



Full wwPDB EM Validation Report ⓘ

Dec 13, 2025 – 06:33 PM EST

PDB ID : 9Y9Z / pdb_00009y9z
EMDB ID : EMD-72715
Title : Cryo-EM structure of conoid fiber from Toxoplasma gondii (24-nm repeat)
Authors : Zeng, J.; Zhang, R.
Deposited on : 2025-09-15
Resolution : 3.14 Å (reported)

This is a Full wwPDB EM Validation 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.dev129
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : **FAILED**
buster-report : 1.1.7 (2018)
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.47

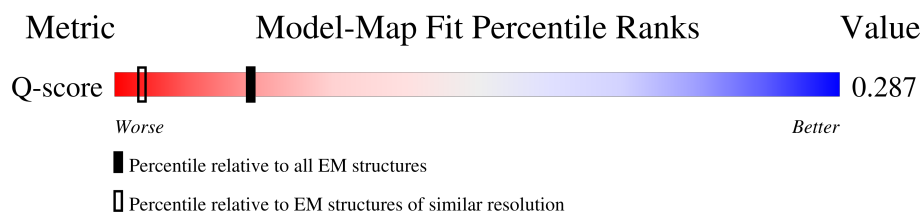
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.14 Å.

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



Metric	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Q-score	25397	14483 (2.64 - 3.64)

MolProbity failed to run properly - the sequence quality summary graphics cannot be shown.

2 Entry composition [i](#)

There are 17 unique types of molecules in this entry. The entry contains 806376 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 CF2, TGME49_258090.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	294	Total	C	N	O	S	0	0
			2425	1459	480	479	7		
1	B	241	Total	C	N	O	S	0	0
			1998	1212	394	385	7		
1	C	148	Total	C	N	O	S	0	0
			1232	751	239	237	5		
1	D	118	Total	C	N	O	S	0	0
			993	597	197	195	4		
1	E	269	Total	C	N	O	S	0	0
			2215	1345	439	424	7		
1	F	299	Total	C	N	O	S	0	0
			2469	1484	491	487	7		
1	G	170	Total	C	N	O	S	0	0
			1403	857	272	269	5		
1	H	114	Total	C	N	O	S	0	0
			959	578	192	185	4		
1	I	362	Total	C	N	O	S	0	0
			3014	1819	603	582	10		
1	J	356	Total	C	N	O	S	0	0
			2963	1787	593	572	11		
1	K	197	Total	C	N	O	S	0	0
			1637	990	325	317	5		
1	L	202	Total	C	N	O	S	0	0
			1678	1015	330	327	6		
1	M	215	Total	C	N	O	S	0	0
			1786	1077	356	347	6		
1	N	208	Total	C	N	O	S	0	0
			1723	1038	345	334	6		
1	O	57	Total	C	N	O	S	0	0
			465	280	92	90	3		
1	P	54	Total	C	N	O	S	0	0
			444	265	89	87	3		
1	Q	346	Total	C	N	O	S	0	0
			2876	1740	572	554	10		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
1	R	254	Total	C	N	O	S	0	0
			2096	1265	420	405	6		
1	S	177	Total	C	N	O	S	0	0
			1468	889	289	285	5		
1	T	77	Total	C	N	O	S	0	0
			647	394	126	123	4		
1	U	372	Total	C	N	O	S	0	0
			3096	1864	617	604	11		
1	V	258	Total	C	N	O	S	0	0
			2121	1278	424	413	6		
1	W	198	Total	C	N	O	S	0	0
			1649	996	326	321	6		
1	X	90	Total	C	N	O	S	0	0
			749	456	149	140	4		
1	Y	356	Total	C	N	O	S	0	0
			2959	1788	593	569	9		
1	Z	243	Total	C	N	O	S	0	0
			2017	1217	406	388	6		
1	1	112	Total	C	N	O	S	0	0
			881	542	170	167	2		
1	2	112	Total	C	N	O	S	0	0
			881	542	170	167	2		
1	a	187	Total	C	N	O	S	0	0
			1559	941	315	298	5		
1	b	85	Total	C	N	O	S	0	0
			731	440	146	141	4		
1	c	359	Total	C	N	O	S	0	0
			2988	1800	600	579	9		
1	d	248	Total	C	N	O	S	0	0
			2057	1241	411	398	7		
1	e	85	Total	C	N	O	S	0	0
			725	436	142	142	5		
1	f	190	Total	C	N	O	S	0	0
			1586	949	322	310	5		
1	g	100	Total	C	N	O	S	0	0
			729	438	143	140	8		
1	h	100	Total	C	N	O	S	0	0
			729	438	143	140	8		
1	i	100	Total	C	N	O	S	0	0
			729	438	143	140	8		
1	j	100	Total	C	N	O	S	0	0
			729	438	143	140	8		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
1	k	100	Total	C	N	O	S	0	0
			729	438	143	140	8		
1	l	100	Total	C	N	O	S	0	0
			729	438	143	140	8		
1	m	100	Total	C	N	O	S	0	0
			729	438	143	140	8		
1	n	88	Total	C	N	O	S	0	0
			699	428	140	130	1		
1	o	88	Total	C	N	O	S	0	0
			699	428	140	130	1		
1	p	88	Total	C	N	O	S	0	0
			699	428	140	130	1		
1	q	88	Total	C	N	O	S	0	0
			699	428	140	130	1		
1	r	88	Total	C	N	O	S	0	0
			699	428	140	130	1		
1	s	88	Total	C	N	O	S	0	0
			699	428	140	130	1		
1	t	88	Total	C	N	O	S	0	0
			699	428	140	130	1		
1	u	112	Total	C	N	O	S	0	0
			881	542	170	167	2		
1	v	112	Total	C	N	O	S	0	0
			881	542	170	167	2		
1	w	112	Total	C	N	O	S	0	0
			881	542	170	167	2		
1	x	112	Total	C	N	O	S	0	0
			881	542	170	167	2		
1	y	112	Total	C	N	O	S	0	0
			881	542	170	167	2		
1	z	112	Total	C	N	O	S	0	0
			881	542	170	167	2		

- Molecule 2 is a protein called CF1, TGME49_222350.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	10	175	Total	C	N	O	S	0	0
			1493	913	298	275	7		
2	11	177	Total	C	N	O	S	0	0
			1512	925	303	277	7		
2	12	175	Total	C	N	O	S	0	0
			1493	913	298	275	7		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
2	13	177	Total	C	N	O	S	0	0
			1512	925	303	277	7		
2	14	175	Total	C	N	O	S	0	0
			1493	913	298	275	7		
2	15	88	Total	C	N	O	S	0	0
			764	473	155	133	3		
2	16	97	Total	C	N	O	S	0	0
			834	516	167	147	4		
2	3	177	Total	C	N	O	S	0	0
			1512	925	303	277	7		
2	4	175	Total	C	N	O	S	0	0
			1493	913	298	275	7		
2	5	177	Total	C	N	O	S	0	0
			1512	925	303	277	7		
2	6	175	Total	C	N	O	S	0	0
			1493	913	298	275	7		
2	7	177	Total	C	N	O	S	0	0
			1512	925	303	277	7		
2	8	175	Total	C	N	O	S	0	0
			1493	913	298	275	7		
2	9	177	Total	C	N	O	S	0	0
			1512	925	303	277	7		

- Molecule 3 is a protein called Tubulin alpha chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	1A	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		
3	1C	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		
3	1E	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		
3	1G	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		
3	1I	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		
3	1K	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		
3	1M	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		
3	2A	428	Total	C	N	O	S	0	0
			3325	2105	569	625	26		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
3	2C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	2E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	2G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	2I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	2K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	2M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	3A	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	3C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	3E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	3G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	3I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	3K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	3M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	4A	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	4C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	4E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	4G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	4I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	4K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	4M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	5A	428	Total 3325	C 2105	N 569	O 625	S 26	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
3	5C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	5E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	5G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	5I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	5K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	5M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	6A	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	6C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	6E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	6G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	6I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	6K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	6M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	7A	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	7C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	7E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	7G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	7I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	7K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	7M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	8A	428	Total 3325	C 2105	N 569	O 625	S 26	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
3	8C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	8E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	8G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	8I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	8K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	8M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	9A	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	9C	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	9E	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	9G	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	9I	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	9K	428	Total 3325	C 2105	N 569	O 625	S 26	0	0
3	9M	428	Total 3325	C 2105	N 569	O 625	S 26	0	0

- Molecule 4 is a protein called Tubulin beta chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	1B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	1D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	1F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	1H	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	1J	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	1L	426	Total 3331	C 2094	N 569	O 641	S 27	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
4	1N	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	2B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	2D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	2F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	2H	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	2J	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	2L	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	3B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	3D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	3F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	3H	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	3J	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	3L	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	4B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	4D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	4F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	4H	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	4J	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	4L	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	5B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	5D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
4	5F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	5H	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	5J	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	5L	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	5N	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	6B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	6D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	6F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	6H	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	6J	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	6L	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	6N	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	7B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	7D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	7F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	7H	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	7J	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	7L	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	8B	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	8D	426	Total 3331	C 2094	N 569	O 641	S 27	0	0
4	8F	426	Total 3331	C 2094	N 569	O 641	S 27	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
4	8H	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	8J	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	8L	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	9B	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	9D	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	9F	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	9H	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	9J	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		
4	9L	426	Total	C	N	O	S	0	0
			3331	2094	569	641	27		

- Molecule 5 is a protein called Spindle assembly abnormal protein 6 N-terminal domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	20	225	Total	C	N	O	S	0	0
			1814	1144	318	339	13		
5	21	225	Total	C	N	O	S	0	0
			1815	1146	318	339	12		
5	22	225	Total	C	N	O	S	0	0
			1814	1144	318	339	13		
5	23	225	Total	C	N	O	S	0	0
			1815	1146	318	339	12		
5	24	225	Total	C	N	O	S	0	0
			1814	1144	318	339	13		
5	25	225	Total	C	N	O	S	0	0
			1815	1146	318	339	12		
5	26	225	Total	C	N	O	S	0	0
			1814	1144	318	339	13		
5	27	225	Total	C	N	O	S	0	0
			1815	1146	318	339	12		
5	28	225	Total	C	N	O	S	0	0
			1814	1144	318	339	13		
5	29	225	Total	C	N	O	S	0	0
			1815	1146	318	339	12		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
5	30	225	Total	C	N	O	S	0	0
			1814	1144	318	339	13		
5	31	225	Total	C	N	O	S	0	0
			1815	1146	318	339	12		
5	32	225	Total	C	N	O	S	0	0
			1814	1144	318	339	13		
5	33	165	Total	C	N	O	S	0	0
			1321	836	220	255	10		
5	35	217	Total	C	N	O	S	0	0
			1744	1106	301	325	12		
5	36	213	Total	C	N	O	S	0	0
			1723	1090	304	317	12		
5	37	217	Total	C	N	O	S	0	0
			1744	1106	301	325	12		
5	38	213	Total	C	N	O	S	0	0
			1723	1090	304	317	12		
5	39	217	Total	C	N	O	S	0	0
			1744	1106	301	325	12		
5	40	213	Total	C	N	O	S	0	0
			1723	1090	304	317	12		
5	42	213	Total	C	N	O	S	0	0
			1723	1090	304	317	12		
5	43	217	Total	C	N	O	S	0	0
			1744	1106	301	325	12		
5	44	213	Total	C	N	O	S	0	0
			1723	1090	304	317	12		
5	45	217	Total	C	N	O	S	0	0
			1744	1106	301	325	12		
5	46	213	Total	C	N	O	S	0	0
			1723	1090	304	317	12		
5	47	217	Total	C	N	O	S	0	0
			1744	1106	301	325	12		
5	48	213	Total	C	N	O	S	0	0
			1723	1090	304	317	12		
5	49	230	Total	C	N	O	S	0	0
			1841	1161	323	344	13		
5	50	233	Total	C	N	O	S	0	0
			1853	1166	326	348	13		
5	51	230	Total	C	N	O	S	0	0
			1841	1161	323	344	13		
5	52	233	Total	C	N	O	S	0	0
			1853	1166	326	348	13		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
5	53	230	Total	C	N	O	S	0	0
			1841	1161	323	344	13		
5	54	233	Total	C	N	O	S	0	0
			1853	1166	326	348	13		
5	55	230	Total	C	N	O	S	0	0
			1841	1161	323	344	13		
5	56	233	Total	C	N	O	S	0	0
			1853	1166	326	348	13		
5	57	230	Total	C	N	O	S	0	0
			1841	1161	323	344	13		
5	58	233	Total	C	N	O	S	0	0
			1853	1166	326	348	13		
5	59	230	Total	C	N	O	S	0	0
			1841	1161	323	344	13		
5	60	233	Total	C	N	O	S	0	0
			1853	1166	326	348	13		
5	61	230	Total	C	N	O	S	0	0
			1841	1161	323	344	13		
5	62	233	Total	C	N	O	S	0	0
			1853	1166	326	348	13		

- Molecule 6 is a protein called CIP3, TGME49_225020.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	63	623	Total	C	N	O	S	0	0
			5055	3170	940	928	17		
6	64	623	Total	C	N	O	S	0	0
			5055	3170	940	928	17		
6	65	623	Total	C	N	O	S	0	0
			5055	3170	940	928	17		
6	66	623	Total	C	N	O	S	0	0
			5055	3170	940	928	17		
6	67	623	Total	C	N	O	S	0	0
			5055	3170	940	928	17		
6	68	623	Total	C	N	O	S	0	0
			5055	3170	940	928	17		
6	69	623	Total	C	N	O	S	0	0
			5055	3170	940	928	17		

- Molecule 7 is a protein called CF6, TGME49_245640.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	71	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	72	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	73	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	75	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	76	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	77	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	78	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	79	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	80	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	82	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	83	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	84	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	85	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	86	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	87	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	89	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	90	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	91	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	92	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	93	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	94	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	95	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
7	96	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		
7	97	170	Total	C	N	O	S	0	0
			1382	881	251	243	7		

- Molecule 8 is a protein called CF4, TGME49_246720.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	A1	325	Total	C	N	O	S	0	0
			2582	1631	455	482	14		
8	A2	325	Total	C	N	O	S	0	0
			2582	1631	455	482	14		
8	A3	232	Total	C	N	O	S	0	0
			1844	1157	327	347	13		
8	A4	142	Total	C	N	O	S	0	0
			1016	628	183	199	6		
8	A5	325	Total	C	N	O	S	0	0
			2582	1631	455	482	14		
8	A6	325	Total	C	N	O	S	0	0
			2582	1631	455	482	14		
8	A7	325	Total	C	N	O	S	0	0
			2582	1631	455	482	14		
8	A8	325	Total	C	N	O	S	0	0
			2582	1631	455	482	14		
8	A9	128	Total	C	N	O	S	0	0
			1020	658	178	183	1		

- Molecule 9 is a protein called CF3, TGME49_255895.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	B1	257	Total	C	N	O	S	0	0
			2055	1287	388	369	11		
9	B2	257	Total	C	N	O	S	0	0
			2055	1287	388	369	11		
9	B3	257	Total	C	N	O	S	0	0
			2055	1287	388	369	11		
9	B4	257	Total	C	N	O	S	0	0
			2055	1287	388	369	11		
9	B5	257	Total	C	N	O	S	0	0
			2055	1287	388	369	11		
9	B6	257	Total	C	N	O	S	0	0
			2055	1287	388	369	11		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
9	B7	257	Total	C	N	O	S	0	0
			2055	1287	388	369	11		

- Molecule 10 is a protein called CPH1, TGME49_266630.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	C0	184	Total	C	N	O	S	0	0
			1471	938	257	261	15		
10	C6	184	Total	C	N	O	S	0	0
			1471	938	257	261	15		
10	C7	184	Total	C	N	O	S	0	0
			1471	938	257	261	15		
10	C8	184	Total	C	N	O	S	0	0
			1471	938	257	261	15		
10	C9	184	Total	C	N	O	S	0	0
			1471	938	257	261	15		
10	D0	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	D1	184	Total	C	N	O	S	0	0
			1471	938	257	261	15		
10	D2	184	Total	C	N	O	S	0	0
			1471	938	257	261	15		
10	D3	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	D4	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	D5	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	D6	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	D7	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	D8	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	D9	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E0	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E1	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E2	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
10	E3	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E4	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E5	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E6	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E7	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E8	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	E9	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	F1	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	F2	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		
10	F3	272	Total	C	N	O	S	0	0
			2197	1400	389	390	18		

- Molecule 11 is a protein called Microtubule associated protein SPM1.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	C1	30	Total	C	N	O	S	0	0
			237	155	38	43	1		
11	C2	30	Total	C	N	O		0	0
			238	158	36	44			
11	C3	30	Total	C	N	O		0	0
			242	159	39	44			
11	C4	27	Total	C	N	O		0	0
			214	140	35	39			
11	C5	30	Total	C	N	O		0	0
			239	158	38	43			

There are 5 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C1	93	ARG	PRO	conflict	UNP A0A7J6K285
C2	93	ARG	PRO	conflict	UNP A0A7J6K285
C3	93	ARG	PRO	conflict	UNP A0A7J6K285
C4	93	ARG	PRO	conflict	UNP A0A7J6K285
C5	93	ARG	PRO	conflict	UNP A0A7J6K285

- Molecule 12 is a protein called PRP, TGME49_291880.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	F0	107	Total	C	N	O	S	0	0
			883	576	150	153	4		
12	F5	102	Total	C	N	O	S	0	0
			847	554	142	148	3		
12	F6	107	Total	C	N	O	S	0	0
			883	576	150	153	4		
12	F7	102	Total	C	N	O	S	0	0
			847	554	142	148	3		
12	F8	107	Total	C	N	O	S	0	0
			883	576	150	153	4		
12	F9	102	Total	C	N	O	S	0	0
			847	554	142	148	3		
12	G0	50	Total	C	N	O		0	0
			412	253	82	77			
12	G1	102	Total	C	N	O	S	0	0
			847	554	142	148	3		
12	G2	107	Total	C	N	O	S	0	0
			883	576	150	153	4		
12	G3	102	Total	C	N	O	S	0	0
			847	554	142	148	3		
12	G4	107	Total	C	N	O	S	0	0
			883	576	150	153	4		
12	G5	102	Total	C	N	O	S	0	0
			847	554	142	148	3		
12	G6	107	Total	C	N	O	S	0	0
			883	576	150	153	4		
12	G7	102	Total	C	N	O	S	0	0
			847	554	142	148	3		
12	G8	107	Total	C	N	O	S	0	0
			883	576	150	153	4		
12	G9	44	Total	C	N	O		0	0
			365	222	73	70			
12	H0	24	Total	C	N	O		0	0
			184	114	30	40			
12	H1	24	Total	C	N	O		0	0
			184	114	30	40			
12	H2	44	Total	C	N	O		0	0
			365	222	73	70			
12	H3	50	Total	C	N	O		0	0
			412	253	82	77			
12	H4	24	Total	C	N	O		0	0
			184	114	30	40			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				AltConf	Trace
12	H5	44	Total	C	N	O	0	0
			365	222	73	70		
12	H6	50	Total	C	N	O	0	0
			412	253	82	77		
12	H7	24	Total	C	N	O	0	0
			184	114	30	40		
12	H8	44	Total	C	N	O	0	0
			365	222	73	70		
12	H9	50	Total	C	N	O	0	0
			412	253	82	77		
12	I1	44	Total	C	N	O	0	0
			365	222	73	70		
12	I2	50	Total	C	N	O	0	0
			412	253	82	77		
12	I3	24	Total	C	N	O	0	0
			184	114	30	40		
12	I4	44	Total	C	N	O	0	0
			365	222	73	70		
12	I5	50	Total	C	N	O	0	0
			412	253	82	77		
12	I6	24	Total	C	N	O	0	0
			184	114	30	40		
12	I7	44	Total	C	N	O	0	0
			365	222	73	70		
12	I8	50	Total	C	N	O	0	0
			412	253	82	77		
12	I9	24	Total	C	N	O	0	0
			184	114	30	40		

- Molecule 13 is a protein called CF5, TGME49_297180.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	J1	308	Total	C	N	O	S	0	0
			2488	1572	457	452	7		
13	J2	308	Total	C	N	O	S	0	0
			2488	1572	457	452	7		
13	J3	308	Total	C	N	O	S	0	0
			2488	1572	457	452	7		
13	J4	308	Total	C	N	O	S	0	0
			2488	1572	457	452	7		
13	J5	308	Total	C	N	O	S	0	0
			2488	1572	457	452	7		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
13	J6	308	Total	C	N	O	S	0	0
			2488	1572	457	452	7		
13	J7	308	Total	C	N	O	S	0	0
			2488	1572	457	452	7		

- Molecule 14 is a protein called DCX, TGME49_256030.

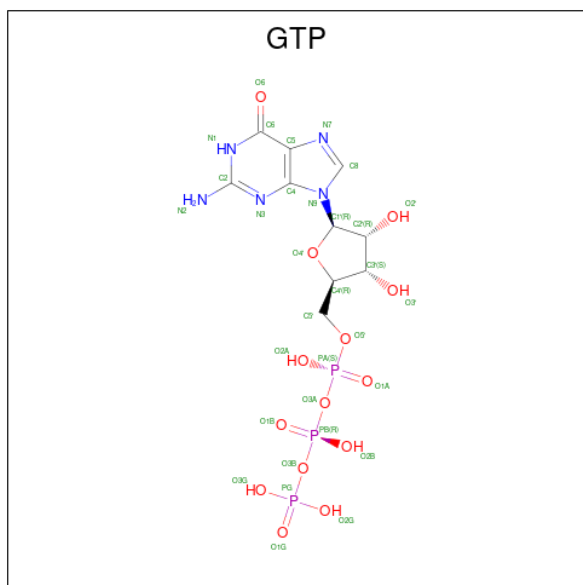
Mol	Chain	Residues	Atoms					AltConf	Trace
14	K0	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K1	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K2	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K3	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K4	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K5	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K6	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K7	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K8	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	K9	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L0	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L1	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L2	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L3	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L4	132	Total	C	N	O	S	0	0
			1073	696	185	189	3		
14	L5	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L6	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
14	L7	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L8	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	L9	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	M1	125	Total	C	N	O	S	0	0
			1011	656	170	182	3		
14	M2	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	M3	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	M4	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	M5	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	M6	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		
14	M7	189	Total	C	N	O	S	0	0
			1537	983	269	281	4		

- Molecule 15 is GUANOSINE-5'-TRIPHOSPHATE (CCD ID: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
15	1A	1	Total	C	N	O	P	0
			32	10	5	14	3	

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf
15	1C	1	Total 32	C 10	N 5	O 14	P 3	0
15	1E	1	Total 32	C 10	N 5	O 14	P 3	0
15	1G	1	Total 32	C 10	N 5	O 14	P 3	0
15	1I	1	Total 32	C 10	N 5	O 14	P 3	0
15	1K	1	Total 32	C 10	N 5	O 14	P 3	0
15	1M	1	Total 32	C 10	N 5	O 14	P 3	0
15	2A	1	Total 32	C 10	N 5	O 14	P 3	0
15	2C	1	Total 32	C 10	N 5	O 14	P 3	0
15	2E	1	Total 32	C 10	N 5	O 14	P 3	0
15	2G	1	Total 32	C 10	N 5	O 14	P 3	0
15	2I	1	Total 32	C 10	N 5	O 14	P 3	0
15	2K	1	Total 32	C 10	N 5	O 14	P 3	0
15	2M	1	Total 32	C 10	N 5	O 14	P 3	0
15	3A	1	Total 32	C 10	N 5	O 14	P 3	0
15	3C	1	Total 32	C 10	N 5	O 14	P 3	0
15	3E	1	Total 32	C 10	N 5	O 14	P 3	0
15	3G	1	Total 32	C 10	N 5	O 14	P 3	0
15	3I	1	Total 32	C 10	N 5	O 14	P 3	0
15	3K	1	Total 32	C 10	N 5	O 14	P 3	0
15	3M	1	Total 32	C 10	N 5	O 14	P 3	0
15	4A	1	Total 32	C 10	N 5	O 14	P 3	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf
15	4C	1	Total 32	C 10	N 5	O 14	P 3	0
15	4E	1	Total 32	C 10	N 5	O 14	P 3	0
15	4G	1	Total 32	C 10	N 5	O 14	P 3	0
15	4I	1	Total 32	C 10	N 5	O 14	P 3	0
15	4K	1	Total 32	C 10	N 5	O 14	P 3	0
15	4M	1	Total 32	C 10	N 5	O 14	P 3	0
15	5A	1	Total 32	C 10	N 5	O 14	P 3	0
15	5C	1	Total 32	C 10	N 5	O 14	P 3	0
15	5E	1	Total 32	C 10	N 5	O 14	P 3	0
15	5G	1	Total 32	C 10	N 5	O 14	P 3	0
15	5I	1	Total 32	C 10	N 5	O 14	P 3	0
15	5K	1	Total 32	C 10	N 5	O 14	P 3	0
15	5M	1	Total 32	C 10	N 5	O 14	P 3	0
15	6A	1	Total 32	C 10	N 5	O 14	P 3	0
15	6C	1	Total 32	C 10	N 5	O 14	P 3	0
15	6E	1	Total 32	C 10	N 5	O 14	P 3	0
15	6G	1	Total 32	C 10	N 5	O 14	P 3	0
15	6I	1	Total 32	C 10	N 5	O 14	P 3	0
15	6K	1	Total 32	C 10	N 5	O 14	P 3	0
15	6N	1	Total 32	C 10	N 5	O 14	P 3	0
15	7A	1	Total 32	C 10	N 5	O 14	P 3	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf
15	7C	1	Total 32	C 10	N 5	O 14	P 3	0
15	7E	1	Total 32	C 10	N 5	O 14	P 3	0
15	7G	1	Total 32	C 10	N 5	O 14	P 3	0
15	7I	1	Total 32	C 10	N 5	O 14	P 3	0
15	7K	1	Total 32	C 10	N 5	O 14	P 3	0
15	7M	1	Total 32	C 10	N 5	O 14	P 3	0
15	8A	1	Total 32	C 10	N 5	O 14	P 3	0
15	8C	1	Total 32	C 10	N 5	O 14	P 3	0
15	8E	1	Total 32	C 10	N 5	O 14	P 3	0
15	8G	1	Total 32	C 10	N 5	O 14	P 3	0
15	8I	1	Total 32	C 10	N 5	O 14	P 3	0
15	8K	1	Total 32	C 10	N 5	O 14	P 3	0
15	8M	1	Total 32	C 10	N 5	O 14	P 3	0
15	9A	1	Total 32	C 10	N 5	O 14	P 3	0
15	9C	1	Total 32	C 10	N 5	O 14	P 3	0
15	9E	1	Total 32	C 10	N 5	O 14	P 3	0
15	9G	1	Total 32	C 10	N 5	O 14	P 3	0
15	9I	1	Total 32	C 10	N 5	O 14	P 3	0
15	9K	1	Total 32	C 10	N 5	O 14	P 3	0
15	9M	1	Total 32	C 10	N 5	O 14	P 3	0

- Molecule 16 is MAGNESIUM ION (CCD ID: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
16	1A	1	Total 1	Mg 1	0
16	1C	1	Total 1	Mg 1	0
16	1E	1	Total 1	Mg 1	0
16	1G	1	Total 1	Mg 1	0
16	1I	1	Total 1	Mg 1	0
16	1K	1	Total 1	Mg 1	0
16	2A	1	Total 1	Mg 1	0
16	2C	1	Total 1	Mg 1	0
16	2E	1	Total 1	Mg 1	0
16	2G	1	Total 1	Mg 1	0
16	2I	1	Total 1	Mg 1	0
16	2K	1	Total 1	Mg 1	0
16	3A	1	Total 1	Mg 1	0
16	3C	1	Total 1	Mg 1	0
16	3E	1	Total 1	Mg 1	0
16	3G	1	Total 1	Mg 1	0
16	3I	1	Total 1	Mg 1	0
16	3K	1	Total 1	Mg 1	0
16	4A	1	Total 1	Mg 1	0
16	4C	1	Total 1	Mg 1	0
16	4E	1	Total 1	Mg 1	0
16	4G	1	Total 1	Mg 1	0

Continued on next page...

Continued from previous page...

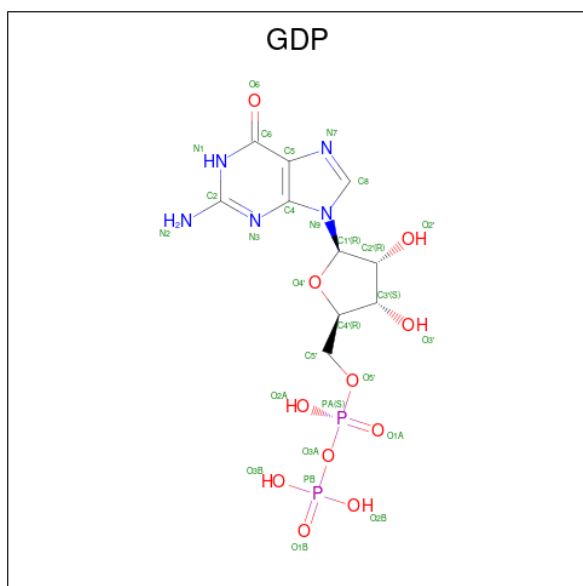
Mol	Chain	Residues	Atoms		AltConf
16	4I	1	Total 1	Mg 1	0
16	4K	1	Total 1	Mg 1	0
16	5A	1	Total 1	Mg 1	0
16	5C	1	Total 1	Mg 1	0
16	5E	1	Total 1	Mg 1	0
16	5G	1	Total 1	Mg 1	0
16	5I	1	Total 1	Mg 1	0
16	5K	1	Total 1	Mg 1	0
16	6A	1	Total 1	Mg 1	0
16	6C	1	Total 1	Mg 1	0
16	6E	1	Total 1	Mg 1	0
16	6G	1	Total 1	Mg 1	0
16	6I	1	Total 1	Mg 1	0
16	6K	1	Total 1	Mg 1	0
16	7B	1	Total 1	Mg 1	0
16	7C	1	Total 1	Mg 1	0
16	7E	1	Total 1	Mg 1	0
16	7G	1	Total 1	Mg 1	0
16	7I	1	Total 1	Mg 1	0
16	7K	1	Total 1	Mg 1	0
16	8A	1	Total 1	Mg 1	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		AltConf
16	8C	1	Total	Mg	0
			1	1	
16	8E	1	Total	Mg	0
			1	1	
16	8G	1	Total	Mg	0
			1	1	
16	8I	1	Total	Mg	0
			1	1	
16	8K	1	Total	Mg	0
			1	1	
16	9A	1	Total	Mg	0
			1	1	
16	9C	1	Total	Mg	0
			1	1	
16	9E	1	Total	Mg	0
			1	1	
16	9G	1	Total	Mg	0
			1	1	
16	9I	1	Total	Mg	0
			1	1	
16	9K	1	Total	Mg	0
			1	1	

- Molecule 17 is GUANOSINE-5'-DIPHOSPHATE (CCD ID: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
17	1B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	1D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	1F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	1H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	1J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	1L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	1N	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	2B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	2D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	2F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	2H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	2J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	2L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	3B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	3D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	3F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	3H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	3J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	3L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	4B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	4D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	4F	1	Total	C	N	O	P	0
			28	10	5	11	2	

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf
17	4H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	4J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	4L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	5B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	5D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	5F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	5H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	5J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	5L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	5N	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	6B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	6D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	6F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	6H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	6J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	6L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	6N	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	7B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	7D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	7F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	7H	1	Total	C	N	O	P	0
			28	10	5	11	2	

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf
17	7J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	7L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	8B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	8D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	8F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	8H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	8J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	8L	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	9B	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	9D	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	9F	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	9H	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	9J	1	Total	C	N	O	P	0
			28	10	5	11	2	
17	9L	1	Total	C	N	O	P	0
			28	10	5	11	2	

MolProbity failed to run properly - this section is therefore empty.

3 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	95409	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	5000	Depositor
Maximum defocus (nm)	25000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	2.352	Depositor
Minimum map value	-0.059	Depositor
Average map value	0.006	Depositor
Map value standard deviation	0.056	Depositor
Recommended contour level	0.02	Depositor
Map size (Å)	686.08, 686.08, 686.08	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.34, 1.34, 1.34	Depositor

4 Model quality [i](#)

4.1 Standard geometry [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.2 Too-close contacts [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.3 Torsion angles [i](#)

4.3.1 Protein backbone [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.3.2 Protein sidechains [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.3.3 RNA [i](#)

MolProbity failed to run properly - this section is therefore empty.

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

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

4.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

4.6 Ligand geometry [i](#)

Of 174 ligands modelled in this entry, 54 are monoatomic - leaving 120 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$
15	GTP	4A	501	16	29,34,34	1.28	2 (6%)	35,54,54	1.46	7 (20%)
17	GDP	3F	501	-	25,30,30	1.01	1 (4%)	30,47,47	1.20	4 (13%)
17	GDP	9L	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.13	2 (6%)
17	GDP	2D	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.32	3 (10%)
15	GTP	2E	501	16	29,34,34	1.28	4 (13%)	35,54,54	1.37	4 (11%)
15	GTP	1M	501	-	29,34,34	1.22	2 (6%)	35,54,54	1.29	4 (11%)
17	GDP	3H	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.16	3 (10%)
17	GDP	6D	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.17	2 (6%)
15	GTP	9K	501	16	29,34,34	1.29	4 (13%)	35,54,54	1.41	7 (20%)
15	GTP	4I	501	16	29,34,34	1.27	1 (3%)	35,54,54	1.31	5 (14%)
15	GTP	5K	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.26	4 (11%)
15	GTP	9E	501	16	29,34,34	1.31	5 (17%)	35,54,54	1.26	3 (8%)
17	GDP	3B	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.16	3 (10%)
17	GDP	5H	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.14	3 (10%)
15	GTP	6I	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.26	4 (11%)
17	GDP	9B	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.21	3 (10%)
17	GDP	4J	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.24	2 (6%)
15	GTP	2K	501	16	29,34,34	1.22	2 (6%)	35,54,54	1.28	4 (11%)
15	GTP	8E	501	16	29,34,34	1.30	2 (6%)	35,54,54	1.27	4 (11%)
17	GDP	7L	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.23	4 (13%)
17	GDP	8L	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.20	4 (13%)
17	GDP	7H	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.19	3 (10%)
17	GDP	9F	501	-	25,30,30	1.01	1 (4%)	30,47,47	1.19	4 (13%)
17	GDP	1B	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.15	1 (3%)
17	GDP	3J	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.13	2 (6%)
17	GDP	9D	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.19	3 (10%)
15	GTP	9I	501	16	29,34,34	1.28	4 (13%)	35,54,54	1.35	4 (11%)
15	GTP	6G	501	16	29,34,34	1.21	2 (6%)	35,54,54	1.35	5 (14%)
15	GTP	8G	501	-	29,34,34	1.21	2 (6%)	35,54,54	1.30	5 (14%)
17	GDP	5N	501	-	25,30,30	1.02	1 (4%)	30,47,47	1.43	4 (13%)
15	GTP	6K	501	16	29,34,34	1.17	2 (6%)	35,54,54	1.33	5 (14%)
15	GTP	5M	501	-	29,34,34	1.22	1 (3%)	35,54,54	1.46	6 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
17	GDP	2B	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.14	2 (6%)
15	GTP	7A	501	16	29,34,34	1.24	3 (10%)	35,54,54	1.29	4 (11%)
15	GTP	6E	501	16	29,34,34	1.20	2 (6%)	35,54,54	1.27	3 (8%)
17	GDP	5F	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.24	3 (10%)
15	GTP	7G	501	16	29,34,34	1.27	2 (6%)	35,54,54	1.34	4 (11%)
17	GDP	7D	501	-	25,30,30	0.95	1 (4%)	30,47,47	1.19	4 (13%)
17	GDP	1J	501	-	25,30,30	0.95	1 (4%)	30,47,47	1.17	3 (10%)
15	GTP	2A	501	16	29,34,34	1.30	4 (13%)	35,54,54	1.48	4 (11%)
17	GDP	2J	501	-	25,30,30	1.01	1 (4%)	30,47,47	1.20	3 (10%)
15	GTP	2M	501	-	29,34,34	1.22	2 (6%)	35,54,54	1.33	5 (14%)
17	GDP	1H	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.08	1 (3%)
15	GTP	6A	501	16	29,34,34	1.18	2 (6%)	35,54,54	1.29	5 (14%)
15	GTP	9M	501	-	29,34,34	1.22	2 (6%)	35,54,54	1.29	4 (11%)
15	GTP	5G	501	16	29,34,34	1.18	2 (6%)	35,54,54	1.30	4 (11%)
15	GTP	7M	501	-	29,34,34	1.25	2 (6%)	35,54,54	1.36	4 (11%)
15	GTP	4E	501	16	29,34,34	1.26	2 (6%)	35,54,54	1.28	5 (14%)
15	GTP	8C	501	-	29,34,34	1.17	1 (3%)	35,54,54	1.34	4 (11%)
17	GDP	6J	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.25	4 (13%)
15	GTP	8M	501	-	29,34,34	1.27	3 (10%)	35,54,54	1.32	5 (14%)
17	GDP	9J	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.19	3 (10%)
17	GDP	2F	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.16	3 (10%)
15	GTP	7C	501	16	29,34,34	1.18	2 (6%)	35,54,54	1.34	4 (11%)
17	GDP	1F	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.14	2 (6%)
17	GDP	6B	501	-	25,30,30	1.05	1 (4%)	30,47,47	1.24	5 (16%)
17	GDP	8D	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.15	2 (6%)
15	GTP	9C	501	-	29,34,34	1.22	2 (6%)	35,54,54	1.26	4 (11%)
17	GDP	4B	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.24	2 (6%)
17	GDP	5D	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.22	3 (10%)
17	GDP	6H	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.19	3 (10%)
15	GTP	3C	501	16	29,34,34	1.21	2 (6%)	35,54,54	1.30	4 (11%)
15	GTP	2I	501	16	29,34,34	1.21	2 (6%)	35,54,54	1.32	4 (11%)
15	GTP	3E	501	16	29,34,34	1.26	2 (6%)	35,54,54	1.29	4 (11%)
15	GTP	2C	501	16	29,34,34	1.21	2 (6%)	35,54,54	1.34	4 (11%)
15	GTP	4G	501	16	29,34,34	1.19	2 (6%)	35,54,54	1.27	3 (8%)
17	GDP	8F	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.26	5 (16%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
17	GDP	1L	501	-	25,30,30	1.01	1 (4%)	30,47,47	1.14	2 (6%)
17	GDP	1D	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.18	2 (6%)
15	GTP	3I	501	16	29,34,34	1.23	2 (6%)	35,54,54	1.35	5 (14%)
17	GDP	2H	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.15	3 (10%)
17	GDP	3D	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.18	1 (3%)
15	GTP	7K	501	16	29,34,34	1.30	3 (10%)	35,54,54	1.37	5 (14%)
15	GTP	1K	501	16	29,34,34	1.23	2 (6%)	35,54,54	1.36	5 (14%)
15	GTP	5A	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.32	4 (11%)
15	GTP	1I	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.28	4 (11%)
17	GDP	6L	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.11	1 (3%)
15	GTP	9G	501	-	29,34,34	1.31	3 (10%)	35,54,54	1.27	4 (11%)
17	GDP	8B	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.32	6 (20%)
15	GTP	8I	501	16	29,34,34	1.18	2 (6%)	35,54,54	1.33	3 (8%)
15	GTP	5C	501	16	29,34,34	1.20	2 (6%)	35,54,54	1.32	3 (8%)
15	GTP	3M	501	-	29,34,34	1.25	3 (10%)	35,54,54	1.31	4 (11%)
15	GTP	3K	501	16	29,34,34	1.20	2 (6%)	35,54,54	1.30	4 (11%)
17	GDP	4H	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.46	6 (20%)
17	GDP	3L	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.10	2 (6%)
17	GDP	8J	501	-	25,30,30	1.01	1 (4%)	30,47,47	1.21	3 (10%)
17	GDP	7J	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.19	2 (6%)
17	GDP	8H	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.15	1 (3%)
17	GDP	4L	501	-	25,30,30	0.95	1 (4%)	30,47,47	1.03	2 (6%)
15	GTP	6N	501	-	29,34,34	1.38	3 (10%)	35,54,54	1.42	6 (17%)
17	GDP	4F	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.16	2 (6%)
15	GTP	2G	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.33	4 (11%)
15	GTP	1C	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.40	5 (14%)
15	GTP	9A	501	16	29,34,34	1.25	3 (10%)	35,54,54	1.27	4 (11%)
17	GDP	4D	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.17	2 (6%)
15	GTP	5E	501	16	29,34,34	1.22	2 (6%)	35,54,54	1.29	4 (11%)
15	GTP	7E	501	16	29,34,34	1.26	2 (6%)	35,54,54	1.27	4 (11%)
17	GDP	5J	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.13	2 (6%)
15	GTP	4M	501	-	29,34,34	1.23	2 (6%)	35,54,54	1.23	4 (11%)
15	GTP	1G	501	16	29,34,34	1.16	2 (6%)	35,54,54	1.37	6 (17%)
15	GTP	3G	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.25	4 (11%)
15	GTP	3A	501	16	29,34,34	1.21	2 (6%)	35,54,54	1.30	3 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
15	GTP	1E	501	16	29,34,34	1.18	2 (6%)	35,54,54	1.31	4 (11%)
17	GDP	7B	502	-	25,30,30	0.99	1 (4%)	30,47,47	1.27	4 (13%)
15	GTP	6C	501	16	29,34,34	1.24	2 (6%)	35,54,54	1.26	4 (11%)
15	GTP	7I	501	16	29,34,34	1.23	2 (6%)	35,54,54	1.33	5 (14%)
15	GTP	4K	501	16	29,34,34	1.20	2 (6%)	35,54,54	1.33	3 (8%)
17	GDP	2L	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.08	1 (3%)
15	GTP	8A	501	16	29,34,34	1.22	2 (6%)	35,54,54	1.26	4 (11%)
17	GDP	1N	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.23	5 (16%)
17	GDP	6N	502	-	25,30,30	0.99	1 (4%)	30,47,47	1.21	3 (10%)
15	GTP	4C	501	16	29,34,34	1.18	2 (6%)	35,54,54	1.32	4 (11%)
17	GDP	5L	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.06	1 (3%)
15	GTP	1A	501	16	29,34,34	1.41	5 (17%)	35,54,54	1.29	5 (14%)
17	GDP	5B	501	-	25,30,30	1.02	1 (4%)	30,47,47	1.17	3 (10%)
17	GDP	6F	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.21	3 (10%)
15	GTP	8K	501	-	29,34,34	1.25	3 (10%)	35,54,54	1.33	5 (14%)
17	GDP	9H	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.25	4 (13%)
15	GTP	5I	501	16	29,34,34	1.20	2 (6%)	35,54,54	1.32	3 (8%)
17	GDP	7F	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.22	5 (16%)

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
15	GTP	4A	501	16	-	4/18/38/38	0/3/3/3
17	GDP	3F	501	-	-	5/12/32/32	0/3/3/3
17	GDP	9L	501	-	-	0/12/32/32	0/3/3/3
17	GDP	2D	501	-	-	4/12/32/32	0/3/3/3
15	GTP	2E	501	16	-	5/18/38/38	0/3/3/3
15	GTP	1M	501	-	-	7/18/38/38	0/3/3/3
17	GDP	3H	501	-	-	3/12/32/32	0/3/3/3
17	GDP	6D	501	-	-	6/12/32/32	0/3/3/3
15	GTP	9K	501	16	-	7/18/38/38	0/3/3/3
15	GTP	4I	501	16	-	8/18/38/38	0/3/3/3
15	GTP	5K	501	16	-	5/18/38/38	0/3/3/3

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
15	GTP	9E	501	16	-	7/18/38/38	0/3/3/3
17	GDP	3B	501	-	-	3/12/32/32	0/3/3/3
17	GDP	5H	501	-	-	7/12/32/32	0/3/3/3
15	GTP	6I	501	16	-	7/18/38/38	0/3/3/3
17	GDP	9B	501	-	-	3/12/32/32	0/3/3/3
17	GDP	4J	501	-	-	5/12/32/32	0/3/3/3
15	GTP	2K	501	16	-	7/18/38/38	0/3/3/3
15	GTP	8E	501	16	-	6/18/38/38	0/3/3/3
17	GDP	7L	501	-	-	3/12/32/32	0/3/3/3
17	GDP	8L	501	-	-	8/12/32/32	0/3/3/3
17	GDP	7H	501	-	-	3/12/32/32	0/3/3/3
17	GDP	9F	501	-	-	2/12/32/32	0/3/3/3
17	GDP	1B	501	-	-	4/12/32/32	0/3/3/3
17	GDP	3J	501	-	-	5/12/32/32	0/3/3/3
17	GDP	9D	501	-	-	1/12/32/32	0/3/3/3
15	GTP	9I	501	16	-	7/18/38/38	0/3/3/3
15	GTP	6G	501	16	-	9/18/38/38	0/3/3/3
15	GTP	8G	501	-	-	9/18/38/38	0/3/3/3
17	GDP	5N	501	-	-	3/12/32/32	0/3/3/3
15	GTP	6K	501	16	-	7/18/38/38	0/3/3/3
15	GTP	5M	501	-	-	9/18/38/38	0/3/3/3
17	GDP	2B	501	-	-	6/12/32/32	0/3/3/3
15	GTP	7A	501	16	-	6/18/38/38	0/3/3/3
15	GTP	6E	501	16	-	7/18/38/38	0/3/3/3
17	GDP	5F	501	-	-	3/12/32/32	0/3/3/3
15	GTP	7G	501	16	-	4/18/38/38	0/3/3/3
17	GDP	7D	501	-	-	3/12/32/32	0/3/3/3
17	GDP	1J	501	-	-	7/12/32/32	0/3/3/3
15	GTP	2A	501	16	-	6/18/38/38	0/3/3/3
17	GDP	2J	501	-	-	3/12/32/32	0/3/3/3
15	GTP	2M	501	-	-	8/18/38/38	0/3/3/3
17	GDP	1H	501	-	-	6/12/32/32	0/3/3/3
15	GTP	6A	501	16	-	6/18/38/38	0/3/3/3
15	GTP	9M	501	-	-	8/18/38/38	0/3/3/3

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
15	GTP	5G	501	16	-	5/18/38/38	0/3/3/3
15	GTP	7M	501	-	-	8/18/38/38	0/3/3/3
15	GTP	4E	501	16	-	8/18/38/38	0/3/3/3
15	GTP	8C	501	-	-	6/18/38/38	0/3/3/3
17	GDP	6J	501	-	-	4/12/32/32	0/3/3/3
15	GTP	8M	501	-	-	5/18/38/38	0/3/3/3
17	GDP	9J	501	-	-	3/12/32/32	0/3/3/3
17	GDP	2F	501	-	-	5/12/32/32	0/3/3/3
15	GTP	7C	501	16	-	6/18/38/38	0/3/3/3
17	GDP	1F	501	-	-	5/12/32/32	0/3/3/3
17	GDP	6B	501	-	-	5/12/32/32	0/3/3/3
17	GDP	8D	501	-	-	3/12/32/32	0/3/3/3
15	GTP	9C	501	-	-	7/18/38/38	0/3/3/3
17	GDP	4B	501	-	-	4/12/32/32	0/3/3/3
17	GDP	5D	501	-	-	3/12/32/32	0/3/3/3
17	GDP	6H	501	-	-	4/12/32/32	0/3/3/3
15	GTP	3C	501	16	-	6/18/38/38	0/3/3/3
15	GTP	2I	501	16	-	7/18/38/38	0/3/3/3
15	GTP	3E	501	16	-	10/18/38/38	0/3/3/3
15	GTP	2C	501	16	-	6/18/38/38	0/3/3/3
15	GTP	4G	501	16	-	7/18/38/38	0/3/3/3
17	GDP	8F	501	-	-	5/12/32/32	0/3/3/3
17	GDP	1L	501	-	-	5/12/32/32	0/3/3/3
17	GDP	1D	501	-	-	5/12/32/32	0/3/3/3
15	GTP	3I	501	16	-	6/18/38/38	0/3/3/3
17	GDP	2H	501	-	-	9/12/32/32	0/3/3/3
17	GDP	3D	501	-	-	3/12/32/32	0/3/3/3
15	GTP	7K	501	16	-	7/18/38/38	0/3/3/3
15	GTP	1K	501	16	-	9/18/38/38	0/3/3/3
15	GTP	5A	501	16	-	7/18/38/38	0/3/3/3
15	GTP	1I	501	16	-	8/18/38/38	0/3/3/3
17	GDP	6L	501	-	-	2/12/32/32	0/3/3/3
15	GTP	9G	501	-	-	9/18/38/38	0/3/3/3
17	GDP	8B	501	-	-	7/12/32/32	0/3/3/3

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
15	GTP	8I	501	16	-	7/18/38/38	0/3/3/3
15	GTP	5C	501	16	-	5/18/38/38	0/3/3/3
15	GTP	3M	501	-	-	6/18/38/38	0/3/3/3
15	GTP	3K	501	16	-	6/18/38/38	0/3/3/3
17	GDP	4H	501	-	-	4/12/32/32	0/3/3/3
17	GDP	3L	501	-	-	5/12/32/32	0/3/3/3
17	GDP	8J	501	-	-	3/12/32/32	0/3/3/3
17	GDP	7J	501	-	-	6/12/32/32	0/3/3/3
17	GDP	8H	501	-	-	4/12/32/32	0/3/3/3
17	GDP	4L	501	-	-	4/12/32/32	0/3/3/3
15	GTP	6N	501	-	-	5/18/38/38	0/3/3/3
17	GDP	4F	501	-	-	4/12/32/32	0/3/3/3
15	GTP	2G	501	16	-	8/18/38/38	0/3/3/3
15	GTP	1C	501	16	-	4/18/38/38	0/3/3/3
15	GTP	9A	501	16	-	6/18/38/38	0/3/3/3
17	GDP	4D	501	-	-	4/12/32/32	0/3/3/3
15	GTP	5E	501	16	-	6/18/38/38	0/3/3/3
15	GTP	7E	501	16	-	4/18/38/38	0/3/3/3
17	GDP	5J	501	-	-	4/12/32/32	0/3/3/3
15	GTP	4M	501	-	-	7/18/38/38	0/3/3/3
15	GTP	1G	501	16	-	4/18/38/38	0/3/3/3
15	GTP	3G	501	16	-	4/18/38/38	0/3/3/3
15	GTP	3A	501	16	-	7/18/38/38	0/3/3/3
15	GTP	1E	501	16	-	7/18/38/38	0/3/3/3
17	GDP	7B	502	-	-	6/12/32/32	0/3/3/3
15	GTP	6C	501	16	-	6/18/38/38	0/3/3/3
15	GTP	7I	501	16	-	5/18/38/38	0/3/3/3
15	GTP	4K	501	16	-	8/18/38/38	0/3/3/3
17	GDP	2L	501	-	-	5/12/32/32	0/3/3/3
15	GTP	8A	501	16	-	5/18/38/38	0/3/3/3
17	GDP	1N	501	-	-	6/12/32/32	0/3/3/3
17	GDP	6N	502	-	-	5/12/32/32	0/3/3/3
15	GTP	4C	501	16	-	5/18/38/38	0/3/3/3
17	GDP	5L	501	-	-	7/12/32/32	0/3/3/3

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
15	GTP	1A	501	16	-	6/18/38/38	0/3/3/3
17	GDP	5B	501	-	-	4/12/32/32	0/3/3/3
17	GDP	6F	501	-	-	7/12/32/32	0/3/3/3
15	GTP	8K	501	-	-	6/18/38/38	0/3/3/3
17	GDP	9H	501	-	-	5/12/32/32	0/3/3/3
15	GTP	5I	501	16	-	8/18/38/38	0/3/3/3
17	GDP	7F	501	-	-	5/12/32/32	0/3/3/3

All (210) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	6N	501	GTP	C5-C6	-4.58	1.38	1.47
15	6C	501	GTP	C5-C6	-4.55	1.38	1.47
15	4I	501	GTP	C5-C6	-4.50	1.38	1.47
15	9G	501	GTP	C5-C6	-4.43	1.38	1.47
15	7G	501	GTP	C5-C6	-4.42	1.38	1.47
15	2C	501	GTP	C5-C6	-4.38	1.38	1.47
15	6K	501	GTP	C5-C6	-4.38	1.38	1.47
15	6I	501	GTP	C5-C6	-4.36	1.38	1.47
15	1I	501	GTP	C5-C6	-4.36	1.38	1.47
15	2E	501	GTP	C5-C6	-4.35	1.38	1.47
15	3E	501	GTP	C5-C6	-4.35	1.38	1.47
15	4E	501	GTP	C5-C6	-4.35	1.38	1.47
15	2G	501	GTP	C5-C6	-4.33	1.38	1.47
15	7I	501	GTP	C5-C6	-4.33	1.38	1.47
15	4M	501	GTP	C5-C6	-4.32	1.38	1.47
15	7A	501	GTP	C5-C6	-4.32	1.38	1.47
15	5K	501	GTP	C5-C6	-4.32	1.38	1.47
15	3G	501	GTP	C5-C6	-4.31	1.38	1.47
15	7K	501	GTP	C5-C6	-4.31	1.38	1.47
15	8G	501	GTP	C5-C6	-4.29	1.39	1.47
15	3I	501	GTP	C5-C6	-4.29	1.39	1.47
15	6G	501	GTP	C5-C6	-4.29	1.39	1.47
15	8E	501	GTP	C5-C6	-4.28	1.39	1.47
15	7E	501	GTP	C5-C6	-4.26	1.39	1.47
15	4C	501	GTP	C5-C6	-4.26	1.39	1.47
15	2I	501	GTP	C5-C6	-4.26	1.39	1.47
15	5E	501	GTP	C5-C6	-4.25	1.39	1.47
15	2K	501	GTP	C5-C6	-4.25	1.39	1.47
15	3K	501	GTP	C5-C6	-4.25	1.39	1.47
15	7C	501	GTP	C5-C6	-4.23	1.39	1.47

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	1A	501	GTP	C5-C6	-4.23	1.39	1.47
15	6E	501	GTP	C5-C6	-4.22	1.39	1.47
15	4K	501	GTP	C5-C6	-4.22	1.39	1.47
15	6A	501	GTP	C5-C6	-4.22	1.39	1.47
15	8C	501	GTP	C5-C6	-4.21	1.39	1.47
15	1K	501	GTP	C5-C6	-4.21	1.39	1.47
15	5A	501	GTP	C5-C6	-4.21	1.39	1.47
15	8A	501	GTP	C5-C6	-4.21	1.39	1.47
15	3M	501	GTP	C5-C6	-4.20	1.39	1.47
15	5C	501	GTP	C5-C6	-4.20	1.39	1.47
15	1G	501	GTP	C5-C6	-4.20	1.39	1.47
15	8K	501	GTP	C5-C6	-4.20	1.39	1.47
15	5G	501	GTP	C5-C6	-4.20	1.39	1.47
15	9C	501	GTP	C5-C6	-4.20	1.39	1.47
15	3C	501	GTP	C5-C6	-4.20	1.39	1.47
15	8I	501	GTP	C5-C6	-4.19	1.39	1.47
15	1M	501	GTP	C5-C6	-4.19	1.39	1.47
15	4G	501	GTP	C5-C6	-4.18	1.39	1.47
15	9K	501	GTP	C5-C6	-4.17	1.39	1.47
15	5I	501	GTP	C5-C6	-4.17	1.39	1.47
15	5M	501	GTP	C5-C6	-4.16	1.39	1.47
15	9M	501	GTP	C5-C6	-4.14	1.39	1.47
15	1E	501	GTP	C5-C6	-4.14	1.39	1.47
15	9A	501	GTP	C5-C6	-4.14	1.39	1.47
15	1C	501	GTP	C5-C6	-4.13	1.39	1.47
15	4A	501	GTP	C5-C6	-4.13	1.39	1.47
15	9E	501	GTP	C5-C6	-4.11	1.39	1.47
15	2M	501	GTP	C5-C6	-4.10	1.39	1.47
15	9I	501	GTP	C5-C6	-4.09	1.39	1.47
15	8M	501	GTP	C5-C6	-4.09	1.39	1.47
15	7M	501	GTP	C5-C6	-4.07	1.39	1.47
15	3A	501	GTP	C5-C6	-4.05	1.39	1.47
15	2A	501	GTP	C5-C6	-3.78	1.40	1.47
15	6N	501	GTP	PB-O3B	3.43	1.63	1.59
15	1A	501	GTP	PB-O3B	2.91	1.62	1.59
17	2D	501	GDP	C6-N1	-2.82	1.33	1.37
17	4B	501	GDP	C6-N1	-2.75	1.33	1.37
17	2J	501	GDP	C6-N1	-2.72	1.33	1.37
17	1L	501	GDP	C6-N1	-2.69	1.33	1.37
17	3F	501	GDP	C6-N1	-2.67	1.33	1.37
17	6F	501	GDP	C6-N1	-2.66	1.33	1.37
15	1A	501	GTP	PA-O3A	2.65	1.62	1.59

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	1A	501	GTP	PB-O3A	2.64	1.62	1.59
17	6B	501	GDP	C6-N1	-2.60	1.33	1.37
17	5B	501	GDP	C6-N1	-2.58	1.33	1.37
17	6J	501	GDP	C6-N1	-2.57	1.33	1.37
17	9F	501	GDP	C6-N1	-2.56	1.33	1.37
17	1B	501	GDP	C6-N1	-2.56	1.33	1.37
17	5L	501	GDP	C6-N1	-2.54	1.33	1.37
17	5N	501	GDP	C6-N1	-2.52	1.33	1.37
17	2L	501	GDP	C6-N1	-2.49	1.34	1.37
17	1F	501	GDP	C6-N1	-2.47	1.34	1.37
15	9K	501	GTP	PA-O3A	2.47	1.62	1.59
17	2F	501	GDP	C6-N1	-2.46	1.34	1.37
17	3B	501	GDP	C6-N1	-2.45	1.34	1.37
17	7B	502	GDP	C6-N1	-2.44	1.34	1.37
17	7J	501	GDP	C6-N1	-2.44	1.34	1.37
17	8D	501	GDP	C6-N1	-2.44	1.34	1.37
17	8H	501	GDP	C6-N1	-2.43	1.34	1.37
17	2H	501	GDP	C6-N1	-2.42	1.34	1.37
17	7F	501	GDP	C6-N1	-2.41	1.34	1.37
17	3J	501	GDP	C6-N1	-2.41	1.34	1.37
15	7K	501	GTP	PB-O3A	2.40	1.62	1.59
17	6L	501	GDP	C6-N1	-2.40	1.34	1.37
17	7L	501	GDP	C6-N1	-2.39	1.34	1.37
15	9E	501	GTP	PB-O3A	2.39	1.62	1.59
17	9D	501	GDP	C6-N1	-2.37	1.34	1.37
17	4J	501	GDP	C6-N1	-2.37	1.34	1.37
17	5H	501	GDP	C6-N1	-2.37	1.34	1.37
15	8K	501	GTP	PB-O3B	2.36	1.62	1.59
17	8J	501	GDP	C6-N1	-2.36	1.34	1.37
17	1J	501	GDP	C6-N1	-2.36	1.34	1.37
17	3H	501	GDP	C6-N1	-2.36	1.34	1.37
15	9K	501	GTP	PB-O3A	2.36	1.62	1.59
17	4D	501	GDP	C6-N1	-2.34	1.34	1.37
17	4L	501	GDP	C6-N1	-2.34	1.34	1.37
17	3D	501	GDP	C6-N1	-2.34	1.34	1.37
17	6D	501	GDP	C6-N1	-2.34	1.34	1.37
17	9D	501	GDP	PA-O3A	2.32	1.62	1.59
17	4H	501	GDP	C6-N1	-2.32	1.34	1.37
17	1N	501	GDP	C6-N1	-2.32	1.34	1.37
17	4F	501	GDP	C6-N1	-2.32	1.34	1.37
17	3L	501	GDP	C6-N1	-2.32	1.34	1.37
15	8M	501	GTP	PB-O3B	2.31	1.62	1.59

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	9B	501	GDP	C6-N1	-2.31	1.34	1.37
17	6H	501	GDP	C6-N1	-2.29	1.34	1.37
17	5D	501	GDP	C6-N1	-2.29	1.34	1.37
17	6N	502	GDP	C6-N1	-2.29	1.34	1.37
17	7H	501	GDP	C6-N1	-2.29	1.34	1.37
17	2B	501	GDP	C6-N1	-2.28	1.34	1.37
17	5F	501	GDP	C6-N1	-2.28	1.34	1.37
17	5J	501	GDP	C6-N1	-2.27	1.34	1.37
15	9E	501	GTP	PA-O3A	2.27	1.61	1.59
15	2A	501	GTP	PB-O3B	2.26	1.61	1.59
15	8I	501	GTP	C2-N3	2.24	1.38	1.33
17	7D	501	GDP	C6-N1	-2.24	1.34	1.37
17	8L	501	GDP	C6-N1	-2.24	1.34	1.37
17	1H	501	GDP	C6-N1	-2.24	1.34	1.37
15	4A	501	GTP	PB-O3B	2.23	1.61	1.59
15	8M	501	GTP	C2-N3	2.23	1.38	1.33
17	9H	501	GDP	C6-N1	-2.23	1.34	1.37
15	9G	501	GTP	C2-N3	2.23	1.38	1.33
17	8B	501	GDP	C6-N1	-2.22	1.34	1.37
15	9I	501	GTP	C2-N3	2.22	1.38	1.33
15	9M	501	GTP	C2-N3	2.22	1.38	1.33
15	2K	501	GTP	C2-N3	2.22	1.38	1.33
17	9J	501	GDP	C6-N1	-2.21	1.34	1.37
15	1G	501	GTP	C2-N3	2.20	1.38	1.33
15	9K	501	GTP	C2-N3	2.20	1.38	1.33
15	3E	501	GTP	C2-N3	2.20	1.38	1.33
17	8F	501	GDP	C6-N1	-2.20	1.34	1.37
15	1M	501	GTP	C2-N3	2.19	1.38	1.33
17	9L	501	GDP	C6-N1	-2.19	1.34	1.37
15	2E	501	GTP	C2-N3	2.19	1.38	1.33
15	8K	501	GTP	C2-N3	2.19	1.38	1.33
15	2I	501	GTP	C2-N3	2.18	1.38	1.33
15	9E	501	GTP	PB-O3B	2.18	1.61	1.59
15	4K	501	GTP	C2-N3	2.18	1.38	1.33
15	9I	501	GTP	PB-O3A	2.17	1.61	1.59
15	8E	501	GTP	C2-N3	2.17	1.38	1.33
15	2M	501	GTP	C2-N3	2.17	1.38	1.33
15	2C	501	GTP	C2-N3	2.17	1.38	1.33
15	1E	501	GTP	C2-N3	2.17	1.38	1.33
15	1K	501	GTP	C2-N3	2.16	1.38	1.33
15	9A	501	GTP	C2-N3	2.16	1.38	1.33
15	6G	501	GTP	C2-N3	2.16	1.38	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	5G	501	GTP	C2-N3	2.16	1.38	1.33
15	9I	501	GTP	PB-O3B	2.15	1.61	1.59
15	1A	501	GTP	C2-N3	2.15	1.38	1.33
17	9L	501	GDP	PA-O3A	2.15	1.61	1.59
15	9A	501	GTP	PB-O3B	2.14	1.61	1.59
15	5C	501	GTP	C2-N3	2.14	1.38	1.33
15	9C	501	GTP	C2-N3	2.14	1.38	1.33
15	3C	501	GTP	C2-N3	2.14	1.38	1.33
15	5I	501	GTP	C2-N3	2.13	1.38	1.33
15	3A	501	GTP	C2-N3	2.13	1.38	1.33
15	3M	501	GTP	C2-N3	2.13	1.38	1.33
15	6I	501	GTP	C2-N3	2.13	1.38	1.33
15	1C	501	GTP	C2-N3	2.13	1.38	1.33
15	7C	501	GTP	C2-N3	2.12	1.38	1.33
15	7M	501	GTP	C2-N3	2.12	1.38	1.33
17	9H	501	GDP	PA-O3A	2.12	1.61	1.59
17	1D	501	GDP	C6-N1	-2.12	1.34	1.37
15	6N	501	GTP	C2-N3	2.12	1.38	1.33
15	6C	501	GTP	C2-N3	2.12	1.38	1.33
15	3K	501	GTP	C2-N3	2.12	1.38	1.33
15	6E	501	GTP	C2-N3	2.12	1.38	1.33
15	5A	501	GTP	C2-N3	2.11	1.38	1.33
15	7G	501	GTP	C2-N3	2.11	1.38	1.33
17	1F	501	GDP	O4'-C1'	2.11	1.43	1.40
15	1I	501	GTP	C2-N3	2.11	1.38	1.33
17	1N	501	GDP	PA-O3A	2.11	1.61	1.59
15	6A	501	GTP	C2-N3	2.10	1.38	1.33
15	9E	501	GTP	C2-N3	2.10	1.38	1.33
15	4G	501	GTP	C2-N3	2.10	1.38	1.33
15	7I	501	GTP	C2-N3	2.10	1.38	1.33
15	5K	501	GTP	C2-N3	2.10	1.38	1.33
15	4M	501	GTP	C2-N3	2.09	1.38	1.33
15	5E	501	GTP	C2-N3	2.09	1.38	1.33
15	7A	501	GTP	C2-N3	2.09	1.38	1.33
15	6K	501	GTP	C2-N3	2.09	1.38	1.33
17	8F	501	GDP	PA-O3A	2.08	1.61	1.59
15	3G	501	GTP	C2-N3	2.08	1.38	1.33
15	7E	501	GTP	C2-N3	2.08	1.38	1.33
15	7K	501	GTP	C2-N3	2.07	1.38	1.33
15	7A	501	GTP	PB-O3B	2.07	1.61	1.59
15	4E	501	GTP	C2-N3	2.07	1.38	1.33
15	8A	501	GTP	C2-N3	2.07	1.38	1.33

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	8B	501	GDP	PA-O3A	2.06	1.61	1.59
15	8G	501	GTP	C2-N3	2.06	1.38	1.33
15	3I	501	GTP	C2-N3	2.06	1.38	1.33
15	2A	501	GTP	PB-O3A	2.05	1.61	1.59
15	4C	501	GTP	C2-N3	2.05	1.38	1.33
15	2G	501	GTP	C2-N3	2.04	1.38	1.33
15	9G	501	GTP	PA-O3A	2.04	1.61	1.59
15	2A	501	GTP	C2-N3	2.03	1.38	1.33
17	2F	501	GDP	O4'-C1'	2.03	1.43	1.40
15	2E	501	GTP	PA-O3A	2.03	1.61	1.59
15	2E	501	GTP	PB-O3A	2.02	1.61	1.59
15	3M	501	GTP	PB-O3B	2.01	1.61	1.59

All (435) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	2A	501	GTP	C8-N7-C5	5.07	111.18	102.55
17	5N	501	GDP	O4'-C1'-N9	-4.57	102.69	108.75
15	9I	501	GTP	C8-N7-C5	3.94	109.26	102.55
17	4H	501	GDP	O4'-C1'-N9	-3.86	103.62	108.75
15	8E	501	GTP	C8-N7-C5	3.73	108.89	102.55
15	1C	501	GTP	C8-N7-C5	3.71	108.87	102.55
15	6E	501	GTP	C8-N7-C5	3.71	108.87	102.55
17	2D	501	GDP	O4'-C1'-N9	-3.71	103.82	108.75
15	5I	501	GTP	C8-N7-C5	3.71	108.86	102.55
15	8M	501	GTP	C8-N7-C5	3.71	108.86	102.55
15	3M	501	GTP	C8-N7-C5	3.70	108.84	102.55
15	5A	501	GTP	C8-N7-C5	3.69	108.84	102.55
15	4A	501	GTP	C8-N7-C5	3.68	108.81	102.55
15	2E	501	GTP	C8-N7-C5	3.67	108.80	102.55
15	7E	501	GTP	C8-N7-C5	3.67	108.80	102.55
15	8K	501	GTP	C8-N7-C5	3.67	108.80	102.55
15	5M	501	GTP	C8-N7-C5	3.67	108.79	102.55
15	7M	501	GTP	C8-N7-C5	3.67	108.79	102.55
15	3C	501	GTP	C8-N7-C5	3.66	108.78	102.55
15	5C	501	GTP	C8-N7-C5	3.66	108.78	102.55
15	3A	501	GTP	C8-N7-C5	3.66	108.77	102.55
15	2M	501	GTP	C8-N7-C5	3.65	108.76	102.55
15	8I	501	GTP	C8-N7-C5	3.65	108.76	102.55
15	1K	501	GTP	C8-N7-C5	3.65	108.76	102.55
15	3I	501	GTP	C8-N7-C5	3.64	108.74	102.55
15	9E	501	GTP	C8-N7-C5	3.63	108.73	102.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	2K	501	GTP	C8-N7-C5	3.63	108.73	102.55
15	1E	501	GTP	C8-N7-C5	3.63	108.73	102.55
15	2G	501	GTP	C8-N7-C5	3.63	108.73	102.55
15	3G	501	GTP	C8-N7-C5	3.63	108.73	102.55
15	5E	501	GTP	C8-N7-C5	3.63	108.72	102.55
15	4C	501	GTP	C8-N7-C5	3.62	108.71	102.55
15	9K	501	GTP	C8-N7-C5	3.62	108.71	102.55
15	4G	501	GTP	C8-N7-C5	3.61	108.69	102.55
15	2I	501	GTP	C8-N7-C5	3.61	108.69	102.55
15	7G	501	GTP	C8-N7-C5	3.60	108.69	102.55
15	9A	501	GTP	C8-N7-C5	3.60	108.68	102.55
15	2C	501	GTP	C8-N7-C5	3.60	108.68	102.55
15	5G	501	GTP	C8-N7-C5	3.60	108.67	102.55
15	7C	501	GTP	C8-N7-C5	3.59	108.67	102.55
15	3K	501	GTP	C8-N7-C5	3.59	108.67	102.55
15	7K	501	GTP	C8-N7-C5	3.59	108.66	102.55
15	6I	501	GTP	C8-N7-C5	3.59	108.66	102.55
15	6N	501	GTP	C8-N7-C5	3.58	108.65	102.55
15	9C	501	GTP	C8-N7-C5	3.58	108.64	102.55
15	4K	501	GTP	C8-N7-C5	3.58	108.64	102.55
15	1A	501	GTP	C8-N7-C5	3.57	108.63	102.55
15	6A	501	GTP	C8-N7-C5	3.57	108.63	102.55
15	1G	501	GTP	C8-N7-C5	3.55	108.60	102.55
15	4E	501	GTP	C8-N7-C5	3.55	108.59	102.55
15	8C	501	GTP	C8-N7-C5	3.55	108.59	102.55
15	6G	501	GTP	C8-N7-C5	3.55	108.58	102.55
17	4H	501	GDP	C4'-O4'-C1'	3.53	113.16	109.92
15	3E	501	GTP	C8-N7-C5	3.53	108.56	102.55
15	7A	501	GTP	C8-N7-C5	3.52	108.55	102.55
15	9G	501	GTP	C8-N7-C5	3.52	108.53	102.55
15	4M	501	GTP	C8-N7-C5	3.51	108.53	102.55
15	6K	501	GTP	C8-N7-C5	3.51	108.53	102.55
15	9M	501	GTP	C8-N7-C5	3.51	108.52	102.55
15	8G	501	GTP	C8-N7-C5	3.51	108.52	102.55
15	1I	501	GTP	C8-N7-C5	3.50	108.50	102.55
15	2A	501	GTP	C2-N1-C6	-3.49	118.72	125.11
15	8A	501	GTP	C8-N7-C5	3.49	108.50	102.55
15	1M	501	GTP	C8-N7-C5	3.49	108.49	102.55
15	6C	501	GTP	C8-N7-C5	3.49	108.48	102.55
15	5K	501	GTP	C8-N7-C5	3.44	108.40	102.55
17	4B	501	GDP	C8-N7-C5	3.43	108.39	102.55
15	7I	501	GTP	C8-N7-C5	3.43	108.38	102.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	6N	501	GTP	C5-C6-N1	3.29	120.35	114.07
15	4I	501	GTP	C8-N7-C5	3.25	108.09	102.55
15	3A	501	GTP	C5-C6-N1	3.13	120.04	114.07
15	8K	501	GTP	C5-C6-N1	3.11	120.01	114.07
15	2A	501	GTP	C5-C6-N1	3.09	119.97	114.07
15	6N	501	GTP	C2-N1-C6	-3.08	119.47	125.11
15	7C	501	GTP	C5-C6-N1	3.06	119.90	114.07
15	3M	501	GTP	C5-C6-N1	3.05	119.89	114.07
15	4A	501	GTP	C2-N1-C6	-3.03	119.56	125.11
17	3D	501	GDP	C8-N7-C5	3.02	107.70	102.55
15	9G	501	GTP	C5-C6-N1	3.02	119.84	114.07
15	5I	501	GTP	C5-C6-N1	3.02	119.83	114.07
15	8E	501	GTP	C2-N1-C6	-3.01	119.61	125.11
15	8E	501	GTP	C5-C6-N1	3.01	119.81	114.07
15	1C	501	GTP	C5-C6-N1	3.00	119.80	114.07
15	9K	501	GTP	C5-C6-N1	3.00	119.80	114.07
15	2E	501	GTP	C2-N1-C6	-3.00	119.62	125.11
15	8K	501	GTP	C2-N1-C6	-2.99	119.64	125.11
15	9A	501	GTP	C5-C6-N1	2.98	119.75	114.07
15	8M	501	GTP	C5-C6-N1	2.98	119.75	114.07
15	2E	501	GTP	C5-C6-N1	2.97	119.74	114.07
15	3A	501	GTP	C2-N1-C6	-2.97	119.67	125.11
15	3K	501	GTP	C5-C6-N1	2.96	119.72	114.07
15	9I	501	GTP	C2-N1-C6	-2.96	119.69	125.11
15	1E	501	GTP	C5-C6-N1	2.96	119.72	114.07
15	5G	501	GTP	C5-C6-N1	2.95	119.71	114.07
15	7E	501	GTP	C5-C6-N1	2.95	119.70	114.07
15	5M	501	GTP	C4'-O4'-C1'	-2.95	107.22	109.92
15	7A	501	GTP	C5-C6-N1	2.95	119.69	114.07
15	4K	501	GTP	C5-C6-N1	2.95	119.69	114.07
15	3M	501	GTP	C2-N1-C6	-2.94	119.73	125.11
15	4A	501	GTP	C5-C6-N1	2.94	119.68	114.07
15	9K	501	GTP	C2-N1-C6	-2.94	119.73	125.11
15	1K	501	GTP	C5-C6-N1	2.94	119.67	114.07
15	6A	501	GTP	C5-C6-N1	2.94	119.67	114.07
17	2D	501	GDP	C8-N7-C5	2.93	107.54	102.55
15	9G	501	GTP	C2-N1-C6	-2.93	119.74	125.11
15	3C	501	GTP	C5-C6-N1	2.93	119.66	114.07
15	1G	501	GTP	C2-N1-C6	-2.93	119.75	125.11
15	2I	501	GTP	C5-C6-N1	2.93	119.66	114.07
15	9I	501	GTP	C5-C6-N1	2.93	119.66	114.07
15	6E	501	GTP	C5-C6-N1	2.93	119.66	114.07

