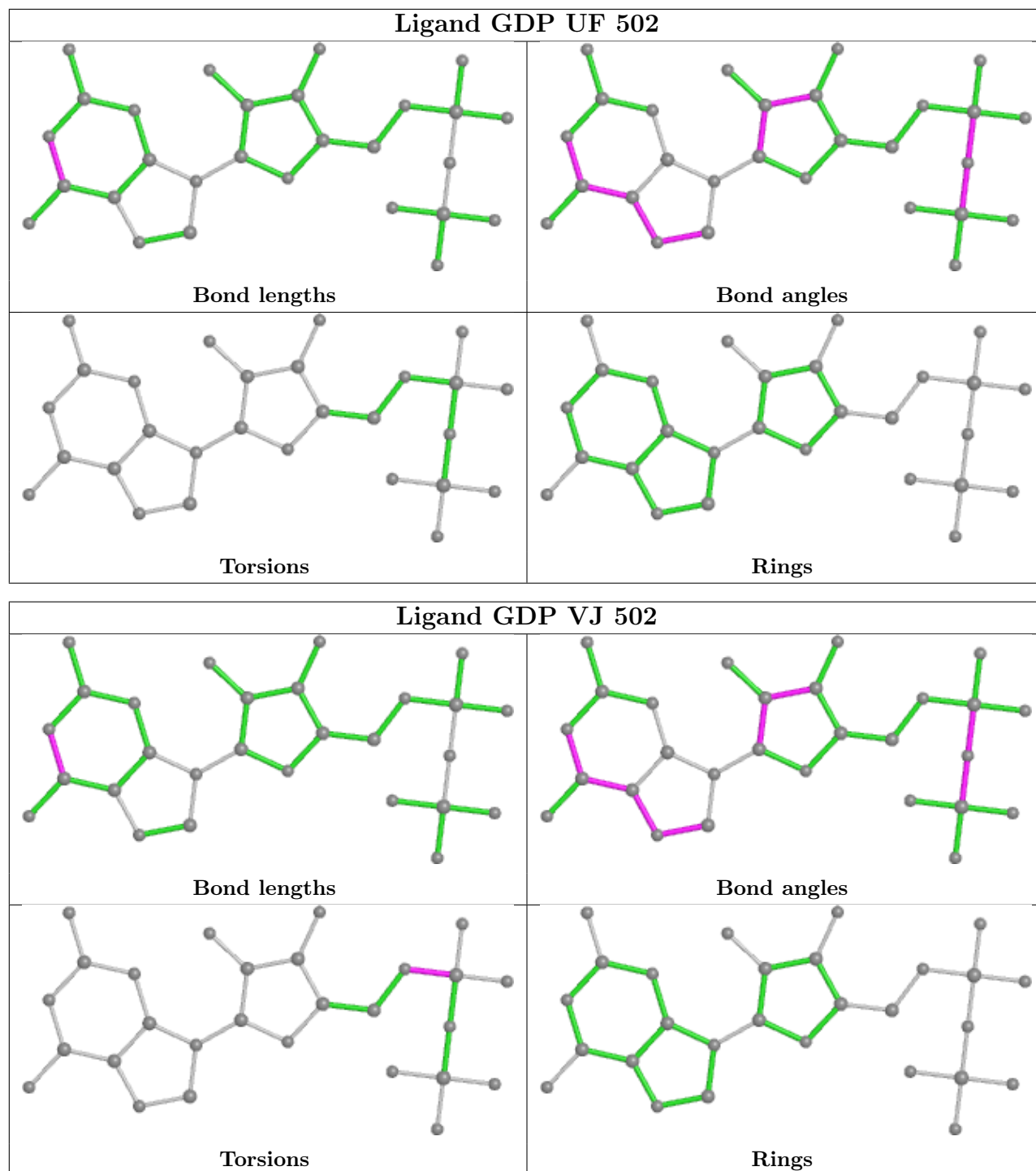
No monomer is involved in short contacts.

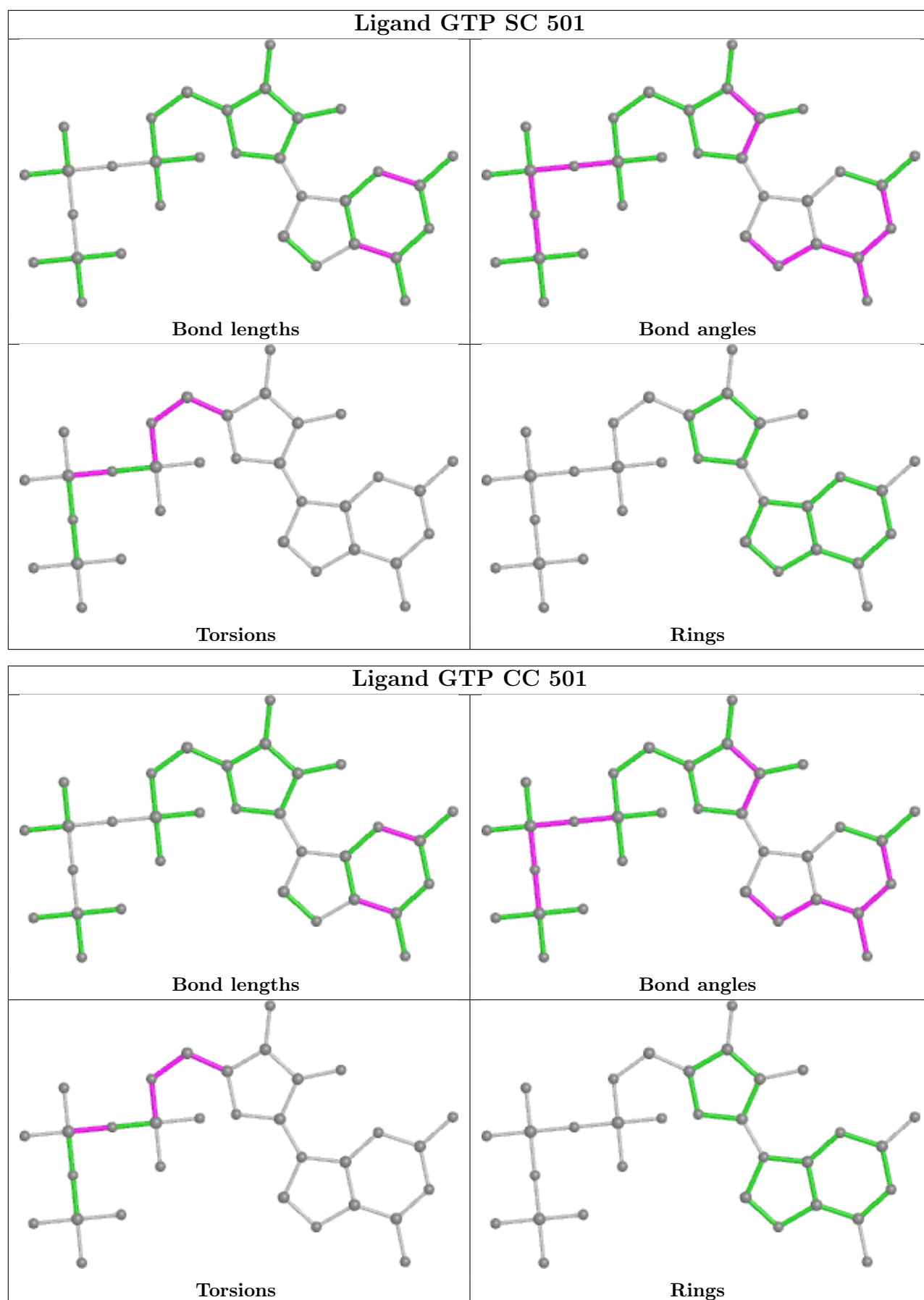
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

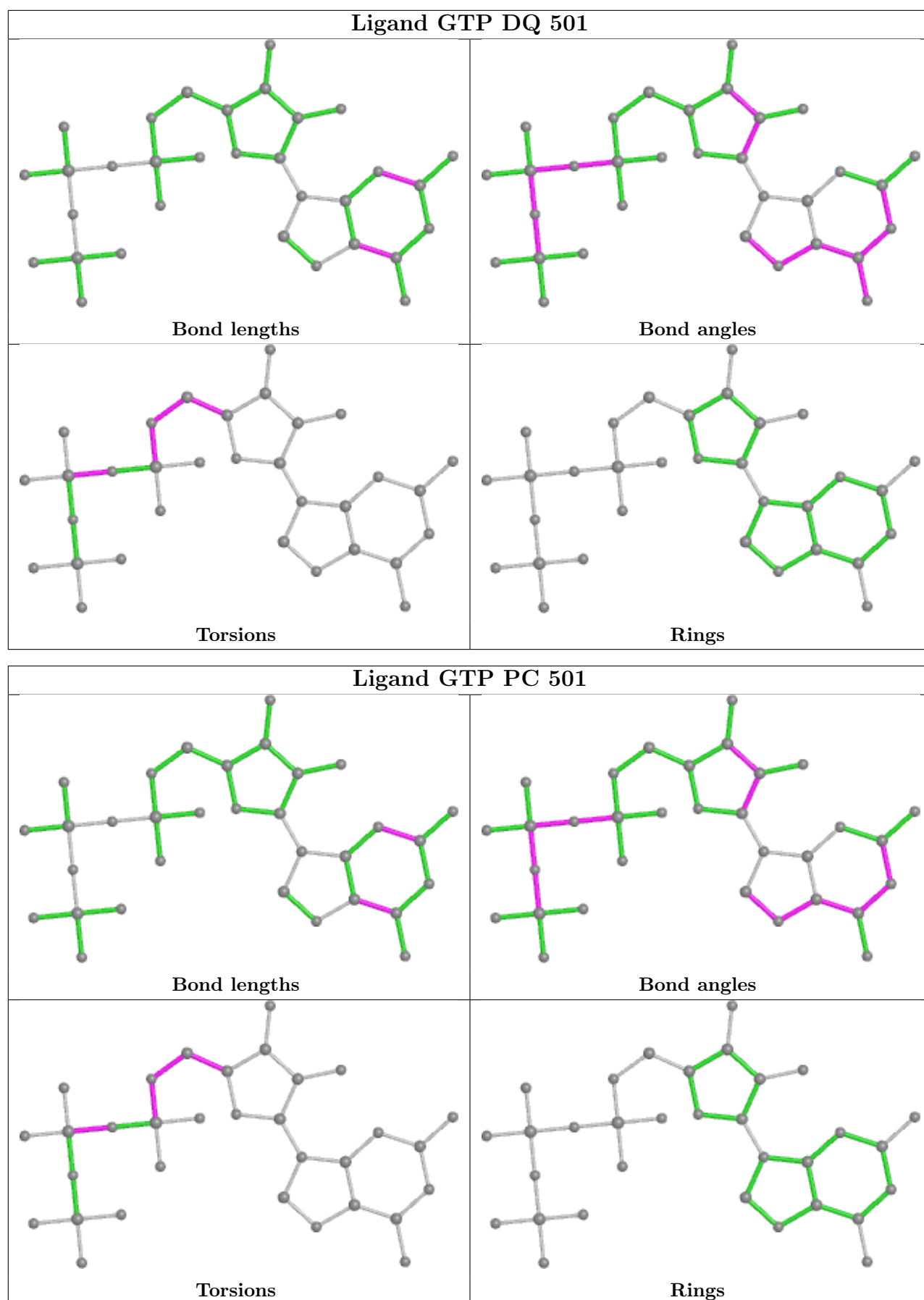


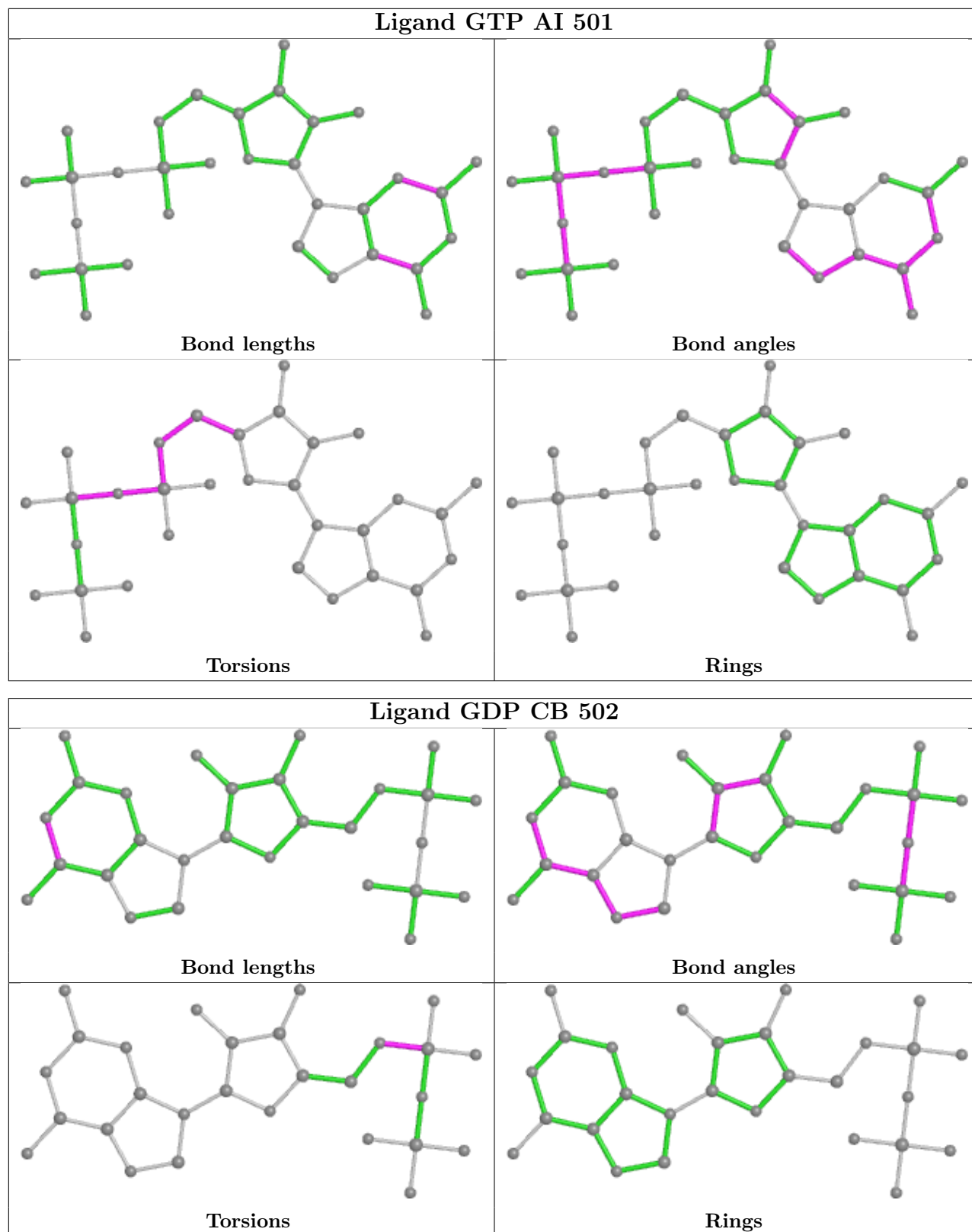


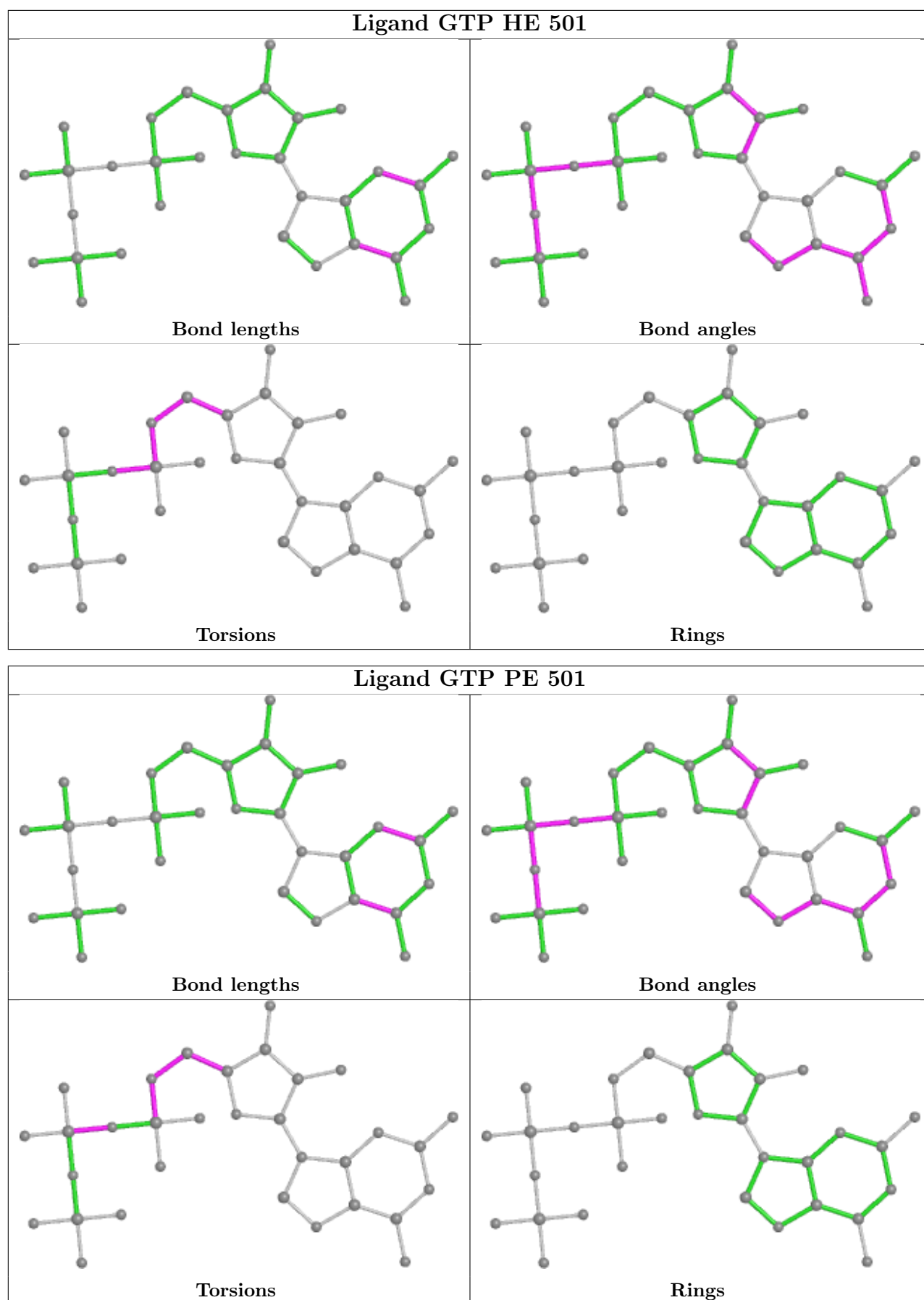


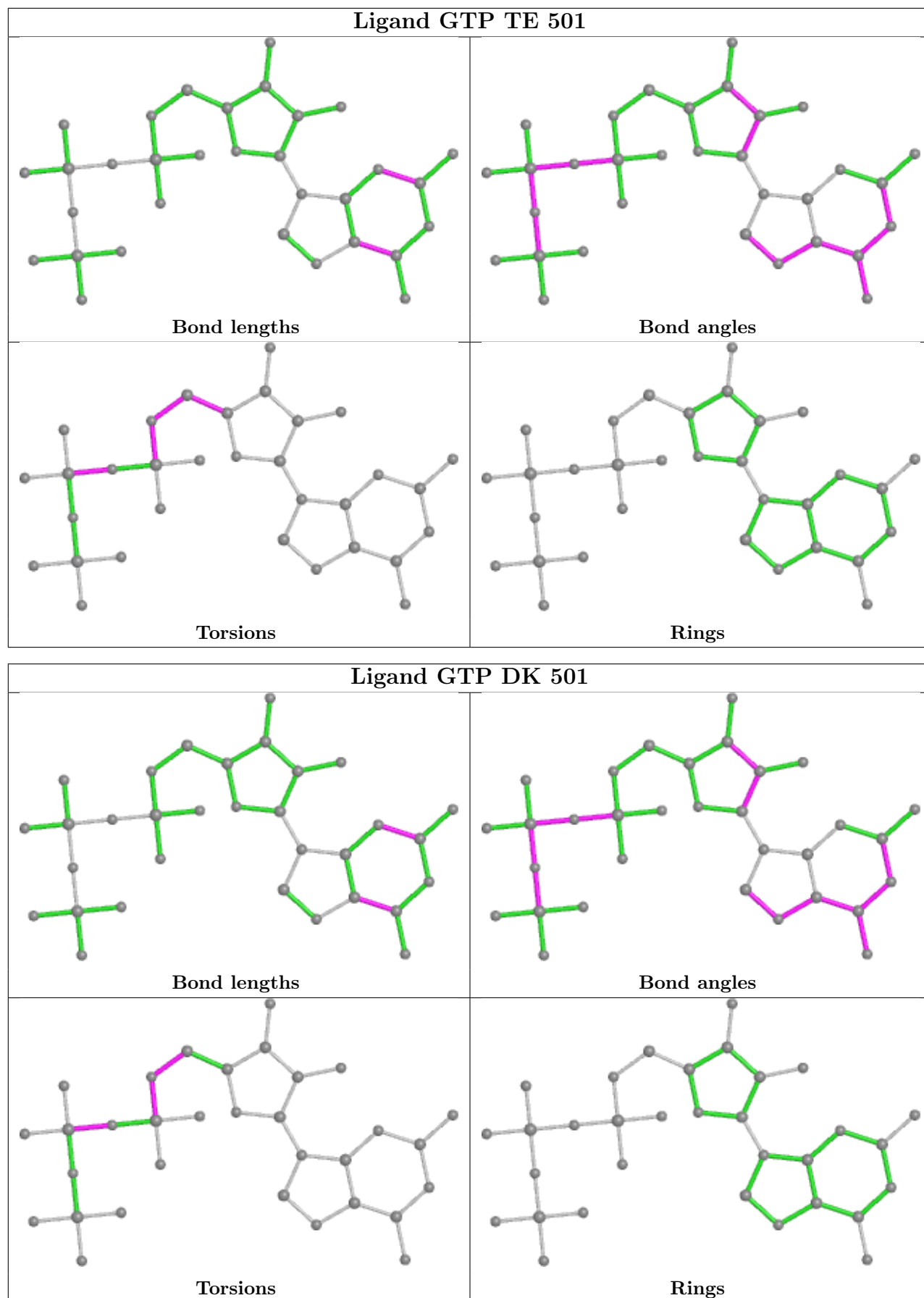


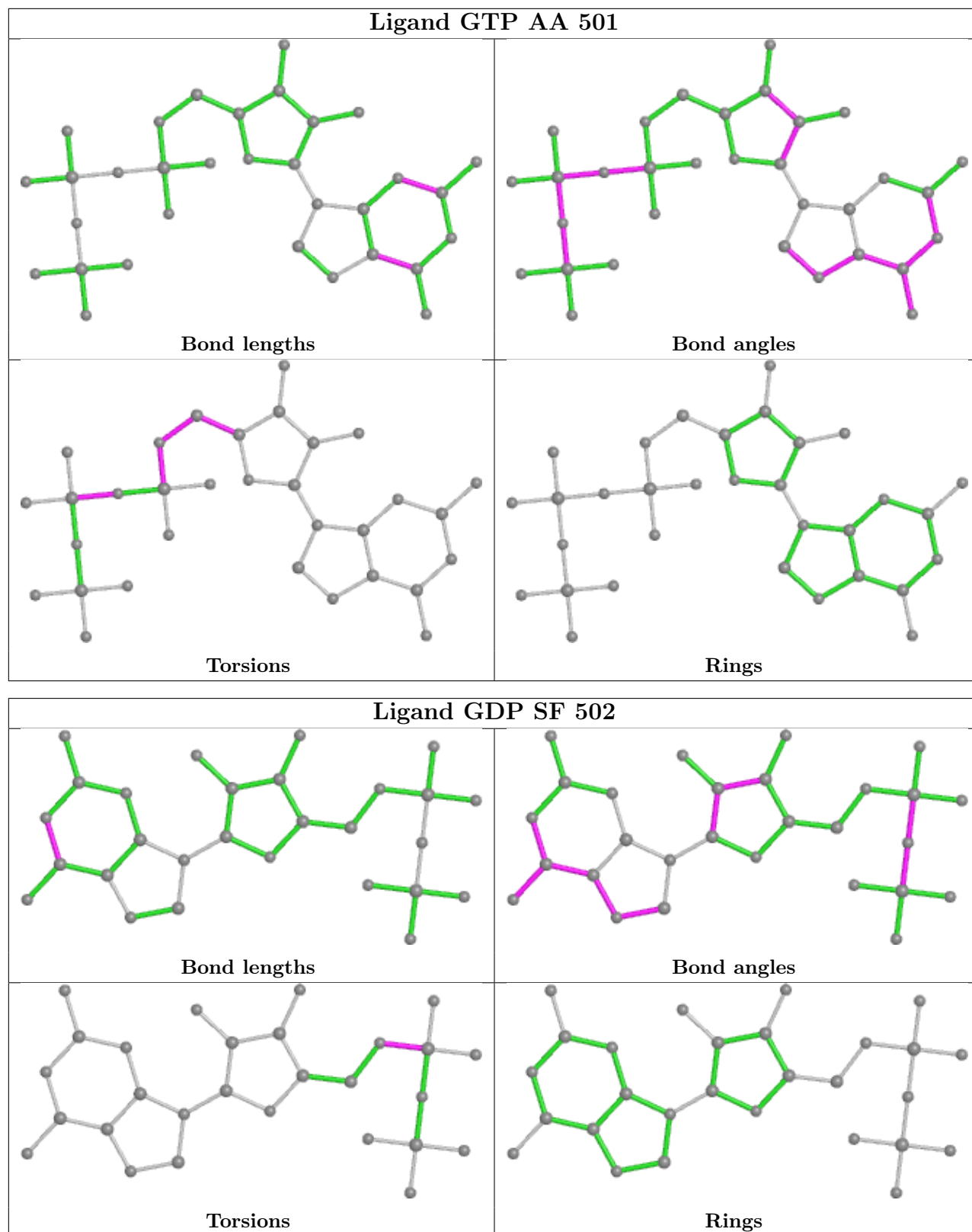


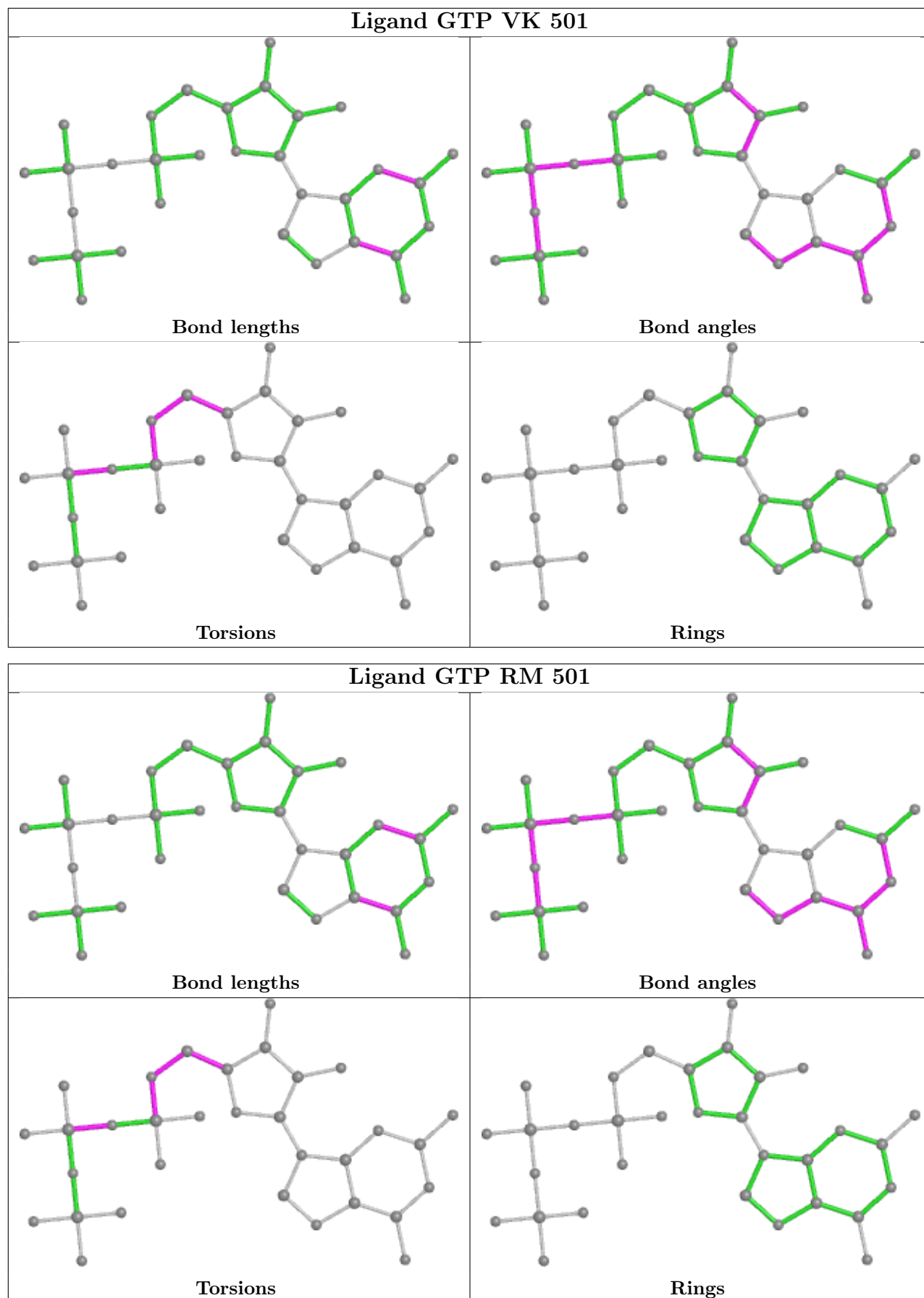


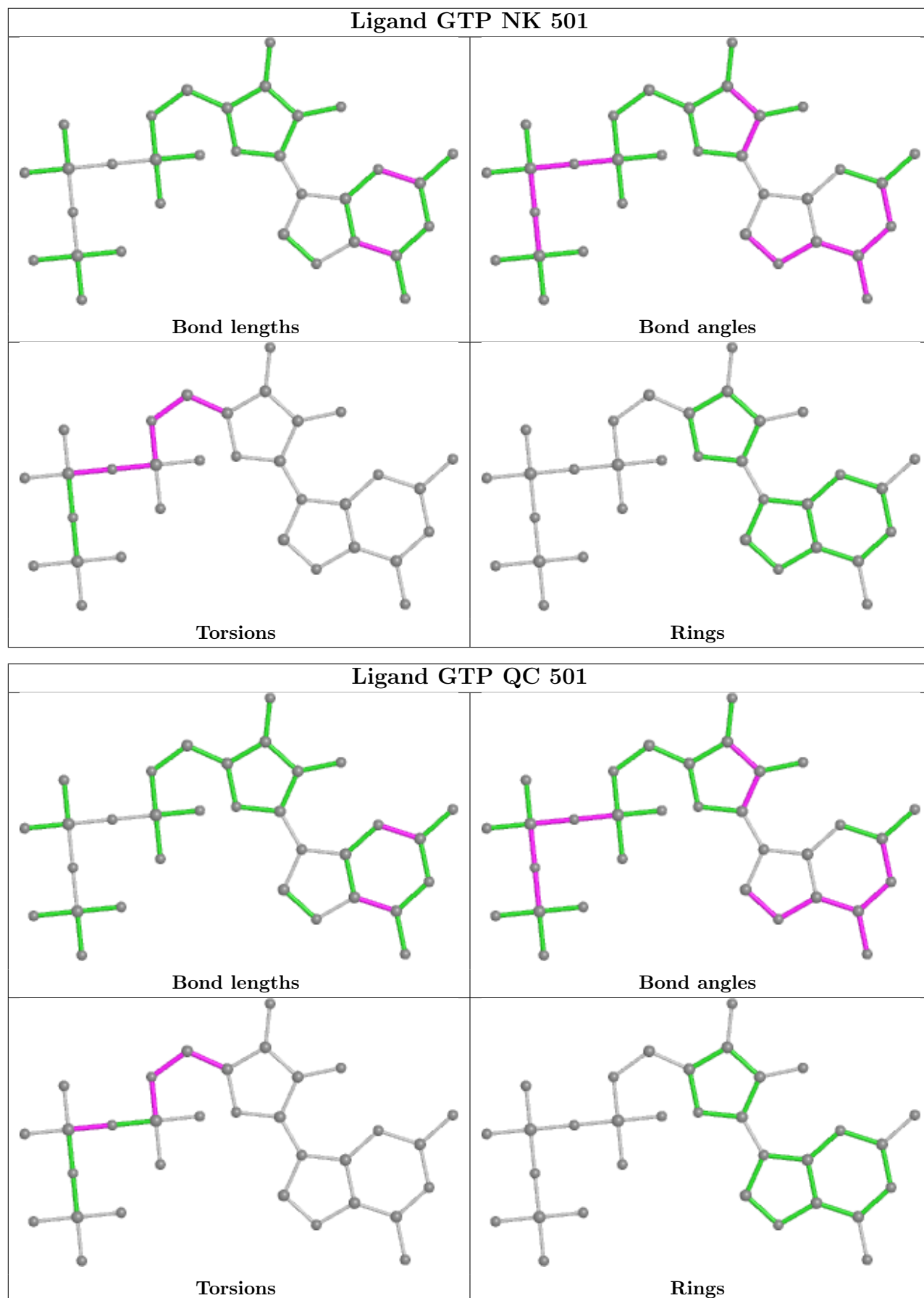


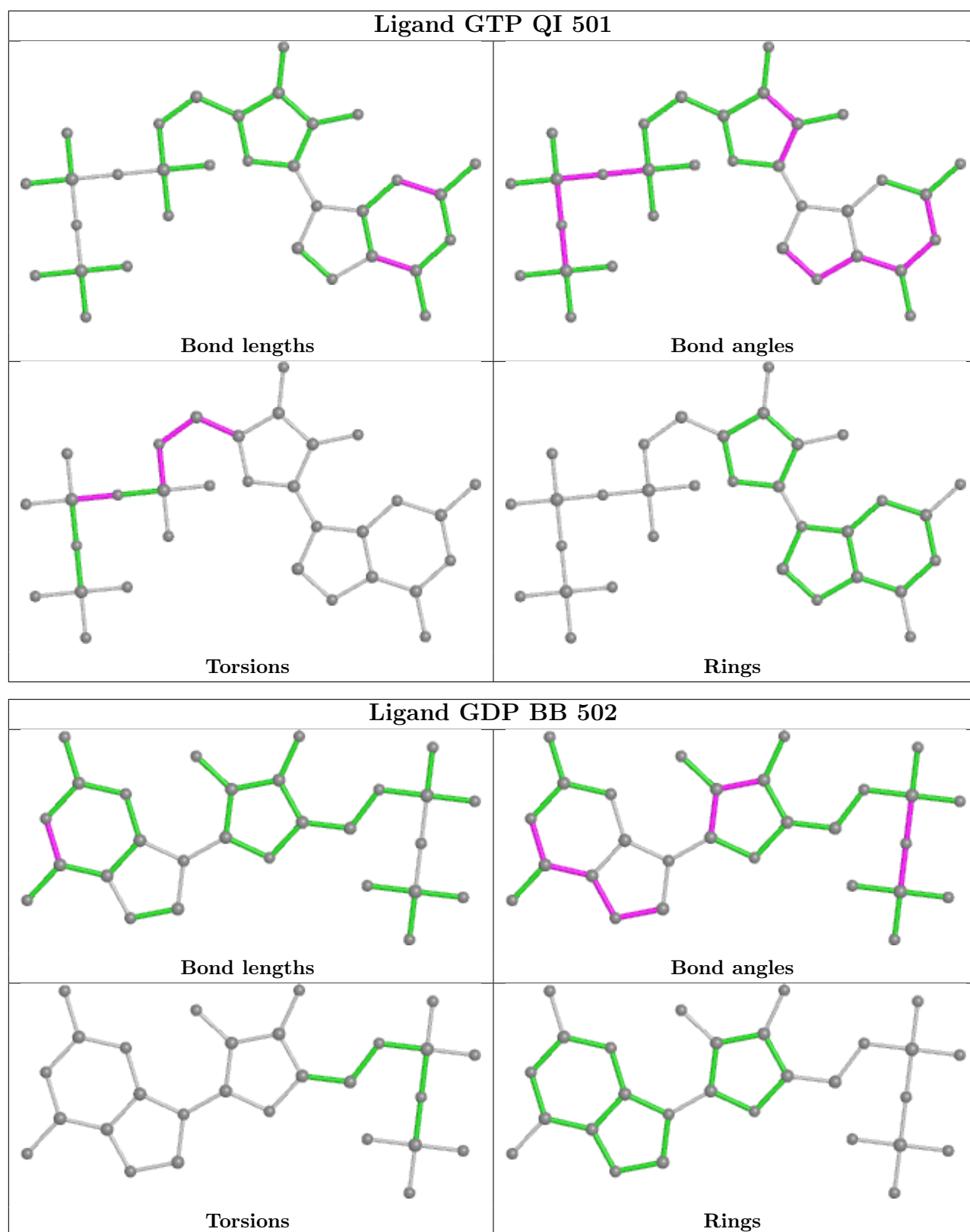


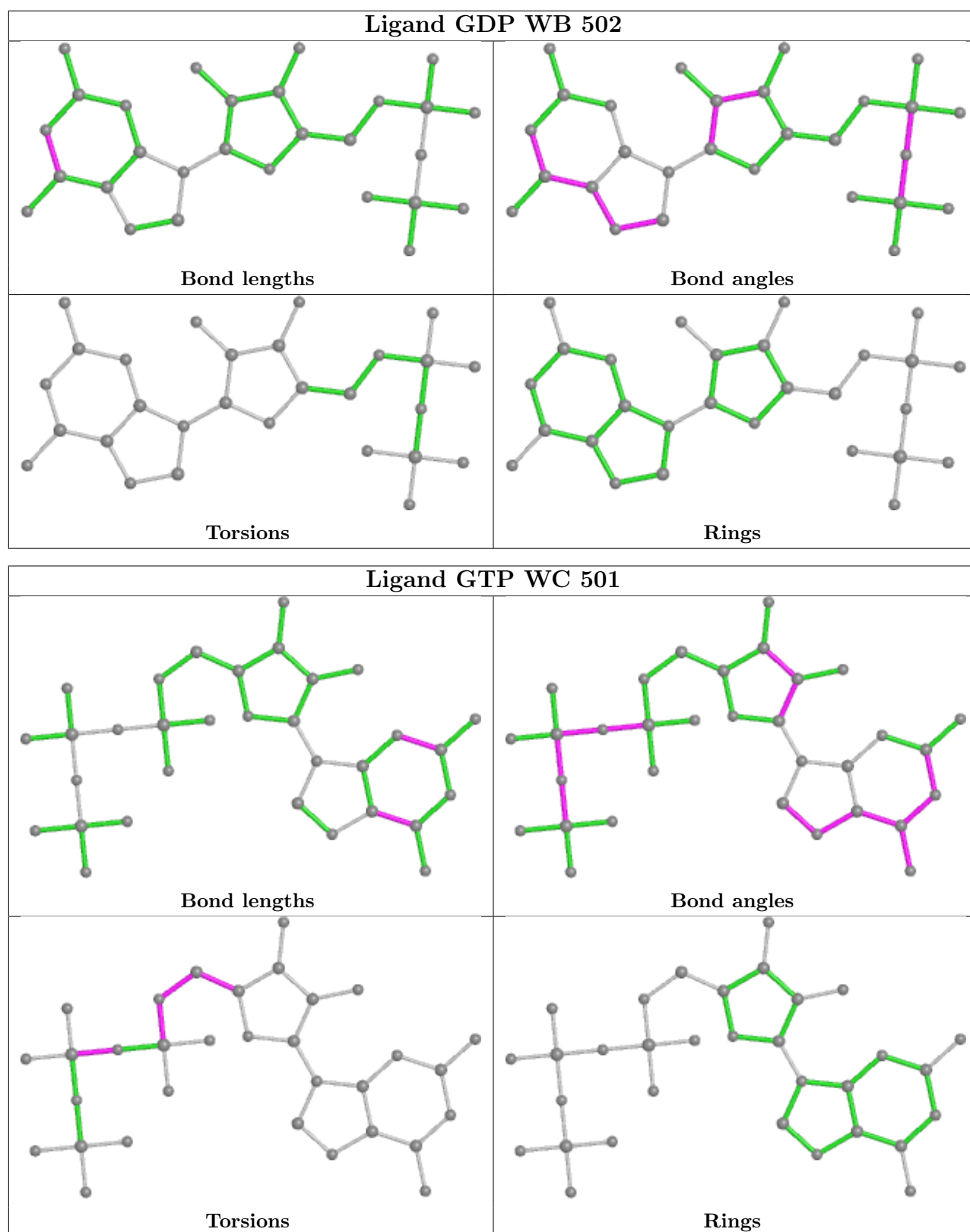


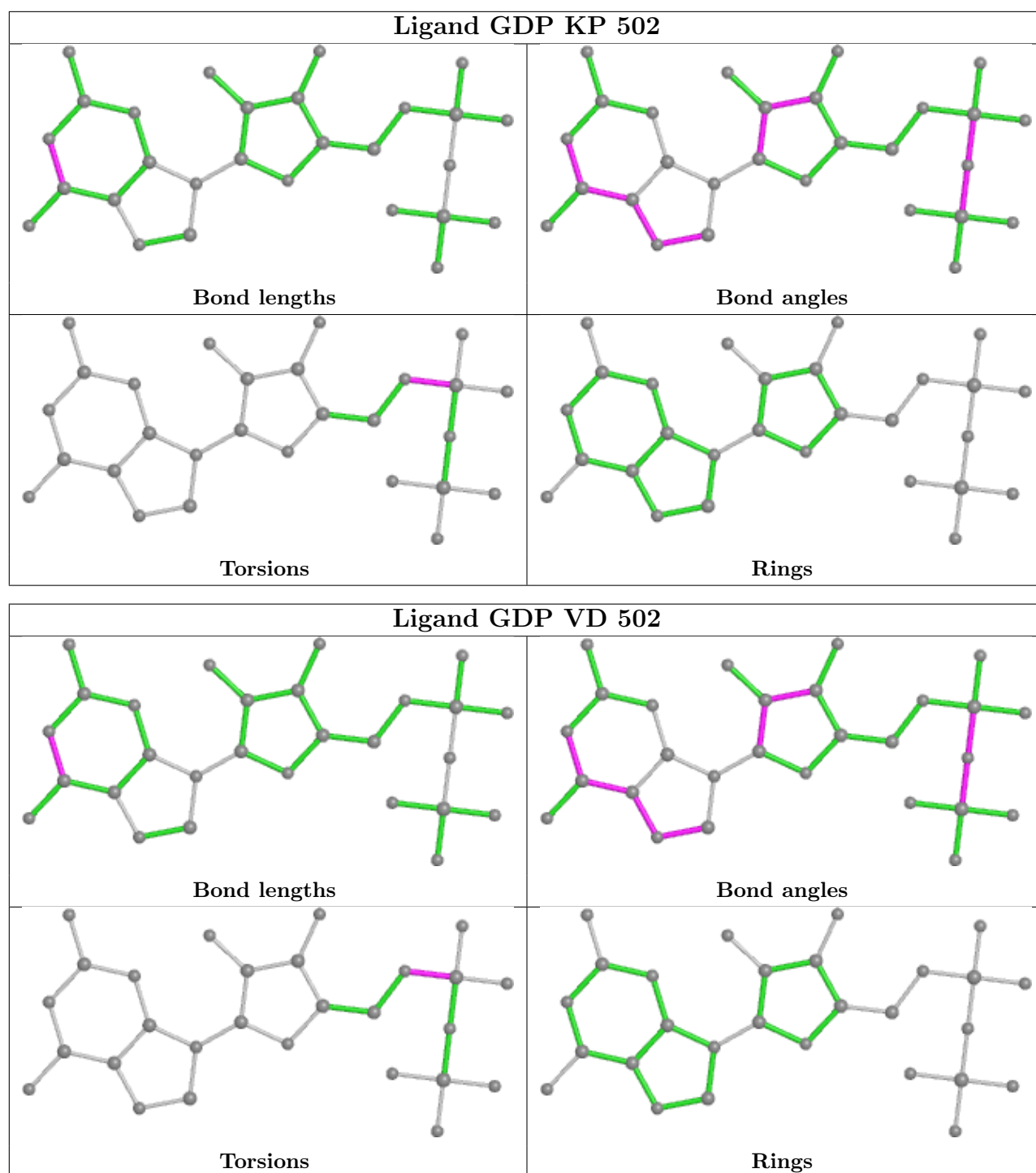


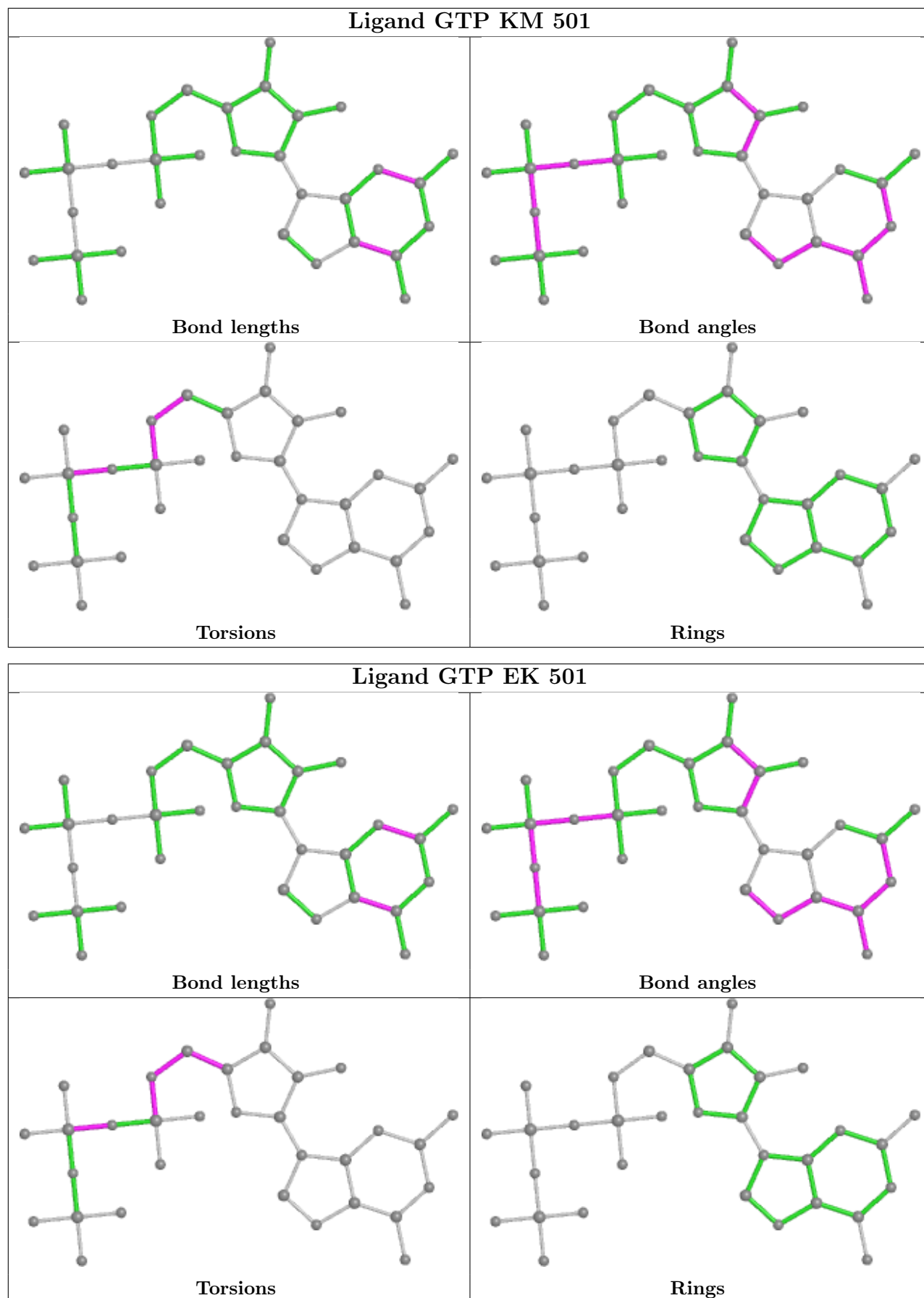


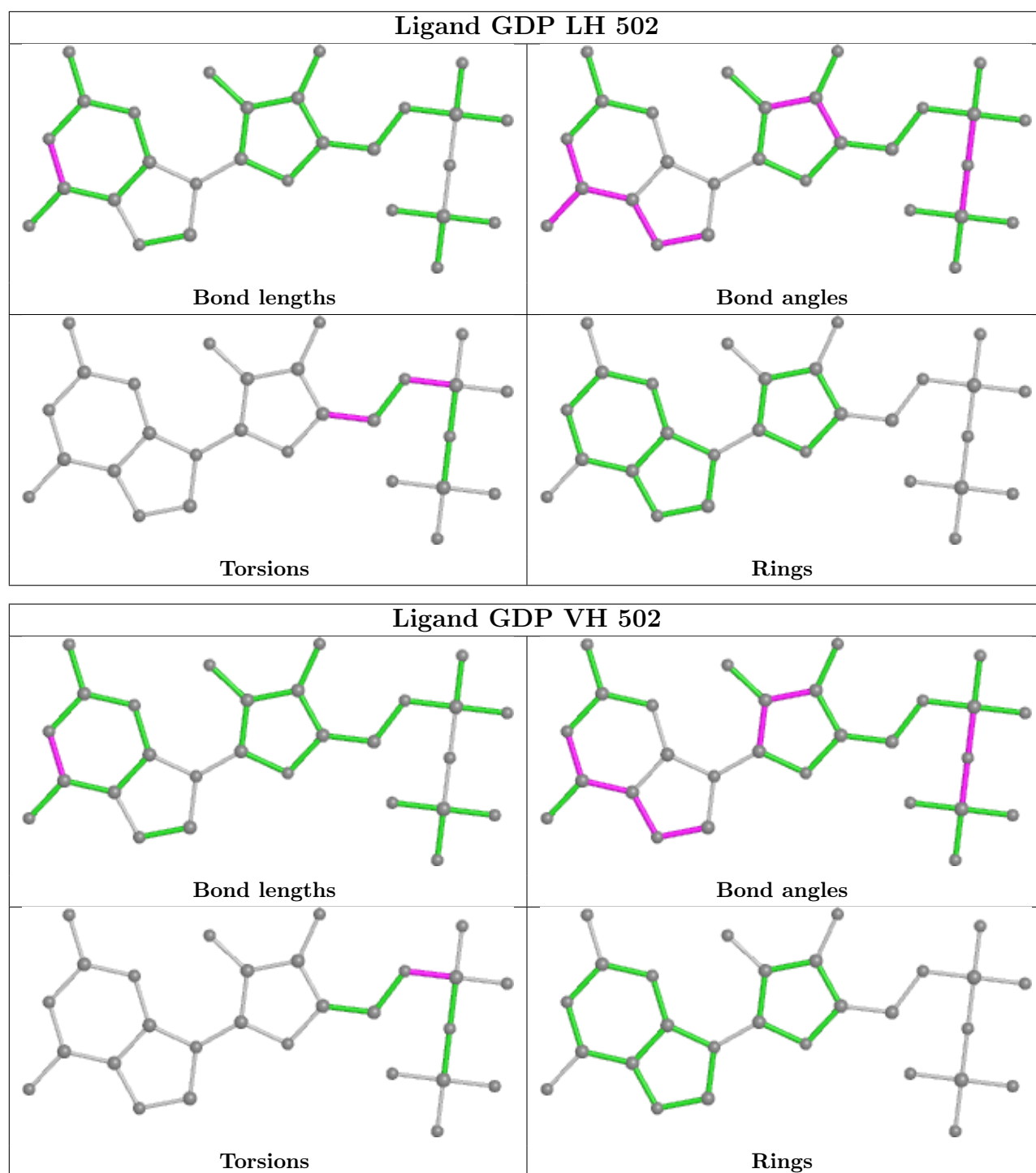


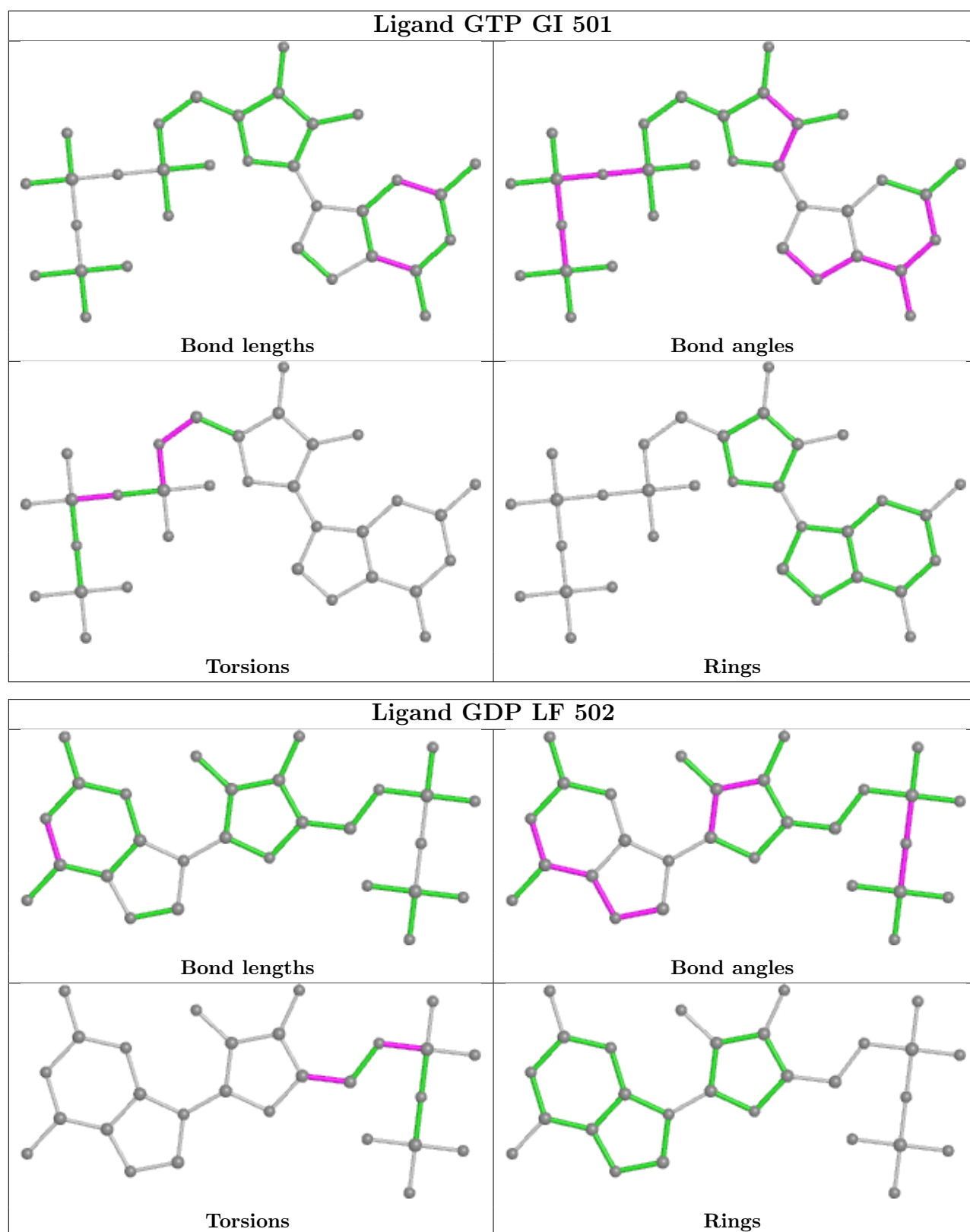


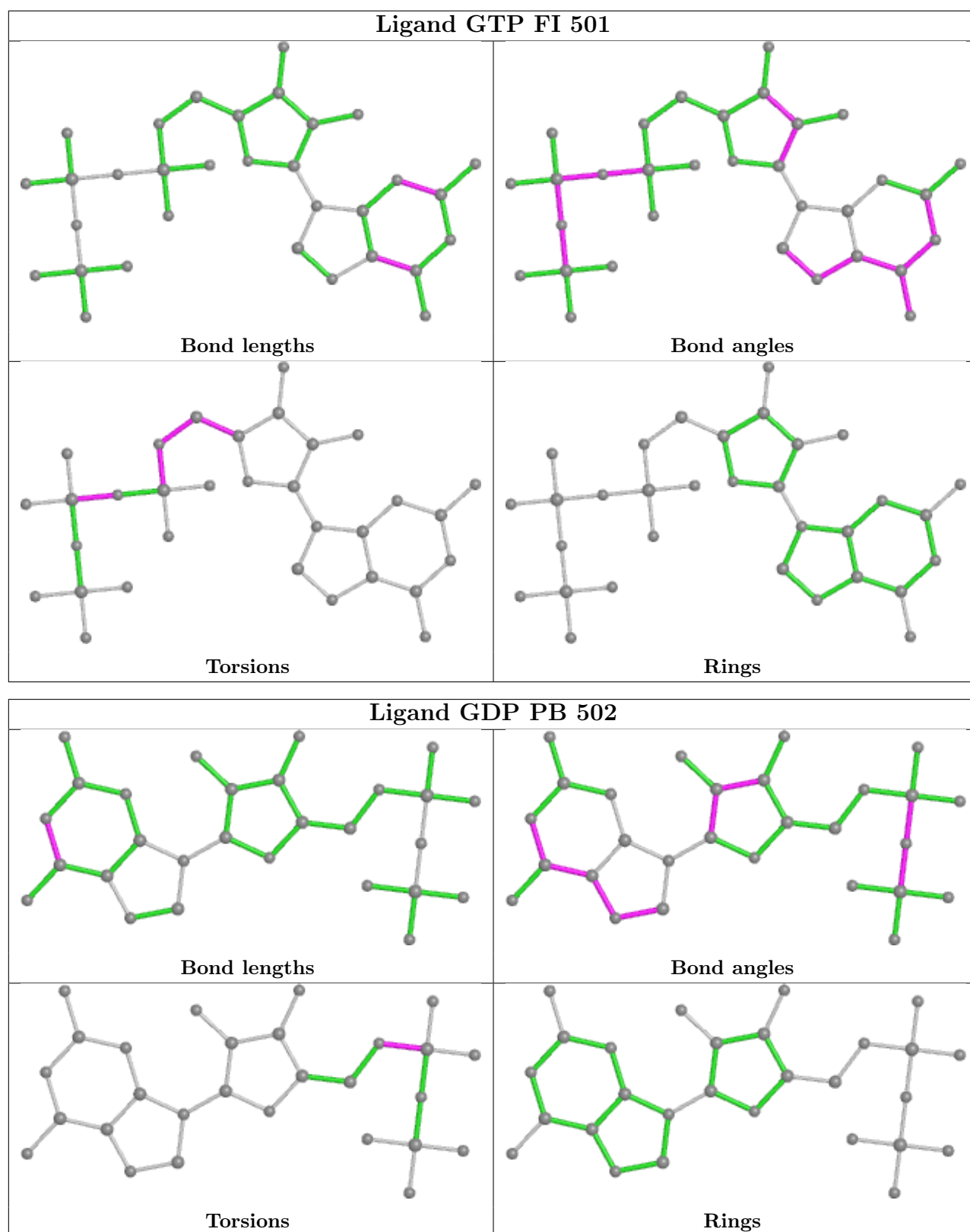


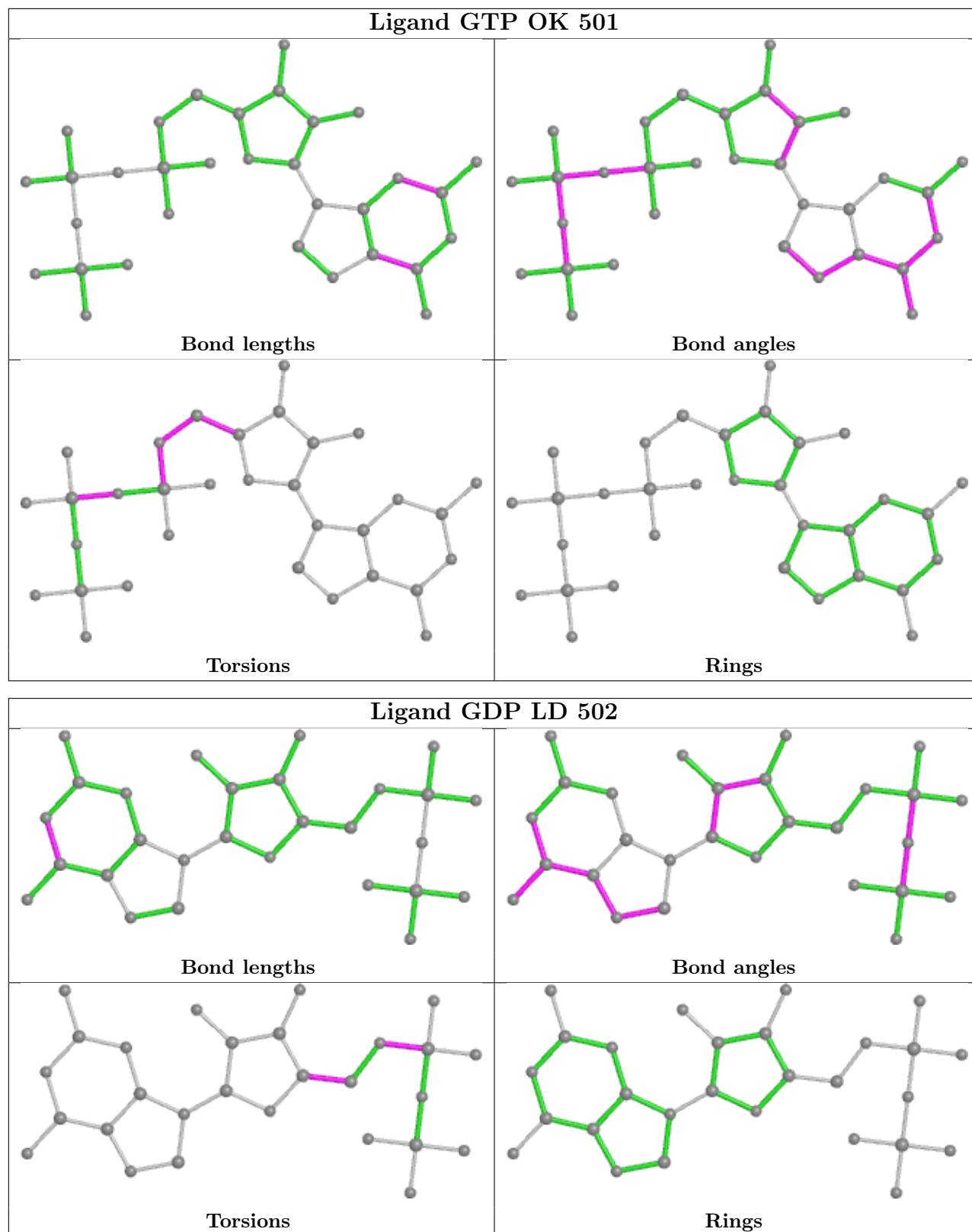


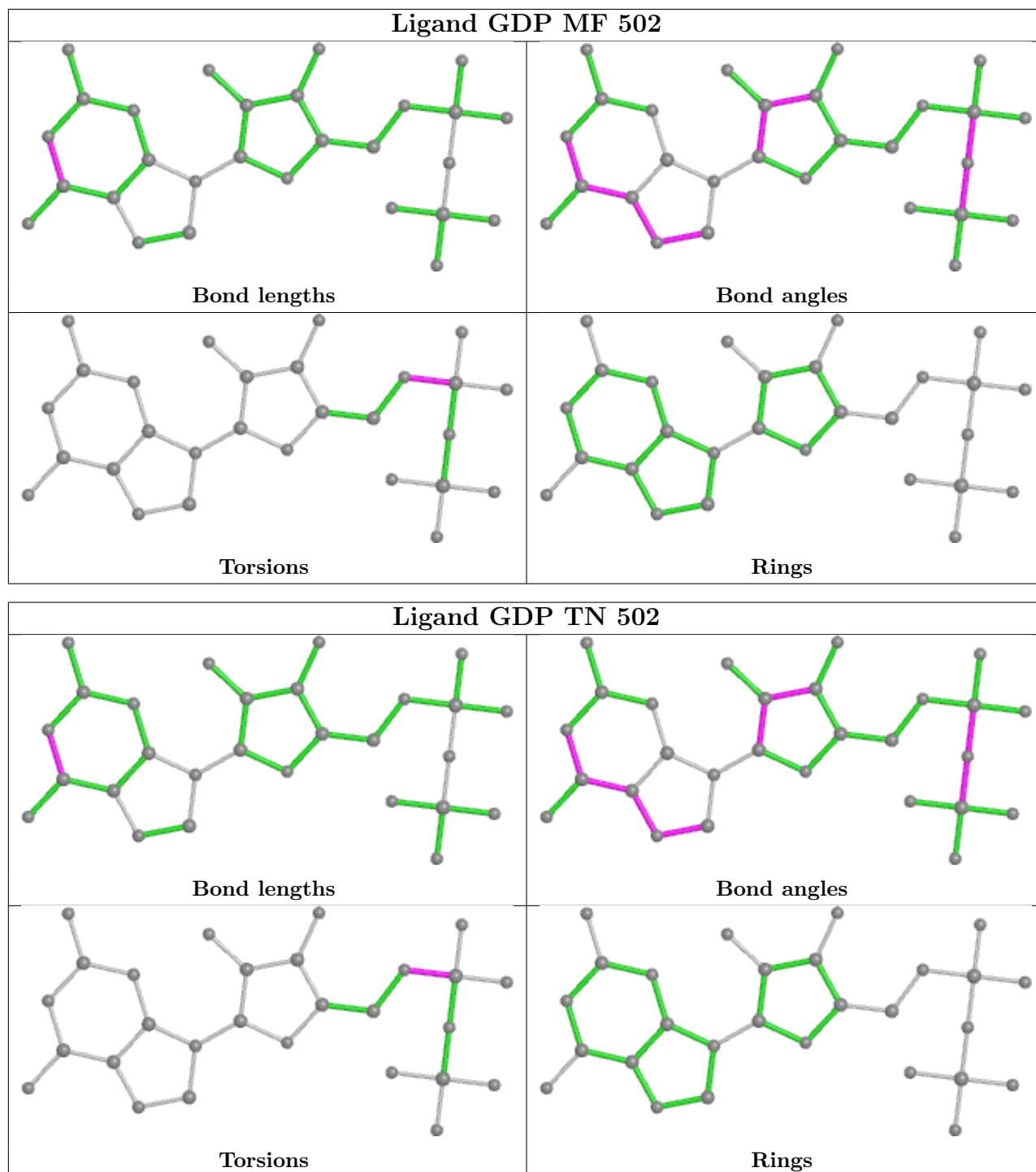


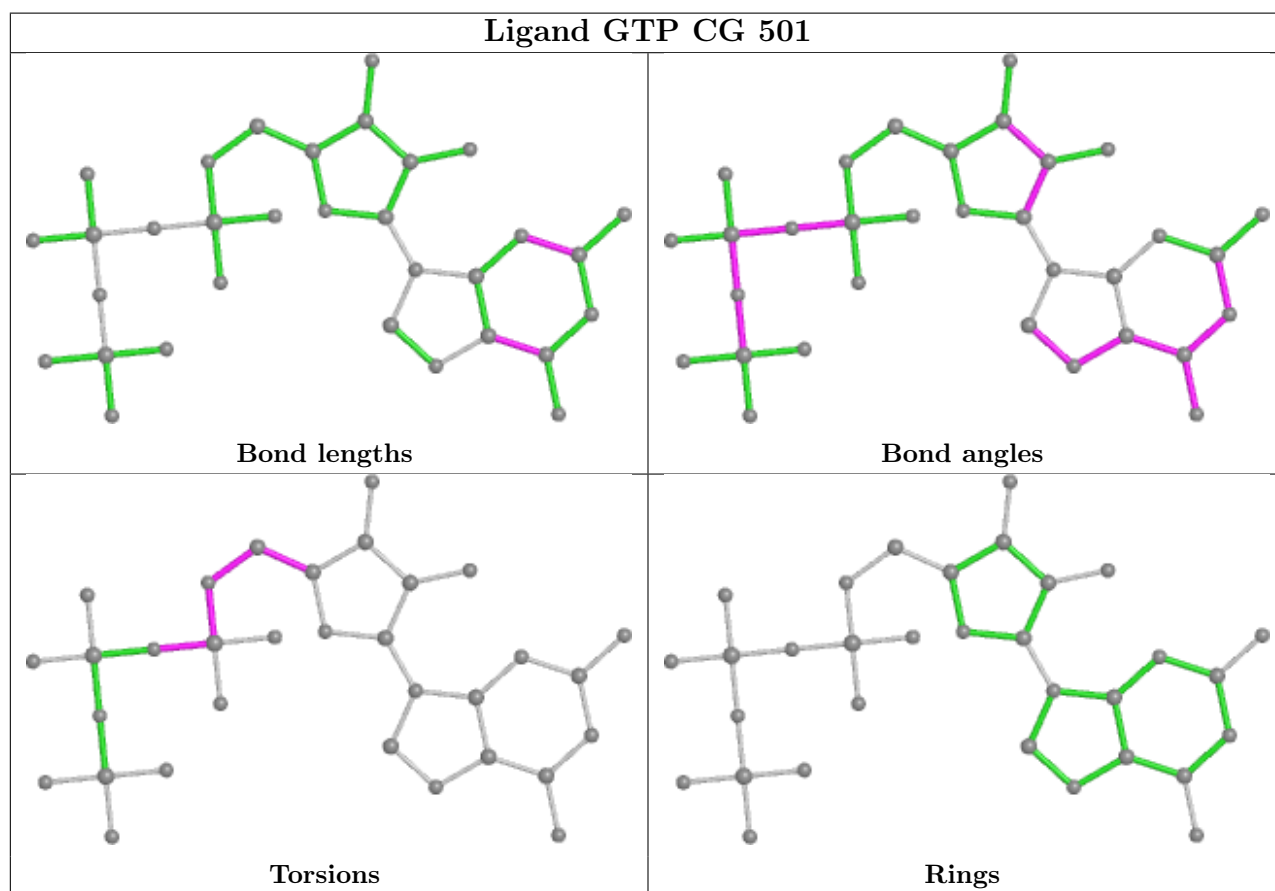
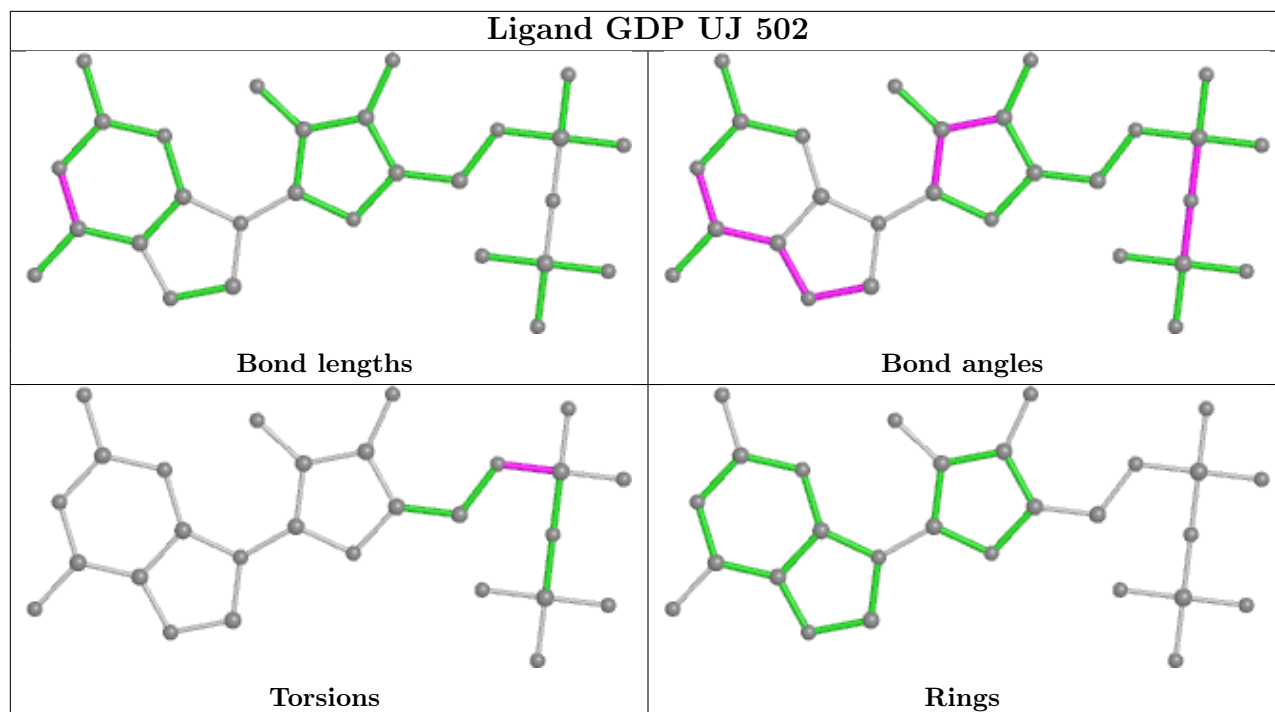


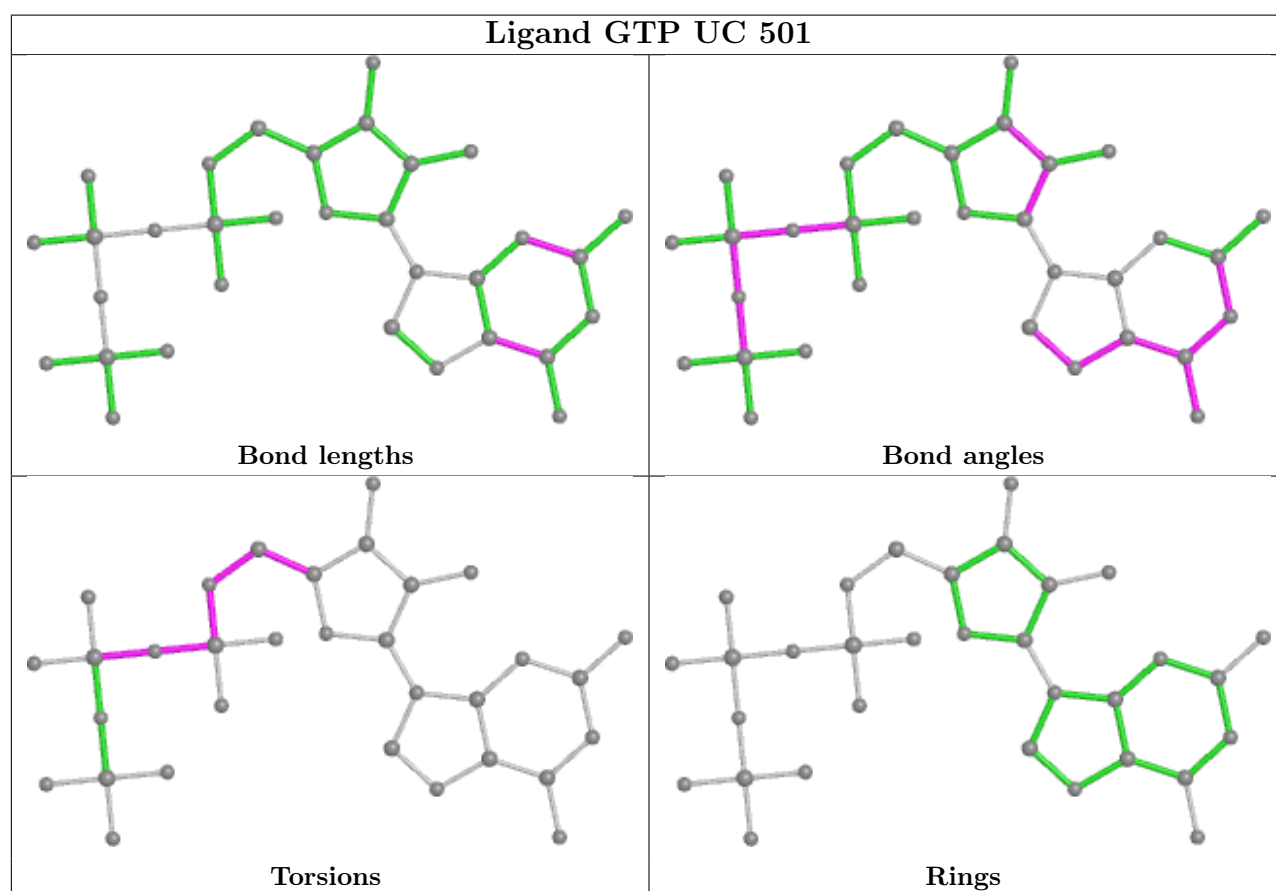
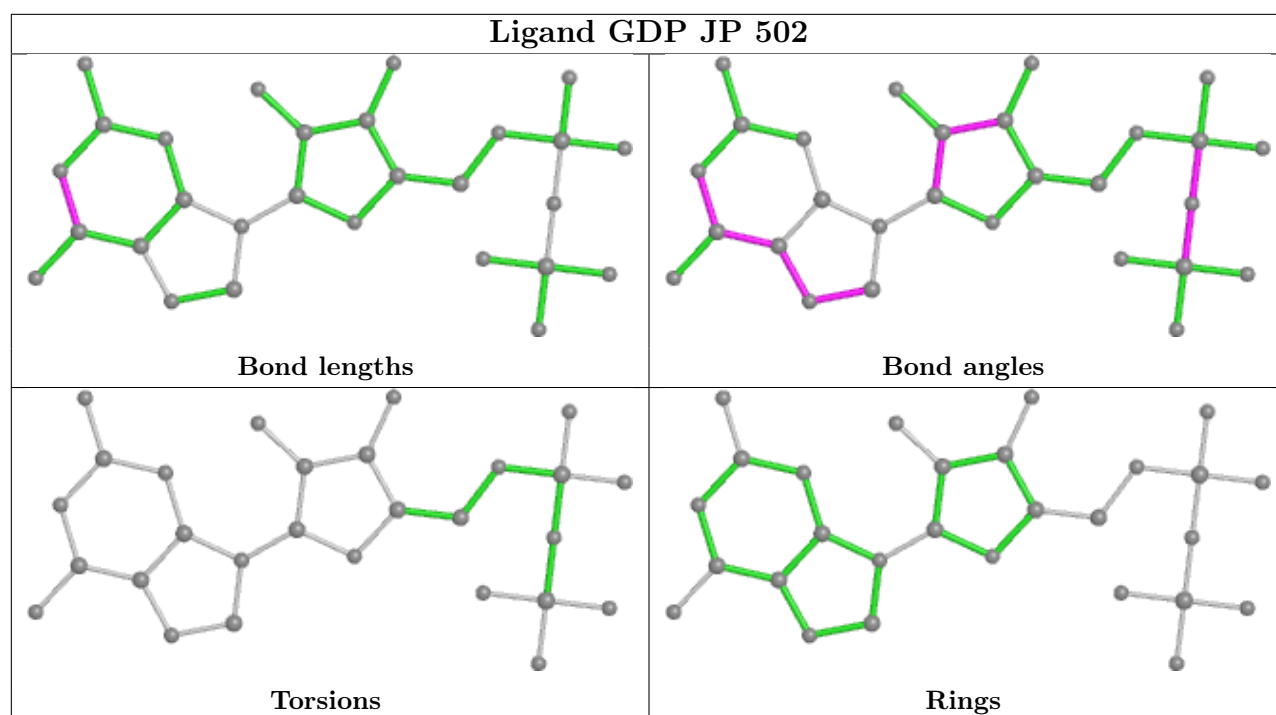


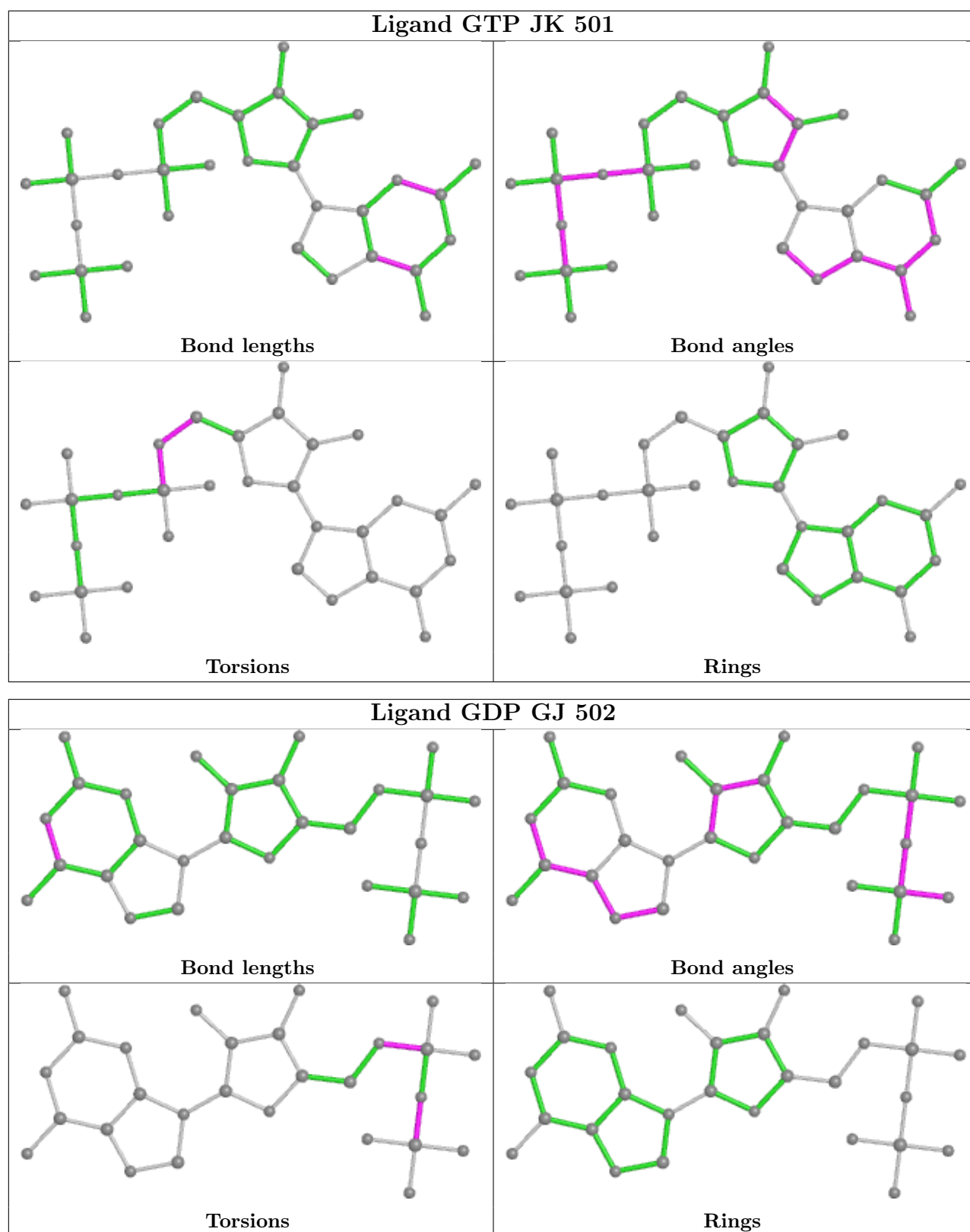


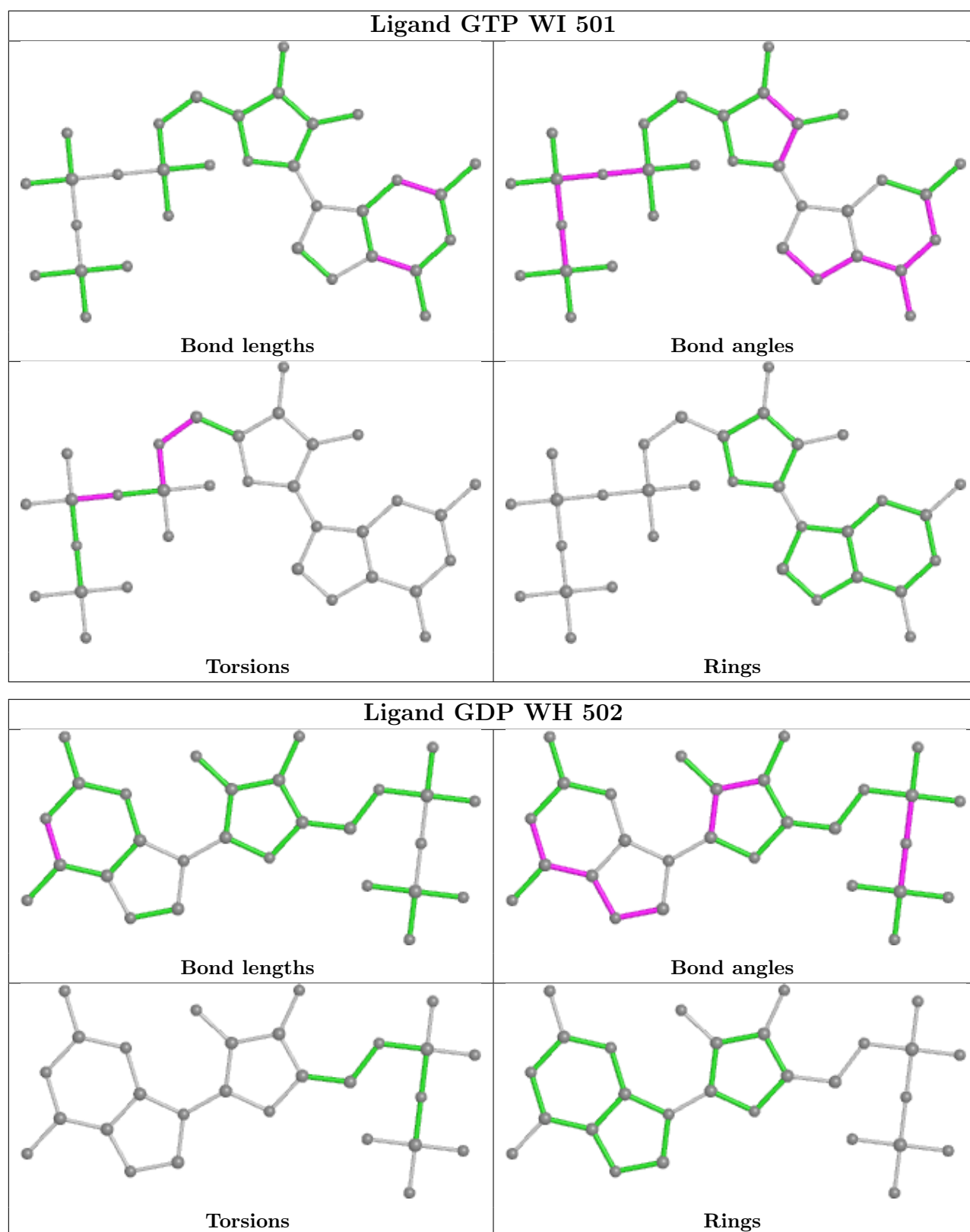


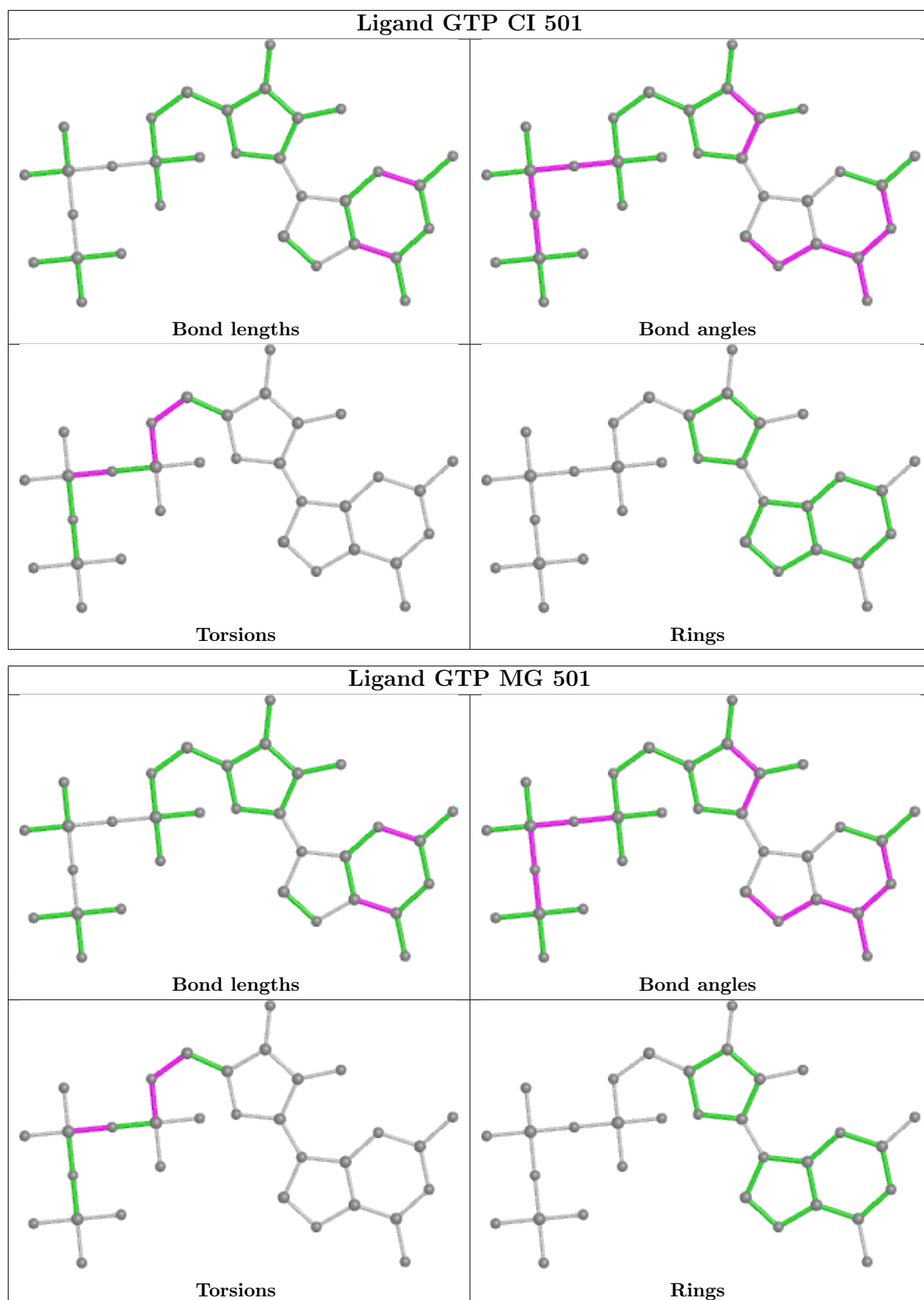


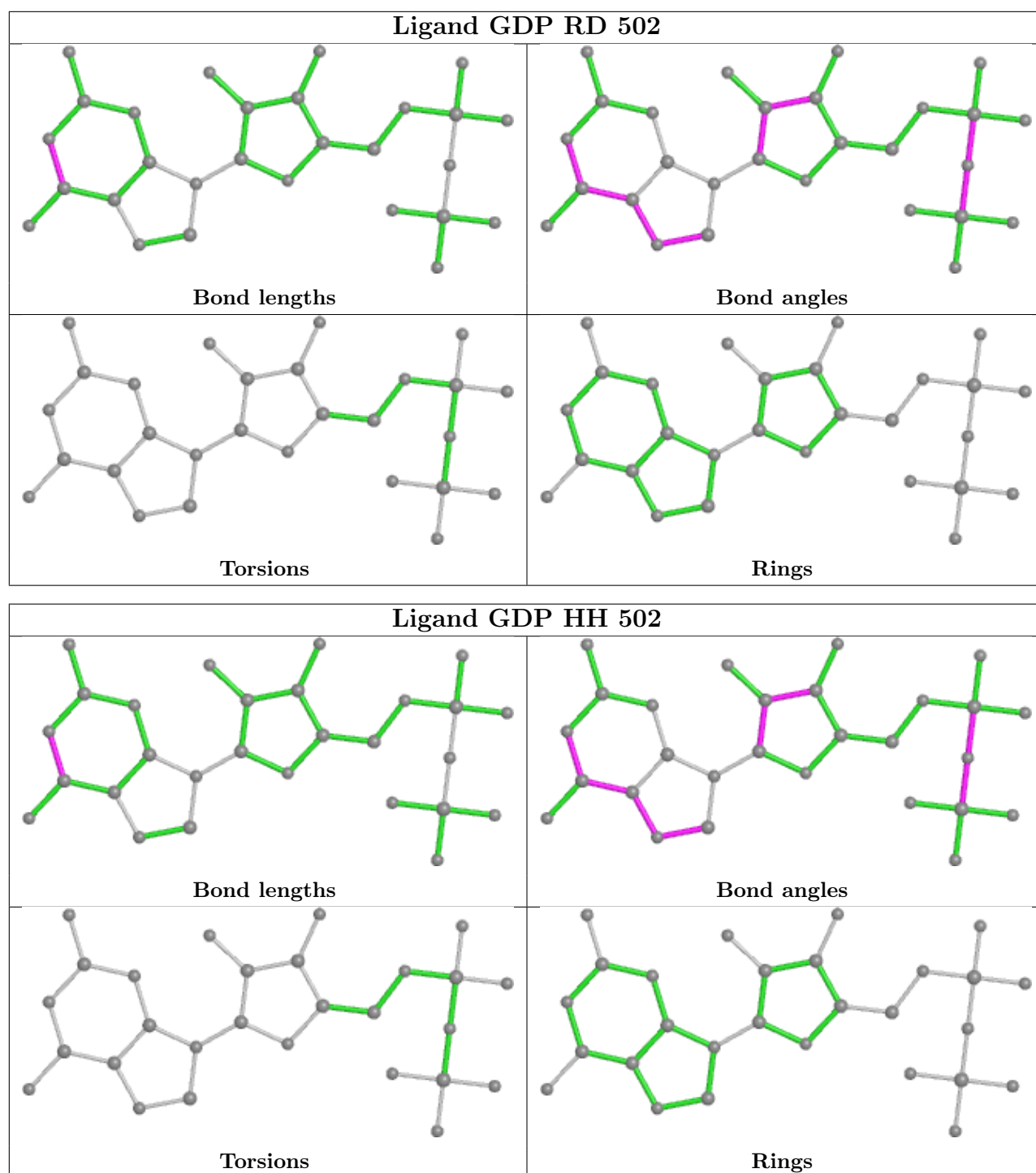


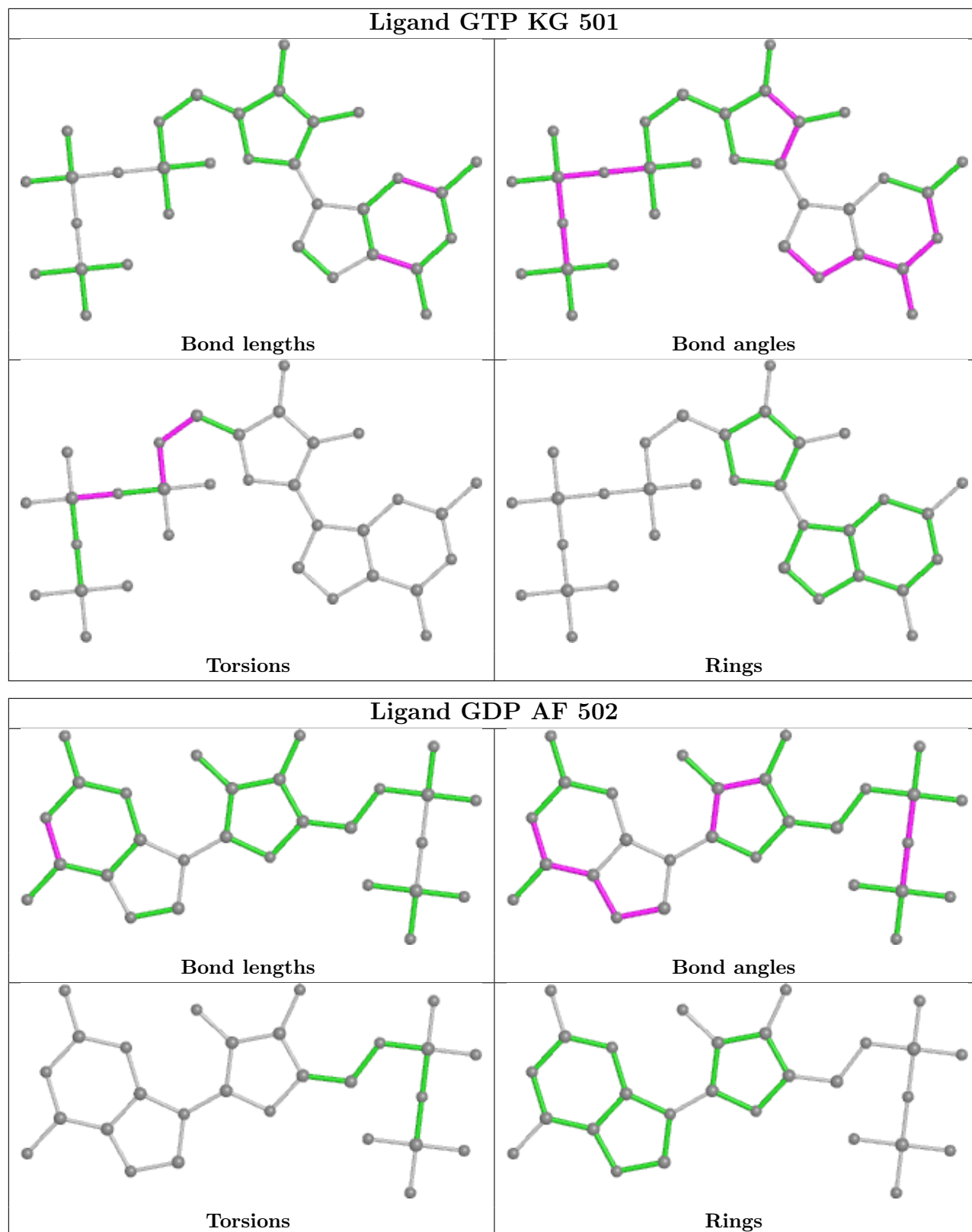


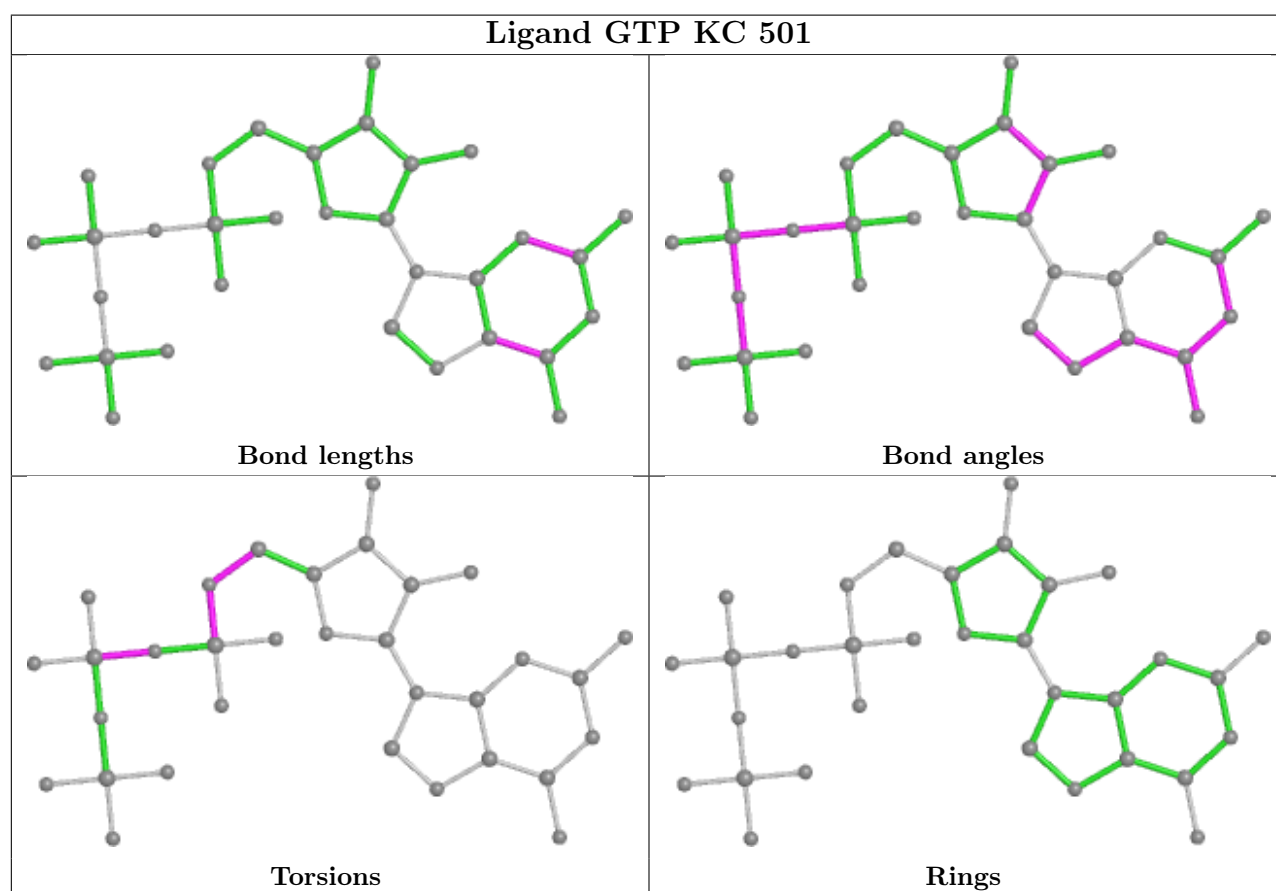
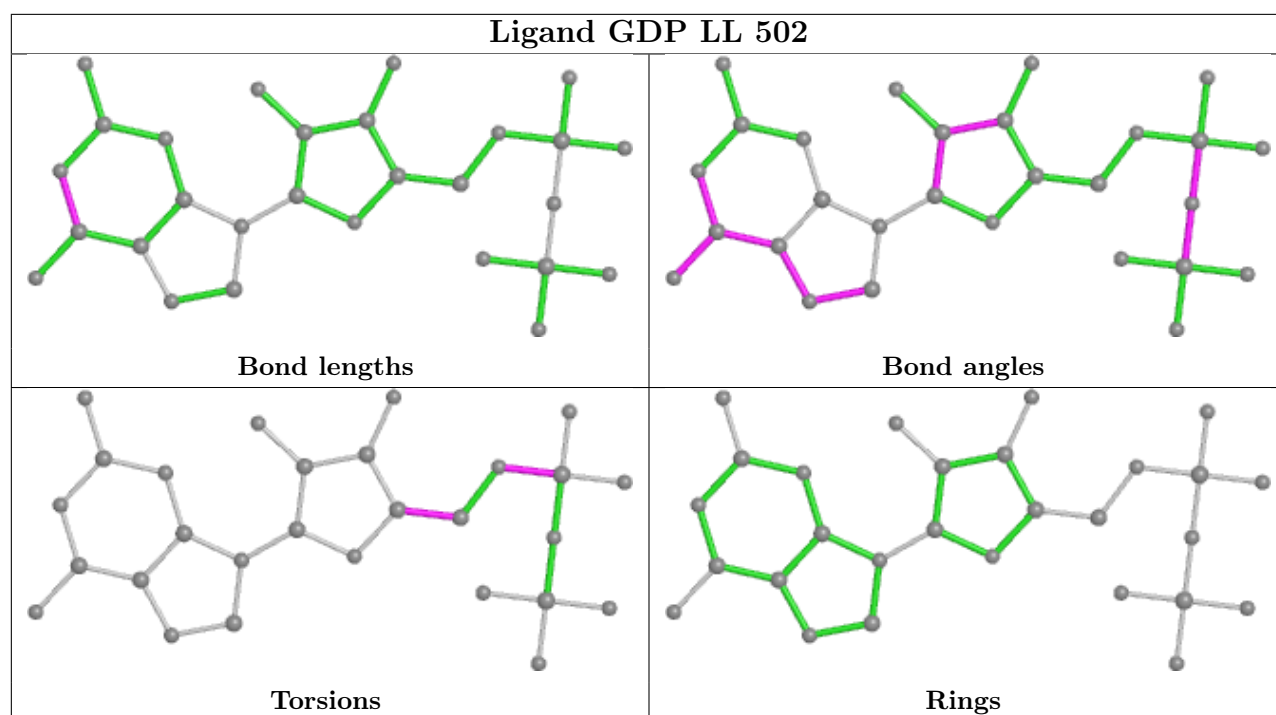