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	1G	501	GTP	C5-C6-N1	2.93	119.65	114.07
15	2G	501	GTP	C5-C6-N1	2.92	119.64	114.07
15	3E	501	GTP	C5-C6-N1	2.92	119.64	114.07
15	7C	501	GTP	C2-N1-C6	-2.92	119.77	125.11
15	8C	501	GTP	C2-N1-C6	-2.92	119.77	125.11
15	2C	501	GTP	C5-C6-N1	2.92	119.64	114.07
17	1J	501	GDP	C8-N7-C5	2.92	107.52	102.55
17	1J	501	GDP	C4'-O4'-C1'	2.92	112.60	109.92
15	1I	501	GTP	C5-C6-N1	2.92	119.64	114.07
15	6C	501	GTP	C5-C6-N1	2.92	119.63	114.07
15	1C	501	GTP	C2-N1-C6	-2.91	119.78	125.11
15	2I	501	GTP	C2-N1-C6	-2.91	119.78	125.11
15	7M	501	GTP	C5-C6-N1	2.91	119.63	114.07
15	6A	501	GTP	C2-N1-C6	-2.91	119.78	125.11
17	9L	501	GDP	C8-N7-C5	2.91	107.50	102.55
15	8I	501	GTP	C5-C6-N1	2.91	119.61	114.07
15	5C	501	GTP	C5-C6-N1	2.90	119.61	114.07
15	9A	501	GTP	C2-N1-C6	-2.90	119.80	125.11
15	1K	501	GTP	C2-N1-C6	-2.90	119.80	125.11
15	7I	501	GTP	C5-C6-N1	2.90	119.60	114.07
15	2C	501	GTP	C2-N1-C6	-2.90	119.81	125.11
15	8M	501	GTP	C2-N1-C6	-2.90	119.81	125.11
15	9M	501	GTP	C2-N1-C6	-2.90	119.81	125.11
17	1L	501	GDP	C8-N7-C5	2.89	107.47	102.55
17	9B	501	GDP	C8-N7-C5	2.89	107.47	102.55
15	9M	501	GTP	C5-C6-N1	2.89	119.59	114.07
15	6I	501	GTP	C5-C6-N1	2.89	119.58	114.07
15	2M	501	GTP	C5-C6-N1	2.89	119.58	114.07
15	2K	501	GTP	C5-C6-N1	2.89	119.58	114.07
15	2K	501	GTP	C2-N1-C6	-2.89	119.83	125.11
17	9H	501	GDP	C8-N7-C5	2.89	107.46	102.55
15	4C	501	GTP	C5-C6-N1	2.88	119.57	114.07
17	1N	501	GDP	C8-N7-C5	2.88	107.46	102.55
15	6G	501	GTP	C5-C6-N1	2.88	119.57	114.07
17	5B	501	GDP	C8-N7-C5	2.88	107.45	102.55
17	7H	501	GDP	C8-N7-C5	2.88	107.45	102.55
15	3E	501	GTP	C2-N1-C6	-2.88	119.84	125.11
15	1E	501	GTP	C2-N1-C6	-2.88	119.84	125.11
15	3C	501	GTP	C2-N1-C6	-2.88	119.85	125.11
15	6K	501	GTP	C5-C6-N1	2.87	119.56	114.07
15	6C	501	GTP	C2-N1-C6	-2.87	119.85	125.11
15	8C	501	GTP	C5-C6-N1	2.87	119.54	114.07

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	5M	501	GTP	C5-C6-N1	2.86	119.53	114.07
15	5E	501	GTP	C5-C6-N1	2.86	119.53	114.07
17	8L	501	GDP	C8-N7-C5	2.86	107.42	102.55
15	9C	501	GTP	C5-C6-N1	2.86	119.53	114.07
15	4E	501	GTP	C5-C6-N1	2.86	119.53	114.07
15	3K	501	GTP	C2-N1-C6	-2.86	119.88	125.11
15	3G	501	GTP	C5-C6-N1	2.86	119.53	114.07
17	8F	501	GDP	C8-N7-C5	2.86	107.41	102.55
15	4G	501	GTP	C5-C6-N1	2.86	119.52	114.07
17	4D	501	GDP	C8-N7-C5	2.86	107.41	102.55
15	9E	501	GTP	C5-C6-N1	2.85	119.52	114.07
17	6N	502	GDP	C8-N7-C5	2.85	107.41	102.55
15	5I	501	GTP	C2-N1-C6	-2.85	119.89	125.11
17	2B	501	GDP	C8-N7-C5	2.85	107.40	102.55
15	4K	501	GTP	C2-N1-C6	-2.85	119.89	125.11
15	7I	501	GTP	C2-N1-C6	-2.85	119.90	125.11
15	5G	501	GTP	C2-N1-C6	-2.85	119.90	125.11
15	5C	501	GTP	C2-N1-C6	-2.85	119.90	125.11
17	5J	501	GDP	C8-N7-C5	2.85	107.39	102.55
17	4L	501	GDP	C8-N7-C5	2.85	107.39	102.55
17	4J	501	GDP	C8-N7-C5	2.84	107.39	102.55
17	6D	501	GDP	C8-N7-C5	2.84	107.39	102.55
15	7K	501	GTP	C5-C6-N1	2.84	119.49	114.07
15	6K	501	GTP	C2-N1-C6	-2.84	119.91	125.11
15	1M	501	GTP	C2-N1-C6	-2.84	119.91	125.11
17	5N	501	GDP	C8-N7-C5	2.84	107.38	102.55
15	7G	501	GTP	C5-C6-N1	2.84	119.48	114.07
17	5L	501	GDP	C8-N7-C5	2.83	107.37	102.55
15	2M	501	GTP	C2-N1-C6	-2.83	119.93	125.11
15	7E	501	GTP	C2-N1-C6	-2.83	119.94	125.11
17	2J	501	GDP	C8-N7-C5	2.83	107.36	102.55
17	5D	501	GDP	C8-N7-C5	2.82	107.36	102.55
17	5H	501	GDP	C8-N7-C5	2.82	107.36	102.55
17	1B	501	GDP	C8-N7-C5	2.82	107.35	102.55
15	1M	501	GTP	C5-C6-N1	2.82	119.44	114.07
17	3J	501	GDP	C8-N7-C5	2.82	107.34	102.55
15	5A	501	GTP	C5-C6-N1	2.81	119.43	114.07
15	1A	501	GTP	C5-C6-N1	2.81	119.43	114.07
17	1H	501	GDP	C8-N7-C5	2.81	107.33	102.55
15	2G	501	GTP	C2-N1-C6	-2.81	119.97	125.11
17	8D	501	GDP	C8-N7-C5	2.80	107.32	102.55
15	6E	501	GTP	C2-N1-C6	-2.80	119.98	125.11

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	7J	501	GDP	C8-N7-C5	2.80	107.32	102.55
15	5K	501	GTP	C5-C6-N1	2.80	119.41	114.07
15	8G	501	GTP	C5-C6-N1	2.80	119.41	114.07
15	6G	501	GTP	C2-N1-C6	-2.80	119.99	125.11
17	7F	501	GDP	C8-N7-C5	2.80	107.31	102.55
15	5M	501	GTP	C2-N1-C6	-2.80	119.99	125.11
15	4A	501	GTP	O4'-C1'-N9	2.80	112.45	108.75
15	9C	501	GTP	C2-N1-C6	-2.80	119.99	125.11
15	3I	501	GTP	C5-C6-N1	2.79	119.40	114.07
17	6H	501	GDP	C8-N7-C5	2.79	107.30	102.55
15	5E	501	GTP	C2-N1-C6	-2.79	120.00	125.11
17	4F	501	GDP	C8-N7-C5	2.79	107.29	102.55
17	9D	501	GDP	C8-N7-C5	2.78	107.29	102.55
17	8J	501	GDP	C8-N7-C5	2.78	107.29	102.55
17	3L	501	GDP	C8-N7-C5	2.78	107.29	102.55
17	9J	501	GDP	C8-N7-C5	2.78	107.28	102.55
17	5F	501	GDP	C8-N7-C5	2.78	107.28	102.55
17	7B	502	GDP	C8-N7-C5	2.78	107.27	102.55
15	1A	501	GTP	C2-N1-C6	-2.77	120.04	125.11
17	3B	501	GDP	C8-N7-C5	2.77	107.27	102.55
17	8J	501	GDP	C4'-O4'-C1'	2.77	112.46	109.92
17	2H	501	GDP	C8-N7-C5	2.76	107.26	102.55
15	8I	501	GTP	C2-N1-C6	-2.76	120.05	125.11
15	7M	501	GTP	C2-N1-C6	-2.76	120.05	125.11
17	2F	501	GDP	C8-N7-C5	2.75	107.23	102.55
15	5K	501	GTP	C2-N1-C6	-2.75	120.08	125.11
15	3G	501	GTP	C2-N1-C6	-2.75	120.08	125.11
15	5A	501	GTP	C2-N1-C6	-2.74	120.10	125.11
15	6N	501	GTP	O6-C6-C5	-2.74	118.89	124.32
17	6L	501	GDP	C8-N7-C5	2.74	107.21	102.55
15	9E	501	GTP	C2-N1-C6	-2.73	120.11	125.11
17	2L	501	GDP	C8-N7-C5	2.73	107.20	102.55
17	8H	501	GDP	C8-N7-C5	2.73	107.20	102.55
15	6I	501	GTP	C2-N1-C6	-2.73	120.11	125.11
15	7K	501	GTP	C2-N1-C6	-2.73	120.12	125.11
15	1I	501	GTP	C2-N1-C6	-2.73	120.12	125.11
17	9F	501	GDP	C8-N7-C5	2.72	107.19	102.55
15	4C	501	GTP	C2-N1-C6	-2.72	120.12	125.11
15	4M	501	GTP	C5-C6-N1	2.72	119.26	114.07
15	8A	501	GTP	C5-C6-N1	2.72	119.25	114.07
15	8G	501	GTP	C2-N1-C6	-2.71	120.15	125.11
15	2A	501	GTP	O6-C6-N1	-2.69	117.42	120.62

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	5M	501	GTP	O4'-C1'-N9	2.69	112.31	108.75
17	7D	501	GDP	C8-N7-C5	2.69	107.13	102.55
15	4G	501	GTP	C2-N1-C6	-2.68	120.20	125.11
17	3H	501	GDP	C8-N7-C5	2.67	107.09	102.55
17	1D	501	GDP	C8-N7-C5	2.64	107.05	102.55
15	7G	501	GTP	C2-N1-C6	-2.63	120.29	125.11
15	1C	501	GTP	O4'-C1'-N9	2.63	112.23	108.75
17	1F	501	GDP	C8-N7-C5	2.62	107.00	102.55
15	7A	501	GTP	C2-N1-C6	-2.61	120.33	125.11
17	6B	501	GDP	C8-N7-C5	2.59	106.97	102.55
15	8A	501	GTP	C2-N1-C6	-2.58	120.38	125.11
15	3I	501	GTP	C2-N1-C6	-2.58	120.38	125.11
15	1G	501	GTP	C4'-O4'-C1'	2.57	112.28	109.92
17	3F	501	GDP	C8-N7-C5	2.56	106.91	102.55
15	4I	501	GTP	C5-C6-N1	2.56	118.95	114.07
15	4E	501	GTP	C2-N1-C6	-2.55	120.43	125.11
17	4H	501	GDP	C8-N7-C5	2.55	106.90	102.55
17	6F	501	GDP	C8-N7-C5	2.55	106.89	102.55
17	2J	501	GDP	C4'-O4'-C1'	2.55	112.26	109.92
17	7L	501	GDP	C8-N7-C5	2.54	106.87	102.55
17	2F	501	GDP	C4'-O4'-C1'	2.54	112.25	109.92
15	9G	501	GTP	O6-C6-C5	-2.53	119.30	124.32
17	7B	502	GDP	C5-C6-N1	2.53	118.89	114.07
17	9B	501	GDP	C4'-O4'-C1'	2.51	112.22	109.92
17	3J	501	GDP	C4'-O4'-C1'	2.50	112.22	109.92
17	6J	501	GDP	O6-C6-C5	-2.48	119.40	124.32
15	4M	501	GTP	C2-N1-C6	-2.48	120.57	125.11
17	8B	501	GDP	C8-N7-C5	2.48	106.76	102.55
17	7D	501	GDP	C4'-O4'-C1'	2.46	112.17	109.92
17	6J	501	GDP	C8-N7-C5	2.45	106.73	102.55
17	2H	501	GDP	O3B-PB-O3A	2.43	112.78	104.64
15	2E	501	GTP	O6-C6-C5	-2.43	119.51	124.32
15	9K	501	GTP	C4'-O4'-C1'	2.43	112.15	109.92
15	1K	501	GTP	O2B-PB-O3A	2.42	113.83	107.27
17	8F	501	GDP	O4'-C1'-N9	-2.42	105.53	108.75
17	6F	501	GDP	C5-C6-N1	2.40	118.66	114.07
17	8B	501	GDP	C4'-O4'-C1'	2.40	112.12	109.92
15	4A	501	GTP	N2-C2-N1	2.38	121.79	116.76
17	1F	501	GDP	C4'-O4'-C1'	2.37	112.10	109.92
17	6B	501	GDP	O3B-PB-O3A	2.37	112.58	104.64
17	7B	502	GDP	O3B-PB-O3A	2.36	112.56	104.64
15	4E	501	GTP	O2A-PA-O3A	2.36	113.66	107.27

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	3F	501	GDP	C4'-O4'-C1'	2.36	112.08	109.92
15	8E	501	GTP	O6-C6-C5	-2.35	119.65	124.32
15	6N	501	GTP	O3G-PG-O3B	2.35	112.53	104.64
17	8B	501	GDP	O6-C6-C5	-2.33	119.69	124.32
15	9K	501	GTP	O2B-PB-O3A	2.32	113.54	107.27
17	7B	502	GDP	O2A-PA-O3A	2.31	113.52	107.27
17	7J	501	GDP	C5-C6-N1	2.31	118.47	114.07
17	6B	501	GDP	C5-C6-N1	2.30	118.46	114.07
17	2H	501	GDP	O2A-PA-O3A	2.30	113.50	107.27
15	4A	501	GTP	O6-C6-C5	-2.30	119.76	124.32
17	5H	501	GDP	O3B-PB-O3A	2.30	112.34	104.64
17	8F	501	GDP	O3B-PB-O3A	2.29	112.33	104.64
17	1N	501	GDP	O3B-PB-O3A	2.29	112.32	104.64
15	6K	501	GTP	O2B-PB-O3B	2.28	113.43	107.27
15	6G	501	GTP	O2B-PB-O3A	2.28	113.42	107.27
17	9D	501	GDP	O3B-PB-O3A	2.27	112.25	104.64
17	4J	501	GDP	C4'-O4'-C1'	2.26	111.99	109.92
15	4I	501	GTP	C2-N1-C6	-2.25	120.98	125.11
17	8L	501	GDP	O3B-PB-O3A	2.25	112.19	104.64
17	9F	501	GDP	C4'-O4'-C1'	2.25	111.98	109.92
17	4H	501	GDP	C2'-C3'-C4'	2.24	106.94	102.61
15	6N	501	GTP	O2B-PB-O3B	2.24	113.31	107.27
17	8B	501	GDP	O4'-C1'-N9	-2.23	105.78	108.75
17	3B	501	GDP	O2A-PA-O3A	2.23	113.31	107.27
17	5F	501	GDP	C5-C6-N1	2.23	118.33	114.07
17	1N	501	GDP	O2A-PA-O3A	2.22	113.29	107.27
17	8L	501	GDP	C4'-O4'-C1'	2.22	111.96	109.92
17	9F	501	GDP	C5-C6-N1	2.22	118.31	114.07
17	5D	501	GDP	C4'-O4'-C1'	2.22	111.95	109.92
17	8F	501	GDP	N2-C2-N1	2.21	121.42	116.76
17	9L	501	GDP	O2A-PA-O3A	2.20	113.22	107.27
15	3E	501	GTP	O6-C6-C5	-2.20	119.97	124.32
15	7G	501	GTP	O6-C6-C5	-2.19	119.97	124.32
17	5N	501	GDP	C5-C6-N1	2.19	118.25	114.07
15	6C	501	GTP	O6-C6-C5	-2.19	119.99	124.32
17	8D	501	GDP	C5-C6-N1	2.18	118.24	114.07
17	3B	501	GDP	C4'-O4'-C1'	2.18	111.92	109.92
17	7H	501	GDP	C4'-O4'-C1'	2.18	111.92	109.92
15	1G	501	GTP	O2B-PB-O3A	2.18	113.17	107.27
15	7I	501	GTP	O6-C6-C5	-2.18	120.00	124.32
17	6J	501	GDP	C4'-O4'-C1'	2.18	111.92	109.92
17	8F	501	GDP	O2A-PA-O3A	2.18	113.16	107.27

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	4I	501	GTP	O2B-PB-O3A	2.17	113.14	107.27
15	2M	501	GTP	O2B-PB-O3A	2.17	113.13	107.27
17	3F	501	GDP	C5-C6-N1	2.17	118.20	114.07
17	3F	501	GDP	O4'-C1'-N9	-2.17	105.87	108.75
15	2G	501	GTP	O6-C6-C5	-2.16	120.03	124.32
17	9H	501	GDP	C4'-O4'-C1'	2.16	111.90	109.92
17	7F	501	GDP	O3B-PB-O3A	2.16	111.88	104.64
17	6J	501	GDP	C5-C6-N1	2.16	118.19	114.07
15	2C	501	GTP	O6-C6-C5	-2.16	120.04	124.32
17	5H	501	GDP	O2A-PA-O3A	2.16	113.10	107.27
17	9D	501	GDP	C5-C6-N1	2.16	118.18	114.07
15	6K	501	GTP	O6-C6-C5	-2.15	120.06	124.32
17	7F	501	GDP	O2A-PA-O3A	2.15	113.07	107.27
15	1I	501	GTP	O6-C6-C5	-2.14	120.07	124.32
17	7L	501	GDP	C5-C6-N1	2.14	118.15	114.07
17	6B	501	GDP	C4'-O4'-C1'	2.13	111.88	109.92
17	7D	501	GDP	O6-C6-C5	-2.13	120.09	124.32
15	9A	501	GTP	O6-C6-C5	-2.13	120.09	124.32
15	6A	501	GTP	O6-C6-C5	-2.13	120.09	124.32
17	3H	501	GDP	C4'-O4'-C1'	2.13	111.88	109.92
17	9J	501	GDP	C5-C6-N1	2.13	118.13	114.07
17	6N	502	GDP	C4'-O4'-C1'	2.13	111.87	109.92
17	7L	501	GDP	O6-C6-C5	-2.13	120.11	124.32
15	2I	501	GTP	O6-C6-C5	-2.13	120.11	124.32
17	9J	501	GDP	C4'-O4'-C1'	2.12	111.87	109.92
17	7D	501	GDP	C5-C6-N1	2.12	118.12	114.07
15	8M	501	GTP	O4'-C1'-N9	2.12	111.56	108.75
17	6F	501	GDP	C4'-O4'-C1'	2.12	111.87	109.92
15	9M	501	GTP	O6-C6-C5	-2.12	120.12	124.32
17	3L	501	GDP	C5-C6-N1	2.12	118.11	114.07
15	8C	501	GTP	O6-C6-C5	-2.11	120.13	124.32
17	8B	501	GDP	O3B-PB-O3A	2.11	111.71	104.64
15	2K	501	GTP	O6-C6-C5	-2.11	120.14	124.32
15	2M	501	GTP	O6-C6-C5	-2.11	120.14	124.32
15	7K	501	GTP	O6-C6-C5	-2.11	120.14	124.32
15	8G	501	GTP	O6-C6-C5	-2.11	120.14	124.32
15	5E	501	GTP	O6-C6-C5	-2.10	120.15	124.32
17	9B	501	GDP	C5-C6-N1	2.10	118.08	114.07
17	4F	501	GDP	C5-C6-N1	2.10	118.08	114.07
17	4H	501	GDP	C5-C6-N1	2.10	118.08	114.07
15	1E	501	GTP	O6-C6-C5	-2.10	120.16	124.32
15	3K	501	GTP	O6-C6-C5	-2.10	120.16	124.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	1A	501	GTP	O6-C6-C5	-2.10	120.16	124.32
17	5D	501	GDP	C5-C6-N1	2.10	118.07	114.07
17	1D	501	GDP	C5-C6-N1	2.10	118.07	114.07
15	8M	501	GTP	O6-C6-C5	-2.09	120.17	124.32
15	7I	501	GTP	O2B-PB-O3B	2.09	112.92	107.27
15	1A	501	GTP	O2B-PB-O3A	2.09	112.92	107.27
15	9K	501	GTP	O6-C6-C5	-2.09	120.18	124.32
15	1G	501	GTP	O6-C6-C5	-2.09	120.18	124.32
17	5F	501	GDP	O3B-PB-O3A	2.09	111.64	104.64
15	7A	501	GTP	O6-C6-C5	-2.09	120.19	124.32
17	3H	501	GDP	C5-C6-N1	2.08	118.04	114.07
15	9K	501	GTP	O2A-PA-O3A	2.08	112.90	107.27
15	7C	501	GTP	O6-C6-C5	-2.08	120.19	124.32
15	9C	501	GTP	O6-C6-C5	-2.08	120.20	124.32
15	7E	501	GTP	O6-C6-C5	-2.08	120.20	124.32
15	6G	501	GTP	O6-C6-C5	-2.08	120.20	124.32
17	5J	501	GDP	C5-C6-N1	2.08	118.03	114.07
15	1K	501	GTP	O6-C6-C5	-2.08	120.20	124.32
15	8K	501	GTP	O3G-PG-O3B	2.08	111.60	104.64
17	1J	501	GDP	C5-C6-N1	2.07	118.02	114.07
17	9H	501	GDP	C5-C6-N1	2.07	118.02	114.07
17	7F	501	GDP	C4'-O4'-C1'	2.07	111.82	109.92
17	5B	501	GDP	O3B-PB-O3A	2.07	111.58	104.64
15	7K	501	GTP	O2B-PB-O3B	2.07	112.87	107.27
15	5K	501	GTP	O6-C6-C5	-2.07	120.22	124.32
15	7M	501	GTP	O6-C6-C5	-2.07	120.22	124.32
15	3I	501	GTP	O4'-C1'-N9	2.07	111.48	108.75
15	3C	501	GTP	O6-C6-C5	-2.06	120.23	124.32
17	4D	501	GDP	C5-C6-N1	2.06	118.00	114.07
17	6N	502	GDP	C5-C6-N1	2.06	118.00	114.07
17	5N	501	GDP	C4'-O4'-C1'	2.06	111.81	109.92
15	6I	501	GTP	O6-C6-C5	-2.06	120.24	124.32
17	2B	501	GDP	O2A-PA-O3A	2.06	112.83	107.27
15	4A	501	GTP	O3G-PG-O3B	2.05	111.53	104.64
15	4I	501	GTP	O6-C6-C5	-2.05	120.25	124.32
15	3M	501	GTP	O6-C6-C5	-2.05	120.25	124.32
15	5M	501	GTP	O6-C6-C5	-2.05	120.25	124.32
17	6H	501	GDP	C4'-O4'-C1'	2.05	111.80	109.92
17	1L	501	GDP	C5-C6-N1	2.05	117.98	114.07
17	4B	501	GDP	C2-N1-C6	-2.05	121.36	125.11
17	6B	501	GDP	O2A-PA-O3A	2.05	112.81	107.27
15	8K	501	GTP	O6-C6-C5	-2.05	120.26	124.32

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	8L	501	GDP	C5-C6-N1	2.05	117.98	114.07
17	4H	501	GDP	O6-C6-C5	-2.05	120.26	124.32
17	1N	501	GDP	C5-C6-N1	2.05	117.97	114.07
17	2J	501	GDP	C5-C6-N1	2.04	117.97	114.07
17	6H	501	GDP	C5-C6-N1	2.04	117.97	114.07
15	4C	501	GTP	O6-C6-C5	-2.04	120.27	124.32
15	1M	501	GTP	O6-C6-C5	-2.04	120.27	124.32
15	1C	501	GTP	O6-C6-C5	-2.04	120.27	124.32
17	7F	501	GDP	C5-C6-N1	2.04	117.97	114.07
15	4M	501	GTP	O6-C6-C5	-2.04	120.27	124.32
17	8J	501	GDP	C5-C6-N1	2.04	117.96	114.07
15	3G	501	GTP	O6-C6-C5	-2.04	120.28	124.32
17	9H	501	GDP	O3B-PB-O3A	2.04	111.47	104.64
17	2F	501	GDP	C5-C6-N1	2.04	117.96	114.07
15	9I	501	GTP	O6-C6-C5	-2.04	120.28	124.32
17	5B	501	GDP	C4'-O4'-C1'	2.04	111.79	109.92
17	1N	501	GDP	C4'-O4'-C1'	2.04	111.79	109.92
17	8B	501	GDP	C2'-C3'-C4'	2.03	106.53	102.61
17	4L	501	GDP	C5-C6-N1	2.03	117.94	114.07
17	7H	501	GDP	C5-C6-N1	2.03	117.94	114.07
17	7L	501	GDP	C4'-O4'-C1'	2.03	111.78	109.92
15	5G	501	GTP	C4'-O4'-C1'	2.02	111.78	109.92
15	6A	501	GTP	O2B-PB-O3B	2.02	112.73	107.27
17	9F	501	GDP	O3B-PB-O3A	2.02	111.40	104.64
15	8A	501	GTP	O6-C6-C5	-2.01	120.33	124.32
17	2D	501	GDP	C4'-O4'-C1'	2.01	111.77	109.92
15	5A	501	GTP	O6-C6-C5	-2.01	120.34	124.32
15	8G	501	GTP	O2B-PB-O3A	2.01	112.70	107.27
17	6D	501	GDP	C5-C6-N1	2.00	117.89	114.07
15	4E	501	GTP	O2B-PB-O3A	2.00	112.69	107.27
15	3I	501	GTP	O6-C6-C5	-2.00	120.35	124.32

There are no chirality outliers.

All (664) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
15	1A	501	GTP	C5'-O5'-PA-O3A
15	1A	501	GTP	C5'-O5'-PA-O1A
15	1A	501	GTP	C5'-O5'-PA-O2A
15	1C	501	GTP	O4'-C4'-C5'-O5'
15	1E	501	GTP	C5'-O5'-PA-O3A
15	1E	501	GTP	C5'-O5'-PA-O1A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	1E	501	GTP	C5'-O5'-PA-O2A
15	1I	501	GTP	C5'-O5'-PA-O3A
15	1I	501	GTP	C5'-O5'-PA-O2A
15	1K	501	GTP	C5'-O5'-PA-O3A
15	1K	501	GTP	C5'-O5'-PA-O2A
15	1M	501	GTP	C5'-O5'-PA-O3A
15	1M	501	GTP	C5'-O5'-PA-O2A
15	1M	501	GTP	O4'-C4'-C5'-O5'
15	2A	501	GTP	PB-O3B-PG-O2G
15	2A	501	GTP	C5'-O5'-PA-O3A
15	2A	501	GTP	C5'-O5'-PA-O2A
15	2C	501	GTP	C5'-O5'-PA-O3A
15	2C	501	GTP	C5'-O5'-PA-O1A
15	2C	501	GTP	O4'-C4'-C5'-O5'
15	2G	501	GTP	C5'-O5'-PA-O3A
15	2G	501	GTP	C5'-O5'-PA-O1A
15	2G	501	GTP	C5'-O5'-PA-O2A
15	2I	501	GTP	C5'-O5'-PA-O3A
15	2I	501	GTP	C5'-O5'-PA-O1A
15	2I	501	GTP	C5'-O5'-PA-O2A
15	2K	501	GTP	C5'-O5'-PA-O3A
15	2K	501	GTP	C5'-O5'-PA-O1A
15	2K	501	GTP	C5'-O5'-PA-O2A
15	2K	501	GTP	O4'-C4'-C5'-O5'
15	2M	501	GTP	C5'-O5'-PA-O3A
15	2M	501	GTP	C5'-O5'-PA-O1A
15	2M	501	GTP	C5'-O5'-PA-O2A
15	2M	501	GTP	O4'-C4'-C5'-O5'
15	3A	501	GTP	C5'-O5'-PA-O3A
15	3A	501	GTP	C5'-O5'-PA-O2A
15	3A	501	GTP	O4'-C4'-C5'-O5'
15	3C	501	GTP	C5'-O5'-PA-O3A
15	3C	501	GTP	C5'-O5'-PA-O1A
15	3C	501	GTP	C5'-O5'-PA-O2A
15	3E	501	GTP	PB-O3B-PG-O2G
15	3E	501	GTP	C5'-O5'-PA-O3A
15	3E	501	GTP	C5'-O5'-PA-O1A
15	3E	501	GTP	C5'-O5'-PA-O2A
15	3G	501	GTP	PB-O3A-PA-O5'
15	3G	501	GTP	O4'-C4'-C5'-O5'
15	3I	501	GTP	C5'-O5'-PA-O3A
15	3I	501	GTP	C5'-O5'-PA-O1A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	3I	501	GTP	O4'-C4'-C5'-O5'
15	3K	501	GTP	C5'-O5'-PA-O3A
15	3K	501	GTP	C5'-O5'-PA-O1A
15	3K	501	GTP	C5'-O5'-PA-O2A
15	3M	501	GTP	C5'-O5'-PA-O3A
15	3M	501	GTP	C5'-O5'-PA-O1A
15	3M	501	GTP	O4'-C4'-C5'-O5'
15	3M	501	GTP	C3'-C4'-C5'-O5'
15	4A	501	GTP	C5'-O5'-PA-O3A
15	4C	501	GTP	C5'-O5'-PA-O3A
15	4C	501	GTP	C5'-O5'-PA-O2A
15	4E	501	GTP	C5'-O5'-PA-O3A
15	4E	501	GTP	C5'-O5'-PA-O1A
15	4E	501	GTP	C5'-O5'-PA-O2A
15	4G	501	GTP	C5'-O5'-PA-O3A
15	4G	501	GTP	C5'-O5'-PA-O1A
15	4G	501	GTP	C5'-O5'-PA-O2A
15	4I	501	GTP	C5'-O5'-PA-O3A
15	4I	501	GTP	C5'-O5'-PA-O2A
15	4I	501	GTP	O4'-C4'-C5'-O5'
15	4K	501	GTP	C5'-O5'-PA-O3A
15	4K	501	GTP	C5'-O5'-PA-O1A
15	4K	501	GTP	C5'-O5'-PA-O2A
15	4M	501	GTP	C5'-O5'-PA-O3A
15	4M	501	GTP	C5'-O5'-PA-O1A
15	4M	501	GTP	C5'-O5'-PA-O2A
15	5A	501	GTP	C5'-O5'-PA-O3A
15	5A	501	GTP	C5'-O5'-PA-O1A
15	5A	501	GTP	C5'-O5'-PA-O2A
15	5C	501	GTP	C5'-O5'-PA-O3A
15	5C	501	GTP	C5'-O5'-PA-O1A
15	5C	501	GTP	C5'-O5'-PA-O2A
15	5E	501	GTP	C5'-O5'-PA-O3A
15	5E	501	GTP	C5'-O5'-PA-O1A
15	5E	501	GTP	C5'-O5'-PA-O2A
15	5G	501	GTP	C5'-O5'-PA-O3A
15	5G	501	GTP	C5'-O5'-PA-O2A
15	5I	501	GTP	C5'-O5'-PA-O3A
15	5I	501	GTP	C5'-O5'-PA-O2A
15	5M	501	GTP	PB-O3A-PA-O5'
15	5M	501	GTP	O4'-C4'-C5'-O5'
15	6A	501	GTP	C5'-O5'-PA-O3A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	6A	501	GTP	C5'-O5'-PA-O2A
15	6C	501	GTP	C5'-O5'-PA-O3A
15	6C	501	GTP	C5'-O5'-PA-O1A
15	6C	501	GTP	O4'-C4'-C5'-O5'
15	6E	501	GTP	C5'-O5'-PA-O3A
15	6E	501	GTP	C5'-O5'-PA-O1A
15	6E	501	GTP	C5'-O5'-PA-O2A
15	6G	501	GTP	C5'-O5'-PA-O3A
15	6G	501	GTP	C5'-O5'-PA-O2A
15	6K	501	GTP	PB-O3A-PA-O5'
15	6K	501	GTP	C5'-O5'-PA-O3A
15	6K	501	GTP	C5'-O5'-PA-O2A
15	7A	501	GTP	C5'-O5'-PA-O3A
15	7A	501	GTP	C5'-O5'-PA-O2A
15	7C	501	GTP	C5'-O5'-PA-O3A
15	7C	501	GTP	C5'-O5'-PA-O1A
15	7G	501	GTP	PB-O3A-PA-O5'
15	7K	501	GTP	PB-O3A-PA-O5'
15	7K	501	GTP	C5'-O5'-PA-O3A
15	7K	501	GTP	C5'-O5'-PA-O1A
15	7K	501	GTP	C5'-O5'-PA-O2A
15	7K	501	GTP	O4'-C4'-C5'-O5'
15	7M	501	GTP	C5'-O5'-PA-O3A
15	7M	501	GTP	C5'-O5'-PA-O2A
15	8A	501	GTP	PB-O3A-PA-O5'
15	8C	501	GTP	C5'-O5'-PA-O3A
15	8C	501	GTP	C5'-O5'-PA-O1A
15	8C	501	GTP	C5'-O5'-PA-O2A
15	8E	501	GTP	PB-O3B-PG-O2G
15	8G	501	GTP	C5'-O5'-PA-O3A
15	8G	501	GTP	C5'-O5'-PA-O2A
15	8I	501	GTP	C5'-O5'-PA-O3A
15	8I	501	GTP	C5'-O5'-PA-O2A
15	8K	501	GTP	C5'-O5'-PA-O3A
15	8K	501	GTP	C5'-O5'-PA-O1A
15	8K	501	GTP	C5'-O5'-PA-O2A
15	8K	501	GTP	O4'-C4'-C5'-O5'
15	8M	501	GTP	PB-O3B-PG-O2G
15	9C	501	GTP	C5'-O5'-PA-O3A
15	9C	501	GTP	C5'-O5'-PA-O1A
15	9C	501	GTP	C5'-O5'-PA-O2A
15	9C	501	GTP	O4'-C4'-C5'-O5'

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	9E	501	GTP	PB-O3A-PA-O5'
15	9E	501	GTP	C5'-O5'-PA-O1A
15	9G	501	GTP	C5'-O5'-PA-O3A
15	9G	501	GTP	C5'-O5'-PA-O1A
15	9I	501	GTP	PB-O3B-PG-O2G
15	9I	501	GTP	C5'-O5'-PA-O3A
15	9I	501	GTP	C5'-O5'-PA-O1A
15	9K	501	GTP	C5'-O5'-PA-O3A
15	9K	501	GTP	C5'-O5'-PA-O2A
15	9M	501	GTP	C5'-O5'-PA-O3A
15	9M	501	GTP	C5'-O5'-PA-O1A
15	9M	501	GTP	C5'-O5'-PA-O2A
17	1B	501	GDP	C5'-O5'-PA-O3A
17	1D	501	GDP	C5'-O5'-PA-O3A
17	1D	501	GDP	C5'-O5'-PA-O1A
17	1D	501	GDP	C5'-O5'-PA-O2A
17	1F	501	GDP	C5'-O5'-PA-O3A
17	1F	501	GDP	C5'-O5'-PA-O1A
17	1F	501	GDP	C5'-O5'-PA-O2A
17	1H	501	GDP	C5'-O5'-PA-O3A
17	1H	501	GDP	C5'-O5'-PA-O1A
17	1H	501	GDP	C5'-O5'-PA-O2A
17	1J	501	GDP	C5'-O5'-PA-O3A
17	1J	501	GDP	C5'-O5'-PA-O1A
17	1J	501	GDP	C5'-O5'-PA-O2A
17	1L	501	GDP	C5'-O5'-PA-O3A
17	1L	501	GDP	C5'-O5'-PA-O1A
17	1L	501	GDP	C5'-O5'-PA-O2A
17	1N	501	GDP	C5'-O5'-PA-O3A
17	1N	501	GDP	C5'-O5'-PA-O2A
17	2B	501	GDP	PA-O3A-PB-O3B
17	2B	501	GDP	C5'-O5'-PA-O3A
17	2B	501	GDP	C5'-O5'-PA-O1A
17	2B	501	GDP	C5'-O5'-PA-O2A
17	2D	501	GDP	C5'-O5'-PA-O3A
17	2D	501	GDP	C5'-O5'-PA-O2A
17	2D	501	GDP	C3'-C4'-C5'-O5'
17	2F	501	GDP	C5'-O5'-PA-O3A
17	2F	501	GDP	C5'-O5'-PA-O2A
17	2H	501	GDP	PA-O3A-PB-O3B
17	2H	501	GDP	C5'-O5'-PA-O3A
17	2H	501	GDP	C5'-O5'-PA-O2A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
17	2J	501	GDP	C5'-O5'-PA-O3A
17	2J	501	GDP	C5'-O5'-PA-O1A
17	2J	501	GDP	C5'-O5'-PA-O2A
17	2L	501	GDP	C5'-O5'-PA-O3A
17	2L	501	GDP	C5'-O5'-PA-O1A
17	2L	501	GDP	C5'-O5'-PA-O2A
17	3D	501	GDP	C5'-O5'-PA-O3A
17	3D	501	GDP	C5'-O5'-PA-O1A
17	3D	501	GDP	C5'-O5'-PA-O2A
17	3F	501	GDP	C5'-O5'-PA-O3A
17	3F	501	GDP	C5'-O5'-PA-O2A
17	3H	501	GDP	C5'-O5'-PA-O3A
17	3H	501	GDP	C5'-O5'-PA-O1A
17	3H	501	GDP	C5'-O5'-PA-O2A
17	3J	501	GDP	C5'-O5'-PA-O3A
17	3J	501	GDP	C5'-O5'-PA-O1A
17	3J	501	GDP	C5'-O5'-PA-O2A
17	3L	501	GDP	C5'-O5'-PA-O3A
17	3L	501	GDP	C5'-O5'-PA-O1A
17	3L	501	GDP	C5'-O5'-PA-O2A
17	3L	501	GDP	C3'-C4'-C5'-O5'
17	4B	501	GDP	C5'-O5'-PA-O3A
17	4B	501	GDP	C5'-O5'-PA-O1A
17	4B	501	GDP	C5'-O5'-PA-O2A
17	4D	501	GDP	C5'-O5'-PA-O3A
17	4D	501	GDP	C5'-O5'-PA-O1A
17	4F	501	GDP	C5'-O5'-PA-O3A
17	4F	501	GDP	C5'-O5'-PA-O1A
17	4F	501	GDP	C5'-O5'-PA-O2A
17	4H	501	GDP	C5'-O5'-PA-O3A
17	4H	501	GDP	C5'-O5'-PA-O1A
17	4H	501	GDP	C5'-O5'-PA-O2A
17	4J	501	GDP	C5'-O5'-PA-O3A
17	4J	501	GDP	C5'-O5'-PA-O1A
17	4J	501	GDP	C5'-O5'-PA-O2A
17	4L	501	GDP	C5'-O5'-PA-O3A
17	4L	501	GDP	C5'-O5'-PA-O2A
17	5B	501	GDP	C5'-O5'-PA-O3A
17	5B	501	GDP	C5'-O5'-PA-O1A
17	5B	501	GDP	C5'-O5'-PA-O2A
17	5D	501	GDP	C5'-O5'-PA-O3A
17	5D	501	GDP	C5'-O5'-PA-O1A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
17	5F	501	GDP	C5'-O5'-PA-O3A
17	5F	501	GDP	C5'-O5'-PA-O2A
17	5H	501	GDP	C5'-O5'-PA-O3A
17	5H	501	GDP	C5'-O5'-PA-O1A
17	5J	501	GDP	C5'-O5'-PA-O3A
17	5J	501	GDP	C5'-O5'-PA-O1A
17	5J	501	GDP	C5'-O5'-PA-O2A
17	5L	501	GDP	C5'-O5'-PA-O3A
17	5L	501	GDP	C5'-O5'-PA-O1A
17	5L	501	GDP	C5'-O5'-PA-O2A
17	5N	501	GDP	C5'-O5'-PA-O3A
17	5N	501	GDP	C5'-O5'-PA-O1A
17	6B	501	GDP	C5'-O5'-PA-O3A
17	6B	501	GDP	C5'-O5'-PA-O1A
17	6B	501	GDP	C5'-O5'-PA-O2A
17	6D	501	GDP	C5'-O5'-PA-O3A
17	6D	501	GDP	C5'-O5'-PA-O1A
17	6F	501	GDP	C5'-O5'-PA-O3A
17	6F	501	GDP	C5'-O5'-PA-O1A
17	6H	501	GDP	C5'-O5'-PA-O3A
17	6H	501	GDP	C5'-O5'-PA-O1A
17	6J	501	GDP	C5'-O5'-PA-O3A
17	6J	501	GDP	C5'-O5'-PA-O1A
17	6J	501	GDP	C5'-O5'-PA-O2A
17	6N	502	GDP	C5'-O5'-PA-O3A
17	6N	502	GDP	C5'-O5'-PA-O1A
17	6N	502	GDP	C5'-O5'-PA-O2A
17	7B	502	GDP	C5'-O5'-PA-O3A
17	7B	502	GDP	C5'-O5'-PA-O2A
17	7D	501	GDP	C5'-O5'-PA-O3A
17	7D	501	GDP	C5'-O5'-PA-O1A
17	7F	501	GDP	C5'-O5'-PA-O3A
17	7F	501	GDP	C5'-O5'-PA-O1A
17	7F	501	GDP	C5'-O5'-PA-O2A
17	7H	501	GDP	C5'-O5'-PA-O3A
17	7H	501	GDP	C5'-O5'-PA-O1A
17	7H	501	GDP	C5'-O5'-PA-O2A
17	7J	501	GDP	PA-O3A-PB-O2B
17	7J	501	GDP	PA-O3A-PB-O3B
17	7J	501	GDP	C5'-O5'-PA-O3A
17	7J	501	GDP	C5'-O5'-PA-O2A
17	7L	501	GDP	C5'-O5'-PA-O3A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
17	7L	501	GDP	C5'-O5'-PA-O1A
17	8B	501	GDP	C5'-O5'-PA-O3A
17	8B	501	GDP	C5'-O5'-PA-O1A
17	8B	501	GDP	C5'-O5'-PA-O2A
17	8D	501	GDP	C5'-O5'-PA-O3A
17	8D	501	GDP	C5'-O5'-PA-O1A
17	8F	501	GDP	PA-O3A-PB-O3B
17	8F	501	GDP	C5'-O5'-PA-O3A
17	8F	501	GDP	C5'-O5'-PA-O1A
17	8F	501	GDP	C5'-O5'-PA-O2A
17	8H	501	GDP	C5'-O5'-PA-O3A
17	8H	501	GDP	C5'-O5'-PA-O1A
17	8J	501	GDP	C5'-O5'-PA-O3A
17	8J	501	GDP	C5'-O5'-PA-O1A
17	8L	501	GDP	C5'-O5'-PA-O3A
17	8L	501	GDP	C5'-O5'-PA-O1A
17	8L	501	GDP	C5'-O5'-PA-O2A
17	9B	501	GDP	C5'-O5'-PA-O3A
17	9B	501	GDP	C5'-O5'-PA-O2A
17	9F	501	GDP	C5'-O5'-PA-O3A
17	9F	501	GDP	C5'-O5'-PA-O2A
17	9H	501	GDP	C5'-O5'-PA-O3A
17	9H	501	GDP	C5'-O5'-PA-O1A
17	9H	501	GDP	C5'-O5'-PA-O2A
17	9J	501	GDP	C5'-O5'-PA-O3A
17	9J	501	GDP	C5'-O5'-PA-O1A
17	9J	501	GDP	C5'-O5'-PA-O2A
15	1C	501	GTP	C3'-C4'-C5'-O5'
15	1K	501	GTP	O4'-C4'-C5'-O5'
15	1K	501	GTP	C3'-C4'-C5'-O5'
15	1M	501	GTP	C3'-C4'-C5'-O5'
15	2C	501	GTP	C3'-C4'-C5'-O5'
15	2K	501	GTP	C3'-C4'-C5'-O5'
15	2M	501	GTP	C3'-C4'-C5'-O5'
15	3A	501	GTP	C3'-C4'-C5'-O5'
15	3G	501	GTP	C3'-C4'-C5'-O5'
15	3I	501	GTP	C3'-C4'-C5'-O5'
15	3K	501	GTP	O4'-C4'-C5'-O5'
15	3K	501	GTP	C3'-C4'-C5'-O5'
15	4I	501	GTP	C3'-C4'-C5'-O5'
15	5M	501	GTP	C3'-C4'-C5'-O5'
15	6C	501	GTP	C3'-C4'-C5'-O5'

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	6E	501	GTP	O4'-C4'-C5'-O5'
15	6E	501	GTP	C3'-C4'-C5'-O5'
15	6I	501	GTP	C3'-C4'-C5'-O5'
15	7C	501	GTP	O4'-C4'-C5'-O5'
15	7C	501	GTP	C3'-C4'-C5'-O5'
15	7I	501	GTP	C3'-C4'-C5'-O5'
15	7K	501	GTP	C3'-C4'-C5'-O5'
15	8I	501	GTP	O4'-C4'-C5'-O5'
15	8I	501	GTP	C3'-C4'-C5'-O5'
15	8K	501	GTP	C3'-C4'-C5'-O5'
15	8M	501	GTP	O4'-C4'-C5'-O5'
15	8M	501	GTP	C3'-C4'-C5'-O5'
15	9C	501	GTP	C3'-C4'-C5'-O5'
15	9M	501	GTP	O4'-C4'-C5'-O5'
15	9M	501	GTP	C3'-C4'-C5'-O5'
17	1B	501	GDP	C3'-C4'-C5'-O5'
17	2H	501	GDP	C3'-C4'-C5'-O5'
17	4L	501	GDP	C3'-C4'-C5'-O5'
17	6F	501	GDP	O4'-C4'-C5'-O5'
17	6F	501	GDP	C3'-C4'-C5'-O5'
17	8L	501	GDP	C3'-C4'-C5'-O5'
15	2E	501	GTP	O4'-C4'-C5'-O5'
15	2E	501	GTP	C3'-C4'-C5'-O5'
15	3E	501	GTP	O4'-C4'-C5'-O5'
15	3E	501	GTP	C3'-C4'-C5'-O5'
15	4G	501	GTP	O4'-C4'-C5'-O5'
15	4M	501	GTP	C3'-C4'-C5'-O5'
15	6I	501	GTP	O4'-C4'-C5'-O5'
15	7G	501	GTP	O4'-C4'-C5'-O5'
15	7G	501	GTP	C3'-C4'-C5'-O5'
15	7I	501	GTP	O4'-C4'-C5'-O5'
17	1B	501	GDP	O4'-C4'-C5'-O5'
17	1J	501	GDP	C3'-C4'-C5'-O5'
17	2D	501	GDP	O4'-C4'-C5'-O5'
17	2L	501	GDP	C3'-C4'-C5'-O5'
17	3B	501	GDP	C3'-C4'-C5'-O5'
17	3J	501	GDP	C3'-C4'-C5'-O5'
17	3L	501	GDP	O4'-C4'-C5'-O5'
17	4L	501	GDP	O4'-C4'-C5'-O5'
15	4G	501	GTP	C3'-C4'-C5'-O5'
15	4M	501	GTP	O4'-C4'-C5'-O5'
15	6G	501	GTP	O4'-C4'-C5'-O5'

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	6G	501	GTP	C3'-C4'-C5'-O5'
15	7A	501	GTP	O4'-C4'-C5'-O5'
17	2B	501	GDP	C4'-C5'-O5'-PA
15	2I	501	GTP	C3'-C4'-C5'-O5'
15	7A	501	GTP	C3'-C4'-C5'-O5'
15	8A	501	GTP	C3'-C4'-C5'-O5'
17	2F	501	GDP	C3'-C4'-C5'-O5'
15	1I	501	GTP	C3'-C4'-C5'-O5'
15	6N	501	GTP	C3'-C4'-C5'-O5'
15	8C	501	GTP	C3'-C4'-C5'-O5'
17	1D	501	GDP	C3'-C4'-C5'-O5'
17	1F	501	GDP	C3'-C4'-C5'-O5'
17	1J	501	GDP	O4'-C4'-C5'-O5'
17	3J	501	GDP	O4'-C4'-C5'-O5'
17	6D	501	GDP	C3'-C4'-C5'-O5'
17	8L	501	GDP	O4'-C4'-C5'-O5'
15	1E	501	GTP	C3'-C4'-C5'-O5'
15	2G	501	GTP	C3'-C4'-C5'-O5'
15	4K	501	GTP	C3'-C4'-C5'-O5'
15	8A	501	GTP	O4'-C4'-C5'-O5'
15	9I	501	GTP	C3'-C4'-C5'-O5'
17	2F	501	GDP	O4'-C4'-C5'-O5'
17	2L	501	GDP	O4'-C4'-C5'-O5'
17	2H	501	GDP	PA-O3A-PB-O1B
17	5H	501	GDP	PA-O3A-PB-O1B
17	6B	501	GDP	PA-O3A-PB-O1B
17	7B	502	GDP	PA-O3A-PB-O1B
17	7F	501	GDP	PA-O3A-PB-O1B
15	7M	501	GTP	C3'-C4'-C5'-O5'
15	9A	501	GTP	C3'-C4'-C5'-O5'
15	9G	501	GTP	C3'-C4'-C5'-O5'
17	2H	501	GDP	O4'-C4'-C5'-O5'
17	4H	501	GDP	C3'-C4'-C5'-O5'
17	8B	501	GDP	C3'-C4'-C5'-O5'
15	1G	501	GTP	PA-O3A-PB-O1B
15	3A	501	GTP	PB-O3A-PA-O1A
15	4E	501	GTP	PB-O3A-PA-O1A
15	8I	501	GTP	PB-O3A-PA-O1A
17	2H	501	GDP	C4'-C5'-O5'-PA
15	2I	501	GTP	O4'-C4'-C5'-O5'
15	9E	501	GTP	PG-O3B-PB-O3A
15	1A	501	GTP	C4'-C5'-O5'-PA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	9K	501	GTP	C4'-C5'-O5'-PA
15	8C	501	GTP	O4'-C4'-C5'-O5'
15	1A	501	GTP	PB-O3A-PA-O5'
15	1G	501	GTP	PB-O3A-PA-O5'
15	1I	501	GTP	PB-O3A-PA-O5'
15	1K	501	GTP	PB-O3A-PA-O5'
15	1M	501	GTP	PB-O3A-PA-O5'
15	2A	501	GTP	PB-O3A-PA-O5'
15	2K	501	GTP	PB-O3A-PA-O5'
15	2M	501	GTP	PB-O3A-PA-O5'
15	3E	501	GTP	PB-O3A-PA-O5'
15	4A	501	GTP	PB-O3A-PA-O5'
15	4I	501	GTP	PB-O3A-PA-O5'
15	5K	501	GTP	PB-O3A-PA-O5'
15	6G	501	GTP	PB-O3A-PA-O5'
15	6I	501	GTP	PB-O3A-PA-O5'
15	6N	501	GTP	PB-O3A-PA-O5'
15	7E	501	GTP	PB-O3A-PA-O5'
15	7I	501	GTP	PB-O3A-PA-O5'
15	7M	501	GTP	PB-O3A-PA-O5'
15	8E	501	GTP	PB-O3A-PA-O5'
15	8G	501	GTP	PB-O3A-PA-O5'
15	8I	501	GTP	PB-O3A-PA-O5'
15	8M	501	GTP	PB-O3A-PA-O5'
15	9A	501	GTP	PB-O3A-PA-O5'
15	9G	501	GTP	PB-O3A-PA-O5'
15	9I	501	GTP	PB-O3A-PA-O5'
15	1I	501	GTP	O4'-C4'-C5'-O5'
15	6I	501	GTP	PB-O3B-PG-O1G
15	9G	501	GTP	PB-O3B-PG-O1G
15	3G	501	GTP	PB-O3B-PG-O2G
15	6G	501	GTP	PB-O3B-PG-O2G
15	9A	501	GTP	PB-O3B-PG-O2G
17	7F	501	GDP	PA-O3A-PB-O3B
15	4K	501	GTP	O4'-C4'-C5'-O5'
15	5K	501	GTP	C3'-C4'-C5'-O5'
15	6N	501	GTP	O4'-C4'-C5'-O5'
15	9I	501	GTP	O4'-C4'-C5'-O5'
15	3E	501	GTP	C4'-C5'-O5'-PA
15	4E	501	GTP	C4'-C5'-O5'-PA
15	5C	501	GTP	C4'-C5'-O5'-PA
15	1I	501	GTP	PA-O3A-PB-O2B

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	1M	501	GTP	PA-O3A-PB-O2B
15	2I	501	GTP	PA-O3A-PB-O2B
15	2M	501	GTP	PA-O3A-PB-O2B
15	3E	501	GTP	PA-O3A-PB-O2B
15	4K	501	GTP	PA-O3A-PB-O2B
15	6A	501	GTP	PA-O3A-PB-O2B
15	6K	501	GTP	PA-O3A-PB-O2B
17	6H	501	GDP	PB-O3A-PA-O2A
17	6J	501	GDP	PB-O3A-PA-O2A
17	8H	501	GDP	PB-O3A-PA-O1A
15	1E	501	GTP	O4'-C4'-C5'-O5'
15	2G	501	GTP	O4'-C4'-C5'-O5'
15	3C	501	GTP	C3'-C4'-C5'-O5'
15	4E	501	GTP	C3'-C4'-C5'-O5'
15	5I	501	GTP	C3'-C4'-C5'-O5'
15	6K	501	GTP	C3'-C4'-C5'-O5'
15	1I	501	GTP	C4'-C5'-O5'-PA
15	2C	501	GTP	C4'-C5'-O5'-PA
15	2I	501	GTP	C4'-C5'-O5'-PA
15	2K	501	GTP	C4'-C5'-O5'-PA
15	3I	501	GTP	C4'-C5'-O5'-PA
15	3M	501	GTP	C4'-C5'-O5'-PA
15	4C	501	GTP	C4'-C5'-O5'-PA
15	4K	501	GTP	C4'-C5'-O5'-PA
15	4M	501	GTP	C4'-C5'-O5'-PA
15	5I	501	GTP	C4'-C5'-O5'-PA
15	6A	501	GTP	C4'-C5'-O5'-PA
15	6K	501	GTP	C4'-C5'-O5'-PA
15	7A	501	GTP	C4'-C5'-O5'-PA
15	8C	501	GTP	C4'-C5'-O5'-PA
15	8I	501	GTP	C4'-C5'-O5'-PA
15	8K	501	GTP	C4'-C5'-O5'-PA
15	9C	501	GTP	C4'-C5'-O5'-PA
15	7M	501	GTP	O4'-C4'-C5'-O5'
15	9A	501	GTP	O4'-C4'-C5'-O5'
17	1H	501	GDP	C3'-C4'-C5'-O5'
17	3B	501	GDP	O4'-C4'-C5'-O5'
17	8B	501	GDP	O4'-C4'-C5'-O5'
15	1C	501	GTP	C5'-O5'-PA-O1A
15	2A	501	GTP	C5'-O5'-PA-O1A
15	2C	501	GTP	C5'-O5'-PA-O2A
15	2E	501	GTP	C5'-O5'-PA-O1A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	3I	501	GTP	C5'-O5'-PA-O2A
15	3M	501	GTP	C5'-O5'-PA-O2A
15	4A	501	GTP	C5'-O5'-PA-O1A
15	6C	501	GTP	C5'-O5'-PA-O2A
15	7C	501	GTP	C5'-O5'-PA-O2A
15	7E	501	GTP	C5'-O5'-PA-O1A
15	8E	501	GTP	C5'-O5'-PA-O1A
17	1B	501	GDP	C5'-O5'-PA-O2A
17	4D	501	GDP	C5'-O5'-PA-O2A
17	5D	501	GDP	C5'-O5'-PA-O2A
17	5H	501	GDP	C5'-O5'-PA-O2A
17	5N	501	GDP	C5'-O5'-PA-O2A
17	6D	501	GDP	C5'-O5'-PA-O2A
17	6F	501	GDP	C5'-O5'-PA-O2A
17	6H	501	GDP	C5'-O5'-PA-O2A
17	7D	501	GDP	C5'-O5'-PA-O2A
17	7L	501	GDP	C5'-O5'-PA-O2A
17	8D	501	GDP	C5'-O5'-PA-O2A
17	8H	501	GDP	C5'-O5'-PA-O2A
17	8J	501	GDP	C5'-O5'-PA-O2A
15	1E	501	GTP	C4'-C5'-O5'-PA
15	1G	501	GTP	C4'-C5'-O5'-PA
15	1K	501	GTP	C4'-C5'-O5'-PA
15	1M	501	GTP	C4'-C5'-O5'-PA
15	2G	501	GTP	C4'-C5'-O5'-PA
15	2M	501	GTP	C4'-C5'-O5'-PA
15	3A	501	GTP	C4'-C5'-O5'-PA
15	3C	501	GTP	C4'-C5'-O5'-PA
15	3K	501	GTP	C4'-C5'-O5'-PA
15	4A	501	GTP	C4'-C5'-O5'-PA
15	4G	501	GTP	C4'-C5'-O5'-PA
15	5A	501	GTP	C4'-C5'-O5'-PA
15	5E	501	GTP	C4'-C5'-O5'-PA
15	5G	501	GTP	C4'-C5'-O5'-PA
15	5M	501	GTP	C4'-C5'-O5'-PA
15	6C	501	GTP	C4'-C5'-O5'-PA
15	6E	501	GTP	C4'-C5'-O5'-PA
15	6G	501	GTP	C4'-C5'-O5'-PA
15	7C	501	GTP	C4'-C5'-O5'-PA
15	7I	501	GTP	C4'-C5'-O5'-PA
15	7K	501	GTP	C4'-C5'-O5'-PA
15	7M	501	GTP	C4'-C5'-O5'-PA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	8G	501	GTP	C4'-C5'-O5'-PA
15	9I	501	GTP	C4'-C5'-O5'-PA
15	9M	501	GTP	C4'-C5'-O5'-PA
17	3B	501	GDP	C4'-C5'-O5'-PA
17	5L	501	GDP	C4'-C5'-O5'-PA
17	7J	501	GDP	C4'-C5'-O5'-PA
17	8L	501	GDP	C4'-C5'-O5'-PA
17	9B	501	GDP	C4'-C5'-O5'-PA
15	5M	501	GTP	PB-O3B-PG-O1G
17	1F	501	GDP	O4'-C4'-C5'-O5'
15	2E	501	GTP	PA-O3A-PB-O1B
15	4C	501	GTP	PB-O3A-PA-O1A
15	5A	501	GTP	PA-O3A-PB-O2B
15	5E	501	GTP	PA-O3A-PB-O2B
15	6G	501	GTP	PA-O3A-PB-O1B
15	7M	501	GTP	PA-O3A-PB-O1B
15	9K	501	GTP	PB-O3A-PA-O2A
15	9M	501	GTP	PA-O3A-PB-O2B
17	1J	501	GDP	PB-O3A-PA-O2A
17	2H	501	GDP	PB-O3A-PA-O1A
17	5H	501	GDP	PB-O3A-PA-O1A
17	5L	501	GDP	PB-O3A-PA-O2A
17	6D	501	GDP	PB-O3A-PA-O2A
17	6L	501	GDP	PB-O3A-PA-O2A
17	7B	502	GDP	PB-O3A-PA-O2A
17	8B	501	GDP	PB-O3A-PA-O2A
15	5K	501	GTP	C4'-C5'-O5'-PA
15	9E	501	GTP	C4'-C5'-O5'-PA
15	8G	501	GTP	C3'-C4'-C5'-O5'
15	9G	501	GTP	O4'-C4'-C5'-O5'
17	1D	501	GDP	O4'-C4'-C5'-O5'
15	6N	501	GTP	C4'-C5'-O5'-PA
15	7E	501	GTP	C4'-C5'-O5'-PA
15	8M	501	GTP	C4'-C5'-O5'-PA
15	9A	501	GTP	C4'-C5'-O5'-PA
17	5B	501	GDP	C4'-C5'-O5'-PA
17	7B	502	GDP	C4'-C5'-O5'-PA
17	8F	501	GDP	PA-O3A-PB-O1B
17	5H	501	GDP	C4'-C5'-O5'-PA
17	6B	501	GDP	C4'-C5'-O5'-PA
15	5A	501	GTP	C3'-C4'-C5'-O5'
15	2G	501	GTP	PB-O3A-PA-O1A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	4C	501	GTP	PB-O3A-PA-O2A
17	1H	501	GDP	PB-O3A-PA-O2A
17	1N	501	GDP	PB-O3A-PA-O2A
17	3F	501	GDP	PB-O3A-PA-O2A
17	4B	501	GDP	PB-O3A-PA-O2A
17	4J	501	GDP	PB-O3A-PA-O2A
17	5H	501	GDP	PB-O3A-PA-O2A
17	5L	501	GDP	PB-O3A-PA-O1A
17	6L	501	GDP	PB-O3A-PA-O1A
17	6N	502	GDP	PB-O3A-PA-O1A
17	6N	502	GDP	PB-O3A-PA-O2A
17	7B	502	GDP	PB-O3A-PA-O1A
15	3A	501	GTP	PB-O3A-PA-O5'
15	5I	501	GTP	PB-O3A-PA-O5'
15	1C	501	GTP	C4'-C5'-O5'-PA
15	7G	501	GTP	C4'-C5'-O5'-PA
15	8A	501	GTP	C4'-C5'-O5'-PA
15	8E	501	GTP	C4'-C5'-O5'-PA
17	5F	501	GDP	C4'-C5'-O5'-PA
15	8G	501	GTP	PG-O3B-PB-O3A
15	4E	501	GTP	O4'-C4'-C5'-O5'
15	5K	501	GTP	O4'-C4'-C5'-O5'
15	4I	501	GTP	C4'-C5'-O5'-PA
15	6I	501	GTP	C4'-C5'-O5'-PA
17	9D	501	GDP	C4'-C5'-O5'-PA
15	3C	501	GTP	O4'-C4'-C5'-O5'
17	5L	501	GDP	C3'-C4'-C5'-O5'
15	1K	501	GTP	PB-O3B-PG-O1G
17	1N	501	GDP	PA-O3A-PB-O1B
17	7J	501	GDP	PA-O3A-PB-O1B
15	1K	501	GTP	PB-O3B-PG-O2G
15	2G	501	GTP	PB-O3B-PG-O2G
15	4K	501	GTP	PB-O3B-PG-O2G
15	5M	501	GTP	PB-O3B-PG-O2G
15	5M	501	GTP	PB-O3B-PG-O3G
15	6I	501	GTP	PB-O3B-PG-O2G
15	6I	501	GTP	PB-O3B-PG-O3G
15	9G	501	GTP	PB-O3B-PG-O2G
15	9G	501	GTP	PB-O3B-PG-O3G
17	2B	501	GDP	PA-O3A-PB-O2B
15	2E	501	GTP	C4'-C5'-O5'-PA
15	9G	501	GTP	C4'-C5'-O5'-PA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
15	5I	501	GTP	O4'-C4'-C5'-O5'
15	6K	501	GTP	O4'-C4'-C5'-O5'
15	7E	501	GTP	C3'-C4'-C5'-O5'
17	3F	501	GDP	C3'-C4'-C5'-O5'
15	1G	501	GTP	PA-O3A-PB-O2B
15	1I	501	GTP	PA-O3A-PB-O1B
15	1K	501	GTP	PB-O3A-PA-O1A
15	2A	501	GTP	PB-O3A-PA-O2A
15	3E	501	GTP	PA-O3A-PB-O1B
15	4E	501	GTP	PB-O3A-PA-O2A
15	4M	501	GTP	PA-O3A-PB-O2B
15	5C	501	GTP	PA-O3A-PB-O2B
15	5E	501	GTP	PA-O3A-PB-O1B
15	5G	501	GTP	PA-O3A-PB-O1B
15	5G	501	GTP	PA-O3A-PB-O2B
15	5I	501	GTP	PA-O3A-PB-O2B
15	5K	501	GTP	PB-O3A-PA-O2A
15	6A	501	GTP	PA-O3A-PB-O1B
15	6G	501	GTP	PA-O3A-PB-O2B
15	7A	501	GTP	PA-O3A-PB-O2B
15	7M	501	GTP	PA-O3A-PB-O2B
15	8A	501	GTP	PB-O3A-PA-O1A
15	8G	501	GTP	PG-O3B-PB-O2B
15	9E	501	GTP	PB-O3A-PA-O1A
15	9K	501	GTP	PA-O3A-PB-O1B
15	9K	501	GTP	PA-O3A-PB-O2B
15	9K	501	GTP	PB-O3A-PA-O1A
17	1H	501	GDP	PB-O3A-PA-O1A
17	1J	501	GDP	PB-O3A-PA-O1A
17	1L	501	GDP	PB-O3A-PA-O2A
17	1N	501	GDP	PB-O3A-PA-O1A
17	2H	501	GDP	PB-O3A-PA-O2A
17	3F	501	GDP	PB-O3A-PA-O1A
17	4D	501	GDP	PB-O3A-PA-O2A
17	4F	501	GDP	PB-O3A-PA-O2A
17	6D	501	GDP	PB-O3A-PA-O1A
17	6F	501	GDP	PB-O3A-PA-O1A
17	6F	501	GDP	PB-O3A-PA-O2A
17	8B	501	GDP	PB-O3A-PA-O1A
17	8L	501	GDP	PB-O3A-PA-O2A
17	9H	501	GDP	PB-O3A-PA-O2A
15	8E	501	GTP	C3'-C4'-C5'-O5'

Continued on next page...

Continued from previous page...

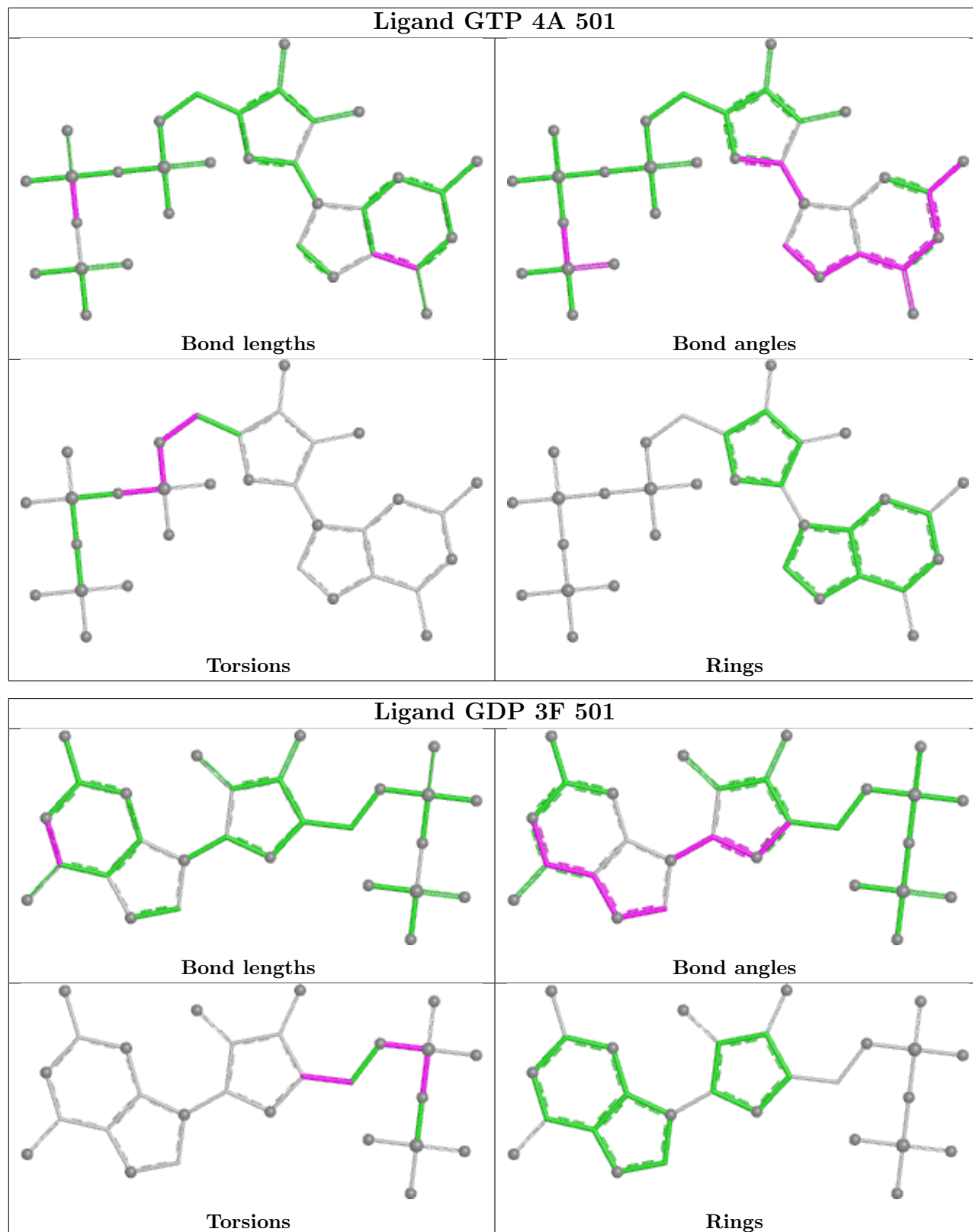
Mol	Chain	Res	Type	Atoms
17	5J	501	GDP	C4'-C5'-O5'-PA
15	8G	501	GTP	O4'-C4'-C5'-O5'
17	9H	501	GDP	C3'-C4'-C5'-O5'
17	1N	501	GDP	C4'-C5'-O5'-PA
15	1A	501	GTP	PB-O3A-PA-O2A
15	1E	501	GTP	PA-O3A-PB-O2B
15	4G	501	GTP	PA-O3A-PB-O2B
15	4I	501	GTP	PB-O3A-PA-O1A
15	4I	501	GTP	PB-O3A-PA-O2A
15	5A	501	GTP	PA-O3A-PB-O1B
15	5I	501	GTP	PA-O3A-PB-O1B
15	5M	501	GTP	PB-O3A-PA-O1A
15	5M	501	GTP	PB-O3A-PA-O2A
15	6E	501	GTP	PA-O3A-PB-O2B
15	6N	501	GTP	PG-O3B-PB-O2B
15	7I	501	GTP	PB-O3A-PA-O2A
15	8E	501	GTP	PB-O3A-PA-O2A
15	8G	501	GTP	PG-O3B-PB-O1B
15	9A	501	GTP	PB-O3A-PA-O2A
15	9C	501	GTP	PG-O3B-PB-O2B
15	9E	501	GTP	PG-O3B-PB-O2B
15	9E	501	GTP	PB-O3A-PA-O2A
15	9M	501	GTP	PA-O3A-PB-O1B
17	1L	501	GDP	PB-O3A-PA-O1A
17	2F	501	GDP	PB-O3A-PA-O2A
17	4J	501	GDP	PB-O3A-PA-O1A
17	8L	501	GDP	PB-O3A-PA-O1A
15	6A	501	GTP	C3'-C4'-C5'-O5'

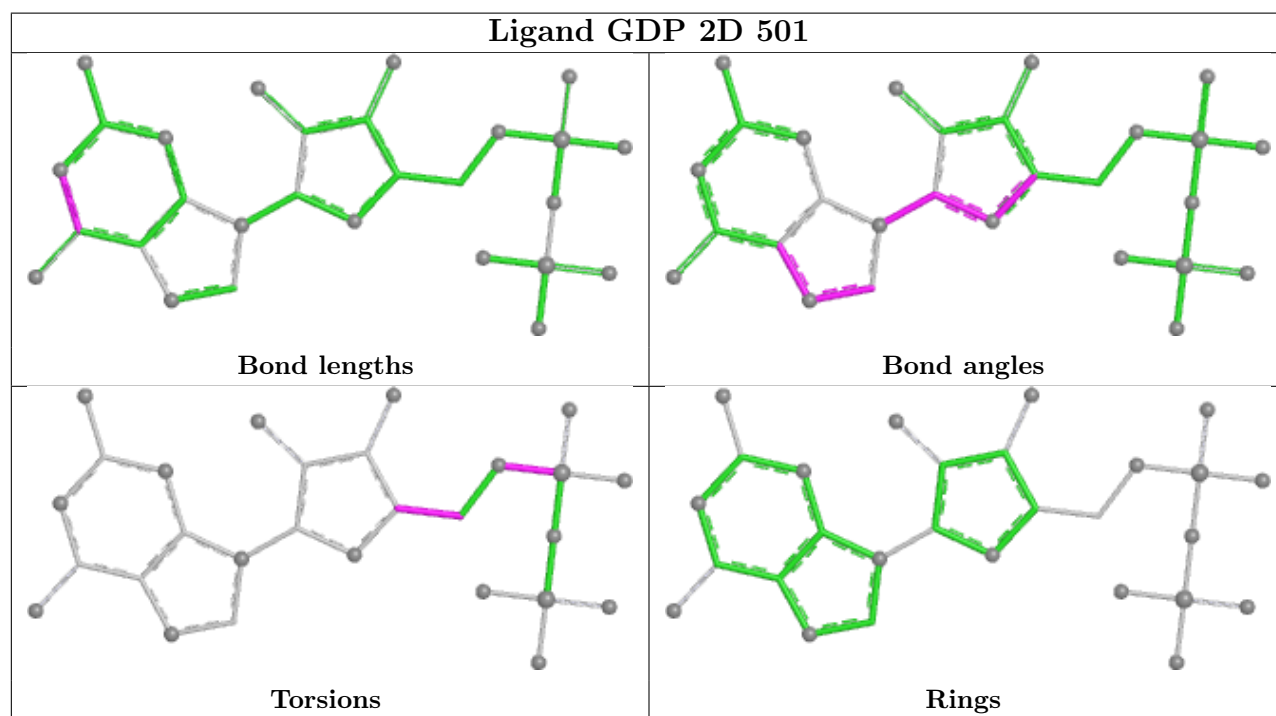
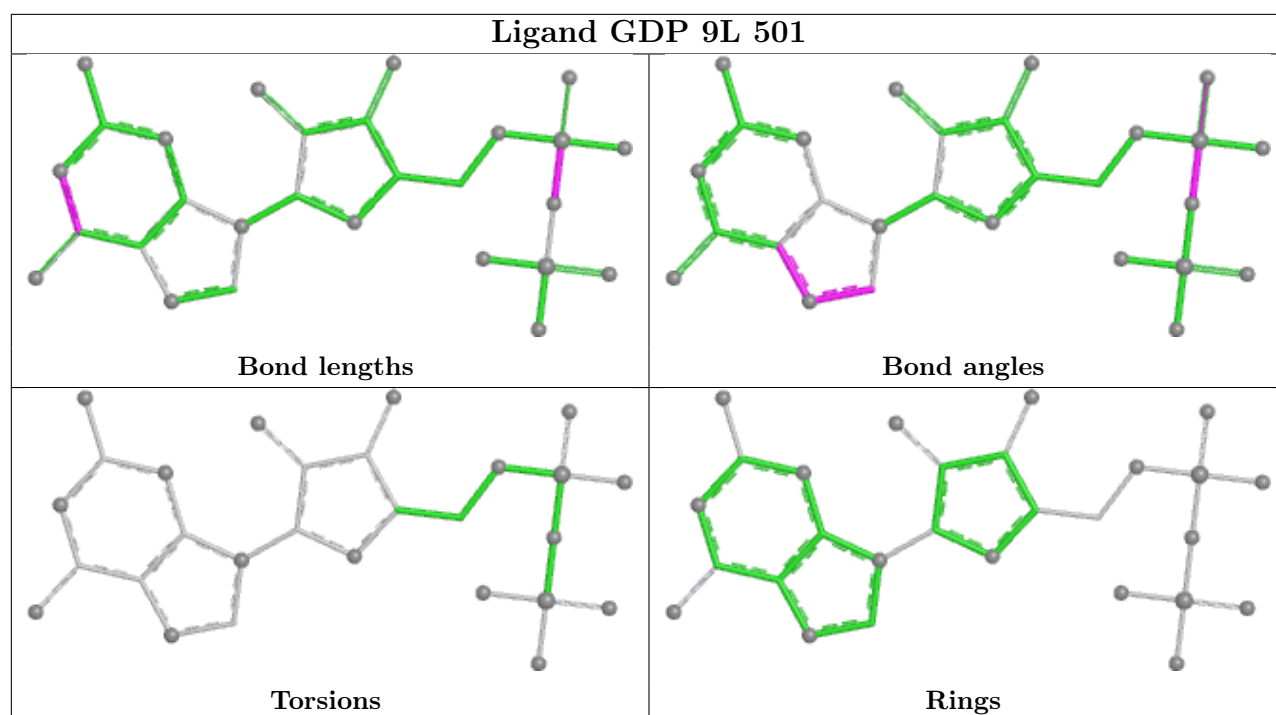
There are no ring outliers.

No monomer is involved in short contacts.

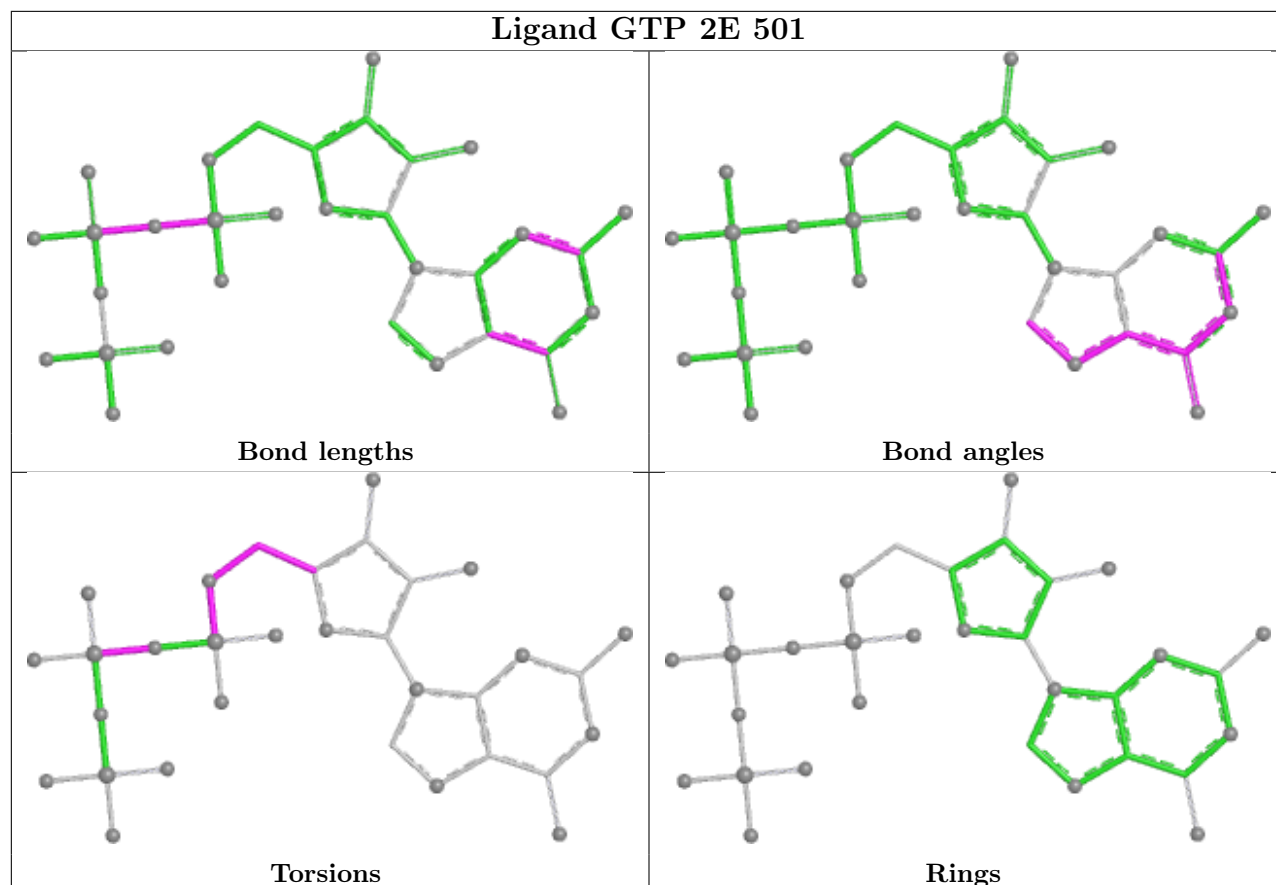
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

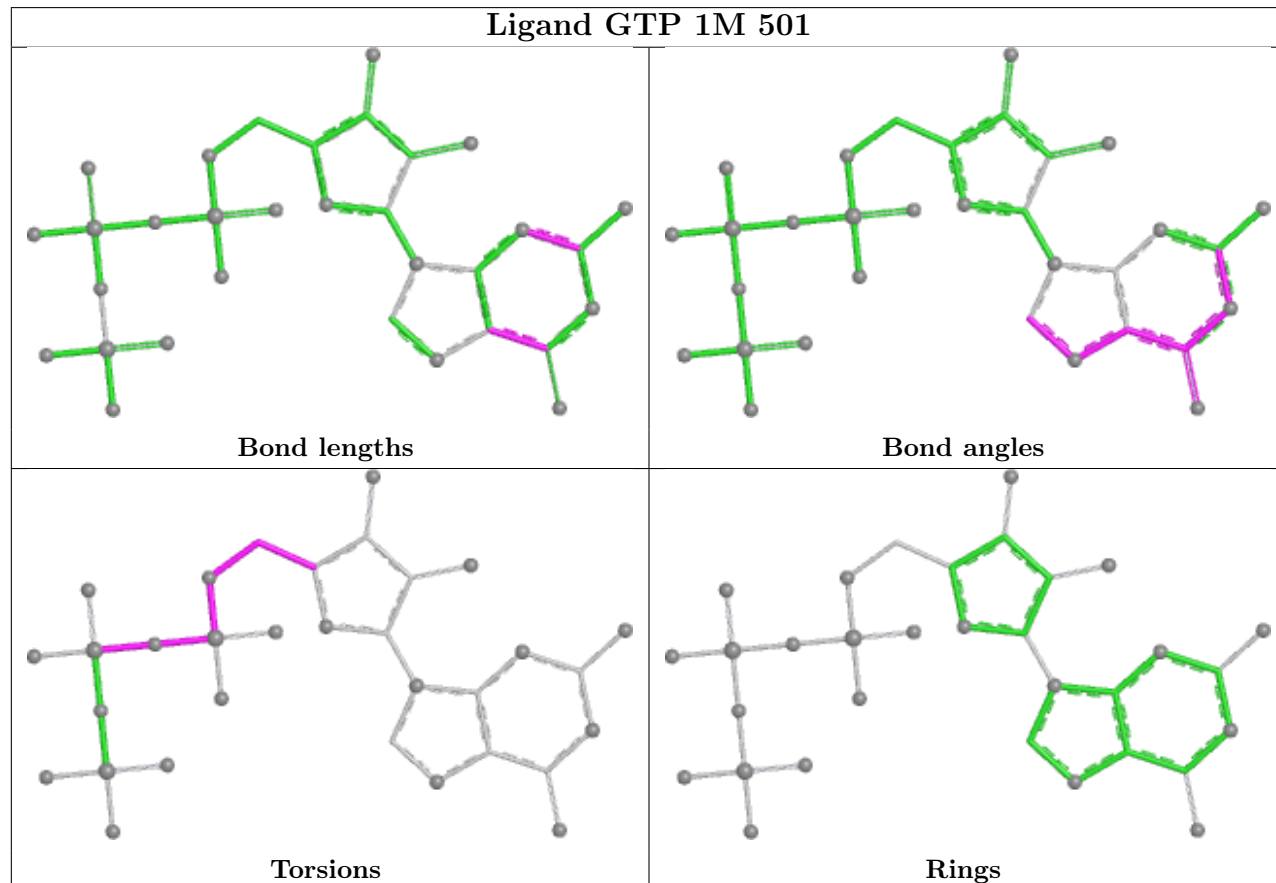


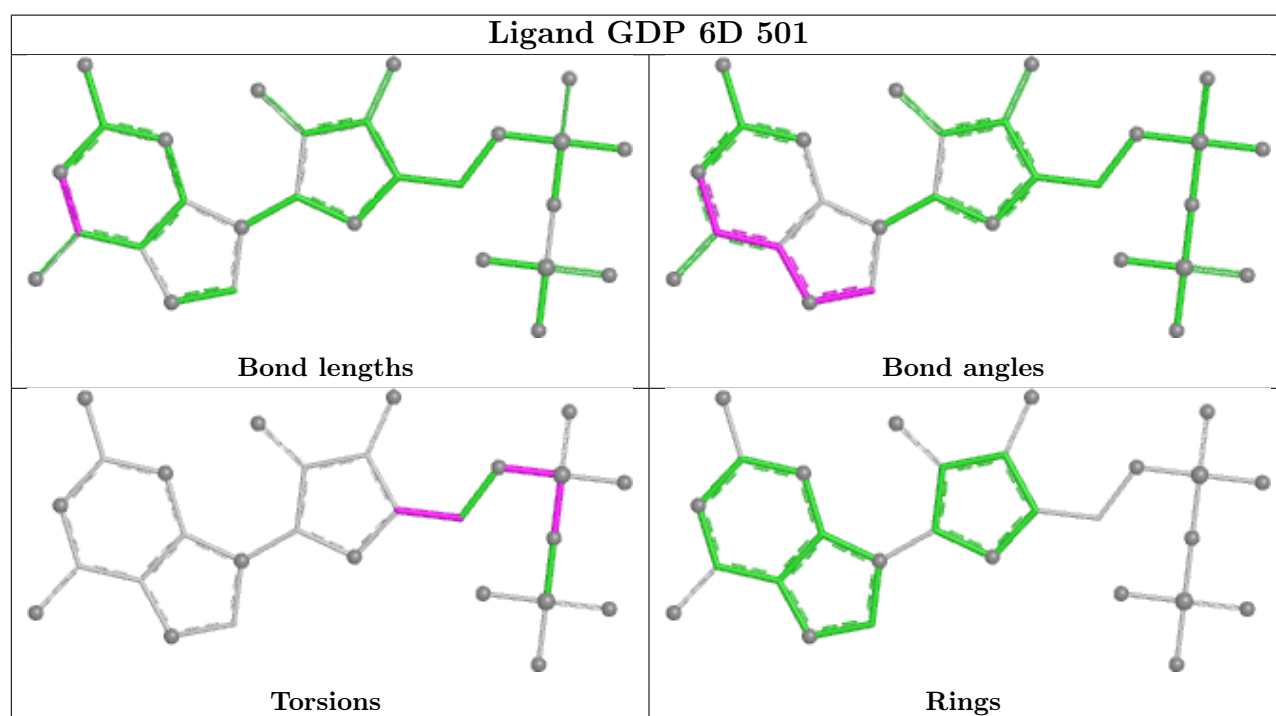
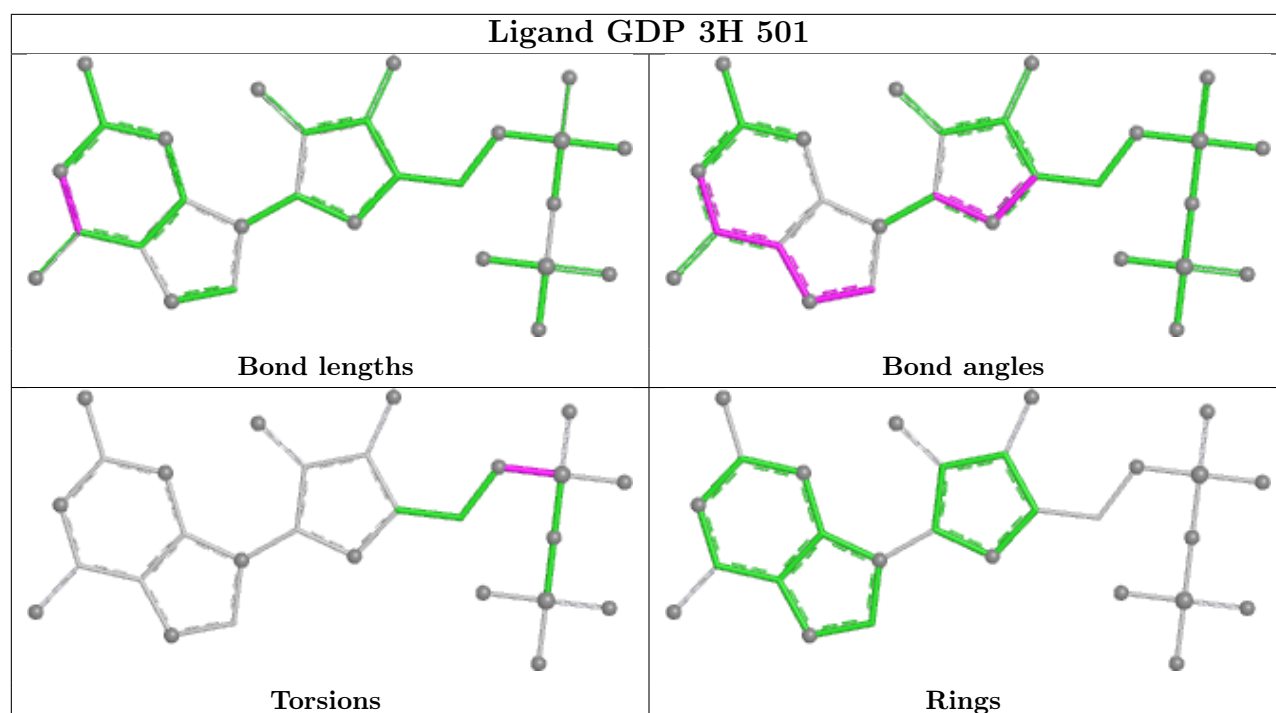


Ligand GTP 2E 501

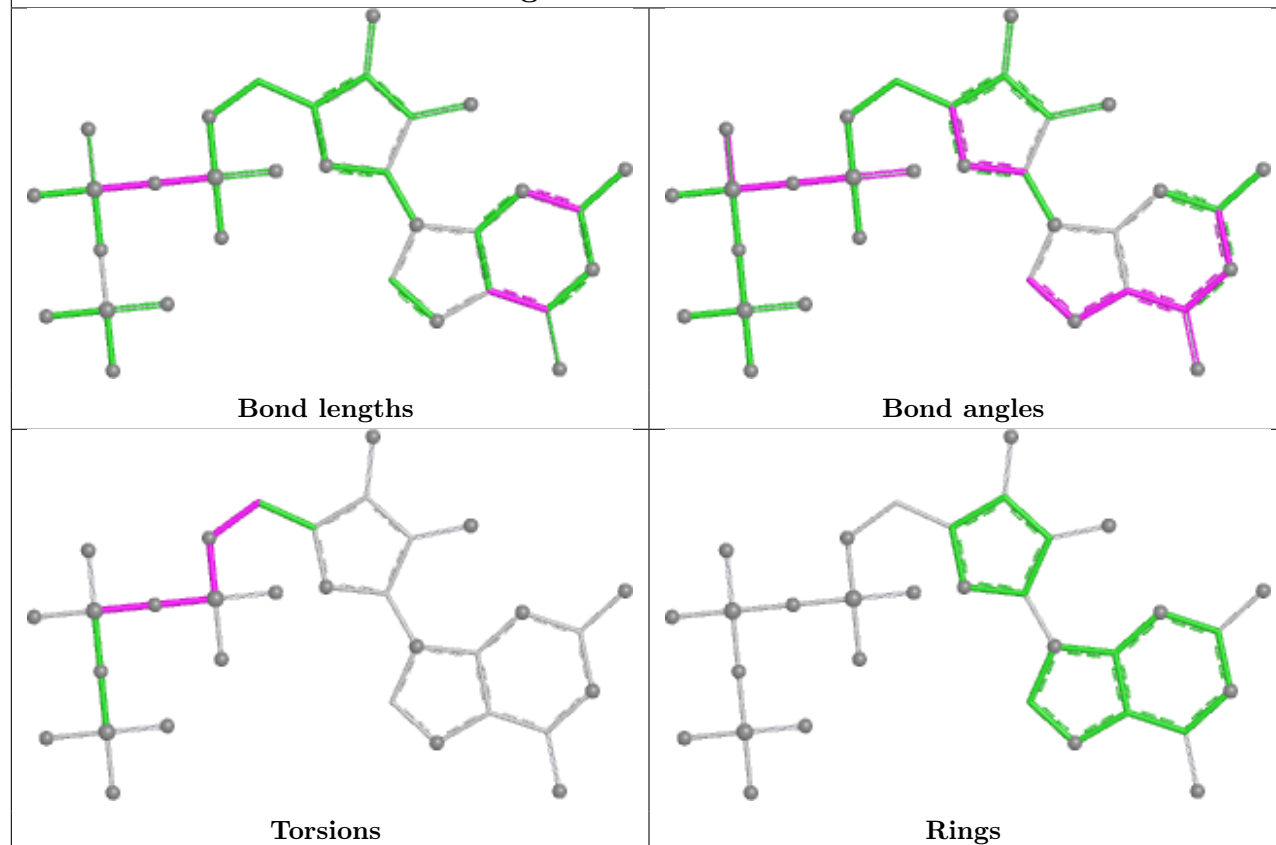


Ligand GTP 1M 501

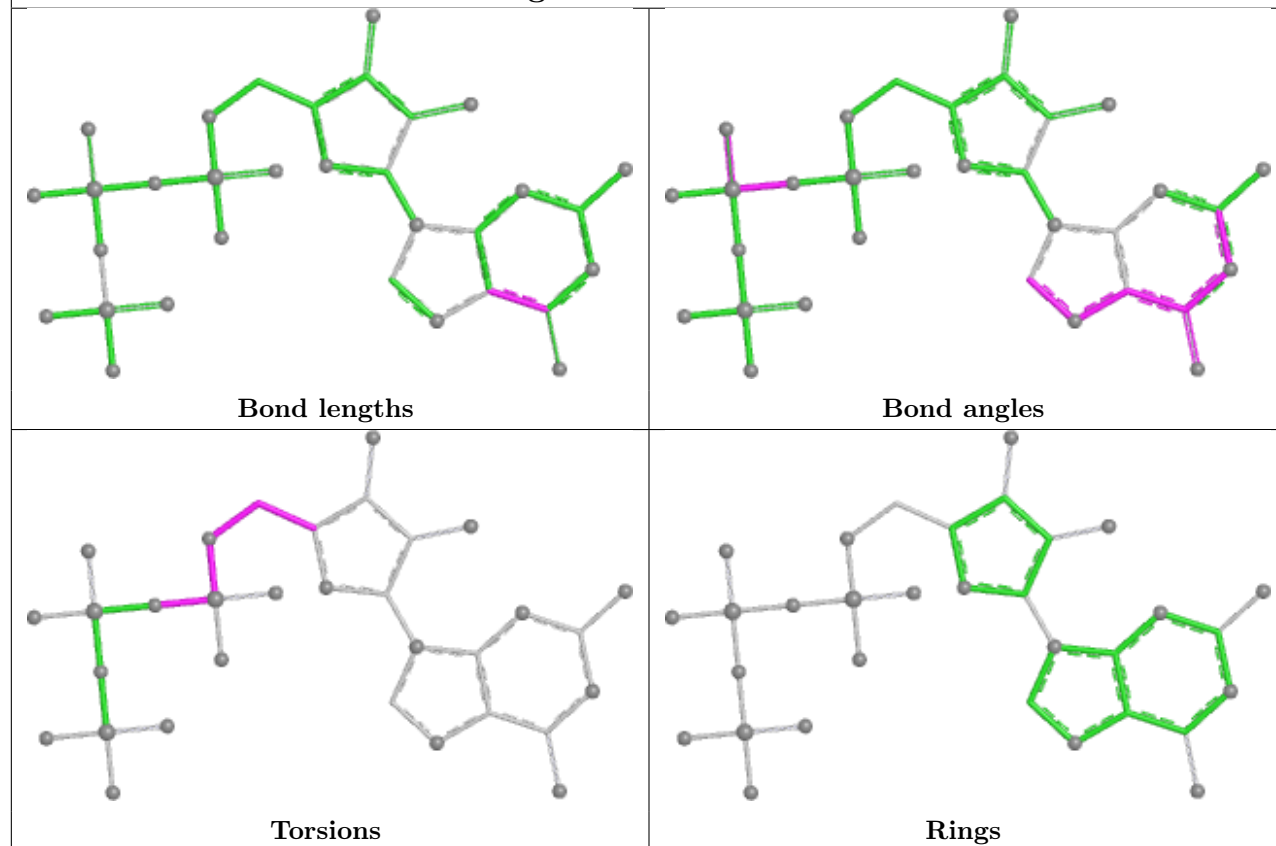




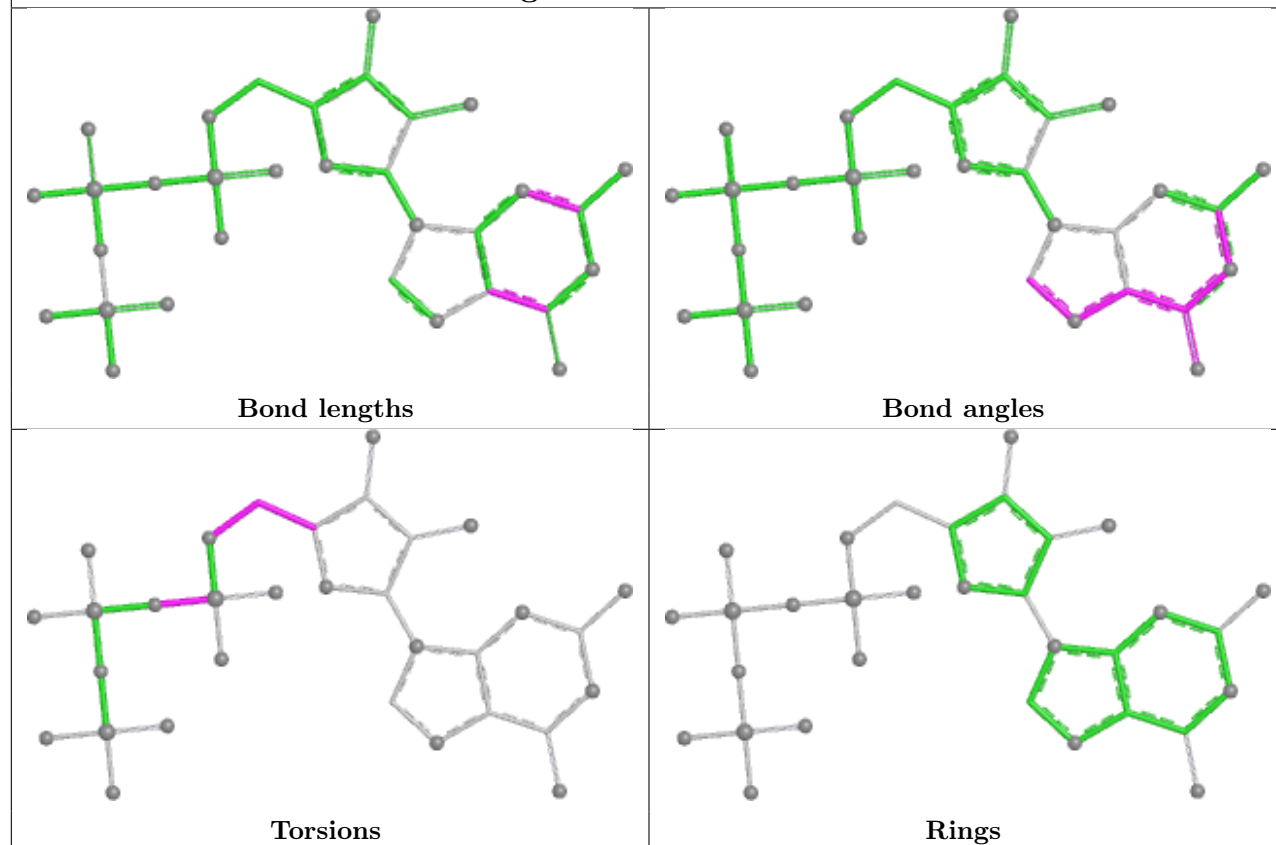
Ligand GTP 9K 501



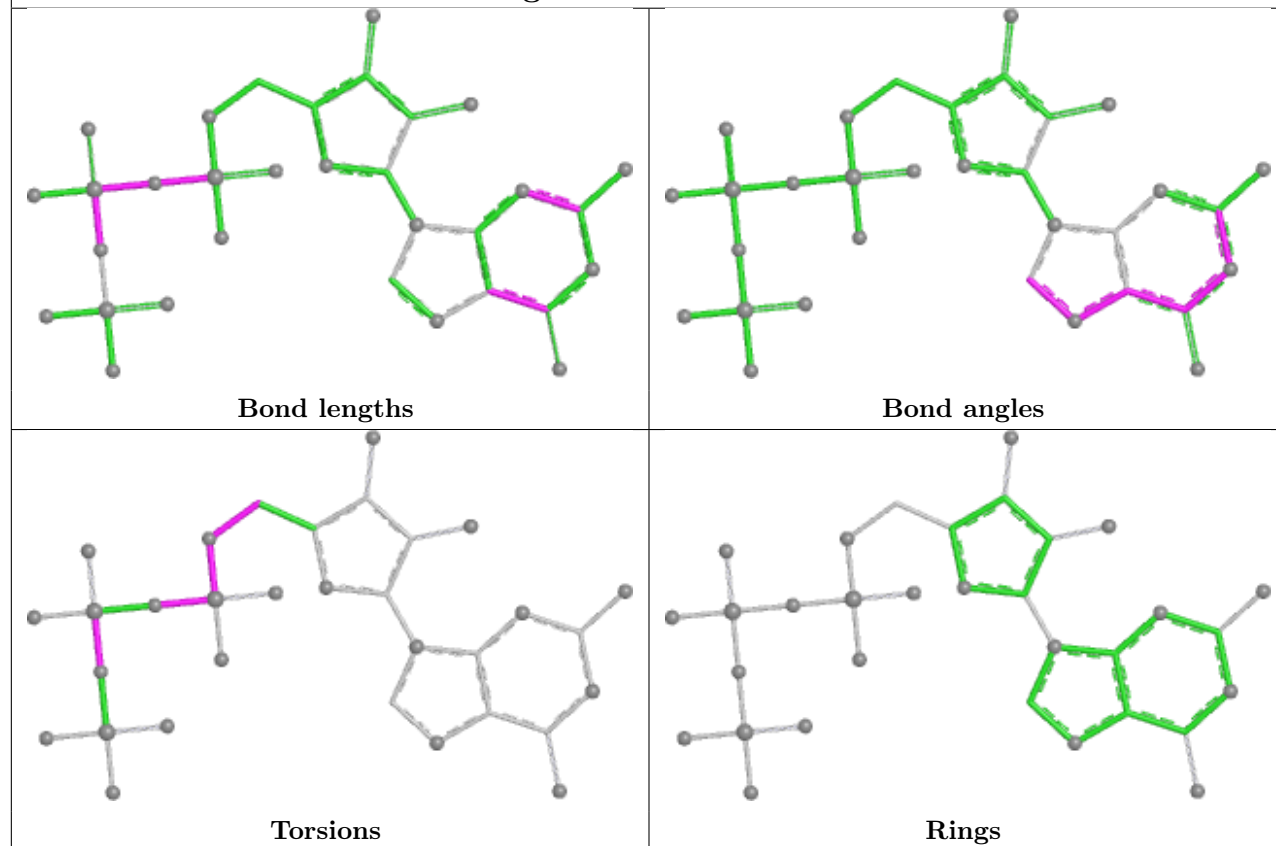
Ligand GTP 4I 501

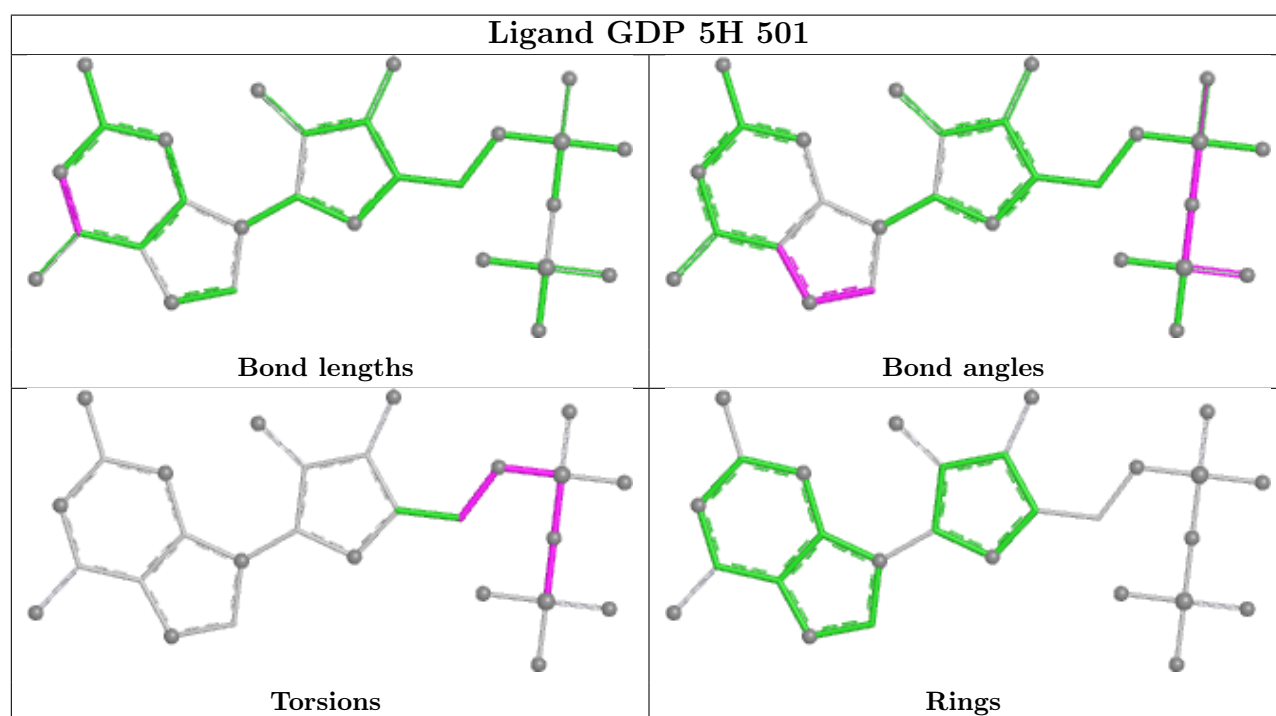
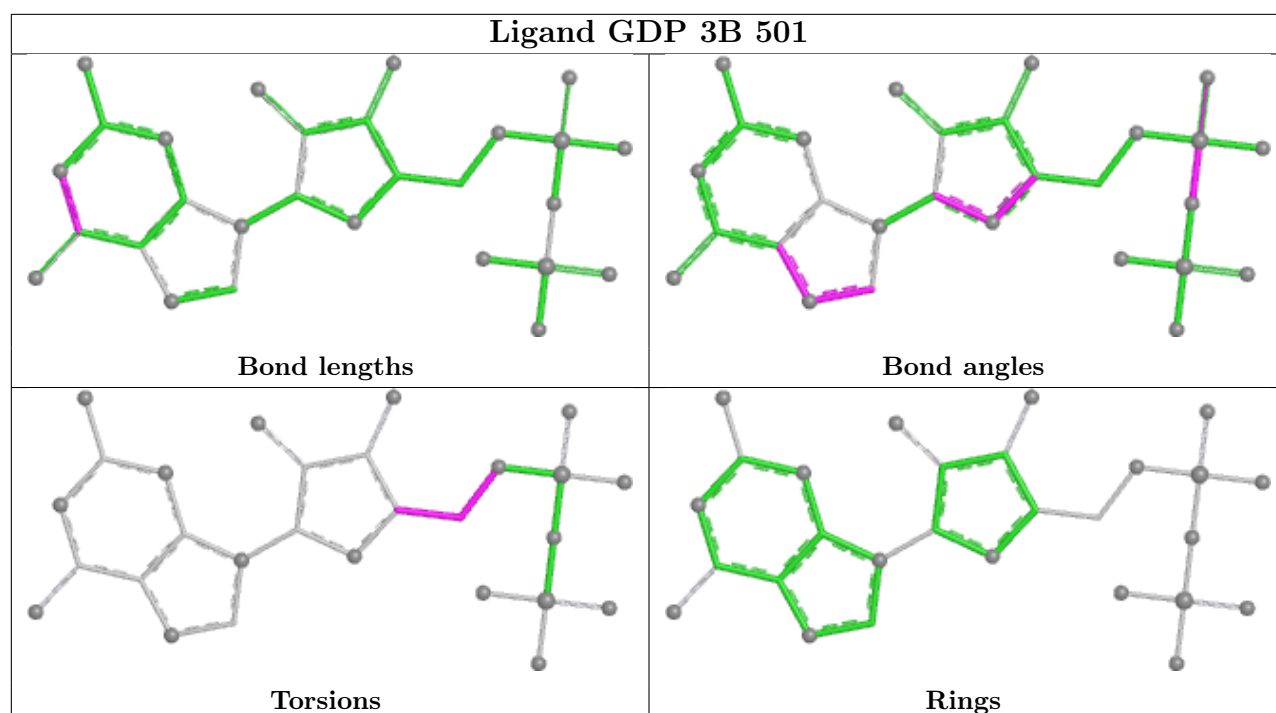


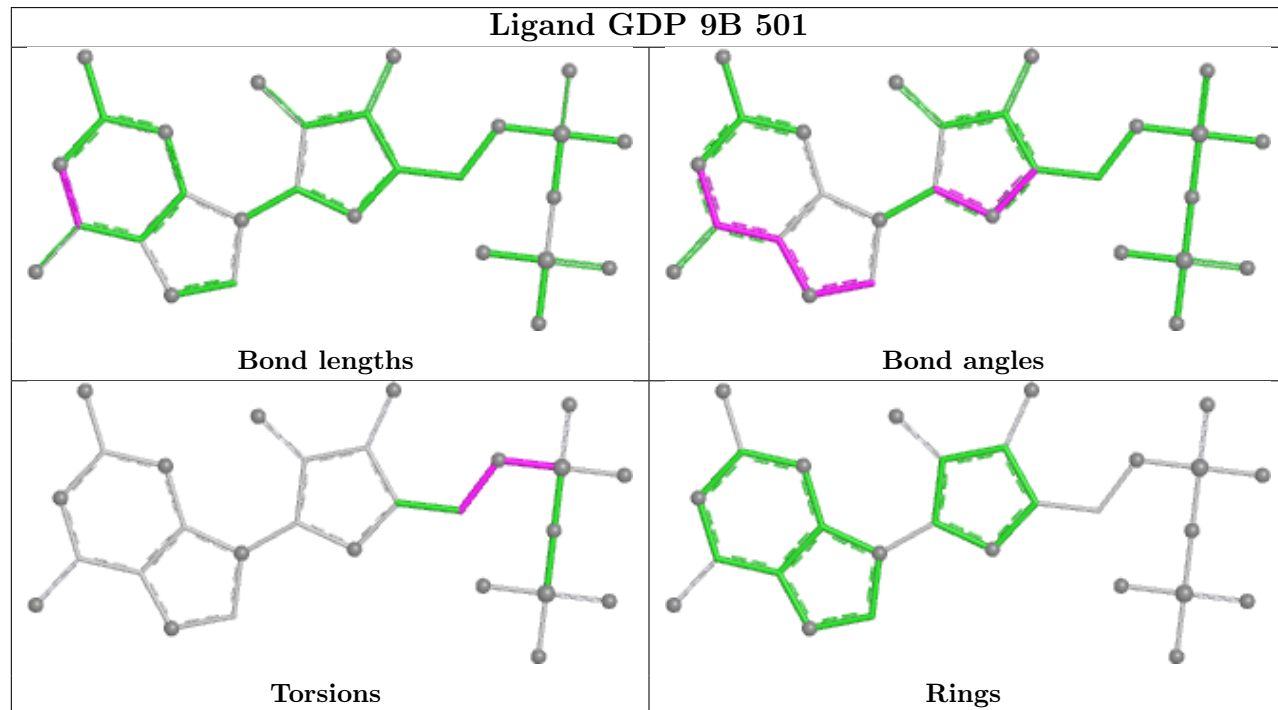
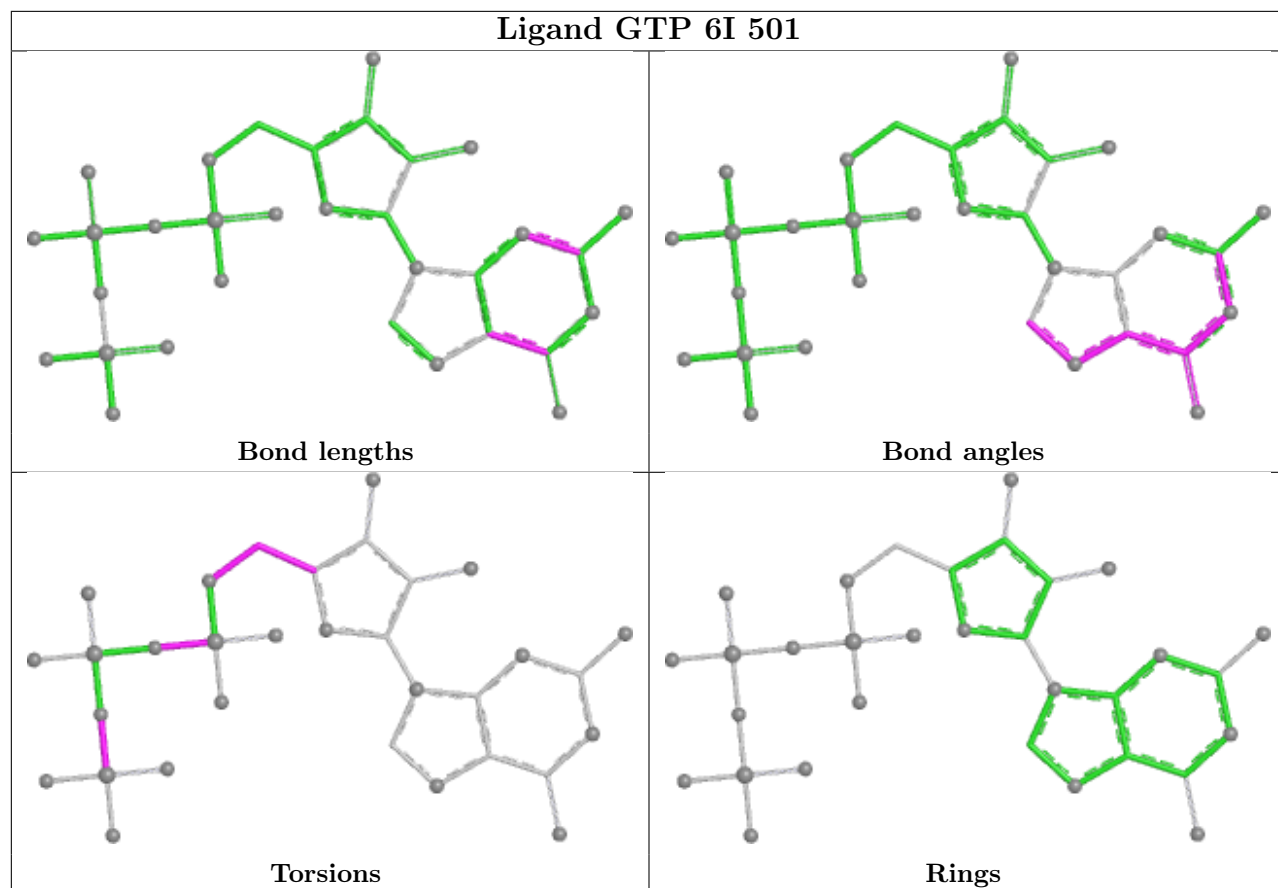
Ligand GTP 5K 501

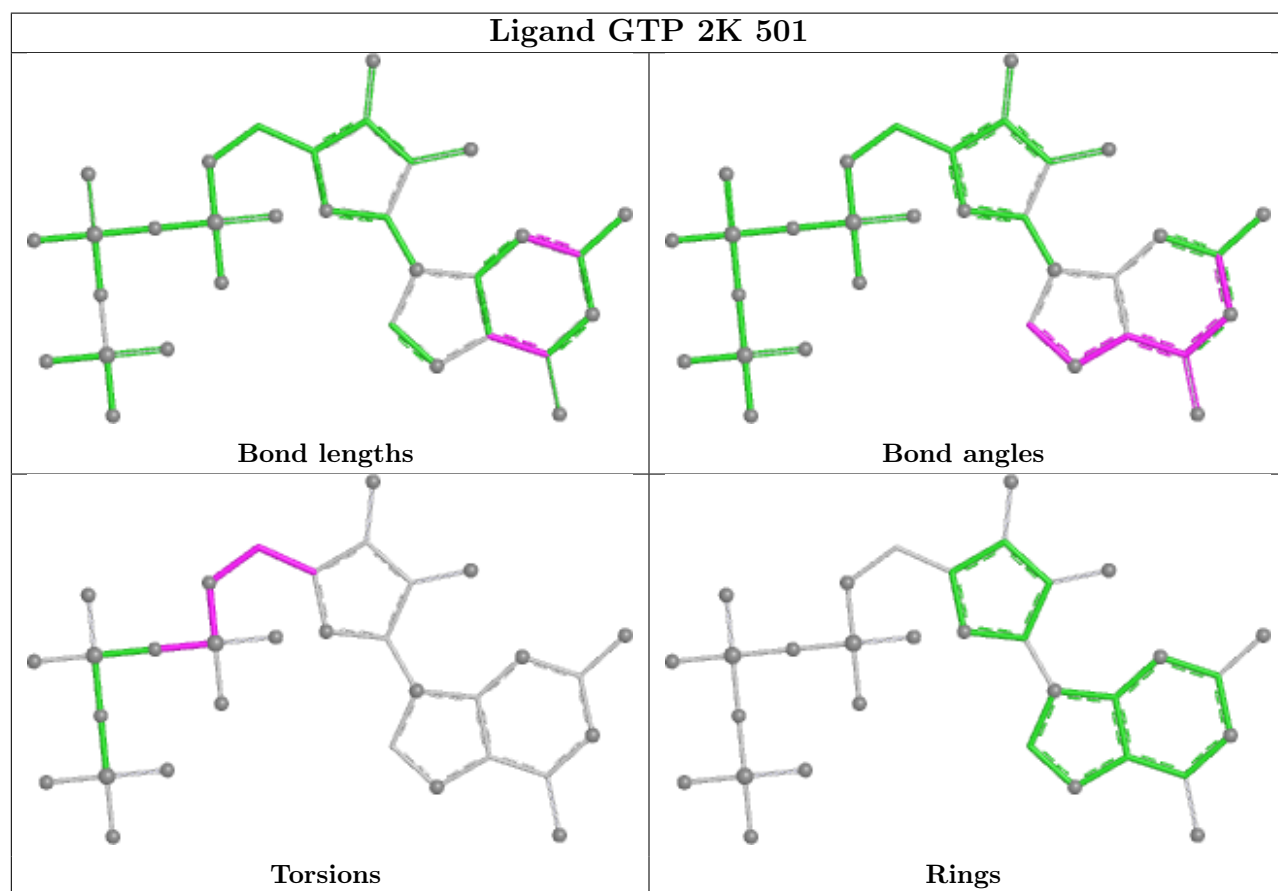
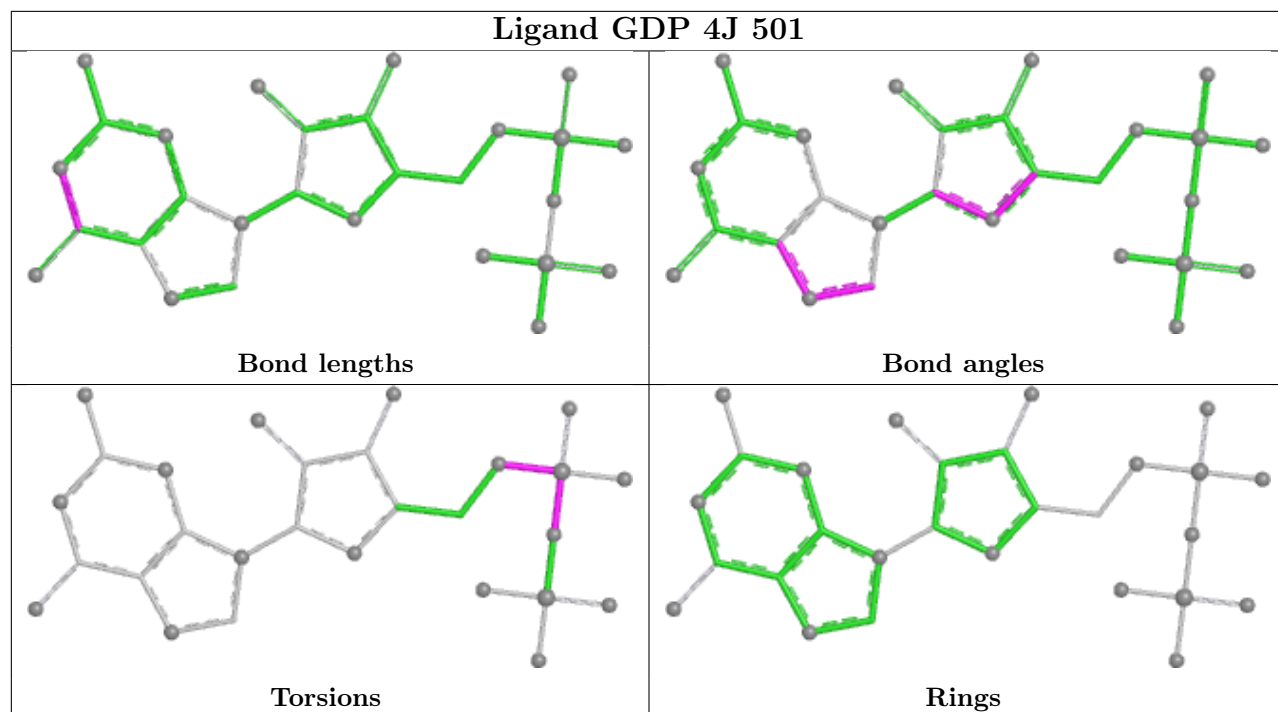


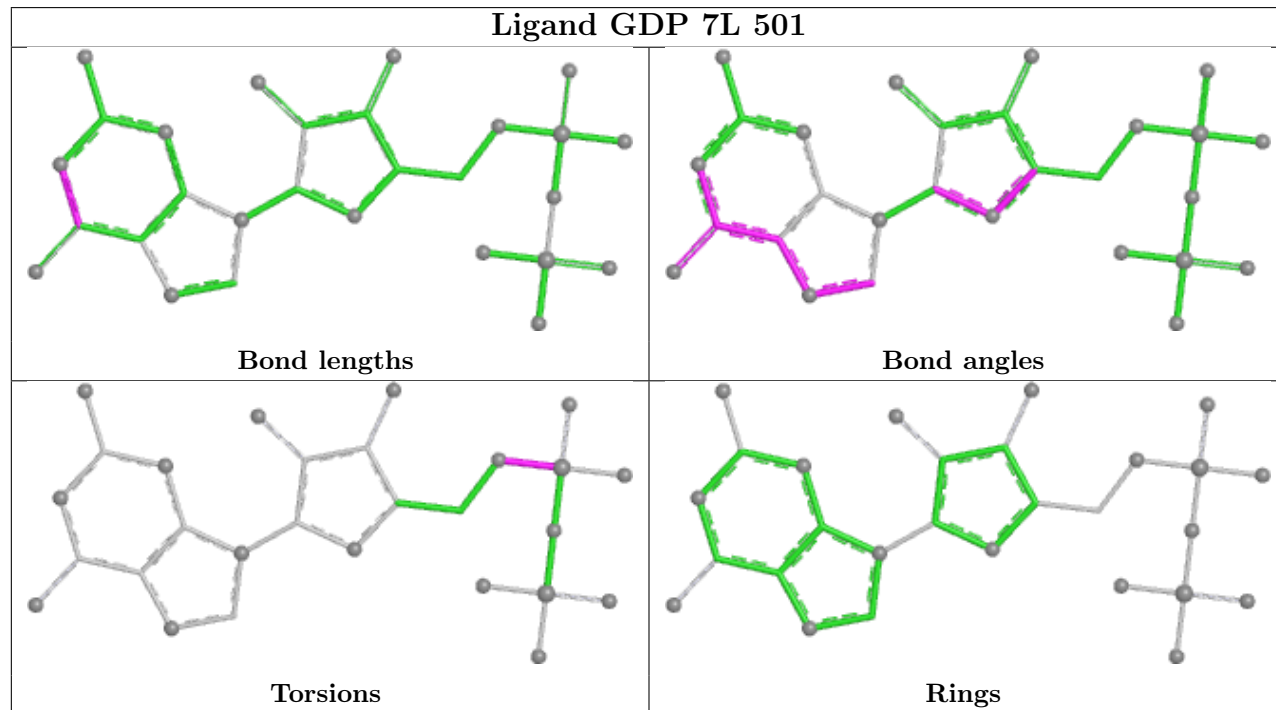
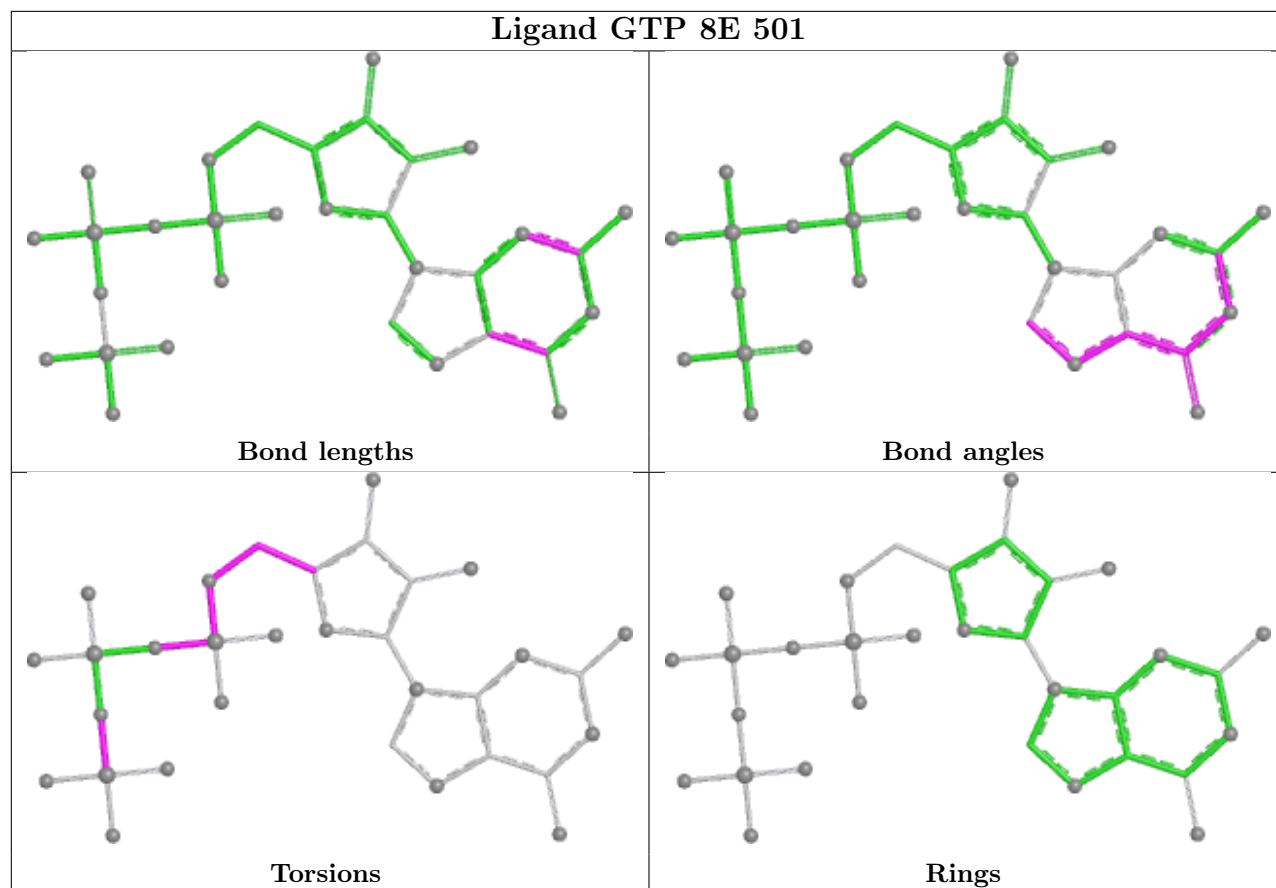
Ligand GTP 9E 501

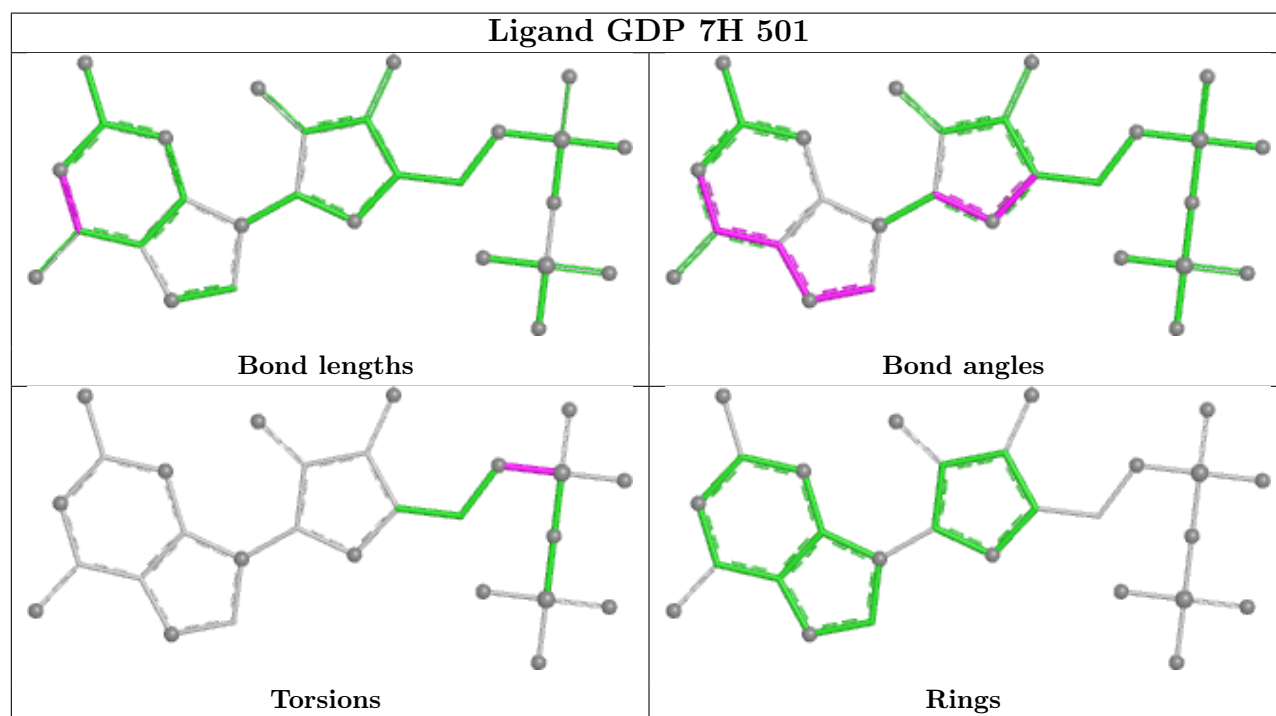
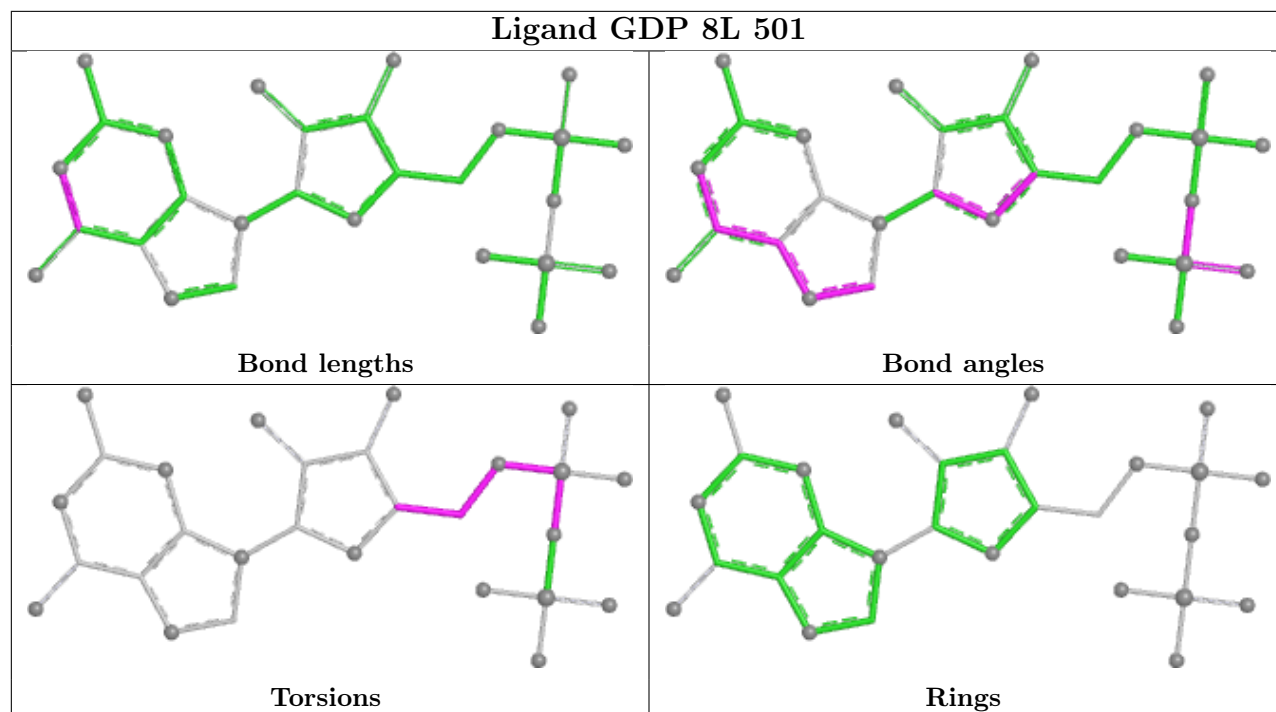


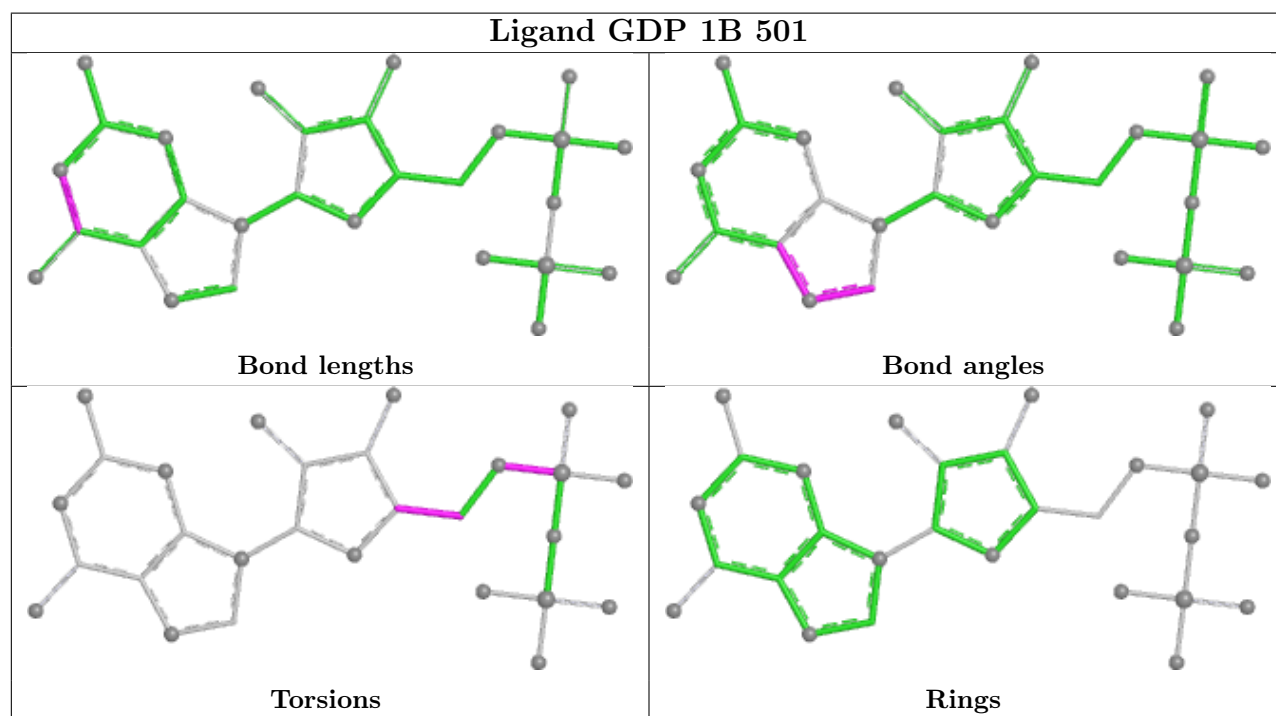
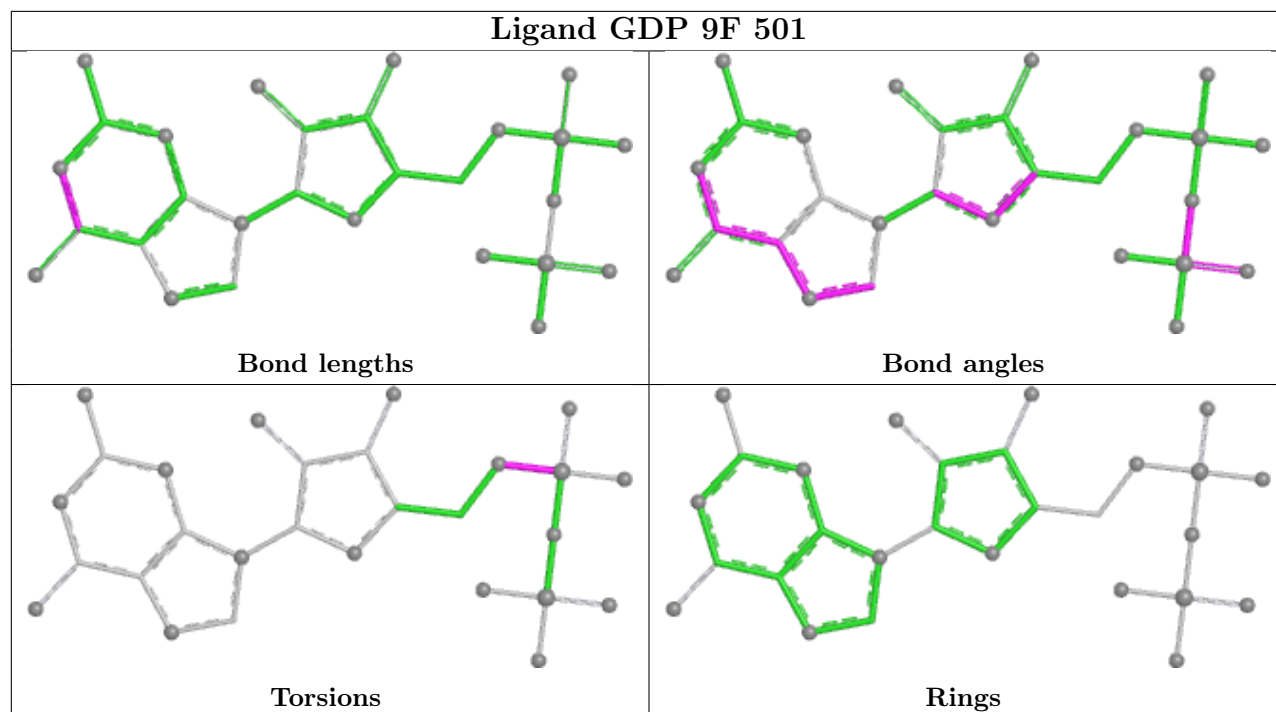