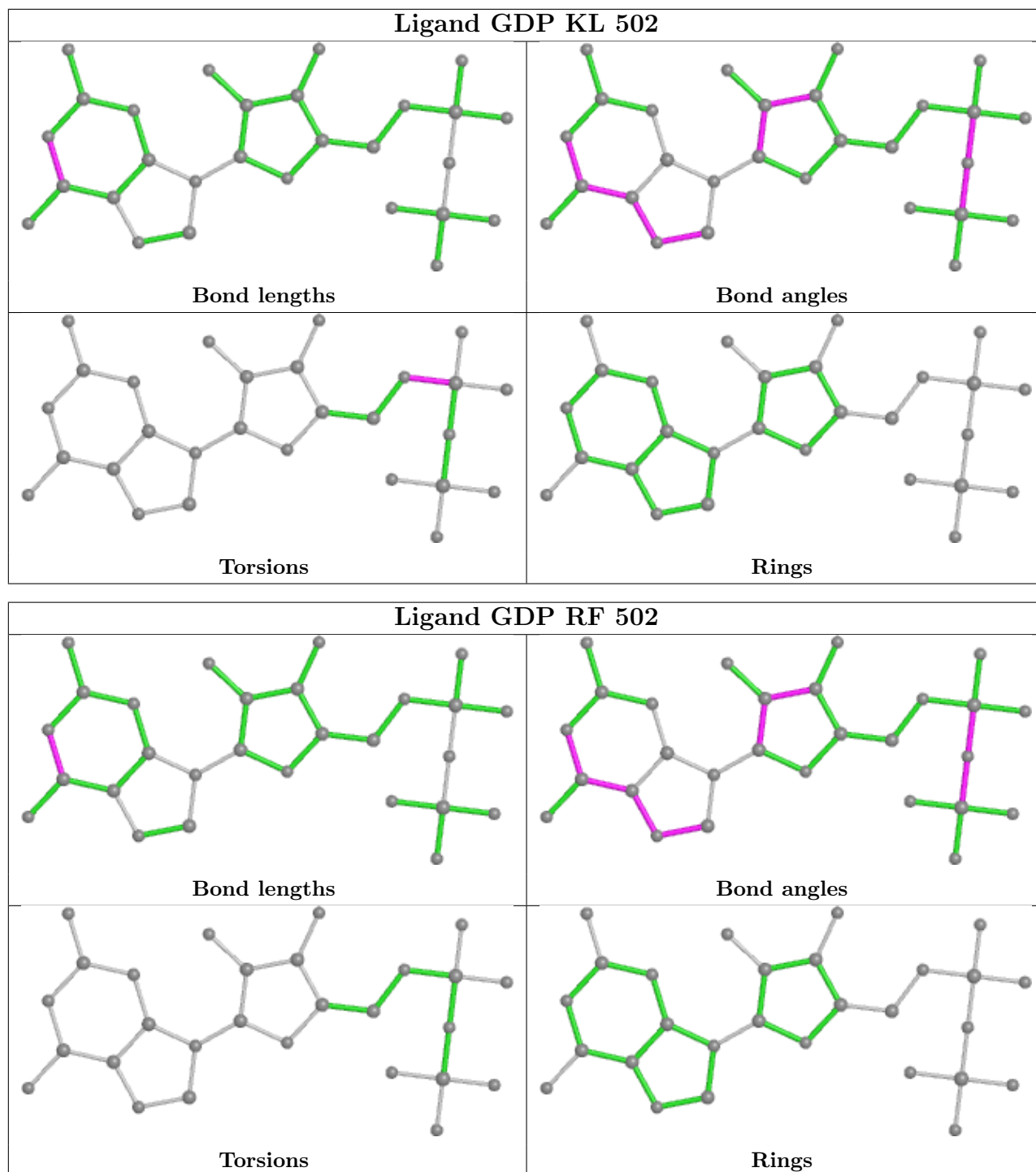


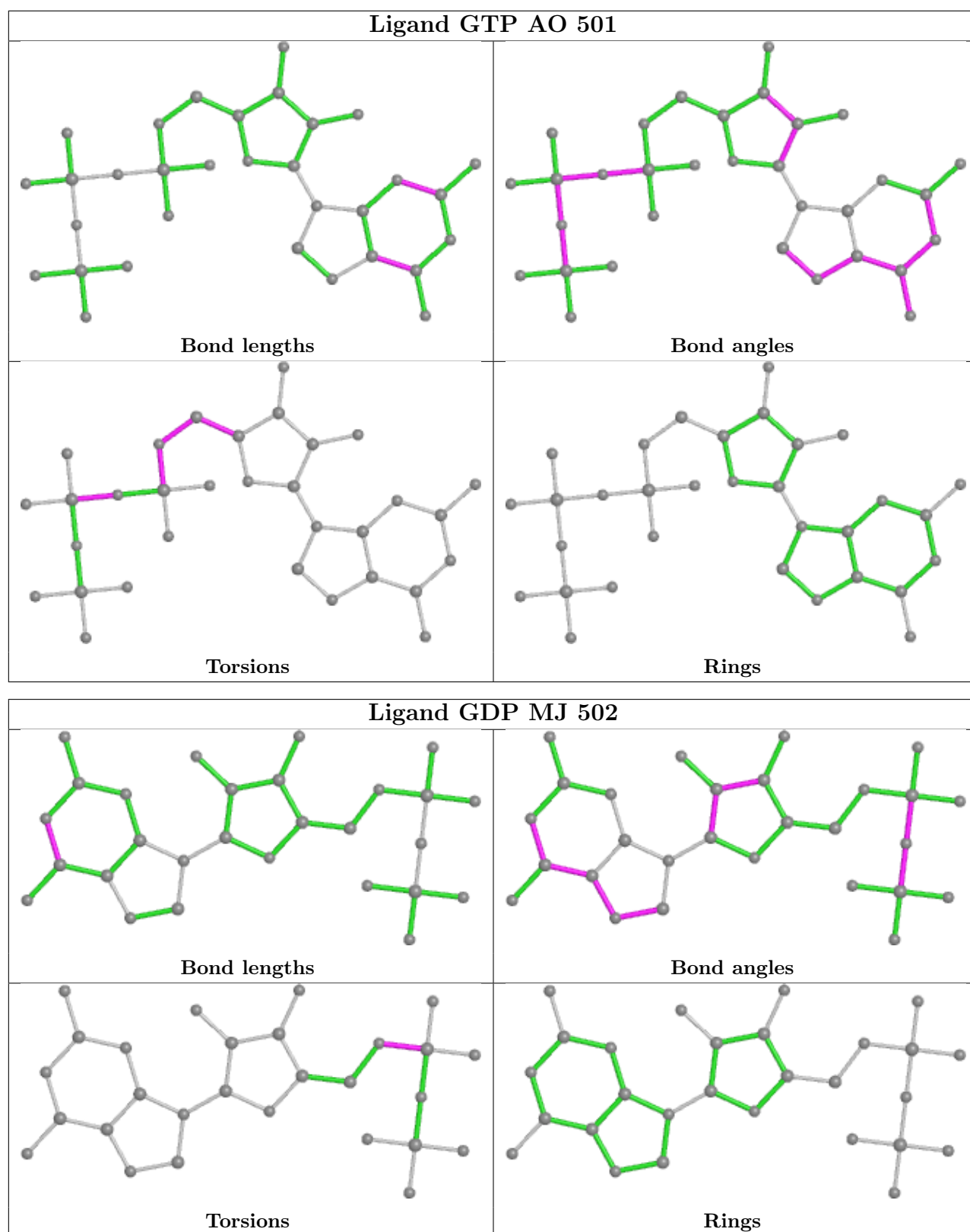


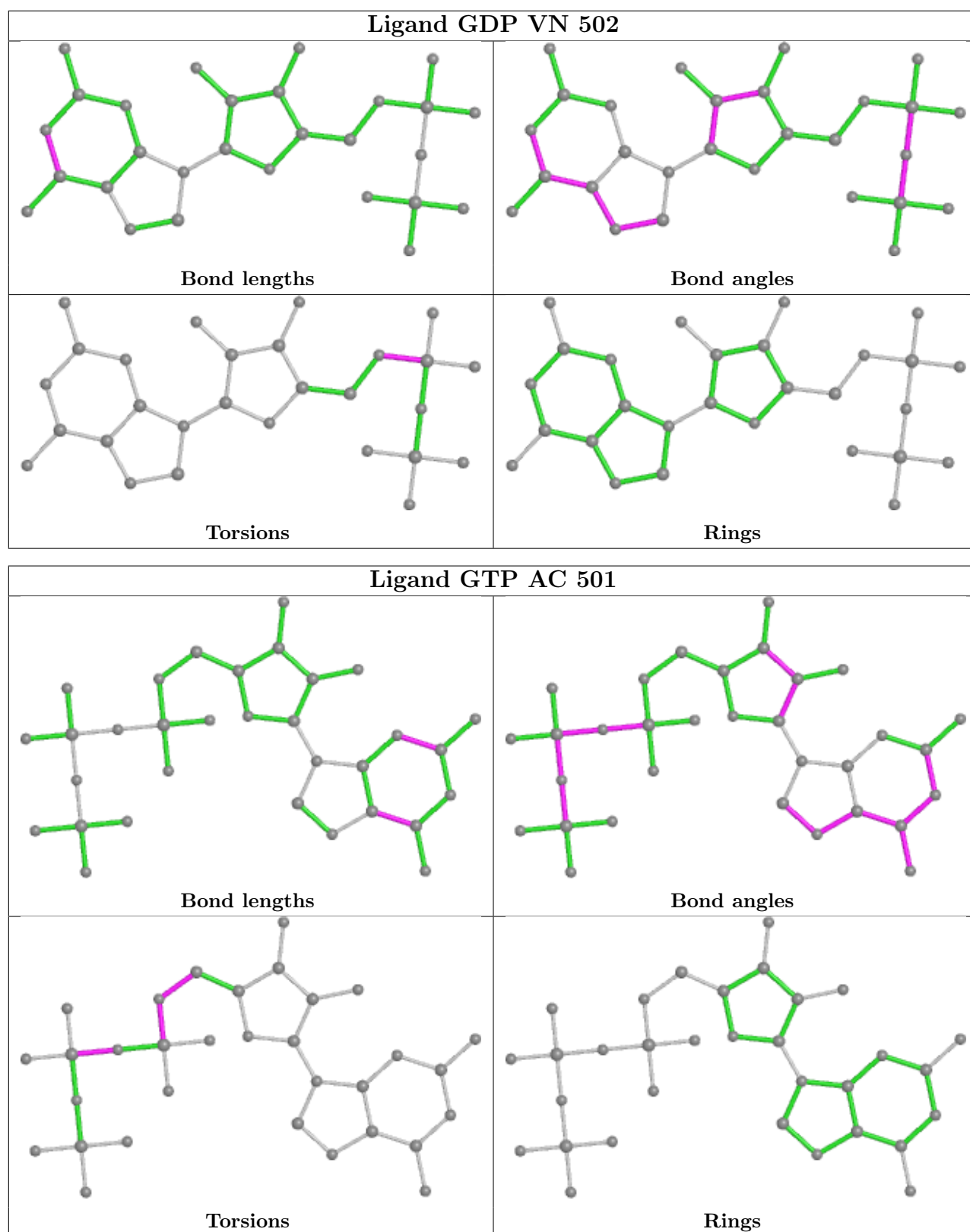


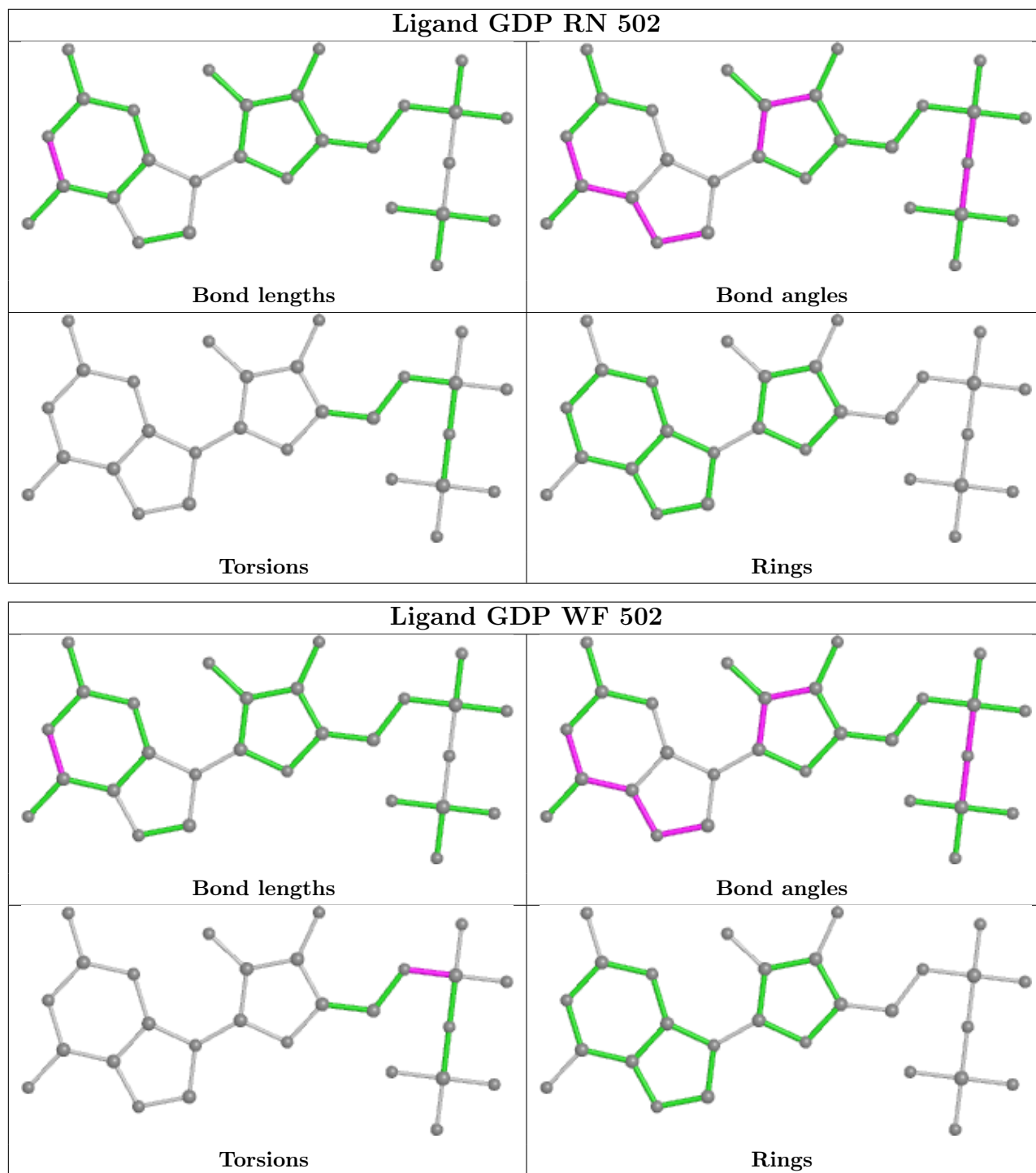


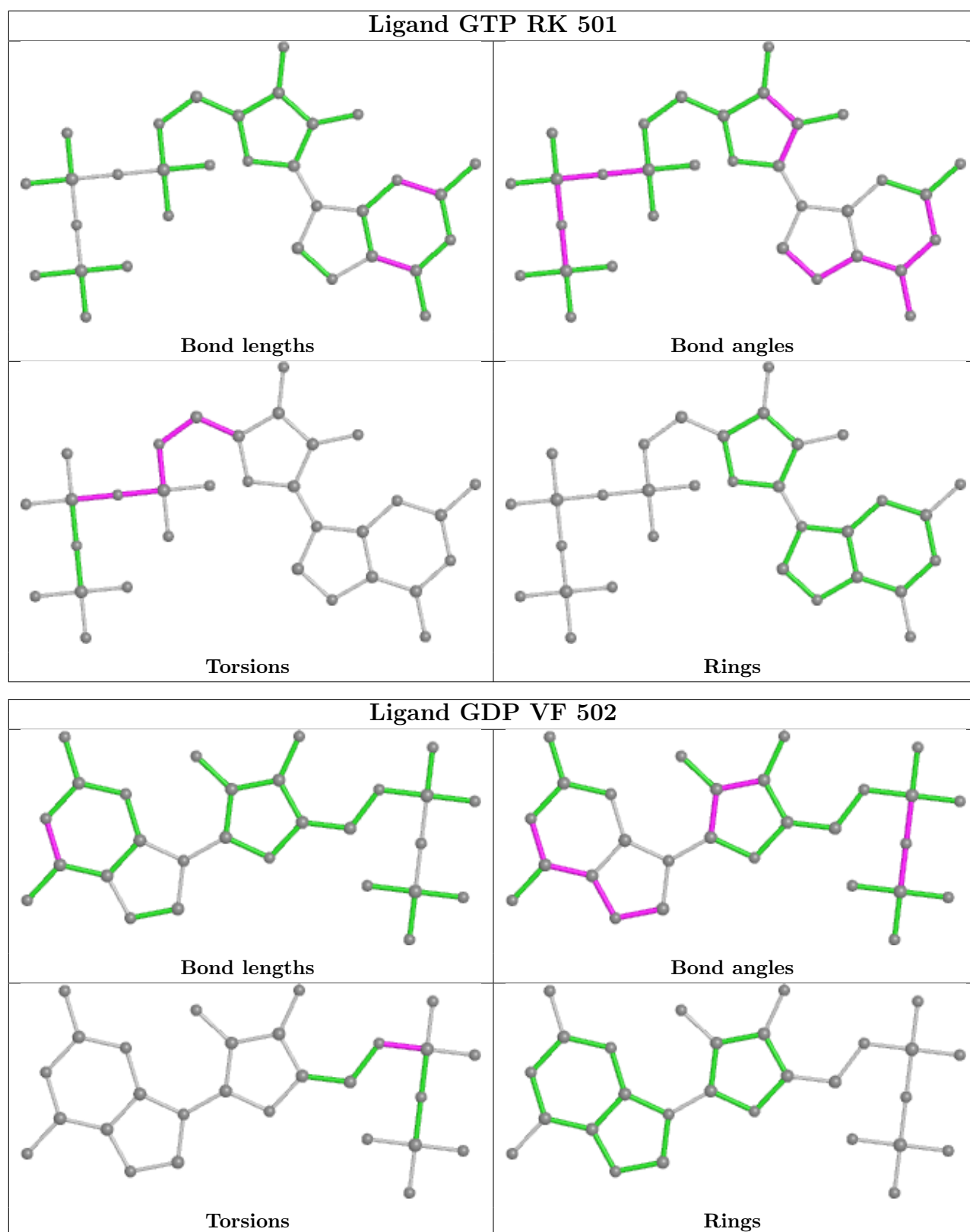


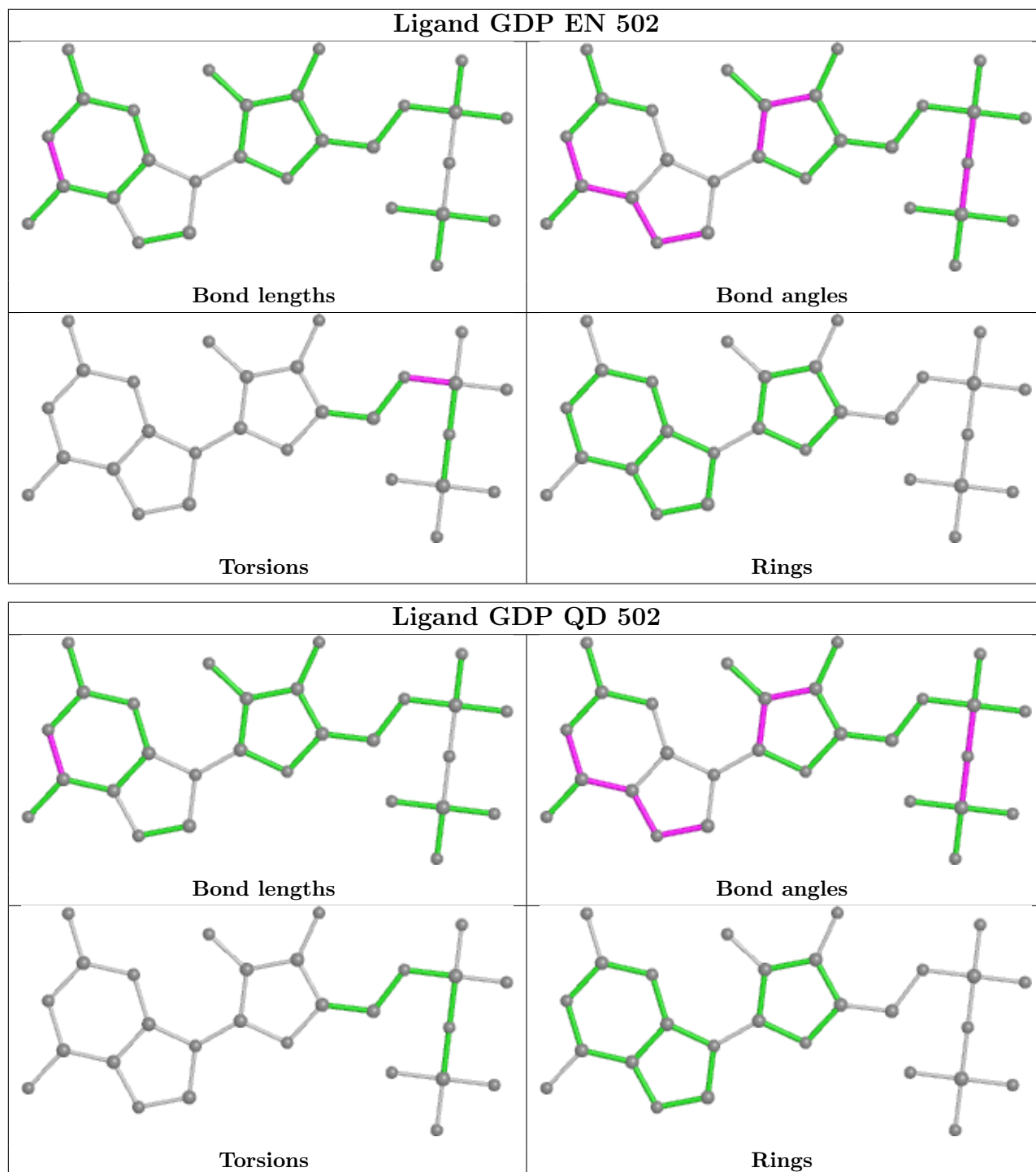


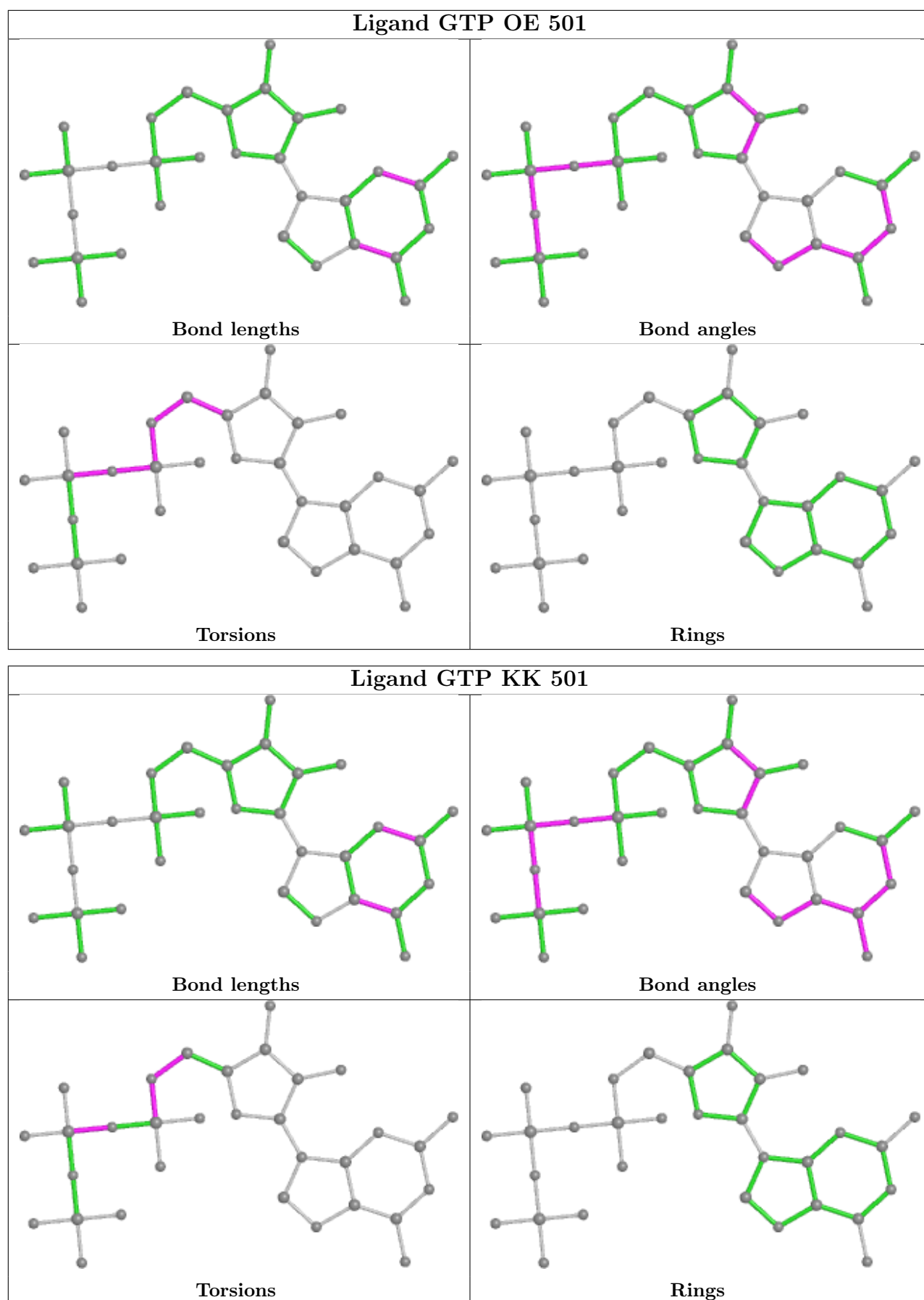


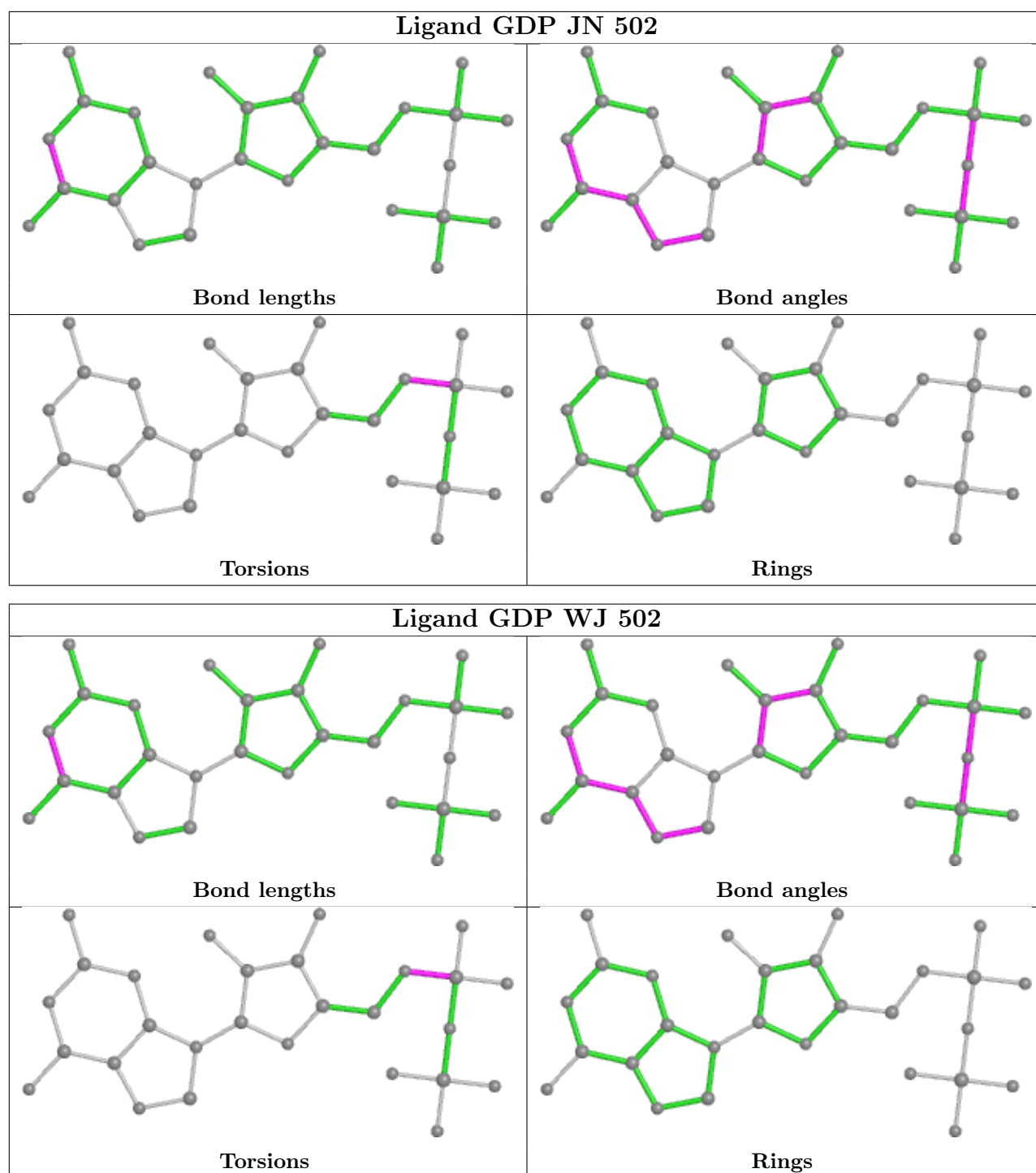


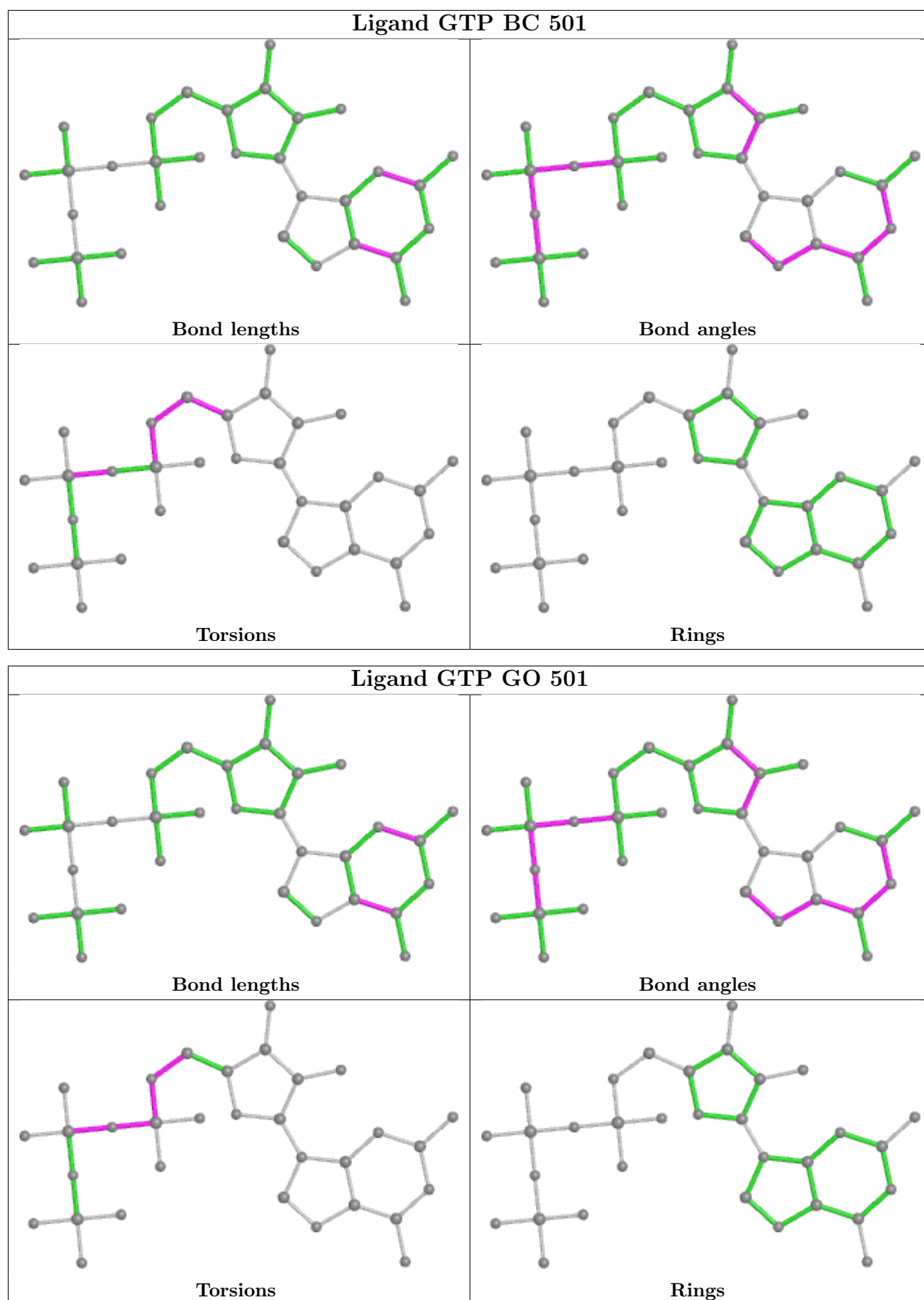


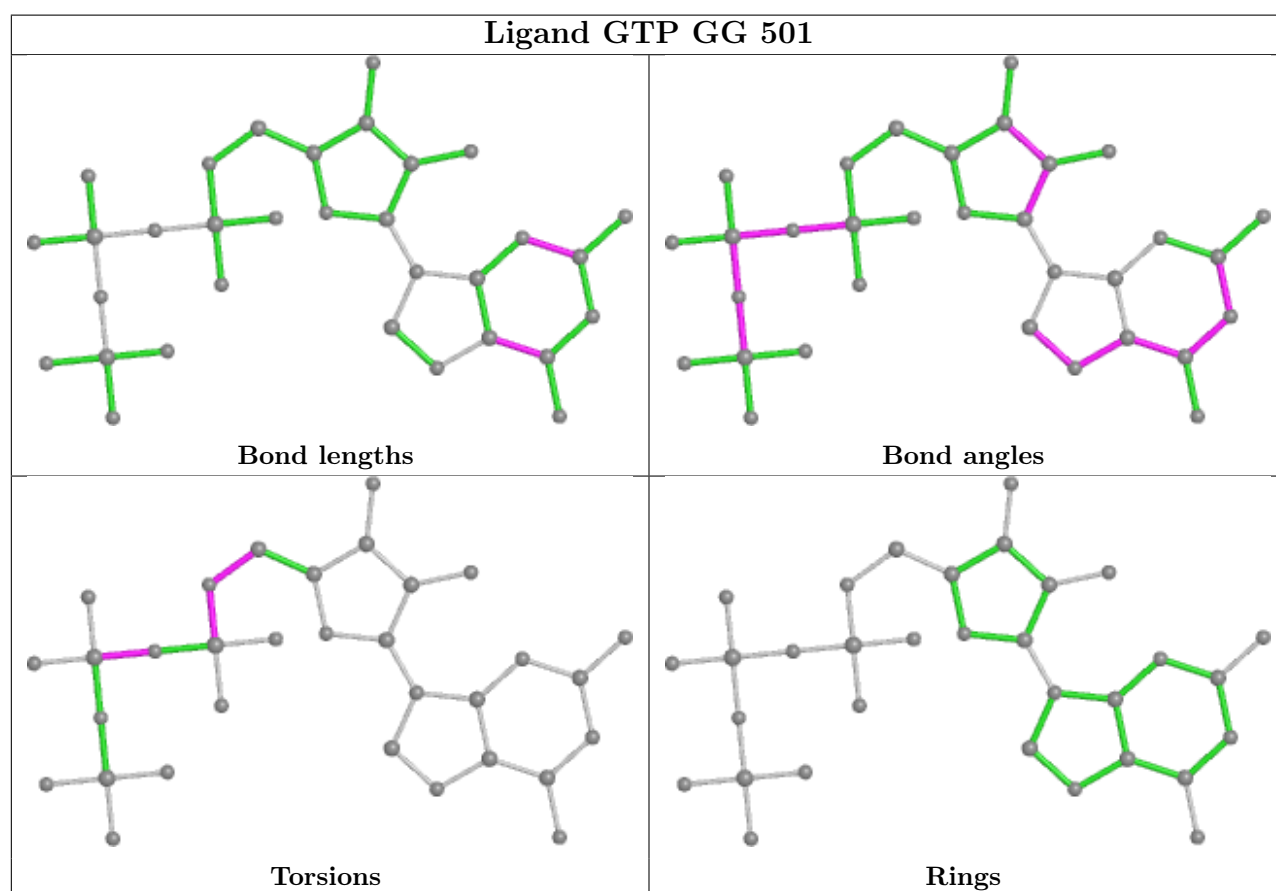
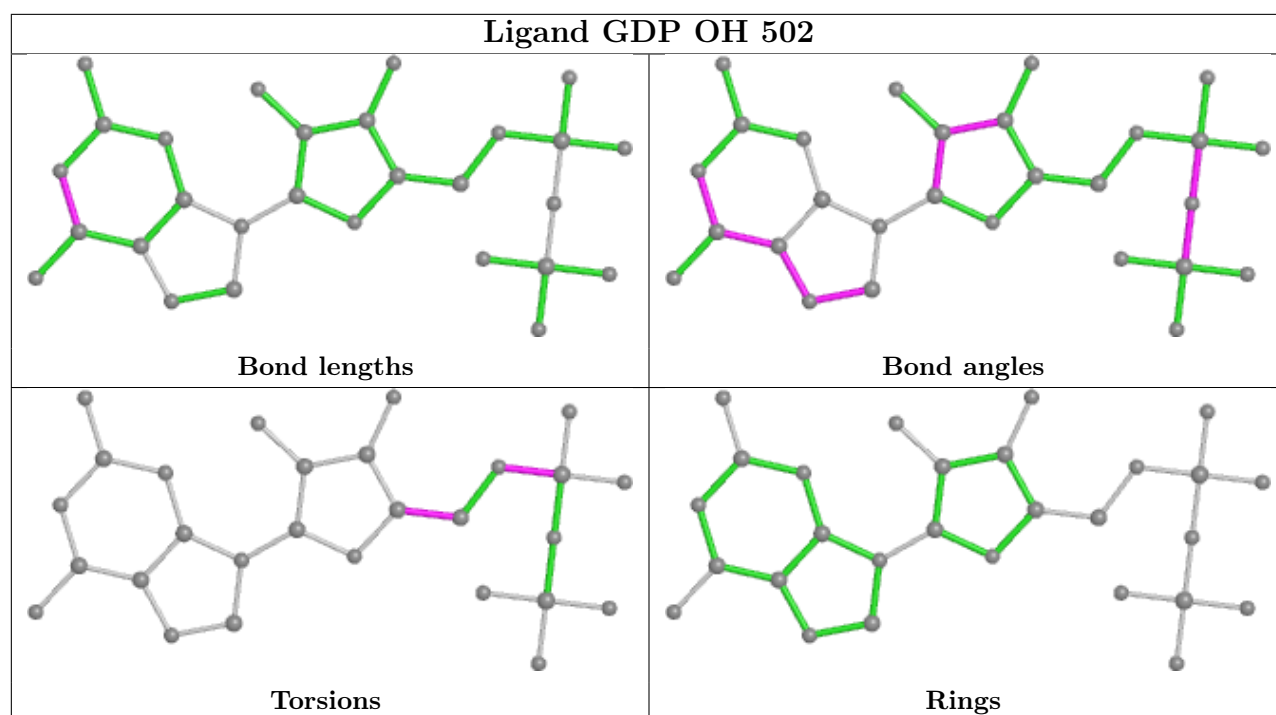


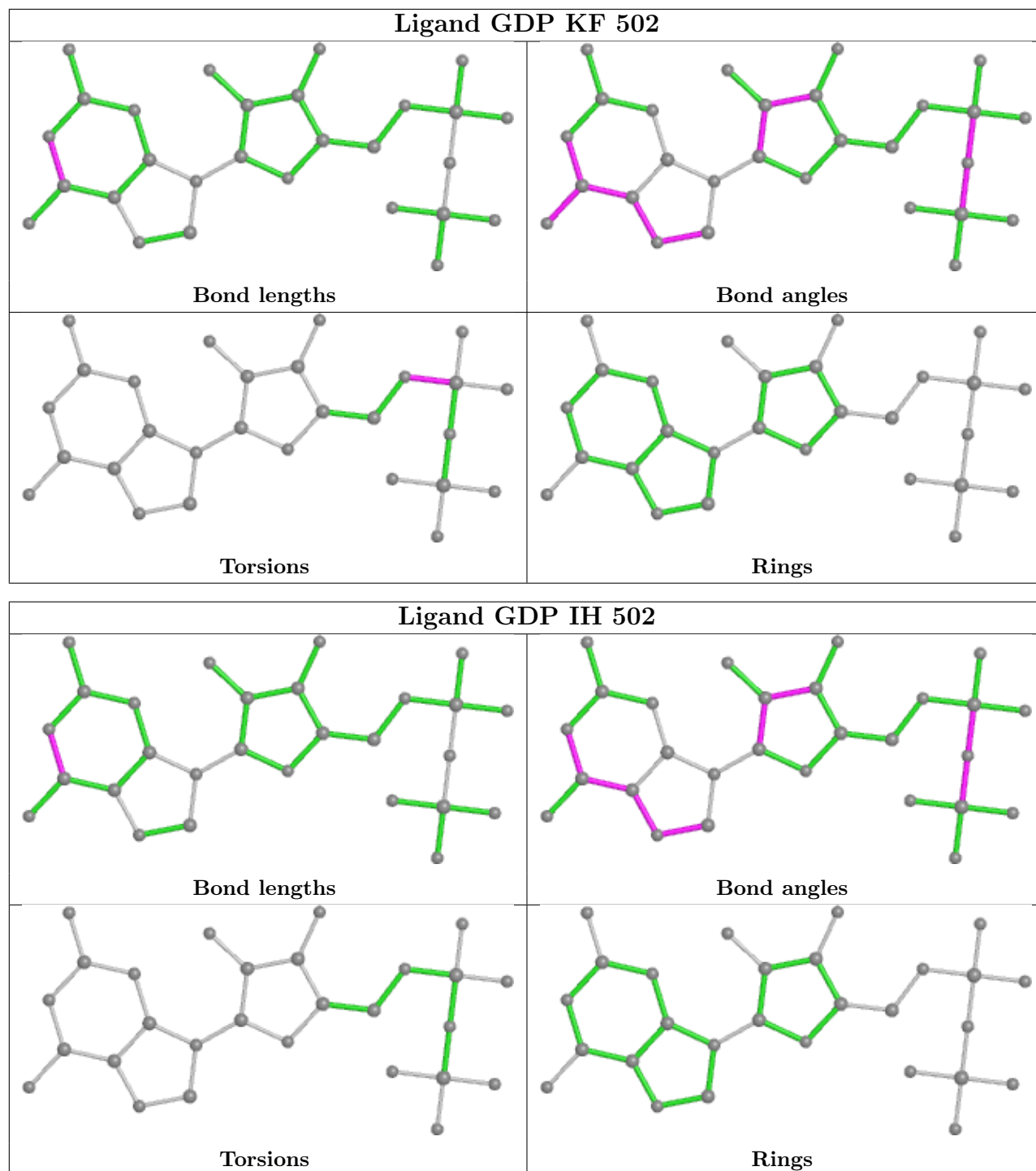


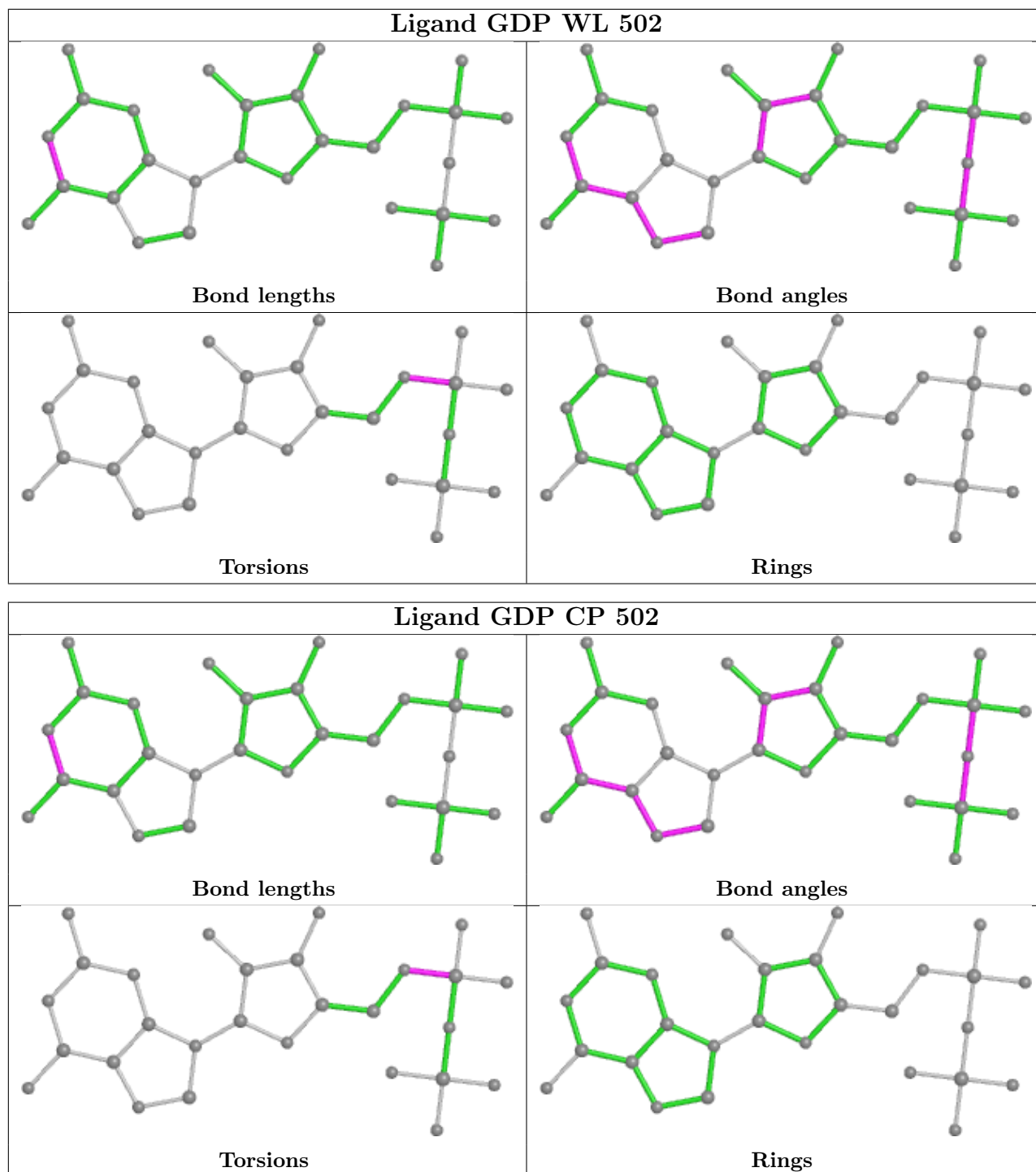


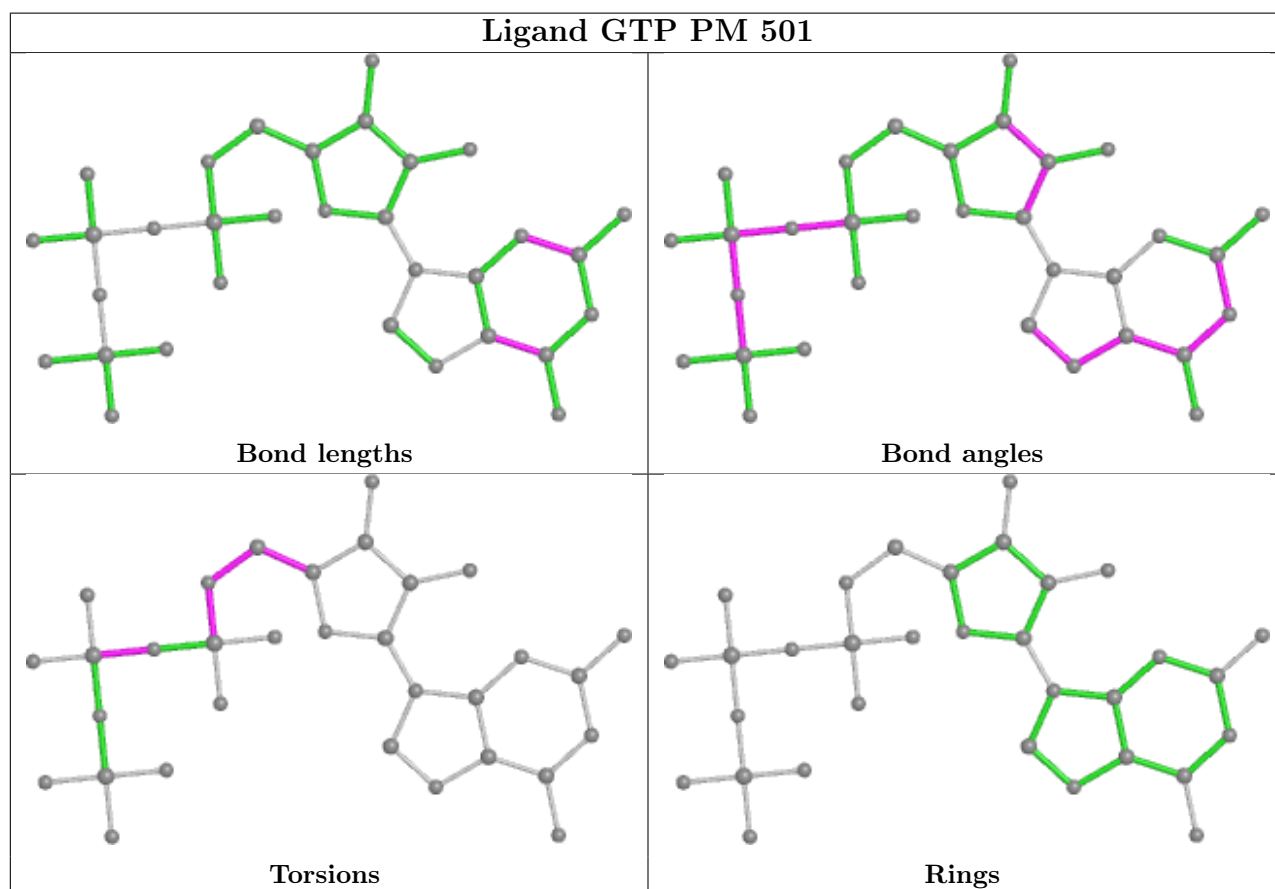
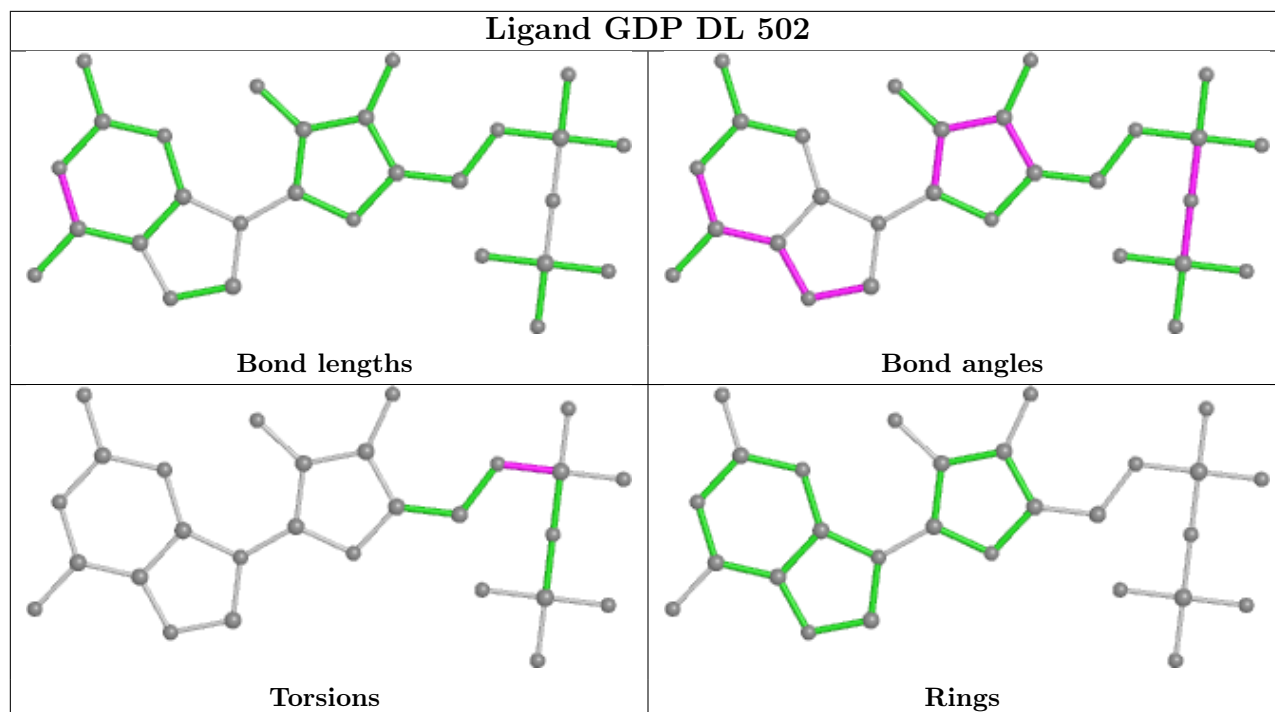


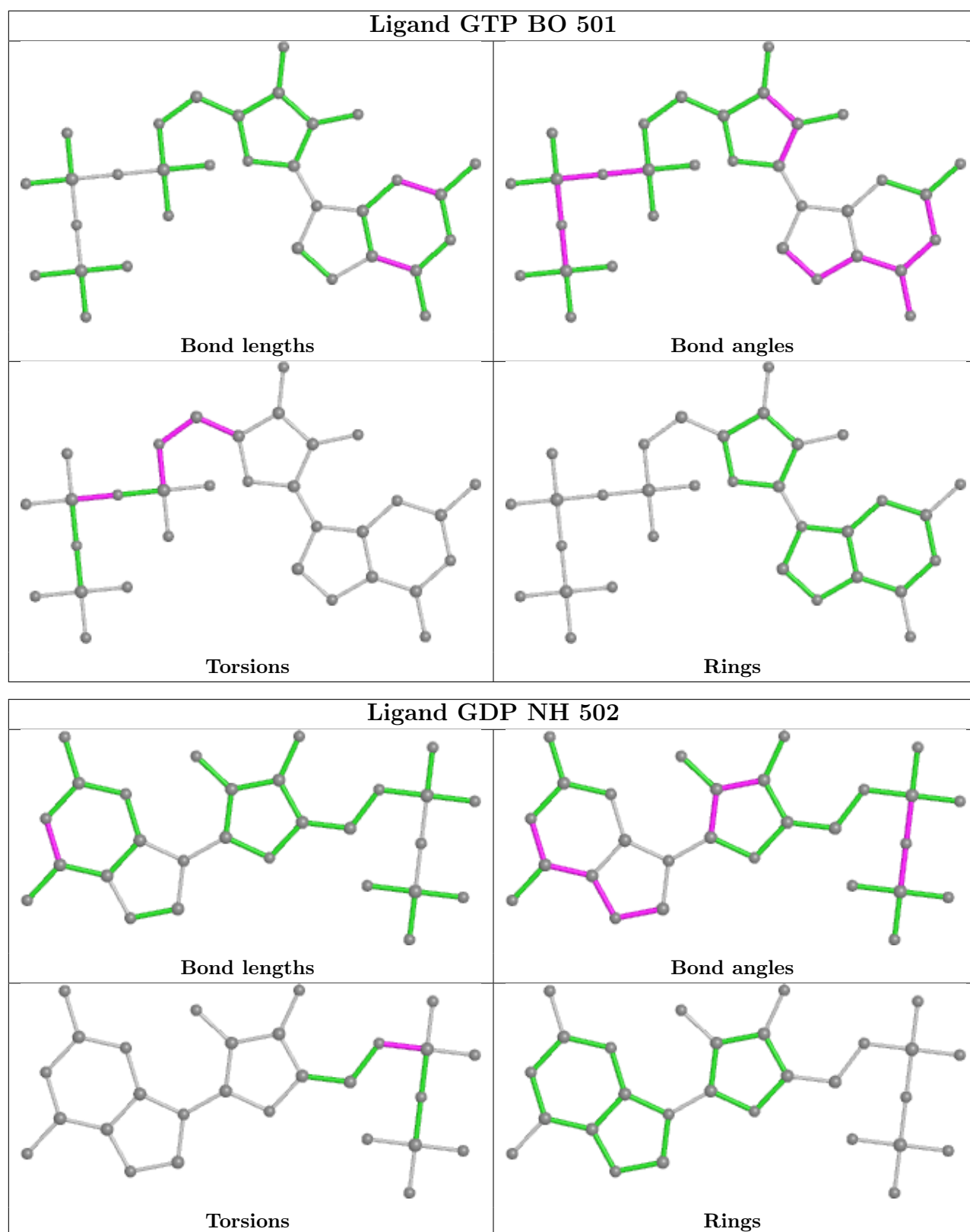


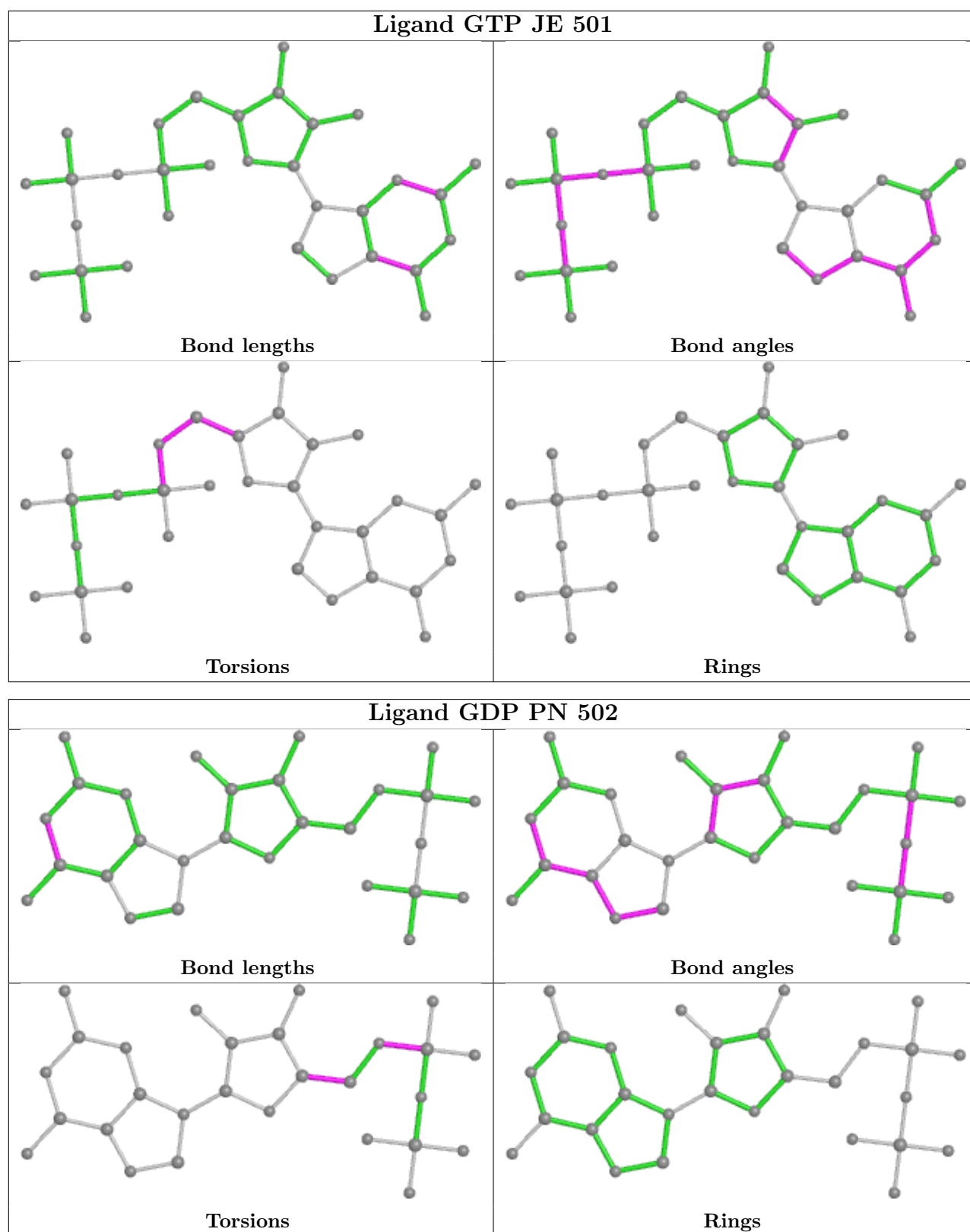


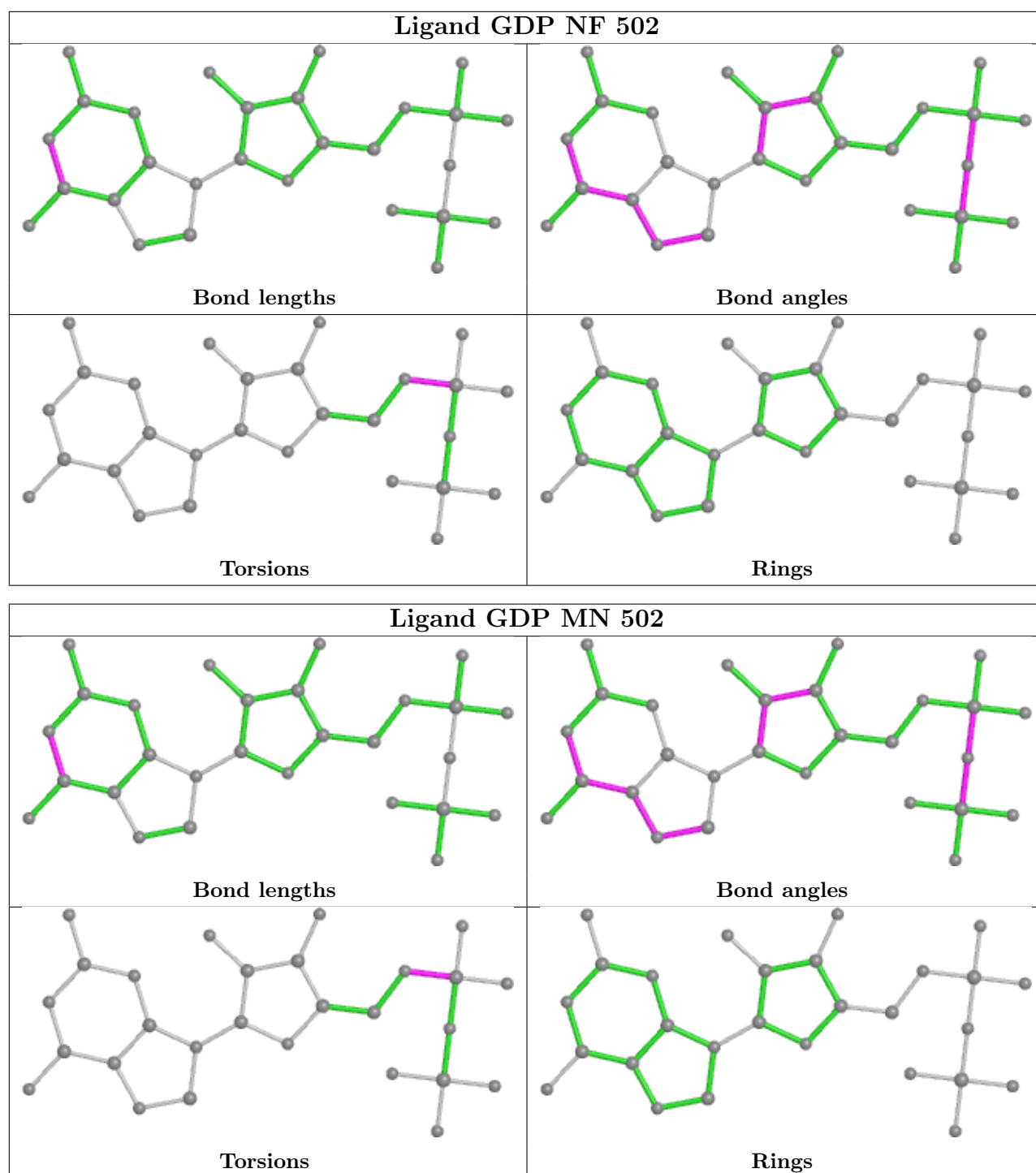


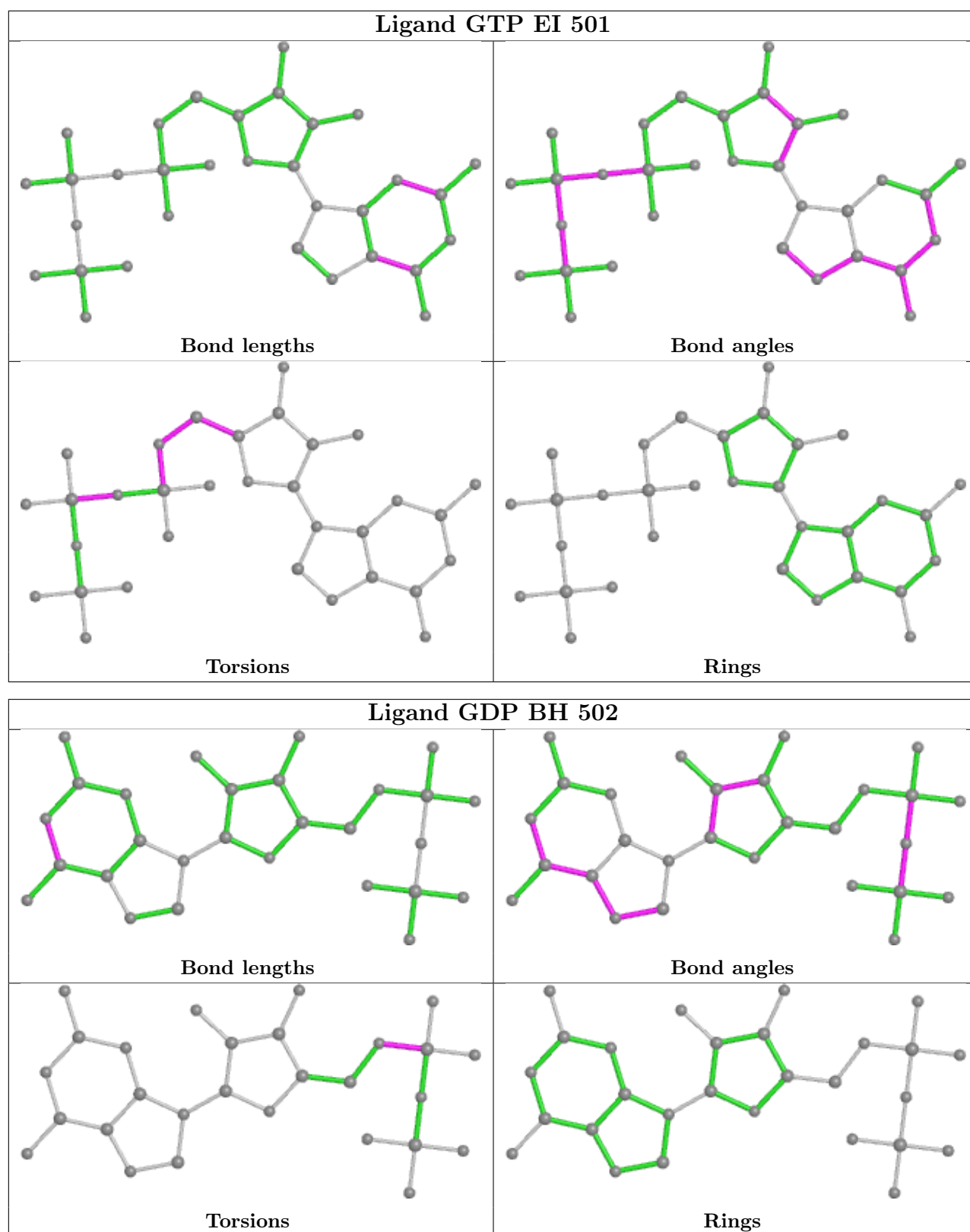


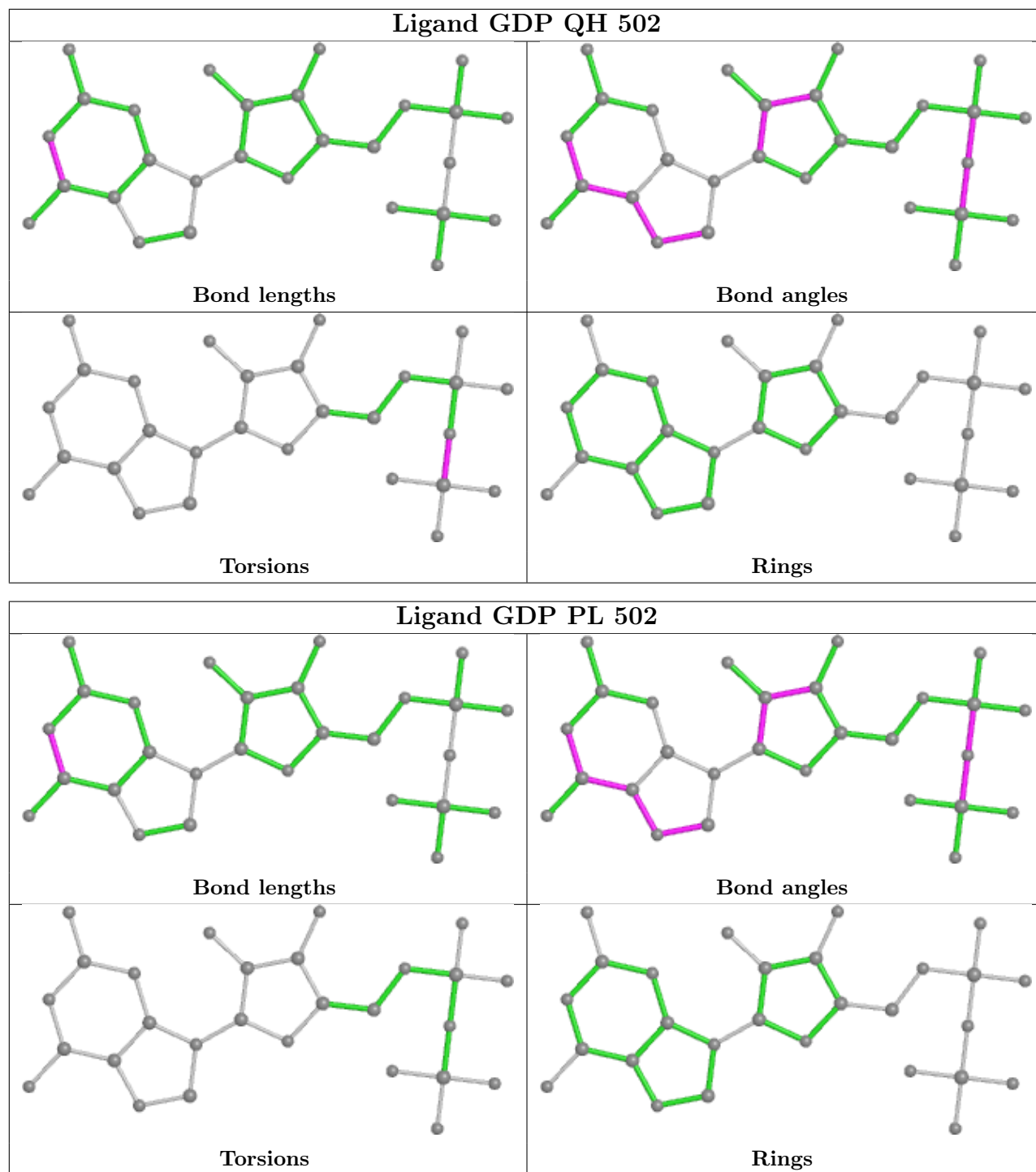


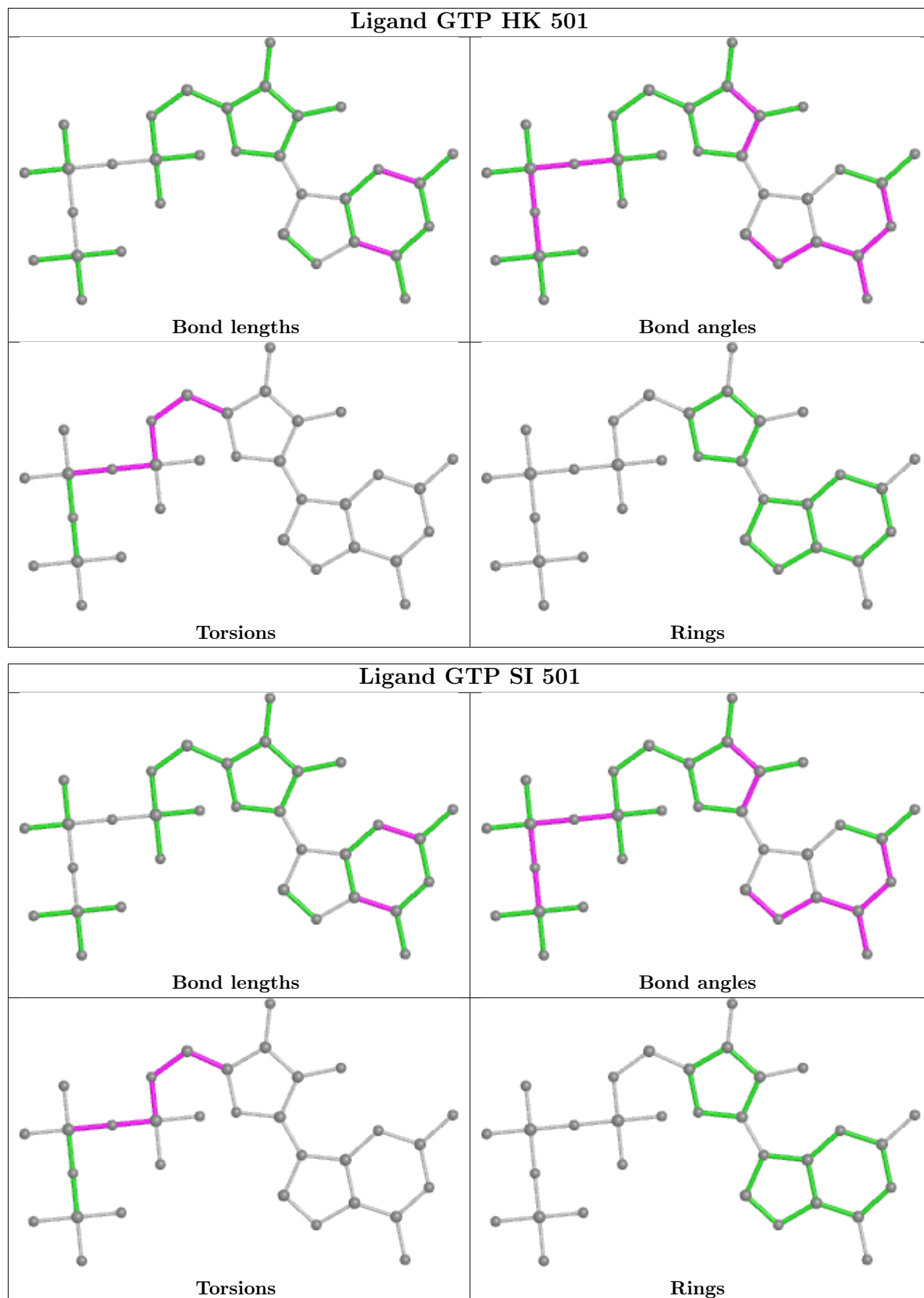


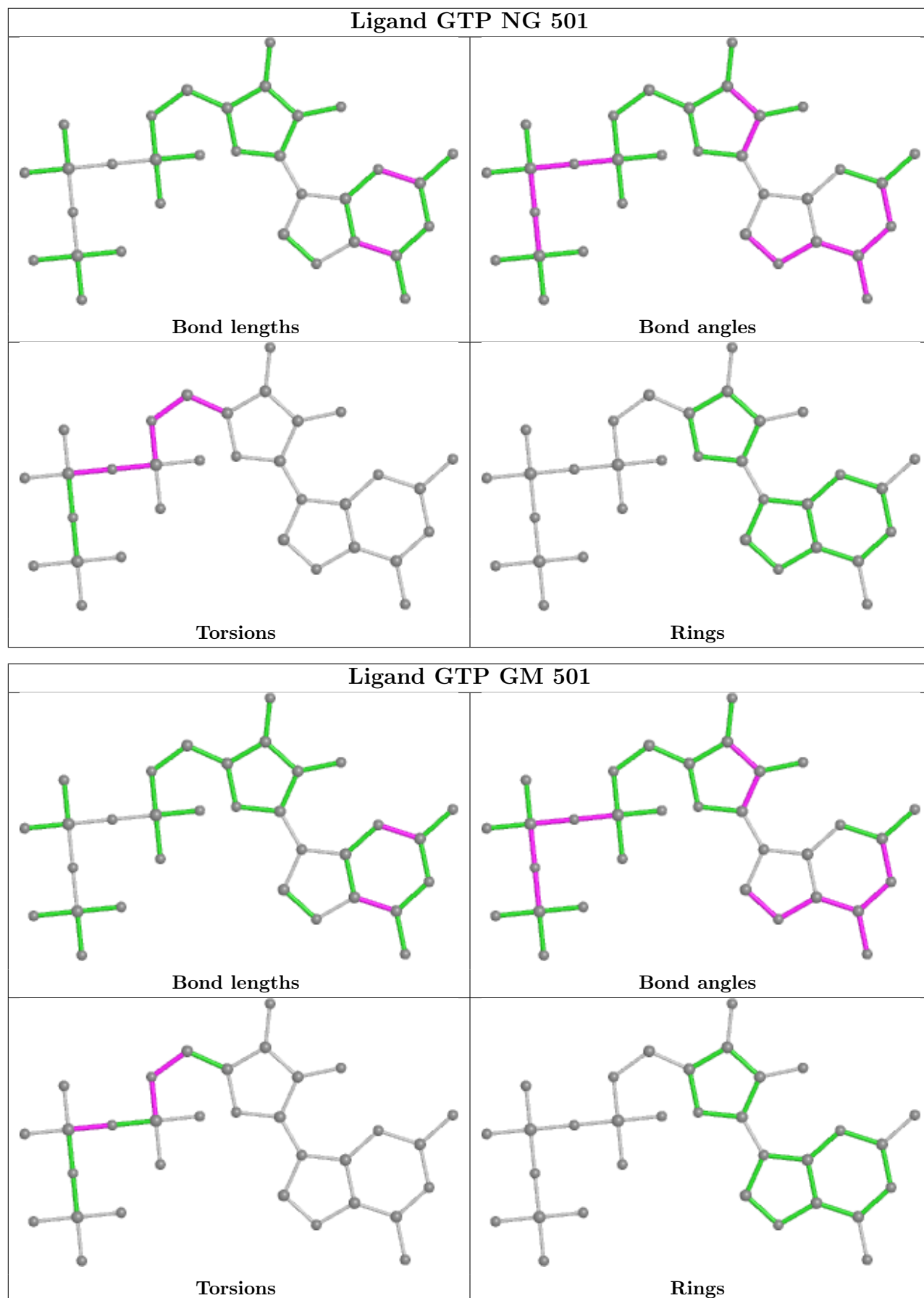


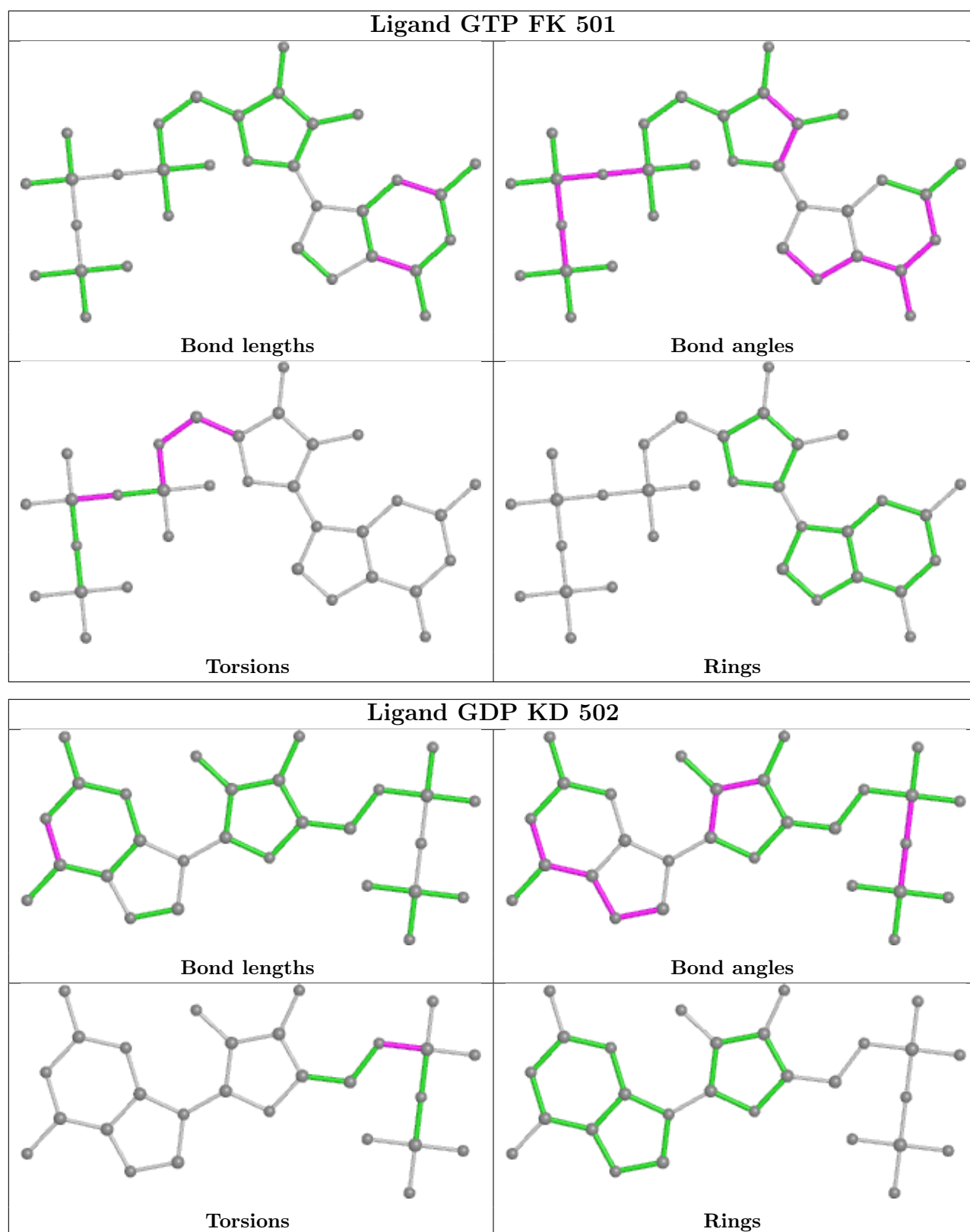


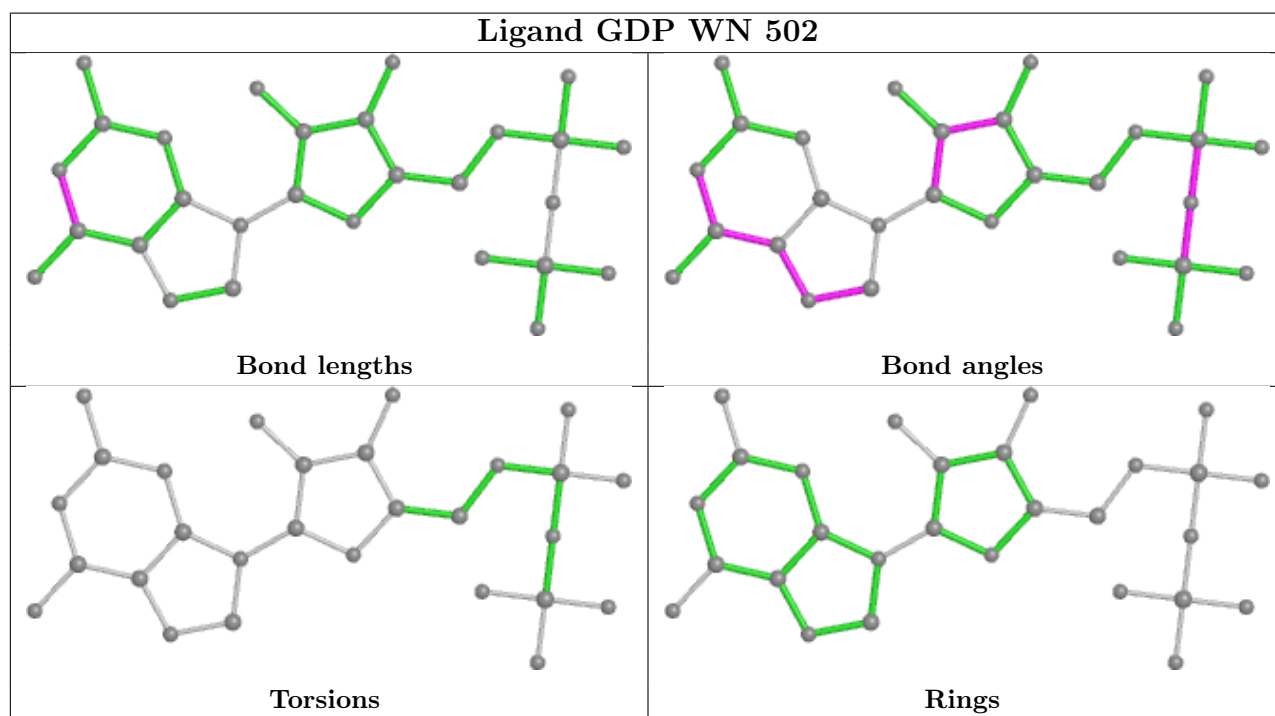
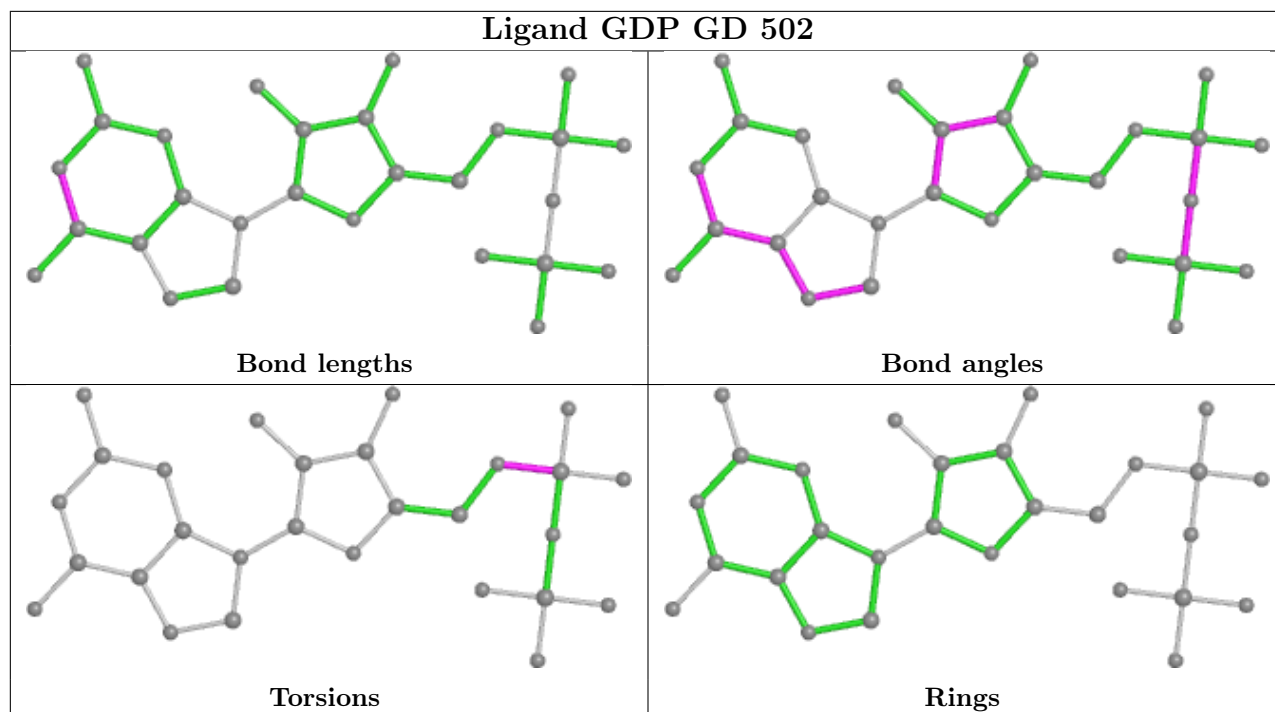


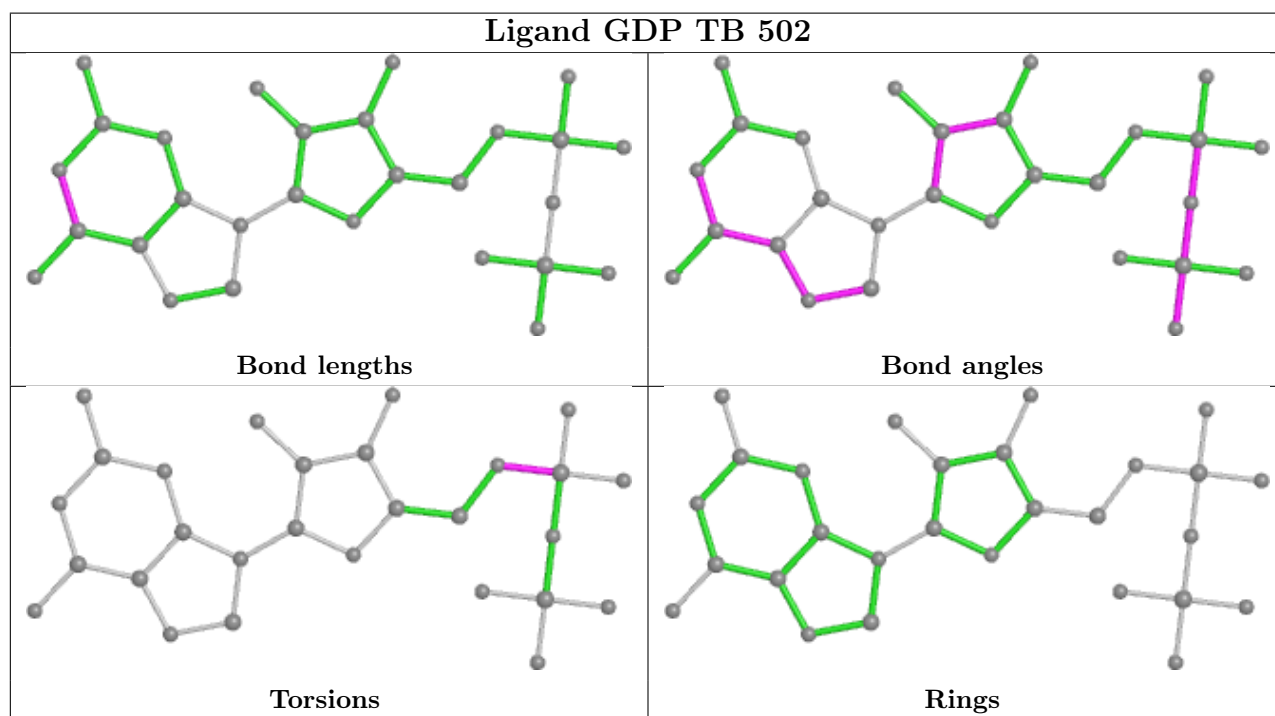
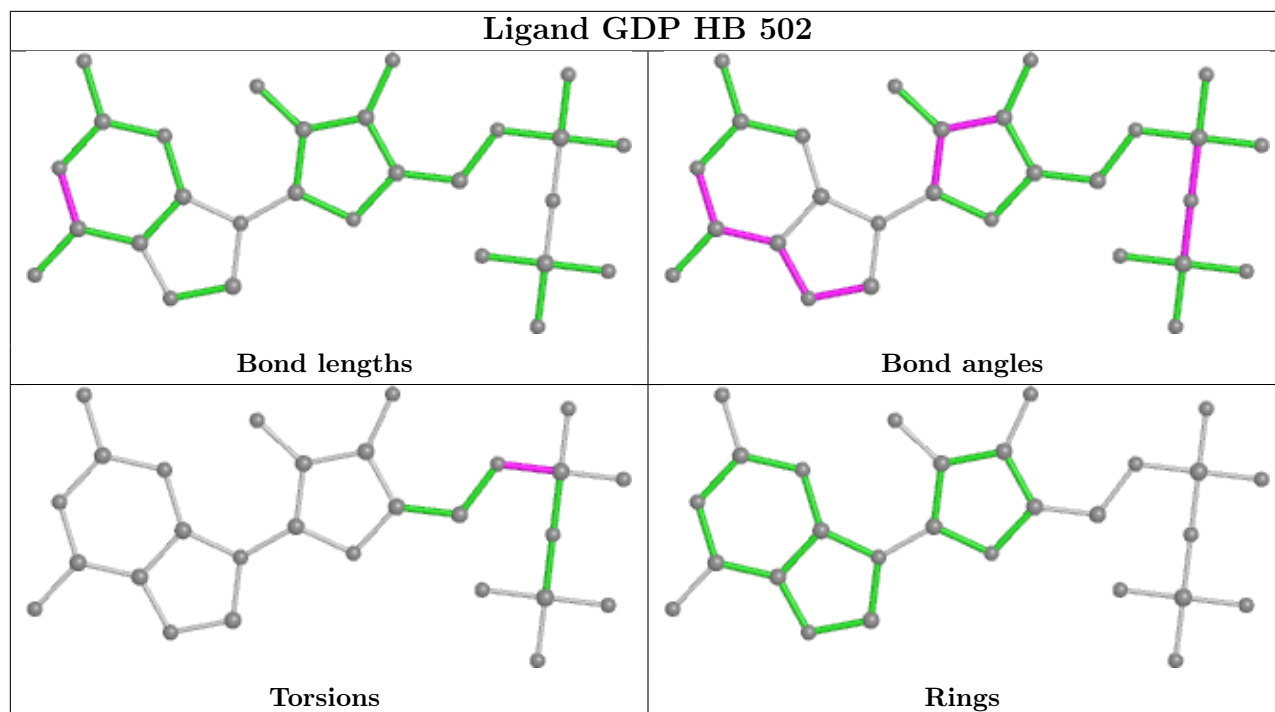


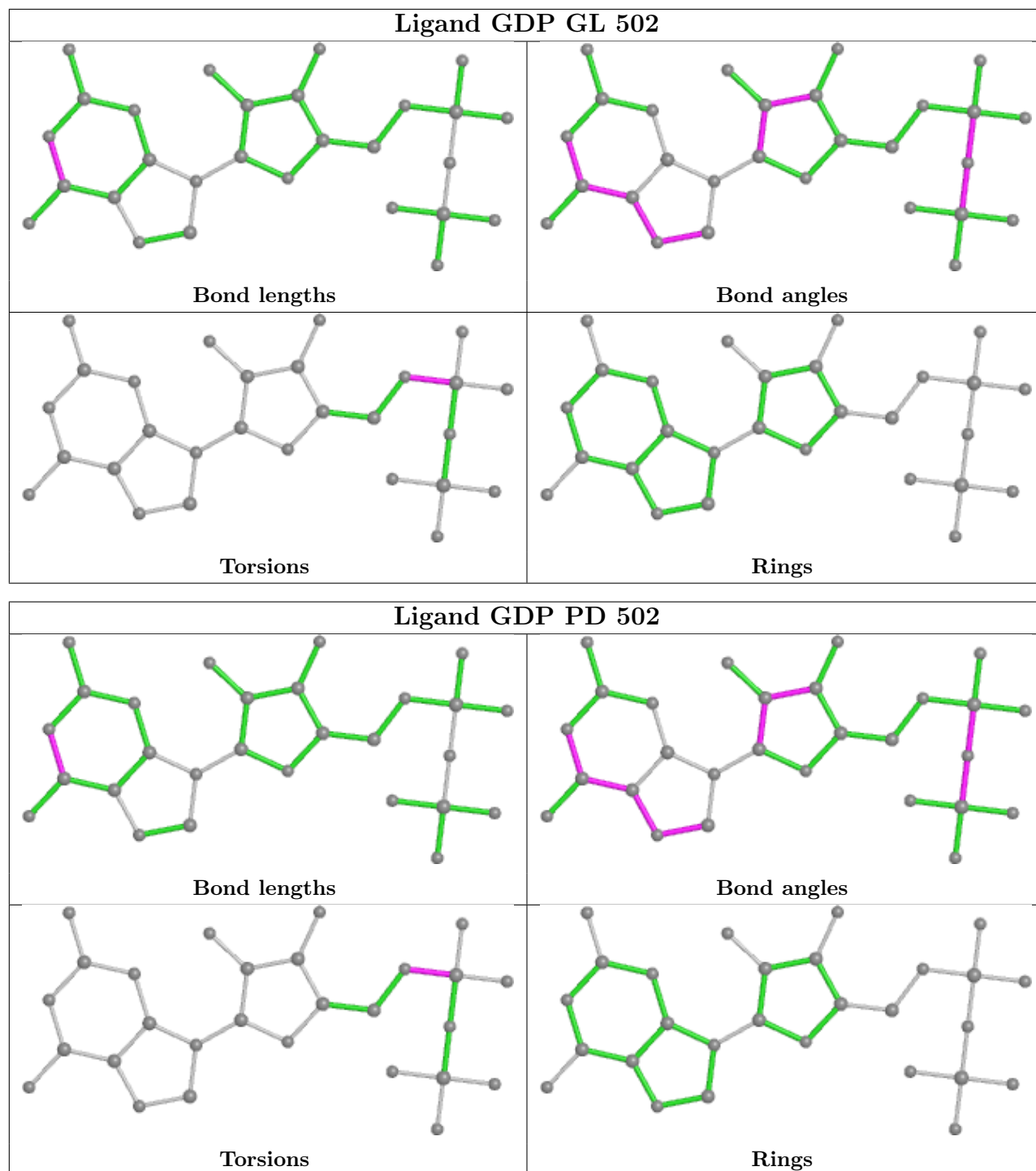


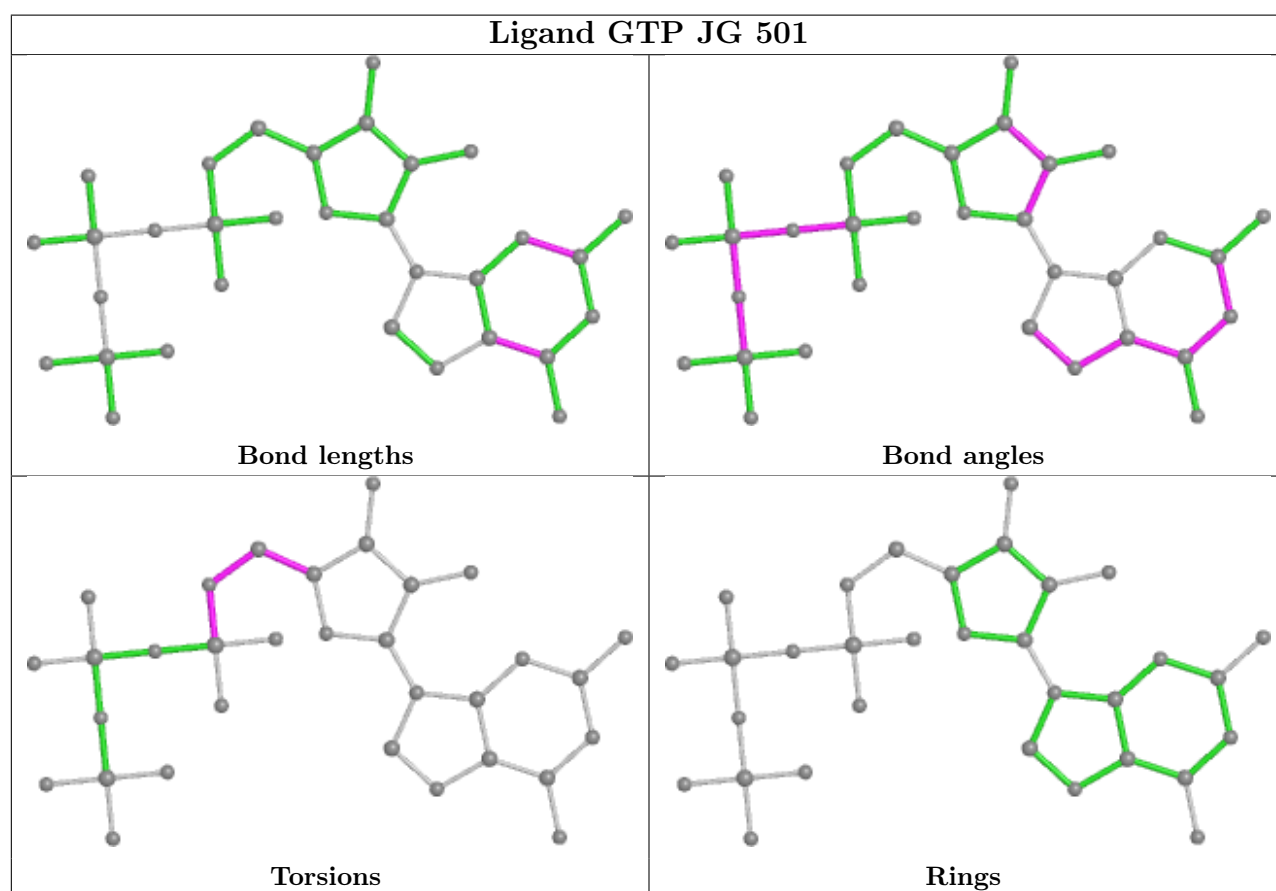
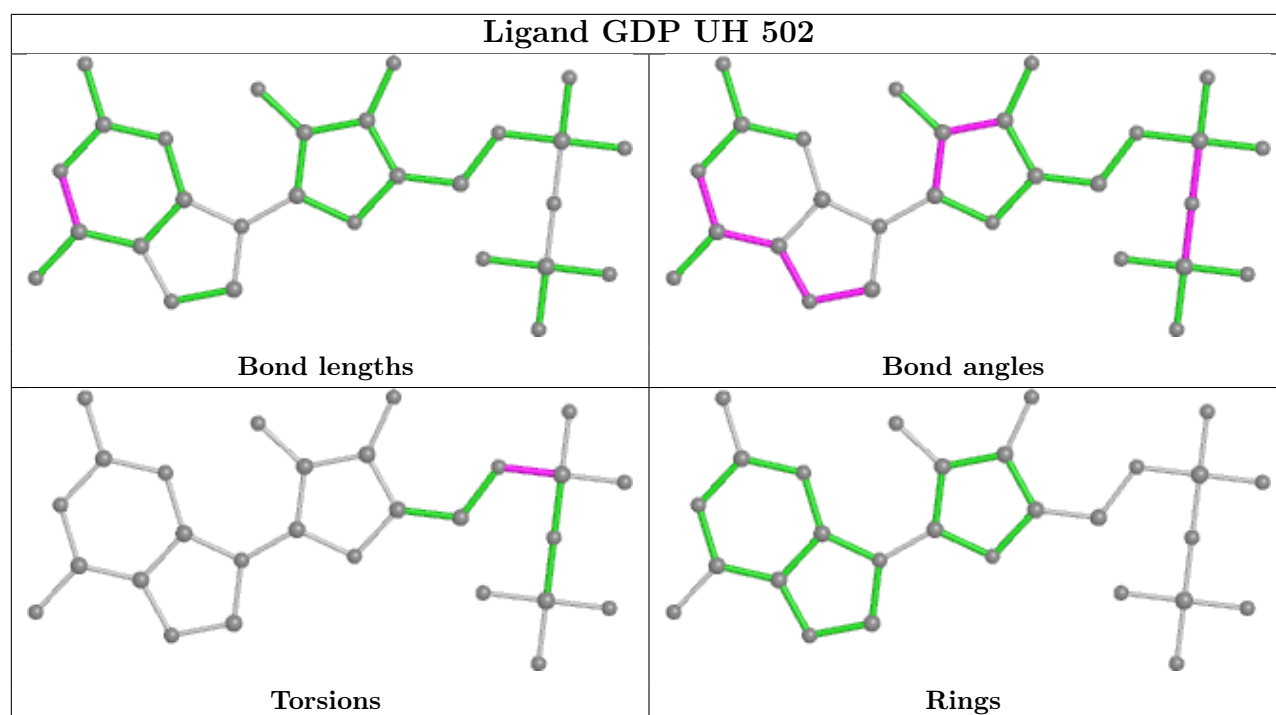


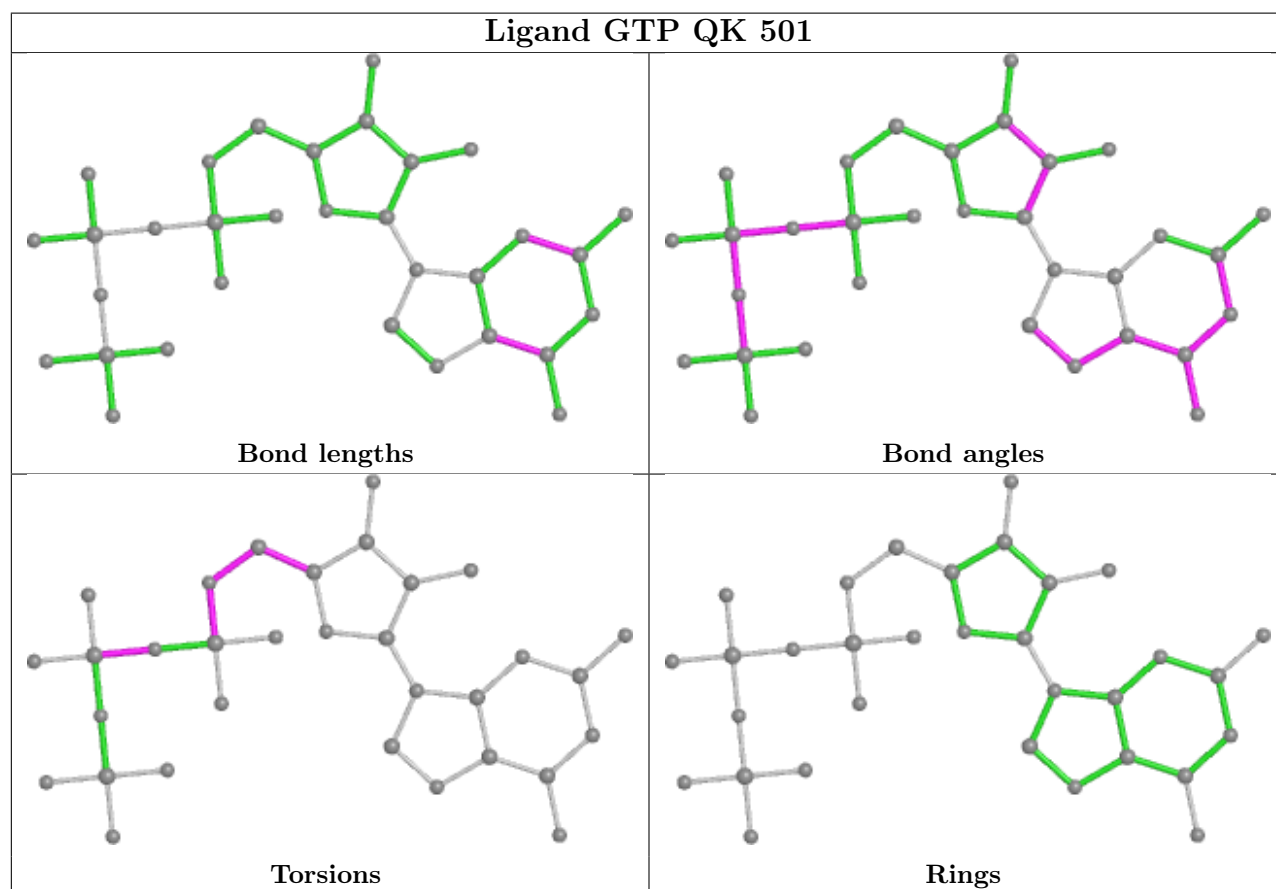
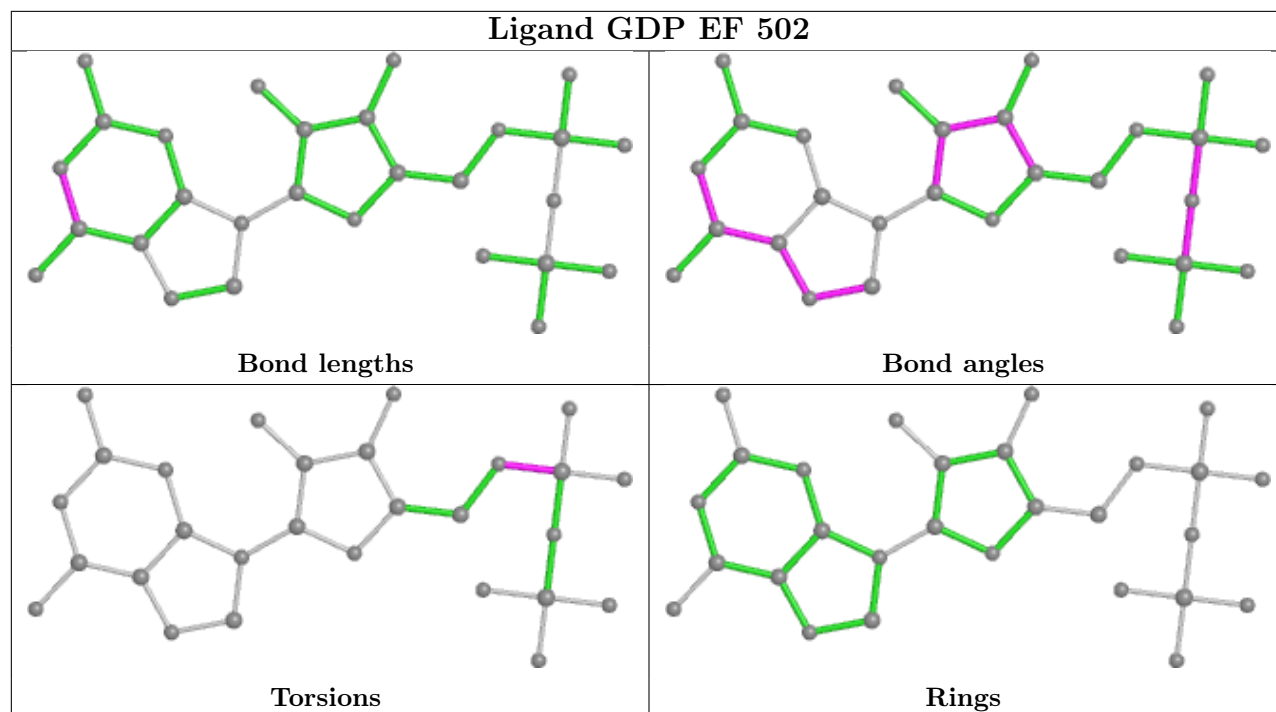


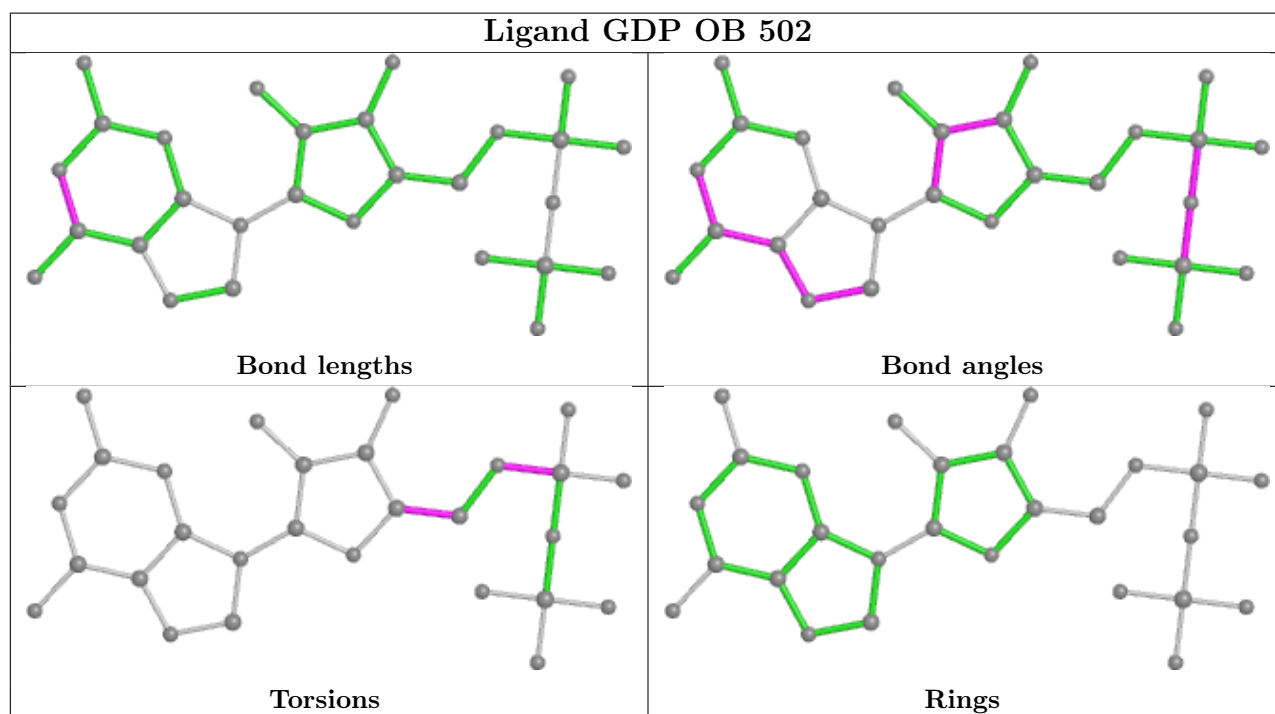
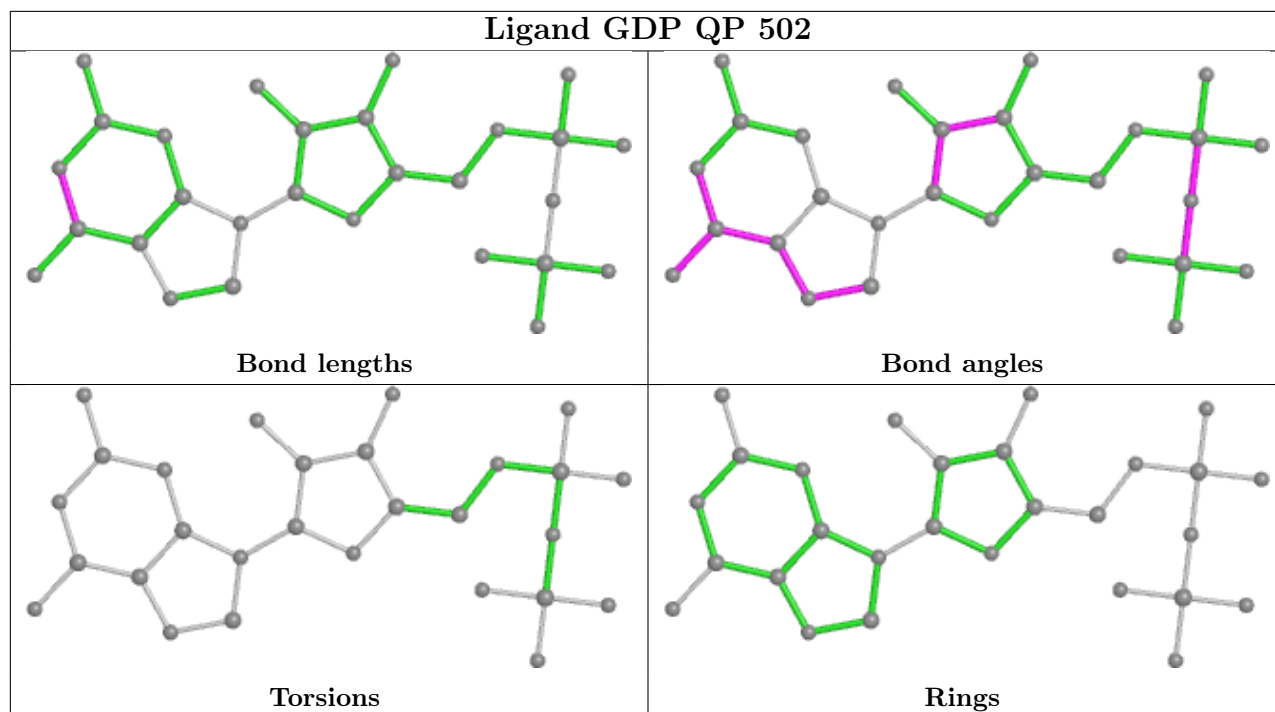


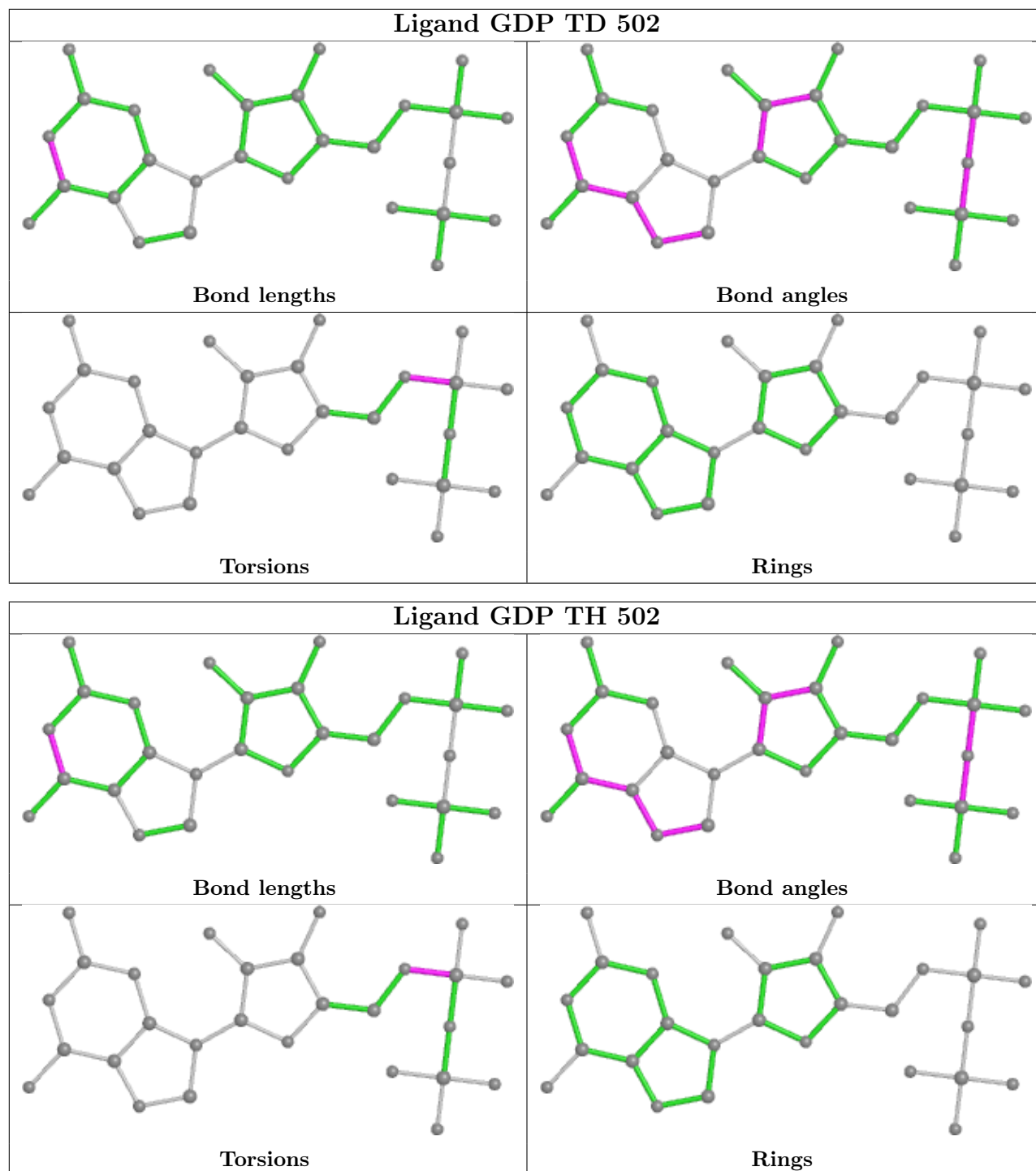


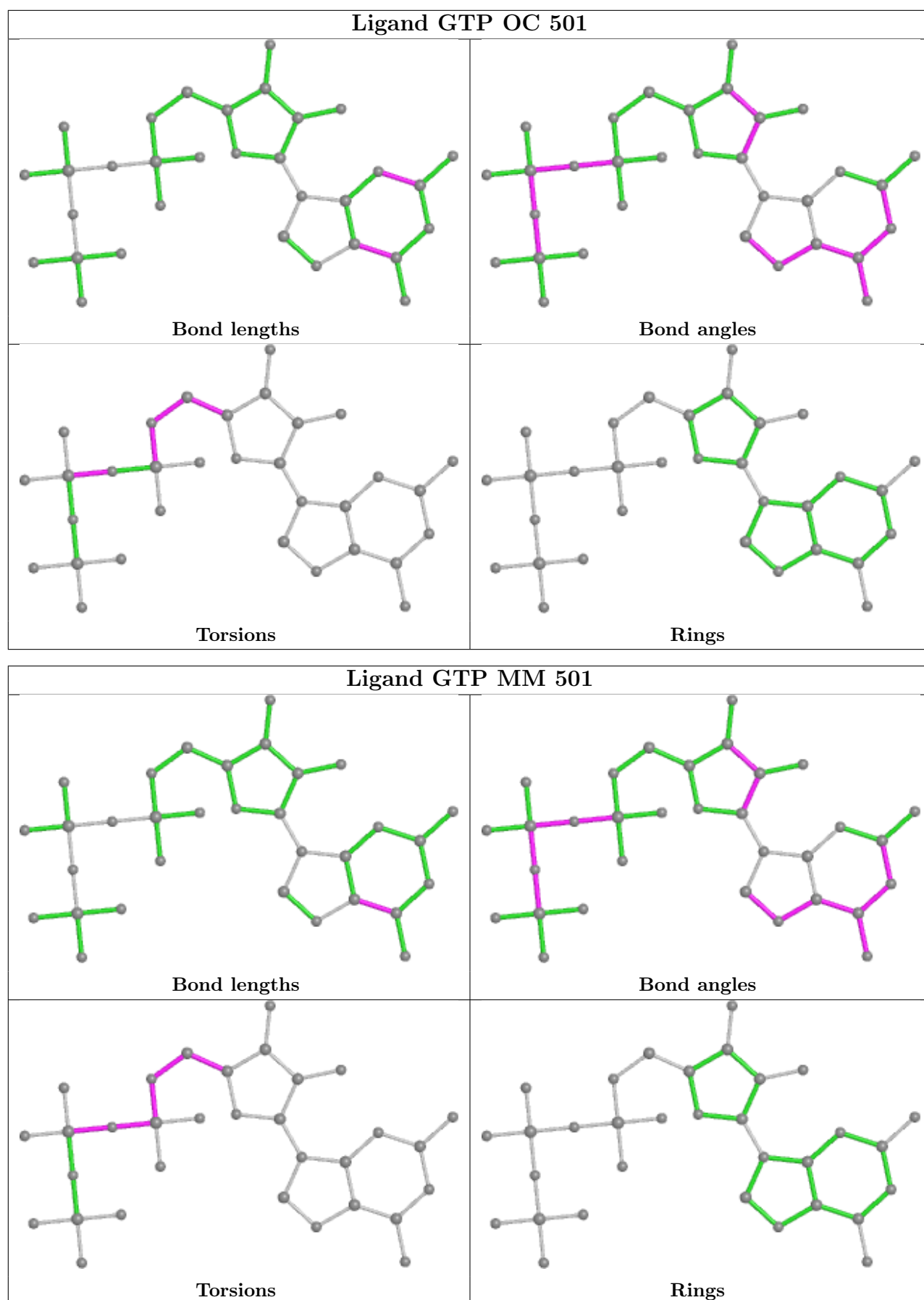


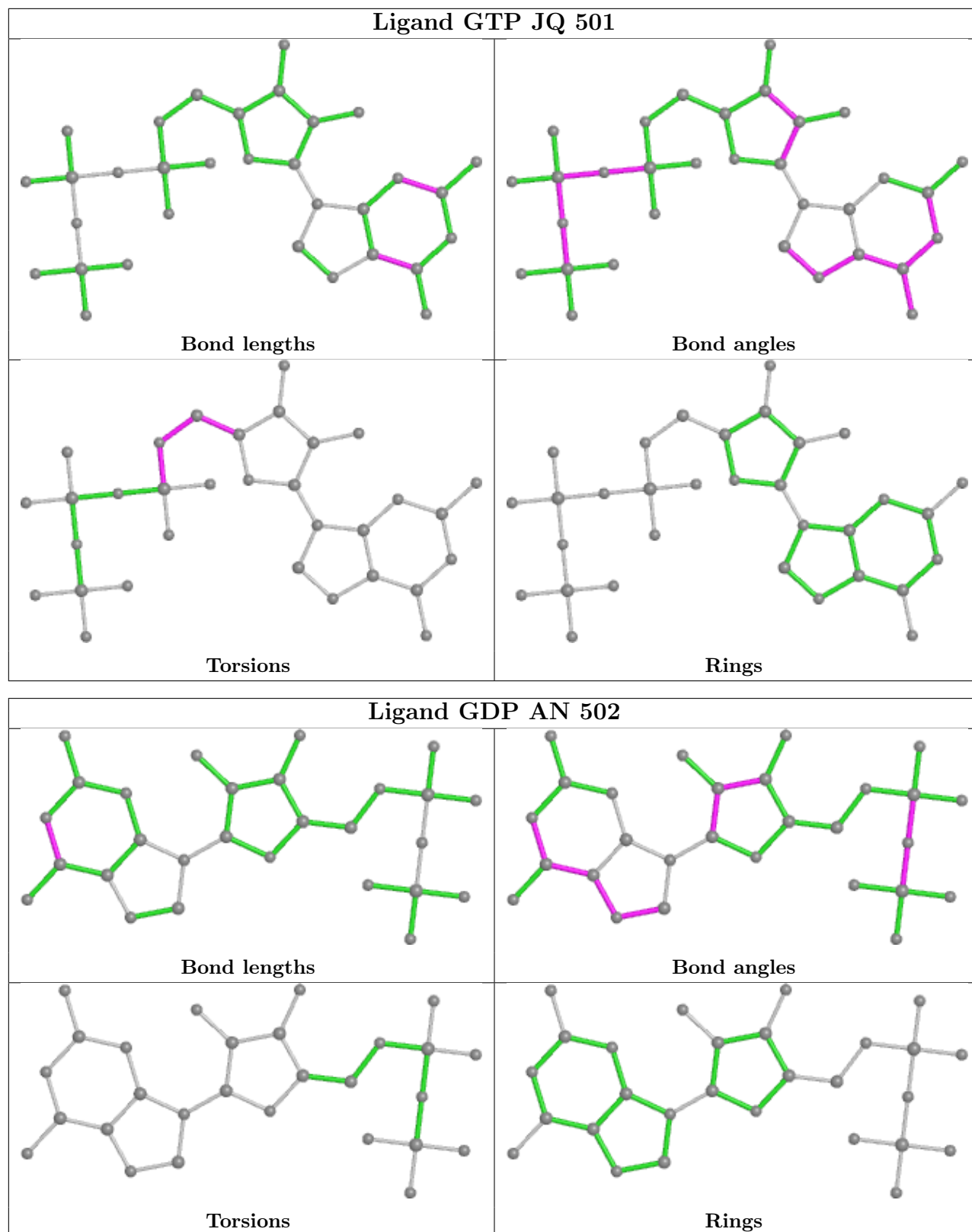


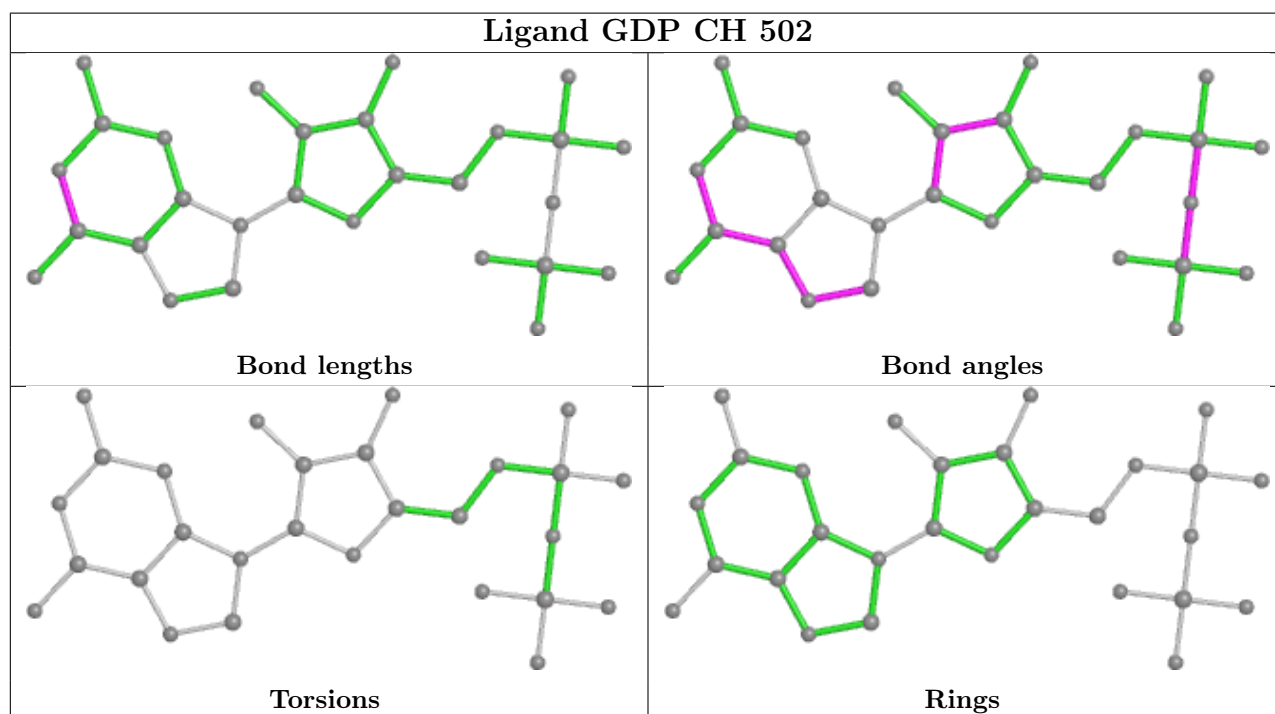
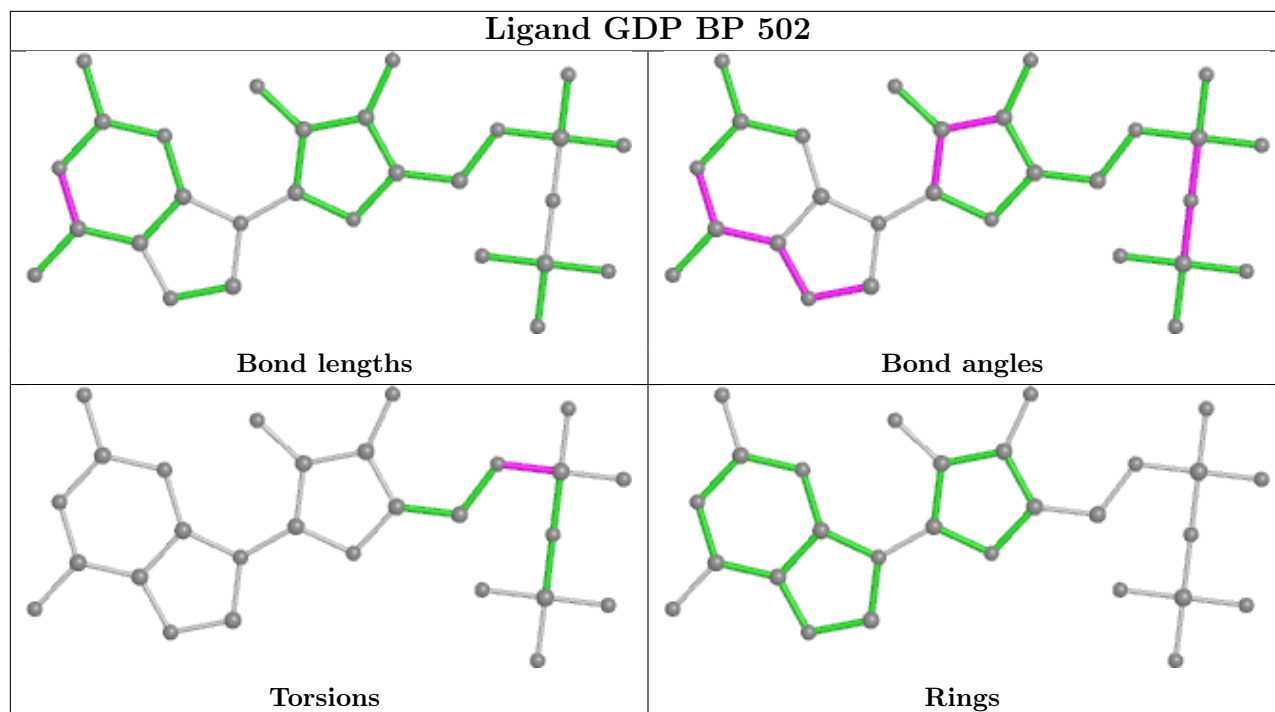


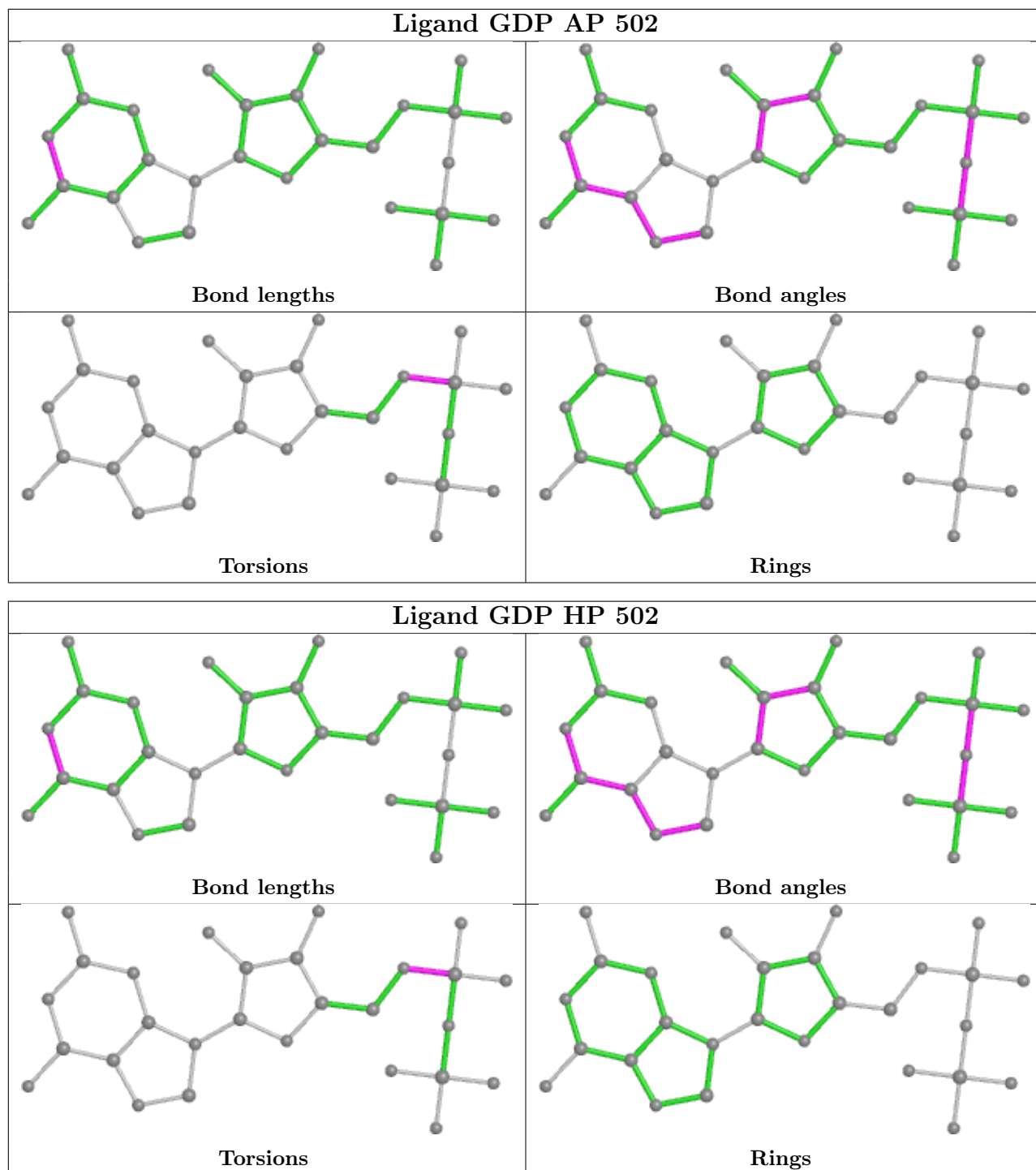


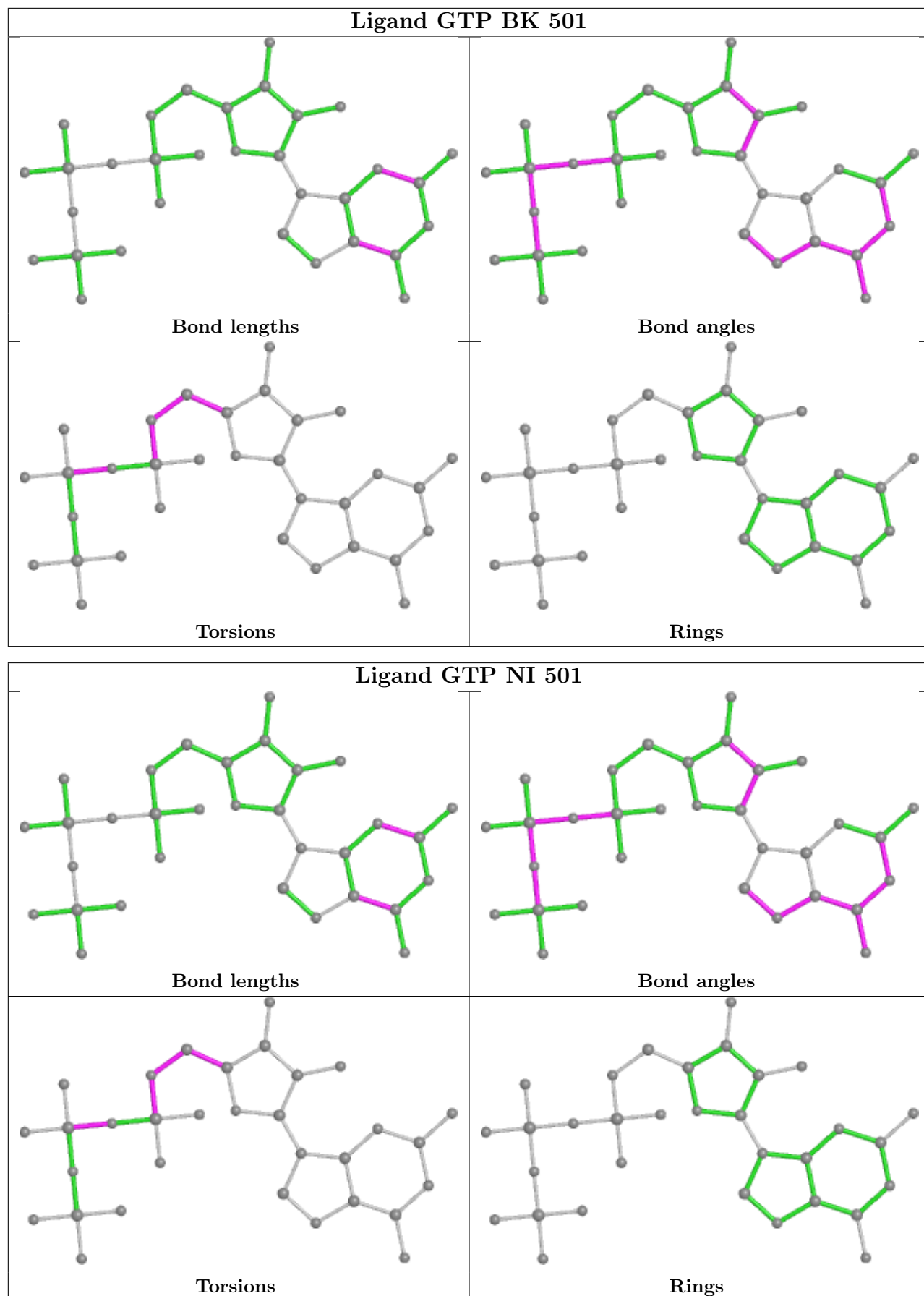


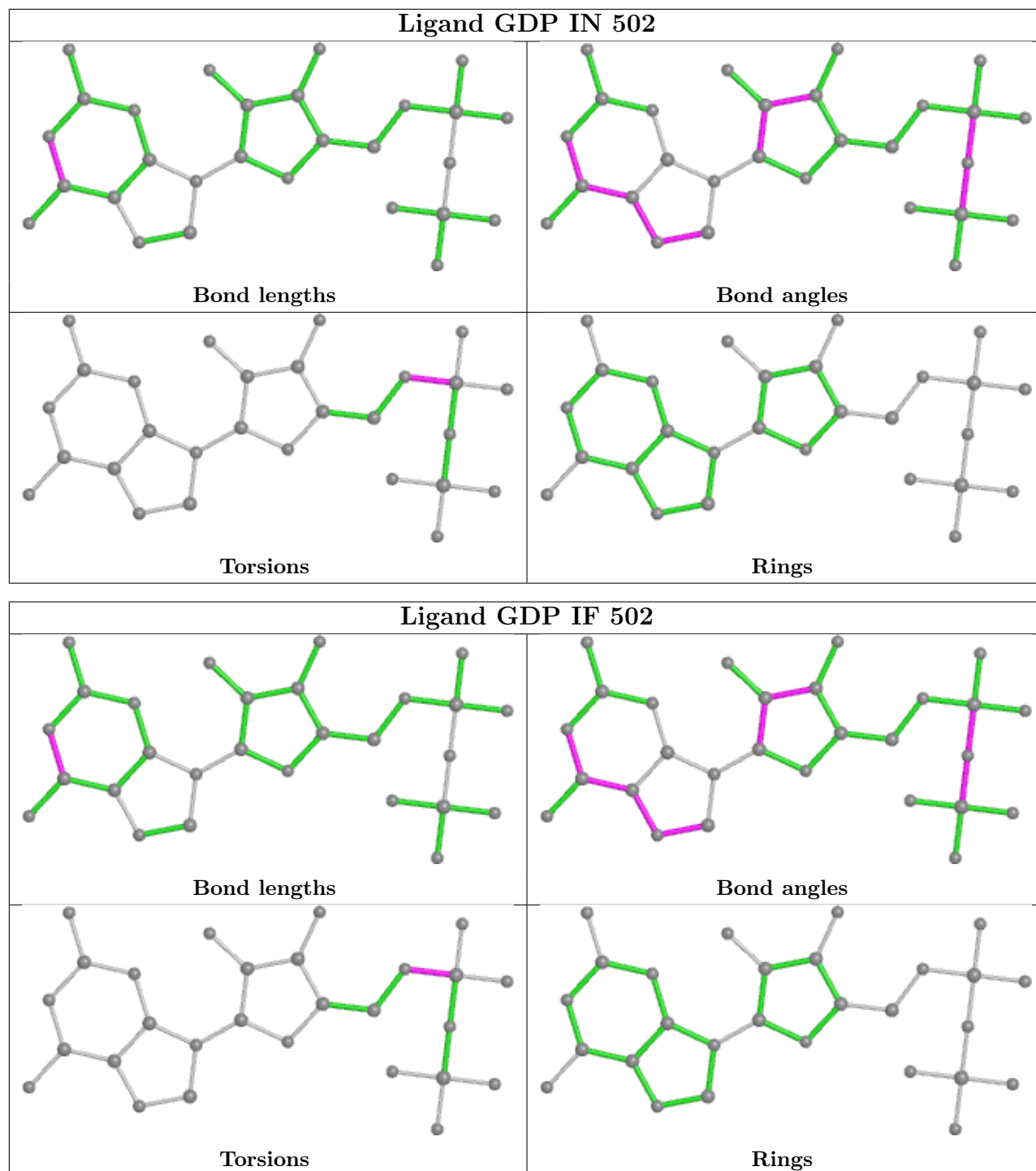


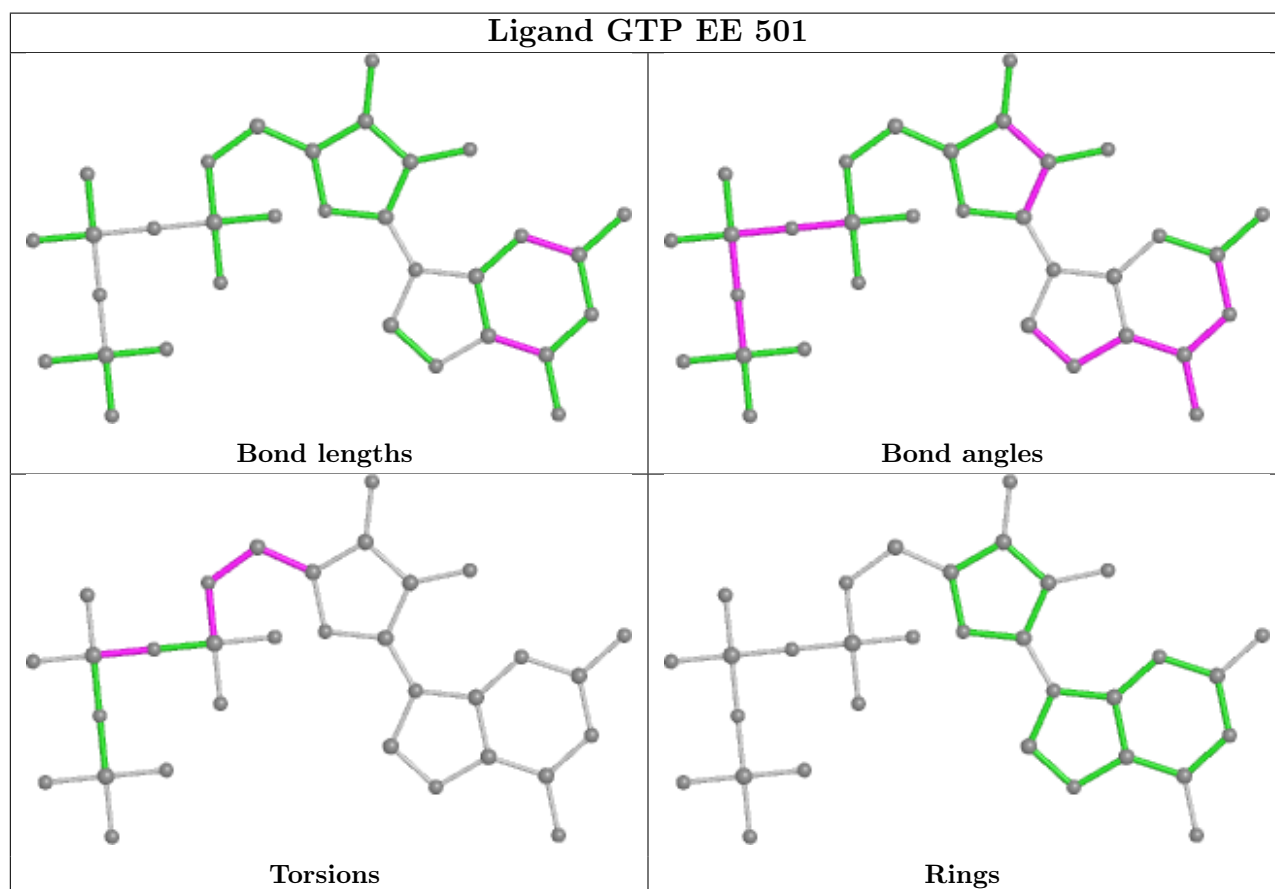
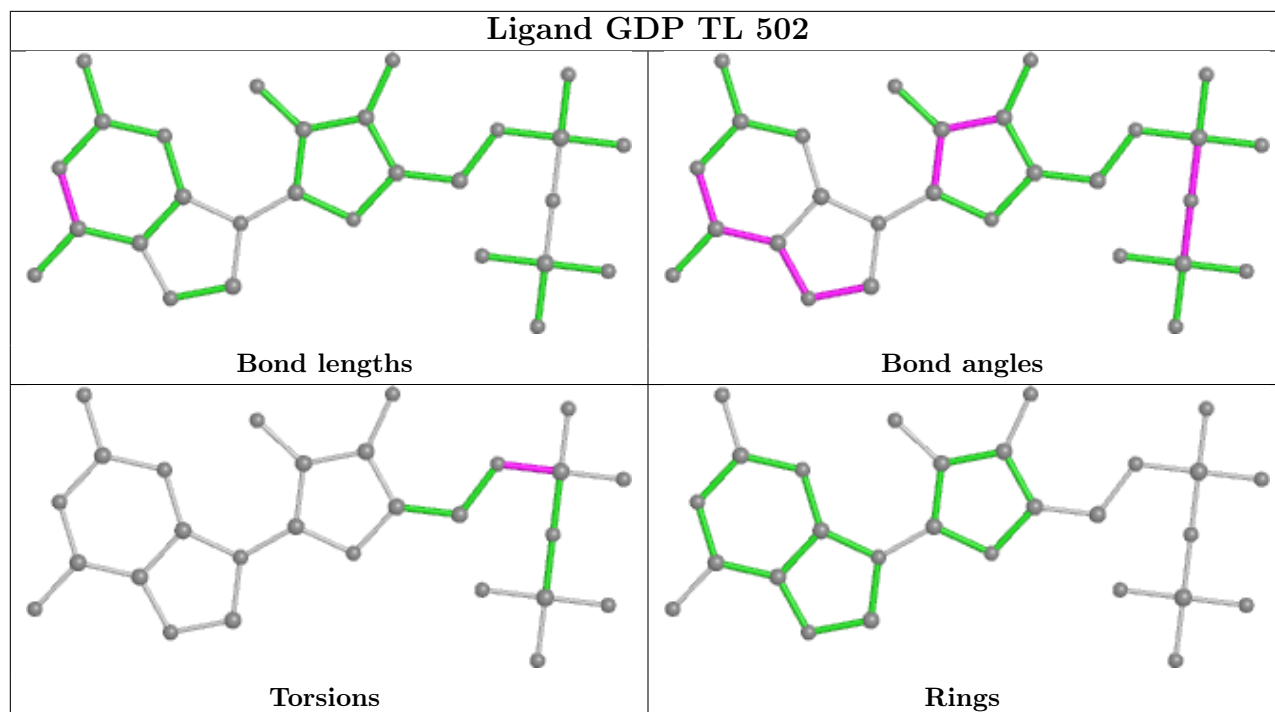


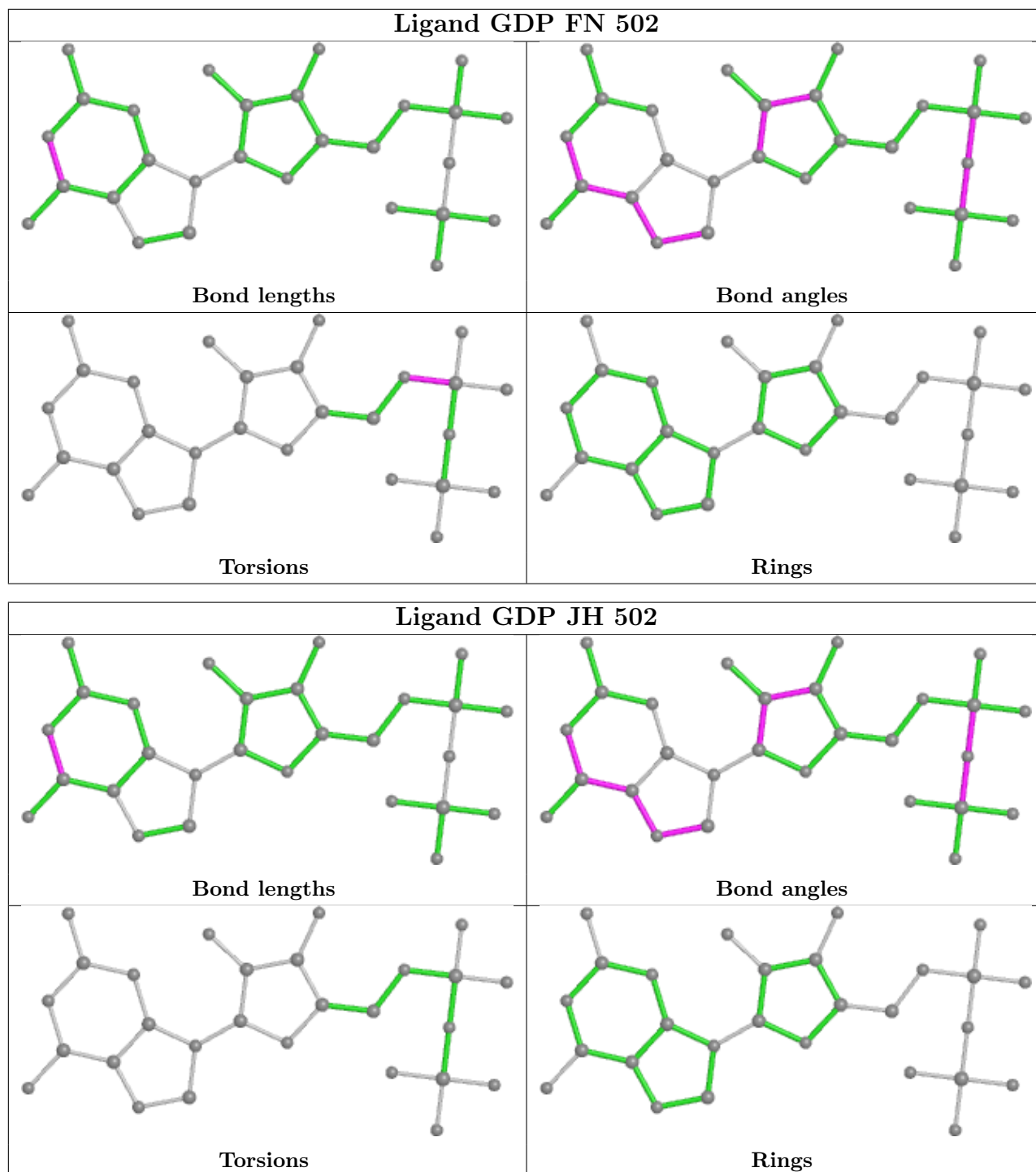


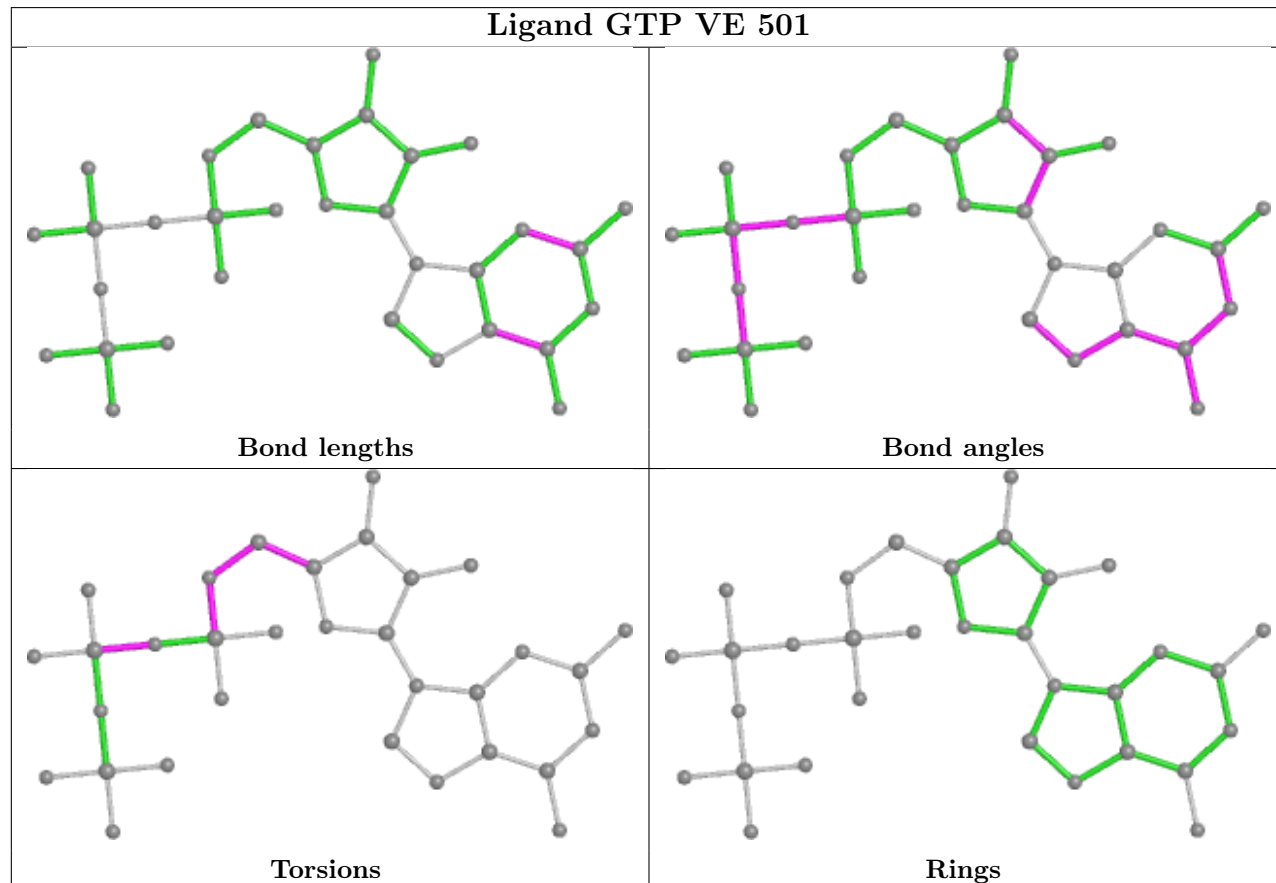
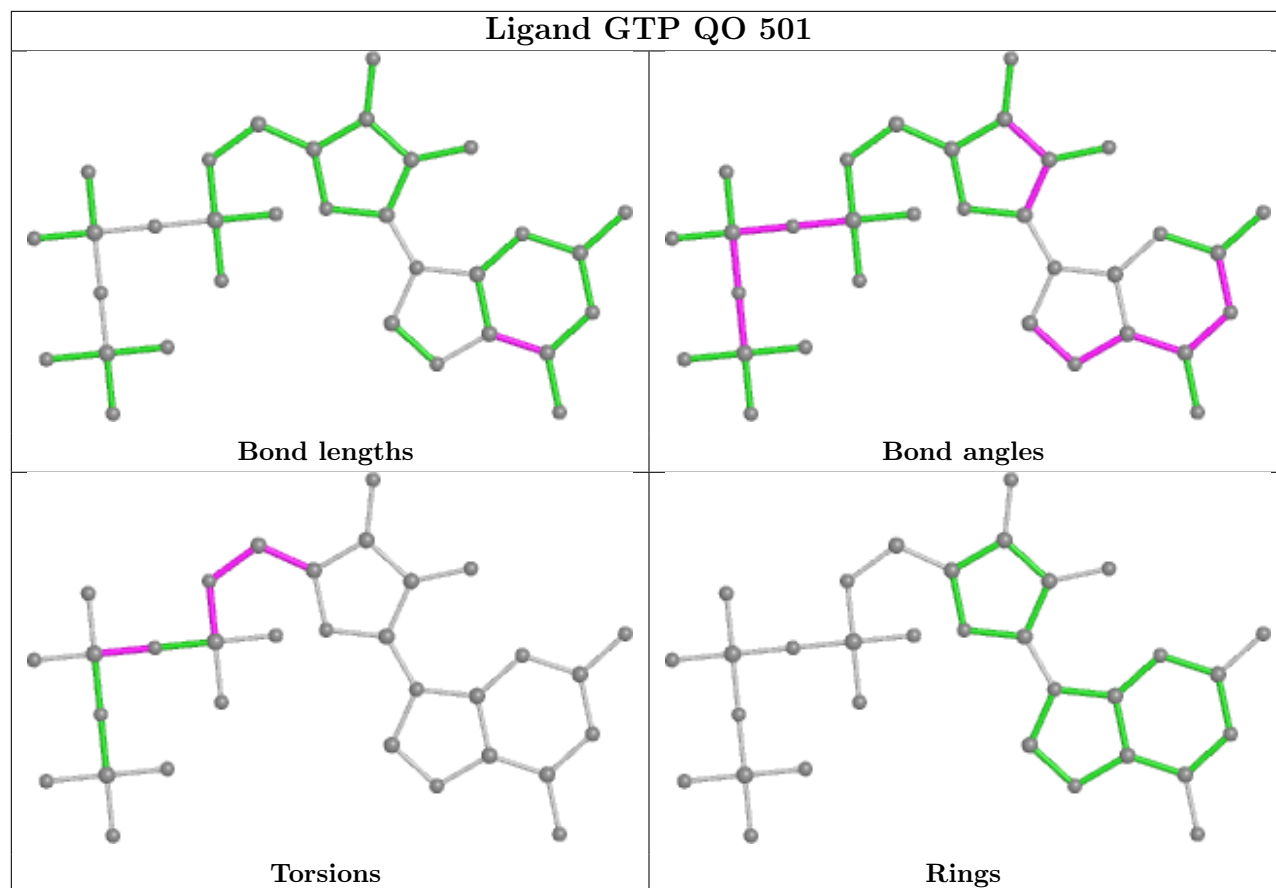


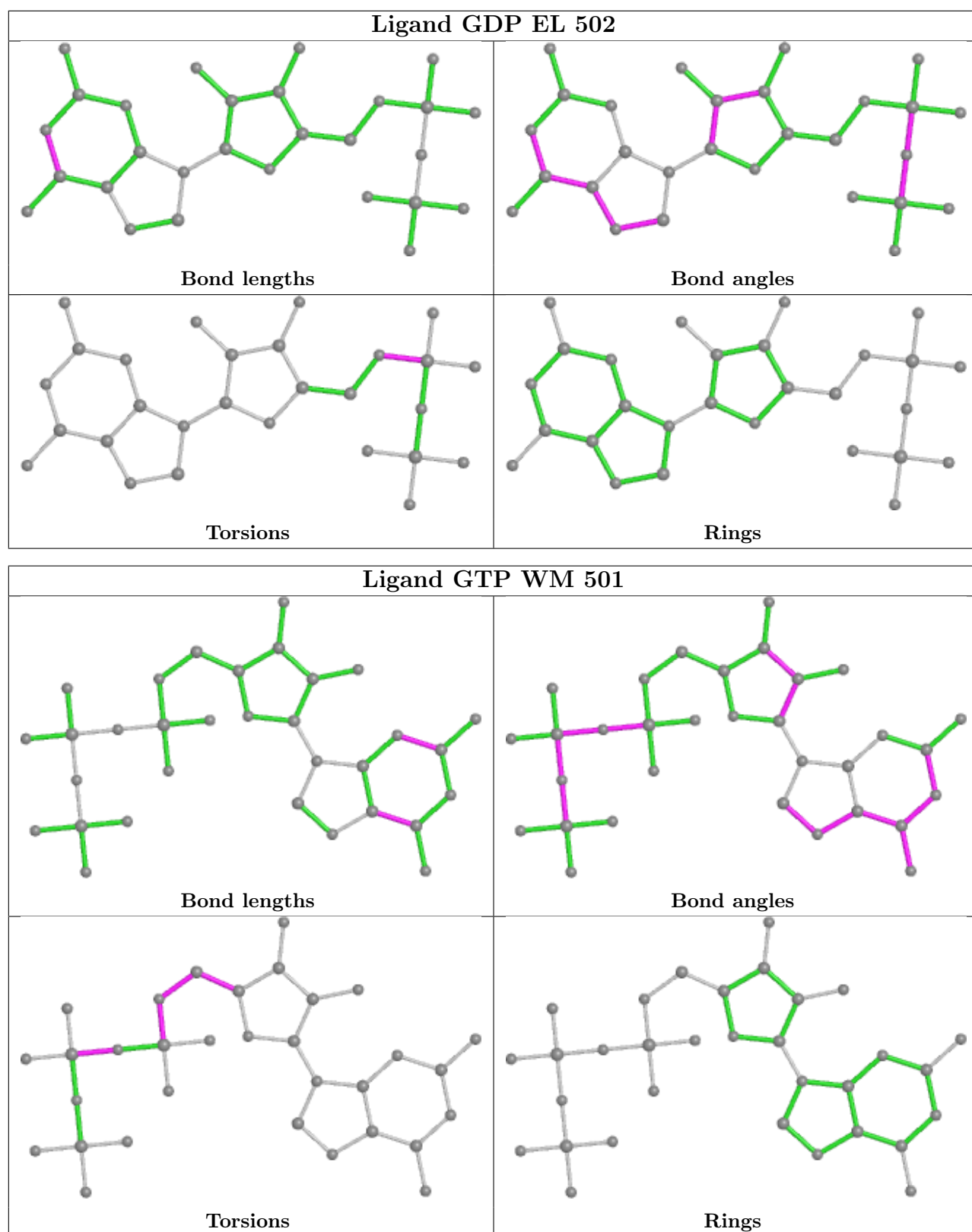


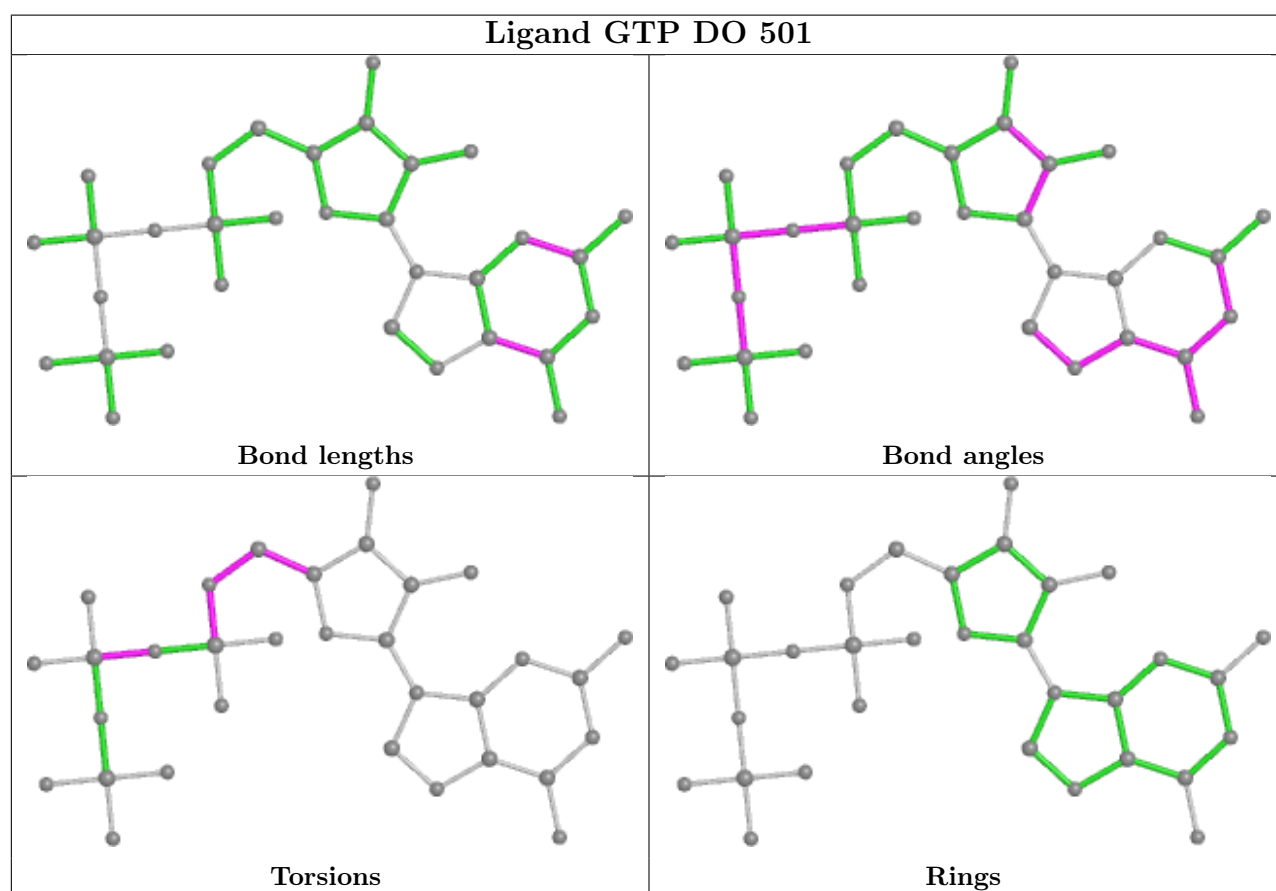
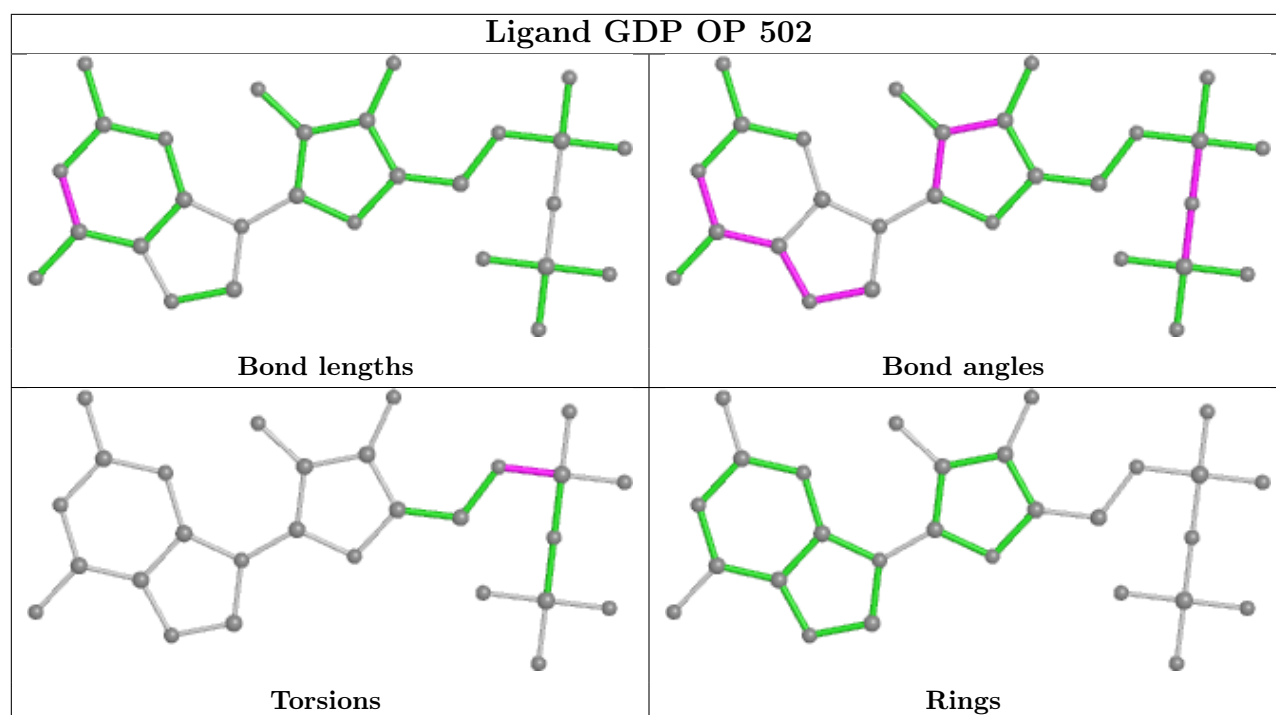


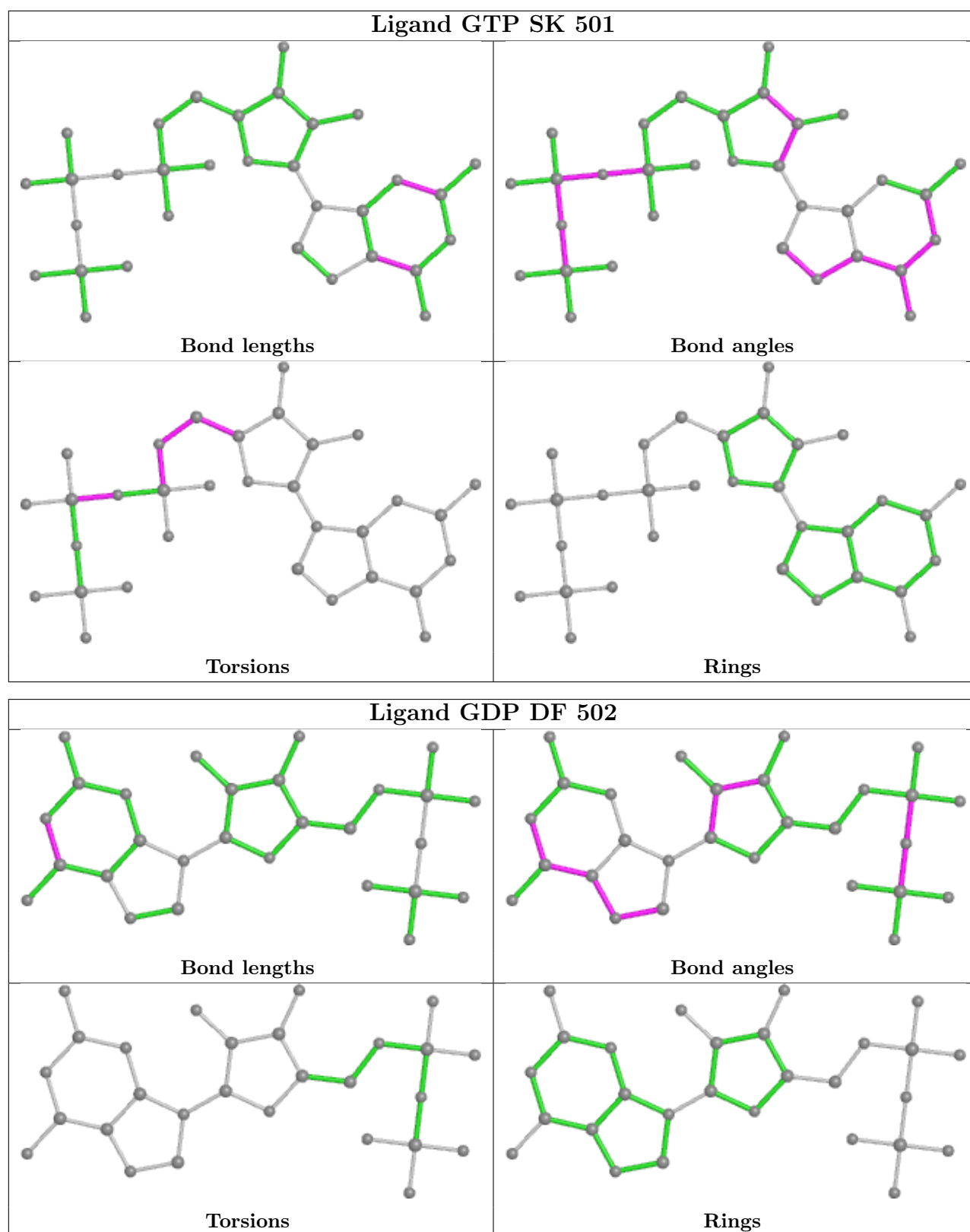


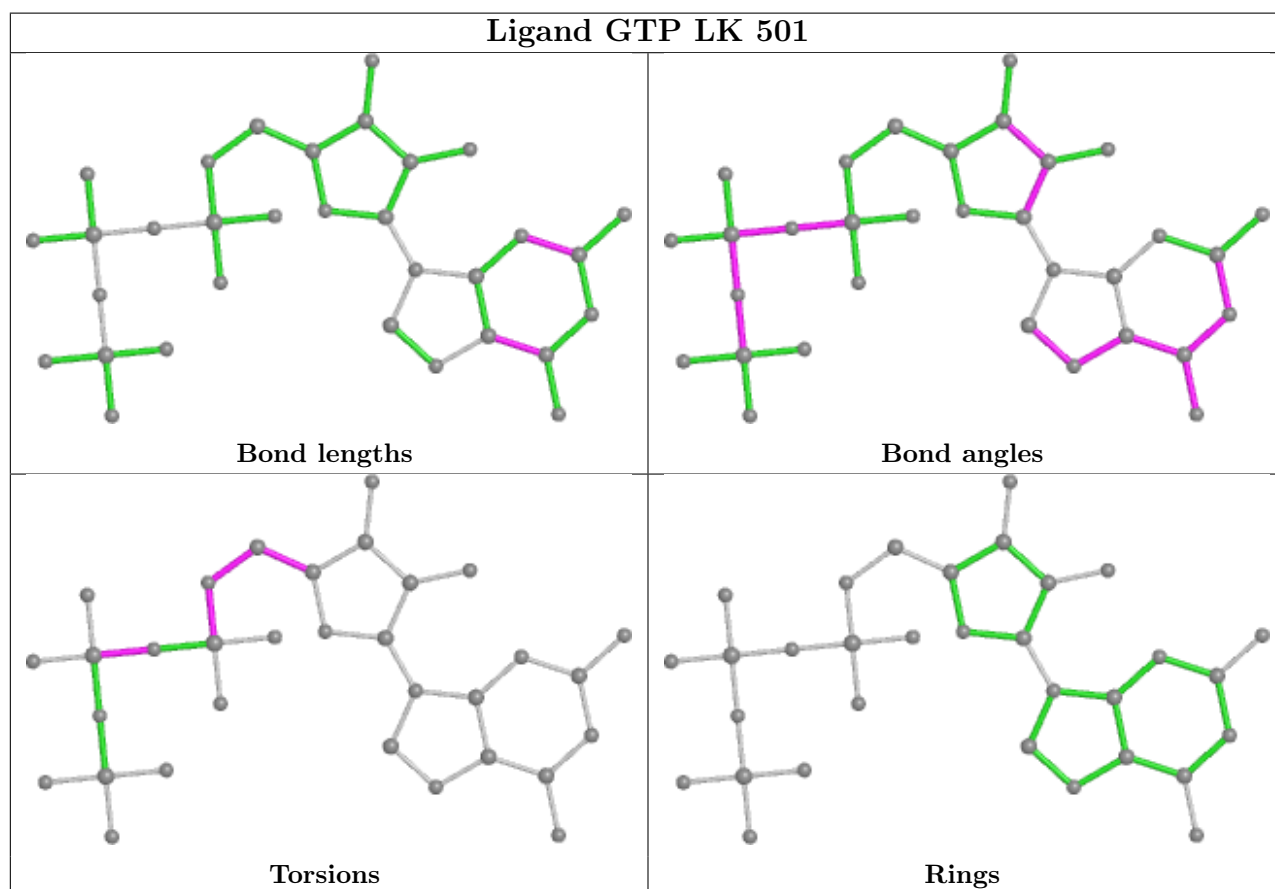
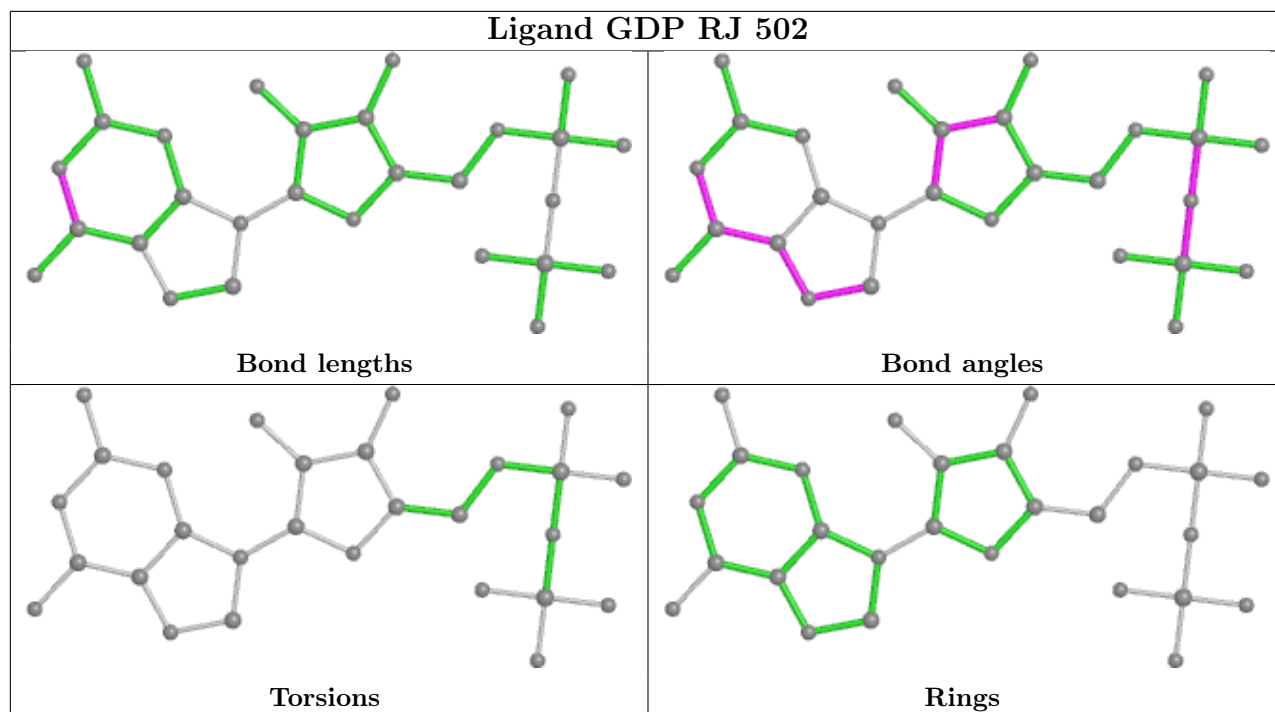