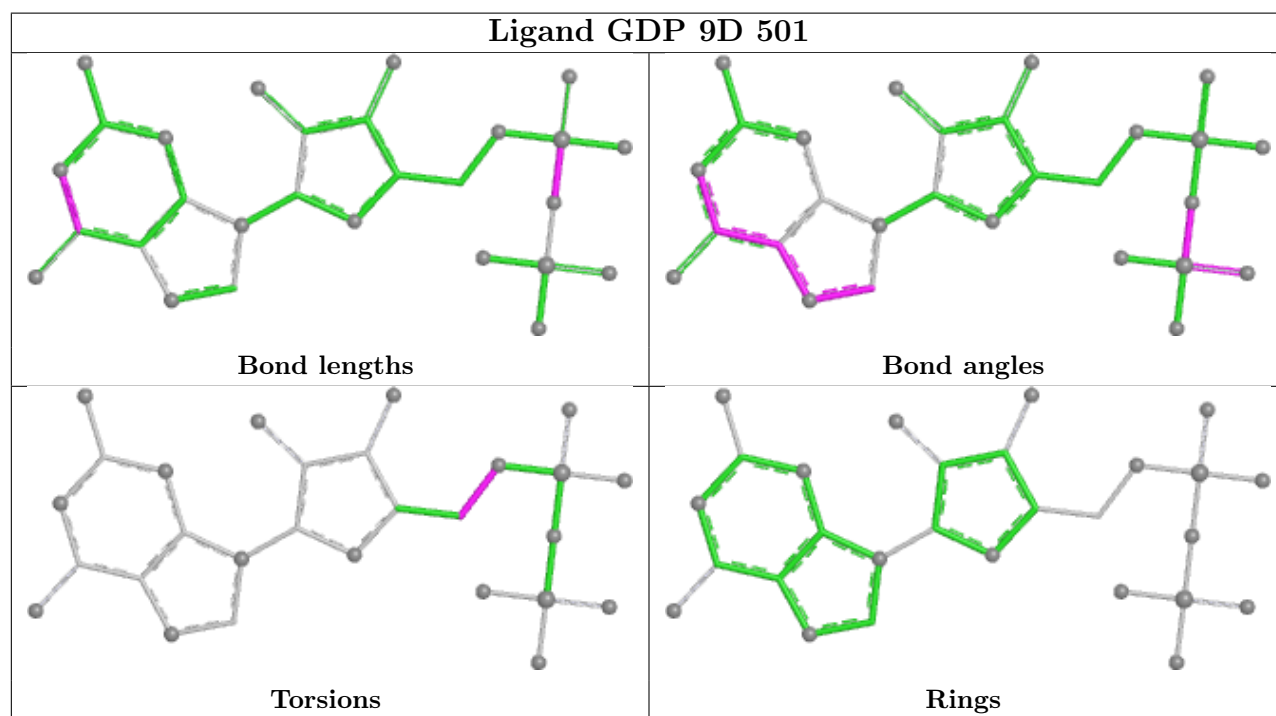
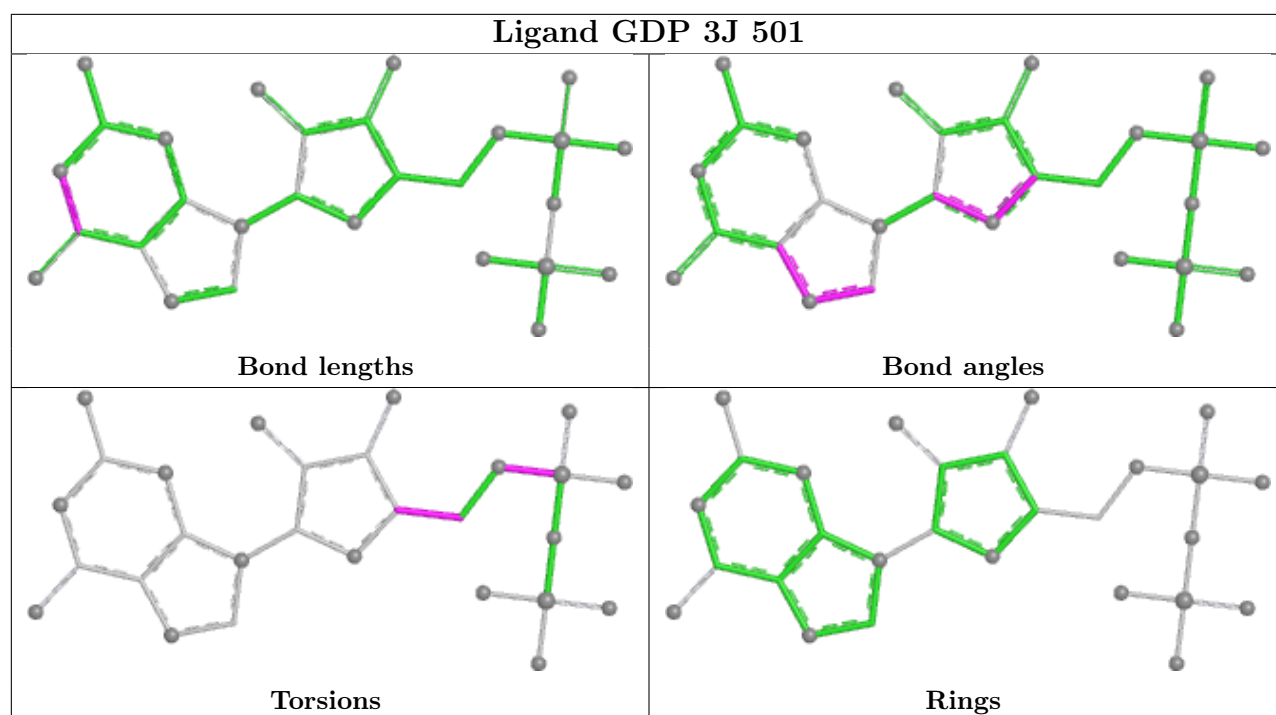


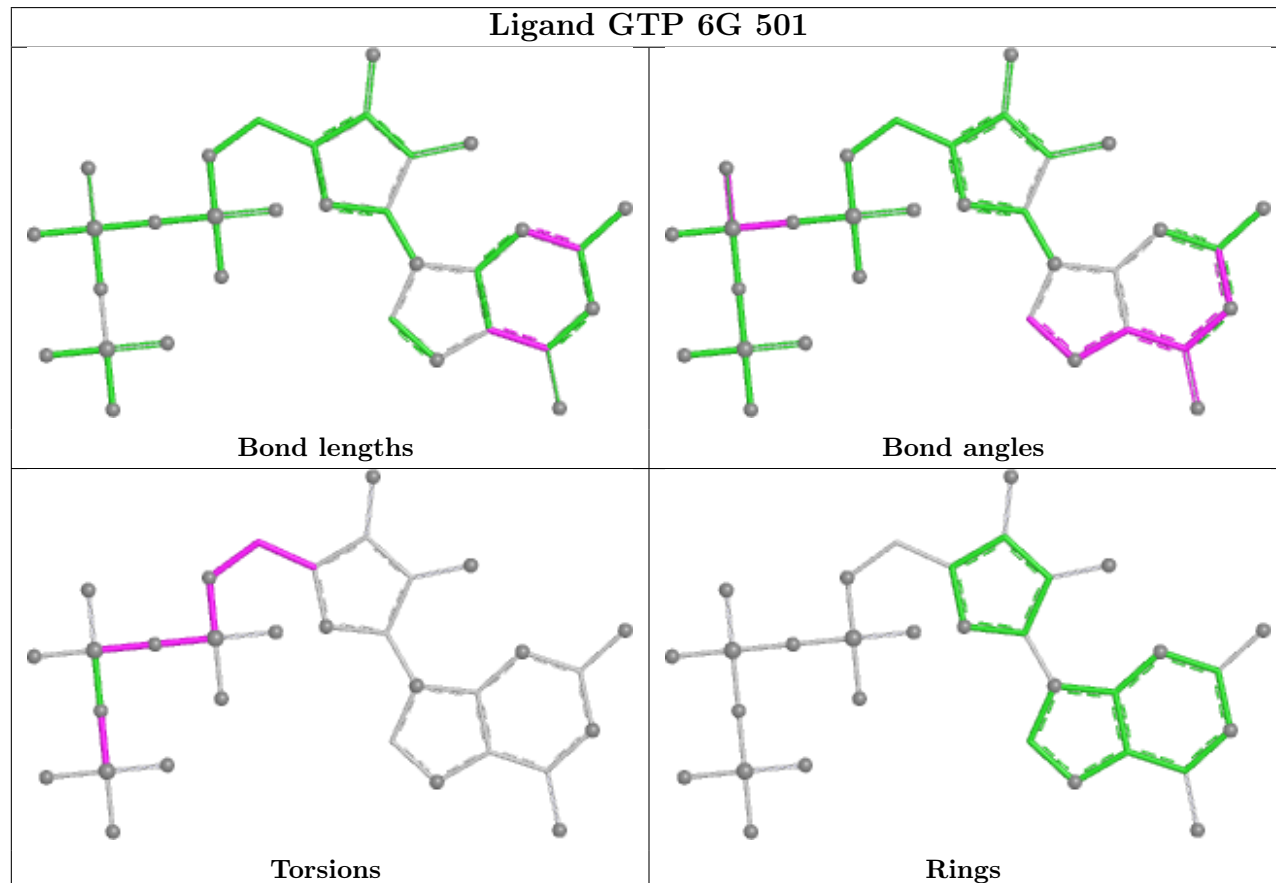
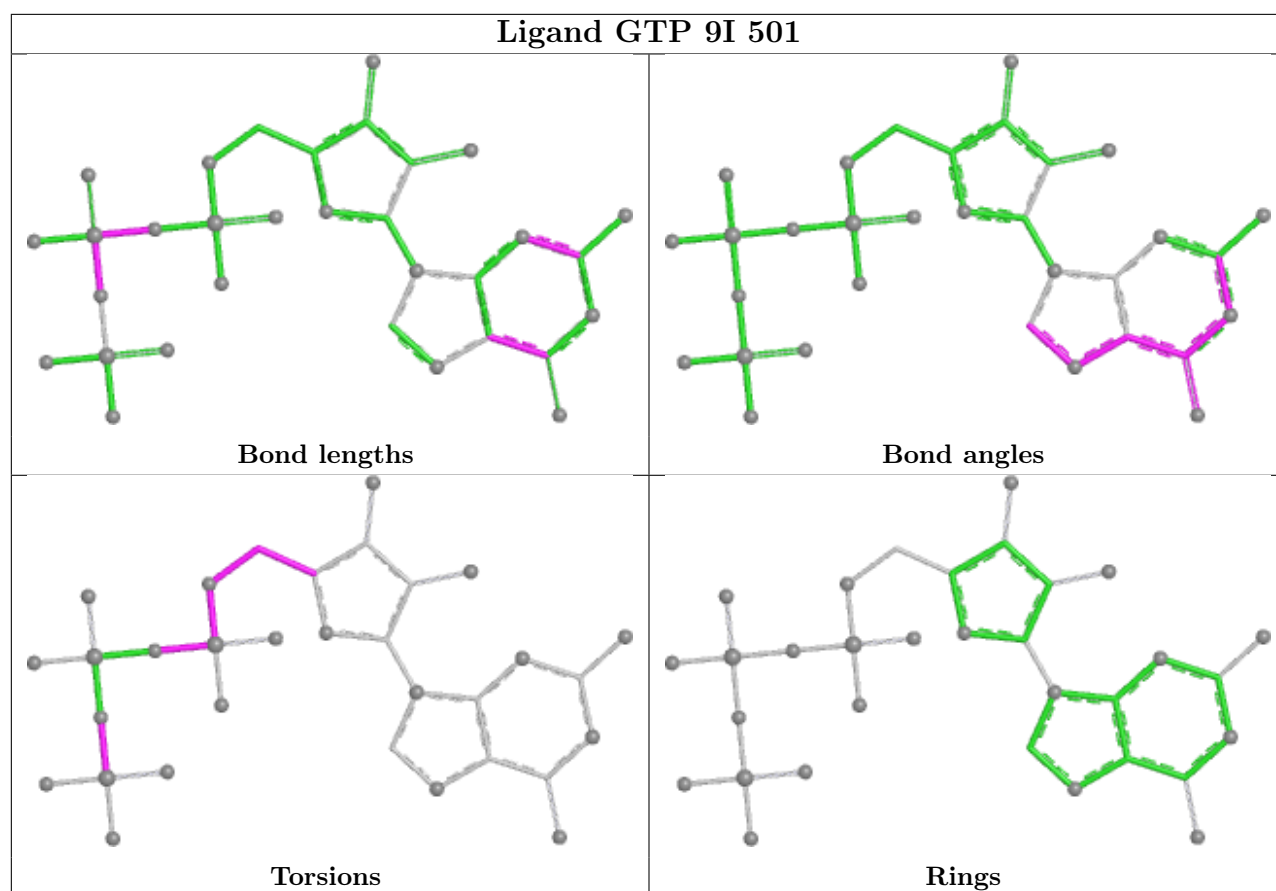




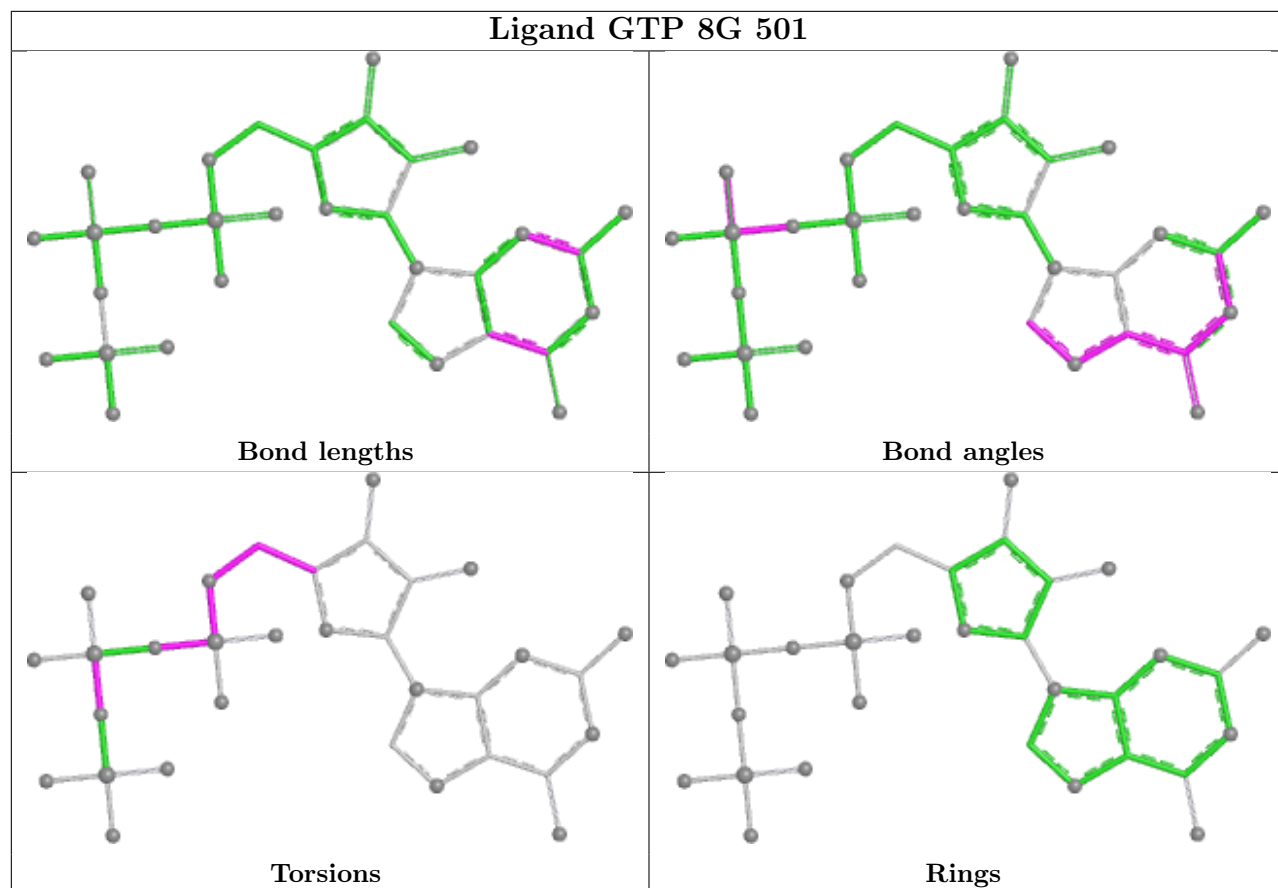




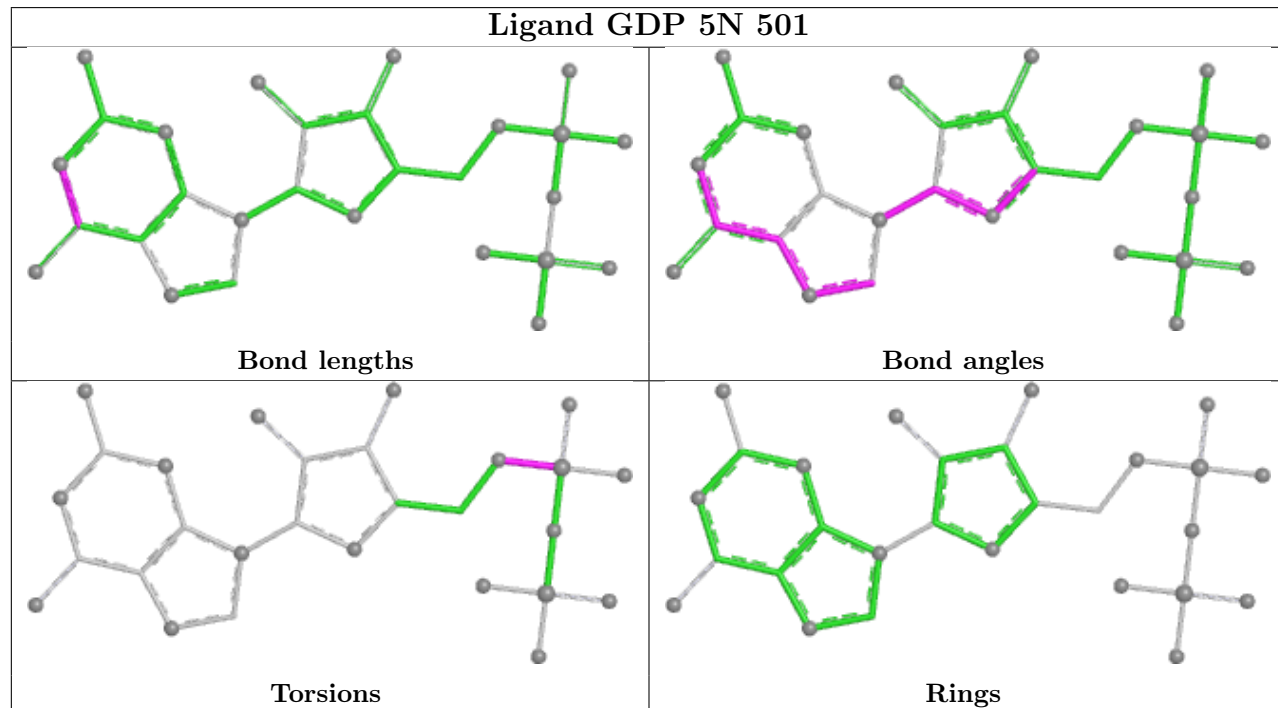




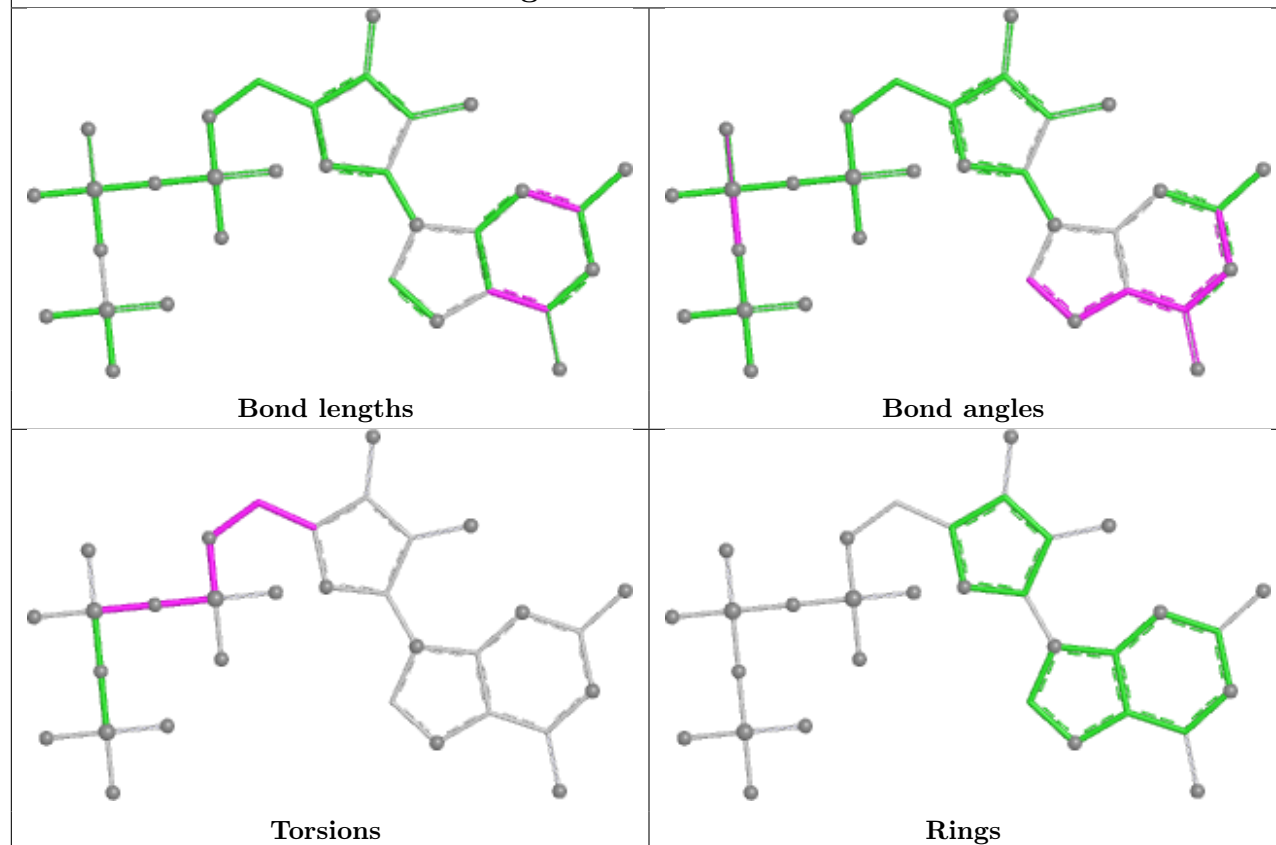
Ligand GTP 8G 501



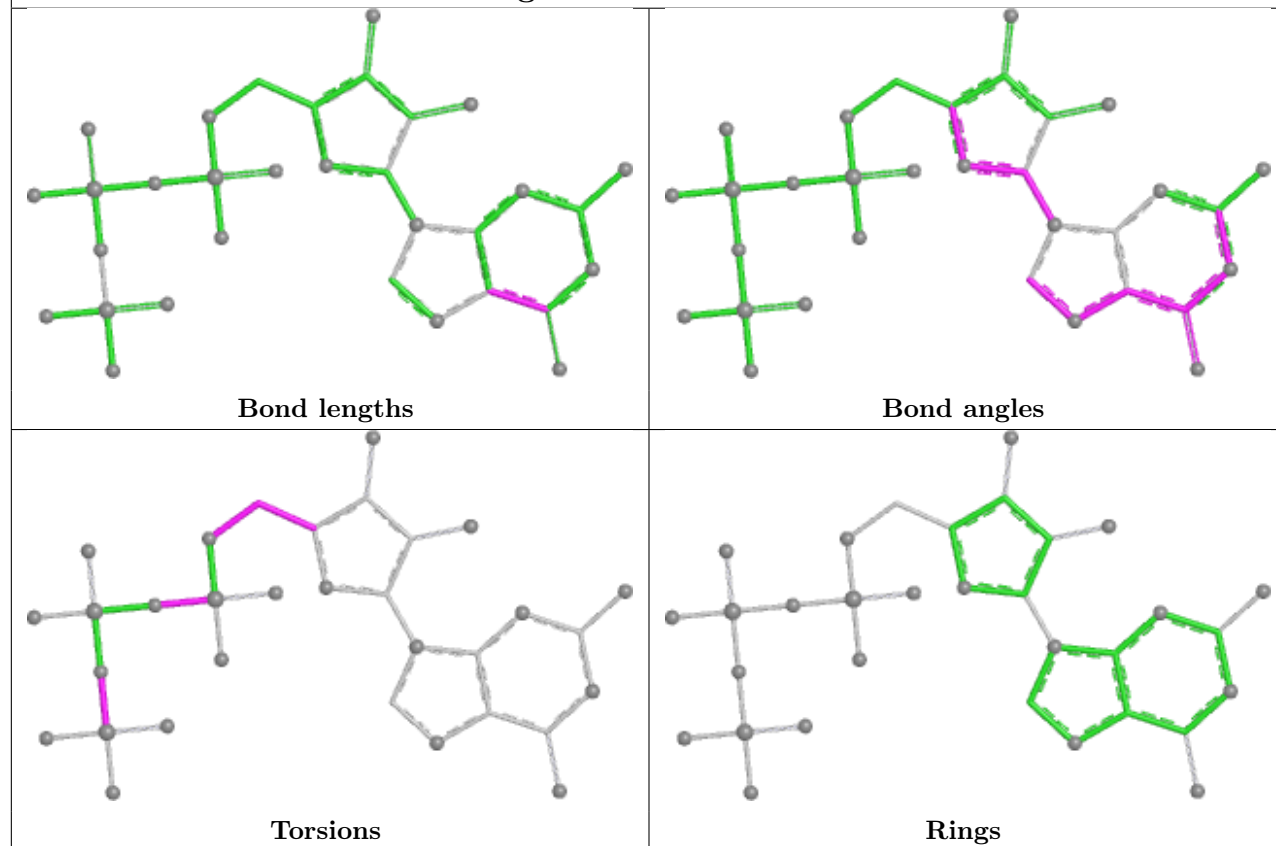
Ligand GDP 5N 501

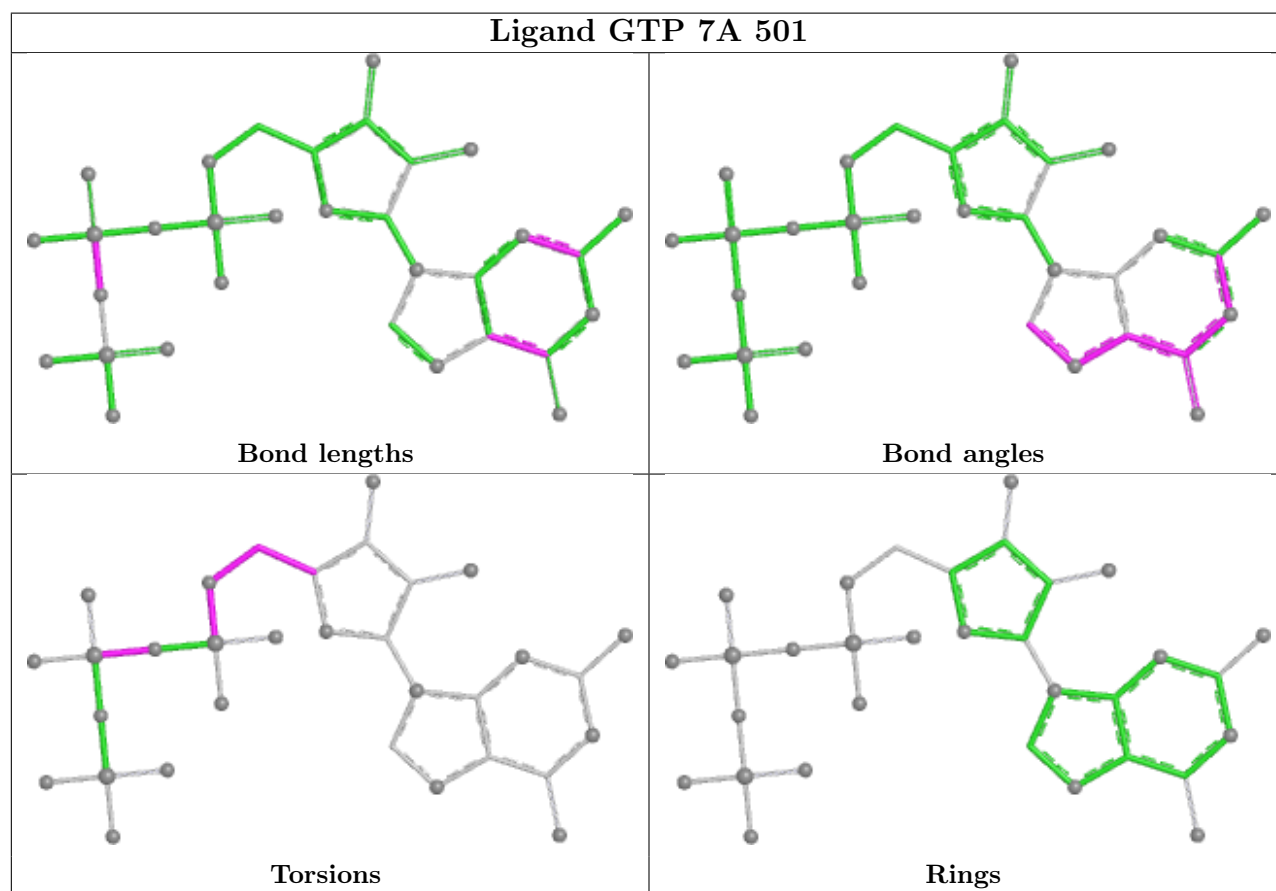
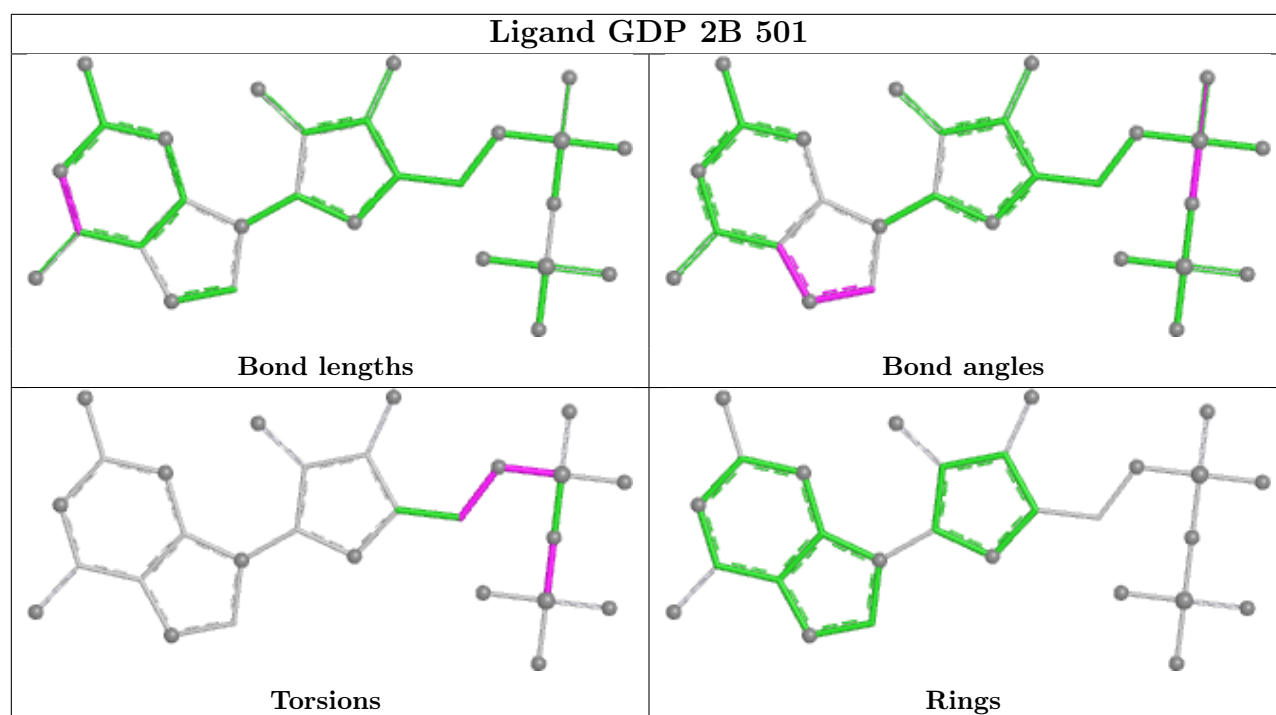


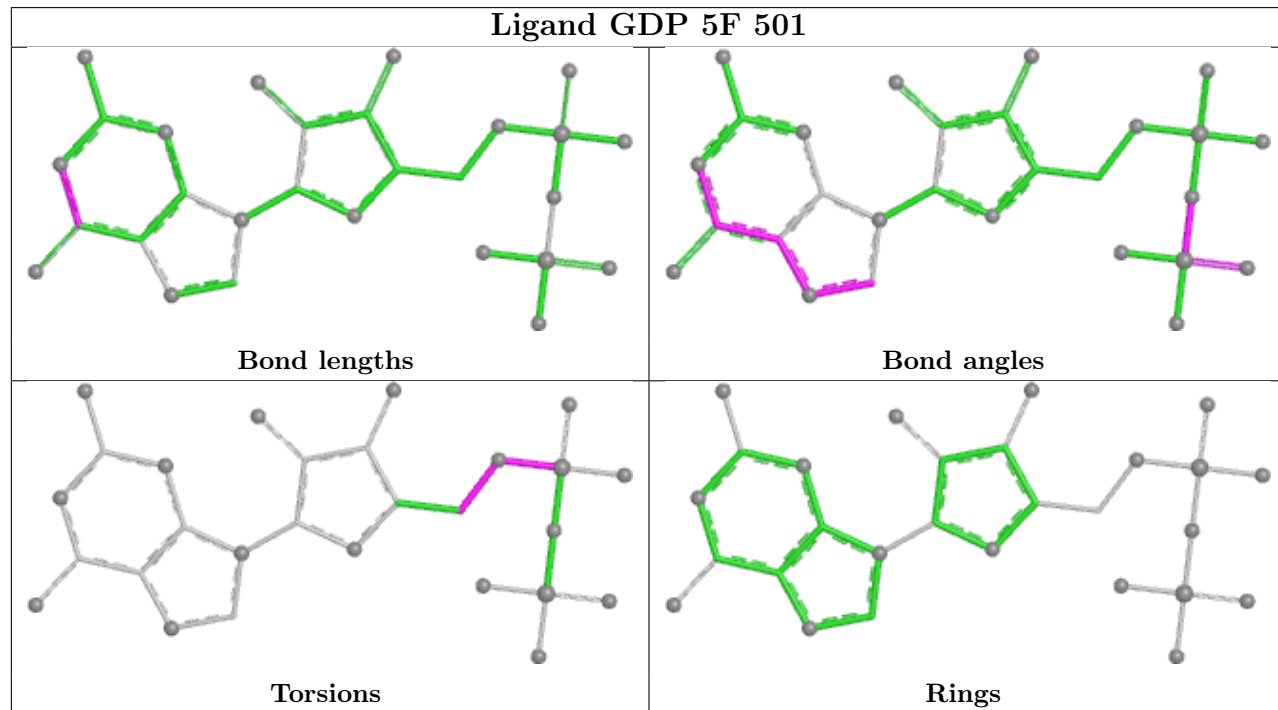
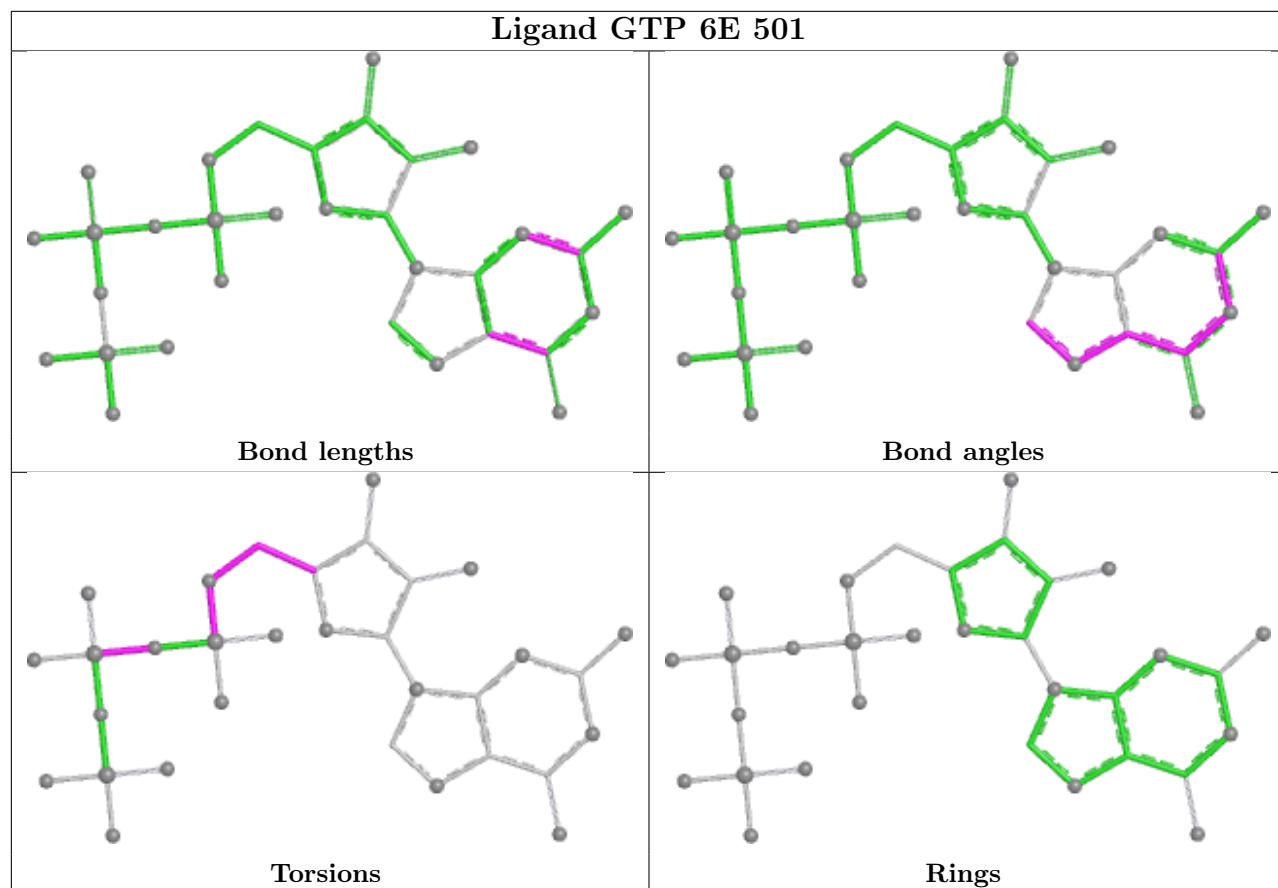
Ligand GTP 6K 501

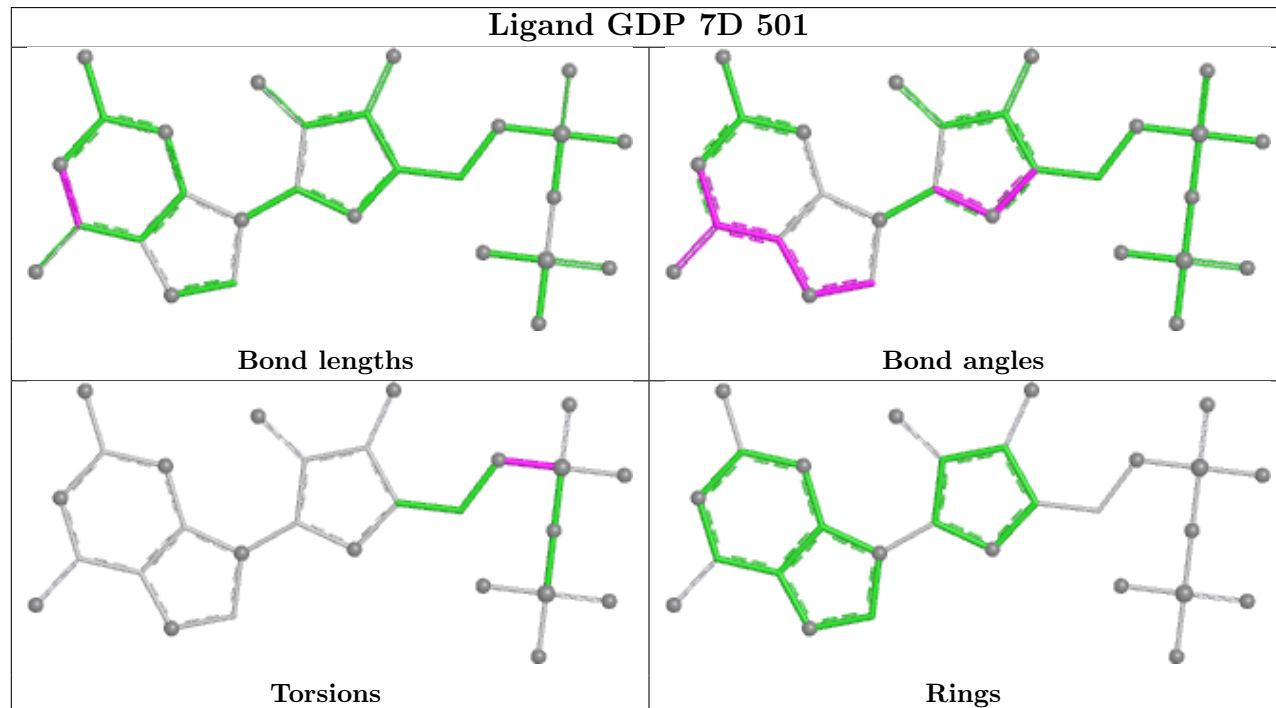
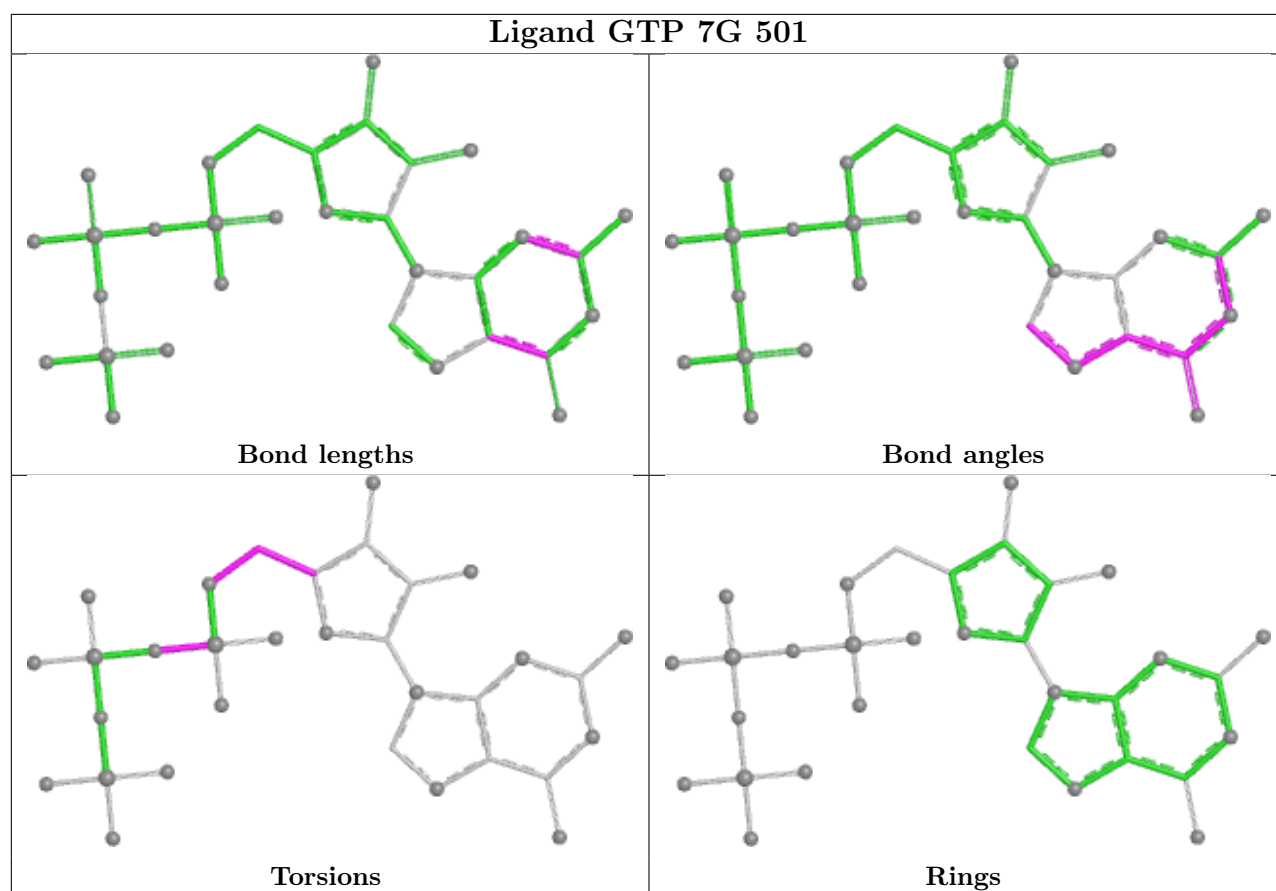


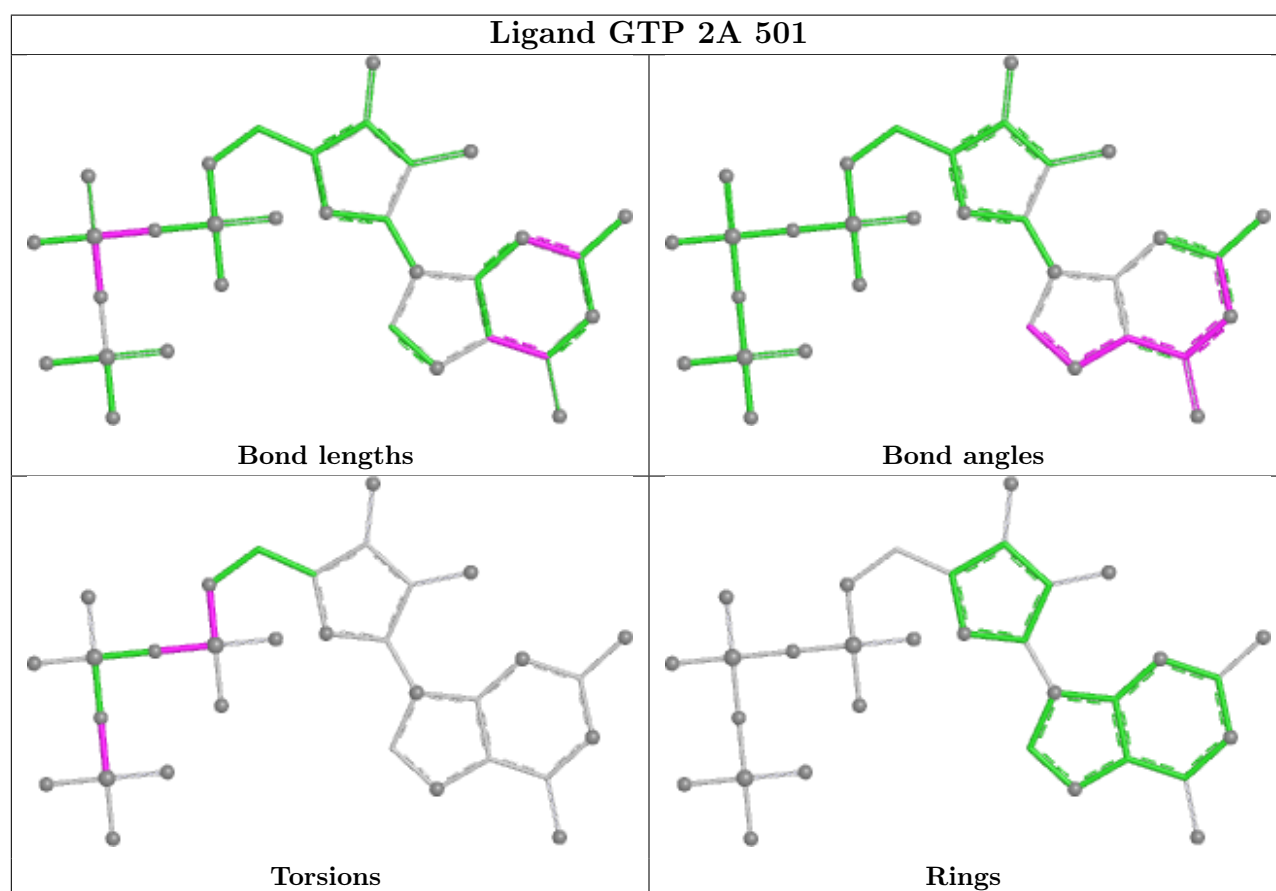
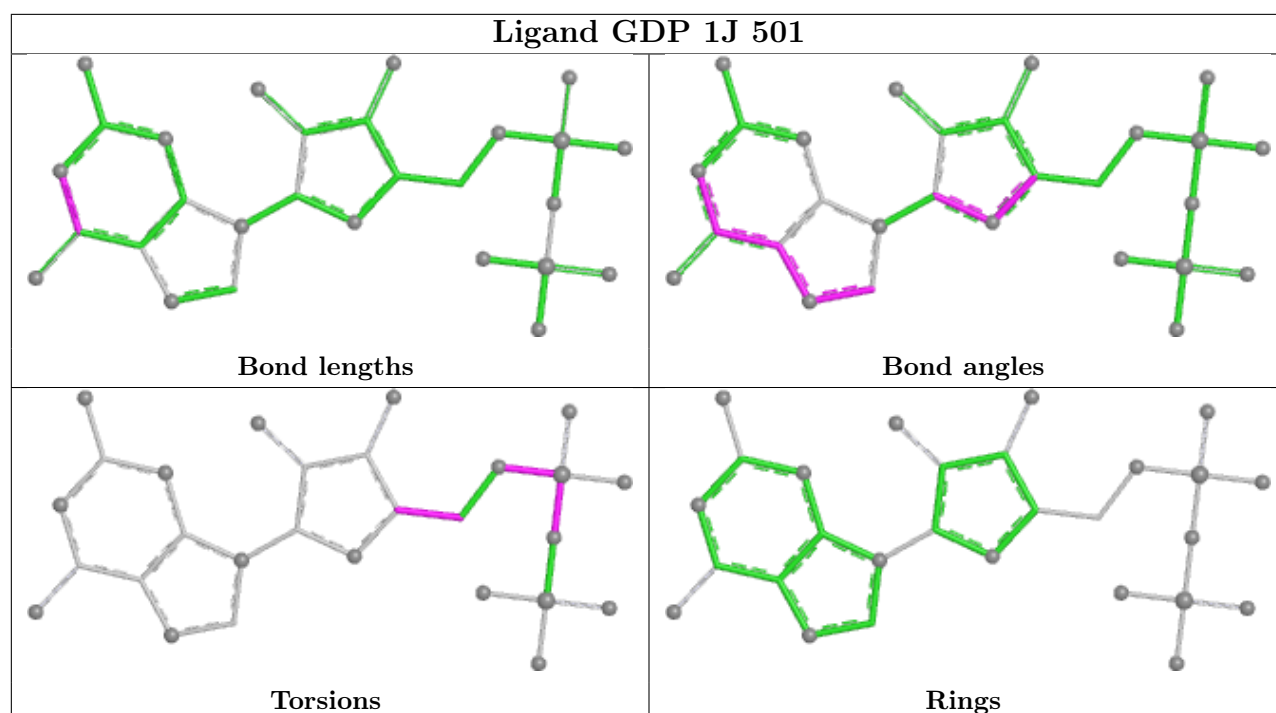
Ligand GTP 5M 501

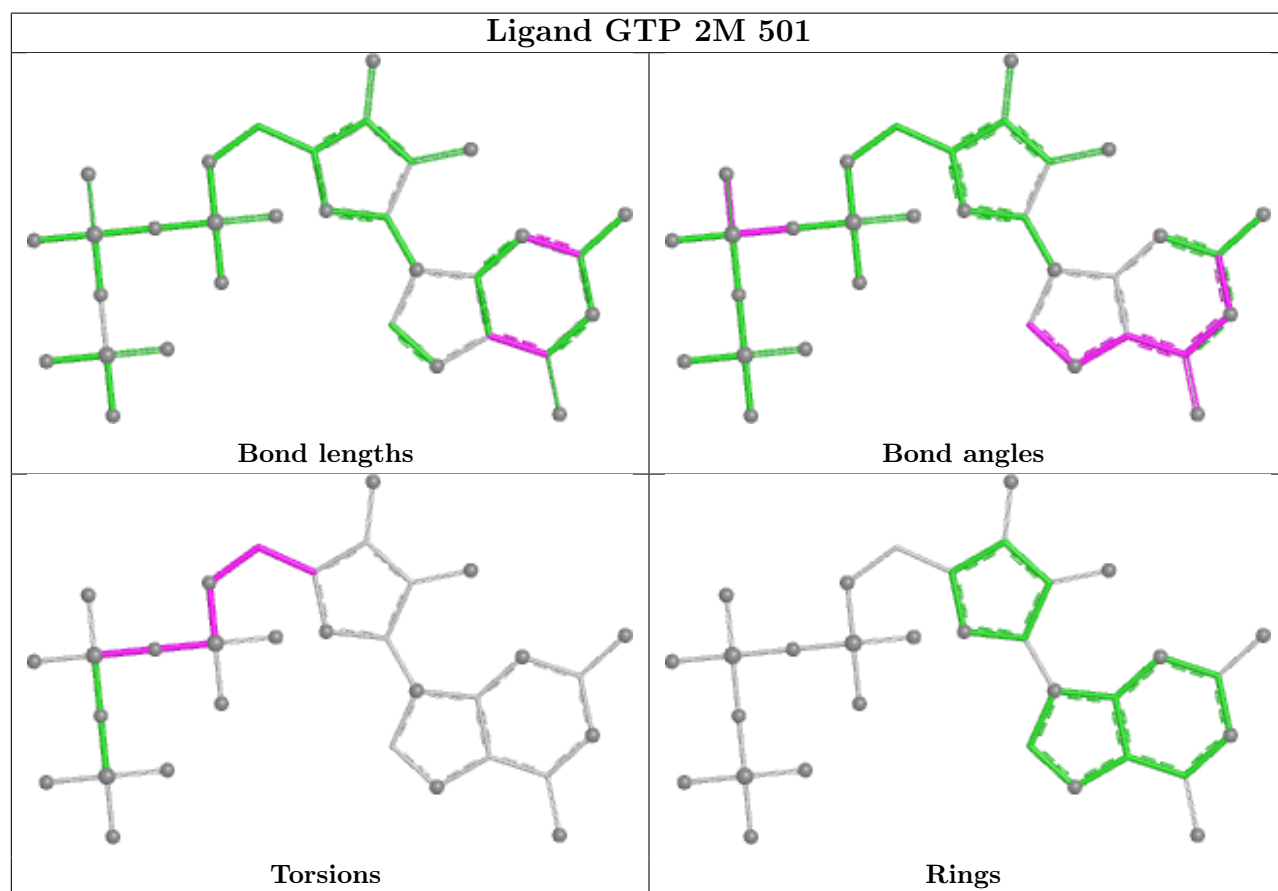
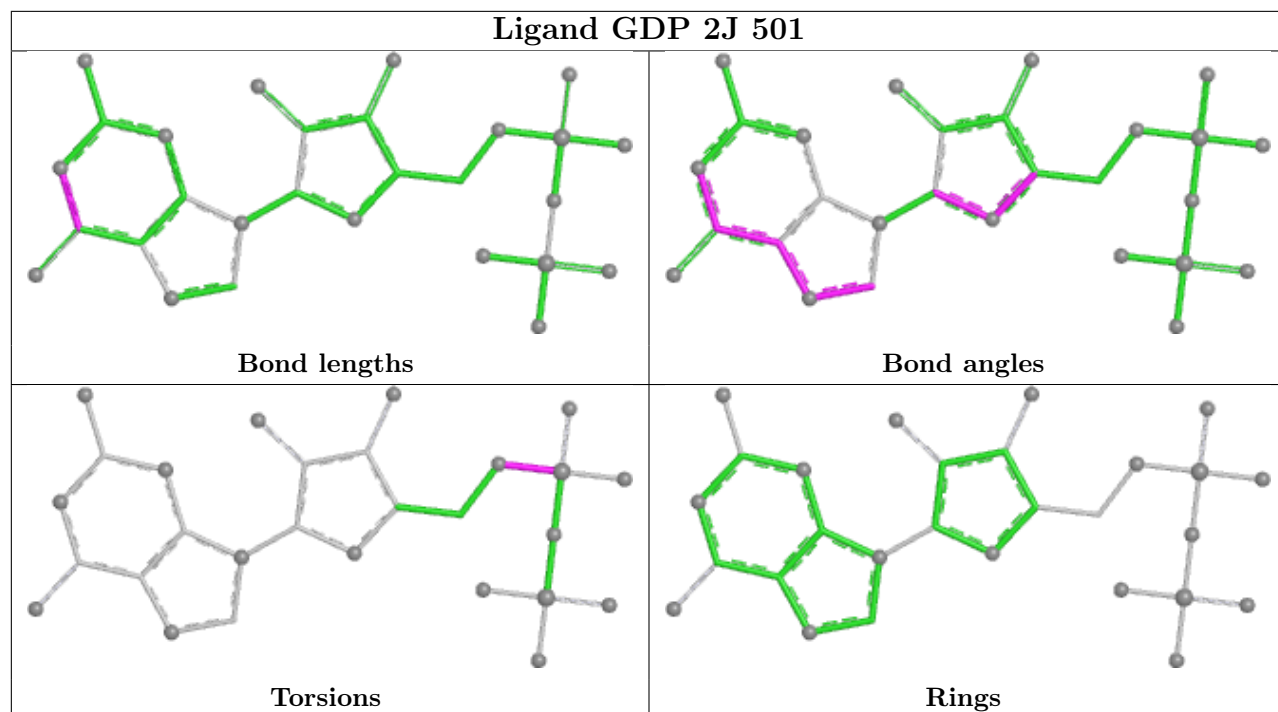


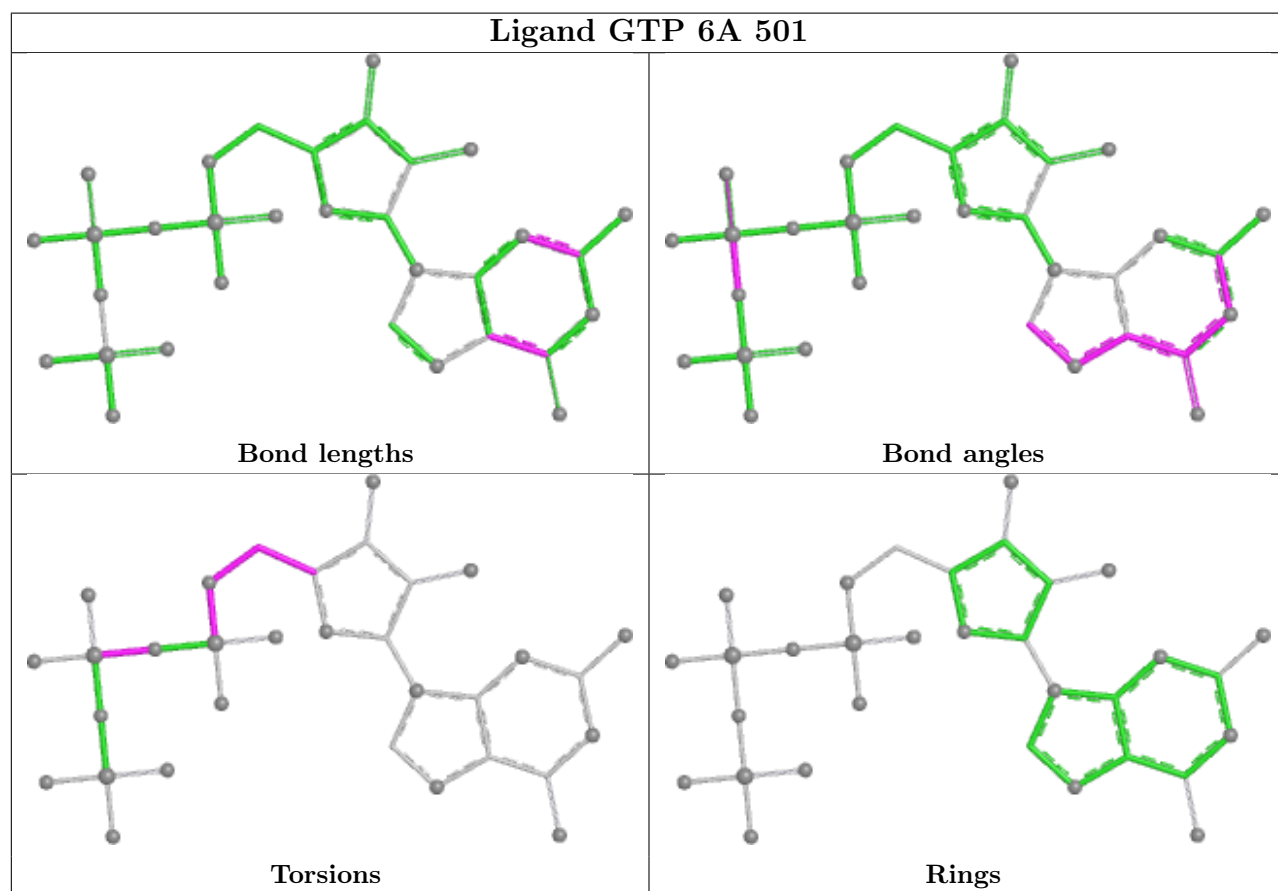
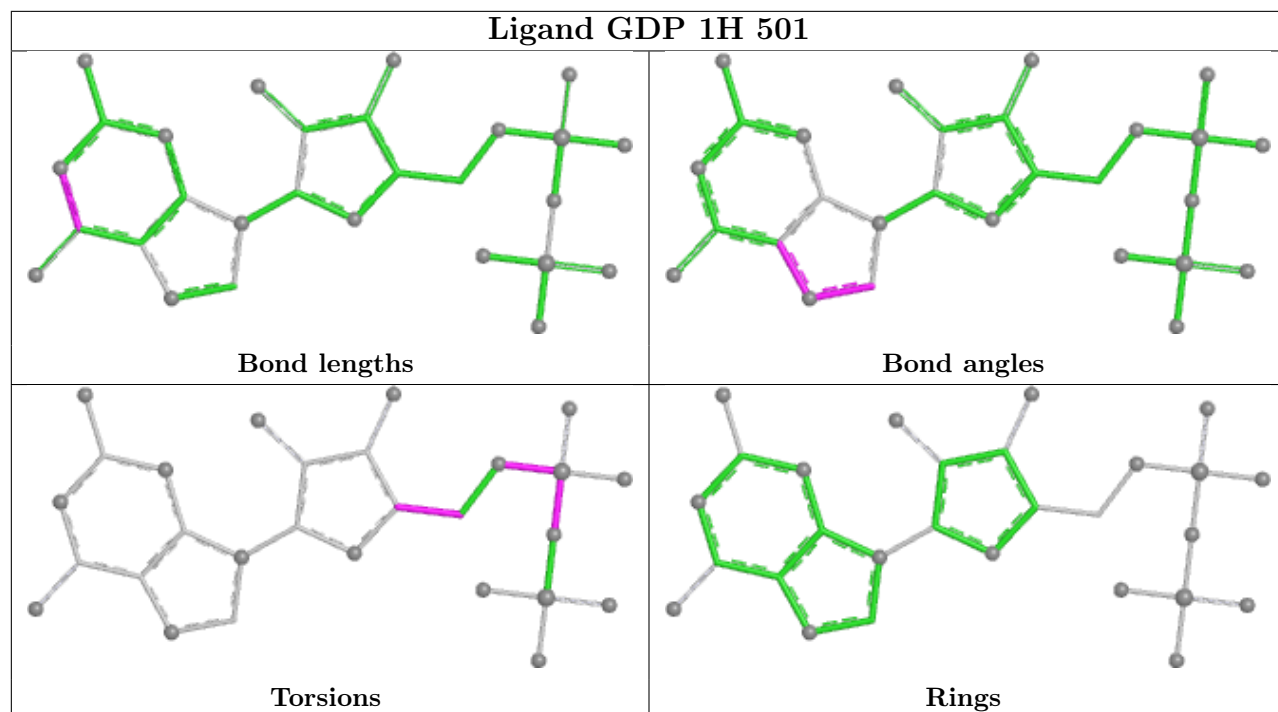