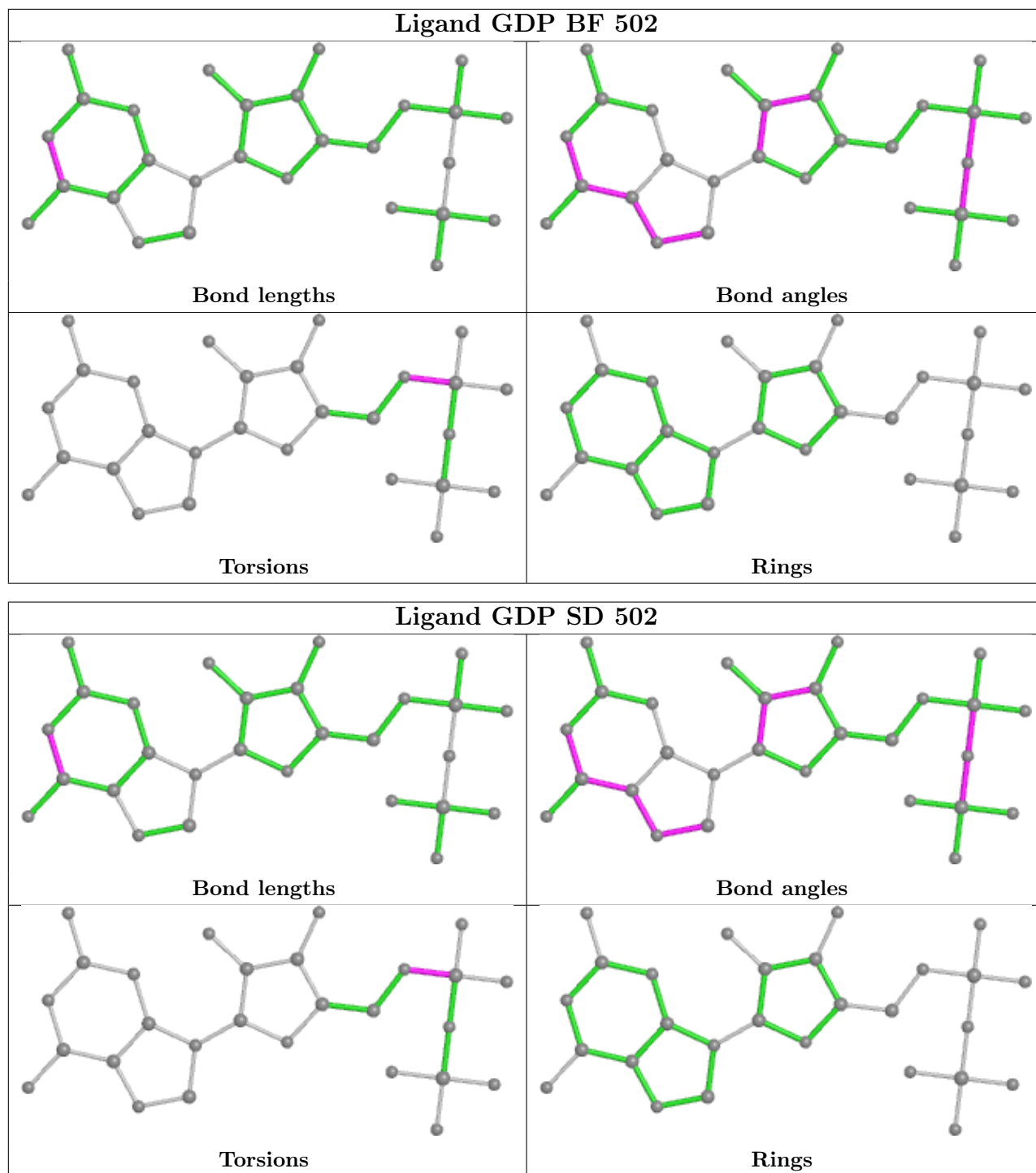


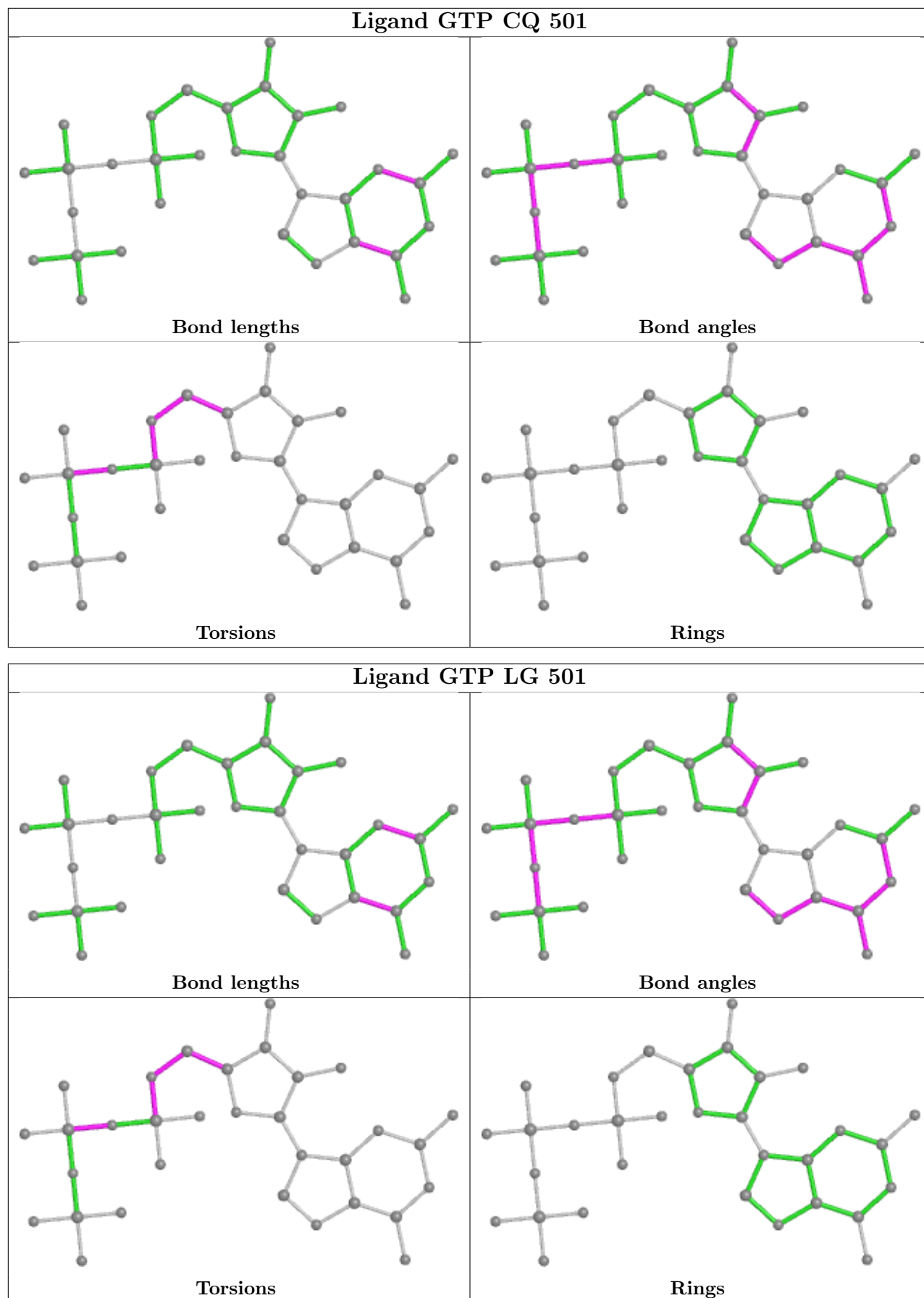


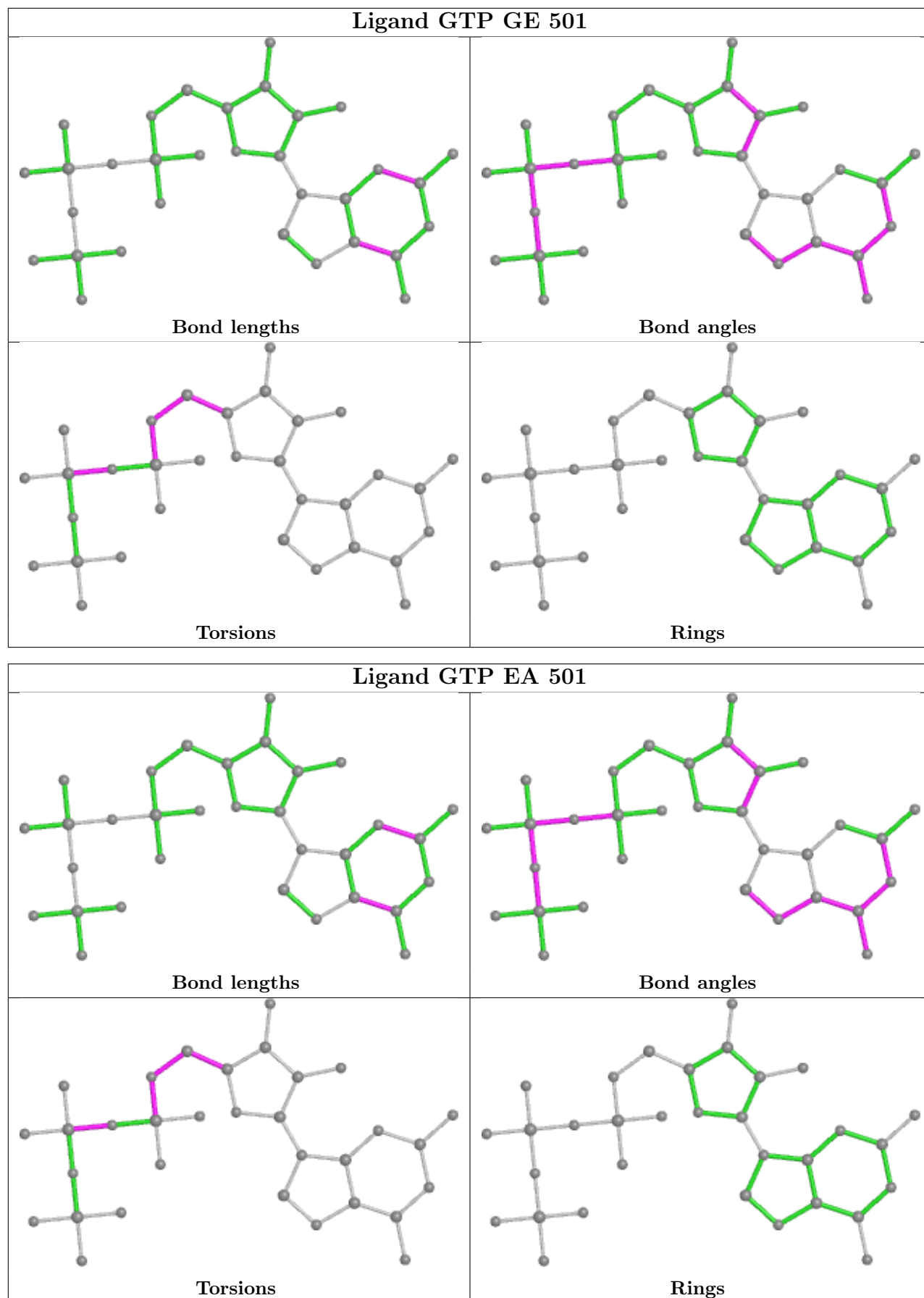


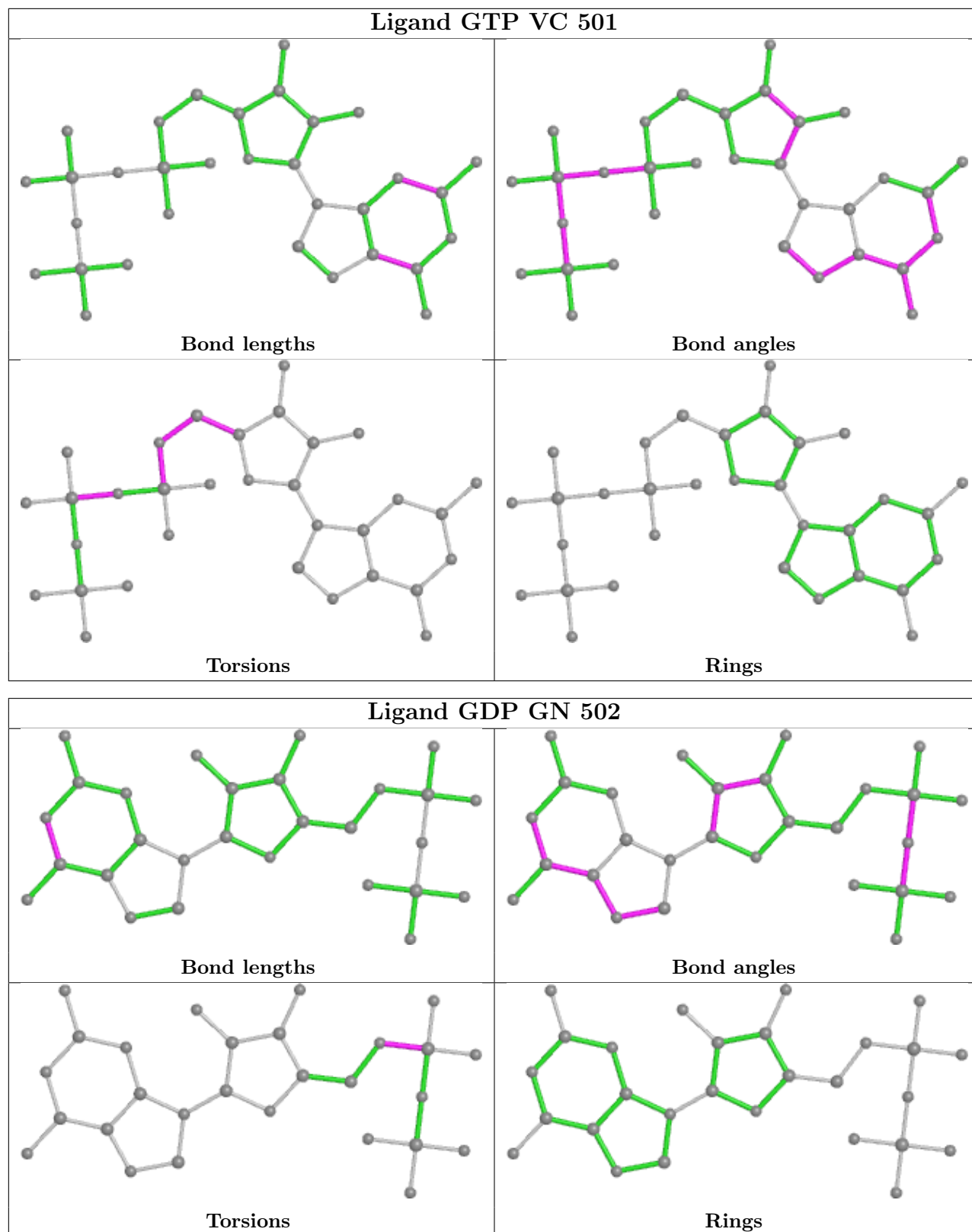


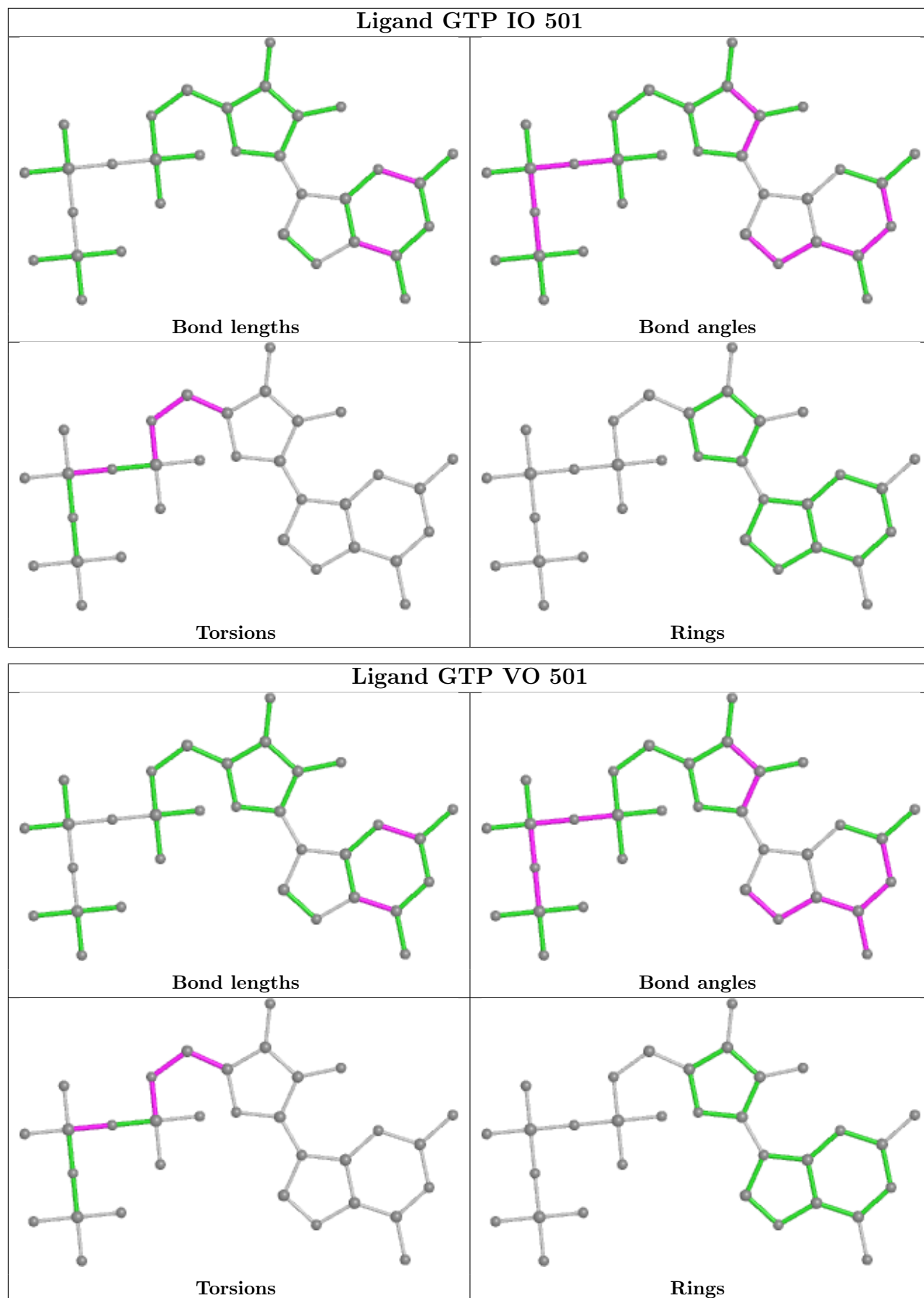


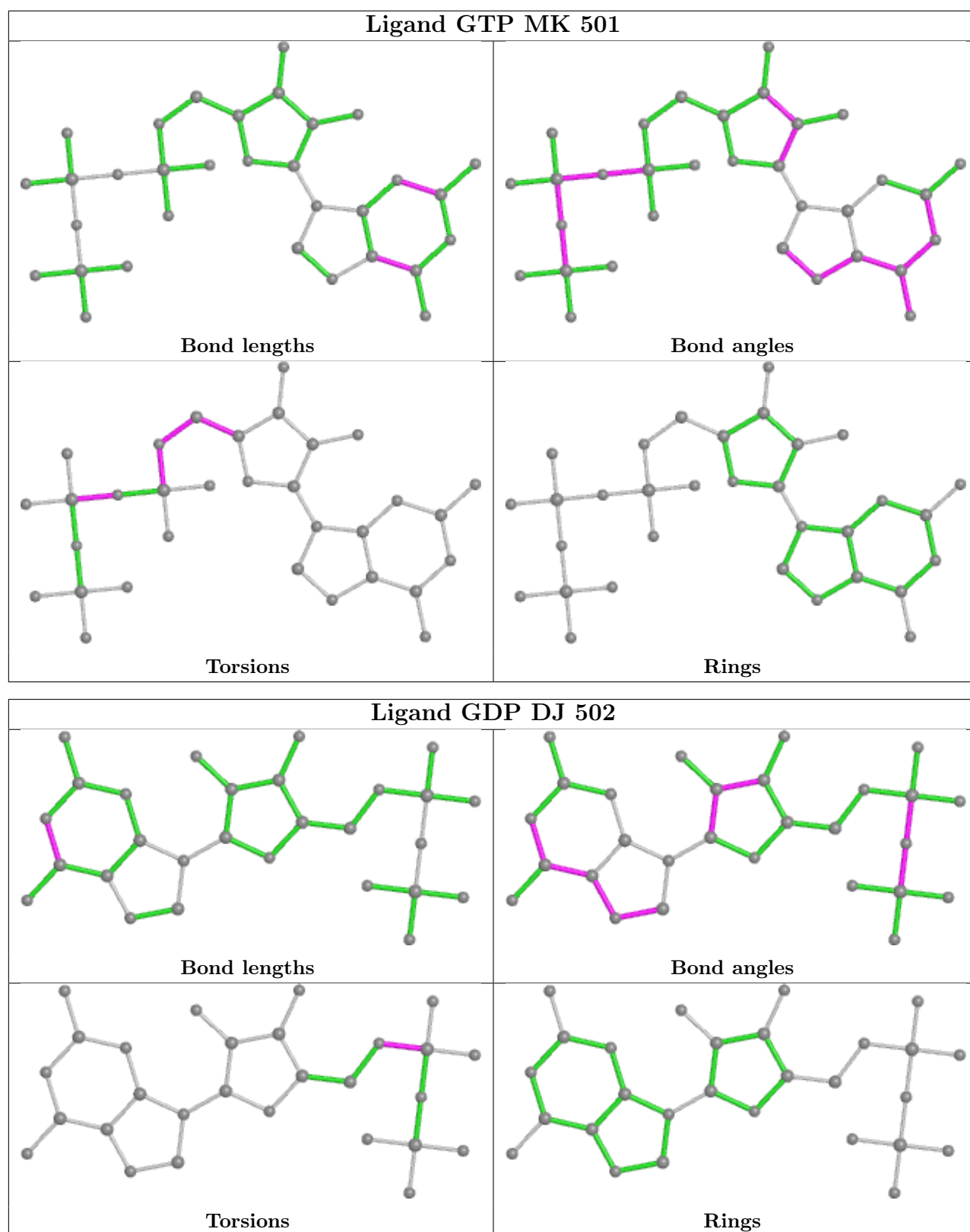


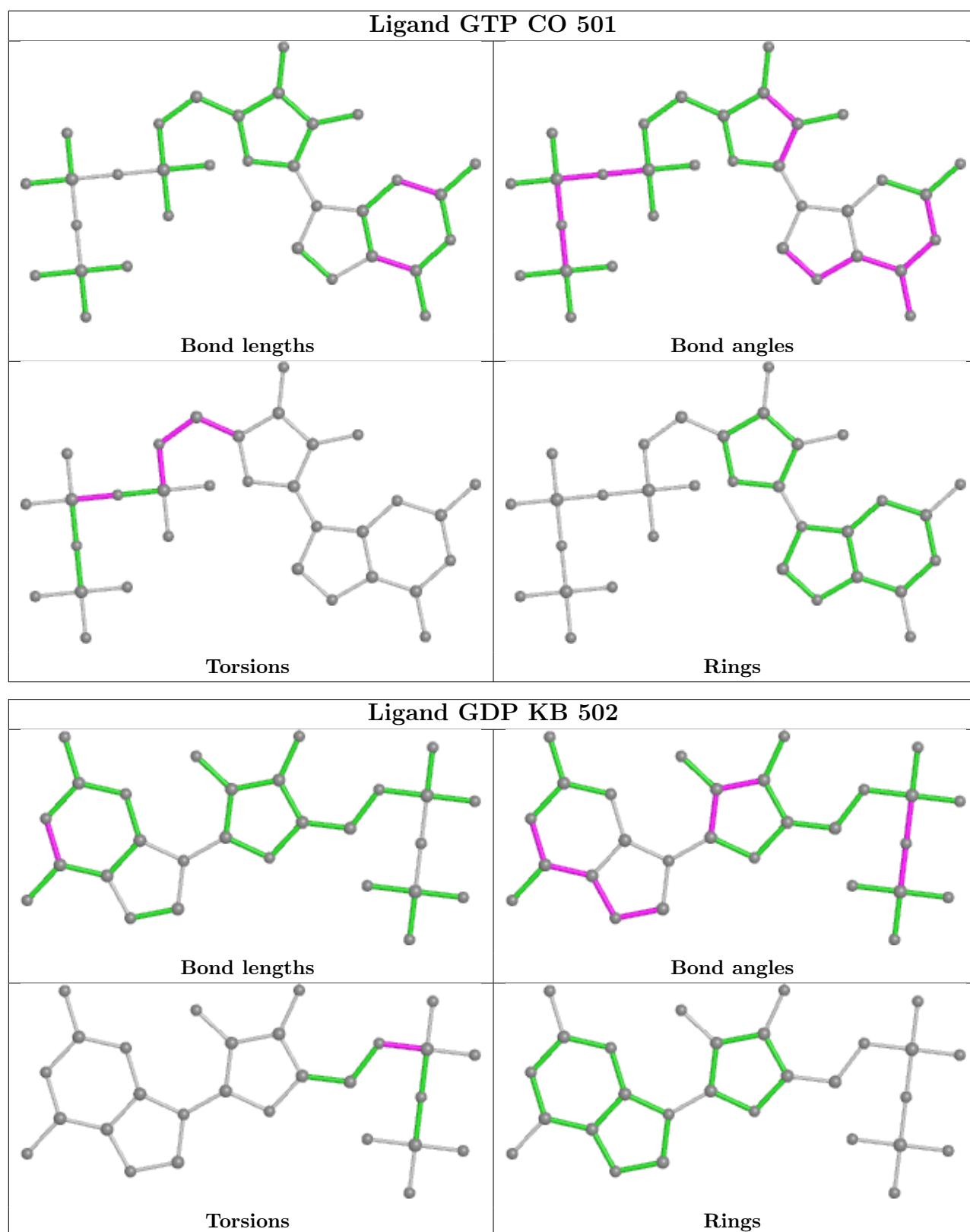


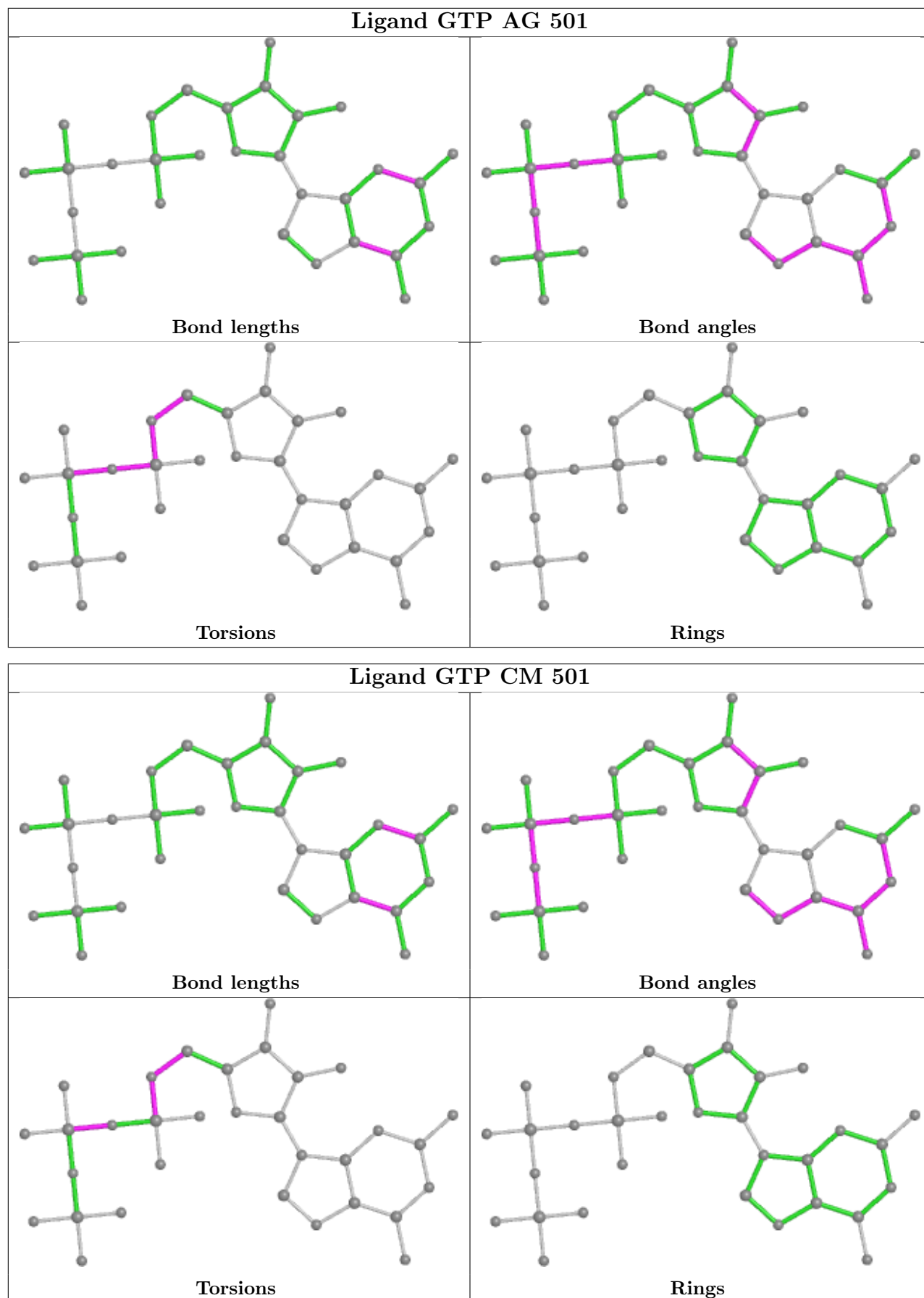


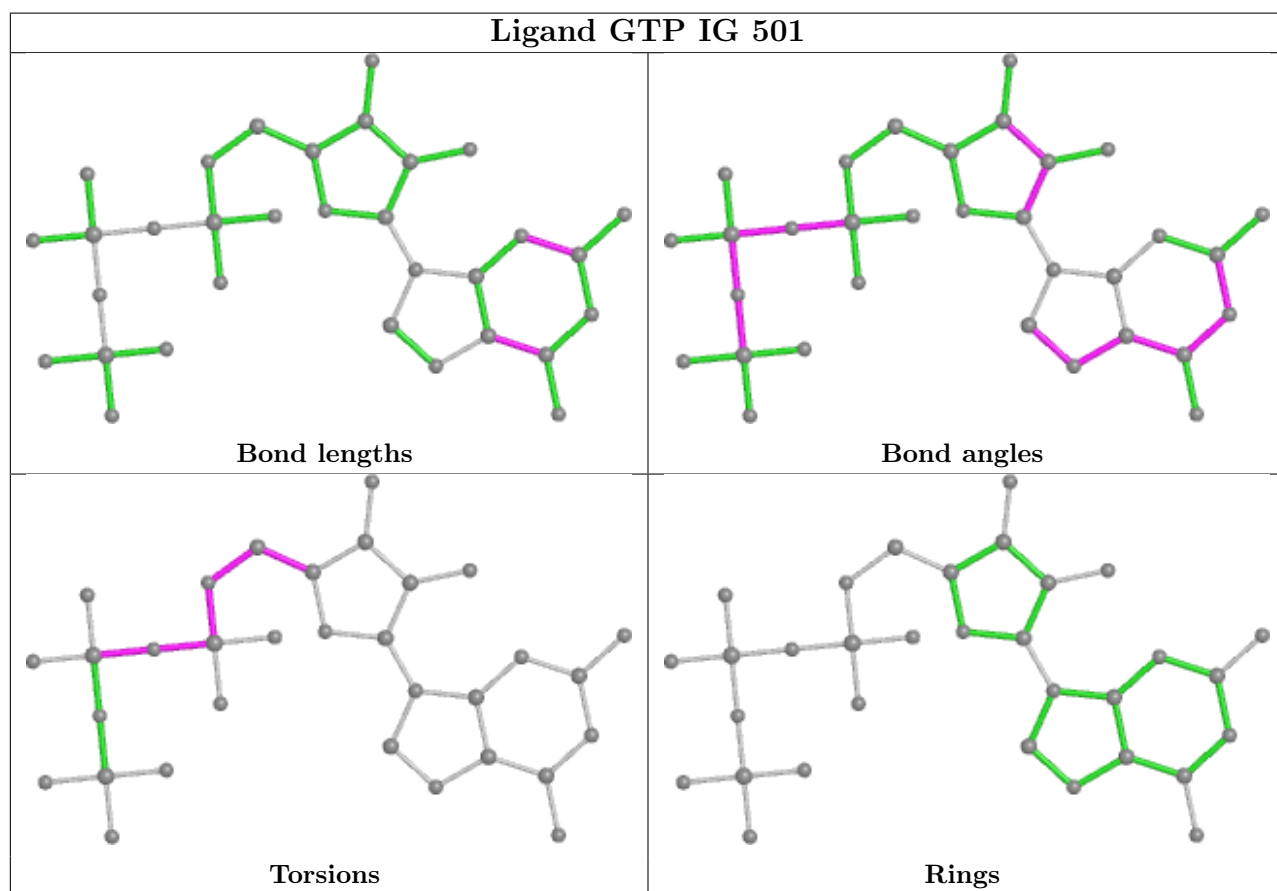
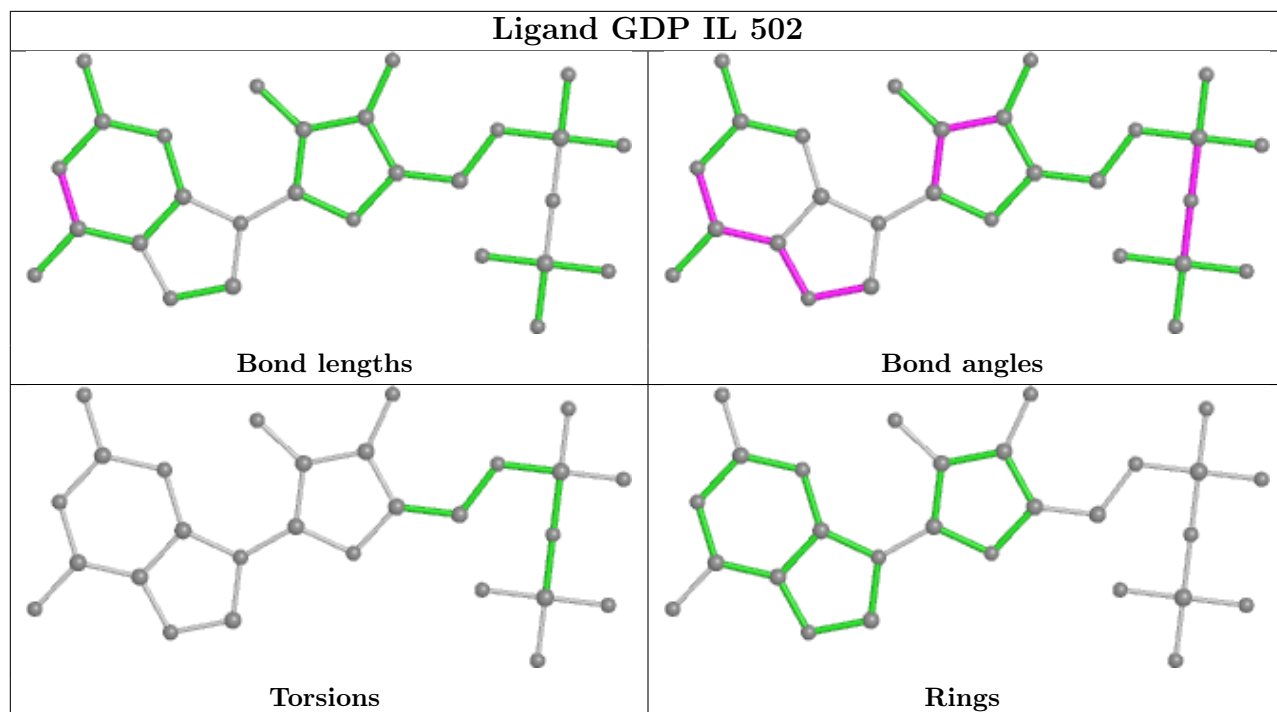


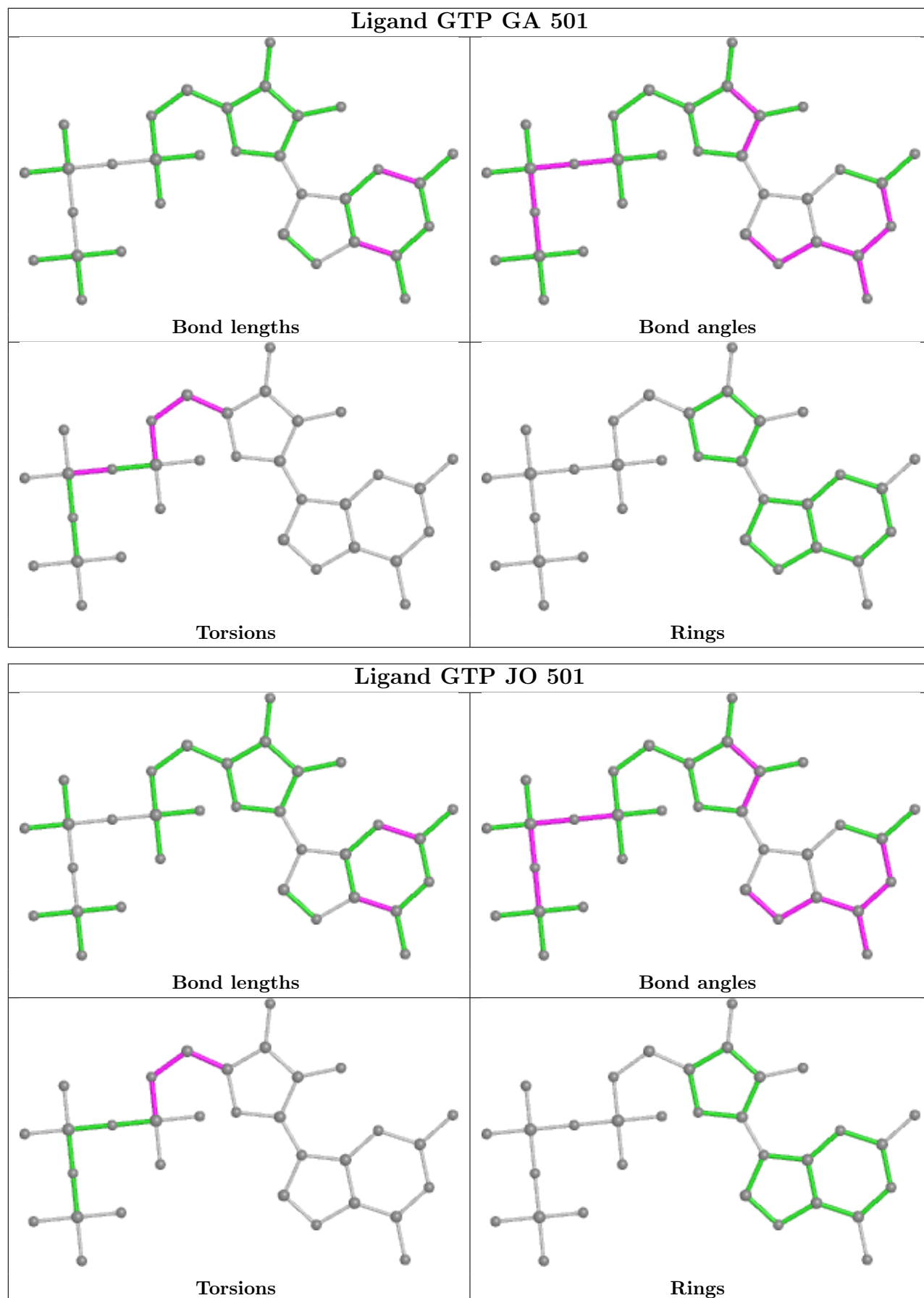


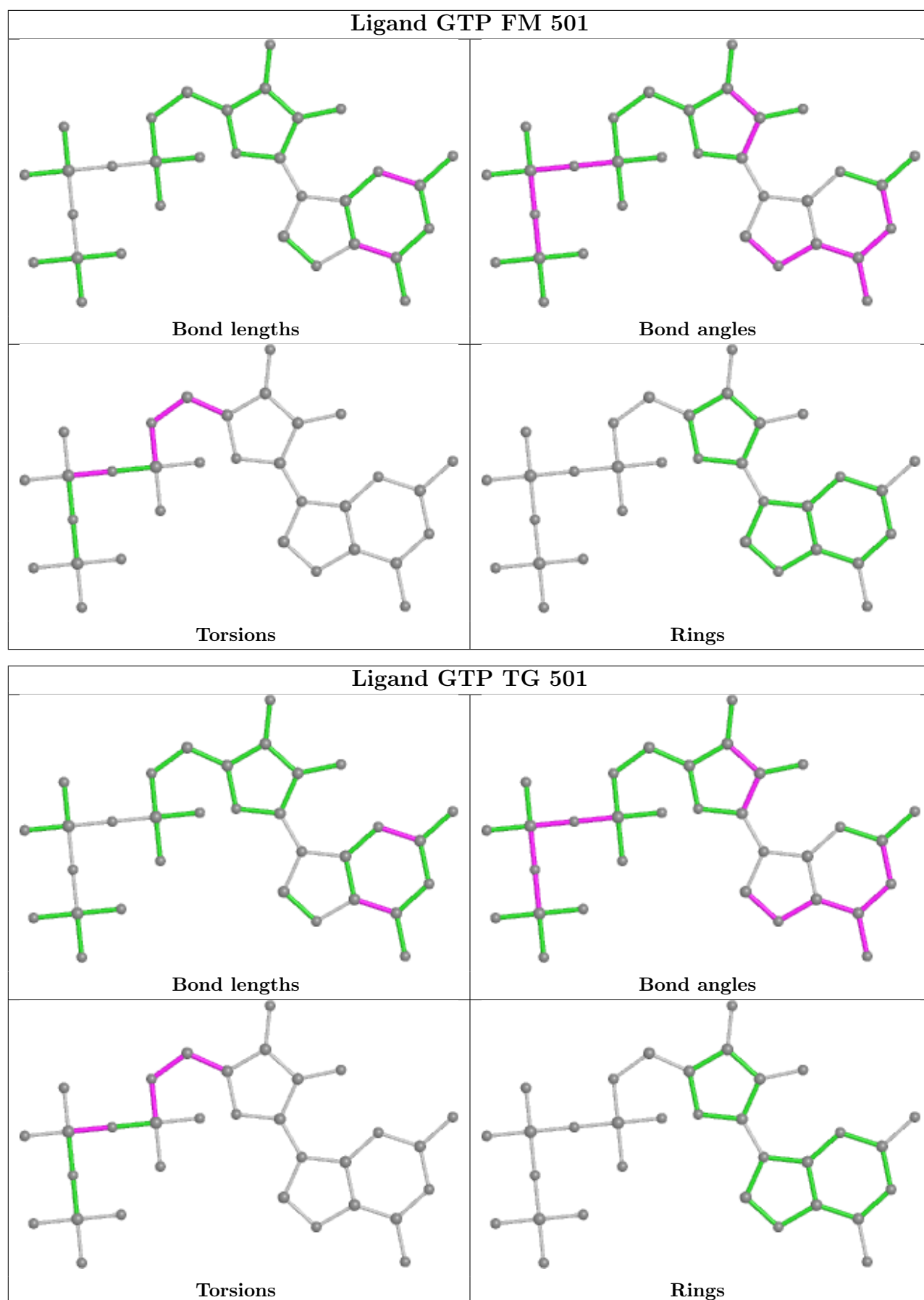


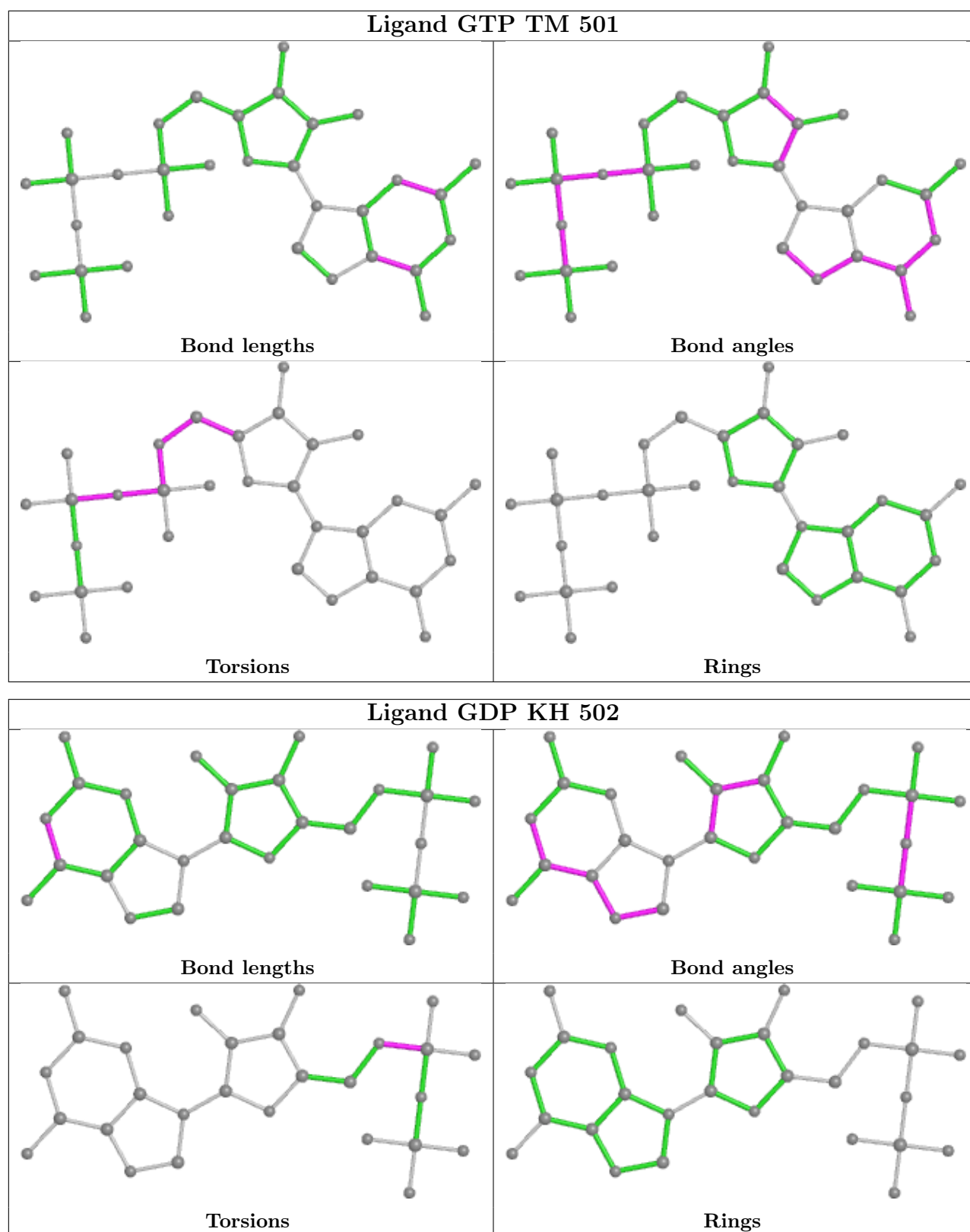


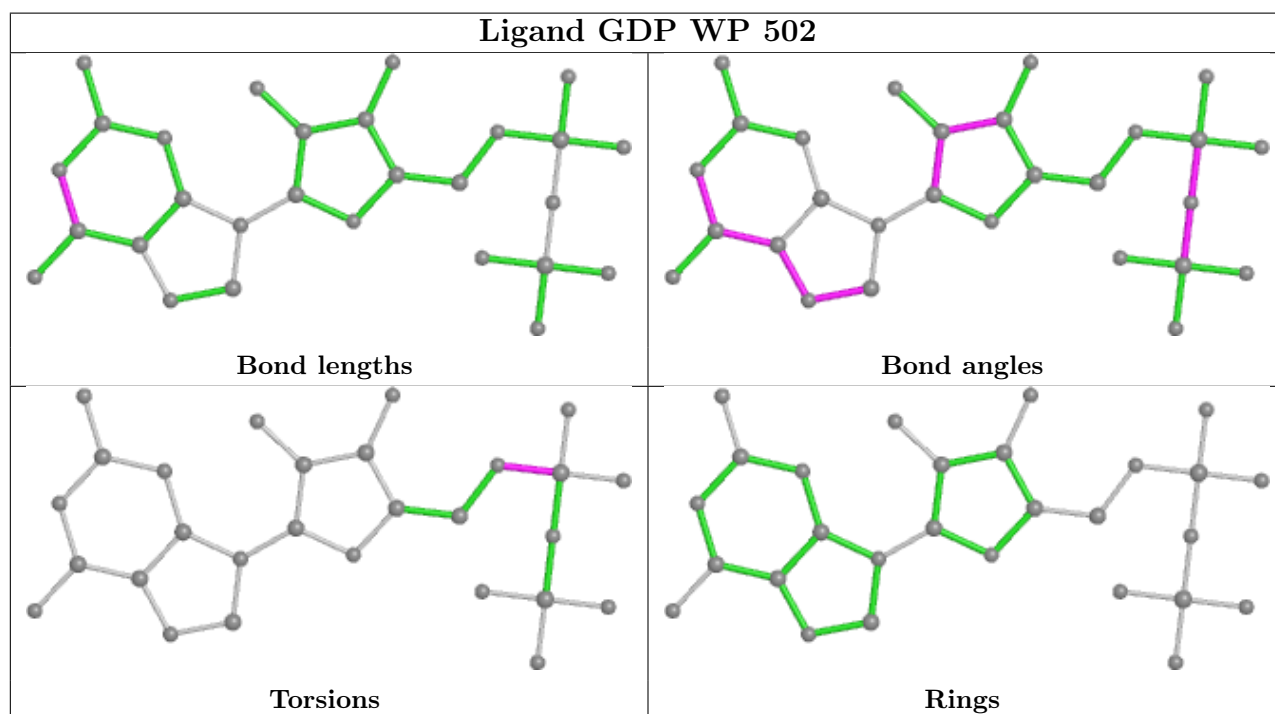
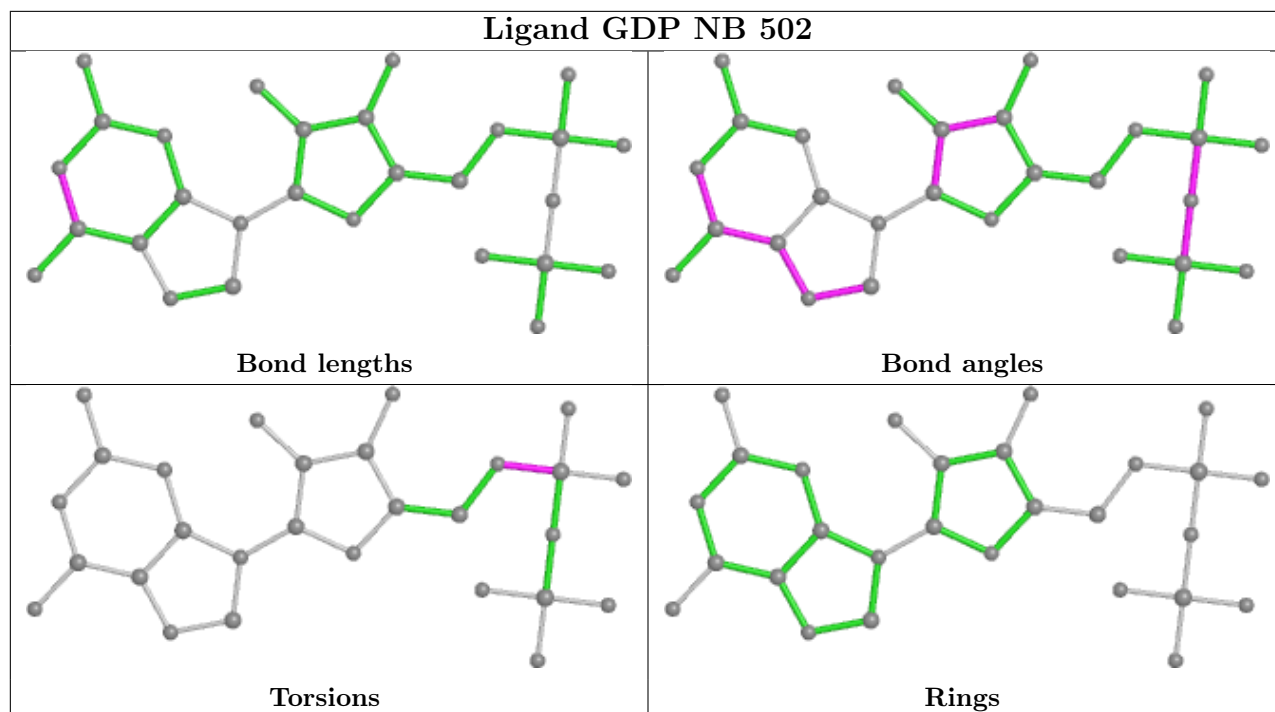


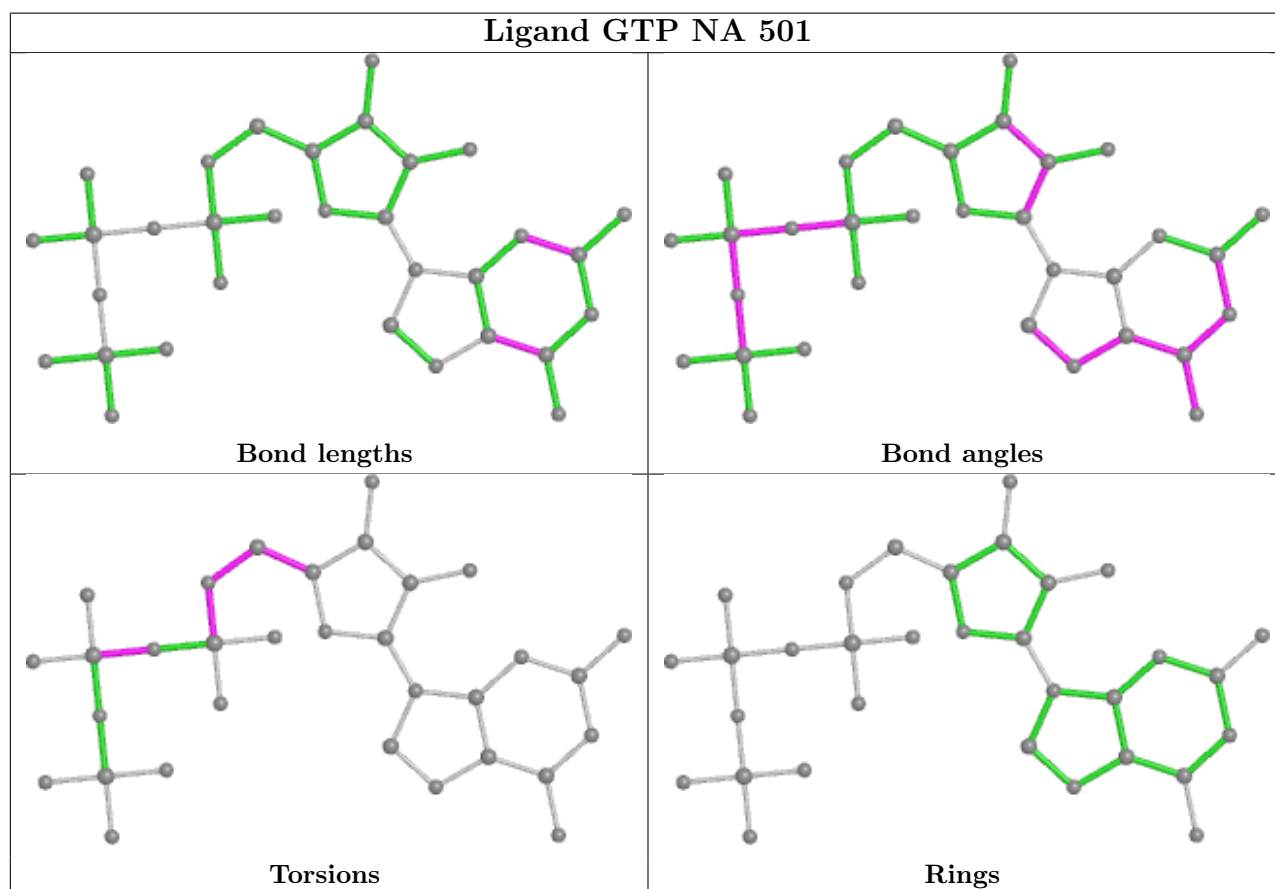
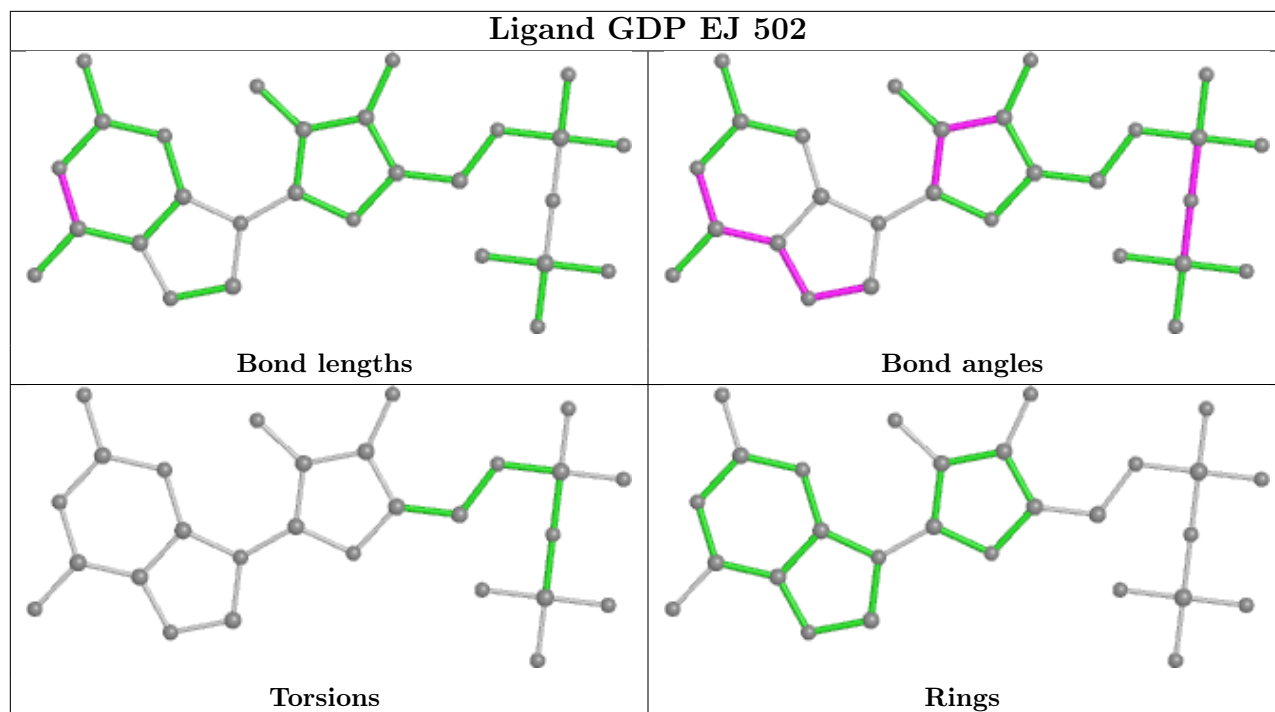


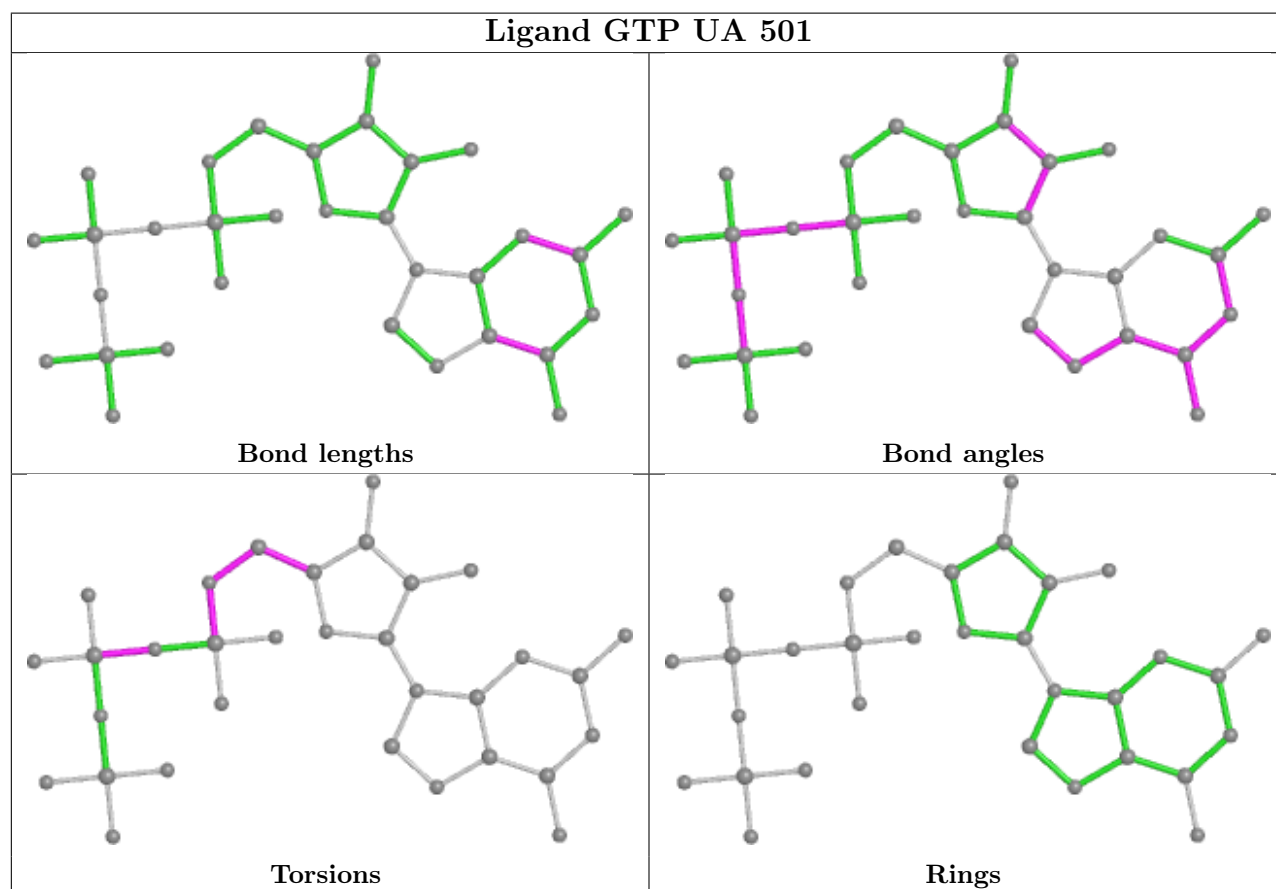
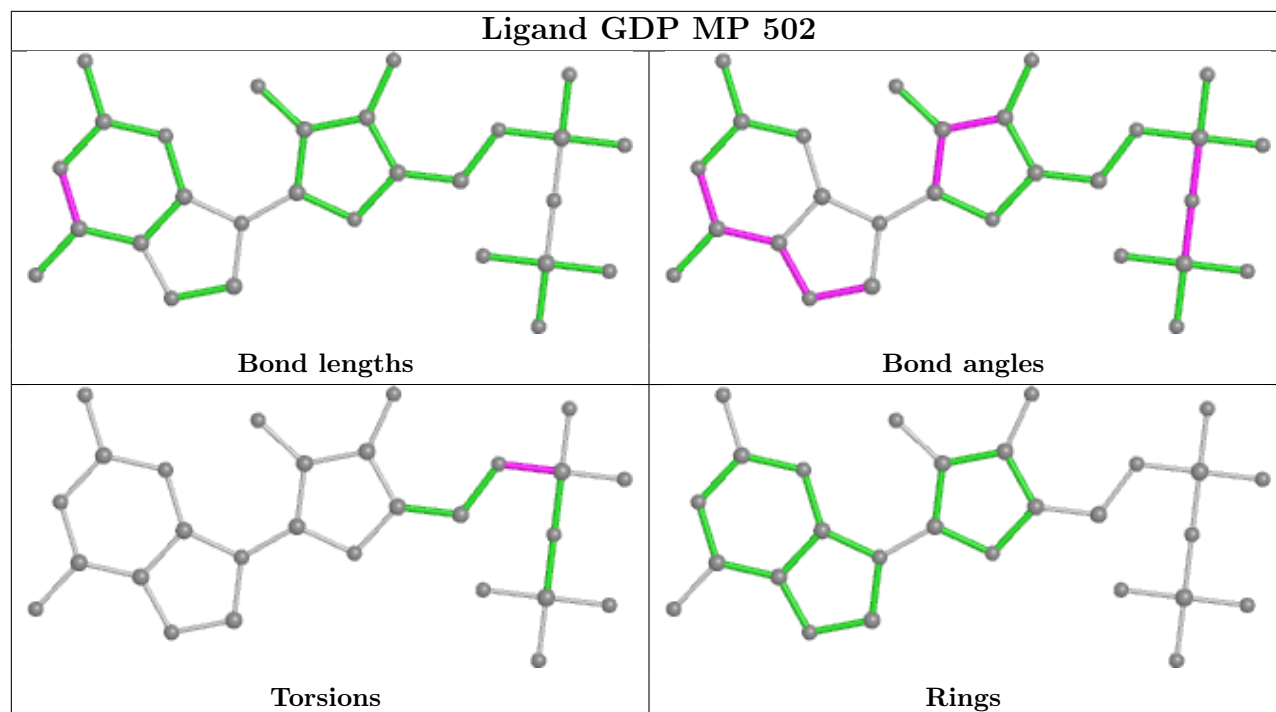


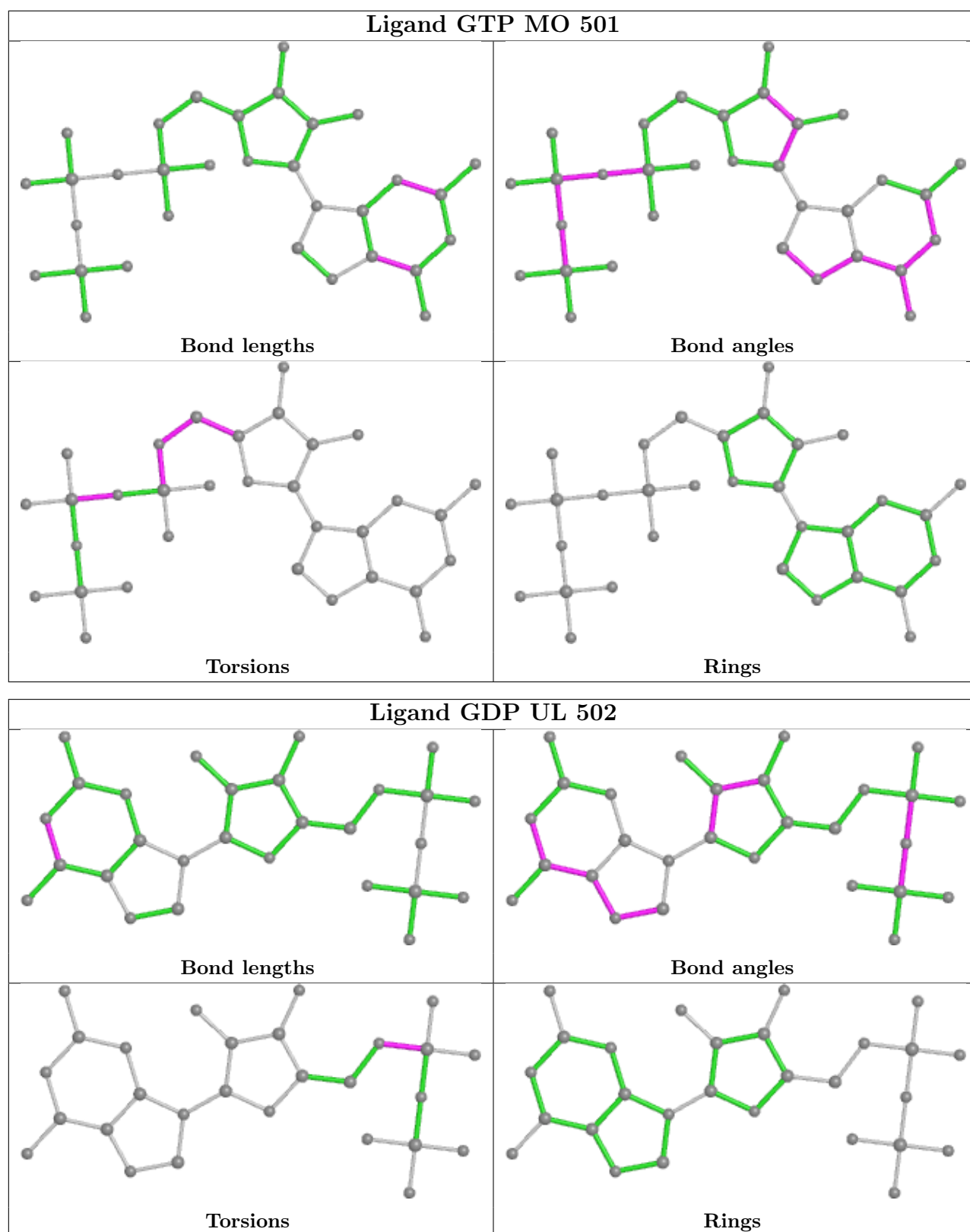


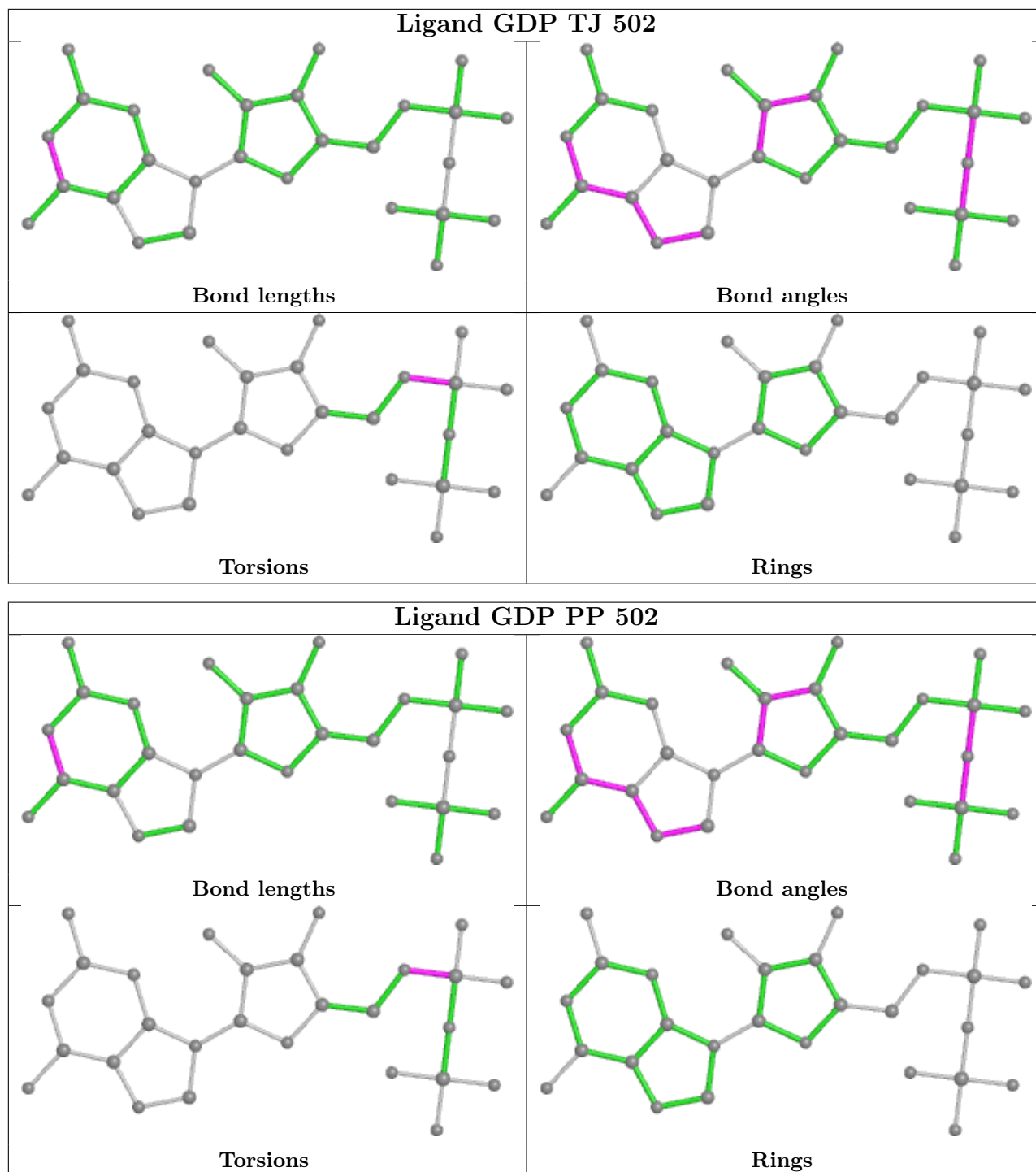


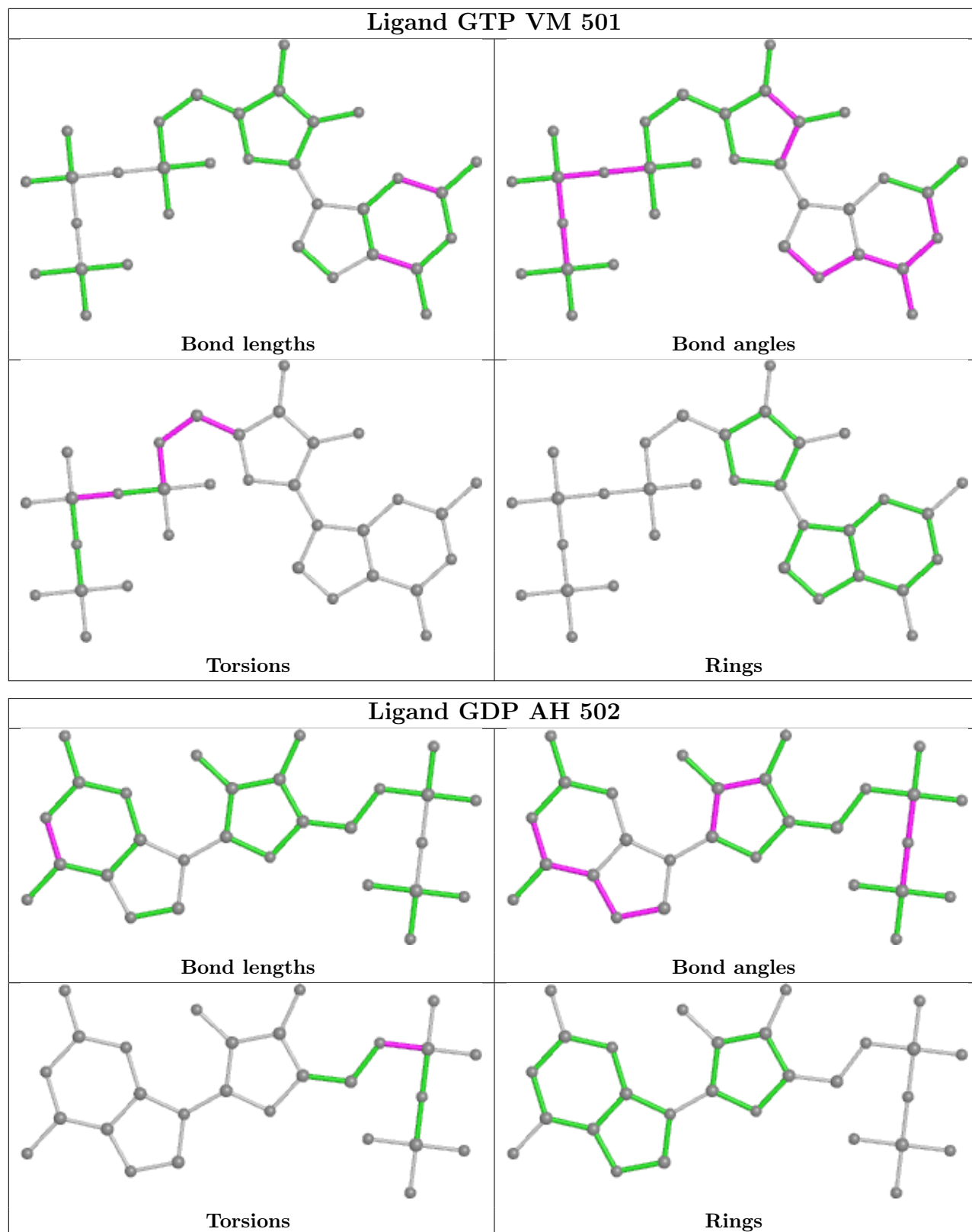


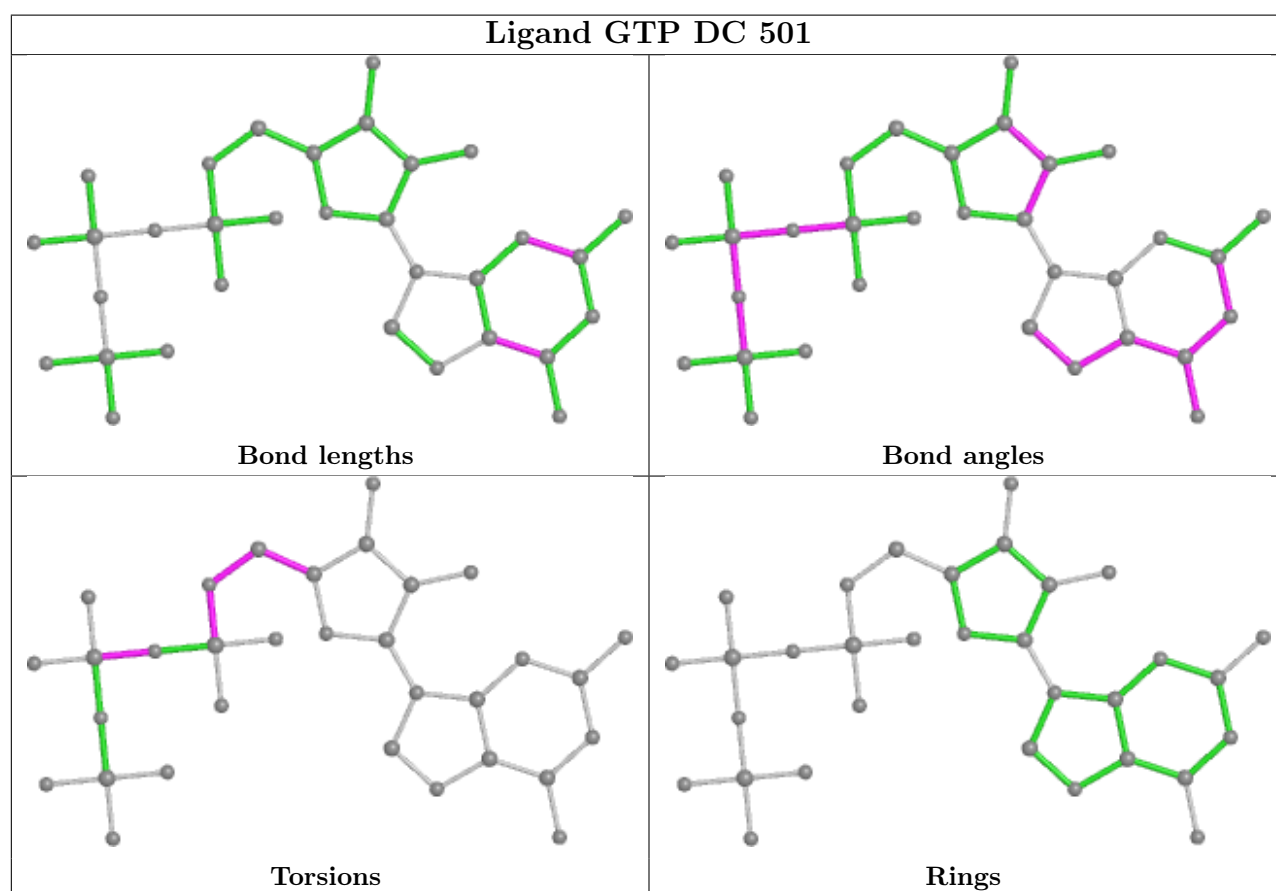
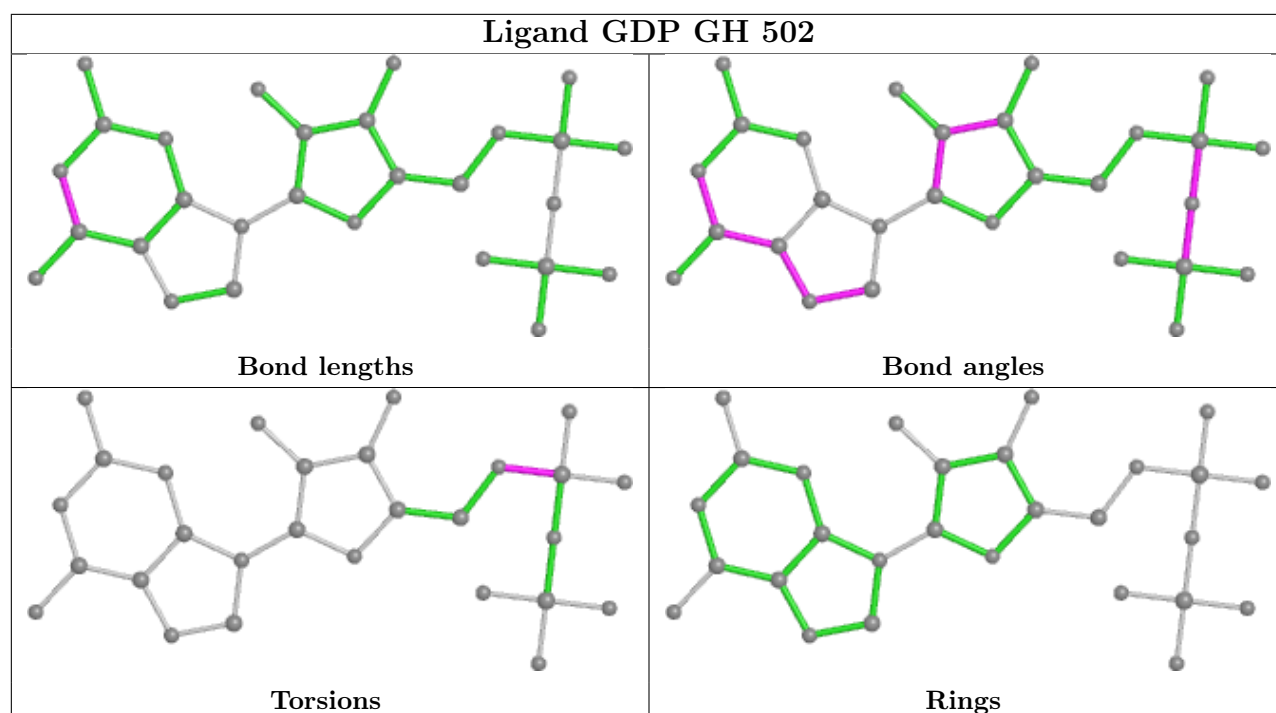


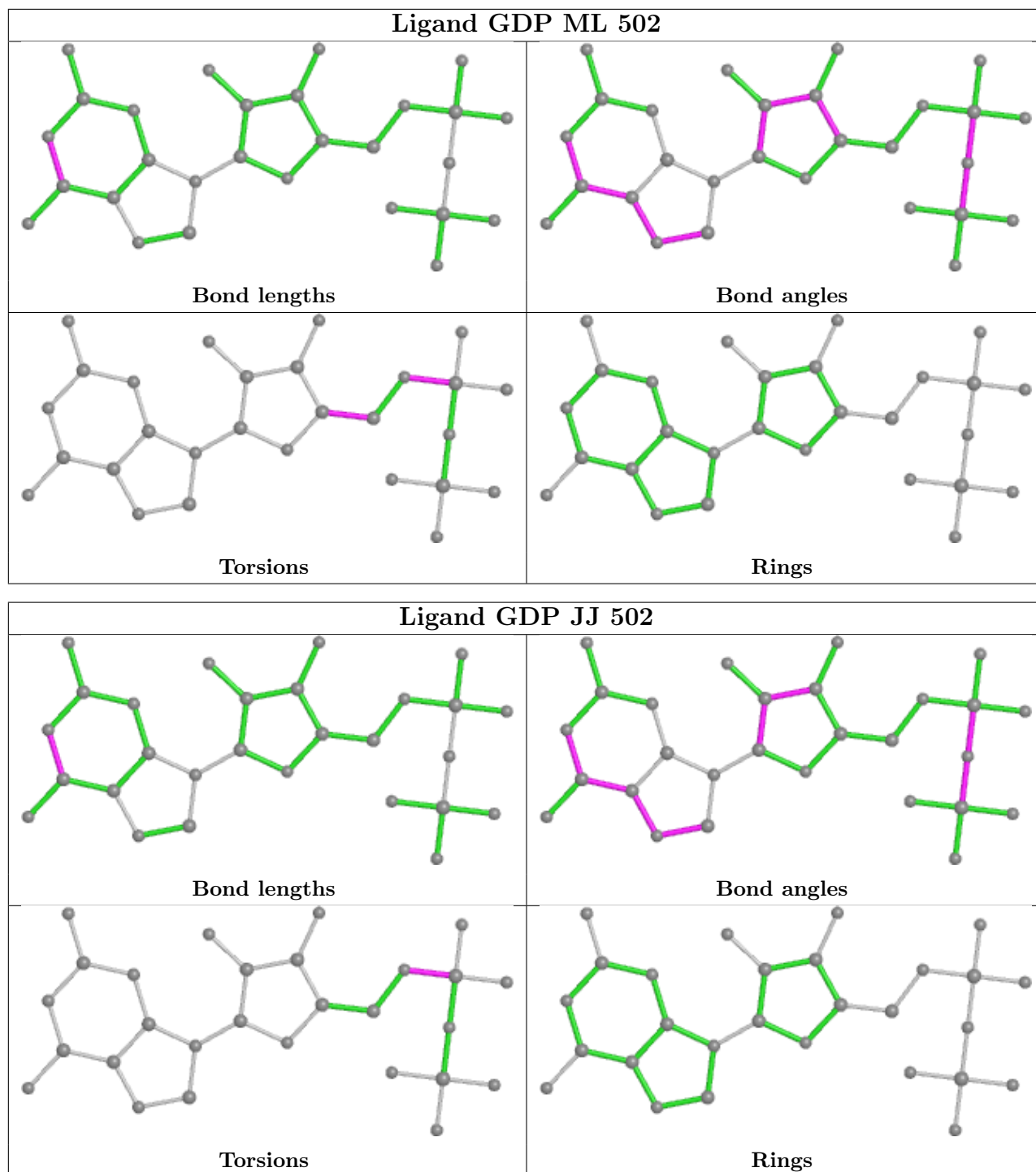


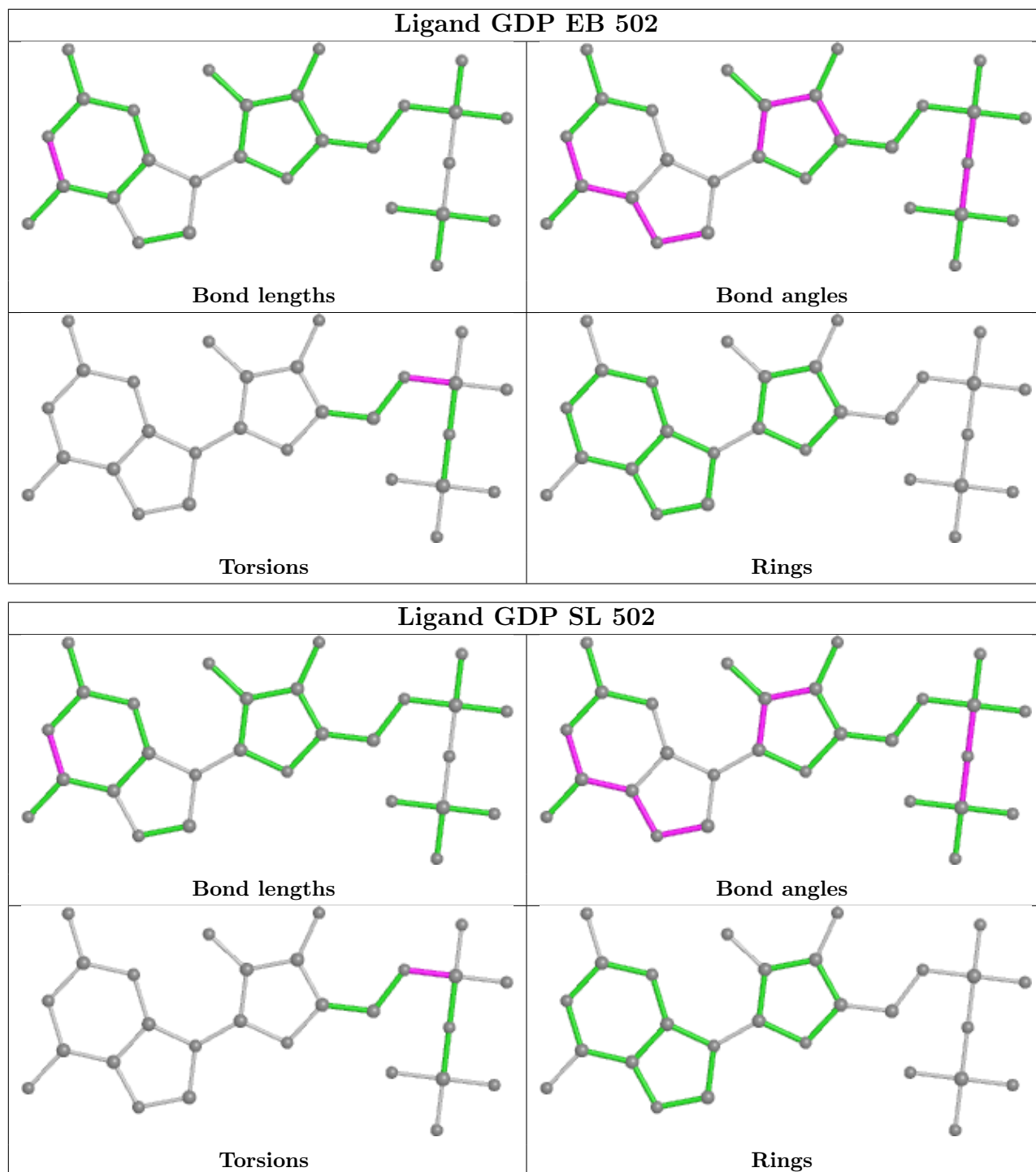


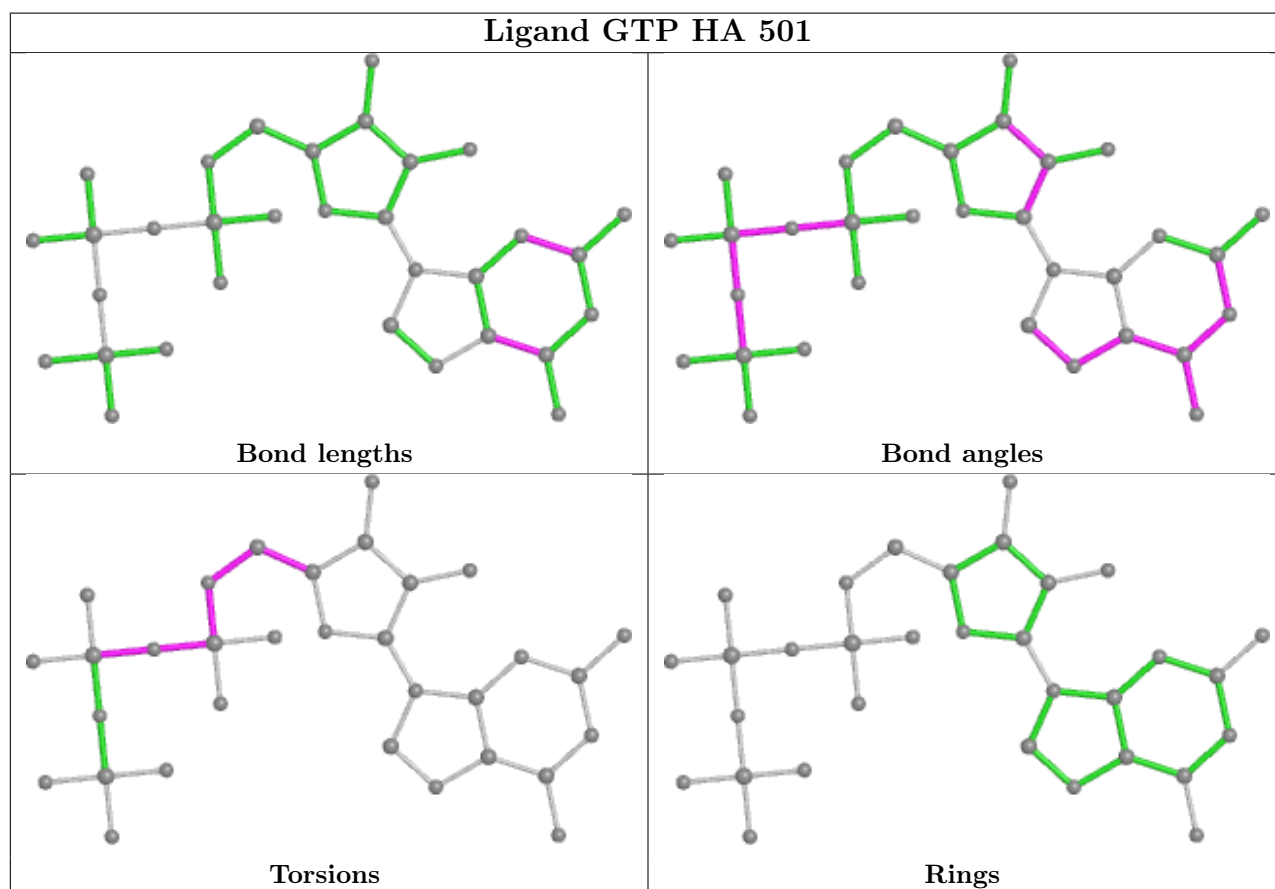
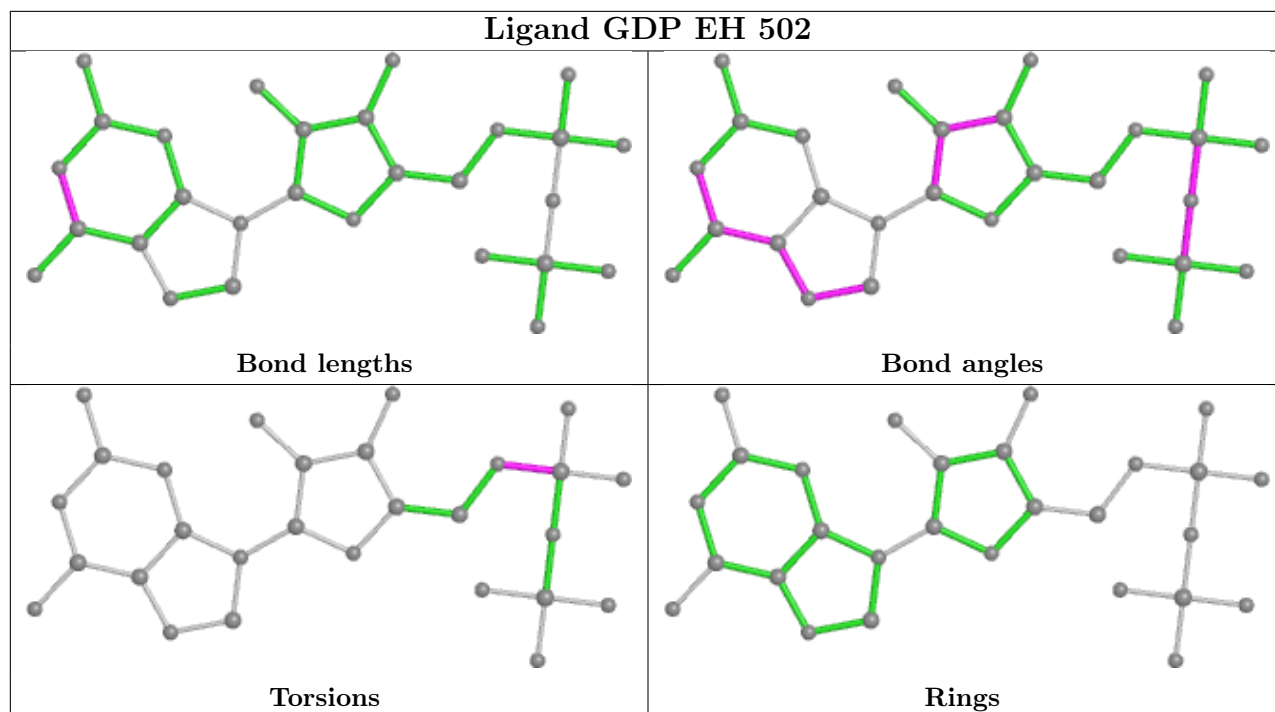


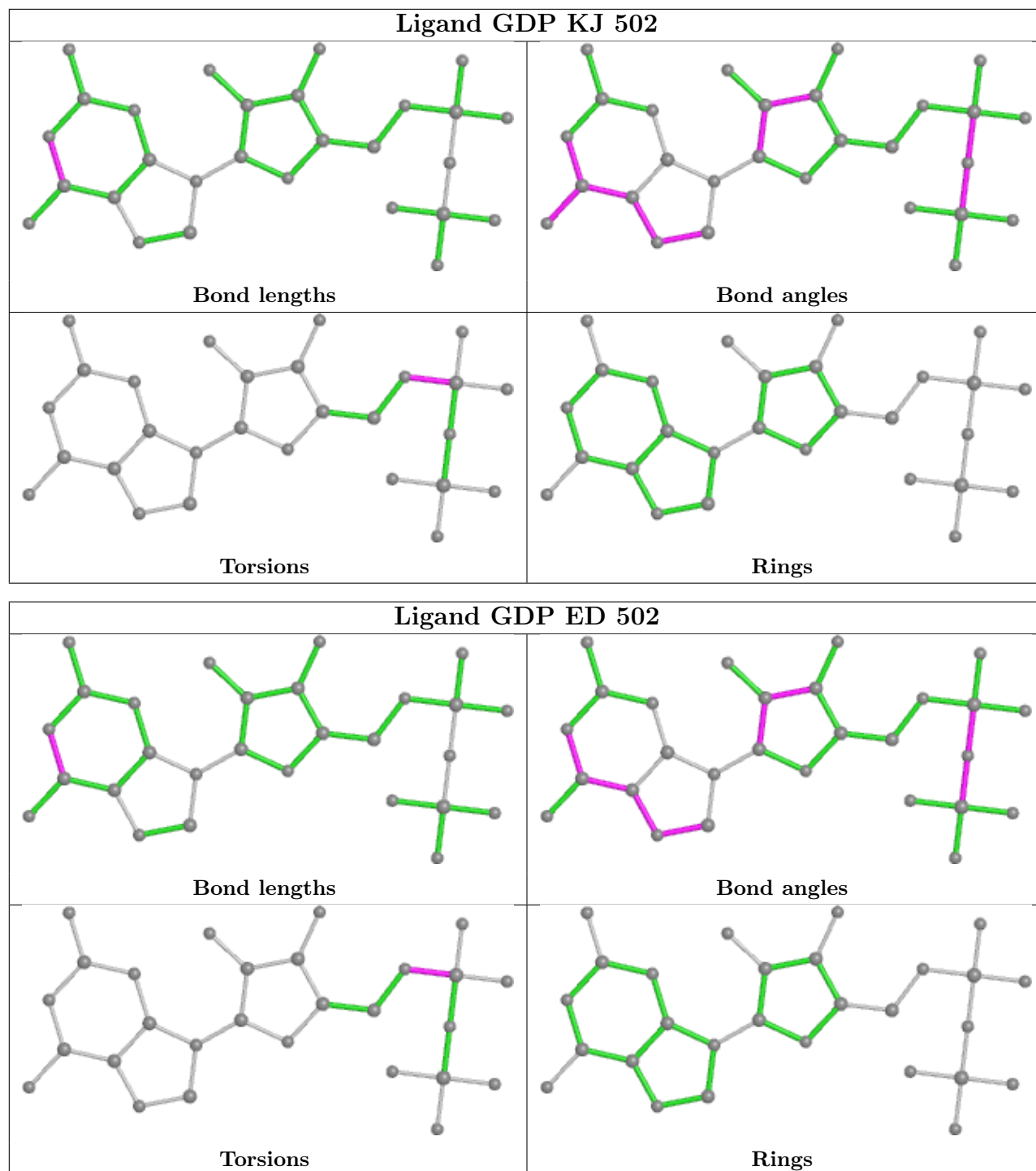


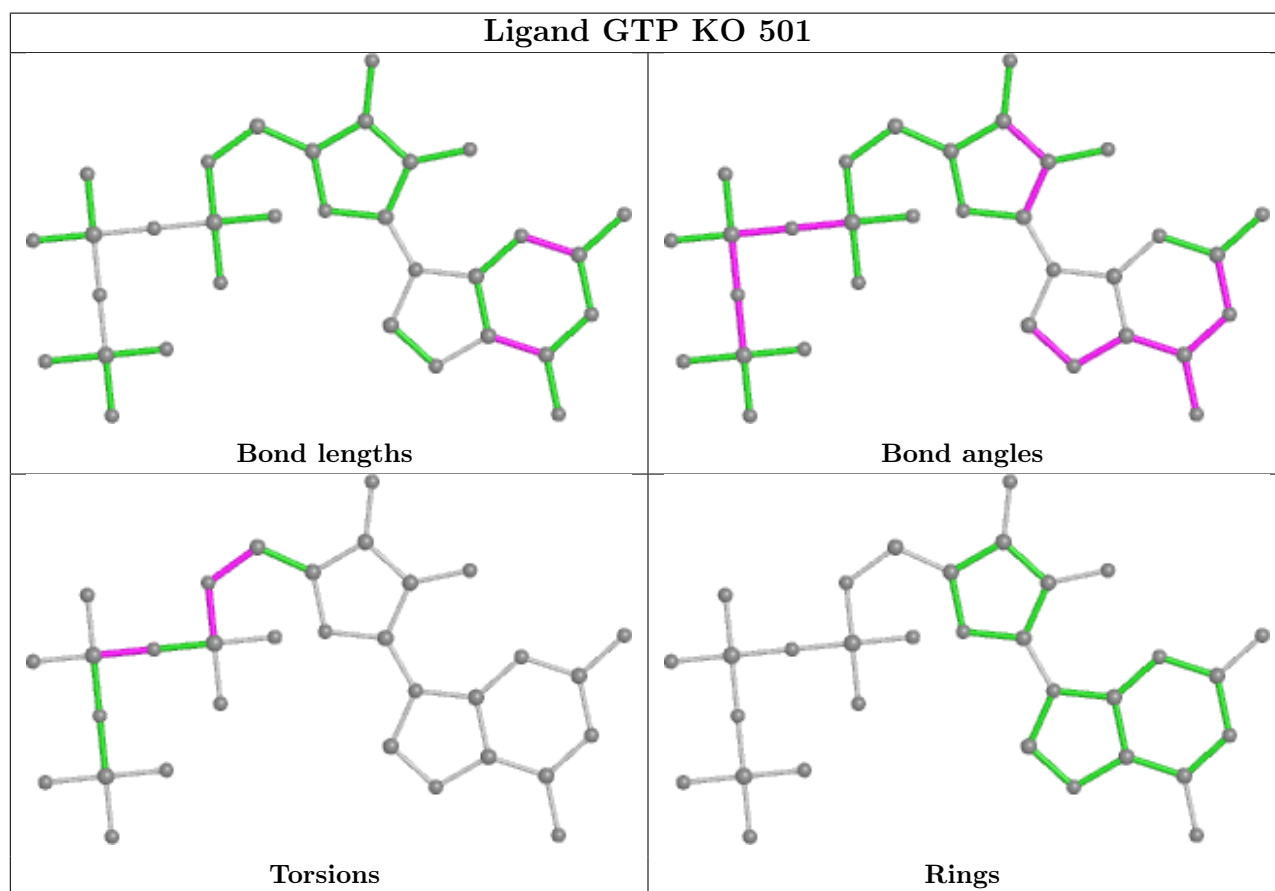
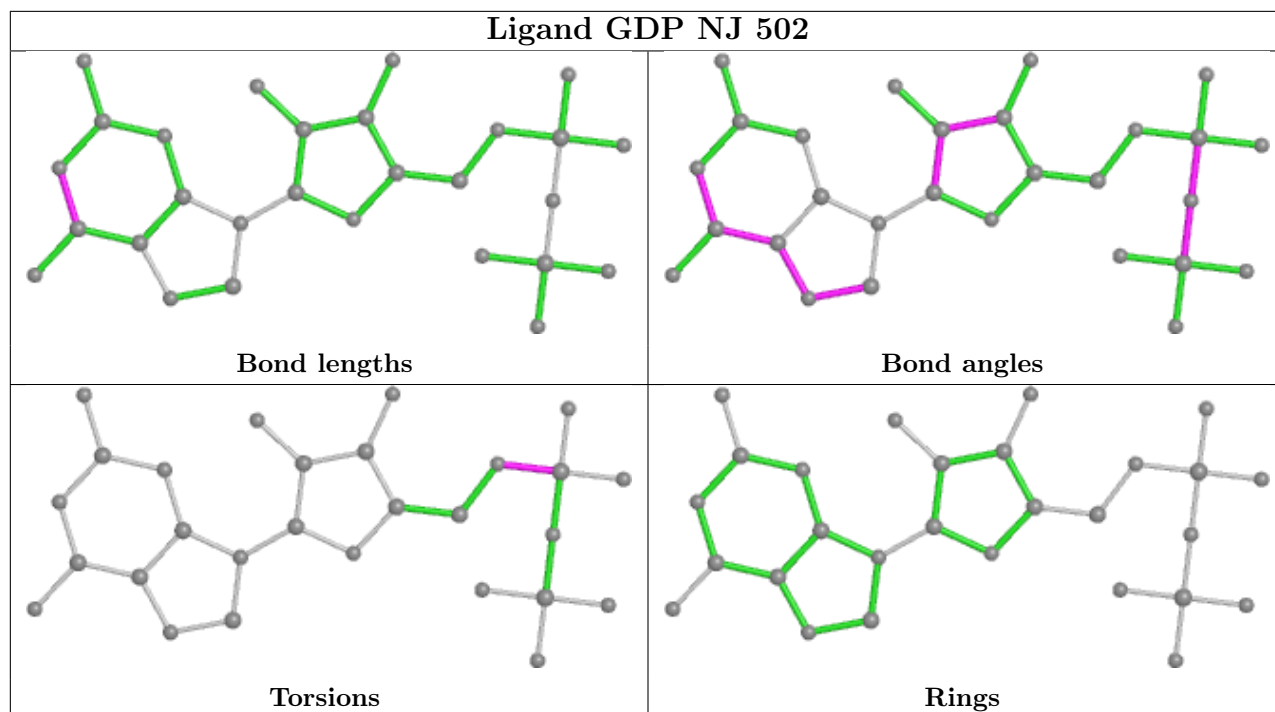


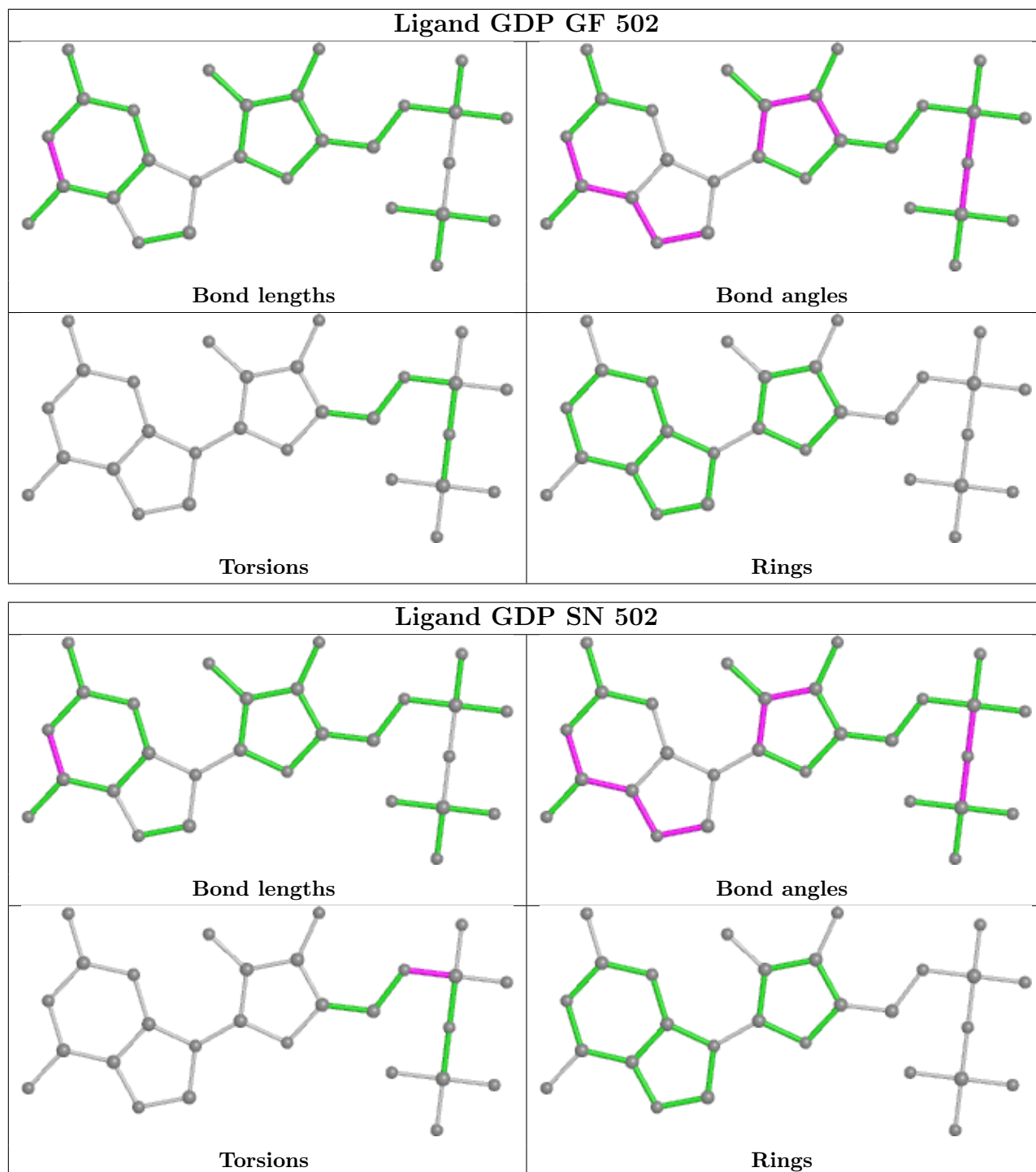


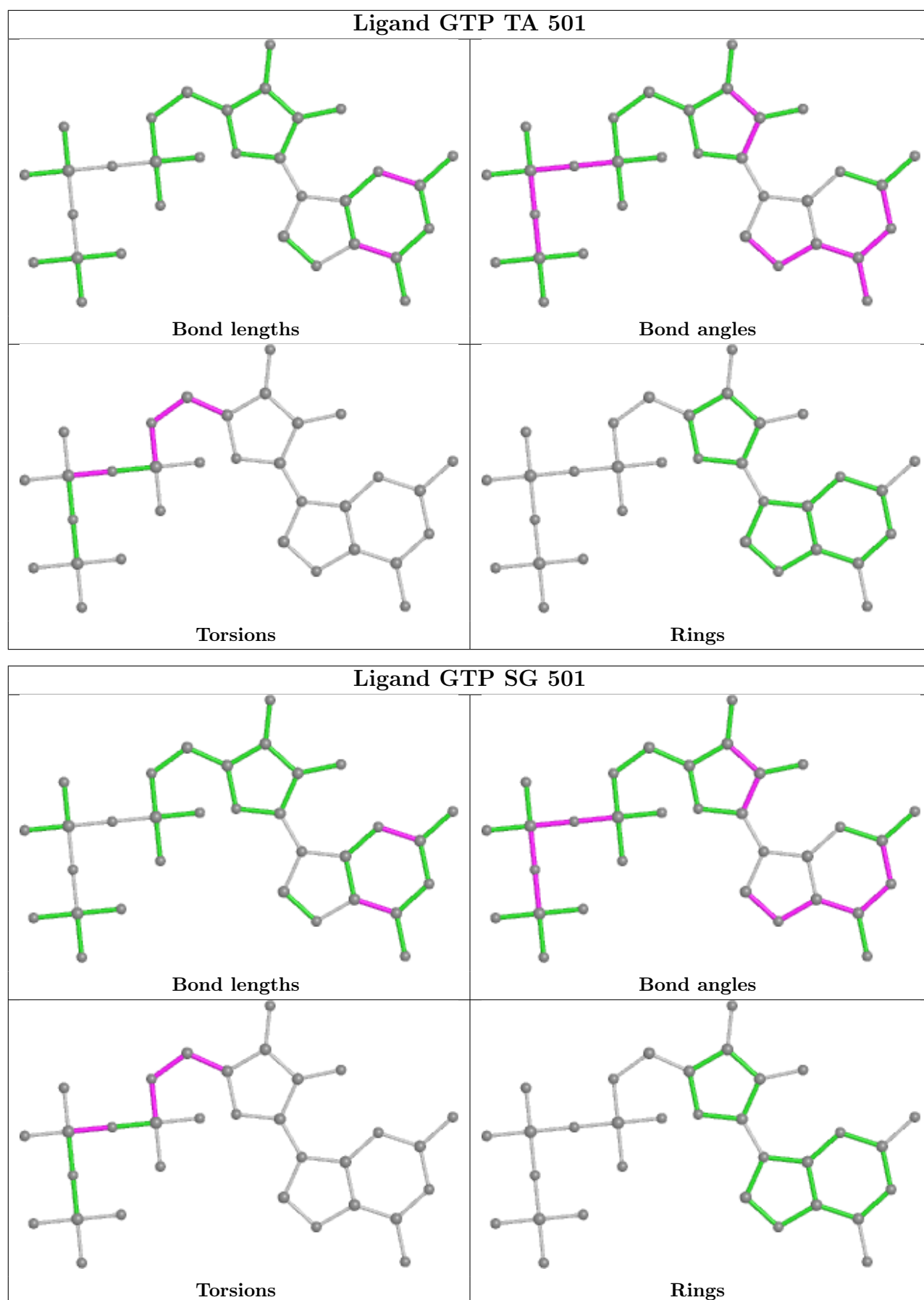


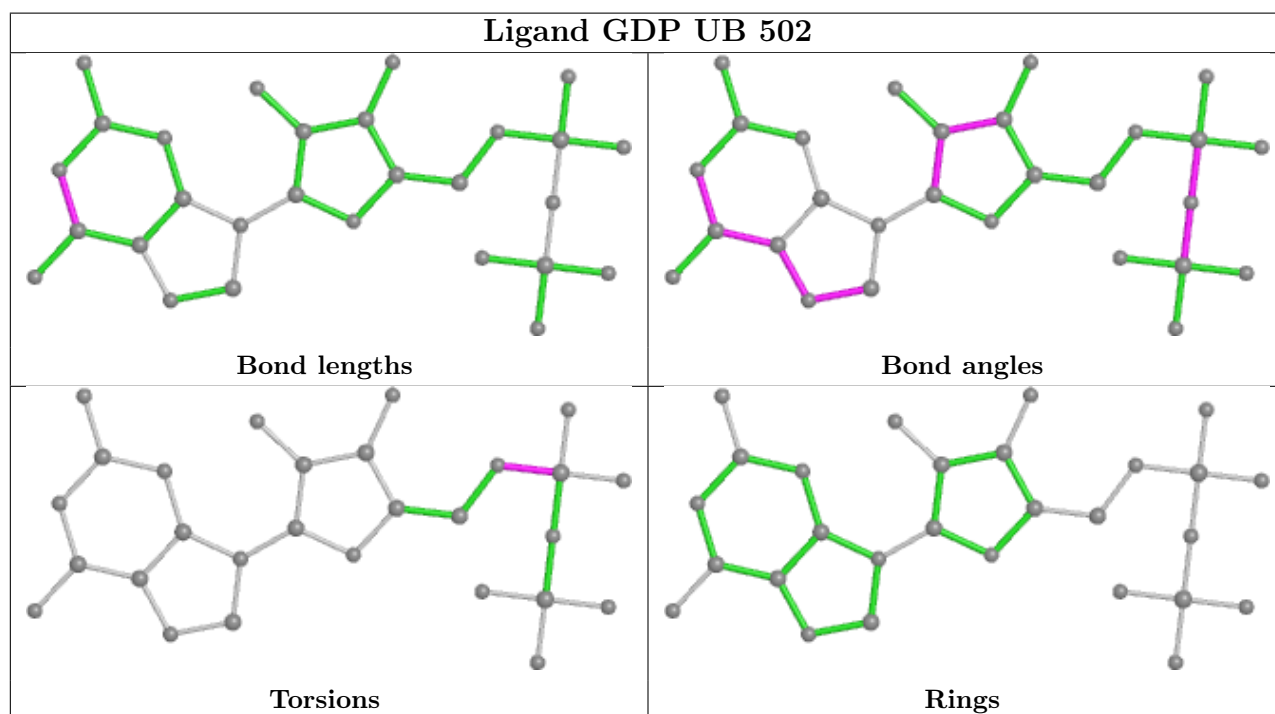
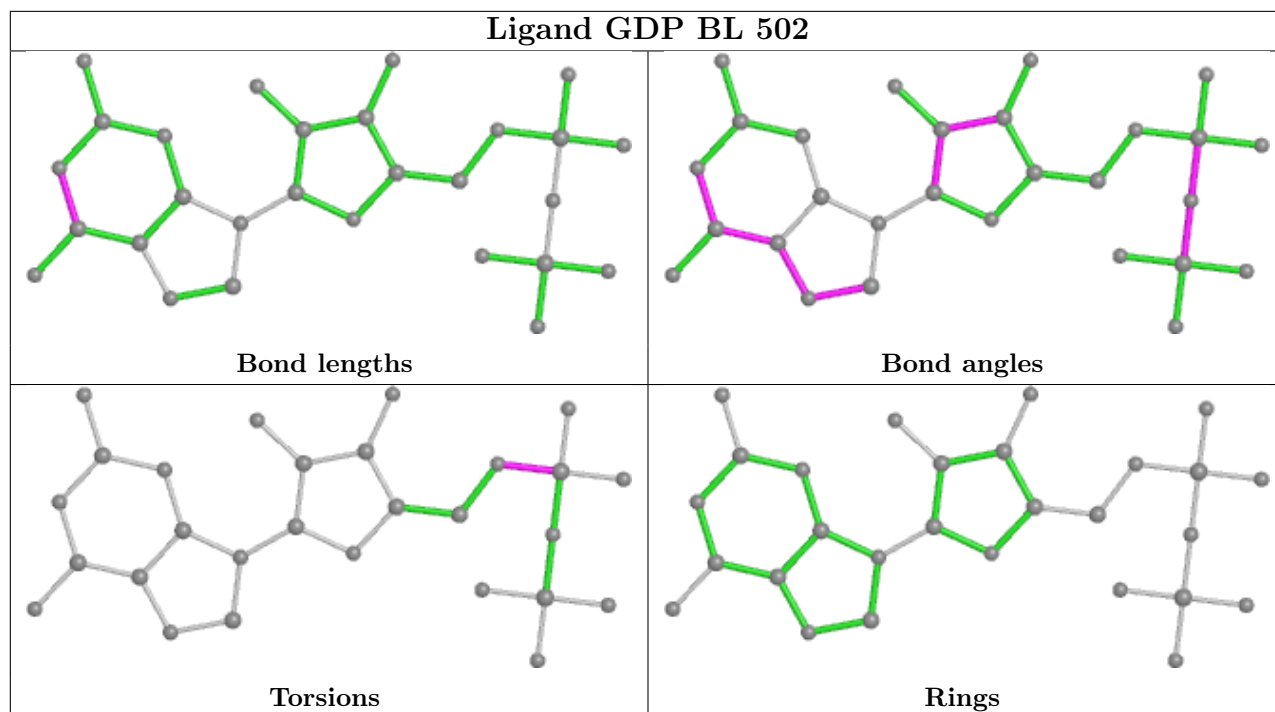


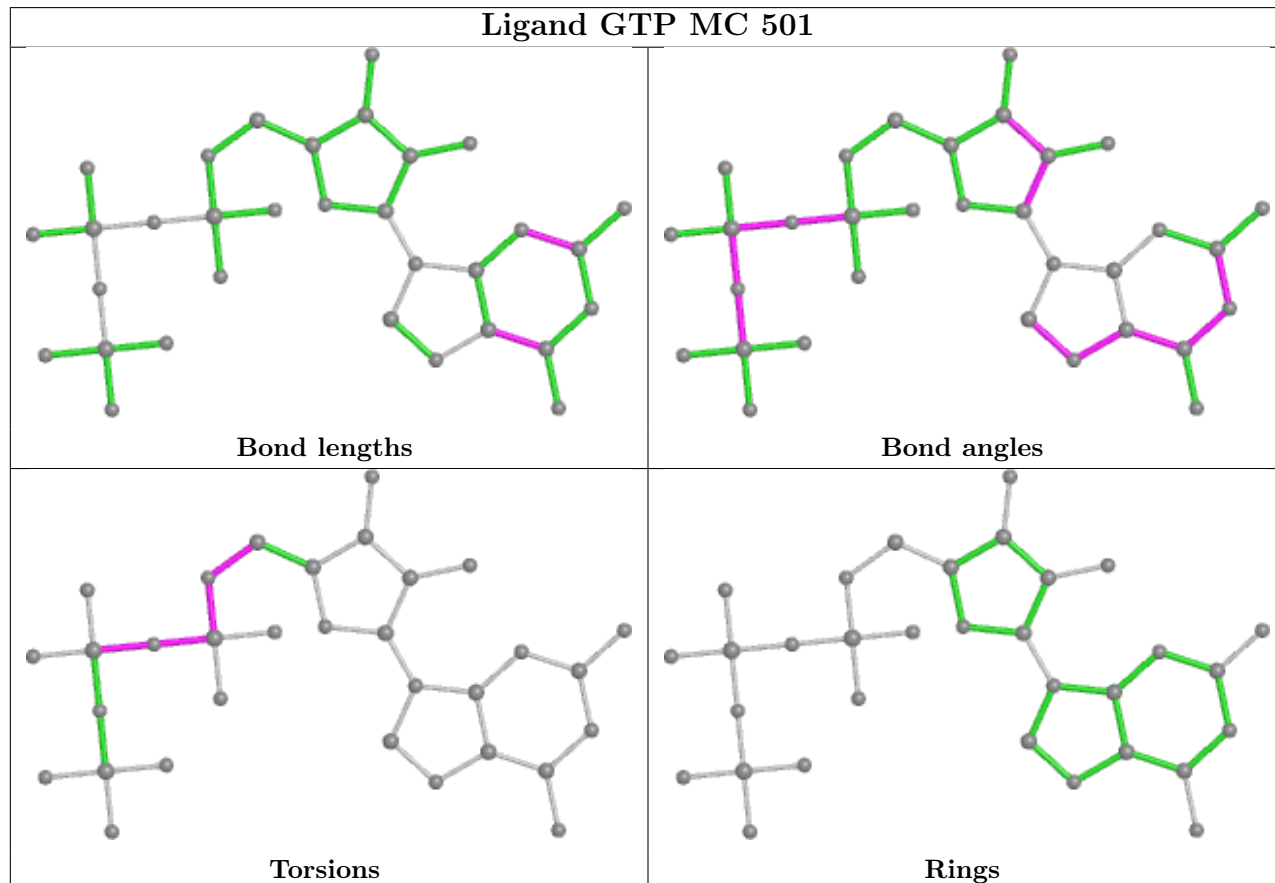
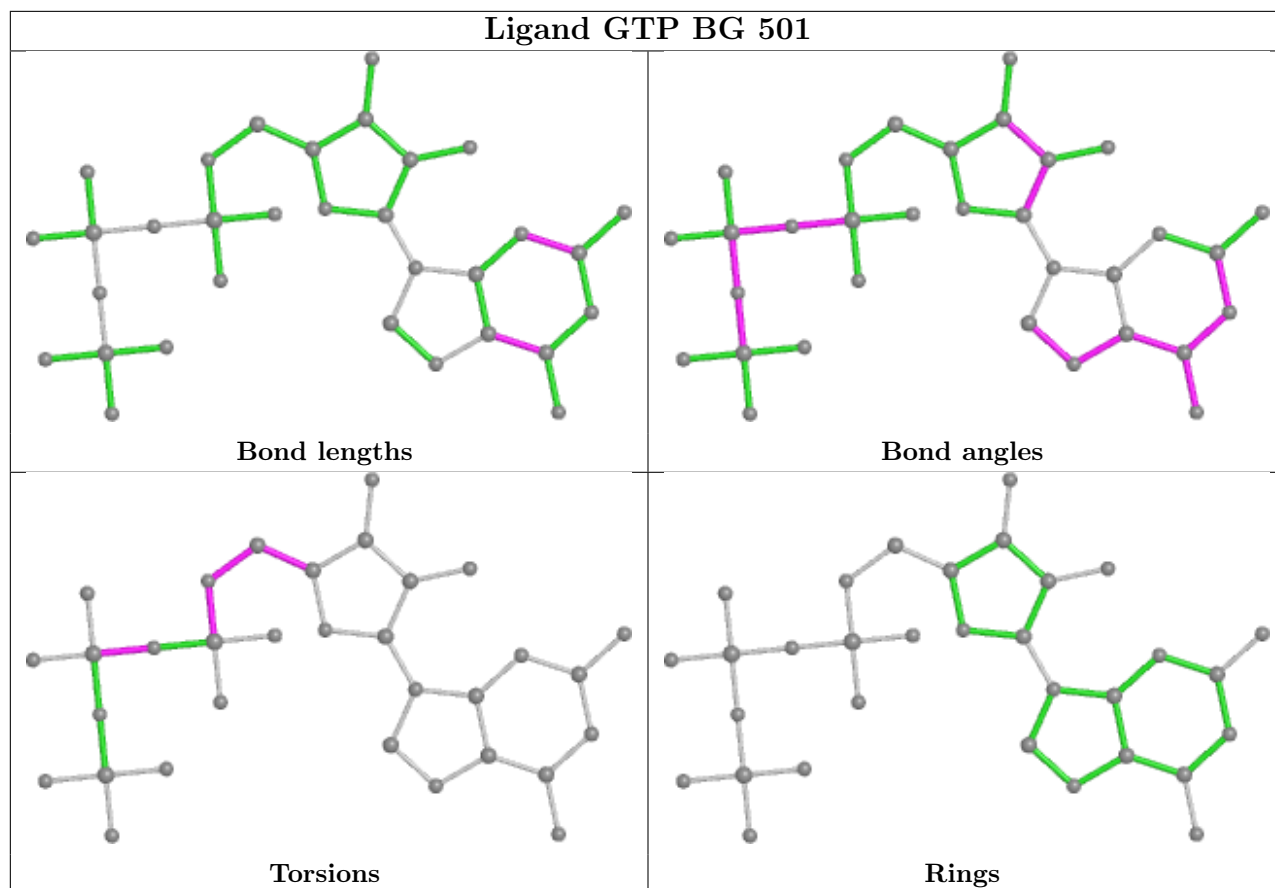


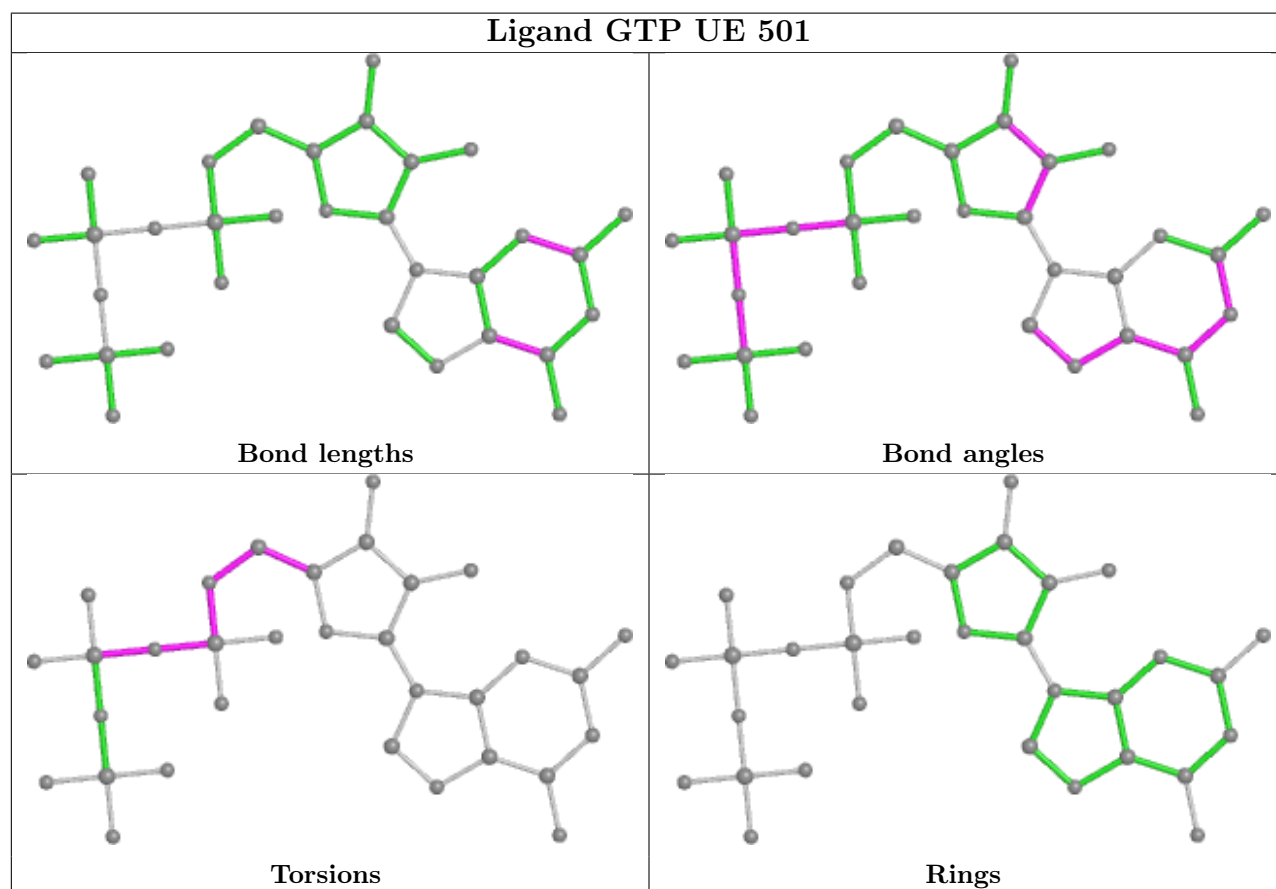
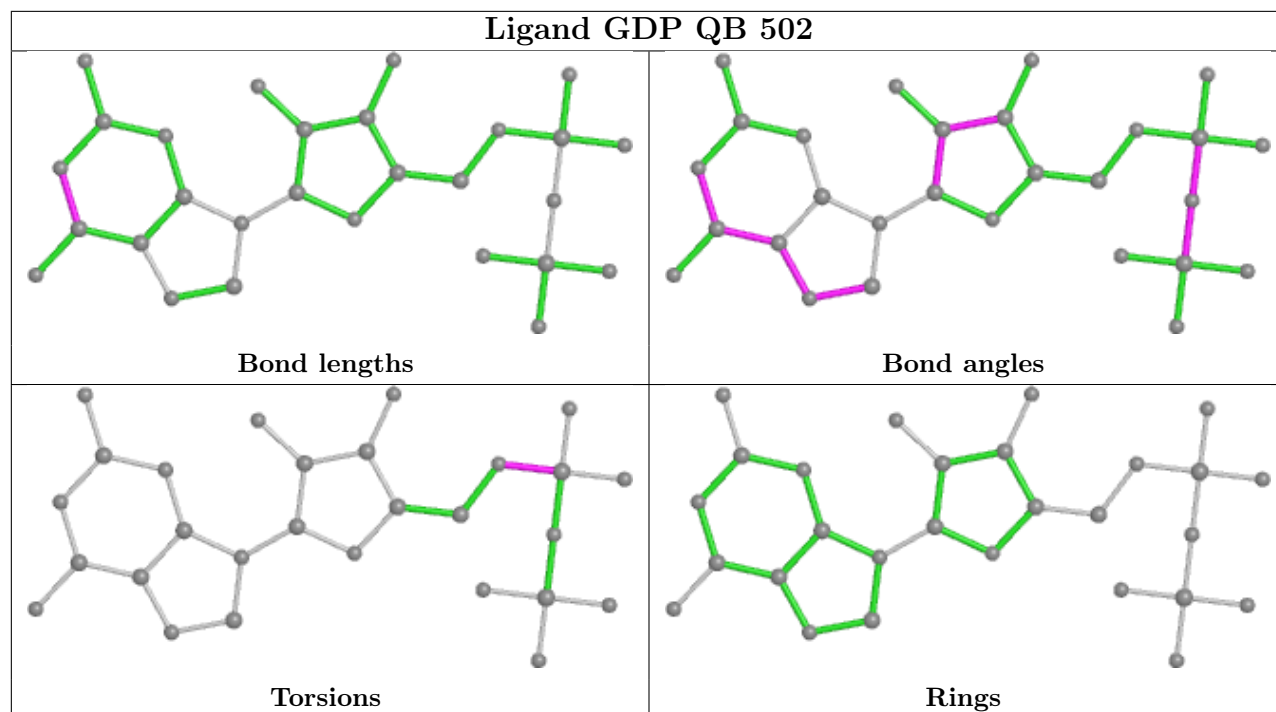


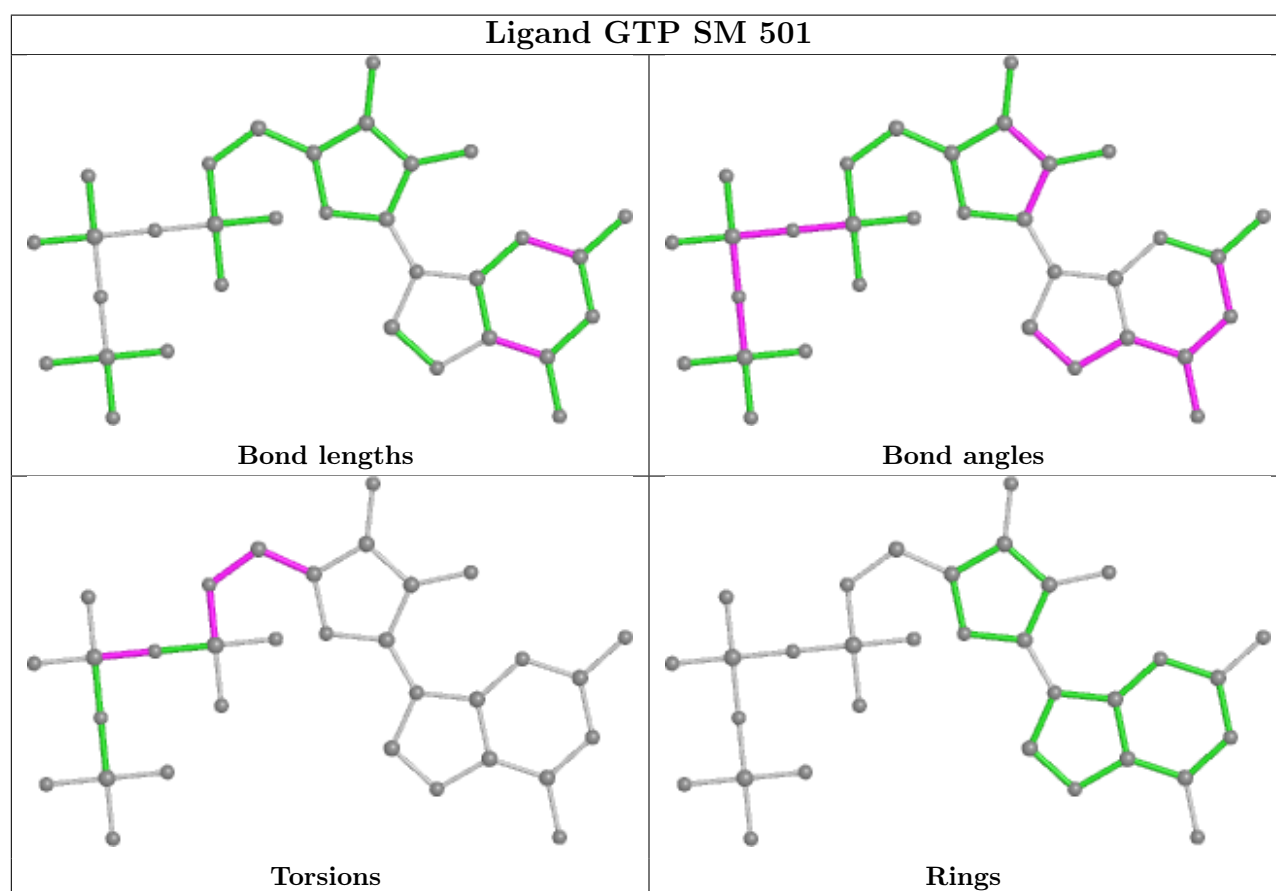
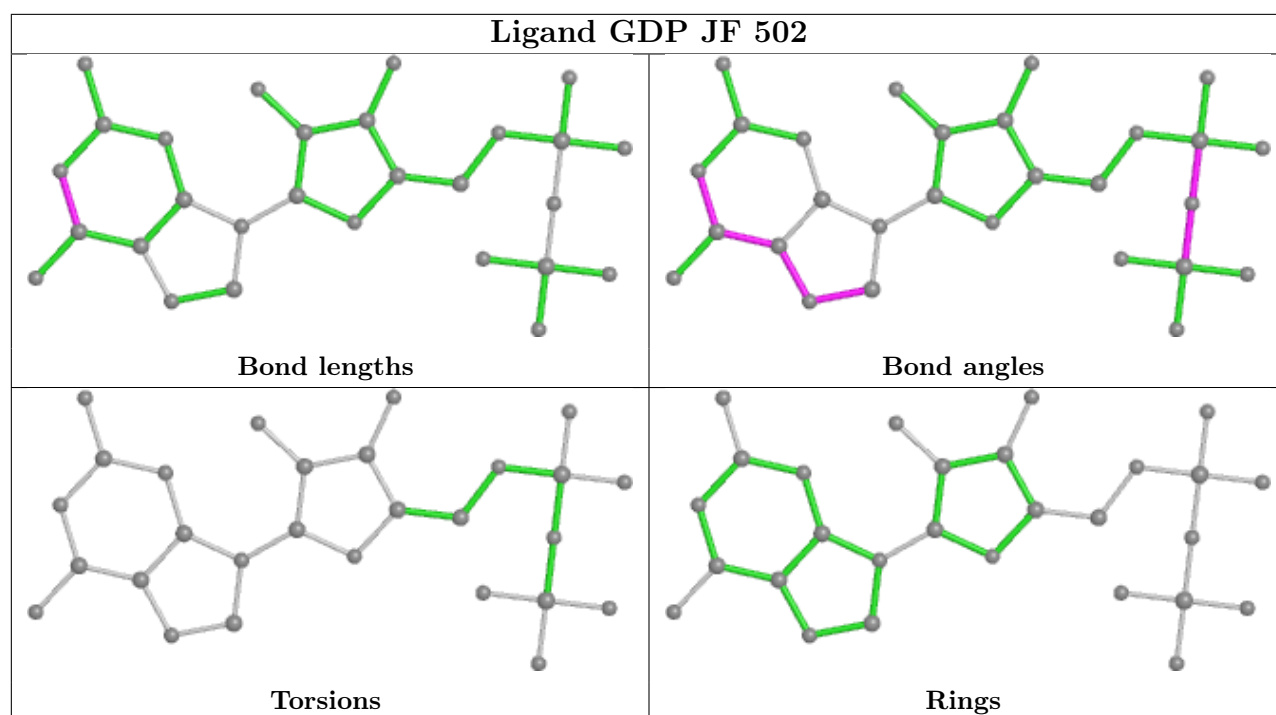


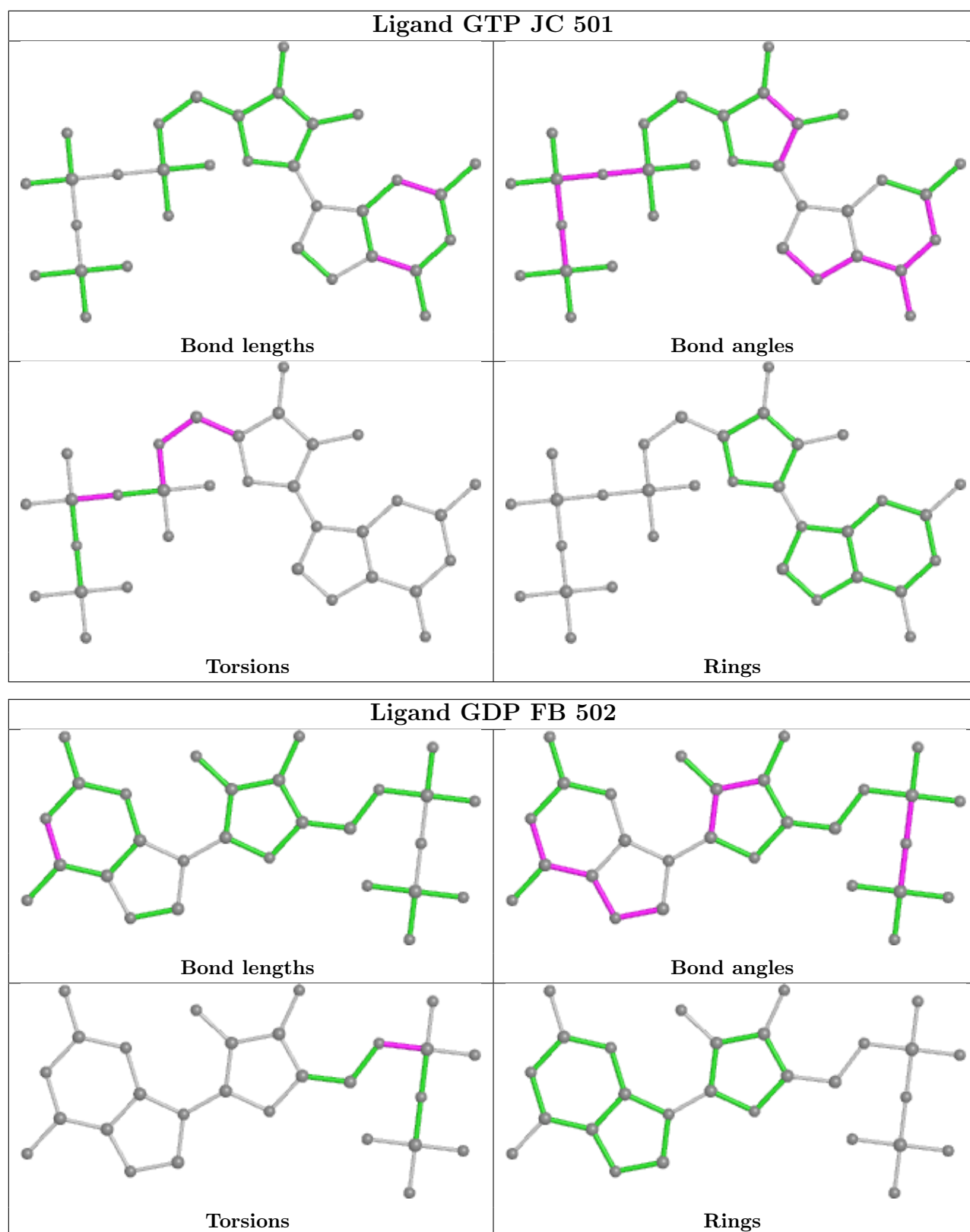


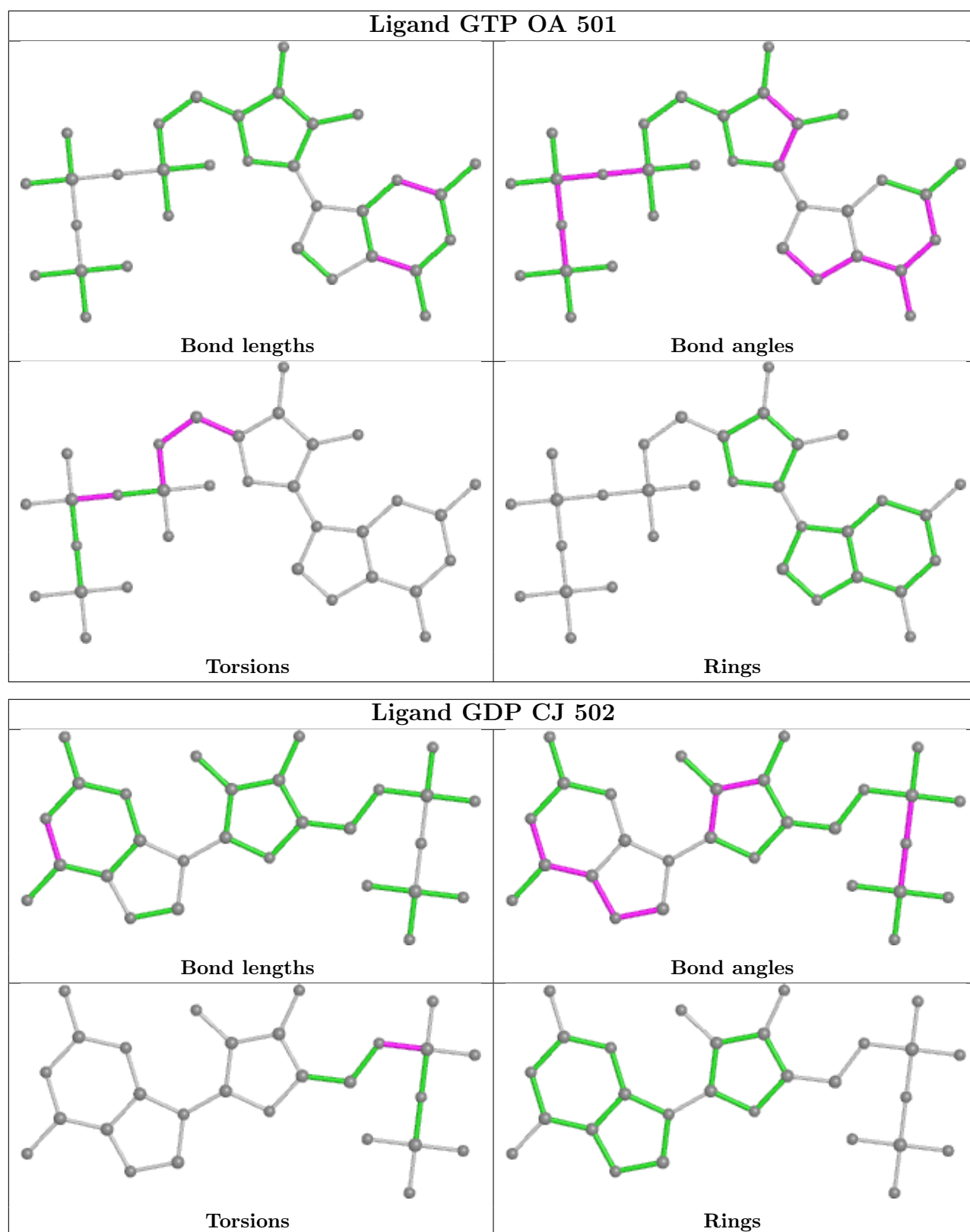


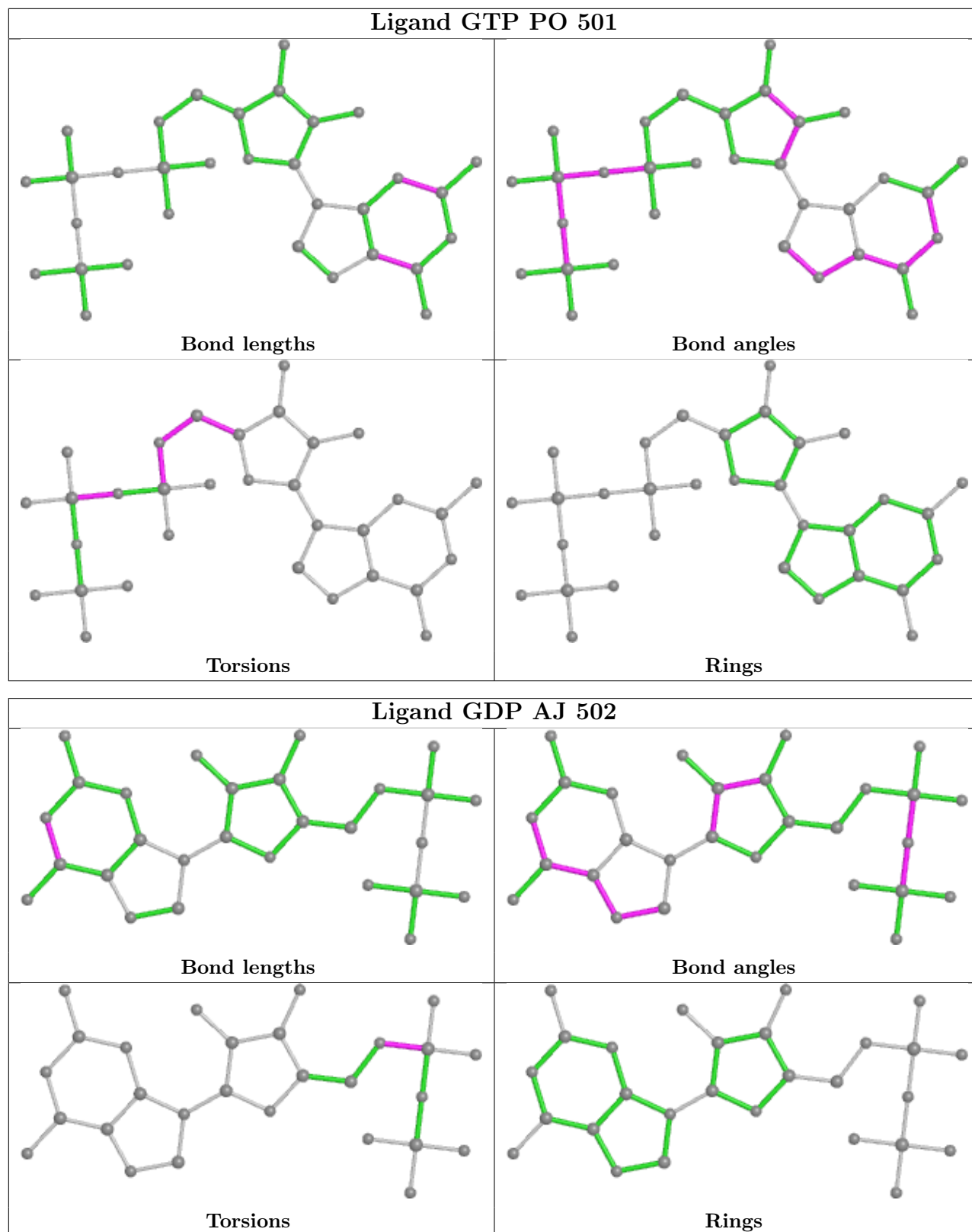


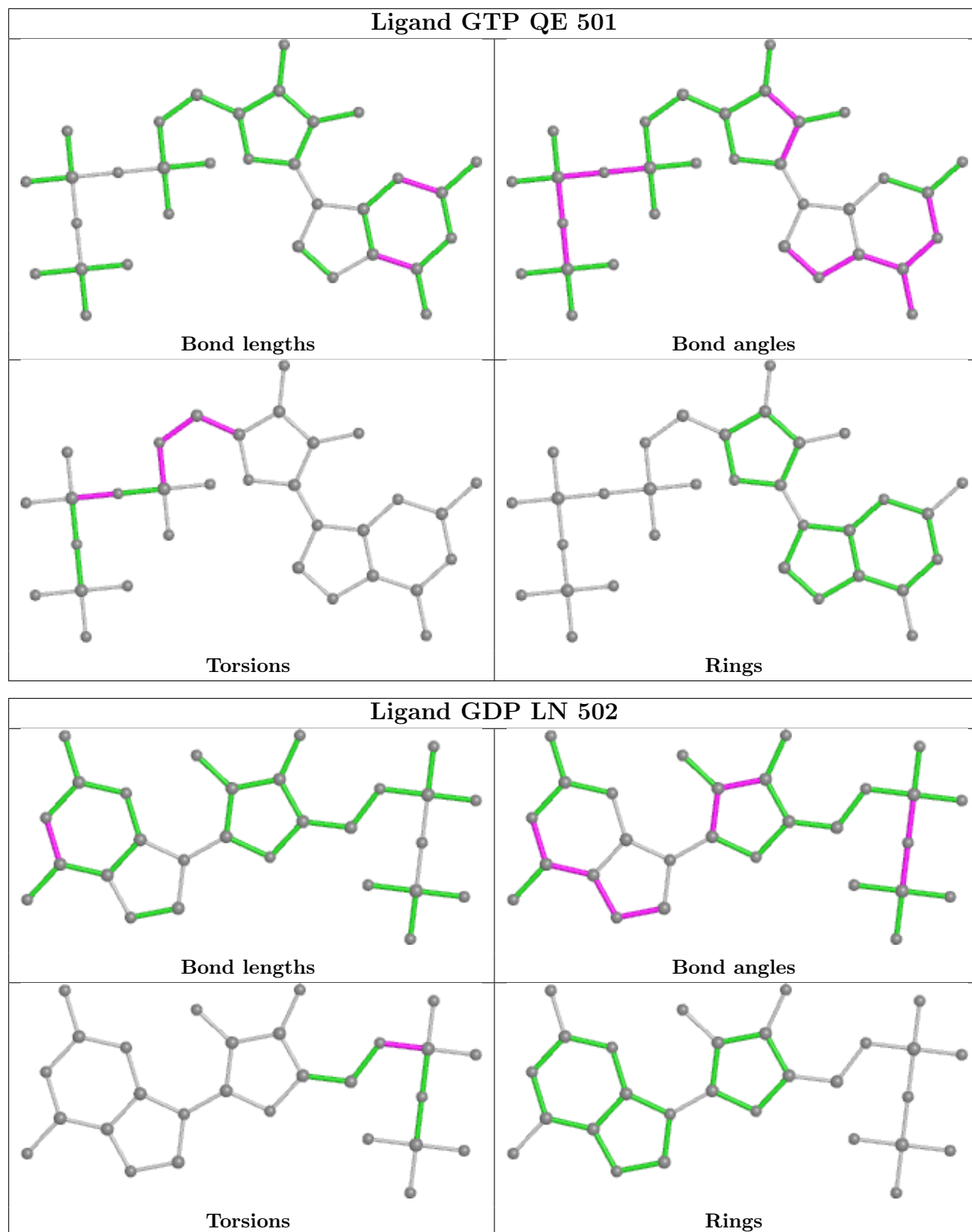


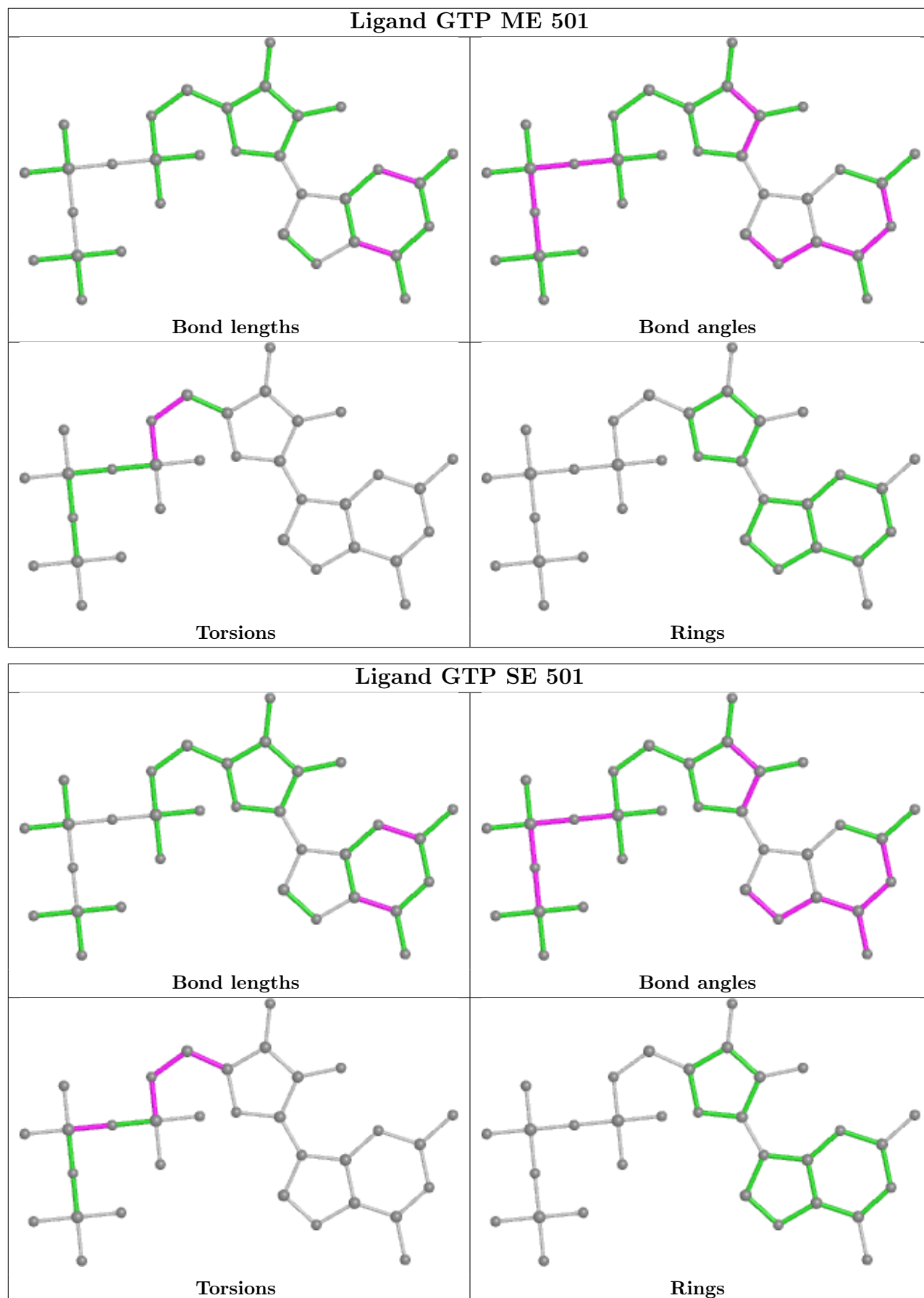


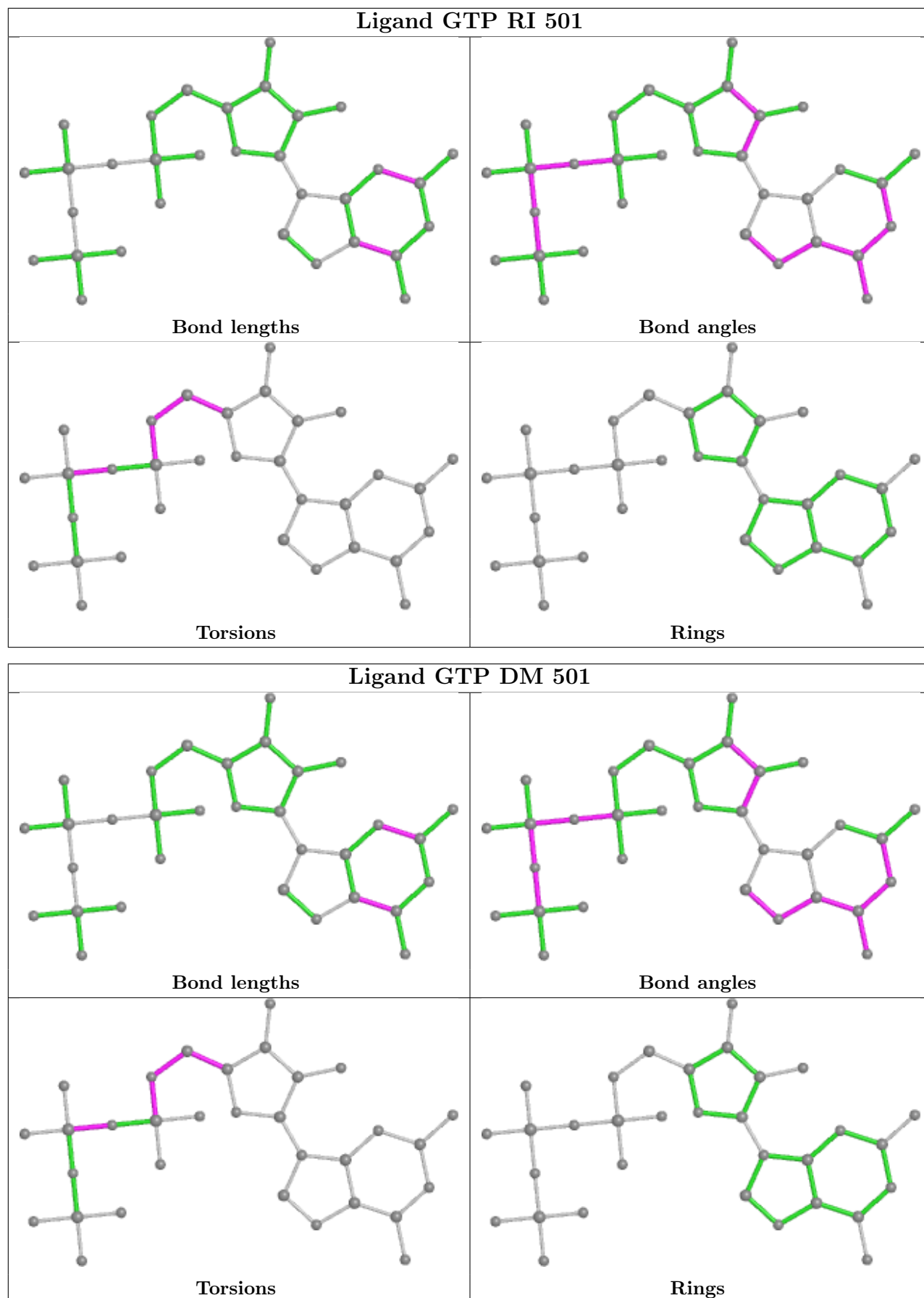


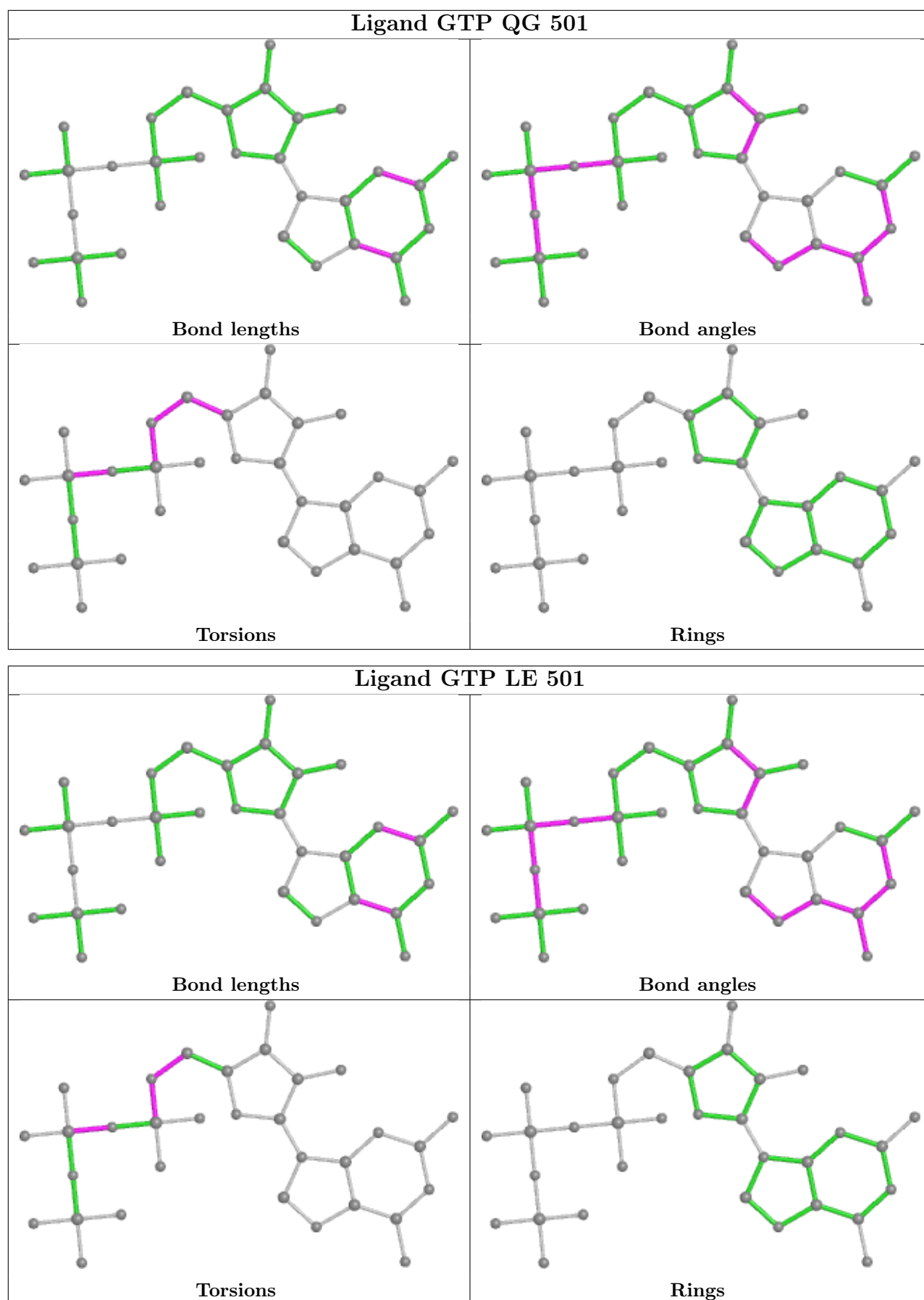


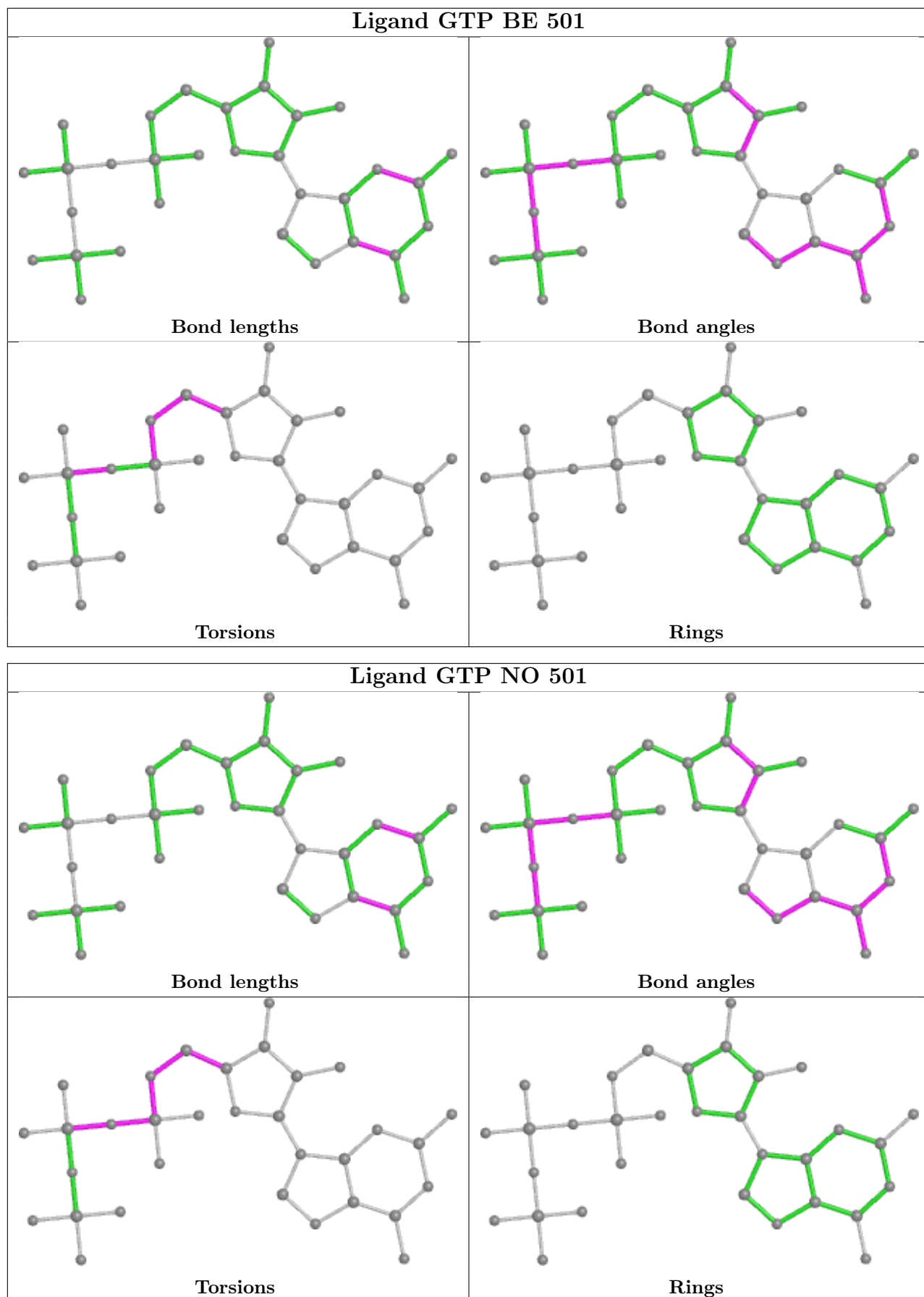


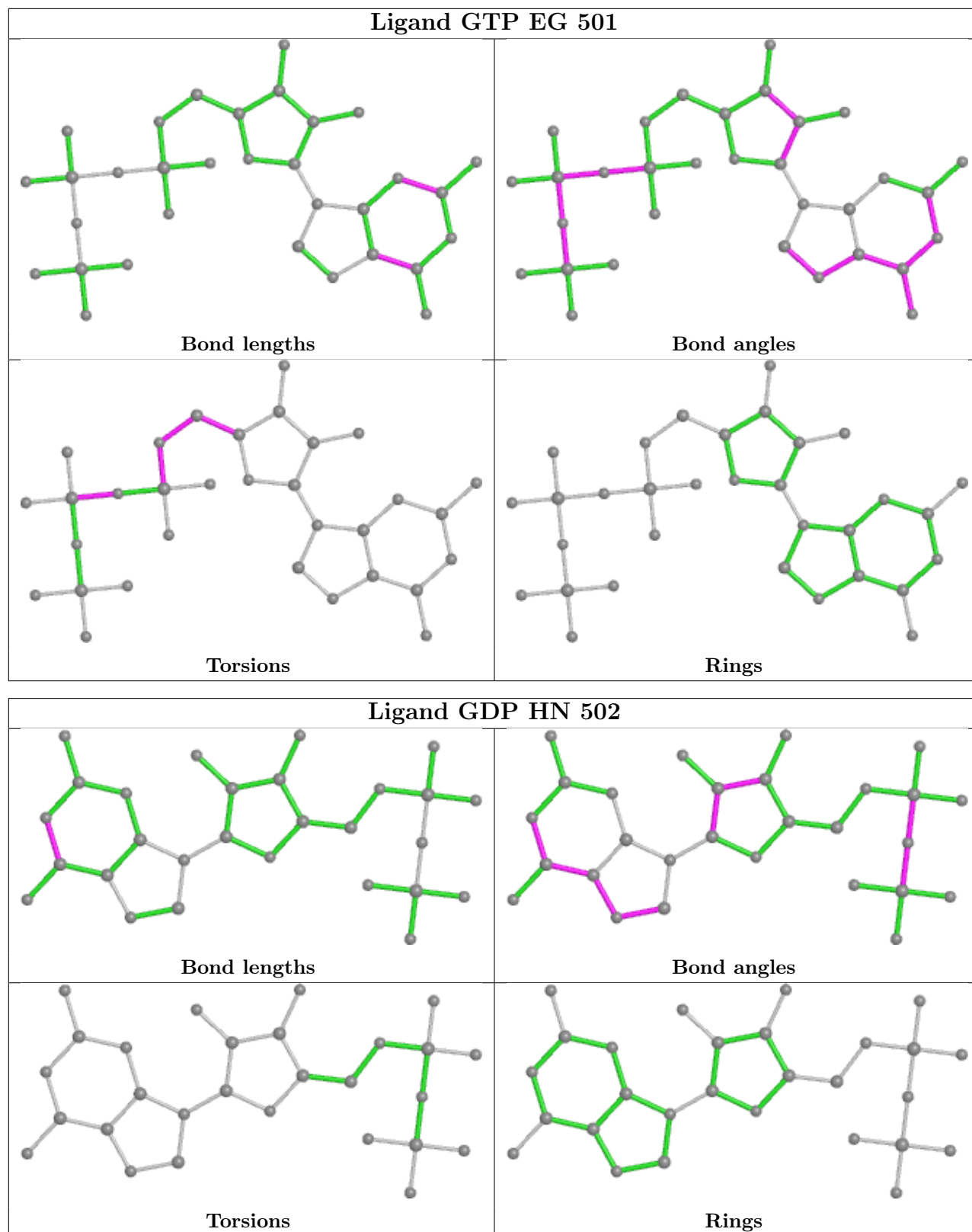


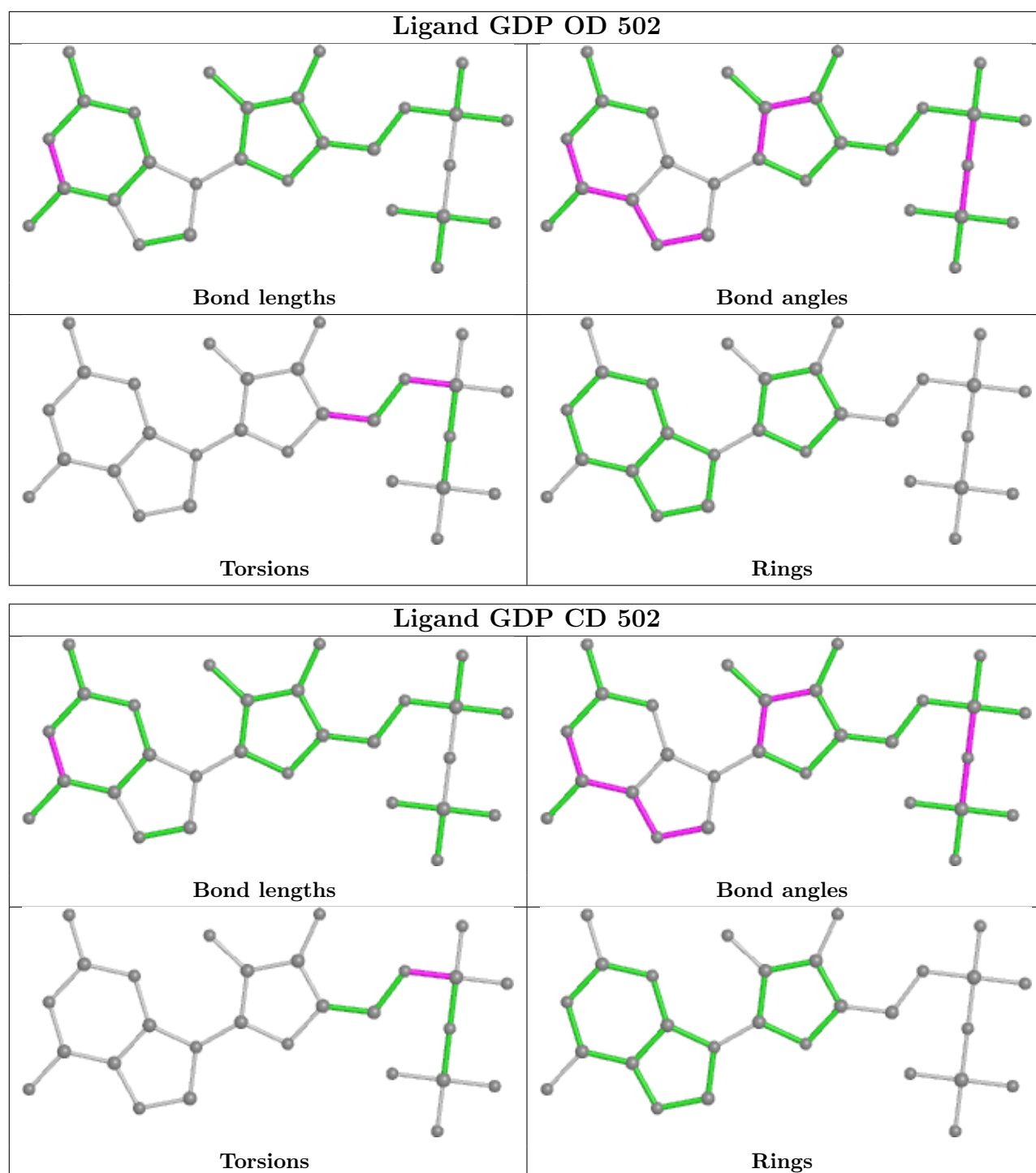


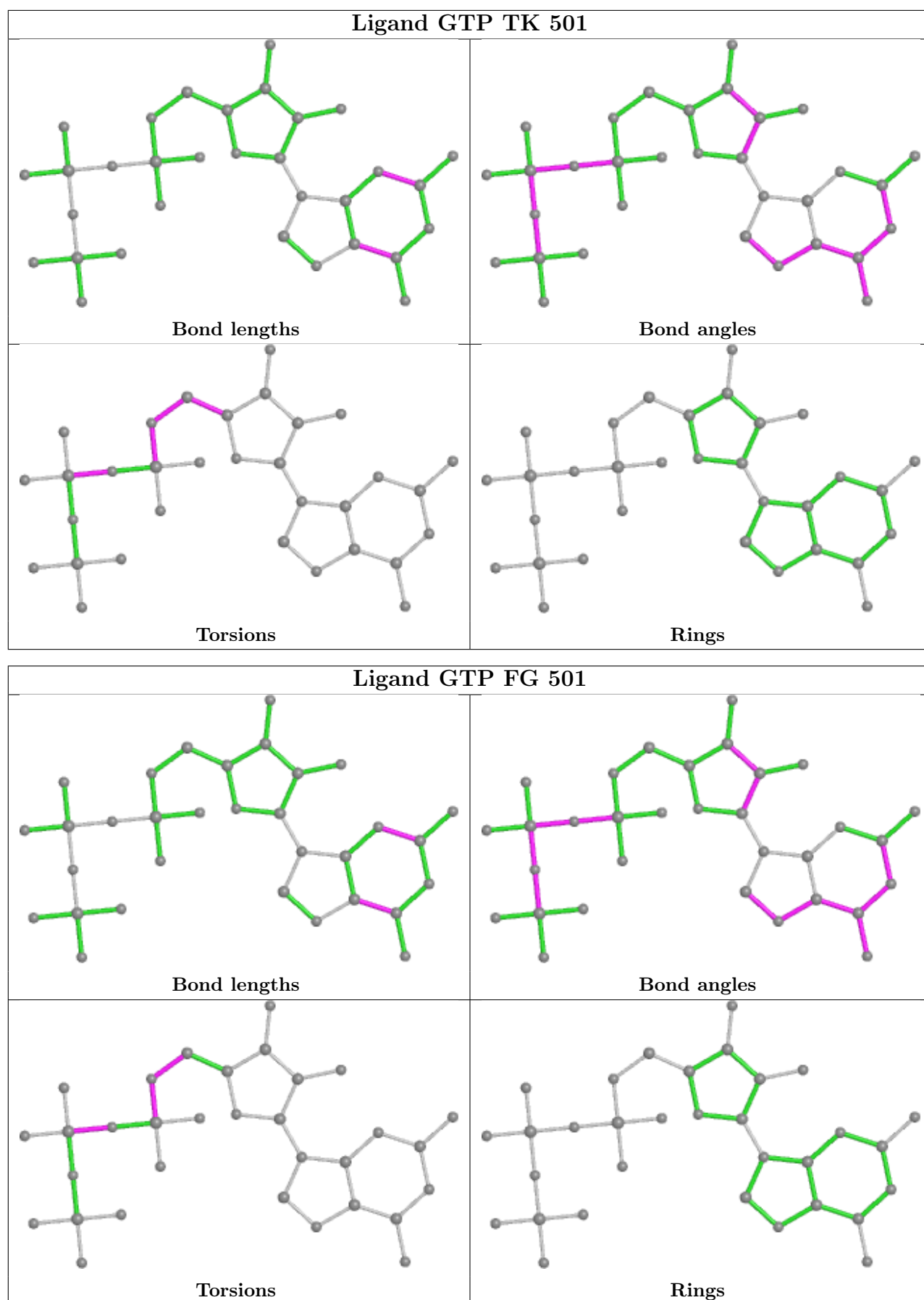


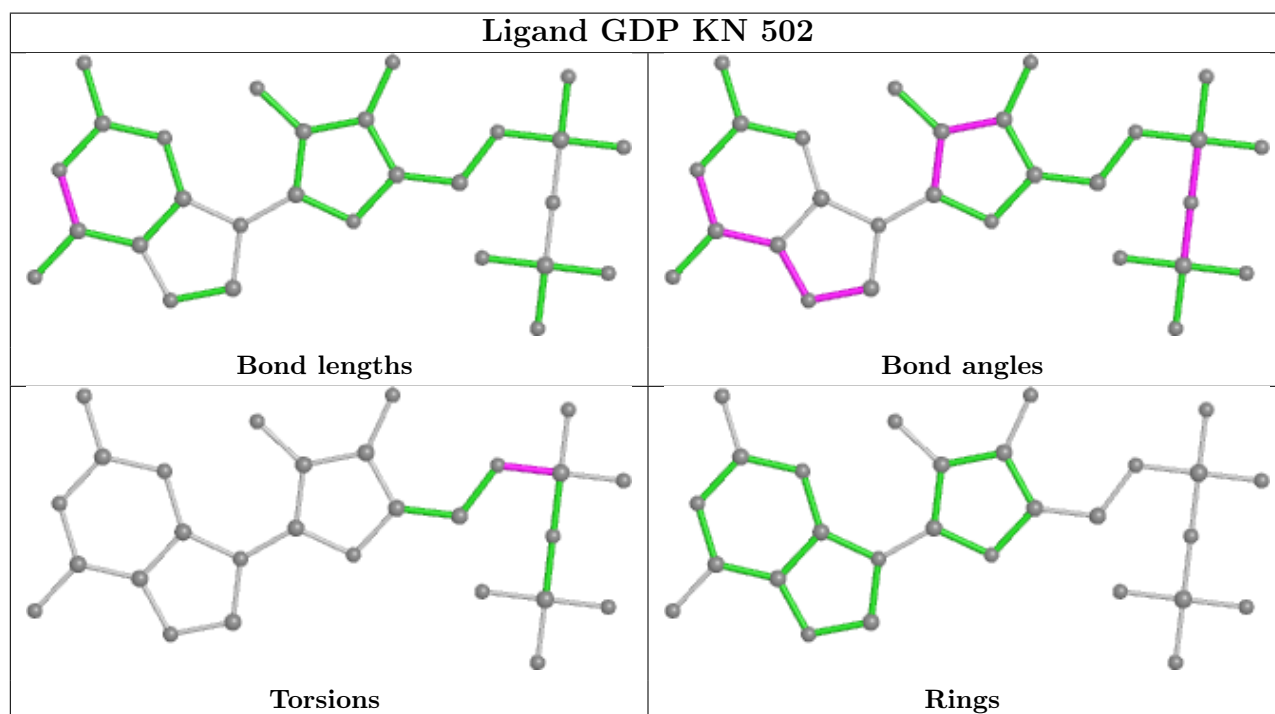
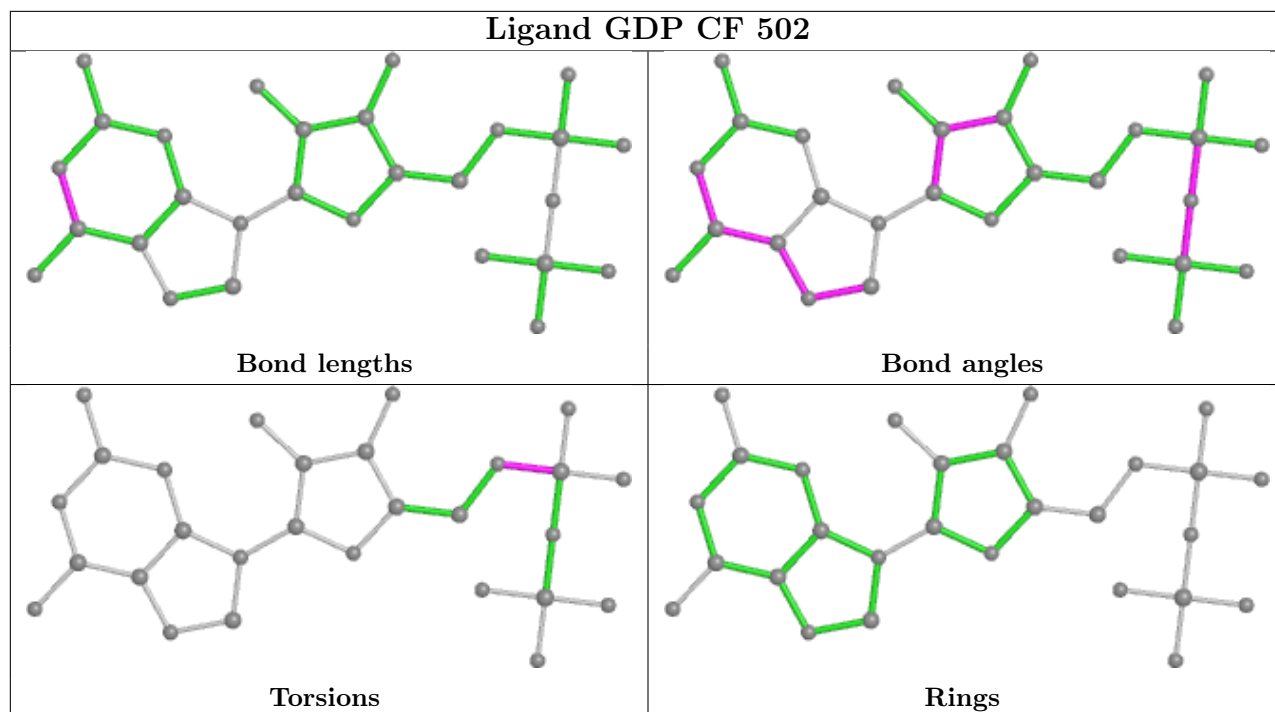


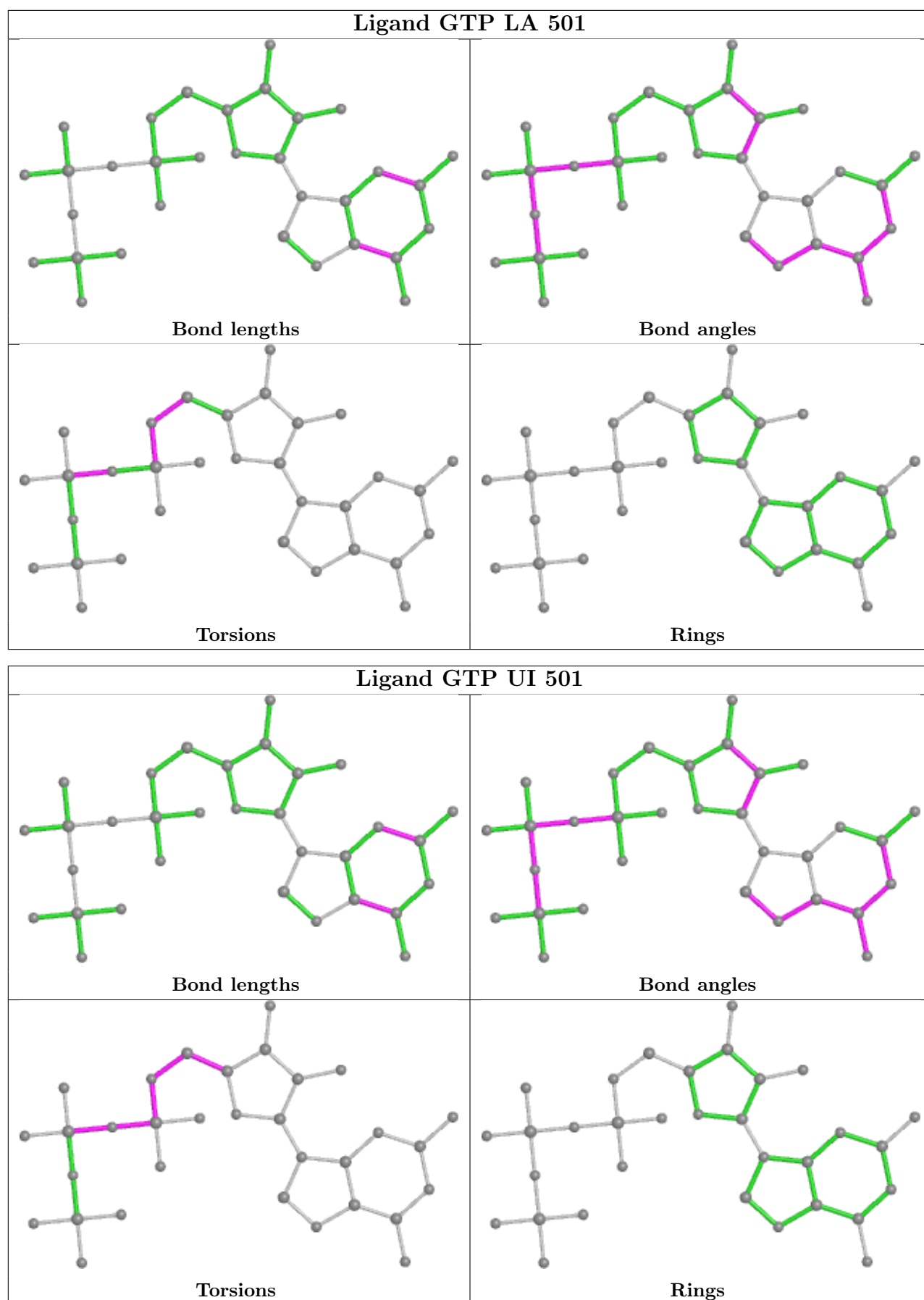


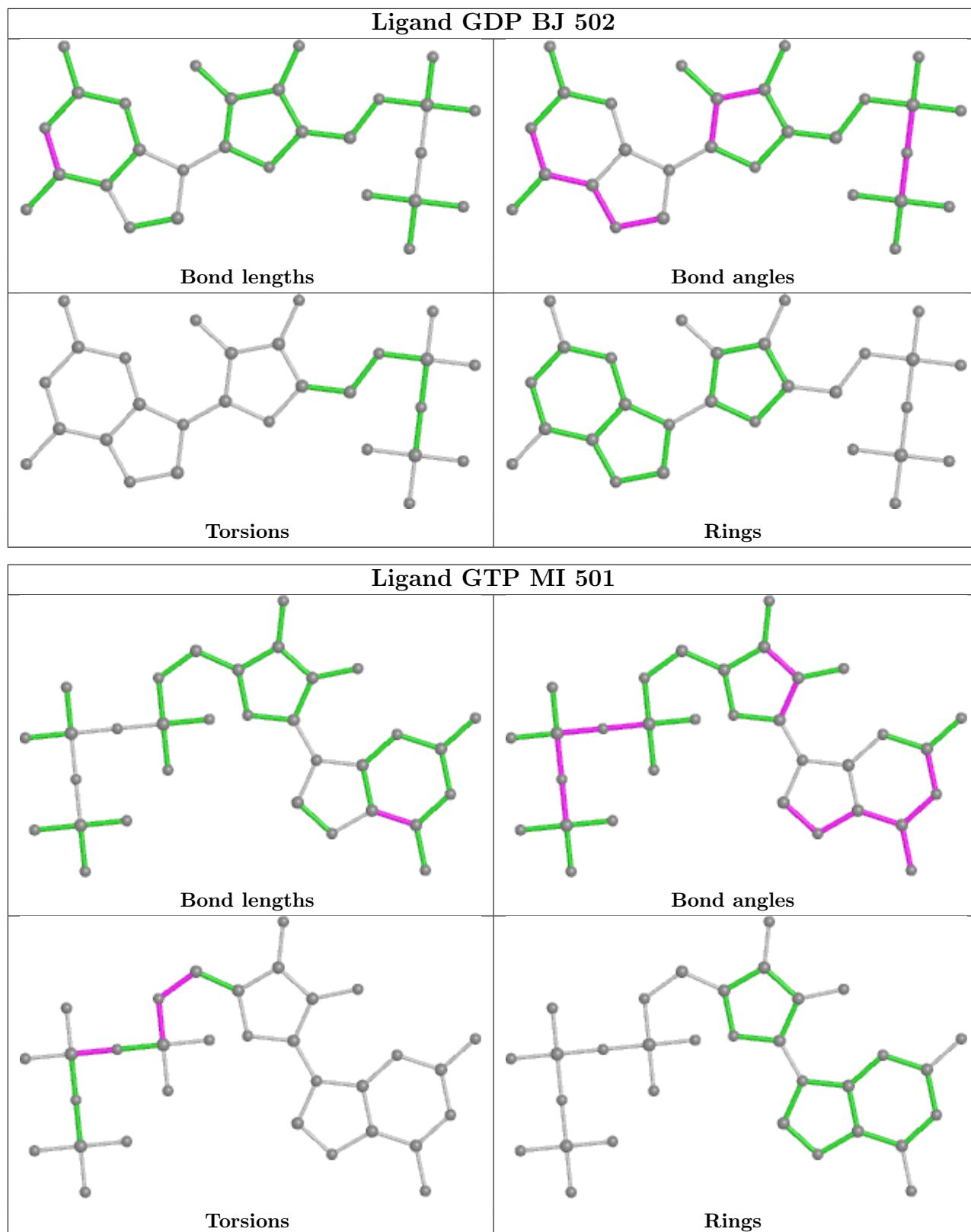


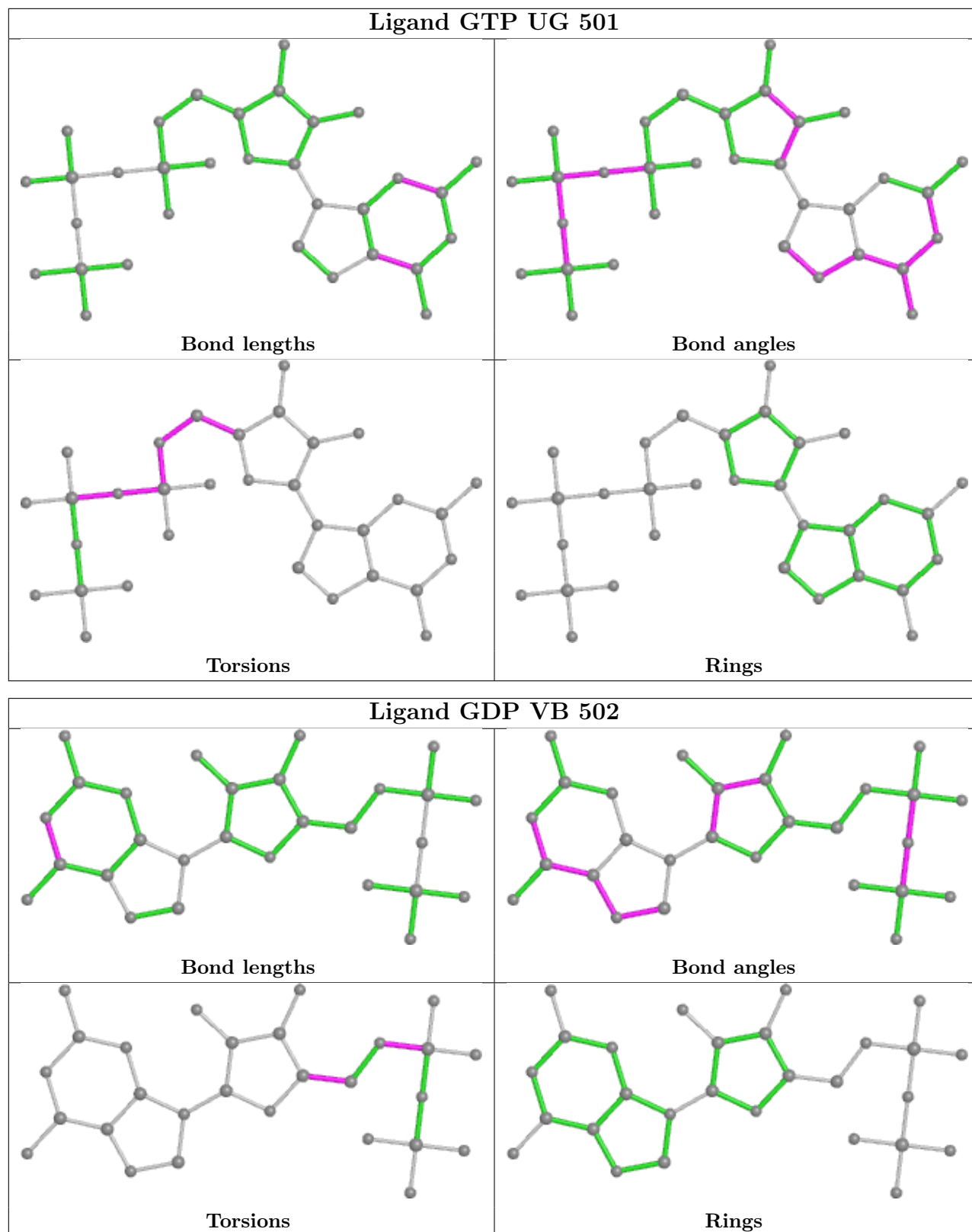


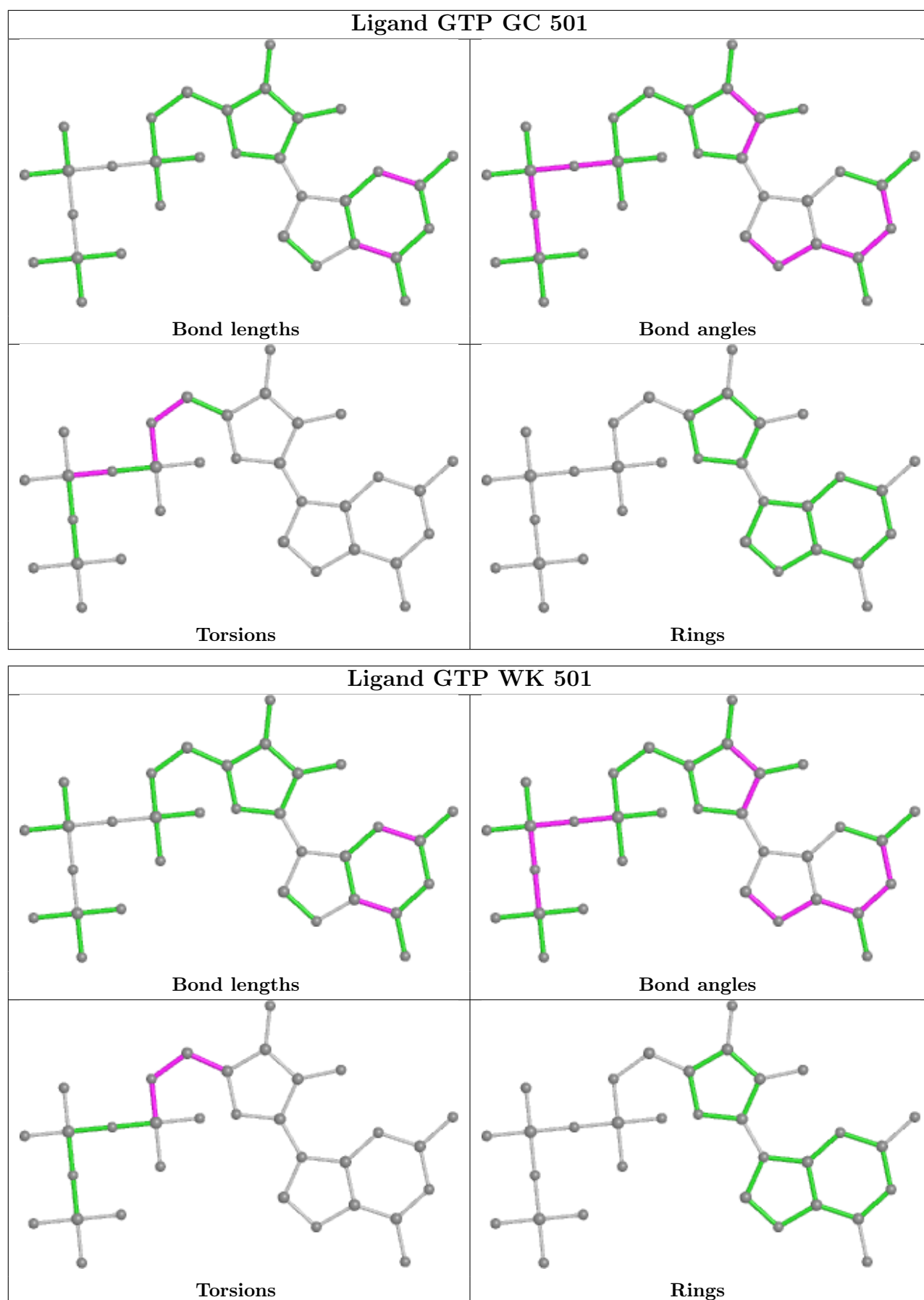


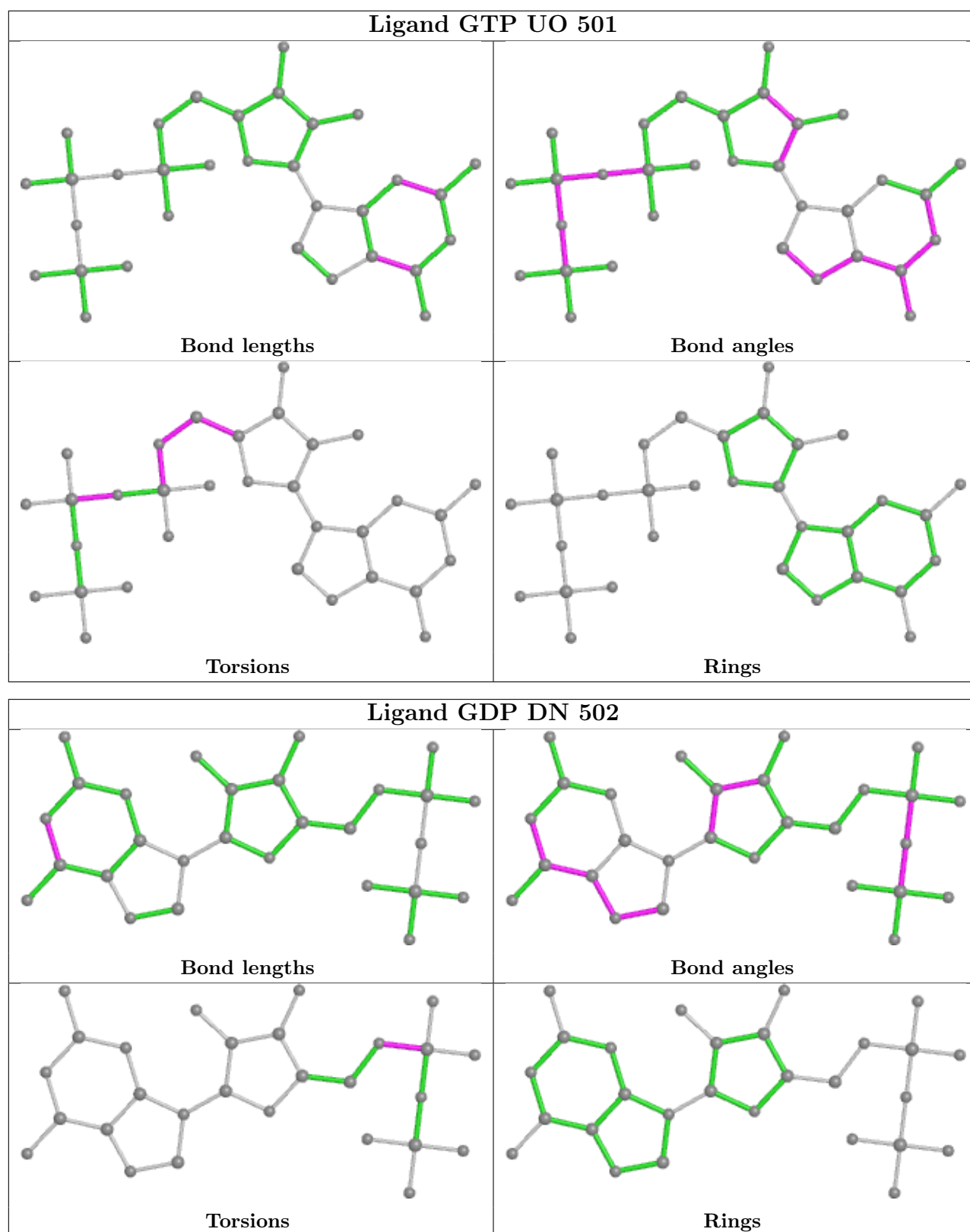


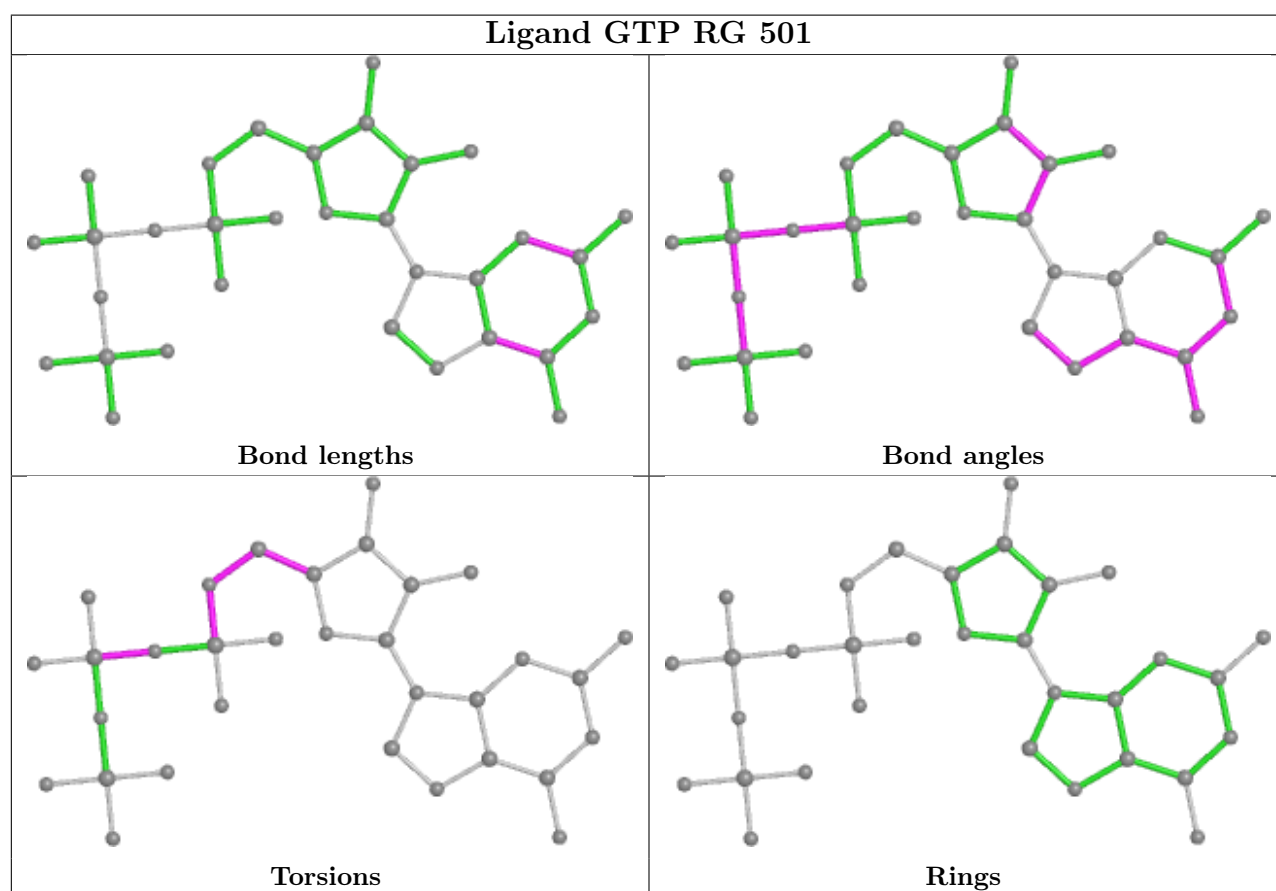
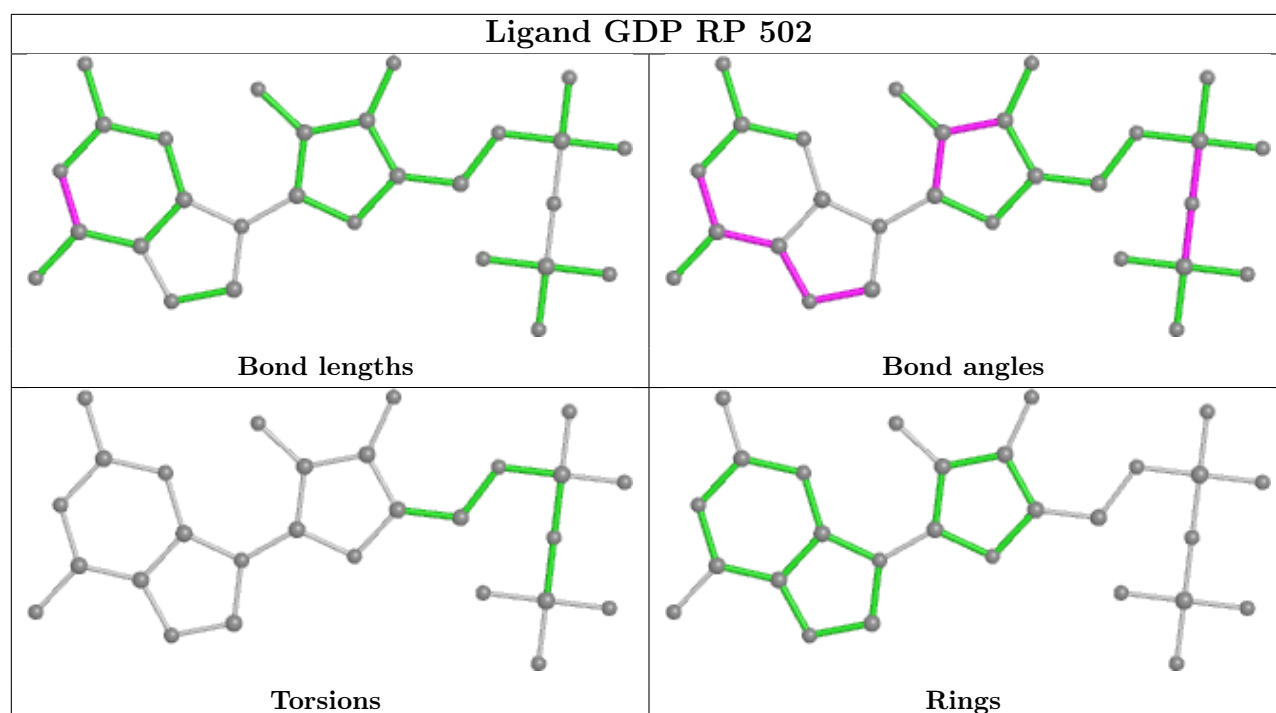