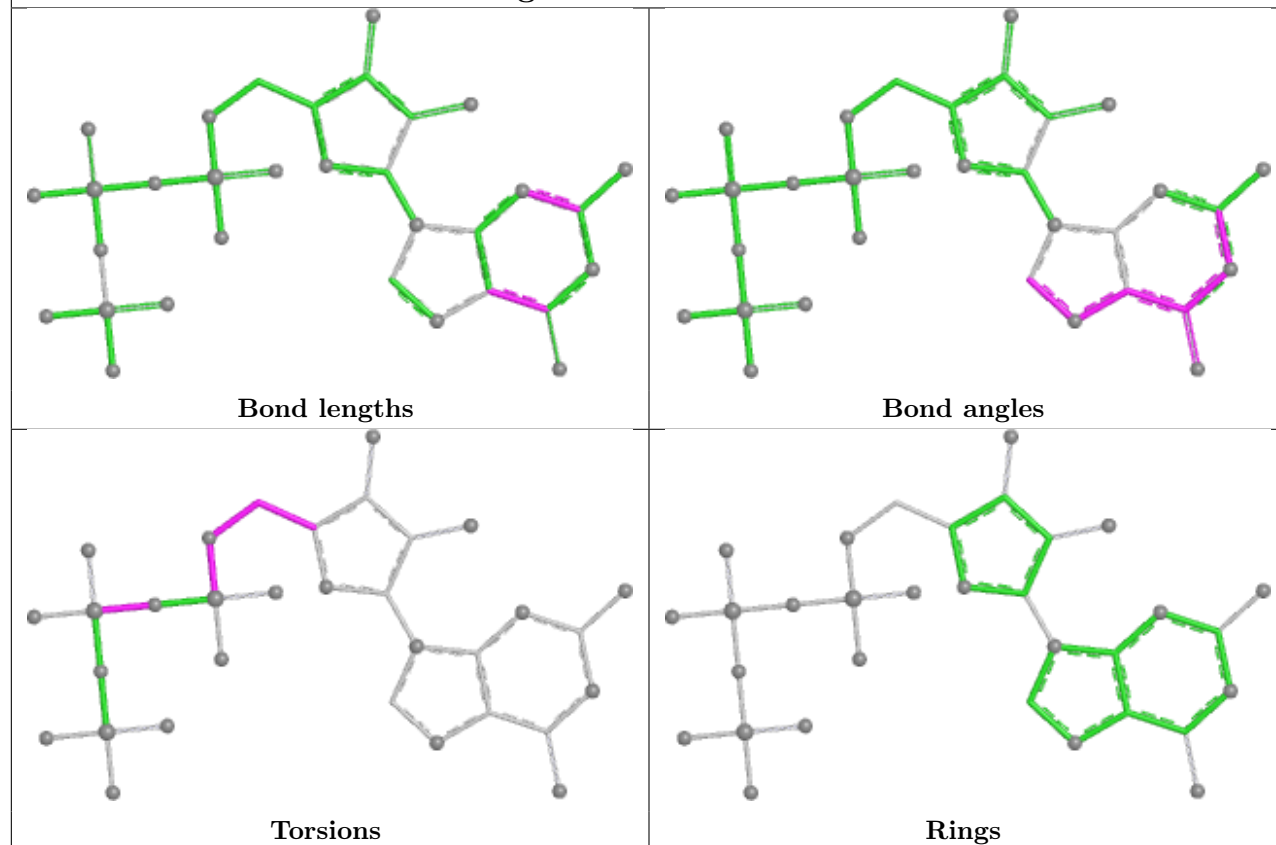




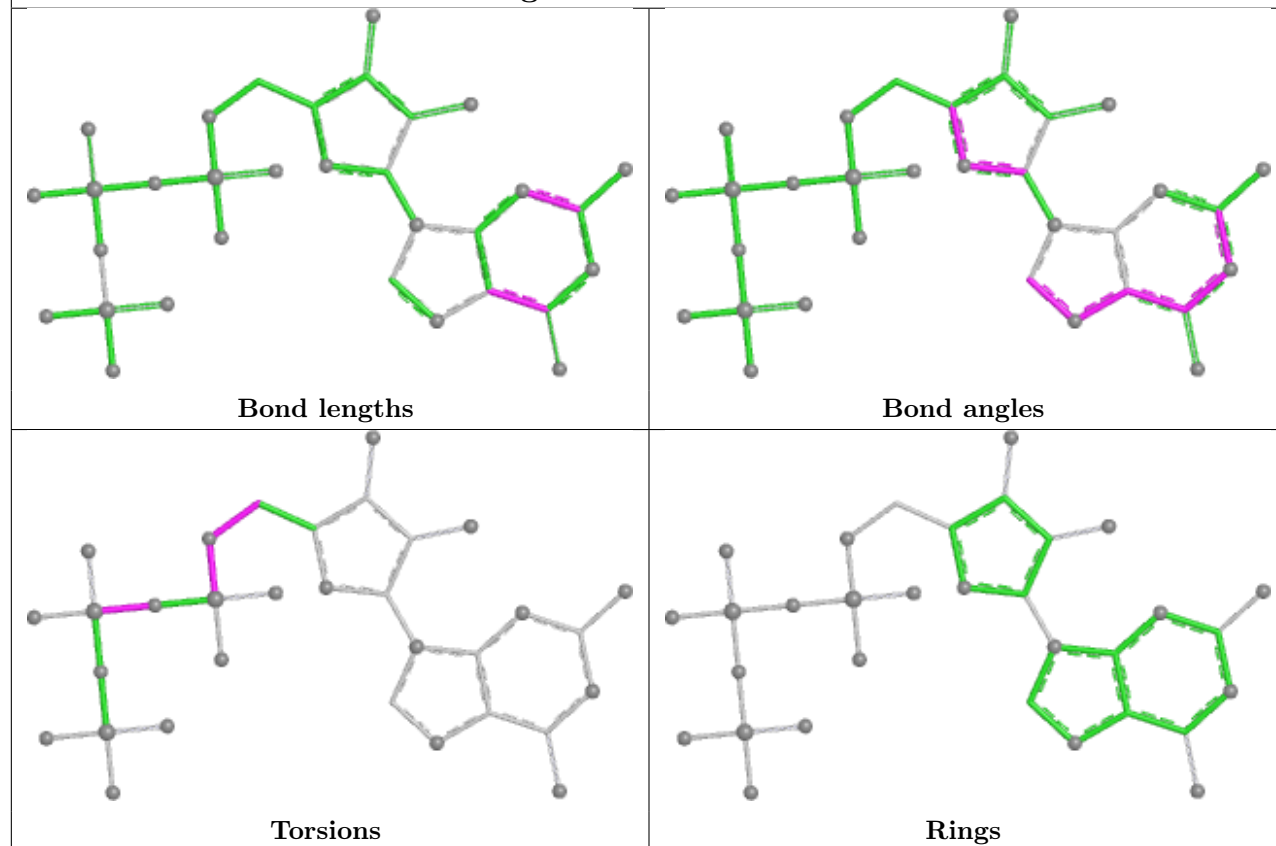




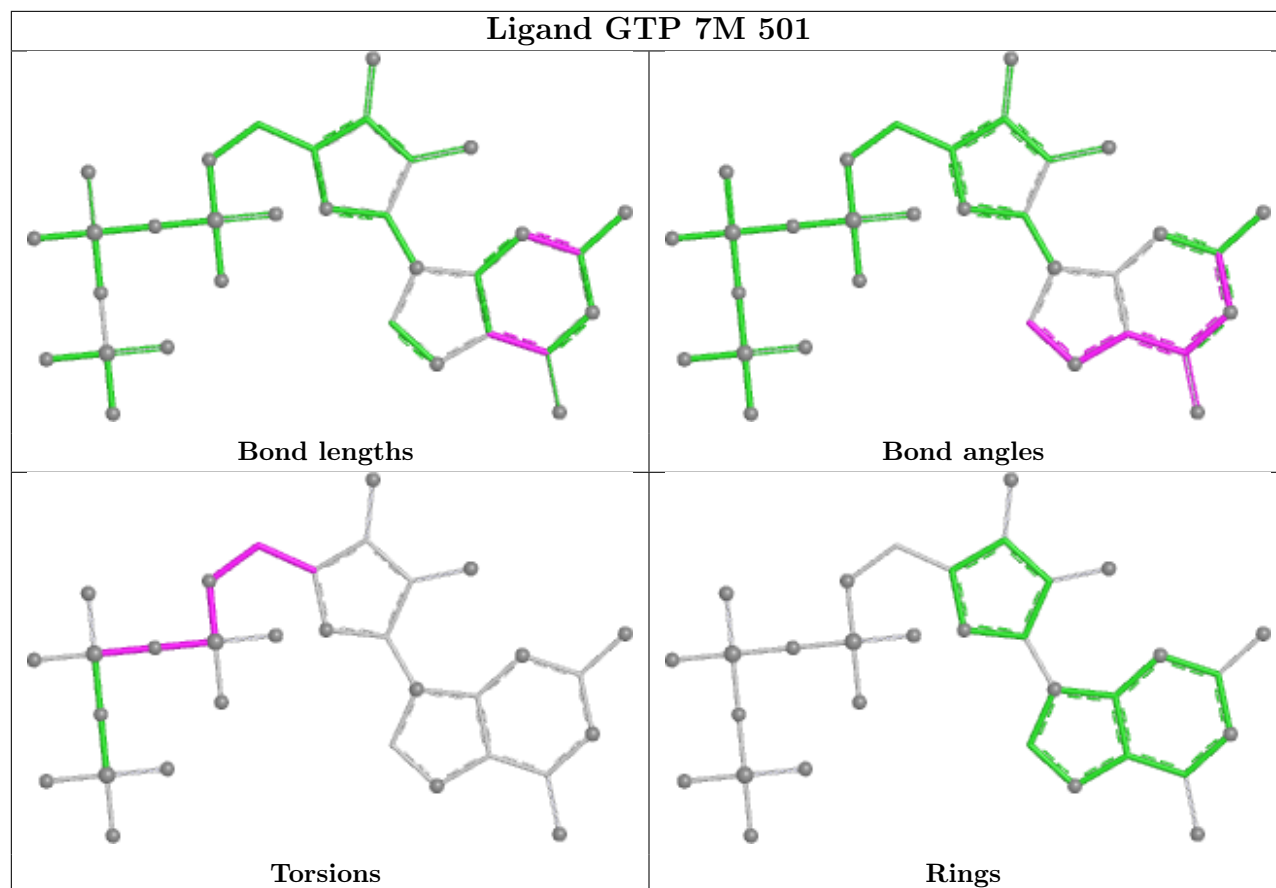
Ligand GTP 9M 501



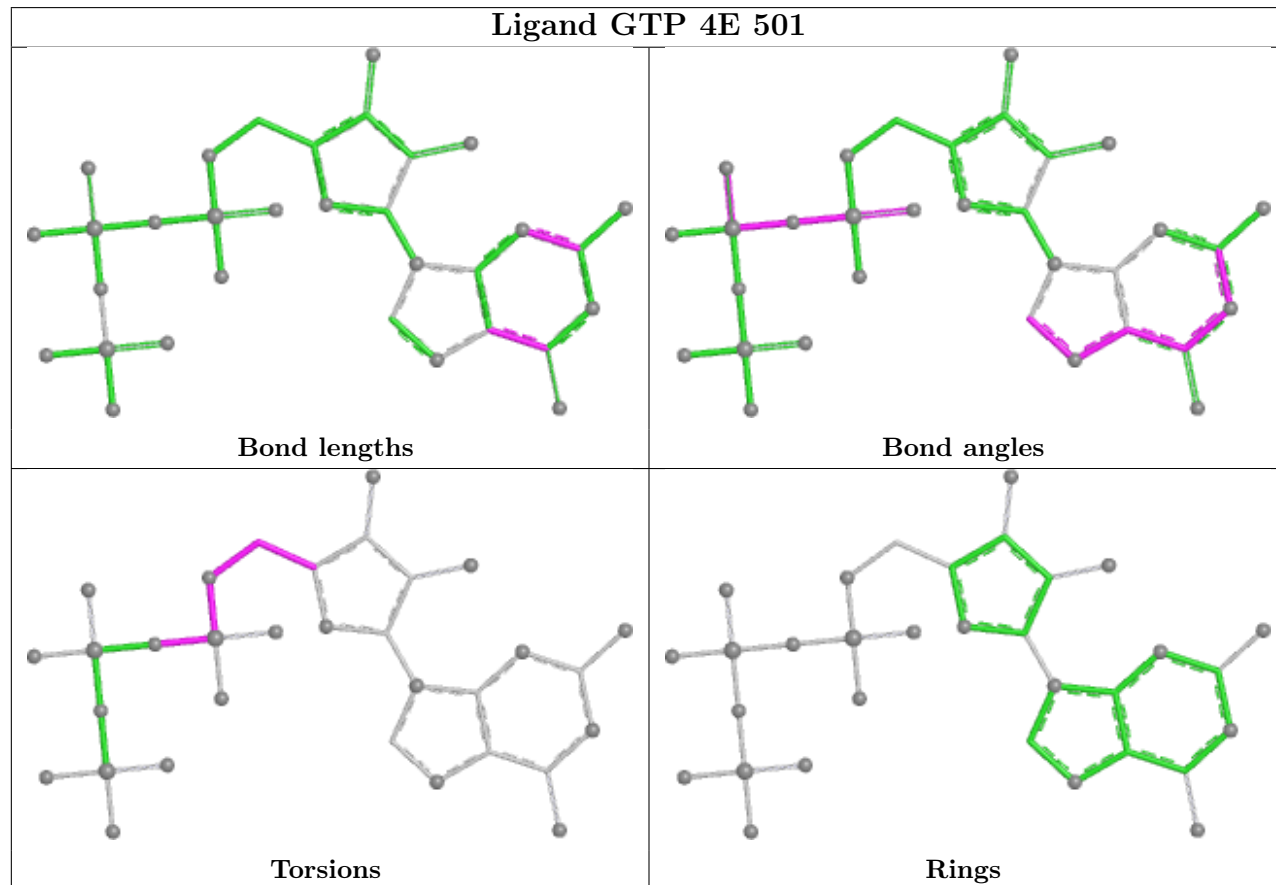
Ligand GTP 5G 501



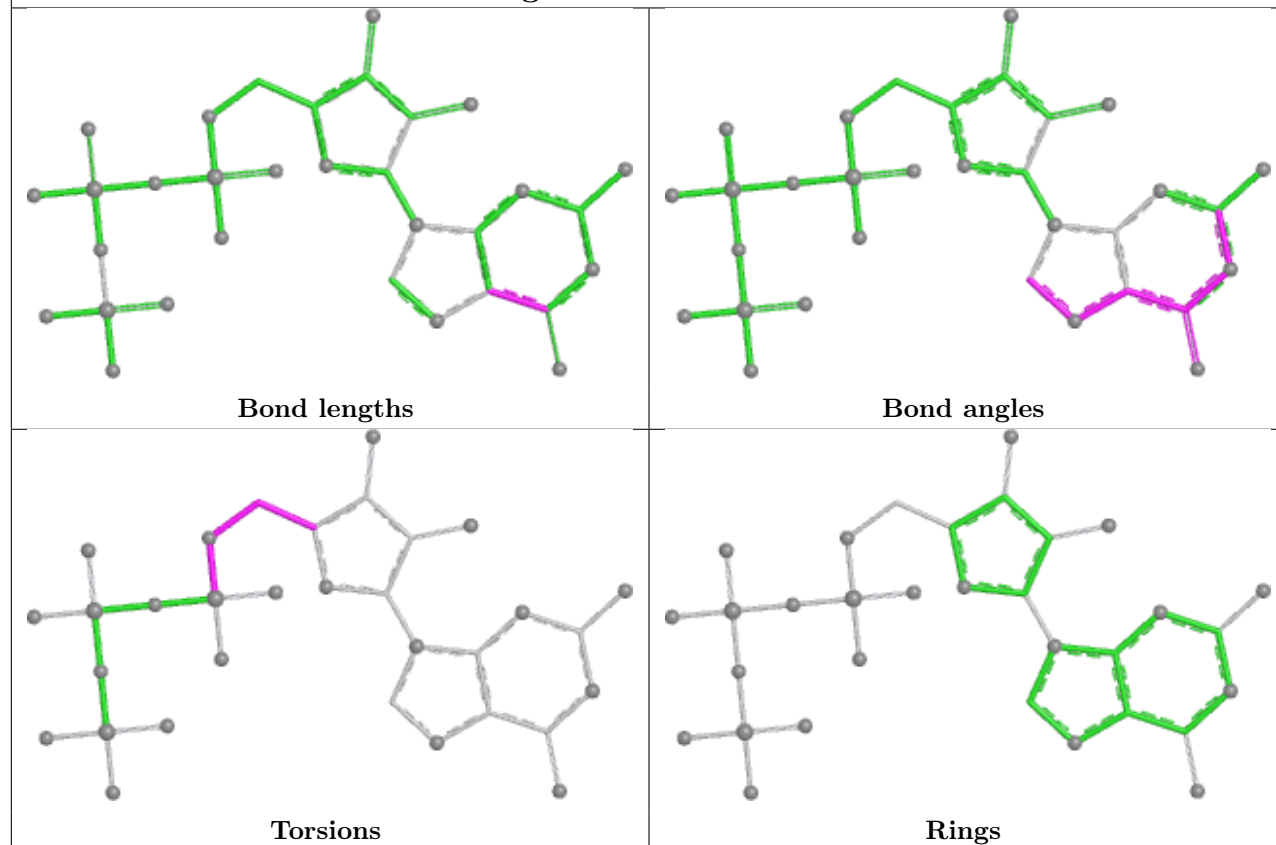
Ligand GTP 7M 501



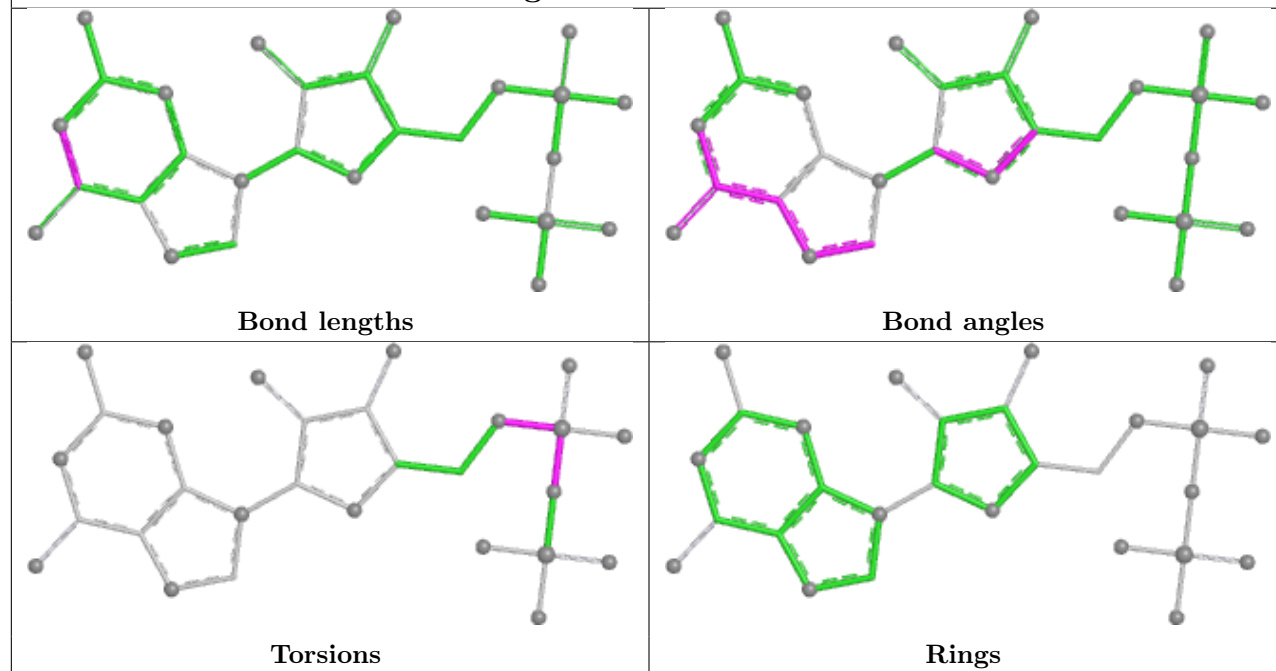
Ligand GTP 4E 501

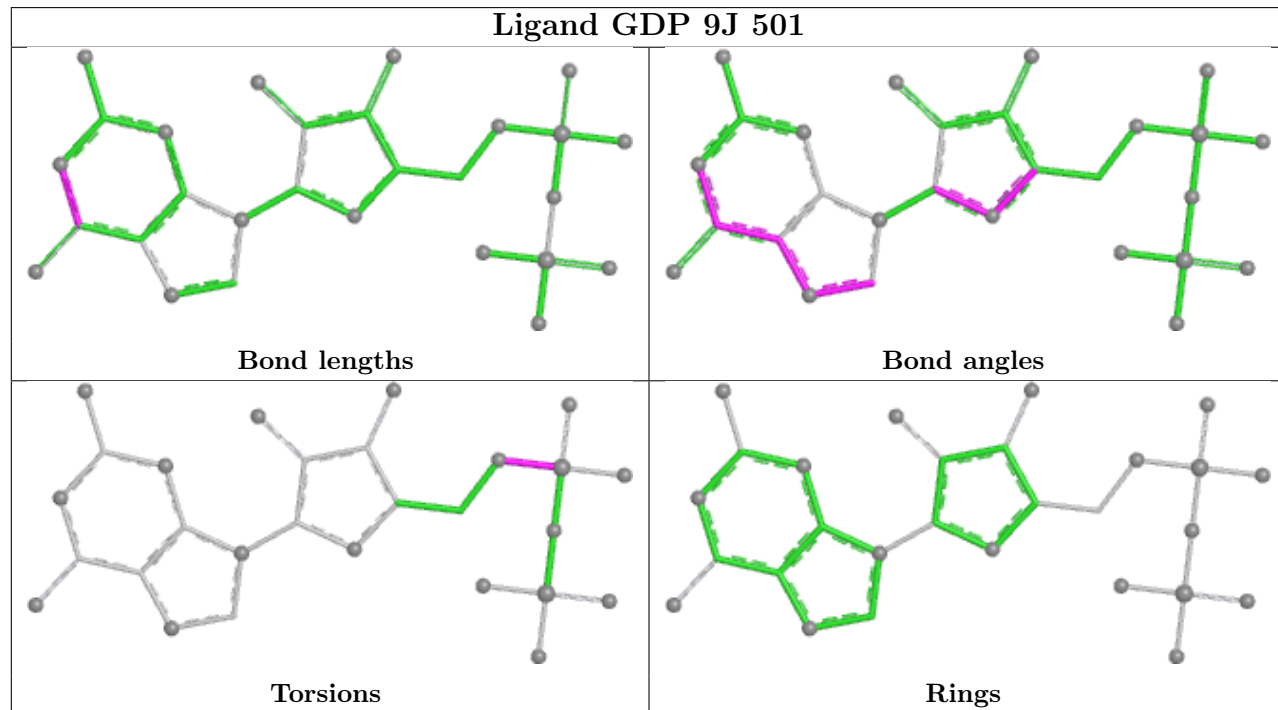
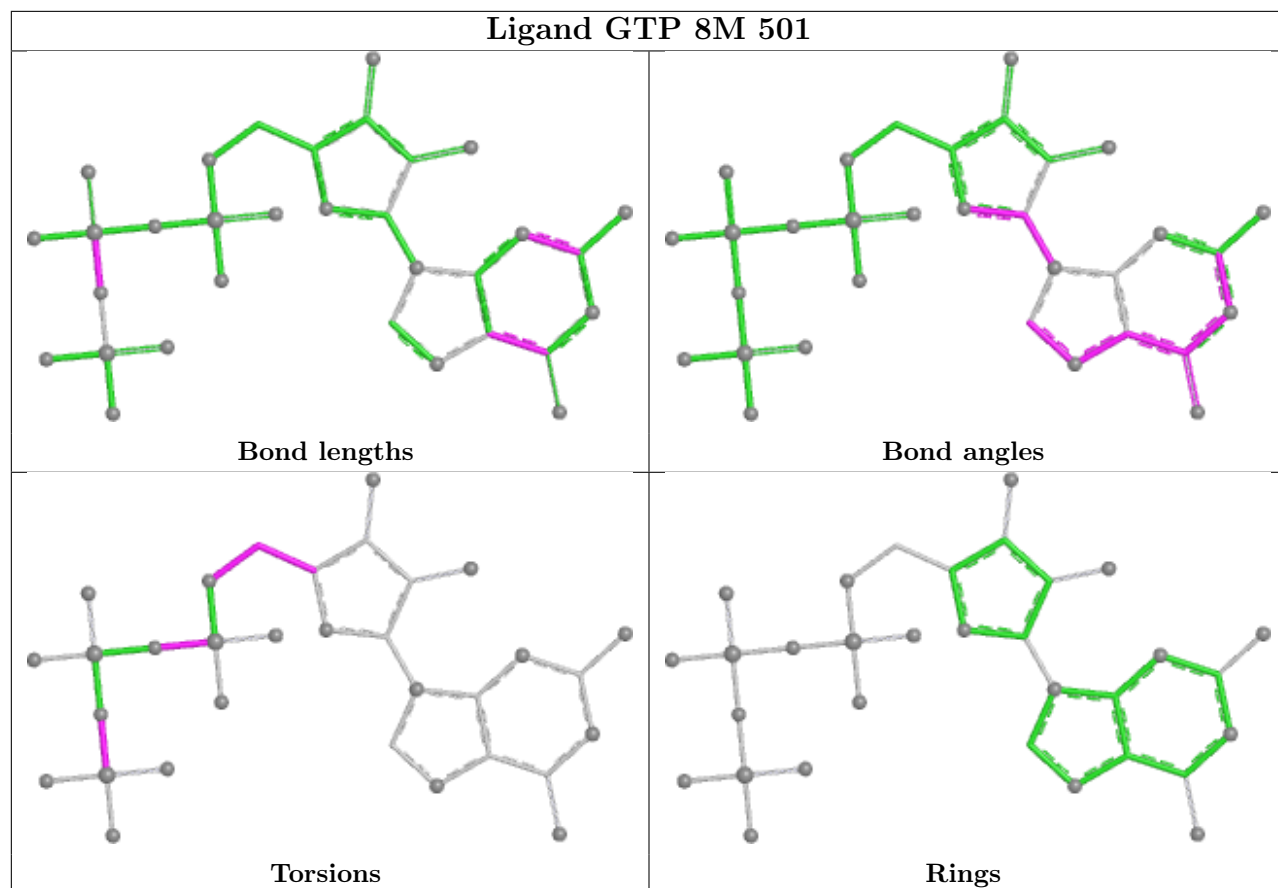


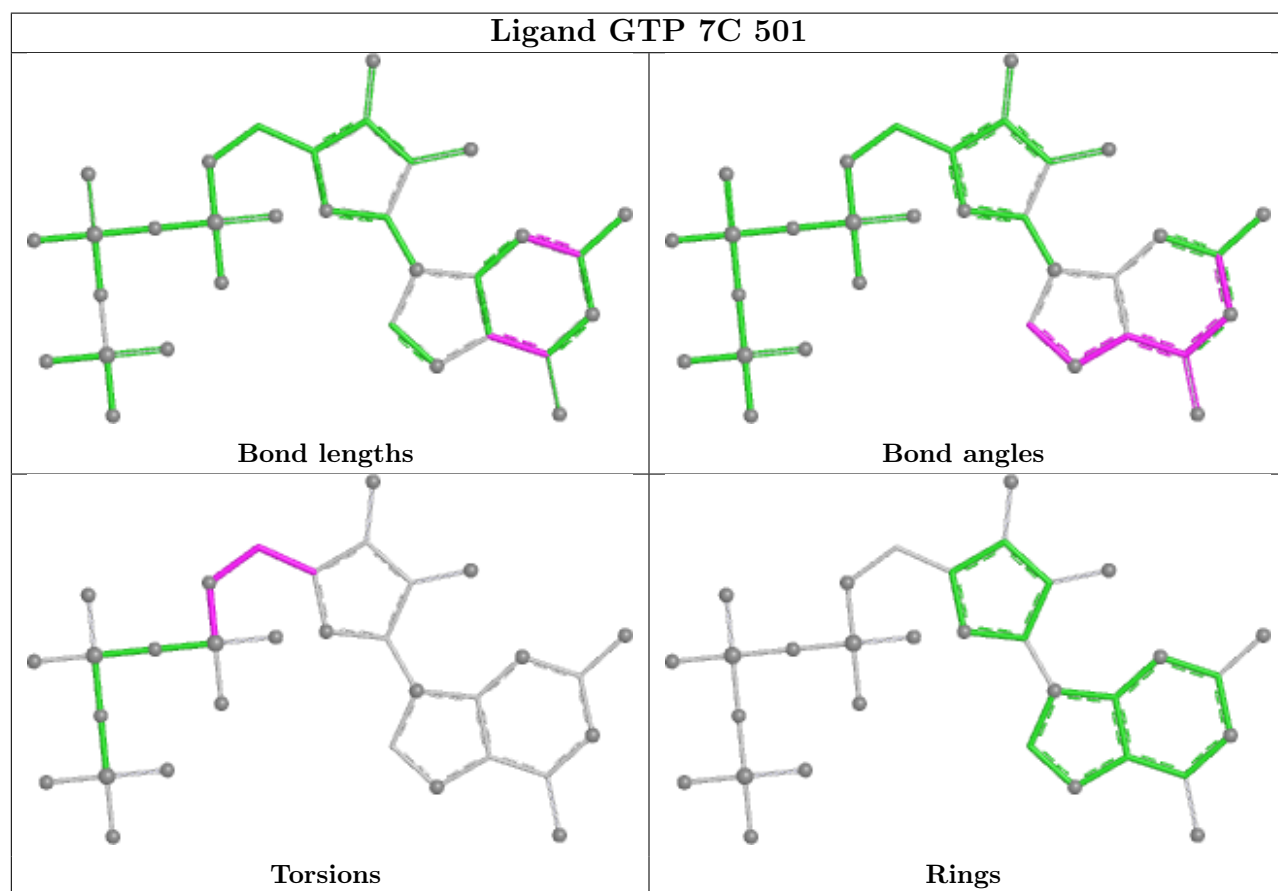
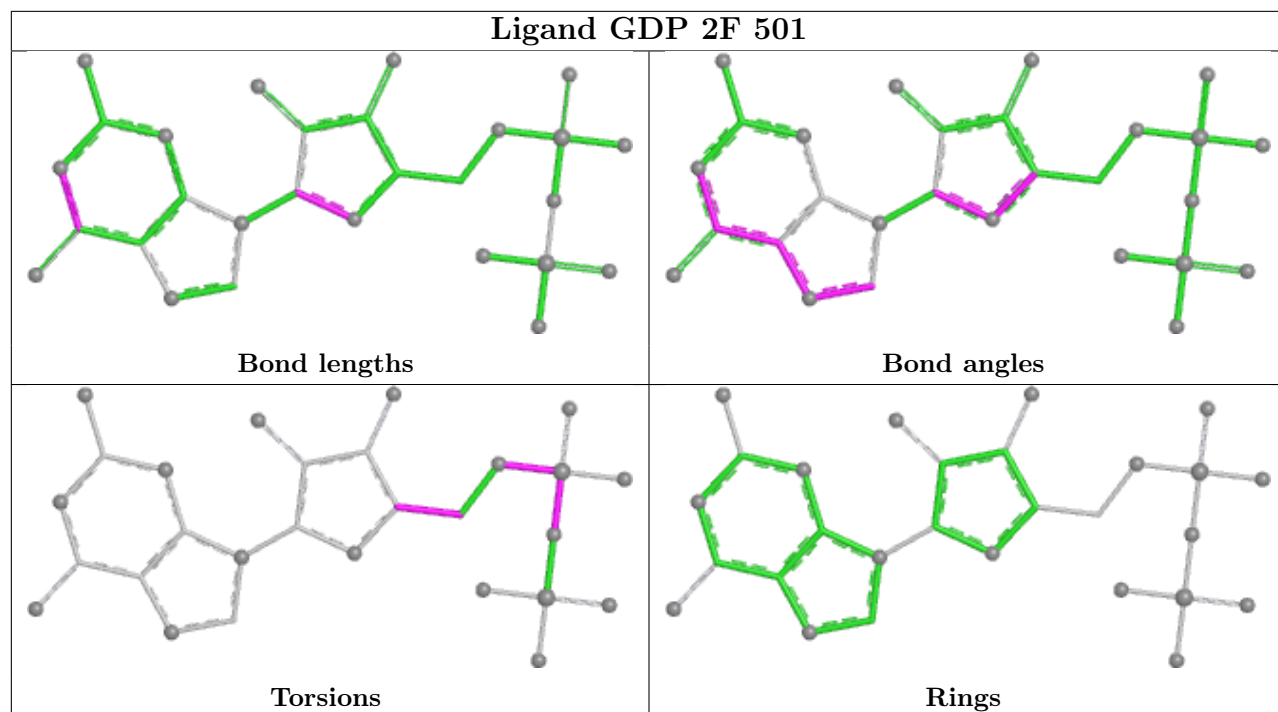
Ligand GTP 8C 501

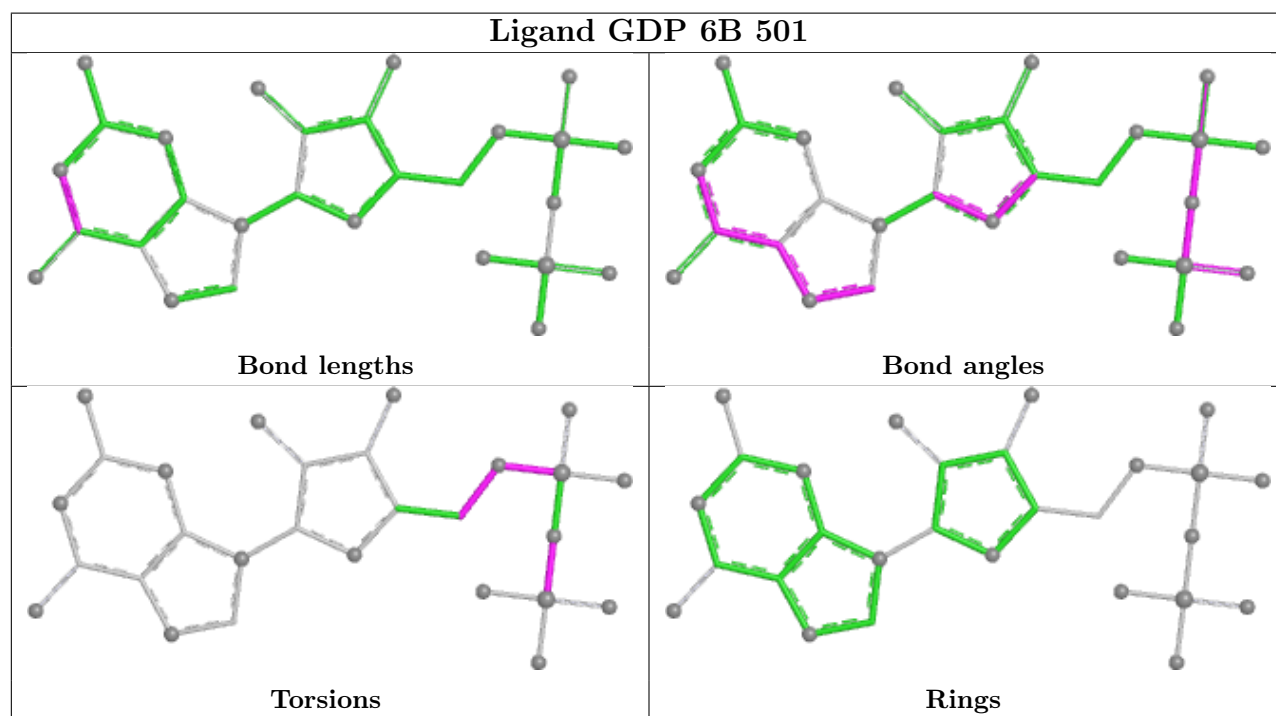
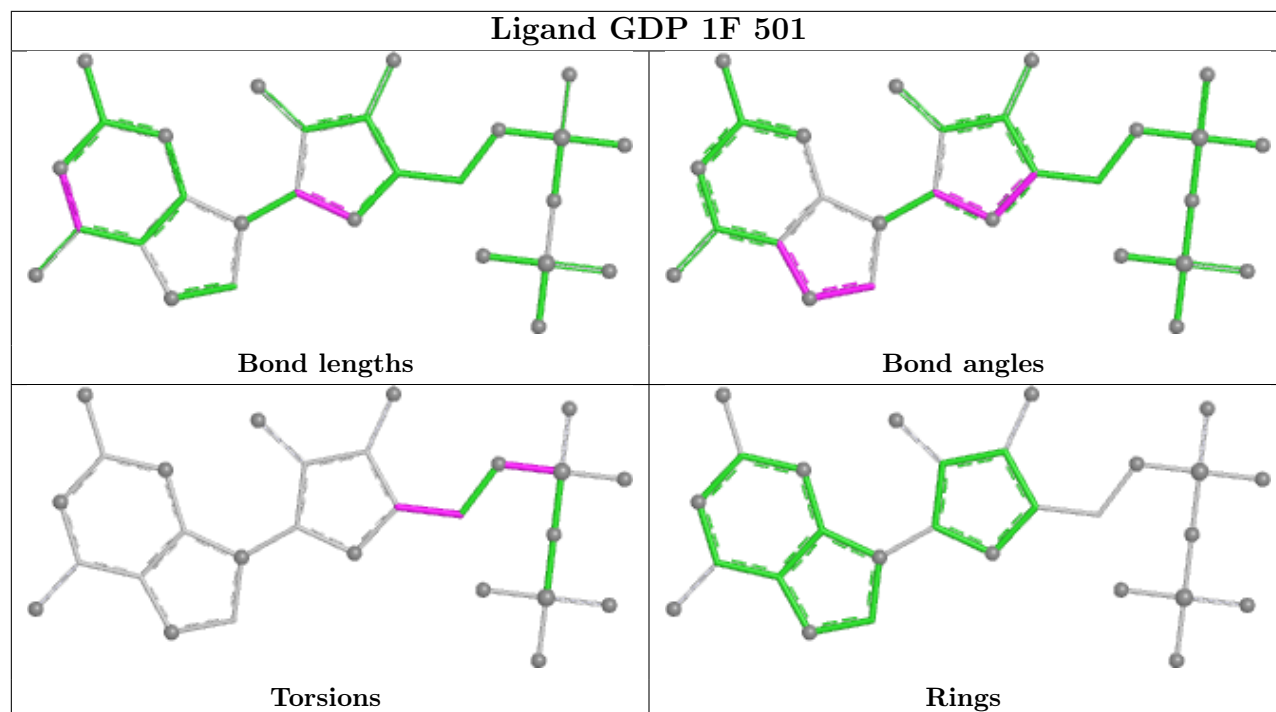


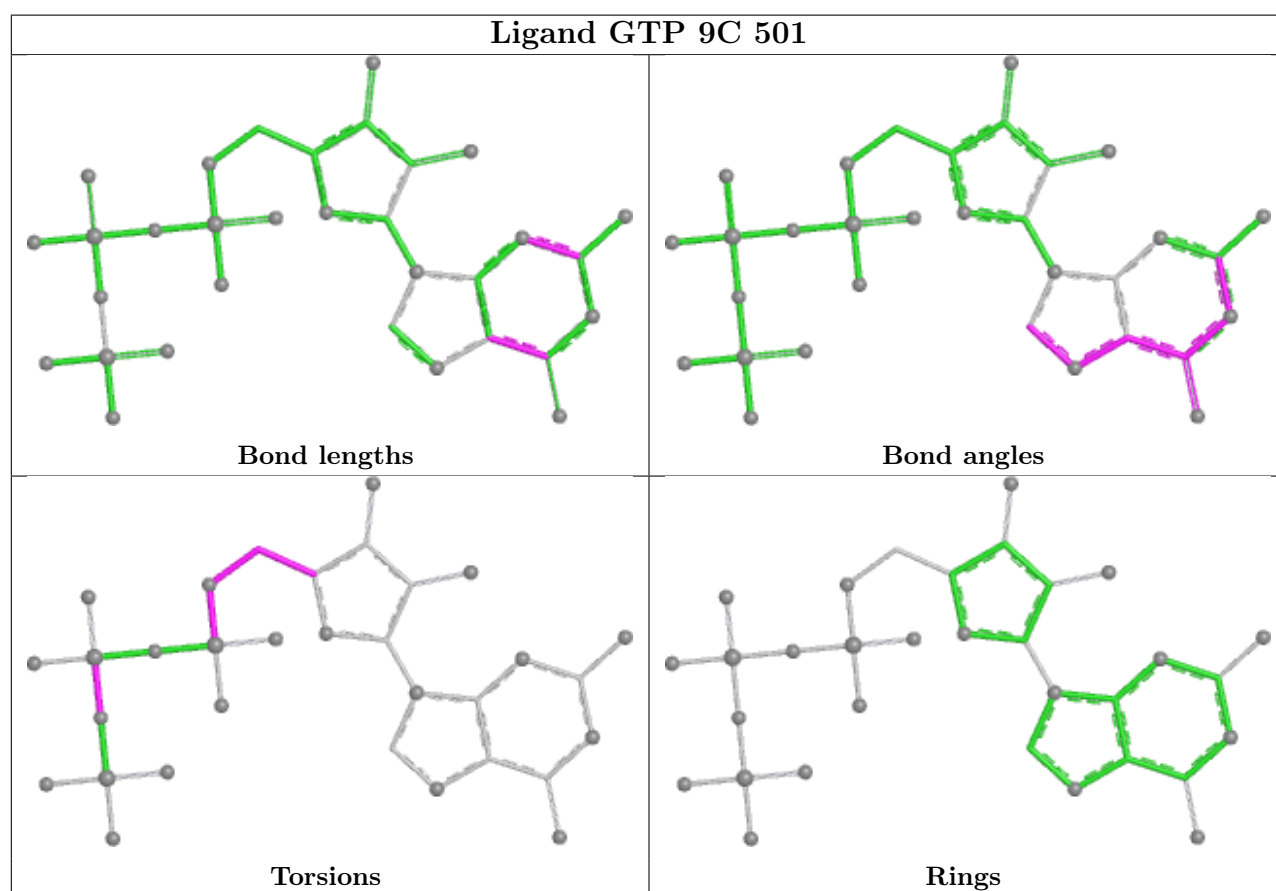
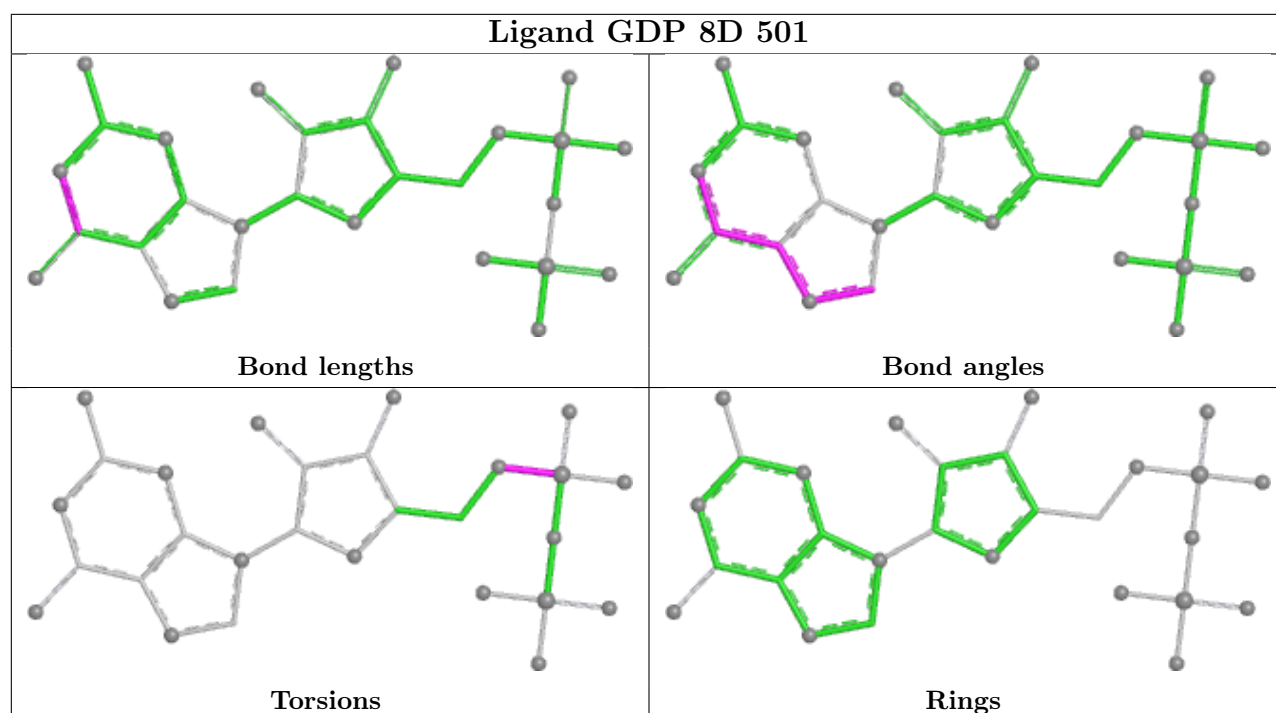
Ligand GDP 6J 501

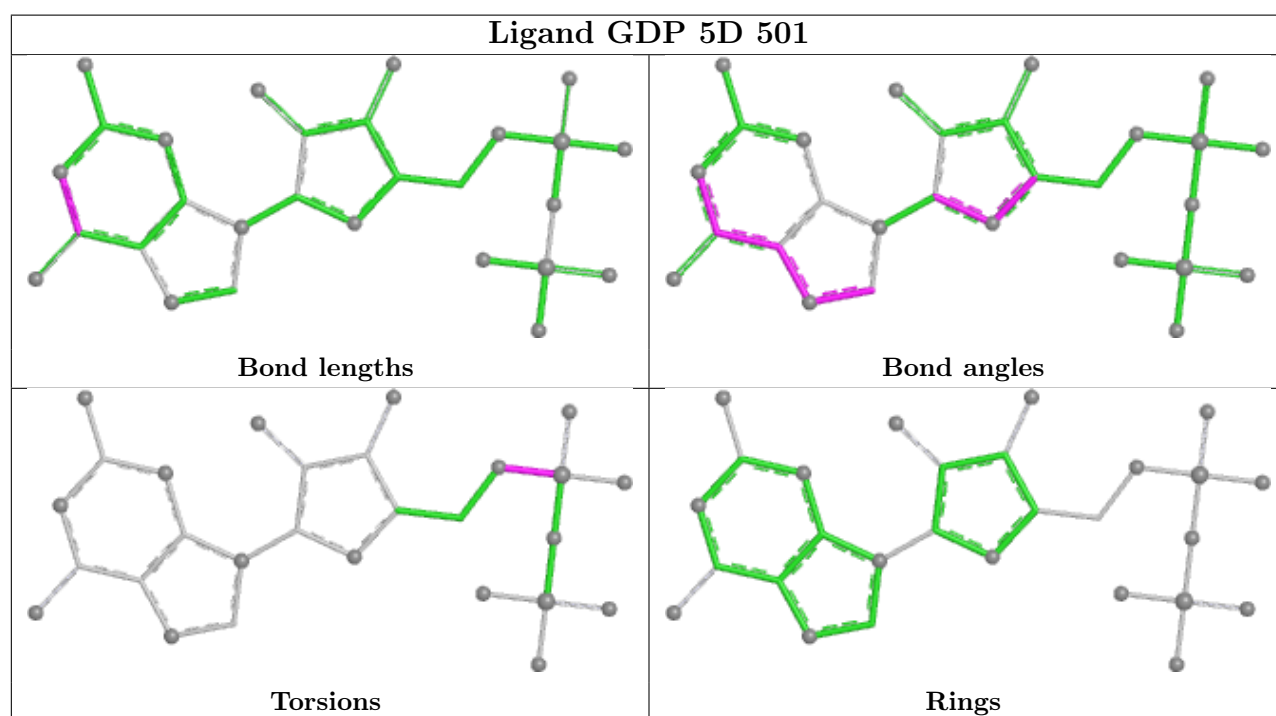
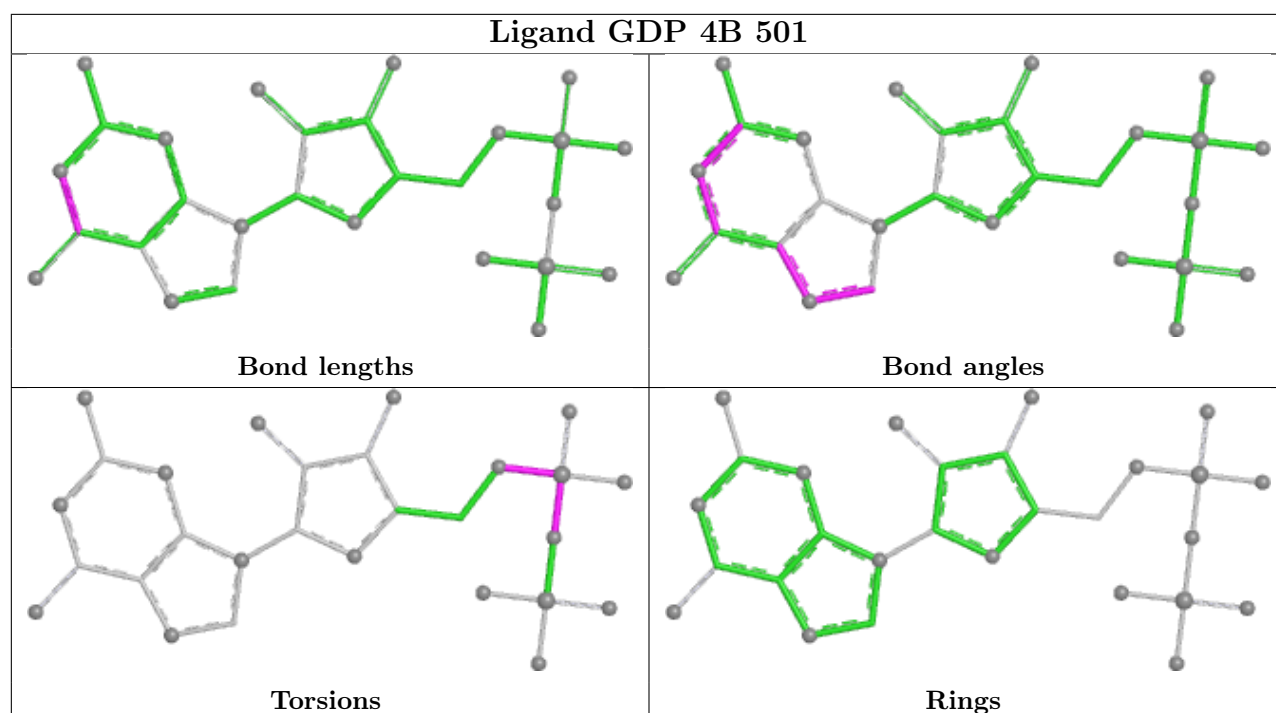


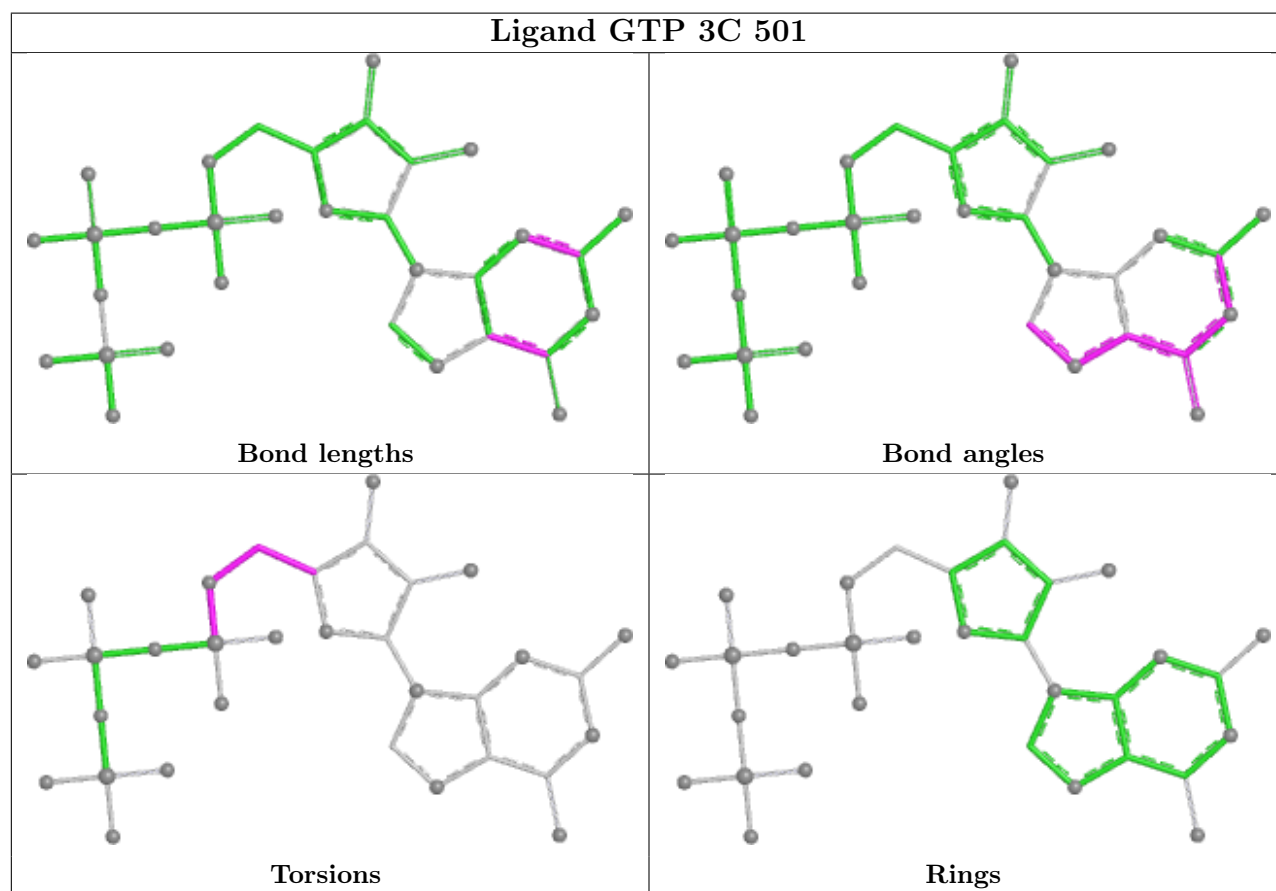
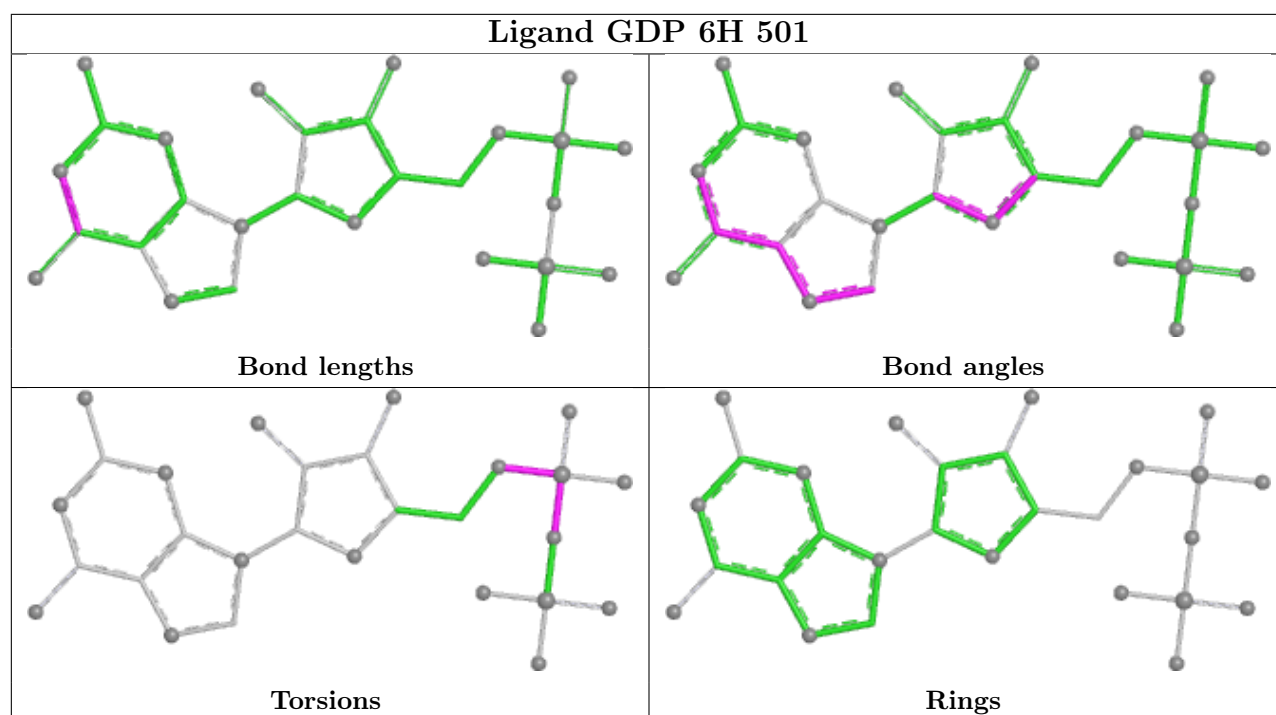


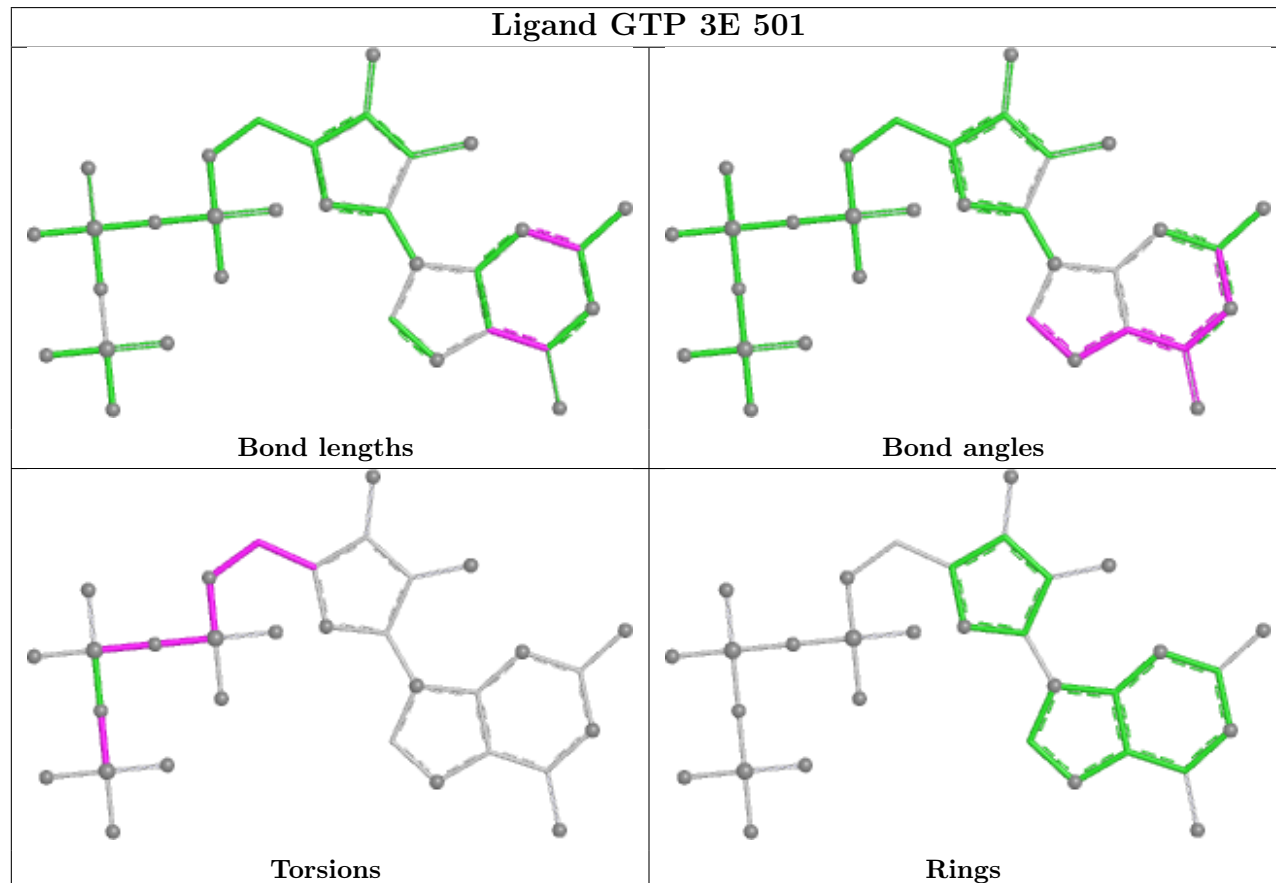
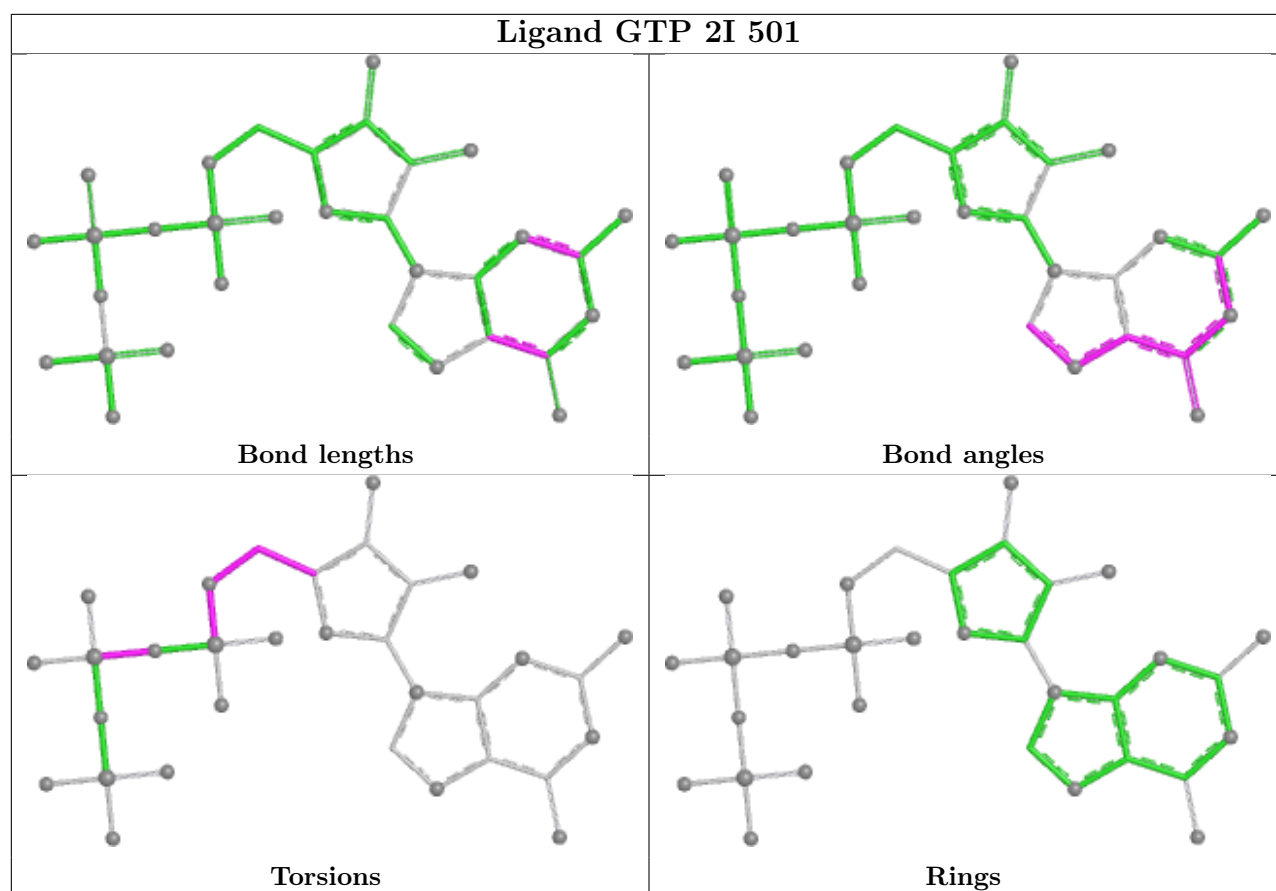




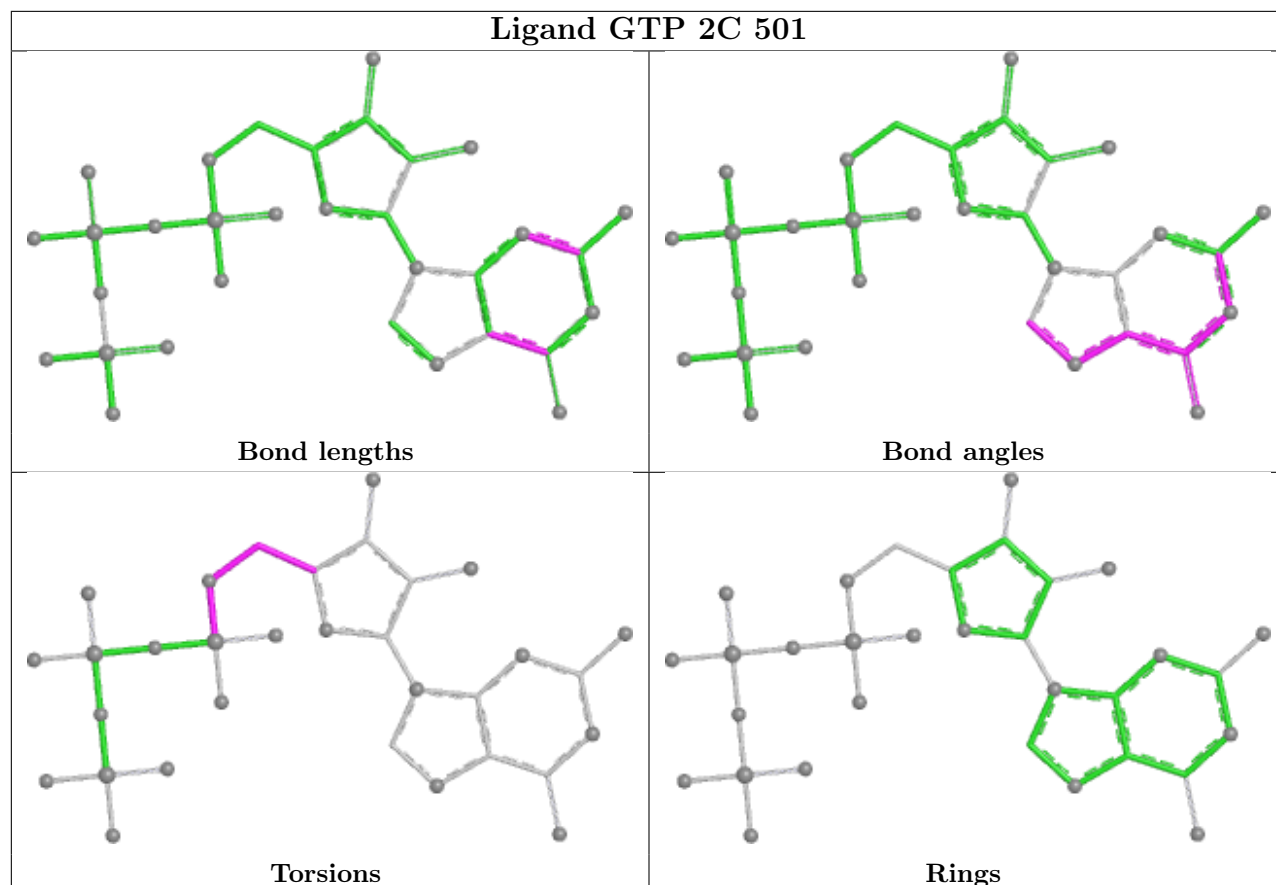




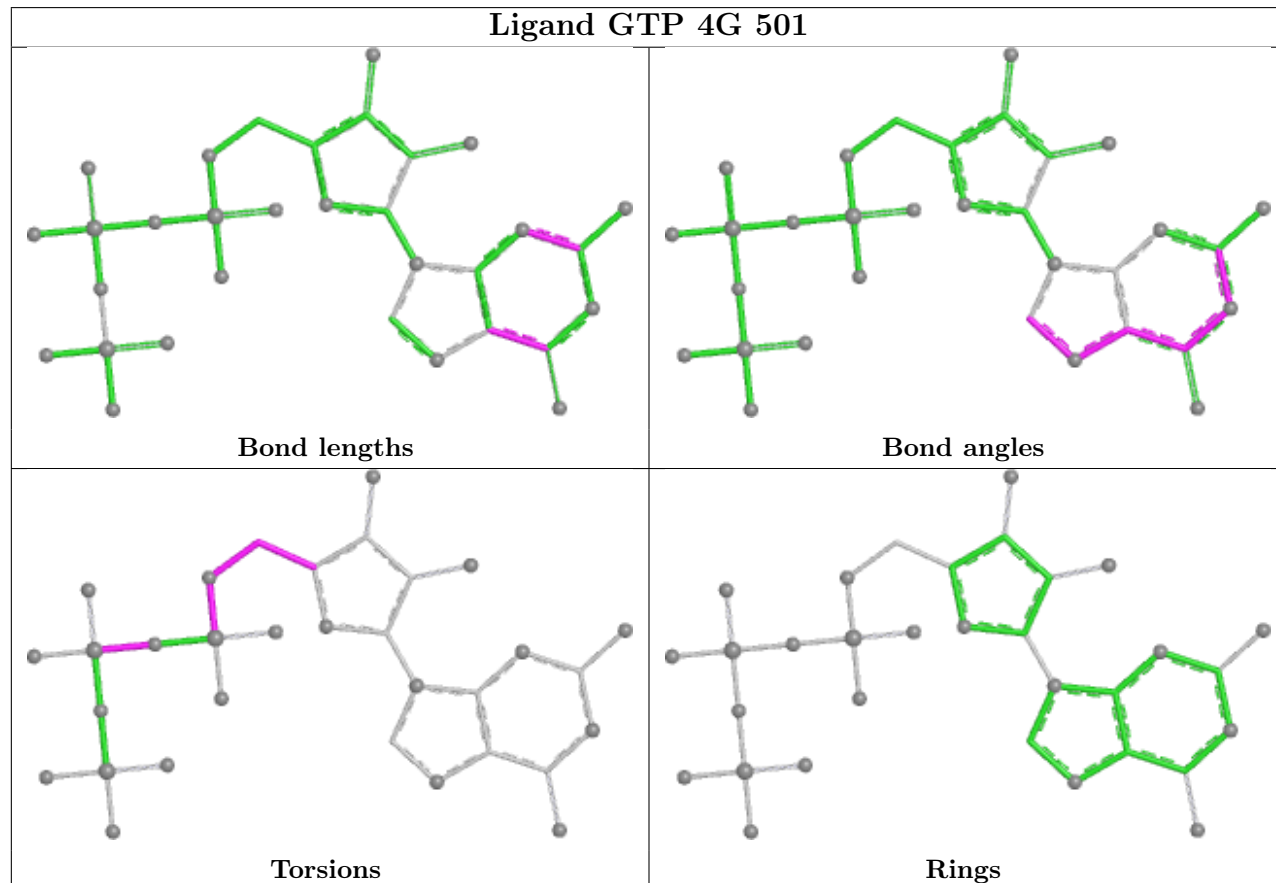


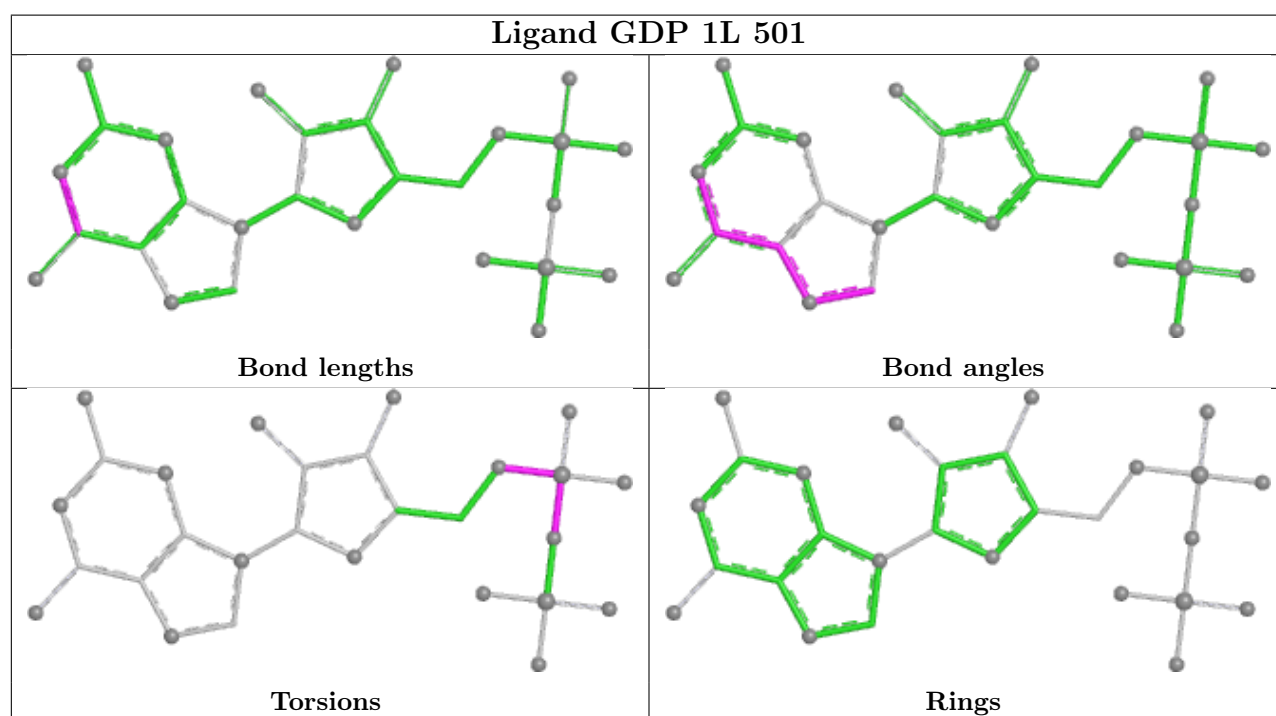
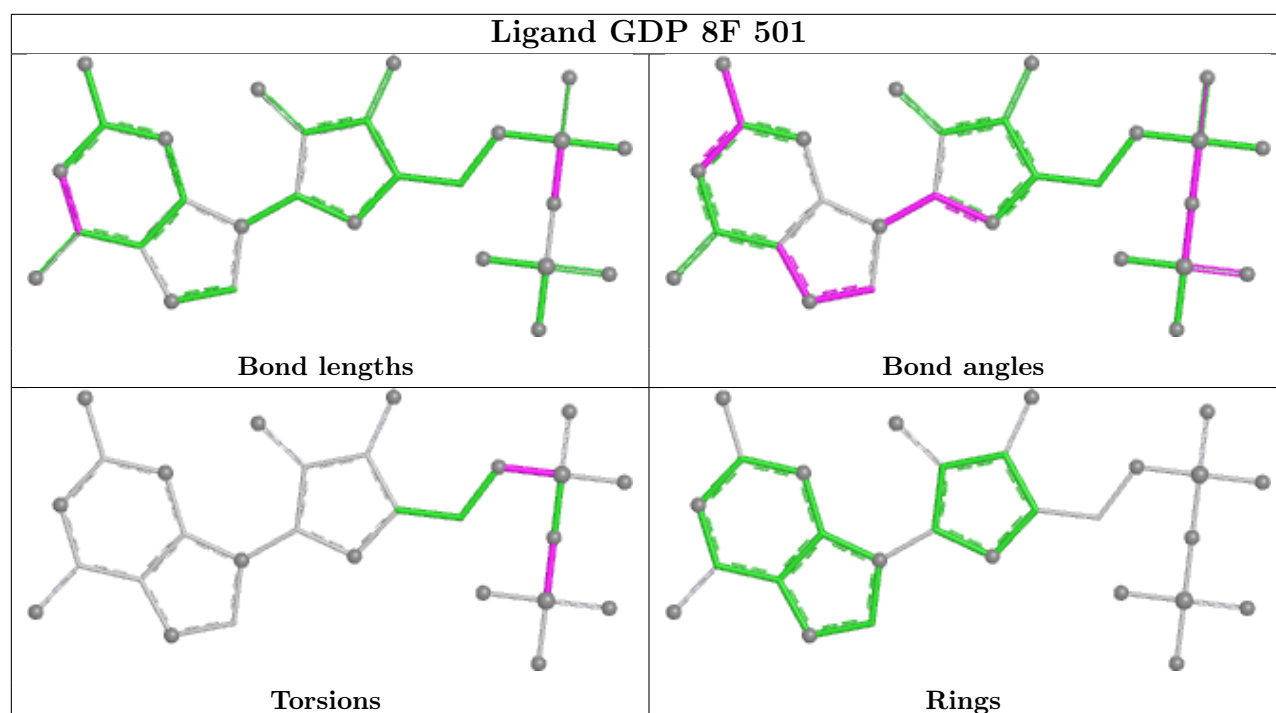


Ligand GTP 2C 501

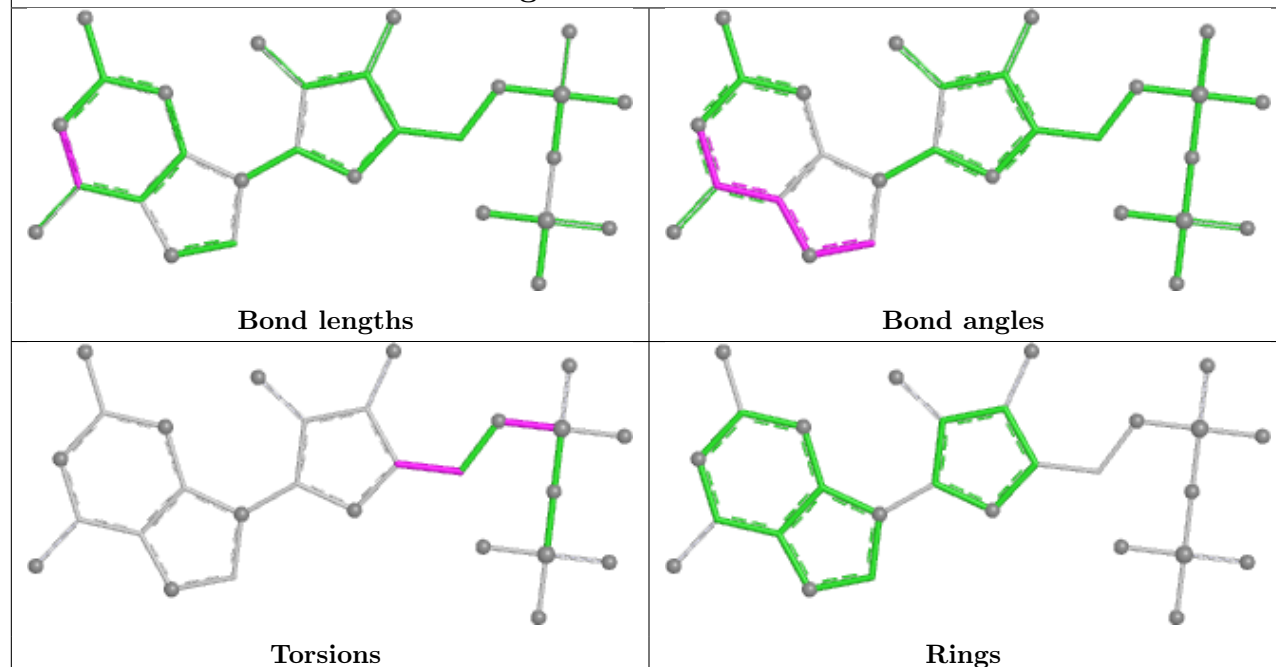


Ligand GTP 4G 501

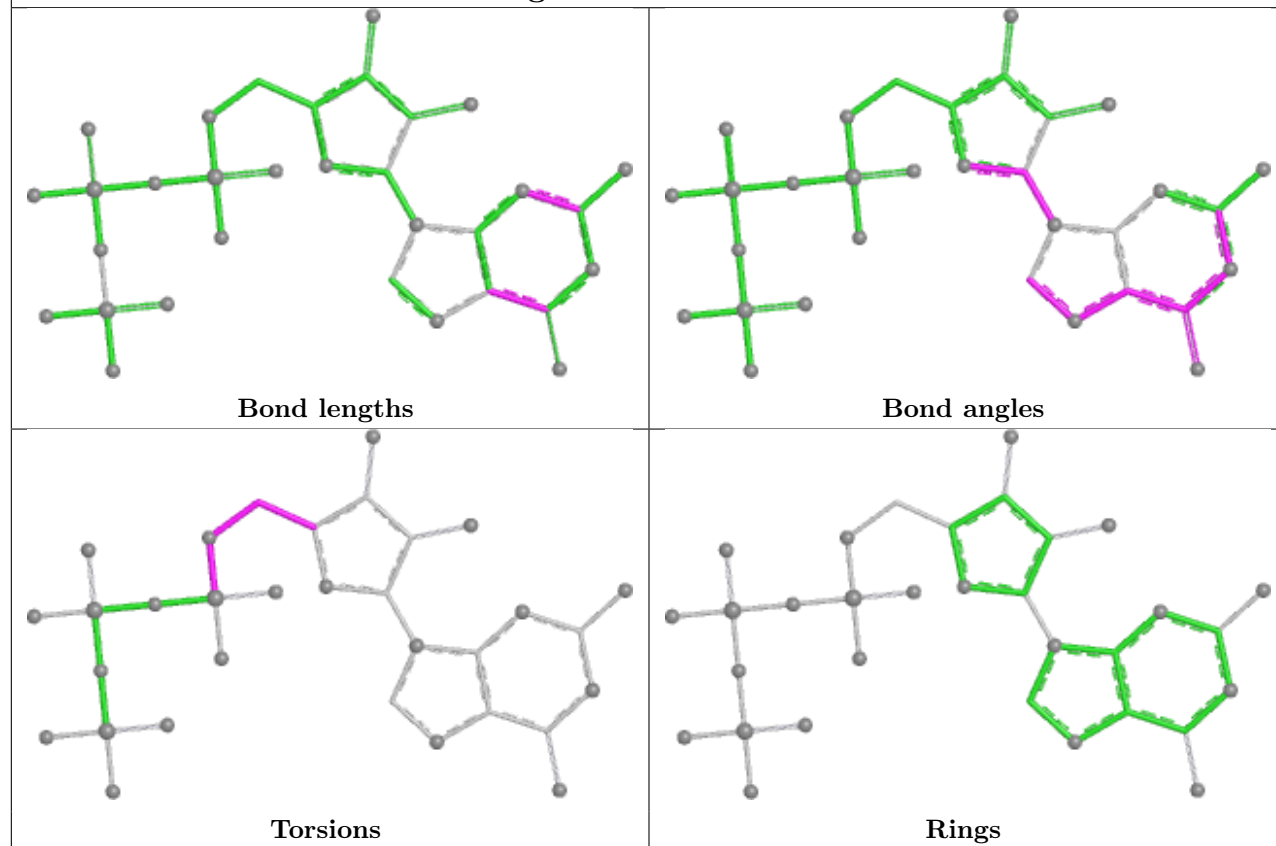


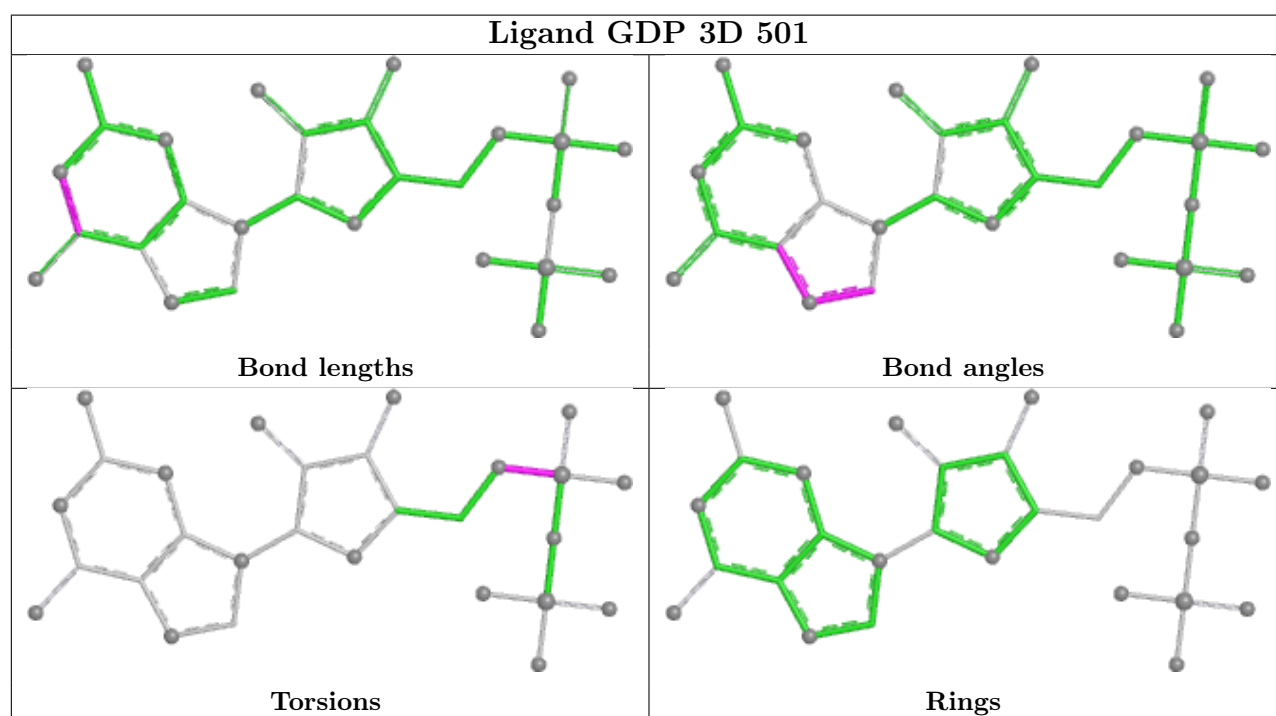
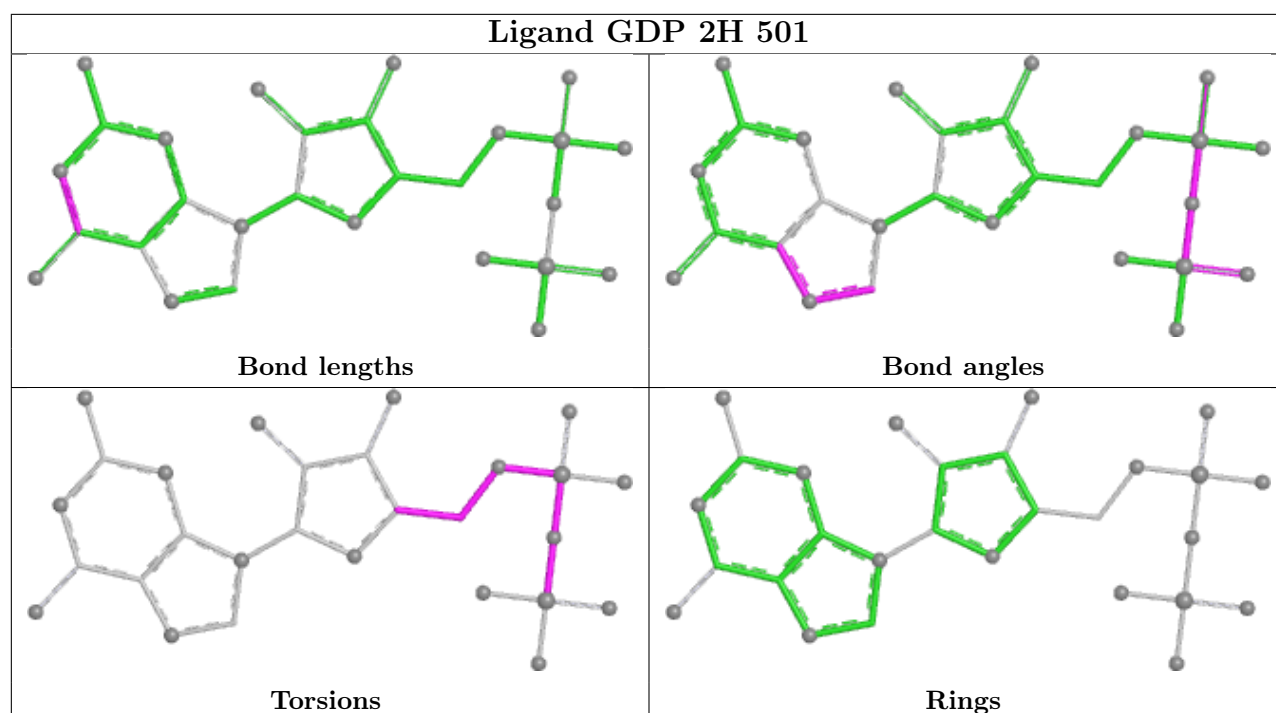


Ligand GDP 1D 501

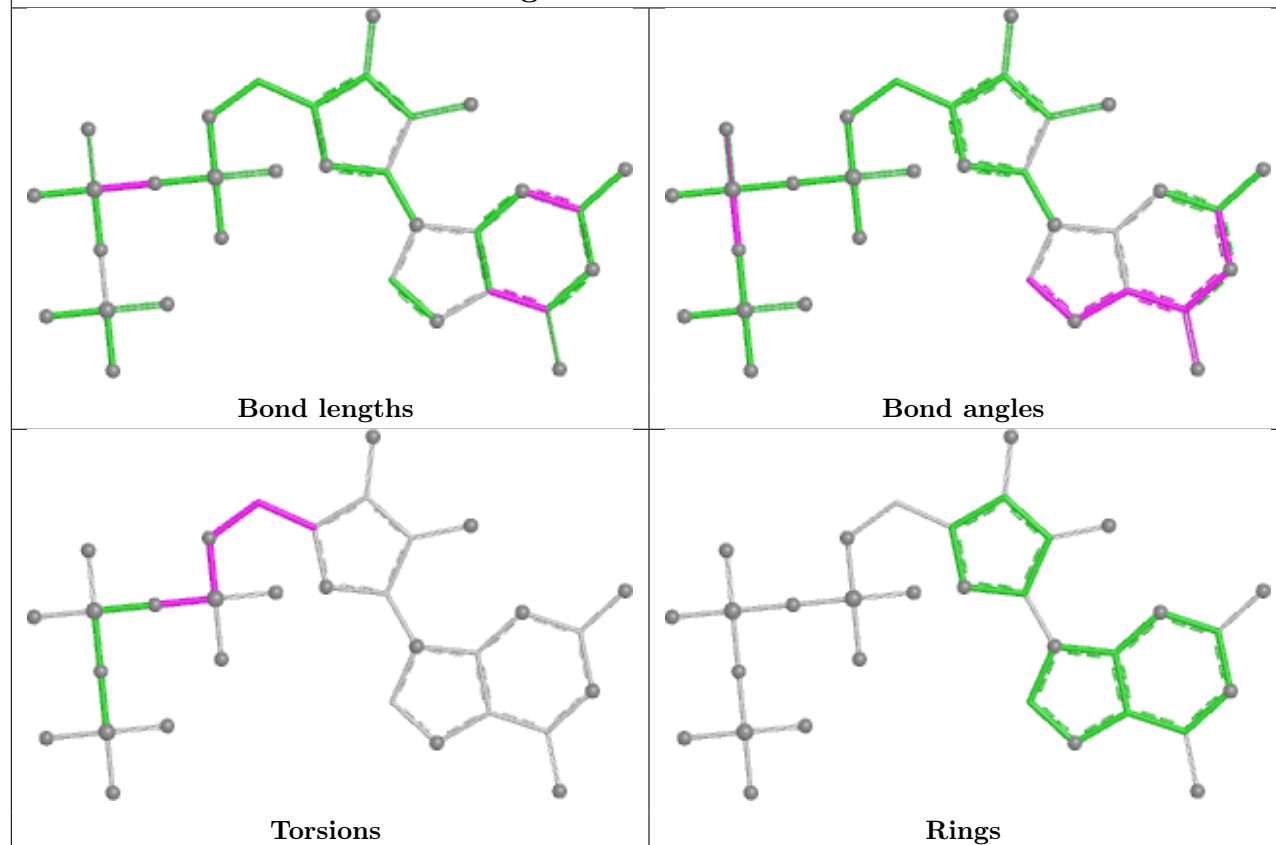


Ligand GTP 3I 501

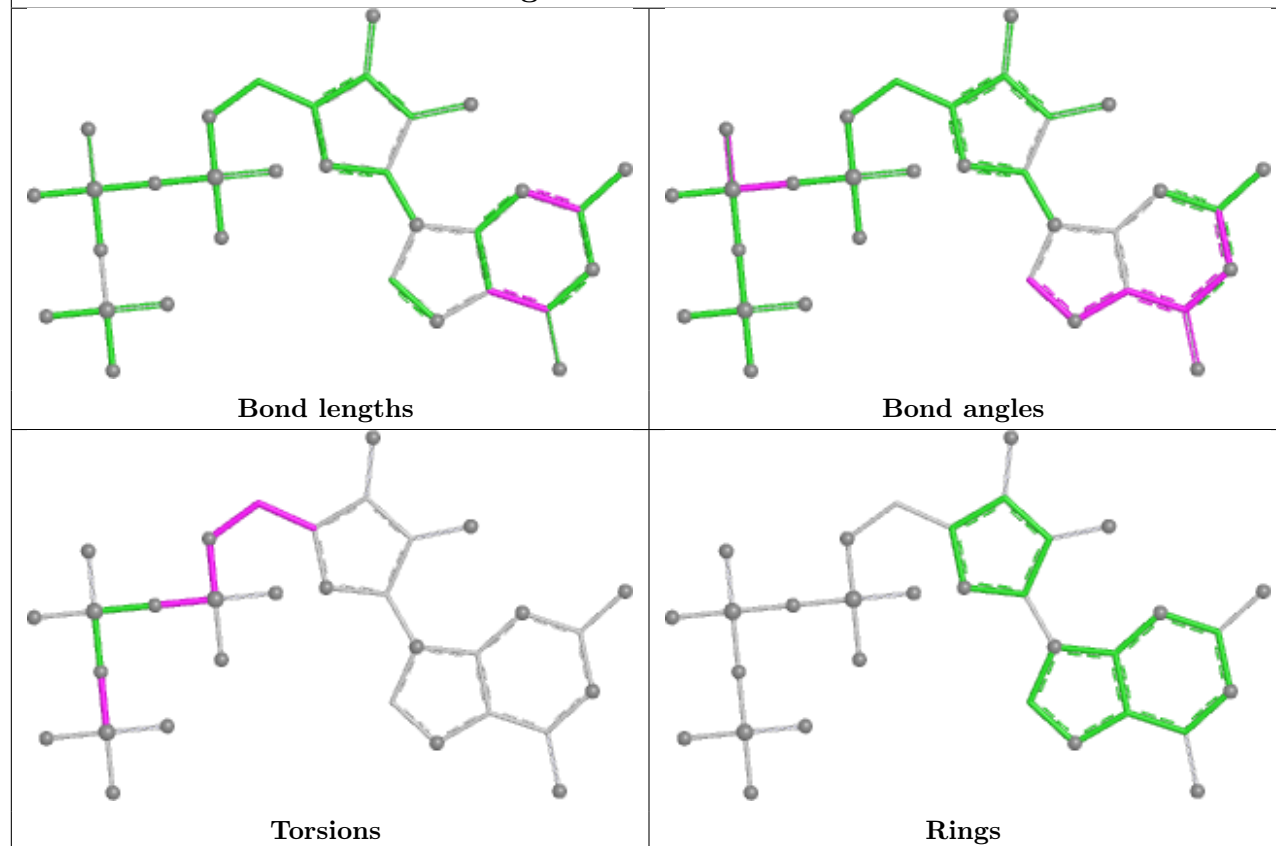




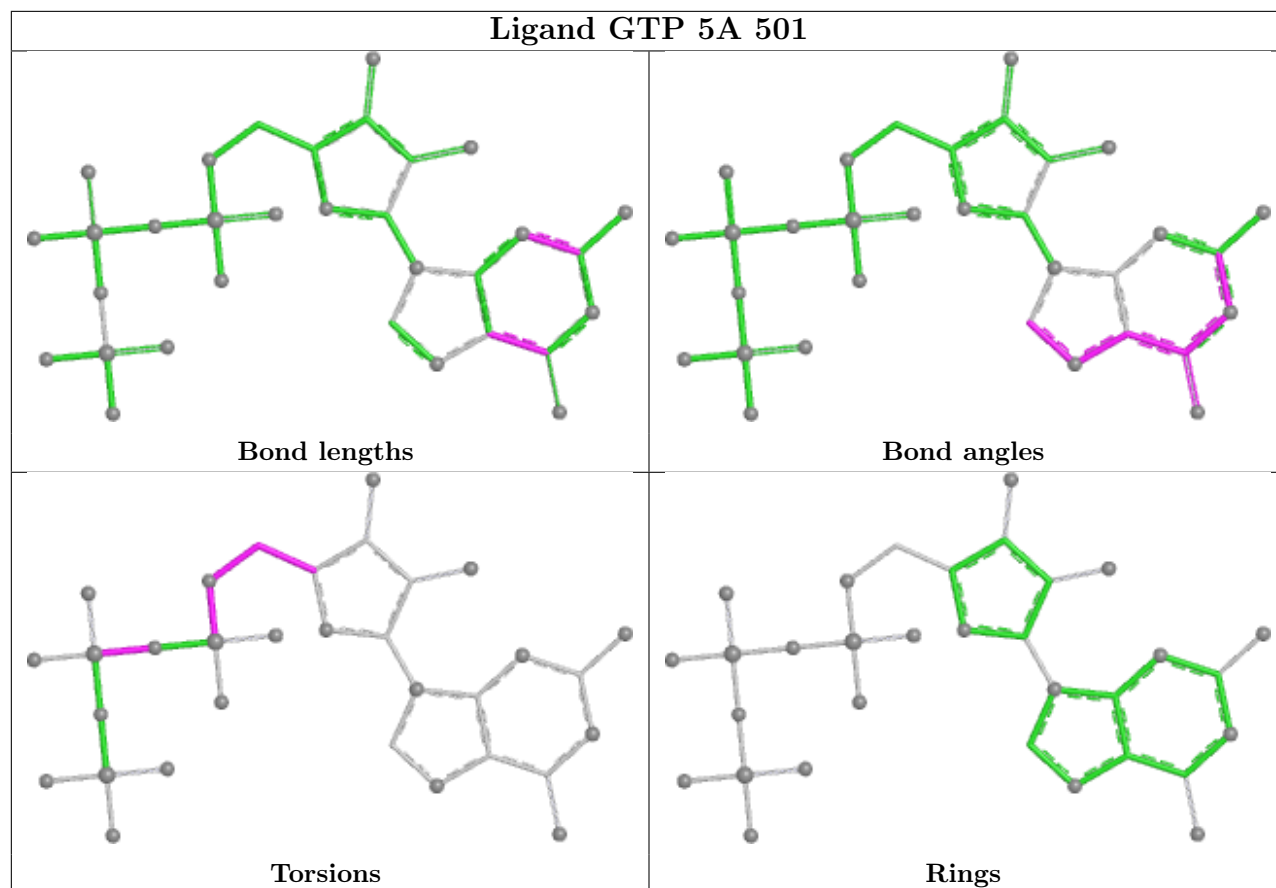
Ligand GTP 7K 501



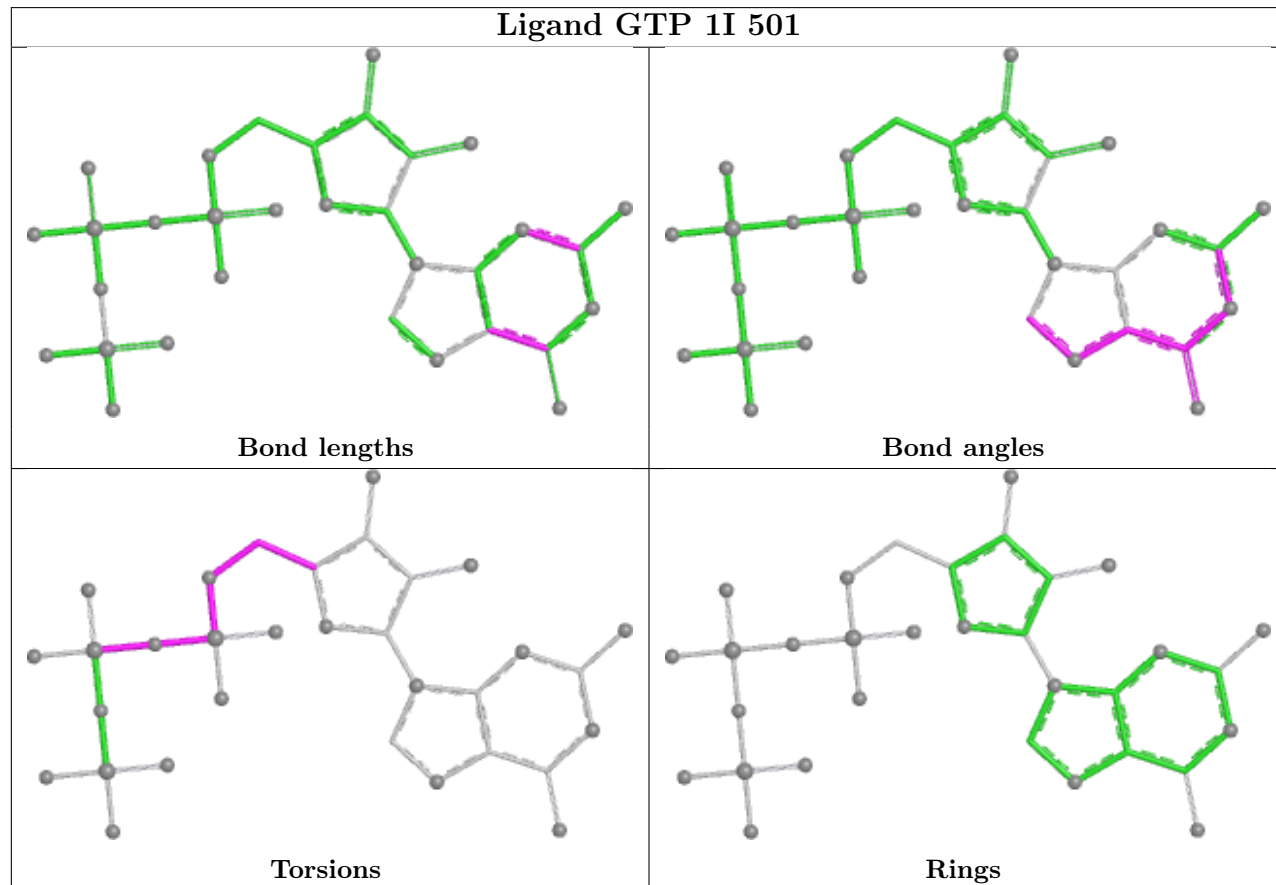
Ligand GTP 1K 501

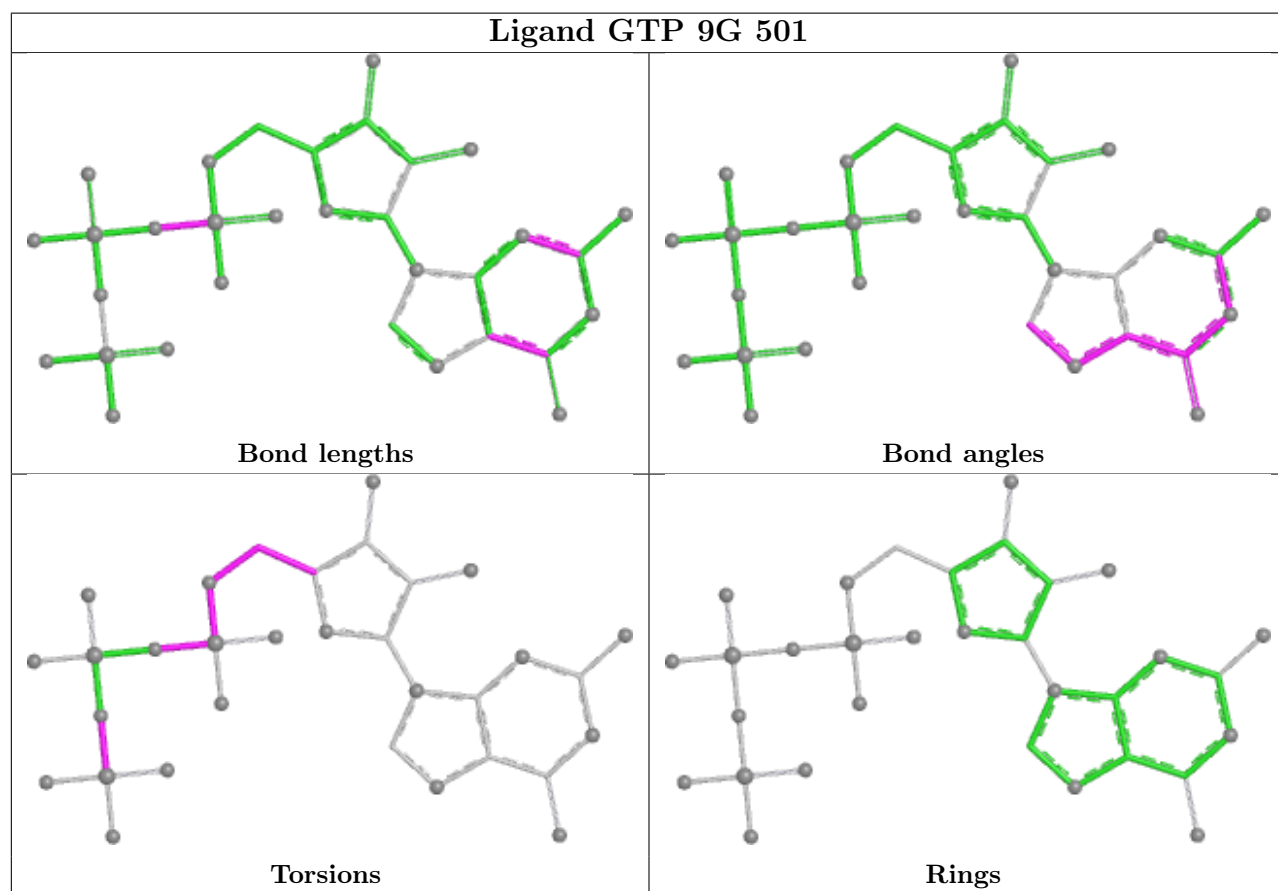
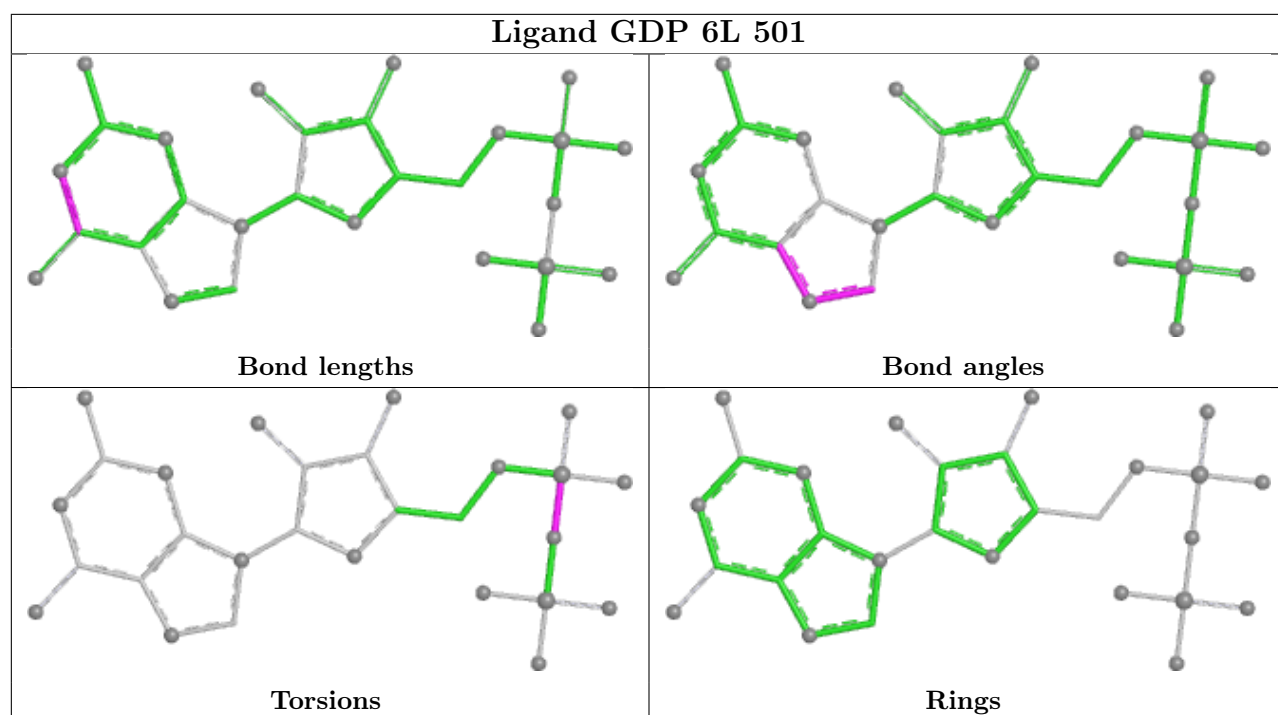


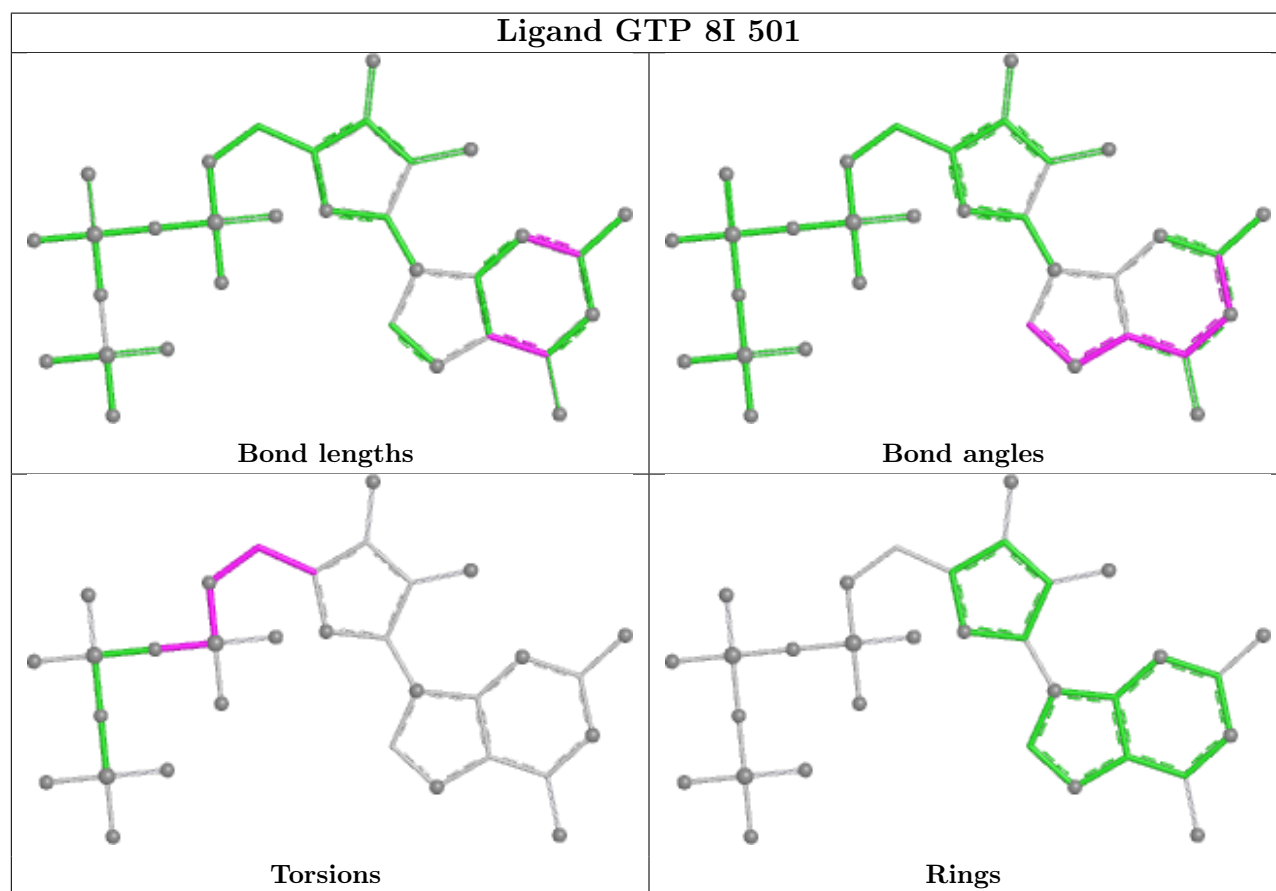
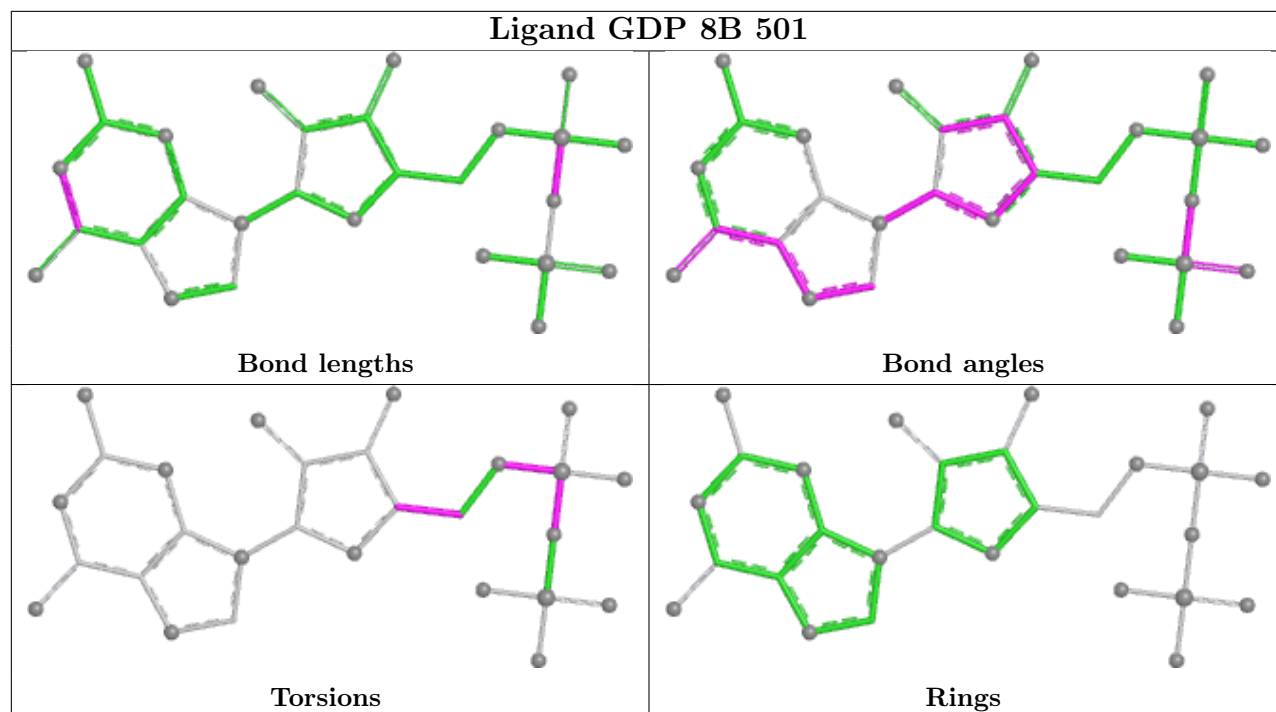
Ligand GTP 5A 501



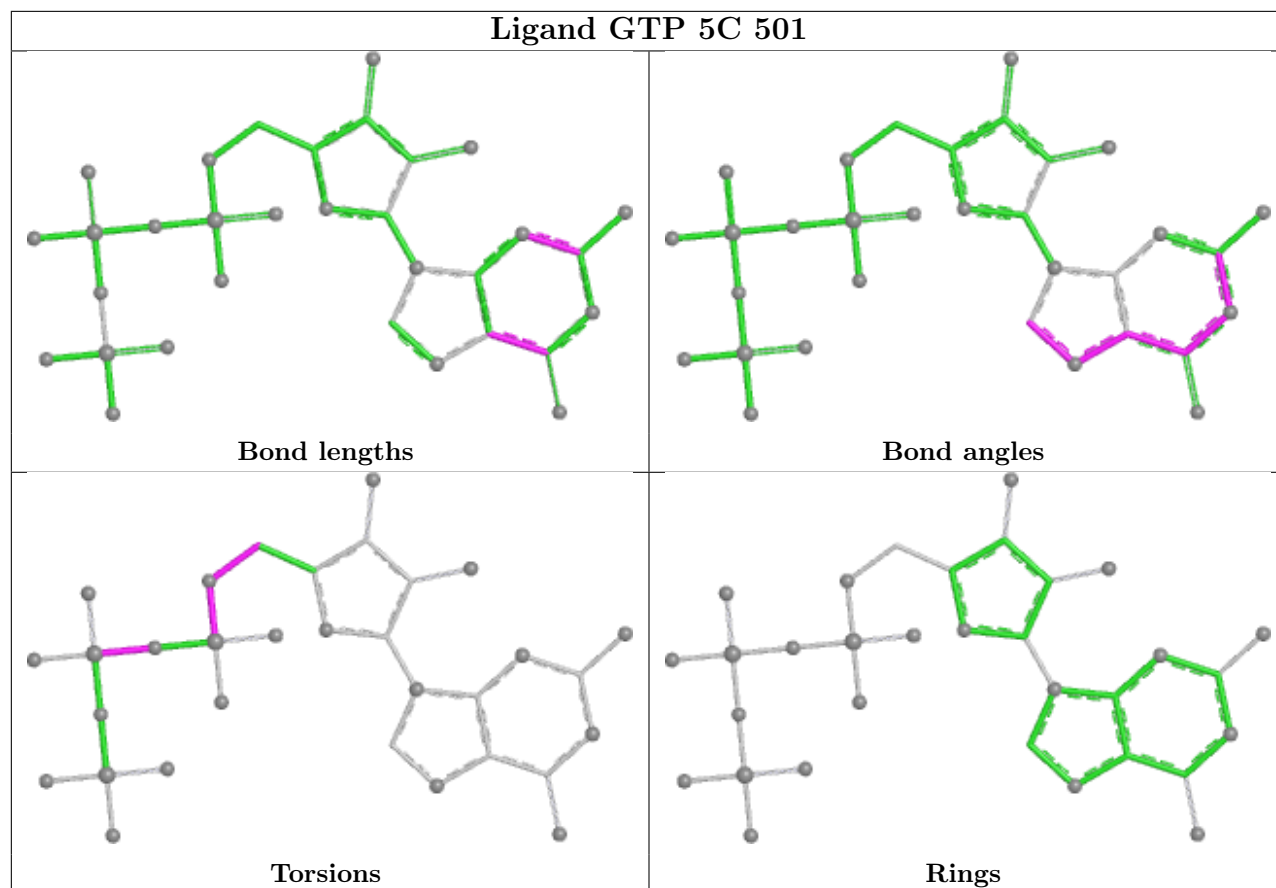
Ligand GTP 1I 501



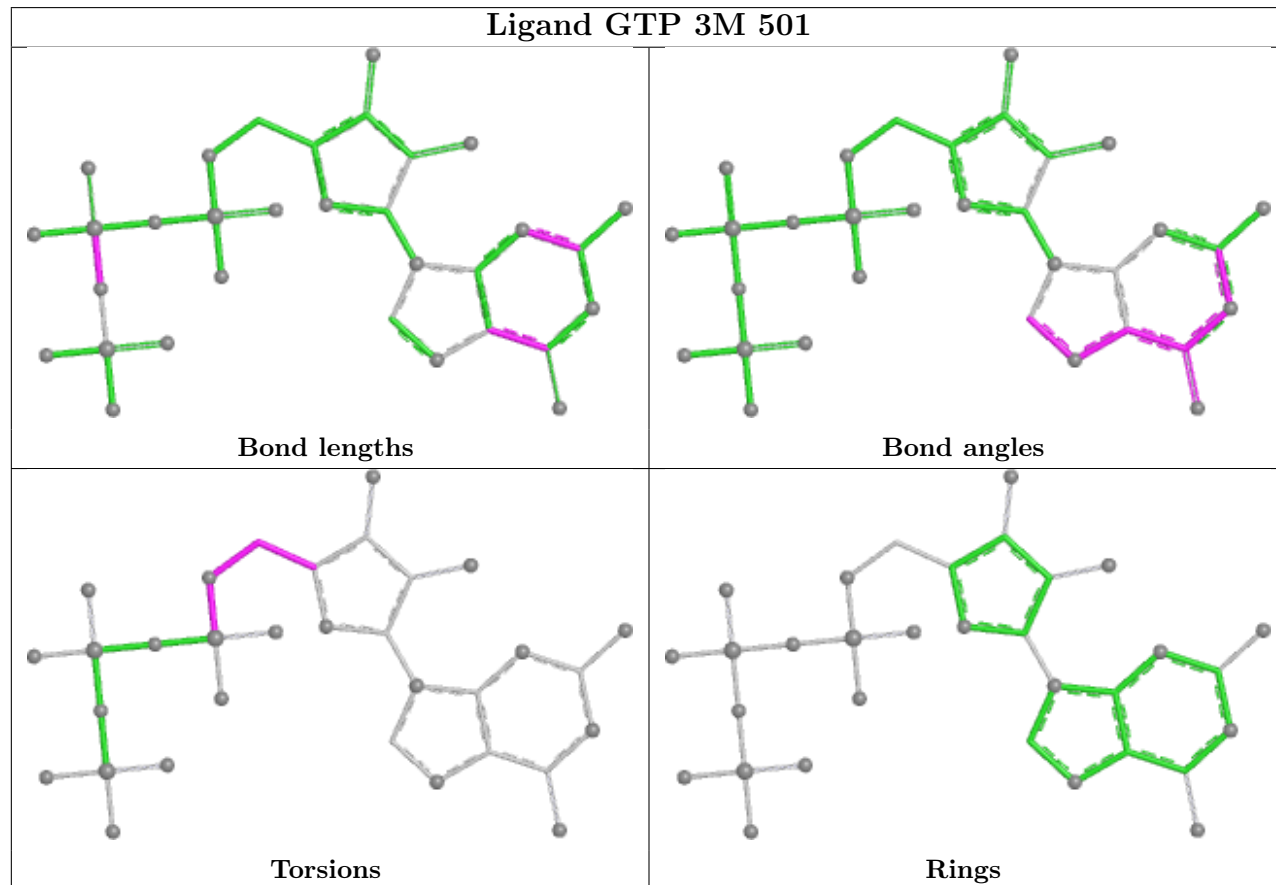


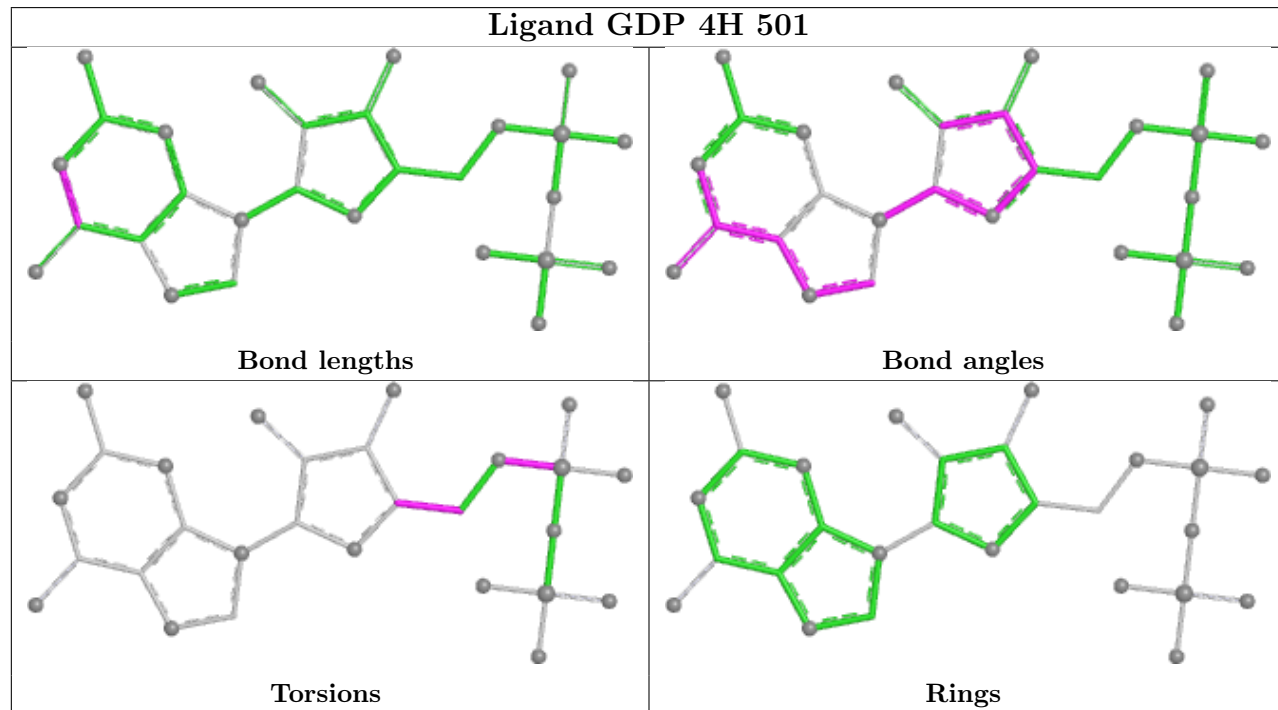
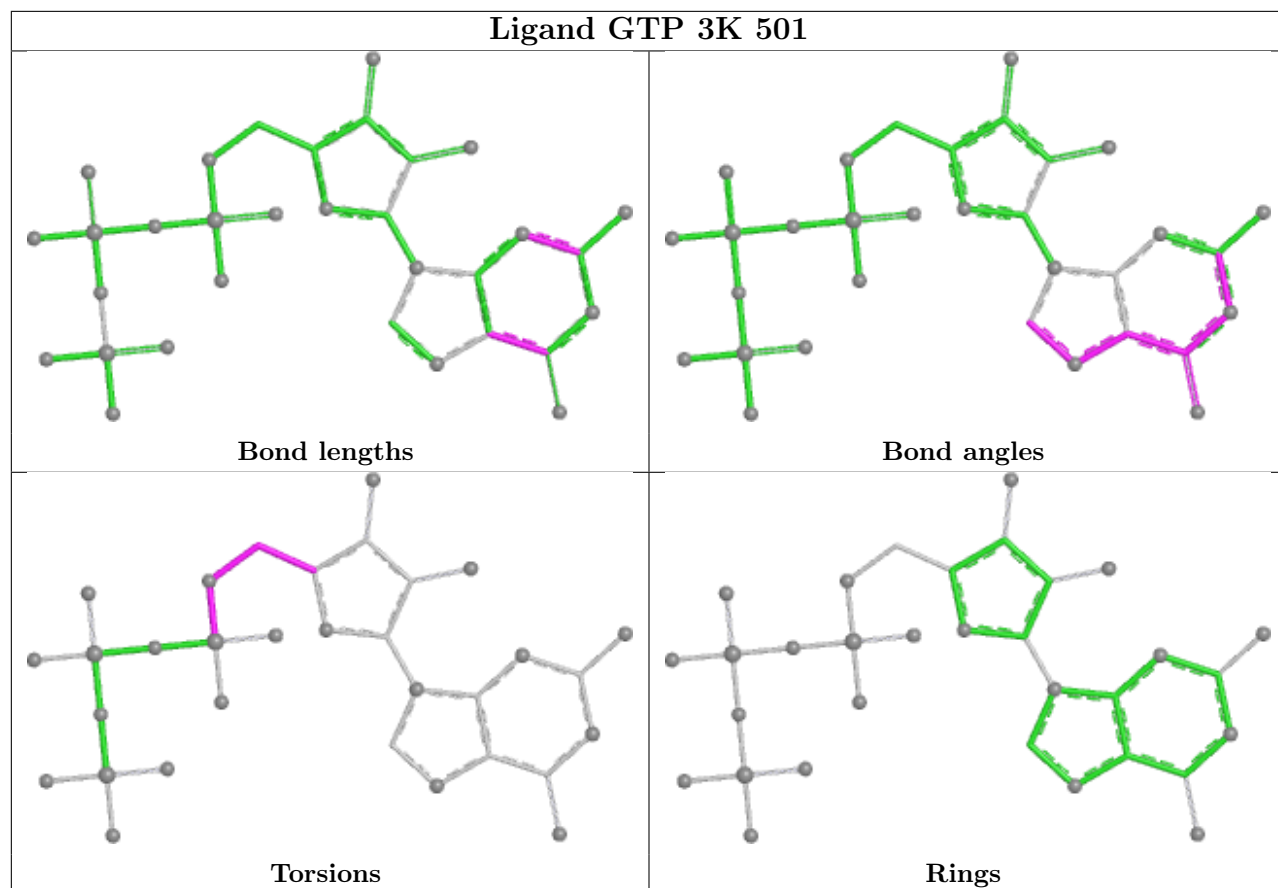


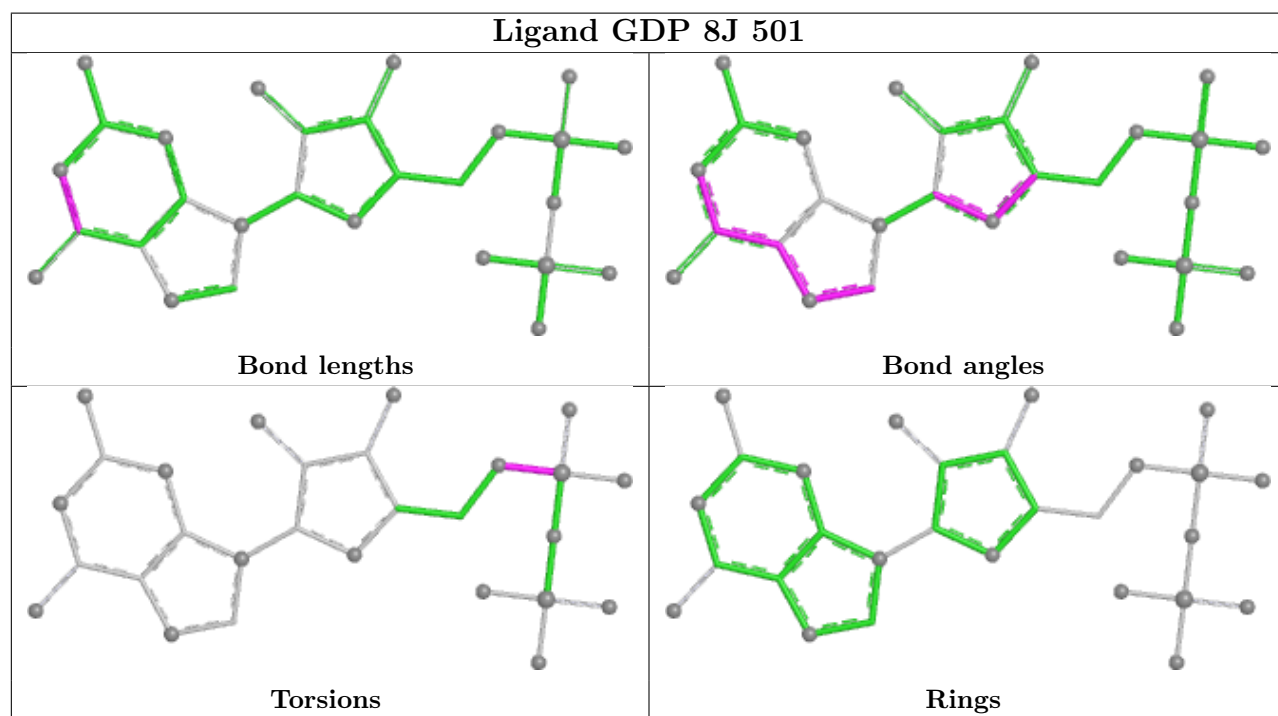
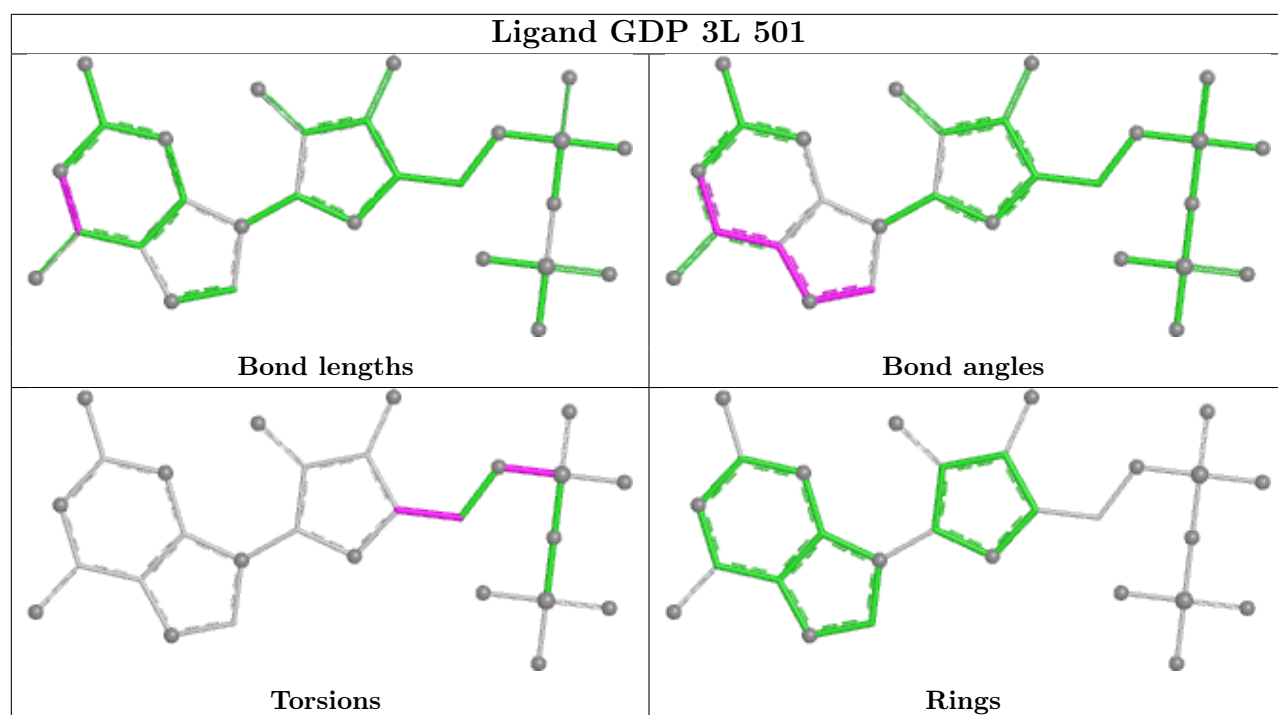
Ligand GTP 5C 501

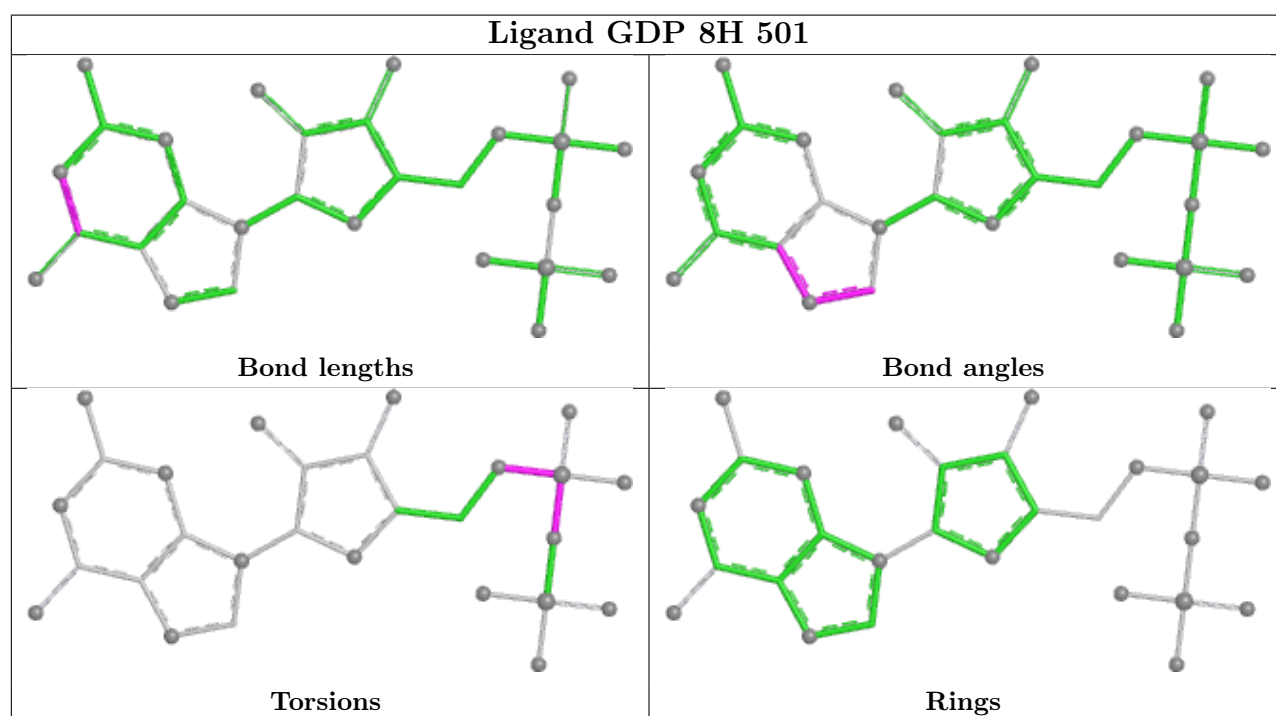
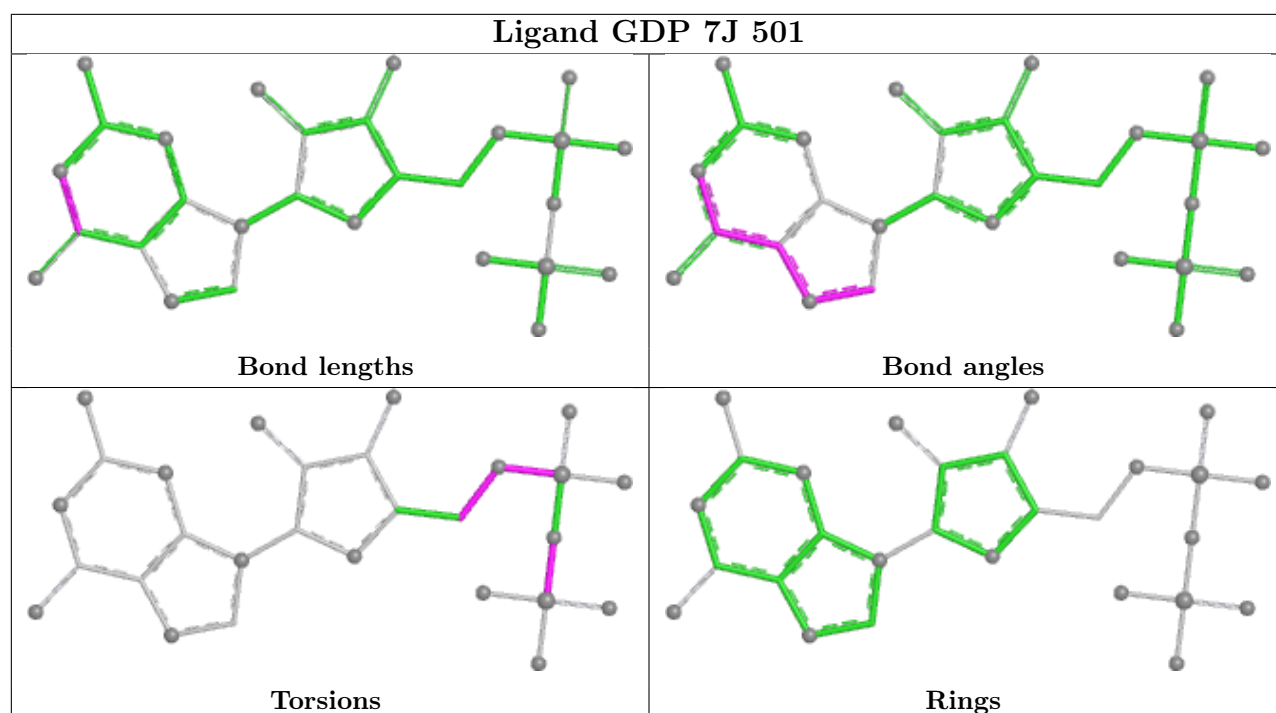


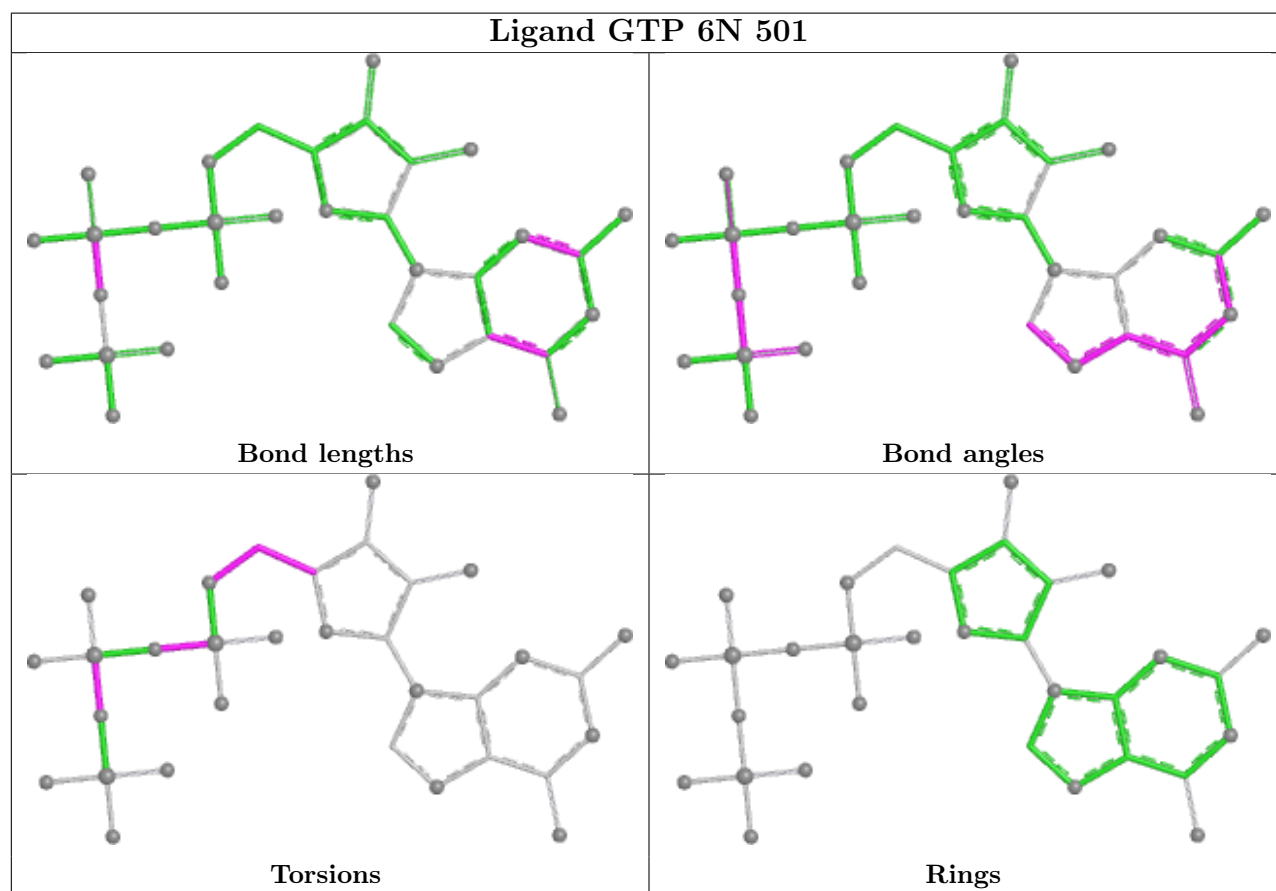
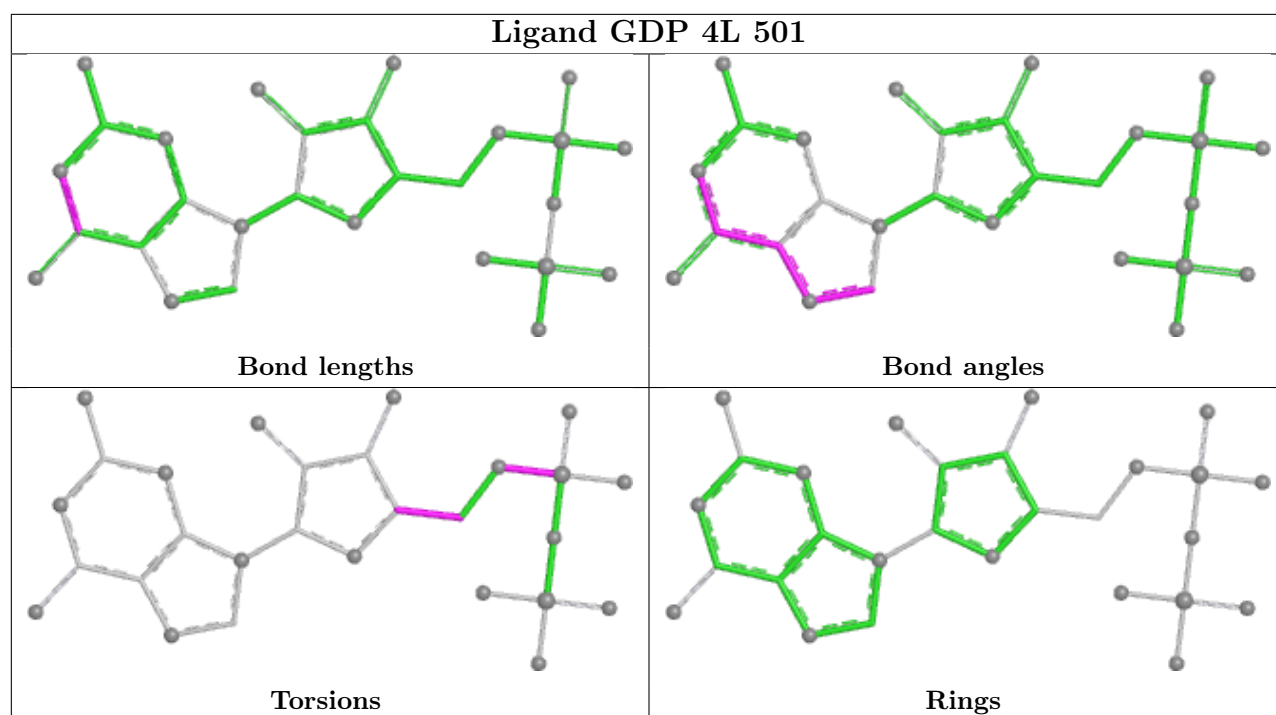
Ligand GTP 3M 501

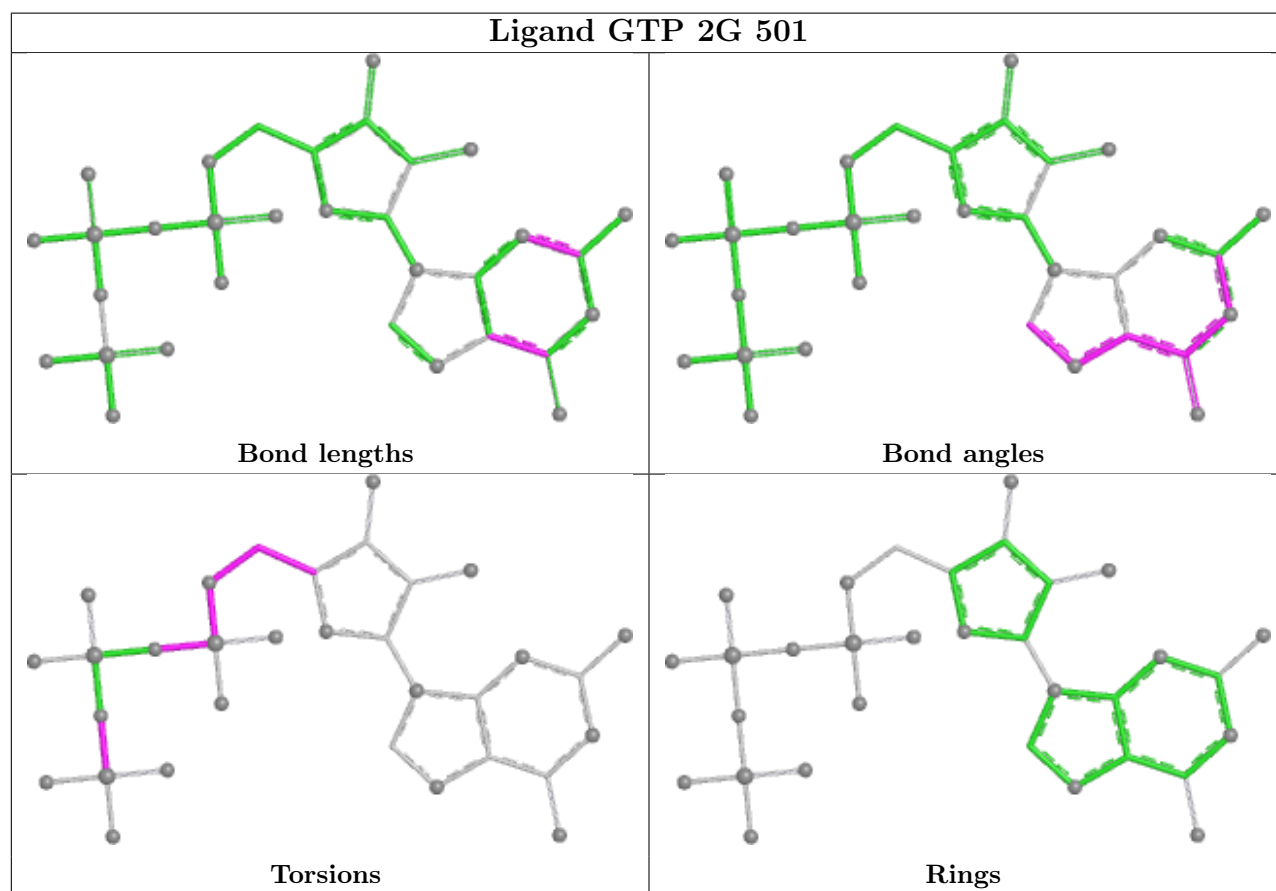
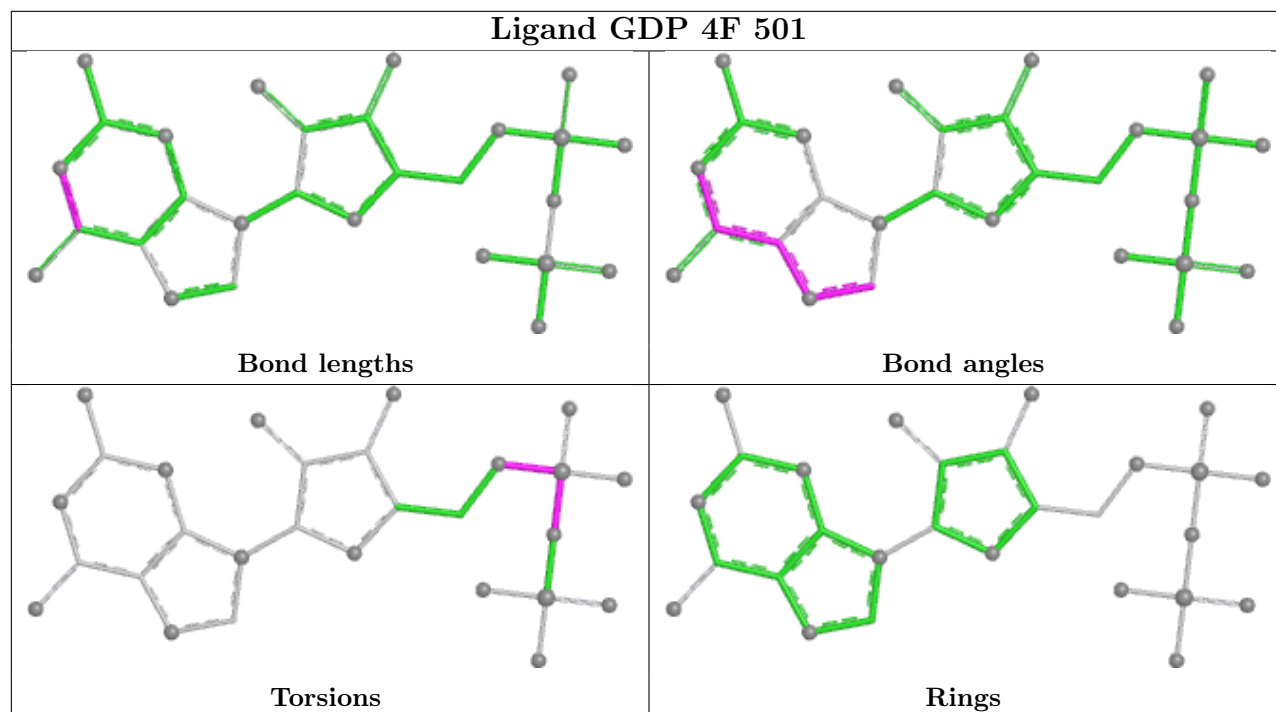