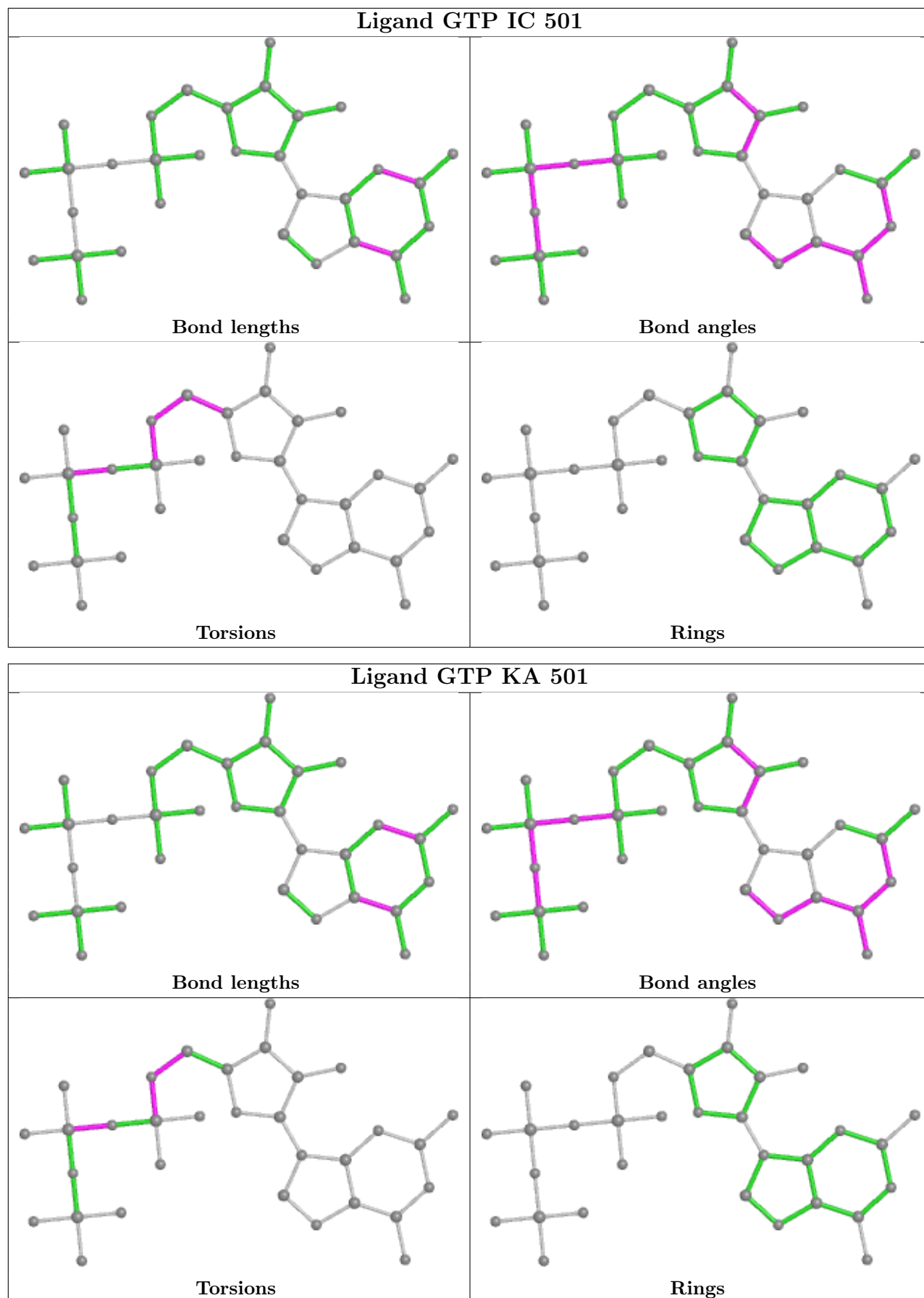


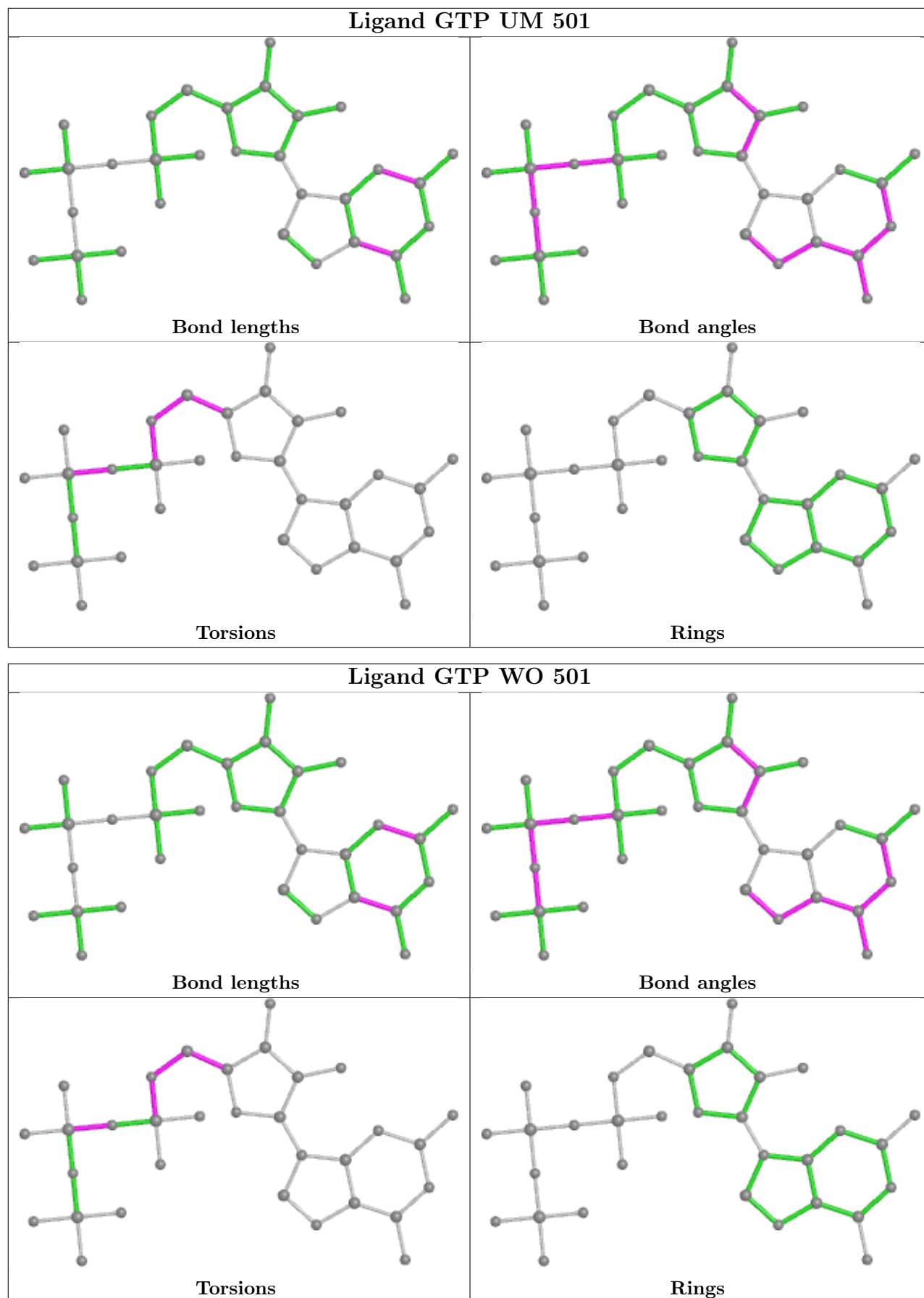


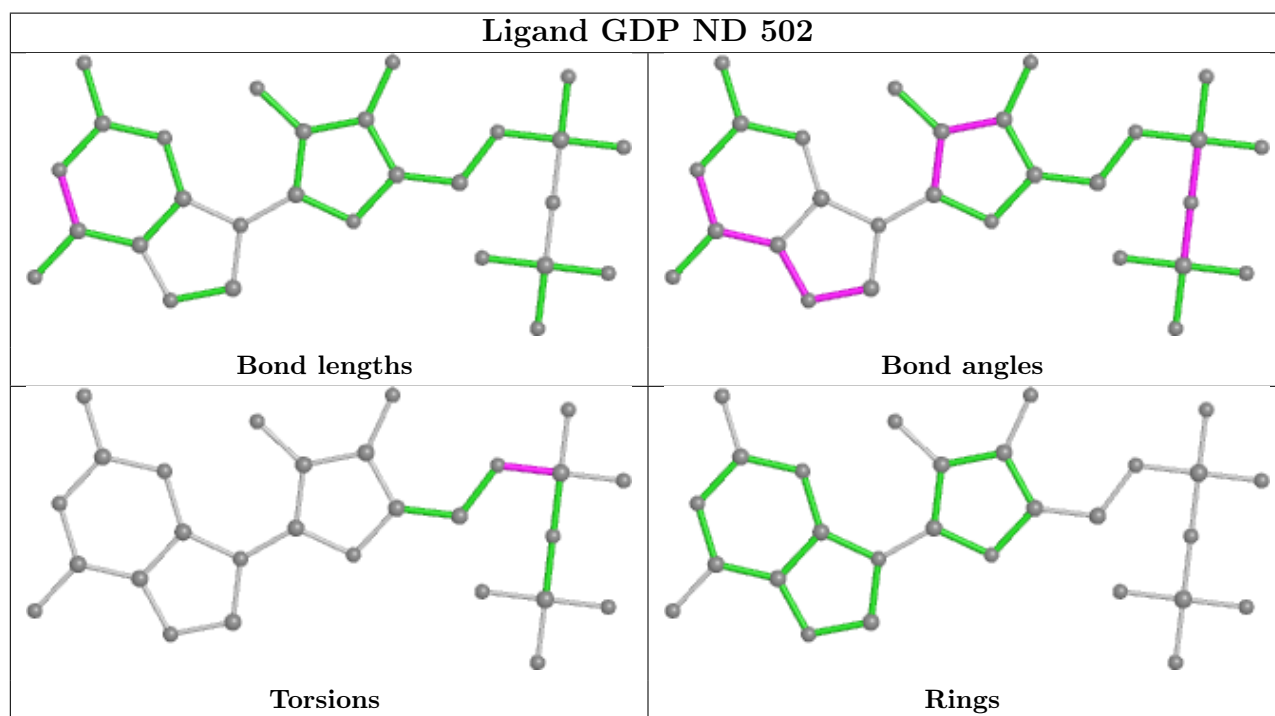
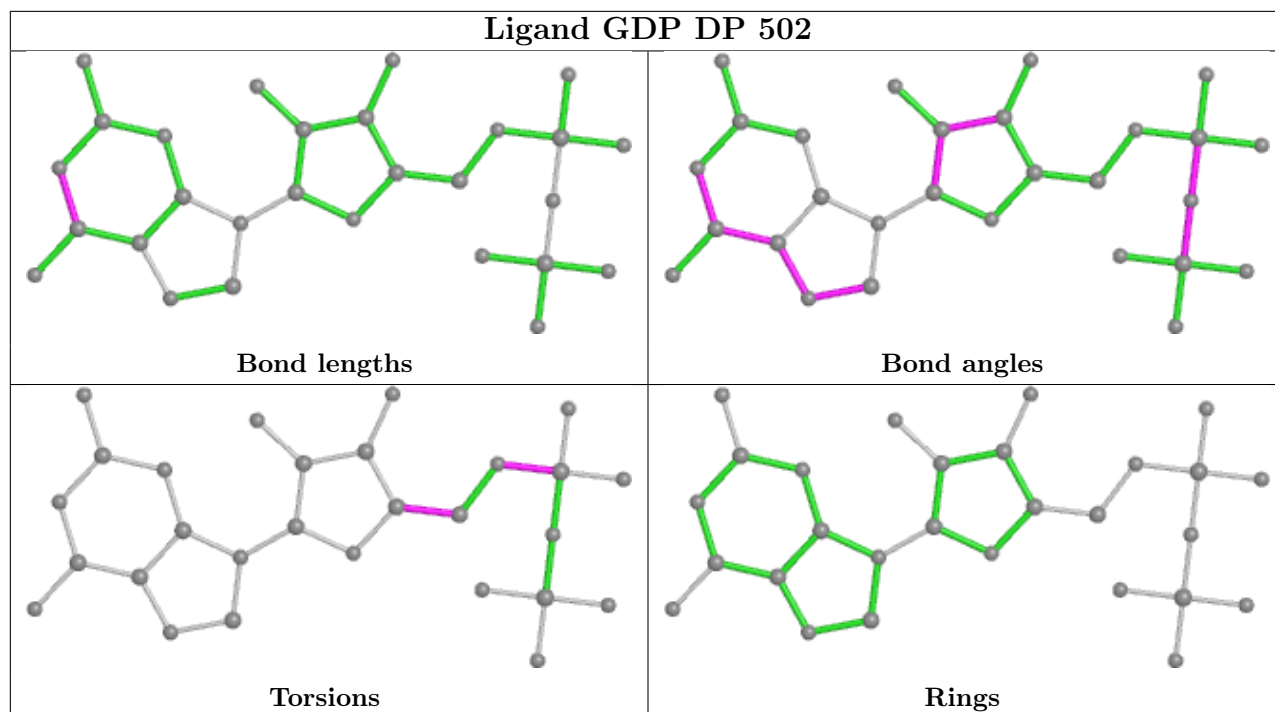


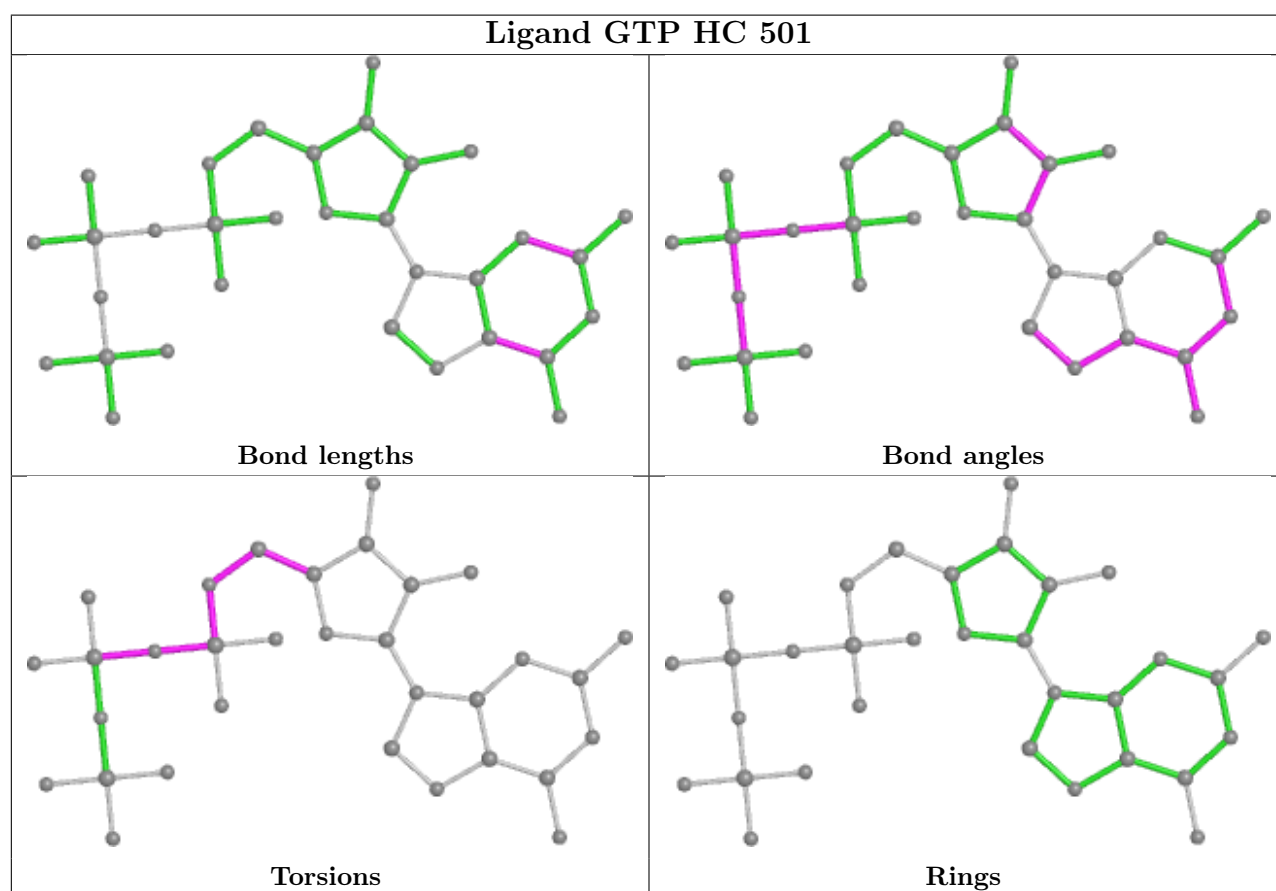
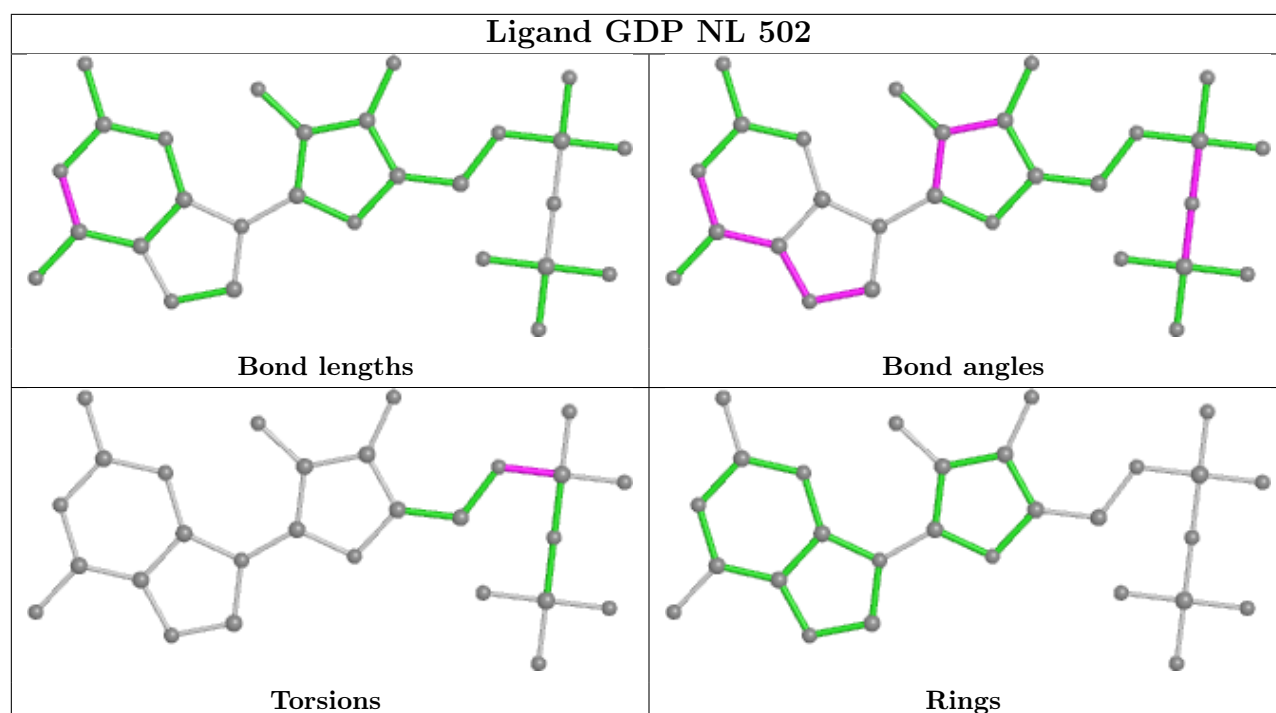


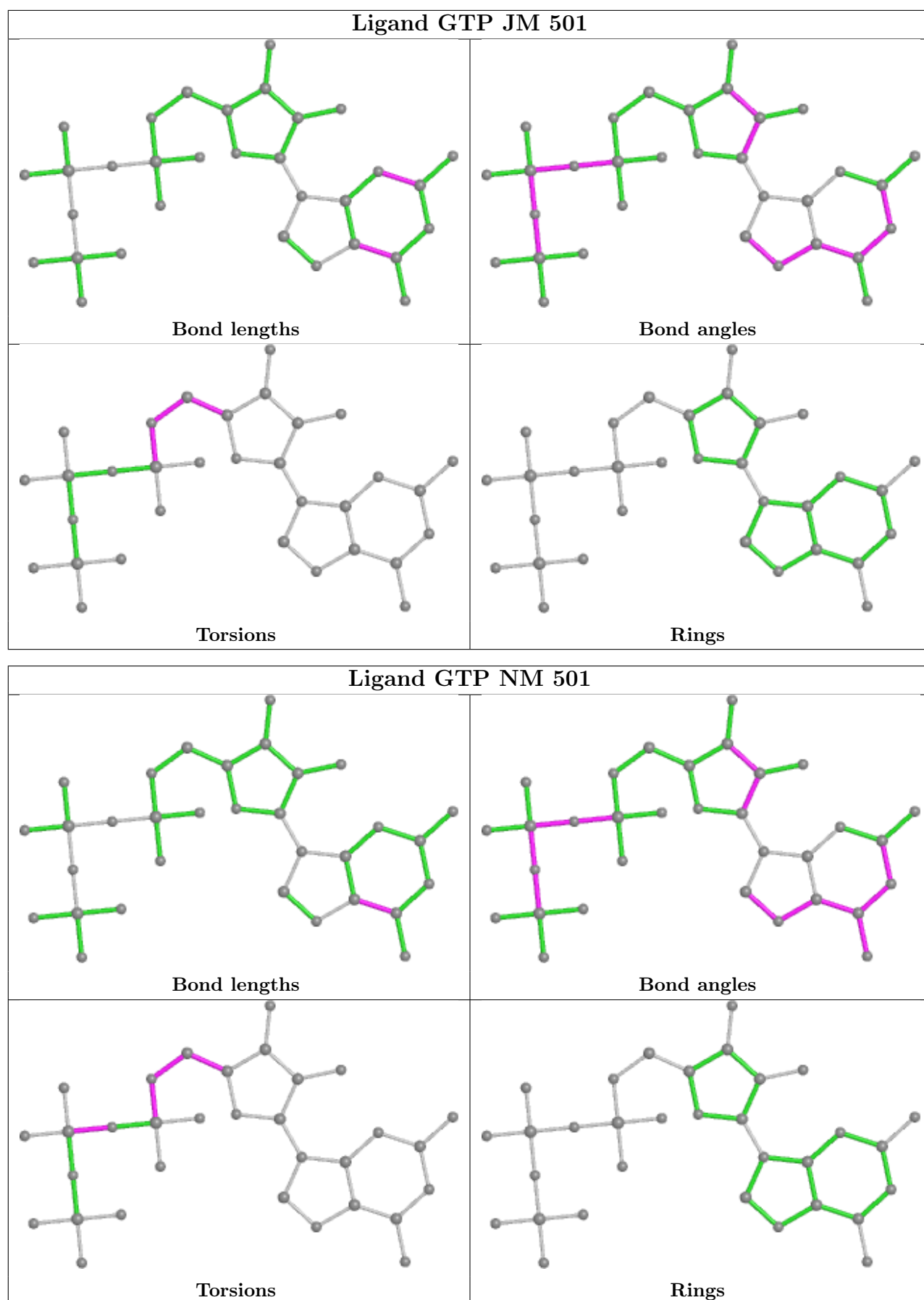


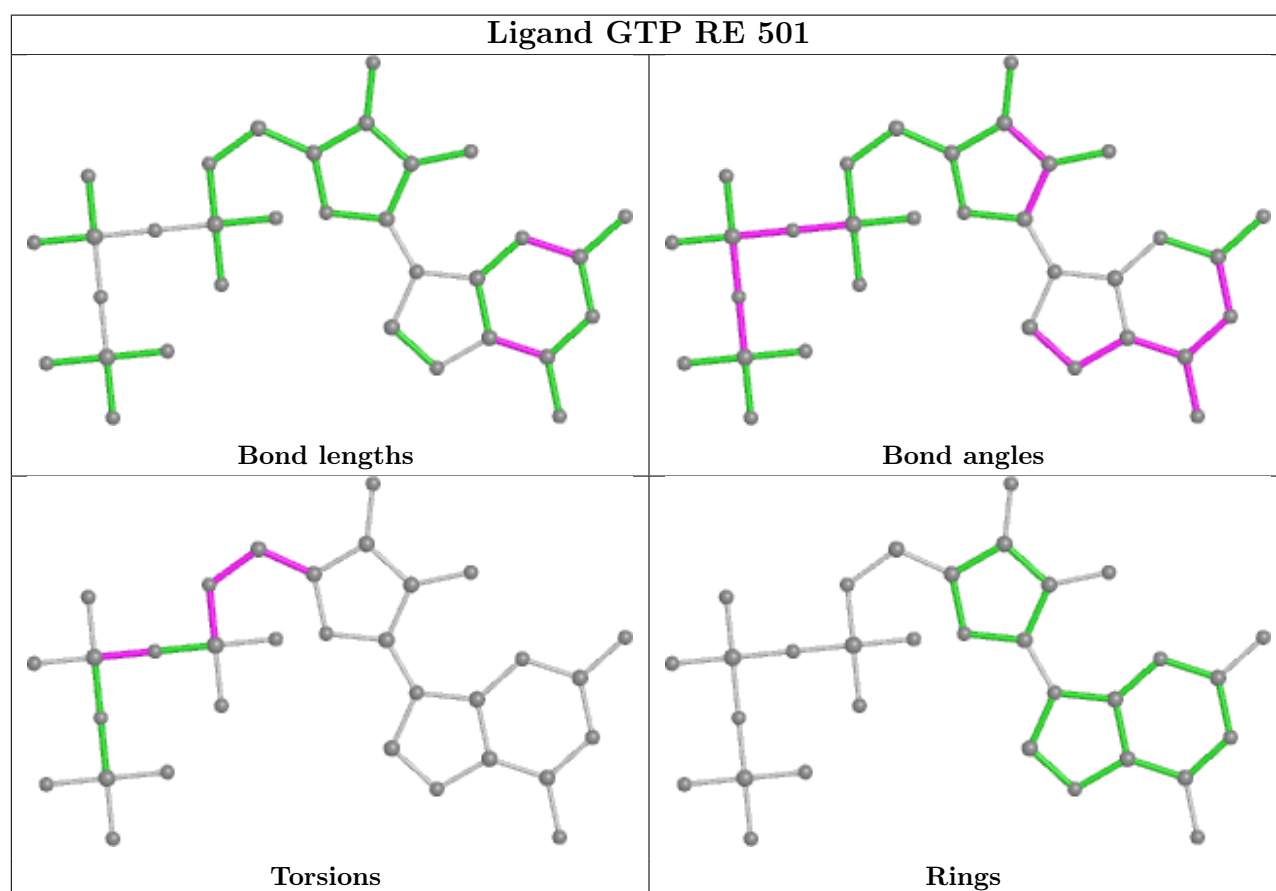
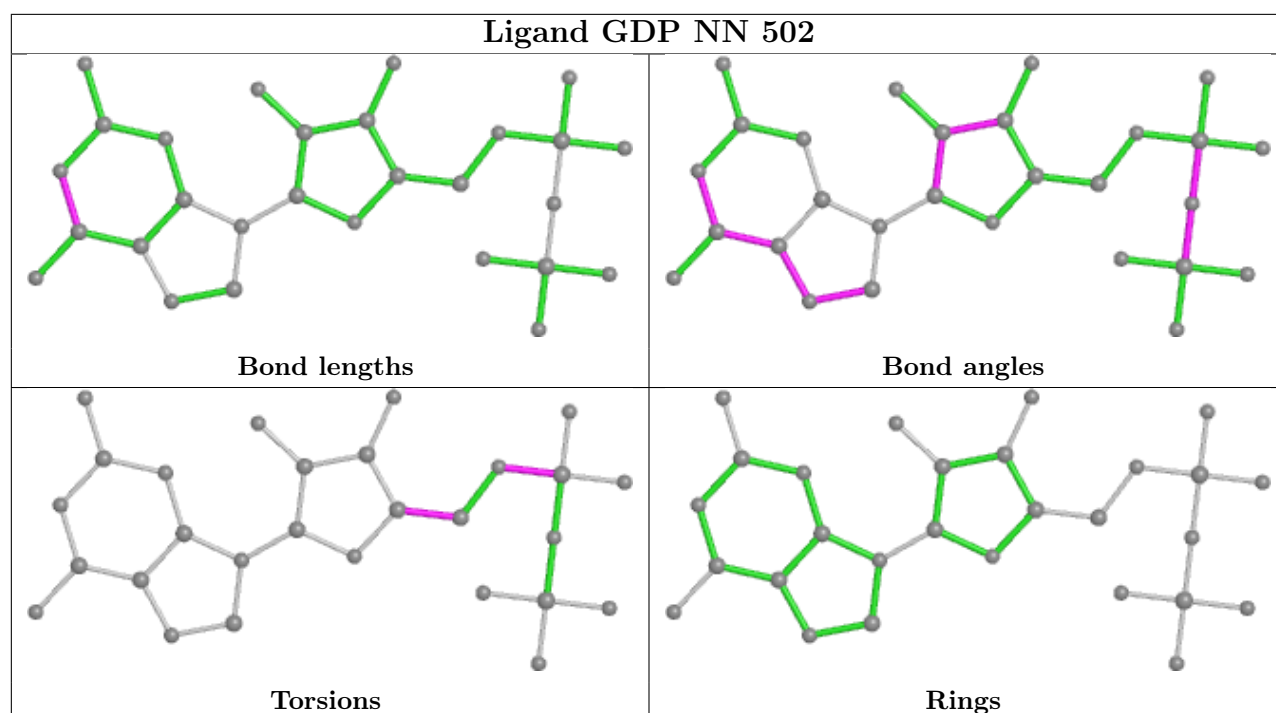


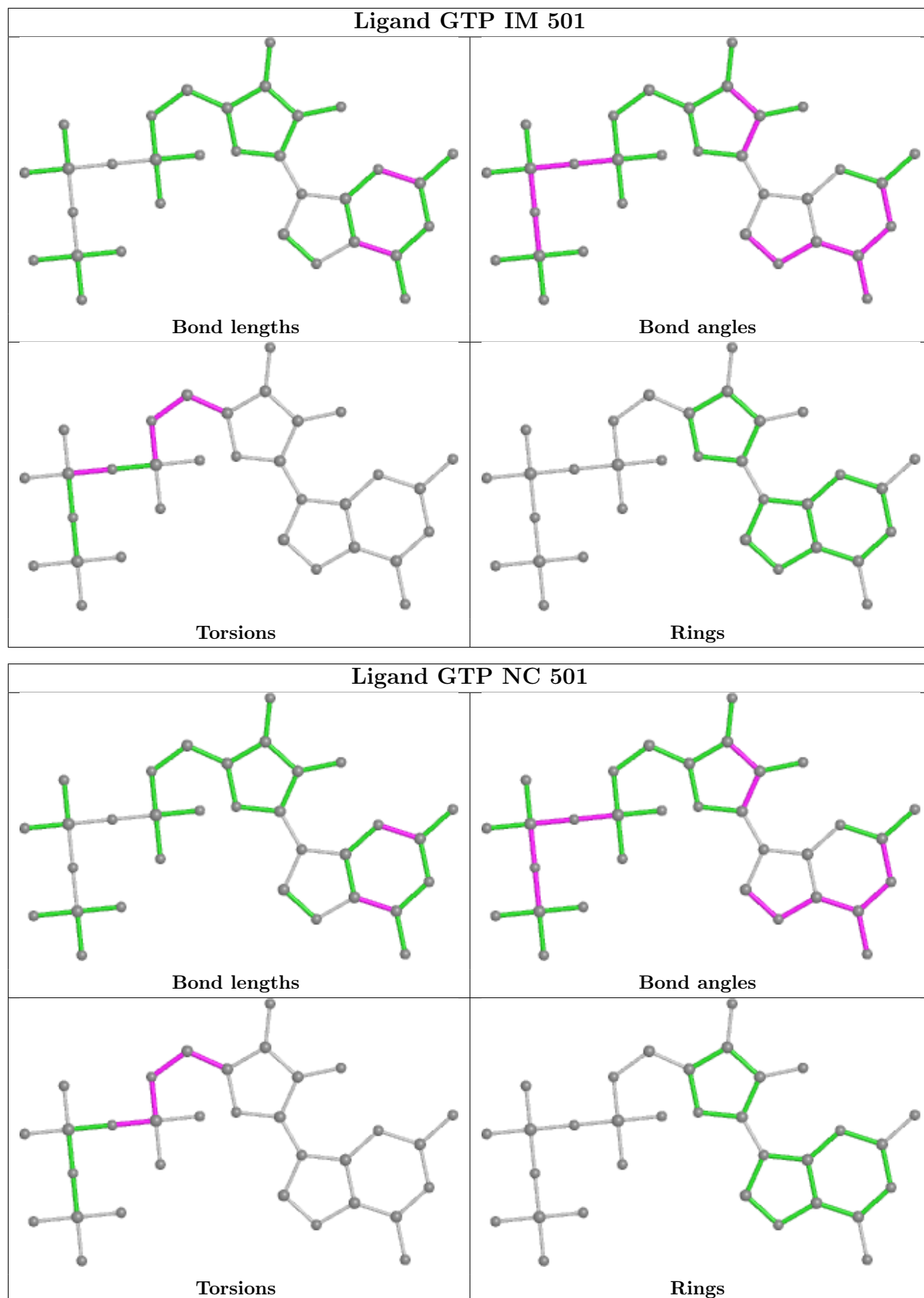


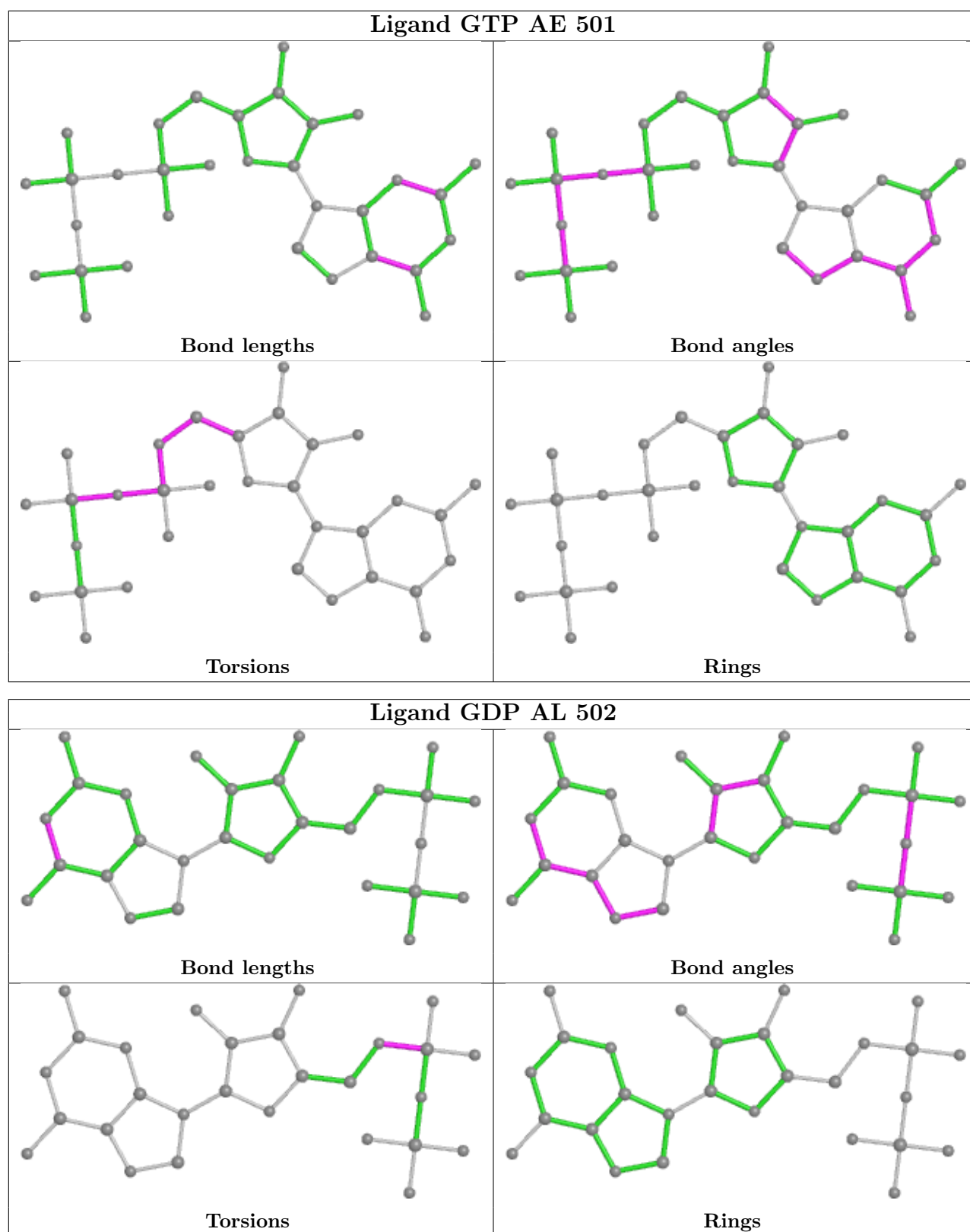


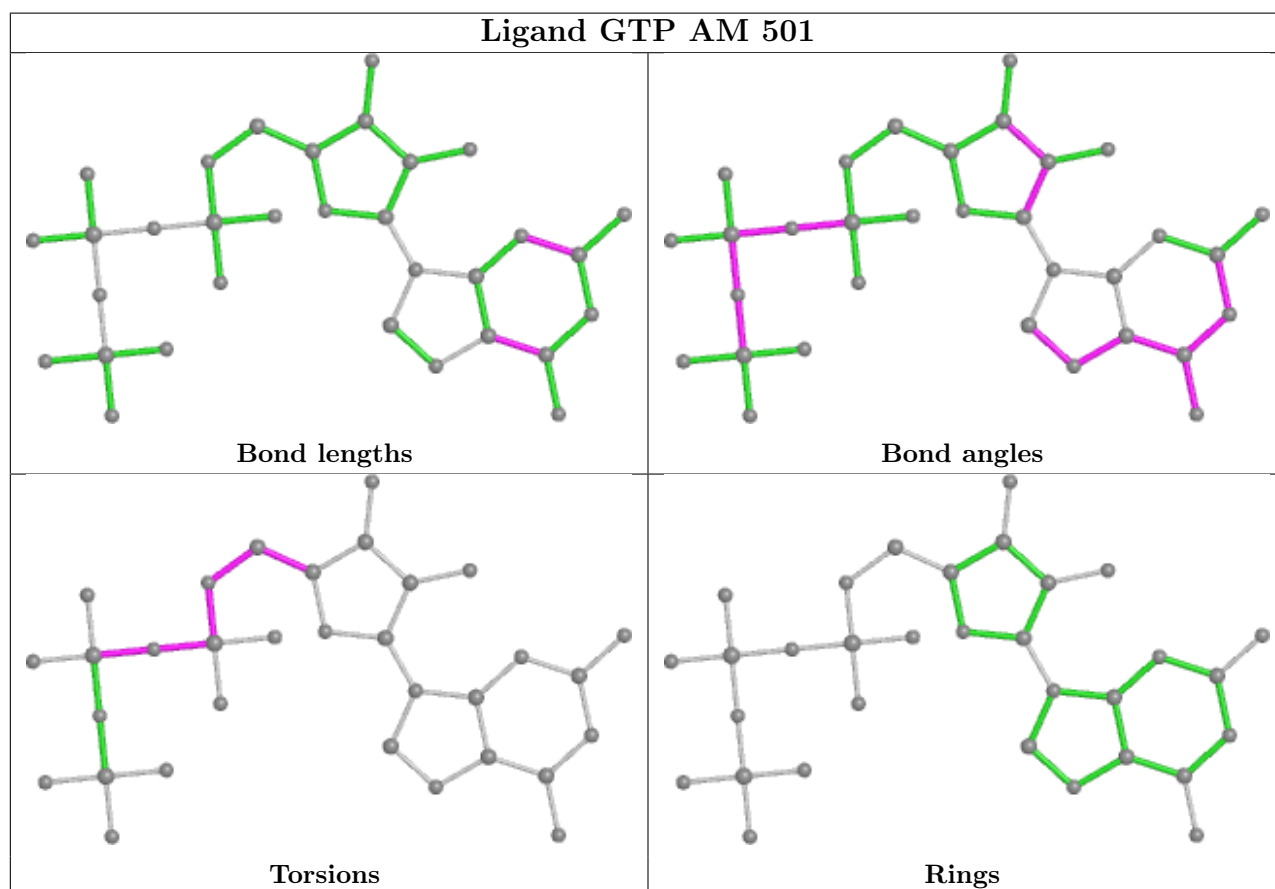
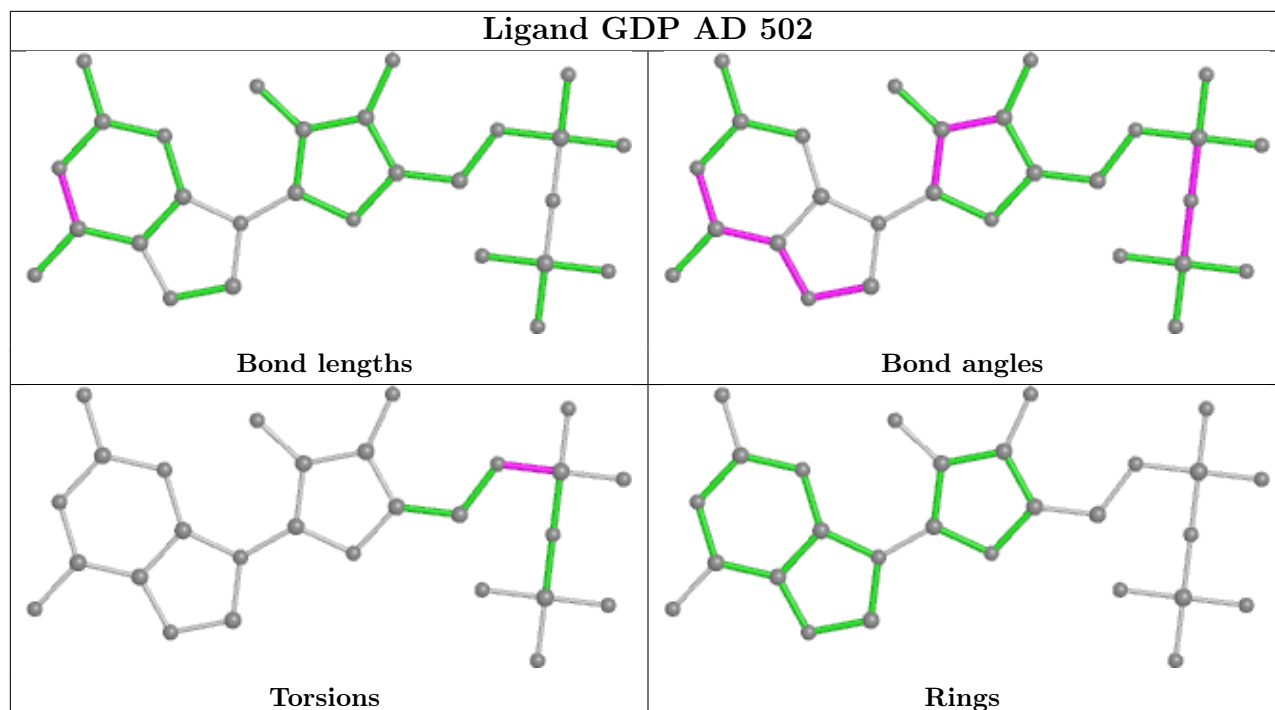


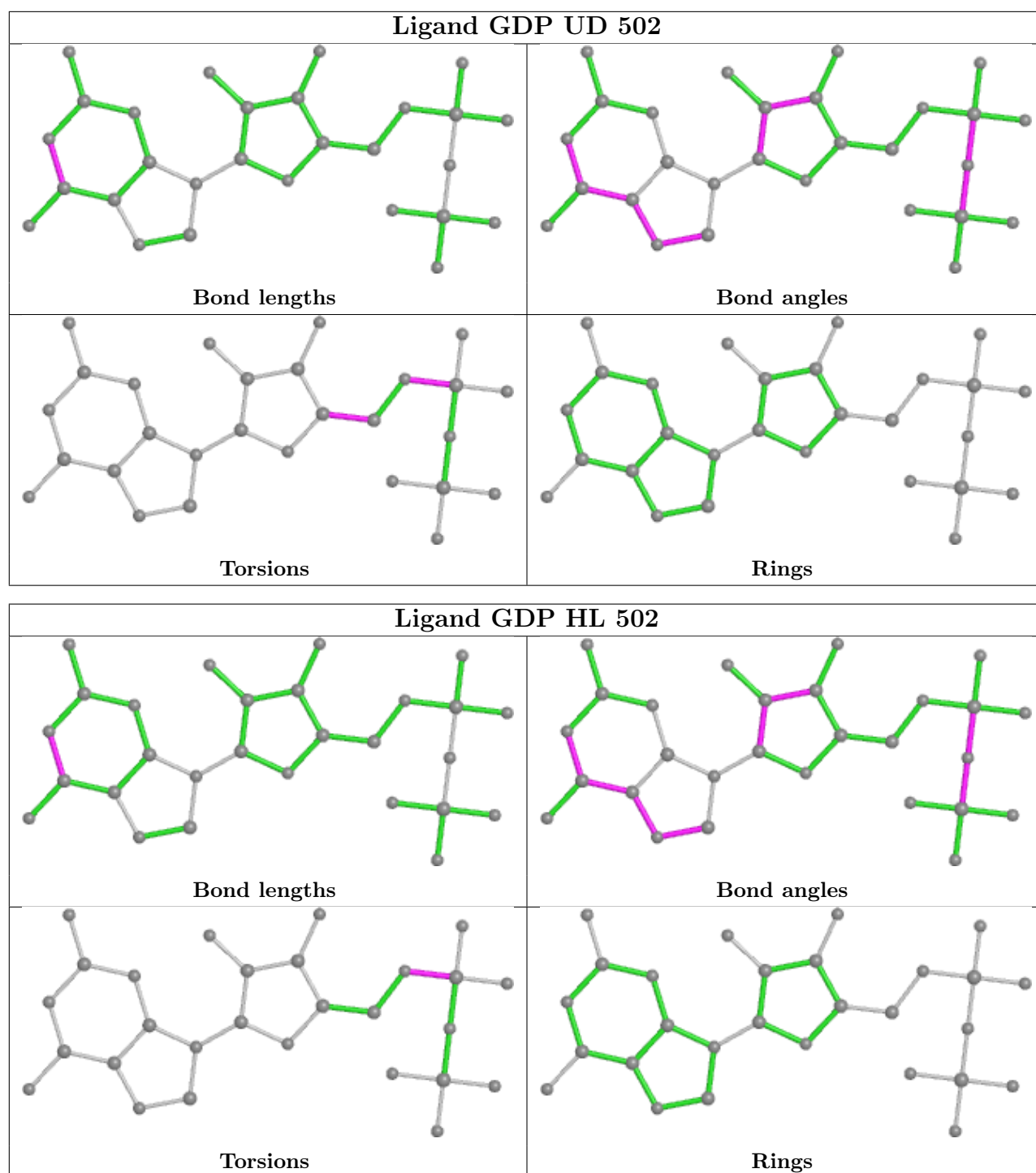


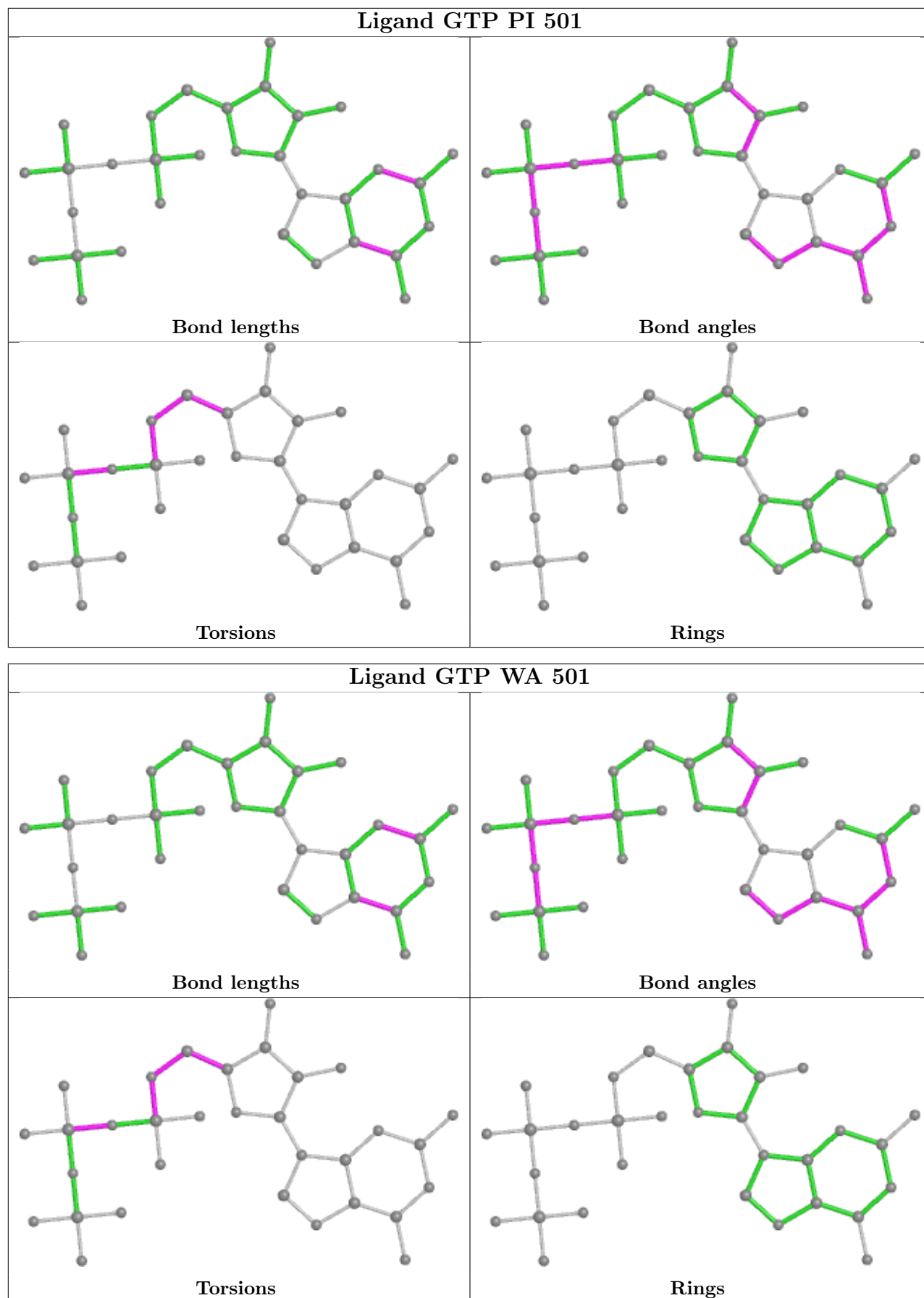


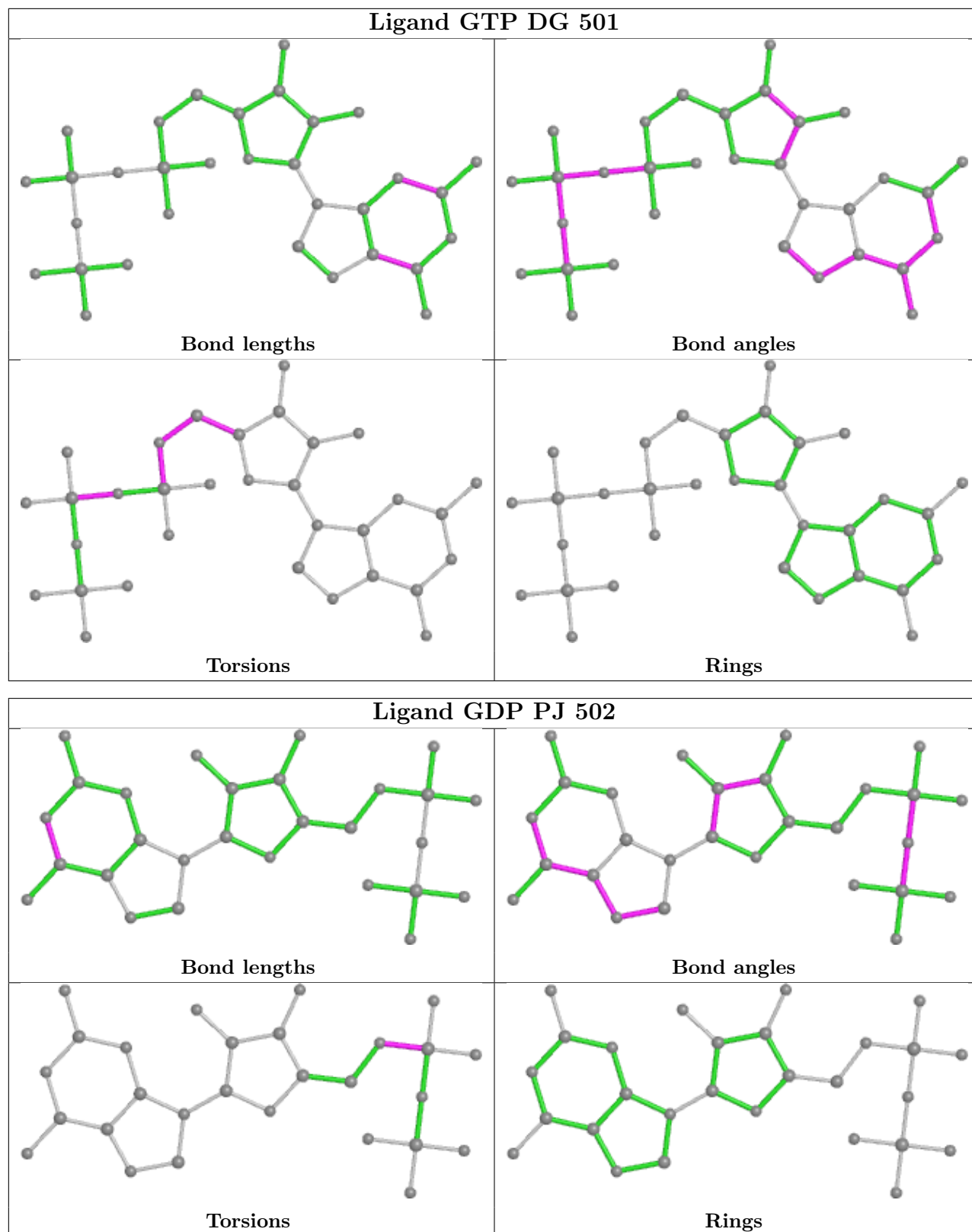


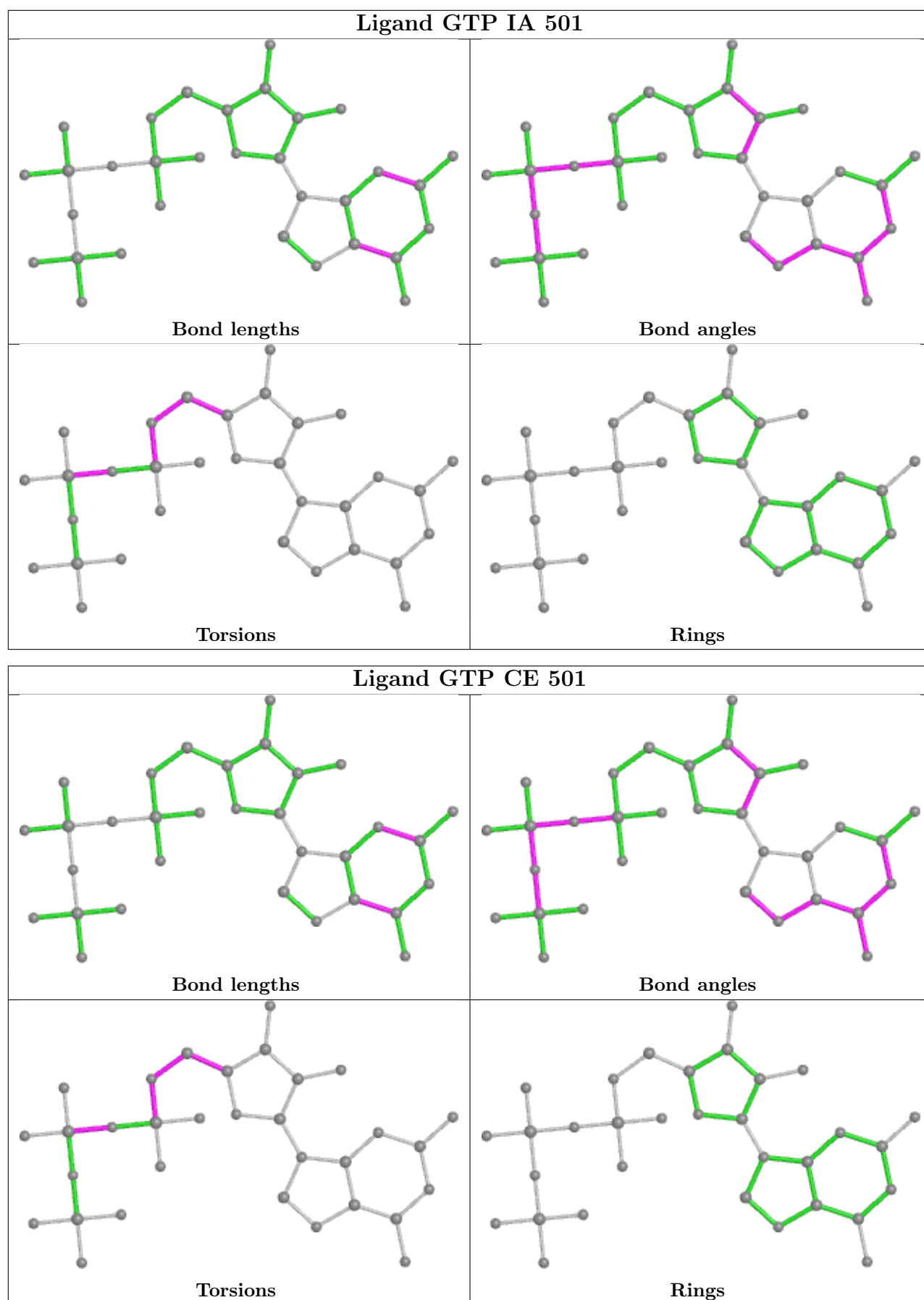


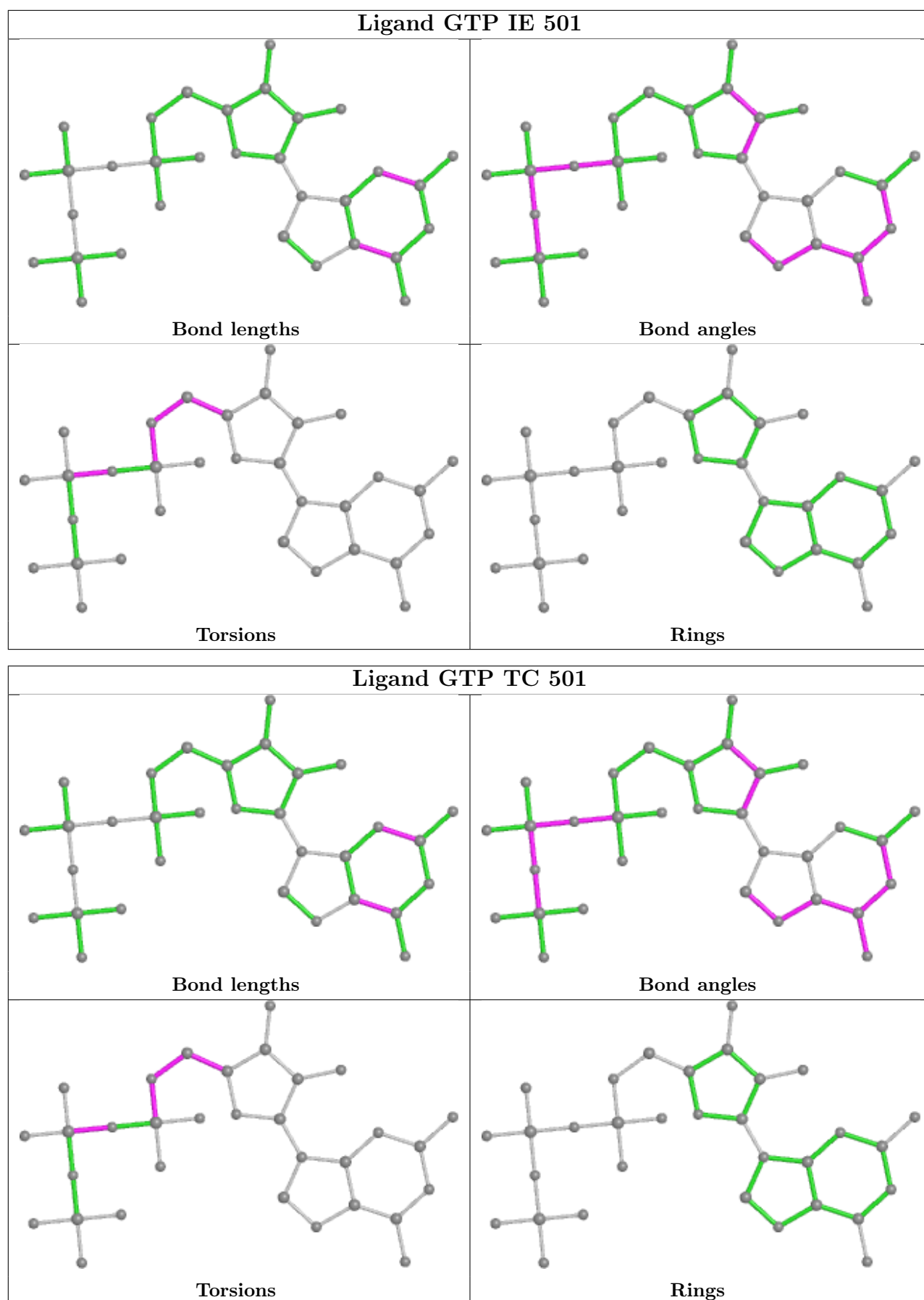


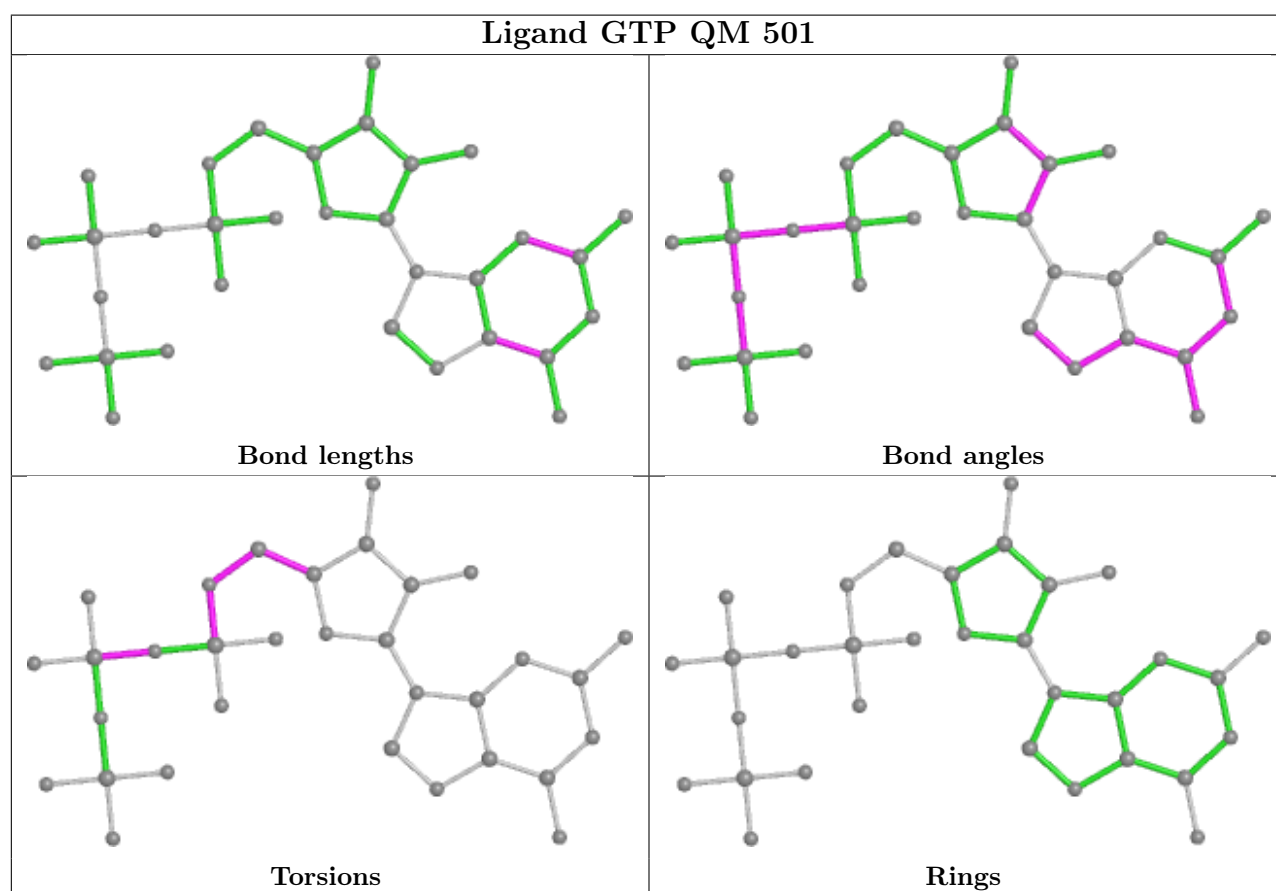
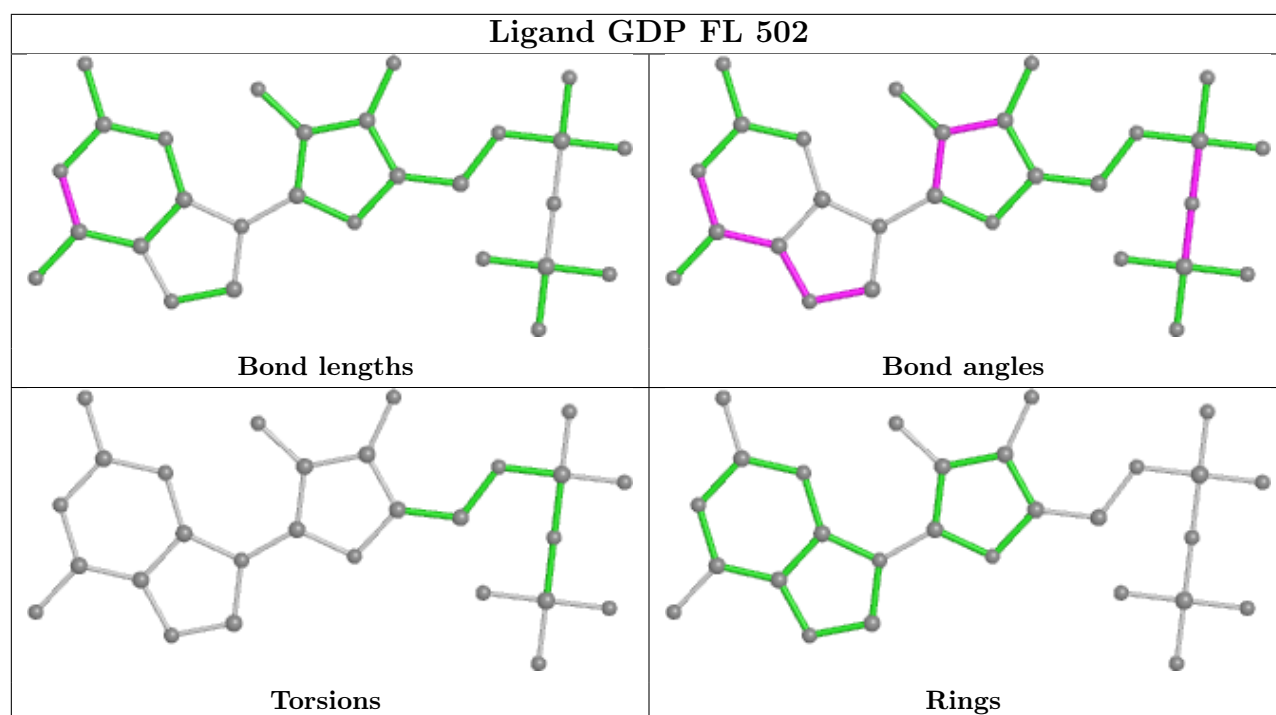


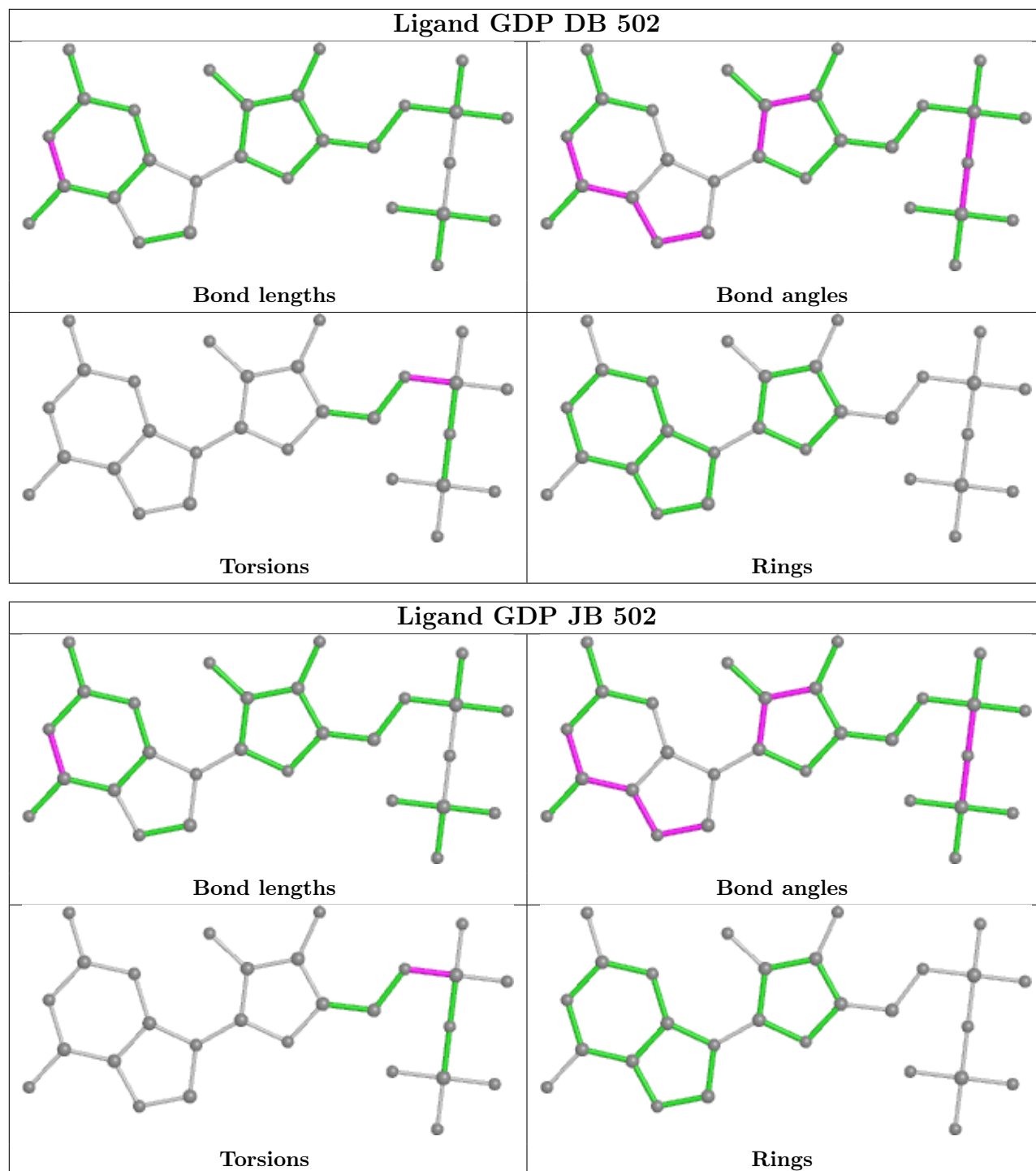


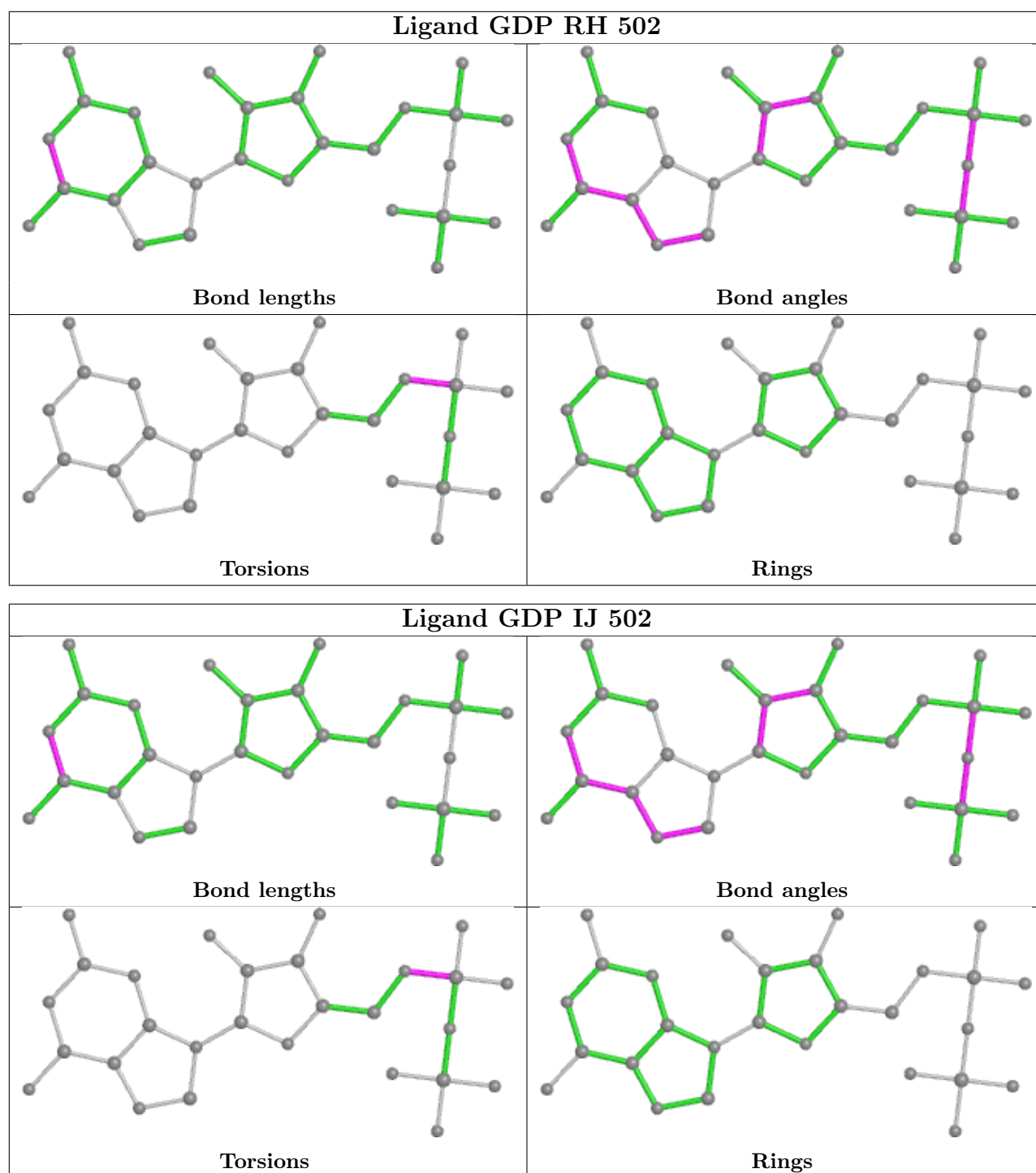


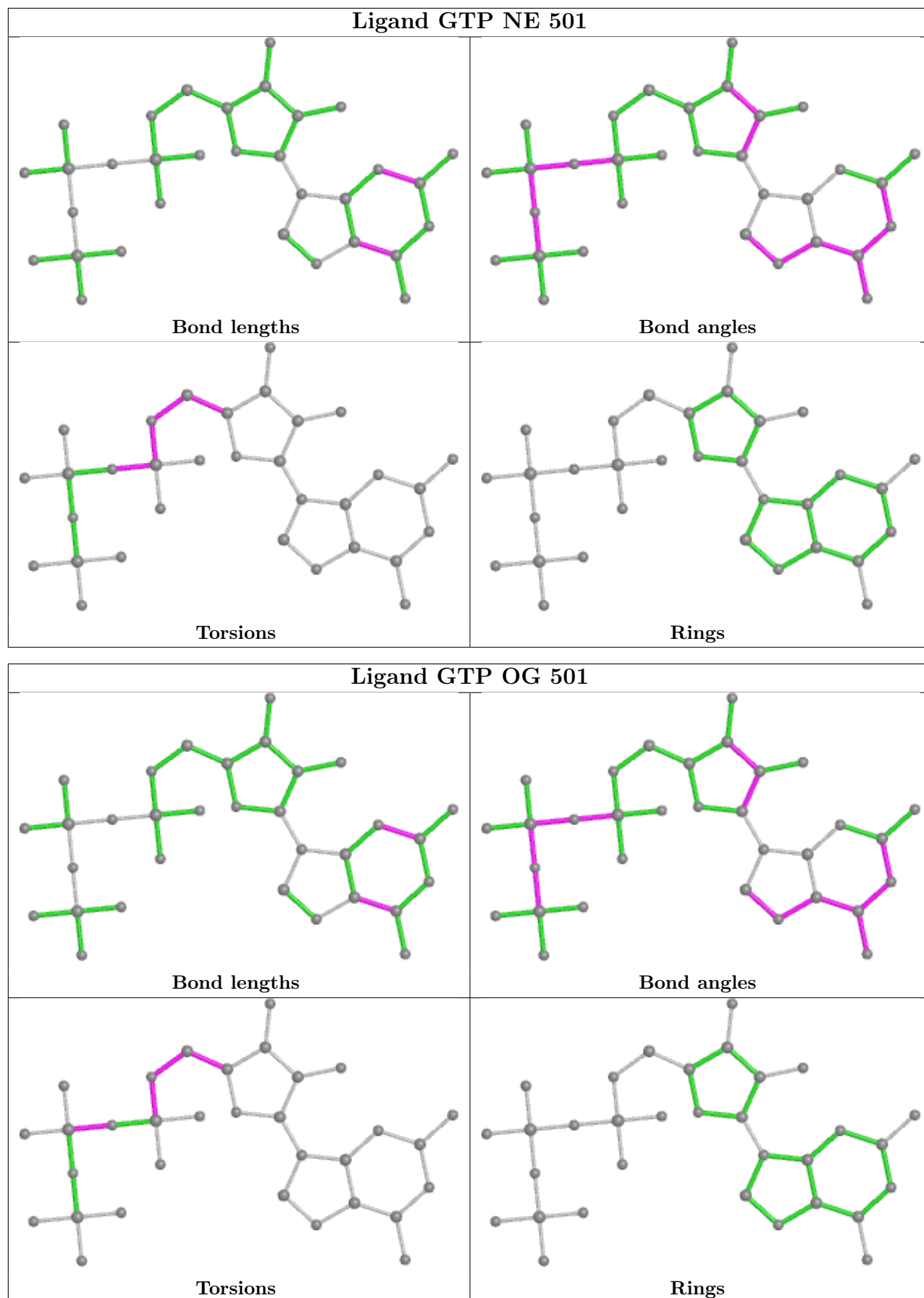


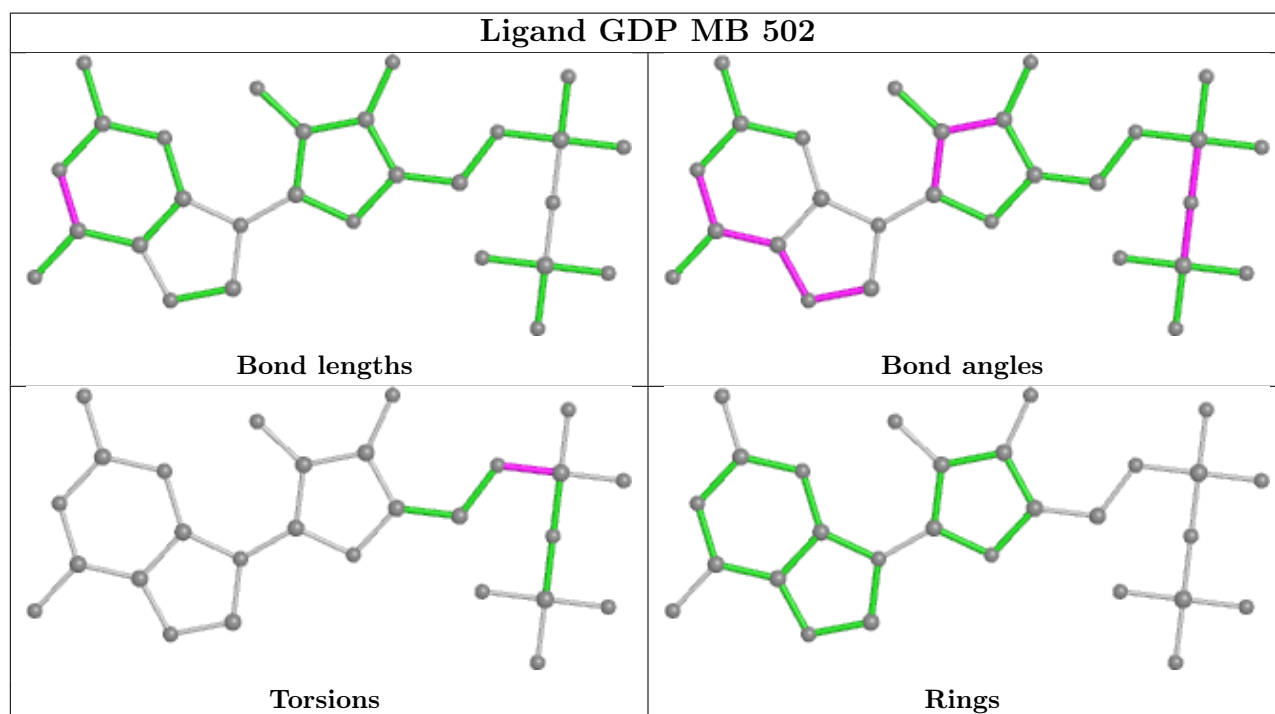
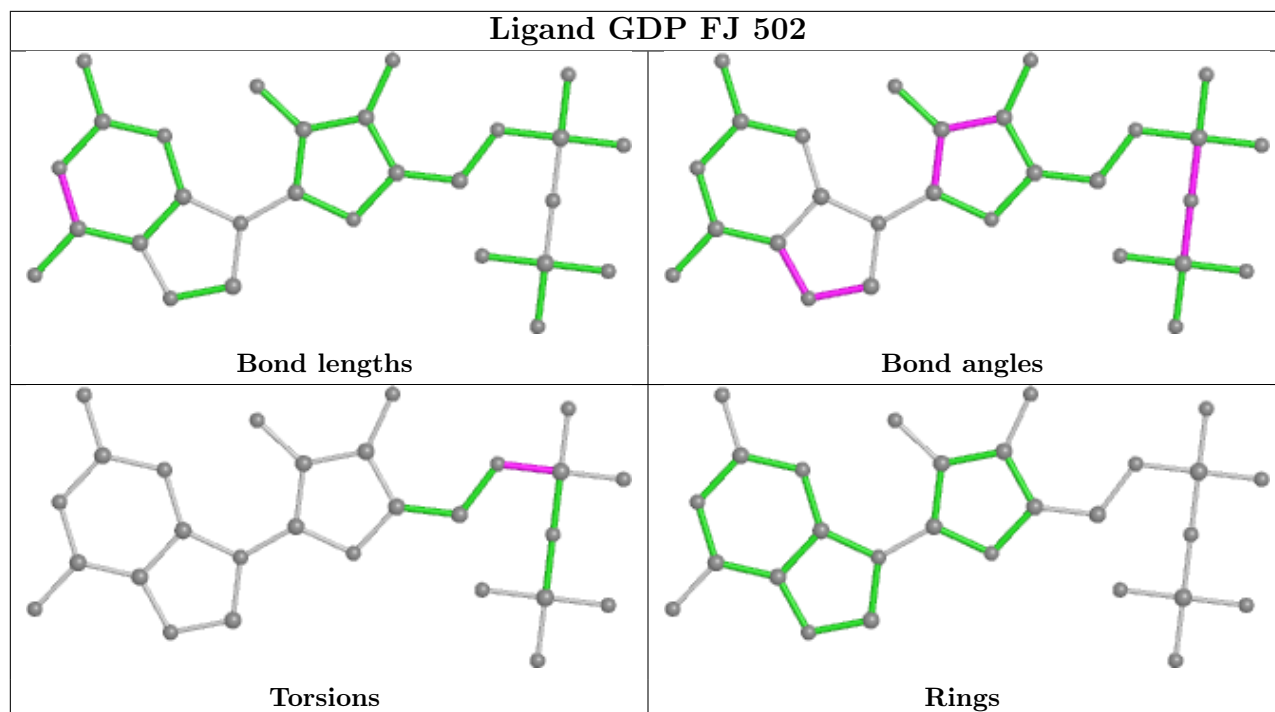


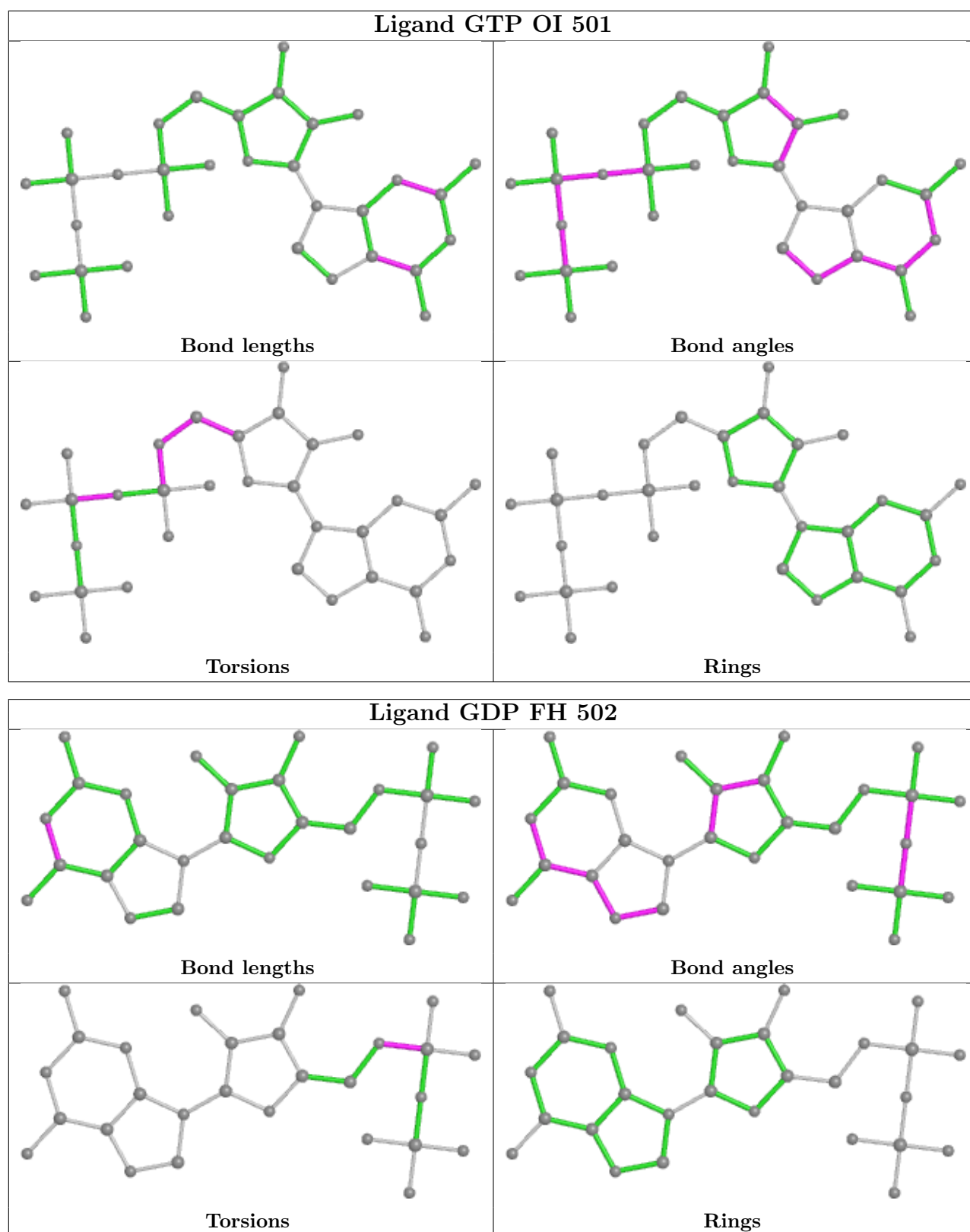


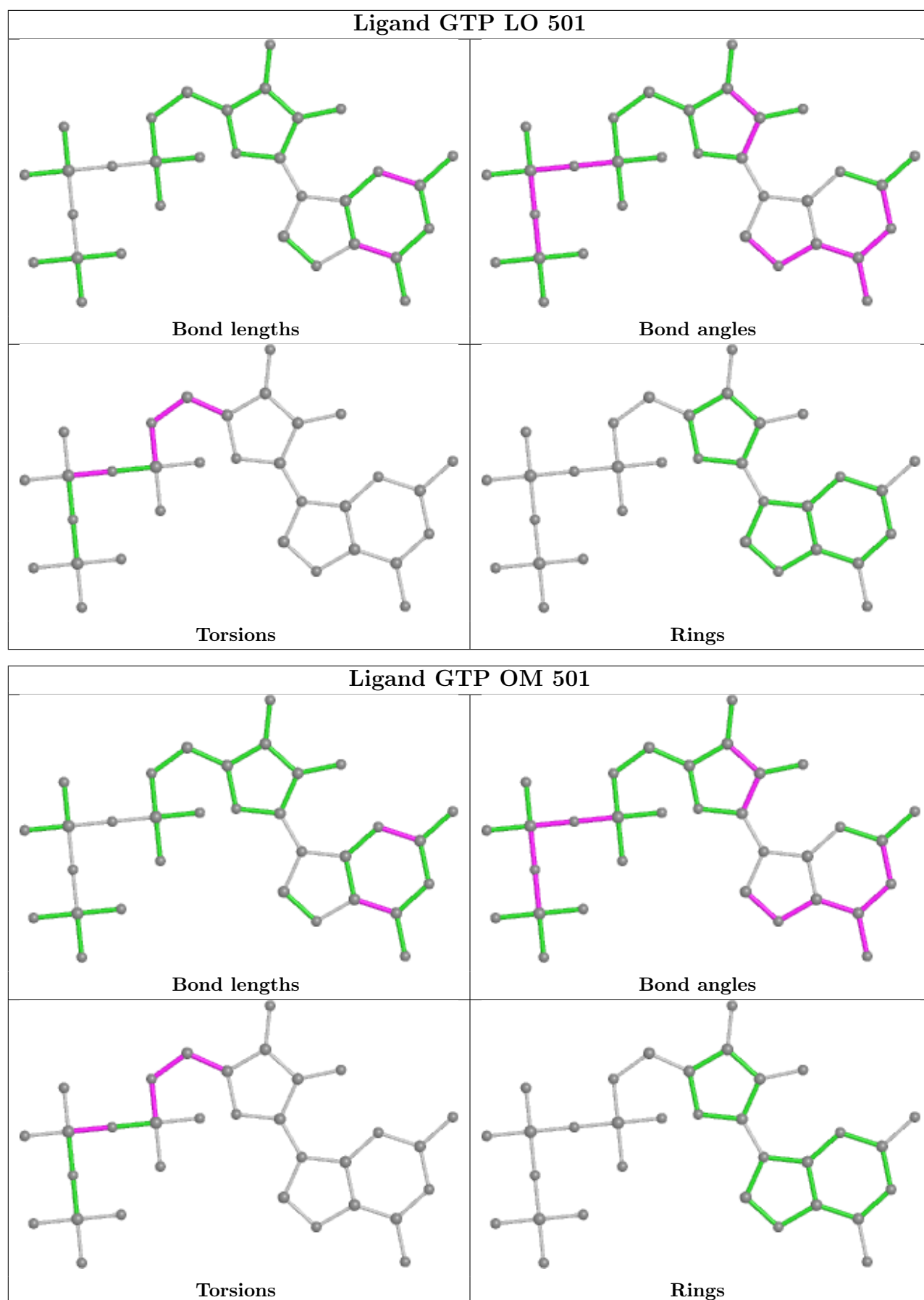


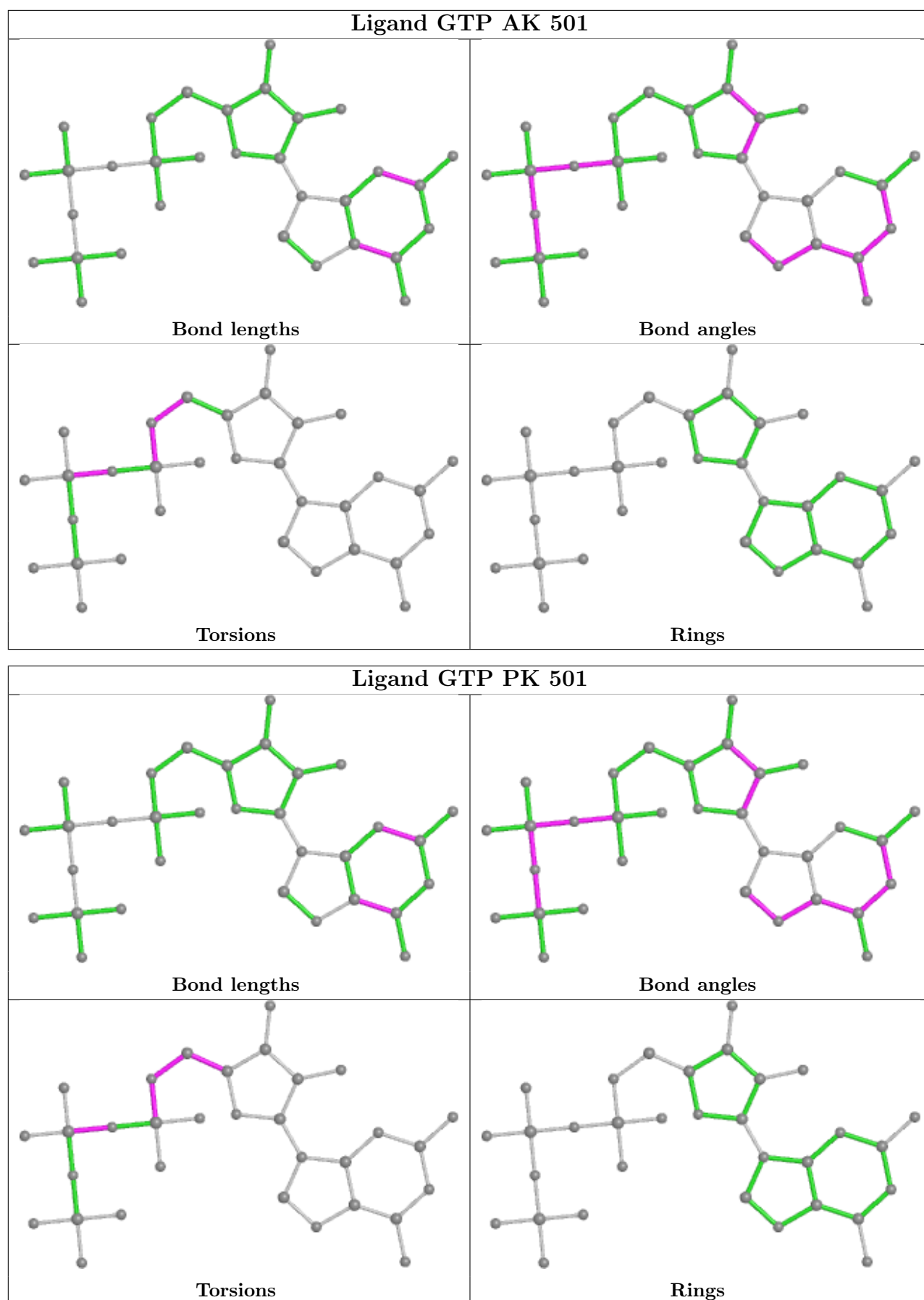


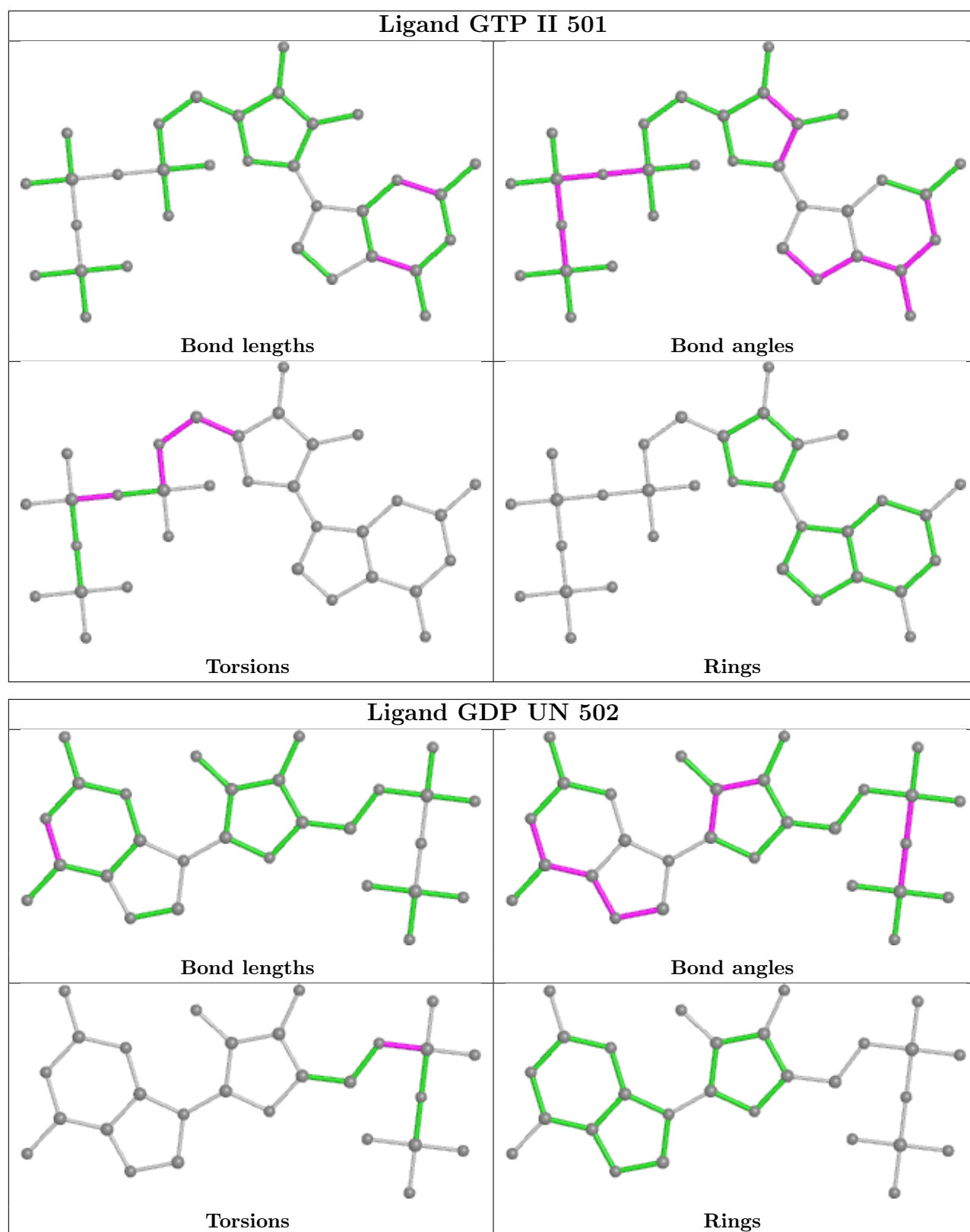


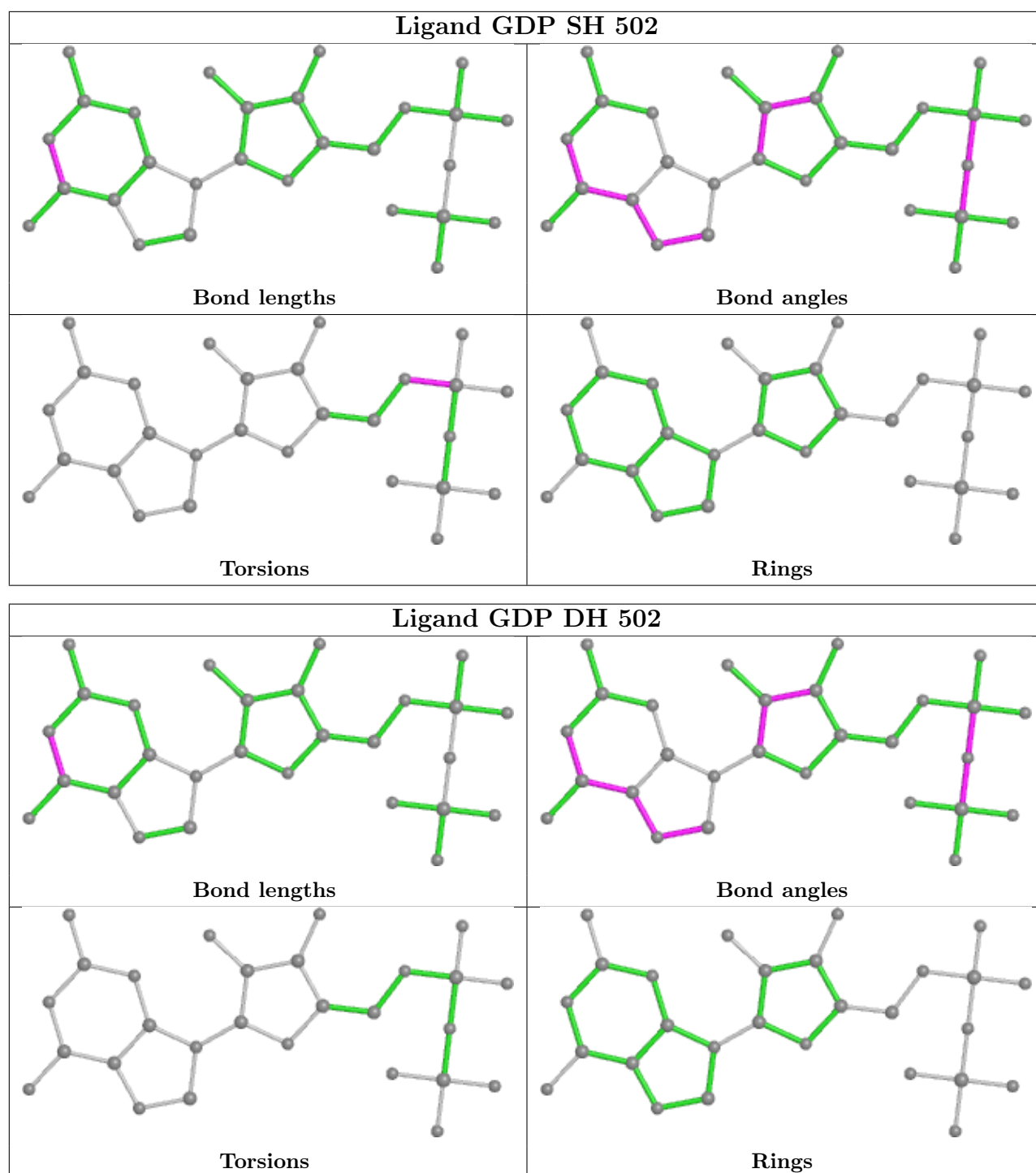


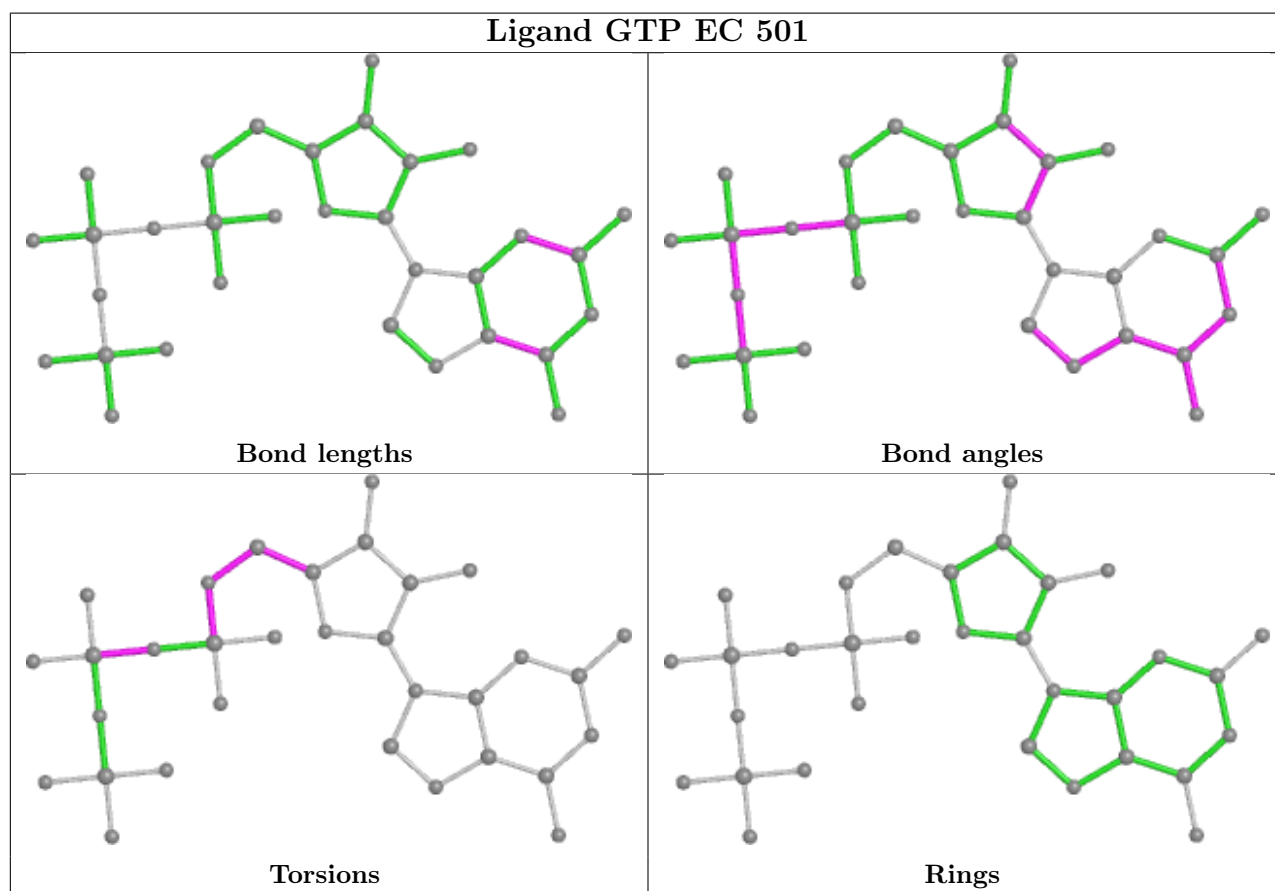
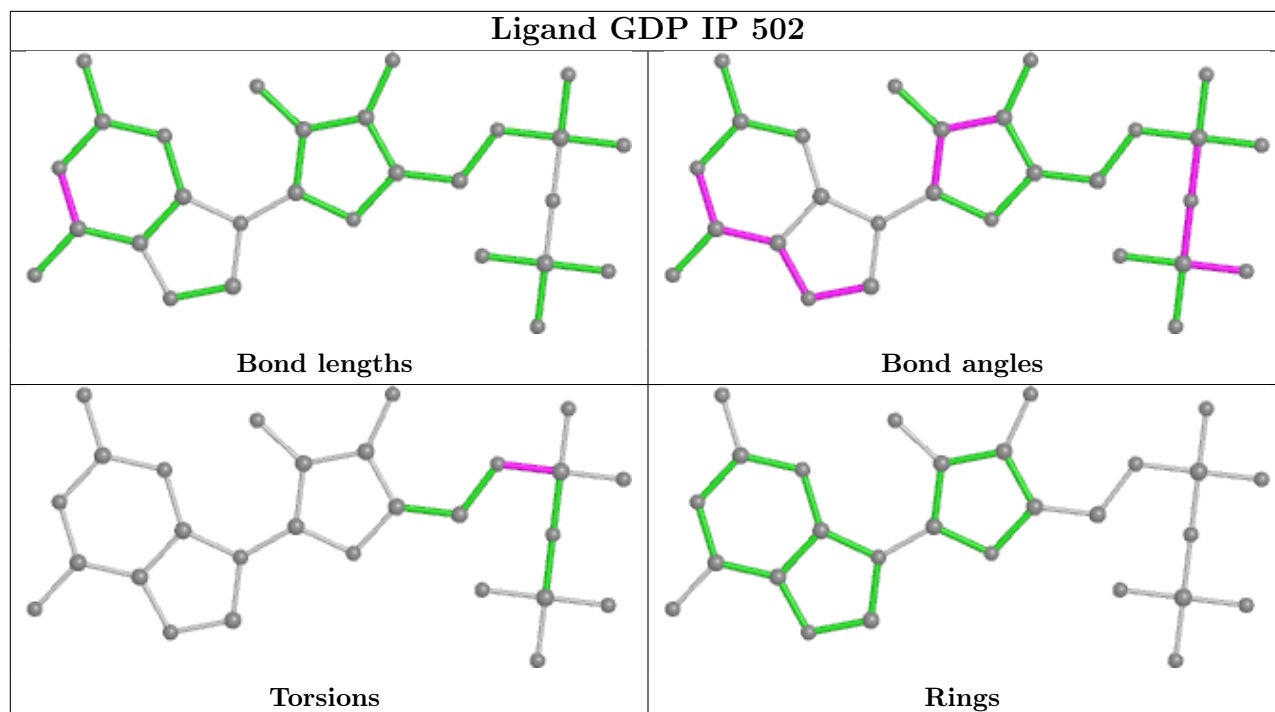