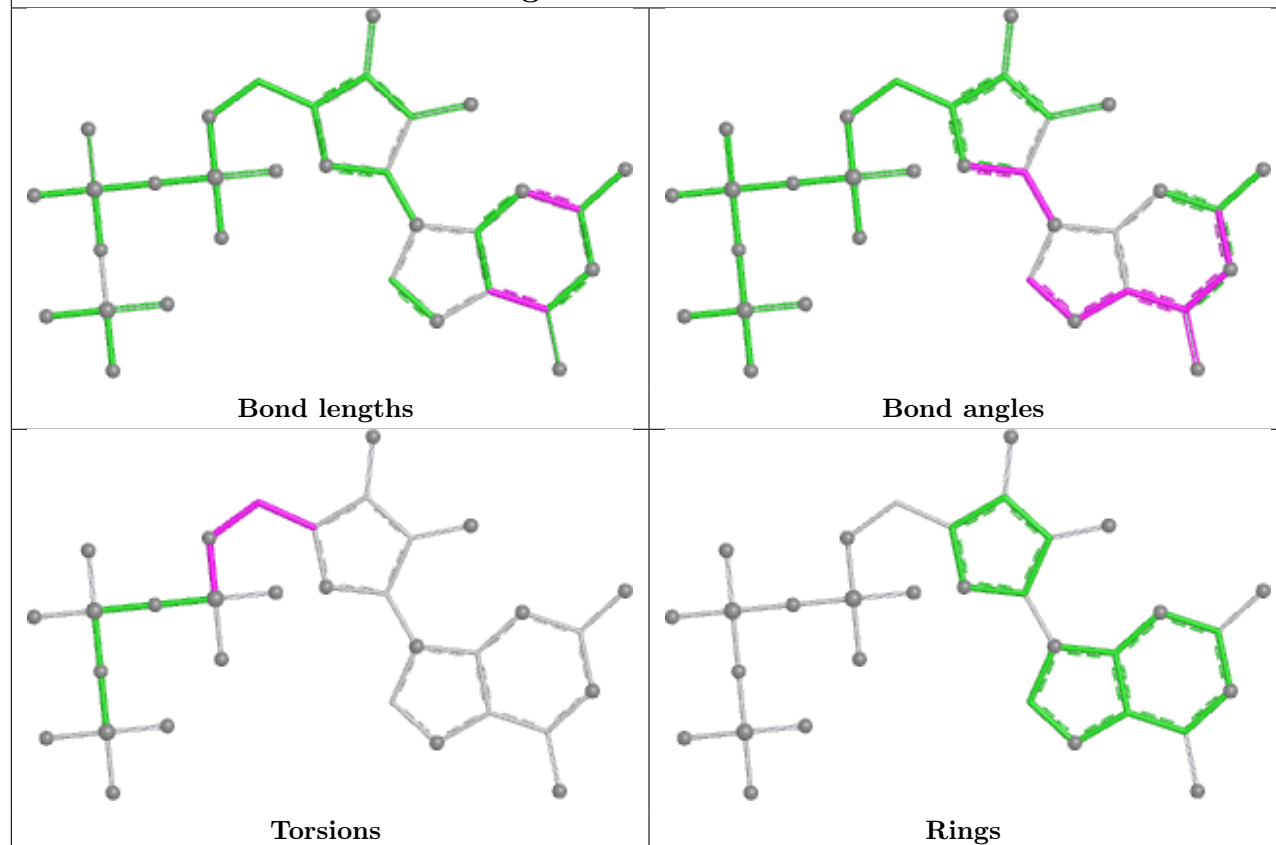




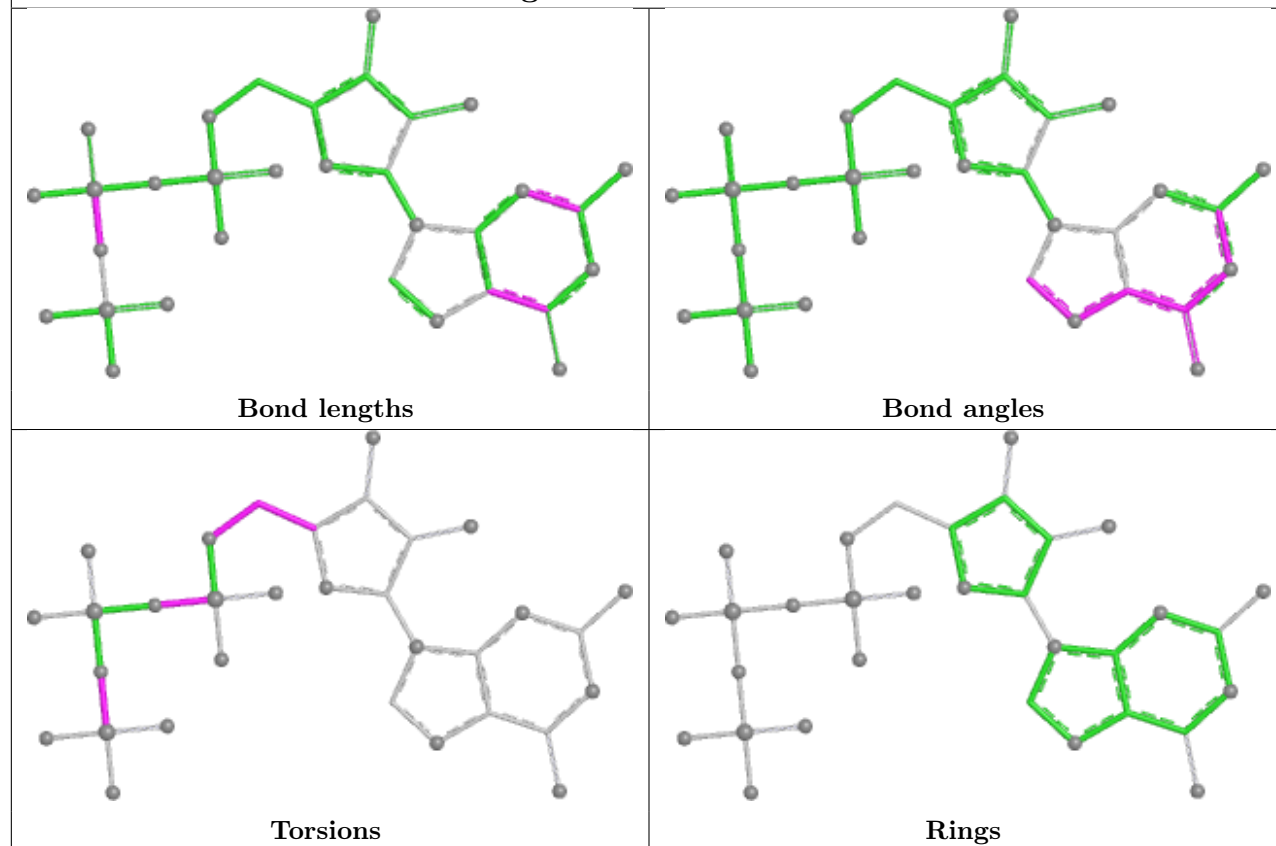


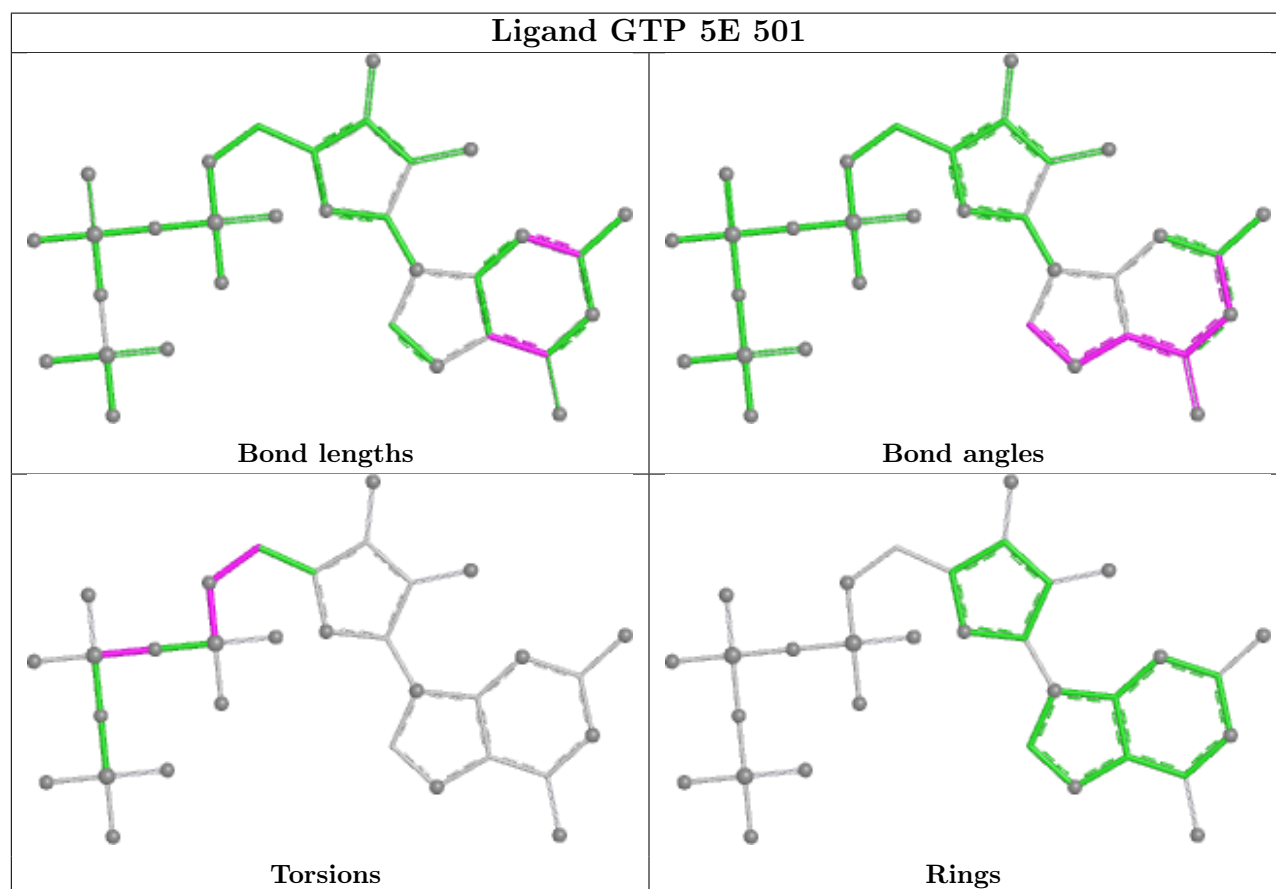
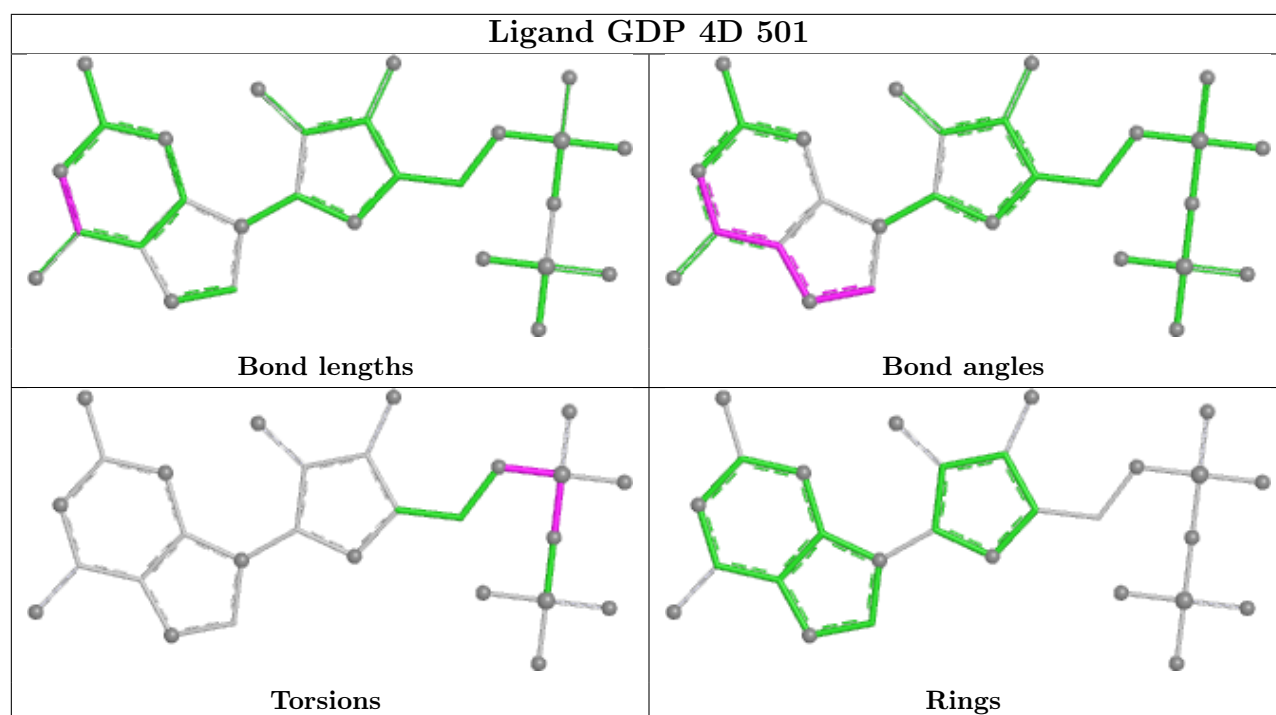


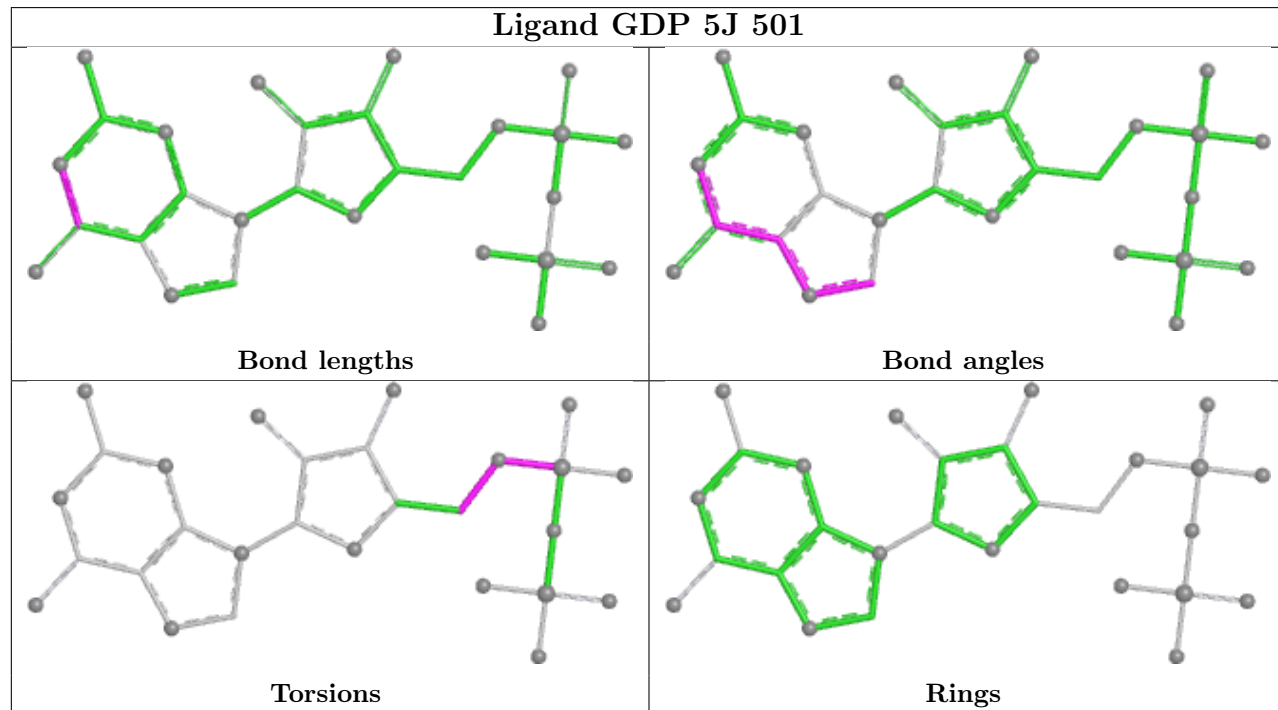
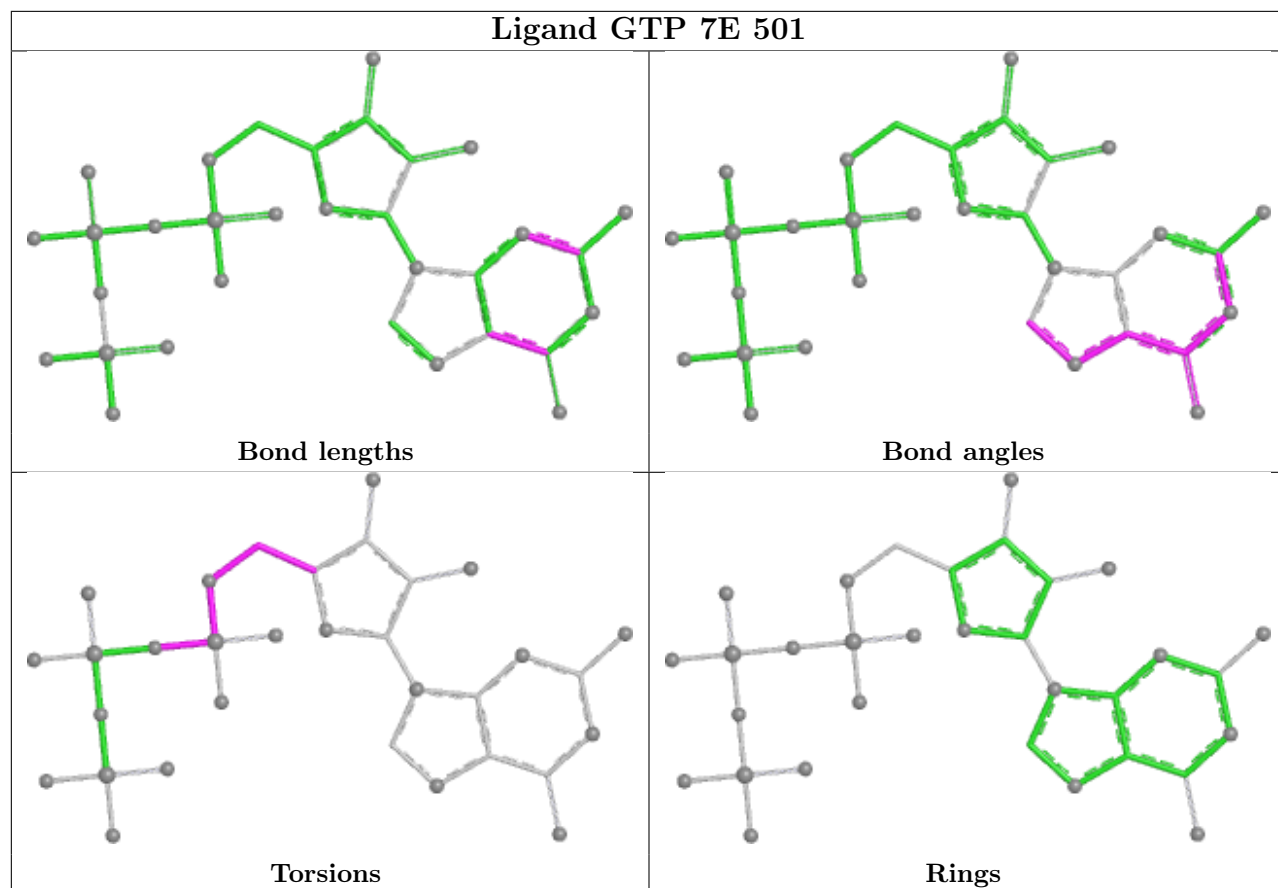
Ligand GTP 1C 501



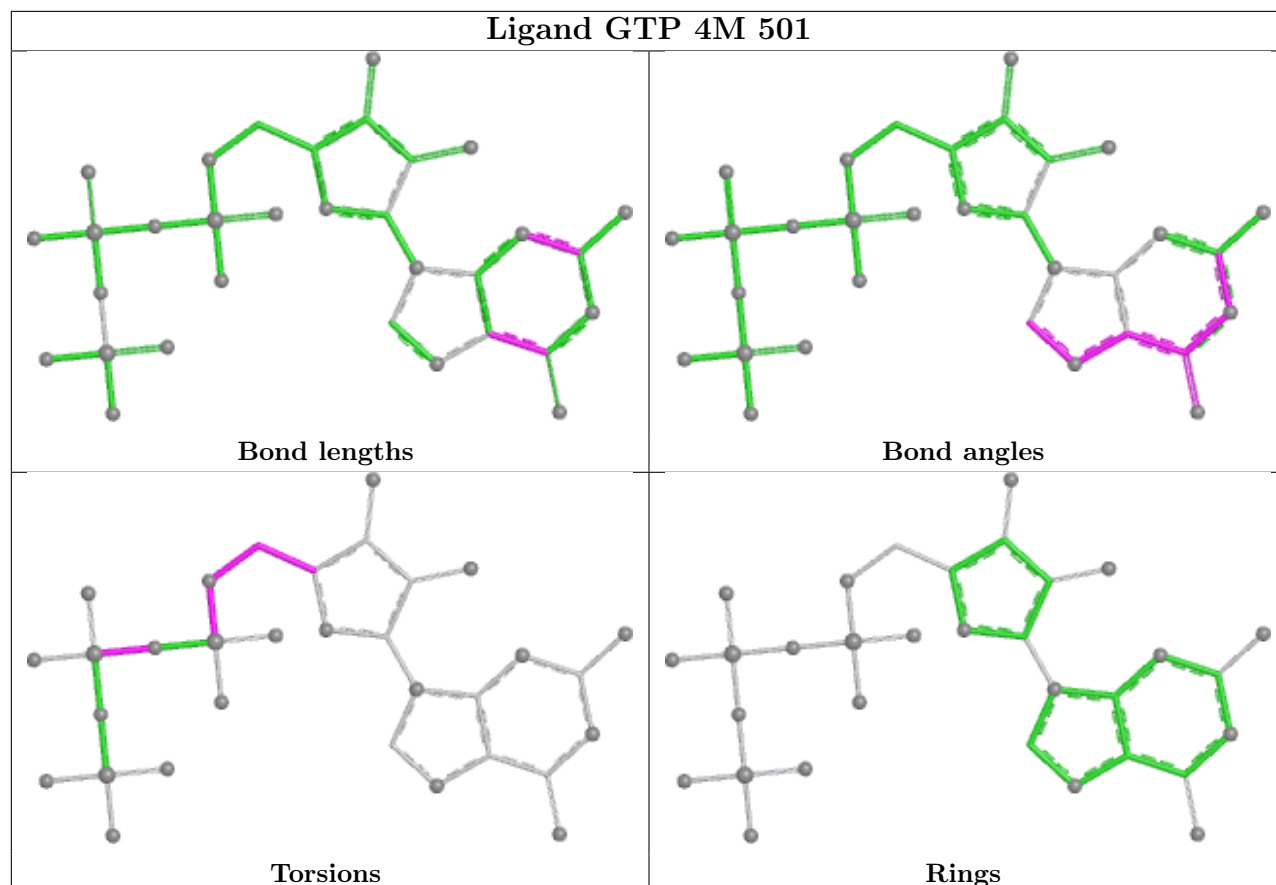
Ligand GTP 9A 501



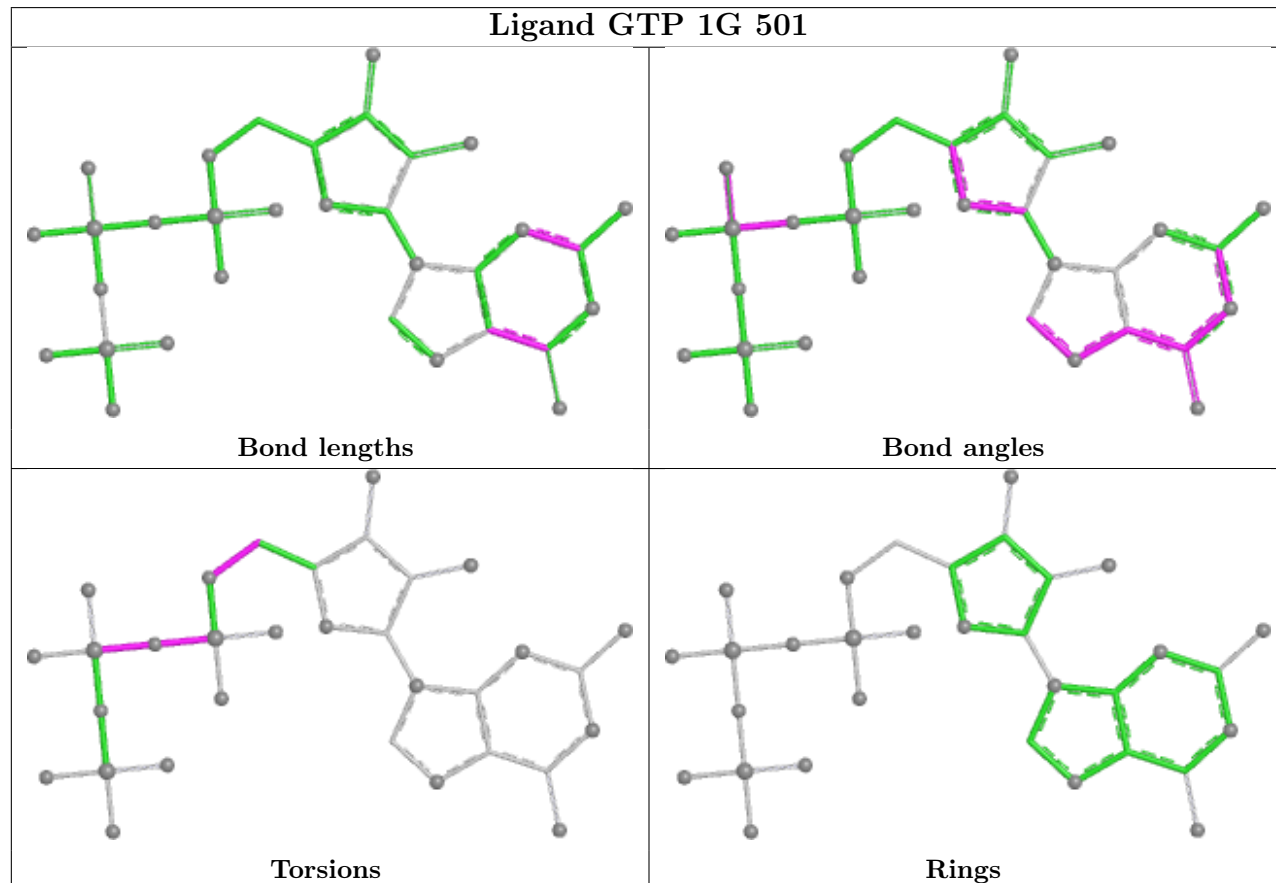




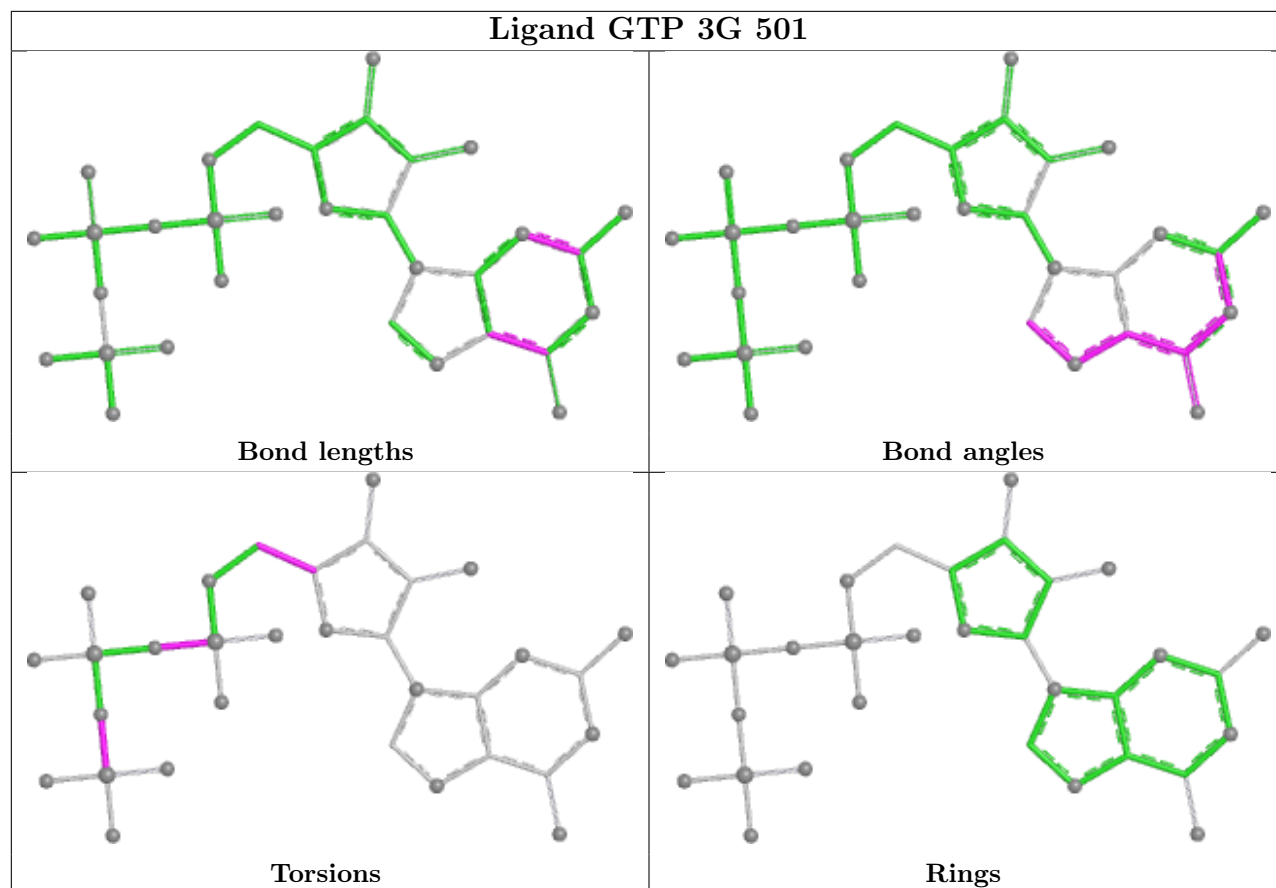
Ligand GTP 4M 501



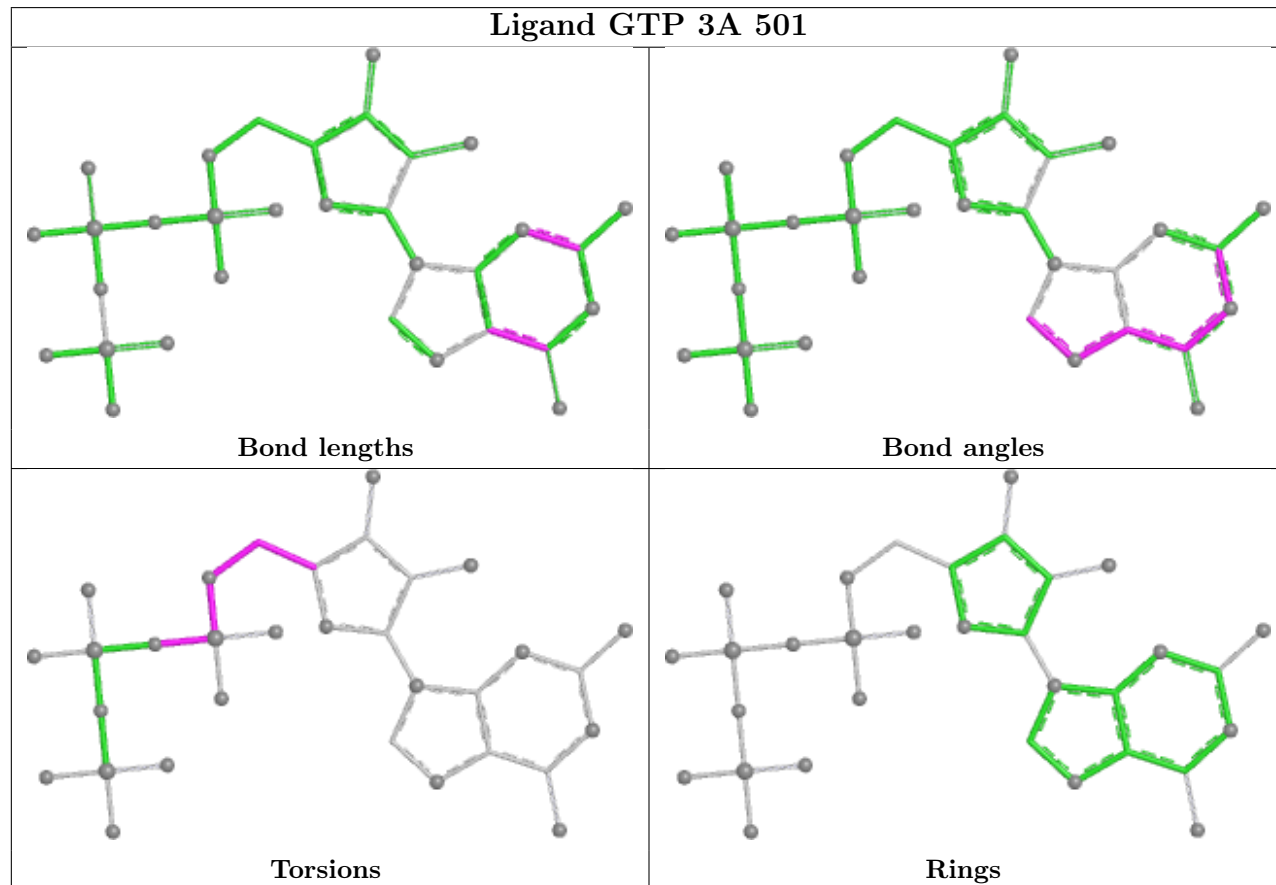
Ligand GTP 1G 501

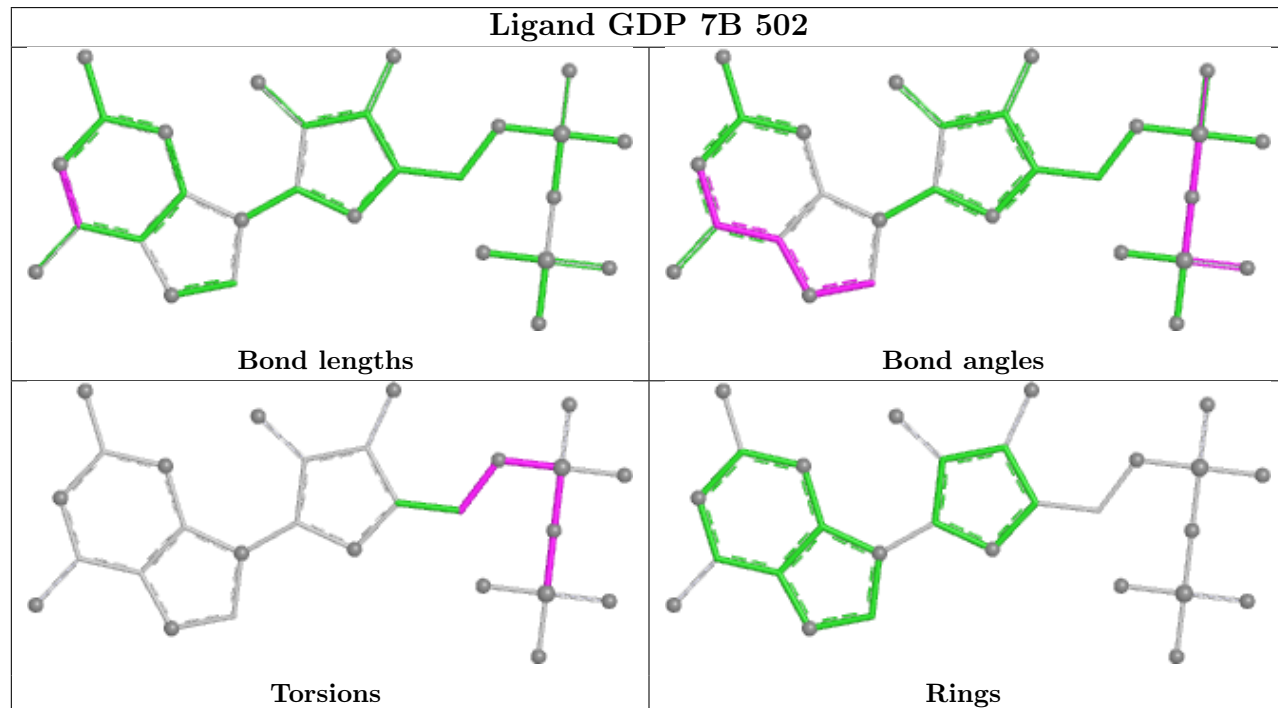
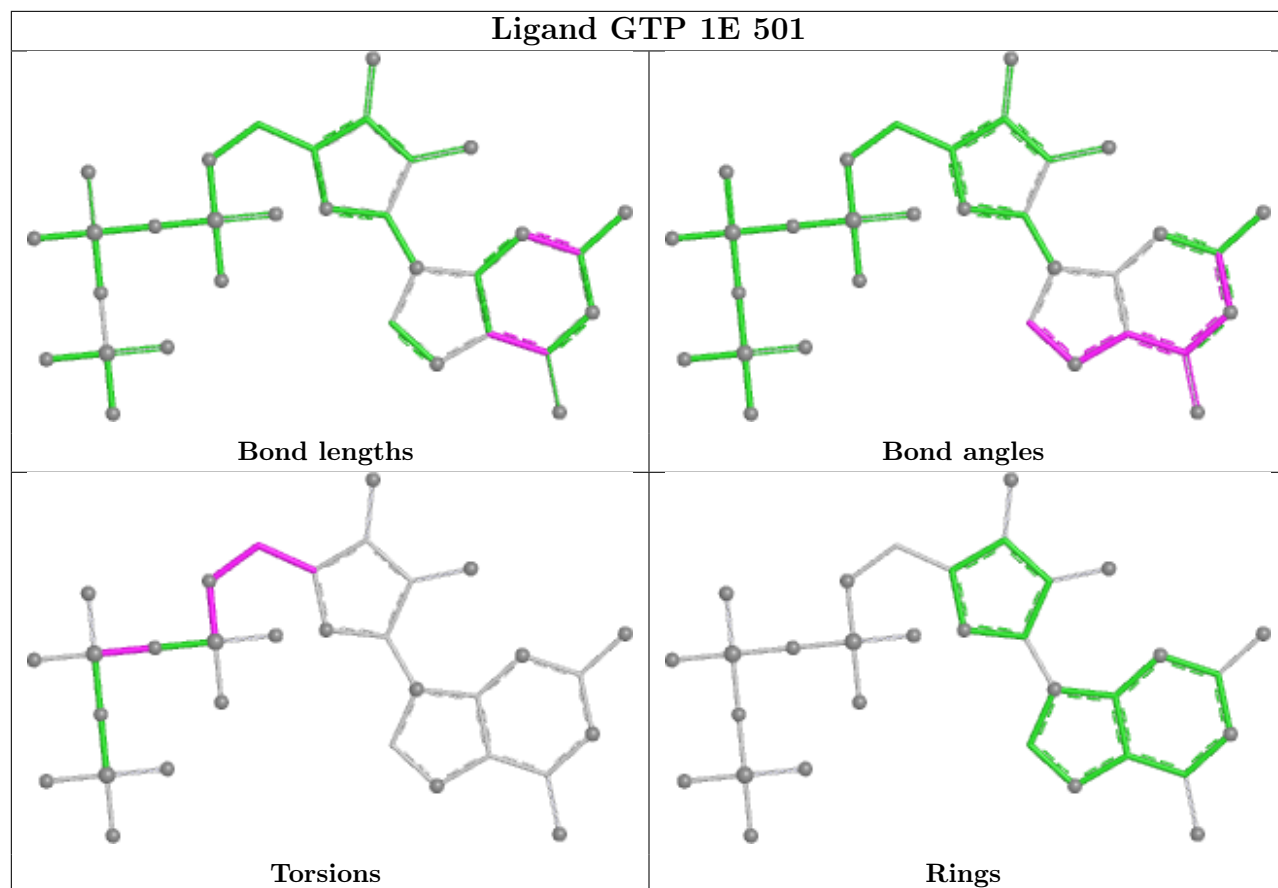


Ligand GTP 3G 501

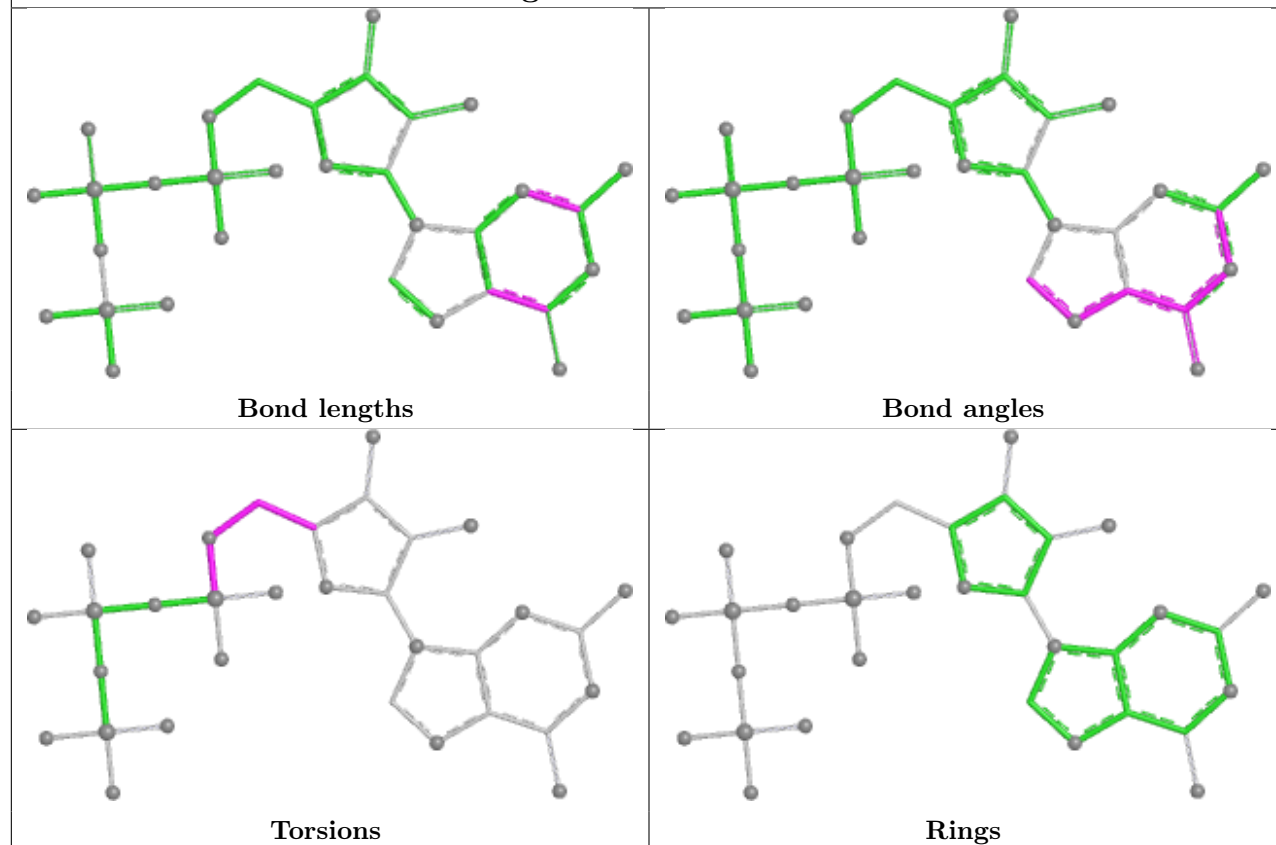


Ligand GTP 3A 501

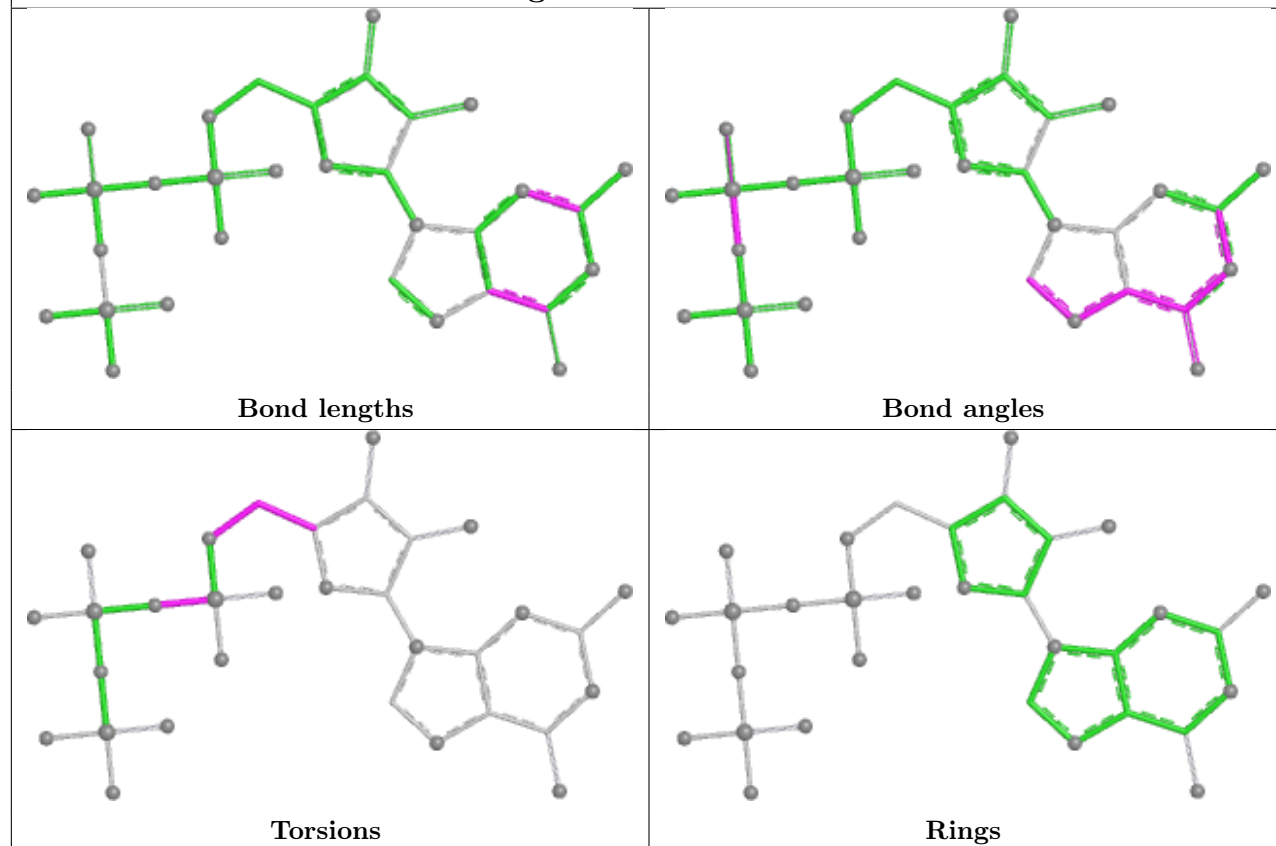


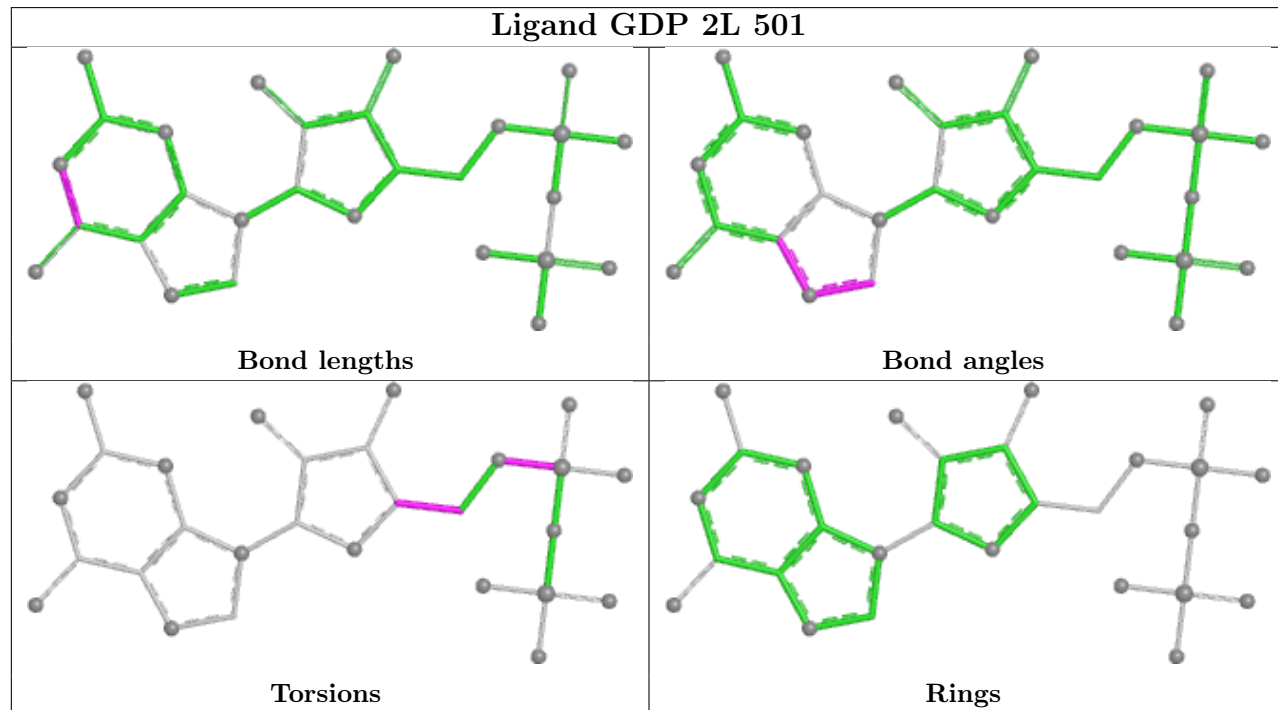
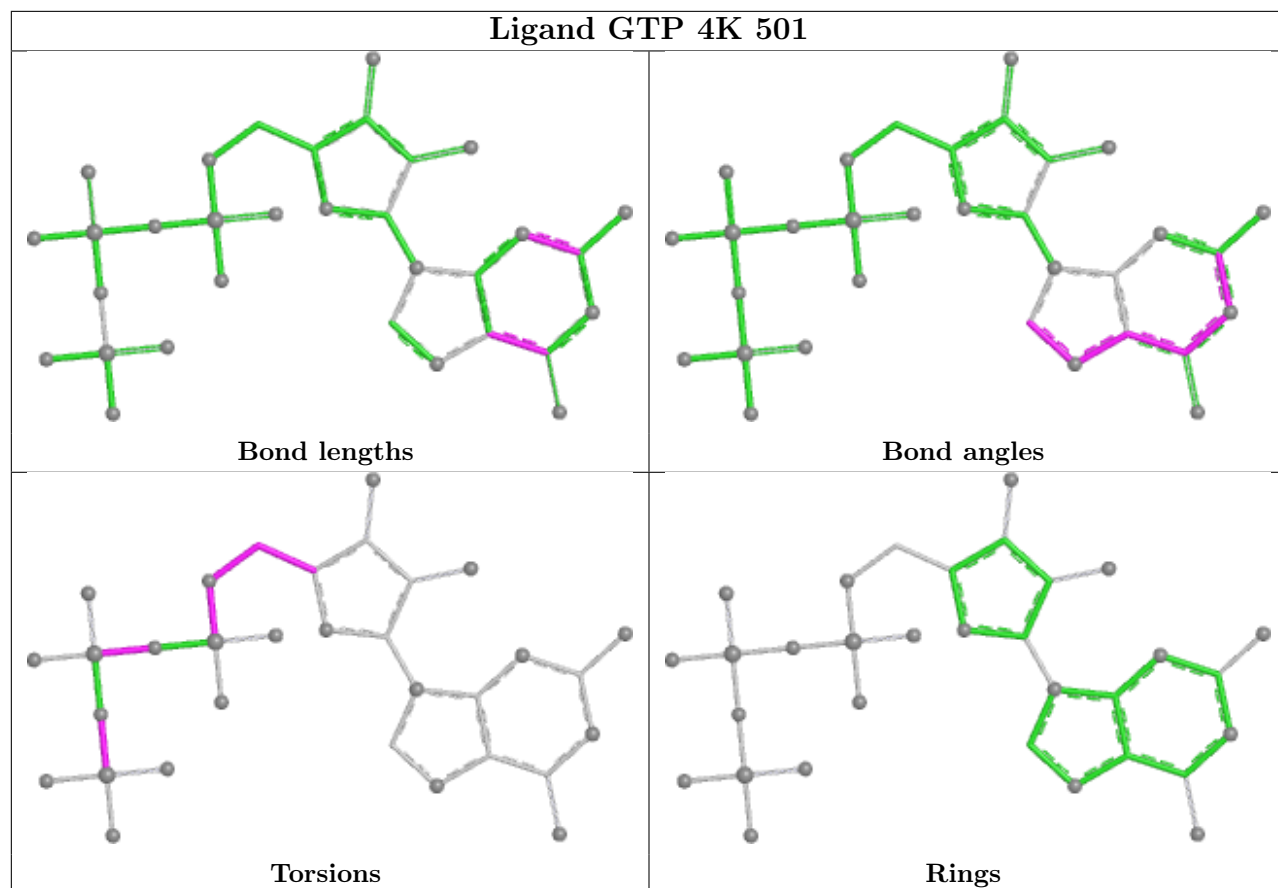


Ligand GTP 6C 501

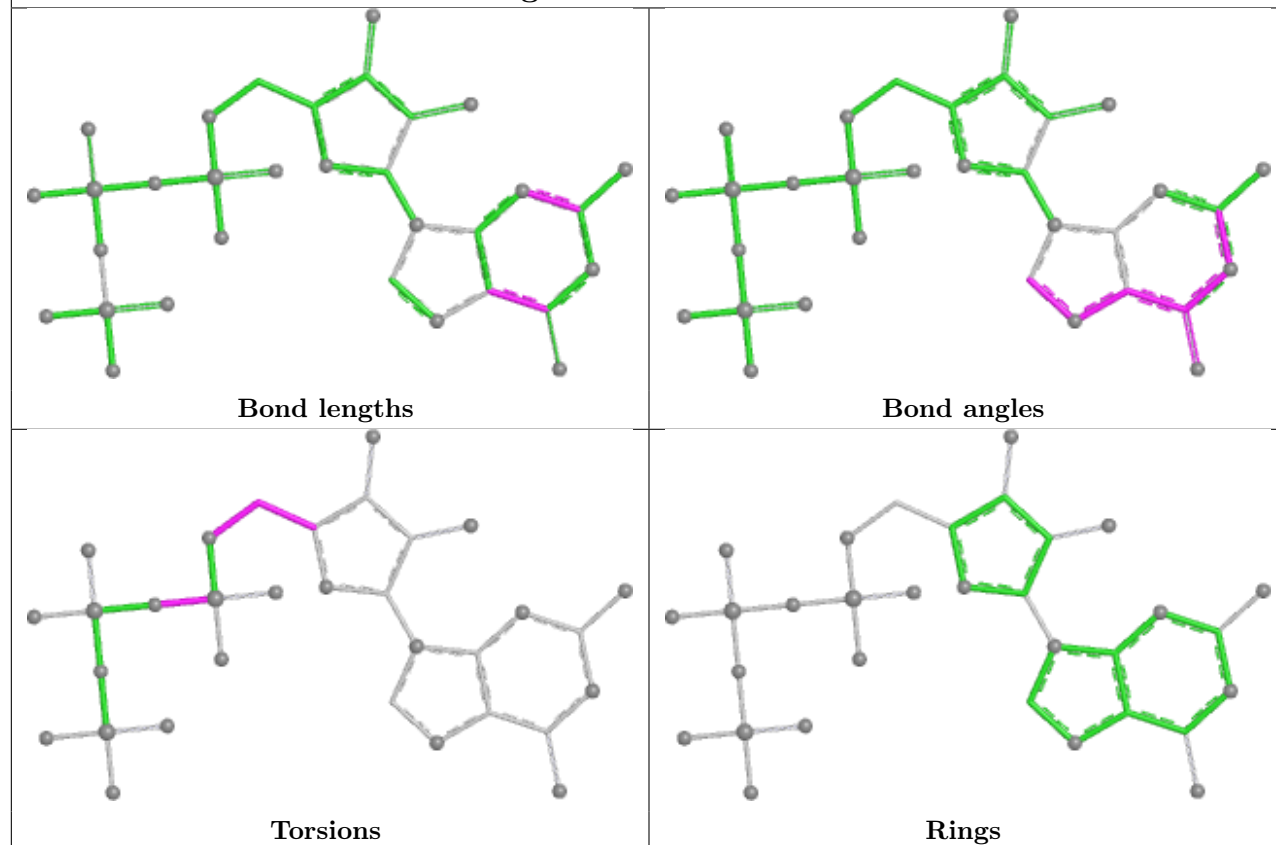


Ligand GTP 7I 501

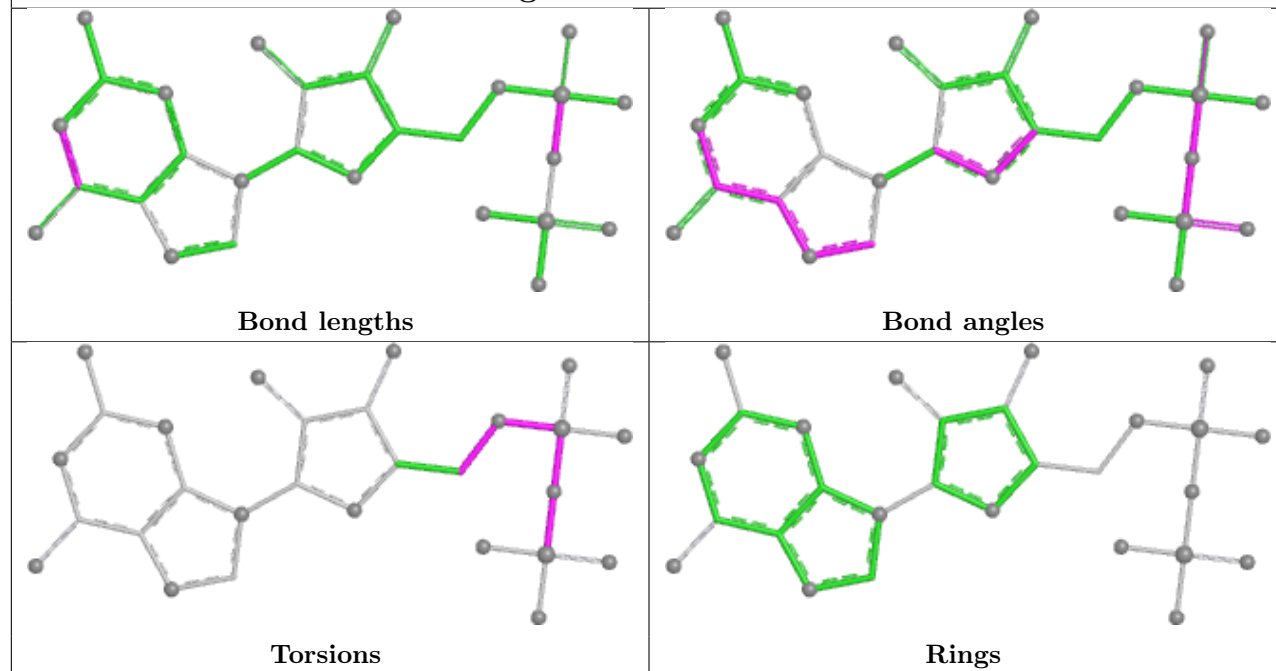


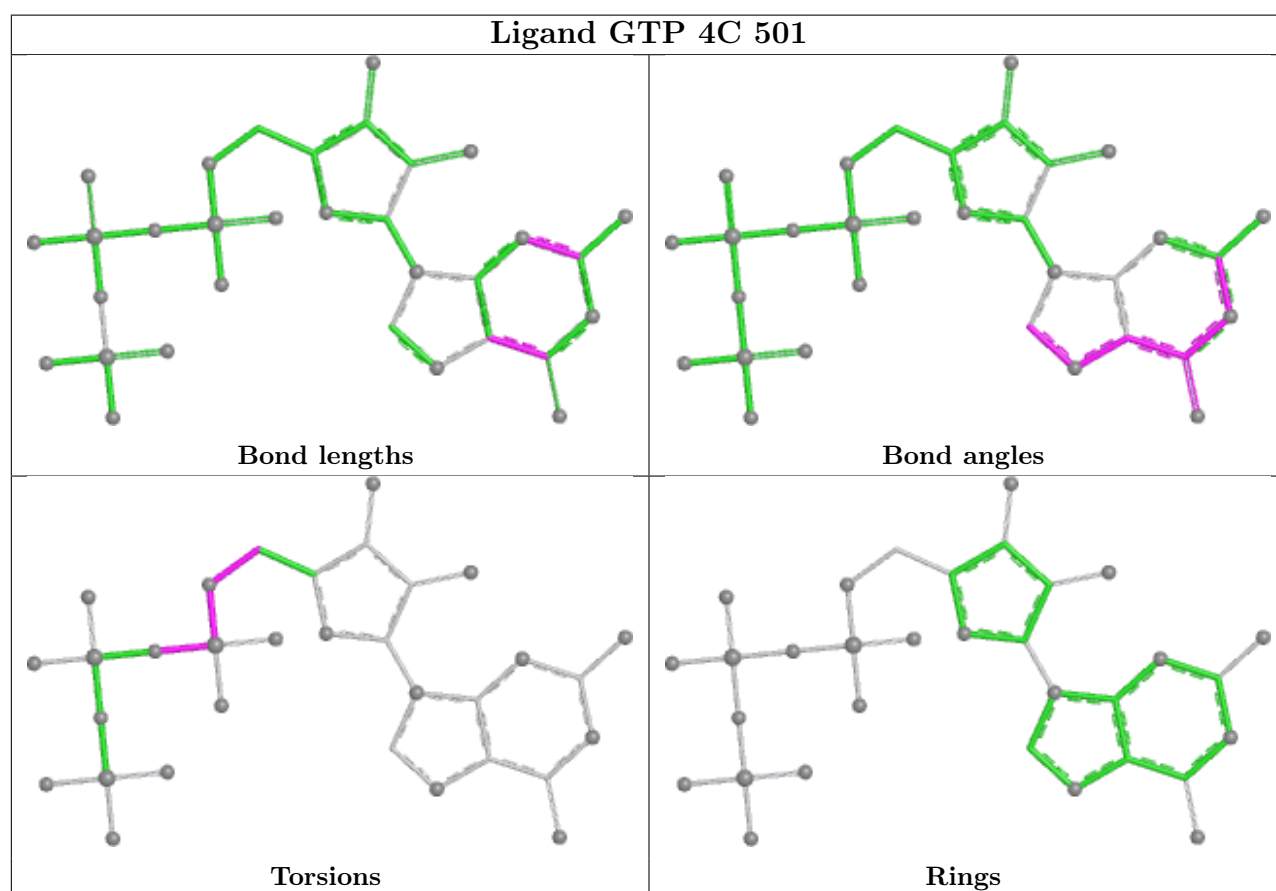
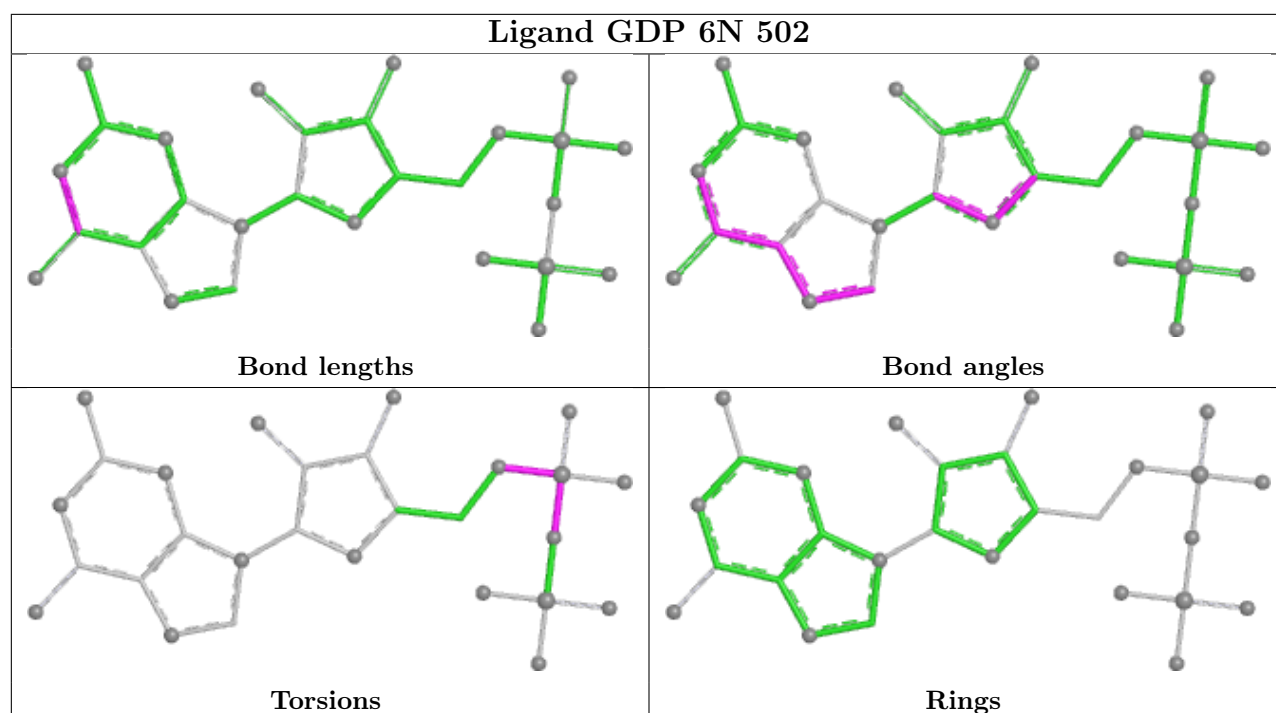


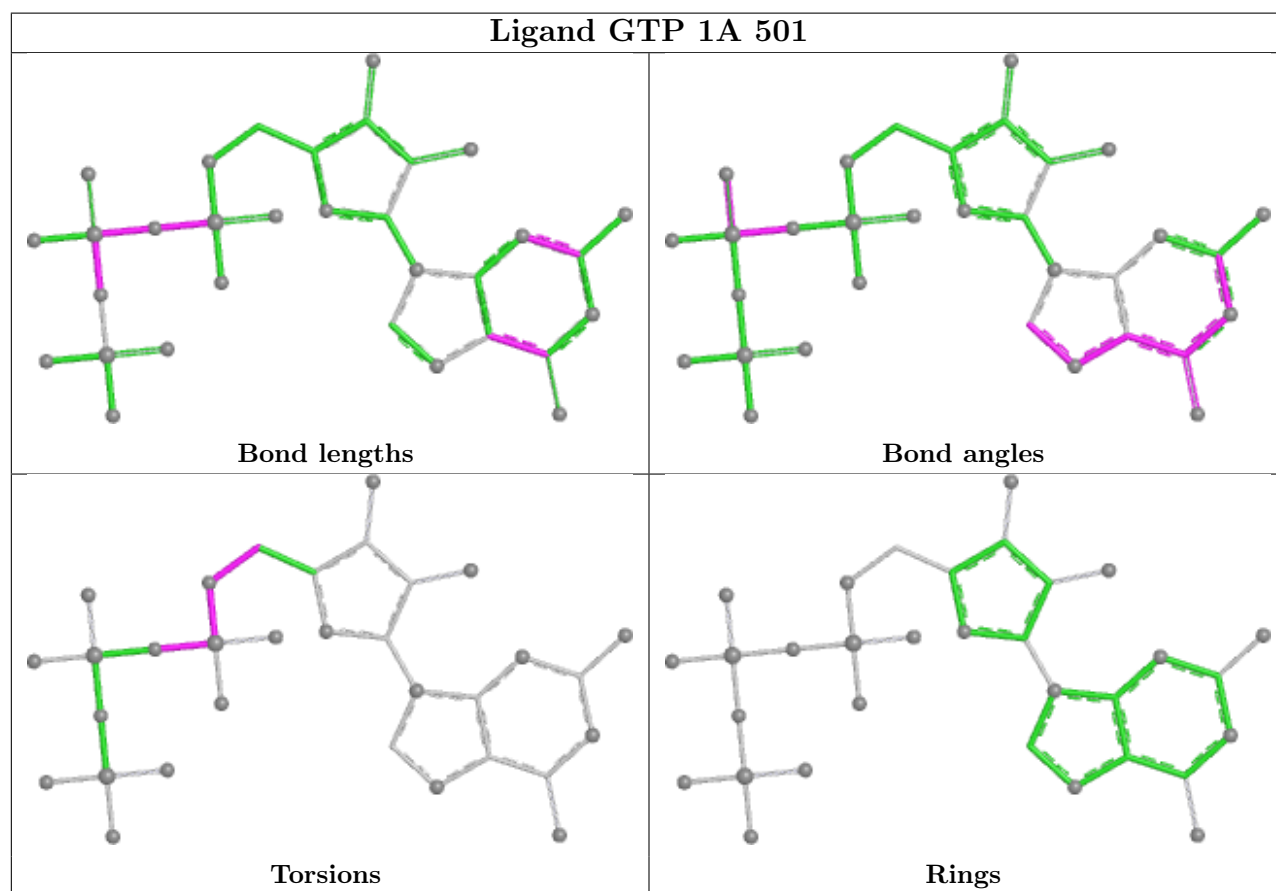
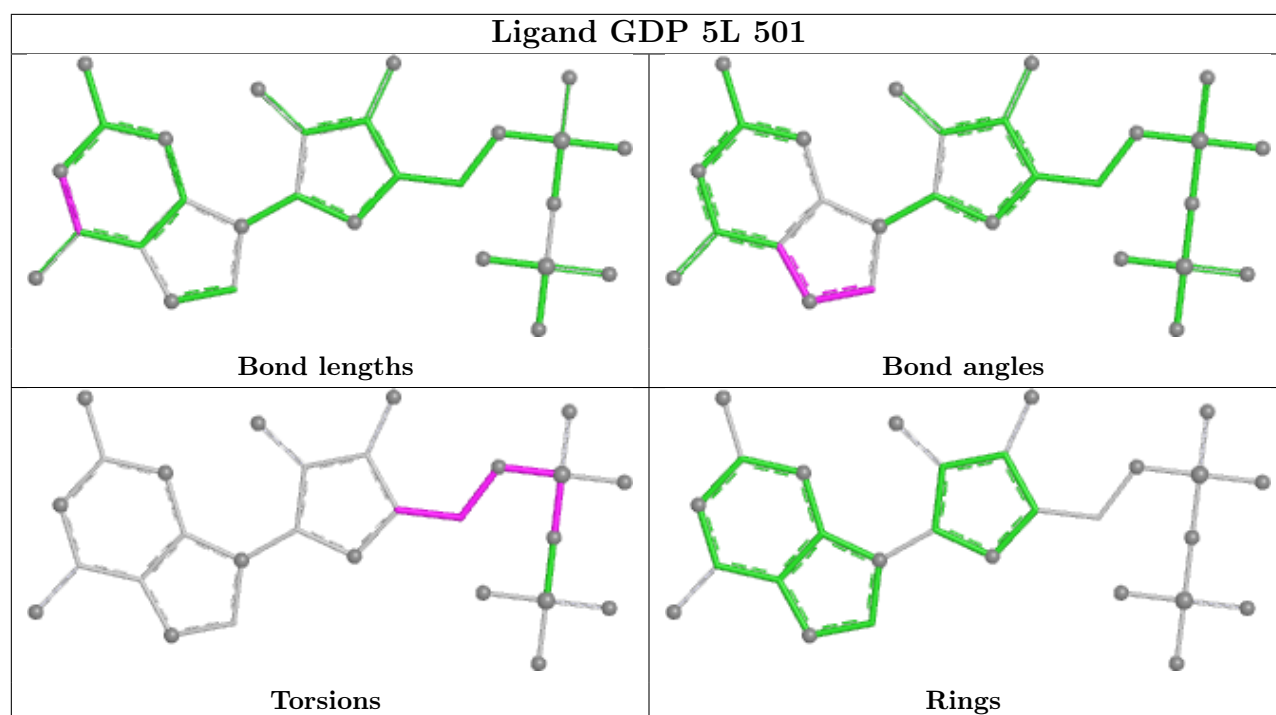
Ligand GTP 8A 501