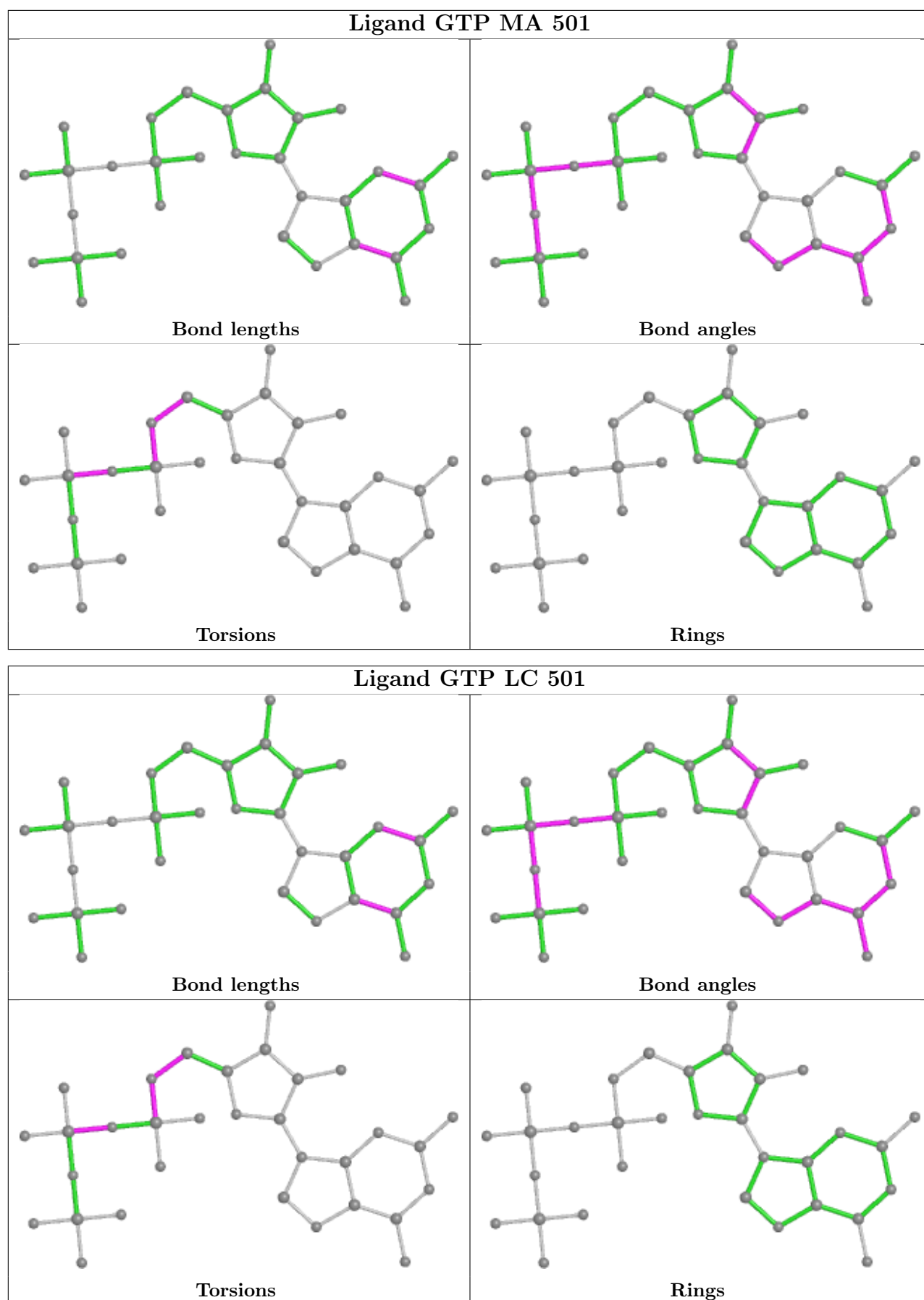


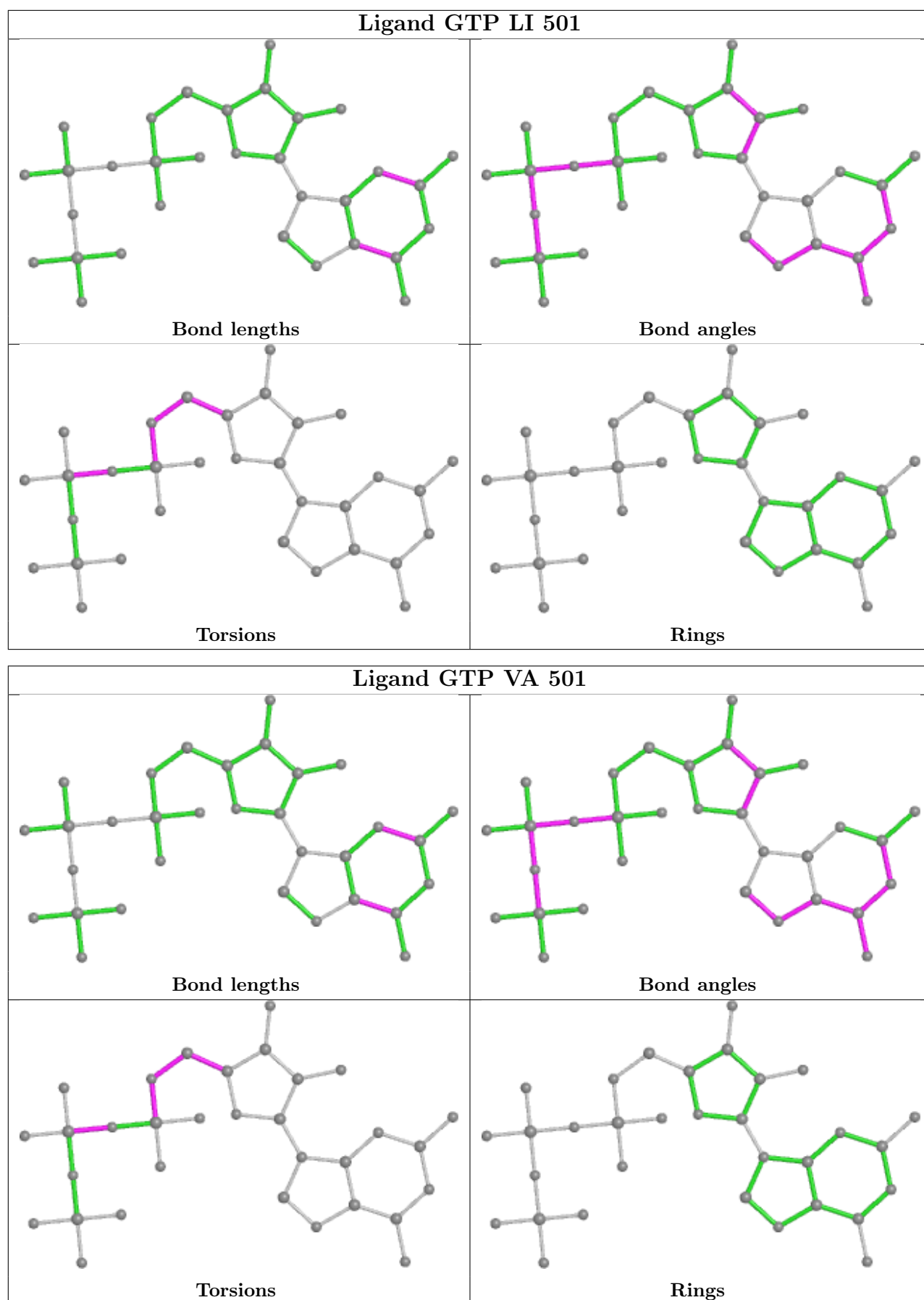


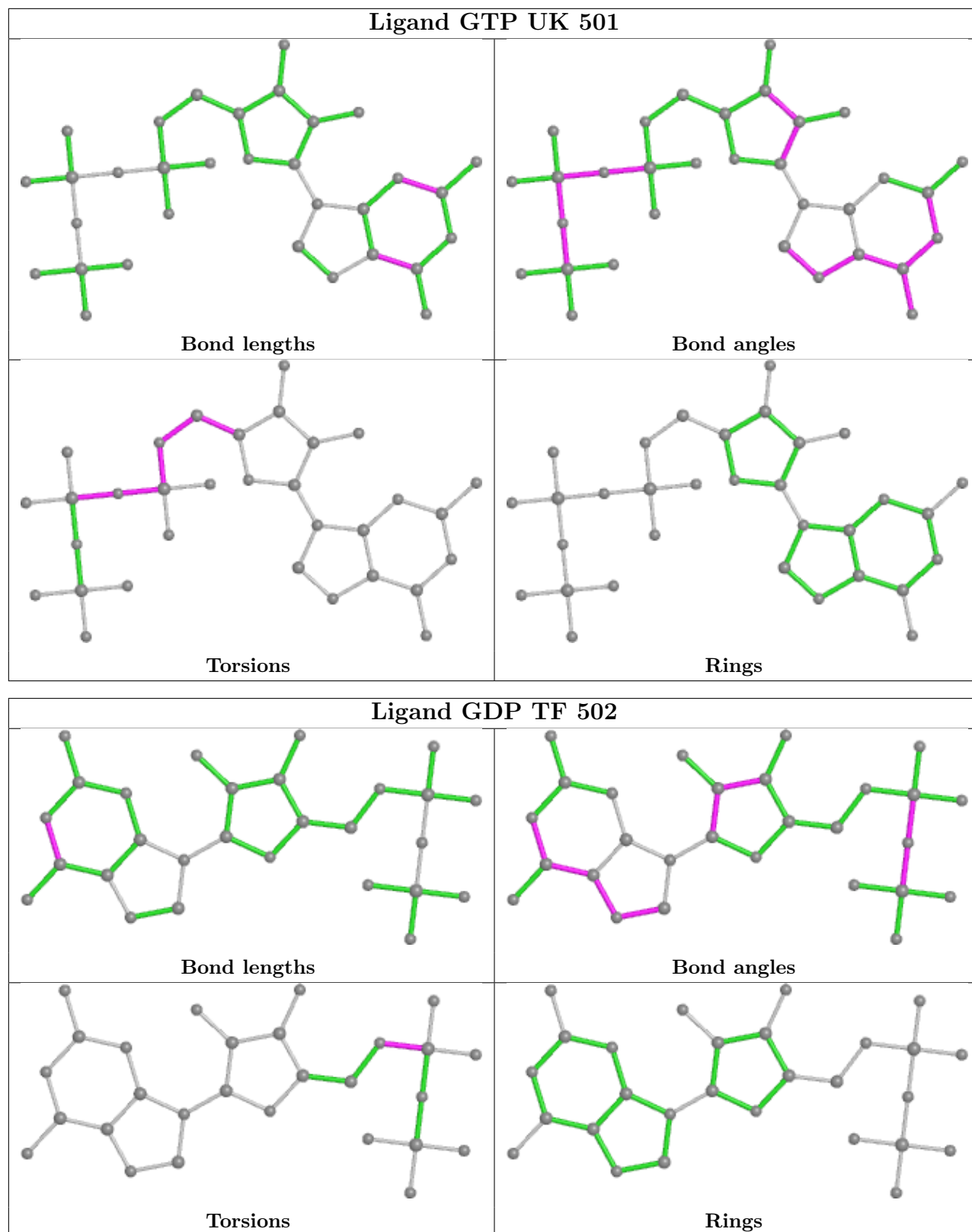


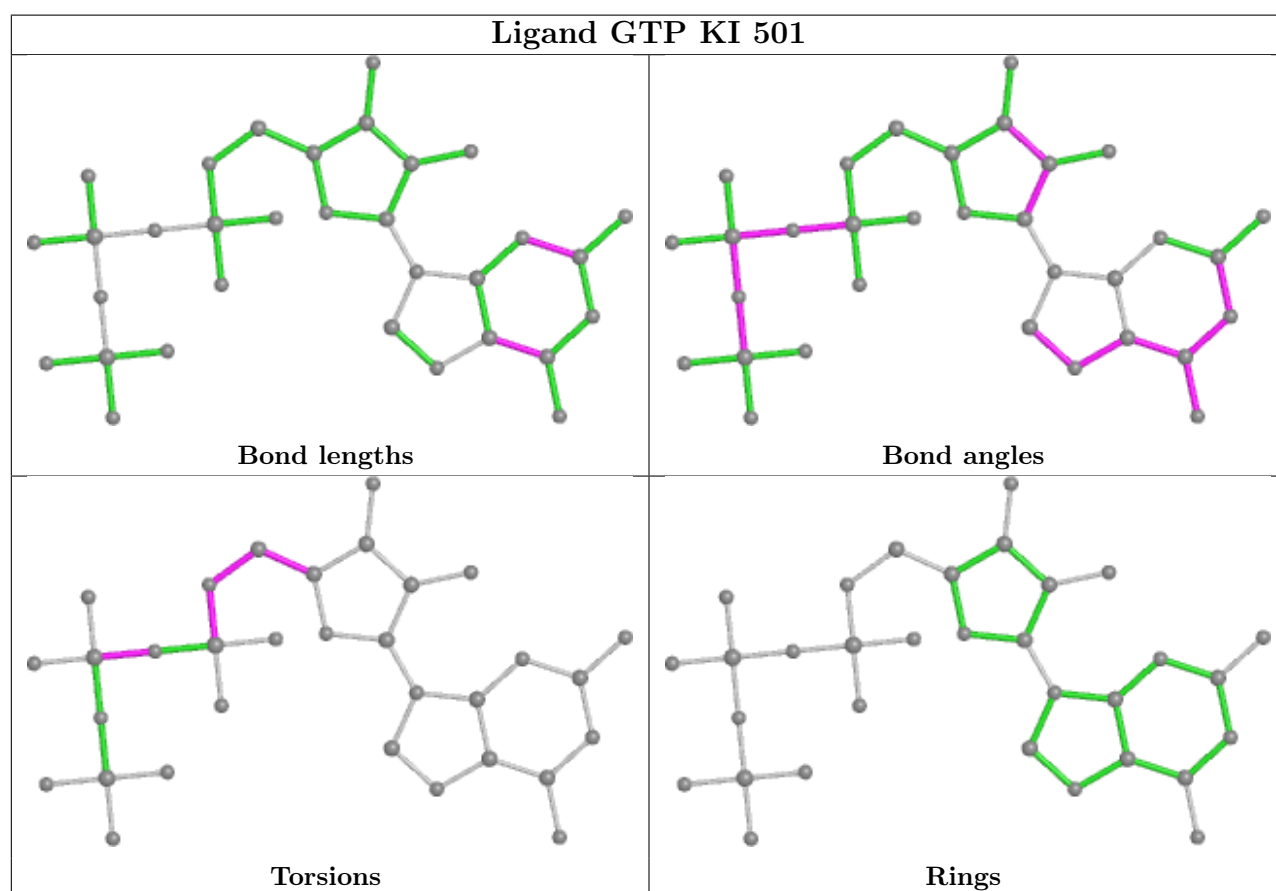
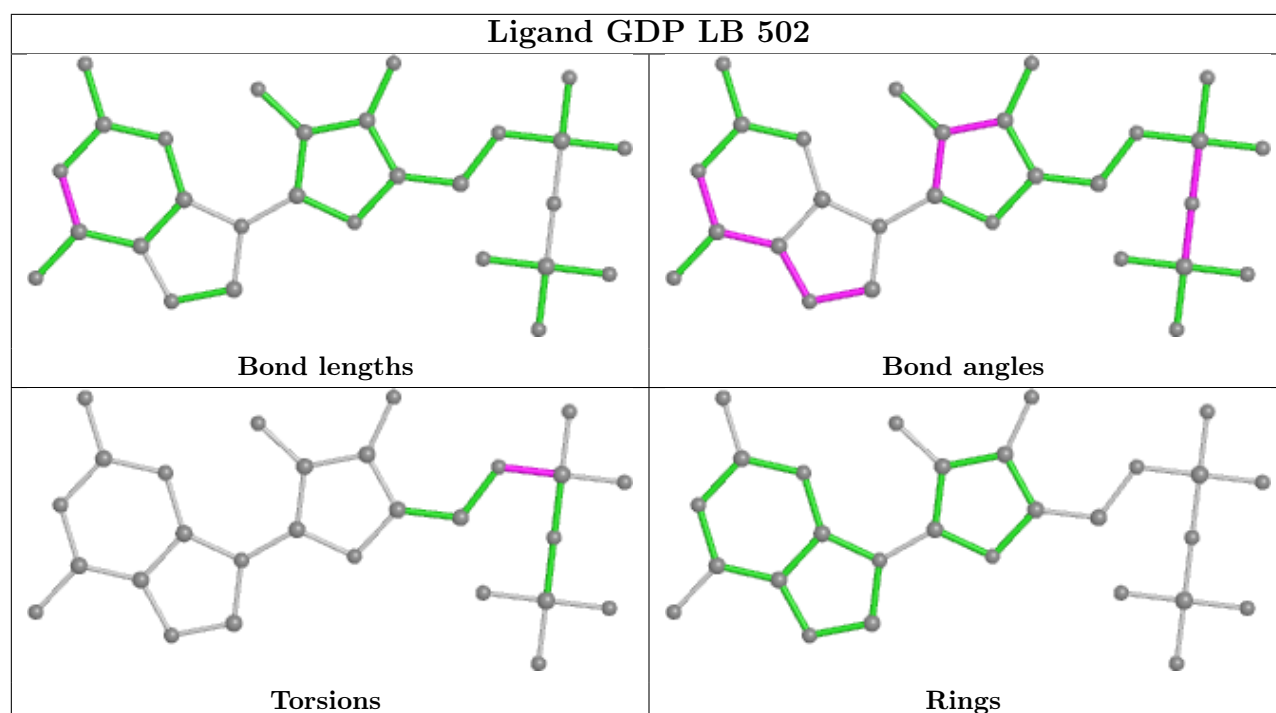


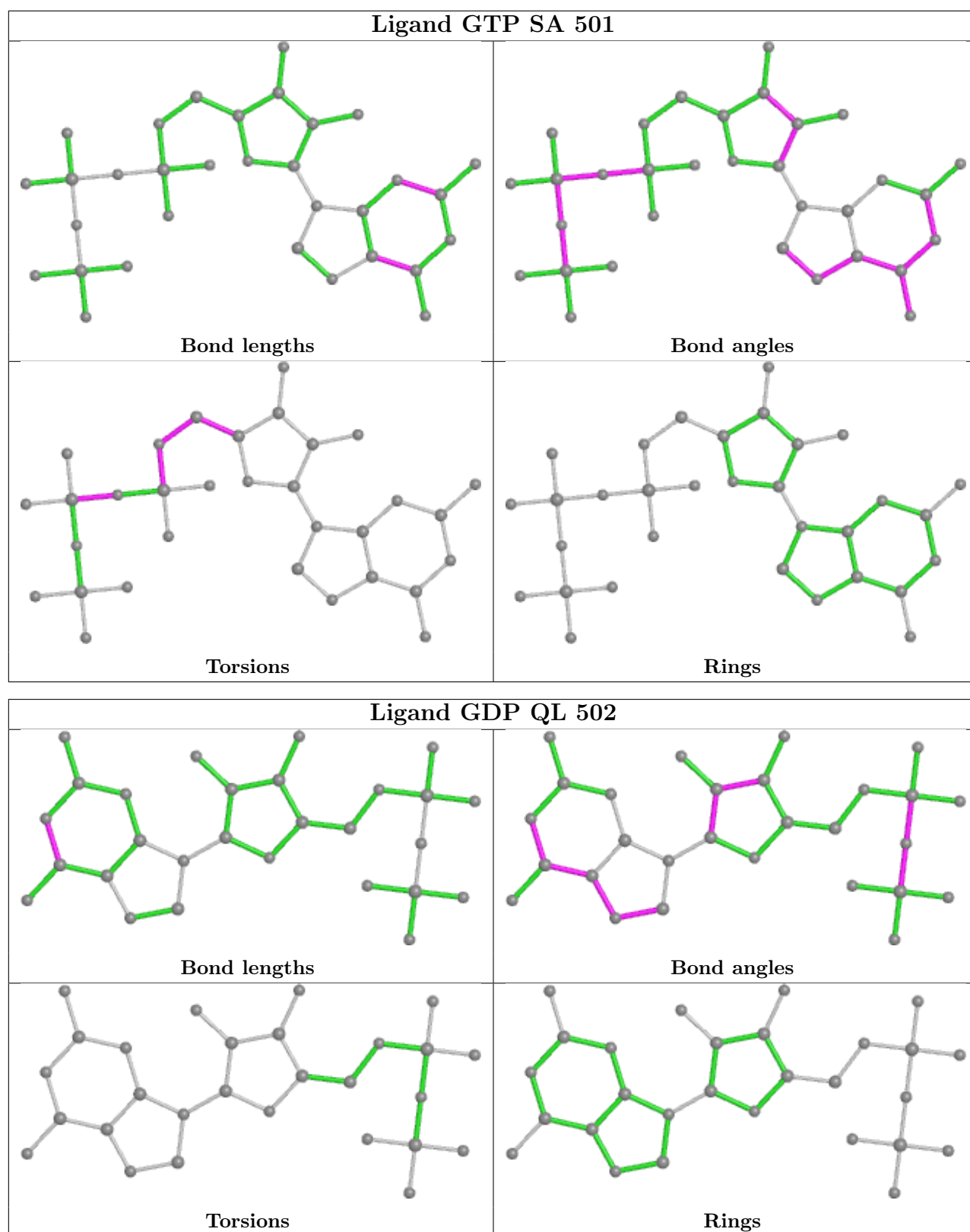


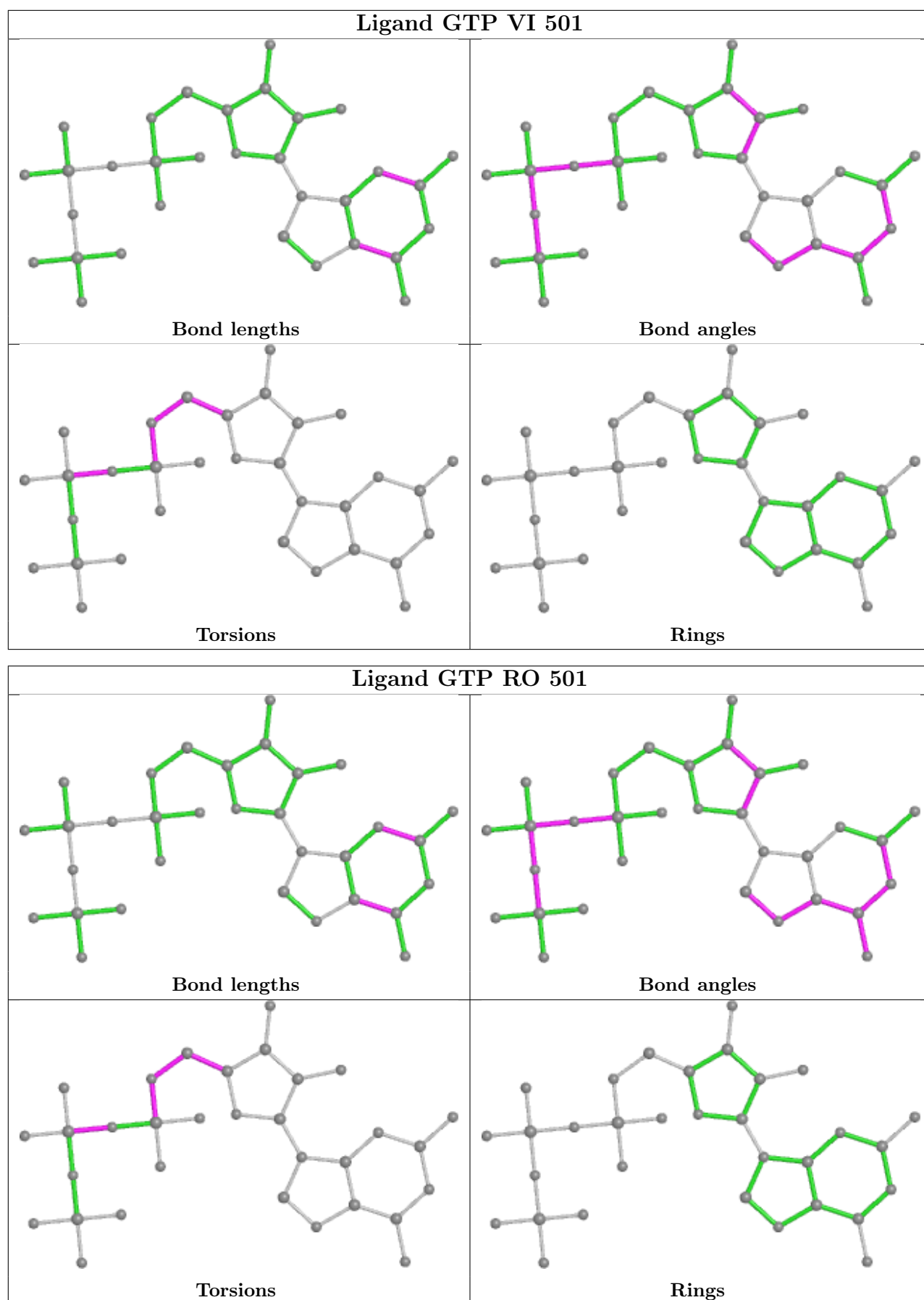


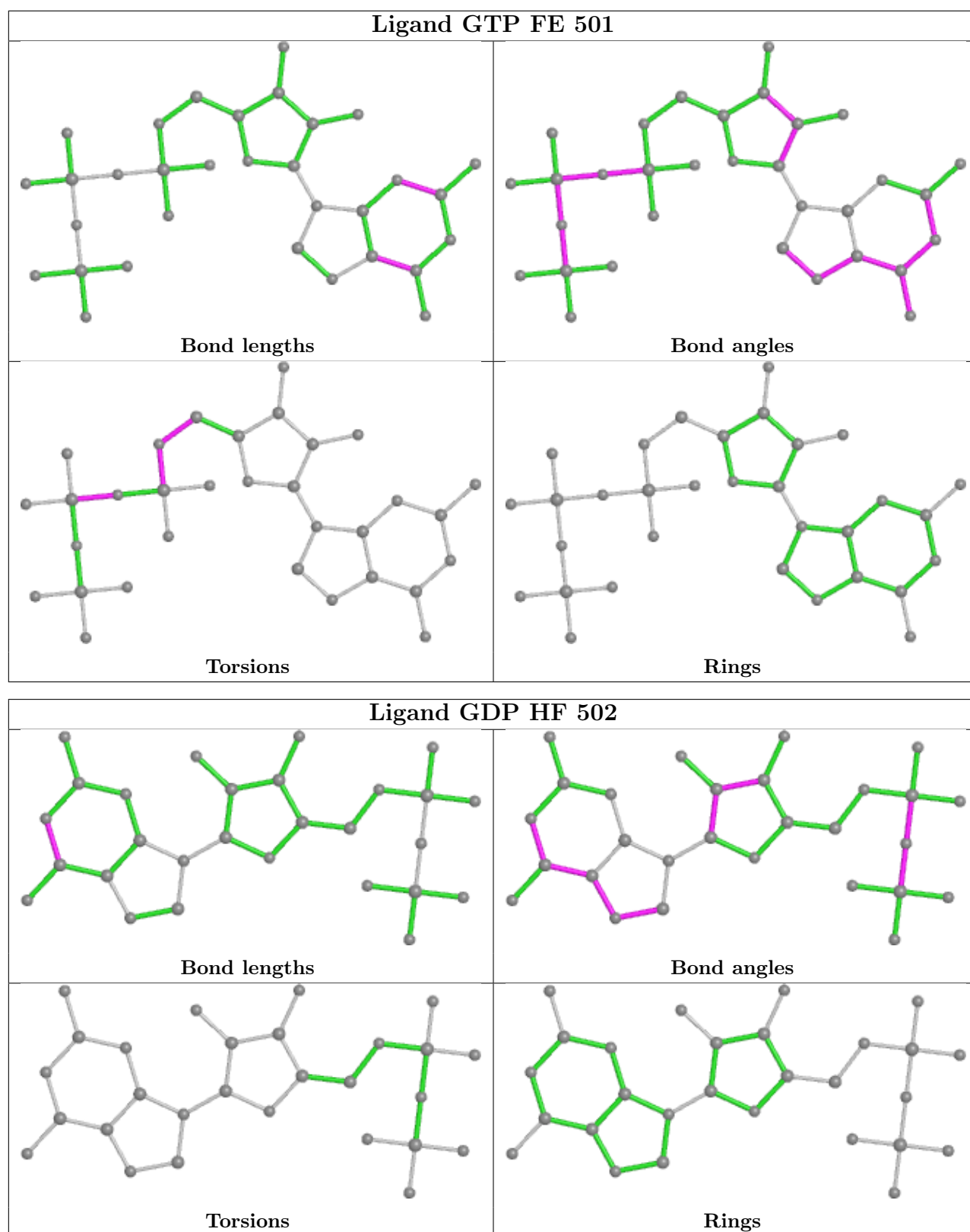


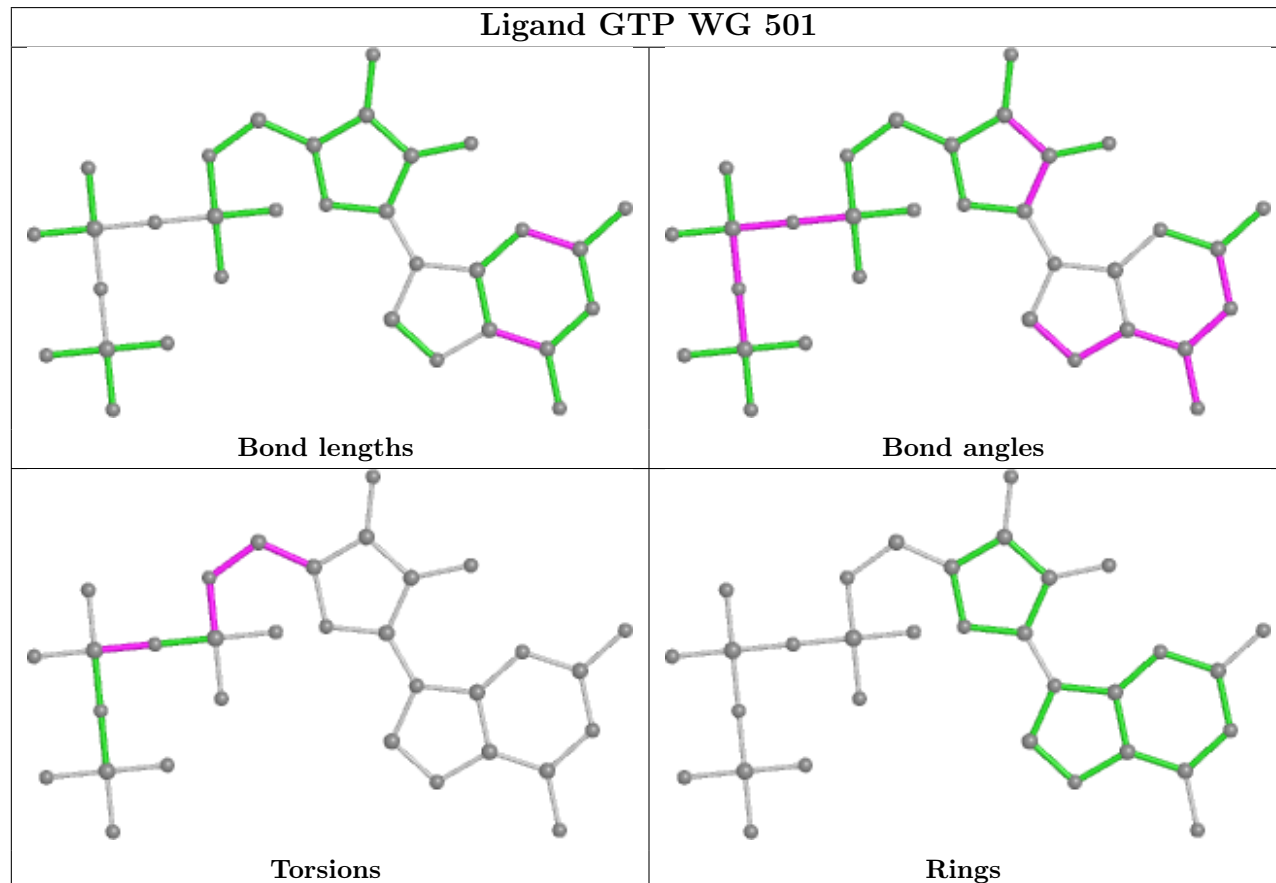
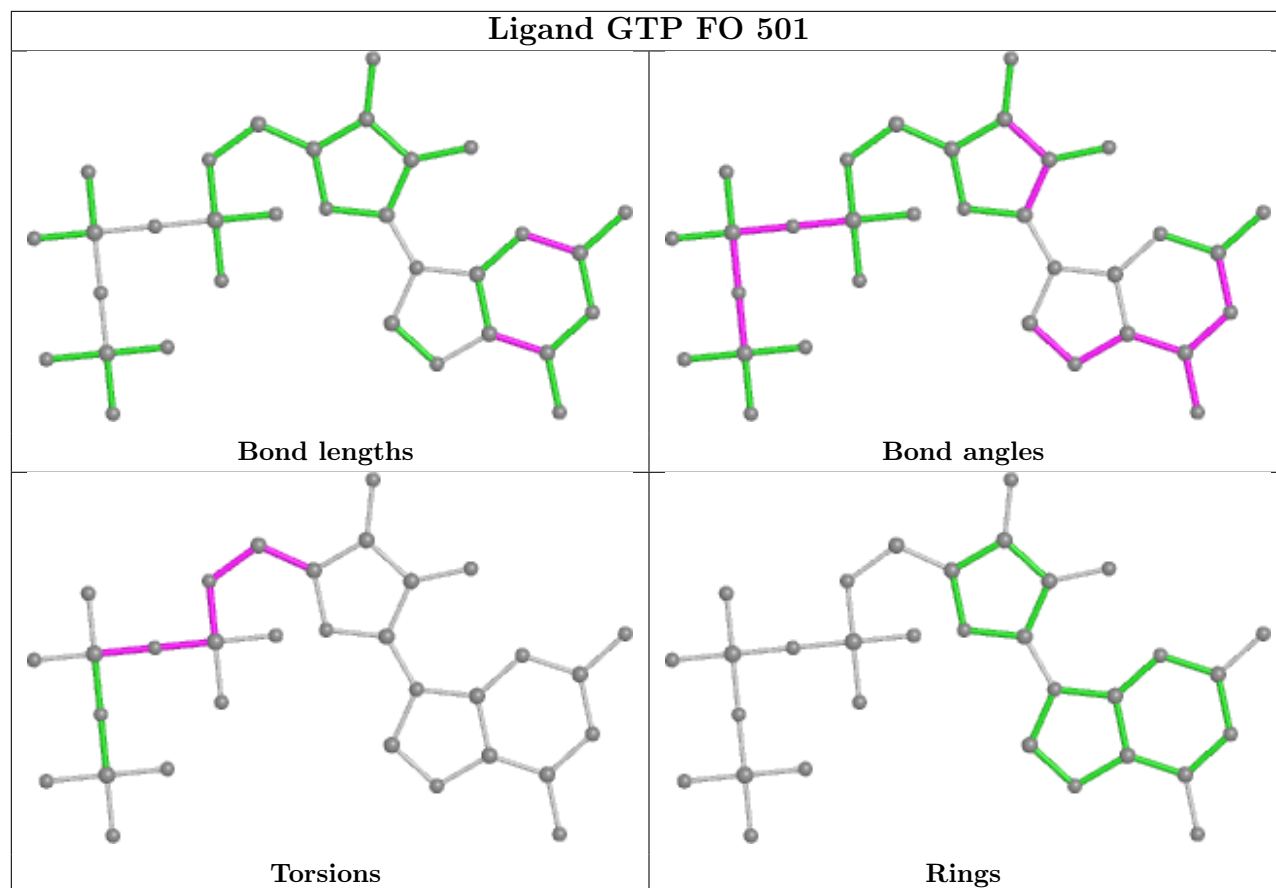


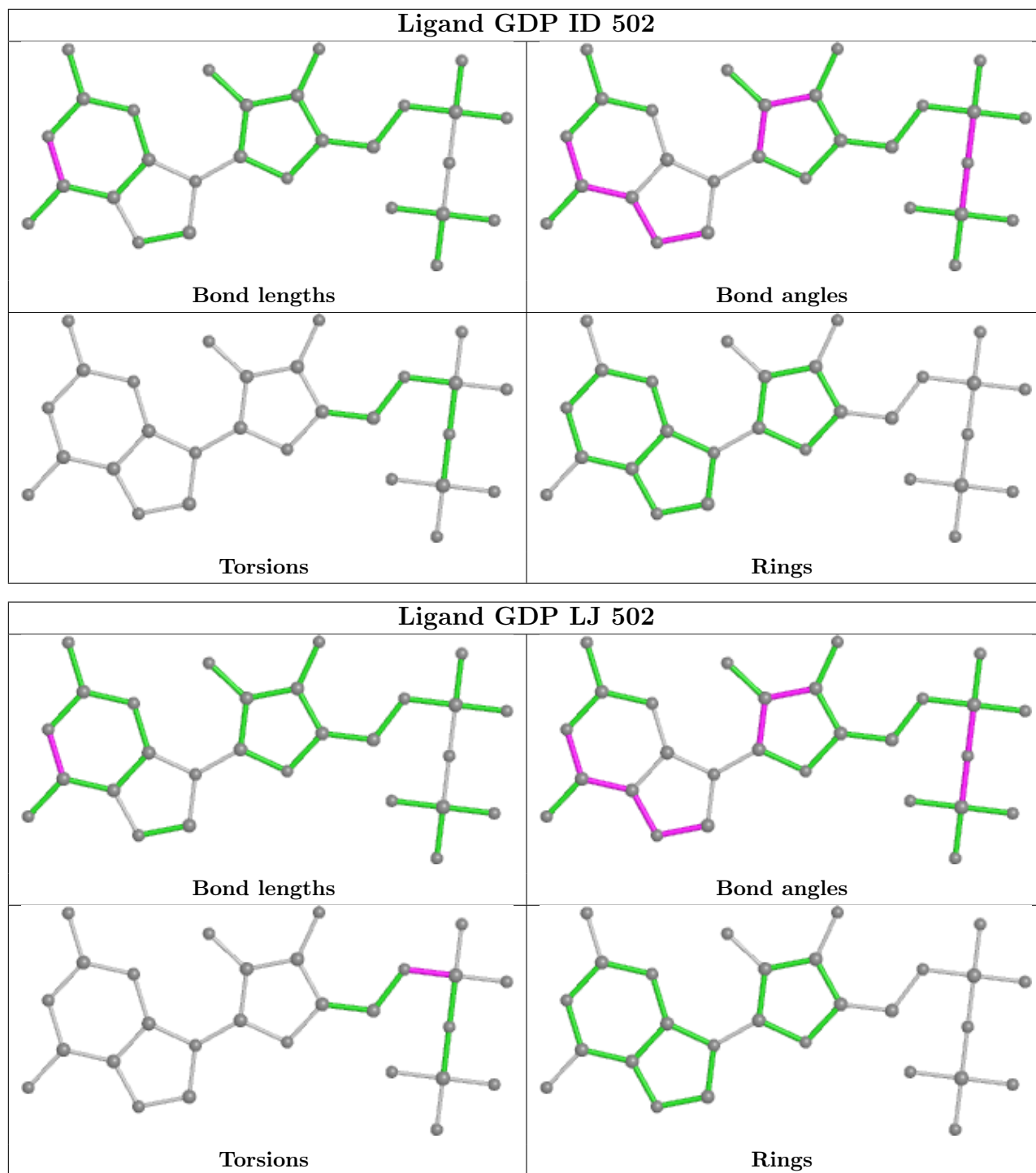


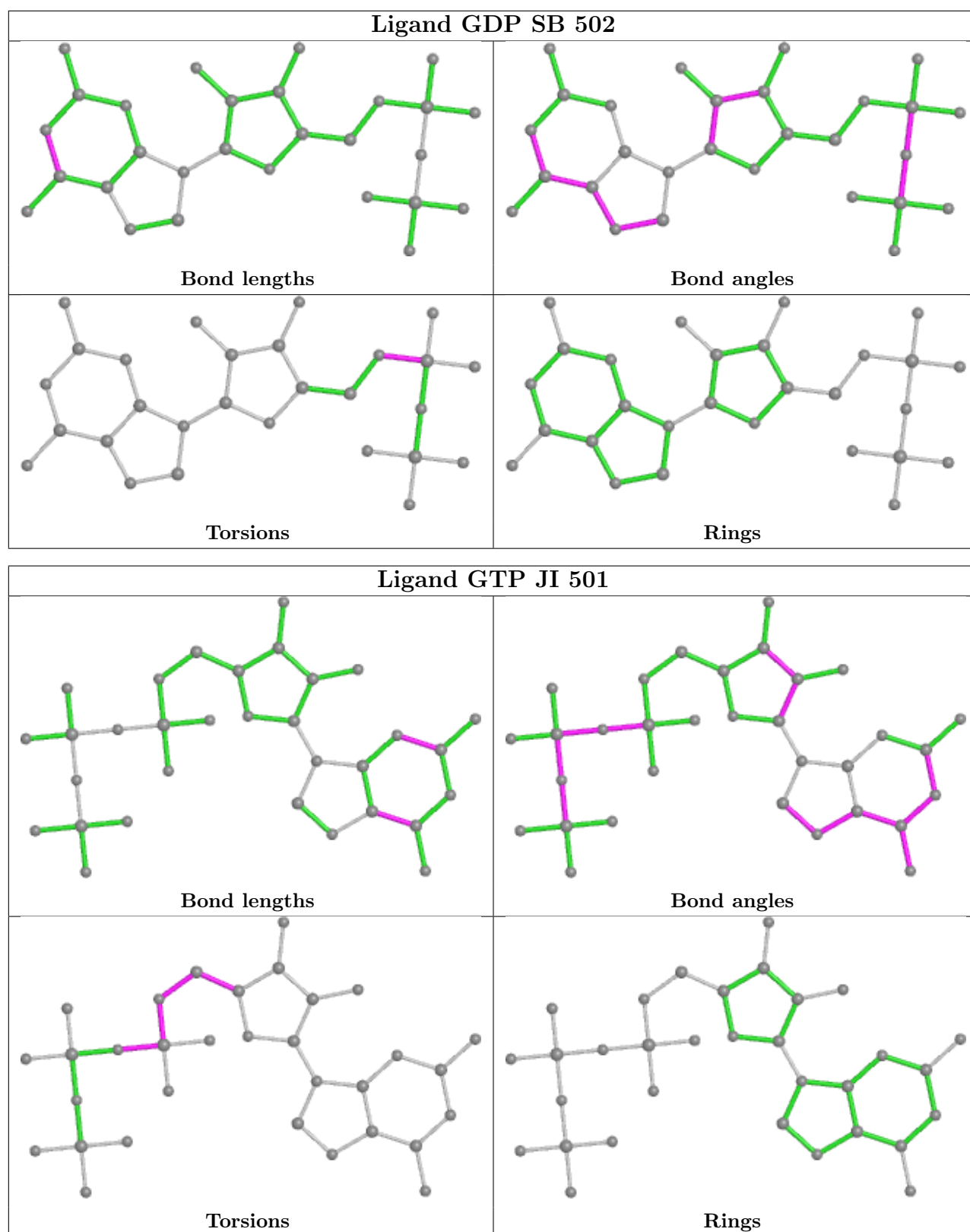


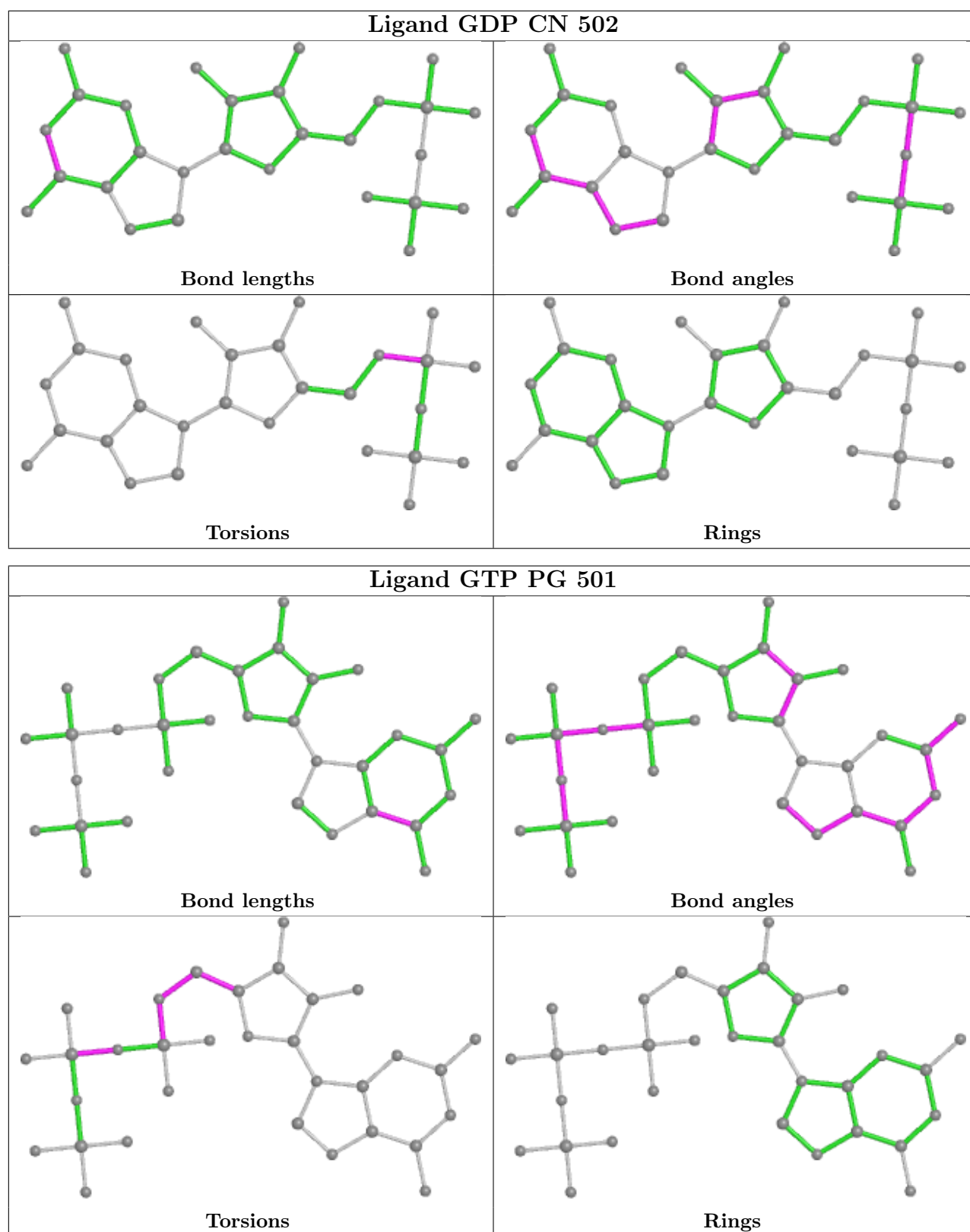


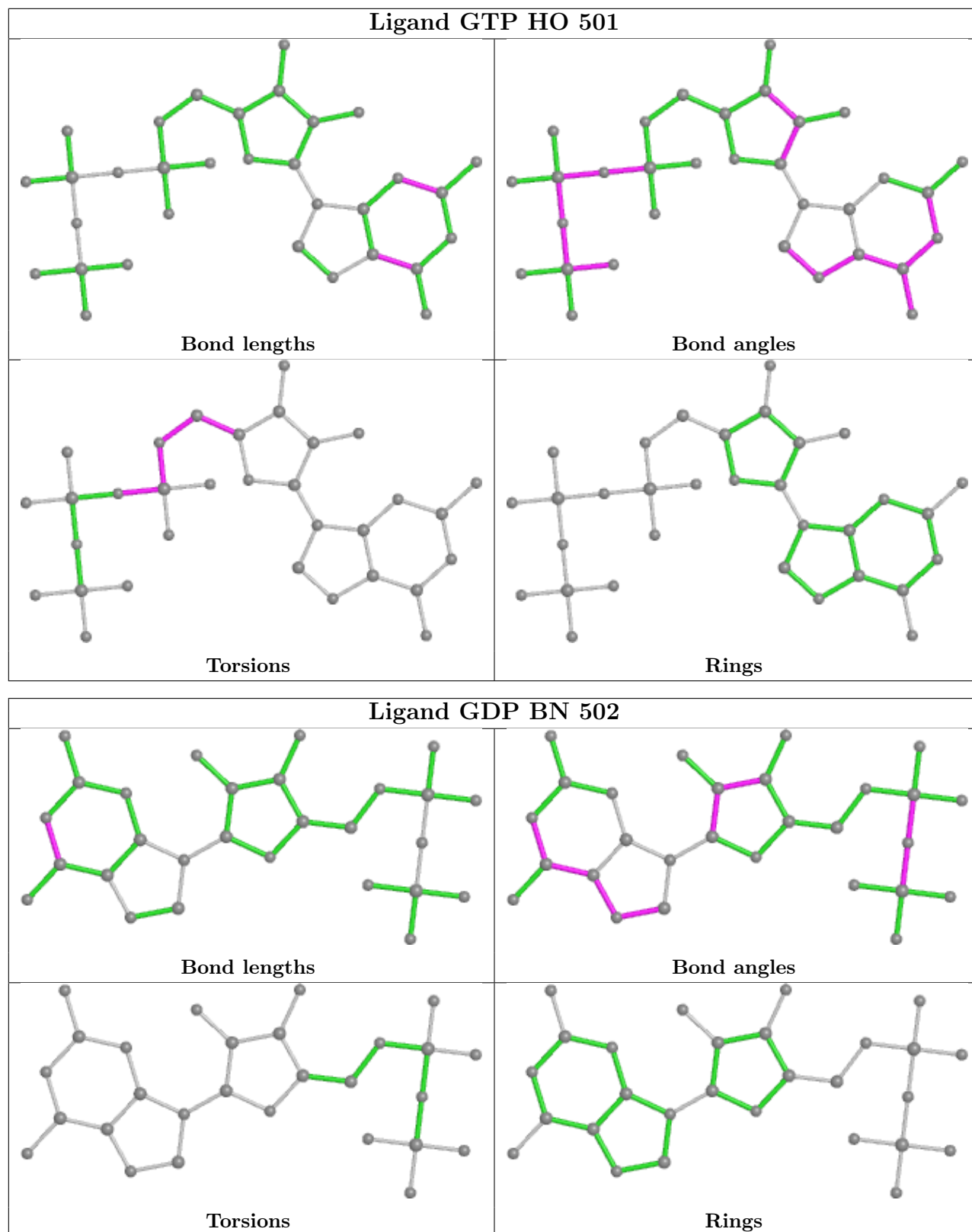


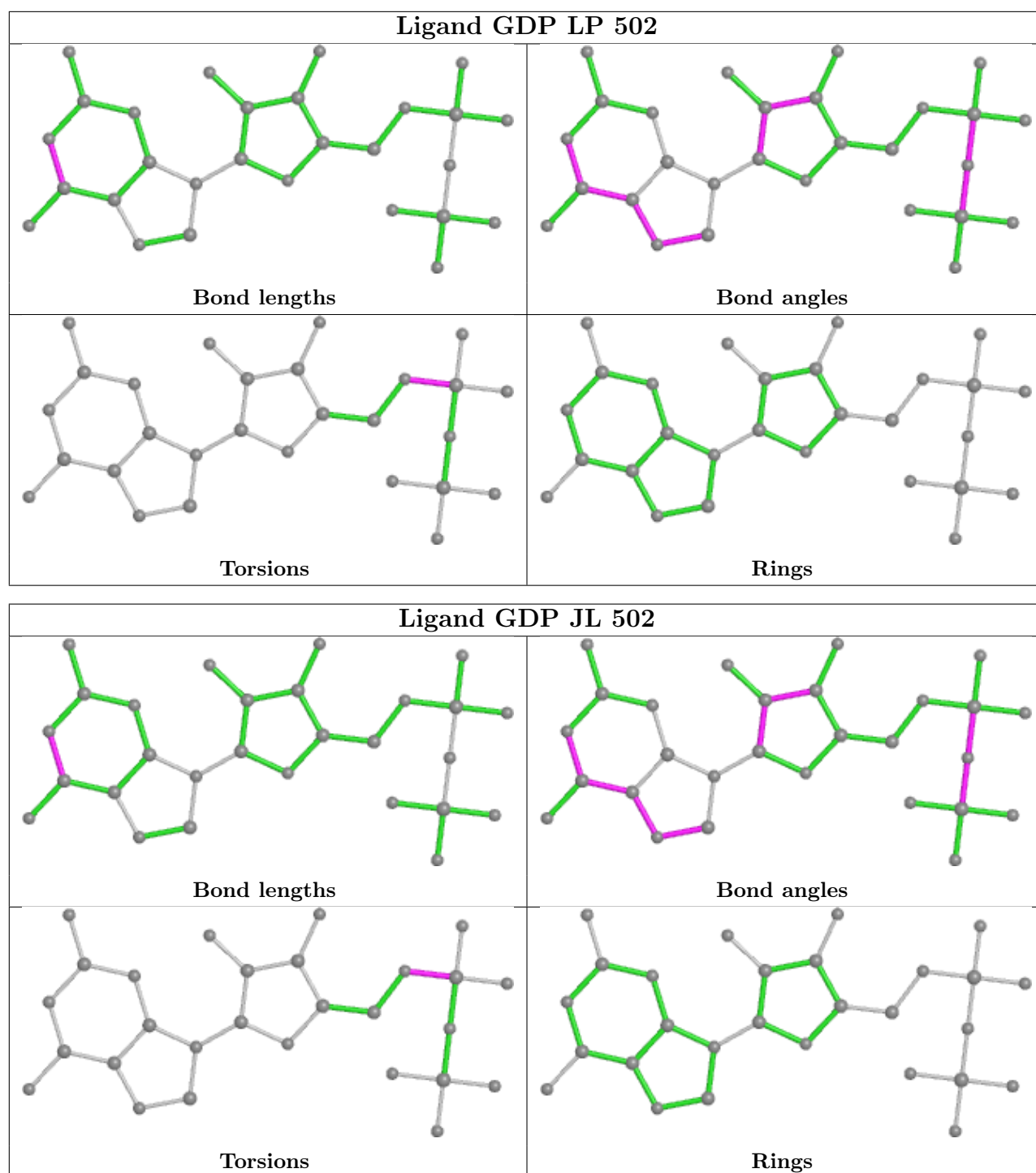


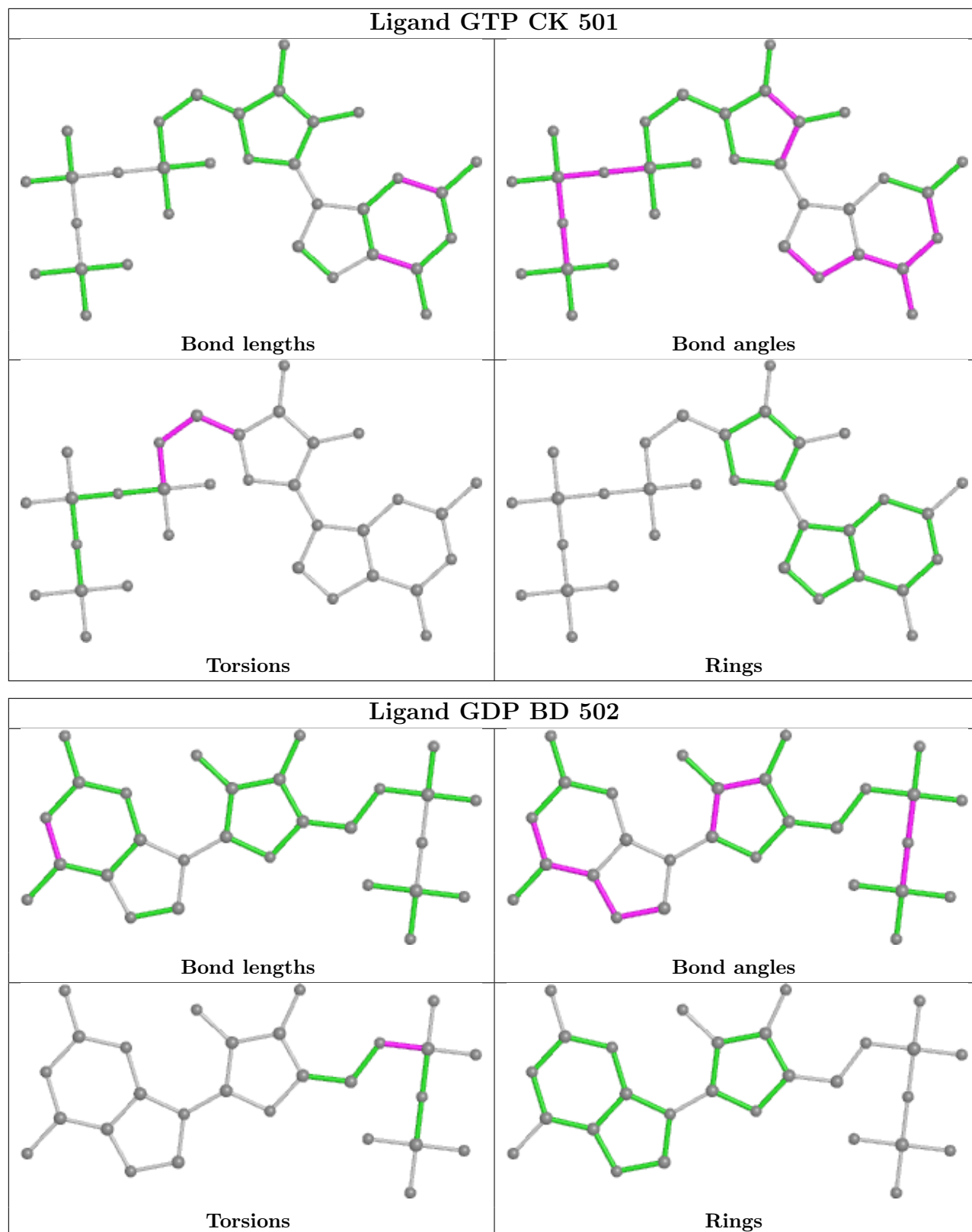


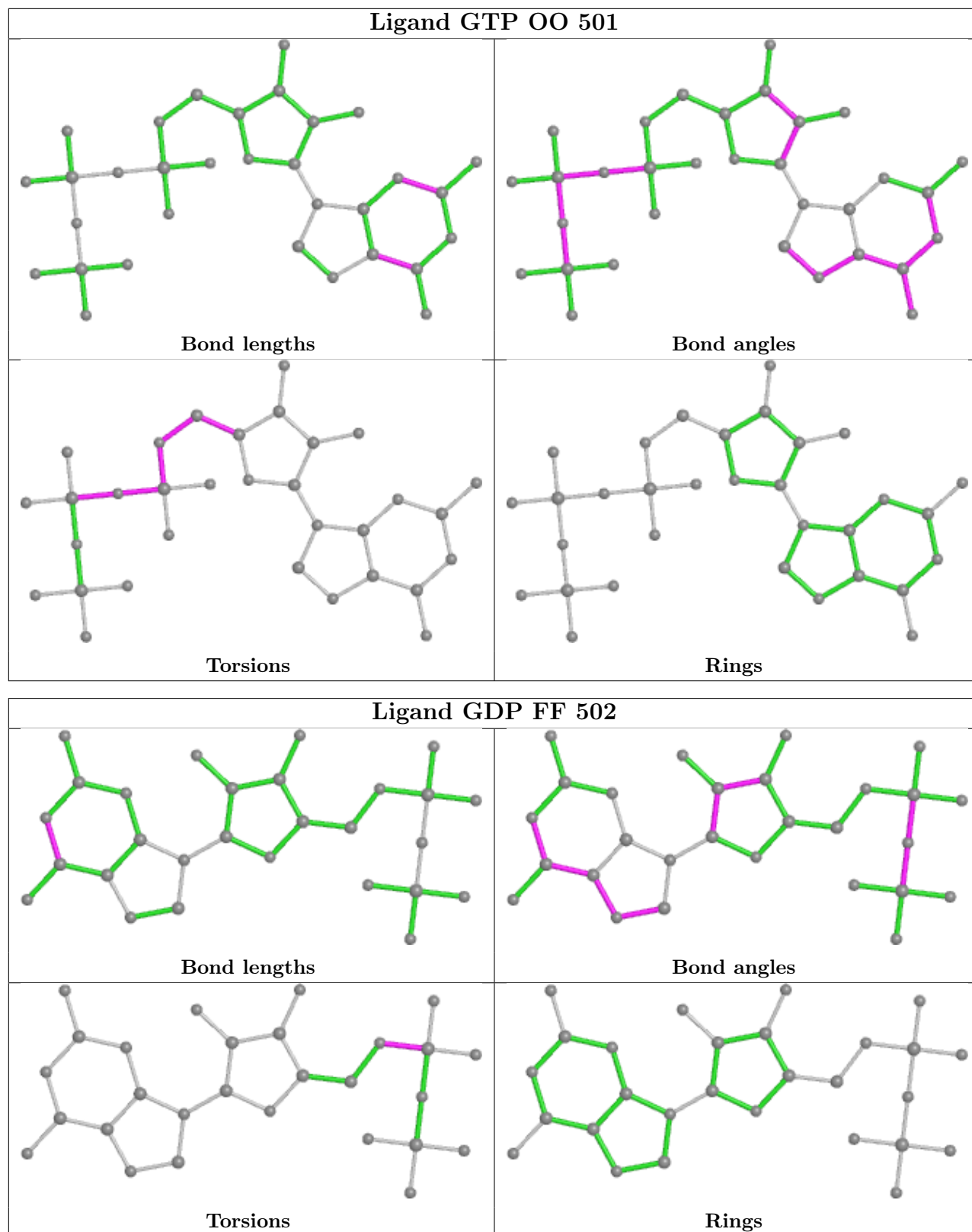


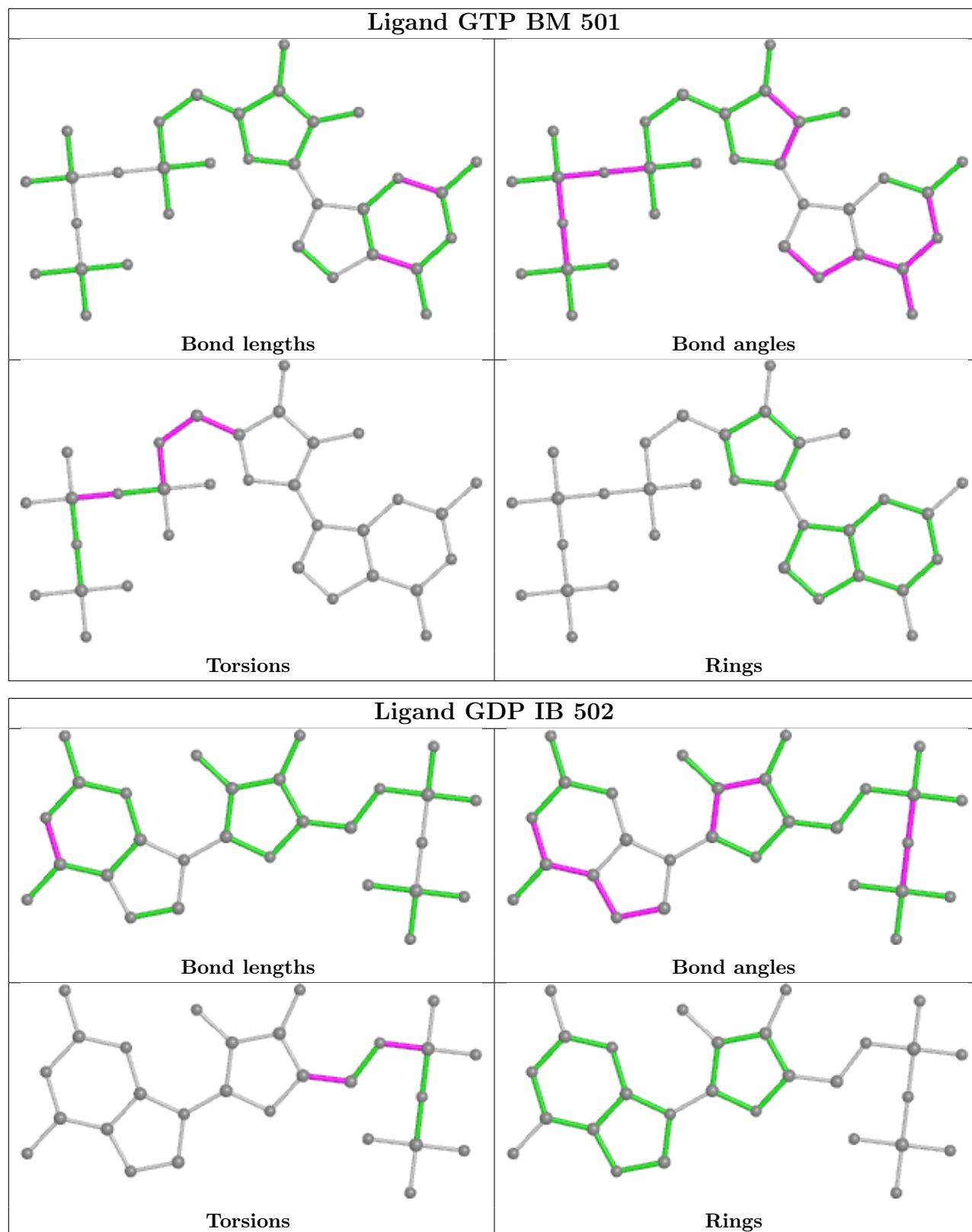


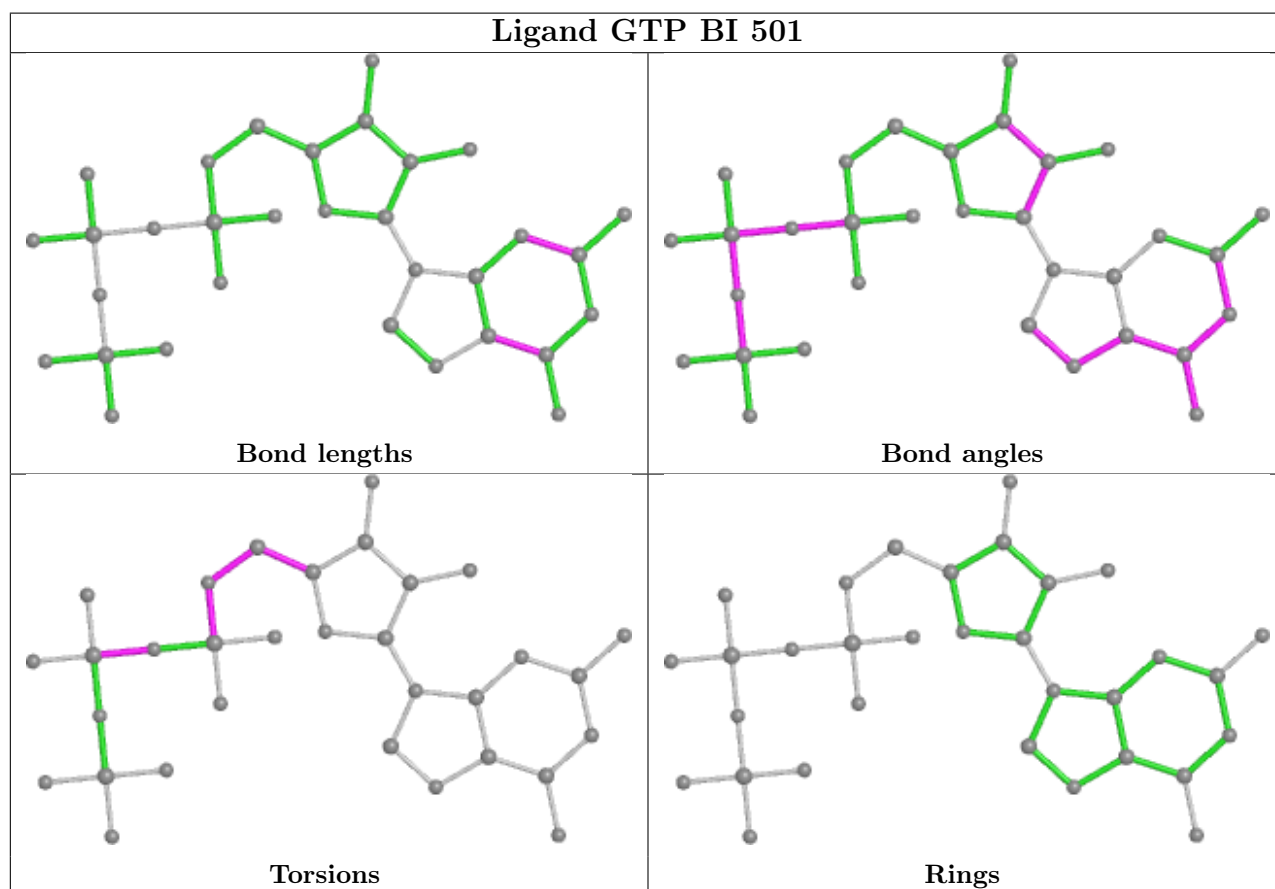
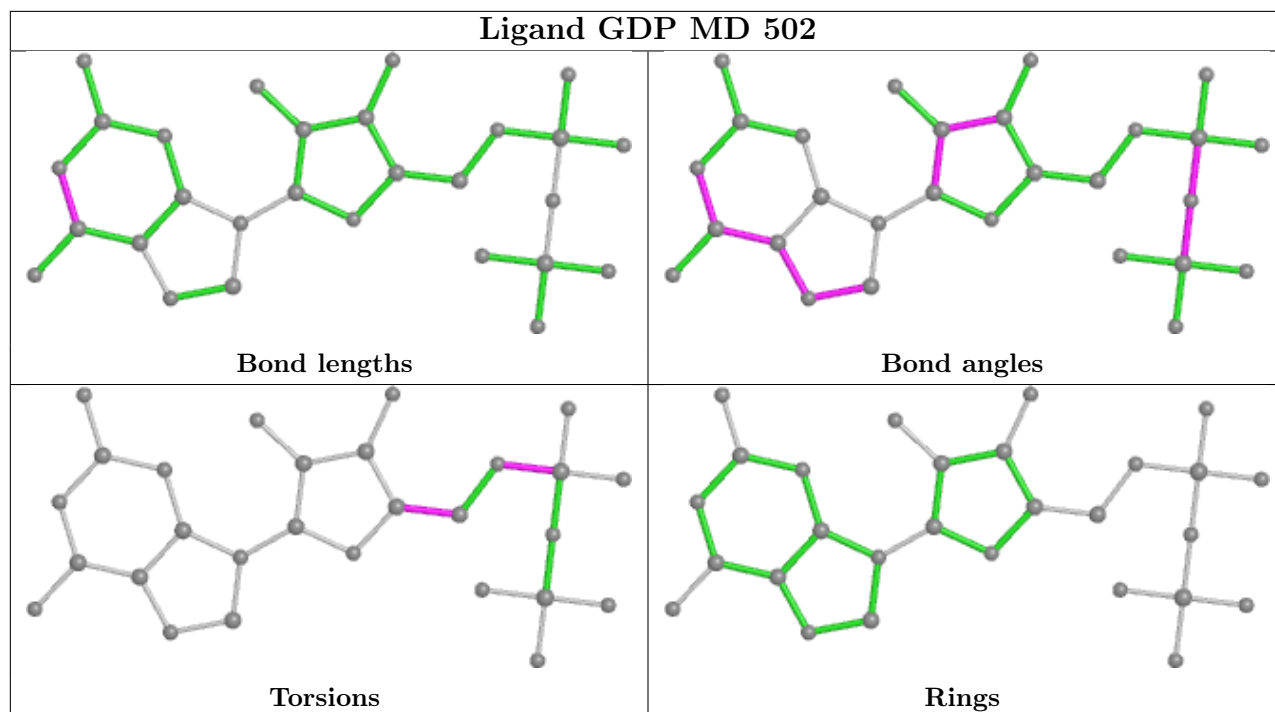


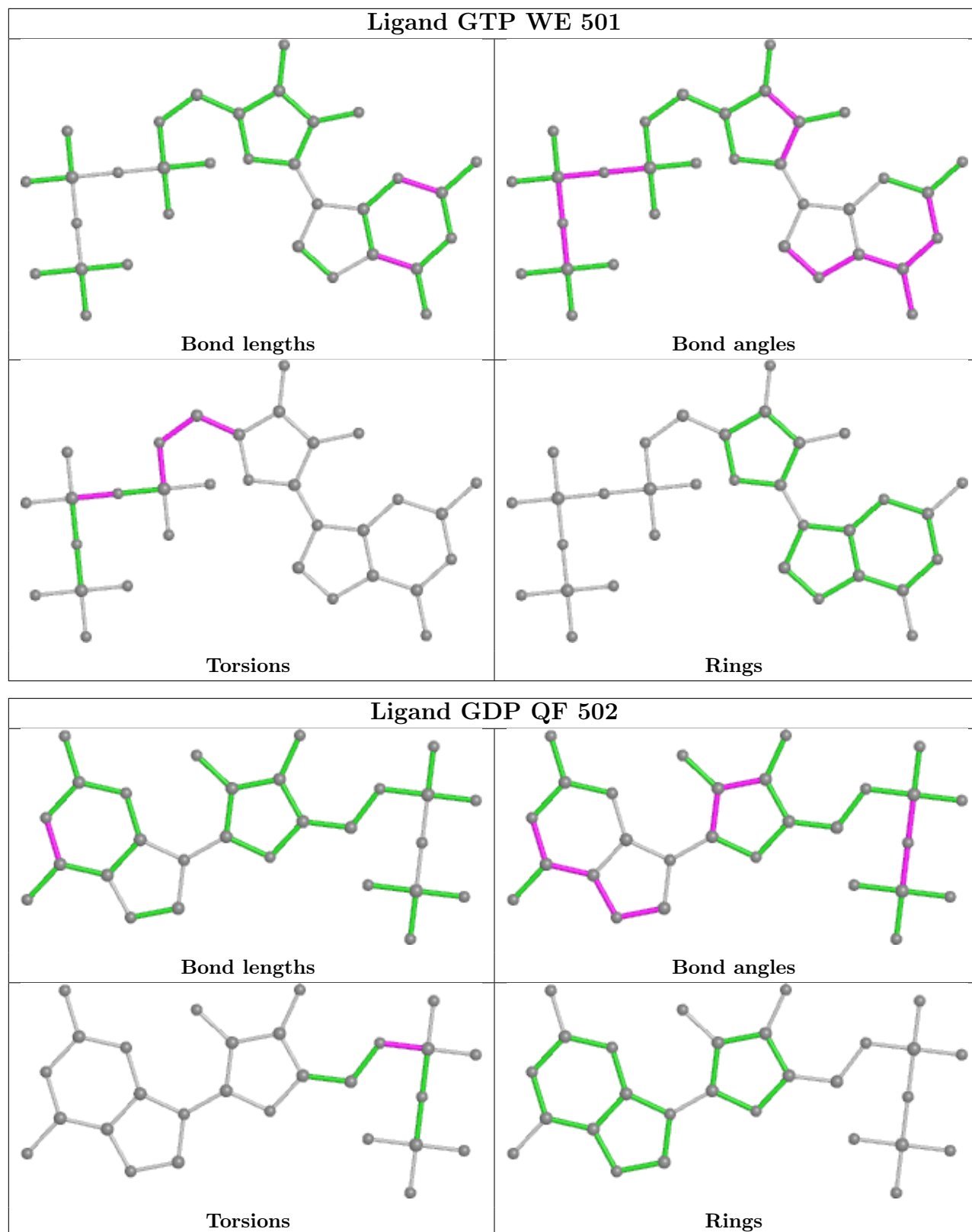


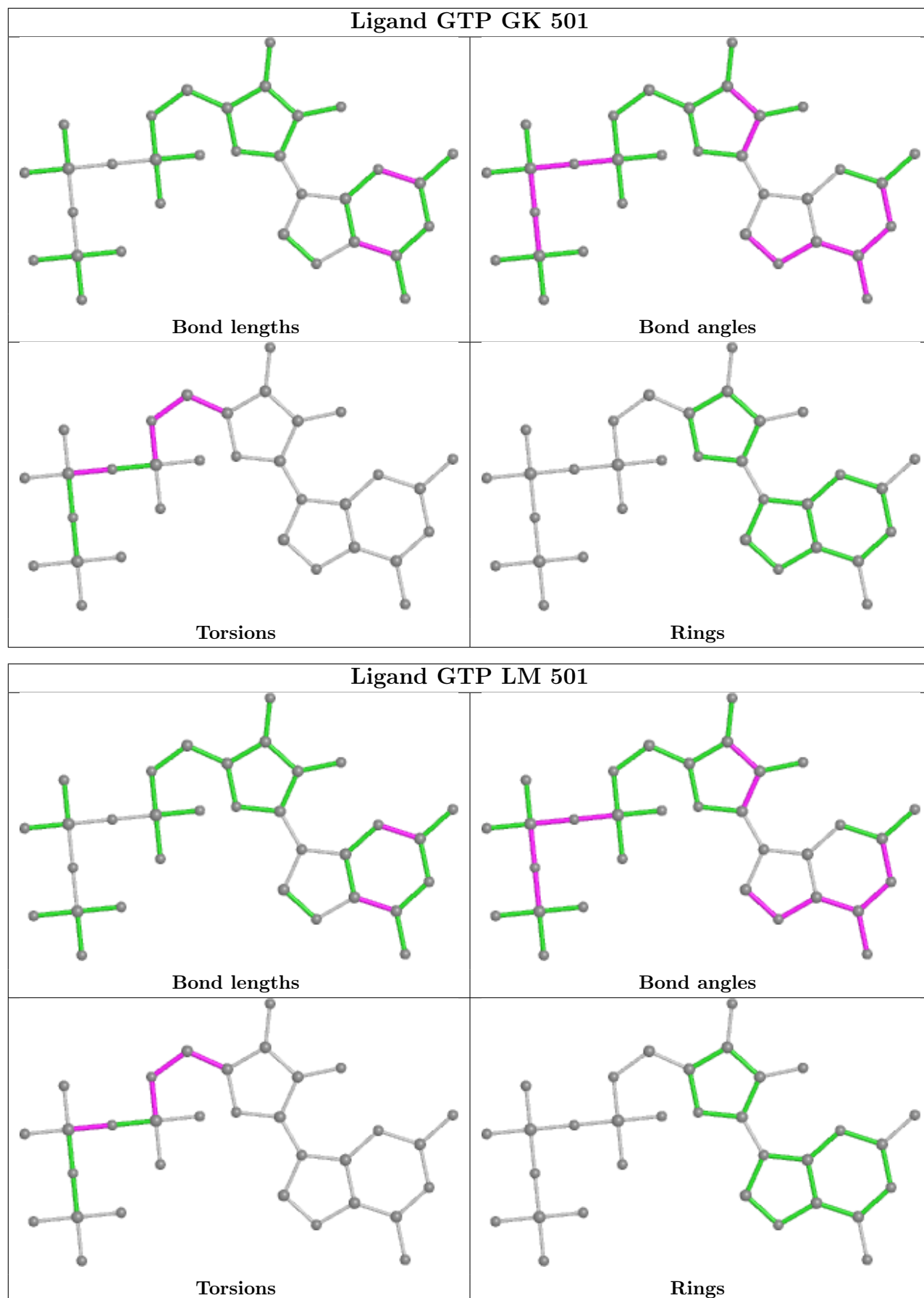


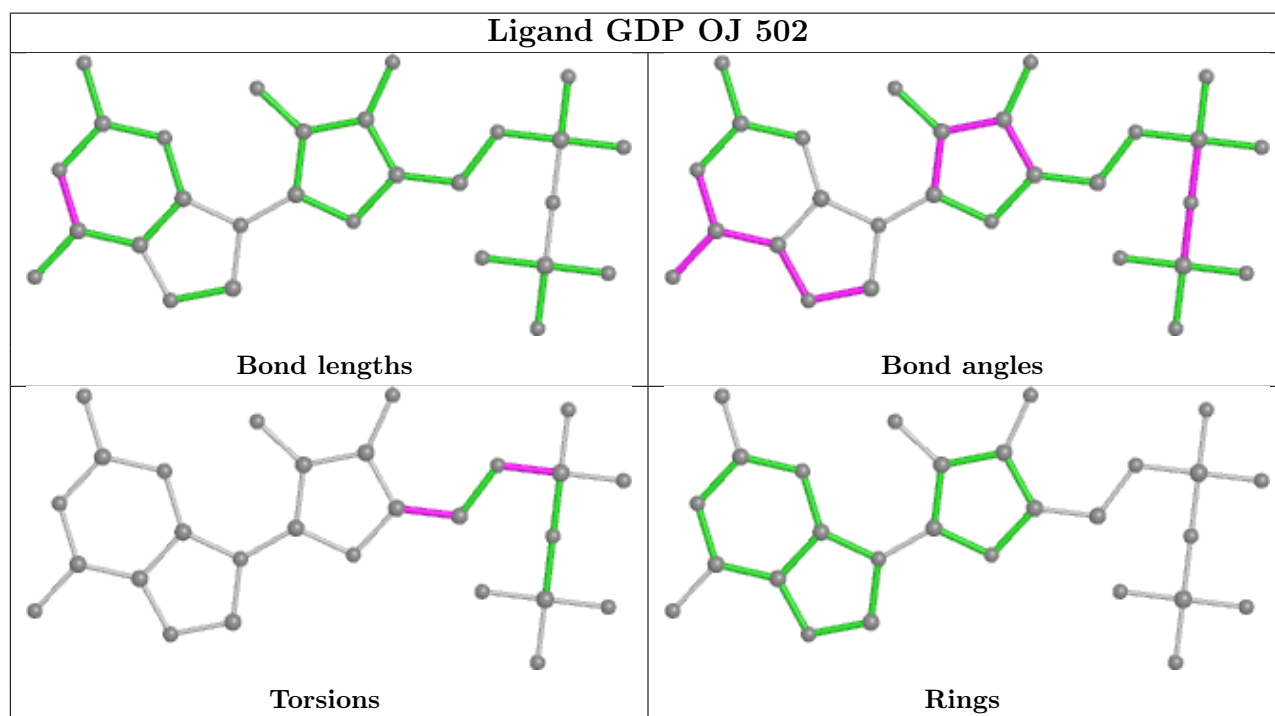
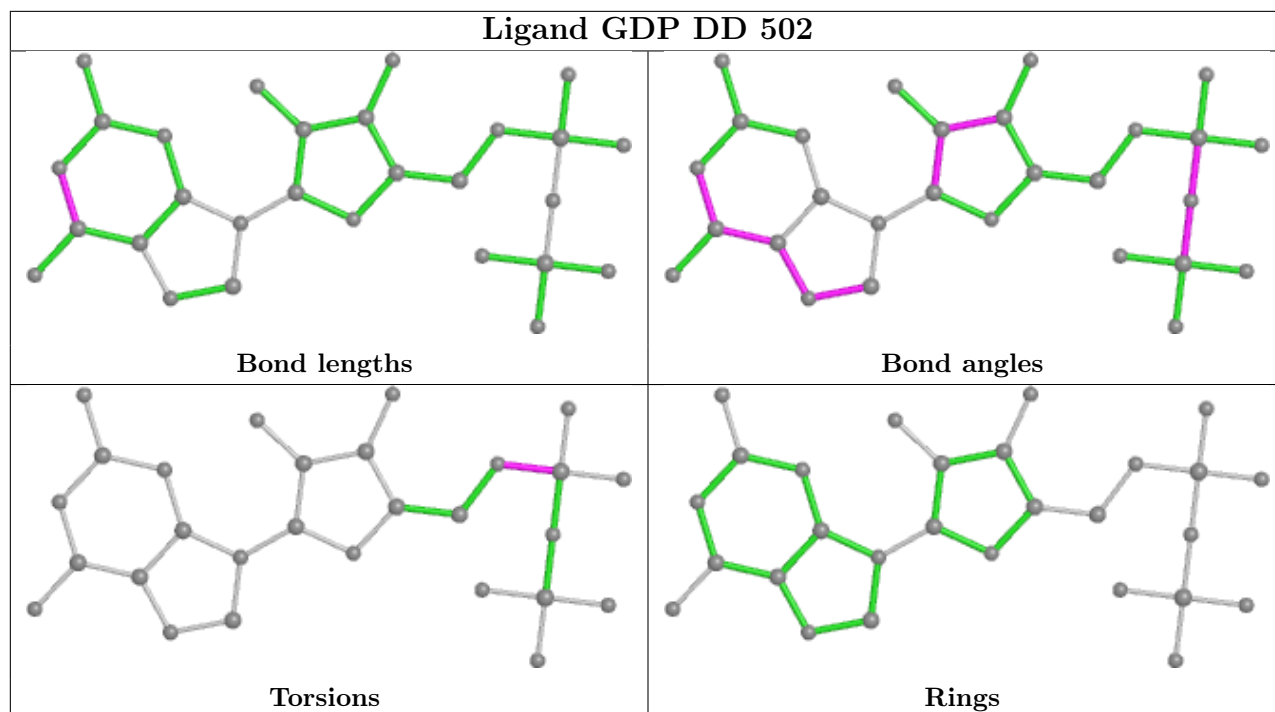


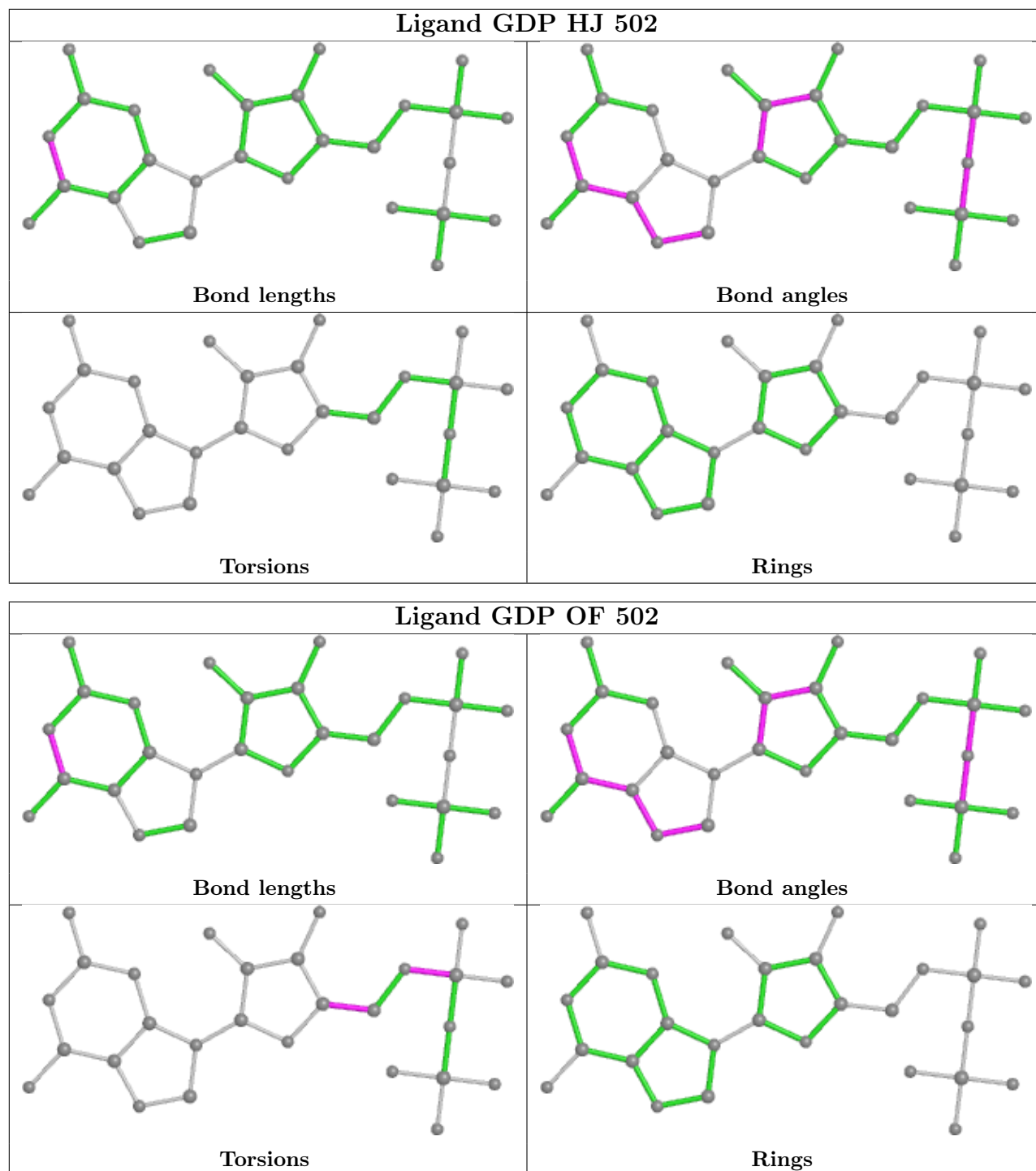


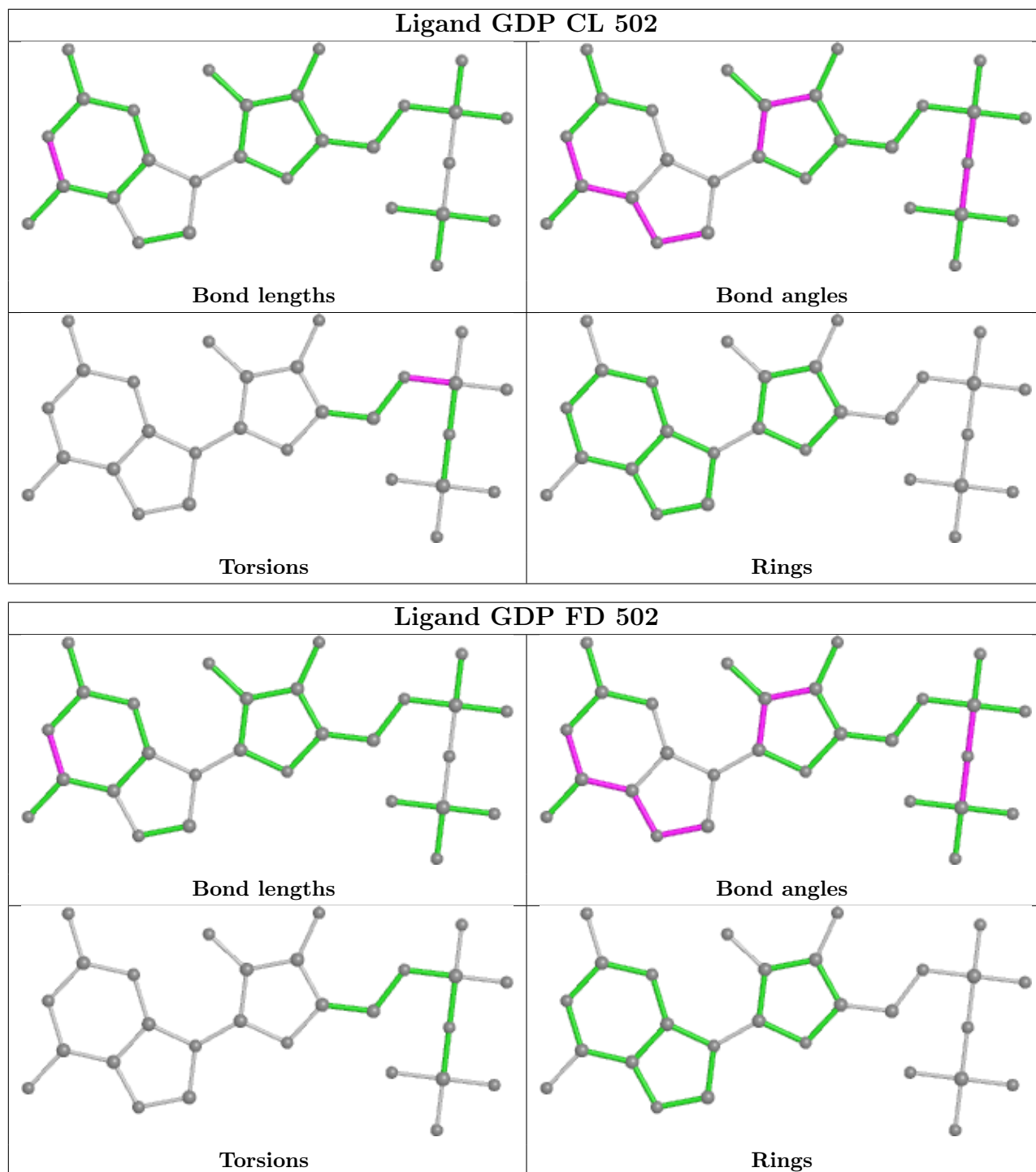


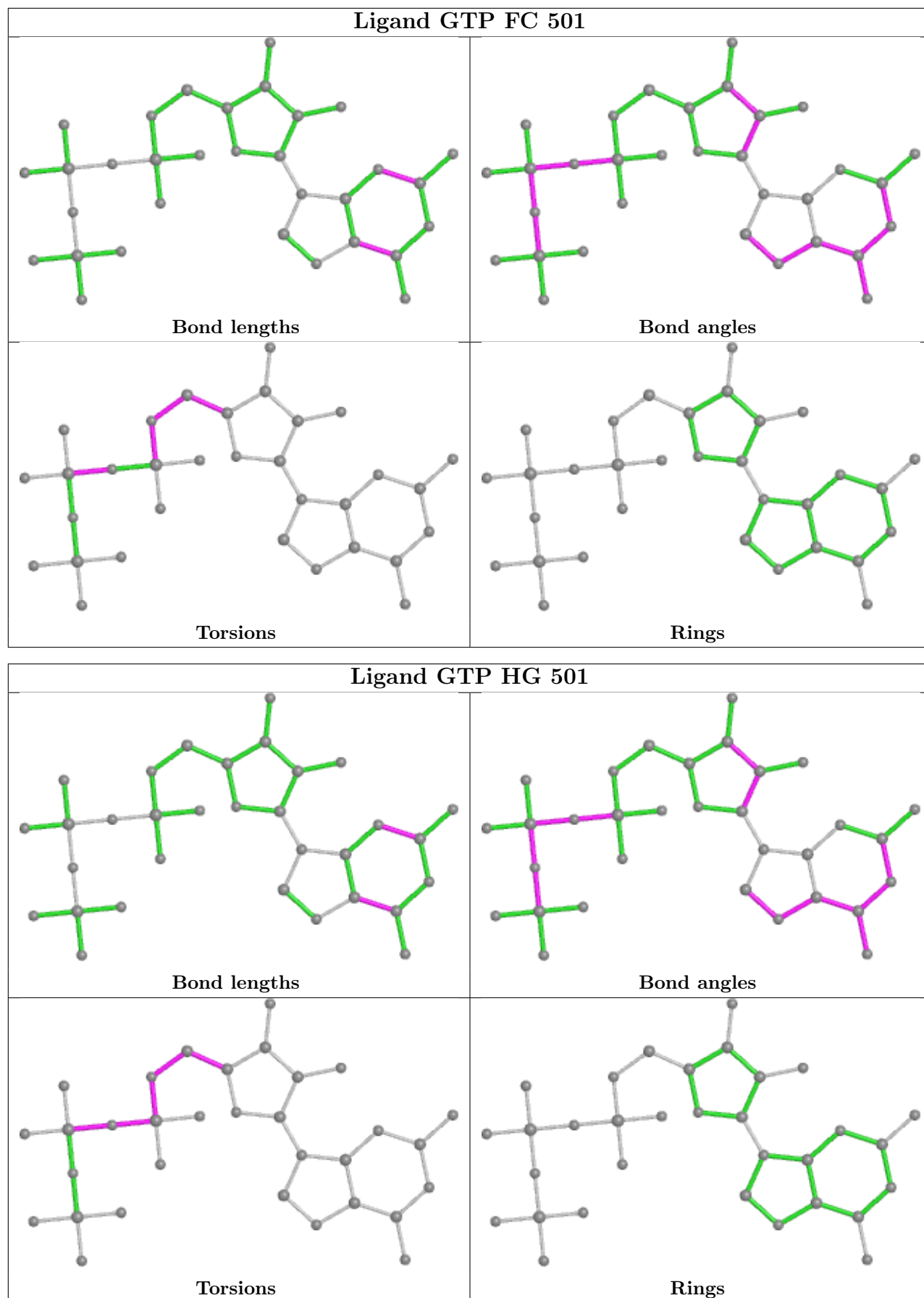


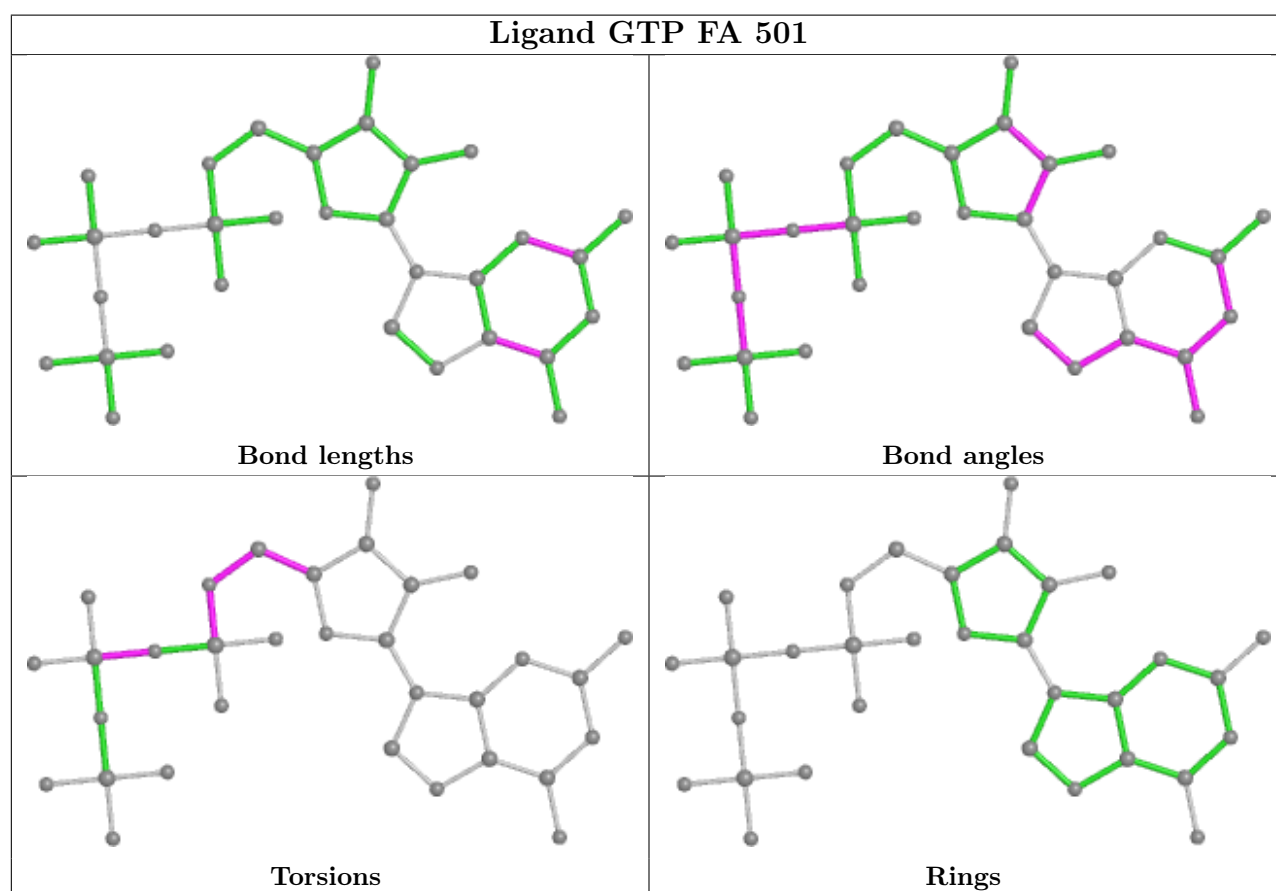
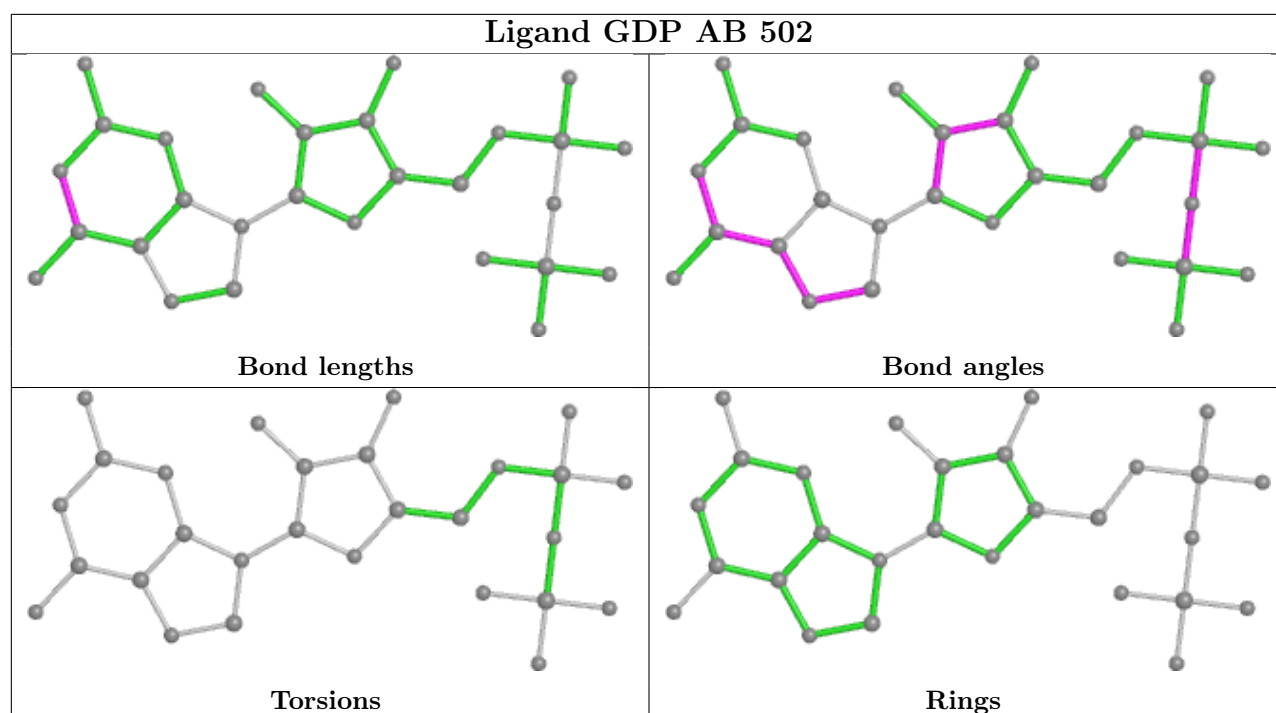


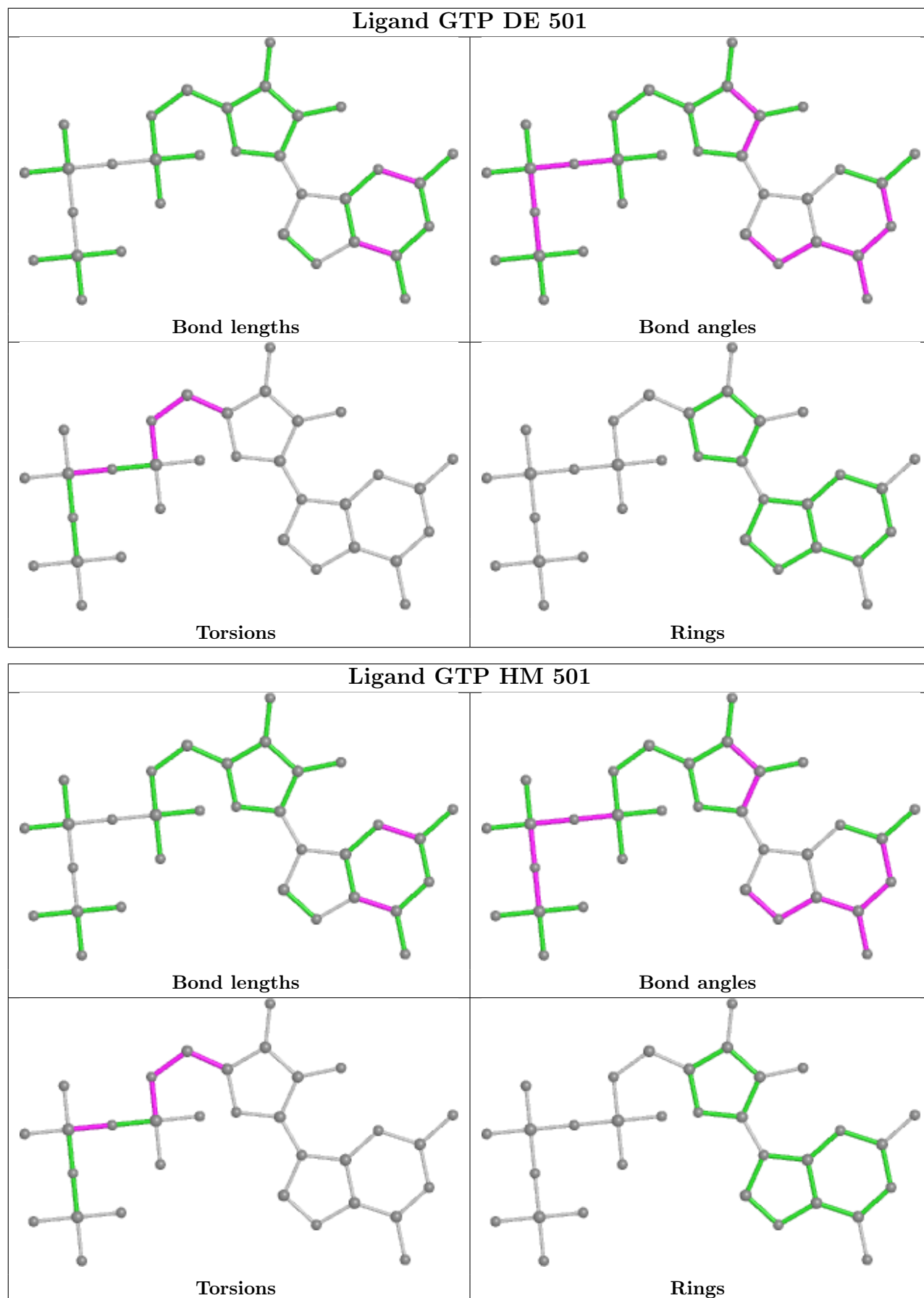


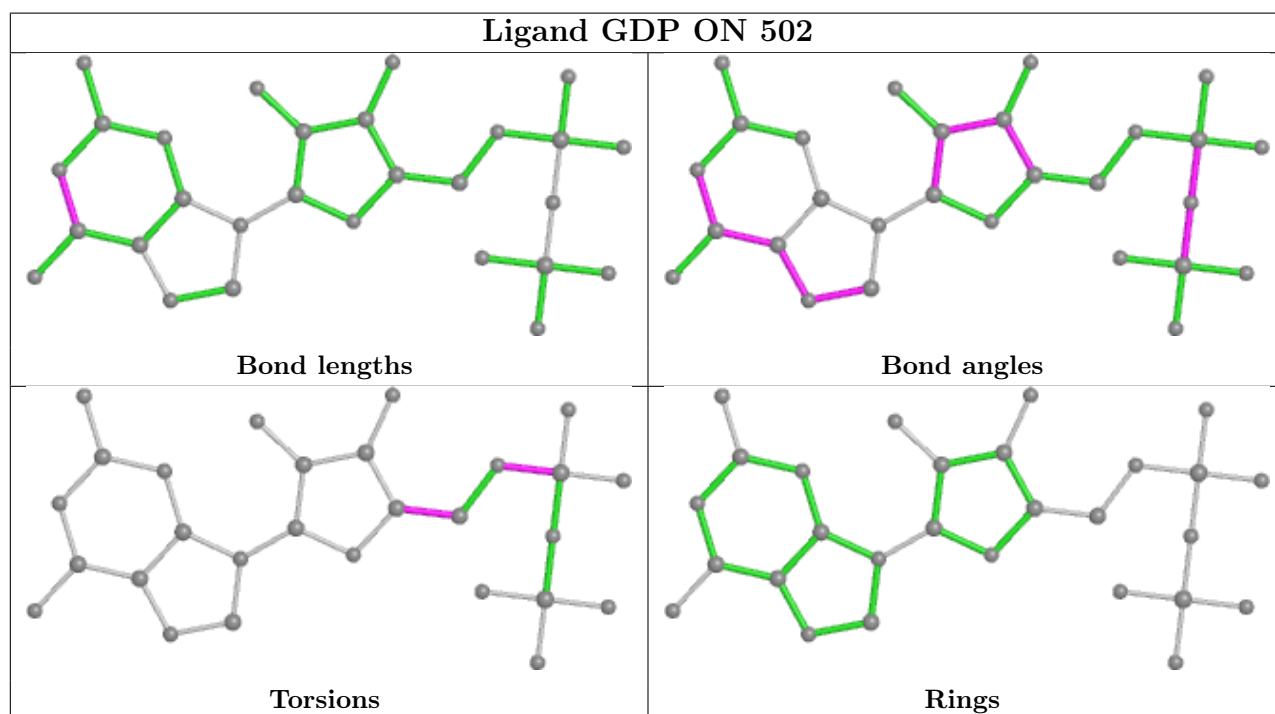
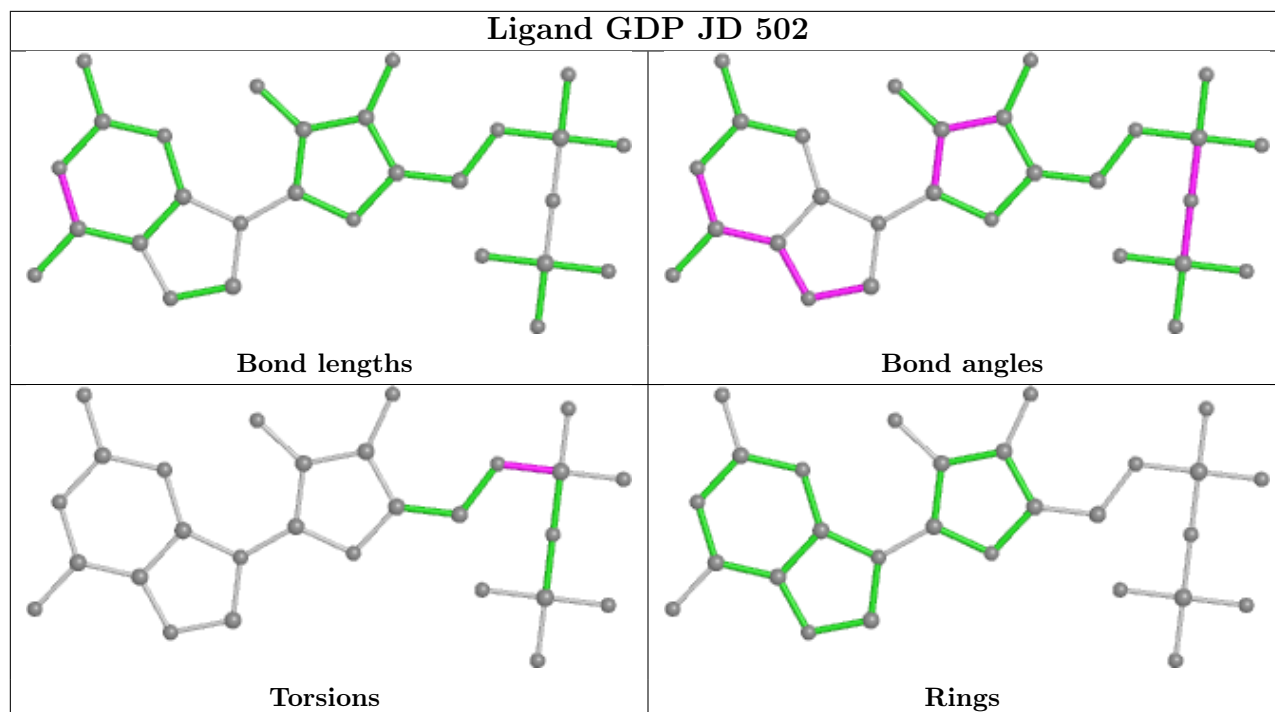


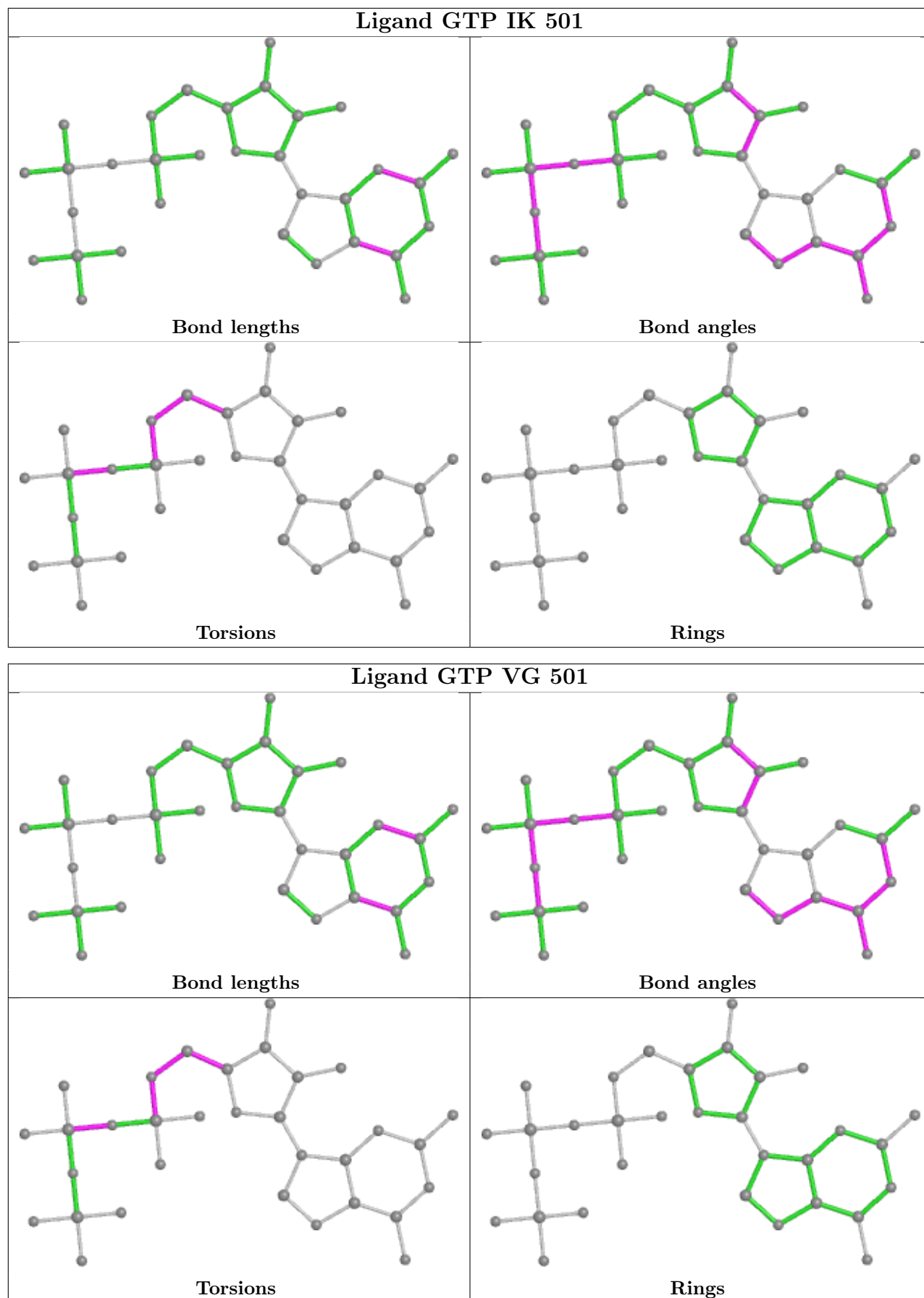


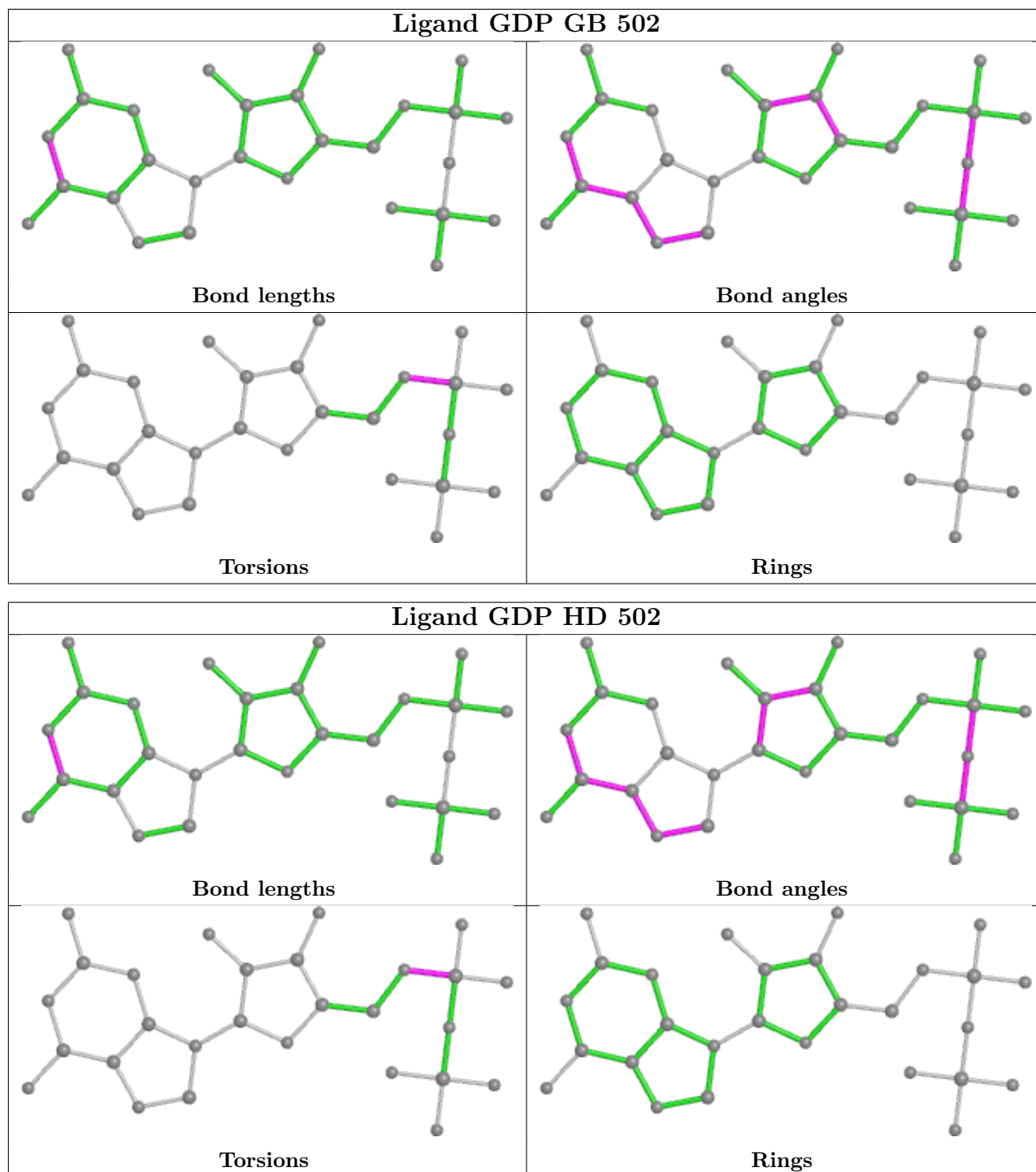


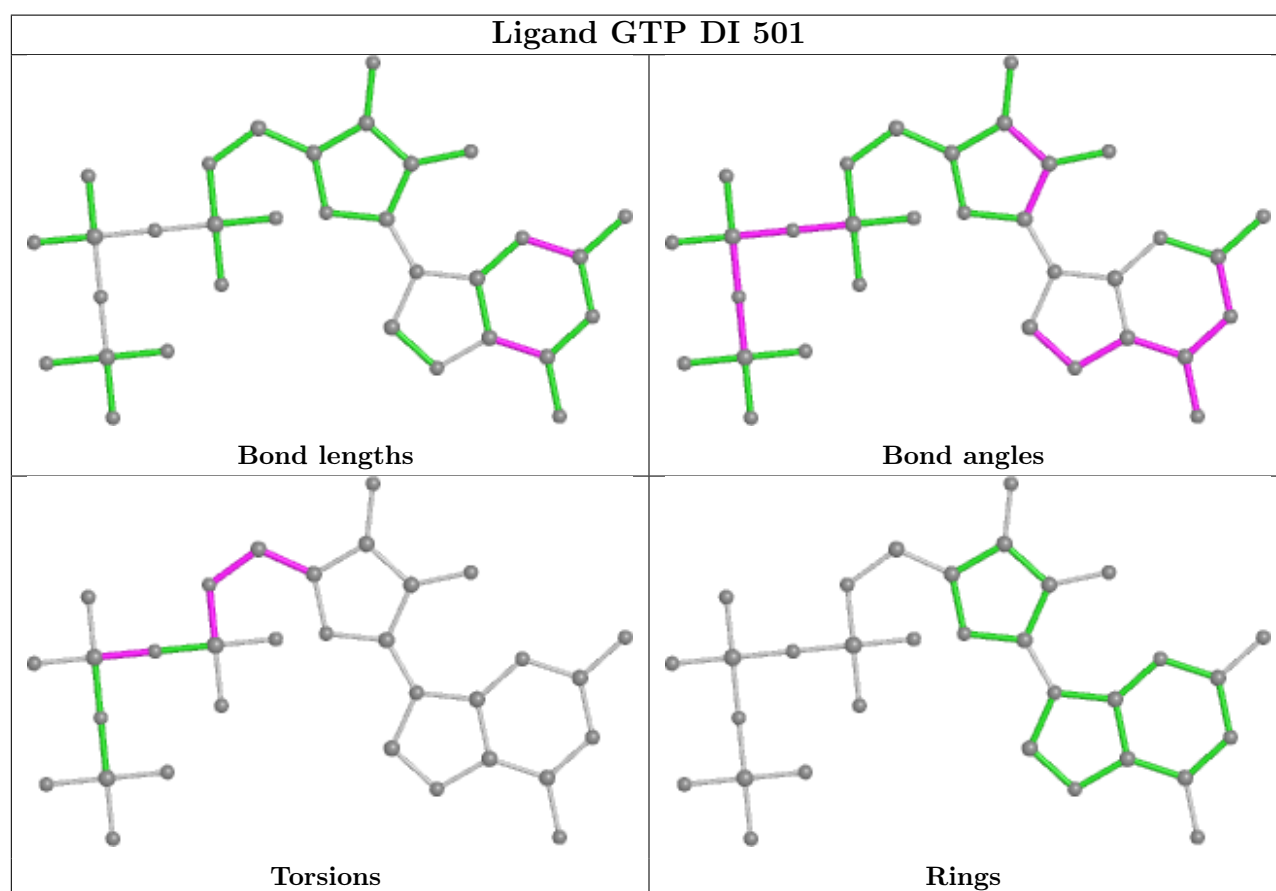
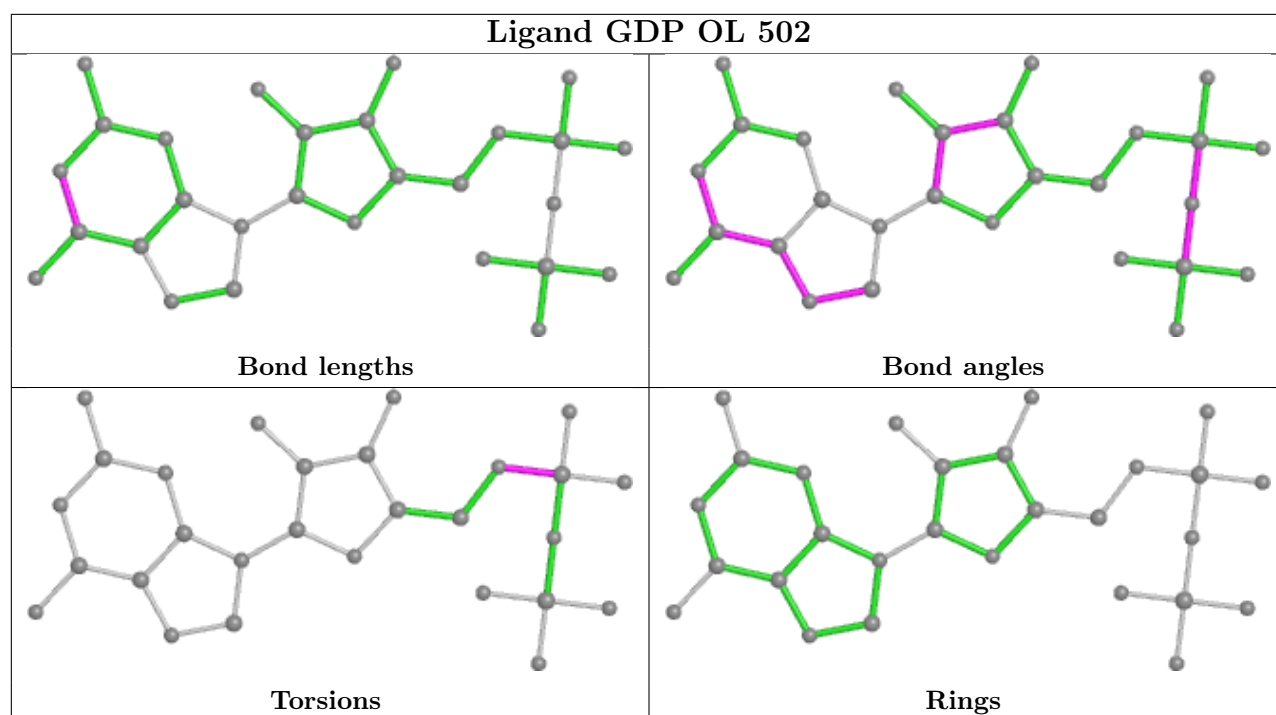


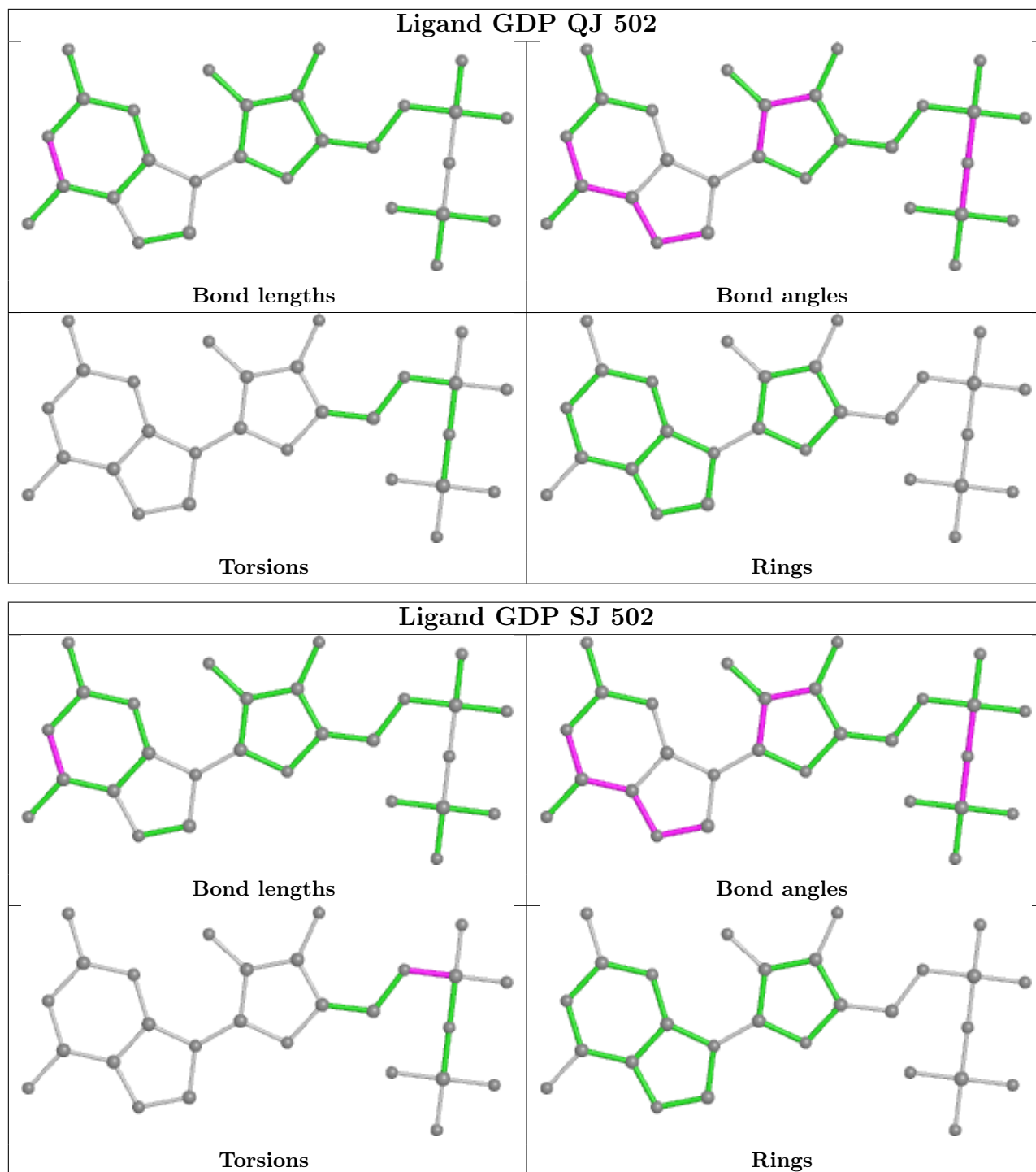


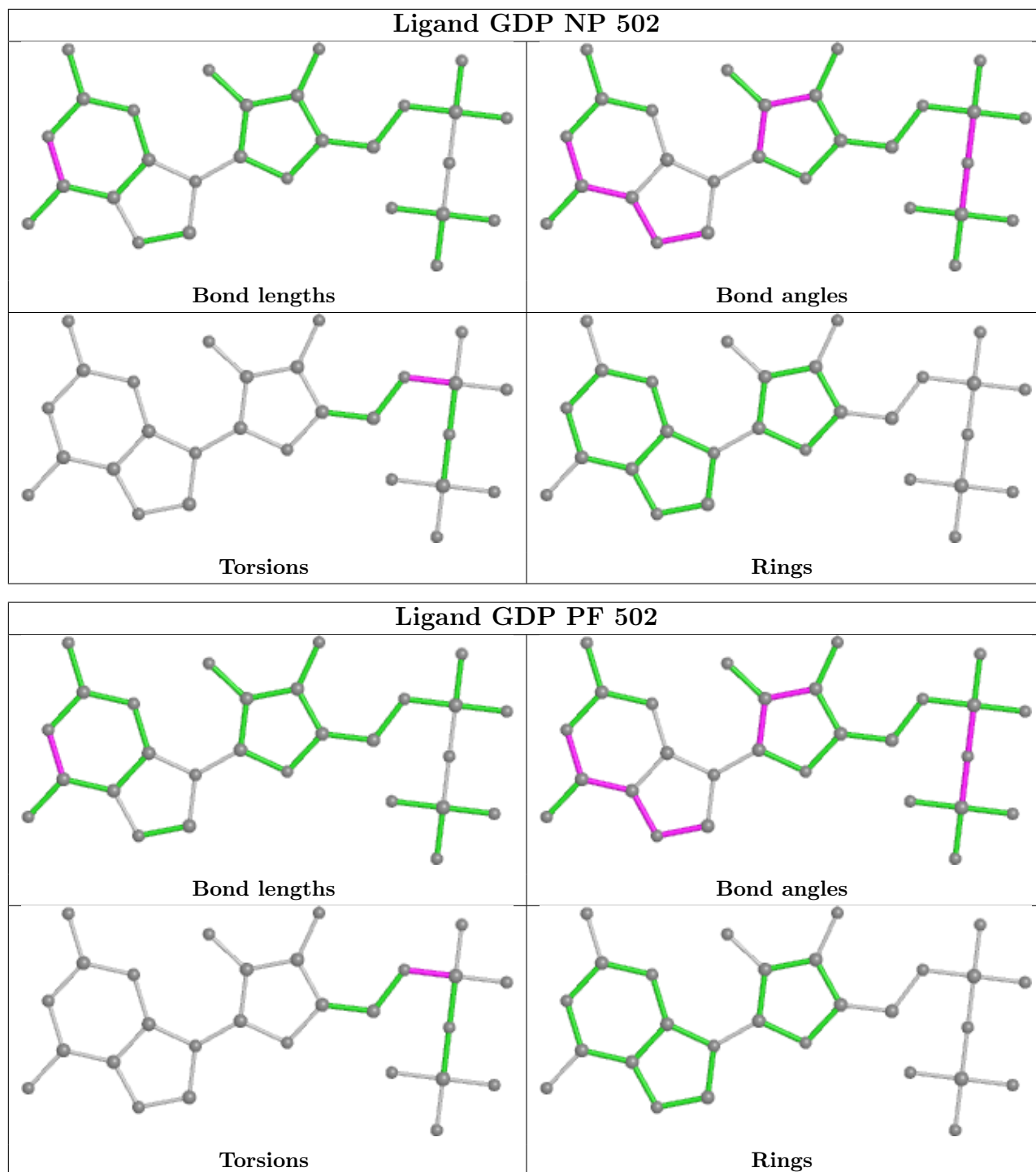


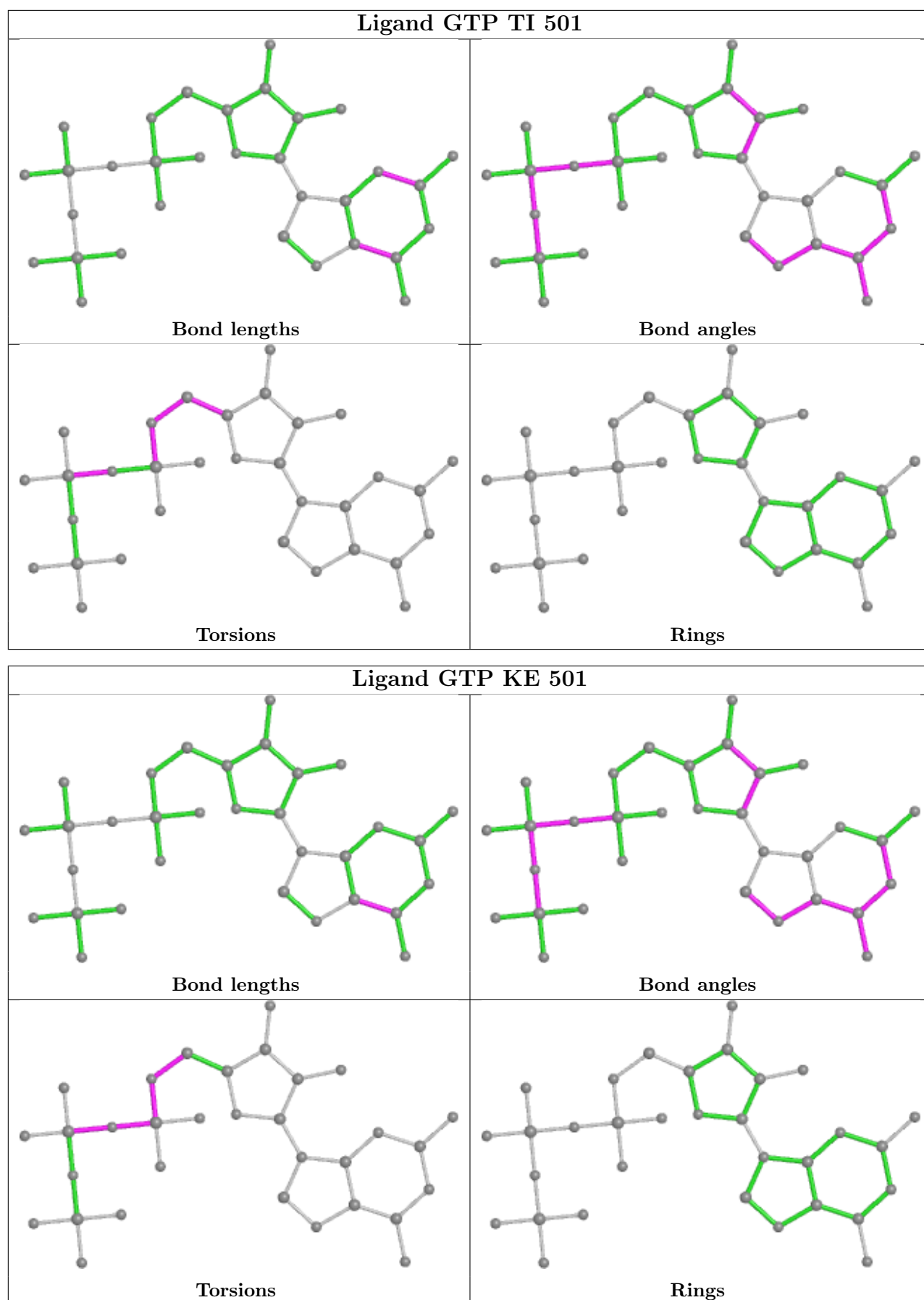


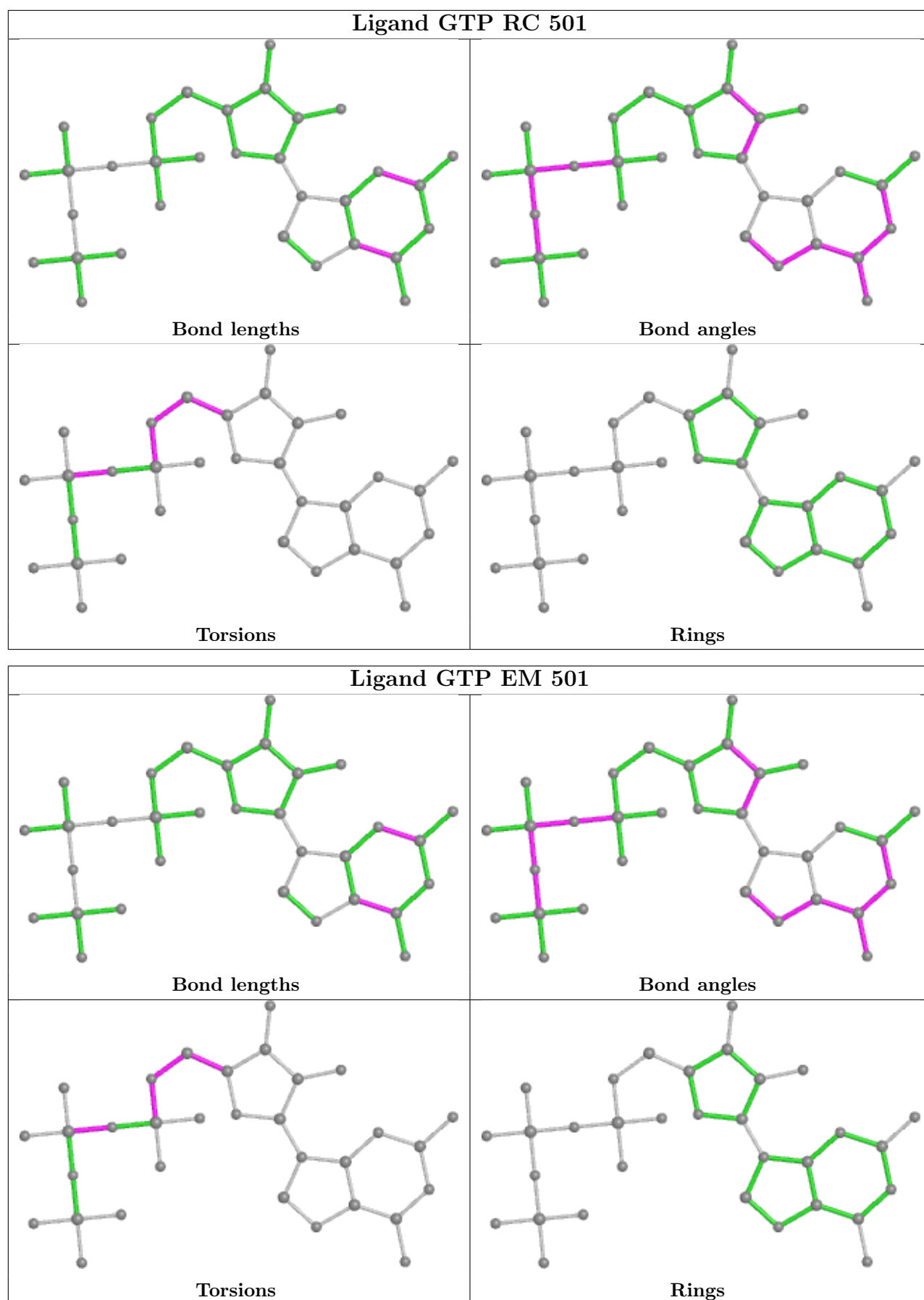


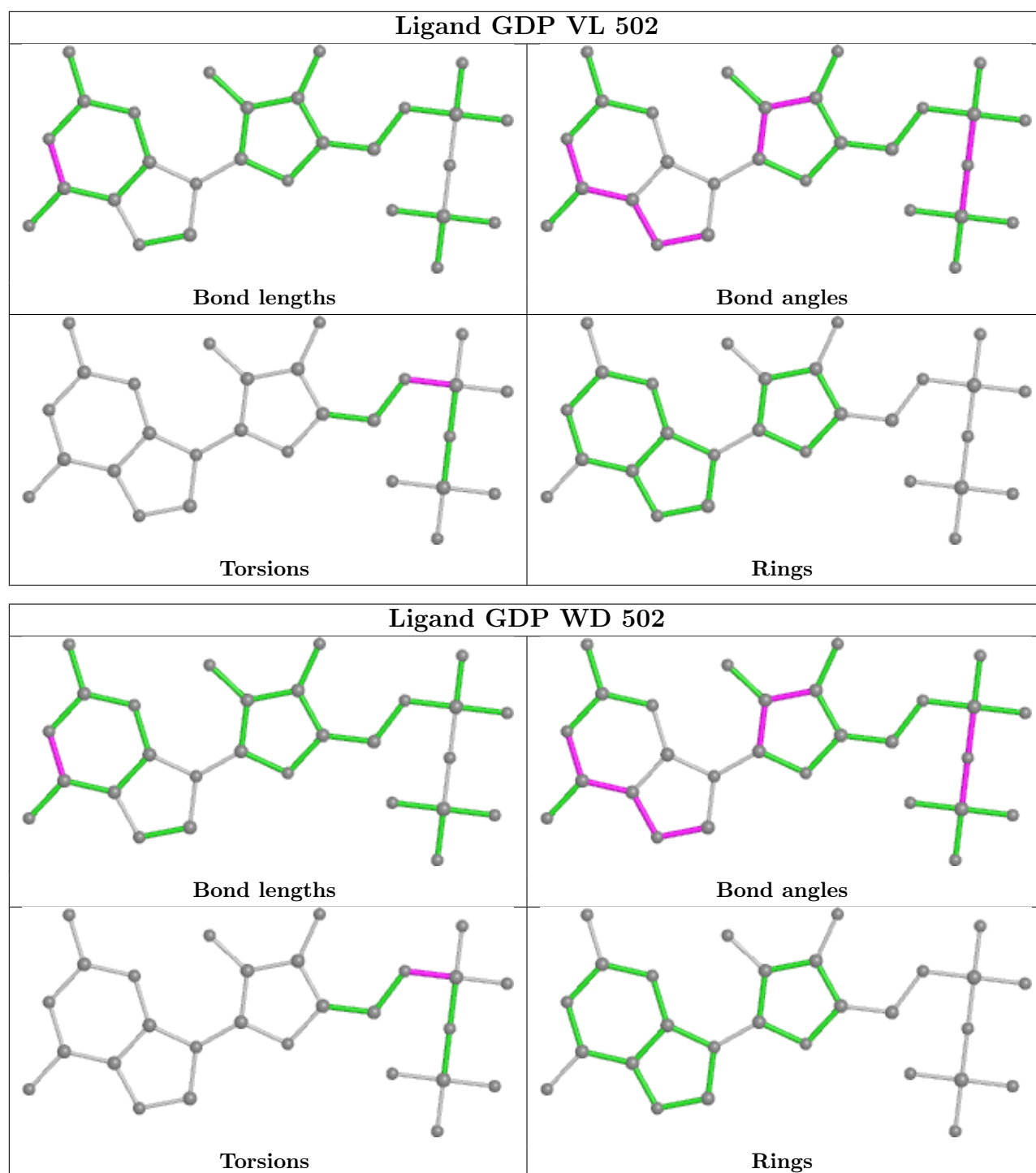












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

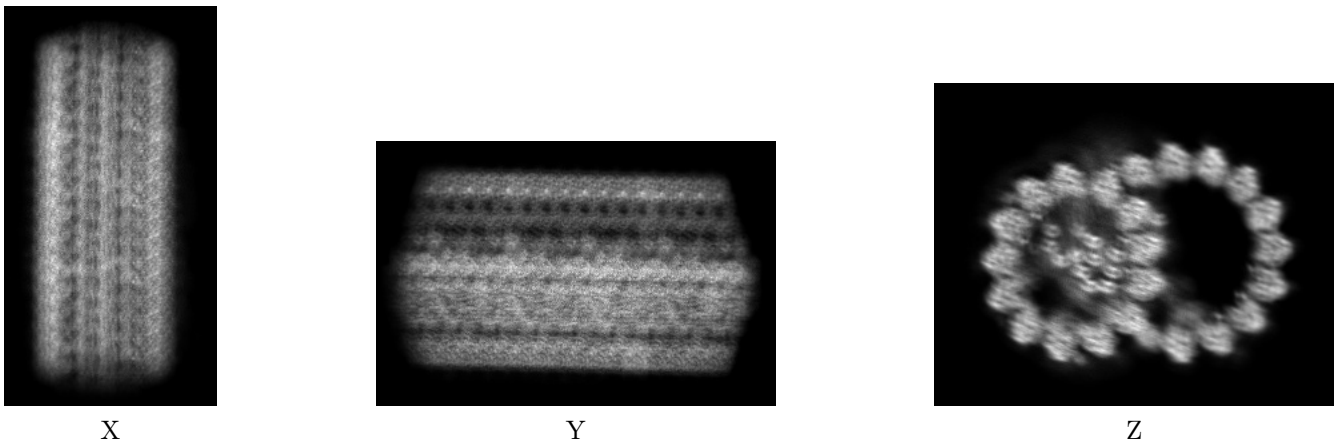
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-35823. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections [i](#)

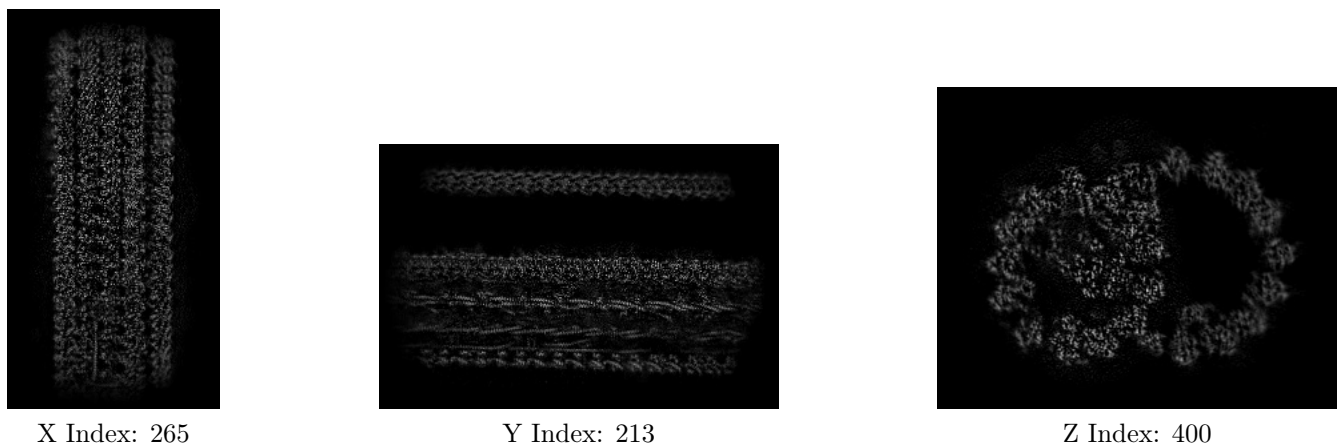
6.1.1 Primary map



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

6.2 Central slices [i](#)

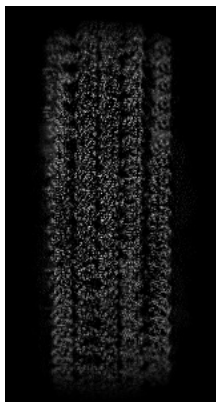
6.2.1 Primary map



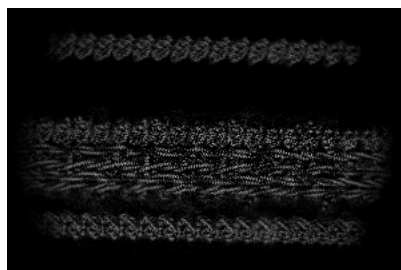
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

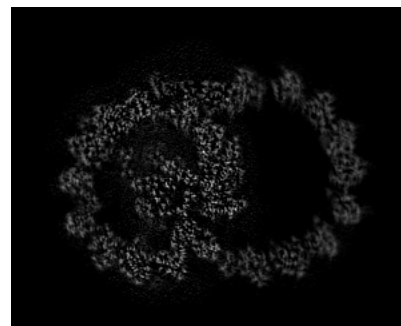
6.3.1 Primary map



X Index: 270



Y Index: 196

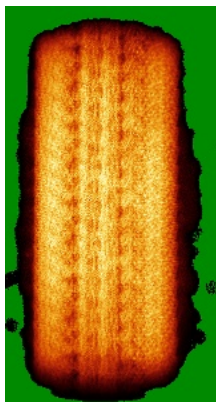


Z Index: 448

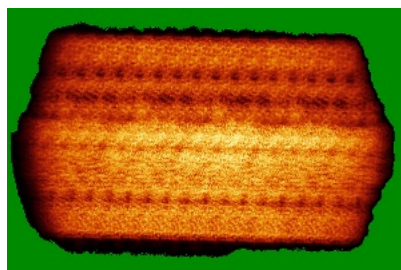
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



X



Y

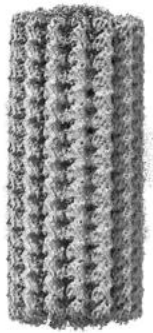


Z

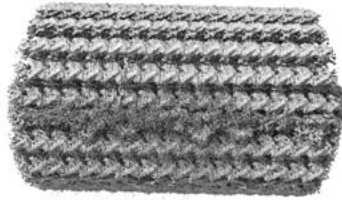
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

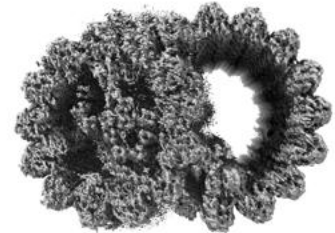
6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.3. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

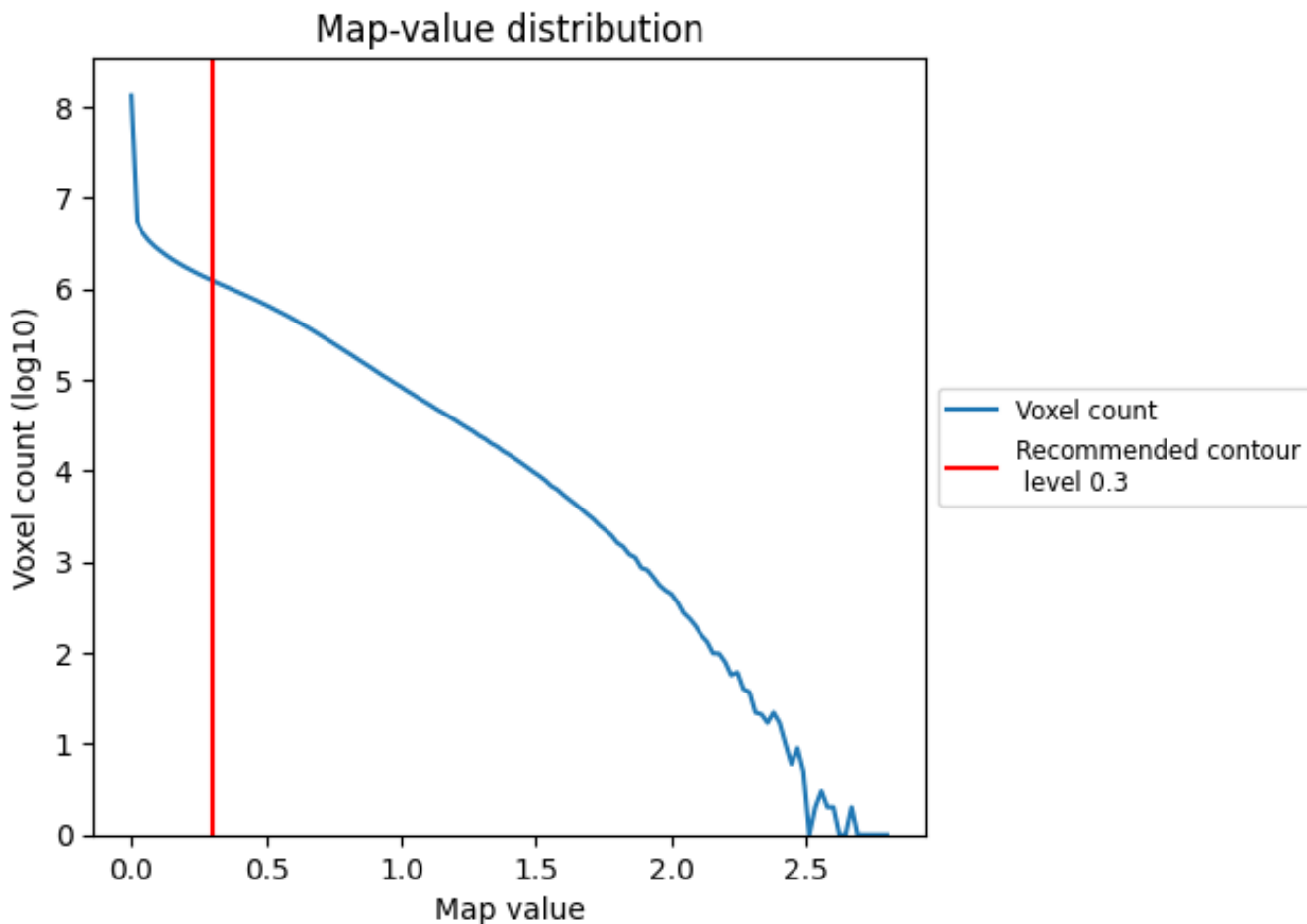
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

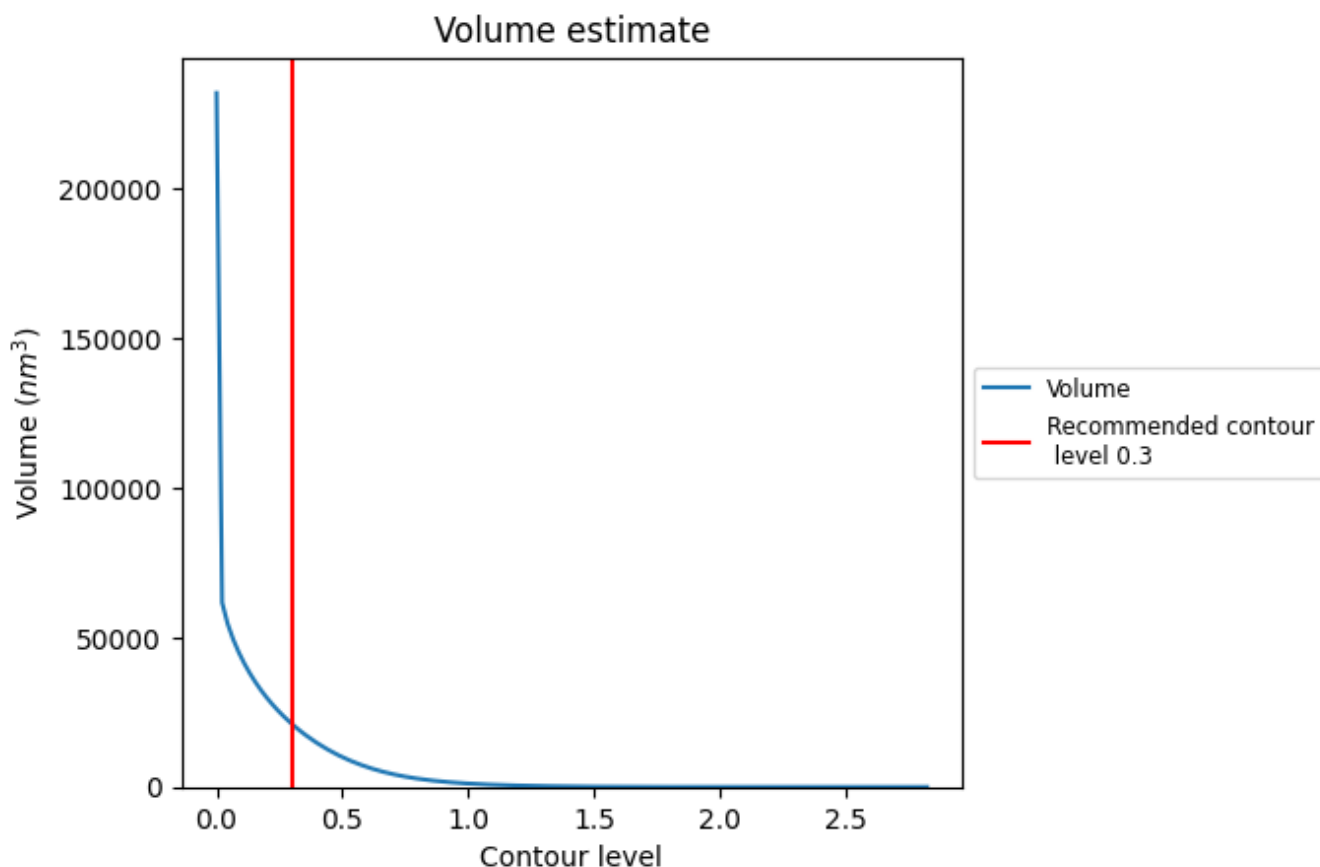
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

7.2 Volume estimate [i](#)



The volume at the recommended contour level is 21016 nm^3 ; this corresponds to an approximate mass of 18985 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

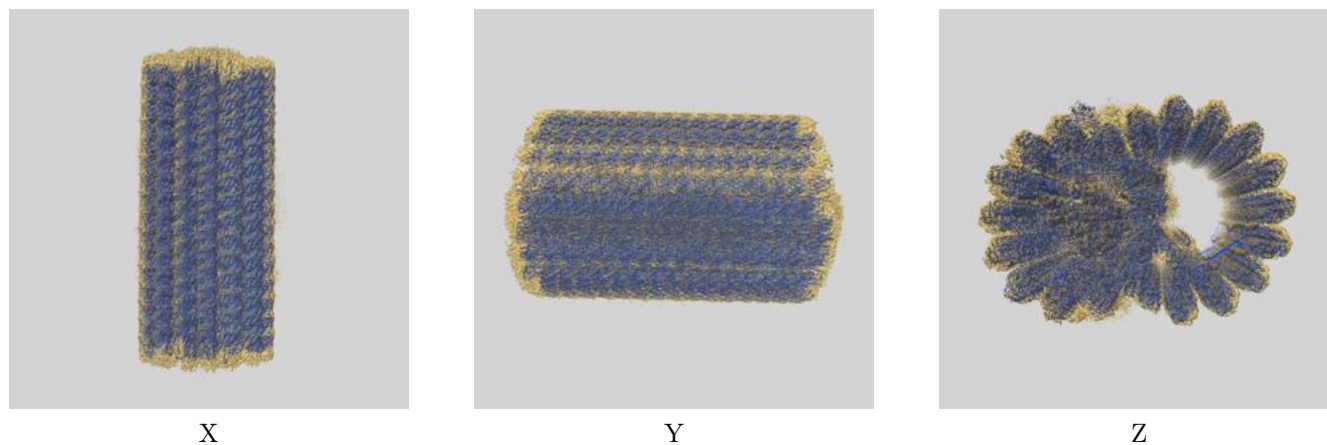
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

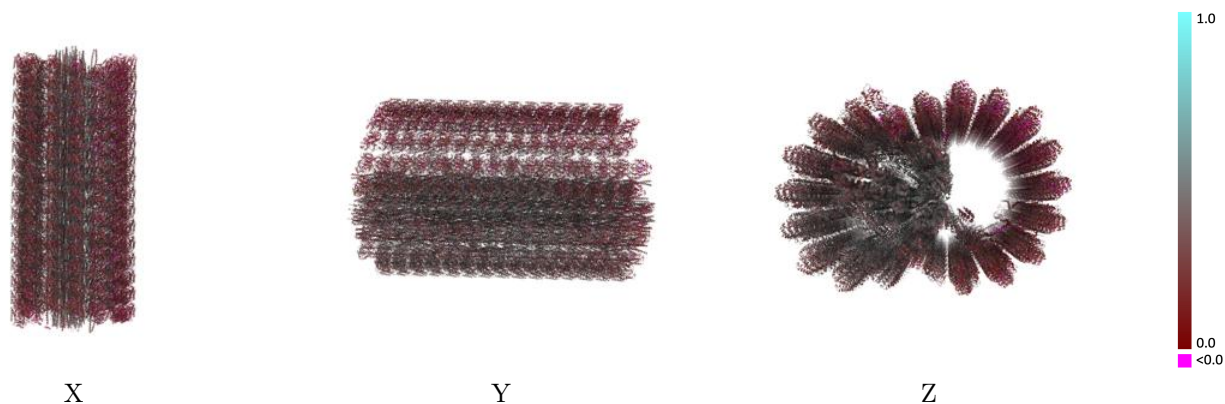
This section contains information regarding the fit between EMDB map EMD-35823 and PDB model 8IYJ. Per-residue inclusion information can be found in section 3 on page 85.

9.1 Map-model overlay [i](#)



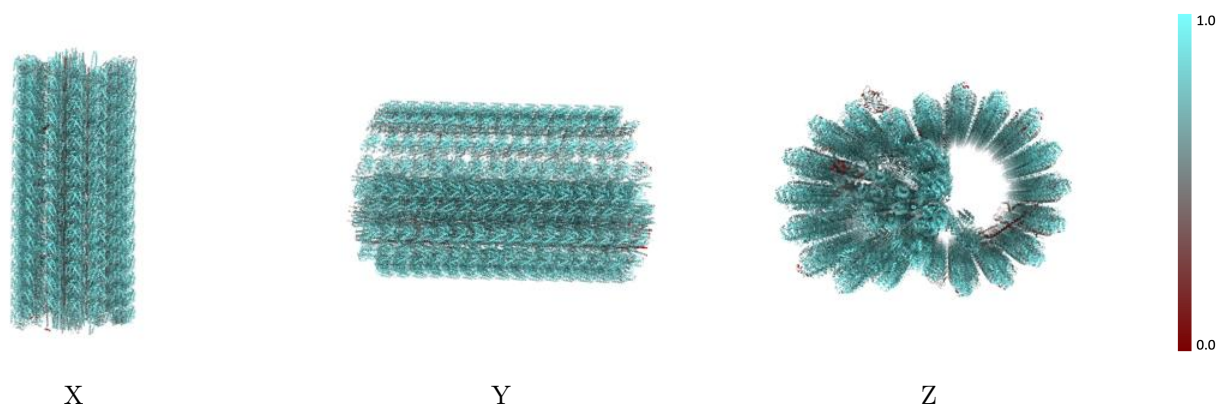
The images above show the 3D surface view of the map at the recommended contour level 0.3 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



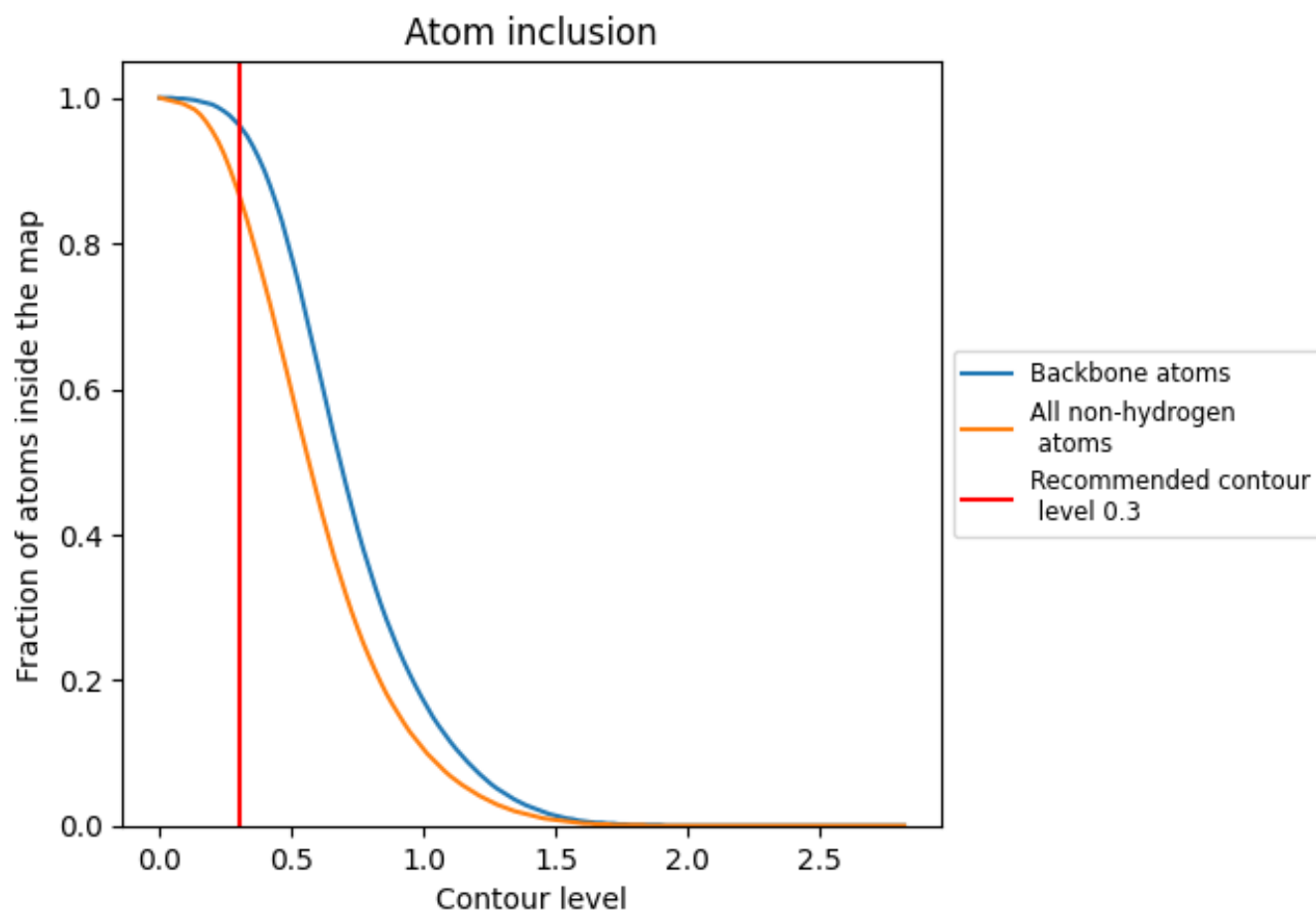
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.3).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 87% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary





















































































The table lists the average atom inclusion at the recommended contour level (0.3) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8680	 0.3500
0	 0.7450	 0.3730
1	 0.8190	 0.3730
2	 0.8610	 0.4040
3	 0.7760	 0.3250
4	 0.7930	 0.3380
5	 0.8770	 0.3650
6	 0.8500	 0.3880
7	 0.8190	 0.3740
8	 0.9100	 0.4350
A	 0.7950	 0.3460
A0	 0.8820	 0.4010
A1	 0.8990	 0.4490
A2	 0.9230	 0.4990
A3	 0.9280	 0.5010
A4	 0.9010	 0.4480
A5	 0.8410	 0.3840
AA	 0.8650	 0.2940
AB	 0.9190	 0.3730
AC	 0.9390	 0.4340
AD	 0.9280	 0.4460
AE	 0.9290	 0.4640
AF	 0.9250	 0.4520
AG	 0.9500	 0.4610
AH	 0.9330	 0.4700
AI	 0.9300	 0.4800
AJ	 0.9220	 0.4670
AK	 0.9270	 0.4730
AL	 0.9370	 0.4510
AM	 0.9220	 0.4350
AN	 0.9420	 0.3990
AO	 0.9110	 0.3680
AP	 0.8850	 0.3590
B	 0.7980	 0.3430
B0	 0.8720	 0.3970























































































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Chain	Atom inclusion	Q-score
B1	 0.8860	 0.4460
B2	 0.9190	 0.4950
B3	 0.9200	 0.4960
B4	 0.8860	 0.4550
B5	 0.7900	 0.3900
BB	 0.9060	 0.3690
BC	 0.9180	 0.3980
BD	 0.9420	 0.4120
BE	 0.9140	 0.4070
BF	 0.9410	 0.4480
BG	 0.9530	 0.4550
BH	 0.9520	 0.4650
BI	 0.9580	 0.4700
BJ	 0.9440	 0.4530
BK	 0.9540	 0.4640
BL	 0.9250	 0.4330
BM	 0.9190	 0.4170
BN	 0.9380	 0.3890
BO	 0.8930	 0.3780
BP	 0.8510	 0.3330
C	 0.8290	 0.3600
C0	 0.8950	 0.4070
C1	 0.9270	 0.4750
C2	 0.9450	 0.5030
C3	 0.9300	 0.4910
C4	 0.8790	 0.4090
C5	 0.8230	 0.3570
C6	 0.6400	 0.3920
CB	 0.8430	 0.3530
CC	 0.8710	 0.3850
CD	 0.9060	 0.3980
CE	 0.9270	 0.3920
CF	 0.9470	 0.4340
CG	 0.9510	 0.4460
CH	 0.9550	 0.4760
CI	 0.9490	 0.4640
CJ	 0.9520	 0.4680
CK	 0.9480	 0.4730
CL	 0.9360	 0.4330
CM	 0.9200	 0.4070
CN	 0.9170	 0.3490
CO	 0.8580	 0.3660





















































































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Chain	Atom inclusion	Q-score
CP	 0.8390	 0.3480
CQ	 0.7210	 0.3190
D	 0.7960	 0.4060
D0	 0.8360	 0.4130
D1	 0.8890	 0.4600
D2	 0.9110	 0.4910
D3	 0.9250	 0.4970
D4	 0.8580	 0.4260
D5	 0.8620	 0.4030
DB	 0.7410	 0.3540
DC	 0.8540	 0.3470
DD	 0.8990	 0.3840
DE	 0.9230	 0.4050
DF	 0.9730	 0.3680
DG	 0.9570	 0.3880
DH	 0.9490	 0.4210
DI	 0.9320	 0.3990
DJ	 0.9520	 0.4460
DK	 0.9470	 0.4320
DL	 0.9430	 0.4110
DM	 0.9360	 0.3780
DN	 0.9080	 0.3820
DO	 0.8770	 0.3710
DP	 0.8510	 0.3670
DQ	 0.7420	 0.3270
E	 0.9300	 0.4530
EA	 0.8070	 0.3620
EB	 0.8810	 0.3930
EC	 0.8840	 0.4030
ED	 0.9430	 0.3720
EE	 0.9300	 0.3360
EF	 0.9240	 0.3970
EG	 0.9340	 0.4070
EH	 0.9360	 0.4180
EI	 0.9290	 0.4120
EJ	 0.9370	 0.4070
EK	 0.9320	 0.3920
EL	 0.8850	 0.3760
EM	 0.8300	 0.3300
EN	 0.8540	 0.3670
EO	 0.7560	 0.3380
F	 0.6990	 0.3720





















































































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Chain	Atom inclusion	Q-score
FA	 0.8130	 0.3330
FB	 0.8760	 0.3630
FC	 0.9030	 0.3740
FD	 0.9410	 0.3690
FE	 0.9640	 0.3360
FF	 0.9340	 0.3820
FG	 0.9060	 0.3640
FH	 0.9120	 0.3890
FI	 0.9100	 0.3910
FJ	 0.9110	 0.3900
FK	 0.9180	 0.3920
FL	 0.9250	 0.3760
FM	 0.8840	 0.3570
FN	 0.8930	 0.3560
FO	 0.8540	 0.3220
G	 0.7720	 0.3440
GA	 0.7870	 0.3120
GB	 0.8800	 0.3270
GC	 0.8600	 0.3130
GD	 0.8880	 0.3340
GE	 0.9080	 0.3400
GF	 0.9190	 0.3590
GG	 0.9200	 0.3500
GH	 0.9210	 0.3660
GI	 0.9000	 0.3640
GJ	 0.9360	 0.3790
GK	 0.9310	 0.3780
GL	 0.9270	 0.3870
GM	 0.9090	 0.3910
GN	 0.9080	 0.3980
GO	 0.8720	 0.3720
H	 0.8750	 0.4220
HA	 0.7880	 0.2800
HB	 0.8590	 0.3120
HC	 0.8520	 0.3050
HD	 0.8810	 0.3330
HE	 0.8950	 0.3530
HF	 0.9350	 0.3900
HG	 0.9200	 0.4050
HH	 0.9480	 0.4210
HI	 0.9340	 0.4020
HJ	 0.9090	 0.3320





















































































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Chain	Atom inclusion	Q-score
HK	 0.9160	 0.3590
HL	 0.9090	 0.3550
HM	 0.8930	 0.3700
HN	 0.9100	 0.3950
HO	 0.8800	 0.3640
HP	 0.8350	 0.3240
I	 0.9050	 0.4550
I1	 0.8500	 0.3640
IA	 0.8200	 0.2520
IB	 0.8380	 0.2660
IC	 0.8470	 0.3060
ID	 0.8650	 0.3260
IE	 0.9100	 0.3640
IF	 0.9220	 0.3980
IG	 0.9010	 0.3990
IH	 0.9140	 0.4050
II	 0.9190	 0.4110
IJ	 0.9420	 0.3800
IK	 0.9110	 0.3600
IL	 0.9140	 0.3590
IM	 0.8890	 0.3740
IN	 0.8950	 0.3970
IO	 0.8930	 0.3800
IP	 0.8520	 0.3420
J	 0.9580	 0.4510
J1	 0.8120	 0.3530
J2	 0.7990	 0.3460
J3	 0.8590	 0.3460
J4	 0.8080	 0.3100
J5	 0.6680	 0.2790
JB	 0.8110	 0.2140
JC	 0.8560	 0.2420
JD	 0.8700	 0.2980
JE	 0.8660	 0.3150
JF	 0.9030	 0.3500
JG	 0.9050	 0.3770
JH	 0.9150	 0.4000
JI	 0.9140	 0.3950
JJ	 0.9220	 0.4140
JK	 0.9310	 0.4010
JL	 0.9040	 0.3780
JM	 0.8920	 0.3820





















































































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Chain	Atom inclusion	Q-score
JN	 0.8860	 0.3780
JO	 0.8880	 0.3950
JP	 0.8710	 0.3890
JQ	 0.8460	 0.3210
K	 0.9290	 0.4750
K1	 0.3040	 0.2490
K2	 0.1240	 0.1370
K3	 0.7560	 0.3790
KA	 0.8940	 0.3650
KB	 0.8960	 0.4290
KC	 0.9030	 0.4370
KD	 0.9150	 0.4460
KE	 0.9210	 0.4410
KF	 0.9410	 0.4520
KG	 0.9510	 0.4420
KH	 0.9490	 0.4410
KI	 0.9080	 0.4350
KJ	 0.9020	 0.4320
KK	 0.9360	 0.4160
KL	 0.9320	 0.4090
KM	 0.8980	 0.3950
KN	 0.8820	 0.3740
KO	 0.8700	 0.3620
KP	 0.7800	 0.3260
L	 0.9540	 0.4910
L1	 0.3750	 0.2720
LA	 0.9200	 0.4160
LB	 0.9230	 0.4720
LC	 0.9320	 0.4940
LD	 0.9330	 0.4980
LE	 0.9270	 0.4890
LF	 0.9340	 0.4820
LG	 0.9460	 0.4830
LH	 0.9350	 0.4990
LI	 0.9270	 0.4890
LJ	 0.9330	 0.4930
LK	 0.9250	 0.4710
LL	 0.9440	 0.4410
LM	 0.9150	 0.4160
LN	 0.8880	 0.4080
LO	 0.8720	 0.3930
LP	 0.8770	 0.3690





















































































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Chain	Atom inclusion	Q-score
M	 0.9390	 0.4690
M1	 0.8740	 0.4260
M2	 0.9280	 0.4820
M3	 0.8930	 0.4850
M4	 0.9420	 0.4580
MA	 0.9250	 0.3880
MB	 0.9250	 0.4490
MC	 0.9190	 0.4800
MD	 0.9270	 0.4940
ME	 0.9160	 0.4910
MF	 0.9310	 0.4910
MG	 0.9410	 0.4970
MH	 0.9430	 0.5050
MI	 0.9290	 0.4960
MJ	 0.9340	 0.4990
MK	 0.9110	 0.4850
ML	 0.9270	 0.4700
MM	 0.9220	 0.4380
MN	 0.9100	 0.4100
MO	 0.8830	 0.3890
MP	 0.8770	 0.3620
N	 0.8580	 0.4250
N1	 0.7580	 0.3370
N2	 0.8480	 0.4170
NA	 0.8040	 0.2160
NB	 0.8590	 0.2490
NC	 0.8320	 0.2390
ND	 0.8590	 0.2560
NE	 0.8990	 0.2590
NF	 0.8930	 0.3440
NG	 0.8770	 0.3570
NH	 0.8800	 0.3590
NI	 0.8820	 0.3340
NJ	 0.8630	 0.3150
NK	 0.8590	 0.3210
NL	 0.8630	 0.3260
NM	 0.8370	 0.3240
NN	 0.8550	 0.2990
NO	 0.8520	 0.2840
NP	 0.8130	 0.2410
O	 0.8340	 0.3660
O1	 0.8260	 0.4270





















































































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Chain	Atom inclusion	Q-score
O2	 0.8570	 0.4650
O3	 0.8790	 0.4850
O4	 0.8290	 0.4220
O5	 0.8840	 0.4290
O6	 0.8270	 0.4090
O7	 0.7630	 0.3860
O8	 0.8410	 0.4300
O9	 0.8720	 0.4380
OA	 0.6500	 0.1890
OB	 0.7760	 0.2220
OC	 0.7920	 0.2310
OD	 0.8330	 0.2400
OE	 0.8370	 0.2330
OF	 0.8870	 0.2420
OG	 0.8930	 0.2530
OH	 0.9030	 0.2590
OI	 0.8780	 0.2460
OJ	 0.8710	 0.2450
OK	 0.8730	 0.2460
OL	 0.8920	 0.2470
OM	 0.8590	 0.2560
ON	 0.8320	 0.2420
OO	 0.8050	 0.2380
OP	 0.7350	 0.2020
P	 0.8590	 0.4530
P1	 0.7340	 0.3020
P2	 0.8260	 0.3510
P3	 0.7070	 0.3900
P4	 0.8340	 0.4410
P5	 0.8210	 0.4500
P6	 0.8680	 0.4310
P7	 0.6220	 0.3510
P8	 0.8710	 0.4750
P9	 0.8010	 0.3540
PB	 0.8240	 0.1820
PC	 0.8430	 0.1930
PD	 0.8690	 0.2200
PE	 0.8960	 0.2040
PF	 0.8830	 0.2140
PG	 0.8680	 0.2230
PH	 0.8840	 0.2450
PI	 0.8800	 0.2420





















































































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Chain	Atom inclusion	Q-score
PJ	 0.8850	 0.2420
PK	 0.8730	 0.2380
PL	 0.9120	 0.2280
PM	 0.8850	 0.2250
PN	 0.8880	 0.2170
PO	 0.8520	 0.2080
PP	 0.7940	 0.1750
Q	 0.7590	 0.3850
Q1	 0.8530	 0.4350
Q2	 0.8780	 0.4680
Q3	 0.8610	 0.4650
Q4	 0.8150	 0.4100
Q5	 0.7470	 0.3710
QB	 0.6730	 0.1560
QC	 0.7690	 0.1760
QD	 0.8170	 0.2060
QE	 0.8750	 0.1810
QF	 0.8640	 0.1940
QG	 0.8360	 0.2040
QH	 0.8650	 0.2280
QI	 0.8470	 0.2240
QJ	 0.8660	 0.2370
QK	 0.8590	 0.2260
QL	 0.8810	 0.2140
QM	 0.8380	 0.2120
QN	 0.8140	 0.2100
QO	 0.7980	 0.2020
QP	 0.6950	 0.1720
R	 0.8810	 0.4430
R0	 0.8700	 0.3790
R1	 0.9040	 0.4620
R2	 0.9220	 0.4960
R3	 0.9260	 0.4670
R4	 0.8520	 0.3830
R5	 0.8110	 0.3690
RC	 0.8530	 0.1870
RD	 0.8990	 0.2130
RE	 0.9030	 0.2030
RF	 0.9070	 0.1920
RG	 0.8840	 0.1840
RH	 0.9070	 0.2250
RI	 0.8940	 0.2210





















































































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Chain	Atom inclusion	Q-score
RJ	 0.9150	 0.2360
RK	 0.9030	 0.2260
RL	 0.9190	 0.2180
RM	 0.8990	 0.2140
RN	 0.9000	 0.2170
RO	 0.8680	 0.2050
RP	 0.7710	 0.1710
S	 0.8470	 0.4180
S0	 0.8060	 0.3660
S1	 0.9270	 0.4420
S2	 0.9350	 0.4630
S3	 0.9250	 0.4420
S4	 0.8740	 0.4030
S5	 0.8590	 0.4150
S6	 0.9190	 0.4870
S7	 0.9020	 0.4740
S8	 0.9220	 0.4490
S9	 0.8440	 0.3670
SA	 0.7240	 0.2080
SB	 0.8390	 0.2370
SC	 0.8500	 0.2410
SD	 0.9010	 0.2200
SE	 0.8460	 0.2170
SF	 0.8770	 0.2460
SG	 0.8640	 0.2570
SH	 0.8890	 0.2710
SI	 0.8700	 0.2680
SJ	 0.8850	 0.2430
SK	 0.8830	 0.2540
SL	 0.8670	 0.2600
SM	 0.8260	 0.2480
SN	 0.7240	 0.2130
T	 0.8320	 0.4090
T0	 0.8040	 0.3560
T1	 0.8710	 0.3820
T2	 0.9220	 0.4490
T3	 0.9180	 0.4580
T4	 0.9040	 0.4270
T5	 0.7980	 0.3550
TA	 0.7380	 0.2280
TB	 0.8190	 0.2650
TC	 0.8450	 0.2660

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Chain	Atom inclusion	Q-score
TD	 0.9110	 0.2560
TE	 0.8590	 0.2250
TF	 0.8680	 0.2620
TG	 0.8700	 0.2800
TH	 0.8760	 0.2890
TI	 0.8540	 0.2840
TJ	 0.8660	 0.2690
TK	 0.8960	 0.2720
TL	 0.8610	 0.2840
TM	 0.8500	 0.2720
TN	 0.7700	 0.2330
U	 0.8880	 0.4560
U0	 0.8070	 0.3730
U1	 0.9130	 0.4170
U2	 0.9180	 0.4390
U3	 0.8930	 0.3860
U4	 0.7930	 0.3300
U5	 0.6360	 0.3010
U6	 0.7690	 0.3130
U7	 0.8590	 0.3930
U8	 0.7320	 0.3290
U9	 0.6040	 0.2760
UA	 0.7360	 0.2330
UB	 0.8440	 0.2530
UC	 0.8430	 0.2650
UD	 0.8920	 0.2410
UE	 0.8580	 0.2150
UF	 0.8660	 0.2480
UG	 0.8640	 0.2610
UH	 0.8800	 0.2710
UI	 0.8780	 0.2700
UJ	 0.8590	 0.2480
UK	 0.8780	 0.2360
UL	 0.8060	 0.2420
UM	 0.7860	 0.2460
UN	 0.7390	 0.2150
UO	 0.6310	 0.1830
V	 0.8930	 0.4570
V0	 0.2680	 0.2490
V1	 0.6600	 0.3050
V2	 0.8200	 0.3290
V3	 0.6700	 0.2920





















































































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Chain	Atom inclusion	Q-score
V4	0.5980	0.2690
V5	0.7330	0.3060
V6	0.8660	0.3570
V7	0.8460	0.3410
V8	0.7510	0.3320
V9	0.7430	0.3340
VA	0.7630	0.2010
VB	0.8560	0.2300
VC	0.8590	0.2530
VD	0.9000	0.2570
VE	0.8690	0.2550
VF	0.8590	0.2750
VG	0.8500	0.2910
VH	0.8860	0.3030
VI	0.8650	0.2990
VJ	0.8680	0.2870
VK	0.8870	0.2760
VL	0.8870	0.2760
VM	0.8490	0.2710
VN	0.8290	0.2370
VO	0.7700	0.2270
W	0.8300	0.4350
W0	0.3180	0.1640
W2	0.6400	0.3100
W4	0.8310	0.4070
W5	0.8800	0.4200
W6	0.8760	0.4340
W7	0.7690	0.3340
WA	0.7630	0.2440
WB	0.8580	0.2860
WC	0.8550	0.3090
WD	0.9140	0.3140
WE	0.9030	0.2940
WF	0.9100	0.3180
WG	0.8940	0.3360
WH	0.9190	0.3590
WI	0.8880	0.3430
WJ	0.9150	0.3410
WK	0.9000	0.3270
WL	0.9310	0.3210
WM	0.8720	0.3150
WN	0.8850	0.3020













































































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Chain	Atom inclusion	Q-score
WO	 0.8350	 0.2800
WP	 0.7660	 0.2230
X	 0.9030	 0.4400
X0	 0.7600	 0.4530
X1	 0.7070	 0.3740
X2	 0.7720	 0.4480
X3	 0.7500	 0.4150
X4	 0.8110	 0.4380
X5	 0.7700	 0.3840
X6	 0.7830	 0.3710
X7	 0.4670	 0.2840
X8	 0.4050	 0.1970
XA	 0.7370	 0.3240
XB	 0.9040	 0.3860
XC	 0.9740	 0.3550
XD	 0.9560	 0.4080
XE	 0.9500	 0.4290
XF	 0.9450	 0.4270
XG	 0.9430	 0.4000
XH	 0.9190	 0.3820
Y	 0.8980	 0.4550
Y0	 0.8170	 0.3290
Y1	 0.8540	 0.3580
Y2	 0.8790	 0.3210
Y3	 0.7040	 0.2240
Y4	 0.7680	 0.3150
Y5	 0.6860	 0.2970
YA	 0.7140	 0.3380
YB	 0.8500	 0.3800
YC	 0.7350	 0.3030
YD	 0.9020	 0.4210
YE	 0.8340	 0.3980
YF	 0.9020	 0.3830
YG	 0.8000	 0.3630
YH	 0.7570	 0.3130
Z	 0.8110	 0.3990
Z1	 0.8040	 0.4030
Z2	 0.7830	 0.4180
Z3	 0.9100	 0.4100
Z4	 0.8900	 0.4100
Z5	 0.8200	 0.3610
a	 0.5800	 0.2430

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Chain	Atom inclusion	Q-score
a1	 0.8360	 0.4130
a2	 0.9120	 0.4490
a3	 0.9160	 0.4710
a4	 0.8200	 0.3810
a6	 0.5760	 0.2710
b	 0.4820	 0.2450
b1	 0.8640	 0.3380
b2	 0.8880	 0.4280
b3	 0.9300	 0.4380
b4	 0.8990	 0.3900
b5	 0.8220	 0.3460
c	 0.5560	 0.2370
d	 0.4670	 0.2280
e	 0.8750	 0.3360
f	 0.8700	 0.3610
g	 0.8630	 0.3400
h	 0.8200	 0.3530
h1	 0.9130	 0.4070
h2	 0.9060	 0.4390
h3	 0.8960	 0.4440
h4	 0.8470	 0.3780
i	 0.8750	 0.3950
i1	 0.9330	 0.3980
i2	 0.8110	 0.3250
i3	 0.7840	 0.3450
i4	 0.8250	 0.2940
j	 0.8740	 0.4100
j1	 0.8270	 0.3630
k	 0.8450	 0.3420
l	 0.9480	 0.4940
m	 0.9580	 0.4950
n	 0.9480	 0.4780
o	 0.4630	 0.2030
p	 0.5340	 0.2370
q	 0.8580	 0.4050
r	 0.8490	 0.4290
s	 0.8670	 0.4030
y	 0.8330	 0.3600