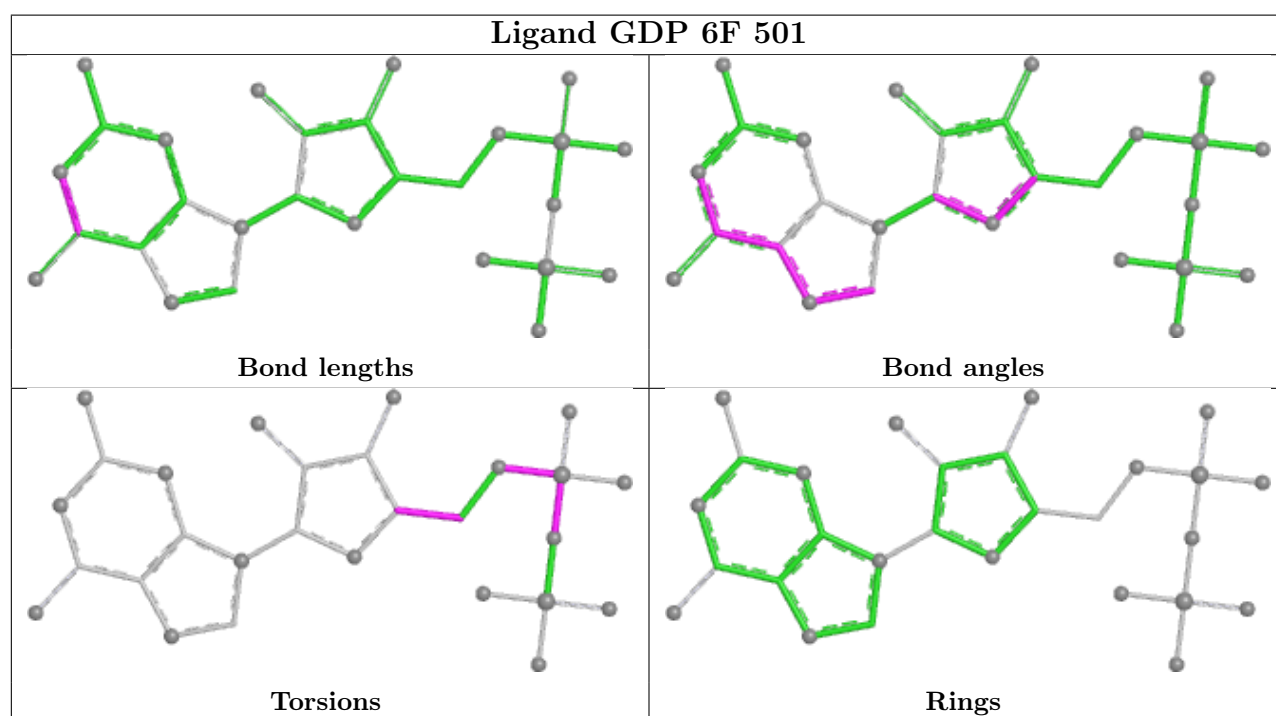
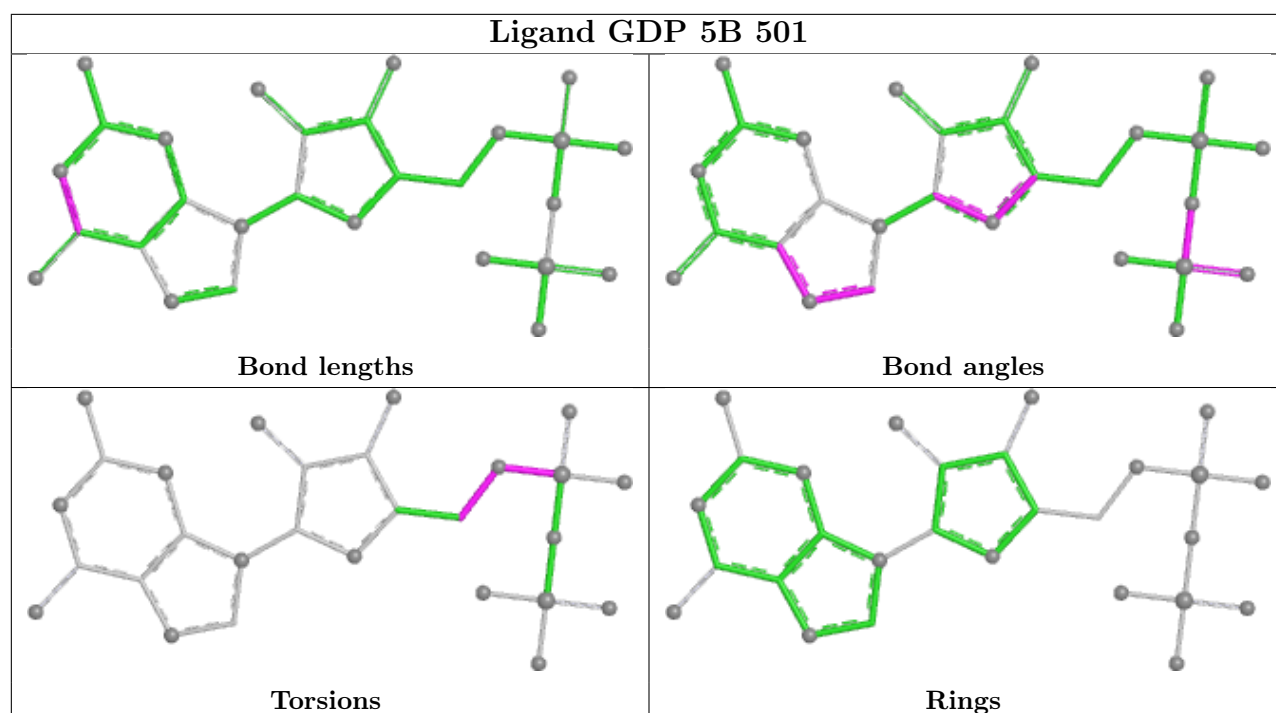


Ligand GDP 1N 501

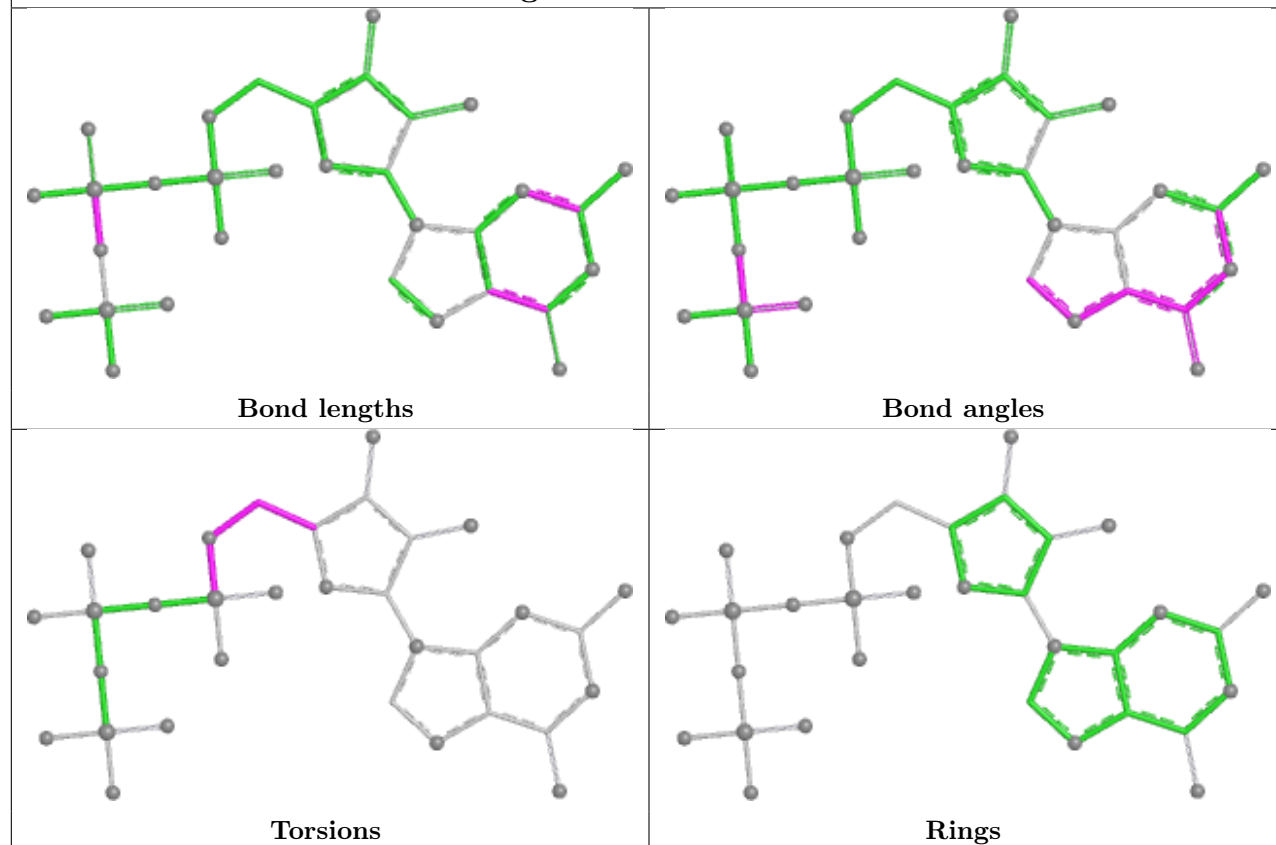




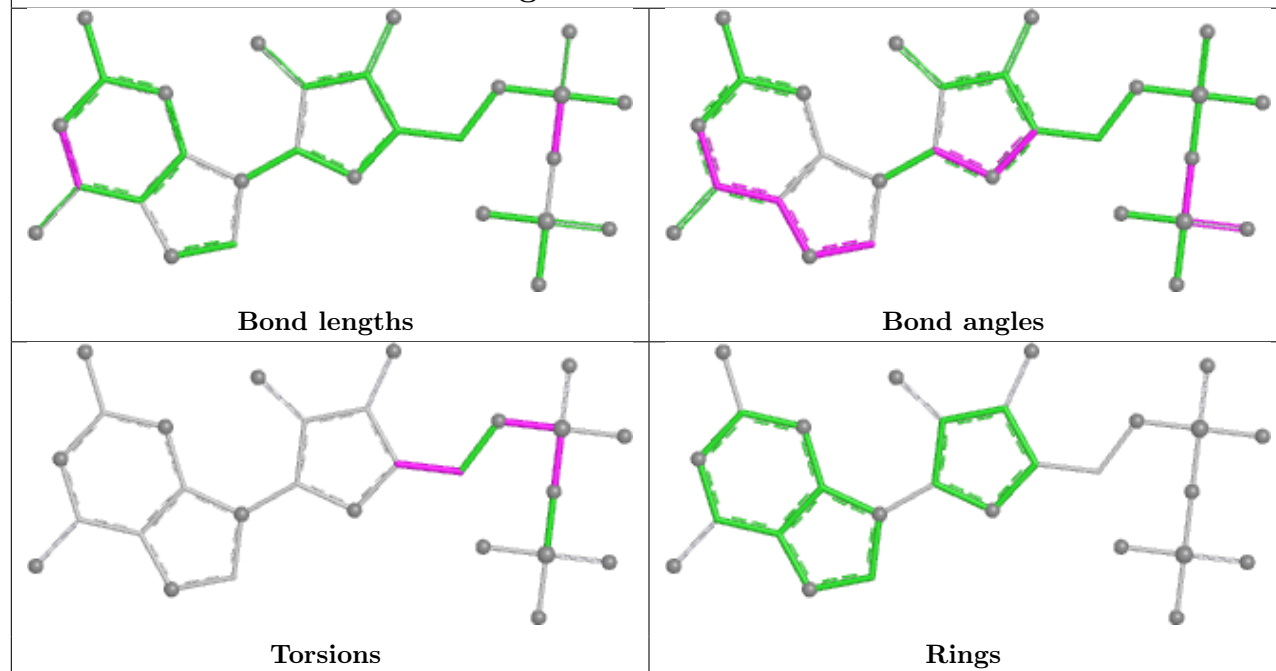


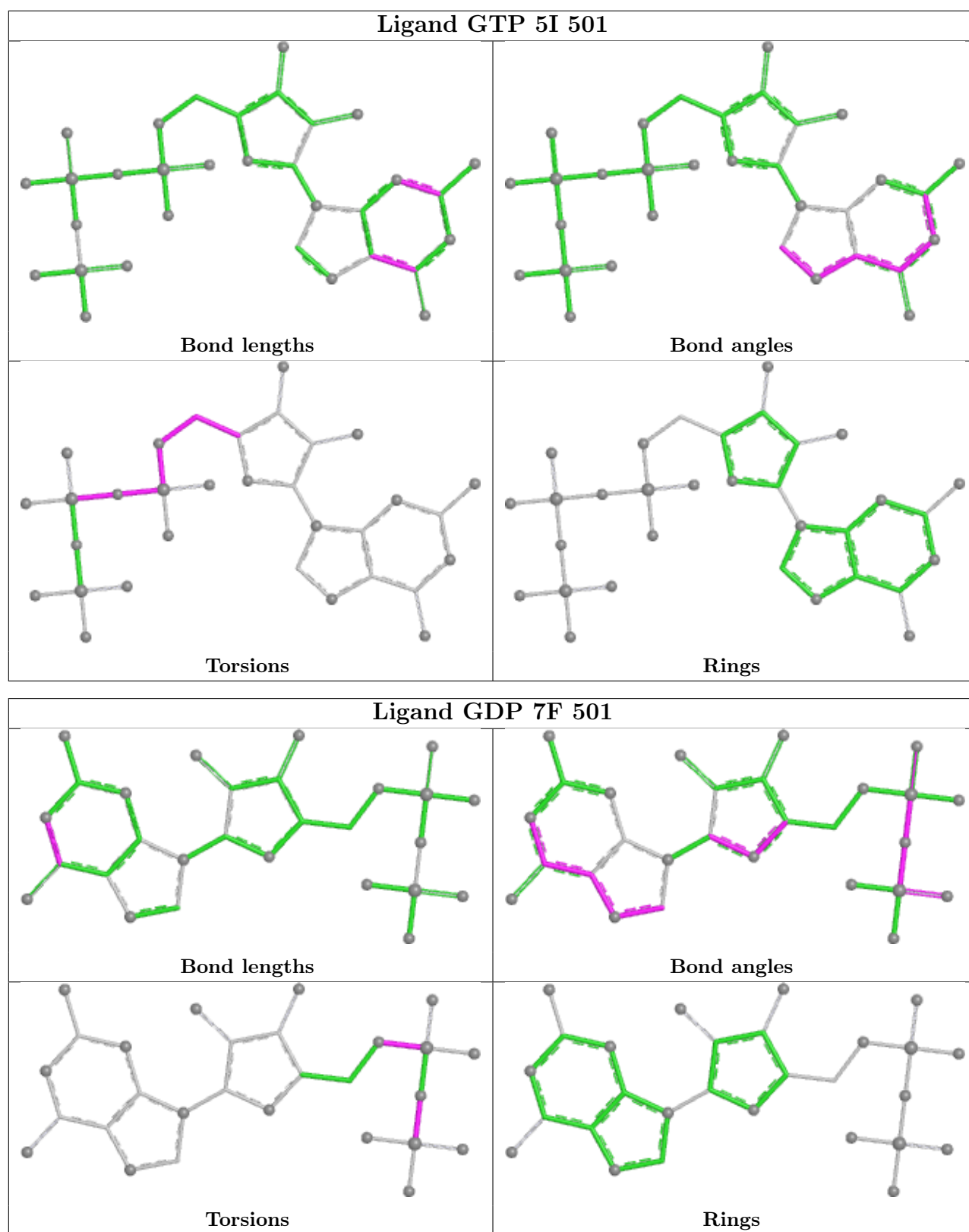


Ligand GTP 8K 501



Ligand GDP 9H 501





4.7 Other polymers [i](#)

There are no such residues in this entry.

4.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

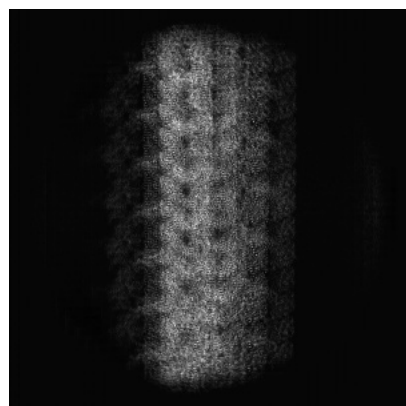
5 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-72715. These allow visual inspection of the internal detail of the map and identification of artifacts.

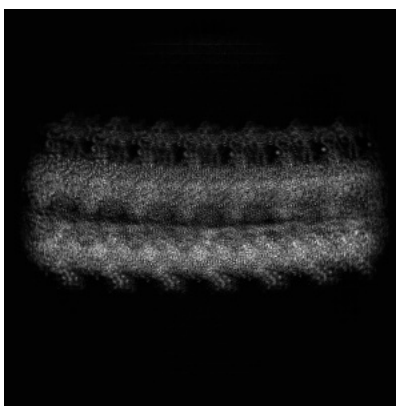
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

5.1 Orthogonal projections [i](#)

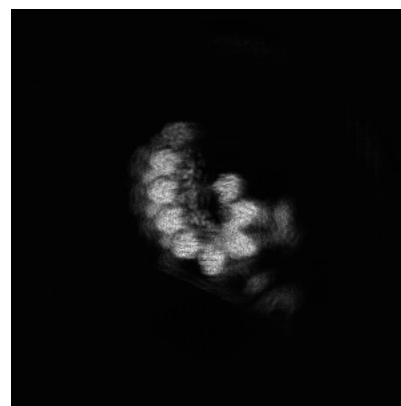
5.1.1 Primary map



X

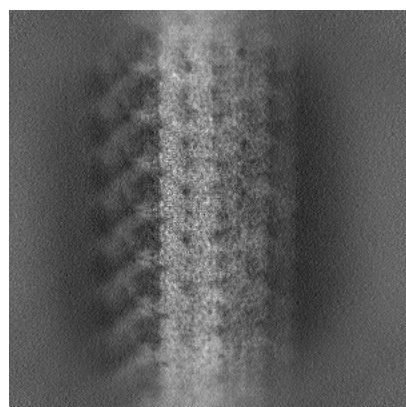


Y

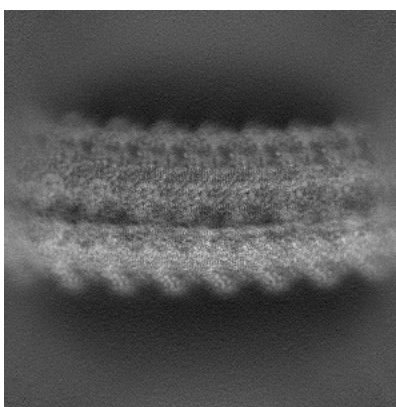


Z

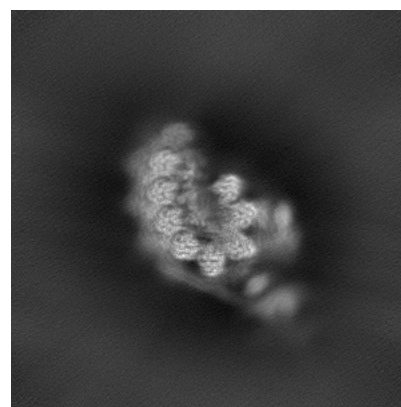
5.1.2 Raw map



X



Y

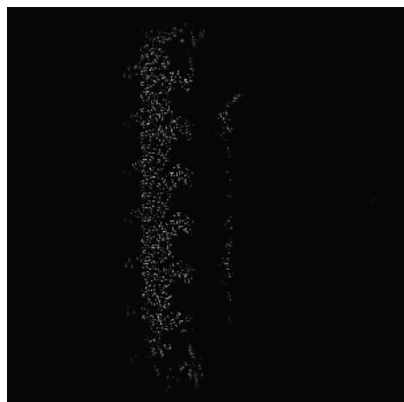


Z

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

5.2 Central slices [i](#)

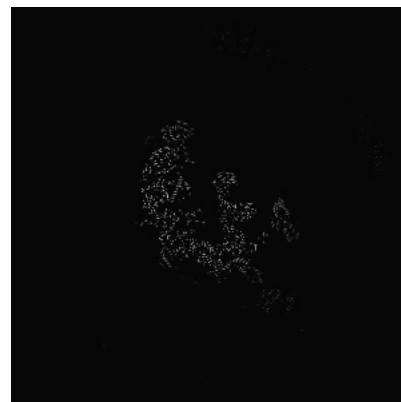
5.2.1 Primary map



X Index: 256

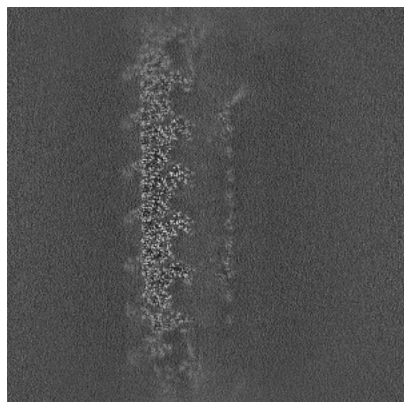


Y Index: 256

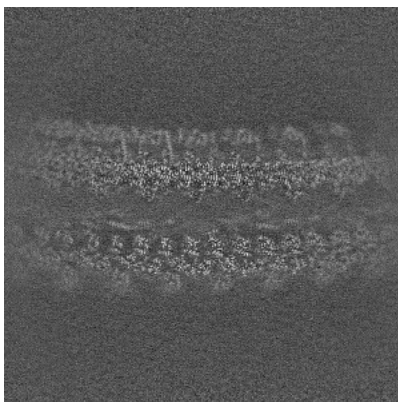


Z Index: 256

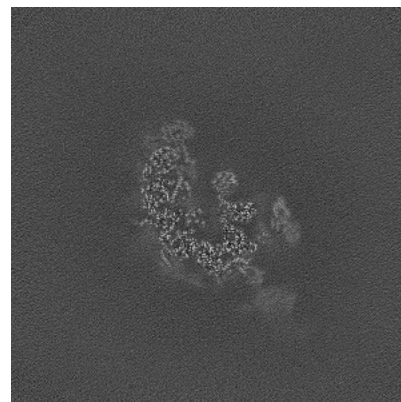
5.2.2 Raw map



X Index: 256



Y Index: 256



Z Index: 256

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

5.3 Largest variance slices [i](#)

5.3.1 Primary map



X Index: 201

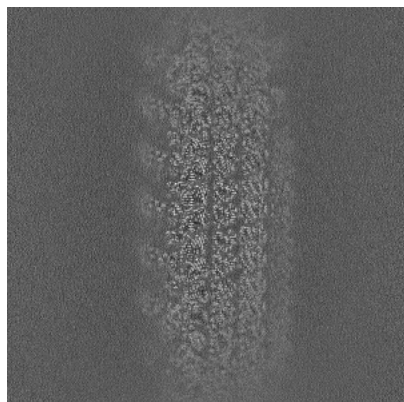


Y Index: 206

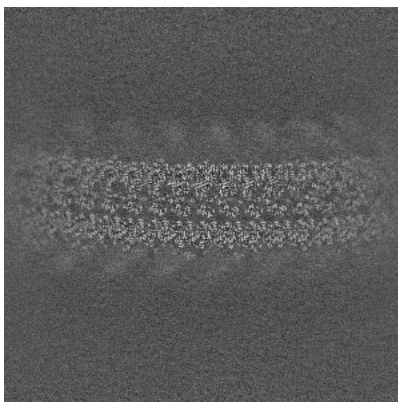


Z Index: 188

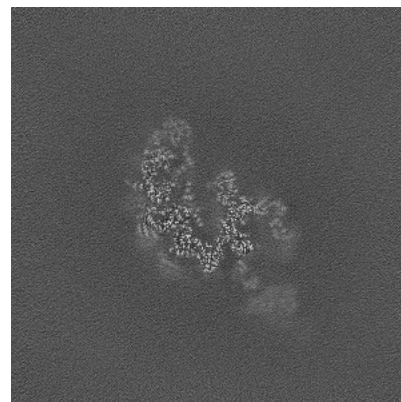
5.3.2 Raw map



X Index: 201



Y Index: 203

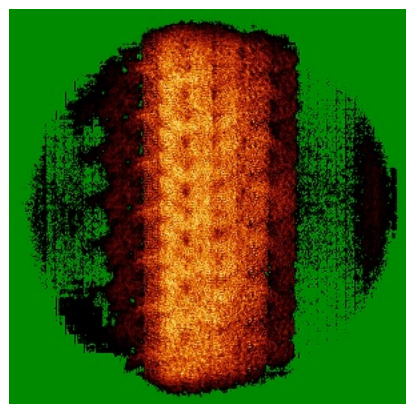


Z Index: 265

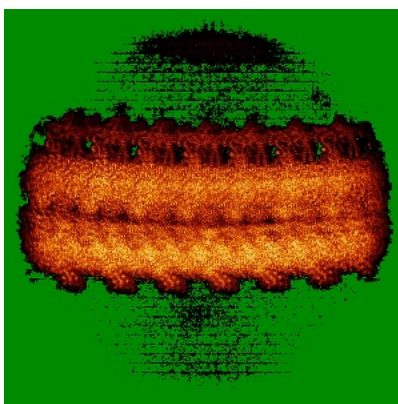
The images above show the largest variance slices of the map in three orthogonal directions.

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

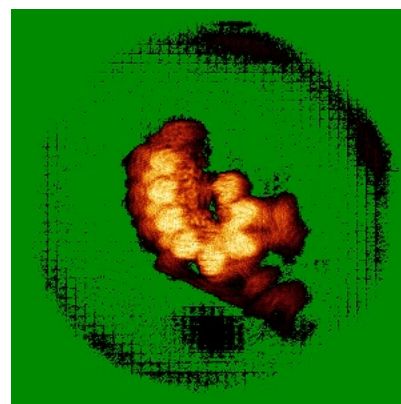
5.4.1 Primary map



X

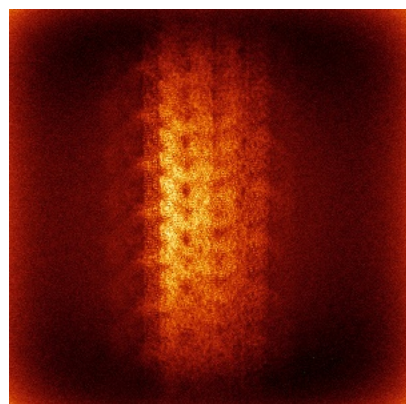


Y

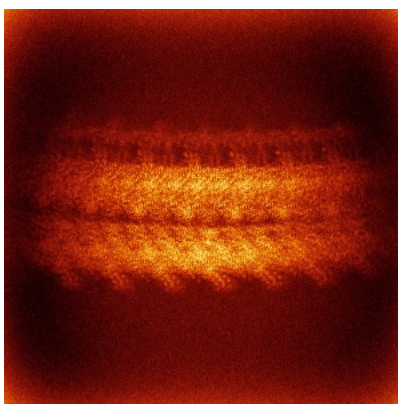


Z

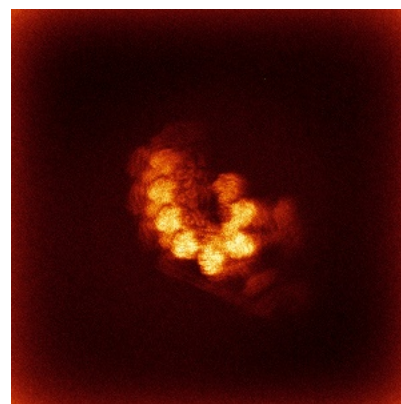
5.4.2 Raw map



X



Y

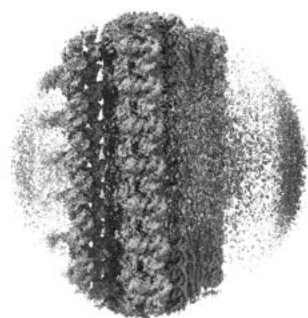


Z

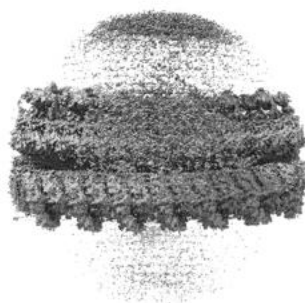
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

5.5 Orthogonal surface views [i](#)

5.5.1 Primary map



X



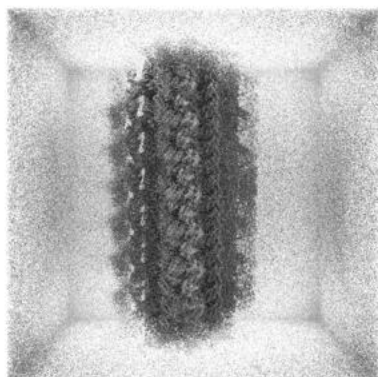
Y



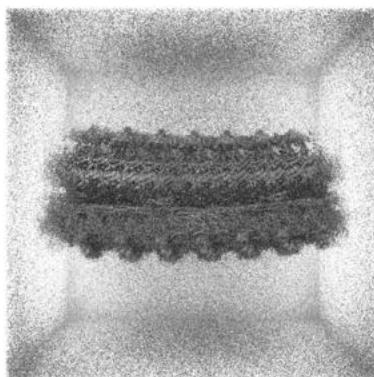
Z

The images above show the 3D surface view of the map at the recommended contour level 0.02. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

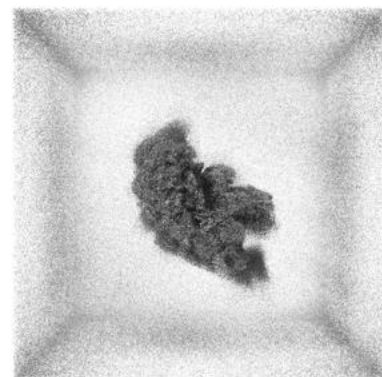
5.5.2 Raw map



X



Y



Z

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

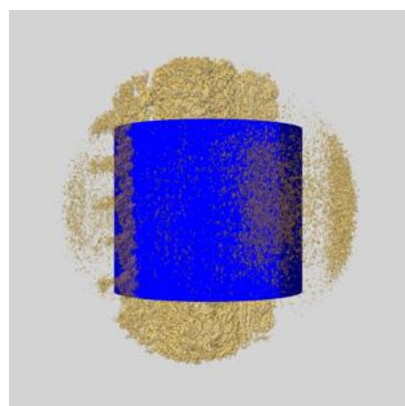
5.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

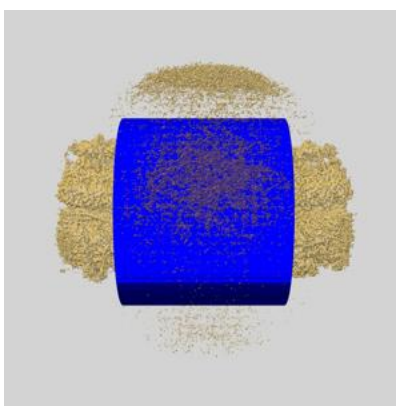
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

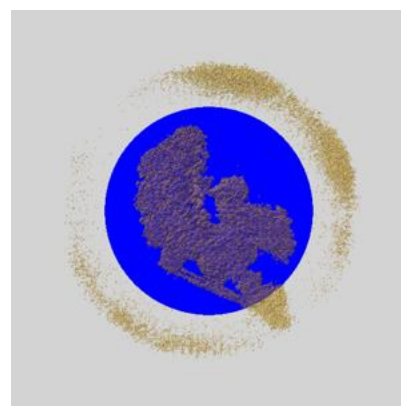
5.6.1 emd_72715_msk_1.map [i](#)



X



Y

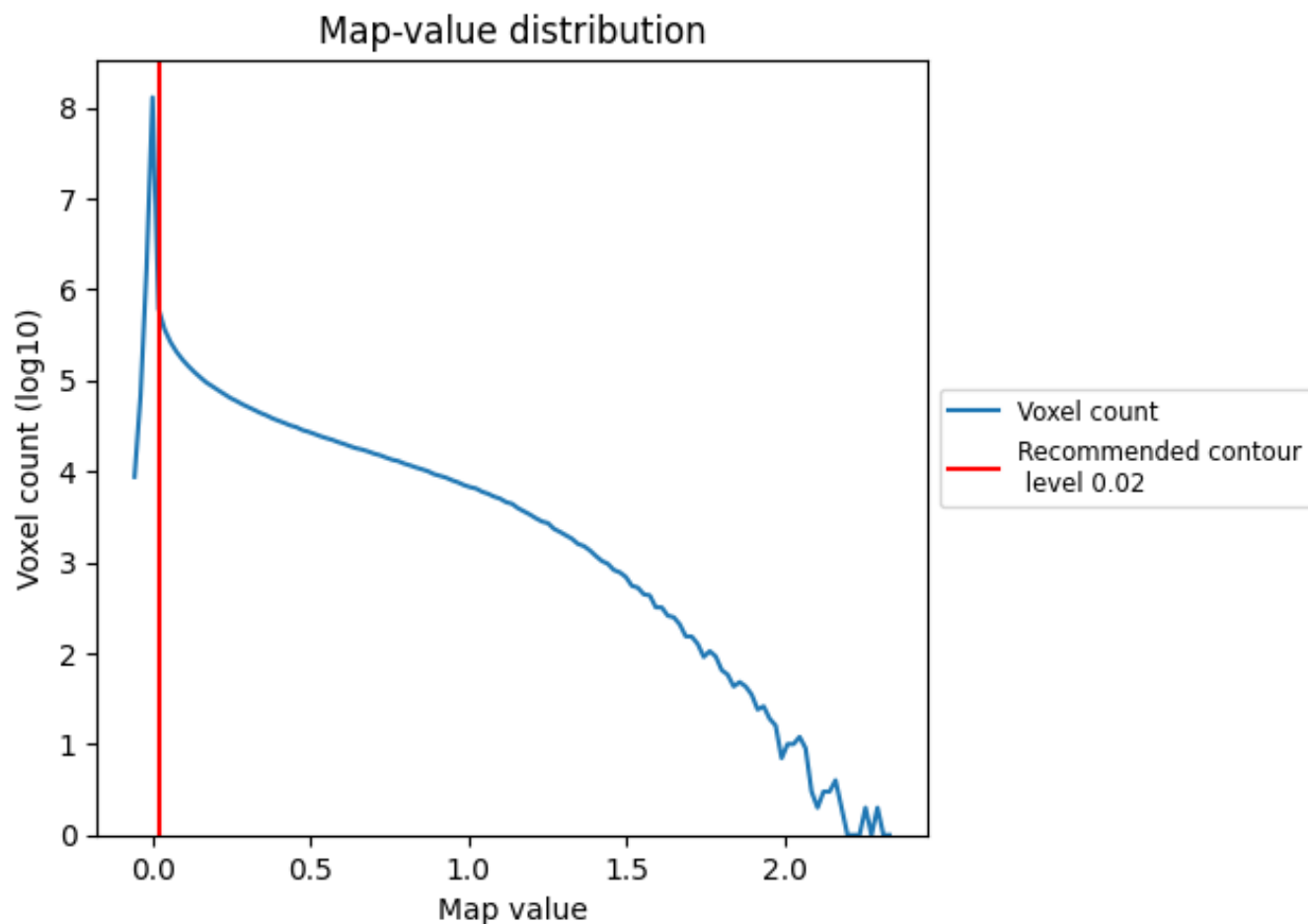


Z

6 Map analysis [i](#)

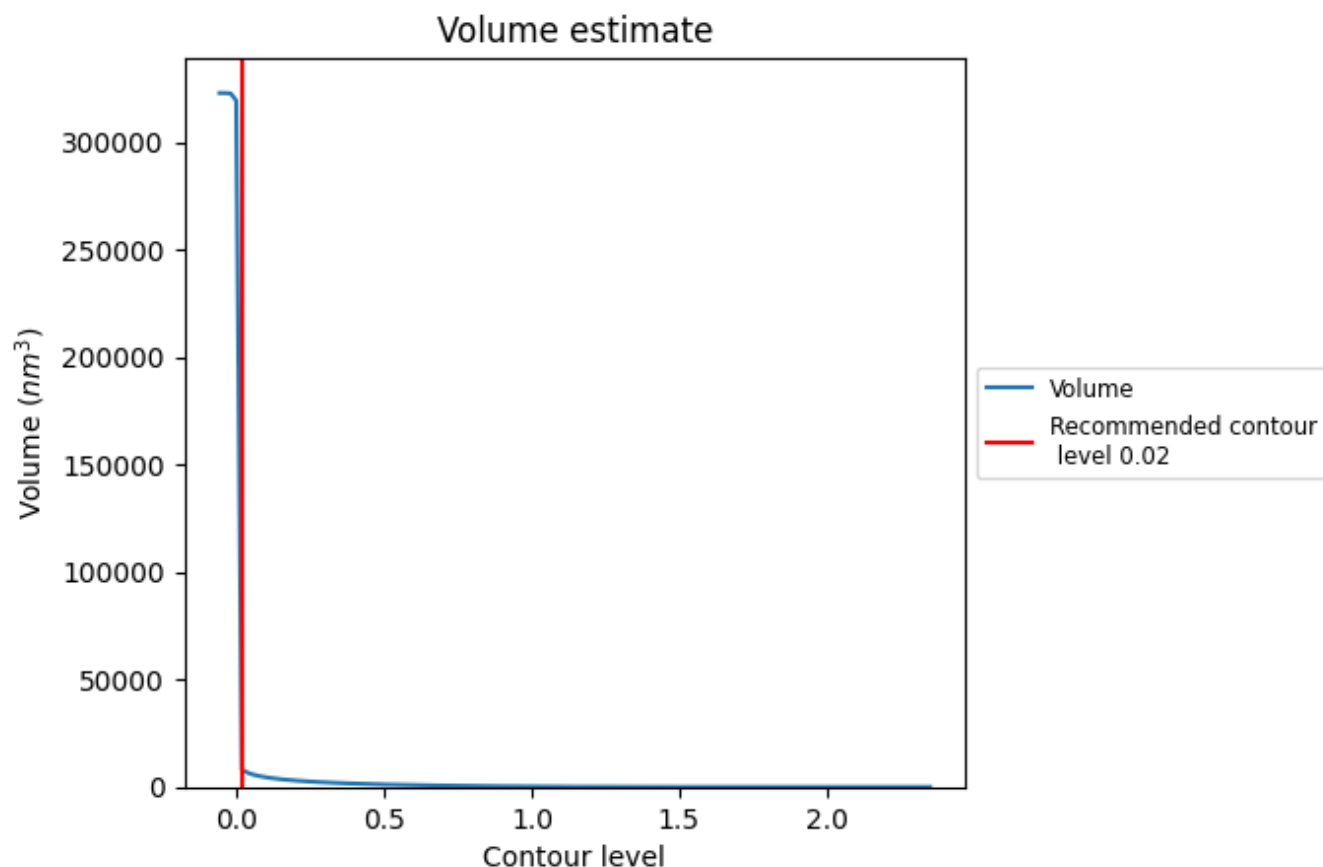
This section contains the results of statistical analysis of the map.

6.1 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.

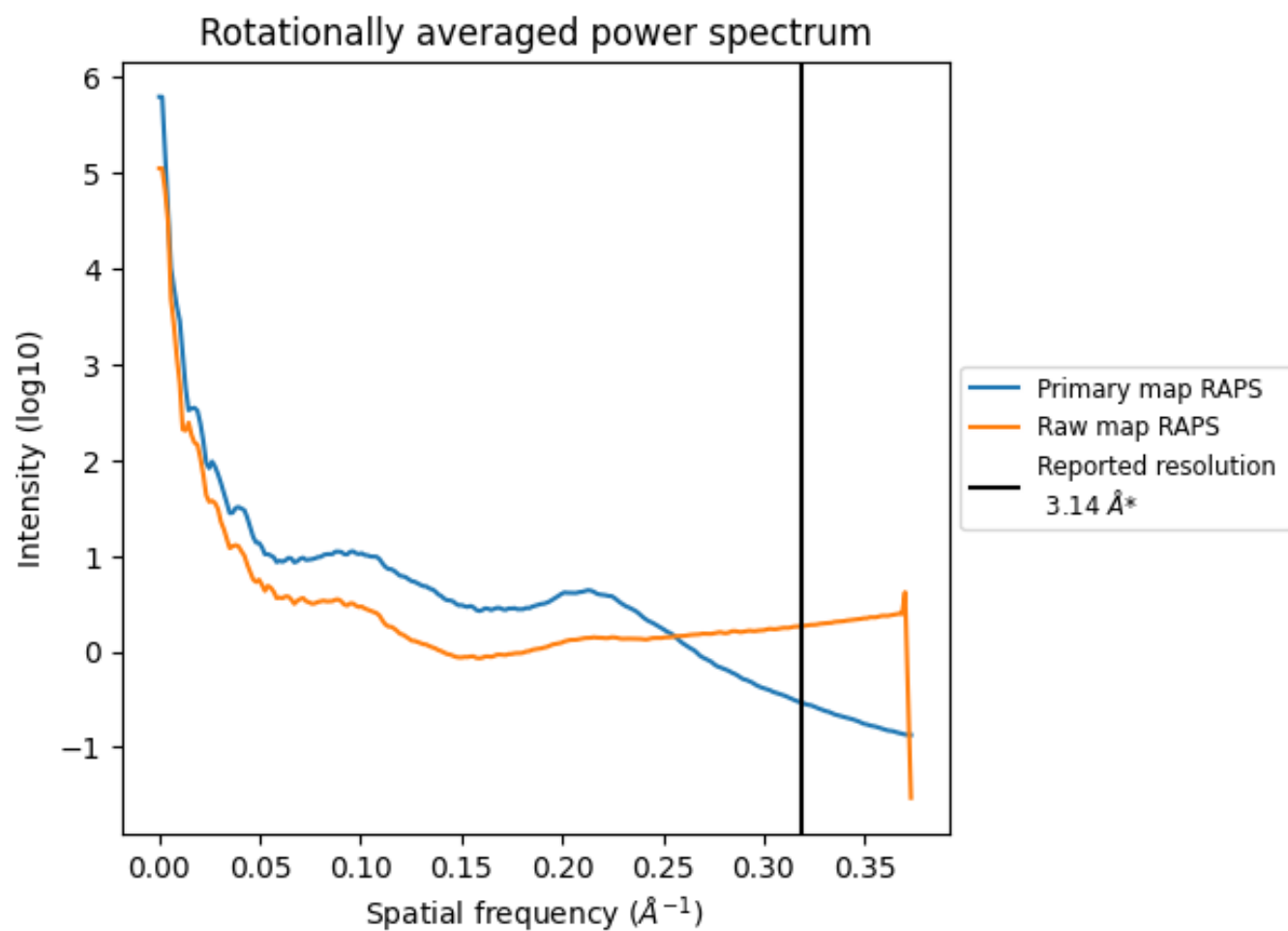
6.2 Volume estimate [i](#)



The volume at the recommended contour level is 7892 nm^3 ; this corresponds to an approximate mass of 7129 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.

6.3 Rotationally averaged power spectrum [i](#)

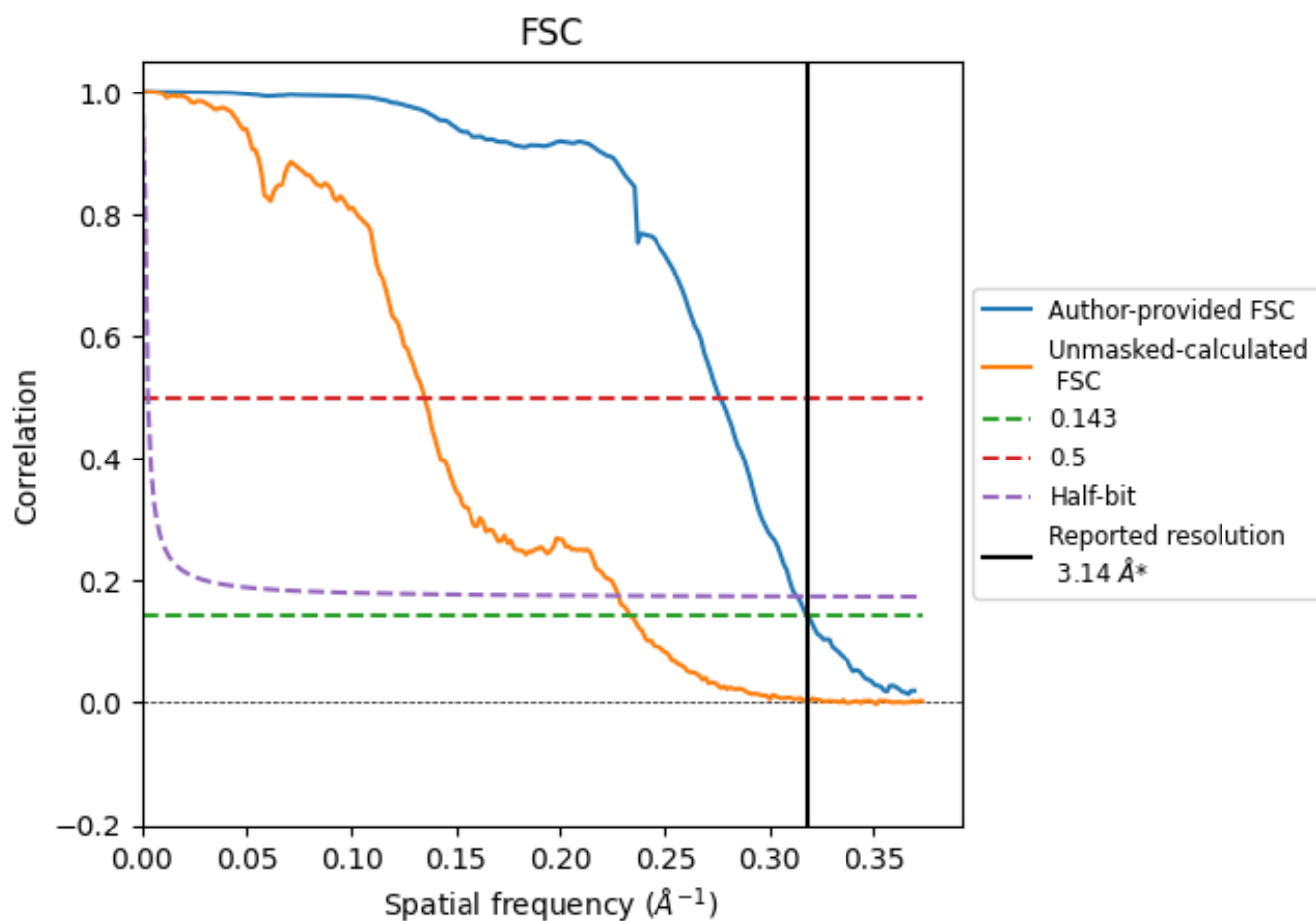


*Reported resolution corresponds to spatial frequency of $0.318 \text{ \AA}^{-1}$

7 Fourier-Shell correlation [i](#)

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

7.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.318 $\text{\AA}^{-1}$

7.2 Resolution estimates [i](#)

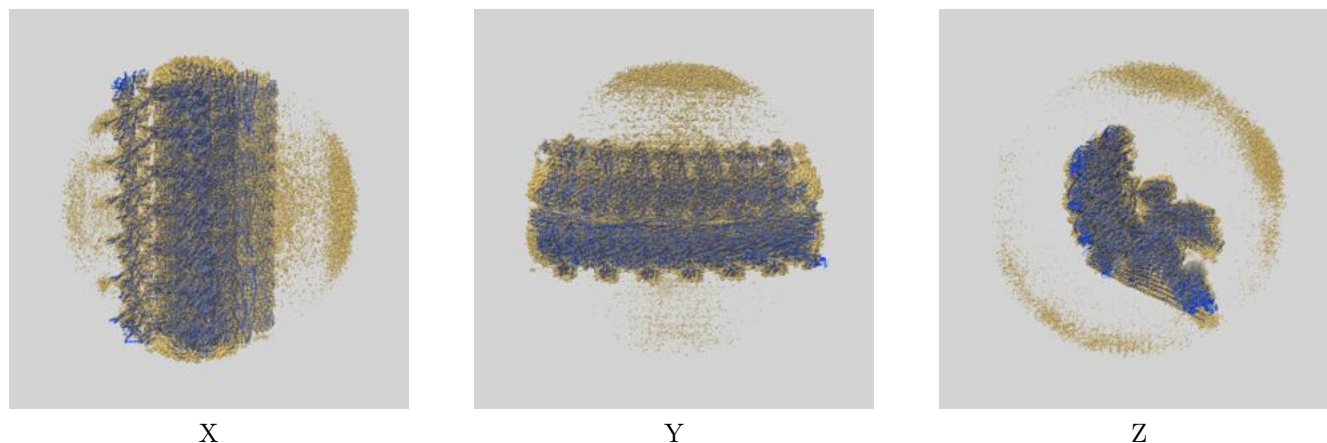
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.14	-	-
Author-provided FSC curve	3.14	3.62	3.19
Unmasked-calculated*	4.29	7.41	4.39

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.29 differs from the reported value 3.14 by more than 10 %

8 Map-model fit [i](#)

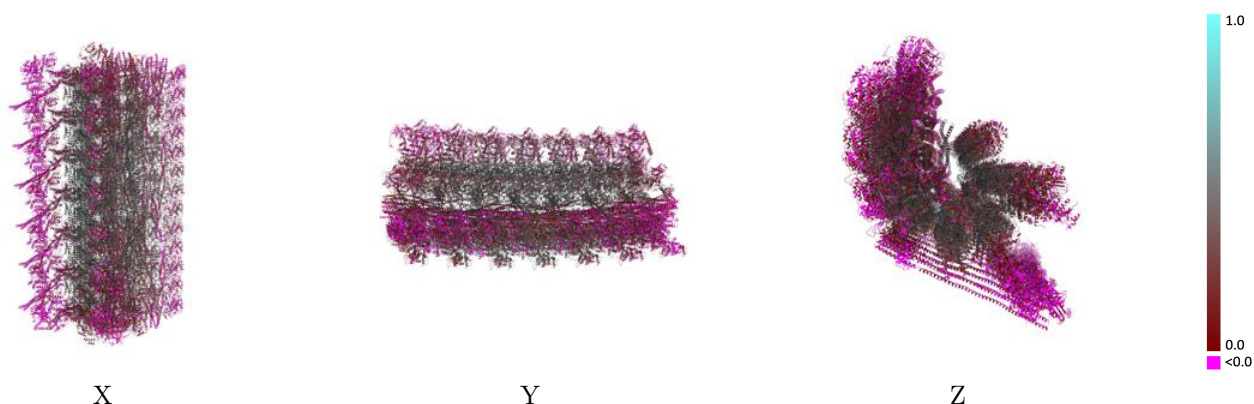
This section contains information regarding the fit between EMDB map EMD-72715 and PDB model 9Y9Z. Per-residue inclusion information can be found in section ?? on page ??.

8.1 Map-model overlay [i](#)



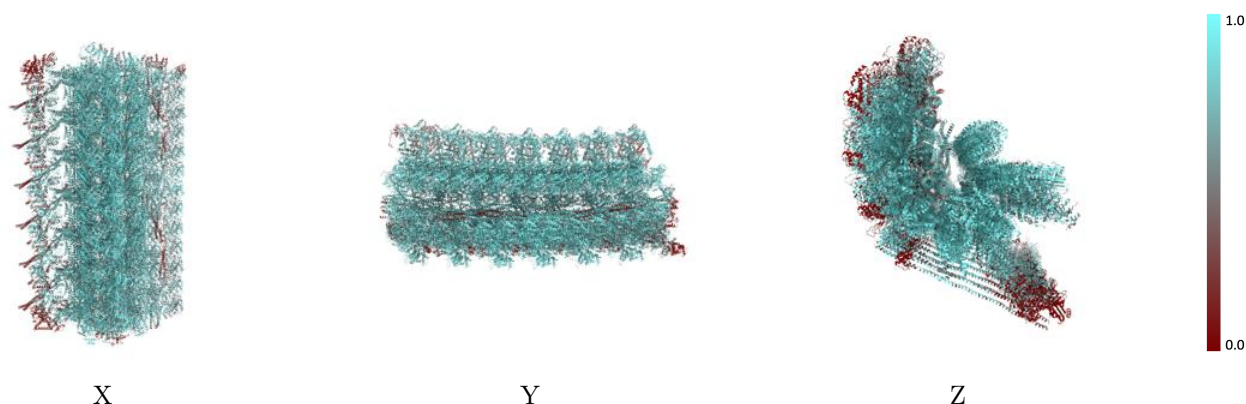
The images above show the 3D surface view of the map at the recommended contour level 0.02 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



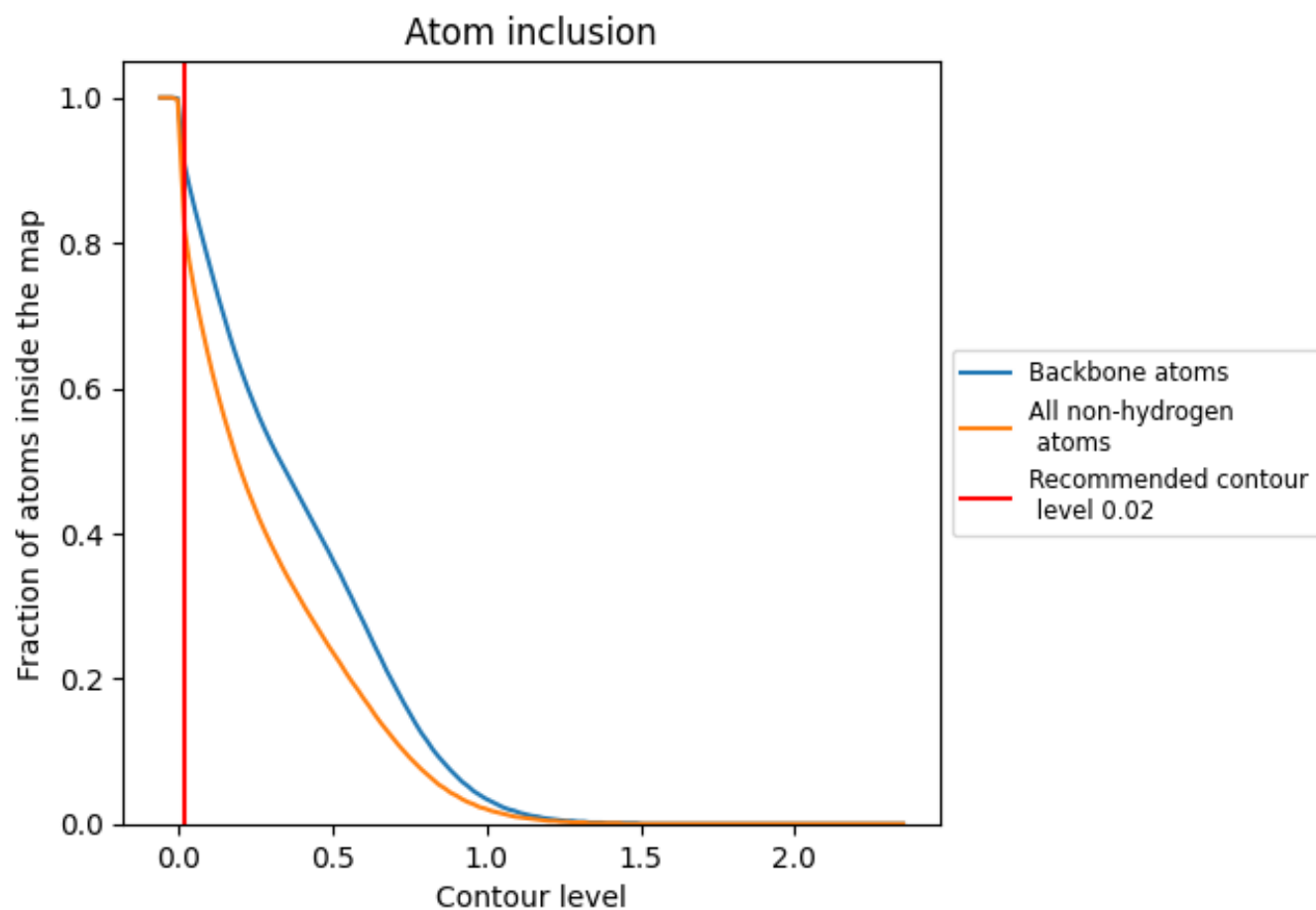
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

8.3 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 (0.02).

8.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 82% of all non-hydrogen atoms, are inside the map.

8.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.02) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8180	 0.2870
1	 0.8720	 0.3290
10	 0.4430	 0.0160
11	 0.5150	 0.0350
12	 0.4880	 0.0270
13	 0.5500	 0.0410
14	 0.4560	 -0.0070
15	 0.5160	 0.0440
16	 0.4690	 0.0150
1A	 0.7850	 0.1560
1B	 0.8330	 0.1940
1C	 0.8930	 0.3150
1D	 0.9090	 0.3450
1E	 0.9340	 0.3860
1F	 0.9380	 0.3940
1G	 0.9340	 0.4010
1H	 0.9200	 0.3940
1I	 0.9410	 0.4180
1J	 0.9340	 0.3980
1K	 0.9430	 0.3970
1L	 0.9380	 0.3620
1M	 0.8900	 0.2710
1N	 0.8280	 0.1970
2	 0.8460	 0.2230
20	 0.8620	 0.2940
21	 0.8360	 0.3120
22	 0.8670	 0.3070
23	 0.8430	 0.3060
24	 0.8190	 0.1780
25	 0.8140	 0.2360
26	 0.8410	 0.2490
27	 0.8250	 0.2400
28	 0.7750	 0.1090
29	 0.7810	 0.1700
2A	 0.8650	 0.2330



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
2B	 0.9080	 0.3010
2C	 0.9330	 0.3710
2D	 0.9570	 0.4300
2E	 0.9600	 0.4620
2F	 0.9580	 0.4700
2G	 0.9690	 0.4950
2H	 0.9660	 0.4890
2I	 0.9640	 0.4790
2J	 0.9650	 0.4630
2K	 0.9590	 0.4440
2L	 0.9540	 0.4050
2M	 0.9130	 0.3230
3	 0.5800	 0.0980
30	 0.8210	 0.1740
31	 0.7610	 0.1260
32	 0.7620	 0.1160
33	 0.3890	 0.0110
35	 0.5420	 0.0020
36	 0.5410	 0.0060
37	 0.5540	 0.0160
38	 0.5380	 -0.0060
39	 0.4790	 -0.0030
3A	 0.8720	 0.2660
3B	 0.9110	 0.3380
3C	 0.9480	 0.4170
3D	 0.9620	 0.4610
3E	 0.9680	 0.4800
3F	 0.9670	 0.4840
3G	 0.9690	 0.5040
3H	 0.9660	 0.5010
3I	 0.9640	 0.4880
3J	 0.9630	 0.4750
3K	 0.9610	 0.4520
3L	 0.9430	 0.4200
3M	 0.9190	 0.3510
4	 0.4900	 0.0750
40	 0.4900	 0.0070
42	 0.1760	 -0.0320
43	 0.5250	 0.0020
44	 0.5210	 -0.0070
45	 0.4940	 -0.0050
46	 0.4110	 -0.0130

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
47	 0.3890	 -0.0290
48	 0.0650	 -0.0470
49	 0.7740	 0.2020
4A	 0.8970	 0.3030
4B	 0.9390	 0.3790
4C	 0.9330	 0.4220
4D	 0.9610	 0.4770
4E	 0.9420	 0.4530
4F	 0.9650	 0.4910
4G	 0.9500	 0.4820
4H	 0.9670	 0.4960
4I	 0.9500	 0.4720
4J	 0.9630	 0.4730
4K	 0.9490	 0.4430
4L	 0.9490	 0.4180
4M	 0.9090	 0.3290
5	 0.5690	 0.0520
50	 0.7630	 0.1910
51	 0.7510	 0.1470
52	 0.7430	 0.1530
53	 0.7530	 0.1690
54	 0.7320	 0.1280
55	 0.7450	 0.1250
56	 0.7280	 0.1140
57	 0.7360	 0.1180
58	 0.7000	 0.0940
59	 0.4710	 0.0500
5A	 0.8560	 0.2540
5B	 0.9270	 0.3550
5C	 0.9560	 0.4300
5D	 0.9570	 0.4620
5E	 0.9660	 0.4840
5F	 0.9620	 0.4870
5G	 0.9630	 0.4990
5H	 0.9740	 0.4970
5I	 0.9610	 0.4840
5J	 0.9630	 0.4770
5K	 0.9640	 0.4790
5L	 0.9590	 0.4510
5M	 0.9410	 0.4000
5N	 0.9070	 0.3150
6	 0.4730	 0.0310

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
60	 0.6670	 0.0600
61	 0.6900	 0.0700
62	 0.5130	 0.0290
63	 0.8780	 0.3680
64	 0.8750	 0.3680
65	 0.8560	 0.3340
66	 0.8170	 0.2500
67	 0.6970	 0.1190
68	 0.8090	 0.2120
69	 0.8590	 0.3140
6A	 0.8670	 0.2540
6B	 0.9250	 0.3390
6C	 0.9570	 0.4230
6D	 0.9520	 0.4420
6E	 0.9570	 0.4650
6F	 0.9490	 0.4530
6G	 0.9670	 0.4830
6H	 0.9550	 0.4650
6I	 0.9610	 0.4780
6J	 0.9550	 0.4390
6K	 0.9570	 0.4390
6L	 0.9420	 0.3770
6M	 0.9130	 0.2980
6N	 0.8310	 0.1840
7	 0.5780	 0.0460
71	 0.7830	 0.3430
72	 0.7040	 0.2800
73	 0.7000	 0.2110
75	 0.7800	 0.3190
76	 0.7140	 0.2890
77	 0.6850	 0.2000
78	 0.9060	 0.4040
79	 0.8820	 0.3640
7A	 0.8720	 0.2280
7B	 0.9150	 0.3050
7C	 0.9440	 0.3950
7D	 0.9480	 0.4220
7E	 0.9580	 0.4530
7F	 0.9590	 0.4620
7G	 0.9580	 0.4760
7H	 0.9590	 0.4650
7I	 0.9580	 0.4610

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
7J	 0.9640	 0.4380
7K	 0.9530	 0.3960
7L	 0.9210	 0.3240
7M	 0.8860	 0.2420
8	 0.5140	 0.0490
80	 0.8270	 0.2680
82	 0.9110	 0.4050
83	 0.8910	 0.3370
84	 0.8180	 0.2140
85	 0.8330	 0.3480
86	 0.7950	 0.3020
87	 0.7670	 0.2220
89	 0.8370	 0.3400
8A	 0.8010	 0.1570
8B	 0.8540	 0.2150
8C	 0.9060	 0.3060
8D	 0.9190	 0.3400
8E	 0.9450	 0.3940
8F	 0.9500	 0.4250
8G	 0.9580	 0.4370
8H	 0.9480	 0.4200
8I	 0.9490	 0.4070
8J	 0.9420	 0.3680
8K	 0.9100	 0.2910
8L	 0.8660	 0.2120
8M	 0.8000	 0.1350
9	 0.4880	 0.0150
90	 0.7920	 0.2480
91	 0.7230	 0.1270
92	 0.1710	 -0.0220
93	 0.1090	 -0.0430
94	 0.1200	 -0.0540
95	 0.1140	 -0.0670
96	 0.2990	 0.0360
97	 0.0950	 -0.0620
9A	 0.5830	 0.0100
9B	 0.7110	 0.0660
9C	 0.6480	 0.0520
9D	 0.6460	 0.0790
9E	 0.7460	 0.1370
9F	 0.7910	 0.1870
9G	 0.8550	 0.2470

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
9H	 0.8410	 0.2120
9I	 0.7280	 0.1290
9J	 0.6380	 0.0920
9K	 0.6480	 0.0800
9L	 0.6430	 0.0380
9M	 0.5290	 0.0140
A	 0.8370	 0.2940
A1	 0.9560	 0.4760
A2	 0.9390	 0.4220
A3	 0.9210	 0.3660
A4	 0.9020	 0.2850
A5	 0.9520	 0.4790
A6	 0.9560	 0.4780
A7	 0.9480	 0.4490
A8	 0.8720	 0.3350
A9	 0.8870	 0.3080
B	 0.8900	 0.3430
B1	 0.9640	 0.4850
B2	 0.9570	 0.4850
B3	 0.9540	 0.4670
B4	 0.9460	 0.4480
B5	 0.9350	 0.3930
B6	 0.9220	 0.3770
B7	 0.8390	 0.2290
C	 0.8260	 0.2690
C0	 0.5670	 0.1580
C1	 0.8880	 0.4320
C2	 0.8810	 0.4010
C3	 0.8490	 0.3620
C4	 0.8530	 0.3910
C5	 0.8340	 0.3160
C6	 0.6020	 0.1900
C7	 0.6280	 0.1910
C8	 0.5530	 0.1180
C9	 0.5220	 0.0490
D	 0.8000	 0.2060
D0	 0.9040	 0.4060
D1	 0.5650	 0.1010
D2	 0.5330	 0.0510
D3	 0.5600	 0.2240
D4	 0.5330	 0.2000
D5	 0.5520	 0.1470

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
D6	 0.4160	 0.0020
D7	 0.5930	 0.2430
D8	 0.5430	 0.1740
D9	 0.4990	 0.0940
E	 0.8200	 0.2770
E0	 0.8910	 0.3420
E1	 0.8690	 0.3200
E2	 0.8060	 0.2010
E3	 0.5130	 0.0690
E4	 0.8920	 0.3760
E5	 0.8680	 0.3160
E6	 0.8200	 0.2020
E7	 0.8570	 0.2700
E8	 0.8930	 0.3720
E9	 0.1590	 -0.0250
F	 0.8450	 0.2850
F0	 0.7550	 0.1350
F1	 0.8710	 0.2800
F2	 0.7510	 0.1320
F3	 0.7660	 0.1470
F5	 0.7740	 0.1530
F6	 0.7590	 0.1540
F7	 0.7890	 0.1280
F8	 0.7350	 0.0780
F9	 0.7910	 0.1830
G	 0.8120	 0.2450
G0	 0.8790	 0.3430
G1	 0.7100	 0.0340
G2	 0.6360	 0.0250
G3	 0.7800	 0.0990
G4	 0.7160	 0.0860
G5	 0.6830	 0.0350
G6	 0.6440	 0.0560
G7	 0.7780	 0.1230
G8	 0.7280	 0.1030
G9	 0.8550	 0.3090
H	 0.8070	 0.2100
H0	 0.9180	 0.4250
H1	 0.8900	 0.4110
H2	 0.8550	 0.2350
H3	 0.8090	 0.2250
H4	 0.8520	 0.3390

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
H5	 0.7780	 0.1580
H6	 0.7860	 0.1490
H7	 0.8410	 0.2150
H8	 0.9120	 0.3630
H9	 0.8570	 0.3440
I	 0.6290	 0.1280
I1	 0.8180	 0.2370
I2	 0.8220	 0.2690
I3	 0.8790	 0.3430
I4	 0.7090	 0.0610
I5	 0.6730	 0.0850
I6	 0.7420	 0.1420
I7	 0.7810	 0.1420
I8	 0.7710	 0.1170
I9	 0.8190	 0.2740
J	 0.6270	 0.1200
J1	 0.6210	 0.0200
J2	 0.5850	 0.0070
J3	 0.5640	 0.0160
J4	 0.3470	 -0.0280
J5	 0.5730	 0.0130
J6	 0.5170	 0.0080
J7	 0.1640	 -0.0340
K	 0.7370	 0.1660
K0	 0.9500	 0.4320
K1	 0.9460	 0.4710
K2	 0.9510	 0.4620
K3	 0.9420	 0.4270
K4	 0.8920	 0.3100
K5	 0.9430	 0.4550
K6	 0.9290	 0.4030
K7	 0.8170	 0.2320
K8	 0.9540	 0.4850
K9	 0.9500	 0.4710
L	 0.7420	 0.1600
L0	 0.8850	 0.2760
L1	 0.8830	 0.3060
L2	 0.9470	 0.4550
L3	 0.8990	 0.3380
L4	 0.8790	 0.2500
L5	 0.9550	 0.4660
L6	 0.9460	 0.4430

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
L7	 0.9310	 0.3820
L8	 0.8590	 0.2590
L9	 0.9450	 0.4090
M	 0.5380	 0.1150
M1	 0.7630	 0.1140
M2	 0.8220	 0.3040
M3	 0.8200	 0.2830
M4	 0.7430	 0.1880
M5	 0.6760	 0.1050
M6	 0.7930	 0.2210
M7	 0.7120	 0.1010
N	 0.5870	 0.1330
O	 0.6130	 0.0700
P	 0.5950	 0.1140
Q	 0.8230	 0.2860
R	 0.8310	 0.2940
S	 0.8040	 0.2630
T	 0.8540	 0.2880
U	 0.8140	 0.2840
V	 0.8320	 0.2860
W	 0.7870	 0.2480
X	 0.7960	 0.2570
Y	 0.8310	 0.2760
Z	 0.8280	 0.2860
a	 0.8000	 0.2370
b	 0.6930	 0.1290
c	 0.8250	 0.2730
d	 0.7900	 0.2290
e	 0.7030	 0.1590
f	 0.8230	 0.2610
g	 0.9150	 0.4330
h	 0.8290	 0.2840
i	 0.7590	 0.2010
j	 0.7870	 0.3120
k	 0.7660	 0.3040
l	 0.8310	 0.3250
m	 0.7380	 0.1950
n	 0.8030	 0.2780
o	 0.7440	 0.1950
p	 0.8130	 0.3110
q	 0.7510	 0.1500
r	 0.7510	 0.1240

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
s	 0.3560	 0.1210
t	 0.2560	 0.0590
u	 0.9140	 0.4200
v	 0.8990	 0.4130
w	 0.9060	 0.3970
x	 0.8980	 0.3460
y	 0.6970	 0.1400
z	 0.8940	 0.3800